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ANALYTICAL REPORT

PREPARED FOR

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Picatinny Arsenal
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Generated 5/27/2024 7:57 AM

JOB DESCRIPTION

RVAAP FWGW

JOB NUMBER

280-191424-1

Eurofins Denver
4955 Yarrow Street
Arvada CO 80002

See page two for job notes and contact information.

Eurofins Denver

Job Notes

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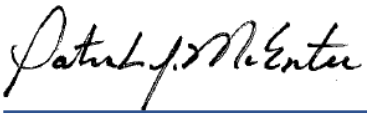
Authorization



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Authorized for release by
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Qualifiers

HPLC/IC

Qualifier	Qualifier Description
B	Blank contamination: The analyte was detected above one-half the reporting limit in an associated blank.
H	Sample was prepped or analyzed beyond the specified holding time. This does not meet regulatory requirements.
J	Estimated: The analyte was positively identified; the quantitation is an estimation
J1	Estimated: The quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria.
M	Manual integrated compound.
Q	One or more quality control criteria failed.
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
280-191424-1

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 5/10/2024 9:25 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.8°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.

Method 8330B - Nitroaromatics and Nitramines (HPLC)
Samples FBQmw-178-240401-GW (280-191424-1), FBQmw-178-240401-GW (280-191424-1MS), FBQmw-178-240401-GW (280-191424-1MSD), FBQmw-179-240401-GW (280-191424-2), FBQmw-180-240401-GW (280-191424-3), FBQmw-181-240401-GW (280-191424-4) and FBQmw-178-240402-GW (280-191424-5) were analyzed for Nitroaromatics and Nitramines (HPLC). The samples were prepared on 5/15/2024 and 5/22/2024 and analyzed on 5/16/2024, 5/17/2024, 5/23/2024 and 5/24/2024.

In preparation batch 280-653460, the following sample was decanted prior to preparation to prevent overflowing due to the addition of sodium chloride: FBQmw-180-240401-GW (280-191424-3).

The %RPD between the primary and confirmation column exceeded 40% for o-Nitrotoluene and/or RDX for the following samples: FBQmw-178-240401-GW (280-191424-1), FBQmw-178-240401-GW (280-191424-1[MS]), FBQmw-178-240401-GW (280-191424-1[MSD]), FBQmw-180-240401-GW (280-191424-3) and FBQmw-178-240402-GW (280-191424-5) in preparation batch 280-653460 and analytical batch 280-653693. The results from both columns has been qualified and reported in accordance with the laboratory's QAS.

The method blank(MB) in the confirmation instrument associated with preparation batch 280-653460 and analytical batch 280-653699 contained analyte o-Nitrotoluene greater than one-half the reporting limit (RL). The analyte was ND in the MB in the primary instrument. The analyte is reported from both instrument due to dual column RPD is >40%. The associated samples are impacted: FBQmw-180-240401-GW (280-191424-3) and FBQmw-178-240402-GW (280-191424-5).

The laboratory control sample and laboratory control sample duplicate (LCS/LCSD) for preparation batch 280-653460 and analytical batch 280-653693 recovered outside control limits for the multiple analytes. See QC report for detail. The associated samples are impacted: FBQmw-178-240401-GW (280-191424-1), FBQmw-178-240401-GW (280-191424-1[MS]), FBQmw-178-240401-GW (280-191424-1[MSD]), FBQmw-179-240401-GW (280-191424-2), FBQmw-180-240401-GW (280-191424-3), FBQmw-181-240401-GW (280-191424-4) and FBQmw-178-240402-GW (280-191424-5). Failed low and sent back for re extraction.

In preparation batch 280-654401, the following samples required filtration to reduce matrix interferences: FBQmw-178-240401-GW (280-191424-1), FBQmw-178-240401-GW (280-191424-1[MS]), FBQmw-178-240401-GW (280-191424-1[MSD]), FBQmw-180-240401-GW (280-191424-3), FBQmw-181-240401-GW (280-191424-4) and FBQmw-178-240402-GW (280-191424-5).

In preparation batch 280-654401, the following samples were re-prepared outside of preparation holding time due to low LCS: FBQmw-178-240401-GW (280-191424-1), FBQmw-178-240401-GW (280-191424-1[MS]), FBQmw-178-240401-GW (280-191424-1[MSD]), FBQmw-179-240401-GW (280-191424-2), FBQmw-180-240401-GW

(280-191424-3), FBQmw-181-240401-GW (280-191424-4) and FBQmw-178-240402-GW (280-191424-5).

The %RPD between the primary and confirmation column exceeded 40% for o-Nitrotoluene and RDX for the following sample: FBQmw-178-240401-GW (280-191424-1), FBQmw-178-240401-GW (280-191424-1[MS]), FBQmw-178-240401-GW (280-191424-1[MSD]), FBQmw-180-240401-GW (280-191424-3) and FBQmw-178-240402-GW (280-191424-5) in preparation batch 280-653460 and analytical batch 280-653693. The results from both columns has been qualified and reported in accordance with the laboratory's QAS.

The following samples in preparation batch 280-654401 and analytical batch 280-654555 were re-extracted due to low LCS/LCSD recovery: FBQmw-178-240401-GW (280-191424-1), FBQmw-178-240401-GW (280-191424-1[MS]), FBQmw-178-240401-GW (280-191424-1[MSD]), FBQmw-179-240401-GW (280-191424-2), FBQmw-180-240401-GW (280-191424-3), FBQmw-181-240401-GW (280-191424-4) and FBQmw-178-240402-GW (280-191424-5). See QC report for detail. The re-extraction had low LCS of the same analytes. Only the affected analytes are reported from the re-extraction with a RE suffix.

Surrogate recovery for the following sample in preparation batch 280-653460 and analytical batch 280-653693 was outside the lower control limit: FBQmw-180-240401-GW (280-191424-3) and FBQmw-178-240402-GW (280-191424-5). Evidence of matrix interference is present.

Detection Summary

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

Job ID: 280-191424-1

Client Sample ID: FBQmw-178-240401-GW — Lab Sample ID: 280-191424-1

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	Dil Fac	D	Method	Prep Type
RDX	2.0	J1	0.22	0.21	0.055	ug/L	1		8330B	Total/NA
RDX	0.32	J1	0.22	0.21	0.055	ug/L	1		8330B	Total/NA

Client Sample ID: FBQmw-179-240401-GW — Lab Sample ID: 280-191424-2

No Detections.

Client Sample ID: FBQmw-180-240401-GW — Lab Sample ID: 280-191424-3

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	Dil Fac	D	Method	Prep Type
2-Nitrotoluene	0.16	J Q J1	0.24	0.23	0.097	ug/L	1		8330B	Total/NA
2-Nitrotoluene	1.7	Q B J1	0.24	0.23	0.097	ug/L	1		8330B	Total/NA

Client Sample ID: FBQmw-181-240401-GW — Lab Sample ID: 280-191424-4

No Detections.

Client Sample ID: FBQmw-178-240402-GW — Lab Sample ID: 280-191424-5

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	Dil Fac	D	Method	Prep Type
2-Nitrotoluene	0.47	Q J1	0.23	0.22	0.095	ug/L	1		8330B	Total/NA
2-Nitrotoluene	8.0	Q B J1	0.23	0.22	0.095	ug/L	1		8330B	Total/NA
RDX	2.4	Q M J1	0.23	0.22	0.057	ug/L	1		8330B	Total/NA
RDX	0.28	Q J1	0.23	0.22	0.057	ug/L	1		8330B	Total/NA

This Detection Summary does not include radiochemical test results.

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

Client Sample ID: FBQmw-178-240401-GW
Date Collected: 05/09/24 09:15
Date Received: 05/10/24 09:25

Lab Sample ID: 280-191424-1
Matrix: Water

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.21	U	0.22	0.21	0.090	ug/L		05/17/24 04:16	1
1,3-Dinitrobenzene	0.11	U M	0.12	0.11	0.040	ug/L		05/16/24 23:44	1
2,4,6-Trinitrotoluene	0.11	U	0.12	0.11	0.048	ug/L		05/16/24 23:44	1
2,4-Dinitrotoluene	0.086	U M	0.11	0.086	0.029	ug/L		05/16/24 23:44	1
2,6-Dinitrotoluene	0.086	U	0.11	0.086	0.043	ug/L		05/16/24 23:44	1
2-Amino-4,6-dinitrotoluene	0.11	U	0.12	0.11	0.054	ug/L		05/16/24 23:44	1
2-Nitrotoluene	0.21	U M Q	0.22	0.21	0.092	ug/L		05/16/24 23:44	1
3-Nitrotoluene	0.37	U Q	0.43	0.37	0.21	ug/L		05/16/24 23:44	1
4-Amino-2,6-dinitrotoluene	0.13	U	0.16	0.13	0.062	ug/L		05/16/24 23:44	1
4-Nitrotoluene	0.43	U Q	0.44	0.43	0.11	ug/L		05/16/24 23:44	1
HMX	0.21	U M	0.22	0.21	0.094	ug/L		05/16/24 23:44	1
Nitrobenzene	0.21	U	0.22	0.21	0.097	ug/L		05/16/24 23:44	1
Nitroglycerin	2.1	U	2.2	2.1	0.99	ug/L		05/16/24 23:44	1
PETN	1.1	U	1.2	1.1	0.48	ug/L		05/16/24 23:44	1
RDX	**2.0**	**J1**	0.22	0.21	0.055	ug/L		05/16/24 23:44	1
RDX	**0.32**	**J1**	0.22	0.21	0.055	ug/L		05/17/24 04:16	1
Tetryl	0.11	U	0.12	0.11	0.034	ug/L		05/16/24 23:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dinitrobenzene	*87*		*83 - 119*	*05/15/24 12:30*	*05/16/24 23:44*	*1*
1,2-Dinitrobenzene	*93*		*83 - 119*	*05/15/24 12:30*	*05/17/24 04:16*	*1*

Client Sample ID: FBQmw-179-240401-GW
Date Collected: 05/09/24 09:45
Date Received: 05/10/24 09:25

Lab Sample ID: 280-191424-2
Matrix: Water

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.23	U	0.24	0.23	0.095	ug/L		05/17/24 00:53	1
1,3-Dinitrobenzene	0.11	U M	0.12	0.11	0.042	ug/L		05/17/24 00:53	1
2,4,6-Trinitrotoluene	0.11	U	0.12	0.11	0.051	ug/L		05/17/24 00:53	1
2,4-Dinitrotoluene	0.090	U	0.11	0.090	0.031	ug/L		05/17/24 00:53	1
2,6-Dinitrotoluene	0.090	U	0.11	0.090	0.045	ug/L		05/17/24 00:53	1
2-Amino-4,6-dinitrotoluene	0.11	U	0.12	0.11	0.057	ug/L		05/17/24 00:53	1
2-Nitrotoluene	0.23	U Q	0.24	0.23	0.096	ug/L		05/17/24 00:53	1
3-Nitrotoluene	0.39	U Q	0.45	0.39	0.22	ug/L		05/17/24 00:53	1
4-Amino-2,6-dinitrotoluene	0.14	U	0.17	0.14	0.065	ug/L		05/17/24 00:53	1
4-Nitrotoluene	0.45	U Q	0.46	0.45	0.11	ug/L		05/17/24 00:53	1
HMX	0.23	U M	0.24	0.23	0.099	ug/L		05/17/24 00:53	1
Nitrobenzene	0.23	U	0.24	0.23	0.10	ug/L		05/17/24 00:53	1
Nitroglycerin	2.3	U	2.4	2.3	1.0	ug/L		05/17/24 00:53	1
PETN	1.1	U	1.2	1.1	0.50	ug/L		05/17/24 00:53	1
RDX	0.23	U	0.24	0.23	0.058	ug/L		05/17/24 00:53	1
Tetryl	0.11	U	0.12	0.11	0.036	ug/L		05/17/24 00:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dinitrobenzene	*97*		*83 - 119*	*05/15/24 12:30*	*05/17/24 00:53*	*1*

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

Client Sample ID: FBQmw-180-240401-GW
Date Collected: 05/09/24 10:41
Date Received: 05/10/24 09:25

Lab Sample ID: 280-191424-3
Matrix: Water

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.23	U M Q	0.24	0.23	0.095	ug/L		05/17/24 01:39	1
1,3-Dinitrobenzene	0.11	U Q	0.12	0.11	0.042	ug/L		05/17/24 01:39	1
2,4,6-Trinitrotoluene	0.11	U Q	0.12	0.11	0.051	ug/L		05/17/24 01:39	1
2,4-Dinitrotoluene	0.091	U Q	0.11	0.091	0.031	ug/L		05/17/24 01:39	1
2,6-Dinitrotoluene	0.091	U Q	0.11	0.091	0.045	ug/L		05/17/24 01:39	1
2-Amino-4,6-dinitrotoluene	0.11	U Q	0.12	0.11	0.057	ug/L		05/17/24 01:39	1
2-Nitrotoluene	**0.16**	**J Q J1**	0.24	0.23	0.097	ug/L		05/17/24 01:39	1
2-Nitrotoluene	**1.7**	**Q B J1**	0.24	0.23	0.097	ug/L		05/17/24 07:11	1
3-Nitrotoluene	0.40	U Q	0.45	0.40	0.22	ug/L		05/17/24 01:39	1
4-Amino-2,6-dinitrotoluene	0.14	U Q	0.17	0.14	0.065	ug/L		05/17/24 01:39	1
4-Nitrotoluene	0.45	U Q	0.46	0.45	0.11	ug/L		05/17/24 01:39	1
HMX	0.23	U Q	0.24	0.23	0.099	ug/L		05/17/24 07:11	1
Nitrobenzene	0.23	U Q	0.24	0.23	0.10	ug/L		05/17/24 01:39	1
Nitroglycerin	2.3	U Q	2.4	2.3	1.0	ug/L		05/17/24 01:39	1
PETN	1.1	U Q	1.2	1.1	0.51	ug/L		05/17/24 01:39	1
RDX	0.23	U Q	0.24	0.23	0.058	ug/L		05/17/24 07:11	1
Tetryl	0.11	U Q	0.12	0.11	0.036	ug/L		05/17/24 01:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dinitrobenzene	*80*	*M Q*	*83 - 119*	*05/15/24 12:30*	*05/17/24 01:39*	*1*
1,2-Dinitrobenzene	*78*	*Q*	*83 - 119*	*05/15/24 12:30*	*05/17/24 07:11*	*1*

Client Sample ID: FBQmw-181-240401-GW
Date Collected: 05/09/24 12:20
Date Received: 05/10/24 09:25

Lab Sample ID: 280-191424-4
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	0.089	ug/L		05/17/24 02:02	1
1,3-Dinitrobenzene	0.11	U	0.12	0.11	0.039	ug/L		05/17/24 02:02	1
2,4,6-Trinitrotoluene	0.11	U	0.12	0.11	0.048	ug/L		05/17/24 02:02	1
2,4-Dinitrotoluene	0.085	U	0.11	0.085	0.029	ug/L		05/17/24 02:02	1
2,6-Dinitrotoluene	0.085	U	0.11	0.085	0.042	ug/L		05/17/24 02:02	1
2-Amino-4,6-dinitrotoluene	0.11	U	0.12	0.11	0.054	ug/L		05/17/24 02:02	1
2-Nitrotoluene	0.21	U Q	0.22	0.21	0.090	ug/L		05/17/24 02:02	1
3-Nitrotoluene	0.37	U Q	0.42	0.37	0.21	ug/L		05/17/24 02:02	1
4-Amino-2,6-dinitrotoluene	0.13	U	0.16	0.13	0.061	ug/L		05/17/24 02:02	1
4-Nitrotoluene	0.42	U Q	0.43	0.42	0.11	ug/L		05/17/24 02:02	1
HMX	0.21	U M	0.22	0.21	0.093	ug/L		05/17/24 02:02	1
Nitrobenzene	0.21	U	0.22	0.21	0.096	ug/L		05/17/24 02:02	1
Nitroglycerin	2.1	U	2.2	2.1	0.97	ug/L		05/17/24 02:02	1
PETN	1.1	U	1.2	1.1	0.47	ug/L		05/17/24 02:02	1
RDX	0.21	U	0.22	0.21	0.054	ug/L		05/17/24 02:02	1
Tetryl	0.11	U	0.12	0.11	0.034	ug/L		05/17/24 02:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dinitrobenzene	*90*		*83 - 119*	*05/15/24 12:30*	*05/17/24 02:02*	*1*

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

Client Sample ID: FBQmw-178-240402-GW
Date Collected: 05/09/24 09:15
Date Received: 05/10/24 09:25

Lab Sample ID: 280-191424-5
Matrix: Water

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.22	U Q	0.23	0.22	0.093	ug/L		05/17/24 08:20	1
1,3-Dinitrobenzene	0.11	U M Q	0.12	0.11	0.041	ug/L		05/17/24 02:25	1
2,4,6-Trinitrotoluene	0.11	U Q	0.12	0.11	0.050	ug/L		05/17/24 02:25	1
2,4-Dinitrotoluene	0.089	U Q	0.11	0.089	0.030	ug/L		05/17/24 02:25	1
2,6-Dinitrotoluene	0.089	U Q	0.11	0.089	0.044	ug/L		05/17/24 02:25	1
2-Amino-4,6-dinitrotoluene	0.11	U Q	0.12	0.11	0.056	ug/L		05/17/24 02:25	1
2-Nitrotoluene	**0.47**	**Q J1**	0.23	0.22	0.095	ug/L		05/17/24 02:25	1
2-Nitrotoluene	**8.0**	**Q B J1**	0.23	0.22	0.095	ug/L		05/17/24 08:20	1
3-Nitrotoluene	0.39	U Q	0.44	0.39	0.22	ug/L		05/17/24 02:25	1
4-Amino-2,6-dinitrotoluene	0.13	U Q	0.17	0.13	0.064	ug/L		05/17/24 02:25	1
4-Nitrotoluene	0.44	U Q	0.45	0.44	0.11	ug/L		05/17/24 02:25	1
HMX	0.22	U Q	0.23	0.22	0.097	ug/L		05/17/24 08:20	1
Nitrobenzene	0.22	U Q	0.23	0.22	0.10	ug/L		05/17/24 02:25	1
Nitroglycerin	2.2	U Q	2.3	2.2	1.0	ug/L		05/17/24 02:25	1
PETN	1.1	U Q	1.2	1.1	0.50	ug/L		05/17/24 02:25	1
RDX	**2.4**	**Q M J1**	0.23	0.22	0.057	ug/L		05/17/24 02:25	1
RDX	**0.28**	**Q J1**	0.23	0.22	0.057	ug/L		05/17/24 08:20	1
Tetryl	0.11	U Q	0.12	0.11	0.035	ug/L		05/17/24 02:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dinitrobenzene	*69*	*M Q*	*83 - 119*	*05/15/24 12:30*	*05/17/24 02:25*	*1*
1,2-Dinitrobenzene	*75*	*Q*	*83 - 119*	*05/15/24 12:30*	*05/17/24 08:20*	*1*

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

Client Sample ID: FBQmw-178-240401-GW
Date Collected: 05/09/24 09:15
Date Received: 05/10/24 09:25

Lab Sample ID: 280-191424-1
Matrix: Water

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
2-Nitrotoluene	0.21	U M H Q	0.22	0.21	0.091	ug/L		05/23/24 23:50	1
3-Nitrotoluene	0.37	U H Q	0.42	0.37	0.21	ug/L		05/23/24 23:50	1
4-Nitrotoluene	0.42	U H Q	0.44	0.42	0.11	ug/L		05/23/24 23:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dinitrobenzene	*101*	*M*	*83 - 119*	*05/22/24 14:37*	*05/23/24 23:50*	*1*

Client Sample ID: FBQmw-179-240401-GW
Date Collected: 05/09/24 09:45
Date Received: 05/10/24 09:25

Lab Sample ID: 280-191424-2
Matrix: Water

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
2-Nitrotoluene	0.22	U H Q	0.23	0.22	0.093	ug/L		05/24/24 00:59	1
3-Nitrotoluene	0.38	U H Q	0.44	0.38	0.21	ug/L		05/24/24 00:59	1
4-Nitrotoluene	0.44	U H Q	0.45	0.44	0.11	ug/L		05/24/24 00:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dinitrobenzene	*83*		*83 - 119*	*05/22/24 14:37*	*05/24/24 00:59*	*1*

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

Client Sample ID: FBQmw-180-240401-GW
Lab Sample ID: 280-191424-3
Date Collected: 05/09/24 10:41
Matrix: Water
Date Received: 05/10/24 09:25

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
2-Nitrotoluene	0.22	U H Q	0.23	0.22	0.093	ug/L		05/24/24 01:22	1
3-Nitrotoluene	0.38	U H Q	0.44	0.38	0.21	ug/L		05/24/24 01:22	1
4-Nitrotoluene	0.44	U H Q	0.45	0.44	0.11	ug/L		05/24/24 01:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dinitrobenzene	*106*		*83 - 119*	*05/22/24 14:37*	*05/24/24 01:22*	*1*

Client Sample ID: FBQmw-181-240401-GW
Lab Sample ID: 280-191424-4
Date Collected: 05/09/24 12:20
Matrix: Water
Date Received: 05/10/24 09:25

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
2-Nitrotoluene	0.22	U H Q	0.23	0.22	0.093	ug/L		05/24/24 01:45	1
3-Nitrotoluene	0.38	U M H Q	0.43	0.38	0.21	ug/L		05/24/24 01:45	1
4-Nitrotoluene	0.43	U H Q	0.44	0.43	0.11	ug/L		05/24/24 01:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dinitrobenzene	*104*		*83 - 119*	*05/22/24 14:37*	*05/24/24 01:45*	*1*

Client Sample ID: FBQmw-178-240402-GW
Lab Sample ID: 280-191424-5
Date Collected: 05/09/24 09:15
Matrix: Water
Date Received: 05/10/24 09:25

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
2-Nitrotoluene	0.21	U M H Q	0.23	0.21	0.092	ug/L		05/24/24 02:08	1
3-Nitrotoluene	0.38	U H Q	0.43	0.38	0.21	ug/L		05/24/24 02:08	1
4-Nitrotoluene	0.43	U M H Q	0.44	0.43	0.11	ug/L		05/24/24 02:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dinitrobenzene	*98*		*83 - 119*	*05/22/24 14:37*	*05/24/24 02:08*	*1*

Default Detection Limits

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

Job ID: 280-191424-1

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

Surrogate Summary

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

Job ID: 280-191424-1

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)
280-191424-1	FBQmw-178-240401-GW	87
280-191424-1 - RE	FBQmw-178-240401-GW	101 M
280-191424-1 MS	FBQmw-178-240401-GW	91 M
280-191424-1 MS - RE	FBQmw-178-240401-GW	99 M
280-191424-1 MSD	FBQmw-178-240401-GW	95 M
280-191424-1 MSD - RE	FBQmw-178-240401-GW	99 M
280-191424-2	FBQmw-179-240401-GW	97
280-191424-2 - RE	FBQmw-179-240401-GW	83
280-191424-3	FBQmw-180-240401-GW	80 M Q
280-191424-3 - RE	FBQmw-180-240401-GW	106
280-191424-4	FBQmw-181-240401-GW	90
280-191424-4 - RE	FBQmw-181-240401-GW	104
280-191424-5	FBQmw-178-240402-GW	69 M Q
280-191424-5 - RE	FBQmw-178-240402-GW	98
LCS 280-653460/2-A	Lab Control Sample	84
LCS 280-654401/2-A	Lab Control Sample	97
LCSD 280-653460/3-A	Lab Control Sample Dup	84
MB 280-653460/1-A	Method Blank	96 M
MB 280-654401/1-A	Method Blank	105

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)
280-191424-1	FBQmw-178-240401-GW	93
280-191424-1 MS	FBQmw-178-240401-GW	103
280-191424-1 MSD	FBQmw-178-240401-GW	104
280-191424-3	FBQmw-180-240401-GW	78 Q
280-191424-5	FBQmw-178-240402-GW	75 Q

Surrogate Legend

12DNB = 1,2-Dinitrobenzene

Method: 8330B - Nitroaromatics and Nitramines (HPLC)

Lab Sample ID: MB 280-653460/1-A
Matrix: Water
Analysis Batch: 653693

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 653460

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		05/16/24 17:14	1
1,3-Dinitrobenzene	0.10	U	0.11	0.10	0.037	ug/L		05/16/24 17:14	1
2,4,6-Trinitrotoluene	0.10	U	0.11	0.10	0.045	ug/L		05/16/24 17:14	1
2,4-Dinitrotoluene	0.080	U	0.10	0.080	0.027	ug/L		05/16/24 17:14	1
2,6-Dinitrotoluene	0.080	U	0.10	0.080	0.040	ug/L		05/16/24 17:14	1
2-Amino-4,6-dinitrotoluene	0.10	U	0.11	0.10	0.051	ug/L		05/16/24 17:14	1
2-Nitrotoluene	0.20	U	0.21	0.20	0.086	ug/L		05/16/24 17:14	1
3-Nitrotoluene	0.35	U	0.40	0.35	0.20	ug/L		05/16/24 17:14	1
4-Amino-2,6-dinitrotoluene	0.12	U	0.15	0.12	0.058	ug/L		05/16/24 17:14	1
4-Nitrotoluene	0.40	U	0.41	0.40	0.10	ug/L		05/16/24 17:14	1
HMX	0.20	U	0.21	0.20	0.088	ug/L		05/16/24 17:14	1
Nitrobenzene	0.20	U	0.21	0.20	0.091	ug/L		05/16/24 17:14	1
Nitroglycerin	2.0	U	2.1	2.0	0.92	ug/L		05/16/24 17:14	1
PETN	1.0	U	1.1	1.0	0.45	ug/L		05/16/24 17:14	1
RDX	0.20	U M	0.21	0.20	0.052	ug/L		05/16/24 17:14	1
Tetryl	0.10	U	0.11	0.10	0.032	ug/L		05/16/24 17:14	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dinitrobenzene	*96*	*M*	*83 - 119*	*05/15/24 12:30*	*05/16/24 17:14*	*1*

Lab Sample ID: LCS 280-653460/2-A
Matrix: Water
Analysis Batch: 653693

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 653460

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,3,5-Trinitrobenzene	2.00	1.89		ug/L		94	73 - 125
1,3-Dinitrobenzene	2.00	1.77		ug/L		89	78 - 120
2,4,6-Trinitrotoluene	2.00	1.74		ug/L		87	71 - 123
2,4-Dinitrotoluene	2.00	1.64		ug/L		82	78 - 120
2,6-Dinitrotoluene	2.00	1.67		ug/L		84	77 - 127
2-Amino-4,6-dinitrotoluene	2.00	1.69		ug/L		84	79 - 120
2-Nitrotoluene	2.00	1.20	Q	ug/L		60	70 - 127
3-Nitrotoluene	2.00	1.19	Q	ug/L		60	73 - 125
4-Amino-2,6-dinitrotoluene	2.00	1.74		ug/L		87	76 - 125
4-Nitrotoluene	2.00	1.19	Q	ug/L		60	71 - 127
HMX	2.00	1.64	M	ug/L		82	65 - 135
Nitrobenzene	2.00	1.50		ug/L		75	65 - 134
Nitroglycerin	20.0	18.9		ug/L		95	74 - 127
PETN	20.0	19.9		ug/L		99	73 - 127
RDX	2.00	1.76		ug/L		88	68 - 130
Tetryl	2.00	1.76		ug/L		88	64 - 128

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dinitrobenzene	*84*		*83 - 119*

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

Lab Sample ID: LCSD 280-653460/3-A
Matrix: Water
Analysis Batch: 653693

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 653460

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,3,5-Trinitrobenzene	2.00	1.89		ug/L		94	73 - 125	0	20
1,3-Dinitrobenzene	2.00	1.75		ug/L		87	78 - 120	1	20
2,4,6-Trinitrotoluene	2.00	1.75		ug/L		87	71 - 123	1	20
2,4-Dinitrotoluene	2.00	1.60		ug/L		80	78 - 120	3	20
2,6-Dinitrotoluene	2.00	1.59		ug/L		80	77 - 127	5	20
2-Amino-4,6-dinitrotoluene	2.00	1.66		ug/L		83	79 - 120	2	20
2-Nitrotoluene	2.00	1.15	Q	ug/L		57	70 - 127	5	20
3-Nitrotoluene	2.00	1.14	Q	ug/L		57	73 - 125	5	20
4-Amino-2,6-dinitrotoluene	2.00	1.69		ug/L		84	76 - 125	3	20
4-Nitrotoluene	2.00	1.10	Q	ug/L		55	71 - 127	8	20
HMX	2.00	1.68	M	ug/L		84	65 - 135	3	20
Nitrobenzene	2.00	1.43		ug/L		72	65 - 134	5	20
Nitroglycerin	20.0	19.2		ug/L		96	74 - 127	1	20
PETN	20.0	20.3		ug/L		102	73 - 127	2	20
RDX	2.00	1.73		ug/L		87	68 - 130	2	20
Tetryl	2.00	1.86		ug/L		93	64 - 128	5	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dinitrobenzene	*84*		*83 - 119*

Lab Sample ID: 280-191424-1 MS
Matrix: Water
Analysis Batch: 653693

Client Sample ID: FBQmw-178-240401-GW
Prep Type: Total/NA
Prep Batch: 653460

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1,3-Dinitrobenzene	0.11	U M	2.13	2.06		ug/L		97	78 - 120
2,4,6-Trinitrotoluene	0.11	U	2.13	2.06		ug/L		97	71 - 123
2,4-Dinitrotoluene	0.086	U M	2.13	2.34		ug/L		110	78 - 120
2,6-Dinitrotoluene	0.086	U	2.13	2.06		ug/L		97	77 - 127
2-Amino-4,6-dinitrotoluene	0.11	U	2.13	2.06		ug/L		97	79 - 120
4-Amino-2,6-dinitrotoluene	0.13	U	2.13	2.11		ug/L		99	76 - 125
HMX	0.21	U M	2.13	2.26	M	ug/L		106	65 - 135
Nitrobenzene	0.21	U	2.13	1.88		ug/L		88	65 - 134
Nitroglycerin	2.1	U	21.3	21.8		ug/L		102	74 - 127
PETN	1.1	U	21.3	22.9		ug/L		108	73 - 127
RDX	2.0	J1	2.13	3.88		ug/L		87	68 - 130
Tetryl	0.11	U	2.13	2.10		ug/L		99	64 - 128

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,2-Dinitrobenzene	*91*	*M*	*83 - 119*

Lab Sample ID: 280-191424-1 MS
Matrix: Water
Analysis Batch: 653699

Client Sample ID: FBQmw-178-240401-GW
Prep Type: Total/NA
Prep Batch: 653460

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1,3,5-Trinitrobenzene	0.21	U	2.13	2.35		ug/L		110	73 - 125
RDX	0.32	J1	2.13	2.19		ug/L		88	68 - 130

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

Surrogate	MS %Recovery	MS Qualifier	Limits
1,2-Dinitrobenzene	*103*		*83 - 119*

Lab Sample ID: 280-191424-1 MSD — **Client Sample ID: FBQmw-178-240401-GW**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 653693 — **Prep Batch: 653460**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,3-Dinitrobenzene	0.11	U M	2.18	2.14		ug/L		98	78 - 120	4	20
2,4,6-Trinitrotoluene	0.11	U	2.18	2.14		ug/L		99	71 - 123	4	20
2,4-Dinitrotoluene	0.086	U M	2.18	2.44		ug/L		112	78 - 120	4	20
2,6-Dinitrotoluene	0.086	U	2.18	2.13		ug/L		98	77 - 127	3	20
2-Amino-4,6-dinitrotoluene	0.11	U	2.18	2.13		ug/L		98	79 - 120	4	20
4-Amino-2,6-dinitrotoluene	0.13	U	2.18	2.19		ug/L		100	76 - 125	4	20
HMX	0.21	U M	2.18	2.32	M	ug/L		107	65 - 135	3	20
Nitrobenzene	0.21	U	2.18	1.96		ug/L		90	65 - 134	4	20
Nitroglycerin	2.1	U	21.8	22.4		ug/L		103	74 - 127	3	20
PETN	1.1	U	21.8	23.7		ug/L		109	73 - 127	3	20
RDX	2.0	J1	2.18	4.14		ug/L		97	68 - 130	7	20
Tetryl	0.11	U	2.18	2.22		ug/L		102	64 - 128	5	20

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

Lab Sample ID: 280-191424-1 MSD — **Client Sample ID: FBQmw-178-240401-GW**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 653699 — **Prep Batch: 653460**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,3,5-Trinitrobenzene	0.21	U	2.18	2.41		ug/L		111	73 - 125	3	20
RDX	0.32	J1	2.18	2.36		ug/L		94	68 - 130	7	20

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

Lab Sample ID: MB 280-654401/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 654555 — **Prep Batch: 654401**

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.20	U	0.21	0.20	0.084	ug/L		05/23/24 18:29	1
1,3-Dinitrobenzene	0.10	U	0.11	0.10	0.037	ug/L		05/23/24 18:29	1
2,4,6-Trinitrotoluene	0.10	U	0.11	0.10	0.045	ug/L		05/23/24 18:29	1
2,4-Dinitrotoluene	0.080	U	0.10	0.080	0.027	ug/L		05/23/24 18:29	1
2,6-Dinitrotoluene	0.080	U	0.10	0.080	0.040	ug/L		05/23/24 18:29	1
2-Amino-4,6-dinitrotoluene	0.10	U	0.11	0.10	0.051	ug/L		05/23/24 18:29	1
2-Nitrotoluene	0.20	U	0.21	0.20	0.086	ug/L		05/23/24 18:29	1
3-Nitrotoluene	0.35	U	0.40	0.35	0.20	ug/L		05/23/24 18:29	1
4-Amino-2,6-dinitrotoluene	0.12	U	0.15	0.12	0.058	ug/L		05/23/24 18:29	1
4-Nitrotoluene	0.40	U	0.41	0.40	0.10	ug/L		05/23/24 18:29	1
HMX	0.20	U	0.21	0.20	0.088	ug/L		05/23/24 18:29	1
Nitrobenzene	0.20	U	0.21	0.20	0.091	ug/L		05/23/24 18:29	1

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

Lab Sample ID: MB 280-654401/1-A
Matrix: Water
Analysis Batch: 654555

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 654401

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Nitroglycerin	2.0	U	2.1	2.0	0.92	ug/L		05/23/24 18:29	1
PETN	1.0	U	1.1	1.0	0.45	ug/L		05/23/24 18:29	1
RDX	0.20	U	0.21	0.20	0.052	ug/L		05/23/24 18:29	1
Tetryl	0.10	U	0.11	0.10	0.032	ug/L		05/23/24 18:29	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dinitrobenzene	*105*		*83 - 119*	*05/22/24 14:37*	*05/23/24 18:29*	*1*

Lab Sample ID: LCS 280-654401/2-A
Matrix: Water
Analysis Batch: 654555

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 654401

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,3,5-Trinitrobenzene	2.00	2.05	M	ug/L		102	73 - 125
1,3-Dinitrobenzene	2.00	1.87		ug/L		93	78 - 120
2,4,6-Trinitrotoluene	2.00	1.85		ug/L		92	71 - 123
2,4-Dinitrotoluene	2.00	1.67		ug/L		83	78 - 120
2,6-Dinitrotoluene	2.00	1.70		ug/L		85	77 - 127
2-Amino-4,6-dinitrotoluene	2.00	1.75		ug/L		87	79 - 120
2-Nitrotoluene	2.00	1.22	Q	ug/L		61	70 - 127
3-Nitrotoluene	2.00	1.14	M Q	ug/L		57	73 - 125
4-Amino-2,6-dinitrotoluene	2.00	1.78		ug/L		89	76 - 125
4-Nitrotoluene	2.00	1.20	Q	ug/L		60	71 - 127
HMX	2.00	1.84	M	ug/L		92	65 - 135
Nitrobenzene	2.00	1.57		ug/L		79	65 - 134
Nitroglycerin	20.0	21.2		ug/L		106	74 - 127
PETN	20.0	22.2		ug/L		111	73 - 127
RDX	2.00	1.99		ug/L		100	68 - 130
Tetryl	2.00	1.89		ug/L		95	64 - 128

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dinitrobenzene	*97*		*83 - 119*

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

Lab Sample ID: 280-191424-1 MS
Matrix: Water
Analysis Batch: 654555

Client Sample ID: FBQmw-178-240401-GW
Prep Type: Total/NA
Prep Batch: 654401

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
2-Nitrotoluene - RE	0.21	U M H Q	2.20	2.26	H	ug/L		103	70 - 127
3-Nitrotoluene - RE	0.37	U H Q	2.20	2.30	H	ug/L		104	73 - 125
4-Nitrotoluene - RE	0.42	U H Q	2.20	2.17	H	ug/L		98	71 - 127

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,2-Dinitrobenzene - RE	*99*	*M*	*83 - 119*

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

Lab Sample ID: 280-191424-1 MSD
Matrix: Water
Analysis Batch: 654555

Client Sample ID: FBQmw-178-240401-GW
Prep Type: Total/NA
Prep Batch: 654401

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
2-Nitrotoluene - RE	0.21	U M H Q	2.21	2.32	H	ug/L		105	70 - 127	2	20
3-Nitrotoluene - RE	0.37	U H Q	2.21	2.40	H	ug/L		109	73 - 125	5	20
4-Nitrotoluene - RE	0.42	U H Q	2.21	2.19	H	ug/L		99	71 - 127	1	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,2-Dinitrobenzene - RE	*99*	*M*	*83 - 119*

HPLC/IC

Prep Batch: 653460

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-191424-1	FBQmw-178-240401-GW	Total/NA	Water	3535	
280-191424-2	FBQmw-179-240401-GW	Total/NA	Water	3535	
280-191424-3	FBQmw-180-240401-GW	Total/NA	Water	3535	
280-191424-4	FBQmw-181-240401-GW	Total/NA	Water	3535	
280-191424-5	FBQmw-178-240402-GW	Total/NA	Water	3535	
MB 280-653460/1-A	Method Blank	Total/NA	Water	3535	
LCS 280-653460/2-A	Lab Control Sample	Total/NA	Water	3535	
LCSD 280-653460/3-A	Lab Control Sample Dup	Total/NA	Water	3535	
280-191424-1 MS	FBQmw-178-240401-GW	Total/NA	Water	3535	
280-191424-1 MSD	FBQmw-178-240401-GW	Total/NA	Water	3535	

Analysis Batch: 653693

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-191424-1	FBQmw-178-240401-GW	Total/NA	Water	8330B	653460
280-191424-2	FBQmw-179-240401-GW	Total/NA	Water	8330B	653460
280-191424-3	FBQmw-180-240401-GW	Total/NA	Water	8330B	653460
280-191424-4	FBQmw-181-240401-GW	Total/NA	Water	8330B	653460
280-191424-5	FBQmw-178-240402-GW	Total/NA	Water	8330B	653460
MB 280-653460/1-A	Method Blank	Total/NA	Water	8330B	653460
LCS 280-653460/2-A	Lab Control Sample	Total/NA	Water	8330B	653460
LCSD 280-653460/3-A	Lab Control Sample Dup	Total/NA	Water	8330B	653460
280-191424-1 MS	FBQmw-178-240401-GW	Total/NA	Water	8330B	653460
280-191424-1 MSD	FBQmw-178-240401-GW	Total/NA	Water	8330B	653460

Analysis Batch: 653699

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-191424-1	FBQmw-178-240401-GW	Total/NA	Water	8330B	653460
280-191424-3	FBQmw-180-240401-GW	Total/NA	Water	8330B	653460
280-191424-5	FBQmw-178-240402-GW	Total/NA	Water	8330B	653460
280-191424-1 MS	FBQmw-178-240401-GW	Total/NA	Water	8330B	653460
280-191424-1 MSD	FBQmw-178-240401-GW	Total/NA	Water	8330B	653460

Prep Batch: 654401

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-191424-1 - RE	FBQmw-178-240401-GW	Total/NA	Water	3535	
280-191424-2 - RE	FBQmw-179-240401-GW	Total/NA	Water	3535	
280-191424-3 - RE	FBQmw-180-240401-GW	Total/NA	Water	3535	
280-191424-4 - RE	FBQmw-181-240401-GW	Total/NA	Water	3535	
280-191424-5 - RE	FBQmw-178-240402-GW	Total/NA	Water	3535	
MB 280-654401/1-A	Method Blank	Total/NA	Water	3535	
LCS 280-654401/2-A	Lab Control Sample	Total/NA	Water	3535	
280-191424-1 MS - RE	FBQmw-178-240401-GW	Total/NA	Water	3535	
280-191424-1 MSD - RE	FBQmw-178-240401-GW	Total/NA	Water	3535	

Analysis Batch: 654555

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-191424-1 - RE	FBQmw-178-240401-GW	Total/NA	Water	8330B	654401
280-191424-2 - RE	FBQmw-179-240401-GW	Total/NA	Water	8330B	654401
280-191424-3 - RE	FBQmw-180-240401-GW	Total/NA	Water	8330B	654401
280-191424-4 - RE	FBQmw-181-240401-GW	Total/NA	Water	8330B	654401
280-191424-5 - RE	FBQmw-178-240402-GW	Total/NA	Water	8330B	654401

HPLC/IC (Continued)

Analysis Batch: 654555 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 280-654401/1-A	Method Blank	Total/NA	Water	8330B	654401
LCS 280-654401/2-A	Lab Control Sample	Total/NA	Water	8330B	654401
280-191424-1 MS - RE	FBQmw-178-240401-GW	Total/NA	Water	8330B	654401
280-191424-1 MSD - RE	FBQmw-178-240401-GW	Total/NA	Water	8330B	654401

Client Sample ID: FBQmw-178-240401-GW
Lab Sample ID: 280-191424-1
Date Collected: 05/09/24 09:15
Matrix: Water
Date Received: 05/10/24 09:25

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			467 mL	5 mL	653460	05/15/24 12:30	MSJ	EET DEN
Total/NA	Analysis	8330B		1	1 mL	1 mL	653693	05/16/24 23:44	JZ	EET DEN
Total/NA	Prep	3535	RE		471.2 mL	5 mL	654401	05/22/24 14:37	EH	EET DEN
Total/NA	Analysis	8330B	RE	1	1 mL	1 mL	654555	05/23/24 23:50	JZ	EET DEN
Total/NA	Prep	3535			467 mL	5 mL	653460	05/15/24 12:30	MSJ	EET DEN
Total/NA	Analysis	8330B		1	1 mL	1 mL	653699	05/17/24 04:16	JZ	EET DEN

Client Sample ID: FBQmw-179-240401-GW
Lab Sample ID: 280-191424-2
Date Collected: 05/09/24 09:45
Matrix: Water
Date Received: 05/10/24 09:25

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			443.8 mL	5 mL	653460	05/15/24 12:30	MSJ	EET DEN
Total/NA	Analysis	8330B		1	1 mL	1 mL	653693	05/17/24 00:53	JZ	EET DEN
Total/NA	Prep	3535	RE		457.7 mL	5 mL	654401	05/22/24 14:37	EH	EET DEN
Total/NA	Analysis	8330B	RE	1	1 mL	1 mL	654555	05/24/24 00:59	JZ	EET DEN

Client Sample ID: FBQmw-180-240401-GW
Lab Sample ID: 280-191424-3
Date Collected: 05/09/24 10:41
Matrix: Water
Date Received: 05/10/24 09:25

