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ANALYTICAL REPORT

PREPARED FOR

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Generated 5/14/2024 9:20 AM

JOB DESCRIPTION

RVAAP FWGW

JOB NUMBER

280-190988-1

Eurofins Denver
4955 Yarrow Street
Arvada CO 80002

See page two for job notes and contact information.

my EOL

Eurofins Denver

Job Notes

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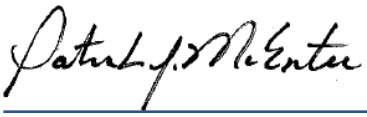

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Table of Contents

Cover Title Page 1

Data Summaries 5

Definitions 5

Case Narrative 6

Detection Summary 7

Client Sample Results 8

Default Detection Limits 12

Surrogate Summary 13

QC Sample Results 14

QC Association 18

Chronicle 20

Certification Summary 22

Method Summary 23

Sample Summary 24

Manual Integration Summary 25

Reagent Traceability 41

COAs 46

Organic Sample Data 186

HPLC/IC 186

8330B_DOD5 186

8330B_DOD5 QC Summary 187

8330B_DOD5 Sample Data 191

Standards Data 268

8330B_DOD5 ICAL Data 268

8330B_DOD5 CCAL Data 495

Raw QC Data 537

Table of Contents

8330B_DOD5 Blank Data 537

8330B_DOD5 LCS/LCSD Data 544

8330B_DOD5 Run Logs 553

8330B_DOD5 Prep Data 557

Inorganic Sample Data 561

General Chemistry Data 561

Gen Chem Cover Page 562

Gen Chem Sample Data 563

Gen Chem QC Data 567

Gen Chem ICV/CCV 567

Gen Chem Blanks 570

Gen Chem MS/MSD/PDS 571

Gen Chem Duplicates 573

Gen Chem LCS/LCSD 574

Gen Chem Calibration 577

Gen Chem MDL 580

Gen Chem Analysis Run Log 584

Gen Chem Prep Data 592

Gen Chem Raw Data 598

Shipping and Receiving Documents 678

Client Chain of Custody 679

Sample Receipt Checklist 691

Definitions/Glossary

Client: Leidos, Inc. Job ID: 280-190988-1
Project/Site: RVAAP FWGW

Qualifiers

HPLC/IC

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

General Chemistry

Qualifier	Qualifier Description
J	Estimated: The analyte was positively identified; the quantitation is an estimation
U	Undetected at the Limit of Detection.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job Narrative
280-190988-1

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

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

Receipt
The samples were received on 5/3/2024 9:20 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 0.2°C and 0.9°C.

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

Receipt Exceptions
The container label for the following sample did not match the information listed on the Chain-of-Custody (COC): LL12mw-249-240402-GW (280-190988-2). The container labels list LL12mw-249-240402-GW, while the COC lists LL12mw-249-240401-GW. Logged as LL12mw-249-240402-GW per the revised COC provided via email on 05/03/2024.

Method 8330B - Nitroaromatics and Nitramines (HPLC)
Samples LL1mw-092-240401-GW (280-190988-4), LL1mw-093-240401-GW (280-190988-6), LL1mw-091-240401-GW (280-190988-7), LL1mw-064-240401-GW (280-190988-8), LL1mw-090-240401-GW (280-190988-9) and FWGmw-016-240401-GW (280-190988-10) were analyzed for Nitroaromatics and Nitramines (HPLC). The samples were prepared on 5/9/2024 and analyzed on 5/10/2024.

In preparation batch 280-652746, the following samples were decanted prior to preparation to prevent overflowing due to the addition of sodium chloride: LL1mw-091-240401-GW (280-190988-7) and LL1mw-064-240401-GW (280-190988-8). Method 3535/8330B_DOD5.

In preparation batch 280-652746, the following samples required filtration to reduce matrix interferences: LL1mw-092-240401-GW (280-190988-4), LL1mw-093-240401-GW (280-190988-6), LL1mw-091-240401-GW (280-190988-7), LL1mw-064-240401-GW (280-190988-8), LL1mw-090-240401-GW (280-190988-9) and FWGmw-016-240401-GW (280-190988-10).

In preparation batch 280-652746, insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD), so an LCS/LCSD was prepared instead.

Method 350.1 - Nitrogen, Ammonia
Samples LL12mw-249-240401-GW (280-190988-1), LL12mw-249-240401-GW (280-190988-1MS), LL12mw-249-240401-GW (280-190988-1MSD), LL12mw-249-240402-GW (280-190988-2), LL12mw-248-240401-GW (280-190988-3) and LL12mw-244-240401-GW (280-190988-5) were analyzed for Nitrogen, Ammonia. The samples were analyzed on 5/11/2024.

Method 9056 - Anions, Ion Chromatography
Samples LL12mw-249-240401-GW (280-190988-1), LL12mw-249-240401-GW (280-190988-1MS), LL12mw-249-240401-GW (280-190988-1MSD), LL12mw-249-240402-GW (280-190988-2), LL12mw-248-240401-GW (280-190988-3) and LL12mw-244-240401-GW (280-190988-5) were analyzed for Anions, Ion Chromatography. The samples were analyzed on 5/3/2024 and 5/4/2024.

Detection Summary

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

Job ID: 280-190988-1

Client Sample ID: LL12mw-249-240401-GW — Lab Sample ID: 280-190988-1

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

Client Sample ID: LL12mw-249-240402-GW — Lab Sample ID: 280-190988-2

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	Dil Fac	D	Method	Prep Type
Ammonia as N	0.032	J	0.10	0.050	0.029	mg/L	1		350.1	Total/NA

Client Sample ID: LL12mw-248-240401-GW — Lab Sample ID: 280-190988-3

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	Dil Fac	D	Method	Prep Type
Ammonia as N	0.075	J	0.10	0.050	0.029	mg/L	1		350.1	Total/NA

Client Sample ID: LL1mw-092-240401-GW — Lab Sample ID: 280-190988-4

No Detections.

Client Sample ID: LL12mw-244-240401-GW — Lab Sample ID: 280-190988-5

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	Dil Fac	D	Method	Prep Type
Ammonia as N	0.30		0.10	0.050	0.029	mg/L	1		350.1	Total/NA

Client Sample ID: LL1mw-093-240401-GW — Lab Sample ID: 280-190988-6

No Detections.

Client Sample ID: LL1mw-091-240401-GW — Lab Sample ID: 280-190988-7

No Detections.

Client Sample ID: LL1mw-064-240401-GW — Lab Sample ID: 280-190988-8

No Detections.

Client Sample ID: LL1mw-090-240401-GW — Lab Sample ID: 280-190988-9

No Detections.

Client Sample ID: FWGmw-016-240401-GW — Lab Sample ID: 280-190988-10

No Detections.

This Detection Summary does not include radiochemical test results.

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

Client Sample ID: LL1mw-092-240401-GW
Date Collected: 05/02/24 12:35
Date Received: 05/03/24 09:20

Lab Sample ID: 280-190988-4
Matrix: Water

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.21	U M	0.22	0.21	0.088	ug/L		05/10/24 18:45	1
1,3-Dinitrobenzene	0.10	U M	0.12	0.10	0.039	ug/L		05/10/24 18:45	1
2,4,6-Trinitrotoluene	0.10	U	0.12	0.10	0.047	ug/L		05/10/24 18:45	1
2,4-Dinitrotoluene	0.084	U	0.10	0.084	0.029	ug/L		05/10/24 18:45	1
2,6-Dinitrotoluene	0.084	U	0.10	0.084	0.042	ug/L		05/10/24 18:45	1
2-Amino-4,6-dinitrotoluene	0.10	U	0.12	0.10	0.053	ug/L		05/10/24 18:45	1
2-Nitrotoluene	0.21	U	0.22	0.21	0.090	ug/L		05/10/24 18:45	1
3-Nitrotoluene	0.37	U	0.42	0.37	0.20	ug/L		05/10/24 18:45	1
4-Amino-2,6-dinitrotoluene	0.13	U	0.16	0.13	0.060	ug/L		05/10/24 18:45	1
4-Nitrotoluene	0.42	U	0.43	0.42	0.10	ug/L		05/10/24 18:45	1
HMX	0.21	U M	0.22	0.21	0.092	ug/L		05/10/24 18:45	1
Nitrobenzene	0.21	U	0.22	0.21	0.095	ug/L		05/10/24 18:45	1
Nitroglycerin	2.1	U	2.2	2.1	0.97	ug/L		05/10/24 18:45	1
PETN	1.0	U	1.2	1.0	0.47	ug/L		05/10/24 18:45	1
RDX	0.21	U M	0.22	0.21	0.054	ug/L		05/10/24 20:44	1
Tetryl	0.10	U	0.12	0.10	0.033	ug/L		05/10/24 18:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dinitrobenzene	*94*	*M*	*83 - 119*	*05/09/24 12:56*	*05/10/24 18:45*	*1*
1,2-Dinitrobenzene	*98*		*83 - 119*	*05/09/24 12:56*	*05/10/24 20:44*	*1*

Client Sample ID: LL1mw-093-240401-GW
Date Collected: 05/02/24 12:50
Date Received: 05/03/24 09:20

Lab Sample ID: 280-190988-6
Matrix: Water

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.21	U	0.22	0.21	0.089	ug/L		05/10/24 19:08	1
1,3-Dinitrobenzene	0.11	U M	0.12	0.11	0.039	ug/L		05/10/24 19:08	1
2,4,6-Trinitrotoluene	0.11	U	0.12	0.11	0.048	ug/L		05/10/24 19:08	1
2,4-Dinitrotoluene	0.085	U	0.11	0.085	0.029	ug/L		05/10/24 19:08	1
2,6-Dinitrotoluene	0.085	U	0.11	0.085	0.042	ug/L		05/10/24 19:08	1
2-Amino-4,6-dinitrotoluene	0.11	U	0.12	0.11	0.054	ug/L		05/10/24 19:08	1
2-Nitrotoluene	0.21	U	0.22	0.21	0.090	ug/L		05/10/24 19:08	1
3-Nitrotoluene	0.37	U	0.42	0.37	0.21	ug/L		05/10/24 19:08	1
4-Amino-2,6-dinitrotoluene	0.13	U	0.16	0.13	0.061	ug/L		05/10/24 19:08	1
4-Nitrotoluene	0.42	U	0.43	0.42	0.11	ug/L		05/10/24 19:08	1
HMX	0.21	U M	0.22	0.21	0.093	ug/L		05/10/24 19:08	1
Nitrobenzene	0.21	U	0.22	0.21	0.096	ug/L		05/10/24 19:08	1
Nitroglycerin	2.1	U	2.2	2.1	0.97	ug/L		05/10/24 19:08	1
PETN	1.1	U	1.2	1.1	0.47	ug/L		05/10/24 19:08	1
RDX	0.21	U M	0.22	0.21	0.054	ug/L		05/10/24 21:20	1
Tetryl	0.11	U M	0.12	0.11	0.034	ug/L		05/10/24 19:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dinitrobenzene	*94*	*M*	*83 - 119*	*05/09/24 12:56*	*05/10/24 19:08*	*1*
1,2-Dinitrobenzene	*98*	*M*	*83 - 119*	*05/09/24 12:56*	*05/10/24 21:20*	*1*

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

Client Sample ID: LL1mw-091-240401-GW
Date Collected: 05/02/24 13:12
Date Received: 05/03/24 09:20

Lab Sample ID: 280-190988-7
Matrix: Water

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.22	U	0.23	0.22	0.091	ug/L		05/10/24 21:56	1
1,3-Dinitrobenzene	0.11	U M	0.12	0.11	0.040	ug/L		05/10/24 19:31	1
2,4,6-Trinitrotoluene	0.11	U	0.12	0.11	0.049	ug/L		05/10/24 19:31	1
2,4-Dinitrotoluene	0.086	U M	0.11	0.086	0.030	ug/L		05/10/24 19:31	1
2,6-Dinitrotoluene	0.086	U	0.11	0.086	0.043	ug/L		05/10/24 19:31	1
2-Amino-4,6-dinitrotoluene	0.11	U M	0.12	0.11	0.055	ug/L		05/10/24 21:56	1
2-Nitrotoluene	0.22	U	0.23	0.22	0.092	ug/L		05/10/24 19:31	1
3-Nitrotoluene	0.38	U	0.43	0.38	0.21	ug/L		05/10/24 19:31	1
4-Amino-2,6-dinitrotoluene	0.13	U M	0.16	0.13	0.062	ug/L		05/10/24 19:31	1
4-Nitrotoluene	0.43	U	0.44	0.43	0.11	ug/L		05/10/24 19:31	1
HMX	0.22	U	0.23	0.22	0.094	ug/L		05/10/24 21:56	1
Nitrobenzene	0.22	U	0.23	0.22	0.098	ug/L		05/10/24 19:31	1
Nitroglycerin	2.2	U	2.3	2.2	0.99	ug/L		05/10/24 19:31	1
PETN	1.1	U	1.2	1.1	0.48	ug/L		05/10/24 19:31	1
RDX	0.22	U M	0.23	0.22	0.056	ug/L		05/10/24 21:56	1
Tetryl	0.11	U	0.12	0.11	0.034	ug/L		05/10/24 19:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dinitrobenzene	*95*	*M*	*83 - 119*	*05/09/24 12:56*	*05/10/24 19:31*	*1*
1,2-Dinitrobenzene	*97*	*M*	*83 - 119*	*05/09/24 12:56*	*05/10/24 21:56*	*1*

Client Sample ID: LL1mw-064-240401-GW
Date Collected: 05/02/24 14:10
Date Received: 05/03/24 09:20

Lab Sample ID: 280-190988-8
Matrix: Water

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.22	U	0.24	0.22	0.094	ug/L		05/10/24 19:54	1
1,3-Dinitrobenzene	0.11	U M	0.12	0.11	0.041	ug/L		05/10/24 19:54	1
2,4,6-Trinitrotoluene	0.11	U	0.12	0.11	0.050	ug/L		05/10/24 19:54	1
2,4-Dinitrotoluene	0.090	U	0.11	0.090	0.031	ug/L		05/10/24 19:54	1
2,6-Dinitrotoluene	0.090	U	0.11	0.090	0.045	ug/L		05/10/24 19:54	1
2-Amino-4,6-dinitrotoluene	0.11	U	0.12	0.11	0.057	ug/L		05/10/24 19:54	1
2-Nitrotoluene	0.22	U	0.24	0.22	0.096	ug/L		05/10/24 19:54	1
3-Nitrotoluene	0.39	U	0.45	0.39	0.22	ug/L		05/10/24 19:54	1
4-Amino-2,6-dinitrotoluene	0.13	U	0.17	0.13	0.065	ug/L		05/10/24 19:54	1
4-Nitrotoluene	0.45	U	0.46	0.45	0.11	ug/L		05/10/24 19:54	1
HMX	0.22	U M	0.24	0.22	0.098	ug/L		05/10/24 19:54	1
Nitrobenzene	0.22	U	0.24	0.22	0.10	ug/L		05/10/24 19:54	1
Nitroglycerin	2.2	U	2.4	2.2	1.0	ug/L		05/10/24 19:54	1
PETN	1.1	U	1.2	1.1	0.50	ug/L		05/10/24 19:54	1
RDX	0.22	U	0.24	0.22	0.058	ug/L		05/10/24 19:54	1
Tetryl	0.11	U	0.12	0.11	0.036	ug/L		05/10/24 19:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dinitrobenzene	*93*	*M*	*83 - 119*	*05/09/24 12:56*	*05/10/24 19:54*	*1*

Client Sample ID: LL1mw-090-240401-GW
Date Collected: 05/02/24 14:37
Date Received: 05/03/24 09:20

Lab Sample ID: 280-190988-9
Matrix: Water

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.23	U	0.24	0.23	0.098	ug/L		05/10/24 20:17	1

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

Client Sample ID: LL1mw-090-240401-GW
Date Collected: 05/02/24 14:37
Date Received: 05/03/24 09:20

Lab Sample ID: 280-190988-9
Matrix: Water

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3-Dinitrobenzene	0.12	U M	0.13	0.12	0.043	ug/L		05/10/24 20:17	1
2,4,6-Trinitrotoluene	0.12	U	0.13	0.12	0.052	ug/L		05/10/24 20:17	1
2,4-Dinitrotoluene	0.093	U	0.12	0.093	0.032	ug/L		05/10/24 20:17	1
2,6-Dinitrotoluene	0.093	U	0.12	0.093	0.047	ug/L		05/10/24 20:17	1
2-Amino-4,6-dinitrotoluene	0.12	U	0.13	0.12	0.059	ug/L		05/10/24 20:17	1
2-Nitrotoluene	0.23	U	0.24	0.23	0.10	ug/L		05/10/24 20:17	1
3-Nitrotoluene	0.41	U	0.47	0.41	0.23	ug/L		05/10/24 20:17	1
4-Amino-2,6-dinitrotoluene	0.14	U	0.17	0.14	0.067	ug/L		05/10/24 20:17	1
4-Nitrotoluene	0.47	U	0.48	0.47	0.12	ug/L		05/10/24 20:17	1
HMX	0.23	U	0.24	0.23	0.10	ug/L		05/10/24 20:17	1
Nitrobenzene	0.23	U	0.24	0.23	0.11	ug/L		05/10/24 20:17	1
Nitroglycerin	2.3	U	2.4	2.3	1.1	ug/L		05/10/24 20:17	1
PETN	1.2	U	1.3	1.2	0.52	ug/L		05/10/24 20:17	1
RDX	0.23	U	0.24	0.23	0.060	ug/L		05/10/24 20:17	1
Tetryl	0.12	U	0.13	0.12	0.037	ug/L		05/10/24 20:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dinitrobenzene	*88*	*M*	*83 - 119*	*05/09/24 12:56*	*05/10/24 20:17*	*1*

Client Sample ID: FWGmw-016-240401-GW
Date Collected: 05/02/24 16:35
Date Received: 05/03/24 09:20

Lab Sample ID: 280-190988-10
Matrix: Water

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.22	U	0.23	0.22	0.092	ug/L		05/10/24 20:39	1
1,3-Dinitrobenzene	0.11	U M	0.12	0.11	0.040	ug/L		05/10/24 20:39	1
2,4,6-Trinitrotoluene	0.11	U	0.12	0.11	0.049	ug/L		05/10/24 20:39	1
2,4-Dinitrotoluene	0.087	U	0.11	0.087	0.030	ug/L		05/10/24 20:39	1
2,6-Dinitrotoluene	0.087	U	0.11	0.087	0.044	ug/L		05/10/24 20:39	1
2-Amino-4,6-dinitrotoluene	0.11	U	0.12	0.11	0.055	ug/L		05/10/24 20:39	1
2-Nitrotoluene	0.22	U	0.23	0.22	0.093	ug/L		05/10/24 20:39	1
3-Nitrotoluene	0.38	U	0.44	0.38	0.21	ug/L		05/10/24 20:39	1
4-Amino-2,6-dinitrotoluene	0.13	U	0.16	0.13	0.063	ug/L		05/10/24 20:39	1
4-Nitrotoluene	0.44	U	0.45	0.44	0.11	ug/L		05/10/24 20:39	1
HMX	0.22	U M	0.23	0.22	0.095	ug/L		05/10/24 20:39	1
Nitrobenzene	0.22	U	0.23	0.22	0.099	ug/L		05/10/24 20:39	1
Nitroglycerin	2.2	U	2.3	2.2	1.0	ug/L		05/10/24 20:39	1
PETN	1.1	U	1.2	1.1	0.49	ug/L		05/10/24 20:39	1
RDX	0.22	U	0.23	0.22	0.056	ug/L		05/10/24 20:39	1
Tetryl	0.11	U	0.12	0.11	0.035	ug/L		05/10/24 20:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dinitrobenzene	*94*	*M*	*83 - 119*	*05/09/24 12:56*	*05/10/24 20:39*	*1*

General Chemistry

Client Sample ID: LL12mw-249-240401-GW
Date Collected: 05/02/24 10:25
Date Received: 05/03/24 09:20

Lab Sample ID: 280-190988-1
Matrix: Water

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Ammonia as N (EPA 350.1)	**0.050**	**J**	0.10	0.050	0.029	mg/L		05/11/24 14:11	1
Nitrate as N (SW846 9056)	0.20	U	0.50	0.20	0.090	mg/L		05/03/24 20:20	1

General Chemistry

Client Sample ID: LL12mw-249-240402-GW
Lab Sample ID: 280-190988-2
Date Collected: 05/02/24 10:25
Matrix: Water
Date Received: 05/03/24 09:20

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Ammonia as N (EPA 350.1)	**0.032**	**J**	0.10	0.050	0.029	mg/L		05/11/24 15:38	1
Nitrate as N (SW846 9056)	0.20	U	0.50	0.20	0.090	mg/L		05/03/24 21:28	1

Client Sample ID: LL12mw-248-240401-GW
Lab Sample ID: 280-190988-3
Date Collected: 05/02/24 10:40
Matrix: Water
Date Received: 05/03/24 09:20

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Ammonia as N (EPA 350.1)	**0.075**	**J**	0.10	0.050	0.029	mg/L		05/11/24 15:01	1
Nitrate as N (SW846 9056)	0.20	U	0.50	0.20	0.090	mg/L		05/03/24 22:19	1

Client Sample ID: LL12mw-244-240401-GW
Lab Sample ID: 280-190988-5
Date Collected: 05/02/24 12:35
Matrix: Water
Date Received: 05/03/24 09:20

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Ammonia as N (EPA 350.1)	**0.30**		0.10	0.050	0.029	mg/L		05/11/24 15:03	1
Nitrate as N (SW846 9056)	0.20	U	0.50	0.20	0.090	mg/L		05/04/24 05:59	1

Default Detection Limits

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

Job ID: 280-190988-1

Method: 8330B - Nitroaromatics and Nitramines (HPLC)

Prep: 3535

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

General Chemistry

Analyte	LOQ	DL	Units
Ammonia as N	0.10	0.029	mg/L
Nitrate as N	0.50	0.090	mg/L

Surrogate Summary

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

Job ID: 280-190988-1

Method: 8330B - Nitroaromatics and Nitramines (HPLC)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)
Lab Sample ID	Client Sample ID	12DNB1 (83-119)
280-190988-4	LL1mw-092-240401-GW	94 M
280-190988-6	LL1mw-093-240401-GW	94 M
280-190988-7	LL1mw-091-240401-GW	95 M
280-190988-8	LL1mw-064-240401-GW	93 M
280-190988-9	LL1mw-090-240401-GW	88 M
280-190988-10	FWGmw-016-240401-GW	94 M
LCS 280-652746/2-A	Lab Control Sample	95
LCSD 280-652746/3-A	Lab Control Sample Dup	94
MB 280-652746/1-A	Method Blank	95 M

Surrogate Legend

12DNB = 1,2-Dinitrobenzene

Method: 8330B - Nitroaromatics and Nitramines (HPLC)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)
Lab Sample ID	Client Sample ID	12DNB2 (83-119)
280-190988-4	LL1mw-092-240401-GW	98
280-190988-6	LL1mw-093-240401-GW	98 M
280-190988-7	LL1mw-091-240401-GW	97 M

Surrogate Legend

12DNB = 1,2-Dinitrobenzene

Method: 8330B - Nitroaromatics and Nitramines (HPLC)

Lab Sample ID: MB 280-652746/1-A
Matrix: Water
Analysis Batch: 652983

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 652746

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.20	U M	0.21	0.20	0.084	ug/L		05/10/24 17:36	1
1,3-Dinitrobenzene	0.10	U	0.11	0.10	0.037	ug/L		05/10/24 17:36	1
2,4,6-Trinitrotoluene	0.10	U	0.11	0.10	0.045	ug/L		05/10/24 17:36	1
2,4-Dinitrotoluene	0.080	U	0.10	0.080	0.027	ug/L		05/10/24 17:36	1
2,6-Dinitrotoluene	0.080	U	0.10	0.080	0.040	ug/L		05/10/24 17:36	1
2-Amino-4,6-dinitrotoluene	0.10	U	0.11	0.10	0.051	ug/L		05/10/24 17:36	1
2-Nitrotoluene	0.20	U	0.21	0.20	0.086	ug/L		05/10/24 17:36	1
3-Nitrotoluene	0.35	U	0.40	0.35	0.20	ug/L		05/10/24 17:36	1
4-Amino-2,6-dinitrotoluene	0.12	U	0.15	0.12	0.058	ug/L		05/10/24 17:36	1
4-Nitrotoluene	0.40	U	0.41	0.40	0.10	ug/L		05/10/24 17:36	1
HMX	0.20	U	0.21	0.20	0.088	ug/L		05/10/24 17:36	1
Nitrobenzene	0.20	U	0.21	0.20	0.091	ug/L		05/10/24 17:36	1
Nitroglycerin	2.0	U	2.1	2.0	0.92	ug/L		05/10/24 17:36	1
PETN	1.0	U	1.1	1.0	0.45	ug/L		05/10/24 17:36	1
RDX	0.20	U	0.21	0.20	0.052	ug/L		05/10/24 17:36	1
Tetryl	0.10	U	0.11	0.10	0.032	ug/L		05/10/24 17:36	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dinitrobenzene	*95*	*M*	*83 - 119*	*05/09/24 12:56*	*05/10/24 17:36*	*1*

Lab Sample ID: LCS 280-652746/2-A
Matrix: Water
Analysis Batch: 652983

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 652746

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,3,5-Trinitrobenzene	2.00	2.06		ug/L		103	73 - 125
1,3-Dinitrobenzene	2.00	1.94		ug/L		97	78 - 120
2,4,6-Trinitrotoluene	2.00	1.90		ug/L		95	71 - 123
2,4-Dinitrotoluene	2.00	1.88		ug/L		94	78 - 120
2,6-Dinitrotoluene	2.00	1.90		ug/L		95	77 - 127
2-Amino-4,6-dinitrotoluene	2.00	1.92		ug/L		96	79 - 120
2-Nitrotoluene	2.00	1.53		ug/L		77	70 - 127
3-Nitrotoluene	2.00	1.49		ug/L		74	73 - 125
4-Amino-2,6-dinitrotoluene	2.00	1.97		ug/L		98	76 - 125
4-Nitrotoluene	2.00	1.49		ug/L		75	71 - 127
HMX	2.00	1.77	M	ug/L		88	65 - 135
Nitrobenzene	2.00	1.75		ug/L		88	65 - 134
Nitroglycerin	20.0	19.7		ug/L		99	74 - 127
PETN	20.0	21.0		ug/L		105	73 - 127
RDX	2.00	1.84		ug/L		92	68 - 130
Tetryl	2.00	1.93		ug/L		97	64 - 128

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

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

Lab Sample ID: LCSD 280-652746/3-A
Matrix: Water
Analysis Batch: 652983

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 652746

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,3,5-Trinitrobenzene	2.00	2.14		ug/L		107	73 - 125	4	20
1,3-Dinitrobenzene	2.00	1.95		ug/L		97	78 - 120	0	20
2,4,6-Trinitrotoluene	2.00	1.92		ug/L		96	71 - 123	1	20
2,4-Dinitrotoluene	2.00	1.87		ug/L		94	78 - 120	1	20
2,6-Dinitrotoluene	2.00	1.87		ug/L		94	77 - 127	1	20
2-Amino-4,6-dinitrotoluene	2.00	1.91		ug/L		96	79 - 120	0	20
2-Nitrotoluene	2.00	1.53		ug/L		76	70 - 127	0	20
3-Nitrotoluene	2.00	1.50		ug/L		75	73 - 125	1	20
4-Amino-2,6-dinitrotoluene	2.00	1.94		ug/L		97	76 - 125	1	20
4-Nitrotoluene	2.00	1.48		ug/L		74	71 - 127	0	20
HMX	2.00	1.79	M	ug/L		89	65 - 135	1	20
Nitrobenzene	2.00	1.73		ug/L		87	65 - 134	1	20
Nitroglycerin	20.0	20.9		ug/L		104	74 - 127	6	20
PETN	20.0	21.4		ug/L		107	73 - 127	2	20
RDX	2.00	1.87		ug/L		93	68 - 130	2	20
Tetryl	2.00	1.87		ug/L		93	64 - 128	4	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dinitrobenzene	*94*		*83 - 119*

Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: MB 280-653086/77
Matrix: Water
Analysis Batch: 653086

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

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Ammonia as N	0.050	U	0.10	0.050	0.029	mg/L		05/11/24 14:03	1

Lab Sample ID: LCS 280-653086/78
Matrix: Water
Analysis Batch: 653086

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Ammonia as N	2.50	2.47		mg/L		99	90 - 110

Lab Sample ID: LCSD 280-653086/79
Matrix: Water
Analysis Batch: 653086

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Ammonia as N	2.50	2.55		mg/L		102	90 - 110	3	10

Lab Sample ID: 280-190988-1 MS
Matrix: Water
Analysis Batch: 653086

Client Sample ID: LL12mw-249-240401-GW
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ammonia as N	0.050	J	1.00	1.03		mg/L		98	90 - 110

Method: 350.1 - Nitrogen, Ammonia (Continued)

Lab Sample ID: 280-190988-1 MSD
Matrix: Water
Analysis Batch: 653086

Client Sample ID: LL12mw-249-240401-GW
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Ammonia as N	0.050	J	1.00	1.09		mg/L		104	90 - 110	5	10

Method: 9056 - Anions, Ion Chromatography

Lab Sample ID: MB 280-652026/39
Matrix: Water
Analysis Batch: 652026

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

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Nitrate as N	0.20	U	0.50	0.20	0.090	mg/L		05/04/24 04:34	1

Lab Sample ID: MB 280-652026/6
Matrix: Water
Analysis Batch: 652026

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

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Nitrate as N	0.20	U	0.50	0.20	0.090	mg/L		05/03/24 12:28	1

Lab Sample ID: LCS 280-652026/37
Matrix: Water
Analysis Batch: 652026

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Nitrate as N			5.00	4.95		mg/L		99	88 - 111		

Lab Sample ID: LCS 280-652026/4
Matrix: Water
Analysis Batch: 652026

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Nitrate as N			5.00	4.95		mg/L		99	88 - 111		

Lab Sample ID: LCSD 280-652026/38
Matrix: Water
Analysis Batch: 652026

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrate as N			5.00	4.96		mg/L		99	88 - 111	0	10

Lab Sample ID: LCSD 280-652026/5
Matrix: Water
Analysis Batch: 652026

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrate as N			5.00	4.95		mg/L		99	88 - 111	0	10

Method: 9056 - Anions, Ion Chromatography (Continued)

Lab Sample ID: MRL 280-652026/3
Matrix: Water
Analysis Batch: 652026

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

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

Lab Sample ID: 280-190988-1 MS
Matrix: Water
Analysis Batch: 652026

Client Sample ID: LL12mw-249-240401-GW
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Nitrate as N	0.20	U	5.00	4.94		mg/L		99	88 - 111		

Lab Sample ID: 280-190988-1 MSD
Matrix: Water
Analysis Batch: 652026

Client Sample ID: LL12mw-249-240401-GW
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrate as N	0.20	U	5.00	5.04		mg/L		101	88 - 111	2	10

Lab Sample ID: 280-190988-5 MS
Matrix: Water
Analysis Batch: 652026

Client Sample ID: LL12mw-244-240401-GW
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Nitrate as N	0.20	U	5.00	5.06		mg/L		101	88 - 111		

Lab Sample ID: 280-190988-5 MSD
Matrix: Water
Analysis Batch: 652026

Client Sample ID: LL12mw-244-240401-GW
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrate as N	0.20	U	5.00	5.12		mg/L		102	88 - 111	1	10

Lab Sample ID: 280-190988-1 DU
Matrix: Water
Analysis Batch: 652026

Client Sample ID: LL12mw-249-240401-GW
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Nitrate as N	0.20	U		0.20	U	mg/L				NC	10

Lab Sample ID: 280-190988-5 DU
Matrix: Water
Analysis Batch: 652026

Client Sample ID: LL12mw-244-240401-GW
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Nitrate as N	0.20	U		0.20	U	mg/L				NC	10

HPLC/IC

Prep Batch: 652746

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-190988-4	LL1mw-092-240401-GW	Total/NA	Water	3535	
280-190988-6	LL1mw-093-240401-GW	Total/NA	Water	3535	
280-190988-7	LL1mw-091-240401-GW	Total/NA	Water	3535	
280-190988-8	LL1mw-064-240401-GW	Total/NA	Water	3535	
280-190988-9	LL1mw-090-240401-GW	Total/NA	Water	3535	
280-190988-10	FWGmw-016-240401-GW	Total/NA	Water	3535	
MB 280-652746/1-A	Method Blank	Total/NA	Water	3535	
LCS 280-652746/2-A	Lab Control Sample	Total/NA	Water	3535	
LCSD 280-652746/3-A	Lab Control Sample Dup	Total/NA	Water	3535	

Analysis Batch: 652983

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-190988-4	LL1mw-092-240401-GW	Total/NA	Water	8330B	652746
280-190988-6	LL1mw-093-240401-GW	Total/NA	Water	8330B	652746
280-190988-7	LL1mw-091-240401-GW	Total/NA	Water	8330B	652746
280-190988-8	LL1mw-064-240401-GW	Total/NA	Water	8330B	652746
280-190988-9	LL1mw-090-240401-GW	Total/NA	Water	8330B	652746
280-190988-10	FWGmw-016-240401-GW	Total/NA	Water	8330B	652746
MB 280-652746/1-A	Method Blank	Total/NA	Water	8330B	652746
LCS 280-652746/2-A	Lab Control Sample	Total/NA	Water	8330B	652746
LCSD 280-652746/3-A	Lab Control Sample Dup	Total/NA	Water	8330B	652746

Analysis Batch: 653003

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-190988-4	LL1mw-092-240401-GW	Total/NA	Water	8330B	652746
280-190988-6	LL1mw-093-240401-GW	Total/NA	Water	8330B	652746
280-190988-7	LL1mw-091-240401-GW	Total/NA	Water	8330B	652746

General Chemistry

Analysis Batch: 652026

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-190988-1	LL12mw-249-240401-GW	Total/NA	Water	9056	
280-190988-2	LL12mw-249-240402-GW	Total/NA	Water	9056	
280-190988-3	LL12mw-248-240401-GW	Total/NA	Water	9056	
280-190988-5	LL12mw-244-240401-GW	Total/NA	Water	9056	
MB 280-652026/39	Method Blank	Total/NA	Water	9056	
MB 280-652026/6	Method Blank	Total/NA	Water	9056	
LCS 280-652026/37	Lab Control Sample	Total/NA	Water	9056	
LCS 280-652026/4	Lab Control Sample	Total/NA	Water	9056	
LCSD 280-652026/38	Lab Control Sample Dup	Total/NA	Water	9056	
LCSD 280-652026/5	Lab Control Sample Dup	Total/NA	Water	9056	
MRL 280-652026/3	Lab Control Sample	Total/NA	Water	9056	
280-190988-1 MS	LL12mw-249-240401-GW	Total/NA	Water	9056	
280-190988-1 MSD	LL12mw-249-240401-GW	Total/NA	Water	9056	
280-190988-5 MS	LL12mw-244-240401-GW	Total/NA	Water	9056	
280-190988-5 MSD	LL12mw-244-240401-GW	Total/NA	Water	9056	
280-190988-1 DU	LL12mw-249-240401-GW	Total/NA	Water	9056	
280-190988-5 DU	LL12mw-244-240401-GW	Total/NA	Water	9056	

QC Association Summary

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

Job ID: 280-190988-1

General Chemistry

Analysis Batch: 653086

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-190988-1	LL12mw-249-240401-GW	Total/NA	Water	350.1	
280-190988-2	LL12mw-249-240402-GW	Total/NA	Water	350.1	
280-190988-3	LL12mw-248-240401-GW	Total/NA	Water	350.1	
280-190988-5	LL12mw-244-240401-GW	Total/NA	Water	350.1	
MB 280-653086/77	Method Blank	Total/NA	Water	350.1	
LCS 280-653086/78	Lab Control Sample	Total/NA	Water	350.1	
LCSD 280-653086/79	Lab Control Sample Dup	Total/NA	Water	350.1	
280-190988-1 MS	LL12mw-249-240401-GW	Total/NA	Water	350.1	
280-190988-1 MSD	LL12mw-249-240401-GW	Total/NA	Water	350.1	

Client Sample ID: LL12mw-249-240401-GW
Lab Sample ID: 280-190988-1
Date Collected: 05/02/24 10:25
Matrix: Water
Date Received: 05/03/24 09:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	350.1		1	10 mL	10 mL	653086	05/11/24 14:11	LBR	EET DEN
Total/NA	Analysis	9056		1	10 mL	10 mL	652026	05/03/24 20:20	IRC	EET DEN

Client Sample ID: LL12mw-249-240402-GW
Lab Sample ID: 280-190988-2
Date Collected: 05/02/24 10:25
Matrix: Water
Date Received: 05/03/24 09:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	350.1		1	10 mL	10 mL	653086	05/11/24 15:38	LBR	EET DEN
Total/NA	Analysis	9056		1	10 mL	10 mL	652026	05/03/24 21:28	IRC	EET DEN

Client Sample ID: LL12mw-248-240401-GW
Lab Sample ID: 280-190988-3
Date Collected: 05/02/24 10:40
Matrix: Water
Date Received: 05/03/24 09:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	350.1		1	10 mL	10 mL	653086	05/11/24 15:01	LBR	EET DEN
Total/NA	Analysis	9056		1	10 mL	10 mL	652026	05/03/24 22:19	IRC	EET DEN

Client Sample ID: LL1mw-092-240401-GW
Lab Sample ID: 280-190988-4
Date Collected: 05/02/24 12:35
Matrix: Water
Date Received: 05/03/24 09:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			476.9 mL	5 mL	652746	05/09/24 12:56	MSJ	EET DEN
Total/NA	Analysis	8330B		1	1 mL	1 mL	653003	05/10/24 20:44	JZ	EET DEN
Total/NA	Prep	3535			476.9 mL	5 mL	652746	05/09/24 12:56	MSJ	EET DEN
Total/NA	Analysis	8330B		1	1 mL	1 mL	652983	05/10/24 18:45	JZ	EET DEN

Client Sample ID: LL12mw-244-240401-GW
Lab Sample ID: 280-190988-5
Date Collected: 05/02/24 12:35
Matrix: Water
Date Received: 05/03/24 09:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	350.1		1	10 mL	10 mL	653086	05/11/24 15:03	LBR	EET DEN
Total/NA	Analysis	9056		1	10 mL	10 mL	652026	05/04/24 05:59	IRC	EET DEN

Client Sample ID: LL1mw-093-240401-GW
Lab Sample ID: 280-190988-6
Date Collected: 05/02/24 12:50
Matrix: Water
Date Received: 05/03/24 09:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			473.1 mL	5 mL	652746	05/09/24 12:56	MSJ	EET DEN
Total/NA	Analysis	8330B		1	1 mL	1 mL	653003	05/10/24 21:20	JZ	EET DEN

Client Sample ID: LL1mw-093-240401-GW
Lab Sample ID: 280-190988-6
Date Collected: 05/02/24 12:50
Matrix: Water
Date Received: 05/03/24 09:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			473.1 mL	5 mL	652746	05/09/24 12:56	MSJ	EET DEN
Total/NA	Analysis	8330B		1	1 mL	1 mL	652983	05/10/24 19:08	JZ	EET DEN

Client Sample ID: LL1mw-091-240401-GW
Lab Sample ID: 280-190988-7
Date Collected: 05/02/24 13:12
Matrix: Water
Date Received: 05/03/24 09:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			463.9 mL	5 mL	652746	05/09/24 12:56	MSJ	EET DEN
Total/NA	Analysis	8330B		1	1 mL	1 mL	653003	05/10/24 21:56	JZ	EET DEN
Total/NA	Prep	3535			463.9 mL	5 mL	652746	05/09/24 12:56	MSJ	EET DEN
Total/NA	Analysis	8330B		1	1 mL	1 mL	652983	05/10/24 19:31	JZ	EET DEN

Client Sample ID: LL1mw-064-240401-GW
Lab Sample ID: 280-190988-8
Date Collected: 05/02/24 14:10
Matrix: Water
Date Received: 05/03/24 09:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			446.8 mL	5 mL	652746	05/09/24 12:56	MSJ	EET DEN
Total/NA	Analysis	8330B		1	1 mL	1 mL	652983	05/10/24 19:54	JZ	EET DEN

Client Sample ID: LL1mw-090-240401-GW
Lab Sample ID: 280-190988-9
Date Collected: 05/02/24 14:37
Matrix: Water
Date Received: 05/03/24 09:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			429.6 mL	5 mL	652746	05/09/24 12:56	MSJ	EET DEN
Total/NA	Analysis	8330B		1	1 mL	1 mL	652983	05/10/24 20:17	JZ	EET DEN

Client Sample ID: FWGmw-016-240401-GW
Lab Sample ID: 280-190988-10
Date Collected: 05/02/24 16:35
Matrix: Water
Date Received: 05/03/24 09:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			459.4 mL	5 mL	652746	05/09/24 12:56	MSJ	EET DEN
Total/NA	Analysis	8330B		1	1 mL	1 mL	652983	05/10/24 20:39	JZ	EET DEN

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

Accreditation/Certification Summary

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

Job ID: 280-190988-1

Laboratory: Eurofins Denver

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

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

Method Summary

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

Job ID: 280-190988-1

Method	Method Description	Protocol	Laboratory
8330B	Nitroaromatics and Nitramines (HPLC)	EPA	EET DEN
350.1	Nitrogen, Ammonia	EPA	EET DEN
9056	Anions, Ion Chromatography	SW846	EET DEN
3535	Solid-Phase Extraction (SPE)	SW846	EET DEN

Protocol References:

EPA = US Environmental Protection Agency

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

Laboratory References:

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

Sample Summary

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

Job ID: 280-190988-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
280-190988-1	LL12mw-249-240401-GW	Water	05/02/24 10:25	05/03/24 09:20
280-190988-2	LL12mw-249-240402-GW	Water	05/02/24 10:25	05/03/24 09:20
280-190988-3	LL12mw-248-240401-GW	Water	05/02/24 10:40	05/03/24 09:20
280-190988-4	LL1mw-092-240401-GW	Water	05/02/24 12:35	05/03/24 09:20
280-190988-5	LL12mw-244-240401-GW	Water	05/02/24 12:35	05/03/24 09:20
280-190988-6	LL1mw-093-240401-GW	Water	05/02/24 12:50	05/03/24 09:20
280-190988-7	LL1mw-091-240401-GW	Water	05/02/24 13:12	05/03/24 09:20
280-190988-8	LL1mw-064-240401-GW	Water	05/02/24 14:10	05/03/24 09:20
280-190988-9	LL1mw-090-240401-GW	Water	05/02/24 14:37	05/03/24 09:20
280-190988-10	FWGmw-016-240401-GW	Water	05/02/24 16:35	05/03/24 09:20

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-190988-1

SDG No.:

Instrument ID: CHHPLC_G2_LUNA Analysis Batch Number: 650851

Lab Sample ID: IC 280-650851/10 Client Sample ID:

Date Analyzed: 04/24/24 21:28 Lab File ID: 04240010.D GC Column: Luna-phenylh ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Picric acid	8.38	Peak assignment corrected	LV5D	04/25/24 13:10
Nitroglycerin	14.88	Baseline	LV5D	04/25/24 13:10

Lab Sample ID: IC 280-650851/11 Client Sample ID:

Date Analyzed: 04/24/24 22:04 Lab File ID: 04240011.D GC Column: Luna-phenylh ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitroglycerin	14.92	Baseline	LV5D	04/25/24 13:11
2,4,6-Trinitrotoluene	22.86	Baseline	LV5D	04/25/24 13:37

Lab Sample ID: IC 280-650851/12 Client Sample ID:

Date Analyzed: 04/24/24 22:40 Lab File ID: 04240012.D GC Column: Luna-phenylh ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitroglycerin	14.94	Baseline	LV5D	04/25/24 13:19
2,4,6-Trinitrotoluene	22.87	Baseline	LV5D	04/25/24 13:37

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-190988-1

SDG No.:

Instrument ID: CHHPLC_G2_LUNA Analysis Batch Number: 650851

Lab Sample ID: IC 280-650851/13 Client Sample ID:

Date Analyzed: 04/24/24 23:16 Lab File ID: 04240013.D GC Column: Luna-phenylh ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
3,5-Dinitroaniline	14.18	Baseline	LV5D	04/25/24 13:21
1,3-Dinitrobenzene	14.47	Baseline	LV5D	04/25/24 13:21
Nitroglycerin	14.92	Baseline	LV5D	04/25/24 13:19
2-Nitrotoluene	15.51	Baseline	LV5D	04/25/24 13:21
4-Nitrotoluene	15.74	Baseline	LV5D	04/25/24 13:21
4-Amino-2,6-dinitrotoluene	16.24	Baseline	LV5D	04/25/24 13:21
3-Nitrotoluene	16.57	Baseline	LV5D	04/25/24 13:21
2-Amino-4,6-dinitrotoluene	17.05	Baseline	LV5D	04/25/24 13:21
1,3,5-Trinitrobenzene	17.27	Baseline	LV5D	04/25/24 13:21
2,6-Dinitrotoluene	18.35	Baseline	LV5D	04/25/24 13:21
2,4-Dinitrotoluene	18.81	Baseline	LV5D	04/25/24 13:21
2,4,6-Trinitrotoluene	22.87	Baseline	LV5D	04/25/24 13:37

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-190988-1

SDG No.:

Instrument ID: CHHPLC_G2_LUNA Analysis Batch Number: 650851

Lab Sample ID: IC 280-650851/14 Client Sample ID:

Date Analyzed: 04/24/24 23:51 Lab File ID: 04240014.D GC Column: Luna-phenylh ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
3,5-Dinitroaniline	14.19	Baseline	LV5D	04/25/24 13:21
1,3-Dinitrobenzene	14.48	Baseline	LV5D	04/25/24 13:21
Nitroglycerin	14.92	Baseline	LV5D	04/25/24 13:19
2-Nitrotoluene	15.51	Baseline	LV5D	04/25/24 13:21
4-Nitrotoluene	15.74	Baseline	LV5D	04/25/24 13:21
4-Amino-2,6-dinitrotoluene	16.25	Baseline	LV5D	04/25/24 13:21
3-Nitrotoluene	16.58	Baseline	LV5D	04/25/24 13:21
2-Amino-4,6-dinitrotoluene	17.06	Baseline	LV5D	04/25/24 13:21
1,3,5-Trinitrobenzene	17.27	Baseline	LV5D	04/25/24 13:21
2,6-Dinitrotoluene	18.37	Baseline	LV5D	04/25/24 13:21
2,4-Dinitrotoluene	18.82	Baseline	LV5D	04/25/24 13:21
2,4,6-Trinitrotoluene	22.88	Baseline	LV5D	04/25/24 13:37
PETN	24.03	Baseline	LV5D	04/25/24 13:39

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-190988-1

SDG No.:

Instrument ID: CHHPLC_G2_LUNA Analysis Batch Number: 650851

Lab Sample ID: IC 280-650851/15 Client Sample ID:

Date Analyzed: 04/25/24 00:27 Lab File ID: 04240015.D GC Column: Luna-phenylh ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
3,5-Dinitroaniline	14.21	Baseline	LV5D	04/25/24 13:24
1,3-Dinitrobenzene	14.49	Baseline	LV5D	04/25/24 13:21
Nitroglycerin	14.95	Baseline	LV5D	04/25/24 13:20
2-Nitrotoluene	15.53	Baseline	LV5D	04/25/24 13:24
4-Nitrotoluene	15.76	Baseline	LV5D	04/25/24 13:21
4-Amino-2,6-dinitrotoluene	16.27	Baseline	LV5D	04/25/24 13:21
3-Nitrotoluene	16.60	Baseline	LV5D	04/25/24 13:21
2-Amino-4,6-dinitrotoluene	17.08	Baseline	LV5D	04/25/24 13:21
1,3,5-Trinitrobenzene	17.29	Baseline	LV5D	04/25/24 13:24
2,6-Dinitrotoluene	18.38	Baseline	LV5D	04/25/24 13:24
2,4-Dinitrotoluene	18.84	Baseline	LV5D	04/25/24 13:21
2,4,6-Trinitrotoluene	22.91	Baseline	LV5D	04/25/24 13:36

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-190988-1

SDG No.:

Instrument ID: CHHPLC_G2_LUNA Analysis Batch Number: 650851

Lab Sample ID: IC 280-650851/16 Client Sample ID:

Date Analyzed: 04/25/24 01:03 Lab File ID: 04240016.D GC Column: Luna-phenylh ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.71	Baseline	LV5D	04/25/24 13:32
3,5-Dinitroaniline	14.20	Baseline	LV5D	04/25/24 13:25
1,3-Dinitrobenzene	14.50	Baseline	LV5D	04/25/24 13:25
Nitroglycerin	14.94	Baseline	LV5D	04/25/24 13:20
2-Nitrotoluene	15.52	Baseline	LV5D	04/25/24 13:25
4-Nitrotoluene	15.74	Baseline	LV5D	04/25/24 13:25
4-Amino-2,6-dinitrotoluene	16.25	Baseline	LV5D	04/25/24 13:35
3-Nitrotoluene	16.58	Baseline	LV5D	04/25/24 13:25
2-Amino-4,6-dinitrotoluene	17.06	Baseline	LV5D	04/25/24 13:25
1,3,5-Trinitrobenzene	17.28	Baseline	LV5D	04/25/24 13:25
Tetryl	22.02	Baseline	LV5D	04/25/24 13:25
2,4,6-Trinitrotoluene	22.88	Baseline	LV5D	04/25/24 13:25
PETN	24.02	Baseline	LV5D	04/25/24 13:39

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-190988-1

SDG No.:

Instrument ID: CHHPLC_G2_LUNA Analysis Batch Number: 650851

Lab Sample ID: IC 280-650851/17 Client Sample ID:

Date Analyzed: 04/25/24 01:39 Lab File ID: 04240017.D GC Column: Luna-phenylh ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.71	Baseline	LV5D	04/25/24 13:31
Picric acid	8.73	Baseline	LV5D	04/25/24 13:32
RDX	8.95	Baseline	LV5D	04/25/24 13:32
Nitrobenzene	11.46	Baseline	LV5D	04/25/24 13:26
1,2-Dinitrobenzene	12.39	Baseline	LV5D	04/25/24 13:26
3,5-Dinitroaniline	14.23	Baseline	LV5D	04/25/24 13:26
1,3-Dinitrobenzene	14.52	Baseline	LV5D	04/25/24 13:26
Nitroglycerin	14.98	Baseline	LV5D	04/25/24 13:20
2-Nitrotoluene	15.56	Baseline	LV5D	04/25/24 13:35
4-Nitrotoluene	15.77	Baseline	LV5D	04/25/24 13:35
4-Amino-2,6-dinitrotoluene	16.29	Baseline	LV5D	04/25/24 13:35
3-Nitrotoluene	16.62	Baseline	LV5D	04/25/24 13:35
2-Amino-4,6-dinitrotoluene	17.10	Baseline	LV5D	04/25/24 13:35
1,3,5-Trinitrobenzene	17.31	Baseline	LV5D	04/25/24 13:35
2,6-Dinitrotoluene	18.39	Baseline	LV5D	04/25/24 13:26
2,4-Dinitrotoluene	18.85	Baseline	LV5D	04/25/24 13:26
Tetryl	22.07	Baseline	LV5D	04/25/24 13:26
2,4,6-Trinitrotoluene	22.93	Baseline	LV5D	04/25/24 13:27

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-190988-1

SDG No.:

Instrument ID: CHHPLC_G2_LUNA Analysis Batch Number: 650851

Lab Sample ID: IC 280-650851/18 Client Sample ID:

Date Analyzed: 04/25/24 02:15 Lab File ID: 04240018.D GC Column: Luna-phenylh ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.71	Baseline	LV5D	04/25/24 13:31
Nitrobenzene	11.43	Baseline	LV5D	04/25/24 13:27
1,2-Dinitrobenzene	12.36	Baseline	LV5D	04/25/24 13:28
3,5-Dinitroaniline	14.20	Baseline	LV5D	04/25/24 13:29
1,3-Dinitrobenzene	14.49	Baseline	LV5D	04/25/24 13:28
Nitroglycerin	14.94	Baseline	LV5D	04/25/24 13:20
2-Nitrotoluene	15.53	Baseline	LV5D	04/25/24 13:29
4-Nitrotoluene	15.75	Baseline	LV5D	04/25/24 13:29
4-Amino-2,6-dinitrotoluene	16.26	Baseline	LV5D	04/25/24 13:29
3-Nitrotoluene	16.59	Baseline	LV5D	04/25/24 13:29
2-Amino-4,6-dinitrotoluene	17.09	Baseline	LV5D	04/25/24 13:29
1,3,5-Trinitrobenzene	17.29	Baseline	LV5D	04/25/24 13:29
2,6-Dinitrotoluene	18.38	Baseline	LV5D	04/25/24 13:29
2,4-Dinitrotoluene	18.83	Baseline	LV5D	04/25/24 13:29
2,4,6-Trinitrotoluene	22.90	Baseline	LV5D	04/25/24 13:38

Lab Sample ID: ICV 280-650851/19 Client Sample ID:

Date Analyzed: 04/25/24 02:51 Lab File ID: 04240019.D GC Column: Luna-phenylh ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitroglycerin	14.93	Baseline	LV5D	04/25/24 13:30

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-190988-1

SDG No.:

Instrument ID: CHHPLC_G2_LUNA Analysis Batch Number: 653003

Lab Sample ID: CCV 280-653003/7 Client Sample ID:

Date Analyzed: 05/10/24 18:20 Lab File ID: 05100007.D GC Column: Luna-phenylh ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
3,5-Dinitroaniline	14.10	Baseline	LV5D	05/10/24 19:19
1,3-Dinitrobenzene	14.41	Baseline	LV5D	05/10/24 19:19
Nitroglycerin	14.87	Baseline	LV5D	05/10/24 19:19
2-Nitrotoluene	15.45	Baseline	LV5D	05/10/24 19:19
4-Nitrotoluene	15.68	Baseline	LV5D	05/10/24 19:19
4-Amino-2,6-dinitrotoluene	16.16	Baseline	LV5D	05/10/24 19:19
3-Nitrotoluene	16.52	Baseline	LV5D	05/10/24 19:19
2-Amino-4,6-dinitrotoluene	16.97	Baseline	LV5D	05/10/24 19:19
1,3,5-Trinitrobenzene	17.21	Baseline	LV5D	05/10/24 19:19
2,6-Dinitrotoluene	18.27	Baseline	LV5D	05/10/24 19:19
2,4-Dinitrotoluene	18.73	Baseline	LV5D	05/10/24 19:19

Lab Sample ID: 280-190988-4 Client Sample ID: LL1mw-092-240401-GW

Date Analyzed: 05/10/24 20:44 Lab File ID: 05100013.D GC Column: Luna-phenylh ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2,6-Dinitrotoluene		Invalid Compound ID	LV5D	05/11/24 12:23
4-Amino-2,6-dinitrotoluene		Invalid Compound ID	LV5D	05/11/24 12:23
Nitroglycerin		Invalid Compound ID	LV5D	05/11/24 12:23
RDX		Invalid Compound ID	LV5D	05/11/24 12:23
2-Nitrotoluene	15.53	Baseline	LV5D	05/11/24 12:23
2-Amino-4,6-dinitrotoluene	16.90	Baseline	LV5D	05/11/24 12:23

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-190988-1

SDG No.:

Instrument ID: CHHPLC_G2_LUNA Analysis Batch Number: 653003

Lab Sample ID: 280-190988-6 Client Sample ID: LL1mw-093-240401-GW

Date Analyzed: 05/10/24 21:20 Lab File ID: 05100014.D GC Column: Luna-phenylh ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,3,5-Trinitrobenzene		Invalid Compound ID	LV5D	05/11/24 12:24
2,6-Dinitrotoluene		Invalid Compound ID	LV5D	05/11/24 12:24
2-Amino-4,6-dinitrotoluene		Invalid Compound ID	LV5D	05/11/24 12:24
4-Amino-2,6-dinitrotoluene		Invalid Compound ID	LV5D	05/11/24 12:24
HMX		Invalid Compound ID	LV5D	05/11/24 12:24
Nitroglycerin		Invalid Compound ID	LV5D	05/11/24 12:24
RDX		Invalid Compound ID	LV5D	05/11/24 12:24
1,2-Dinitrobenzene	12.29	Baseline	LV5D	05/11/24 12:23
2-Nitrotoluene	15.52	Baseline	LV5D	05/11/24 12:24

Lab Sample ID: 280-190988-7 Client Sample ID: LL1mw-091-240401-GW

Date Analyzed: 05/10/24 21:56 Lab File ID: 05100015.D GC Column: Luna-phenylh ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2-Amino-4,6-dinitrotoluene		Invalid Compound ID	LV5D	05/11/24 12:24
Nitroglycerin		Invalid Compound ID	LV5D	05/11/24 12:24
RDX		Invalid Compound ID	LV5D	05/11/24 12:24
1,2-Dinitrobenzene	12.26	Baseline	LV5D	05/11/24 12:24
2-Nitrotoluene	15.49	Baseline	LV5D	05/11/24 12:25

Lab Sample ID: CCV 280-653003/20 Client Sample ID:

Date Analyzed: 05/11/24 00:56 Lab File ID: 05100020.D GC Column: Luna-phenylh ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitroglycerin	14.85	Baseline	LV5D	05/11/24 12:25

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-190988-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 649950

Lab Sample ID: IC 280-649950/11 Client Sample ID:

Date Analyzed: 04/17/24 20:37 Lab File ID: 04170011.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TNX	6.47	Baseline	LV5D	04/18/24 11:13
HMX	6.58	Baseline	LV5D	04/18/24 11:13
DNX	6.78	Baseline	LV5D	04/18/24 11:13

Lab Sample ID: IC 280-649950/12 Client Sample ID:

Date Analyzed: 04/17/24 21:00 Lab File ID: 04170012.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TNX	6.47	Baseline	LV5D	04/18/24 11:13
HMX	6.58	Baseline	LV5D	04/18/24 11:13
DNX	6.79	Baseline	LV5D	04/18/24 11:13

Lab Sample ID: IC 280-649950/13 Client Sample ID:

Date Analyzed: 04/17/24 21:23 Lab File ID: 04170013.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TNX	6.48	Baseline	LV5D	04/18/24 11:13
HMX	6.58	Baseline	LV5D	04/18/24 11:13
DNX	6.79	Baseline	LV5D	04/18/24 11:13

Lab Sample ID: IC 280-649950/14 Client Sample ID:

Date Analyzed: 04/17/24 21:46 Lab File ID: 04170014.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TNX	6.48	Baseline	LV5D	04/18/24 11:14
HMX	6.59	Baseline	LV5D	04/18/24 11:14
DNX	6.79	Baseline	LV5D	04/18/24 11:14

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-190988-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 649950

Lab Sample ID: IC 280-649950/15 Client Sample ID:

Date Analyzed: 04/17/24 22:09 Lab File ID: 04170015.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TNX	6.48	Baseline	LV5D	04/18/24 11:15
HMX	6.58	Baseline	LV5D	04/18/24 11:15
DNX	6.79	Baseline	LV5D	04/18/24 11:15
3-Nitrotoluene	13.40	Baseline	LV5D	04/18/24 11:15

Lab Sample ID: IC 280-649950/16 Client Sample ID:

Date Analyzed: 04/17/24 22:32 Lab File ID: 04170016.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TNX	6.48	Baseline	LV5D	04/18/24 11:16
HMX	6.58	Baseline	LV5D	04/18/24 11:16
DNX	6.79	Baseline	LV5D	04/18/24 11:16
PETN	14.48	Baseline	LV5D	04/18/24 11:15

Lab Sample ID: IC 280-649950/17 Client Sample ID:

Date Analyzed: 04/17/24 22:55 Lab File ID: 04170017.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TNX	6.48	Baseline	LV5D	04/18/24 11:16
HMX	6.58	Baseline	LV5D	04/18/24 11:16
DNX	6.78	Baseline	LV5D	04/18/24 11:16
PETN	14.49	Baseline	LV5D	04/18/24 11:16

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-190988-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 649950

Lab Sample ID: IC 280-649950/18 Client Sample ID:

Date Analyzed: 04/17/24 23:18 Lab File ID: 04170018.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
DNX	6.79	Baseline	LV5D	04/18/24 11:17
1,2-Dinitrobenzene	8.52	Baseline	LV5D	04/18/24 11:19
1,3,5-Trinitrobenzene	8.66	Baseline	LV5D	04/18/24 11:19
3,5-Dinitroaniline	9.87	Baseline	LV5D	04/18/24 11:17
Tetryl	9.96	Baseline	LV5D	04/18/24 11:17
Nitroglycerin	10.42	Baseline	LV5D	04/18/24 11:17
PETN	14.48	Baseline	LV5D	04/18/24 11:17

Lab Sample ID: IC 280-649950/19 Client Sample ID:

Date Analyzed: 04/17/24 23:41 Lab File ID: 04170019.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TNX	6.48	Baseline	LV5D	04/18/24 11:18
HMX	6.58	Baseline	LV5D	04/18/24 11:18
DNX	6.79	Baseline	LV5D	04/18/24 11:18
RDX	7.58	Baseline	LV5D	04/18/24 11:18
1,2-Dinitrobenzene	8.52	Baseline	LV5D	04/18/24 11:19
1,3,5-Trinitrobenzene	8.66	Baseline	LV5D	04/18/24 11:19
3,5-Dinitroaniline	9.87	Baseline	LV5D	04/18/24 11:18
Tetryl	9.95	Baseline	LV5D	04/18/24 11:18
Nitroglycerin	10.43	Baseline	LV5D	04/18/24 11:17
PETN	14.49	Baseline	LV5D	04/18/24 11:17

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-190988-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 649950

Lab Sample ID: ICV 280-649950/20 Client Sample ID:

Date Analyzed: 04/18/24 00:04 Lab File ID: 04170020.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TNX	6.48	Baseline	LV5D	04/18/24 11:20
HMX	6.58	Baseline	LV5D	04/18/24 11:20
DNX	6.79	Baseline	LV5D	04/18/24 11:20

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-190988-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 652983

Lab Sample ID: MB 280-652746/1-A Client Sample ID:

Date Analyzed: 05/10/24 17:36 Lab File ID: 05100015.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,2-Dinitrobenzene	8.56	Baseline	LV5D	05/10/24 18:20
1,3,5-Trinitrobenzene		Baseline	LV5D	05/10/24 18:20

Lab Sample ID: LCS 280-652746/2-A Client Sample ID:

Date Analyzed: 05/10/24 17:59 Lab File ID: 05100016.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.62	Baseline	LV5D	05/10/24 18:35

Lab Sample ID: LCSD 280-652746/3-A Client Sample ID:

Date Analyzed: 05/10/24 18:22 Lab File ID: 05100017.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.62	Baseline	LV5D	05/10/24 18:51

Lab Sample ID: 280-190988-4 Client Sample ID: LL1mw-092-240401-GW

Date Analyzed: 05/10/24 18:45 Lab File ID: 05100018.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
RDX	7.65	Baseline	LV5D	05/10/24 19:15
1,2-Dinitrobenzene	8.57	Baseline	LV5D	05/10/24 19:15
1,3,5-Trinitrobenzene		Invalid Compound ID	LV5D	05/10/24 19:15
1,3-Dinitrobenzene		Invalid Compound ID	LV5D	05/10/24 19:15
HMX		Invalid Compound ID	LV5D	05/10/24 19:15

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-190988-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 652983

Lab Sample ID: 280-190988-6 Client Sample ID: LL1mw-093-240401-GW

Date Analyzed: 05/10/24 19:08 Lab File ID: 05100019.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.62	Baseline	LV5D	05/10/24 19:32
1,2-Dinitrobenzene	8.56	Baseline	LV5D	05/10/24 19:32
1,3-Dinitrobenzene		Invalid Compound ID	LV5D	05/10/24 19:32
Tetryl		Invalid Compound ID	LV5D	05/10/24 19:32

Lab Sample ID: 280-190988-7 Client Sample ID: LL1mw-091-240401-GW

Date Analyzed: 05/10/24 19:31 Lab File ID: 05100020.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.63	Baseline	LV5D	05/10/24 19:55
RDX	7.65	Baseline	LV5D	05/10/24 19:56
1,2-Dinitrobenzene	8.56	Baseline	LV5D	05/10/24 19:56
1,3,5-Trinitrobenzene	8.73	Baseline	LV5D	05/10/24 19:56
1,3-Dinitrobenzene		Baseline	LV5D	05/10/24 19:56
2,4-Dinitrotoluene		Invalid Compound ID	LV5D	05/10/24 19:55
4-Amino-2,6-dinitrotoluene		Invalid Compound ID	LV5D	05/10/24 19:55

Lab Sample ID: 280-190988-8 Client Sample ID: LL1mw-064-240401-GW

Date Analyzed: 05/10/24 19:54 Lab File ID: 05100021.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.62	Baseline	LV5D	05/10/24 20:22
1,2-Dinitrobenzene	8.56	Baseline	LV5D	05/10/24 20:22
1,3-Dinitrobenzene		Invalid Compound ID	LV5D	05/10/24 20:21

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-190988-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 652983

Lab Sample ID: 280-190988-9 Client Sample ID: LL1mw-090-240401-GW

Date Analyzed: 05/10/24 20:17 Lab File ID: 05100022.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,2-Dinitrobenzene	8.56	Baseline	LV5D	05/10/24 20:42
1,3-Dinitrobenzene		Invalid Compound ID	LV5D	05/10/24 20:42

Lab Sample ID: 280-190988-10 Client Sample ID: FWGmw-016-240401-GW

Date Analyzed: 05/10/24 20:39 Lab File ID: 05100023.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,2-Dinitrobenzene	8.56	Baseline	LV5D	05/11/24 10:41
1,3-Dinitrobenzene		Invalid Compound ID	LV5D	05/11/24 10:41
HMX		Invalid Compound ID	LV5D	05/11/24 10:41

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-190988-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
350.1 cal_00629	05/14/24	05/07/24	Di Water, Lot na	100 mL	NH3 CAL STD_00036	10 mL	Ammonia as N	100 mg/L
.NH3 CAL STD_00036	06/30/25	Ricca, Lot 2312g14			(Purchased Reagent)		Ammonia as N	1000 mg/L
350.1 ICV_00608	05/14/24	05/07/24	na, Lot na	100 mL	NH3 ICV STD_00034	10 mL	Ammonia as N	100.2 mg/L
.NH3 ICV STD_00034	01/25/25	Inorganic Ventures, Lot S2-NH700817			(Purchased Reagent)		Ammonia as N	1002 mg/L
8330 DMT_00016	06/30/24	01/24/24	Acetonitrile, Lot 233799	5 mL	MNX,TNX,DNX_00092	1 mL	DNX	20.04 ug/mL
							MNX	23.38 ug/mL
							TNX	20.08 ug/mL
.MNX,TNX,DNX_00092	06/30/24	Agilent, Lot 0006744504			(Purchased Reagent)		DNX	100.2 ug/mL
							MNX	116.9 ug/mL
							TNX	100.4 ug/mL
8330 LCS_00134	08/29/24	02/29/24	Acetonitrile, Lot Acetonitrile_00086	100 mL	8330 LCSMix2_00113	1 mL	2,6-Dinitrotoluene	10 ug/mL
							2-Amino-4,6-dinitrotoluene	10 ug/mL
							2-Nitrotoluene	10 ug/mL
							3-Nitrotoluene	10 ug/mL
							4-Amino-2,6-dinitrotoluene	10 ug/mL
							4-Nitrotoluene	10 ug/mL
							Tetryl	10 ug/mL
					8330_NG_Stk_00145	1 mL	Nitroglycerin	100 ug/mL
					8330_NG_Stk_00147	1 mL	Nitroglycerin	100 ug/mL
					8330_PETN_Stk_00152	1 mL	PETN	100 ug/mL
					8330_PETN_Stk_00153	1 mL	PETN	100 ug/mL
					8330LCSMix1_00151	1 mL	1,3,5-Trinitrobenzene	10 ug/mL
							1,3-Dinitrobenzene	10 ug/mL
							2,4,6-Trinitrotoluene	10 ug/mL
							2,4-Dinitrotoluene	10 ug/mL
							HMX	10 ug/mL
							Nitrobenzene	10 ug/mL
							RDX	10 ug/mL
.8330 LCSMix2_00113	02/28/25	Restek, Lot A199657			(Purchased Reagent)		2,6-Dinitrotoluene	1000 ug/mL
							2-Amino-4,6-dinitrotoluene	1000 ug/mL
							2-Nitrotoluene	1000 ug/mL
							3-Nitrotoluene	1000 ug/mL
							4-Amino-2,6-dinitrotoluene	1000 ug/mL
							4-Nitrotoluene	1000 ug/mL
							Tetryl	1000 ug/mL
.8330_NG_Stk_00145	02/28/25	Restek, Lot A0201048			(Purchased Reagent)		Nitroglycerin	5000 ug/mL
.8330_NG_Stk_00147	02/28/25	Restek, Lot A0201048			(Purchased Reagent)		Nitroglycerin	5000 ug/mL
.8330_PETN_Stk_00152	02/28/25	Restek, Lot A0198972			(Purchased Reagent)		PETN	5000 ug/mL
.8330_PETN_Stk_00153	02/28/25	Restek, Lot A0198972			(Purchased Reagent)		PETN	5000 ug/mL
.8330LCSMix1_00151	02/28/25	Restek, Lot A196548			(Purchased Reagent)		1,3,5-Trinitrobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							2,4,6-Trinitrotoluene	1000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							HMX	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-190988-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Nitrobenzene	1000 ug/mL
							RDX	1000 ug/mL
8330 LCS_00135	10/26/24	04/26/24	Acetonitrile, Lot Acetonitrile_00086	100 mL	3,5-DNA Stock_00052	1 mL	3,5-Dinitroaniline	10 ug/mL
					8330 LCSMix2_00114	1 mL	2,6-Dinitrotoluene	10 ug/mL
							2-Amino-4,6-dinitrotoluene	10 ug/mL
							2-Nitrotoluene	10 ug/mL
							3-Nitrotoluene	10 ug/mL
							4-Amino-2,6-dinitrotoluene	10 ug/mL
							4-Nitrotoluene	10 ug/mL
							Tetryl	10 ug/mL
					8330_NG_Stk_00148	1 mL	Nitroglycerin	100 ug/mL
					8330_NG_Stk_00150	1 mL	Nitroglycerin	100 ug/mL
					8330_PETN_Stk_00154	1 mL	PETN	100 ug/mL
					8330_PETN_Stk_00156	1 mL	PETN	100 ug/mL
					8330LCSMix1_00152	1 mL	1,3,5-Trinitrobenzene	10 ug/mL
							1,3-Dinitrobenzene	10 ug/mL
							2,4,6-Trinitrotoluene	10 ug/mL
							2,4-Dinitrotoluene	10 ug/mL
							HMX	10 ug/mL
							Nitrobenzene	10 ug/mL
							RDX	10 ug/mL
					PicricARestek_00124	1 mL	2,4,6-Trinitrophenol	10 ug/mL
							Ammonium Picrate	10.74 ug/mL
.3,5-DNA Stock_00052	04/26/25		Restek, Lot A0193965		(Purchased Reagent)		3,5-Dinitroaniline	1000 ug/mL
.8330 LCSMix2_00114	04/26/25		Restek, Lot A199657		(Purchased Reagent)		2,6-Dinitrotoluene	1000 ug/mL
							2-Amino-4,6-dinitrotoluene	1000 ug/mL
							2-Nitrotoluene	1000 ug/mL
							3-Nitrotoluene	1000 ug/mL
							4-Amino-2,6-dinitrotoluene	1000 ug/mL
							4-Nitrotoluene	1000 ug/mL
							Tetryl	1000 ug/mL
.8330_NG_Stk_00148	04/26/25		Restek, Lot A0203257		(Purchased Reagent)		Nitroglycerin	5000 ug/mL
.8330_NG_Stk_00150	04/26/25		Restek, Lot A0203257		(Purchased Reagent)		Nitroglycerin	5000 ug/mL
.8330_PETN_Stk_00154	04/26/25		Restek, Lot A0198972		(Purchased Reagent)		PETN	5000 ug/mL
.8330_PETN_Stk_00156	04/26/25		Restek, Lot A0205209		(Purchased Reagent)		PETN	5000 ug/mL
.8330LCSMix1_00152	04/26/25		Restek, Lot A196548		(Purchased Reagent)		1,3,5-Trinitrobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							2,4,6-Trinitrotoluene	1000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							HMX	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							RDX	1000 ug/mL
.PicricARestek_00124	04/26/25		Restek, Lot A0195778		(Purchased Reagent)		2,4,6-Trinitrophenol	1000 ug/mL
							Ammonium Picrate	1074 ug/mL
8330IntermStk_00080	05/14/24	04/17/24	Acetonitrile, Lot 223272	10 mL	8330_NG1000_00012	1 mL	Nitroglycerin	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-190988-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
					8330_PETN1000_00016	1 mL	PETN	100 ug/mL
					833035DNAStk_00059	1 mL	3,5-Dinitroaniline	10 ug/mL
					8330ICALStock_00035	1 mL	1,3,5-Trinitrobenzene	10 ug/mL
							1,3-Dinitrobenzene	10 ug/mL
							2,4,6-Trinitrotoluene	10 ug/mL
							2,4-Dinitrotoluene	10 ug/mL
							2,6-Dinitrotoluene	10 ug/mL
							2-Amino-4,6-dinitrotoluene	10 ug/mL
							2-Nitrotoluene	10 ug/mL
							3-Nitrotoluene	10 ug/mL
							4-Amino-2,6-dinitrotoluene	10 ug/mL
							4-Nitrotoluene	10 ug/mL
							HMX	10 ug/mL
							Nitrobenzene	10 ug/mL
							RDX	10 ug/mL
							Tetryl	10 ug/mL
							1,2-Dinitrobenzene	10 ug/mL
					8330PAStkPS_00075	1 mL	2,4,6-Trinitrophenol	10 ug/mL
.8330_NG1000_00012	04/17/25		Restek, Lot A0197032		(Purchased Reagent)		Nitroglycerin	1000 ug/mL
.8330_PETN1000_00016	04/17/25		Restek, Lot A0198747		(Purchased Reagent)		PETN	1000 ug/mL
.833035DNAStk_00059	05/14/24		Accustandard, Lot 223041214		(Purchased Reagent)		3,5-Dinitroaniline	100 ug/mL
.8330ICALStock_00035	01/23/25	01/23/24	Acetonitrile, Lot 233799	10 mL	8330 Stock_TS_00024	1 mL	1,3,5-Trinitrobenzene	100 ug/mL
							1,3-Dinitrobenzene	100 ug/mL
							2,4,6-Trinitrotoluene	100 ug/mL
							2,4-Dinitrotoluene	100 ug/mL
							2,6-Dinitrotoluene	100 ug/mL
							2-Amino-4,6-dinitrotoluene	100 ug/mL
							2-Nitrotoluene	100 ug/mL
							3-Nitrotoluene	100 ug/mL
							4-Amino-2,6-dinitrotoluene	100 ug/mL
							4-Nitrotoluene	100 ug/mL
							HMX	100 ug/mL
							Nitrobenzene	100 ug/mL
							RDX	100 ug/mL
							Tetryl	100 ug/mL
					8330SurrStock_00173	1 mL	1,2-Dinitrobenzene	100 ug/mL
..8330 Stock_TS_00024	01/23/25		Agilent, Lot 0006684308		(Purchased Reagent)		1,3,5-Trinitrobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							2,4,6-Trinitrotoluene	1000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Amino-4,6-dinitrotoluene	1000 ug/mL
							2-Nitrotoluene	1000 ug/mL
							3-Nitrotoluene	1000 ug/mL
							4-Amino-2,6-dinitrotoluene	1000 ug/mL
							4-Nitrotoluene	1000 ug/mL
							HMX	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-190988-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Nitrobenzene	1000 ug/mL
							RDX	1000 ug/mL
							Tetryl	1000 ug/mL
..8330SurrStock_00173	01/23/25	AccuStandard, Lot 219051500			(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
.8330PAStkPS_00075	04/12/25	AccuStandard, Lot 223041157			(Purchased Reagent)		2,4,6-Trinitrophenol	100 ug/mL
8330Surrogate_00154	09/01/24	03/01/24	Acetonitrile, Lot Acetonitrile_00086	500 mL	8330SurrStkSS_00310	1 mL	1,2-Dinitrobenzene	10 ug/mL
					8330SurrStkSS_00311	1 mL	1,2-Dinitrobenzene	10 ug/mL
					8330SurrStkSS_00312	1 mL	1,2-Dinitrobenzene	10 ug/mL
					8330SurrStkSS_00314	1 mL	1,2-Dinitrobenzene	10 ug/mL
					8330SurrStkSS_00315	1 mL	1,2-Dinitrobenzene	10 ug/mL
.8330SurrStkSS_00310	03/01/25	Restek, Lot A0200577			(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
.8330SurrStkSS_00311	03/01/25	Restek, Lot A0200577			(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
.8330SurrStkSS_00312	03/01/25	Restek, Lot A0200577			(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
.8330SurrStkSS_00314	03/01/25	Restek, Lot A0200577			(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
.8330SurrStkSS_00315	03/01/25	Restek, Lot A0200577			(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
8330Surrogate_00155	10/26/24	04/26/24	Acetonitrile, Lot Acetonitrile_00086	500 mL	8330SurrStkSS_00313	1 mL	1,2-Dinitrobenzene	10 ug/mL
							1,2-Dinitrobenzene (Surr)	10 ug/mL
					8330SurrStkSS_00316	1 mL	1,2-Dinitrobenzene	10 ug/mL
							1,2-Dinitrobenzene (Surr)	10 ug/mL
					8330SurrStkSS_00317	1 mL	1,2-Dinitrobenzene	10 ug/mL
							1,2-Dinitrobenzene (Surr)	10 ug/mL
					8330SurrStkSS_00318	1 mL	1,2-Dinitrobenzene	10 ug/mL
							1,2-Dinitrobenzene (Surr)	10 ug/mL
					8330SurrStkSS_00319	1 mL	1,2-Dinitrobenzene	10 ug/mL
							1,2-Dinitrobenzene (Surr)	10 ug/mL
.8330SurrStkSS_00313	04/26/25	Restek, Lot A0200577			(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
							1,2-Dinitrobenzene (Surr)	1000 ug/mL
.8330SurrStkSS_00316	04/26/25	Restek, Lot A0200577			(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
							1,2-Dinitrobenzene (Surr)	1000 ug/mL
.8330SurrStkSS_00317	04/26/25	Restek, Lot A0200577			(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
							1,2-Dinitrobenzene (Surr)	1000 ug/mL
.8330SurrStkSS_00318	04/26/25	Restek, Lot A0205460			(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
							1,2-Dinitrobenzene (Surr)	1000 ug/mL
.8330SurrStkSS_00319	04/26/25	Restek, Lot A0205460			(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
							1,2-Dinitrobenzene (Surr)	1000 ug/mL
IC Cal low_00758	02/28/24	02/21/24	Di Water, Lot NA	100 mL	IC N03 cal_00030	5 mL	Nitrate as N	50 mg/L
					NO2 Cal std_00040	5 mL	Nitrite as N	50 mg/L
.IC N03 cal_00030	10/31/24	Ricca, Lot 1304R00			(Purchased Reagent)		Nitrate as N	1000 mg/L
.NO2 Cal std_00040	04/30/24	ERA, Lot 4310M18			(Purchased Reagent)		Nitrite as N	1000 mg/L
IC Cal low_00772	05/07/24	04/30/24	Di Water, Lot NA	100 mL	IC N03 cal_00030	5 mL	Nitrate as N	50 mg/L
.IC N03 cal_00030	10/31/24	Ricca, Lot 1304R00			(Purchased Reagent)		Nitrate as N	1000 mg/L
IC ICV 5_00428	02/27/24	02/20/24	Di Water, Lot na	100 mL	IC NO3 ICV_00020	5 mL	Nitrate as N	50 mg/L
.IC NO3 ICV_00020	10/13/24	ERA, Lot 341022m			(Purchased Reagent)		Nitrate as N	1000 mg/L
IC LCS_02034	05/08/24	05/03/24	Di Water, Lot 27	200 mL	IC Cal low_00774	20 mL	Nitrate as N	5 mg/L

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-190988-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.IC Cal low_00774	05/08/24	05/01/24	Di Water, Lot NA	100 mL	IC N03 cal_00030	5 mL	Nitrate as N	50 mg/L
..IC N03 cal_00030	10/31/24	Ricca, Lot 1304R00			(Purchased Reagent)		Nitrate as N	1000 mg/L
ICMS/MSD WEEK_00876	05/10/24	05/03/24	Di Water, Lot NA	5 mL	IC SPK 6 ANIO_00036	2.5 mL	Nitrate as N	500.003 mg/L
.IC SPK 6 ANIO_00036	10/30/24	01/05/24	Di Water, Lot NA	1000 mL	IC MS/MSD N03_00006	6.068 g	Nitrate as N	1000.01 mg/L
..IC MS/MSD N03_00006	12/31/26	Spectrum, Lot 1LD0800			(Purchased Reagent)		Nitrate as N	0.1648 g/g

Reagent

3,5-DNA Stock_00052

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ilac-MRA A2LA ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ilac-MRA A2LA ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31661 **Lot No.:** A0193965

Description : 3,5-Dinitroaniline Standard

3, 5-Dinitroaniline Std 1000µg/mL, Acetonitrile, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : August 31, 2027 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	3,5-Dinitroaniline	618-87-1	10311HS	99%	1,004.0 µg/mL	+/- 37.4502

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Acetonitrile
CAS # 75-05-8
Purity 99%

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

8330 LCS_00134

Preliminary Report

Eurofins Denver

LCS, Lab Control Sample Report

Sample Path: \\chromfs\Denver\ChromData\CHHPLC_X\20240301-130735.b\03010011.D

Lims ID: 8330 LCS_00134 Inj. Date: 01-Mar-2024 12:30:35

Worklist ID: 280-0130735-011 Instrument: CHHPLC_X3

Method: 8330_X3

Compound	Amount Added	Amount Recovered	%Rec	Limits 1 0B_Sonc_	Limits 2 3535
4 HMX	0.5000	0.4367	87.3	66-115	65-135
8 RDX	0.5000	0.4730	94.6	69-122	68-130
9 2,4,6-Trinitrophenol	0.5000	0.5271	105.4	63-135	80-120
11 1,3,5-Trinitrobenzene	0.5000	0.5189	103.8	62-127	73-125
12 1,3-Dinitrobenzene	0.5000	0.5073	101.5	59-131	78-120
13 Nitrobenzene	0.5000	0.5288	105.8	46-144	65-134
14 3,5-Dinitroaniline	0.5000	0.5048	101.0	55-119	71-117
15 Tetryl	0.5000	0.4891	97.8	56-131	64-128
16 Nitroglycerin	5.00	5.39	107.8	70-125	74-127
17 2,4,6-Trinitrotoluene	0.5000	0.4808	96.2	46-139	71-123
18 4-Amino-2,6-dinitrotolu	0.5000	0.4971	99.4	43-120	76-125
19 2-Amino-4,6-dinitrotolu	0.5000	0.4882	97.6	46-124	79-120
20 2,6-Dinitrotoluene	0.5000	0.4971	99.4	51-130	77-127
21 2,4-Dinitrotoluene	0.5000	0.4832	96.6	53-127	78-120
22 o-Nitrotoluene	0.5000	0.5062	101.2	37-138	70-127
23 p-Nitrotoluene	0.5000	0.5029	100.6	41-137	71-127
24 m-Nitrotoluene	0.5000	0.5100	102.0	31-140	73-125
25 PETN	5.00	5.09	101.7	67-127	73-127

Samples for Limit Group: 1, Lims Prep Method: 8330B_Sonc_10g

280-188024-A-1-A 280-188024-A-2-A 280-188024-A-3-A

280-188024-A-4-A 280-188024-A-5-A

Samples for Limit Group: 2, Lims Prep Method: 3535

410-161632-D-1-A 410-161632-D-2-A 410-161632-D-4-A

410-161632-D-6-A 410-161632-A-7-A 410-161632-A-8-A

Reagent

8330 LCS_00135

Preliminary Report

Eurofins Denver

LCS, Lab Control Sample Report

Sample Path: \\chromfs\Denver\ChromData\CHHPLC_X\20240426-132709.b\8330SURR135.D

Lims ID: 8330LCS135 Inj. Date: 26-Apr-2024 16:12:12

Worklist ID: 280-0132709-057 Instrument: CHHPLC_X3

Method: 8330_X3

Compound	Amount Added	Amount Recovered	%Rec	Limits 1 3535
4 HMX	0.5000	0.4520	90.4	65-135
8 RDX	0.5000	0.4499	90.0	68-130
9 2,4,6-Trinitrophenol	0.5000	0.5151	103.0	80-120
11 1,3,5-Trinitrobenzene	0.5000	0.5018	100.4	73-125
12 1,3-Dinitrobenzene	0.5000	0.4976	99.5	78-120
13 Nitrobenzene	0.5000	0.5060	101.2	65-134
14 3,5-Dinitroaniline	0.5000	0.4915	98.3	71-117
15 Tetryl	0.5000	0.5018	100.4	64-128
16 Nitroglycerin	5.00	5.01	100.1	74-127
17 2,4,6-Trinitrotoluene	0.5000	0.4764	95.3	71-123
18 4-Amino-2,6-dinitrotolu	0.5000	0.4969	99.4	76-125
19 2-Amino-4,6-dinitrotolu	0.5000	0.4860	97.2	79-120
20 2,6-Dinitrotoluene	0.5000	0.4963	99.3	77-127
21 2,4-Dinitrotoluene	0.5000	0.4811	96.2	78-120
22 o-Nitrotoluene	0.5000	0.4850	97.0	70-127
23 p-Nitrotoluene	0.5000	0.4768	95.4	71-127
24 m-Nitrotoluene	0.5000	0.4770	95.4	73-125
25 PETN	5.00	5.19	103.8	73-127

Samples for Limit Group: 1, Lims Prep Method: 3535

280-190264-C-6-A	410-168708-B-13-A	410-168533-E-1-A
410-168533-D-2-A	410-168533-E-3-A	410-168533-D-4-A
410-168533-E-5-A	410-168533-D-6-A	410-168533-E-8-A
410-168533-D-9-A	410-168533-B-10-A	410-168533-C-11-A
410-168533-B-12-A	410-168533-B-13-A	410-168533-B-14-A
410-168533-C-15-A	280-190487-B-1-A	280-190487-B-2-A
280-190487-B-3-A	280-190487-B-4-A	280-190487-B-5-A
280-190487-B-6-A	280-190487-B-7-A	280-190487-B-8-A
280-190487-B-9-A	280-190487-B-10-A	280-190487-B-11-A
280-190487-B-12-A	280-190487-B-13-A	280-190487-B-14-A
280-190487-B-15-A	280-190487-B-16-A	

Reagent

8330 LCSMix2_00113

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31451 **Lot No.:** A0199657

Description : 8330 Calibration Mix #2

8330 Calibration Std #2 1000µg/mL, Acetonitrile, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : July 31, 2028 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Tetryl	479-45-8	211028JLM	99%	1,010.0 µg/mL	+/- 47.1183
2	4-Amino-2,6-dinitrotoluene	19406-51-0	ER070908-01	99%	1,008.0 µg/mL	+/- 47.0250
3	2-Amino-4,6-dinitrotoluene	35572-78-2	A210503-001	99%	1,006.0 µg/mL	+/- 46.9317
4	2,6-Dinitrotoluene	606-20-2	BCCG1833	99%	1,010.0 µg/mL	+/- 47.1183
5	2-Nitrotoluene	88-72-2	BCBZ7826	99%	1,000.0 µg/mL	+/- 46.6518
6	4-Nitrotoluene	99-99-0	BCCB0171	99%	1,006.0 µg/mL	+/- 46.9317
7	3-Nitrotoluene	99-08-1	07329LG	99%	1,006.0 µg/mL	+/- 46.9317

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Acetonitrile
CAS # 75-05-8
Purity 99%

Quality Confirmation Test

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

Flow Rate:
1.0 ml/min.

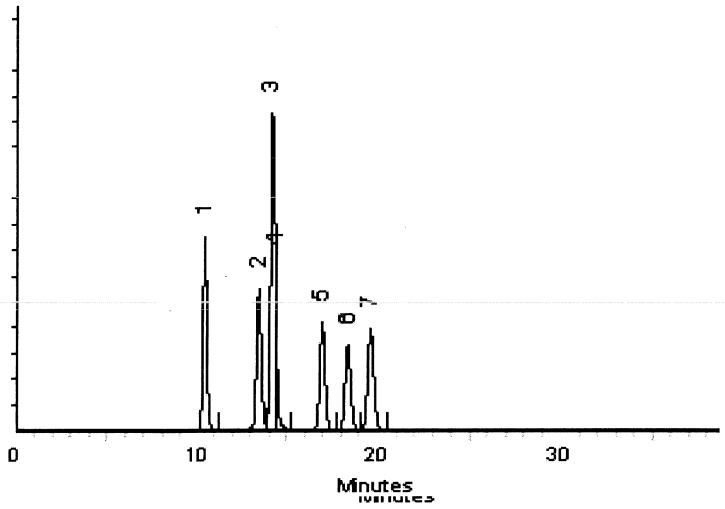
Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm

Inj. Vol
5µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Alicia Leathers - Operation Technician I

Date Mixed: 07-Jul-2023 **Balance Serial #** B251644995

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 20-Jul-2023

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

8330 LCSMix2_00114

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31451 **Lot No.:** A0199657

Description : 8330 Calibration Mix #2

8330 Calibration Std #2 1000µg/mL, Acetonitrile, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : July 31, 2028 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Tetryl	479-45-8	211028JLM	99%	1,010.0 µg/mL	+/- 47.1183
2	4-Amino-2,6-dinitrotoluene	19406-51-0	ER070908-01	99%	1,008.0 µg/mL	+/- 47.0250
3	2-Amino-4,6-dinitrotoluene	35572-78-2	A210503-001	99%	1,006.0 µg/mL	+/- 46.9317
4	2,6-Dinitrotoluene	606-20-2	BCCG1833	99%	1,010.0 µg/mL	+/- 47.1183
5	2-Nitrotoluene	88-72-2	BCBZ7826	99%	1,000.0 µg/mL	+/- 46.6518
6	4-Nitrotoluene	99-99-0	BCCB0171	99%	1,006.0 µg/mL	+/- 46.9317
7	3-Nitrotoluene	99-08-1	07329LG	99%	1,006.0 µg/mL	+/- 46.9317

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Acetonitrile
CAS # 75-05-8
Purity 99%

Quality Confirmation Test

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

Flow Rate:
1.0 ml/min.

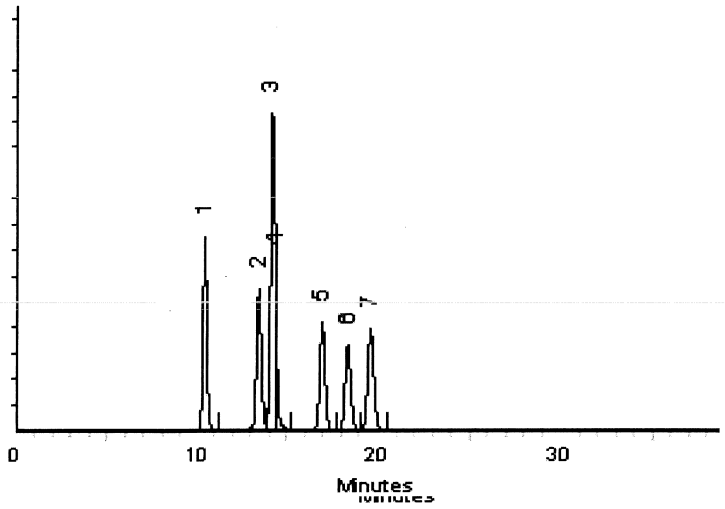
Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm

Inj. Vol
5µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Alicia Leathers - Operation Technician I

Date Mixed: 07-Jul-2023 **Balance Serial #** B251644995

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 20-Jul-2023

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

8330 Stock_TS_00024

Agilent

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ISO 17034

Reference Material Certificate

Product Information Sheet

Product Name: Stock Standard

Product Number: NAIM-833E-1

Storage Conditions: Store at Room Temperature (15° to 30°C).

Lot Number: 0006684308

Lot Issue Date: 01-Jun-2022

Expiration Date: 30-Jun-2025

Component Name	CERTIFIED VALUES Concentration	Expanded Uncertainty	CAS#	Analyte Lot
HMX	1001	± 5 µg/mL	002691-41-0	RM06237
RDX	1001	± 5 µg/mL	000121-82-4	RM10915
1,3,5-trinitrobenzene	1001	± 5 µg/mL	000099-35-4	RM17843
m-dinitrobenzene	1002	± 5 µg/mL	000099-65-0	RM14290
nitrobenzene	1002	± 5 µg/mL	000098-95-3	RM11472
2,4,6-trinitrotoluene (TNT)	1001	± 5 µg/mL	000118-96-7	RM16204
2,4-dinitrotoluene	1002	± 5 µg/mL	000121-14-2	RM10279
tetryl	1003	± 5 µg/mL	000479-45-8	RM14651
2,6-dinitrotoluene	1003	± 5 µg/mL	000606-20-2	RM16636
2-nitrotoluene	1003	± 5 µg/mL	000088-72-2	NT01996
3-nitrotoluene	1002	± 5 µg/mL	000099-08-1	NT02212
4-nitrotoluene	1003	± 5 µg/mL	000099-99-0	NT02096
2-amino-4,6-dinitrotoluene	1003	± 5 µg/mL	035572-78-2	RM04232
4-amino-2,6-dinitrotoluene	1004	± 5 µg/mL	019406-51-0	RM04226

Matrix: acetonitrile

Description:

This document is prepared in accordance with ISO 17034 and Guide 31. This analytical reference material standard was manufactured and verified in accordance with an ISO 9001 registered quality system and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed above.

Traceability:

The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

Homogeneity:

This analytical reference standard was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

Instructions for Use:

Sample aliquots for analysis should be withdrawn at 20°C to 25°C immediately after opening the container and should be processed without delay for the certified values to be valid within the stated uncertainties.

Reagent

8330_NG_Stk_00145

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

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Certificate #3222.02

5/14/2024
9:20:15 AM

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 568871 **Lot No.:** A0201048

Description : Custom Nitroglycerin Standard

Custom Nitroglycerin Standard 5,000µg/mL, Acetonitrile, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : August 31, 2026 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Nitroglycerin	55-63-0	200507JLM	99%	5,008.0 µg/mL	+/- 236.3643

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Acetonitrile
CAS # 75-05-8
Purity 99%

Page 66 of 691

Quality Confirmation Test

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

Flow Rate:
1.0 ml/min.

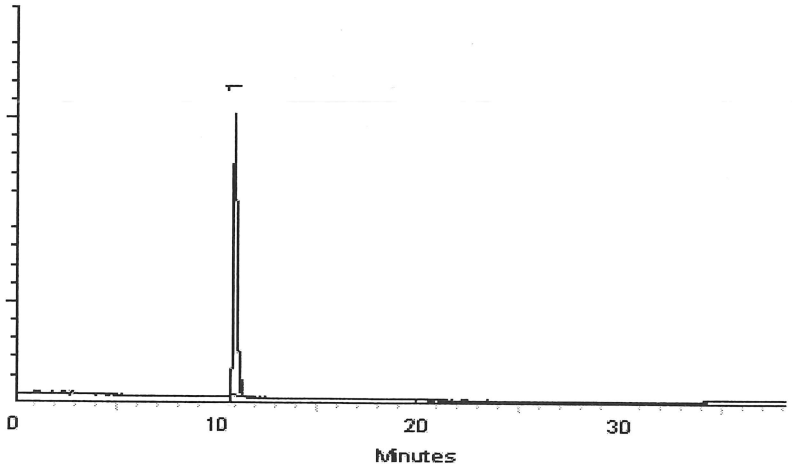
Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm

Inj. Vol
2.0µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Kylie Struble - Operations Technician I

Jennifer Pollino - Operations Tech III - ARM QC

Date Mixed: 16-Aug-2023 **Balance Serial #** 1128360905

Date Passed: 25-Aug-2023

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

8330_NG_Stk_00147

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5/14/2024 9:20:15 AM

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 568871 **Lot No.:** A0201048

Description : Custom Nitroglycerin Standard

Custom Nitroglycerin Standard 5,000µg/mL, Acetonitrile, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : August 31, 2026 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Nitroglycerin	55-63-0	200507JLM	99%	5,008.0 µg/mL	+/- 236.3643

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Acetonitrile
CAS # 75-05-8
Purity 99%

Page 71 of 691

Quality Confirmation Test

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

Flow Rate:
1.0 ml/min.

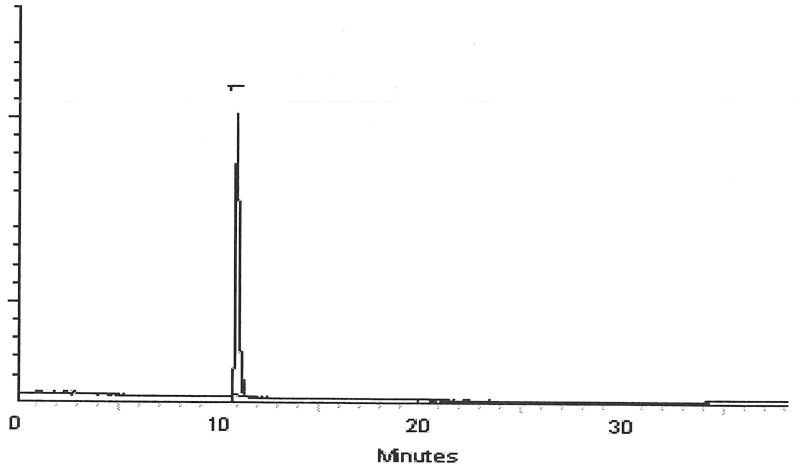
Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm

Inj. Vol
2.0µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Kylie Struble - Operations Technician I

Jennifer Pollino - Operations Tech III - ARM QC

Date Mixed: 16-Aug-2023 **Balance Serial #** 1128360905

Date Passed: 25-Aug-2023

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

8330_NG_Stk_00148

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ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

5/14/2024 9:20:15 AM

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 568871 **Lot No.:** A0203257

Description : Custom Nitroglycerin Standard

Custom Nitroglycerin Standard 5,000µg/mL, Acetonitrile, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : October 31, 2026 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Nitroglycerin	55-63-0	200507JLM	99%	5,004.0 µg/mL	+/- 236.1755

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Acetonitrile
CAS # 75-05-8
Purity 99%

Page 76 of 691

Quality Confirmation Test

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

Flow Rate:
1.0 ml/min.

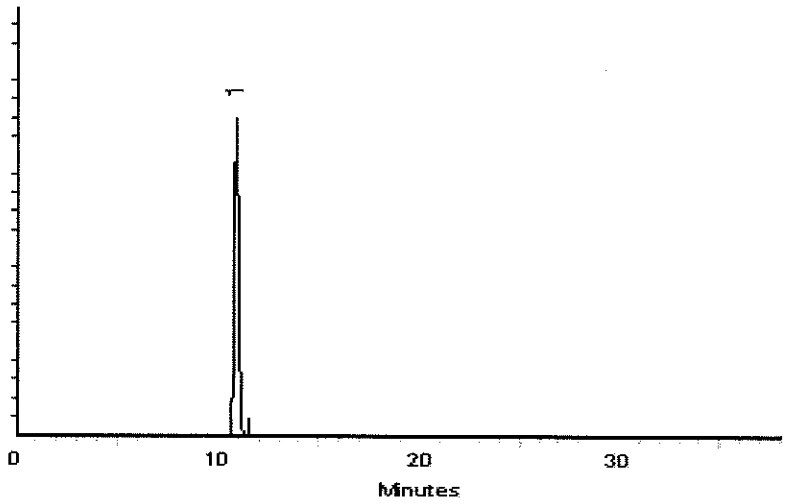
Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm

Inj. Vol
2.0µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Sam Moodler - Operations Tech I

Date Mixed: 17-Oct-2023 **Balance Serial #** B442140311

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 19-Oct-2023

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

8330_NG_Stk_00150

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5/14/2024 9:20:15 AM

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 568871 **Lot No.:** A0203257

Description : Custom Nitroglycerin Standard

Custom Nitroglycerin Standard 5,000µg/mL, Acetonitrile, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : October 31, 2026 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Nitroglycerin	55-63-0	200507JLM	99%	5,004.0 µg/mL	+/- 236.1755

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Acetonitrile
CAS # 75-05-8
Purity 99%

Page 80 of 691

Quality Confirmation Test

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

Flow Rate:
1.0 ml/min.

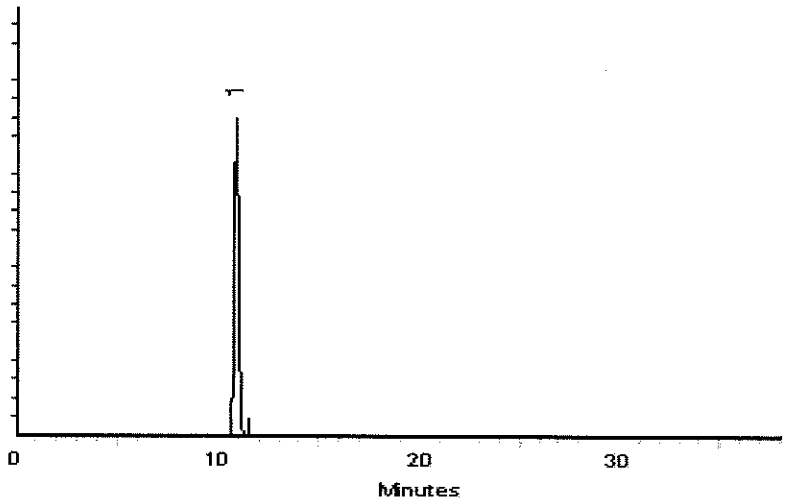
Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm

Inj. Vol
2.0µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Sam Moodler - Operations Tech I

Jennifer Pollino - Operations Tech III - ARM QC

Date Mixed: 17-Oct-2023 **Balance Serial #** B442140311

Date Passed: 19-Oct-2023

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

8330_NG1000_00012

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CERTIFIED REFERENCE MATERIAL

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ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31498 **Lot No.:** A0197032

Description : Nitroglycerin Standard

Nitroglycerin Standard 1,000µg/mL, Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : April 30, 2028 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Nitroglycerin	55-63-0	200507JLM	99%	1,006.0 µg/mL	+/- 46.9317

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methanol
CAS # 67-56-1
Purity 99%

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

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  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

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Handling Notes:

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- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

8330_PETN_Stk_00152

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 568872 **Lot No.:** A0198972

Description : Custom PETN Standard

Custom PETN Standard 5,000µg/mL, Acetonitrile, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : June 30, 2026 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	PETN	78-11-5	051108JLM	99%	5,012.0 µg/mL	+/- 236.5531

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Acetonitrile

CAS # 75-05-8

Purity 99%

Quality Confirmation Test

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

Flow Rate:
1.0 ml/min.

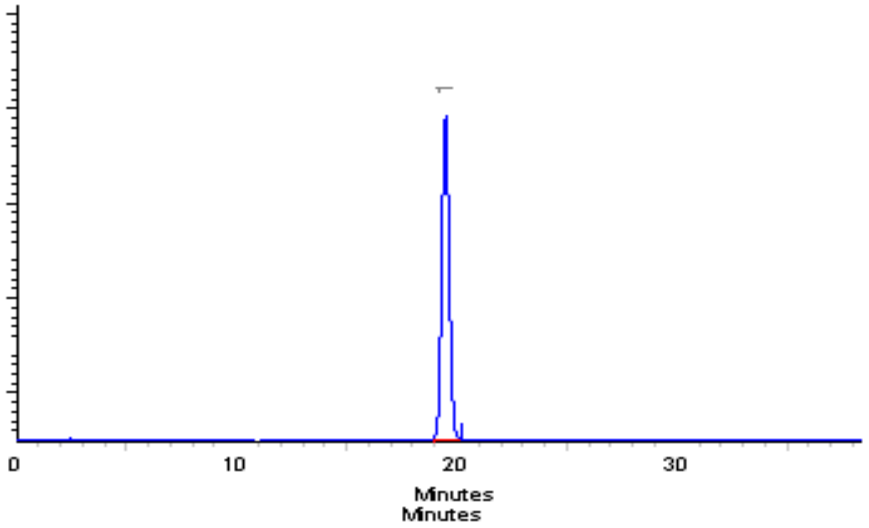
Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm

Inj. Vol
1µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Bryan Snyder - Operations Tech I

Date Mixed: 14-Jun-2023 **Balance Serial #** 1128342314

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 16-Jun-2023

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/µECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

8330_PETN_Stk_00153

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 568872 **Lot No.:** A0198972

Description : Custom PETN Standard

Custom PETN Standard 5,000µg/mL, Acetonitrile, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : June 30, 2026 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	PETN	78-11-5	051108JLM	99%	5,012.0 µg/mL	+/- 236.5531

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Acetonitrile
CAS # 75-05-8
Purity 99%

Quality Confirmation Test

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

Flow Rate:
1.0 ml/min.

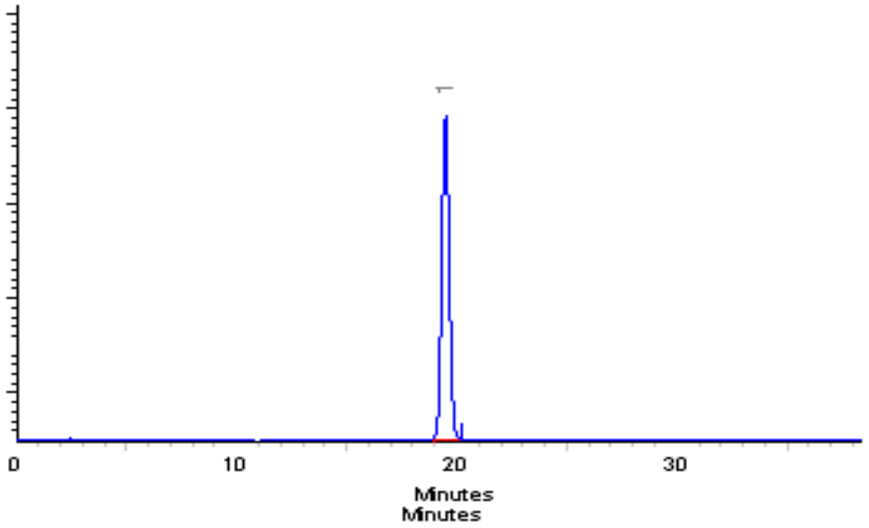
Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm

Inj. Vol
1µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Bryan Snyder - Operations Tech I

Date Mixed: 14-Jun-2023 **Balance Serial #** 1128342314

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 16-Jun-2023

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/µECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

8330_PETN_Stk_00154

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 568872 **Lot No.:** A0198972

Description : Custom PETN Standard

Custom PETN Standard 5,000µg/mL, Acetonitrile, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : June 30, 2026 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	PETN	78-11-5	051108JLM	99%	5,012.0 µg/mL	+/- 236.5531

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Acetonitrile

CAS # 75-05-8

Purity 99%

Quality Confirmation Test

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

Flow Rate:
1.0 ml/min.

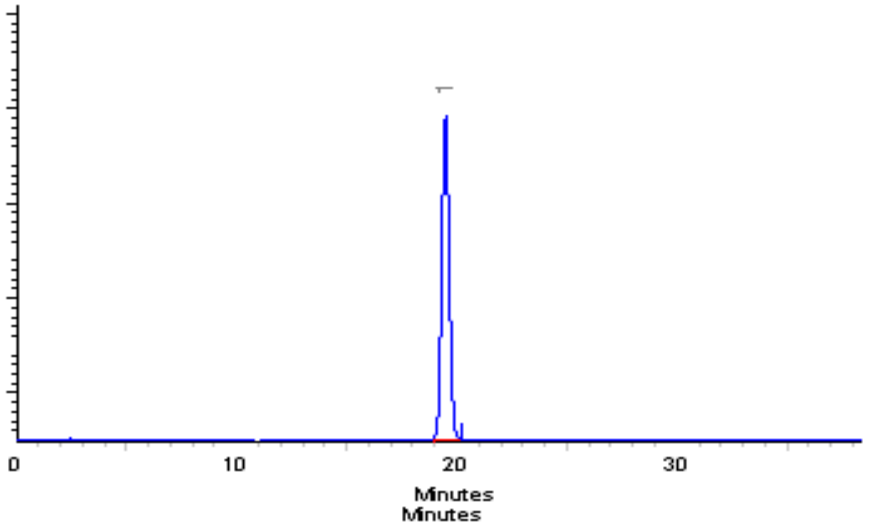
Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm

Inj. Vol
1µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Bryan Snyder - Operations Tech I

Date Mixed: 14-Jun-2023 **Balance Serial #** 1128342314

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 16-Jun-2023

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/µECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

8330_PETN_Stk_00156

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Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 568872 **Lot No.:** A0205209

Description : Custom PETN Standard

Custom PETN Standard 5,000µg/mL, Acetonitrile, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : December 31, 2026 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	PETN	78-11-5	051108JLM	99%	5,028.0 µg/mL	+/- 237.3082

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Acetonitrile
CAS # 75-05-8
Purity 99%

Quality Confirmation Test

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

Flow Rate:
1.0 ml/min.

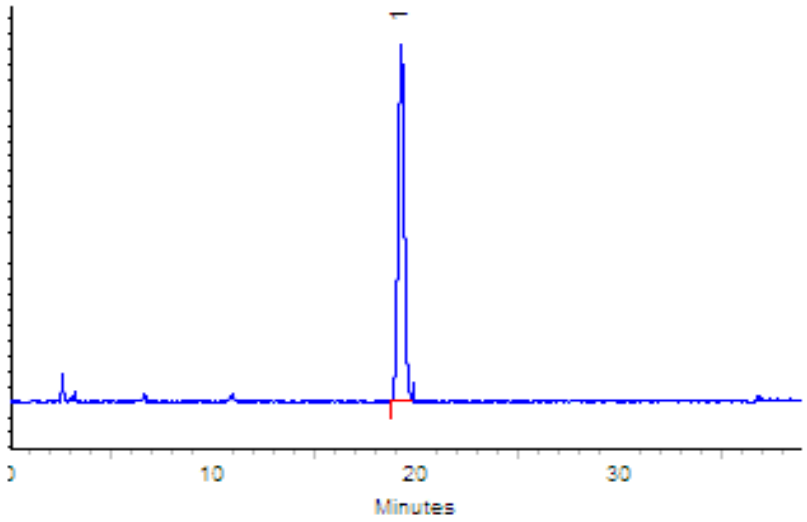
Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm

Inj. Vol
1µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Russ Bookhamer - Operations Technician I

Date Mixed: 07-Dec-2023 **Balance Serial #** B251644995

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 12-Dec-2023

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/µECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

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  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

8330_PETN1000_00016

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Fax: 1-814-353-1309

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

5/14/2024 9:20:15 AM

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31600 **Lot No.:** A0198747

Description : PETN Standard

PETN Standard 1000µg/mL, Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : June 30, 2028 **Storage:** 10°C or colder

Handling: Sonicate prior to use. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	PETN	78-11-5	051108JLM	99%	1,003.0 µg/mL	+/- 46.7917

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methanol
CAS # 67-56-1
Purity 99%

Page 103 of 691

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

833035DNAStk_00059

125 Market Street
New Haven, CT 06513
USA

AccuStandard®

Tel (203)786-5290
Fax (203)786-5287
www.AccuStandard.com

CERTIFICATE OF ANALYSIS

Catalog No: M-8330-ADD-4
Description: 3,5-Dinitroaniline
Lot: 223041214
Solvent: Methanol (50%)
Acetonitrile (50%)
Hazards: *Refer to SDS for complete safety information*



Signal Word: Danger

Date Certified: Apr 14, 2023
Expiration: May 14, 2024
Sample Size: 1 mL
Components: 1
Storage Condition: Ambient (>5 °C)

Certified Reference Material

ANAB ACCREDITED AR-1463

ilac-MRA

Component	CAS #	Purity[3] %	Prepared Concentration[2] (µg/mL)	Certified Analyte Concentration[1] (µg/mL)
3,5-Dinitroaniline	618-87-1	100.0	100.8	100.8

This Certified Reference Material was verified in accordance with ISO/IEC 17025 (AT-1339) and ISO 17034 (AR-1463)

A product with a suffix (-1A, -2B, etc. or -01, -02, etc.) on its lot number has had its expiration date extended and is identical to the same lot number without the suffix.

[1] Certified Analyte Concentration = Purity x Prepared Concentration.

The Uncertainty associated with the certified concentration reported on this certificate is ±2.4%. This value is the combined expanded uncertainty and represents an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.

[2] All weights are traceable through NIST, Test No. 684/291344-18 & 684/292805-19

[3] Purity/Identity determined by one or more of the following methods: GC/MS, LC/MS, NMR, FTIR, Melting Point.

Labels and certificates follow U.S. Conventions in reporting numerical values: A comma (,) is used to separate units of one-thousand or greater. A period (.) is used as a decimal place marker.

The information on this certificate may not be reproduced without the express permission of the manufacturer. See reverse side for additional information

Hazard Information: Please refer to the SDS for information regarding the hazards associated with using this material.

This product was prepared according to in-house procedures and is guaranteed to be homogeneous.

Certified By: Larry Decker, Organic QC Manager

For use in routine laboratory analysis.

Reagent

8330LCSMix1_00151

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
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Fax: 1-814-353-1309

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CERTIFIED REFERENCE MATERIAL

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Certificate #3222.01

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ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

Certificate of Analysis

chromatographic plus

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31450 **Lot No.:** A0196548

Description : 8330 Calibration Mix #1

8330 Calibration Std #1 1000µg/mL, Acetonitrile, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : April 30, 2028 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	HMX	2691-41-0	220927JLM	99%	1,010.0 µg/mL	+/- 47.1183
2	RDX	121-82-4	080228JLM	99%	1,002.0 µg/mL	+/- 46.7451
3	1,3,5-Trinitrobenzene	99-35-4	A6TDK	99%	1,010.0 µg/mL	+/- 47.1183
4	1,3-Dinitrobenzene	99-65-0	1-DXX-24-1	99%	1,008.0 µg/mL	+/- 47.0250
5	Nitrobenzene	98-95-3	10224044	99%	1,009.0 µg/mL	+/- 47.0716
6	2,4,6-Trinitrotoluene	118-96-7	D13332500	99%	1,007.0 µg/mL	+/- 46.9783
7	2,4-Dinitrotoluene	121-14-2	MKAA0690V	99%	1,006.0 µg/mL	+/- 46.9317

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Acetonitrile
CAS # 75-05-8
Purity 99%

Quality Confirmation Test

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

Flow Rate:
1.0 ml/min.

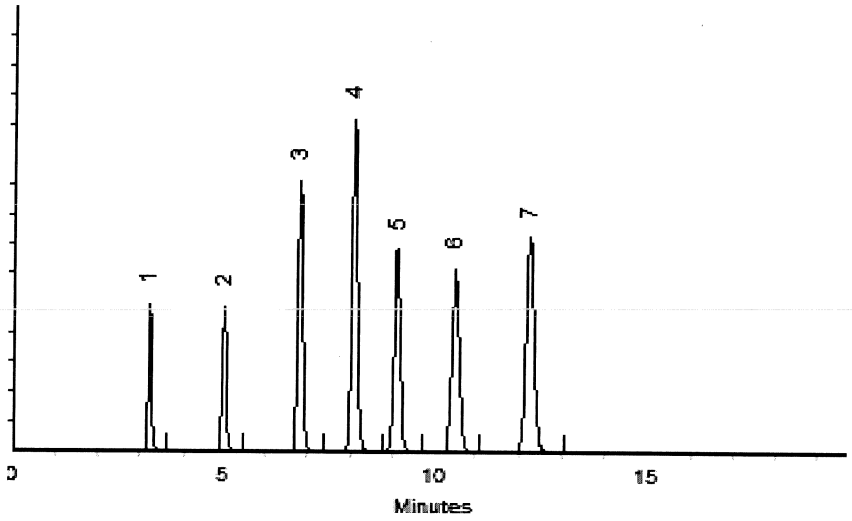
Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm

Inj. Vol
2µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Sam Moodler - Operations Tech I

Date Mixed: 03-Apr-2023 **Balance Serial #** B251644995

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 05-Apr-2023

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

8330LCSMix1_00152

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

ilac-MRA
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ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ilac-MRA
ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

Certificate of Analysis

chromatographic plus

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31450 **Lot No.:** A0196548

Description : 8330 Calibration Mix #1

8330 Calibration Std #1 1000µg/mL, Acetonitrile, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : April 30, 2028 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	HMX	2691-41-0	220927JLM	99%	1,010.0 µg/mL	+/- 47.1183
2	RDX	121-82-4	080228JLM	99%	1,002.0 µg/mL	+/- 46.7451
3	1,3,5-Trinitrobenzene	99-35-4	A6TDK	99%	1,010.0 µg/mL	+/- 47.1183
4	1,3-Dinitrobenzene	99-65-0	1-DXX-24-1	99%	1,008.0 µg/mL	+/- 47.0250
5	Nitrobenzene	98-95-3	10224044	99%	1,009.0 µg/mL	+/- 47.0716
6	2,4,6-Trinitrotoluene	118-96-7	D13332500	99%	1,007.0 µg/mL	+/- 46.9783
7	2,4-Dinitrotoluene	121-14-2	MKAA0690V	99%	1,006.0 µg/mL	+/- 46.9317

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Acetonitrile
CAS # 75-05-8
Purity 99%

Quality Confirmation Test

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

Flow Rate:
1.0 ml/min.

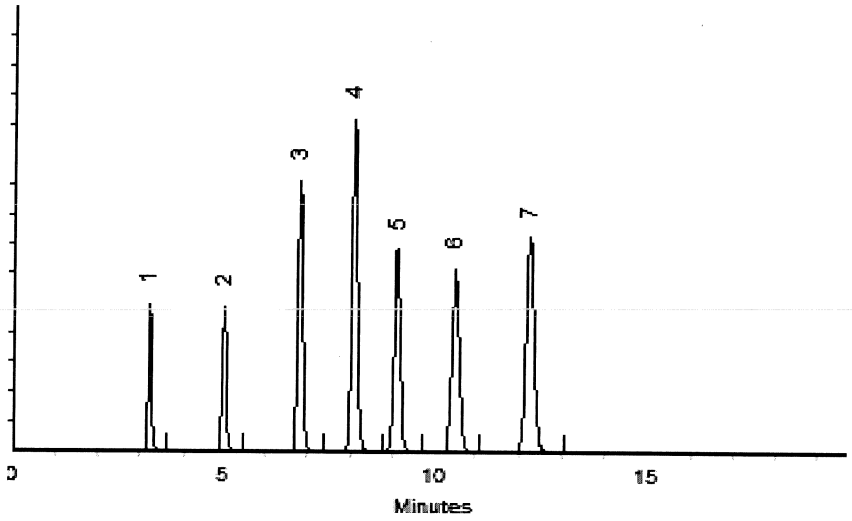
Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm

Inj. Vol
2µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Sam Moodler - Operations Tech I

Date Mixed: 03-Apr-2023 **Balance Serial #** B251644995

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 05-Apr-2023

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

8330PAStkPS_00075

125 Market Street
New Haven, CT 06513
USA

AccuStandard®

Tel (203)786-5290
Fax (203)786-5287
www.AccuStandard.com

5/14/2024
9:20:15 AM

CERTIFICATE OF ANALYSIS

Catalog No: M-8330-ADD-3
Description: Picric acid
Lot: 223041157
Solvent: Acetonitrile (50%)
Methanol (50%)
Hazards: *Refer to SDS for complete safety information*



Signal Word: Danger

Date Certified: Apr 12, 2023
Expiration: May 12, 2025
Sample Size: 1 mL
Components: 1
Storage Condition: Ambient (>5 °C)

Certified Reference Material

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER AR-1463

ilac-MRA

Component	CAS #	Purity³ %	Prepared Concentration² (µg/mL)	Certified Analyte Concentration¹ (µg/mL)
Picric acid	88-89-1	99.1	100.3	99.4

This Certified Reference Material was verified in accordance with ISO/IEC 17025 (AT-1339) and ISO 17034 (AR-1463)

A product with a suffix (-1A, -2B, etc. or -01, -02, etc.) on its lot number has had its expiration date extended and is identical to the same lot number without the suffix.

¹ Certified Analyte Concentration = Purity x Prepared Concentration.

The Uncertainty associated with the certified concentration reported on this certificate is ±2.4%. This value is the combined expanded uncertainty and represents an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.

² All weights are traceable through NIST, Test No. 684/291344-18 & 684/292805-19

³ Purity/Identity determined by one or more of the following methods: GC/MS, LC/MS, NMR, FTIR, Melting Point.

Labels and certificates follow U.S. Conventions in reporting numerical values: A comma (,) is used to separate units of one-thousand or greater. A period (.) is used as a decimal place marker.

The information on this certificate may not be reproduced without the express permission of the manufacturer. See reverse side for additional information

Hazard Information: Please refer to the SDS for information regarding the hazards associated with using this material.

This product was prepared according to in-house procedures and is guaranteed to be homogeneous.

Certified By: Larry Decker, Organic QC Manager

For use in routine laboratory analysis.

Reagent

8330Surrogate_00155

Preliminary Report

Eurofins Denver

LCS, Lab Control Sample Report

Sample Path: \\chromfs\Denver\ChromData\CHHPLC_X\20240426-132709.b\8330SURR155.D

Lims ID: 8330Surr155 Inj. Date: 26-Apr-2024 15:49:11

Worklist ID: 280-0132709-056 Instrument: CHHPLC_X3

Method: 8330_X3

Compound	Amount Added	Amount Recovered	%Rec	Limits 1 3535
$ 10 1,2-Dinitrobenzene	0.5000	0.4971	99.4	83-119

Samples for Limit Group: 1, Lims Prep Method: 3535

280-190264-C-6-A	410-168708-B-13-A	410-168533-E-1-A
410-168533-D-2-A	410-168533-E-3-A	410-168533-D-4-A
410-168533-E-5-A	410-168533-D-6-A	410-168533-E-8-A
410-168533-D-9-A	410-168533-B-10-A	410-168533-C-11-A
410-168533-B-12-A	410-168533-B-13-A	410-168533-B-14-A
410-168533-C-15-A	280-190487-B-1-A	280-190487-B-2-A
280-190487-B-3-A	280-190487-B-4-A	280-190487-B-5-A
280-190487-B-6-A	280-190487-B-7-A	280-190487-B-8-A
280-190487-B-9-A	280-190487-B-10-A	280-190487-B-11-A
280-190487-B-12-A	280-190487-B-13-A	280-190487-B-14-A
280-190487-B-15-A	280-190487-B-16-A	

Reagent

8330SurrStkSS_00310

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ilac-MRA ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ilac-MRA ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

5/14/2024 9:20:15 AM

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31453 **Lot No.:** A0200577

Description : 8330 Surrogate Mix

8330 Surrogate Mix 1000 µg/mL, Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : August 31, 2028 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1,2-Dinitrobenzene	528-29-0	RP230428	99%	1,003.0 µg/mL	+/- 56.3574

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methanol
CAS # 67-56-1
Purity 99%

Page 122 of 691

Quality Confirmation Test

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

Flow Rate:
1.0 ml/min.

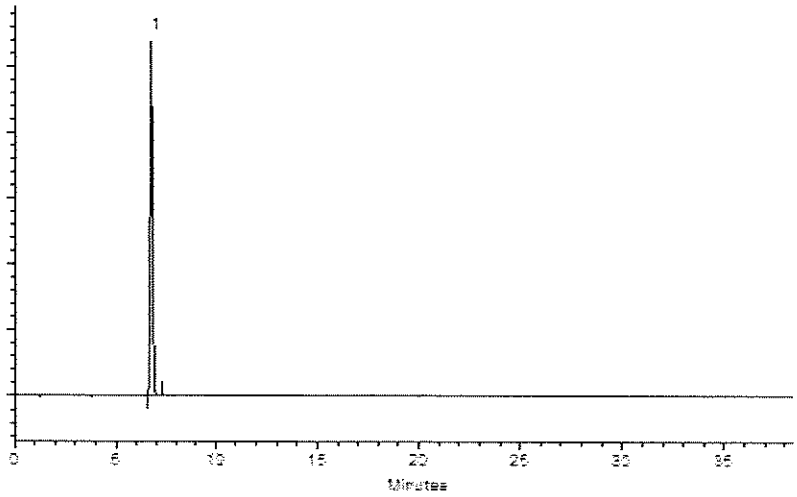
Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm

Inj. Vol
2.0µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Laith Clemente - Operations Technician I **Date Mixed:** 03-Aug-2023 **Balance Serial #** B707717271

Jennifer Polino - Operations Tech III - ARM QC **Date Passed:** 21-Aug-2023

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

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  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

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- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

8330SurrStkSS_00311

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

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ilac-MRA ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

5/14/2024 9:20:15 AM

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31453 **Lot No.:** A0200577

Description : 8330 Surrogate Mix

8330 Surrogate Mix 1000 µg/mL, Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : August 31, 2028 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1,2-Dinitrobenzene	528-29-0	RP230428	99%	1,003.0 µg/mL	+/- 56.3574

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methanol
CAS # 67-56-1
Purity 99%

Page 126 of 691

Quality Confirmation Test

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

Flow Rate:
1.0 ml/min.

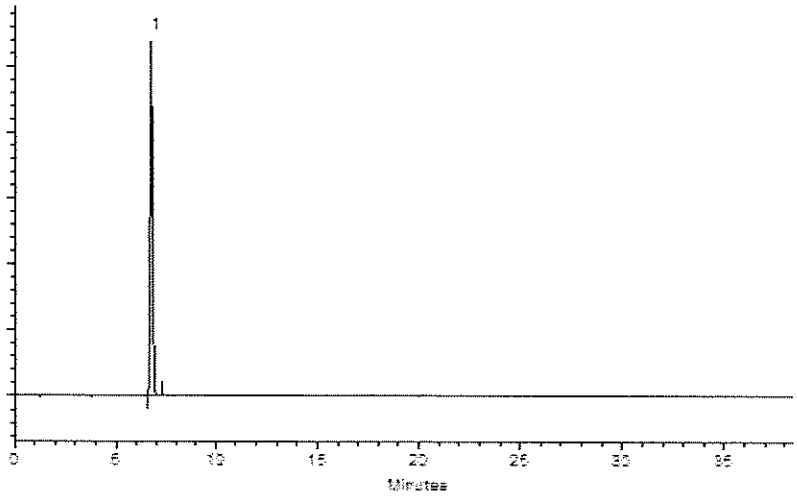
Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm

Inj. Vol
2.0µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Laith Clemente - Operations Technician I **Date Mixed:** 03-Aug-2023 **Balance Serial #** B707717271

Jennifer Polino - Operations Tech III - ARM QC **Date Passed:** 21-Aug-2023

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

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Manufacturing Notes:

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- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

8330SurrStkSS_00312

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ilac-MRA ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ilac-MRA ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

5/14/2024 9:20:15 AM

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31453 **Lot No.:** A0200577

Description : 8330 Surrogate Mix

8330 Surrogate Mix 1000 µg/mL, Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : August 31, 2028 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1,2-Dinitrobenzene	528-29-0	RP230428	99%	1,003.0 µg/mL	+/- 56.3574

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methanol
CAS # 67-56-1
Purity 99%

Page 130 of 691

Quality Confirmation Test

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

Flow Rate:
1.0 ml/min.

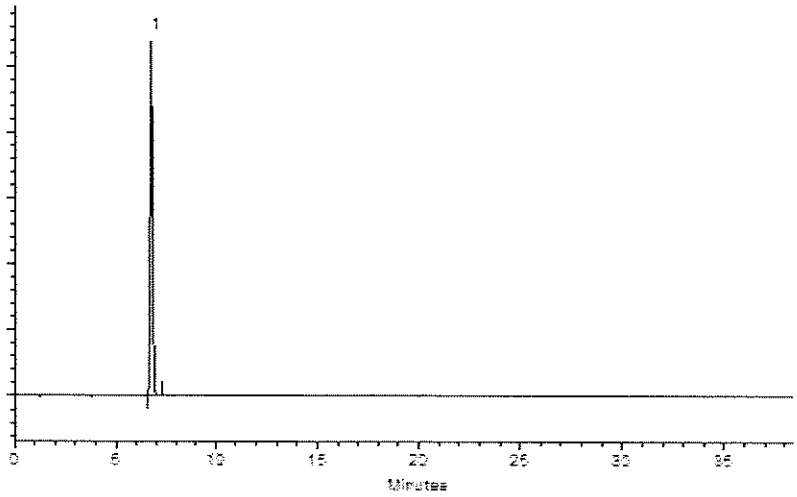
Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm

Inj. Vol
2.0µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Laith Clemente - Operations Technician I **Date Mixed:** 03-Aug-2023 **Balance Serial #** B707717271

Jennifer Polino - Operations Tech III - ARM QC **Date Passed:** 21-Aug-2023

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
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Purity Notes:

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- Purity values are rounded to the nearest whole number.

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  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
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Manufacturing Notes:

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Handling Notes:

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- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

8330SurrStkSS_00313

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ilac-MRA ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ilac-MRA ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

5/14/2024 9:20:15 AM

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31453 **Lot No.:** A0200577

Description : 8330 Surrogate Mix

8330 Surrogate Mix 1000 µg/mL, Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : August 31, 2028 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1,2-Dinitrobenzene	528-29-0	RP230428	99%	1,003.0 µg/mL	+/- 56.3574

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methanol
CAS # 67-56-1
Purity 99%

Page 134 of 691

Quality Confirmation Test

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

Flow Rate:
1.0 ml/min.

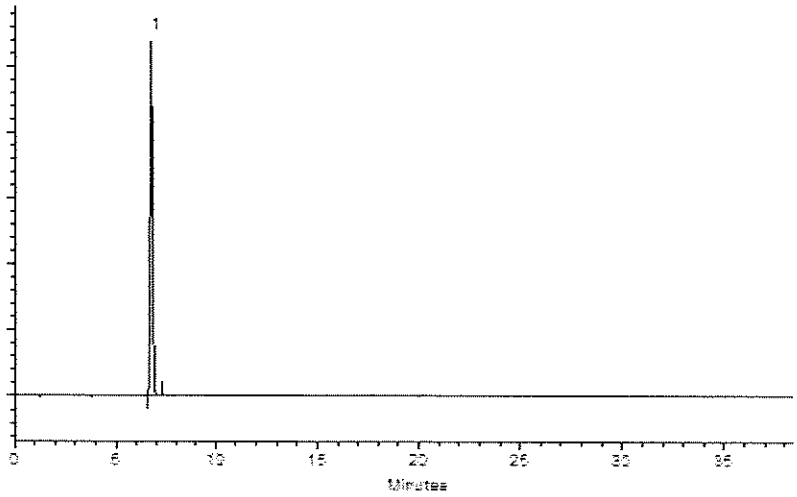
Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm

Inj. Vol
2.0µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Laith Clemente - Operations Technician I **Date Mixed:** 03-Aug-2023 **Balance Serial #** B707717271

Jennifer Polino - Operations Tech III - ARM QC **Date Passed:** 21-Aug-2023

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

8330SurrStkSS_00314

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ilac-MRA ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ilac-MRA ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

5/14/2024
9:20:15 AM

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31453 **Lot No.:** A0200577

Description : 8330 Surrogate Mix

8330 Surrogate Mix 1000 µg/mL, Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : August 31, 2028 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1,2-Dinitrobenzene	528-29-0	RP230428	99%	1,003.0 µg/mL	+/- 56.3574

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methanol
CAS # 67-56-1
Purity 99%

Page 138 of 691

Quality Confirmation Test

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

Flow Rate:
1.0 ml/min.

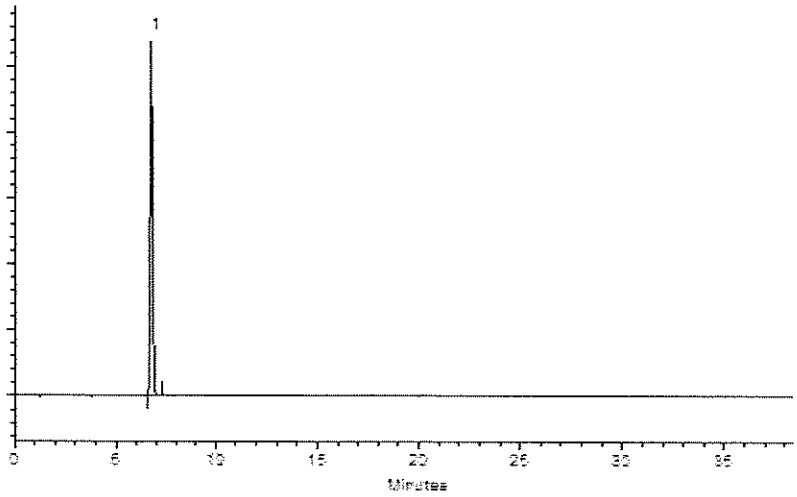
Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm

Inj. Vol
2.0µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Laith Clemente - Operations Technician I **Date Mixed:** 03-Aug-2023 **Balance Serial #** B707717271

Jennifer Polino - Operations Tech III - ARM QC **Date Passed:** 21-Aug-2023

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

8330SurrStkSS_00315

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ilac-MRA ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ilac-MRA ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

5/14/2024 9:20:15 AM

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31453 **Lot No.:** A0200577

Description : 8330 Surrogate Mix

8330 Surrogate Mix 1000 µg/mL, Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : August 31, 2028 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1,2-Dinitrobenzene	528-29-0	RP230428	99%	1,003.0 µg/mL	+/- 56.3574

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methanol
CAS # 67-56-1
Purity 99%

Page 142 of 691

Quality Confirmation Test

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

Flow Rate:
1.0 ml/min.

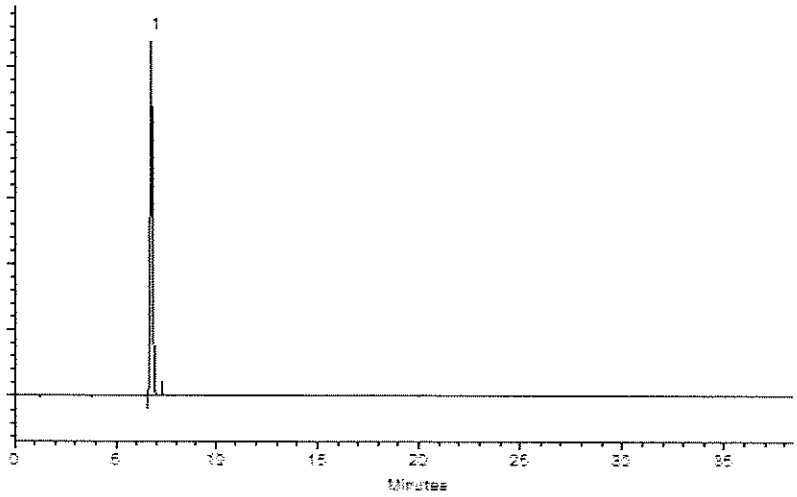
Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm

Inj. Vol
2.0µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Laith Clemente - Operations Technician I **Date Mixed:** 03-Aug-2023 **Balance Serial #** B707717271

Jennifer Polino - Operations Tech III - ARM QC **Date Passed:** 21-Aug-2023

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

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  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

8330SurrStkSS_00316

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ilac-MRA ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ilac-MRA ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

5/14/2024 9:20:15 AM

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31453 **Lot No.:** A0200577

Description : 8330 Surrogate Mix

8330 Surrogate Mix 1000 µg/mL, Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : August 31, 2028 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1,2-Dinitrobenzene	528-29-0	RP230428	99%	1,003.0 µg/mL	+/- 56.3574

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methanol
CAS # 67-56-1
Purity 99%

Page 146 of 691

Quality Confirmation Test

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

Flow Rate:
1.0 ml/min.

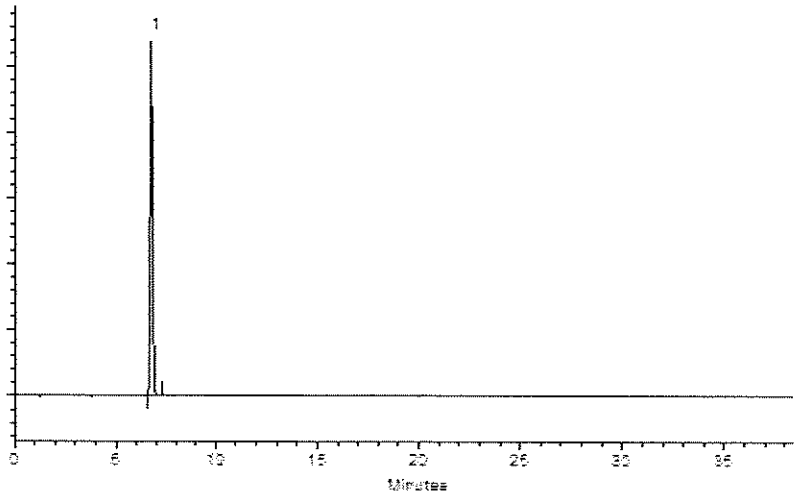
Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm

Inj. Vol
2.0µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Laith Clemente - Operations Technician I **Date Mixed:** 03-Aug-2023 **Balance Serial #** B707717271

Jennifer Polino - Operations Tech III - ARM QC **Date Passed:** 21-Aug-2023

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
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- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

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  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

8330SurrStkSS_00317

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ilac-MRA ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ilac-MRA ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

5/14/2024 9:20:15 AM

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31453 **Lot No.:** A0200577

Description : 8330 Surrogate Mix

8330 Surrogate Mix 1000 µg/mL, Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : August 31, 2028 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1,2-Dinitrobenzene	528-29-0	RP230428	99%	1,003.0 µg/mL	+/- 56.3574

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methanol
CAS # 67-56-1
Purity 99%

Page 150 of 691

Quality Confirmation Test

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

Flow Rate:
1.0 ml/min.

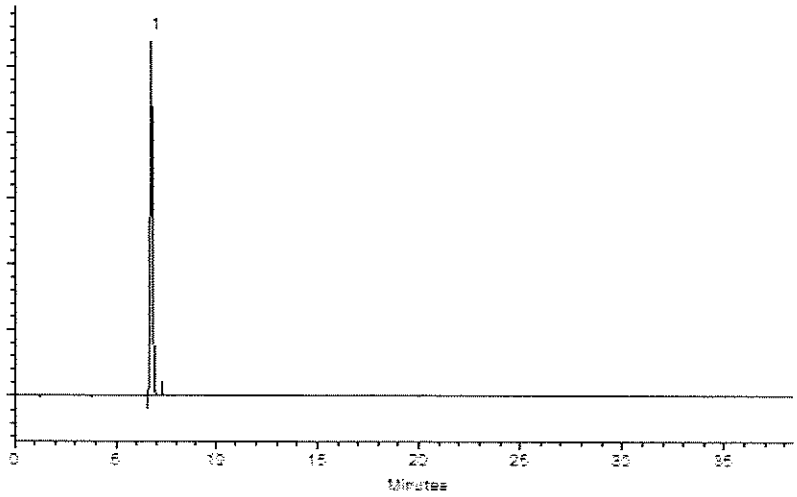
Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm

Inj. Vol
2.0µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Laith Clemente - Operations Technician I **Date Mixed:** 03-Aug-2023 **Balance Serial #** B707717271

Jennifer Polino - Operations Tech III - ARM QC **Date Passed:** 21-Aug-2023

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

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Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

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- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

8330SurrStkSS_00318

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31453 **Lot No.:** A0205460

Description : 8330 Surrogate Mix

8330 Surrogate Mix 1000 µg/mL, Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : December 31, 2028 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1,2-Dinitrobenzene	528-29-0	RP231117RSR	99%	1,004.0 µg/mL	+/- 56.4136

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methanol

CAS # 67-56-1

Purity 99%

Quality Confirmation Test

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

Flow Rate:
1.0 ml/min.

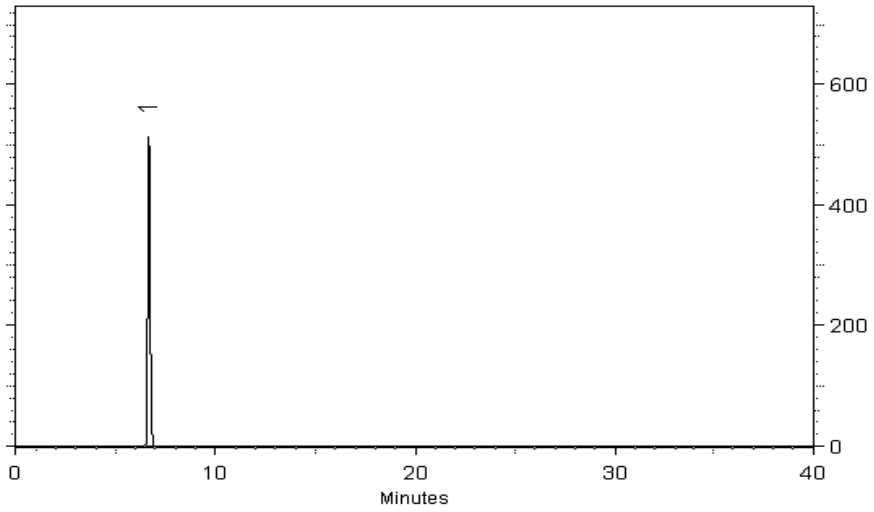
Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm

Inj. Vol
2.0µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Malina Homan - Operations Technician I

Date Mixed: 13-Dec-2023 **Balance Serial #** B707717271

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 19-Dec-2023

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

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- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

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Manufacturing Notes:

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Handling Notes:

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- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

8330SurrStkSS_00319

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

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ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

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Catalog No. : 31453 **Lot No.:** A0205460

Description : 8330 Surrogate Mix

8330 Surrogate Mix 1000 µg/mL, Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : December 31, 2028 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1,2-Dinitrobenzene	528-29-0	RP231117RSR	99%	1,004.0 µg/mL	+/- 56.4136

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methanol

CAS # 67-56-1

Purity 99%

Quality Confirmation Test

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

Flow Rate:
1.0 ml/min.

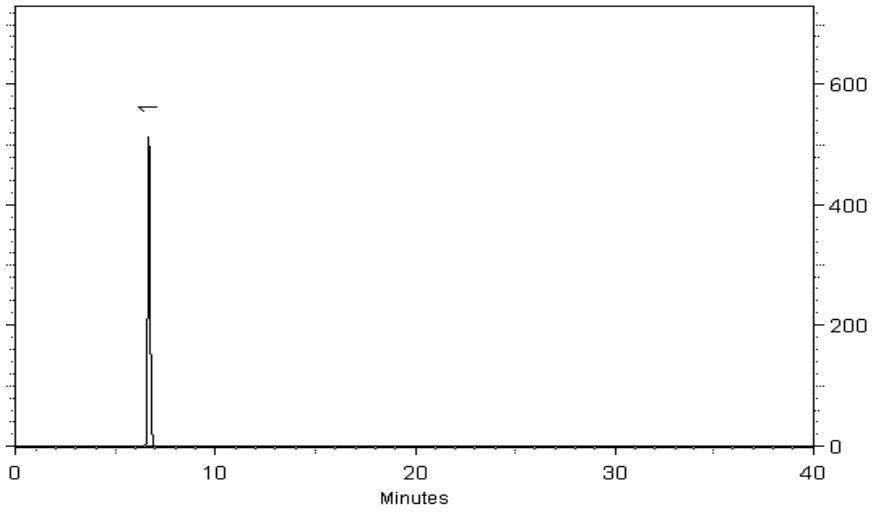
Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm

Inj. Vol
2.0µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Malina Homan - Operations Technician I

Date Mixed: 13-Dec-2023 **Balance Serial #** B707717271

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 19-Dec-2023

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/µECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

8330SurrStock_00173

125 Market Street
New Haven, CT 06513
USA

AccuStandard®

Tel (203)786-5290
Fax (203)786-5287
www.AccuStandard.com

CERTIFICATE OF ANALYSIS

Catalog No: M-8330-SS
Description: 1,2-Dinitrobenzene
Lot: 219051500
Solvent: Methanol
Hazards: *Refer to SDS for complete safety information*



Signal Word: Danger

Date Certified: May 22, 2019
Expiration: May 22, 2029
Sample Size: 1 mL
Components: 1
Storage Condition: Ambient (>5 °C)

Certified Reference Material

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER AR-1463

ilac-MRA

Component	CAS #	Purity % (GC/FID)	Prepared Concentration[2] (µg/mL)	Certified Analyte Concentration[1] (µg/mL)
1,2-Dinitrobenzene	528-29-0	100.0	1002	1002

This Certified Reference Material was verified in accordance with ISO/IEC 17025

A product with a suffix (-1A, -2B, etc. or -01, -02, etc.) on its lot number has had its expiration date extended and is identical to the same lot number without the suffix.

[2] All weights are traceable through NIST, Test No. 684/289871-17

[1] Certified Analyte Concentration = Purity x Prepared Concentration.

The Uncertainty associated with the certified concentration reported on this certificate is ±2.4%. This value is the combined expanded uncertainty and represents an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.

Labels and certificates follow U.S. Conventions in reporting numerical values: A comma (,) is used to separate units of one-thousand or greater. A period (.) is used as a decimal place marker.

The information on this certificate may not be reproduced without the express permission of the manufacturer. See reverse side for additional information

Hazard Information: Please refer to the SDS for information regarding the hazards associated with using this material.

This product was prepared according to in-house procedures and is guaranteed to be homogeneous.

Certified By: Larry Decker, Organic QC Manager

For use in routine laboratory analysis.

AccuStandard is accredited to ISO 17034, ISO/IEC 17025 and certified to ISO 9001:2015

QR-ORG/INO-001
Rev. 7/20

Reagent

IC N03 cal_00030

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customerservice@riccachemical.com

Certificate of Analysis

Nitrate Nitrogen Standard, 1000 ppm N (4427 ppm NO_3^-)

Lot Number: 1304R00 **Product Number:** 5459

Manufacture Date: APR 27, 2023
Expiration Date: OCT 2024

The certified value reported is the prepared value based upon the method of preparation of the material. The uncertainty in the prepared value is based upon the volumetric method of preparation.

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Chloroform	67-66-3	
Potassium Nitrate	7757-79-1	High Purity

Test	Specification	Result
Appearance	Colorless liquid	Passed
Nitrogen (N)	995-1005 ppm	1000 ppm

Specification	Reference
Nitrate Solution, Stock (1.0 mL = 1.0 mg NO3-N)	ASTM (D 3867 A)
Nitrate Solution, Stock (1.0 mL = 1.0 mg NO3-N)	ASTM (D 3867 B)
Stock Nitrate Solution: 1 mL = 1.0 mg NO3-N	EPA (353.2)
Stock Nitrate Solution: 1.0 mL = 1.00 mg NO3-N	EPA (353.3)

Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
5459-16	500 mL natural poly	18 months
5459-4	120 mL natural poly	18 months

Recommended Storage: 15°C - 30°C (59°F - 86°F)

Heidi J Green (04/27/2023)
Operations Manager

This document is designed to comply with ISO Guide 31 "Reference Materials -- Contents of Certificates and Labels."

This test report shall not be reproduced, except in full, without the written approval of Ricca Chemical Company.

Reagent

IC NO3 ICV_00020

Certified Reference Material

▪ Certificate of Analysis ▪

Product: 1000 mg/L Nitrate as N (NO_3-N)
Catalog Number: 052-125mL, 991-500mL
Lot No. 341022m
Starting Material: Potassium Nitrate (KNO_3)
Matrix: 18 megohm deionized water
Density: 1.0066 ± 0.0003 g/mL @ 20.8 °C and 766 mm Hg
Verification Method: Ion Chromatography
Certificate Issue Date: December 13, 2022
Expiration Date: October 13, 2024
Revision Number: Original

CERTIFICATION

Parameter	Certified Value[1]	Uncertainty[2]	NIST Traceability	
	mg/L	%	SRM Number[3]	Recovery %
Nitrate as N (NO_3-N)	1000	0.672	3185	102

16341 Table Mountain Pkwy ▪ Golden, CO 80403 ▪ 800.372.0122 ▪ 303.431.8454 ▪ fax 303.421.0159 ▪ www.eraqc.com

1. The **Certified Value** is the actual gravimetric/volumetric "made-to" concentration confirmed by ERA analytical verification. The certified value is monitored and the purchasers will be notified of any significant changes resulting in recertification or withdrawal of this certified reference material during the period of validity of this certificate.

2. The **Uncertainty** represents an expanded uncertainty and approximates a 95% confidence interval. The uncertainty is based on the characterization, homogeneity and stability characteristics of the product, multiplied by a coverage factor (k=2). The uncertainty applies to the product as supplied and does not take into account any required or optional dilution and/or preparations the laboratory may perform while using this product. The formula used to calculate the expanded uncertainty is:
$U_{expanded} = k * SQRT((U_{char}^2) + (U_{homogen}^2) + (U_{LTS}^2) + (U_{STS}^2) + (U_{RSS}^2))$

Where:

$U_{expanded}$ = Expanded uncertainty.
k = Coverage factor.
U_{char} = Combined standard uncertainty of the manufacturing and/or analytical verification assessment.
$U_{homogen}$ = Standard uncertainty of the homogeneity assessment.
U_{LTS} = Standard uncertainty associated with long-term stability.
U_{STS} = Standard uncertainty associated with short-term (transport) stability.
U_{RSS} = Standard uncertainty associated with repeated sampling of the product (where permitted by product use instructions).

3. Where NIST Standard Reference Materials (SRMs) are available, each analyte has been analytically traced to the NIST SRM listed. **Analytical Traceability Recovery (%)** = [(% recovery ERA certified reference material)/(% recovery NIST SRM)]*100
The traceability data shown were compiled by analyzing this ERA certified reference material and/or it's associated stock solution(s) against the applicable NIST SRMs.

4. **Metrological Traceability**. This certified reference material is metrologically traceable to NIST mass reference materials through an unbroken chain of comparisons.

5. **Storage**: 20-25°C

6. **Intended Use**: This standard is intended to be used to calibrate your analytical process and/or as a quality control check of the entire process for the analytes/matrix included in the standard.

7. **Minimum Sample Size**: ERA suggests that when subsampling this product prior to analysis, you use a minimum sample size of at least 1 mL. Using a smaller sample size may invalidate the assigned value and/or uncertainty shown.

8. **Repeat Sampling**: Repeated Sampling of this product is permitted, provided minimum sample sizes and storage instructions are adhered to.

9. **Safety**: ERA products may be hazardous and are intended for use by professional laboratory personnel trained in the competent handling of such materials. Responsibility for the safe use of these products rests entirely with the buyer and/or user. Safety Data Sheets (SDS) for all ERA products are available through our website: www.eraqc.com

If you have any questions or need technical assistance, please call ERA technical assistance at 1-800-372-0122 or send an email to info@eraqc.com.

Certifying Officer
Brian Miller



Quality Officer
Matthew Seebeck



ISO 17034:2016 ACCREDITED Reference Material Producer CERT #1539.03

ISO/IEC 17025:2017 ACCREDITED Chemical Testing Laboratory CERT #1539.02

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Reagent

MNX,TNX,DNX_00092

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ISO 17034

Reference Material Certificate

Product Information Sheet

Product Name: Custom Standard
Product Number: CUS-23984
Storage Conditions: Store at Room Temperature (15° to 30°C).

Lot Number: 0006744504
Lot Issue Date: 17-May-2023
Expiration Date: 30-Jun-2024

Component Name	Concentration		Uncertainty	CAS#	Analyte Lot
1,3,5-trinitroso-1,3,5-triazacyclohexane (TNX)	100.4	±	0.5 µg/mL	N/A	RM12426
1-nitro-3,5-dinitroso-1,3,5-triazacyclohexane (DNX)	100.2	±	0.5 µg/mL	N/A	RM12428
1-nitroso-3,5-dinitro-1,3,5-triazacyclohexane (MNX)	116.9	±	0.6 µg/mL	N/A	RM12428

Matrix: acetonitrile

Description:
This document is prepared in accordance with ISO 17034 and Guide 31. This analytical reference material standard was manufactured and verified in accordance with an ISO 9001 registered quality system and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed above.

Traceability:
The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

Homogeneity:
This analytical reference standard was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

Instructions for Use:
Sample aliquots for analysis should be withdrawn at 20ºC to 25ºC immediately after opening the container and should be processed without delay for the certified values to be valid within the stated uncertainties.

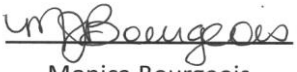
Safety:
Refer to the Safety Data Sheet on www.agilent.com for information regarding this analytical reference material.

Intended Use:
This analytical reference standard is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods, and continuing calibration verification.

Expiration of Certification:
The certification of this analytical reference standard is valid until the expiration date specified above, provided the material is handled and stored in accordance with the instructions given in this certificate. This certification is nullified if the material is damaged, contaminated, or otherwise modified.

Maintenance of Certification:
If substantive changes are noted that affect the certification before the expiration of this certificate, Agilent will notify the purchaser.

Sample lot approver:



Monica Bourgeois
QMS Representative

Reagent

NH3 CAL STD_00036

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Certificate of Analysis

Ammonia Nitrogen Standard, 1000 ppm N (1216 ppm NH_3)

Lot Number: 2312G14 **Product Number:** 5455

Manufacture Date: DEC 22, 2023
Expiration Date: JUN 2025

The certified value reported is the prepared value based upon the method of preparation of the material. The uncertainty in the prepared value is based upon the volumetric method of preparation.

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Ammonium Chloride	12125-02-9	High Purity

Test	Specification	Result
Appearance	Colorless liquid	Passed
Nitrogen (N)	995-1005 ppm	1000 ppm

Specification	Reference
Ammonia Solution, Stock (1.0 mL = 1.0 mg ammonia nitrogen)	ASTM (D 3590 A)
Ammonia Solution, Stock (1.0 mL = 1.0 mg ammonium nitrogen)	ASTM (D 3590 B)
Stock Ammonium Chloride Solution	APHA (4500-CN- L)
Stock Ammonium Solution	APHA (4500-NH3 C)
Stock Ammonium chloride Solution	APHA (4500-NH3 D)
Stock Ammonium Solution	APHA (4500-NH3 F)
Ammonium Chloride, Stock Solution, 1.0 mL = 1.0 mg NH3-N	EPA (351.2)
Ammonium Chloride, Stock Solution, 1.0 mL = 1.0 mg NH3-N	EPA (350.2)
Ammonium Chloride, Stock Solution, 1.0 mL = 1.0 mg NH3-N	EPA (350.3)
Ammonium Chloride, Stock Solution, 1.0 mL = 1.0 mg NH3-N	EPA (351.4)
Stock Solution, 1.0 mL = 1.0 mg NH3-N	EPA (350.1)
Ammonium Chloride, Stock Solution, 1.0 mL = 1.0 mg NH3-N	EPA (351.3)

Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
5455-16	500 mL natural poly	18 months
5455-4	120 mL natural poly	18 months

Recommended Storage: 15°C - 30°C (59°F - 86°F)



Jose Pena (12/22/2023)

Operations Manager

This document is designed to comply with ISO Guide 31 "Reference Materials -- Contents of Certificates and Labels."

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Reagent

NH3 ICV STD_00034

INORGANIC VENTURES
300 Technology Drive
Christiansburg, VA 24073 · USA
inorganicventures.com

CERTIFICATE OF ANALYSIS

tel: 800.669.6799 · 540.585.3030
fax: 540.585.3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED
Testing Laboratory
Certificate 883.01

ACCREDITED
Reference Material Producer
Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Ion Chromatography Solution
Catalog Number:	ICNNH41
Lot Number:	S2-NH700817
Matrix:	H2O
Value / Analyte(s):	1 000 µg/mL ea: Ammonium as N
Starting Material:	Ammonium chloride
Starting Material Lot#:	1736
Starting Material Purity:	99.8500%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 999 ± 4 µg/mL

Density: 0.999 g/mL (measured at 20 ± 4 ºC)

Assay Information:

Assay Method #1 **995 ± 4 µg/mL**
Fajans NIST SRM 999c Lot Number: 999c

Assay Method #2 **1002 ± 4 µg/mL**
IC Assay NIST SRM 194a Lot Number: 194a

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

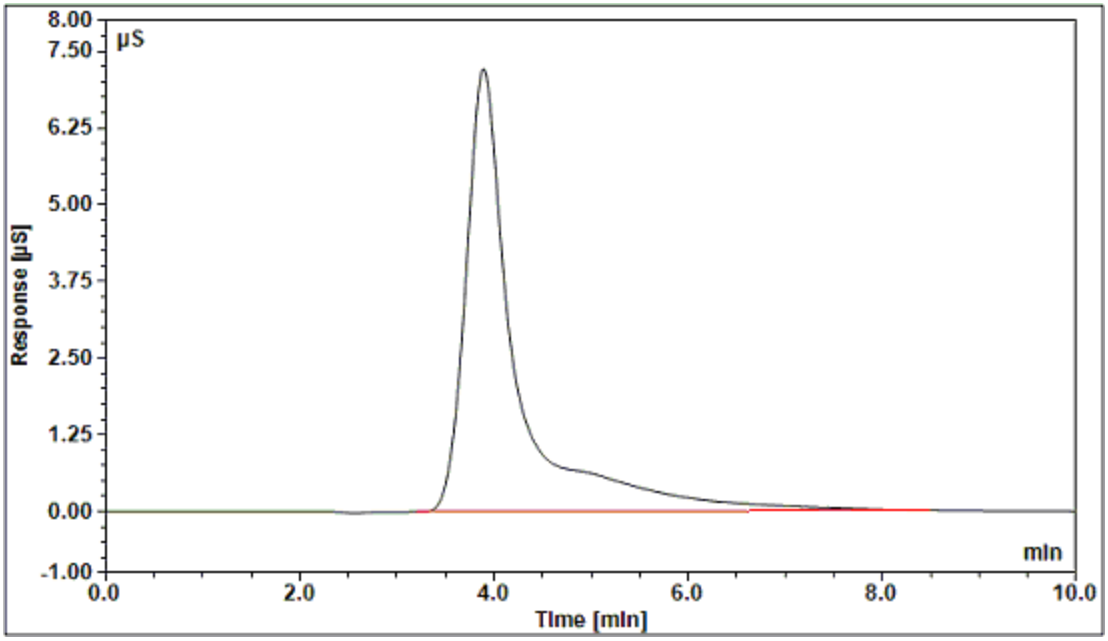
4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 CHROMATOGRAM



Dionex ICS-2000 Ion Chromatograph

Analytical Column:	IonPac CS18 2 x 250 mm	**Eluent:**	10 mM MSA
Guard Column:	IonPac CG18 2 x 50 mm	**Eluent Flow Rate:**	0.25 mL/min
Anion Self Regen Suppressor/ Chemical Suppression:	N/A	**Column Temp:**	30°C
		Cell Temp:	35°C
		Scale X-Axis:	minutes
Cation Self Regen Suppressor/ Chemical Suppression:	CERS 500 2mm	**Scale Y-Axis:**	8 µS/cm
		Concentration:	10 µg/g
Suppressor Current/ Chemical Suppressant:	8 mA		

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

January 25, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **January 25, 2025**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Uyen Truong
Supervisor, Product Documentation



Certificate Approved By:

Michael Booth
Director, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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NO2 Cal std_00040

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Certificate of Analysis

Nitrite Nitrogen Standard, 1000 ppm N (3285 ppm NO_2^-)

Lot Number: 4310M18 **Product Number:** 5461

Manufacture Date: OCT 20, 2023
Expiration Date: APR 2024

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Potassium Nitrite	7758-09-0	ACS
Chloroform	67-66-3	

Test	Specification	Result	NIST SRM#
Appearance	Colorless liquid	Passed	
Assay (vs. Potassium Permanganate)	995-1005 ppm N	1005 ppm N	8040

Specification	Reference
Nitrite Solution, Stock (1.0 mL = 1.0 mg NO2-N)	ASTM (D 3867 A)
Nitrite Solution, Stock (1.0 mL = 1.0 mg NO2-N)	ASTM (D 3867 B)
Stock Nitrite Solution: 1 mL = 1.0 mg NO2-N	EPA (353.2)
Stock Nitrite Solution: 1.0 mL = 1.00 mg NO2-N	EPA (353.3)

Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
5461-16	500 mL natural poly	6 months

Recommended Storage: 2°C - 8°C (36°F - 46°F)

Paul Brandon (10/20/2023)
Production Manager
This document is designed to comply with ISO Guide 31 "Reference Materials -- Contents of Certificates and Labels."

This test report shall not be reproduced, except in full, without the written approval of Ricca Chemical Company.

Reagent

PicricARestek_00124

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31499 **Lot No.:** A0195778

Description : Picric Acid Standard

Picric Acid Standard 1000µg/mL, Methanol, 1mL/1000µg/mL *PGI BOX REQUIRED* SHIP FED EX GROUND ONLY

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : March 31, 2028 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Picric Acid	88-89-1	06130CU	99%	1,002.0 µg/mL	+/- 46.7451

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methanol

CAS # 67-56-1

Purity 99%

Quality Confirmation Test

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

Flow Rate:
1.0 ml/min.

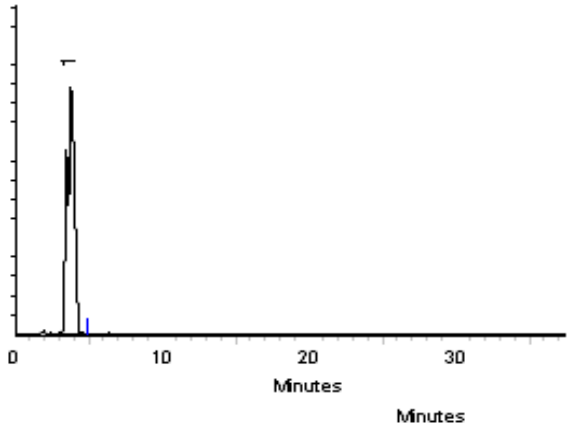
Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm

Inj. Vol
0.2µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Alicia Leathers - Operation Technician I

Date Mixed: 12-Mar-2023 **Balance Serial #** 1127510105

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 14-Mar-2023

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/µECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

8330B_DOD5

Nitroaromatics and Nitramines (HPLC)

FORM II
HPLC/IC SURROGATE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-190988-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): UltraCarb5u ID: 4.6 (mm) GC Column (2): Luna-phenyl 4.6 (mm)

Client Sample ID	Lab Sample ID	12DNB1 #	12DNB2 #
LL1mw-092-240401-GW	280-190988-4		98
LL1mw-092-240401-GW	280-190988-4	94 M	
LL1mw-093-240401-GW	280-190988-6		98 M
LL1mw-093-240401-GW	280-190988-6	94 M	
LL1mw-091-240401-GW	280-190988-7		97 M
LL1mw-091-240401-GW	280-190988-7	95 M	
LL1mw-064-240401-GW	280-190988-8	93 M	
LL1mw-090-240401-GW	280-190988-9	88 M	
FWGmw-016-240401-GW	280-190988-10	94 M	
	MB 280-652746/1-A	95 M	
	LCS 280-652746/2-A	95	
	LCSD 280-652746/3-A	94	

	QC LIMITS
12DNB = 1,2-Dinitrobenzene	83-119

Column to be used to flag recovery values

FORM II 8330B

FORM III
HPLC/IC LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-190988-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 05100016.D

Lab ID: LCS 280-652746/2-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,3,5-Trinitrobenzene	2.00	2.06	103	73-125	
1,3-Dinitrobenzene	2.00	1.94	97	78-120	
2,4,6-Trinitrotoluene	2.00	1.90	95	71-123	
2,4-Dinitrotoluene	2.00	1.88	94	78-120	
2,6-Dinitrotoluene	2.00	1.90	95	77-127	
2-Amino-4,6-dinitrotoluene	2.00	1.92	96	79-120	
2-Nitrotoluene	2.00	1.53	77	70-127	
3-Nitrotoluene	2.00	1.49	74	73-125	
4-Amino-2,6-dinitrotoluene	2.00	1.97	98	76-125	
4-Nitrotoluene	2.00	1.49	75	71-127	
HMX	2.00	1.77	88	65-135	M
Nitrobenzene	2.00	1.75	88	65-134	
Nitroglycerin	20.0	19.7	99	74-127	
PETN	20.0	21.0	105	73-127	
RDX	2.00	1.84	92	68-130	
Tetryl	2.00	1.93	97	64-128	

Column to be used to flag recovery and RPD values

FORM III 8330B

FORM III
HPLC/IC LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-190988-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 05100017.D

Lab ID: LCSD 280-652746/3-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,3,5-Trinitrobenzene	2.00	2.14	107	4	20	73-125	
1,3-Dinitrobenzene	2.00	1.95	97	0	20	78-120	
2,4,6-Trinitrotoluene	2.00	1.92	96	1	20	71-123	
2,4-Dinitrotoluene	2.00	1.87	94	1	20	78-120	
2,6-Dinitrotoluene	2.00	1.87	94	1	20	77-127	
2-Amino-4,6-dinitrotoluene	2.00	1.91	96	0	20	79-120	
2-Nitrotoluene	2.00	1.53	76	0	20	70-127	
3-Nitrotoluene	2.00	1.50	75	1	20	73-125	
4-Amino-2,6-dinitrotoluene	2.00	1.94	97	1	20	76-125	
4-Nitrotoluene	2.00	1.48	74	0	20	71-127	
HMX	2.00	1.79	89	1	20	65-135	M
Nitrobenzene	2.00	1.73	87	1	20	65-134	
Nitroglycerin	20.0	20.9	104	6	20	74-127	
PETN	20.0	21.4	107	2	20	73-127	
RDX	2.00	1.87	93	2	20	68-130	
Tetryl	2.00	1.87	93	4	20	64-128	

Column to be used to flag recovery and RPD values

FORM III 8330B

FORM IV
HPLC/IC METHOD BLANK SUMMARY

Lab Name: Eurofins Denver Job No.: 280-190988-1

SDG No.:

Lab Sample ID: MB 280-652746/1-A

Matrix: Water Date Extracted: 05/09/2024 12:56

Lab File ID:(1) 05100015.D Lab File ID:(2)

Date Analyzed:(1) 05/10/2024 17:36 Date Analyzed:(2)

Instrument ID:(1) CHHPLC_X3 Instrument ID:(2) CHHPLC_G2_LUNA

GC Column:(1) UltraCarb5uO ID: 4.6(mm) GC Column:(2) Luna-phenylh ID: 4.6(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 280-652746/2-A	05/10/2024 17:59	
	LCSD 280-652746/3-A	05/10/2024 18:22	
LL1mw-092-240401-GW	280-190988-4	05/10/2024 18:45	05/10/2024 20:44
LL1mw-093-240401-GW	280-190988-6	05/10/2024 19:08	05/10/2024 21:20
LL1mw-091-240401-GW	280-190988-7	05/10/2024 19:31	05/10/2024 21:56
LL1mw-064-240401-GW	280-190988-8	05/10/2024 19:54	
LL1mw-090-240401-GW	280-190988-9	05/10/2024 20:17	
FWGmw-016-240401-GW	280-190988-10	05/10/2024 20:39	

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-190988-1

SDG No.:

Client Sample ID: LL1mw-092-240401-GW | Lab Sample ID: 280-190988-4

Matrix: Water | Lab File ID: 05100018.D

Analysis Method: 8330B | Date Collected: 05/02/2024 12:35

Extraction Method: 3535 | Date Extracted: 05/09/2024 12:56

Sample wt/vol: 476.9(mL) | Date Analyzed: 05/10/2024 18:45

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 100(uL) | GC Column: UltraCarb5uODS ID: 4.6(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 652983 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	0.21	U M	0.22	0.21	0.088
99-65-0	1,3-Dinitrobenzene	0.10	U M	0.12	0.10	0.039
118-96-7	2,4,6-Trinitrotoluene	0.10	U	0.12	0.10	0.047
121-14-2	2,4-Dinitrotoluene	0.084	U	0.10	0.084	0.029
606-20-2	2,6-Dinitrotoluene	0.084	U	0.10	0.084	0.042
35572-78-2	2-Amino-4,6-dinitrotoluene	0.10	U	0.12	0.10	0.053
88-72-2	2-Nitrotoluene	0.21	U	0.22	0.21	0.090
99-08-1	3-Nitrotoluene	0.37	U	0.42	0.37	0.20
19406-51-0	4-Amino-2,6-dinitrotoluene	0.13	U	0.16	0.13	0.060
99-99-0	4-Nitrotoluene	0.42	U	0.43	0.42	0.10
2691-41-0	HMX	0.21	U M	0.22	0.21	0.092
98-95-3	Nitrobenzene	0.21	U	0.22	0.21	0.095
55-63-0	Nitroglycerin	2.1	U	2.2	2.1	0.97
78-11-5	PETN	1.0	U	1.2	1.0	0.47
479-45-8	Tetryl	0.10	U	0.12	0.10	0.033

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	94	M	83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240510-133263.b\05100018.D
Lims ID: 280-190988-A-4-A
Client ID: LL1mw-092-240401-GW
Sample Type: Client
Inject. Date: 10-May-2024 18:45:07 ALS Bottle#: 18 Worklist Smp#: 18
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-190988-A-4-A
Operator ID: JZ Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20240510-133263.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 11-May-2024 11:25:09 Calib Date: 18-Apr-2024 03:08:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\04170028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1652

First Level Reviewer: LV5D Date: 10-May-2024 19:15:38

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/mL	Flags
4 HMX	1		6.612			ND	U
8 RDX	1	7.651	7.625	0.026	1591	0.0144	M
$ 10 1,2-Dinitrobenzene	1	8.565	8.552	0.013	24850	0.1881	M
11 1,3,5-Trinitrobenzene	1		8.692			ND	U
12 1,3-Dinitrobenzene	1		9.298			ND	U
13 Nitrobenzene	1		9.651			ND	
15 Tetryl	1		9.965			ND	
16 Nitroglycerin	2		10.431			ND	
17 2,4,6-Trinitrotoluene	1		10.865			ND	
18 4-Amino-2,6-dinitrotoluene	1		11.038			ND	
19 2-Amino-4,6-dinitrotoluene	1		11.291			ND	
20 2,6-Dinitrotoluene	1		11.431			ND	
21 2,4-Dinitrotoluene	1		11.611			ND	7
22 o-Nitrotoluene	1		12.385			ND	
23 p-Nitrotoluene	1		12.805			ND	
24 m-Nitrotoluene	1		13.351			ND	
25 PETN	2		14.398			ND	

QC Flag Legend

Processing Flags
7 - Failed Limit of Detection
Review Flags
M - Manually Integrated
U - Marked Undetected

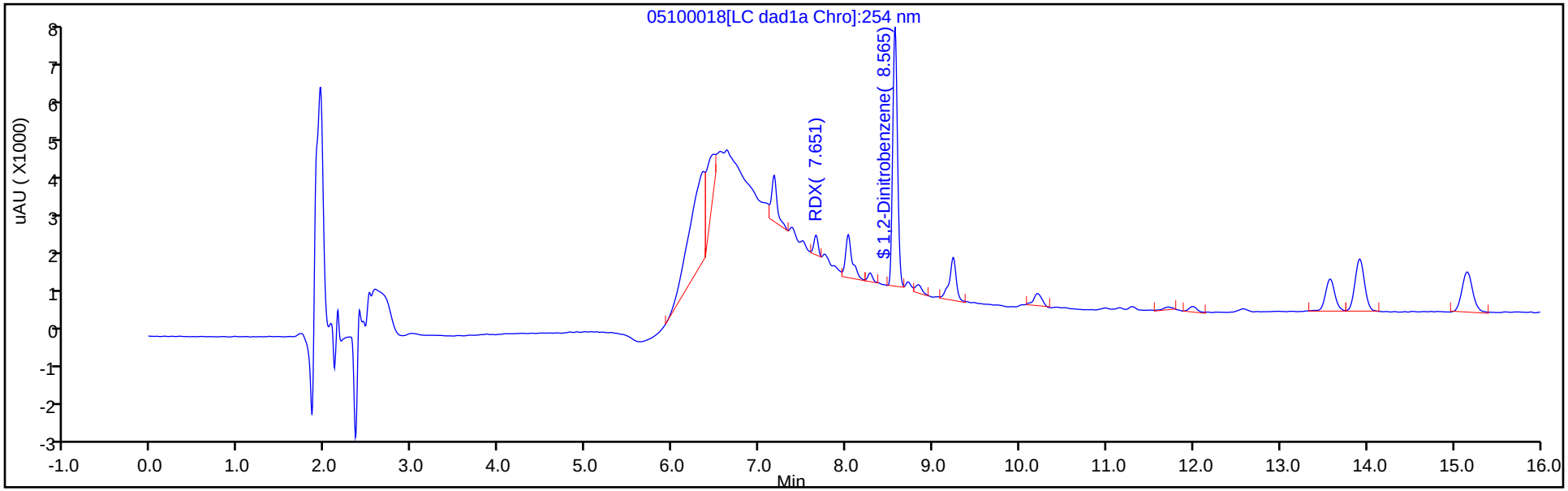
Report Date: 11-May-2024 11:25:12 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

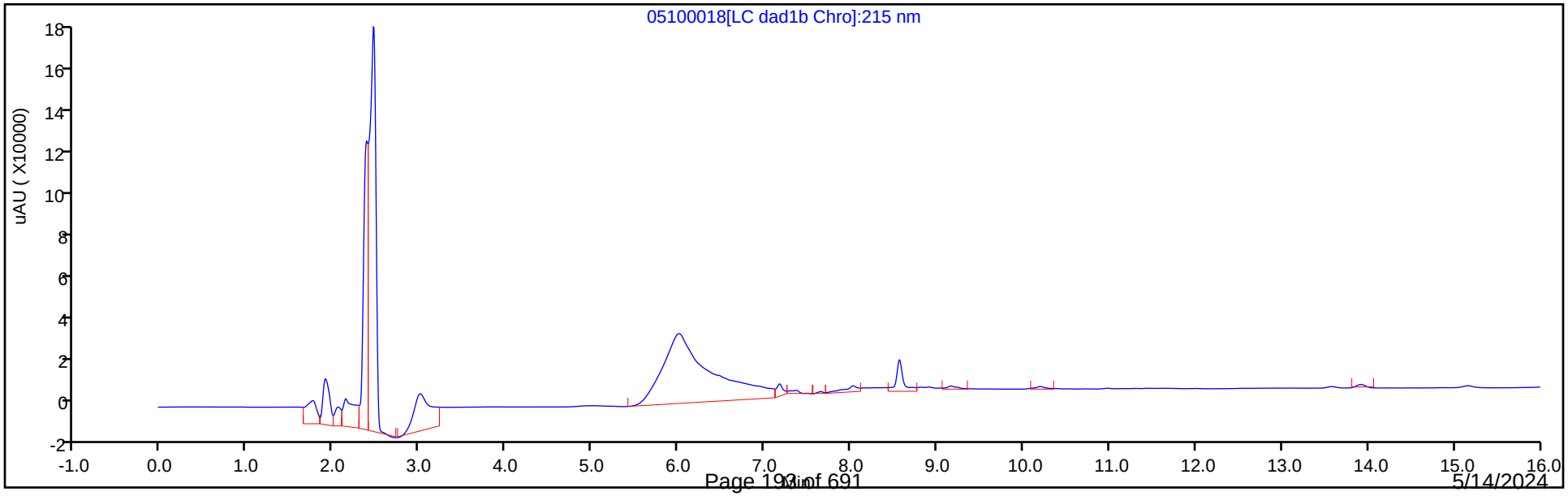
Data File: \\chromfs\denver\chromdata\chhplc_x\20240510-133263.b\05100018.d

Injection Date:	10-May-2024 18:45:07	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	280-190988-A-4-A	Lab Sample ID:	280-190988-4	Worklist Smp#:	18
Client ID:	LL1mw-092-240401-GW				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	18
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20240510-133263.b\05100018.D				
Lims ID:	280-190988-A-4-A				
Client ID:	LL1mw-092-240401-GW				
Sample Type:	Client				
Inject. Date:	10-May-2024 18:45:07	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-190988-A-4-A				
Operator ID:	JZ	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20240510-133263.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	11-May-2024 11:25:09	Calib Date:	18-Apr-2024 03:08:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\04170028.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1652				

First Level Reviewer: LV5D Date: 10-May-2024 19:15:38

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.1881	94.04

Manual Integration/User Assign Peak Report

Eurofins Denver

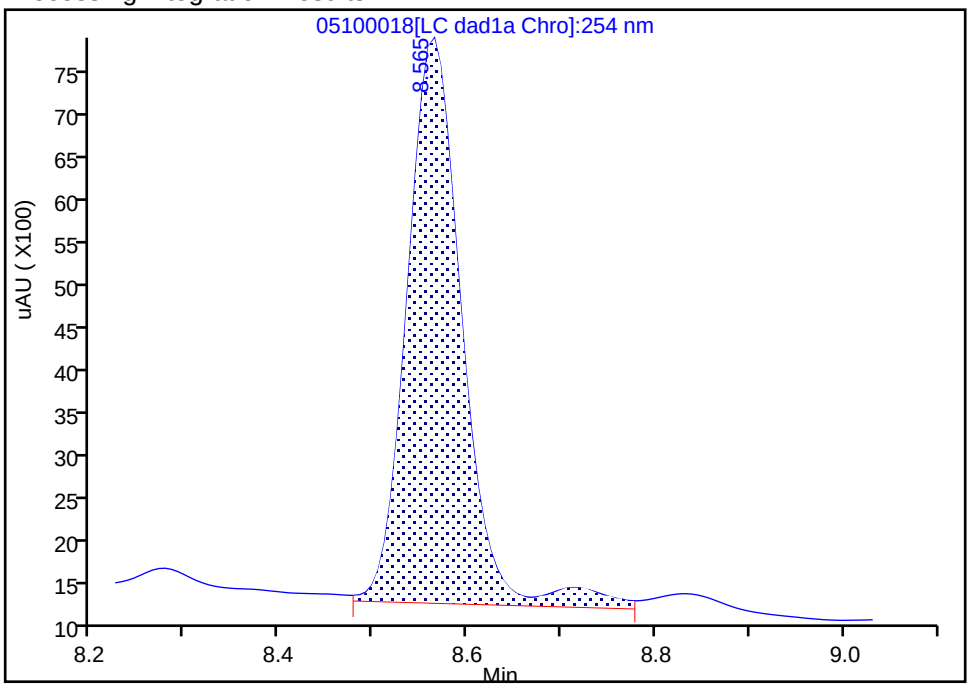
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240510-133263.b\05100018.d				
Injection Date:	10-May-2024 18:45:07	Instrument ID:	CHHPLC_X3		
Lims ID:	280-190988-A-4-A	Lab Sample ID:	280-190988-4		
Client ID:	LL1mw-092-240401-GW				
Operator ID:	JZ	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

$ 10 1,2-Dinitrobenzene, CAS: 528-29-0

Signal: 1

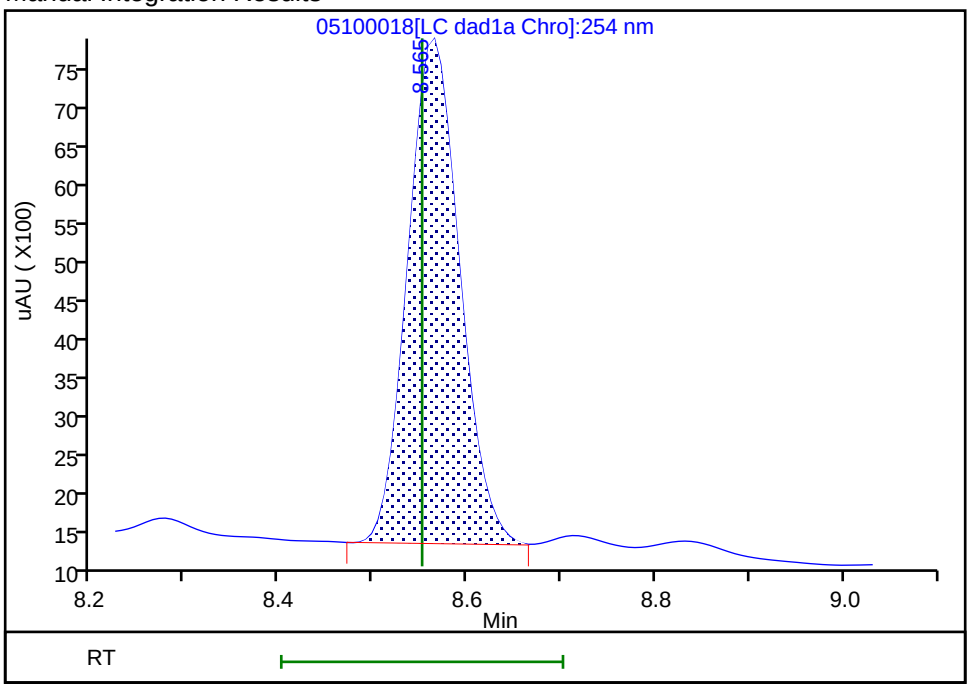
Processing Integration Results

RT: 8.56
Area: 27021
Amount: 0.204566
Amount Units: ug/mL



Manual Integration Results

RT: 8.56
Area: 24850
Amount: 0.188073
Amount Units: ug/mL



Reviewer: LV5D, 10-May-2024 19:15:36 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline

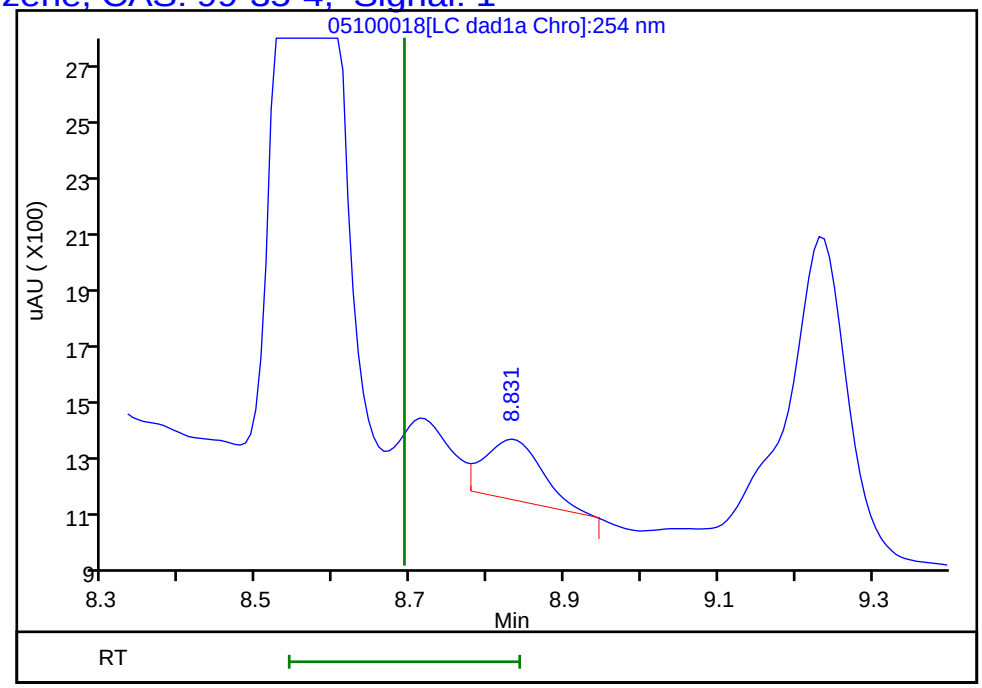
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20240510-133263.b\05100018.d				
Injection Date:	10-May-2024 18:45:07	Instrument ID:	CHHPLC_X3		
Lims ID:	280-190988-A-4-A	Lab Sample ID:	280-190988-4		
Client ID:	LL1mw-092-240401-GW				
Operator ID:	JZ	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

11 1,3,5-Trinitrobenzene, CAS: 99-35-4, Signal: 1

RT: 8.83
Response: 1081
Amount: 0.004851



Reviewer: LV5D, 10-May-2024 19:15:38
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

User Disabled Compound Report

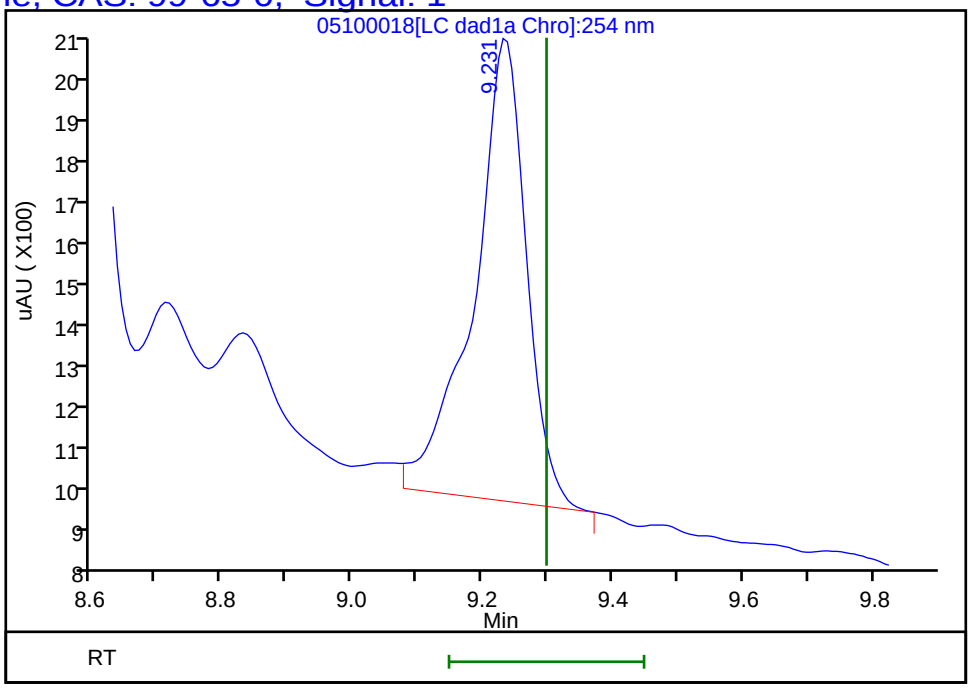
Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20240510-133263.b\05100018.d

Injection Date:	10-May-2024 18:45:07	Instrument ID:	CHHPLC_X3		
Lims ID:	280-190988-A-4-A	Lab Sample ID:	280-190988-4		
Client ID:	LL1mw-092-240401-GW				
Operator ID:	JZ	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

12 1,3-Dinitrobenzene, CAS: 99-65-0, Signal: 1

RT: 9.23
Response: 6015
Amount: 0.020088



Reviewer: LV5D, 10-May-2024 19:15:38

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

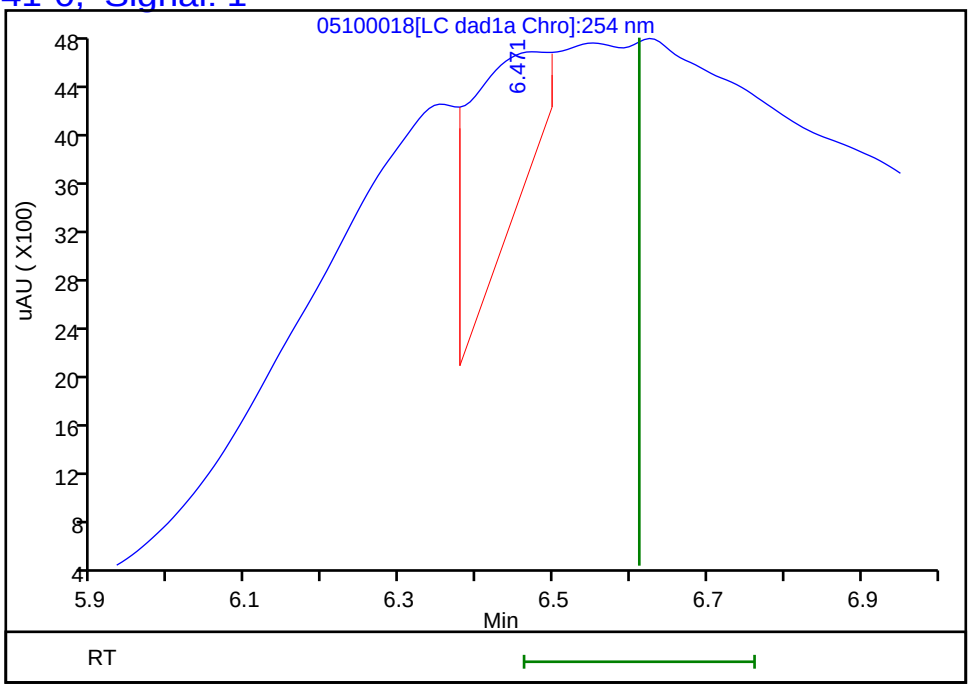
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20240510-133263.b\05100018.d				
Injection Date:	10-May-2024 18:45:07	Instrument ID:	CHHPLC_X3		
Lims ID:	280-190988-A-4-A	Lab Sample ID:	280-190988-4		
Client ID:	LL1mw-092-240401-GW				
Operator ID:	JZ	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

4 HMX, CAS: 2691-41-0, Signal: 1

RT: 6.47
Response: 9810
Amount: 0.102676



Reviewer: LV5D, 10-May-2024 19:15:38
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Manual Integration/User Assign Peak Report

Eurofins Denver

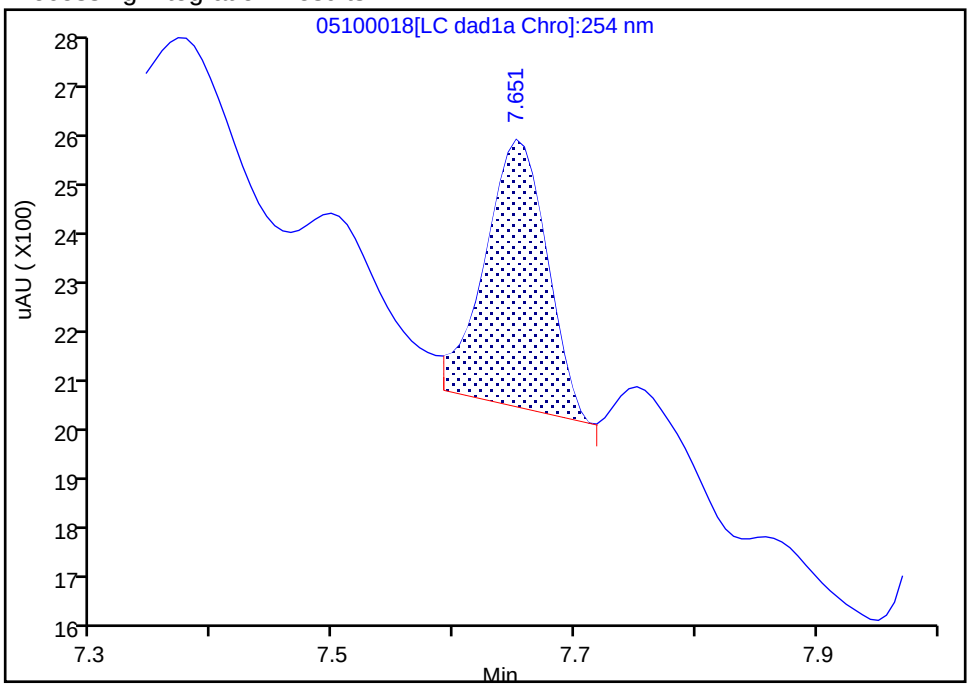
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240510-133263.b\05100018.d				
Injection Date:	10-May-2024 18:45:07	Instrument ID:	CHHPLC_X3		
Lims ID:	280-190988-A-4-A	Lab Sample ID:	280-190988-4		
Client ID:	LL1mw-092-240401-GW				
Operator ID:	JZ	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

8 RDX, CAS: 121-82-4

Signal: 1

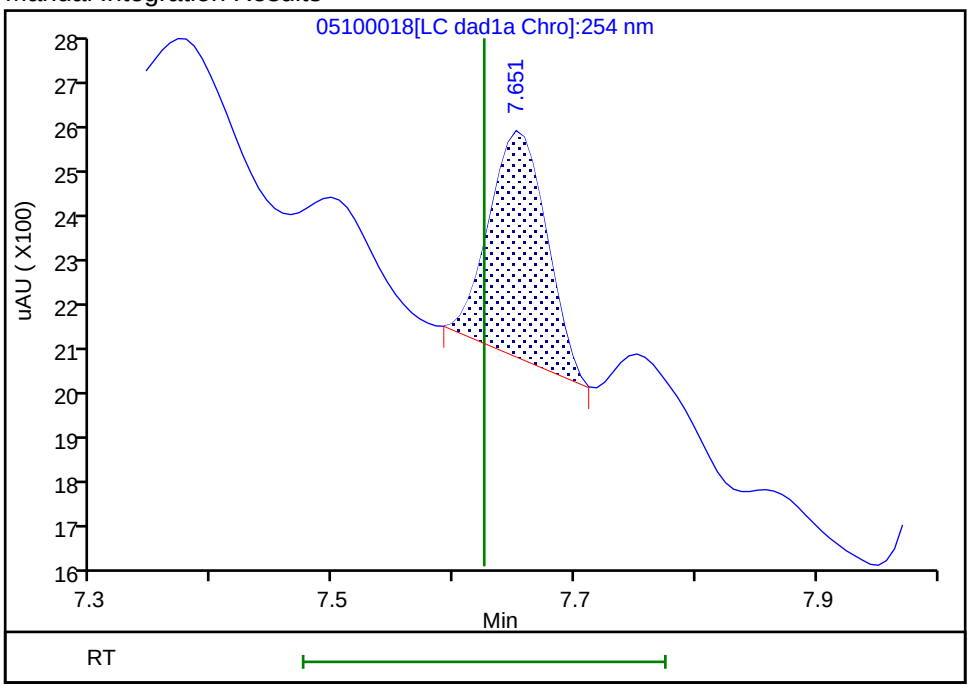
Processing Integration Results

RT: 7.65
Area: 1836
Amount: 0.016575
Amount Units: ug/mL



Manual Integration Results

RT: 7.65
Area: 1591
Amount: 0.014363
Amount Units: ug/mL



Reviewer: LV5D, 10-May-2024 19:15:34 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-190988-1

SDG No.:

Client Sample ID: LL1mw-092-240401-GW | Lab Sample ID: 280-190988-4

Matrix: Water | Lab File ID: 05100013.D

Analysis Method: 8330B | Date Collected: 05/02/2024 12:35

Extraction Method: 3535 | Date Extracted: 05/09/2024 12:56

Sample wt/vol: 476.9(mL) | Date Analyzed: 05/10/2024 20:44

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 100(uL) | GC Column: Luna-phenylhex ID: 4.6(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 653003 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
121-82-4	RDX	0.21	U M	0.22	0.21	0.054

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	98		83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2_LUNA\20240510-133267.b\05100013.D
Lims ID: 280-190988-A-4-A
Client ID: LL1mw-092-240401-GW
Sample Type: Client
Inject. Date: 10-May-2024 20:44:43 ALS Bottle#: 13 Worklist Smp#: 13
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-190988-A-4-A
Operator ID: JZ Instrument ID: CHHPLC_G2_LUNA

Method: \\chromfs\Denver\ChromData\G2_LUNA\20240510-133267.b\G2_8330_Luna.m
Limit Group: GCSV - 8330
Last Update: 11-May-2024 12:30:17 Calib Date: 25-Apr-2024 07:39:21
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\G2_LUNA\20240424-132624.b\04240027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC DAD1A, 254 nm
Process Host: CTX1652

First Level Reviewer: LV5D Date: 11-May-2024 12:23:33

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
6 HMX	1		6.652			ND	
8 RDX	1		8.859			ND	U
9 Nitrobenzene	1		11.372			ND	7
$ 10 1,2-Dinitrobenzene	1	12.285	12.272	0.013	50480	0.1951	
12 1,3-Dinitrobenzene	1		14.412			ND	
13 Nitroglycerin	2		14.872			ND	U
14 o-Nitrotoluene	1	15.531	15.452	0.079	10625	0.0434	M
15 p-Nitrotoluene	1		15.679			ND	
16 4-Amino-2,6-dinitrotoluene	1		16.159			ND	U
17 m-Nitrotoluene	1		16.519			ND	
18 2-Amino-4,6-dinitrotoluene	1	16.898	16.966	-0.068	10324	0.0255	M
19 1,3,5-Trinitrobenzene	1		17.206			ND	
20 2,6-Dinitrotoluene	1		18.272			ND	U
21 2,4-Dinitrotoluene	1		18.726			ND	
22 Tetryl	1		21.886			ND	
23 2,4,6-Trinitrotoluene	1		22.746			ND	7
24 PETN	2		23.892			ND	7

QC Flag Legend

Processing Flags
7 - Failed Limit of Detection
Review Flags
M - Manually Integrated
U - Marked Undetected

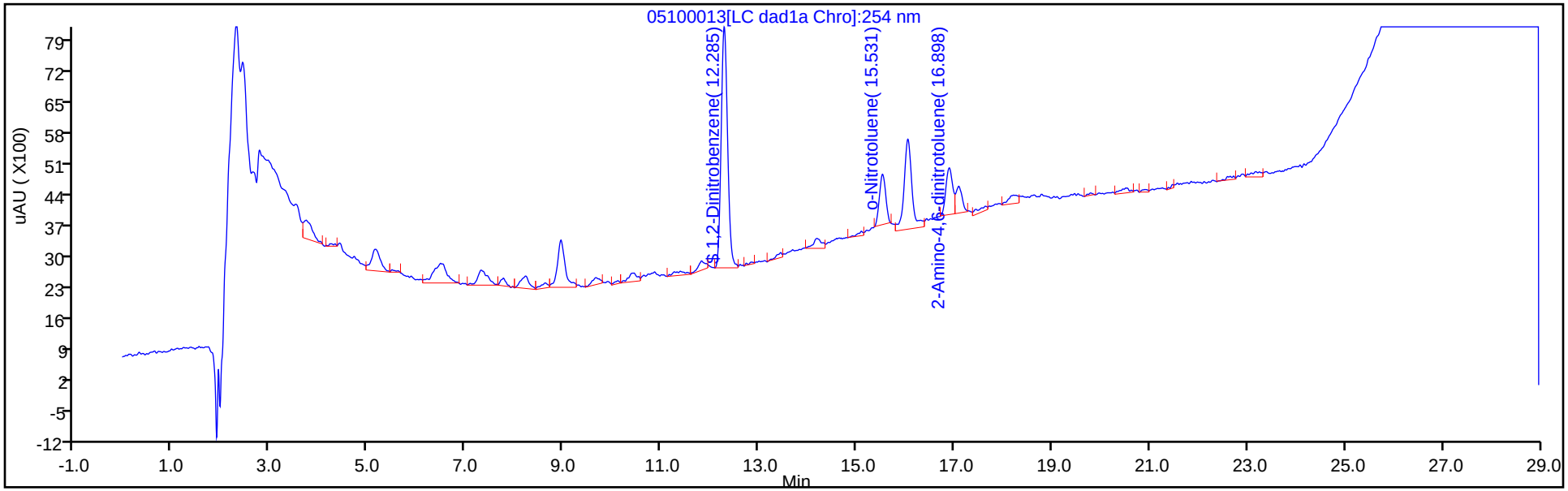
Report Date: 11-May-2024 12:30:20 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

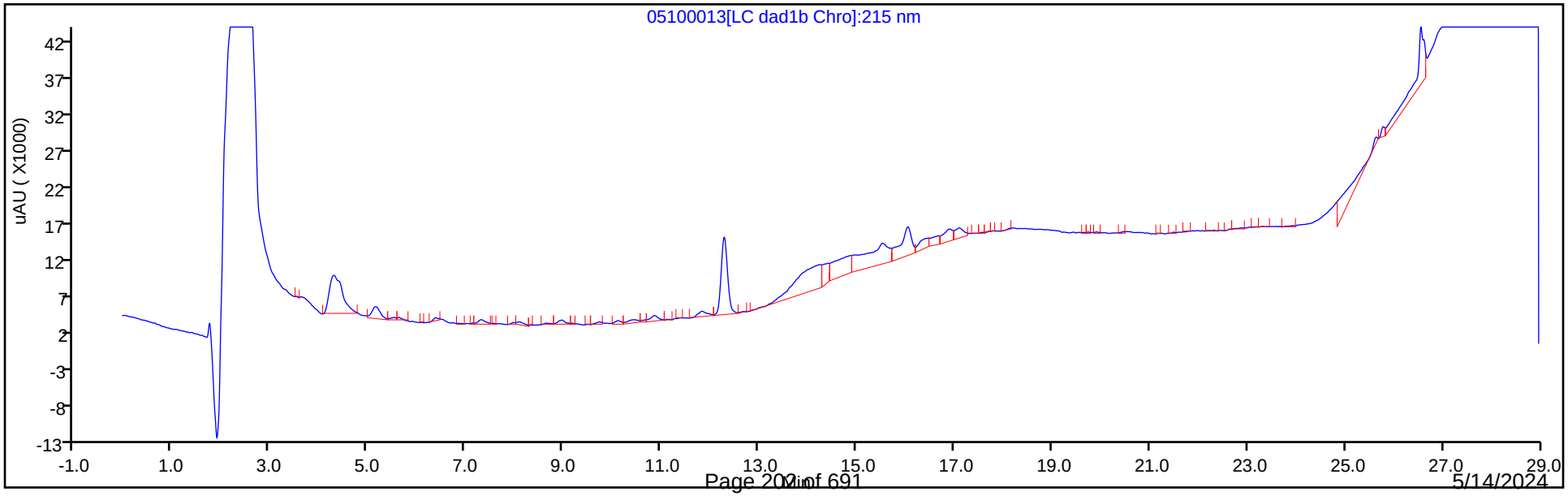
Data File: \\chromfs\denver\chromdata\g2_luna\20240510-133267.b\05100013.d

Injection Date:	10-May-2024 20:44:43	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	JZ
Lims ID:	280-190988-A-4-A	Lab Sample ID:	280-190988-4	Worklist Smp#:	13
Client ID:	LL1mw-092-240401-GW				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	13
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\G2_LUNA\20240510-133267.b\05100013.D				
Lims ID:	280-190988-A-4-A				
Client ID:	LL1mw-092-240401-GW				
Sample Type:	Client				
Inject. Date:	10-May-2024 20:44:43	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-190988-A-4-A				
Operator ID:	JZ	Instrument ID:	CHHPLC_G2_LUNA		
Method:	\\chromfs\Denver\ChromData\G2_LUNA\20240510-133267.b\G2_8330_Luna.m				
Limit Group:	GCSV - 8330				
Last Update:	11-May-2024 12:30:17	Calib Date:	25-Apr-2024 07:39:21		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\G2_LUNA\20240424-132624.b\04240027.D				
Column 1 :	Luna-Phenyl hexyl (4.60 mm)		Det: LC DAD1A, 254 nm		
Process Host:	CTX1652				

First Level Reviewer: LV5D Date: 11-May-2024 12:23:33

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.1951	97.57

User Disabled Compound Report

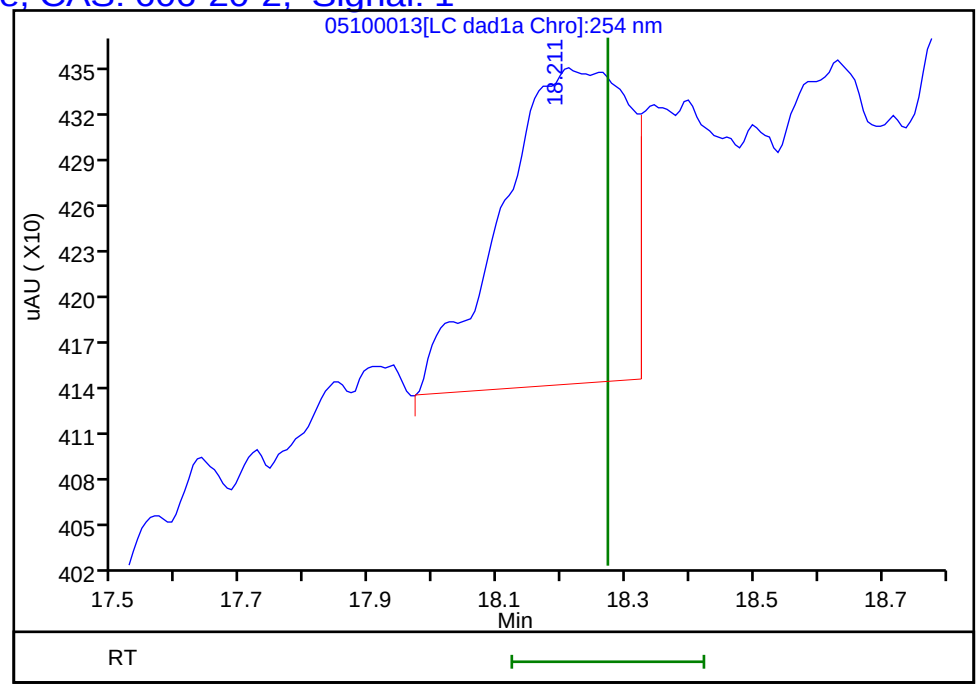
Eurofins Denver

Data File: \\chromfs\denver\chromdata\g2_luna\20240510-133267.b\05100013.d

Injection Date:	10-May-2024 20:44:43	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	280-190988-A-4-A	Lab Sample ID:	280-190988-4		
Client ID:	LL1mw-092-240401-GW				
Operator ID:	JZ	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

20 2,6-Dinitrotoluene, CAS: 606-20-2, Signal: 1

RT: 18.21
Response: 2810
Amount: 0.010109



Reviewer: LV5D, 11-May-2024 12:23:33

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Manual Integration/User Assign Peak Report

Eurofins Denver

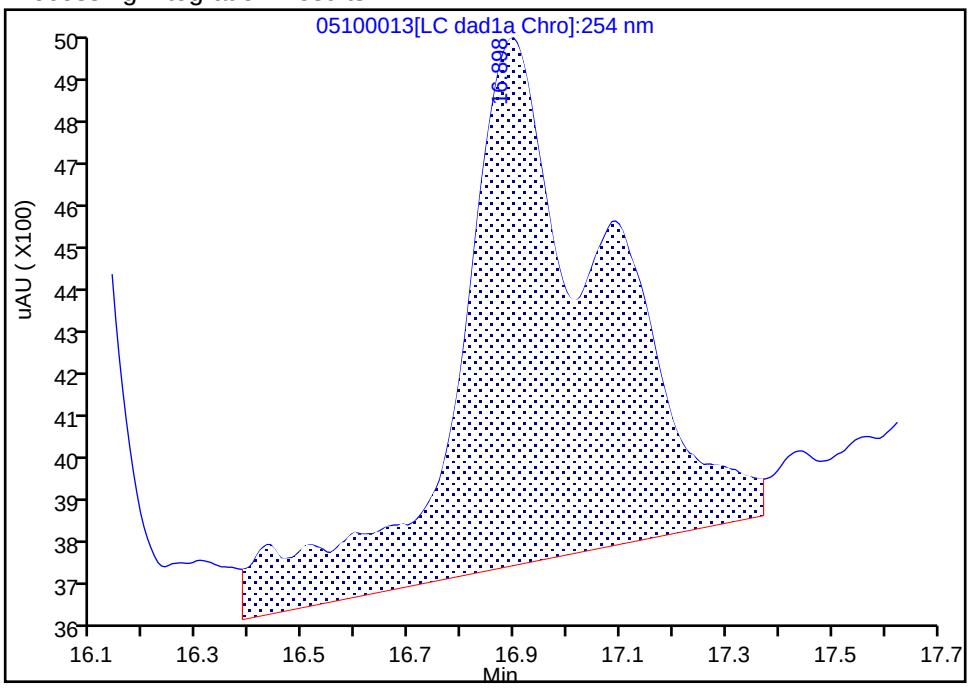
Data File:	\\chromfs\denver\chromdata\g2_luna\20240510-133267.b\05100013.d				
Injection Date:	10-May-2024 20:44:43	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	280-190988-A-4-A	Lab Sample ID:	280-190988-4		
Client ID:	LL1mw-092-240401-GW				
Operator ID:	JZ	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

18 2-Amino-4,6-dinitrotoluene, CAS: 35572-78-2

Signal: 1

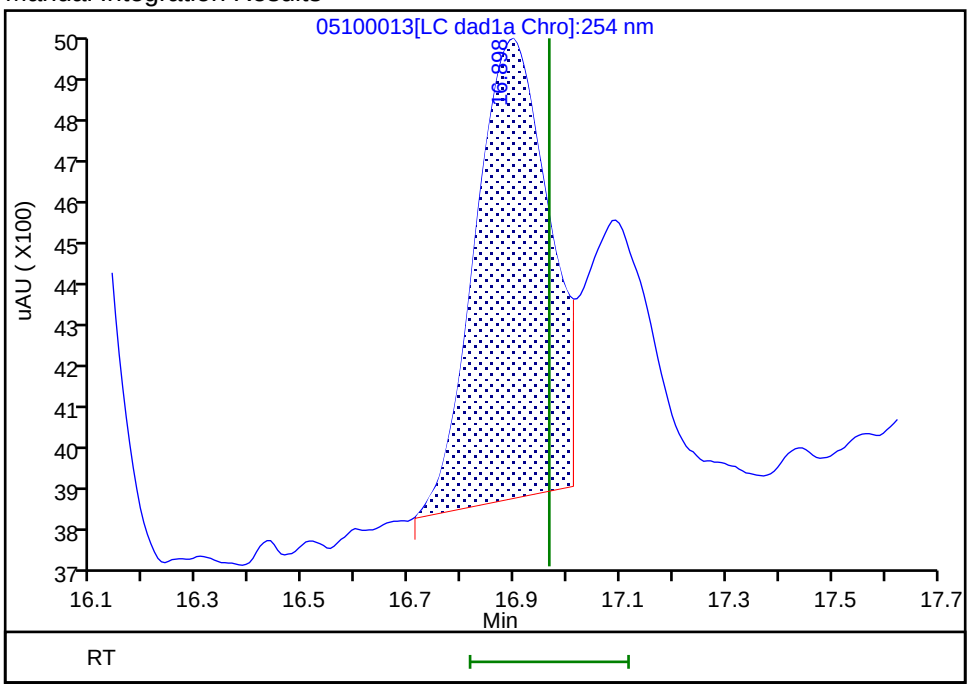
Processing Integration Results

RT: 16.90
Area: 23783
Amount: 0.058642
Amount Units: ug/ml



Manual Integration Results

RT: 16.90
Area: 10324
Amount: 0.025456
Amount Units: ug/ml



Reviewer: LV5D, 11-May-2024 12:23:29 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

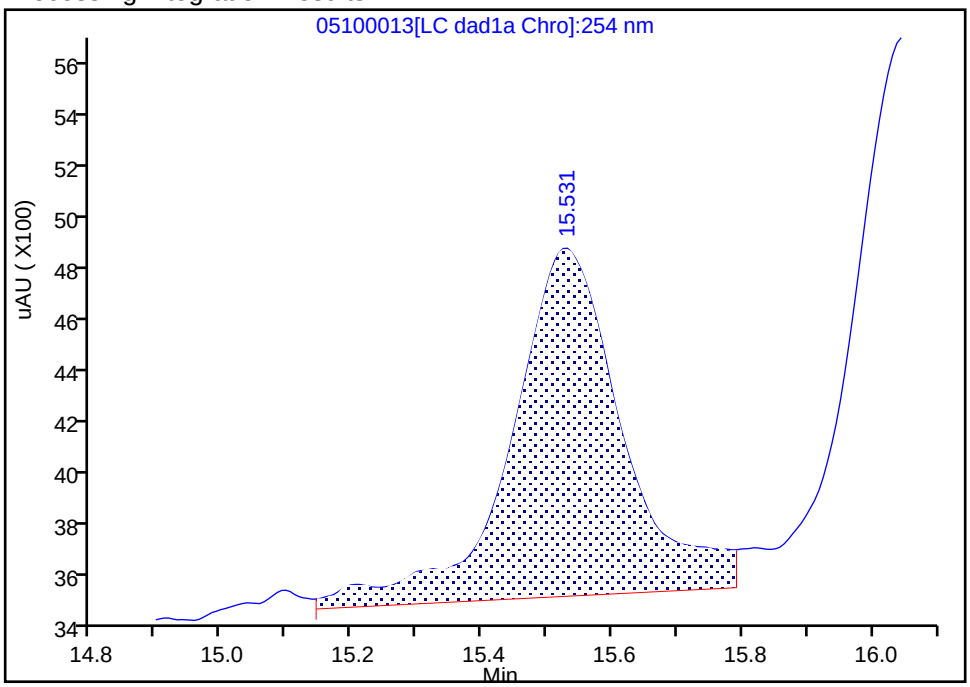
Data File:	\\chromfs\denver\chromdata\g2_luna\20240510-133267.b\05100013.d				
Injection Date:	10-May-2024 20:44:43	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	280-190988-A-4-A	Lab Sample ID:	280-190988-4		
Client ID:	LL1mw-092-240401-GW				
Operator ID:	JZ	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

14 o-Nitrotoluene, CAS: 88-72-2

Signal: 1

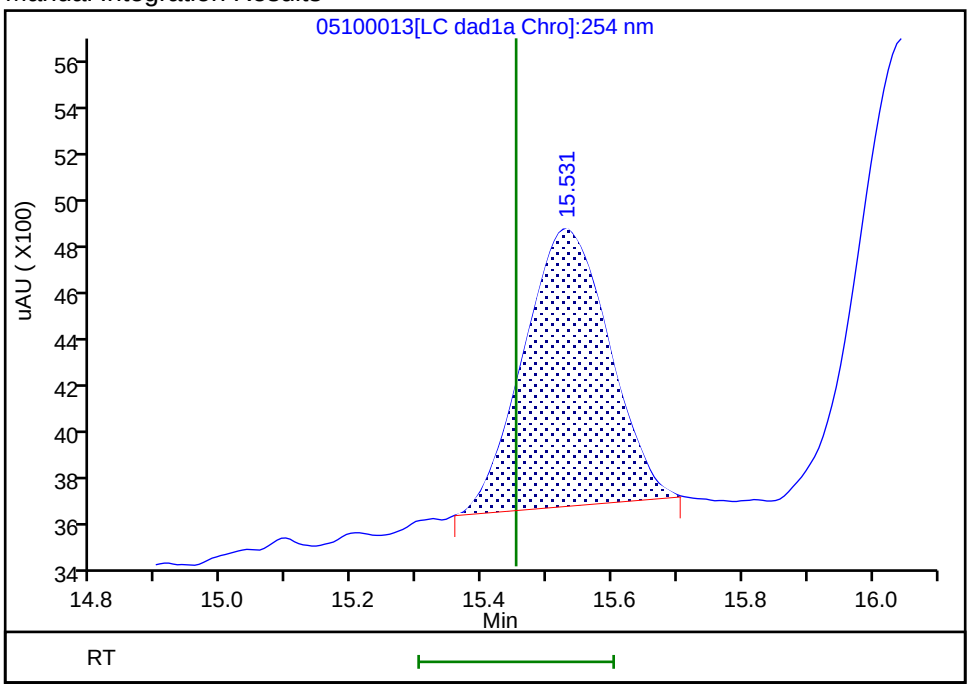
Processing Integration Results

RT: 15.53
Area: 15984
Amount: 0.065349
Amount Units: ug/ml



Manual Integration Results

RT: 15.53
Area: 10625
Amount: 0.043439
Amount Units: ug/ml



Reviewer: LV5D, 11-May-2024 12:23:18 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline

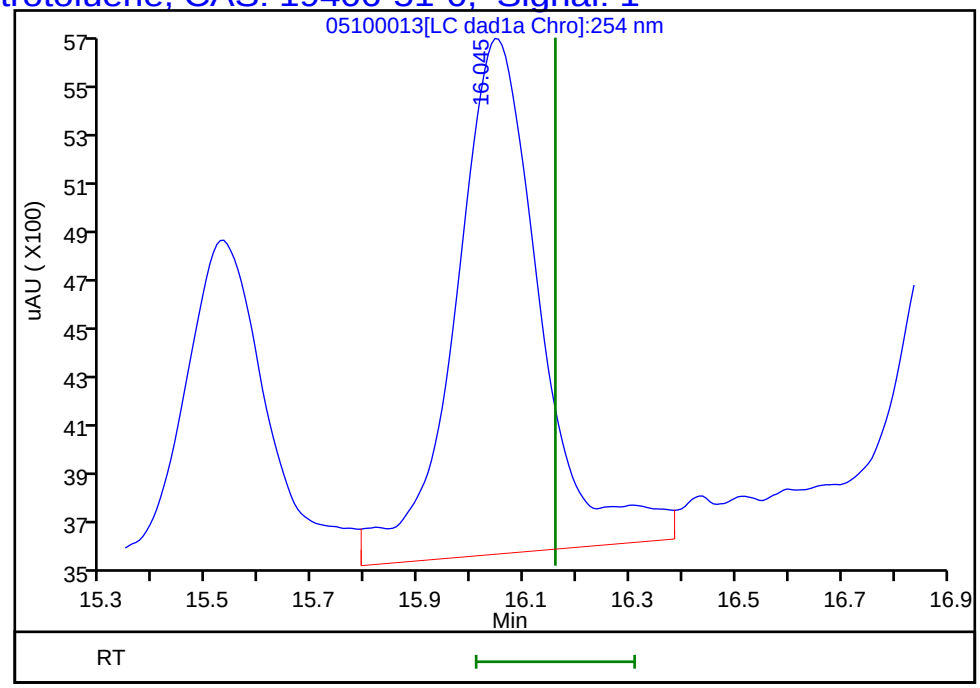
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\denver\chromdata\g2_luna\20240510-133267.b\05100013.d				
Injection Date:	10-May-2024 20:44:43	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	280-190988-A-4-A	Lab Sample ID:	280-190988-4		
Client ID:	LL1mw-092-240401-GW				
Operator ID:	JZ	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

16 4-Amino-2,6-dinitrotoluene, CAS: 19406-51-0, Signal: 1

RT: 16.04
Response: 22923
Amount: 0.082299



Reviewer: LV5D, 11-May-2024 12:23:33
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

User Disabled Compound Report

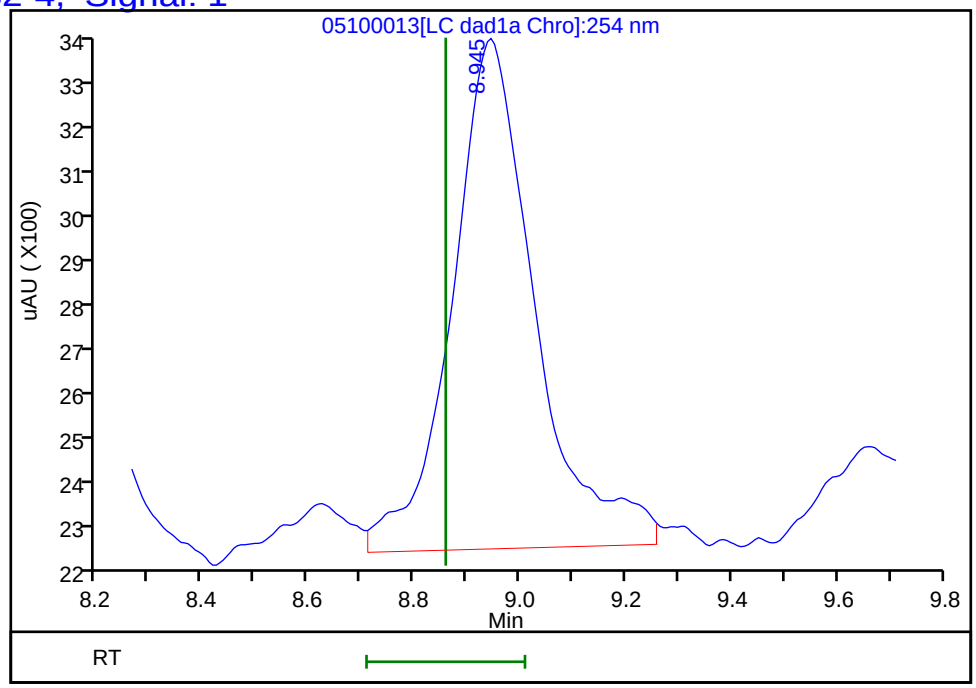
Eurofins Denver

Data File: \\chromfs\denver\chromdata\g2_luna\20240510-133267.b\05100013.d

Injection Date:	10-May-2024 20:44:43	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	280-190988-A-4-A	Lab Sample ID:	280-190988-4		
Client ID:	LL1mw-092-240401-GW				
Operator ID:	JZ	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

8 RDX, CAS: 121-82-4, Signal: 1

RT: 8.94
Response: 11758
Amount: 0.054553



Reviewer: LV5D, 11-May-2024 12:23:33
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-190988-1

SDG No.:

Client Sample ID: LL1mw-093-240401-GW | Lab Sample ID: 280-190988-6

Matrix: Water | Lab File ID: 05100019.D

Analysis Method: 8330B | Date Collected: 05/02/2024 12:50

Extraction Method: 3535 | Date Extracted: 05/09/2024 12:56

Sample wt/vol: 473.1(mL) | Date Analyzed: 05/10/2024 19:08

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 100(uL) | GC Column: UltraCarb5uODS ID: 4.6(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 652983 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	0.21	U	0.22	0.21	0.089
99-65-0	1,3-Dinitrobenzene	0.11	U M	0.12	0.11	0.039
118-96-7	2,4,6-Trinitrotoluene	0.11	U	0.12	0.11	0.048
121-14-2	2,4-Dinitrotoluene	0.085	U	0.11	0.085	0.029
606-20-2	2,6-Dinitrotoluene	0.085	U	0.11	0.085	0.042
35572-78-2	2-Amino-4,6-dinitrotoluene	0.11	U	0.12	0.11	0.054
88-72-2	2-Nitrotoluene	0.21	U	0.22	0.21	0.090
99-08-1	3-Nitrotoluene	0.37	U	0.42	0.37	0.21
19406-51-0	4-Amino-2,6-dinitrotoluene	0.13	U	0.16	0.13	0.061
99-99-0	4-Nitrotoluene	0.42	U	0.43	0.42	0.11
2691-41-0	HMX	0.21	U M	0.22	0.21	0.093
98-95-3	Nitrobenzene	0.21	U	0.22	0.21	0.096
55-63-0	Nitroglycerin	2.1	U	2.2	2.1	0.97
78-11-5	PETN	1.1	U	1.2	1.1	0.47
479-45-8	Tetryl	0.11	U M	0.12	0.11	0.034

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	94	M	83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240510-133263.b\05100019.D
Lims ID: 280-190988-A-6-A
Client ID: LL1mw-093-240401-GW
Sample Type: Client
Inject. Date: 10-May-2024 19:08:07 ALS Bottle#: 19 Worklist Smp#: 19
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-190988-A-6-A
Operator ID: JZ Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20240510-133263.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 11-May-2024 11:25:09 Calib Date: 18-Apr-2024 03:08:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\04170028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1652

First Level Reviewer: LV5D Date: 10-May-2024 19:32:49

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/mL	Flags
4 HMX	1	6.624	6.612	0.012	280	0.002931	7M
8 RDX	1	7.650	7.625	0.025	2052	0.0185	
$ 10 1,2-Dinitrobenzene	1	8.557	8.552	0.005	24807	0.1877	M
11 1,3,5-Trinitrobenzene	1		8.692			ND	
12 1,3-Dinitrobenzene	1		9.298			ND	U
13 Nitrobenzene	1		9.651			ND	
15 Tetryl	1		9.965			ND	U
16 Nitroglycerin	2		10.431			ND	
17 2,4,6-Trinitrotoluene	1		10.865			ND	
18 4-Amino-2,6-dinitrotoluene	1		11.038			ND	
19 2-Amino-4,6-dinitrotoluene	1		11.291			ND	
20 2,6-Dinitrotoluene	1		11.431			ND	
21 2,4-Dinitrotoluene	1		11.611			ND	
22 o-Nitrotoluene	1		12.385			ND	
23 p-Nitrotoluene	1		12.805			ND	
24 m-Nitrotoluene	1		13.351			ND	
25 PETN	2		14.398			ND	

QC Flag Legend

Processing Flags
7 - Failed Limit of Detection
Review Flags
M - Manually Integrated
U - Marked Undetected

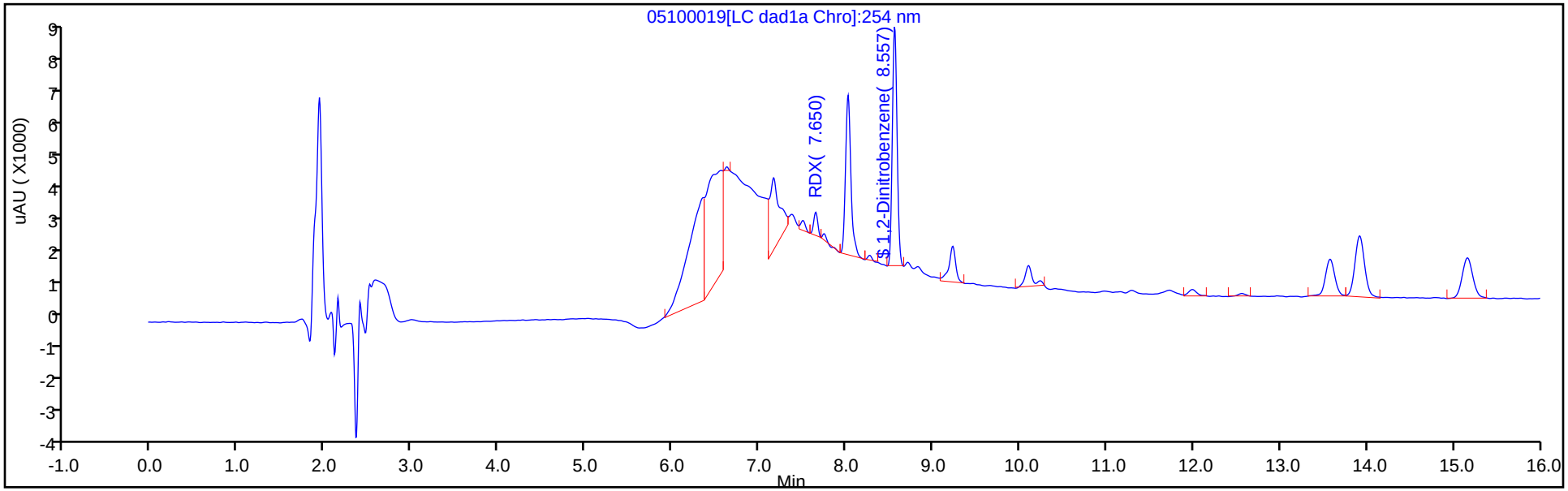
Report Date: 11-May-2024 11:25:13 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

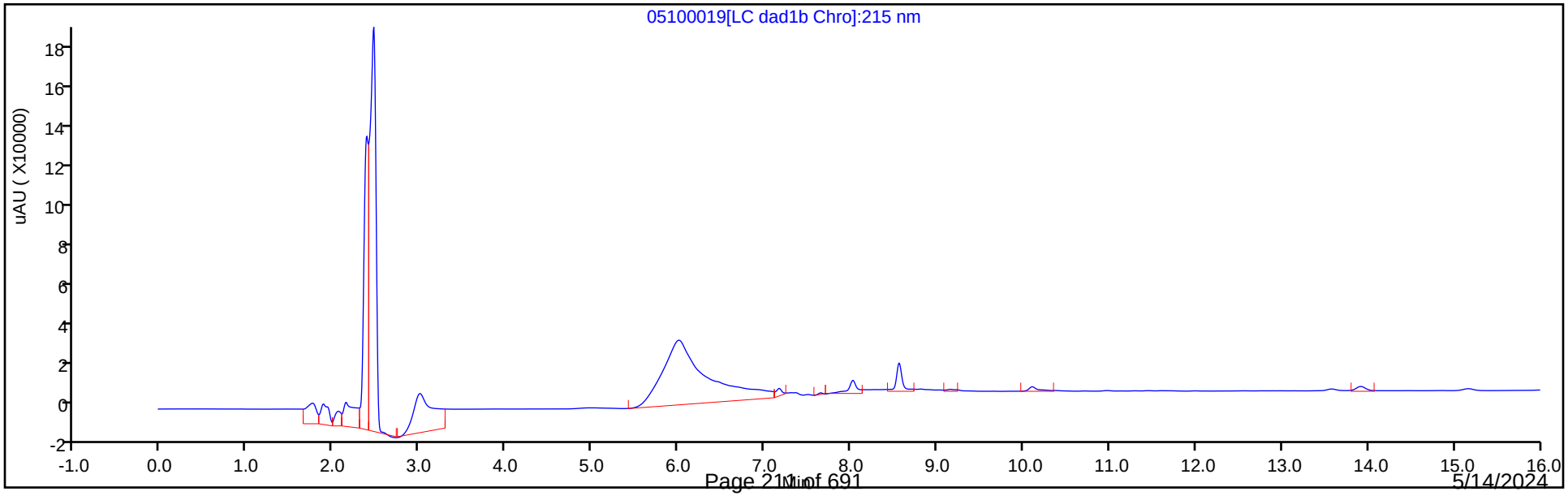
Data File: \\chromfs\denver\chromdata\chhplc_x\20240510-133263.b\05100019.d

Injection Date:	10-May-2024 19:08:07	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	280-190988-A-6-A	Lab Sample ID:	280-190988-6	Worklist Smp#:	19
Client ID:	LL1mw-093-240401-GW				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	19
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20240510-133263.b\05100019.D				
Lims ID:	280-190988-A-6-A				
Client ID:	LL1mw-093-240401-GW				
Sample Type:	Client				
Inject. Date:	10-May-2024 19:08:07	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-190988-A-6-A				
Operator ID:	JZ	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20240510-133263.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	11-May-2024 11:25:09	Calib Date:	18-Apr-2024 03:08:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\04170028.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1652				

First Level Reviewer: LV5D Date: 10-May-2024 19:32:49

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.1877	93.87

Manual Integration/User Assign Peak Report

Eurofins Denver

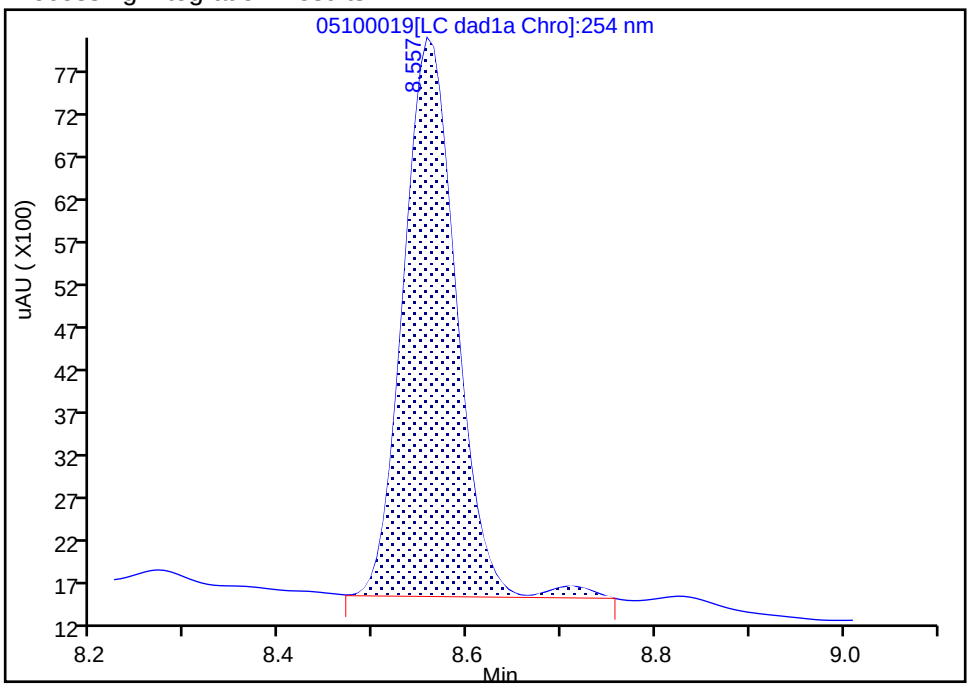
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240510-133263.b\05100019.d				
Injection Date:	10-May-2024 19:08:07	Instrument ID:	CHHPLC_X3		
Lims ID:	280-190988-A-6-A	Lab Sample ID:	280-190988-6		
Client ID:	LL1mw-093-240401-GW				
Operator ID:	JZ	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