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			441.8 mL	5 mL	653460	05/15/24 12:30	MSJ	EET DEN
Total/NA	Analysis	8330B		1	1 mL	1 mL	653693	05/17/24 01:39	JZ	EET DEN
Total/NA	Prep	3535	RE		457.9 mL	5 mL	654401	05/22/24 14:37	EH	EET DEN
Total/NA	Analysis	8330B	RE	1	1 mL	1 mL	654555	05/24/24 01:22	JZ	EET DEN
Total/NA	Prep	3535			441.8 mL	5 mL	653460	05/15/24 12:30	MSJ	EET DEN
Total/NA	Analysis	8330B		1	1 mL	1 mL	653699	05/17/24 07:11	JZ	EET DEN

Client Sample ID: FBQmw-181-240401-GW
Lab Sample ID: 280-191424-4
Date Collected: 05/09/24 12:20
Matrix: Water
Date Received: 05/10/24 09:25

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			473.2 mL	5 mL	653460	05/15/24 12:30	MSJ	EET DEN
Total/NA	Analysis	8330B		1	1 mL	1 mL	653693	05/17/24 02:02	JZ	EET DEN
Total/NA	Prep	3535	RE		461.1 mL	5 mL	654401	05/22/24 14:37	EH	EET DEN
Total/NA	Analysis	8330B	RE	1	1 mL	1 mL	654555	05/24/24 01:45	JZ	EET DEN

Client Sample ID: FBQmw-178-240402-GW
Lab Sample ID: 280-191424-5
Date Collected: 05/09/24 09:15
Matrix: Water
Date Received: 05/10/24 09:25

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			451.1 mL	5 mL	653460	05/15/24 12:30	MSJ	EET DEN
Total/NA	Analysis	8330B		1	1 mL	1 mL	653693	05/17/24 02:25	JZ	EET DEN

Lab Chronicle

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

Job ID: 280-191424-1

Client Sample ID: FBQmw-178-240402-GW

Date Collected: 05/09/24 09:15
Date Received: 05/10/24 09:25

Lab Sample ID: 280-191424-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535	RE		465.2 mL	5 mL	654401	05/22/24 14:37	EH	EET DEN
Total/NA	Analysis	8330B	RE	1	1 mL	1 mL	654555	05/24/24 02:08	JZ	EET DEN
Total/NA	Prep	3535			451.1 mL	5 mL	653460	05/15/24 12:30	MSJ	EET DEN
Total/NA	Analysis	8330B		1	1 mL	1 mL	653699	05/17/24 08:20	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: 280-191424-1

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: 280-191424-1

Method	Method Description	Protocol	Laboratory
8330B	Nitroaromatics and Nitramines (HPLC)	EPA	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: 280-191424-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
280-191424-1	FBQmw-178-240401-GW	Water	05/09/24 09:15	05/10/24 09:25
280-191424-2	FBQmw-179-240401-GW	Water	05/09/24 09:45	05/10/24 09:25
280-191424-3	FBQmw-180-240401-GW	Water	05/09/24 10:41	05/10/24 09:25
280-191424-4	FBQmw-181-240401-GW	Water	05/09/24 12:20	05/10/24 09:25
280-191424-5	FBQmw-178-240402-GW	Water	05/09/24 09:15	05/10/24 09:25

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191424-1

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.: 280-191424-1

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.: 280-191424-1

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.: 280-191424-1

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.: 280-191424-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 653693

Lab Sample ID: MB 280-653460/1-A Client Sample ID:

Date Analyzed: 05/16/24 17:14 Lab File ID: 05160014.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,2-Dinitrobenzene	8.55	Baseline	LV5D	05/16/24 18:21
1,3,5-Trinitrobenzene		Invalid Compound ID	LV5D	05/16/24 18:21
RDX		Invalid Compound ID	LV5D	05/16/24 18:21

Lab Sample ID: LCS 280-653460/2-A Client Sample ID:

Date Analyzed: 05/16/24 17:37 Lab File ID: 05160015.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.62	Baseline	LV5D	05/16/24 18:21

Lab Sample ID: LCSD 280-653460/3-A Client Sample ID:

Date Analyzed: 05/16/24 18:00 Lab File ID: 05160016.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.62	Baseline	LV5D	05/16/24 18:33

Lab Sample ID: CCV 280-653693/24 Client Sample ID:

Date Analyzed: 05/16/24 21:04 Lab File ID: 05160024.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.62	Baseline	LV5D	05/17/24 12:22

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191424-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 653693

Lab Sample ID: 280-191424-1 Client Sample ID: FBQmw-178-240401-GW

Date Analyzed: 05/16/24 23:44 Lab File ID: 05160031.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,3,5-Trinitrobenzene	8.72	Baseline	LV5D	05/17/24 12:35
1,3-Dinitrobenzene		Invalid Compound ID	LV5D	05/17/24 12:34
2,4-Dinitrotoluene		Invalid Compound ID	LV5D	05/17/24 12:34
2-Nitrotoluene		Invalid Compound ID	LV5D	05/17/24 12:34
HMX		Baseline	LV5D	05/17/24 12:34

Lab Sample ID: 280-191424-1 MS Client Sample ID: FBQmw-178-240401-GW MS

Date Analyzed: 05/17/24 00:07 Lab File ID: 05160032.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.62	Baseline	LV5D	05/17/24 12:35
1,2-Dinitrobenzene	8.56	Baseline	LV5D	05/17/24 12:35
1,3,5-Trinitrobenzene	8.69	Baseline	LV5D	05/17/24 12:35
4-Nitrotoluene	12.82	Baseline	LV5D	05/17/24 12:35
3-Nitrotoluene	13.37	Baseline	LV5D	05/17/24 12:35

Lab Sample ID: 280-191424-1 MSD Client Sample ID: FBQmw-178-240401-GW MSD

Date Analyzed: 05/17/24 00:30 Lab File ID: 05160033.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.62	Baseline	LV5D	05/17/24 12:36
1,2-Dinitrobenzene	8.55	Baseline	LV5D	05/17/24 12:36
1,3,5-Trinitrobenzene	8.69	Baseline	LV5D	05/17/24 12:36
4-Nitrotoluene	12.81	Baseline	LV5D	05/17/24 12:35
3-Nitrotoluene	13.36	Baseline	LV5D	05/17/24 12:35

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191424-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 653693

Lab Sample ID: 280-191424-2 Client Sample ID: FBQmw-179-240401-GW

Date Analyzed: 05/17/24 00:53 Lab File ID: 05160034.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,3-Dinitrobenzene		Invalid Compound ID	LV5D	05/17/24 12:36
HMX		Invalid Compound ID	LV5D	05/17/24 12:36

Lab Sample ID: 280-191424-3 Client Sample ID: FBQmw-180-240401-GW

Date Analyzed: 05/17/24 01:39 Lab File ID: 05160036.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.62	Baseline	LV5D	05/17/24 12:36
1,2-Dinitrobenzene	8.55	Baseline	LV5D	05/17/24 12:37
1,3,5-Trinitrobenzene	8.71	Baseline	LV5D	05/17/24 12:37

Lab Sample ID: 280-191424-4 Client Sample ID: FBQmw-181-240401-GW

Date Analyzed: 05/17/24 02:02 Lab File ID: 05160037.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,3,5-Trinitrobenzene		Invalid Compound ID	LV5D	05/17/24 12:37
HMX		Invalid Compound ID	LV5D	05/17/24 12:37

Lab Sample ID: 280-191424-5 Client Sample ID: FBQmw-178-240402-GW

Date Analyzed: 05/17/24 02:25 Lab File ID: 05160038.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.63	Baseline	LV5D	05/17/24 12:37
RDX	7.65	Baseline	LV5D	05/17/24 12:37
1,2-Dinitrobenzene	8.55	Baseline	LV5D	05/17/24 12:37
1,3,5-Trinitrobenzene	8.71	Baseline	LV5D	05/17/24 12:37
1,3-Dinitrobenzene		Invalid Compound ID	LV5D	05/17/24 12:37

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191424-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 654555

Lab Sample ID: CCV 280-654555/15 Client Sample ID:

Date Analyzed: 05/23/24 18:06 Lab File ID: 05230015.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.64	Baseline	LV5D	05/23/24 18:38
Nitrobenzene	9.68	Baseline	LV5D	05/23/24 18:37
3,5-Dinitroaniline	9.92	Baseline	LV5D	05/23/24 18:37
Tetryl	9.98	Baseline	LV5D	05/23/24 18:37

Lab Sample ID: LCS 280-654401/2-A Client Sample ID:

Date Analyzed: 05/23/24 18:52 Lab File ID: 05230017.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.63	Baseline	LV5D	05/23/24 19:21
1,3,5-Trinitrobenzene	8.71	Baseline	LV5D	05/23/24 19:21
3-Nitrotoluene	13.38	Baseline	LV5D	05/23/24 19:21

Lab Sample ID: CCV 280-654555/26 Client Sample ID:

Date Analyzed: 05/23/24 22:19 Lab File ID: 05230026.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitrobenzene	9.67	Baseline	LV5D	05/24/24 11:31
3,5-Dinitroaniline	9.91	Baseline	LV5D	05/24/24 11:31
Tetryl	9.97	Baseline	LV5D	05/24/24 11:31

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191424-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 654555

Lab Sample ID: 280-191424-1 RE Client Sample ID: FBQmw-178-240401-GW RE

Date Analyzed: 05/23/24 23:50 Lab File ID: 05230030.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.64	Baseline	LV5D	05/24/24 11:38
1,2-Dinitrobenzene	8.56	Baseline	LV5D	05/24/24 11:38
1,3,5-Trinitrobenzene	8.72	Baseline	LV5D	05/24/24 11:38
2,4-Dinitrotoluene		Invalid Compound ID	LV5D	05/24/24 11:37
2-Nitrotoluene		Invalid Compound ID	LV5D	05/24/24 11:37

Lab Sample ID: 280-191424-1 MS RE Client Sample ID: FBQmw-178-240401-GW MS RE

Date Analyzed: 05/24/24 00:13 Lab File ID: 05230031.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.63	Baseline	LV5D	05/24/24 11:39
1,2-Dinitrobenzene	8.57	Baseline	LV5D	05/24/24 11:39
1,3,5-Trinitrobenzene	8.71	Baseline	LV5D	05/24/24 11:39
1,3-Dinitrobenzene	9.33	Baseline	LV5D	05/24/24 11:39
Tetryl	9.98	Baseline	LV5D	05/24/24 11:39

Lab Sample ID: 280-191424-1 MSD RE Client Sample ID: FBQmw-178-240401-GW MSD RE

Date Analyzed: 05/24/24 00:36 Lab File ID: 05230032.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.63	Baseline	LV5D	05/24/24 11:40
1,2-Dinitrobenzene	8.57	Baseline	LV5D	05/24/24 11:40
1,3,5-Trinitrobenzene	8.71	Baseline	LV5D	05/24/24 11:40
1,3-Dinitrobenzene	9.32	Baseline	LV5D	05/24/24 11:40
Tetryl	9.98	Baseline	LV5D	05/24/24 11:40

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191424-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 654555

Lab Sample ID: 280-191424-2 RE Client Sample ID: FBQmw-179-240401-GW RE

Date Analyzed: 05/24/24 00:59 Lab File ID: 05230033.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,3,5-Trinitrobenzene		Invalid Compound ID	LV5D	05/24/24 11:40
HMX		Invalid Compound ID	LV5D	05/24/24 11:40

Lab Sample ID: 280-191424-3 RE Client Sample ID: FBQmw-180-240401-GW RE

Date Analyzed: 05/24/24 01:22 Lab File ID: 05230034.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,3,5-Trinitrobenzene		Invalid Compound ID	LV5D	05/24/24 11:40
HMX		Invalid Compound ID	LV5D	05/24/24 11:40

Lab Sample ID: 280-191424-4 RE Client Sample ID: FBQmw-181-240401-GW RE

Date Analyzed: 05/24/24 01:45 Lab File ID: 05230035.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,3,5-Trinitrobenzene		Invalid Compound ID	LV5D	05/24/24 11:41
HMX		Invalid Compound ID	LV5D	05/24/24 11:41
3-Nitrotoluene	13.40	Baseline	LV5D	05/24/24 11:41

Lab Sample ID: 280-191424-5 RE Client Sample ID: FBQmw-178-240402-GW RE

Date Analyzed: 05/24/24 02:08 Lab File ID: 05230036.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.64	Baseline	LV5D	05/24/24 11:41
1,3,5-Trinitrobenzene	8.72	Baseline	LV5D	05/24/24 11:41
2-Nitrotoluene		Invalid Compound ID	LV5D	05/24/24 11:41
4-Nitrotoluene		Invalid Compound ID	LV5D	05/24/24 11:41

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191424-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 654555

Lab Sample ID: CCV 280-654555/37 Client Sample ID:

Date Analyzed: 05/24/24 02:31 Lab File ID: 05230037.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.63	Baseline	LV5D	05/24/24 11:42
3,5-Dinitroaniline	9.90	Baseline	LV5D	05/24/24 11:41
Tetryl	9.96	Baseline	LV5D	05/24/24 11:41

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191424-1

SDG No.:

Instrument ID: CHHPLC_X5 Analysis Batch Number: 647408

Lab Sample ID: IC 280-647408/10 Client Sample ID:

Date Analyzed: 03/27/24 19:58 Lab File ID: 03270010.D GC Column: Luna-phenylh ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Picric acid	7.72	Peak assignment corrected	LV5D	03/28/24 11:16
Nitroglycerin	15.03	Baseline Smoothing	LV5D	03/28/24 11:35

Lab Sample ID: IC 280-647408/11 Client Sample ID:

Date Analyzed: 03/27/24 20:33 Lab File ID: 03270011.D GC Column: Luna-phenylh ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitroglycerin	15.05	Baseline Smoothing	LV5D	03/28/24 11:35

Lab Sample ID: IC 280-647408/12 Client Sample ID:

Date Analyzed: 03/27/24 21:08 Lab File ID: 03270012.D GC Column: Luna-phenylh ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitroglycerin	15.06	Baseline Smoothing	LV5D	03/28/24 11:35

Lab Sample ID: IC 280-647408/13 Client Sample ID:

Date Analyzed: 03/27/24 21:43 Lab File ID: 03270013.D GC Column: Luna-phenylh ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitroglycerin	15.07	Baseline Smoothing	LV5D	03/28/24 11:35
PETN	24.68	Baseline Smoothing	LV5D	03/28/24 11:39

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191424-1

SDG No.:

Instrument ID: CHHPLC_X5 Analysis Batch Number: 647408

Lab Sample ID: IC 280-647408/14 Client Sample ID:

Date Analyzed: 03/27/24 22:18 Lab File ID: 03270014.D GC Column: Luna-phenylh ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
3,5-Dinitroaniline	14.39	Baseline Smoothing	LV5D	03/28/24 12:08
1,3-Dinitrobenzene	14.82	Baseline Smoothing	LV5D	03/28/24 12:08
Nitroglycerin	15.07	Baseline Smoothing	LV5D	03/28/24 11:36
2-Nitrotoluene	15.75	Baseline Smoothing	LV5D	03/28/24 12:08
4-Nitrotoluene	16.02	Baseline Smoothing	LV5D	03/28/24 12:08
4-Amino-2,6-dinitrotoluene	16.51	Baseline Smoothing	LV5D	03/28/24 12:08
3-Nitrotoluene	16.88	Baseline Smoothing	LV5D	03/28/24 12:08
2-Amino-4,6-dinitrotoluene	17.39	Baseline Smoothing	LV5D	03/28/24 12:08
1,3,5-Trinitrobenzene	17.81	Baseline Smoothing	LV5D	03/28/24 12:08
PETN	24.69	Baseline Smoothing	LV5D	03/28/24 11:39

Lab Sample ID: IC 280-647408/15 Client Sample ID:

Date Analyzed: 03/27/24 22:53 Lab File ID: 03270015.D GC Column: Luna-phenylh ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitroglycerin	15.08	Baseline Smoothing	LV5D	03/28/24 11:36
2,4-Dinitrotoluene	19.32	Baseline Smoothing	LV5D	03/28/24 11:37
PETN	24.69	Baseline Smoothing	LV5D	03/28/24 11:39

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191424-1

SDG No.:

Instrument ID: CHHPLC_X5 Analysis Batch Number: 647408

Lab Sample ID: IC 280-647408/16 Client Sample ID:

Date Analyzed: 03/27/24 23:28 Lab File ID: 03270016.D GC Column: Luna-phenylh ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
3,5-Dinitroaniline	14.40	Baseline Smoothing	LV5D	03/28/24 11:36
1,3-Dinitrobenzene	14.83	Baseline Smoothing	LV5D	03/28/24 11:36
Nitroglycerin	15.08	Baseline Smoothing	LV5D	03/28/24 11:36
2-Nitrotoluene	15.76	Baseline Smoothing	LV5D	03/28/24 11:36
2,4-Dinitrotoluene	19.31	Baseline Smoothing	LV5D	03/28/24 11:36
PETN	24.69	Baseline Smoothing	LV5D	03/28/24 11:40

Lab Sample ID: IC 280-647408/17 Client Sample ID:

Date Analyzed: 03/28/24 00:03 Lab File ID: 03270017.D GC Column: Luna-phenylh ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
3,5-Dinitroaniline	14.39	Baseline Smoothing	LV5D	03/28/24 11:37
1,3-Dinitrobenzene	14.81	Baseline Smoothing	LV5D	03/28/24 11:37
Nitroglycerin	15.07	Baseline Smoothing	LV5D	03/28/24 11:37
PETN	24.69	Baseline Smoothing	LV5D	03/28/24 11:40

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191424-1

SDG No.:

Instrument ID: CHHPLC_X5 Analysis Batch Number: 647408

Lab Sample ID: IC 280-647408/18 Client Sample ID:

Date Analyzed: 03/28/24 00:38 Lab File ID: 03270018.D GC Column: Luna-phenylh ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
3,5-Dinitroaniline	14.39	Baseline Smoothing	LV5D	03/28/24 11:38
1,3-Dinitrobenzene	14.81	Baseline Smoothing	LV5D	03/28/24 11:38
Nitroglycerin	15.07	Baseline Smoothing	LV5D	03/28/24 11:37
2-Nitrotoluene	15.76	Baseline Smoothing	LV5D	03/28/24 11:39
4-Nitrotoluene	16.01	Baseline Smoothing	LV5D	03/28/24 11:38
4-Amino-2,6-dinitrotoluene	16.50	Baseline Smoothing	LV5D	03/28/24 11:38
3-Nitrotoluene	16.88	Baseline Smoothing	LV5D	03/28/24 11:38
2-Amino-4,6-dinitrotoluene	17.37	Baseline Smoothing	LV5D	03/28/24 11:38
1,3,5-Trinitrobenzene	17.81	Baseline Smoothing	LV5D	03/28/24 11:38
PETN	24.83	Baseline Smoothing	LV5D	03/28/24 11:39

Lab Sample ID: ICV 280-647408/19 Client Sample ID:

Date Analyzed: 03/28/24 01:13 Lab File ID: 03270019.D GC Column: Luna-phenylh ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitroglycerin	15.07	Baseline Smoothing	LV5D	03/28/24 11:41
PETN	24.67	Baseline Smoothing	LV5D	03/28/24 11:43

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191424-1

SDG No.:

Instrument ID: CHHPLC_X5 Analysis Batch Number: 653699

Lab Sample ID: CCV 280-653699/20 Client Sample ID:

Date Analyzed: 05/17/24 00:11 Lab File ID: 05160020.D GC Column: Luna-phenylh ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitroglycerin	14.76	Baseline Smoothing	LV5D	05/17/24 16:43
Tetryl	22.29	Baseline Smoothing	LV5D	05/17/24 16:43

Lab Sample ID: 280-191424-1 Client Sample ID: FBQmw-178-240401-GW

Date Analyzed: 05/17/24 04:16 Lab File ID: 05160027.D GC Column: Luna-phenylh ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Tetryl		Invalid Compound ID	LV5D	05/17/24 16:52

Lab Sample ID: 280-191424-1 MS Client Sample ID: FBQmw-178-240401-GW MS

Date Analyzed: 05/17/24 04:51 Lab File ID: 05160028.D GC Column: Luna-phenylh ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitroglycerin	14.75	Baseline Smoothing	LV5D	05/17/24 16:53
Tetryl	22.29	Baseline Smoothing	LV5D	05/17/24 16:53

Lab Sample ID: 280-191424-1 MSD Client Sample ID: FBQmw-178-240401-GW MSD

Date Analyzed: 05/17/24 05:26 Lab File ID: 05160029.D GC Column: Luna-phenylh ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitroglycerin	14.76	Baseline Smoothing	LV5D	05/17/24 16:53
Tetryl	22.29	Baseline Smoothing	LV5D	05/17/24 16:53

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191424-1

SDG No.:

Instrument ID: CHHPLC_X5 Analysis Batch Number: 653699

Lab Sample ID: CCV 280-653699/31 Client Sample ID:

Date Analyzed: 05/17/24 06:36 Lab File ID: 05160031.D GC Column: Luna-phenylh ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitroglycerin	14.75	Baseline Smoothing	LV5D	05/17/24 16:53

Lab Sample ID: 280-191424-5 Client Sample ID: FBQmw-178-240402-GW

Date Analyzed: 05/17/24 08:20 Lab File ID: 05160034.D GC Column: Luna-phenylh ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitroglycerin		Invalid Compound ID	LV5D	05/17/24 16:54
Tetryl		Invalid Compound ID	LV5D	05/17/24 16:54

Lab Sample ID: CCV 280-653699/35 Client Sample ID:

Date Analyzed: 05/17/24 08:55 Lab File ID: 05160035.D GC Column: Luna-phenylh ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitroglycerin	14.74	Baseline Smoothing	LV5D	05/17/24 16:54

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191424-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
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
							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

Lab Name: Eurofins Denver Job No.: 280-191424-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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_00079	05/14/24	01/23/24	Acetonitrile, Lot ACN_239	10 mL	8330_NG1000_00011	1 mL	Nitroglycerin	100 ug/mL
					8330_PETN1000_00015	1 mL	PETN	100 ug/mL
					833035DNAStk_00057	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

Lab Name: Eurofins Denver Job No.: 280-191424-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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_00074	1 mL	2,4,6-Trinitrophenol	10 ug/mL
.8330_NG1000_00011	01/23/25		Restek, Lot A0197032		(Purchased Reagent)		Nitroglycerin	1000 ug/mL
.8330_PETN1000_00015	01/23/25		Restek, Lot A0198747		(Purchased Reagent)		PETN	1000 ug/mL
.833035DNAStk_00057	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
							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_00074	01/23/25		AccuStandard, Lot 223031306		(Purchased Reagent)		2,4,6-Trinitrophenol	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191424-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
8330IntermStk_00080	05/14/24	04/17/24	Acetonitrile, Lot 223272	10 mL	8330_NG1000_00012	1 mL	Nitroglycerin	100 ug/mL
					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

Lab Name: Eurofins Denver Job No.: 280-191424-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4-Amino-2,6-dinitrotoluene	1000 ug/mL
							4-Nitrotoluene	1000 ug/mL
							HMX	1000 ug/mL
							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
8330IntermStk_00081	11/14/24	05/14/24	Acetonitrile, Lot 233276	10 mL	8330_NG1000_00014	1 mL	Nitroglycerin	100 ug/mL
					8330_PETN1000_00017	1 mL	PETN	100 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
.8330_NG1000_00014	05/14/25	Restek, Lot A0208632			(Purchased Reagent)		Nitroglycerin	1000 ug/mL
.8330_PETN1000_00017	05/14/25	Restek, Lot A0207895			(Purchased Reagent)		PETN	1000 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

Lab Name: Eurofins Denver Job No.: 280-191424-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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
							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
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

Reagent

3,5-DNA Stock_00052

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. : 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

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.

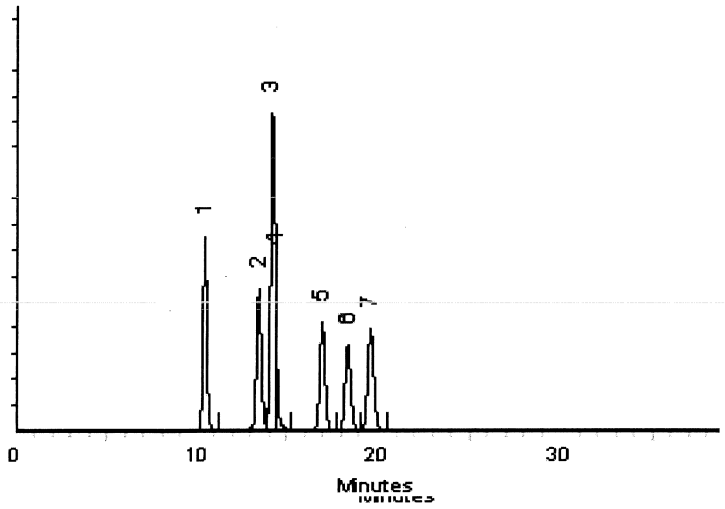
Mobile Phase A:
water:methanol (44:56 V/V)

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 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.

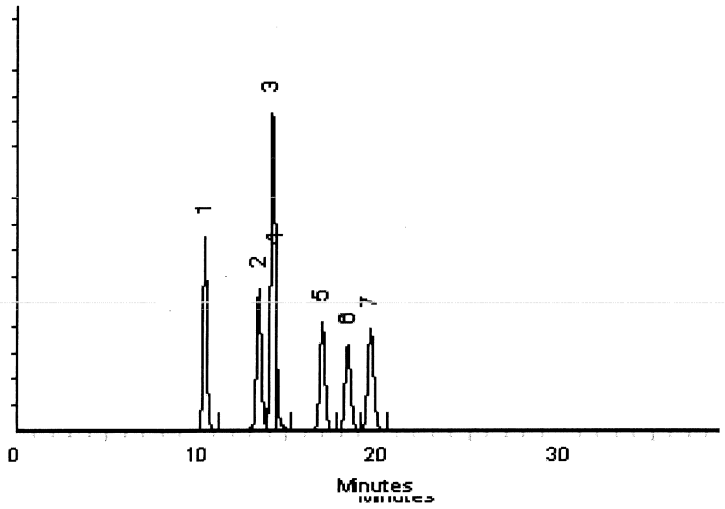
Mobile Phase A:
water:methanol (44:56 V/V)

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

Trusted Answers

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

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

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. : 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%

Quality Confirmation Test

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

Flow Rate:
1.0 ml/min.

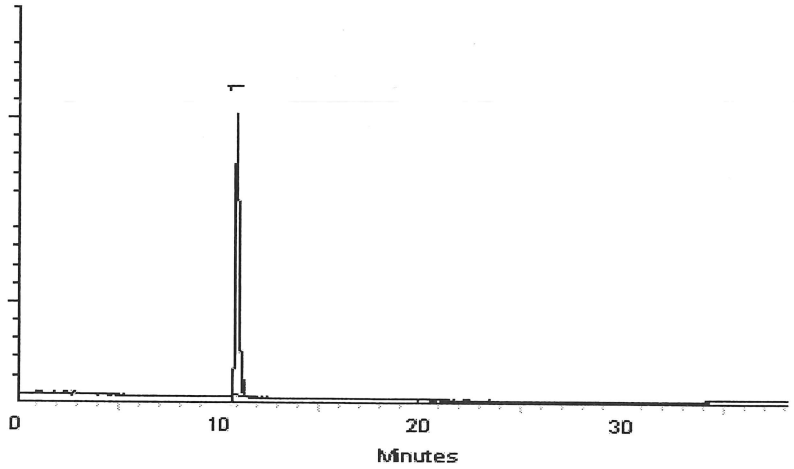
Mobile Phase A:
water:methanol (44:56 V/V)

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

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

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. : 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%

Quality Confirmation Test

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

Flow Rate:
1.0 ml/min.

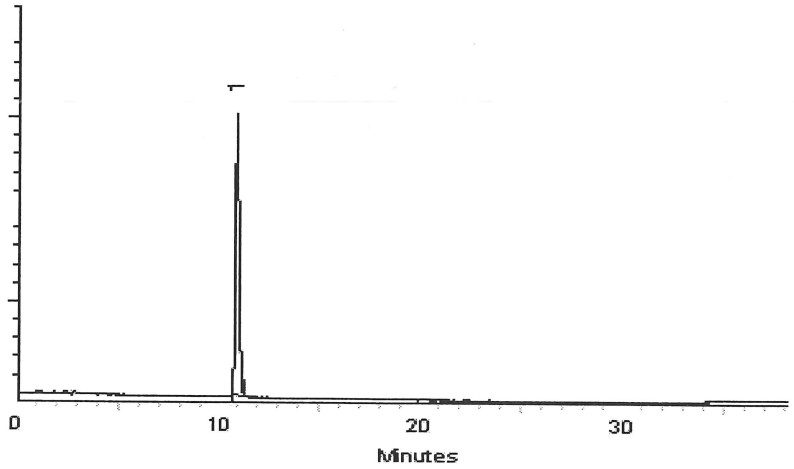
Mobile Phase A:
water:methanol (44:56 V/V)

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

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

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. : 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%

Quality Confirmation Test

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

Flow Rate:
1.0 ml/min.

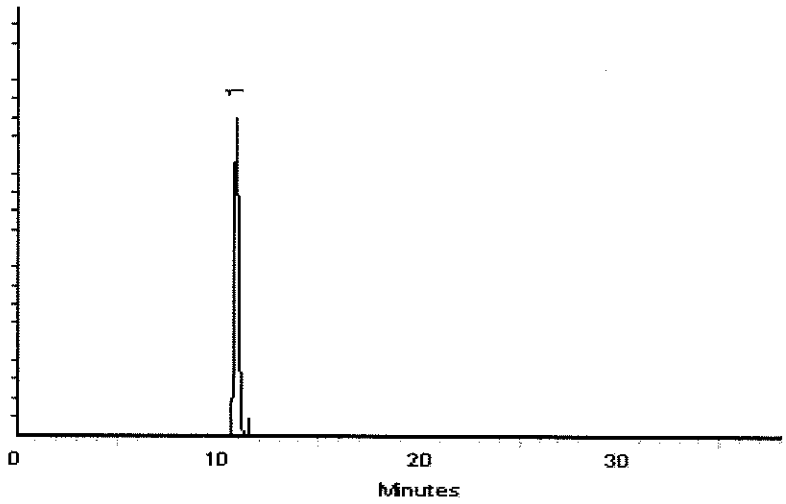
Mobile Phase A:
water:methanol (44:56 V/V)

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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Bellefonte, PA 16823-8812
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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. : 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%

Quality Confirmation Test

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

Flow Rate:
1.0 ml/min.

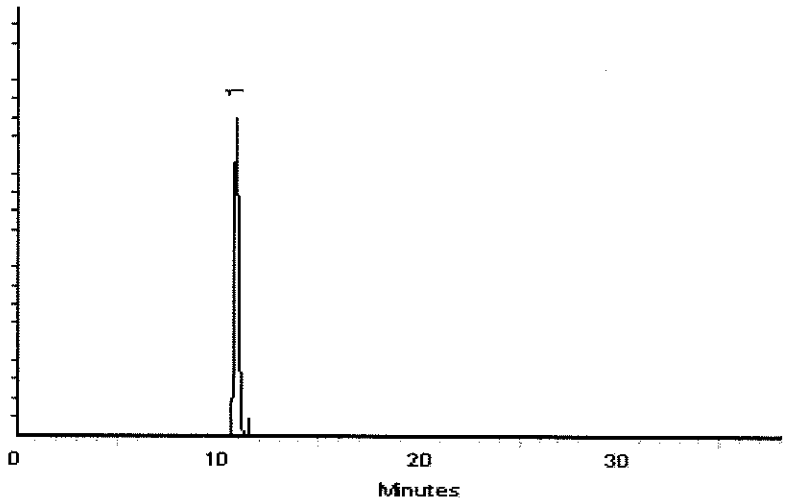
Mobile Phase A:
water:methanol (44:56 V/V)

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_NG1000_00011

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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. : 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:

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

  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

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. : 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:

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

  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_00014

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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. : 31498 **Lot No.:** A0208632

Description : Nitroglycerin Standard

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

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

Expiration Date : March 31, 2029 **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%	1,002.0 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.

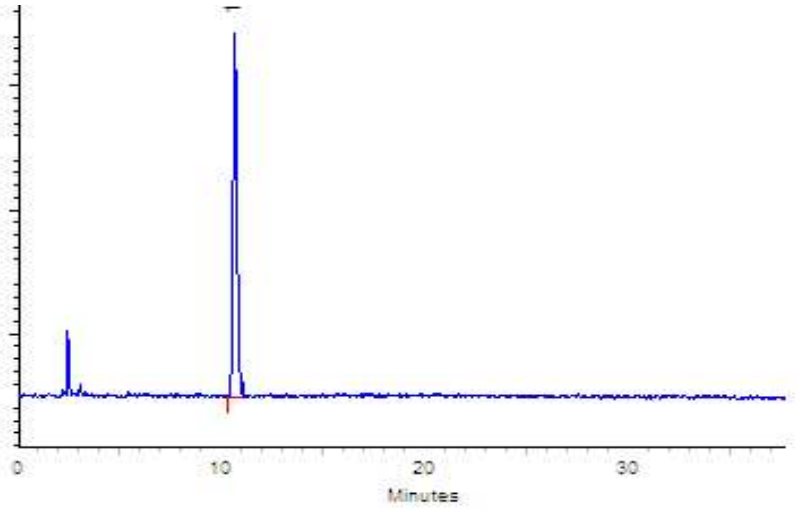
Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm

Inj. Vol
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.

Morgan Craighead - Mix Technician

Date Mixed: 04-Mar-2024 **Balance Serial #** 1128342314

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 06-Mar-2024

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_00152

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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.

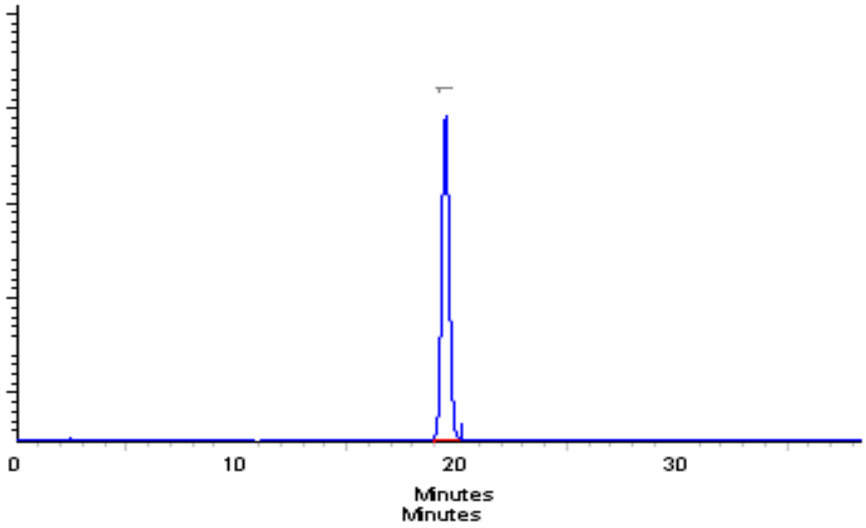
Mobile Phase A:
water:methanol (44:56 V/V)

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:

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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_PETN_Stk_00153

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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.

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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.

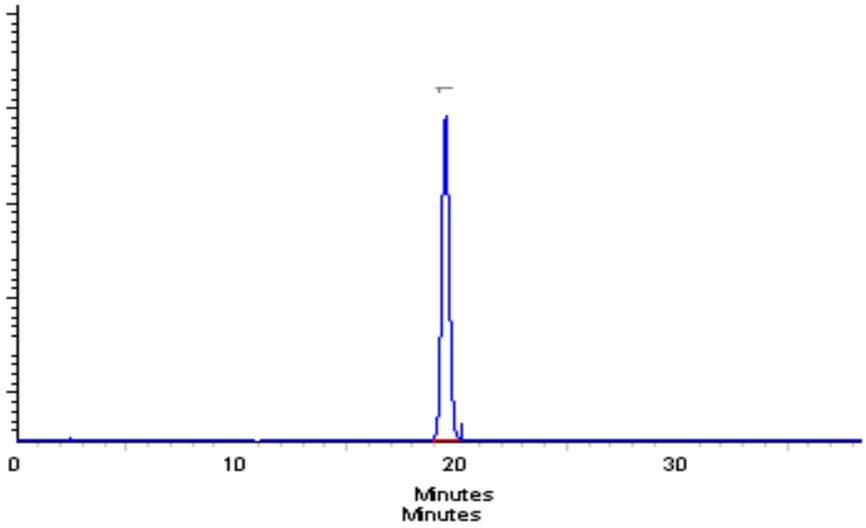
Mobile Phase A:
water:methanol (44:56 V/V)

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:

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- 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.

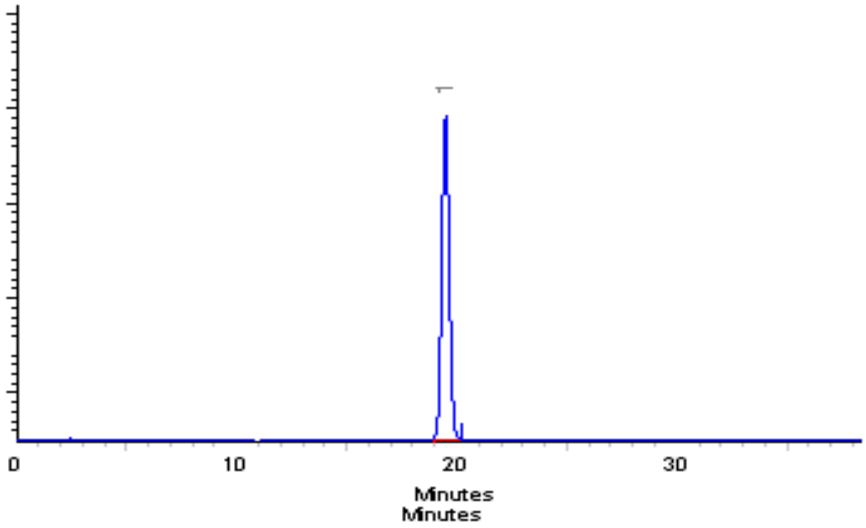
Mobile Phase A:
water:methanol (44:56 V/V)

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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110 Benner Circle
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Fax: 1-814-353-1309

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic

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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.

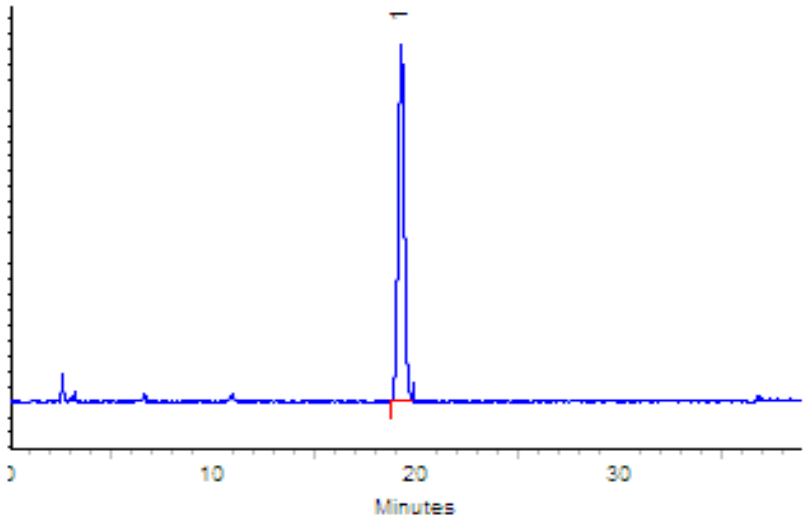
Mobile Phase A:
water:methanol (44:56 V/V)

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:

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

  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_PETN1000_00015

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

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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. : 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%

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_PETN1000_00016

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

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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. : 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%

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_PETN1000_00017

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

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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. : 31600 **Lot No.:** A0207895

Description : PETN Standard

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

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

Expiration Date : February 28, 2029 **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%	1,006.3 µg/mL	+/- 46.9434

* 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.

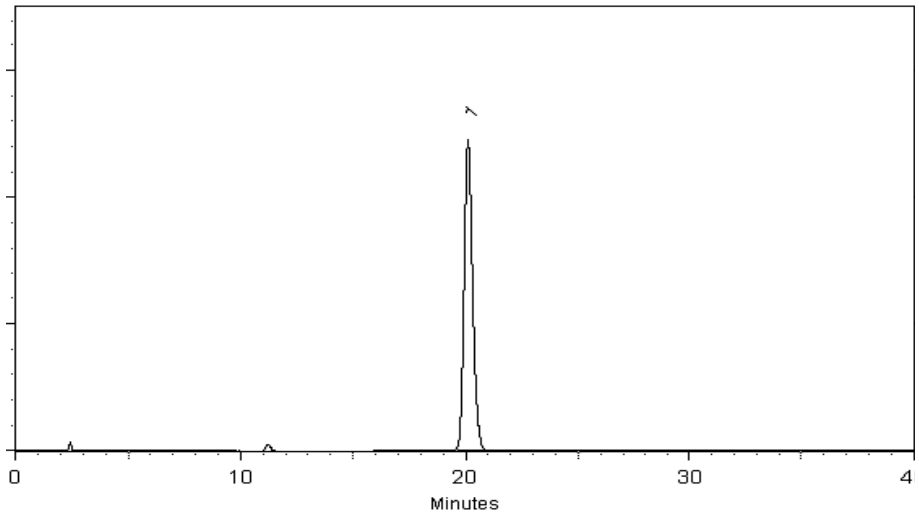
Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm

Inj. Vol
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.

John Friedline - Operations Technician I

Date Mixed: 15-Feb-2024 **Balance Serial #** 1127510105

Dillan Murphy - Operations Technician I

Date Passed: 20-Feb-2024

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

833035DNAStk_00057

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 REFERENCE MATERIAL PRODUCER 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.

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

833035DNAStk_00059

125 Market Street
New Haven, CT 06513
USA

AccuStandard®

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Fax (203)786-5287
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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.

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
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CERTIFIED REFERENCE MATERIAL

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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.

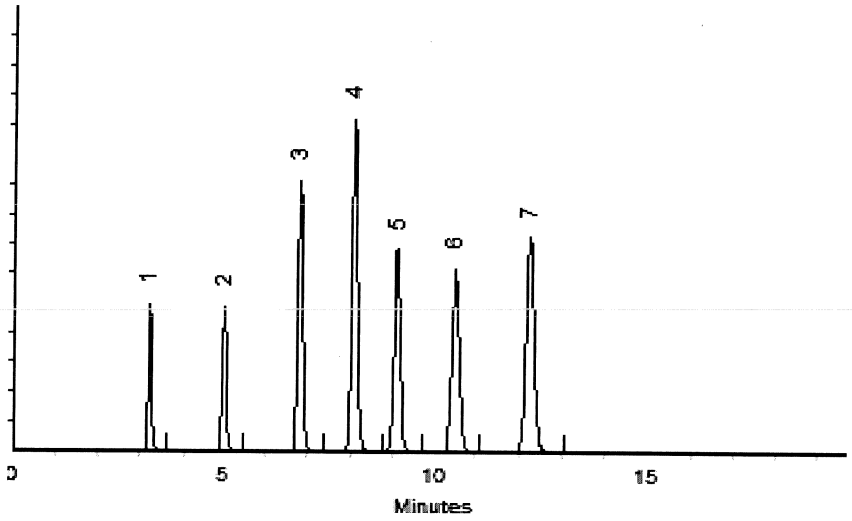
Mobile Phase A:
water:methanol (44:56 V/V)

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

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
ACCREDITED
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.