$ 10 1,2-Dinitrobenzene, CAS: 528-29-0

Signal: 1

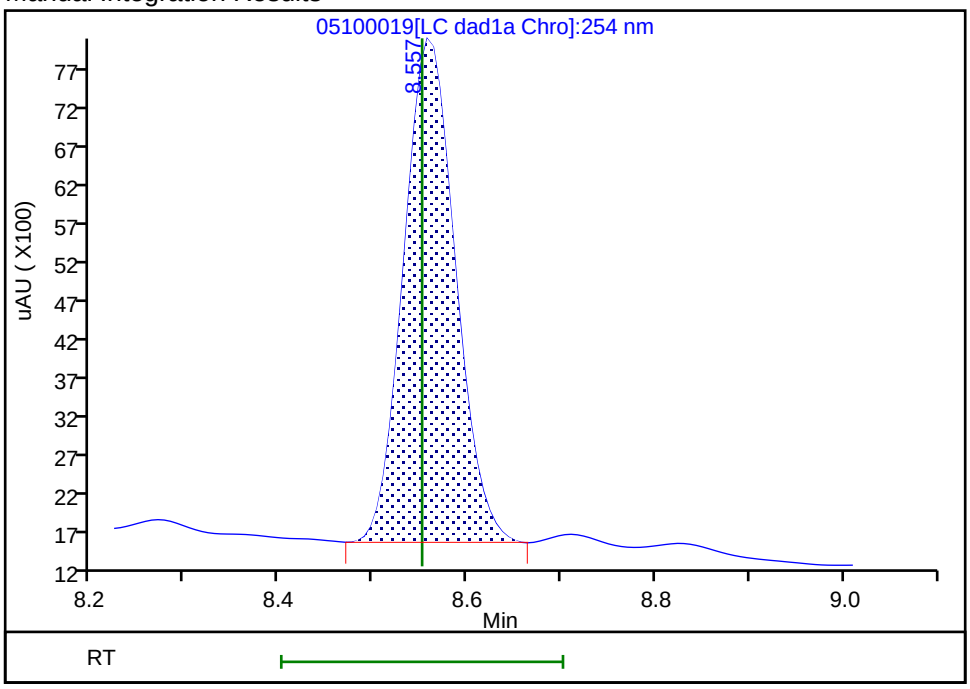
Processing Integration Results

RT: 8.56
Area: 25531
Amount: 0.193247
Amount Units: ug/mL



Manual Integration Results

RT: 8.56
Area: 24807
Amount: 0.187747
Amount Units: ug/mL



Reviewer: LV5D, 10-May-2024 19:32:47 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline

User Disabled Compound Report

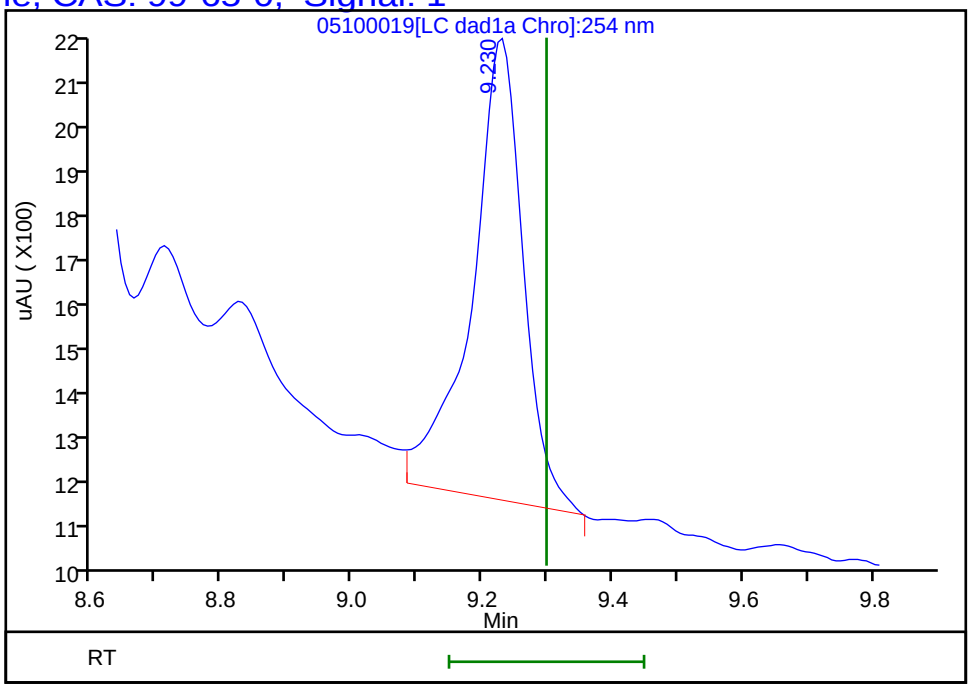
Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20240510-133263.b\05100019.d

Injection Date:	10-May-2024 19:08:07	Instrument ID:	CHHPLC_X3		
Lims ID:	280-190988-A-6-A	Lab Sample ID:	280-190988-6		
Client ID:	LL1mw-093-240401-GW				
Operator ID:	JZ	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

12 1,3-Dinitrobenzene, CAS: 99-65-0, Signal: 1

RT: 9.23
Response: 5333
Amount: 0.017810



Reviewer: LV5D, 10-May-2024 19:32:49
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Manual Integration/User Assign Peak Report

Eurofins Denver

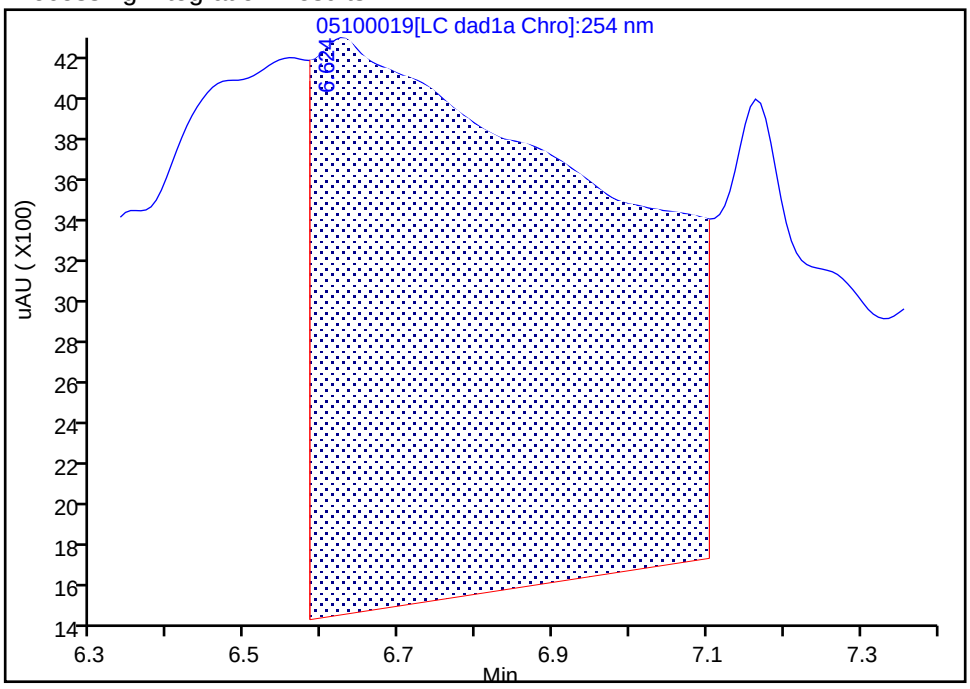
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240510-133263.b\05100019.d				
Injection Date:	10-May-2024 19:08:07	Instrument ID:	CHHPLC_X3		
Lims ID:	280-190988-A-6-A	Lab Sample ID:	280-190988-6		
Client ID:	LL1mw-093-240401-GW				
Operator ID:	JZ	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

4 HMX, CAS: 2691-41-0

Signal: 1

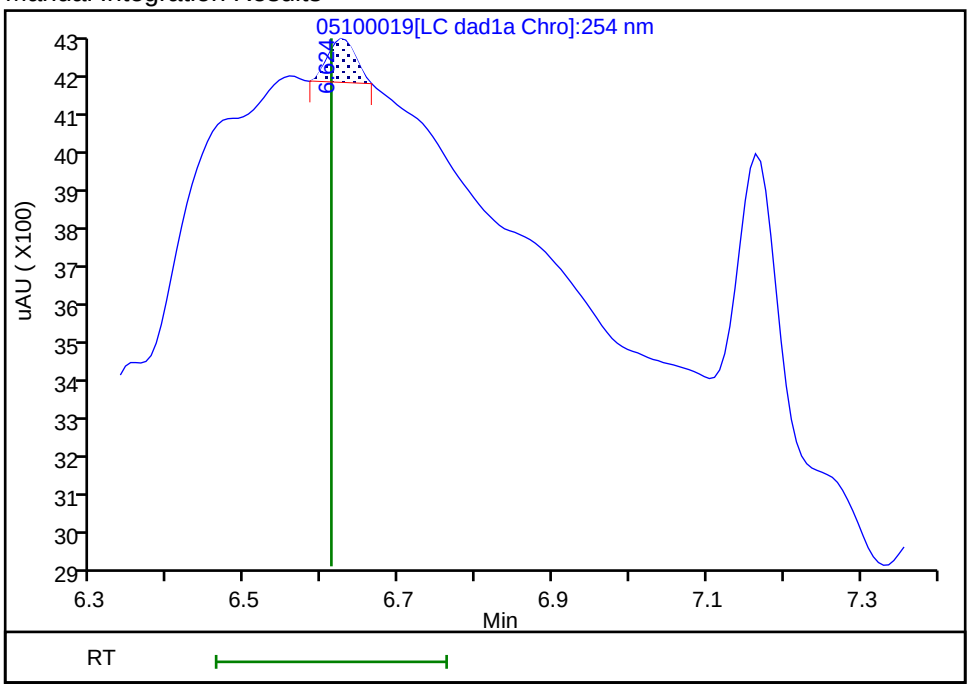
Processing Integration Results

RT: 6.62
Area: 68400
Amount: 0.715903
Amount Units: ug/mL



Manual Integration Results

RT: 6.62
Area: 280
Amount: 0.002931
Amount Units: ug/mL



Reviewer: LV5D, 10-May-2024 19:32:42 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline

User Disabled Compound Report

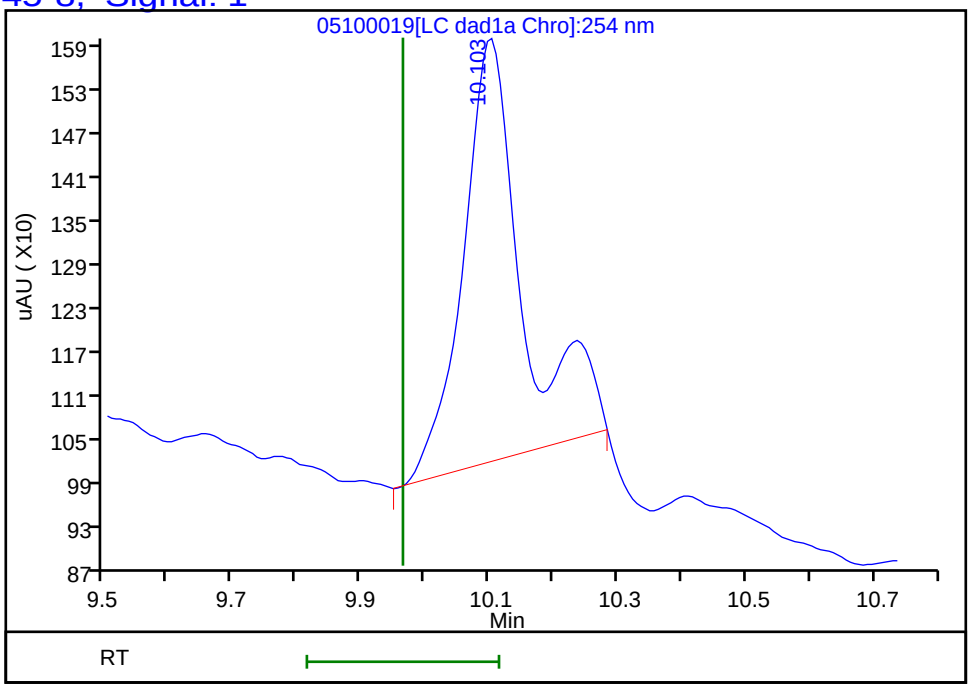
Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20240510-133263.b\05100019.d

Injection Date:	10-May-2024 19:08:07	Instrument ID:	CHHPLC_X3		
Lims ID:	280-190988-A-6-A	Lab Sample ID:	280-190988-6		
Client ID:	LL1mw-093-240401-GW				
Operator ID:	JZ	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

15 Tetryl, CAS: 479-45-8, Signal: 1

RT: 10.10
Response: 3667
Amount: 0.020194



Reviewer: LV5D, 10-May-2024 19:32:49
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-190988-1

SDG No.:

Client Sample ID: LL1mw-093-240401-GW | Lab Sample ID: 280-190988-6

Matrix: Water | Lab File ID: 05100014.D

Analysis Method: 8330B | Date Collected: 05/02/2024 12:50

Extraction Method: 3535 | Date Extracted: 05/09/2024 12:56

Sample wt/vol: 473.1(mL) | Date Analyzed: 05/10/2024 21:20

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 100(uL) | GC Column: Luna-phenylhex ID: 4.6(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 653003 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
121-82-4	RDX	0.21	U M	0.22	0.21	0.054

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	98	*M*	83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2_LUNA\20240510-133267.b\05100014.D
Lims ID: 280-190988-A-6-A
Client ID: LL1mw-093-240401-GW
Sample Type: Client
Inject. Date: 10-May-2024 21:20:37 ALS Bottle#: 14 Worklist Smp#: 14
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-190988-A-6-A
Operator ID: JZ Instrument ID: CHHPLC_G2_LUNA

Method: \\chromfs\Denver\ChromData\G2_LUNA\20240510-133267.b\G2_8330_Luna.m
Limit Group: GCSV - 8330
Last Update: 11-May-2024 12:30:17 Calib Date: 25-Apr-2024 07:39:21
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\G2_LUNA\20240424-132624.b\04240027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC DAD1A, 254 nm
Process Host: CTX1652

First Level Reviewer: LV5D Date: 11-May-2024 12:24:33

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
6 HMX	1		6.652			ND	U
8 RDX	1		8.859			ND	U
9 Nitrobenzene	1		11.372			ND	7
$ 10 1,2-Dinitrobenzene	1	12.286	12.272	0.014	50732	0.1961	M
12 1,3-Dinitrobenzene	1		14.412			ND	
13 Nitroglycerin	2		14.872			ND	U
14 o-Nitrotoluene	1	15.520	15.452	0.068	14693	0.0601	M
15 p-Nitrotoluene	1		15.679			ND	
16 4-Amino-2,6-dinitrotoluene	1		16.159			ND	U
17 m-Nitrotoluene	1		16.519			ND	
18 2-Amino-4,6-dinitrotoluene	1		16.966			ND	U
19 1,3,5-Trinitrobenzene	1		17.206			ND	U
20 2,6-Dinitrotoluene	1		18.272			ND	U
21 2,4-Dinitrotoluene	1		18.726			ND	
22 Tetryl	1		21.886			ND	
23 2,4,6-Trinitrotoluene	1		22.746			ND	7
24 PETN	2		23.892			ND	7

QC Flag Legend

Processing Flags
7 - Failed Limit of Detection
Review Flags
M - Manually Integrated
U - Marked Undetected

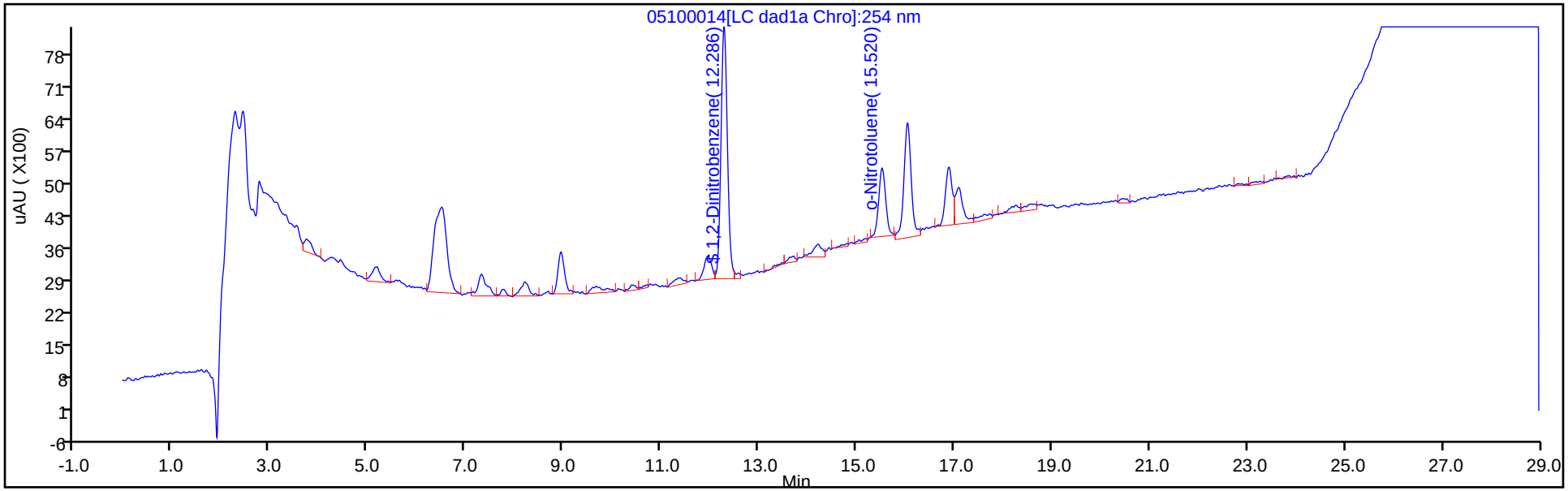
Report Date: 11-May-2024 12:30:21 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

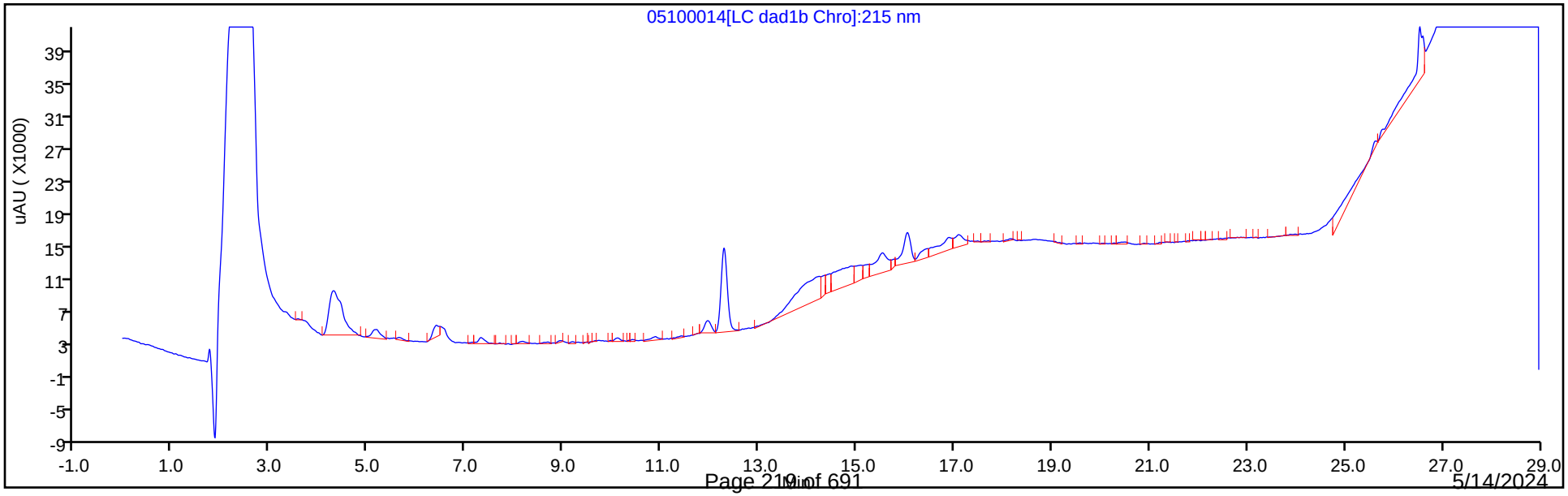
Data File: \\chromfs\denver\chromdata\g2_luna\20240510-133267.b\05100014.d

Injection Date:	10-May-2024 21:20:37	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	JZ
Lims ID:	280-190988-A-6-A	Lab Sample ID:	280-190988-6	Worklist Smp#:	14
Client ID:	LL1mw-093-240401-GW				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	14
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



5/14/2024
9:20:15 AM

Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\G2_LUNA\20240510-133267.b\05100014.D				
Lims ID:	280-190988-A-6-A				
Client ID:	LL1mw-093-240401-GW				
Sample Type:	Client				
Inject. Date:	10-May-2024 21:20:37	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-190988-A-6-A				
Operator ID:	JZ	Instrument ID:	CHHPLC_G2_LUNA		
Method:	\\chromfs\Denver\ChromData\G2_LUNA\20240510-133267.b\G2_8330_Luna.m				
Limit Group:	GCSV - 8330				
Last Update:	11-May-2024 12:30:17	Calib Date:	25-Apr-2024 07:39:21		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\G2_LUNA\20240424-132624.b\04240027.D				
Column 1 :	Luna-Phenyl hexyl (4.60 mm)		Det: LC DAD1A, 254 nm		
Process Host:	CTX1652				

First Level Reviewer: LV5D Date: 11-May-2024 12:24:33

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.1961	98.06

Manual Integration/User Assign Peak Report

Eurofins Denver

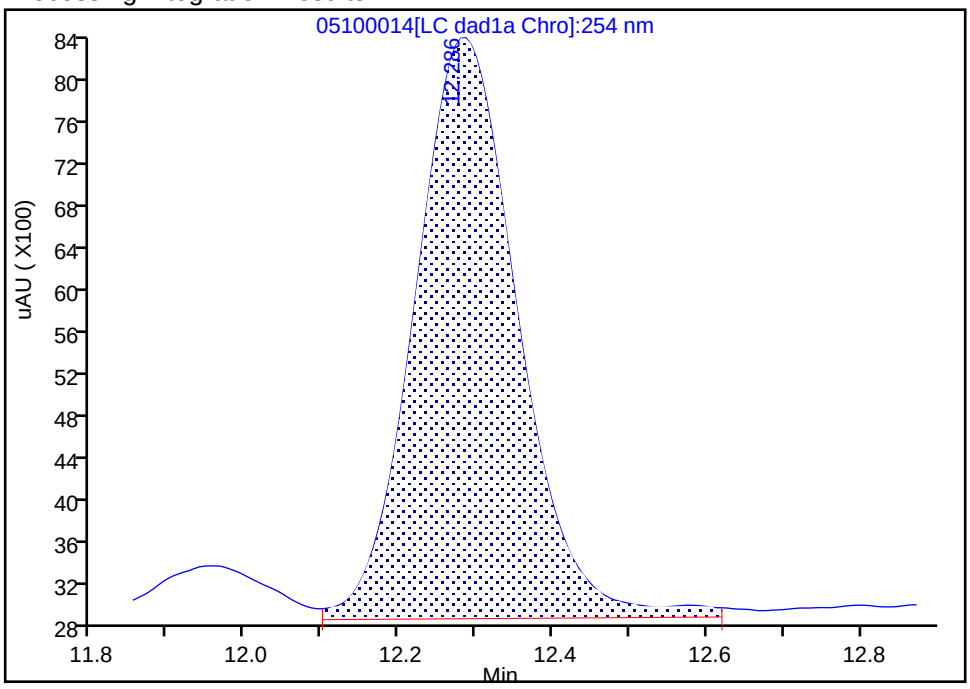
Data File:	\\chromfs\denver\chromdata\g2_luna\20240510-133267.b\05100014.d				
Injection Date:	10-May-2024 21:20:37	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	280-190988-A-6-A	Lab Sample ID:	280-190988-6		
Client ID:	LL1mw-093-240401-GW				
Operator ID:	JZ	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

$ 10 1,2-Dinitrobenzene, CAS: 528-29-0

Signal: 1

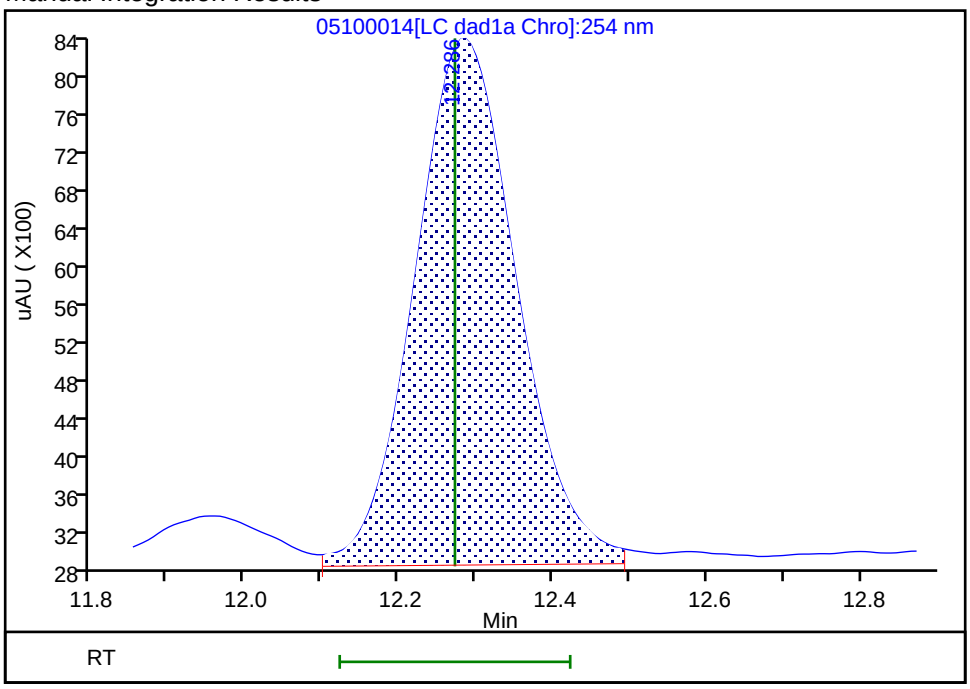
Processing Integration Results

RT: 12.29
Area: 51555
Amount: 0.199293
Amount Units: ug/ml



Manual Integration Results

RT: 12.29
Area: 50732
Amount: 0.196112
Amount Units: ug/ml



Reviewer: LV5D, 11-May-2024 12:23:40 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline

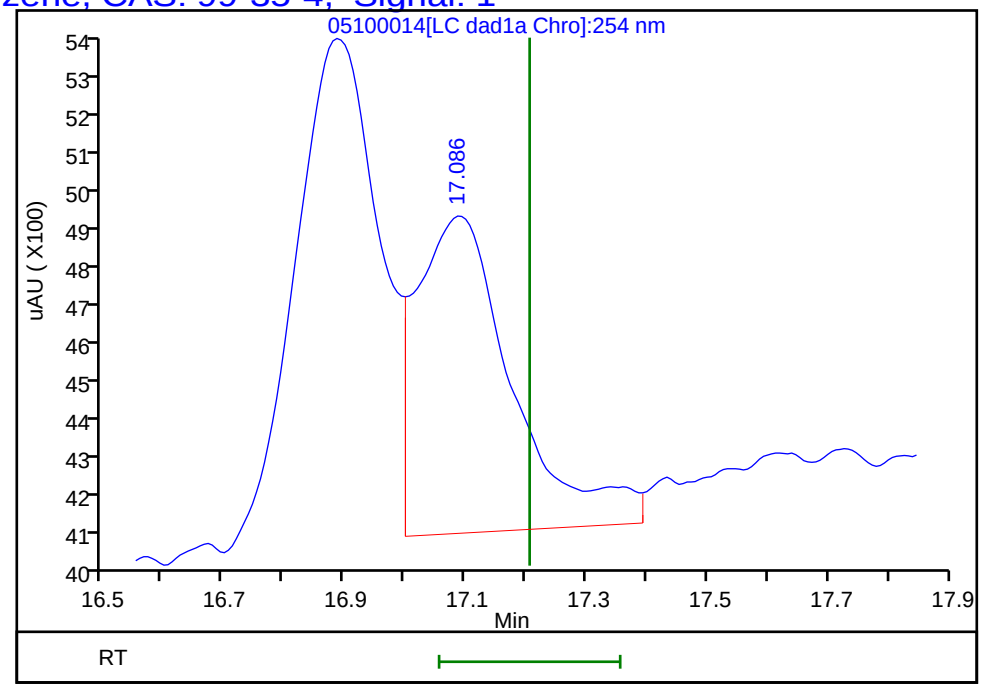
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\denver\chromdata\g2_luna\20240510-133267.b\05100014.d				
Injection Date:	10-May-2024 21:20:37	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	280-190988-A-6-A	Lab Sample ID:	280-190988-6		
Client ID:	LL1mw-093-240401-GW				
Operator ID:	JZ	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

19 1,3,5-Trinitrobenzene, CAS: 99-35-4, Signal: 1

RT: 17.09
Response: 8623
Amount: 0.020363



Reviewer: LV5D, 11-May-2024 12:24:33
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

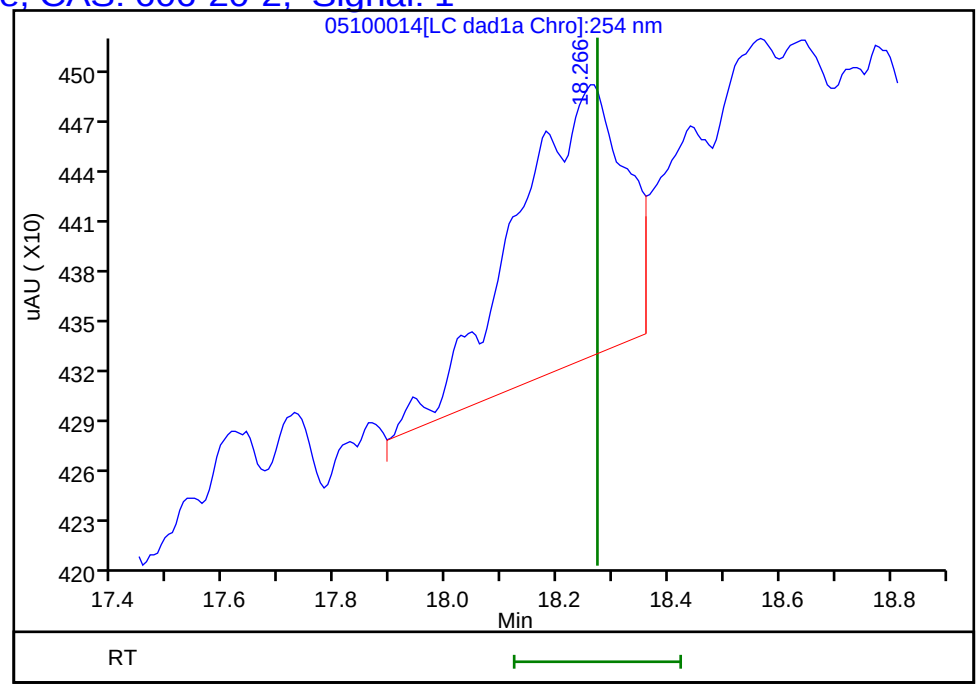
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\denver\chromdata\g2_luna\20240510-133267.b\05100014.d				
Injection Date:	10-May-2024 21:20:37	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	280-190988-A-6-A	Lab Sample ID:	280-190988-6		
Client ID:	LL1mw-093-240401-GW				
Operator ID:	JZ	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

20 2,6-Dinitrotoluene, CAS: 606-20-2, Signal: 1

RT: 18.27
Response: 2192
Amount: 0.007886



Reviewer: LV5D, 11-May-2024 12:24:33
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

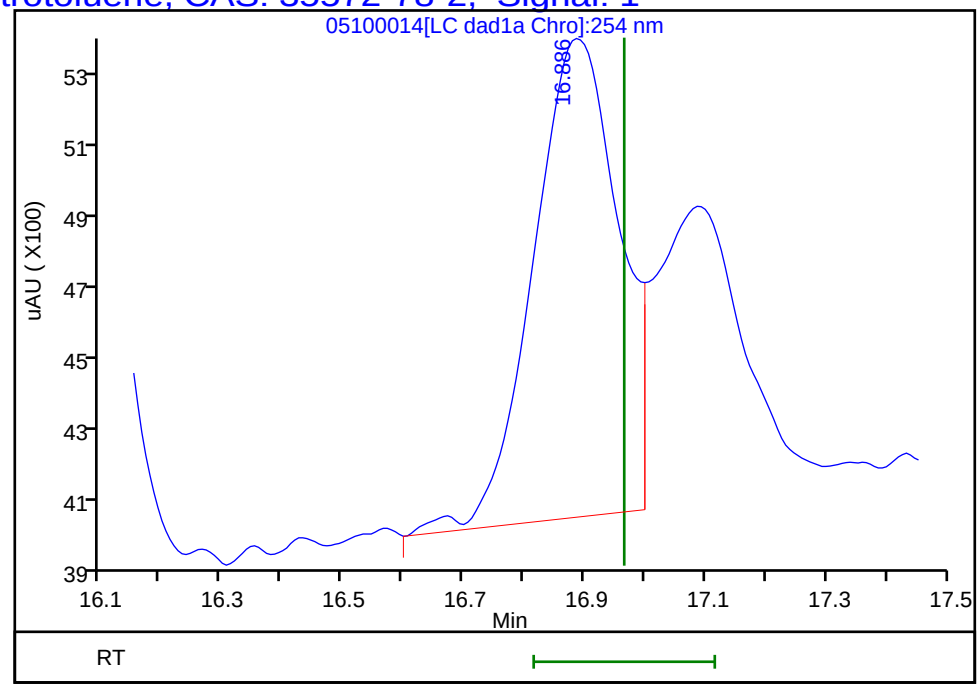
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\denver\chromdata\g2_luna\20240510-133267.b\05100014.d				
Injection Date:	10-May-2024 21:20:37	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	280-190988-A-6-A	Lab Sample ID:	280-190988-6		
Client ID:	LL1mw-093-240401-GW				
Operator ID:	JZ	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

18 2-Amino-4,6-dinitrotoluene, CAS: 35572-78-2, Signal: 1

RT: 16.89
Response: 12424
Amount: 0.030634



Reviewer: LV5D, 11-May-2024 12:24:33
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Manual Integration/User Assign Peak Report

Eurofins Denver

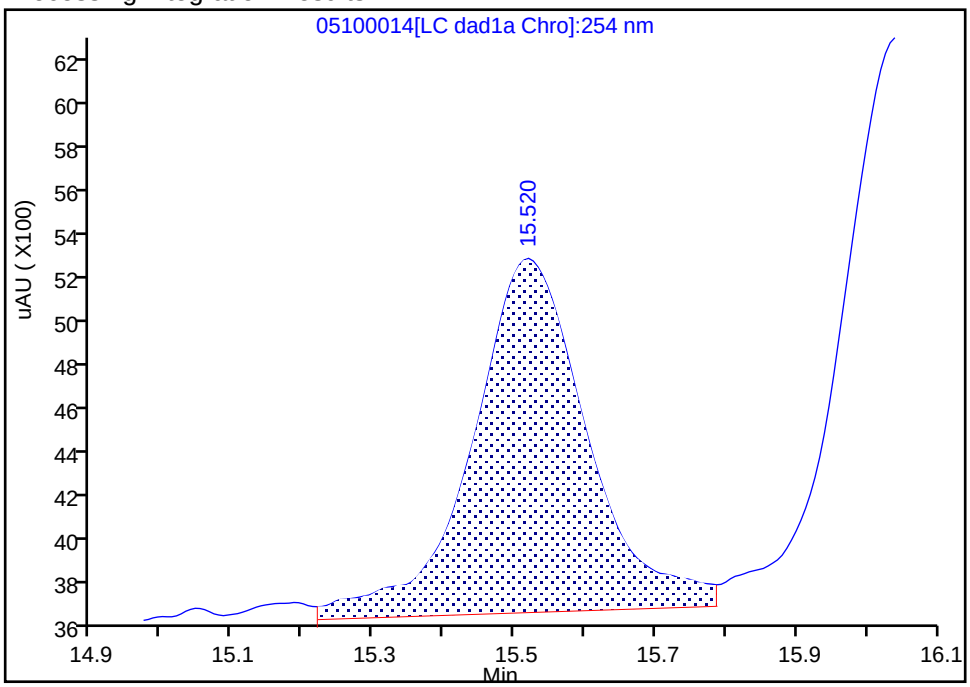
Data File:	\\chromfs\denver\chromdata\g2_luna\20240510-133267.b\05100014.d				
Injection Date:	10-May-2024 21:20:37	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	280-190988-A-6-A	Lab Sample ID:	280-190988-6		
Client ID:	LL1mw-093-240401-GW				
Operator ID:	JZ	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

14 o-Nitrotoluene, CAS: 88-72-2

Signal: 1

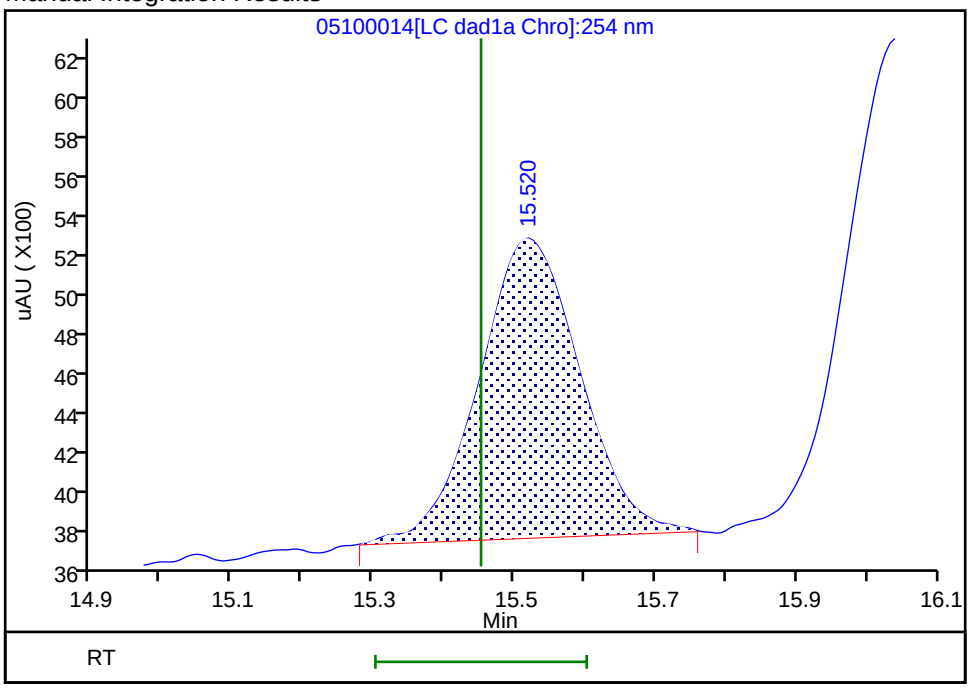
Processing Integration Results

RT: 15.52
Area: 18098
Amount: 0.073992
Amount Units: ug/ml



Manual Integration Results

RT: 15.52
Area: 14693
Amount: 0.060071
Amount Units: ug/ml



Reviewer: LV5D, 11-May-2024 12:24:32 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline

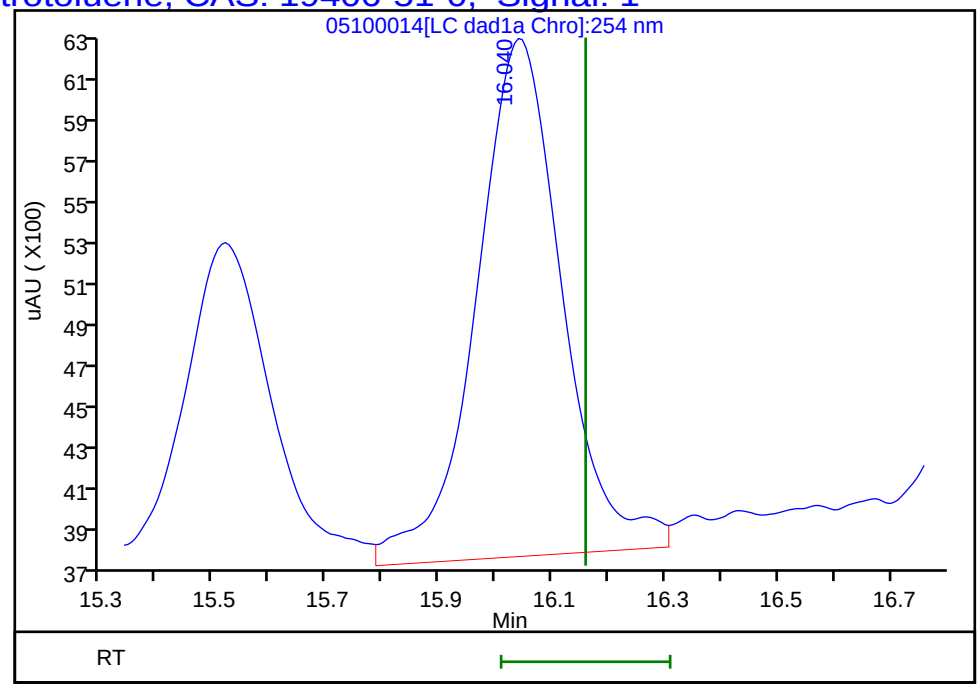
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\denver\chromdata\g2_luna\20240510-133267.b\05100014.d				
Injection Date:	10-May-2024 21:20:37	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	280-190988-A-6-A	Lab Sample ID:	280-190988-6		
Client ID:	LL1mw-093-240401-GW				
Operator ID:	JZ	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

16 4-Amino-2,6-dinitrotoluene, CAS: 19406-51-0, Signal: 1

RT: 16.04
Response: 26392
Amount: 0.095171



Reviewer: LV5D, 11-May-2024 12:24:33
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

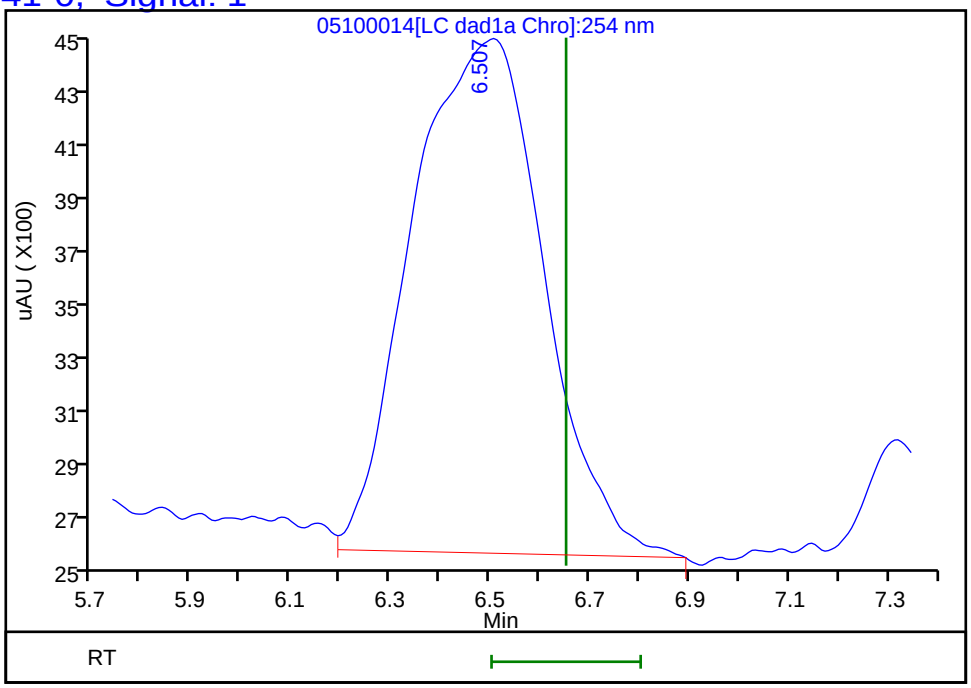
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\denver\chromdata\g2_luna\20240510-133267.b\05100014.d				
Injection Date:	10-May-2024 21:20:37	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	280-190988-A-6-A	Lab Sample ID:	280-190988-6		
Client ID:	LL1mw-093-240401-GW				
Operator ID:	JZ	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

6 HMX, CAS: 2691-41-0, Signal: 1

RT: 6.51
Response: 34579
Amount: 0.198643



Reviewer: LV5D, 11-May-2024 12:24:33
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

User Disabled Compound Report

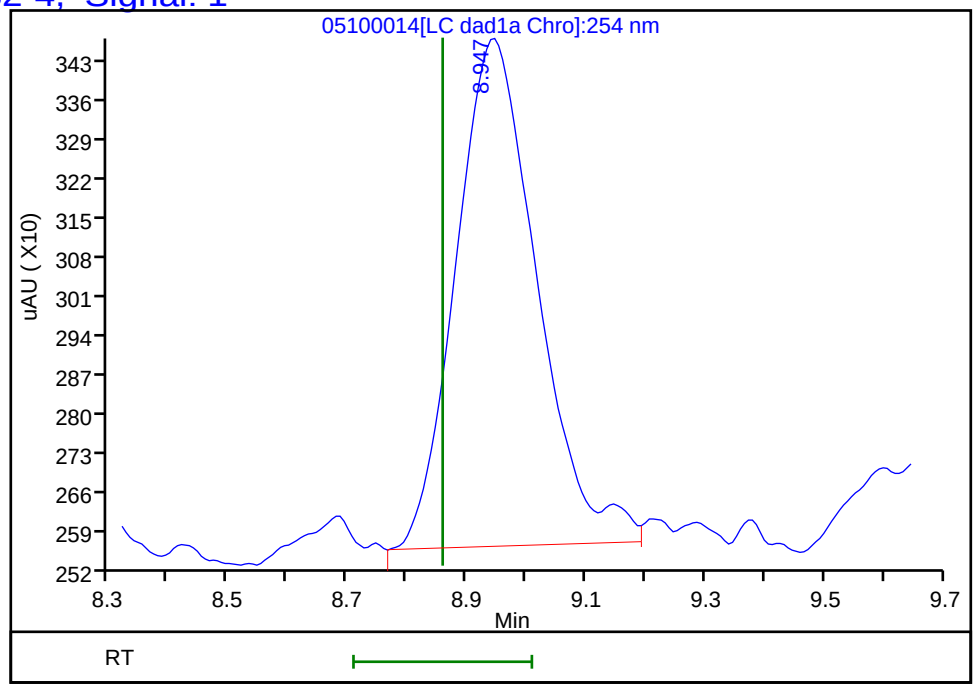
Eurofins Denver

Data File: \\chromfs\denver\chromdata\g2_luna\20240510-133267.b\05100014.d

Injection Date:	10-May-2024 21:20:37	Instrument ID:	CHHPLC_G2_LUNA
Lims ID:	280-190988-A-6-A	Lab Sample ID:	280-190988-6
Client ID:	LL1mw-093-240401-GW		
Operator ID:	JZ	ALS Bottle#:	14 Worklist Smp#: 14
Injection Vol:	100.0 ul	Dil. Factor:	1.0000
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm

8 RDX, CAS: 121-82-4, Signal: 1

RT: 8.95
Response: 8685
Amount: 0.039610



Reviewer: LV5D, 11-May-2024 12:24:33

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-190988-1

SDG No.:

Client Sample ID: LL1mw-091-240401-GW | Lab Sample ID: 280-190988-7

Matrix: Water | Lab File ID: 05100020.D

Analysis Method: 8330B | Date Collected: 05/02/2024 13:12

Extraction Method: 3535 | Date Extracted: 05/09/2024 12:56

Sample wt/vol: 463.9(mL) | Date Analyzed: 05/10/2024 19:31

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 100(uL) | GC Column: UltraCarb5uODS ID: 4.6(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 652983 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-65-0	1,3-Dinitrobenzene	0.11	U M	0.12	0.11	0.040
118-96-7	2,4,6-Trinitrotoluene	0.11	U	0.12	0.11	0.049
121-14-2	2,4-Dinitrotoluene	0.086	U M	0.11	0.086	0.030
606-20-2	2,6-Dinitrotoluene	0.086	U	0.11	0.086	0.043
88-72-2	2-Nitrotoluene	0.22	U	0.23	0.22	0.092
99-08-1	3-Nitrotoluene	0.38	U	0.43	0.38	0.21
19406-51-0	4-Amino-2,6-dinitrotoluene	0.13	U M	0.16	0.13	0.062
99-99-0	4-Nitrotoluene	0.43	U	0.44	0.43	0.11
98-95-3	Nitrobenzene	0.22	U	0.23	0.22	0.098
55-63-0	Nitroglycerin	2.2	U	2.3	2.2	0.99
78-11-5	PETN	1.1	U	1.2	1.1	0.48
479-45-8	Tetryl	0.11	U	0.12	0.11	0.034

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	95	M	83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240510-133263.b\05100020.D
Lims ID: 280-190988-A-7-A
Client ID: LL1mw-091-240401-GW
Sample Type: Client
Inject. Date: 10-May-2024 19:31:06 ALS Bottle#: 20 Worklist Smp#: 20
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-190988-A-7-A
Operator ID: JZ Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20240510-133263.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 11-May-2024 11:25:09 Calib Date: 18-Apr-2024 03:08:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\04170028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1652

First Level Reviewer: LV5D Date: 10-May-2024 19:56:28

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/mL	Flags
4 HMX	1	6.633	6.612	0.021	939	0.009828	M
8 RDX	1	7.653	7.625	0.028	18153	0.1639	M
$ 10 1,2-Dinitrobenzene	1	8.559	8.552	0.007	25125	0.1902	M
11 1,3,5-Trinitrobenzene	1	8.726	8.692	0.034	2565	0.0115	M
12 1,3-Dinitrobenzene	1		9.298			ND	MU
13 Nitrobenzene	1		9.651			ND	
15 Tetryl	1		9.965			ND	
16 Nitroglycerin	2		10.431			ND	
17 2,4,6-Trinitrotoluene	1		10.865			ND	
18 4-Amino-2,6-dinitrotoluene	1		11.038			ND	U
19 2-Amino-4,6-dinitrotoluene	1	11.299	11.291	0.008	1899	0.009504	
20 2,6-Dinitrotoluene	1		11.431			ND	
21 2,4-Dinitrotoluene	1		11.611			ND	U
22 o-Nitrotoluene	1		12.385			ND	
23 p-Nitrotoluene	1		12.805			ND	
24 m-Nitrotoluene	1		13.351			ND	
25 PETN	2		14.398			ND	

QC Flag Legend

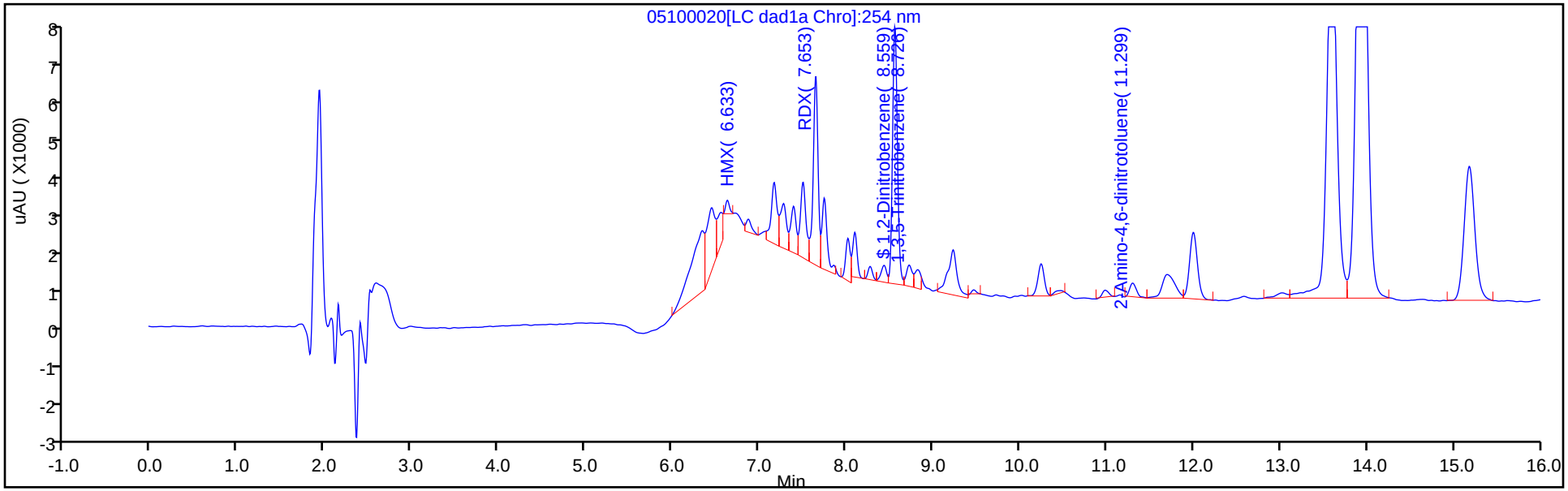
Processing Flags
Review Flags
M - Manually Integrated
U - Marked Undetected

Report Date: 11-May-2024 11:25:13 Chrom Revision: 2.3 01-May-2024 15:52:26

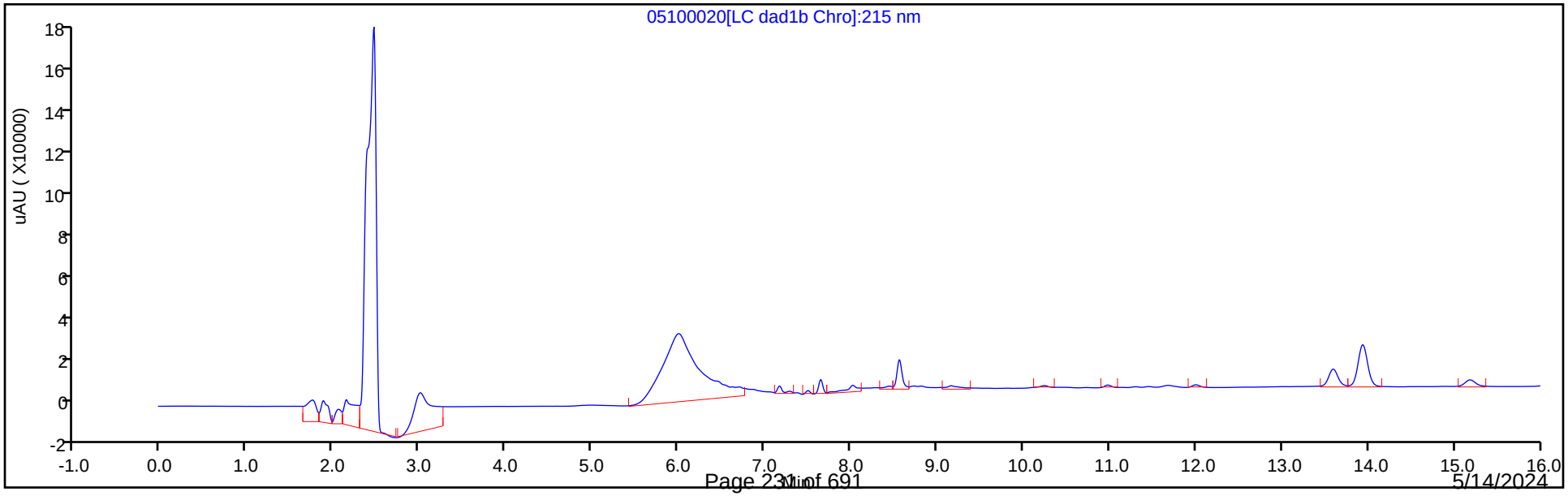
Eurofins Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20240510-133263.b\05100020.d				
Injection Date:	10-May-2024 19:31:06	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	280-190988-A-7-A	Lab Sample ID:	280-190988-7	Worklist Smp#:	20
Client ID:	LL1mw-091-240401-GW				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	20
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20240510-133263.b\05100020.D				
Lims ID:	280-190988-A-7-A				
Client ID:	LL1mw-091-240401-GW				
Sample Type:	Client				
Inject. Date:	10-May-2024 19:31:06	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-190988-A-7-A				
Operator ID:	JZ	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20240510-133263.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	11-May-2024 11:25:09	Calib Date:	18-Apr-2024 03:08:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\04170028.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1652				

First Level Reviewer: LV5D Date: 10-May-2024 19:56:28

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.1902	95.08

Eurofins Denver

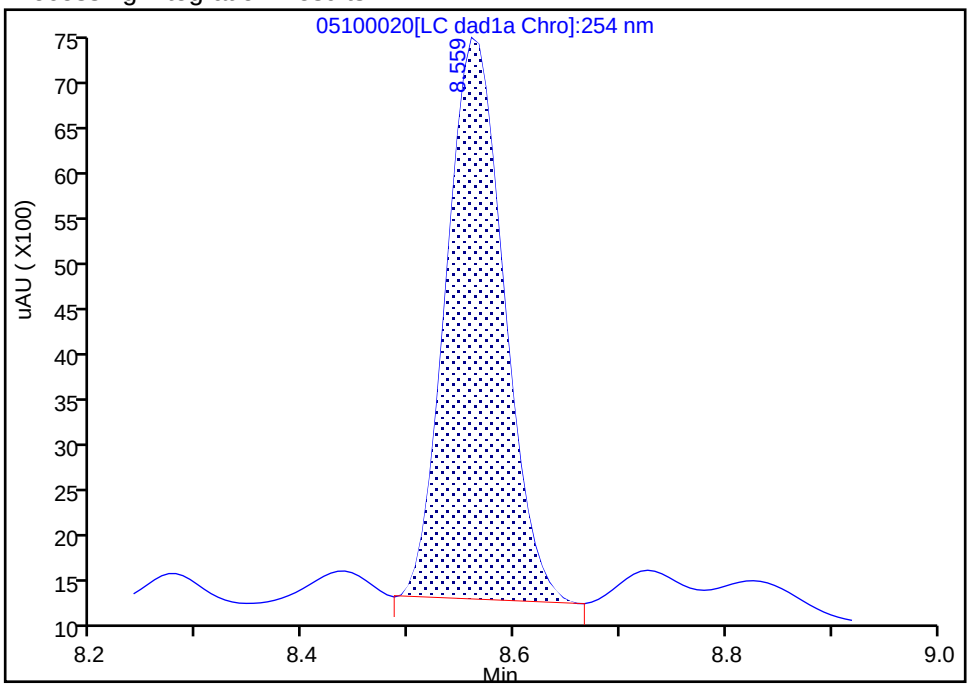
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240510-133263.b\05100020.d				
Injection Date:	10-May-2024 19:31:06	Instrument ID:	CHHPLC_X3		
Lims ID:	280-190988-A-7-A	Lab Sample ID:	280-190988-7		
Client ID:	LL1mw-091-240401-GW				
Operator ID:	JZ	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

$ 10 1,2-Dinitrobenzene, CAS: 528-29-0

Signal: 1

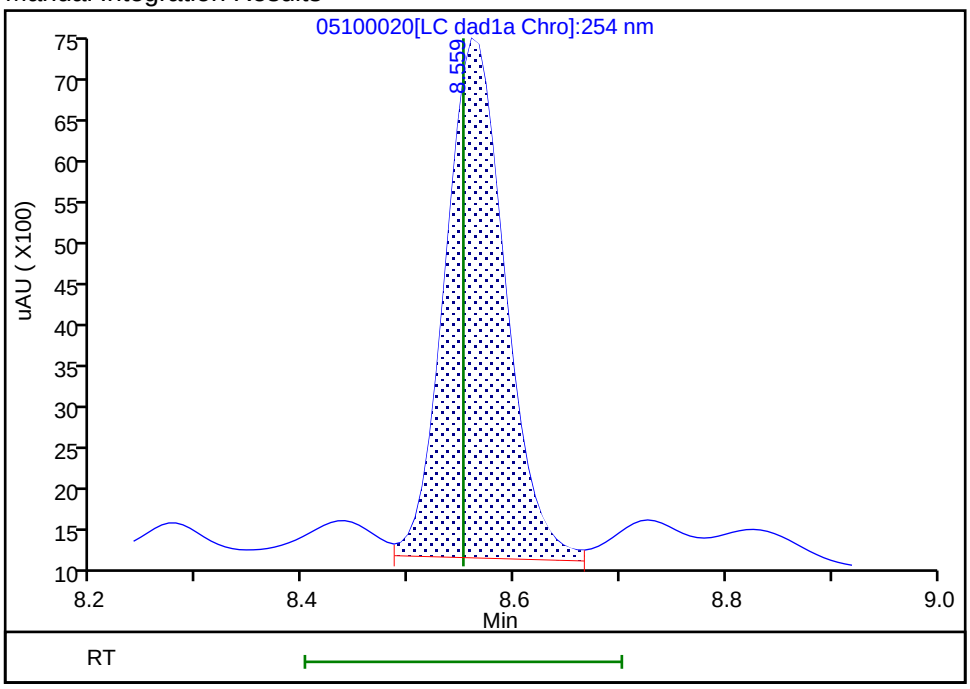
Processing Integration Results

RT: 8.56
Area: 23645
Amount: 0.178919
Amount Units: ug/mL



Manual Integration Results

RT: 8.56
Area: 25125
Amount: 0.190162
Amount Units: ug/mL



Reviewer: LV5D, 10-May-2024 19:56:08 -06:00:00 (UTC)
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

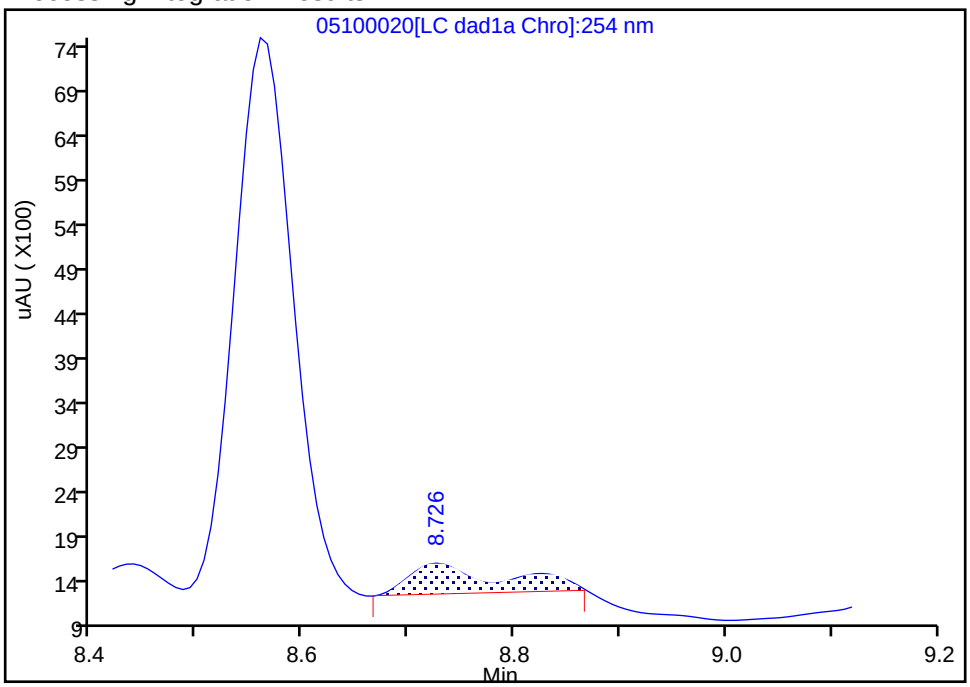
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240510-133263.b\05100020.d				
Injection Date:	10-May-2024 19:31:06	Instrument ID:	CHHPLC_X3		
Lims ID:	280-190988-A-7-A	Lab Sample ID:	280-190988-7		
Client ID:	LL1mw-091-240401-GW				
Operator ID:	JZ	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

11 1,3,5-Trinitrobenzene, CAS: 99-35-4

Signal: 1

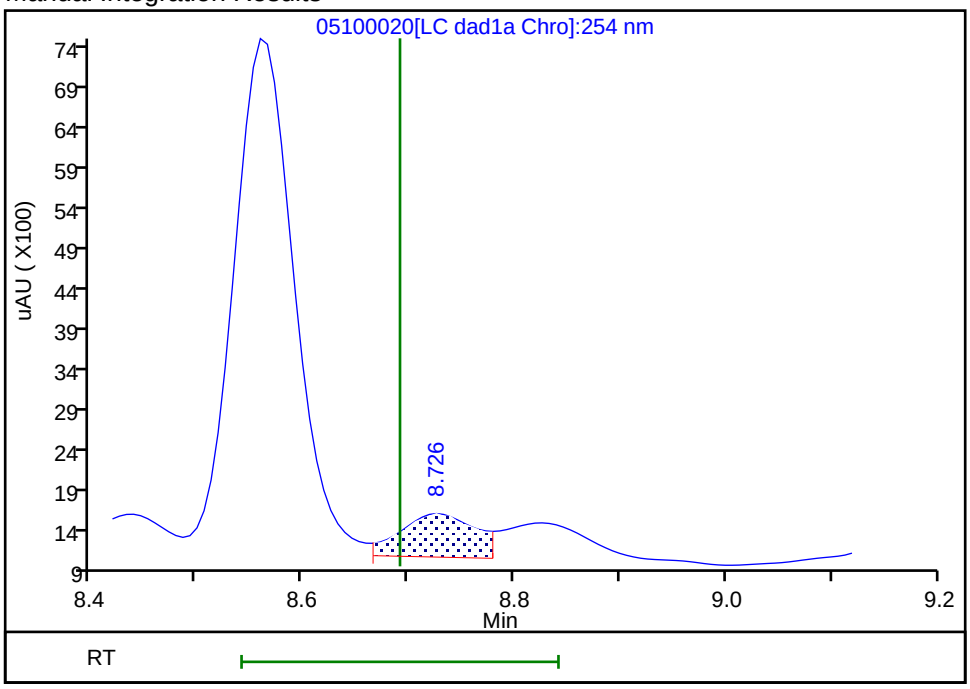
Processing Integration Results

RT: 8.73
Area: 2028
Amount: 0.009100
Amount Units: ug/mL



Manual Integration Results

RT: 8.73
Area: 2565
Amount: 0.011510
Amount Units: ug/mL



Reviewer: LV5D, 10-May-2024 19:56:12 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline

User Disabled Compound Report

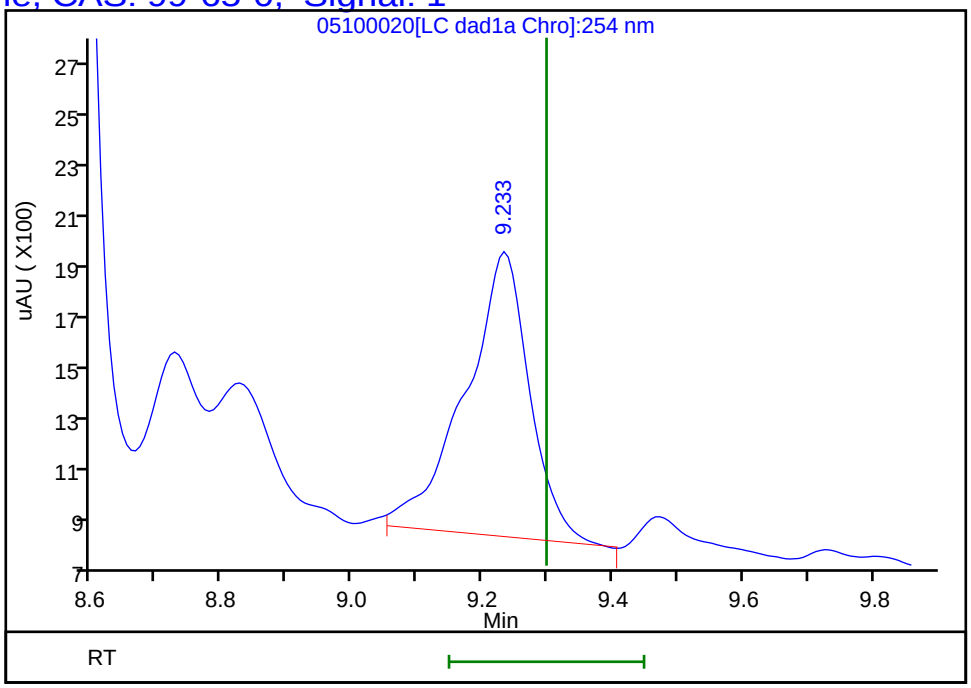
Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20240510-133263.b\05100020.d
Injection Date: 10-May-2024 19:31:06 Instrument ID: CHHPLC_X3
Lims ID: 280-190988-A-7-A Lab Sample ID: 280-190988-7
Client ID: LL1mw-091-240401-GW
Operator ID: JZ ALS Bottle#: 20 Worklist Smp#: 20
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330

Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

12 1,3-Dinitrobenzene, CAS: 99-65-0, Signal: 1

RT: 9.23
Response: 7351
Amount: 0.024550



Reviewer: LV5D, 10-May-2024 19:56:28
Audit Action: Assigned New Baseline Audit Reason: Baseline

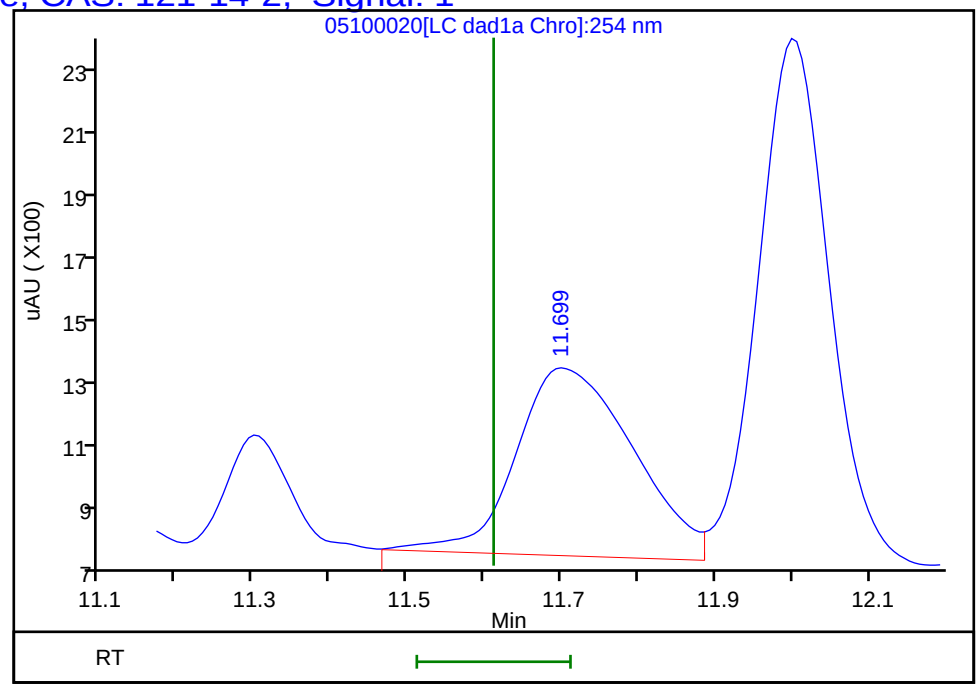
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20240510-133263.b\05100020.d				
Injection Date:	10-May-2024 19:31:06	Instrument ID:	CHHPLC_X3		
Lims ID:	280-190988-A-7-A	Lab Sample ID:	280-190988-7		
Client ID:	LL1mw-091-240401-GW				
Operator ID:	JZ	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

21 2,4-Dinitrotoluene, CAS: 121-14-2, Signal: 1

RT: 11.70
Response: 6295
Amount: 0.021570



Reviewer: LV5D, 10-May-2024 19:56:28
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

User Disabled Compound Report

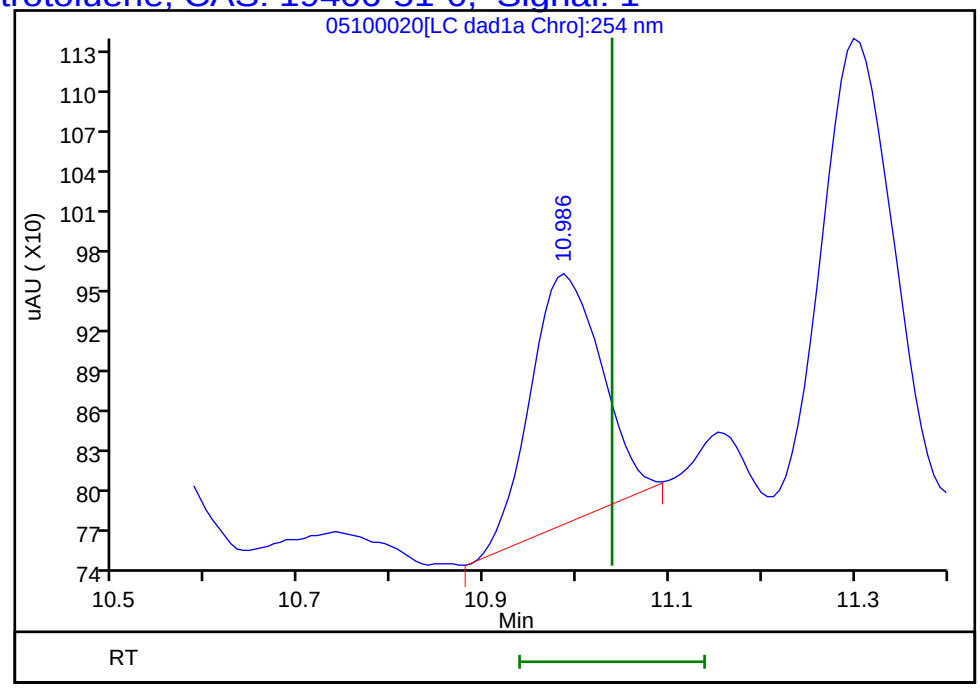
Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20240510-133263.b\05100020.d
Injection Date: 10-May-2024 19:31:06 Instrument ID: CHHPLC_X3
Lims ID: 280-190988-A-7-A Lab Sample ID: 280-190988-7
Client ID: LL1mw-091-240401-GW
Operator ID: JZ ALS Bottle#: 20 Worklist Smp#: 20
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330

Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

18 4-Amino-2,6-dinitrotoluene, CAS: 19406-51-0, Signal: 1

RT: 10.99
Response: 987
Amount: 0.006582



Reviewer: LV5D, 10-May-2024 19:56:28
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Manual Integration/User Assign Peak Report

Eurofins Denver

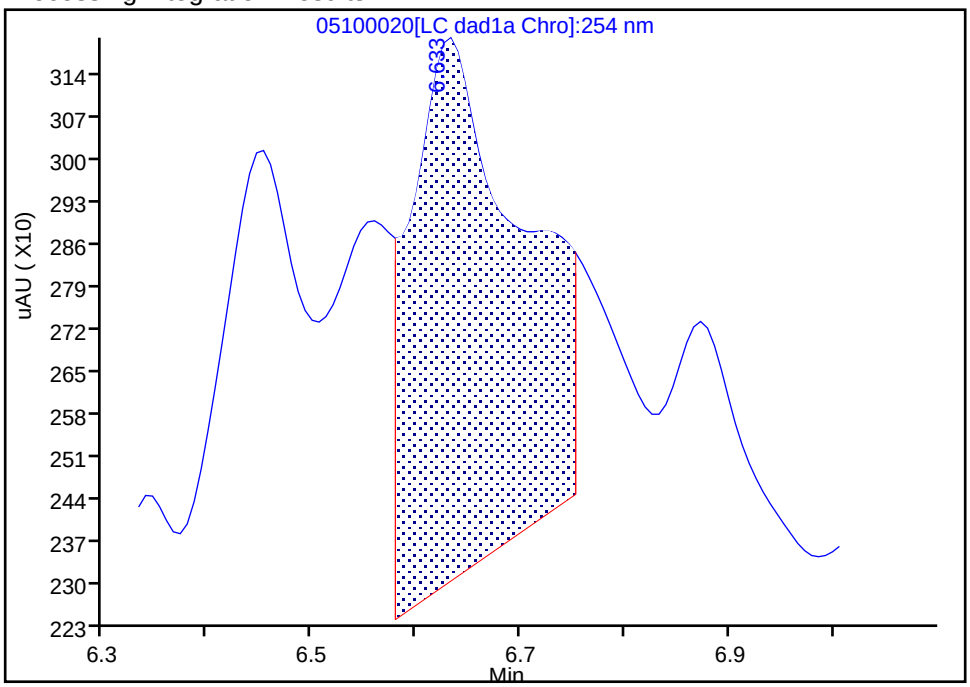
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240510-133263.b\05100020.d				
Injection Date:	10-May-2024 19:31:06	Instrument ID:	CHHPLC_X3		
Lims ID:	280-190988-A-7-A	Lab Sample ID:	280-190988-7		
Client ID:	LL1mw-091-240401-GW				
Operator ID:	JZ	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

4 HMX, CAS: 2691-41-0

Signal: 1

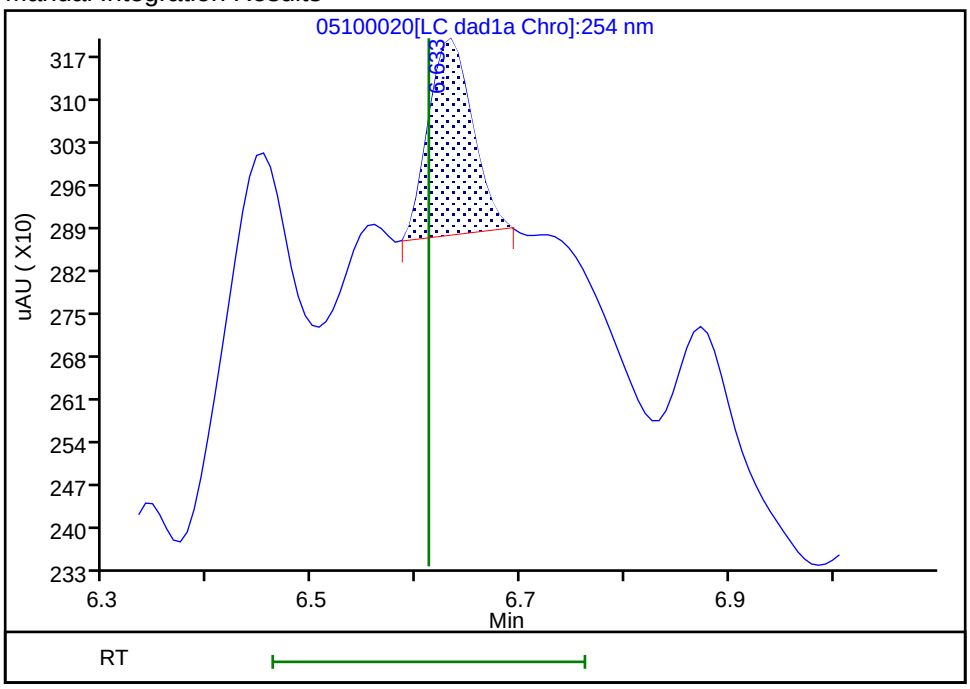
Processing Integration Results

RT: 6.63
Area: 6515
Amount: 0.068189
Amount Units: ug/mL



Manual Integration Results

RT: 6.63
Area: 939
Amount: 0.009828
Amount Units: ug/mL



Reviewer: LV5D, 10-May-2024 19:55:47 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

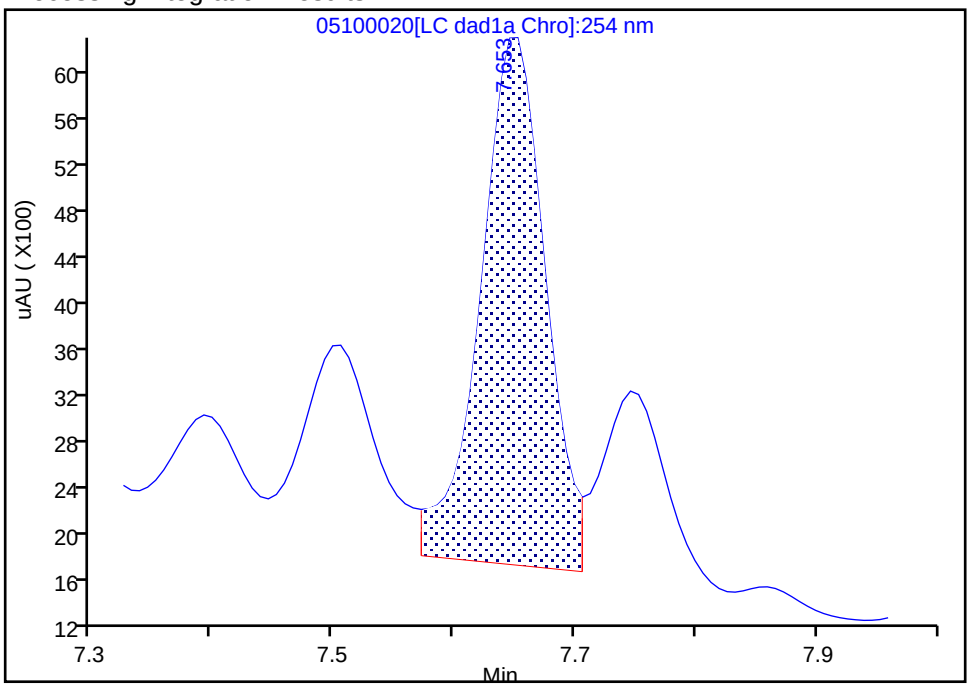
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240510-133263.b\05100020.d				
Injection Date:	10-May-2024 19:31:06	Instrument ID:	CHHPLC_X3		
Lims ID:	280-190988-A-7-A	Lab Sample ID:	280-190988-7		
Client ID:	LL1mw-091-240401-GW				
Operator ID:	JZ	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

8 RDX, CAS: 121-82-4

Signal: 1

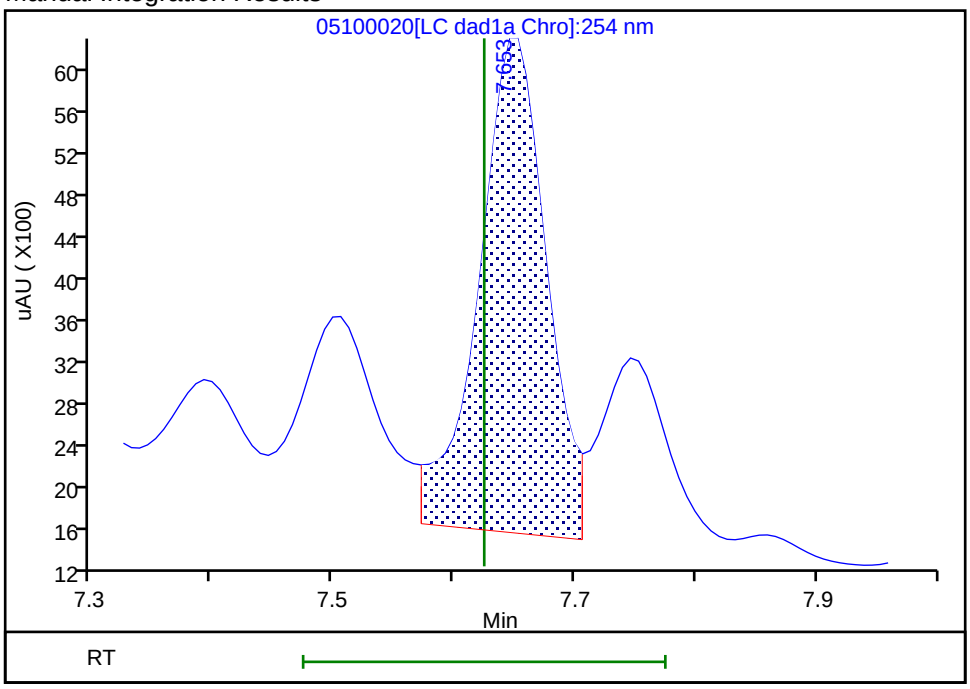
Processing Integration Results

RT: 7.65
Area: 16841
Amount: 0.152040
Amount Units: ug/mL



Manual Integration Results

RT: 7.65
Area: 18153
Amount: 0.163884
Amount Units: ug/mL



Reviewer: LV5D, 10-May-2024 19:56:22 -06:00:00 (UTC)
Audit Action: Assigned New Baseline Audit Reason: Baseline

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-190988-1

SDG No.:

Client Sample ID: LL1mw-091-240401-GW | Lab Sample ID: 280-190988-7

Matrix: Water | Lab File ID: 05100015.D

Analysis Method: 8330B | Date Collected: 05/02/2024 13:12

Extraction Method: 3535 | Date Extracted: 05/09/2024 12:56

Sample wt/vol: 463.9(mL) | Date Analyzed: 05/10/2024 21:56

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 100(uL) | GC Column: Luna-phenylhex ID: 4.6(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 653003 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	0.22	U	0.23	0.22	0.091
35572-78-2	2-Amino-4,6-dinitrotoluene	0.11	U M	0.12	0.11	0.055
2691-41-0	HMX	0.22	U	0.23	0.22	0.094
121-82-4	RDX	0.22	U M	0.23	0.22	0.056

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	97	*M*	83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2_LUNA\20240510-133267.b\05100015.D
Lims ID: 280-190988-A-7-A
Client ID: LL1mw-091-240401-GW
Sample Type: Client
Inject. Date: 10-May-2024 21:56:36 ALS Bottle#: 15 Worklist Smp#: 15
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-190988-A-7-A
Operator ID: JZ Instrument ID: CHHPLC_G2_LUNA

Method: \\chromfs\Denver\ChromData\G2_LUNA\20240510-133267.b\G2_8330_Luna.m
Limit Group: GCSV - 8330
Last Update: 11-May-2024 12:30:17 Calib Date: 25-Apr-2024 07:39:21
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\G2_LUNA\20240424-132624.b\04240027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC DAD1A, 254 nm
Process Host: CTX1652

First Level Reviewer: LV5D Date: 11-May-2024 12:24:56

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
6 HMX	1		6.652			ND	
8 RDX	1		8.859			ND	U
9 Nitrobenzene	1	11.341	11.372	-0.031	6911	0.0181	
$ 10 1,2-Dinitrobenzene	1	12.255	12.272	-0.017	50111	0.1937	M
12 1,3-Dinitrobenzene	1		14.412			ND	
13 Nitroglycerin	2		14.872			ND	U
14 o-Nitrotoluene	1	15.488	15.452	0.036	143887	0.5883	M
15 p-Nitrotoluene	1		15.679			ND	
16 4-Amino-2,6-dinitrotoluene	1		16.159			ND	
17 m-Nitrotoluene	1		16.519			ND	
18 2-Amino-4,6-dinitrotoluene	1		16.966			ND	U
19 1,3,5-Trinitrobenzene	1		17.206			ND	
20 2,6-Dinitrotoluene	1	18.215	18.272	-0.057	2237	0.008048	
21 2,4-Dinitrotoluene	1		18.726			ND	7
22 Tetryl	1		21.886			ND	
23 2,4,6-Trinitrotoluene	1		22.746			ND	
24 PETN	2		23.892			ND	7

QC Flag Legend

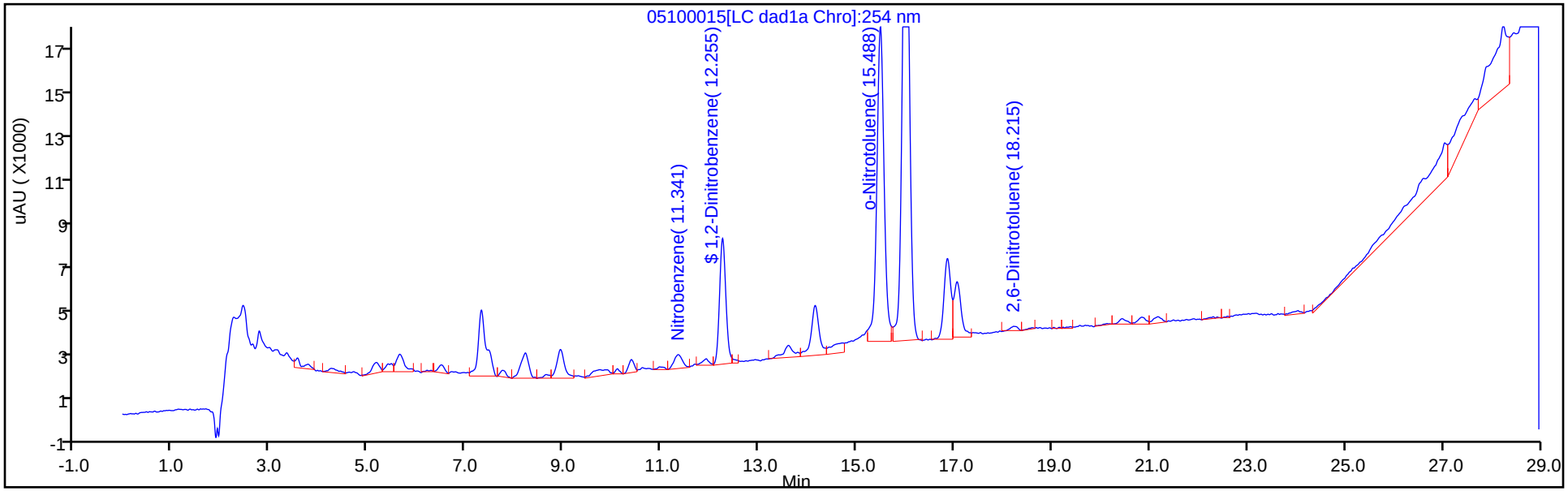
Processing Flags
7 - Failed Limit of Detection
Review Flags
M - Manually Integrated
U - Marked Undetected

Report Date: 11-May-2024 12:30:22 Chrom Revision: 2.3 01-May-2024 15:52:26

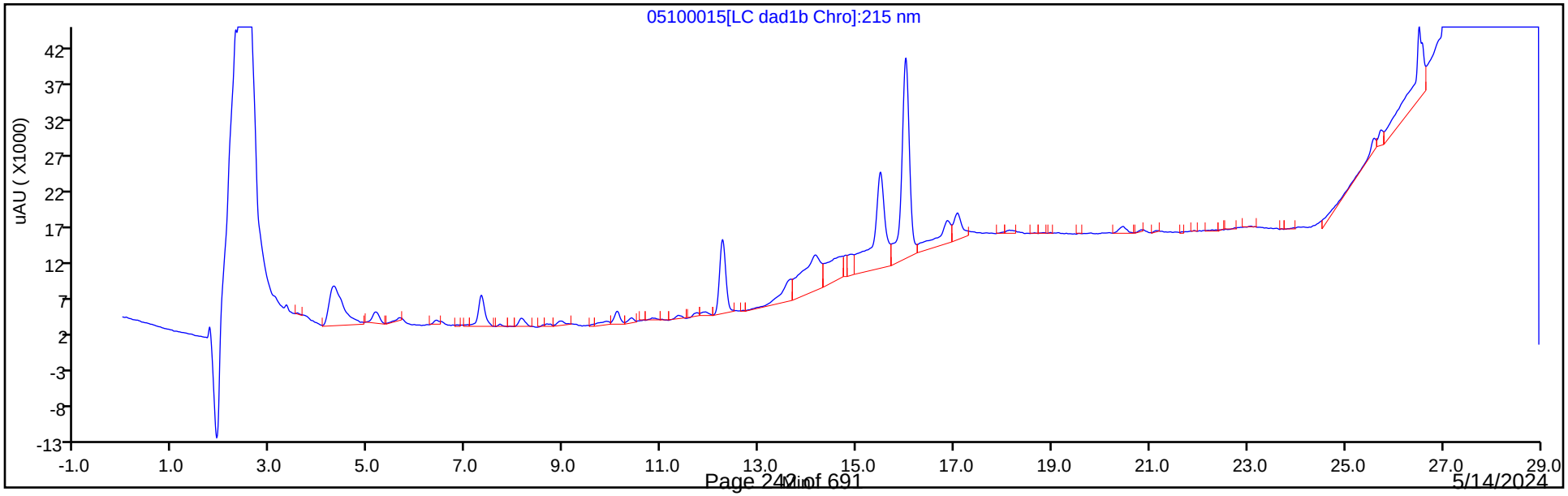
Eurofins Denver

Data File:	\\chromfs\denver\chromdata\g2_luna\20240510-133267.b\05100015.d				
Injection Date:	10-May-2024 21:56:36	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	JZ
Lims ID:	280-190988-A-7-A	Lab Sample ID:	280-190988-7	Worklist Smp#:	15
Client ID:	LL1mw-091-240401-GW				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	15
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\G2_LUNA\20240510-133267.b\05100015.D				
Lims ID:	280-190988-A-7-A				
Client ID:	LL1mw-091-240401-GW				
Sample Type:	Client				
Inject. Date:	10-May-2024 21:56:36	ALS Bottle#:	15	Worklist Smp#:	15
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-190988-A-7-A				
Operator ID:	JZ	Instrument ID:	CHHPLC_G2_LUNA		
Method:	\\chromfs\Denver\ChromData\G2_LUNA\20240510-133267.b\G2_8330_Luna.m				
Limit Group:	GCSV - 8330				
Last Update:	11-May-2024 12:30:17	Calib Date:	25-Apr-2024 07:39:21		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\G2_LUNA\20240424-132624.b\04240027.D				
Column 1 :	Luna-Phenyl hexyl (4.60 mm)		Det: LC DAD1A, 254 nm		
Process Host:	CTX1652				

First Level Reviewer: LV5D Date: 11-May-2024 12:24:56

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.1937	96.86

Manual Integration/User Assign Peak Report

Eurofins Denver

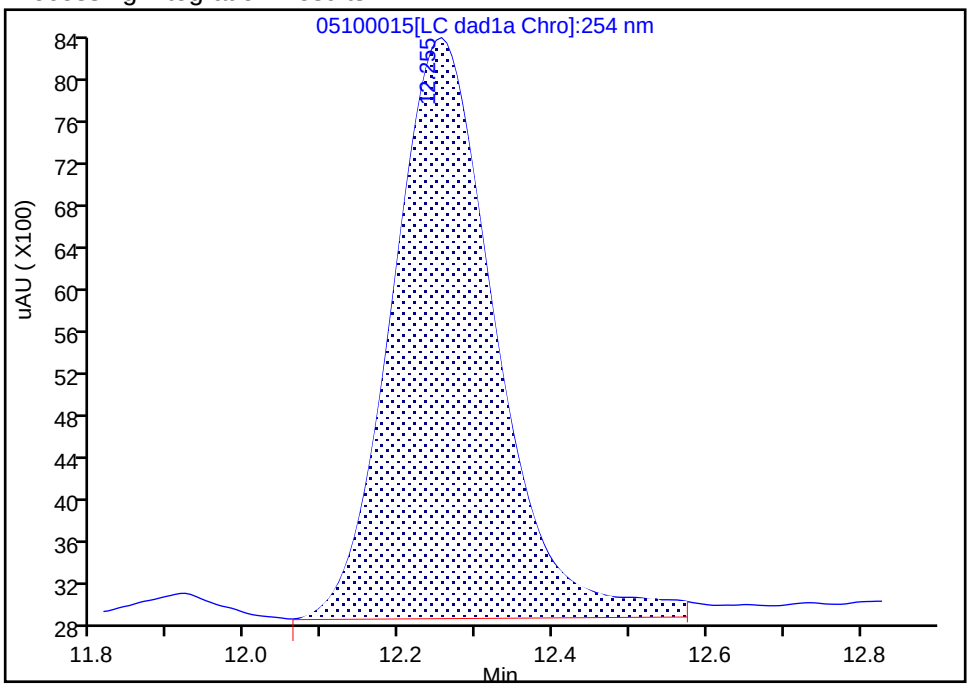
Data File:	\\chromfs\denver\chromdata\g2_luna\20240510-133267.b\05100015.d				
Injection Date:	10-May-2024 21:56:36	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	280-190988-A-7-A	Lab Sample ID:	280-190988-7		
Client ID:	LL1mw-091-240401-GW				
Operator ID:	JZ	ALS Bottle#:	15	Worklist Smp#:	15
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

$ 10 1,2-Dinitrobenzene, CAS: 528-29-0

Signal: 1

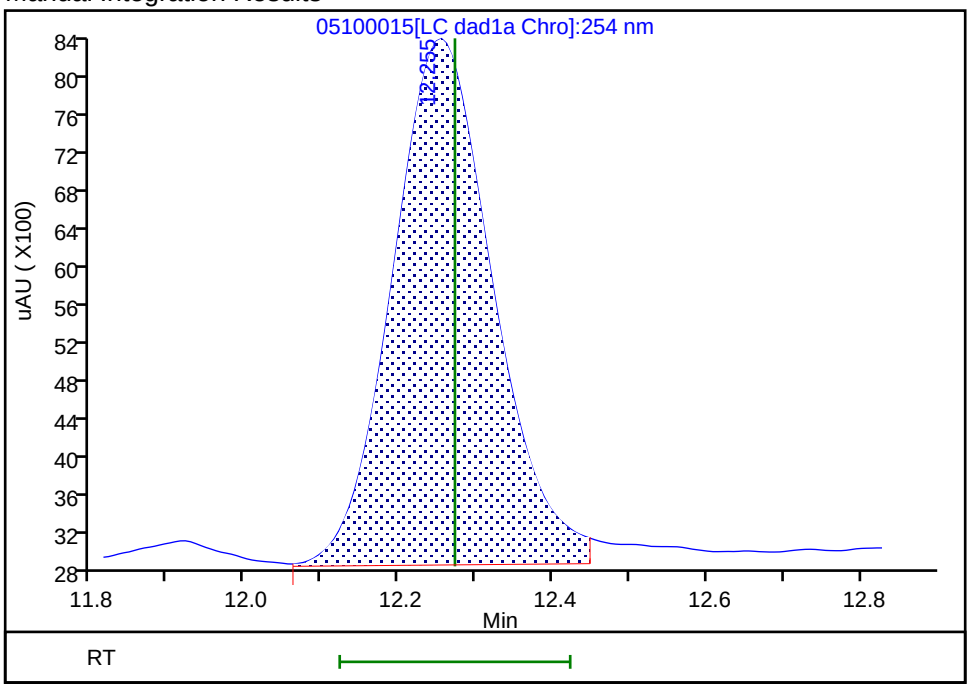
Processing Integration Results

RT: 12.25
Area: 51516
Amount: 0.199143
Amount Units: ug/ml



Manual Integration Results

RT: 12.25
Area: 50111
Amount: 0.193711
Amount Units: ug/ml



Reviewer: LV5D, 11-May-2024 12:24:43 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline

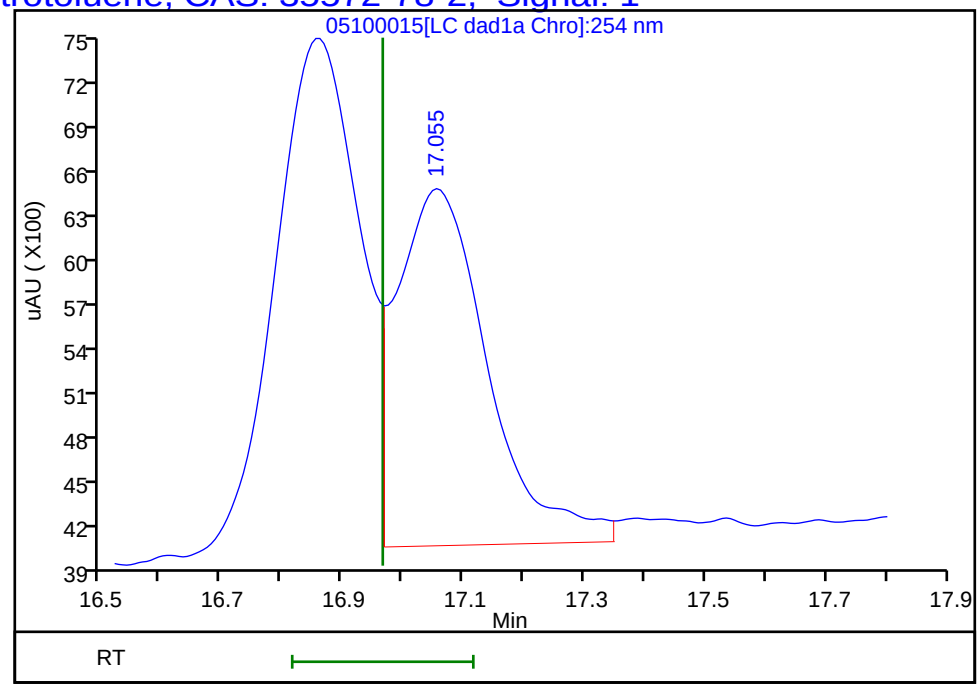
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\denver\chromdata\g2_luna\20240510-133267.b\05100015.d				
Injection Date:	10-May-2024 21:56:36	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	280-190988-A-7-A	Lab Sample ID:	280-190988-7		
Client ID:	LL1mw-091-240401-GW				
Operator ID:	JZ	ALS Bottle#:	15	Worklist Smp#:	15
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

18 2-Amino-4,6-dinitrotoluene, CAS: 35572-78-2, Signal: 1

RT: 17.05
Response: 25083
Amount: 0.061847



Reviewer: LV5D, 11-May-2024 12:24:56
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Manual Integration/User Assign Peak Report

Eurofins Denver

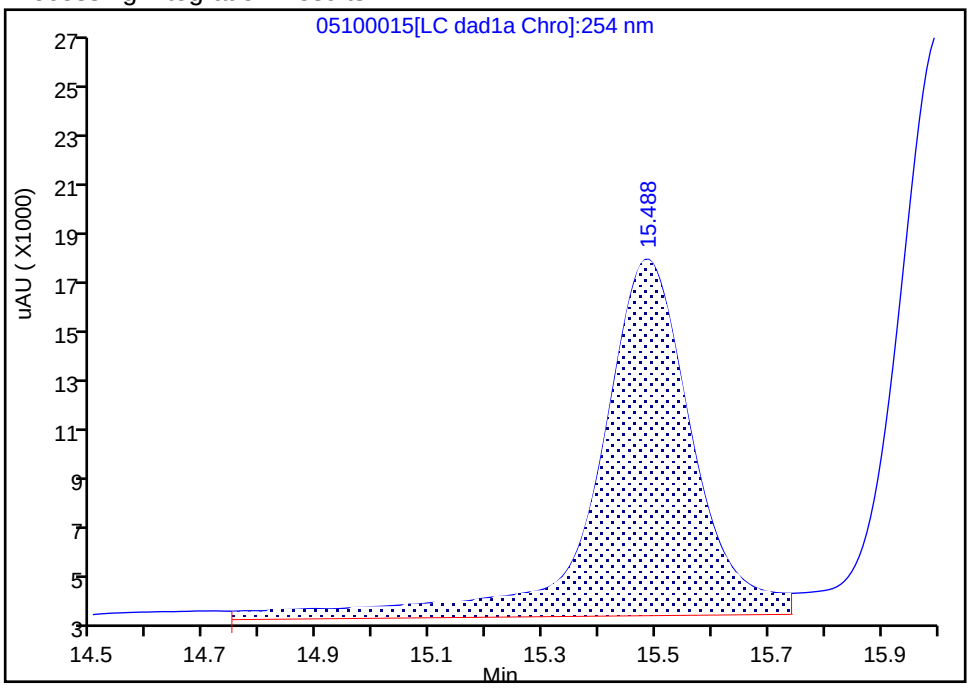
Data File:	\\chromfs\denver\chromdata\g2_luna\20240510-133267.b\05100015.d				
Injection Date:	10-May-2024 21:56:36	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	280-190988-A-7-A	Lab Sample ID:	280-190988-7		
Client ID:	LL1mw-091-240401-GW				
Operator ID:	JZ	ALS Bottle#:	15	Worklist Smp#:	15
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

14 o-Nitrotoluene, CAS: 88-72-2

Signal: 1

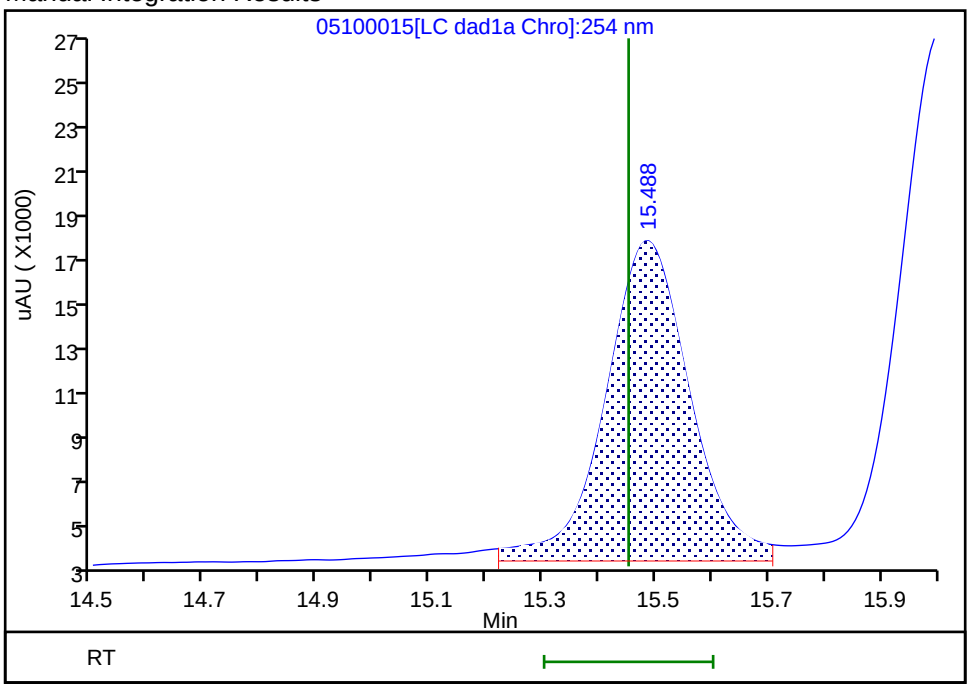
Processing Integration Results

RT: 15.49
Area: 168302
Amount: 0.688086
Amount Units: ug/ml



Manual Integration Results

RT: 15.49
Area: 143887
Amount: 0.588268
Amount Units: ug/ml



Reviewer: LV5D, 11-May-2024 12:25:03 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline

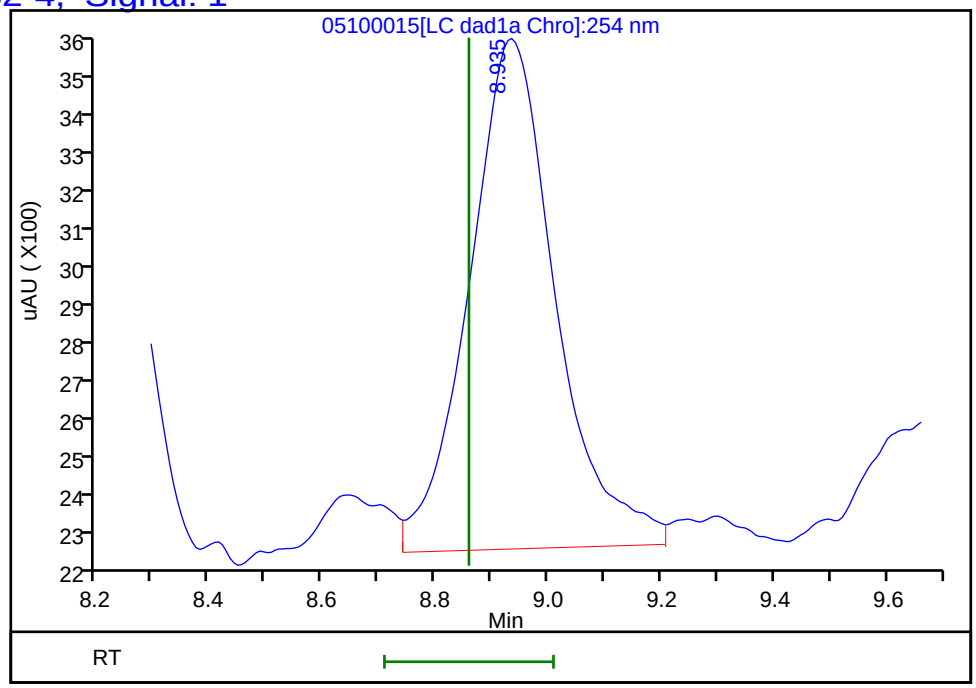
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\denver\chromdata\g2_luna\20240510-133267.b\05100015.d				
Injection Date:	10-May-2024 21:56:36	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	280-190988-A-7-A	Lab Sample ID:	280-190988-7		
Client ID:	LL1mw-091-240401-GW				
Operator ID:	JZ	ALS Bottle#:	15	Worklist Smp#:	15
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

8 RDX, CAS: 121-82-4, Signal: 1

RT: 8.93
Response: 13142
Amount: 0.061283



Reviewer: LV5D, 11-May-2024 12:24:56
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-190988-1

SDG No.:

Client Sample ID: LL1mw-064-240401-GW | Lab Sample ID: 280-190988-8

Matrix: Water | Lab File ID: 05100021.D

Analysis Method: 8330B | Date Collected: 05/02/2024 14:10

Extraction Method: 3535 | Date Extracted: 05/09/2024 12:56

Sample wt/vol: 446.8(mL) | Date Analyzed: 05/10/2024 19:54

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 100(uL) | GC Column: UltraCarb5uODS ID: 4.6(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 652983 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	0.22	U	0.24	0.22	0.094
99-65-0	1,3-Dinitrobenzene	0.11	U M	0.12	0.11	0.041
118-96-7	2,4,6-Trinitrotoluene	0.11	U	0.12	0.11	0.050
121-14-2	2,4-Dinitrotoluene	0.090	U	0.11	0.090	0.031
606-20-2	2,6-Dinitrotoluene	0.090	U	0.11	0.090	0.045
35572-78-2	2-Amino-4,6-dinitrotoluene	0.11	U	0.12	0.11	0.057
88-72-2	2-Nitrotoluene	0.22	U	0.24	0.22	0.096
99-08-1	3-Nitrotoluene	0.39	U	0.45	0.39	0.22
19406-51-0	4-Amino-2,6-dinitrotoluene	0.13	U	0.17	0.13	0.065
99-99-0	4-Nitrotoluene	0.45	U	0.46	0.45	0.11
2691-41-0	HMX	0.22	U M	0.24	0.22	0.098
98-95-3	Nitrobenzene	0.22	U	0.24	0.22	0.10
55-63-0	Nitroglycerin	2.2	U	2.4	2.2	1.0
78-11-5	PETN	1.1	U	1.2	1.1	0.50
121-82-4	RDX	0.22	U	0.24	0.22	0.058
479-45-8	Tetryl	0.11	U	0.12	0.11	0.036

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	93	M	83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240510-133263.b\05100021.D
Lims ID: 280-190988-A-8-A
Client ID: LL1mw-064-240401-GW
Sample Type: Client
Inject. Date: 10-May-2024 19:54:04 ALS Bottle#: 21 Worklist Smp#: 21
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-190988-A-8-A
Operator ID: JZ Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20240510-133263.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 11-May-2024 11:25:09 Calib Date: 18-Apr-2024 03:08:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\04170028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1652

First Level Reviewer: LV5D Date: 10-May-2024 20:22:13

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/mL	Flags
4 HMX	1	6.624	6.612	0.012	406	0.004249	7M
8 RDX	1		7.625			ND	
$ 10 1,2-Dinitrobenzene	1	8.558	8.552	0.006	24470	0.1852	M
11 1,3,5-Trinitrobenzene	1		8.692			ND	
12 1,3-Dinitrobenzene	1		9.298			ND	U
13 Nitrobenzene	1		9.651			ND	
15 Tetryl	1		9.965			ND	
16 Nitroglycerin	2		10.431			ND	
17 2,4,6-Trinitrotoluene	1		10.865			ND	
18 4-Amino-2,6-dinitrotoluene	1		11.038			ND	
19 2-Amino-4,6-dinitrotoluene	1		11.291			ND	
20 2,6-Dinitrotoluene	1		11.431			ND	
21 2,4-Dinitrotoluene	1		11.611			ND	
22 o-Nitrotoluene	1		12.385			ND	
23 p-Nitrotoluene	1		12.805			ND	
24 m-Nitrotoluene	1		13.351			ND	
25 PETN	2		14.398			ND	

QC Flag Legend

Processing Flags
7 - Failed Limit of Detection
Review Flags
M - Manually Integrated
U - Marked Undetected

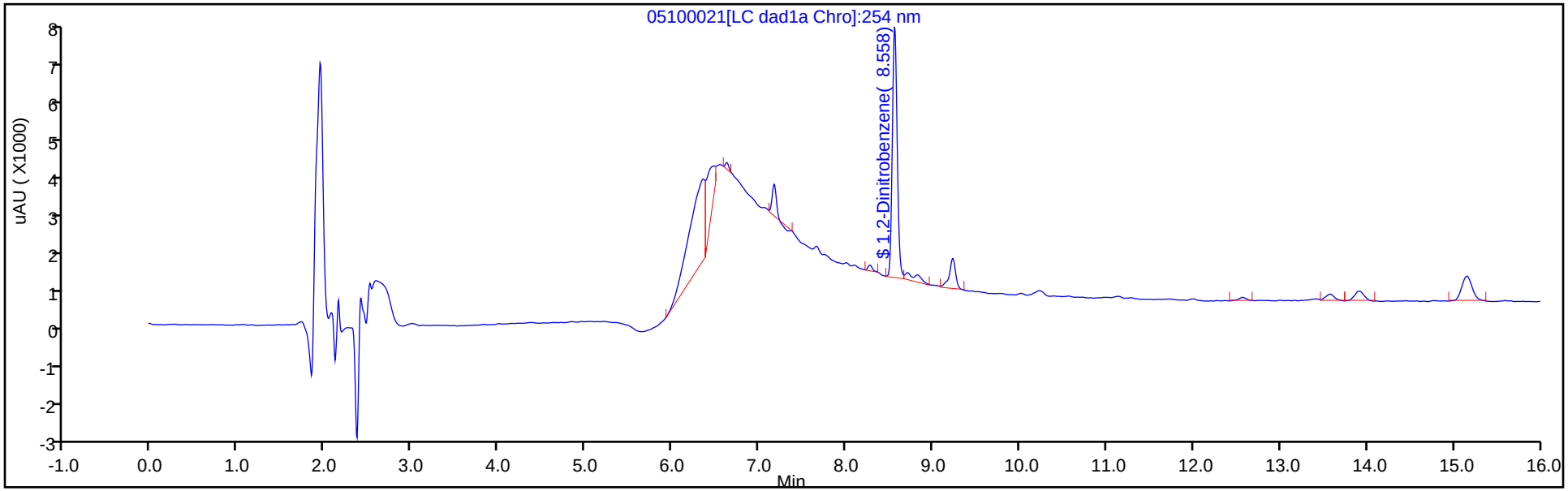
Report Date: 11-May-2024 11:25:14 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

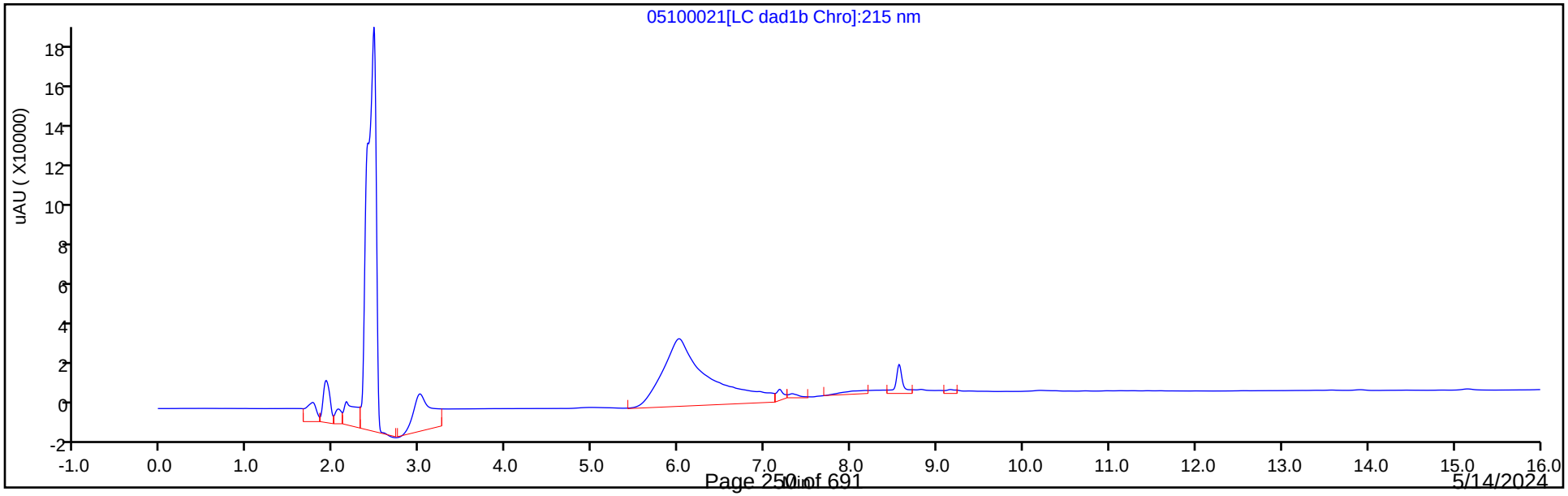
Data File: \\chromfs\denver\chromdata\chhplc_x\20240510-133263.b\05100021.d

Injection Date:	10-May-2024 19:54:04	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	280-190988-A-8-A	Lab Sample ID:	280-190988-8	Worklist Smp#:	21
Client ID:	LL1mw-064-240401-GW				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	21
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20240510-133263.b\05100021.D				
Lims ID:	280-190988-A-8-A				
Client ID:	LL1mw-064-240401-GW				
Sample Type:	Client				
Inject. Date:	10-May-2024 19:54:04	ALS Bottle#:	21	Worklist Smp#:	21
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-190988-A-8-A				
Operator ID:	JZ	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20240510-133263.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	11-May-2024 11:25:09	Calib Date:	18-Apr-2024 03:08:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\04170028.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1652				

First Level Reviewer: LV5D Date: 10-May-2024 20:22:13

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.1852	92.59

Manual Integration/User Assign Peak Report

Eurofins Denver

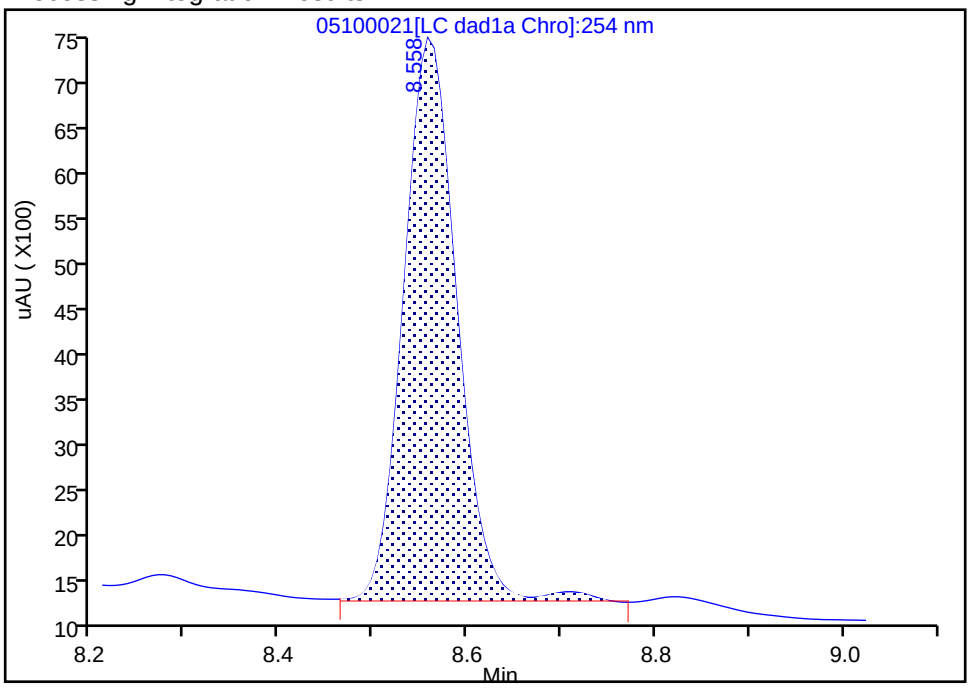
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240510-133263.b\05100021.d				
Injection Date:	10-May-2024 19:54:04	Instrument ID:	CHHPLC_X3		
Lims ID:	280-190988-A-8-A	Lab Sample ID:	280-190988-8		
Client ID:	LL1mw-064-240401-GW				
Operator ID:	JZ	ALS Bottle#:	21	Worklist Smp#:	21
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

$ 10 1,2-Dinitrobenzene, CAS: 528-29-0

Signal: 1

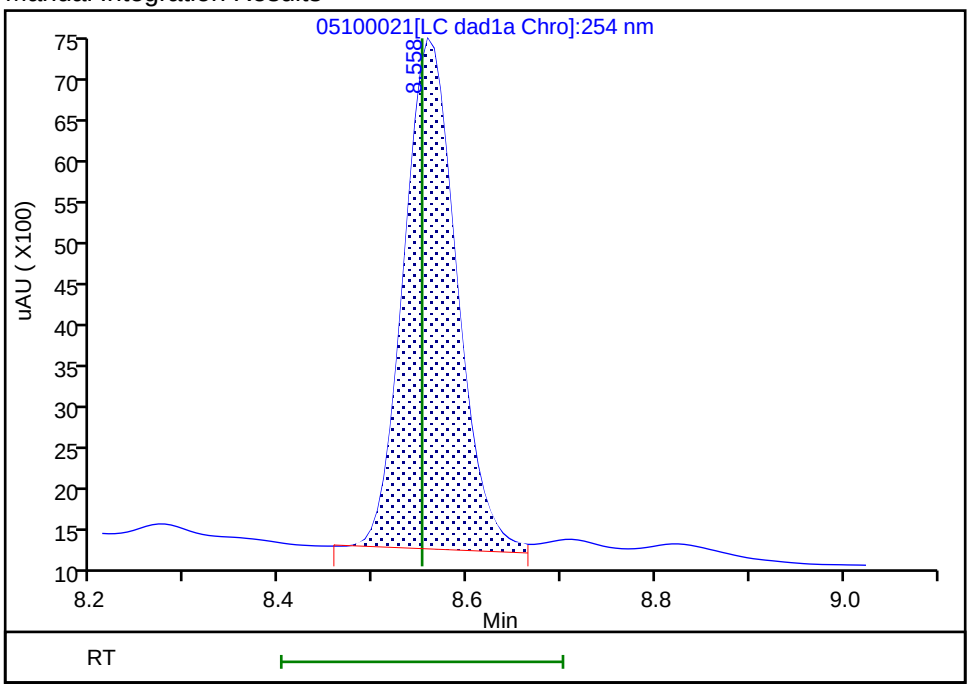
Processing Integration Results

RT: 8.56
Area: 24597
Amount: 0.186151
Amount Units: ug/mL



Manual Integration Results

RT: 8.56
Area: 24470
Amount: 0.185186
Amount Units: ug/mL



Reviewer: LV5D, 10-May-2024 20:22:11 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline

User Disabled Compound Report

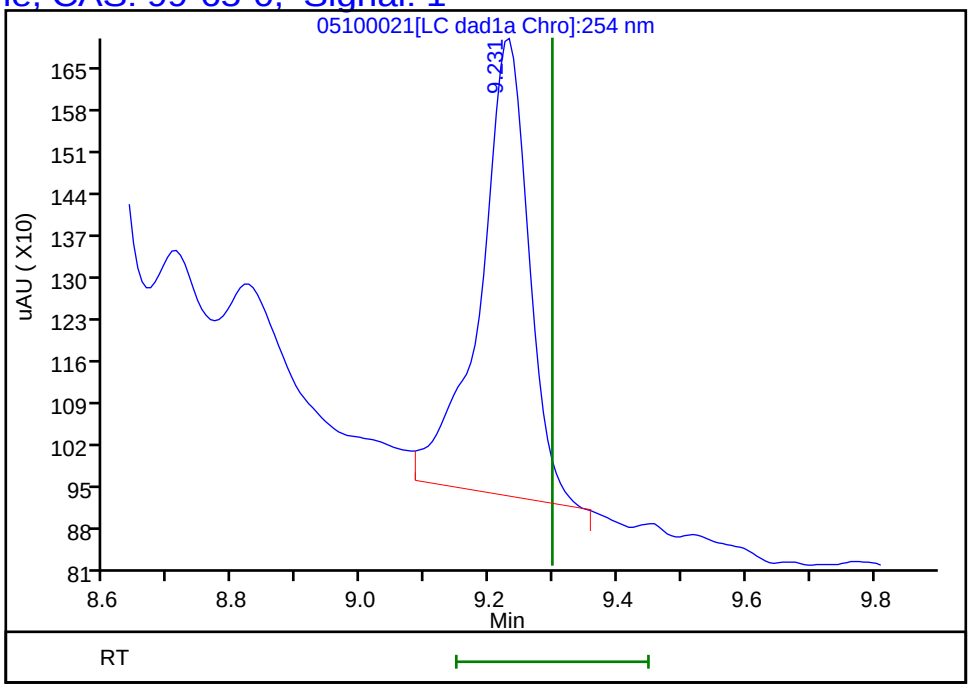
Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20240510-133263.b\05100021.d
Injection Date: 10-May-2024 19:54:04 Instrument ID: CHHPLC_X3
Lims ID: 280-190988-A-8-A Lab Sample ID: 280-190988-8
Client ID: LL1mw-064-240401-GW
Operator ID: JZ ALS Bottle#: 21 Worklist Smp#: 21
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330

Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

12 1,3-Dinitrobenzene, CAS: 99-65-0, Signal: 1

RT: 9.23
Response: 4070
Amount: 0.013592



Reviewer: LV5D, 10-May-2024 20:22:13
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Manual Integration/User Assign Peak Report

Eurofins Denver

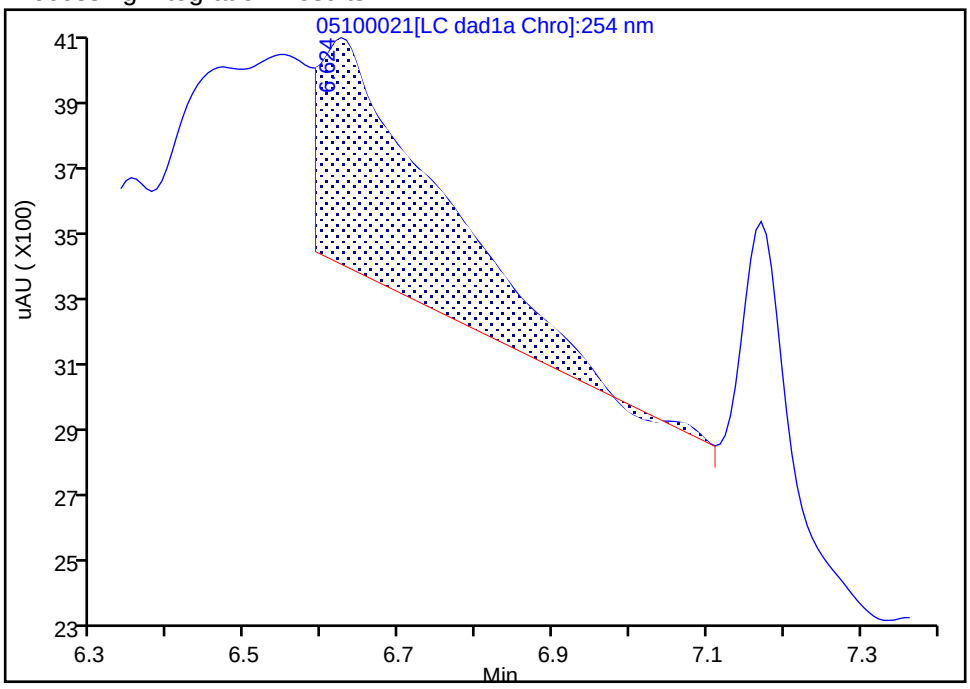
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240510-133263.b\05100021.d				
Injection Date:	10-May-2024 19:54:04	Instrument ID:	CHHPLC_X3		
Lims ID:	280-190988-A-8-A	Lab Sample ID:	280-190988-8		
Client ID:	LL1mw-064-240401-GW				
Operator ID:	JZ	ALS Bottle#:	21	Worklist Smp#:	21
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

4 HMX, CAS: 2691-41-0

Signal: 1

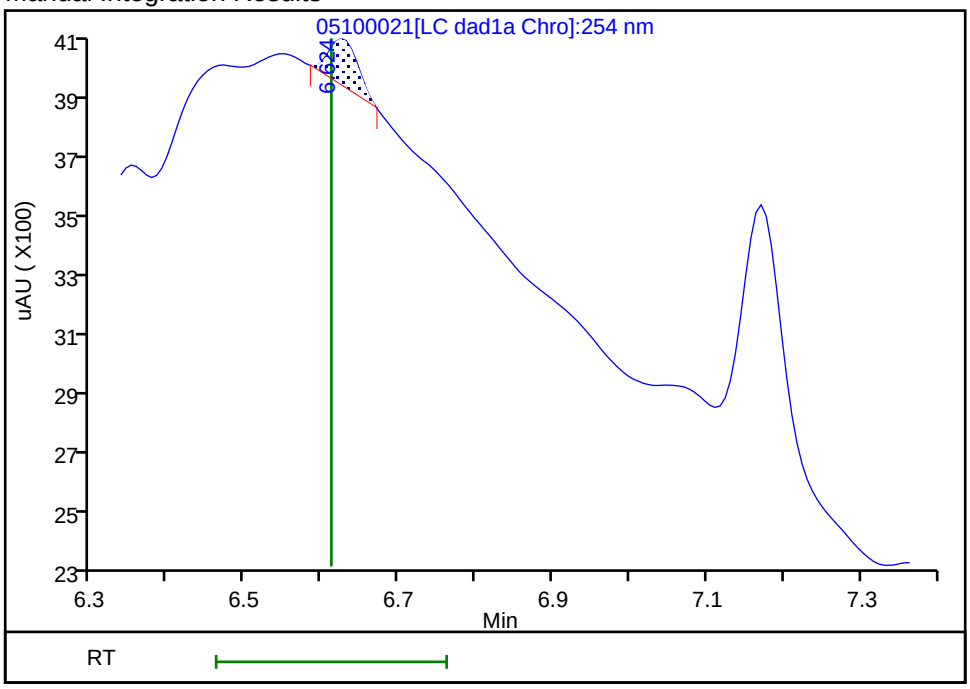
Processing Integration Results

RT: 6.62
Area: 7555
Amount: 0.079074
Amount Units: ug/mL



Manual Integration Results

RT: 6.62
Area: 406
Amount: 0.004249
Amount Units: ug/mL



Reviewer: LV5D, 10-May-2024 20:22:03 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-190988-1

SDG No.:

Client Sample ID: LL1mw-090-240401-GW | Lab Sample ID: 280-190988-9

Matrix: Water | Lab File ID: 05100022.D

Analysis Method: 8330B | Date Collected: 05/02/2024 14:37

Extraction Method: 3535 | Date Extracted: 05/09/2024 12:56

Sample wt/vol: 429.6(mL) | Date Analyzed: 05/10/2024 20:17

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 100(uL) | GC Column: UltraCarb5uODS ID: 4.6(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 652983 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	0.23	U	0.24	0.23	0.098
99-65-0	1,3-Dinitrobenzene	0.12	U M	0.13	0.12	0.043
118-96-7	2,4,6-Trinitrotoluene	0.12	U	0.13	0.12	0.052
121-14-2	2,4-Dinitrotoluene	0.093	U	0.12	0.093	0.032
606-20-2	2,6-Dinitrotoluene	0.093	U	0.12	0.093	0.047
35572-78-2	2-Amino-4,6-dinitrotoluene	0.12	U	0.13	0.12	0.059
88-72-2	2-Nitrotoluene	0.23	U	0.24	0.23	0.10
99-08-1	3-Nitrotoluene	0.41	U	0.47	0.41	0.23
19406-51-0	4-Amino-2,6-dinitrotoluene	0.14	U	0.17	0.14	0.067
99-99-0	4-Nitrotoluene	0.47	U	0.48	0.47	0.12
2691-41-0	HMX	0.23	U	0.24	0.23	0.10
98-95-3	Nitrobenzene	0.23	U	0.24	0.23	0.11
55-63-0	Nitroglycerin	2.3	U	2.4	2.3	1.1
78-11-5	PETN	1.2	U	1.3	1.2	0.52
121-82-4	RDX	0.23	U	0.24	0.23	0.060
479-45-8	Tetryl	0.12	U	0.13	0.12	0.037

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	88	M	83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240510-133263.b\05100022.D
Lims ID: 280-190988-A-9-A
Client ID: LL1mw-090-240401-GW
Sample Type: Client
Inject. Date: 10-May-2024 20:17:00 ALS Bottle#: 22 Worklist Smp#: 22
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-190988-A-9-A
Operator ID: JZ Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20240510-133263.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 11-May-2024 11:25:09 Calib Date: 18-Apr-2024 03:08:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\04170028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1652

First Level Reviewer: LV5D Date: 10-May-2024 20:42:30

	Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/mL	Flags
	4 HMX	1		6.612			ND	
	8 RDX	1		7.625			ND	
$	10 1,2-Dinitrobenzene	1	8.562	8.552	0.010	23369	0.1768	M
	11 1,3,5-Trinitrobenzene	1		8.692			ND	
	12 1,3-Dinitrobenzene	1		9.298			ND	U
	13 Nitrobenzene	1		9.651			ND	
	15 Tetryl	1		9.965			ND	
	16 Nitroglycerin	2		10.431			ND	
	17 2,4,6-Trinitrotoluene	1		10.865			ND	
	18 4-Amino-2,6-dinitrotoluene	1		11.038			ND	
	19 2-Amino-4,6-dinitrotoluene	1		11.291			ND	
	20 2,6-Dinitrotoluene	1		11.431			ND	
	21 2,4-Dinitrotoluene	1		11.611			ND	
	22 o-Nitrotoluene	1		12.385			ND	
	23 p-Nitrotoluene	1		12.805			ND	
	24 m-Nitrotoluene	1		13.351			ND	
	25 PETN	2		14.398			ND	

QC Flag Legend

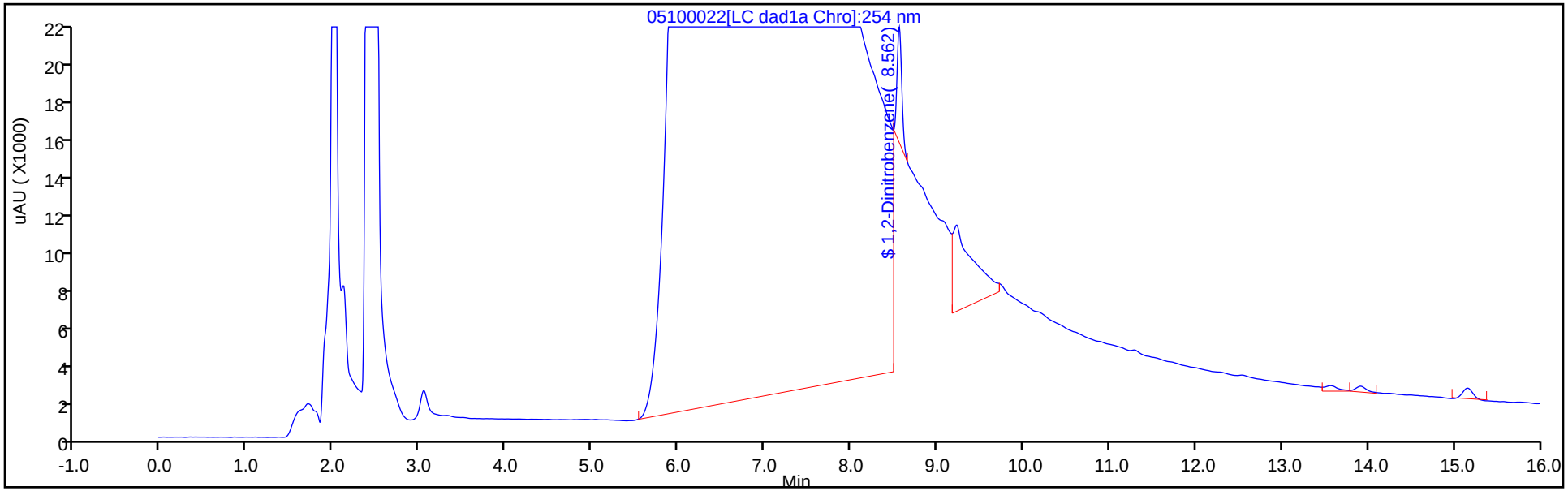
Processing Flags
Review Flags
M - Manually Integrated
U - Marked Undetected

Report Date: 11-May-2024 11:25:14 Chrom Revision: 2.3 01-May-2024 15:52:26

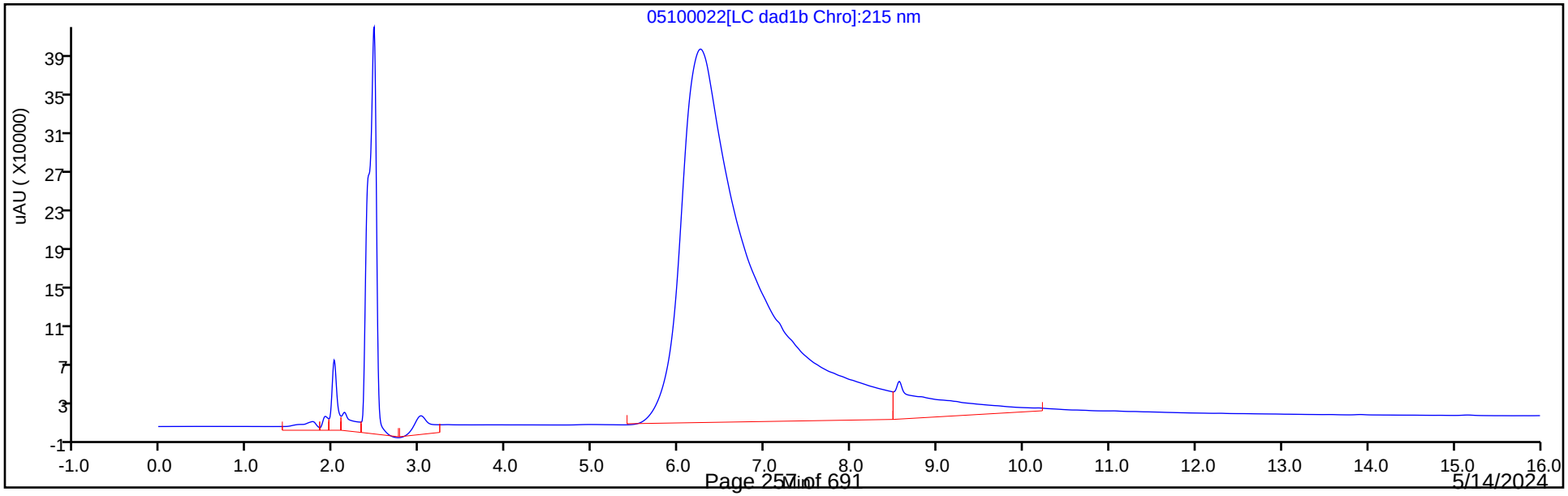
Eurofins Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20240510-133263.b\05100022.d				
Injection Date:	10-May-2024 20:17:00	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	280-190988-A-9-A	Lab Sample ID:	280-190988-9	Worklist Smp#:	22
Client ID:	LL1mw-090-240401-GW				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	22
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20240510-133263.b\05100022.D				
Lims ID:	280-190988-A-9-A				
Client ID:	LL1mw-090-240401-GW				
Sample Type:	Client				
Inject. Date:	10-May-2024 20:17:00	ALS Bottle#:	22	Worklist Smp#:	22
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-190988-A-9-A				
Operator ID:	JZ	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20240510-133263.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	11-May-2024 11:25:09	Calib Date:	18-Apr-2024 03:08:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\04170028.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1652				

First Level Reviewer: LV5D Date: 10-May-2024 20:42:30

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.1768	88.41

Manual Integration/User Assign Peak Report

Eurofins Denver

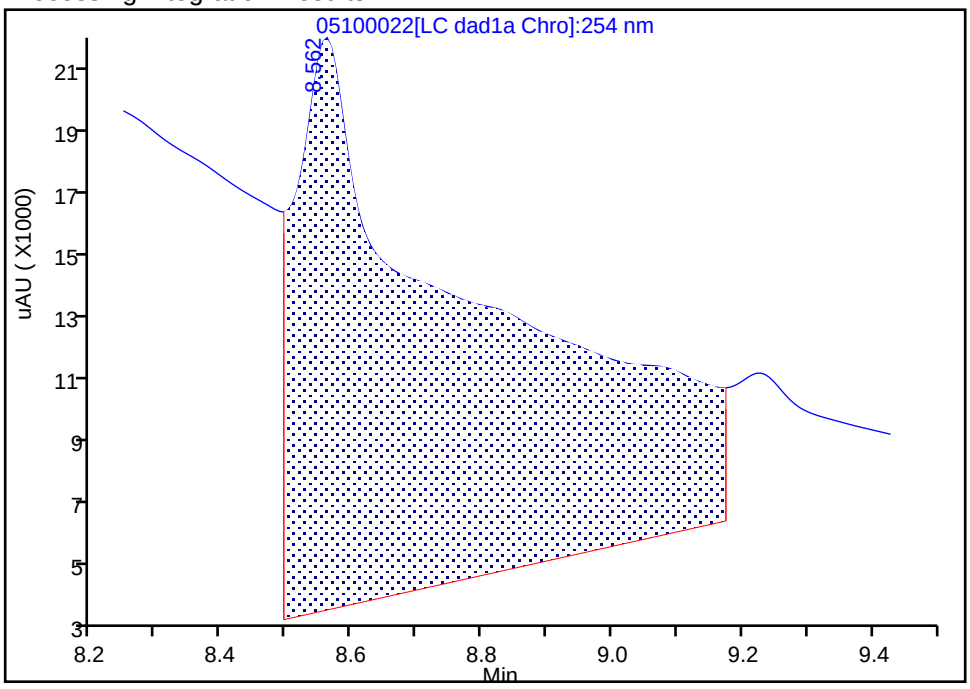
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240510-133263.b\05100022.d				
Injection Date:	10-May-2024 20:17:00	Instrument ID:	CHHPLC_X3		
Lims ID:	280-190988-A-9-A	Lab Sample ID:	280-190988-9		
Client ID:	LL1mw-090-240401-GW				
Operator ID:	JZ	ALS Bottle#:	22	Worklist Smp#:	22
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

$ 10 1,2-Dinitrobenzene, CAS: 528-29-0

Signal: 1

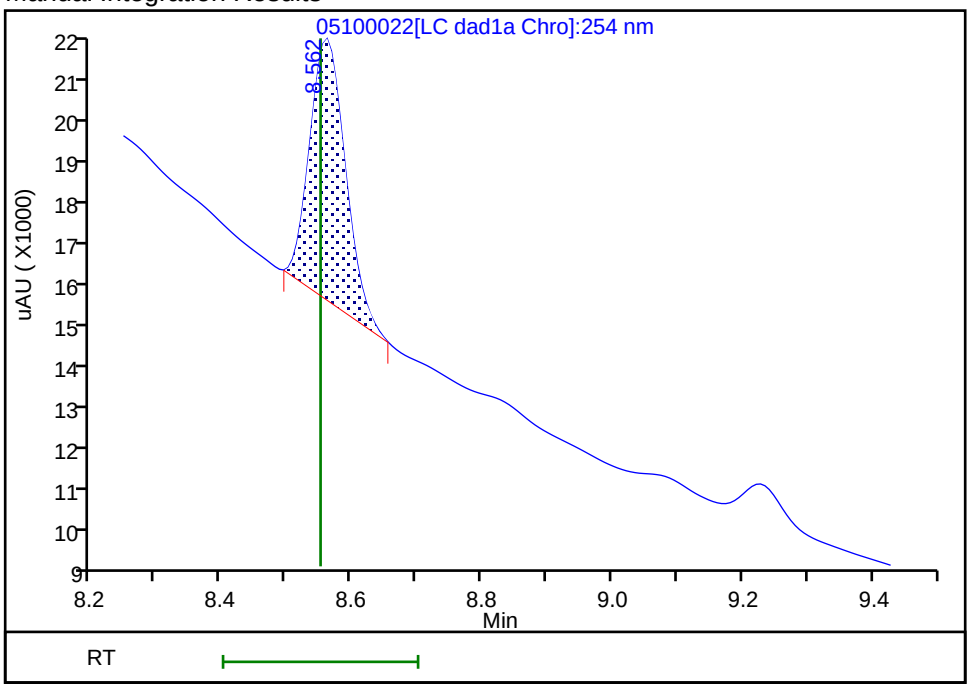
Processing Integration Results

RT: 8.56
Area: 354711
Amount: 2.694030
Amount Units: ug/mL



Manual Integration Results

RT: 8.56
Area: 23369
Amount: 0.176822
Amount Units: ug/mL



Reviewer: LV5D, 10-May-2024 20:42:27 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline

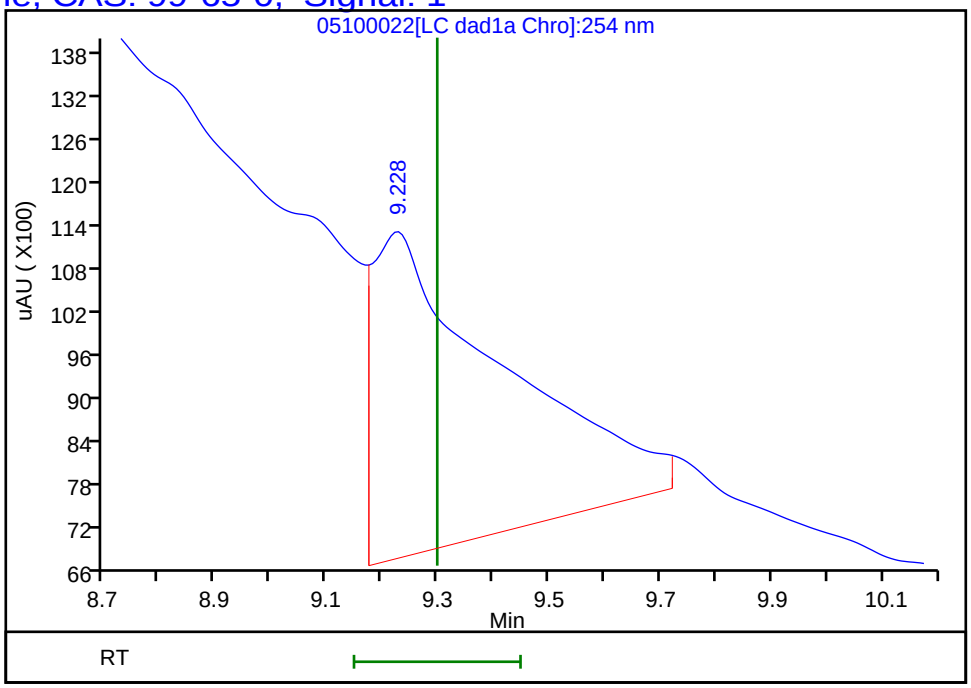
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20240510-133263.b\05100022.d				
Injection Date:	10-May-2024 20:17:00	Instrument ID:	CHHPLC_X3		
Lims ID:	280-190988-A-9-A	Lab Sample ID:	280-190988-9		
Client ID:	LL1mw-090-240401-GW				
Operator ID:	JZ	ALS Bottle#:	22	Worklist Smp#:	22
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

12 1,3-Dinitrobenzene, CAS: 99-65-0, Signal: 1

RT: 9.23
Response: 72984
Amount: 0.243739



Reviewer: LV5D, 10-May-2024 20:42:30
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-190988-1

SDG No.:

Client Sample ID: FWGmw-016-240401-GW | Lab Sample ID: 280-190988-10

Matrix: Water | Lab File ID: 05100023.D

Analysis Method: 8330B | Date Collected: 05/02/2024 16:35

Extraction Method: 3535 | Date Extracted: 05/09/2024 12:56

Sample wt/vol: 459.4(mL) | Date Analyzed: 05/10/2024 20:39

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 100(uL) | GC Column: UltraCarb5uODS ID: 4.6(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 652983 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	0.22	U	0.23	0.22	0.092
99-65-0	1,3-Dinitrobenzene	0.11	U M	0.12	0.11	0.040
118-96-7	2,4,6-Trinitrotoluene	0.11	U	0.12	0.11	0.049
121-14-2	2,4-Dinitrotoluene	0.087	U	0.11	0.087	0.030
606-20-2	2,6-Dinitrotoluene	0.087	U	0.11	0.087	0.044
35572-78-2	2-Amino-4,6-dinitrotoluene	0.11	U	0.12	0.11	0.055
88-72-2	2-Nitrotoluene	0.22	U	0.23	0.22	0.093
99-08-1	3-Nitrotoluene	0.38	U	0.44	0.38	0.21
19406-51-0	4-Amino-2,6-dinitrotoluene	0.13	U	0.16	0.13	0.063
99-99-0	4-Nitrotoluene	0.44	U	0.45	0.44	0.11
2691-41-0	HMX	0.22	U M	0.23	0.22	0.095
98-95-3	Nitrobenzene	0.22	U	0.23	0.22	0.099
55-63-0	Nitroglycerin	2.2	U	2.3	2.2	1.0
78-11-5	PETN	1.1	U	1.2	1.1	0.49
121-82-4	RDX	0.22	U	0.23	0.22	0.056
479-45-8	Tetryl	0.11	U	0.12	0.11	0.035

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	94	M	83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240510-133263.b\05100023.D
Lims ID: 280-190988-A-10-A
Client ID: FWGmw-016-240401-GW
Sample Type: Client
Inject. Date: 10-May-2024 20:39:54 ALS Bottle#: 23 Worklist Smp#: 23
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-190988-A-10-A
Operator ID: JZ Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20240510-133263.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 11-May-2024 11:25:09 Calib Date: 18-Apr-2024 03:08:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\04170028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1652

First Level Reviewer: LV5D Date: 11-May-2024 10:41:56

	Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/mL	Flags
	4 HMX	1		6.612			ND	U
	8 RDX	1		7.625			ND	
$	10 1,2-Dinitrobenzene	1	8.559	8.552	0.007	24839	0.1880	M
	11 1,3,5-Trinitrobenzene	1		8.692			ND	
	12 1,3-Dinitrobenzene	1		9.298			ND	U
	13 Nitrobenzene	1		9.651			ND	
	15 Tetryl	1		9.965			ND	
	16 Nitroglycerin	2		10.431			ND	
	17 2,4,6-Trinitrotoluene	1		10.865			ND	
	18 4-Amino-2,6-dinitrotoluene	1		11.038			ND	
	19 2-Amino-4,6-dinitrotoluene	1		11.291			ND	
	20 2,6-Dinitrotoluene	1		11.431			ND	
	21 2,4-Dinitrotoluene	1		11.611			ND	
	22 o-Nitrotoluene	1		12.385			ND	
	23 p-Nitrotoluene	1		12.805			ND	
	24 m-Nitrotoluene	1		13.351			ND	
	25 PETN	2		14.398			ND	

QC Flag Legend

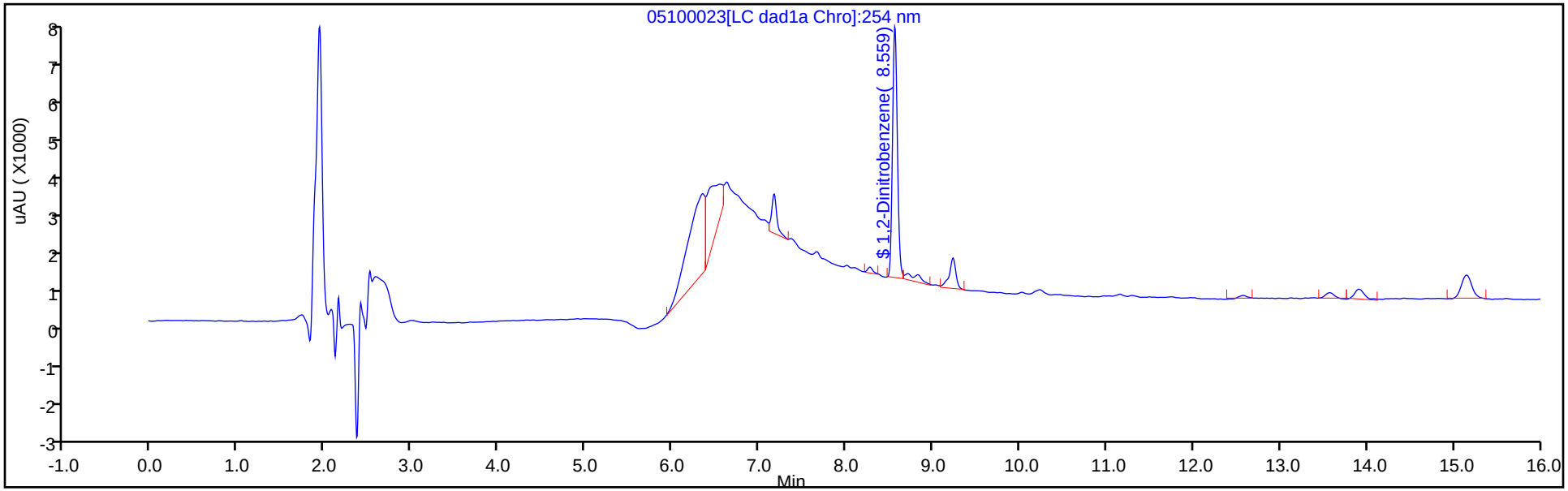
Processing Flags
Review Flags
M - Manually Integrated
U - Marked Undetected

Report Date: 11-May-2024 11:25:15 Chrom Revision: 2.3 01-May-2024 15:52:26

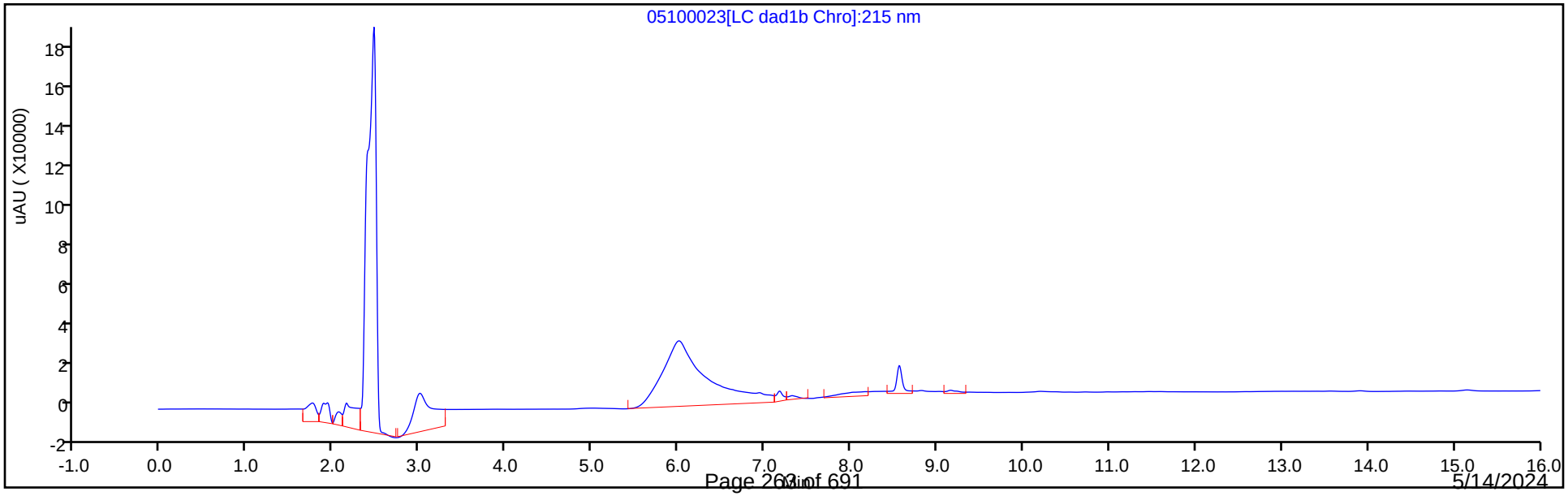
Eurofins Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20240510-133263.b\05100023.d				
Injection Date:	10-May-2024 20:39:54	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	280-190988-A-10-A	Lab Sample ID:	280-190988-10	Worklist Smp#:	23
Client ID:	FWGmw-016-240401-GW				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	23
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20240510-133263.b\05100023.D				
Lims ID:	280-190988-A-10-A				
Client ID:	FWGmw-016-240401-GW				
Sample Type:	Client				
Inject. Date:	10-May-2024 20:39:54	ALS Bottle#:	23	Worklist Smp#:	23
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-190988-A-10-A				
Operator ID:	JZ	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20240510-133263.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	11-May-2024 11:25:09	Calib Date:	18-Apr-2024 03:08:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\04170028.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1652				

First Level Reviewer: LV5D Date: 11-May-2024 10:41:56

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.1880	93.99

Manual Integration/User Assign Peak Report

Eurofins Denver

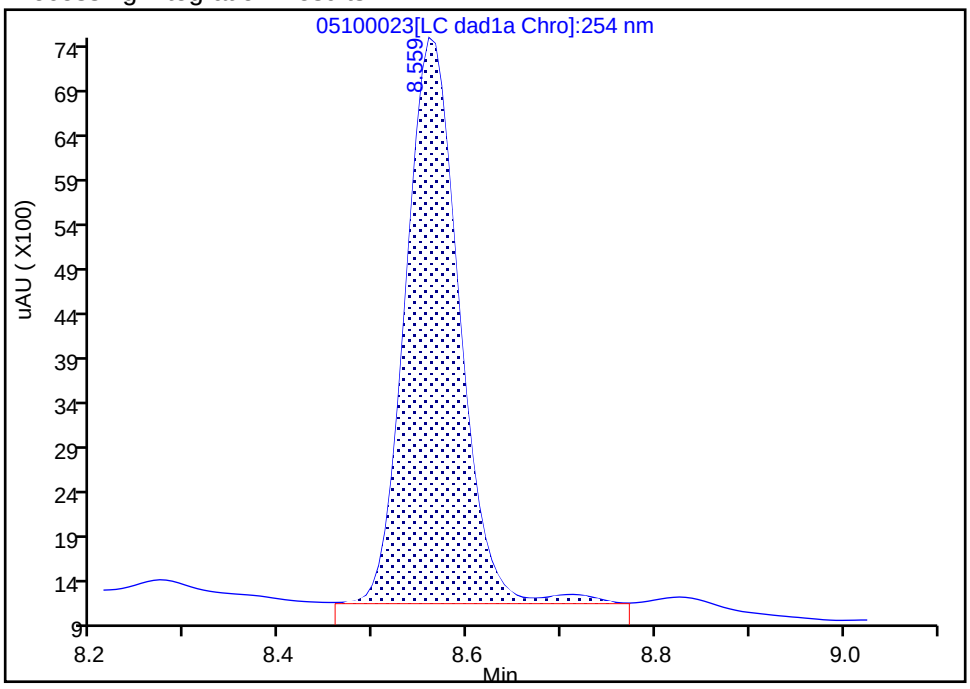
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240510-133263.b\05100023.d				
Injection Date:	10-May-2024 20:39:54	Instrument ID:	CHHPLC_X3		
Lims ID:	280-190988-A-10-A	Lab Sample ID:	280-190988-10		
Client ID:	FWGmw-016-240401-GW				
Operator ID:	JZ	ALS Bottle#:	23	Worklist Smp#:	23
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

$ 10 1,2-Dinitrobenzene, CAS: 528-29-0

Signal: 1

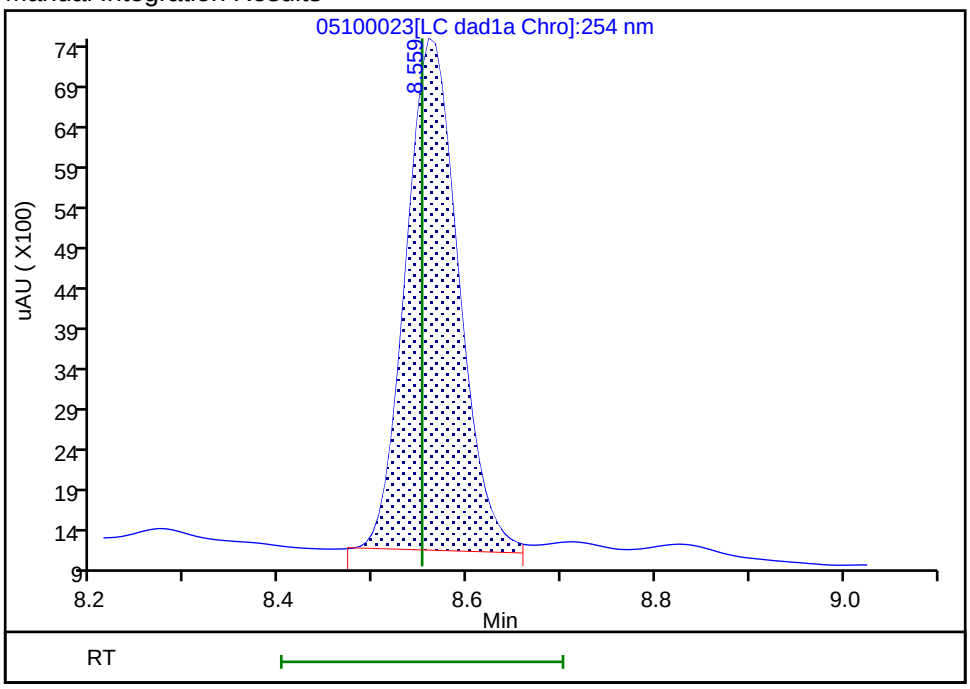
Processing Integration Results

RT: 8.56
Area: 24959
Amount: 0.188901
Amount Units: ug/mL



Manual Integration Results

RT: 8.56
Area: 24839
Amount: 0.187990
Amount Units: ug/mL



Reviewer: LV5D, 11-May-2024 10:41:55 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline

User Disabled Compound Report

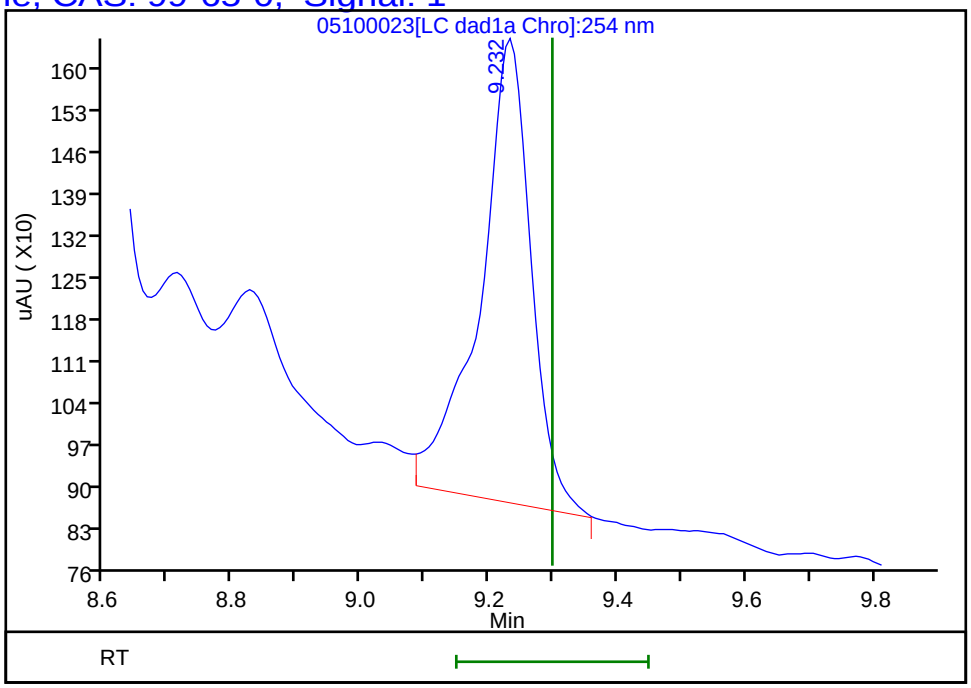
Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20240510-133263.b\05100023.d
Injection Date: 10-May-2024 20:39:54 Instrument ID: CHHPLC_X3
Lims ID: 280-190988-A-10-A Lab Sample ID: 280-190988-10
Client ID: FWGmw-016-240401-GW
Operator ID: JZ ALS Bottle#: 23 Worklist Smp#: 23
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330

Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

12 1,3-Dinitrobenzene, CAS: 99-65-0, Signal: 1

RT: 9.23
Response: 4320
Amount: 0.014427



Reviewer: LV5D, 11-May-2024 10:41:56
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

User Disabled Compound Report

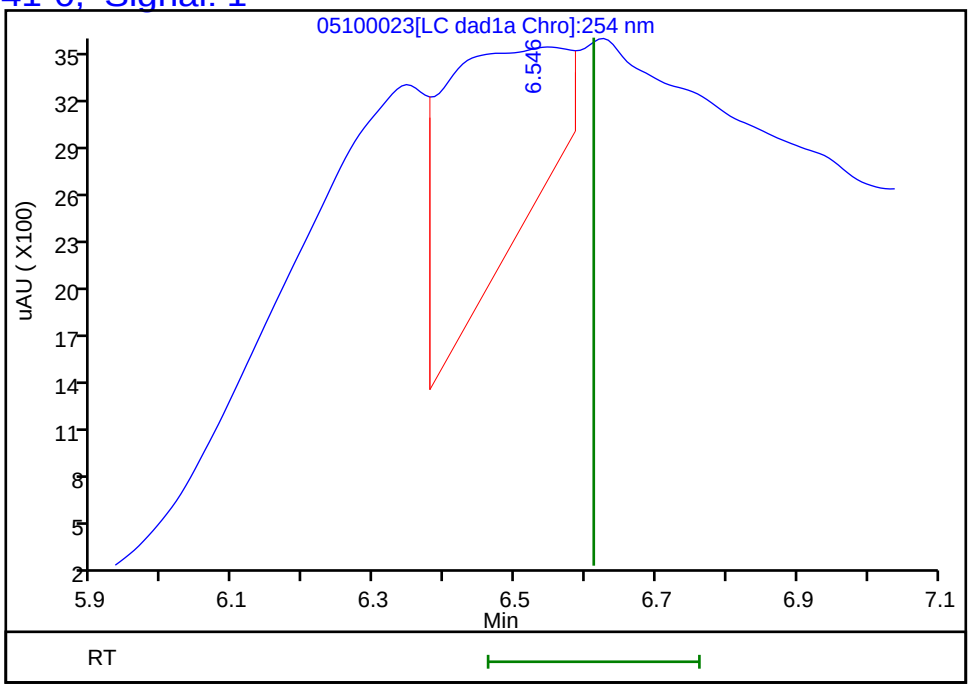
Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20240510-133263.b\05100023.d

Injection Date:	10-May-2024 20:39:54	Instrument ID:	CHHPLC_X3		
Lims ID:	280-190988-A-10-A	Lab Sample ID:	280-190988-10		
Client ID:	FWGmw-016-240401-GW				
Operator ID:	JZ	ALS Bottle#:	23	Worklist Smp#:	23
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

4 HMX, CAS: 2691-41-0, Signal: 1

RT: 6.55
Response: 15885
Amount: 0.166259



Reviewer: LV5D, 11-May-2024 10:41:56
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: Eurofins Denver | Job No.: 280-190988-1 | Analy Batch No.: 650851

SDG No.:

Instrument ID: CHHPLC_G2_LUNA | GC Column: Luna-phenyl ID: 4.6(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 04/24/2024 21:28 | Calibration End Date: 04/25/2024 02:15 | Calibration ID: 92631

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-650851/18	04240018.D
Level 2	IC 280-650851/17	04240017.D
Level 3	IC 280-650851/16	04240016.D
Level 4	IC 280-650851/15	04240015.D
Level 5	IC 280-650851/14	04240014.D
Level 6	IC 280-650851/13	04240013.D
Level 7	IC 280-650851/12	04240012.D
Level 8	IC 280-650851/11	04240011.D
Level 9	IC 280-650851/10	04240010.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	LVL 7	LVL 8	LVL 9		RT WINDOW	AVG RT
HMX	6.713	6.712	6.709	6.706	6.705	6.700	6.693	6.703	6.661		6.555 - 6.855	6.700
Picric acid	8.700	8.726	8.663	8.659	8.612	8.587	8.553	8.523	8.381		8.462 - 8.762	8.600
RDX	8.953	8.952	8.943	8.946	8.938	8.927	8.927	8.923	8.874		8.788 - 9.088	8.931
Nitrobenzene	11.426	11.459	11.436	11.452	11.425	11.420	11.426	11.416	11.374		11.275 - 11.575	11.426
3,5-Dinitroaniline	14.200	14.232	14.203	14.205	14.185	14.180	14.186	14.169	14.127		14.035 - 14.335	14.187
1,3-Dinitrobenzene	14.493	14.519	14.496	14.492	14.478	14.473	14.480	14.469	14.427		14.328 - 14.628	14.481
Nitroglycerin	14.940	14.979	14.943	14.945	14.918	14.920	14.940	14.916	14.880		14.768 - 15.068	14.931
2-Nitrotoluene	+++++	15.559	15.523	15.532	15.505	15.507	15.526	15.502	15.467		15.355 - 15.655	15.515
4-Nitrotoluene	+++++	15.772	15.743	15.759	15.738	15.740	15.753	15.729	15.694		15.588 - 15.888	15.741
4-Amino-2,6-dinitrotoluene	16.260	16.286	16.249	16.265	16.245	16.240	16.253	16.229	16.194		16.095 - 16.395	16.247
3-Nitrotoluene	16.586	16.619	16.583	16.599	16.578	16.573	16.586	16.569	16.527		16.428 - 16.728	16.580
2-Amino-4,6-dinitrotoluene	17.086	17.099	17.063	17.079	17.058	17.053	17.066	17.042	17.000		16.908 - 17.208	17.061
1,3,5-Trinitrobenzene	17.286	17.306	17.283	17.285	17.272	17.267	17.280	17.262	17.227		17.122 - 17.422	17.274
2,6-Dinitrotoluene	18.380	18.386	18.369	18.379	18.365	18.353	18.373	18.349	18.314		18.215 - 18.515	18.363
2,4-Dinitrotoluene	18.833	18.846	18.823	18.839	18.818	18.807	18.826	18.802	18.767		18.668 - 18.968	18.818
Tetryl	22.027	22.072	22.023	22.052	22.025	22.007	22.020	22.003	21.987		21.875 - 22.175	22.024
2,4,6-Trinitrotoluene	22.900	22.926	22.876	22.912	22.878	22.874	22.873	22.863	22.841		22.728 - 23.028	22.883
PETN	24.033	24.046	24.016	24.046	24.032	24.014	24.013	24.009	23.987		23.882 - 24.182	24.022
1,2-Dinitrobenzene	12.360	12.392	12.356	12.372	12.345	12.340	12.346	12.336	12.294		12.195 - 12.495	12.349

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Denver Job No.: 280-190988-1 Analy Batch No.: 650851

SDG No.:

Instrument ID: CHHPLC_G2_LUNA GC Column: Luna-phenyl ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/24/2024 21:28 Calibration End Date: 04/25/2024 02:15 Calibration ID: 92631

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-650851/18	04240018.D
Level 2	IC 280-650851/17	04240017.D
Level 3	IC 280-650851/16	04240016.D
Level 4	IC 280-650851/15	04240015.D
Level 5	IC 280-650851/14	04240014.D
Level 6	IC 280-650851/13	04240013.D
Level 7	IC 280-650851/12	04240012.D
Level 8	IC 280-650851/11	04240011.D
Level 9	IC 280-650851/10	04240010.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD /RSE	#	MAX %RSD /RSE	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5 LVL 9	LVL 2 LVL 6	LVL 3 LVL 7	LVL 4 LVL 8		B	M1	M2								
HMX	167700 173948 174202	178900 175808	170180 173424	179770 172751	Ave		174075.821				2.2		20.0			
Picric acid	154900 148172 153137	165100 151088	140280 150487	148590 150820	Ave		151397.094				4.3		20.0			
RDX	256200 210828 204073	239550 207963	213080 202951	216090 202193	Lin2	539.023112	205652.806							0.9990		0.9900
Nitrobenzene	381800 372900 381987	405050 384143	363860 378609	394890 375845	Ave		382120.319				3.2		20.0			
3,5-Dinitroaniline	524500 432092 431274	473150 439350	449620 432267	436700 431522	Lin2	918.687014	430726.783							1.0000		0.9900
1,3-Dinitrobenzene	633200 572076 577399	615900 578140	611920 570583	575920 569625	Ave		589418.117				4.1		20.0			
Nitroglycerin	104310 123840 119273	119385 124108	118260 120549	126558 119260	Ave		119504.765				5.3		20.0			
2-Nitrotoluene	+++++ 235764 241788	251200 242098	264940 241561	237990 241414	Ave		244594.366				3.8		20.0			

Note: The M1 coefficient is the same as Ave CF for an Ave curve type. RSD is calculated for Ave curve types. RSE is used for all other types.

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Denver Job No.: 280-190988-1 Analy Batch No.: 650851

SDG No.:

Instrument ID: CHHPLC_G2_LUNA GC Column: Luna-phenyl ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/24/2024 21:28 Calibration End Date: 04/25/2024 02:15 Calibration ID: 92631

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD /RSE	#	MAX %RSD /RSE	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5 LVL 9	LVL 2 LVL 6	LVL 3 LVL 7	LVL 4 LVL 8		B	M1	M2								
4-Nitrotoluene	+++++ 216520 219653	263900 223335	236500 221201	225490 217154	Lin2	917.736717	217721.690							1.0000		0.9900
4-Amino-2,6-dinitrotoluene	336600 268460 268565	323700 274928	279100 270943	274490 269382	Lin2	742.452757	269511.071							0.9990		0.9900
3-Nitrotoluene	367200 274236 277226	334250 280190	298820 277211	281030 273569	Lin2	968.906840	275587.809							1.0000		0.9900
2-Amino-4,6-dinitrotoluene	502200 380328 379416	436650 390780	394700 386620	398530 380835	Ave		405562.156				9.9		20.0			
1,3,5-Trinitrobenzene	521000 404268 412363	458350 407038	387160 405177	411770 403965	Ave		423454.494				9.8		20.0			
2,6-Dinitrotoluene	301600 266156 268633	305650 268168	283940 267447	274870 265267	Ave		277970.049				5.6		20.0			
2,4-Dinitrotoluene	576400 534316 545101	600250 542238	571780 541644	542940 536407	Ave		554563.998				4.1		20.0			
Tetryl	367500 316916 314923	313400 314733	312600 312921	329200 310388	Lin2	448.108744	311971.216							0.9990		0.9900
2,4,6-Trinitrotoluene	370300 401348 408571	398450 400180	402620 398954	418610 398830	Ave		399762.610				3.2		20.0			
PETN	105310 121971 123890	112970 123201	121232 123587	121831 122809	Lin2	-1863.2605	123564.211							1.0000		0.9900
1,2-Dinitrobenzene	223700 257724 258500	273700 261405	266480 257347	273700 255644	Ave		258688.949				5.7		20.0			

Note: The M1 coefficient is the same as Ave CF for an Ave curve type. RSD is calculated for Ave curve types. RSE is used for all other types.

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Denver | Job No.: 280-190988-1 | Analy Batch No.: 650851

SDG No.:

Instrument ID: CHHPLC_G2_LUNA | GC Column: Luna-pheny ID: 4.6(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 04/24/2024 21:28 | Calibration End Date: 04/25/2024 02:15 | Calibration ID: 92631

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-650851/18	04240018.D
Level 2	IC 280-650851/17	04240017.D
Level 3	IC 280-650851/16	04240016.D
Level 4	IC 280-650851/15	04240015.D
Level 5	IC 280-650851/14	04240014.D
Level 6	IC 280-650851/13	04240013.D
Level 7	IC 280-650851/12	04240012.D
Level 8	IC 280-650851/11	04240011.D
Level 9	IC 280-650851/10	04240010.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
		LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
HMX	Ave	1677 70323	3578 121397	8509 172751	17977 435504	43487	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
Picric acid	Ave	1549 60435	3302 105341	7014 150820	14859 382843	37043	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
RDX	Lin2	2562 83185	4791 142066	10654 202193	21609 510182	52707	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
Nitrobenzene	Ave	3818 153657	8101 265026	18193 375845	39489 954967	93225	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
3,5-Dinitroaniline	Lin2	5245 175740	9463 302587	22481 431522	43670 1078184	108023	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
1,3-Dinitrobenzene	Ave	6332 231256	12318 399408	30596 569625	57592 1443498	143019	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
Nitroglycerin	Ave	10431 496432	23877 843844	59130 1192597	126558 2981826	309600	0.100 4.00	0.200 7.00	0.500 10.0	1.00 25.0	2.50
2-Nitrotoluene	Ave	+++++ 96839	5024 169093	13247 241414	23799 604470	58941	+++++ 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
4-Nitrotoluene	Lin2	+++++ 89334	5278 154841	11825 217154	22549 549133	54130	+++++ 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
4-Amino-2,6-dinitrotoluene	Lin2	3366 109971	6474 189660	13955 269382	27449 671412	67115	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
3-Nitrotoluene	Lin2	3672 112076	6685 194048	14941 273569	28103 693064	68559	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
2-Amino-4,6-dinitrotoluene	Ave	5022 156312	8733 270634	19735 380835	39853 948541	95082	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
1,3,5-Trinitrobenzene	Ave	5210 162815	9167 283624	19358 403965	41177 1030907	101067	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
2,6-Dinitrotoluene	Ave	3016 107267	6113 187213	14197 265267	27487 671582	66539	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
2,4-Dinitrotoluene	Ave	5764	12005	28589	54294	133579	0.0100	0.0200	0.0500	0.100	0.250

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Denver | Job No.: 280-190988-1 | Analy Batch No.: 650851

SDG No.:

Instrument ID: CHHPLC_G2_LUNA | GC Column: Luna-pheny ID: 4.6(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 04/24/2024 21:28 | Calibration End Date: 04/25/2024 02:15 | Calibration ID: 92631

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
		LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
		216895	379151	536407	1362753		0.400	0.700	1.00	2.50	
Tetryl	Lin2	3675 125893	6268 219045	15630 310388	32920 787307	79229	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
2,4,6-Trinitrotoluene	Ave	3703 160072	7969 279268	20131 398830	41861 1021428	100337	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
PETN	Lin2	10531 492803	22594 865110	60616 1228090	121831 3097249	304928	0.100 4.00	0.200 7.00	0.500 10.0	1.00 25.0	2.50
1,2-Dinitrobenzene	Ave	2237 104562	5474 180143	13324 255644	27370 646251	64431	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250

Curve Type Legend:
Ave = Average
Lin2 = Linear 1/conc^2

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2_LUNA\20240424-132624.b\04240010.D
Lims ID: IC INT 9
Client ID:
Sample Type: IC Calib Level: 9
Inject. Date: 24-Apr-2024 21:28:13 ALS Bottle#: 10 Worklist Smp#: 10
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT 9
Operator ID: JZ/JG Instrument ID: CHHPLC_G2_LUNA
Sublist: chrom-G2_8330_Luna*sub16

Method: \\chromfs\Denver\ChromData\G2_LUNA\20240424-132624.b\G2_8330_Luna.m
Limit Group: GCSV - 8330
Last Update: 25-Apr-2024 14:30:09 Calib Date: 25-Apr-2024 07:39:21
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\G2_LUNA\20240424-132624.b\04240027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC DAD1A, 254 nm
Process Host: CTX1684

First Level Reviewer: LV5D Date: 25-Apr-2024 13:10:30

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
6 HMX	1	6.661	6.705	-0.044	435504	2.50	2.50	
5 2,4,6-Trinitrophenol	1	8.381	8.612	-0.231	382843	2.50	2.53	a
8 RDX	1	8.874	8.938	-0.064	510182	2.50	2.48	
9 Nitrobenzene	1	11.374	11.425	-0.051	954967	2.50	2.50	
$ 10 1,2-Dinitrobenzene	1	12.294	12.345	-0.051	646251	2.50	2.50	
11 3,5-Dinitroaniline	1	14.127	14.185	-0.058	1078184	2.50	2.50	
12 1,3-Dinitrobenzene	1	14.427	14.478	-0.051	1443498	2.50	2.45	
13 Nitroglycerin	2	14.880	14.918	-0.038	2981826	25.0	25.0	M
14 o-Nitrotoluene	1	15.467	15.505	-0.038	604470	2.50	2.47	
15 p-Nitrotoluene	1	15.694	15.738	-0.044	549133	2.50	2.52	
16 4-Amino-2,6-dinitrotoluene	1	16.194	16.245	-0.051	671412	2.50	2.49	
17 m-Nitrotoluene	1	16.527	16.578	-0.051	693064	2.50	2.51	
18 2-Amino-4,6-dinitrotoluene	1	17.000	17.058	-0.058	948541	2.50	2.34	
19 1,3,5-Trinitrobenzene	1	17.227	17.272	-0.045	1030907	2.50	2.43	
20 2,6-Dinitrotoluene	1	18.314	18.365	-0.051	671582	2.50	2.42	
21 2,4-Dinitrotoluene	1	18.767	18.818	-0.051	1362753	2.50	2.46	
22 Tetryl	1	21.987	22.025	-0.038	787307	2.50	2.52	
23 2,4,6-Trinitrotoluene	1	22.841	22.878	-0.037	1021428	2.50	2.56	
24 PETN	2	23.987	24.032	-0.045	3097249	25.0	25.1	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated
a - User Assigned ID

Reagents:

8330IntermStk_00080 Amount Added: 250.00 Units: uL

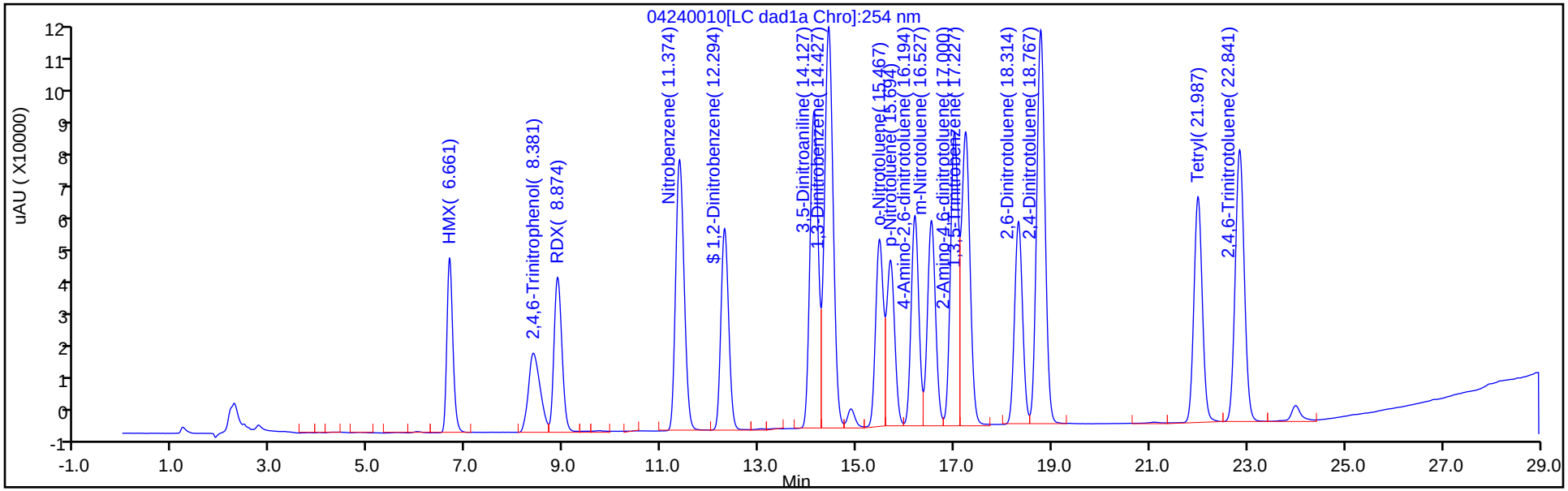
Report Date: 25-Apr-2024 14:30:09 Chrom Revision: 2.3 09-Apr-2024 17:43:44

Eurofins Denver

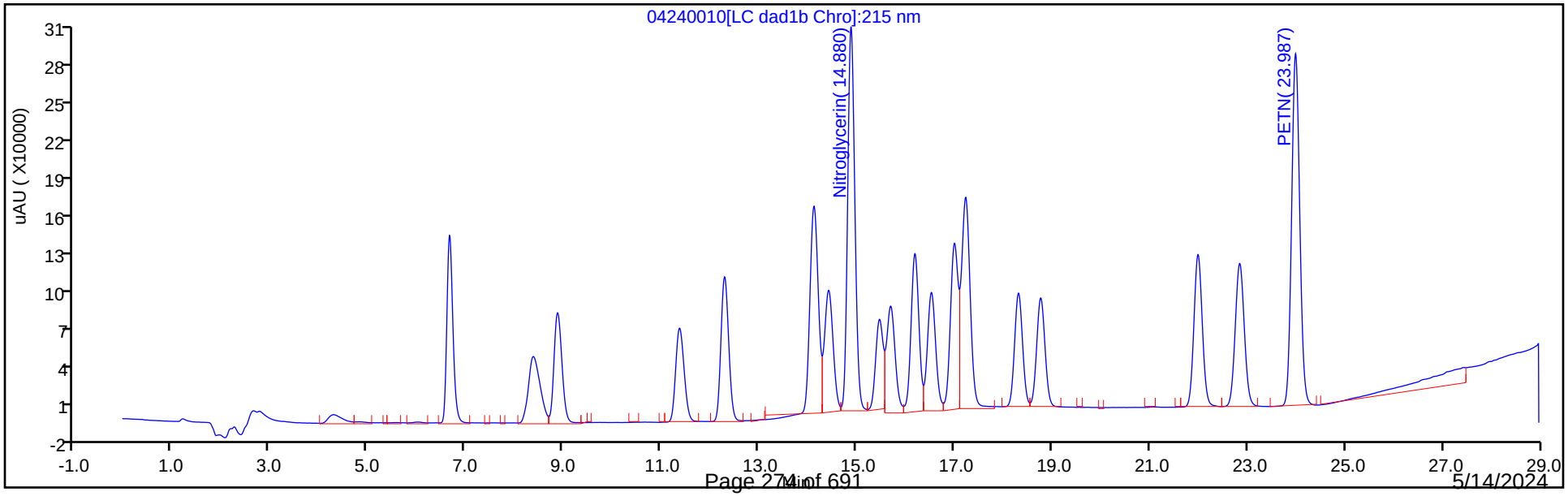
Data File: \\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240010.d

Injection Date:	24-Apr-2024 21:28:13	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	JZ/JG
Lims ID:	IC INT 9			Worklist Smp#:	10
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	10
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



5/14/2024
9:20:15 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

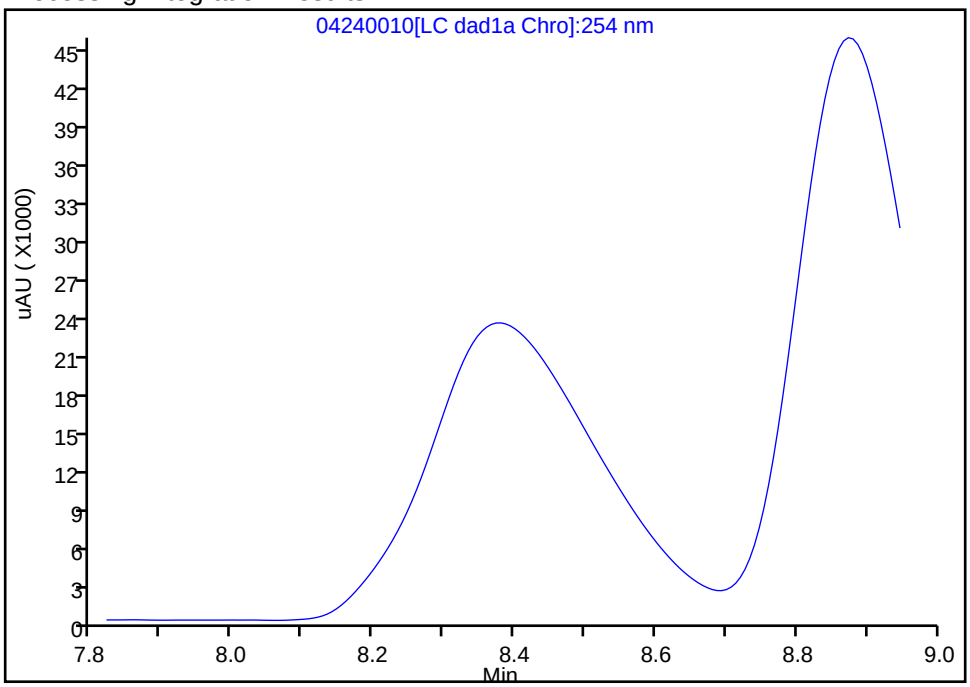
Data File:	\\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240010.d				
Injection Date:	24-Apr-2024 21:28:13	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT 9				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	10	Worklist Smp#:	10
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

5 2,4,6-Trinitrophenol, CAS: 88-89-1

Signal: 1

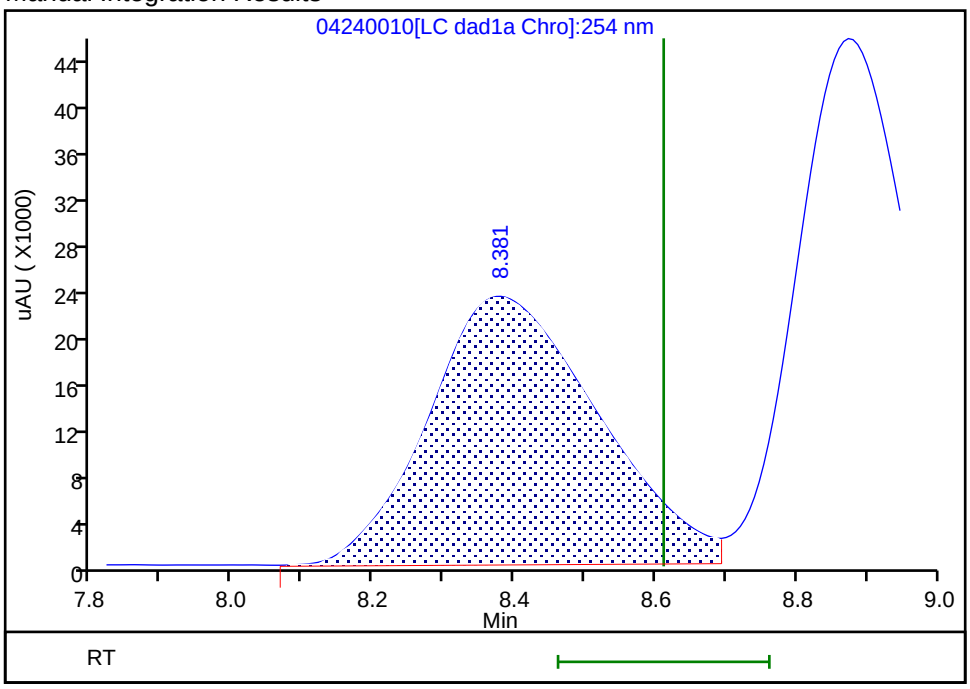
Not Detected
Expected RT: 8.61

Processing Integration Results



Manual Integration Results

RT: 8.38
Area: 382843
Amount: 2.528734
Amount Units: ug/ml



Reviewer: LV5D, 25-Apr-2024 13:10:11 -06:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

Manual Integration/User Assign Peak Report

Eurofins Denver

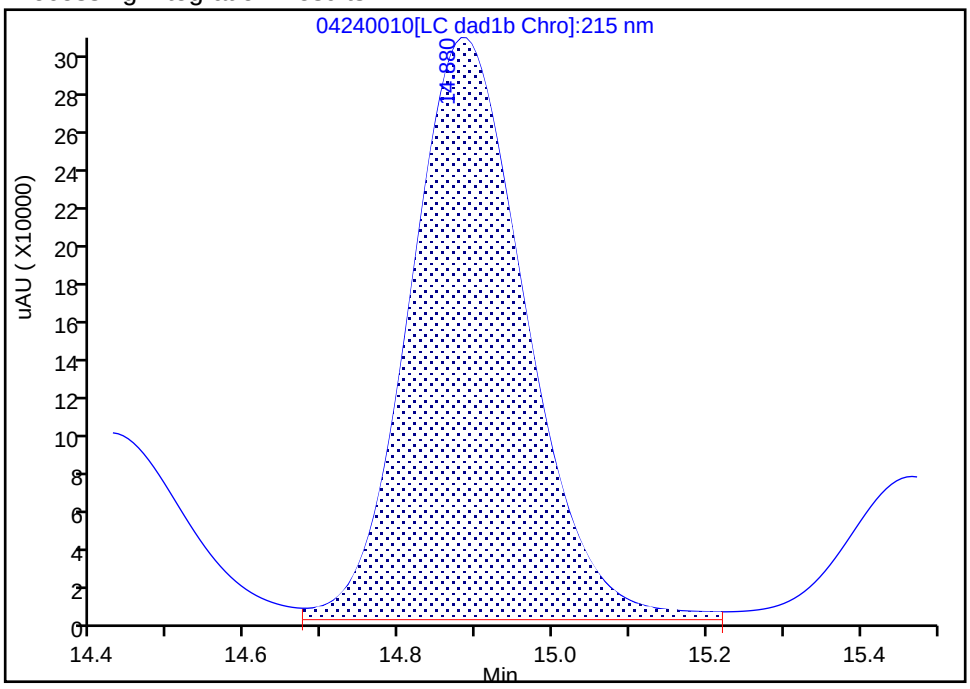
Data File:	\\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240010.d				
Injection Date:	24-Apr-2024 21:28:13	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT 9				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	10	Worklist Smp#:	10
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1B, 215 nm		

13 Nitroglycerin, CAS: 55-63-0

Signal: 1

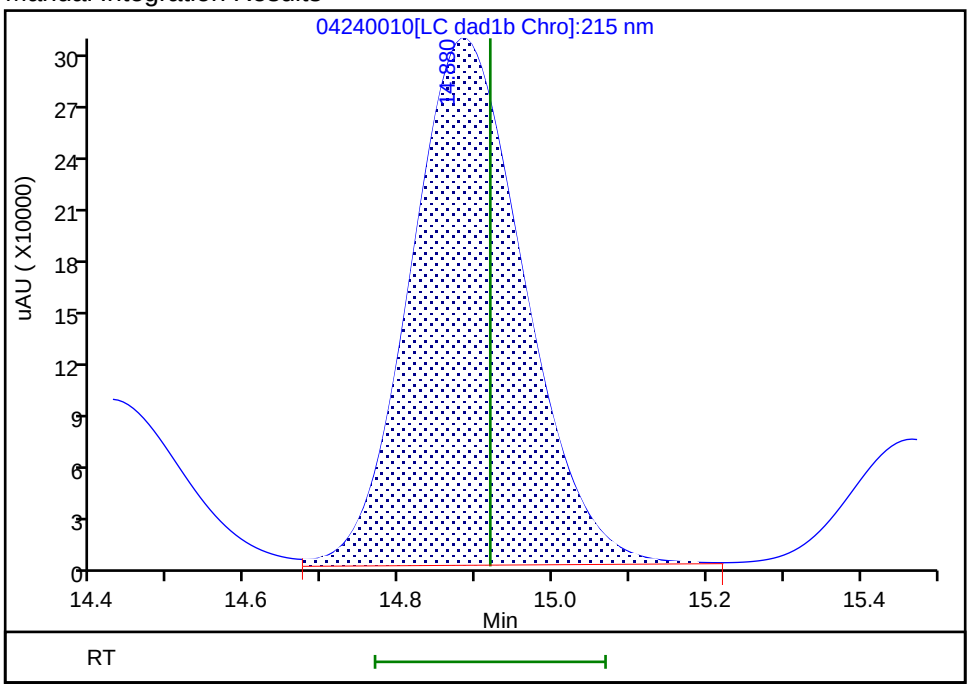
Processing Integration Results

RT: 14.88
Area: 3082817
Amount: 11.814701
Amount Units: ug/ml



Manual Integration Results

RT: 14.88
Area: 2981826
Amount: 24.951524
Amount Units: ug/ml



Reviewer: LV5D, 25-Apr-2024 13:10:26 -06:00:00 (UTC)
Audit Action: Assigned New Baseline Audit Reason: Baseline

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2_LUNA\20240424-132624.b\04240011.D
Lims ID: IC INT 8
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 24-Apr-2024 22:04:12 ALS Bottle#: 11 Worklist Smp#: 11
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT 8
Operator ID: JZ/JG Instrument ID: CHHPLC_G2_LUNA
Sublist: chrom-G2_8330_Luna*sub16

Method: \\chromfs\Denver\ChromData\G2_LUNA\20240424-132624.b\G2_8330_Luna.m
Limit Group: GCSV - 8330
Last Update: 25-Apr-2024 14:30:10 Calib Date: 25-Apr-2024 07:39:21
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\G2_LUNA\20240424-132624.b\04240027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC DAD1A, 254 nm
Process Host: CTX1684

First Level Reviewer: LV5D Date: 25-Apr-2024 13:18:58

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
6 HMX	1	6.703	6.705	-0.002	172751	1.00	0.99	
5 2,4,6-Trinitrophenol	1	8.523	8.612	-0.089	150820	1.00	1.00	
8 RDX	1	8.923	8.938	-0.015	202193	1.00	0.9806	
9 Nitrobenzene	1	11.416	11.425	-0.009	375845	1.00	0.9836	
$ 10 1,2-Dinitrobenzene	1	12.336	12.345	-0.009	255644	1.00	0.9882	
11 3,5-Dinitroaniline	1	14.169	14.185	-0.016	431522	1.00	1.00	
12 1,3-Dinitrobenzene	1	14.469	14.478	-0.009	569625	1.00	0.9664	
13 Nitroglycerin	2	14.916	14.918	-0.002	1192597	10.0	9.98	M
14 o-Nitrotoluene	1	15.502	15.505	-0.003	241414	1.00	0.9870	
15 p-Nitrotoluene	1	15.729	15.738	-0.009	217154	1.00	0.99	
16 4-Amino-2,6-dinitrotoluene	1	16.229	16.245	-0.016	269382	1.00	1.00	
17 m-Nitrotoluene	1	16.569	16.578	-0.009	273569	1.00	0.9892	
18 2-Amino-4,6-dinitrotoluene	1	17.042	17.058	-0.016	380835	1.00	0.9390	
19 1,3,5-Trinitrobenzene	1	17.262	17.272	-0.010	403965	1.00	0.9540	
20 2,6-Dinitrotoluene	1	18.349	18.365	-0.016	265267	1.00	0.9543	
21 2,4-Dinitrotoluene	1	18.802	18.818	-0.016	536407	1.00	0.9673	
22 Tetryl	1	22.003	22.025	-0.022	310388	1.00	0.99	
23 2,4,6-Trinitrotoluene	1	22.863	22.878	-0.015	398830	1.00	1.00	M
24 PETN	2	24.009	24.032	-0.023	1228090	10.0	9.95	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

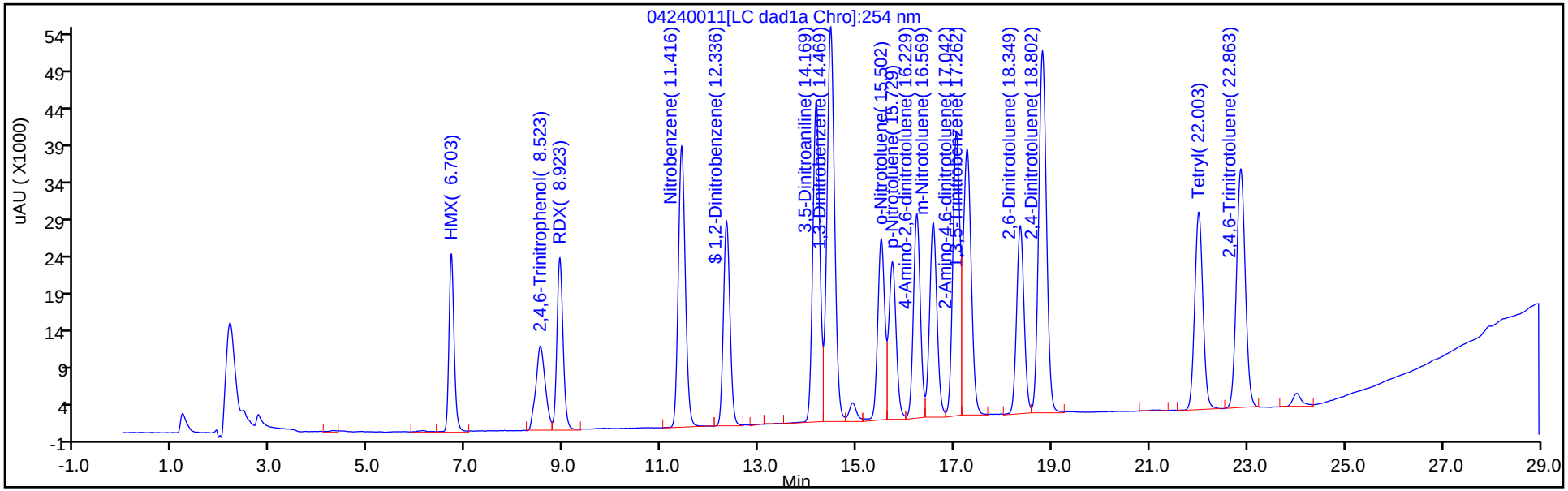
8330IntermStk_00080 Amount Added: 100.00 Units: uL

Report Date: 25-Apr-2024 14:30:10 Chrom Revision: 2.3 09-Apr-2024 17:43:44

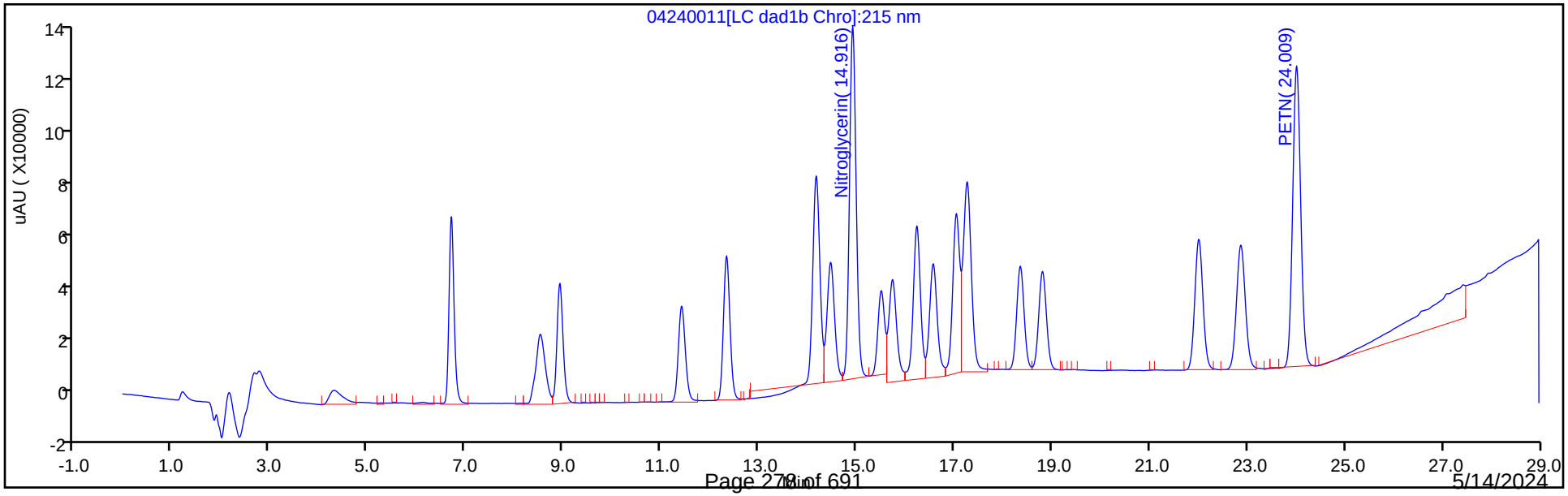
Eurofins Denver

Data File:	\\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240011.d				
Injection Date:	24-Apr-2024 22:04:12	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	JZ/JG
Lims ID:	IC INT 8			Worklist Smp#:	11
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	11
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



5/14/2024
9:20:15 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

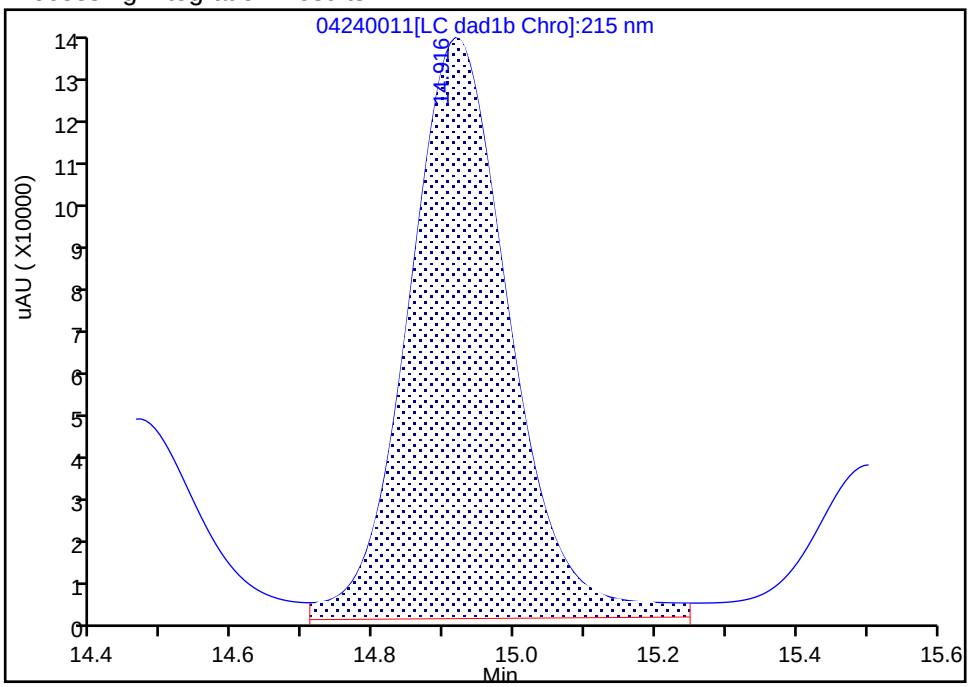
Data File:	\\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240011.d				
Injection Date:	24-Apr-2024 22:04:12	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT 8				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	11	Worklist Smp#:	11
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1B, 215 nm		

13 Nitroglycerin, CAS: 55-63-0

Signal: 1

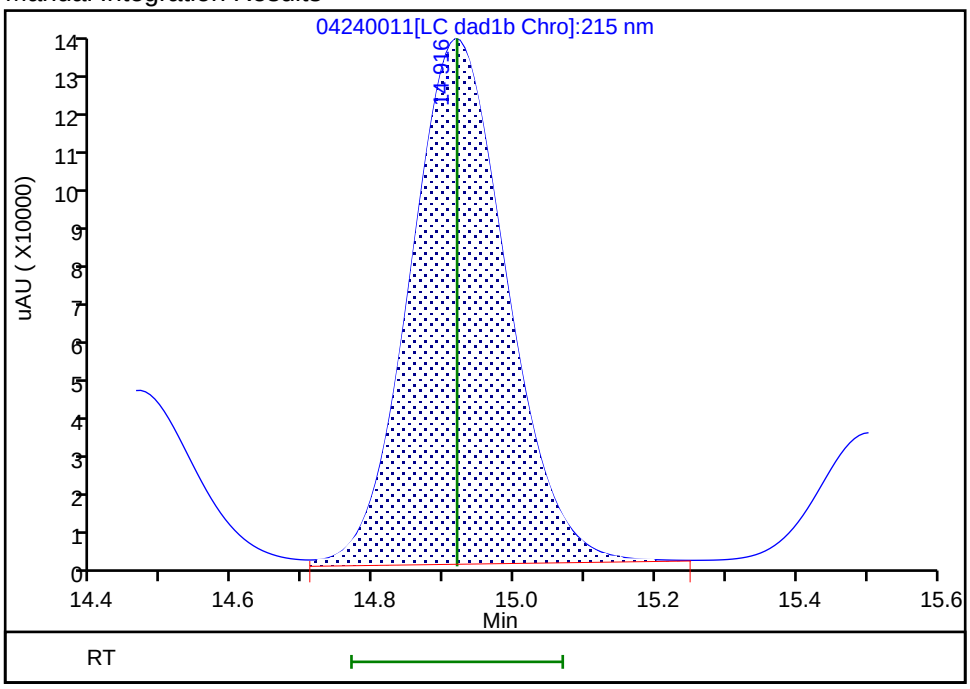
Processing Integration Results

RT: 14.92
Area: 1281389
Amount: 4.919304
Amount Units: ug/ml



Manual Integration Results

RT: 14.92
Area: 1192597
Amount: 9.979493
Amount Units: ug/ml



Reviewer: LV5D, 25-Apr-2024 13:11:13 -06:00:00 (UTC)
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

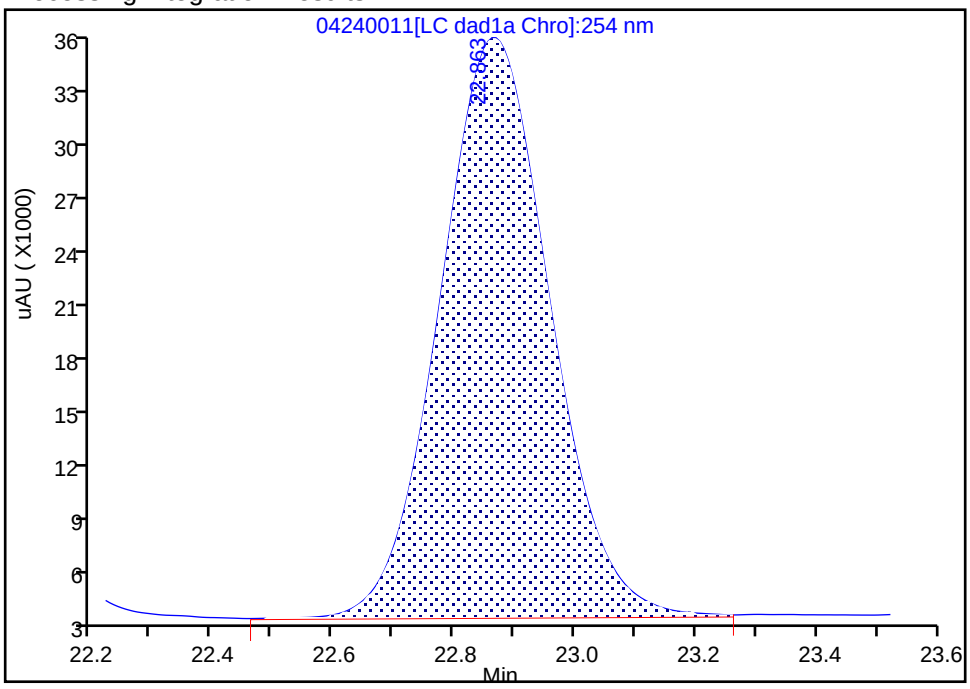
Data File:	\\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240011.d				
Injection Date:	24-Apr-2024 22:04:12	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT 8				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	11	Worklist Smp#:	11
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

23 2,4,6-Trinitrotoluene, CAS: 118-96-7

Signal: 1

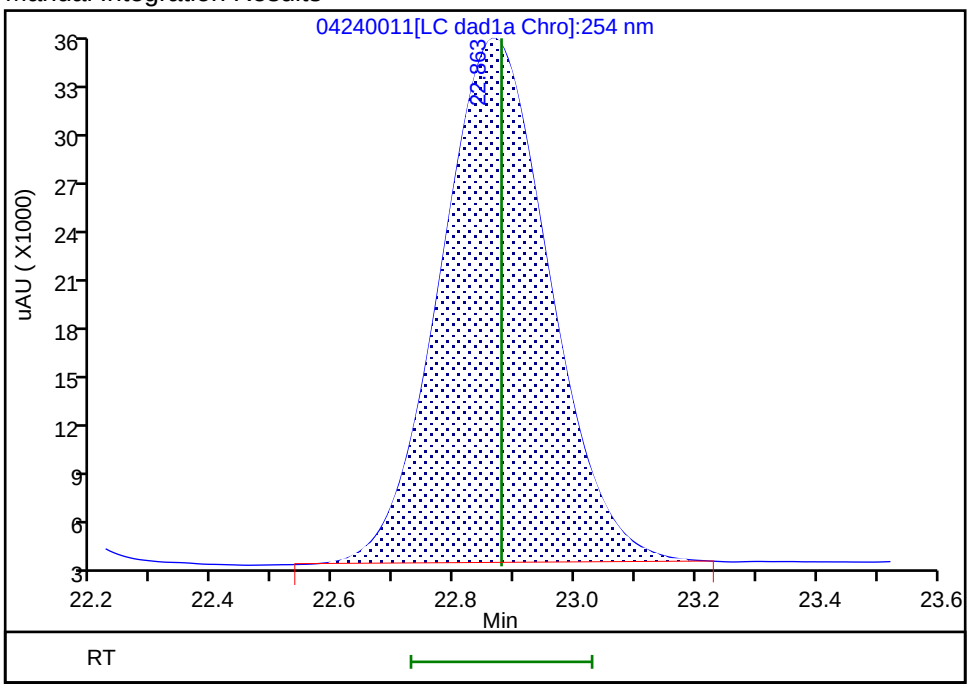
Processing Integration Results

RT: 22.86
Area: 406074
Amount: 1.007347
Amount Units: ug/ml



Manual Integration Results

RT: 22.86
Area: 398830
Amount: 0.997667
Amount Units: ug/ml



Reviewer: LV5D, 25-Apr-2024 13:37:30 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2_LUNA\20240424-132624.b\04240012.D
Lims ID: IC INT 7
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 24-Apr-2024 22:40:07 ALS Bottle#: 12 Worklist Smp#: 12
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT 7
Operator ID: JZ/JG Instrument ID: CHHPLC_G2_LUNA
Sublist: chrom-G2_8330_Luna*sub16

Method: \\chromfs\Denver\ChromData\G2_LUNA\20240424-132624.b\G2_8330_Luna.m
Limit Group: GCSV - 8330
Last Update: 25-Apr-2024 14:30:11 Calib Date: 25-Apr-2024 07:39:21
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\G2_LUNA\20240424-132624.b\04240027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC DAD1A, 254 nm
Process Host: CTX1684

First Level Reviewer: LV5D Date: 25-Apr-2024 13:19:19

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
6 HMX	1	6.693	6.705	-0.012	121397	0.7000	0.6974	
5 2,4,6-Trinitrophenol	1	8.553	8.612	-0.059	105341	0.7000	0.6958	
8 RDX	1	8.927	8.938	-0.011	142066	0.7000	0.6882	
9 Nitrobenzene	1	11.426	11.425	0.001	265026	0.7000	0.6936	
$ 10 1,2-Dinitrobenzene	1	12.346	12.345	0.001	180143	0.7000	0.6964	
11 3,5-Dinitroaniline	1	14.186	14.185	0.001	302587	0.7000	0.7004	
12 1,3-Dinitrobenzene	1	14.480	14.478	0.002	399408	0.7000	0.6776	
13 Nitroglycerin	2	14.940	14.918	0.022	843844	7.00	7.06	M
14 o-Nitrotoluene	1	15.526	15.505	0.021	169093	0.7000	0.6913	
15 p-Nitrotoluene	1	15.753	15.738	0.015	154841	0.7000	0.7070	
16 4-Amino-2,6-dinitrotoluene	1	16.253	16.245	0.008	189660	0.7000	0.7010	
17 m-Nitrotoluene	1	16.586	16.578	0.008	194048	0.7000	0.7006	
18 2-Amino-4,6-dinitrotoluene	1	17.066	17.058	0.008	270634	0.7000	0.6673	
19 1,3,5-Trinitrobenzene	1	17.280	17.272	0.008	283624	0.7000	0.6698	
20 2,6-Dinitrotoluene	1	18.373	18.365	0.008	187213	0.7000	0.6735	
21 2,4-Dinitrotoluene	1	18.826	18.818	0.008	379151	0.7000	0.6837	
22 Tetryl	1	22.020	22.025	-0.005	219045	0.7000	0.7007	
23 2,4,6-Trinitrotoluene	1	22.873	22.878	-0.005	279268	0.7000	0.6986	M
24 PETN	2	24.013	24.032	-0.019	865110	7.00	7.02	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330IntermStk_00080 Amount Added: 70.00 Units: uL

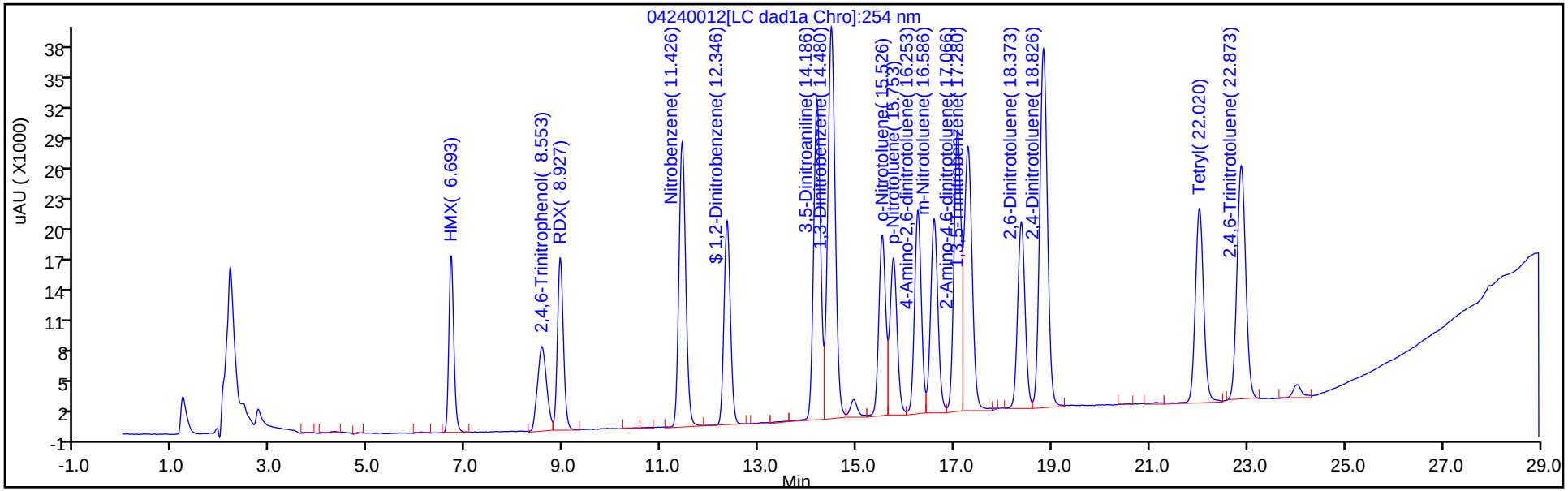
Report Date: 25-Apr-2024 14:30:11 Chrom Revision: 2.3 09-Apr-2024 17:43:44

Eurofins Denver

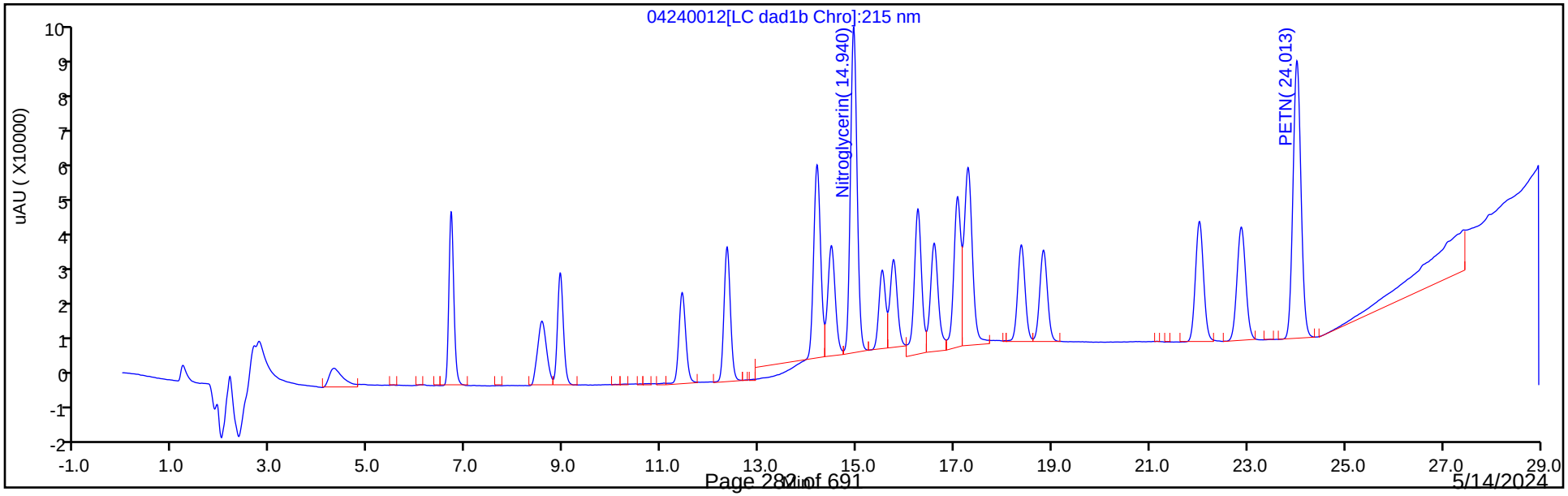
Data File: \\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240012.d

Injection Date:	24-Apr-2024 22:40:07	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	JZ/JG
Lims ID:	IC INT 7			Worklist Smp#:	12
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	12
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Manual Integration/User Assign Peak Report

Eurofins Denver

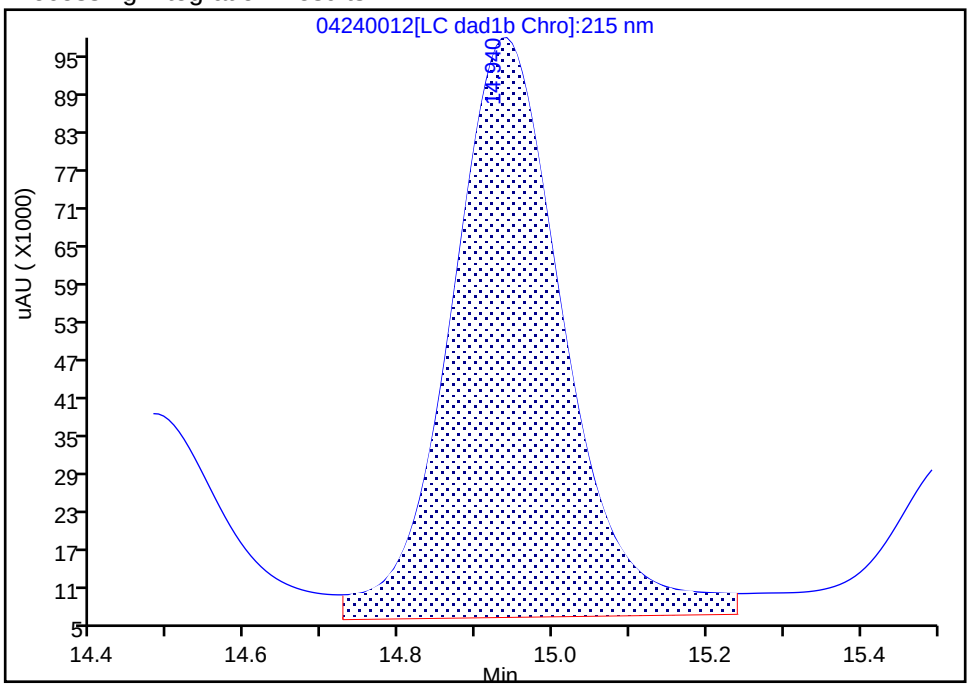
Data File:	\\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240012.d				
Injection Date:	24-Apr-2024 22:40:07	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT 7				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	12	Worklist Smp#:	12
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1B, 215 nm		

13 Nitroglycerin, CAS: 55-63-0

Signal: 1

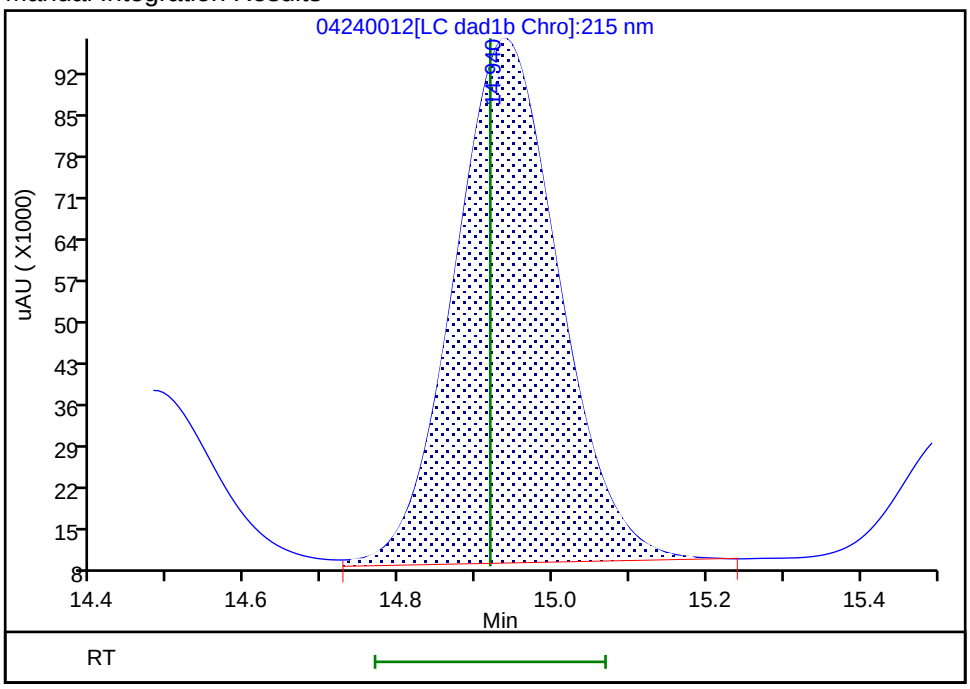
Processing Integration Results

RT: 14.94
Area: 942019
Amount: 3.630198
Amount Units: ug/ml



Manual Integration Results

RT: 14.94
Area: 843844
Amount: 7.061175
Amount Units: ug/ml



Reviewer: LV5D, 25-Apr-2024 13:19:17 -06:00:00 (UTC)
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

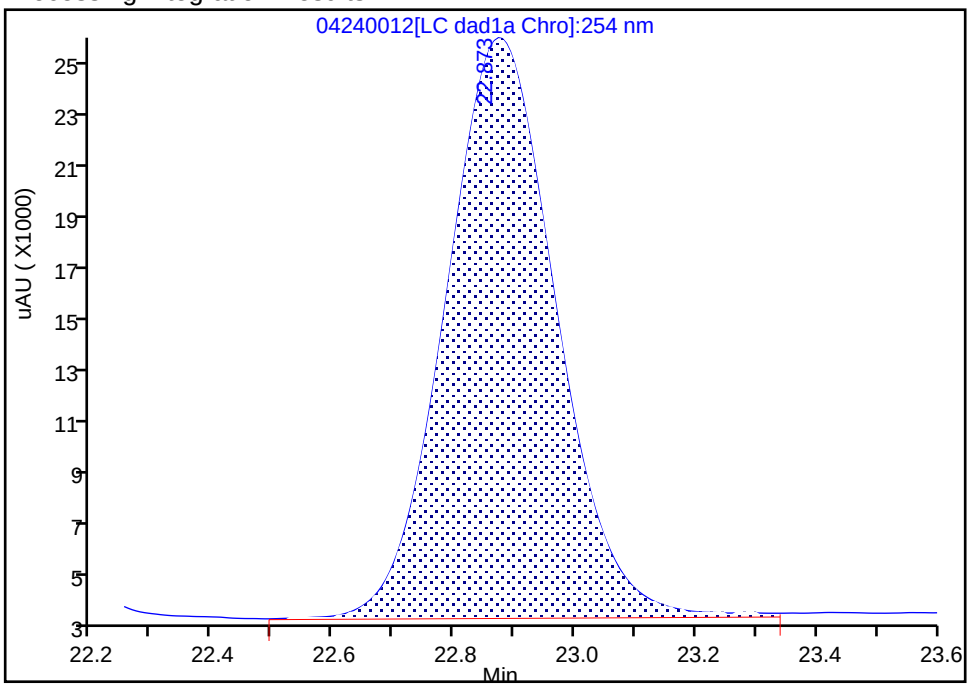
Data File:	\\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240012.d				
Injection Date:	24-Apr-2024 22:40:07	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT 7				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	12	Worklist Smp#:	12
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

23 2,4,6-Trinitrotoluene, CAS: 118-96-7

Signal: 1

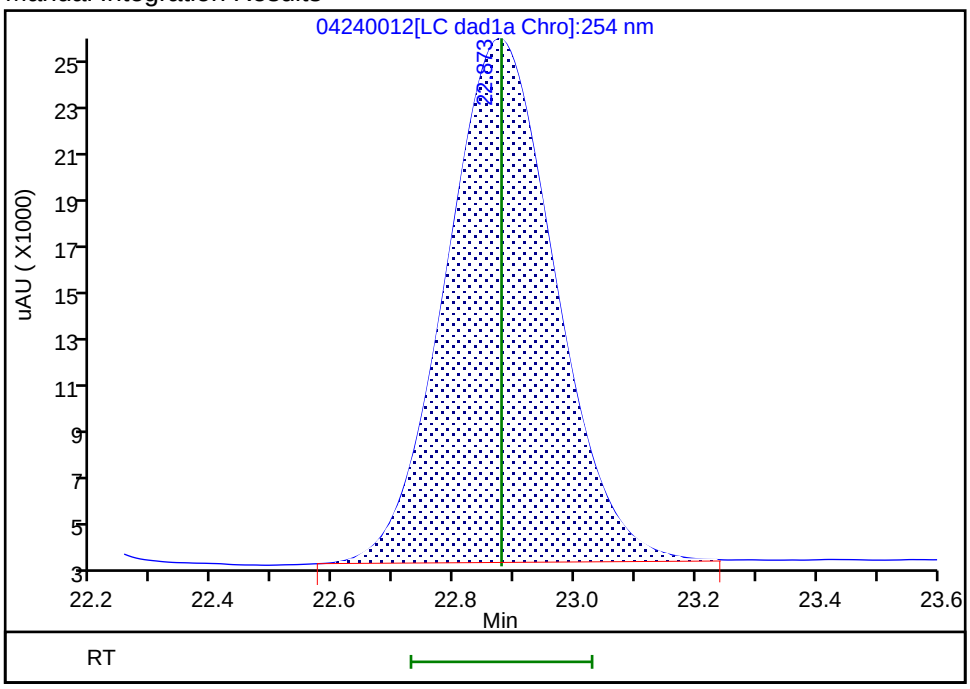
Processing Integration Results

RT: 22.87
Area: 285759
Amount: 0.707074
Amount Units: ug/ml



Manual Integration Results

RT: 22.87
Area: 279268
Amount: 0.698585
Amount Units: ug/ml



Reviewer: LV5D, 25-Apr-2024 13:37:19 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2_LUNA\20240424-132624.b\04240013.D
Lims ID: IC INT 6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 24-Apr-2024 23:16:01 ALS Bottle#: 13 Worklist Smp#: 13
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT 6
Operator ID: JZ/JG Instrument ID: CHHPLC_G2_LUNA
Sublist: chrom-G2_8330_Luna*sub16

Method: \\chromfs\Denver\ChromData\G2_LUNA\20240424-132624.b\G2_8330_Luna.m
Limit Group: GCSV - 8330
Last Update: 25-Apr-2024 14:30:12 Calib Date: 25-Apr-2024 07:39:21
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\G2_LUNA\20240424-132624.b\04240027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC DAD1A, 254 nm
Process Host: CTX1684

First Level Reviewer: LV5D Date: 25-Apr-2024 13:19:49

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
6 HMX	1	6.700	6.705	-0.005	70323	0.4000	0.4040	
5 2,4,6-Trinitrophenol	1	8.587	8.612	-0.025	60435	0.4000	0.3992	
8 RDX	1	8.927	8.938	-0.011	83185	0.4000	0.4019	
9 Nitrobenzene	1	11.420	11.425	-0.005	153657	0.4000	0.4021	
$ 10 1,2-Dinitrobenzene	1	12.340	12.345	-0.005	104562	0.4000	0.4042	
11 3,5-Dinitroaniline	1	14.180	14.185	-0.005	175740	0.4000	0.4059	M
12 1,3-Dinitrobenzene	1	14.473	14.478	-0.005	231256	0.4000	0.3923	M
13 Nitroglycerin	2	14.920	14.918	0.002	496432	4.00	4.15	M
14 o-Nitrotoluene	1	15.507	15.505	0.002	96839	0.4000	0.3959	M
15 p-Nitrotoluene	1	15.740	15.738	0.002	89334	0.4000	0.4061	M
16 4-Amino-2,6-dinitrotoluene	1	16.240	16.245	-0.005	109971	0.4000	0.4053	M
17 m-Nitrotoluene	1	16.573	16.578	-0.005	112076	0.4000	0.4032	M
18 2-Amino-4,6-dinitrotoluene	1	17.053	17.058	-0.005	156312	0.4000	0.3854	M
19 1,3,5-Trinitrobenzene	1	17.267	17.272	-0.005	162815	0.4000	0.3845	M
20 2,6-Dinitrotoluene	1	18.353	18.365	-0.012	107267	0.4000	0.3859	M
21 2,4-Dinitrotoluene	1	18.807	18.818	-0.011	216895	0.4000	0.3911	M
22 Tetryl	1	22.007	22.025	-0.018	125893	0.4000	0.4021	
23 2,4,6-Trinitrotoluene	1	22.874	22.878	-0.004	160072	0.4000	0.4004	M
24 PETN	2	24.014	24.032	-0.018	492803	4.00	4.00	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330IntermStk_00080 Amount Added: 40.00 Units: uL

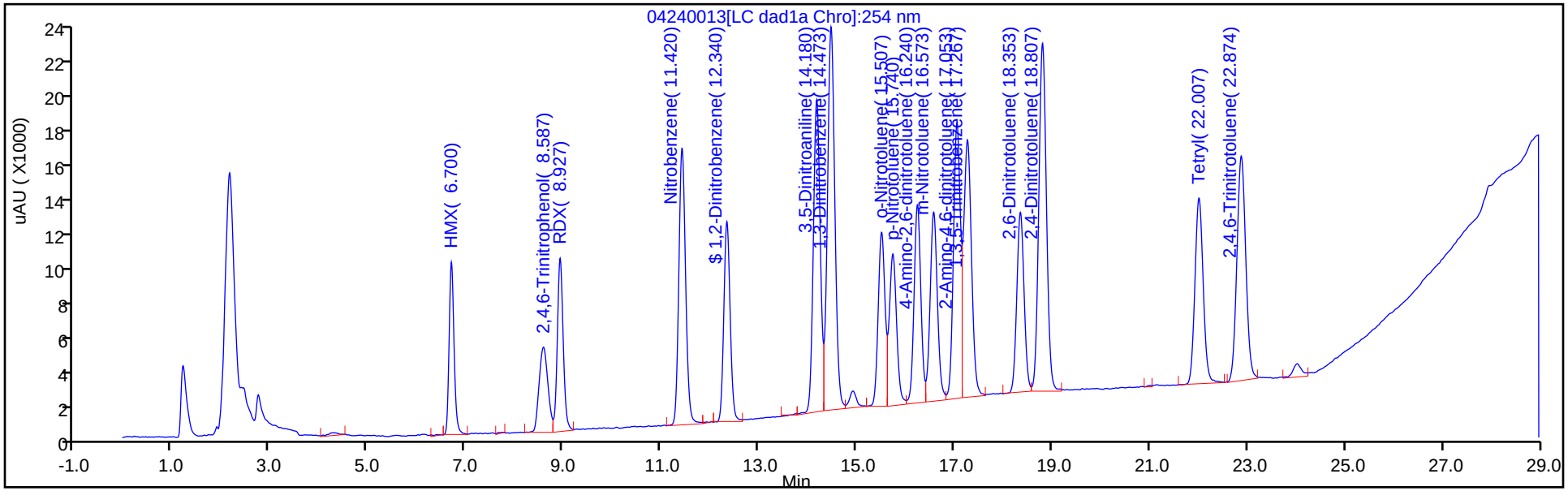
Report Date: 25-Apr-2024 14:30:12 Chrom Revision: 2.3 09-Apr-2024 17:43:44

Eurofins Denver

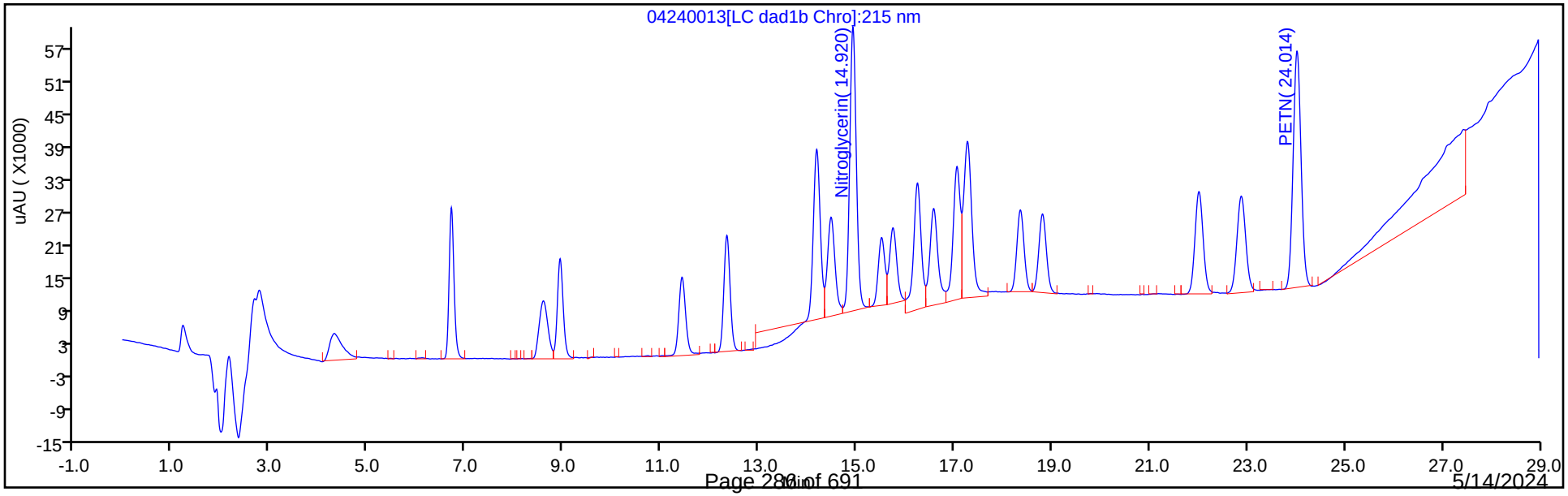
Data File: \\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240013.d

Injection Date:	24-Apr-2024 23:16:01	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	JZ/JG
Lims ID:	IC INT 6			Worklist Smp#:	13
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	13
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



5/14/2024
9:20:15 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

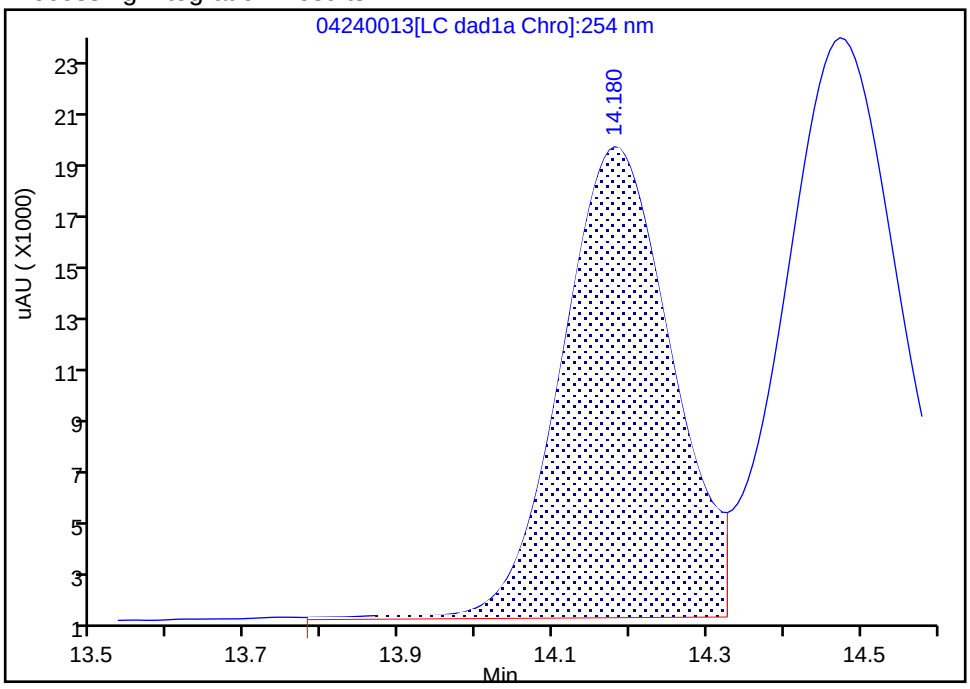
Data File:	\\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240013.d				
Injection Date:	24-Apr-2024 23:16:01	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT 6				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

11 3,5-Dinitroaniline, CAS: 618-87-1

Signal: 1

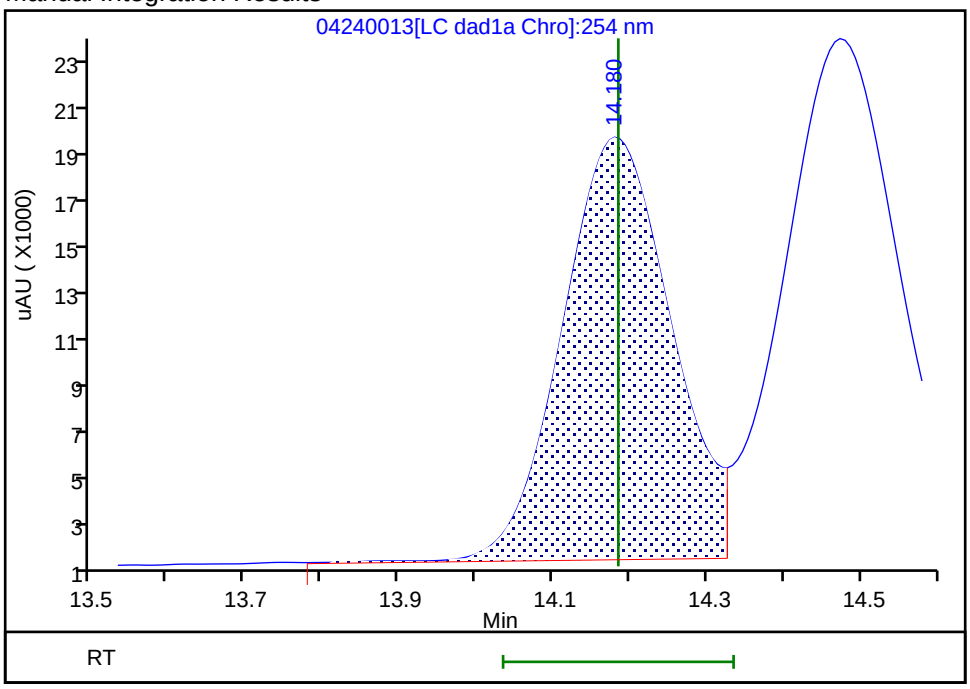
Processing Integration Results

RT: 14.18
Area: 177544
Amount: 0.403629
Amount Units: ug/ml



Manual Integration Results

RT: 14.18
Area: 175740
Amount: 0.405875
Amount Units: ug/ml



Reviewer: LV5D, 25-Apr-2024 13:21:18 -06:00:00 (UTC)
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

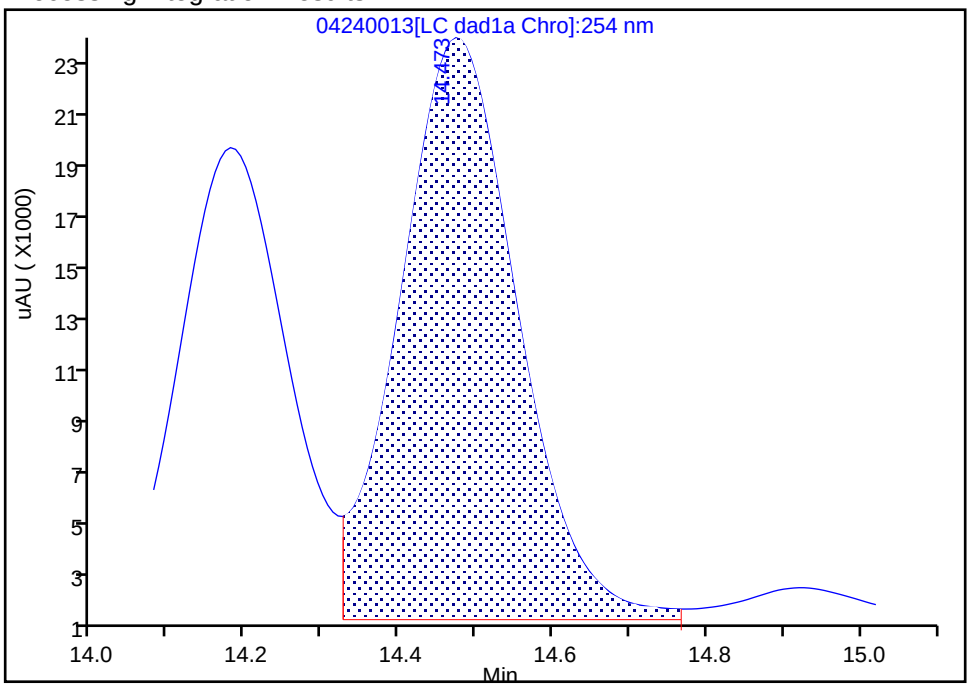
Data File:	\\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240013.d				
Injection Date:	24-Apr-2024 23:16:01	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT 6				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

12 1,3-Dinitrobenzene, CAS: 99-65-0

Signal: 1

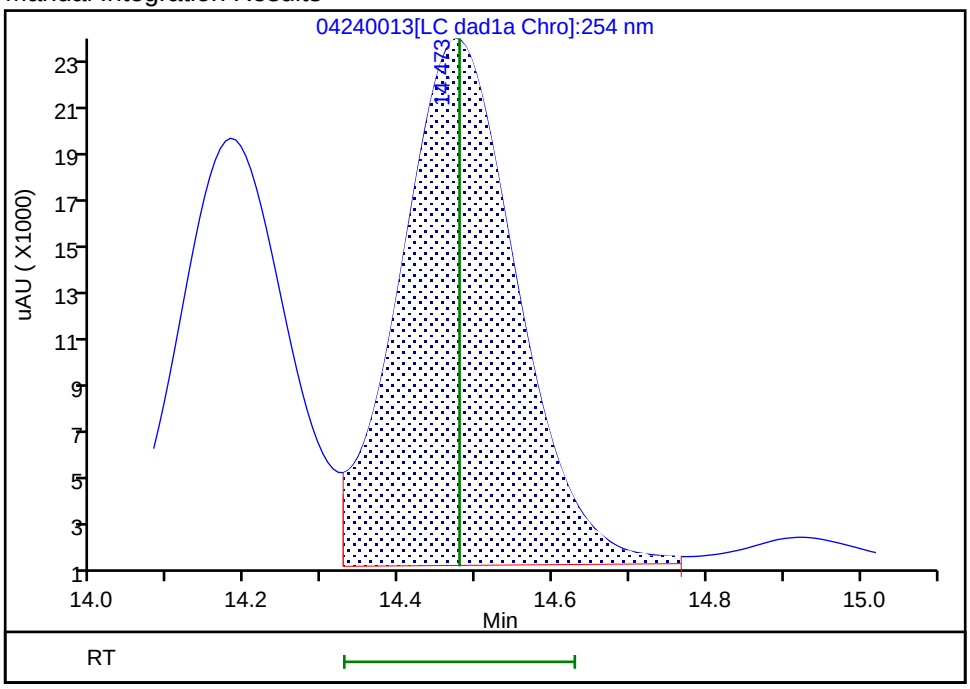
Processing Integration Results

RT: 14.47
Area: 233896
Amount: 0.368762
Amount Units: ug/ml



Manual Integration Results

RT: 14.47
Area: 231256
Amount: 0.392346
Amount Units: ug/ml



Reviewer: LV5D, 25-Apr-2024 13:21:18 -06:00:00 (UTC)
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

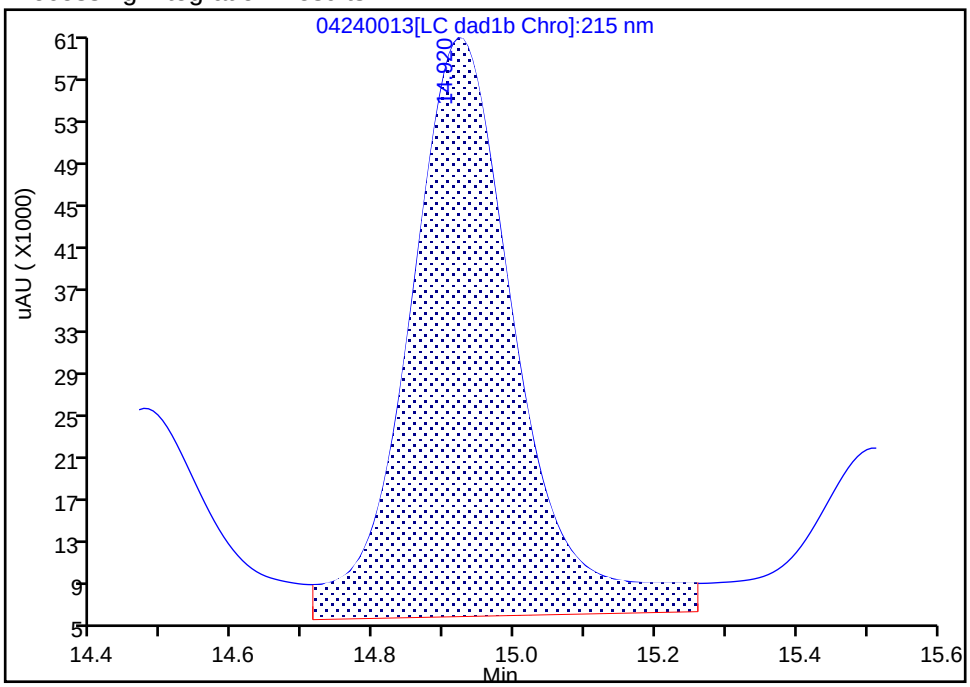
Data File:	\\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240013.d				
Injection Date:	24-Apr-2024 23:16:01	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT 6				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1B, 215 nm		

13 Nitroglycerin, CAS: 55-63-0

Signal: 1

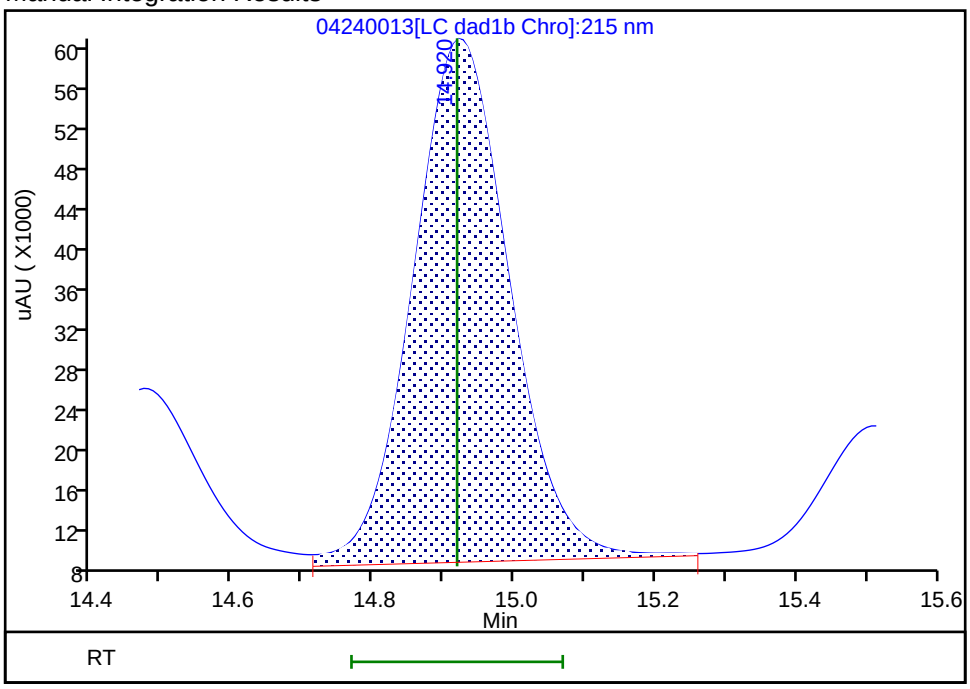
Processing Integration Results

RT: 14.92
Area: 575135
Amount: 2.229751
Amount Units: ug/ml



Manual Integration Results

RT: 14.92
Area: 496432
Amount: 4.154077
Amount Units: ug/ml



Reviewer: LV5D, 25-Apr-2024 13:19:46 -06:00:00 (UTC)
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

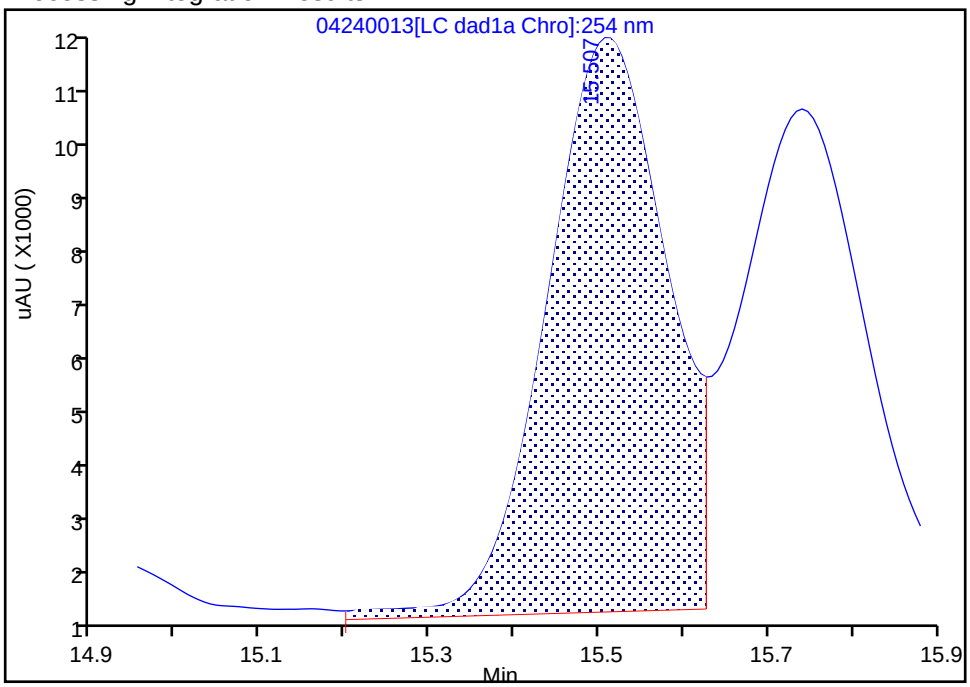
Data File:	\\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240013.d				
Injection Date:	24-Apr-2024 23:16:01	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT 6				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

14 o-Nitrotoluene, CAS: 88-72-2

Signal: 1

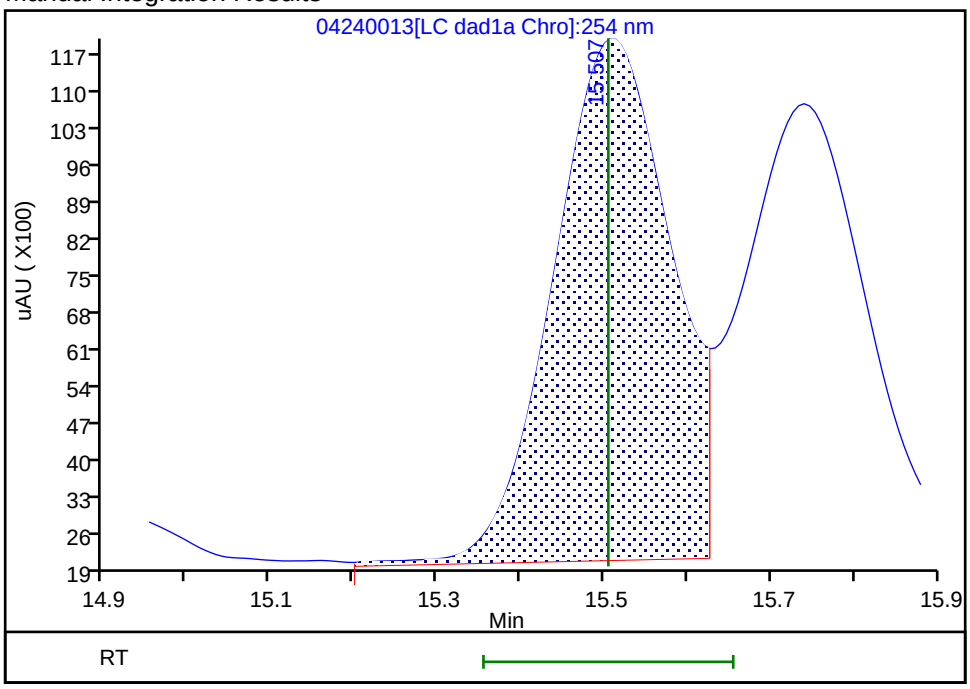
Processing Integration Results

RT: 15.51
Area: 98708
Amount: 0.357016
Amount Units: ug/ml



Manual Integration Results

RT: 15.51
Area: 96839
Amount: 0.395917
Amount Units: ug/ml



Reviewer: LV5D, 25-Apr-2024 13:21:18 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

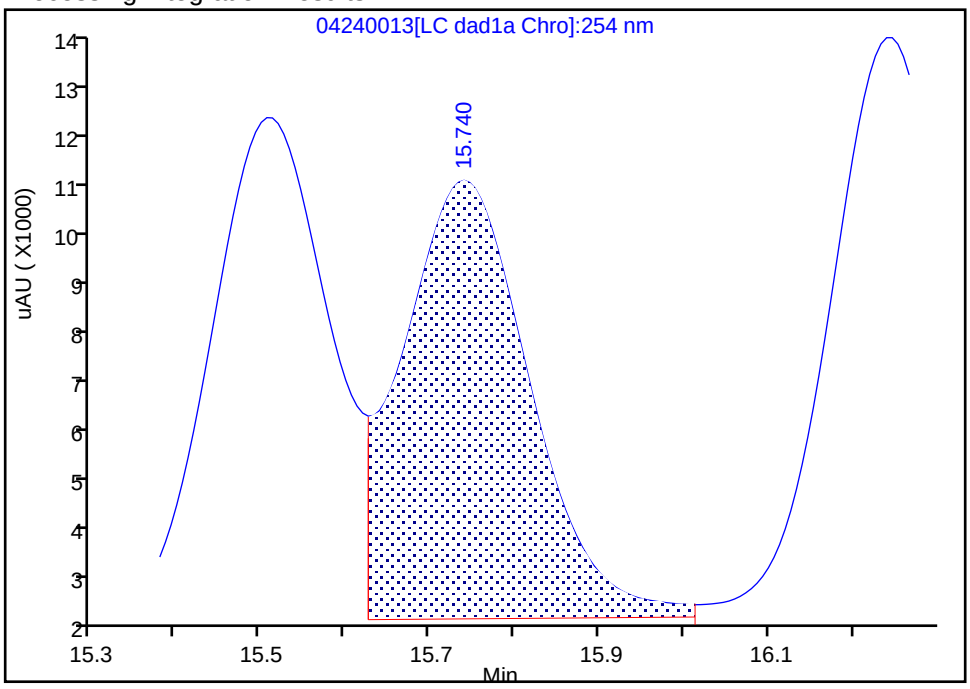
Data File: \\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240013.d
Injection Date: 24-Apr-2024 23:16:01 Instrument ID: CHHPLC_G2_LUNA
Lims ID: IC INT 6
Client ID:
Operator ID: JZ/JG ALS Bottle#: 13 Worklist Smp#: 13
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC DAD1A, 254 nm

15 p-Nitrotoluene, CAS: 99-99-0

Signal: 1

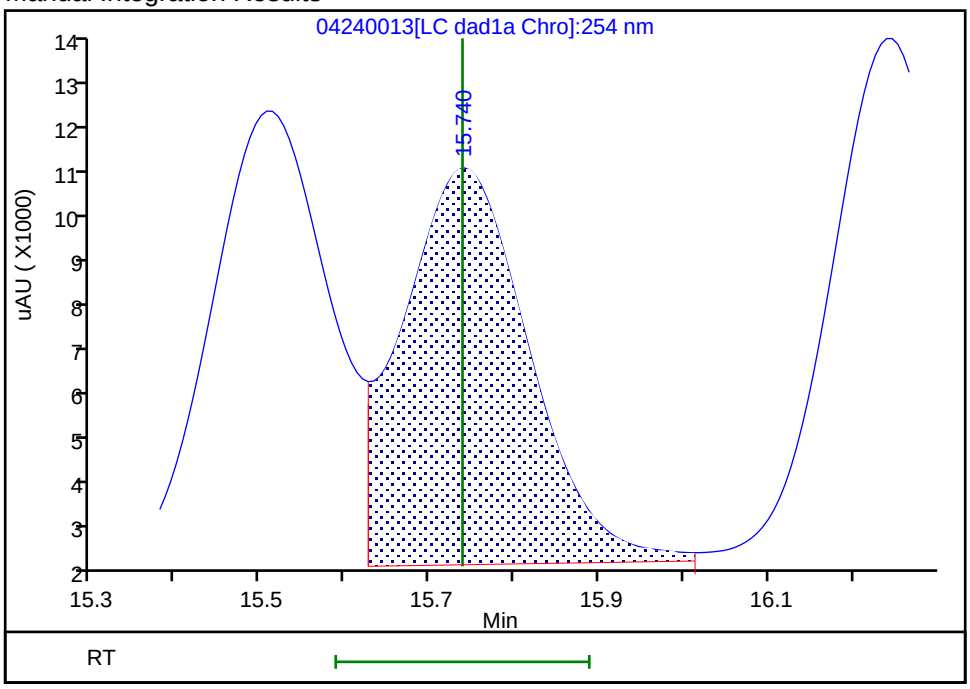
Processing Integration Results

RT: 15.74
Area: 90760
Amount: 0.406111
Amount Units: ug/ml



Manual Integration Results

RT: 15.74
Area: 89334
Amount: 0.406098
Amount Units: ug/ml



Reviewer: LV5D, 25-Apr-2024 13:21:18 -06:00:00 (UTC)
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

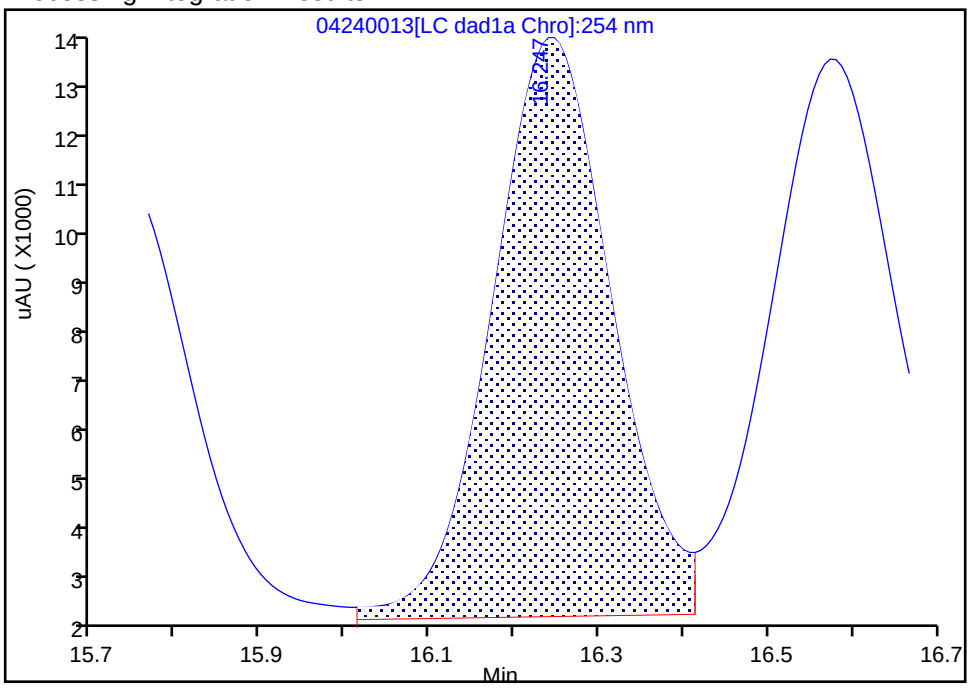
Data File:	\\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240013.d				
Injection Date:	24-Apr-2024 23:16:01	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT 6				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

16 4-Amino-2,6-dinitrotoluene, CAS: 19406-51-0

Signal: 1

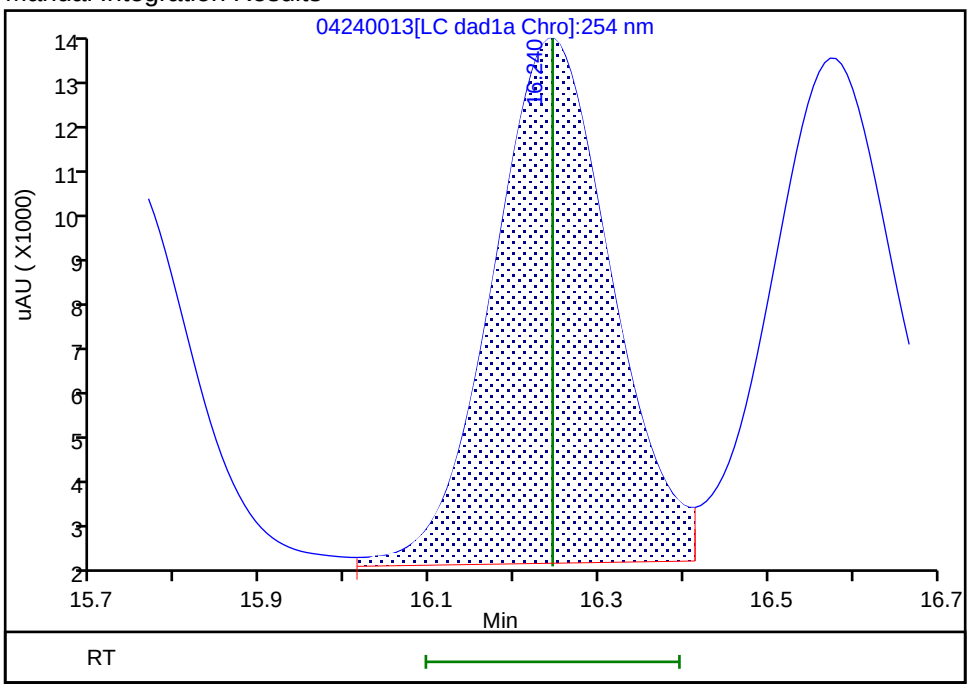
Processing Integration Results

RT: 16.25
Area: 111651
Amount: 0.405375
Amount Units: ug/ml



Manual Integration Results

RT: 16.24
Area: 109971
Amount: 0.405284
Amount Units: ug/ml



Reviewer: LV5D, 25-Apr-2024 13:21:18 -06:00:00 (UTC)
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

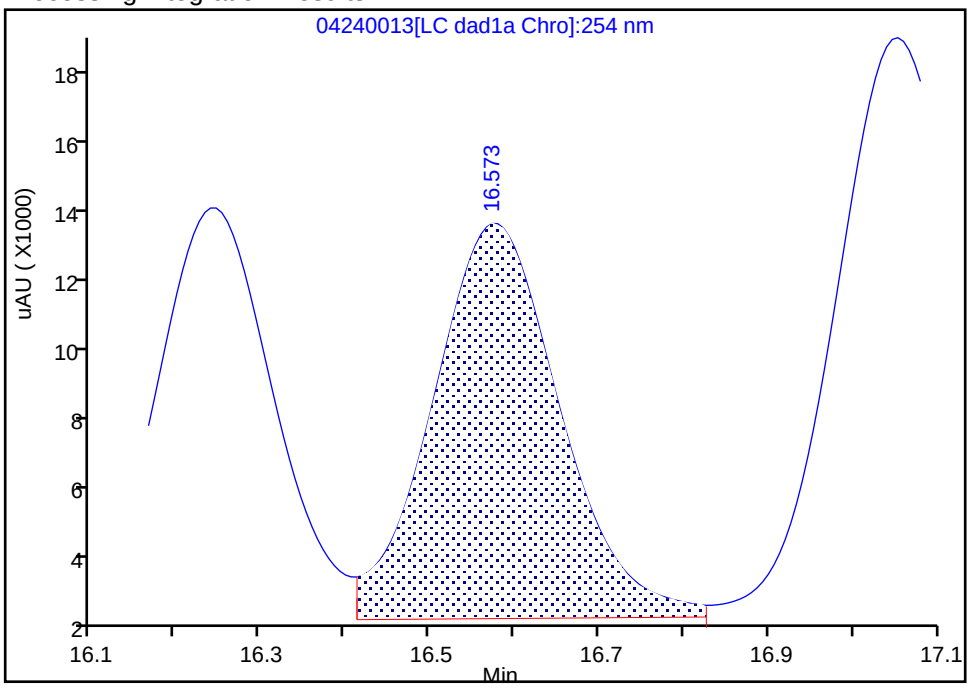
Data File:	\\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240013.d				
Injection Date:	24-Apr-2024 23:16:01	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT 6				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

17 m-Nitrotoluene, CAS: 99-08-1

Signal: 1

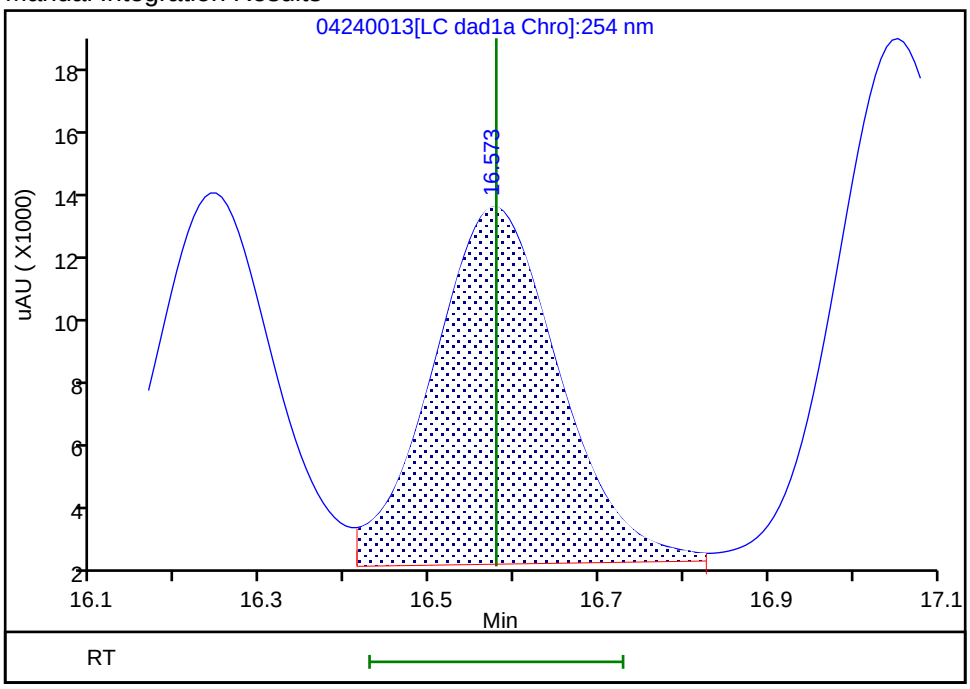
Processing Integration Results

RT: 16.57
Area: 113378
Amount: 0.394279
Amount Units: ug/ml



Manual Integration Results

RT: 16.57
Area: 112076
Amount: 0.403164
Amount Units: ug/ml



Reviewer: LV5D, 25-Apr-2024 13:21:18 -06:00:00 (UTC)
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

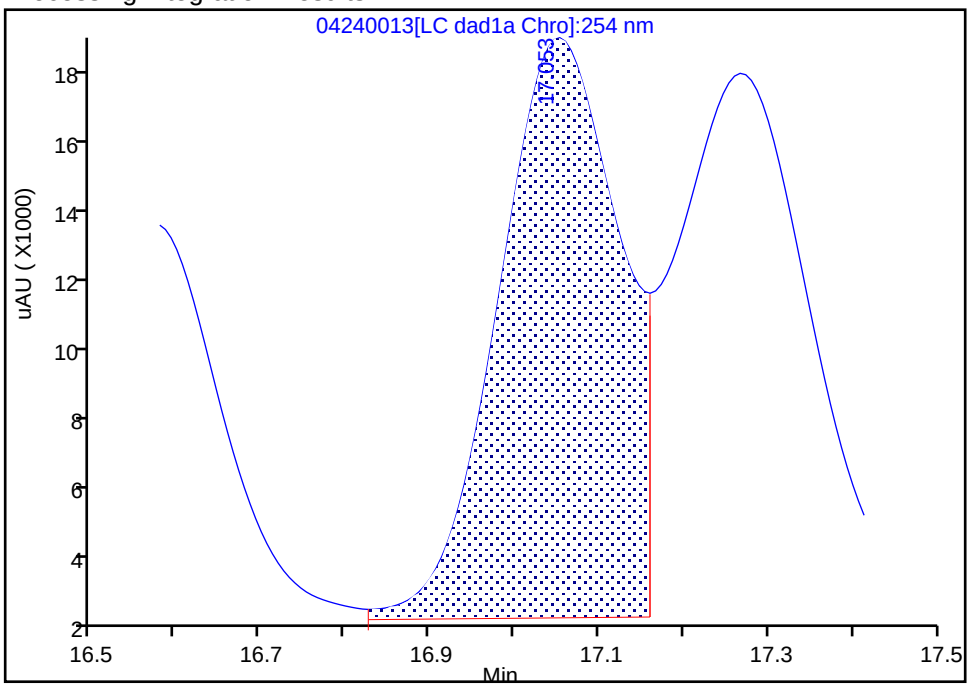
Data File:	\\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240013.d				
Injection Date:	24-Apr-2024 23:16:01	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT 6				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

18 2-Amino-4,6-dinitrotoluene, CAS: 35572-78-2

Signal: 1

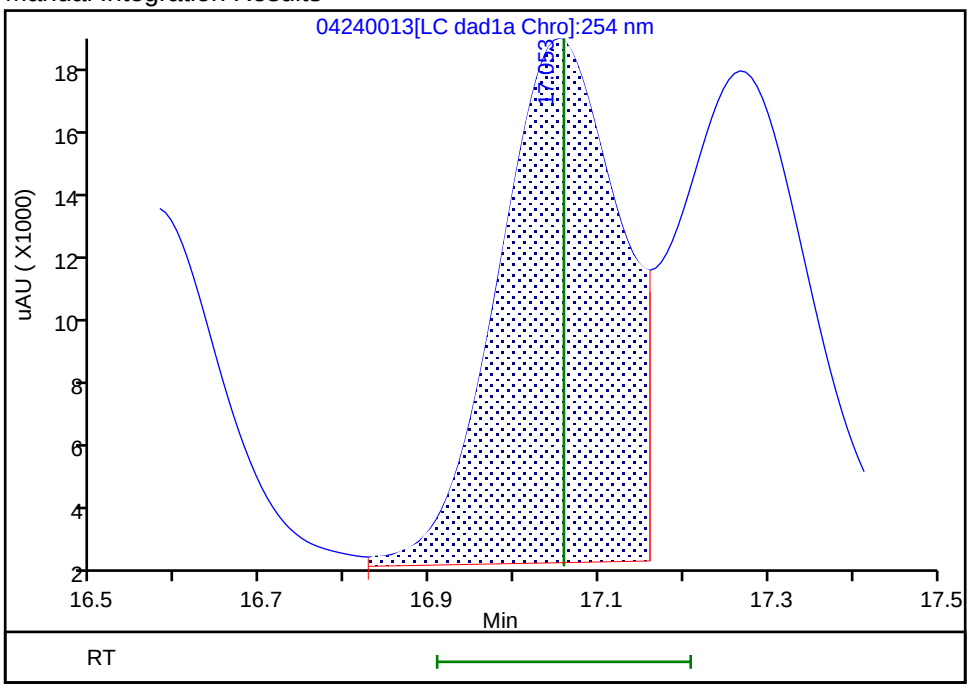
Processing Integration Results

RT: 17.05
Area: 157172
Amount: 0.405879
Amount Units: ug/ml



Manual Integration Results

RT: 17.05
Area: 156312
Amount: 0.385421
Amount Units: ug/ml



Reviewer: LV5D, 25-Apr-2024 13:21:18 -06:00:00 (UTC)
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

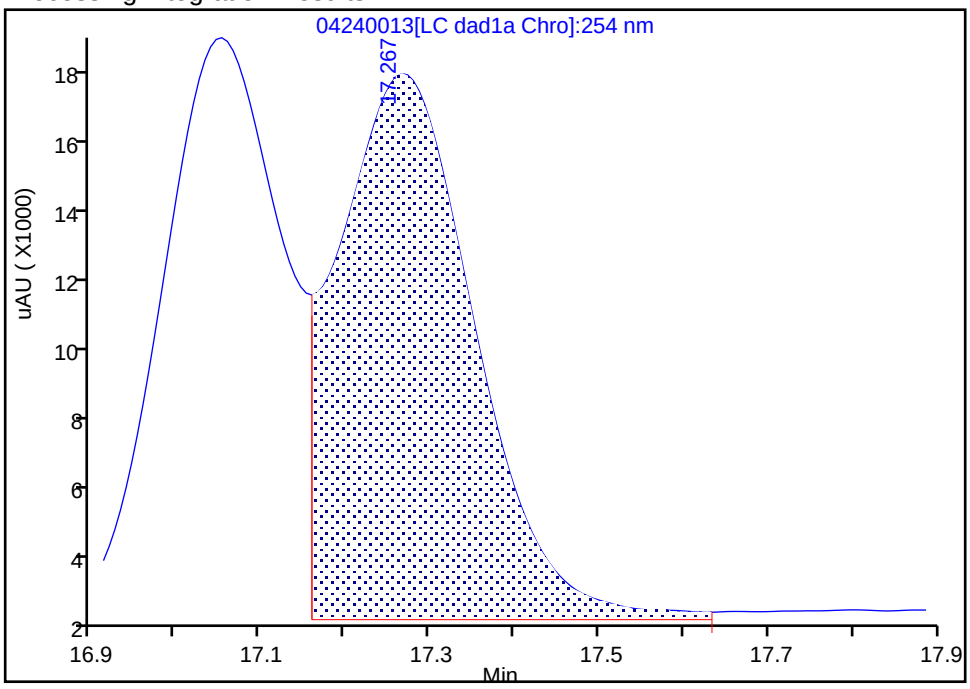
Data File:	\\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240013.d				
Injection Date:	24-Apr-2024 23:16:01	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT 6				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

19 1,3,5-Trinitrobenzene, CAS: 99-35-4

Signal: 1

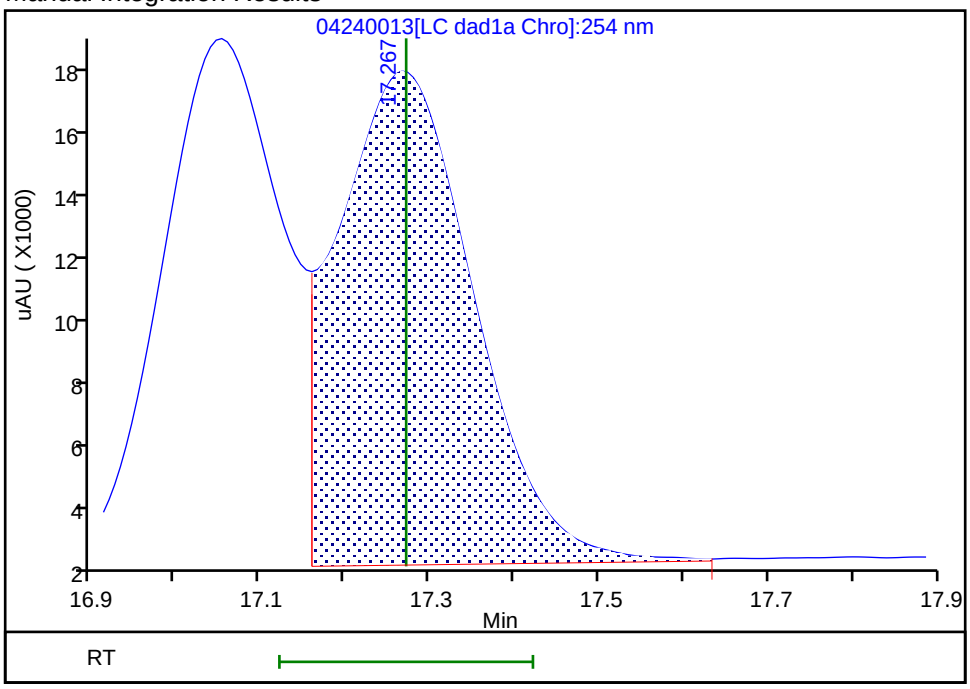
Processing Integration Results

RT: 17.27
Area: 165257
Amount: 0.352733
Amount Units: ug/ml



Manual Integration Results

RT: 17.27
Area: 162815
Amount: 0.384492
Amount Units: ug/ml



Reviewer: LV5D, 25-Apr-2024 13:21:18 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

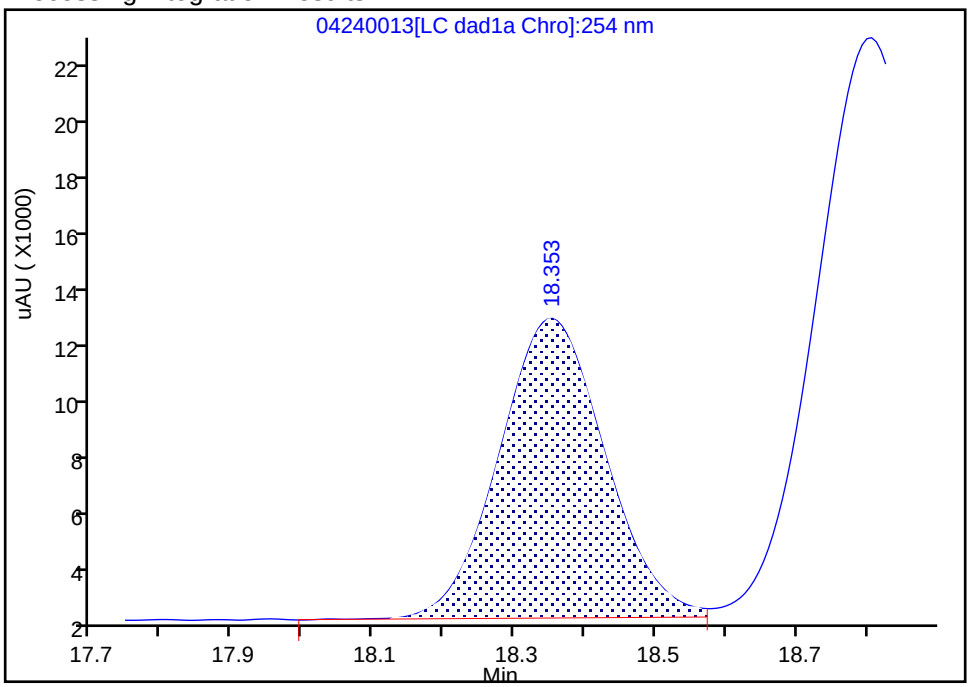
Data File:	\\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240013.d				
Injection Date:	24-Apr-2024 23:16:01	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT 6				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

20 2,6-Dinitrotoluene, CAS: 606-20-2

Signal: 1

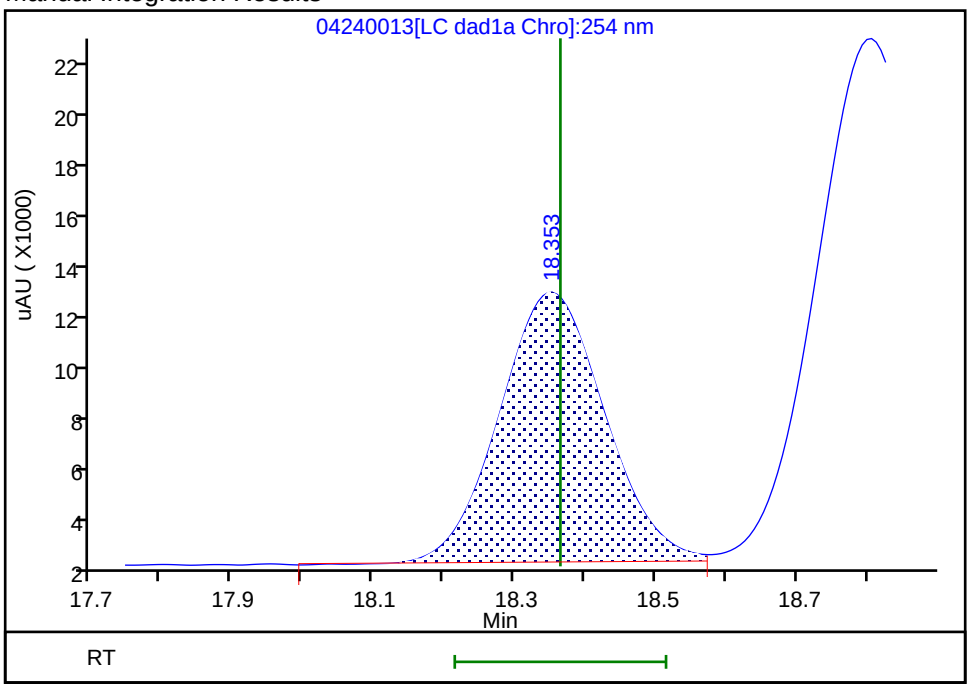
Processing Integration Results

RT: 18.35
Area: 107632
Amount: 0.396872
Amount Units: ug/ml



Manual Integration Results

RT: 18.35
Area: 107267
Amount: 0.385894
Amount Units: ug/ml



Reviewer: LV5D, 25-Apr-2024 13:21:20 -06:00:00 (UTC)
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

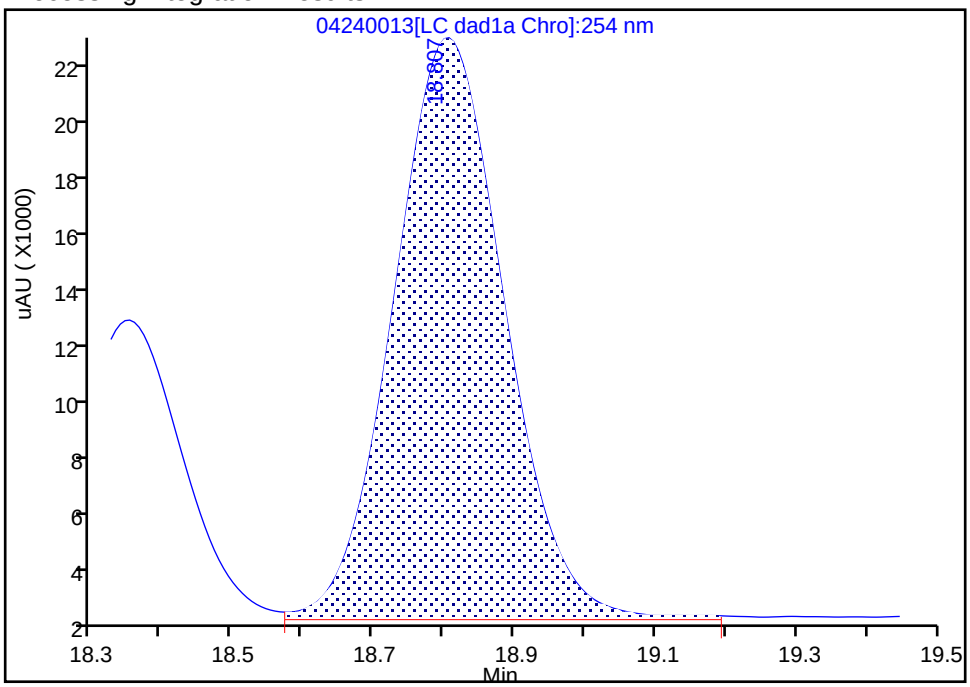
Data File:	\\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240013.d				
Injection Date:	24-Apr-2024 23:16:01	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT 6				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

21 2,4-Dinitrotoluene, CAS: 121-14-2

Signal: 1

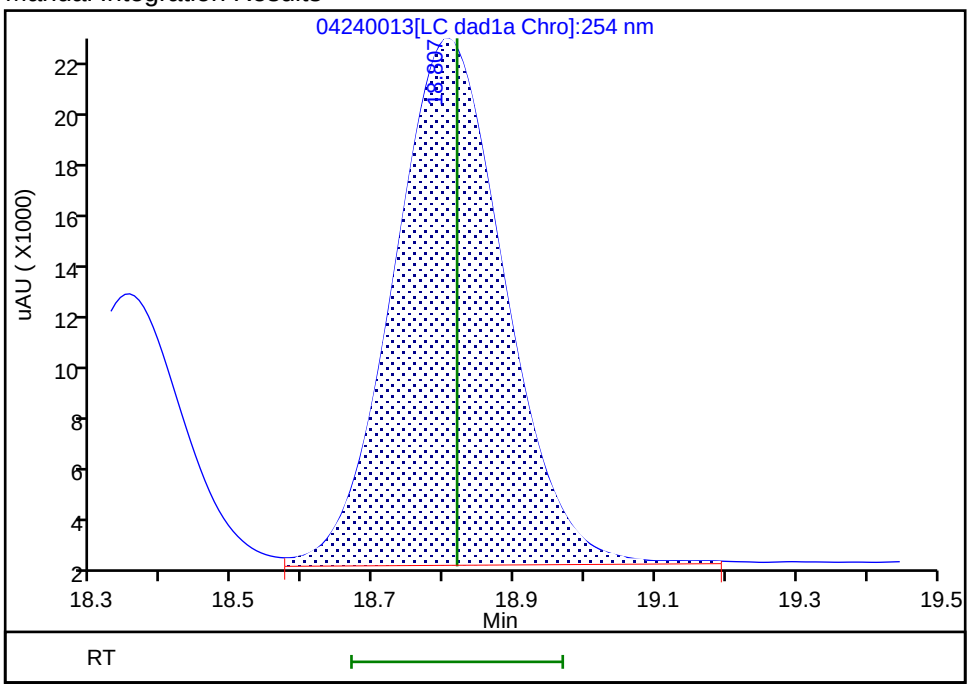
Processing Integration Results

RT: 18.81
Area: 218104
Amount: 0.366137
Amount Units: ug/ml



Manual Integration Results

RT: 18.81
Area: 216895
Amount: 0.391109
Amount Units: ug/ml



Reviewer: LV5D, 25-Apr-2024 13:21:20 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

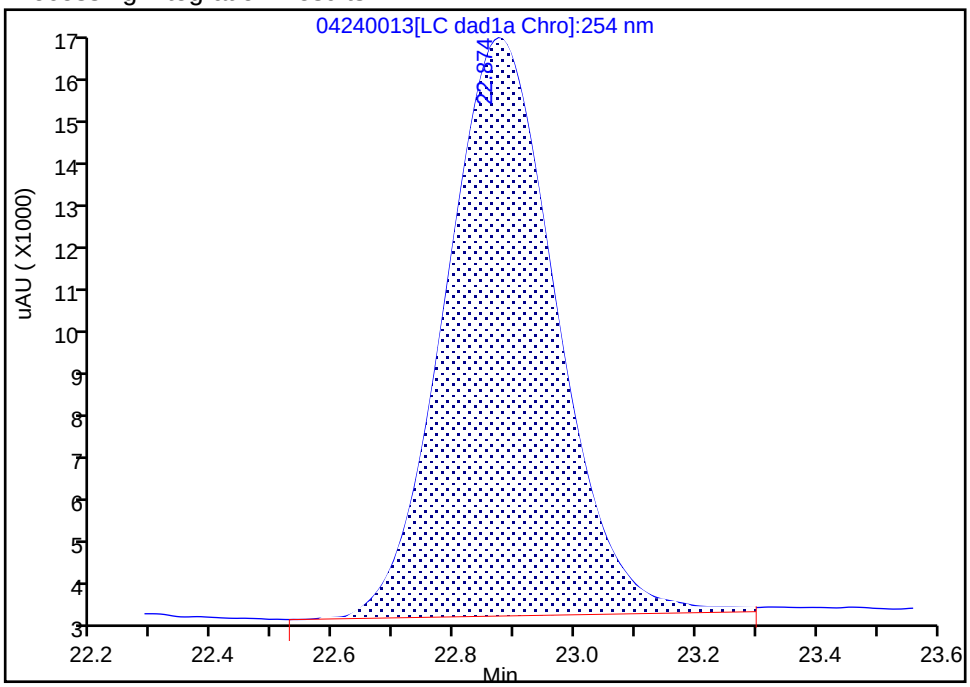
Data File:	\\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240013.d				
Injection Date:	24-Apr-2024 23:16:01	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT 6				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

23 2,4,6-Trinitrotoluene, CAS: 118-96-7

Signal: 1

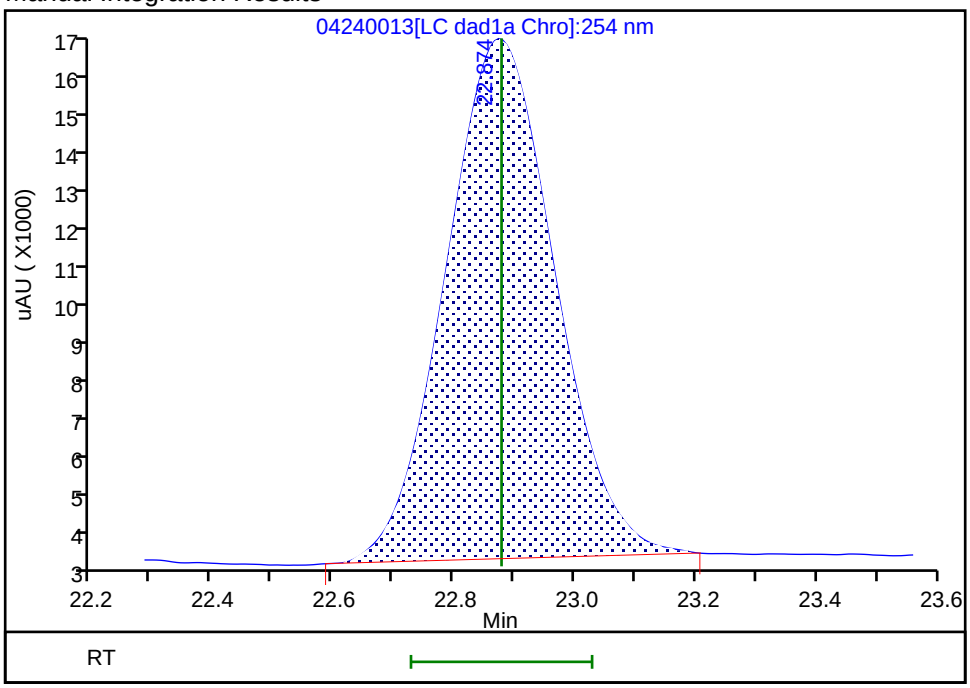
Processing Integration Results

RT: 22.87
Area: 164610
Amount: 0.409165
Amount Units: ug/ml



Manual Integration Results

RT: 22.87
Area: 160072
Amount: 0.400418
Amount Units: ug/ml



Reviewer: LV5D, 25-Apr-2024 13:37:39 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2_LUNA\20240424-132624.b\04240014.D
Lims ID: IC INT 5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 24-Apr-2024 23:51:59 ALS Bottle#: 14 Worklist Smp#: 14
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT 5
Operator ID: JZ/JG Instrument ID: CHHPLC_G2_LUNA
Sublist: chrom-G2_8330_Luna*sub16

Method: \\chromfs\Denver\ChromData\G2_LUNA\20240424-132624.b\G2_8330_Luna.m
Limit Group: GCSV - 8330
Last Update: 25-Apr-2024 14:30:13 Calib Date: 25-Apr-2024 07:39:21
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\G2_LUNA\20240424-132624.b\04240027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC DAD1A, 254 nm
Process Host: CTX1684

First Level Reviewer: LV5D Date: 25-Apr-2024 13:19:57

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
6 HMX	1	6.705	6.705	0.000	43487	0.2500	0.2498	
5 2,4,6-Trinitrophenol	1	8.612	8.612	0.000	37043	0.2500	0.2447	
8 RDX	1	8.938	8.938	0.000	52707	0.2500	0.2537	
9 Nitrobenzene	1	11.425	11.425	0.000	93225	0.2500	0.2440	
$ 10 1,2-Dinitrobenzene	1	12.345	12.345	0.000	64431	0.2500	0.2491	
11 3,5-Dinitroaniline	1	14.185	14.185	0.000	108023	0.2500	0.2487	M
12 1,3-Dinitrobenzene	1	14.478	14.478	0.000	143019	0.2500	0.2426	M
13 Nitroglycerin	2	14.918	14.918	0.000	309600	2.50	2.59	M
14 o-Nitrotoluene	1	15.505	15.505	0.000	58941	0.2500	0.2410	M
15 p-Nitrotoluene	1	15.738	15.738	0.000	54130	0.2500	0.2444	M
16 4-Amino-2,6-dinitrotoluene	1	16.245	16.245	0.000	67115	0.2500	0.2463	M
17 m-Nitrotoluene	1	16.578	16.578	0.000	68559	0.2500	0.2453	M
18 2-Amino-4,6-dinitrotoluene	1	17.058	17.058	0.000	95082	0.2500	0.2344	M
19 1,3,5-Trinitrobenzene	1	17.272	17.272	0.000	101067	0.2500	0.2387	M
20 2,6-Dinitrotoluene	1	18.365	18.365	0.000	66539	0.2500	0.2394	M
21 2,4-Dinitrotoluene	1	18.818	18.818	0.000	133579	0.2500	0.2409	M
22 Tetryl	1	22.025	22.025	0.000	79229	0.2500	0.2525	
23 2,4,6-Trinitrotoluene	1	22.878	22.878	0.000	100337	0.2500	0.2510	M
24 PETN	2	24.032	24.032	0.000	304928	2.50	2.48	M

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330IntermStk_00080 Amount Added: 25.00 Units: uL

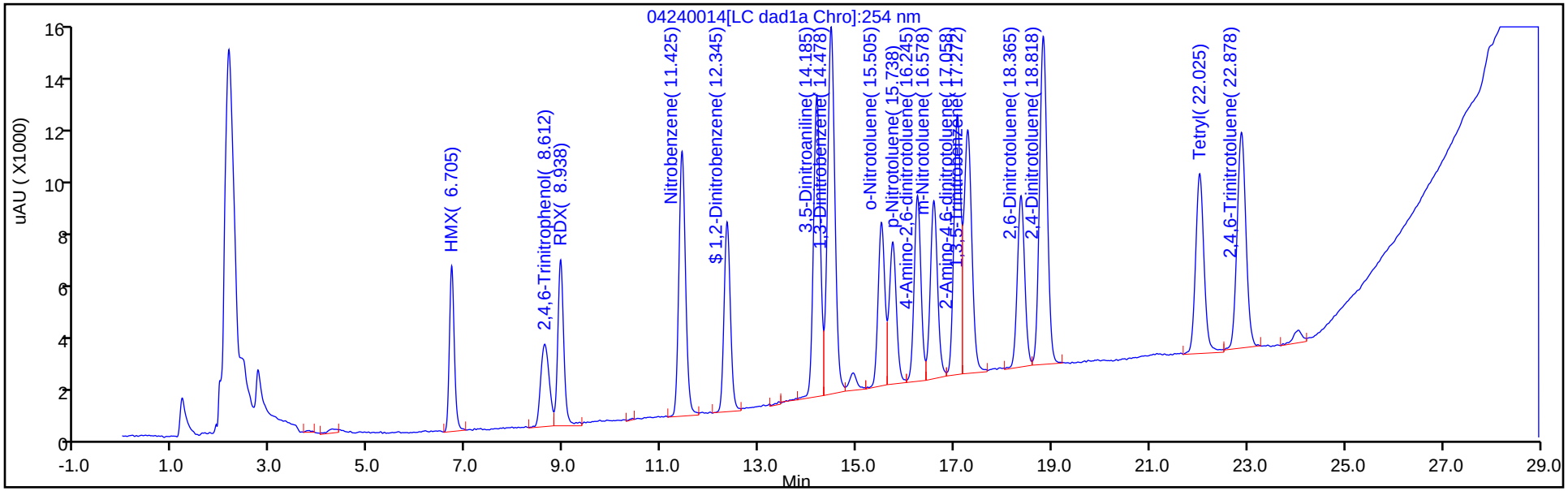
Report Date: 25-Apr-2024 14:30:13 Chrom Revision: 2.3 09-Apr-2024 17:43:44

Eurofins Denver

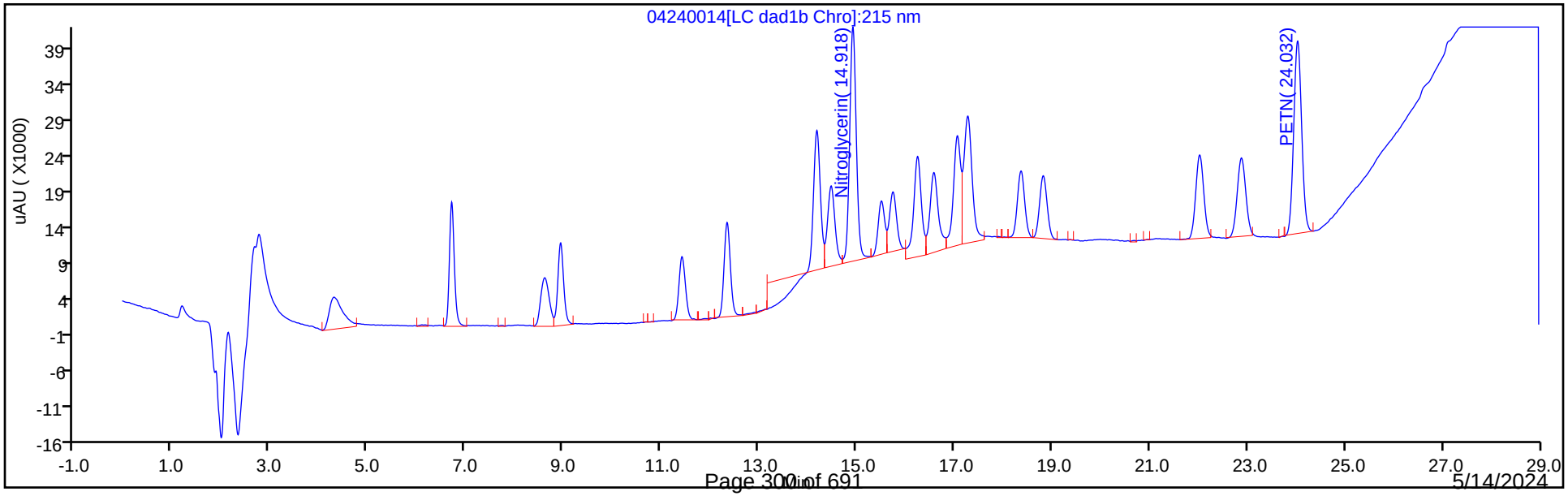
Data File: \\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240014.d

Injection Date:	24-Apr-2024 23:51:59	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	JZ/JG
Lims ID:	IC INT 5			Worklist Smp#:	14
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	14
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



5/14/2024
9:20:15 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

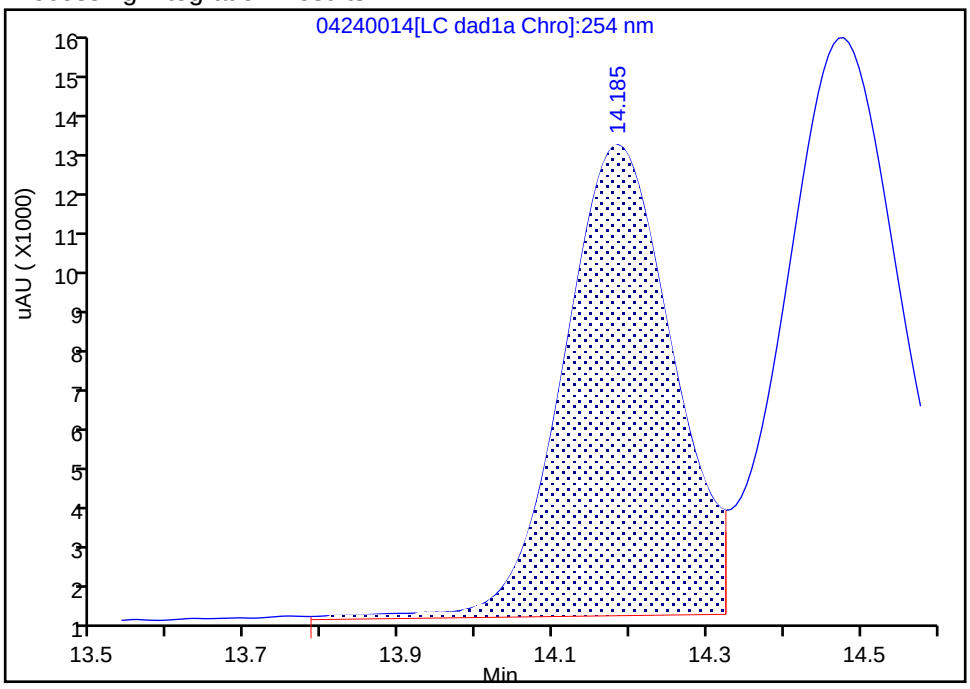
Data File:	\\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240014.d				
Injection Date:	24-Apr-2024 23:51:59	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT 5				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

11 3,5-Dinitroaniline, CAS: 618-87-1

Signal: 1

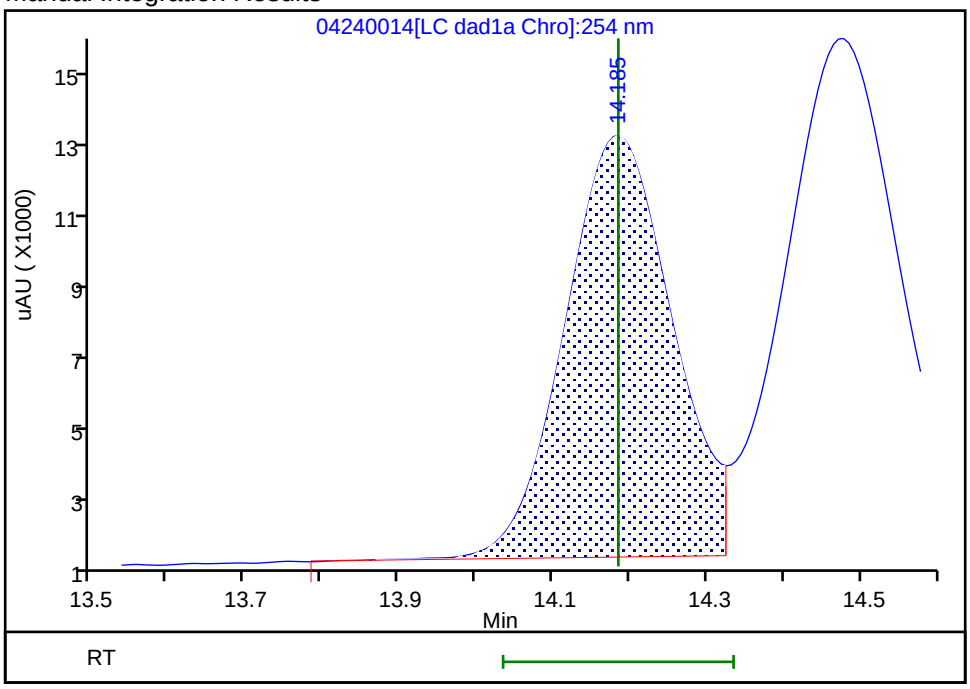
Processing Integration Results

RT: 14.18
Area: 111068
Amount: 0.250808
Amount Units: ug/ml



Manual Integration Results

RT: 14.18
Area: 108023
Amount: 0.248660
Amount Units: ug/ml



Reviewer: LV5D, 25-Apr-2024 13:21:34 -06:00:00 (UTC)
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

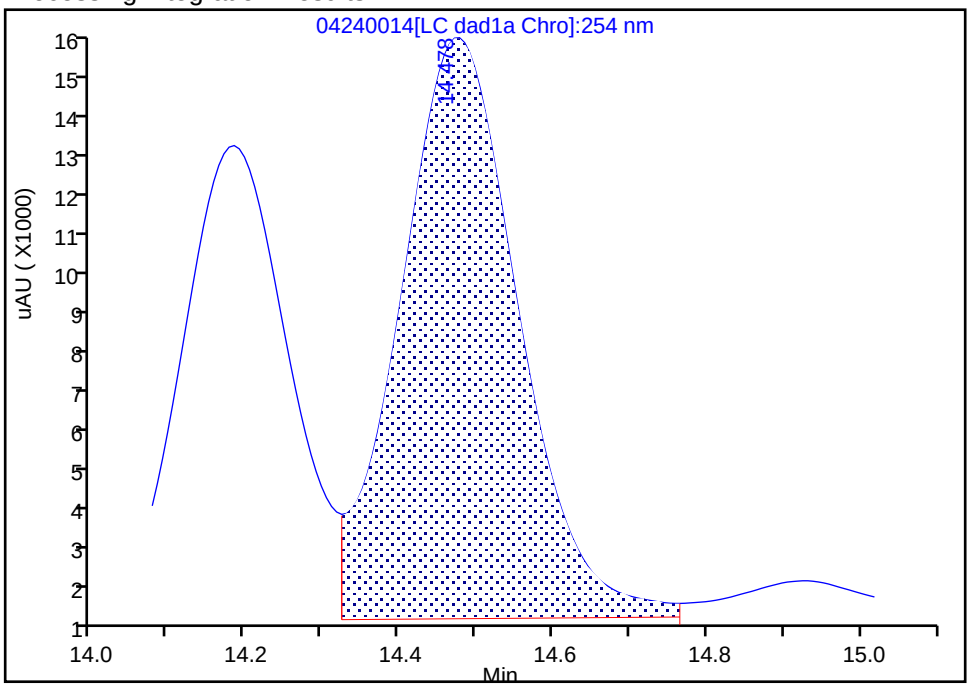
Data File: \\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240014.d
Injection Date: 24-Apr-2024 23:51:59 Instrument ID: CHHPLC_G2_LUNA
Lims ID: IC INT 5
Client ID:
Operator ID: JZ/JG ALS Bottle#: 14 Worklist Smp#: 14
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC DAD1A, 254 nm

12 1,3-Dinitrobenzene, CAS: 99-65-0

Signal: 1

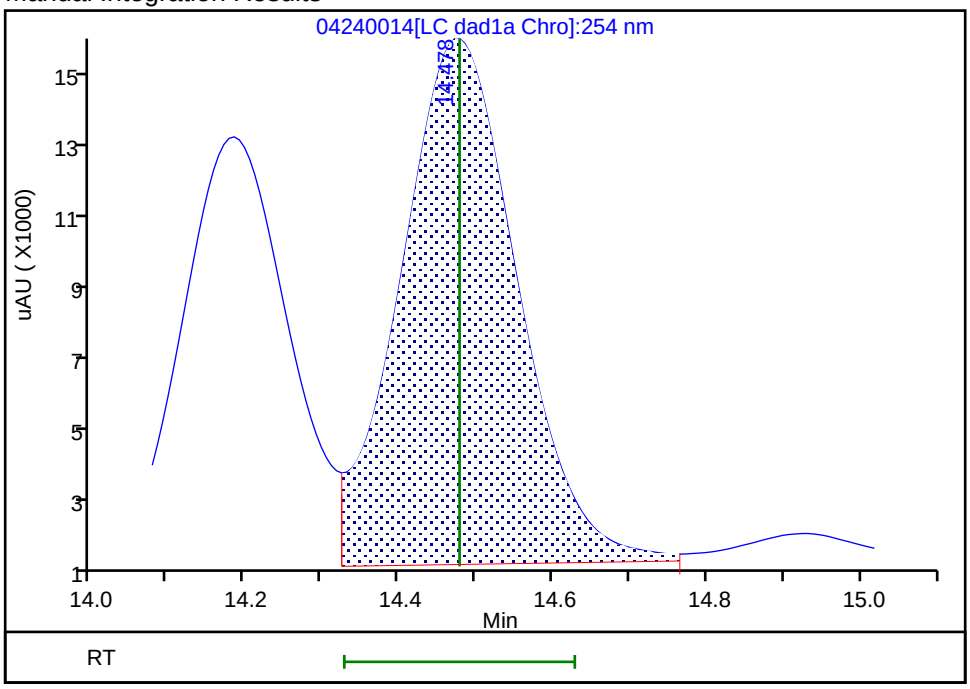
Processing Integration Results

RT: 14.48
Area: 146583
Amount: 0.231371
Amount Units: ug/ml



Manual Integration Results

RT: 14.48
Area: 143019
Amount: 0.242644
Amount Units: ug/ml



Reviewer: LV5D, 25-Apr-2024 13:21:34 -06:00:00 (UTC)
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

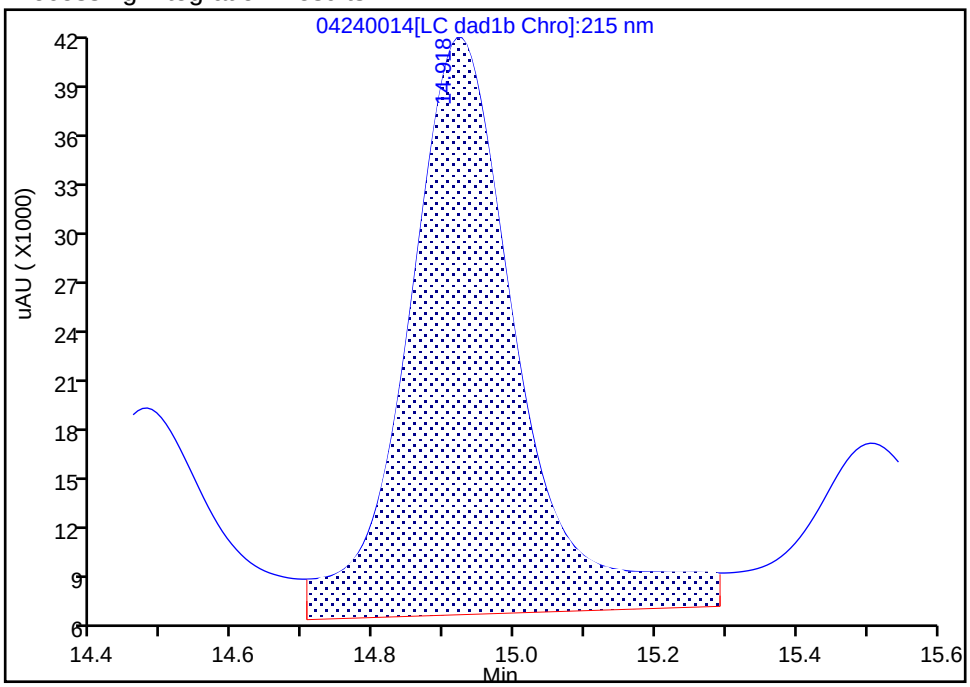
Data File:	\\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240014.d				
Injection Date:	24-Apr-2024 23:51:59	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT 5				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1B, 215 nm		

13 Nitroglycerin, CAS: 55-63-0

Signal: 1

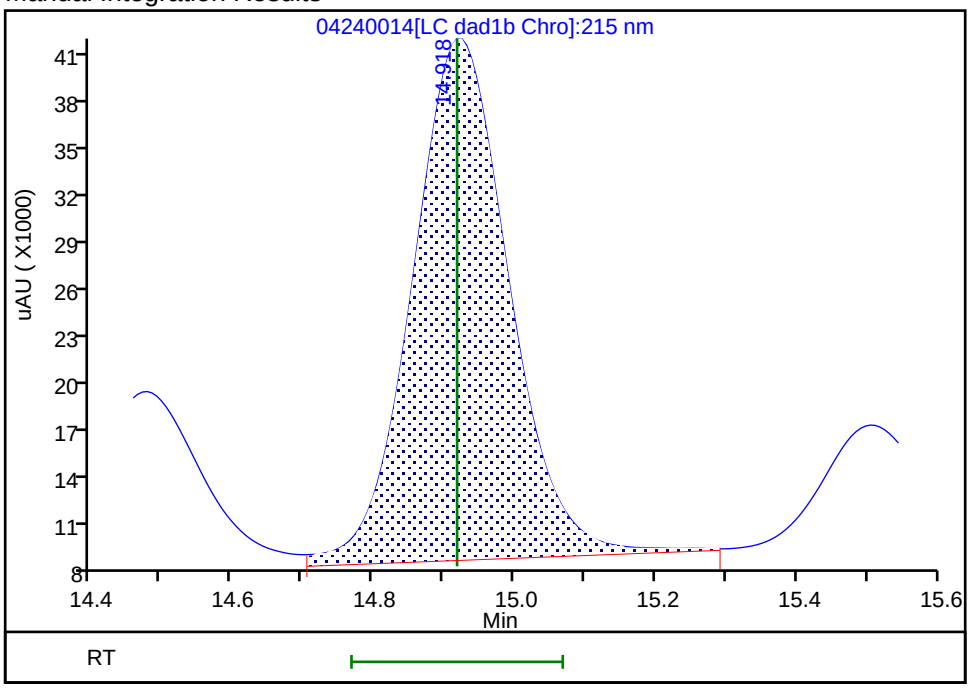
Processing Integration Results

RT: 14.92
Area: 374650
Amount: 1.464903
Amount Units: ug/ml



Manual Integration Results

RT: 14.92
Area: 309600
Amount: 2.590692
Amount Units: ug/ml



Reviewer: LV5D, 25-Apr-2024 13:19:56 -06:00:00 (UTC)
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

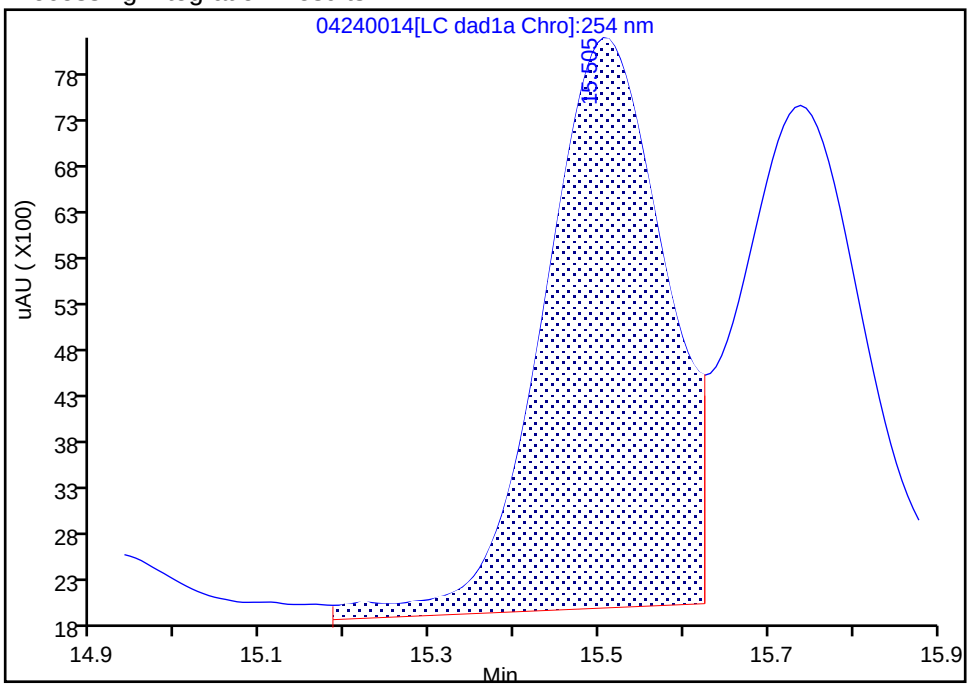
Data File:	\\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240014.d				
Injection Date:	24-Apr-2024 23:51:59	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT 5				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

14 o-Nitrotoluene, CAS: 88-72-2

Signal: 1

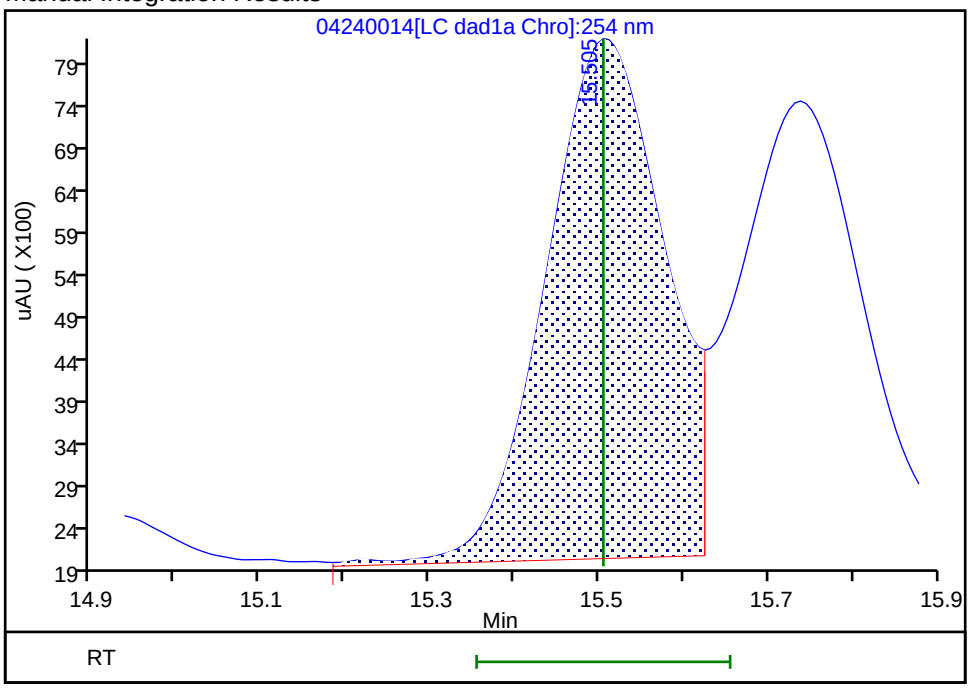
Processing Integration Results

RT: 15.50
Area: 61475
Amount: 0.222767
Amount Units: ug/ml



Manual Integration Results

RT: 15.50
Area: 58941
Amount: 0.240974
Amount Units: ug/ml



Reviewer: LV5D, 25-Apr-2024 13:21:34 -06:00:00 (UTC)
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

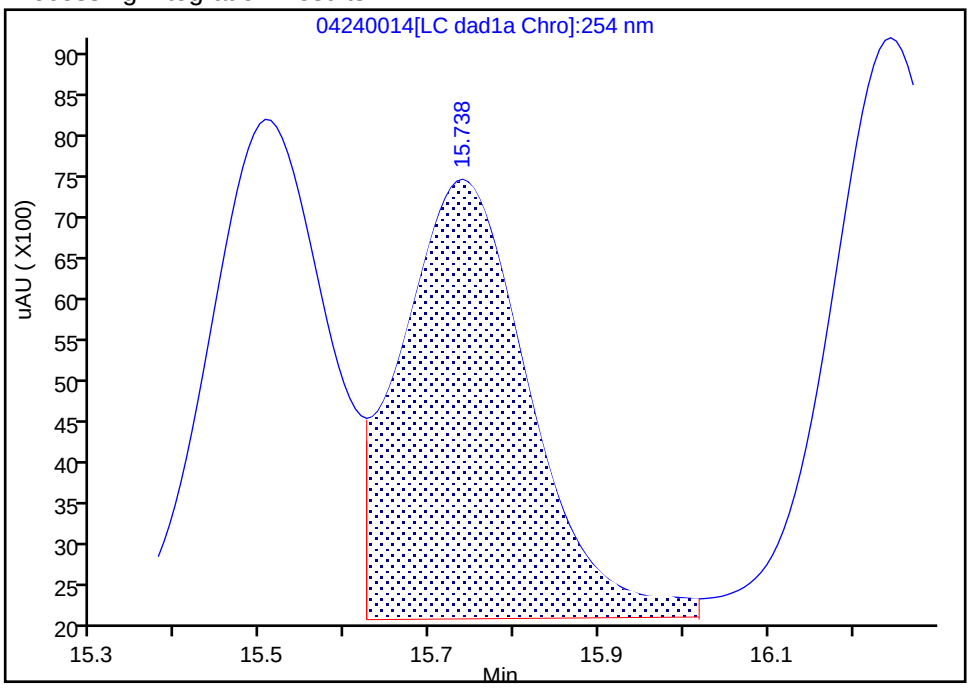
Data File:	\\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240014.d				
Injection Date:	24-Apr-2024 23:51:59	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT 5				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

15 p-Nitrotoluene, CAS: 99-99-0

Signal: 1

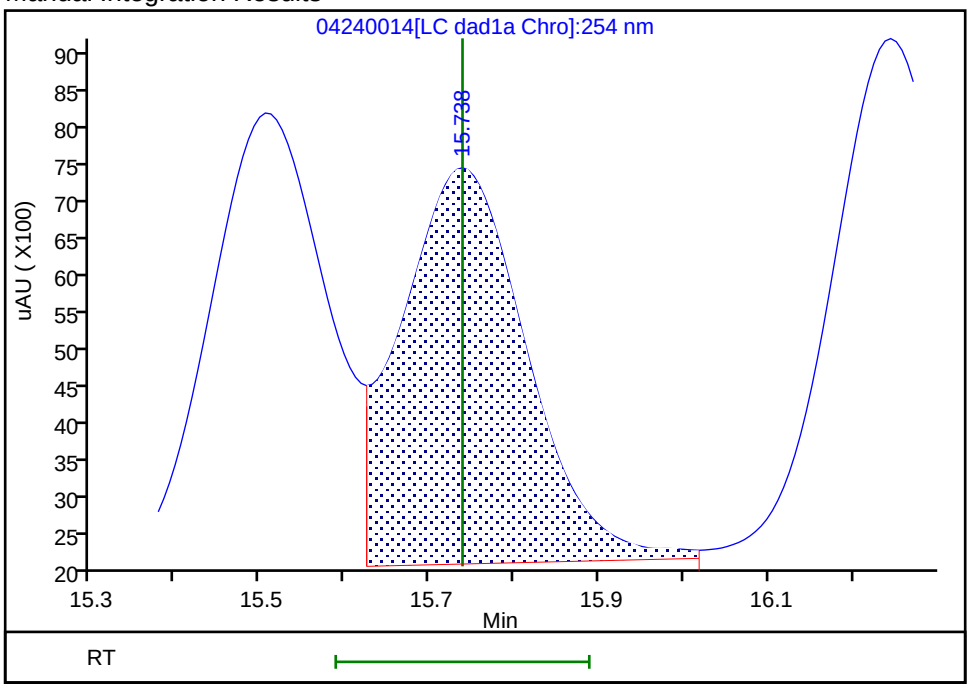
Processing Integration Results

RT: 15.74
Area: 56218
Amount: 0.248629
Amount Units: ug/ml



Manual Integration Results

RT: 15.74
Area: 54130
Amount: 0.244405
Amount Units: ug/ml



Reviewer: LV5D, 25-Apr-2024 13:21:34 -06:00:00 (UTC)
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

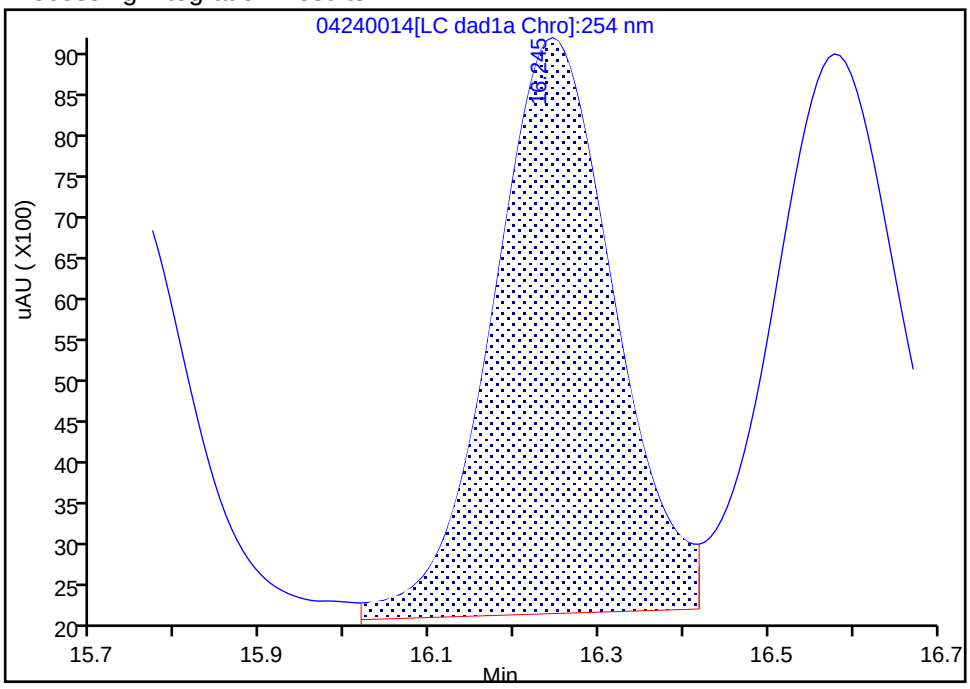
Data File:	\\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240014.d				
Injection Date:	24-Apr-2024 23:51:59	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT 5				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

16 4-Amino-2,6-dinitrotoluene, CAS: 19406-51-0

Signal: 1

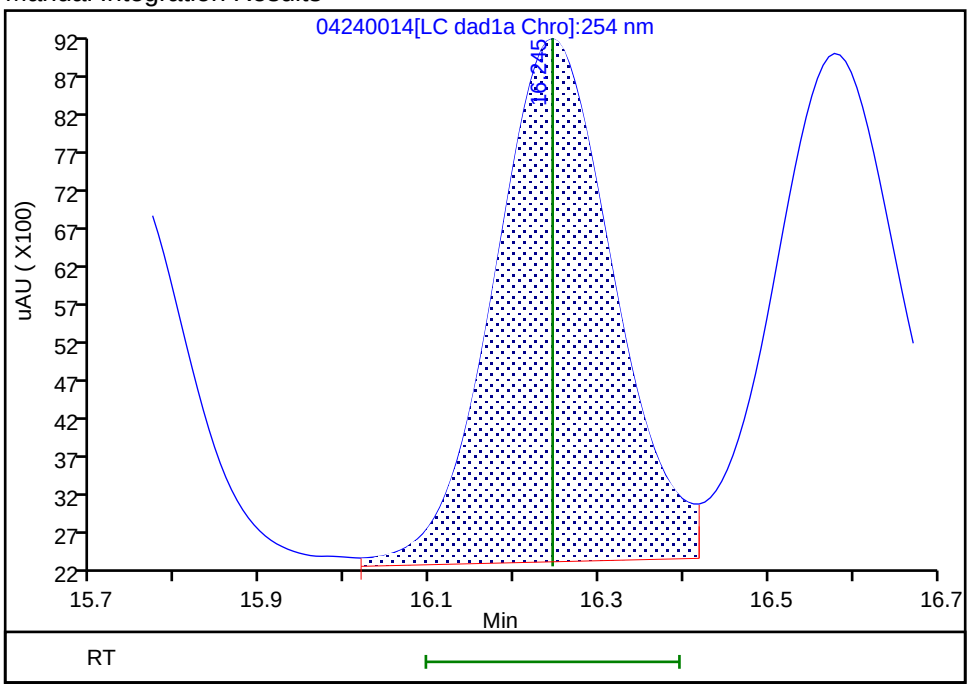
Processing Integration Results

RT: 16.24
Area: 69455
Amount: 0.247954
Amount Units: ug/ml



Manual Integration Results

RT: 16.24
Area: 67115
Amount: 0.246270
Amount Units: ug/ml



Reviewer: LV5D, 25-Apr-2024 13:21:34 -06:00:00 (UTC)
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

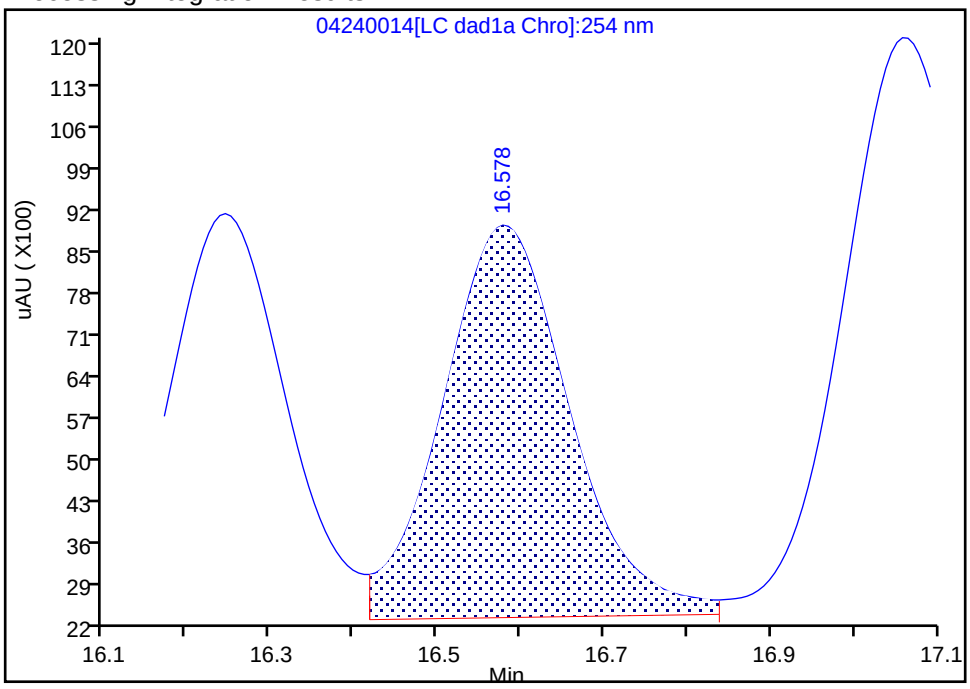
Data File:	\\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240014.d				
Injection Date:	24-Apr-2024 23:51:59	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT 5				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

17 m-Nitrotoluene, CAS: 99-08-1

Signal: 1

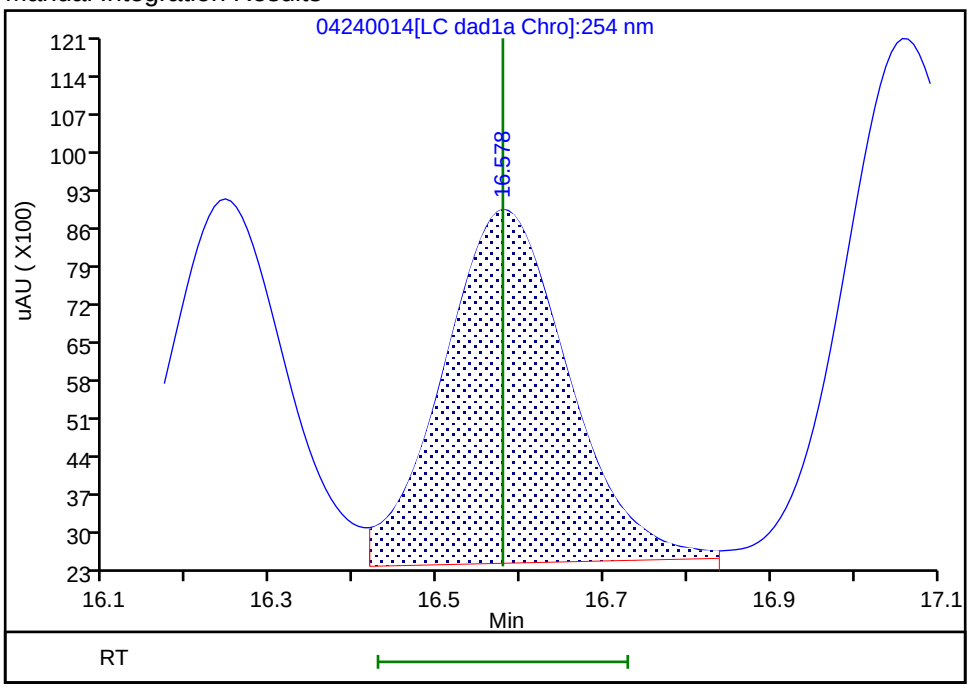
Processing Integration Results

RT: 16.58
Area: 70537
Amount: 0.242628
Amount Units: ug/ml



Manual Integration Results

RT: 16.58
Area: 68559
Amount: 0.245258
Amount Units: ug/ml



Reviewer: LV5D, 25-Apr-2024 13:21:34 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

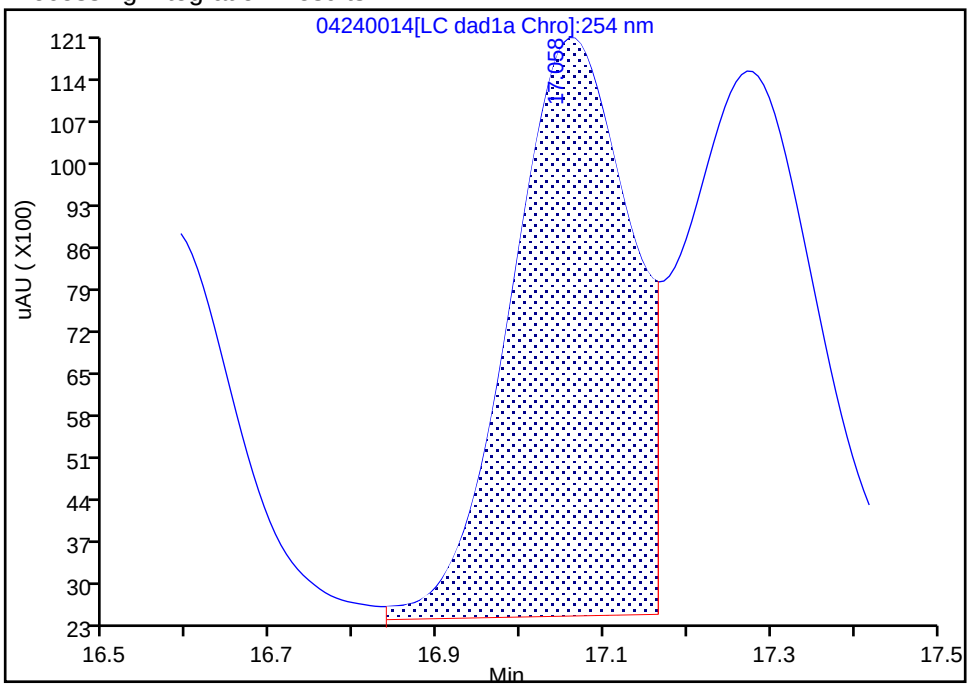
Data File:	\\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240014.d				
Injection Date:	24-Apr-2024 23:51:59	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT 5				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

18 2-Amino-4,6-dinitrotoluene, CAS: 35572-78-2

Signal: 1

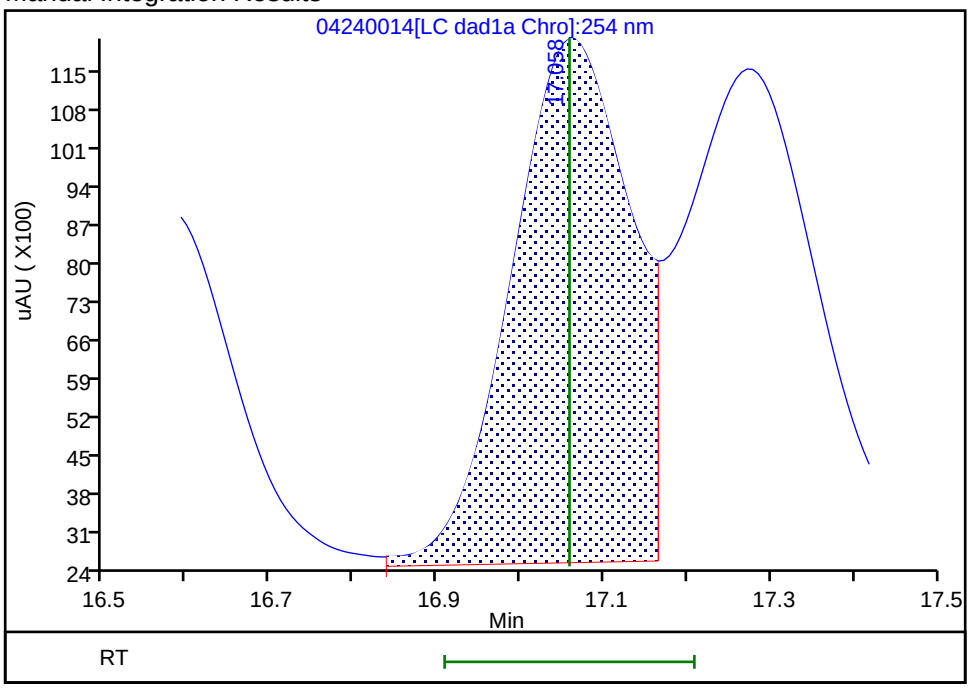
Processing Integration Results

RT: 17.06
Area: 96415
Amount: 0.246197
Amount Units: ug/ml



Manual Integration Results

RT: 17.06
Area: 95082
Amount: 0.234445
Amount Units: ug/ml



Reviewer: LV5D, 25-Apr-2024 13:21:34 -06:00:00 (UTC)
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

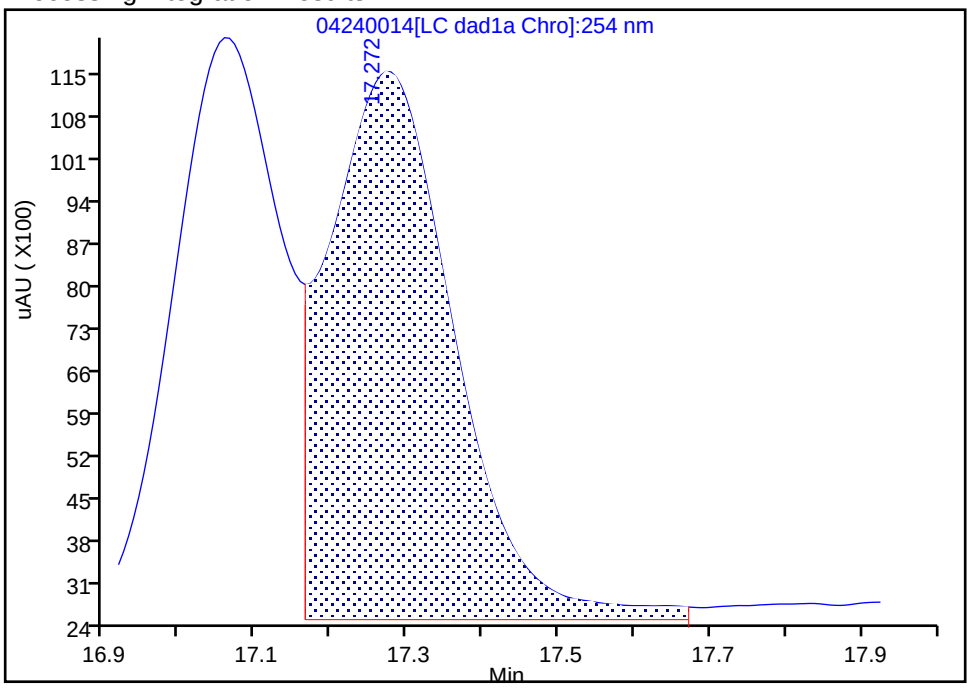
Data File:	\\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240014.d				
Injection Date:	24-Apr-2024 23:51:59	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT 5				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

19 1,3,5-Trinitrobenzene, CAS: 99-35-4

Signal: 1

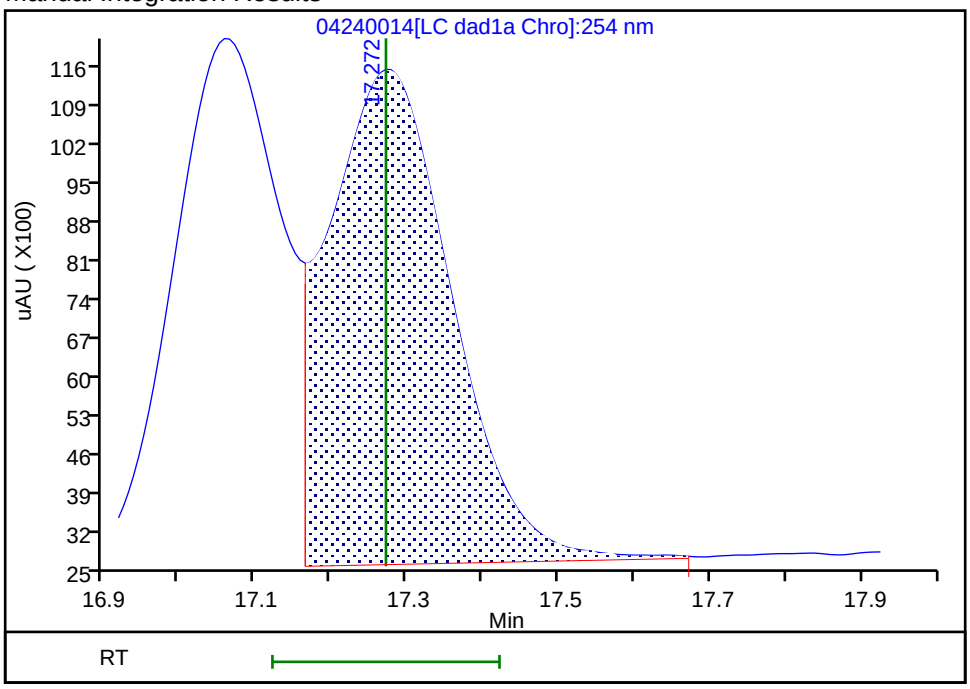
Processing Integration Results

RT: 17.27
Area: 104518
Amount: 0.223412
Amount Units: ug/ml



Manual Integration Results

RT: 17.27
Area: 101067
Amount: 0.238673
Amount Units: ug/ml



Reviewer: LV5D, 25-Apr-2024 13:21:34 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

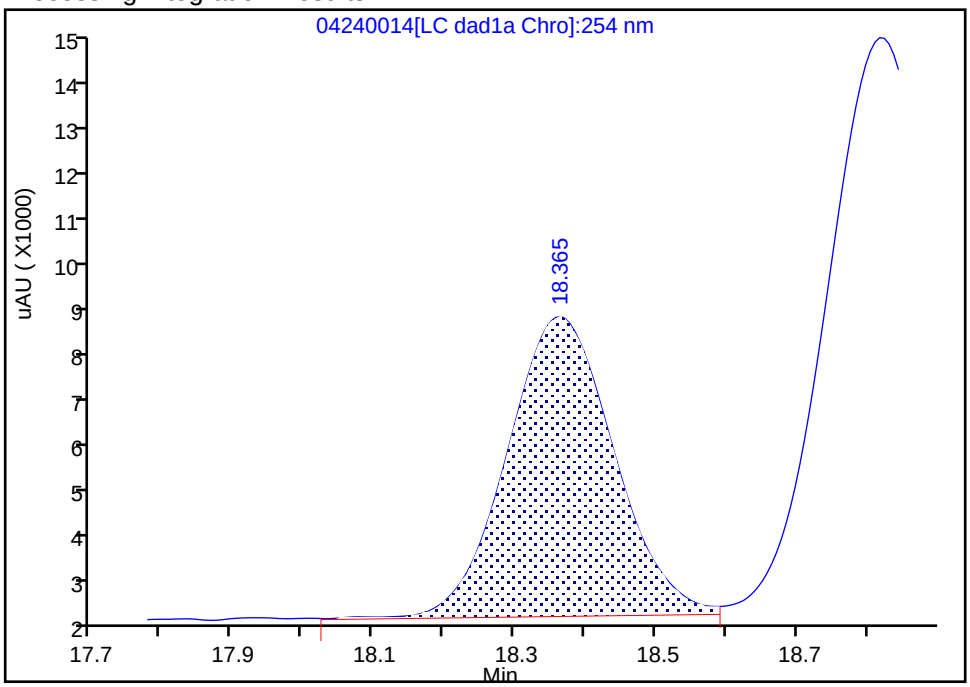
Data File:	\\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240014.d				
Injection Date:	24-Apr-2024 23:51:59	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT 5				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

20 2,6-Dinitrotoluene, CAS: 606-20-2

Signal: 1

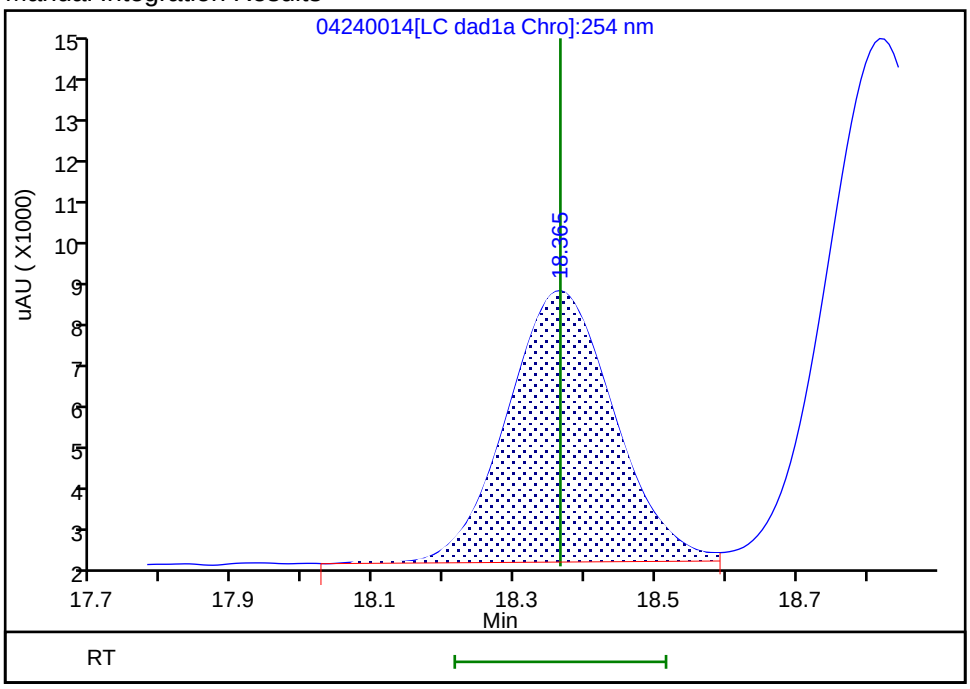
Processing Integration Results

RT: 18.36
Area: 66386
Amount: 0.242219
Amount Units: ug/ml



Manual Integration Results

RT: 18.36
Area: 66539
Amount: 0.239375
Amount Units: ug/ml



Reviewer: LV5D, 25-Apr-2024 13:21:38 -06:00:00 (UTC)
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

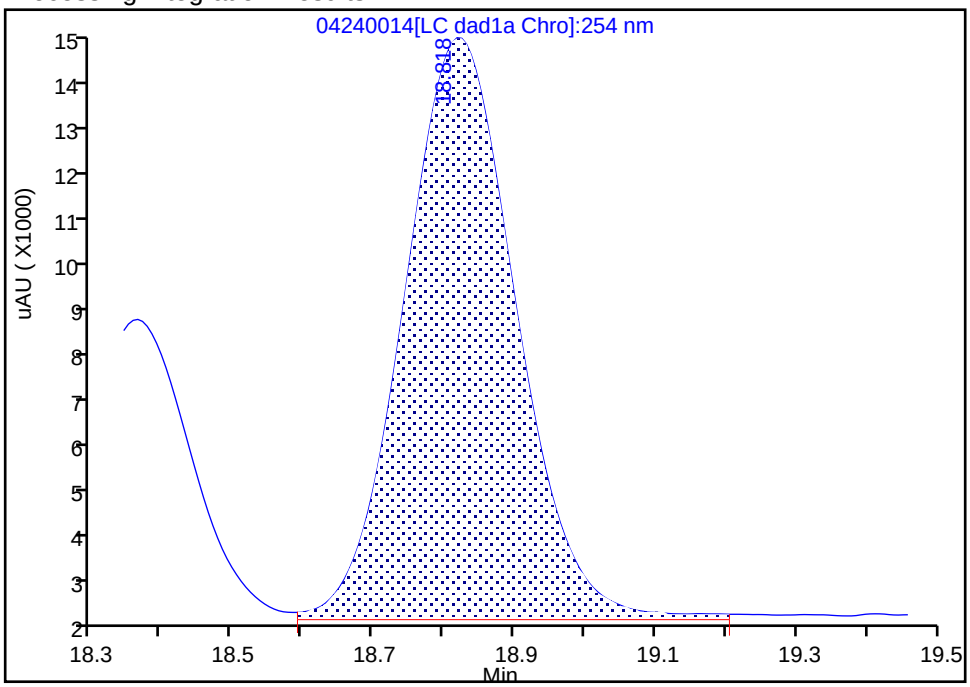
Data File:	\\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240014.d				
Injection Date:	24-Apr-2024 23:51:59	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT 5				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

21 2,4-Dinitrotoluene, CAS: 121-14-2

Signal: 1

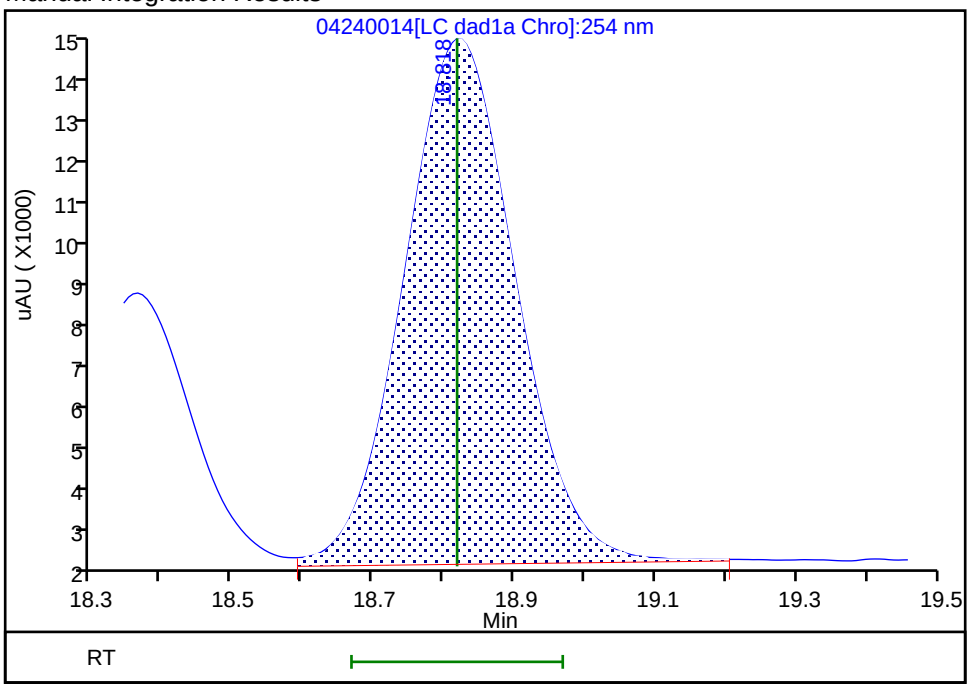
Processing Integration Results

RT: 18.82
Area: 134462
Amount: 0.225853
Amount Units: ug/ml



Manual Integration Results

RT: 18.82
Area: 133579
Amount: 0.240872
Amount Units: ug/ml



Reviewer: LV5D, 25-Apr-2024 13:21:38 -06:00:00 (UTC)
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

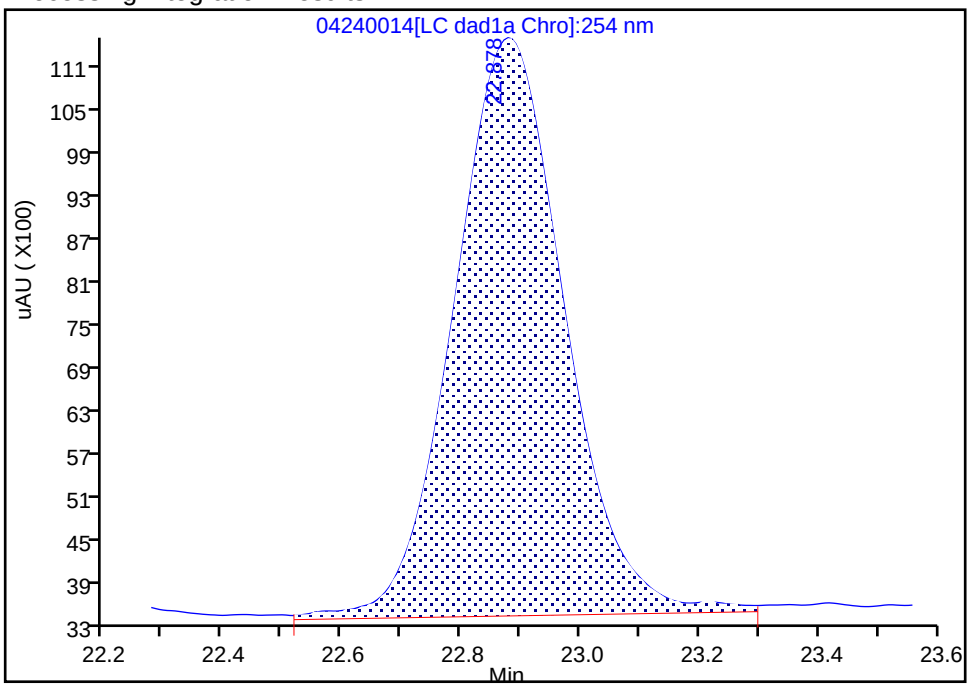
Data File:	\\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240014.d				
Injection Date:	24-Apr-2024 23:51:59	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT 5				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

23 2,4,6-Trinitrotoluene, CAS: 118-96-7

Signal: 1

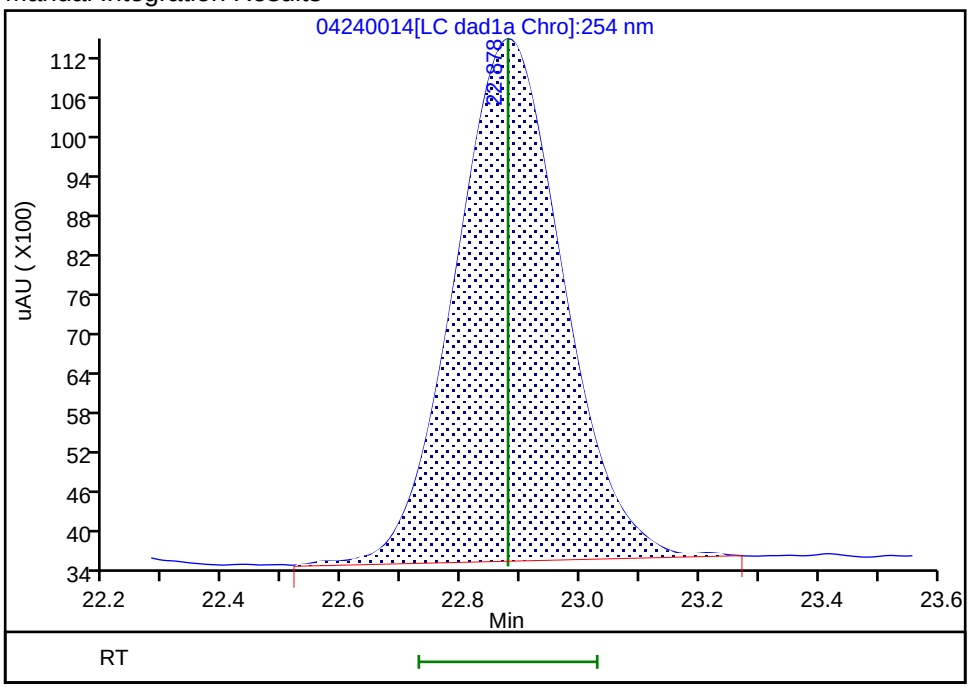
Processing Integration Results

RT: 22.88
Area: 104402
Amount: 0.260324
Amount Units: ug/ml



Manual Integration Results

RT: 22.88
Area: 100337
Amount: 0.250991
Amount Units: ug/ml



Reviewer: LV5D, 25-Apr-2024 13:37:49 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

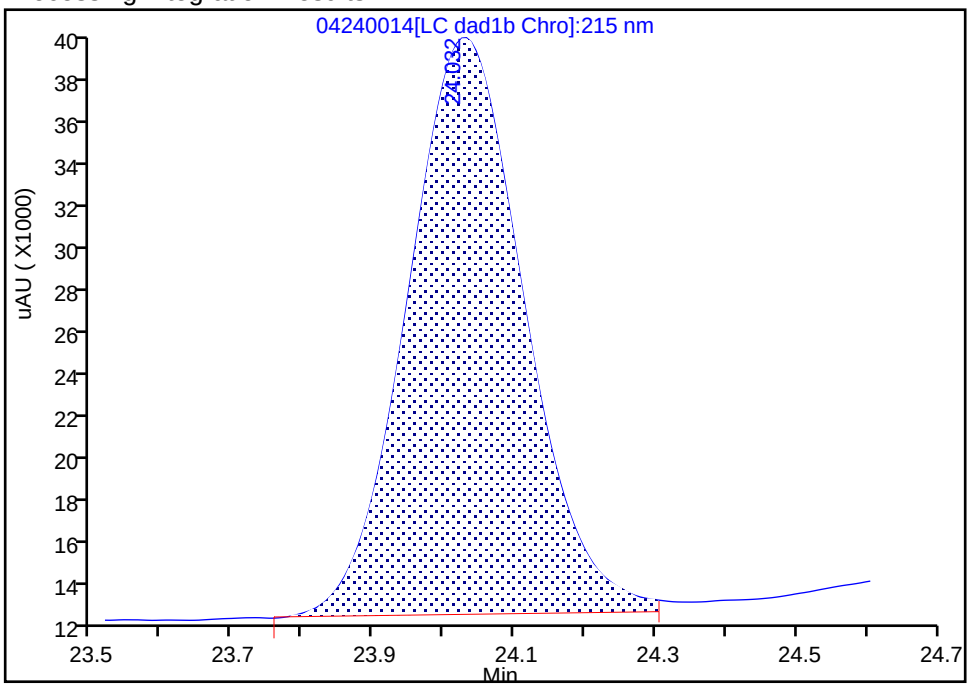
Data File:	\\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240014.d				
Injection Date:	24-Apr-2024 23:51:59	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT 5				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1B, 215 nm		

24 PETN, CAS: 78-11-5

Signal: 1

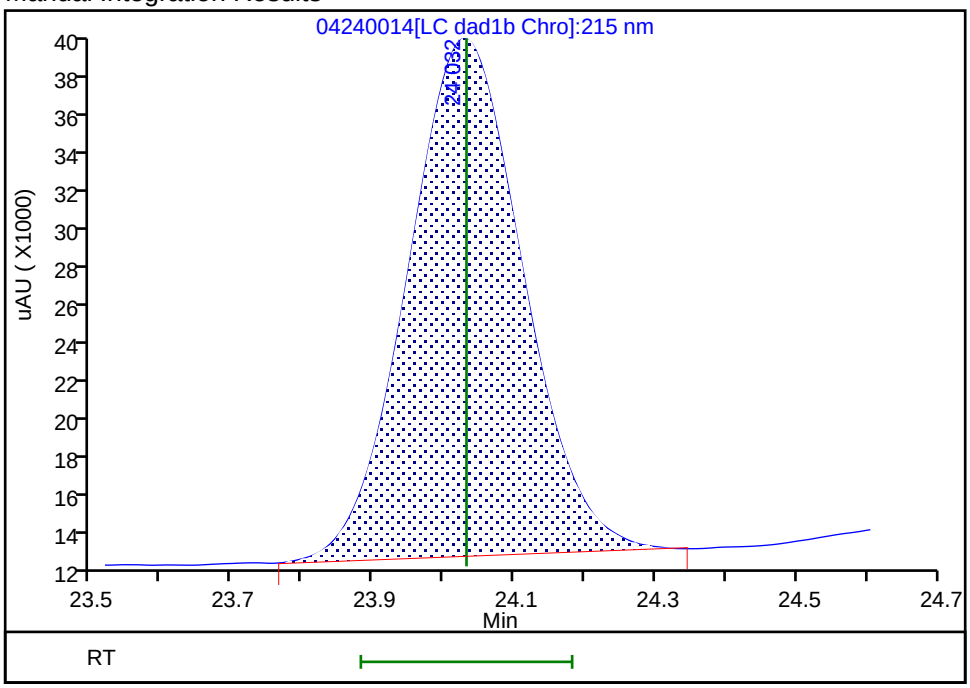
Processing Integration Results

RT: 24.03
Area: 310832
Amount: 2.589148
Amount Units: ug/ml



Manual Integration Results

RT: 24.03
Area: 304928
Amount: 2.482849
Amount Units: ug/ml



Reviewer: LV5D, 25-Apr-2024 13:39:03 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2_LUNA\20240424-132624.b\04240015.D
Lims ID: IC INT 4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 25-Apr-2024 00:27:59 ALS Bottle#: 15 Worklist Smp#: 15
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT 4
Operator ID: JZ/JG Instrument ID: CHHPLC_G2_LUNA
Sublist: chrom-G2_8330_Luna*sub16

Method: \\chromfs\Denver\ChromData\G2_LUNA\20240424-132624.b\G2_8330_Luna.m
Limit Group: GCSV - 8330
Last Update: 25-Apr-2024 14:30:14 Calib Date: 25-Apr-2024 07:39:21
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\G2_LUNA\20240424-132624.b\04240027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC DAD1A, 254 nm
Process Host: CTX1684

First Level Reviewer: LV5D Date: 25-Apr-2024 13:20:06

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
6 HMX	1	6.706	6.705	0.001	17977	0.1000	0.1033	
5 2,4,6-Trinitrophenol	1	8.659	8.612	0.047	14859	0.1000	0.0981	
8 RDX	1	8.946	8.938	0.008	21609	0.1000	0.1025	
9 Nitrobenzene	1	11.452	11.425	0.027	39489	0.1000	0.1033	
$ 10 1,2-Dinitrobenzene	1	12.372	12.345	0.027	27370	0.1000	0.1058	
11 3,5-Dinitroaniline	1	14.205	14.185	0.020	43670	0.1000	0.0993	M
12 1,3-Dinitrobenzene	1	14.492	14.478	0.014	57592	0.1000	0.0977	M
13 Nitroglycerin	2	14.945	14.918	0.027	126558	1.00	1.06	M
14 o-Nitrotoluene	1	15.532	15.505	0.027	23799	0.1000	0.0973	M
15 p-Nitrotoluene	1	15.759	15.738	0.021	22549	0.1000	0.0994	M
16 4-Amino-2,6-dinitrotoluene	1	16.265	16.245	0.020	27449	0.1000	0.0991	M
17 m-Nitrotoluene	1	16.599	16.578	0.021	28103	0.1000	0.0985	M
18 2-Amino-4,6-dinitrotoluene	1	17.079	17.058	0.021	39853	0.1000	0.0983	M
19 1,3,5-Trinitrobenzene	1	17.285	17.272	0.013	41177	0.1000	0.0972	M
20 2,6-Dinitrotoluene	1	18.379	18.365	0.014	27487	0.1000	0.0989	M
21 2,4-Dinitrotoluene	1	18.839	18.818	0.021	54294	0.1000	0.0979	M
22 Tetryl	1	22.052	22.025	0.027	32920	0.1000	0.1041	
23 2,4,6-Trinitrotoluene	1	22.912	22.878	0.034	41861	0.1000	0.1047	M
24 PETN	2	24.046	24.032	0.014	121831	1.00	1.00	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330IntermStk_00080 Amount Added: 10.00 Units: uL

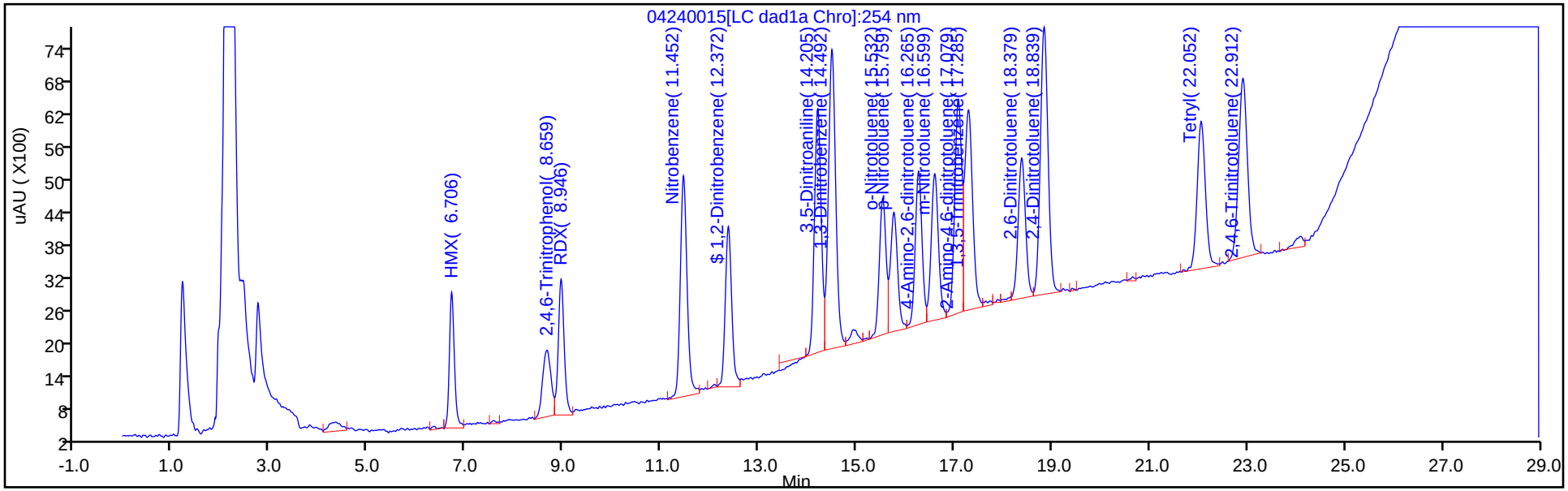
Report Date: 25-Apr-2024 14:30:15 Chrom Revision: 2.3 09-Apr-2024 17:43:44

Eurofins Denver

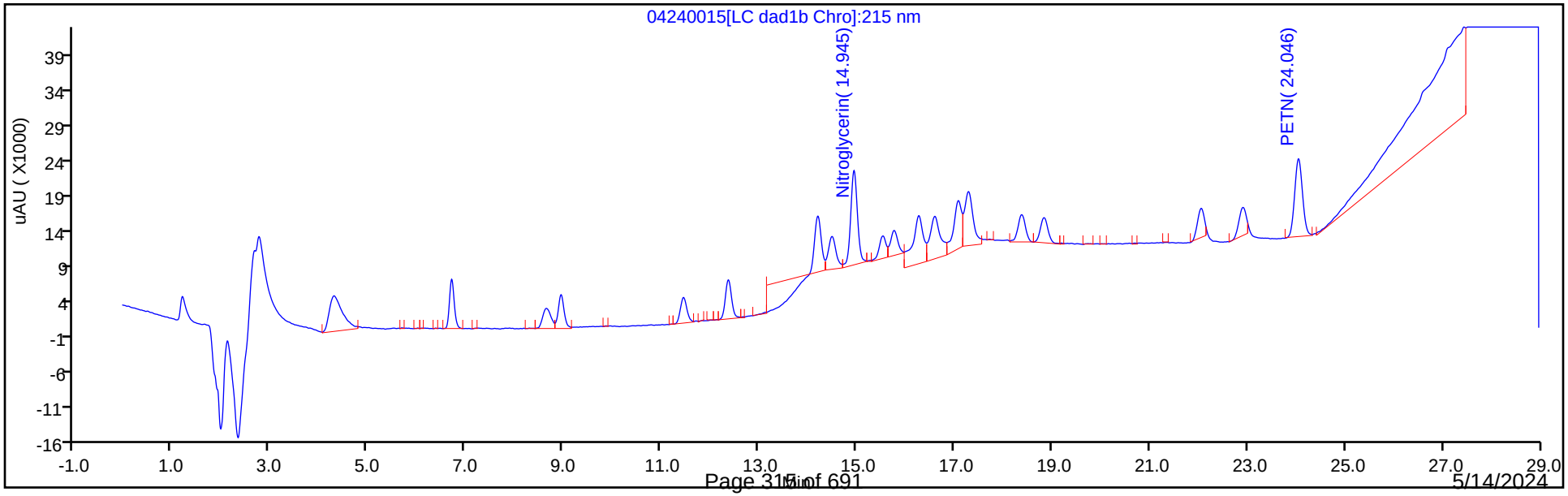
Data File: \\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240015.d

Injection Date:	25-Apr-2024 00:27:59	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	JZ/JG
Lims ID:	IC INT 4			Worklist Smp#:	15
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	15
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



5/14/2024
9:20:15 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

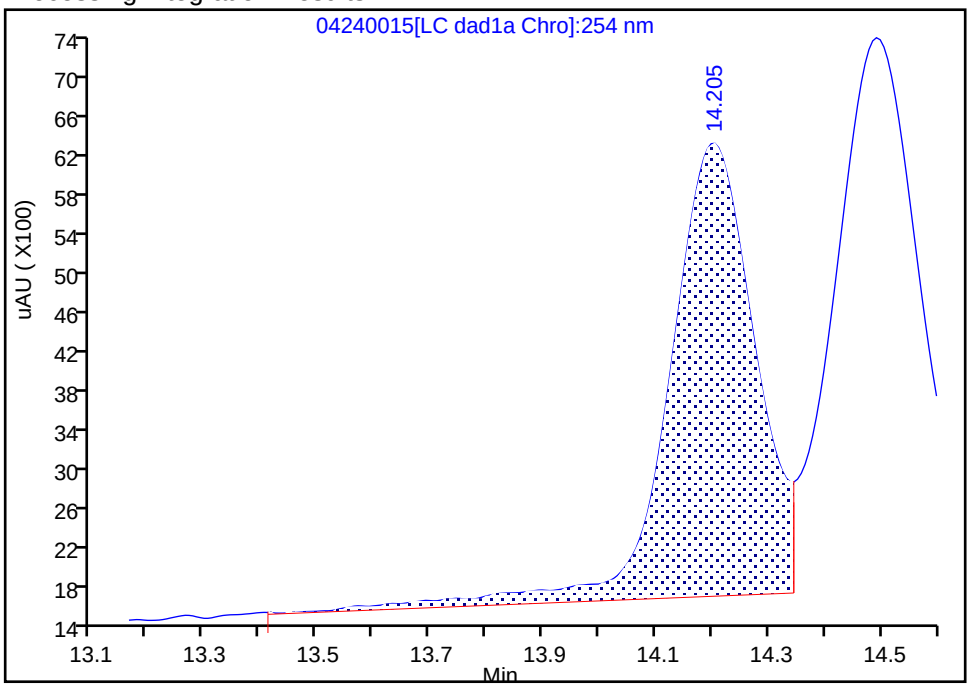
Data File:	\\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240015.d				
Injection Date:	25-Apr-2024 00:27:59	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT 4				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	15	Worklist Smp#:	15
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

11 3,5-Dinitroaniline, CAS: 618-87-1

Signal: 1

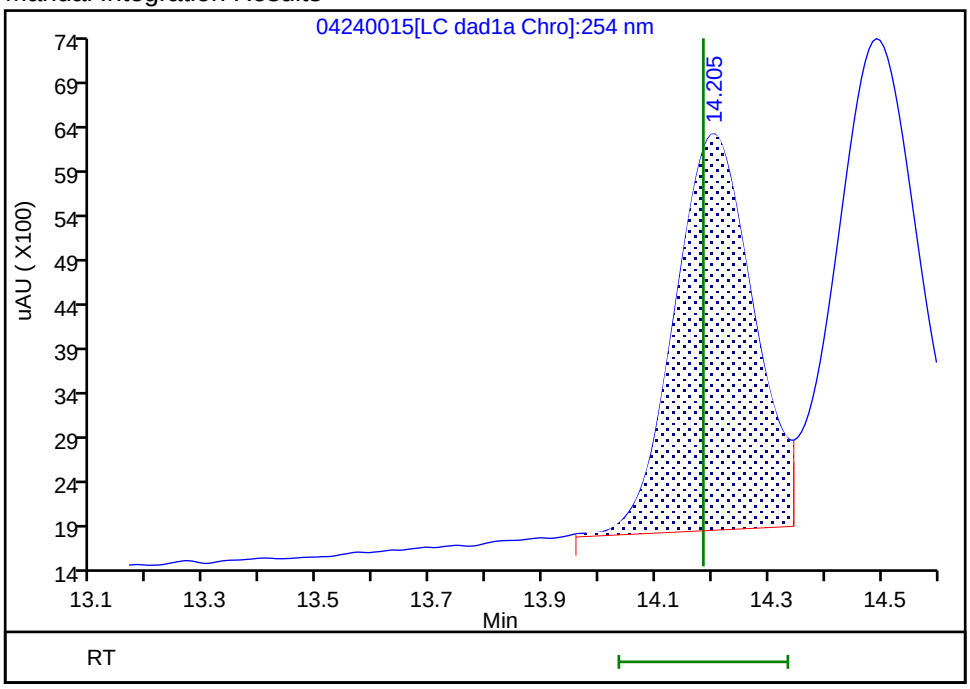
Processing Integration Results

RT: 14.21
Area: 48990
Amount: 0.107916
Amount Units: ug/ml



Manual Integration Results

RT: 14.21
Area: 43670
Amount: 0.099254
Amount Units: ug/ml



Reviewer: LV5D, 25-Apr-2024 13:24:42 -06:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

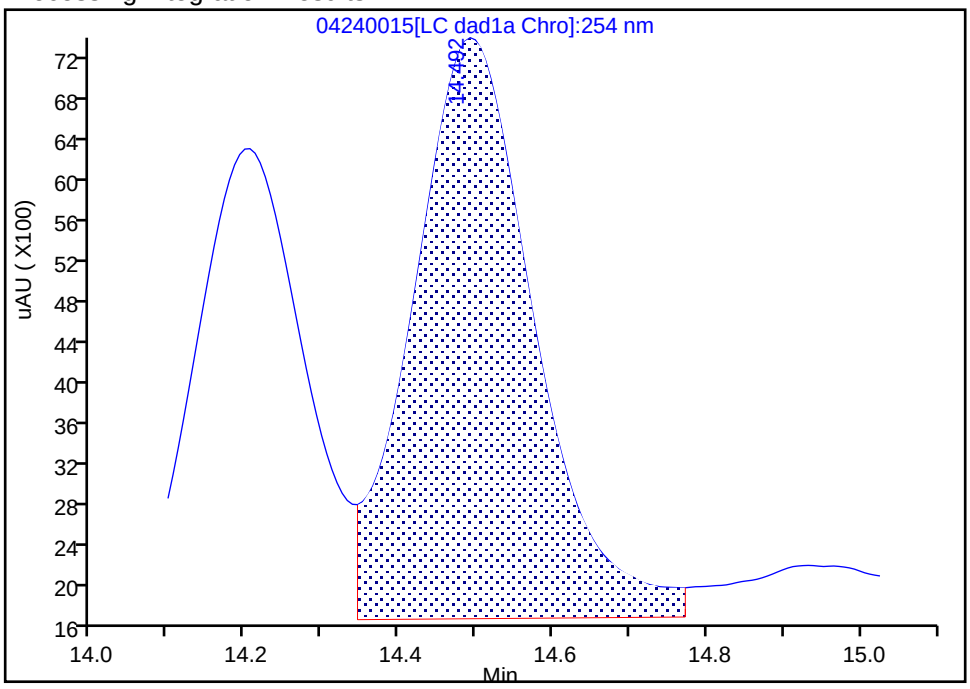
Data File:	\\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240015.d				
Injection Date:	25-Apr-2024 00:27:59	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT 4				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	15	Worklist Smp#:	15
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

12 1,3-Dinitrobenzene, CAS: 99-65-0

Signal: 1

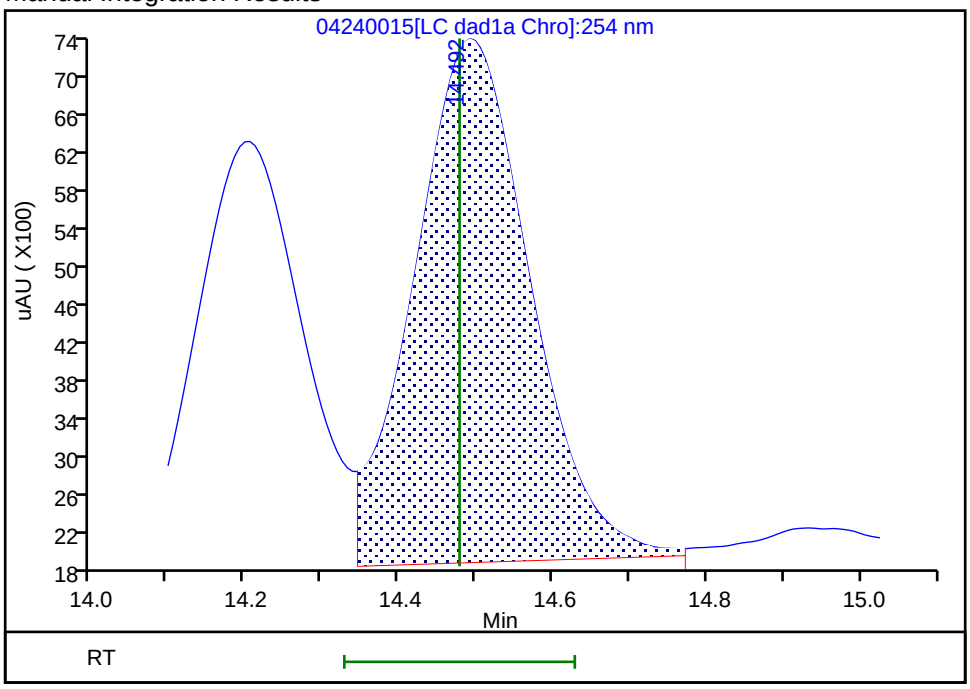
Processing Integration Results

RT: 14.49
Area: 62136
Amount: 0.098323
Amount Units: ug/ml



Manual Integration Results

RT: 14.49
Area: 57592
Amount: 0.097710
Amount Units: ug/ml



Reviewer: LV5D, 25-Apr-2024 13:21:52 -06:00:00 (UTC)
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

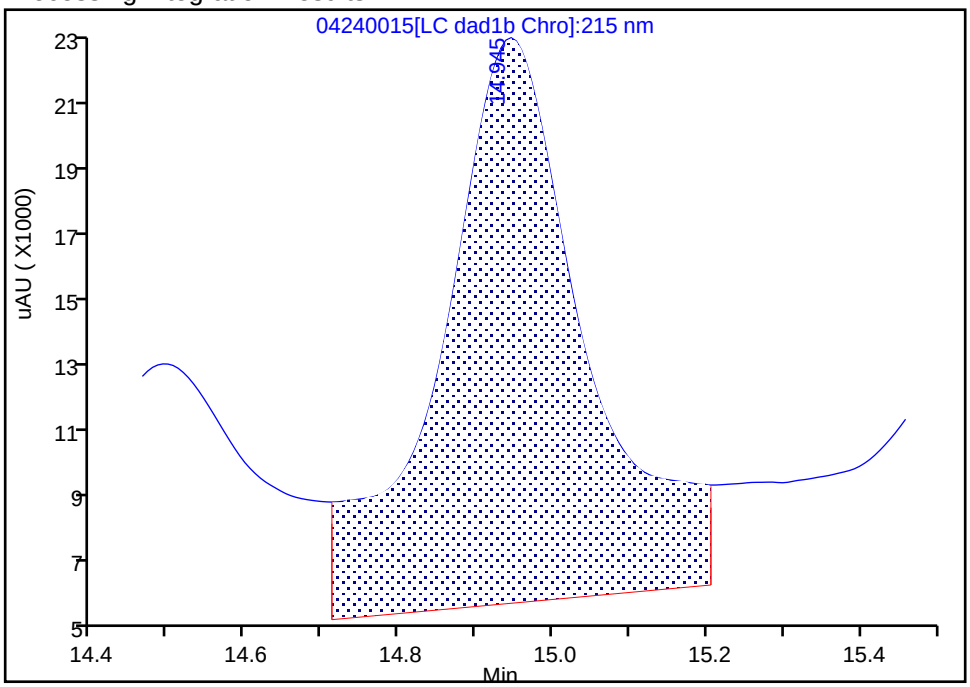
Data File:	\\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240015.d				
Injection Date:	25-Apr-2024 00:27:59	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT 4				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	15	Worklist Smp#:	15
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1B, 215 nm		

13 Nitroglycerin, CAS: 55-63-0

Signal: 1

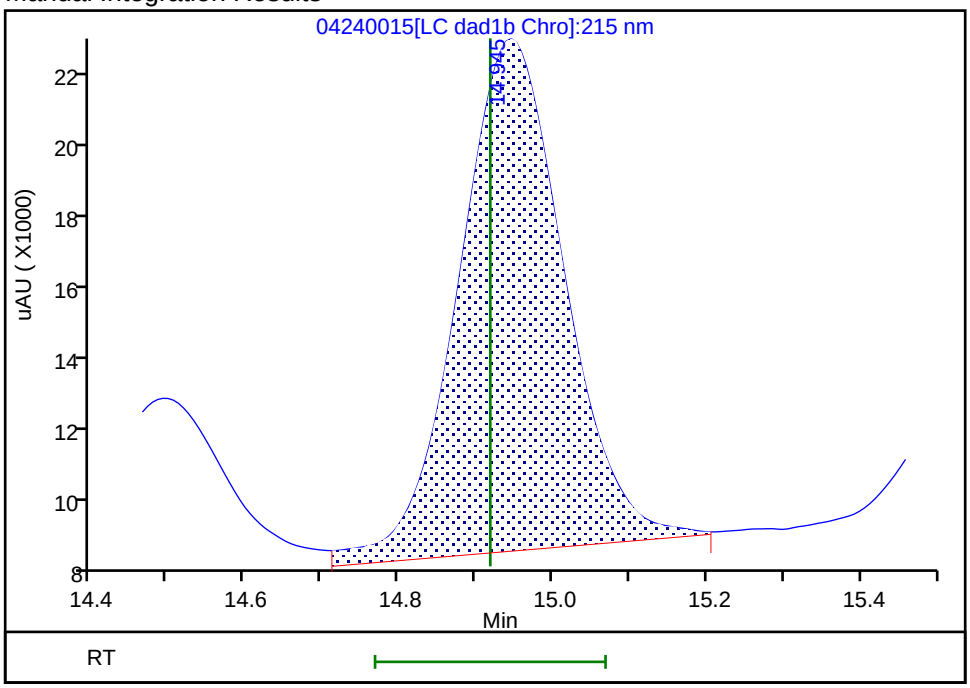
Processing Integration Results

RT: 14.95
Area: 211924
Amount: 0.838110
Amount Units: ug/ml



Manual Integration Results

RT: 14.95
Area: 126558
Amount: 1.059021
Amount Units: ug/ml



Reviewer: LV5D, 25-Apr-2024 13:20:05 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

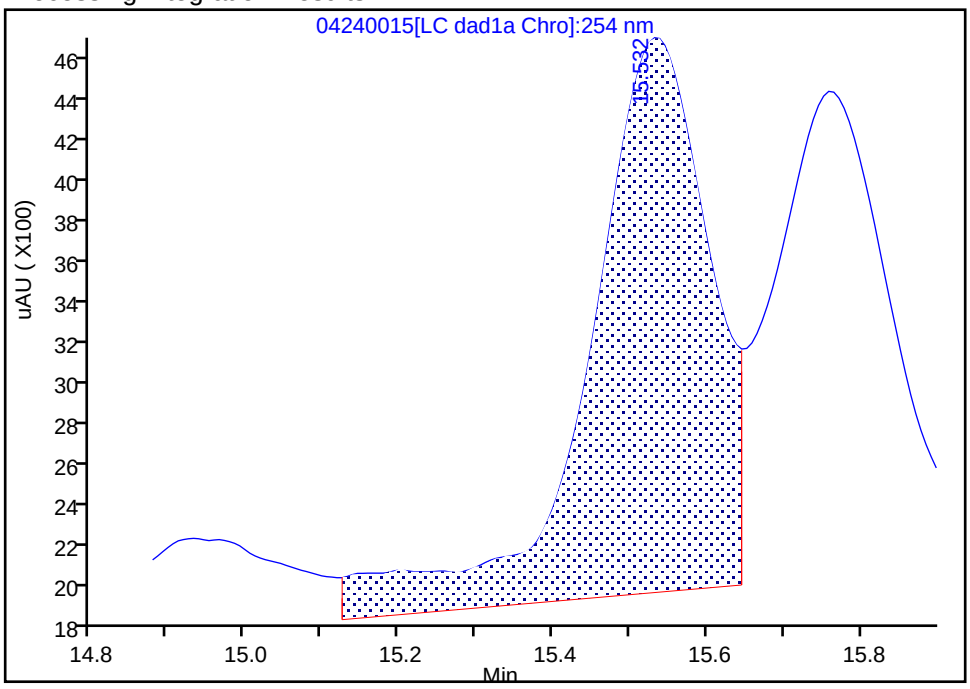
Data File:	\\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240015.d				
Injection Date:	25-Apr-2024 00:27:59	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT 4				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	15	Worklist Smp#:	15
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

14 o-Nitrotoluene, CAS: 88-72-2

Signal: 1

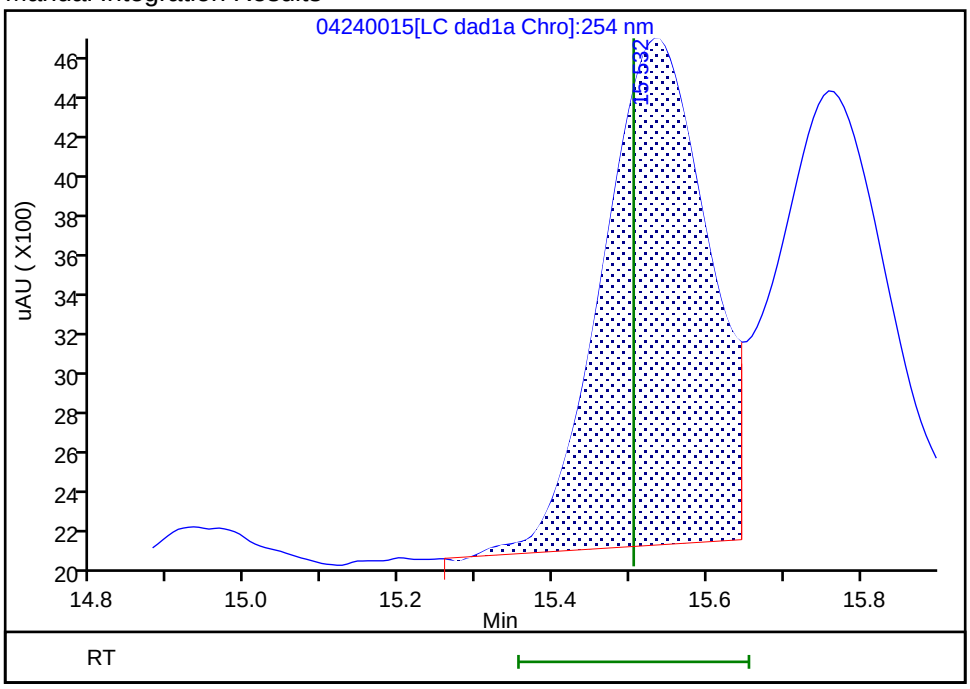
Processing Integration Results

RT: 15.53
Area: 29559
Amount: 0.107552
Amount Units: ug/ml



Manual Integration Results

RT: 15.53
Area: 23799
Amount: 0.097300
Amount Units: ug/ml



Reviewer: LV5D, 25-Apr-2024 13:24:52 -06:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

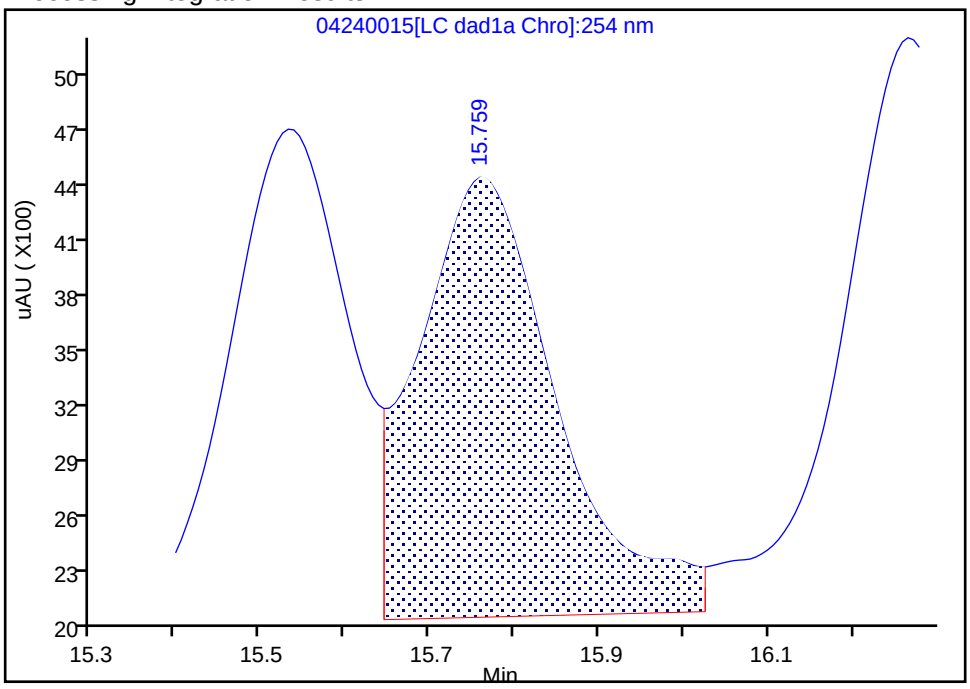
Data File:	\\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240015.d				
Injection Date:	25-Apr-2024 00:27:59	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT 4				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	15	Worklist Smp#:	15
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

15 p-Nitrotoluene, CAS: 99-99-0

Signal: 1

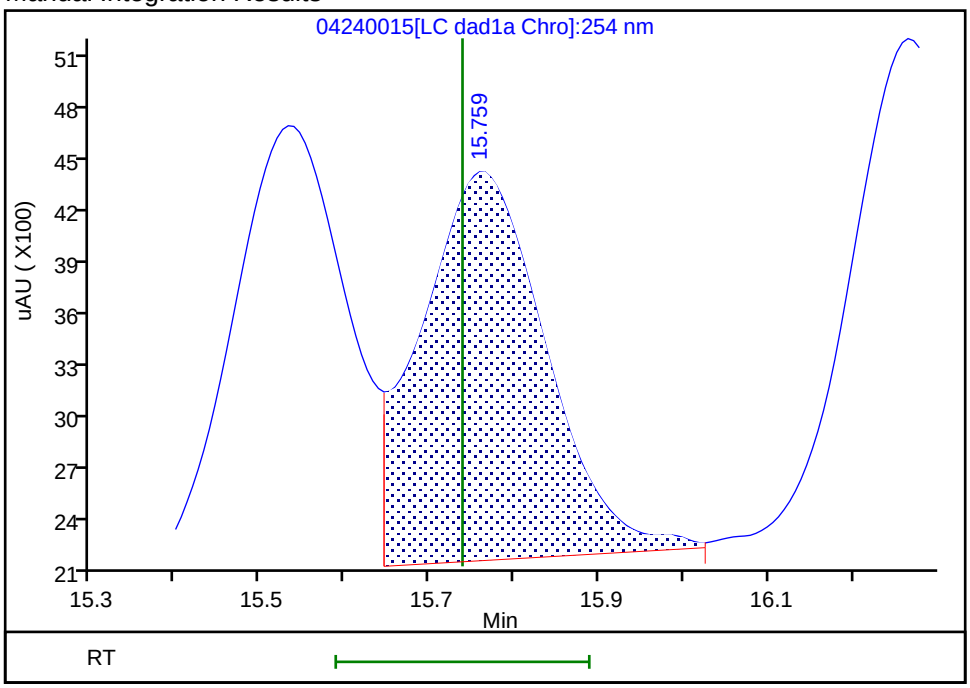
Processing Integration Results

RT: 15.76
Area: 26801
Amount: 0.114371
Amount Units: ug/ml



Manual Integration Results

RT: 15.76
Area: 22549
Amount: 0.099353
Amount Units: ug/ml



Reviewer: LV5D, 25-Apr-2024 13:21:52 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

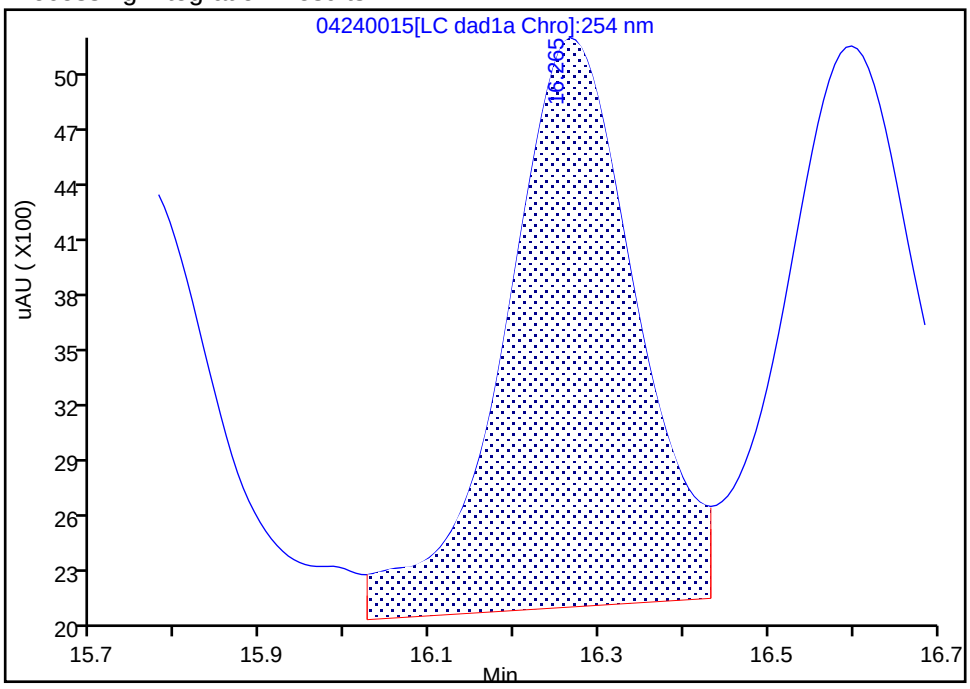
Data File:	\\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240015.d				
Injection Date:	25-Apr-2024 00:27:59	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT 4				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	15	Worklist Smp#:	15
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

16 4-Amino-2,6-dinitrotoluene, CAS: 19406-51-0

Signal: 1

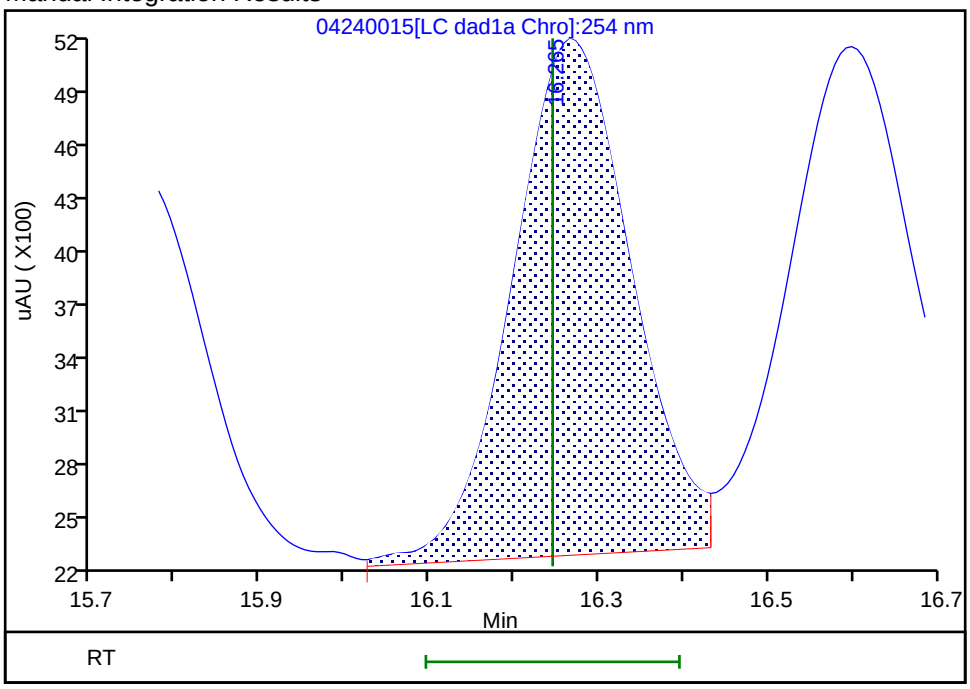
Processing Integration Results

RT: 16.27
Area: 32402
Amount: 0.109550
Amount Units: ug/ml



Manual Integration Results

RT: 16.27
Area: 27449
Amount: 0.099093
Amount Units: ug/ml



Reviewer: LV5D, 25-Apr-2024 13:21:52 -06:00:00 (UTC)
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

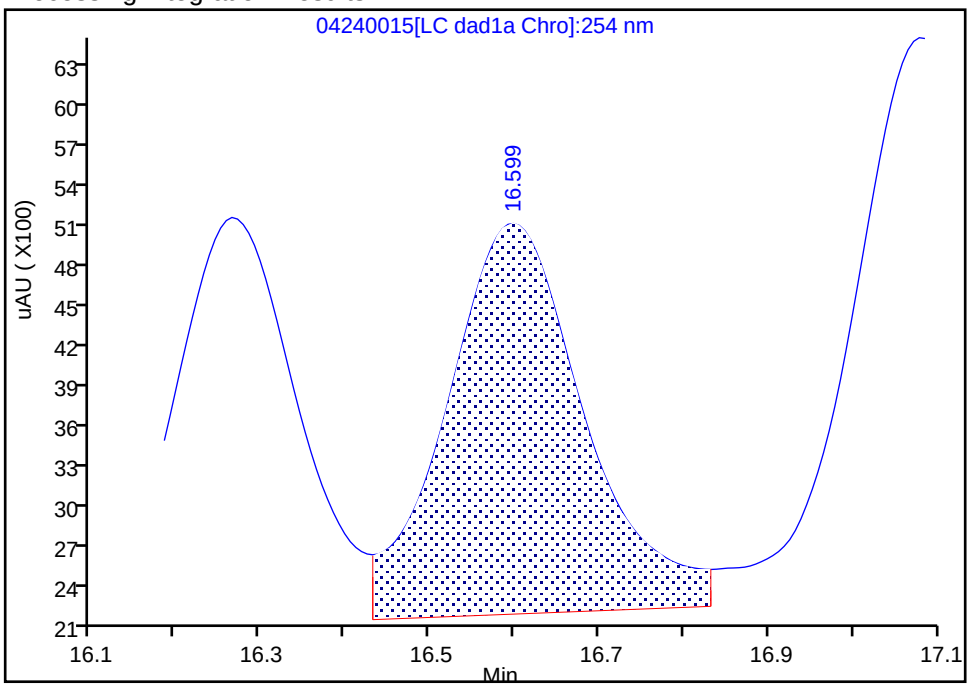
Data File:	\\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240015.d				
Injection Date:	25-Apr-2024 00:27:59	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT 4				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	15	Worklist Smp#:	15
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

17 m-Nitrotoluene, CAS: 99-08-1

Signal: 1

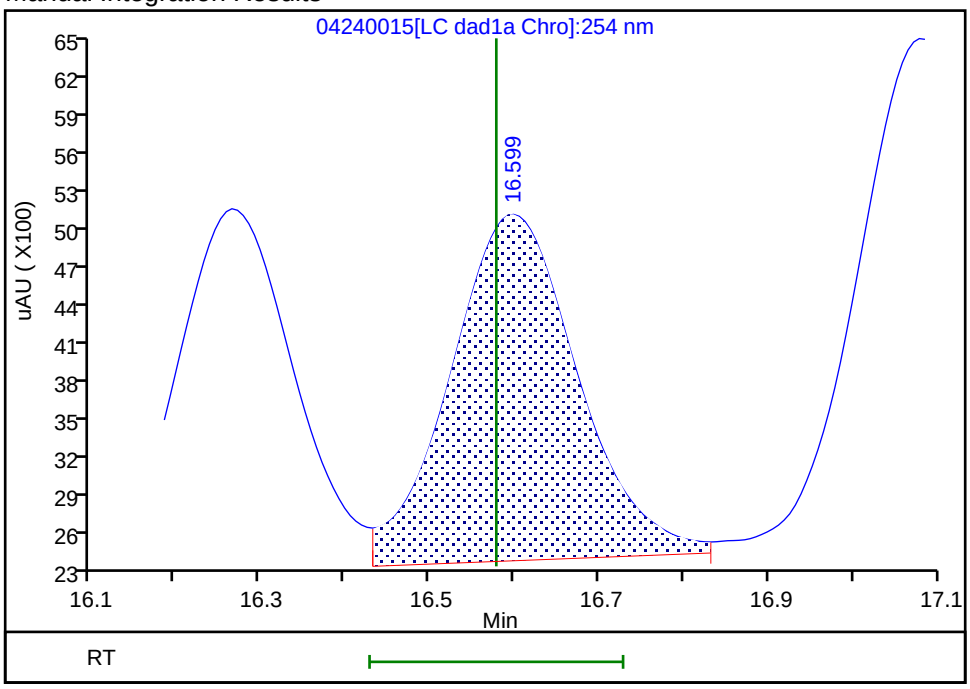
Processing Integration Results

RT: 16.60
Area: 32735
Amount: 0.108622
Amount Units: ug/ml



Manual Integration Results

RT: 16.60
Area: 28103
Amount: 0.098459
Amount Units: ug/ml



Reviewer: LV5D, 25-Apr-2024 13:21:52 -06:00:00 (UTC)
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

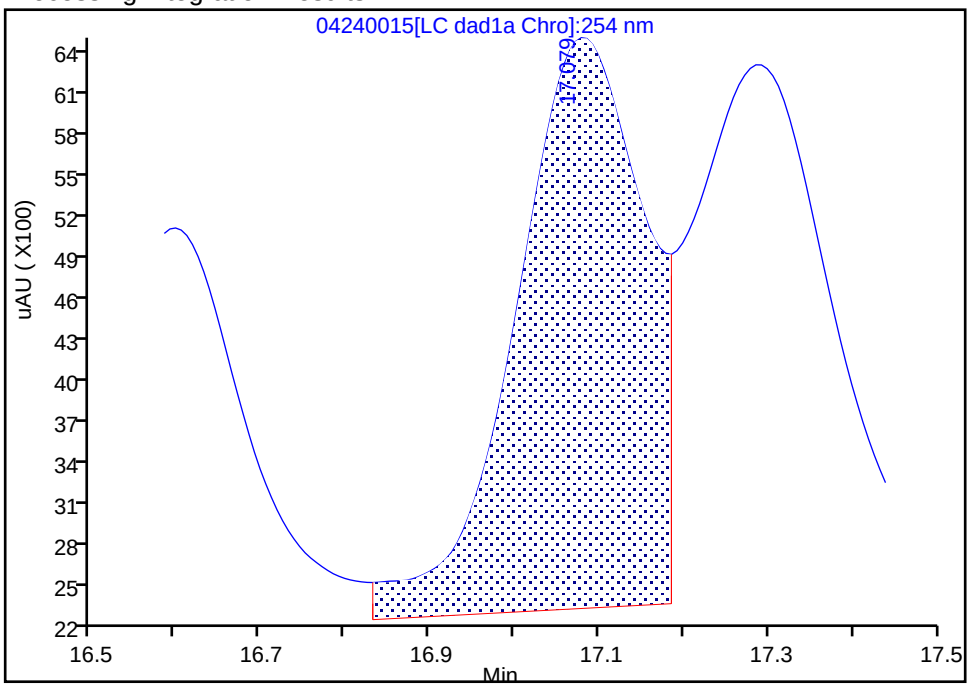
Data File:	\\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240015.d				
Injection Date:	25-Apr-2024 00:27:59	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT 4				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	15	Worklist Smp#:	15
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

18 2-Amino-4,6-dinitrotoluene, CAS: 35572-78-2

Signal: 1

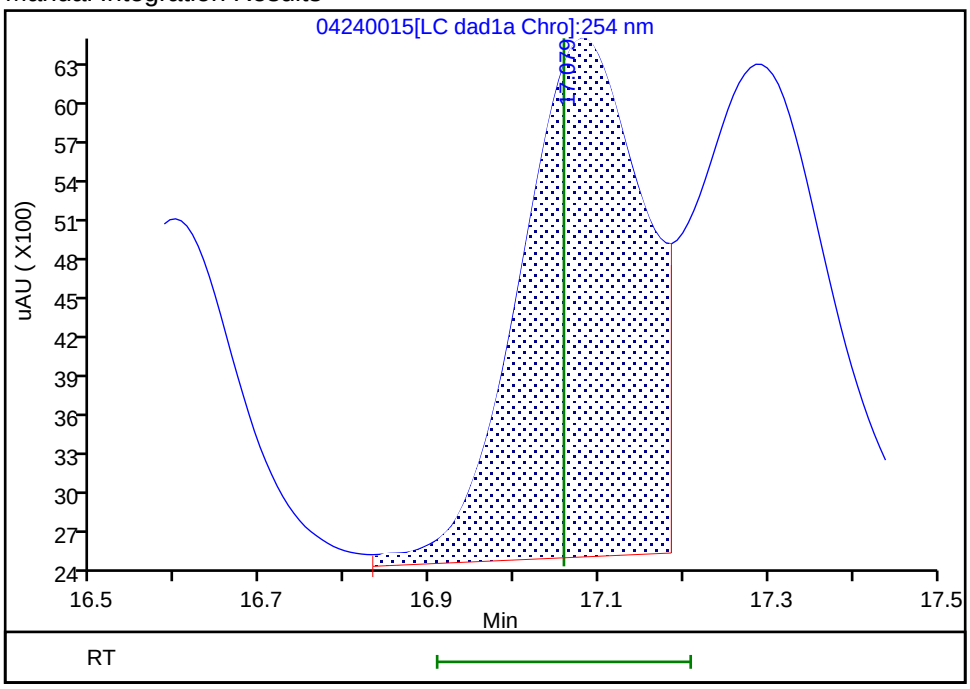
Processing Integration Results

RT: 17.08
Area: 43679
Amount: 0.107499
Amount Units: ug/ml



Manual Integration Results

RT: 17.08
Area: 39853
Amount: 0.098266
Amount Units: ug/ml



Reviewer: LV5D, 25-Apr-2024 13:21:52 -06:00:00 (UTC)
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

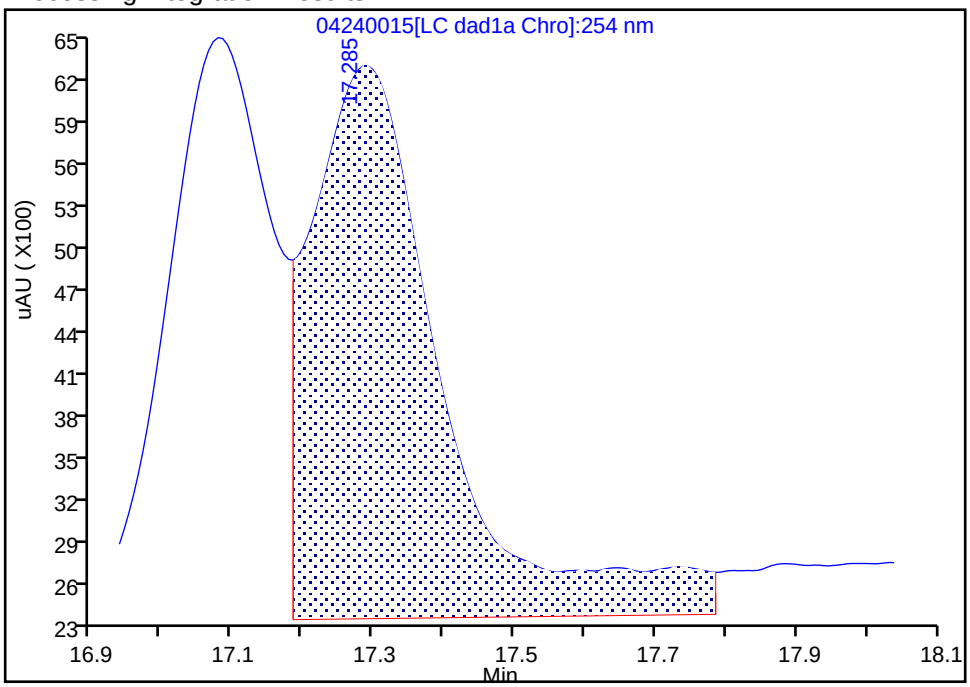
Data File:	\\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240015.d				
Injection Date:	25-Apr-2024 00:27:59	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT 4				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	15	Worklist Smp#:	15
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

19 1,3,5-Trinitrobenzene, CAS: 99-35-4

Signal: 1

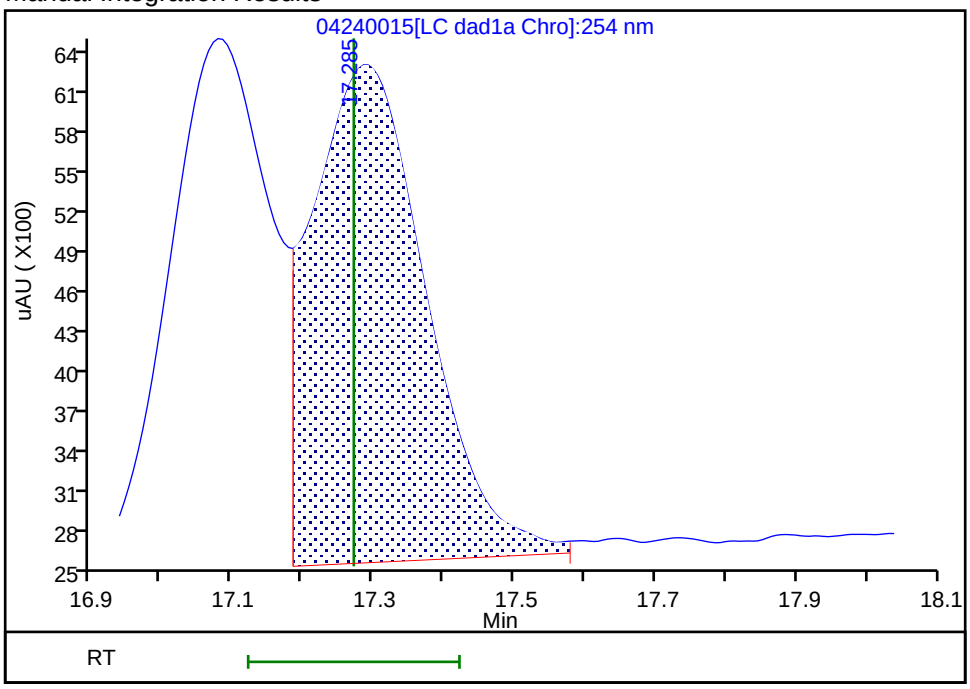
Processing Integration Results

RT: 17.29
Area: 49937
Amount: 0.107094
Amount Units: ug/ml



Manual Integration Results

RT: 17.29
Area: 41177
Amount: 0.097241
Amount Units: ug/ml



Reviewer: LV5D, 25-Apr-2024 13:24:54 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

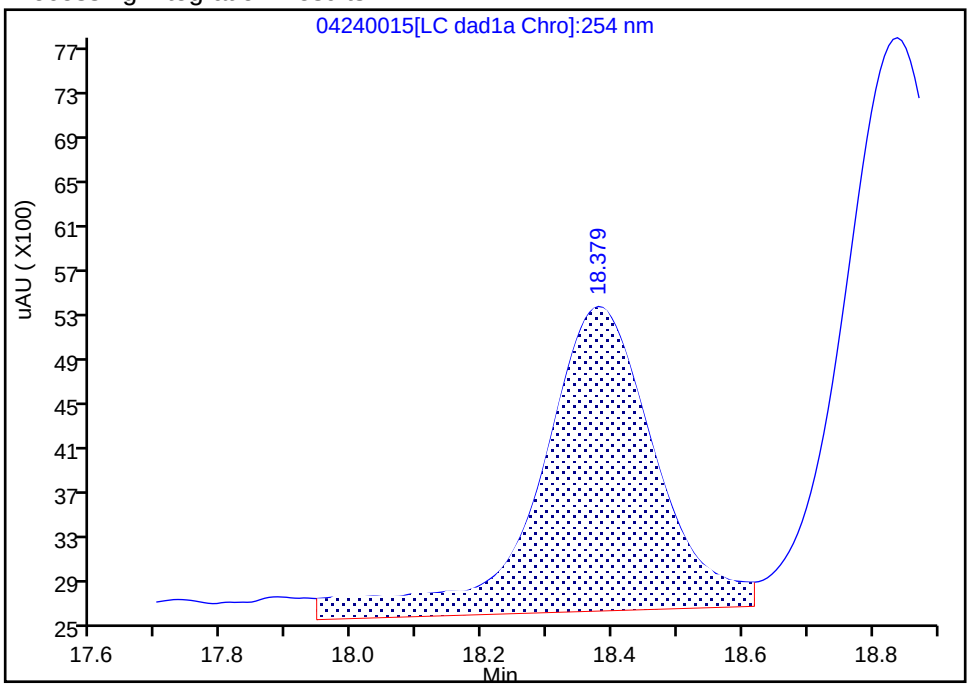
Data File:	\\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240015.d				
Injection Date:	25-Apr-2024 00:27:59	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT 4				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	15	Worklist Smp#:	15
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

20 2,6-Dinitrotoluene, CAS: 606-20-2

Signal: 1

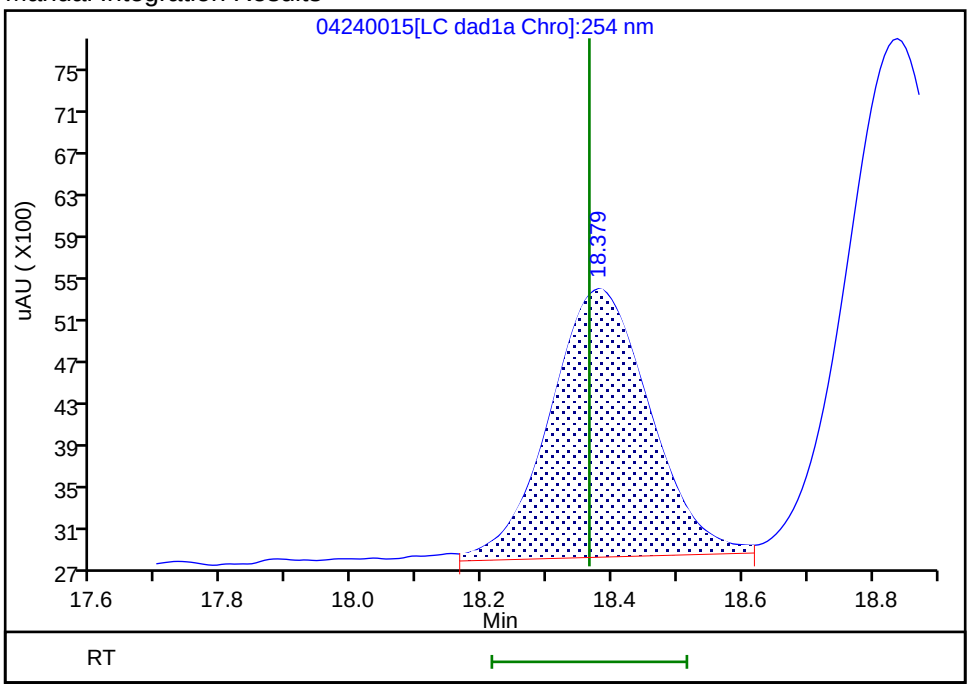
Processing Integration Results

RT: 18.38
Area: 34293
Amount: 0.121780
Amount Units: ug/ml



Manual Integration Results

RT: 18.38
Area: 27487
Amount: 0.098885
Amount Units: ug/ml



Reviewer: LV5D, 25-Apr-2024 13:24:55 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

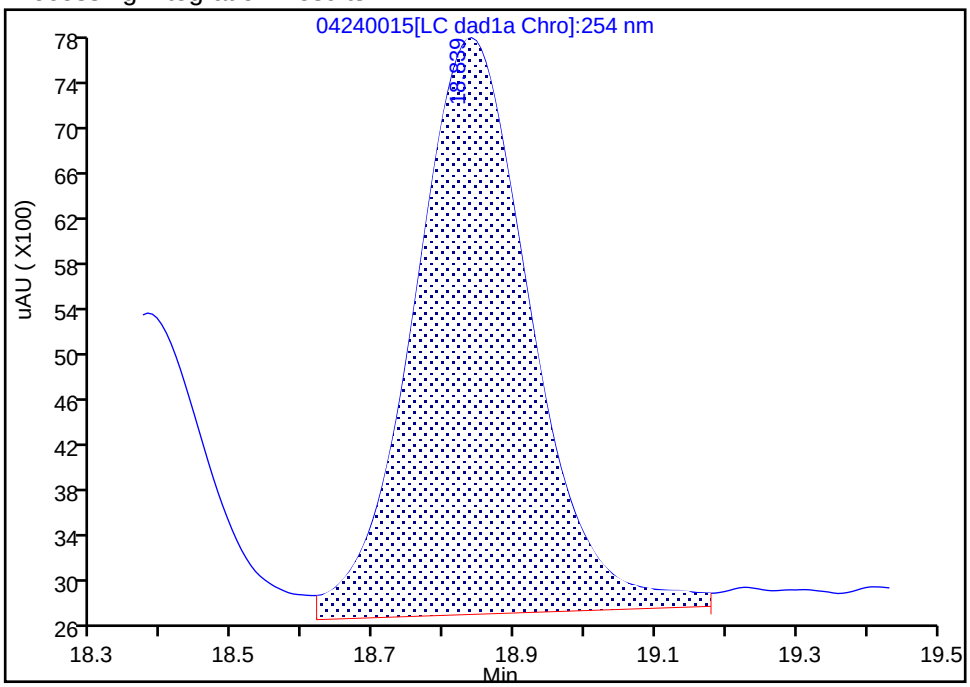
Data File:	\\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240015.d				
Injection Date:	25-Apr-2024 00:27:59	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT 4				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	15	Worklist Smp#:	15
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

21 2,4-Dinitrotoluene, CAS: 121-14-2

Signal: 1

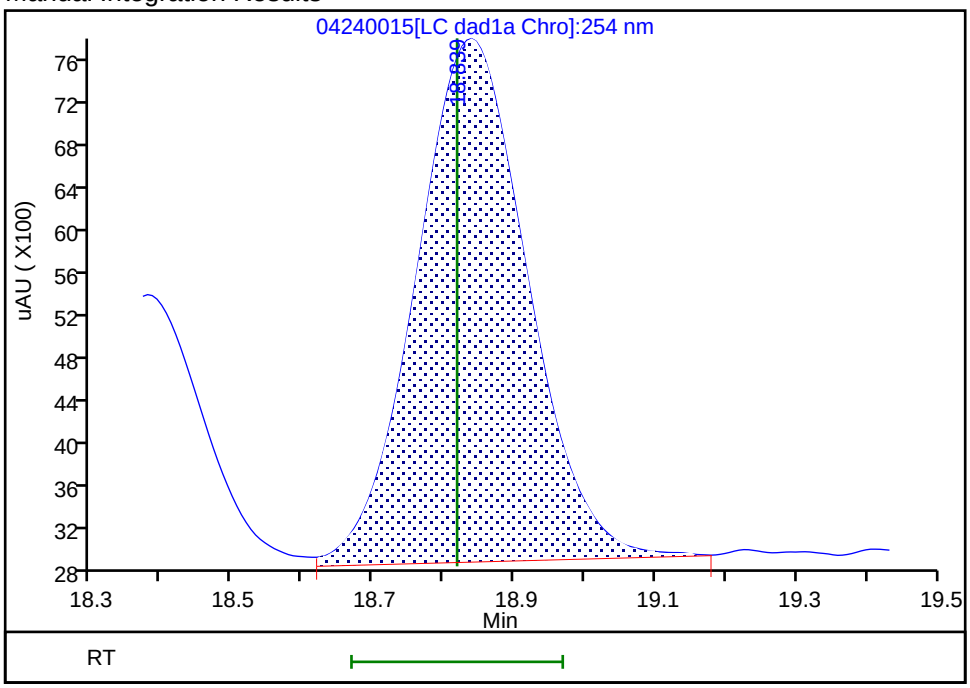
Processing Integration Results

RT: 18.84
Area: 58511
Amount: 0.098344
Amount Units: ug/ml



Manual Integration Results

RT: 18.84
Area: 54294
Amount: 0.097904
Amount Units: ug/ml



Reviewer: LV5D, 25-Apr-2024 13:21:54 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

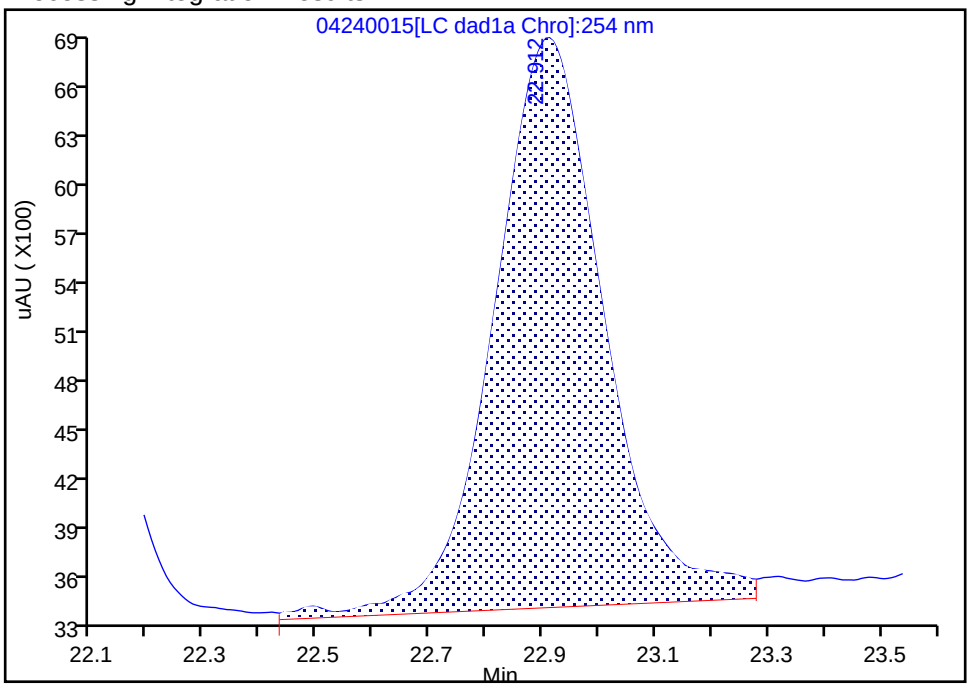
Data File:	\\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240015.d				
Injection Date:	25-Apr-2024 00:27:59	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT 4				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	15	Worklist Smp#:	15
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

23 2,4,6-Trinitrotoluene, CAS: 118-96-7

Signal: 1

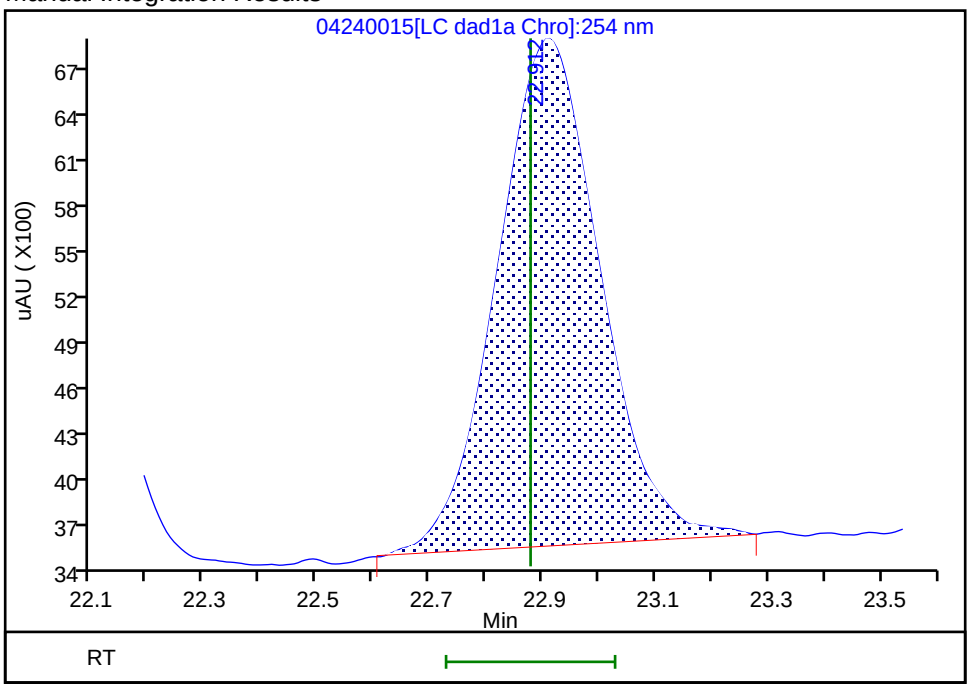
Processing Integration Results

RT: 22.91
Area: 46193
Amount: 0.112953
Amount Units: ug/ml



Manual Integration Results

RT: 22.91
Area: 41861
Amount: 0.104715
Amount Units: ug/ml



Reviewer: LV5D, 25-Apr-2024 13:36:56 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2_LUNA\20240424-132624.b\04240016.D
Lims ID: IC INT 3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 25-Apr-2024 01:03:56 ALS Bottle#: 16 Worklist Smp#: 16
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT 3
Operator ID: JZ/JG Instrument ID: CHHPLC_G2_LUNA
Sublist: chrom-G2_8330_Luna*sub16

Method: \\chromfs\Denver\ChromData\G2_LUNA\20240424-132624.b\G2_8330_Luna.m
Limit Group: GCSV - 8330
Last Update: 25-Apr-2024 14:30:16 Calib Date: 25-Apr-2024 07:39:21
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\G2_LUNA\20240424-132624.b\04240027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC DAD1A, 254 nm
Process Host: CTX1684

First Level Reviewer: LV5D Date: 25-Apr-2024 13:20:15

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
6 HMX	1	6.709	6.705	0.004	8509	0.0500	0.0489	M
5 2,4,6-Trinitrophenol	1	8.663	8.612	0.051	7014	0.0500	0.0463	
8 RDX	1	8.943	8.938	0.005	10654	0.0500	0.0492	
9 Nitrobenzene	1	11.436	11.425	0.011	18193	0.0500	0.0476	
$ 10 1,2-Dinitrobenzene	1	12.356	12.345	0.011	13324	0.0500	0.0515	
11 3,5-Dinitroaniline	1	14.203	14.185	0.018	22481	0.0500	0.0501	M
12 1,3-Dinitrobenzene	1	14.496	14.478	0.018	30596	0.0500	0.0519	M
13 Nitroglycerin	2	14.943	14.918	0.025	59130	0.5000	0.4948	M
14 o-Nitrotoluene	1	15.523	15.505	0.018	13247	0.0500	0.0542	M
15 p-Nitrotoluene	1	15.743	15.738	0.005	11825	0.0500	0.0501	M
16 4-Amino-2,6-dinitrotoluene	1	16.249	16.245	0.004	13955	0.0500	0.0490	M
17 m-Nitrotoluene	1	16.583	16.578	0.005	14941	0.0500	0.0507	M
18 2-Amino-4,6-dinitrotoluene	1	17.063	17.058	0.005	19735	0.0500	0.0487	M
19 1,3,5-Trinitrobenzene	1	17.283	17.272	0.011	19358	0.0500	0.0457	M
20 2,6-Dinitrotoluene	1	18.369	18.365	0.004	14197	0.0500	0.0511	
21 2,4-Dinitrotoluene	1	18.823	18.818	0.005	28589	0.0500	0.0516	
22 Tetryl	1	22.023	22.025	-0.002	15630	0.0500	0.0487	M
23 2,4,6-Trinitrotoluene	1	22.876	22.878	-0.002	20131	0.0500	0.0504	M
24 PETN	2	24.016	24.032	-0.016	60616	0.5000	0.5056	M

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330IntermStk_00080 Amount Added: 5.00 Units: uL

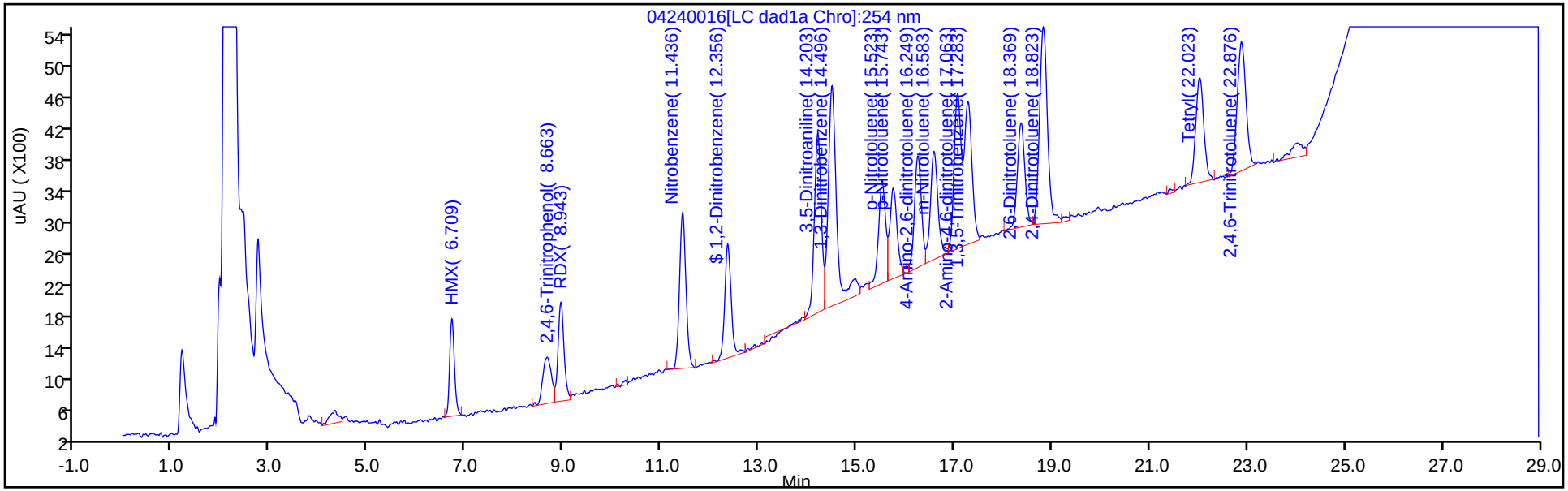
Report Date: 25-Apr-2024 14:30:16 Chrom Revision: 2.3 09-Apr-2024 17:43:44

Eurofins Denver

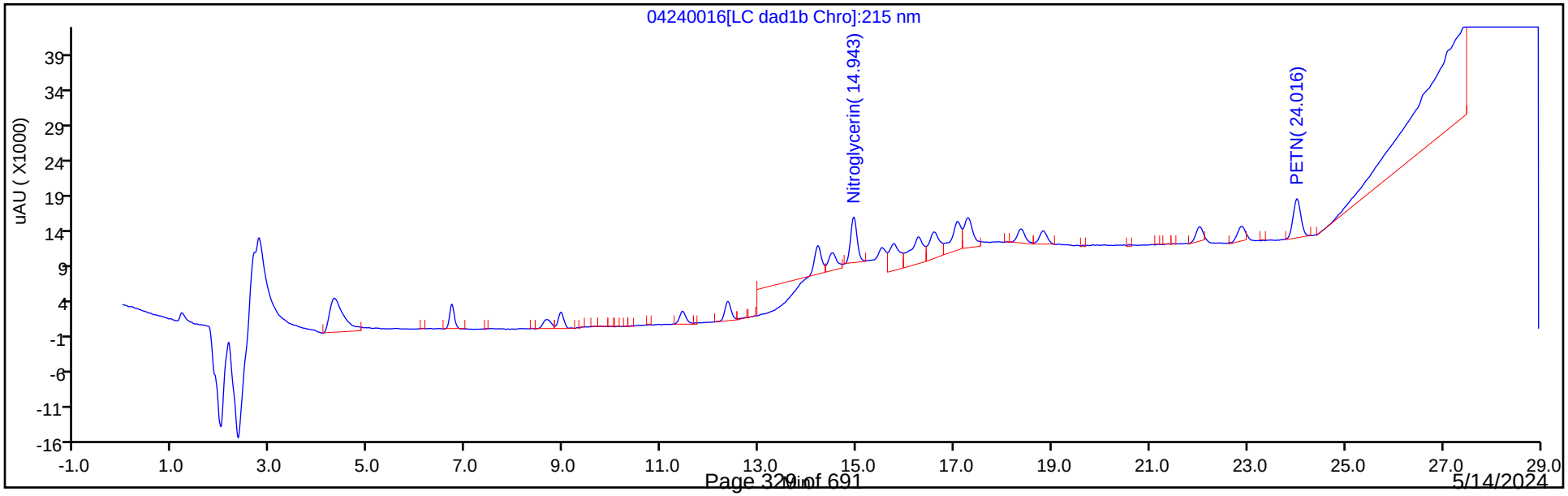
Data File: \\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240016.d

Injection Date:	25-Apr-2024 01:03:56	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	JZ/JG
Lims ID:	IC INT 3			Worklist Smp#:	16
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



5/14/2024
9:20:15 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

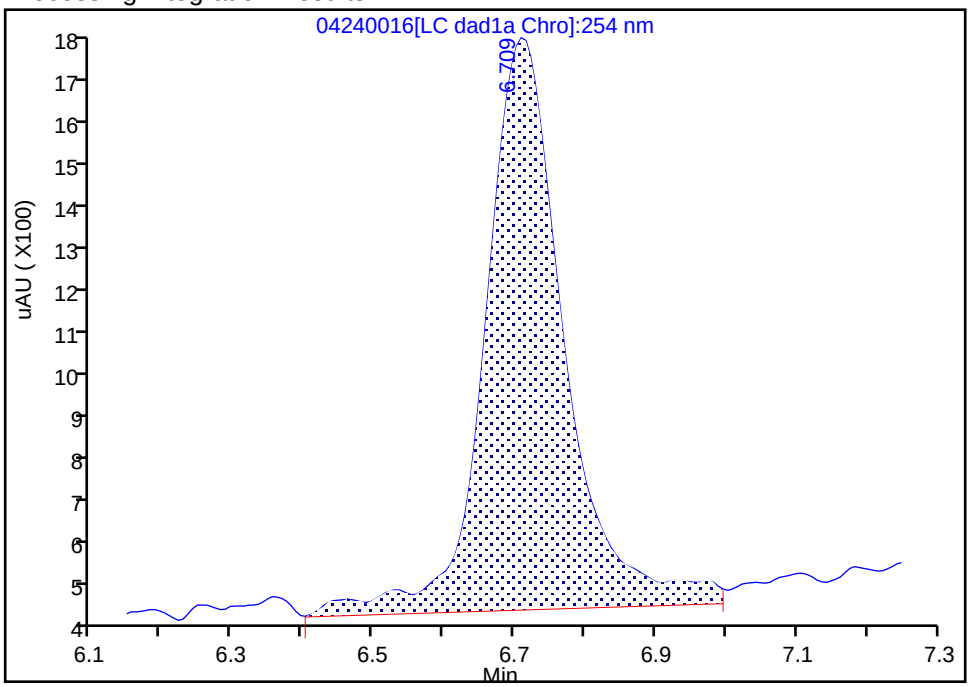
Data File: \\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240016.d
Injection Date: 25-Apr-2024 01:03:56 Instrument ID: CHHPLC_G2_LUNA
Lims ID: IC INT 3
Client ID:
Operator ID: JZ/JG ALS Bottle#: 16 Worklist Smp#: 16
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC DAD1A, 254 nm

6 HMX, CAS: 2691-41-0

Signal: 1

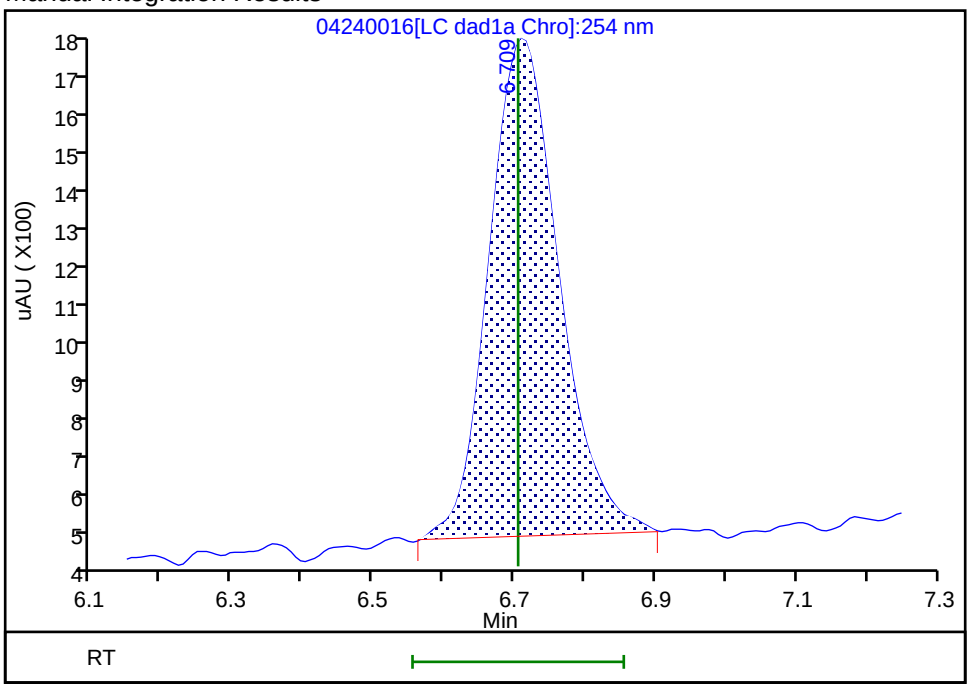
Processing Integration Results

RT: 6.71
Area: 10052
Amount: 0.056576
Amount Units: ug/ml



Manual Integration Results

RT: 6.71
Area: 8509
Amount: 0.048881
Amount Units: ug/ml



Reviewer: LV5D, 25-Apr-2024 13:32:05 -06:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

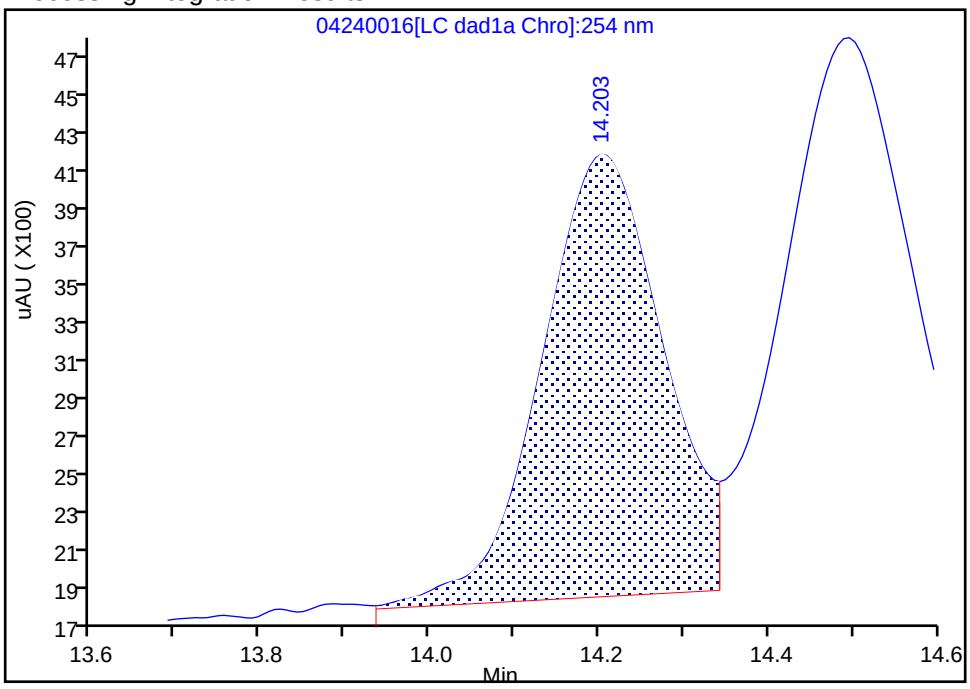
Data File:	\\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240016.d				
Injection Date:	25-Apr-2024 01:03:56	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT 3				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

11 3,5-Dinitroaniline, CAS: 618-87-1

Signal: 1

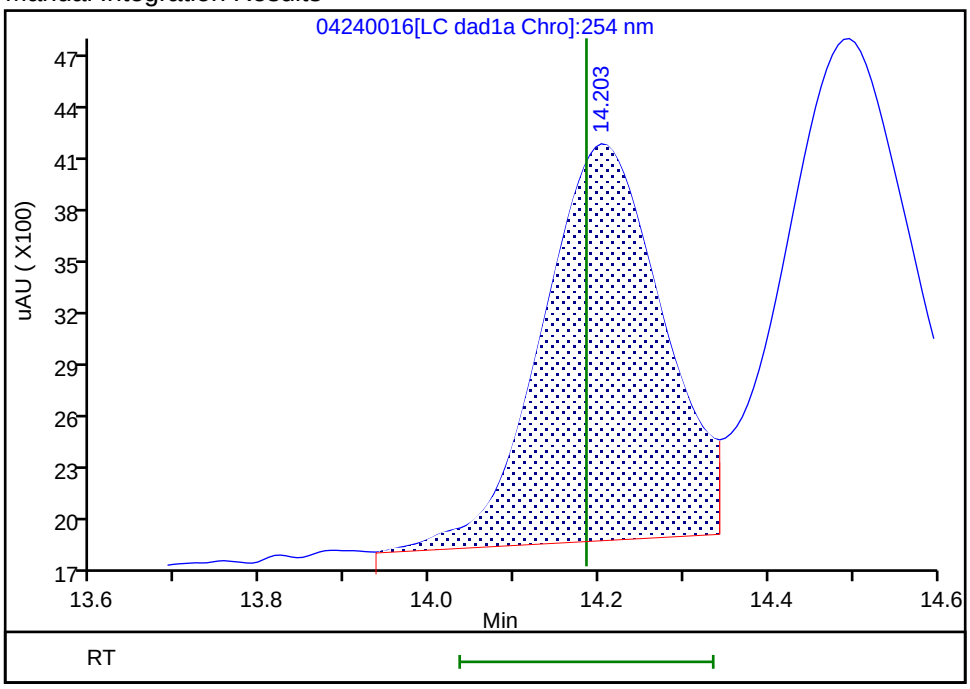
Processing Integration Results

RT: 14.20
Area: 22811
Amount: 0.047887
Amount Units: ug/ml



Manual Integration Results

RT: 14.20
Area: 22481
Amount: 0.050060
Amount Units: ug/ml



Reviewer: LV5D, 25-Apr-2024 13:25:16 -06:00:00 (UTC)
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

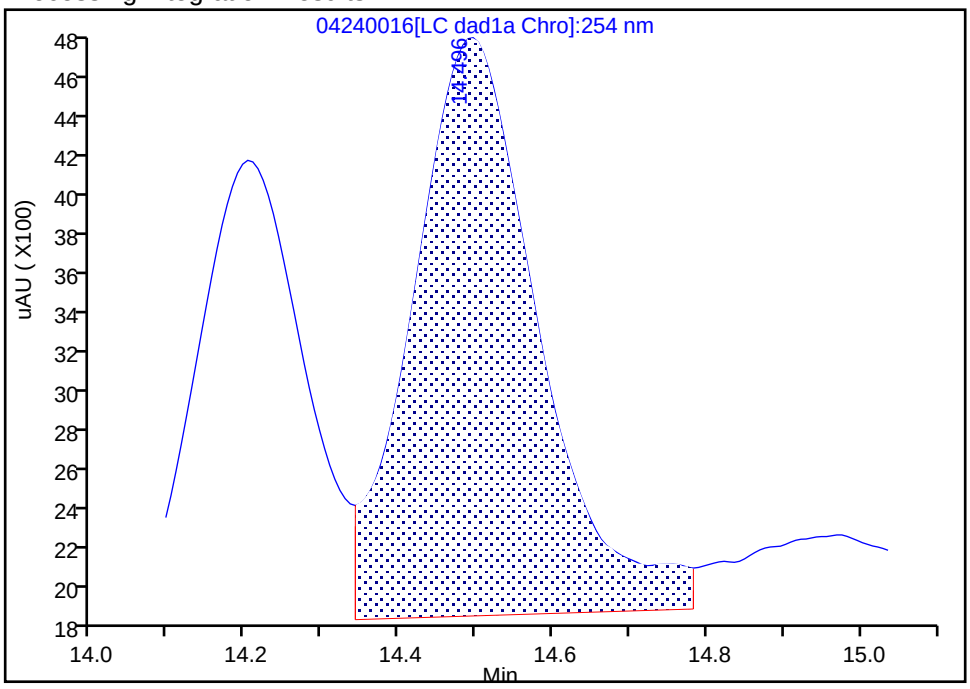
Data File:	\\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240016.d				
Injection Date:	25-Apr-2024 01:03:56	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT 3				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

12 1,3-Dinitrobenzene, CAS: 99-65-0

Signal: 1

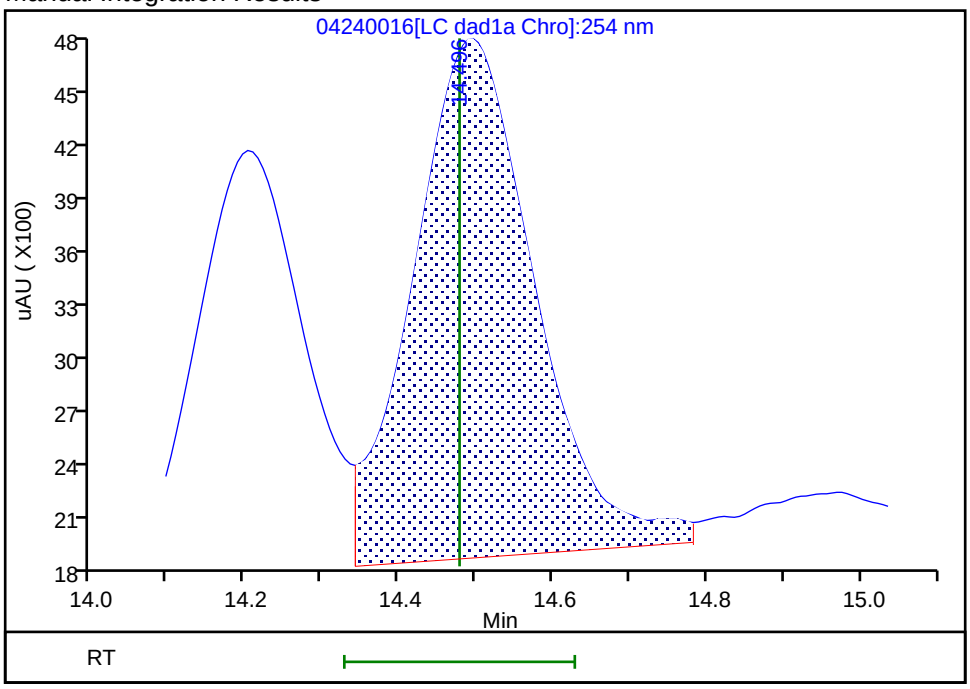
Processing Integration Results

RT: 14.50
Area: 32206
Amount: 0.051373
Amount Units: ug/ml



Manual Integration Results

RT: 14.50
Area: 30596
Amount: 0.051909
Amount Units: ug/ml



Reviewer: LV5D, 25-Apr-2024 13:25:16 -06:00:00 (UTC)
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

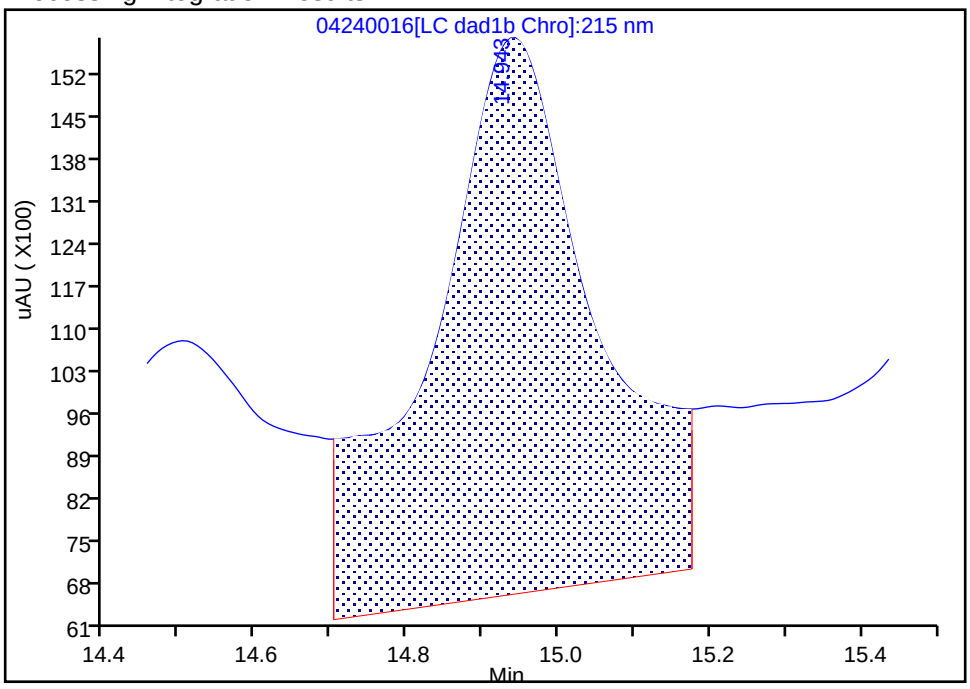
Data File:	\\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240016.d				
Injection Date:	25-Apr-2024 01:03:56	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT 3				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1B, 215 nm		

13 Nitroglycerin, CAS: 55-63-0

Signal: 1

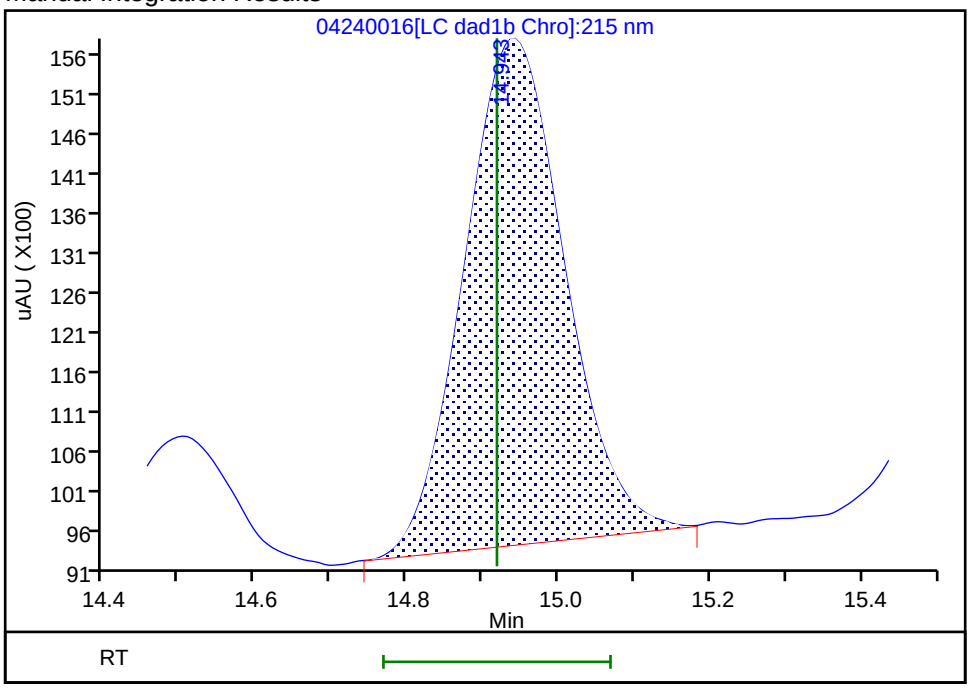
Processing Integration Results

RT: 14.94
Area: 139941
Amount: 0.575003
Amount Units: ug/ml



Manual Integration Results

RT: 14.94
Area: 59130
Amount: 0.494792
Amount Units: ug/ml



Reviewer: LV5D, 25-Apr-2024 13:20:51 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

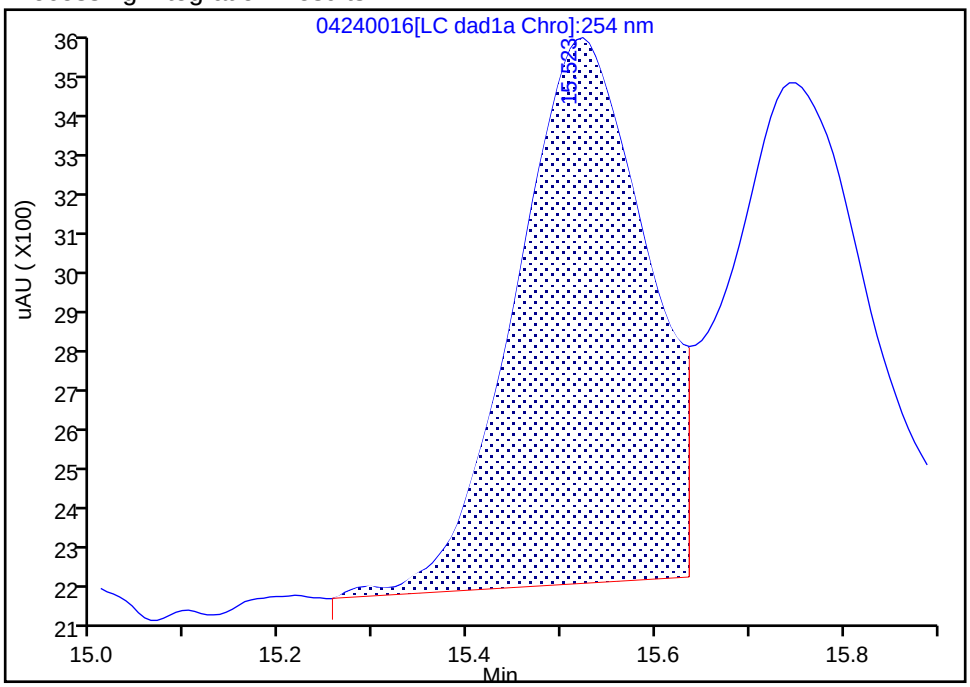
Data File:	\\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240016.d				
Injection Date:	25-Apr-2024 01:03:56	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT 3				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

14 o-Nitrotoluene, CAS: 88-72-2

Signal: 1

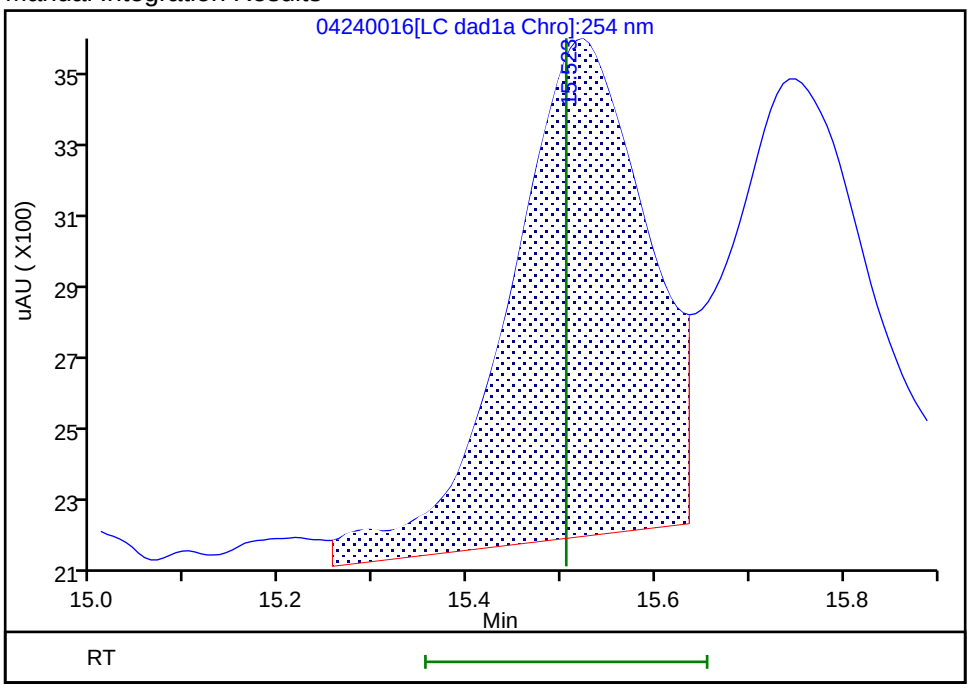
Processing Integration Results

RT: 15.52
Area: 12415
Amount: 0.046079
Amount Units: ug/ml



Manual Integration Results

RT: 15.52
Area: 13247
Amount: 0.054159
Amount Units: ug/ml



Reviewer: LV5D, 25-Apr-2024 13:25:16 -06:00:00 (UTC)
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