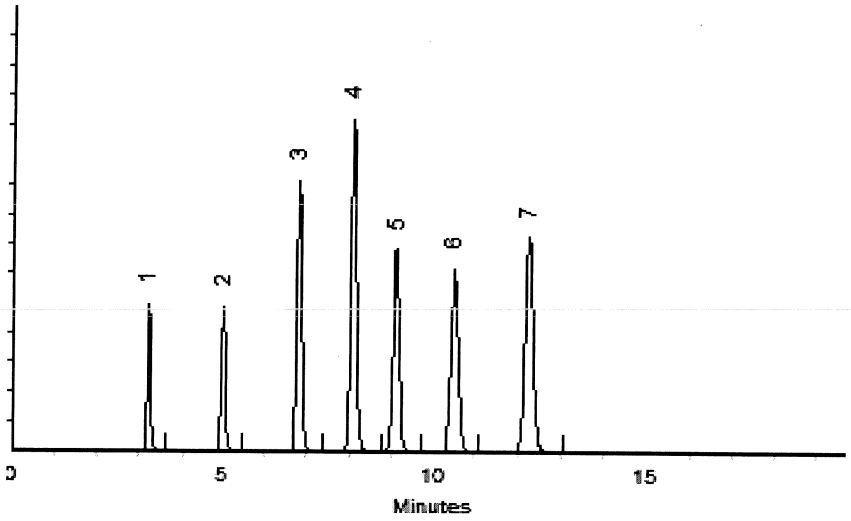
Mobile Phase A:
water:methanol (44:56 V/V)

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_00074

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-3
Description: Picric acid
Lot: 223031306
Solvent: Acetonitrile (50%)
Methanol (50%)
Hazards: *Refer to SDS for complete safety information*

Signal Word: Danger

Date Certified: Mar 23, 2023
Expiration: Apr 23, 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 #	Purity[3] %	Prepared Concentration[2] (µg/mL)	Certified Analyte Concentration[1] (µg/mL)
Picric acid	88-89-1	99.1	100.4	99.5

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.

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

8330PAStkPS_00075

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-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.

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

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

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%

Quality Confirmation Test

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

Flow Rate:
1.0 ml/min.

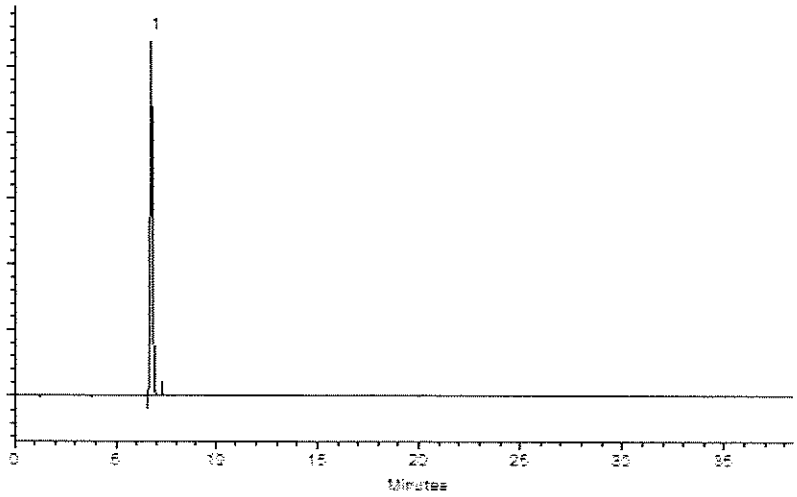
Mobile Phase A:
water:methanol (44:56 V/V)

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_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

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

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%

Quality Confirmation Test

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

Flow Rate:
1.0 ml/min.

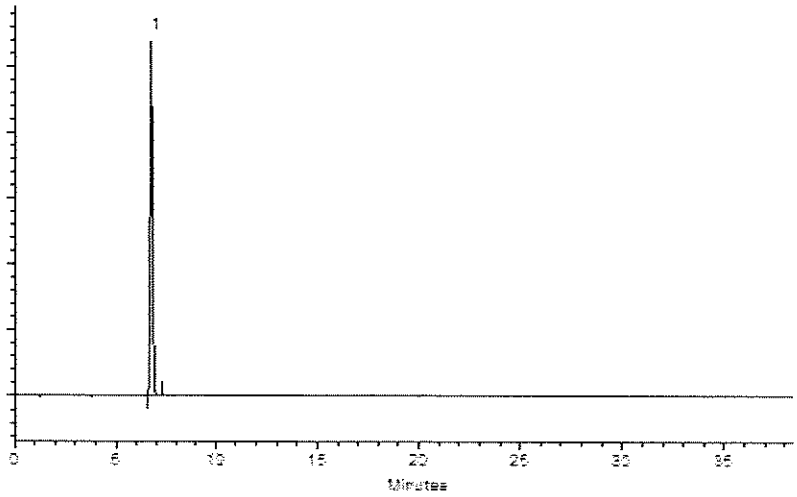
Mobile Phase A:
water:methanol (44:56 V/V)

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_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

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%

Quality Confirmation Test

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

Flow Rate:
1.0 ml/min.

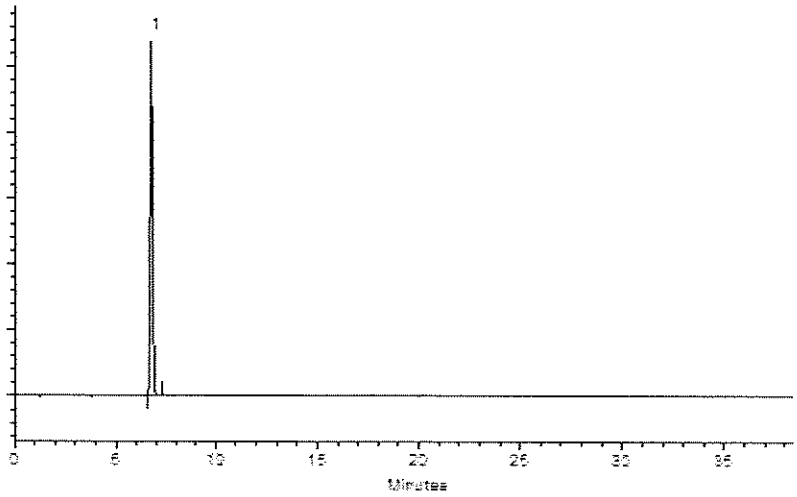
Mobile Phase A:
water:methanol (44:56 V/V)

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_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

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%

Quality Confirmation Test

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

Flow Rate:
1.0 ml/min.

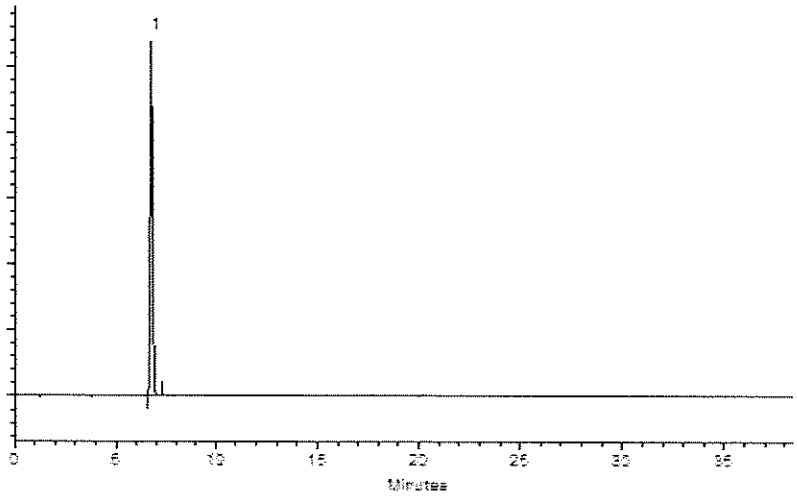
Mobile Phase A:
water:methanol (44:56 V/V)

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

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%

Quality Confirmation Test

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

Flow Rate:
1.0 ml/min.

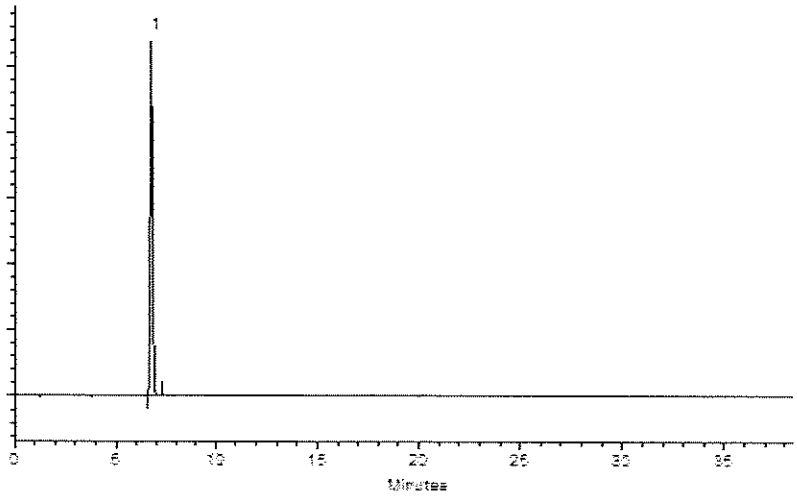
Mobile Phase A:
water:methanol (44:56 V/V)

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

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

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%

Quality Confirmation Test

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

Flow Rate:
1.0 ml/min.

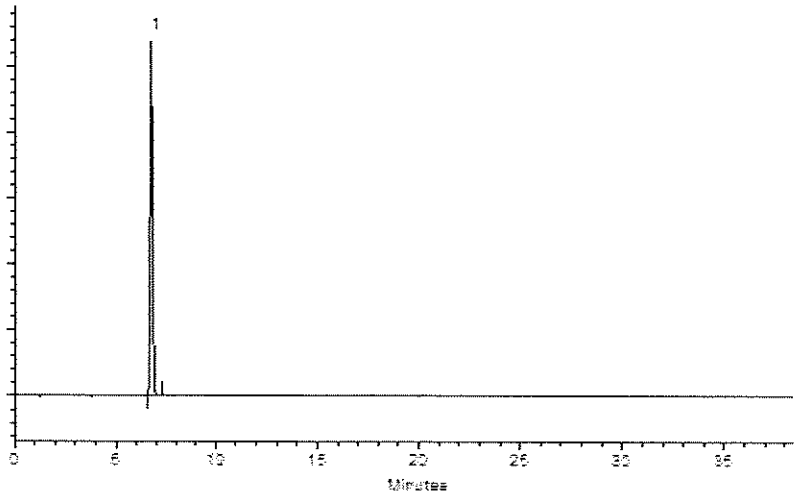
Mobile Phase A:
water:methanol (44:56 V/V)

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_00316

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

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%

Quality Confirmation Test

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

Flow Rate:
1.0 ml/min.

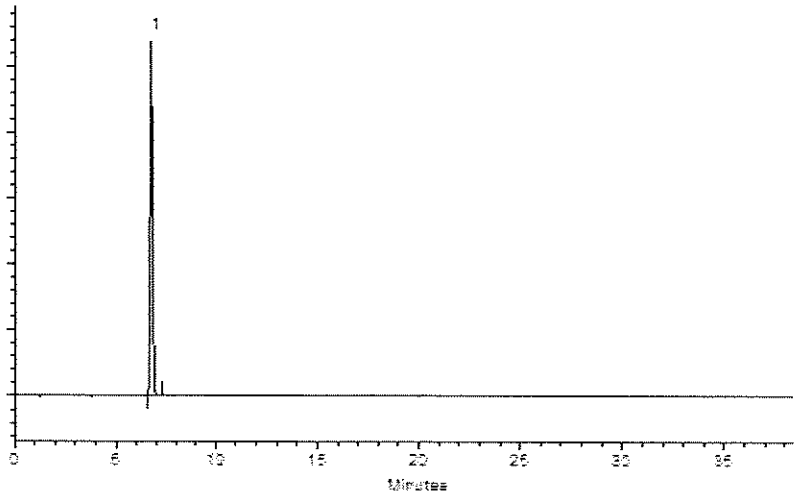
Mobile Phase A:
water:methanol (44:56 V/V)

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_00317

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

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%

Quality Confirmation Test

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

Flow Rate:
1.0 ml/min.

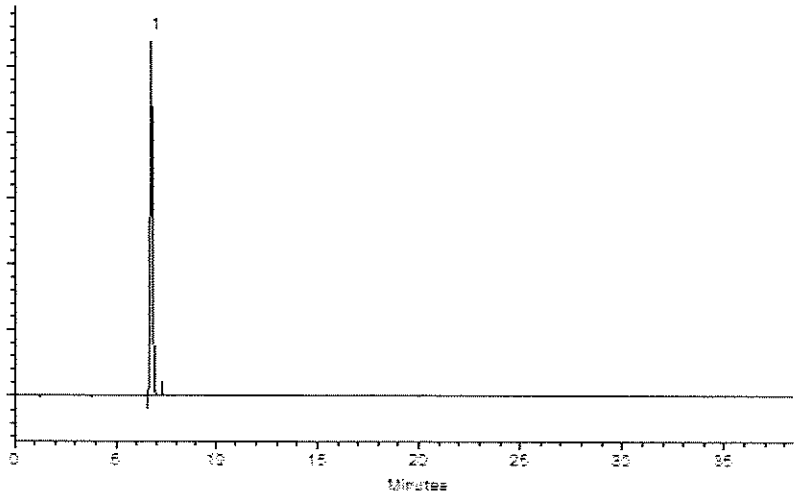
Mobile Phase A:
water:methanol (44:56 V/V)

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_00318

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. : 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.

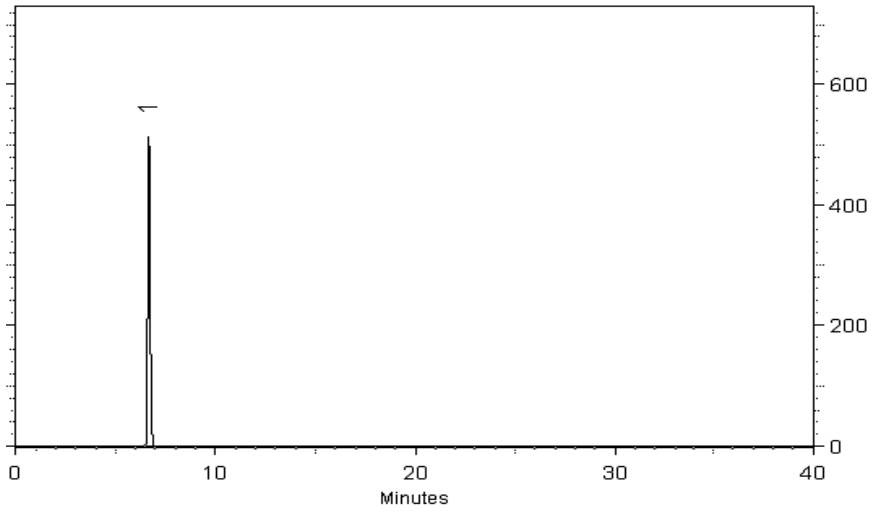
Mobile Phase A:
water:methanol (44:56 V/V)

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

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

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.

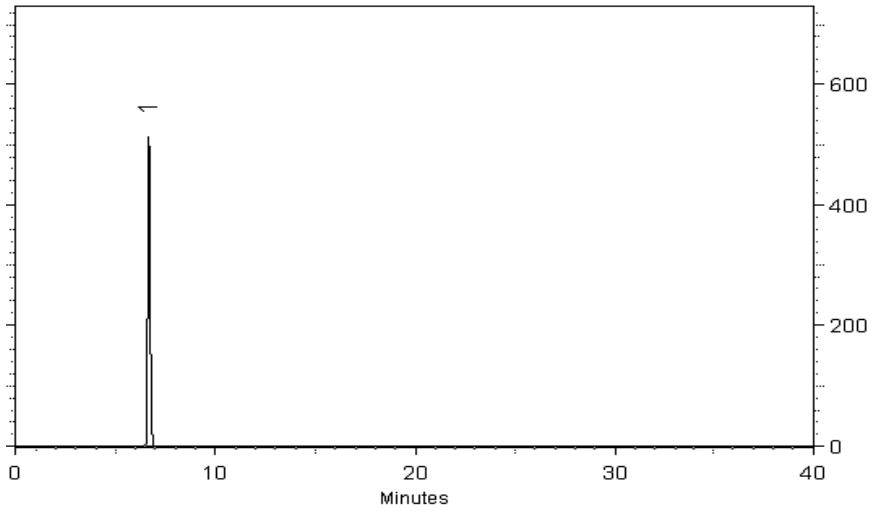
Mobile Phase A:
water:methanol (44:56 V/V)

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:

- 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.

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

MNX,TNX,DNX_00092

Agilent
Trusted Answers

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.

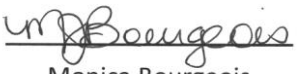
Safety:
Refer to the Safety Data Sheet on www.agilent.com for information regarding this analytical reference material.

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

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.

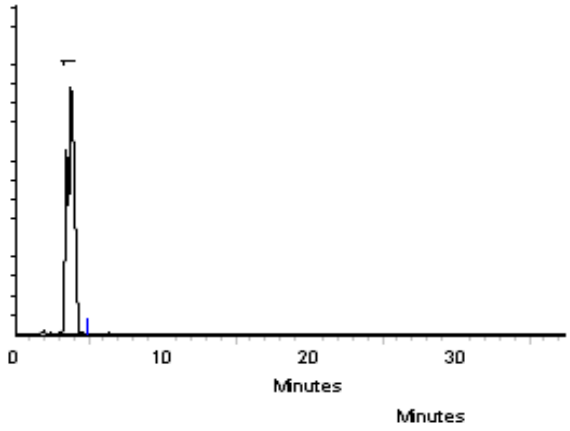
Mobile Phase A:
water:methanol (44:56 V/V)

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.: 280-191424-1

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 #
FBQmw-178-240401-GW	280-191424-1	87	
FBQmw-178-240401-GW	280-191424-1		93
FBQmw-178-240401-GW RE	280-191424-1 RE	101 M	
FBQmw-179-240401-GW	280-191424-2	97	
FBQmw-179-240401-GW RE	280-191424-2 RE	83	
FBQmw-180-240401-GW	280-191424-3	80 M Q	
FBQmw-180-240401-GW	280-191424-3		78 Q
FBQmw-180-240401-GW RE	280-191424-3 RE	106	
FBQmw-181-240401-GW	280-191424-4	90	
FBQmw-181-240401-GW RE	280-191424-4 RE	104	
FBQmw-178-240402-GW	280-191424-5	69 M Q	
FBQmw-178-240402-GW	280-191424-5		75 Q
FBQmw-178-240402-GW RE	280-191424-5 RE	98	
	MB 280-653460/1-A	96 M	
	MB 280-654401/1-A	105	
	LCS 280-653460/2-A	84	
	LCS 280-654401/2-A	97	
	LCSD 280-653460/3-A	84	
FBQmw-178-240401-GW MS	280-191424-1 MS	91 M	
FBQmw-178-240401-GW MS	280-191424-1 MS		103
FBQmw-178-240401-GW MS RE	280-191424-1 MS RE	99 M	
FBQmw-178-240401-GW MSD	280-191424-1 MSD	95 M	
FBQmw-178-240401-GW MSD	280-191424-1 MSD		104
FBQmw-178-240401-GW MSD RE	280-191424-1 MSD RE	99 M	

	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.: 280-191424-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 05160015.D

Lab ID: LCS 280-653460/2-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,3,5-Trinitrobenzene	2.00	1.89	94	73-125	
1,3-Dinitrobenzene	2.00	1.77	89	78-120	
2,4,6-Trinitrotoluene	2.00	1.74	87	71-123	
2,4-Dinitrotoluene	2.00	1.64	82	78-120	
2,6-Dinitrotoluene	2.00	1.67	84	77-127	
2-Amino-4,6-dinitrotoluene	2.00	1.69	84	79-120	
2-Nitrotoluene	2.00	1.20	60	70-127	Q
3-Nitrotoluene	2.00	1.19	60	73-125	Q
4-Amino-2,6-dinitrotoluene	2.00	1.74	87	76-125	
4-Nitrotoluene	2.00	1.19	60	71-127	Q
HMX	2.00	1.64	82	65-135	M
Nitrobenzene	2.00	1.50	75	65-134	
Nitroglycerin	20.0	18.9	95	74-127	
PETN	20.0	19.9	99	73-127	
RDX	2.00	1.76	88	68-130	
Tetryl	2.00	1.76	88	64-128	

Column to be used to flag recovery and RPD values

FORM III 8330B

FORM III
HPLC/IC LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-191424-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 05230017.D

Lab ID: LCS 280-654401/2-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,3,5-Trinitrobenzene	2.00	2.05	102	73-125	M
1,3-Dinitrobenzene	2.00	1.87	93	78-120	
2,4,6-Trinitrotoluene	2.00	1.85	92	71-123	
2,4-Dinitrotoluene	2.00	1.67	83	78-120	
2,6-Dinitrotoluene	2.00	1.70	85	77-127	
2-Amino-4,6-dinitrotoluene	2.00	1.75	87	79-120	
2-Nitrotoluene	2.00	1.22	61	70-127	Q
3-Nitrotoluene	2.00	1.14	57	73-125	M Q
4-Amino-2,6-dinitrotoluene	2.00	1.78	89	76-125	
4-Nitrotoluene	2.00	1.20	60	71-127	Q
HMX	2.00	1.84	92	65-135	M
Nitrobenzene	2.00	1.57	79	65-134	
Nitroglycerin	20.0	21.2	106	74-127	
PETN	20.0	22.2	111	73-127	
RDX	2.00	1.99	100	68-130	
Tetryl	2.00	1.89	95	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.: 280-191424-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 05160016.D

Lab ID: LCSD 280-653460/3-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	1.89	94	0	20	73-125	
1,3-Dinitrobenzene	2.00	1.75	87	1	20	78-120	
2,4,6-Trinitrotoluene	2.00	1.75	87	1	20	71-123	
2,4-Dinitrotoluene	2.00	1.60	80	3	20	78-120	
2,6-Dinitrotoluene	2.00	1.59	80	5	20	77-127	
2-Amino-4,6-dinitrotoluene	2.00	1.66	83	2	20	79-120	
2-Nitrotoluene	2.00	1.15	57	5	20	70-127	Q
3-Nitrotoluene	2.00	1.14	57	5	20	73-125	Q
4-Amino-2,6-dinitrotoluene	2.00	1.69	84	3	20	76-125	
4-Nitrotoluene	2.00	1.10	55	8	20	71-127	Q
HMX	2.00	1.68	84	3	20	65-135	M
Nitrobenzene	2.00	1.43	72	5	20	65-134	
Nitroglycerin	20.0	19.2	96	1	20	74-127	
PETN	20.0	20.3	102	2	20	73-127	
RDX	2.00	1.73	87	2	20	68-130	
Tetryl	2.00	1.86	93	5	20	64-128	

Column to be used to flag recovery and RPD values

FORM III 8330B

FORM III
HPLC/IC MATRIX SPIKE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-191424-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 05160032.D

Lab ID: 280-191424-1 MS Client ID: FBQmw-178-240401-GW MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
1,3-Dinitrobenzene	2.13	0.11 U	2.06	97	78-120	
2,4,6-Trinitrotoluene	2.13	0.11 U	2.06	97	71-123	
2,4-Dinitrotoluene	2.13	0.086 U	2.34	110	78-120	
2,6-Dinitrotoluene	2.13	0.086 U	2.06	97	77-127	
2-Amino-4,6-dinitrotoluene	2.13	0.11 U	2.06	97	79-120	
4-Amino-2,6-dinitrotoluene	2.13	0.13 U	2.11	99	76-125	
HMX	2.13	0.21 U	2.26	106	65-135	M
Nitrobenzene	2.13	0.21 U	1.88	88	65-134	
Nitroglycerin	21.3	2.1 U	21.8	102	74-127	
PETN	21.3	1.1 U	22.9	108	73-127	
RDX	2.13	2.0	3.88	87	68-130	
Tetryl	2.13	0.11 U	2.10	99	64-128	

Column to be used to flag recovery and RPD values

FORM III 8330B

FORM III
HPLC/IC MATRIX SPIKE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-191424-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 05160028.D

Lab ID: 280-191424-1 MS Client ID: FBQmw-178-240401-GW MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
1,3,5-Trinitrobenzene	2.13	0.21 U	2.35	110	73-125	
RDX	2.13	0.32	2.19	88	68-130	

Column to be used to flag recovery and RPD values

FORM III 8330B

FORM III
HPLC/IC MATRIX SPIKE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-191424-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 05230031.D

Lab ID: 280-191424-1 MS RE Client ID: FBQmw-178-240401-GW MS RE

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
2-Nitrotoluene	2.20	0.21 U	2.26	103	70-127	H
3-Nitrotoluene	2.20	0.37 U	2.30	104	73-125	H
4-Nitrotoluene	2.20	0.42 U	2.17	98	71-127	H

Column to be used to flag recovery and RPD values

FORM III 8330B

FORM III
HPLC/IC MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-191424-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 05160033.D

Lab ID: 280-191424-1 MSD Client ID: FBQmw-178-240401-GW MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,3-Dinitrobenzene	2.18	2.14	98	4	20	78-120	
2,4,6-Trinitrotoluene	2.18	2.14	99	4	20	71-123	
2,4-Dinitrotoluene	2.18	2.44	112	4	20	78-120	
2,6-Dinitrotoluene	2.18	2.13	98	3	20	77-127	
2-Amino-4,6-dinitrotoluene	2.18	2.13	98	4	20	79-120	
4-Amino-2,6-dinitrotoluene	2.18	2.19	100	4	20	76-125	
HMX	2.18	2.32	107	3	20	65-135	M
Nitrobenzene	2.18	1.96	90	4	20	65-134	
Nitroglycerin	21.8	22.4	103	3	20	74-127	
PETN	21.8	23.7	109	3	20	73-127	
RDX	2.18	4.14	97	7	20	68-130	
Tetryl	2.18	2.22	102	5	20	64-128	

Column to be used to flag recovery and RPD values

FORM III 8330B

FORM III
HPLC/IC MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-191424-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 05160029.D

Lab ID: 280-191424-1 MSD Client ID: FBQmw-178-240401-GW MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,3,5-Trinitrobenzene	2.18	2.41	111	3	20	73-125	
RDX	2.18	2.36	94	7	20	68-130	

Column to be used to flag recovery and RPD values

FORM III 8330B

FORM III
HPLC/IC MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-191424-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 05230032.D

Lab ID: 280-191424-1 MSD RE Client ID: FBQmw-178-240401-GW MSD RE

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
2-Nitrotoluene	2.21	2.32	105	2	20	70-127	H
3-Nitrotoluene	2.21	2.40	109	5	20	73-125	H
4-Nitrotoluene	2.21	2.19	99	1	20	71-127	H

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.: 280-191424-1

SDG No.:

Lab Sample ID: MB 280-653460/1-A

Matrix: Water Date Extracted: 05/15/2024 12:30

Lab File ID:(1) 05160014.D Lab File ID:(2)

Date Analyzed:(1) 05/16/2024 17:14 Date Analyzed:(2)

Instrument ID:(1) CHHPLC_X3 Instrument ID:(2) CHHPLC_X5

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 280-653460/2-A	05/16/2024 17:37	
	LCSD 280-653460/3-A	05/16/2024 18:00	
FBQmw-178-240401-GW	280-191424-1	05/16/2024 23:44	05/17/2024 04:16
FBQmw-178-240401-GW MS	280-191424-1 MS	05/17/2024 00:07	05/17/2024 04:51
FBQmw-178-240401-GW MSD	280-191424-1 MSD	05/17/2024 00:30	05/17/2024 05:26
FBQmw-179-240401-GW	280-191424-2	05/17/2024 00:53	
FBQmw-180-240401-GW	280-191424-3	05/17/2024 01:39	05/17/2024 07:11
FBQmw-181-240401-GW	280-191424-4	05/17/2024 02:02	
FBQmw-178-240402-GW	280-191424-5	05/17/2024 02:25	05/17/2024 08:20

FORM IV
HPLC/IC METHOD BLANK SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191424-1

SDG No.:

Lab Sample ID: MB 280-654401/1-A

Matrix: Water Date Extracted: 05/22/2024 14:37

Lab File ID:(1) 05230016.D Lab File ID:(2)

Date Analyzed:(1) 05/23/2024 18:29 Date Analyzed:(2)

Instrument ID:(1) CHHPLC_X3 Instrument ID:(2)

GC Column:(1) UltraCarb5uO ID: 4.6(mm) GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 280-654401/2-A	05/23/2024 18:52	
FBQmw-178-240401-GW RE	280-191424-1 RE	05/23/2024 23:50	
FBQmw-178-240401-GW MS RE	280-191424-1 MS RE	05/24/2024 00:13	
FBQmw-178-240401-GW MSD RE	280-191424-1 MSD RE	05/24/2024 00:36	
FBQmw-179-240401-GW RE	280-191424-2 RE	05/24/2024 00:59	
FBQmw-180-240401-GW RE	280-191424-3 RE	05/24/2024 01:22	
FBQmw-181-240401-GW RE	280-191424-4 RE	05/24/2024 01:45	
FBQmw-178-240402-GW RE	280-191424-5 RE	05/24/2024 02:08	

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191424-1

SDG No.:

Client Sample ID: FBQmw-178-240401-GW Lab Sample ID: 280-191424-1

Instrument ID (1): CHHPLC_X3 Instrument ID (2): CHHPLC_X5

Date Analyzed (1): 05/16/2024 23:44 Date Analyzed (2): 05/17/2024 04:16

GC Column (1): UltraCarb5uODS ID: 4.6(mm) GC Column (2): Luna-phenylh ID: 4.6(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
RDX	1		7.65	7.48	7.78	2.0		144.9
	2		8.74	8.55	8.85	0.32		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191424-1

SDG No.:

Client Sample ID: FBQmw-178-240401-GW MS Lab Sample ID: 280-191424-1 MS

Instrument ID (1): CHHPLC_X3 Instrument ID (2): CHHPLC_X5

Date Analyzed (1): 05/17/2024 00:07 Date Analyzed (2): 05/17/2024 04:51

GC Column (1): UltraCarb5uODS ID: 4.6(mm) GC Column (2): Luna-phenylh ID: 4.6(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
HMX	1		6.62	6.47	6.77	2.26		20.6
	2		6.65	6.52	6.82	1.84		
RDX	1		7.64	7.48	7.78	3.88		55.6
	2		8.69	8.55	8.85	2.19		
1,3,5-Trinitrobenzene	1		8.69	8.54	8.84	2.30		2.4
	2		17.51	17.36	17.66	2.35		
1,3-Dinitrobenzene	1		9.31	9.15	9.45	2.06		16.3
	2		14.57	14.42	14.72	2.43		
Nitrobenzene	1		9.67	9.50	9.80	1.88		18.4
	2		11.34	11.20	11.50	2.26		
Tetryl	1		9.98	9.81	10.11	2.10		3.9
	2		22.29	22.13	22.43	2.02		
Nitroglycerin	1		10.45	10.28	10.58	21.8		9.6
	2		14.75	14.61	14.91	24.0		
2,4,6-Trinitrotoluene	1		10.88	10.76	10.96	2.06		1.3
	2		23.27	23.11	23.41	2.04		
2-Amino-4,6-dinitrotoluene	1		11.31	11.18	11.38	2.06		38.4
	2		17.04	16.91	17.21	3.03		
2,6-Dinitrotoluene	1		11.45	11.33	11.53	2.06		7.6
	2		18.47	18.32	18.62	2.23		
2,4-Dinitrotoluene	1		11.63	11.51	11.71	2.34		12.0
	2		18.97	18.81	19.11	2.08		
2-Nitrotoluene	1		12.40	12.24	12.54	2.03		140.6
	2		15.43	15.30	15.60	11.6		
3-Nitrotoluene	1		13.37	13.20	13.50	1.82		40.2
	2		16.57	16.41	16.71	1.21		
PETN	1		14.41	14.25	14.55	22.9		6.0
	2		24.19	24.03	24.33	21.6		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191424-1

SDG No.:

Client Sample ID: FBQmw-178-240401-GW MSD Lab Sample ID: 280-191424-1 MSD

Instrument ID (1): CHHPLC_X3 Instrument ID (2): CHHPLC_X5

Date Analyzed (1): 05/17/2024 00:30 Date Analyzed (2): 05/17/2024 05:26

GC Column (1): UltraCarb5uODS ID: 4.6(mm) GC Column (2): Luna-phenylh ID: 4.6(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
HMX	1		6.62	6.47	6.77	2.32		21.6
	2		6.66	6.52	6.82	1.87		
RDX	1		7.64	7.48	7.78	4.14		54.9
	2		8.69	8.55	8.85	2.36		
1,3,5-Trinitrobenzene	1		8.69	8.54	8.84	2.37		1.5
	2		17.51	17.36	17.66	2.41		
1,3-Dinitrobenzene	1		9.31	9.15	9.45	2.14		17.9
	2		14.56	14.42	14.72	2.56		
Nitrobenzene	1		9.66	9.50	9.80	1.96		18.7
	2		11.34	11.20	11.50	2.36		
Tetryl	1		9.97	9.81	10.11	2.22		5.3
	2		22.29	22.13	22.43	2.10		
Nitroglycerin	1		10.44	10.28	10.58	22.4		7.3
	2		14.76	14.61	14.91	24.1		
2,4,6-Trinitrotoluene	1		10.87	10.76	10.96	2.14		1.2
	2		23.27	23.11	23.41	2.12		
2-Amino-4,6-dinitrotoluene	1		11.30	11.18	11.38	2.13		39.2
	2		17.04	16.91	17.21	3.17		
2,6-Dinitrotoluene	1		11.45	11.33	11.53	2.13		5.5
	2		18.48	18.32	18.62	2.25		
2,4-Dinitrotoluene	1		11.63	11.51	11.71	2.44		14.1
	2		18.96	18.81	19.11	2.12		
2-Nitrotoluene	1		12.39	12.24	12.54	2.11		140.5
	2		15.43	15.30	15.60	12.1		
3-Nitrotoluene	1		13.36	13.20	13.50	1.89		42.8
	2		16.57	16.41	16.71	1.22		
PETN	1		14.41	14.25	14.55	23.7		7.5
	2		24.20	24.03	24.33	21.9		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191424-1

SDG No.:

Client Sample ID: FBQmw-180-240401-GW Lab Sample ID: 280-191424-3

Instrument ID (1): CHHPLC_X3 Instrument ID (2): CHHPLC_X5

Date Analyzed (1): 05/17/2024 01:39 Date Analyzed (2): 05/17/2024 07:11

GC Column (1): UltraCarb5uODS ID: 4.6(mm) GC Column (2): Luna-phenylh ID: 4.6(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
2-Nitrotoluene	1		12.35	12.24	12.54	0.16		167.1
	2		15.43	15.30	15.60	1.7		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191424-1

SDG No.:

Client Sample ID: FBQmw-178-240402-GW Lab Sample ID: 280-191424-5

Instrument ID (1): CHHPLC_X3 Instrument ID (2): CHHPLC_X5

Date Analyzed (1): 05/17/2024 02:25 Date Analyzed (2): 05/17/2024 08:20

GC Column (1): UltraCarb5uODS ID: 4.6(mm) GC Column (2): Luna-phenylh ID: 4.6(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
RDX	1		7.65	7.48	7.78	2.4		158.7
	2		8.72	8.55	8.85	0.28		
2-Nitrotoluene	1		12.36	12.24	12.54	0.47		177.7
	2		15.42	15.30	15.60	8.0		

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-191424-1

SDG No.:

Client Sample ID: FBQmw-178-240401-GW | Lab Sample ID: 280-191424-1

Matrix: Water | Lab File ID: 05160031.D

Analysis Method: 8330B | Date Collected: 05/09/2024 09:15

Extraction Method: 3535 | Date Extracted: 05/15/2024 12:30

Sample wt/vol: 467(mL) | Date Analyzed: 05/16/2024 23:44

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.: 653693 | 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	0.048
121-14-2	2,4-Dinitrotoluene	0.086	U M	0.11	0.086	0.029
606-20-2	2,6-Dinitrotoluene	0.086	U	0.11	0.086	0.043
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 M Q	0.22	0.21	0.092
99-08-1	3-Nitrotoluene	0.37	U Q	0.43	0.37	0.21
19406-51-0	4-Amino-2,6-dinitrotoluene	0.13	U	0.16	0.13	0.062
99-99-0	4-Nitrotoluene	0.43	U Q	0.44	0.43	0.11
2691-41-0	HMX	0.21	U M	0.22	0.21	0.094
98-95-3	Nitrobenzene	0.21	U	0.22	0.21	0.097
55-63-0	Nitroglycerin	2.1	U	2.2	2.1	0.99
78-11-5	PETN	1.1	U	1.2	1.1	0.48
121-82-4	RDX	2.0	J1	0.22	0.21	0.055
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	87		83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240516-133471.b\05160031.D
Lims ID: 280-191424-A-1-A
Client ID: FBQmw-178-240401-GW
Sample Type: Client
Inject. Date: 16-May-2024 23:44:49 ALS Bottle#: 31 Worklist Smp#: 31
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-191424-A-1-A
Operator ID: JZ Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20240516-133471.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 17-May-2024 12:38:15 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: CTX1618

First Level Reviewer: LV5D Date: 17-May-2024 12:35:09

	Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/mL	Flags
	1 Triamine Trinitrobenzene	1		2.444			ND	
	2 2,6-diamino-4-nitrotoluene	1	6.447	6.460	-0.013	4585	0.0106	7M
	3 TNX	1	6.514	6.506	0.008	3317	0.0167	M
	4 HMX	1		6.621			ND	MU
	5 2,4-diamino-6-nitrotoluene	1	6.627	6.633	-0.006	6507	0.0411	M
	6 DNX	1	6.880	6.892	-0.012	4561	0.0310	M
	7 MNX	1	7.280	7.258	0.022	5506	0.0403	
	8 RDX	1	7.654	7.628	0.026	21014	0.1897	
	9 2,4,6-Trinitrophenol	1		7.861			ND	U
$	10 1,2-Dinitrobenzene	1	8.560	8.554	0.006	23088	0.1747	
	11 1,3,5-Trinitrobenzene	1	8.720	8.694	0.026	2016	0.009046	M
	12 1,3-Dinitrobenzene	1		9.301			ND	U
	13 Nitrobenzene	1		9.654			ND	
	14 3,5-Dinitroaniline	1		9.881			ND	
	15 Tetryl	1		9.961			ND	
	16 Nitroglycerin	2		10.434			ND	
	17 2,4,6-Trinitrotoluene	1		10.861			ND	
	18 4-Amino-2,6-dinitrotoluene	1		11.027			ND	
	19 2-Amino-4,6-dinitrotoluene	1		11.281			ND	
	20 2,6-Dinitrotoluene	1		11.434			ND	
	21 2,4-Dinitrotoluene	1		11.607			ND	U
	22 o-Nitrotoluene	1		12.387			ND	U
	23 p-Nitrotoluene	1		12.801			ND	
	24 m-Nitrotoluene	1		13.347			ND	
	25 PETN	2		14.401			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

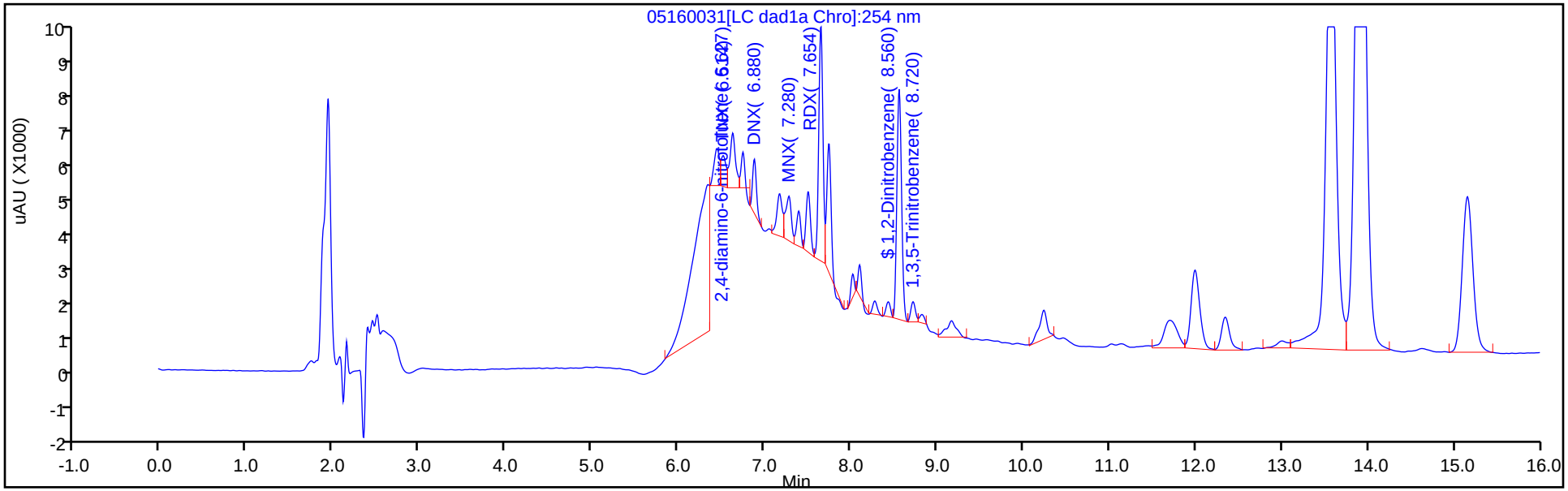
Report Date: 17-May-2024 12:38:21 Chrom Revision: 2.3 14-May-2024 14:23:08