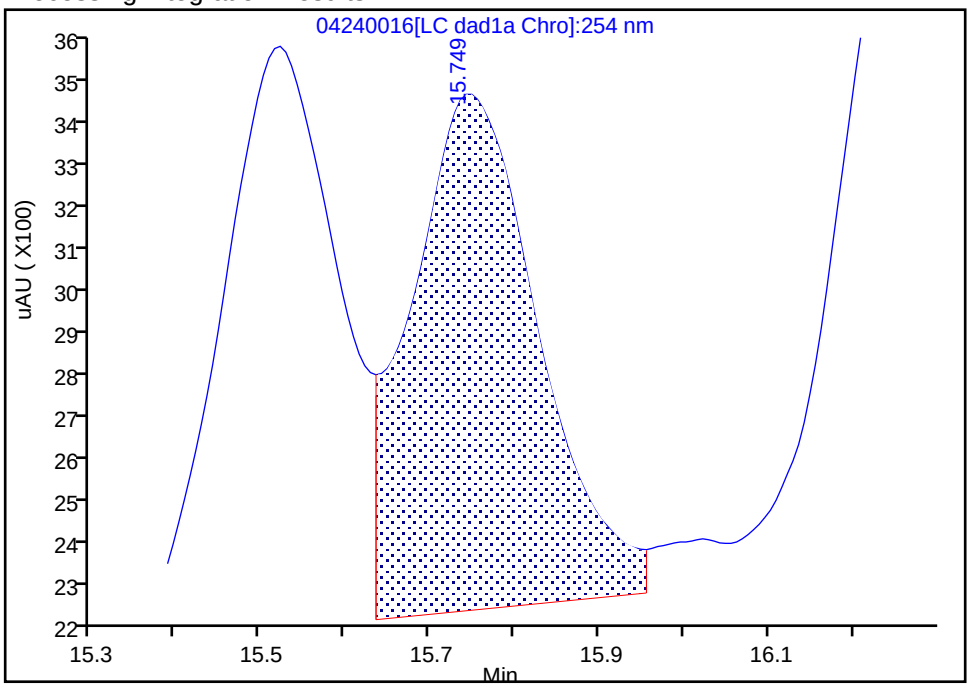
Data File:	\\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240016.d				
Injection Date:	25-Apr-2024 01:03:56	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT 3				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

15 p-Nitrotoluene, CAS: 99-99-0

Signal: 1

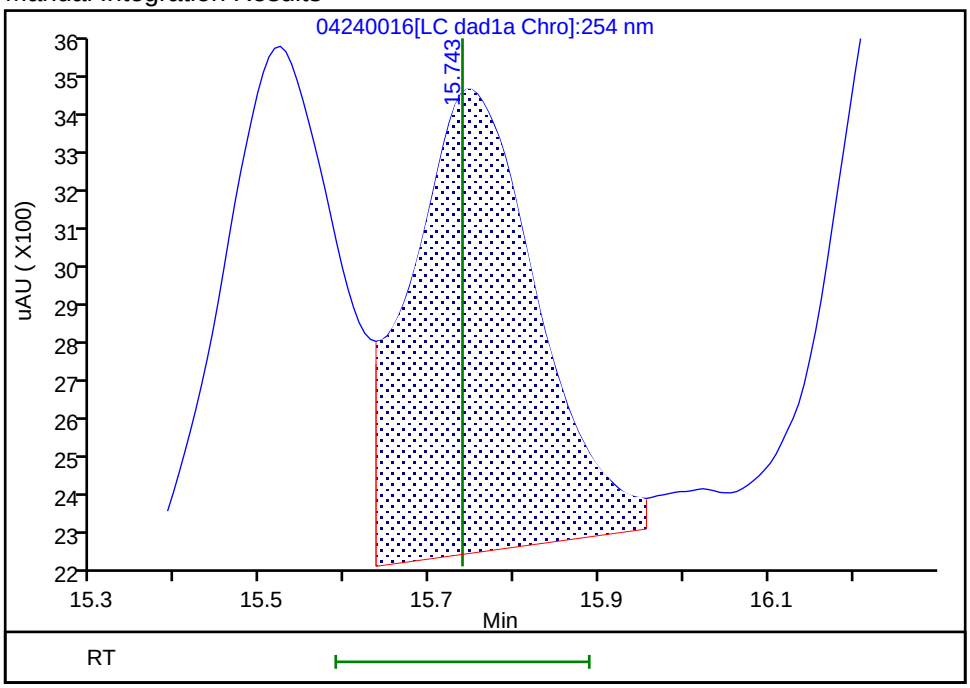
Processing Integration Results

RT: 15.75
Area: 11979
Amount: 0.047481
Amount Units: ug/ml



Manual Integration Results

RT: 15.74
Area: 11825
Amount: 0.050097
Amount Units: ug/ml



Reviewer: LV5D, 25-Apr-2024 13:25:16 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

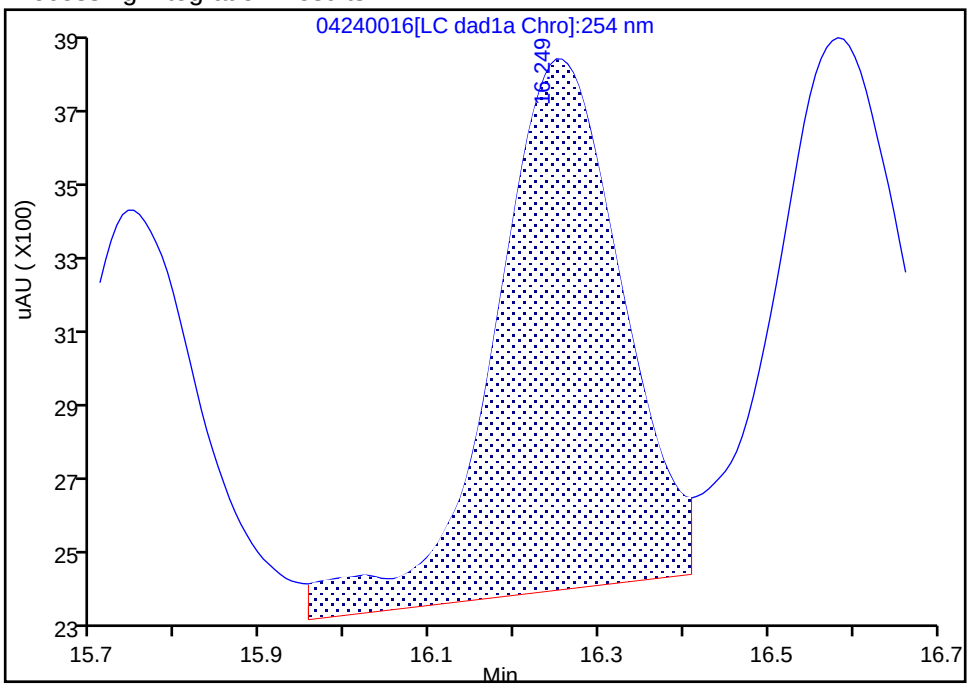
Data File:	\\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240016.d				
Injection Date:	25-Apr-2024 01:03:56	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT 3				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

16 4-Amino-2,6-dinitrotoluene, CAS: 19406-51-0

Signal: 1

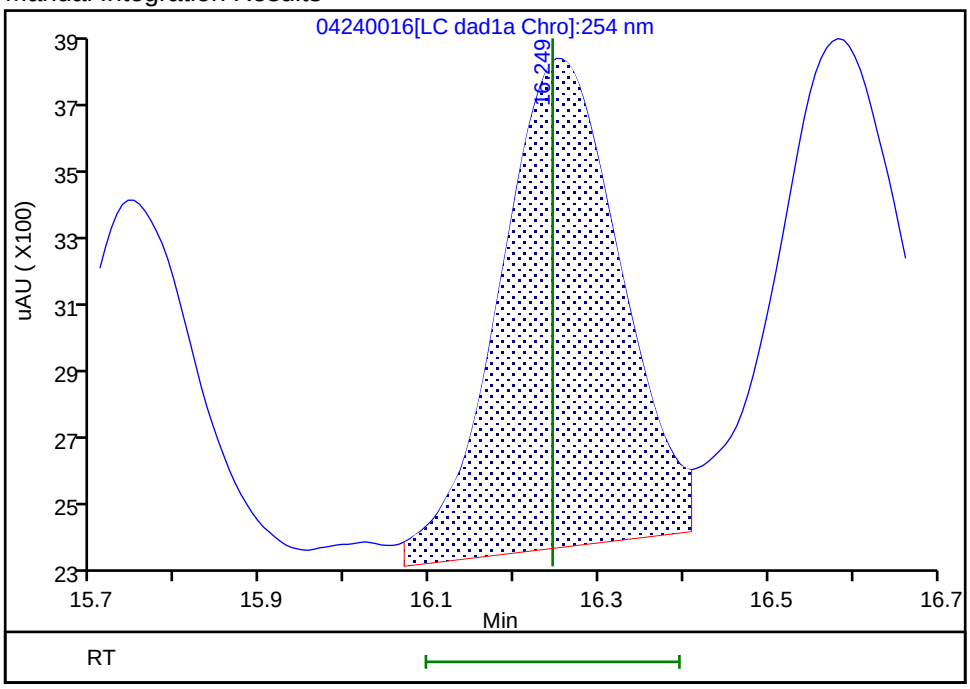
Processing Integration Results

RT: 16.25
Area: 15163
Amount: 0.045904
Amount Units: ug/ml



Manual Integration Results

RT: 16.25
Area: 13955
Amount: 0.049024
Amount Units: ug/ml



Reviewer: LV5D, 25-Apr-2024 13:35:16 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

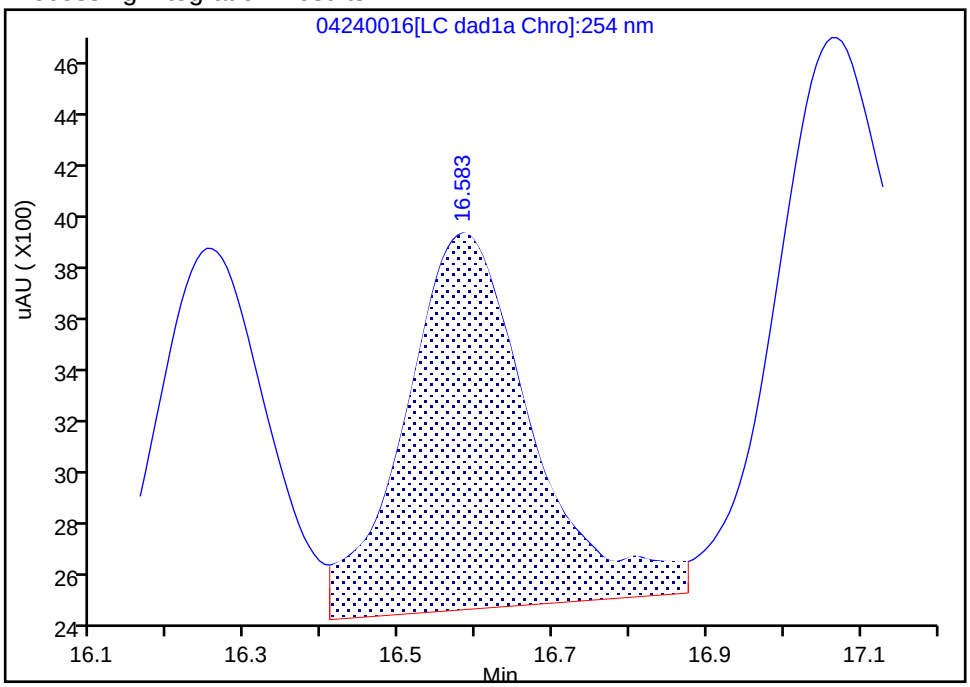
Data File:	\\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240016.d				
Injection Date:	25-Apr-2024 01:03:56	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT 3				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

17 m-Nitrotoluene, CAS: 99-08-1

Signal: 1

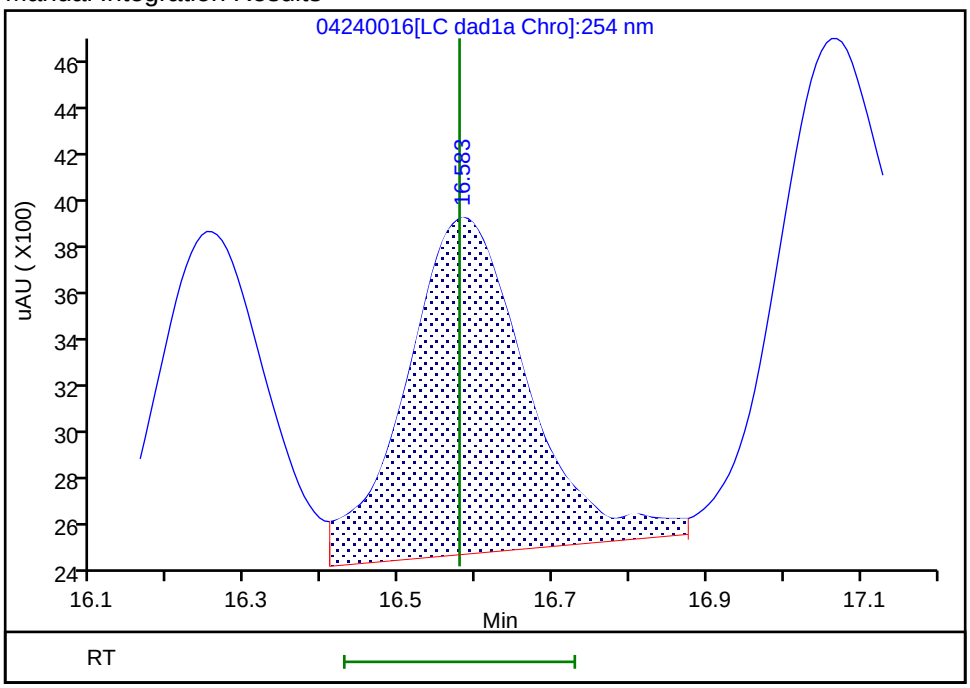
Processing Integration Results

RT: 16.58
Area: 16173
Amount: 0.050420
Amount Units: ug/ml



Manual Integration Results

RT: 16.58
Area: 14941
Amount: 0.050699
Amount Units: ug/ml



Reviewer: LV5D, 25-Apr-2024 13:25:16 -06:00:00 (UTC)
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

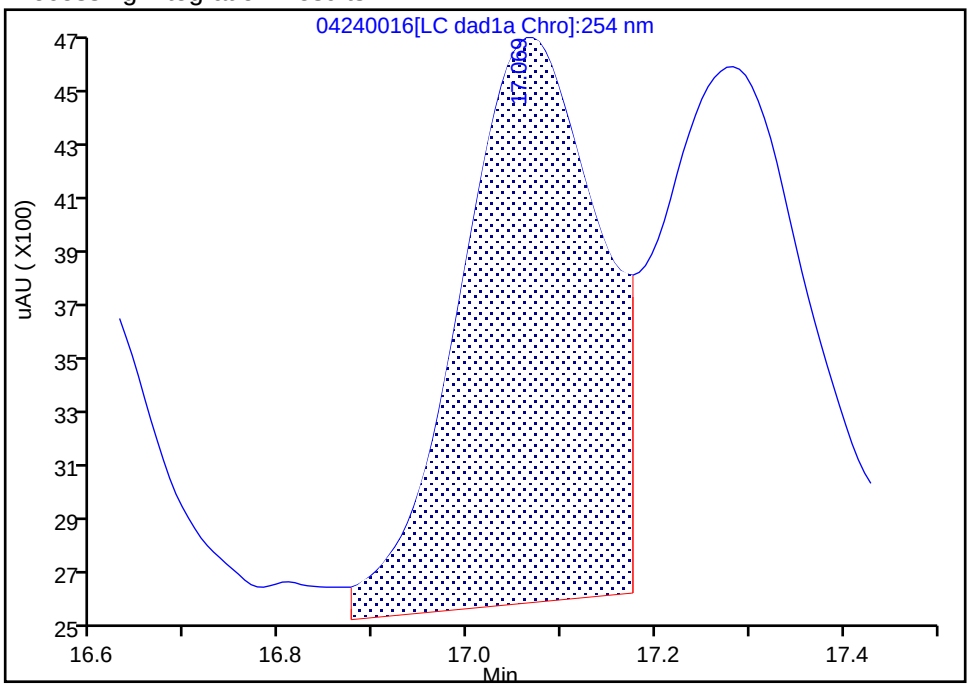
Data File:	\\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240016.d				
Injection Date:	25-Apr-2024 01:03:56	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT 3				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

18 2-Amino-4,6-dinitrotoluene, CAS: 35572-78-2

Signal: 1

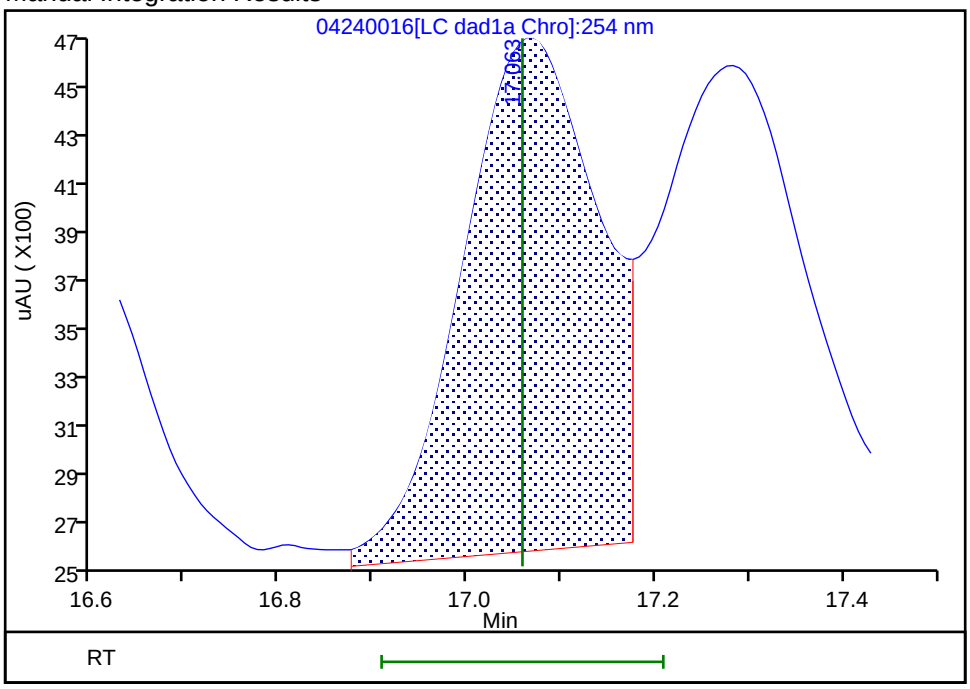
Processing Integration Results

RT: 17.07
Area: 20716
Amount: 0.047421
Amount Units: ug/ml



Manual Integration Results

RT: 17.06
Area: 19735
Amount: 0.048661
Amount Units: ug/ml



Reviewer: LV5D, 25-Apr-2024 13:25:16 -06:00:00 (UTC)
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

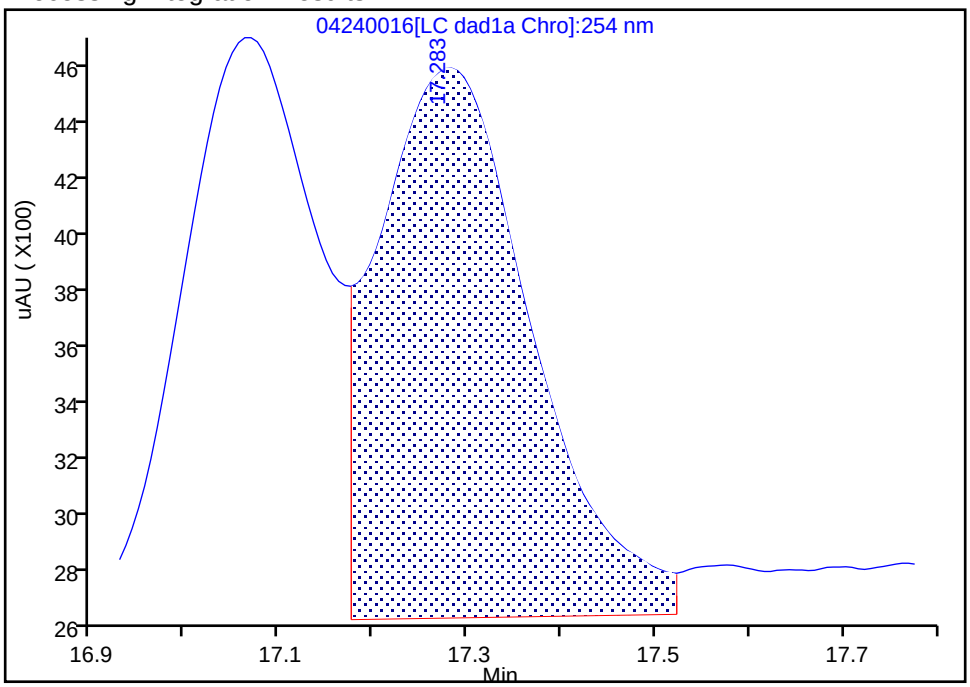
Data File:	\\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240016.d				
Injection Date:	25-Apr-2024 01:03:56	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT 3				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

19 1,3,5-Trinitrobenzene, CAS: 99-35-4

Signal: 1

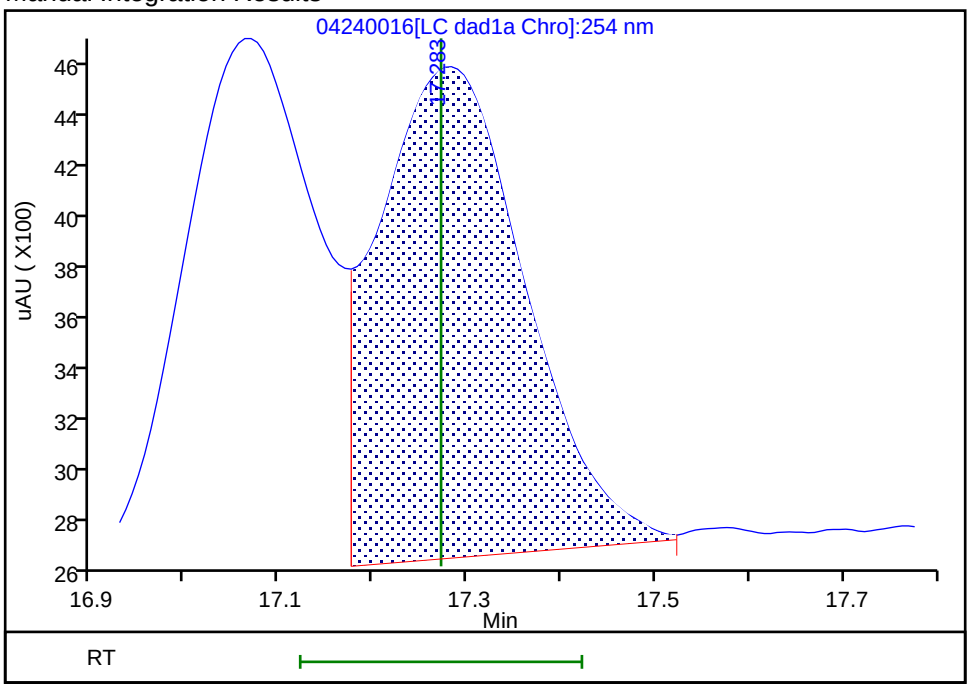
Processing Integration Results

RT: 17.28
Area: 21240
Amount: 0.046378
Amount Units: ug/ml



Manual Integration Results

RT: 17.28
Area: 19358
Amount: 0.045714
Amount Units: ug/ml



Reviewer: LV5D, 25-Apr-2024 13:25:16 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

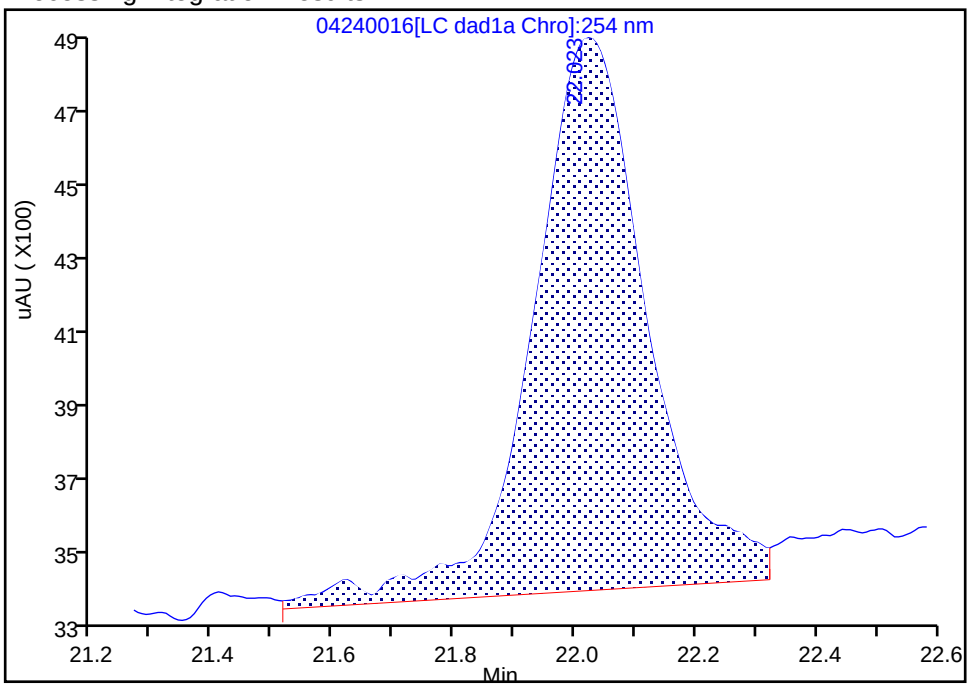
Data File:	\\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240016.d				
Injection Date:	25-Apr-2024 01:03:56	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT 3				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

22 Tetryl, CAS: 479-45-8

Signal: 1

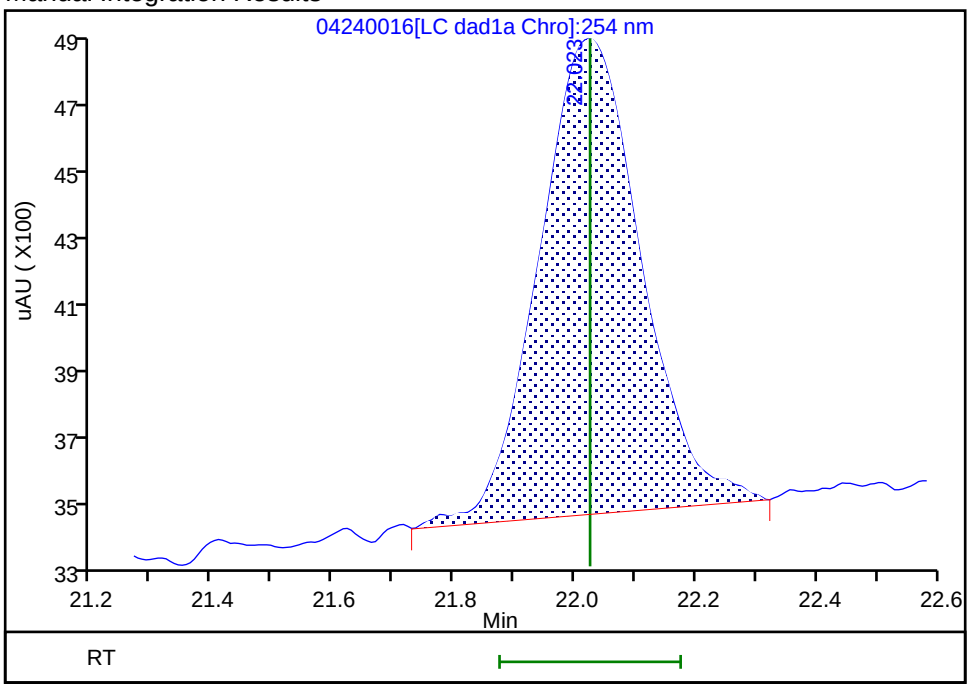
Processing Integration Results

RT: 22.02
Area: 18537
Amount: 0.055520
Amount Units: ug/ml



Manual Integration Results

RT: 22.02
Area: 15630
Amount: 0.048664
Amount Units: ug/ml



Reviewer: LV5D, 25-Apr-2024 13:25:28 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

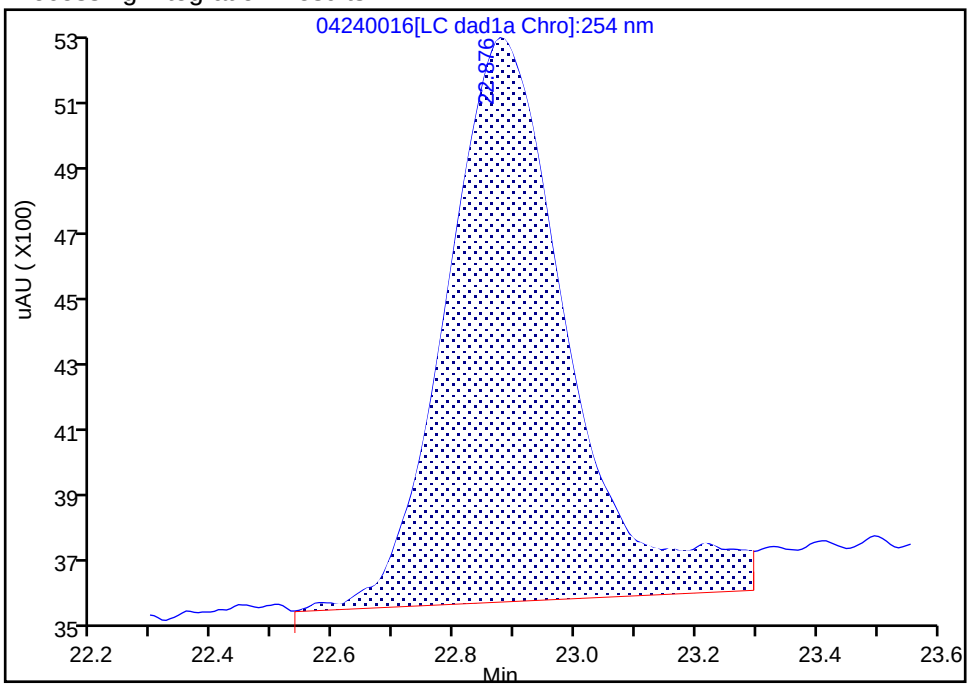
Data File:	\\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240016.d				
Injection Date:	25-Apr-2024 01:03:56	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT 3				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

23 2,4,6-Trinitrotoluene, CAS: 118-96-7

Signal: 1

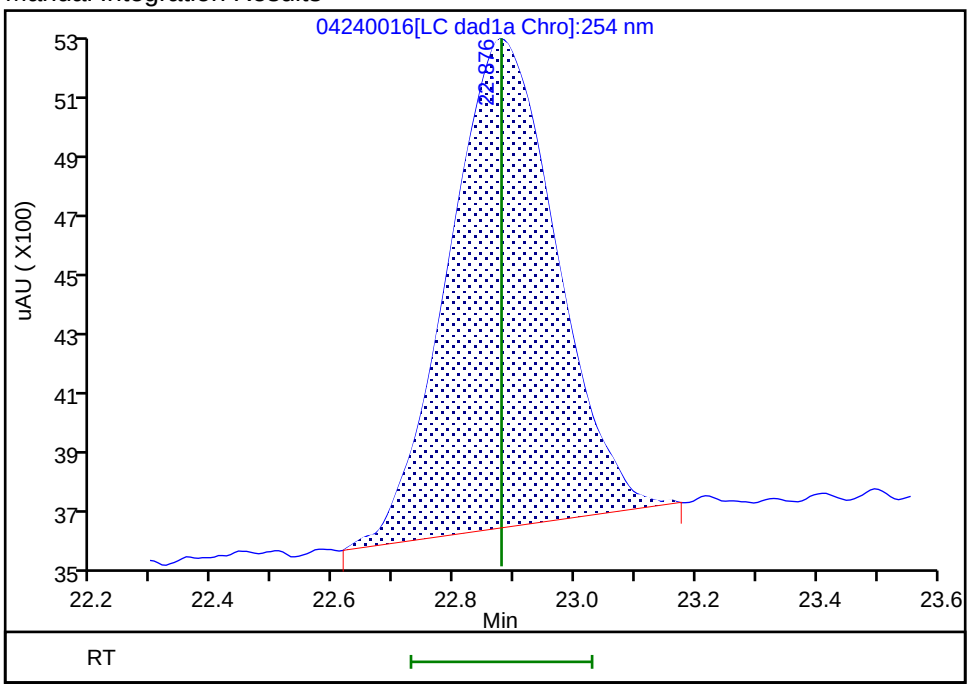
Processing Integration Results

RT: 22.88
Area: 23576
Amount: 0.051829
Amount Units: ug/ml



Manual Integration Results

RT: 22.88
Area: 20131
Amount: 0.050357
Amount Units: ug/ml



Reviewer: LV5D, 25-Apr-2024 13:25:31 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

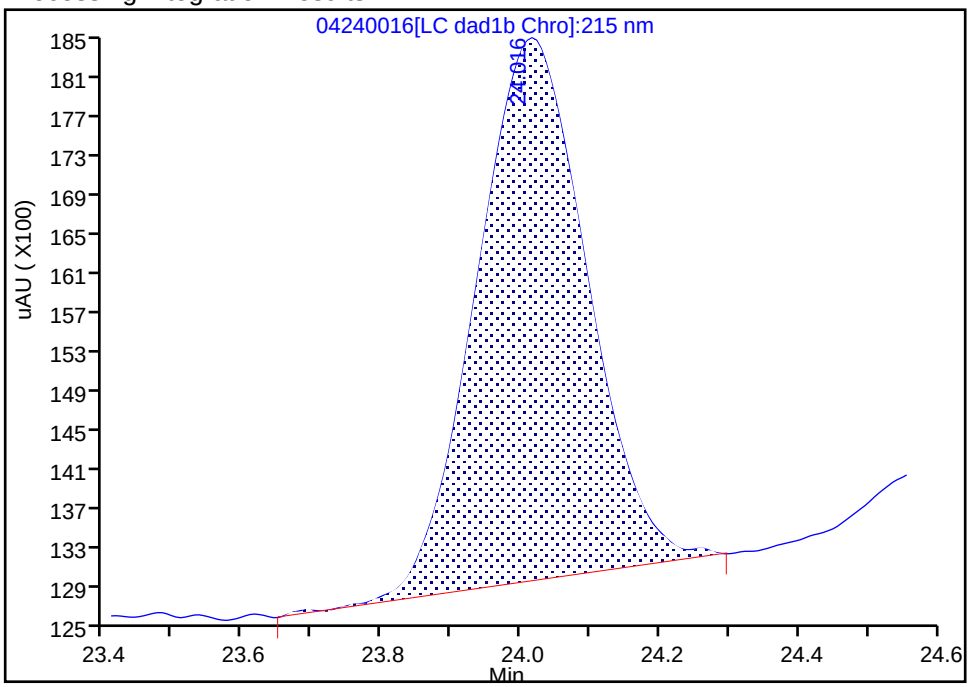
Data File:	\\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240016.d				
Injection Date:	25-Apr-2024 01:03:56	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT 3				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1B, 215 nm		

24 PETN, CAS: 78-11-5

Signal: 1

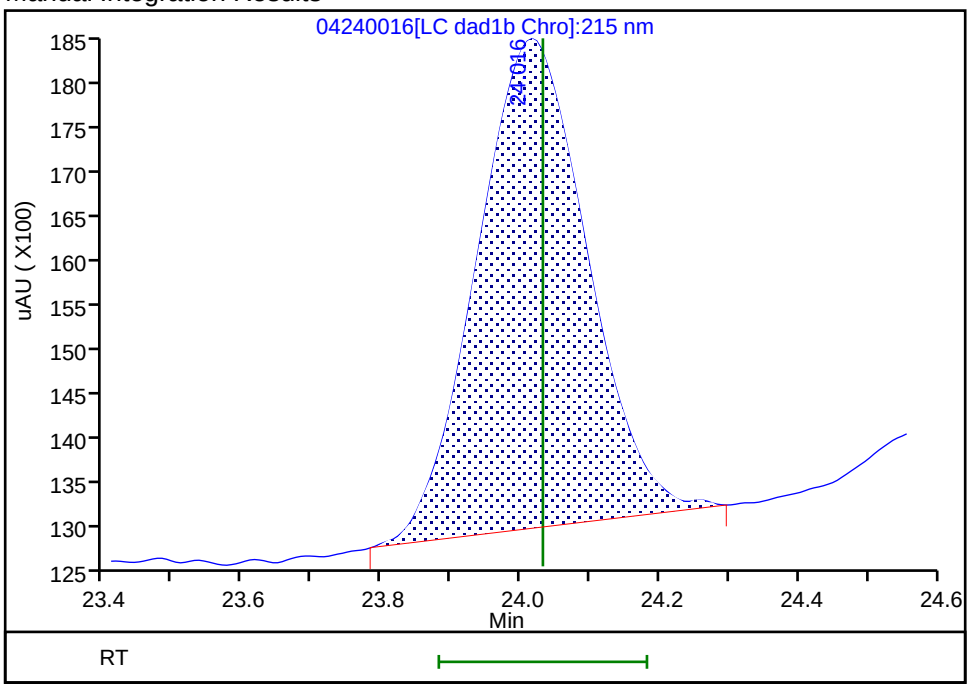
Processing Integration Results

RT: 24.02
Area: 61268
Amount: 0.511464
Amount Units: ug/ml



Manual Integration Results

RT: 24.02
Area: 60616
Amount: 0.505642
Amount Units: ug/ml



Reviewer: LV5D, 25-Apr-2024 13:39:12 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2_LUNA\20240424-132624.b\04240017.D
Lims ID: IC INT 2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 25-Apr-2024 01:39:50 ALS Bottle#: 17 Worklist Smp#: 17
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT 2
Operator ID: JZ/JG Instrument ID: CHHPLC_G2_LUNA
Sublist: chrom-G2_8330_Luna*sub16

Method: \\chromfs\Denver\ChromData\G2_LUNA\20240424-132624.b\G2_8330_Luna.m
Limit Group: GCSV - 8330
Last Update: 25-Apr-2024 14:30:17 Calib Date: 25-Apr-2024 07:39:21
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\G2_LUNA\20240424-132624.b\04240027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC DAD1A, 254 nm
Process Host: CTX1684

First Level Reviewer: LV5D Date: 25-Apr-2024 13:20:24

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
6 HMX	1	6.712	6.705	0.007	3578	0.0200	0.0206	M
5 2,4,6-Trinitrophenol	1	8.726	8.612	0.114	3302	0.0200	0.0218	M
8 RDX	1	8.952	8.938	0.014	4791	0.0200	0.0207	M
9 Nitrobenzene	1	11.459	11.425	0.034	8101	0.0200	0.0212	M
$ 10 1,2-Dinitrobenzene	1	12.392	12.345	0.047	5474	0.0200	0.0212	M
11 3,5-Dinitroaniline	1	14.232	14.185	0.047	9463	0.0200	0.0198	M
12 1,3-Dinitrobenzene	1	14.519	14.478	0.041	12318	0.0200	0.0209	M
13 Nitroglycerin	2	14.979	14.918	0.061	23877	0.2000	0.1998	M
14 o-Nitrotoluene	1	15.559	15.505	0.054	5024	0.0200	0.0205	M
15 p-Nitrotoluene	1	15.772	15.738	0.034	5278	0.0200	0.0200	M
16 4-Amino-2,6-dinitrotoluene	1	16.286	16.245	0.041	6474	0.0200	0.0213	M
17 m-Nitrotoluene	1	16.619	16.578	0.041	6685	0.0200	0.0207	M
18 2-Amino-4,6-dinitrotoluene	1	17.099	17.058	0.041	8733	0.0200	0.0215	M
19 1,3,5-Trinitrobenzene	1	17.306	17.272	0.034	9167	0.0200	0.0216	M
20 2,6-Dinitrotoluene	1	18.386	18.365	0.021	6113	0.0200	0.0220	M
21 2,4-Dinitrotoluene	1	18.846	18.818	0.028	12005	0.0200	0.0216	M
22 Tetryl	1	22.072	22.025	0.047	6268	0.0200	0.0187	M
23 2,4,6-Trinitrotoluene	1	22.926	22.878	0.048	7969	0.0200	0.0199	M
24 PETN	2	24.046	24.032	0.014	22594	0.2000	0.1979	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330IntermStk_00080 Amount Added: 2.00 Units: uL

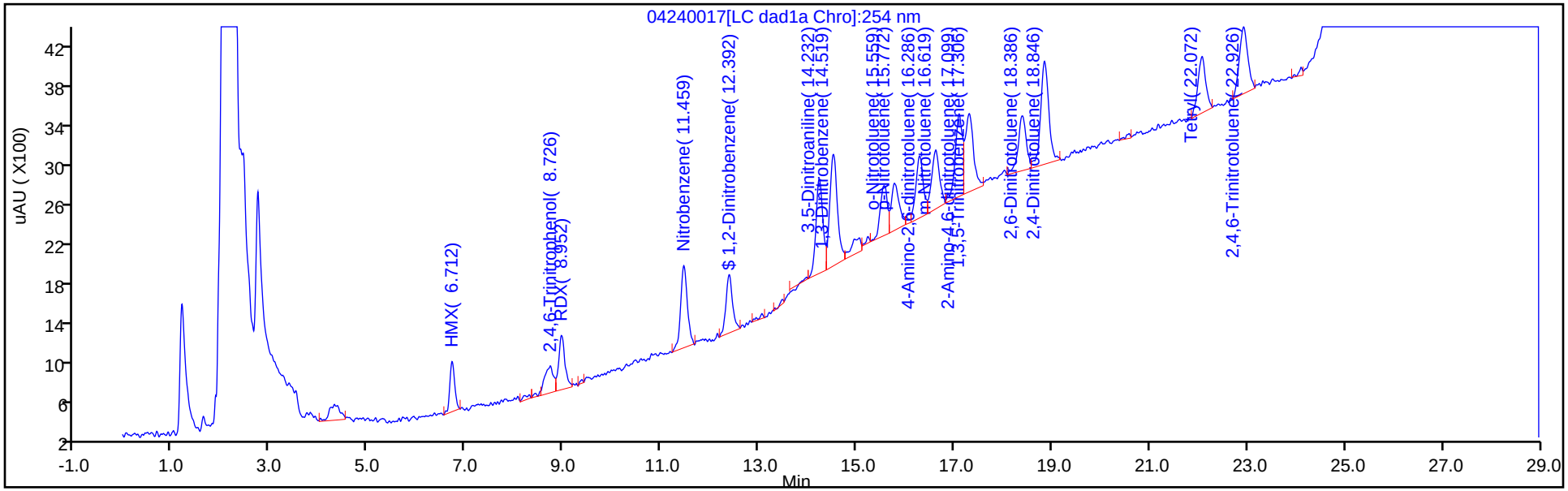
Report Date: 25-Apr-2024 14:30:17 Chrom Revision: 2.3 09-Apr-2024 17:43:44

Eurofins Denver

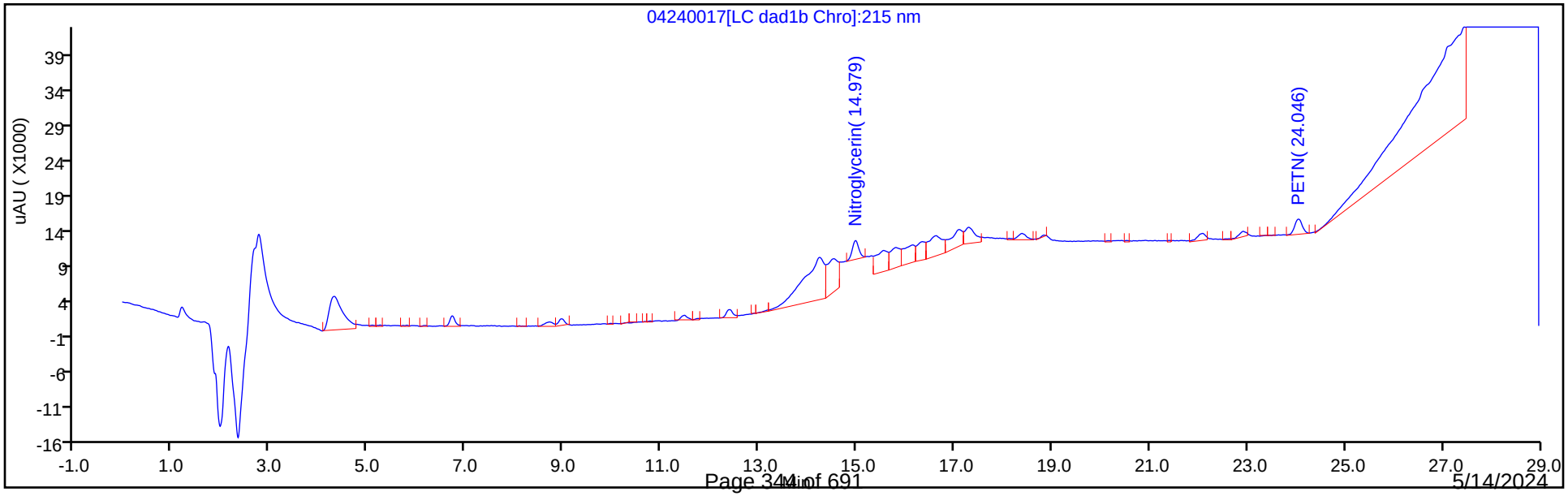
Data File: \\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240017.d

Injection Date:	25-Apr-2024 01:39:50	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	JZ/JG
Lims ID:	IC INT 2			Worklist Smp#:	17
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	17
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Manual Integration/User Assign Peak Report

Eurofins Denver

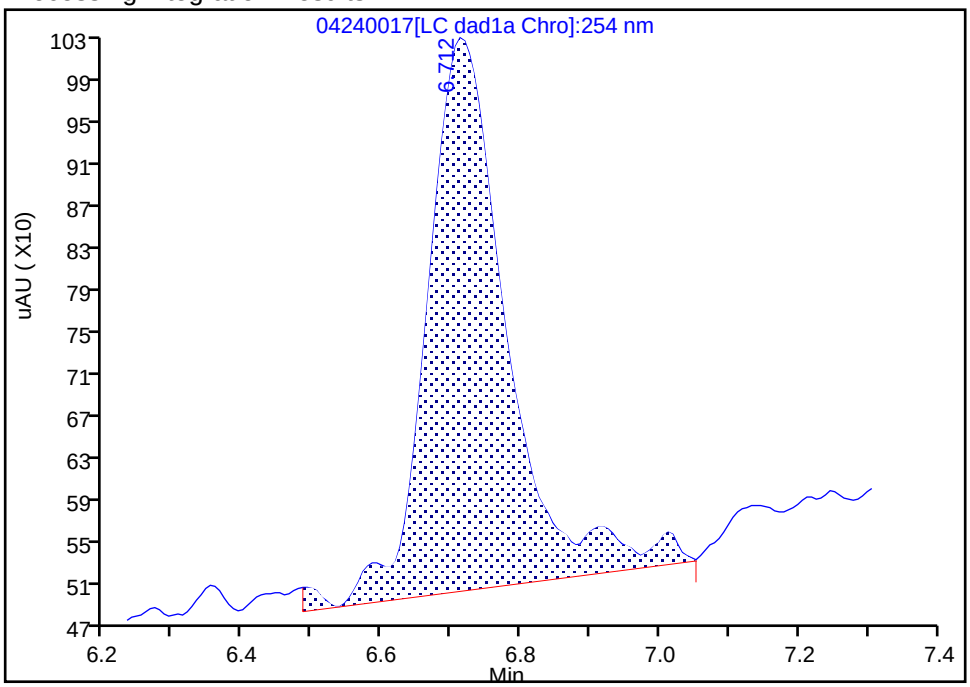
Data File:	\\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240017.d				
Injection Date:	25-Apr-2024 01:39:50	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT 2				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

6 HMX, CAS: 2691-41-0

Signal: 1

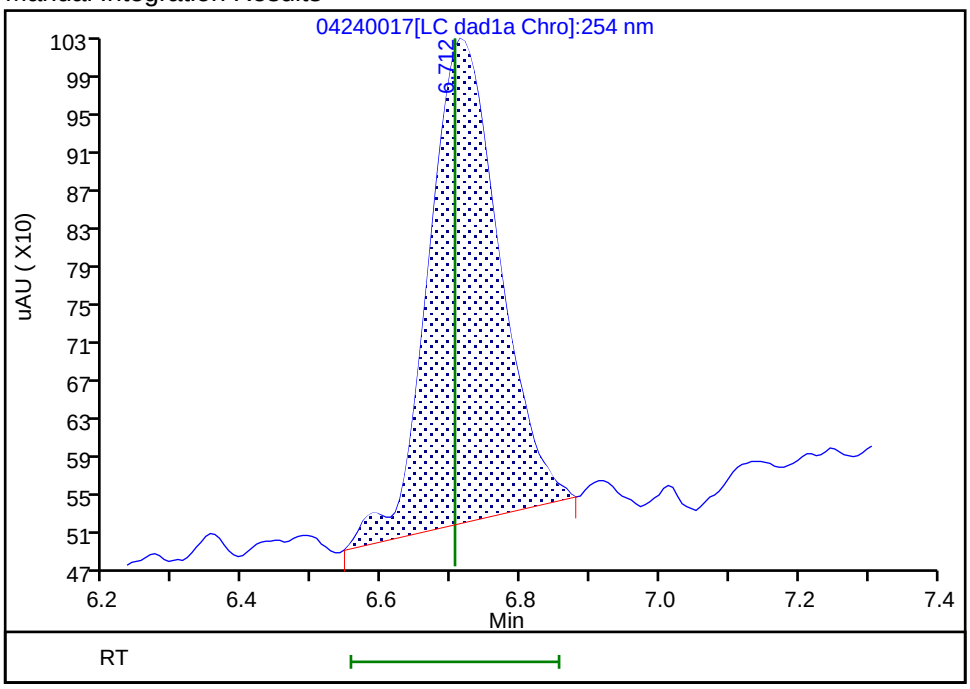
Processing Integration Results

RT: 6.71
Area: 4168
Amount: 0.022927
Amount Units: ug/ml



Manual Integration Results

RT: 6.71
Area: 3578
Amount: 0.020554
Amount Units: ug/ml



Reviewer: LV5D, 25-Apr-2024 13:31:57 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

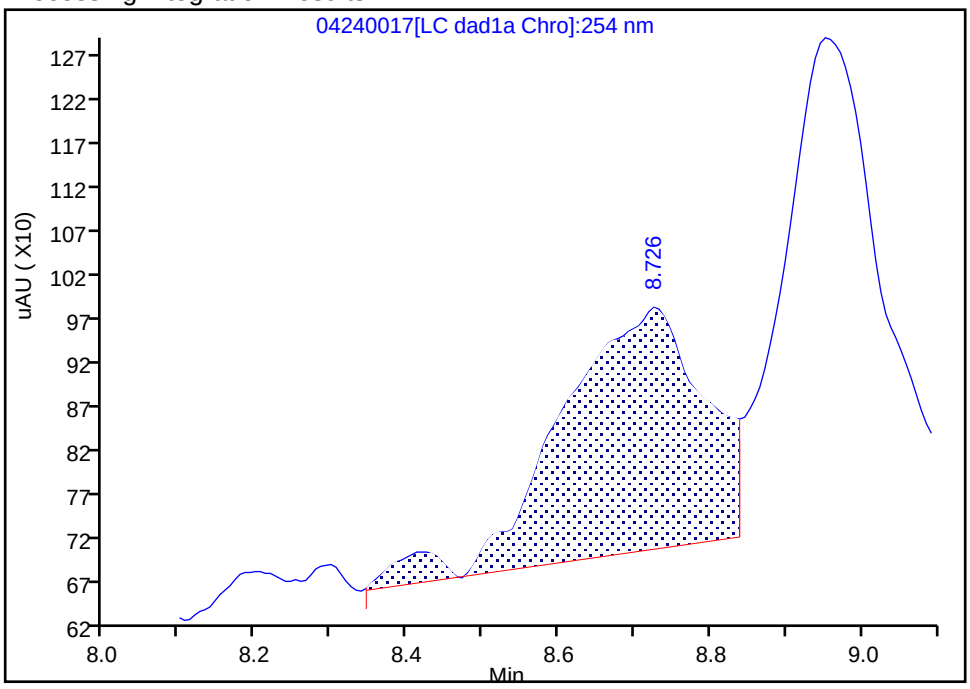
Data File:	\\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240017.d				
Injection Date:	25-Apr-2024 01:39:50	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT 2				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

5 2,4,6-Trinitrophenol, CAS: 88-89-1

Signal: 1

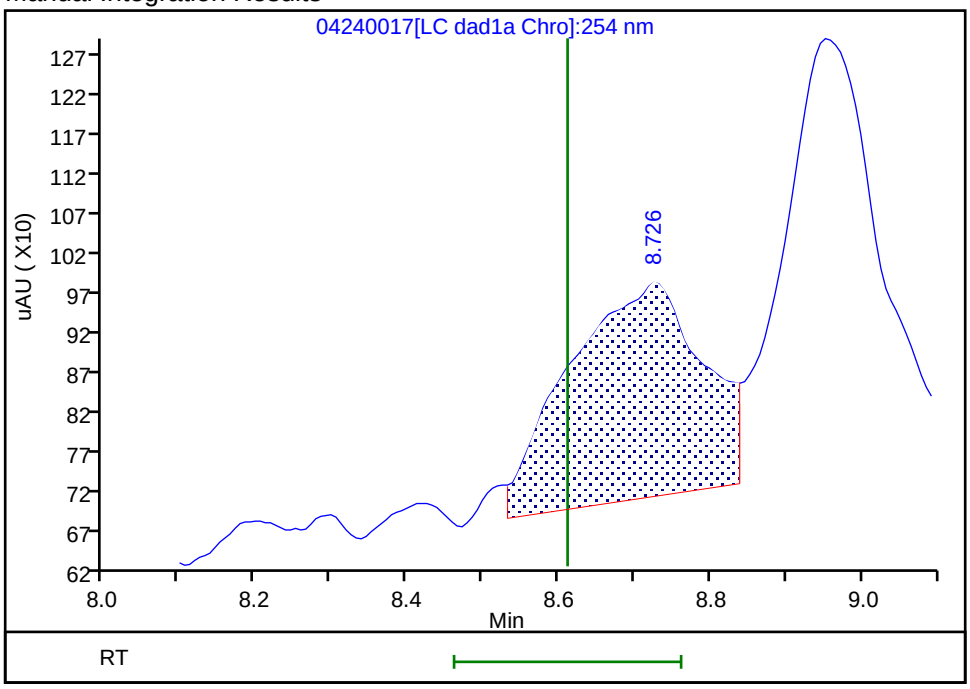
Processing Integration Results

RT: 8.73
Area: 3653
Amount: 0.023822
Amount Units: ug/ml



Manual Integration Results

RT: 8.73
Area: 3302
Amount: 0.021810
Amount Units: ug/ml



Reviewer: LV5D, 25-Apr-2024 13:32:48 -06:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

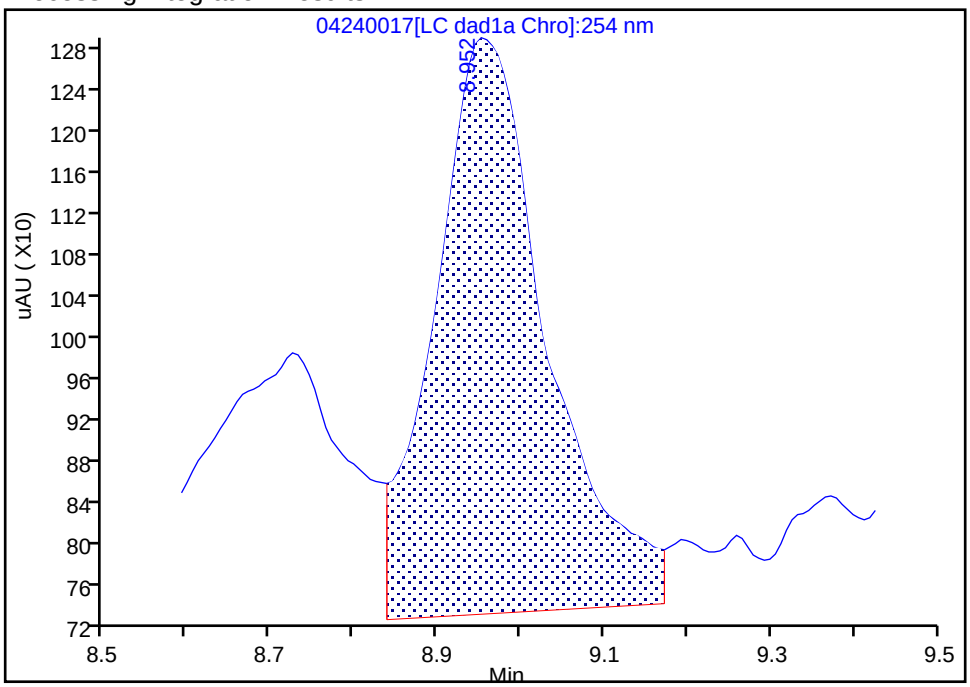
Data File:	\\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240017.d				
Injection Date:	25-Apr-2024 01:39:50	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT 2				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

8 RDX, CAS: 121-82-4

Signal: 1

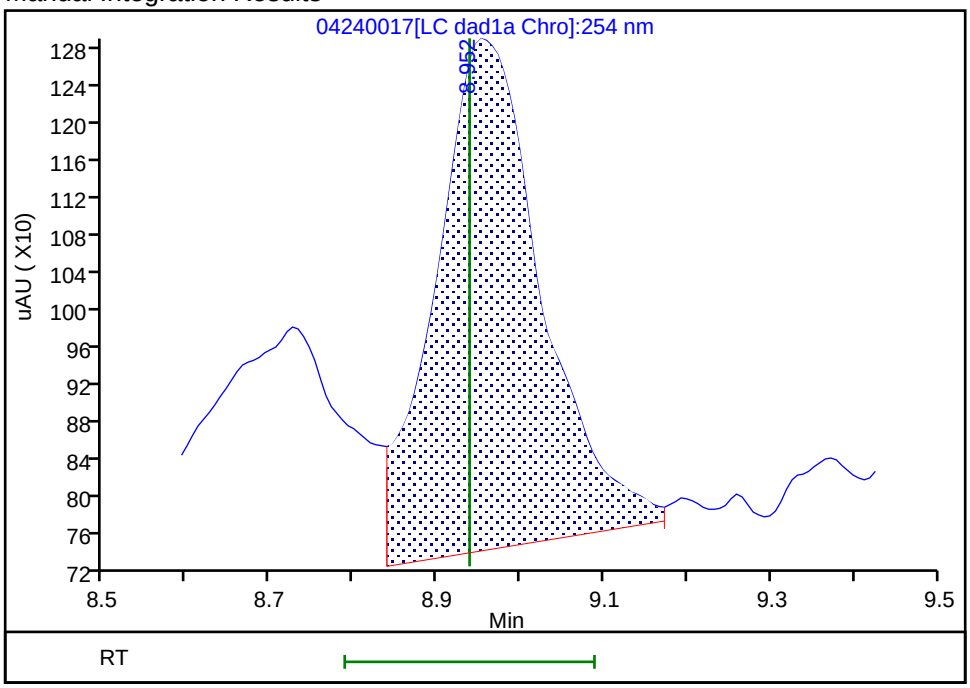
Processing Integration Results

RT: 8.95
Area: 5221
Amount: 0.023799
Amount Units: ug/ml



Manual Integration Results

RT: 8.95
Area: 4791
Amount: 0.020676
Amount Units: ug/ml



Reviewer: LV5D, 25-Apr-2024 13:32:43 -06:00:00 (UTC)
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

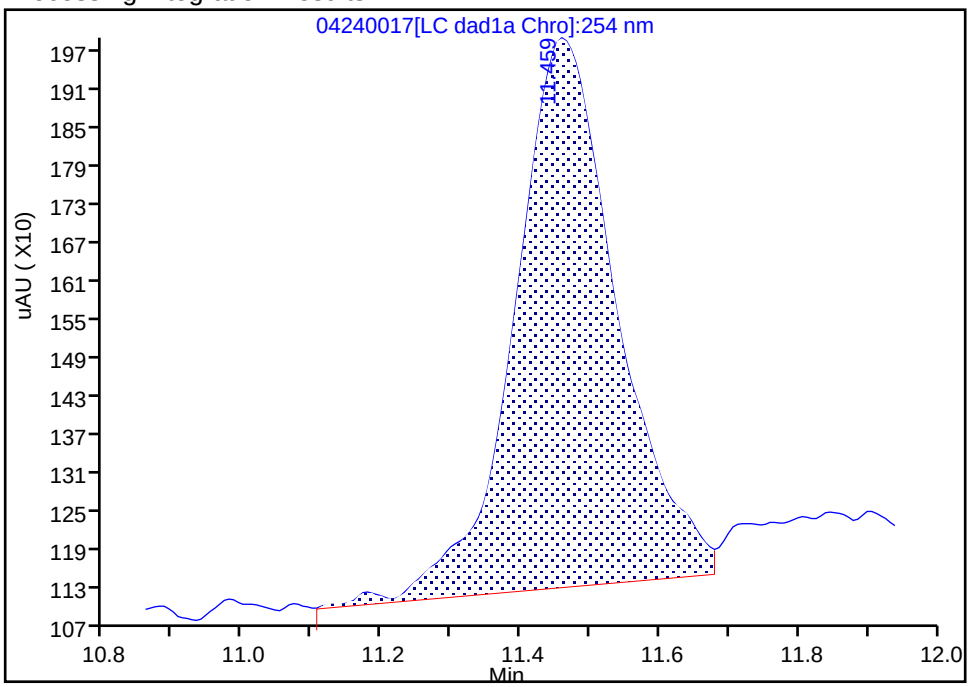
Data File:	\\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240017.d				
Injection Date:	25-Apr-2024 01:39:50	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT 2				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

9 Nitrobenzene, CAS: 98-95-3

Signal: 1

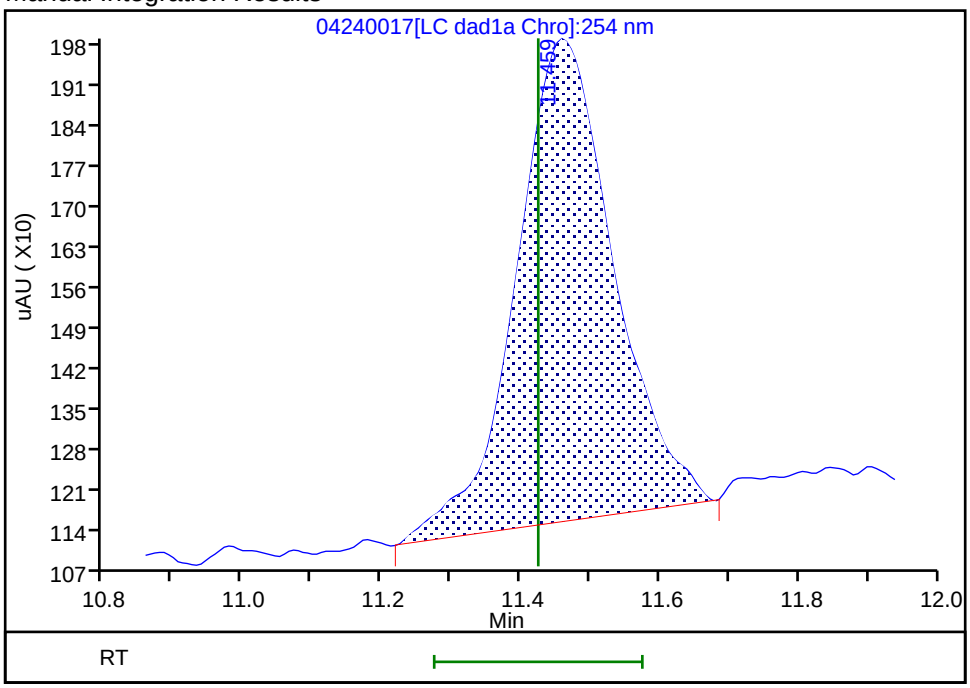
Processing Integration Results

RT: 11.46
Area: 8748
Amount: 0.022033
Amount Units: ug/ml



Manual Integration Results

RT: 11.46
Area: 8101
Amount: 0.021200
Amount Units: ug/ml



Reviewer: LV5D, 25-Apr-2024 13:26:13 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

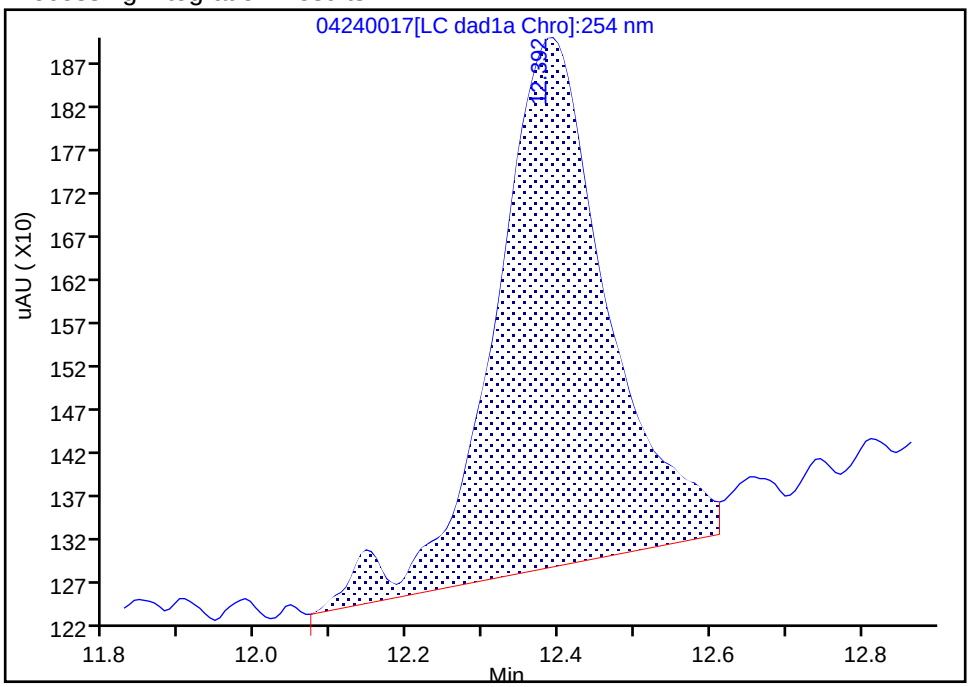
Data File:	\\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240017.d				
Injection Date:	25-Apr-2024 01:39:50	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT 2				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

$ 10 1,2-Dinitrobenzene, CAS: 528-29-0

Signal: 1

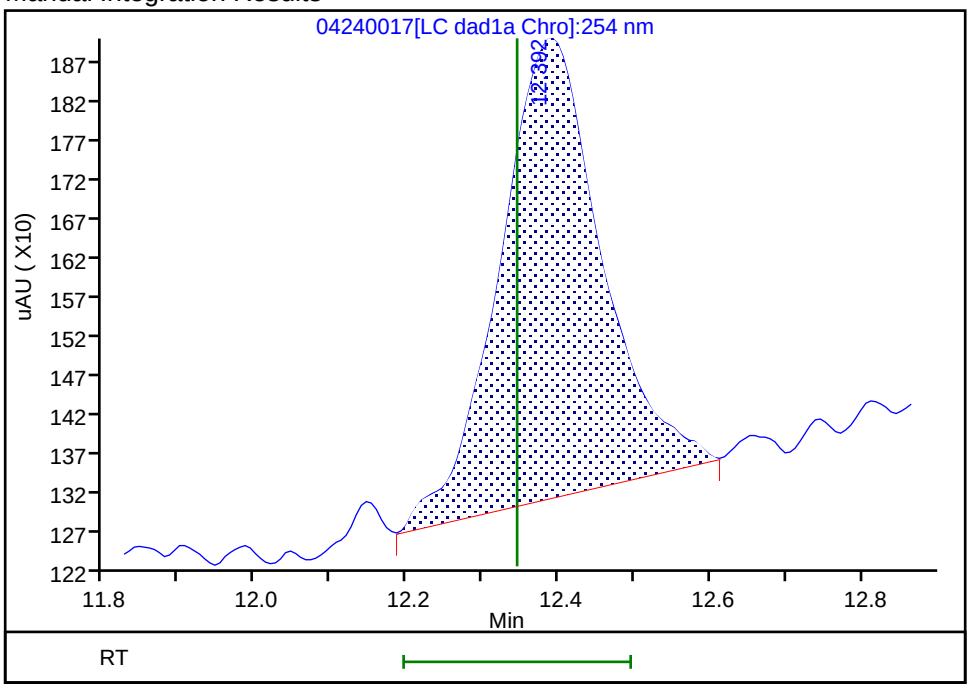
Processing Integration Results

RT: 12.39
Area: 6341
Amount: 0.022761
Amount Units: ug/ml



Manual Integration Results

RT: 12.39
Area: 5474
Amount: 0.021161
Amount Units: ug/ml



Reviewer: LV5D, 25-Apr-2024 13:26:19 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

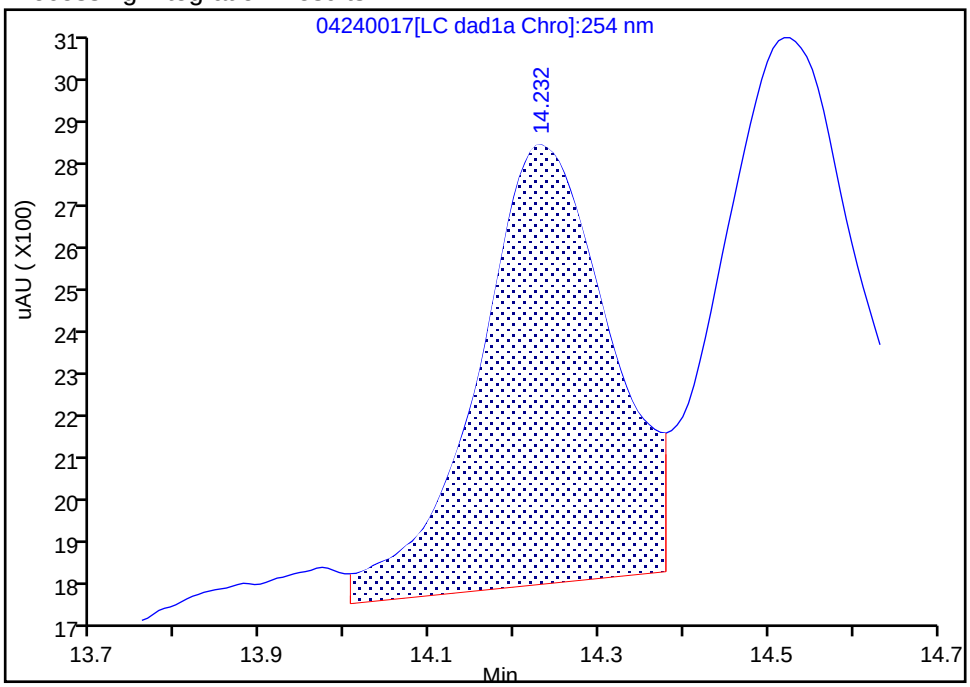
Data File:	\\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240017.d				
Injection Date:	25-Apr-2024 01:39:50	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT 2				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

11 3,5-Dinitroaniline, CAS: 618-87-1

Signal: 1

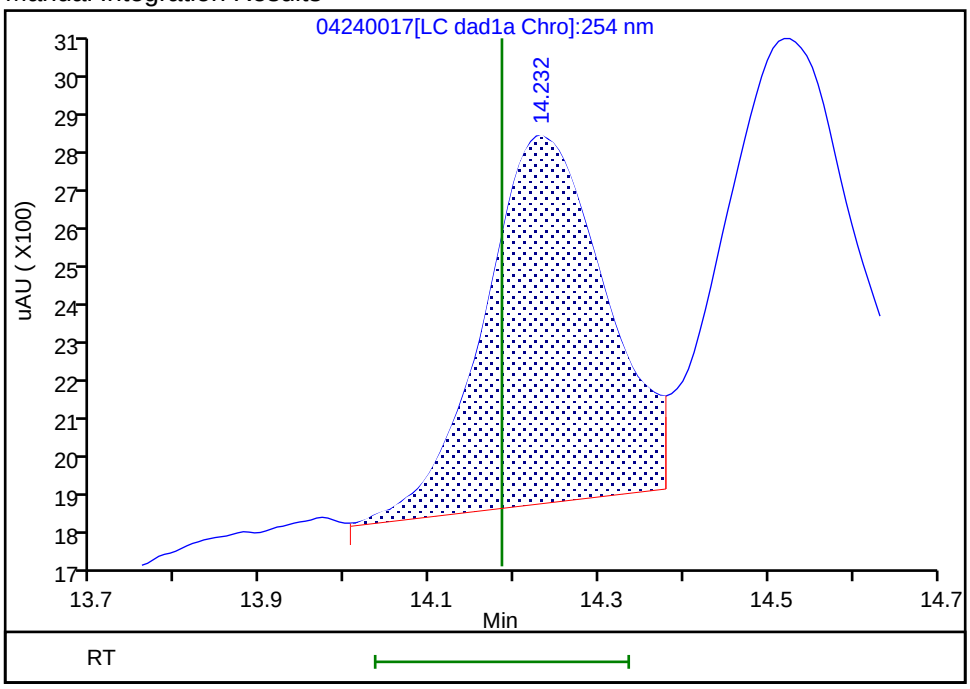
Processing Integration Results

RT: 14.23
Area: 11110
Amount: 0.020331
Amount Units: ug/ml



Manual Integration Results

RT: 14.23
Area: 9463
Amount: 0.019837
Amount Units: ug/ml



Reviewer: LV5D, 25-Apr-2024 13:26:29 -06:00:00 (UTC)
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

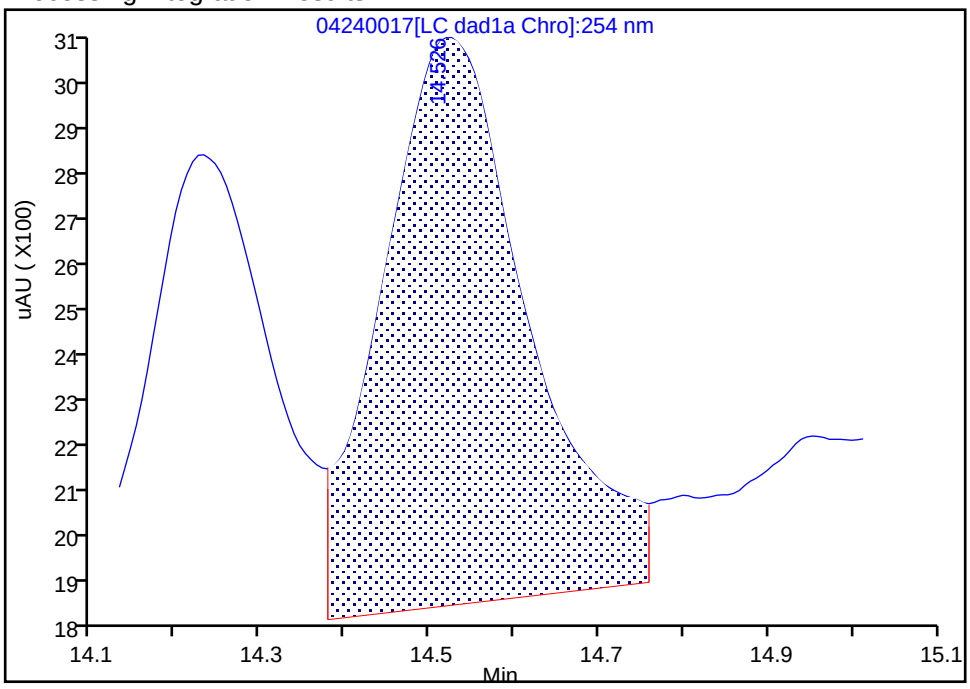
Data File:	\\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240017.d				
Injection Date:	25-Apr-2024 01:39:50	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT 2				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

12 1,3-Dinitrobenzene, CAS: 99-65-0

Signal: 1

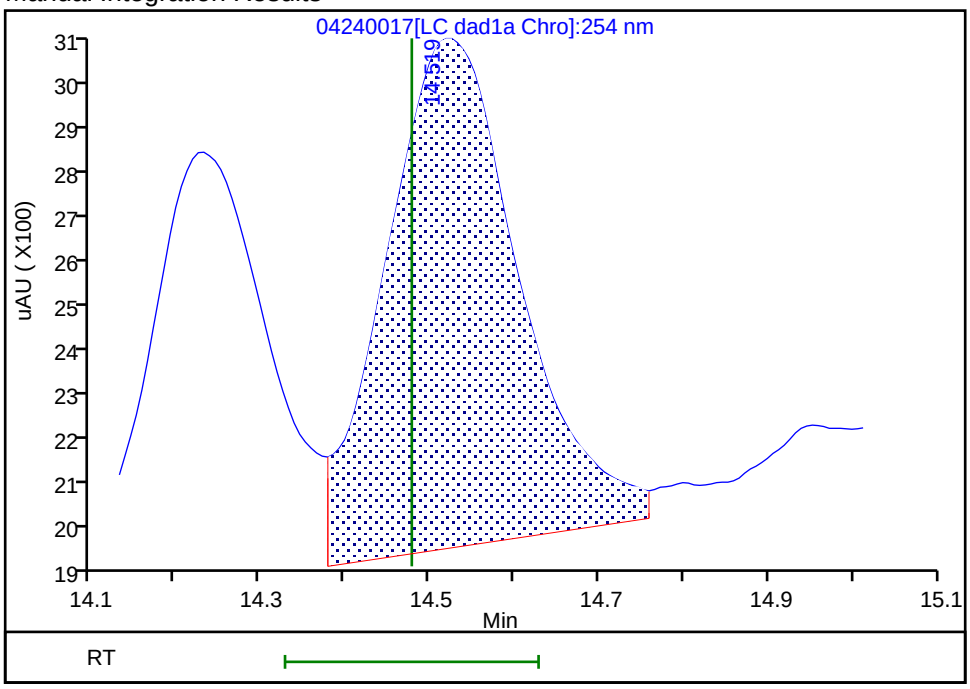
Processing Integration Results

RT: 14.53
Area: 14484
Amount: 0.023237
Amount Units: ug/ml



Manual Integration Results

RT: 14.52
Area: 12318
Amount: 0.020899
Amount Units: ug/ml



Reviewer: LV5D, 25-Apr-2024 13:26:29 -06:00:00 (UTC)
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

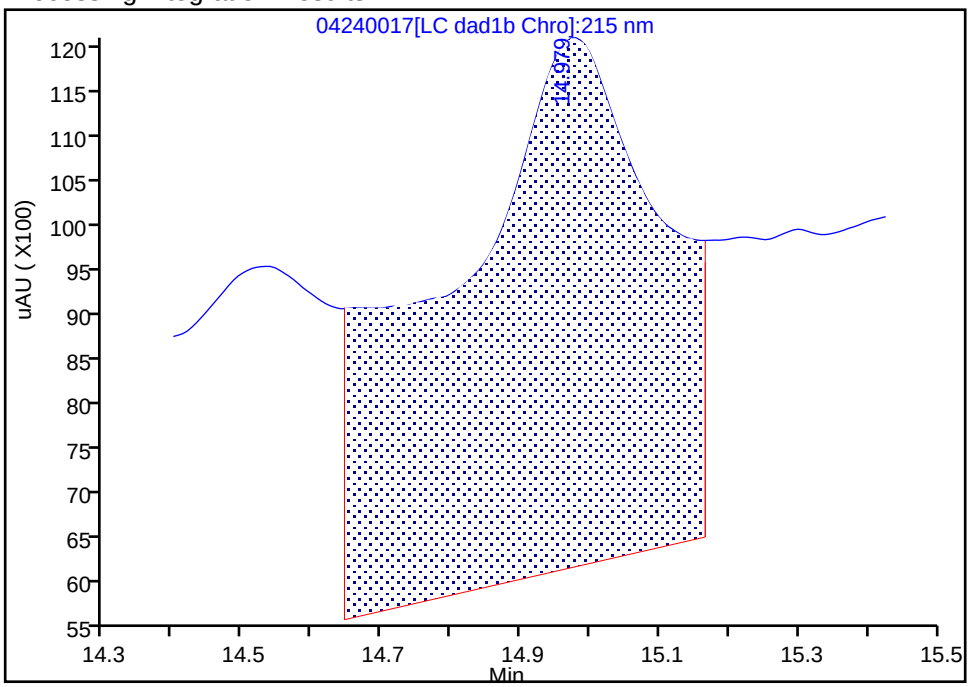
Data File:	\\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240017.d				
Injection Date:	25-Apr-2024 01:39:50	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT 2				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1B, 215 nm		

13 Nitroglycerin, CAS: 55-63-0

Signal: 1

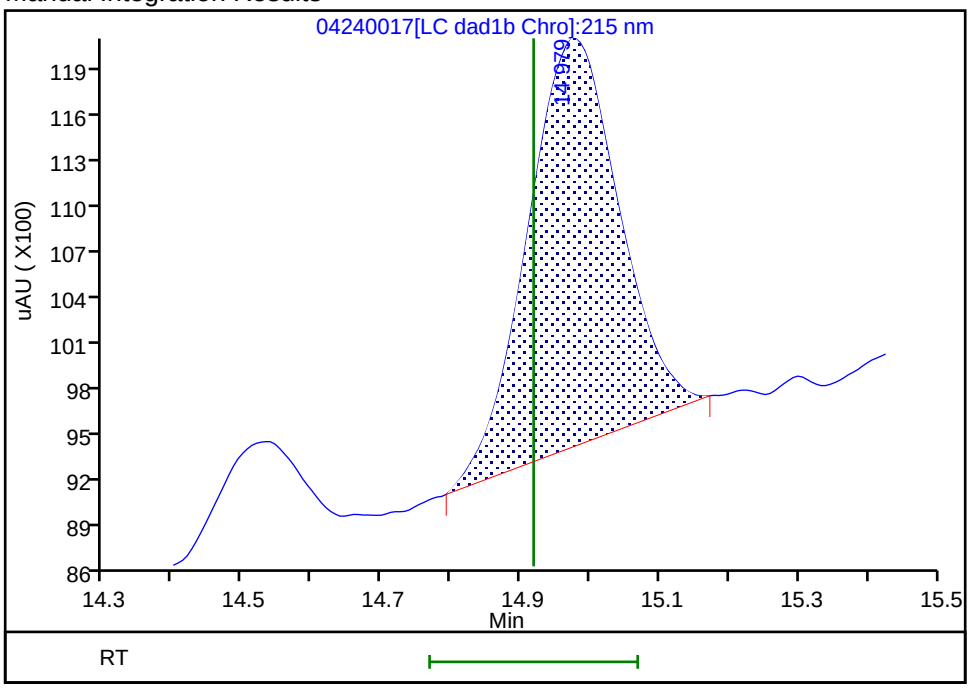
Processing Integration Results

RT: 14.98
Area: 128754
Amount: 0.566536
Amount Units: ug/ml



Manual Integration Results

RT: 14.98
Area: 23877
Amount: 0.199800
Amount Units: ug/ml



Reviewer: LV5D, 25-Apr-2024 13:20:23 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

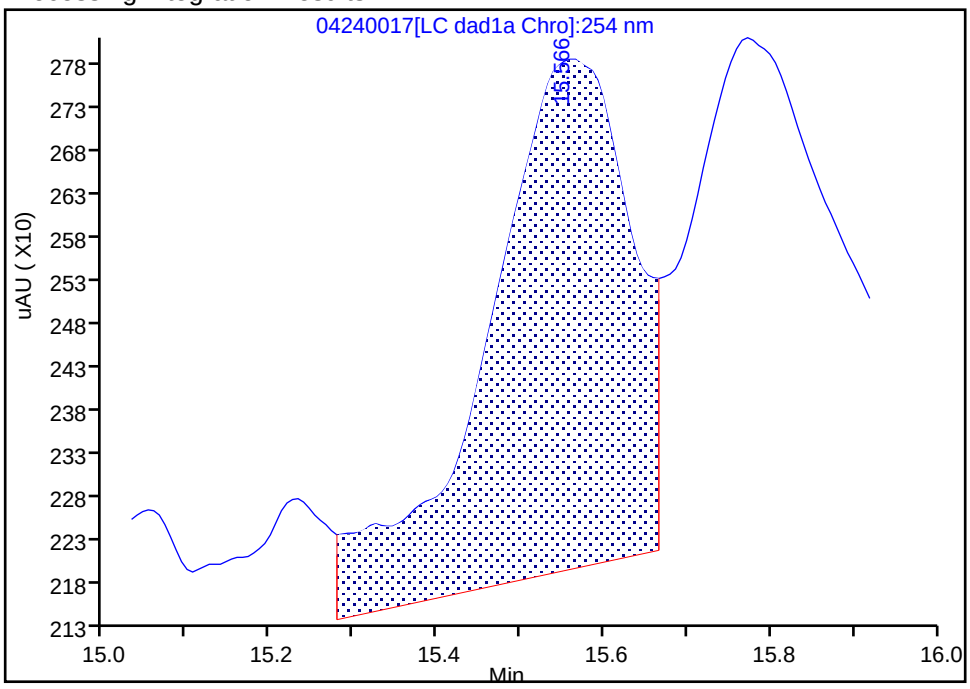
Data File:	\\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240017.d				
Injection Date:	25-Apr-2024 01:39:50	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT 2				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

14 o-Nitrotoluene, CAS: 88-72-2

Signal: 1

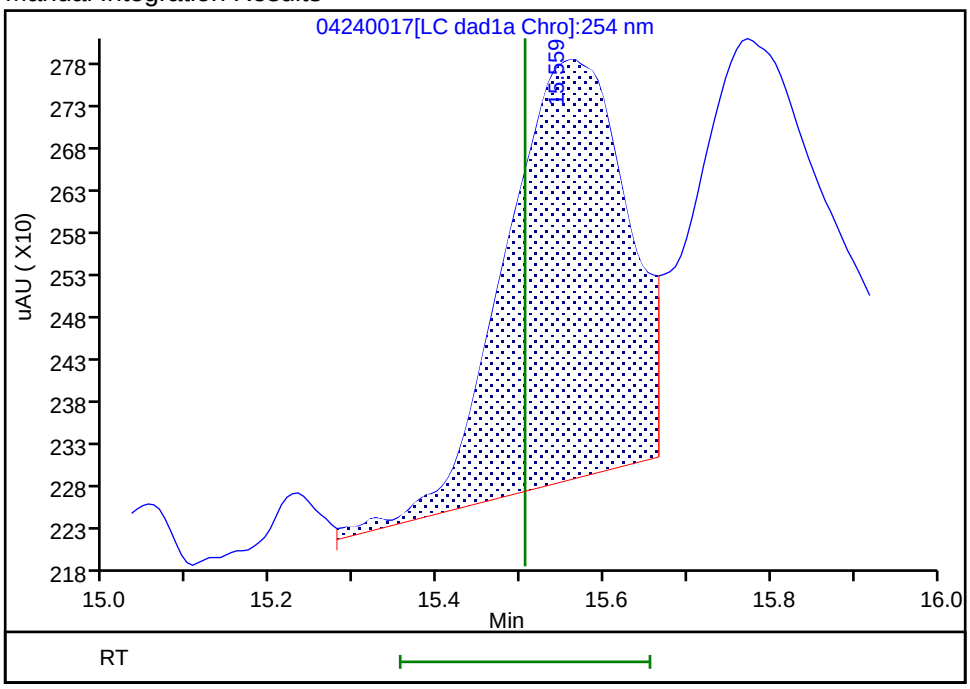
Processing Integration Results

RT: 15.57
Area: 7194
Amount: 0.026616
Amount Units: ug/ml



Manual Integration Results

RT: 15.56
Area: 5024
Amount: 0.020540
Amount Units: ug/ml



Reviewer: LV5D, 25-Apr-2024 13:35:41 -06:00:00 (UTC)
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

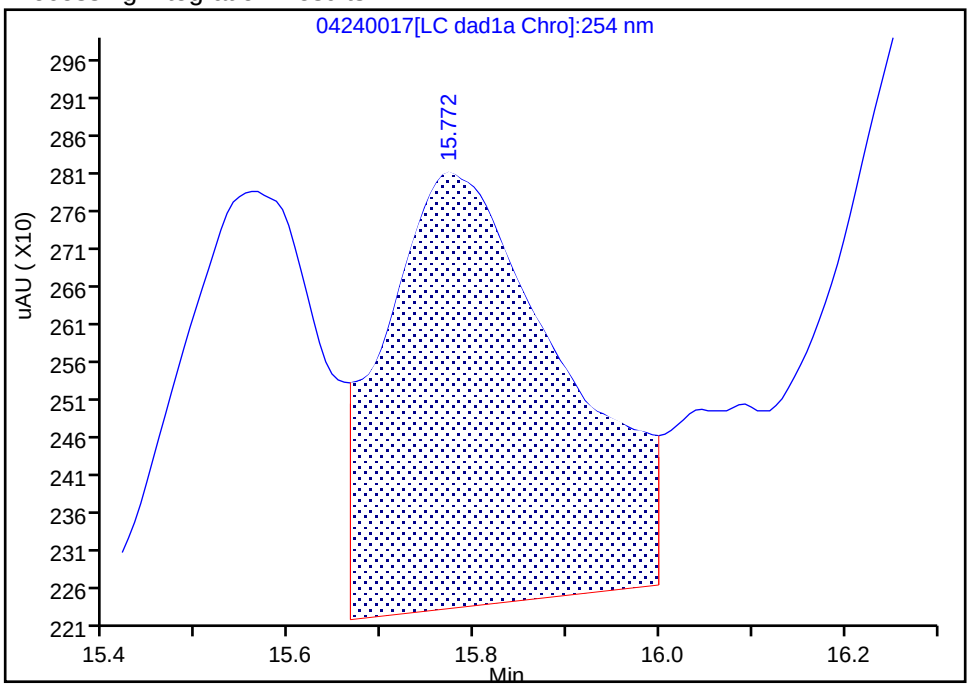
Data File:	\\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240017.d				
Injection Date:	25-Apr-2024 01:39:50	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT 2				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

15 p-Nitrotoluene, CAS: 99-99-0

Signal: 1

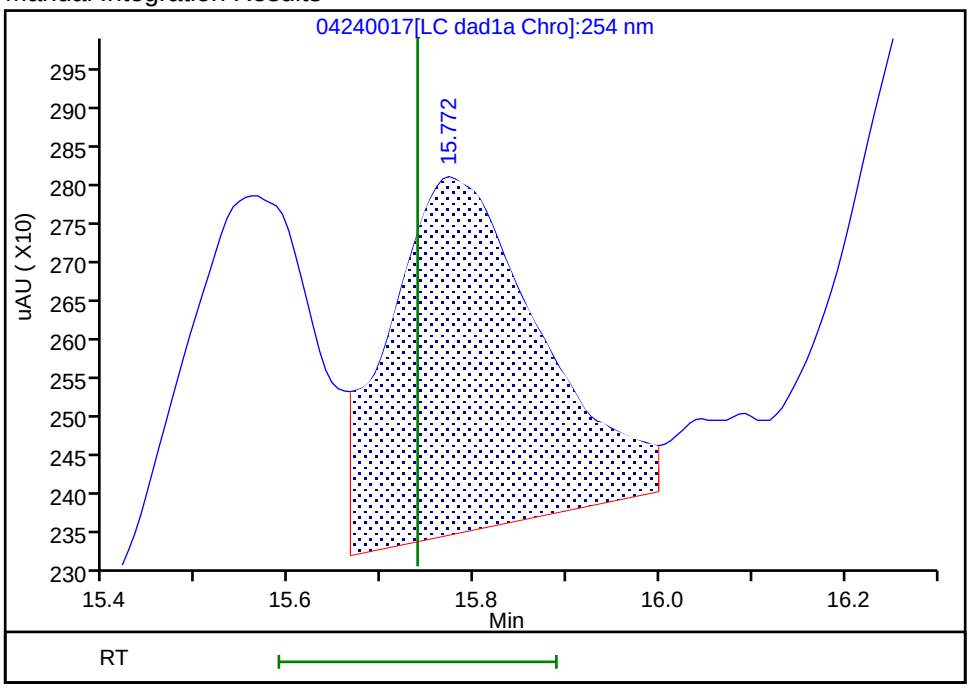
Processing Integration Results

RT: 15.77
Area: 7658
Amount: 0.027712
Amount Units: ug/ml



Manual Integration Results

RT: 15.77
Area: 5278
Amount: 0.020027
Amount Units: ug/ml



Reviewer: LV5D, 25-Apr-2024 13:35:41 -06:00:00 (UTC)
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

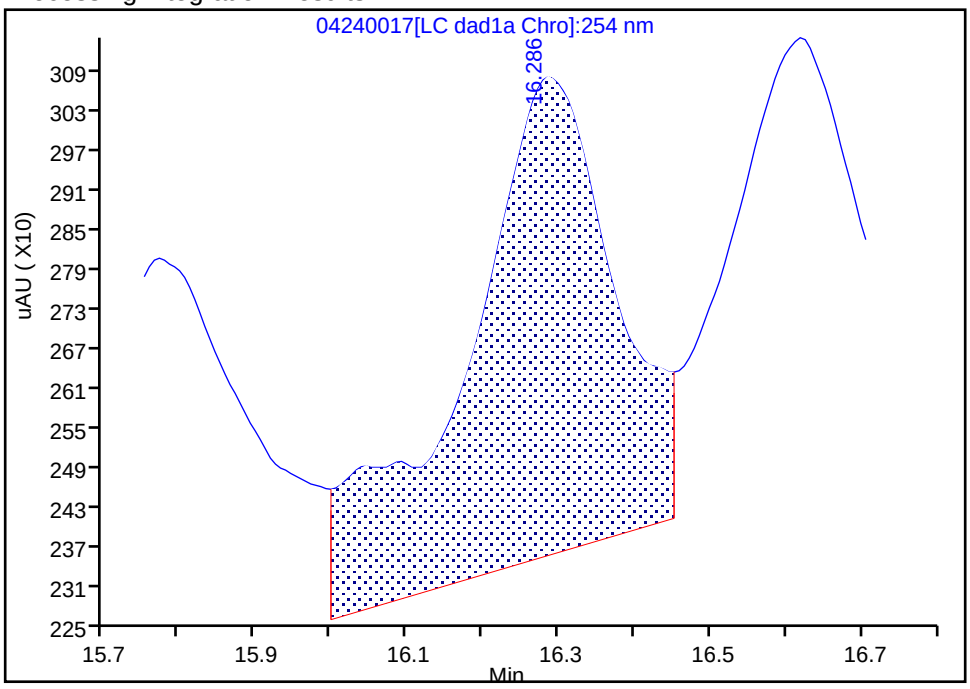
Data File:	\\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240017.d				
Injection Date:	25-Apr-2024 01:39:50	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT 2				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

16 4-Amino-2,6-dinitrotoluene, CAS: 19406-51-0

Signal: 1

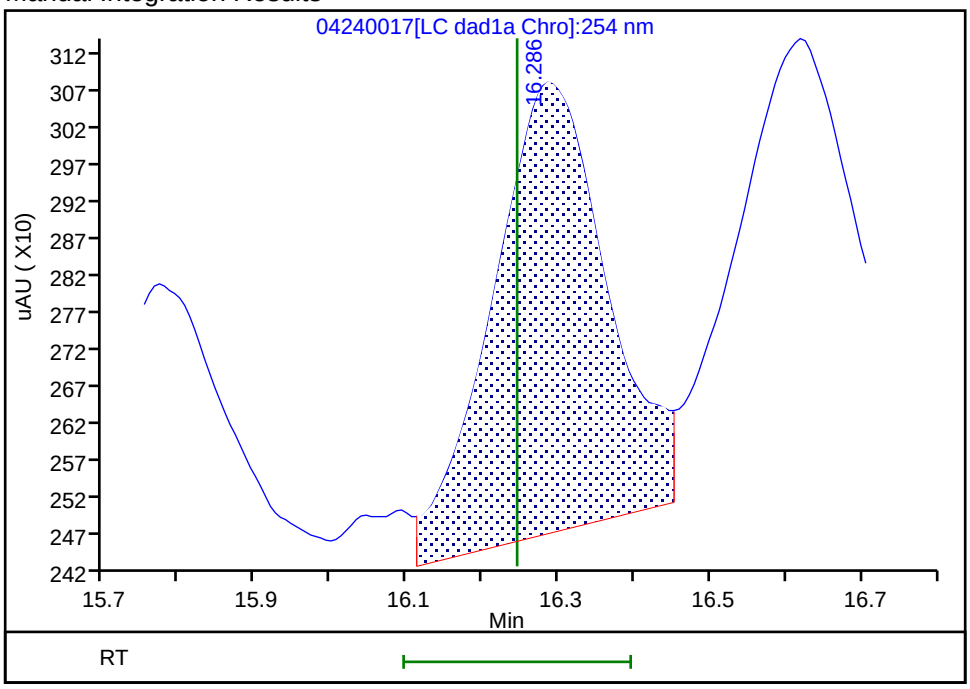
Processing Integration Results

RT: 16.29
Area: 10165
Amount: 0.027414
Amount Units: ug/ml



Manual Integration Results

RT: 16.29
Area: 6474
Amount: 0.021266
Amount Units: ug/ml



Reviewer: LV5D, 25-Apr-2024 13:35:41 -06:00:00 (UTC)
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

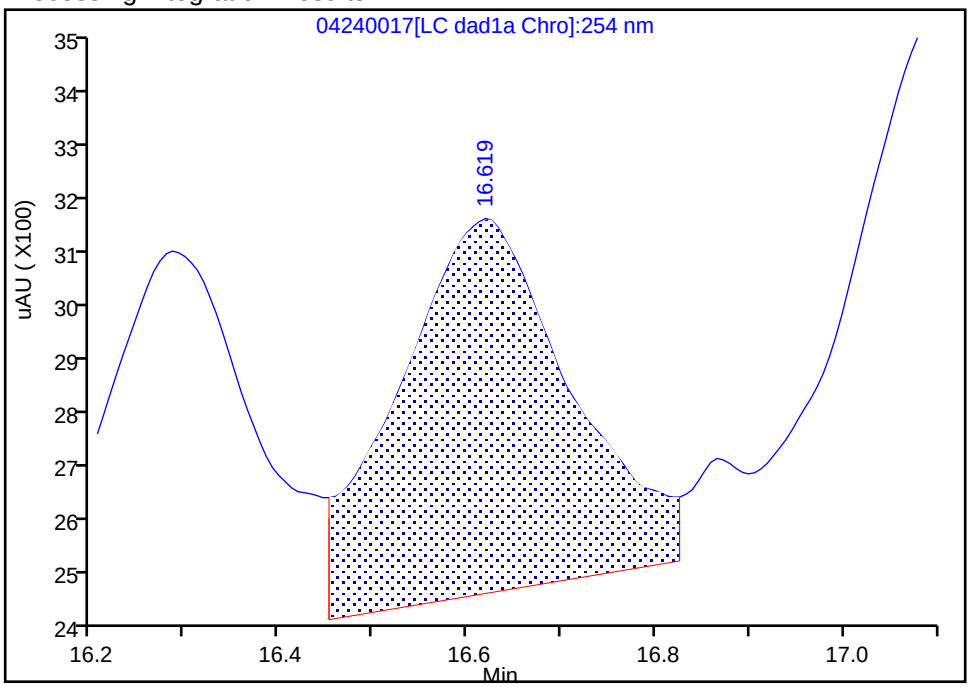
Data File:	\\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240017.d				
Injection Date:	25-Apr-2024 01:39:50	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT 2				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

17 m-Nitrotoluene, CAS: 99-08-1

Signal: 1

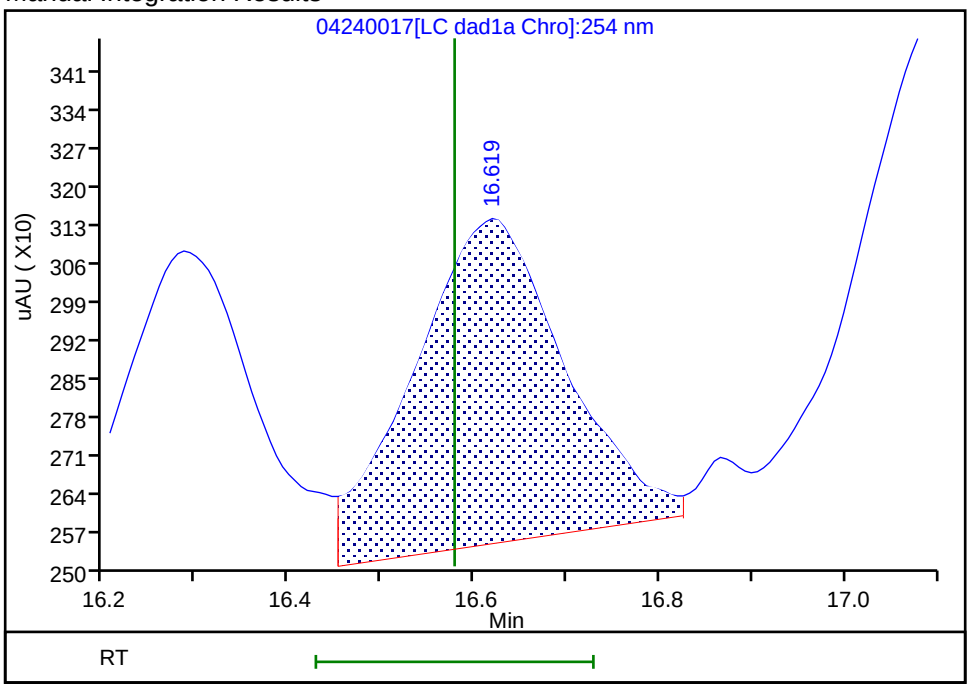
Processing Integration Results

RT: 16.62
Area: 8679
Amount: 0.023268
Amount Units: ug/ml



Manual Integration Results

RT: 16.62
Area: 6685
Amount: 0.020741
Amount Units: ug/ml



Reviewer: LV5D, 25-Apr-2024 13:35:41 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

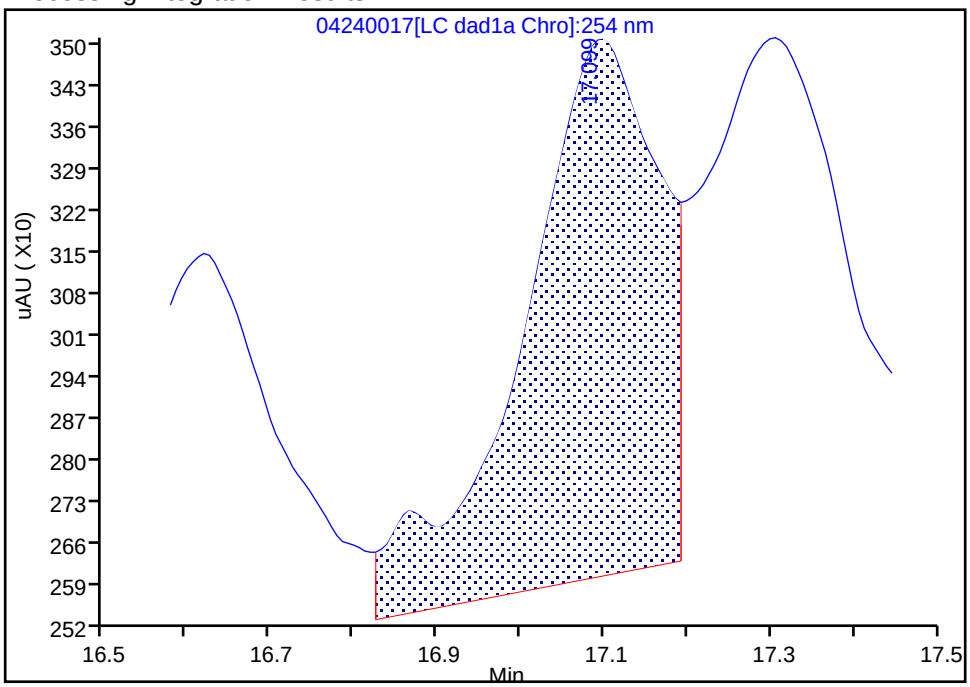
Data File: \\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240017.d
Injection Date: 25-Apr-2024 01:39:50 Instrument ID: CHHPLC_G2_LUNA
Lims ID: IC INT 2
Client ID:
Operator ID: JZ/JG ALS Bottle#: 17 Worklist Smp#: 17
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC DAD1A, 254 nm

18 2-Amino-4,6-dinitrotoluene, CAS: 35572-78-2

Signal: 1

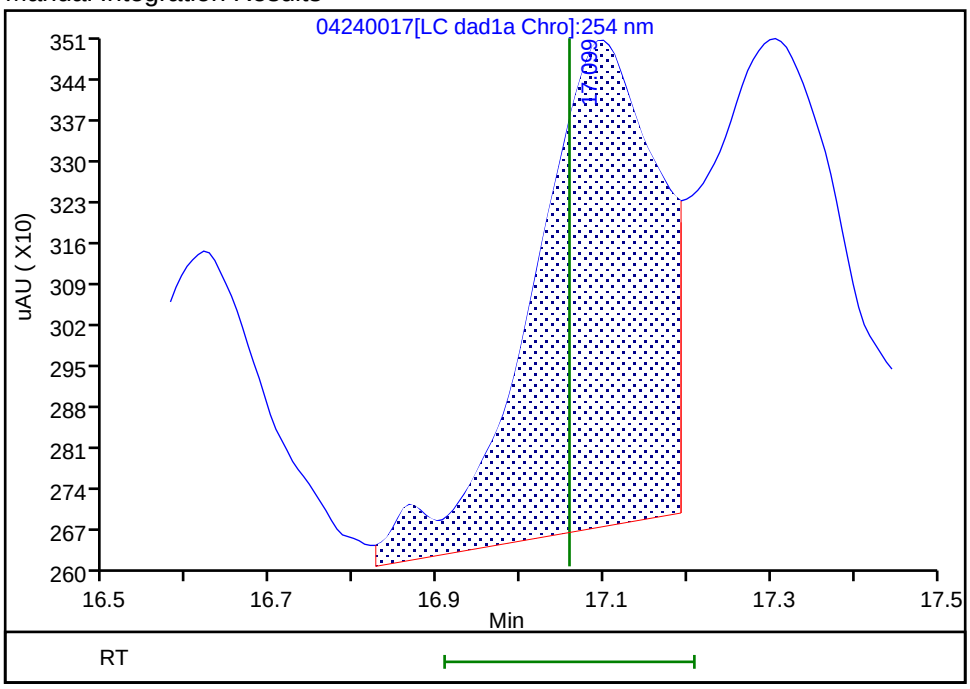
Processing Integration Results

RT: 17.10
Area: 10405
Amount: 0.019938
Amount Units: ug/ml



Manual Integration Results

RT: 17.10
Area: 8733
Amount: 0.021533
Amount Units: ug/ml



Reviewer: LV5D, 25-Apr-2024 13:35:41 -06:00:00 (UTC)
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

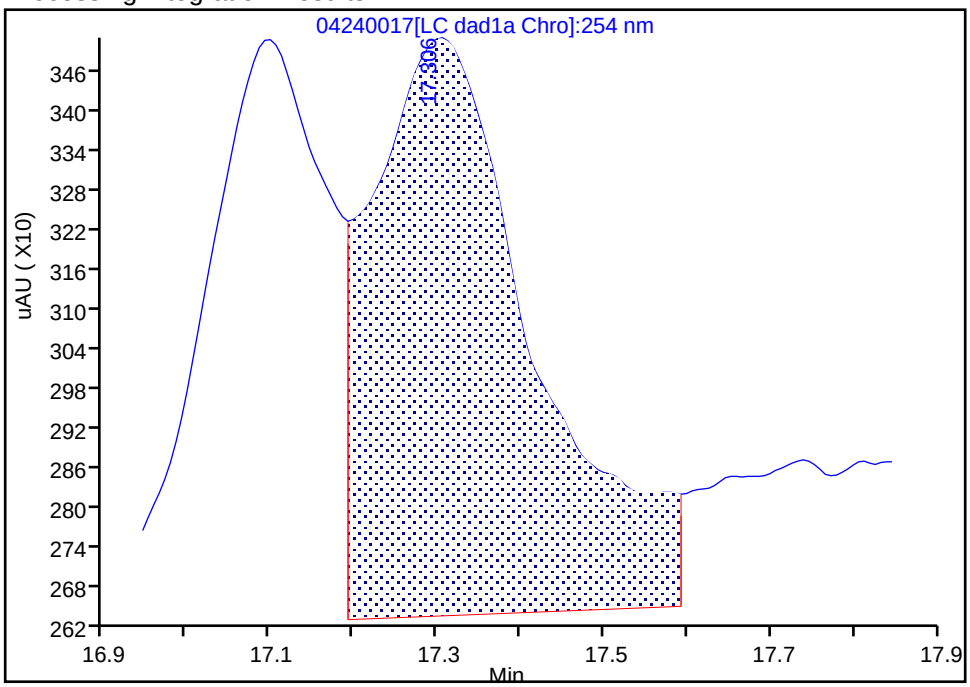
Data File:	\\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240017.d				
Injection Date:	25-Apr-2024 01:39:50	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT 2				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

19 1,3,5-Trinitrobenzene, CAS: 99-35-4

Signal: 1

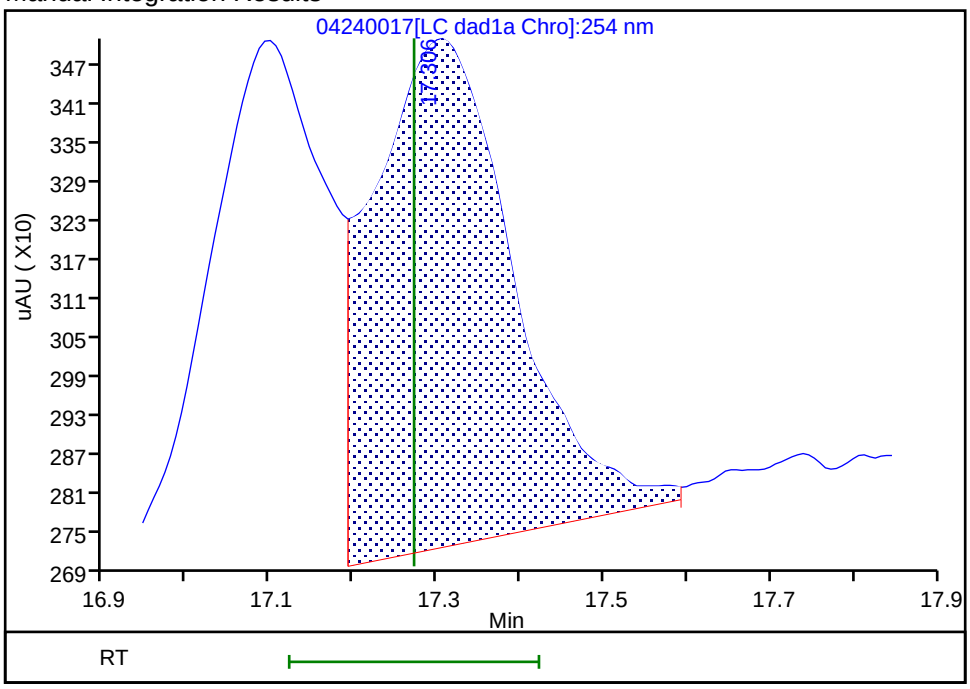
Processing Integration Results

RT: 17.31
Area: 11807
Amount: 0.023018
Amount Units: ug/ml



Manual Integration Results

RT: 17.31
Area: 9167
Amount: 0.021648
Amount Units: ug/ml



Reviewer: LV5D, 25-Apr-2024 13:35:41 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

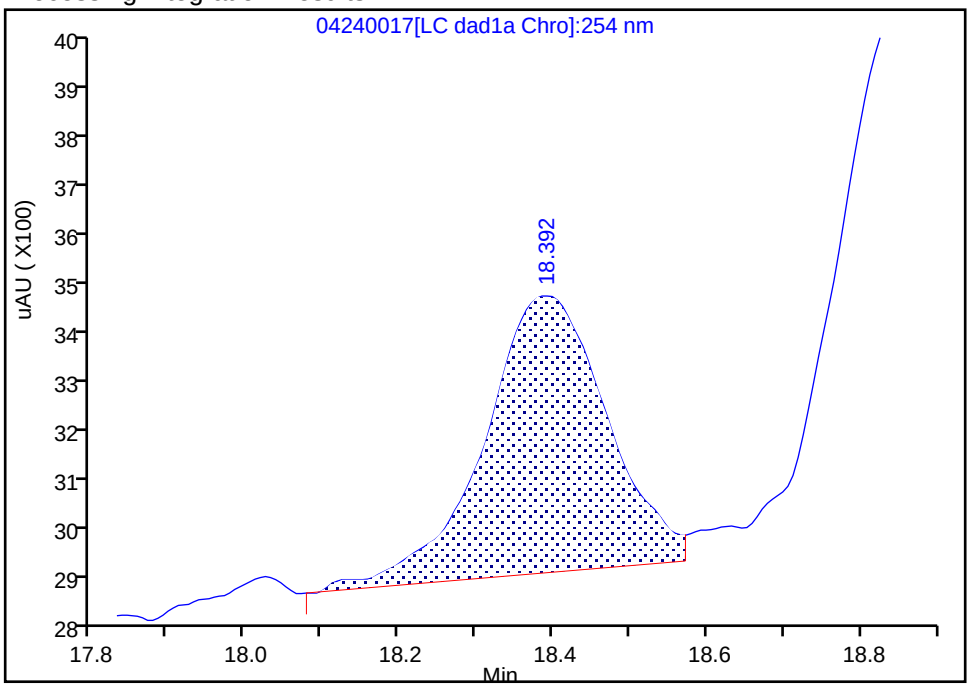
Data File:	\\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240017.d				
Injection Date:	25-Apr-2024 01:39:50	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT 2				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

20 2,6-Dinitrotoluene, CAS: 606-20-2

Signal: 1

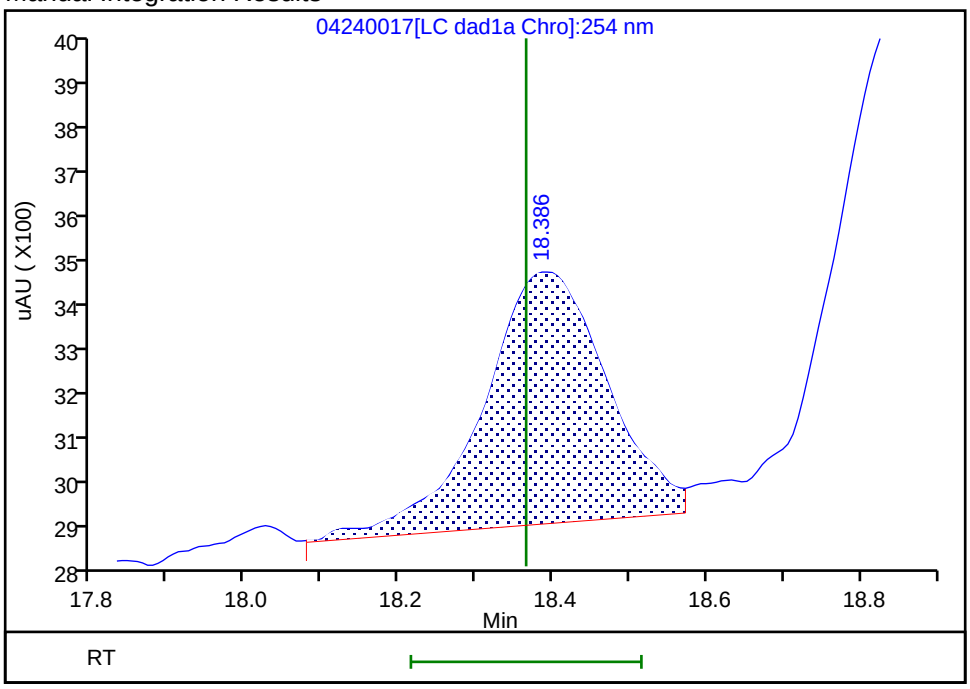
Processing Integration Results

RT: 18.39
Area: 5995
Amount: 0.016870
Amount Units: ug/ml



Manual Integration Results

RT: 18.39
Area: 6113
Amount: 0.021992
Amount Units: ug/ml



Reviewer: LV5D, 25-Apr-2024 13:26:34 -06:00:00 (UTC)
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

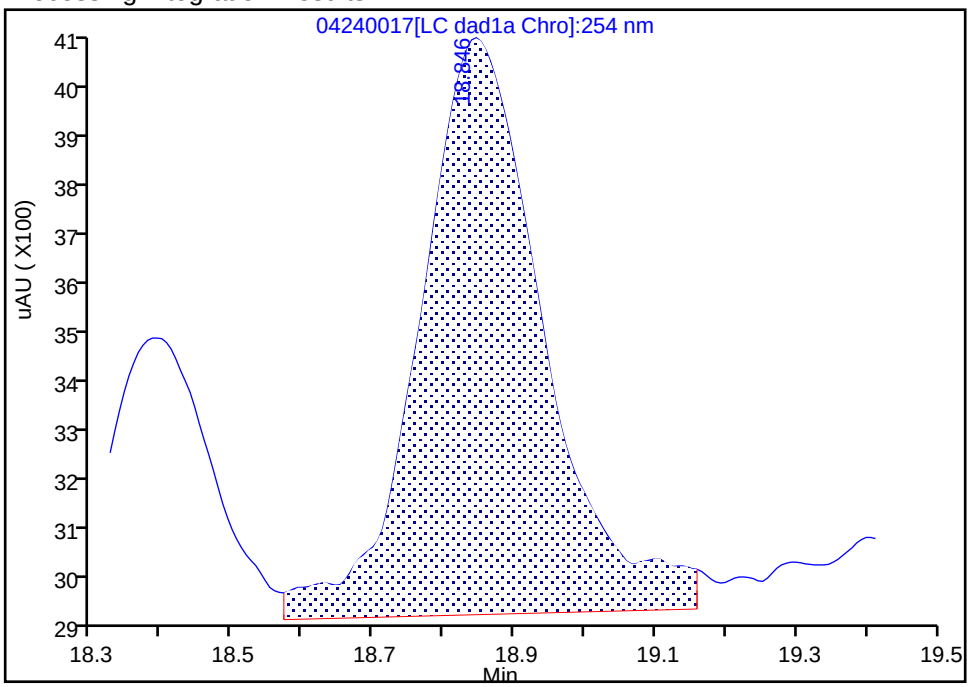
Data File:	\\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240017.d				
Injection Date:	25-Apr-2024 01:39:50	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT 2				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

21 2,4-Dinitrotoluene, CAS: 121-14-2

Signal: 1

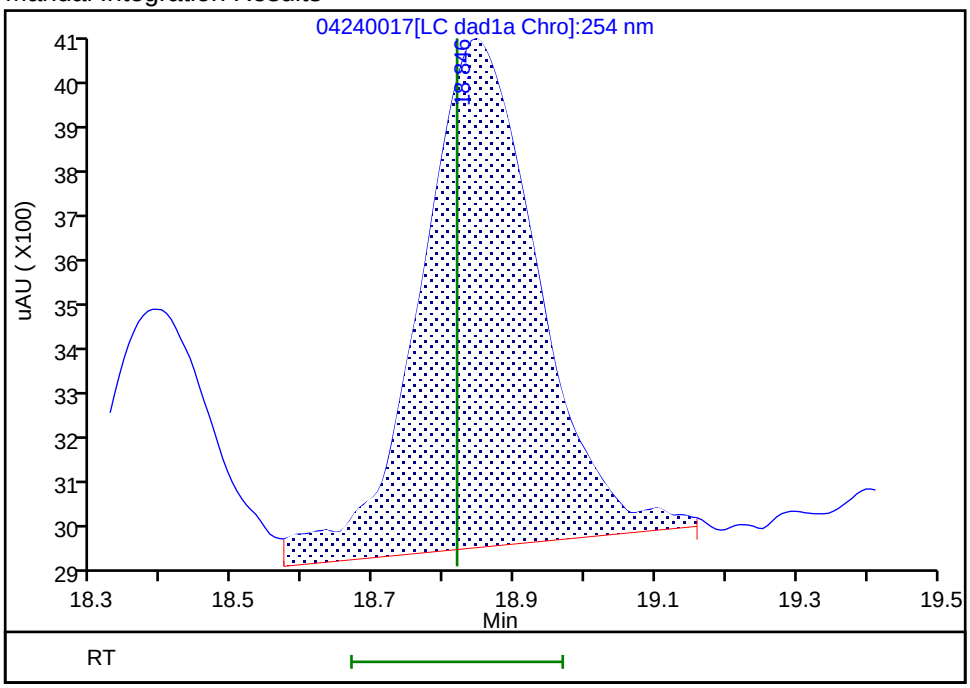
Processing Integration Results

RT: 18.85
Area: 12885
Amount: 0.021829
Amount Units: ug/ml



Manual Integration Results

RT: 18.85
Area: 12005
Amount: 0.021648
Amount Units: ug/ml



Reviewer: LV5D, 25-Apr-2024 13:26:34 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

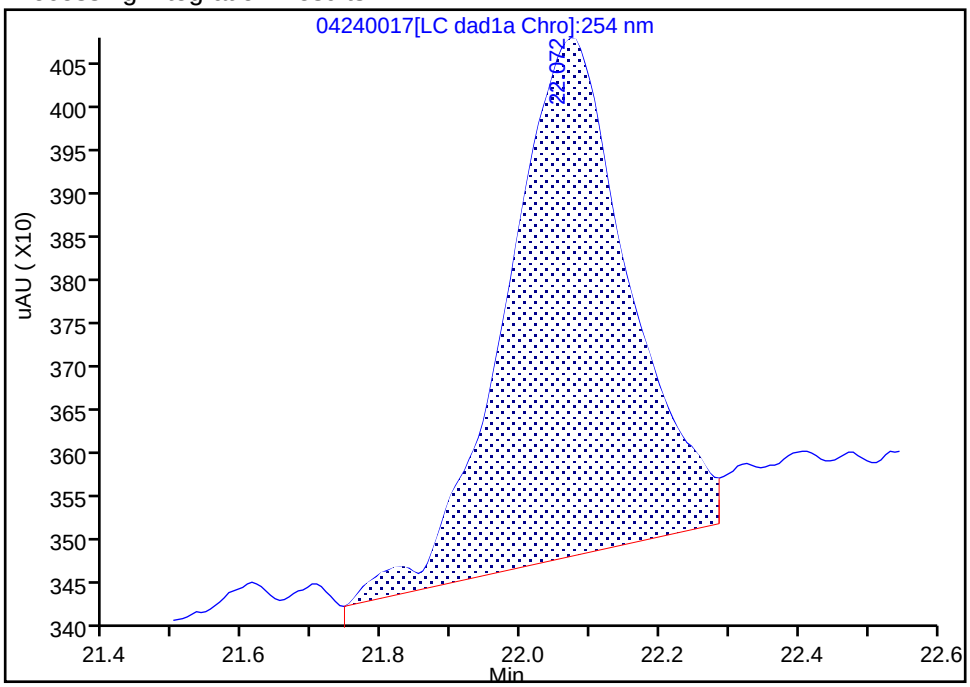
Data File:	\\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240017.d				
Injection Date:	25-Apr-2024 01:39:50	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT 2				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

22 Tetryl, CAS: 479-45-8

Signal: 1

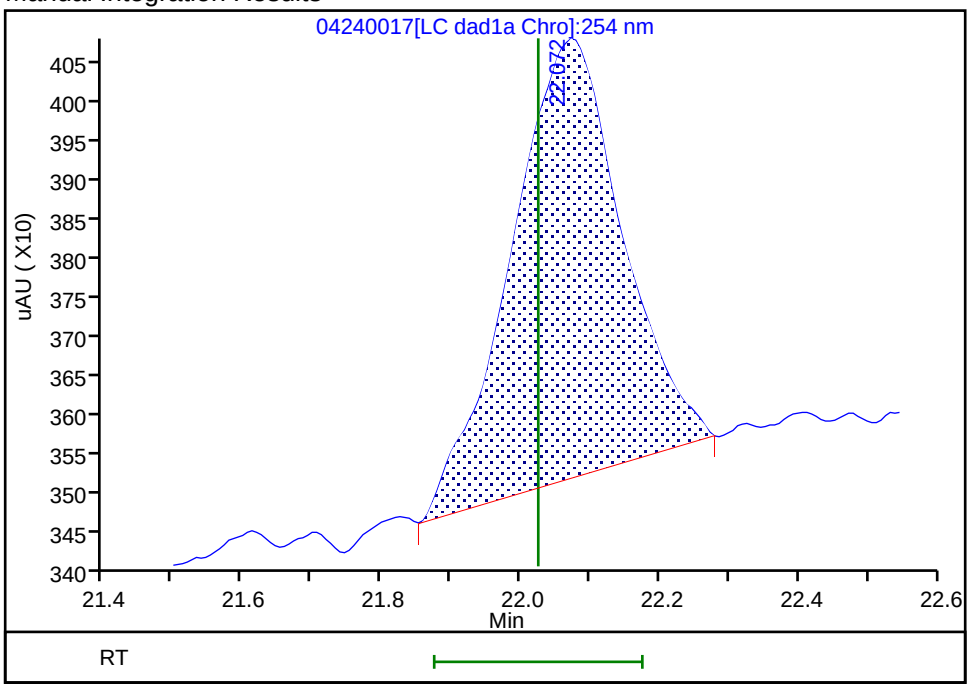
Processing Integration Results

RT: 22.07
Area: 7352
Amount: 0.022454
Amount Units: ug/ml



Manual Integration Results

RT: 22.07
Area: 6268
Amount: 0.018655
Amount Units: ug/ml



Reviewer: LV5D, 25-Apr-2024 13:26:47 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

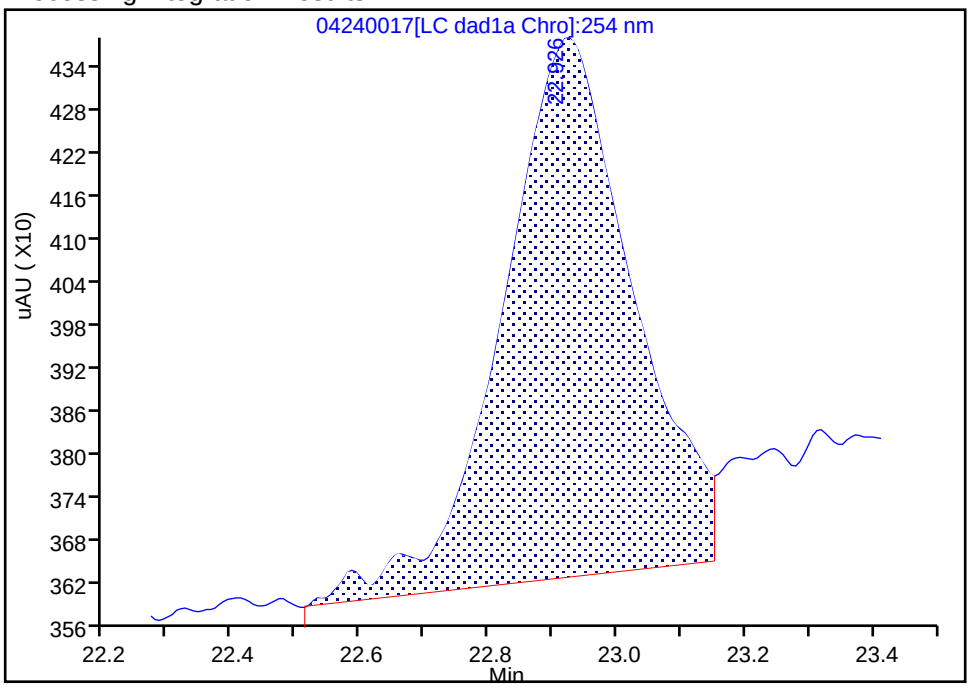
Data File:	\\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240017.d				
Injection Date:	25-Apr-2024 01:39:50	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT 2				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

23 2,4,6-Trinitrotoluene, CAS: 118-96-7

Signal: 1

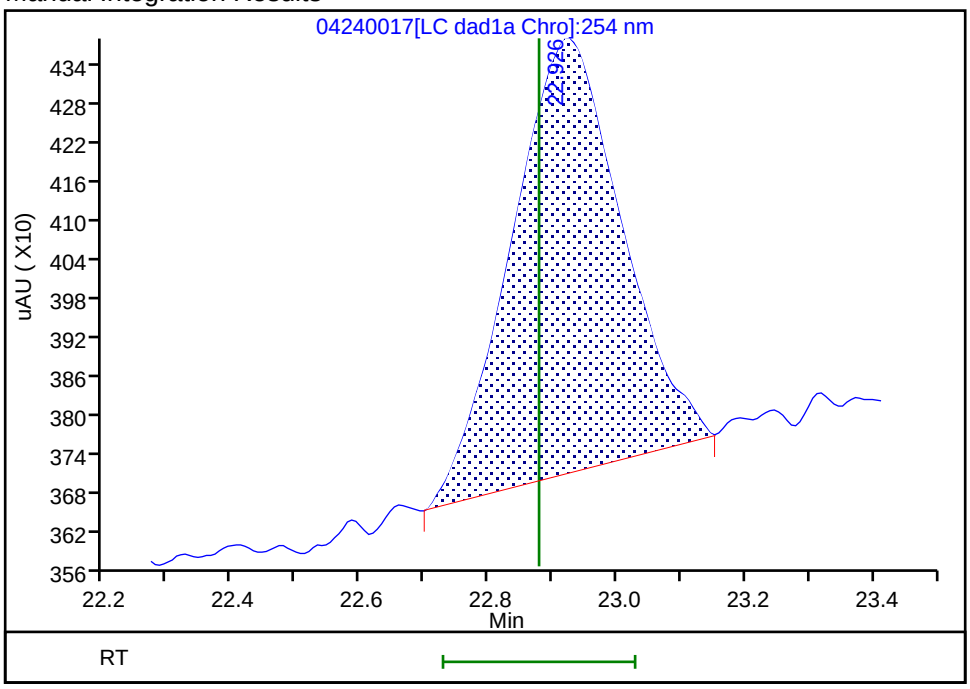
Processing Integration Results

RT: 22.93
Area: 10572
Amount: 0.023639
Amount Units: ug/ml



Manual Integration Results

RT: 22.93
Area: 7969
Amount: 0.019934
Amount Units: ug/ml



Reviewer: LV5D, 25-Apr-2024 13:27:02 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2_LUNA\20240424-132624.b\04240018.D
Lims ID: IC INT 1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 25-Apr-2024 02:15:46 ALS Bottle#: 18 Worklist Smp#: 18
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT 1
Operator ID: JZ/JG Instrument ID: CHHPLC_G2_LUNA
Sublist: chrom-G2_8330_Luna*sub16

Method: \\chromfs\Denver\ChromData\G2_LUNA\20240424-132624.b\G2_8330_Luna.m
Limit Group: GCSV - 8330
Last Update: 25-Apr-2024 14:30:19 Calib Date: 25-Apr-2024 07:39:21
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\G2_LUNA\20240424-132624.b\04240027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC DAD1A, 254 nm
Process Host: CTX1684

First Level Reviewer: LV5D Date: 25-Apr-2024 13:20:39

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
6 HMX	1	6.713	6.705	0.008	1677	0.0100	0.009634	M
5 2,4,6-Trinitrophenol	1	8.700	8.612	0.088	1549	0.0100	0.0102	
8 RDX	1	8.953	8.938	0.015	2562	0.0100	0.009837	
9 Nitrobenzene	1	11.426	11.425	0.001	3818	0.0100	0.0100	M
$ 10 1,2-Dinitrobenzene	1	12.360	12.345	0.015	2237	0.0100	0.008647	M
11 3,5-Dinitroaniline	1	14.200	14.185	0.015	5245	0.0100	0.0100	M
12 1,3-Dinitrobenzene	1	14.493	14.478	0.015	6332	0.0100	0.0107	M
13 Nitroglycerin	2	14.940	14.918	0.022	10431	0.1000	0.0873	M
14 o-Nitrotoluene	1	15.533	15.505	0.028	3289	0.0100	0.0134	M
15 p-Nitrotoluene	1	15.746	15.738	0.008	2223	0.0100	0.005995	M
16 4-Amino-2,6-dinitrotoluene	1	16.260	16.245	0.015	3366	0.0100	0.009734	M
17 m-Nitrotoluene	1	16.586	16.578	0.008	3672	0.0100	0.009808	M
18 2-Amino-4,6-dinitrotoluene	1	17.086	17.058	0.028	5022	0.0100	0.0124	M
19 1,3,5-Trinitrobenzene	1	17.286	17.272	0.014	5210	0.0100	0.0123	M
20 2,6-Dinitrotoluene	1	18.380	18.365	0.015	3016	0.0100	0.0109	M
21 2,4-Dinitrotoluene	1	18.833	18.818	0.015	5764	0.0100	0.0104	M
22 Tetryl	1	22.027	22.025	0.002	3675	0.0100	0.0103	
23 2,4,6-Trinitrotoluene	1	22.900	22.878	0.022	3703	0.0100	0.009263	M
24 PETN	2	24.033	24.032	0.001	10531	0.1000	0.1003	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330IntermStk_00080 Amount Added: 1.00 Units: uL

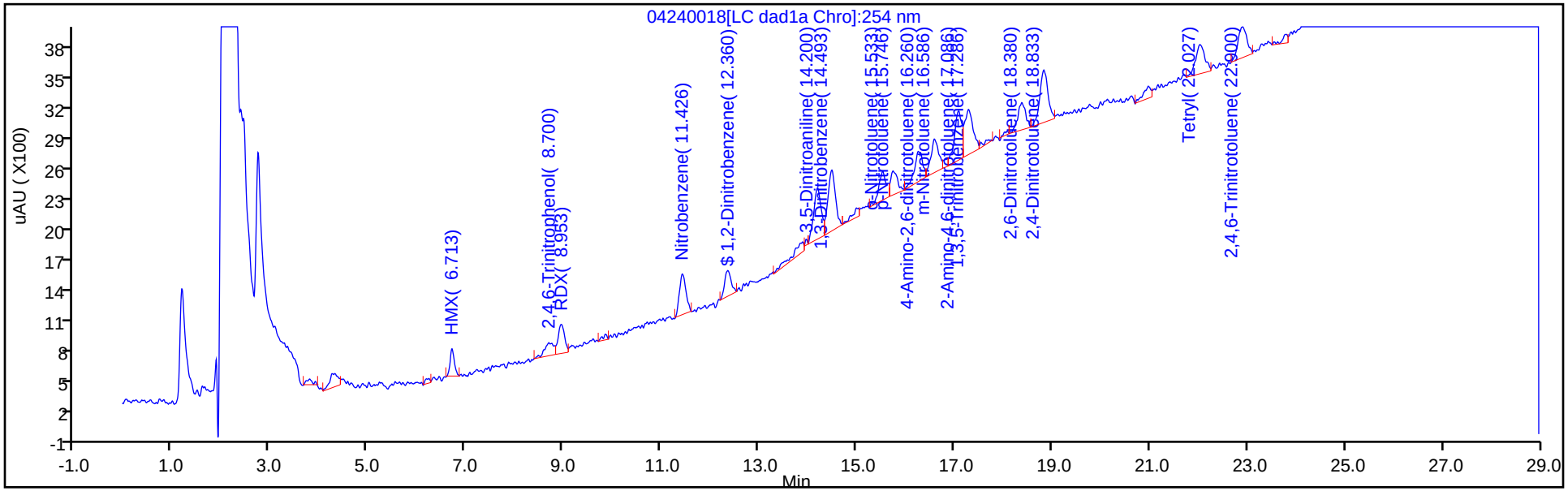
Report Date: 25-Apr-2024 14:30:19 Chrom Revision: 2.3 09-Apr-2024 17:43:44

Eurofins Denver

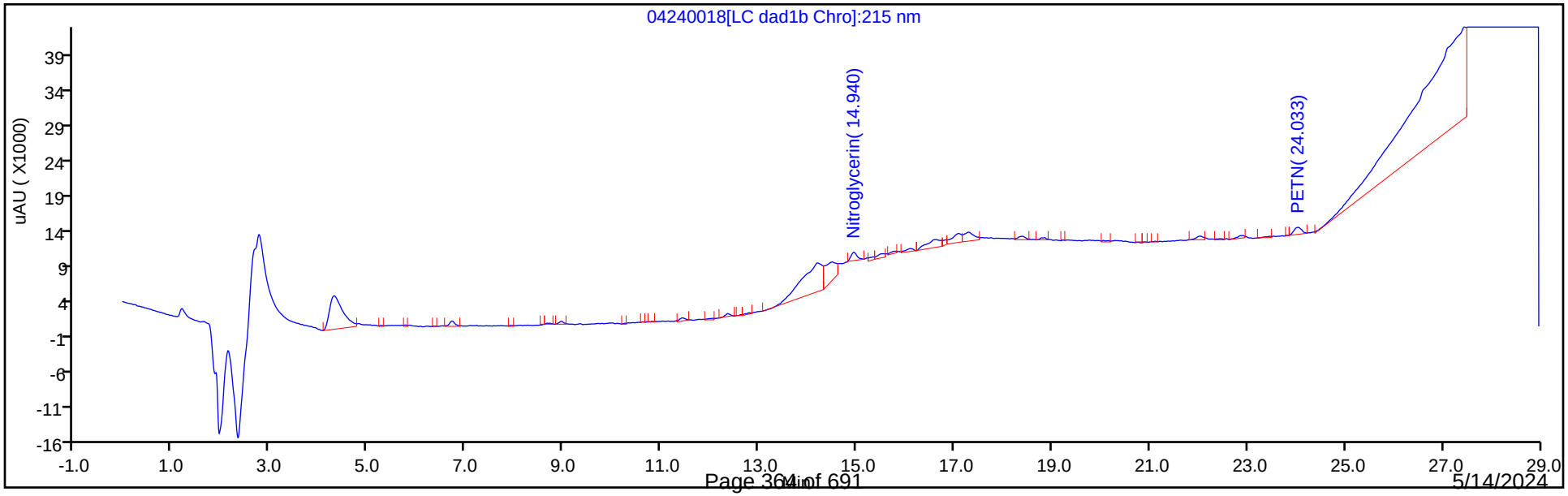
Data File: \\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240018.d

Injection Date:	25-Apr-2024 02:15:46	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	JZ/JG
Lims ID:	IC INT 1			Worklist Smp#:	18
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	18
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



5/14/2024
9:20:15 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

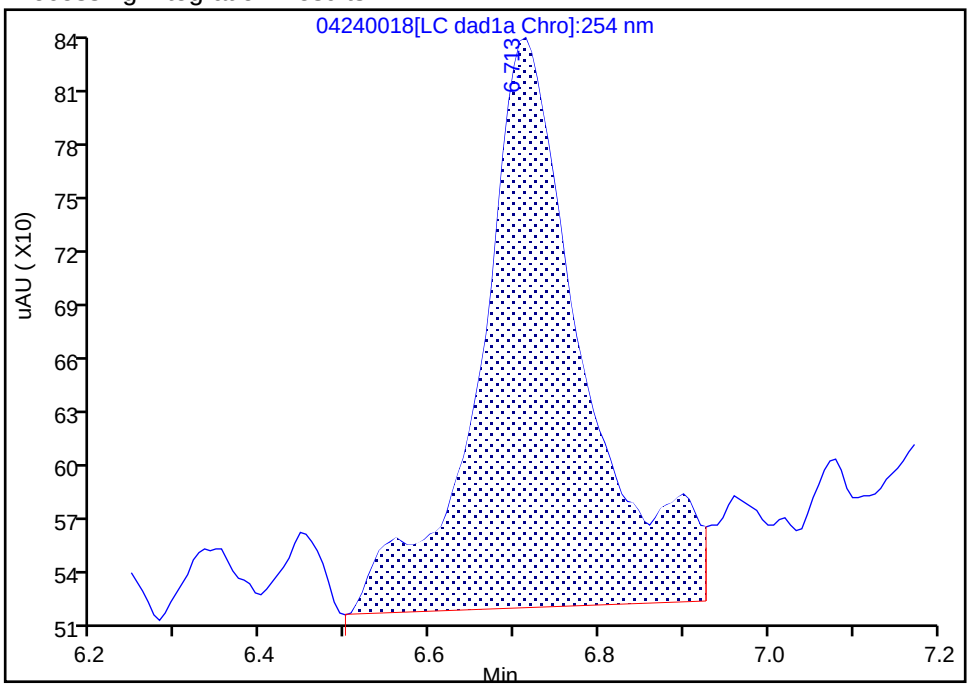
Data File:	\\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240018.d				
Injection Date:	25-Apr-2024 02:15:46	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT 1				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

6 HMX, CAS: 2691-41-0

Signal: 1

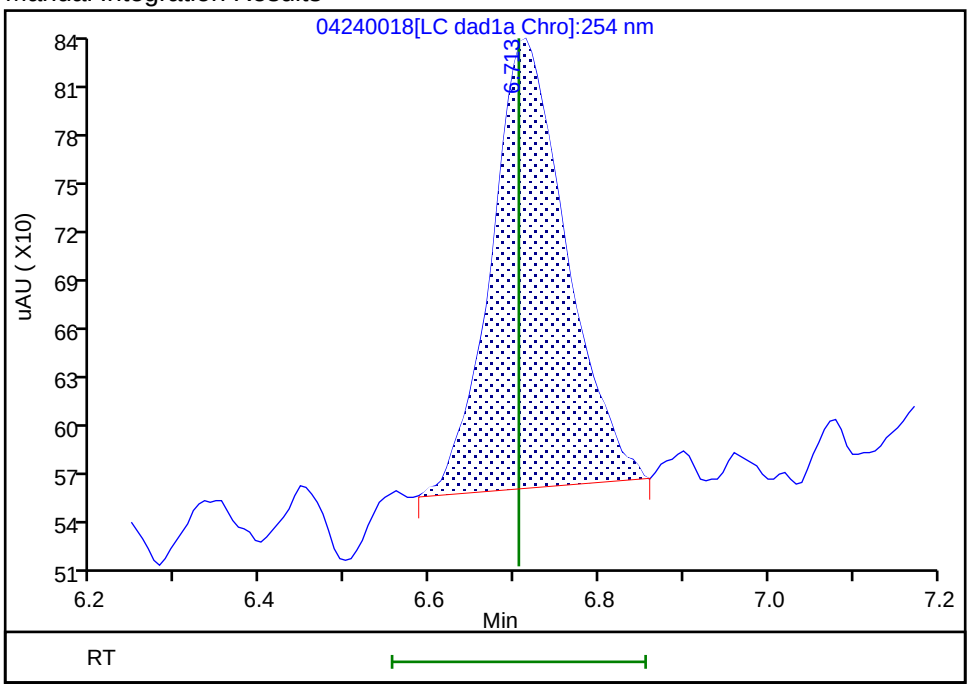
Processing Integration Results

RT: 6.71
Area: 2684
Amount: 0.010199
Amount Units: ug/ml



Manual Integration Results

RT: 6.71
Area: 1677
Amount: 0.009634
Amount Units: ug/ml



Reviewer: LV5D, 25-Apr-2024 13:31:03 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

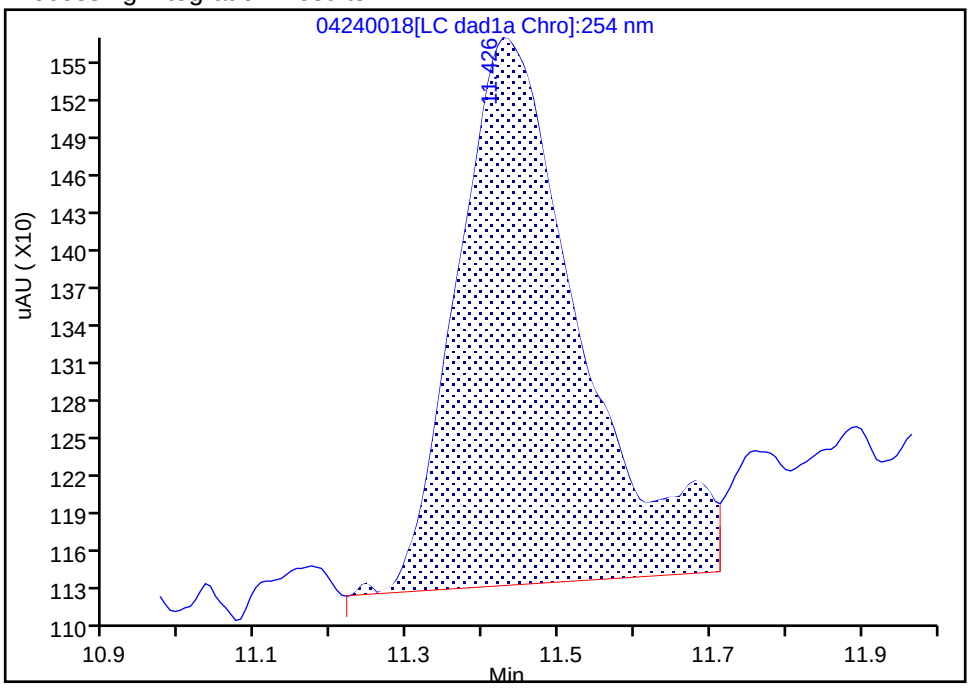
Data File:	\\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240018.d				
Injection Date:	25-Apr-2024 02:15:46	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT 1				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

9 Nitrobenzene, CAS: 98-95-3

Signal: 1

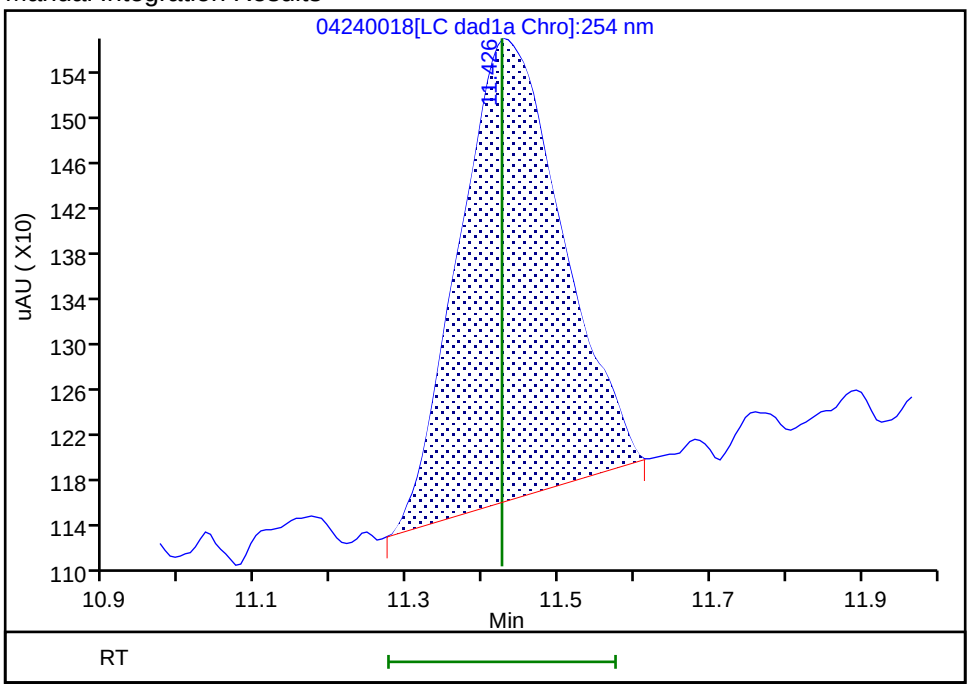
Processing Integration Results

RT: 11.43
Area: 4838
Amount: 0.012296
Amount Units: ug/ml



Manual Integration Results

RT: 11.43
Area: 3818
Amount: 0.009992
Amount Units: ug/ml



Reviewer: LV5D, 25-Apr-2024 13:27:50 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

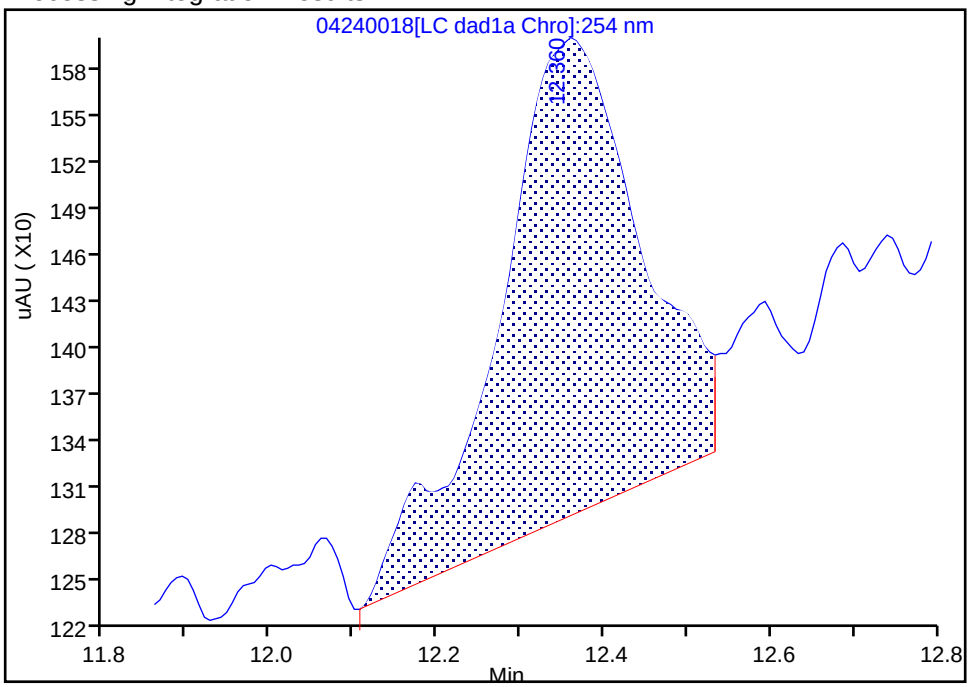
Data File:	\\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240018.d				
Injection Date:	25-Apr-2024 02:15:46	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT 1				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

$ 10 1,2-Dinitrobenzene, CAS: 528-29-0

Signal: 1

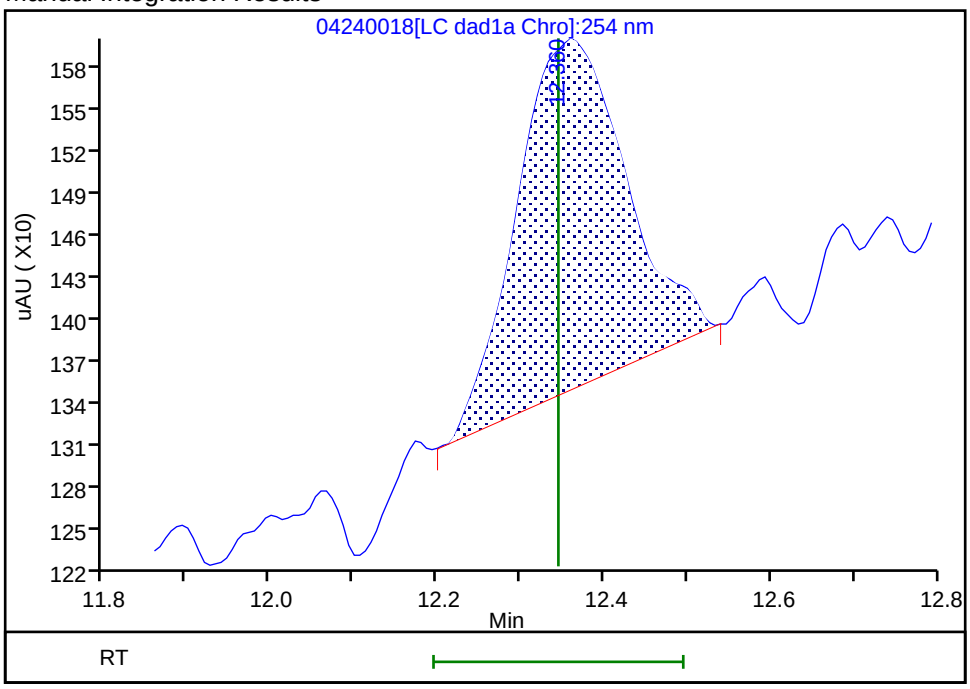
Processing Integration Results

RT: 12.36
Area: 3595
Amount: 0.013131
Amount Units: ug/ml



Manual Integration Results

RT: 12.36
Area: 2237
Amount: 0.008647
Amount Units: ug/ml



Reviewer: LV5D, 25-Apr-2024 13:28:45 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

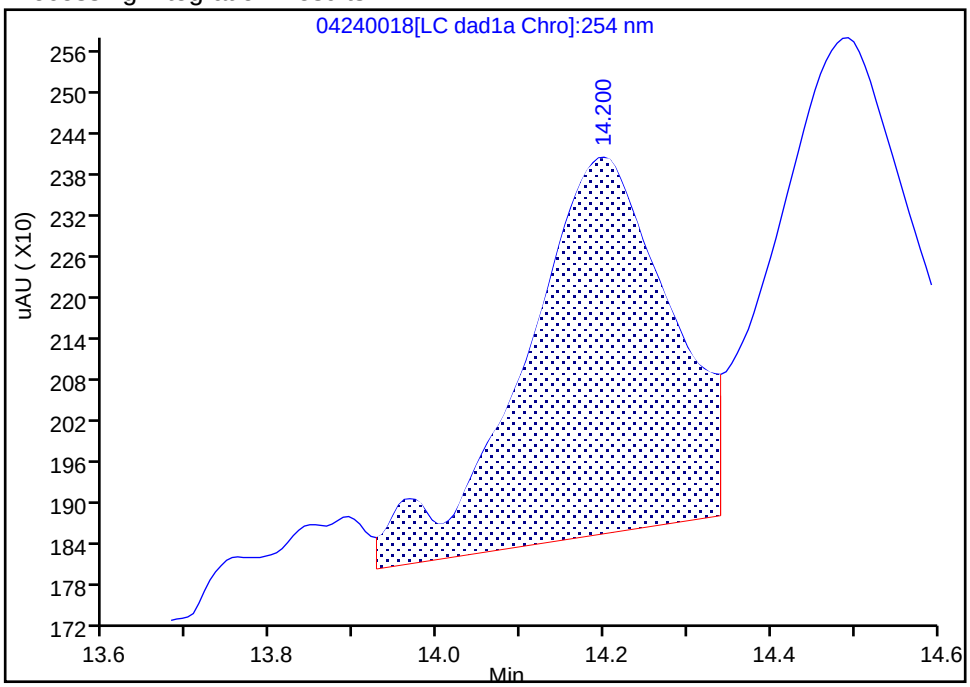
Data File:	\\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240018.d				
Injection Date:	25-Apr-2024 02:15:46	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT 1				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

11 3,5-Dinitroaniline, CAS: 618-87-1

Signal: 1

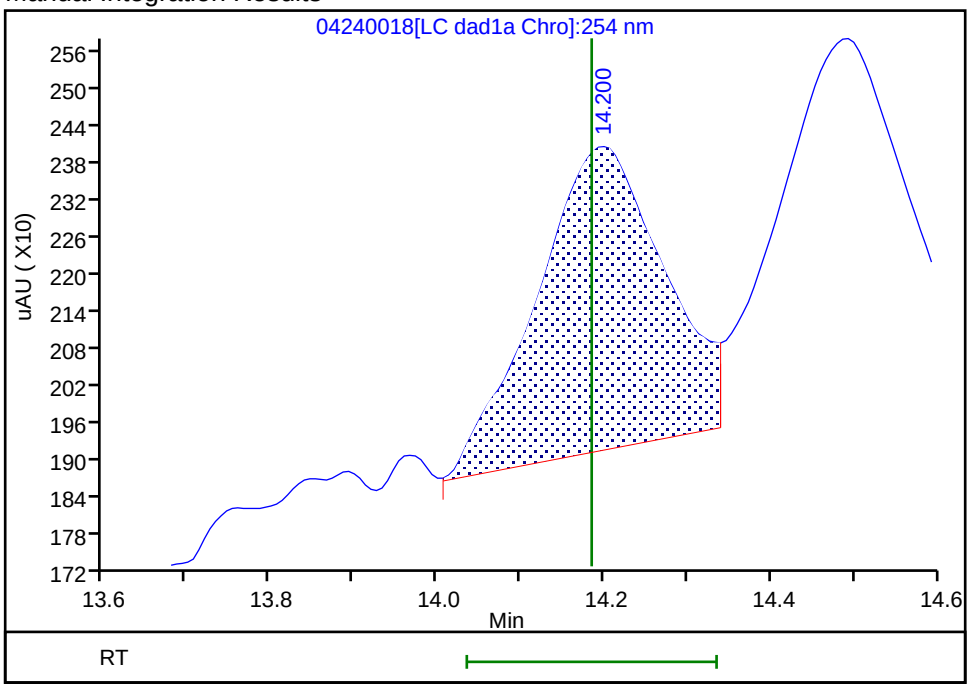
Processing Integration Results

RT: 14.20
Area: 6757
Amount: 0.010763
Amount Units: ug/ml



Manual Integration Results

RT: 14.20
Area: 5245
Amount: 0.010044
Amount Units: ug/ml



Reviewer: LV5D, 25-Apr-2024 13:29:01 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

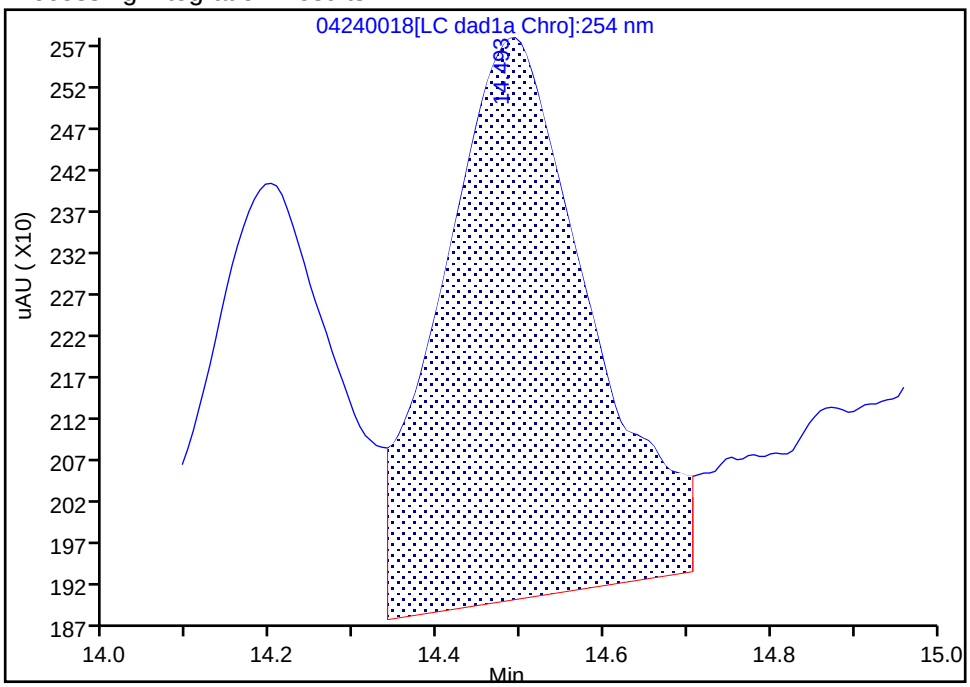
Data File:	\\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240018.d				
Injection Date:	25-Apr-2024 02:15:46	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT 1				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

12 1,3-Dinitrobenzene, CAS: 99-65-0

Signal: 1

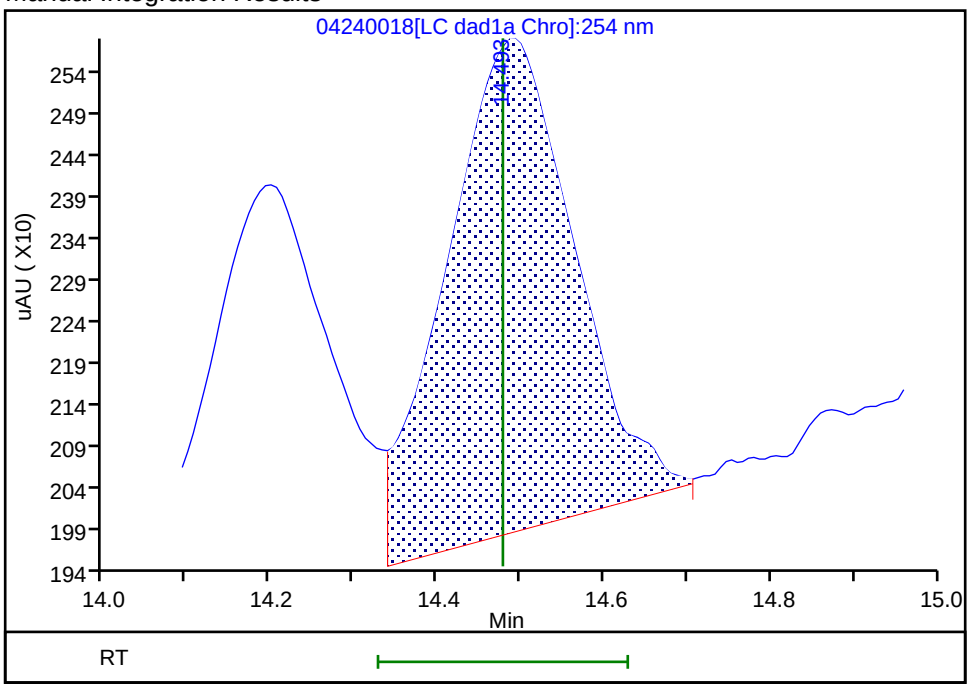
Processing Integration Results

RT: 14.49
Area: 8301
Amount: 0.013579
Amount Units: ug/ml



Manual Integration Results

RT: 14.49
Area: 6332
Amount: 0.010743
Amount Units: ug/ml



Reviewer: LV5D, 25-Apr-2024 13:28:58 -06:00:00 (UTC)
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

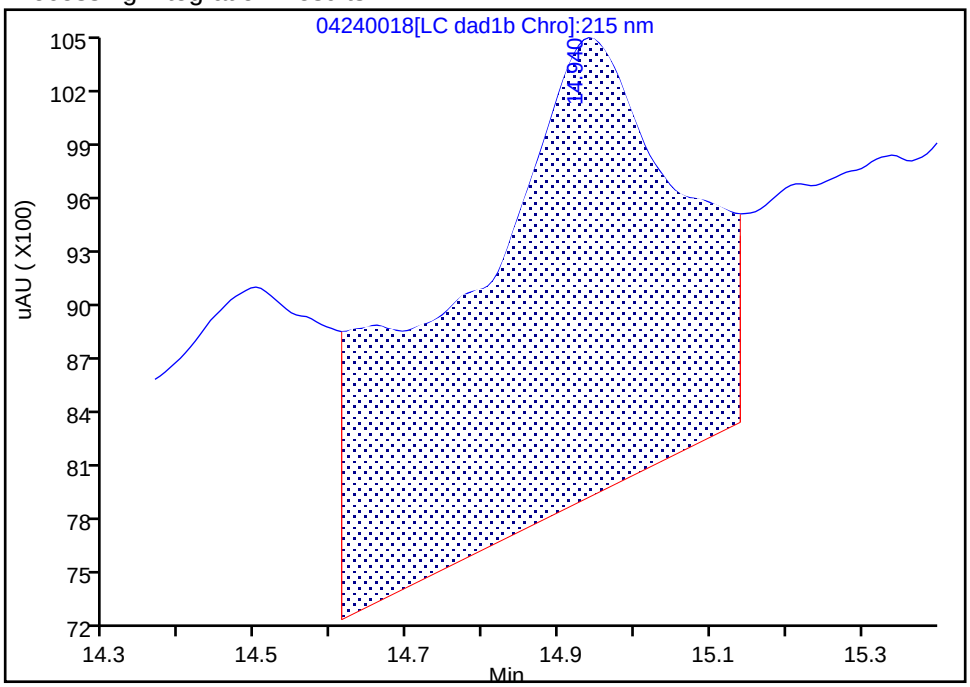
Data File:	\\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240018.d				
Injection Date:	25-Apr-2024 02:15:46	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT 1				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1B, 215 nm		

13 Nitroglycerin, CAS: 55-63-0

Signal: 1

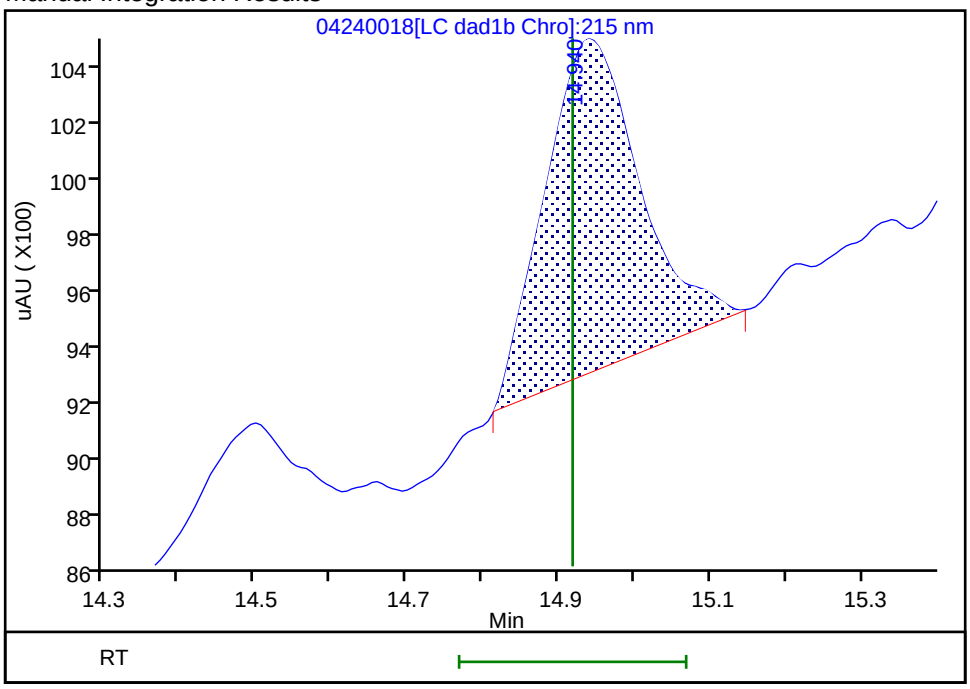
Processing Integration Results

RT: 14.94
Area: 53313
Amount: 0.315461
Amount Units: ug/ml



Manual Integration Results

RT: 14.94
Area: 10431
Amount: 0.087285
Amount Units: ug/ml



Reviewer: LV5D, 25-Apr-2024 13:20:31 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

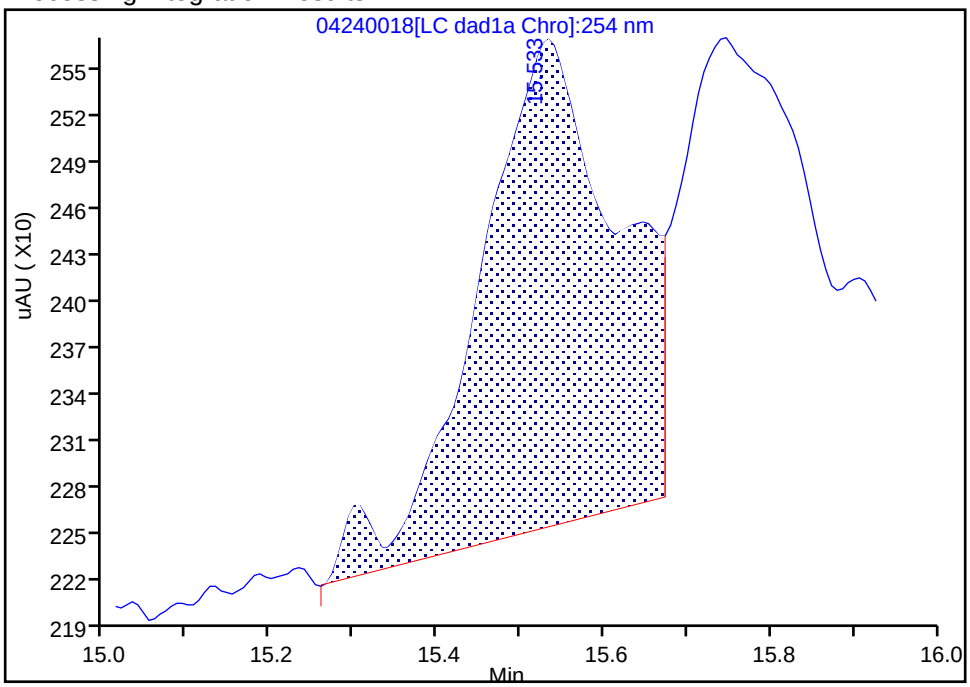
Data File:	\\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240018.d				
Injection Date:	25-Apr-2024 02:15:46	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT 1				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

14 o-Nitrotoluene, CAS: 88-72-2

Signal: 1

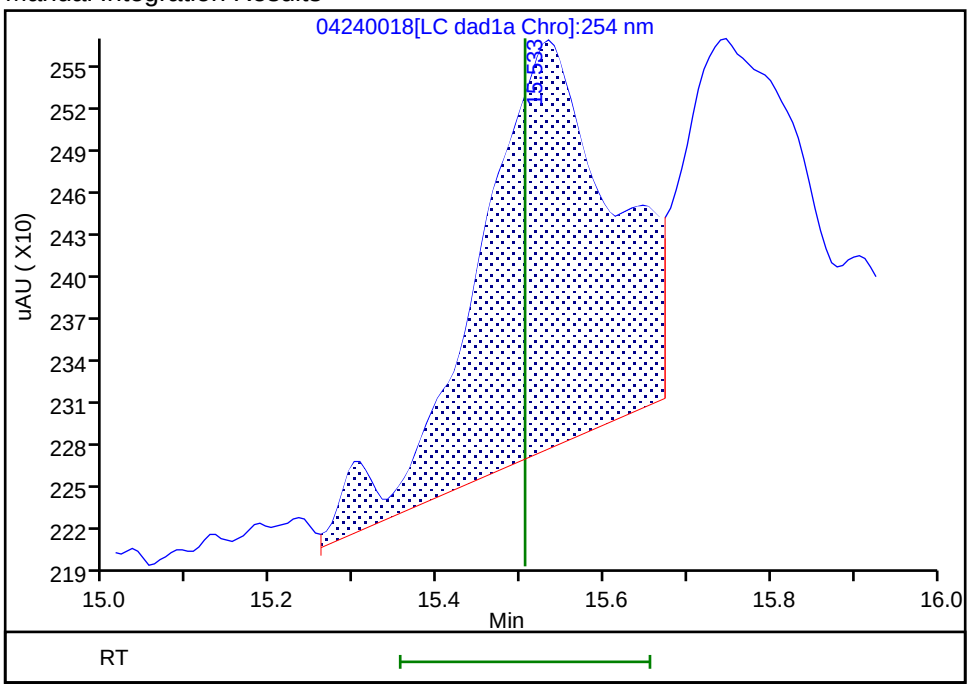
Processing Integration Results

RT: 15.53
Area: 3673
Amount: 0.013997
Amount Units: ug/ml



Manual Integration Results

RT: 15.53
Area: 3289
Amount: 0.013447
Amount Units: ug/ml



Reviewer: LV5D, 25-Apr-2024 13:29:10 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

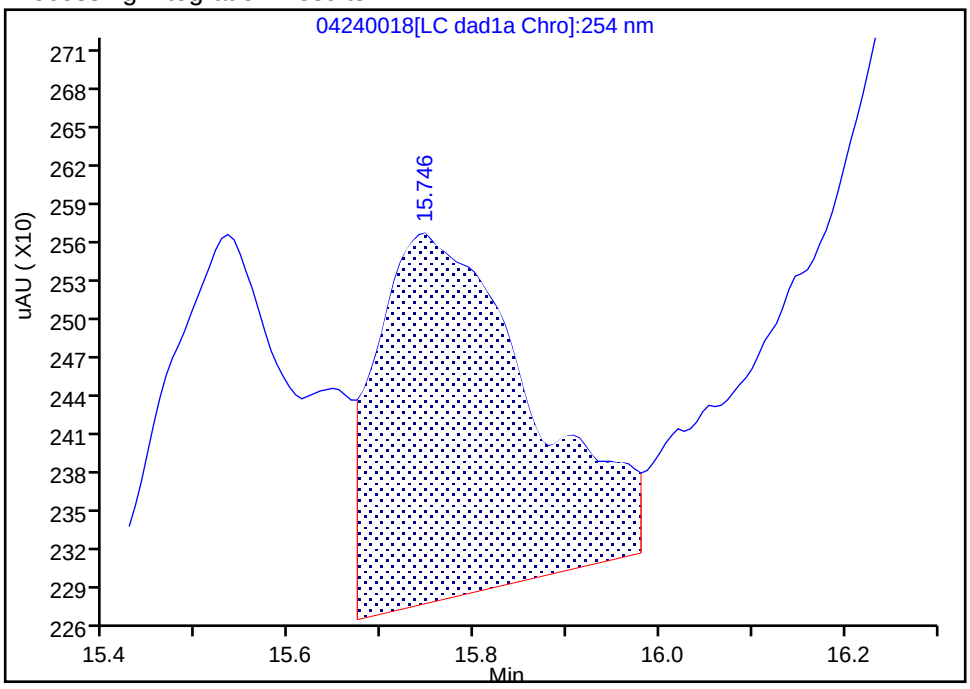
Data File:	\\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240018.d				
Injection Date:	25-Apr-2024 02:15:46	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT 1				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

15 p-Nitrotoluene, CAS: 99-99-0

Signal: 1

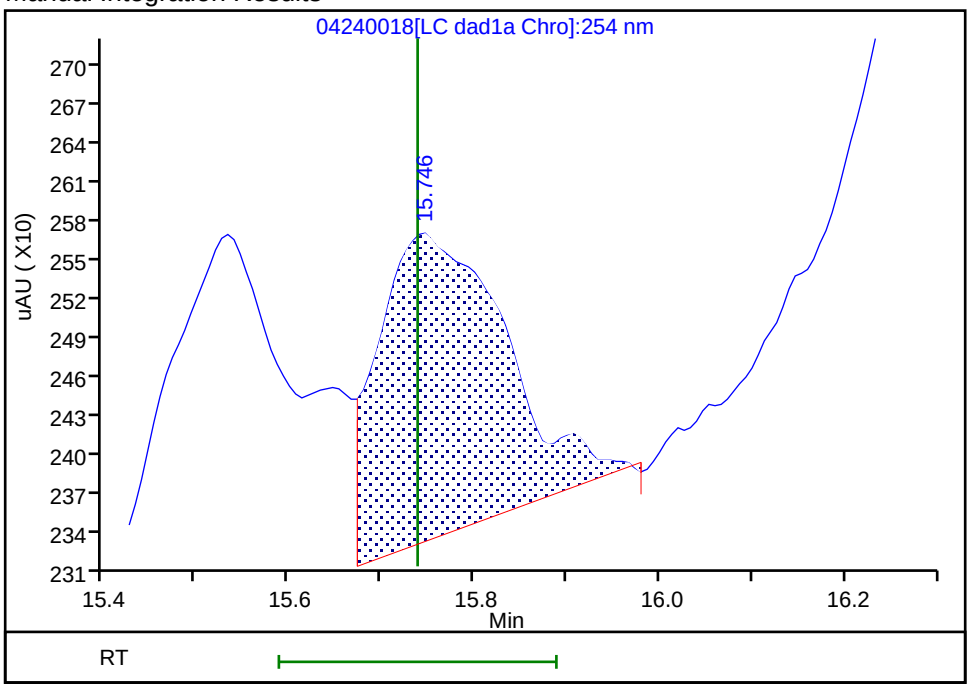
Processing Integration Results

RT: 15.75
Area: 3244
Amount: 0.013429
Amount Units: ug/ml



Manual Integration Results

RT: 15.75
Area: 2223
Amount: 0.005995
Amount Units: ug/ml



Reviewer: LV5D, 25-Apr-2024 13:29:10 -06:00:00 (UTC)
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

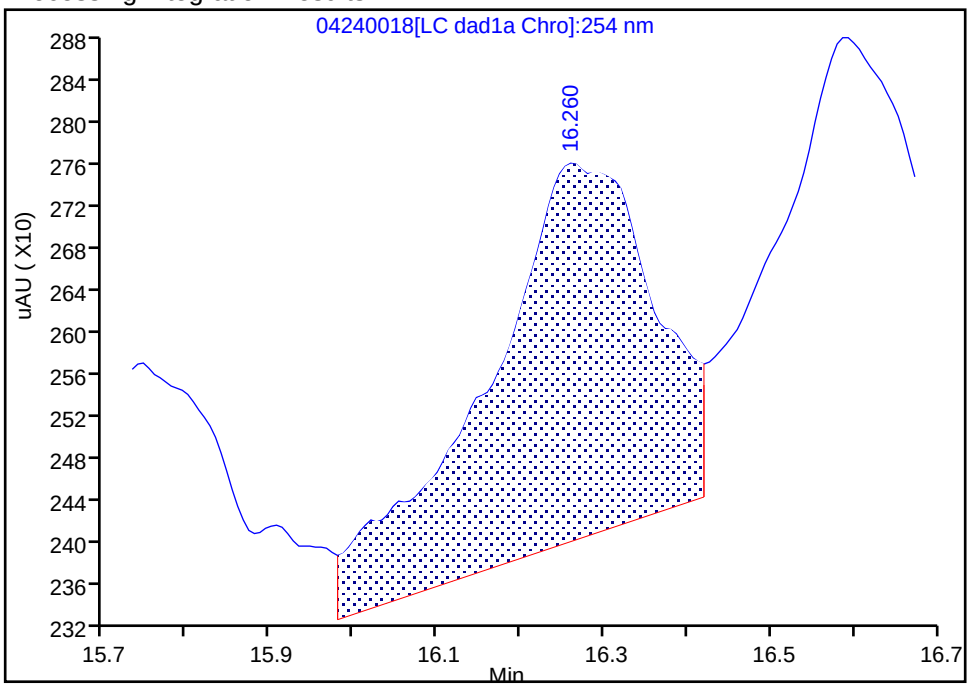
Data File:	\\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240018.d				
Injection Date:	25-Apr-2024 02:15:46	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT 1				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

16 4-Amino-2,6-dinitrotoluene, CAS: 19406-51-0

Signal: 1

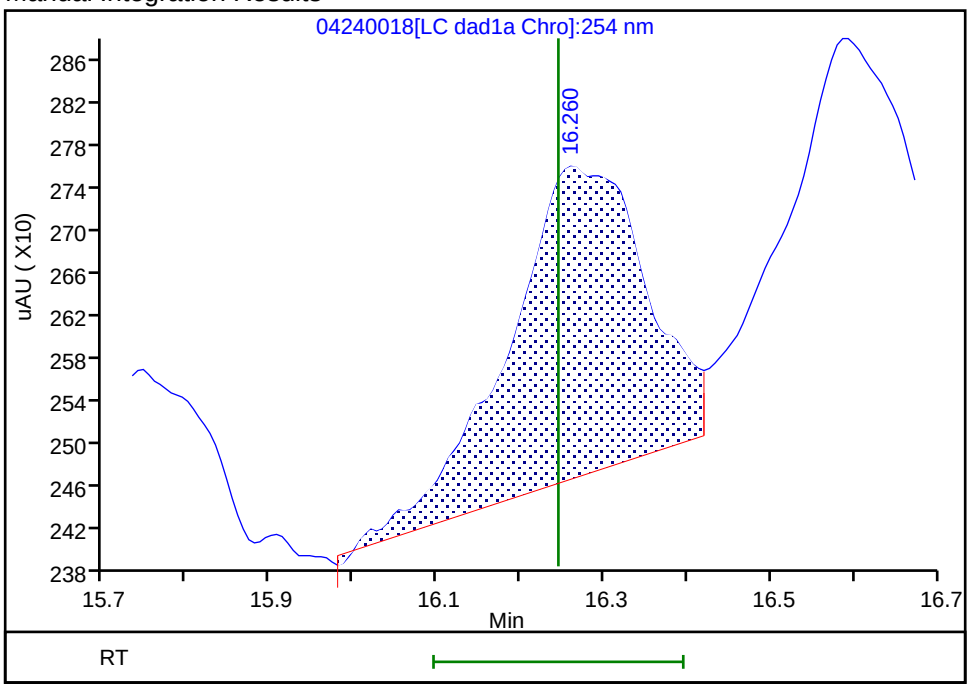
Processing Integration Results

RT: 16.26
Area: 5148
Amount: 0.010335
Amount Units: ug/ml



Manual Integration Results

RT: 16.26
Area: 3366
Amount: 0.009734
Amount Units: ug/ml



Reviewer: LV5D, 25-Apr-2024 13:29:10 -06:00:00 (UTC)
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

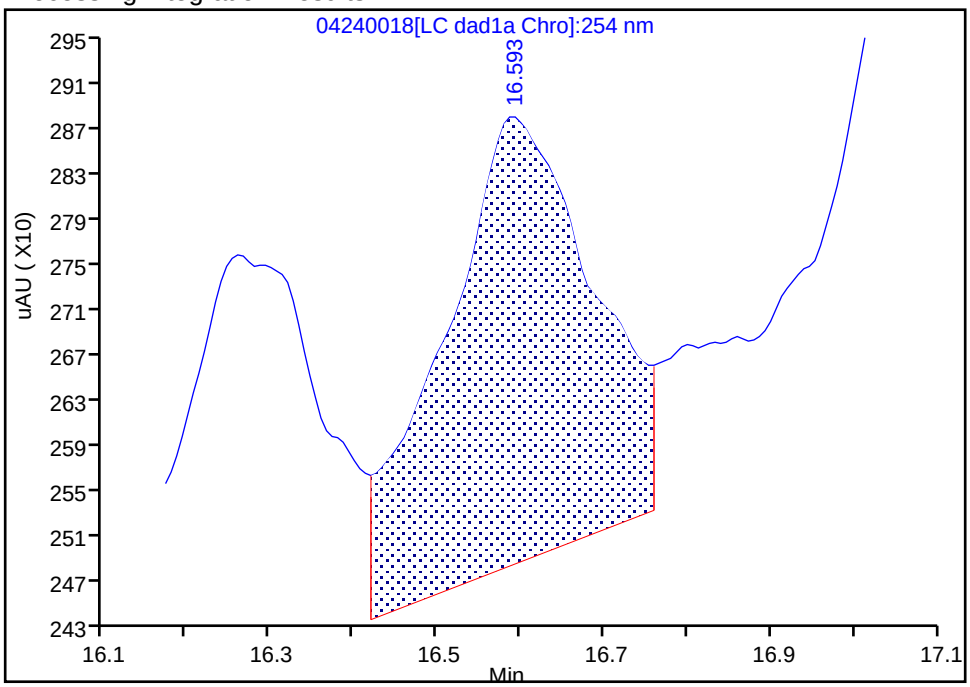
Data File:	\\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240018.d				
Injection Date:	25-Apr-2024 02:15:46	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT 1				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

17 m-Nitrotoluene, CAS: 99-08-1

Signal: 1

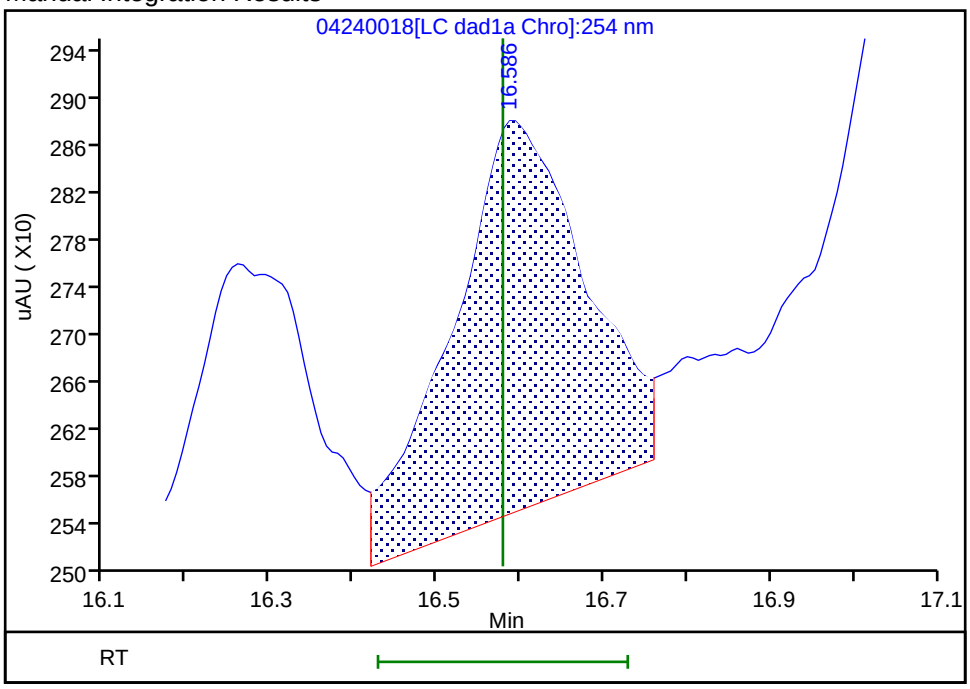
Processing Integration Results

RT: 16.59
Area: 4917
Amount: 0.010564
Amount Units: ug/ml



Manual Integration Results

RT: 16.59
Area: 3672
Amount: 0.009808
Amount Units: ug/ml



Reviewer: LV5D, 25-Apr-2024 13:29:10 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

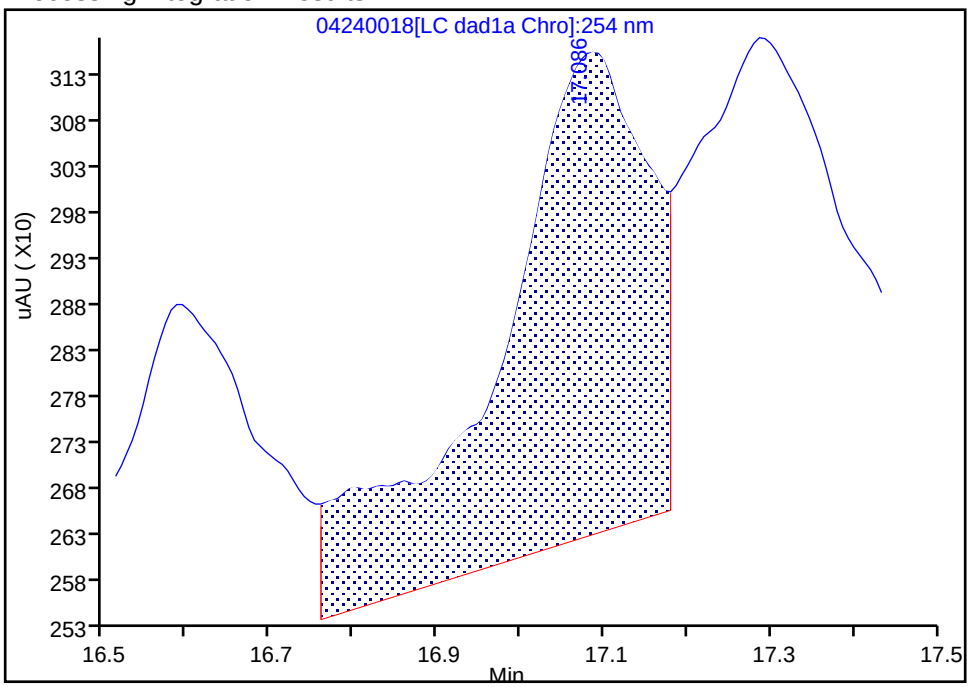
Data File:	\\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240018.d				
Injection Date:	25-Apr-2024 02:15:46	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT 1				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

18 2-Amino-4,6-dinitrotoluene, CAS: 35572-78-2

Signal: 1

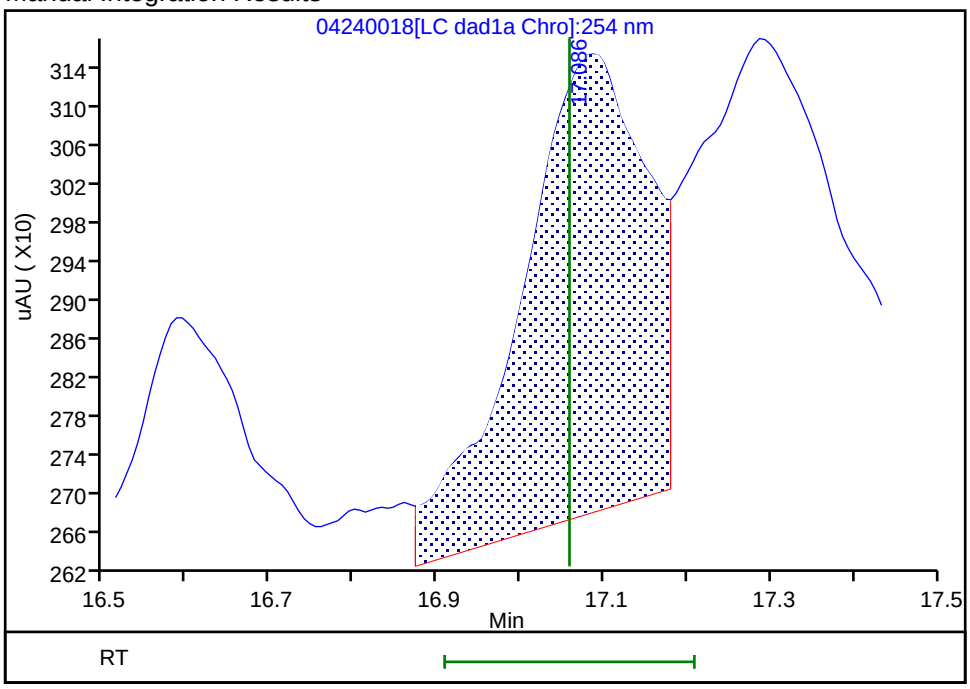
Processing Integration Results

RT: 17.09
Area: 6792
Amount: 0.011001
Amount Units: ug/ml



Manual Integration Results

RT: 17.09
Area: 5022
Amount: 0.012383
Amount Units: ug/ml



Reviewer: LV5D, 25-Apr-2024 13:29:26 -06:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

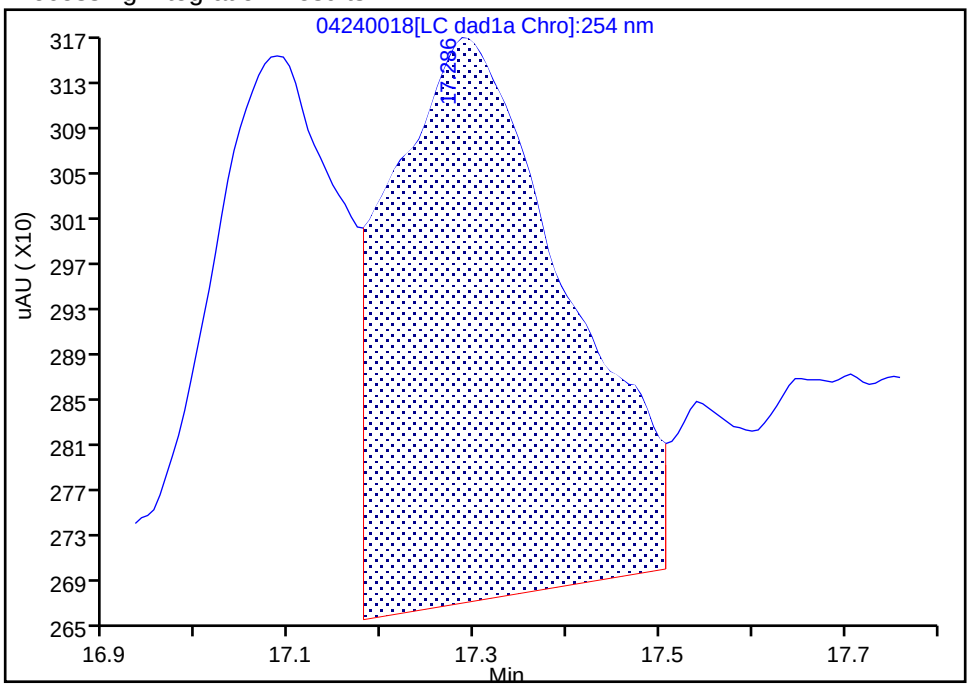
Data File:	\\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240018.d				
Injection Date:	25-Apr-2024 02:15:46	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT 1				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

19 1,3,5-Trinitrobenzene, CAS: 99-35-4

Signal: 1

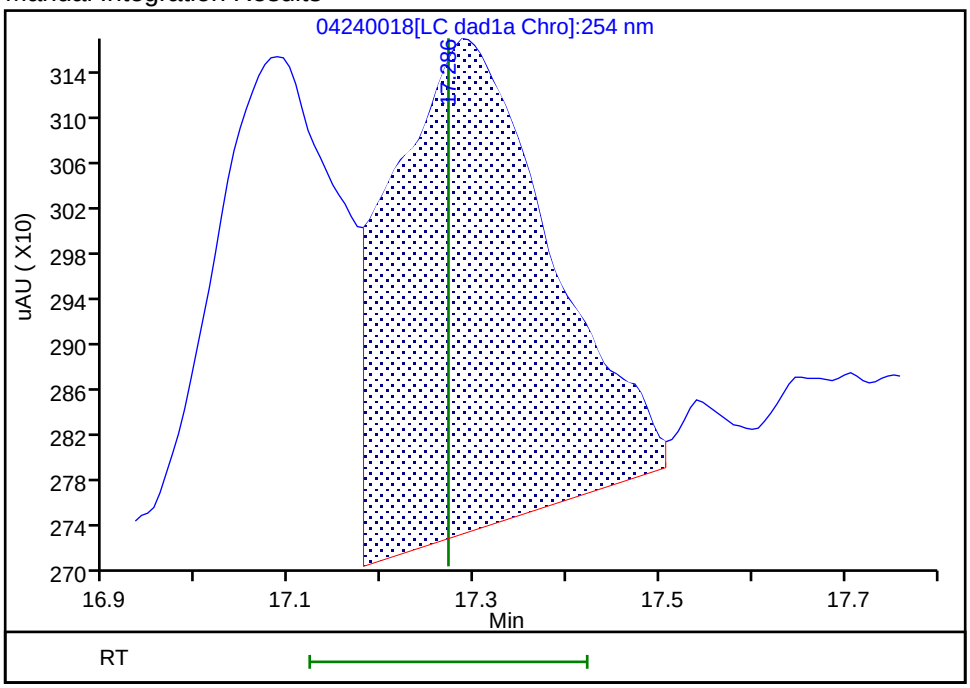
Processing Integration Results

RT: 17.29
Area: 6493
Amount: 0.014850
Amount Units: ug/ml



Manual Integration Results

RT: 17.29
Area: 5210
Amount: 0.012304
Amount Units: ug/ml



Reviewer: LV5D, 25-Apr-2024 13:29:10 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

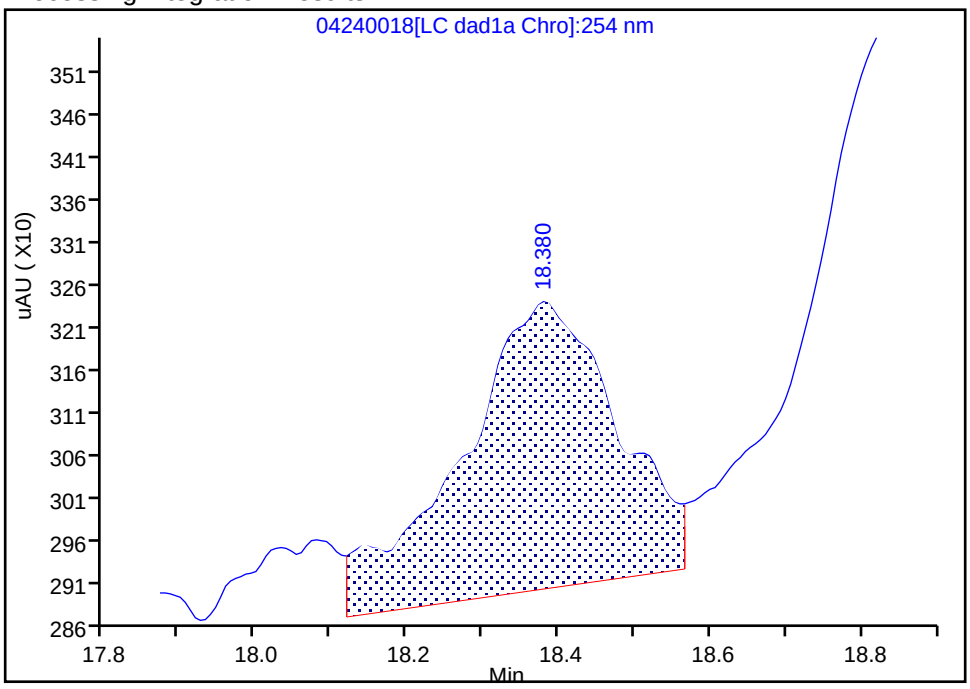
Data File:	\\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240018.d				
Injection Date:	25-Apr-2024 02:15:46	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT 1				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

20 2,6-Dinitrotoluene, CAS: 606-20-2

Signal: 1

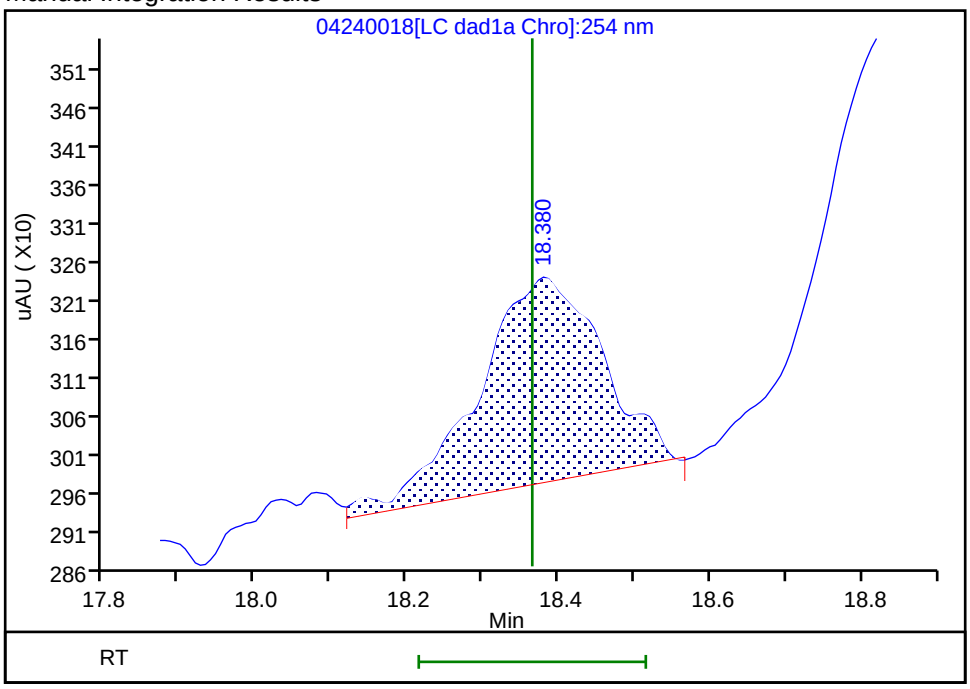
Processing Integration Results

RT: 18.38
Area: 4838
Amount: 0.011069
Amount Units: ug/ml



Manual Integration Results

RT: 18.38
Area: 3016
Amount: 0.010850
Amount Units: ug/ml



Reviewer: LV5D, 25-Apr-2024 13:29:14 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

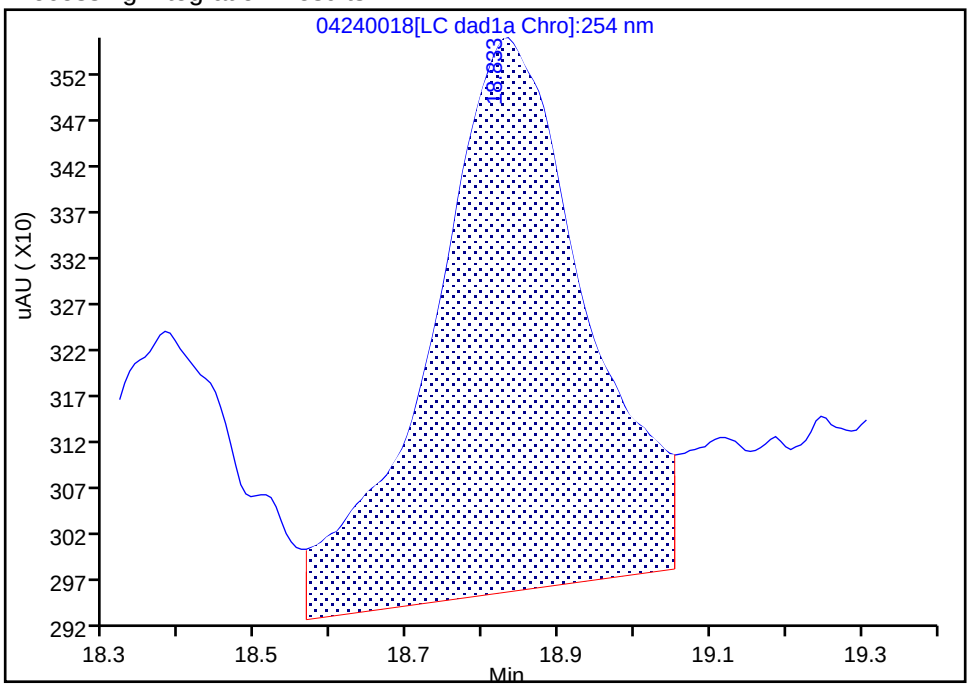
Data File:	\\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240018.d				
Injection Date:	25-Apr-2024 02:15:46	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT 1				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

21 2,4-Dinitrotoluene, CAS: 121-14-2

Signal: 1

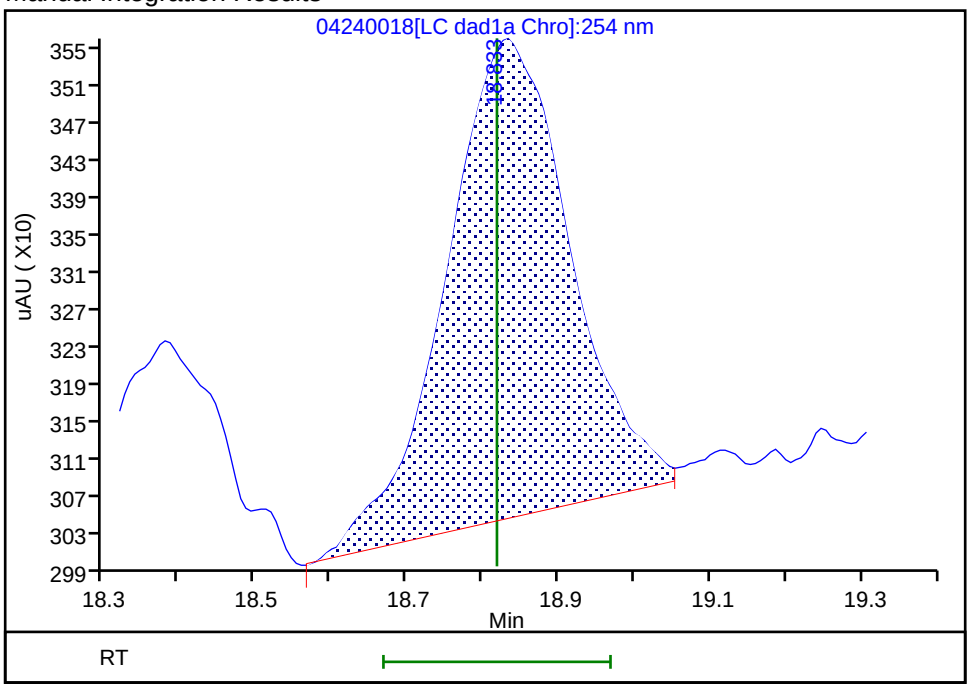
Processing Integration Results

RT: 18.83
Area: 8538
Amount: 0.014585
Amount Units: ug/ml



Manual Integration Results

RT: 18.83
Area: 5764
Amount: 0.010394
Amount Units: ug/ml



Reviewer: LV5D, 25-Apr-2024 13:29:14 -06:00:00 (UTC)
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

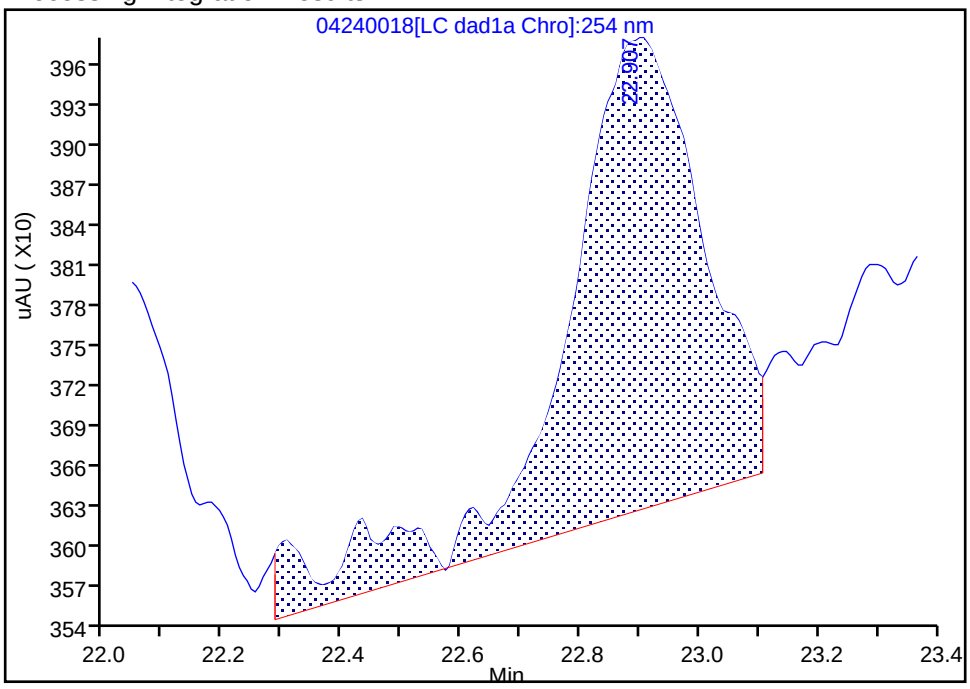
Data File:	\\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240018.d				
Injection Date:	25-Apr-2024 02:15:46	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT 1				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

23 2,4,6-Trinitrotoluene, CAS: 118-96-7

Signal: 1

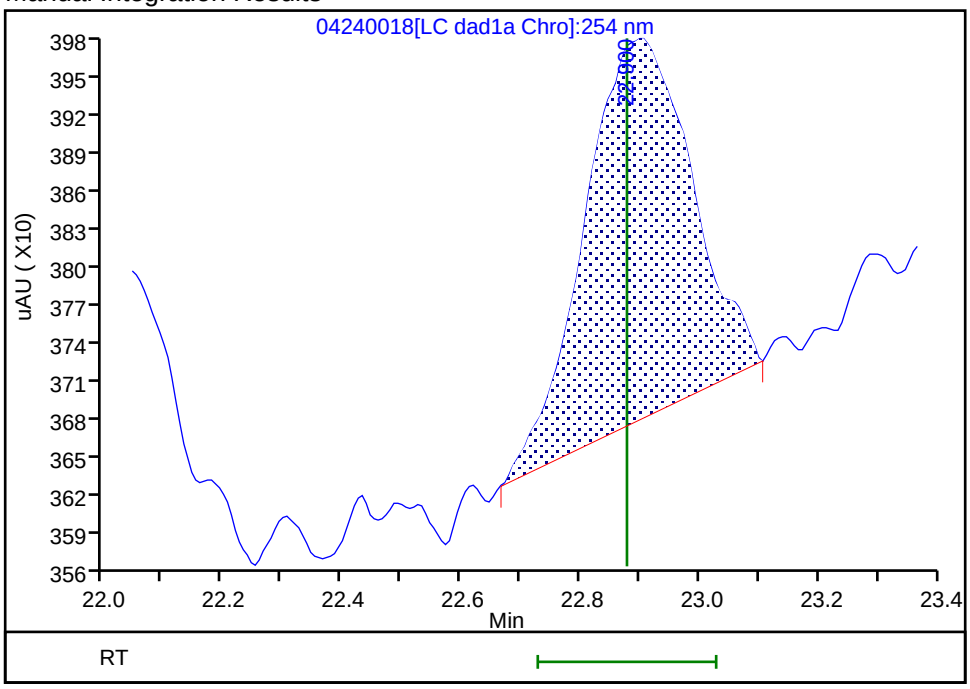
Processing Integration Results

RT: 22.91
Area: 5799
Amount: 0.013400
Amount Units: ug/ml



Manual Integration Results

RT: 22.90
Area: 3703
Amount: 0.009263
Amount Units: ug/ml



Reviewer: LV5D, 25-Apr-2024 13:38:04 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline

Calibration / HMX

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

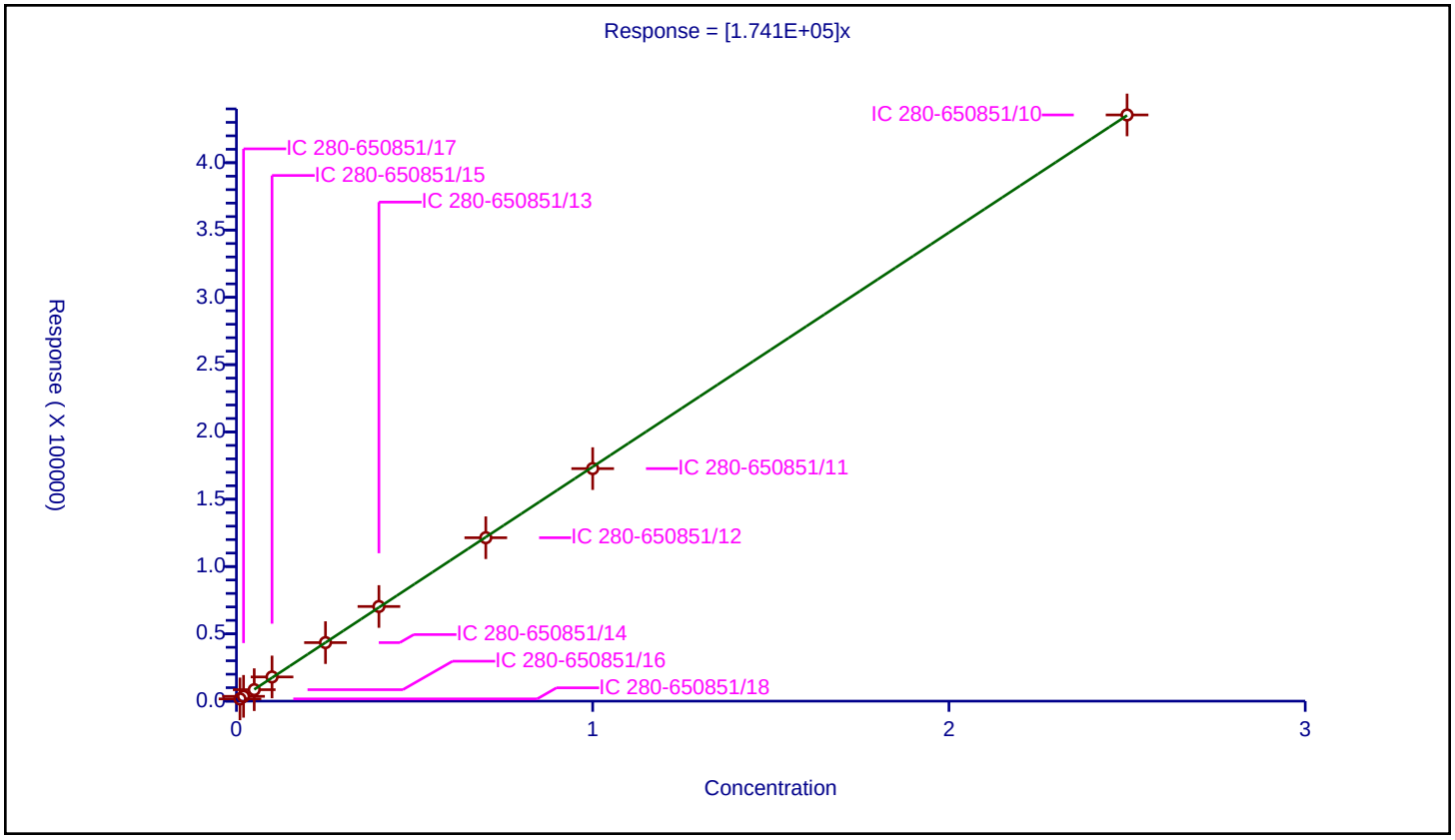
Curve Coefficients

Intercept:	0
Slope:	1.741E+05

Error Coefficients

Relative Standard Deviation:	2.2

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-650851/18	0.01	1677.0			167700.0	Y
2	IC 280-650851/17	0.02	3578.0			178900.0	Y
3	IC 280-650851/16	0.05	8509.0			170180.0	Y
4	IC 280-650851/15	0.1	17977.0			179770.0	Y
5	IC 280-650851/14	0.25	43487.0			173948.0	Y
6	IC 280-650851/13	0.4	70323.0			175807.5	Y
7	IC 280-650851/12	0.7	121397.0			173424.285714	Y
8	IC 280-650851/11	1.0	172751.0			172751.0	Y
9	IC 280-650851/10	2.5	435504.0			174201.6	Y



5/14/2024
9:20:15 AM

Calibration / 2,4,6-Trinitrophenol

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

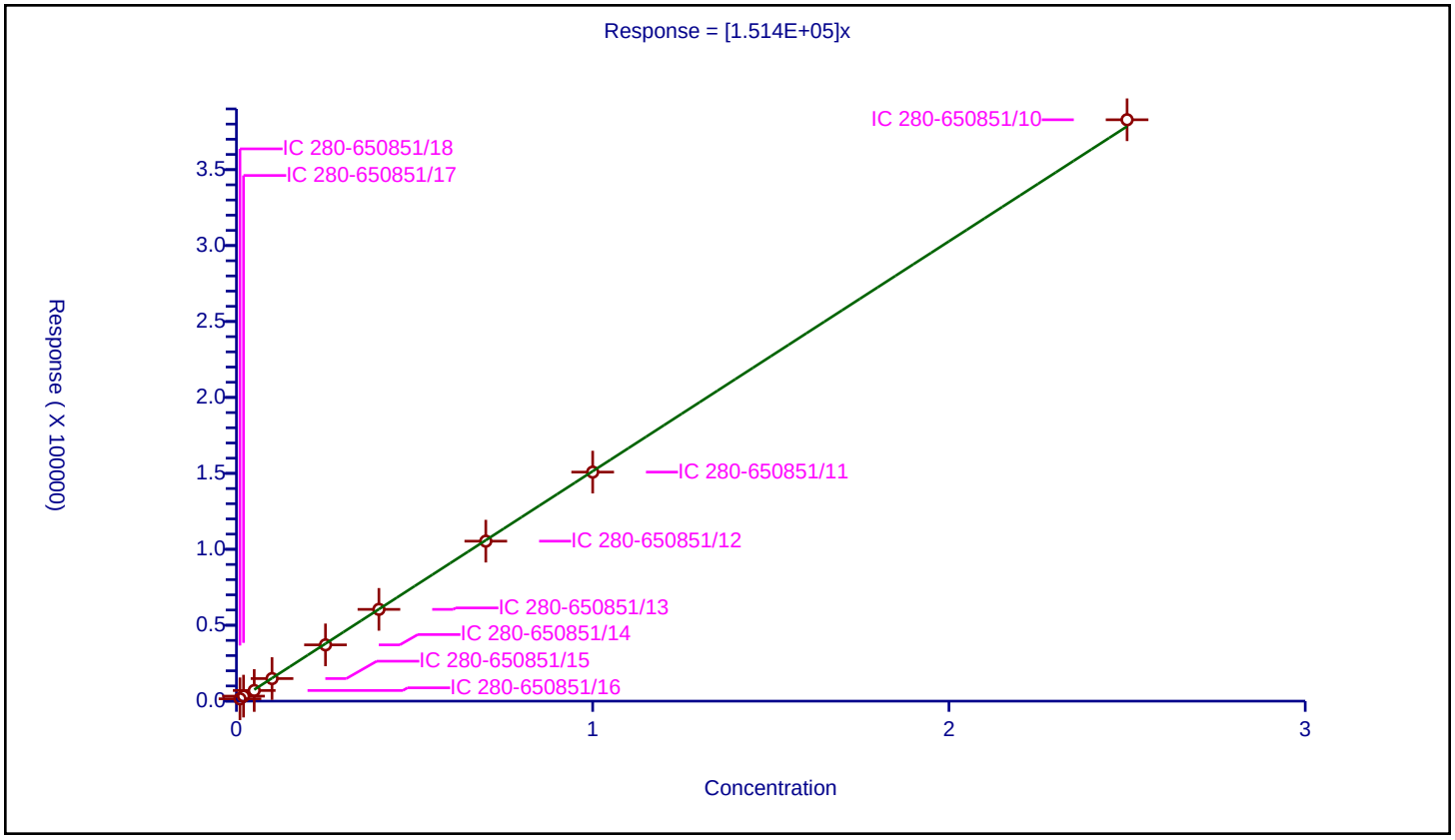
Curve Coefficients

Intercept:	0
Slope:	1.514E+05

Error Coefficients

Relative Standard Deviation:	4.3

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-650851/18	0.01	1549.0			154900.0	Y
2	IC 280-650851/17	0.02	3302.0			165100.0	Y
3	IC 280-650851/16	0.05	7014.0			140280.0	Y
4	IC 280-650851/15	0.1	14859.0			148590.0	Y
5	IC 280-650851/14	0.25	37043.0			148172.0	Y
6	IC 280-650851/13	0.4	60435.0			151087.5	Y
7	IC 280-650851/12	0.7	105341.0			150487.142857	Y
8	IC 280-650851/11	1.0	150820.0			150820.0	Y
9	IC 280-650851/10	2.5	382843.0			153137.2	Y



Calibration / RDX

Curve Type:	Linear
Weighting:	Conc_Sq
Origin:	None
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

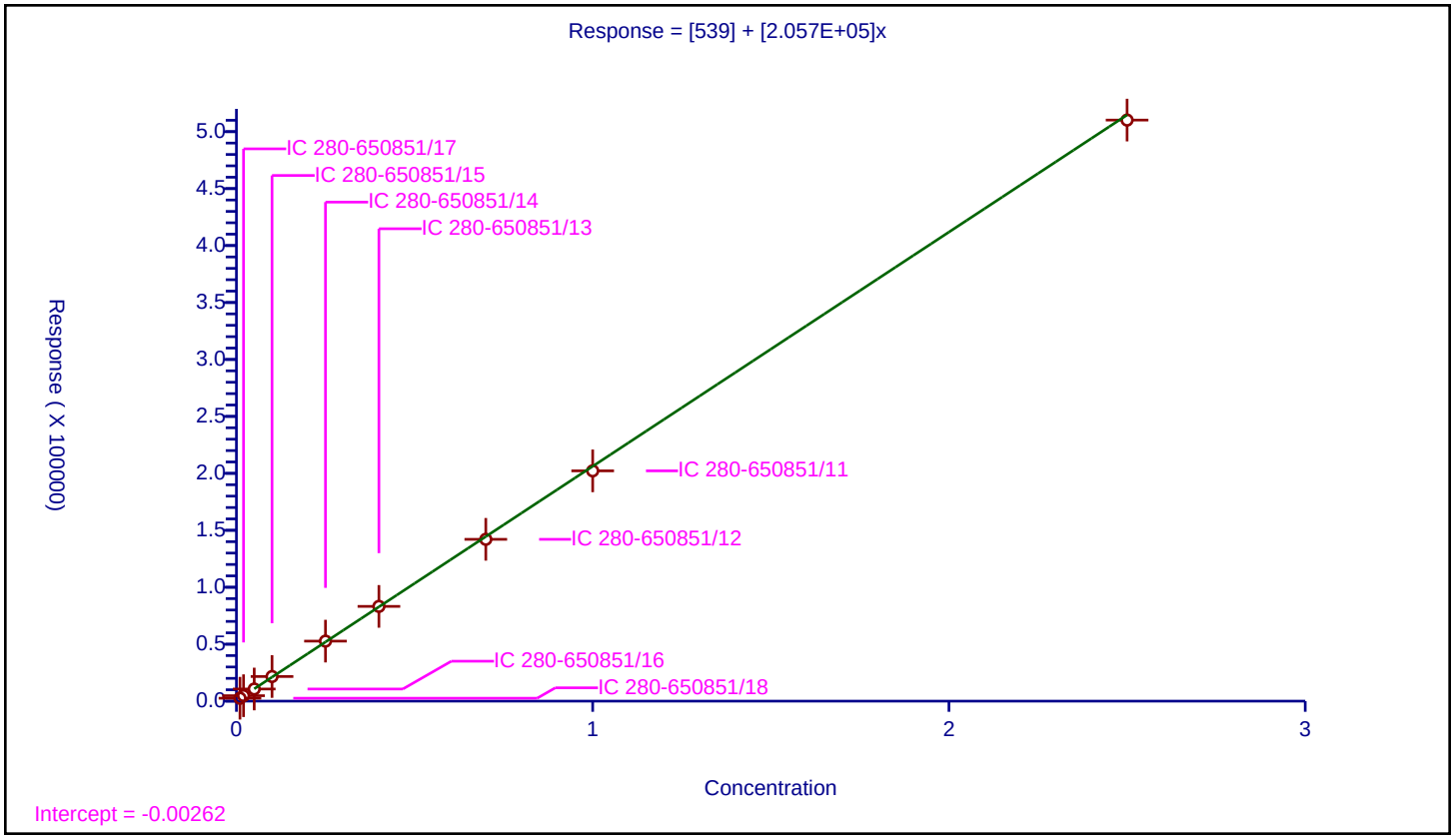
Curve Coefficients

Intercept:	539
Slope:	2.057E+05

Error Coefficients

Relative Standard Deviation:	2.2

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-650851/18	0.01	2562.0			256200.0	Y
2	IC 280-650851/17	0.02	4791.0			239550.0	Y
3	IC 280-650851/16	0.05	10654.0			213080.0	Y
4	IC 280-650851/15	0.1	21609.0			216090.0	Y
5	IC 280-650851/14	0.25	52707.0			210828.0	Y
6	IC 280-650851/13	0.4	83185.0			207962.5	Y
7	IC 280-650851/12	0.7	142066.0			202951.428571	Y
8	IC 280-650851/11	1.0	202193.0			202193.0	Y
9	IC 280-650851/10	2.5	510182.0			204072.8	Y



Calibration / Nitrobenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

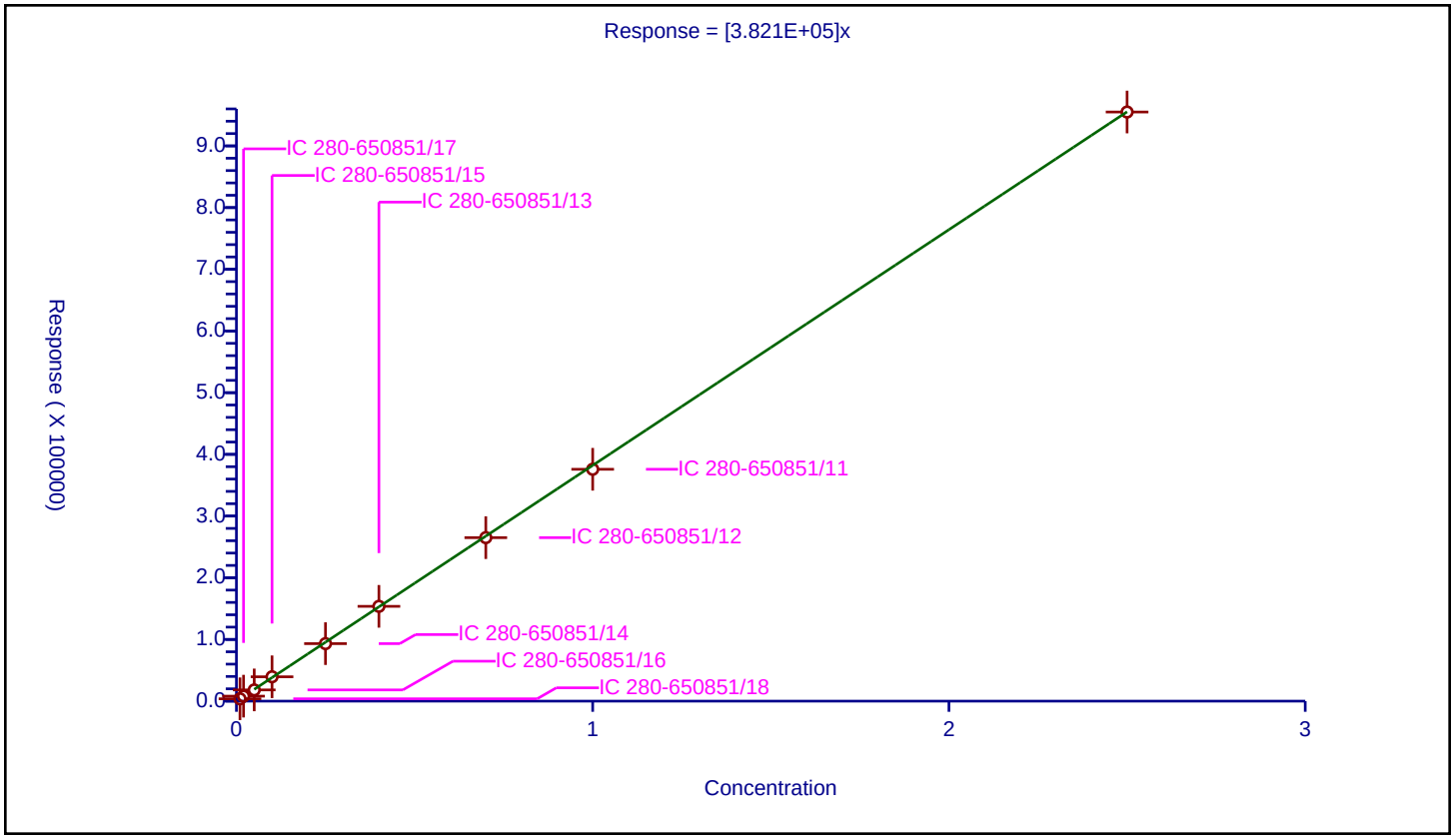
Curve Coefficients

Intercept:	0
Slope:	3.821E+05

Error Coefficients

Relative Standard Deviation:	3.2

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-650851/18	0.01	3818.0			381800.0	Y
2	IC 280-650851/17	0.02	8101.0			405050.0	Y
3	IC 280-650851/16	0.05	18193.0			363860.0	Y
4	IC 280-650851/15	0.1	39489.0			394890.0	Y
5	IC 280-650851/14	0.25	93225.0			372900.0	Y
6	IC 280-650851/13	0.4	153657.0			384142.5	Y
7	IC 280-650851/12	0.7	265026.0			378608.571429	Y
8	IC 280-650851/11	1.0	375845.0			375845.0	Y
9	IC 280-650851/10	2.5	954967.0			381986.8	Y



5/14/2024
9:20:15 AM

Calibration / 1,2-Dinitrobenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

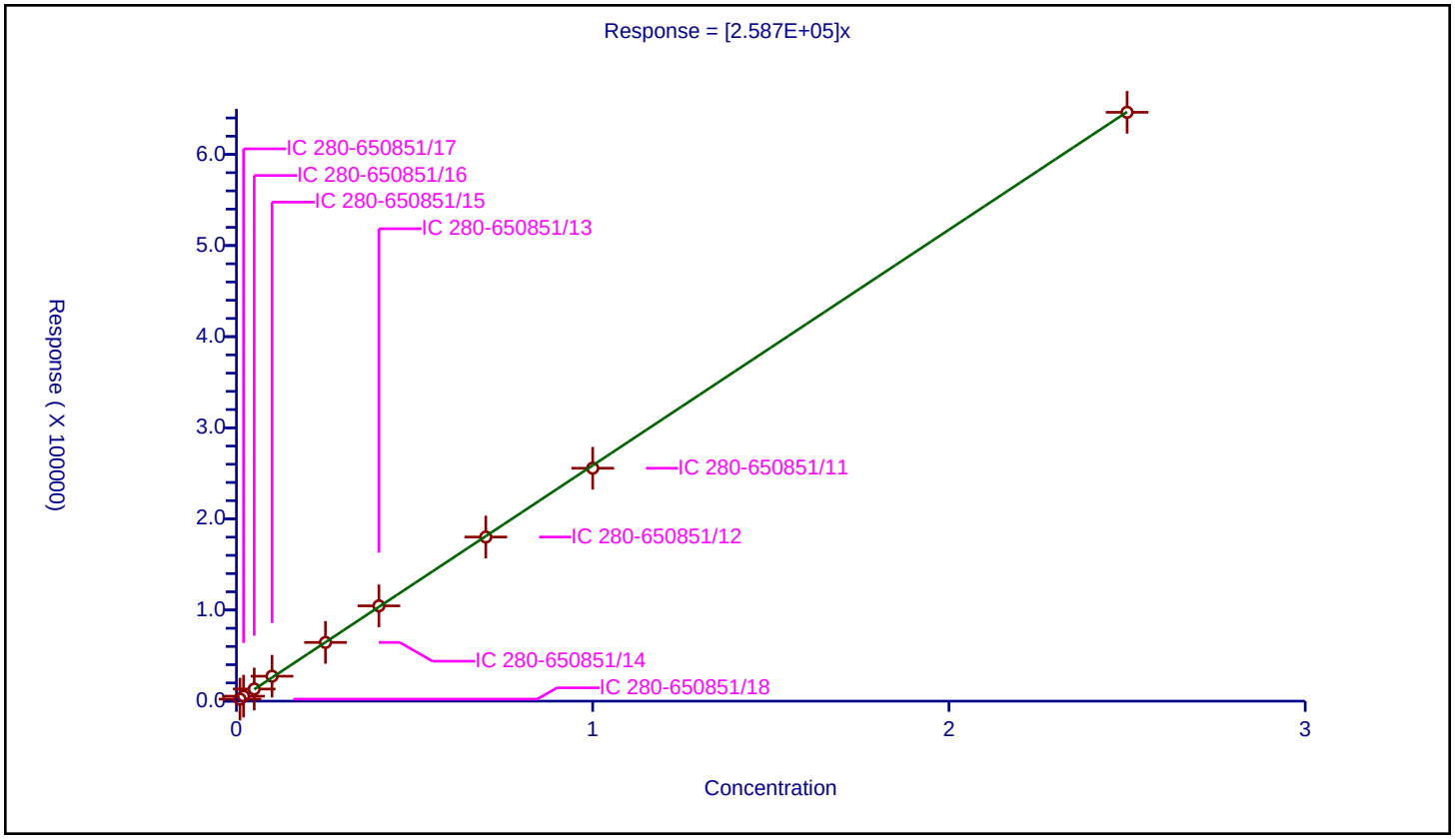
Curve Coefficients

Intercept:	0
Slope:	2.587E+05

Error Coefficients

Relative Standard Deviation:	5.7

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-650851/18	0.01	2237.0			223700.0	Y
2	IC 280-650851/17	0.02	5474.0			273700.0	Y
3	IC 280-650851/16	0.05	13324.0			266480.0	Y
4	IC 280-650851/15	0.1	27370.0			273700.0	Y
5	IC 280-650851/14	0.25	64431.0			257724.0	Y
6	IC 280-650851/13	0.4	104562.0			261405.0	Y
7	IC 280-650851/12	0.7	180143.0			257347.142857	Y
8	IC 280-650851/11	1.0	255644.0			255644.0	Y
9	IC 280-650851/10	2.5	646251.0			258500.4	Y



Calibration / 3,5-Dinitroaniline

Curve Type:	Linear
Weighting:	Conc_Sq
Origin:	None
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

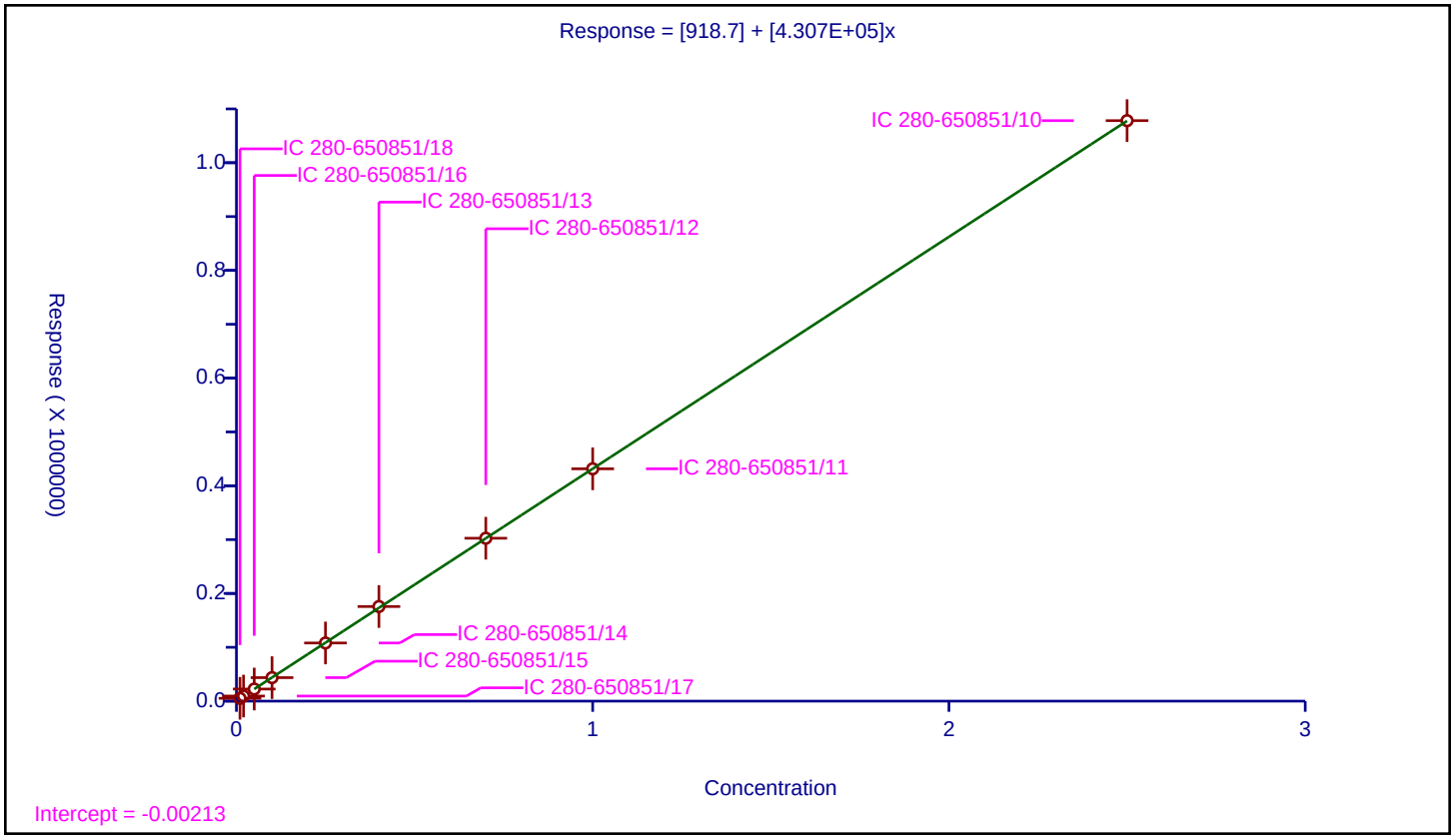
Curve Coefficients

Intercept:	918.7
Slope:	4.307E+05

Error Coefficients

Relative Standard Deviation:	0.7

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-650851/18	0.01	5245.0			524500.0	Y
2	IC 280-650851/17	0.02	9463.0			473150.0	Y
3	IC 280-650851/16	0.05	22481.0			449620.0	Y
4	IC 280-650851/15	0.1	43670.0			436700.0	Y
5	IC 280-650851/14	0.25	108023.0			432092.0	Y
6	IC 280-650851/13	0.4	175740.0			439350.0	Y
7	IC 280-650851/12	0.7	302587.0			432267.142857	Y
8	IC 280-650851/11	1.0	431522.0			431522.0	Y
9	IC 280-650851/10	2.5	1078184.0			431273.6	Y



5/14/2024
9:20:15 AM

Calibration / 1,3-Dinitrobenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

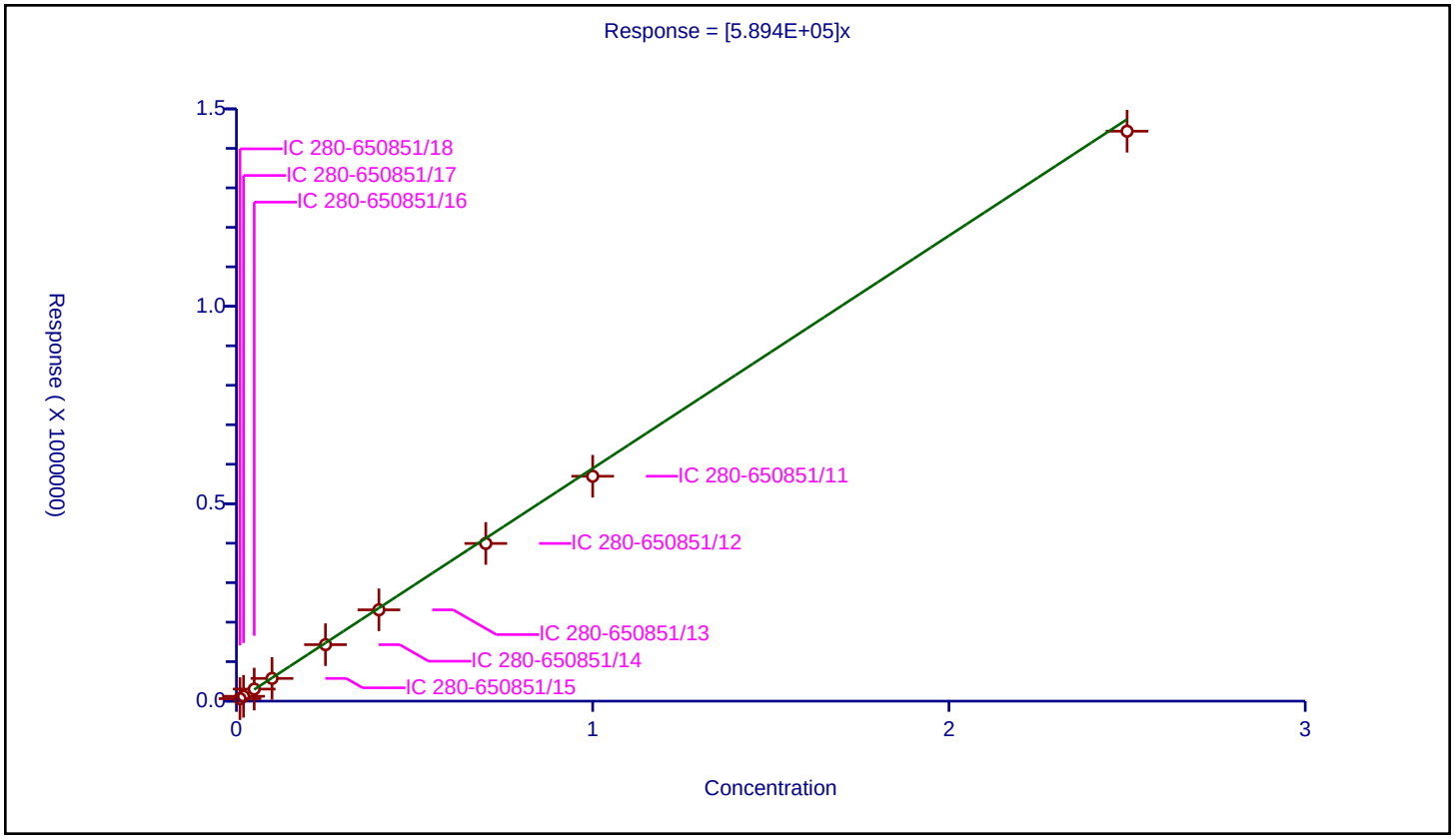
Curve Coefficients

Intercept:	0
Slope:	5.894E+05

Error Coefficients

Relative Standard Deviation:	4.1

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-650851/18	0.01	6332.0			633200.0	Y
2	IC 280-650851/17	0.02	12318.0			615900.0	Y
3	IC 280-650851/16	0.05	30596.0			611920.0	Y
4	IC 280-650851/15	0.1	57592.0			575920.0	Y
5	IC 280-650851/14	0.25	143019.0			572076.0	Y
6	IC 280-650851/13	0.4	231256.0			578140.0	Y
7	IC 280-650851/12	0.7	399408.0			570582.857143	Y
8	IC 280-650851/11	1.0	569625.0			569625.0	Y
9	IC 280-650851/10	2.5	1443498.0			577399.2	Y



5/14/2024
9:20:15 AM

Calibration / Nitroglycerin

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

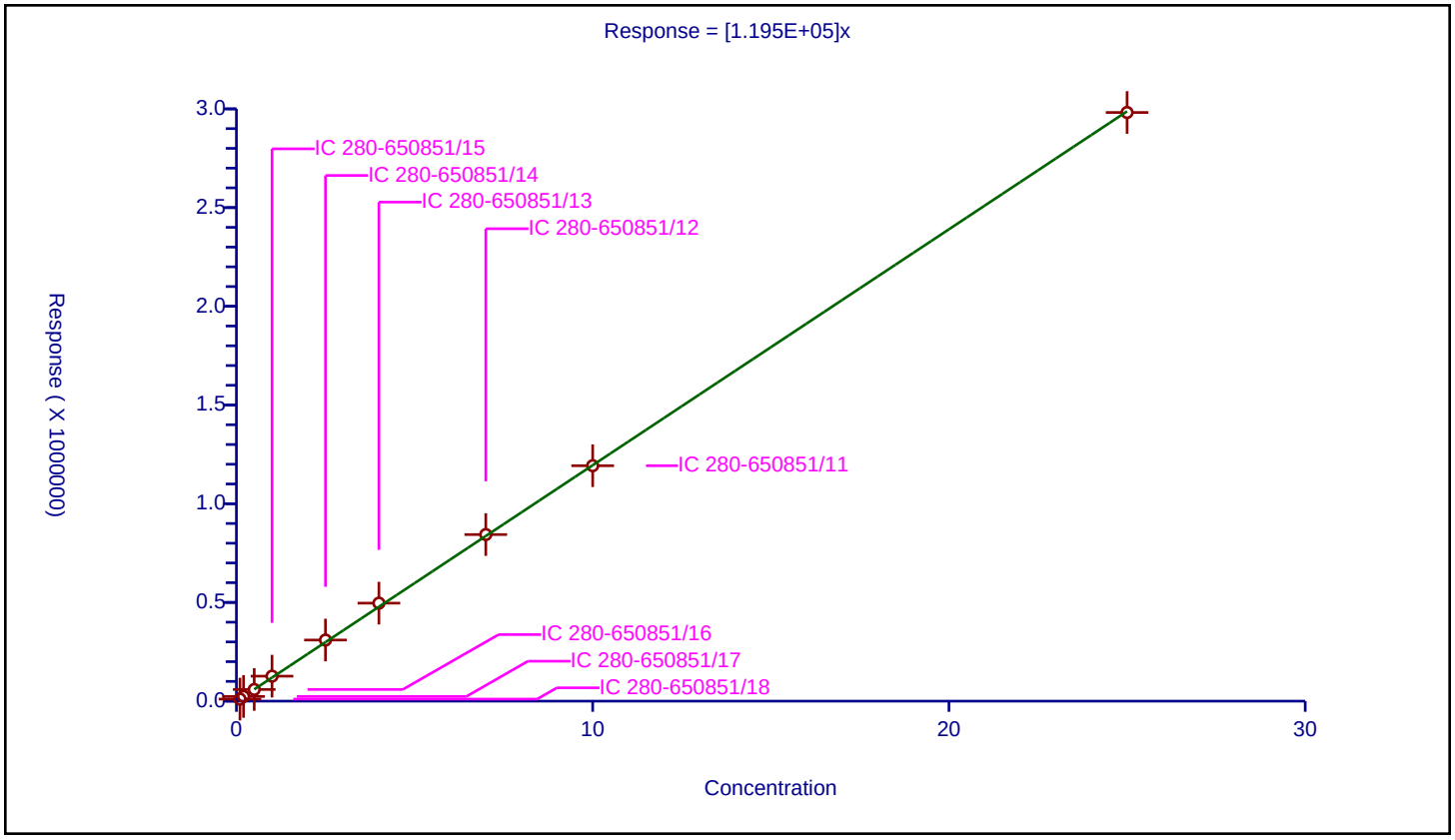
Curve Coefficients

Intercept:	0
Slope:	1.195E+05

Error Coefficients

Relative Standard Deviation:	5.3

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-650851/18	0.1	10431.0			104310.0	Y
2	IC 280-650851/17	0.2	23877.0			119385.0	Y
3	IC 280-650851/16	0.5	59130.0			118260.0	Y
4	IC 280-650851/15	1.0	126558.0			126558.0	Y
5	IC 280-650851/14	2.5	309600.0			123840.0	Y
6	IC 280-650851/13	4.0	496432.0			124108.0	Y
7	IC 280-650851/12	7.0	843844.0			120549.142857	Y
8	IC 280-650851/11	10.0	1192597.0			119259.7	Y
9	IC 280-650851/10	25.0	2981826.0			119273.04	Y



Calibration / o-Nitrotoluene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

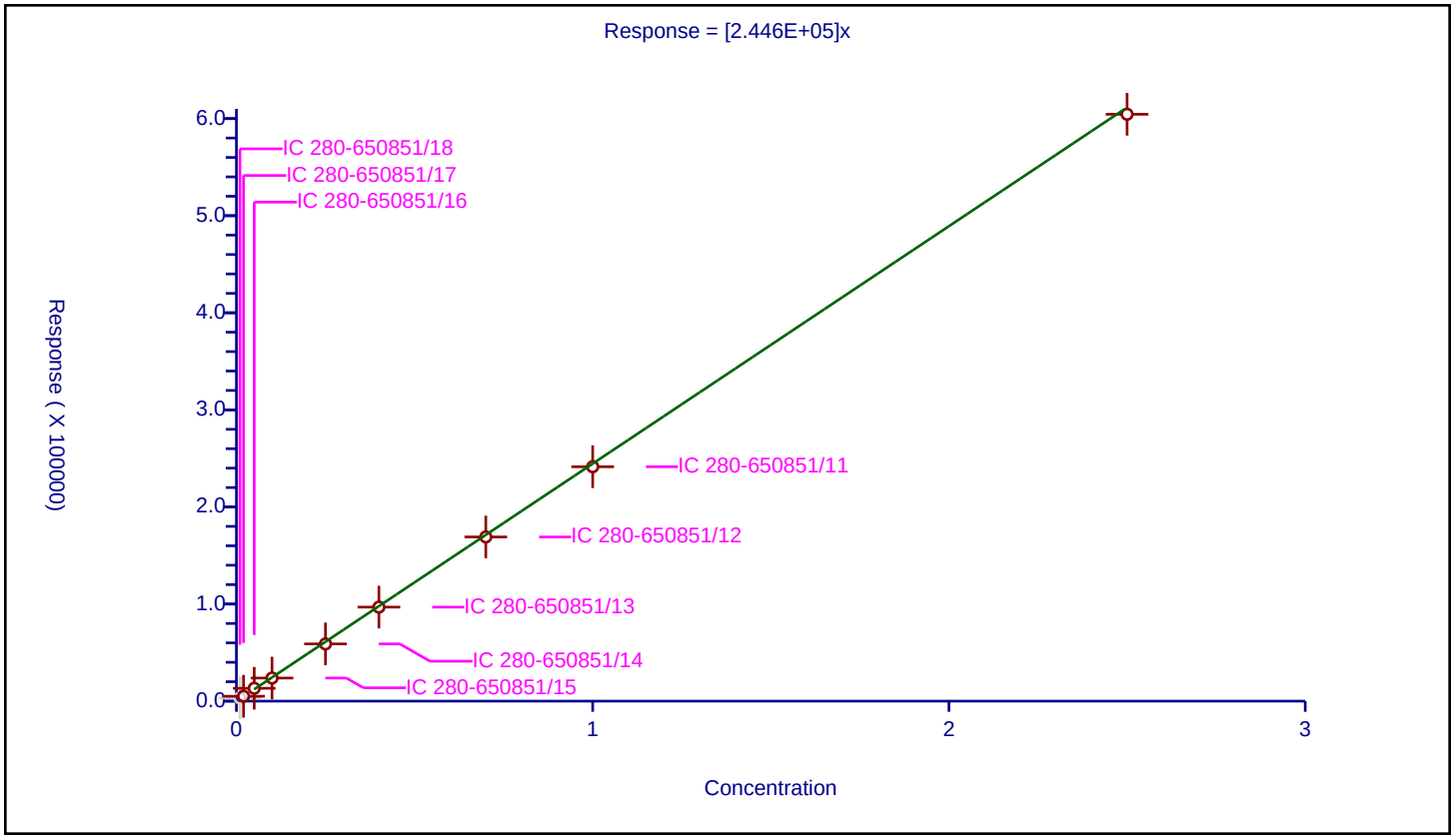
Curve Coefficients

Intercept:	0
Slope:	2.446E+05

Error Coefficients

Relative Standard Deviation:	3.8

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-650851/18	0.01	3289.0			328900.0	N
2	IC 280-650851/17	0.02	5024.0			251200.0	Y
3	IC 280-650851/16	0.05	13247.0			264940.0	Y
4	IC 280-650851/15	0.1	23799.0			237990.0	Y
5	IC 280-650851/14	0.25	58941.0			235764.0	Y
6	IC 280-650851/13	0.4	96839.0			242097.5	Y
7	IC 280-650851/12	0.7	169093.0			241561.428571	Y
8	IC 280-650851/11	1.0	241414.0			241414.0	Y
9	IC 280-650851/10	2.5	604470.0			241788.0	Y



5/14/2024
9:20:15 AM

Calibration / p-Nitrotoluene

Curve Type:	Linear
Weighting:	Conc_Sq
Origin:	None
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

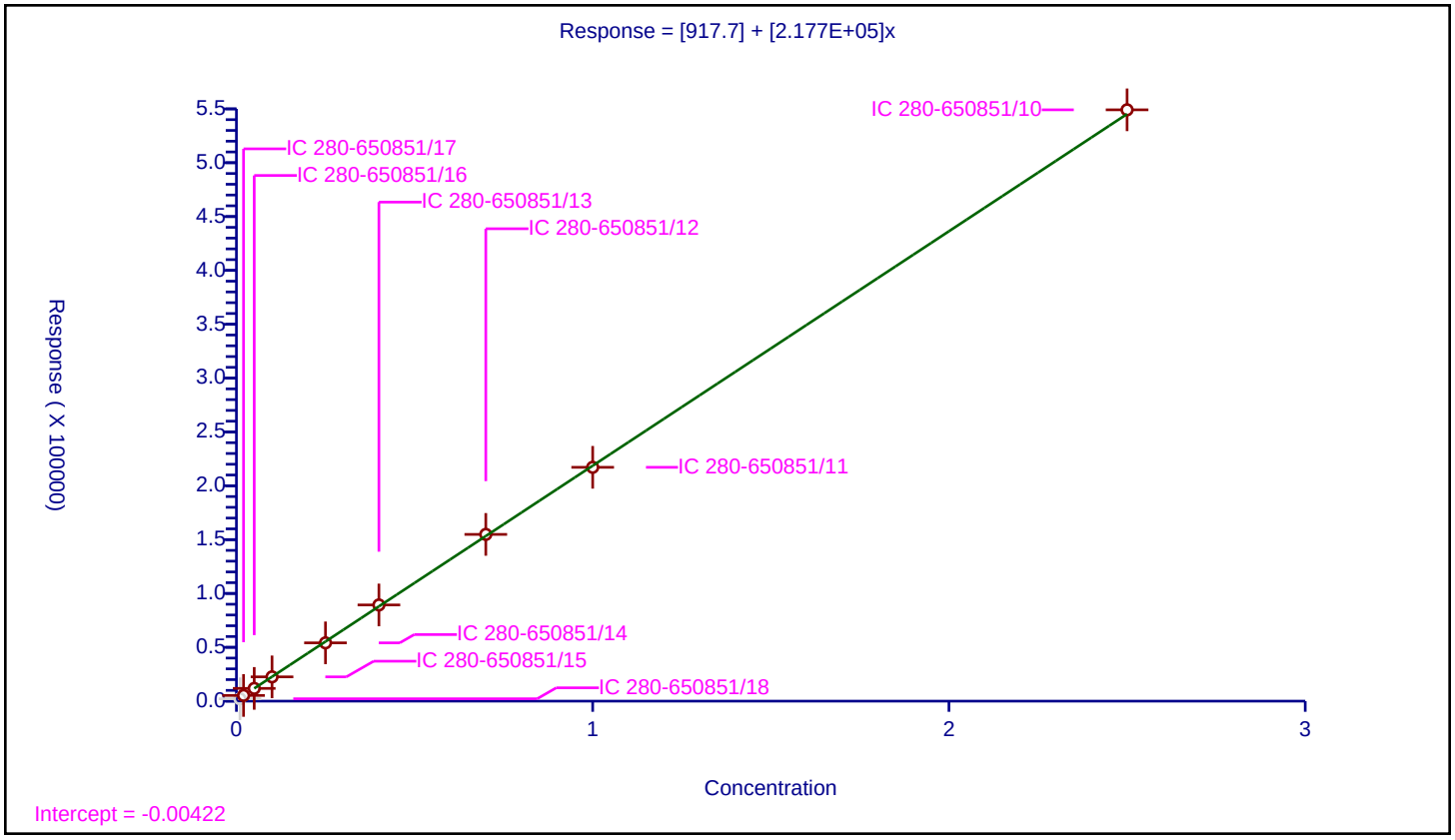
Curve Coefficients

Intercept:	917.7
Slope:	2.177E+05

Error Coefficients

Relative Standard Deviation:	1.3

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-650851/18	0.01	2223.0			222300.0	N
2	IC 280-650851/17	0.02	5278.0			263900.0	Y
3	IC 280-650851/16	0.05	11825.0			236500.0	Y
4	IC 280-650851/15	0.1	22549.0			225490.0	Y
5	IC 280-650851/14	0.25	54130.0			216520.0	Y
6	IC 280-650851/13	0.4	89334.0			223335.0	Y
7	IC 280-650851/12	0.7	154841.0			221201.428571	Y
8	IC 280-650851/11	1.0	217154.0			217154.0	Y
9	IC 280-650851/10	2.5	549133.0			219653.2	Y



5/14/2024
9:20:15 AM

Calibration / 4-Amino-2,6-dinitrotoluene

Curve Type:	Linear
Weighting:	Conc_Sq
Origin:	None
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

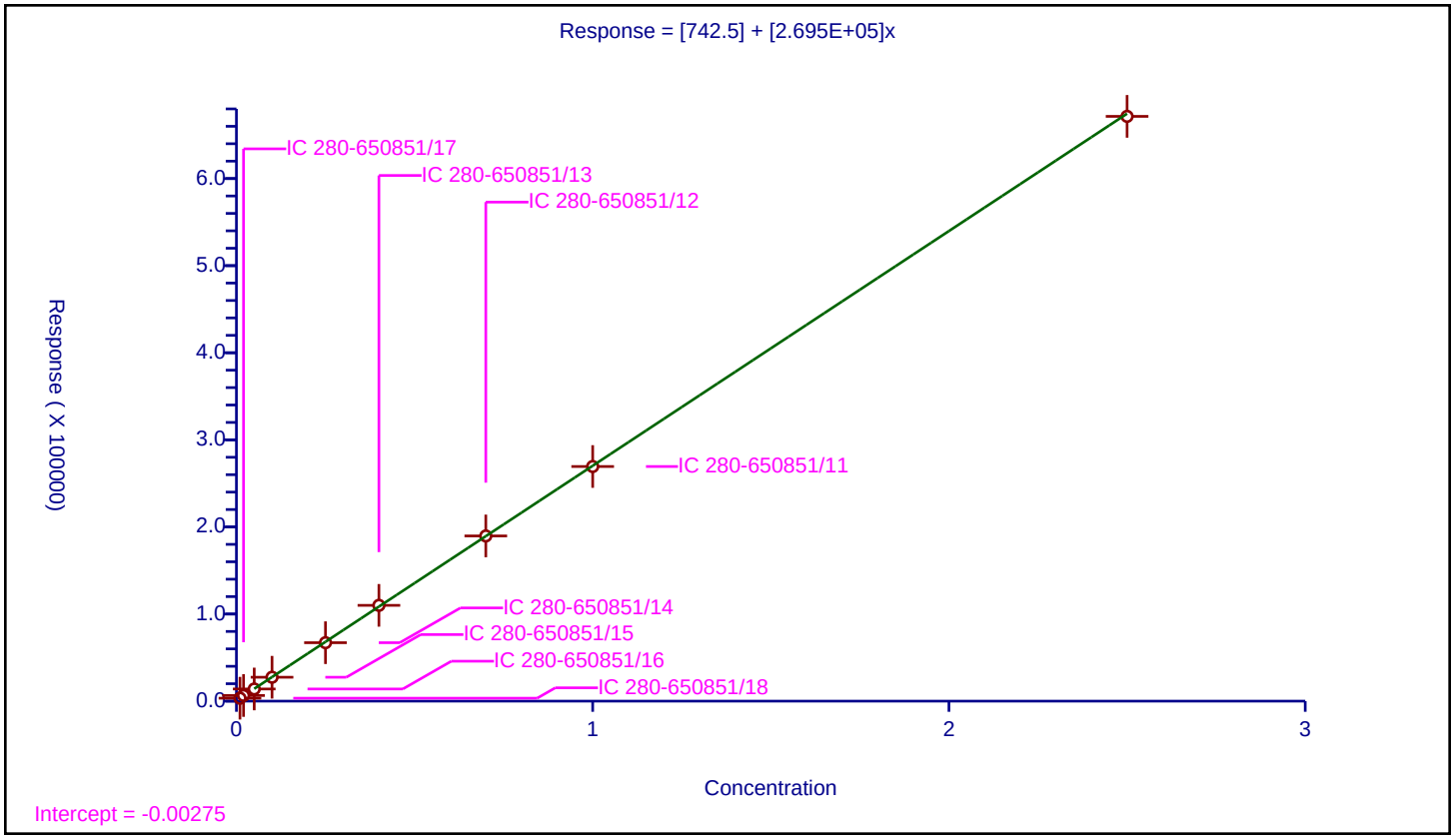
Curve Coefficients

Intercept:	742.5
Slope:	2.695E+05

Error Coefficients

Relative Standard Deviation:	2.8

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-650851/18	0.01	3366.0			336600.0	Y
2	IC 280-650851/17	0.02	6474.0			323700.0	Y
3	IC 280-650851/16	0.05	13955.0			279100.0	Y
4	IC 280-650851/15	0.1	27449.0			274490.0	Y
5	IC 280-650851/14	0.25	67115.0			268460.0	Y
6	IC 280-650851/13	0.4	109971.0			274927.5	Y
7	IC 280-650851/12	0.7	189660.0			270942.857143	Y
8	IC 280-650851/11	1.0	269382.0			269382.0	Y
9	IC 280-650851/10	2.5	671412.0			268564.8	Y



5/14/2024
9:20:15 AM

Calibration / m-Nitrotoluene

Curve Type:	Linear
Weighting:	Conc_Sq
Origin:	None
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

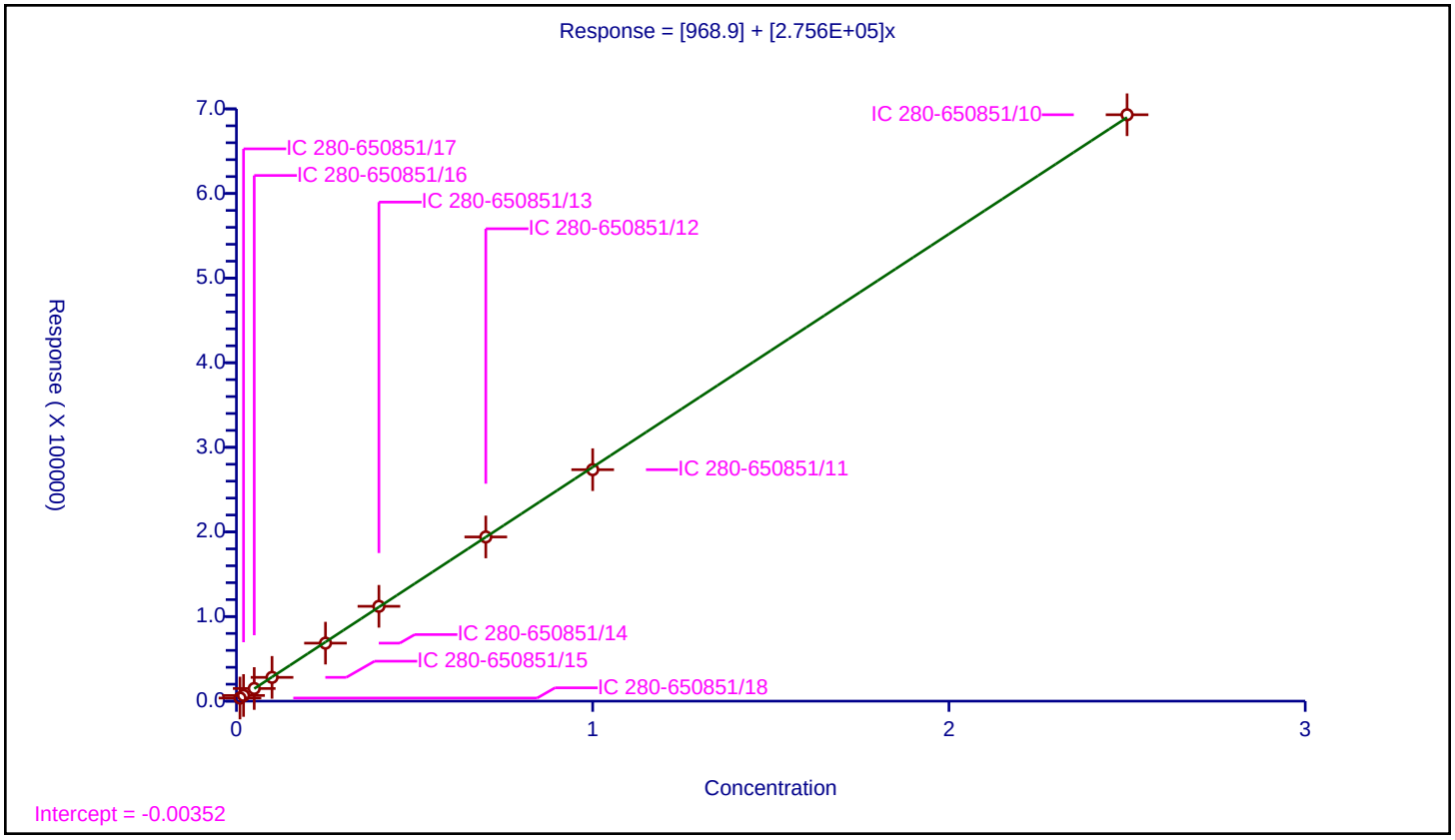
Curve Coefficients

Intercept:	968.9
Slope:	2.756E+05

Error Coefficients

Relative Standard Deviation:	2.0

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-650851/18	0.01	3672.0			367200.0	Y
2	IC 280-650851/17	0.02	6685.0			334250.0	Y
3	IC 280-650851/16	0.05	14941.0			298820.0	Y
4	IC 280-650851/15	0.1	28103.0			281030.0	Y
5	IC 280-650851/14	0.25	68559.0			274236.0	Y
6	IC 280-650851/13	0.4	112076.0			280190.0	Y
7	IC 280-650851/12	0.7	194048.0			277211.428571	Y
8	IC 280-650851/11	1.0	273569.0			273569.0	Y
9	IC 280-650851/10	2.5	693064.0			277225.6	Y



5/14/2024
9:20:15 AM

Calibration / 2-Amino-4,6-dinitrotoluene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

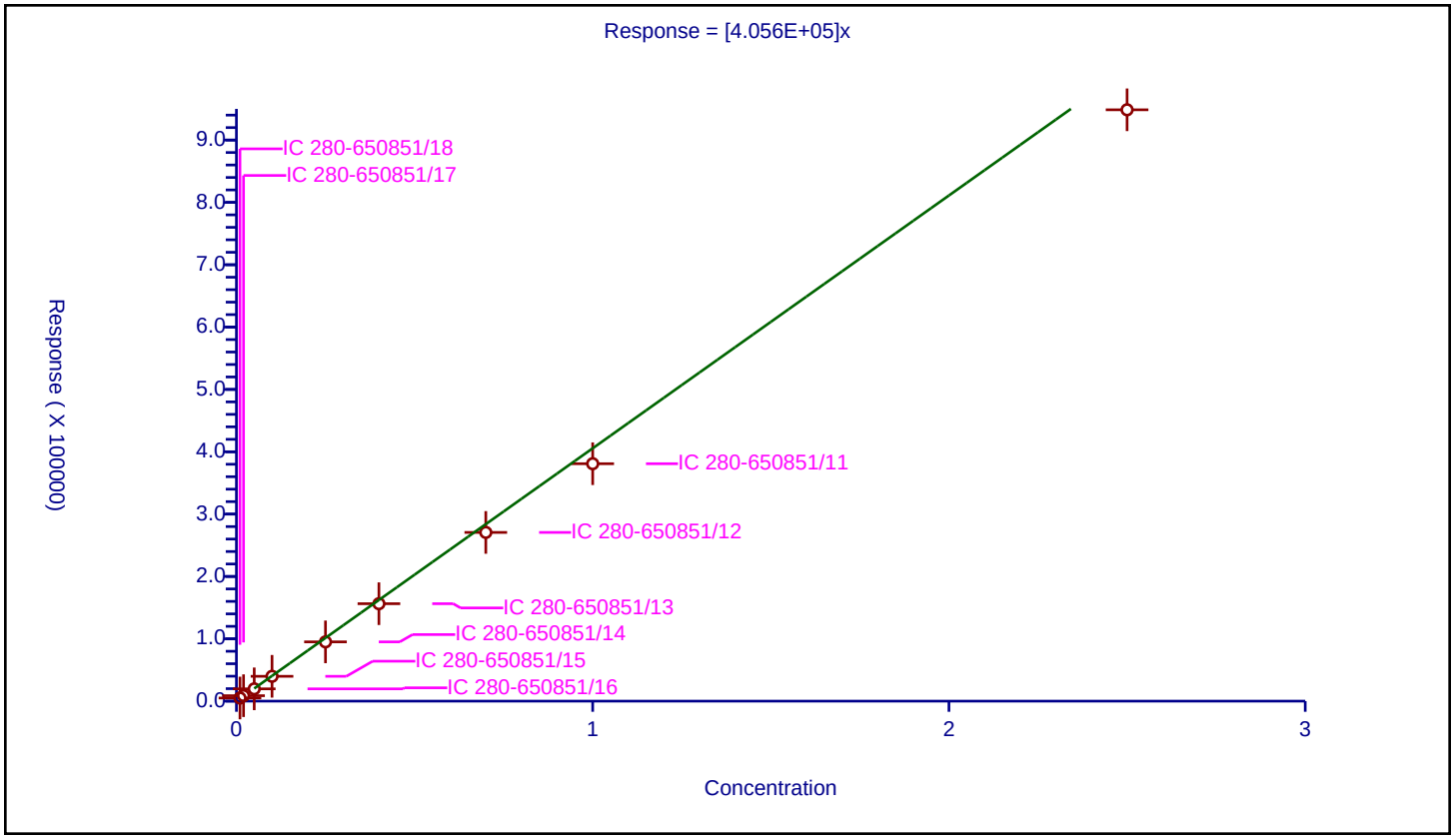
Curve Coefficients

Intercept:	0
Slope:	4.056E+05

Error Coefficients

Relative Standard Deviation:	9.9

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-650851/18	0.01	5022.0			502200.0	Y
2	IC 280-650851/17	0.02	8733.0			436650.0	Y
3	IC 280-650851/16	0.05	19735.0			394700.0	Y
4	IC 280-650851/15	0.1	39853.0			398530.0	Y
5	IC 280-650851/14	0.25	95082.0			380328.0	Y
6	IC 280-650851/13	0.4	156312.0			390780.0	Y
7	IC 280-650851/12	0.7	270634.0			386620.0	Y
8	IC 280-650851/11	1.0	380835.0			380835.0	Y
9	IC 280-650851/10	2.5	948541.0			379416.4	Y



5/14/2024
9:20:15 AM

Calibration / 1,3,5-Trinitrobenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

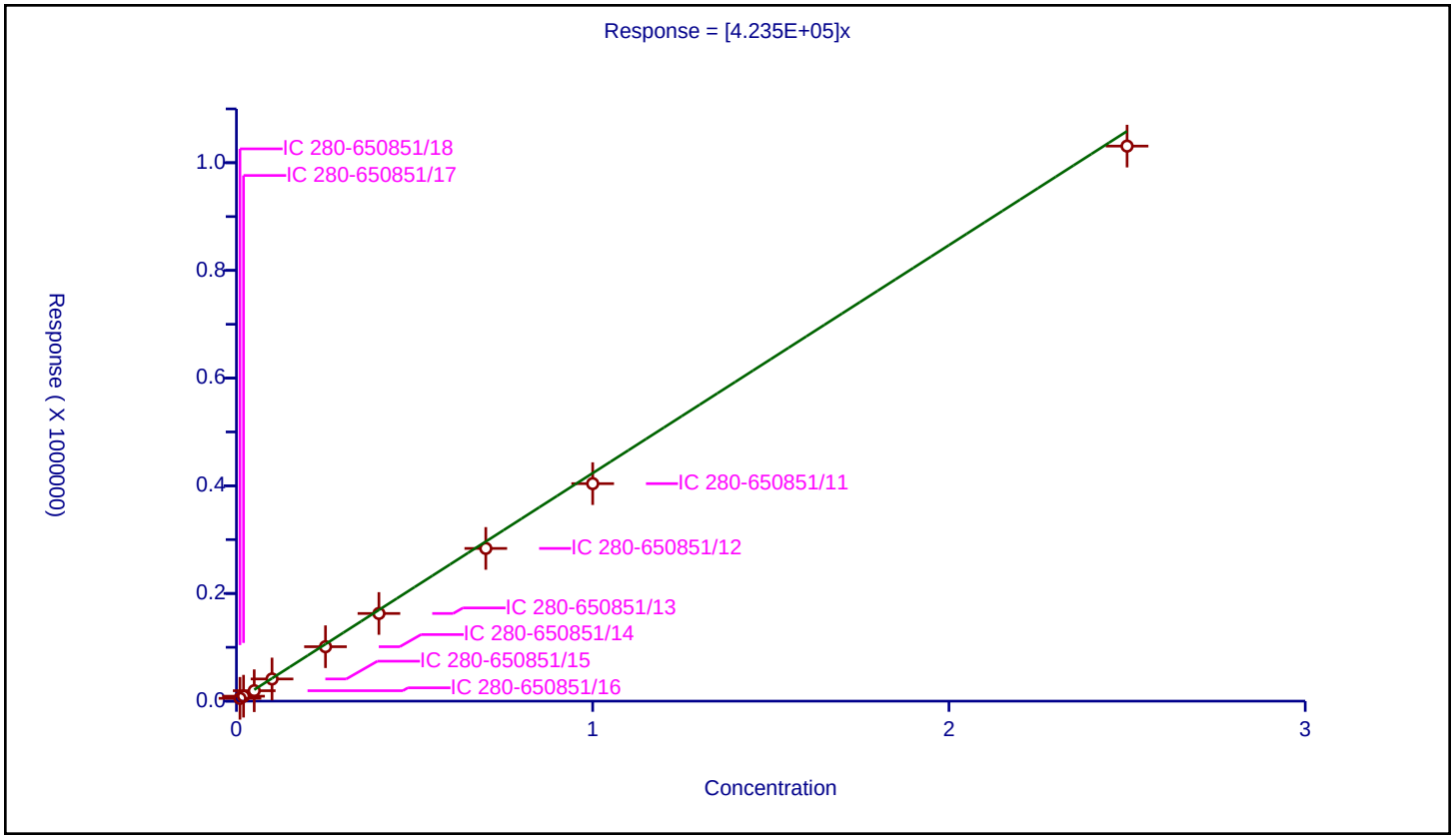
Curve Coefficients

Intercept:	0
Slope:	4.235E+05

Error Coefficients

Relative Standard Deviation:	9.8

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-650851/18	0.01	5210.0			521000.0	Y
2	IC 280-650851/17	0.02	9167.0			458350.0	Y
3	IC 280-650851/16	0.05	19358.0			387160.0	Y
4	IC 280-650851/15	0.1	41177.0			411770.0	Y
5	IC 280-650851/14	0.25	101067.0			404268.0	Y
6	IC 280-650851/13	0.4	162815.0			407037.5	Y
7	IC 280-650851/12	0.7	283624.0			405177.142857	Y
8	IC 280-650851/11	1.0	403965.0			403965.0	Y
9	IC 280-650851/10	2.5	1030907.0			412362.8	Y



5/14/2024
9:20:15 AM

Calibration / 2,6-Dinitrotoluene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

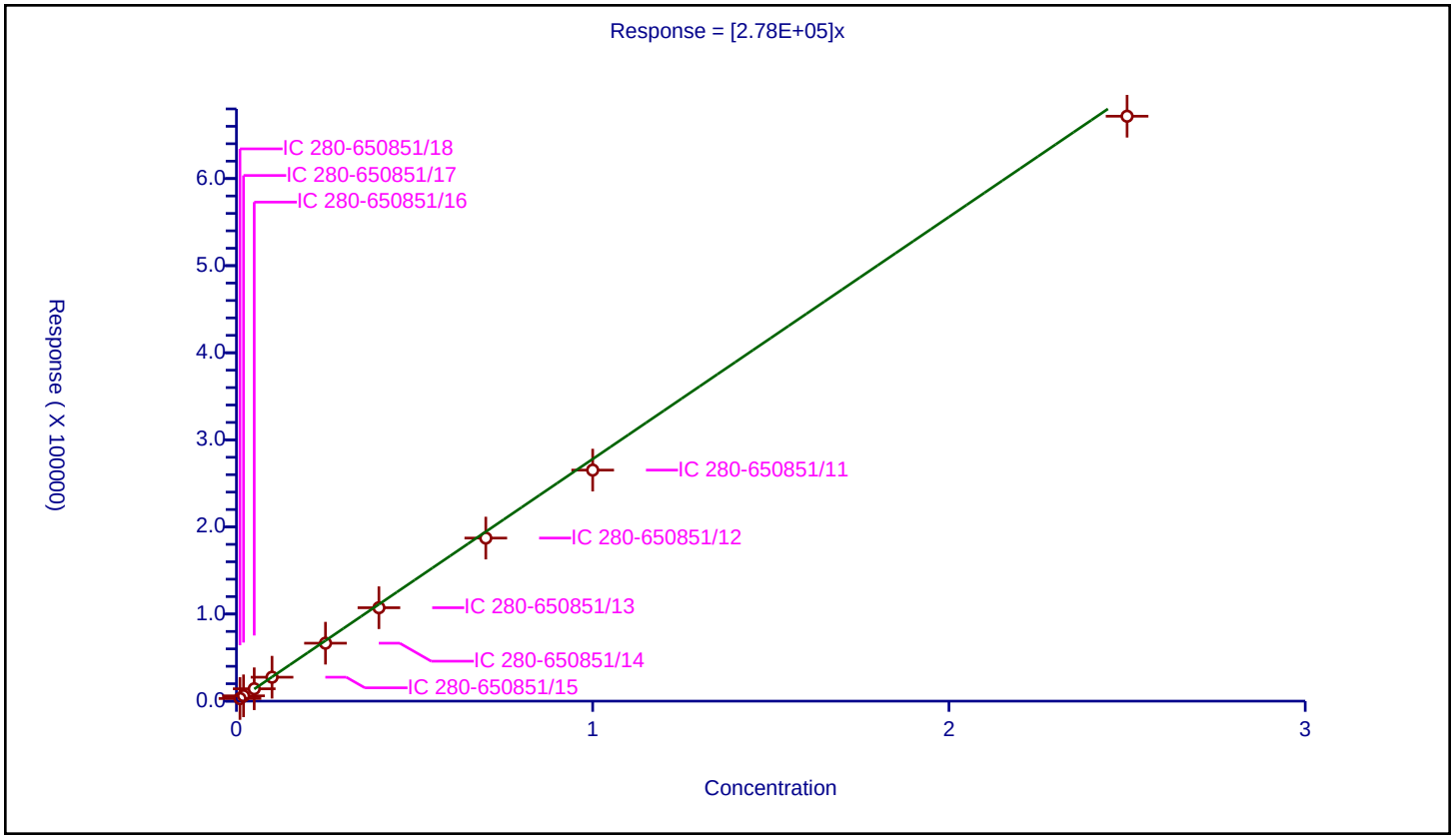
Curve Coefficients

Intercept:	0
Slope:	2.78E+05

Error Coefficients

Relative Standard Deviation:	5.6

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-650851/18	0.01	3016.0			301600.0	Y
2	IC 280-650851/17	0.02	6113.0			305650.0	Y
3	IC 280-650851/16	0.05	14197.0			283940.0	Y
4	IC 280-650851/15	0.1	27487.0			274870.0	Y
5	IC 280-650851/14	0.25	66539.0			266156.0	Y
6	IC 280-650851/13	0.4	107267.0			268167.5	Y
7	IC 280-650851/12	0.7	187213.0			267447.142857	Y
8	IC 280-650851/11	1.0	265267.0			265267.0	Y
9	IC 280-650851/10	2.5	671582.0			268632.8	Y



Calibration / 2,4-Dinitrotoluene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

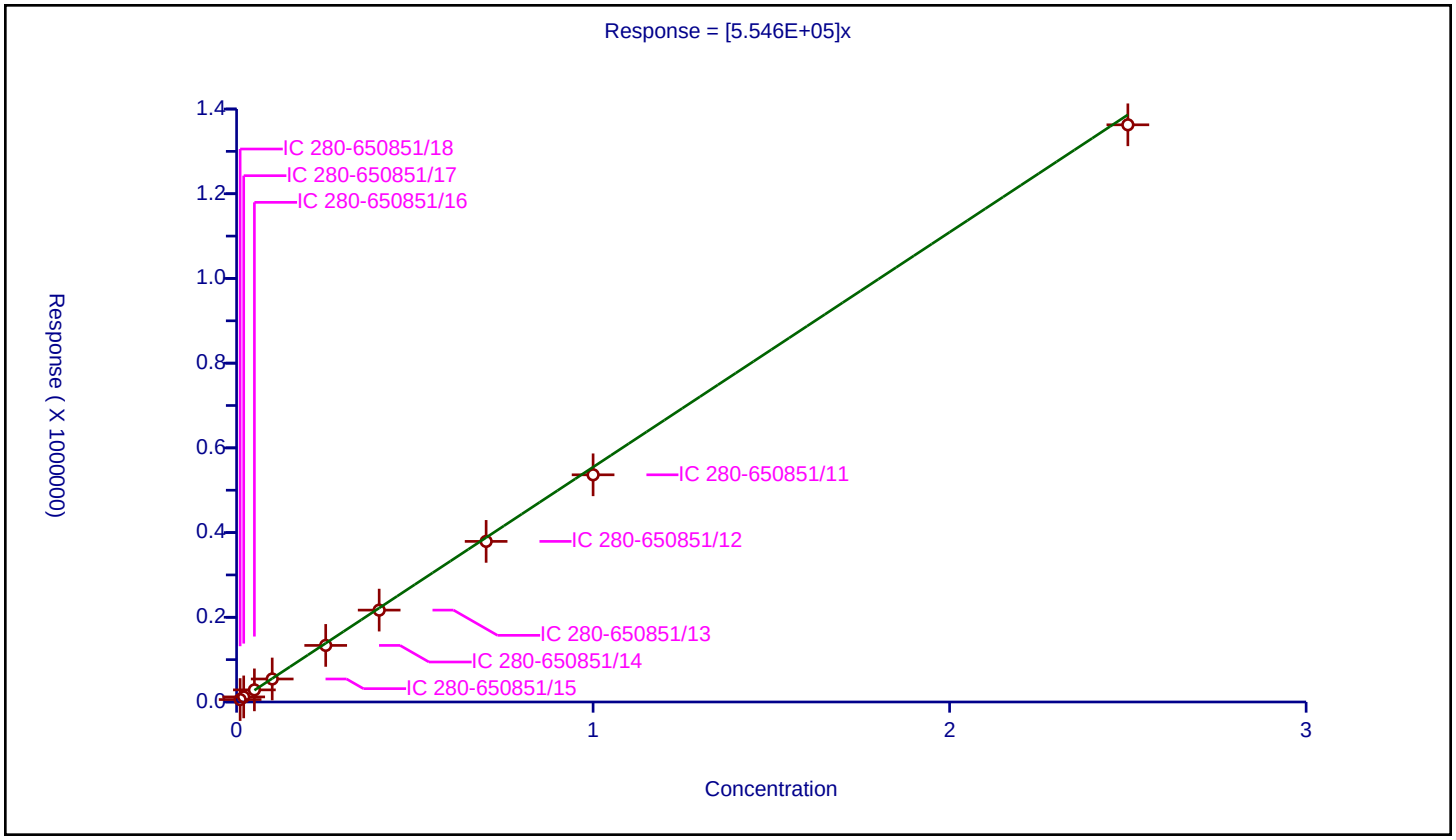
Curve Coefficients

Intercept:	0
Slope:	5.546E+05

Error Coefficients

Relative Standard Deviation:	4.1

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-650851/18	0.01	5764.0			576400.0	Y
2	IC 280-650851/17	0.02	12005.0			600250.0	Y
3	IC 280-650851/16	0.05	28589.0			571780.0	Y
4	IC 280-650851/15	0.1	54294.0			542940.0	Y
5	IC 280-650851/14	0.25	133579.0			534316.0	Y
6	IC 280-650851/13	0.4	216895.0			542237.5	Y
7	IC 280-650851/12	0.7	379151.0			541644.285714	Y
8	IC 280-650851/11	1.0	536407.0			536407.0	Y
9	IC 280-650851/10	2.5	1362753.0			545101.2	Y



Calibration / Tetryl

Curve Type:	Linear
Weighting:	Conc_Sq
Origin:	None
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

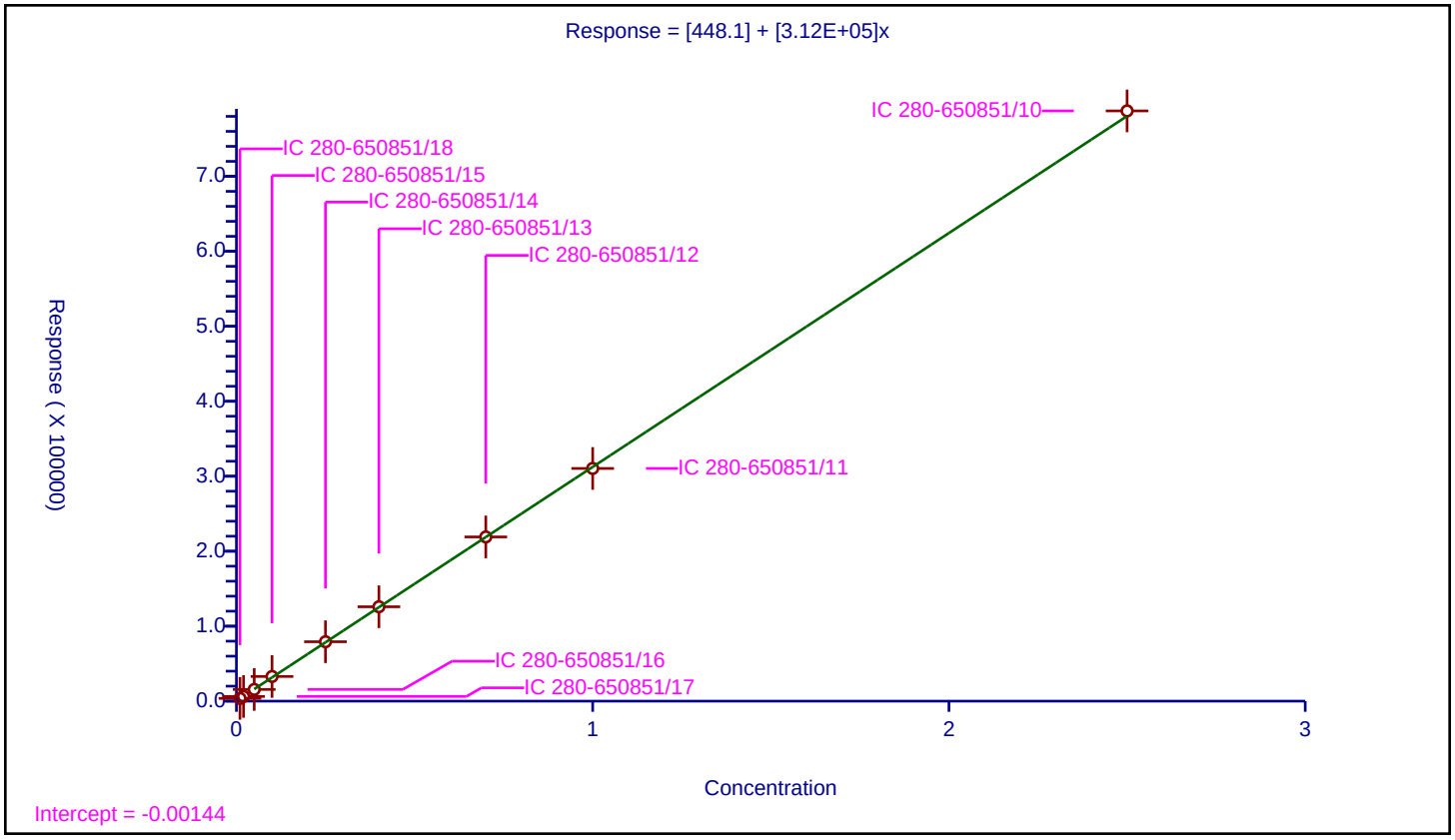
Curve Coefficients

Intercept:	448.1
Slope:	3.12E+05

Error Coefficients

Relative Standard Deviation:	3.5

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-650851/18	0.01	3675.0			367500.0	Y
2	IC 280-650851/17	0.02	6268.0			313400.0	Y
3	IC 280-650851/16	0.05	15630.0			312600.0	Y
4	IC 280-650851/15	0.1	32920.0			329200.0	Y
5	IC 280-650851/14	0.25	79229.0			316916.0	Y
6	IC 280-650851/13	0.4	125893.0			314732.5	Y
7	IC 280-650851/12	0.7	219045.0			312921.428571	Y
8	IC 280-650851/11	1.0	310388.0			310388.0	Y
9	IC 280-650851/10	2.5	787307.0			314922.8	Y



5/14/2024
9:20:15 AM

Calibration / 2,4,6-Trinitrotoluene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

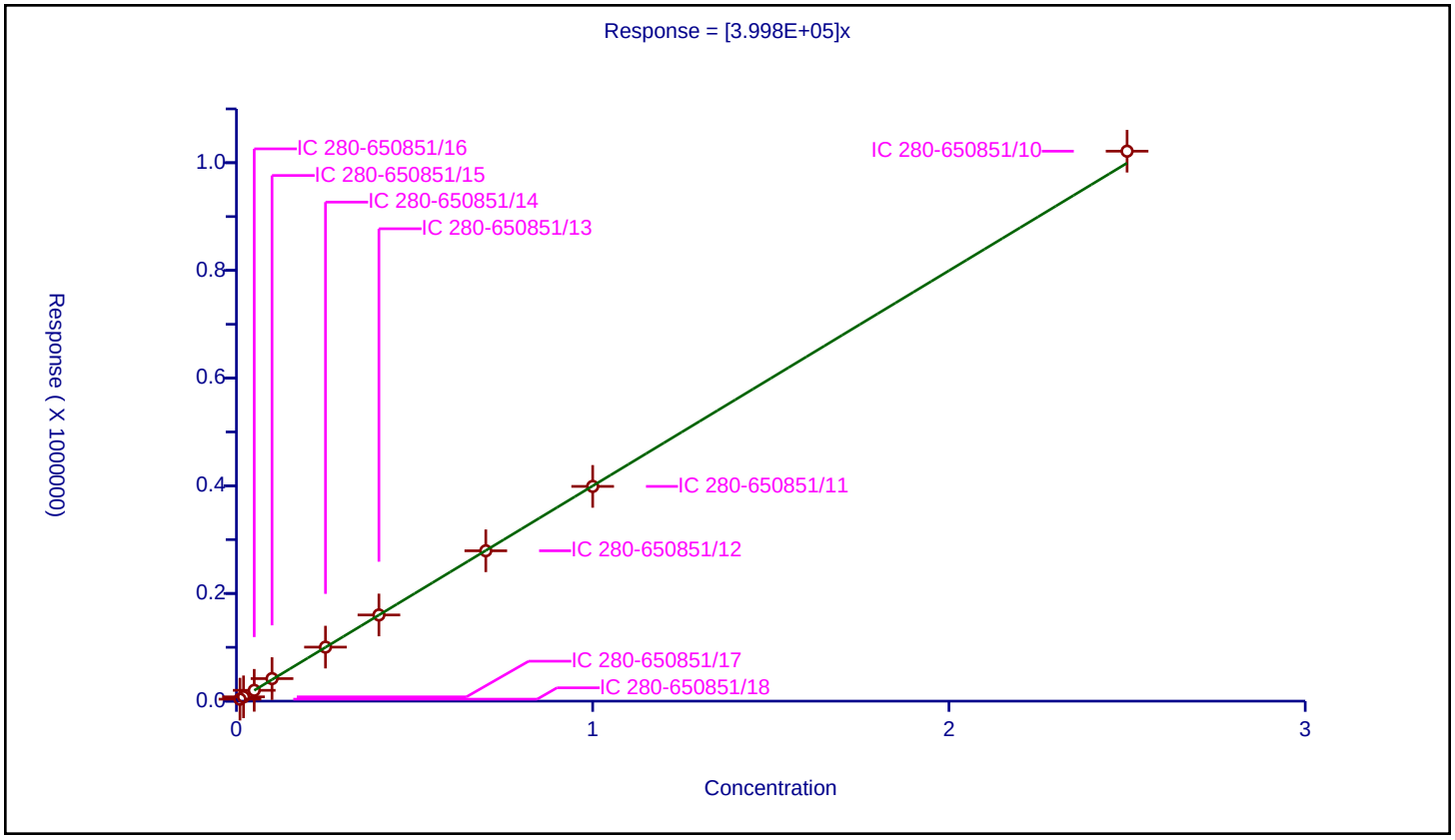
Curve Coefficients

Intercept:	0
Slope:	3.998E+05

Error Coefficients

Relative Standard Deviation:	3.2

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-650851/18	0.01	3703.0			370300.0	Y
2	IC 280-650851/17	0.02	7969.0			398450.0	Y
3	IC 280-650851/16	0.05	20131.0			402620.0	Y
4	IC 280-650851/15	0.1	41861.0			418610.0	Y
5	IC 280-650851/14	0.25	100337.0			401348.0	Y
6	IC 280-650851/13	0.4	160072.0			400180.0	Y
7	IC 280-650851/12	0.7	279268.0			398954.285714	Y
8	IC 280-650851/11	1.0	398830.0			398830.0	Y
9	IC 280-650851/10	2.5	1021428.0			408571.2	Y



5/14/2024
9:20:15 AM

Calibration / PETN

Curve Type:	Linear
Weighting:	Conc_Sq
Origin:	None
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

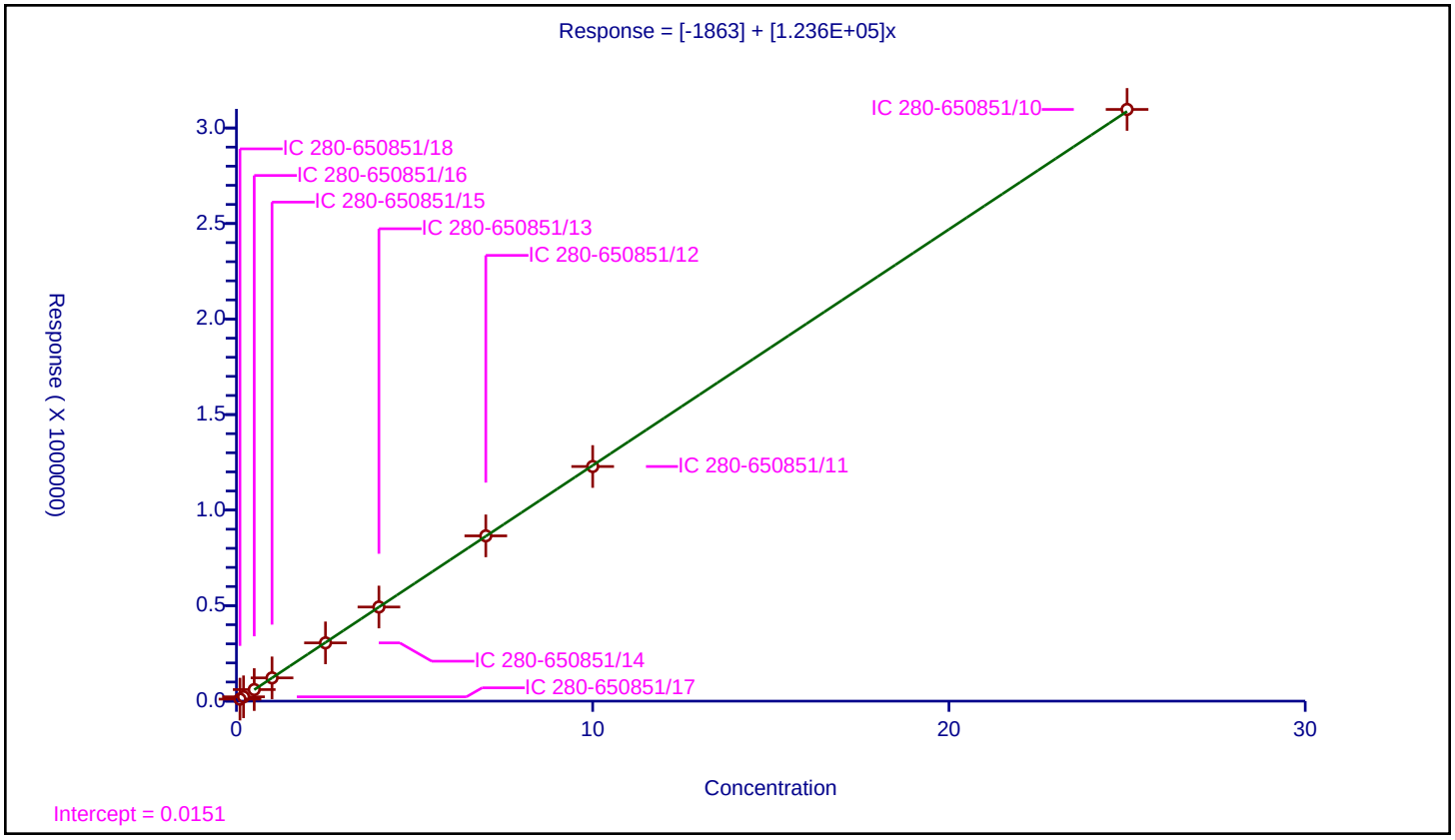
Curve Coefficients

Intercept:	-1863
Slope:	1.236E+05

Error Coefficients

Relative Standard Deviation:	0.7

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-650851/18	0.1	10531.0			105310.0	Y
2	IC 280-650851/17	0.2	22594.0			112970.0	Y
3	IC 280-650851/16	0.5	60616.0			121232.0	Y
4	IC 280-650851/15	1.0	121831.0			121831.0	Y
5	IC 280-650851/14	2.5	304928.0			121971.2	Y
6	IC 280-650851/13	4.0	492803.0			123200.75	Y
7	IC 280-650851/12	7.0	865110.0			123587.142857	Y
8	IC 280-650851/11	10.0	1228090.0			122809.0	Y
9	IC 280-650851/10	25.0	3097249.0			123889.96	Y



FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: Eurofins Denver | Job No.: 280-190988-1 | Analy Batch No.: 649950

SDG No.:

Instrument ID: CHHPLC_X3 | GC Column: UltraCarb5u ID: 4.6(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 04/17/2024 20:37 | Calibration End Date: 04/17/2024 23:41 | Calibration ID: 92320

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-649950/19	04170019.D
Level 2	IC 280-649950/18	04170018.D
Level 3	IC 280-649950/17	04170017.D
Level 4	IC 280-649950/16	04170016.D
Level 5	IC 280-649950/15	04170015.D
Level 6	IC 280-649950/14	04170014.D
Level 7	IC 280-649950/13	04170013.D
Level 8	IC 280-649950/12	04170012.D
Level 9	IC 280-649950/11	04170011.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	LVL 7	LVL 8	LVL 9		RT WINDOW	AVG RT
TNX	6.480	6.475	6.478	6.476	6.476	6.479	6.476	6.474	6.469		6.376 - 6.576	6.476
HMX	6.580	6.582	6.578	6.583	6.582	6.586	6.582	6.581	6.575		6.433 - 6.733	6.581
DNX	6.786	6.788	6.784	6.789	6.789	6.786	6.789	6.788	6.782		6.689 - 6.889	6.787
MNX	7.206	7.202	7.204	7.203	7.209	7.206	7.202	7.208	7.195		7.053 - 7.353	7.204
RDX	7.580	7.582	7.584	7.583	7.582	7.586	7.582	7.581	7.575		7.433 - 7.733	7.582
Picric acid	7.820	7.822	7.818	7.816	7.809	7.806	7.789	7.781	7.742		7.666 - 7.966	7.800
1,3,5-Trinitrobenzene	8.660	8.655	8.658	8.656	8.656	8.659	8.656	8.654	8.649		8.506 - 8.806	8.656
1,3-Dinitrobenzene	9.273	9.275	9.277	9.276	9.276	9.279	9.276	9.274	9.262		9.126 - 9.426	9.274
Nitrobenzene	9.633	9.635	9.631	9.636	9.636	9.639	9.629	9.634	9.622		9.486 - 9.786	9.633
3,5-Dinitroaniline	9.873	9.868	9.871	9.876	9.876	9.872	9.869	9.868	9.855		9.726 - 10.026	9.870
Tetryl	9.953	9.955	9.957	9.963	9.962	9.959	9.956	9.954	9.948		9.813 - 10.113	9.956
Nitroglycerin	10.426	10.422	10.424	10.429	10.429	10.432	10.422	10.421	10.415		10.279 - 10.579	10.424
2,4,6-Trinitrotoluene	10.866	10.862	10.864	10.869	10.869	10.872	10.862	10.868	10.862		10.769 - 10.969	10.866
4-Amino-2,6-dinitrotoluene	11.046	11.042	11.044	11.049	11.049	11.052	11.042	11.041	11.035		10.949 - 11.149	11.044
2-Amino-4,6-dinitrotoluene	11.306	11.302	11.304	11.309	11.309	11.306	11.302	11.301	11.288		11.209 - 11.409	11.303
2,6-Dinitrotoluene	11.453	11.448	11.451	11.449	11.456	11.452	11.449	11.448	11.442		11.349 - 11.549	11.450
2,4-Dinitrotoluene	11.626	11.622	11.624	11.629	11.629	11.632	11.622	11.621	11.615		11.529 - 11.729	11.624
2-Nitrotoluene	12.419	12.415	12.424	12.423	12.422	12.426	12.416	12.421	12.408		12.273 - 12.573	12.419
4-Nitrotoluene	12.853	12.842	12.844	12.843	12.842	12.846	12.842	12.841	12.835		12.693 - 12.993	12.843
3-Nitrotoluene	13.399	13.395	13.404	13.403	13.402	13.406	13.396	13.394	13.388		13.253 - 13.553	13.399
PETN	14.486	14.482	14.491	14.483	14.489	14.492	14.482	14.481	14.482		14.333 - 14.633	14.485
1,2-Dinitrobenzene	8.520	8.522	8.518	8.516	8.522	8.519	8.516	8.521	8.509		8.366 - 8.666	8.518

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Denver Job No.: 280-190988-1 Analy Batch No.: 649950

SDG No.:

Instrument ID: CHHPLC_X3 GC Column: UltraCarb5u ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/17/2024 20:37 Calibration End Date: 04/17/2024 23:41 Calibration ID: 92320

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-649950/19	04170019.D
Level 2	IC 280-649950/18	04170018.D
Level 3	IC 280-649950/17	04170017.D
Level 4	IC 280-649950/16	04170016.D
Level 5	IC 280-649950/15	04170015.D
Level 6	IC 280-649950/14	04170014.D
Level 7	IC 280-649950/13	04170013.D
Level 8	IC 280-649950/12	04170012.D
Level 9	IC 280-649950/11	04170011.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD /RSE	#	MAX %RSD /RSE	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5 LVL 9	LVL 2 LVL 6	LVL 3 LVL 7	LVL 4 LVL 8		B	M1	M2								
TNX	204283 196151 203061	200349 196188	191793 201100	199263 198742	Ave		198992.097				1.9		20.0			
HMX	91900 94332 96305	100850 95253	90720 96297	96450 97787	Ave		95543.7159				3.2		20.0			
DNX	151297 147194 150909	141866 146460	144870 148038	148044 146659	Ave		147259.613				2.0		20.0			
MNX	141061 136630 140394	127930 137960	134936 138920	135218 137235	Ave		136698.122				2.9		20.0			
RDX	118700 107376 107690	116700 106868	112240 106959	111620 108752	Ave		110767.075				4.0		20.0			
Picric acid	78700 78992 82062	76200 79110	76940 79906	80160 81861	Ave		79325.6794				2.5		20.0			
1,3,5-Trinitrobenzene	254900 216292 219181	217450 215905	225160 215779	221290 219723	Ave		222853.263				5.6		20.0			
1,3-Dinitrobenzene	308600 296760 301472	283900 297843	300460 298746	303590 303550	Ave		299435.579				2.3		20.0			

Note: The M1 coefficient is the same as Ave CF for an Ave curve type. RSD is calculated for Ave curve types. RSE is used for all other types.

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Denver Job No.: 280-190988-1 Analy Batch No.: 649950

SDG No.:

Instrument ID: CHHPLC_X3 GC Column: UltraCarb5u ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/17/2024 20:37 Calibration End Date: 04/17/2024 23:41 Calibration ID: 92320

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD /RSE	#	MAX %RSD /RSE	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5 LVL 9	LVL 2 LVL 6	LVL 3 LVL 7	LVL 4 LVL 8		B	M1	M2								
Nitrobenzene	198500 190564 198214	196600 193678	195180 195570	200350 198305	Ave		196328.944				1.5		20.0			
3,5-Dinitroaniline	197100 219364 223150	208550 215118	215620 219330	226510 219396	Lin2	-237.27823	221006.739							1.0000		0.9900
Tetryl	183500 180328 183105	168700 185315	180200 181964	182380 188801	Ave		181588.165				3.0		20.0			
Nitroglycerin	60480 66994 66784	59815 66731	71314 66745	71367 67945	Ave		66463.8886				6.1		20.0			
2,4,6-Trinitrotoluene	208100 214372 215788	220000 213738	213380 214716	219120 217516	Ave		215192.179				1.7		20.0			
4-Amino-2,6-dinitrotoluene	140600 147324 149438	163050 147888	150660 147166	153440 149965	Ave		149947.846				4.0		20.0			
2-Amino-4,6-dinitrotoluene	195100 199804 204593	199850 197140	198460 200077	200330 202927	Ave		199809.038				1.4		20.0			
2,6-Dinitrotoluene	155700 143756 144234	144000 147368	145340 143629	152180 146021	Ave		146914.119				2.9		20.0			
2,4-Dinitrotoluene	299300 289256 292258	289650 288388	288500 289931	294520 294790	Ave		291843.614				1.3		20.0			
2-Nitrotoluene	134000 124092 127714	138850 125230	130520 125813	129770 127758	Ave		129305.251				3.6		20.0			
4-Nitrotoluene	124900 107484 109658	120650 107433	112620 108510	113600 110337	Ave		112799.056				5.4		20.0			
3-Nitrotoluene	171300 135808 139988	153300 136093	141480 137194	142070 139336	Ave		144063.243				8.0		20.0			

Note: The M1 coefficient is the same as Ave CF for an Ave curve type. RSD is calculated for Ave curve types. RSE is used for all other types.

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Denver Job No.: 280-190988-1 Analy Batch No.: 649950

SDG No.:

Instrument ID: CHHPLC_X3 GC Column: UltraCarb5u ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/17/2024 20:37 Calibration End Date: 04/17/2024 23:41 Calibration ID: 92320

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD /RSE	#	MAX %RSD /RSE	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5 LVL 9	LVL 2 LVL 6	LVL 3 LVL 7	LVL 4 LVL 8		B	M1	M2								
PETN	78070 70756 71221	70870 70722	70432 70837	72600 71924	Ave		71936.9690				3.3		20.0			
1,2-Dinitrobenzene	144500 131148 132647	130150 132498	130420 132159	134500 134411	Lin2	93.7809842	131630.761							0.9990		0.9900

Note: The M1 coefficient is the same as Ave CF for an Ave curve type. RSD is calculated for Ave curve types. RSE is used for all other types.

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Denver | Job No.: 280-190988-1 | Analy Batch No.: 649950

SDG No.:

Instrument ID: CHHPLC_X3 | GC Column: UltraCarb5 ID: 4.6(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 04/17/2024 20:37 | Calibration End Date: 04/17/2024 23:41 | Calibration ID: 92320

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-649950/19	04170019.D
Level 2	IC 280-649950/18	04170018.D
Level 3	IC 280-649950/17	04170017.D
Level 4	IC 280-649950/16	04170016.D
Level 5	IC 280-649950/15	04170015.D
Level 6	IC 280-649950/14	04170014.D
Level 7	IC 280-649950/13	04170013.D
Level 8	IC 280-649950/12	04170012.D
Level 9	IC 280-649950/11	04170011.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
		LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
TNX	Ave	2051 78789	4023 141333	9628 199537	20006 509682	49234	0.0100 0.402	0.0201 0.703	0.0502 1.00	0.100 2.51	0.251
HMX	Ave	919 38101	2017 67408	4536 97787	9645 240762	23583	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
DNX	Ave	1516 58701	2843 103834	7258 146952	14834 378026	36872	0.0100 0.401	0.0200 0.701	0.0501 1.00	0.100 2.51	0.251
MNX	Ave	1649 64510	2991 113678	7887 160428	15807 410302	39930	0.0117 0.468	0.0234 0.818	0.0585 1.17	0.117 2.92	0.292
RDX	Ave	1187 42747	2334 74871	5612 108752	11162 269224	26844	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
Picric acid	Ave	787 31644	1524 55934	3847 81861	8016 205156	19748	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
1,3,5-Trinitrobenzene	Ave	2549 86362	4349 151045	11258 219723	22129 547952	54073	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
1,3-Dinitrobenzene	Ave	3086 119137	5678 209122	15023 303550	30359 753680	74190	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
Nitrobenzene	Ave	1985 77471	3932 136899	9759 198305	20035 495535	47641	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
3,5-Dinitroaniline	Lin2	1971 86047	4171 153531	10781 219396	22651 557874	54841	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
Tetryl	Ave	1835 74126	3374 127375	9010 188801	18238 457763	45082	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
Nitroglycerin	Ave	6048 266924	11963 467214	35657 679445	71367 1669606	167486	0.100 4.00	0.200 7.00	0.500 10.0	1.00 25.0	2.50
2,4,6-Trinitrotoluene	Ave	2081 85495	4400 150301	10669 217516	21912 539471	53593	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
4-Amino-2,6-dinitrotoluene	Ave	1406 59155	3261 103016	7533 149965	15344 373596	36831	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
2-Amino-4,6-dinitrotoluene	Ave	1951	3997	9923	20033	49951	0.0100	0.0200	0.0500	0.100	0.250

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Denver | Job No.: 280-190988-1 | Analy Batch No.: 649950

SDG No.:

Instrument ID: CHHPLC_X3 | GC Column: UltraCarb5 ID: 4.6(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 04/17/2024 20:37 | Calibration End Date: 04/17/2024 23:41 | Calibration ID: 92320

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
		LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
		78856	140054	202927	511483		0.400	0.700	1.00	2.50	
2,6-Dinitrotoluene	Ave	1557 58947	2880 100540	7267 146021	15218 360585	35939	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
2,4-Dinitrotoluene	Ave	2993 115355	5793 202952	14425 294790	29452 730644	72314	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
2-Nitrotoluene	Ave	1340 50092	2777 88069	6526 127758	12977 319286	31023	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
4-Nitrotoluene	Ave	1249 42973	2413 75957	5631 110337	11360 274145	26871	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
3-Nitrotoluene	Ave	1713 54437	3066 96036	7074 139336	14207 349971	33952	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
PETN	Ave	7807 282889	14174 495856	35216 719241	72600 1780535	176891	0.100 4.00	0.200 7.00	0.500 10.0	1.00 25.0	2.50
1,2-Dinitrobenzene	Lin2	1445 52999	2603 92511	6521 134411	13450 331618	32787	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250

Curve Type Legend:
Ave = Average
Lin2 = Linear 1/conc^2

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\04170011.D
Lims ID: IC INT/DMT 9
Client ID:
Sample Type: IC Calib Level: 9
Inject. Date: 17-Apr-2024 20:37:59 ALS Bottle#: 11 Worklist Smp#: 11
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT/DMT 9
Operator ID: JZ/JG Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub27

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 18-Apr-2024 11:59:21 Calib Date: 18-Apr-2024 03:08:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\04170028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1675

First Level Reviewer: LV5D Date: 18-Apr-2024 11:12:45

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 TNX	1	6.469	6.476	-0.007	509682	2.51	2.56	M
4 HMX	1	6.575	6.583	-0.008	240762	2.50	2.52	M
6 DNX	1	6.782	6.789	-0.007	378026	2.51	2.57	M
7 MNX	1	7.195	7.203	-0.008	410302	2.92	3.00	
8 RDX	1	7.575	7.583	-0.008	269224	2.50	2.43	
9 2,4,6-Trinitrophenol	1	7.742	7.816	-0.074	205156	2.50	2.59	
$ 10 1,2-Dinitrobenzene	1	8.509	8.516	-0.007	331618	2.50	2.52	
11 1,3,5-Trinitrobenzene	1	8.649	8.656	-0.007	547952	2.50	2.46	
12 1,3-Dinitrobenzene	1	9.262	9.276	-0.014	753680	2.50	2.52	
13 Nitrobenzene	1	9.622	9.636	-0.014	495535	2.50	2.52	
14 3,5-Dinitroaniline	1	9.855	9.876	-0.021	557874	2.50	2.53	
15 Tetryl	1	9.948	9.963	-0.015	457763	2.50	2.52	
16 Nitroglycerin	2	10.415	10.429	-0.014	1669606	25.0	25.1	
17 2,4,6-Trinitrotoluene	1	10.862	10.869	-0.007	539471	2.50	2.51	
18 4-Amino-2,6-dinitrotoluene	1	11.035	11.049	-0.014	373596	2.50	2.49	
19 2-Amino-4,6-dinitrotoluene	1	11.288	11.309	-0.021	511483	2.50	2.56	
20 2,6-Dinitrotoluene	1	11.442	11.449	-0.007	360585	2.50	2.45	
21 2,4-Dinitrotoluene	1	11.615	11.629	-0.014	730644	2.50	2.50	
22 o-Nitrotoluene	1	12.408	12.423	-0.015	319286	2.50	2.47	
23 p-Nitrotoluene	1	12.835	12.843	-0.008	274145	2.50	2.43	
24 m-Nitrotoluene	1	13.388	13.403	-0.015	349971	2.50	2.43	
25 PETN	2	14.482	14.483	-0.001	1780535	25.0	24.8	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330IntermStk_00080	Amount Added: 250.00	Units: uL
8330 DMT_00016	Amount Added: 125.00	Units: uL

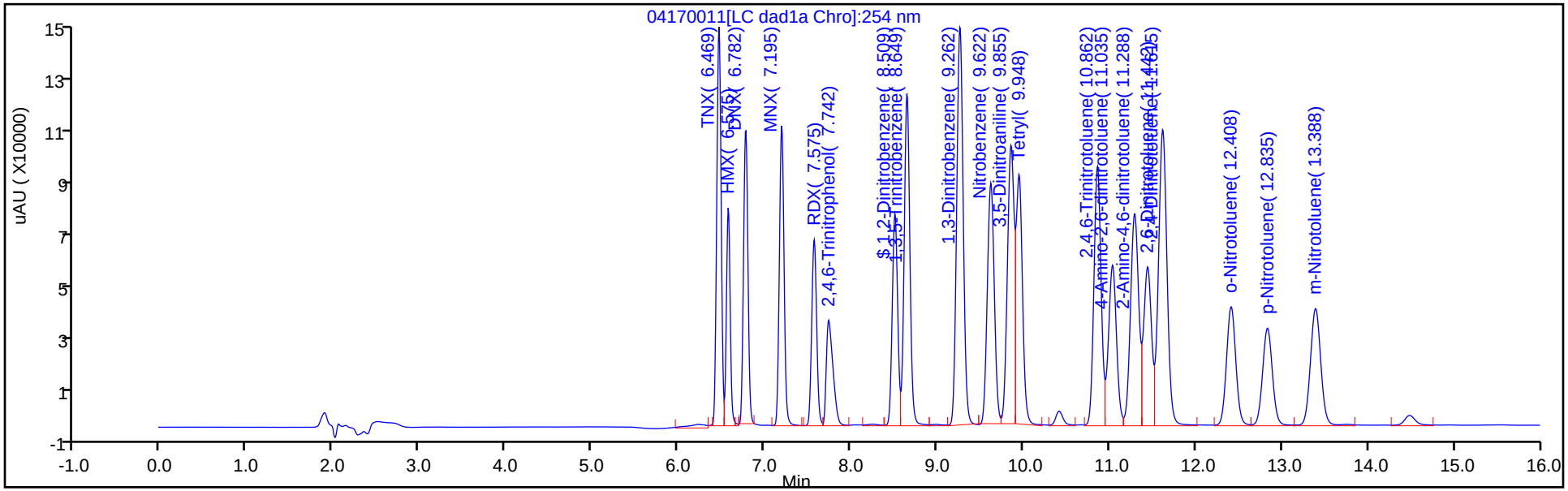
Report Date: 18-Apr-2024 11:59:21 Chrom Revision: 2.3 09-Apr-2024 17:43:44

Eurofins Denver

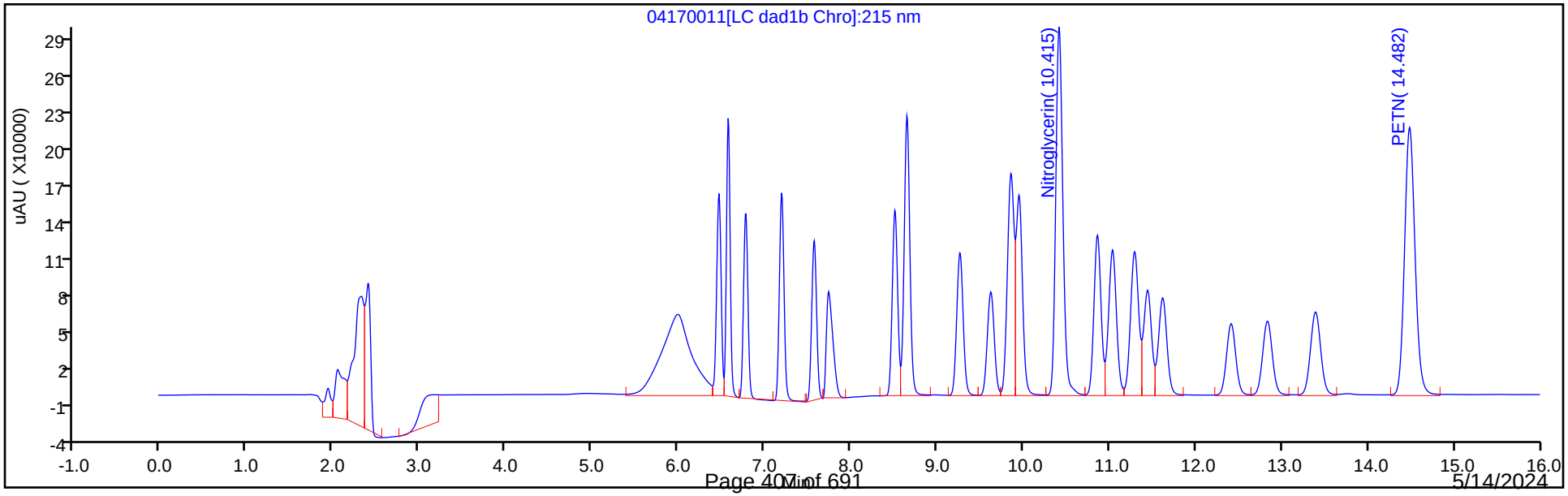
Data File: \\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170011.d

Injection Date:	17-Apr-2024 20:37:59	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	IC INT/DMT 9			Worklist Smp#:	11
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	11
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



5/14/2024
9:20:15 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

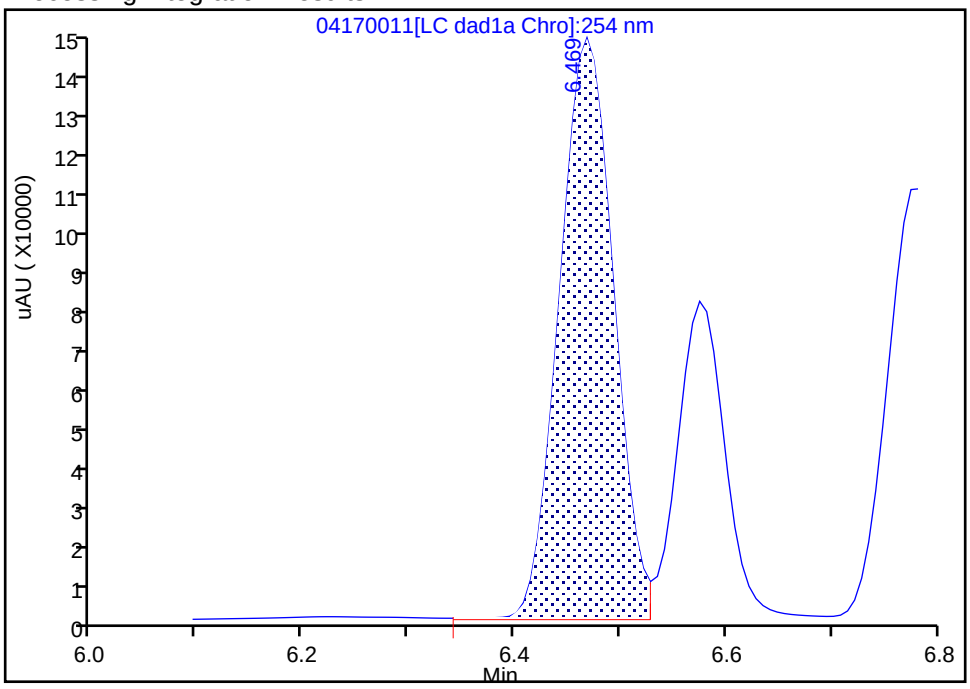
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170011.d				
Injection Date:	17-Apr-2024 20:37:59	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT/DMT 9				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	11	Worklist Smp#:	11
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

3 TNX, CAS: 13980-04-6

Signal: 1

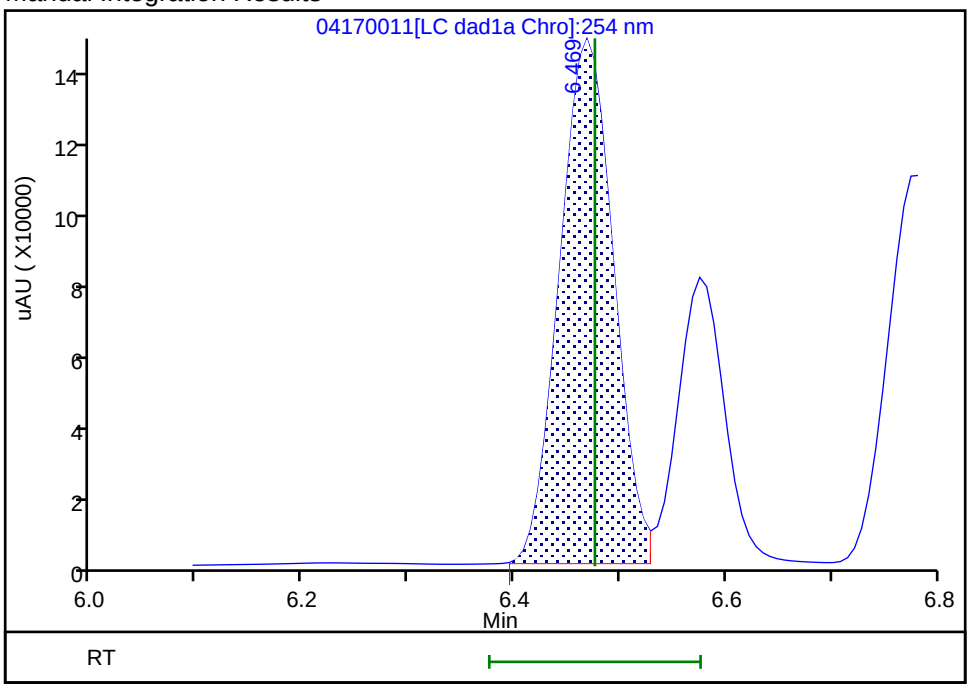
Processing Integration Results

RT: 6.47
Area: 515297
Amount: 2.475720
Amount Units: ug/mL



Manual Integration Results

RT: 6.47
Area: 509682
Amount: 2.561318
Amount Units: ug/mL



Reviewer: LV5D, 18-Apr-2024 11:13:26 -06:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

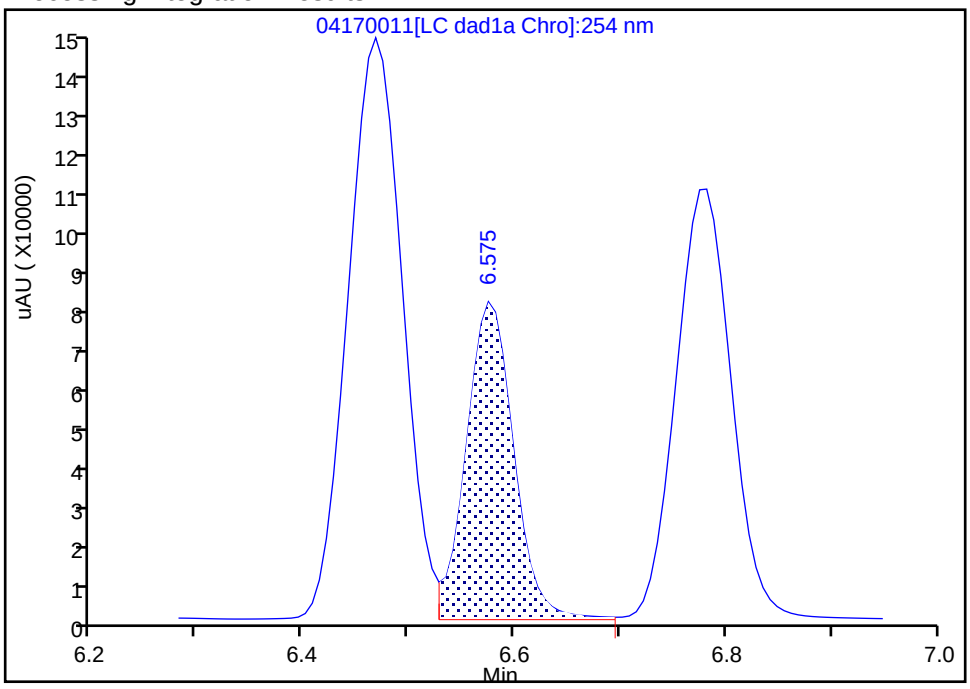
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170011.d				
Injection Date:	17-Apr-2024 20:37:59	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT/DMT 9				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	11	Worklist Smp#:	11
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

4 HMX, CAS: 2691-41-0

Signal: 1

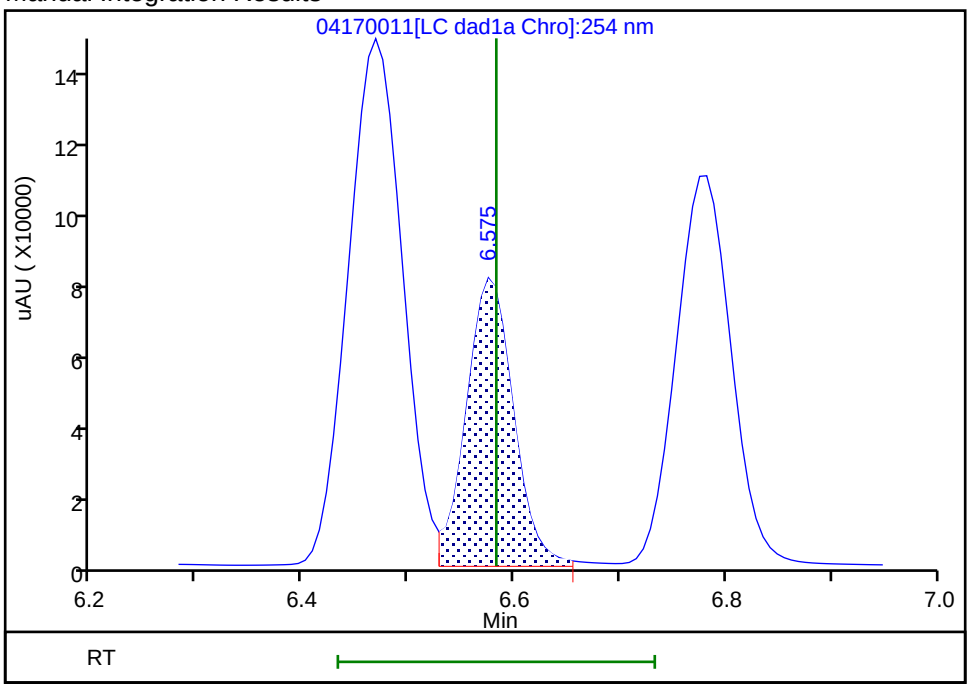
Processing Integration Results

RT: 6.58
Area: 245562
Amount: 2.343167
Amount Units: ug/mL



Manual Integration Results

RT: 6.58
Area: 240762
Amount: 2.519915
Amount Units: ug/mL



Reviewer: LV5D, 18-Apr-2024 11:13:28 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

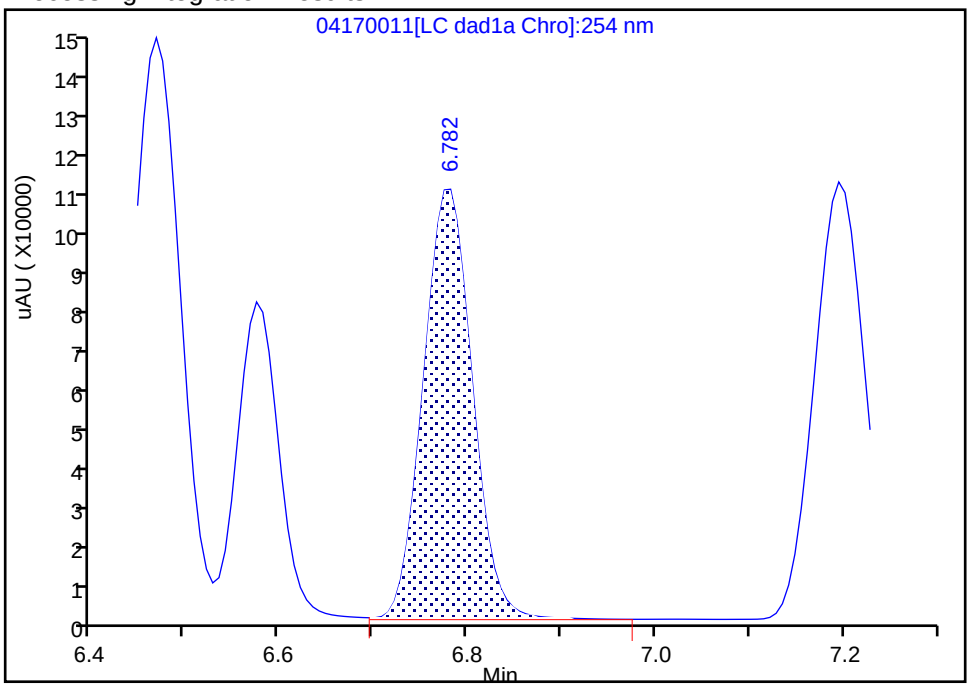
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170011.d				
Injection Date:	17-Apr-2024 20:37:59	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT/DMT 9				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	11	Worklist Smp#:	11
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

6 DNX, CAS: 80251-29-2

Signal: 1

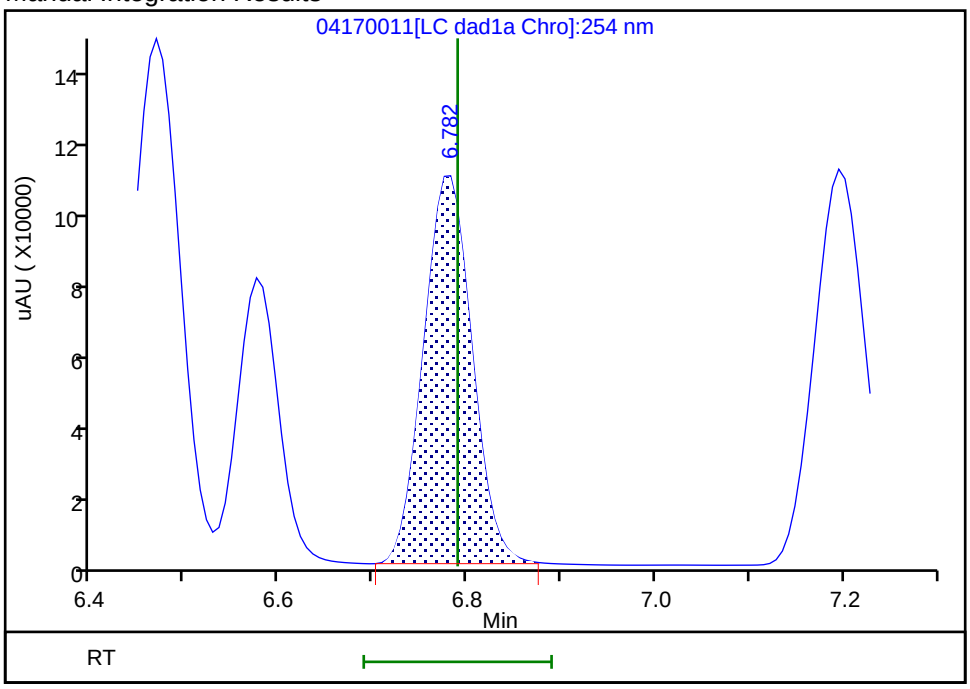
Processing Integration Results

RT: 6.78
Area: 388355
Amount: 2.530843
Amount Units: ug/mL



Manual Integration Results

RT: 6.78
Area: 378026
Amount: 2.567072
Amount Units: ug/mL



Reviewer: LV5D, 18-Apr-2024 11:13:31 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\04170012.D
Lims ID: IC INT/DMT 8
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 17-Apr-2024 21:00:56 ALS Bottle#: 12 Worklist Smp#: 12
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT/DMT 8
Operator ID: JZ/JG Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub27

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 18-Apr-2024 11:59:23 Calib Date: 18-Apr-2024 03:08:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\04170028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1675

First Level Reviewer: LV5D Date: 18-Apr-2024 11:13:14

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 TNX	1	6.474	6.476	-0.002	199537	1.00	1.00	M
4 HMX	1	6.581	6.583	-0.002	97787	1.00	1.02	M
6 DNX	1	6.788	6.789	-0.001	146952	1.00	1.00	M
7 MNX	1	7.208	7.203	0.005	160428	1.17	1.17	
8 RDX	1	7.581	7.583	-0.002	108752	1.00	0.9818	
9 2,4,6-Trinitrophenol	1	7.781	7.816	-0.035	81861	1.00	1.03	
$ 10 1,2-Dinitrobenzene	1	8.521	8.516	0.005	134411	1.00	1.02	
11 1,3,5-Trinitrobenzene	1	8.654	8.656	-0.002	219723	1.00	0.9860	
12 1,3-Dinitrobenzene	1	9.274	9.276	-0.002	303550	1.00	1.01	
13 Nitrobenzene	1	9.634	9.636	-0.002	198305	1.00	1.01	
14 3,5-Dinitroaniline	1	9.868	9.876	-0.008	219396	1.00	0.99	
15 Tetryl	1	9.954	9.963	-0.009	188801	1.00	1.04	
16 Nitroglycerin	2	10.421	10.429	-0.008	679445	10.0	10.2	
17 2,4,6-Trinitrotoluene	1	10.868	10.869	-0.001	217516	1.00	1.01	
18 4-Amino-2,6-dinitrotoluene	1	11.041	11.049	-0.008	149965	1.00	1.00	
19 2-Amino-4,6-dinitrotoluene	1	11.301	11.309	-0.008	202927	1.00	1.02	
20 2,6-Dinitrotoluene	1	11.448	11.449	-0.001	146021	1.00	0.99	
21 2,4-Dinitrotoluene	1	11.621	11.629	-0.008	294790	1.00	1.01	
22 o-Nitrotoluene	1	12.421	12.423	-0.002	127758	1.00	0.9880	
23 p-Nitrotoluene	1	12.841	12.843	-0.002	110337	1.00	0.9782	
24 m-Nitrotoluene	1	13.394	13.403	-0.009	139336	1.00	0.9672	
25 PETN	2	14.481	14.483	-0.002	719241	10.0	10.0	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330 DMT_00016	Amount Added: 50.00	Units: uL
8330IntermStk_00080	Amount Added: 100.00	Units: uL

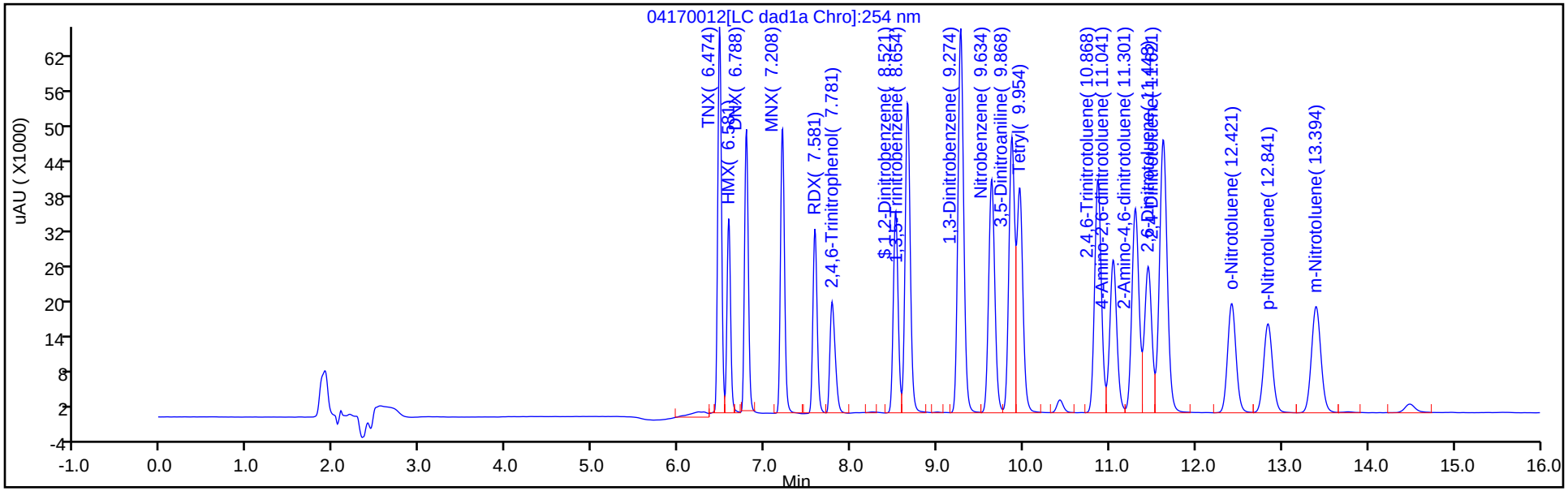
Report Date: 18-Apr-2024 11:59:23 Chrom Revision: 2.3 09-Apr-2024 17:43:44

Eurofins Denver

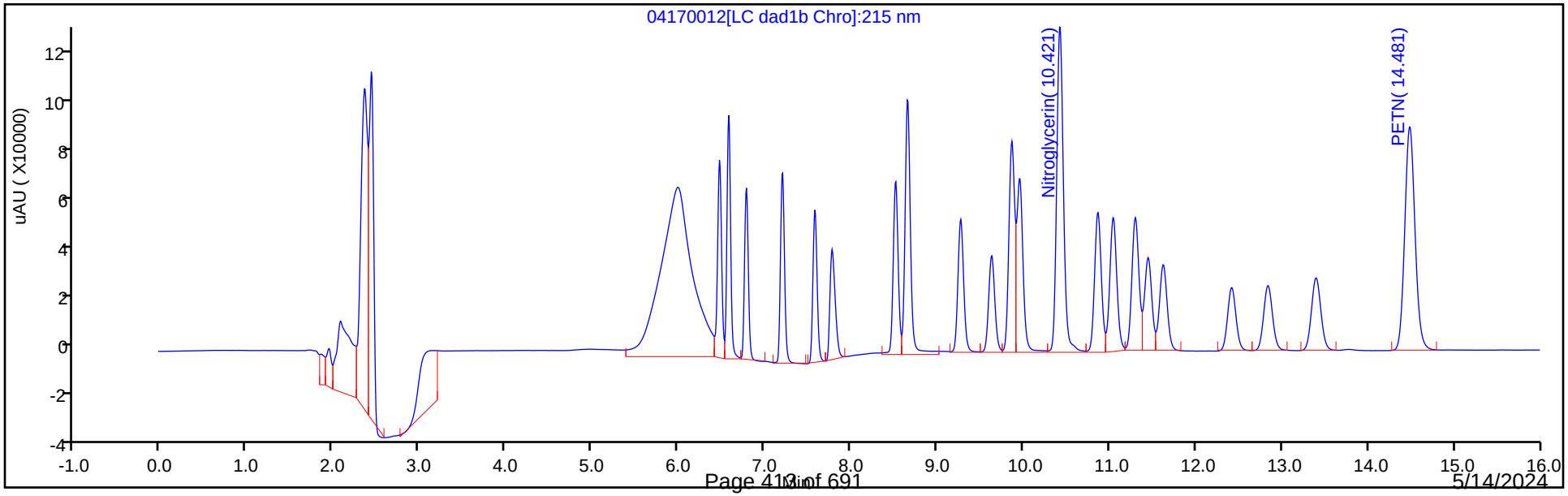
Data File: \\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170012.d

Injection Date:	17-Apr-2024 21:00:56	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	IC INT/DMT 8			Worklist Smp#:	12
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	12
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



5/14/2024
9:20:15 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

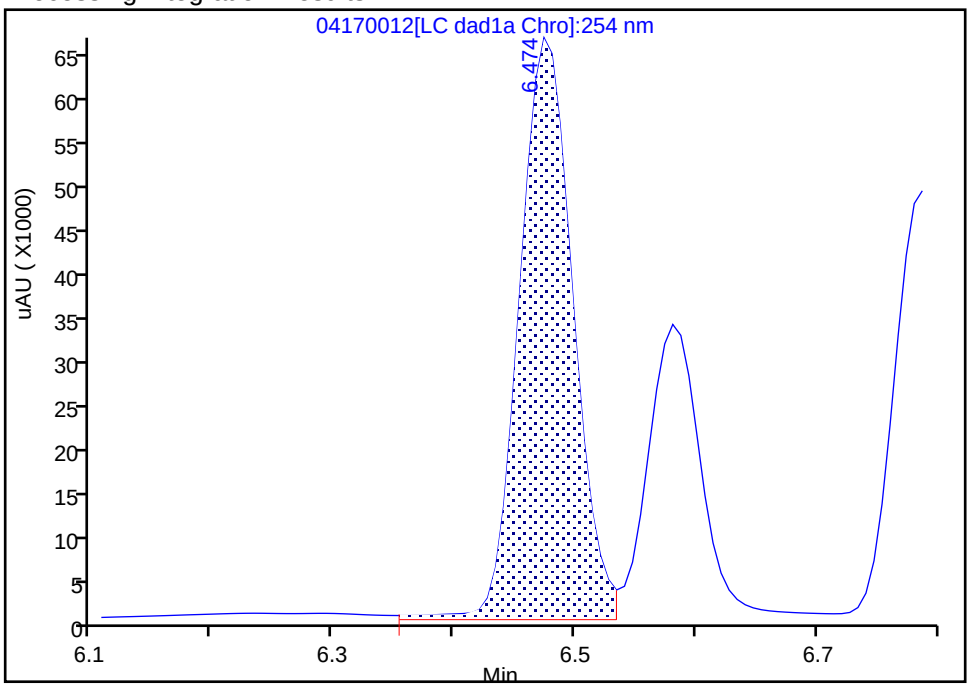
Data File: \\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170012.d
Injection Date: 17-Apr-2024 21:00:56 Instrument ID: CHHPLC_X3
Lims ID: IC INT/DMT 8
Client ID:
Operator ID: JZ/JG ALS Bottle#: 12 Worklist Smp#: 12
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

3 TNX, CAS: 13980-04-6

Signal: 1

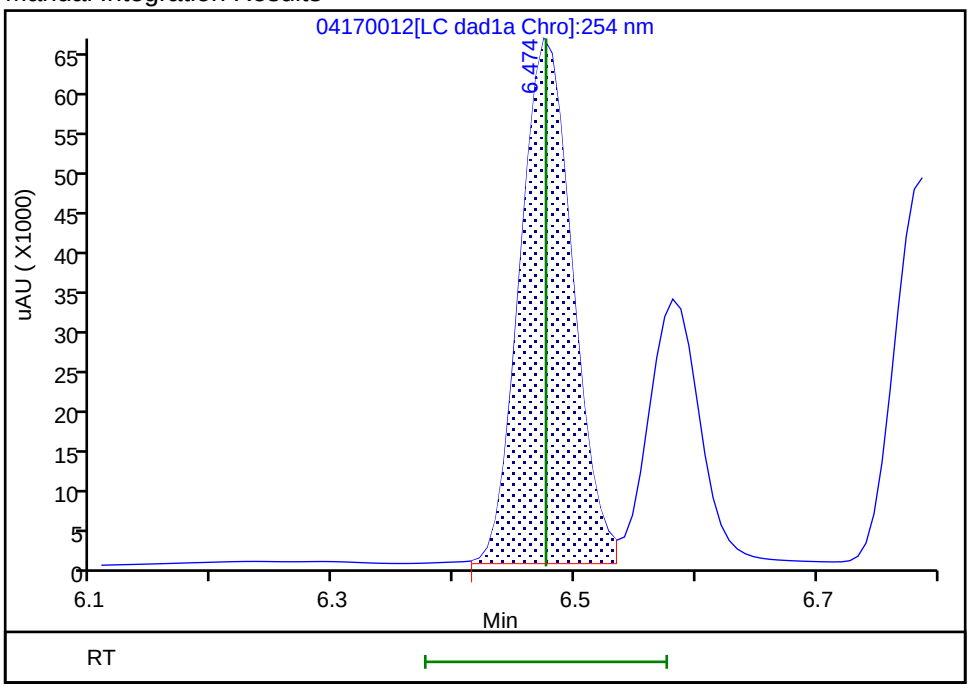
Processing Integration Results

RT: 6.47
Area: 204461
Amount: 0.979758
Amount Units: ug/mL



Manual Integration Results

RT: 6.47
Area: 199537
Amount: 1.002738
Amount Units: ug/mL



Reviewer: LV5D, 18-Apr-2024 11:13:07 -06:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

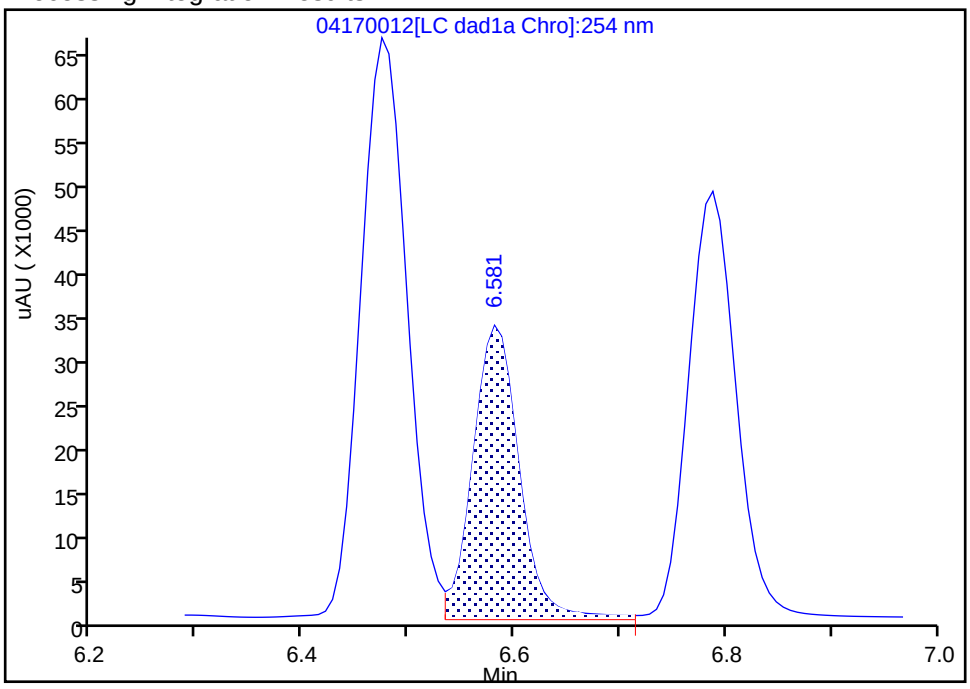
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170012.d				
Injection Date:	17-Apr-2024 21:00:56	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT/DMT 8				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	12	Worklist Smp#:	12
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

4 HMX, CAS: 2691-41-0

Signal: 1

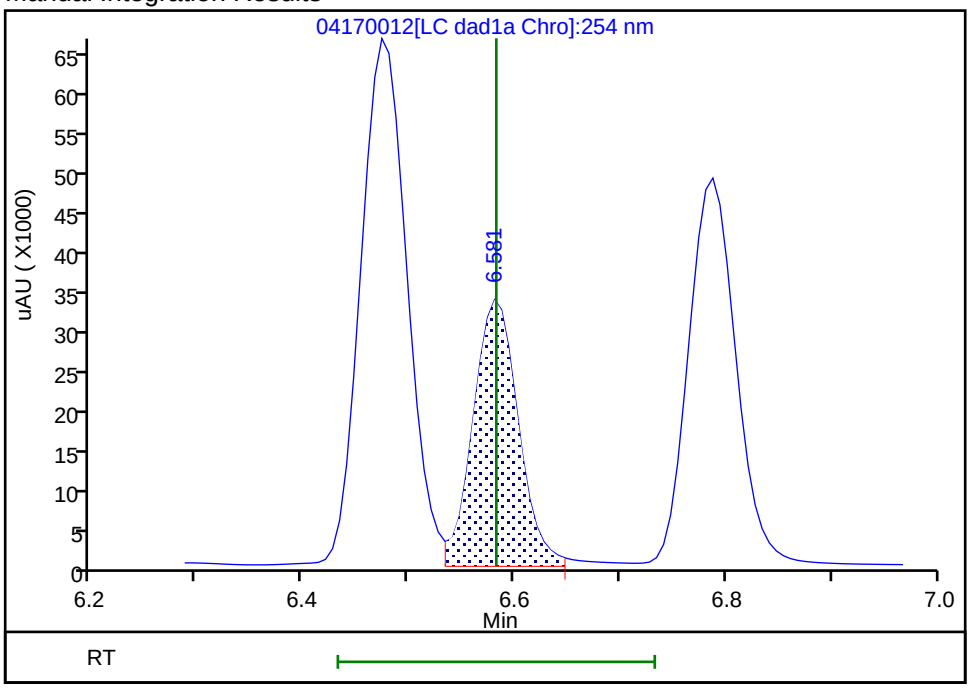
Processing Integration Results

RT: 6.58
Area: 102131
Amount: 0.970072
Amount Units: ug/mL



Manual Integration Results

RT: 6.58
Area: 97787
Amount: 1.023479
Amount Units: ug/mL



Reviewer: LV5D, 18-Apr-2024 11:13:09 -06:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

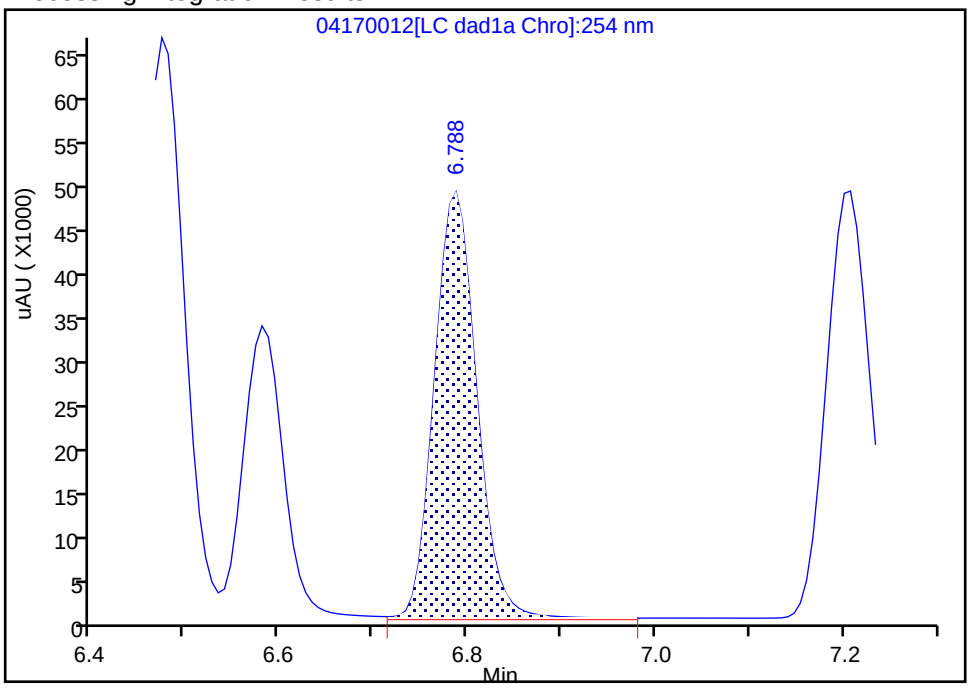
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170012.d				
Injection Date:	17-Apr-2024 21:00:56	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT/DMT 8				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	12	Worklist Smp#:	12
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

6 DNX, CAS: 80251-29-2

Signal: 1

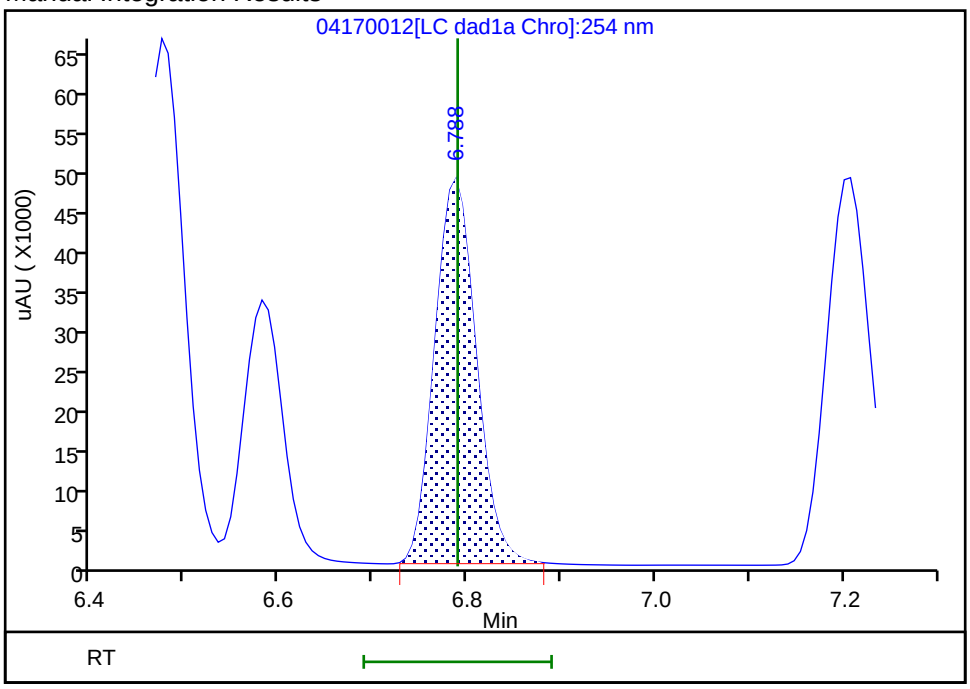
Processing Integration Results

RT: 6.79
Area: 153377
Amount: 0.990791
Amount Units: ug/mL



Manual Integration Results

RT: 6.79
Area: 146952
Amount: 0.997911
Amount Units: ug/mL



Reviewer: LV5D, 18-Apr-2024 11:13:11 -06:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\04170013.D
Lims ID: IC INT/DMT 7
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 17-Apr-2024 21:23:54 ALS Bottle#: 13 Worklist Smp#: 13
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT/DMT 7
Operator ID: JZ/JG Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub27

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 18-Apr-2024 11:59:24 Calib Date: 18-Apr-2024 03:08:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\04170028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1675

First Level Reviewer: LV5D Date: 18-Apr-2024 11:14:37

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 TNX	1	6.476	6.476	0.000	141333	0.7028	0.7102	M
4 HMX	1	6.582	6.583	-0.001	67408	0.7000	0.7055	M
6 DNX	1	6.789	6.789	0.000	103834	0.7014	0.7051	M
7 MNX	1	7.202	7.203	-0.001	113678	0.8183	0.8316	
8 RDX	1	7.582	7.583	-0.001	74871	0.7000	0.6759	
9 2,4,6-Trinitrophenol	1	7.789	7.816	-0.027	55934	0.7000	0.7051	
$ 10 1,2-Dinitrobenzene	1	8.516	8.516	0.000	92511	0.7000	0.7021	
11 1,3,5-Trinitrobenzene	1	8.656	8.656	0.000	151045	0.7000	0.6778	
12 1,3-Dinitrobenzene	1	9.276	9.276	0.000	209122	0.7000	0.6984	
13 Nitrobenzene	1	9.629	9.636	-0.007	136899	0.7000	0.6973	
14 3,5-Dinitroaniline	1	9.869	9.876	-0.007	153531	0.7000	0.6958	
15 Tetryl	1	9.956	9.963	-0.007	127375	0.7000	0.7014	
16 Nitroglycerin	2	10.422	10.429	-0.007	467214	7.00	7.03	
17 2,4,6-Trinitrotoluene	1	10.862	10.869	-0.007	150301	0.7000	0.6985	
18 4-Amino-2,6-dinitrotoluene	1	11.042	11.049	-0.007	103016	0.7000	0.6870	
19 2-Amino-4,6-dinitrotoluene	1	11.302	11.309	-0.007	140054	0.7000	0.7009	
20 2,6-Dinitrotoluene	1	11.449	11.449	0.000	100540	0.7000	0.6843	
21 2,4-Dinitrotoluene	1	11.622	11.629	-0.007	202952	0.7000	0.6954	
22 o-Nitrotoluene	1	12.416	12.423	-0.007	88069	0.7000	0.6811	
23 p-Nitrotoluene	1	12.842	12.843	-0.001	75957	0.7000	0.6734	
24 m-Nitrotoluene	1	13.396	13.403	-0.007	96036	0.7000	0.6666	
25 PETN	2	14.482	14.483	-0.001	495856	7.00	6.89	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330 DMT_00016	Amount Added:	35.00	Units: uL
8330IntermStk_00080	Amount Added:	70.00	Units: uL

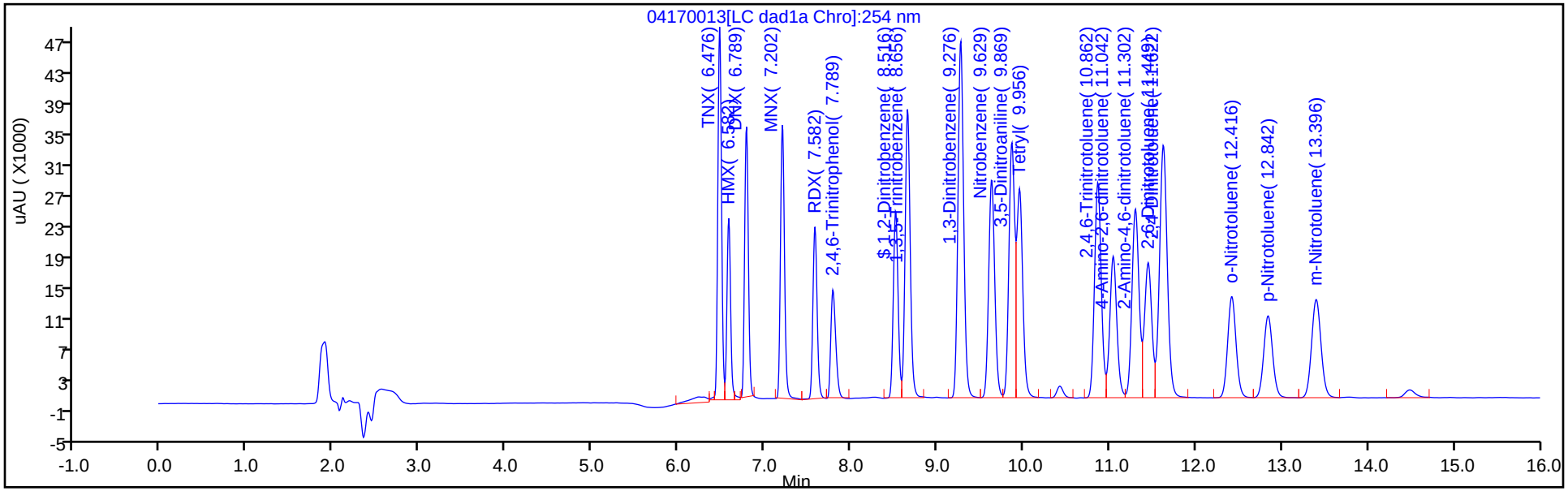
Report Date: 18-Apr-2024 11:59:24 Chrom Revision: 2.3 09-Apr-2024 17:43:44

Eurofins Denver

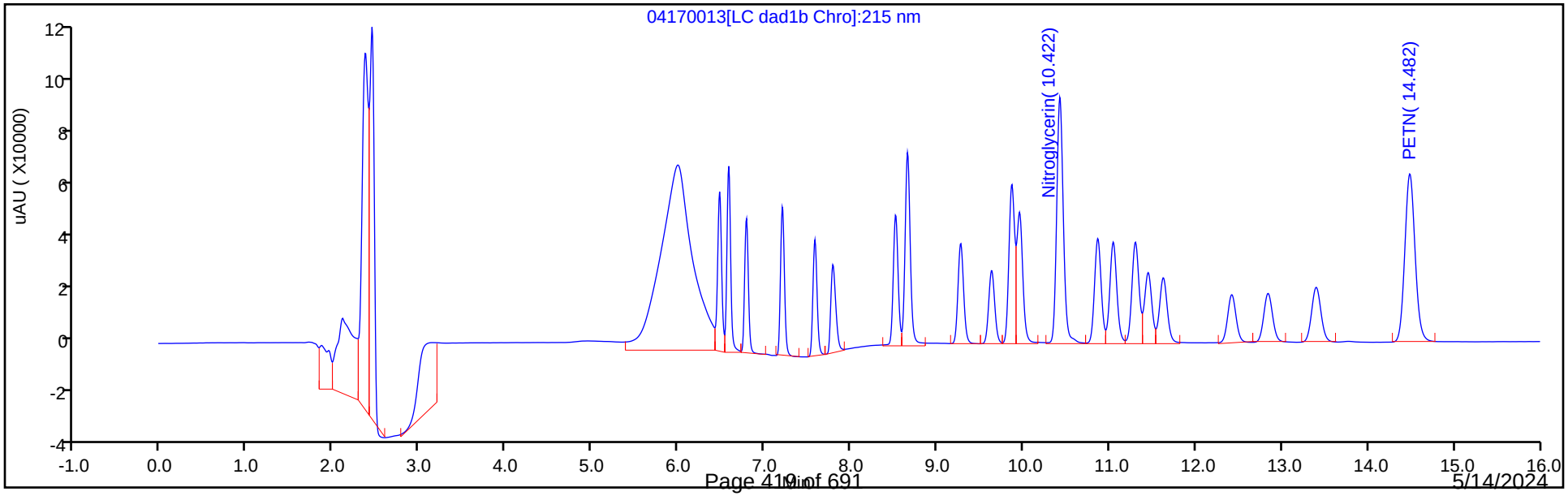
Data File: \\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170013.d

Injection Date:	17-Apr-2024 21:23:54	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	IC INT/DMT 7			Worklist Smp#:	13
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	13
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



5/14/2024
9:20:15 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

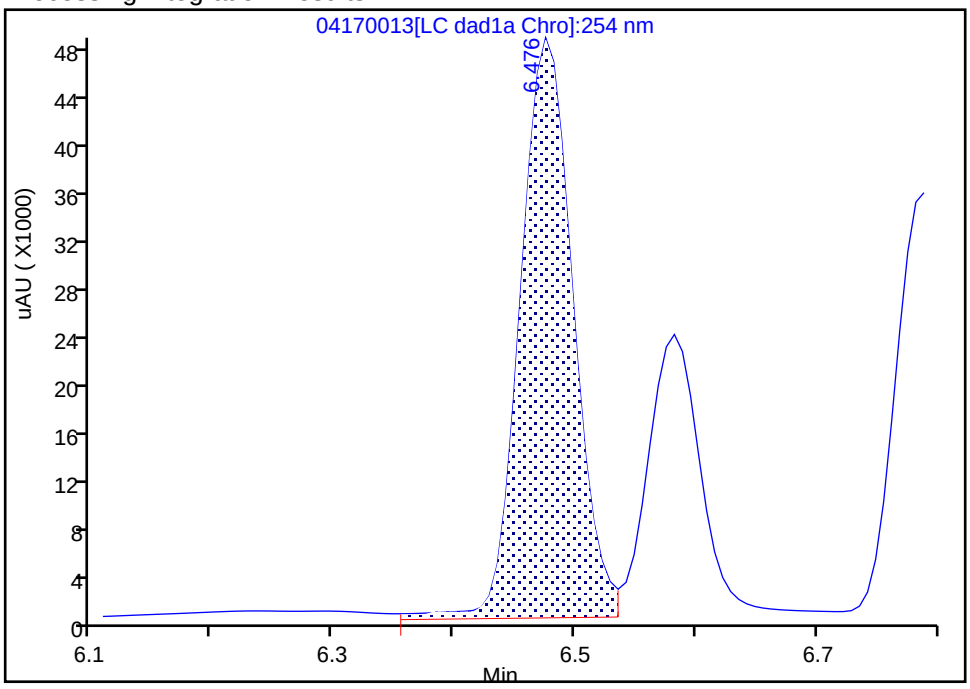
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170013.d				
Injection Date:	17-Apr-2024 21:23:54	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT/DMT 7				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

3 TNX, CAS: 13980-04-6

Signal: 1

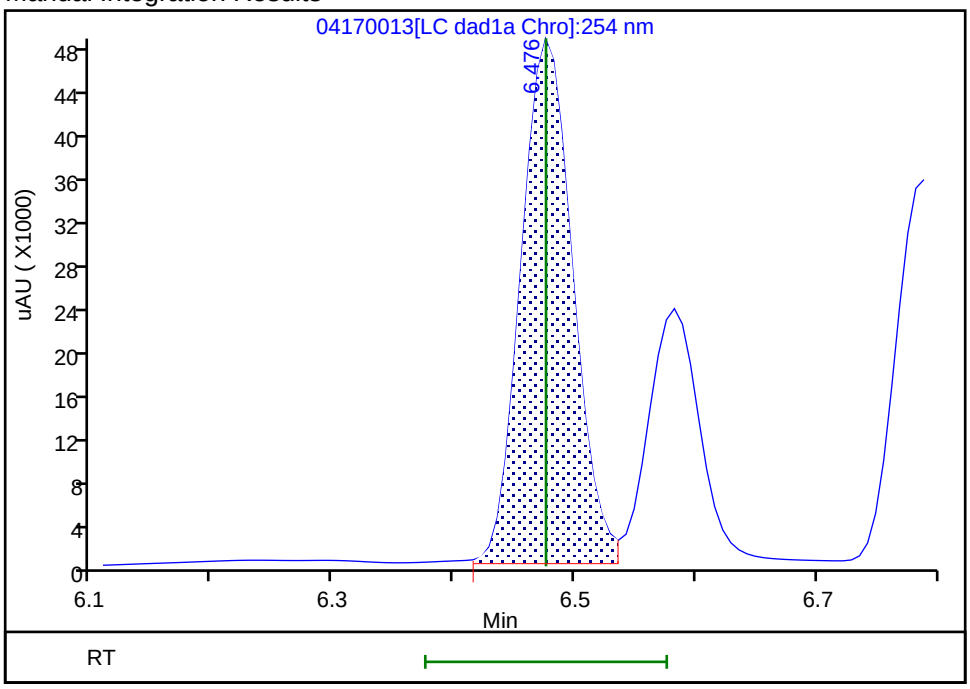
Processing Integration Results

RT: 6.48
Area: 146464
Amount: 0.704521
Amount Units: ug/mL



Manual Integration Results

RT: 6.48
Area: 141333
Amount: 0.710244
Amount Units: ug/mL



Reviewer: LV5D, 18-Apr-2024 11:13:45 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

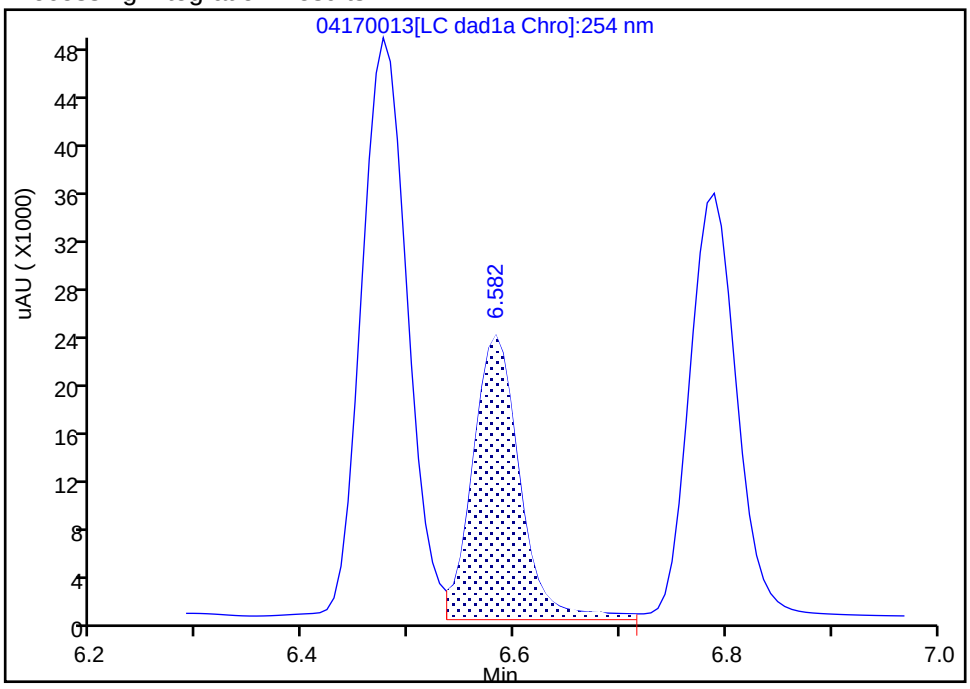
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170013.d				
Injection Date:	17-Apr-2024 21:23:54	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT/DMT 7				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

4 HMX, CAS: 2691-41-0

Signal: 1

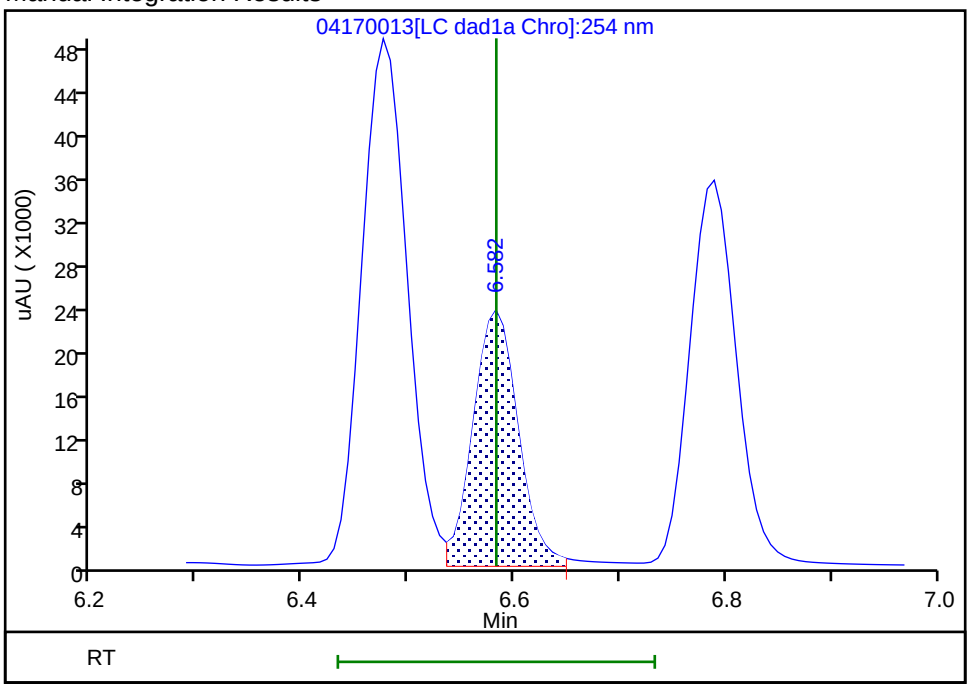
Processing Integration Results

RT: 6.58
Area: 71695
Amount: 0.685513
Amount Units: ug/mL



Manual Integration Results

RT: 6.58
Area: 67408
Amount: 0.705520
Amount Units: ug/mL



Reviewer: LV5D, 18-Apr-2024 11:13:46 -06:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

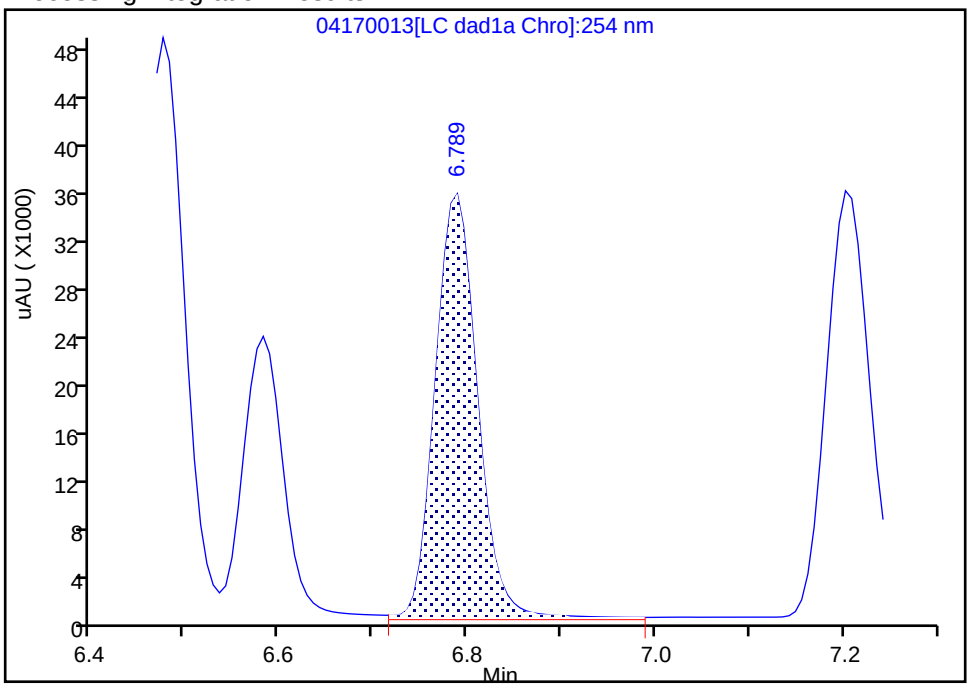
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170013.d				
Injection Date:	17-Apr-2024 21:23:54	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT/DMT 7				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

6 DNX, CAS: 80251-29-2

Signal: 1

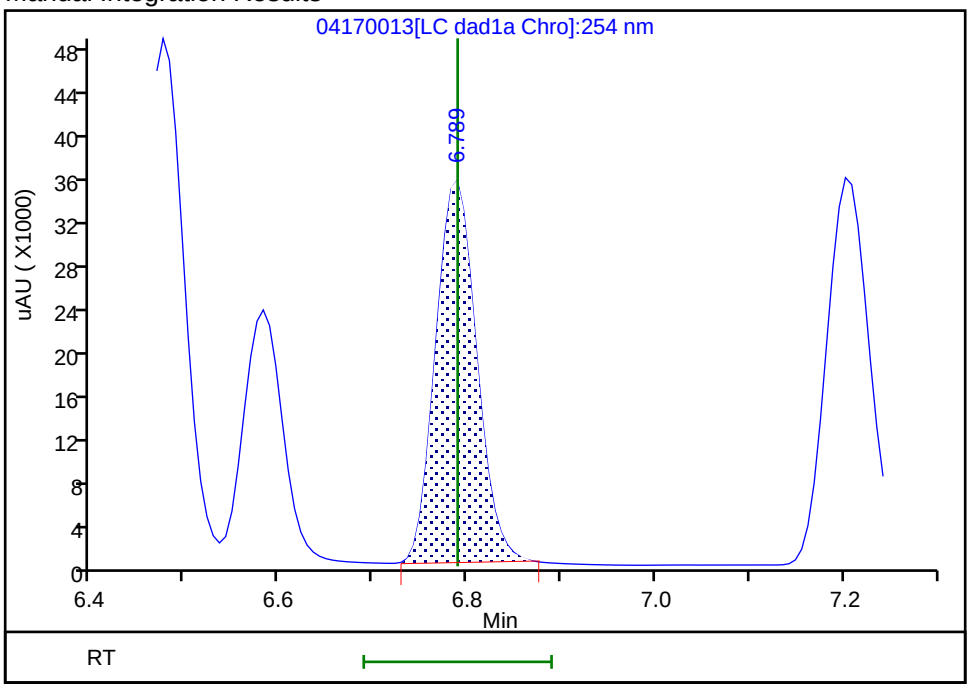
Processing Integration Results

RT: 6.79
Area: 109725
Amount: 0.724468
Amount Units: ug/mL



Manual Integration Results

RT: 6.79
Area: 103834
Amount: 0.705108
Amount Units: ug/mL



Reviewer: LV5D, 18-Apr-2024 11:13:50 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\04170014.D
Lims ID: IC INT/DMT 6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 17-Apr-2024 21:46:50 ALS Bottle#: 14 Worklist Smp#: 14
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT/DMT 6
Operator ID: JZ/JG Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub27

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 18-Apr-2024 11:59:25 Calib Date: 18-Apr-2024 03:08:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\04170028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1675

First Level Reviewer: LV5D Date: 18-Apr-2024 11:15:01

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 TNX	1	6.479	6.476	0.003	78789	0.4016	0.3959	M
4 HMX	1	6.586	6.583	0.003	38101	0.4000	0.3988	M
6 DNX	1	6.786	6.789	-0.003	58701	0.4008	0.3986	M
7 MNX	1	7.206	7.203	0.003	64510	0.4676	0.4719	
8 RDX	1	7.586	7.583	0.003	42747	0.4000	0.3859	
9 2,4,6-Trinitrophenol	1	7.806	7.816	-0.010	31644	0.4000	0.3989	
$ 10 1,2-Dinitrobenzene	1	8.519	8.516	0.003	52999	0.4000	0.4019	
11 1,3,5-Trinitrobenzene	1	8.659	8.656	0.003	86362	0.4000	0.3875	
12 1,3-Dinitrobenzene	1	9.279	9.276	0.003	119137	0.4000	0.3979	
13 Nitrobenzene	1	9.639	9.636	0.003	77471	0.4000	0.3946	
14 3,5-Dinitroaniline	1	9.872	9.876	-0.004	86047	0.4000	0.3904	
15 Tetryl	1	9.959	9.963	-0.004	74126	0.4000	0.4082	
16 Nitroglycerin	2	10.432	10.429	0.003	266924	4.00	4.02	
17 2,4,6-Trinitrotoluene	1	10.872	10.869	0.003	85495	0.4000	0.3973	
18 4-Amino-2,6-dinitrotoluene	1	11.052	11.049	0.003	59155	0.4000	0.3945	
19 2-Amino-4,6-dinitrotoluene	1	11.306	11.309	-0.003	78856	0.4000	0.3947	
20 2,6-Dinitrotoluene	1	11.452	11.449	0.003	58947	0.4000	0.4012	
21 2,4-Dinitrotoluene	1	11.632	11.629	0.003	115355	0.4000	0.3953	
22 o-Nitrotoluene	1	12.426	12.423	0.003	50092	0.4000	0.3874	
23 p-Nitrotoluene	1	12.846	12.843	0.003	42973	0.4000	0.3810	
24 m-Nitrotoluene	1	13.406	13.403	0.003	54437	0.4000	0.3779	
25 PETN	2	14.492	14.483	0.009	282889	4.00	3.93	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330IntermStk_00080	Amount Added:	40.00	Units: uL
8330 DMT_00016	Amount Added:	20.00	Units: uL

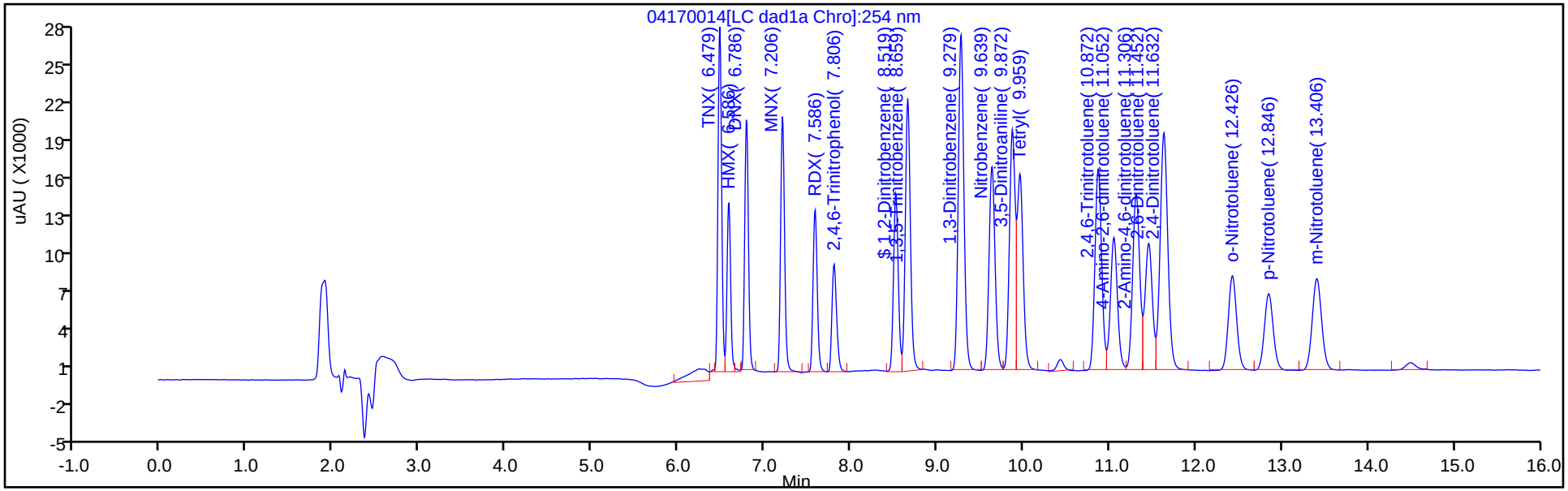
Report Date: 18-Apr-2024 11:59:25 Chrom Revision: 2.3 09-Apr-2024 17:43:44

Eurofins Denver

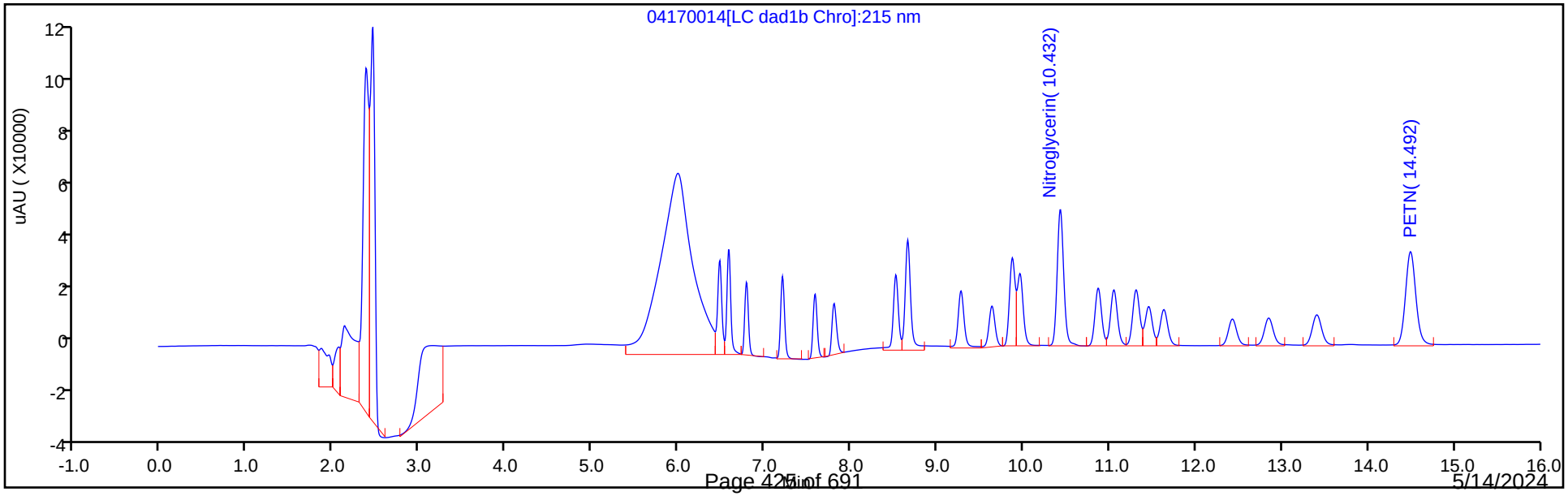
Data File: \\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170014.d

Injection Date:	17-Apr-2024 21:46:50	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	IC INT/DMT 6			Worklist Smp#:	14
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	14
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



5/14/2024
9:20:15 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

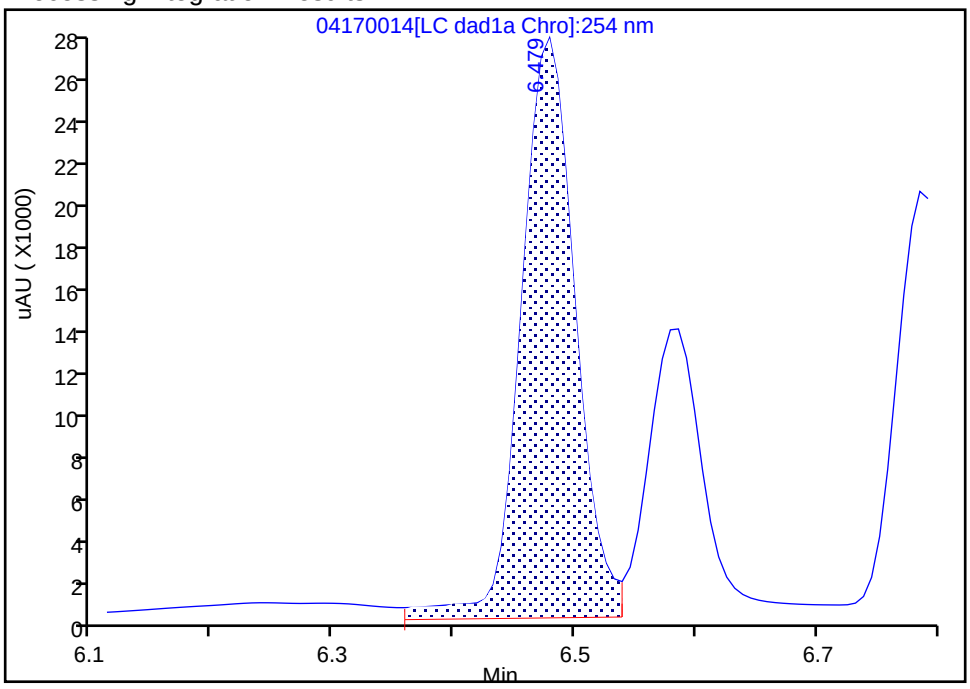
Data File: \\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170014.d
Injection Date: 17-Apr-2024 21:46:50 Instrument ID: CHHPLC_X3
Lims ID: IC INT/DMT 6
Client ID:
Operator ID: JZ/JG ALS Bottle#: 14 Worklist Smp#: 14
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

3 TNX, CAS: 13980-04-6

Signal: 1

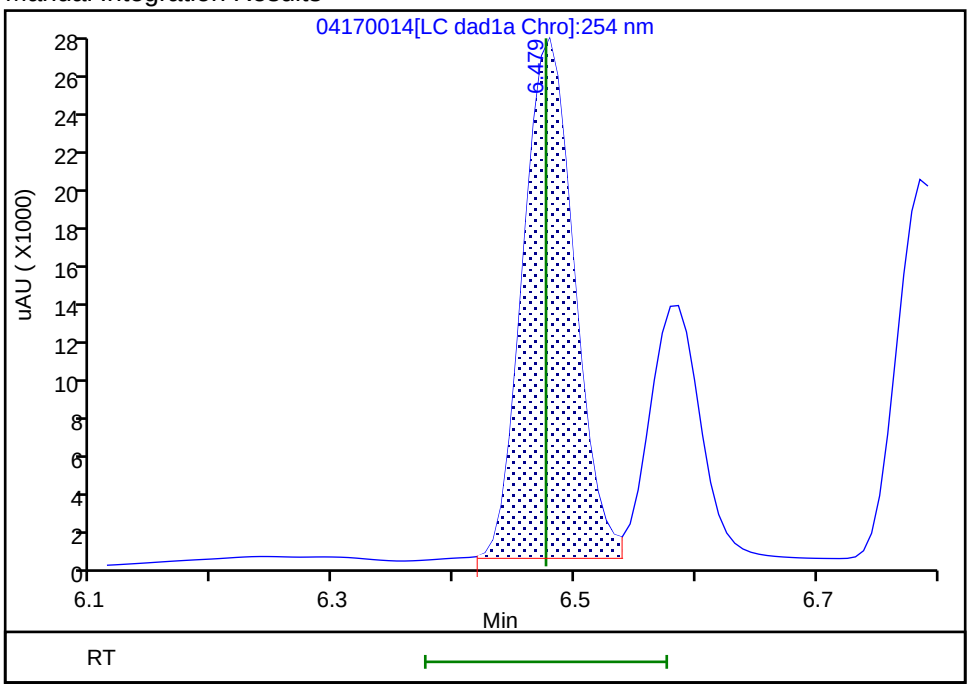
Processing Integration Results

RT: 6.48
Area: 85027
Amount: 0.410599
Amount Units: ug/mL



Manual Integration Results

RT: 6.48
Area: 78789
Amount: 0.395940
Amount Units: ug/mL



Reviewer: LV5D, 18-Apr-2024 11:14:54 -06:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

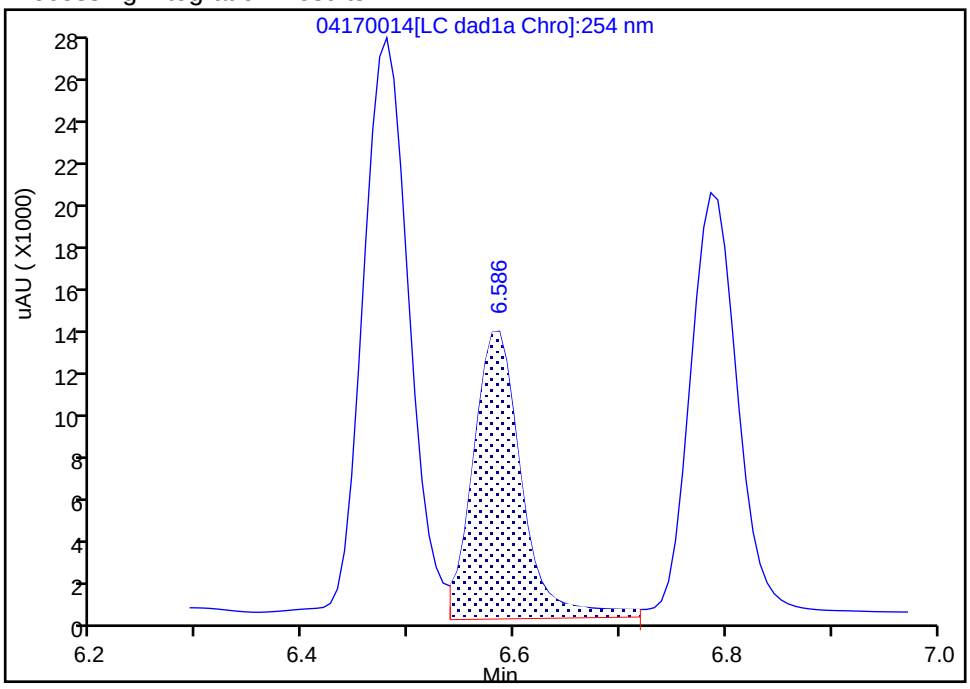
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170014.d				
Injection Date:	17-Apr-2024 21:46:50	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT/DMT 6				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

4 HMX, CAS: 2691-41-0

Signal: 1

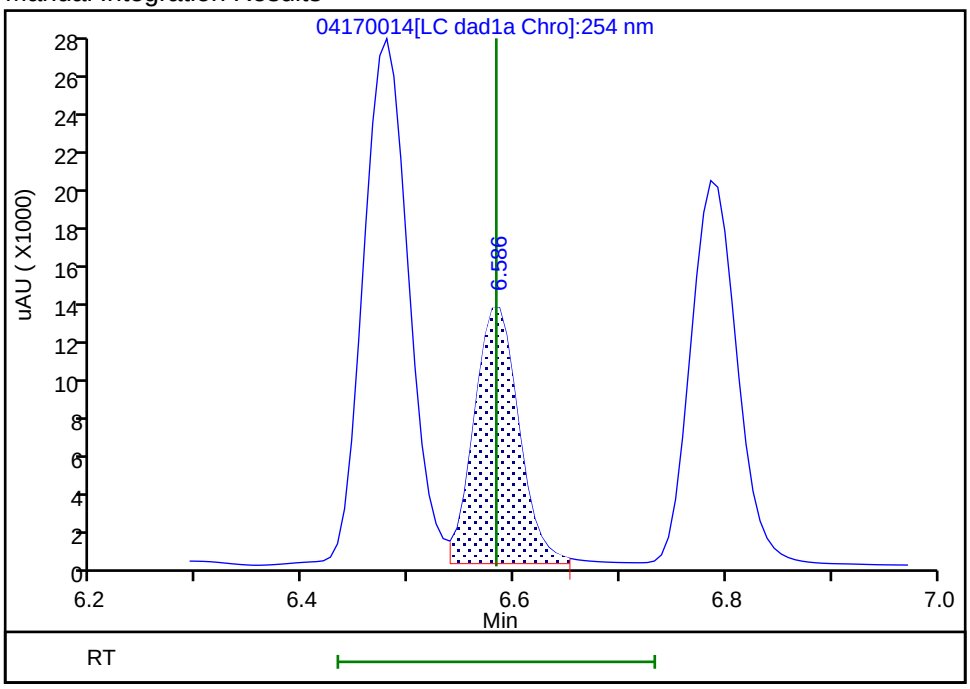
Processing Integration Results

RT: 6.59
Area: 42787
Amount: 0.411788
Amount Units: ug/mL



Manual Integration Results

RT: 6.59
Area: 38101
Amount: 0.398781
Amount Units: ug/mL



Reviewer: LV5D, 18-Apr-2024 11:14:55 -06:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

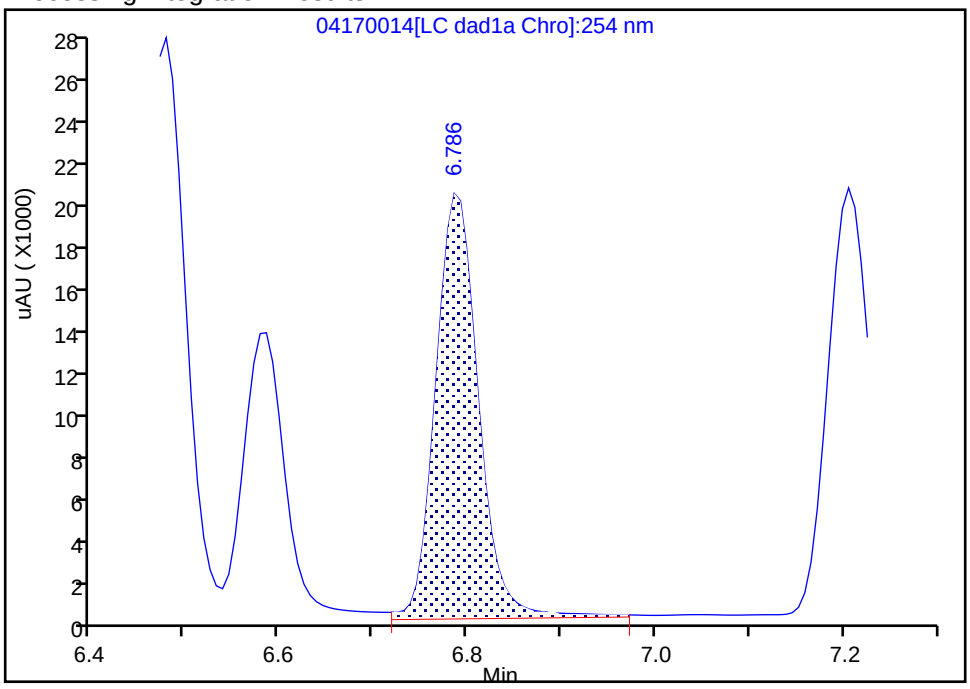
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170014.d				
Injection Date:	17-Apr-2024 21:46:50	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT/DMT 6				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

6 DNX, CAS: 80251-29-2

Signal: 1

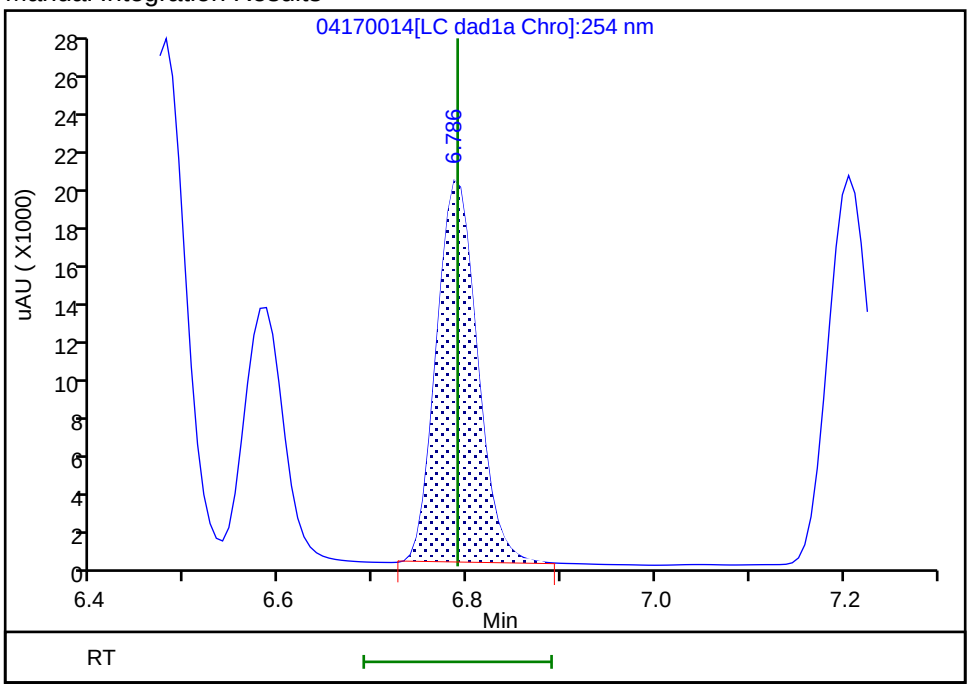
Processing Integration Results

RT: 6.79
Area: 62648
Amount: 0.406964
Amount Units: ug/mL



Manual Integration Results

RT: 6.79
Area: 58701
Amount: 0.398623
Amount Units: ug/mL



Reviewer: LV5D, 18-Apr-2024 11:14:58 -06:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\04170015.D
Lims ID: IC INT/DMT 5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 17-Apr-2024 22:09:45 ALS Bottle#: 15 Worklist Smp#: 15
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT/DMT 5
Operator ID: JZ/JG Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub27

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 18-Apr-2024 11:59:26 Calib Date: 18-Apr-2024 03:08:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\04170028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1675

First Level Reviewer: LV5D Date: 18-Apr-2024 11:15:36

	Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
	3 TNX	1	6.476	6.476	0.000	49234	0.2510	0.2474	M
	4 HMX	1	6.582	6.583	-0.001	23583	0.2500	0.2468	M
	6 DNX	1	6.789	6.789	0.000	36872	0.2505	0.2504	M
	7 MNX	1	7.209	7.203	0.006	39930	0.2923	0.2921	
	8 RDX	1	7.582	7.583	-0.001	26844	0.2500	0.2423	
	9 2,4,6-Trinitrophenol	1	7.809	7.816	-0.007	19748	0.2500	0.2489	
$	10 1,2-Dinitrobenzene	1	8.522	8.516	0.006	32787	0.2500	0.2484	
	11 1,3,5-Trinitrobenzene	1	8.656	8.656	0.000	54073	0.2500	0.2426	
	12 1,3-Dinitrobenzene	1	9.276	9.276	0.000	74190	0.2500	0.2478	
	13 Nitrobenzene	1	9.636	9.636	0.000	47641	0.2500	0.2427	
	14 3,5-Dinitroaniline	1	9.876	9.876	0.000	54841	0.2500	0.2492	
	15 Tetryl	1	9.962	9.963	-0.001	45082	0.2500	0.2483	
	16 Nitroglycerin	2	10.429	10.429	0.000	167486	2.50	2.52	
	17 2,4,6-Trinitrotoluene	1	10.869	10.869	0.000	53593	0.2500	0.2490	
	18 4-Amino-2,6-dinitrotoluene	1	11.049	11.049	0.000	36831	0.2500	0.2456	
	19 2-Amino-4,6-dinitrotoluene	1	11.309	11.309	0.000	49951	0.2500	0.2500	
	20 2,6-Dinitrotoluene	1	11.456	11.449	0.007	35939	0.2500	0.2446	
	21 2,4-Dinitrotoluene	1	11.629	11.629	0.000	72314	0.2500	0.2478	
	22 o-Nitrotoluene	1	12.422	12.423	-0.001	31023	0.2500	0.2399	
	23 p-Nitrotoluene	1	12.842	12.843	-0.001	26871	0.2500	0.2382	
	24 m-Nitrotoluene	1	13.402	13.403	-0.001	33952	0.2500	0.2357	M
	25 PETN	2	14.489	14.483	0.006	176891	2.50	2.46	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330IntermStk_00080	Amount Added:	25.00	Units: uL
8330 DMT_00016	Amount Added:	12.50	Units: uL

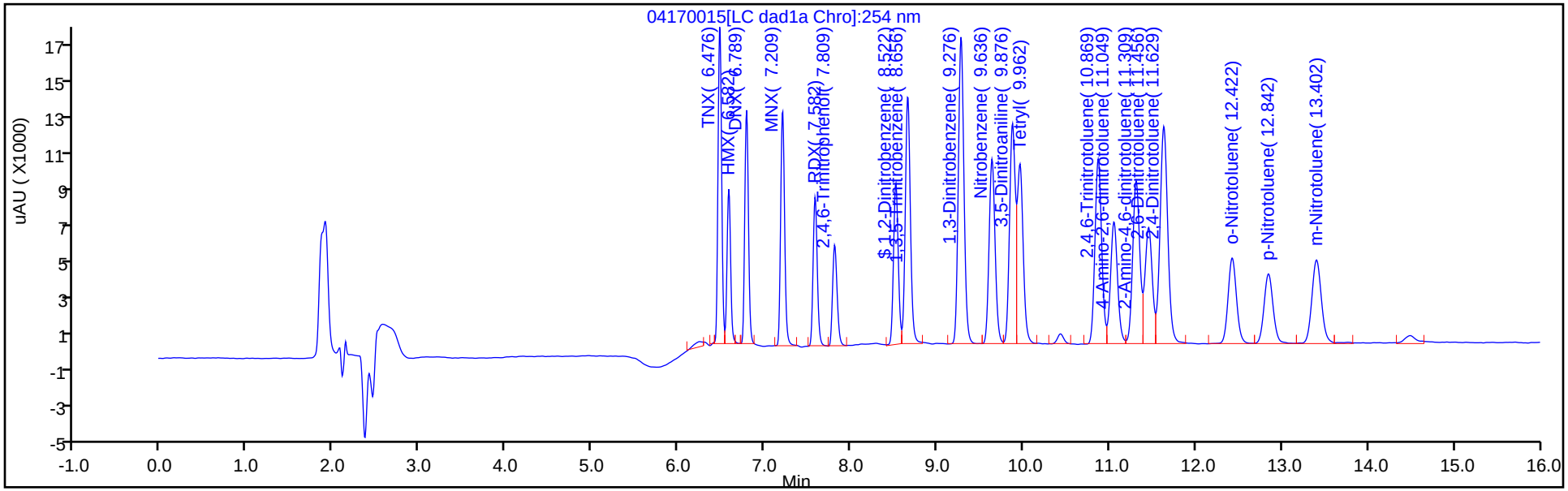
Report Date: 18-Apr-2024 11:59:26 Chrom Revision: 2.3 09-Apr-2024 17:43:44

Eurofins Denver

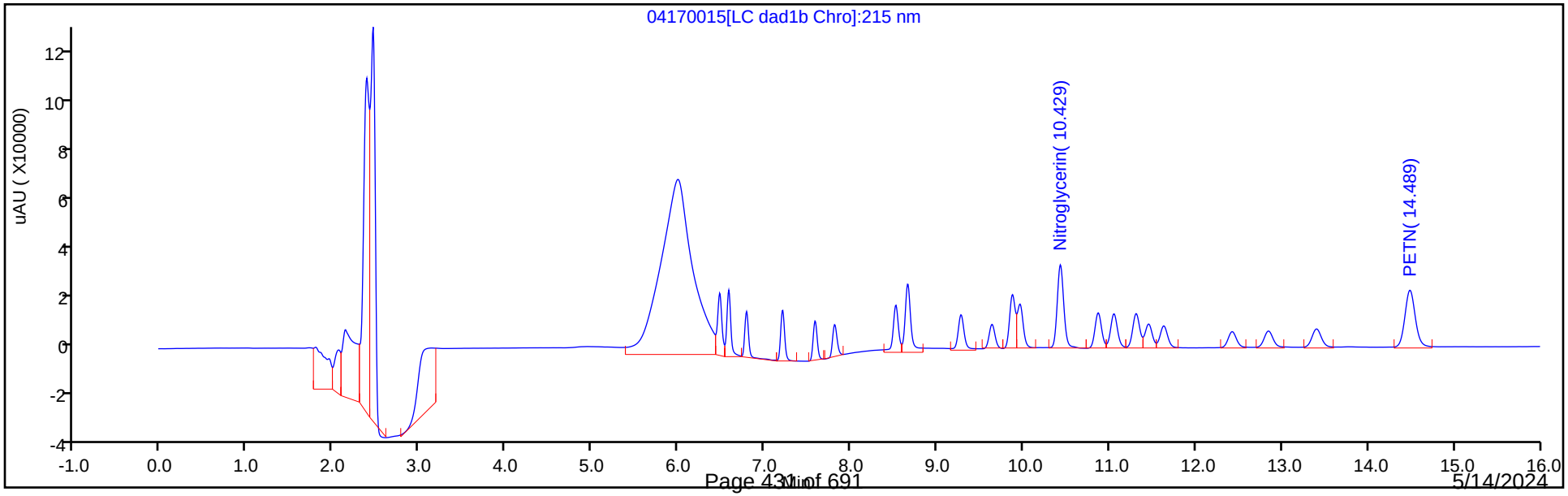
Data File: \\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170015.d

Injection Date:	17-Apr-2024 22:09:45	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	IC INT/DMT 5			Worklist Smp#:	15
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	15
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



5/14/2024
9:20:15 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

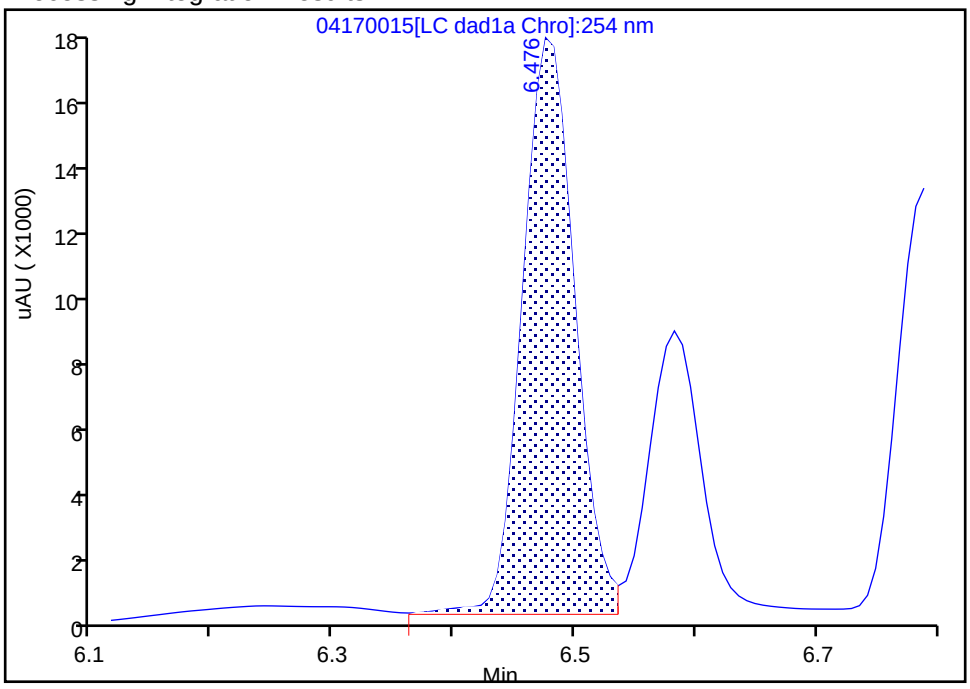
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170015.d				
Injection Date:	17-Apr-2024 22:09:45	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT/DMT 5				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	15	Worklist Smp#:	15
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

3 TNX, CAS: 13980-04-6

Signal: 1

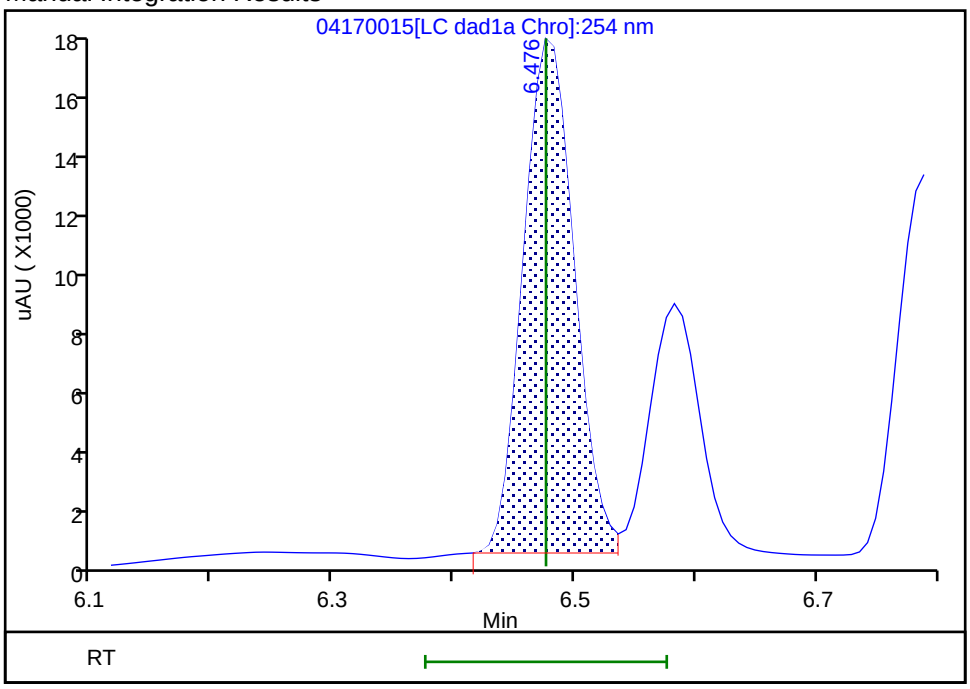
Processing Integration Results

RT: 6.48
Area: 50637
Amount: 0.246583
Amount Units: ug/mL



Manual Integration Results

RT: 6.48
Area: 49234
Amount: 0.247417
Amount Units: ug/mL



Reviewer: LV5D, 18-Apr-2024 11:15:14 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

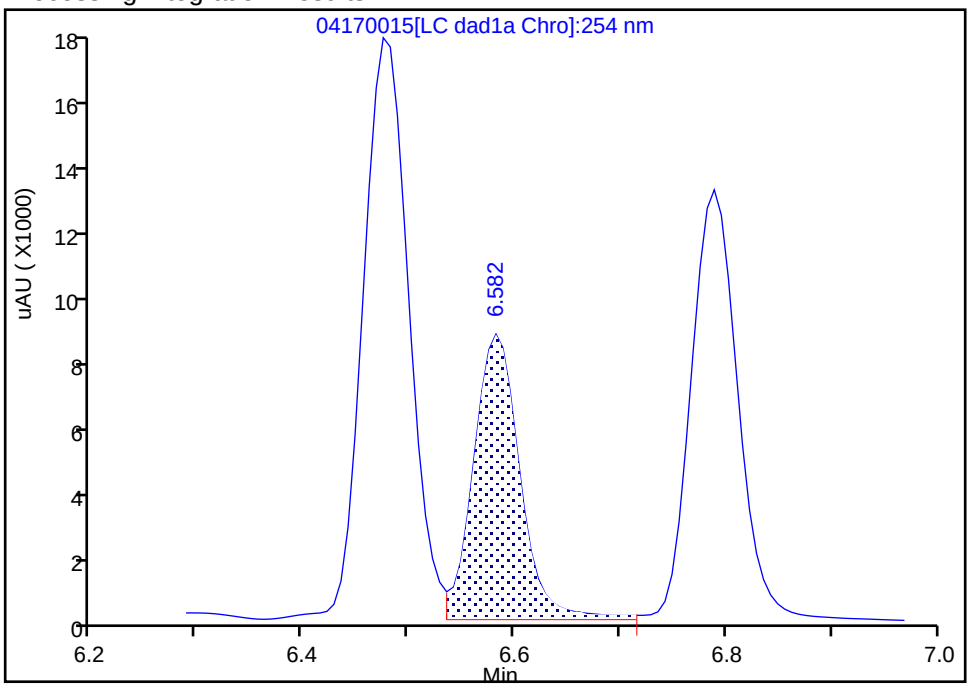
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170015.d				
Injection Date:	17-Apr-2024 22:09:45	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT/DMT 5				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	15	Worklist Smp#:	15
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

4 HMX, CAS: 2691-41-0

Signal: 1

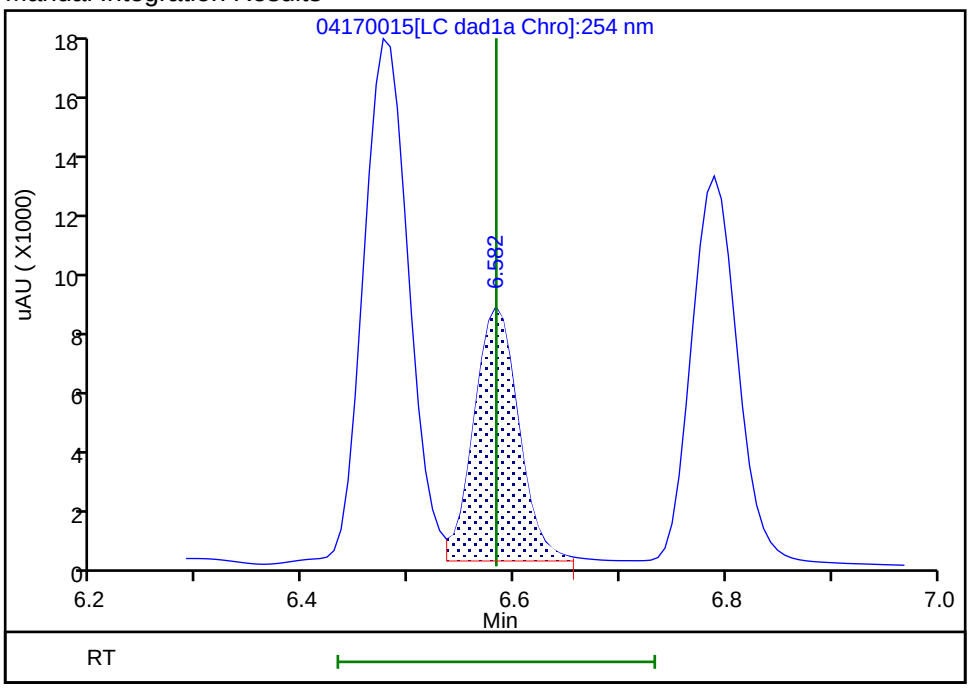
Processing Integration Results

RT: 6.58
Area: 25313
Amount: 0.246706
Amount Units: ug/mL



Manual Integration Results

RT: 6.58
Area: 23583
Amount: 0.246829
Amount Units: ug/mL



Reviewer: LV5D, 18-Apr-2024 11:15:15 -06:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

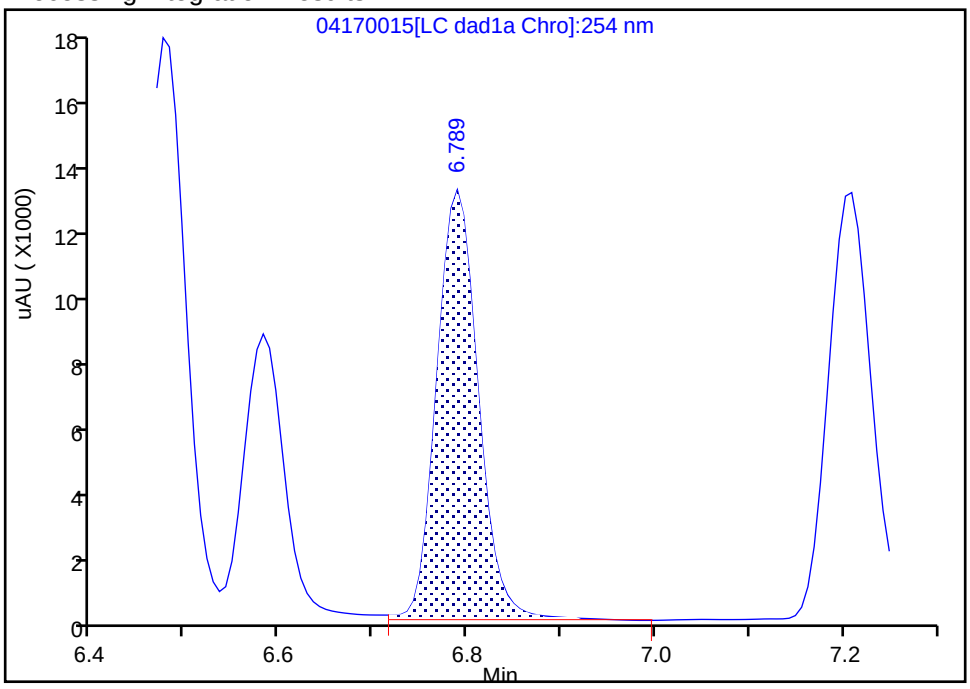
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170015.d				
Injection Date:	17-Apr-2024 22:09:45	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT/DMT 5				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	15	Worklist Smp#:	15
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

6 DNX, CAS: 80251-29-2

Signal: 1

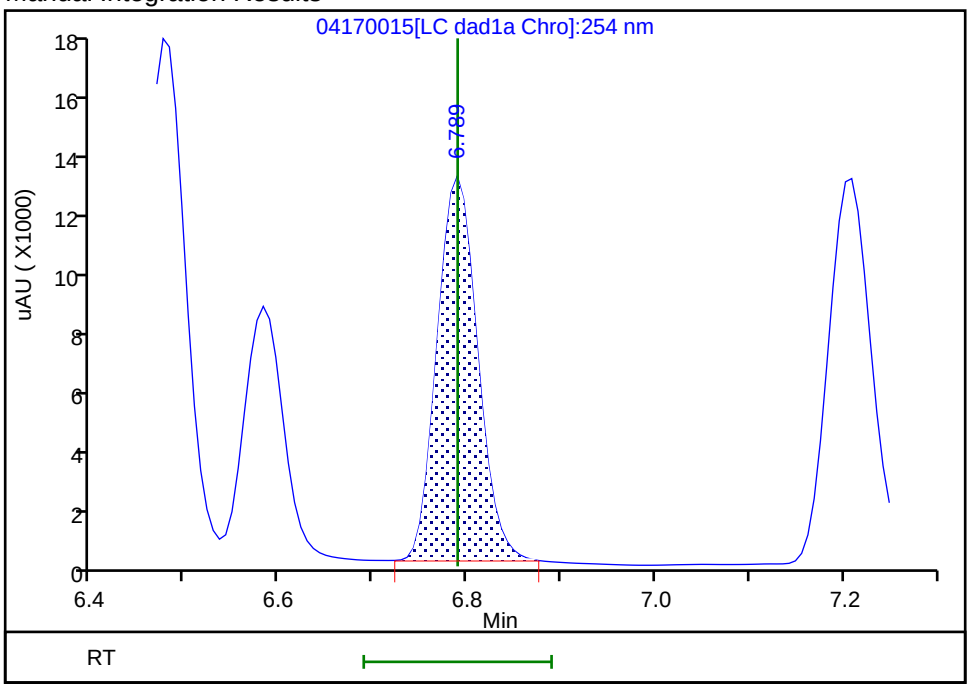
Processing Integration Results

RT: 6.79
Area: 38558
Amount: 0.252268
Amount Units: ug/mL



Manual Integration Results

RT: 6.79
Area: 36872
Amount: 0.250388
Amount Units: ug/mL



Reviewer: LV5D, 18-Apr-2024 11:15:17 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

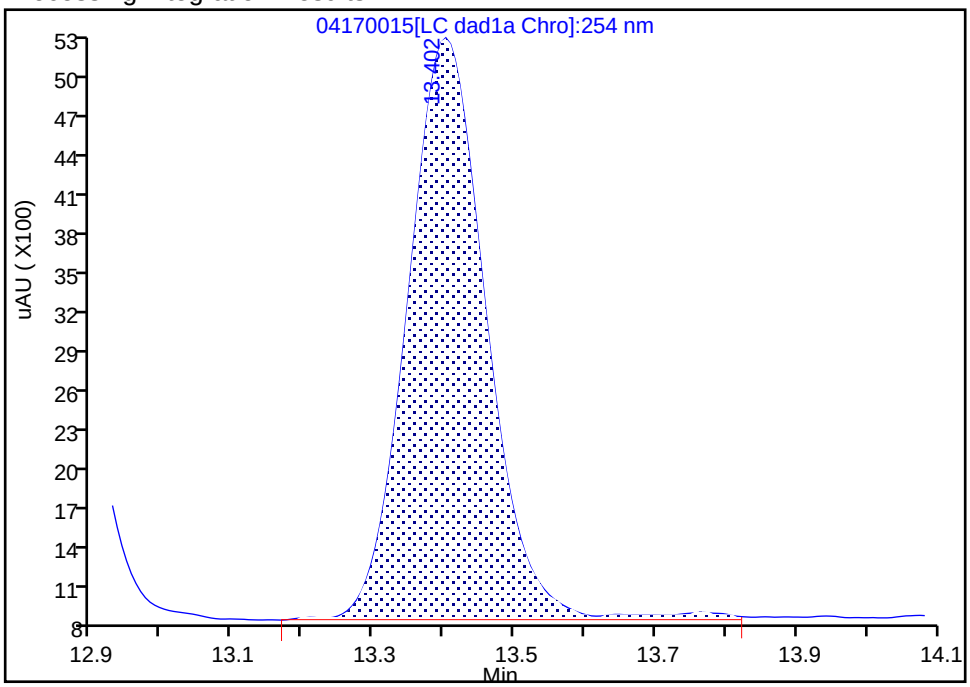
Data File: \\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170015.d
Injection Date: 17-Apr-2024 22:09:45 Instrument ID: CHHPLC_X3
Lims ID: IC INT/DMT 5
Client ID:
Operator ID: JZ/JG ALS Bottle#: 15 Worklist Smp#: 15
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

24 m-Nitrotoluene, CAS: 99-08-1

Signal: 1

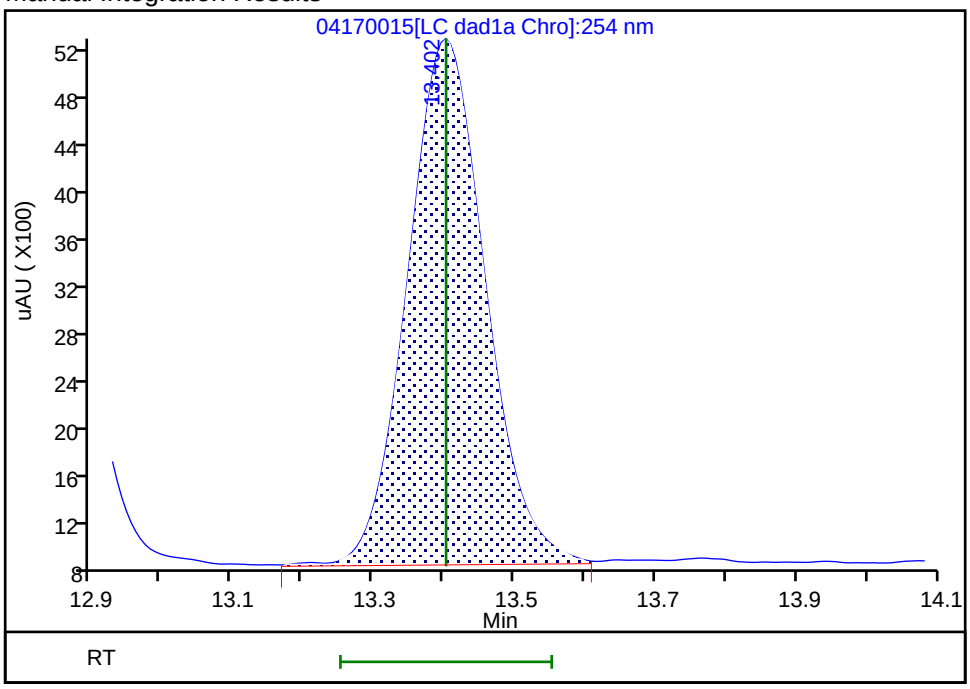
Processing Integration Results

RT: 13.40
Area: 34432
Amount: 0.238653
Amount Units: ug/mL



Manual Integration Results

RT: 13.40
Area: 33952
Amount: 0.235674
Amount Units: ug/mL



Reviewer: LV5D, 18-Apr-2024 11:15:33 -06:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\04170016.D
Lims ID: IC INT/DMT 4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 17-Apr-2024 22:32:42 ALS Bottle#: 16 Worklist Smp#: 16
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT/DMT 4
Operator ID: JZ/JG Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub27

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 18-Apr-2024 11:59:27 Calib Date: 18-Apr-2024 03:08:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\04170028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1675

First Level Reviewer: LV5D Date: 18-Apr-2024 11:16:09

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 TNX	1	6.476	6.476	0.000	20006	0.1004	0.1005	M
4 HMX	1	6.583	6.583	0.000	9645	0.1000	0.1009	M
6 DNX	1	6.789	6.789	0.000	14834	0.1002	0.1007	M
7 MNX	1	7.203	7.203	0.000	15807	0.1169	0.1156	
8 RDX	1	7.583	7.583	0.000	11162	0.1000	0.1008	
9 2,4,6-Trinitrophenol	1	7.816	7.816	0.000	8016	0.1000	0.1011	
$ 10 1,2-Dinitrobenzene	1	8.516	8.516	0.000	13450	0.1000	0.1015	
11 1,3,5-Trinitrobenzene	1	8.656	8.656	0.000	22129	0.1000	0.0993	
12 1,3-Dinitrobenzene	1	9.276	9.276	0.000	30359	0.1000	0.1014	
13 Nitrobenzene	1	9.636	9.636	0.000	20035	0.1000	0.1020	
14 3,5-Dinitroaniline	1	9.876	9.876	0.000	22651	0.1000	0.1036	
15 Tetryl	1	9.963	9.963	0.000	18238	0.1000	0.1004	
16 Nitroglycerin	2	10.429	10.429	0.000	71367	1.00	1.07	
17 2,4,6-Trinitrotoluene	1	10.869	10.869	0.000	21912	0.1000	0.1018	
18 4-Amino-2,6-dinitrotoluene	1	11.049	11.049	0.000	15344	0.1000	0.1023	
19 2-Amino-4,6-dinitrotoluene	1	11.309	11.309	0.000	20033	0.1000	0.1003	
20 2,6-Dinitrotoluene	1	11.449	11.449	0.000	15218	0.1000	0.1036	
21 2,4-Dinitrotoluene	1	11.629	11.629	0.000	29452	0.1000	0.1009	
22 o-Nitrotoluene	1	12.423	12.423	0.000	12977	0.1000	0.1004	
23 p-Nitrotoluene	1	12.843	12.843	0.000	11360	0.1000	0.1007	
24 m-Nitrotoluene	1	13.403	13.403	0.000	14207	0.1000	0.0986	
25 PETN	2	14.483	14.483	0.000	72600	1.00	1.01	M

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330IntermStk_00080	Amount Added: 10.00	Units: uL
8330 DMT_00016	Amount Added: 5.00	Units: uL

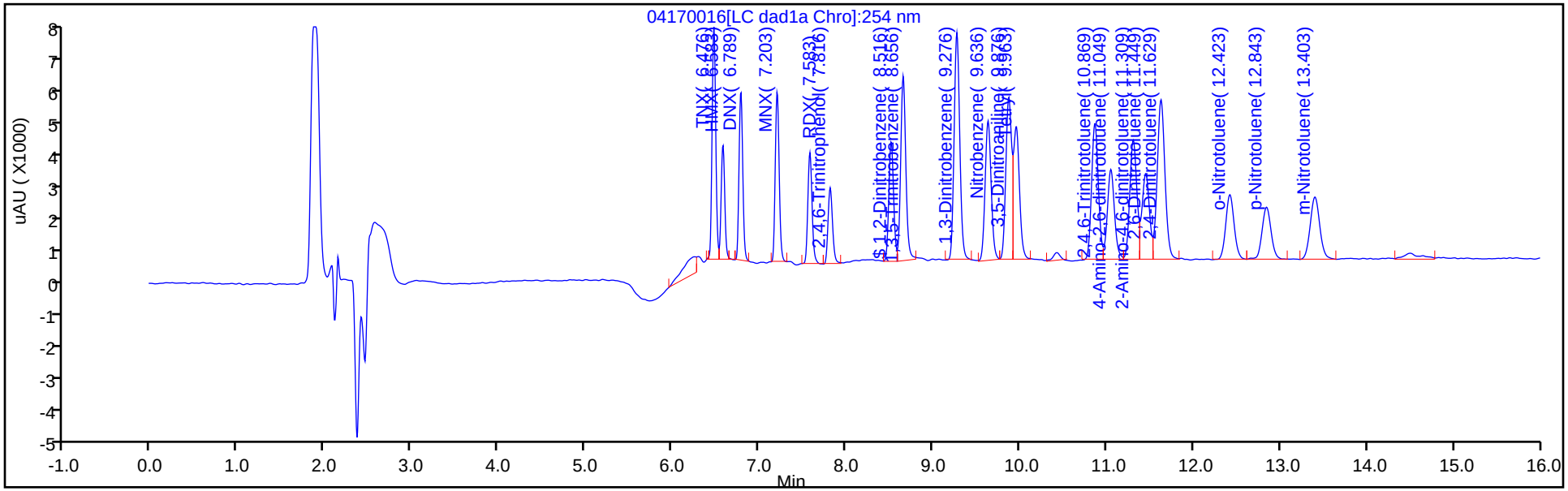
Report Date: 18-Apr-2024 11:59:27 Chrom Revision: 2.3 09-Apr-2024 17:43:44

Eurofins Denver

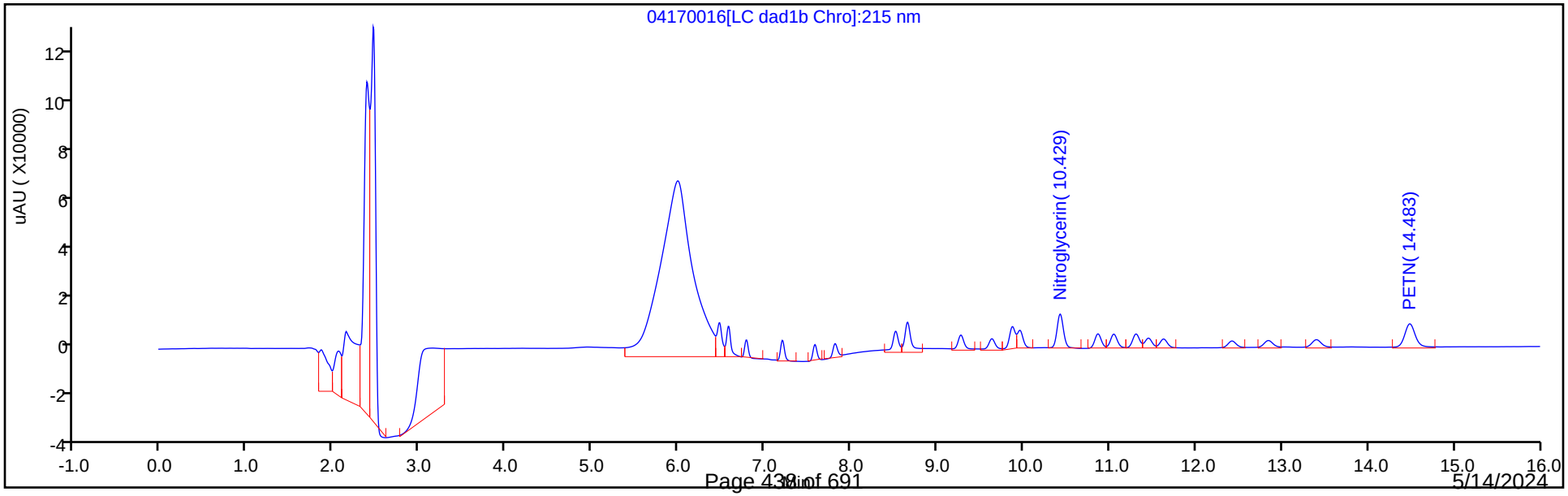
Data File: \\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170016.d

Injection Date:	17-Apr-2024 22:32:42	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	IC INT/DMT 4			Worklist Smp#:	16
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



5/14/2024
9:20:15 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

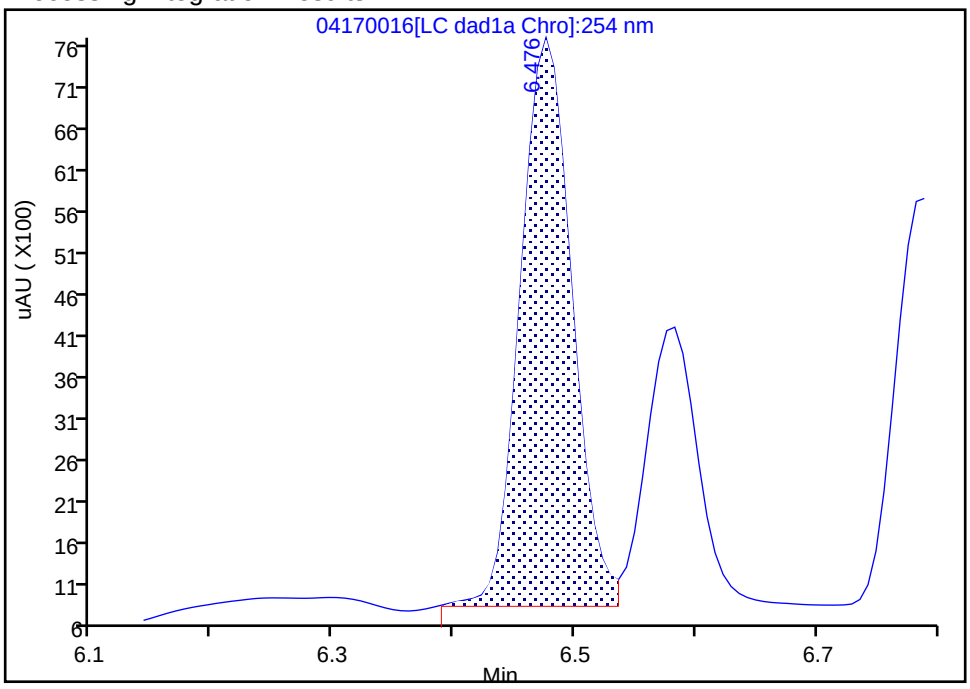
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170016.d				
Injection Date:	17-Apr-2024 22:32:42	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT/DMT 4				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

3 TNX, CAS: 13980-04-6

Signal: 1

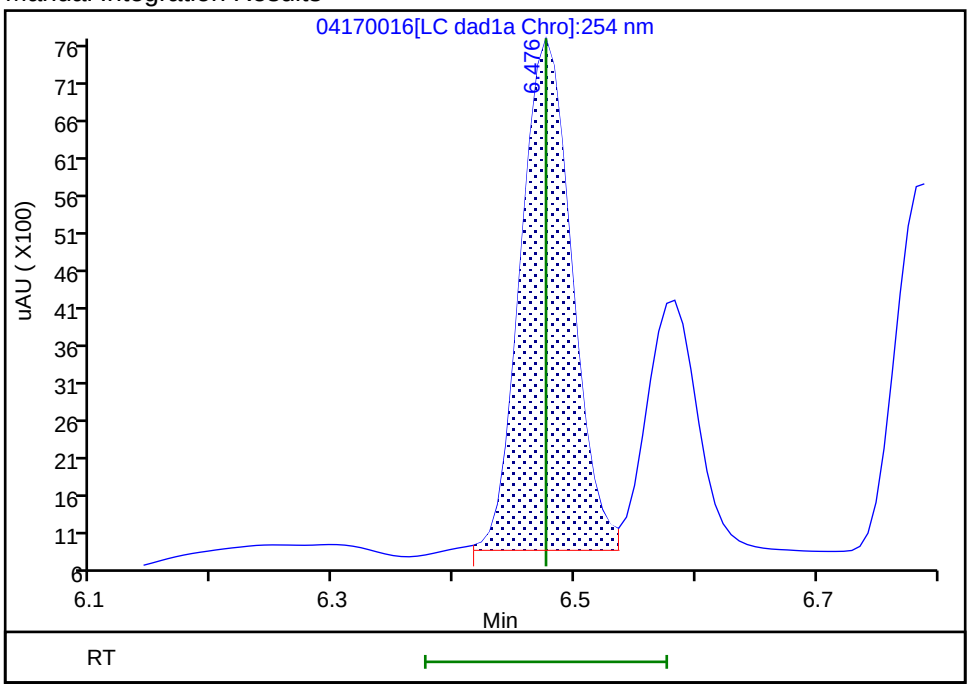
Processing Integration Results

RT: 6.48
Area: 20438
Amount: 0.099827
Amount Units: ug/mL



Manual Integration Results

RT: 6.48
Area: 20006
Amount: 0.100537
Amount Units: ug/mL



Reviewer: LV5D, 18-Apr-2024 11:16:01 -06:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

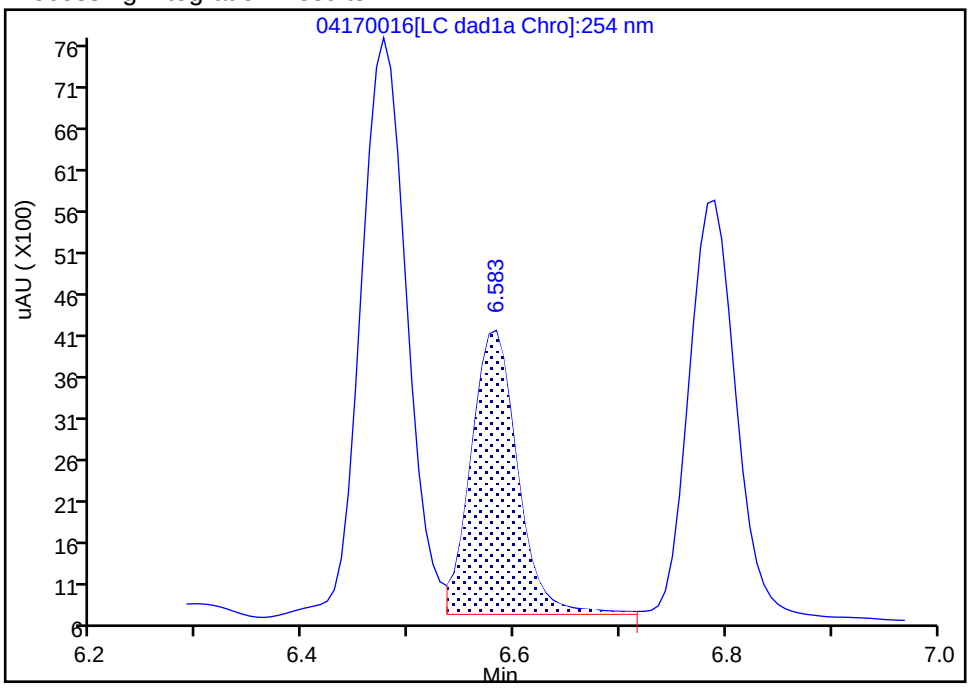
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170016.d				
Injection Date:	17-Apr-2024 22:32:42	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT/DMT 4				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

4 HMX, CAS: 2691-41-0

Signal: 1

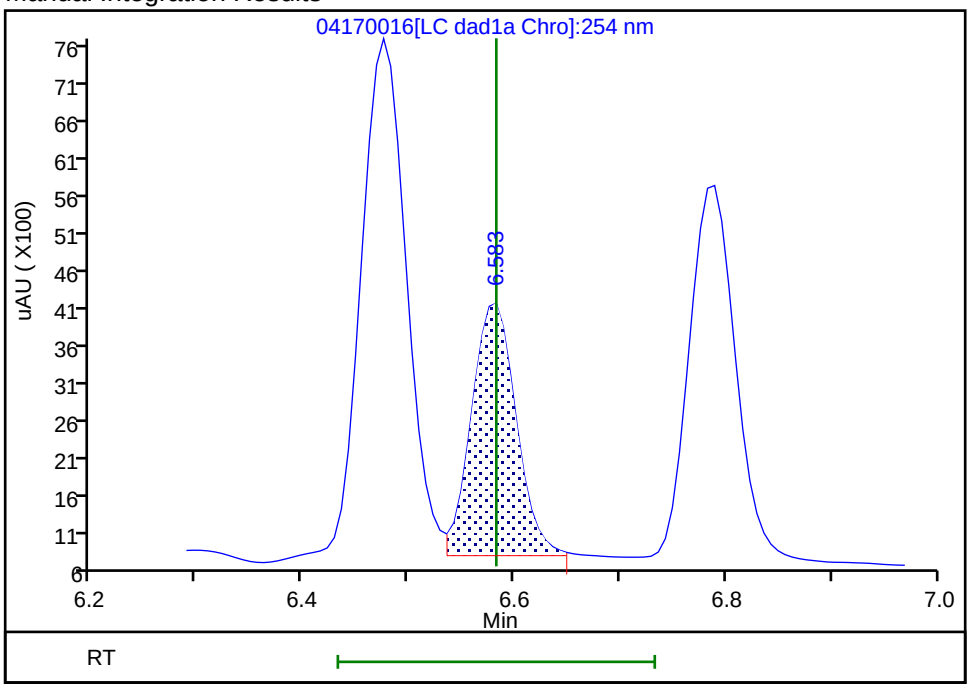
Processing Integration Results

RT: 6.58
Area: 10277
Amount: 0.100918
Amount Units: ug/mL



Manual Integration Results

RT: 6.58
Area: 9645
Amount: 0.100949
Amount Units: ug/mL



Reviewer: LV5D, 18-Apr-2024 11:16:02 -06:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

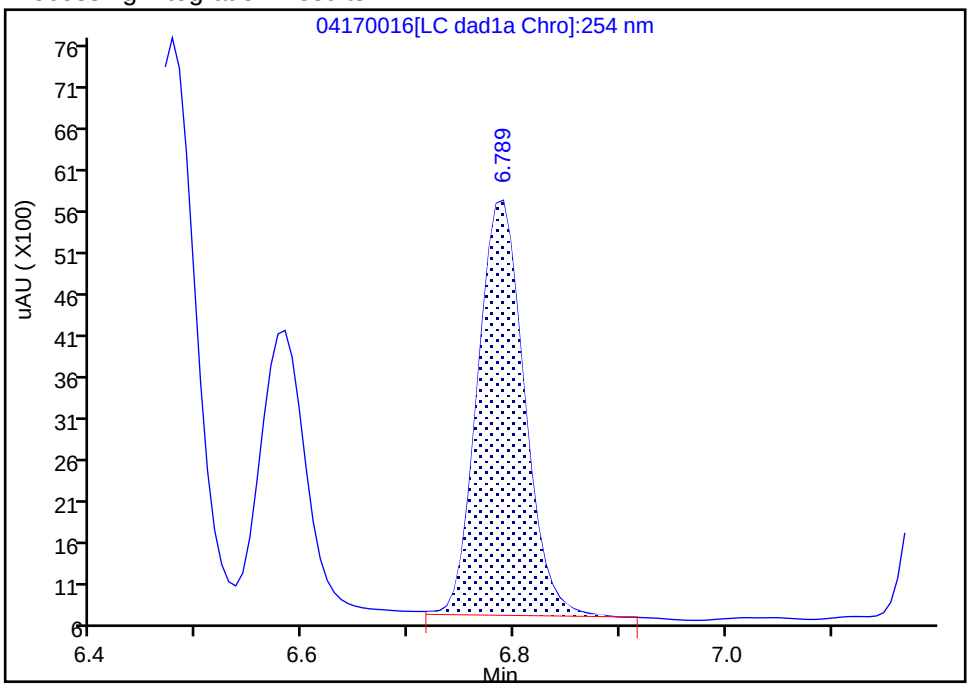
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170016.d				
Injection Date:	17-Apr-2024 22:32:42	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT/DMT 4				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

6 DNX, CAS: 80251-29-2

Signal: 1

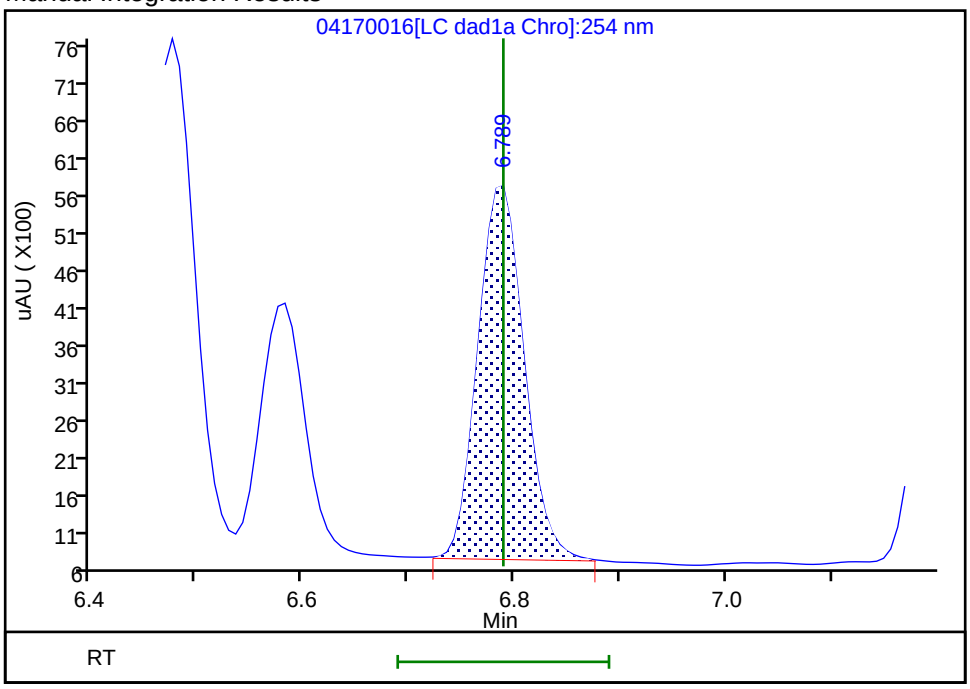
Processing Integration Results

RT: 6.79
Area: 15232
Amount: 0.100146
Amount Units: ug/mL



Manual Integration Results

RT: 6.79
Area: 14834
Amount: 0.100734
Amount Units: ug/mL



Reviewer: LV5D, 18-Apr-2024 11:16:06 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

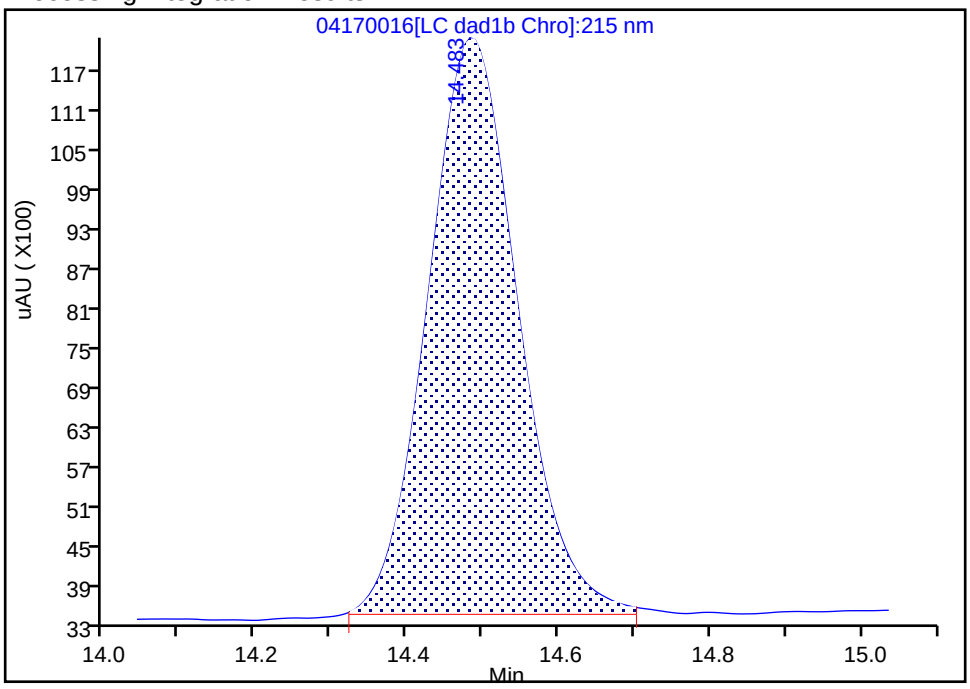
Data File: \\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170016.d
Injection Date: 17-Apr-2024 22:32:42 Instrument ID: CHHPLC_X3
Lims ID: IC INT/DMT 4
Client ID:
Operator ID: JZ/JG ALS Bottle#: 16 Worklist Smp#: 16
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1C, 215 nm

25 PETN, CAS: 78-11-5

Signal: 1

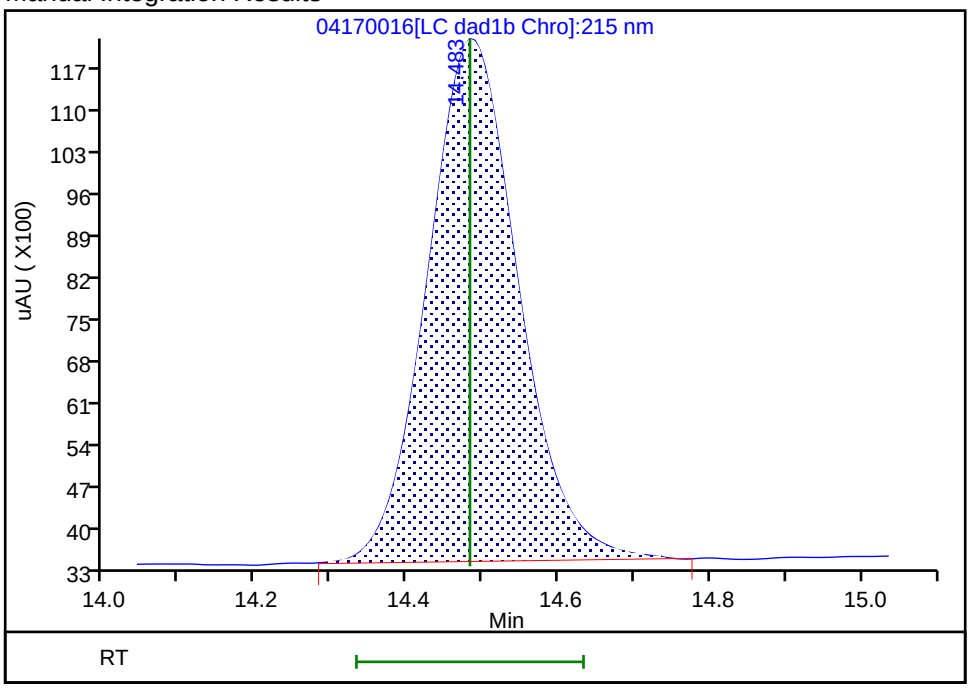
Processing Integration Results

RT: 14.48
Area: 72203
Amount: 1.039474
Amount Units: ug/mL



Manual Integration Results

RT: 14.48
Area: 72600
Amount: 1.009217
Amount Units: ug/mL



Reviewer: LV5D, 18-Apr-2024 11:15:43 -06:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\04170017.D
Lims ID: IC INT/DMT 3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 17-Apr-2024 22:55:38 ALS Bottle#: 17 Worklist Smp#: 17
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT/DMT 3
Operator ID: JZ/JG Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub27

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 18-Apr-2024 11:59:28 Calib Date: 18-Apr-2024 03:08:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\04170028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1675

First Level Reviewer: LV5D Date: 18-Apr-2024 11:16:33

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 TNX	1	6.478	6.476	0.002	9628	0.0502	0.0484	M
4 HMX	1	6.578	6.583	-0.005	4536	0.0500	0.0475	M
6 DNX	1	6.784	6.789	-0.005	7258	0.0501	0.0493	M
7 MNX	1	7.204	7.203	0.001	7887	0.0585	0.0577	
8 RDX	1	7.584	7.583	0.001	5612	0.0500	0.0507	
9 2,4,6-Trinitrophenol	1	7.818	7.816	0.002	3847	0.0500	0.0485	
$ 10 1,2-Dinitrobenzene	1	8.518	8.516	0.002	6521	0.0500	0.0488	
11 1,3,5-Trinitrobenzene	1	8.658	8.656	0.002	11258	0.0500	0.0505	
12 1,3-Dinitrobenzene	1	9.277	9.276	0.001	15023	0.0500	0.0502	
13 Nitrobenzene	1	9.631	9.636	-0.005	9759	0.0500	0.0497	
14 3,5-Dinitroaniline	1	9.871	9.876	-0.005	10781	0.0500	0.0499	
15 Tetryl	1	9.957	9.963	-0.006	9010	0.0500	0.0496	
16 Nitroglycerin	2	10.424	10.429	-0.005	35657	0.5000	0.5365	
17 2,4,6-Trinitrotoluene	1	10.864	10.869	-0.005	10669	0.0500	0.0496	
18 4-Amino-2,6-dinitrotoluene	1	11.044	11.049	-0.005	7533	0.0500	0.0502	
19 2-Amino-4,6-dinitrotoluene	1	11.304	11.309	-0.005	9923	0.0500	0.0497	
20 2,6-Dinitrotoluene	1	11.451	11.449	0.002	7267	0.0500	0.0495	
21 2,4-Dinitrotoluene	1	11.624	11.629	-0.005	14425	0.0500	0.0494	
22 o-Nitrotoluene	1	12.424	12.423	0.001	6526	0.0500	0.0505	
23 p-Nitrotoluene	1	12.844	12.843	0.001	5631	0.0500	0.0499	
24 m-Nitrotoluene	1	13.404	13.403	0.001	7074	0.0500	0.0491	
25 PETN	2	14.491	14.483	0.008	35216	0.5000	0.4895	M

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330IntermStk_00080	Amount Added:	5.00	Units: uL
8330 DMT_00016	Amount Added:	2.50	Units: uL

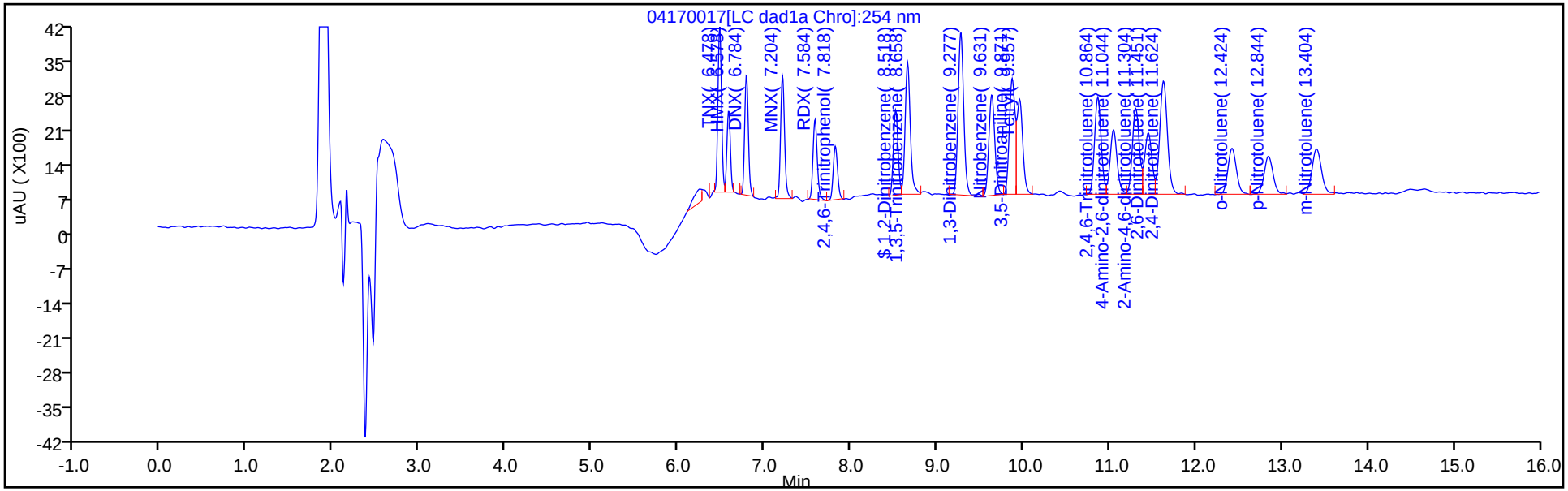
Report Date: 18-Apr-2024 11:59:28 Chrom Revision: 2.3 09-Apr-2024 17:43:44

Eurofins Denver

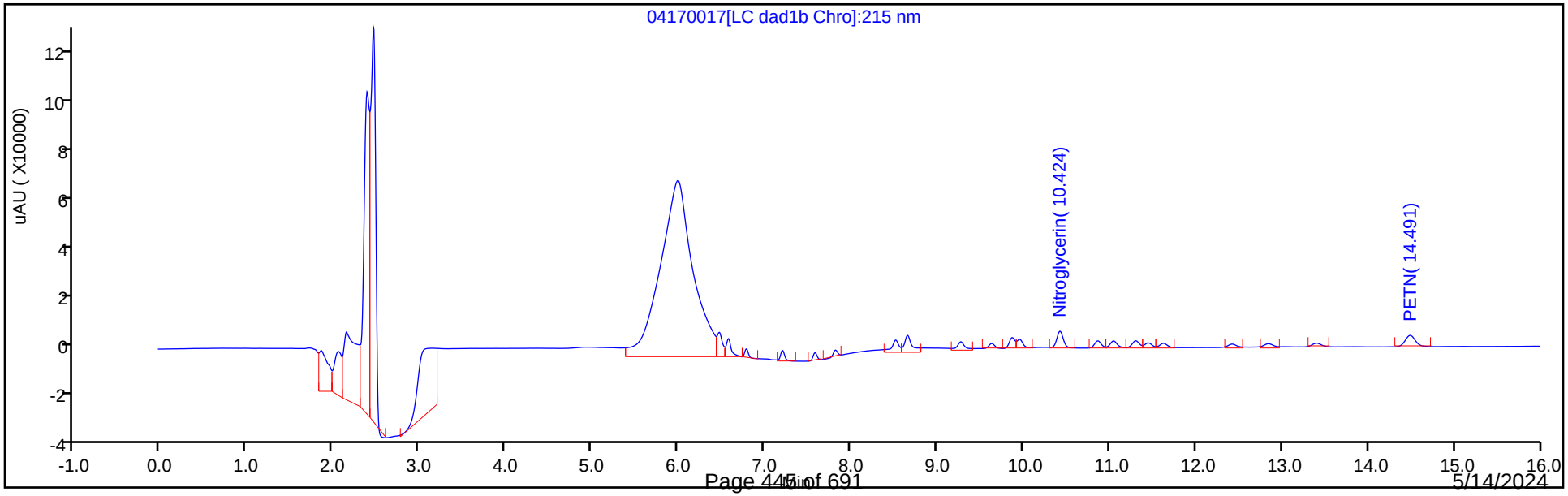
Data File: \\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170017.d

Injection Date:	17-Apr-2024 22:55:38	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	IC INT/DMT 3			Worklist Smp#:	17
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	17
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



5/14/2024
9:20:15 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

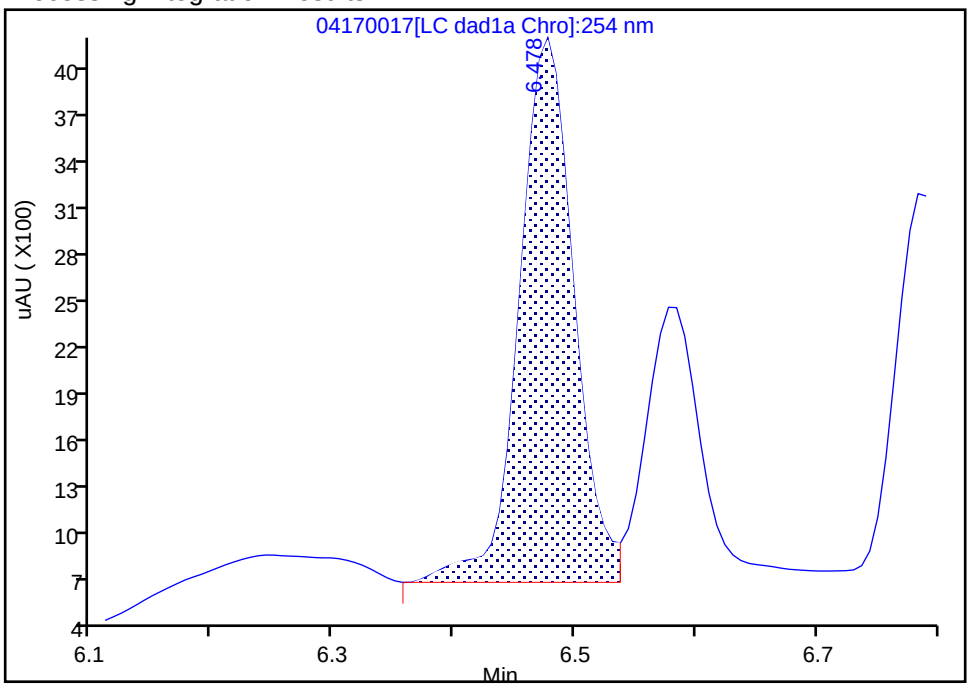
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170017.d				
Injection Date:	17-Apr-2024 22:55:38	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT/DMT 3				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