Eurofins Denver

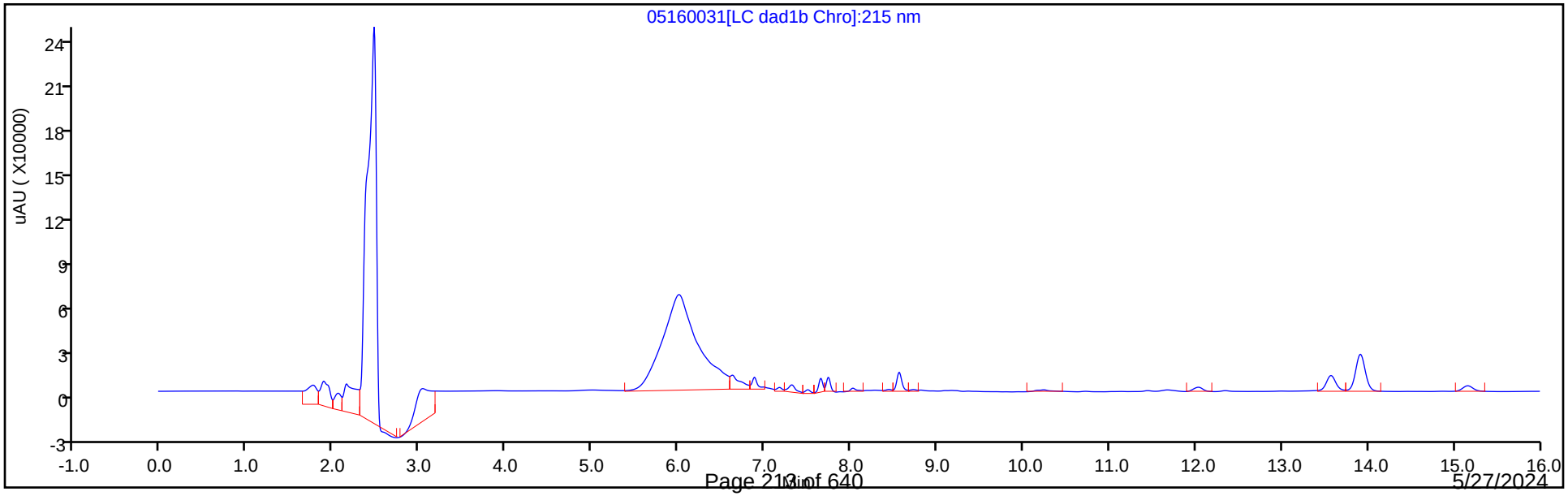
Data File: \\chromfs\denver\chromdata\chhplc_x\20240516-133471.b\05160031.d

Injection Date:	16-May-2024 23:44:49	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	280-191424-A-1-A	Lab Sample ID:	280-191424-1	Worklist Smp#:	31
Client ID:	FBQmw-178-240401-GW				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	31
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



5/27/2024
7:57:40 AM

Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20240516-133471.b\05160031.D				
Lims ID:	280-191424-A-1-A				
Client ID:	FBQmw-178-240401-GW				
Sample Type:	Client				
Inject. Date:	16-May-2024 23:44:49	ALS Bottle#:	31	Worklist Smp#:	31
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-191424-A-1-A				
Operator ID:	JZ	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20240516-133471.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	17-May-2024 12:38:15	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:	CTX1618				

First Level Reviewer: LV5D Date: 17-May-2024 12:35:09

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.1747	87.34

Manual Integration/User Assign Peak Report

Eurofins Denver

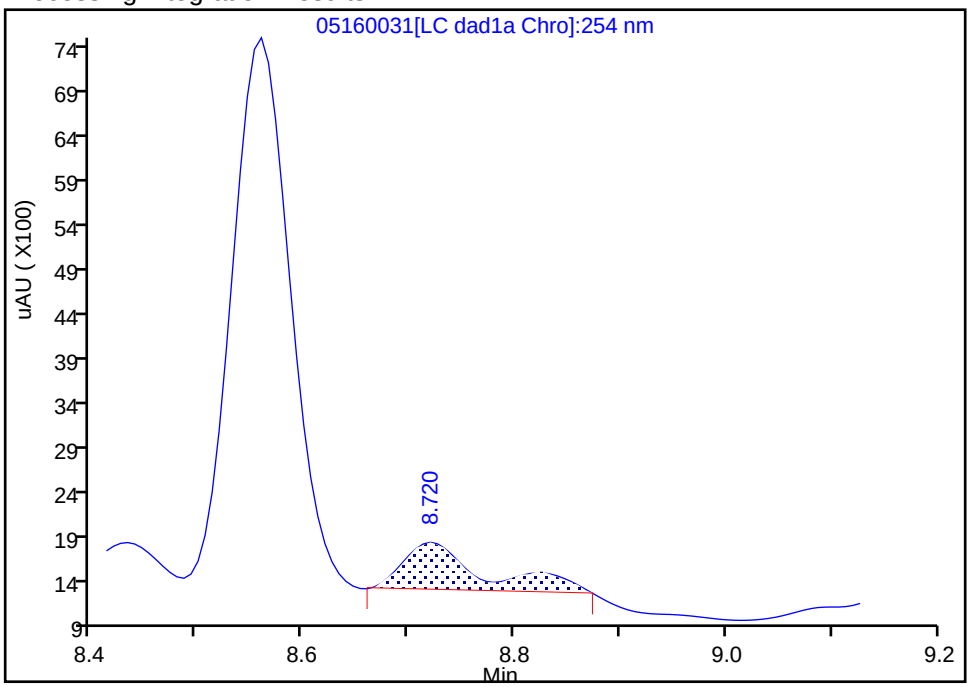
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240516-133471.b\05160031.d				
Injection Date:	16-May-2024 23:44:49	Instrument ID:	CHHPLC_X3		
Lims ID:	280-191424-A-1-A	Lab Sample ID:	280-191424-1		
Client ID:	FBQmw-178-240401-GW				
Operator ID:	JZ	ALS Bottle#:	31	Worklist Smp#:	31
Injection Vol:	100.0 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

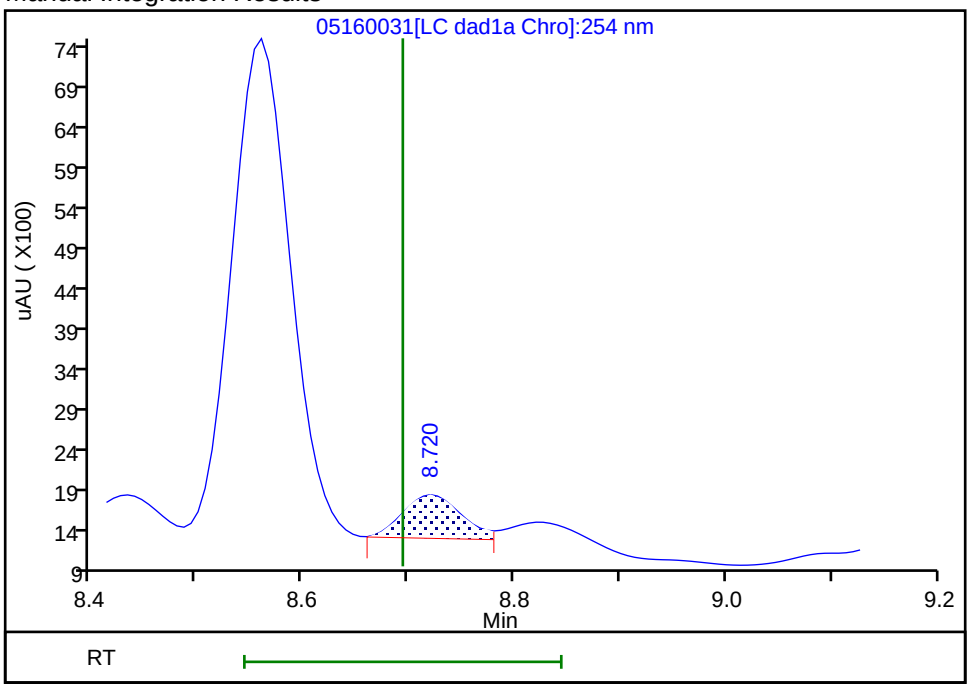
Processing Integration Results

RT: 8.72
Area: 2845
Amount: 0.012766
Amount Units: ug/mL



Manual Integration Results

RT: 8.72
Area: 2016
Amount: 0.009046
Amount Units: ug/mL



Reviewer: LV5D, 17-May-2024 12:35:08 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline

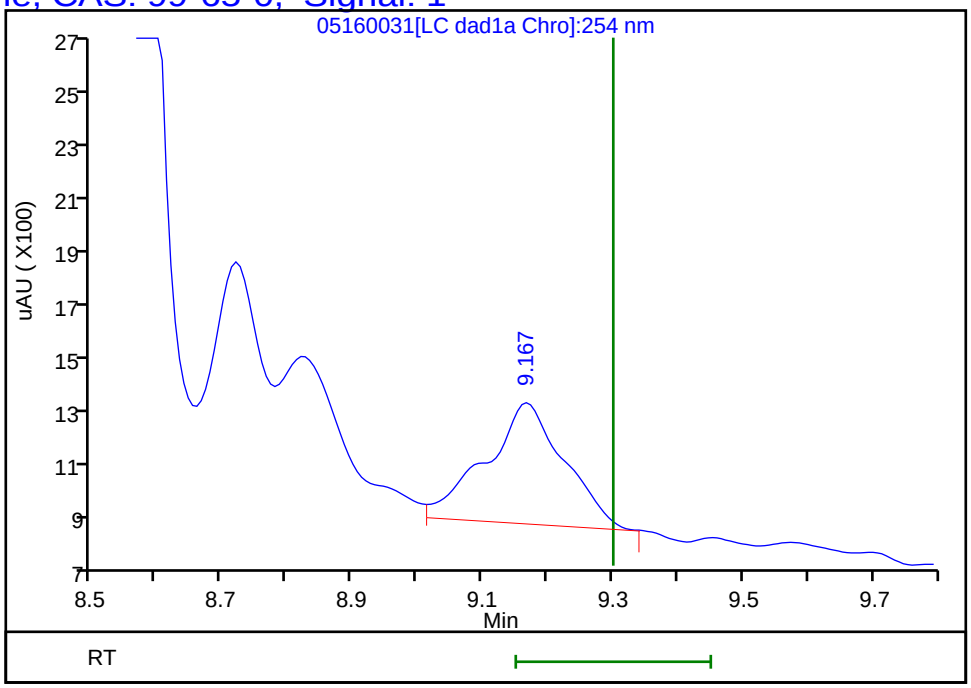
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20240516-133471.b\05160031.d				
Injection Date:	16-May-2024 23:44:49	Instrument ID:	CHHPLC_X3		
Lims ID:	280-191424-A-1-A	Lab Sample ID:	280-191424-1		
Client ID:	FBQmw-178-240401-GW				
Operator ID:	JZ	ALS Bottle#:	31	Worklist Smp#:	31
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: 9.17
Response: 3606
Amount: 0.012043



Reviewer: LV5D, 17-May-2024 12:35:09
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

User Disabled Compound Report

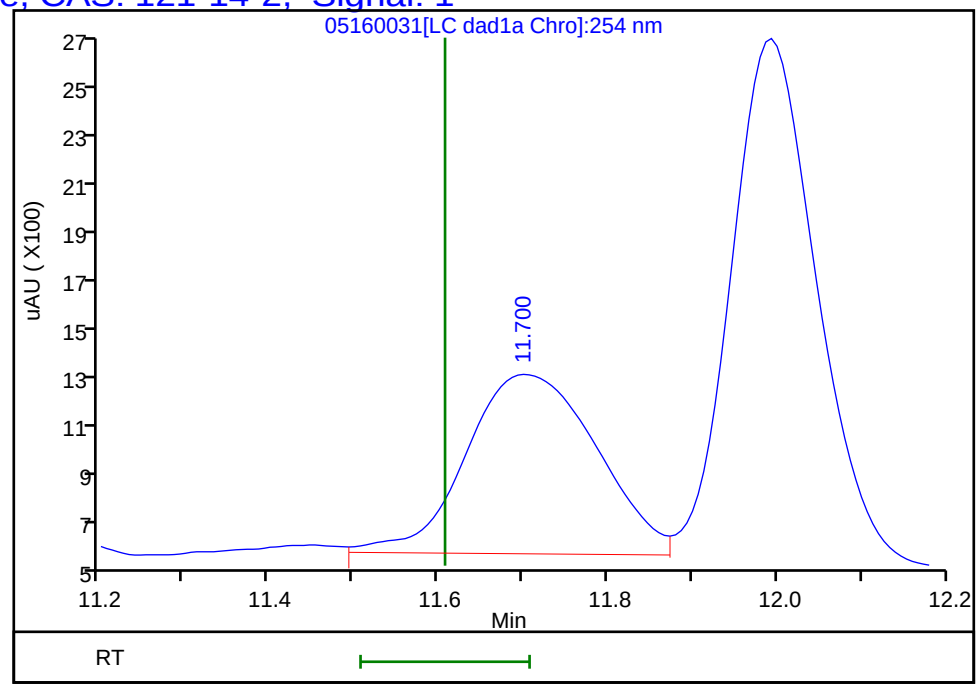
Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20240516-133471.b\05160031.d
Injection Date: 16-May-2024 23:44:49 Instrument ID: CHHPLC_X3
Lims ID: 280-191424-A-1-A Lab Sample ID: 280-191424-1
Client ID: FBQmw-178-240401-GW
Operator ID: JZ ALS Bottle#: 31 Worklist Smp#: 31
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: 7698
Amount: 0.026377



Reviewer: LV5D, 17-May-2024 12:35:09
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

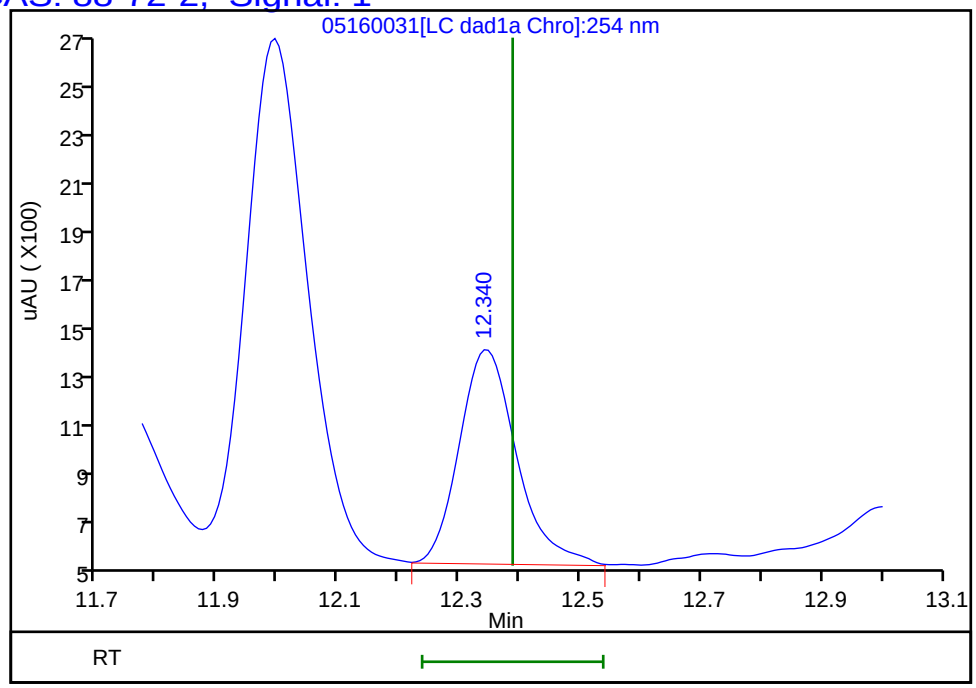
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20240516-133471.b\05160031.d				
Injection Date:	16-May-2024 23:44:49	Instrument ID:	CHHPLC_X3		
Lims ID:	280-191424-A-1-A	Lab Sample ID:	280-191424-1		
Client ID:	FBQmw-178-240401-GW				
Operator ID:	JZ	ALS Bottle#:	31	Worklist Smp#:	31
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		

22 o-Nitrotoluene, CAS: 88-72-2, Signal: 1

RT: 12.34
Response: 5623
Amount: 0.043486



Reviewer: LV5D, 17-May-2024 12:35:09
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

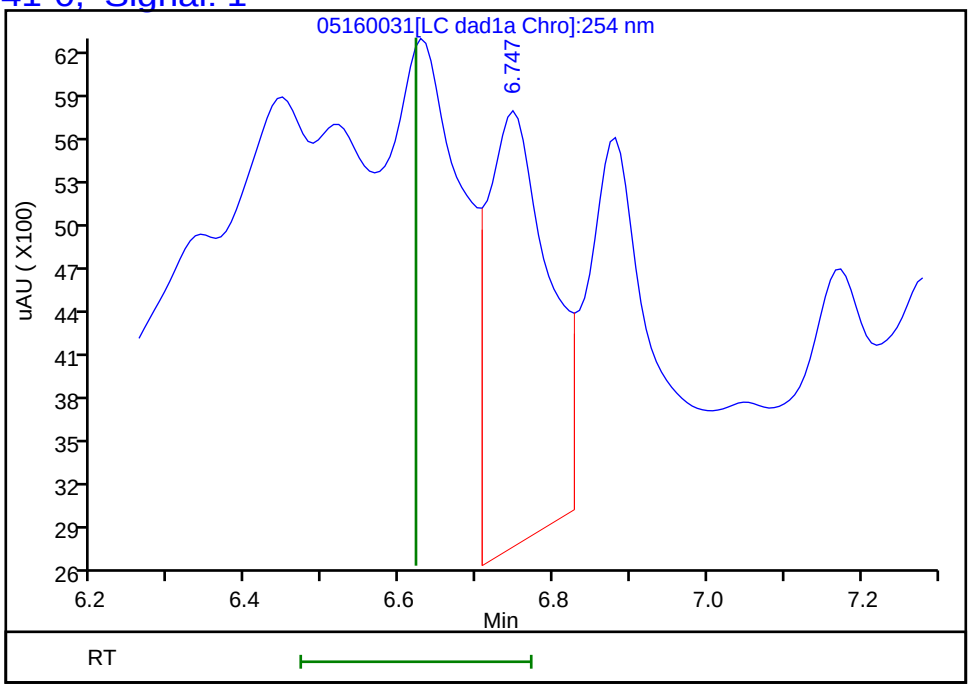
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20240516-133471.b\05160031.d				
Injection Date:	16-May-2024 23:44:49	Instrument ID:	CHHPLC_X3		
Lims ID:	280-191424-A-1-A	Lab Sample ID:	280-191424-1		
Client ID:	FBQmw-178-240401-GW				
Operator ID:	JZ	ALS Bottle#:	31	Worklist Smp#:	31
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: 6.75
Response: 16516
Amount: 0.172863



Reviewer: LV5D, 17-May-2024 12:35:09
Audit Action: Assigned New Baseline Audit Reason: Baseline

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-191424-1

SDG No.:

Client Sample ID: FBQmw-178-240401-GW | Lab Sample ID: 280-191424-1

Matrix: Water | Lab File ID: 05160027.D

Analysis Method: 8330B | Date Collected: 05/09/2024 09:15

Extraction Method: 3535 | Date Extracted: 05/15/2024 12:30

Sample wt/vol: 467(mL) | Date Analyzed: 05/17/2024 04:16

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.: 653699 | 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	0.090
121-82-4	*RDX*	*0.32*	*J1*	*0.22*	0.21	*0.055*

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	93		83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240516-133474.b\05160027.D
Lims ID: 280-191424-A-1-A
Client ID: FBQmw-178-240401-GW
Sample Type: Client
Inject. Date: 17-May-2024 04:16:15 ALS Bottle#: 27 Worklist Smp#: 27
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-191424-A-1-A
Operator ID: JZ Instrument ID: CHHPLC_X5

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20240516-133474.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 17-May-2024 16:54:53 Calib Date: 28-Mar-2024 05:53:05
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1618

First Level Reviewer: LV5D Date: 17-May-2024 16:52:39

	Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
	1 2,6-diamino-4-nitrotoluene	1		4.152			ND	
	2 2,4-diamino-6-nitrotoluene	1	4.669	4.712	-0.043	9271	0.0234	
	3 TNX	1		5.125			ND	U
	4 DNX	1		5.925			ND	
	5 HMX	1		6.666			ND	
	6 MNX	1		7.379			ND	U
	7 2,4,6-Trinitrophenol	1	8.289	8.372	-0.083	2674	0.0178	M
	8 RDX	1	8.736	8.699	0.037	6469	0.0303	
	9 Nitrobenzene	1		11.352			ND	
$	10 1,2-Dinitrobenzene	1	12.342	12.339	0.003	48975	0.1854	
	11 3,5-Dinitroaniline	1	14.155	14.126	0.029	21955	0.0499	
	12 1,3-Dinitrobenzene	1		14.566			ND	
	13 Nitroglycerin	2		14.759			ND	
	14 o-Nitrotoluene	1	15.435	15.452	-0.017	196591	0.7948	
	16 p-Nitrotoluene	1		15.712			ND	
	17 4-Amino-2,6-dinitrotoluene	1		16.186			ND	
	18 m-Nitrotoluene	1		16.559			ND	
	15 Triamine Trinitrobenzene	1	16.782	16.839	-0.057	51081	1.92	E
	19 2-Amino-4,6-dinitrotoluene	1		17.059			ND	
	20 1,3,5-Trinitrobenzene	1		17.512			ND	
	21 2,6-Dinitrotoluene	1		18.472			ND	
	22 2,4-Dinitrotoluene	1		18.959			ND	
	23 Tetryl	1		22.279			ND	U
	24 2,4,6-Trinitrotoluene	1		23.259			ND	
	25 PETN	2		24.179			ND	
	26 Ammonium Picrate	1		0.000			ND	

QC Flag Legend

Processing Flags

E - Exceeded Maximum Amount

Review Flags
M - Manually Integrated
U - Marked Undetected

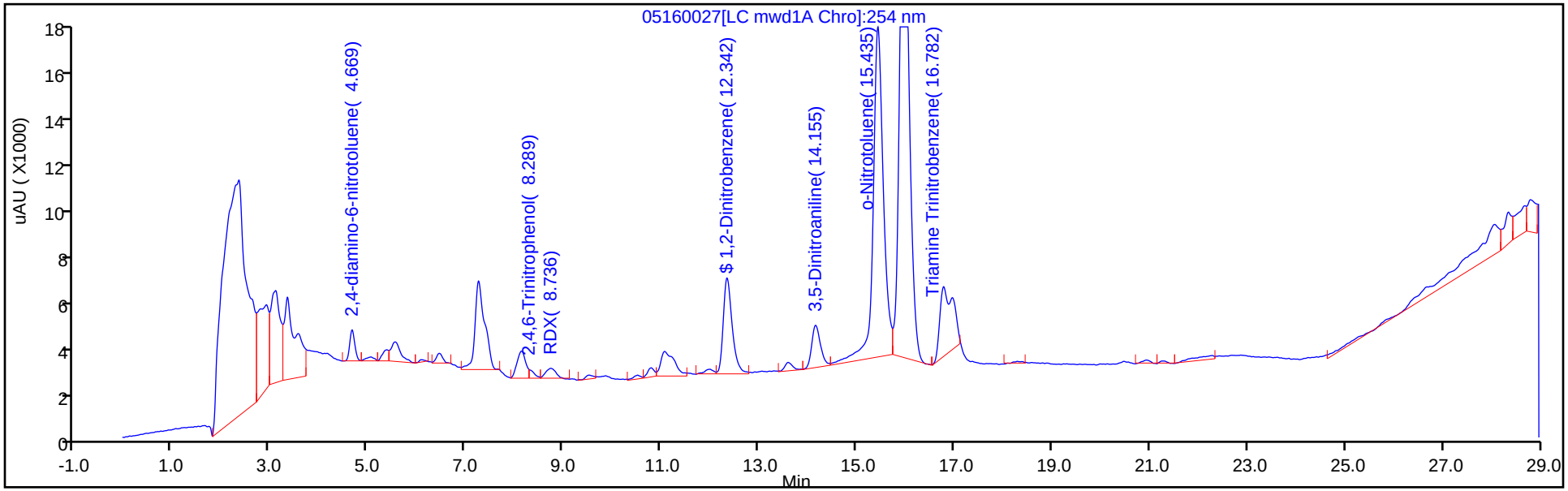
Report Date: 17-May-2024 16:54:54 Chrom Revision: 2.3 14-May-2024 14:23:08

Eurofins Denver

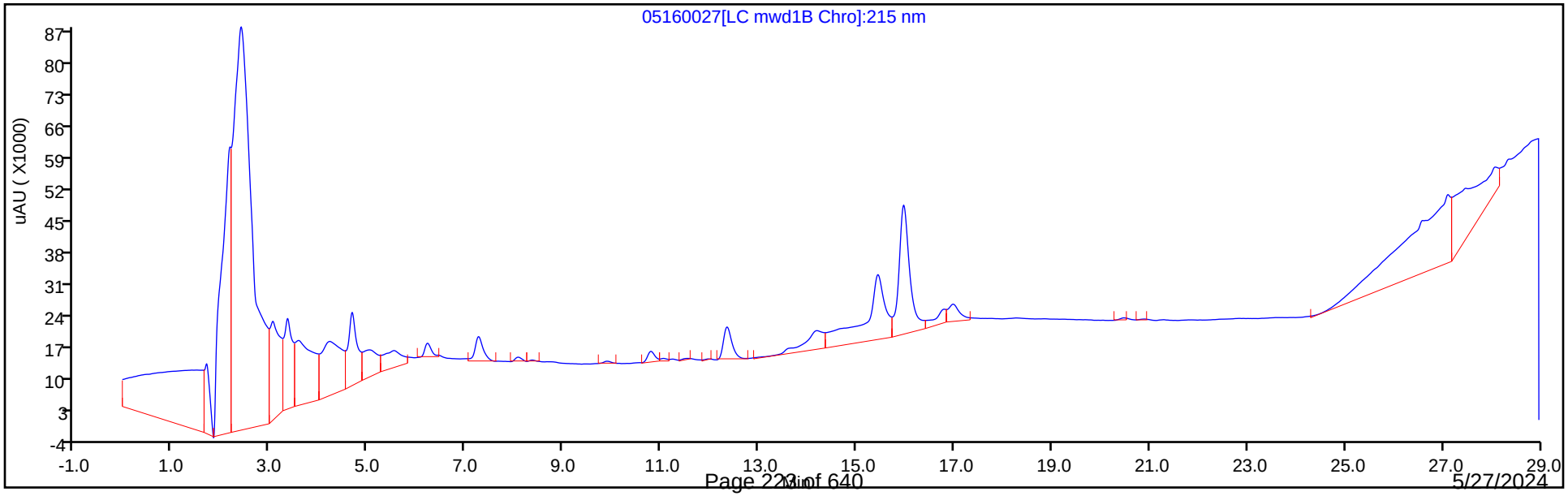
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240516-133474.b\05160027.D

Injection Date:	17-May-2024 04:16:15	Instrument ID:	CHHPLC_X5	Operator ID:	JZ
Lims ID:	280-191424-A-1-A	Lab Sample ID:	280-191424-1	Worklist Smp#:	27
Client ID:	FBQmw-178-240401-GW				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	27
Method:	8330_X5_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\CHHPLC_X5\20240516-133474.b\05160027.D				
Lims ID:	280-191424-A-1-A				
Client ID:	FBQmw-178-240401-GW				
Sample Type:	Client				
Inject. Date:	17-May-2024 04:16:15	ALS Bottle#:	27	Worklist Smp#:	27
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-191424-A-1-A				
Operator ID:	JZ	Instrument ID:	CHHPLC_X5		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X5\20240516-133474.b\8330_X5_Luna.m				
Limit Group:	GCSV - 8330				
Last Update:	17-May-2024 16:54:53	Calib Date:	28-Mar-2024 05:53:05		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270027.D				
Column 1 :	Luna-Phenyl hexyl (4.60 mm)		Det: LC mwd1A, 254 nm		
Process Host:	CTX1618				

First Level Reviewer: LV5D Date: 17-May-2024 16:52:39

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.1854	92.70

User Disabled Compound Report

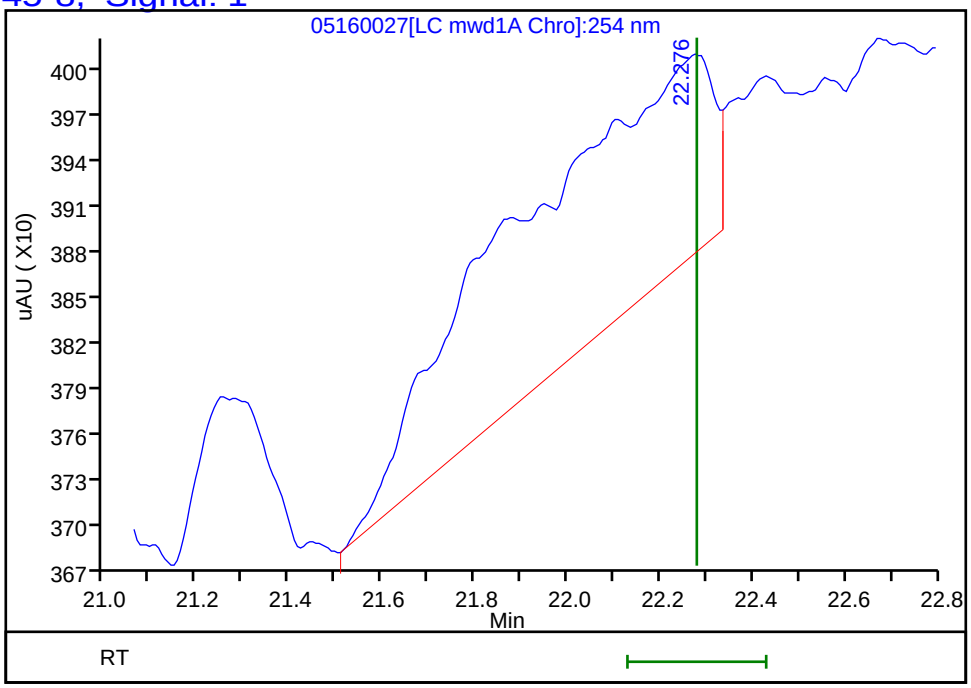
Eurofins Denver

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240516-133474.b\05160027.D

Injection Date:	17-May-2024 04:16:15	Instrument ID:	CHHPLC_X5		
Lims ID:	280-191424-A-1-A	Lab Sample ID:	280-191424-1		
Client ID:	FBQmw-178-240401-GW				
Operator ID:	JZ	ALS Bottle#:	27	Worklist Smp#:	27
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

23 Tetryl, CAS: 479-45-8, Signal: 1

RT: 22.28
Response: 4680
Amount: 0.013919



Reviewer: LV5D, 17-May-2024 16:52:39
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-191424-1

SDG No.:

Client Sample ID: FBQmw-178-240401-GW RE | Lab Sample ID: 280-191424-1 RE

Matrix: Water | Lab File ID: 05230030.D

Analysis Method: 8330B | Date Collected: 05/09/2024 09:15

Extraction Method: 3535 | Date Extracted: 05/22/2024 14:37

Sample wt/vol: 471.2(mL) | Date Analyzed: 05/23/2024 23:50

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.: 654555 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
88-72-2	*2-Nitrotoluene*	*0.21*	*U M H Q*	*0.22*	0.21	*0.091*
99-08-1	*3-Nitrotoluene*	*0.37*	*U H Q*	*0.42*	0.37	*0.21*
99-99-0	*4-Nitrotoluene*	*0.42*	*U H Q*	*0.44*	0.42	*0.11*

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	101	M	83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240523-133725.b\05230030.D
Lims ID: 280-191424-B-1-B RE
Client ID: FBQmw-178-240401-GW
Sample Type: Client
Inject. Date: 23-May-2024 23:50:55 ALS Bottle#: 30 Worklist Smp#: 30
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-191424-B-1-B
Operator ID: JZ Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20240523-133725.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 24-May-2024 12:35:12 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: CTX1640

First Level Reviewer: LV5D Date: 24-May-2024 11:38:54

	Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/mL	Flags
	1 Triamine Trinitrobenzene	1		2.444			ND	
	2 2,6-diamino-4-nitrotoluene	1	6.464	6.490	-0.026	2586	0.001003	7M
	3 TNX	1	6.531	6.525	0.006	2442	0.0123	M
	4 HMX	1	6.637	6.632	0.005	3882	0.0406	M
	5 2,4-diamino-6-nitrotoluene	1		6.670			ND	M
	6 DNX	1	6.877	6.845	0.032	2542	0.0173	M
	7 MNX	1	7.291	7.265	0.026	5839	0.0427	
	8 RDX	1	7.651	7.638	0.013	22668	0.2046	
	9 2,4,6-Trinitrophenol	1		7.872			ND	U
$	10 1,2-Dinitrobenzene	1	8.564	8.572	-0.008	26668	0.2019	M
	11 1,3,5-Trinitrobenzene	1	8.717	8.712	0.005	2649	0.0119	M
	12 1,3-Dinitrobenzene	1		9.325			ND	
	13 Nitrobenzene	1		9.685			ND	
	14 3,5-Dinitroaniline	1		9.918			ND	
	15 Tetryl	1		9.991			ND	
	16 Nitroglycerin	2		10.471			ND	
	17 2,4,6-Trinitrotoluene	1		10.905			ND	
	18 4-Amino-2,6-dinitrotoluene	1		11.071			ND	
	19 2-Amino-4,6-dinitrotoluene	1		11.325			ND	
	20 2,6-Dinitrotoluene	1		11.471			ND	
	21 2,4-Dinitrotoluene	1		11.651			ND	U
	22 o-Nitrotoluene	1		12.425			ND	U
	23 p-Nitrotoluene	1		12.838			ND	
	24 m-Nitrotoluene	1		13.385			ND	
	25 PETN	2		14.425			ND	
	26 Ammonium Picrate	1		0.000			ND	

QC Flag Legend

Processing Flags
7 - Failed Limit of Detection

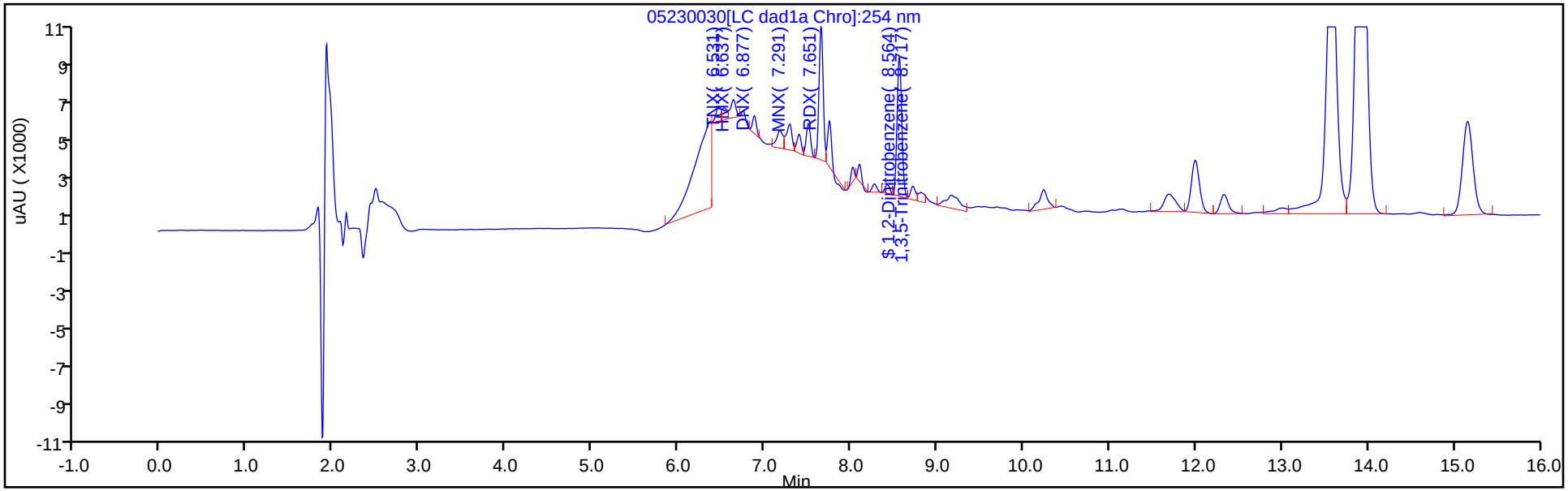
Review Flags
M - Manually Integrated
U - Marked Undetected

Report Date: 24-May-2024 12:35:15 Chrom Revision: 2.3 20-May-2024 22:00:34

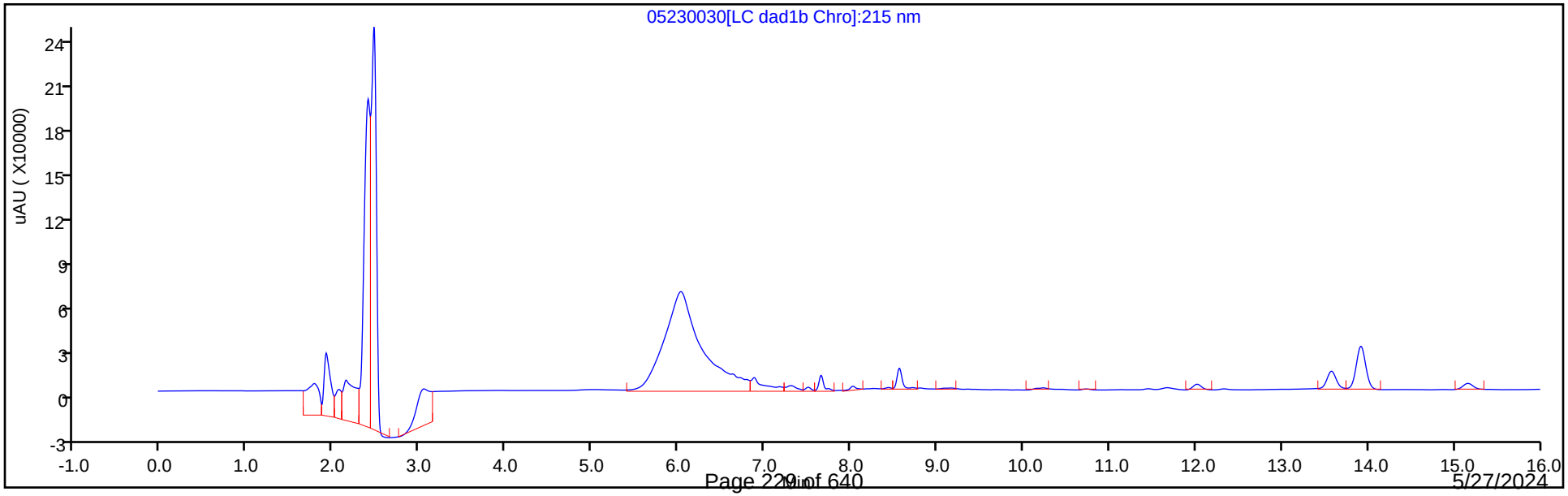
Eurofins Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20240523-133725.b\05230030.d				
Injection Date:	23-May-2024 23:50:55	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	280-191424-B-1-B RE	Lab Sample ID:	280-191424-1	Worklist Smp#:	30
Client ID:	FBQmw-178-240401-GW				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	30
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



5/27/2024
7:57:40 AM

Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20240523-133725.b\05230030.D				
Lims ID:	280-191424-B-1-B RE				
Client ID:	FBQmw-178-240401-GW				
Sample Type:	Client				
Inject. Date:	23-May-2024 23:50:55	ALS Bottle#:	30	Worklist Smp#:	30
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-191424-B-1-B				
Operator ID:	JZ	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20240523-133725.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	24-May-2024 12:35:12	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:	CTX1640				

First Level Reviewer: LV5D Date: 24-May-2024 11:38:54

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.2019	100.94

Eurofins Denver

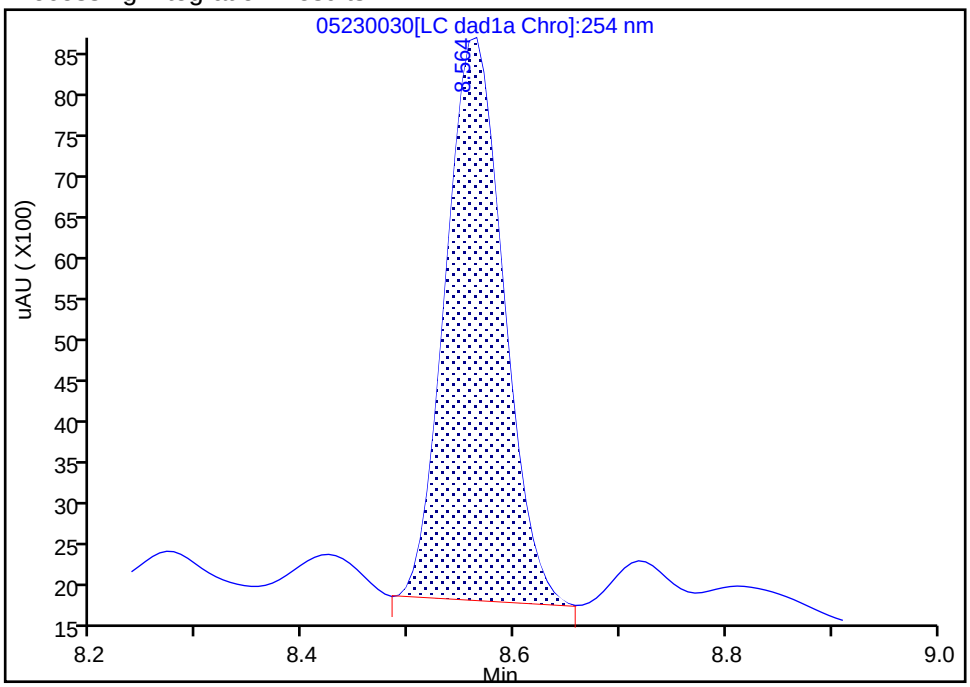
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240523-133725.b\05230030.d				
Injection Date:	23-May-2024 23:50:55	Instrument ID:	CHHPLC_X3		
Lims ID:	280-191424-B-1-B RE	Lab Sample ID:	280-191424-1		
Client ID:	FBQmw-178-240401-GW				
Operator ID:	JZ	ALS Bottle#:	30	Worklist Smp#:	30
Injection Vol:	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

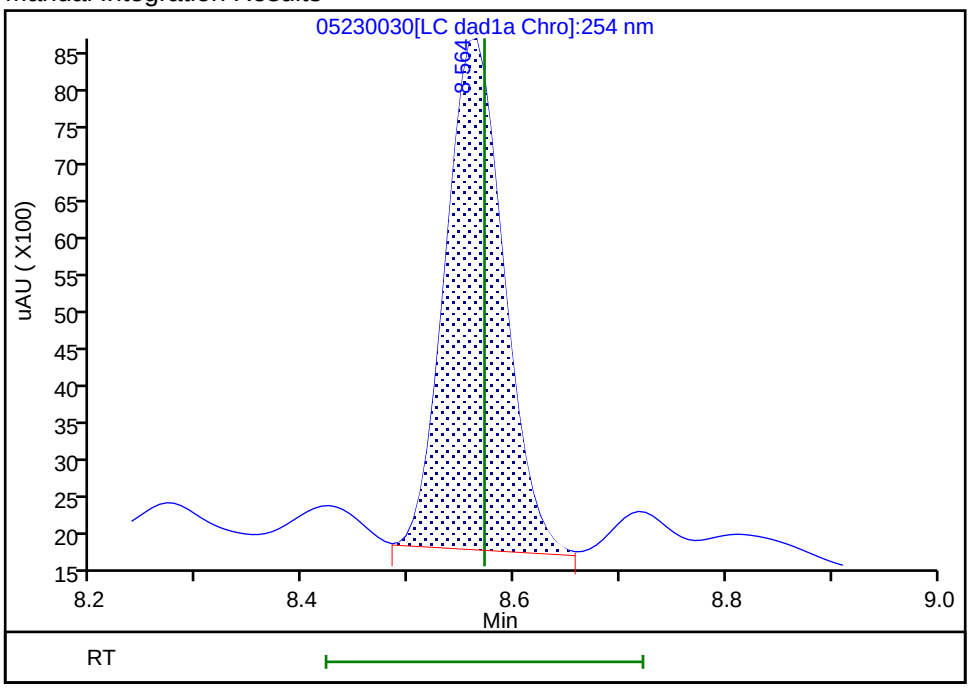
Processing Integration Results

RT: 8.56
Area: 26388
Amount: 0.199757
Amount Units: ug/mL



Manual Integration Results

RT: 8.56
Area: 26668
Amount: 0.201885
Amount Units: ug/mL



Reviewer: LV5D, 24-May-2024 11:38:50 -06:00:00 (UTC)
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

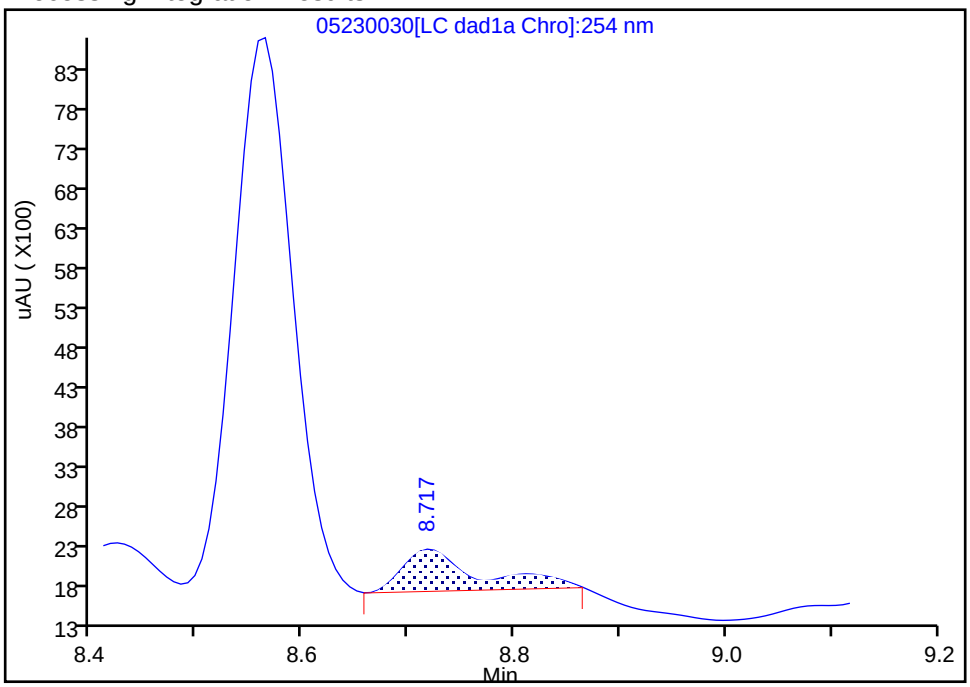
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240523-133725.b\05230030.d				
Injection Date:	23-May-2024 23:50:55	Instrument ID:	CHHPLC_X3		
Lims ID:	280-191424-B-1-B RE	Lab Sample ID:	280-191424-1		
Client ID:	FBQmw-178-240401-GW				
Operator ID:	JZ	ALS Bottle#:	30	Worklist Smp#:	30
Injection Vol:	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

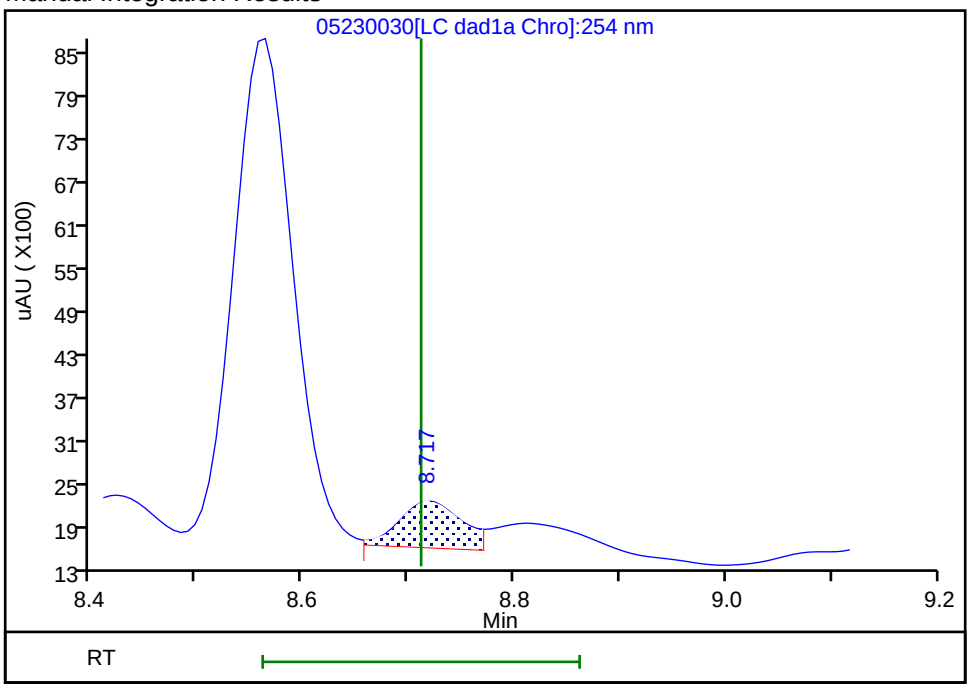
Processing Integration Results

RT: 8.72
Area: 2567
Amount: 0.011519
Amount Units: ug/mL



Manual Integration Results

RT: 8.72
Area: 2649
Amount: 0.011887
Amount Units: ug/mL



Reviewer: LV5D, 24-May-2024 11:38:52 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline

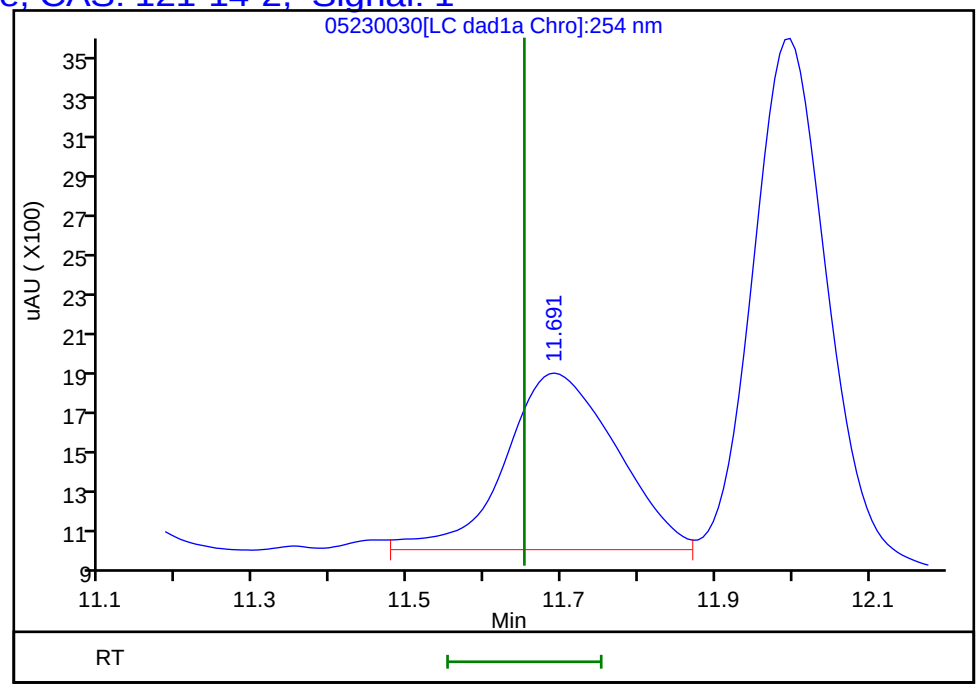
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20240523-133725.b\05230030.d				
Injection Date:	23-May-2024 23:50:55	Instrument ID:	CHHPLC_X3		
Lims ID:	280-191424-B-1-B RE	Lab Sample ID:	280-191424-1		
Client ID:	FBQmw-178-240401-GW				
Operator ID:	JZ	ALS Bottle#:	30	Worklist Smp#:	30
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: 11.69
Response: 8844
Amount: 0.030304



Reviewer: LV5D, 24-May-2024 11:38:54
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

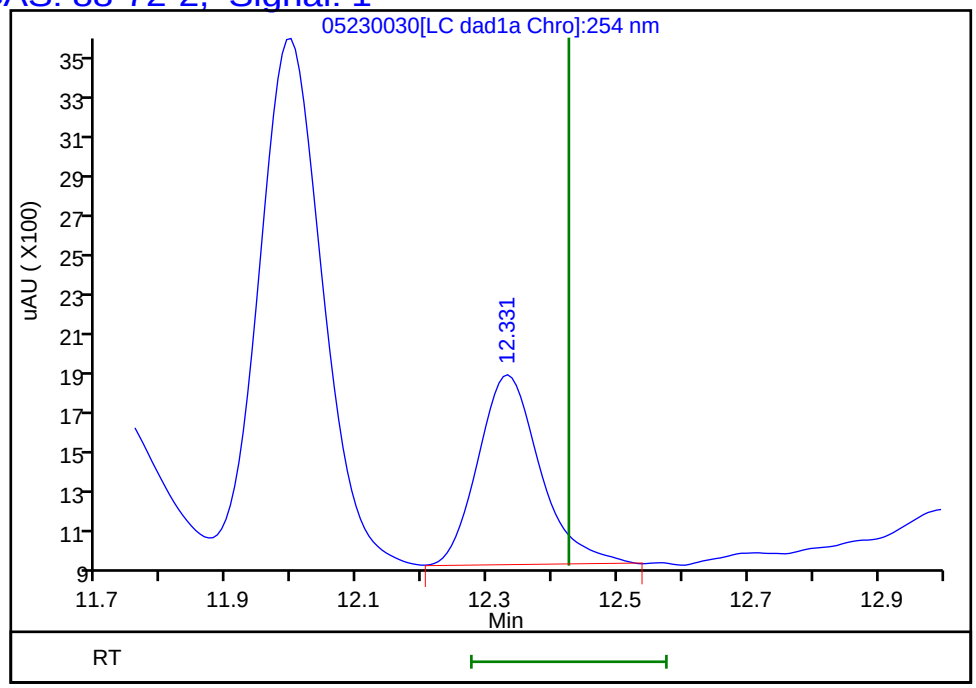
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20240523-133725.b\05230030.d				
Injection Date:	23-May-2024 23:50:55	Instrument ID:	CHHPLC_X3		
Lims ID:	280-191424-B-1-B RE	Lab Sample ID:	280-191424-1		
Client ID:	FBQmw-178-240401-GW				
Operator ID:	JZ	ALS Bottle#:	30	Worklist Smp#:	30
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		

22 o-Nitrotoluene, CAS: 88-72-2, Signal: 1

RT: 12.33
Response: 6343
Amount: 0.049054



Reviewer: LV5D, 24-May-2024 11:38:54
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Eurofins Denver

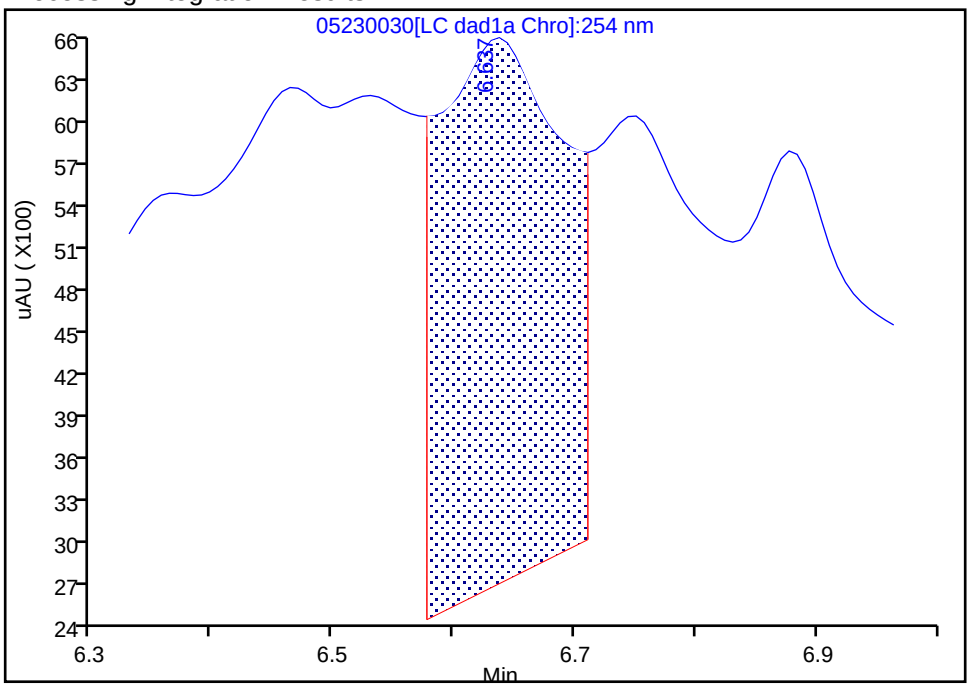
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240523-133725.b\05230030.d				
Injection Date:	23-May-2024 23:50:55	Instrument ID:	CHHPLC_X3		
Lims ID:	280-191424-B-1-B RE	Lab Sample ID:	280-191424-1		
Client ID:	FBQmw-178-240401-GW				
Operator ID:	JZ	ALS Bottle#:	30	Worklist Smp#:	30
Injection Vol:	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

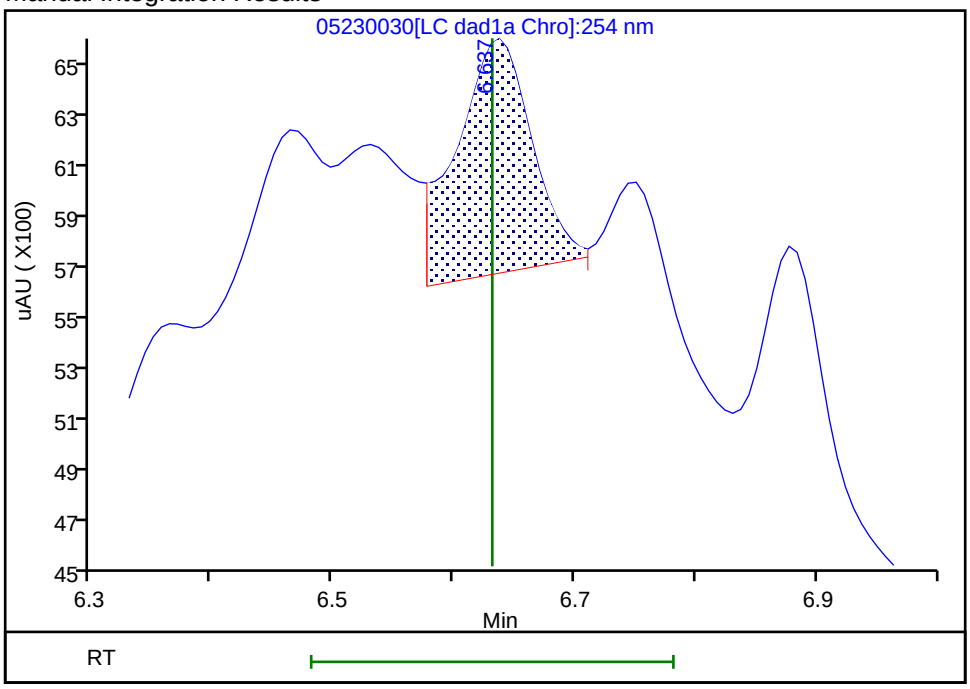
Processing Integration Results

RT: 6.64
Area: 27310
Amount: 0.285838
Amount Units: ug/mL



Manual Integration Results

RT: 6.64
Area: 3882
Amount: 0.040631
Amount Units: ug/mL



Reviewer: LV5D, 24-May-2024 11:38:13 -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.: 280-191424-1

SDG No.:

Client Sample ID: FBQmw-179-240401-GW | Lab Sample ID: 280-191424-2

Matrix: Water | Lab File ID: 05160034.D

Analysis Method: 8330B | Date Collected: 05/09/2024 09:45

Extraction Method: 3535 | Date Extracted: 05/15/2024 12:30

Sample wt/vol: 443.8(mL) | Date Analyzed: 05/17/2024 00:53

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.: 653693 | 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	0.095
99-65-0	1,3-Dinitrobenzene	0.11	U M	0.12	0.11	0.042
118-96-7	2,4,6-Trinitrotoluene	0.11	U	0.12	0.11	0.051
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	0.23	U Q	0.24	0.23	0.096
99-08-1	3-Nitrotoluene	0.39	U Q	0.45	0.39	0.22
19406-51-0	4-Amino-2,6-dinitrotoluene	0.14	U	0.17	0.14	0.065
99-99-0	4-Nitrotoluene	0.45	U Q	0.46	0.45	0.11
2691-41-0	HMX	0.23	U M	0.24	0.23	0.099
98-95-3	Nitrobenzene	0.23	U	0.24	0.23	0.10
55-63-0	Nitroglycerin	2.3	U	2.4	2.3	1.0
78-11-5	PETN	1.1	U	1.2	1.1	0.50
121-82-4	RDX	0.23	U	0.24	0.23	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	97		83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240516-133471.b\05160034.D
Lims ID: 280-191424-A-2-A
Client ID: FBQmw-179-240401-GW
Sample Type: Client
Inject. Date: 17-May-2024 00:53:41 ALS Bottle#: 34 Worklist Smp#: 34
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-191424-A-2-A
Operator ID: JZ Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20240516-133471.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 17-May-2024 12:38:15 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: CTX1618

First Level Reviewer: LV5D Date: 17-May-2024 12:36:36

	Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/mL	Flags
	4 HMX	1		6.621			ND	U
	8 RDX	1		7.628			ND	
$	10 1,2-Dinitrobenzene	1	8.559	8.554	0.005	25550	0.1934	
	11 1,3,5-Trinitrobenzene	1	8.712	8.694	0.018	1008	0.004523	
	12 1,3-Dinitrobenzene	1		9.301			ND	U
	13 Nitrobenzene	1		9.654			ND	
	15 Tetryl	1		9.961			ND	
	16 Nitroglycerin	2		10.434			ND	
	17 2,4,6-Trinitrotoluene	1		10.861			ND	
	18 4-Amino-2,6-dinitrotoluene	1		11.027			ND	
	19 2-Amino-4,6-dinitrotoluene	1		11.281			ND	
	20 2,6-Dinitrotoluene	1		11.434			ND	
	21 2,4-Dinitrotoluene	1		11.607			ND	
	22 o-Nitrotoluene	1		12.387			ND	7
	23 p-Nitrotoluene	1		12.801			ND	
	24 m-Nitrotoluene	1		13.347			ND	
	25 PETN	2		14.401			ND	

QC Flag Legend

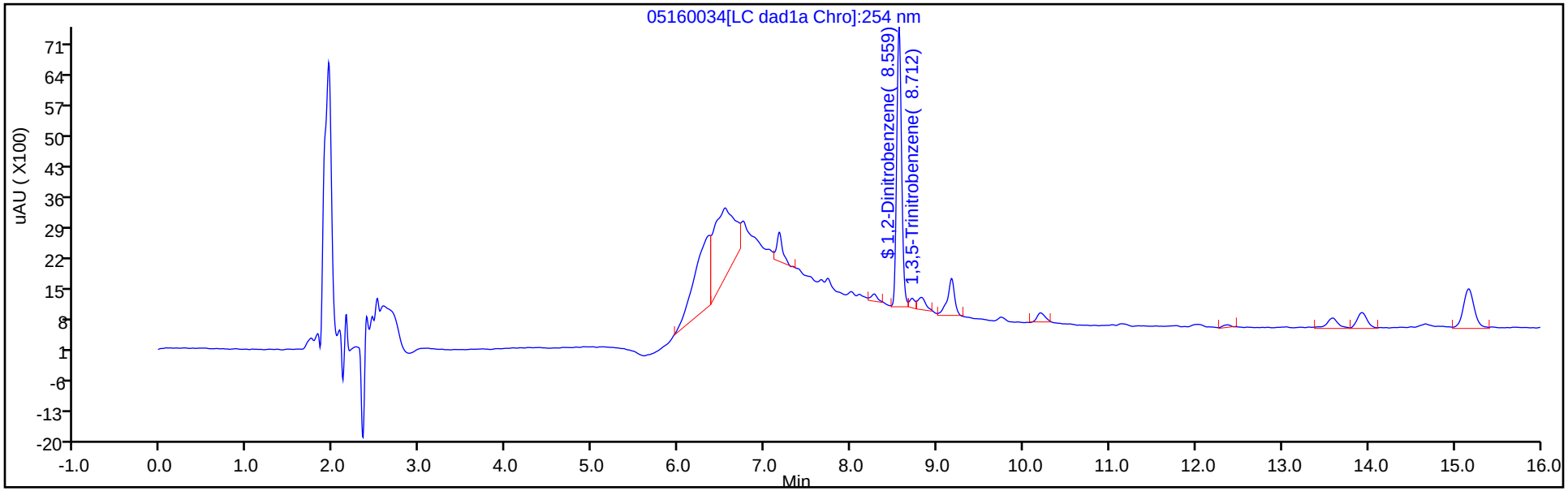
Processing Flags
7 - Failed Limit of Detection
Review Flags
U - Marked Undetected

Report Date: 17-May-2024 12:38:25 Chrom Revision: 2.3 14-May-2024 14:23:08

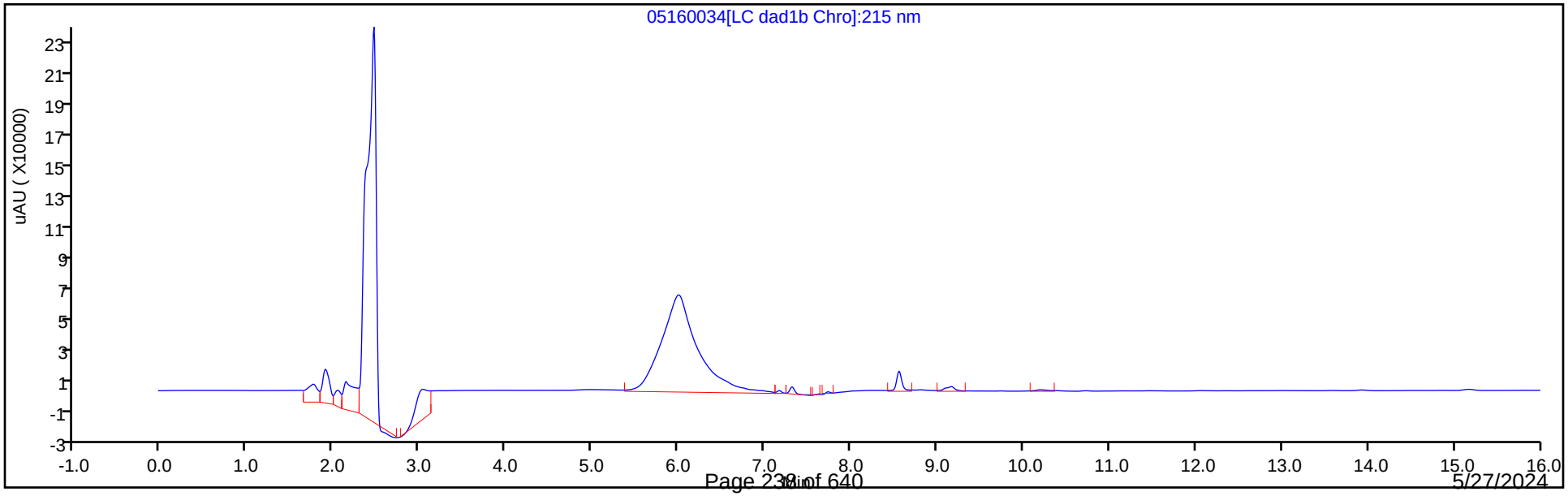
Eurofins Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20240516-133471.b\05160034.d				
Injection Date:	17-May-2024 00:53:41	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	280-191424-A-2-A	Lab Sample ID:	280-191424-2	Worklist Smp#:	34
Client ID:	FBQmw-179-240401-GW				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	34
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\20240516-133471.b\05160034.D				
Lims ID:	280-191424-A-2-A				
Client ID:	FBQmw-179-240401-GW				
Sample Type:	Client				
Inject. Date:	17-May-2024 00:53:41	ALS Bottle#:	34	Worklist Smp#:	34
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-191424-A-2-A				
Operator ID:	JZ	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20240516-133471.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	17-May-2024 12:38:15	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:	CTX1618				

First Level Reviewer: LV5D Date: 17-May-2024 12:36:36

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.1934	96.70

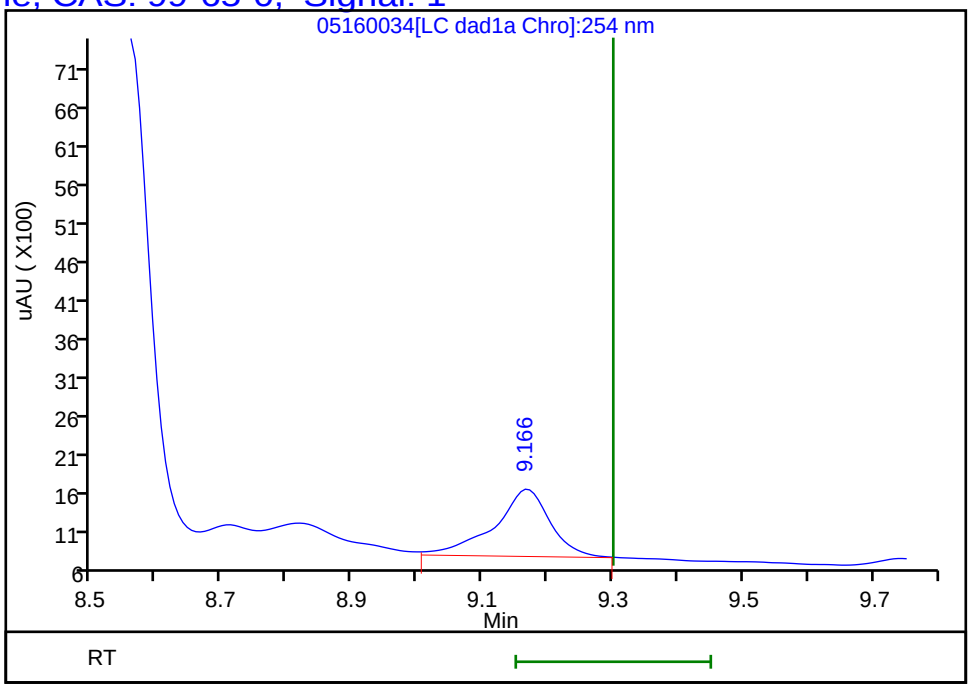
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20240516-133471.b\05160034.d				
Injection Date:	17-May-2024 00:53:41	Instrument ID:	CHHPLC_X3		
Lims ID:	280-191424-A-2-A	Lab Sample ID:	280-191424-2		
Client ID:	FBQmw-179-240401-GW				
Operator ID:	JZ	ALS Bottle#:	34	Worklist Smp#:	34
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: 9.17
Response: 5038
Amount: 0.016825



Reviewer: LV5D, 17-May-2024 12:36:36
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

User Disabled Compound Report

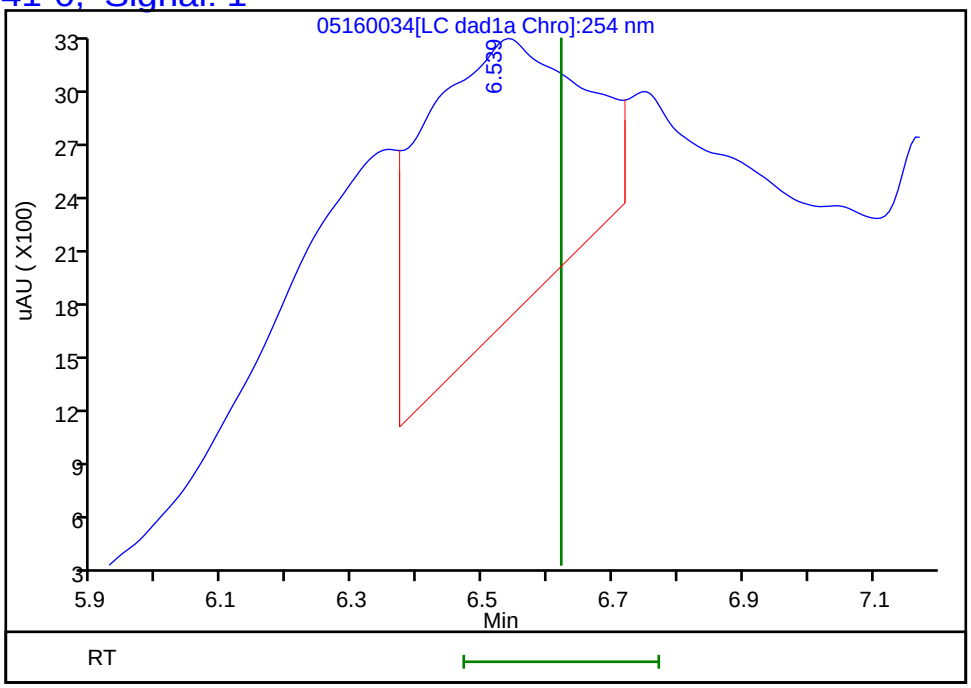
Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20240516-133471.b\05160034.d
Injection Date: 17-May-2024 00:53:41 Instrument ID: CHHPLC_X3
Lims ID: 280-191424-A-2-A Lab Sample ID: 280-191424-2
Client ID: FBQmw-179-240401-GW
Operator ID: JZ ALS Bottle#: 34 Worklist Smp#: 34
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: 6.54
Response: 27305
Amount: 0.285785



Reviewer: LV5D, 17-May-2024 12:36:36
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-191424-1

SDG No.:

Client Sample ID: FBQmw-179-240401-GW RE | Lab Sample ID: 280-191424-2 RE

Matrix: Water | Lab File ID: 05230033.D

Analysis Method: 8330B | Date Collected: 05/09/2024 09:45

Extraction Method: 3535 | Date Extracted: 05/22/2024 14:37

Sample wt/vol: 457.7(mL) | Date Analyzed: 05/24/2024 00:59

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.: 654555 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
88-72-2	*2-Nitrotoluene*	*0.22*	*U H Q*	*0.23*	0.22	*0.093*
99-08-1	*3-Nitrotoluene*	*0.38*	*U H Q*	*0.44*	0.38	*0.21*
99-99-0	*4-Nitrotoluene*	*0.44*	*U H Q*	*0.45*	0.44	*0.11*

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	83		83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240523-133725.b\05230033.D
Lims ID: 280-191424-B-2-A RE
Client ID: FBQmw-179-240401-GW
Sample Type: Client
Inject. Date: 24-May-2024 00:59:46 ALS Bottle#: 33 Worklist Smp#: 33
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-191424-B-2-A
Operator ID: JZ Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20240523-133725.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 24-May-2024 12:35:12 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: CTX1640

First Level Reviewer: LV5D Date: 24-May-2024 11:40:53

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/mL	Flags
4 HMX	1		6.632			ND	U
8 RDX	1		7.638			ND	
$ 10 1,2-Dinitrobenzene	1	8.562	8.572	-0.010	21826	0.1651	
11 1,3,5-Trinitrobenzene	1		8.712			ND	U
12 1,3-Dinitrobenzene	1		9.325			ND	
13 Nitrobenzene	1		9.685			ND	
15 Tetryl	1		9.991			ND	
16 Nitroglycerin	2		10.471			ND	
17 2,4,6-Trinitrotoluene	1		10.905			ND	
18 4-Amino-2,6-dinitrotoluene	1		11.071			ND	
19 2-Amino-4,6-dinitrotoluene	1		11.325			ND	
20 2,6-Dinitrotoluene	1		11.471			ND	
21 2,4-Dinitrotoluene	1		11.651			ND	
22 o-Nitrotoluene	1		12.425			ND	7
23 p-Nitrotoluene	1		12.838			ND	
24 m-Nitrotoluene	1		13.385			ND	
25 PETN	2		14.425			ND	

QC Flag Legend

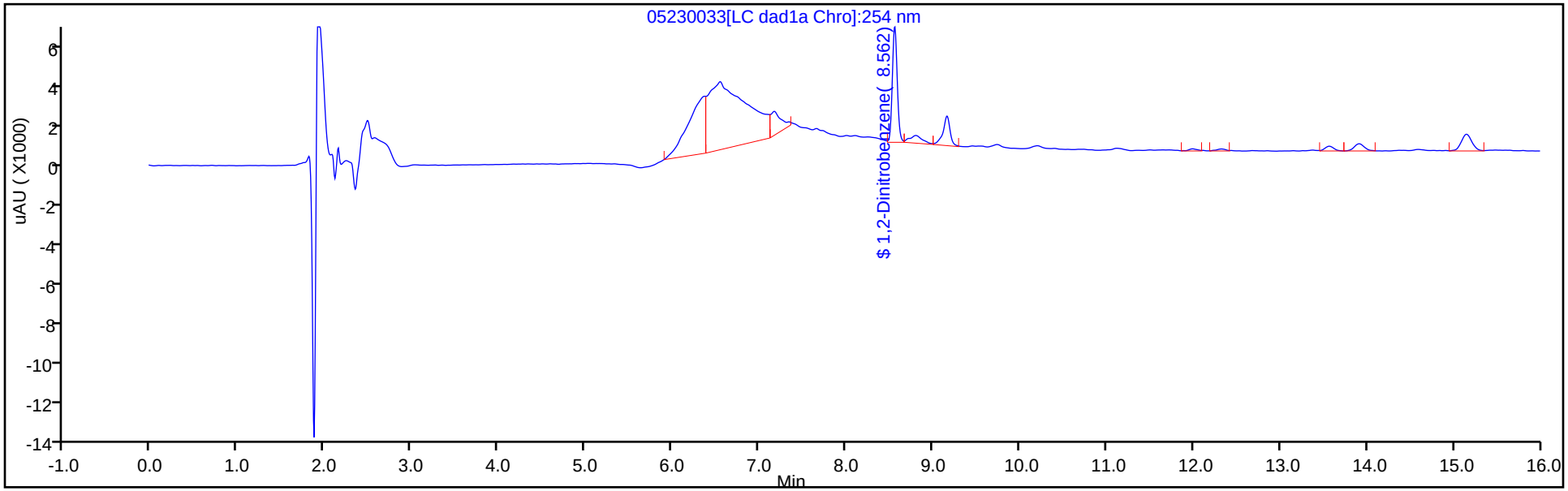
Processing Flags
7 - Failed Limit of Detection
Review Flags
U - Marked Undetected

Report Date: 24-May-2024 12:35:18 Chrom Revision: 2.3 20-May-2024 22:00:34

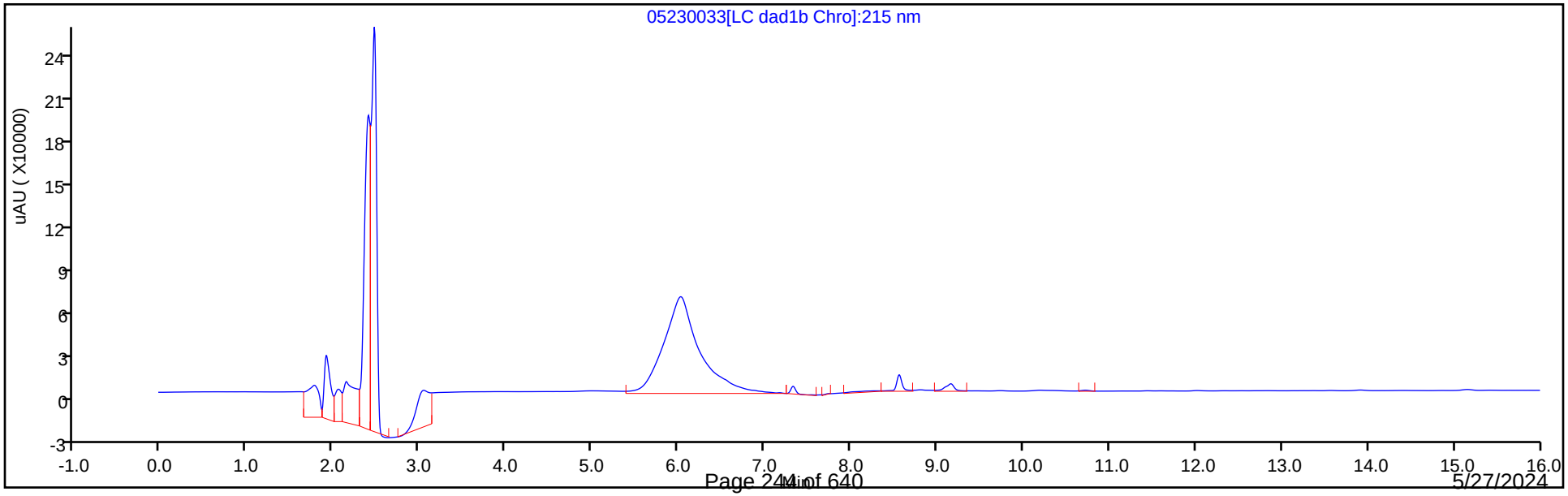
Eurofins Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20240523-133725.b\05230033.d				
Injection Date:	24-May-2024 00:59:46	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	280-191424-B-2-A RE	Lab Sample ID:	280-191424-2	Worklist Smp#:	33
Client ID:	FBQmw-179-240401-GW				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	33
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\20240523-133725.b\05230033.D				
Lims ID:	280-191424-B-2-A RE				
Client ID:	FBQmw-179-240401-GW				
Sample Type:	Client				
Inject. Date:	24-May-2024 00:59:46	ALS Bottle#:	33	Worklist Smp#:	33
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-191424-B-2-A				
Operator ID:	JZ	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20240523-133725.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	24-May-2024 12:35:12	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:	CTX1640				

First Level Reviewer: LV5D Date: 24-May-2024 11:40:53

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.1651	82.55

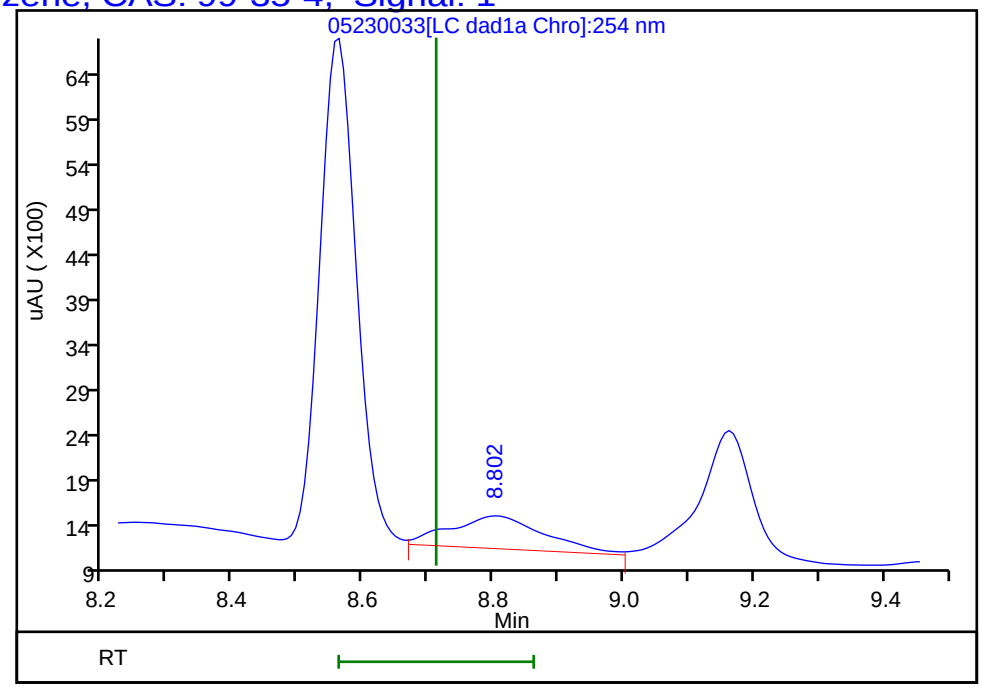
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20240523-133725.b\05230033.d				
Injection Date:	24-May-2024 00:59:46	Instrument ID:	CHHPLC_X3		
Lims ID:	280-191424-B-2-A RE	Lab Sample ID:	280-191424-2		
Client ID:	FBQmw-179-240401-GW				
Operator ID:	JZ	ALS Bottle#:	33	Worklist Smp#:	33
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: 8.80
Response: 3612
Amount: 0.016208



Reviewer: LV5D, 24-May-2024 11:40:53
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

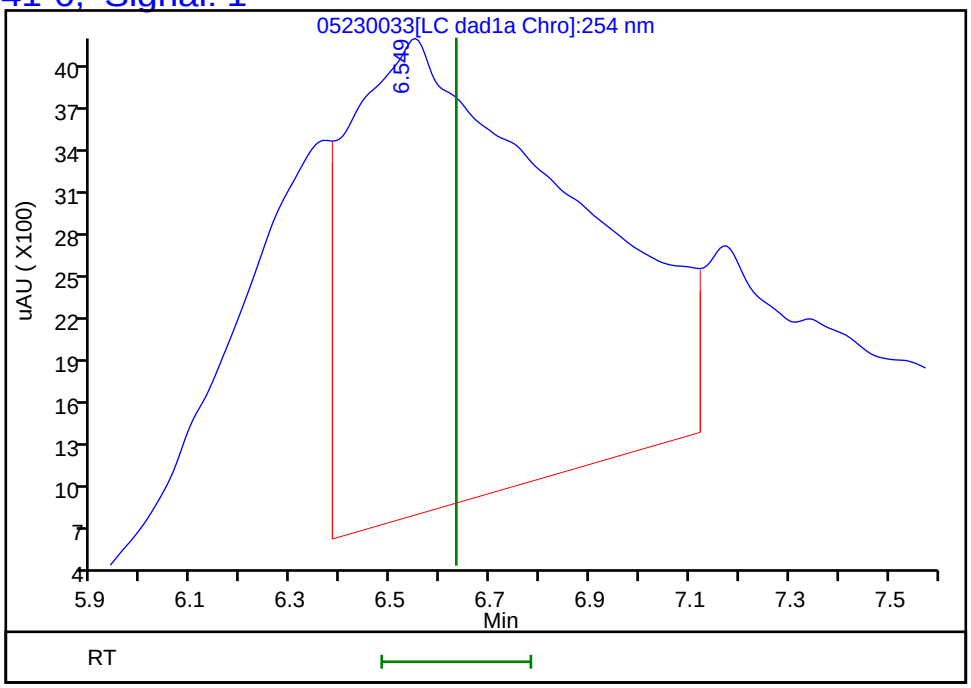
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20240523-133725.b\05230033.d				
Injection Date:	24-May-2024 00:59:46	Instrument ID:	CHHPLC_X3		
Lims ID:	280-191424-B-2-A RE	Lab Sample ID:	280-191424-2		
Client ID:	FBQmw-179-240401-GW				
Operator ID:	JZ	ALS Bottle#:	33	Worklist Smp#:	33
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: 99901
Amount: 1.045605



Reviewer: LV5D, 24-May-2024 11:40:53
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-191424-1

SDG No.:

Client Sample ID: FBQmw-180-240401-GW | Lab Sample ID: 280-191424-3

Matrix: Water | Lab File ID: 05160036.D

Analysis Method: 8330B | Date Collected: 05/09/2024 10:41

Extraction Method: 3535 | Date Extracted: 05/15/2024 12:30

Sample wt/vol: 441.8(mL) | Date Analyzed: 05/17/2024 01:39

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.: 653693 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	0.23	U M Q	0.24	0.23	0.095
99-65-0	1,3-Dinitrobenzene	0.11	U Q	0.12	0.11	0.042
118-96-7	2,4,6-Trinitrotoluene	0.11	U Q	0.12	0.11	0.051
121-14-2	2,4-Dinitrotoluene	0.091	U Q	0.11	0.091	0.031
606-20-2	2,6-Dinitrotoluene	0.091	U Q	0.11	0.091	0.045
35572-78-2	2-Amino-4,6-dinitrotoluene	0.11	U Q	0.12	0.11	0.057
88-72-2	2-Nitrotoluene	0.16	J Q J1	0.24	0.23	0.097
99-08-1	3-Nitrotoluene	0.40	U Q	0.45	0.40	0.22
19406-51-0	4-Amino-2,6-dinitrotoluene	0.14	U Q	0.17	0.14	0.065
99-99-0	4-Nitrotoluene	0.45	U Q	0.46	0.45	0.11
98-95-3	Nitrobenzene	0.23	U Q	0.24	0.23	0.10
55-63-0	Nitroglycerin	2.3	U Q	2.4	2.3	1.0
78-11-5	PETN	1.1	U Q	1.2	1.1	0.51
479-45-8	Tetryl	0.11	U Q	0.12	0.11	0.036

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	80	M Q	83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240516-133471.b\05160036.D
Lims ID: 280-191424-A-3-A
Client ID: FBQmw-180-240401-GW
Sample Type: Client
Inject. Date: 17-May-2024 01:39:34 ALS Bottle#: 36 Worklist Smp#: 36
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-191424-A-3-A
Operator ID: JZ Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20240516-133471.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 17-May-2024 12:38:25 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: CTX1618

First Level Reviewer: LV5D Date: 17-May-2024 12:37:09

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/mL	Flags
4 HMX	1	6.619	6.621	-0.002	842	0.008813	M
8 RDX	1	7.653	7.628	0.025	6024	0.0544	
$ 10 1,2-Dinitrobenzene	1	8.553	8.554	-0.001	21220	0.1605	M
11 1,3,5-Trinitrobenzene	1	8.713	8.694	0.019	1454	0.006524	M
12 1,3-Dinitrobenzene	1		9.301			ND	
13 Nitrobenzene	1		9.654			ND	
15 Tetryl	1		9.961			ND	
16 Nitroglycerin	2		10.434			ND	
17 2,4,6-Trinitrotoluene	1		10.861			ND	
18 4-Amino-2,6-dinitrotoluene	1		11.027			ND	
19 2-Amino-4,6-dinitrotoluene	1		11.281			ND	
20 2,6-Dinitrotoluene	1		11.434			ND	
21 2,4-Dinitrotoluene	1		11.607			ND	
22 o-Nitrotoluene	1	12.353	12.387	-0.034	1772	0.0137	
23 p-Nitrotoluene	1		12.801			ND	
24 m-Nitrotoluene	1		13.347			ND	
25 PETN	2		14.401			ND	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

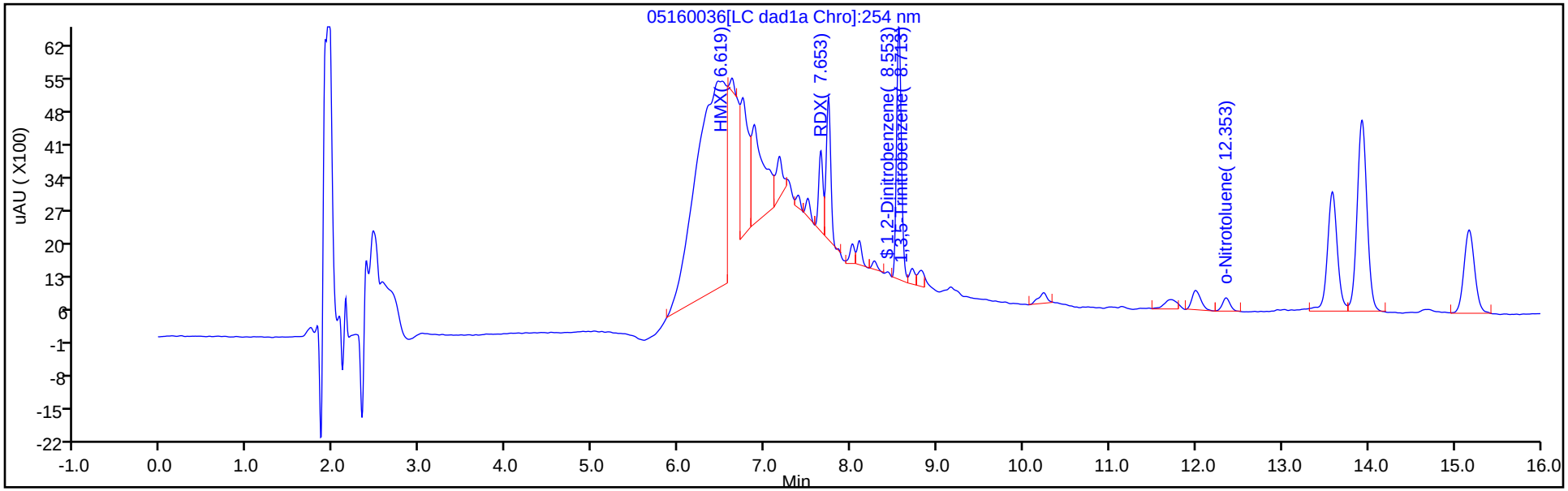
Report Date: 17-May-2024 12:38:27 Chrom Revision: 2.3 14-May-2024 14:23:08

Eurofins Denver

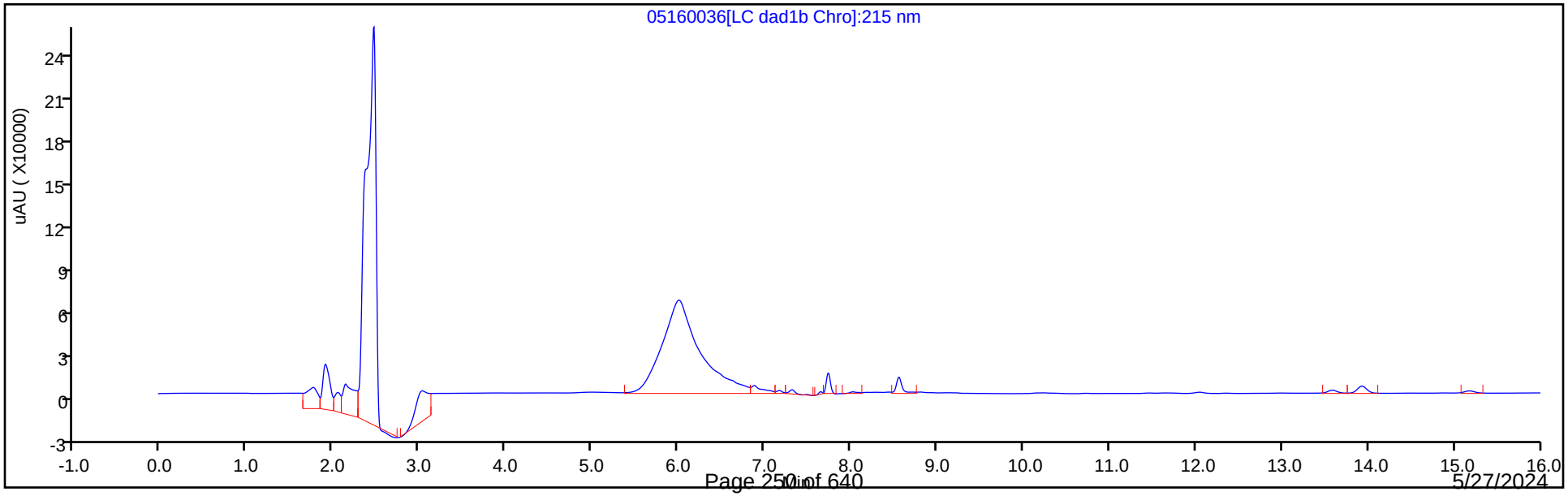
Data File: \\chromfs\denver\chromdata\chhplc_x\20240516-133471.b\05160036.d

Injection Date:	17-May-2024 01:39:34	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	280-191424-A-3-A	Lab Sample ID:	280-191424-3	Worklist Smp#:	36
Client ID:	FBQmw-180-240401-GW				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	36
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\20240516-133471.b\05160036.D				
Lims ID:	280-191424-A-3-A				
Client ID:	FBQmw-180-240401-GW				
Sample Type:	Client				
Inject. Date:	17-May-2024 01:39:34	ALS Bottle#:	36	Worklist Smp#:	36
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-191424-A-3-A				
Operator ID:	JZ	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20240516-133471.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	17-May-2024 12:38:25	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:	CTX1618				

First Level Reviewer: LV5D Date: 17-May-2024 12:37:09

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.1605	80.25

Manual Integration/User Assign Peak Report

Eurofins Denver

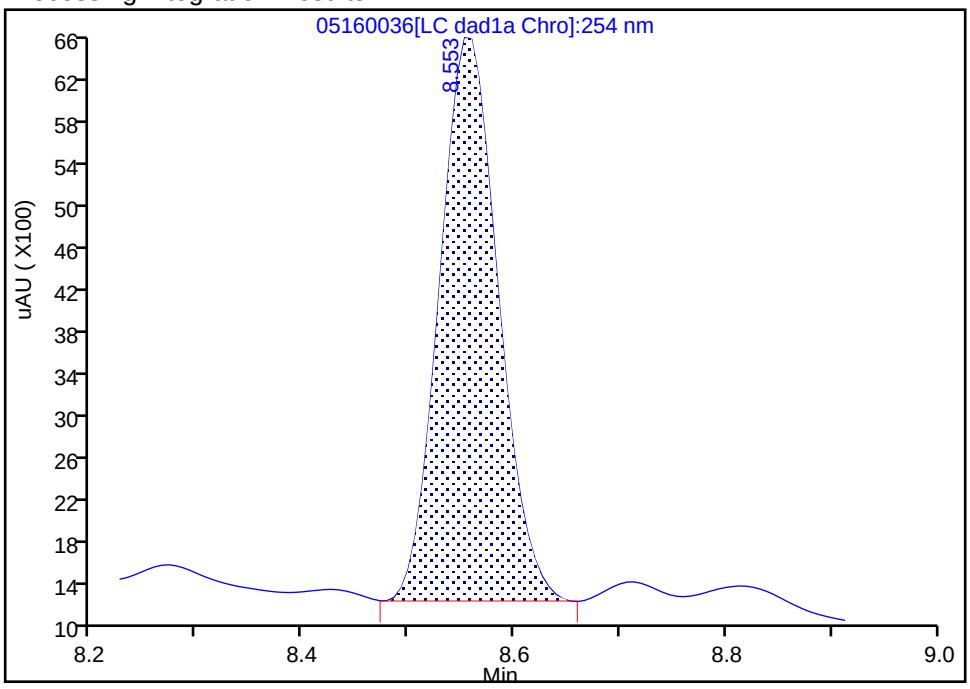
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240516-133471.b\05160036.d				
Injection Date:	17-May-2024 01:39:34	Instrument ID:	CHHPLC_X3		
Lims ID:	280-191424-A-3-A	Lab Sample ID:	280-191424-3		
Client ID:	FBQmw-180-240401-GW				
Operator ID:	JZ	ALS Bottle#:	36	Worklist Smp#:	36
Injection Vol:	100.0 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

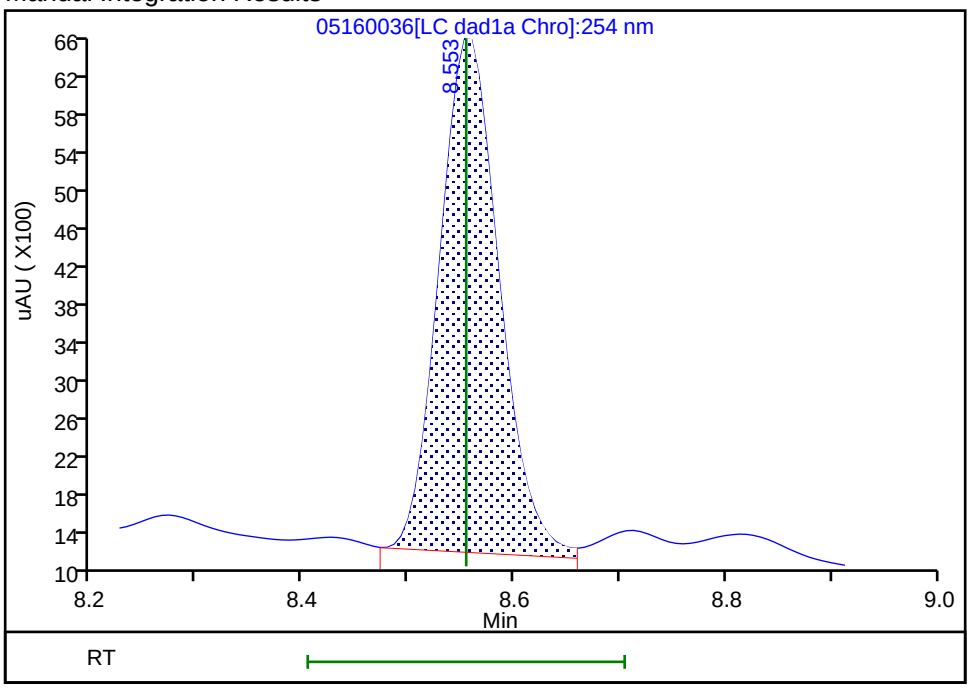
Processing Integration Results

RT: 8.55
Area: 20548
Amount: 0.155391
Amount Units: ug/mL



Manual Integration Results

RT: 8.55
Area: 21220
Amount: 0.160496
Amount Units: ug/mL



Reviewer: LV5D, 17-May-2024 12:37:08 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

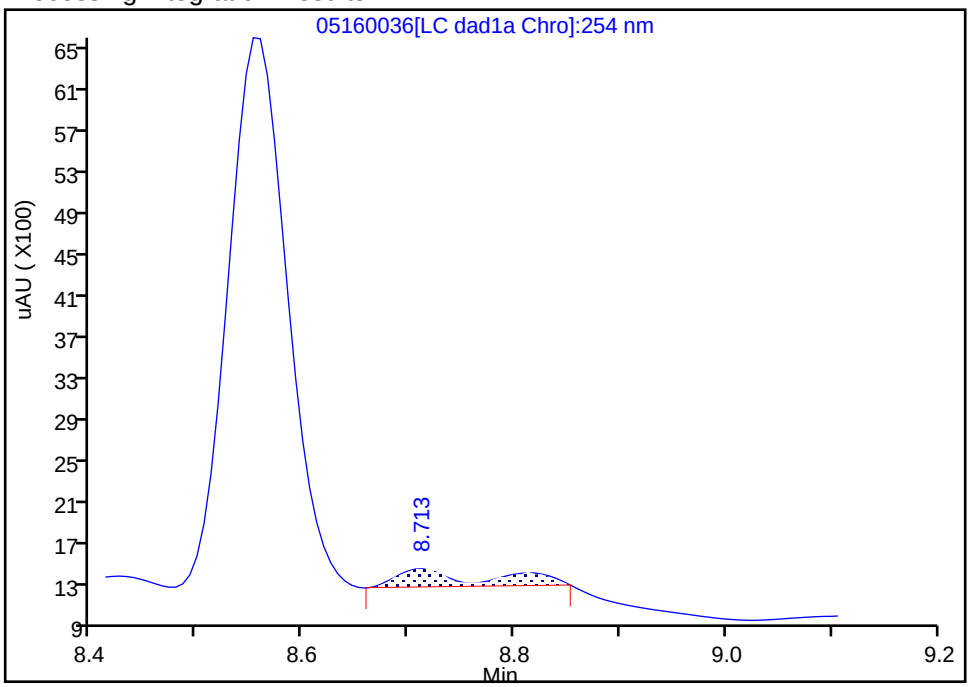
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240516-133471.b\05160036.d				
Injection Date:	17-May-2024 01:39:34	Instrument ID:	CHHPLC_X3		
Lims ID:	280-191424-A-3-A	Lab Sample ID:	280-191424-3		
Client ID:	FBQmw-180-240401-GW				
Operator ID:	JZ	ALS Bottle#:	36	Worklist Smp#:	36
Injection Vol:	100.0 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

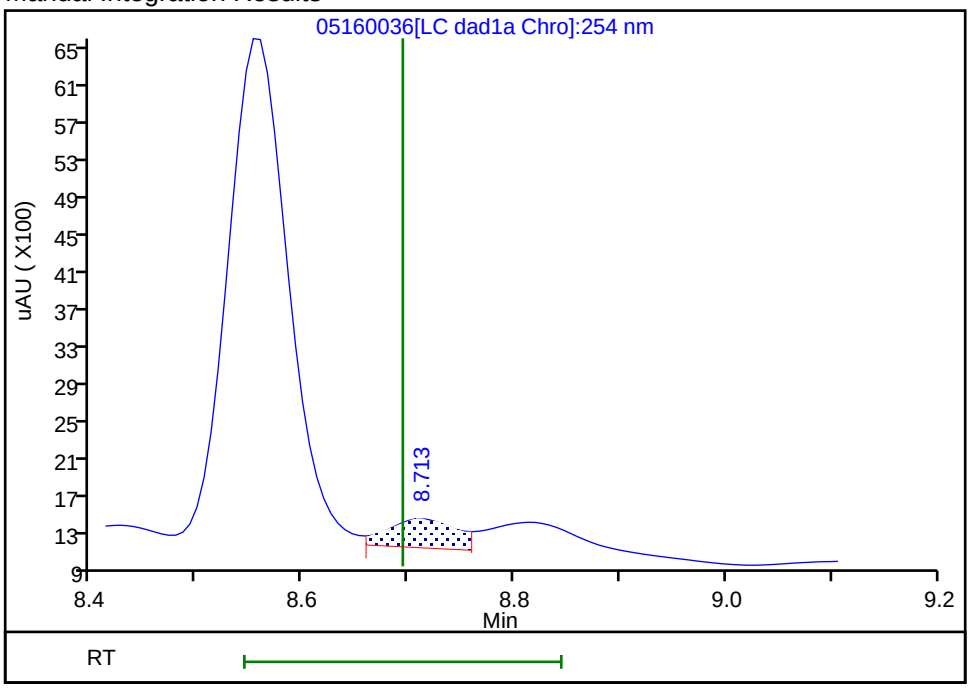
Processing Integration Results

RT: 8.71
Area: 1058
Amount: 0.004748
Amount Units: ug/mL



Manual Integration Results

RT: 8.71
Area: 1454
Amount: 0.006524
Amount Units: ug/mL



Reviewer: LV5D, 17-May-2024 12:37:08 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

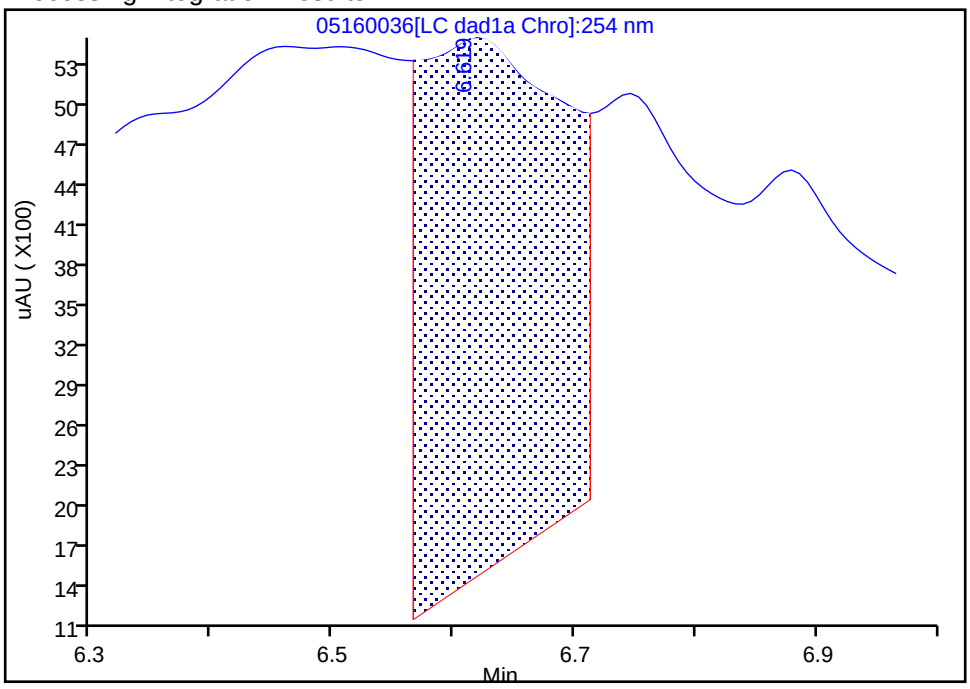
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240516-133471.b\05160036.d				
Injection Date:	17-May-2024 01:39:34	Instrument ID:	CHHPLC_X3		
Lims ID:	280-191424-A-3-A	Lab Sample ID:	280-191424-3		
Client ID:	FBQmw-180-240401-GW				
Operator ID:	JZ	ALS Bottle#:	36	Worklist Smp#:	36
Injection Vol:	100.0 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

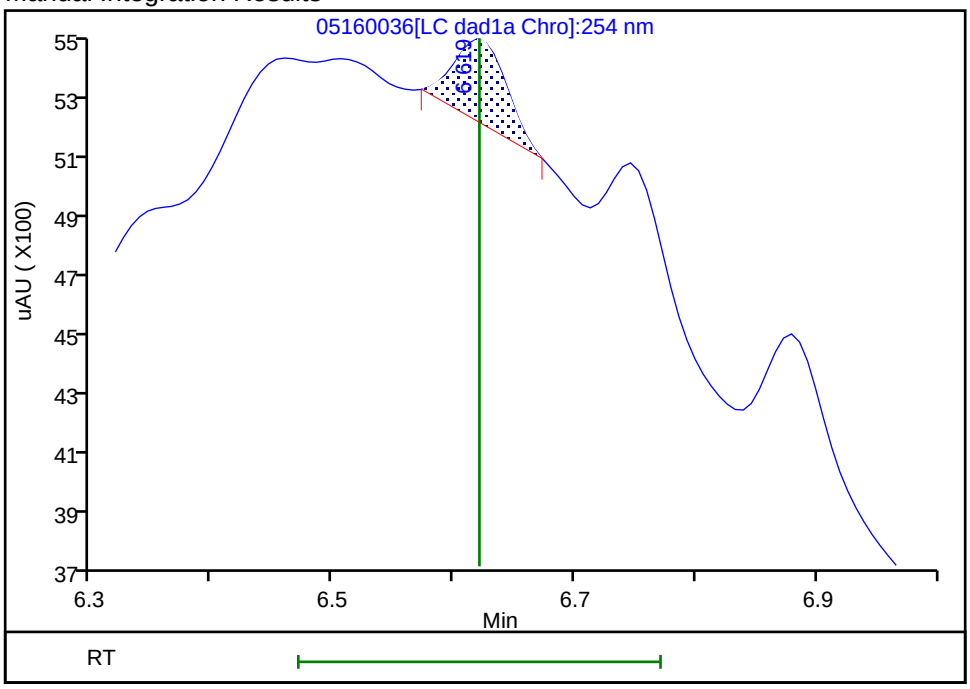
Processing Integration Results

RT: 6.62
Area: 32121
Amount: 0.336192
Amount Units: ug/mL



Manual Integration Results

RT: 6.62
Area: 842
Amount: 0.008813
Amount Units: ug/mL



Reviewer: LV5D, 17-May-2024 12:36:48 -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.: 280-191424-1

SDG No.:

Client Sample ID: FBQmw-180-240401-GW | Lab Sample ID: 280-191424-3

Matrix: Water | Lab File ID: 05160032.D

Analysis Method: 8330B | Date Collected: 05/09/2024 10:41

Extraction Method: 3535 | Date Extracted: 05/15/2024 12:30

Sample wt/vol: 441.8(mL) | Date Analyzed: 05/17/2024 07:11

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.: 653699 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
88-72-2	*2-Nitrotoluene*	*1.7*	*Q B J1*	*0.24*	0.23	*0.097*
2691-41-0	HMX	0.23	U Q	0.24	0.23	0.099
121-82-4	RDX	0.23	U Q	0.24	0.23	0.058

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	78	*Q*	83-119

Eurofins Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20240516-133474.b\05160032.D				
Lims ID:	280-191424-A-3-A				
Client ID:	FBQmw-180-240401-GW				
Sample Type:	Client				
Inject. Date:	17-May-2024 07:11:00	ALS Bottle#:	32	Worklist Smp#:	32
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-191424-A-3-A				
Operator ID:	JZ	Instrument ID:	CHHPLC_X5		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X5\20240516-133474.b\8330_X5_Luna.m				
Limit Group:	GCSV - 8330				
Last Update:	17-May-2024 16:54:53	Calib Date:	28-Mar-2024 05:53:05		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270027.D				
Column 1 :	Luna-Phenyl hexyl (4.60 mm)		Det: LC mwd1A, 254 nm		
Process Host:	CTX1618				
First Level Reviewer: LV5D		Date:	17-May-2024 16:54:06		

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
5 HMX	1		6.666			ND	
8 RDX	1		8.699			ND	
9 Nitrobenzene	1		11.352			ND	
$ 10 1,2-Dinitrobenzene	1	12.334	12.339	-0.005	41349	0.1565	
12 1,3-Dinitrobenzene	1		14.566			ND	
13 Nitroglycerin	2		14.759			ND	
14 o-Nitrotoluene	1	15.428	15.452	-0.024	37776	0.1527	
16 p-Nitrotoluene	1		15.712			ND	
17 4-Amino-2,6-dinitrotoluene	1		16.186			ND	
18 m-Nitrotoluene	1		16.559			ND	
19 2-Amino-4,6-dinitrotoluene	1		17.059			ND	
20 1,3,5-Trinitrobenzene	1		17.512			ND	
21 2,6-Dinitrotoluene	1		18.472			ND	
22 2,4-Dinitrotoluene	1		18.959			ND	
23 Tetryl	1		22.279			ND	
24 2,4,6-Trinitrotoluene	1		23.259			ND	
25 PETN	2		24.179			ND	

QC Flag Legend

Processing Flags

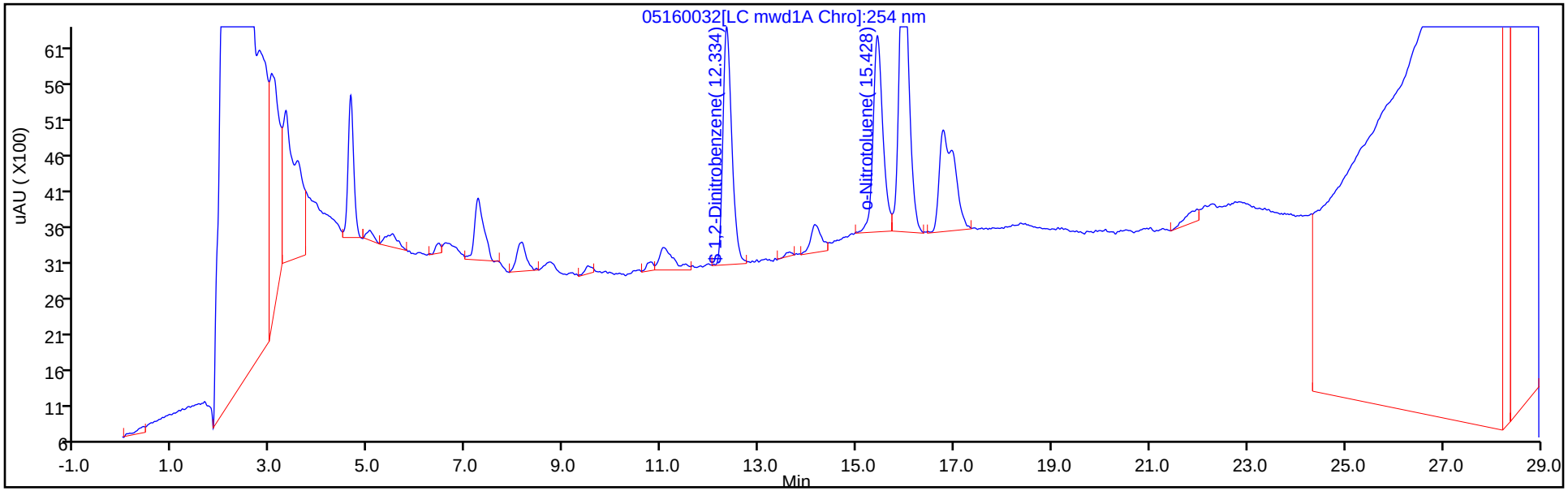
Report Date: 17-May-2024 16:54:54 Chrom Revision: 2.3 14-May-2024 14:23:08

Eurofins Denver

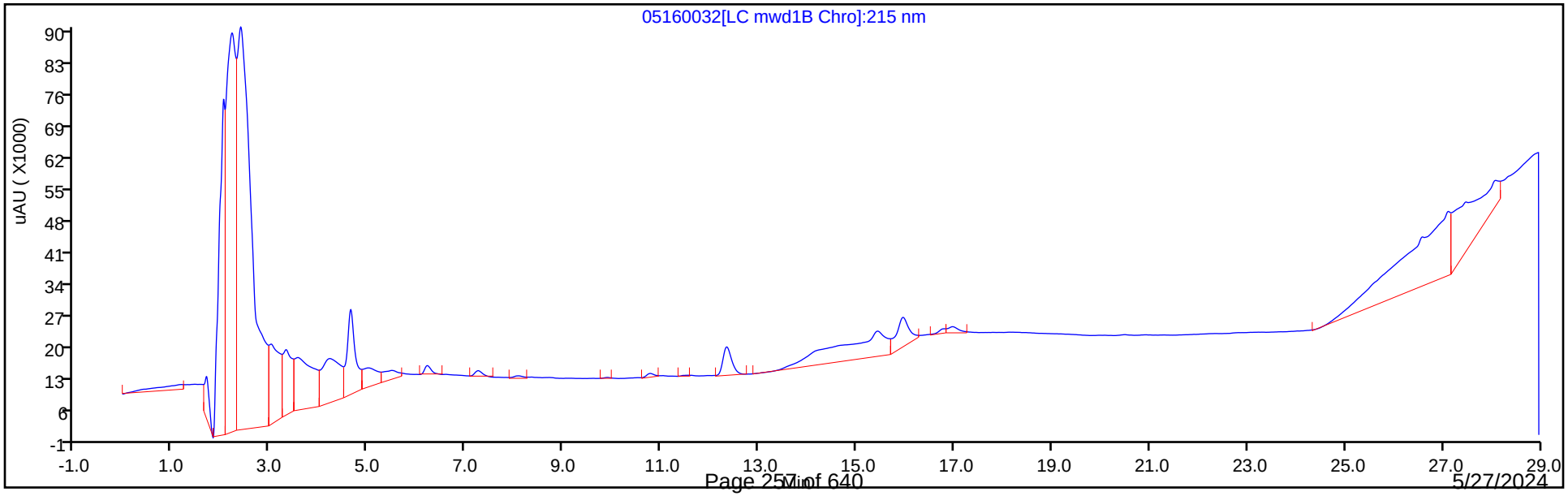
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240516-133474.b\05160032.D

Injection Date:	17-May-2024 07:11:00	Instrument ID:	CHHPLC_X5	Operator ID:	JZ
Lims ID:	280-191424-A-3-A	Lab Sample ID:	280-191424-3	Worklist Smp#:	32
Client ID:	FBQmw-180-240401-GW				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	32
Method:	8330_X5_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



5/27/2024
7:57:40 AM

Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20240516-133474.b\05160032.D				
Lims ID:	280-191424-A-3-A				
Client ID:	FBQmw-180-240401-GW				
Sample Type:	Client				
Inject. Date:	17-May-2024 07:11:00	ALS Bottle#:	32	Worklist Smp#:	32
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-191424-A-3-A				
Operator ID:	JZ	Instrument ID:	CHHPLC_X5		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X5\20240516-133474.b\8330_X5_Luna.m				
Limit Group:	GCSV - 8330				
Last Update:	17-May-2024 16:54:53	Calib Date:	28-Mar-2024 05:53:05		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270027.D				
Column 1 :	Luna-Phenyl hexyl (4.60 mm)		Det: LC mwd1A, 254 nm		
Process Host:	CTX1618				

First Level Reviewer: LV5D Date: 17-May-2024 16:54:06

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.1565	78.27

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-191424-1

SDG No.:

Client Sample ID: FBQmw-180-240401-GW RE | Lab Sample ID: 280-191424-3 RE

Matrix: Water | Lab File ID: 05230034.D

Analysis Method: 8330B | Date Collected: 05/09/2024 10:41

Extraction Method: 3535 | Date Extracted: 05/22/2024 14:37

Sample wt/vol: 457.9(mL) | Date Analyzed: 05/24/2024 01:22

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.: 654555 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
88-72-2	*2-Nitrotoluene*	*0.22*	*U H Q*	*0.23*	0.22	*0.093*
99-08-1	*3-Nitrotoluene*	*0.38*	*U H Q*	*0.44*	0.38	*0.21*
99-99-0	*4-Nitrotoluene*	*0.44*	*U H Q*	*0.45*	0.44	*0.11*

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	106		83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240523-133725.b\05230034.D
Lims ID: 280-191424-B-3-A RE
Client ID: FBQmw-180-240401-GW
Sample Type: Client
Inject. Date: 24-May-2024 01:22:45 ALS Bottle#: 34 Worklist Smp#: 34
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-191424-B-3-A
Operator ID: JZ Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20240523-133725.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 24-May-2024 12:35:12 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: CTX1640

First Level Reviewer: LV5D Date: 24-May-2024 11:40:59

	Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/mL	Flags
	4 HMX	1		6.632			ND	U
	8 RDX	1		7.638			ND	
$	10 1,2-Dinitrobenzene	1	8.562	8.572	-0.010	28038	0.2123	
	11 1,3,5-Trinitrobenzene	1		8.712			ND	U
	12 1,3-Dinitrobenzene	1		9.325			ND	7
	13 Nitrobenzene	1		9.685			ND	
	15 Tetryl	1		9.991			ND	
	16 Nitroglycerin	2		10.471			ND	
	17 2,4,6-Trinitrotoluene	1		10.905			ND	
	18 4-Amino-2,6-dinitrotoluene	1		11.071			ND	
	19 2-Amino-4,6-dinitrotoluene	1		11.325			ND	
	20 2,6-Dinitrotoluene	1		11.471			ND	
	21 2,4-Dinitrotoluene	1		11.651			ND	
	22 o-Nitrotoluene	1		12.425			ND	7
	23 p-Nitrotoluene	1		12.838			ND	
	24 m-Nitrotoluene	1		13.385			ND	
	25 PETN	2		14.425			ND	

QC Flag Legend

Processing Flags
7 - Failed Limit of Detection
Review Flags
U - Marked Undetected

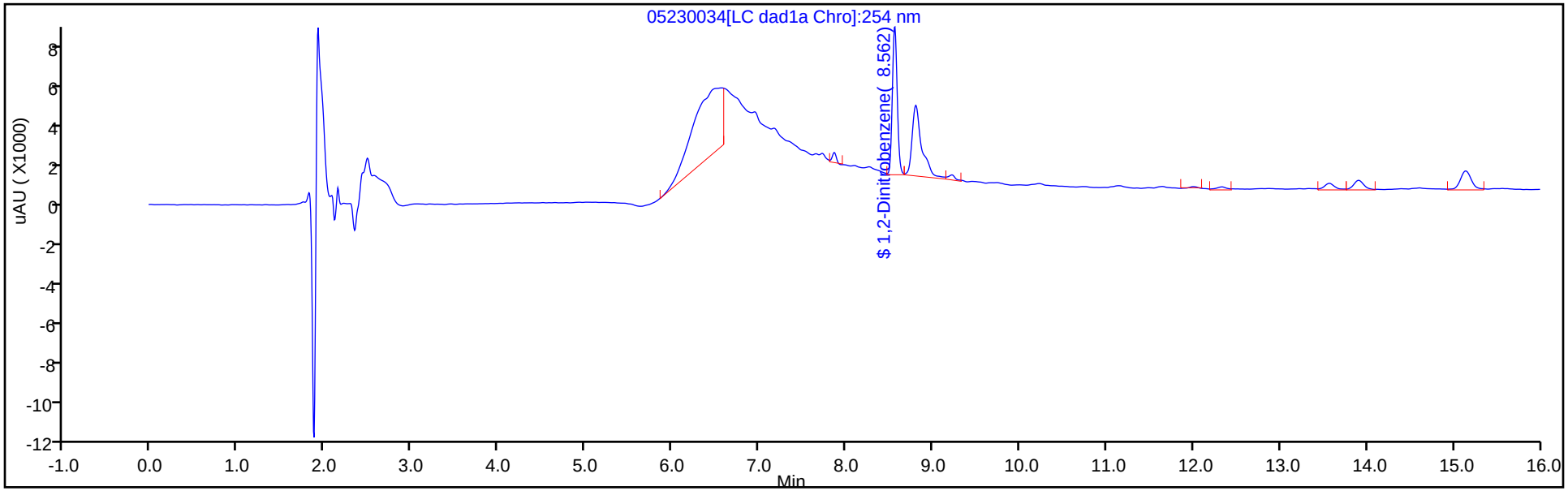
Report Date: 24-May-2024 12:35:18 Chrom Revision: 2.3 20-May-2024 22:00:34

Eurofins Denver

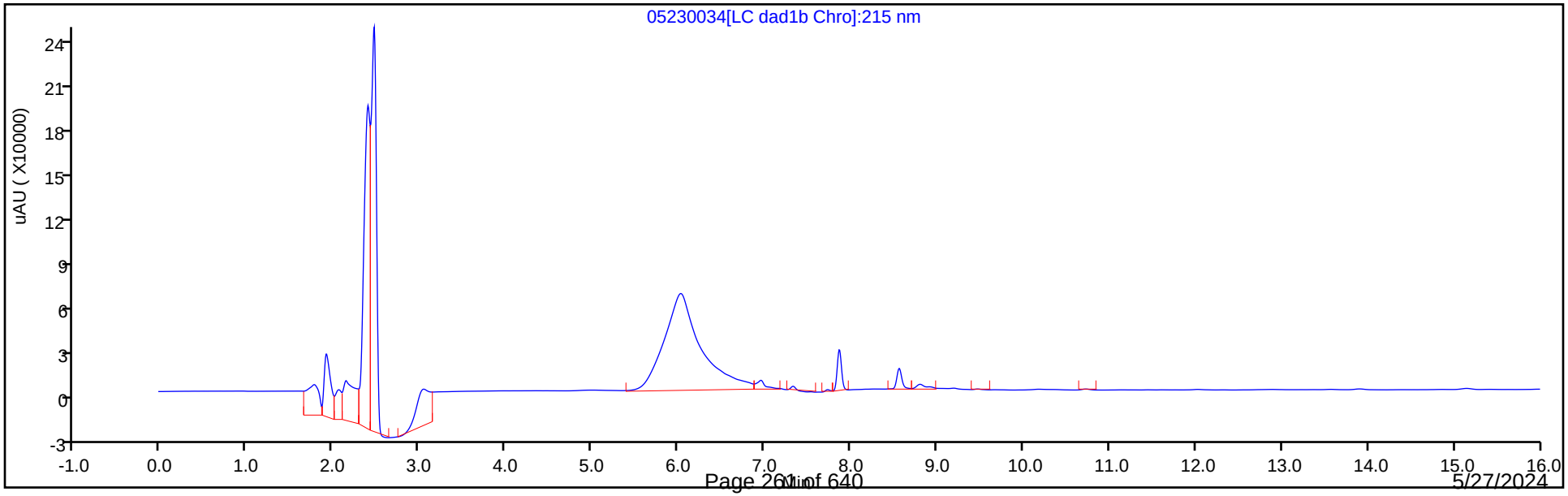
Data File: \\chromfs\denver\chromdata\chhplc_x\20240523-133725.b\05230034.d

Injection Date:	24-May-2024 01:22:45	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	280-191424-B-3-A RE	Lab Sample ID:	280-191424-3	Worklist Smp#:	34
Client ID:	FBQmw-180-240401-GW				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	34
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\20240523-133725.b\05230034.D				
Lims ID:	280-191424-B-3-A RE				
Client ID:	FBQmw-180-240401-GW				
Sample Type:	Client				
Inject. Date:	24-May-2024 01:22:45	ALS Bottle#:	34	Worklist Smp#:	34
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-191424-B-3-A				
Operator ID:	JZ	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20240523-133725.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	24-May-2024 12:35:12	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:	CTX1640				

First Level Reviewer: LV5D Date: 24-May-2024 11:40:59

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.2123	106.15

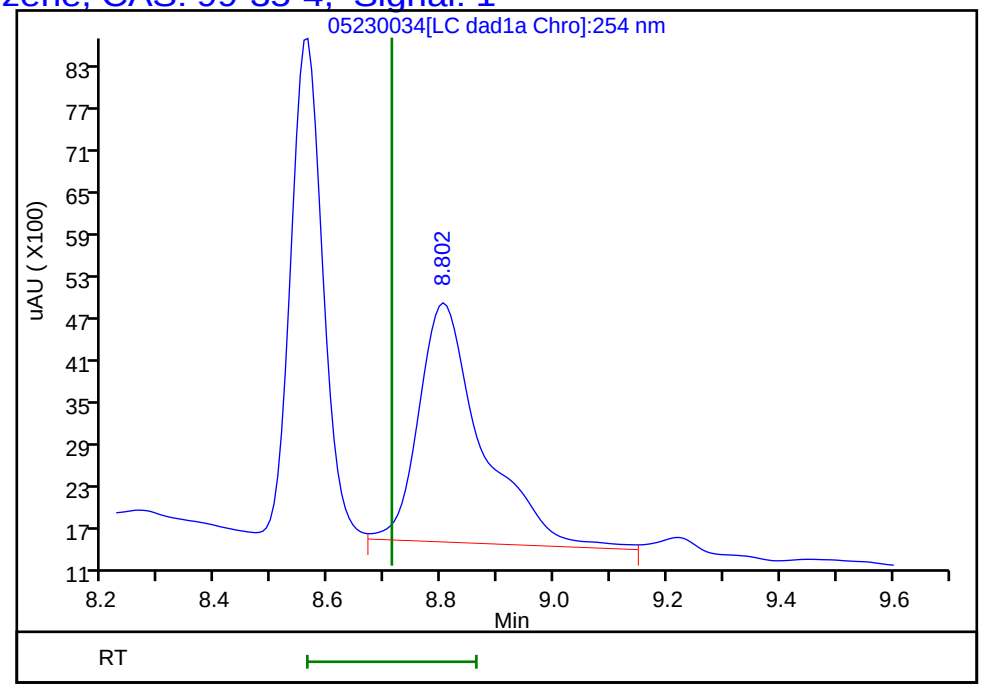
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20240523-133725.b\05230034.d				
Injection Date:	24-May-2024 01:22:45	Instrument ID:	CHHPLC_X3		
Lims ID:	280-191424-B-3-A RE	Lab Sample ID:	280-191424-3		
Client ID:	FBQmw-180-240401-GW				
Operator ID:	JZ	ALS Bottle#:	34	Worklist Smp#:	34
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: 8.80
Response: 26651
Amount: 0.119590