3 TNX, CAS: 13980-04-6

Signal: 1

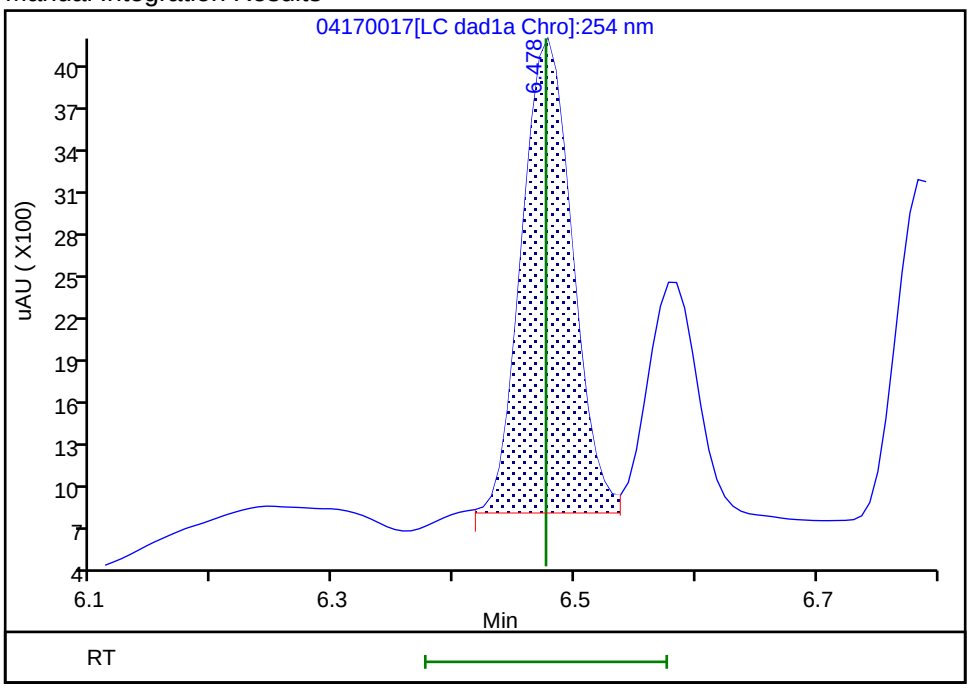
Processing Integration Results

RT: 6.48
Area: 10871
Amount: 0.053223
Amount Units: ug/mL



Manual Integration Results

RT: 6.48
Area: 9628
Amount: 0.048384
Amount Units: ug/mL



Reviewer: LV5D, 18-Apr-2024 11:16:21 -06:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

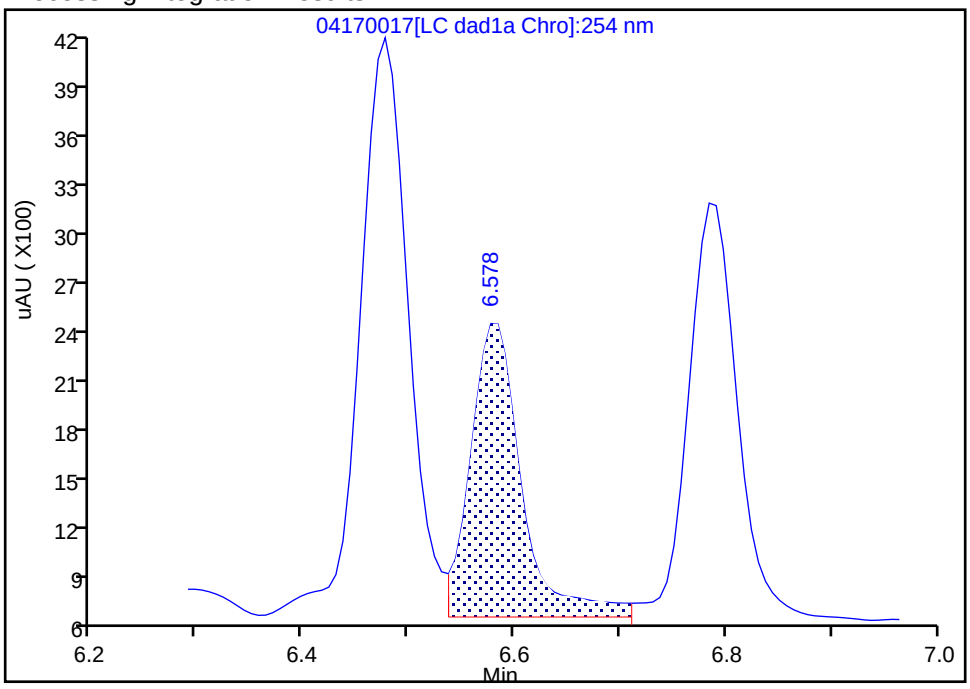
Data File: \\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170017.d
Injection Date: 17-Apr-2024 22:55:38 Instrument ID: CHHPLC_X3
Lims ID: IC INT/DMT 3
Client ID:
Operator ID: JZ/JG ALS Bottle#: 17 Worklist Smp#: 17
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

4 HMX, CAS: 2691-41-0

Signal: 1

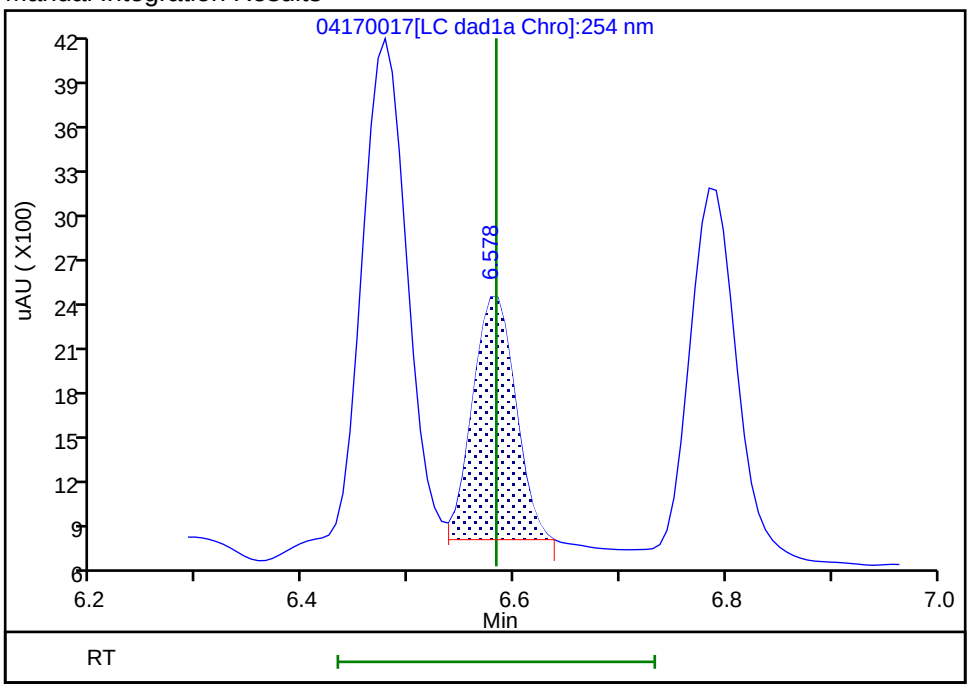
Processing Integration Results

RT: 6.58
Area: 5791
Amount: 0.057261
Amount Units: ug/mL



Manual Integration Results

RT: 6.58
Area: 4536
Amount: 0.047476
Amount Units: ug/mL



Reviewer: LV5D, 18-Apr-2024 11:16:22 -06:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

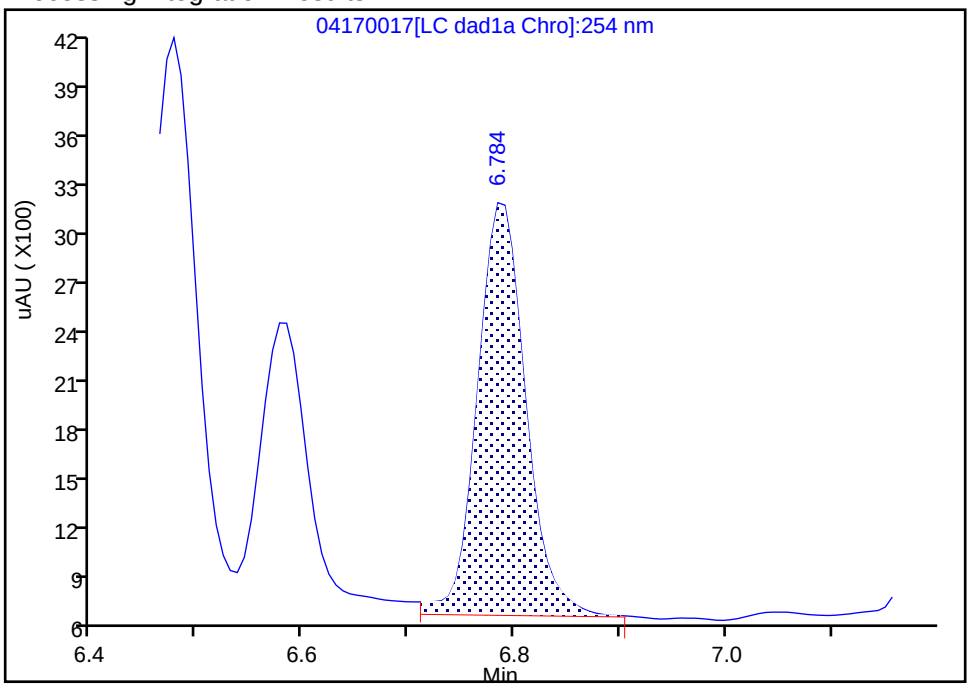
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170017.d				
Injection Date:	17-Apr-2024 22:55:38	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT/DMT 3				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

6 DNX, CAS: 80251-29-2

Signal: 1

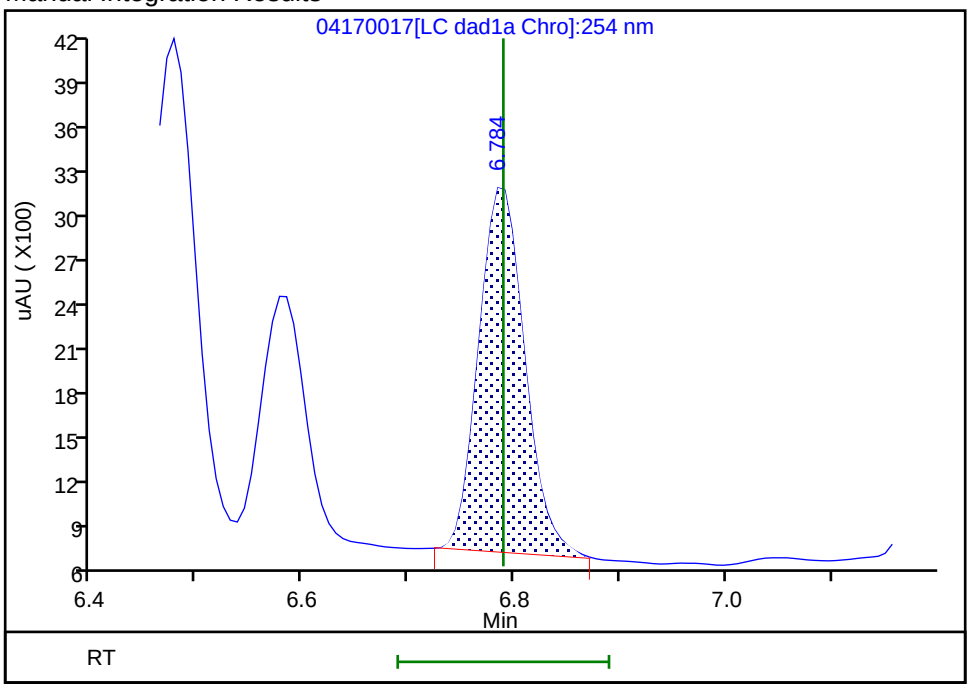
Processing Integration Results

RT: 6.78
Area: 7818
Amount: 0.051551
Amount Units: ug/mL



Manual Integration Results

RT: 6.78
Area: 7258
Amount: 0.049287
Amount Units: ug/mL



Reviewer: LV5D, 18-Apr-2024 11:16:26 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

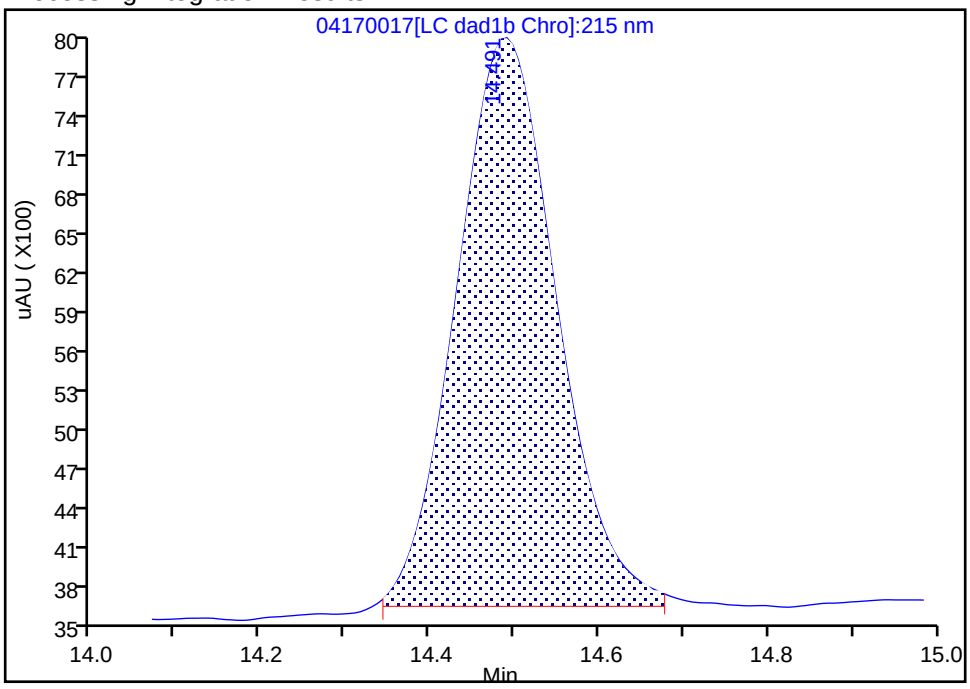
Data File: \\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170017.d
Injection Date: 17-Apr-2024 22:55:38 Instrument ID: CHHPLC_X3
Lims ID: IC INT/DMT 3
Client ID:
Operator ID: JZ/JG ALS Bottle#: 17 Worklist Smp#: 17
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1C, 215 nm

25 PETN, CAS: 78-11-5

Signal: 1

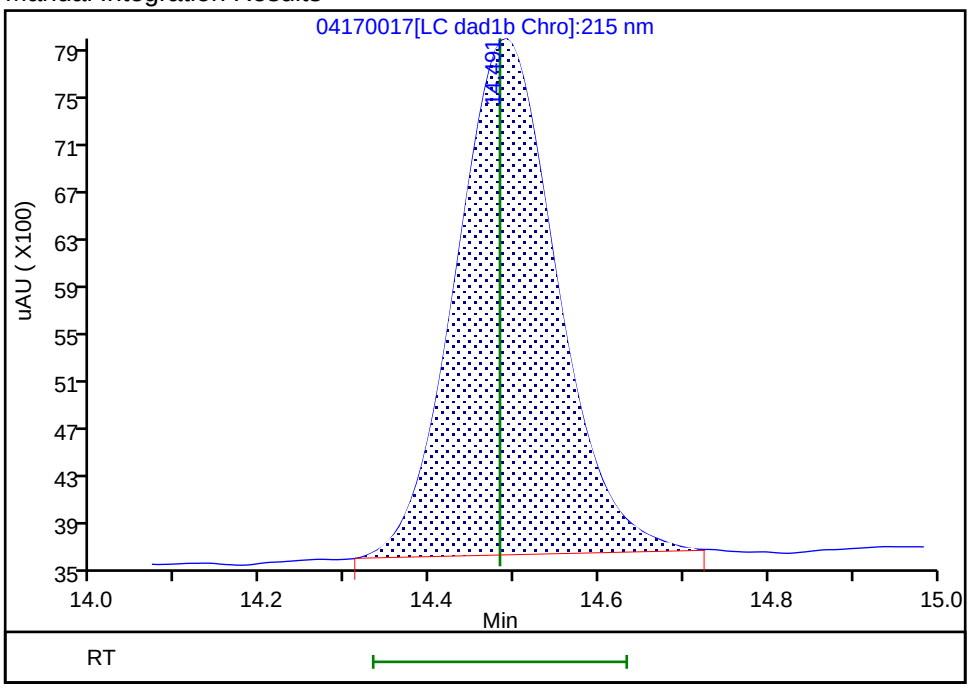
Processing Integration Results

RT: 14.49
Area: 34790
Amount: 0.500498
Amount Units: ug/mL



Manual Integration Results

RT: 14.49
Area: 35216
Amount: 0.489540
Amount Units: ug/mL



Reviewer: LV5D, 18-Apr-2024 11:16:31 -06:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\04170018.D
Lims ID: IC INT/DMT 2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 17-Apr-2024 23:18:32 ALS Bottle#: 18 Worklist Smp#: 18
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT/DMT 2
Operator ID: JZ/JG Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub27

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 18-Apr-2024 11:59:29 Calib Date: 18-Apr-2024 03:08:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\04170028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1675

First Level Reviewer: LV5D Date: 18-Apr-2024 11:17:35

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 TNX	1	6.475	6.476	-0.001	4023	0.0201	0.0202	
4 HMX	1	6.582	6.583	-0.001	2017	0.0200	0.0211	
6 DNX	1	6.788	6.789	-0.001	2843	0.0200	0.0193	M
7 MNX	1	7.202	7.203	-0.001	2991	0.0234	0.0219	
8 RDX	1	7.582	7.583	-0.001	2334	0.0200	0.0211	
9 2,4,6-Trinitrophenol	1	7.822	7.816	0.006	1524	0.0200	0.0192	
$ 10 1,2-Dinitrobenzene	1	8.522	8.516	0.006	2603	0.0200	0.0191	M
11 1,3,5-Trinitrobenzene	1	8.655	8.656	-0.001	4349	0.0200	0.0195	M
12 1,3-Dinitrobenzene	1	9.275	9.276	-0.001	5678	0.0200	0.0190	
13 Nitrobenzene	1	9.635	9.636	-0.001	3932	0.0200	0.0200	
14 3,5-Dinitroaniline	1	9.868	9.876	-0.008	4171	0.0200	0.0199	M
15 Tetryl	1	9.955	9.963	-0.008	3374	0.0200	0.0186	Ma
16 Nitroglycerin	2	10.422	10.429	-0.007	11963	0.2000	0.1800	M
17 2,4,6-Trinitrotoluene	1	10.862	10.869	-0.007	4400	0.0200	0.0204	
18 4-Amino-2,6-dinitrotoluene	1	11.042	11.049	-0.007	3261	0.0200	0.0217	
19 2-Amino-4,6-dinitrotoluene	1	11.302	11.309	-0.007	3997	0.0200	0.0200	
20 2,6-Dinitrotoluene	1	11.448	11.449	-0.001	2880	0.0200	0.0196	
21 2,4-Dinitrotoluene	1	11.622	11.629	-0.007	5793	0.0200	0.0198	
22 o-Nitrotoluene	1	12.415	12.423	-0.008	2777	0.0200	0.0215	
23 p-Nitrotoluene	1	12.842	12.843	-0.001	2413	0.0200	0.0214	
24 m-Nitrotoluene	1	13.395	13.403	-0.008	3066	0.0200	0.0213	
25 PETN	2	14.482	14.483	-0.001	14174	0.2000	0.1970	M

QC Flag Legend
Processing Flags

Review Flags
M - Manually Integrated
a - User Assigned ID

Reagents:

8330IntermStk_00080	Amount Added:	2.00	Units: uL
8330 DMT_00016	Amount Added:	1.00	Units: uL

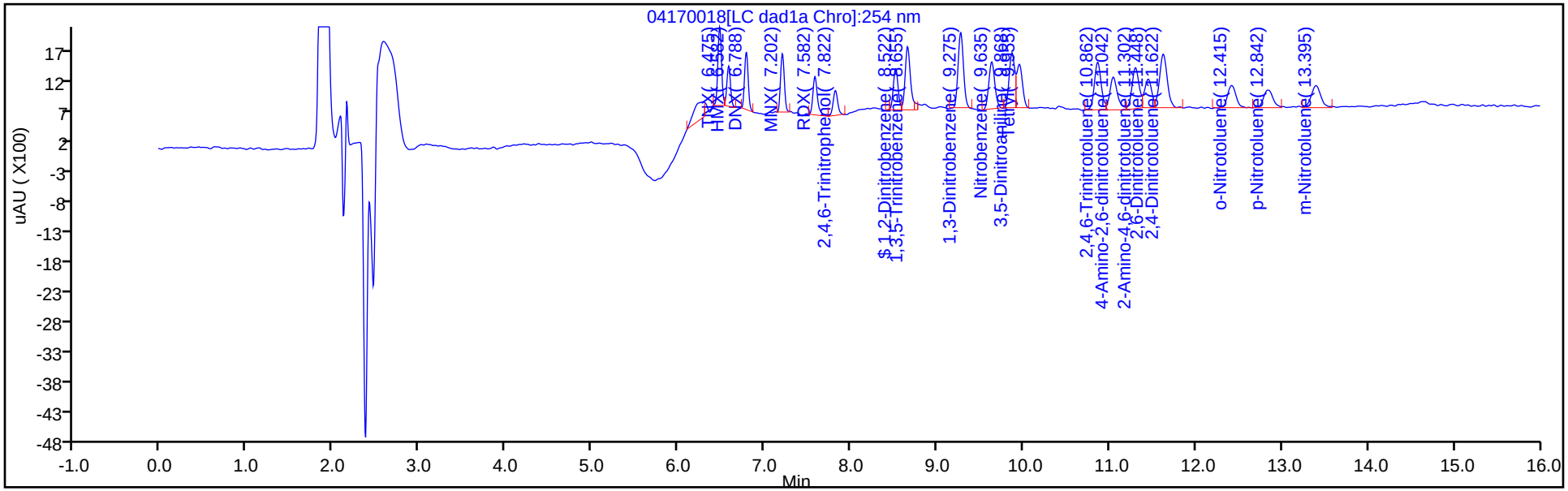
Report Date: 18-Apr-2024 11:59:29 Chrom Revision: 2.3 09-Apr-2024 17:43:44

Eurofins Denver

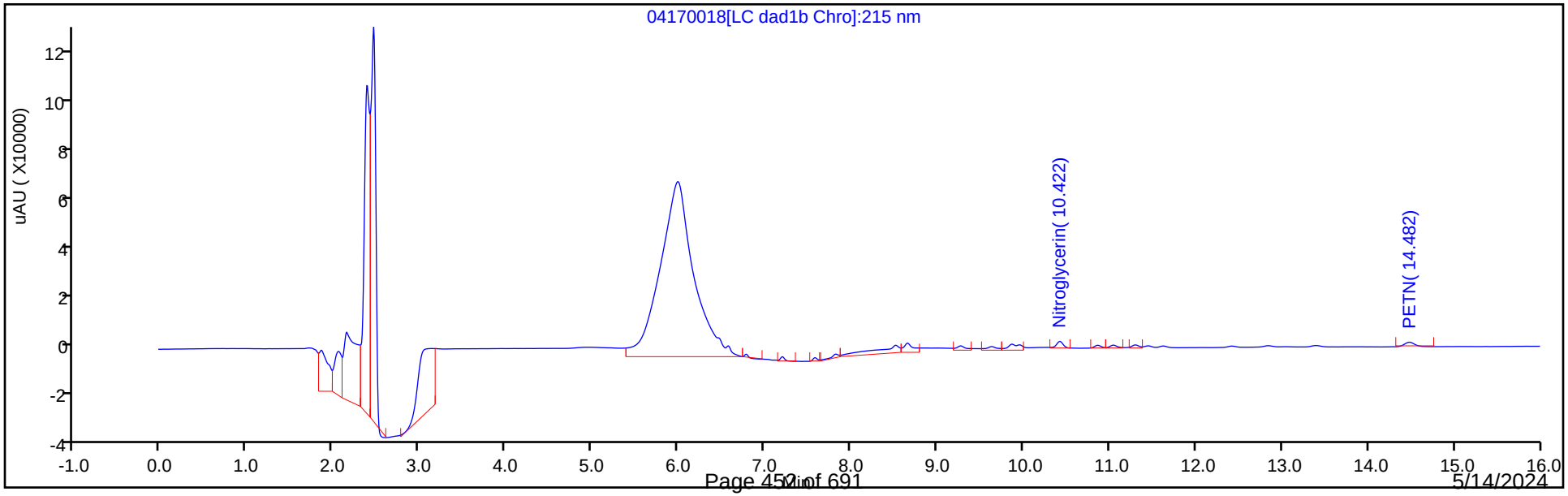
Data File: \\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170018.d

Injection Date:	17-Apr-2024 23:18:32	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	IC INT/DMT 2			Worklist Smp#:	18
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	18
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



5/14/2024
9:20:15 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

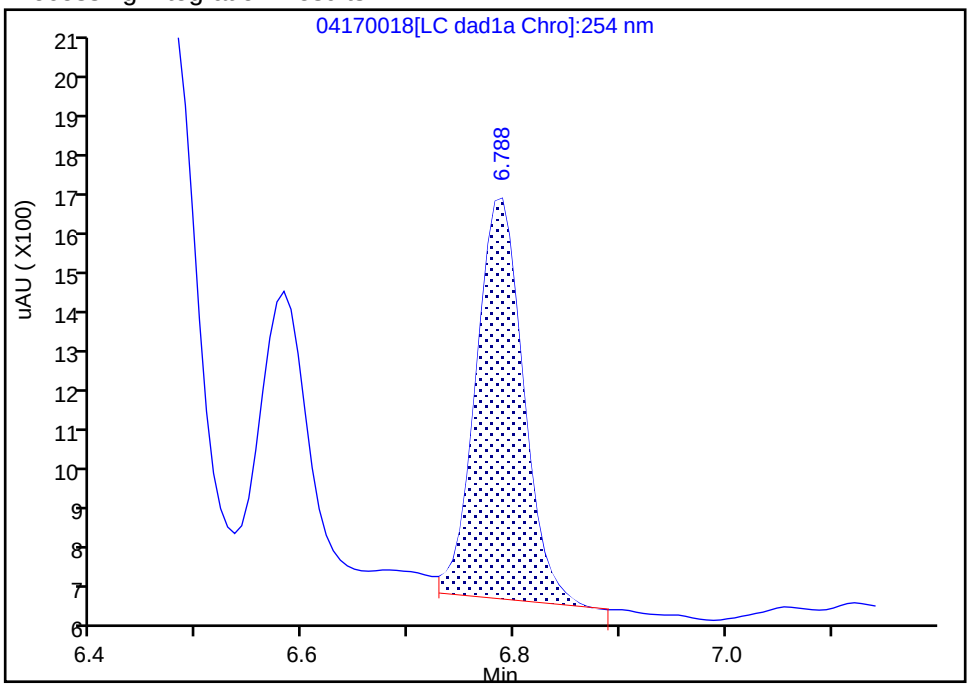
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170018.d				
Injection Date:	17-Apr-2024 23:18:32	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT/DMT 2				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

6 DNX, CAS: 80251-29-2

Signal: 1

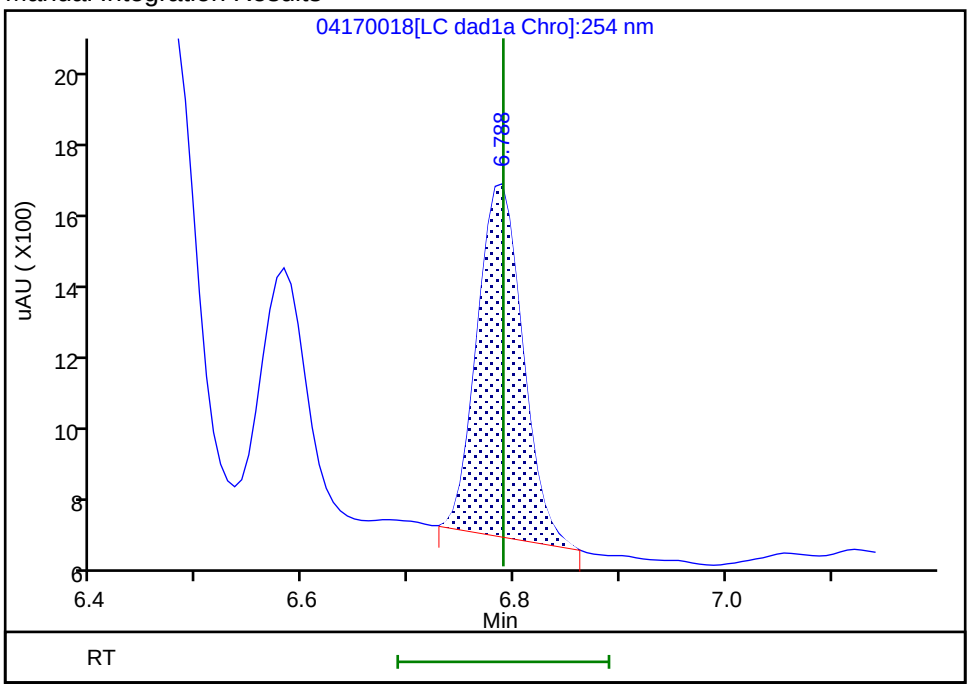
Processing Integration Results

RT: 6.79
Area: 3044
Amount: 0.020237
Amount Units: ug/mL



Manual Integration Results

RT: 6.79
Area: 2843
Amount: 0.019306
Amount Units: ug/mL



Reviewer: LV5D, 18-Apr-2024 11:17:01 -06:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

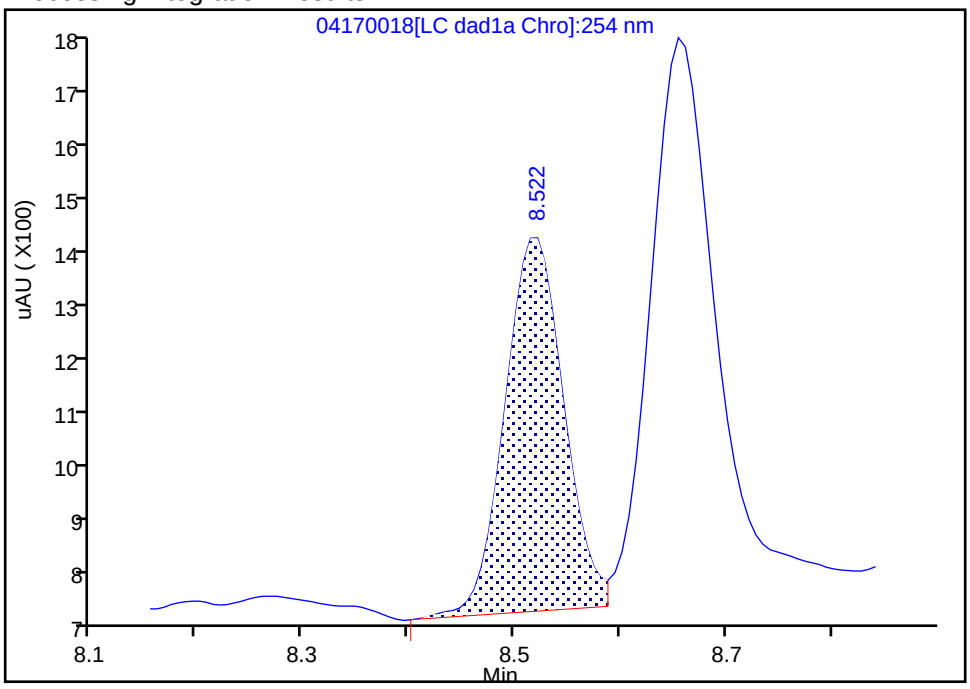
Data File: \\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170018.d
Injection Date: 17-Apr-2024 23:18:32 Instrument ID: CHHPLC_X3
Lims ID: IC INT/DMT 2
Client ID:
Operator ID: JZ/JG ALS Bottle#: 18 Worklist Smp#: 18
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

$ 10 1,2-Dinitrobenzene, CAS: 528-29-0

Signal: 1

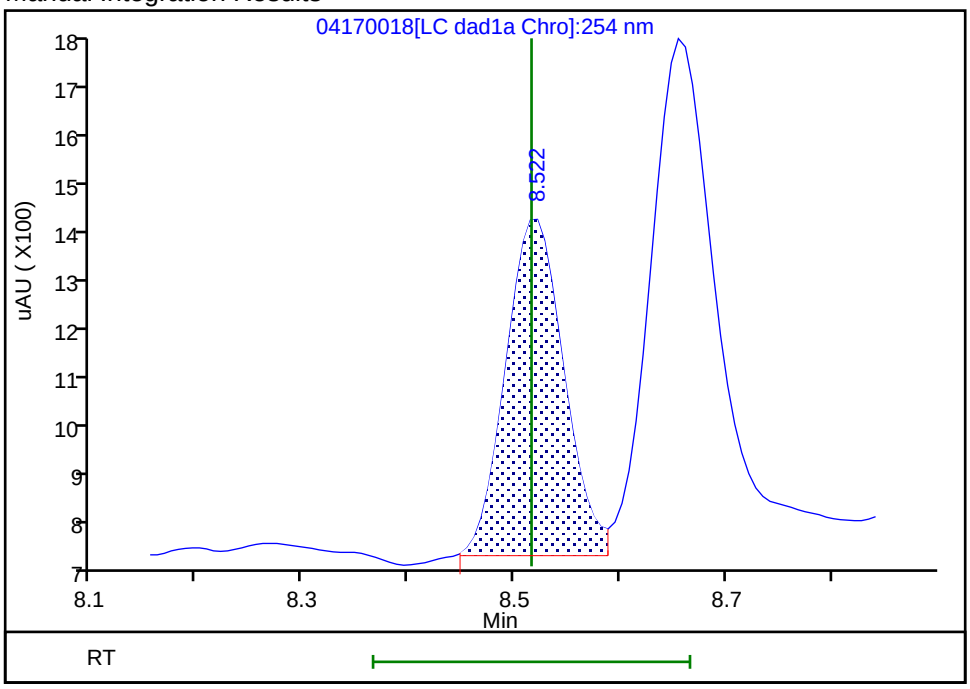
Processing Integration Results

RT: 8.52
Area: 2640
Amount: 0.019730
Amount Units: ug/mL



Manual Integration Results

RT: 8.52
Area: 2603
Amount: 0.019063
Amount Units: ug/mL



Reviewer: LV5D, 18-Apr-2024 11:19:58 -06:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

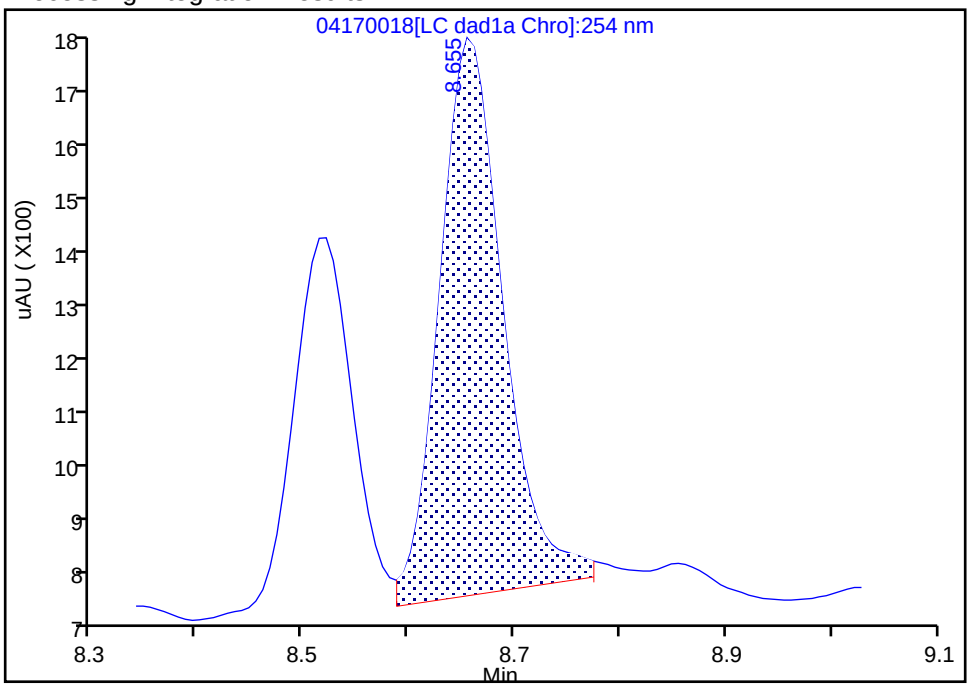
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170018.d				
Injection Date:	17-Apr-2024 23:18:32	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT/DMT 2				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

11 1,3,5-Trinitrobenzene, CAS: 99-35-4

Signal: 1

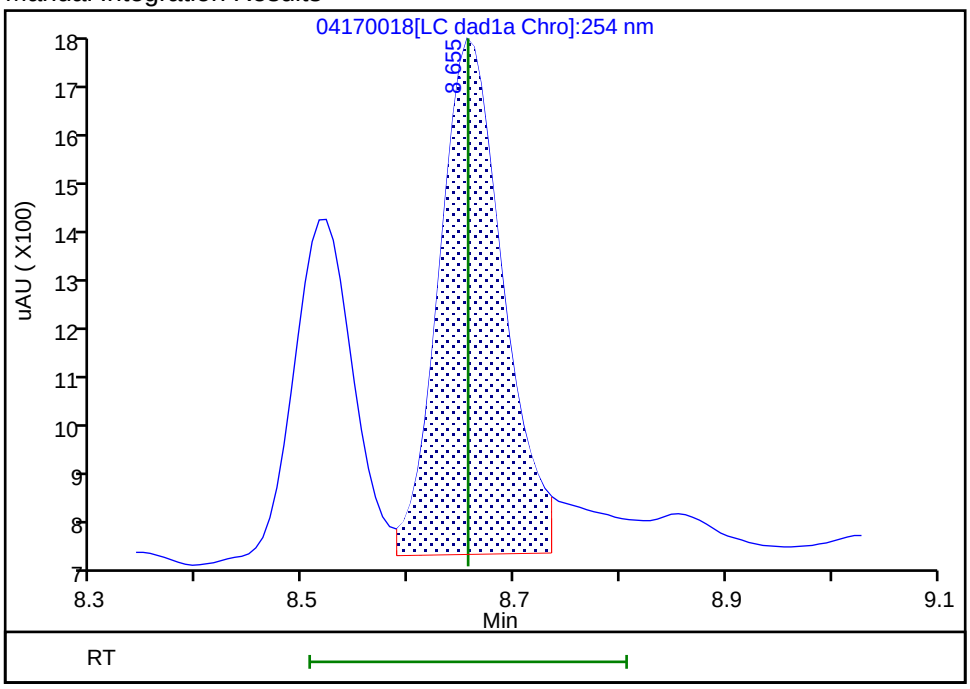
Processing Integration Results

RT: 8.66
Area: 4251
Amount: 0.019122
Amount Units: ug/mL



Manual Integration Results

RT: 8.66
Area: 4349
Amount: 0.019515
Amount Units: ug/mL



Reviewer: LV5D, 18-Apr-2024 11:19:57 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

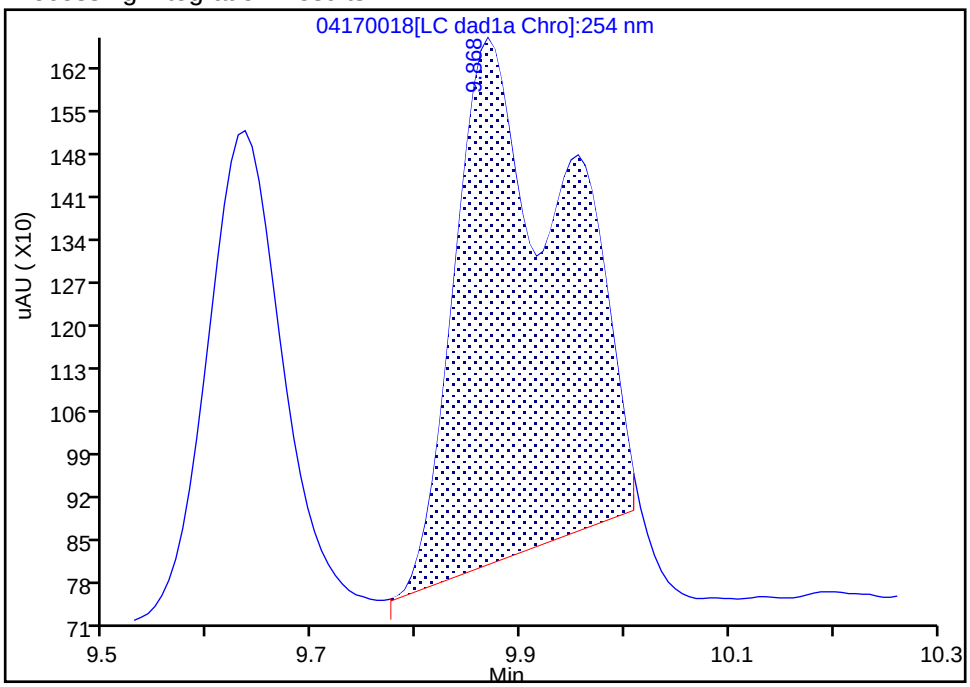
Data File: \\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170018.d
Injection Date: 17-Apr-2024 23:18:32 Instrument ID: CHHPLC_X3
Lims ID: IC INT/DMT 2
Client ID:
Operator ID: JZ/JG ALS Bottle#: 18 Worklist Smp#: 18
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

14 3,5-Dinitroaniline, CAS: 618-87-1

Signal: 1

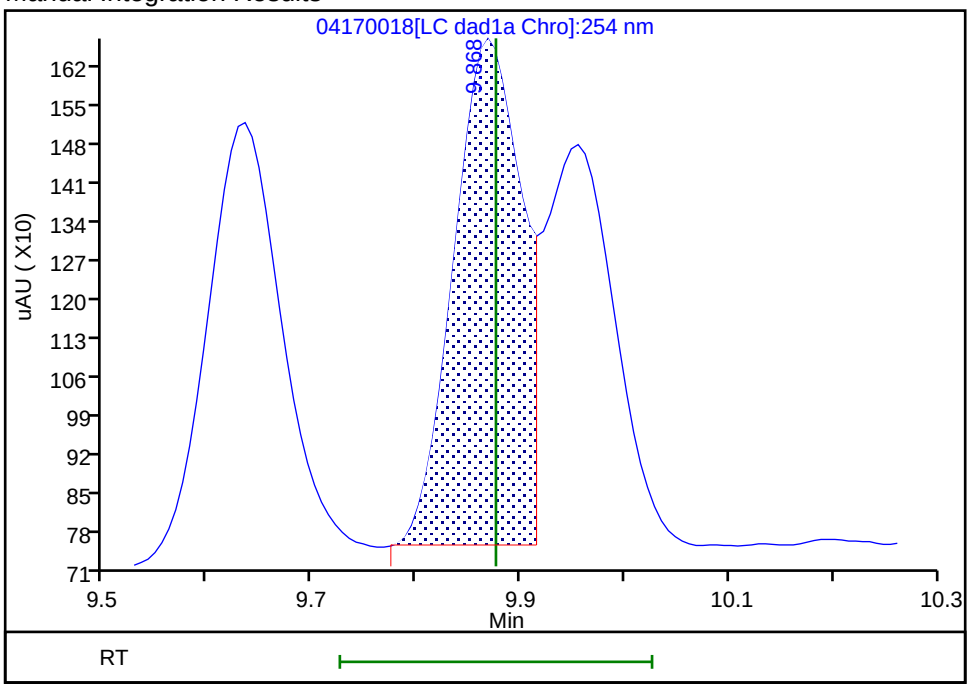
Processing Integration Results

RT: 9.87
Area: 6350
Amount: 0.025070
Amount Units: ug/mL



Manual Integration Results

RT: 9.87
Area: 4171
Amount: 0.019946
Amount Units: ug/mL



Reviewer: LV5D, 18-Apr-2024 11:17:15 -06:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

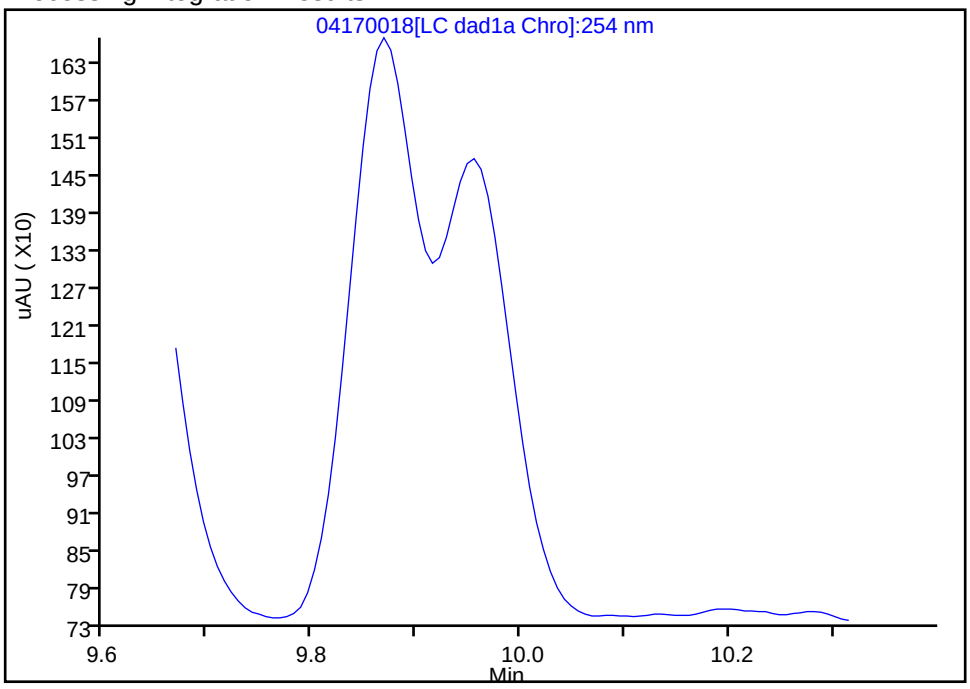
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170018.d				
Injection Date:	17-Apr-2024 23:18:32	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT/DMT 2				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

15 Tetryl, CAS: 479-45-8

Signal: 1

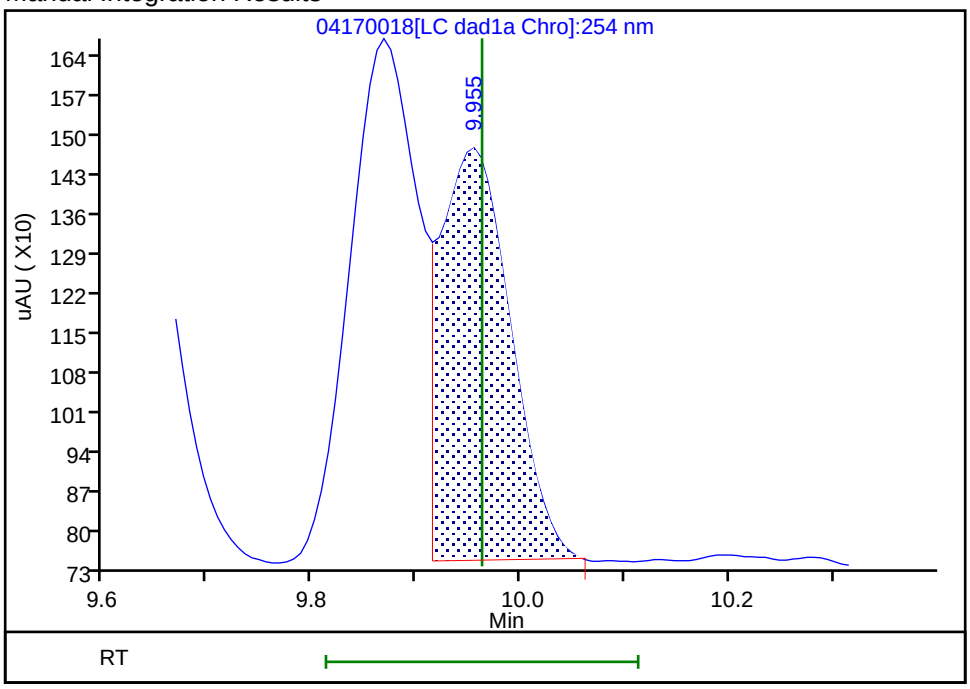
Not Detected
Expected RT: 9.96

Processing Integration Results



Manual Integration Results

RT: 9.95
Area: 3374
Amount: 0.018581
Amount Units: ug/mL



Reviewer: LV5D, 18-Apr-2024 11:17:18 -06:00:00 (UTC)
Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

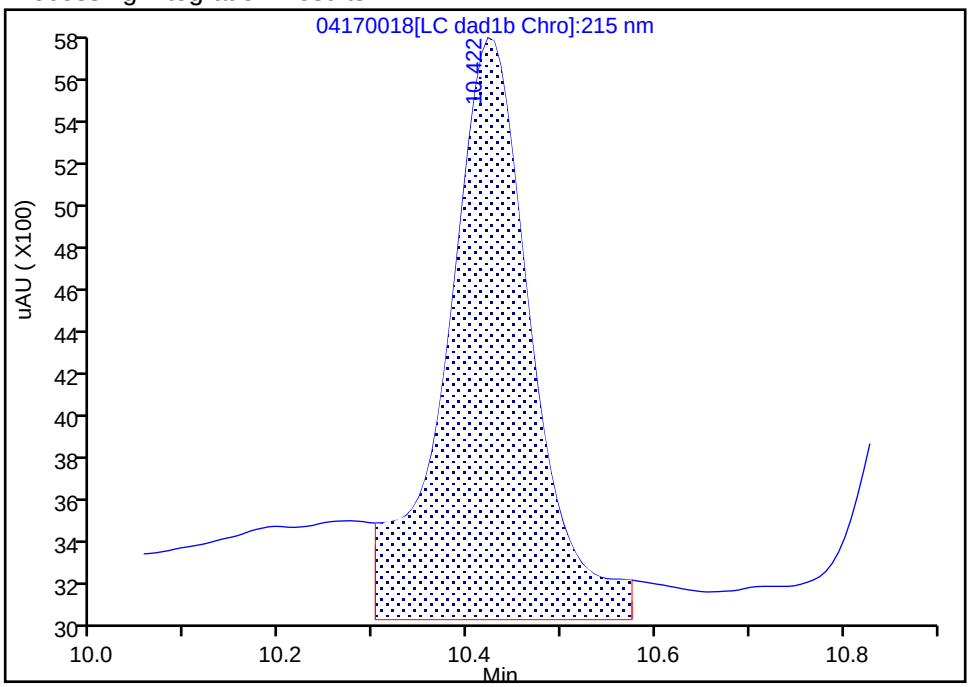
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170018.d				
Injection Date:	17-Apr-2024 23:18:32	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT/DMT 2				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1C, 215 nm		

16 Nitroglycerin, CAS: 55-63-0

Signal: 1

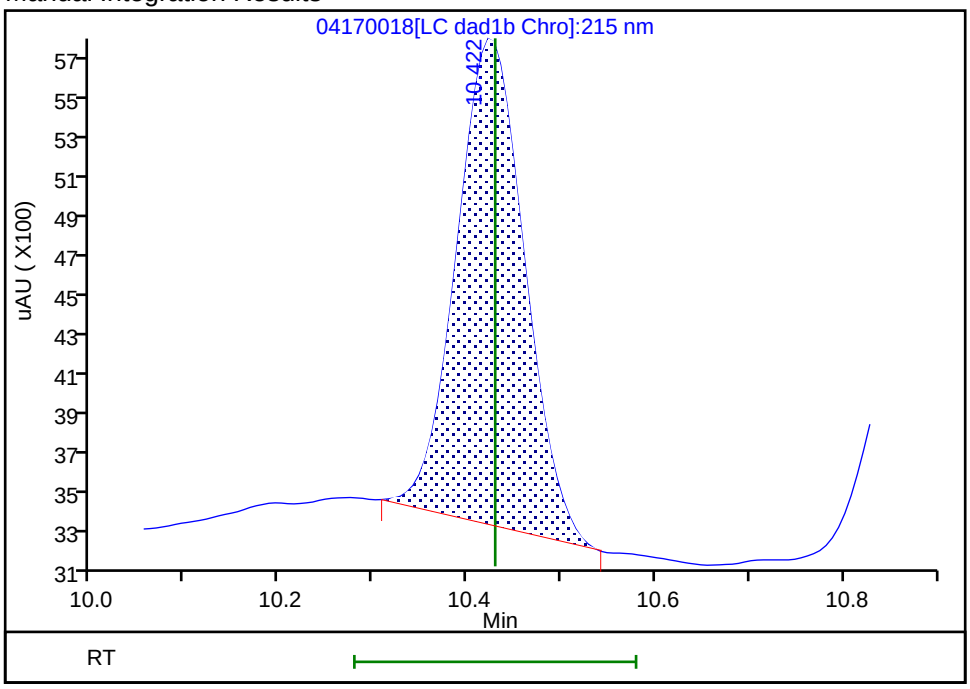
Processing Integration Results

RT: 10.42
Area: 17067
Amount: 0.169937
Amount Units: ug/mL



Manual Integration Results

RT: 10.42
Area: 11963
Amount: 0.179992
Amount Units: ug/mL



Reviewer: LV5D, 18-Apr-2024 11:17:33 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

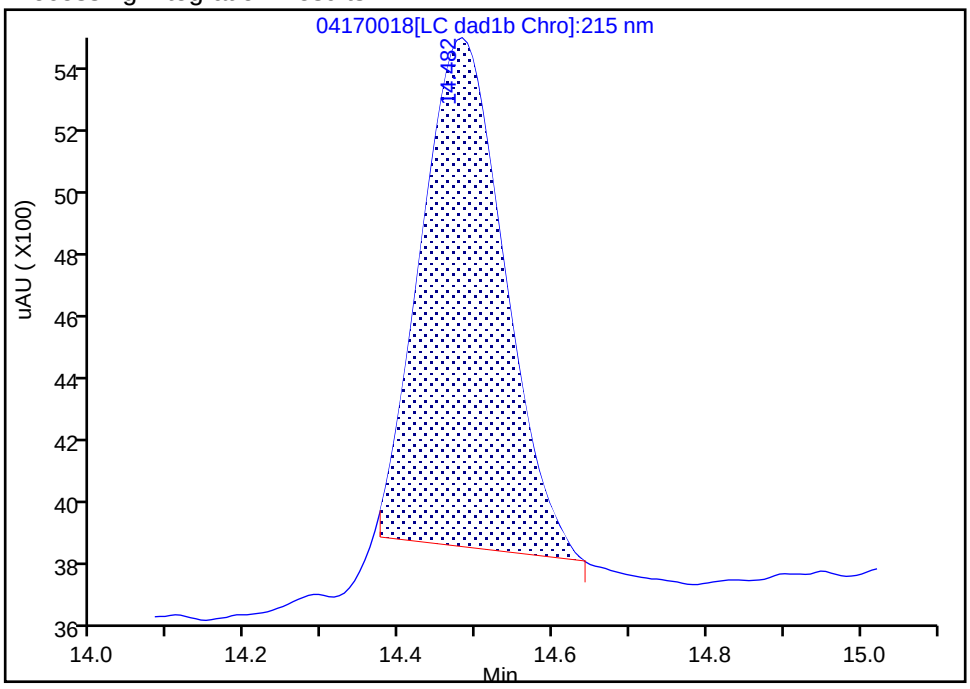
Data File: \\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170018.d
Injection Date: 17-Apr-2024 23:18:32 Instrument ID: CHHPLC_X3
Lims ID: IC INT/DMT 2
Client ID:
Operator ID: JZ/JG ALS Bottle#: 18 Worklist Smp#: 18
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1C, 215 nm

25 PETN, CAS: 78-11-5

Signal: 1

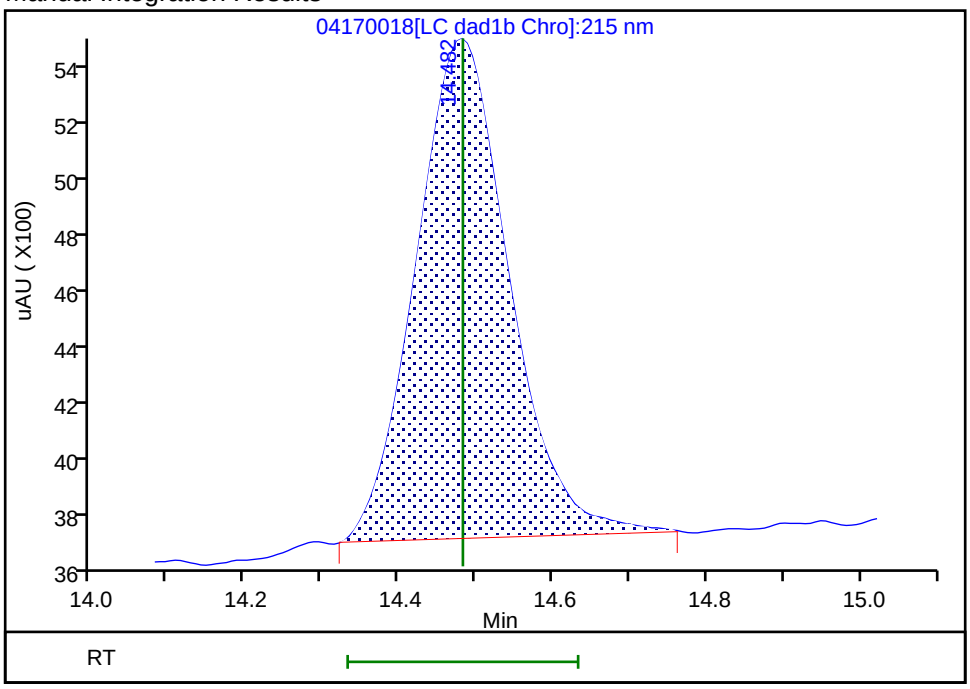
Processing Integration Results

RT: 14.48
Area: 11689
Amount: 0.167904
Amount Units: ug/mL



Manual Integration Results

RT: 14.48
Area: 14174
Amount: 0.197034
Amount Units: ug/mL



Reviewer: LV5D, 18-Apr-2024 11:17:28 -06:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\04170019.D
Lims ID: IC INT/DMT 1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 17-Apr-2024 23:41:30 ALS Bottle#: 19 Worklist Smp#: 19
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT/DMT 1
Operator ID: JZ/JG Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub27

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 18-Apr-2024 11:59:31 Calib Date: 18-Apr-2024 03:08:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\04170028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1675

First Level Reviewer: LV5D Date: 18-Apr-2024 11:19:45

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 TNX	1	6.480	6.476	0.004	2051	0.0100	0.0103	M
4 HMX	1	6.580	6.583	-0.003	919	0.0100	0.009619	M
6 DNX	1	6.786	6.789	-0.003	1516	0.0100	0.0103	M
7 MNX	1	7.206	7.203	0.003	1649	0.0117	0.0121	
8 RDX	1	7.580	7.583	-0.003	1187	0.0100	0.0107	M
9 2,4,6-Trinitrophenol	1	7.820	7.816	0.004	787	0.0100	0.0099	
$ 10 1,2-Dinitrobenzene	1	8.520	8.516	0.004	1445	0.0100	0.0103	M
11 1,3,5-Trinitrobenzene	1	8.660	8.656	0.004	2549	0.0100	0.0114	M
12 1,3-Dinitrobenzene	1	9.273	9.276	-0.003	3086	0.0100	0.0103	
13 Nitrobenzene	1	9.633	9.636	-0.003	1985	0.0100	0.0101	
14 3,5-Dinitroaniline	1	9.873	9.876	-0.003	1971	0.0100	0.0100	M
15 Tetryl	1	9.953	9.963	-0.010	1835	0.0100	0.0101	Ma
16 Nitroglycerin	2	10.426	10.429	-0.003	6048	0.1000	0.0910	M
17 2,4,6-Trinitrotoluene	1	10.866	10.869	-0.003	2081	0.0100	0.009670	
18 4-Amino-2,6-dinitrotoluene	1	11.046	11.049	-0.003	1406	0.0100	0.009377	
19 2-Amino-4,6-dinitrotoluene	1	11.306	11.309	-0.003	1951	0.0100	0.009764	
20 2,6-Dinitrotoluene	1	11.453	11.449	0.004	1557	0.0100	0.0106	
21 2,4-Dinitrotoluene	1	11.626	11.629	-0.003	2993	0.0100	0.0103	
22 o-Nitrotoluene	1	12.419	12.423	-0.004	1340	0.0100	0.0104	
23 p-Nitrotoluene	1	12.853	12.843	0.010	1249	0.0100	0.0111	
24 m-Nitrotoluene	1	13.399	13.403	-0.004	1713	0.0100	0.0119	
25 PETN	2	14.486	14.483	0.003	7807	0.1000	0.1085	Ma

QC Flag Legend
Processing Flags

Review Flags
M - Manually Integrated
a - User Assigned ID

Reagents:

8330IntermStk_00080	Amount Added:	1.00	Units: uL
8330 DMT_00016	Amount Added:	0.50	Units: uL

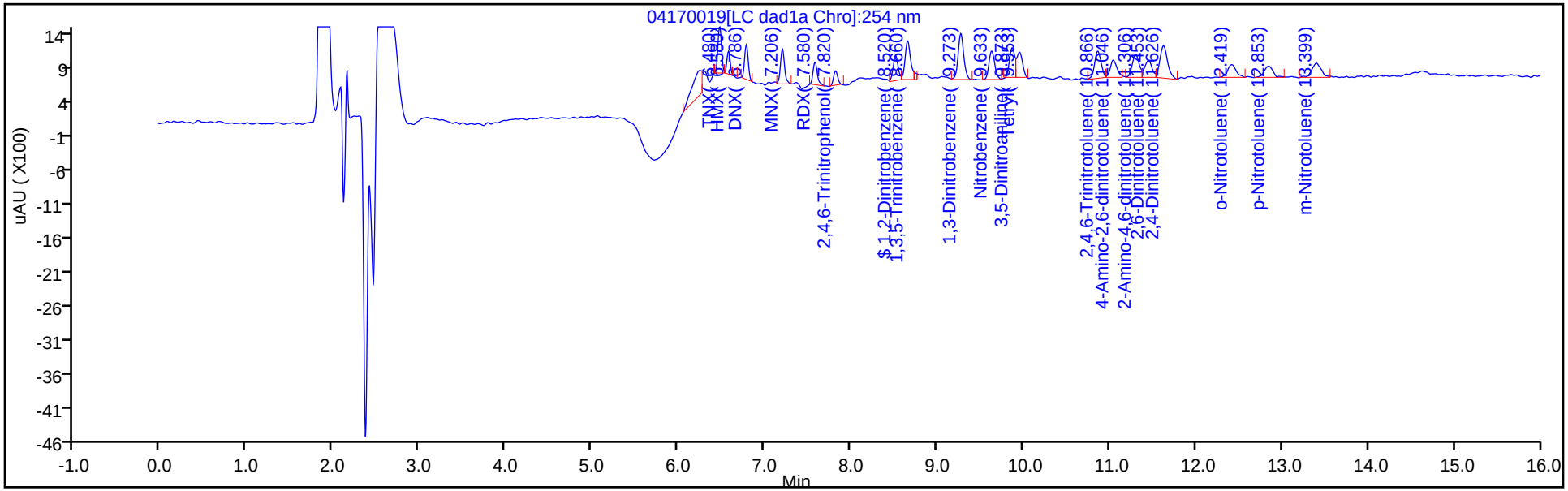
Report Date: 18-Apr-2024 11:59:31 Chrom Revision: 2.3 09-Apr-2024 17:43:44

Eurofins Denver

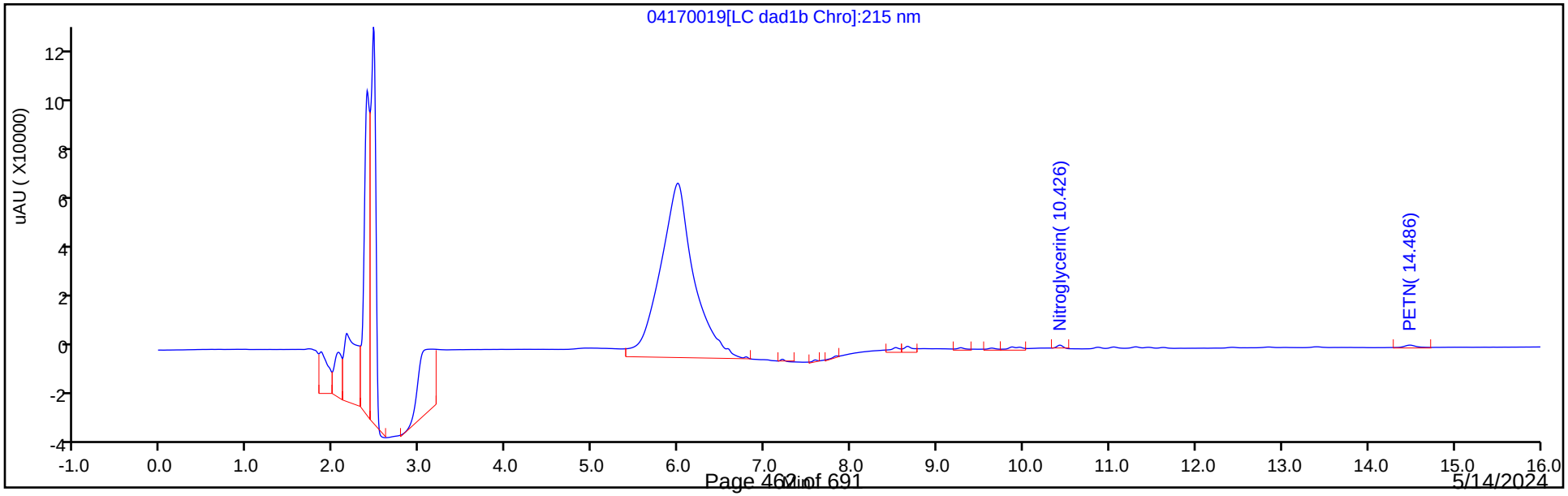
Data File: \\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170019.d

Injection Date:	17-Apr-2024 23:41:30	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	IC INT/DMT 1			Worklist Smp#:	19
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	19
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



5/14/2024
9:20:15 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

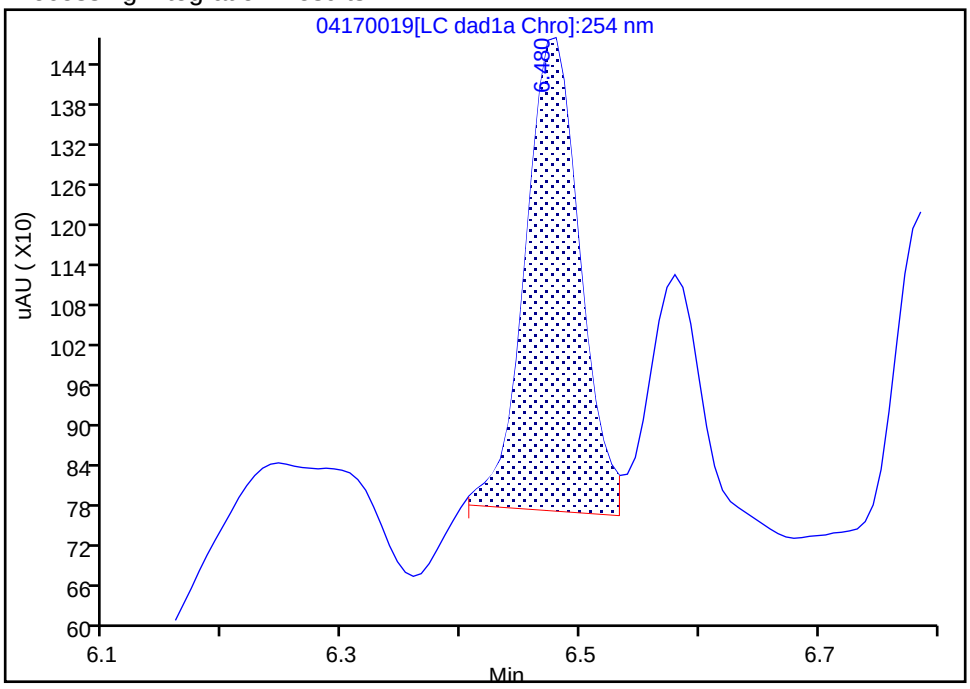
Data File: \\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170019.d
Injection Date: 17-Apr-2024 23:41:30 Instrument ID: CHHPLC_X3
Lims ID: IC INT/DMT 1
Client ID:
Operator ID: JZ/JG ALS Bottle#: 19 Worklist Smp#: 19
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

3 TNX, CAS: 13980-04-6

Signal: 1

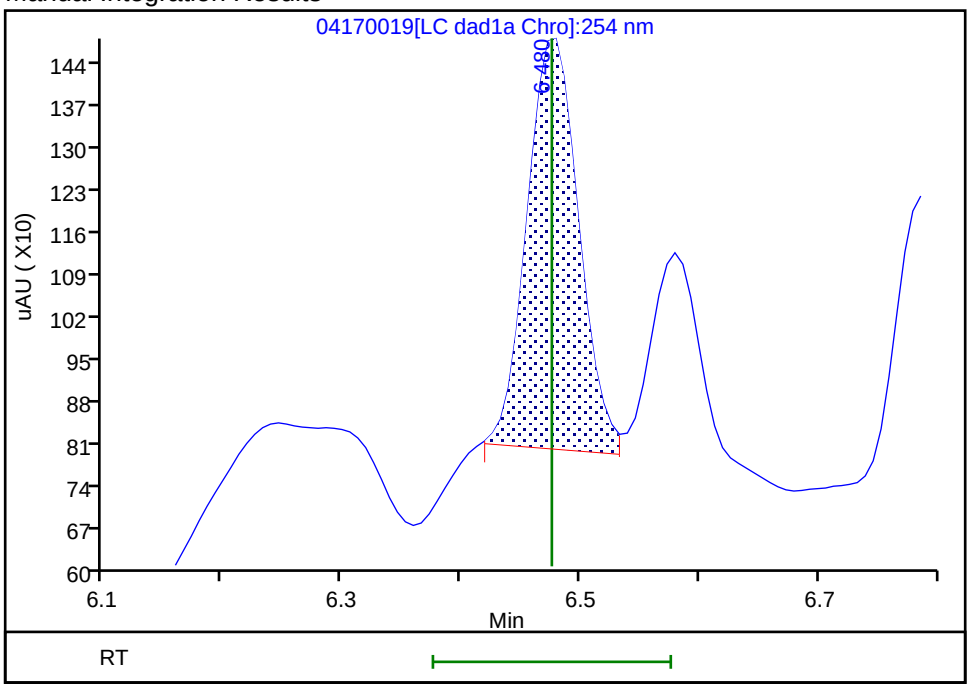
Processing Integration Results

RT: 6.48
Area: 2278
Amount: 0.011305
Amount Units: ug/mL



Manual Integration Results

RT: 6.48
Area: 2051
Amount: 0.010307
Amount Units: ug/mL



Reviewer: LV5D, 18-Apr-2024 11:18:24 -06:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

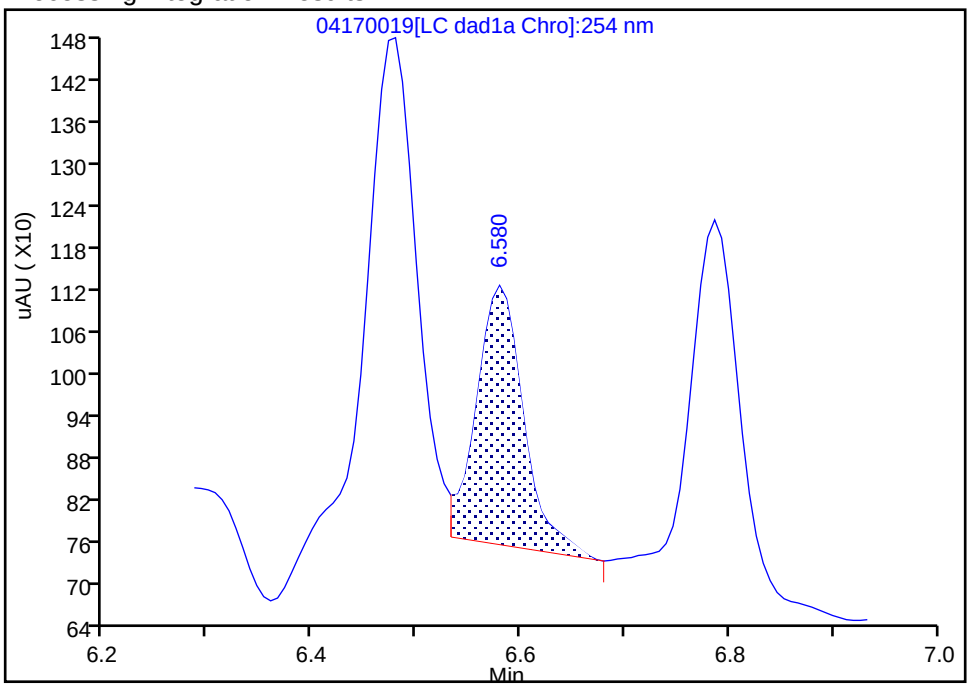
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170019.d				
Injection Date:	17-Apr-2024 23:41:30	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT/DMT 1				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

4 HMX, CAS: 2691-41-0

Signal: 1

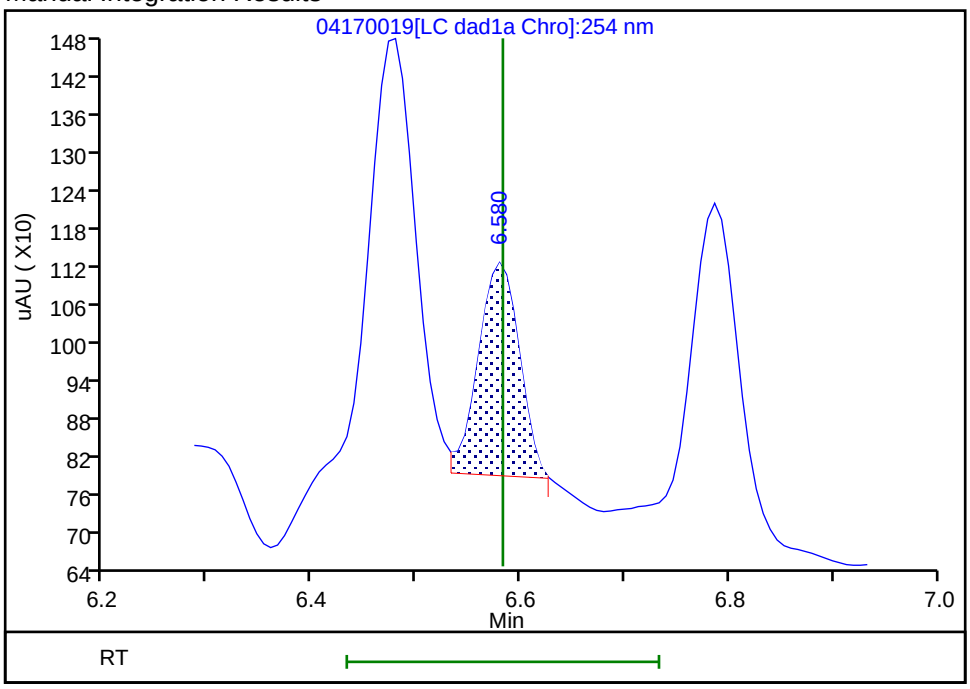
Processing Integration Results

RT: 6.58
Area: 1171
Amount: 0.011907
Amount Units: ug/mL



Manual Integration Results

RT: 6.58
Area: 919
Amount: 0.009619
Amount Units: ug/mL



Reviewer: LV5D, 18-Apr-2024 11:18:25 -06:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

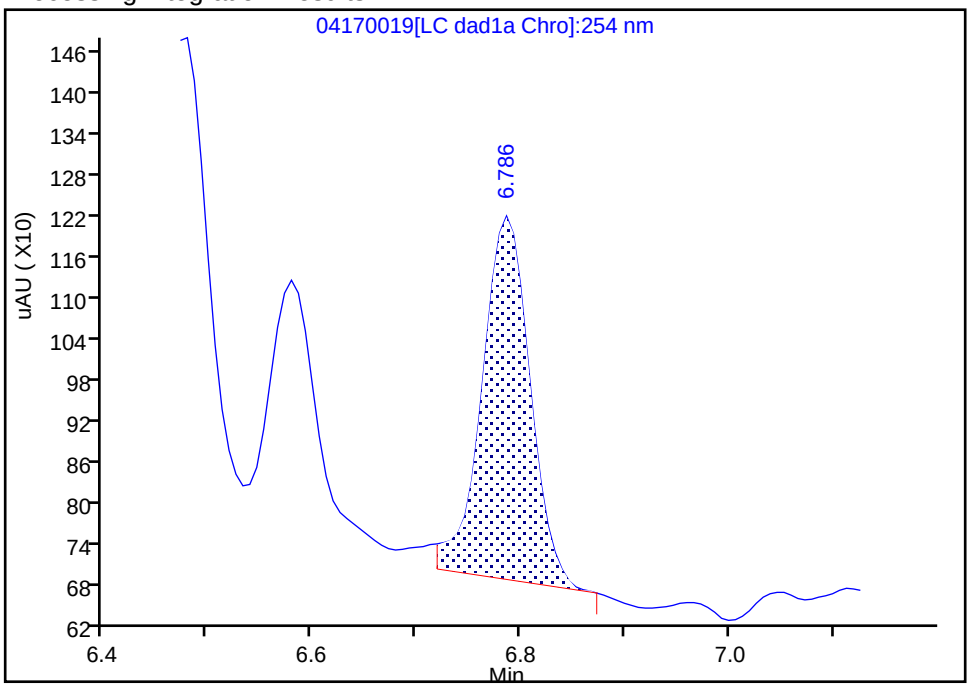
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170019.d				
Injection Date:	17-Apr-2024 23:41:30	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT/DMT 1				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

6 DNX, CAS: 80251-29-2

Signal: 1

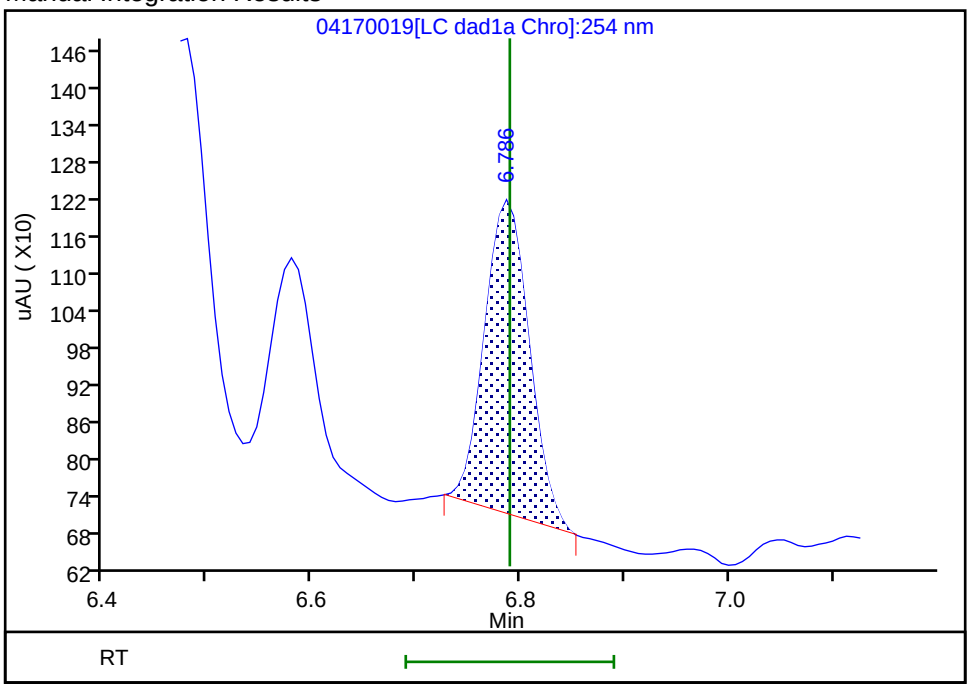
Processing Integration Results

RT: 6.79
Area: 1700
Amount: 0.011386
Amount Units: ug/mL



Manual Integration Results

RT: 6.79
Area: 1516
Amount: 0.010295
Amount Units: ug/mL



Reviewer: LV5D, 18-Apr-2024 11:18:35 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

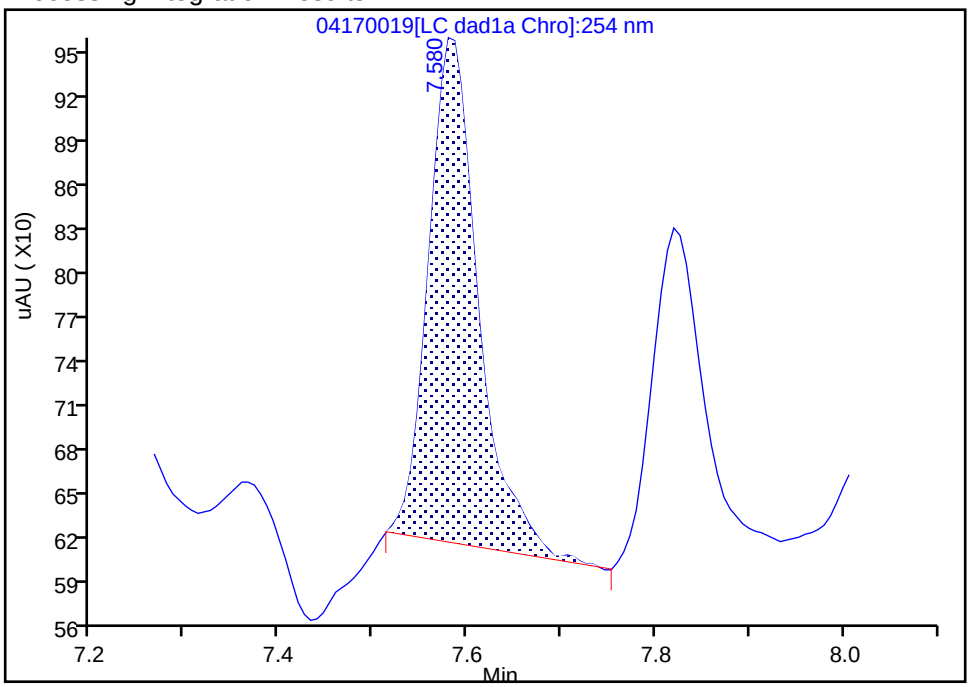
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170019.d				
Injection Date:	17-Apr-2024 23:41:30	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT/DMT 1				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

8 RDX, CAS: 121-82-4

Signal: 1

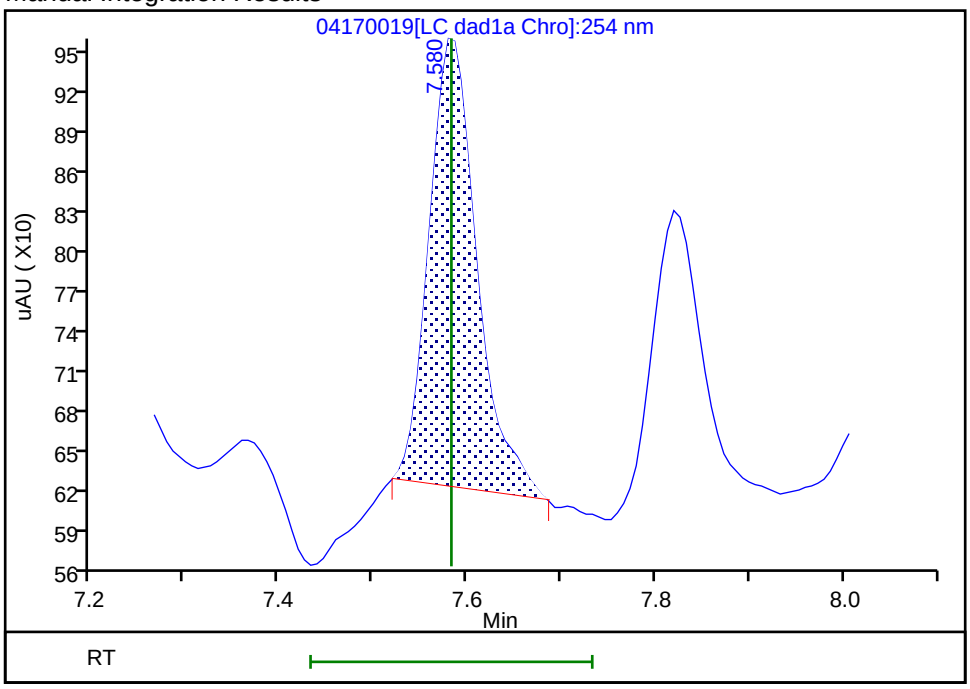
Processing Integration Results

RT: 7.58
Area: 1262
Amount: 0.011308
Amount Units: ug/mL



Manual Integration Results

RT: 7.58
Area: 1187
Amount: 0.010716
Amount Units: ug/mL



Reviewer: LV5D, 18-Apr-2024 11:18:45 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

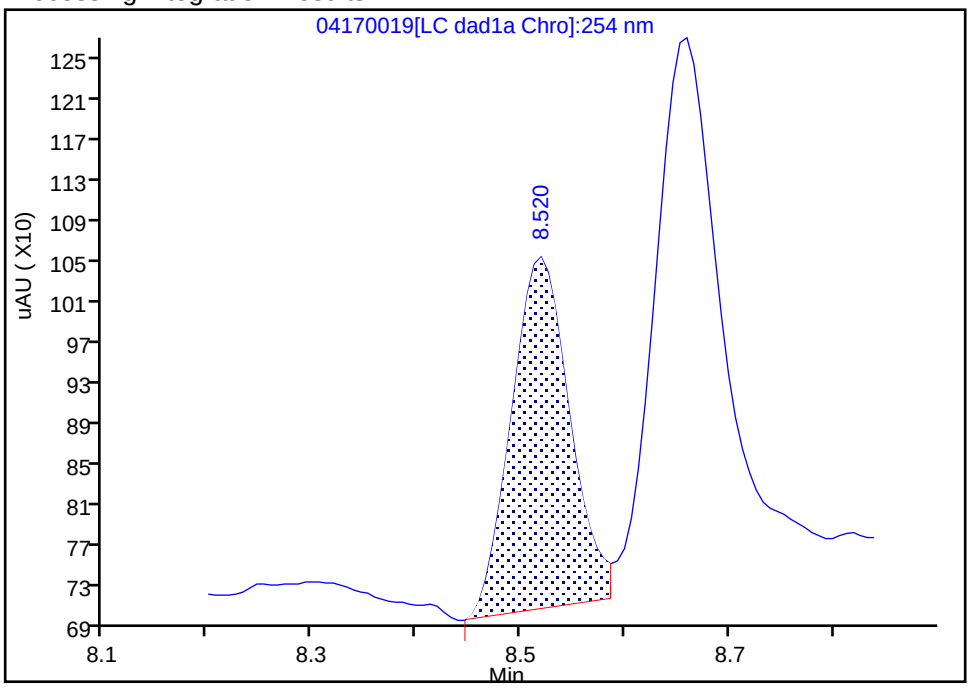
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170019.d				
Injection Date:	17-Apr-2024 23:41:30	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT/DMT 1				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

$ 10 1,2-Dinitrobenzene, CAS: 528-29-0

Signal: 1

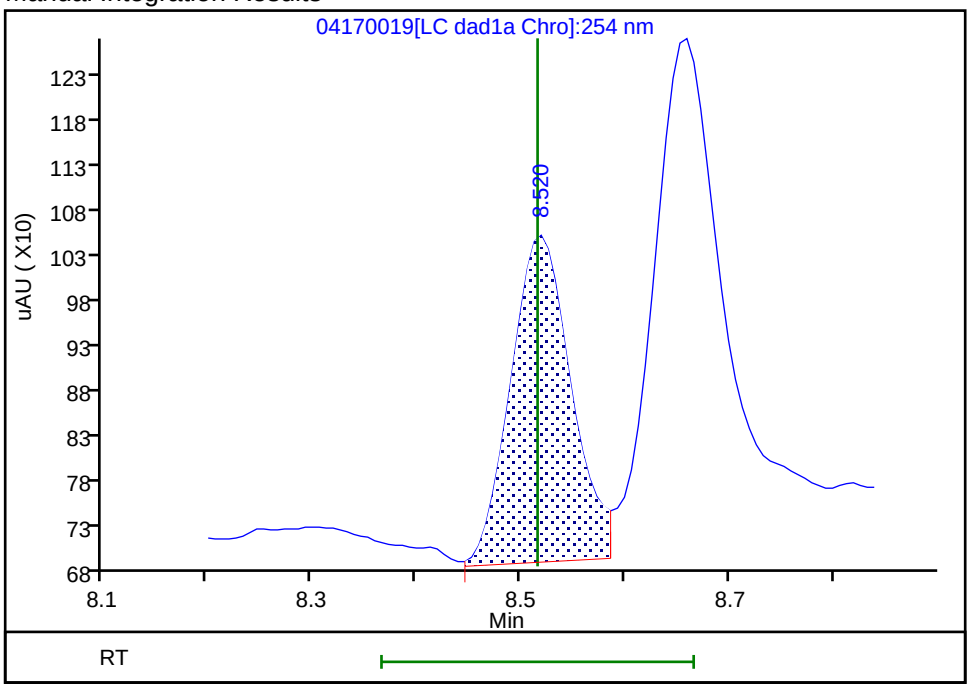
Processing Integration Results

RT: 8.52
Area: 1357
Amount: 0.010216
Amount Units: ug/mL



Manual Integration Results

RT: 8.52
Area: 1445
Amount: 0.010265
Amount Units: ug/mL



Reviewer: LV5D, 18-Apr-2024 11:19:23 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

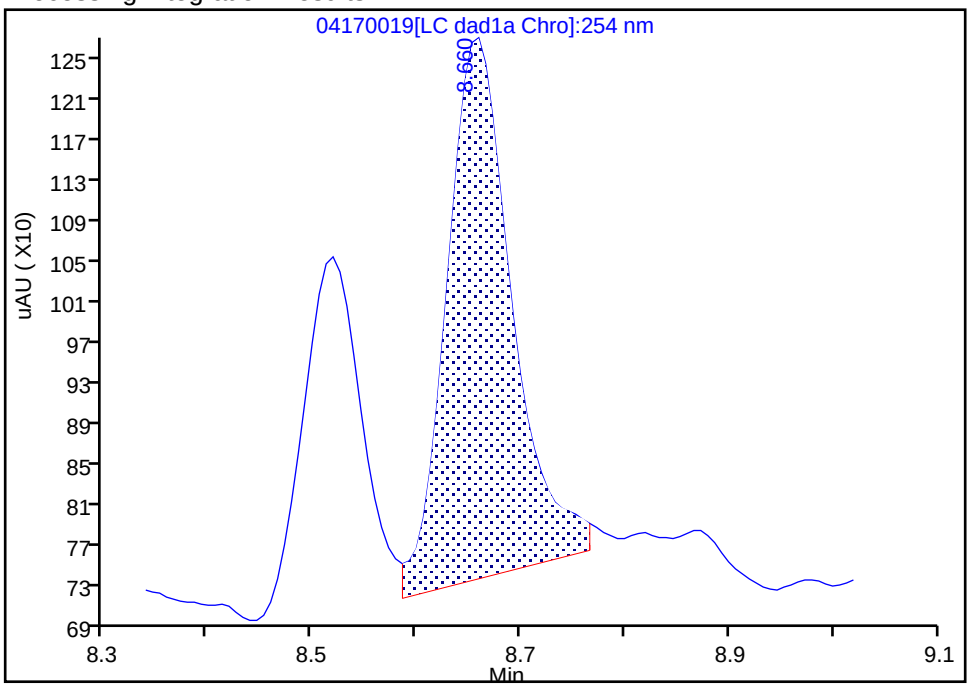
Data File: \\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170019.d
Injection Date: 17-Apr-2024 23:41:30 Instrument ID: CHHPLC_X3
Lims ID: IC INT/DMT 1
Client ID:
Operator ID: JZ/JG ALS Bottle#: 19 Worklist Smp#: 19
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

11 1,3,5-Trinitrobenzene, CAS: 99-35-4

Signal: 1

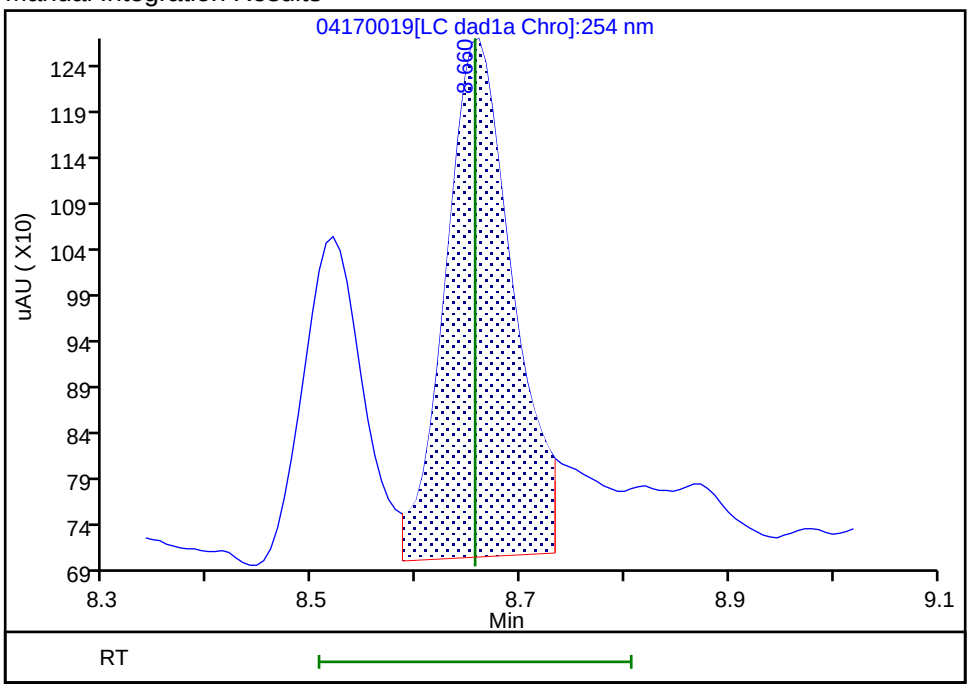
Processing Integration Results

RT: 8.66
Area: 2346
Amount: 0.010661
Amount Units: ug/mL



Manual Integration Results

RT: 8.66
Area: 2549
Amount: 0.011438
Amount Units: ug/mL



Reviewer: LV5D, 18-Apr-2024 11:19:28 -06:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

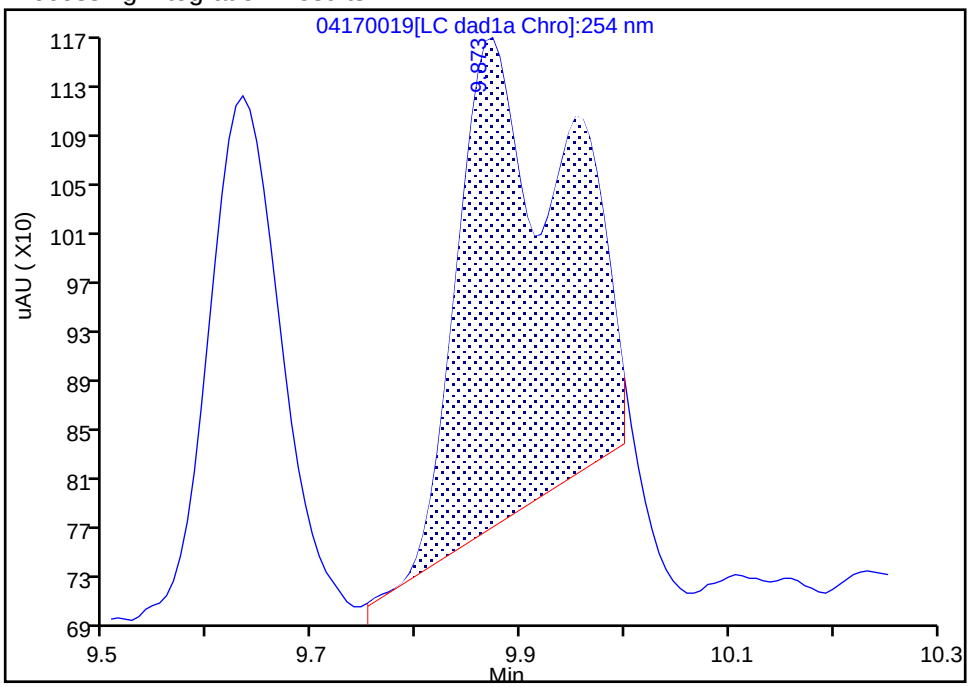
Data File: \\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170019.d
Injection Date: 17-Apr-2024 23:41:30 Instrument ID: CHHPLC_X3
Lims ID: IC INT/DMT 1
Client ID:
Operator ID: JZ/JG ALS Bottle#: 19 Worklist Smp#: 19
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

14 3,5-Dinitroaniline, CAS: 618-87-1

Signal: 1

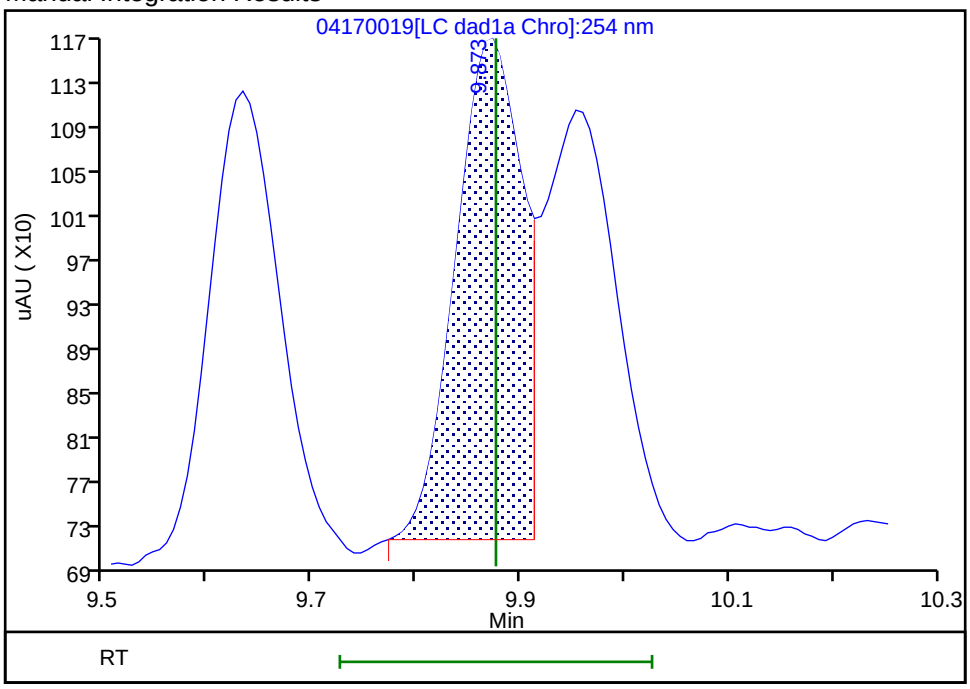
Processing Integration Results

RT: 9.87
Area: 2822
Amount: 0.010781
Amount Units: ug/mL



Manual Integration Results

RT: 9.87
Area: 1971
Amount: 0.009992
Amount Units: ug/mL



Reviewer: LV5D, 18-Apr-2024 11:18:02 -06:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

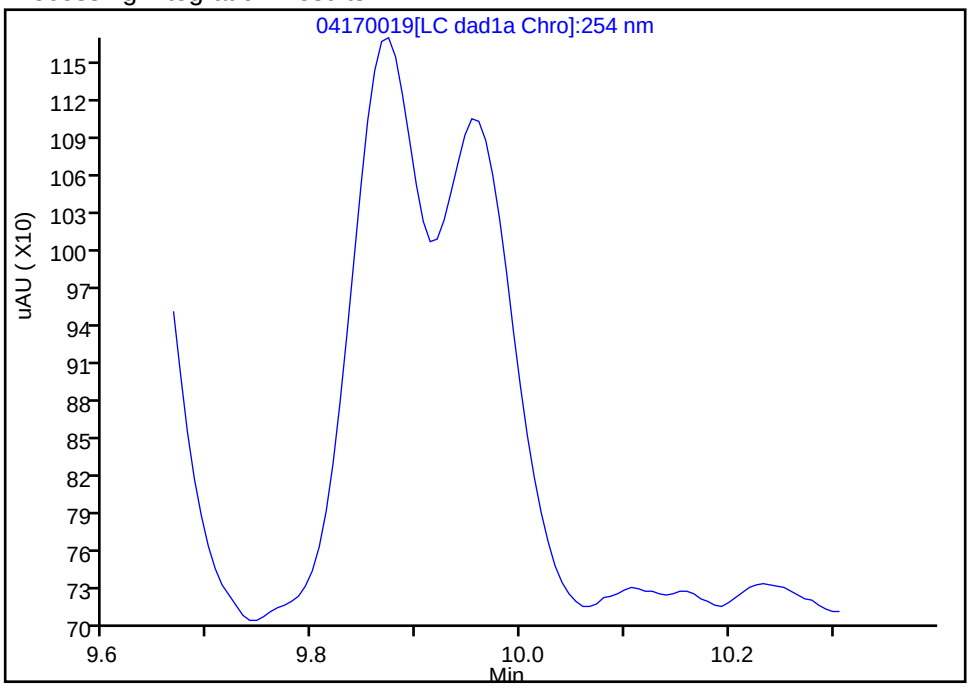
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170019.d				
Injection Date:	17-Apr-2024 23:41:30	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT/DMT 1				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

15 Tetryl, CAS: 479-45-8

Signal: 1

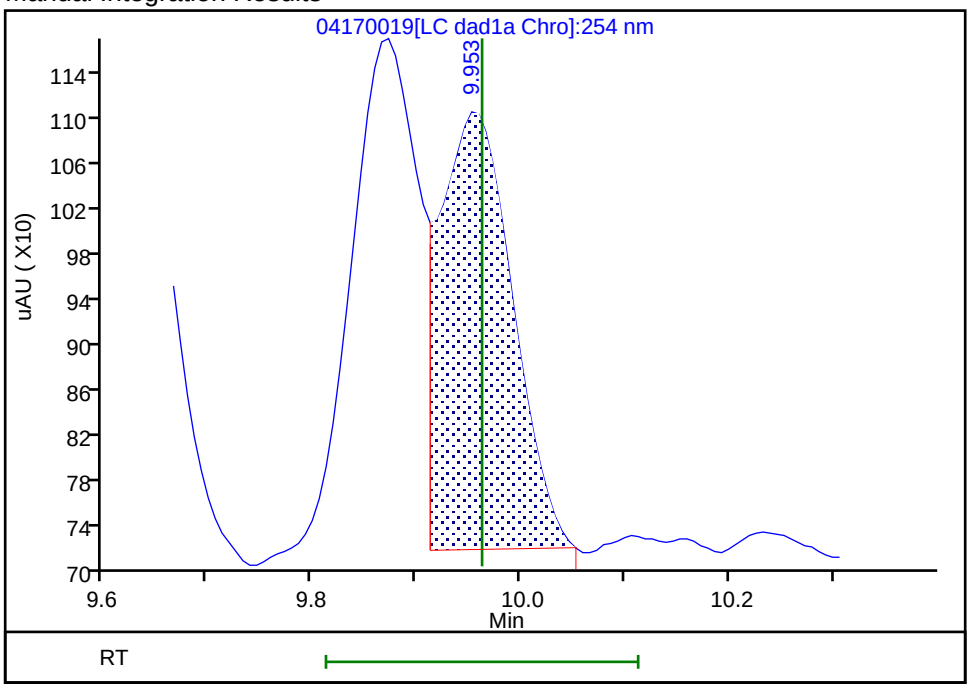
Not Detected
Expected RT: 9.96

Processing Integration Results



Manual Integration Results

RT: 9.95
Area: 1835
Amount: 0.010105
Amount Units: ug/mL



Reviewer: LV5D, 18-Apr-2024 11:18:04 -06:00:00 (UTC)
Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

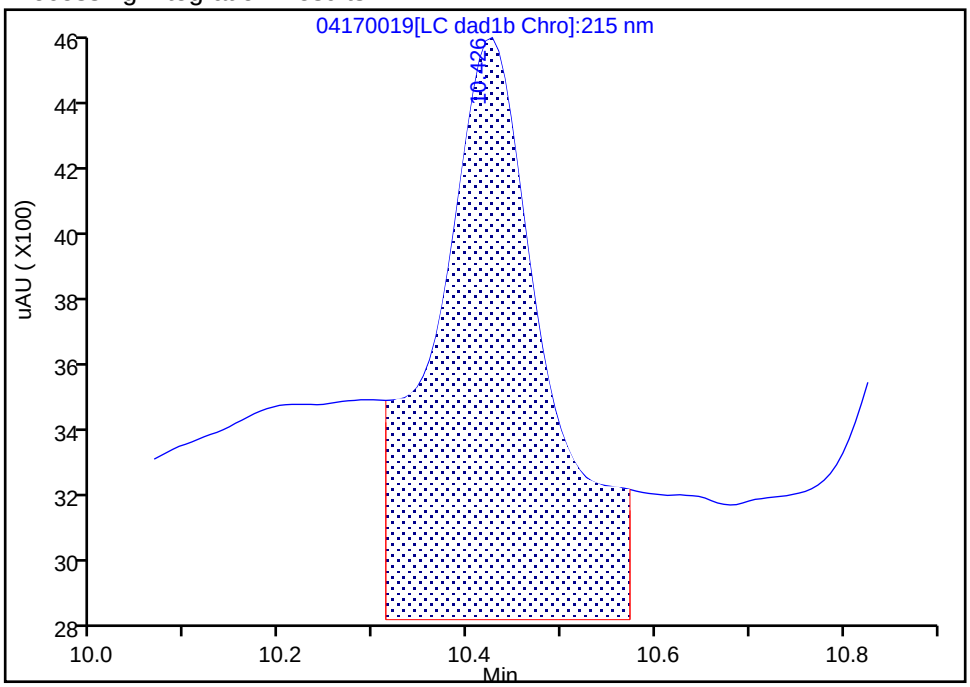
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170019.d				
Injection Date:	17-Apr-2024 23:41:30	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT/DMT 1				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1C, 215 nm		

16 Nitroglycerin, CAS: 55-63-0

Signal: 1

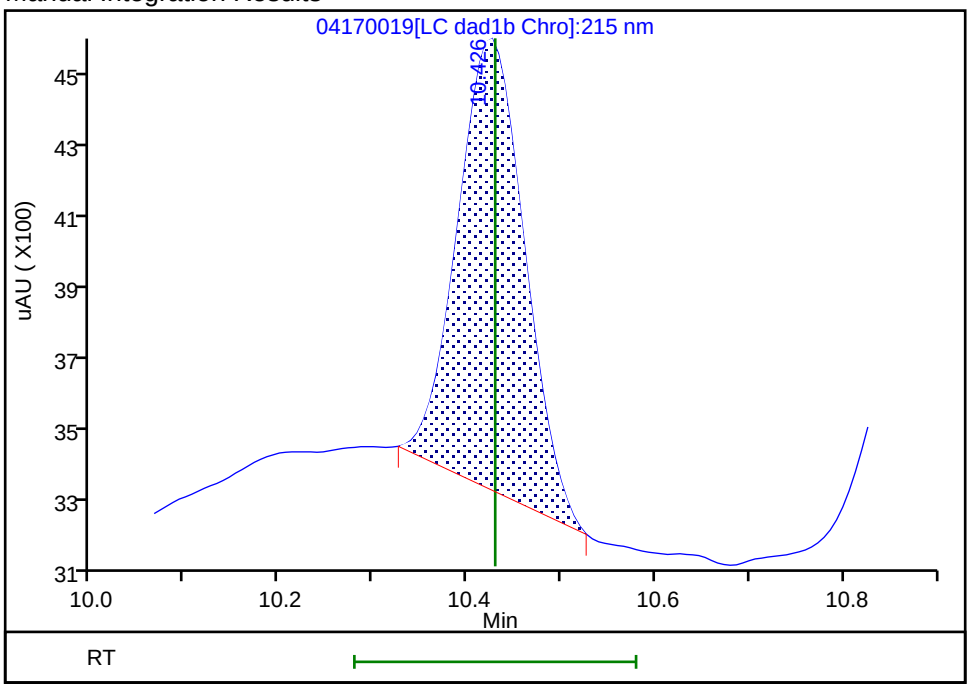
Processing Integration Results

RT: 10.43
Area: 14354
Amount: 0.189635
Amount Units: ug/mL



Manual Integration Results

RT: 10.43
Area: 6048
Amount: 0.090997
Amount Units: ug/mL



Reviewer: LV5D, 18-Apr-2024 11:17:39 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

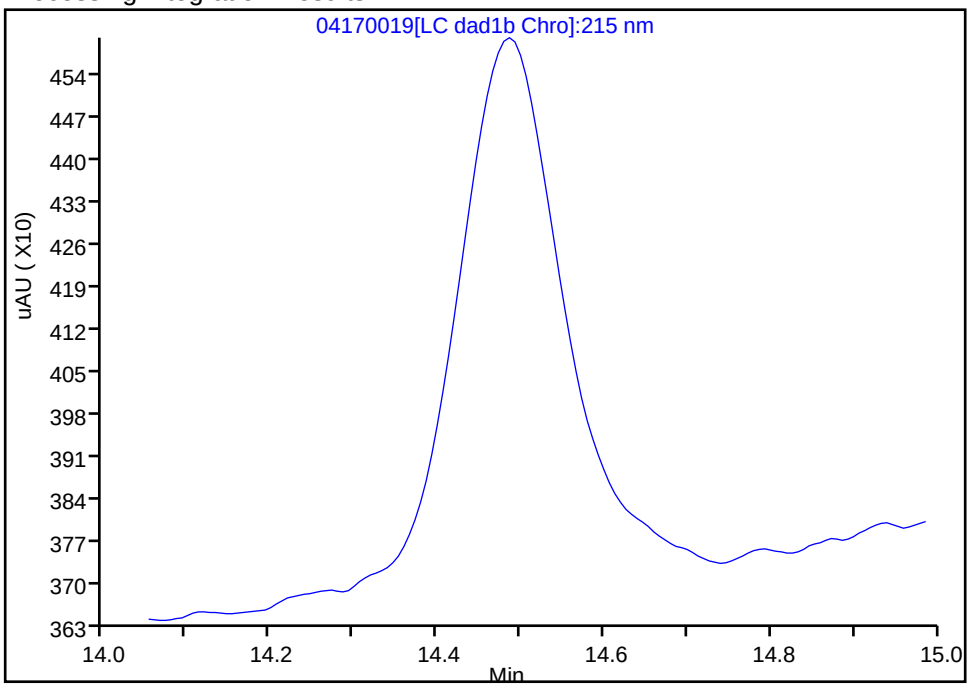
Data File: \\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170019.d
Injection Date: 17-Apr-2024 23:41:30 Instrument ID: CHHPLC_X3
Lims ID: IC INT/DMT 1
Client ID:
Operator ID: JZ/JG ALS Bottle#: 19 Worklist Smp#: 19
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1C, 215 nm

25 PETN, CAS: 78-11-5

Signal: 1

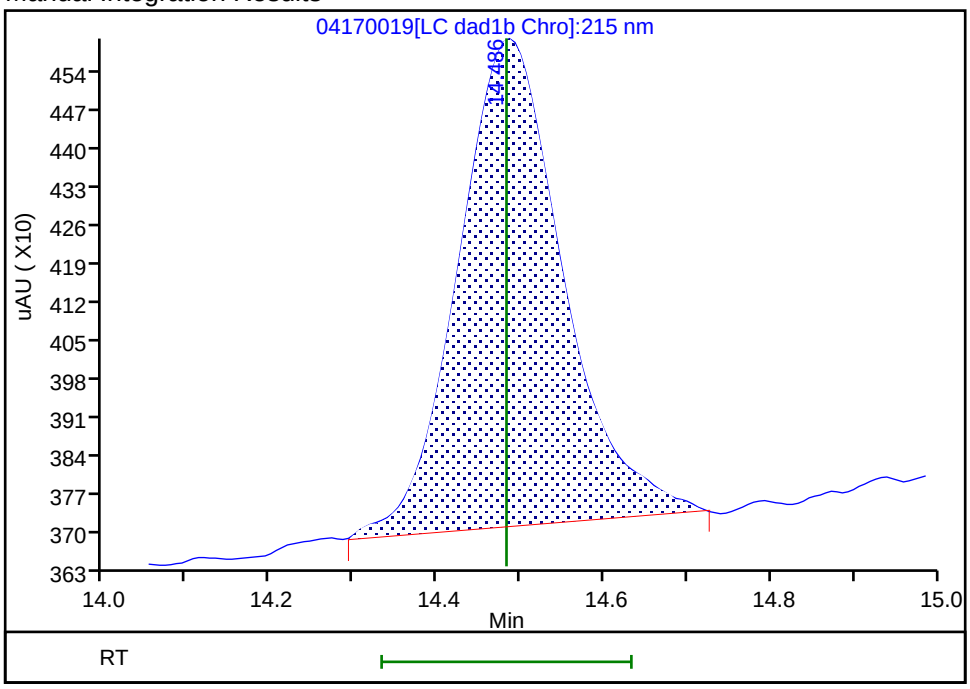
Not Detected
Expected RT: 14.48

Processing Integration Results



Manual Integration Results

RT: 14.49
Area: 7807
Amount: 0.108526
Amount Units: ug/mL



Reviewer: LV5D, 18-Apr-2024 11:17:47 -06:00:00 (UTC)
Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Baseline

Calibration / TNX

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

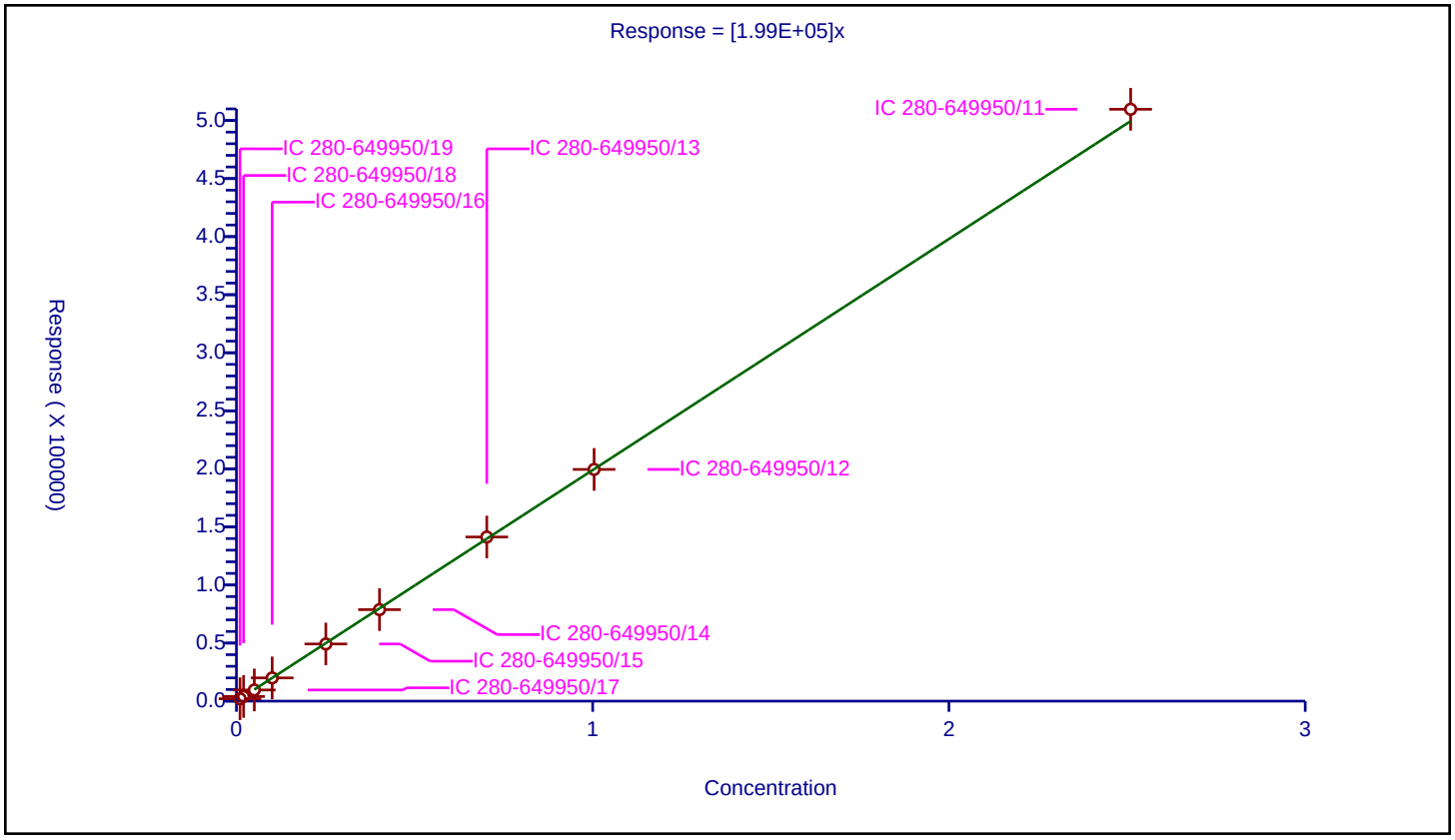
Curve Coefficients

Intercept:	0
Slope:	1.99E+05

Error Coefficients

Relative Standard Deviation:	1.9

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-649950/19	0.01004	2051.0			204282.868526	Y
2	IC 280-649950/18	0.02008	4023.0			200348.605578	Y
3	IC 280-649950/17	0.0502	9628.0			191792.828685	Y
4	IC 280-649950/16	0.1004	20006.0			199262.948207	Y
5	IC 280-649950/15	0.251	49234.0			196151.394422	Y
6	IC 280-649950/14	0.4016	78789.0			196187.749004	Y
7	IC 280-649950/13	0.7028	141333.0			201099.88617	Y
8	IC 280-649950/12	1.004	199537.0			198742.031873	Y
9	IC 280-649950/11	2.51	509682.0			203060.557769	Y



Calibration / HMX

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

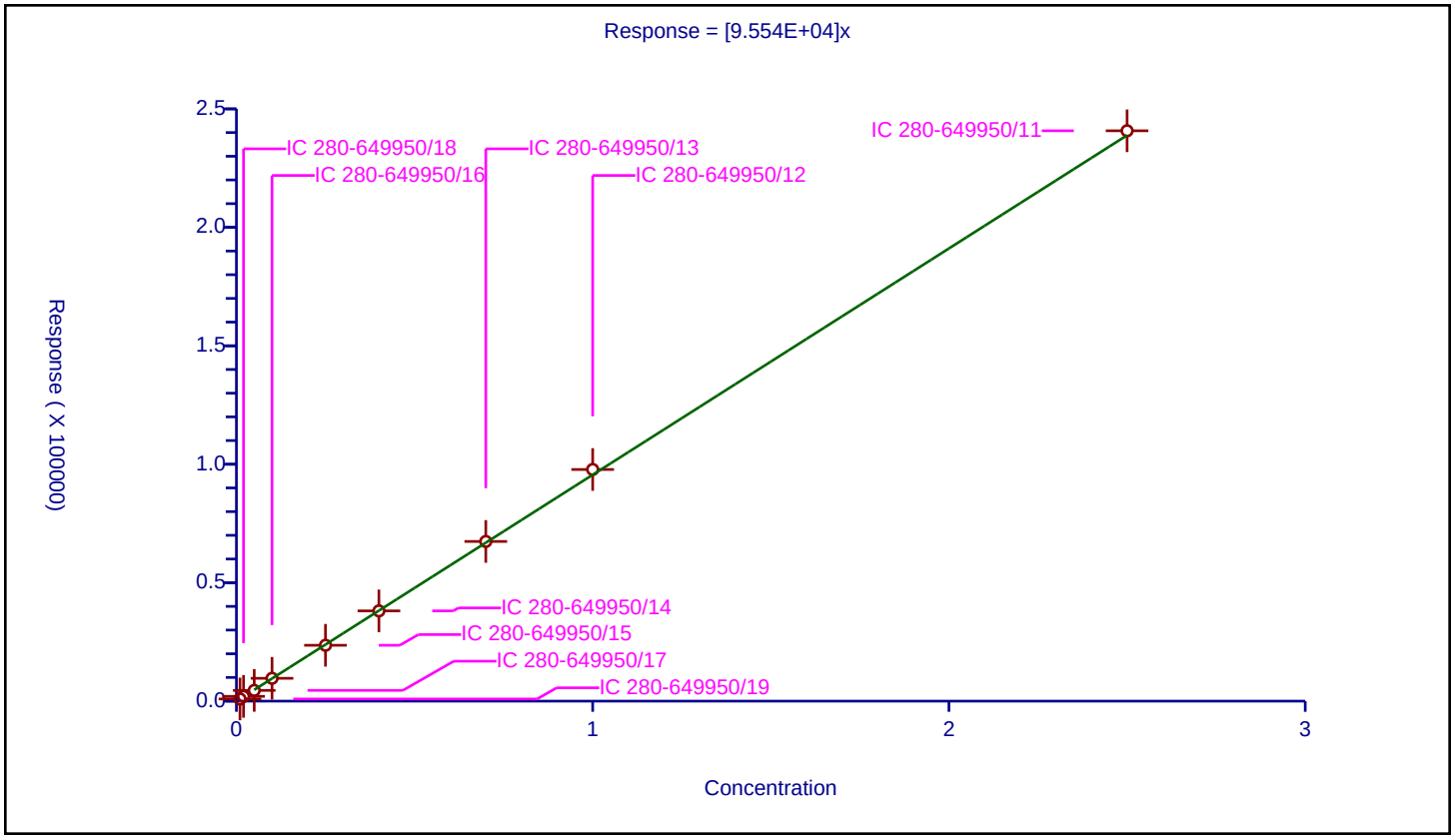
Curve Coefficients

Intercept:	0
Slope:	9.554E+04

Error Coefficients

Relative Standard Deviation:	3.2

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-649950/19	0.01	919.0			91900.0	Y
2	IC 280-649950/18	0.02	2017.0			100850.0	Y
3	IC 280-649950/17	0.05	4536.0			90720.0	Y
4	IC 280-649950/16	0.1	9645.0			96450.0	Y
5	IC 280-649950/15	0.25	23583.0			94332.0	Y
6	IC 280-649950/14	0.4	38101.0			95252.5	Y
7	IC 280-649950/13	0.7	67408.0			96297.142857	Y
8	IC 280-649950/12	1.0	97787.0			97787.0	Y
9	IC 280-649950/11	2.5	240762.0			96304.8	Y



5/14/2024
9:20:15 AM

Calibration / DNX

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

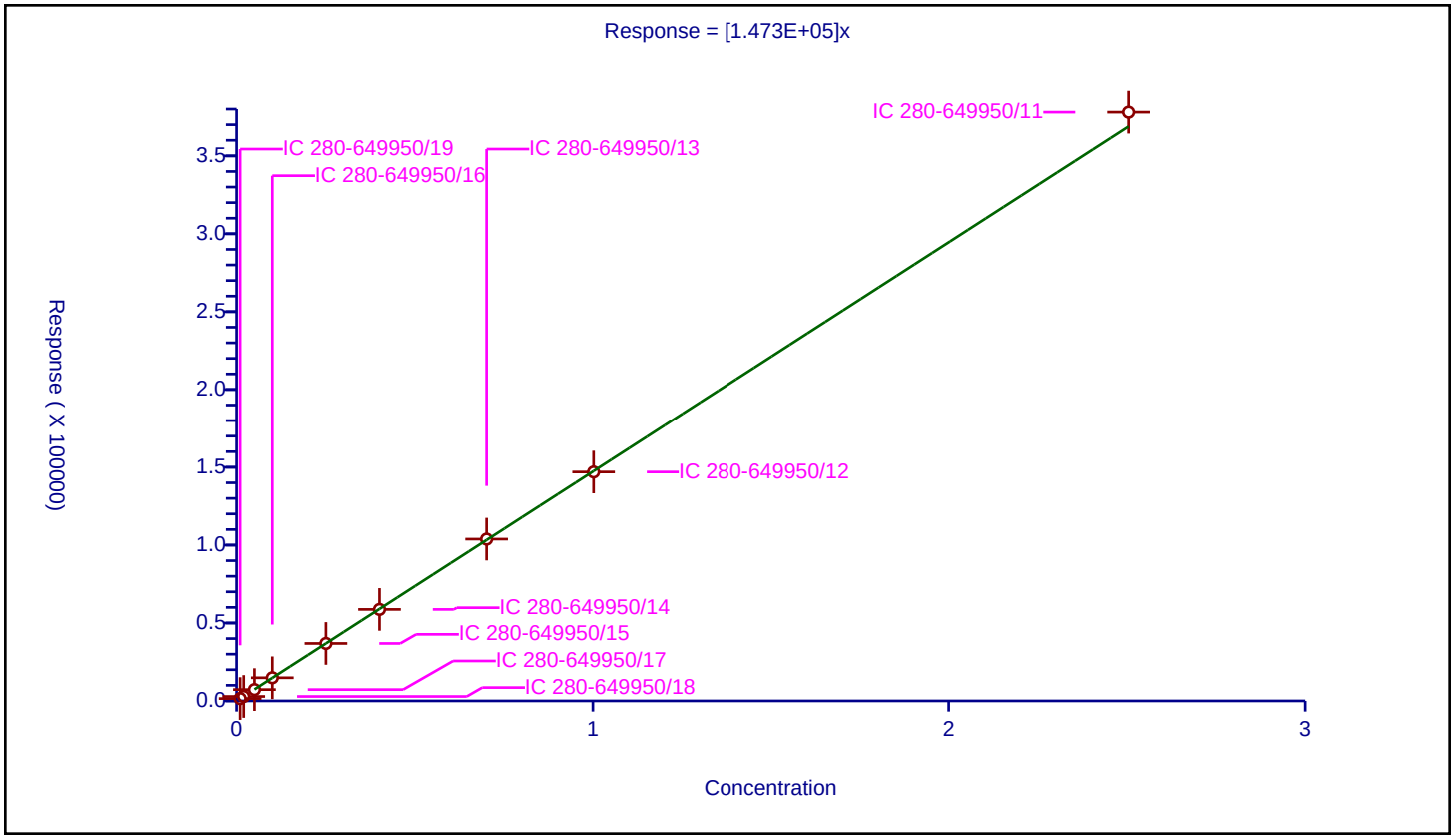
Curve Coefficients

Intercept:	0
Slope:	1.473E+05

Error Coefficients

Relative Standard Deviation:	2.0

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-649950/19	0.01002	1516.0			151297.40519	Y
2	IC 280-649950/18	0.02004	2843.0			141866.267465	Y
3	IC 280-649950/17	0.0501	7258.0			144870.259481	Y
4	IC 280-649950/16	0.1002	14834.0			148043.912176	Y
5	IC 280-649950/15	0.2505	36872.0			147193.612774	Y
6	IC 280-649950/14	0.4008	58701.0			146459.580838	Y
7	IC 280-649950/13	0.7014	103834.0			148038.209296	Y
8	IC 280-649950/12	1.002	146952.0			146658.682635	Y
9	IC 280-649950/11	2.505	378026.0			150908.582834	Y



5/14/2024
9:20:15 AM

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

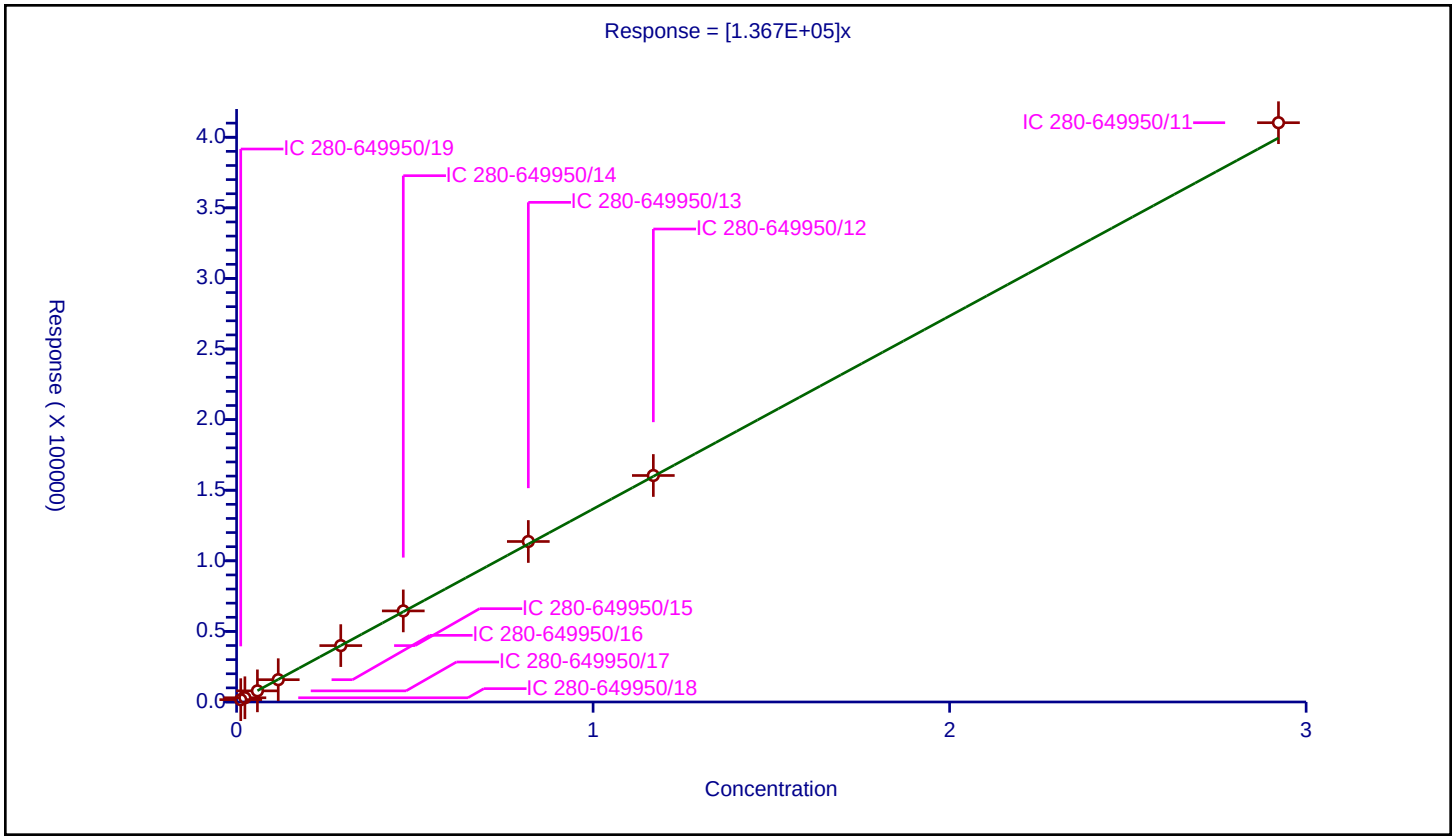
Curve Coefficients

Intercept:	0
Slope:	1.367E+05

Error Coefficients

Relative Standard Deviation:	2.9

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-649950/19	0.01169	1649.0			141060.735672	Y
2	IC 280-649950/18	0.02338	2991.0			127929.854577	Y
3	IC 280-649950/17	0.05845	7887.0			134935.842601	Y
4	IC 280-649950/16	0.1169	15807.0			135218.135158	Y
5	IC 280-649950/15	0.29225	39930.0			136629.597947	Y
6	IC 280-649950/14	0.4676	64510.0			137959.794696	Y
7	IC 280-649950/13	0.8183	113678.0			138919.711597	Y
8	IC 280-649950/12	1.169	160428.0			137235.243798	Y
9	IC 280-649950/11	2.9225	410302.0			140394.183062	Y



Calibration / RDX

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

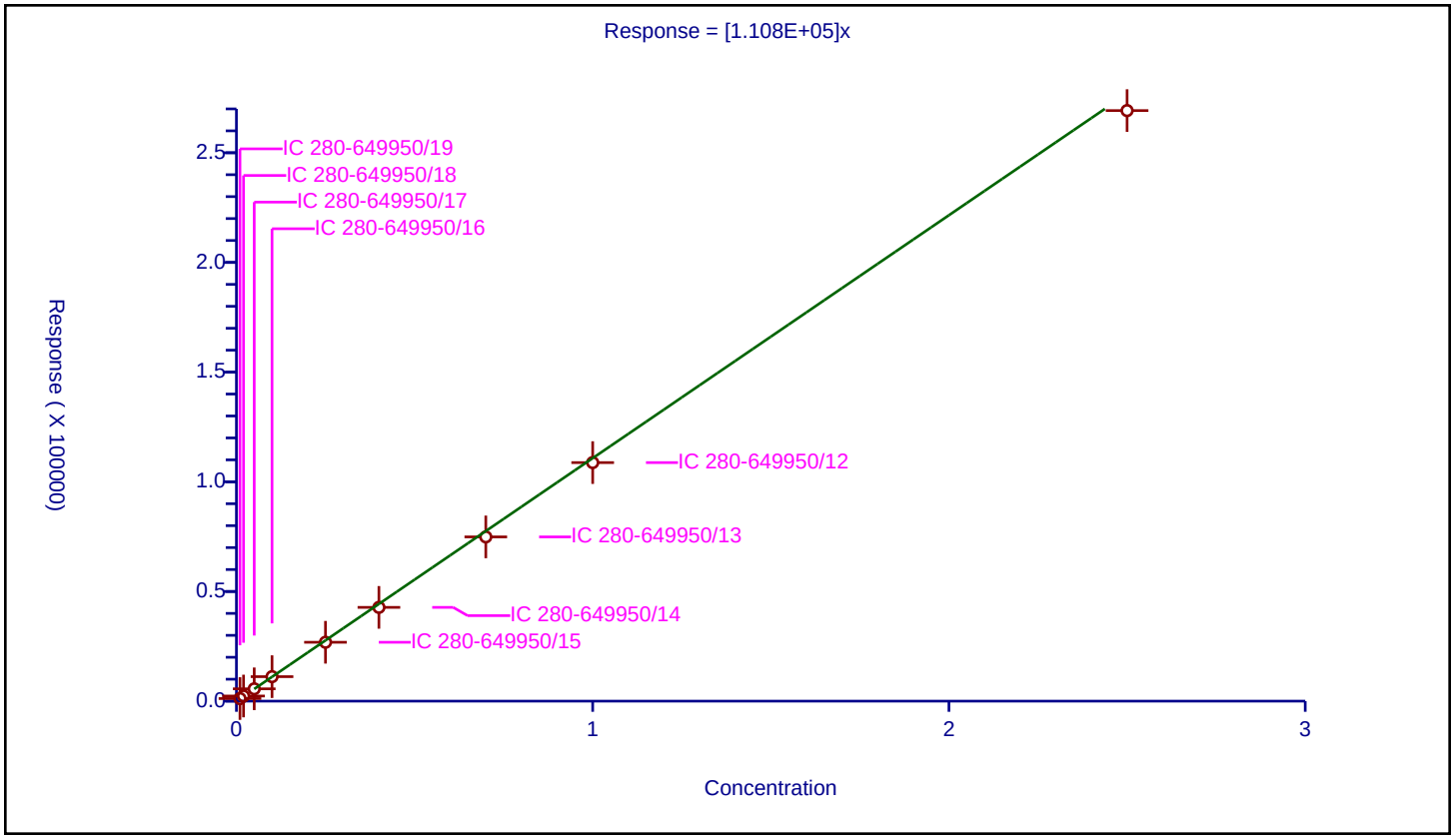
Curve Coefficients

Intercept:	0
Slope:	1.108E+05

Error Coefficients

Relative Standard Deviation:	4.0

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-649950/19	0.01	1187.0			118700.0	Y
2	IC 280-649950/18	0.02	2334.0			116700.0	Y
3	IC 280-649950/17	0.05	5612.0			112240.0	Y
4	IC 280-649950/16	0.1	11162.0			111620.0	Y
5	IC 280-649950/15	0.25	26844.0			107376.0	Y
6	IC 280-649950/14	0.4	42747.0			106867.5	Y
7	IC 280-649950/13	0.7	74871.0			106958.571429	Y
8	IC 280-649950/12	1.0	108752.0			108752.0	Y
9	IC 280-649950/11	2.5	269224.0			107689.6	Y



5/14/2024
9:20:15 AM

Calibration / 2,4,6-Trinitrophenol

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

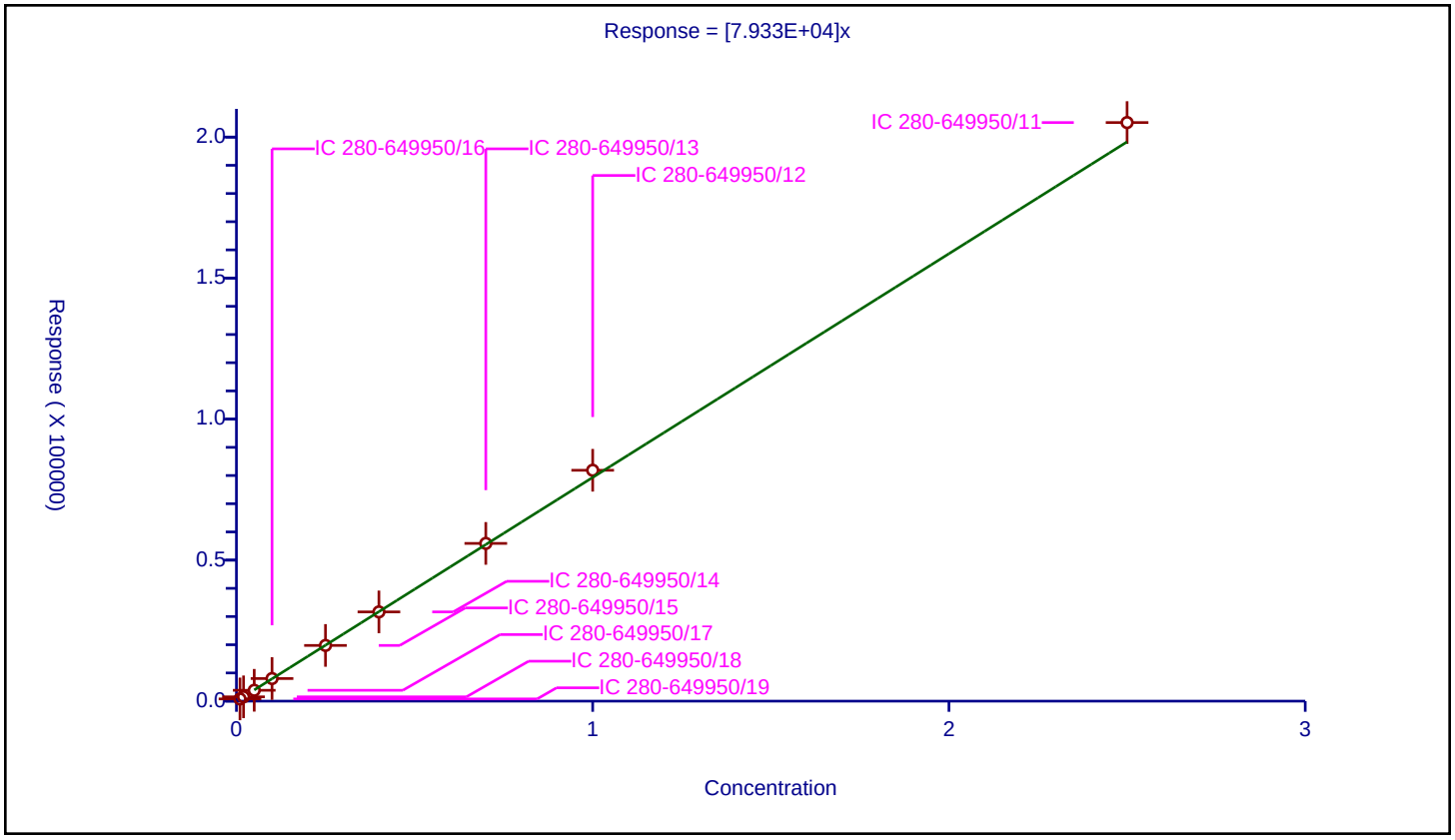
Curve Coefficients

Intercept:	0
Slope:	7.933E+04

Error Coefficients

Relative Standard Deviation:	2.5

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-649950/19	0.01	787.0			78700.0	Y
2	IC 280-649950/18	0.02	1524.0			76200.0	Y
3	IC 280-649950/17	0.05	3847.0			76940.0	Y
4	IC 280-649950/16	0.1	8016.0			80160.0	Y
5	IC 280-649950/15	0.25	19748.0			78992.0	Y
6	IC 280-649950/14	0.4	31644.0			79110.0	Y
7	IC 280-649950/13	0.7	55934.0			79905.714286	Y
8	IC 280-649950/12	1.0	81861.0			81861.0	Y
9	IC 280-649950/11	2.5	205156.0			82062.4	Y



5/14/2024
9:20:15 AM

Calibration / 1,2-Dinitrobenzene

Curve Type:	Linear
Weighting:	Conc_Sq
Origin:	None
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

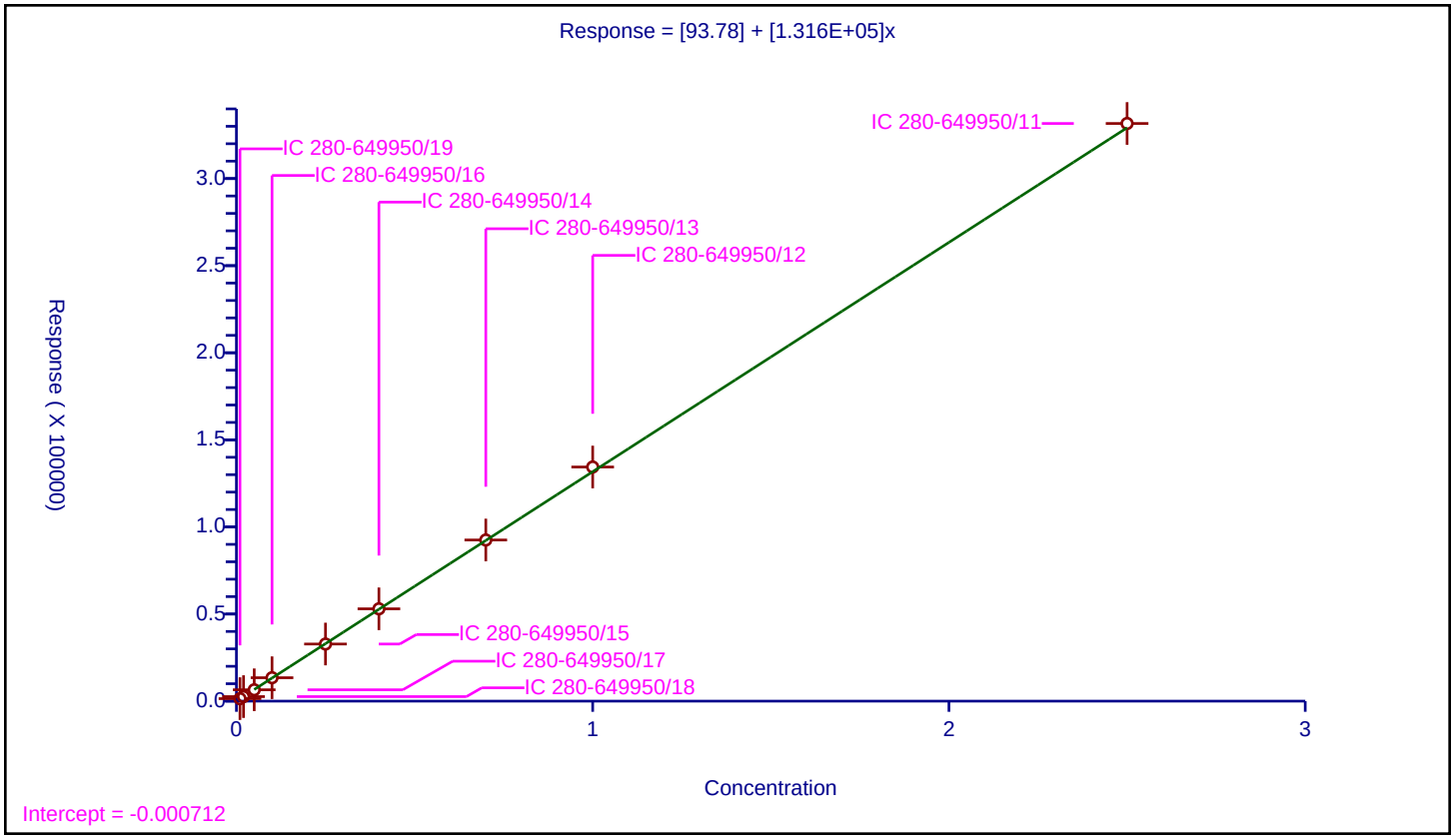
Curve Coefficients

Intercept:	93.78
Slope:	1.316E+05

Error Coefficients

Relative Standard Deviation:	2.5

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-649950/19	0.01	1445.0			144500.0	Y
2	IC 280-649950/18	0.02	2603.0			130150.0	Y
3	IC 280-649950/17	0.05	6521.0			130420.0	Y
4	IC 280-649950/16	0.1	13450.0			134500.0	Y
5	IC 280-649950/15	0.25	32787.0			131148.0	Y
6	IC 280-649950/14	0.4	52999.0			132497.5	Y
7	IC 280-649950/13	0.7	92511.0			132158.571429	Y
8	IC 280-649950/12	1.0	134411.0			134411.0	Y
9	IC 280-649950/11	2.5	331618.0			132647.2	Y



5/14/2024
9:20:15 AM

Calibration / 1,3,5-Trinitrobenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

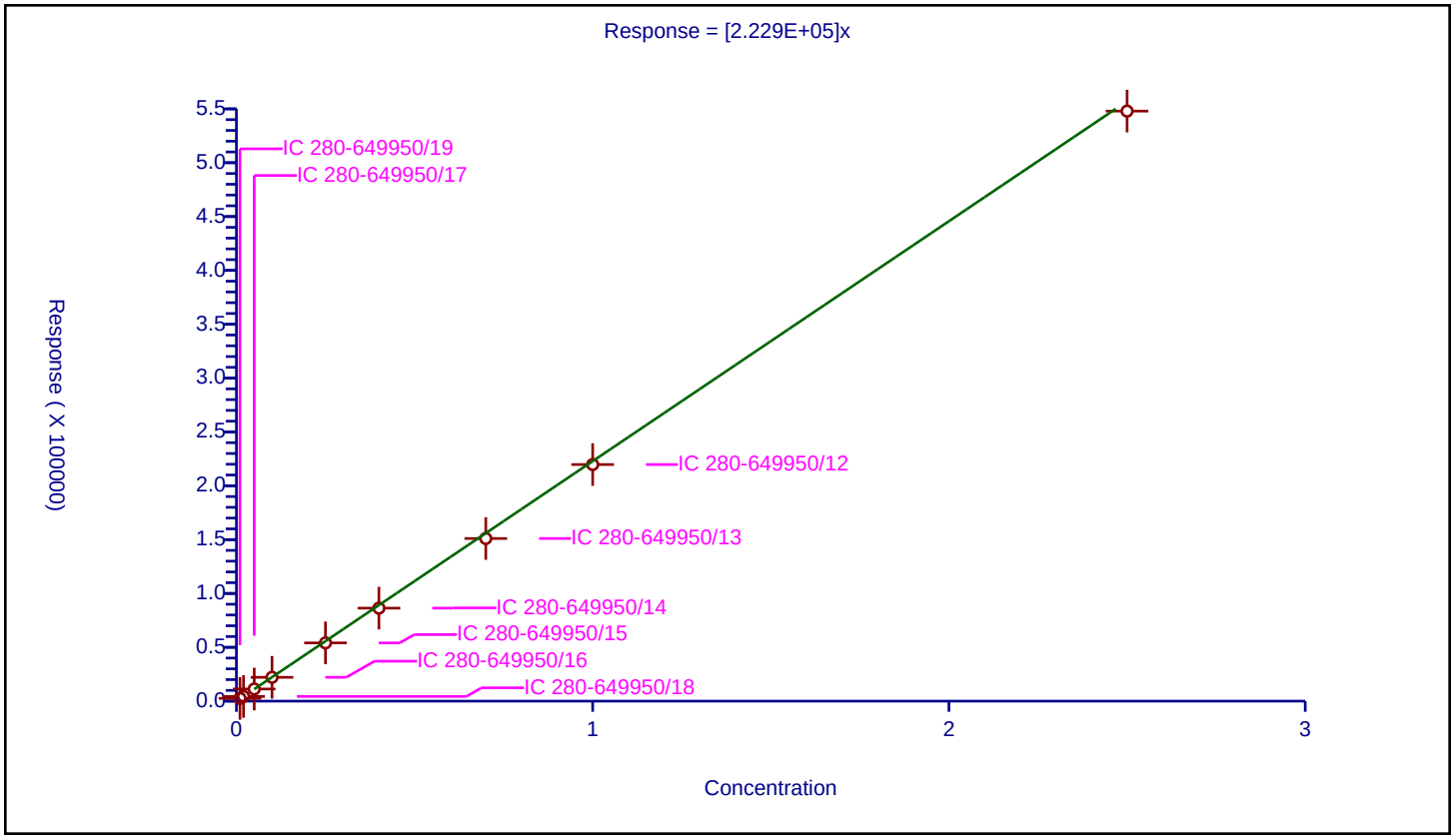
Curve Coefficients

Intercept:	0
Slope:	2.229E+05

Error Coefficients

Relative Standard Deviation:	5.6

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-649950/19	0.01	2549.0			254900.0	Y
2	IC 280-649950/18	0.02	4349.0			217450.0	Y
3	IC 280-649950/17	0.05	11258.0			225160.0	Y
4	IC 280-649950/16	0.1	22129.0			221290.0	Y
5	IC 280-649950/15	0.25	54073.0			216292.0	Y
6	IC 280-649950/14	0.4	86362.0			215905.0	Y
7	IC 280-649950/13	0.7	151045.0			215778.571429	Y
8	IC 280-649950/12	1.0	219723.0			219723.0	Y
9	IC 280-649950/11	2.5	547952.0			219180.8	Y



Calibration / 1,3-Dinitrobenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

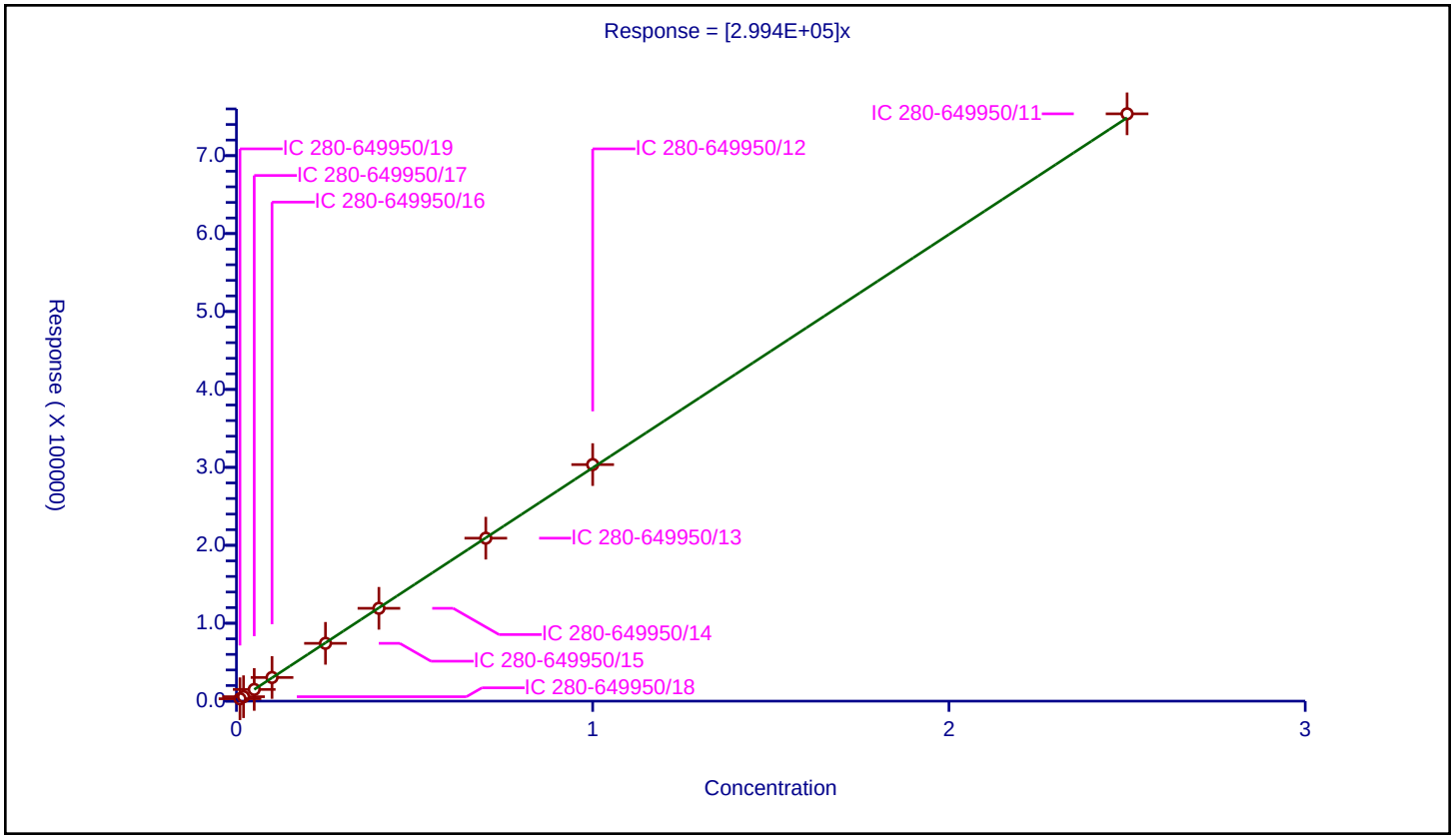
Curve Coefficients

Intercept:	0
Slope:	2.994E+05

Error Coefficients

Relative Standard Deviation:	2.3

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-649950/19	0.01	3086.0			308600.0	Y
2	IC 280-649950/18	0.02	5678.0			283900.0	Y
3	IC 280-649950/17	0.05	15023.0			300460.0	Y
4	IC 280-649950/16	0.1	30359.0			303590.0	Y
5	IC 280-649950/15	0.25	74190.0			296760.0	Y
6	IC 280-649950/14	0.4	119137.0			297842.5	Y
7	IC 280-649950/13	0.7	209122.0			298745.714286	Y
8	IC 280-649950/12	1.0	303550.0			303550.0	Y
9	IC 280-649950/11	2.5	753680.0			301472.0	Y



Calibration / Nitrobenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

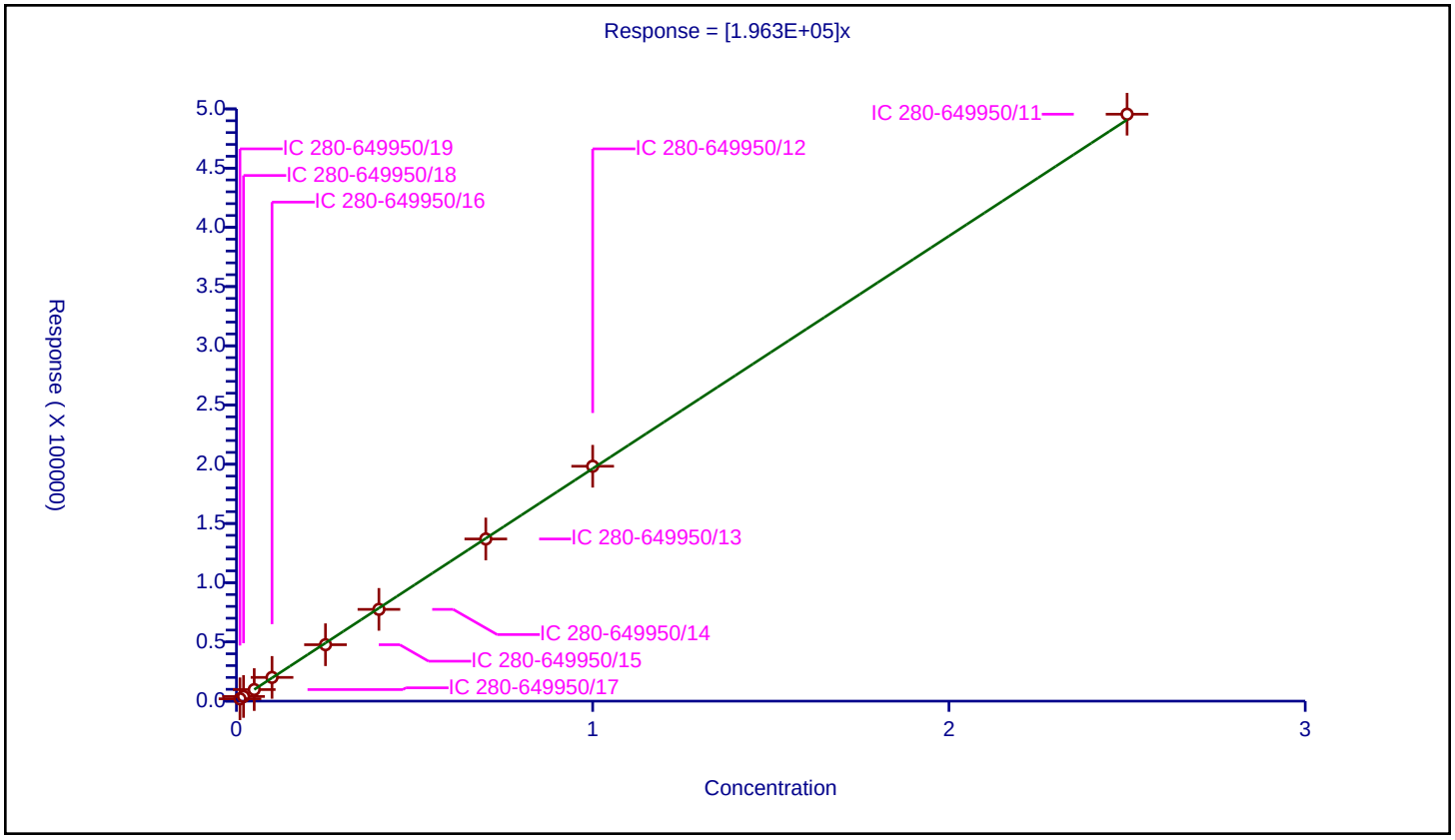
Curve Coefficients

Intercept:	0
Slope:	1.963E+05

Error Coefficients

Relative Standard Deviation:	1.5

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-649950/19	0.01	1985.0			198500.0	Y
2	IC 280-649950/18	0.02	3932.0			196600.0	Y
3	IC 280-649950/17	0.05	9759.0			195180.0	Y
4	IC 280-649950/16	0.1	20035.0			200350.0	Y
5	IC 280-649950/15	0.25	47641.0			190564.0	Y
6	IC 280-649950/14	0.4	77471.0			193677.5	Y
7	IC 280-649950/13	0.7	136899.0			195570.0	Y
8	IC 280-649950/12	1.0	198305.0			198305.0	Y
9	IC 280-649950/11	2.5	495535.0			198214.0	Y



5/14/2024
9:20:15 AM

Calibration / 3,5-Dinitroaniline

Curve Type:	Linear
Weighting:	Conc_Sq
Origin:	None
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

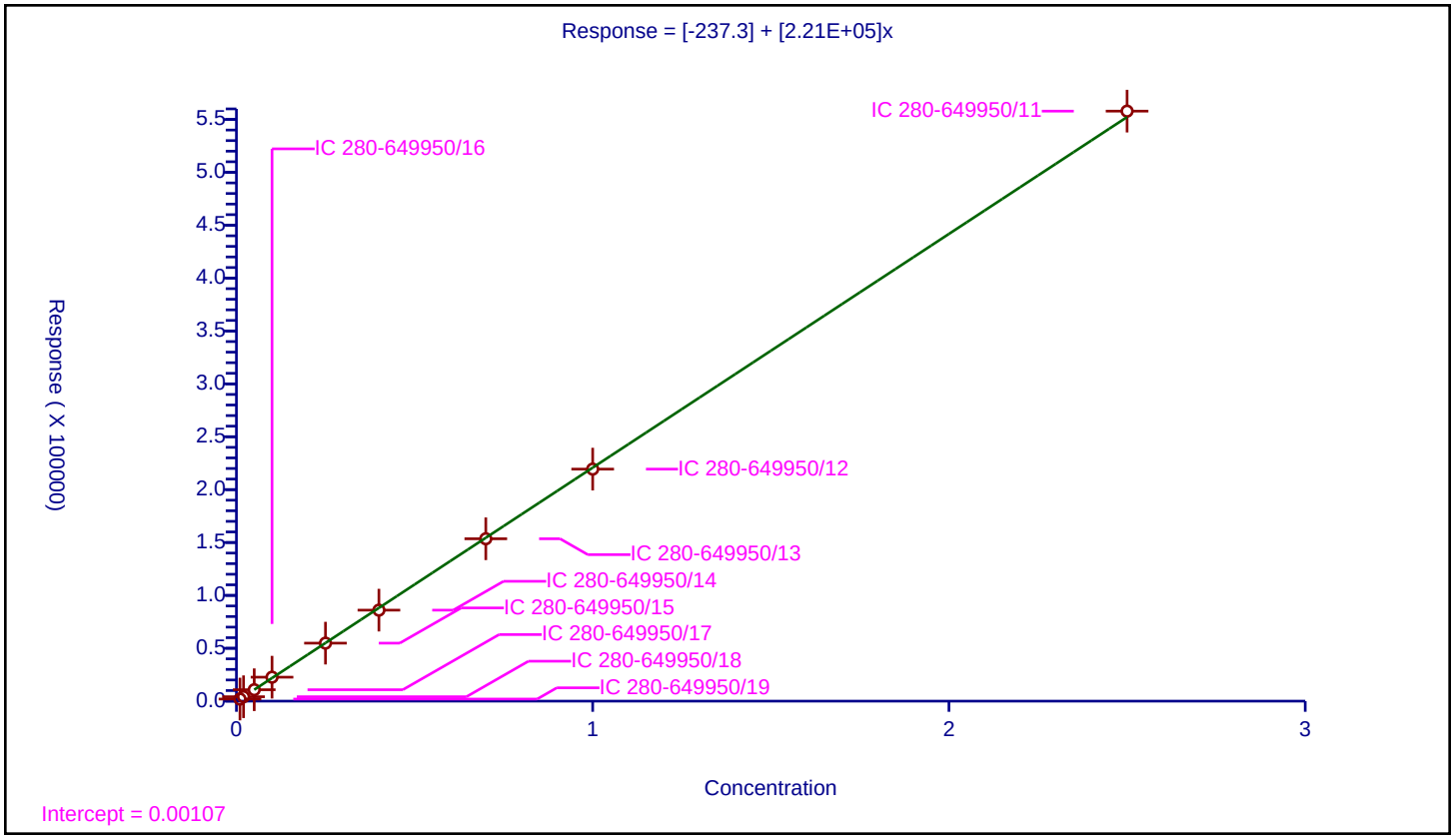
Curve Coefficients

Intercept:	-237.3
Slope:	2.21E+05

Error Coefficients

Relative Standard Deviation:	1.7

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-649950/19	0.01	1971.0			197100.0	Y
2	IC 280-649950/18	0.02	4171.0			208550.0	Y
3	IC 280-649950/17	0.05	10781.0			215620.0	Y
4	IC 280-649950/16	0.1	22651.0			226510.0	Y
5	IC 280-649950/15	0.25	54841.0			219364.0	Y
6	IC 280-649950/14	0.4	86047.0			215117.5	Y
7	IC 280-649950/13	0.7	153531.0			219330.0	Y
8	IC 280-649950/12	1.0	219396.0			219396.0	Y
9	IC 280-649950/11	2.5	557874.0			223149.6	Y



Calibration / Tetryl

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

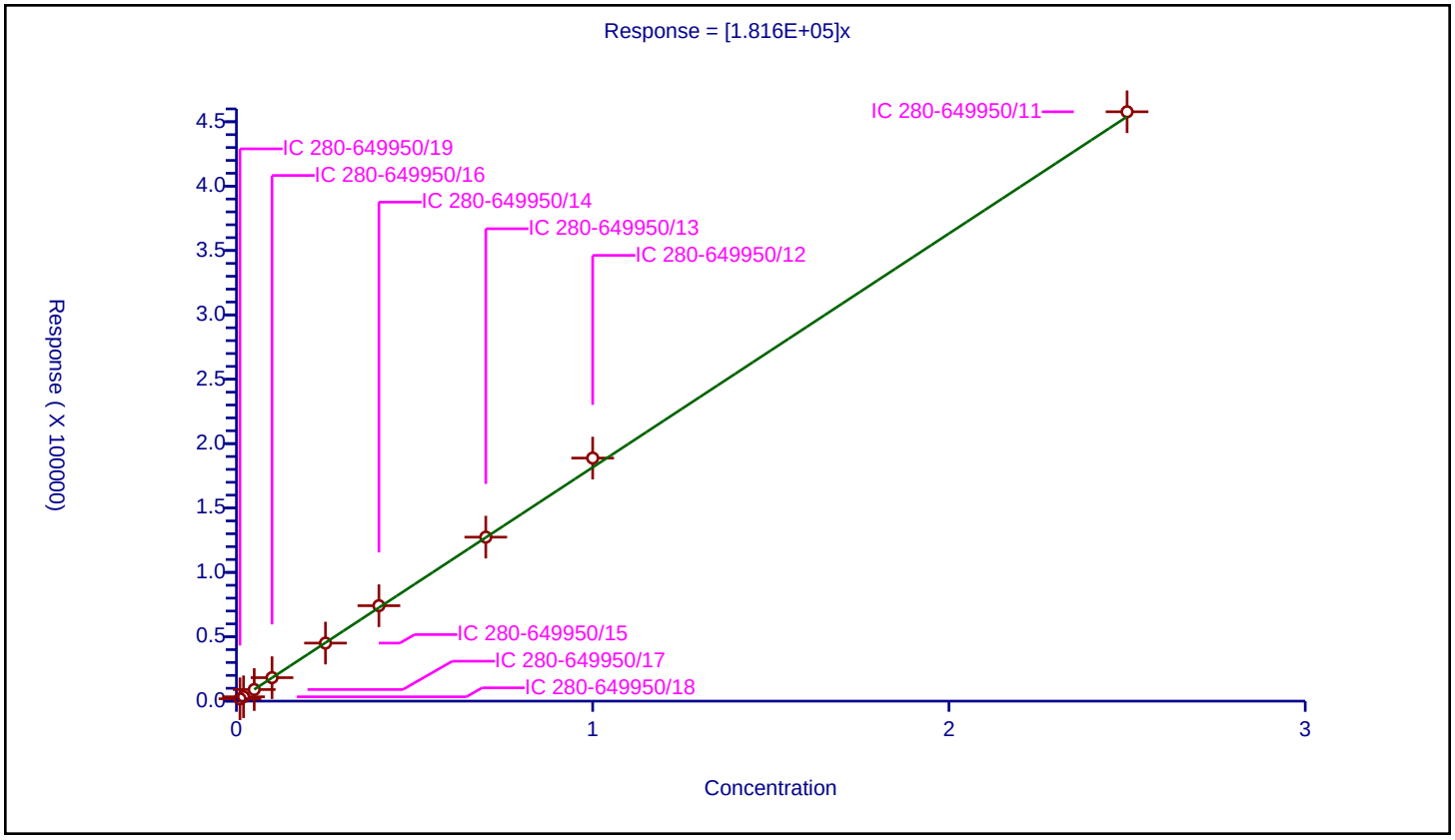
Curve Coefficients

Intercept:	0
Slope:	1.816E+05

Error Coefficients

Relative Standard Deviation:	3.0

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-649950/19	0.01	1835.0			183500.0	Y
2	IC 280-649950/18	0.02	3374.0			168700.0	Y
3	IC 280-649950/17	0.05	9010.0			180200.0	Y
4	IC 280-649950/16	0.1	18238.0			182380.0	Y
5	IC 280-649950/15	0.25	45082.0			180328.0	Y
6	IC 280-649950/14	0.4	74126.0			185315.0	Y
7	IC 280-649950/13	0.7	127375.0			181964.285714	Y
8	IC 280-649950/12	1.0	188801.0			188801.0	Y
9	IC 280-649950/11	2.5	457763.0			183105.2	Y



5/14/2024
9:20:15 AM

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

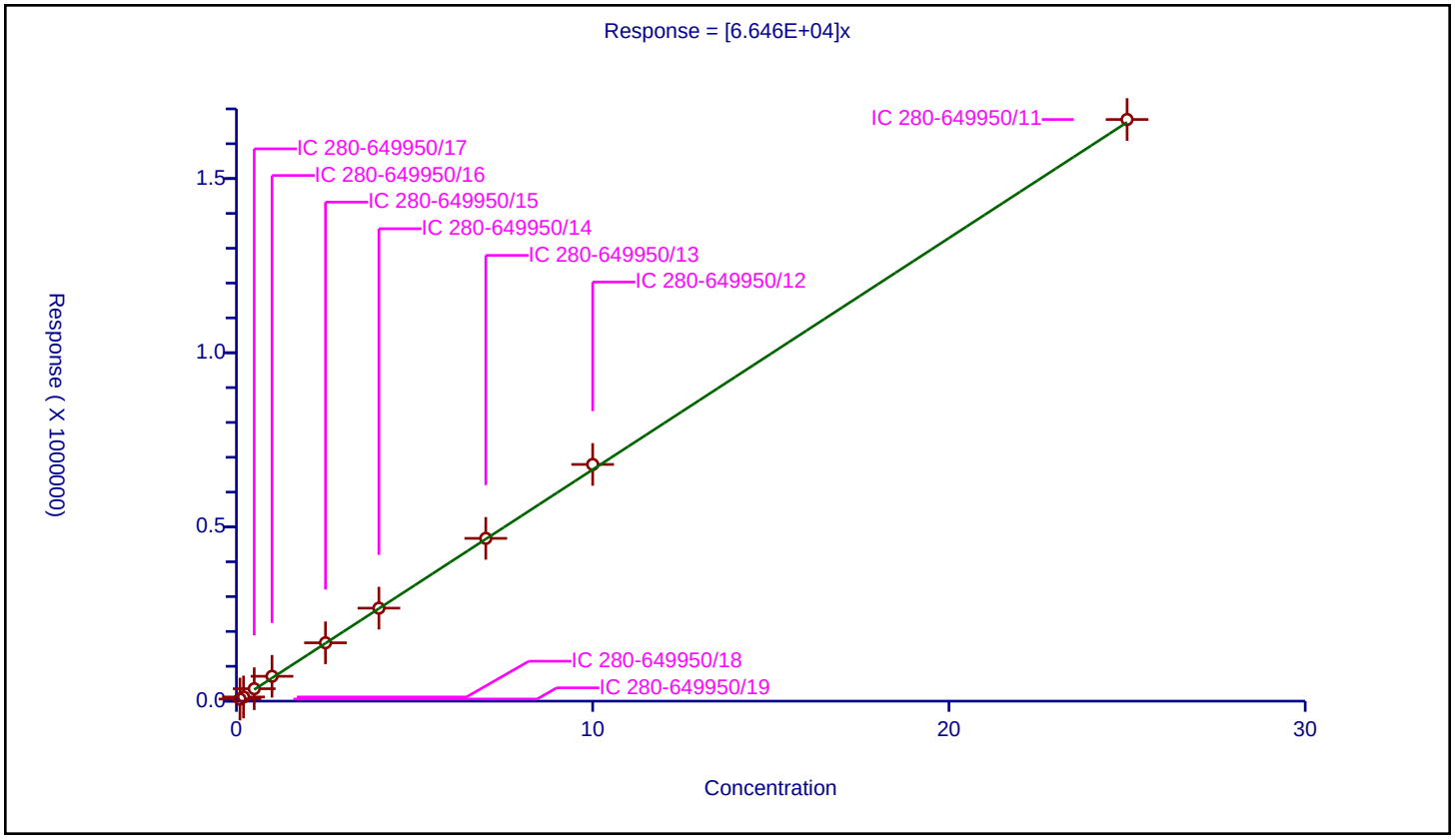
Curve Coefficients

Intercept:	0
Slope:	6.646E+04

Error Coefficients

Relative Standard Deviation:	6.1

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-649950/19	0.1	6048.0			60480.0	Y
2	IC 280-649950/18	0.2	11963.0			59815.0	Y
3	IC 280-649950/17	0.5	35657.0			71314.0	Y
4	IC 280-649950/16	1.0	71367.0			71367.0	Y
5	IC 280-649950/15	2.5	167486.0			66994.4	Y
6	IC 280-649950/14	4.0	266924.0			66731.0	Y
7	IC 280-649950/13	7.0	467214.0			66744.857143	Y
8	IC 280-649950/12	10.0	679445.0			67944.5	Y
9	IC 280-649950/11	25.0	1669606.0			66784.24	Y



Calibration / 2,4,6-Trinitrotoluene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

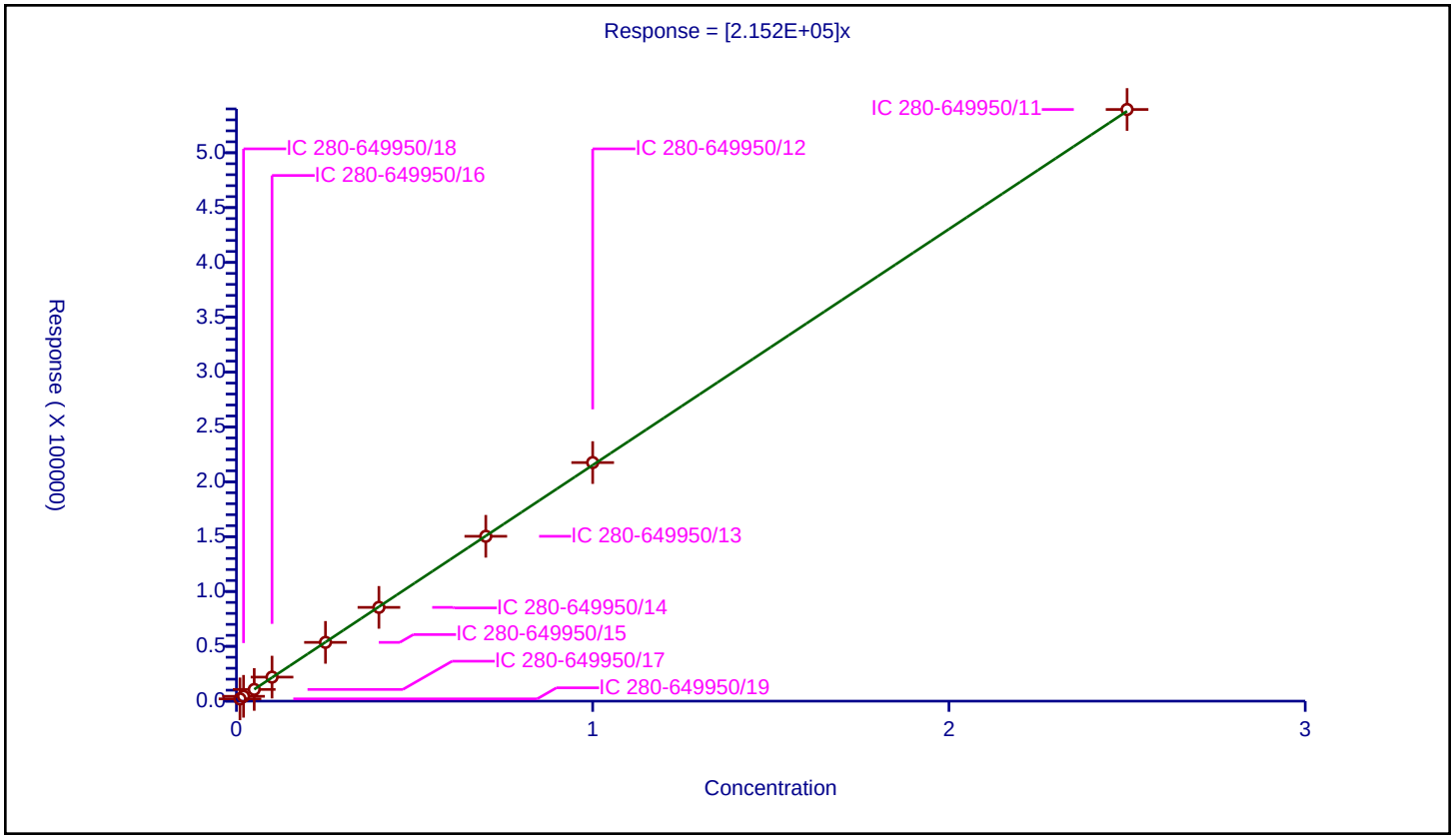
Curve Coefficients

Intercept:	0
Slope:	2.152E+05

Error Coefficients

Relative Standard Deviation:	1.7

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-649950/19	0.01	2081.0			208100.0	Y
2	IC 280-649950/18	0.02	4400.0			220000.0	Y
3	IC 280-649950/17	0.05	10669.0			213380.0	Y
4	IC 280-649950/16	0.1	21912.0			219120.0	Y
5	IC 280-649950/15	0.25	53593.0			214372.0	Y
6	IC 280-649950/14	0.4	85495.0			213737.5	Y
7	IC 280-649950/13	0.7	150301.0			214715.714286	Y
8	IC 280-649950/12	1.0	217516.0			217516.0	Y
9	IC 280-649950/11	2.5	539471.0			215788.4	Y



5/14/2024
9:20:15 AM

Calibration / 4-Amino-2,6-dinitrotoluene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

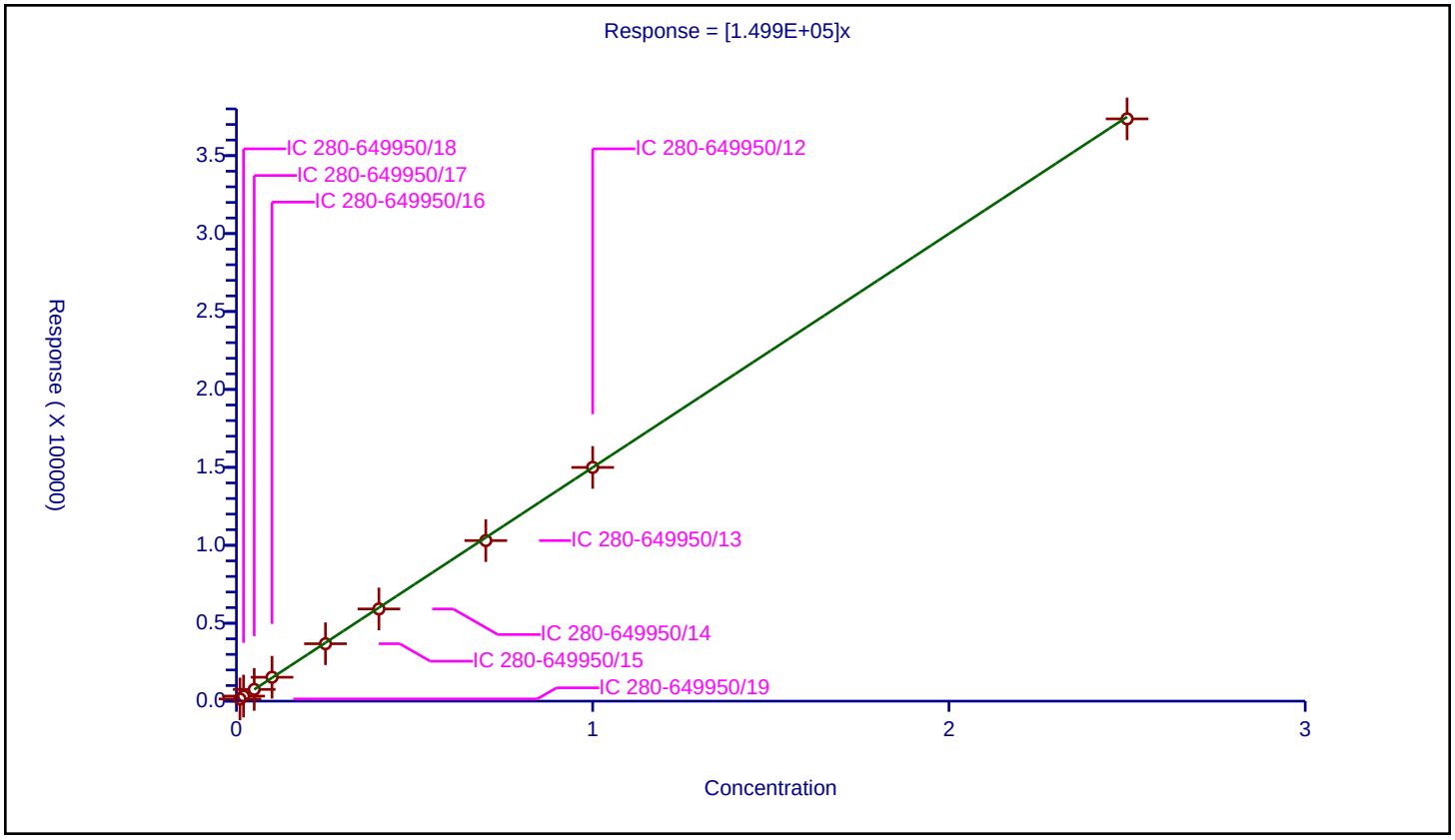
Curve Coefficients

Intercept:	0
Slope:	1.499E+05

Error Coefficients

Relative Standard Deviation:	4.0

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-649950/19	0.01	1406.0			140600.0	Y
2	IC 280-649950/18	0.02	3261.0			163050.0	Y
3	IC 280-649950/17	0.05	7533.0			150660.0	Y
4	IC 280-649950/16	0.1	15344.0			153440.0	Y
5	IC 280-649950/15	0.25	36831.0			147324.0	Y
6	IC 280-649950/14	0.4	59155.0			147887.5	Y
7	IC 280-649950/13	0.7	103016.0			147165.714286	Y
8	IC 280-649950/12	1.0	149965.0			149965.0	Y
9	IC 280-649950/11	2.5	373596.0			149438.4	Y



5/14/2024
9:20:15 AM

Calibration / 2-Amino-4,6-dinitrotoluene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

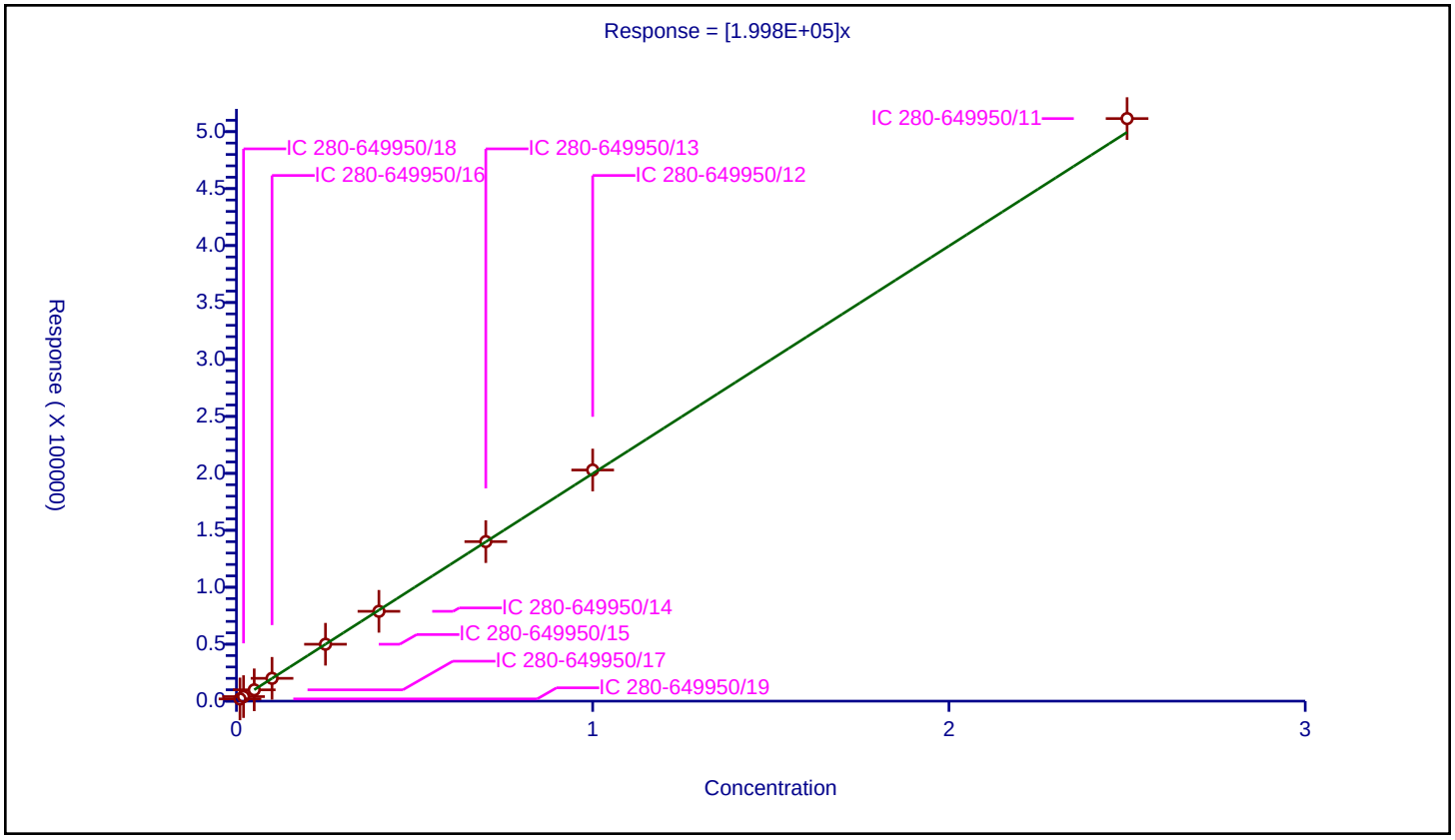
Curve Coefficients

Intercept:	0
Slope:	1.998E+05

Error Coefficients

Relative Standard Deviation:	1.4

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-649950/19	0.01	1951.0			195100.0	Y
2	IC 280-649950/18	0.02	3997.0			199850.0	Y
3	IC 280-649950/17	0.05	9923.0			198460.0	Y
4	IC 280-649950/16	0.1	20033.0			200330.0	Y
5	IC 280-649950/15	0.25	49951.0			199804.0	Y
6	IC 280-649950/14	0.4	78856.0			197140.0	Y
7	IC 280-649950/13	0.7	140054.0			200077.142857	Y
8	IC 280-649950/12	1.0	202927.0			202927.0	Y
9	IC 280-649950/11	2.5	511483.0			204593.2	Y



Calibration / 2,6-Dinitrotoluene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

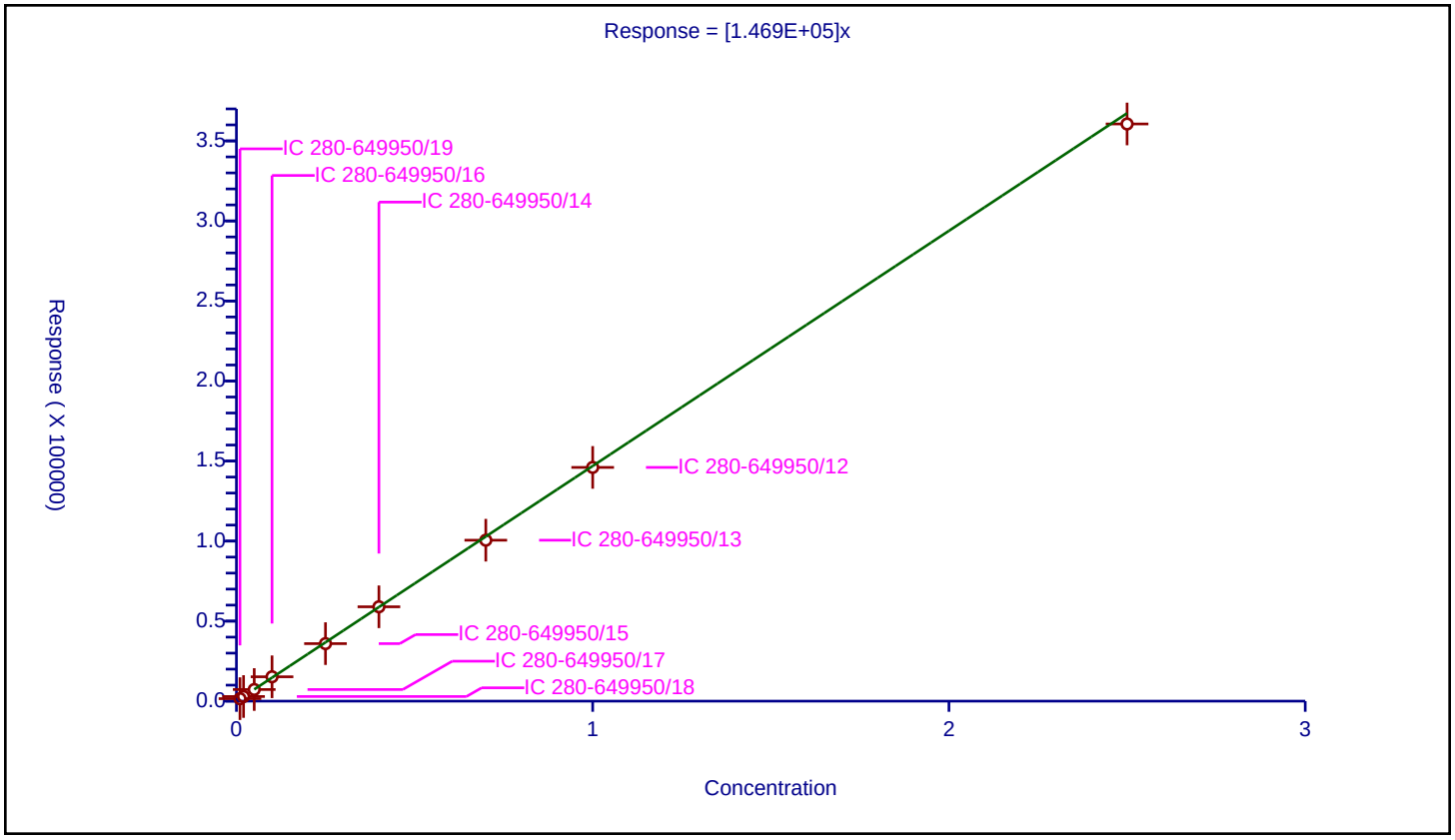
Curve Coefficients

Intercept:	0
Slope:	1.469E+05

Error Coefficients

Relative Standard Deviation:	2.9

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-649950/19	0.01	1557.0			155700.0	Y
2	IC 280-649950/18	0.02	2880.0			144000.0	Y
3	IC 280-649950/17	0.05	7267.0			145340.0	Y
4	IC 280-649950/16	0.1	15218.0			152180.0	Y
5	IC 280-649950/15	0.25	35939.0			143756.0	Y
6	IC 280-649950/14	0.4	58947.0			147367.5	Y
7	IC 280-649950/13	0.7	100540.0			143628.571429	Y
8	IC 280-649950/12	1.0	146021.0			146021.0	Y
9	IC 280-649950/11	2.5	360585.0			144234.0	Y



Calibration / 2,4-Dinitrotoluene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

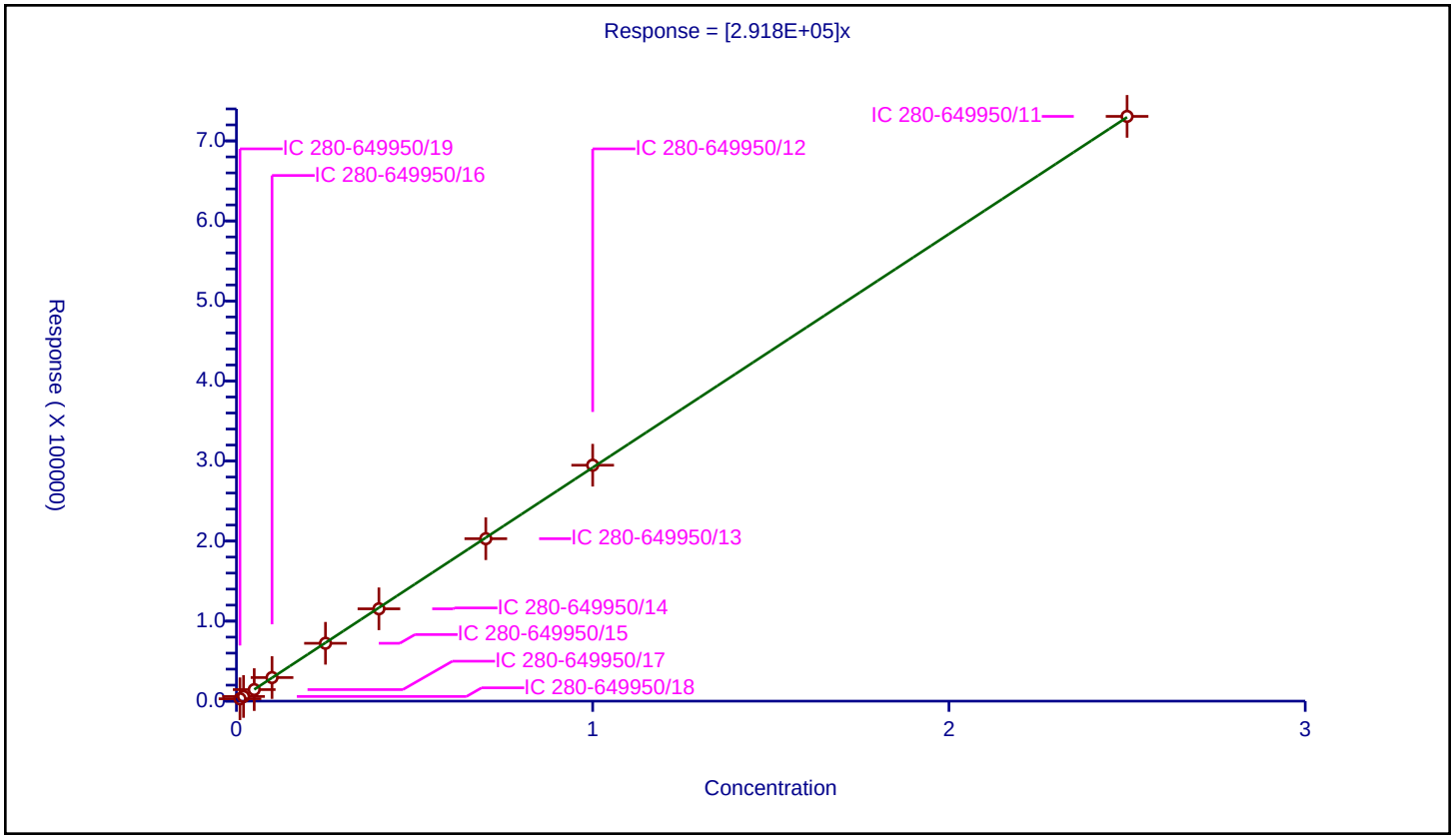
Curve Coefficients

Intercept:	0
Slope:	2.918E+05

Error Coefficients

Relative Standard Deviation:	1.3

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-649950/19	0.01	2993.0			299300.0	Y
2	IC 280-649950/18	0.02	5793.0			289650.0	Y
3	IC 280-649950/17	0.05	14425.0			288500.0	Y
4	IC 280-649950/16	0.1	29452.0			294520.0	Y
5	IC 280-649950/15	0.25	72314.0			289256.0	Y
6	IC 280-649950/14	0.4	115355.0			288387.5	Y
7	IC 280-649950/13	0.7	202952.0			289931.428571	Y
8	IC 280-649950/12	1.0	294790.0			294790.0	Y
9	IC 280-649950/11	2.5	730644.0			292257.6	Y



5/14/2024
9:20:15 AM

Calibration / o-Nitrotoluene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

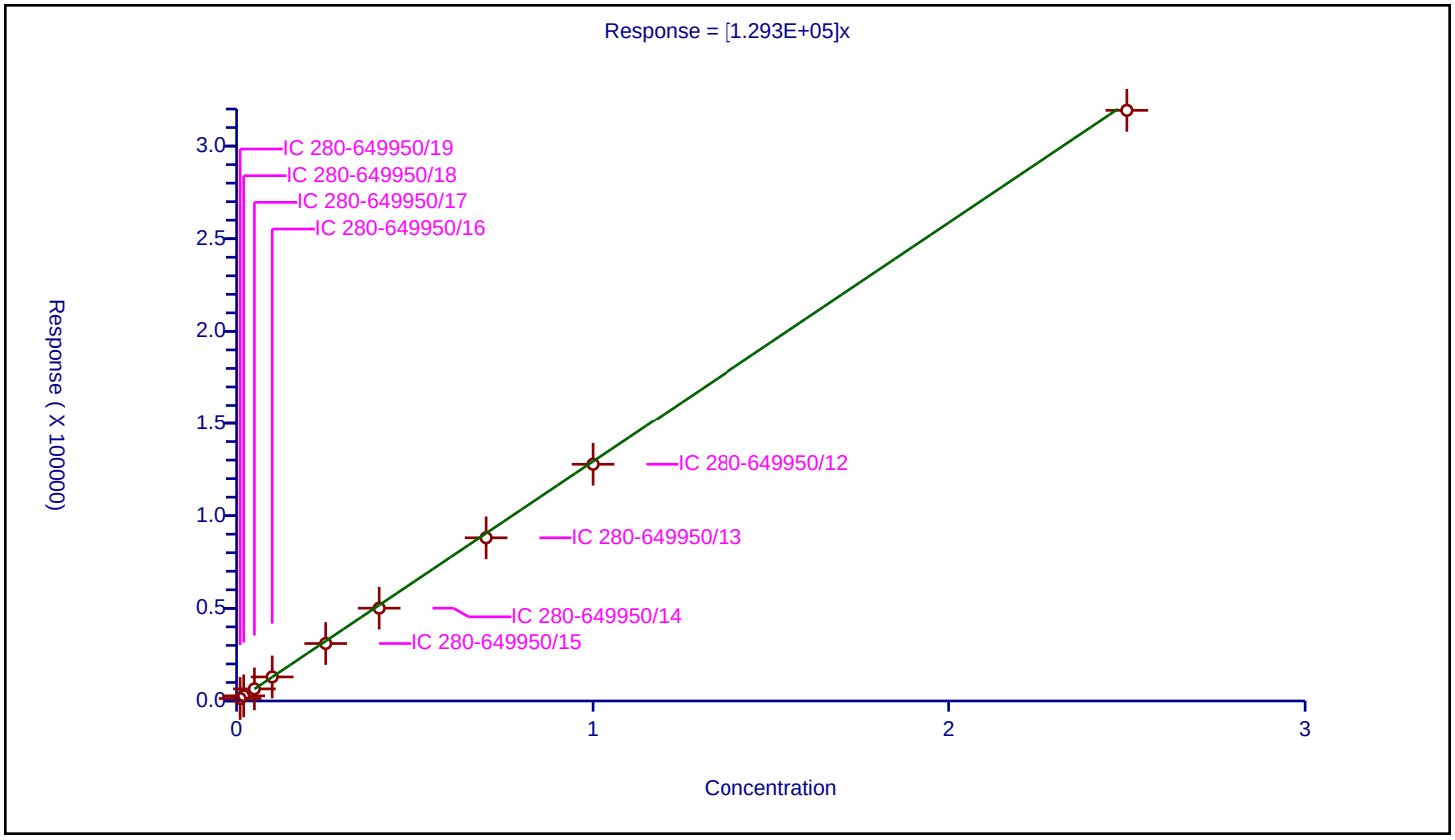
Curve Coefficients

Intercept:	0
Slope:	1.293E+05

Error Coefficients

Relative Standard Deviation:	3.6

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-649950/19	0.01	1340.0			134000.0	Y
2	IC 280-649950/18	0.02	2777.0			138850.0	Y
3	IC 280-649950/17	0.05	6526.0			130520.0	Y
4	IC 280-649950/16	0.1	12977.0			129770.0	Y
5	IC 280-649950/15	0.25	31023.0			124092.0	Y
6	IC 280-649950/14	0.4	50092.0			125230.0	Y
7	IC 280-649950/13	0.7	88069.0			125812.857143	Y
8	IC 280-649950/12	1.0	127758.0			127758.0	Y
9	IC 280-649950/11	2.5	319286.0			127714.4	Y



5/14/2024
9:20:15 AM

Calibration / p-Nitrotoluene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

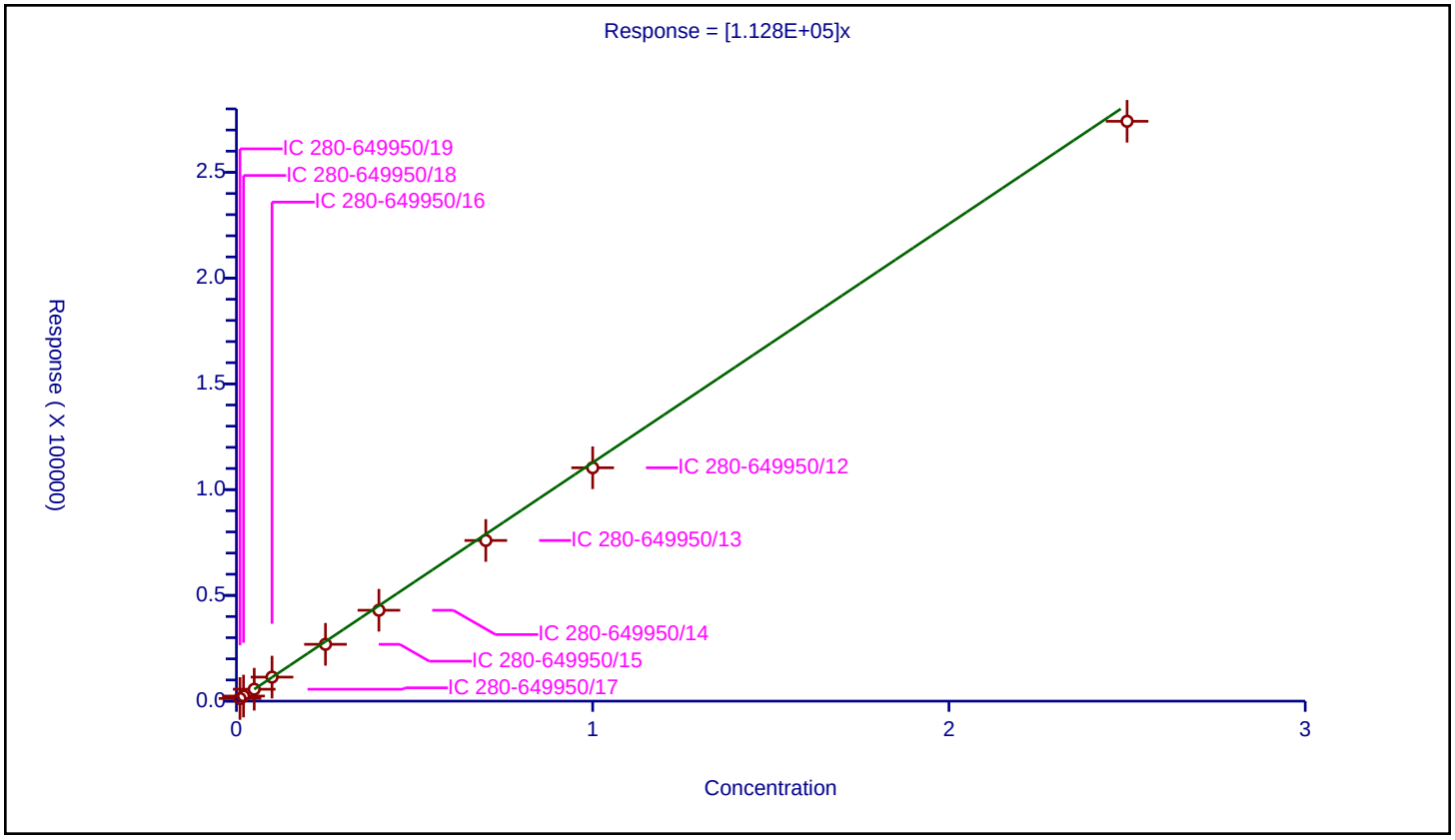
Curve Coefficients

Intercept:	0
Slope:	1.128E+05

Error Coefficients

Relative Standard Deviation:	5.4

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-649950/19	0.01	1249.0			124900.0	Y
2	IC 280-649950/18	0.02	2413.0			120650.0	Y
3	IC 280-649950/17	0.05	5631.0			112620.0	Y
4	IC 280-649950/16	0.1	11360.0			113600.0	Y
5	IC 280-649950/15	0.25	26871.0			107484.0	Y
6	IC 280-649950/14	0.4	42973.0			107432.5	Y
7	IC 280-649950/13	0.7	75957.0			108510.0	Y
8	IC 280-649950/12	1.0	110337.0			110337.0	Y
9	IC 280-649950/11	2.5	274145.0			109658.0	Y



5/14/2024
9:20:15 AM

Calibration / m-Nitrotoluene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

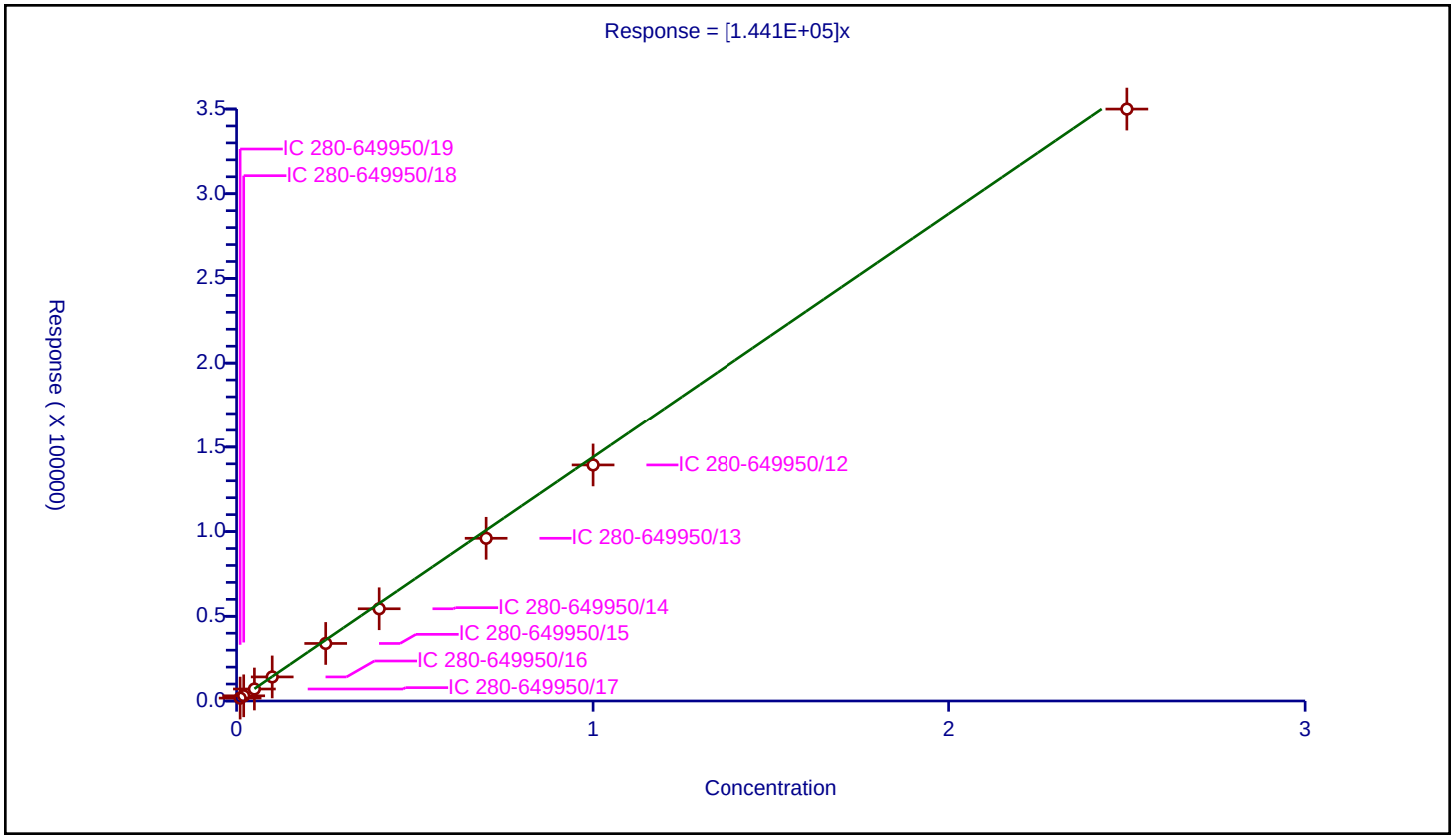
Curve Coefficients

Intercept:	0
Slope:	1.441E+05

Error Coefficients

Relative Standard Deviation:	8.0

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-649950/19	0.01	1713.0			171300.0	Y
2	IC 280-649950/18	0.02	3066.0			153300.0	Y
3	IC 280-649950/17	0.05	7074.0			141480.0	Y
4	IC 280-649950/16	0.1	14207.0			142070.0	Y
5	IC 280-649950/15	0.25	33952.0			135808.0	Y
6	IC 280-649950/14	0.4	54437.0			136092.5	Y
7	IC 280-649950/13	0.7	96036.0			137194.285714	Y
8	IC 280-649950/12	1.0	139336.0			139336.0	Y
9	IC 280-649950/11	2.5	349971.0			139988.4	Y



5/14/2024
9:20:15 AM

Calibration / PETN

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

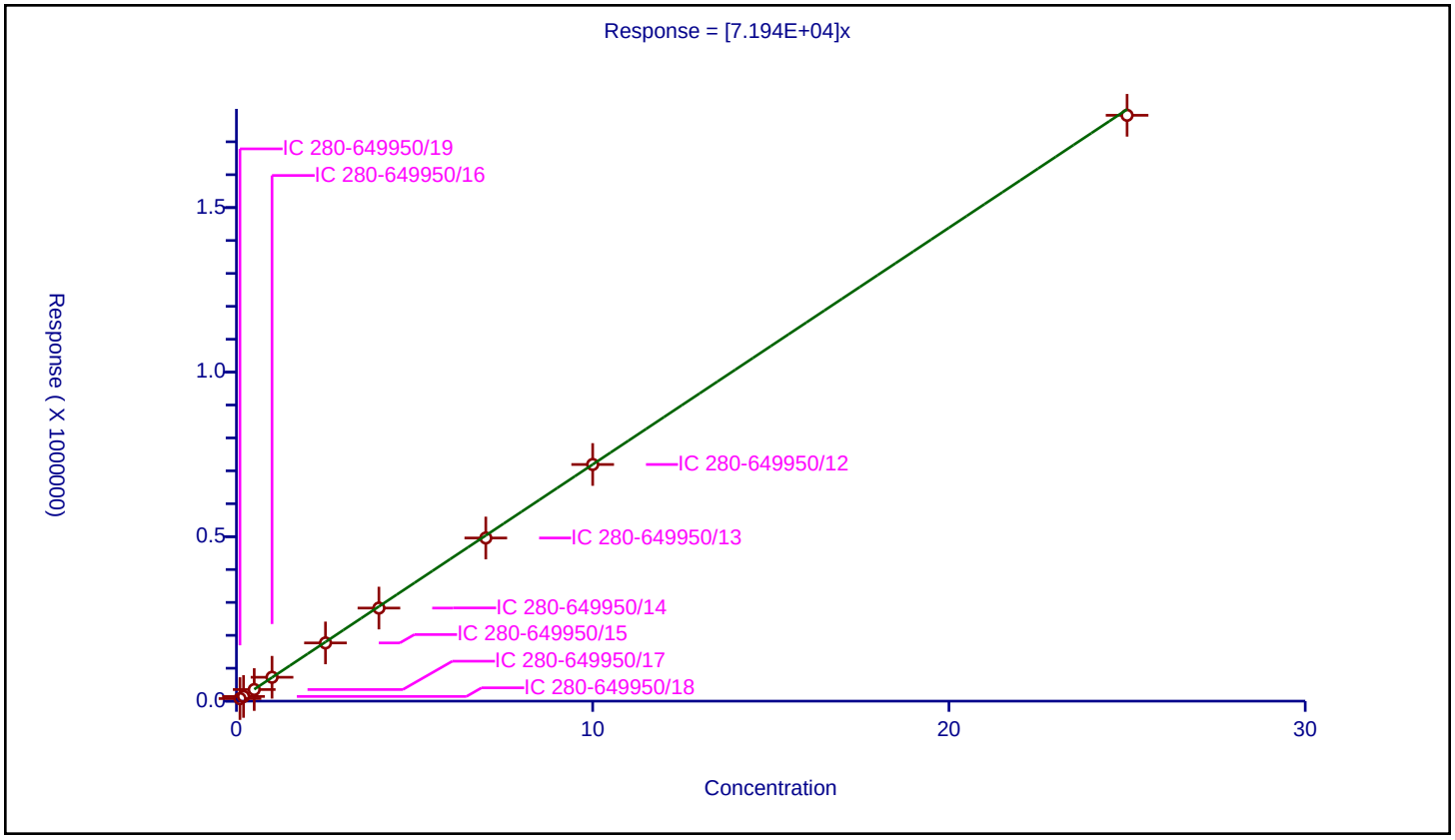
Curve Coefficients

Intercept:	0
Slope:	7.194E+04

Error Coefficients

Relative Standard Deviation:	3.3

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-649950/19	0.1	7807.0			78070.0	Y
2	IC 280-649950/18	0.2	14174.0			70870.0	Y
3	IC 280-649950/17	0.5	35216.0			70432.0	Y
4	IC 280-649950/16	1.0	72600.0			72600.0	Y
5	IC 280-649950/15	2.5	176891.0			70756.4	Y
6	IC 280-649950/14	4.0	282889.0			70722.25	Y
7	IC 280-649950/13	7.0	495856.0			70836.571429	Y
8	IC 280-649950/12	10.0	719241.0			71924.1	Y
9	IC 280-649950/11	25.0	1780535.0			71221.4	Y



5/14/2024
9:20:15 AM

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-190988-1

SDG No.:

Lab Sample ID: ICV 280-650851/19 Calibration Date: 04/25/2024 02:51

Instrument ID: CHHPLC_G2_LUNA Calib Start Date: 04/24/2024 21:28

GC Column: Luna-phenylhex ID: 4.60(mm) Calib End Date: 04/25/2024 02:15

Lab File ID: 04240019.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
HMX	Ave	174076	166804		479	500	-4.2	20.0
Picric acid	Ave	151397	162096		535	500	7.1	20.0
RDX	Lin2		212688		514	500	2.9	20.0
Nitrobenzene	Ave	382120	410196		537	500	7.3	20.0
3,5-Dinitroaniline	Lin2		467084		540	500	8.0	20.0
1,3-Dinitrobenzene	Ave	589418	622818		528	500	5.7	20.0
Nitroglycerin	Ave	119505	129045		5400	5000	8.0	20.0
2-Nitrotoluene	Ave	244594	255606		523	500	4.5	20.0
4-Nitrotoluene	Lin2		237762		542	500	8.4	20.0
4-Amino-2,6-dinitrotoluene	Lin2		298664		551	500	10.3	20.0
3-Nitrotoluene	Lin2		294022		530	500	6.0	20.0
2-Amino-4,6-dinitrotoluene	Ave	405562	411548		507	500	1.5	20.0
1,3,5-Trinitrobenzene	Ave	423454	463460		547	500	9.4	20.0
2,6-Dinitrotoluene	Ave	277970	282262		508	500	1.5	20.0
2,4-Dinitrotoluene	Ave	554564	571064		515	500	3.0	20.0
Tetryl	Lin2		340546		544	500	8.9	20.0
2,4,6-Trinitrotoluene	Ave	399763	421604		527	500	5.5	20.0
PETN	Lin2		139356		5650	5000	13.1	20.0
1,2-Dinitrobenzene	Ave	258689	258086		499	500	-0.2	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-190988-1

SDG No.:

Lab Sample ID: ICV 280-650851/19 Calibration Date: 04/25/2024 02:51

Instrument ID: CHHPLC_G2_LUNA Calib Start Date: 04/24/2024 21:28

GC Column: Luna-phenylhex ID: 4.60(mm) Calib End Date: 04/25/2024 02:15

Lab File ID: 04240019.D

Analyte	RT	RT WINDOW	
		FROM	TO
HMX	6.69	6.56	6.86
Picric acid	8.58	8.46	8.76
RDX	8.92	8.79	9.09
Nitrobenzene	11.42	11.28	11.58
3,5-Dinitroaniline	14.19	14.04	14.34
1,3-Dinitrobenzene	14.48	14.33	14.63
Nitroglycerin	14.93	14.77	15.07
2-Nitrotoluene	15.51	15.36	15.66
4-Nitrotoluene	15.74	15.59	15.89
4-Amino-2,6-dinitrotoluene	16.24	16.10	16.40
3-Nitrotoluene	16.57	16.43	16.73
2-Amino-4,6-dinitrotoluene	17.05	16.91	17.21
1,3,5-Trinitrobenzene	17.26	17.12	17.42
2,6-Dinitrotoluene	18.36	18.22	18.52
2,4-Dinitrotoluene	18.81	18.67	18.97
Tetryl	22.03	21.88	22.18
2,4,6-Trinitrotoluene	22.88	22.73	23.03
PETN	24.03	23.88	24.18
1,2-Dinitrobenzene	12.35	12.20	12.50

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2_LUNA\20240424-132624.b\04240019.D
Lims ID: ICV INT
Client ID:
Sample Type: ICV
Inject. Date: 25-Apr-2024 02:51:47 ALS Bottle#: 19 Worklist Smp#: 19
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: ICV INT
Operator ID: JZ/JG Instrument ID: CHHPLC_G2_LUNA
Sublist:

Method: \\chromfs\Denver\ChromData\G2_LUNA\20240424-132624.b\G2_8330_Luna.m
Limit Group: GCSV - 8330
Last Update: 25-Apr-2024 14:35:18 Calib Date: 25-Apr-2024 02:15:46
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\G2_LUNA\20240424-132624.b\04240018.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC DAD1A, 254 nm
Process Host: CTX1684

First Level Reviewer: LV5D Date: 25-Apr-2024 13:30:09

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
6 HMX	1	6.690	6.705	-0.015	83402	0.5000	0.4791	
5 2,4,6-Trinitrophenol	1	8.583	8.612	-0.029	81048	0.5000	0.5353	
8 RDX	1	8.923	8.938	-0.015	106344	0.5000	0.5145	
9 Nitrobenzene	1	11.423	11.425	-0.002	205098	0.5000	0.5367	
$ 10 1,2-Dinitrobenzene	1	12.350	12.345	0.005	129043	0.5000	0.4988	
11 3,5-Dinitroaniline	1	14.190	14.185	0.005	233542	0.5000	0.5401	
12 1,3-Dinitrobenzene	1	14.477	14.478	-0.001	311409	0.5000	0.5283	
13 Nitroglycerin	2	14.930	14.918	0.012	645227	5.00	5.40	M
14 o-Nitrotoluene	1	15.510	15.505	0.005	127803	0.5000	0.5225	
15 p-Nitrotoluene	1	15.737	15.738	-0.001	118881	0.5000	0.5418	
16 4-Amino-2,6-dinitrotoluene	1	16.243	16.245	-0.002	149332	0.5000	0.5513	
17 m-Nitrotoluene	1	16.570	16.578	-0.008	147011	0.5000	0.5299	
18 2-Amino-4,6-dinitrotoluene	1	17.050	17.058	-0.008	205774	0.5000	0.5074	
19 1,3,5-Trinitrobenzene	1	17.263	17.272	-0.009	231730	0.5000	0.5472	
20 2,6-Dinitrotoluene	1	18.357	18.365	-0.008	141131	0.5000	0.5077	
21 2,4-Dinitrotoluene	1	18.810	18.818	-0.008	285532	0.5000	0.5149	
22 Tetryl	1	22.030	22.025	0.005	170273	0.5000	0.5444	
23 2,4,6-Trinitrotoluene	1	22.883	22.878	0.005	210802	0.5000	0.5273	
24 PETN	2	24.030	24.032	-0.002	696781	5.00	5.65	
25 Ammonium Picrate	1		0.000			ND	ND	

QC Flag Legend

Processing Flags
ND - Not Detected or Marked ND
Review Flags
M - Manually Integrated

Reagents:

8330Surrogate_00154	Amount Added:	50.00	Units: uL
8330 LCS_00134	Amount Added:	50.00	Units: uL

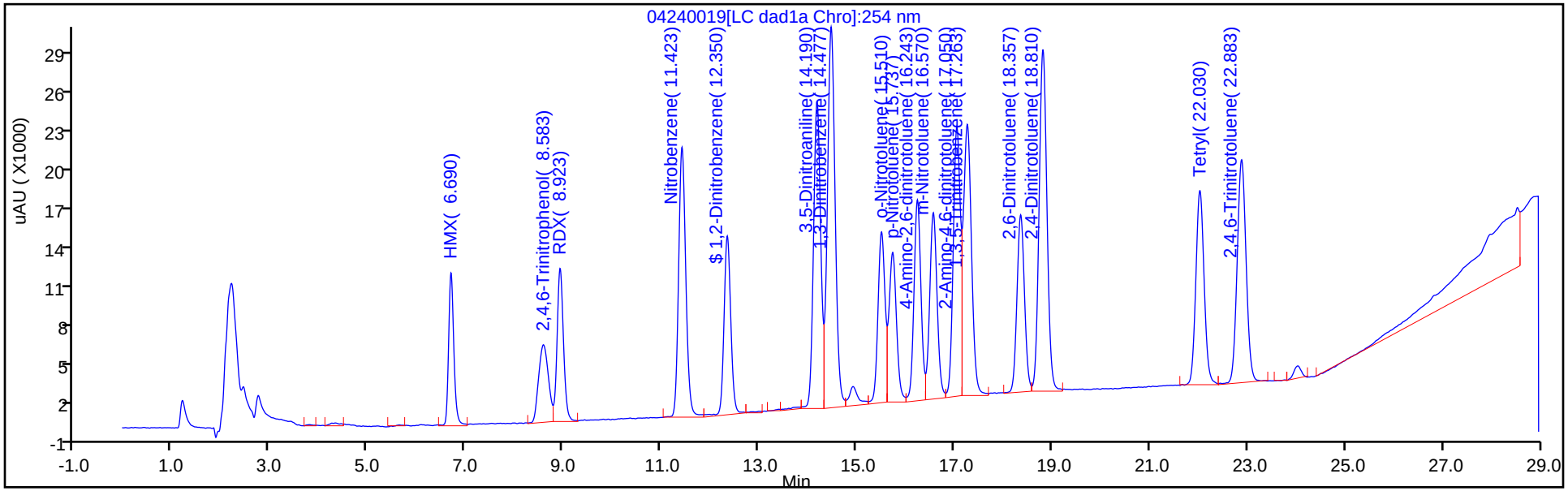
Report Date: 25-Apr-2024 14:35:28 Chrom Revision: 2.3 09-Apr-2024 17:43:44

Eurofins Denver

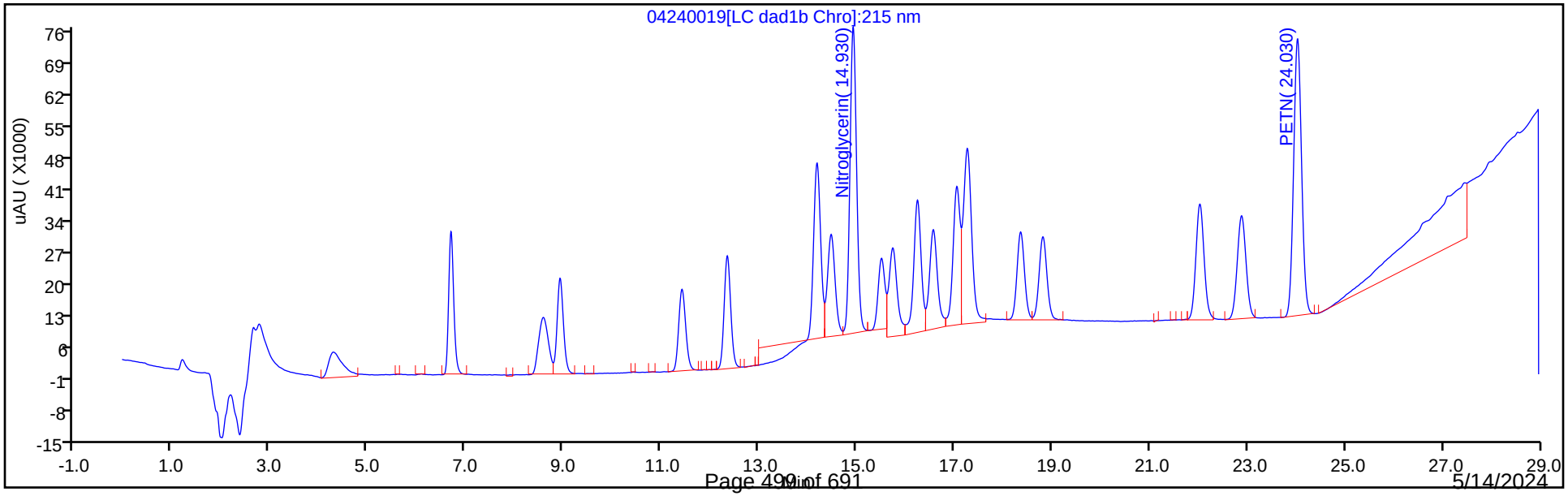
Data File: \\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240019.d

Injection Date:	25-Apr-2024 02:51:47	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	JZ/JG
Lims ID:	ICV INT			Worklist Smp#:	19
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	19
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



5/14/2024
9:20:15 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

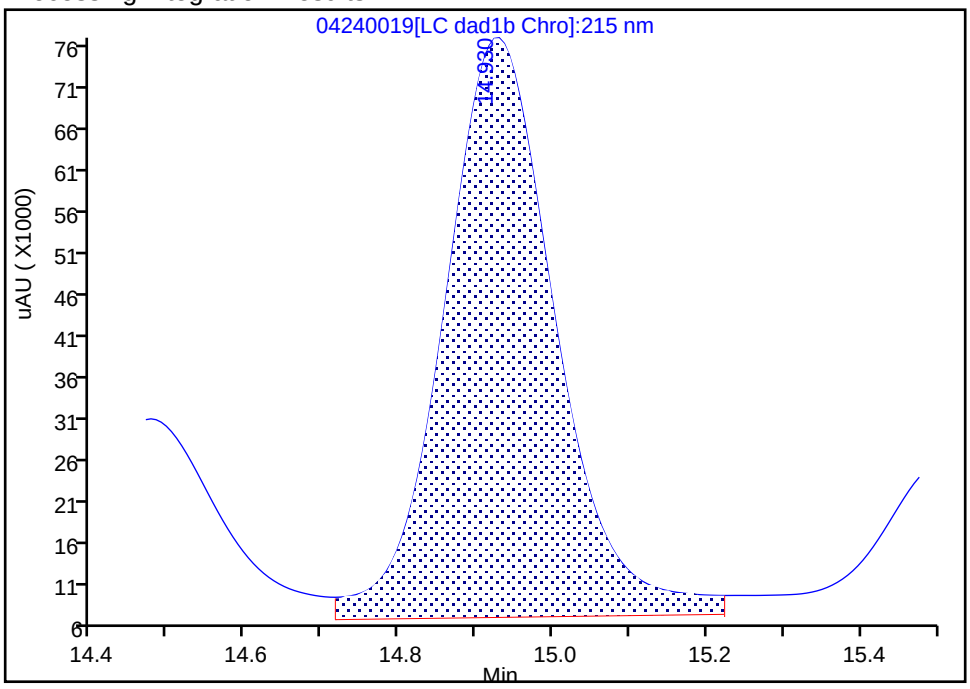
Data File:	\\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240019.d				
Injection Date:	25-Apr-2024 02:51:47	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	ICV INT				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1B, 215 nm		

13 Nitroglycerin, CAS: 55-63-0

Signal: 1

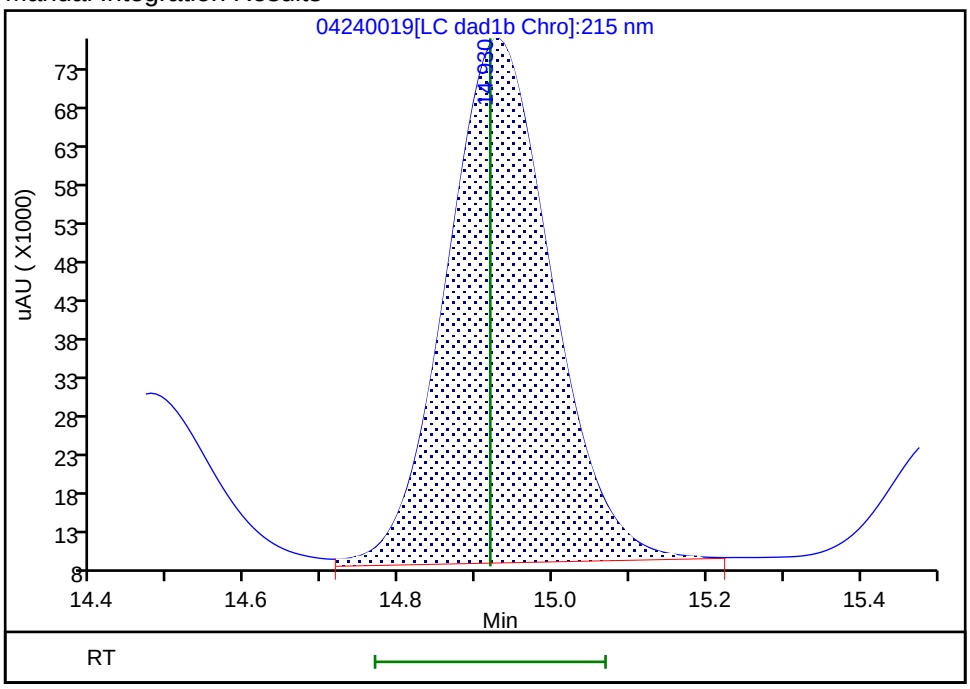
Processing Integration Results

RT: 14.93
Area: 708140
Amount: 5.925621
Amount Units: ug/ml



Manual Integration Results

RT: 14.93
Area: 645227
Amount: 5.399174
Amount Units: ug/ml



Reviewer: LV5D, 25-Apr-2024 13:30:07 -06:00:00 (UTC)
Audit Action: Assigned New Baseline Audit Reason: Baseline

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver | Job No.: 280-190988-1

SDG No.:

Lab Sample ID: CCV 280-653003/7 | Calibration Date: 05/10/2024 18:20

Instrument ID: CHHPLC_G2_LUNA | Calib Start Date: 04/24/2024 21:28

GC Column: Luna-phenylhex ID: 4.60(mm) | Calib End Date: 04/25/2024 02:15

Lab File ID: 05100007.D | Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
HMX	Ave	174076	179608		258	250	3.2	20.0
Picric acid	Ave	151397	157040		259	250	3.7	20.0
RDX	Lin2		212948		256	250	2.5	20.0
Nitrobenzene	Ave	382120	388052		254	250	1.6	20.0
3,5-Dinitroaniline	Lin2		448368		258	250	3.2	20.0
1,3-Dinitrobenzene	Ave	589418	592220		251	250	0.5	20.0
Nitroglycerin	Ave	119505	123748		2590	2500	3.6	20.0
2-Nitrotoluene	Ave	244594	259124		265	250	5.9	20.0
4-Nitrotoluene	Lin2		229876		260	250	3.9	20.0
4-Amino-2,6-dinitrotoluene	Lin2		281144		258	250	3.2	20.0
3-Nitrotoluene	Lin2		290096		260	250	3.9	20.0
2-Amino-4,6-dinitrotoluene	Ave	405562	402936		248	250	-0.6	20.0
1,3,5-Trinitrobenzene	Ave	423454	430136		254	250	1.6	20.0
2,6-Dinitrotoluene	Ave	277970	289628		260	250	4.2	20.0
2,4-Dinitrotoluene	Ave	554564	561576		253	250	1.3	20.0
Tetryl	Lin2		329780		263	250	5.1	20.0
2,4,6-Trinitrotoluene	Ave	399763	430888		269	250	7.8	20.0
PETN	Lin2		125378		2550	2500	2.1	20.0
1,2-Dinitrobenzene	Ave	258689	267604		259	250	3.4	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-190988-1

SDG No.:

Lab Sample ID: CCV 280-653003/7 Calibration Date: 05/10/2024 18:20

Instrument ID: CHHPLC_G2_LUNA Calib Start Date: 04/24/2024 21:28

GC Column: Luna-phenylhex ID: 4.60(mm) Calib End Date: 04/25/2024 02:15

Lab File ID: 05100007.D

Analyte	RT	RT WINDOW	
		FROM	TO
HMX	6.65	6.50	6.80
Picric acid	8.57	8.42	8.72
RDX	8.86	8.71	9.01
Nitrobenzene	11.37	11.22	11.52
3,5-Dinitroaniline	14.10	13.95	14.25
1,3-Dinitrobenzene	14.41	14.26	14.56
Nitroglycerin	14.87	14.72	15.02
2-Nitrotoluene	15.45	15.30	15.60
4-Nitrotoluene	15.68	15.53	15.83
4-Amino-2,6-dinitrotoluene	16.16	16.01	16.31
3-Nitrotoluene	16.52	16.37	16.67
2-Amino-4,6-dinitrotoluene	16.97	16.82	17.12
1,3,5-Trinitrobenzene	17.21	17.06	17.36
2,6-Dinitrotoluene	18.27	18.12	18.42
2,4-Dinitrotoluene	18.73	18.58	18.88
Tetryl	21.89	21.74	22.04
2,4,6-Trinitrotoluene	22.75	22.60	22.90
PETN	23.89	23.74	24.04
1,2-Dinitrobenzene	12.27	12.12	12.42

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2_LUNA\20240510-133267.b\05100007.D
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 10-May-2024 18:20:54 ALS Bottle#: 7 Worklist Smp#: 7
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: CCV
Operator ID: JZ Instrument ID: CHHPLC_G2_LUNA
Sublist: chrom-G2_8330_Luna*sub16

Method: \\chromfs\Denver\ChromData\G2_LUNA\20240510-133267.b\G2_8330_Luna.m
Limit Group: GCSV - 8330
Last Update: 11-May-2024 12:30:17 Calib Date: 25-Apr-2024 07:39:21
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\G2_LUNA\20240424-132624.b\04240027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC DAD1A, 254 nm
Process Host: CTX1652

First Level Reviewer: LV5D Date: 10-May-2024 19:19:55

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
6 HMX	1	6.652	6.652	0.000	44902	0.2500	0.2579	
5 2,4,6-Trinitrophenol	1	8.566	8.566	0.000	39260	0.2500	0.2593	
8 RDX	1	8.859	8.859	0.000	53237	0.2500	0.2562	
9 Nitrobenzene	1	11.372	11.372	0.000	97013	0.2500	0.2539	
$ 10 1,2-Dinitrobenzene	1	12.272	12.272	0.000	66901	0.2500	0.2586	
11 3,5-Dinitroaniline	1	14.099	14.099	0.000	112092	0.2500	0.2581	M
12 1,3-Dinitrobenzene	1	14.412	14.412	0.000	148055	0.2500	0.2512	M
13 Nitroglycerin	2	14.872	14.872	0.000	309370	2.50	2.59	M
14 o-Nitrotoluene	1	15.452	15.452	0.000	64781	0.2500	0.2649	M
15 p-Nitrotoluene	1	15.679	15.679	0.000	57469	0.2500	0.2597	M
16 4-Amino-2,6-dinitrotoluene	1	16.159	16.159	0.000	70286	0.2500	0.2580	M
17 m-Nitrotoluene	1	16.519	16.519	0.000	72524	0.2500	0.2596	M
18 2-Amino-4,6-dinitrotoluene	1	16.966	16.966	0.000	100734	0.2500	0.2484	M
19 1,3,5-Trinitrobenzene	1	17.206	17.206	0.000	107534	0.2500	0.2539	M
20 2,6-Dinitrotoluene	1	18.272	18.272	0.000	72407	0.2500	0.2605	M
21 2,4-Dinitrotoluene	1	18.726	18.726	0.000	140394	0.2500	0.2532	M
22 Tetryl	1	21.886	21.886	0.000	82445	0.2500	0.2628	
23 2,4,6-Trinitrotoluene	1	22.746	22.746	0.000	107722	0.2500	0.2695	
24 PETN	2	23.892	23.892	0.000	313444	2.50	2.55	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330IntermStk_00080 Amount Added: 25.00 Units: uL

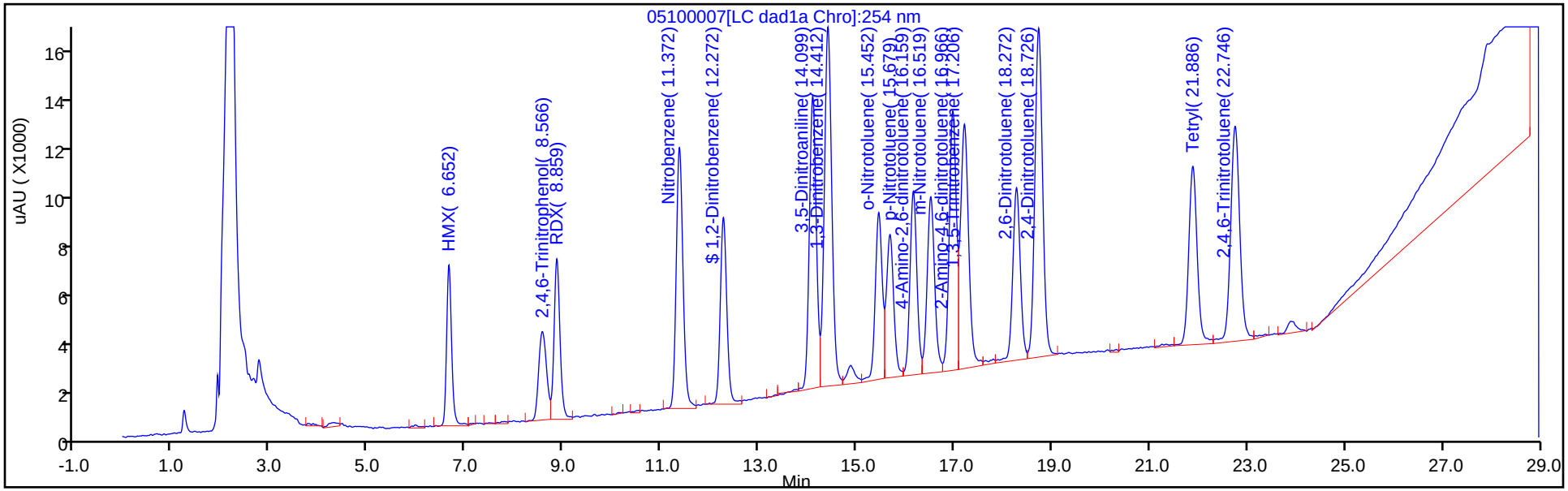
Report Date: 11-May-2024 12:30:17 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

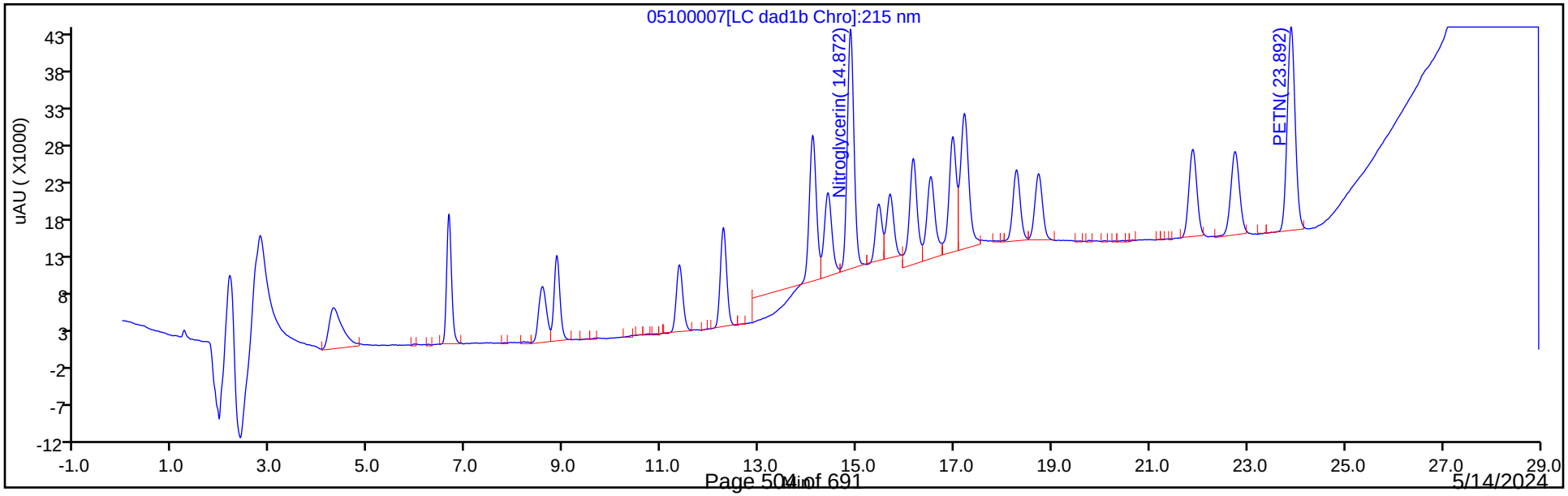
Data File: \\chromfs\denver\chromdata\g2_luna\20240510-133267.b\05100007.d

Injection Date:	10-May-2024 18:20:54	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	JZ
Lims ID:	CCV			Worklist Smp#:	7
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Manual Integration/User Assign Peak Report

Eurofins Denver

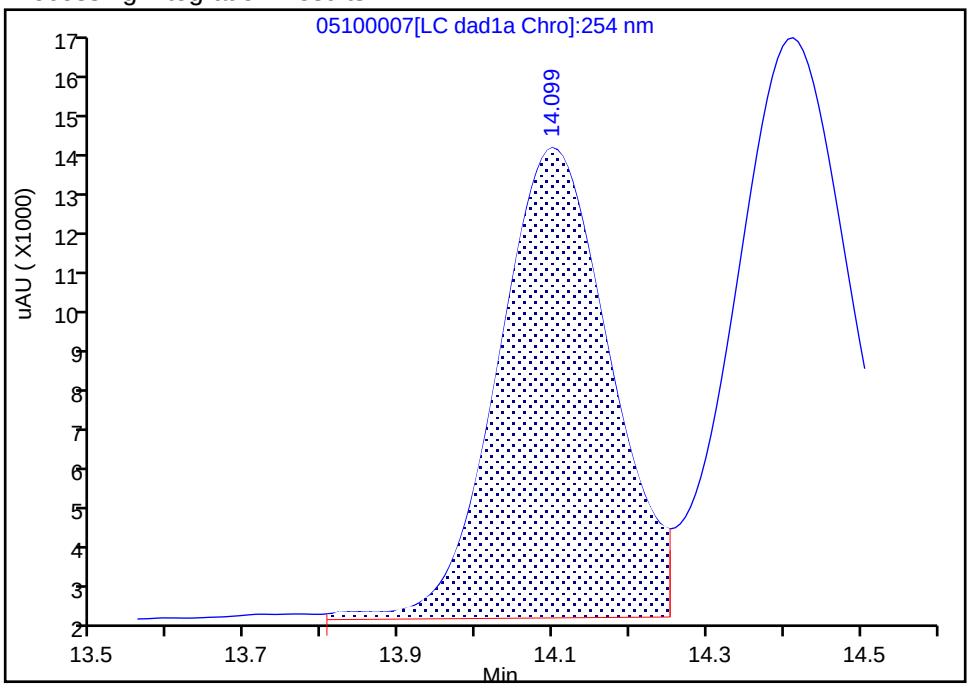
Data File:	\\chromfs\denver\chromdata\g2_luna\20240510-133267.b\05100007.d				
Injection Date:	10-May-2024 18:20:54	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	CCV				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	7	Worklist Smp#:	7
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

11 3,5-Dinitroaniline, CAS: 618-87-1

Signal: 1

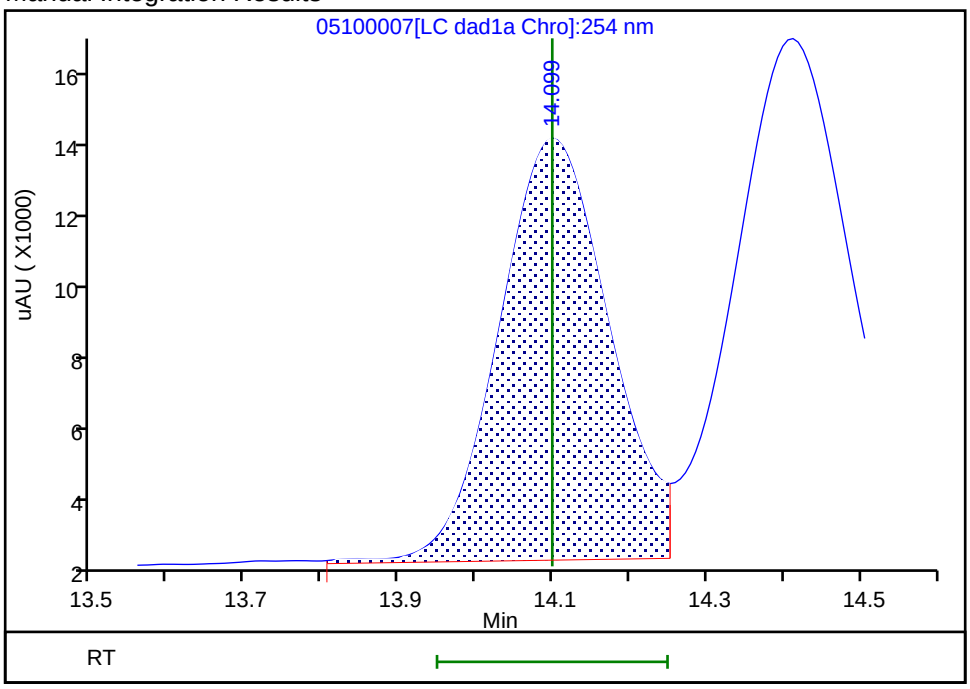
Processing Integration Results

RT: 14.10
Area: 115375
Amount: 0.265728
Amount Units: ug/ml



Manual Integration Results

RT: 14.10
Area: 112092
Amount: 0.258106
Amount Units: ug/ml



Reviewer: LV5D, 10-May-2024 19:19:53 -06:00:00 (UTC)
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

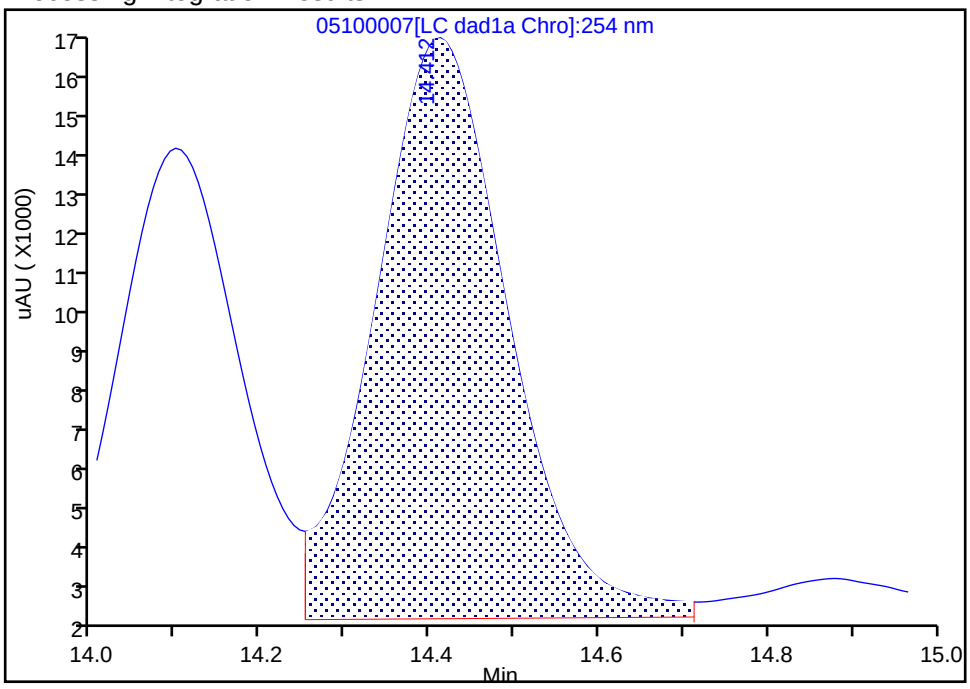
Data File:	\\chromfs\denver\chromdata\g2_luna\20240510-133267.b\05100007.d				
Injection Date:	10-May-2024 18:20:54	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	CCV				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	7	Worklist Smp#:	7
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

12 1,3-Dinitrobenzene, CAS: 99-65-0

Signal: 1

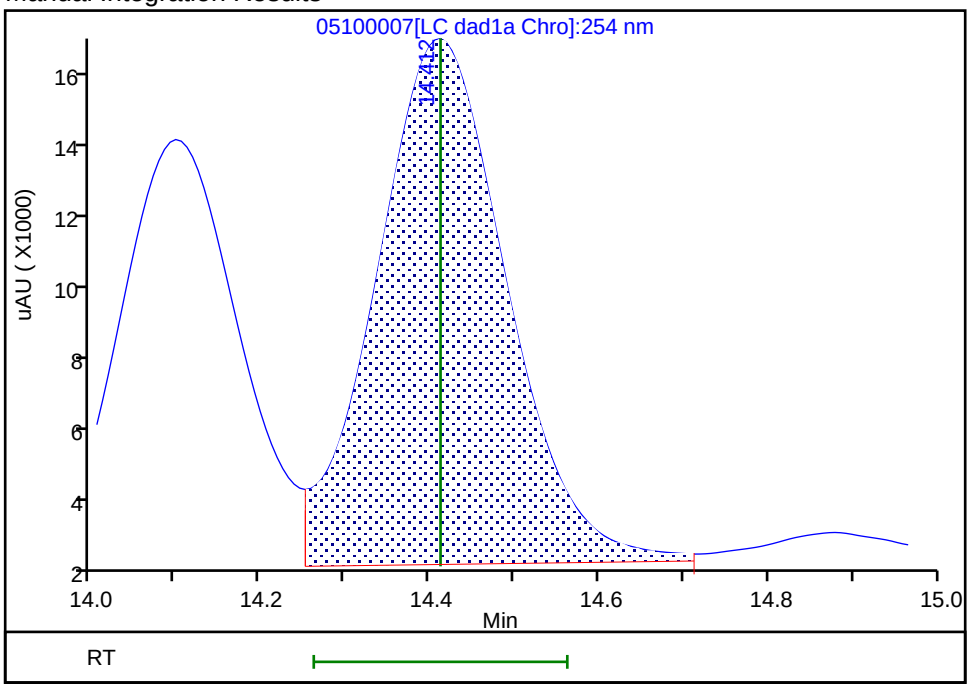
Processing Integration Results

RT: 14.41
Area: 152719
Amount: 0.259101
Amount Units: ug/ml



Manual Integration Results

RT: 14.41
Area: 148055
Amount: 0.251188
Amount Units: ug/ml



Reviewer: LV5D, 10-May-2024 19:19:53 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

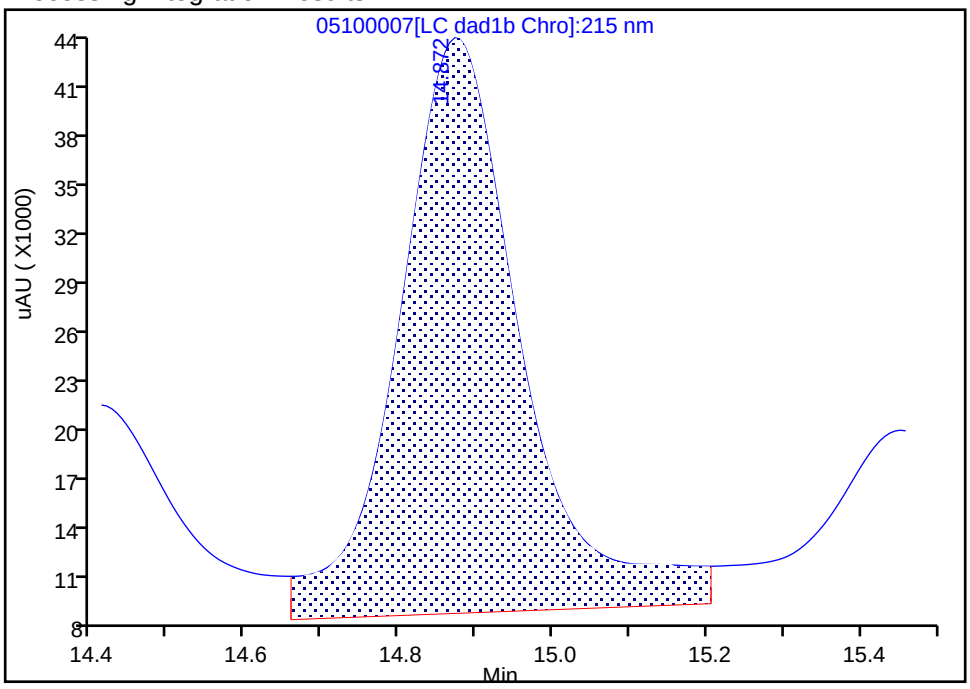
Data File:	\\chromfs\denver\chromdata\g2_luna\20240510-133267.b\05100007.d				
Injection Date:	10-May-2024 18:20:54	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	CCV				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	7	Worklist Smp#:	7
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1B, 215 nm		

13 Nitroglycerin, CAS: 55-63-0

Signal: 1

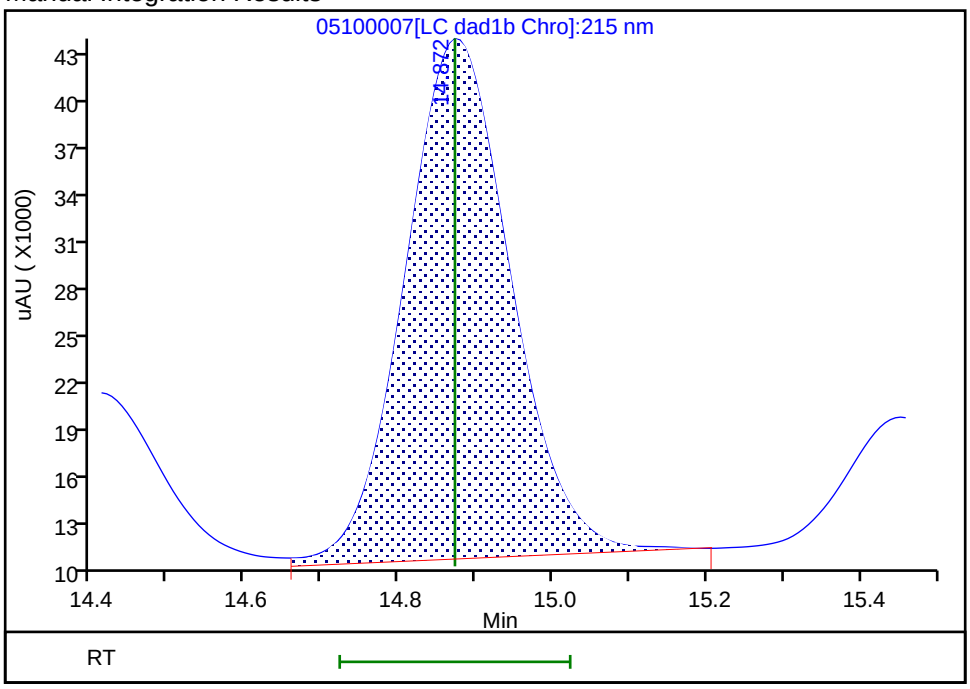
Processing Integration Results

RT: 14.87
Area: 381825
Amount: 3.195061
Amount Units: ug/ml



Manual Integration Results

RT: 14.87
Area: 309370
Amount: 2.588767
Amount Units: ug/ml



Reviewer: LV5D, 10-May-2024 19:19:46 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

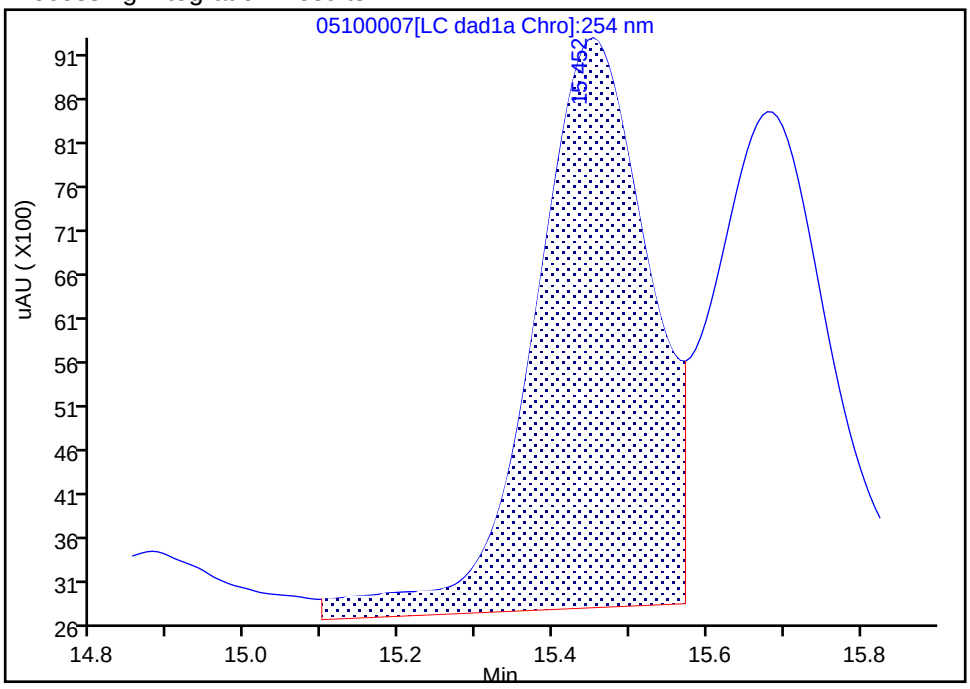
Data File:	\\chromfs\denver\chromdata\g2_luna\20240510-133267.b\05100007.d				
Injection Date:	10-May-2024 18:20:54	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	CCV				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	7	Worklist Smp#:	7
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

14 o-Nitrotoluene, CAS: 88-72-2

Signal: 1

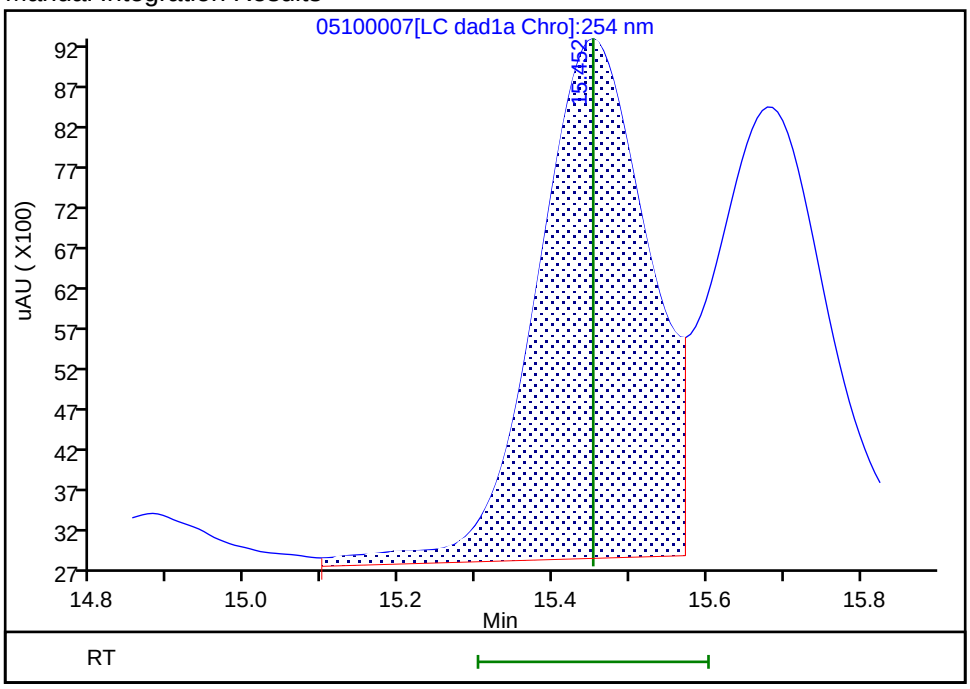
Processing Integration Results

RT: 15.45
Area: 68217
Amount: 0.278898
Amount Units: ug/ml



Manual Integration Results

RT: 15.45
Area: 64781
Amount: 0.264851
Amount Units: ug/ml



Reviewer: LV5D, 10-May-2024 19:19:53 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

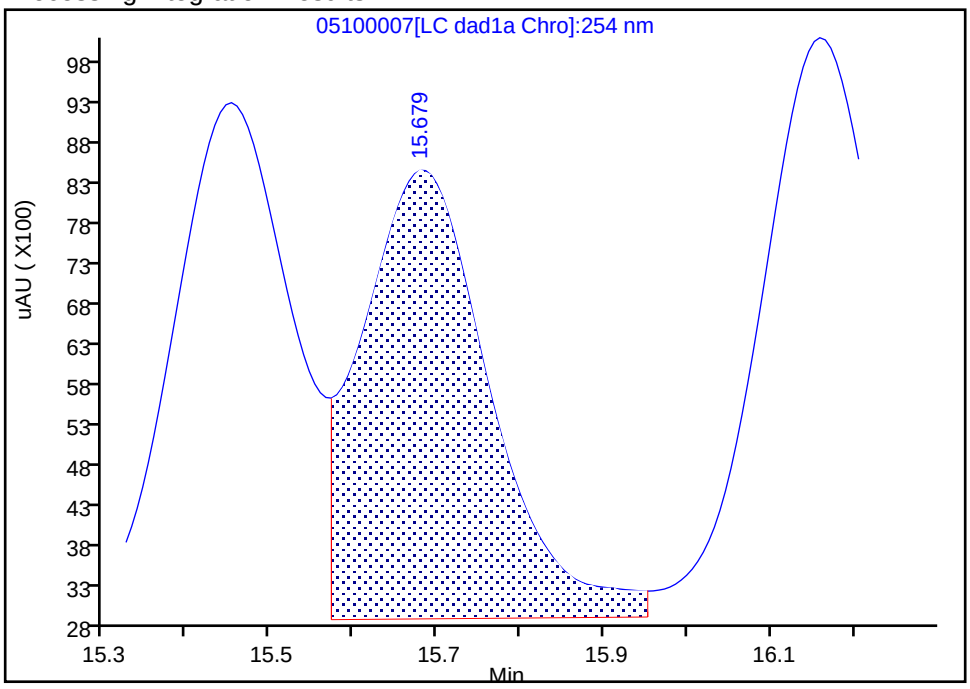
Data File:	\\chromfs\denver\chromdata\g2_luna\20240510-133267.b\05100007.d				
Injection Date:	10-May-2024 18:20:54	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	CCV				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	7	Worklist Smp#:	7
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

15 p-Nitrotoluene, CAS: 99-99-0

Signal: 1

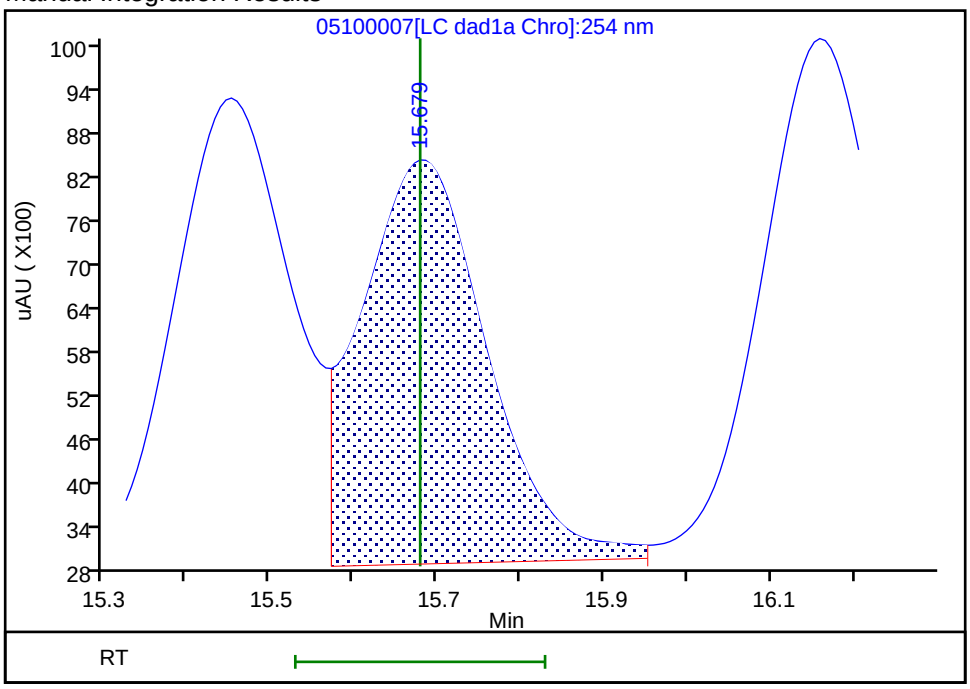
Processing Integration Results

RT: 15.68
Area: 60148
Amount: 0.272046
Amount Units: ug/ml



Manual Integration Results

RT: 15.68
Area: 57469
Amount: 0.259741
Amount Units: ug/ml



Reviewer: LV5D, 10-May-2024 19:19:53 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

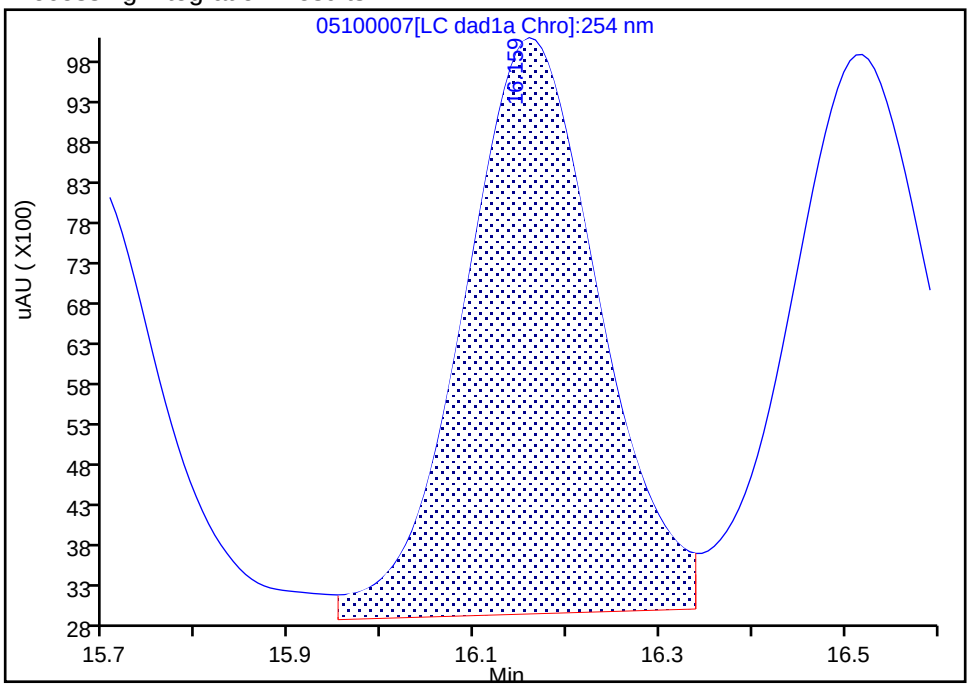
Data File:	\\chromfs\denver\chromdata\g2_luna\20240510-133267.b\05100007.d				
Injection Date:	10-May-2024 18:20:54	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	CCV				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	7	Worklist Smp#:	7
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

16 4-Amino-2,6-dinitrotoluene, CAS: 19406-51-0

Signal: 1

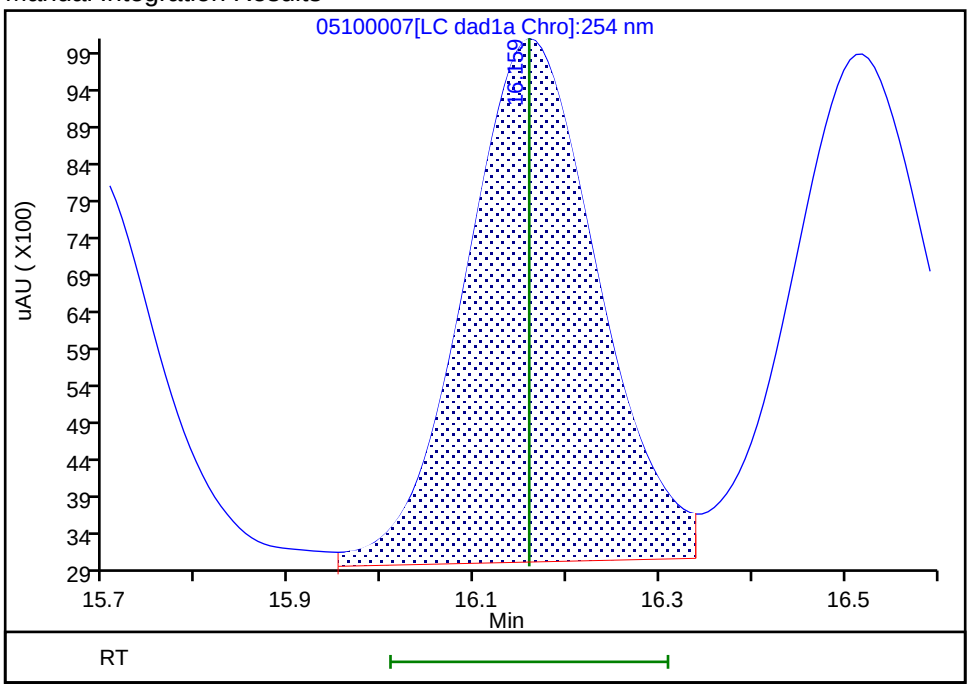
Processing Integration Results

RT: 16.16
Area: 73244
Amount: 0.269011
Amount Units: ug/ml



Manual Integration Results

RT: 16.16
Area: 70286
Amount: 0.258036
Amount Units: ug/ml



Reviewer: LV5D, 10-May-2024 19:19:53 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

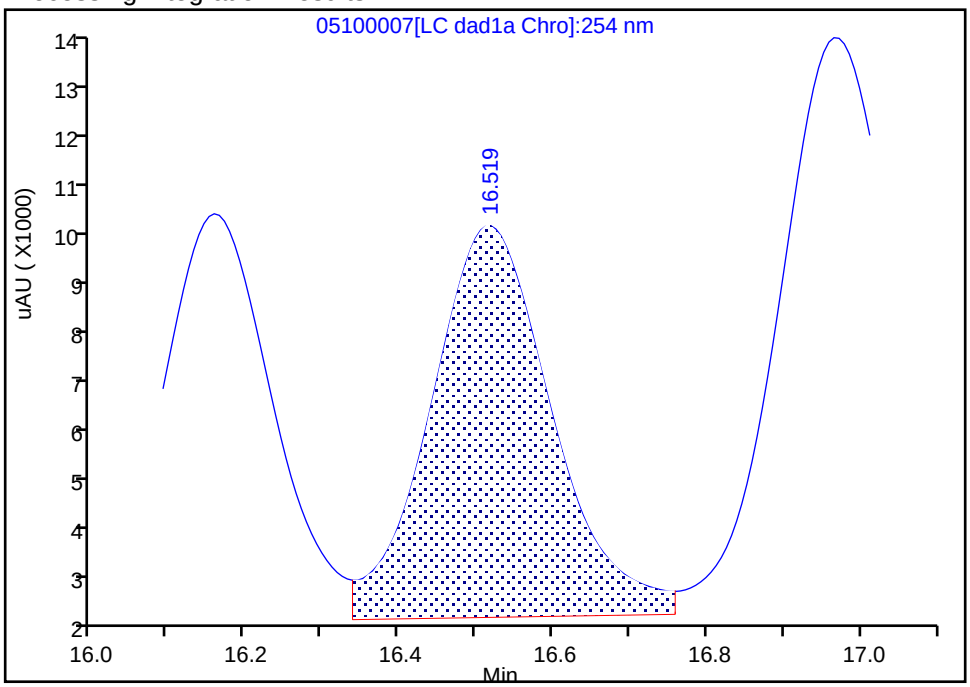
Data File:	\\chromfs\denver\chromdata\g2_luna\20240510-133267.b\05100007.d				
Injection Date:	10-May-2024 18:20:54	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	CCV				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	7	Worklist Smp#:	7
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

17 m-Nitrotoluene, CAS: 99-08-1

Signal: 1

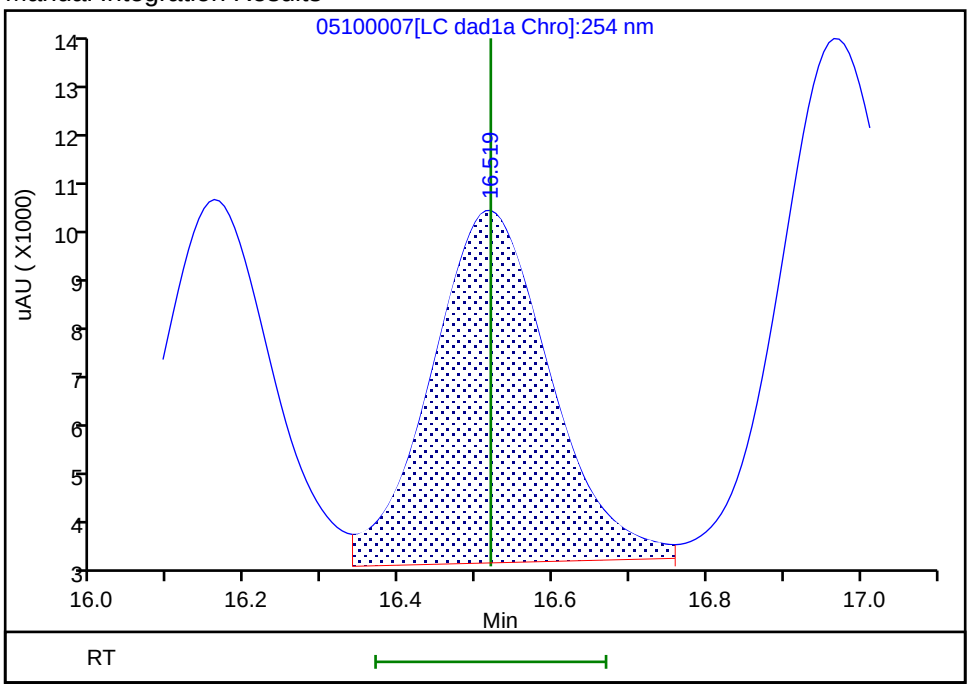
Processing Integration Results

RT: 16.52
Area: 75233
Amount: 0.269475
Amount Units: ug/ml



Manual Integration Results

RT: 16.52
Area: 72524
Amount: 0.259645
Amount Units: ug/ml



Reviewer: LV5D, 10-May-2024 19:19:53 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

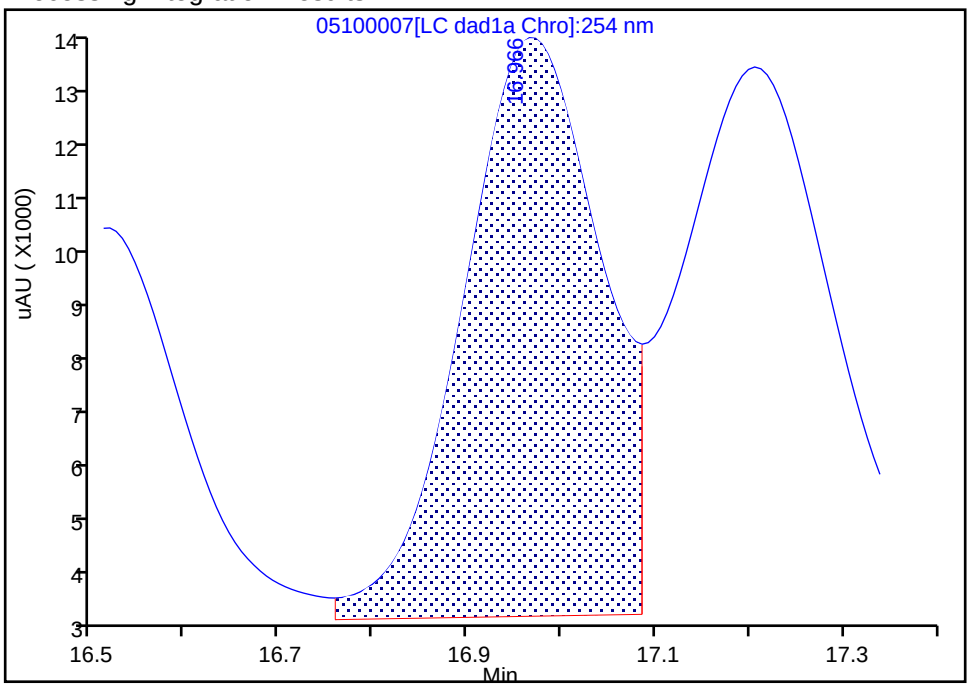
Data File:	\\chromfs\denver\chromdata\g2_luna\20240510-133267.b\05100007.d				
Injection Date:	10-May-2024 18:20:54	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	CCV				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	7	Worklist Smp#:	7
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

18 2-Amino-4,6-dinitrotoluene, CAS: 35572-78-2

Signal: 1

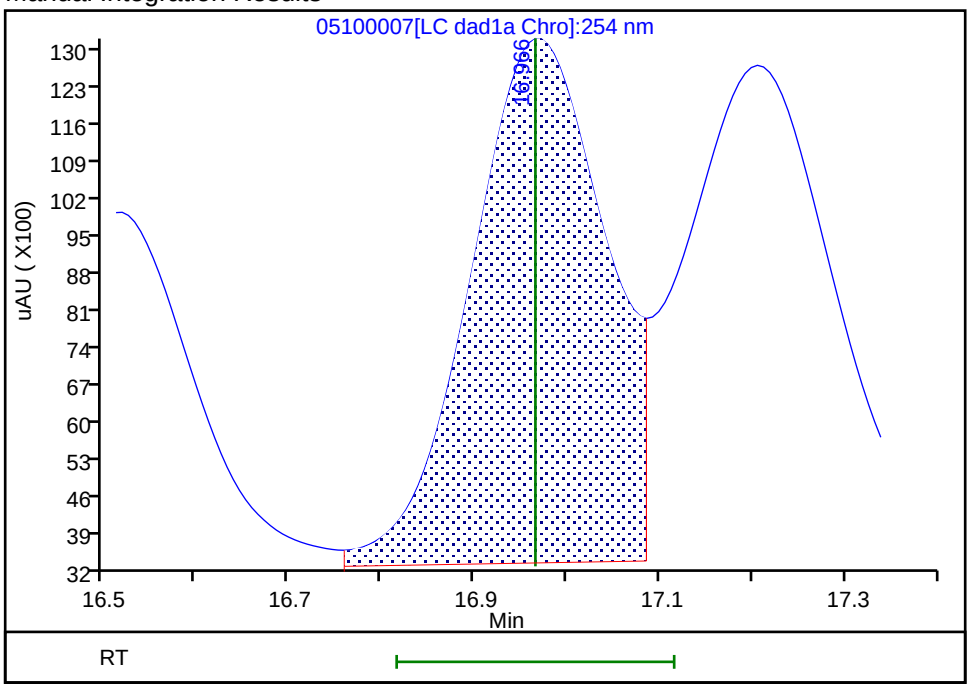
Processing Integration Results

RT: 16.97
Area: 102479
Amount: 0.252684
Amount Units: ug/ml



Manual Integration Results

RT: 16.97
Area: 100734
Amount: 0.248381
Amount Units: ug/ml



Reviewer: LV5D, 10-May-2024 19:19:53 -06:00:00 (UTC)
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

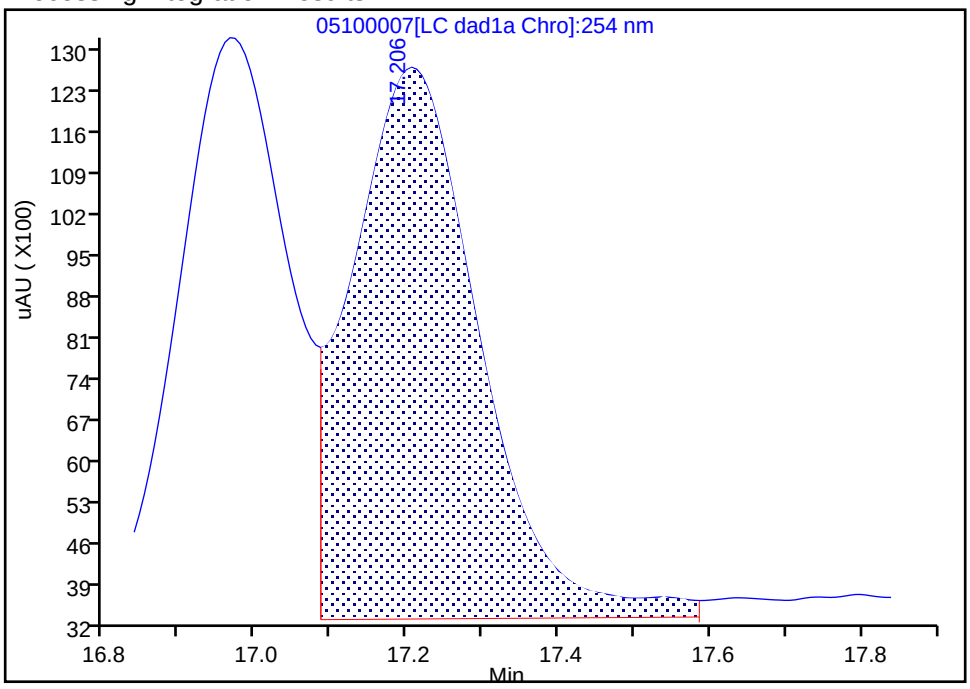
Data File:	\\chromfs\denver\chromdata\g2_luna\20240510-133267.b\05100007.d				
Injection Date:	10-May-2024 18:20:54	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	CCV				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	7	Worklist Smp#:	7
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

19 1,3,5-Trinitrobenzene, CAS: 99-35-4

Signal: 1

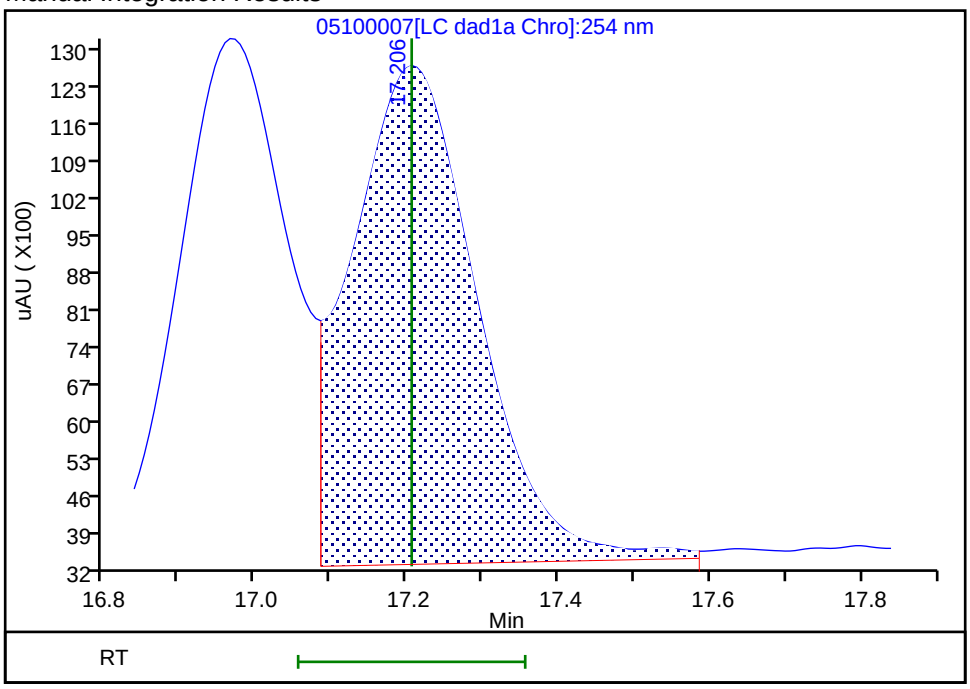
Processing Integration Results

RT: 17.21
Area: 110984
Amount: 0.262092
Amount Units: ug/ml



Manual Integration Results

RT: 17.21
Area: 107534
Amount: 0.253945
Amount Units: ug/ml



Reviewer: LV5D, 10-May-2024 19:19:53 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

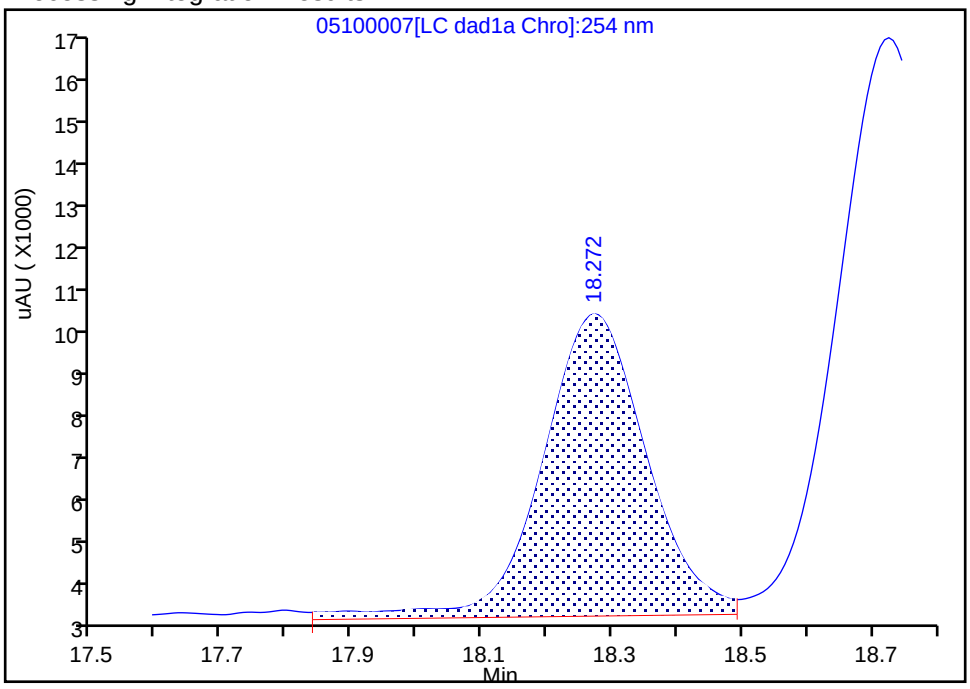
Data File:	\\chromfs\denver\chromdata\g2_luna\20240510-133267.b\05100007.d				
Injection Date:	10-May-2024 18:20:54	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	CCV				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	7	Worklist Smp#:	7
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

20 2,6-Dinitrotoluene, CAS: 606-20-2

Signal: 1

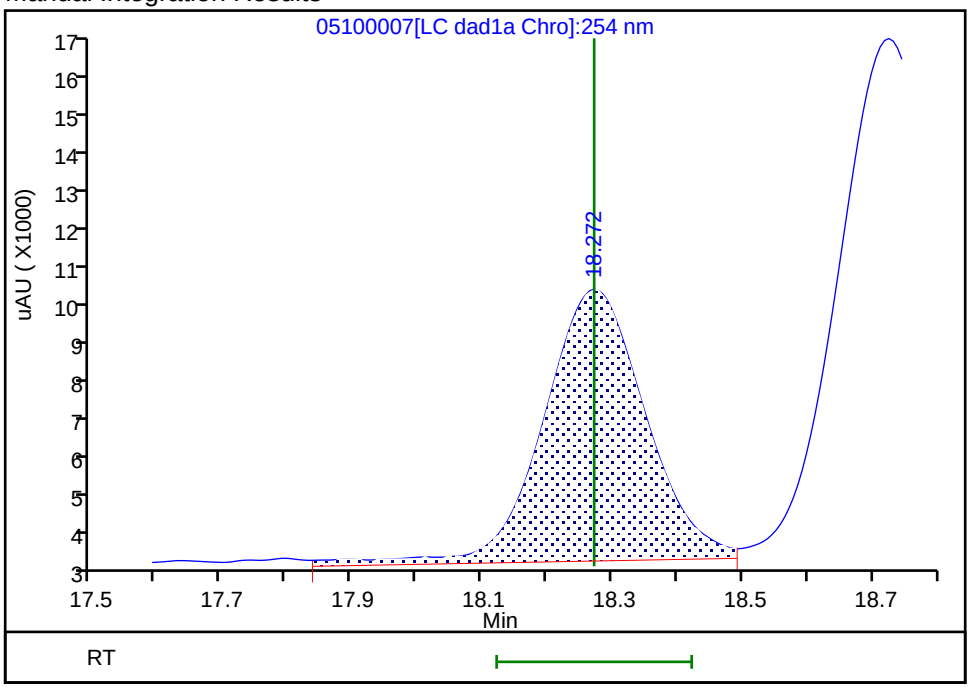
Processing Integration Results

RT: 18.27
Area: 75229
Amount: 0.270637
Amount Units: ug/ml



Manual Integration Results

RT: 18.27
Area: 72407
Amount: 0.260485
Amount Units: ug/ml



Reviewer: LV5D, 10-May-2024 19:19:53 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

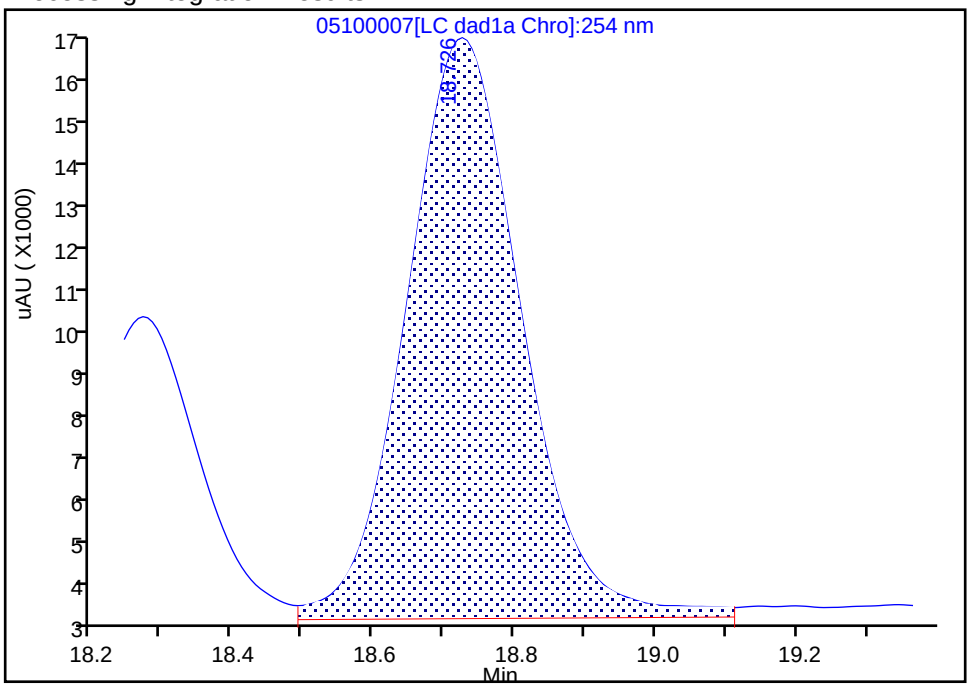
Data File:	\\chromfs\denver\chromdata\g2_luna\20240510-133267.b\05100007.d				
Injection Date:	10-May-2024 18:20:54	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	CCV				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	7	Worklist Smp#:	7
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

21 2,4-Dinitrotoluene, CAS: 121-14-2

Signal: 1

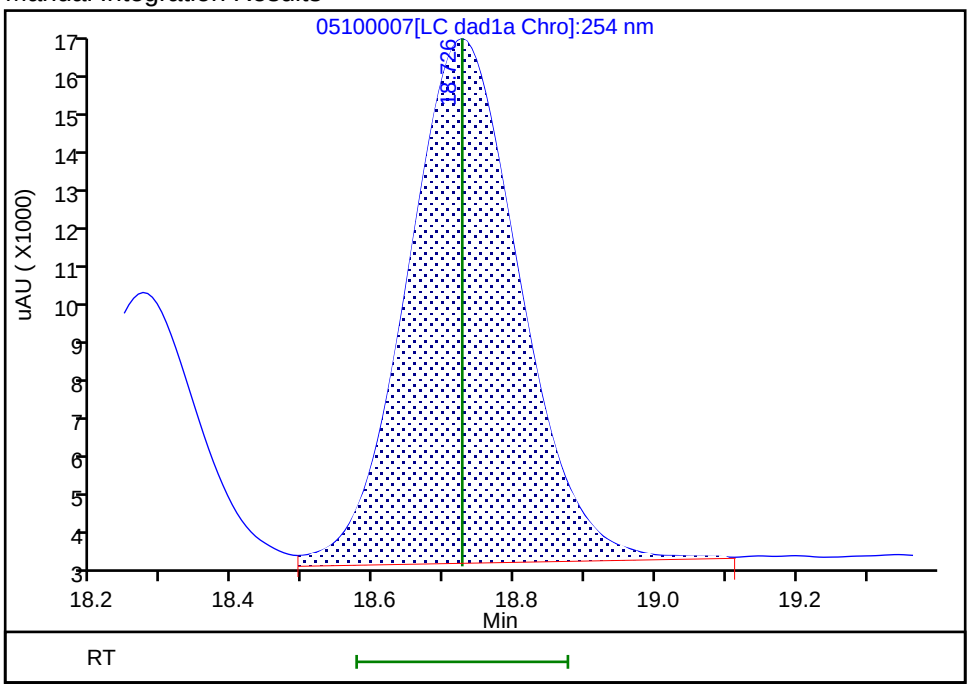
Processing Integration Results

RT: 18.73
Area: 145081
Amount: 0.261613
Amount Units: ug/ml



Manual Integration Results

RT: 18.73
Area: 140394
Amount: 0.253161
Amount Units: ug/ml



Reviewer: LV5D, 10-May-2024 19:19:53 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver | Job No.: 280-190988-1

SDG No.:

Lab Sample ID: CCV 280-653003/20 | Calibration Date: 05/11/2024 00:56

Instrument ID: CHHPLC_G2_LUNA | Calib Start Date: 04/24/2024 21:28

GC Column: Luna-phenylhex ID: 4.60(mm) | Calib End Date: 04/25/2024 02:15

Lab File ID: 05100020.D | Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
HMX	Ave	174076	177936		256	250	2.2	20.0
Picric acid	Ave	151397	164252		271	250	8.5	20.0
RDX	Lin2		213720		257	250	2.9	20.0
Nitrobenzene	Ave	382120	394576		258	250	3.3	20.0
3,5-Dinitroaniline	Lin2		454672		262	250	4.7	20.0
1,3-Dinitrobenzene	Ave	589418	596896		253	250	1.3	20.0
Nitroglycerin	Ave	119505	124837		2610	2500	4.5	20.0
2-Nitrotoluene	Ave	244594	253480		259	250	3.6	20.0
4-Nitrotoluene	Lin2		227664		257	250	2.9	20.0
4-Amino-2,6-dinitrotoluene	Lin2		284832		261	250	4.6	20.0
3-Nitrotoluene	Lin2		287692		257	250	3.0	20.0
2-Amino-4,6-dinitrotoluene	Ave	405562	397572		245	250	-2.0	20.0
1,3,5-Trinitrobenzene	Ave	423454	433880		256	250	2.5	20.0
2,6-Dinitrotoluene	Ave	277970	275636		248	250	-0.8	20.0
2,4-Dinitrotoluene	Ave	554564	560624		253	250	1.1	20.0
Tetryl	Lin2		319352		254	250	1.8	20.0
2,4,6-Trinitrotoluene	Ave	399763	415848		260	250	4.0	20.0
PETN	Lin2		132054		2690	2500	7.5	20.0
1,2-Dinitrobenzene	Ave	258689	265948		257	250	2.8	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-190988-1

SDG No.:

Lab Sample ID: CCV 280-653003/20 Calibration Date: 05/11/2024 00:56

Instrument ID: CHHPLC_G2_LUNA Calib Start Date: 04/24/2024 21:28

GC Column: Luna-phenylhex ID: 4.60(mm) Calib End Date: 04/25/2024 02:15

Lab File ID: 05100020.D

Analyte	RT	RT WINDOW	
		FROM	TO
HMX	6.63	6.50	6.80
Picric acid	8.49	8.42	8.72
RDX	8.84	8.71	9.01
Nitrobenzene	11.37	11.22	11.52
3,5-Dinitroaniline	14.07	13.95	14.25
1,3-Dinitrobenzene	14.39	14.26	14.56
Nitroglycerin	14.85	14.72	15.02
2-Nitrotoluene	15.43	15.30	15.60
4-Nitrotoluene	15.65	15.53	15.83
4-Amino-2,6-dinitrotoluene	16.12	16.01	16.31
3-Nitrotoluene	16.49	16.37	16.67
2-Amino-4,6-dinitrotoluene	16.92	16.82	17.12
1,3,5-Trinitrobenzene	17.17	17.06	17.36
2,6-Dinitrotoluene	18.23	18.12	18.42
2,4-Dinitrotoluene	18.69	18.58	18.88
Tetryl	21.85	21.74	22.04
2,4,6-Trinitrotoluene	22.73	22.60	22.90
PETN	23.90	23.74	24.04
1,2-Dinitrobenzene	12.26	12.12	12.42

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2_LUNA\20240510-133267.b\05100020.D
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 11-May-2024 00:56:24 ALS Bottle#: 7 Worklist Smp#: 20
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: CCV
Operator ID: JZ Instrument ID: CHHPLC_G2_LUNA
Sublist: chrom-G2_8330_Luna*sub16

Method: \\chromfs\Denver\ChromData\G2_LUNA\20240510-133267.b\G2_8330_Luna.m
Limit Group: GCSV - 8330
Last Update: 11-May-2024 12:30:10 Calib Date: 25-Apr-2024 07:39:21
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\G2_LUNA\20240424-132624.b\04240027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC DAD1A, 254 nm
Process Host: CTX1652

First Level Reviewer: LV5D Date: 11-May-2024 12:25:32

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
6 HMX	1	6.633	6.652	-0.019	44484	0.2500	0.2555	
5 2,4,6-Trinitrophenol	1	8.487	8.566	-0.079	41063	0.2500	0.2712	
8 RDX	1	8.840	8.859	-0.019	53430	0.2500	0.2572	
9 Nitrobenzene	1	11.367	11.372	-0.005	98644	0.2500	0.2581	
$ 10 1,2-Dinitrobenzene	1	12.260	12.272	-0.012	66487	0.2500	0.2570	
11 3,5-Dinitroaniline	1	14.067	14.099	-0.032	113668	0.2500	0.2618	
12 1,3-Dinitrobenzene	1	14.387	14.412	-0.025	149224	0.2500	0.2532	
13 Nitroglycerin	2	14.853	14.872	-0.019	312092	2.50	2.61	M
14 o-Nitrotoluene	1	15.427	15.452	-0.025	63370	0.2500	0.2591	
15 p-Nitrotoluene	1	15.653	15.679	-0.026	56916	0.2500	0.2572	
16 4-Amino-2,6-dinitrotoluene	1	16.120	16.159	-0.039	71208	0.2500	0.2615	
17 m-Nitrotoluene	1	16.487	16.519	-0.032	71923	0.2500	0.2575	
18 2-Amino-4,6-dinitrotoluene	1	16.920	16.966	-0.046	99393	0.2500	0.2451	
19 1,3,5-Trinitrobenzene	1	17.167	17.206	-0.039	108470	0.2500	0.2562	
20 2,6-Dinitrotoluene	1	18.233	18.272	-0.039	68909	0.2500	0.2479	
21 2,4-Dinitrotoluene	1	18.687	18.726	-0.039	140156	0.2500	0.2527	
22 Tetryl	1	21.847	21.886	-0.039	79838	0.2500	0.2545	
23 2,4,6-Trinitrotoluene	1	22.727	22.746	-0.019	103962	0.2500	0.2601	
24 PETN	2	23.900	23.892	0.008	330134	2.50	2.69	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330IntermStk_00080 Amount Added: 25.00 Units: uL

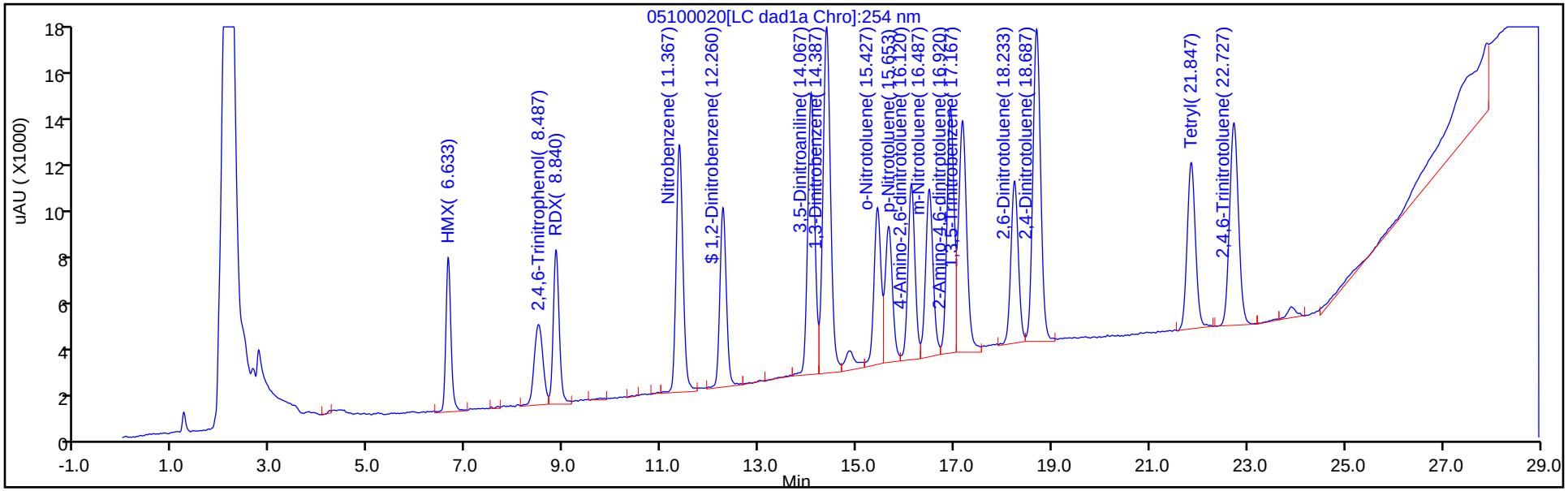
Report Date: 11-May-2024 12:30:10 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

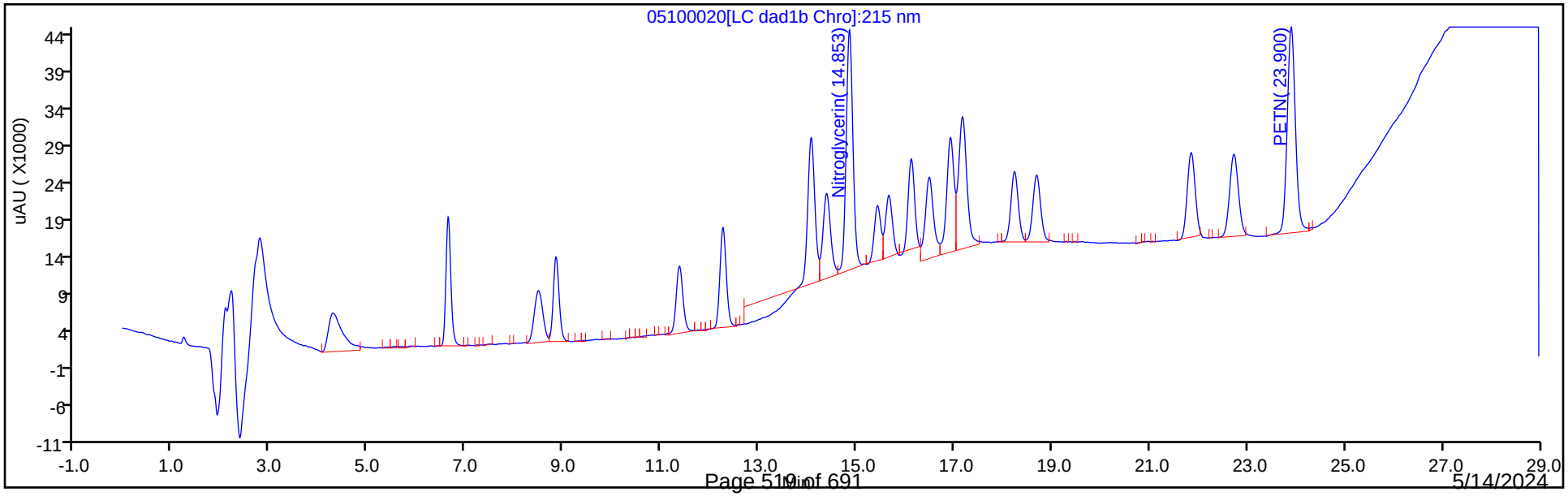
Data File: \\chromfs\denver\chromdata\g2_luna\20240510-133267.b\05100020.d

Injection Date:	11-May-2024 00:56:24	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	JZ
Lims ID:	CCV			Worklist Smp#:	20
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



5/14/2024
9:20:15 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

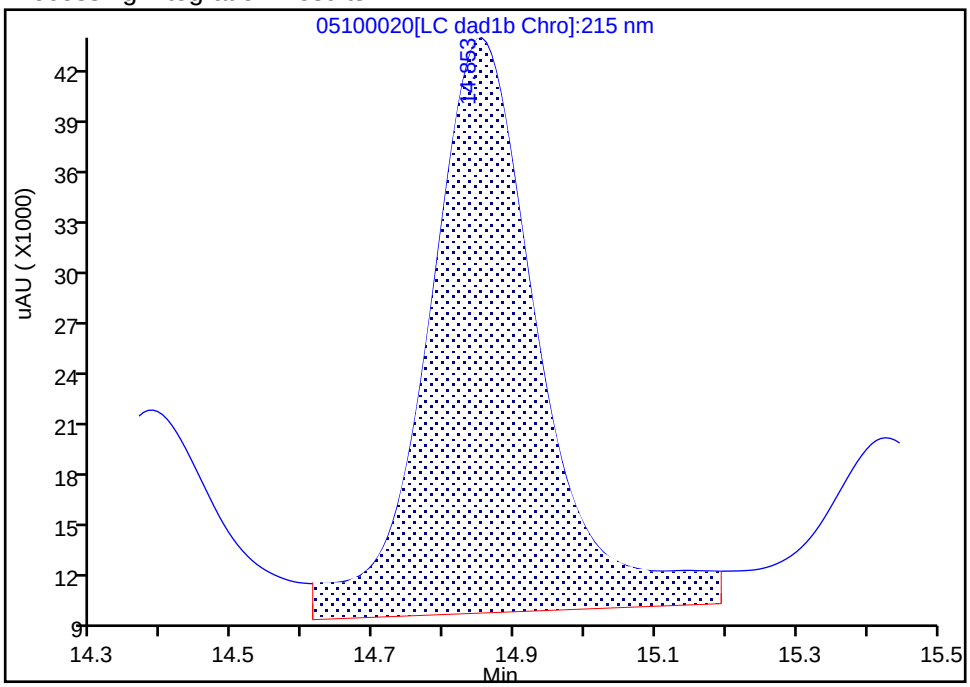
Data File:	\\chromfs\denver\chromdata\g2_luna\20240510-133267.b\05100020.d				
Injection Date:	11-May-2024 00:56:24	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	CCV				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	7	Worklist Smp#:	20
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1B, 215 nm		

13 Nitroglycerin, CAS: 55-63-0

Signal: 1

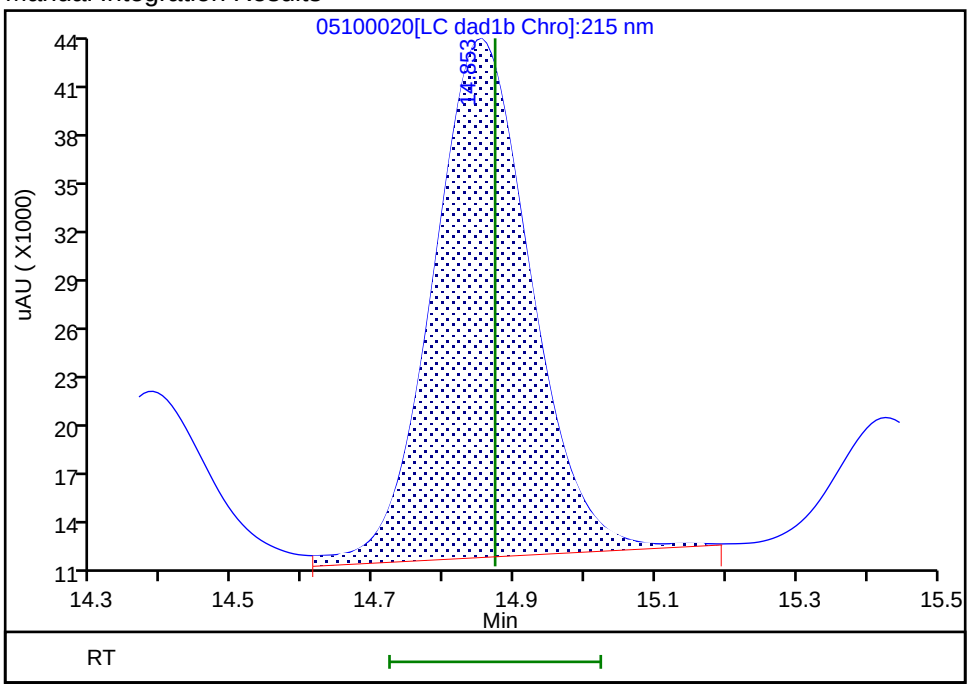
Processing Integration Results

RT: 14.85
Area: 373253
Amount: 3.123332
Amount Units: ug/ml



Manual Integration Results

RT: 14.85
Area: 312092
Amount: 2.611544
Amount Units: ug/ml



Reviewer: LV5D, 11-May-2024 12:25:30 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver | Job No.: 280-190988-1

SDG No.:

Lab Sample ID: ICV 280-649950/20 | Calibration Date: 04/18/2024 00:04

Instrument ID: CHHPLC_X3 | Calib Start Date: 04/17/2024 20:37

GC Column: UltraCarb5uODS ID: 4.60(mm) | Calib End Date: 04/17/2024 23:41

Lab File ID: 04170020.D | Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
TNX	Ave	198992	204787		517	502	2.9	20.0
HMX	Ave	95544	88884		465	500	-7.0	20.0
DNX	Ave	147260	152248		518	501	3.4	20.0
MNX	Ave	136698	141932		607	585	3.8	20.0
RDX	Ave	110767	107360		485	500	-3.1	20.0
Picric acid	Ave	79326	85128		537	500	7.3	20.0
1,3,5-Trinitrobenzene	Ave	222853	238232		535	500	6.9	20.0
1,3-Dinitrobenzene	Ave	299436	315400		527	500	5.3	20.0
Nitrobenzene	Ave	196329	207206		528	500	5.5	20.0
3,5-Dinitroaniline	Lin2		227972		517	500	3.4	20.0
Tetryl	Ave	181588	191842		528	500	5.6	20.0
Nitroglycerin	Ave	66464	70364		5290	5000	5.9	20.0
2,4,6-Trinitrotoluene	Ave	215192	218358		507	500	1.5	20.0
4-Amino-2,6-dinitrotoluene	Ave	149948	155448		518	500	3.7	20.0
2-Amino-4,6-dinitrotoluene	Ave	199809	208532		522	500	4.4	20.0
2,6-Dinitrotoluene	Ave	146914	147890		503	500	0.7	20.0
2,4-Dinitrotoluene	Ave	291844	298646		512	500	2.3	20.0
2-Nitrotoluene	Ave	129305	129160		499	500	-0.1	20.0
4-Nitrotoluene	Ave	112799	111300		493	500	-1.3	20.0
3-Nitrotoluene	Ave	144063	142054		493	500	-1.4	20.0
PETN	Ave	71937	78341		5450	5000	8.9	20.0
1,2-Dinitrobenzene	Lin2		127242		483	500	-3.5	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-190988-1

SDG No.:

Lab Sample ID: ICV 280-649950/20 Calibration Date: 04/18/2024 00:04

Instrument ID: CHHPLC_X3 Calib Start Date: 04/17/2024 20:37

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 04/17/2024 23:41

Lab File ID: 04170020.D

Analyte	RT	RT WINDOW	
		FROM	TO
TNX	6.48	6.38	6.58
HMX	6.58	6.43	6.73
DNX	6.79	6.69	6.89
MNX	7.20	7.05	7.35
RDX	7.58	7.43	7.73
Picric acid	7.80	7.67	7.97
1,3,5-Trinitrobenzene	8.66	8.51	8.81
1,3-Dinitrobenzene	9.27	9.13	9.43
Nitrobenzene	9.63	9.49	9.79
3,5-Dinitroaniline	9.87	9.73	10.03
Tetryl	9.95	9.81	10.11
Nitroglycerin	10.43	10.28	10.58
2,4,6-Trinitrotoluene	10.86	10.77	10.97
4-Amino-2,6-dinitrotoluene	11.04	10.95	11.15
2-Amino-4,6-dinitrotoluene	11.30	11.21	11.41
2,6-Dinitrotoluene	11.45	11.35	11.55
2,4-Dinitrotoluene	11.62	11.53	11.73
2-Nitrotoluene	12.41	12.27	12.57
4-Nitrotoluene	12.84	12.69	12.99
3-Nitrotoluene	13.39	13.25	13.55
PETN	14.48	14.33	14.63
1,2-Dinitrobenzene	8.52	8.37	8.67

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\04170020.D
Lims ID: ICV INT/DMT
Client ID:
Sample Type: ICV
Inject. Date: 18-Apr-2024 00:04:28 ALS Bottle#: 20 Worklist Smp#: 20
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: ICV INT/DMT
Operator ID: JZ/JG Instrument ID: CHHPLC_X3
Sublist:

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 18-Apr-2024 12:06:14 Calib Date: 17-Apr-2024 23:41:30
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\04170019.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1675

First Level Reviewer: LV5D Date: 18-Apr-2024 11:20:39

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 TNX	1	6.475	6.476	-0.001	102803	0.5020	0.5166	M
4 HMX	1	6.581	6.583	-0.002	44442	0.5000	0.4651	M
6 DNX	1	6.788	6.789	-0.001	76276	0.5010	0.5180	M
7 MNX	1	7.201	7.203	-0.002	82959	0.5845	0.6069	
8 RDX	1	7.581	7.583	-0.002	53680	0.5000	0.4846	
9 2,4,6-Trinitrophenol	1	7.795	7.816	-0.021	42564	0.5000	0.5366	
$ 10 1,2-Dinitrobenzene	1	8.515	8.516	-0.001	63621	0.5000	0.4826	
11 1,3,5-Trinitrobenzene	1	8.655	8.656	-0.001	119116	0.5000	0.5345	
12 1,3-Dinitrobenzene	1	9.274	9.276	-0.002	157700	0.5000	0.5267	
13 Nitrobenzene	1	9.628	9.636	-0.008	103603	0.5000	0.5277	
14 3,5-Dinitroaniline	1	9.868	9.876	-0.008	113986	0.5000	0.5168	
15 Tetryl	1	9.954	9.963	-0.009	95921	0.5000	0.5282	
16 Nitroglycerin	2	10.428	10.429	-0.001	351818	5.00	5.29	
17 2,4,6-Trinitrotoluene	1	10.861	10.869	-0.008	109179	0.5000	0.5074	
18 4-Amino-2,6-dinitrotoluene	1	11.041	11.049	-0.008	77724	0.5000	0.5183	
19 2-Amino-4,6-dinitrotoluene	1	11.301	11.309	-0.008	104266	0.5000	0.5218	
20 2,6-Dinitrotoluene	1	11.448	11.449	-0.001	73945	0.5000	0.5033	
21 2,4-Dinitrotoluene	1	11.621	11.629	-0.008	149323	0.5000	0.5117	
22 o-Nitrotoluene	1	12.414	12.423	-0.009	64580	0.5000	0.4994	
23 p-Nitrotoluene	1	12.841	12.843	-0.002	55650	0.5000	0.4934	
24 m-Nitrotoluene	1	13.394	13.403	-0.009	71027	0.5000	0.4930	
25 PETN	2	14.481	14.483	-0.002	391703	5.00	5.45	
26 Ammonium Picrate	1		0.000			ND	ND	

QC Flag Legend

Processing Flags
ND - Not Detected or Marked ND

Review Flags
M - Manually Integrated

Reagents:

8330Surrogate_00154	Amount Added:	50.00	Units: uL
8330 LCS_00134	Amount Added:	50.00	Units: uL
8330_OP_DMT_00026	Amount Added:	50.00	Units: uL

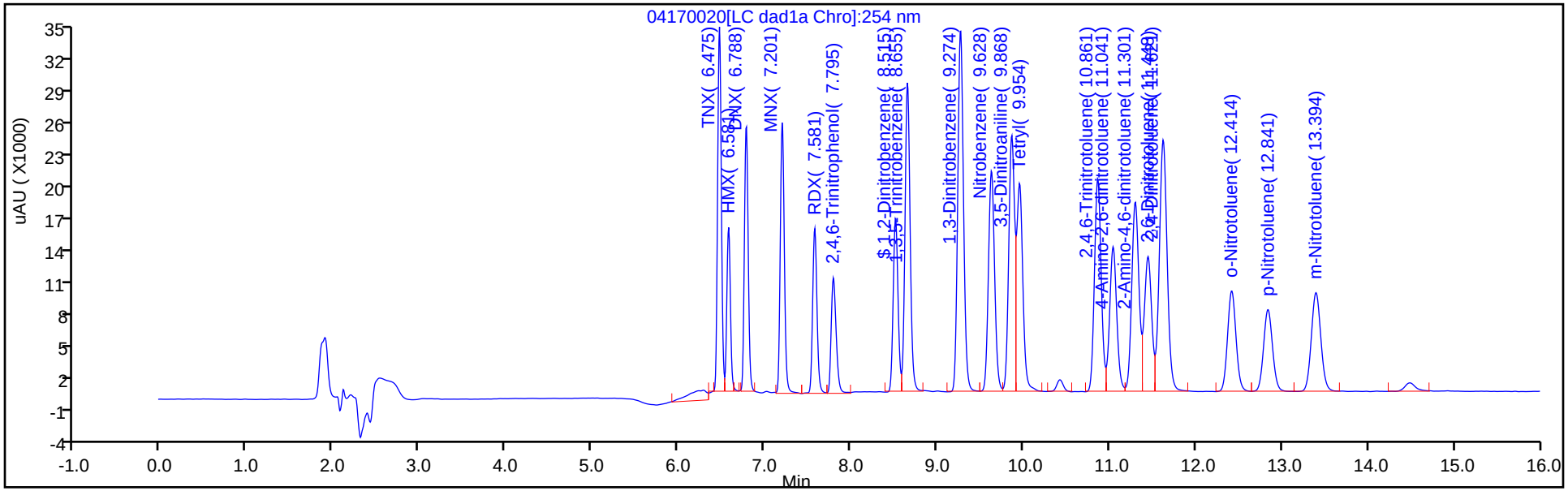
Report Date: 18-Apr-2024 12:06:16 Chrom Revision: 2.3 09-Apr-2024 17:43:44

Eurofins Denver

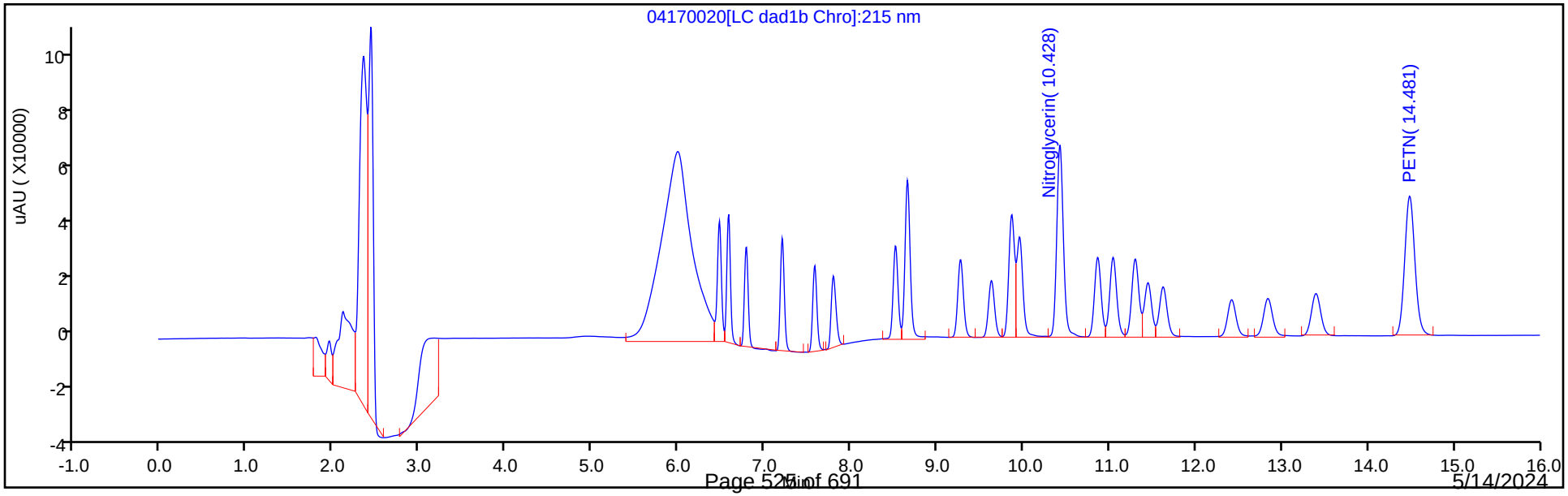
Data File: \\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170020.d

Injection Date:	18-Apr-2024 00:04:28	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	ICV INT/DMT			Worklist Smp#:	20
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	20
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



5/14/2024
9:20:15 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

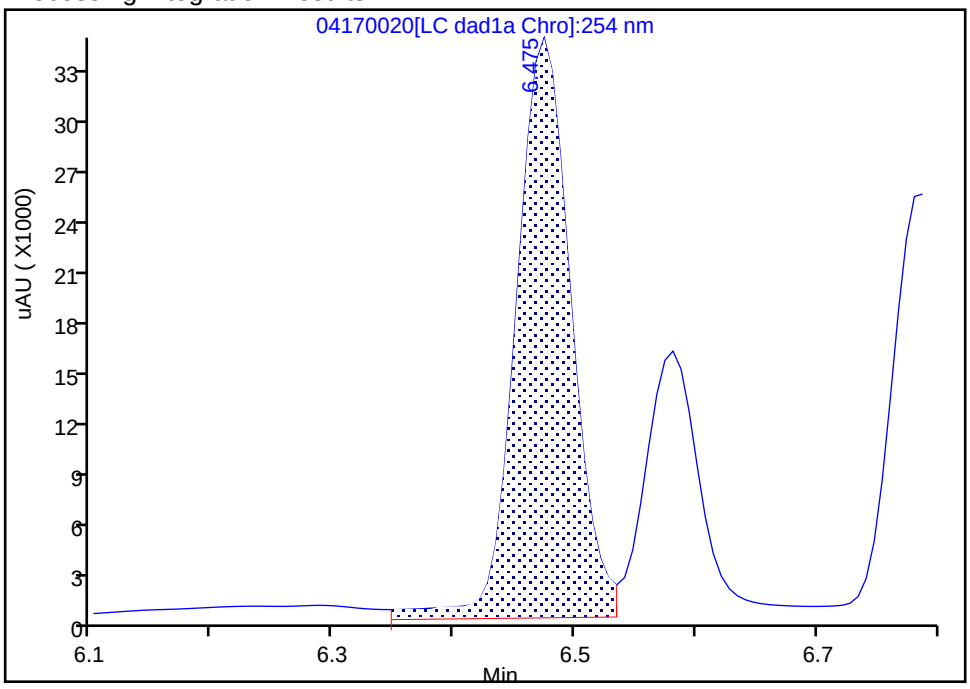
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170020.d				
Injection Date:	18-Apr-2024 00:04:28	Instrument ID:	CHHPLC_X3		
Lims ID:	ICV INT/DMT				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

3 TNX, CAS: 13980-04-6

Signal: 1

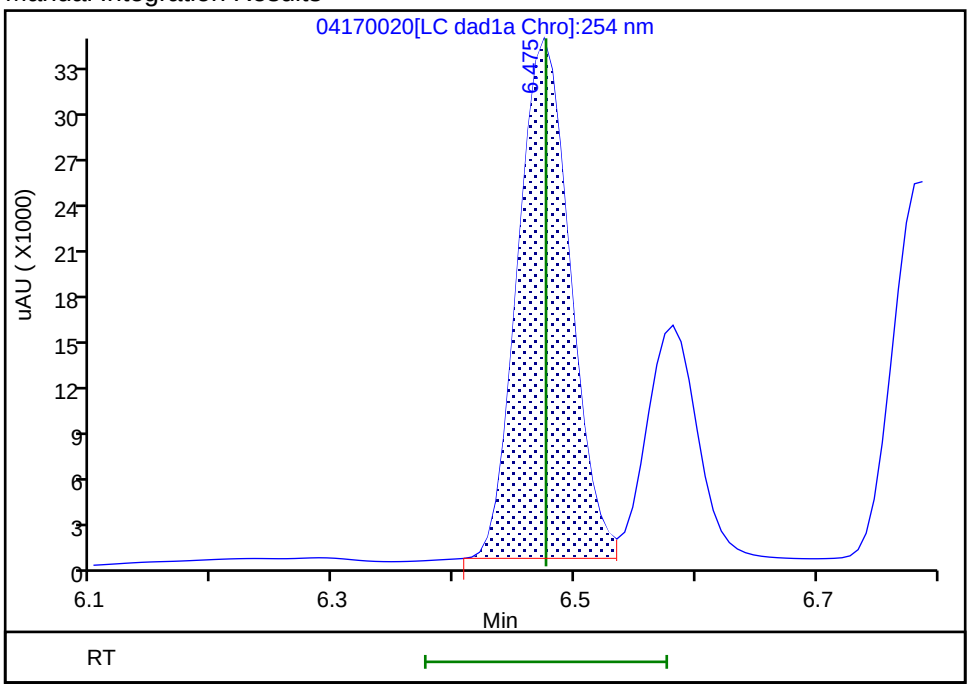
Processing Integration Results

RT: 6.47
Area: 110168
Amount: 0.553630
Amount Units: ug/mL



Manual Integration Results

RT: 6.47
Area: 102803
Amount: 0.516619
Amount Units: ug/mL



Reviewer: LV5D, 18-Apr-2024 11:20:20 -06:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

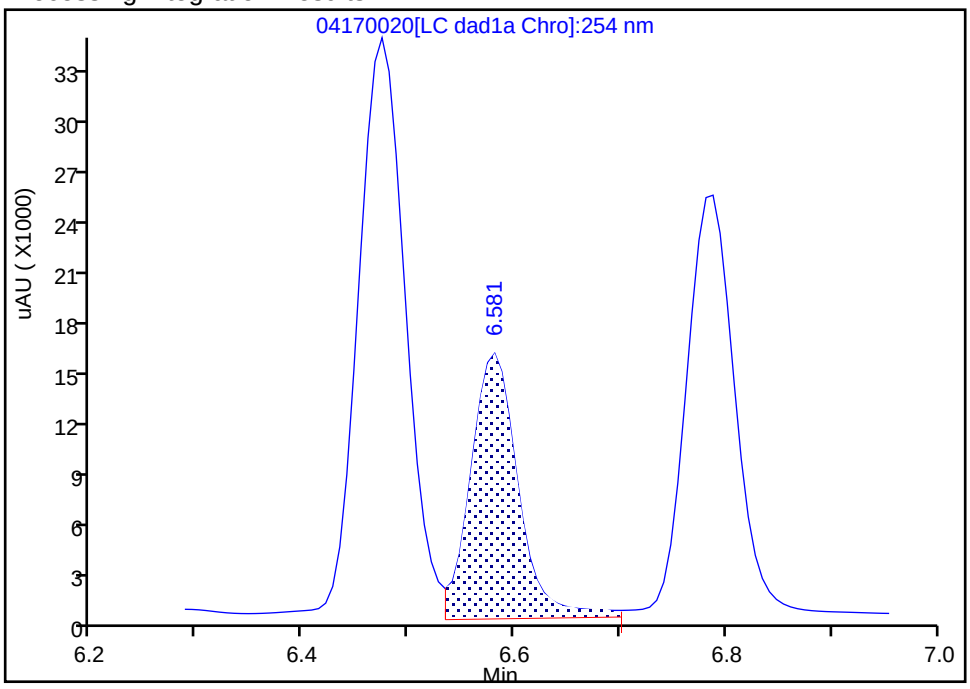
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170020.d				
Injection Date:	18-Apr-2024 00:04:28	Instrument ID:	CHHPLC_X3		
Lims ID:	ICV INT/DMT				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

4 HMX, CAS: 2691-41-0

Signal: 1

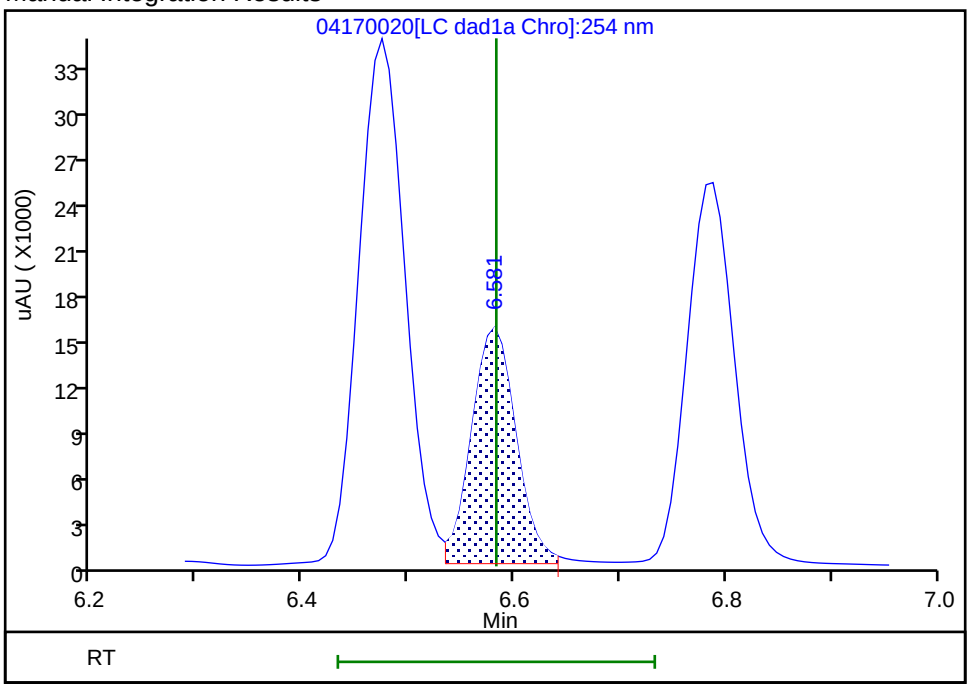
Processing Integration Results

RT: 6.58
Area: 49818
Amount: 0.521416
Amount Units: ug/mL



Manual Integration Results

RT: 6.58
Area: 44442
Amount: 0.465148
Amount Units: ug/mL



Reviewer: LV5D, 18-Apr-2024 11:20:21 -06:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

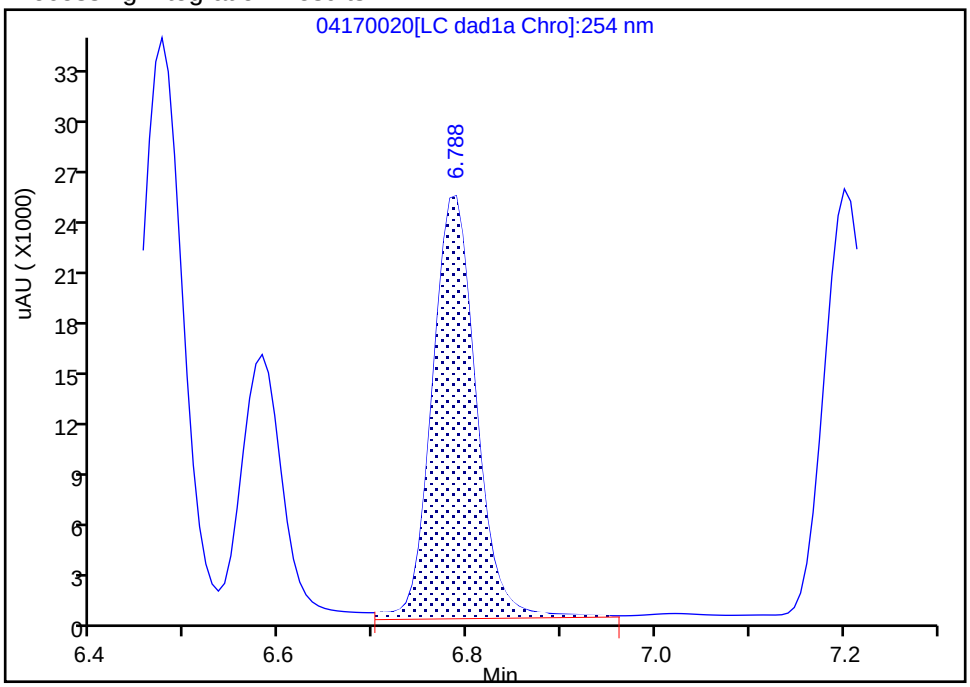
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170020.d				
Injection Date:	18-Apr-2024 00:04:28	Instrument ID:	CHHPLC_X3		
Lims ID:	ICV INT/DMT				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

6 DNX, CAS: 80251-29-2

Signal: 1

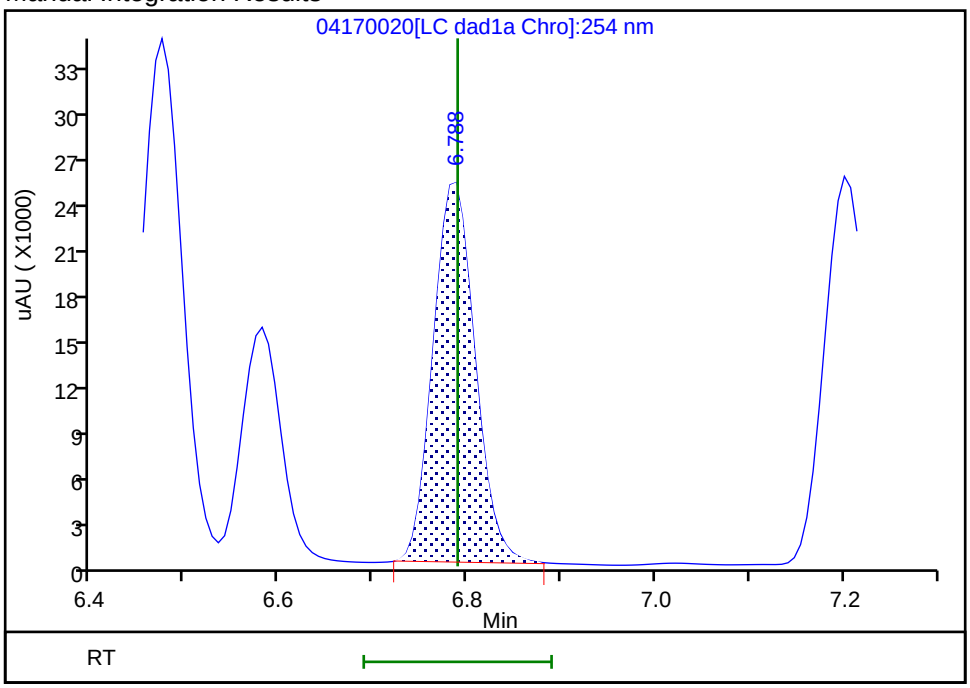
Processing Integration Results

RT: 6.79
Area: 81732
Amount: 0.555020
Amount Units: ug/mL



Manual Integration Results

RT: 6.79
Area: 76276
Amount: 0.517970
Amount Units: ug/mL



Reviewer: LV5D, 18-Apr-2024 11:20:24 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver | Job No.: 280-190988-1

SDG No.:

Lab Sample ID: CCV 280-652983/14 | Calibration Date: 05/10/2024 17:13

Instrument ID: CHHPLC_X3 | Calib Start Date: 04/17/2024 20:37

GC Column: UltraCarb5uODS ID: 4.60(mm) | Calib End Date: 04/17/2024 23:41

Lab File ID: 05100014.D | Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
HMX	Ave	95544	94868		248	250	-0.7	20.0
RDX	Ave	110767	107544		243	250	-2.9	20.0
Picric acid	Ave	79326	82344		260	250	3.8	20.0
1,3,5-Trinitrobenzene	Ave	222853	218608		245	250	-1.9	20.0
1,3-Dinitrobenzene	Ave	299436	300908		251	250	0.5	20.0
Nitrobenzene	Ave	196329	193320		246	250	-1.5	20.0
3,5-Dinitroaniline	Lin2		227824		259	250	3.5	20.0
Tetryl	Ave	181588	167664		231	250	-7.7	20.0
Nitroglycerin	Ave	66464	67864		2550	2500	2.1	20.0
2,4,6-Trinitrotoluene	Ave	215192	214576		249	250	-0.3	20.0
4-Amino-2,6-dinitrotoluene	Ave	149948	150184		250	250	0.2	20.0
2-Amino-4,6-dinitrotoluene	Ave	199809	199184		249	250	-0.3	20.0
2,6-Dinitrotoluene	Ave	146914	147700		251	250	0.5	20.0
2,4-Dinitrotoluene	Ave	291844	297048		254	250	1.8	20.0
2-Nitrotoluene	Ave	129305	129220		250	250	-0.0	20.0
4-Nitrotoluene	Ave	112799	109340		242	250	-3.1	20.0
3-Nitrotoluene	Ave	144063	137828		239	250	-4.3	20.0
PETN	Ave	71937	71983		2500	2500	0.0	20.0
1,2-Dinitrobenzene	Lin2		132588		251	250	0.4	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-190988-1

SDG No.:

Lab Sample ID: CCV 280-652983/14 Calibration Date: 05/10/2024 17:13

Instrument ID: CHHPLC_X3 Calib Start Date: 04/17/2024 20:37

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 04/17/2024 23:41

Lab File ID: 05100014.D

Analyte	RT	RT WINDOW	
		FROM	TO
HMX	6.61	6.46	6.76
RDX	7.63	7.48	7.78
Picric acid	7.85	7.69	7.99
1,3,5-Trinitrobenzene	8.70	8.54	8.84
1,3-Dinitrobenzene	9.31	9.15	9.45
Nitrobenzene	9.66	9.50	9.80
3,5-Dinitroaniline	9.90	9.74	10.04
Tetryl	9.97	9.82	10.12
Nitroglycerin	10.45	10.28	10.58
2,4,6-Trinitrotoluene	10.88	10.77	10.97
4-Amino-2,6-dinitrotoluene	11.05	10.94	11.14
2-Amino-4,6-dinitrotoluene	11.31	11.19	11.39
2,6-Dinitrotoluene	11.45	11.33	11.53
2,4-Dinitrotoluene	11.63	11.51	11.71
2-Nitrotoluene	12.41	12.24	12.54
4-Nitrotoluene	12.83	12.66	12.96
3-Nitrotoluene	13.37	13.20	13.50
PETN	14.43	14.25	14.55
1,2-Dinitrobenzene	8.56	8.40	8.70

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240510-133263.b\05100014.D
Lims ID: CCV INT
Client ID:
Sample Type: CCV
Inject. Date: 10-May-2024 17:13:28 ALS Bottle#: 7 Worklist Smp#: 14
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: CCV INT
Operator ID: JZ Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub26

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20240510-133263.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 10-May-2024 19:58:39 Calib Date: 18-Apr-2024 03:08:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\04170028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1691

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
4 HMX	1	6.614	6.612	0.002	23717	0.2500	0.2482	
8 RDX	1	7.634	7.625	0.009	26886	0.2500	0.2427	
9 2,4,6-Trinitrophenol	1	7.847	7.838	0.009	20586	0.2500	0.2595	
$ 10 1,2-Dinitrobenzene	1	8.561	8.552	0.009	33147	0.2500	0.2511	
11 1,3,5-Trinitrobenzene	1	8.701	8.692	0.009	54652	0.2500	0.2452	
12 1,3-Dinitrobenzene	1	9.307	9.298	0.009	75227	0.2500	0.2512	
13 Nitrobenzene	1	9.661	9.651	0.010	48330	0.2500	0.2462	
14 3,5-Dinitroaniline	1	9.901	9.885	0.016	56956	0.2500	0.2588	
15 Tetryl	1	9.974	9.965	0.009	41916	0.2500	0.2308	
16 Nitroglycerin	2	10.447	10.431	0.016	169659	2.50	2.55	
17 2,4,6-Trinitrotoluene	1	10.881	10.865	0.016	53644	0.2500	0.2493	
18 4-Amino-2,6-dinitrotoluene	1	11.054	11.038	0.016	37546	0.2500	0.2504	
19 2-Amino-4,6-dinitrotoluene	1	11.314	11.291	0.023	49796	0.2500	0.2492	
20 2,6-Dinitrotoluene	1	11.454	11.431	0.023	36925	0.2500	0.2513	
21 2,4-Dinitrotoluene	1	11.634	11.611	0.023	74262	0.2500	0.2545	
22 o-Nitrotoluene	1	12.407	12.385	0.022	32305	0.2500	0.2498	
23 p-Nitrotoluene	1	12.827	12.805	0.022	27335	0.2500	0.2423	
24 m-Nitrotoluene	1	13.374	13.351	0.023	34457	0.2500	0.2392	
25 PETN	2	14.427	14.398	0.029	179957	2.50	2.50	

Reagents:

8330IntermStk_00080 Amount Added: 25.00 Units: uL

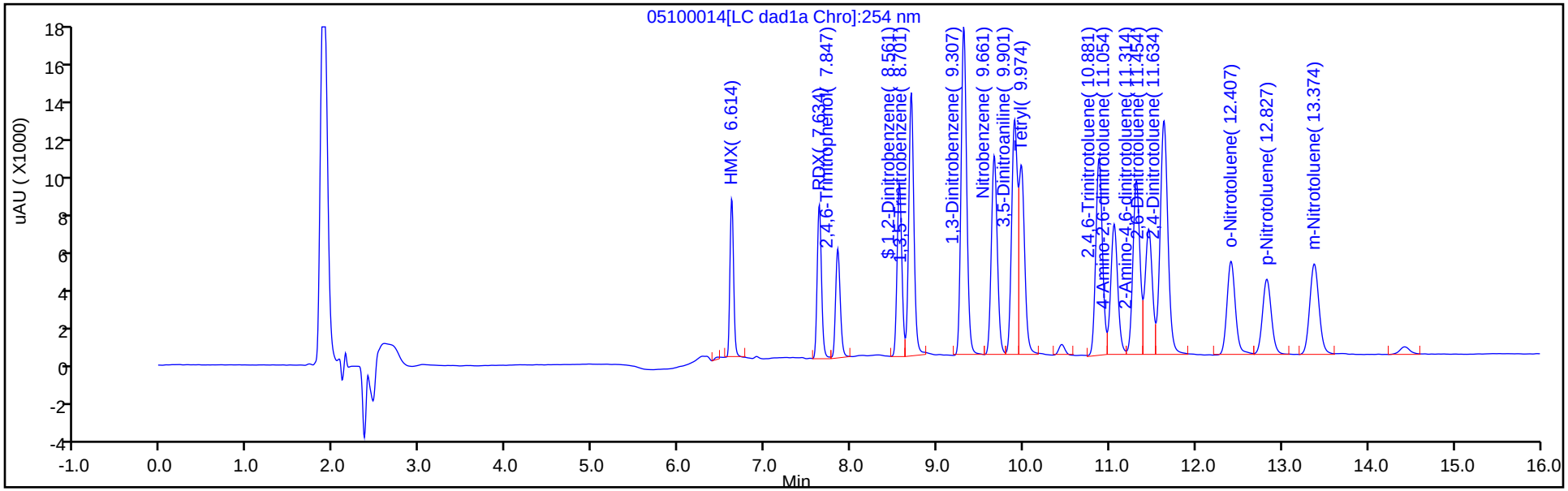
Report Date: 10-May-2024 19:58:39 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

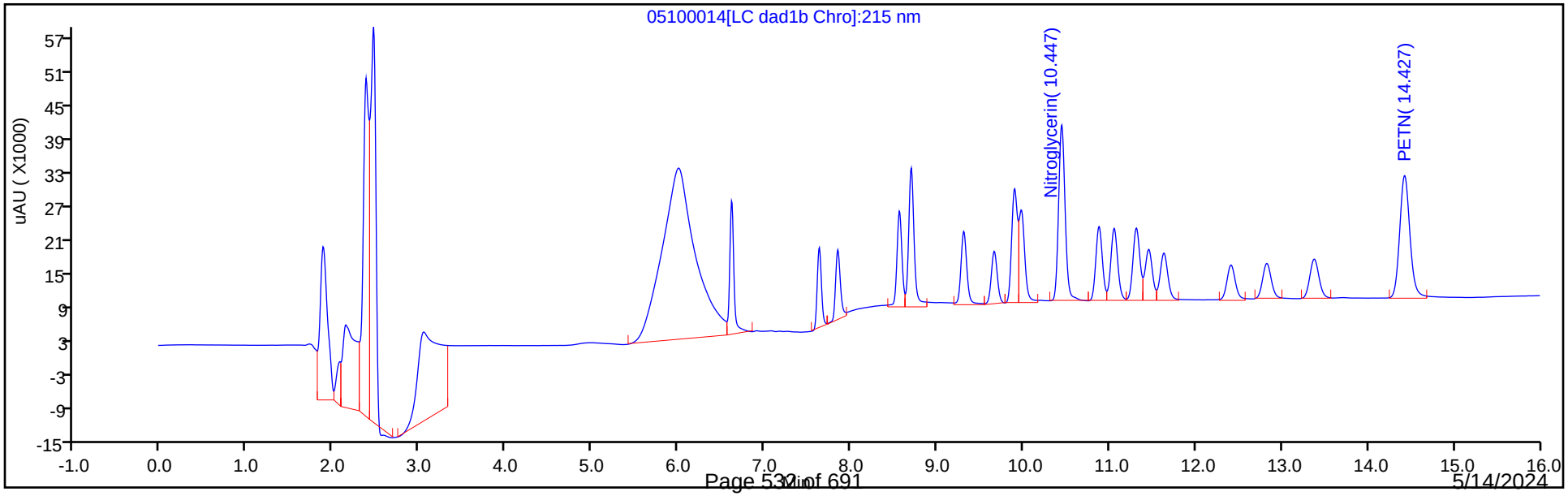
Data File: \\chromfs\denver\chromdata\chhplc_x\20240510-133263.b\05100014.d

Injection Date:	10-May-2024 17:13:28	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	CCV INT			Worklist Smp#:	14
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver | Job No.: 280-190988-1

SDG No.:

Lab Sample ID: CCV 280-652983/25 | Calibration Date: 05/10/2024 21:25

Instrument ID: CHHPLC_X3 | Calib Start Date: 04/17/2024 20:37

GC Column: UltraCarb5uODS ID: 4.60(mm) | Calib End Date: 04/17/2024 23:41

Lab File ID: 05100025.D | Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
HMX	Ave	95544	94704		248	250	-0.9	20.0
RDX	Ave	110767	107604		243	250	-2.9	20.0
Picric acid	Ave	79326	82316		259	250	3.8	20.0
1,3,5-Trinitrobenzene	Ave	222853	218396		245	250	-2.0	20.0
1,3-Dinitrobenzene	Ave	299436	302148		252	250	0.9	20.0
Nitrobenzene	Ave	196329	192840		246	250	-1.8	20.0
3,5-Dinitroaniline	Lin2		227776		259	250	3.5	20.0
Tetryl	Ave	181588	168632		232	250	-7.1	20.0
Nitroglycerin	Ave	66464	67432		2540	2500	1.5	20.0
2,4,6-Trinitrotoluene	Ave	215192	213956		249	250	-0.6	20.0
4-Amino-2,6-dinitrotoluene	Ave	149948	149908		250	250	-0.0	20.0
2-Amino-4,6-dinitrotoluene	Ave	199809	197576		247	250	-1.1	20.0
2,6-Dinitrotoluene	Ave	146914	150460		256	250	2.4	20.0
2,4-Dinitrotoluene	Ave	291844	294964		253	250	1.1	20.0
2-Nitrotoluene	Ave	129305	127660		247	250	-1.3	20.0
4-Nitrotoluene	Ave	112799	108188		240	250	-4.1	20.0
3-Nitrotoluene	Ave	144063	136040		236	250	-5.6	20.0
PETN	Ave	71937	72165		2510	2500	0.3	20.0
1,2-Dinitrobenzene	Lin2		133240		252	250	0.9	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-190988-1

SDG No.:

Lab Sample ID: CCV 280-652983/25 Calibration Date: 05/10/2024 21:25

Instrument ID: CHHPLC_X3 Calib Start Date: 04/17/2024 20:37

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 04/17/2024 23:41

Lab File ID: 05100025.D

Analyte	RT	RT WINDOW	
		FROM	TO
HMX	6.62	6.46	6.76
RDX	7.63	7.48	7.78
Picric acid	7.85	7.69	7.99
1,3,5-Trinitrobenzene	8.70	8.54	8.84
1,3-Dinitrobenzene	9.31	9.15	9.45
Nitrobenzene	9.67	9.50	9.80
3,5-Dinitroaniline	9.91	9.74	10.04
Tetryl	9.99	9.82	10.12
Nitroglycerin	10.45	10.28	10.58
2,4,6-Trinitrotoluene	10.89	10.77	10.97
4-Amino-2,6-dinitrotoluene	11.06	10.94	11.14
2-Amino-4,6-dinitrotoluene	11.32	11.19	11.39
2,6-Dinitrotoluene	11.47	11.33	11.53
2,4-Dinitrotoluene	11.64	11.51	11.71
2-Nitrotoluene	12.42	12.24	12.54
4-Nitrotoluene	12.84	12.66	12.96
3-Nitrotoluene	13.39	13.20	13.50
PETN	14.45	14.25	14.55
1,2-Dinitrobenzene	8.57	8.40	8.70

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240510-133263.b\05100025.D
Lims ID: CCV INT
Client ID:
Sample Type: CCV
Inject. Date: 10-May-2024 21:25:47 ALS Bottle#: 7 Worklist Smp#: 25
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: CCV INT
Operator ID: JZ Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub26

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20240510-133263.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 11-May-2024 11:25:16 Calib Date: 18-Apr-2024 03:08:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\04170028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1652

First Level Reviewer: LV5D Date: 11-May-2024 10:56:32

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
4 HMX	1	6.618	6.612	0.006	23676	0.2500	0.2478	
8 RDX	1	7.632	7.625	0.007	26901	0.2500	0.2429	
9 2,4,6-Trinitrophenol	1	7.852	7.838	0.014	20579	0.2500	0.2594	
$ 10 1,2-Dinitrobenzene	1	8.565	8.552	0.013	33310	0.2500	0.2523	
11 1,3,5-Trinitrobenzene	1	8.698	8.692	0.006	54599	0.2500	0.2450	
12 1,3-Dinitrobenzene	1	9.312	9.298	0.014	75537	0.2500	0.2523	
13 Nitrobenzene	1	9.665	9.651	0.014	48210	0.2500	0.2456	
14 3,5-Dinitroaniline	1	9.905	9.885	0.020	56944	0.2500	0.2587	
15 Tetryl	1	9.985	9.965	0.020	42158	0.2500	0.2322	
16 Nitroglycerin	2	10.452	10.431	0.021	168580	2.50	2.54	
17 2,4,6-Trinitrotoluene	1	10.885	10.865	0.020	53489	0.2500	0.2486	
18 4-Amino-2,6-dinitrotoluene	1	11.058	11.038	0.020	37477	0.2500	0.2499	
19 2-Amino-4,6-dinitrotoluene	1	11.318	11.291	0.027	49394	0.2500	0.2472	
20 2,6-Dinitrotoluene	1	11.465	11.431	0.034	37615	0.2500	0.2560	
21 2,4-Dinitrotoluene	1	11.638	11.611	0.027	73741	0.2500	0.2527	
22 o-Nitrotoluene	1	12.418	12.385	0.033	31915	0.2500	0.2468	
23 p-Nitrotoluene	1	12.838	12.805	0.033	27047	0.2500	0.2398	
24 m-Nitrotoluene	1	13.385	13.351	0.034	34010	0.2500	0.2361	
25 PETN	2	14.445	14.398	0.047	180413	2.50	2.51	

QC Flag Legend

Processing Flags

Reagents:

8330IntermStk_00080 Amount Added: 25.00 Units: uL

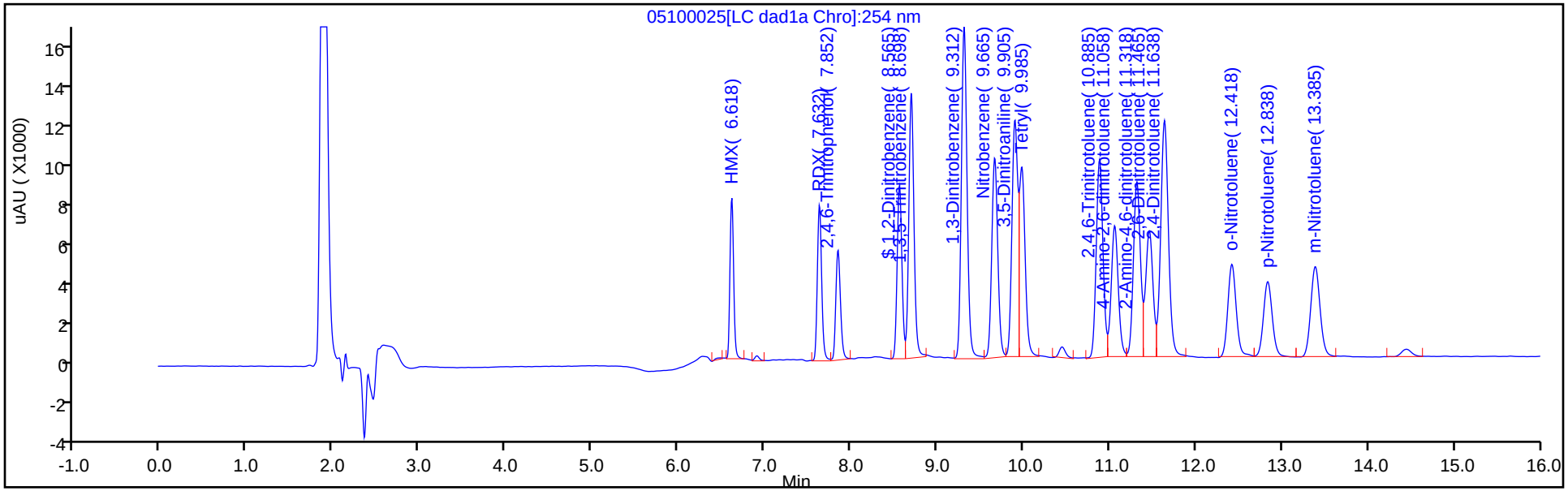
Report Date: 11-May-2024 11:25:16 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

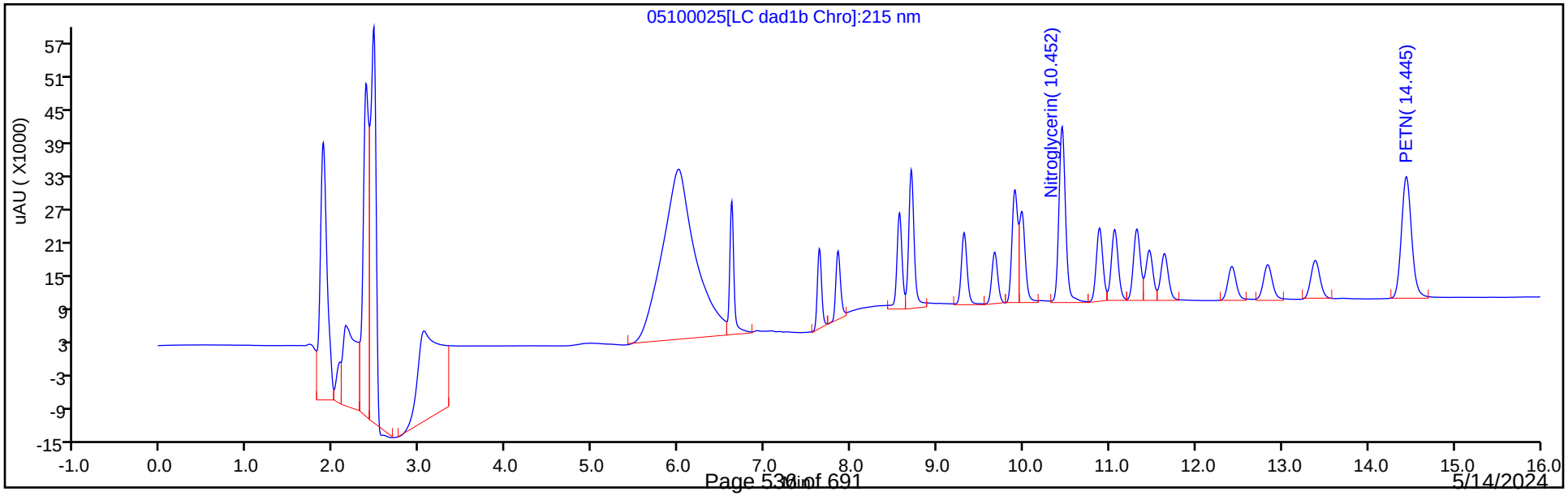
Data File: \\chromfs\denver\chromdata\chhplc_x\20240510-133263.b\05100025.d

Injection Date:	10-May-2024 21:25:47	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	CCV INT			Worklist Smp#:	25
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



5/14/2024
9:20:15 AM

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-190988-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 280-652746/1-A

Matrix: Water | Lab File ID: 05100015.D

Analysis Method: 8330B | Date Collected:

Extraction Method: 3535 | Date Extracted: 05/09/2024 12:56

Sample wt/vol: 500(mL) | Date Analyzed: 05/10/2024 17:36

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 100(uL) | GC Column: UltraCarb5uODS ID: 4.6(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 652983 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	0.20	U M	0.21	0.20	0.084
99-65-0	1,3-Dinitrobenzene	0.10	U	0.11	0.10	0.037
118-96-7	2,4,6-Trinitrotoluene	0.10	U	0.11	0.10	0.045
121-14-2	2,4-Dinitrotoluene	0.080	U	0.10	0.080	0.027
606-20-2	2,6-Dinitrotoluene	0.080	U	0.10	0.080	0.040
35572-78-2	2-Amino-4,6-dinitrotoluene	0.10	U	0.11	0.10	0.051
88-72-2	2-Nitrotoluene	0.20	U	0.21	0.20	0.086
99-08-1	3-Nitrotoluene	0.35	U	0.40	0.35	0.20
19406-51-0	4-Amino-2,6-dinitrotoluene	0.12	U	0.15	0.12	0.058
99-99-0	4-Nitrotoluene	0.40	U	0.41	0.40	0.10
2691-41-0	HMX	0.20	U	0.21	0.20	0.088
98-95-3	Nitrobenzene	0.20	U	0.21	0.20	0.091
55-63-0	Nitroglycerin	2.0	U	2.1	2.0	0.92
78-11-5	PETN	1.0	U	1.1	1.0	0.45
121-82-4	RDX	0.20	U	0.21	0.20	0.052
479-45-8	Tetryl	0.10	U	0.11	0.10	0.032

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	95	M	83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240510-133263.b\05100015.D
Lims ID: MB 280-652746/1-A
Client ID:
Sample Type: MB
Inject. Date: 10-May-2024 17:36:20 ALS Bottle#: 15 Worklist Smp#: 15
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: MB 280-652746/1-A
Operator ID: JZ Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20240510-133263.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 11-May-2024 11:25:09 Calib Date: 18-Apr-2024 03:08:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\04170028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1652

First Level Reviewer: LV5D Date: 10-May-2024 18:20:28

	Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
	1 Triamine Trinitrobenzene	1		2.444				ND	
	2 2,6-diamino-4-nitrotoluene	1		6.460				ND	7
	3 TNX	1		6.506				ND	
	4 HMX	1		6.612				ND	
	5 2,4-diamino-6-nitrotoluene	1		6.633				ND	7
	6 DNX	1		6.892				ND	
	7 MNX	1		7.258				ND	U
	8 RDX	1		7.625				ND	
	9 2,4,6-Trinitrophenol	1		7.838				ND	
$	10 1,2-Dinitrobenzene	1	8.563	8.552	0.011	25146	0.2000	0.1903	M
	11 1,3,5-Trinitrobenzene	1		8.692				ND	MU
	12 1,3-Dinitrobenzene	1		9.298				ND	7
	13 Nitrobenzene	1		9.651				ND	
	14 3,5-Dinitroaniline	1		9.885				ND	
	15 Tetryl	1		9.965				ND	
	16 Nitroglycerin	2		10.431				ND	
	17 2,4,6-Trinitrotoluene	1		10.865				ND	
	18 4-Amino-2,6-dinitrotoluene	1		11.038				ND	
	19 2-Amino-4,6-dinitrotoluene	1		11.291				ND	
	20 2,6-Dinitrotoluene	1		11.431				ND	
	21 2,4-Dinitrotoluene	1		11.611				ND	
	22 o-Nitrotoluene	1		12.385				ND	
	23 p-Nitrotoluene	1		12.805				ND	
	24 m-Nitrotoluene	1		13.351				ND	
	25 PETN	2		14.398				ND	
	26 Ammonium Picrate	1		0.000				ND	

QC Flag Legend

Processing Flags
7 - Failed Limit of Detection

Review Flags
M - Manually Integrated
U - Marked Undetected

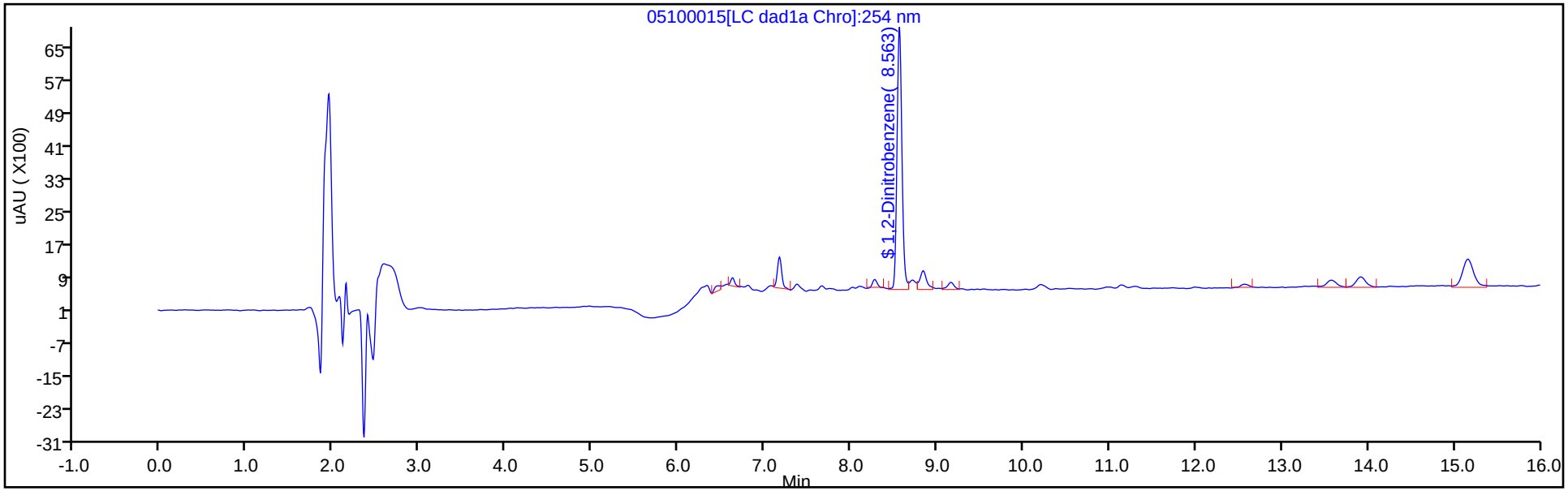
Report Date: 11-May-2024 11:25:10 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

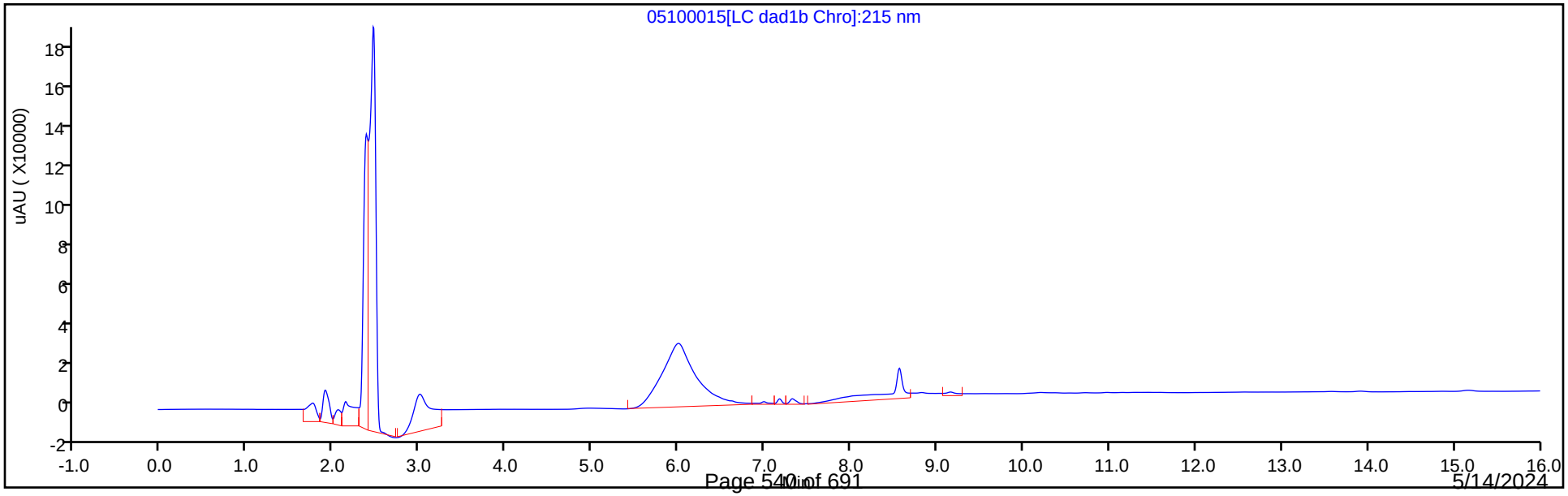
Data File: \\chromfs\denver\chromdata\chhplc_x\20240510-133263.b\05100015.d

Injection Date:	10-May-2024 17:36:20	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	MB 280-652746/1-A			Worklist Smp#:	15
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	15
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20240510-133263.b\05100015.D				
Lims ID:	MB 280-652746/1-A				
Client ID:					
Sample Type:	MB				
Inject. Date:	10-May-2024 17:36:20	ALS Bottle#:	15	Worklist Smp#:	15
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	MB 280-652746/1-A				
Operator ID:	JZ	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20240510-133263.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	11-May-2024 11:25:09	Calib Date:	18-Apr-2024 03:08:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\04170028.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1652				

First Level Reviewer: LV5D Date: 10-May-2024 18:20:28

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.1903	95.16

Manual Integration/User Assign Peak Report

Eurofins Denver

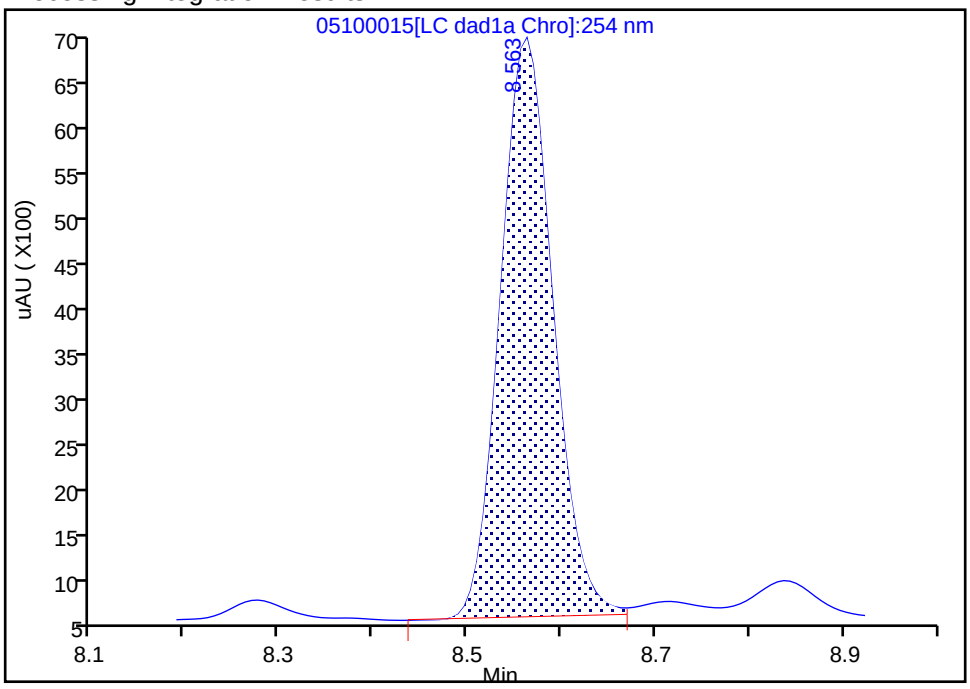
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240510-133263.b\05100015.d				
Injection Date:	10-May-2024 17:36:20	Instrument ID:	CHHPLC_X3		
Lims ID:	MB 280-652746/1-A				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	15	Worklist Smp#:	15
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

$ 10 1,2-Dinitrobenzene, CAS: 528-29-0

Signal: 1

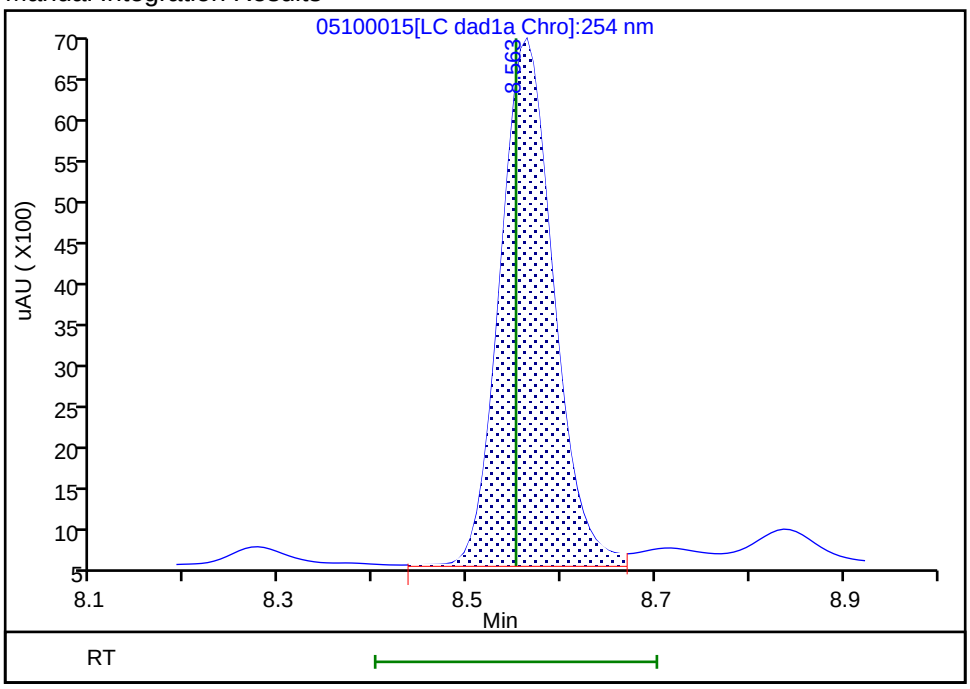
Processing Integration Results

RT: 8.56
Area: 24642
Amount: 0.186493
Amount Units: ug/mL



Manual Integration Results

RT: 8.56
Area: 25146
Amount: 0.190322
Amount Units: ug/mL



Reviewer: LV5D, 10-May-2024 18:20:26 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline

User Disabled Compound Report

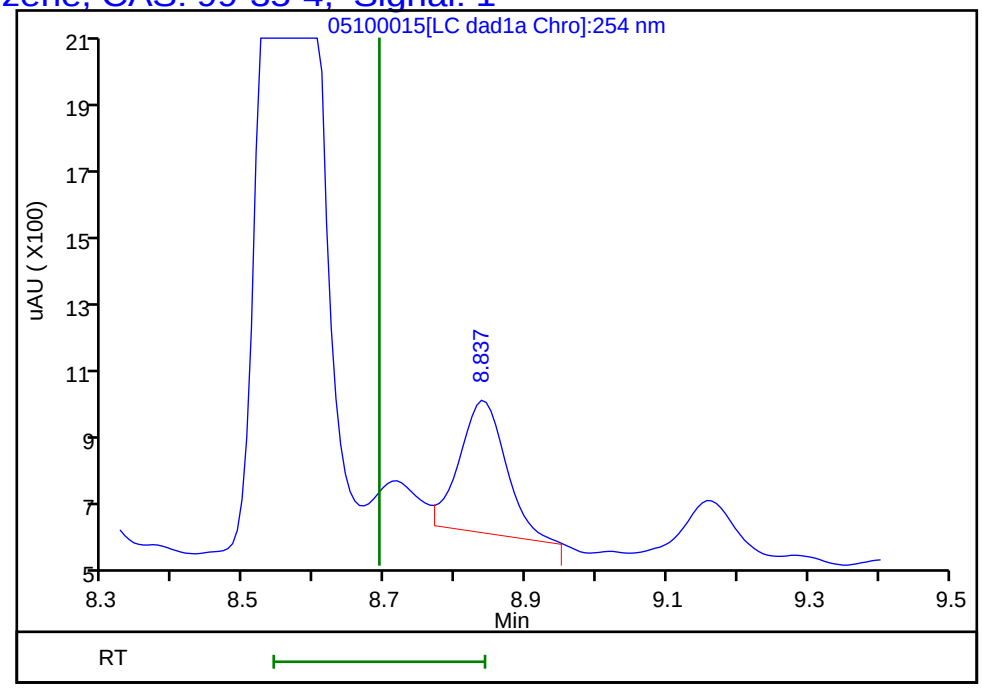
Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20240510-133263.b\05100015.d
Injection Date: 10-May-2024 17:36:20 Instrument ID: CHHPLC_X3
Lims ID: MB 280-652746/1-A
Client ID:
Operator ID: JZ ALS Bottle#: 15 Worklist Smp#: 15
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330

Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

11 1,3,5-Trinitrobenzene, CAS: 99-35-4, Signal: 1

RT: 8.84
Response: 1685
Amount: 0.007561



Reviewer: LV5D, 10-May-2024 18:20:28
Audit Action: Assigned New Baseline Audit Reason: Baseline

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-190988-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 280-652746/2-A

Matrix: Water | Lab File ID: 05100016.D

Analysis Method: 8330B | Date Collected:

Extraction Method: 3535 | Date Extracted: 05/09/2024 12:56

Sample wt/vol: 500(mL) | Date Analyzed: 05/10/2024 17:59

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 100(uL) | GC Column: UltraCarb5uODS ID: 4.6(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 652983 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	2.06		0.21	0.20	0.084
99-65-0	1,3-Dinitrobenzene	1.94		0.11	0.10	0.037
118-96-7	2,4,6-Trinitrotoluene	1.90		0.11	0.10	0.045
121-14-2	2,4-Dinitrotoluene	1.88		0.10	0.080	0.027
606-20-2	2,6-Dinitrotoluene	1.90		0.10	0.080	0.040
35572-78-2	2-Amino-4,6-dinitrotoluene	1.92		0.11	0.10	0.051
88-72-2	2-Nitrotoluene	1.53		0.21	0.20	0.086
99-08-1	3-Nitrotoluene	1.49		0.40	0.35	0.20
19406-51-0	4-Amino-2,6-dinitrotoluene	1.97		0.15	0.12	0.058
99-99-0	4-Nitrotoluene	1.49		0.41	0.40	0.10
2691-41-0	HMX	1.77	M	0.21	0.20	0.088
98-95-3	Nitrobenzene	1.75		0.21	0.20	0.091
55-63-0	Nitroglycerin	19.7		2.1	2.0	0.92
78-11-5	PETN	21.0		1.1	1.0	0.45
121-82-4	RDX	1.84		0.21	0.20	0.052
479-45-8	Tetryl	1.93		0.11	0.10	0.032

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	95		83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240510-133263.b\05100016.D
Lims ID: LCS 280-652746/2-A
Client ID:
Sample Type: LCS
Inject. Date: 10-May-2024 17:59:12 ALS Bottle#: 16 Worklist Smp#: 16
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: LCS 280-652746/2-A
Operator ID: JZ Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20240510-133263.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 11-May-2024 11:25:09 Calib Date: 18-Apr-2024 03:08:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\04170028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1652

First Level Reviewer: LV5D Date: 10-May-2024 18:35:12

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
4 HMX	1	6.617	6.612	0.005	16903	0.2000	0.1769	M
8 RDX	1	7.631	7.625	0.006	20368	0.2000	0.1839	
9 2,4,6-Trinitrophenol	1	7.837	7.838	-0.001	16466	0.2000	0.2076	
$ 10 1,2-Dinitrobenzene	1	8.557	8.552	0.005	25007	0.2000	0.1893	
11 1,3,5-Trinitrobenzene	1	8.697	8.692	0.005	45810	0.2000	0.2056	
12 1,3-Dinitrobenzene	1	9.304	9.298	0.006	58085	0.2000	0.1940	
13 Nitrobenzene	1	9.657	9.651	0.006	34445	0.2000	0.1754	
14 3,5-Dinitroaniline	1	9.897	9.885	0.012	40150	0.2000	0.1827	
15 Tetryl	1	9.971	9.965	0.006	35120	0.2000	0.1934	
16 Nitroglycerin	2	10.444	10.431	0.013	131181	2.00	1.97	
17 2,4,6-Trinitrotoluene	1	10.877	10.865	0.012	40914	0.2000	0.1901	
18 4-Amino-2,6-dinitrotoluene	1	11.051	11.038	0.013	29493	0.2000	0.1967	
19 2-Amino-4,6-dinitrotoluene	1	11.311	11.291	0.020	38359	0.2000	0.1920	
20 2,6-Dinitrotoluene	1	11.451	11.431	0.020	27855	0.2000	0.1896	
21 2,4-Dinitrotoluene	1	11.624	11.611	0.013	54984	0.2000	0.1884	
22 o-Nitrotoluene	1	12.404	12.385	0.019	19804	0.2000	0.1532	
23 p-Nitrotoluene	1	12.817	12.805	0.012	16819	0.2000	0.1491	
24 m-Nitrotoluene	1	13.364	13.351	0.013	21440	0.2000	0.1488	
25 PETN	2	14.404	14.398	0.006	150789	2.00	2.10	
26 Ammonium Picrate	1		0.000			ND	ND	

QC Flag Legend

Processing Flags
ND - Not Detected or Marked ND
Review Flags
M - Manually Integrated

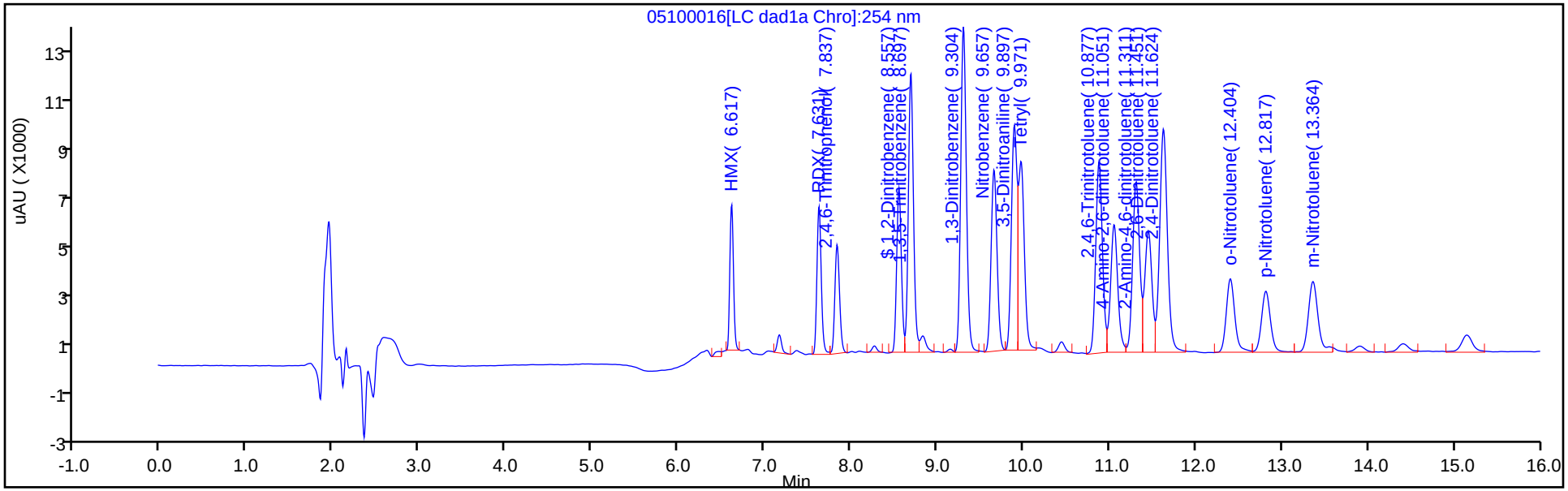
Report Date: 11-May-2024 11:25:11 Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

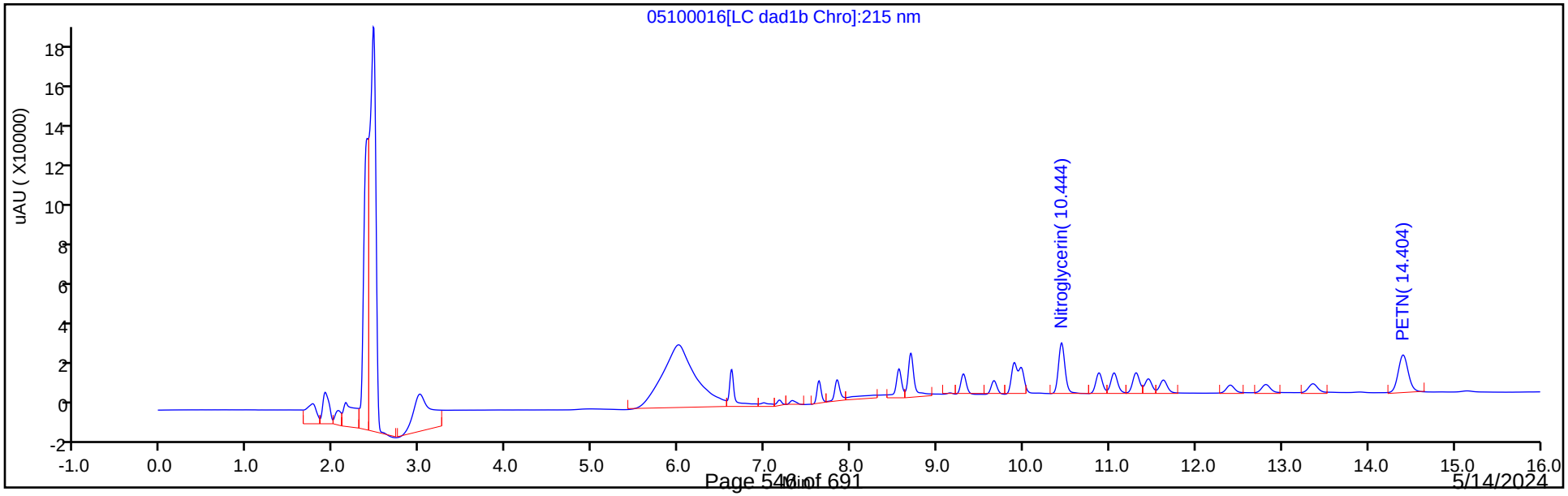
Data File: \\chromfs\denver\chromdata\chhplc_x\20240510-133263.b\05100016.d

Injection Date:	10-May-2024 17:59:12	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	LCS 280-652746/2-A			Worklist Smp#:	16
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



5/14/2024
9:20:15 AM

Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20240510-133263.b\05100016.D				
Lims ID:	LCS 280-652746/2-A				
Client ID:					
Sample Type:	LCS				
Inject. Date:	10-May-2024 17:59:12	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	LCS 280-652746/2-A				
Operator ID:	JZ	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20240510-133263.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	11-May-2024 11:25:09	Calib Date:	18-Apr-2024 03:08:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\04170028.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1652				

First Level Reviewer: LV5D Date: 10-May-2024 18:35:12

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.1893	94.63

Manual Integration/User Assign Peak Report

Eurofins Denver

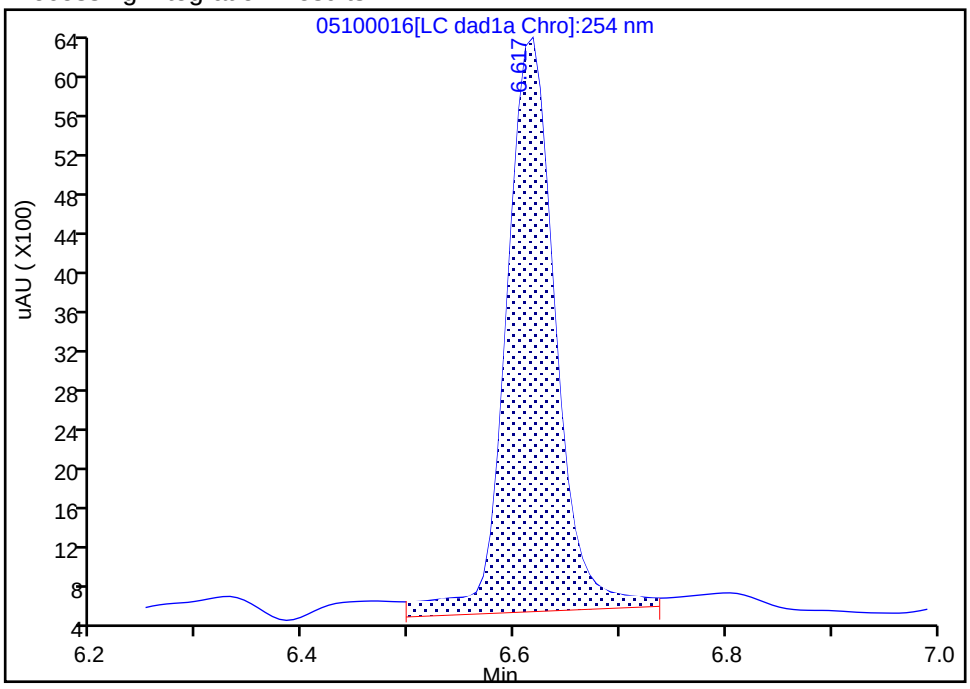
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240510-133263.b\05100016.d				
Injection Date:	10-May-2024 17:59:12	Instrument ID:	CHHPLC_X3		
Lims ID:	LCS 280-652746/2-A				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

4 HMX, CAS: 2691-41-0

Signal: 1

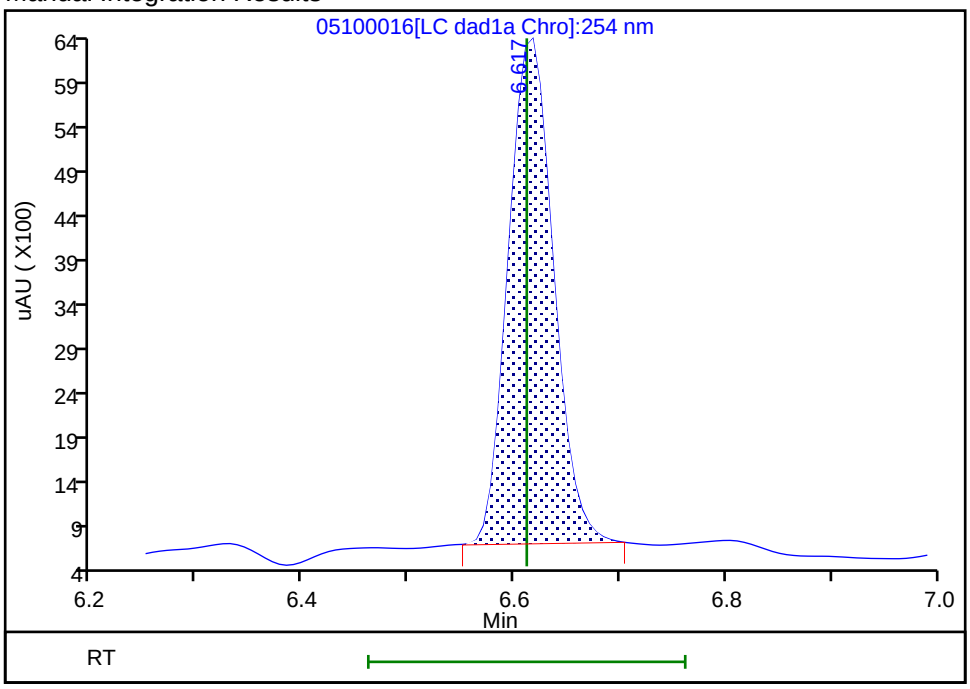
Processing Integration Results

RT: 6.62
Area: 19002
Amount: 0.198883
Amount Units: ug/mL



Manual Integration Results

RT: 6.62
Area: 16903
Amount: 0.176914
Amount Units: ug/mL



Reviewer: LV5D, 10-May-2024 18:35:11 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-190988-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCSD 280-652746/3-A

Matrix: Water | Lab File ID: 05100017.D

Analysis Method: 8330B | Date Collected:

Extraction Method: 3535 | Date Extracted: 05/09/2024 12:56

Sample wt/vol: 500(mL) | Date Analyzed: 05/10/2024 18:22

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 100(uL) | GC Column: UltraCarb5uODS ID: 4.6(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 652983 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	2.14		0.21	0.20	0.084
99-65-0	1,3-Dinitrobenzene	1.95		0.11	0.10	0.037
118-96-7	2,4,6-Trinitrotoluene	1.92		0.11	0.10	0.045
121-14-2	2,4-Dinitrotoluene	1.87		0.10	0.080	0.027
606-20-2	2,6-Dinitrotoluene	1.87		0.10	0.080	0.040
35572-78-2	2-Amino-4,6-dinitrotoluene	1.91		0.11	0.10	0.051
88-72-2	2-Nitrotoluene	1.53		0.21	0.20	0.086
99-08-1	3-Nitrotoluene	1.50		0.40	0.35	0.20
19406-51-0	4-Amino-2,6-dinitrotoluene	1.94		0.15	0.12	0.058
99-99-0	4-Nitrotoluene	1.48		0.41	0.40	0.10
2691-41-0	HMX	1.79	M	0.21	0.20	0.088
98-95-3	Nitrobenzene	1.73		0.21	0.20	0.091
55-63-0	Nitroglycerin	20.9		2.1	2.0	0.92
78-11-5	PETN	21.4		1.1	1.0	0.45
121-82-4	RDX	1.87		0.21	0.20	0.052
479-45-8	Tetryl	1.87		0.11	0.10	0.032

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	94		83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240510-133263.b\05100017.D
Lims ID: LCSD 280-652746/3-A
Client ID:
Sample Type: LCSD
Inject. Date: 10-May-2024 18:22:08 ALS Bottle#: 17 Worklist Smp#: 17
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: LCSD 280-652746/3-A
Operator ID: JZ Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20240510-133263.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 11-May-2024 11:25:09 Calib Date: 18-Apr-2024 03:08:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\04170028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1652

First Level Reviewer: LV5D Date: 10-May-2024 18:51:16

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
4 HMX	1	6.615	6.612	0.003	17094	0.2000	0.1789	M
8 RDX	1	7.628	7.625	0.003	20678	0.2000	0.1867	
9 2,4,6-Trinitrophenol	1	7.841	7.838	0.003	16723	0.2000	0.2108	
$ 10 1,2-Dinitrobenzene	1	8.561	8.552	0.009	24767	0.2000	0.1874	
11 1,3,5-Trinitrobenzene	1	8.701	8.692	0.009	47639	0.2000	0.2138	
12 1,3-Dinitrobenzene	1	9.314	9.298	0.016	58323	0.2000	0.1948	
13 Nitrobenzene	1	9.668	9.651	0.017	34024	0.2000	0.1733	
14 3,5-Dinitroaniline	1	9.901	9.885	0.016	41612	0.2000	0.1894	
15 Tetryl	1	9.981	9.965	0.016	33883	0.2000	0.1866	
16 Nitroglycerin	2	10.448	10.431	0.017	138739	2.00	2.09	
17 2,4,6-Trinitrotoluene	1	10.874	10.865	0.009	41297	0.2000	0.1919	
18 4-Amino-2,6-dinitrotoluene	1	11.054	11.038	0.016	29106	0.2000	0.1941	
19 2-Amino-4,6-dinitrotoluene	1	11.308	11.291	0.017	38243	0.2000	0.1914	
20 2,6-Dinitrotoluene	1	11.454	11.431	0.023	27502	0.2000	0.1872	
21 2,4-Dinitrotoluene	1	11.628	11.611	0.017	54637	0.2000	0.1872	
22 o-Nitrotoluene	1	12.408	12.385	0.023	19740	0.2000	0.1527	
23 p-Nitrotoluene	1	12.828	12.805	0.023	16745	0.2000	0.1484	
24 m-Nitrotoluene	1	13.381	13.351	0.030	21584	0.2000	0.1498	
25 PETN	2	14.428	14.398	0.030	153624	2.00	2.14	
26 Ammonium Picrate	1		0.000			ND	ND	

QC Flag Legend

Processing Flags
ND - Not Detected or Marked ND
Review Flags
M - Manually Integrated

Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20240510-133263.b\05100017.D				
Lims ID:	LCSD 280-652746/3-A				
Client ID:					
Sample Type:	LCSD				
Inject. Date:	10-May-2024 18:22:08	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	LCSD 280-652746/3-A				
Operator ID:	JZ	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20240510-133263.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	11-May-2024 11:25:09	Calib Date:	18-Apr-2024 03:08:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X\20240417-132364.b\04170028.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1652				

First Level Reviewer: LV5D Date: 10-May-2024 18:51:16

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.1874	93.72

Manual Integration/User Assign Peak Report

Eurofins Denver

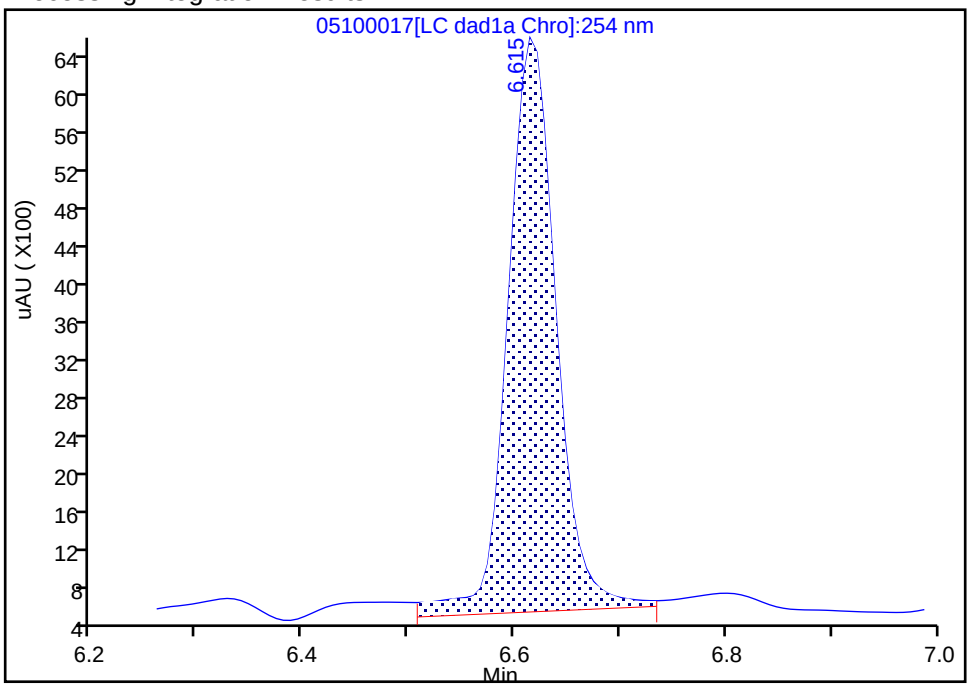
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240510-133263.b\05100017.d				
Injection Date:	10-May-2024 18:22:08	Instrument ID:	CHHPLC_X3		
Lims ID:	LCSD 280-652746/3-A				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

4 HMX, CAS: 2691-41-0

Signal: 1

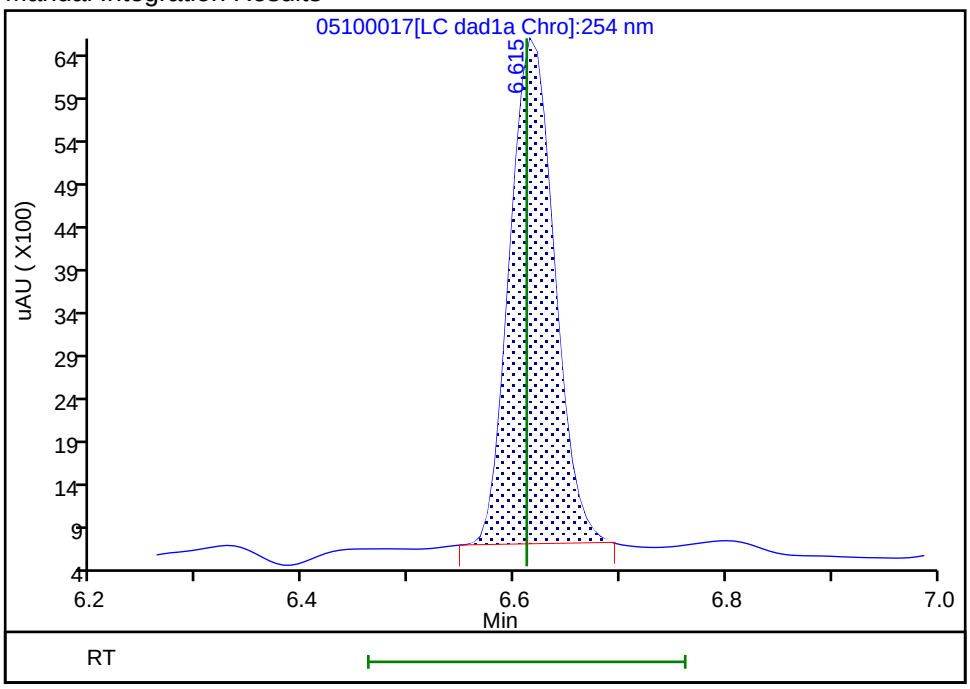
Processing Integration Results

RT: 6.61
Area: 19071
Amount: 0.199605
Amount Units: ug/mL



Manual Integration Results

RT: 6.61
Area: 17094
Amount: 0.178913
Amount Units: ug/mL



Reviewer: LV5D, 10-May-2024 18:51:15 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline

HPLC/IC ANALYSIS RUN LOG

Lab Name: Eurofins Denver Job No.: 280-190988-1

SDG No.:

Instrument ID: CHHPLC_X3 Start Date: 04/17/2024 20:37

Analysis Batch Number: 649950 End Date: 04/18/2024 03:30

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
IC 280-649950/11		04/17/2024 20:37	1	04170011.D	UltraCarb5uODS 4.6(mm)
IC 280-649950/12		04/17/2024 21:00	1	04170012.D	UltraCarb5uODS 4.6(mm)
IC 280-649950/13		04/17/2024 21:23	1	04170013.D	UltraCarb5uODS 4.6(mm)
IC 280-649950/14		04/17/2024 21:46	1	04170014.D	UltraCarb5uODS 4.6(mm)
IC 280-649950/15		04/17/2024 22:09	1	04170015.D	UltraCarb5uODS 4.6(mm)
IC 280-649950/16		04/17/2024 22:32	1	04170016.D	UltraCarb5uODS 4.6(mm)
IC 280-649950/17		04/17/2024 22:55	1	04170017.D	UltraCarb5uODS 4.6(mm)
IC 280-649950/18		04/17/2024 23:18	1	04170018.D	UltraCarb5uODS 4.6(mm)
IC 280-649950/19		04/17/2024 23:41	1	04170019.D	UltraCarb5uODS 4.6(mm)
ICV 280-649950/20		04/18/2024 00:04	1	04170020.D	UltraCarb5uODS 4.6(mm)
IC 280-649950/21		04/18/2024 00:27	1		UltraCarb5uODS 4.6(mm)
IC 280-649950/22		04/18/2024 00:50	1		UltraCarb5uODS 4.6(mm)
IC 280-649950/23		04/18/2024 01:13	1		UltraCarb5uODS 4.6(mm)
IC 280-649950/24		04/18/2024 01:36	1		UltraCarb5uODS 4.6(mm)
IC 280-649950/25		04/18/2024 01:59	1		UltraCarb5uODS 4.6(mm)
IC 280-649950/26		04/18/2024 02:22	1		UltraCarb5uODS 4.6(mm)
IC 280-649950/27		04/18/2024 02:45	1		UltraCarb5uODS 4.6(mm)
IC 280-649950/28		04/18/2024 03:08	1		UltraCarb5uODS 4.6(mm)
ICV 280-649950/29		04/18/2024 03:30	1		UltraCarb5uODS 4.6(mm)

HPLC/IC ANALYSIS RUN LOG

Lab Name: Eurofins Denver Job No.: 280-190988-1

SDG No.:

Instrument ID: CHHPLC_G2_LUNA Start Date: 04/24/2024 21:28

Analysis Batch Number: 650851 End Date: 04/25/2024 08:15

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
IC 280-650851/10		04/24/2024 21:28	1	04240010.D	Luna-phenylhex 4.6(mm)
IC 280-650851/11		04/24/2024 22:04	1	04240011.D	Luna-phenylhex 4.6(mm)
IC 280-650851/12		04/24/2024 22:40	1	04240012.D	Luna-phenylhex 4.6(mm)
IC 280-650851/13		04/24/2024 23:16	1	04240013.D	Luna-phenylhex 4.6(mm)
IC 280-650851/14		04/24/2024 23:51	1	04240014.D	Luna-phenylhex 4.6(mm)
IC 280-650851/15		04/25/2024 00:27	1	04240015.D	Luna-phenylhex 4.6(mm)
IC 280-650851/16		04/25/2024 01:03	1	04240016.D	Luna-phenylhex 4.6(mm)
IC 280-650851/17		04/25/2024 01:39	1	04240017.D	Luna-phenylhex 4.6(mm)
IC 280-650851/18		04/25/2024 02:15	1	04240018.D	Luna-phenylhex 4.6(mm)
ICV 280-650851/19		04/25/2024 02:51	1	04240019.D	Luna-phenylhex 4.6(mm)
IC 280-650851/20		04/25/2024 03:27	1		Luna-phenylhex 4.6(mm)
IC 280-650851/21		04/25/2024 04:03	1		Luna-phenylhex 4.6(mm)
IC 280-650851/22		04/25/2024 04:39	1		Luna-phenylhex 4.6(mm)
IC 280-650851/23		04/25/2024 05:15	1		Luna-phenylhex 4.6(mm)
IC 280-650851/24		04/25/2024 05:51	1		Luna-phenylhex 4.6(mm)
IC 280-650851/25		04/25/2024 06:27	1		Luna-phenylhex 4.6(mm)
IC 280-650851/26		04/25/2024 07:03	1		Luna-phenylhex 4.6(mm)
IC 280-650851/27		04/25/2024 07:39	1		Luna-phenylhex 4.6(mm)
ICV 280-650851/28		04/25/2024 08:15	1		Luna-phenylhex 4.6(mm)

HPLC/IC ANALYSIS RUN LOG

Lab Name: Eurofins Denver Job No.: 280-190988-1

SDG No.:

Instrument ID: CHHPLC_X3 Start Date: 05/10/2024 17:13

Analysis Batch Number: 652983 End Date: 05/11/2024 02:47

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCV 280-652983/14		05/10/2024 17:13	1	05100014.D	UltraCarb5uODS 4.6(mm)
MB 280-652746/1-A		05/10/2024 17:36	1	05100015.D	UltraCarb5uODS 4.6(mm)
LCS 280-652746/2-A		05/10/2024 17:59	1	05100016.D	UltraCarb5uODS 4.6(mm)
LCSD 280-652746/3-A		05/10/2024 18:22	1	05100017.D	UltraCarb5uODS 4.6(mm)
280-190988-4	LL1mw-092-240401-GW	05/10/2024 18:45	1	05100018.D	UltraCarb5uODS 4.6(mm)
280-190988-6	LL1mw-093-240401-GW	05/10/2024 19:08	1	05100019.D	UltraCarb5uODS 4.6(mm)
280-190988-7	LL1mw-091-240401-GW	05/10/2024 19:31	1	05100020.D	UltraCarb5uODS 4.6(mm)
280-190988-8	LL1mw-064-240401-GW	05/10/2024 19:54	1	05100021.D	UltraCarb5uODS 4.6(mm)
280-190988-9	LL1mw-090-240401-GW	05/10/2024 20:17	1	05100022.D	UltraCarb5uODS 4.6(mm)
280-190988-10	FWGmw-016-240401-GW	05/10/2024 20:39	1	05100023.D	UltraCarb5uODS 4.6(mm)
ZZZZZ		05/10/2024 21:02	1		UltraCarb5uODS 4.6(mm)
CCV 280-652983/25		05/10/2024 21:25	1	05100025.D	UltraCarb5uODS 4.6(mm)
ZZZZZ		05/10/2024 21:48	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		05/10/2024 22:11	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		05/10/2024 22:34	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		05/10/2024 22:57	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		05/10/2024 23:20	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		05/10/2024 23:43	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		05/11/2024 00:06	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		05/11/2024 00:29	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		05/11/2024 00:52	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		05/11/2024 01:15	1		UltraCarb5uODS 4.6(mm)
CCV 280-652983/36		05/11/2024 01:38	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		05/11/2024 02:01	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		05/11/2024 02:24	1		UltraCarb5uODS 4.6(mm)
CCV 280-652983/39		05/11/2024 02:47	1		UltraCarb5uODS 4.6(mm)

HPLC/IC ANALYSIS RUN LOG

Lab Name: Eurofins Denver Job No.: 280-190988-1

SDG No.:

Instrument ID: CHHPLC_G2_LUNA Start Date: 05/10/2024 18:20

Analysis Batch Number: 653003 End Date: 05/11/2024 09:19

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCV 280-653003/7		05/10/2024 18:20	1	05100007.D	Luna-phenylhex 4.6(mm)
ZZZZZ		05/10/2024 18:56	1		Luna-phenylhex 4.6(mm)
ZZZZZ		05/10/2024 19:32	1		Luna-phenylhex 4.6(mm)
ZZZZZ		05/10/2024 20:08	1		Luna-phenylhex 4.6(mm)
280-190988-4	LL1mw-092-240401-GW	05/10/2024 20:44	1	05100013.D	Luna-phenylhex 4.6(mm)
280-190988-6	LL1mw-093-240401-GW	05/10/2024 21:20	1	05100014.D	Luna-phenylhex 4.6(mm)
280-190988-7	LL1mw-091-240401-GW	05/10/2024 21:56	1	05100015.D	Luna-phenylhex 4.6(mm)
ZZZZZ		05/11/2024 00:20	1		Luna-phenylhex 4.6(mm)
CCV 280-653003/20		05/11/2024 00:56	1	05100020.D	Luna-phenylhex 4.6(mm)
ZZZZZ		05/11/2024 01:32	1		Luna-phenylhex 4.6(mm)
ZZZZZ		05/11/2024 02:08	1		Luna-phenylhex 4.6(mm)
ZZZZZ		05/11/2024 02:44	1		Luna-phenylhex 4.6(mm)
ZZZZZ		05/11/2024 03:20	1		Luna-phenylhex 4.6(mm)
ZZZZZ		05/11/2024 03:56	1		Luna-phenylhex 4.6(mm)
ZZZZZ		05/11/2024 04:32	1		Luna-phenylhex 4.6(mm)
ZZZZZ		05/11/2024 05:07	1		Luna-phenylhex 4.6(mm)
ZZZZZ		05/11/2024 05:43	1		Luna-phenylhex 4.6(mm)
ZZZZZ		05/11/2024 06:19	1		Luna-phenylhex 4.6(mm)
ZZZZZ		05/11/2024 06:55	1		Luna-phenylhex 4.6(mm)
CCV 280-653003/31		05/11/2024 07:31	1		Luna-phenylhex 4.6(mm)
ZZZZZ		05/11/2024 08:07	1		Luna-phenylhex 4.6(mm)
CCV 280-653003/34		05/11/2024 09:19	1		Luna-phenylhex 4.6(mm)

HPLC/IC BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-190988-1

SDG No.:

Batch Number: 649950 Batch Start Date: 04/17/24 20:37 Batch Analyst: Zhang, Jian

Batch Method: 8330B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	FinalAmount	8330 DMT 00016	8330 LCS 00134	8330_OP_DMT 00026	8330IntermStk 00080	8330Surrogate 00154
IC 280-649950/11		8330B			1 mL	125 uL			250 uL	
IC 280-649950/12		8330B			1 mL	50 uL			100 uL	
IC 280-649950/13		8330B			1 mL	35 uL			70 uL	
IC 280-649950/14		8330B			1 mL	20 uL			40 uL	
IC 280-649950/15		8330B			1 mL	12.5 uL			25 uL	
IC 280-649950/16		8330B			1 mL	5 uL			10 uL	
IC 280-649950/17		8330B			1 mL	2.5 uL			5 uL	
IC 280-649950/18		8330B			1 mL	1 uL			2 uL	
IC 280-649950/19		8330B			1 mL	0.5 uL			1 uL	
ICV 280-649950/20		8330B			1 mL		50 uL	50 uL		50 uL

Batch Notes	
Methanol ID	233990

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

HPLC/IC BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-190988-1

SDG No.:

Batch Number: 650851 Batch Start Date: 04/24/24 21:28 Batch Analyst: Zhang, Jian

Batch Method: 8330B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	FinalAmount	8330 LCS 00134	8330IntermStk 00080	8330Surrogate 00154		
IC 280-650851/10		8330B			1 mL		250 uL			
IC 280-650851/11		8330B			1 mL		100 uL			
IC 280-650851/12		8330B			1 mL		70 uL			
IC 280-650851/13		8330B			1 mL		40 uL			
IC 280-650851/14		8330B			1 mL		25 uL			
IC 280-650851/15		8330B			1 mL		10 uL			
IC 280-650851/16		8330B			1 mL		5 uL			
IC 280-650851/17		8330B			1 mL		2 uL			
IC 280-650851/18		8330B			1 mL		1 uL			
ICV 280-650851/19		8330B			1 mL	50 uL		50 uL		

Batch Notes	
Methanol ID	233990

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

HPLC/IC BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-190988-1

SDG No.:

Batch Number: 652746 Batch Start Date: 05/09/24 12:56 Batch Analyst: Johnston, Malcolm S

Batch Method: 3535 Batch End Date: 05/09/24 15:45

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	GrossWeight	TareWeight	InitialAmount	FinalAmount	8330 LCS 00135	8330Surrogate 00155
MB 280-652746/1		3535, 8330B					500 mL	5 mL		0.1 mL
LCS 280-652746/2		3535, 8330B					500 mL	5 mL	0.1 mL	0.1 mL
LCSD 280-652746/3		3535, 8330B					500 mL	5 mL	0.1 mL	0.1 mL
280-190988-A-4	LL1mw-092-240401-GW	3535, 8330B	Water	T	759.2 g	282.3 g	476.9 mL	5 mL		0.1 mL
280-190988-A-6	LL1mw-093-240401-GW	3535, 8330B	Water	T	757.1 g	284.0 g	473.1 mL	5 mL		0.1 mL
280-190988-A-7	LL1mw-091-240401-GW	3535, 8330B	Water	T	748.4 g	284.5 g	463.9 mL	5 mL		0.1 mL
280-190988-A-8	LL1mw-064-240401-GW	3535, 8330B	Water	T	728.0 g	281.2 g	446.8 mL	5 mL		0.1 mL
280-190988-A-9	LL1mw-090-240401-GW	3535, 8330B	Water	T	712.9 g	283.3 g	429.6 mL	5 mL		0.1 mL
280-190988-A-10	FWGmw-016-240401-GW	3535, 8330B	Water	T	743.1 g	283.7 g	459.4 mL	5 mL		0.1 mL

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

HPLC/IC BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-190988-1

SDG No.:

Batch Number: 652746 Batch Start Date: 05/09/24 12:56 Batch Analyst: Johnston, Malcolm S

Batch Method: 3535 Batch End Date: 05/09/24 15:45

Batch Notes	
First Start time	05/09/2024 13:18
First End time	05/09/2024 15:22
SPE Cartridge Type	Sep-Pak Porapak Rdx
SPE Cartridge Lot ID	005434002A
Balance ID	24350888
Balance is Level? (Y/N)	yes
Manifold ID	Manifold: A, B
QC Bottle Lot ID	0202401I
Pipette/Syringe/Dispenser ID	Dobby/ DOD/ Pugsley
Solvent Name	CaCl2
Solvent Lot #	CaCl2_Sol_00092
Rinse Solvent Name	Acetonitrile
Rinse Solvent Lot	Acetonitrile_00087
Acid Name	0.2% AAinACN
Acid ID	0.2% AAinACN_00004
Analyst ID - Spike Analyst	MJ
Analyst ID - Spike Witness Analyst	Reviewer: AA
Batch Comment	DV-OP-0017

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY

COVER PAGE
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job Number: 280-190988-1

SDG No.:

Project: RVAAP FWGW

Client Sample ID	Lab Sample ID
LL12mw-249-240401-GW	280-190988-1
LL12mw-249-240402-GW	280-190988-2
LL12mw-248-240401-GW	280-190988-3
LL12mw-244-240401-GW	280-190988-5

Comments:

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: LL12mw-249-240401-GW
Lab Sample ID: 280-190988-1
Lab Name: Eurofins Denver
Job No.: 280-190988-1
SDG ID.:
Matrix: Water
Date Sampled: 05/02/2024 10:25
Reporting Basis: WET
Date Received: 05/03/2024 09:20

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Ammonia as N	0.050	0.10	0.050	0.029	mg/L	J		1	350.1
Nitrate as N	0.20	0.50	0.20	0.090	mg/L	U		1	9056

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: LL12mw-249-240402-GW
Lab Sample ID: 280-190988-2
Lab Name: Eurofins Denver
Job No.: 280-190988-1
SDG ID.:
Matrix: Water
Date Sampled: 05/02/2024 10:25
Reporting Basis: WET
Date Received: 05/03/2024 09:20

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Ammonia as N	0.032	0.10	0.050	0.029	mg/L	J		1	350.1
Nitrate as N	0.20	0.50	0.20	0.090	mg/L	U		1	9056

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: LL12mw-248-240401-GW
Lab Sample ID: 280-190988-3
Lab Name: Eurofins Denver
Job No.: 280-190988-1
SDG ID.:
Matrix: Water
Date Sampled: 05/02/2024 10:40
Reporting Basis: WET
Date Received: 05/03/2024 09:20

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Ammonia as N	0.075	0.10	0.050	0.029	mg/L	J		1	350.1
Nitrate as N	0.20	0.50	0.20	0.090	mg/L	U		1	9056

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: LL12mw-244-240401-GW
Lab Sample ID: 280-190988-5
Lab Name: Eurofins Denver
Job No.: 280-190988-1
SDG ID.:
Matrix: Water
Date Sampled: 05/02/2024 12:35
Reporting Basis: WET
Date Received: 05/03/2024 09:20

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Ammonia as N	0.30	0.10	0.050	0.029	mg/L			1	350.1
Nitrate as N	0.20	0.50	0.20	0.090	mg/L	U		1	9056

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-190988-1

SDG No.:

Analyst: LBR Batch Start Date: 05/11/2024

Reporting Units: mg/L Analytical Batch No.: 653086

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
16	ICV	11:50	Ammonia as N	2.65	2.51	106	90-110		350.1 ICV_00608
17	ICVL	11:52	Ammonia as N	0.546	0.501	109	90-110		350.1 ICV_00608
18	ICB	11:54	Ammonia as N	0.050				U	
71	CCV	13:49	Ammonia as N	2.47	2.50	99	90-110		350.1 cal_00629
73	CCVL	13:54	Ammonia as N	0.535	0.500	107	90-110		350.1 cal_00629
74	CCB	13:56	Ammonia as N	0.050				U	
94	CCV	14:39	Ammonia as N	2.46	2.50	99	90-110		350.1 cal_00629
96	CCVL	14:44	Ammonia as N	0.522	0.500	104	90-110		350.1 cal_00629
97	CCB	14:46	Ammonia as N	0.050				U	
111	CCV	15:16	Ammonia as N	2.49	2.50	100	90-110		350.1 cal_00629
113	CCVL	15:20	Ammonia as N	0.531	0.500	106	90-110		350.1 cal_00629
114	CCB	15:22	Ammonia as N	0.050				U	
134	CCV	16:06	Ammonia as N	2.44	2.50	97	90-110		350.1 cal_00629
136	CCVL	16:10	Ammonia as N	0.526	0.500	105	90-110		350.1 cal_00629
137	CCB	16:13	Ammonia as N	0.050				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-190988-1

SDG No.:

Analyst: EJS Batch Start Date: 02/21/2024

Reporting Units: mg/L Analytical Batch No.: 643627

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
10	ICB	15:13	Nitrate as N	0.20				U	
9	ICV	17:46	Nitrate as N	4.05	4.00	101	90-110		IC ICV 5_00428

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-190988-1

SDG No.:

Analyst: IRC Batch Start Date: 05/03/2024

Reporting Units: mg/L Analytical Batch No.: 652026

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	CCV	11:03	Nitrate as N	4.94	5.00	99	90-110		IC LCS_02034
2	CCB	11:20	Nitrate as N	0.20				U	
20	CCV	23:10	Nitrate as N	4.94	5.00	99	90-110		IC LCS_02034
21	CCB	23:27	Nitrate as N	0.20				U	
35	CCV	03:26	Nitrate as N	4.92	5.00	98	90-110		IC LCS_02034
36	CCB	03:43	Nitrate as N	0.20				U	
48	CCV	07:07	Nitrate as N	4.97	5.00	99	90-110		IC LCS_02034
49	CCB	07:24	Nitrate as N	0.20				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

3-IN
METHOD BLANK
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-190988-1

SDG No.:

Method	Lab Sample ID	Analyte	Result	Qual	Units	LOQ	Dil
Batch ID: 653086 Date: 05/11/2024 14:03							
350.1	MB 280-653086/77	Ammonia as N	0.050	U	mg/L	0.10	1
Batch ID: 652026 Date: 05/03/2024 12:28							
9056	MB 280-652026/6	Nitrate as N	0.20	U	mg/L	0.50	1
Batch ID: 652026 Date: 05/04/2024 04:34							
9056	MB 280-652026/39	Nitrate as N	0.20	U	mg/L	0.50	1

5-IN
MATRIX SPIKE SAMPLE RECOVERY
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-190988-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 653086 Date: 05/11/2024 14:13											
350.1	280-190988-1	Ammonia as N	0.050	J	mg/L						
350.1	280-190988-1 MS	Ammonia as N	1.03		mg/L	1.00	98	90-110			
Batch ID: 652026 Date: 05/03/2024 20:54											
9056	280-190988-1	Nitrate as N	0.20	U	mg/L						
9056	280-190988-1 MS	Nitrate as N	4.94		mg/L	5.00	99	88-111			
Batch ID: 652026 Date: 05/04/2024 06:33											
9056	280-190988-5	Nitrate as N	0.20	U	mg/L						
9056	280-190988-5 MS	Nitrate as N	5.06		mg/L	5.00	101	88-111			

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM V-IN

5-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-190988-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 653086 Date: 05/11/2024 14:15											
350.1	280-190988-1 MSD	Ammonia as N	1.09		mg/L	1.00	104	90-110	5	10	
Batch ID: 652026 Date: 05/03/2024 21:11											
9056	280-190988-1 MSD	Nitrate as N	5.04		mg/L	5.00	101	88-111	2	10	
Batch ID: 652026 Date: 05/04/2024 06:50											
9056	280-190988-5 MSD	Nitrate as N	5.12		mg/L	5.00	102	88-111	1	10	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM V-IN

6-IN
DUPLICATE
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-190988-1

SDG No.:

Matrix: Water

Method	Client Sample ID	Lab Sample ID	Analyte	Result	Unit	RPD	RPD Limit	Qual
Batch ID: 652026 Date: 05/03/2024 20:37								
9056	LL12mw-249-240401-GW	280-190988-1	Nitrate as N	0.20	mg/L			U
9056	LL12mw-249-240401-GW	280-190988-1 DU	Nitrate as N	0.20	mg/L	NC	10	U
Batch ID: 652026 Date: 05/04/2024 06:16								
9056	LL12mw-244-240401-GW	280-190988-5	Nitrate as N	0.20	mg/L			U
9056	LL12mw-244-240401-GW	280-190988-5 DU	Nitrate as N	0.20	mg/L	NC	10	U

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VI-IN

7A-IN
LAB CONTROL SAMPLE
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-190988-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 653086	Date: 05/11/2024 14:04										
						LCS Source: 350.1 cal_00629					
350.1	LCS 280-653086/78	Ammonia as N	2.47		mg/L	2.50	99	90-110	3	10	
Batch ID: 652026	Date: 05/03/2024 11:54										
						LCS Source: IC LCS_02034					
9056	LCS 280-652026/4	Nitrate as N	4.95		mg/L	5.00	99	88-111	0	10	
Batch ID: 652026	Date: 05/04/2024 04:00										
						LCS Source: IC LCS_02034					
9056	LCS 280-652026/37	Nitrate as N	4.95		mg/L	5.00	99	88-111	0	10	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA-IN

7A-IN
LAB CONTROL SAMPLE DUPLICATE
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-190988-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 653086	Date: 05/11/2024 14:07										
						LCSD Source: 350.1 cal_00629					
350.1	LCSD 280-653086/79	Ammonia as N	2.55		mg/L	2.50	102	90-110	3	10	
Batch ID: 652026	Date: 05/03/2024 12:11										
						LCSD Source: IC LCS_02034					
9056	LCSD 280-652026/5	Nitrate as N	4.95		mg/L	5.00	99	88-111	0	10	
Batch ID: 652026	Date: 05/04/2024 04:17										
						LCSD Source: IC LCS_02034					
9056	LCSD 280-652026/38	Nitrate as N	4.96		mg/L	5.00	99	88-111	0	10	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA-IN

7A-IN
METHOD REPORTING LIMIT CHECK
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-190988-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 652026	Date: 05/03/2024 11:37										
						LCS Source: IC Cal low_00772					
9056	MRL 280-652026/3	Nitrate as N	0.472	J	mg/L	0.500	94	50-150			

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA-IN

16A-IN
INITIAL CALIBRATION SUMMARY

Lab Name: Eurofins Denver Job No: 280-190988-1

SDG No.: Analysis Batch No.: 643627

Instrument ID: WC_IonChrom14 Calibration ID: 90565

Start Date: 02/21/2024 12:57 End Date: 02/21/2024 14:22

Analytical Method: 9056

Analyte	Corr. Coeff.	Slope	Intercept	Calib. Type	Weighting
Nitrate as N	1.0000	45100000	-3460000	WLR	Inverse Conc

16B-IN
INITIAL CALIBRATION

Lab Name: Eurofins Denver Job No: 280-190988-1

SDG No.: Analysis Batch No.: 643627

Instrument ID: WC_IonChrom14 Calibration ID: 90565

Start Date: 02/21/2024 12:57 End Date: 02/21/2024 14:22

Analytical Method: 9056 Concentration Units: ug/mL

Analyte	True	Found	%D	True	Found	%D	True	Found	%D
Nitrate as N	0.20	0.22	8	0.50	0.48	-5	1.0	0.96	-4

16B-IN
INITIAL CALIBRATION

Lab Name: Eurofins Denver Job No: 280-190988-1

SDG No.: Analysis Batch No.: 643627

Instrument ID: WC_IonChrom14 Calibration ID: 90565

Start Date: 02/21/2024 12:57 End Date: 02/21/2024 14:22

Analytical Method: 9056 Concentration Units: ug/mL

Analyte	True	Found	%D	True	Found	%D	True	Found	%D
Nitrate as N	4.0	4.0	1	8.0	7.9	-2	10.0	10.2	2

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job Number: 280-190988-1

SDG Number:

Matrix: Water Instrument ID: WC_SKALAR_01

Method: 350.1 DL Date: 04/29/2022 13:46

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Ammonia as N		0.1	0.029

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job Number: 280-190988-1

SDG Number:

Matrix: Water Instrument ID: WC_SKALAR_01

Method: 350.1 XMDL Date: 03/28/2011 13:26

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Ammonia as N		0.1	0.0225

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job Number: 280-190988-1

SDG Number:

Matrix: Water Instrument ID: WC_IonChrom14

Method: 9056 DL Date: 06/21/2019 00:00

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Nitrate as N		0.5	0.0901

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job Number: 280-190988-1

SDG Number:

Matrix: Water Instrument ID: WC_IonChrom14

Method: 9056 XMDL Date: 06/21/2019 00:00

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Nitrate as N		0.5	0.0901

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-190988-1

SDG No.:

Instrument ID: WC_SKALAR_01 Analysis Method: 350.1

Start Date: 05/11/2024 11:17 End Date: 05/11/2024 18:14

Lab Sample Id	D/F	Type	Time	Analytes																								
				NH3																								
ZZZZZZ			11:17																									
ZZZZZZ			11:19																									
ZZZZZZ			11:22																									
ZZZZZZ			11:24																									
ZZZZZZ			11:26																									
ZZZZZZ			11:29																									
ZZZZZZ			11:31																									
ZZZZZZ			11:33																									
ZZZZZZ			11:35																									
ZZZZZZ			11:37																									
ZZZZZZ			11:39																									
ZZZZZZ			11:41																									
ZZZZZZ			11:44																									
ZZZZZZ			11:46																									
ZZZZZZ			11:48																									
ICV 280-653086/16	1		11:50	X																								
ICVL 280-653086/17	1		11:52	X																								
ICB 280-653086/18	1		11:54	X																								
ZZZZZZ			11:57																									
ZZZZZZ			11:58																									
ZZZZZZ			12:01																									
ZZZZZZ			12:03																									
ZZZZZZ			12:05																									
ZZZZZZ			12:07																									
ZZZZZZ			12:10																									
ZZZZZZ			12:12																									
ZZZZZZ			12:14																									
ZZZZZZ			12:16																									
ZZZZZZ			12:18																									
ZZZZZZ			12:20																									
ZZZZZZ			12:23																									
ZZZZZZ			12:25																									
ZZZZZZ			12:27																									
ZZZZZZ			12:29																									
ZZZZZZ			12:31																									
ZZZZZZ			12:33																									
CCV 280-653086/37			12:36																									
ZZZZZZ			12:38																									
CCVL 280-653086/39			12:40																									
CCB 280-653086/40			12:42																									
ZZZZZZ			12:44																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver | Job No.: 280-190988-1

SDG No.:

Instrument ID: WC_SKALAR_01 | Analysis Method: 350.1

Start Date: 05/11/2024 11:17 | End Date: 05/11/2024 18:14

Lab Sample Id	D/F	Type	Time	Analytes
				NH3
ZZZZZZ			12:46	
ZZZZZZ			12:49	
ZZZZZZ			12:51	
ZZZZZZ			12:53	
ZZZZZZ			12:55	
ZZZZZZ			12:57	
ZZZZZZ			12:59	
ZZZZZZ			13:02	
ZZZZZZ			13:04	
ZZZZZZ			13:06	
ZZZZZZ			13:08	
ZZZZZZ			13:10	
CCV 280-653086/54			13:12	
ZZZZZZ			13:15	
CCVL 280-653086/56			13:17	
CCB 280-653086/57			13:19	
ZZZZZZ			13:21	
ZZZZZZ			13:23	
ZZZZZZ			13:26	
ZZZZZZ			13:28	
ZZZZZZ			13:30	
ZZZZZZ			13:32	
ZZZZZZ			13:34	
ZZZZZZ			13:36	
ZZZZZZ			13:38	
ZZZZZZ			13:41	
ZZZZZZ			13:43	
ZZZZZZ			13:45	
ZZZZZZ			13:47	
CCV 280-653086/71	1		13:49	X
ZZZZZZ			13:52	
CCVL 280-653086/73	1		13:54	X
CCB 280-653086/74	1		13:56	X
ZZZZZZ			13:58	
ZZZZZZ			14:00	
MB 280-653086/77	1	T	14:03	X
LCS 280-653086/78	1	T	14:04	X
LCSD 280-653086/79	1	T	14:07	X
ZZZZZZ			14:09	
280-190988-1	1	T	14:11	X
280-190988-1 MS	1	T	14:13	X

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-190988-1

SDG No.:

Instrument ID: WC_SKALAR_01 Analysis Method: 350.1

Start Date: 05/11/2024 11:17 End Date: 05/11/2024 18:14

Lab Sample Id	D/F	Type	Time	Analytes
				NH3
280-190988-1 MSD	1	T	14:15	X
ZZZZZZ			14:18	
ZZZZZZ			14:20	
ZZZZZZ			14:22	
ZZZZZZ			14:24	
ZZZZZZ			14:26	
ZZZZZZ			14:28	
ZZZZZZ			14:31	
ZZZZZZ			14:33	
ZZZZZZ			14:35	
ZZZZZZ			14:37	
CCV 280-653086/94	1		14:39	X
ZZZZZZ			14:41	
CCVL 280-653086/96	1		14:44	X
CCB 280-653086/97	1		14:46	X
ZZZZZZ			14:48	
ZZZZZZ			14:50	
ZZZZZZ			14:52	
ZZZZZZ			14:54	
ZZZZZZ			14:57	
ZZZZZZ			14:59	
280-190988-3	1	T	15:01	X
280-190988-5	1	T	15:03	X
ZZZZZZ			15:05	
ZZZZZZ			15:07	
ZZZZZZ			15:10	
ZZZZZZ			15:12	
ZZZZZZ			15:14	
CCV 280-653086/111	1		15:16	X
ZZZZZZ			15:18	
CCVL 280-653086/113	1		15:20	X
CCB 280-653086/114	1		15:22	X
ZZZZZZ			15:25	
ZZZZZZ			15:27	
ZZZZZZ			15:29	
ZZZZZZ			15:31	
ZZZZZZ			15:33	
ZZZZZZ			15:36	
280-190988-2	1	T	15:38	X
ZZZZZZ			15:40	
ZZZZZZ			15:42	

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver | Job No.: 280-190988-1

SDG No.:

Instrument ID: WC_SKALAR_01 | Analysis Method: 350.1

Start Date: 05/11/2024 11:17 | End Date: 05/11/2024 18:14

Lab Sample Id	D/F	Type	Time	Analytes																								
				NH3																								
ZZZZZZ			15:44																									
ZZZZZZ			15:46																									
ZZZZZZ			15:49																									
ZZZZZZ			15:51																									
ZZZZZZ			15:53																									
ZZZZZZ			15:55																									
ZZZZZZ			15:57																									
ZZZZZZ			15:59																									
ZZZZZZ			16:02																									
ZZZZZZ			16:04																									
CCV 280-653086/134	1		16:06	X																								
ZZZZZZ			16:08																									
CCVL 280-653086/136	1		16:10	X																								
CCB 280-653086/137	1		16:13	X																								
ZZZZZZ			16:15																									
ZZZZZZ			16:17																									
ZZZZZZ			16:19																									
ZZZZZZ			16:21																									
ZZZZZZ			16:23																									
ZZZZZZ			16:25																									
ZZZZZZ			16:27																									
ZZZZZZ			16:30																									
ZZZZZZ			16:32																									
ZZZZZZ			16:34																									
ZZZZZZ			16:36																									
ZZZZZZ			16:38																									
ZZZZZZ			16:40																									
CCV 280-653086/151			16:43																									
ZZZZZZ			16:45																									
CCVL 280-653086/153			16:47																									
CCB 280-653086/154			16:49																									
ZZZZZZ			16:51																									
ZZZZZZ			16:53																									
ZZZZZZ			16:56																									
ZZZZZZ			16:58																									
ZZZZZZ			17:00																									
ZZZZZZ			17:02																									
ZZZZZZ			17:05																									
ZZZZZZ			17:07																									
ZZZZZZ			17:09																									
ZZZZZZ			17:11																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-190988-1

SDG No.:

Instrument ID: WC_SKALAR_01 Analysis Method: 350.1

Start Date: 05/11/2024 11:17 End Date: 05/11/2024 18:14

Lab Sample Id	D/F	Type	Time	Analytes
				NH3
ZZZZZZ			17:13	
ZZZZZZ			17:15	
ZZZZZZ			17:17	
ZZZZZZ			17:19	
ZZZZZZ			17:22	
ZZZZZZ			17:24	
ZZZZZZ			17:26	
ZZZZZZ			17:28	
ZZZZZZ			17:30	
ZZZZZZ			17:32	
ZZZZZZ			17:35	
ZZZZZZ			17:37	
CCV 280-653086/177			17:39	
ZZZZZZ			17:41	
CCVL 280-653086/179			17:43	
CCB 280-653086/180			17:46	
ZZZZZZ			17:48	
ZZZZZZ			17:50	
ZZZZZZ			17:52	
ZZZZZZ			17:54	
ZZZZZZ			17:56	
ZZZZZZ			17:59	
CCV 280-653086/187			18:01	
ZZZZZZ			18:03	
CCVL 280-653086/189			18:05	
CCB 280-653086/190			18:07	
ZZZZZZ			18:09	
ZZZZZZ			18:12	
ZZZZZZ			18:14	

Prep Types:
T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver | Job No.: 280-190988-1

SDG No.:

Instrument ID: WC_IonChrom14 | Analysis Method: 9056

Start Date: 02/21/2024 12:57 | End Date: 02/21/2024 20:53

Lab Sample Id	D/F	Type	Time	Analytes																								
				NO3																								
STD 280-643627/2 IC	1		12:57	X																								
STD 280-643627/3 IC	1		13:14	X																								
STD 280-643627/4 IC	1		13:31	X																								
STD 280-643627/5 IC	1		13:48	X																								
STD 280-643627/6 IC	1		14:05	X																								
STD 280-643627/7 IC	1		14:22	X																								
RTC 280-643627/8			14:39																									
ICB 280-643627/10	1		15:13	X																								
ZZZZZZ			15:30																									
ZZZZZZ			15:47																									
ZZZZZZ			16:04																									
ZZZZZZ			16:21																									
ZZZZZZ			16:38																									
ZZZZZZ			16:55																									
ICV 280-643627/9	1		17:46	X																								
ZZZZZZ			18:03																									
ZZZZZZ			18:20																									
ZZZZZZ			18:37																									
ZZZZZZ			18:54																									
ZZZZZZ			19:11																									
ZZZZZZ			19:28																									
CCV 280-643627/23			19:45																									
CCB 280-643627/24			20:02																									
ZZZZZZ			20:19																									
ZZZZZZ			20:36																									
ZZZZZZ			20:53																									

Prep Types:
=

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver | Job No.: 280-190988-1

SDG No.:

Instrument ID: WC_IonChrom14 | Analysis Method: 9056

Start Date: 05/03/2024 11:03 | End Date: 05/04/2024 07:24

Lab Sample Id	D/F	Type	Time	Analytes																								
				NO3																								
CCV 280-652026/1	1		11:03	X																								
CCB 280-652026/2	1		11:20	X																								
MRL 280-652026/3	1	T	11:37	X																								
LCS 280-652026/4	1	T	11:54	X																								
LCSD 280-652026/5	1	T	12:11	X																								
MB 280-652026/6	1	T	12:28	X																								
ZZZZZZ			19:29																									
ZZZZZZ			19:46																									
ZZZZZZ			20:03																									
280-190988-1	1	T	20:20	X																								
280-190988-1 DU	1	T	20:37	X																								
280-190988-1 MS	1	T	20:54	X																								
280-190988-1 MSD	1	T	21:11	X																								
280-190988-2	1	T	21:28	X																								
ZZZZZZ			21:45																									
ZZZZZZ			22:02																									
280-190988-3	1	T	22:19	X																								
ZZZZZZ			22:36																									
ZZZZZZ			22:53																									
CCV 280-652026/20	1		23:10	X																								
CCB 280-652026/21	1		23:27	X																								
ZZZZZZ			23:44																									
ZZZZZZ			00:01																									
ZZZZZZ			00:18																									
ZZZZZZ			00:35																									
ZZZZZZ			00:52																									
ZZZZZZ			01:10																									
ZZZZZZ			01:27																									
ZZZZZZ			01:44																									
ZZZZZZ			02:01																									
ZZZZZZ			02:18																									
ZZZZZZ			02:35																									
ZZZZZZ			02:52																									
ZZZZZZ			03:09																									
CCV 280-652026/35	1		03:26	X																								
CCB 280-652026/36	1		03:43	X																								
LCS 280-652026/37	1	T	04:00	X																								
LCSD 280-652026/38	1	T	04:17	X																								
MB 280-652026/39	1	T	04:34	X																								
ZZZZZZ			04:51																									
ZZZZZZ			05:08																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-190988-1

SDG No.:

Instrument ID: WC_IonChrom14 Analysis Method: 9056

Start Date: 05/03/2024 11:03 End Date: 05/04/2024 07:24

Lab Sample Id	D/F	Type	Time	Analytes																								
				NO3																								
ZZZZZZ			05:25																									
ZZZZZZ			05:42																									
280-190988-5	1	T	05:59	X																								
280-190988-5 DU	1	T	06:16	X																								
280-190988-5 MS	1	T	06:33	X																								
280-190988-5 MSD	1	T	06:50	X																								
CCV 280-652026/48	1		07:07	X																								
CCB 280-652026/49	1		07:24	X																								

Prep Types:
T = Total/NA

FORM XIII-IN

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-190988-1

SDG No.:

Batch Number: 653086 Batch Start Date: 05/11/24 11:17 Batch Analyst: Rutherford, Lindsay B

Batch Method: 350.1 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	ClResPres	InitialAmount	FinalAmount	Initial pH	350.1 cal 00629	350.1 ICV 00608
ICV 280-653086/16		350.1			no	100 mL	100 mL	<2 SU		2.5 mL
ICVL 280-653086/17		350.1			no	100 mL	100 mL	<2 SU		0.5 mL
ICB 280-653086/18		350.1			no	30 mL	30 mL	<2 SU		
CCV 280-653086/71		350.1			no	100 mL	100 mL	<2 SU	2.5 mL	
CCVL 280-653086/73		350.1			no	100 mL	100 mL	<2 SU	0.5 mL	
CCB 280-653086/74		350.1			no	30 mL	30 mL	<2 SU		
MB 280-653086/77		350.1			no	30 mL	30 mL	<2 SU		
LCS 280-653086/78		350.1			no	100 mL	100 mL	<2 SU	2.5 mL	
LCSD 280-653086/79		350.1			no	100 mL	100 mL	<2 SU	2.5 mL	
280-190988-A-1	LL12mw-249-240401-GW	350.1	Water	T	no	10 mL	10 mL	<2 SU		
280-190988-A-1 MS	LL12mw-249-240401-GW	350.1	Water	T	no	10 mL	10 mL	<2 SU	0.1 mL	
280-190988-A-1 MSD	LL12mw-249-240401-GW	350.1	Water	T	no	10 mL	10 mL	<2 SU	0.1 mL	
CCV 280-653086/94		350.1			no	100 mL	100 mL	<2 SU	2.5 mL	
CCVL 280-653086/96		350.1			no	100 mL	100 mL	<2 SU	0.5 mL	
CCB 280-653086/97		350.1			no	30 mL	30 mL	<2 SU		
280-190988-A-3	LL12mw-248-240401-GW	350.1	Water	T	no	10 mL	10 mL	<2 SU		
280-190988-A-5	LL12mw-244-240401-GW	350.1	Water	T	no	10 mL	10 mL	<2 SU		
CCV 280-653086/111		350.1			no	100 mL	100 mL	<2 SU	2.5 mL	
CCVL 280-653086/113		350.1			no	100 mL	100 mL	<2 SU	0.5 mL	
CCB 280-653086/114		350.1			no	30 mL	30 mL	<2 SU		
280-190988-A-2	LL12mw-249-240402-GW	350.1	Water	T	no	10 mL	10 mL	<2 SU		

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-190988-1

SDG No.:

Batch Number: 653086 Batch Start Date: 05/11/24 11:17 Batch Analyst: Rutherford, Lindsay B

Batch Method: 350.1 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	ClResPres	InitialAmount	FinalAmount	Initial pH	350.1 cal 00629	350.1 ICV 00608
CCV 280-653086/134		350.1			no	100 mL	100 mL	<2 SU	2.5 mL	
CCVL 280-653086/136		350.1			no	100 mL	100 mL	<2 SU	0.5 mL	
CCB 280-653086/137		350.1			no	30 mL	30 mL	<2 SU		

Batch Notes	
Residual Chlorine Indicator ID	14-860
pH Indicator ID	hc325179
Acid used for pH adjustment	sulfuricacid_00294
Sodium Nitroprusside ID	Na Nitro_00089 Na Salicylate_00106
Hypochlorite ID	Na Hypo_00098
EDTA Buffer ID	Buffer A_00068
Potassium Sodium Tartrate ID	Buffer B_00103
Carrier Identification	Ammonia Rinse_00100
Sodium Salicylate ID	Sodium Sal_00030
Pipette/Syringe/Dispenser ID	mmp 5000, 1000 skalar, bwh 200
Pipette Tip Lot ID	k1952701, m211714k, l201656h
Dichloroisocyanurate ID	Na Dichloro_00001

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-190988-1

SDG No.:

Batch Number: 643627 Batch Start Date: 02/21/24 12:57 Batch Analyst: Sherman, Erik J

Batch Method: 9056 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	InitialAmount	FinalAmount	Cl ICV Std 00007	IC CAL cl/so4 00524	IC Cal low 00758	IC ICV 5 00428
STD 280-643627/2 IC		9056			10 mL	10 mL		0.04 mL	0.04 mL	
STD 280-643627/3 IC		9056			10 mL	10 mL		0.1 mL	0.1 mL	
STD 280-643627/4 IC		9056			10 mL	10 mL		0.2 mL	0.2 mL	
STD 280-643627/5 IC		9056			10 mL	10 mL		2.4 mL	0.8 mL	
STD 280-643627/6 IC		9056			10 mL	10 mL		4.8 mL	1.6 mL	
STD 280-643627/7 IC		9056			10 mL	10 mL		8 mL	2 mL	
ICV 280-643627/9		9056			10 mL	10 mL	0.8 mL			0.8 mL
ICB 280-643627/10		9056			10 mL	10 mL				

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	IC SO4 ICV 00025					
STD 280-643627/2 IC		9056								
STD 280-643627/3 IC		9056								
STD 280-643627/4 IC		9056								
STD 280-643627/5 IC		9056								
STD 280-643627/6 IC		9056								
STD 280-643627/7 IC		9056								
ICV 280-643627/9		9056			0.8 mL					
ICB 280-643627/10		9056								

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-190988-1

SDG No.:

Batch Number: 643627 Batch Start Date: 02/21/24 12:57 Batch Analyst: Sherman, Erik J

Batch Method: 9056 Batch End Date:

Batch Notes	
Filter ID	SF020E
Pipette/Syringe/Dispenser ID	1000HEX, 200CJ, IC100, BMF1000, AB8A100, ICM5000, PAIN\
Sufficient Volume for Batch QC	Y
Eluent 1 ID	IC10 ELUENT_00010
Batch Comment	EJS

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-190988-1

SDG No.:

Batch Number: 652026 Batch Start Date: 05/03/24 11:03 Batch Analyst: Castro, Isiah R

Batch Method: 9056 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	InitialAmount	FinalAmount	IC CAL cl/so4 00534	IC Cal low 00772	IC LCS 02034	ICMS/MSD WEEK 00876
CCV 280-652026/1		9056			10 mL	10 mL			10 mL	
CCB 280-652026/2		9056			10 mL	10 mL				
MRL 280-652026/3		9056			10 mL	10 mL	0.2 mL	0.1 mL		
LCS 280-652026/4		9056			10 mL	10 mL			10 mL	
LCSD 280-652026/5		9056			10 mL	10 mL			10 mL	
MB 280-652026/6		9056			10 mL	10 mL				
280-190988-B-1	LL12mw-249-240401-GW	9056	Water	T	10 mL	10 mL				
280-190988-B-1 DU	LL12mw-249-240401-GW	9056		T	10 mL	10 mL				
280-190988-B-1 MS	LL12mw-249-240401-GW	9056	Water	T	10 mL	10 mL				0.1 mL
280-190988-B-1 MSD	LL12mw-249-240401-GW	9056	Water	T	10 mL	10 mL				0.1 mL
280-190988-B-2	LL12mw-249-240401-GW	9056	Water	T	10 mL	10 mL				
280-190988-B-3	LL12mw-248-240401-GW	9056	Water	T	10 mL	10 mL				
CCV 280-652026/20		9056			10 mL	10 mL			10 mL	
CCB 280-652026/21		9056			10 mL	10 mL				
CCV 280-652026/35		9056			10 mL	10 mL			10 mL	
CCB 280-652026/36		9056			10 mL	10 mL				
LCS 280-652026/37		9056			10 mL	10 mL			10 mL	
LCSD 280-652026/38		9056			10 mL	10 mL			10 mL	
MB 280-652026/39		9056			10 mL	10 mL				
280-190988-B-5	LL12mw-244-240401-GW	9056	Water	T	10 mL	10 mL				
280-190988-B-5 DU	LL12mw-244-240401-GW	9056		T	10 mL	10 mL				

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-190988-1

SDG No.:

Batch Number: 652026 Batch Start Date: 05/03/24 11:03 Batch Analyst: Castro, Isiah R

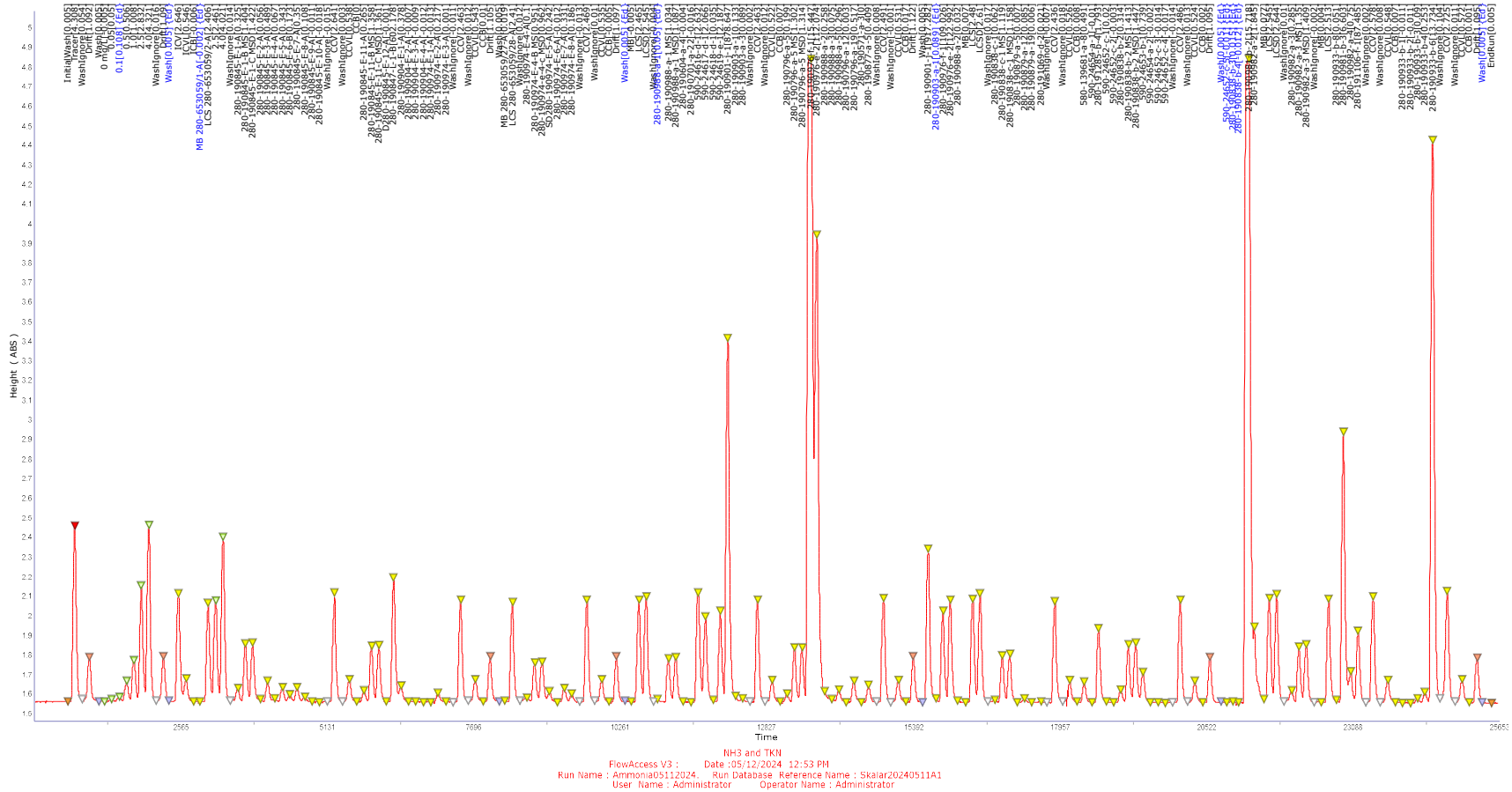
Batch Method: 9056 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	InitialAmount	FinalAmount	IC CAL cl/so4 00534	IC Cal low 00772	IC LCS 02034	ICMS/MSD WEEK 00876
280-190988-B-5 MS	LL12mw-244-240401-GW	9056		T	10 mL	10 mL				0.1 mL
280-190988-B-5 MSD	LL12mw-244-240401-GW	9056		T	10 mL	10 mL				0.1 mL
CCV 280-652026/48		9056			10 mL	10 mL			10 mL	
CCB 280-652026/49		9056			10 mL	10 mL				

Batch Notes	
Filter ID	SF020E
Pipette/Syringe/Dispenser ID	1000HEX, 200CJ, IC100, BMF1000, AB8A100, ICM5000, PAIN
Sufficient Volume for Batch QC	Y
Eluent 1 ID	IC10 Eluent_00010
Batch Comment	IRC

Basis	Basis Description
T	Total/NA

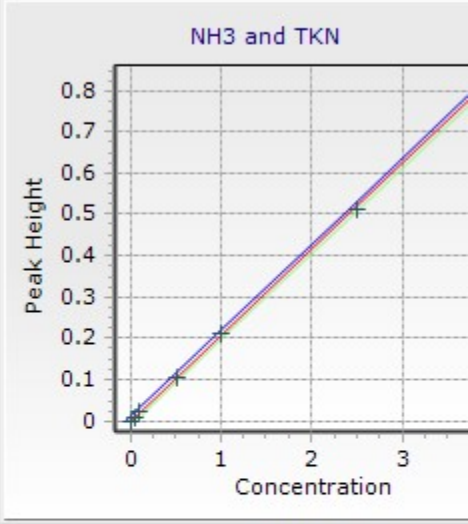
The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.