Reviewer: LV5D, 24-May-2024 11:40:59
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

User Disabled Compound Report

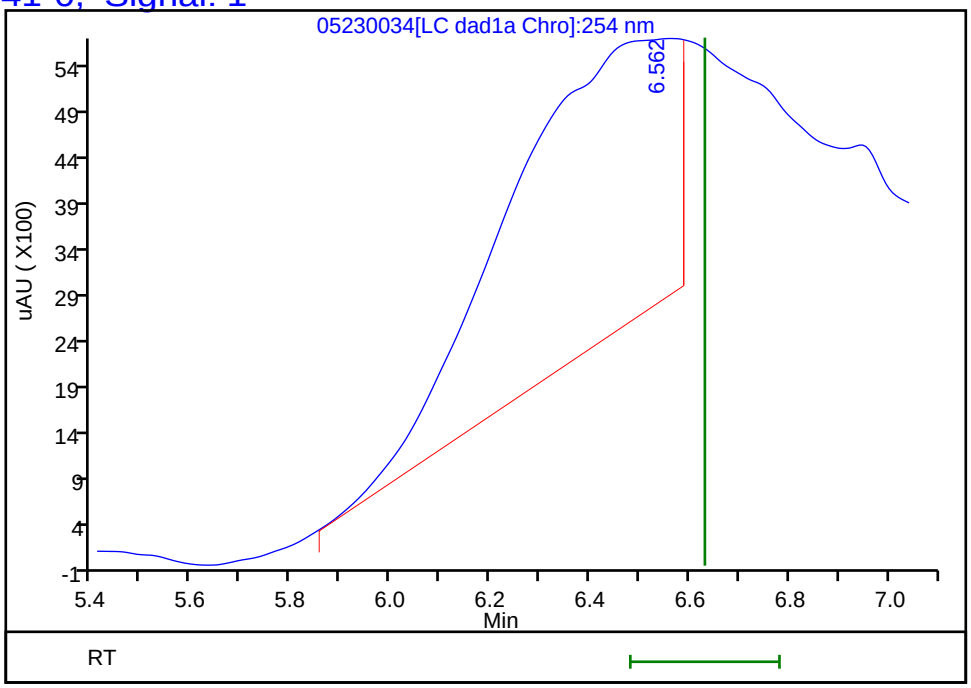
Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20240523-133725.b\05230034.d
Injection Date: 24-May-2024 01:22:45 Instrument ID: CHHPLC_X3
Lims ID: 280-191424-B-3-A RE Lab Sample ID: 280-191424-3
Client ID: FBQmw-180-240401-GW
Operator ID: JZ ALS Bottle#: 34 Worklist Smp#: 34
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: 6.56
Response: 74999
Amount: 0.784971



Reviewer: LV5D, 24-May-2024 11:40:59
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-191424-1

SDG No.:

Client Sample ID: FBQmw-181-240401-GW | Lab Sample ID: 280-191424-4

Matrix: Water | Lab File ID: 05160037.D

Analysis Method: 8330B | Date Collected: 05/09/2024 12:20

Extraction Method: 3535 | Date Extracted: 05/15/2024 12:30

Sample wt/vol: 473.2(mL) | Date Analyzed: 05/17/2024 02:02

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.: 653693 | 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	0.089
99-65-0	1,3-Dinitrobenzene	0.11	U	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 Q	0.22	0.21	0.090
99-08-1	3-Nitrotoluene	0.37	U Q	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 Q	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
121-82-4	RDX	0.21	U	0.22	0.21	0.054
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	90		83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240516-133471.b\05160037.D
Lims ID: 280-191424-B-4-A
Client ID: FBQmw-181-240401-GW
Sample Type: Client
Inject. Date: 17-May-2024 02:02:32 ALS Bottle#: 37 Worklist Smp#: 37
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-191424-B-4-A
Operator ID: JZ Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20240516-133471.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 17-May-2024 12:38:25 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: CTX1618

First Level Reviewer: LV5D Date: 17-May-2024 12:37:18

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/mL	Flags
4 HMX	1		6.621			ND	U
8 RDX	1		7.628			ND	
$ 10 1,2-Dinitrobenzene	1	8.553	8.554	-0.001	23666	0.1791	
11 1,3,5-Trinitrobenzene	1		8.694			ND	U
12 1,3-Dinitrobenzene	1		9.301			ND	
13 Nitrobenzene	1		9.654			ND	
15 Tetryl	1		9.961			ND	
16 Nitroglycerin	2		10.434			ND	
17 2,4,6-Trinitrotoluene	1		10.861			ND	
18 4-Amino-2,6-dinitrotoluene	1		11.027			ND	
19 2-Amino-4,6-dinitrotoluene	1		11.281			ND	
20 2,6-Dinitrotoluene	1		11.434			ND	
21 2,4-Dinitrotoluene	1		11.607			ND	
22 o-Nitrotoluene	1		12.387			ND	7
23 p-Nitrotoluene	1		12.801			ND	
24 m-Nitrotoluene	1		13.347			ND	
25 PETN	2		14.401			ND	

QC Flag Legend

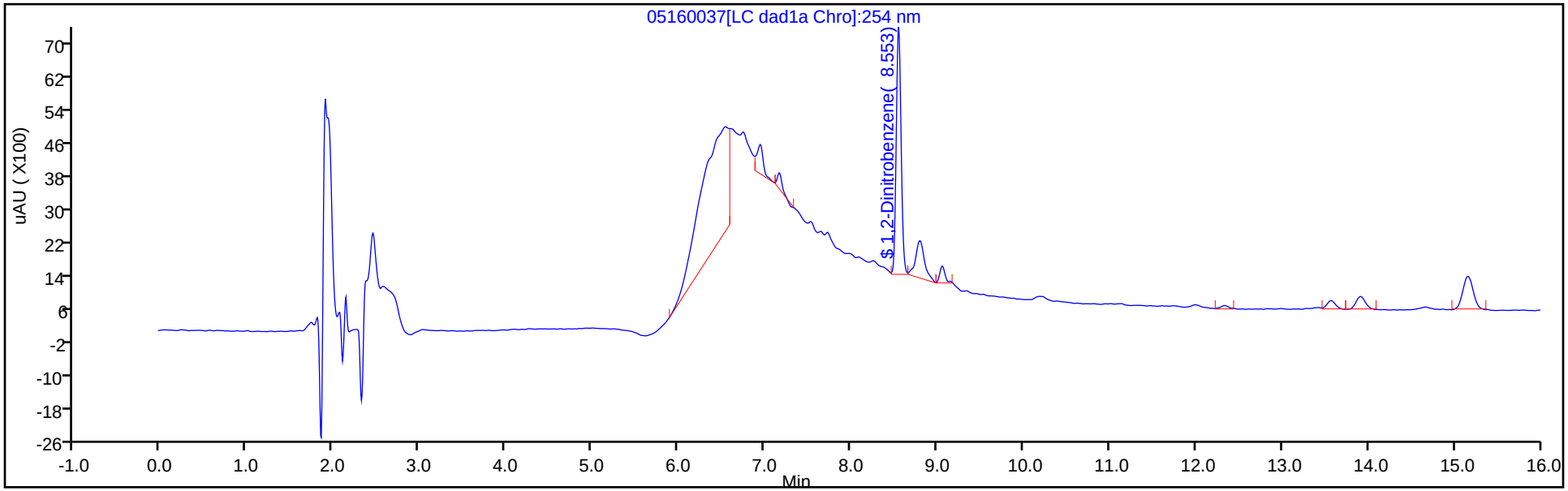
Processing Flags
7 - Failed Limit of Detection
Review Flags
U - Marked Undetected

Report Date: 17-May-2024 12:38:27 Chrom Revision: 2.3 14-May-2024 14:23:08

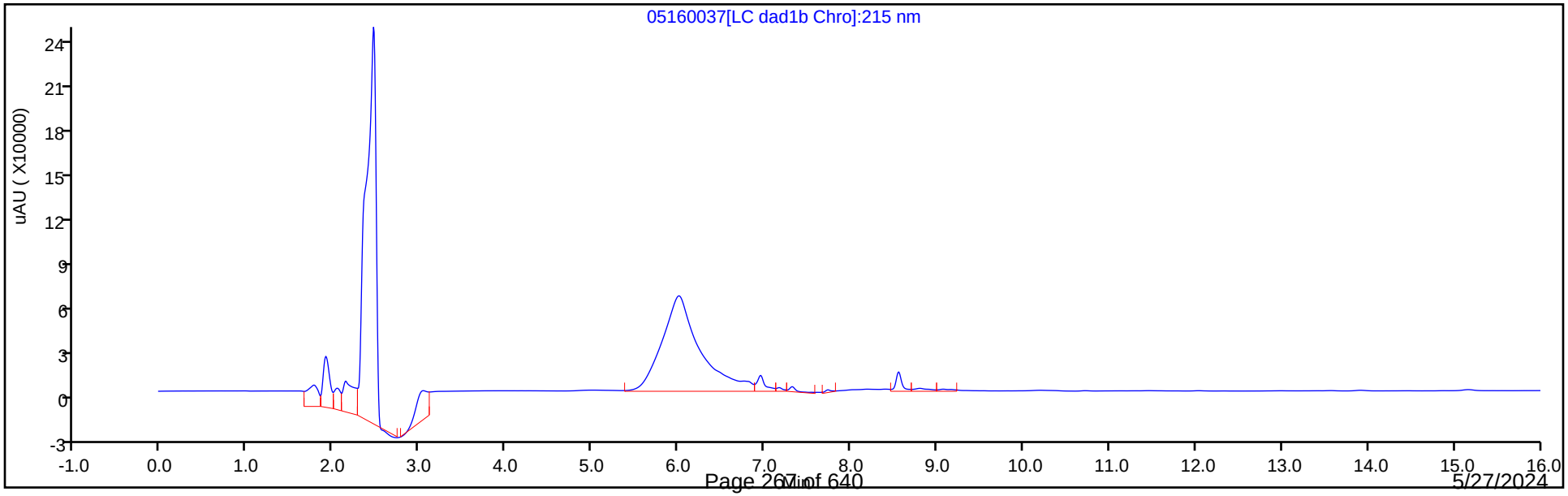
Eurofins Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20240516-133471.b\05160037.d				
Injection Date:	17-May-2024 02:02:32	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	280-191424-B-4-A	Lab Sample ID:	280-191424-4	Worklist Smp#:	37
Client ID:	FBQmw-181-240401-GW				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	37
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



5/27/2024
7:57:40 AM

Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20240516-133471.b\05160037.D				
Lims ID:	280-191424-B-4-A				
Client ID:	FBQmw-181-240401-GW				
Sample Type:	Client				
Inject. Date:	17-May-2024 02:02:32	ALS Bottle#:	37	Worklist Smp#:	37
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-191424-B-4-A				
Operator ID:	JZ	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20240516-133471.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	17-May-2024 12:38:25	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:	CTX1618				

First Level Reviewer: LV5D Date: 17-May-2024 12:37:18

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.1791	89.54

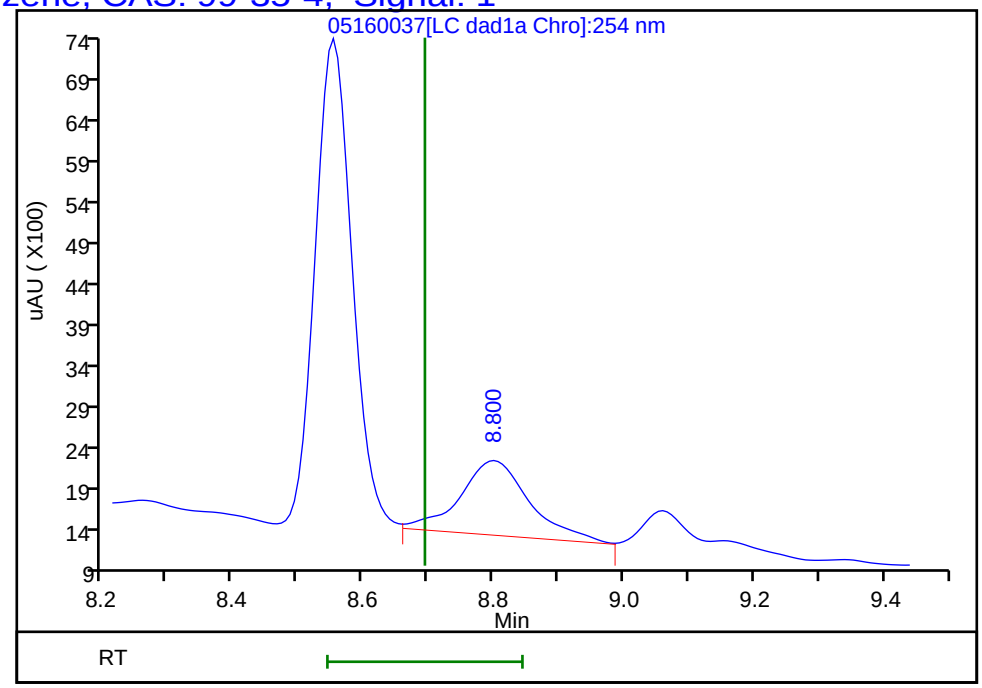
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20240516-133471.b\05160037.d				
Injection Date:	17-May-2024 02:02:32	Instrument ID:	CHHPLC_X3		
Lims ID:	280-191424-B-4-A	Lab Sample ID:	280-191424-4		
Client ID:	FBQmw-181-240401-GW				
Operator ID:	JZ	ALS Bottle#:	37	Worklist Smp#:	37
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: 8.80
Response: 6777
Amount: 0.030410



Reviewer: LV5D, 17-May-2024 12:37:18
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

User Disabled Compound Report

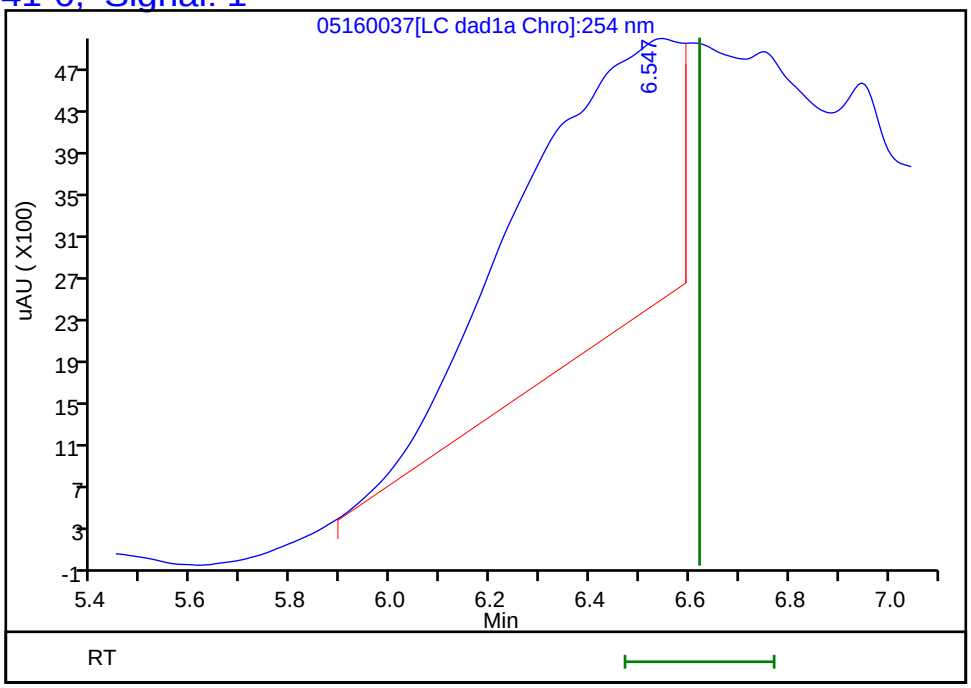
Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20240516-133471.b\05160037.d
Injection Date: 17-May-2024 02:02:32 Instrument ID: CHHPLC_X3
Lims ID: 280-191424-B-4-A Lab Sample ID: 280-191424-4
Client ID: FBQmw-181-240401-GW
Operator ID: JZ ALS Bottle#: 37 Worklist Smp#: 37
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: 61504
Amount: 0.643726



Reviewer: LV5D, 17-May-2024 12:37:18
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-191424-1

SDG No.:

Client Sample ID: FBQmw-181-240401-GW RE | Lab Sample ID: 280-191424-4 RE

Matrix: Water | Lab File ID: 05230035.D

Analysis Method: 8330B | Date Collected: 05/09/2024 12:20

Extraction Method: 3535 | Date Extracted: 05/22/2024 14:37

Sample wt/vol: 461.1(mL) | Date Analyzed: 05/24/2024 01:45

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.: 654555 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
88-72-2	*2-Nitrotoluene*	*0.22*	*U H Q*	*0.23*	0.22	*0.093*
99-08-1	*3-Nitrotoluene*	*0.38*	*U M H Q*	*0.43*	0.38	*0.21*
99-99-0	*4-Nitrotoluene*	*0.43*	*U H Q*	*0.44*	0.43	*0.11*

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	104		83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240523-133725.b\05230035.D
Lims ID: 280-191424-A-4-A RE
Client ID: FBQmw-181-240401-GW
Sample Type: Client
Inject. Date: 24-May-2024 01:45:37 ALS Bottle#: 35 Worklist Smp#: 35
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-191424-A-4-A
Operator ID: JZ Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20240523-133725.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 24-May-2024 12:35:12 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: CTX1640

First Level Reviewer: LV5D Date: 24-May-2024 11:41:12

	Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/mL	Flags
	4 HMX	1		6.632			ND	U
	8 RDX	1		7.638			ND	
$	10 1,2-Dinitrobenzene	1	8.561	8.572	-0.011	27444	0.2078	
	11 1,3,5-Trinitrobenzene	1		8.712			ND	U
	12 1,3-Dinitrobenzene	1		9.325			ND	
	13 Nitrobenzene	1		9.685			ND	
	15 Tetryl	1		9.991			ND	
	16 Nitroglycerin	2		10.471			ND	
	17 2,4,6-Trinitrotoluene	1		10.905			ND	
	18 4-Amino-2,6-dinitrotoluene	1		11.071			ND	
	19 2-Amino-4,6-dinitrotoluene	1		11.325			ND	
	20 2,6-Dinitrotoluene	1		11.471			ND	
	21 2,4-Dinitrotoluene	1		11.651			ND	
	22 o-Nitrotoluene	1		12.425			ND	7
	23 p-Nitrotoluene	1		12.838			ND	
	24 m-Nitrotoluene	1	13.401	13.385	0.016	808	0.005609	M
	25 PETN	2		14.425			ND	

QC Flag Legend

Processing Flags
7 - Failed Limit of Detection
Review Flags
M - Manually Integrated
U - Marked Undetected

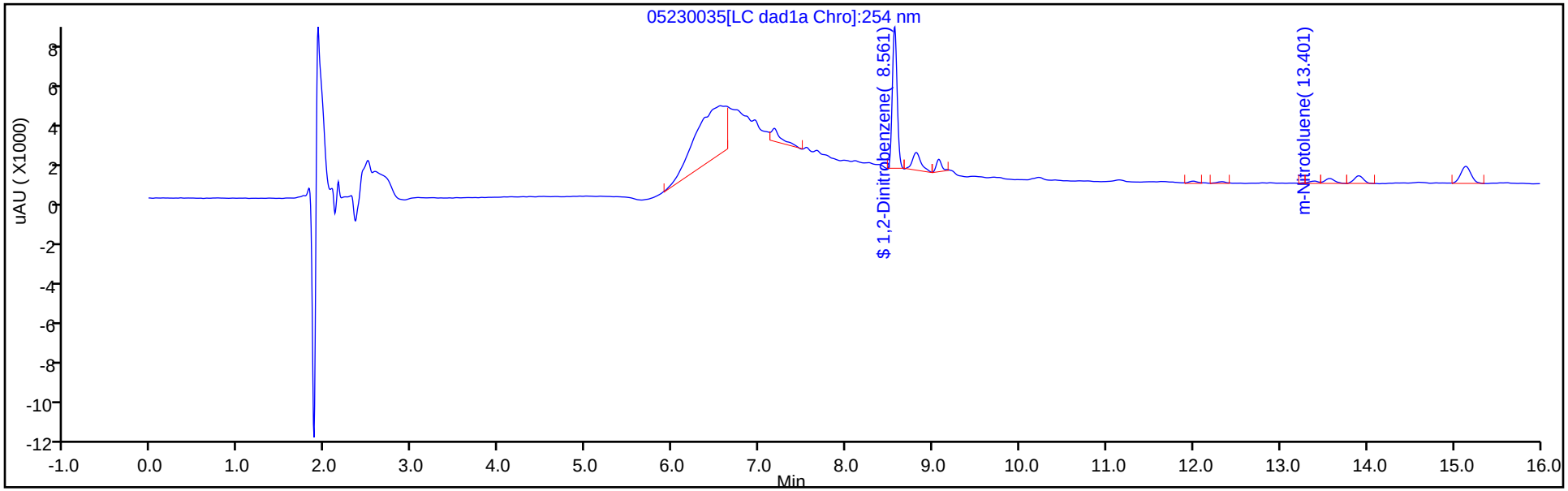
Report Date: 24-May-2024 12:35:19 Chrom Revision: 2.3 20-May-2024 22:00:34

Eurofins Denver

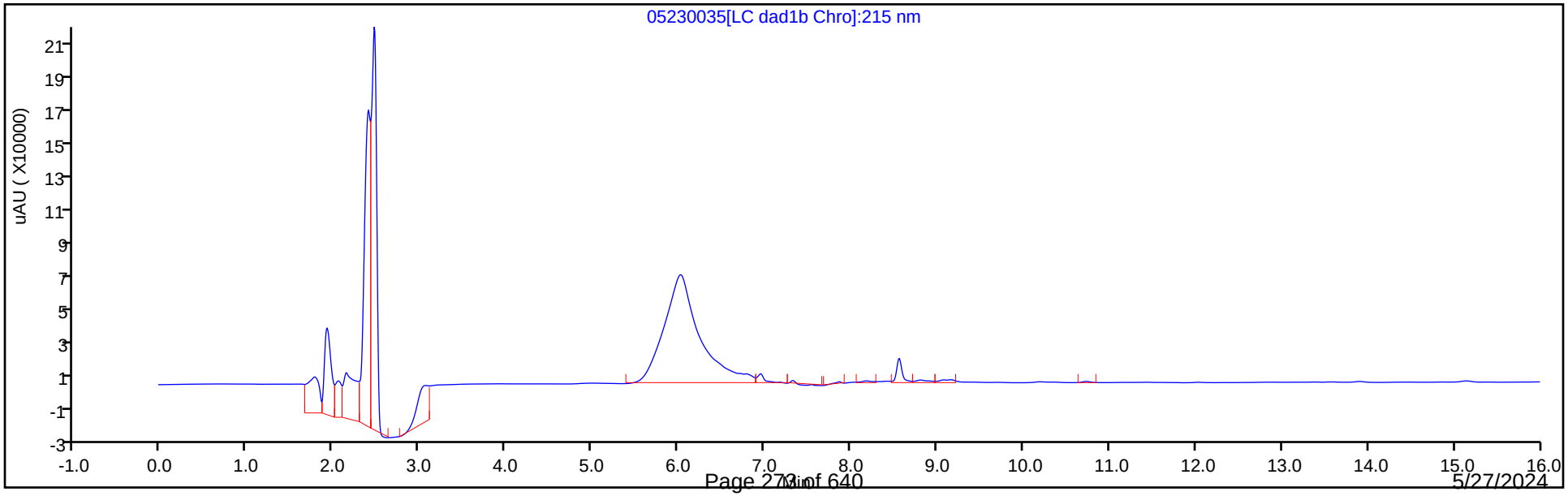
Data File: \\chromfs\denver\chromdata\chhplc_x\20240523-133725.b\05230035.d

Injection Date:	24-May-2024 01:45:37	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	280-191424-A-4-A RE	Lab Sample ID:	280-191424-4	Worklist Smp#:	35
Client ID:	FBQmw-181-240401-GW				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	35
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\20240523-133725.b\05230035.D				
Lims ID:	280-191424-A-4-A RE				
Client ID:	FBQmw-181-240401-GW				
Sample Type:	Client				
Inject. Date:	24-May-2024 01:45:37	ALS Bottle#:	35	Worklist Smp#:	35
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-191424-A-4-A				
Operator ID:	JZ	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20240523-133725.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	24-May-2024 12:35:12	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:	CTX1640				

First Level Reviewer: LV5D Date: 24-May-2024 11:41:12

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.2078	103.89

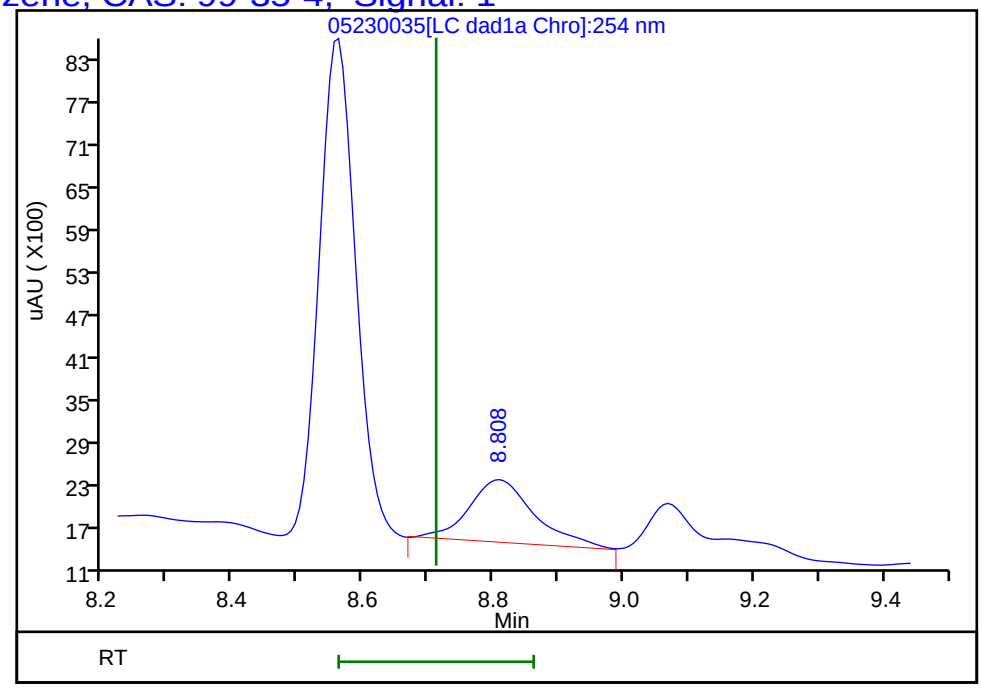
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20240523-133725.b\05230035.d				
Injection Date:	24-May-2024 01:45:37	Instrument ID:	CHHPLC_X3		
Lims ID:	280-191424-A-4-A RE	Lab Sample ID:	280-191424-4		
Client ID:	FBQmw-181-240401-GW				
Operator ID:	JZ	ALS Bottle#:	35	Worklist Smp#:	35
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: 8.81
Response: 6220
Amount: 0.027911



Reviewer: LV5D, 24-May-2024 11:41:12
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Manual Integration/User Assign Peak Report

Eurofins Denver

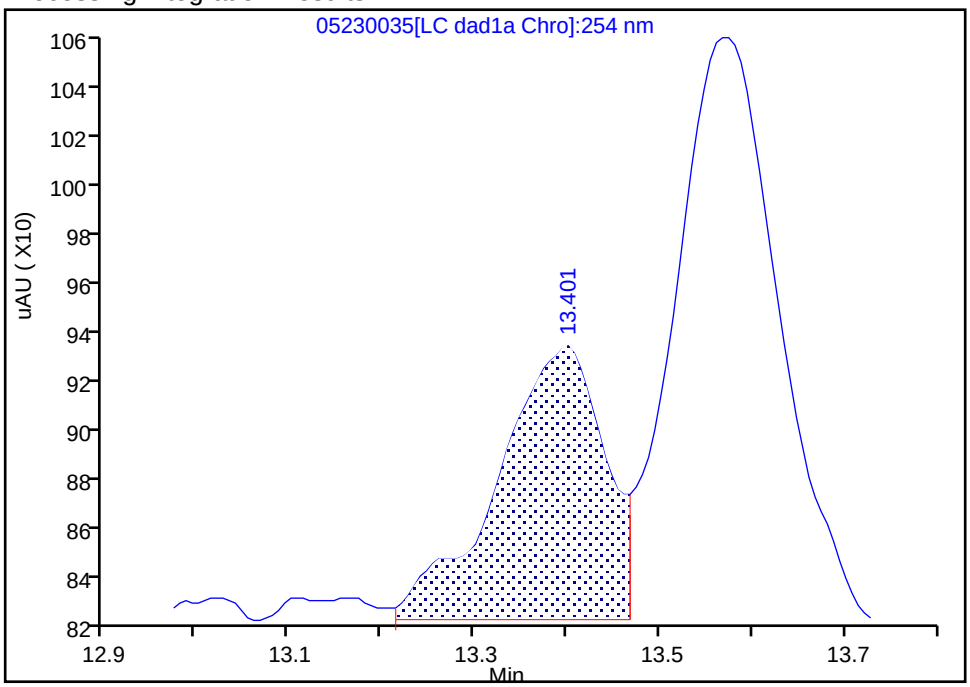
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240523-133725.b\05230035.d				
Injection Date:	24-May-2024 01:45:37	Instrument ID:	CHHPLC_X3		
Lims ID:	280-191424-A-4-A RE	Lab Sample ID:	280-191424-4		
Client ID:	FBQmw-181-240401-GW				
Operator ID:	JZ	ALS Bottle#:	35	Worklist Smp#:	35
Injection Vol:	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

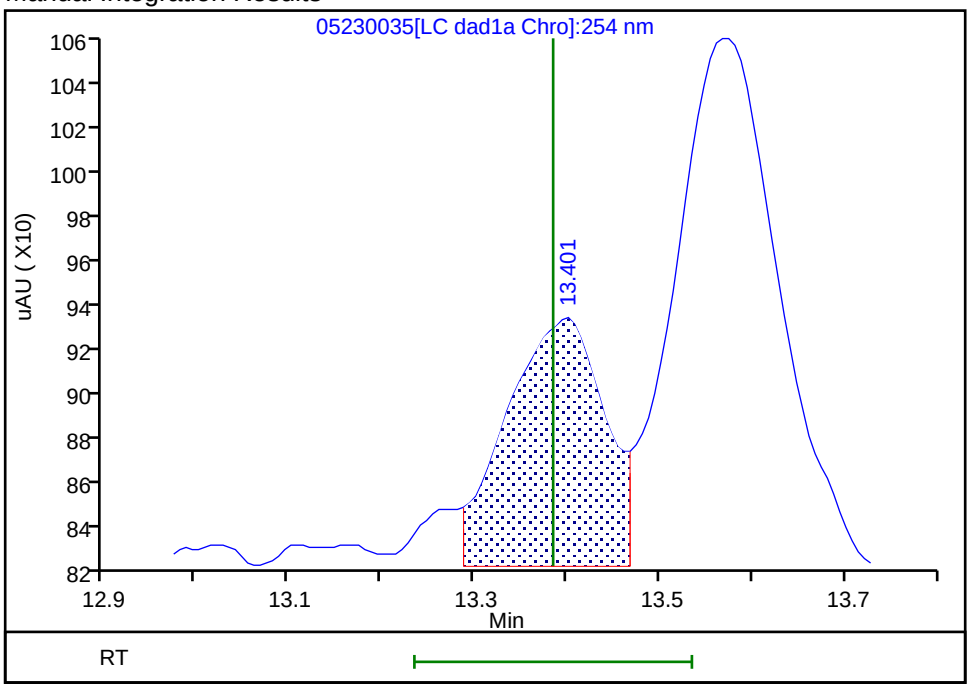
Processing Integration Results

RT: 13.40
Area: 891
Amount: 0.006185
Amount Units: ug/mL



Manual Integration Results

RT: 13.40
Area: 808
Amount: 0.005609
Amount Units: ug/mL



Reviewer: LV5D, 24-May-2024 11:41:09 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline

User Disabled Compound Report

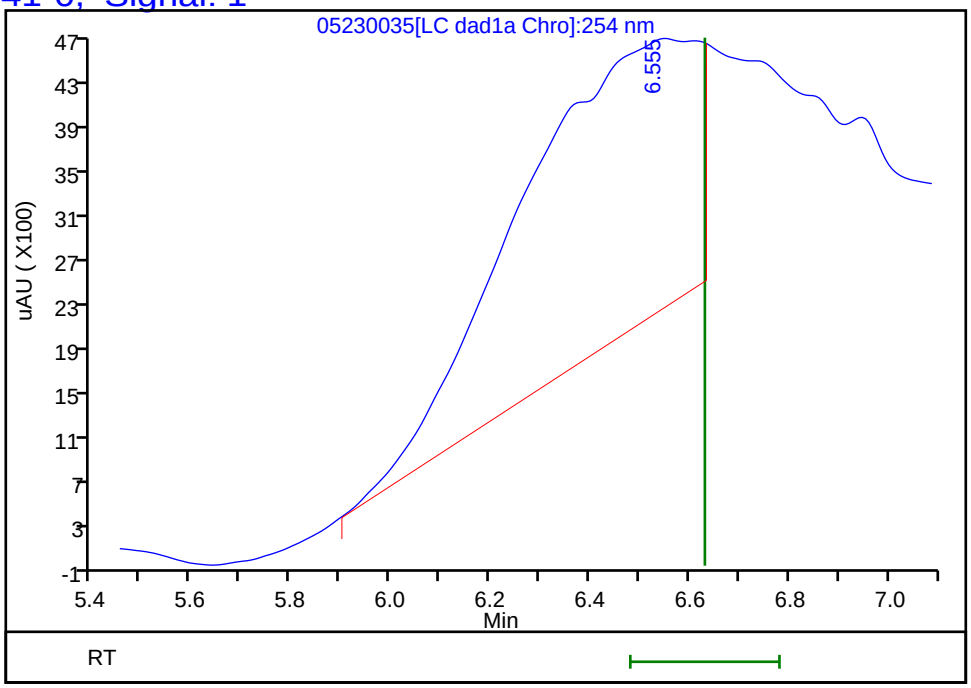
Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20240523-133725.b\05230035.d
Injection Date: 24-May-2024 01:45:37 Instrument ID: CHHPLC_X3
Lims ID: 280-191424-A-4-A RE Lab Sample ID: 280-191424-4
Client ID: FBQmw-181-240401-GW
Operator ID: JZ ALS Bottle#: 35 Worklist Smp#: 35
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: 64237
Amount: 0.672331



Reviewer: LV5D, 24-May-2024 11:41:12
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-191424-1

SDG No.:

Client Sample ID: FBQmw-178-240402-GW | Lab Sample ID: 280-191424-5

Matrix: Water | Lab File ID: 05160038.D

Analysis Method: 8330B | Date Collected: 05/09/2024 09:15

Extraction Method: 3535 | Date Extracted: 05/15/2024 12:30

Sample wt/vol: 451.1(mL) | Date Analyzed: 05/17/2024 02:25

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.: 653693 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-65-0	1,3-Dinitrobenzene	0.11	U M Q	0.12	0.11	0.041
118-96-7	2,4,6-Trinitrotoluene	0.11	U Q	0.12	0.11	0.050
121-14-2	2,4-Dinitrotoluene	0.089	U Q	0.11	0.089	0.030
606-20-2	2,6-Dinitrotoluene	0.089	U Q	0.11	0.089	0.044
35572-78-2	2-Amino-4,6-dinitrotoluene	0.11	U Q	0.12	0.11	0.056
88-72-2	2-Nitrotoluene	0.47	Q J1	0.23	0.22	0.095
99-08-1	3-Nitrotoluene	0.39	U Q	0.44	0.39	0.22
19406-51-0	4-Amino-2,6-dinitrotoluene	0.13	U Q	0.17	0.13	0.064
99-99-0	4-Nitrotoluene	0.44	U Q	0.45	0.44	0.11
98-95-3	Nitrobenzene	0.22	U Q	0.23	0.22	0.10
55-63-0	Nitroglycerin	2.2	U Q	2.3	2.2	1.0
78-11-5	PETN	1.1	U Q	1.2	1.1	0.50
121-82-4	RDX	2.4	Q M J1	0.23	0.22	0.057
479-45-8	Tetryl	0.11	U Q	0.12	0.11	0.035

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	69	M Q	83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240516-133471.b\05160038.D
Lims ID: 280-191424-A-5-A
Client ID: FBQmw-178-240402-GW
Sample Type: Client
Inject. Date: 17-May-2024 02:25:30 ALS Bottle#: 38 Worklist Smp#: 38
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-191424-A-5-A
Operator ID: JZ Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20240516-133471.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 17-May-2024 12:38:25 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: CTX1618

First Level Reviewer: LV5D Date: 17-May-2024 12:37:52

	Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/mL	Flags
4	HMX	1	6.626	6.621	0.005	3602	0.0377	M
8	RDX	1	7.646	7.628	0.018	24256	0.2190	M
$ 10	1,2-Dinitrobenzene	1	8.553	8.554	-0.001	18238	0.1378	M
11	1,3,5-Trinitrobenzene	1	8.713	8.694	0.019	2373	0.0106	M
12	1,3-Dinitrobenzene	1		9.301			ND	U
13	Nitrobenzene	1		9.654			ND	
15	Tetryl	1		9.961			ND	
16	Nitroglycerin	2		10.434			ND	
17	2,4,6-Trinitrotoluene	1		10.861			ND	
18	4-Amino-2,6-dinitrotoluene	1		11.027			ND	
19	2-Amino-4,6-dinitrotoluene	1		11.281			ND	
20	2,6-Dinitrotoluene	1		11.434			ND	
21	2,4-Dinitrotoluene	1		11.607			ND	
22	o-Nitrotoluene	1	12.360	12.387	-0.027	5515	0.0427	
23	p-Nitrotoluene	1		12.801			ND	
24	m-Nitrotoluene	1		13.347			ND	
25	PETN	2		14.401			ND	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated
U - Marked Undetected

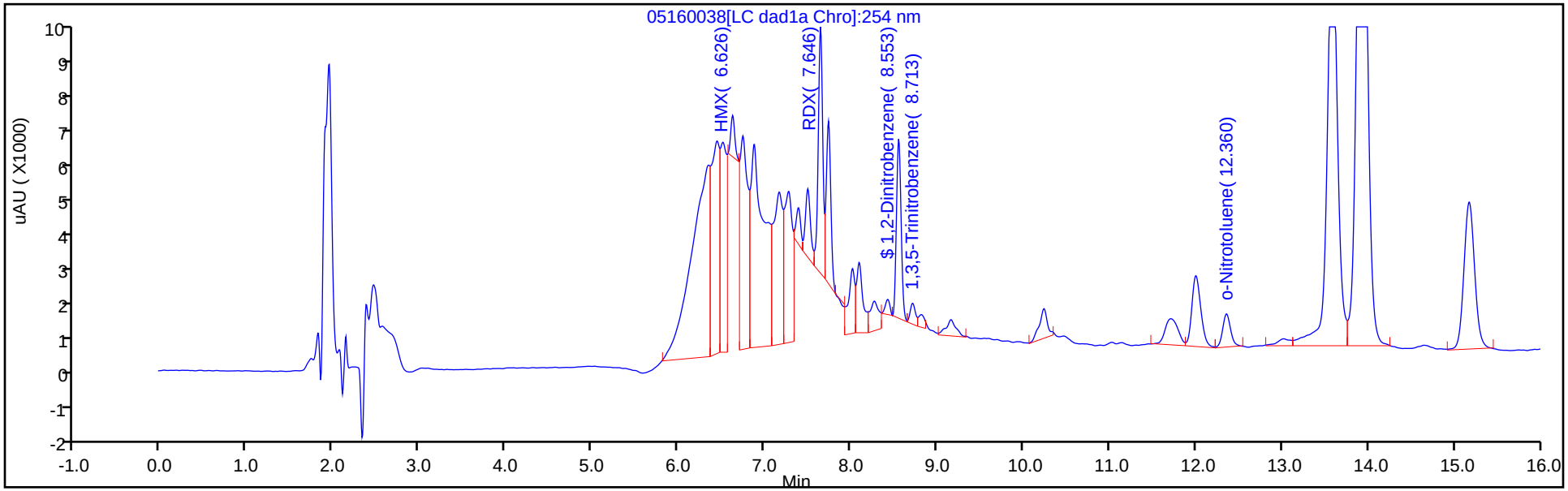
Report Date: 17-May-2024 12:38:28 Chrom Revision: 2.3 14-May-2024 14:23:08

Eurofins Denver

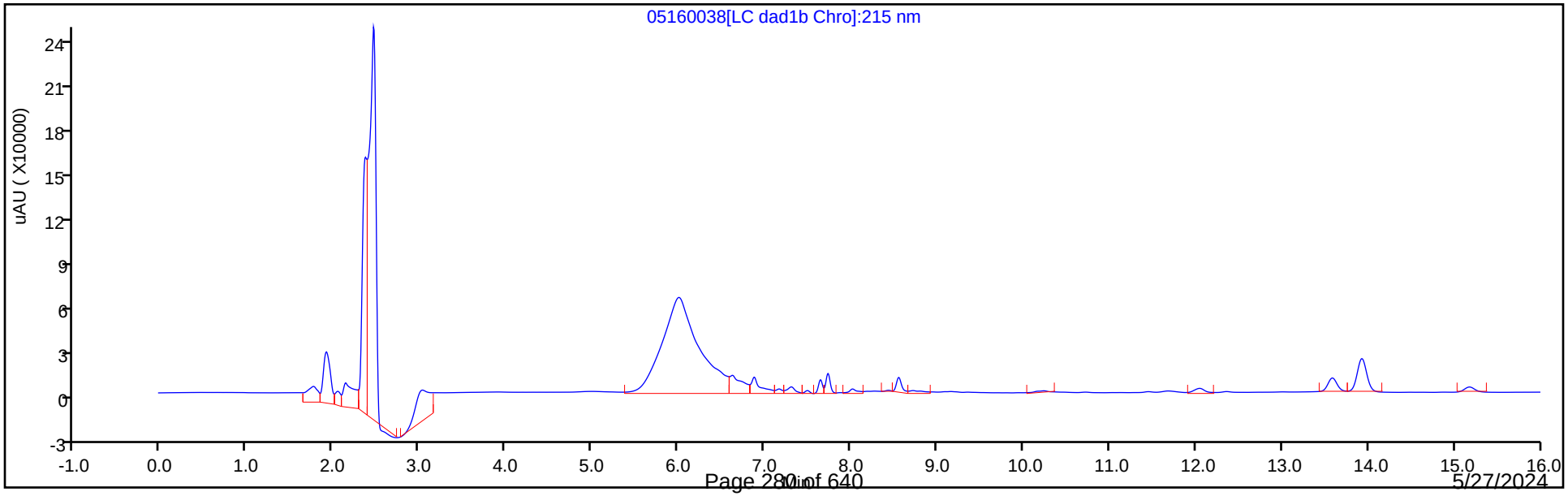
Data File: \\chromfs\denver\chromdata\chhplc_x\20240516-133471.b\05160038.d