5/14/2024
9:20:15 AM

Select/deselect Standards

	SerialNumber	Cup position	Sample Type	Identity	Concentration	Corrected Height	Result	Use this	Y Residuals	Relative Error(%)
1	5	ST1	S1	0 mg/L	0.000	-0.002	-0.005	☑		
2	6	ST2	S2	0.05	0.050	0.009	0.050	☑	-0.17%	-0.15%
3	7	ST3	S3	0.1	0.100	0.022	0.108	☑	7.79%	8.04%
4	8	ST4	S4	0.5	0.500	0.104	0.506	☑	1.21%	1.21%
5	9	ST5	S5	1	1.000	0.209	1.008	☑	0.82%	0.82%
6	10	ST6	S6	2.5	2.500	0.589	2.832	☐		
7	11	ST7	S7	4	4.000	0.899	4.321	☐		
8	20	ST6	S6	2.5	2.500	0.512	2.461	☑	-1.58%	-1.56%
9	21	ST7	S7	4	4.000	0.837	4.021	☑	0.53%	0.53%



Method Name	Ammonia	a	-0.00100620	R Squared	0.99984607
Module Name	NH3 and TKN	b	0.20833881	Constant Sx0	0.02077982
Calibration Order	I Order ISO 8466	c		Constant Vx0	1.78476983
Residual Std. Dev. (Sy)	0.00432924293529	d			
		Correlation Coefficient	0.99992303		

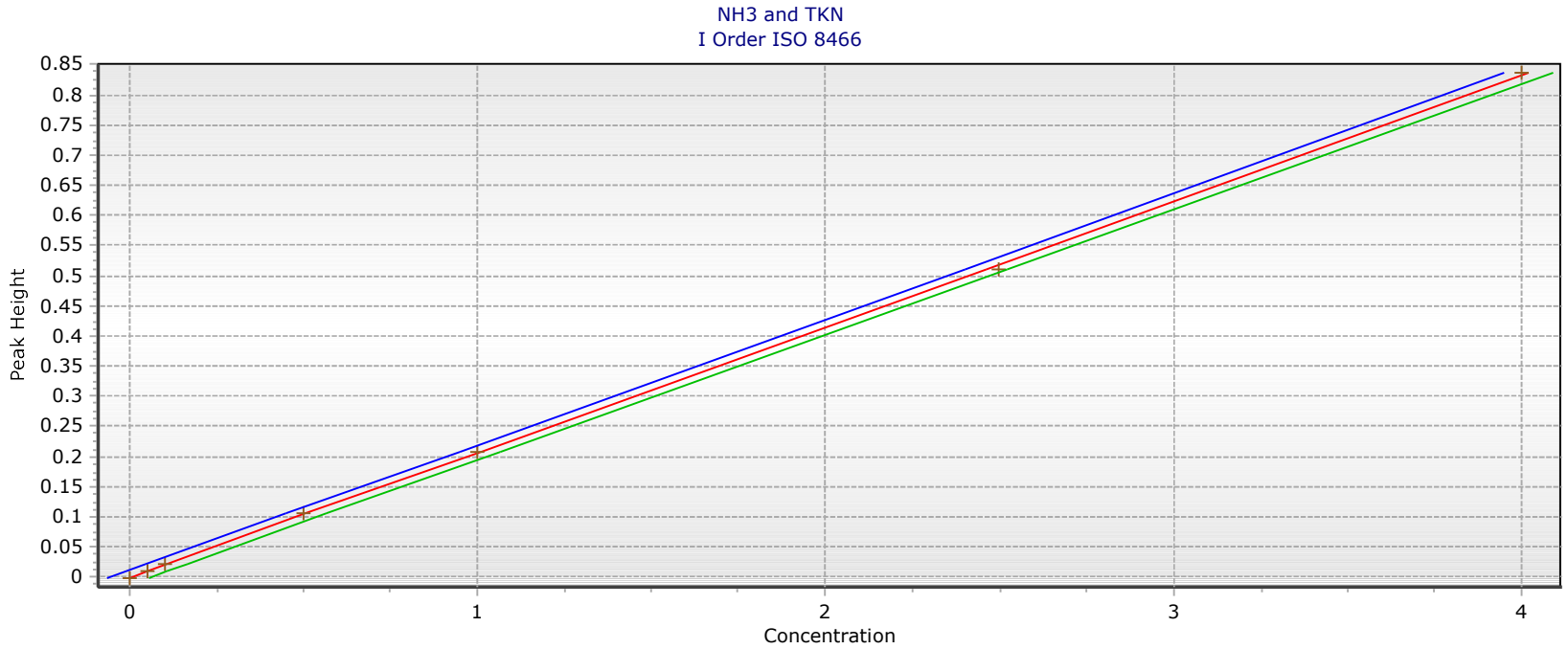
Calibration Order I Order ISO 8466 Save Close

5/14/2024
9:20:15 AM


4

FlowAccessV3

Date:May 11 2024 6:18:32PM



a = -0.00100620068337 b = 0.20833880704139 RSD = 0.00432924293529

r = 0.99992303118460 R2 = 0.99984606829339

Run Name : Ammonia05112024, Run Database Ref : Skalar20240511A1

User Name : Administrator Operator Name : Administrator

FlowAccessV3 Results Report

Run Name : Ammonia05112024, Run Database Ref : Skalar20240511A1
DateTime :May 11 2024 11:07:13AM
User Name : Administrator Operator Name : Administrator

	Position	SampleType	SampleIdentity	Comments	ExternalDilution	NH3 and TKN- Results
1	IW	IW	InitialWash		1.0000	0.005
2	ST7	T	Tracer		1.0000	4.308
3	WT	WI	WashIgnore		1.0000	0.054
4	ST5	D	Drift		1.0000	1.092
5	WT	W	Wash		1.0000	0.005
6	ST1	S1	0 mg/L		1.0000	-0.005
7	ST2	S2	0.05		1.0000	0.050
8	ST3	S3	0.1		1.0000	0.108
9	ST4	S4	0.5		1.0000	0.506
10	ST5	S5	1.0		1.0000	1.008
11	ST6	S6	2.5		1.0000	2.832
12	ST7	S7	4.0		1.0000	4.321
13	WT	WI	WashIgnore		1.0000	0.016
14	ST5	D	Drift		1.0000	1.090
15	WT	W	Wash		1.0000	0.005
16	ST8	U	ICV		1.0000	2.646
17	ST9	U	ICVL		1.0000	0.546
18	ST1	U	ICB		1.0000	-0.006
19	D23	U	MB 280-653059/1-A	Start filtered bat	1.0000	-0.002
20	D22	U	LCS 280-653059/2-A		1.0000	2.406
21	ST6	S6	2.5		1.0000	2.461
22	ST7	S7	4.0		1.0000	4.021
23	WT	WI	WashIgnore		1.0000	0.014
24	A1	U	280-190845-E-1-A		1.0000	0.325
25	A2	U	280-190845-E-1-B MS		1.0000	1.404
26	A3	U	280-190845-E-1-C MS		1.0000	1.422
27	A4	U	280-190845-E-2-A		1.0000	0.056
28	A5	U	280-190845-E-3-A		1.0000	0.489
29	A6	U	280-190845-E-4-A		1.0000	0.067
30	A7	U	280-190845-E-5-A		1.0000	0.343
31	A8	U	280-190845-E-6-B		1.0000	0.173
32	A9	U	280-190845-E-7-A		1.0000	0.350
33	A10	U	280-190845-E-8-A		1.0000	0.108
34	A11	U	280-190845-E-9-A		1.0000	-0.011
35	A12	U	280-190845-E-10-A		1.0000	-0.018
36	WT	WI	WashIgnore		1.0000	-0.015
37	ST6	U	CCV		1.0000	2.641
38	WT	WI	WashIgnore		1.0000	0.003
39	ST4	U	CCVL		1.0000	0.538
40	ST1	U	CCB		1.0000	0.000

Run Name : Ammonia05112024, Run Database Ref : Skalar20240511A1
DateTime :May 11 2024 11:07:13AM
User Name : Administrator Operator Name : Administrator

	Position	SampleType	SampleIdentity	Comments	ExternalDilution	NH3 and TKN- Results
41	A13	U	280-190845-E-11-A		1.0000	0.265
42	A14	U	280-190845-E-11-B M		1.0000	1.358
43	A15	U	280-190845-E-11-C M		1.0000	1.361
44	A16	U	D280-190845-E-12-A		1.0000	-0.001
45	A17	U	280-190847-L-1-B		200.0000	602.178
46	A18	U	280-190904-E-1-A		1.0000	0.378
47	A19	U	280-190904-E-2-A		1.0000	-0.007
48	A20	U	280-190904-E-3-A		1.0000	-0.009
49	A21	U	280-190904-E-4-A		1.0000	-0.012
50	A22	U	280-190974-E-1-A		1.0000	-0.013
51	A23	U	280-190974-E-2-A		1.0000	0.217
52	A24	U	280-190974-E-3-A		1.0000	0.001
53	WT	WI	WashIgnore		1.0000	-0.011
54	ST6	U	CCV		1.0000	2.463
55	WT	WI	WashIgnore		1.0000	0.012
56	ST4	U	CCVL		1.0000	0.543
57	ST1	U	CCB		1.0000	0.010
58	ST5	D	Drift		1.0000	1.105
59	WT	W	Wash		1.0000	0.005
60	D23	U	MB 280-653059/27-A		1.0000	0.019
61	D22	U	LCS 280-653059/28-A		1.0000	2.410
62	WT	WI	WashIgnore		1.0000	0.012
63	A25	U	280-190974-E-4-A		1.0000	0.100
64	A26	U	280-190974-E-4-B MS		1.0000	0.951
65	A27	U	280-190974-e-4-c MS		1.0000	0.962
66	A28	U	SD280-190974-E-5-A		1.0000	0.242
67	A29	U	280-190974-E-6-A		1.0000	-0.012
68	A30	U	280-190974-E-7-A		1.0000	0.331
69	A31	U	280-190974-E-8-A	End filtered batc	1.0000	0.186
70	WT	WI	WashIgnore		1.0000	-0.013
71	ST6	U	CCV		1.0000	2.469
72	WT	WI	WashIgnore		1.0000	0.010
73	ST4	U	CCVL		1.0000	0.535
74	ST1	U	CCB		1.0000	-0.005
75	ST5	D	Drift		1.0000	1.097
76	WT	W	Wash		1.0000	0.005
77	ST1	U	MB		1.0000	-0.005
78	D29	U	LCS		1.0000	2.465
79	D30	U	LCSD		1.0000	2.545
80	WT	WI	WashIgnore		1.0000	-0.004

Run Name : Ammonia05112024, Run Database Ref : Skalar20240511A1
DateTime :May 11 2024 11:07:13AM
User Name : Administrator Operator Name : Administrator

	Position	SampleType	SampleIdentity	Comments	ExternalDilution	NH3 and TKN- Results
81	A32	U	280-190988-a-1		1.0000	0.050
82	A33	U	280-190988-a-1 MS		1.0000	1.034
83	A34	U	280-190988-a-1 MSD		1.0000	1.087
84	A35	U	280-190604-a-4		1.0000	-0.004
85	B1	U	280-190701-a-22		1.0000	-0.016
86	B2	U	590-24616-d-1		1.0000	2.632
87	B3	U	590-24617-d-1		1.0000	2.066
88	B4	U	590-24618-d-1		1.0000	0.035
89	B5	U	590-24619-e-1		1.0000	2.187
90	B6	U	280-190901-j-1		100.0000	878.647
91	B7	U	280-190903-a-1		1.0000	0.133
92	B8	U	280-190903-a-3		1.0000	0.089
93	WT	WI	WashIgnore		1.0000	0.002
94	ST6	U	CCV		1.0000	2.463
95	WT	WI	WashIgnore		1.0000	0.012
96	ST4	U	CCVL		1.0000	0.522
97	ST1	U	CCB		1.0000	0.007
98	B9	U	280-190796-a-5		1.0000	0.199
99	B10	U	280-190796-a-5 MS		1.0000	1.302
100	B11	U	280-190796-a-5 MSD		1.0000	1.314
101	B12	U	280-190976-f-1		1.0000	15.447
102	B13	U	280-190976-e-2		10.0000	112.074
103	B14	U	280-190988-a-2		1.0000	0.258
104	B15	U	280-190988-a-3		1.0000	0.075
105	B16	U	280-190988-a-5		1.0000	0.296
106	B17	U	280-190796-a-12		1.0000	0.003
107	B18	U	280-190796-a-19		1.0000	0.517
108	B19	U	280-190571-a-3		1.0000	0.000
109	B20	U	280-190877-a-5		1.0000	0.409
110	WT	WI	WashIgnore		1.0000	0.008
111	ST6	U	CCV		1.0000	2.491
112	WT	WI	WashIgnore		1.0000	-0.001
113	ST4	U	CCVL		1.0000	0.531
114	ST1	U	CCB		1.0000	0.017
115	ST5	D	Drift		1.0000	1.122
116	WT	W	Wash		1.0000	0.005
117	B6	U	280-190901-j-1		250.0000	917.282
118	B7	U	280-190903-a-1		1.0000	0.089
119	B12	U	280-190976-f-1		50.0000	109.026
120	B13	U	280-190976-e-2		50.0000	122.992

Run Name : Ammonia05112024, Run Database Ref : Skalar20240511A1
DateTime :May 11 2024 11:07:13AM
User Name : Administrator Operator Name : Administrator

	Position	SampleType	SampleIdentity	Comments	ExternalDilution	NH3 and TKN- Results
121	B14	U	280-190988-a-2		1.0000	0.032
122	ST1	U	MB		1.0000	0.007
123	D29	U	LCS		1.0000	2.480
124	D30	U	LCSD		1.0000	2.610
125	WT	WI	WashIgnore		1.0000	0.017
126	B21	U	280-190838-c-1		1.0000	0.062
127	B22	U	280-190838-c-1 MS		1.0000	1.119
128	B23	U	280-190838-c-1 MSD		1.0000	1.158
129	B24	U	280-190879-a-5		1.0000	0.007
130	B25	U	280-190879-a-12		1.0000	0.085
131	B26	U	280-190879-a-19		1.0000	0.006
132	B27	U	280-191069-d-2		1.0000	0.021
133	WT	WI	WashIgnore		1.0000	-0.007
134	ST6	U	CCV		1.0000	2.436
135	WT	WI	WashIgnore		1.0000	0.018
136	ST4	U	CCVL		1.0000	0.526
137	ST1	U	CCB		1.0000	0.008
138	B28	U	580-139681-a-8		1.0000	0.491
139	B29	U	590-24654-a-1		1.0000	-0.010
140	B30	U	280-191285-b-4		1.0000	1.793
141	B31	U	590-24652-c-1		1.0000	0.020
142	B32	U	590-24652-c-2		1.0000	-0.003
143	B33	U	280-190838-b-2		1.0000	0.314
144	B34	U	280-190838-b-2 MS		1.0000	1.413
145	B35	U	280-190838-b-2 MSD		1.0000	1.447
146	C1	U	590-24653-b-1		1.0000	0.739
147	C2	U	590-24654-a-2		1.0000	-0.002
148	C3	U	590-24652-c-3		1.0000	-0.014
149	C4	U	590-24652-c-4		1.0000	-0.017
150	WT	WI	WashIgnore		1.0000	-0.014
151	ST6	U	CCV		1.0000	2.486
152	WT	WI	WashIgnore		1.0000	0.013
153	ST4	U	CCVL		1.0000	0.524
154	ST1	U	CCB		1.0000	0.002
155	ST5	D	Drift		1.0000	1.095
156	WT	W	Wash		1.0000	0.005
157	C5	U	590-24652-c-5		1.0000	-0.010
158	C6	U	280-190838-b-3		1.0000	0.015
159	C7	U	280-190838-b-4		1.0000	-0.012
160	C8	U	280-190981-b-2		1.0000	15.718

Run Name : Ammonia05112024, Run Database Ref : Skalar20240511A1
DateTime :May 11 2024 11:07:13AM
User Name : Administrator Operator Name : Administrator

	Position	SampleType	SampleIdentity	Comments	ExternalDilution	NH3 and TKN- Results
161	C9	U	280-190982-a-2		1.0000	1.845
162	ST1	U	MB		1.0000	0.077
163	D29	U	LCS		1.0000	2.545
164	D30	U	LCSD		1.0000	2.644
165	WT	WI	WashIgnore		1.0000	0.010
166	C10	U	280-190982-a-3		1.0000	0.285
167	C11	U	280-190982-a-3 MS		1.0000	1.350
168	C12	U	280-190982-a-3 MSD		1.0000	1.409
169	WT	WI	WashIgnore		1.0000	-0.002
170	ST1	U	MB		1.0000	0.004
171	D29	U	LCS		1.0000	2.513
172	C13	U	280-190933-b-8		1.0000	0.051
173	C14	U	280-190981-b-3		1.0000	6.603
174	C15	U	280-190982-a-4		1.0000	0.750
175	C16	U	280-191106-f-1		50.0000	87.485
176	WT	WI	WashIgnore		1.0000	0.002
177	ST6	U	CCV		1.0000	2.578
178	WT	WI	WashIgnore		1.0000	0.008
179	ST4	U	CCVL		1.0000	0.548
180	ST1	U	CCB		1.0000	0.007
181	C17	U	280-190933-b-1		1.0000	-0.011
182	C18	U	280-190933-b-2		1.0000	-0.011
183	C19	U	280-190933-b-3		1.0000	0.090
184	C20	U	280-190933-b-4		1.0000	0.253
185	C21	U	280-190933-b-6		1.0000	13.734
186	WT	WI	WashIgnore		1.0000	0.104
187	ST6	U	CCV		1.0000	2.725
188	WT	WI	WashIgnore		1.0000	0.011
189	ST4	U	CCVL		1.0000	0.572
190	ST1	U	CCB		1.0000	0.001
191	ST5	D	Drift		1.0000	1.095
192	WT	W	Wash		1.0000	0.005
193	E	E	EndRun		1.0000	0.005

Run Name : Ammonia05112024, Run Database Ref : Skalar20240511A1
DateTime :May 11 2024 11:07:13AM
User Name : Administrator Operator Name : Administrator

	NH3 and TKN-	NH3 and TKN-	NH3 and TKN-
1	0.0000	May 11 2024 11:17:00AM	0.005
2	0.8966	May 11 2024 11:19:00AM	4.308
3	0.0103	May 11 2024 11:22:00AM	0.054
4	0.2265	May 11 2024 11:24:00AM	1.092
5	0.0000	May 11 2024 11:26:00AM	0.005
6	-0.0020	May 11 2024 11:29:00AM	-0.005
7	0.0094	May 11 2024 11:31:00AM	0.050
8	0.0215	May 11 2024 11:33:00AM	0.108
9	0.1044	May 11 2024 11:35:00AM	0.506
10	0.2090	May 11 2024 11:37:00AM	1.008
11	0.5890	May 11 2024 11:39:00AM	2.832
12	0.8991	May 11 2024 11:41:00AM	4.321
13	0.0024	May 11 2024 11:44:00AM	0.016
14	0.2261	May 11 2024 11:46:00AM	1.090
15	0.0000	May 11 2024 11:48:00AM	0.005
16	0.5502	May 11 2024 11:50:00AM	2.646
17	0.1128	May 11 2024 11:52:00AM	0.546
18	-0.0022	May 11 2024 11:54:00AM	-0.006
19	-0.0014	May 11 2024 11:57:00AM	-0.002
20	0.5003	May 11 2024 11:58:00AM	2.406
21	0.5117	May 11 2024 12:01:00PM	2.461
22	0.8368	May 11 2024 12:03:00PM	4.021
23	0.0020	May 11 2024 12:05:00PM	0.014
24	0.0668	May 11 2024 12:07:00PM	0.325
25	0.2916	May 11 2024 12:10:00PM	1.404
26	0.2952	May 11 2024 12:12:00PM	1.422
27	0.0106	May 11 2024 12:14:00PM	0.056
28	0.1008	May 11 2024 12:16:00PM	0.489
29	0.0130	May 11 2024 12:18:00PM	0.067
30	0.0704	May 11 2024 12:20:00PM	0.343
31	0.0349	May 11 2024 12:23:00PM	0.173
32	0.0719	May 11 2024 12:25:00PM	0.350
33	0.0214	May 11 2024 12:27:00PM	0.108
34	-0.0032	May 11 2024 12:29:00PM	-0.011
35	-0.0048	May 11 2024 12:31:00PM	-0.018
36	-0.0040	May 11 2024 12:33:00PM	-0.015
37	0.5491	May 11 2024 12:36:00PM	2.641
38	-0.0004	May 11 2024 12:38:00PM	0.003
39	0.1111	May 11 2024 12:40:00PM	0.538
40	-0.0010	May 11 2024 12:42:00PM	0.000

Run Name : Ammonia05112024, Run Database Ref : Skalar20240511A1
DateTime :May 11 2024 11:07:13AM
User Name : Administrator Operator Name : Administrator

	NH3 and TKN-	NH3 and TKN-	NH3 and TKN-
41	0.0542	May 11 2024 12:44:00PM	0.265
42	0.2820	May 11 2024 12:46:00PM	1.358
43	0.2825	May 11 2024 12:49:00PM	1.361
44	-0.0011	May 11 2024 12:51:00PM	-0.001
45	0.6263	May 11 2024 12:53:00PM	3.011
46	0.0777	May 11 2024 12:55:00PM	0.378
47	-0.0024	May 11 2024 12:57:00PM	-0.007
48	-0.0029	May 11 2024 12:59:00PM	-0.009
49	-0.0034	May 11 2024 1:02:00PM	-0.012
50	-0.0038	May 11 2024 1:04:00PM	-0.013
51	0.0442	May 11 2024 1:06:00PM	0.217
52	-0.0008	May 11 2024 1:08:00PM	0.001
53	-0.0033	May 11 2024 1:10:00PM	-0.011
54	0.5122	May 11 2024 1:12:00PM	2.463
55	0.0016	May 11 2024 1:15:00PM	0.012
56	0.1121	May 11 2024 1:17:00PM	0.543
57	0.0010	May 11 2024 1:19:00PM	0.010
58	0.2292	May 11 2024 1:21:00PM	1.105
59	0.0000	May 11 2024 1:23:00PM	0.005
60	0.0030	May 11 2024 1:26:00PM	0.019
61	0.5011	May 11 2024 1:28:00PM	2.410
62	0.0014	May 11 2024 1:30:00PM	0.012
63	0.0198	May 11 2024 1:32:00PM	0.100
64	0.1972	May 11 2024 1:34:00PM	0.951
65	0.1995	May 11 2024 1:36:00PM	0.962
66	0.0494	May 11 2024 1:38:00PM	0.242
67	-0.0035	May 11 2024 1:41:00PM	-0.012
68	0.0680	May 11 2024 1:43:00PM	0.331
69	0.0378	May 11 2024 1:45:00PM	0.186
70	-0.0037	May 11 2024 1:47:00PM	-0.013
71	0.5134	May 11 2024 1:49:00PM	2.469
72	0.0011	May 11 2024 1:52:00PM	0.010
73	0.1106	May 11 2024 1:54:00PM	0.535
74	-0.0020	May 11 2024 1:56:00PM	-0.005
75	0.2276	May 11 2024 1:58:00PM	1.097
76	0.0000	May 11 2024 2:00:00PM	0.005
77	-0.0021	May 11 2024 2:03:00PM	-0.005
78	0.5126	May 11 2024 2:04:00PM	2.465
79	0.5292	May 11 2024 2:07:00PM	2.545
80	-0.0018	May 11 2024 2:09:00PM	-0.004

Run Name : Ammonia05112024, Run Database Ref : Skalar20240511A1
DateTime :May 11 2024 11:07:13AM
User Name : Administrator Operator Name : Administrator

	NH3 and TKN-	NH3 and TKN-	NH3 and TKN-
81	0.0095	May 11 2024 2:11:00PM	0.050
82	0.2145	May 11 2024 2:13:00PM	1.034
83	0.2254	May 11 2024 2:15:00PM	1.087
84	-0.0018	May 11 2024 2:18:00PM	-0.004
85	-0.0044	May 11 2024 2:20:00PM	-0.016
86	0.5474	May 11 2024 2:22:00PM	2.632
87	0.4294	May 11 2024 2:24:00PM	2.066
88	0.0063	May 11 2024 2:26:00PM	0.035
89	0.4547	May 11 2024 2:28:00PM	2.187
90	1.8296	May 11 2024 2:31:00PM	8.786
91	0.0267	May 11 2024 2:33:00PM	0.133
92	0.0176	May 11 2024 2:35:00PM	0.089
93	-0.0005	May 11 2024 2:37:00PM	0.002
94	0.5121	May 11 2024 2:39:00PM	2.463
95	0.0015	May 11 2024 2:41:00PM	0.012
96	0.1078	May 11 2024 2:44:00PM	0.522
97	0.0005	May 11 2024 2:46:00PM	0.007
98	0.0404	May 11 2024 2:48:00PM	0.199
99	0.2703	May 11 2024 2:50:00PM	1.302
100	0.2728	May 11 2024 2:52:00PM	1.314
101	3.2173	May 11 2024 2:54:00PM	15.447
102	2.3339	May 11 2024 2:57:00PM	11.207
103	0.0528	May 11 2024 2:59:00PM	0.258
104	0.0146	May 11 2024 3:01:00PM	0.075
105	0.0607	May 11 2024 3:03:00PM	0.296
106	-0.0004	May 11 2024 3:05:00PM	0.003
107	0.1067	May 11 2024 3:07:00PM	0.517
108	-0.0010	May 11 2024 3:10:00PM	0.000
109	0.0842	May 11 2024 3:12:00PM	0.409
110	0.0006	May 11 2024 3:14:00PM	0.008
111	0.5181	May 11 2024 3:16:00PM	2.491
112	-0.0013	May 11 2024 3:18:00PM	-0.001
113	0.1095	May 11 2024 3:20:00PM	0.531
114	0.0026	May 11 2024 3:22:00PM	0.017
115	0.2328	May 11 2024 3:25:00PM	1.122
116	0.0000	May 11 2024 3:27:00PM	0.005
117	0.7634	May 11 2024 3:29:00PM	3.669
118	0.0176	May 11 2024 3:31:00PM	0.089
119	0.4533	May 11 2024 3:33:00PM	2.181
120	0.5115	May 11 2024 3:36:00PM	2.460

Run Name : Ammonia05112024, Run Database Ref : Skalar20240511A1
DateTime :May 11 2024 11:07:13AM
User Name : Administrator Operator Name : Administrator

	NH3 and TKN-	NH3 and TKN-	NH3 and TKN-
121	0.0056	May 11 2024 3:38:00PM	0.032
122	0.0005	May 11 2024 3:40:00PM	0.007
123	0.5156	May 11 2024 3:42:00PM	2.480
124	0.5428	May 11 2024 3:44:00PM	2.610
125	0.0024	May 11 2024 3:46:00PM	0.017
126	0.0120	May 11 2024 3:49:00PM	0.062
127	0.2321	May 11 2024 3:51:00PM	1.119
128	0.2403	May 11 2024 3:53:00PM	1.158
129	0.0004	May 11 2024 3:55:00PM	0.007
130	0.0167	May 11 2024 3:57:00PM	0.085
131	0.0001	May 11 2024 3:59:00PM	0.006
132	0.0034	May 11 2024 4:02:00PM	0.021
133	-0.0025	May 11 2024 4:04:00PM	-0.007
134	0.5065	May 11 2024 4:06:00PM	2.436
135	0.0027	May 11 2024 4:08:00PM	0.018
136	0.1085	May 11 2024 4:10:00PM	0.526
137	0.0007	May 11 2024 4:13:00PM	0.008
138	0.1014	May 11 2024 4:15:00PM	0.491
139	-0.0031	May 11 2024 4:17:00PM	-0.010
140	0.3726	May 11 2024 4:19:00PM	1.793
141	0.0031	May 11 2024 4:21:00PM	0.020
142	-0.0017	May 11 2024 4:23:00PM	-0.003
143	0.0645	May 11 2024 4:25:00PM	0.314
144	0.2933	May 11 2024 4:27:00PM	1.413
145	0.3005	May 11 2024 4:30:00PM	1.447
146	0.1530	May 11 2024 4:32:00PM	0.739
147	-0.0014	May 11 2024 4:34:00PM	-0.002
148	-0.0039	May 11 2024 4:36:00PM	-0.014
149	-0.0045	May 11 2024 4:38:00PM	-0.017
150	-0.0039	May 11 2024 4:40:00PM	-0.014
151	0.5170	May 11 2024 4:43:00PM	2.486
152	0.0016	May 11 2024 4:45:00PM	0.013
153	0.1081	May 11 2024 4:47:00PM	0.524
154	-0.0007	May 11 2024 4:49:00PM	0.002
155	0.2271	May 11 2024 4:51:00PM	1.095
156	0.0000	May 11 2024 4:53:00PM	0.005
157	-0.0031	May 11 2024 4:56:00PM	-0.010
158	0.0021	May 11 2024 4:58:00PM	0.015
159	-0.0035	May 11 2024 5:00:00PM	-0.012
160	3.2736	May 11 2024 5:02:00PM	15.718

Run Name : Ammonia05112024, Run Database Ref : Skalar20240511A1
DateTime :May 11 2024 11:07:13AM
User Name : Administrator Operator Name : Administrator

	NH3 and TKN-	NH3 and TKN-	NH3 and TKN-
161	0.3834	May 11 2024 5:05:00PM	1.845
162	0.0150	May 11 2024 5:07:00PM	0.077
163	0.5291	May 11 2024 5:09:00PM	2.545
164	0.5499	May 11 2024 5:11:00PM	2.644
165	0.0012	May 11 2024 5:13:00PM	0.010
166	0.0584	May 11 2024 5:15:00PM	0.285
167	0.2802	May 11 2024 5:17:00PM	1.350
168	0.2925	May 11 2024 5:19:00PM	1.409
169	-0.0013	May 11 2024 5:22:00PM	-0.002
170	-0.0002	May 11 2024 5:24:00PM	0.004
171	0.5226	May 11 2024 5:26:00PM	2.513
172	0.0096	May 11 2024 5:28:00PM	0.051
173	1.3746	May 11 2024 5:30:00PM	6.603
174	0.1552	May 11 2024 5:32:00PM	0.750
175	0.3635	May 11 2024 5:35:00PM	1.750
176	-0.0006	May 11 2024 5:37:00PM	0.002
177	0.5362	May 11 2024 5:39:00PM	2.578
178	0.0006	May 11 2024 5:41:00PM	0.008
179	0.1132	May 11 2024 5:43:00PM	0.548
180	0.0004	May 11 2024 5:46:00PM	0.007
181	-0.0034	May 11 2024 5:48:00PM	-0.011
182	-0.0034	May 11 2024 5:50:00PM	-0.011
183	0.0178	May 11 2024 5:52:00PM	0.090
184	0.0517	May 11 2024 5:54:00PM	0.253
185	2.8602	May 11 2024 5:56:00PM	13.734
186	0.0206	May 11 2024 5:59:00PM	0.104
187	0.5667	May 11 2024 6:01:00PM	2.725
188	0.0012	May 11 2024 6:03:00PM	0.011
189	0.1181	May 11 2024 6:05:00PM	0.572
190	-0.0009	May 11 2024 6:07:00PM	0.001
191	0.2271	May 11 2024 6:09:00PM	1.095
192	0.0000	May 11 2024 6:12:00PM	0.005
193	0.0000	May 11 2024 6:14:00PM	0.005

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom14\20240220-130421.b\Info 2_DENPC584_Anions_20240221-144
Lims ID: STD L2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 21-Feb-2024 12:57:00 ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: STD L2
Misc. Info.: STD L2
Operator ID: wetchemd Instrument ID: WC_IonChrom14
Sublist: chrom-Anions_IC14*sub8

Method: \\chromfs\Denver\ChromData\WC_IonChrom14\20240220-130421.b\Anions_IC14.m
Limit Group: Wet - Anions
Last Update: 22-Feb-2024 12:31:59 Calib Date: 21-Feb-2024 14:22:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom14\20240220-130421.b\Info 2_DENPC584_Anions_20240221-144

Column 1 : Det: 0005
Process Host: CTX1668

First Level Reviewer: XAY4 Date: 21-Feb-2024 15:00:32

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.018	3.018	0.000	5237537	NC	NC	M
2 Chloride	4.180	4.213	-0.033	14520853	NC	NC	
3 Nitrite as N	4.880	4.862	0.018	5833830	0.2000	0.1790	
4 Bromide	6.042	6.002	0.040	1035853	NC	NC	
5 Nitrate as N	6.835	6.747	0.088	6258398	0.2000	0.2155	
7 Orthophosphate as P		8.227			ND	ND	
6 Sulfate	10.283	10.218	0.065	10709134	NC	NC	

QC Flag Legend

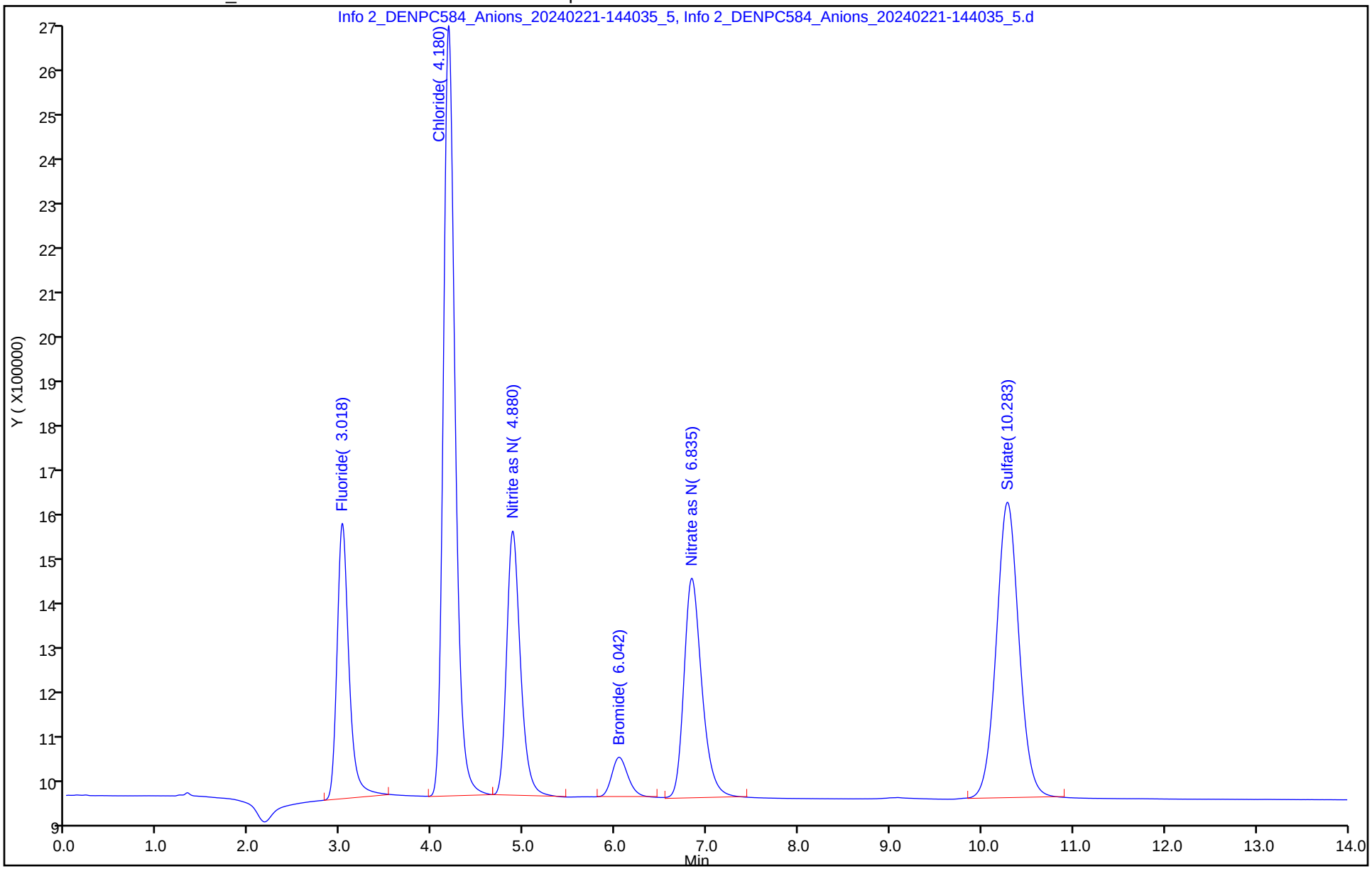
Processing Flags
NC - Not Calibrated
ND - Not Detected or Marked ND
Review Flags
M - Manually Integrated

Reagents:

IC Cal low_00758 Amount Added: 0.04 Units: mL
IC CAL cl/so4_00524 Amount Added: 0.04 Units: mL

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom14\20240220-130421.b\Info 2_DENPC584_Anions_20240221-144035_5.d				
Injection Date:	21-Feb-2024 12:57:00	Instrument ID:	WC_IonChrom14	Operator ID:	wetchemd
Lims ID:	STD L2			Worklist Smp#:	2
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC14	Limit Group:	Wet - Anions		



Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom14\20240220-130421.b\Info 2_DENPC584_Anions_20240221-144
Lims ID: STD L3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 21-Feb-2024 13:14:00 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: STD L3
Misc. Info.: STD L3
Operator ID: wetchemd Instrument ID: WC_IonChrom14
Sublist: chrom-Anions_IC14*sub8

Method: \\chromfs\Denver\ChromData\WC_IonChrom14\20240220-130421.b\Anions_IC14.m
Limit Group: Wet - Anions
Last Update: 22-Feb-2024 12:32:01 Calib Date: 21-Feb-2024 14:22:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom14\20240220-130421.b\Info 2_DENPC584_Anions_20240221-144

Column 1 : Det: 0005
Process Host: CTX1668

First Level Reviewer: XAY4 Date: 21-Feb-2024 15:00:42

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.020	3.018	0.002	15413092	NC	NC	M
2 Chloride	4.177	4.213	-0.036	40126138	NC	NC	
3 Nitrite as N	4.875	4.862	0.013	17646586	0.5000	0.5093	
4 Bromide	6.035	6.002	0.033	2771497	NC	NC	
5 Nitrate as N	6.817	6.747	0.070	18074403	0.5000	0.4774	
7 Orthophosphate as P		8.227			ND	ND	
6 Sulfate	10.282	10.218	0.064	29142948	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated
ND - Not Detected or Marked ND
Review Flags
M - Manually Integrated

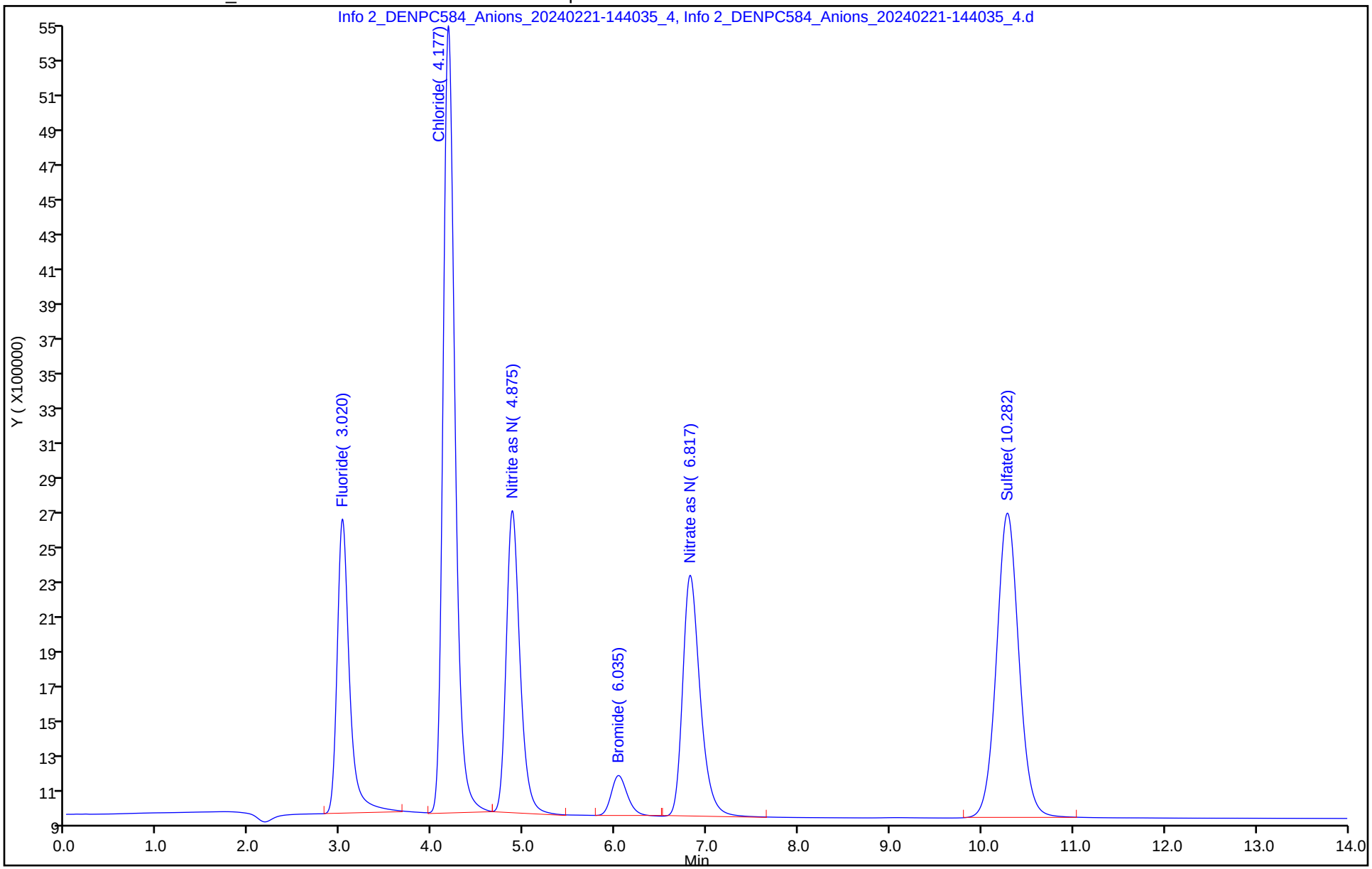
Reagents:

IC Cal low_00758 Amount Added: 0.10 Units: mL
IC CAL cl/so4_00524 Amount Added: 0.10 Units: mL

Report Date: 22-Feb-2024 12:32:01 Chrom Revision: 2.3 14-Feb-2024 16:13:40

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom14\20240220-130421.b\Info 2_DENPC584_Anions_20240221-144035_4.d				
Injection Date:	21-Feb-2024 13:14:00	Instrument ID:	WC_IonChrom14	Operator ID:	wetchemd
Lims ID:	STD L3			Worklist Smp#:	3
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC14	Limit Group:	Wet - Anions		



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9:20:15 AM

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom14\20240220-130421.b\Info 2_DENPC584_Anions_20240221-144
Lims ID: STD L4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 21-Feb-2024 13:31:00 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: STD L4
Misc. Info.: STD L4
Operator ID: wetchemd Instrument ID: WC_IonChrom14
Sublist: chrom-Anions_IC14*sub8

Method: \\chromfs\Denver\ChromData\WC_IonChrom14\20240220-130421.b\Anions_IC14.m
Limit Group: Wet - Anions
Last Update: 22-Feb-2024 12:48:16 Calib Date: 21-Feb-2024 14:22:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom14\20240220-130421.b\Info 2_DENPC584_Anions_20240221-144

Column 1 : Det: 0005
Process Host: CTX1668

First Level Reviewer: XAY4 Date: 22-Feb-2024 12:31:40

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.017	3.017	0.000	34935012	NC	NC	M
2 Chloride	4.173	4.173	0.000	83754994	NC	NC	
3 Nitrite as N	4.868	4.868	0.000	36538516	1.00	1.04	
4 Bromide	6.027	6.027	0.000	5841929	NC	NC	
5 Nitrate as N	6.798	6.798	0.000	39995593	1.00	0.9633	
7 Orthophosphate as P		8.227			ND	ND	
6 Sulfate	10.278	10.278	0.000	61704301	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated
ND - Not Detected or Marked ND
Review Flags
M - Manually Integrated

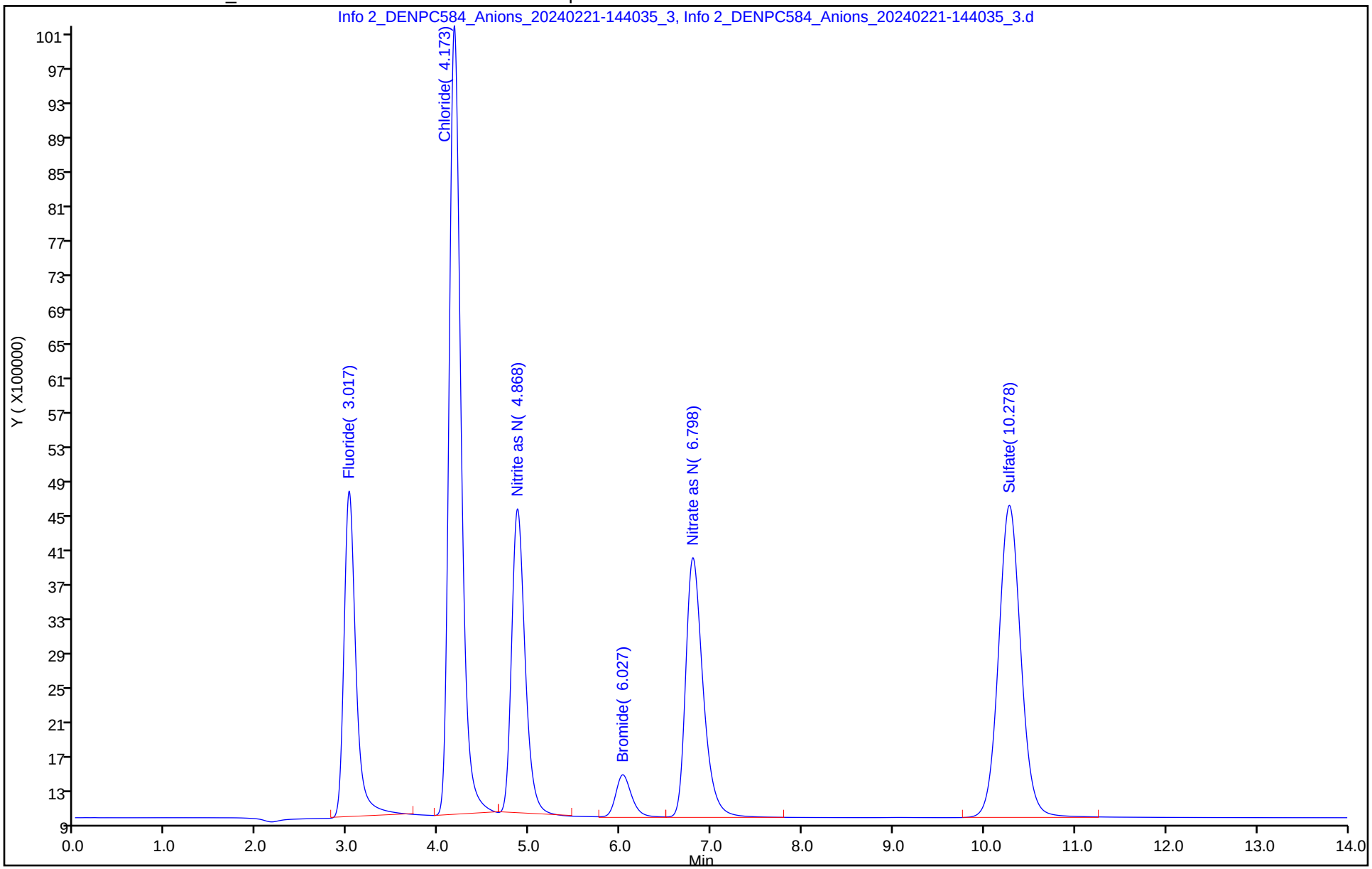
Reagents:

IC Cal low_00758 Amount Added: 0.20 Units: mL
IC CAL cl/so4_00524 Amount Added: 0.20 Units: mL

Report Date: 22-Feb-2024 12:48:17 Chrom Revision: 2.3 14-Feb-2024 16:13:40

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom14\20240220-130421.b\Info 2_DENPC584_Anions_20240221-144035_3.d				
Injection Date:	21-Feb-2024 13:31:00	Instrument ID:	WC_IonChrom14	Operator ID:	wetchemd
Lims ID:	STD L4			Worklist Smp#:	4
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC14	Limit Group:	Wet - Anions		



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9:20:15 AM

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom14\20240220-130421.b\Info 2_DENPC584_Anions_20240221-144
Lims ID: STD L5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 21-Feb-2024 13:48:00 ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: STD L5
Misc. Info.: STD L5
Operator ID: wetchemd Instrument ID: WC_IonChrom14
Sublist: chrom-Anions_IC14*sub8

Method: \\chromfs\Denver\ChromData\WC_IonChrom14\20240220-130421.b\Anions_IC14.m
Limit Group: Wet - Anions
Last Update: 22-Feb-2024 12:48:18 Calib Date: 21-Feb-2024 14:22:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom14\20240220-130421.b\Info 2_DENPC584_Anions_20240221-144

Column 1 : Det: 0005
Process Host: CTX1668

First Level Reviewer: XAY4 Date: 21-Feb-2024 15:01:02

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.020	3.017	0.003	137467785	NC	NC	M
2 Chloride	4.192	4.173	0.019	994337975	NC	NC	
3 Nitrite as N	4.863	4.868	-0.005	155055342	4.00	4.35	
4 Bromide	6.015	6.027	-0.012	26570208	NC	NC	
5 Nitrate as N	6.762	6.798	-0.036	178186092	4.00	4.03	
7 Orthophosphate as P		8.227			ND	ND	
6 Sulfate	10.250	10.278	-0.028	733780348	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated
ND - Not Detected or Marked ND
Review Flags
M - Manually Integrated

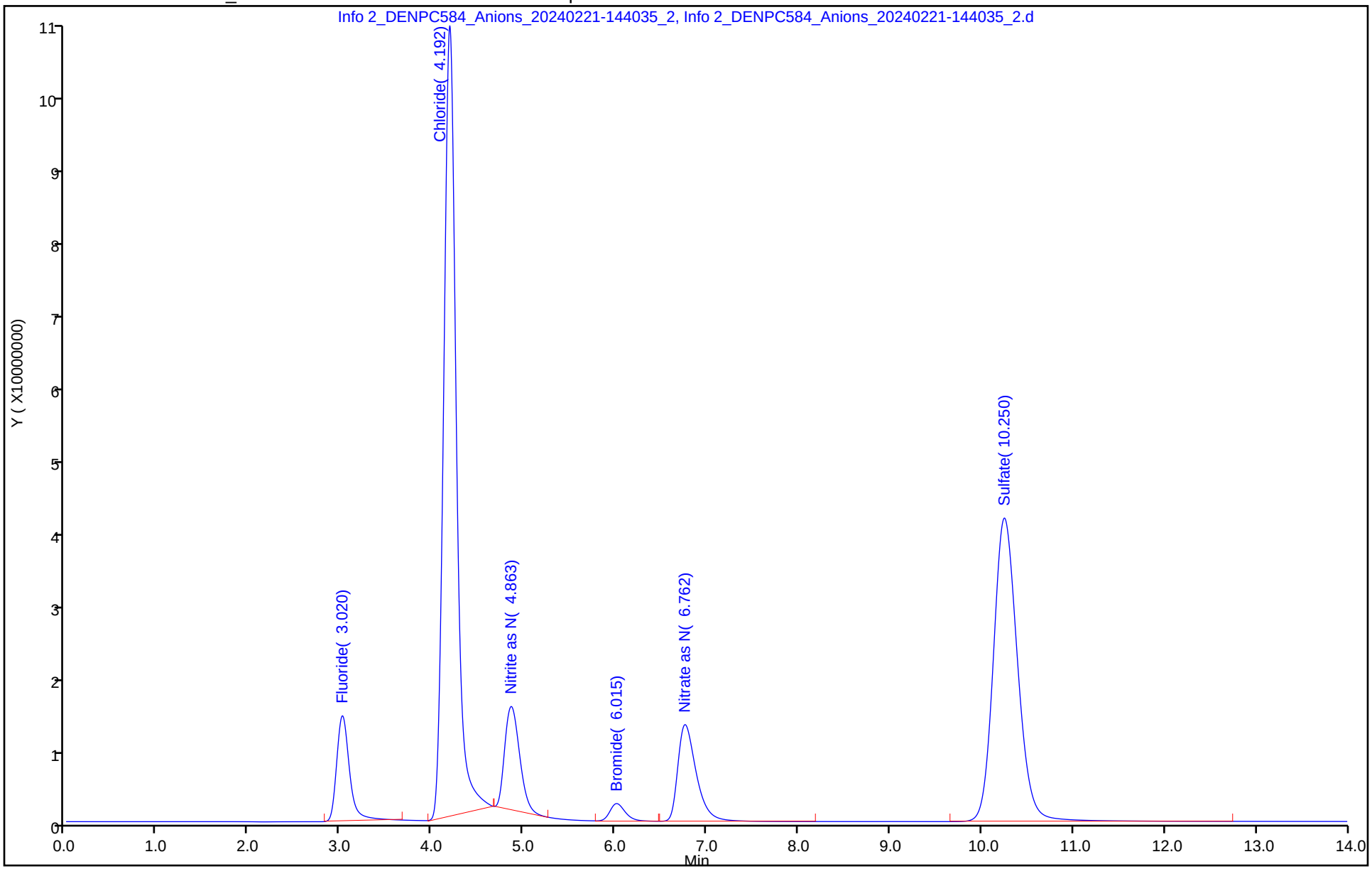
Reagents:

IC Cal low_00758 Amount Added: 0.80 Units: mL
IC CAL cl/so4_00524 Amount Added: 2.40 Units: mL

Report Date: 22-Feb-2024 12:48:18 Chrom Revision: 2.3 14-Feb-2024 16:13:40

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom14\20240220-130421.b\Info 2_DENPC584_Anions_20240221-144035_2.d				
Injection Date:	21-Feb-2024 13:48:00	Instrument ID:	WC_IonChrom14	Operator ID:	wetchemd
Lims ID:	STD L5			Worklist Smp#:	5
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC14	Limit Group:	Wet - Anions		



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9:20:15 AM

Eurofins Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom14\20240220-130421.b\Info 2_DENPC584_Anions_20240221-144				
Lims ID:	STD L6				
Client ID:					
Sample Type:	IC	Calib Level:	6		
Inject. Date:	21-Feb-2024 14:05:00	ALS Bottle#:	0	Worklist Smp#:	6
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Sample Info:	STD L6				
Misc. Info.:	STD L6				
Operator ID:	wetchemd	Instrument ID:	WC_IonChrom14		
Sublist:	chrom-Anions_IC14*sub8				
Method:	\\chromfs\Denver\ChromData\WC_IonChrom14\20240220-130421.b\Anions_IC14.m				
Limit Group:	Wet - Anions				
Last Update:	22-Feb-2024 12:48:20	Calib Date:	21-Feb-2024 14:22:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\WC_IonChrom14\20240220-130421.b\Info 2_DENPC584_Anions_20240221-144				
Column 1 :			Det: 0005		
Process Host:	CTX1668				
First Level Reviewer: XAY4		Date:	21-Feb-2024 15:01:55		

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.023	3.017	0.006	246550909	NC	NC	
2 Chloride	4.222	4.173	0.049	1861598829	NC	NC	
3 Nitrite as N	4.857	4.868	-0.011	283914915	8.00	7.95	
4 Bromide	5.988	6.027	-0.039	53917669	NC	NC	
5 Nitrate as N	6.725	6.798	-0.073	350810640	8.00	7.85	
7 Orthophosphate as P		8.227			ND	ND	
6 Sulfate	10.205	10.278	-0.073	1361001675	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated
ND - Not Detected or Marked ND

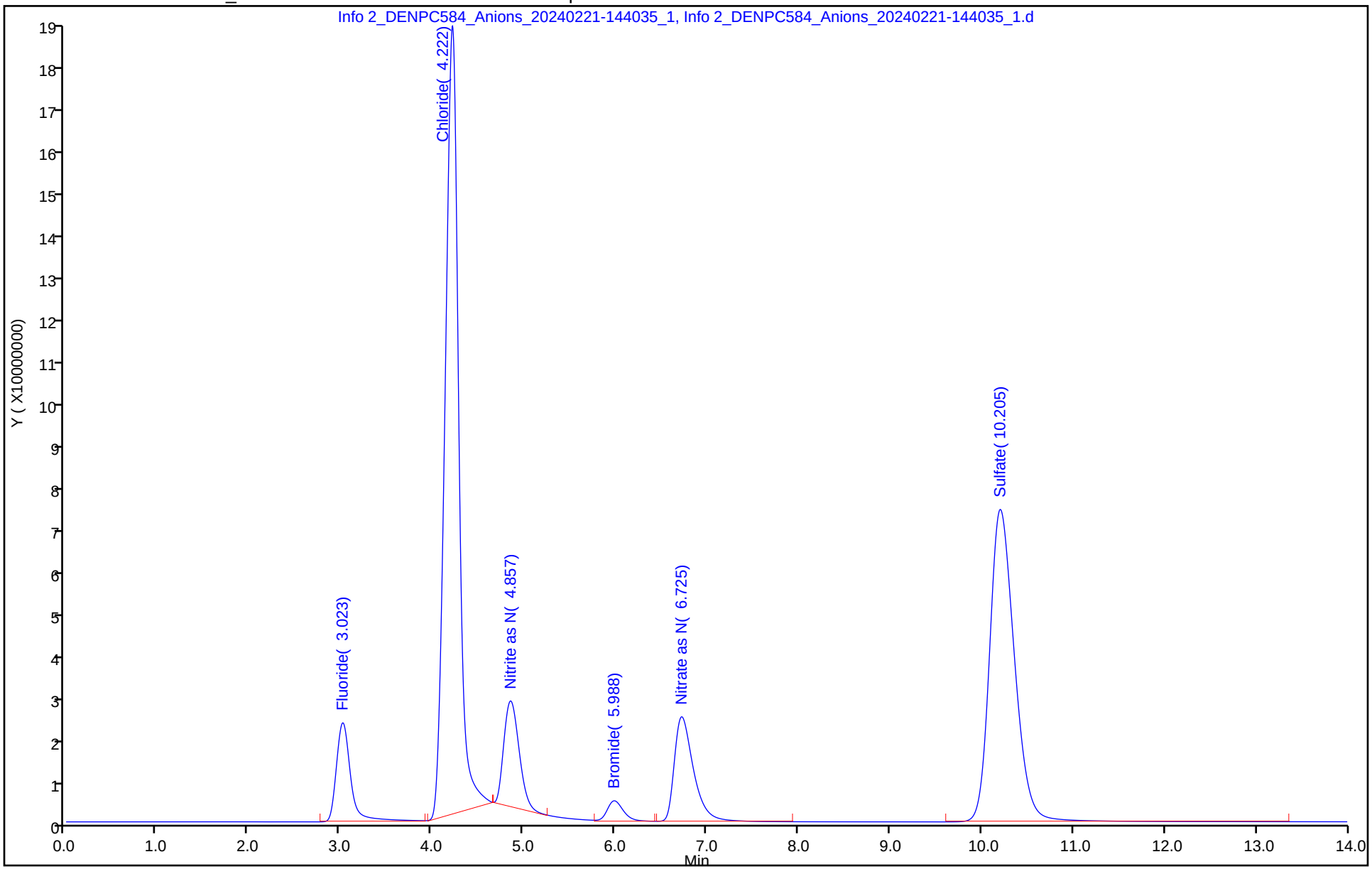
Reagents:

IC Cal low_00758	Amount Added:	1.60	Units: mL
IC CAL cl/so4_00524	Amount Added:	4.80	Units: mL

Report Date: 22-Feb-2024 12:48:20 Chrom Revision: 2.3 14-Feb-2024 16:13:40

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom14\20240220-130421.b\Info 2_DENPC584_Anions_20240221-144035_1.d				
Injection Date:	21-Feb-2024 14:05:00	Instrument ID:	WC_IonChrom14	Operator ID:	wetchemd
Lims ID:	STD L6			Worklist Smp#:	6
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC14	Limit Group:	Wet - Anions		



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Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom14\20240220-130421.b\Info 2_DENPC584_Anions_20240221-144
Lims ID: STD L7
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 21-Feb-2024 14:22:00 ALS Bottle#: 0 Worklist Smp#: 7
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: STD L7
Misc. Info.: STD L7
Operator ID: wetchemd Instrument ID: WC_IonChrom14
Sublist: chrom-Anions_IC14*sub8

Method: \\chromfs\Denver\ChromData\WC_IonChrom14\20240220-130421.b\Anions_IC14.m
Limit Group: Wet - Anions
Last Update: 22-Feb-2024 12:43:54 Calib Date: 21-Feb-2024 14:22:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom14\20240220-130421.b\Info 2_DENPC584_Anions_20240221-144

Column 1 : Det: 0005
Process Host: CTX1668

First Level Reviewer: XAY4 Date: 21-Feb-2024 17:10:01

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.018	3.017	0.001	307374017	NC	NC	
2 Chloride	4.258	4.173	0.085	3168043917	NC	NC	
3 Nitrite as N	4.853	4.868	-0.015	345182165	10.0	9.67	
4 Bromide	5.983	6.027	-0.044	70115464	NC	NC	
5 Nitrate as N	6.718	6.798	-0.080	455155431	10.0	10.2	
7 Orthophosphate as P		8.227			ND	ND	
6 Sulfate	10.158	10.278	-0.120	2272897824	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated
ND - Not Detected or Marked ND

Reagents:

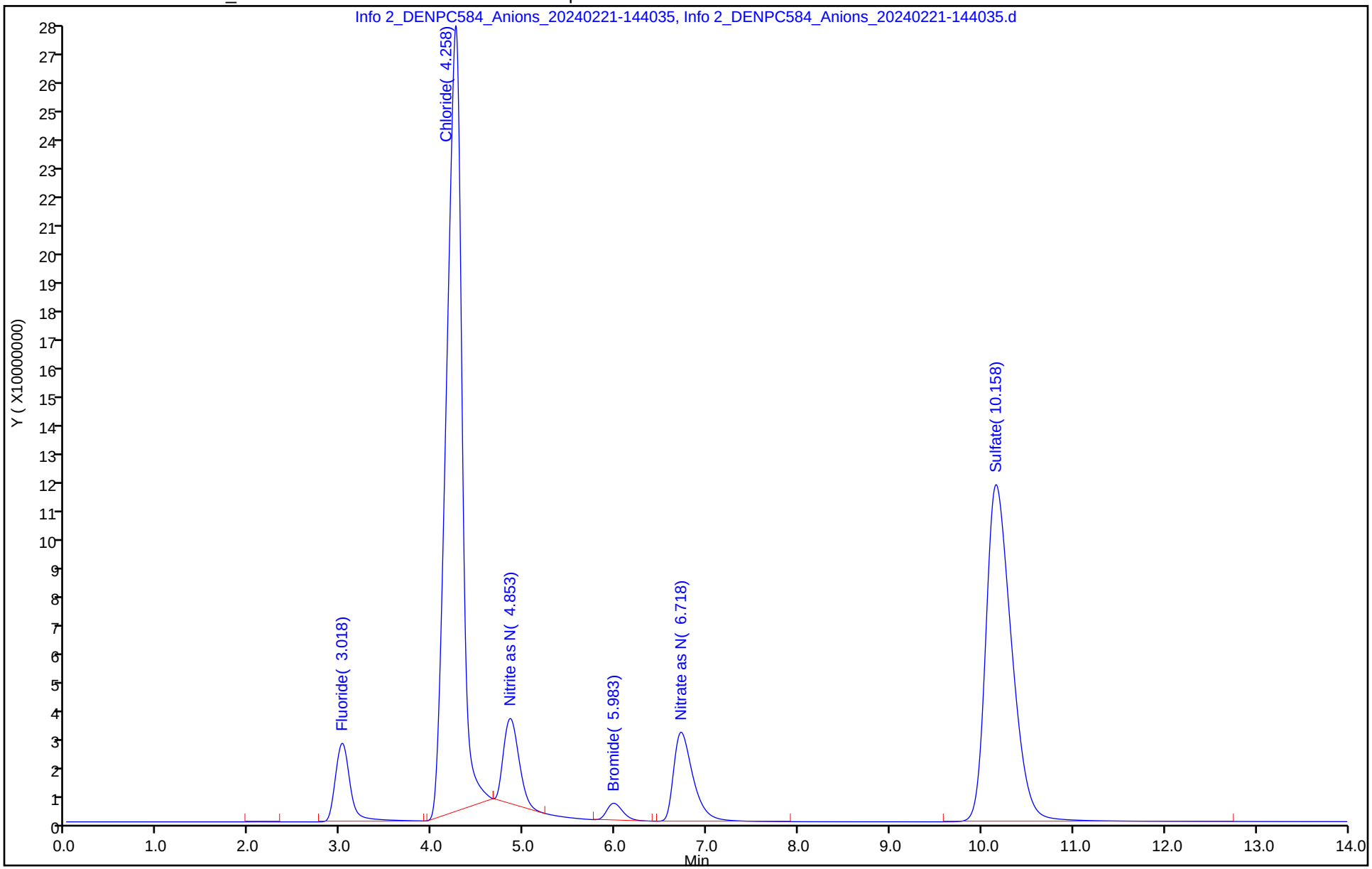
IC Cal low_00758 Amount Added: 2.00 Units: mL
IC CAL cl/so4_00524 Amount Added: 8.00 Units: mL

Report Date: 22-Feb-2024 12:43:54 Chrom Revision: 2.3 14-Feb-2024 16:13:40

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom14\20240220-130421.b\Info 2_DENPC584_Anions_20240221-144035.d

Injection Date:	21-Feb-2024 14:22:00	Instrument ID:	WC_IonChrom14	Operator ID:	wetchemd
Lims ID:	STD L7			Worklist Smp#:	7
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC14	Limit Group:	Wet - Anions		



5/14/2024
9:20:15 AM

Eurofins Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom14\20240220-130421.b\Info 2_DENPC584_Anions_20240221-154				
Lims ID:	ICB				
Client ID:					
Sample Type:	ICB				
Inject. Date:	21-Feb-2024 15:13:00	ALS Bottle#:	0	Worklist Smp#:	10
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Sample Info:	ICB				
Misc. Info.:	ICB				
Operator ID:	wetchemd	Instrument ID:	WC_IonChrom14		
Method:	\\chromfs\Denver\ChromData\WC_IonChrom14\20240220-130421.b\Anions_IC14.m				
Limit Group:	Wet - Anions				
Last Update:	22-Feb-2024 12:34:00	Calib Date:	21-Feb-2024 14:22:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\WC_IonChrom14\20240220-130421.b\Info 2_DENPC584_Anions_20240221-144				
Column 1 :			Det: 0005		
Process Host:	CTX1668				
First Level Reviewer: XAY4		Date:	21-Feb-2024 17:09:24		

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.793	3.020	-0.227	384535		NC	
2 Chloride		4.205				ND	
3 Nitrite as N		4.860				ND	
4 Bromide		6.005				ND	
5 Nitrate as N		6.753				ND	
7 Orthophosphate as P		8.227				ND	
6 Sulfate	10.340	10.228	0.112	265504		NC	

QC Flag Legend

Processing Flags

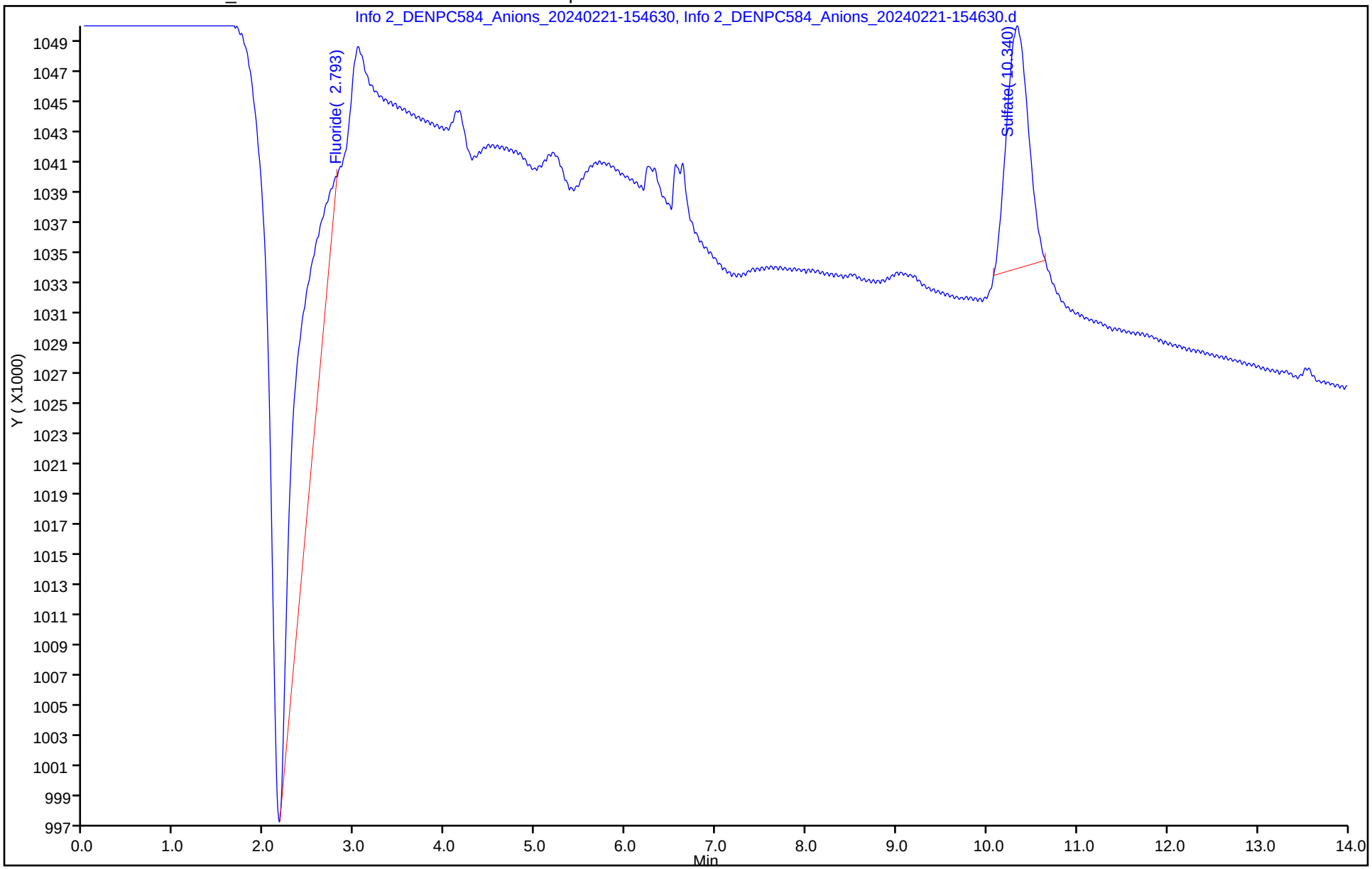
NC - Not Calibrated

Report Date: 22-Feb-2024 12:34:03 Chrom Revision: 2.3 14-Feb-2024 16:13:40

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom14\20240220-130421.b\Info 2_DENPC584_Anions_20240221-154630.d

Injection Date:	21-Feb-2024 15:13:00	Instrument ID:	WC_IonChrom14	Operator ID:	wetchemd
Lims ID:	ICB			Worklist Smp#:	10
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC14	Limit Group:	Wet - Anions		



5/14/2024
9:20:15 AM

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom14\20240220-130421.b\Info 2_DENPC584_Anions_20240221-180
Lims ID: ICV
Client ID:
Sample Type: ICV
Inject. Date: 21-Feb-2024 17:46:00 ALS Bottle#: 0 Worklist Smp#: 9
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: ICV
Misc. Info.: ICV
Operator ID: wetchemd Instrument ID: WC_IonChrom14
Sublist:

Method: \\chromfs\Denver\ChromData\WC_IonChrom14\20240220-130421.b\Anions_IC14.m
Limit Group: Wet - Anions
Last Update: 22-Feb-2024 12:34:00 Calib Date: 21-Feb-2024 14:22:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom14\20240220-130421.b\Info 2_DENPC584_Anions_20240221-144

Column 1 : Det: 0005
Process Host: CTX1668

First Level Reviewer: XAY4 Date: 21-Feb-2024 19:06:58

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.020	3.020	0.000	137045861	NC	NC	M
2 Chloride	4.205	4.205	0.000	1385885380	NC	NC	
3 Nitrite as N	4.860	4.860	0.000	147314245	4.00	4.14	
4 Bromide	6.005	6.005	0.000	26554602	NC	NC	
5 Nitrate as N	6.753	6.753	0.000	179296847	4.00	4.05	
7 Orthophosphate as P		8.227			ND	ND	
6 Sulfate	10.228	10.228	0.000	1009981194	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated
ND - Not Detected or Marked ND
Review Flags
M - Manually Integrated

Reagents:

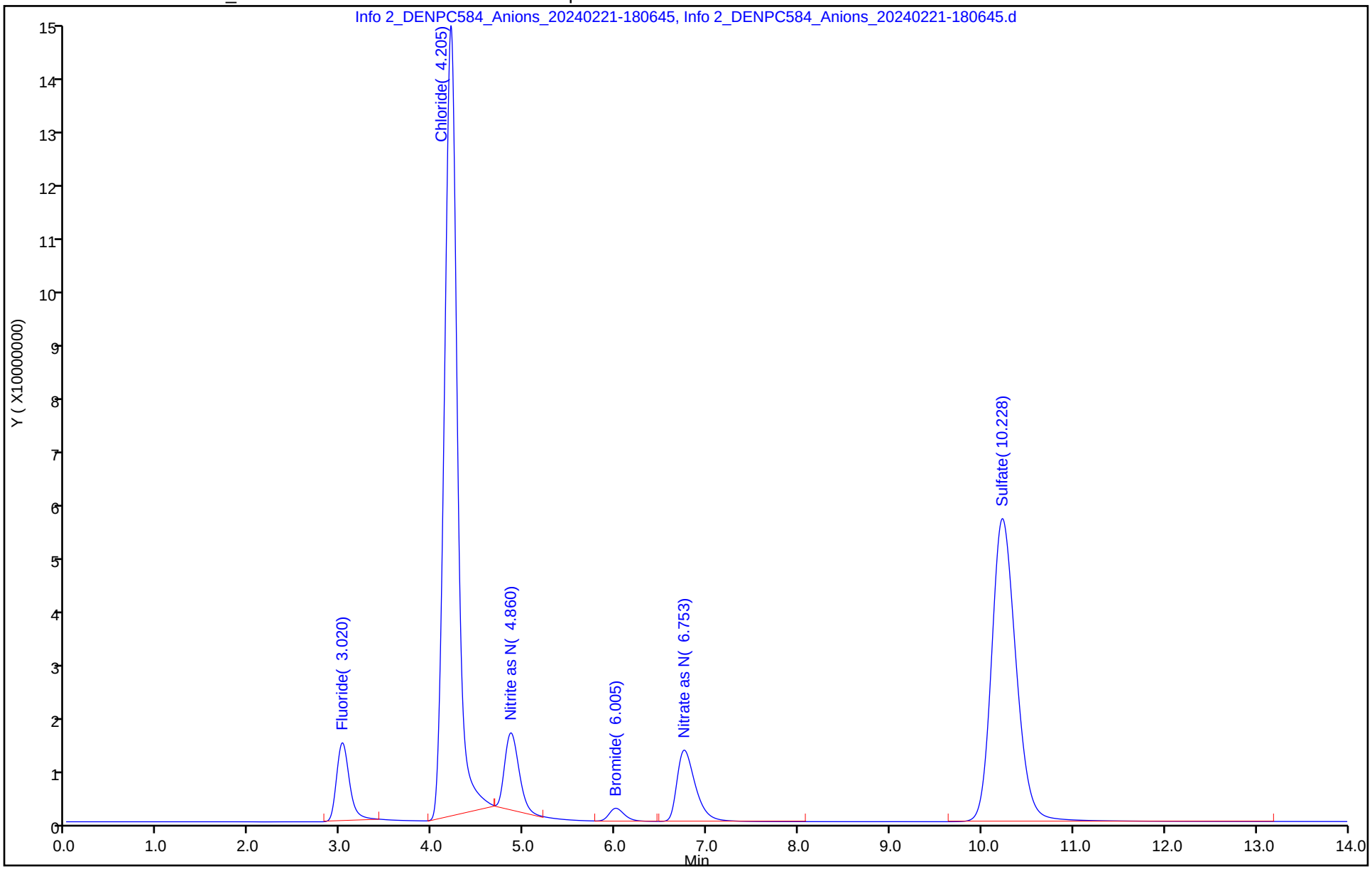
IC ICV 5_00428	Amount Added:	0.80	Units: mL
IC SO4 ICV_00025	Amount Added:	0.80	Units: mL
Cl ICV Std_00007	Amount Added:	0.80	Units: mL

Report Date: 22-Feb-2024 12:34:01 Chrom Revision: 2.3 14-Feb-2024 16:13:40

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom14\20240220-130421.b\Info 2_DENPC584_Anions_20240221-180645.d

Injection Date:	21-Feb-2024 17:46:00	Instrument ID:	WC_IonChrom14	Operator ID:	wetchemd
Lims ID:	ICV			Worklist Smp#:	9
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC14	Limit Group:	Wet - Anions		



5/14/2024
9:20:15 AM

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom14\20240503-132981.b\Info 2_DENPC584_Anions_20240503-112
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 03-May-2024 11:03:00 ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: CCV
Misc. Info.: CCV
Operator ID: wetchemd Instrument ID: WC_IonChrom14
Sublist: chrom-Anions_IC14*sub10

Method: \\chromfs\Denver\ChromData\WC_IonChrom14\20240503-132981.b\Anions_IC14.m
Limit Group: Wet - Anions
Last Update: 06-May-2024 13:10:08 Calib Date: 21-Feb-2024 14:22:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom14\20240220-130421.b\Info 2_DENPC584_Anions_20240221-144

Column 1 : Det: 0005
Process Host: CTX1641

First Level Reviewer: R4BB Date: 03-May-2024 16:29:57

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.962	2.962	0.000	132995510	NC	NC	
2 Chloride	4.112	4.112	0.000	1596924346	NC	NC	
3 Nitrite as N	4.733	4.733	0.000	172597087	5.00	4.84	
4 Bromide	5.830	5.830	0.000	29332635	NC	NC	
5 Nitrate as N	6.550	6.550	0.000	219540973	5.00	4.94	
6 Sulfate	9.632	9.632	0.000	1176089889	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated

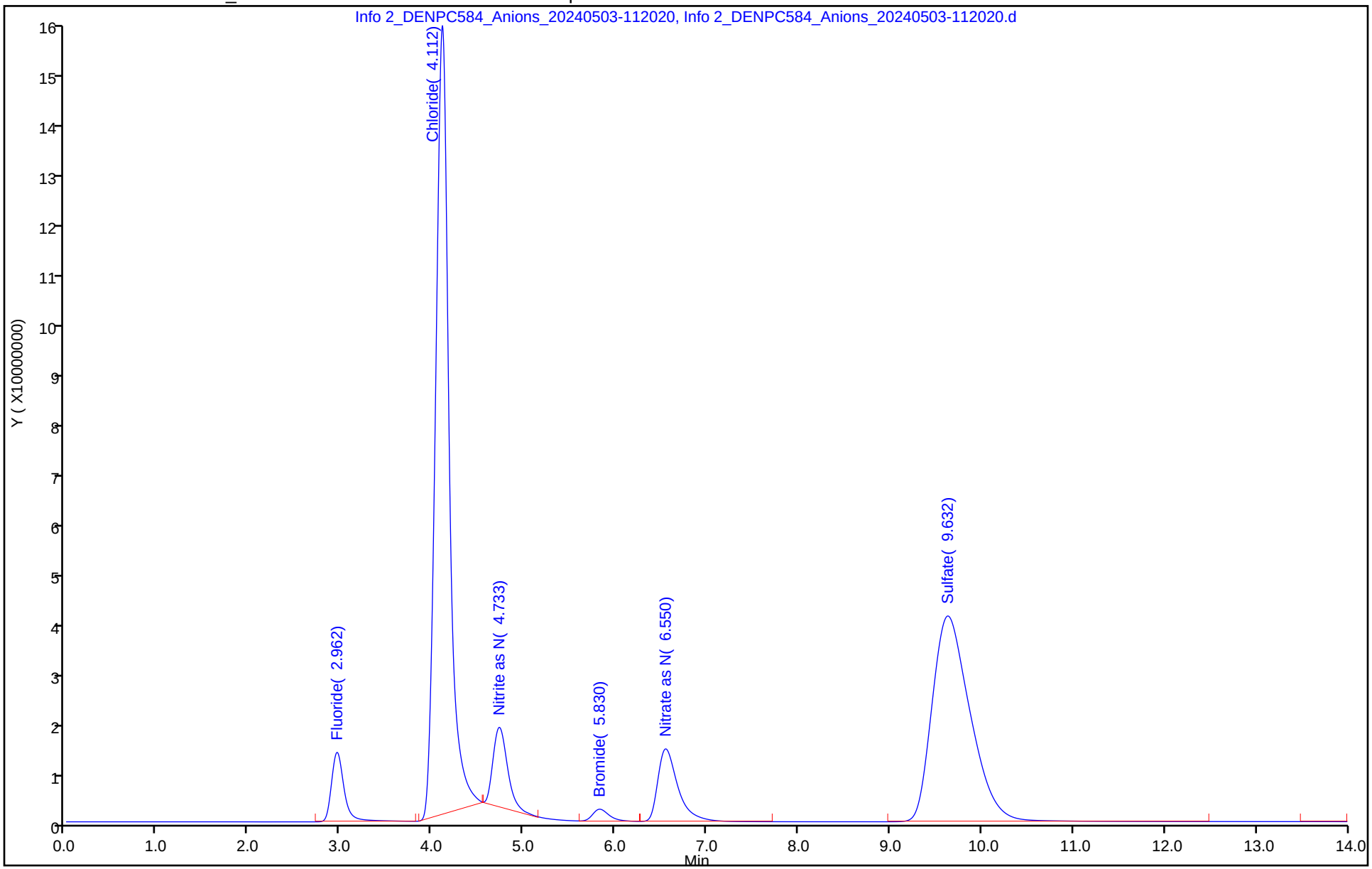
Reagents:

IC LCS_02034 Amount Added: 10.00 Units: mL

Report Date: 06-May-2024 13:10:09 Chrom Revision: 2.3 26-Apr-2024 12:18:52

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom14\20240503-132981.b\Info 2_DENPC584_Anions_20240503-112020.d				
Injection Date:	03-May-2024 11:03:00	Instrument ID:	WC_IonChrom14	Operator ID:	wetchemd
Lims ID:	ccv			Worklist Smp#:	1
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC14	Limit Group:	Wet - Anions		



5/14/2024
9:20:15 AM

Eurofins Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom14\20240503-132981.b\Info 2_DENPC584_Anions_20240503-113				
Lims ID:	ccb				
Client ID:					
Sample Type:	CCB				
Inject. Date:	03-May-2024 11:20:00	ALS Bottle#:	0	Worklist Smp#:	2
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Sample Info:	CCB				
Misc. Info.:	CCB				
Operator ID:	wetchemd	Instrument ID:	WC_IonChrom14		
Method:	\\chromfs\Denver\ChromData\WC_IonChrom14\20240503-132981.b\Anions_IC14.m				
Limit Group:	Wet - Anions				
Last Update:	06-May-2024 13:10:08	Calib Date:	21-Feb-2024 14:22:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\WC_IonChrom14\20240220-130421.b\Info 2_DENPC584_Anions_20240221-144				
Column 1 :			Det: 0005		
Process Host:	CTX1641				
First Level Reviewer: R4BB		Date:	03-May-2024 16:30:02		

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride		2.962				ND	U
2 Chloride		4.112				ND	
3 Nitrite as N		4.733				ND	
4 Bromide		5.830				ND	
5 Nitrate as N		6.550				ND	
7 Orthophosphate as P		8.227				ND	
6 Sulfate		9.632				ND	

QC Flag Legend

Processing Flags

Review Flags

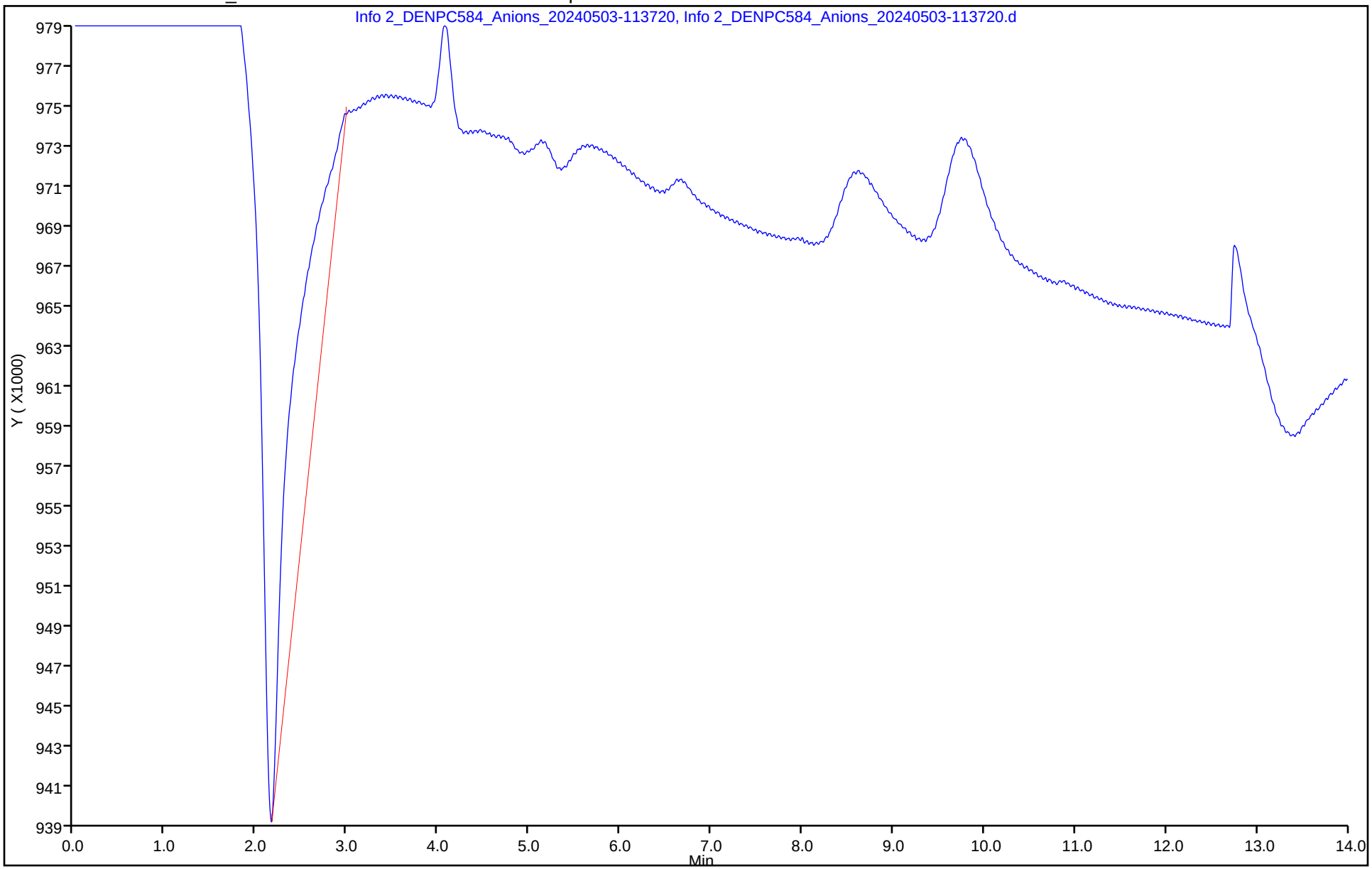
U - Marked Undetected

Report Date: 06-May-2024 13:10:09 Chrom Revision: 2.3 26-Apr-2024 12:18:52

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom14\20240503-132981.b\Info 2_DENPC584_Anions_20240503-113720.d

Injection Date:	03-May-2024 11:20:00	Instrument ID:	WC_IonChrom14	Operator ID:	wetchemd
Lims ID:	ccb			Worklist Smp#:	2
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC14	Limit Group:	Wet - Anions		



5/14/2024
9:20:15 AM

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom14\20240503-132981.b\Info 2_DENPC584_Anions_20240503-115
Lims ID: MRL
Client ID:
Sample Type: MRL
Inject. Date: 03-May-2024 11:37:00 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: MRL
Misc. Info.: MRL
Operator ID: wetchemd Instrument ID: WC_IonChrom14

Method: \\chromfs\Denver\ChromData\WC_IonChrom14\20240503-132981.b\Anions_IC14.m
Limit Group: Wet - Anions
Last Update: 06-May-2024 13:10:08 Calib Date: 21-Feb-2024 14:22:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom14\20240220-130421.b\Info 2_DENPC584_Anions_20240221-144

Column 1 : Det: 0005
Process Host: CTX1641

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.968	2.962	0.006	12792871	NC	NC	
2 Chloride	4.078	4.112	-0.034	80050304	NC	NC	
3 Nitrite as N	4.748	4.733	0.015	16519244	0.5000	0.4778	
4 Bromide	5.860	5.830	0.030	2488057	NC	NC	
5 Nitrate as N	6.608	6.550	0.058	17845493	0.5000	0.4723	
6 Sulfate	9.677	9.632	0.045	52778546	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated

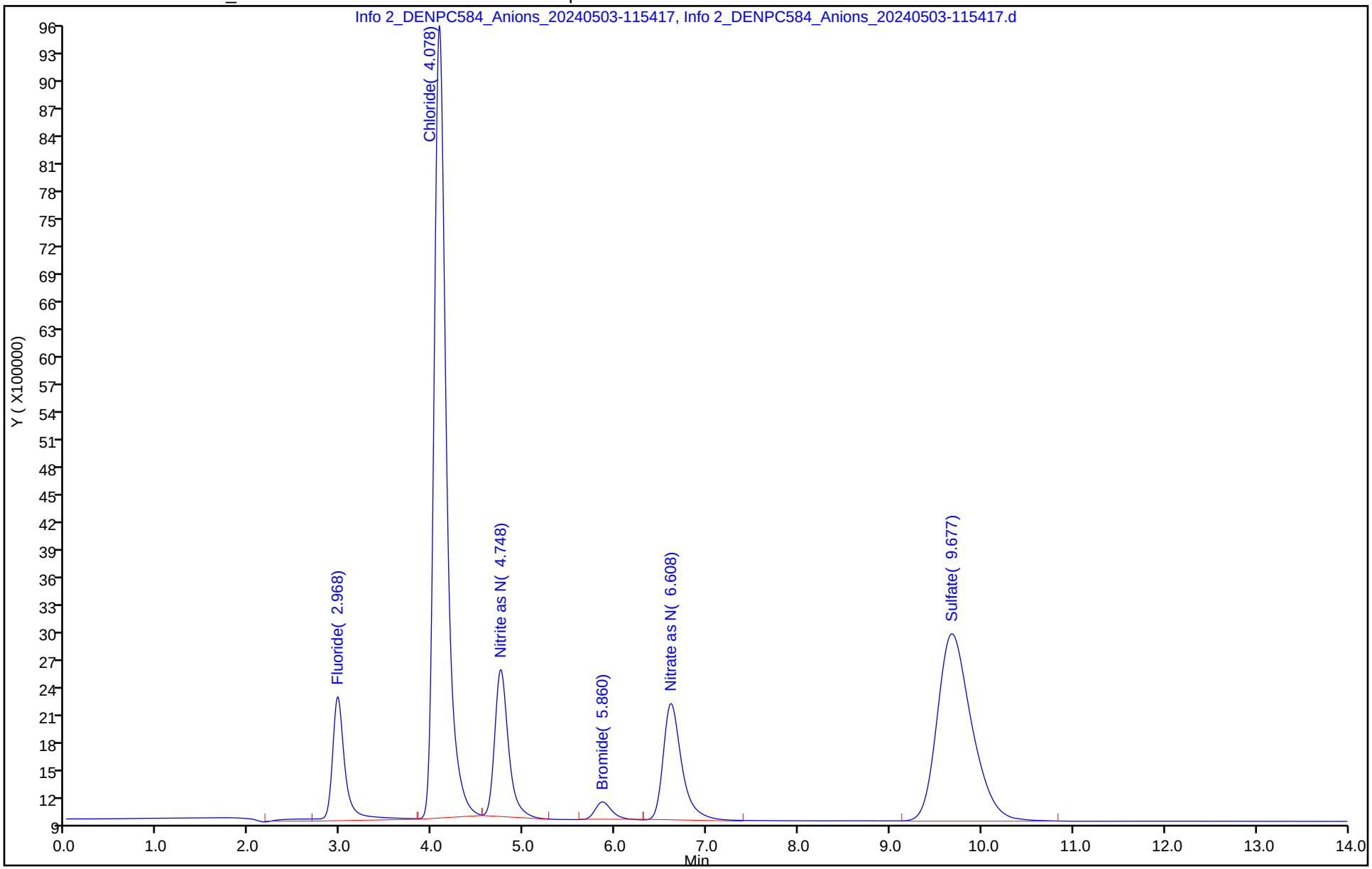
Reagents:

IC Cal low_00772 Amount Added: 0.10 Units: mL
IC CAL cl/so4_00534 Amount Added: 0.20 Units: mL

Report Date: 06-May-2024 13:10:10 Chrom Revision: 2.3 26-Apr-2024 12:18:52

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom14\20240503-132981.b\Info 2_DENPC584_Anions_20240503-115417.d				
Injection Date:	03-May-2024 11:37:00	Instrument ID:	WC_IonChrom14	Operator ID:	wetchemd
Lims ID:	MRL			Worklist Smp#:	3
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC14	Limit Group:	Wet - Anions		



5/14/2024
9:20:15 AM

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom14\20240503-132981.b\Info 2_DENPC584_Anions_20240503-121
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 03-May-2024 11:54:00 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: LCS
Misc. Info.: LCS
Operator ID: wetchemd Instrument ID: WC_IonChrom14

Method: \\chromfs\Denver\ChromData\WC_IonChrom14\20240503-132981.b\Anions_IC14.m
Limit Group: Wet - Anions
Last Update: 06-May-2024 13:10:08 Calib Date: 21-Feb-2024 14:22:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom14\20240220-130421.b\Info 2_DENPC584_Anions_20240221-144

Column 1 : Det: 0005
Process Host: CTX1641

First Level Reviewer: R4BB Date: 03-May-2024 16:32:09

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.965	2.962	0.003	136419964	NC	NC	
2 Chloride	4.113	4.112	0.001	1596281333	NC	NC	
3 Nitrite as N	4.735	4.733	0.002	174158212	5.00	4.89	
4 Bromide	5.822	5.830	-0.008	29286803	NC	NC	
5 Nitrate as N	6.540	6.550	-0.010	219778515	5.00	4.95	
6 Sulfate	9.632	9.632	0.000	1175215313	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated

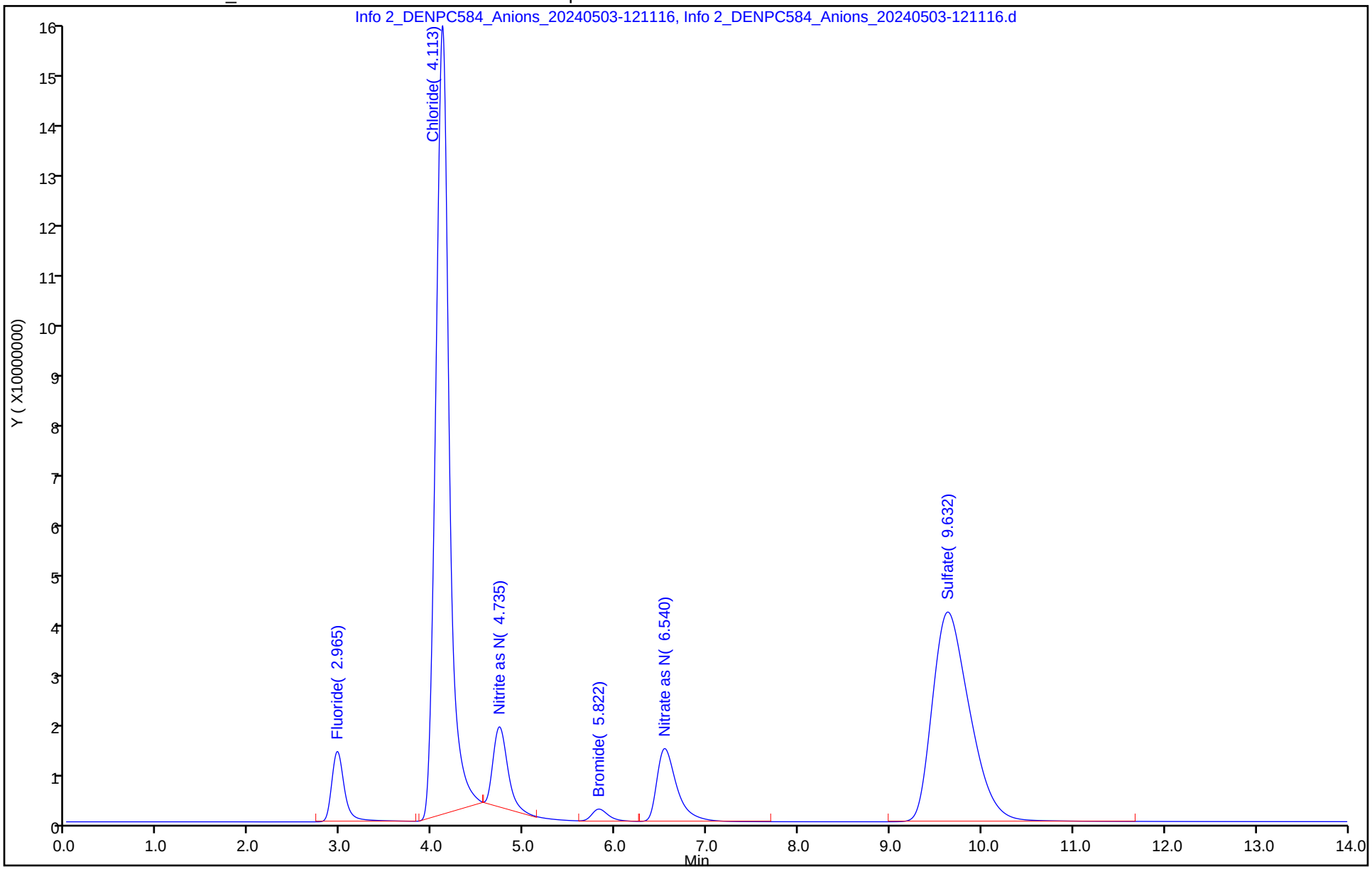
Reagents:

IC LCS_02034 Amount Added: 10.00 Units: mL

Report Date: 06-May-2024 13:10:11 Chrom Revision: 2.3 26-Apr-2024 12:18:52

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom14\20240503-132981.b\Info 2_DENPC584_Anions_20240503-121116.d				
Injection Date:	03-May-2024 11:54:00	Instrument ID:	WC_IonChrom14	Operator ID:	wetchemd
Lims ID:	LCS			Worklist Smp#:	4
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC14	Limit Group:	Wet - Anions		



5/14/2024
9:20:15 AM

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom14\20240503-132981.b\Info 2_DENPC584_Anions_20240503-122
Lims ID: LCSD
Client ID:
Sample Type: LCSD
Inject. Date: 03-May-2024 12:11:00 ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: LCSD
Misc. Info.: LCSD
Operator ID: wetchemd Instrument ID: WC_IonChrom14

Method: \\chromfs\Denver\ChromData\WC_IonChrom14\20240503-132981.b\Anions_IC14.m
Limit Group: Wet - Anions
Last Update: 06-May-2024 13:10:08 Calib Date: 21-Feb-2024 14:22:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom14\20240220-130421.b\Info 2_DENPC584_Anions_20240221-144

Column 1 : Det: 0005
Process Host: CTX1641

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.965	2.962	0.003	136218700	NC	NC	
2 Chloride	4.113	4.112	0.001	1616913127	NC	NC	
3 Nitrite as N	4.747	4.733	0.014	172537526	5.00	4.84	
4 Bromide	5.833	5.830	0.003	29460029	NC	NC	
5 Nitrate as N	6.552	6.550	0.002	219851321	5.00	4.95	
6 Sulfate	9.647	9.632	0.015	1181354490	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated

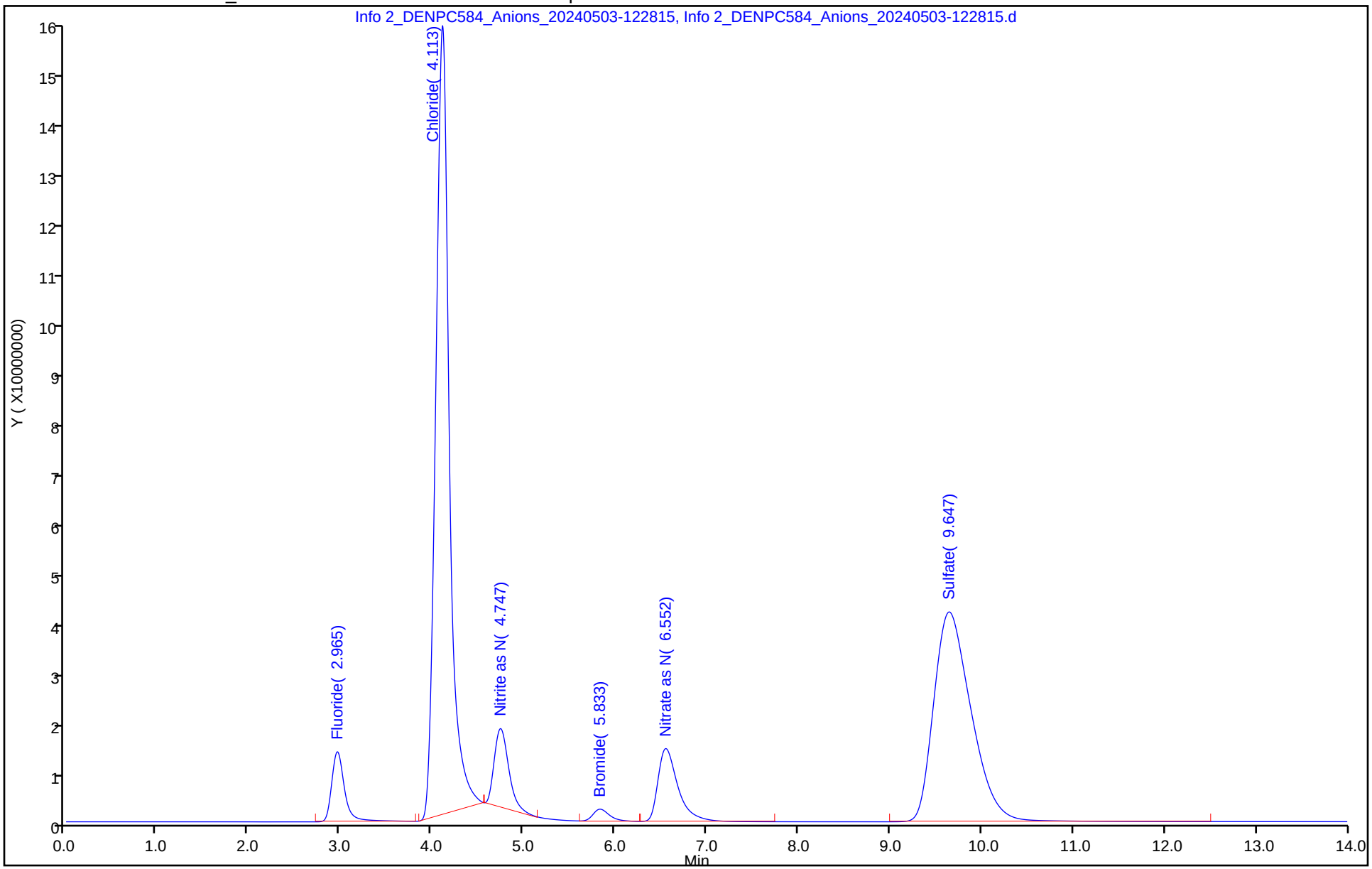
Reagents:

IC LCS_02034 Amount Added: 10.00 Units: mL

Report Date: 06-May-2024 13:10:12 Chrom Revision: 2.3 26-Apr-2024 12:18:52

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom14\20240503-132981.b\Info 2_DENPC584_Anions_20240503-122815.d				
Injection Date:	03-May-2024 12:11:00	Instrument ID:	WC_IonChrom14	Operator ID:	wetchemd
Lims ID:	LCSD			Worklist Smp#:	5
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC14	Limit Group:	Wet - Anions		



5/14/2024
9:20:15 AM

Eurofins Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom14\20240503-132981.b\Info 2_DENPC584_Anions_20240503-124				
Lims ID:	mb				
Client ID:					
Sample Type:	MB				
Inject. Date:	03-May-2024 12:28:00	ALS Bottle#:	0	Worklist Smp#:	6
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Sample Info:	MB				
Misc. Info.:	MB				
Operator ID:	wetchemd	Instrument ID:	WC_IonChrom14		
Method:	\\chromfs\Denver\ChromData\WC_IonChrom14\20240503-132981.b\Anions_IC14.m				
Limit Group:	Wet - Anions				
Last Update:	06-May-2024 13:10:08	Calib Date:	21-Feb-2024 14:22:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\WC_IonChrom14\20240220-130421.b\Info 2_DENPC584_Anions_20240221-144				
Column 1 :			Det: 0005		
Process Host:	CTX1641				
First Level Reviewer: R4BB		Date:	03-May-2024 16:30:13		

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride		2.962				ND	U
2 Chloride		4.112				ND	
3 Nitrite as N		4.733				ND	
4 Bromide		5.830				ND	
5 Nitrate as N		6.550				ND	
7 Orthophosphate as P		8.227				ND	
6 Sulfate		9.632				ND	

QC Flag Legend

Processing Flags

Review Flags

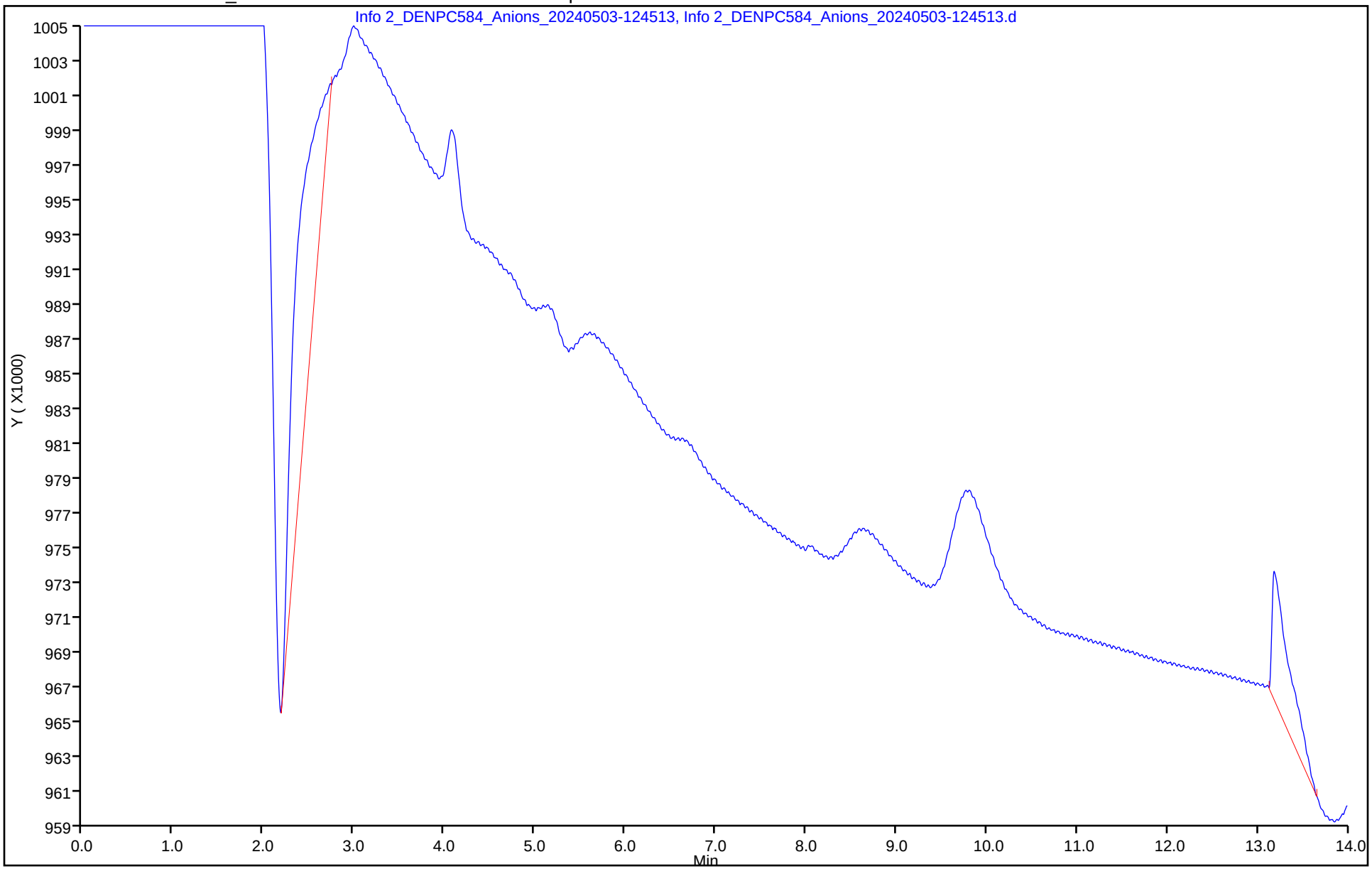
U - Marked Undetected

Report Date: 06-May-2024 13:10:13 Chrom Revision: 2.3 26-Apr-2024 12:18:52

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom14\20240503-132981.b\Info 2_DENPC584_Anions_20240503-124513.d

Injection Date:	03-May-2024 12:28:00	Instrument ID:	WC_IonChrom14	Operator ID:	wetchemd
Lims ID:	mb			Worklist Smp#:	6
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC14	Limit Group:	Wet - Anions		



5/14/2024
9:20:15 AM

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom14\20240503-132981.b\Info 2_DENPC584_Anions_20240503-203
Lims ID: 280-190988-B-1
Client ID: LL12mw-249-240401-GW
Sample Type: Client
Inject. Date: 03-May-2024 20:20:00 ALS Bottle#: 0 Worklist Smp#: 10
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 280-190988-B-1
Misc. Info.: 280-190988-B-1
Operator ID: wetchemd Instrument ID: WC_IonChrom14

Method: \\chromfs\Denver\ChromData\WC_IonChrom14\20240503-132981.b\Anions_IC14.m
Limit Group: Wet - Anions
Last Update: 06-May-2024 13:10:08 Calib Date: 21-Feb-2024 14:22:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom14\20240220-130421.b\Info 2_DENPC584_Anions_20240221-144

Column 1 : Det: 0005
Process Host: CTX1641

First Level Reviewer: R4BB Date: 06-May-2024 12:25:26

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.958	2.962	-0.004	6571570	NC	
2 Chloride	4.080	4.112	-0.032	89195478	NC	
3 Nitrite as N		4.733			ND	
4 Bromide	5.993	5.830	0.163	210158	NC	
5 Nitrate as N	6.757	6.550	0.207	513037	0.0881	
7 Orthophosphate as P		8.227			ND	
6 Sulfate	9.757	9.632	0.125	766869513	NC	

QC Flag Legend

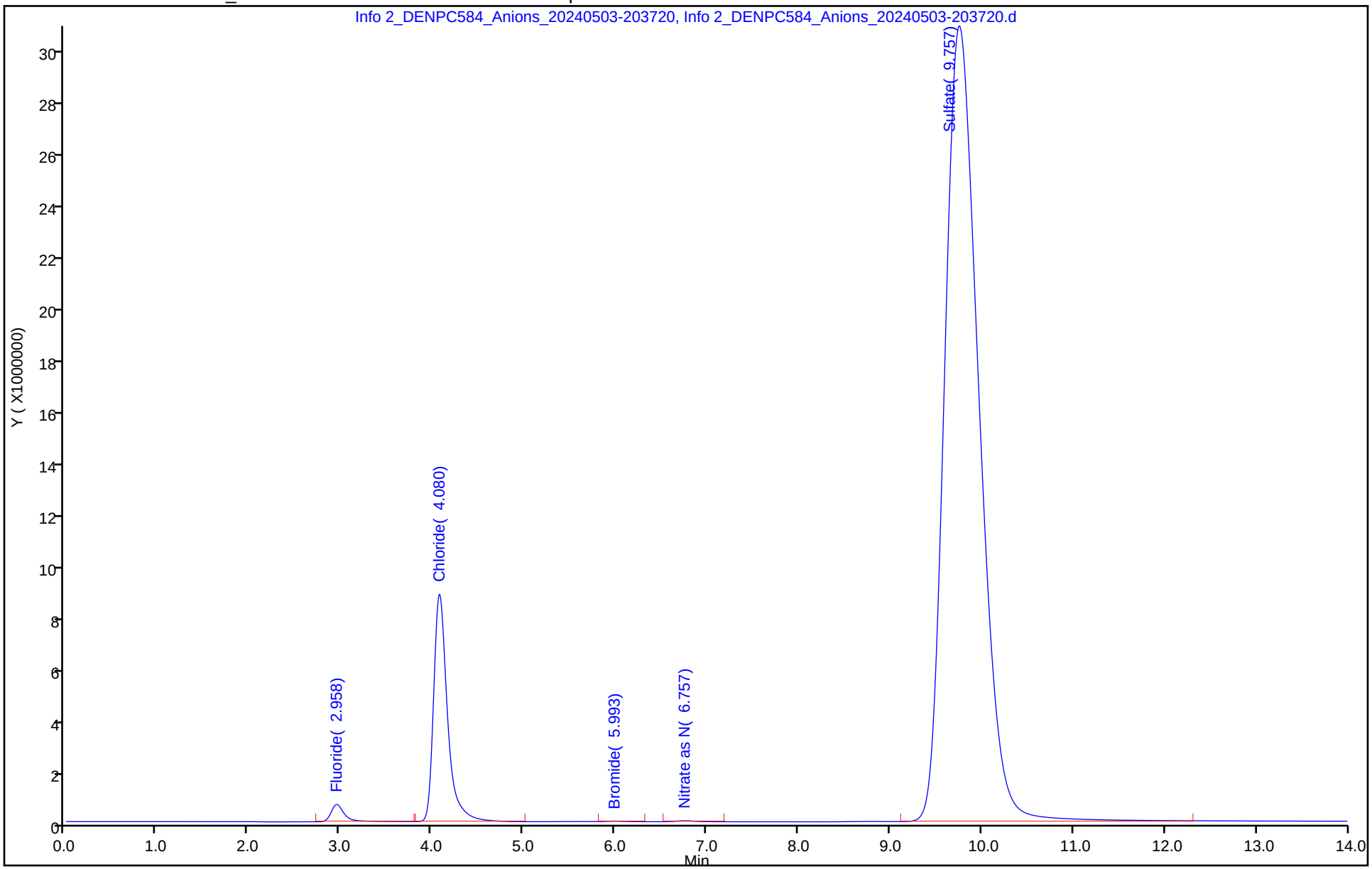
Processing Flags
NC - Not Calibrated

Report Date: 06-May-2024 13:10:16 Chrom Revision: 2.3 26-Apr-2024 12:18:52

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom14\20240503-132981.b\Info 2_DENPC584_Anions_20240503-203720.d

Injection Date:	03-May-2024 20:20:00	Instrument ID:	WC_IonChrom14	Operator ID:	wetchemd
Lims ID:	280-190988-B-1	Lab Sample ID:	280-190988-1	Worklist Smp#:	10
Client ID:	LL12mw-249-240401-GW				
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC14	Limit Group:	Wet - Anions		



5/14/2024
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Eurofins Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom14\20240503-132981.b\Info 2_DENPC584_Anions_20240503-205				
Lims ID:	280-190988-B-1 DU				
Client ID:					
Sample Type:	DU				
Inject. Date:	03-May-2024 20:37:00	ALS Bottle#:	0	Worklist Smp#:	11
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-190988-B-1 DU				
Misc. Info.:	280-190988-B-1 DU				
Operator ID:	wetchemd	Instrument ID:	WC_IonChrom14		
Method:	\\chromfs\Denver\ChromData\WC_IonChrom14\20240503-132981.b\Anions_IC14.m				
Limit Group:	Wet - Anions				
Last Update:	06-May-2024 13:10:08	Calib Date:	21-Feb-2024 14:22:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\WC_IonChrom14\20240220-130421.b\Info 2_DENPC584_Anions_20240221-144				
Column 1 :			Det: 0005		
Process Host:	CTX1641				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.967	2.962	0.005	6543939		NC	
2 Chloride	4.092	4.112	-0.020	88913383		NC	
3 Nitrite as N		4.733				ND	
4 Bromide	5.993	5.830	0.163	212872		NC	
5 Nitrate as N	6.762	6.550	0.212	501242		0.0879	
7 Orthophosphate as P		8.227				ND	
6 Sulfate	9.762	9.632	0.130	768376109		NC	

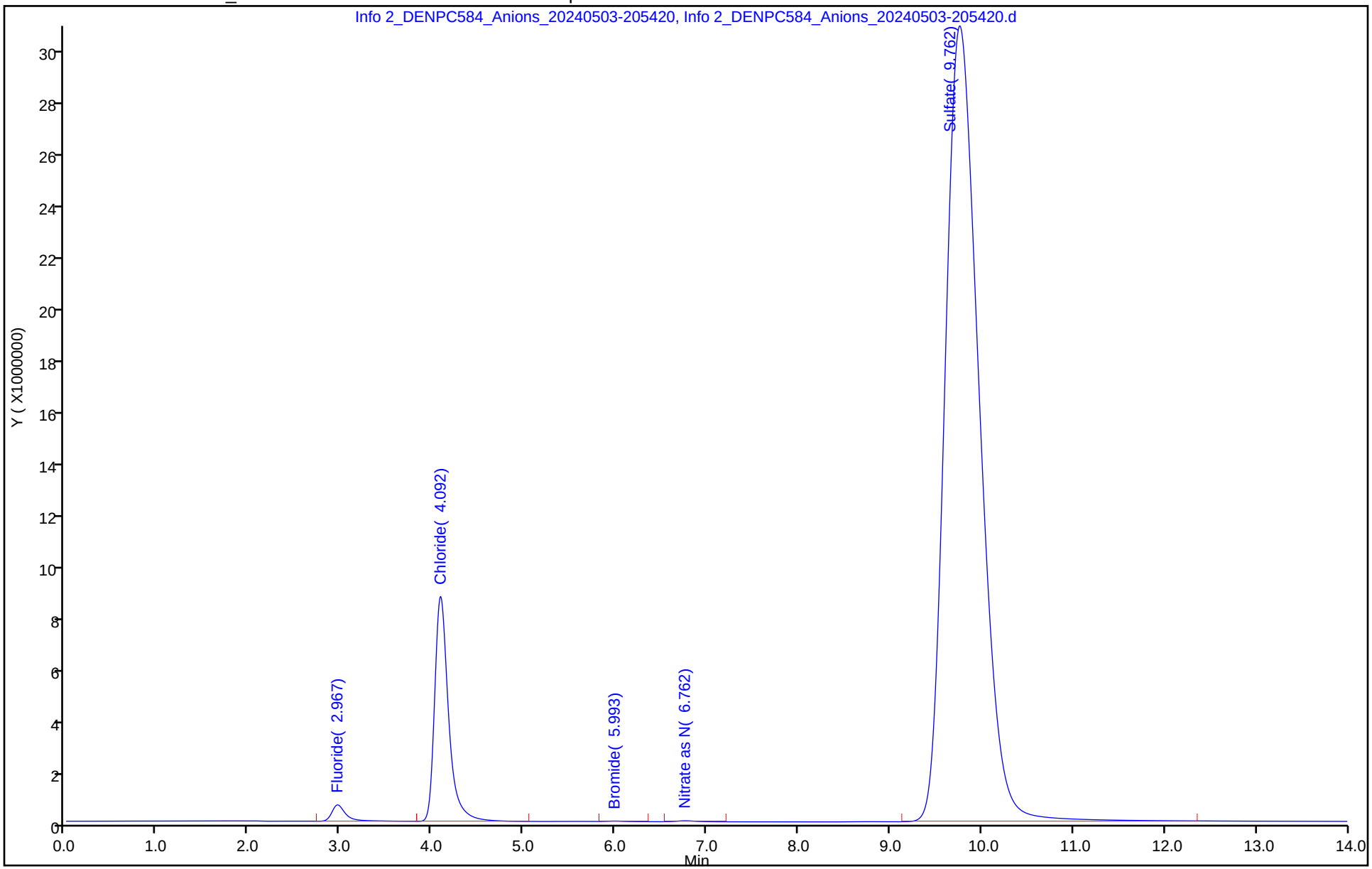
QC Flag Legend

Processing Flags
NC - Not Calibrated

Report Date: 06-May-2024 13:10:17 Chrom Revision: 2.3 26-Apr-2024 12:18:52

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom14\20240503-132981.b\Info 2_DENPC584_Anions_20240503-205420.d				
Injection Date:	03-May-2024 20:37:00	Instrument ID:	WC_IonChrom14	Operator ID:	wetchemd
Lims ID:	280-190988-B-1 DU			Worklist Smp#:	11
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC14	Limit Group:	Wet - Anions		



5/14/2024
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Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom14\20240503-132981.b\Info 2_DENPC584_Anions_20240503-211
Lims ID: 280-190988-B-1 MS
Client ID: LL12mw-249-240401-GW
Sample Type: MS
Inject. Date: 03-May-2024 20:54:00 ALS Bottle#: 0 Worklist Smp#: 12
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 280-190988-B-1 MS
Misc. Info.: 280-190988-B-1 MS
Operator ID: wetchemd Instrument ID: WC_IonChrom14

Method: \\chromfs\Denver\ChromData\WC_IonChrom14\20240503-132981.b\Anions_IC14.m
Limit Group: Wet - Anions
Last Update: 06-May-2024 13:10:08 Calib Date: 21-Feb-2024 14:22:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom14\20240220-130421.b\Info 2_DENPC584_Anions_20240221-144

Column 1 : Det: 0005
Process Host: CTX1641

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.970	2.962	0.008	152722568	NC	NC	
2 Chloride	4.102	4.112	-0.010	919240094	NC	NC	
3 Nitrite as N	4.758	4.733	0.025	167515292	5.00	4.70	
4 Bromide	5.963	5.830	0.133	33324214	NC	NC	
5 Nitrate as N	6.660	6.550	0.110	219469629	5.00	4.94	
7 Orthophosphate as P		8.227				ND	
6 Sulfate	9.740	9.632	0.108	1340261797	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated

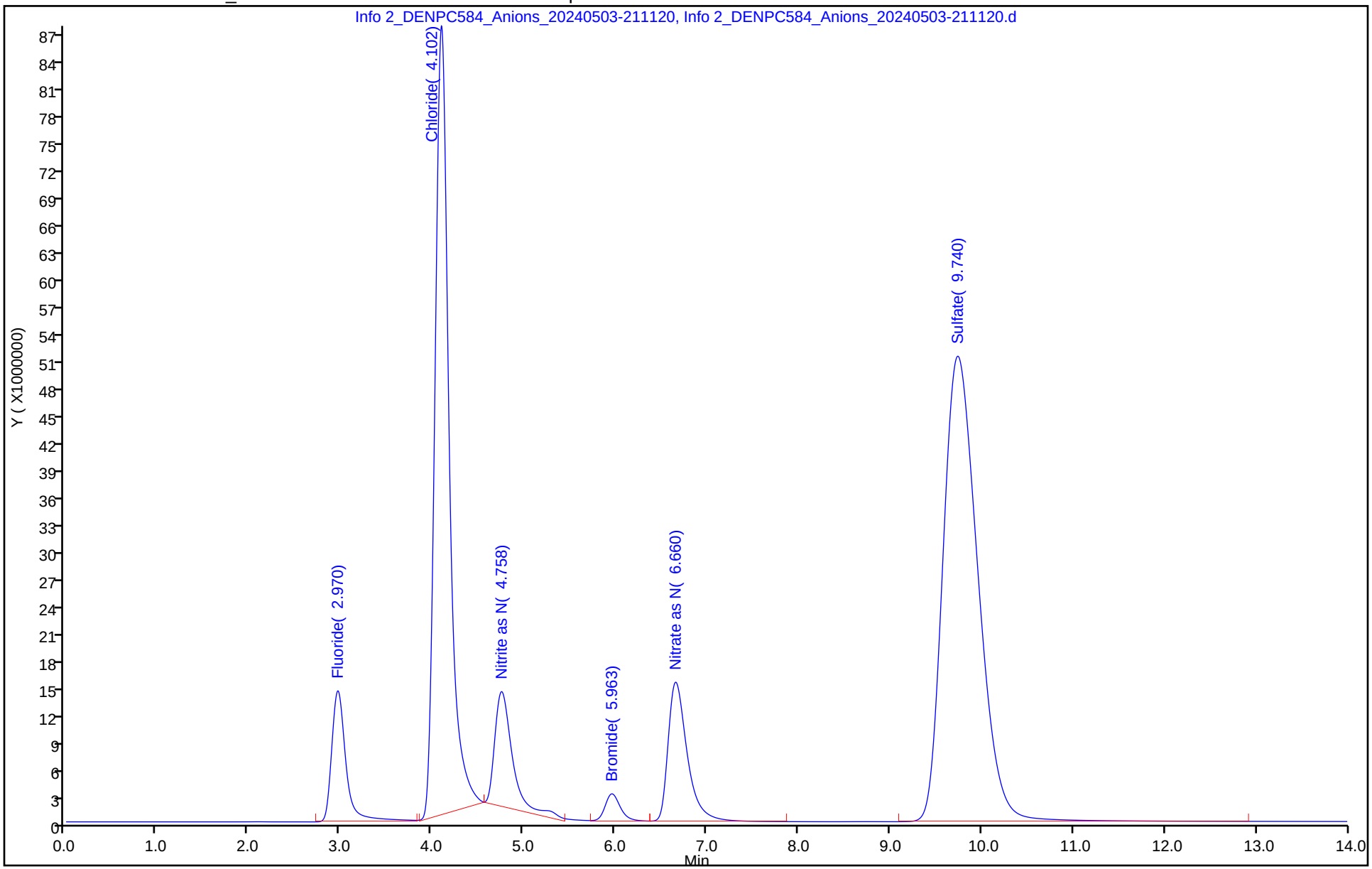
Reagents:

ICMS/MSD WEEK_00876 Amount Added: 0.10 Units: mL

Report Date: 06-May-2024 13:10:17 Chrom Revision: 2.3 26-Apr-2024 12:18:52

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom14\20240503-132981.b\Info 2_DENPC584_Anions_20240503-211120.d				
Injection Date:	03-May-2024 20:54:00	Instrument ID:	WC_IonChrom14	Operator ID:	wetchemd
Lims ID:	280-190988-B-1 MS			Worklist Smp#:	12
Client ID:	LL12mw-249-240401-GW				
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC14	Limit Group:	Wet - Anions		



5/14/2024
9:20:15 AM

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom14\20240503-132981.b\Info 2_DENPC584_Anions_20240503-212
Lims ID: 280-190988-B-1 MSD
Client ID: LL12mw-249-240401-GW
Sample Type: MSD
Inject. Date: 03-May-2024 21:11:00 ALS Bottle#: 0 Worklist Smp#: 13
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 280-190988-B-1 MSD
Misc. Info.: 280-190988-B-1 MSD
Operator ID: wetchemd Instrument ID: WC_IonChrom14

Method: \\chromfs\Denver\ChromData\WC_IonChrom14\20240503-132981.b\Anions_IC14.m
Limit Group: Wet - Anions
Last Update: 06-May-2024 13:10:08 Calib Date: 21-Feb-2024 14:22:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom14\20240220-130421.b\Info 2_DENPC584_Anions_20240221-144

Column 1 : Det: 0005
Process Host: CTX1641

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.967	2.962	0.005	158548295	NC	NC	
2 Chloride	4.102	4.112	-0.010	937322954	NC	NC	
3 Nitrite as N	4.758	4.733	0.025	152004604	5.00	4.27	
4 Bromide	5.963	5.830	0.133	33995760	NC	NC	
5 Nitrate as N	6.662	6.550	0.112	223745796	5.00	5.04	
7 Orthophosphate as P		8.227				ND	
6 Sulfate	9.740	9.632	0.108	1358569919	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated

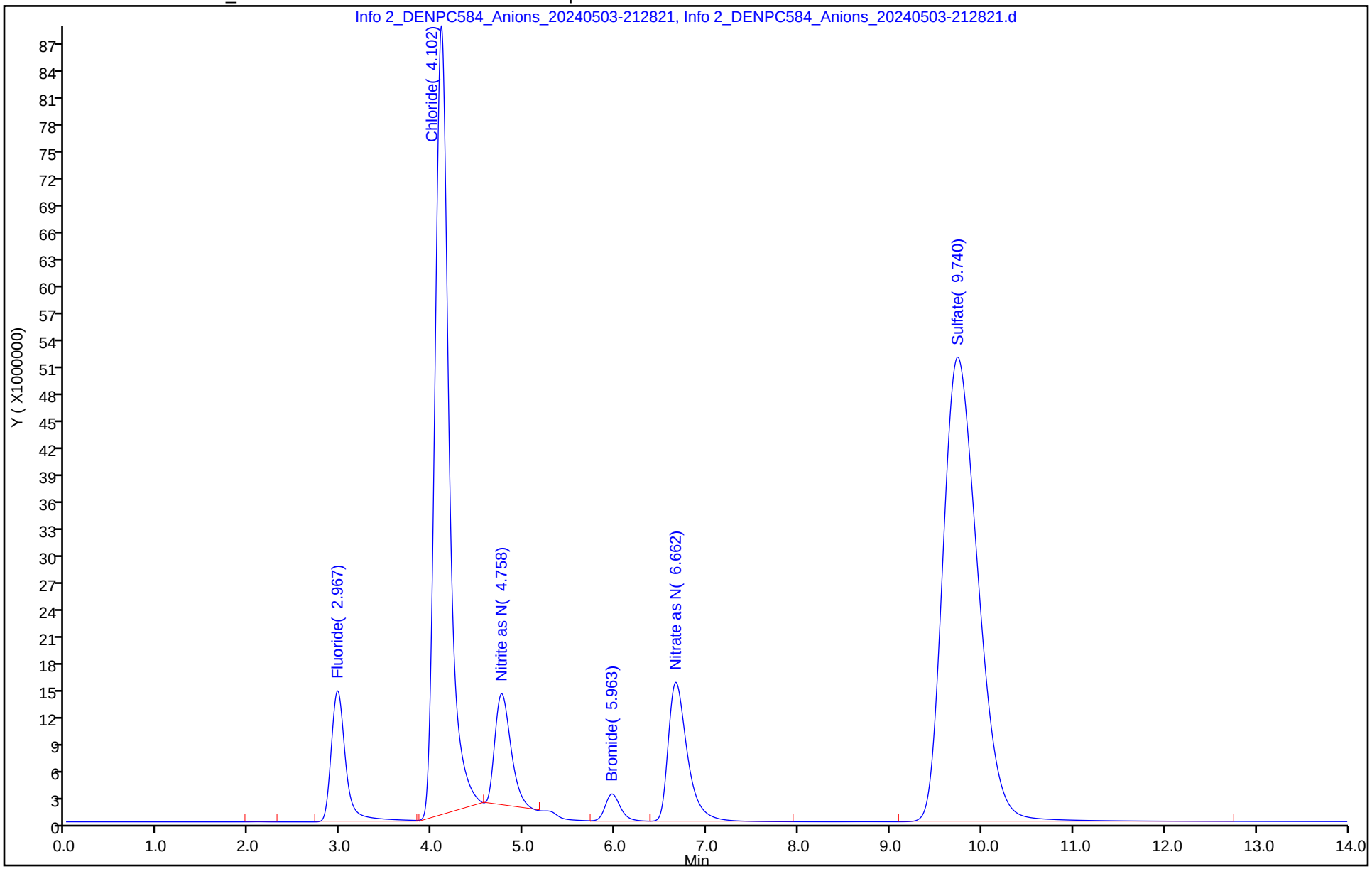
Reagents:

ICMS/MSD WEEK_00876 Amount Added: 0.10 Units: mL

Report Date: 06-May-2024 13:10:18 Chrom Revision: 2.3 26-Apr-2024 12:18:52

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom14\20240503-132981.b\Info 2_DENPC584_Anions_20240503-212821.d				
Injection Date:	03-May-2024 21:11:00	Instrument ID:	WC_IonChrom14	Operator ID:	wetchemd
Lims ID:	280-190988-B-1 MSD			Worklist Smp#:	13
Client ID:	LL12mw-249-240401-GW				
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC14	Limit Group:	Wet - Anions		



5/14/2024
9:20:15 AM

Eurofins Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom14\20240503-132981.b\Info 2_DENPC584_Anions_20240503-214				
Lims ID:	280-190988-B-2				
Client ID:	LL12mw-249-240401-GW				
Sample Type:	Client				
Inject. Date:	03-May-2024 21:28:00	ALS Bottle#:	0	Worklist Smp#:	14
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-190988-B-2				
Misc. Info.:	280-190988-B-2				
Operator ID:	wetchemd	Instrument ID:	WC_IonChrom14		
Method:	\\chromfs\Denver\ChromData\WC_IonChrom14\20240503-132981.b\Anions_IC14.m				
Limit Group:	Wet - Anions				
Last Update:	06-May-2024 13:10:08	Calib Date:	21-Feb-2024 14:22:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\WC_IonChrom14\20240220-130421.b\Info 2_DENPC584_Anions_20240221-144				
Column 1 :			Det: 0005		
Process Host:	CTX1641				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.963	2.962	0.001	6533715	NC	
2 Chloride	4.087	4.112	-0.025	88541987	NC	
3 Nitrite as N		4.733			ND	
4 Bromide	5.990	5.830	0.160	210522	NC	
5 Nitrate as N	6.763	6.550	0.213	421487	0.0861	
7 Orthophosphate as P		8.227			ND	
6 Sulfate	9.748	9.632	0.116	775898537	NC	

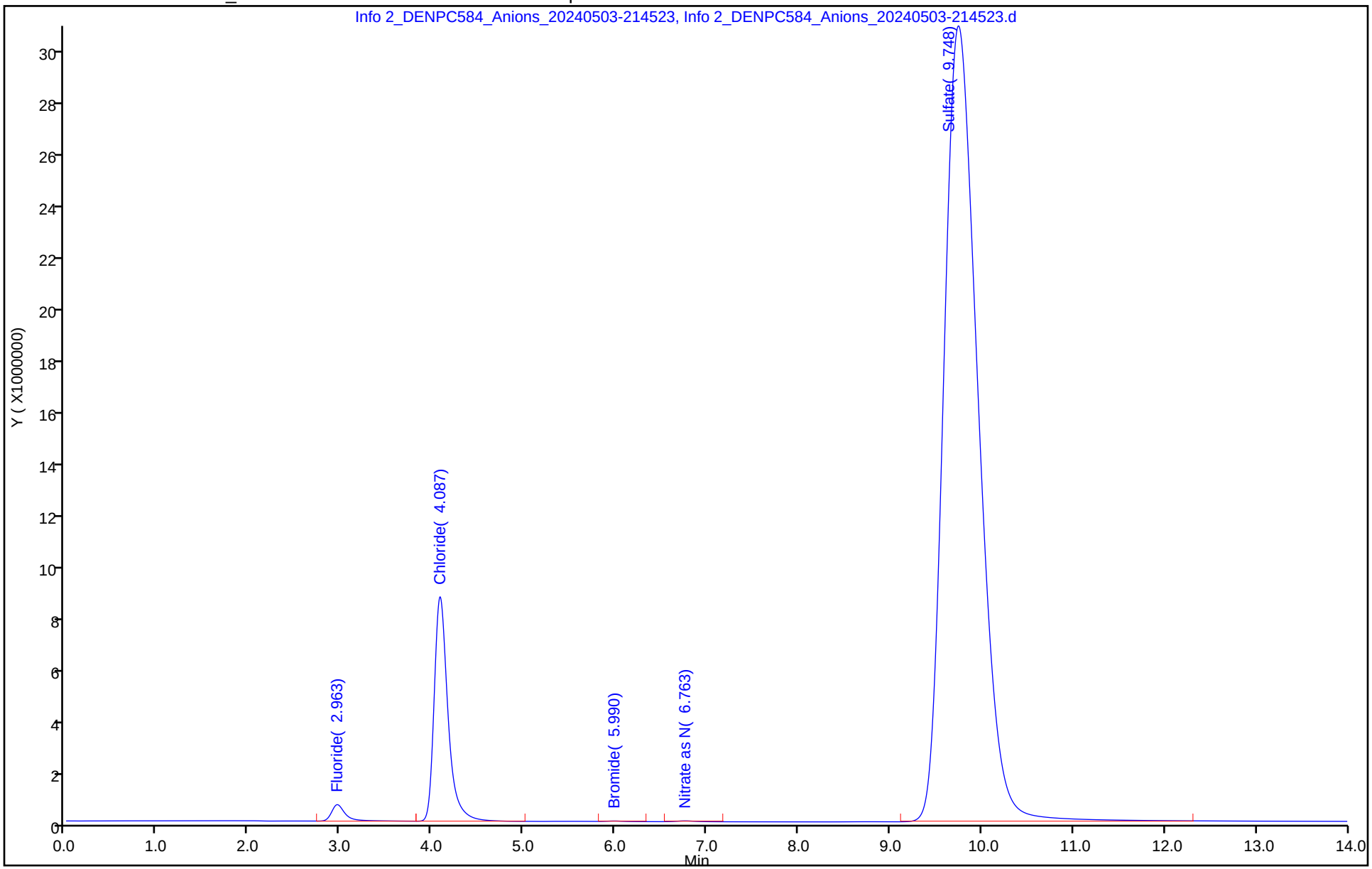
QC Flag Legend

Processing Flags
NC - Not Calibrated

Report Date: 06-May-2024 13:10:19 Chrom Revision: 2.3 26-Apr-2024 12:18:52

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom14\20240503-132981.b\Info 2_DENPC584_Anions_20240503-214523.d				
Injection Date:	03-May-2024 21:28:00	Instrument ID:	WC_IonChrom14	Operator ID:	wetchemd
Lims ID:	280-190988-B-2	Lab Sample ID:	280-190988-2	Worklist Smp#:	14
Client ID:	LL12mw-249-240401-GW				
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC14	Limit Group:	Wet - Anions		



5/14/2024
9:20:15 AM

Eurofins Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom14\20240503-132981.b\Info 2_DENPC584_Anions_20240503-223				
Lims ID:	280-190988-B-3				
Client ID:	LL12mw-248-240401-GW				
Sample Type:	Client				
Inject. Date:	03-May-2024 22:19:00	ALS Bottle#:	0	Worklist Smp#:	17
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-190988-B-3				
Misc. Info.:	280-190988-B-3				
Operator ID:	wetchemd	Instrument ID:	WC_IonChrom14		
Method:	\\chromfs\Denver\ChromData\WC_IonChrom14\20240503-132981.b\Anions_IC14.m				
Limit Group:	Wet - Anions				
Last Update:	06-May-2024 13:10:08	Calib Date:	21-Feb-2024 14:22:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\WC_IonChrom14\20240220-130421.b\Info 2_DENPC584_Anions_20240221-144				
Column 1 :			Det: 0005		
Process Host:	CTX1641				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.965	2.962	0.003	11292074	NC	
2 Chloride	4.087	4.112	-0.025	12639404	NC	
3 Nitrite as N		4.733			ND	
4 Bromide		5.830			ND	
5 Nitrate as N	6.727	6.550	0.177	488478	0.0876	
7 Orthophosphate as P		8.227			ND	
6 Sulfate	9.725	9.632	0.093	455405009	NC	

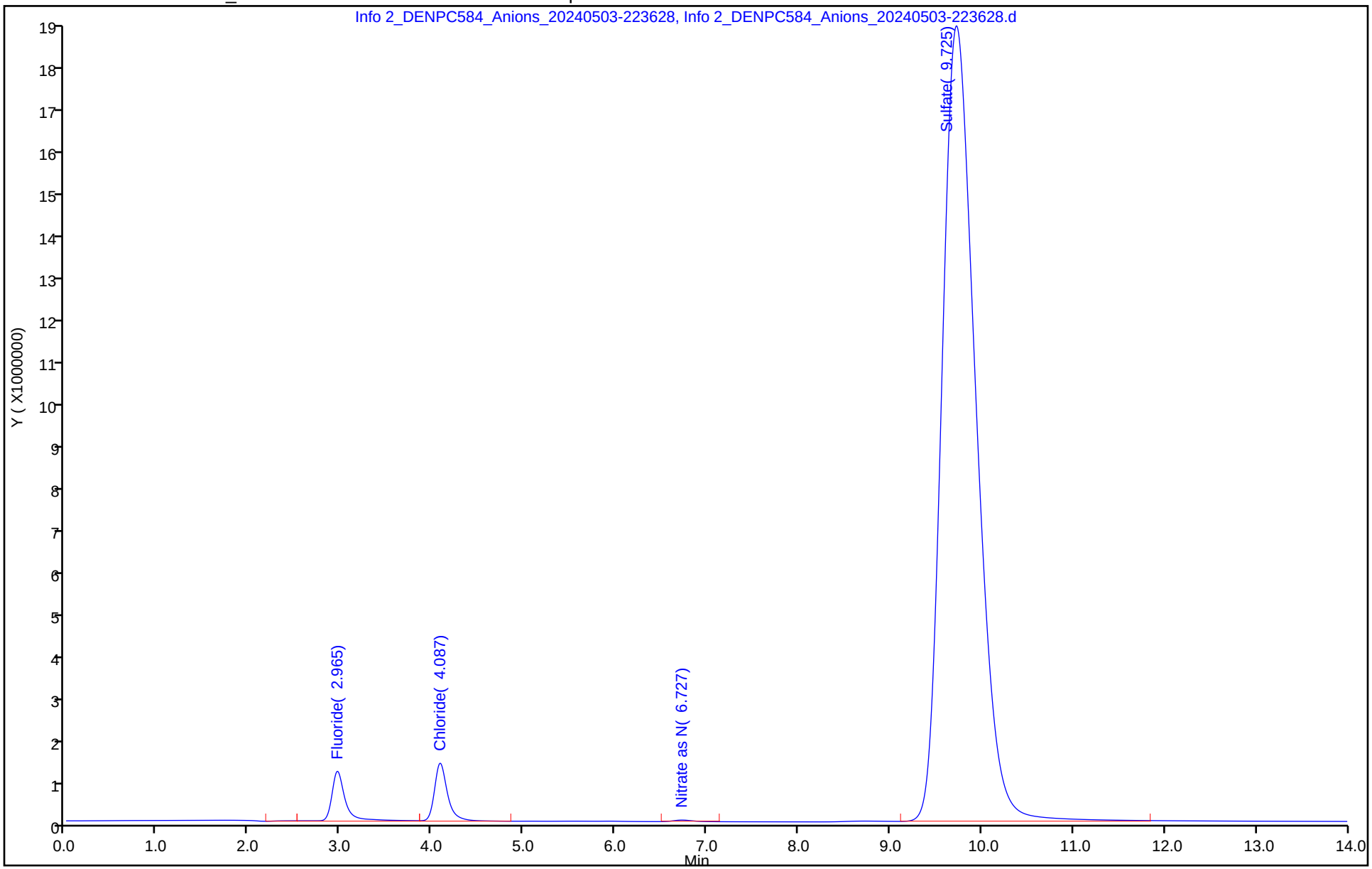
QC Flag Legend

Processing Flags
NC - Not Calibrated

Report Date: 06-May-2024 13:10:22 Chrom Revision: 2.3 26-Apr-2024 12:18:52

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom14\20240503-132981.b\Info 2_DENPC584_Anions_20240503-223628.d				
Injection Date:	03-May-2024 22:19:00	Instrument ID:	WC_IonChrom14	Operator ID:	wetchemd
Lims ID:	280-190988-B-3	Lab Sample ID:	280-190988-3	Worklist Smp#:	17
Client ID:	LL12mw-248-240401-GW				
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC14	Limit Group:	Wet - Anions		



5/14/2024
9:20:15 AM

Eurofins Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom14\20240503-132981.b\Info 2_DENPC584_Anions_20240503-232				
Lims ID:	ccv				
Client ID:					
Sample Type:	CCV				
Inject. Date:	03-May-2024 23:10:00	ALS Bottle#:	0	Worklist Smp#:	20
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Sample Info:	CCV				
Misc. Info.:	CCV				
Operator ID:	wetchemd	Instrument ID:	WC_IonChrom14		
Sublist:	chrom-Anions_IC14*sub10				
Method:	\\chromfs\Denver\ChromData\WC_IonChrom14\20240503-132981.b\Anions_IC14.m				
Limit Group:	Wet - Anions				
Last Update:	06-May-2024 13:10:24	Calib Date:	21-Feb-2024 14:22:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\WC_IonChrom14\20240220-130421.b\Info 2_DENPC584_Anions_20240221-144				
Column 1 :			Det: 0005		
Process Host:	CTX1641				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.967	2.962	0.005	131331492	NC	NC	
2 Chloride	4.120	4.112	0.008	1603562185	NC	NC	
3 Nitrite as N	4.747	4.733	0.014	175684293	5.00	4.93	
4 Bromide	5.835	5.830	0.005	29306600	NC	NC	
5 Nitrate as N	6.562	6.550	0.012	219564989	5.00	4.94	
6 Sulfate	9.645	9.632	0.013	1172610992	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated

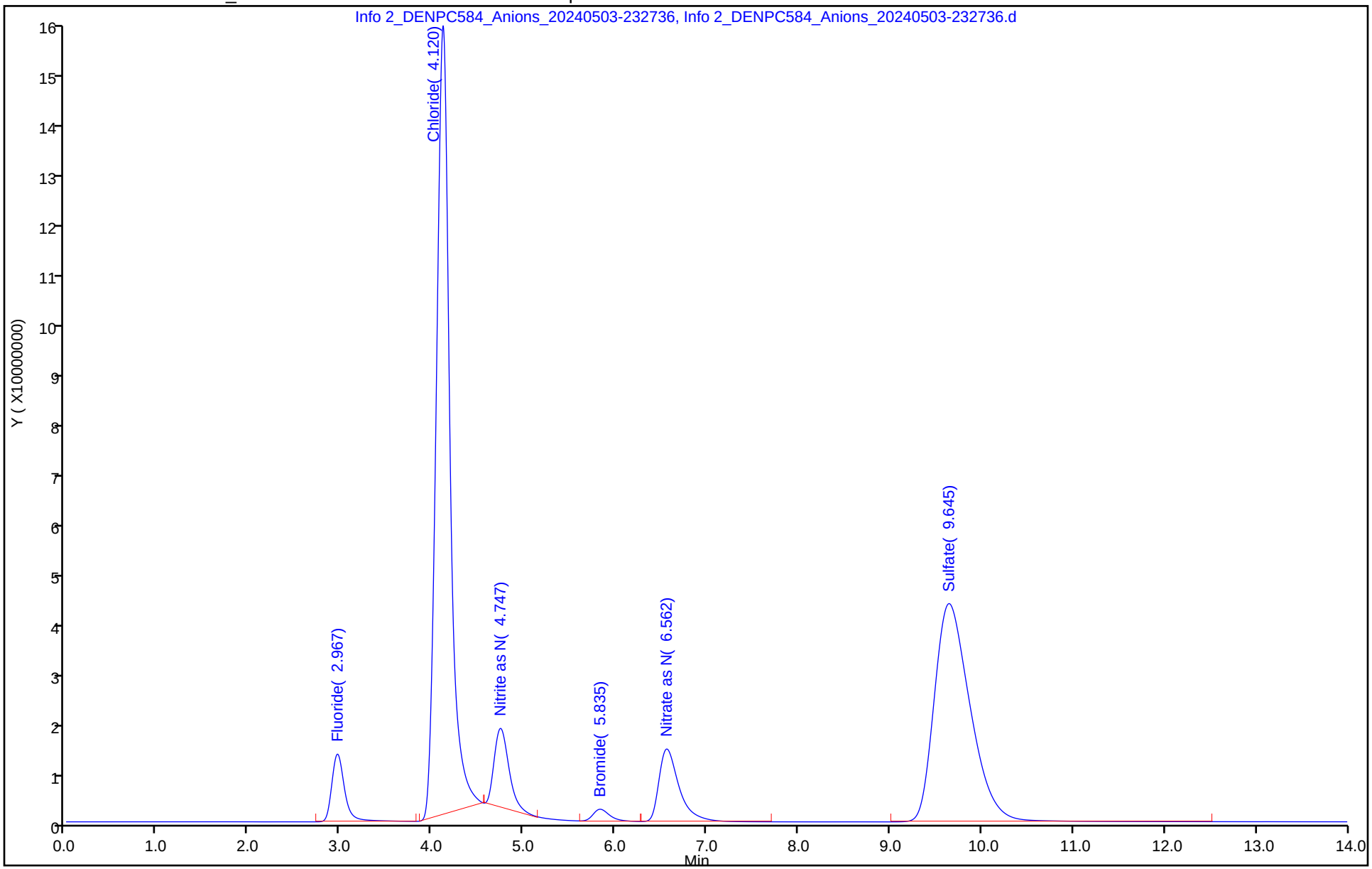
Reagents:

IC LCS_02034 Amount Added: 10.00 Units: mL

Report Date: 06-May-2024 13:10:25 Chrom Revision: 2.3 26-Apr-2024 12:18:52

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom14\20240503-132981.b\Info 2_DENPC584_Anions_20240503-232736.d				
Injection Date:	03-May-2024 23:10:00	Instrument ID:	WC_IonChrom14	Operator ID:	wetchemd
Lims ID:	ccv			Worklist Smp#:	20
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC14	Limit Group:	Wet - Anions		



5/14/2024
9:20:15 AM

Eurofins Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom14\20240503-132981.b\Info 2_DENPC584_Anions_20240503-234				
Lims ID:	ccb				
Client ID:					
Sample Type:	CCB				
Inject. Date:	03-May-2024 23:27:00	ALS Bottle#:	0	Worklist Smp#:	21
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Sample Info:	CCB				
Misc. Info.:	CCB				
Operator ID:	wetchemd	Instrument ID:	WC_IonChrom14		
Method:	\\chromfs\Denver\ChromData\WC_IonChrom14\20240503-132981.b\Anions_IC14.m				
Limit Group:	Wet - Anions				
Last Update:	06-May-2024 13:10:24	Calib Date:	21-Feb-2024 14:22:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\WC_IonChrom14\20240220-130421.b\Info 2_DENPC584_Anions_20240221-144				
Column 1 :			Det: 0005		
Process Host:	CTX1641				
First Level Reviewer: R4BB		Date:	06-May-2024 12:25:54		

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride		2.962				ND	U
2 Chloride		4.112				ND	
3 Nitrite as N		4.733				ND	
4 Bromide		5.830				ND	
5 Nitrate as N		6.550				ND	
7 Orthophosphate as P		8.227				ND	
6 Sulfate		9.632				ND	

QC Flag Legend

Processing Flags

Review Flags

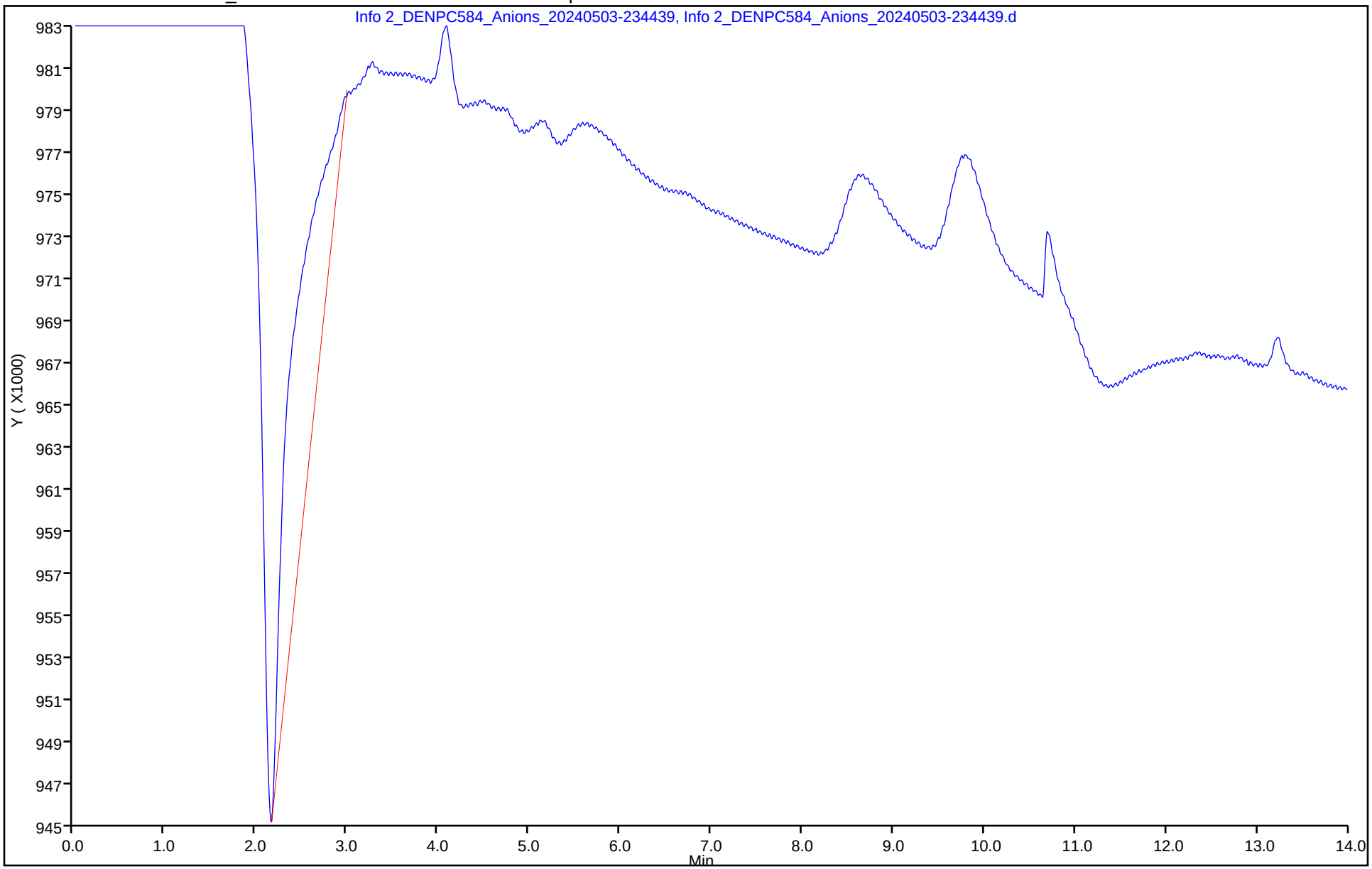
U - Marked Undetected

Report Date: 06-May-2024 13:10:26 Chrom Revision: 2.3 26-Apr-2024 12:18:52

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom14\20240503-132981.b\Info 2_DENPC584_Anions_20240503-234439.d

Injection Date:	03-May-2024 23:27:00	Instrument ID:	WC_IonChrom14	Operator ID:	wetchemd
Lims ID:	ccb			Worklist Smp#:	21
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC14	Limit Group:	Wet - Anions		



5/14/2024
9:20:15 AM

Eurofins Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom14\20240503-132981.b\Info 2_DENPC584_Anions_20240504-034				
Lims ID:	ccv				
Client ID:					
Sample Type:	CCV				
Inject. Date:	04-May-2024 03:26:00	ALS Bottle#:	0	Worklist Smp#:	35
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Sample Info:	CCV				
Misc. Info.:	CCV				
Operator ID:	wetchemd	Instrument ID:	WC_IonChrom14		
Sublist:	chrom-Anions_IC14*sub10				
Method:	\\chromfs\Denver\ChromData\WC_IonChrom14\20240503-132981.b\Anions_IC14.m				
Limit Group:	Wet - Anions				
Last Update:	06-May-2024 13:10:37	Calib Date:	21-Feb-2024 14:22:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\WC_IonChrom14\20240220-130421.b\Info 2_DENPC584_Anions_20240221-144				
Column 1 :			Det: 0005		
Process Host:	CTX1641				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.965	2.962	0.003	132307347	NC	NC	
2 Chloride	4.115	4.112	0.003	1656267172	NC	NC	
3 Nitrite as N	4.740	4.733	0.007	176944869	5.00	4.96	
4 Bromide	5.818	5.830	-0.012	30288269	NC	NC	
5 Nitrate as N	6.543	6.550	-0.007	218476987	5.00	4.92	
6 Sulfate	9.653	9.632	0.021	1188149900	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

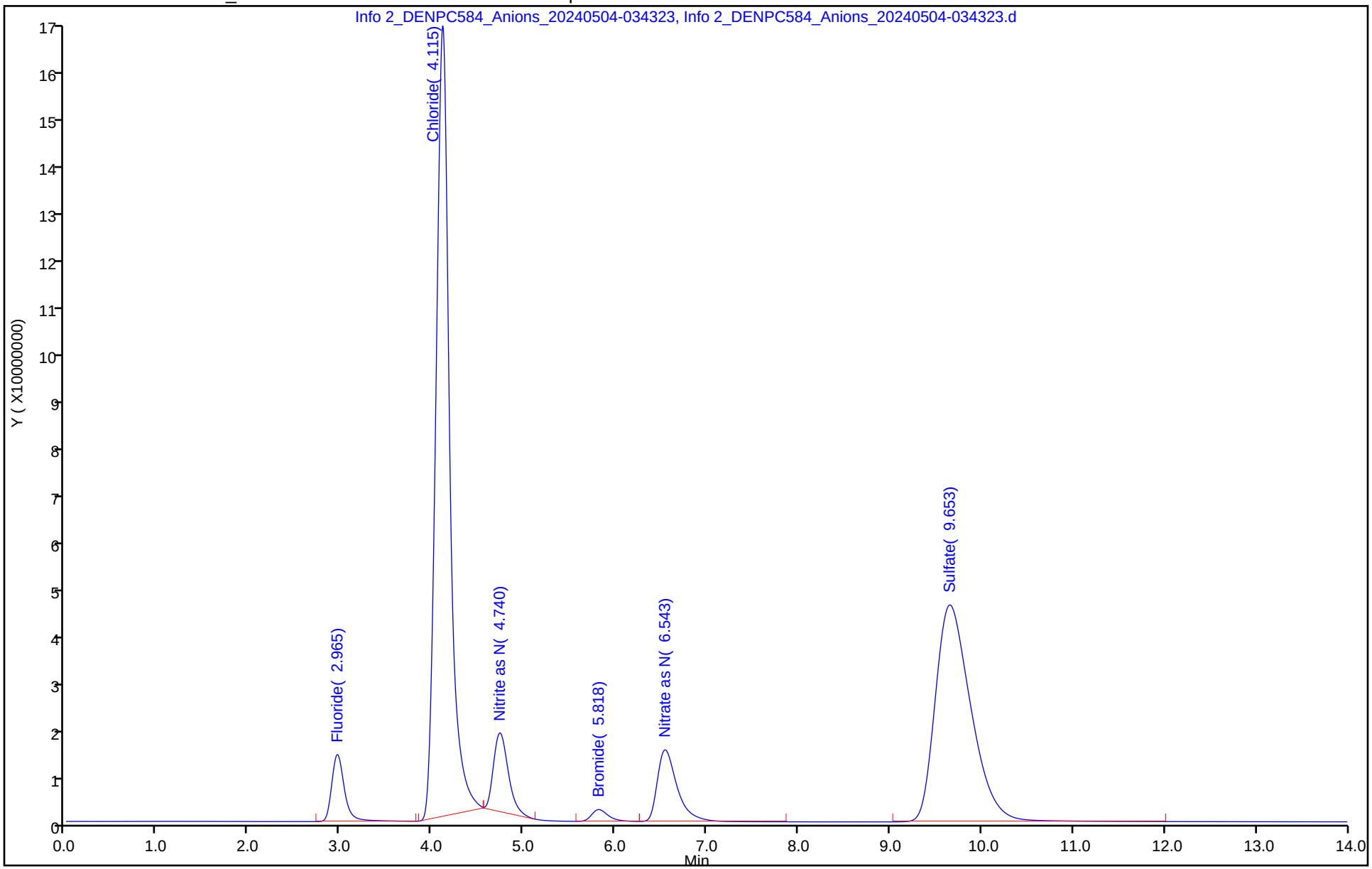
IC LCS_02034 Amount Added: 10.00 Units: mL

Report Date: 06-May-2024 13:10:37 Chrom Revision: 2.3 26-Apr-2024 12:18:52

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom14\20240503-132981.b\Info 2_DENPC584_Anions_20240504-034323.d

Injection Date:	04-May-2024 03:26:00	Instrument ID:	WC_IonChrom14	Operator ID:	wetchemd
Lims ID:	ccv			Worklist Smp#:	35
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC14	Limit Group:	Wet - Anions		



5/14/2024
9:20:15 AM

Eurofins Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom14\20240503-132981.b\Info 2_DENPC584_Anions_20240504-040				
Lims ID:	ccb				
Client ID:					
Sample Type:	CCB				
Inject. Date:	04-May-2024 03:43:00	ALS Bottle#:	0	Worklist Smp#:	36
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Sample Info:	CCB				
Misc. Info.:	CCB				
Operator ID:	wetchemd	Instrument ID:	WC_IonChrom14		
Method:	\\chromfs\Denver\ChromData\WC_IonChrom14\20240503-132981.b\Anions_IC14.m				
Limit Group:	Wet - Anions				
Last Update:	06-May-2024 13:10:37	Calib Date:	21-Feb-2024 14:22:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\WC_IonChrom14\20240220-130421.b\Info 2_DENPC584_Anions_20240221-144				
Column 1 :			Det: 0005		
Process Host:	CTX1641				
First Level Reviewer: R4BB		Date:	06-May-2024 12:26:51		

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride		2.962				ND	
2 Chloride		4.112				ND	
3 Nitrite as N		4.733				ND	
4 Bromide		5.830				ND	U
5 Nitrate as N		6.550				ND	
7 Orthophosphate as P		8.227				ND	
6 Sulfate		9.632				ND	

QC Flag Legend

Processing Flags

Review Flags

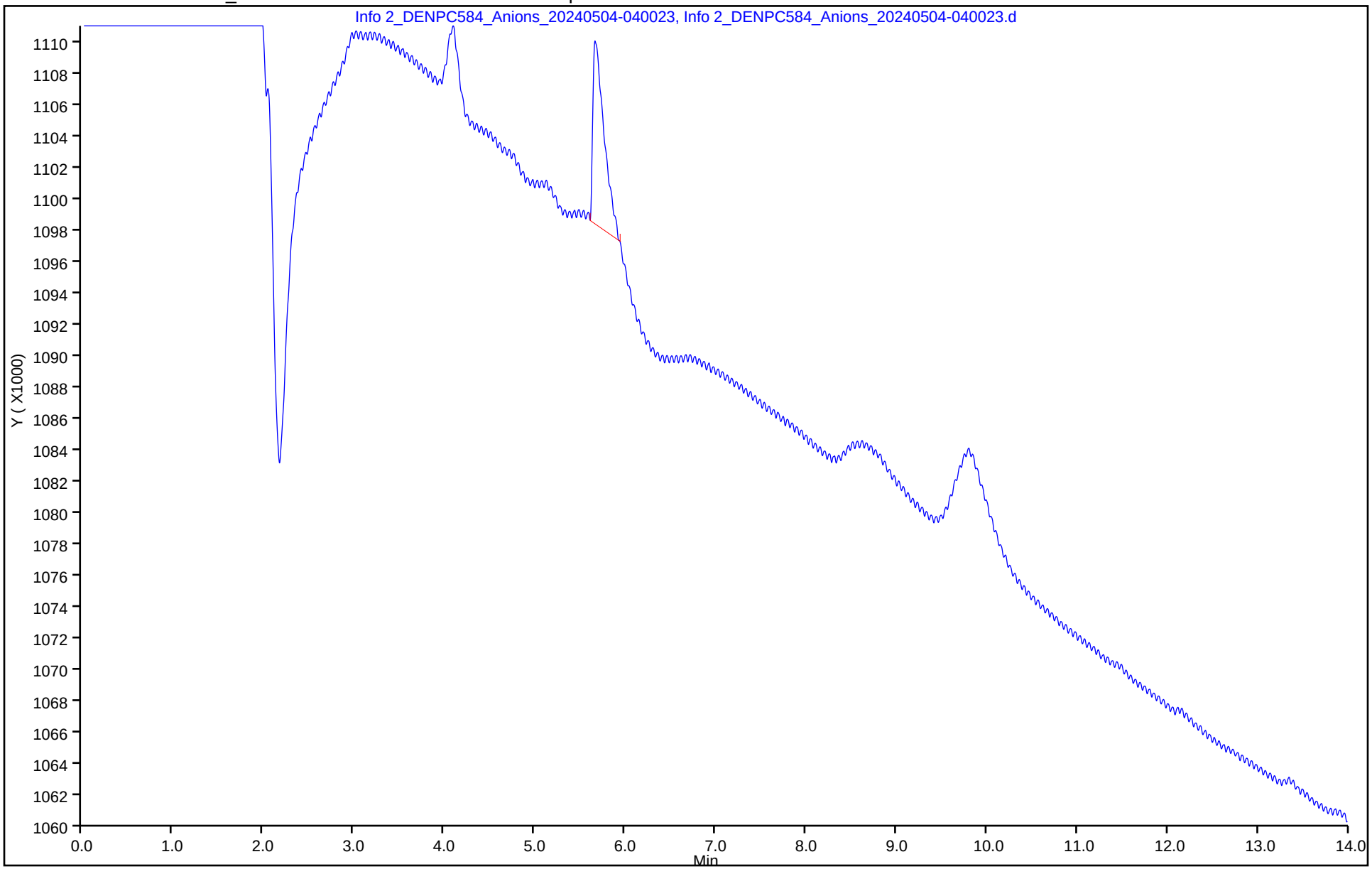
U - Marked Undetected

Report Date: 06-May-2024 13:10:38 Chrom Revision: 2.3 26-Apr-2024 12:18:52

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom14\20240503-132981.b\Info 2_DENPC584_Anions_20240504-040023.d

Injection Date:	04-May-2024 03:43:00	Instrument ID:	WC_IonChrom14	Operator ID:	wetchemd
Lims ID:	ccb			Worklist Smp#:	36
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC14	Limit Group:	Wet - Anions		



5/14/2024
9:20:15 AM

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom14\20240503-132981.b\Info 2_DENPC584_Anions_20240504-041
Lims ID: lcs
Client ID:
Sample Type: LCS
Inject. Date: 04-May-2024 04:00:00 ALS Bottle#: 0 Worklist Smp#: 37
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: LCS
Misc. Info.: LCS
Operator ID: wetchemd Instrument ID: WC_IonChrom14

Method: \\chromfs\Denver\ChromData\WC_IonChrom14\20240503-132981.b\Anions_IC14.m
Limit Group: Wet - Anions
Last Update: 06-May-2024 13:10:37 Calib Date: 21-Feb-2024 14:22:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom14\20240220-130421.b\Info 2_DENPC584_Anions_20240221-144

Column 1 : Det: 0005
Process Host: CTX1641

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.962	2.962	0.000	134810416	NC	NC	
2 Chloride	4.113	4.112	0.001	1637747061	NC	NC	
3 Nitrite as N	4.737	4.733	0.004	172929576	5.00	4.85	
4 Bromide	5.820	5.830	-0.010	30182011	NC	NC	
5 Nitrate as N	6.543	6.550	-0.007	219739400	5.00	4.95	
6 Sulfate	9.655	9.632	0.023	1188066062	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated

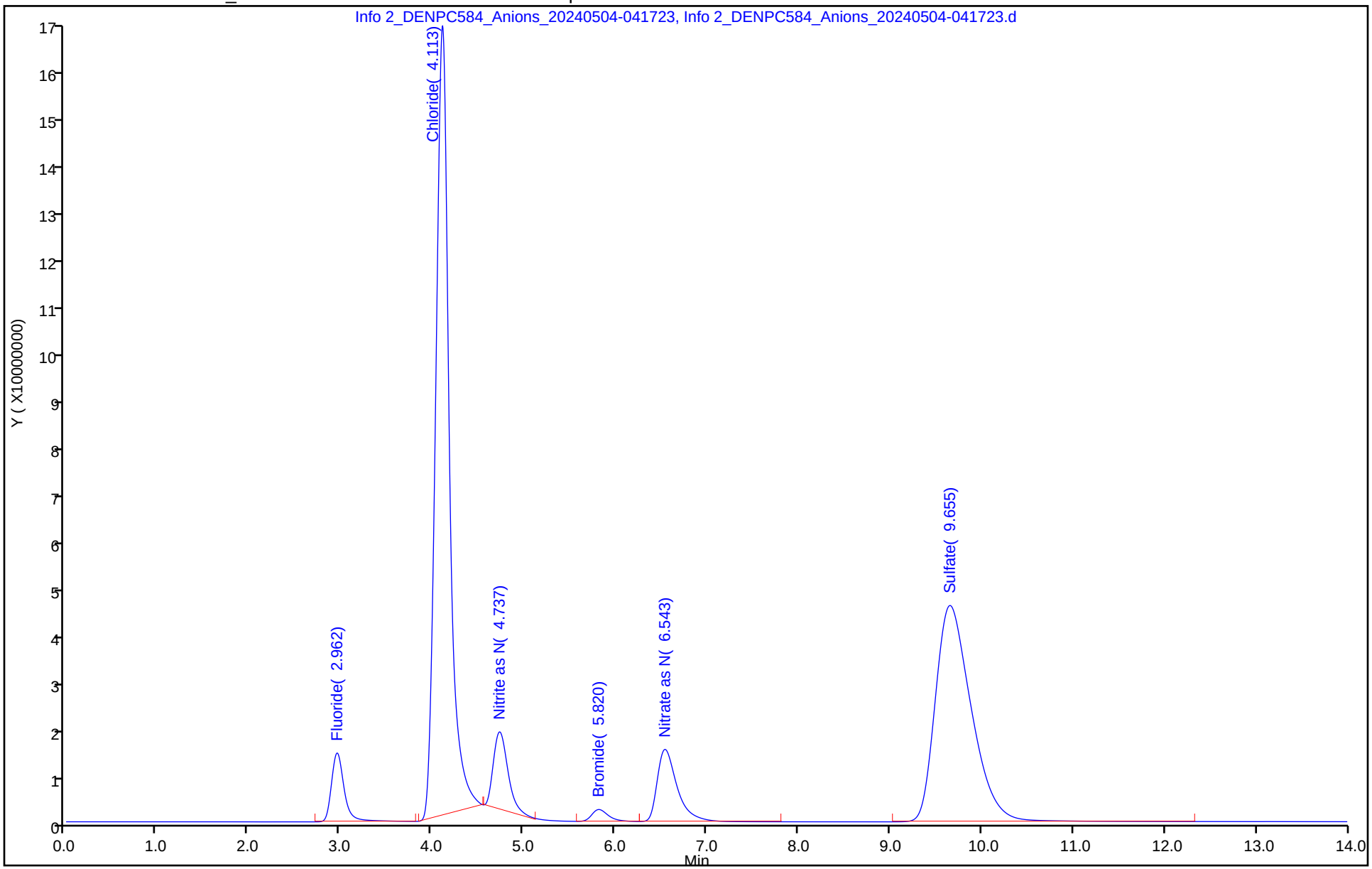
Reagents:

IC LCS_02034 Amount Added: 10.00 Units: mL

Report Date: 06-May-2024 13:10:39 Chrom Revision: 2.3 26-Apr-2024 12:18:52

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom14\20240503-132981.b\Info 2_DENPC584_Anions_20240504-041723.d				
Injection Date:	04-May-2024 04:00:00	Instrument ID:	WC_IonChrom14	Operator ID:	wetchemd
Lims ID:	lcs			Worklist Smp#:	37
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC14	Limit Group:	Wet - Anions		



5/14/2024
9:20:15 AM

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom14\20240503-132981.b\Info 2_DENPC584_Anions_20240504-043
Lims ID: lcsd
Client ID:
Sample Type: LCSD
Inject. Date: 04-May-2024 04:17:00 ALS Bottle#: 0 Worklist Smp#: 38
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: LCSD
Misc. Info.: LCSD
Operator ID: wetchemd Instrument ID: WC_IonChrom14

Method: \\chromfs\Denver\ChromData\WC_IonChrom14\20240503-132981.b\Anions_IC14.m
Limit Group: Wet - Anions
Last Update: 06-May-2024 13:10:37 Calib Date: 21-Feb-2024 14:22:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom14\20240220-130421.b\Info 2_DENPC584_Anions_20240221-144

Column 1 : Det: 0005
Process Host: CTX1641

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.965	2.962	0.003	135436289	NC	NC	
2 Chloride	4.113	4.112	0.001	1638699653	NC	NC	
3 Nitrite as N	4.737	4.733	0.004	177131669	5.00	4.97	
4 Bromide	5.822	5.830	-0.008	30262785	NC	NC	
5 Nitrate as N	6.542	6.550	-0.008	220216874	5.00	4.96	
6 Sulfate	9.653	9.632	0.021	1190436678	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated

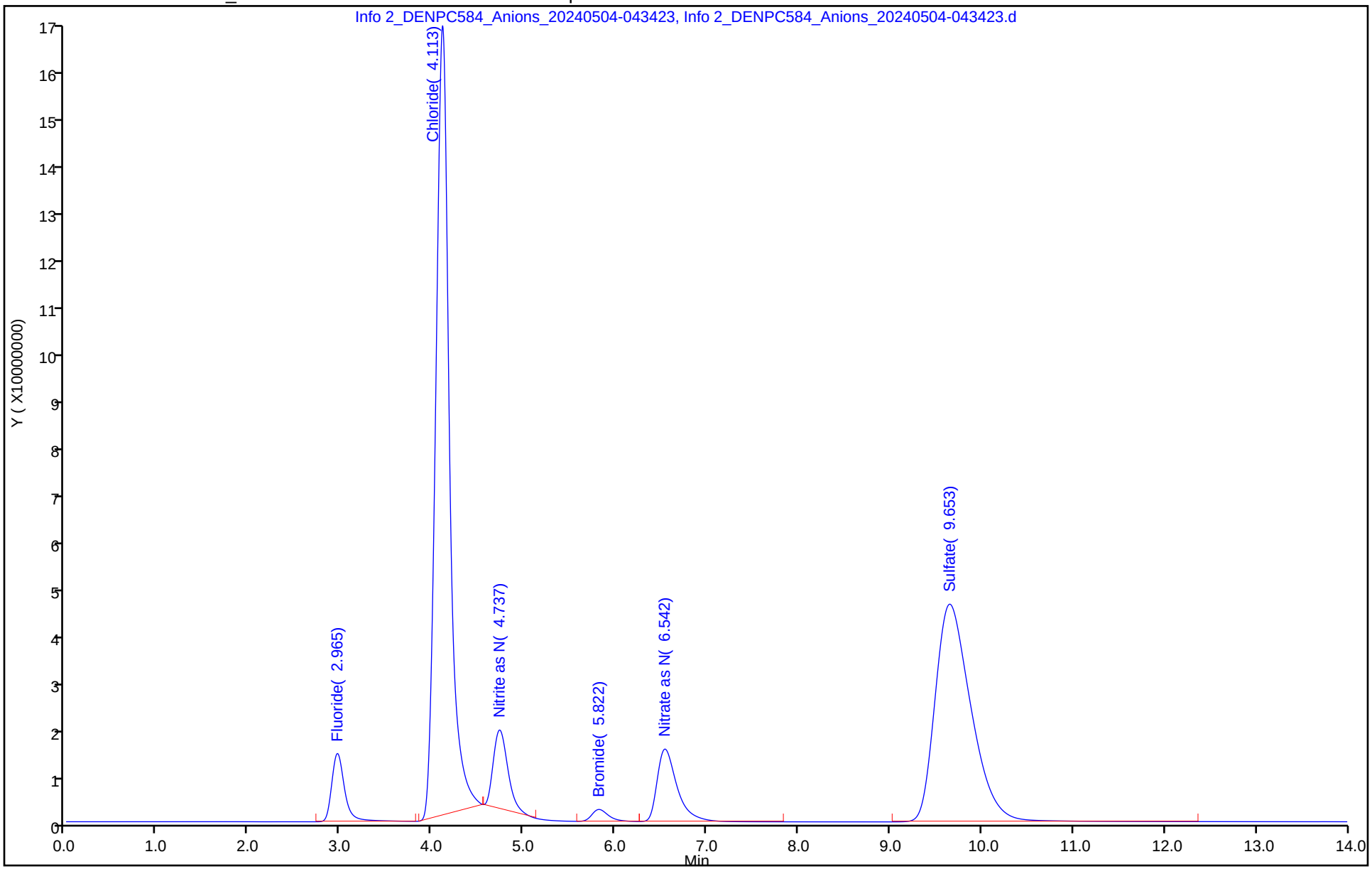
Reagents:

IC LCS_02034 Amount Added: 10.00 Units: mL

Report Date: 06-May-2024 13:10:39 Chrom Revision: 2.3 26-Apr-2024 12:18:52

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom14\20240503-132981.b\Info 2_DENPC584_Anions_20240504-043423.d				
Injection Date:	04-May-2024 04:17:00	Instrument ID:	WC_IonChrom14	Operator ID:	wetchemd
Lims ID:	lcsd			Worklist Smp#:	38
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC14	Limit Group:	Wet - Anions		



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Eurofins Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom14\20240503-132981.b\Info 2_DENPC584_Anions_20240504-045				
Lims ID:	mb				
Client ID:					
Sample Type:	MB				
Inject. Date:	04-May-2024 04:34:00	ALS Bottle#:	0	Worklist Smp#:	39
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Sample Info:	MB				
Misc. Info.:	MB				
Operator ID:	wetchemd	Instrument ID:	WC_IonChrom14		
Method:	\\chromfs\Denver\ChromData\WC_IonChrom14\20240503-132981.b\Anions_IC14.m				
Limit Group:	Wet - Anions				
Last Update:	06-May-2024 13:10:37	Calib Date:	21-Feb-2024 14:22:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\WC_IonChrom14\20240220-130421.b\Info 2_DENPC584_Anions_20240221-144				
Column 1 :			Det: 0005		
Process Host:	CTX1641				
First Level Reviewer: R4BB		Date:	06-May-2024 12:27:07		

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride		2.962				ND	U
2 Chloride		4.112				ND	
3 Nitrite as N		4.733				ND	
4 Bromide		5.830				ND	
5 Nitrate as N		6.550				ND	
7 Orthophosphate as P		8.227				ND	
6 Sulfate		9.632				ND	

QC Flag Legend

Processing Flags

Review Flags

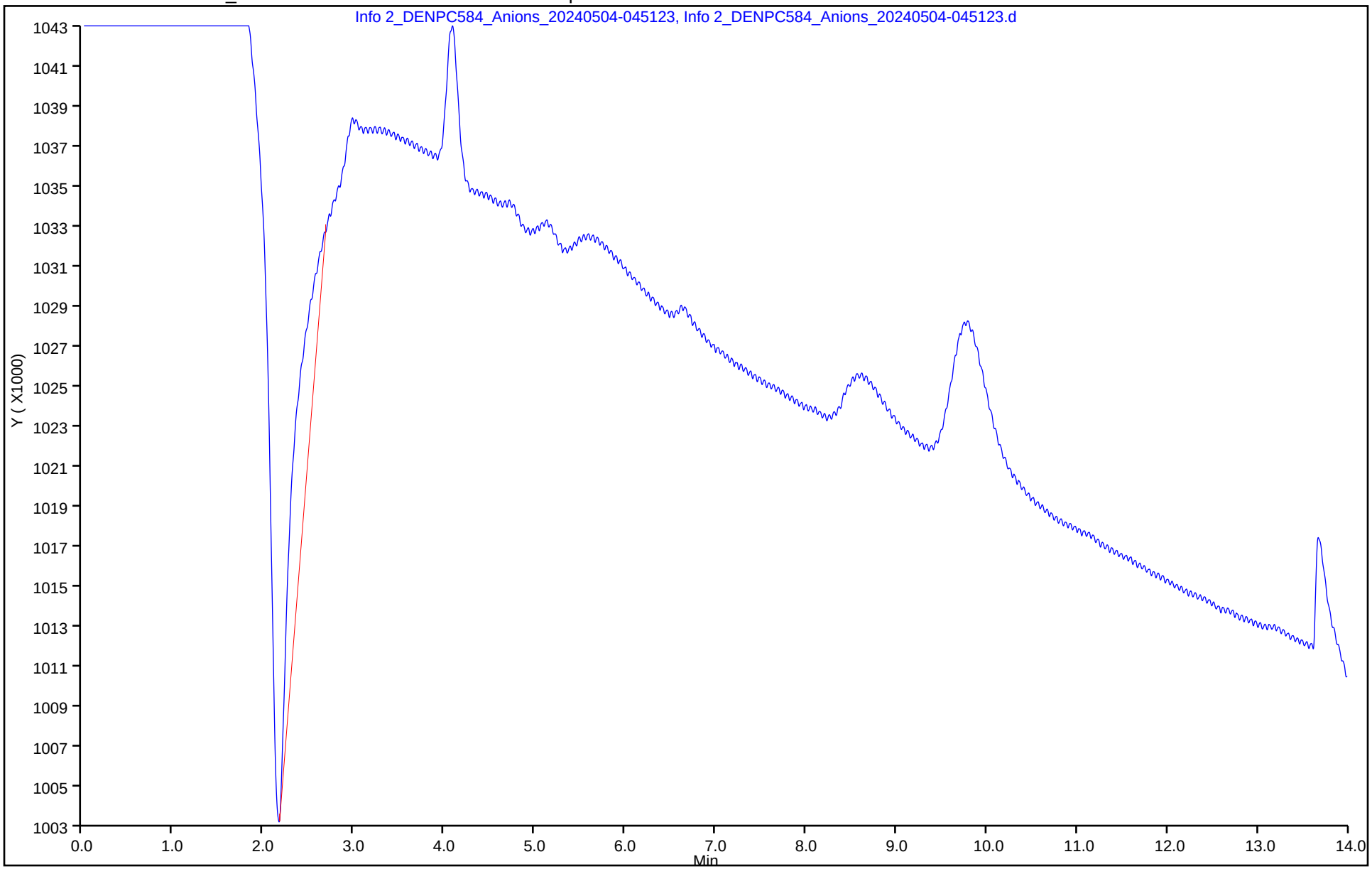
U - Marked Undetected

Report Date: 06-May-2024 13:10:40 Chrom Revision: 2.3 26-Apr-2024 12:18:52

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom14\20240503-132981.b\Info 2_DENPC584_Anions_20240504-045123.d

Injection Date:	04-May-2024 04:34:00	Instrument ID:	WC_IonChrom14	Operator ID:	wetchemd
Lims ID:	mb			Worklist Smp#:	39
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC14	Limit Group:	Wet - Anions		



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9:20:15 AM

Eurofins Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom14\20240503-132981.b\Info 2_DENPC584_Anions_20240504-061				
Lims ID:	280-190988-B-5				
Client ID:	LL12mw-244-240401-GW				
Sample Type:	Client				
Inject. Date:	04-May-2024 05:59:00	ALS Bottle#:	0	Worklist Smp#:	44
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-190988-B-5				
Misc. Info.:	280-190988-B-5				
Operator ID:	wetchemd	Instrument ID:	WC_IonChrom14		
Method:	\\chromfs\Denver\ChromData\WC_IonChrom14\20240503-132981.b\Anions_IC14.m				
Limit Group:	Wet - Anions				
Last Update:	06-May-2024 13:10:37	Calib Date:	21-Feb-2024 14:22:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\WC_IonChrom14\20240220-130421.b\Info 2_DENPC584_Anions_20240221-144				
Column 1 :			Det: 0005		
Process Host:	CTX1641				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.967	2.962	0.005	5200212		NC
2 Chloride	4.087	4.112	-0.025	67263491		NC
3 Nitrite as N		4.733			ND	
4 Bromide	5.977	5.830	0.147	249487		NC
5 Nitrate as N		6.550			ND	
7 Orthophosphate as P		8.227			ND	
6 Sulfate	9.787	9.632	0.155	396709550		NC

QC Flag Legend

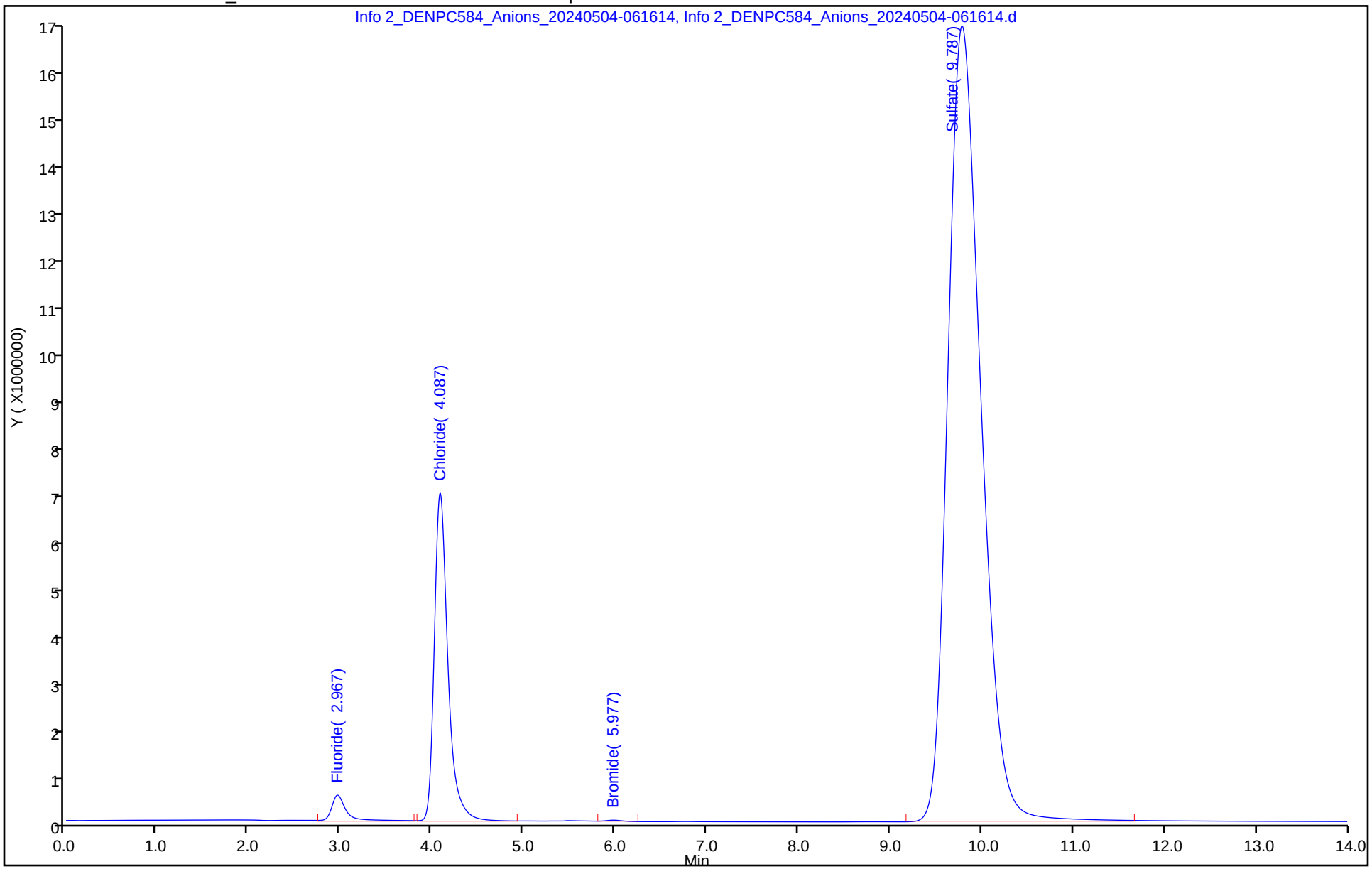
Processing Flags

NC - Not Calibrated

Report Date: 06-May-2024 13:10:44 Chrom Revision: 2.3 26-Apr-2024 12:18:52

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom14\20240503-132981.b\Info 2_DENPC584_Anions_20240504-061614.d				
Injection Date:	04-May-2024 05:59:00	Instrument ID:	WC_IonChrom14	Operator ID:	wetchemd
Lims ID:	280-190988-B-5	Lab Sample ID:	280-190988-5	Worklist Smp#:	44
Client ID:	LL12mw-244-240401-GW				
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC14	Limit Group:	Wet - Anions		



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9:20:15 AM

Eurofins Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom14\20240503-132981.b\Info 2_DENPC584_Anions_20240504-063				
Lims ID:	280-190988-B-5 DU				
Client ID:					
Sample Type:	DU				
Inject. Date:	04-May-2024 06:16:00	ALS Bottle#:	0	Worklist Smp#:	45
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-190988-B-5 DU				
Misc. Info.:	280-190988-B-5 DU				
Operator ID:	wetchemd	Instrument ID:	WC_IonChrom14		
Method:	\\chromfs\Denver\ChromData\WC_IonChrom14\20240503-132981.b\Anions_IC14.m				
Limit Group:	Wet - Anions				
Last Update:	06-May-2024 13:10:37	Calib Date:	21-Feb-2024 14:22:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\WC_IonChrom14\20240220-130421.b\Info 2_DENPC584_Anions_20240221-144				
Column 1 :			Det: 0005		
Process Host:	CTX1641				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.972	2.962	0.010	5123453		NC	
2 Chloride	4.097	4.112	-0.015	67192916		NC	
3 Nitrite as N		4.733			ND		
4 Bromide	5.993	5.830	0.163	278848		NC	
5 Nitrate as N		6.550			ND		
7 Orthophosphate as P		8.227			ND		
6 Sulfate	9.800	9.632	0.168	396959493		NC	

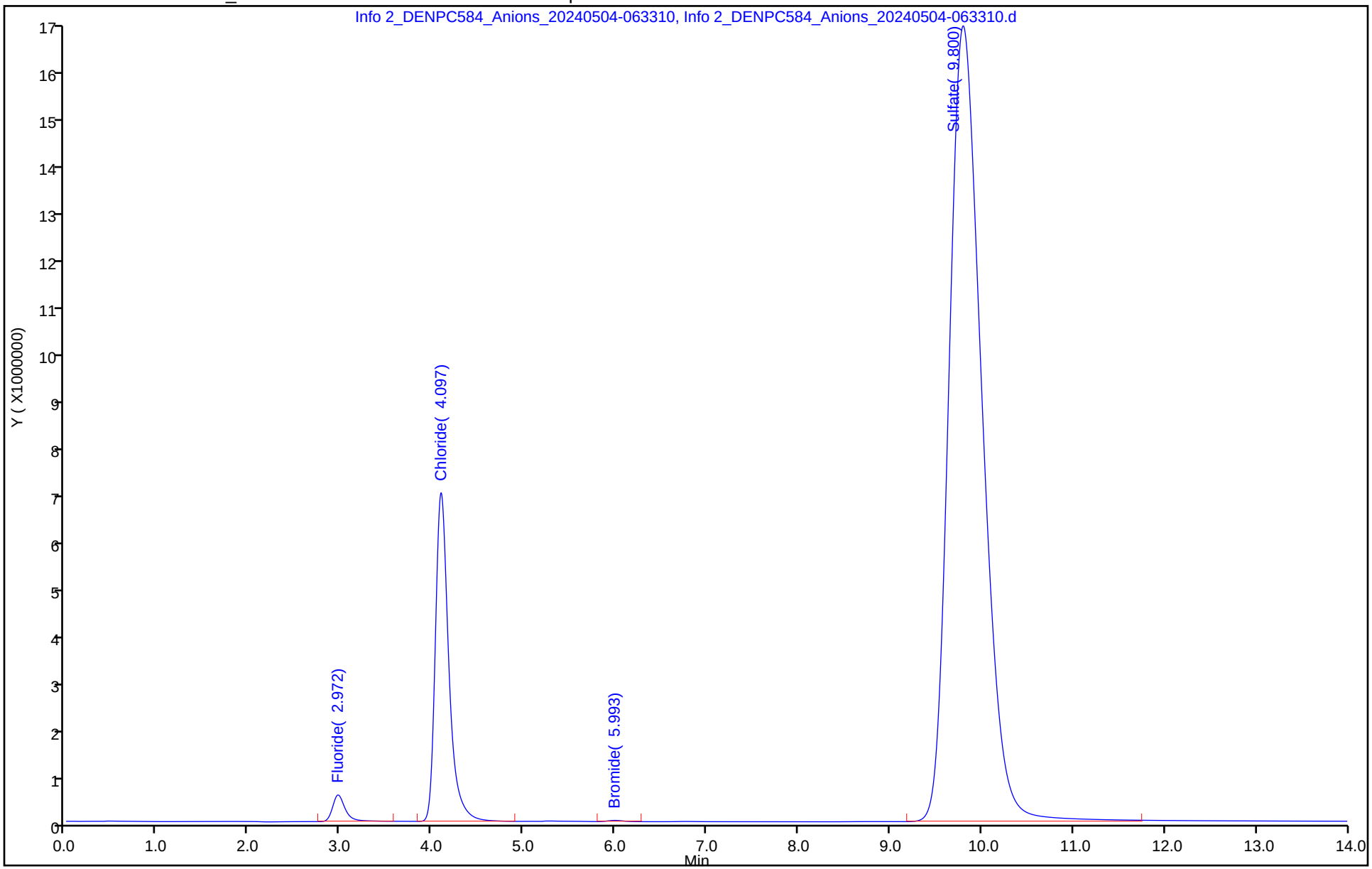
QC Flag Legend

Processing Flags
NC - Not Calibrated

Report Date: 06-May-2024 13:10:45 Chrom Revision: 2.3 26-Apr-2024 12:18:52

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom14\20240503-132981.b\Info 2_DENPC584_Anions_20240504-063310.d				
Injection Date:	04-May-2024 06:16:00	Instrument ID:	WC_IonChrom14	Operator ID:	wetchemd
Lims ID:	280-190988-B-5 DU			Worklist Smp#:	45
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC14	Limit Group:	Wet - Anions		



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Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom14\20240503-132981.b\Info 2_DENPC584_Anions_20240504-065
Lims ID: 280-190988-B-5 MS
Client ID:
Sample Type: MS
Inject. Date: 04-May-2024 06:33:00 ALS Bottle#: 0 Worklist Smp#: 46
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 280-190988-B-5 MS
Misc. Info.: 280-190988-B-5 MS
Operator ID: wetchemd Instrument ID: WC_IonChrom14

Method: \\chromfs\Denver\ChromData\WC_IonChrom14\20240503-132981.b\Anions_IC14.m
Limit Group: Wet - Anions
Last Update: 06-May-2024 13:10:37 Calib Date: 21-Feb-2024 14:22:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom14\20240220-130421.b\Info 2_DENPC584_Anions_20240221-144

Column 1 : Det: 0005
Process Host: CTX1641

First Level Reviewer: R4BB Date: 06-May-2024 13:09:40

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.980	2.962	0.018	149851575	NC	NC	
2 Chloride	4.110	4.112	-0.002	933926878	NC	NC	
3 Nitrite as N	4.767	4.733	0.034	152349620	5.00	4.28	M
4 Bromide	5.950	5.830	0.120	34701646	NC	NC	
5 Nitrate as N	6.648	6.550	0.098	224715525	5.00	5.06	
7 Orthophosphate as P		8.227				ND	
6 Sulfate	9.767	9.632	0.135	1011693450	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

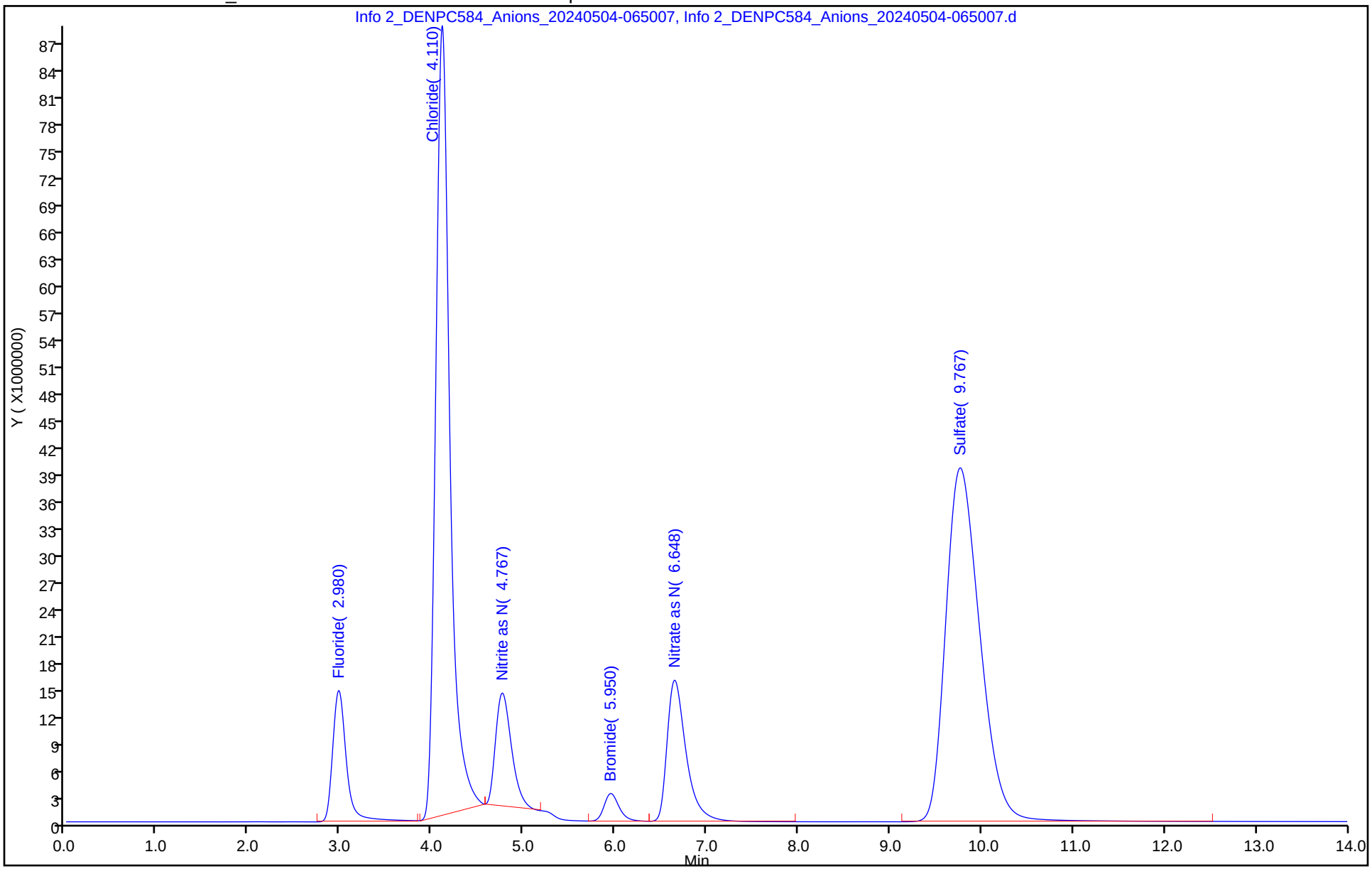
Reagents:

ICMS/MSD WEEK_00876 Amount Added: 0.10 Units: mL

Report Date: 06-May-2024 13:10:45 Chrom Revision: 2.3 26-Apr-2024 12:18:52

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom14\20240503-132981.b\Info 2_DENPC584_Anions_20240504-065007.d				
Injection Date:	04-May-2024 06:33:00	Instrument ID:	WC_IonChrom14	Operator ID:	wetchemd
Lims ID:	280-190988-B-5 MS			Worklist Smp#:	46
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC14	Limit Group:	Wet - Anions		



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Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom14\20240503-132981.b\Info 2_DENPC584_Anions_20240504-07(
Lims ID: 280-190988-B-5 MSD
Client ID:
Sample Type: MSD
Inject. Date: 04-May-2024 06:50:00 ALS Bottle#: 0 Worklist Smp#: 47
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 280-190988-B-5 MSD
Misc. Info.: 280-190988-B-5 MSD
Operator ID: wetchemd Instrument ID: WC_IonChrom14

Method: \\chromfs\Denver\ChromData\WC_IonChrom14\20240503-132981.b\Anions_IC14.m
Limit Group: Wet - Anions
Last Update: 06-May-2024 13:10:37 Calib Date: 21-Feb-2024 14:22:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom14\20240220-130421.b\Info 2_DENPC584_Anions_20240221-144

Column 1 : Det: 0005
Process Host: CTX1641

First Level Reviewer: R4BB Date: 06-May-2024 13:09:51

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.968	2.962	0.006	151455361	NC	NC	
2 Chloride	4.100	4.112	-0.012	945320018	NC	NC	
3 Nitrite as N	4.755	4.733	0.022	157249511	5.00	4.41	M
4 Bromide	5.940	5.830	0.110	35202372	NC	NC	
5 Nitrate as N	6.638	6.550	0.088	227328263	5.00	5.12	
7 Orthophosphate as P		8.227				ND	
6 Sulfate	9.758	9.632	0.126	1013028017	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

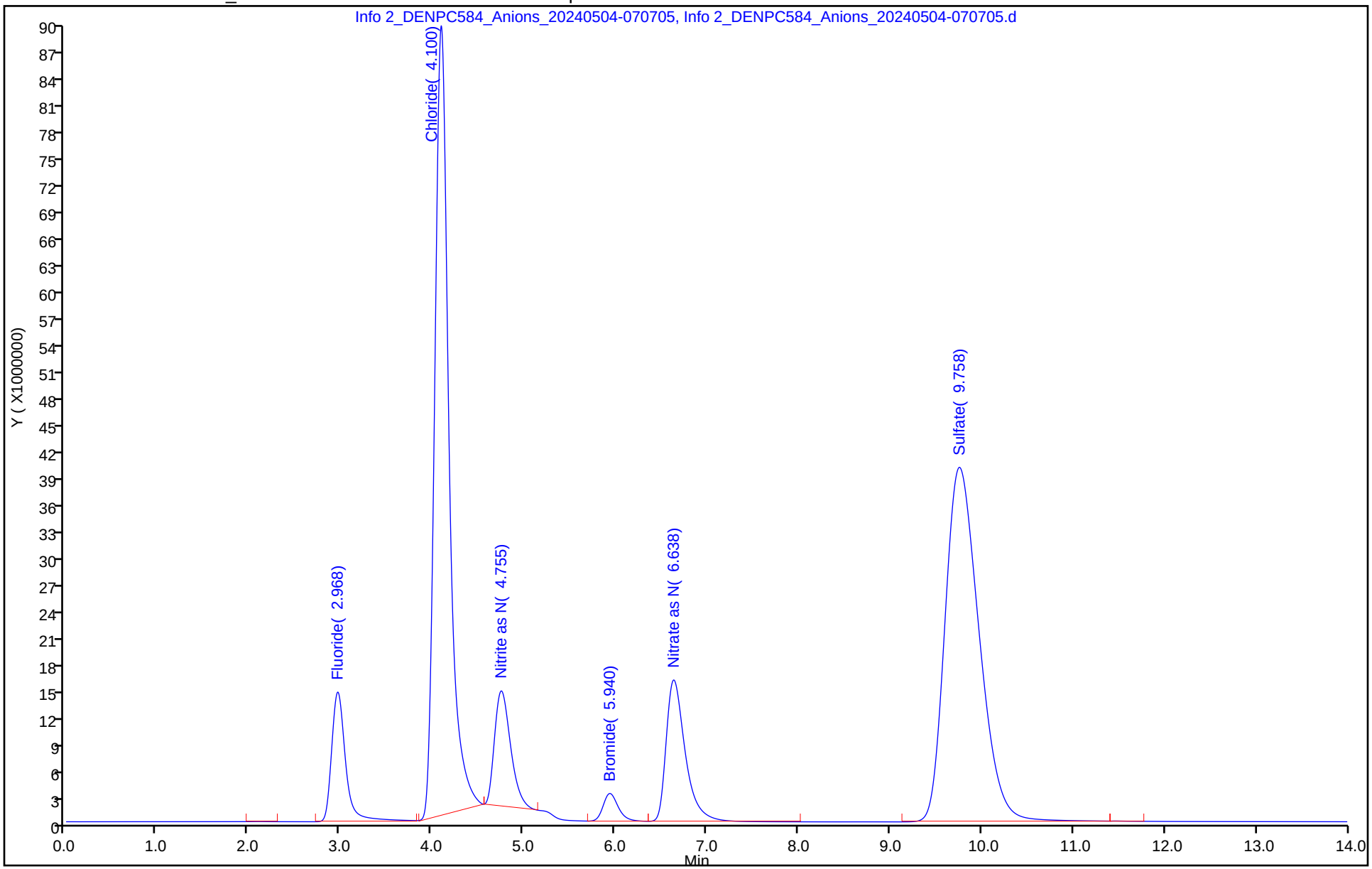
Reagents:

ICMS/MSD WEEK_00876 Amount Added: 0.10 Units: mL

Report Date: 06-May-2024 13:10:46 Chrom Revision: 2.3 26-Apr-2024 12:18:52

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom14\20240503-132981.b\Info 2_DENPC584_Anions_20240504-070705.d				
Injection Date:	04-May-2024 06:50:00	Instrument ID:	WC_IonChrom14	Operator ID:	wetchemd
Lims ID:	280-190988-B-5 MSD			Worklist Smp#:	47
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC14	Limit Group:	Wet - Anions		



5/14/2024
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Eurofins Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom14\20240503-132981.b\Info 2_DENPC584_Anions_20240504-072				
Lims ID:	ccv				
Client ID:					
Sample Type:	CCV				
Inject. Date:	04-May-2024 07:07:00	ALS Bottle#:	0	Worklist Smp#:	48
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Sample Info:	CCV				
Misc. Info.:	CCV				
Operator ID:	wetchemd	Instrument ID:	WC_IonChrom14		
Sublist:	chrom-Anions_IC14*sub10				
Method:	\\chromfs\Denver\ChromData\WC_IonChrom14\20240503-132981.b\Anions_IC14.m				
Limit Group:	Wet - Anions				
Last Update:	06-May-2024 13:10:47	Calib Date:	21-Feb-2024 14:22:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\WC_IonChrom14\20240220-130421.b\Info 2_DENPC584_Anions_20240221-144				
Column 1 :			Det: 0005		
Process Host:	CTX1641				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.965	2.962	0.003	132156298	NC	NC	
2 Chloride	4.118	4.112	0.006	1620981488	NC	NC	
3 Nitrite as N	4.743	4.733	0.010	177388858	5.00	4.98	
4 Bromide	5.823	5.830	-0.007	29806357	NC	NC	
5 Nitrate as N	6.550	6.550	0.000	220872110	5.00	4.97	
6 Sulfate	9.672	9.632	0.040	1183184286	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

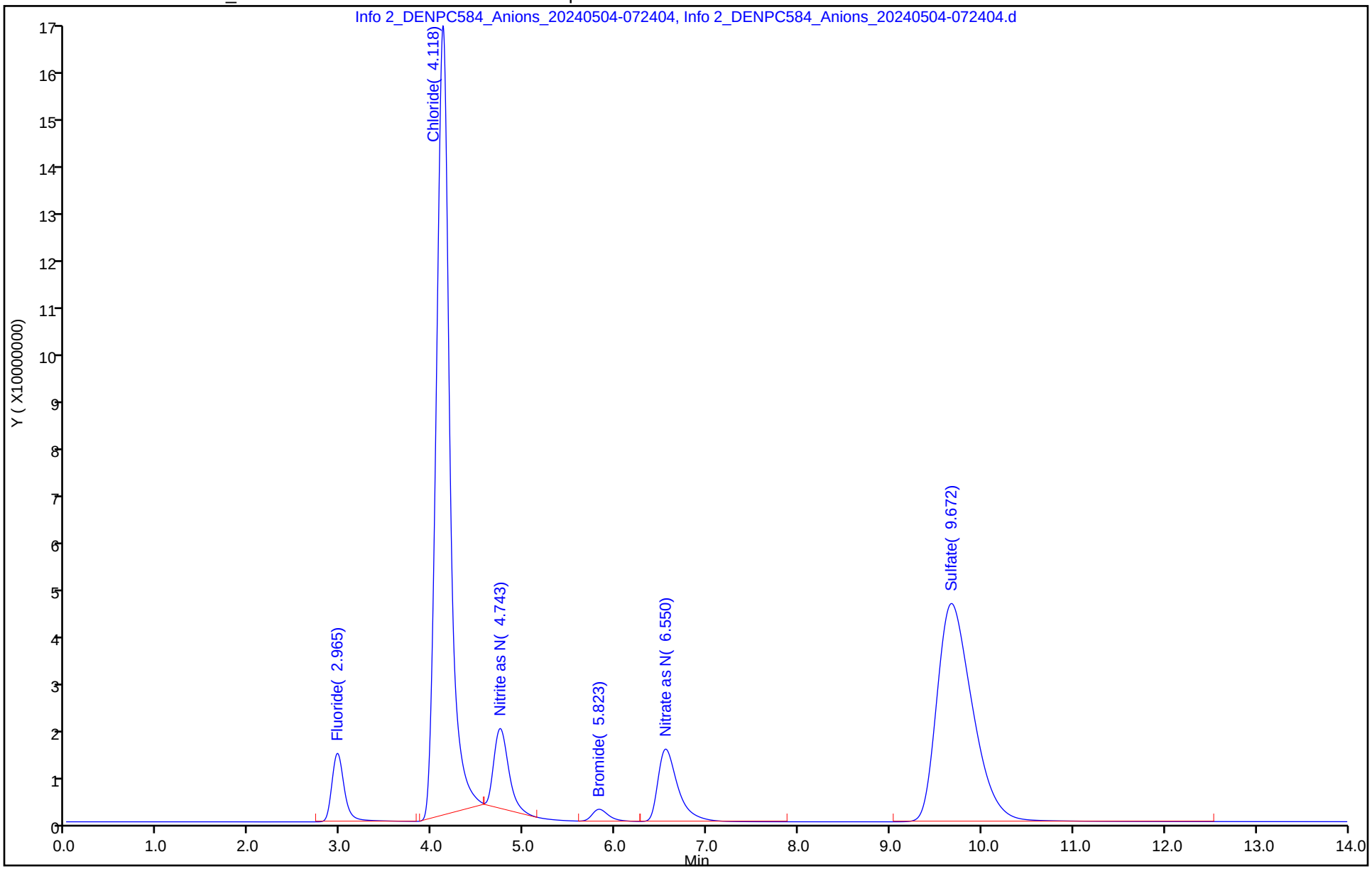
IC LCS_02034 Amount Added: 10.00 Units: mL

Report Date: 06-May-2024 13:10:47 Chrom Revision: 2.3 26-Apr-2024 12:18:52

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom14\20240503-132981.b\Info 2_DENPC584_Anions_20240504-072404.d

Injection Date:	04-May-2024 07:07:00	Instrument ID:	WC_IonChrom14	Operator ID:	wetchemd
Lims ID:	ccv			Worklist Smp#:	48
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC14	Limit Group:	Wet - Anions		



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Eurofins Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom14\20240503-132981.b\Info 2_DENPC584_Anions_20240504-074				
Lims ID:	ccb				
Client ID:					
Sample Type:	CCB				
Inject. Date:	04-May-2024 07:24:00	ALS Bottle#:	0	Worklist Smp#:	49
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Sample Info:	CCB				
Misc. Info.:	CCB				
Operator ID:	wetchemd	Instrument ID:	WC_IonChrom14		
Method:	\\chromfs\Denver\ChromData\WC_IonChrom14\20240503-132981.b\Anions_IC14.m				
Limit Group:	Wet - Anions				
Last Update:	06-May-2024 13:10:47	Calib Date:	21-Feb-2024 14:22:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\WC_IonChrom14\20240220-130421.b\Info 2_DENPC584_Anions_20240221-144				
Column 1 :			Det: 0005		
Process Host:	CTX1641				
First Level Reviewer: R4BB		Date:	06-May-2024 13:10:00		

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride		2.962				ND	U
2 Chloride		4.112				ND	
3 Nitrite as N		4.733				ND	
4 Bromide		5.830				ND	
5 Nitrate as N		6.550				ND	
7 Orthophosphate as P		8.227				ND	
6 Sulfate		9.632				ND	

QC Flag Legend

Processing Flags

Review Flags

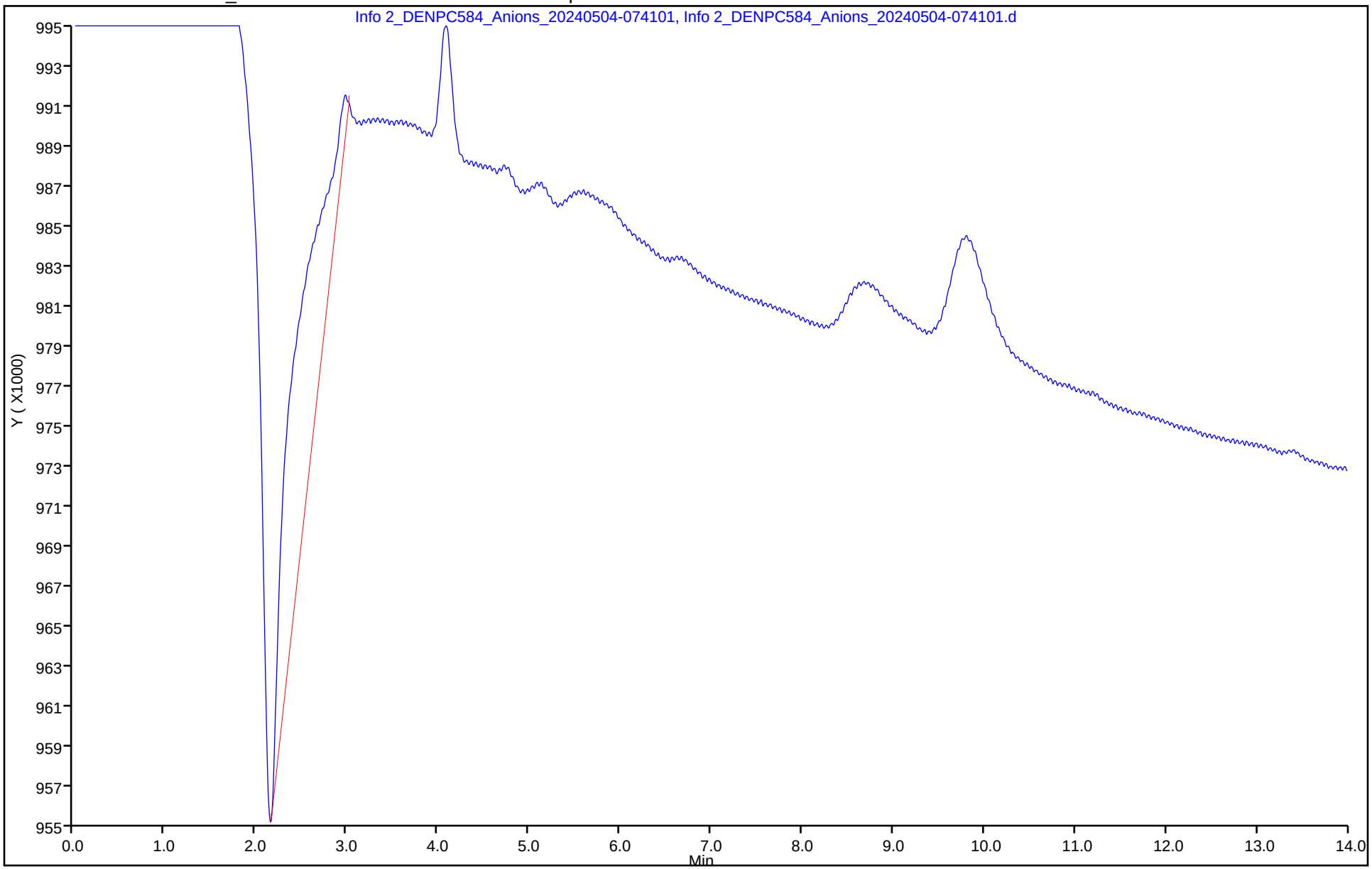
U - Marked Undetected

Report Date: 06-May-2024 13:10:48 Chrom Revision: 2.3 26-Apr-2024 12:18:52

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom14\20240503-132981.b\Info 2_DENPC584_Anions_20240504-074101.d

Injection Date:	04-May-2024 07:24:00	Instrument ID:	WC_IonChrom14	Operator ID:	wetchemd
Lims ID:	ccb			Worklist Smp#:	49
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC14	Limit Group:	Wet - Anions		



5/14/2024
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Shipping and Receiving Documents

Charles Spurr 5/2/2024

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Chain of Custody Record

Page 1 of 4

COC No.: RVAAP-431-TA

Date: 5/2/24

Name Leidos
Address: 8866 Commons Blvd. Suite 201, Twinsburg, OH 44087
Phone Number: (330) 405-5802
Project Manager: Jed Thomas
Project: RVAAP FWGW Sampling Event Spring 2024
Job/P.O. No.: P010216426
Sampler (Signature) (Printed Name)

Clee KATIE LEE

Laboratory Name: TA- Denver
Address: 4955 Yarrow Street
Arvada, CO 80002
Phone: 303-736-0107
Contact: Patrick McEntee

Laboratory No.	Sample ID	Site Type	Depth	Date	Time	Matrix	Nitrate (10)(A)	AMMONIA 15 (E)	Temperature Blank	Total Number of Containers
	LL12mw-249-240401-GW	—	—	5/2/24	1025	W	1	1		2
	LL12mw-249-240401-GWMSD	—	—	5/2/24	1025	W	1	2		3
	~~LL12mw-249-240401-GW~~	—	—	5/2/24	1025	W	1	1		2
	LL12mw-249-240402-GW									
	CS 5/2/24									

Requested Parameters

OBSERVATIONS, COMMENTS
SPECIAL INSTRUCTIONS

Relinquished by	Date	Received by	Date
Signature	5/2/24	Signature	
Printed Name: Charles Spurr	Time: 1800	Printed Name	Time
Company: Leidos		Company	
Relinquished by	Date	Received by	Date
Signature		Signature	
Printed Name	Time	Printed Name	Time
Company		Company	

Notes: Total Number of Containers: 7

A. Cool, 4C
B. HCl, pH<2, Cool, 4C
C. HNO3, pH<2, Cool, 4C
D. NaOH, pH>12, Cool 4C
E. H2SO4

1. SW 8260B
2. SW 8270D
3. SW 8270D SIM
4. SW 8082A
5. SW 8081B
6. SW 8330
7. SW 6010/6020/7470
8. SW 9012B
9. SW 9034
10. SW 9056/9056A
11. SW 6860
12. EPA 353.2
13. SW 7196
14. SM2320B
15. E350.1

Shipment Method: ~~Courier~~ FedEx
8108 8165 1462
8108 8165 1521

Temperature Blank

Lab:
Leidos
8866 Commons Drive
Twinsburg, OH 44087
(330) 405-5802

Leidos

White: Laboratory Pink: Project Manager Yellow: Project QAO Goldenrod: Field Project Manager

5/14/2024 9:20:15 AM

Chain of Custody Record

leidos

Page 1 of 9

COC No.: RVAAP-431-TA

Date: 5/2/24

Name Leidos
Address: 8866 Commons Blvd. Suite 201, Twinsburg, OH 44087
Phone Number: (330) 405-5802
Project Manager: Jed Thomas
Project: RVAAP FWGW Sampling Event Spring 2024
Job/P.O. No.: P010216426
Sampler (Signature) (Printed Name)
KATIE LEE

Laboratory Name: TA- Denver
Address: 4955 Yarrow Street
Arvada, CO 80002
Phone: 303-736-0107
Contact: Patrick McEntee

Laboratory No	Sample ID	Site Type	Depth	Date	Time	Matrix	Nitrate (10)(A)	AMMONIA 15 (E)	Temperature Blank	Total Number of Containers	OBSERVATIONS, COMMENTS SPECIAL INSTRUCTIONS
	LL12mw-249-240401-GW	—	—	5/2/24	1025	W	1	1		2	
	LL12mw-249-240401-GWMSD	—	—	5/2/24	1025	W	1	2		3	
	LL12mw-249-240401-GW	—	—	5/2/24	1025	W	1	1		2	

Total Number of Containers: 7

Relinquished by
Signature
Charles Spurr
Printed Name
Leidos
Company
Date 5/2/24
Time 1800

Received by
Signature
KEDEN
Printed Name
Company
Date 5/3/24
Time 0920

Relinquished by
Signature
Printed Name
Company
Date
Time

Received by
Signature
Printed Name
Company
Date
Time

Notes:
A. Cool, 4C
B. HCl, pH<2, Cool, 4C
C. HNO3, pH<2, Cool, 4C
D. NaOH, pH>12, Cool 4C
E. H2SO4

1. SW 8260B
2. SW 8270D
3. SW 8270D SIM
4. SW 8082A
5. SW 8081B
6. SW 8330
7. SW 6010/6020/7470
8. SW 9012B
9. SW 9034
10. SW 9056/9056A
11. SW 6860
12. EPA 353.2
13. SW 7196
14. SM2320B
15. E350.1

Shipment Method: ~~Courier~~ FedEx
8108 8165 1462
8108 8165 1521
0.7, 0.0°C NAGA
CF 0.2

Temperature Blank
Lab:

Leidos
8866 Commons Drive
Twinsburg, OH 44087
(330) 405-5802

White Laboratory Pink Project Manager Yellow Project QAO Goldenrod Field Project Manager

Leidos

280-190988 Chain of Custody

5/14/2024 9:20:15 AM

Chain of Custody Record

leidos

COC No.: RVAAP-432-TA
Page 2 of 9
Date: 5/2/24

Name Leidos
Address: 8866 Commons Blvd. Suite 201, Twinsburg, OH 44087
Phone Number: (330) 405-5802
Project Manager: Jed Thomas
Project: RVAAP FWGW Sampling Event Spring 2024
Job/P.O. No.: P010216426
Sampler (Signature) Matt Schelly (Printed Name) Matt Rechenberg

Laboratory Name: TA- Denver
Address: 4955 Yarrow Street
Arvada, CO 80002
Phone: 303-736-0107
Contact: Patrick McEntee

Laboratory No	Sample ID	Site Type	Depth	Date	Time	Matrix	Nitrate (10)(A)	AMMONIA 15 (E)	Temperature Blank	Total Number of Containers	OBSERVATIONS, COMMENTS SPECIAL INSTRUCTIONS
	LL12mw-248-240401-GW	—	—	5/2/24	1848	W	1	1		2	
	~~LL12mw-248-240401-GWMSD~~					W	1	2		3	~~extra volume for MS/MSD~~
	~~LL12mw-248-240402-GW~~					W	1	1		2	

CS 5/2/24

Total Number of Containers: 7

Relinquished by — Signature: [signature] — Printed Name: Charles Spurr — Company: Leidos — Date: 5/2/24 — Time: 1800

Received by — Signature: [signature] — Printed Name: KEIDEN — Company: [illegible] — Date: 5324 — Time: 0920

Relinquished by — Signature: — Printed Name: — Company: — Date: — Time:

Received by — Signature: — Printed Name: — Company: — Date: — Time:

Notes:
A. Cool, 4C
B. HCl, pH<2, Cool, 4C
C. HNO3, pH<2, Cool, 4C
D. NaOH, pH>12, Cool 4C
E. H2SO4

1. SW 8260B
2. SW 8270D
3. SW 8270D SIM
4. SW 8082A
5. SW 8081B
6. SW 8330
7. SW 6010/6020/7470
8. SW 9012B
9. SW 9034
10. SW 9056/9056A
11. SW 6860
12. EPA 353.2
13. SW 7196
14. SM2320B
15. E350.1

Shipment Method: ~~Courier~~

Temperature Blank

Lab:

Leidos
8866 Commons Drive
Twinsburg, OH 44087
(330) 405-5802

White Laboratory Pink Project Manager Yellow Project QAO Goldenrod Field Project Manager

Leidos

5/14/2024
9:20:15 AM

leidos

Chain of Custody Record

COC No.: RVAAP-433-TA
Date: 5/2/24

Name Leidos
Address: 8866 Commons Blvd. Suite 201, Twinsburg, OH 44087
Phone Number: (330) 405-5802
Project Manager: Jed Thomas
Project: RVAAP FWGW Sampling Event Spring 2024
Job/P.O. No.: P010216426
Sampler (Signature) [signature] (Printed Name) Matt Reichenberger

Laboratory Name: TA- Denver
Address: 4955 Yarrow Street
Arvada, CO 80002
Phone: 303-736-0107
Contact: Patrick McEntee

Requested Parameters

Laboratory No	Sample ID	Site Type	Depth	Date	Time	Matrix	Explosives (6)(A)	Temperature Blank	Total Number of Containers	OBSERVATIONS, COMMENTS SPECIAL INSTRUCTIONS
	LL1mw-092-240401-GW	—	—	5/2/24	1235	W	2		2	

CS 5/2/24

Relinquished by	Date	Received by	Date
Signature: [signature]	5/2/24	Signature: [signature]	5-3-24
Printed Name: Charles Spurr	Time: 1800	Printed Name: EEDEN	Time: 0920
Company: Leidos		Company:	
Relinquished by	Date	Received by	Date
Signature		Signature	
Printed Name	Time	Printed Name	Time
Company		Company	

Notes: Total Number of Containers: 2

A Cool, 4C
B. HCl, pH<2, Cool, 4C
C. HNO3, pH<2, Cool, 4C
D NaOH, pH>12, Cool 4C

1. SW 8260B
2. SW 8270D
3 SW 8270D SIM
4. SW 8082A
5. SW 8081B
6. SW 8330
7. SW 6010/6020/7470
8. SW 9012B
9. SW 9034
10. SW 9056/9056A
11. SW 6860
12. EPA 353.2
13. SW 7196
14. SM2320B

Notes:

Shipment Method: ~~Courier~~

Temperature Blank

Lab:
Leidos
8866 Commons Drive
Twinsburg, OH 44087
(330) 405-5802

Leidos

White Laboratory Pink Project Manager Yellow Project QAO Goldenrod Field Project Manager

5/14/2024
9:20:15 AM

leidos

Chain of Custody Record

Page 4 of 9

COC No.: RVAAP-434-TA
Date: 5/2/29

Name Leidos
Address: 8866 Commons Blvd. Suite 201, Twinsburg, OH 44087
Phone Number: (330) 405-5802
Project Manager: Jed Thomas
Project: RVAAP FWGW Sampling Event Spring 2024
Job/P.O. No.: P010216426
Sampler (Signature) [signature] (Printed Name) Trey Anderson

Laboratory Name: TA- Denver
Address: 4955 Yarrow Street
Arvada, CO 80002
Phone: 303-736-0107
Contact: Patrick McEntee

Laboratory No	Sample ID	Site Type	Depth	Date	Time	Matrix	Requested Parameters: Nitrate (10)(A)	AMMONIA 15 (E)	Temperature Blank	Total Number of Containers	OBSERVATIONS, COMMENTS SPECIAL INSTRUCTIONS
	LL12mw-244-240401-GW			5/2/24	1235	W	1	1		2	

5/2/24

Relinquished by
Signature: [signature]
Printed Name: Charles Spurr
Company: Leidos
Date: 5/2/24
Time: 1800

Received by
Signature: [signature]
Printed Name: EETEN
Company:
Date: 5-3-24
Time: 0720

Relinquished by
Signature:
Printed Name:
Company:
Date:
Time:

Received by
Signature:
Printed Name:
Company:
Date:
Time:

Notes: Total Number of Containers: 2
A. Cool, 4C
B. HCl, pH<2, Cool, 4C
C. HNO3, pH<2, Cool, 4C
D. NaOH, pH>12, Cool 4C
E. H2SO4

1. SW 8260B
2. SW 8270D
3. SW 8270D SIM
4. SW 8082A
5. SW 8081B
6. SW 8330
7. SW 6010/6020/7470
8. SW 9012B
9. SW 9034
10. SW 9056/9056A
11. SW 6860
12. EPA 353.2
13. SW 7196
14. SM2320B
15. E350.1

Shipment Method: ~~Courier~~

Temperature Blank

Lab:
Leidos
8866 Commons Drive
Twinsburg, OH 44087
(330) 405-5802

Leidos

White Laboratory Pink Project Manager Yellow Project QAO Goldenrod Field Project Manager

5/14/2024
9:20:15 AM

leidos

Chain of Custody Record

Page 5 of 9

COC No.: RVAAP-435TA

Date: 5/2/24

Name Leidos
Address: 8866 Commons Blvd. Suite 201, Twinsburg, OH 44087
Phone Number: (330) 405-5802
Project Manager: Jed Thomas
Project: RVAAP FWGW Sampling Event Spring 2024
Job/P.O. No.: P010216426
Sampler (Signature) Matt S Rechenberg (Printed Name) Matt Rechenberg

Laboratory Name: TA- Denver
Address: 4955 Yarrow Street
Arvada, CO 80002
Phone: 303-736-0107
Contact: Patrick McEntee

Laboratory No	Sample ID	Site Type	Depth	Date	Time	Matrix	Explosives (6)(A)	Temperature Blank	Total Number of Containers	OBSERVATIONS, COMMENTS SPECIAL INSTRUCTIONS
	LL1mw-093-240401-GW	—	—	5/2/24	1250	W	2		2	

Requested Parameters

5/2/24

Relinquished by	Date	Received by	Date
Signature	5/2/24	Signature	5-3-24
Charles Spurr	Time	LEITEN	Time
Printed Name	1800	Printed Name	0920
Leidos			
Company		Company	
Relinquished by	Date	Received by	Date
Signature		Signature	
Printed Name	Time	Printed Name	Time
Company		Company	

Notes: Total Number of Containers: 2

A. Cool, 4C
B. HCl, pH<2, Cool, 4C
C. HNO3, pH<2, Cool, 4C
D. NaOH, pH>12, Cool 4C

1. SW 8260B
2. SW 8270D
3. SW 8270D SIM
4. SW 8082A
5. SW 8081B
6. SW 8330
7. SW 6010/6020/7470
8. SW 9012B
9. SW 9034
10. SW 9056/9056A
11. SW 6860
12. EPA 353.2
13. SW 7196
14. SM2320B

Notes:

Shipment Method: ~~Courier~~

Temperature Blank

Lab

Leidos
8866 Commons Drive
Twinsburg, OH 44087
(330) 405-5802

Leidos

White Laboratory Pink Project Manager Yellow Project QAO Goldenrod Field Project Manager

5/14/2024
9:20:15 AM

leidos

Chain of Custody Record

Page 6 of 9

COC No.: RVAAP-436-TA

Date: 5/2/24

Name Leidos
Address: 8866 Commons Blvd. Suite 201, Twinsburg, OH 44087
Phone Number: (330) 405-5802
Project Manager: Jed Thomas
Project: RVAAP FWGW Sampling Event Spring 2024
Job/P.O. No.: P010216426
Sampler (Signature) (Printed Name)

Clee KATIE LEE

Laboratory Name: TA- Denver
Address: 4955 Yarrow Street
Arvada, CO 80002
Phone: 303-736-0107
Contact: Patrick McEntee

Laboratory No	Sample ID	Site Type	Depth	Date	Time	Matrix	Requested Parameters: Explosives (6)(A)	Temperature Blank	Total Number of Containers	OBSERVATIONS, COMMENTS SPECIAL INSTRUCTIONS
	LL1mw-091-240401-GW	—	—	5/2/24	1312	W	2		2	

CB 5/2/24

Relinquished by
Signature: Clee
Printed Name: Charles Spurr
Company: Leidos
Date: 5/2/24
Time: 1800

Received by
Signature: EETDEN
Printed Name:
Company:
Date: 5-3-24
Time: 0920

Relinquished by
Signature:
Printed Name:
Company:
Date:
Time:

Received by
Signature:
Printed Name:
Company:
Date:
Time:

Notes:
Total Number of Containers: 2

A. Cool, 4C
B. HCl, pH<2, Cool, 4C
C. HNO3, pH<2, Cool, 4C
D. NaOH, pH>12, Cool 4C

1. SW 8260B
2. SW 8270D
3. SW 8270D SIM
4. SW 8082A
5. SW 8081B
6. SW 8330
7. SW 6010/6020/7470
8. SW 8012B
9. SW 9034
10. SW 9056/9056A
11. SW 6860
12. EPA 353.2
13. SW 7196
14. SM2320B

Notes:

Shipment Method: ~~Courier~~

Temperature Blank

Lab:
Leidos
8866 Commons Drive
Twinsburg, OH 44087
(330) 405-5802

Leidos

White Laboratory Pink Project Manager Yellow Project QAO Goldenrod Field Project Manager

5/14/2024
9:20:15 AM

leidos

Chain of Custody Record

COC No.: RVAAP-437-TA
Date: 5/2/24

Name Leidos
Address: 8866 Commons Blvd. Suite 201, Twinsburg, OH 44087
Phone Number: (330) 405-5802
Project Manager: Jed Thomas
Project: RVAAP FWGW Sampling Event Spring 2024
Job/P.O. No.: P010216426
Sampler (Signature) Matt Sheehy (Printed Name) Matt Reehenberg

Laboratory Name: TA- Denver
Address: 4955 Yarrow Street
Arvada, CO 80002
Phone: 303-736-0107
Contact: Patrick McEntee

Laboratory No	Sample ID	Site Type	Depth	Date	Time	Matrix	Explosives (6)(A)	Temperature Blank	Total Number of Containers	OBSERVATIONS, COMMENTS SPECIAL INSTRUCTIONS
	LL1mw-064-240401-GW	-	-	5/2/24	1410	W	2		2	

Requested Parameters

5/2/24

Relinquished by	Date	Received by	Date	Notes: Total Number of Containers: 2
Signature	5/2/24	Signature	5:30	A. Cool, 4C B. HCl, pH<2, Cool, 4C C. HNO3, pH<2, Cool, 4C D. NaOH, pH>12, Cool 4C
Charles Spurr	Time 1800	PETDEN	Time 0920	1. SW 8260B Notes: 2. SW 8270D 3. SW 8270D SIM 4. SW 8082A 5. SW 8081B
Printed Name		Printed Name		6. SW 8330 7. SW 6010/6020/7470 8. SW 9012B 9. SW 9034 10. SW 9056/9056A 11. SW 6860 12. EPA 353.2 13. SW 7196 14. SM2320B
Leidos				
Company		Company		
Relinquished by	Date	Received by	Date	
Signature		Signature		
	Time		Time	
Printed Name		Printed Name		
Company		Company		

Shipment Method: Courier

Temperature Blank

Lab:
Leidos
8866 Commons Drive
Twinsburg, OH 44087
(330) 405-5802

Leidos

White Laboratory Pink Project Manager Yellow Project QAO Goldenrod Field Project Manager

5/14/2024
9:20:15 AM

leidos

Chain of Custody Record

COC No.: RVAAP-438-TA

Date: 5/2/24

Name Leidos
Address: 8866 Commons Blvd. Suite 201, Twinsburg, OH 44087
Phone Number: (330) 405-5802
Project Manager: Jed Thomas
Project: RVAAP FWGW Sampling Event Spring 2024
Job/P.O. No.: P010216426
Sampler (Signature) (Printed Name)

KATIE LEE

Laboratory Name: TA- Denver
Address: 4955 Yarrow Street
Arvada, CO 80002
Phone: 303-736-0107
Contact: Patrick McEntee

Laboratory No	Sample ID	Site Type	Depth	Date	Time	Matrix	Requested Parameters: Explosives (6)(A)	Temperature Blank	Total Number of Containers	OBSERVATIONS, COMMENTS SPECIAL INSTRUCTIONS
	LL1mw-090-240401-GW	—	—	5/2/24	1437	W	2		2	

CS 5/2/24

Relinquished by	Date	Received by	Date	Notes: Total Number of Containers: 2
Signature	5/2/24	Signature	5-3-24	A. Cool, 4C B. HCl, pH<2, Cool, 4C C. HNO3, pH<2, Cool, 4C D. NaOH, pH>12, Cool 4C
Printed Name: Charles Spurr	Time: 1800	Printed Name: EETDEN	Time: 0920	1. SW 8260B Notes: 2. SW 8270D 3. SW 8270D SIM 4. SW 8082A 5. SW 8081B
Company: Leidos		Company		6. SW 8330 7. SW 6010/6020/7470 8. SW 9012B 9. SW 9034 10. SW 9056/9056A
Relinquished by	Date	Received by	Date	11 SW 6860 12. EPA 353.2 13. SW 7196 14. SM2320B
Signature		Signature		
Printed Name	Time	Printed Name	Time	
Company		Company		

Shipment Method: ~~Courier~~

Temperature Blank

Lab:
Leidos
8866 Commons Drive
Twinsburg, OH 44087
(330) 405-5802

Leidos

White Laboratory Pink Project Manager Yellow Project QAO Goldenrod Field Project Manager

5/14/2024 9:20:15 AM

leidos

Chain of Custody Record

Page 9 of 9

COC No.: RVAAP-439-TA

Date: 5/2/24

Name Leidos
Address: 8866 Commons Blvd. Suite 201, Twinsburg, OH 44087
Phone Number: (330) 405-5802
Project Manager: Jed Thomas
Project: RVAAP FWGW Sampling Event Spring 2024
Job/P.O. No.: P010216426
Sampler (Signature) [signature] (Printed Name) Trey Anderson

Laboratory Name: TA- Denver
Address: 4955 Yarrow Street
Arvada, CO 80002
Phone: 303-736-0107
Contact: Patrick McEntee

Laboratory No	Sample ID	Site Type	Depth	Date	Time	Matrix	Requested Parameters: Explosives (6)(A)	Temperature Blank	Total Number of Containers	OBSERVATIONS, COMMENTS SPECIAL INSTRUCTIONS
	FWGmw-016-240401-GW	—	—	5/2/24	1635	W	2		2	

5/2/24

Relinquished by	Date	Received by	Date
[signature]	5/2/24	[signature]	5-3-24
Signature		Signature	
Charles Spurr	Time 1800	EETDEN	Time 0920
Printed Name		Printed Name	
Leidos			
Company		Company	
Relinquished by	Date	Received by	Date
Signature		Signature	
	Time		Time
Printed Name		Printed Name	
Company		Company	

Notes: Total Number of Containers: 2

A. Cool, 4C
B. HCl, pH<2, Cool, 4C
C. HNO3, pH<2, Cool, 4C
D. NaOH, pH>12, Cool 4C

1. SW 8260B
2. SW 8270D
3. SW 8270D SIM
4. SW 8082A
5. SW 8081B
6. SW 8330
7. SW 6010/6020/7470
8. SW 9012B
9. SW 9034
10 SW 9056/9056A
11. SW 6860
12. EPA 353.2
13. SW 7196
14. SM2320B

Notes:

Shipment Method: ~~Courier~~

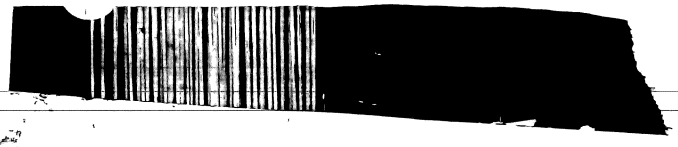
Temperature Blank

Lab:
Leidos
8866 Commons Drive
Twinsburg, OH 44087
(330) 405-5802

Leidos

White Laboratory Pink Project Manager Yellow Project QAO Goldenrod Field Project Manager

5/14/2024
9:20:15 AM



ORIGIN ID:CAKA (000) 000-0000

TESTAMERICA DENVER
4955 YARROW ST
4955 YARROW ST
ARVADA, CO 80002
UNITED STATES US

SHIP DATE: 02MAY24
ACTWGT: 61.20 LB
CAD: 6990579/SSF02500
DIMS: 26x14x14 IN
BILL THIRD PARTY

Part # 156297-435 RADB2 EXP 08/24

TO

TESTAMERICA DENVER
4955 YARROW ST
4955 YARROW ST
ARVADA CO 80002

(000) 000-0000
INV:
PO:
REF:
DEPT:

FedEx Express

E

J242024032601uv

TRK# 0200 8108 8165 1521

FRI - 03 MAY 10:30A
PRIORITY OVERNIGHT

NX LAAA

80002
CO-US DEN

280-190988 Waybill

5/14/2024
9:20:15 AM


ORIGIN ID
TESTAMER
4955 YA
4955 YA
ARVADA,
UNITED
TO
(000) 000-0000
VER
02
US
SHIP DATE: 02MAY24
ACTWGT: 62.35 LB
CAD: 6990579/SSF02500
DIMS: 26x14x14 IN
BILL T
ofins
Environment Testing
TestAmerica
2415685
4955 AMERICA DENVER
4955 ARROW ST
ARVADA CO 80002
(000) 000-
PO:
REF:
DEPT:
XP 08/24
FedEx
Express
J242024032601uv
TRK#
0200
8108 8165 1462
FRI - 03 MAY 10:30A
PRIORITY OVERNIGHT
NX LAAA
80002
CO-US
DEN

Login Sample Receipt Checklist

Client: Leidos, Inc.

Job Number: 280-190988-1

Login Number: 190988
List Number: 1
Creator: Roehsner, Karen P

List Source: Eurofins Denver

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	False	IDs on containers do not match the COC. Logged in per COC.
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	