Injection Date:	17-May-2024 02:25:30	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	280-191424-A-5-A	Lab Sample ID:	280-191424-5	Worklist Smp#:	38
Client ID:	FBQmw-178-240402-GW				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	38
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\20240516-133471.b\05160038.D				
Lims ID:	280-191424-A-5-A				
Client ID:	FBQmw-178-240402-GW				
Sample Type:	Client				
Inject. Date:	17-May-2024 02:25:30	ALS Bottle#:	38	Worklist Smp#:	38
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-191424-A-5-A				
Operator ID:	JZ	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20240516-133471.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	17-May-2024 12:38:25	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:	CTX1618				

First Level Reviewer: LV5D Date: 17-May-2024 12:37:52

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.1378	68.92

Eurofins Denver

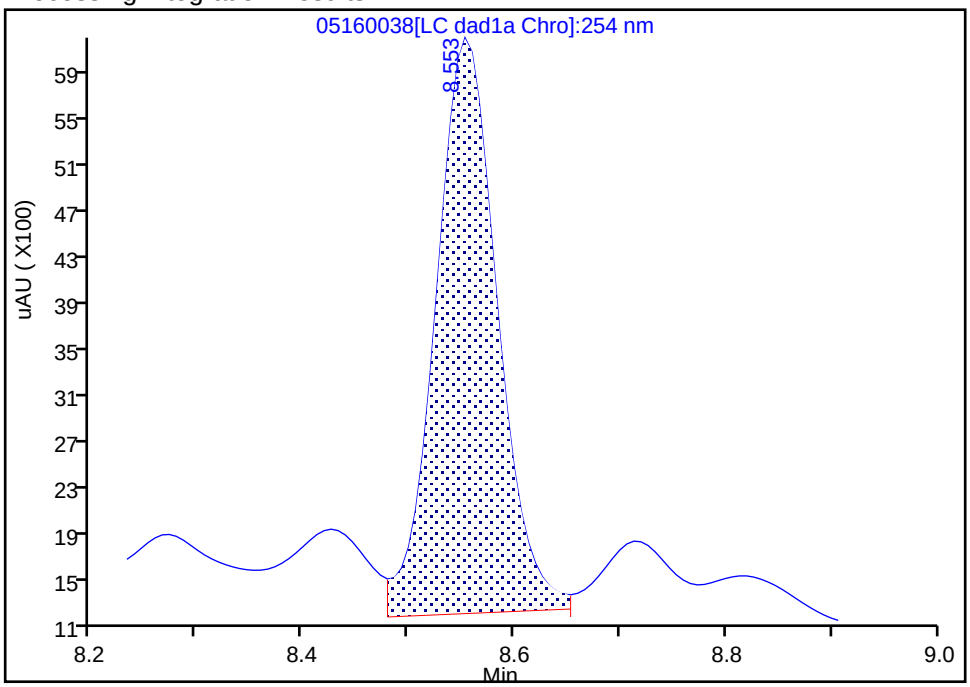
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240516-133471.b\05160038.d				
Injection Date:	17-May-2024 02:25:30	Instrument ID:	CHHPLC_X3		
Lims ID:	280-191424-A-5-A	Lab Sample ID:	280-191424-5		
Client ID:	FBQmw-178-240402-GW				
Operator ID:	JZ	ALS Bottle#:	38	Worklist Smp#:	38
Injection Vol:	100.0 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

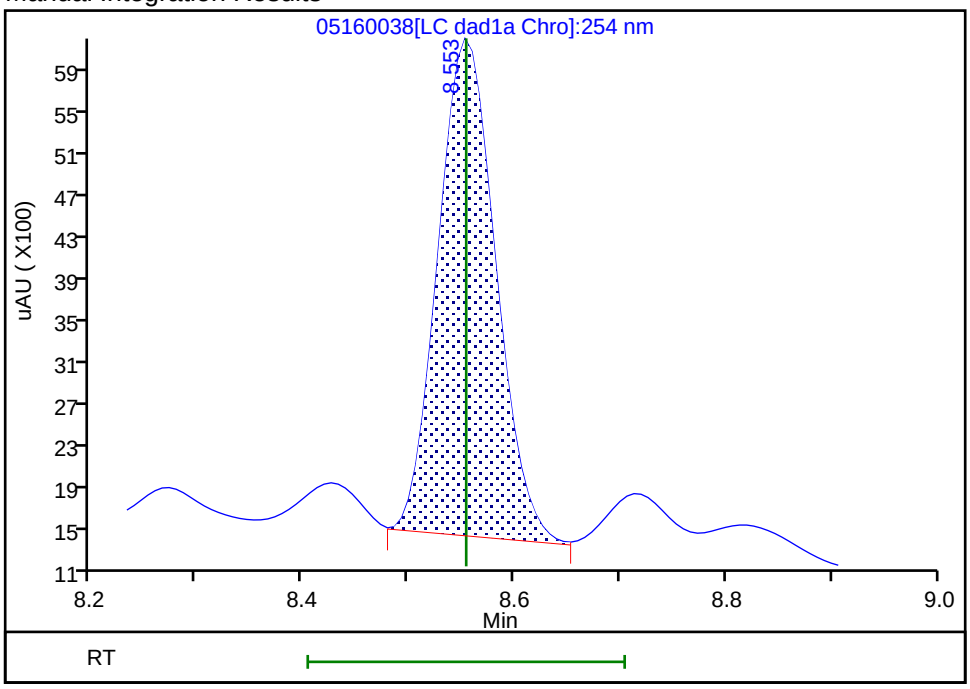
Processing Integration Results

RT: 8.55
Area: 20318
Amount: 0.153644
Amount Units: ug/mL



Manual Integration Results

RT: 8.55
Area: 18238
Amount: 0.137842
Amount Units: ug/mL



Reviewer: LV5D, 17-May-2024 12:37:45 -06:00:00 (UTC)
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

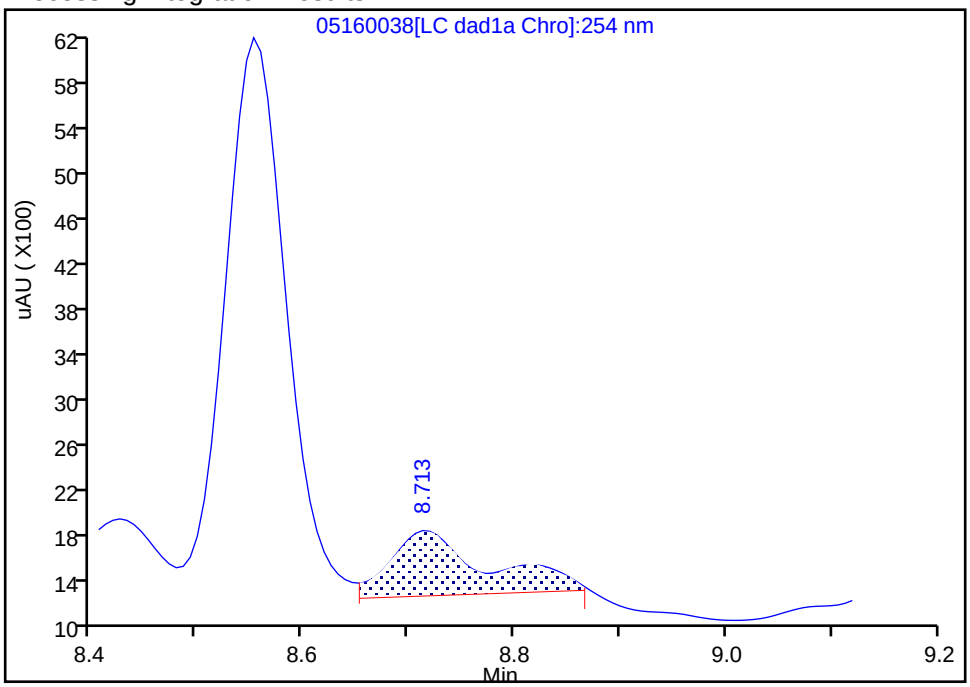
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240516-133471.b\05160038.d				
Injection Date:	17-May-2024 02:25:30	Instrument ID:	CHHPLC_X3		
Lims ID:	280-191424-A-5-A	Lab Sample ID:	280-191424-5		
Client ID:	FBQmw-178-240402-GW				
Operator ID:	JZ	ALS Bottle#:	38	Worklist Smp#:	38
Injection Vol:	100.0 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

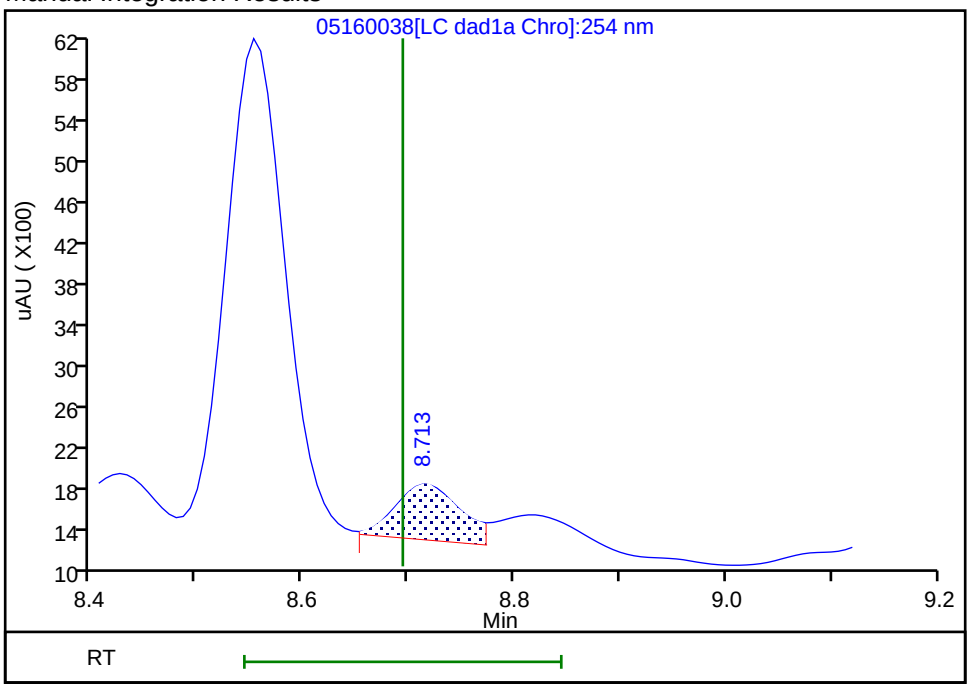
Processing Integration Results

RT: 8.71
Area: 3653
Amount: 0.016392
Amount Units: ug/mL



Manual Integration Results

RT: 8.71
Area: 2373
Amount: 0.010648
Amount Units: ug/mL



Reviewer: LV5D, 17-May-2024 12:37:48 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline

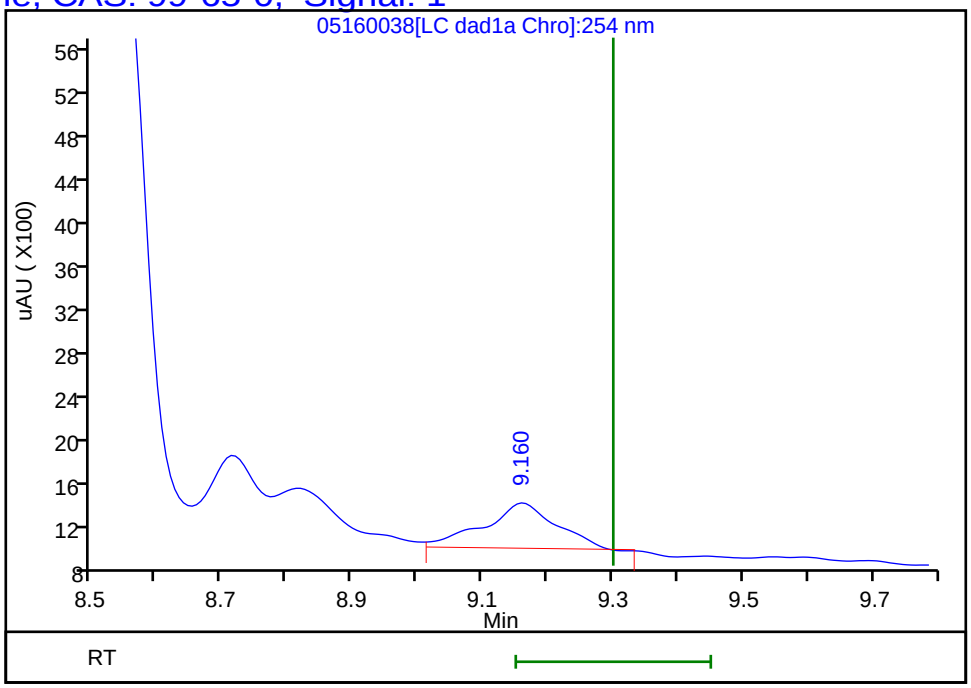
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20240516-133471.b\05160038.d				
Injection Date:	17-May-2024 02:25:30	Instrument ID:	CHHPLC_X3		
Lims ID:	280-191424-A-5-A	Lab Sample ID:	280-191424-5		
Client ID:	FBQmw-178-240402-GW				
Operator ID:	JZ	ALS Bottle#:	38	Worklist Smp#:	38
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: 9.16
Response: 3259
Amount: 0.010884



Reviewer: LV5D, 17-May-2024 12:37:52
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Manual Integration/User Assign Peak Report

Eurofins Denver

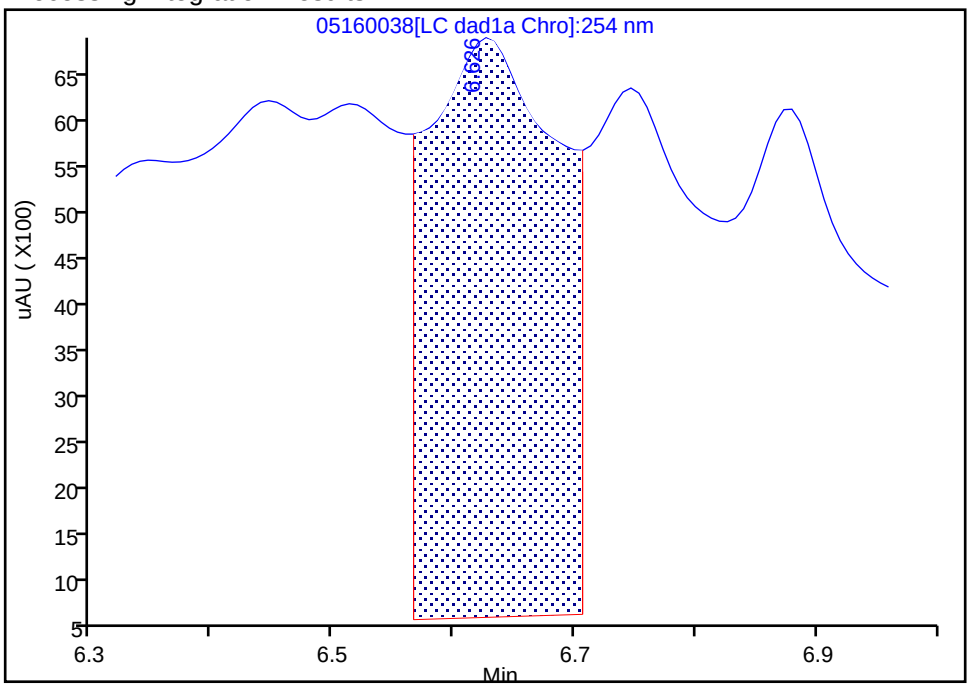
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240516-133471.b\05160038.d				
Injection Date:	17-May-2024 02:25:30	Instrument ID:	CHHPLC_X3		
Lims ID:	280-191424-A-5-A	Lab Sample ID:	280-191424-5		
Client ID:	FBQmw-178-240402-GW				
Operator ID:	JZ	ALS Bottle#:	38	Worklist Smp#:	38
Injection Vol:	100.0 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

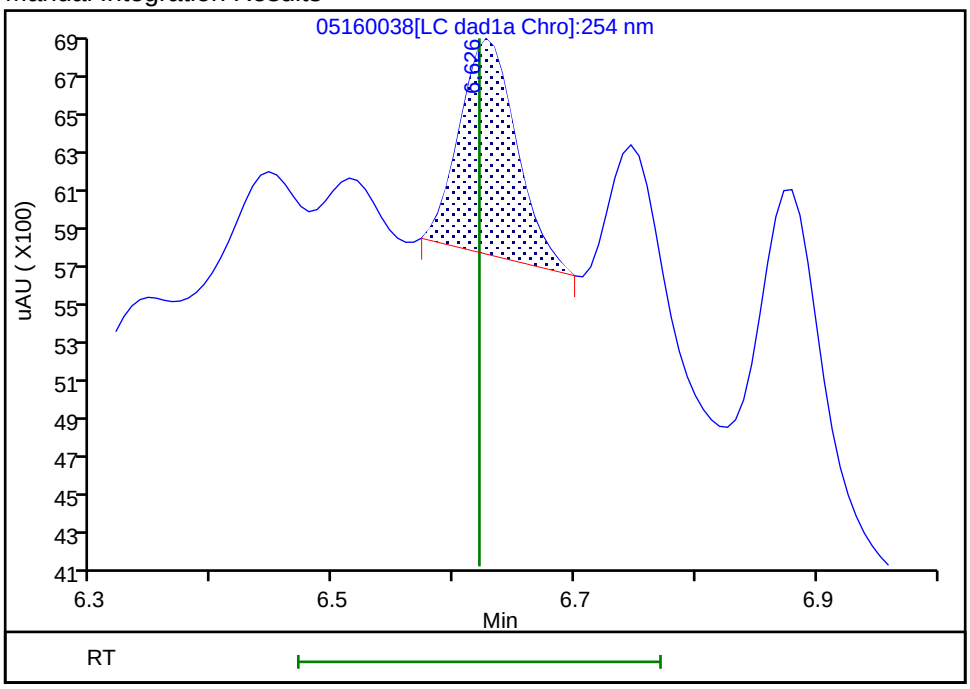
Processing Integration Results

RT: 6.63
Area: 46874
Amount: 0.490603
Amount Units: ug/mL



Manual Integration Results

RT: 6.63
Area: 3602
Amount: 0.037700
Amount Units: ug/mL



Reviewer: LV5D, 17-May-2024 12:37:30 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

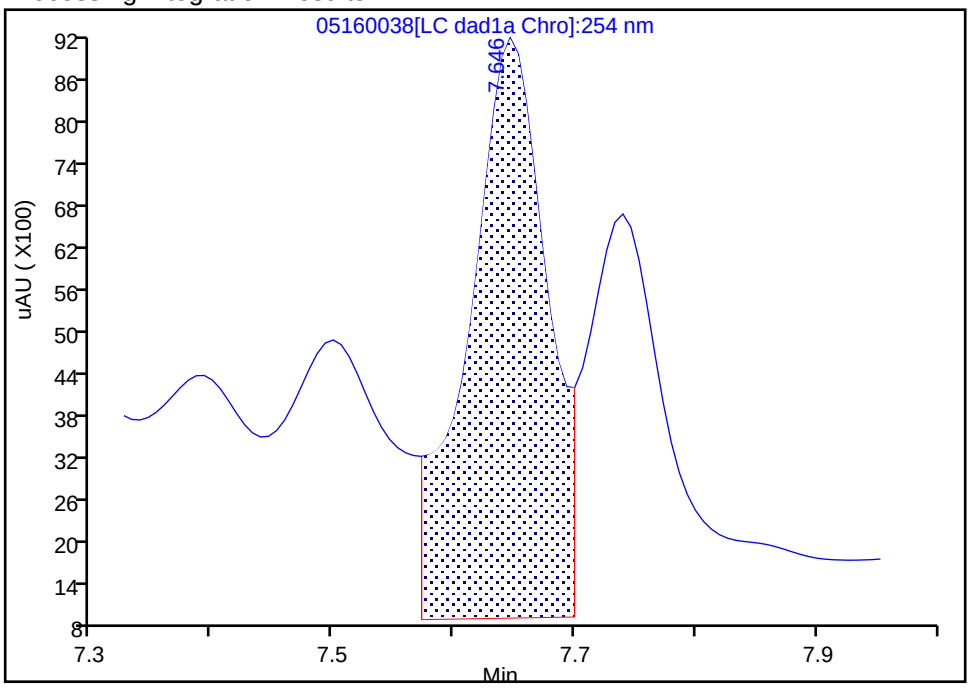
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240516-133471.b\05160038.d				
Injection Date:	17-May-2024 02:25:30	Instrument ID:	CHHPLC_X3		
Lims ID:	280-191424-A-5-A	Lab Sample ID:	280-191424-5		
Client ID:	FBQmw-178-240402-GW				
Operator ID:	JZ	ALS Bottle#:	38	Worklist Smp#:	38
Injection Vol:	100.0 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

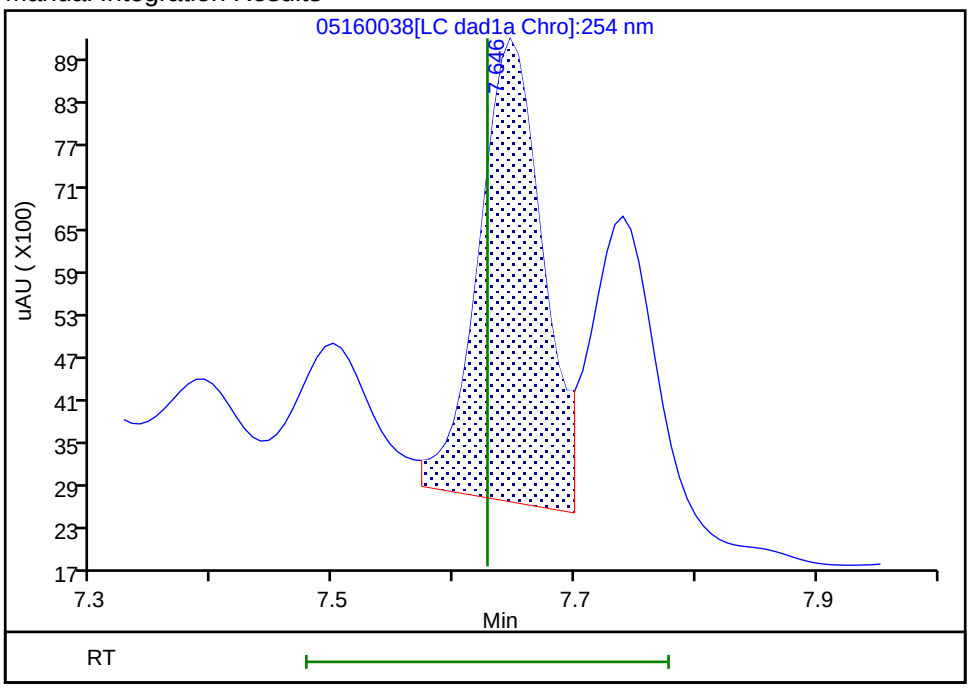
Processing Integration Results

RT: 7.65
Area: 37567
Amount: 0.339153
Amount Units: ug/mL



Manual Integration Results

RT: 7.65
Area: 24256
Amount: 0.218982
Amount Units: ug/mL



Reviewer: LV5D, 17-May-2024 12:37:34 -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.: 280-191424-1

SDG No.:

Client Sample ID: FBQmw-178-240402-GW | Lab Sample ID: 280-191424-5

Matrix: Water | Lab File ID: 05160034.D

Analysis Method: 8330B | Date Collected: 05/09/2024 09:15

Extraction Method: 3535 | Date Extracted: 05/15/2024 12:30

Sample wt/vol: 451.1(mL) | Date Analyzed: 05/17/2024 08:20

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.: 653699 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	0.22	U Q	0.23	0.22	0.093
88-72-2	*2-Nitrotoluene*	*8.0*	*Q B J1*	*0.23*	0.22	*0.095*
2691-41-0	HMX	0.22	U Q	0.23	0.22	0.097
121-82-4	*RDX*	*0.28*	*Q J1*	*0.23*	0.22	*0.057*

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	75	*Q*	83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240516-133474.b\05160034.D
Lims ID: 280-191424-A-5-A
Client ID: FBQmw-178-240402-GW
Sample Type: Client
Inject. Date: 17-May-2024 08:20:54 ALS Bottle#: 34 Worklist Smp#: 34
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-191424-A-5-A
Operator ID: JZ Instrument ID: CHHPLC_X5

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20240516-133474.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 17-May-2024 16:55:03 Calib Date: 28-Mar-2024 05:53:05
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1618

First Level Reviewer: LV5D Date: 17-May-2024 16:54:16

	Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
	5 HMX	1		6.666			ND	
	8 RDX	1	8.722	8.699	0.023	5391	0.0252	
	9 Nitrobenzene	1		11.352			ND	
$	10 1,2-Dinitrobenzene	1	12.342	12.339	0.003	39544	0.1497	
	12 1,3-Dinitrobenzene	1		14.566			ND	
	13 Nitroglycerin	2		14.759			ND	U
	14 o-Nitrotoluene	1	15.422	15.452	-0.030	178397	0.7212	
	16 p-Nitrotoluene	1		15.712			ND	
	17 4-Amino-2,6-dinitrotoluene	1		16.186			ND	
	18 m-Nitrotoluene	1		16.559			ND	
	19 2-Amino-4,6-dinitrotoluene	1		17.059			ND	
	20 1,3,5-Trinitrobenzene	1		17.512			ND	
	21 2,6-Dinitrotoluene	1		18.472			ND	
	22 2,4-Dinitrotoluene	1		18.959			ND	
	23 Tetryl	1		22.279			ND	U
	24 2,4,6-Trinitrotoluene	1		23.259			ND	
	25 PETN	2		24.179			ND	

QC Flag Legend

Processing Flags
Review Flags
U - Marked Undetected

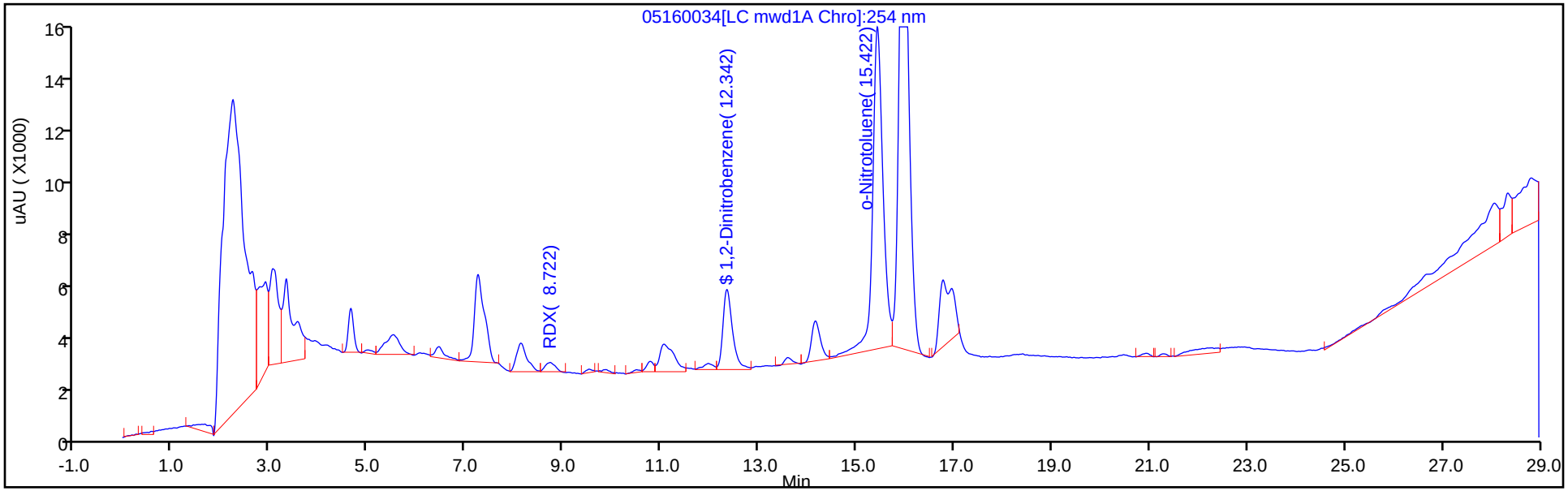
Report Date: 17-May-2024 16:55:03 Chrom Revision: 2.3 14-May-2024 14:23:08

Eurofins Denver

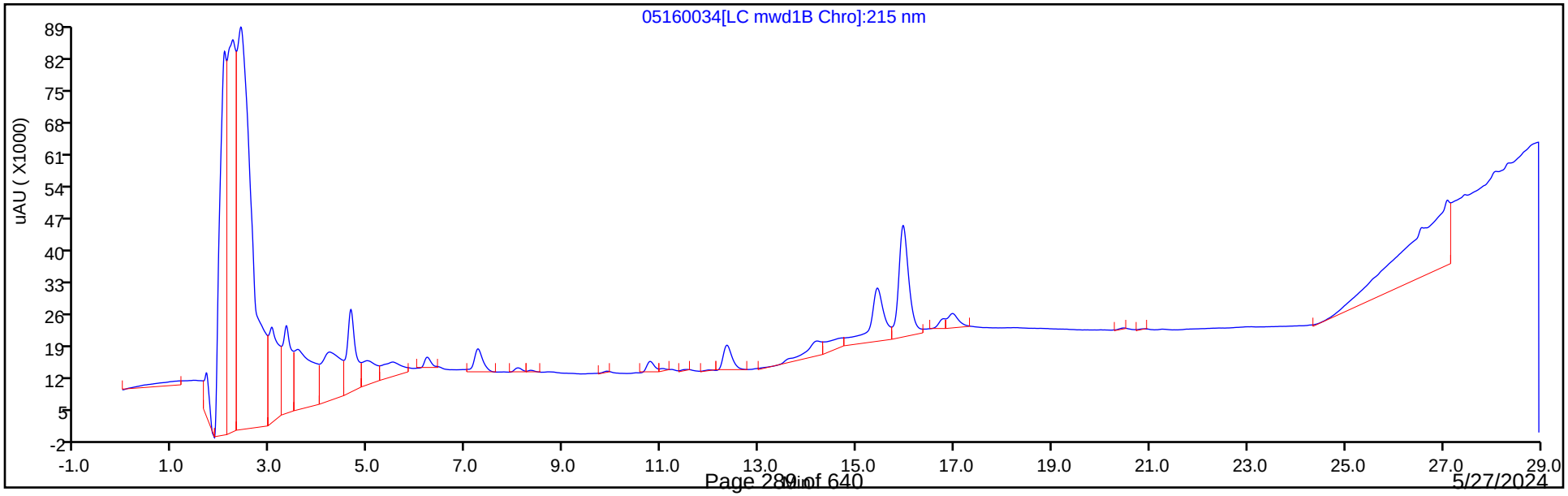
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240516-133474.b\05160034.D

Injection Date:	17-May-2024 08:20:54	Instrument ID:	CHHPLC_X5	Operator ID:	JZ
Lims ID:	280-191424-A-5-A	Lab Sample ID:	280-191424-5	Worklist Smp#:	34
Client ID:	FBQmw-178-240402-GW				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	34
Method:	8330_X5_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\CHHPLC_X5\20240516-133474.b\05160034.D				
Lims ID:	280-191424-A-5-A				
Client ID:	FBQmw-178-240402-GW				
Sample Type:	Client				
Inject. Date:	17-May-2024 08:20:54	ALS Bottle#:	34	Worklist Smp#:	34
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-191424-A-5-A				
Operator ID:	JZ	Instrument ID:	CHHPLC_X5		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X5\20240516-133474.b\8330_X5_Luna.m				
Limit Group:	GCSV - 8330				
Last Update:	17-May-2024 16:55:03	Calib Date:	28-Mar-2024 05:53:05		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270027.D				
Column 1 :	Luna-Phenyl hexyl (4.60 mm)		Det: LC mwd1A, 254 nm		
Process Host:	CTX1618				

First Level Reviewer: LV5D Date: 17-May-2024 16:54:16

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.1497	74.85

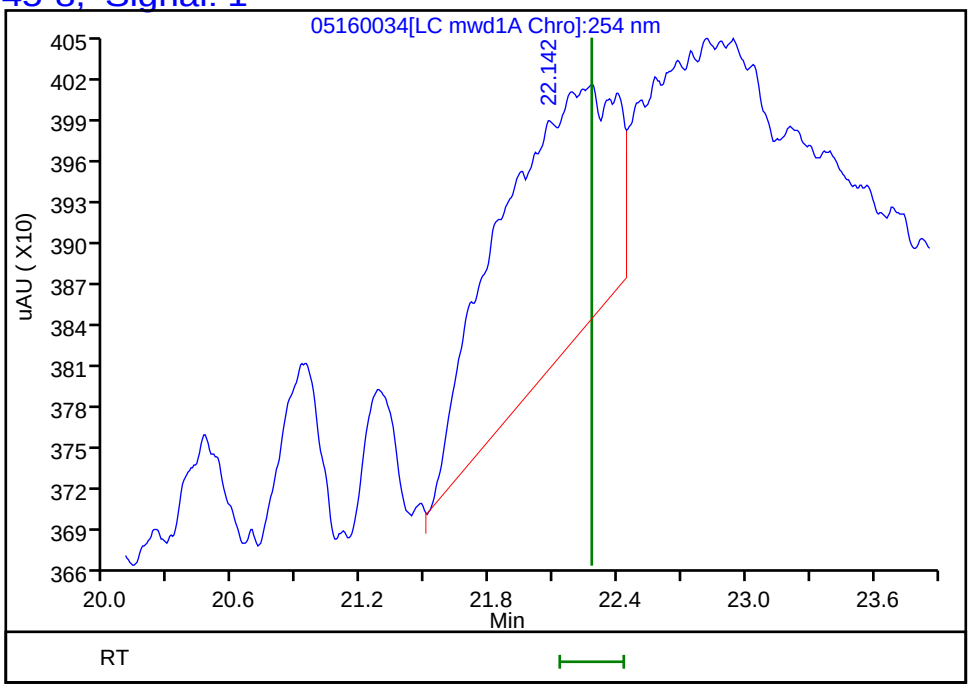
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20240516-133474.b\05160034.D				
Injection Date:	17-May-2024 08:20:54	Instrument ID:	CHHPLC_X5		
Lims ID:	280-191424-A-5-A	Lab Sample ID:	280-191424-5		
Client ID:	FBQmw-178-240402-GW				
Operator ID:	JZ	ALS Bottle#:	34	Worklist Smp#:	34
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

23 Tetryl, CAS: 479-45-8, Signal: 1

RT: 22.14
Response: 7479
Amount: 0.022243



Reviewer: LV5D, 17-May-2024 16:54:16
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-191424-1

SDG No.:

Client Sample ID: FBQmw-178-240402-GW RE | Lab Sample ID: 280-191424-5 RE

Matrix: Water | Lab File ID: 05230036.D

Analysis Method: 8330B | Date Collected: 05/09/2024 09:15

Extraction Method: 3535 | Date Extracted: 05/22/2024 14:37

Sample wt/vol: 465.2(mL) | Date Analyzed: 05/24/2024 02:08

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.: 654555 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
88-72-2	*2-Nitrotoluene*	*0.21*	*U M H Q*	*0.23*	0.21	*0.092*
99-08-1	*3-Nitrotoluene*	*0.38*	*U H Q*	*0.43*	0.38	*0.21*
99-99-0	*4-Nitrotoluene*	*0.43*	*U M H Q*	*0.44*	0.43	*0.11*

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\CHHPLC_X\20240523-133725.b\05230036.D
Lims ID: 280-191424-B-5-A RE
Client ID: FBQmw-178-240402-GW
Sample Type: Client
Inject. Date: 24-May-2024 02:08:30 ALS Bottle#: 36 Worklist Smp#: 36
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-191424-B-5-A
Operator ID: JZ Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20240523-133725.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 24-May-2024 12:35:12 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: CTX1640

First Level Reviewer: LV5D Date: 24-May-2024 11:41:41

	Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/mL	Flags
4	HMX	1	6.638	6.632	0.006	2367	0.0248	M
8	RDX	1	7.652	7.638	0.014	28976	0.2616	
$ 10	1,2-Dinitrobenzene	1	8.558	8.572	-0.014	25907	0.1961	
11	1,3,5-Trinitrobenzene	1	8.718	8.712	0.006	2355	0.0106	M
12	1,3-Dinitrobenzene	1		9.325			ND	
13	Nitrobenzene	1		9.685			ND	
15	Tetryl	1		9.991			ND	
16	Nitroglycerin	2		10.471			ND	
17	2,4,6-Trinitrotoluene	1		10.905			ND	
18	4-Amino-2,6-dinitrotoluene	1		11.071			ND	
19	2-Amino-4,6-dinitrotoluene	1		11.325			ND	
20	2,6-Dinitrotoluene	1		11.471			ND	
21	2,4-Dinitrotoluene	1	11.678	11.651	0.027	9043	0.0310	
22	o-Nitrotoluene	1		12.425			ND	U
23	p-Nitrotoluene	1		12.838			ND	U
24	m-Nitrotoluene	1		13.385			ND	
25	PETN	2		14.425			ND	

QC Flag Legend

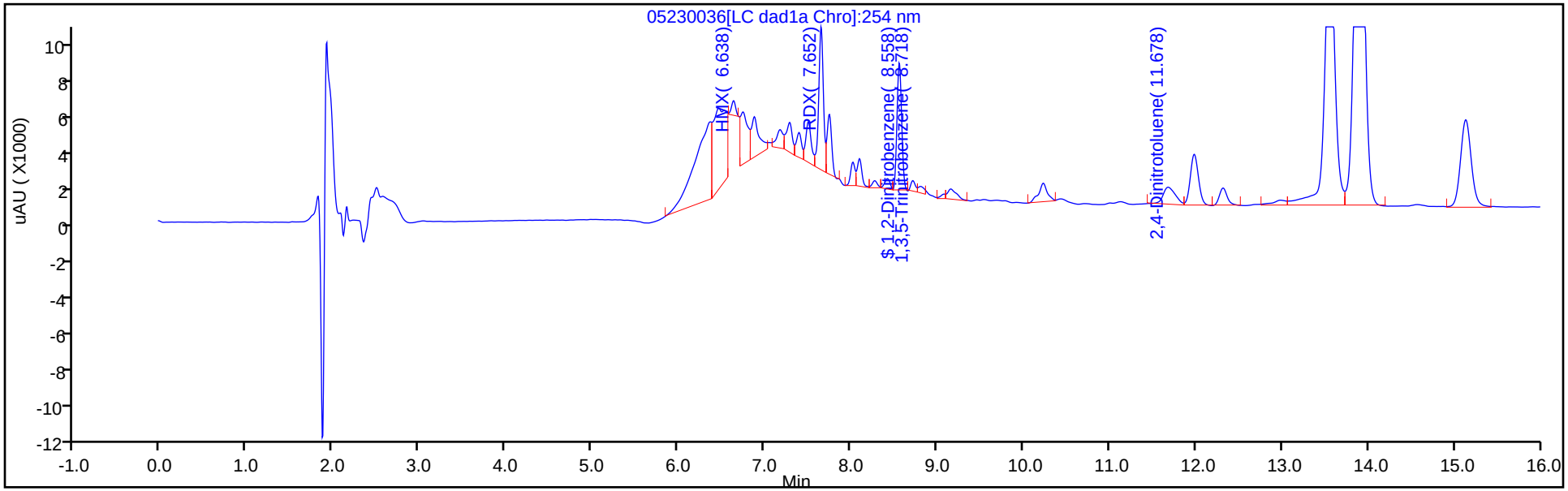
Processing Flags
Review Flags
M - Manually Integrated
U - Marked Undetected

Report Date: 24-May-2024 12:35:19 Chrom Revision: 2.3 20-May-2024 22:00:34

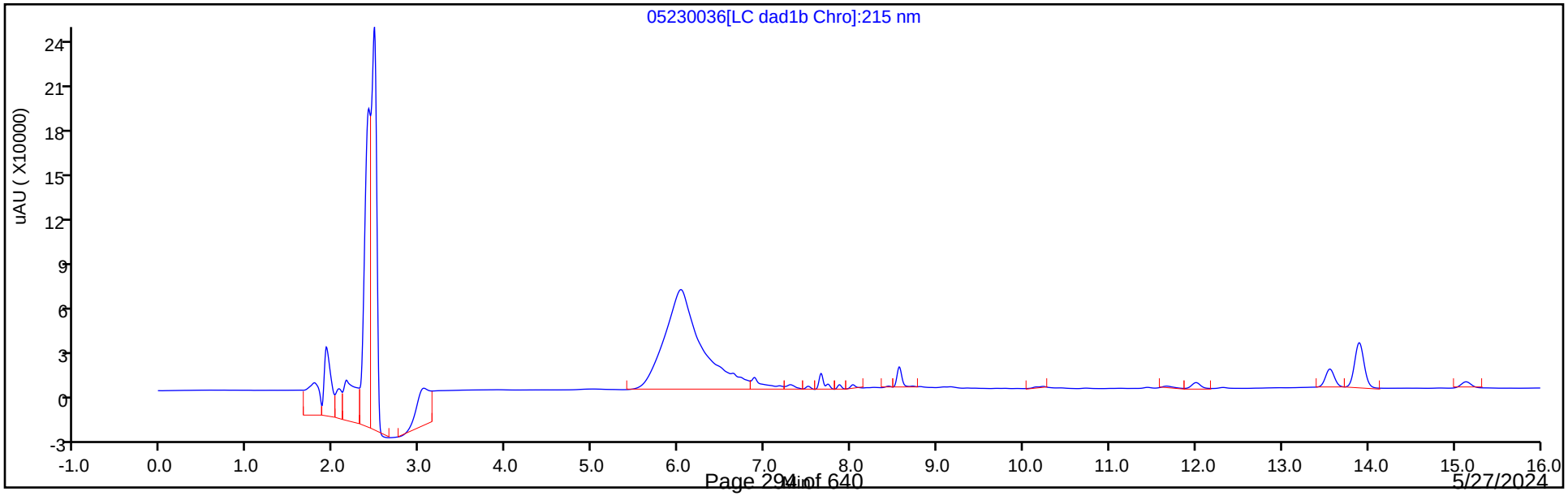
Eurofins Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20240523-133725.b\05230036.d				
Injection Date:	24-May-2024 02:08:30	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	280-191424-B-5-A RE	Lab Sample ID:	280-191424-5	Worklist Smp#:	36
Client ID:	FBQmw-178-240402-GW				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	36
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



5/27/2024
7:57:40 AM

Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20240523-133725.b\05230036.D				
Lims ID:	280-191424-B-5-A RE				
Client ID:	FBQmw-178-240402-GW				
Sample Type:	Client				
Inject. Date:	24-May-2024 02:08:30	ALS Bottle#:	36	Worklist Smp#:	36
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-191424-B-5-A				
Operator ID:	JZ	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20240523-133725.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	24-May-2024 12:35:12	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:	CTX1640				

First Level Reviewer: LV5D Date: 24-May-2024 11:41:41

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.1961	98.05

Manual Integration/User Assign Peak Report

Eurofins Denver

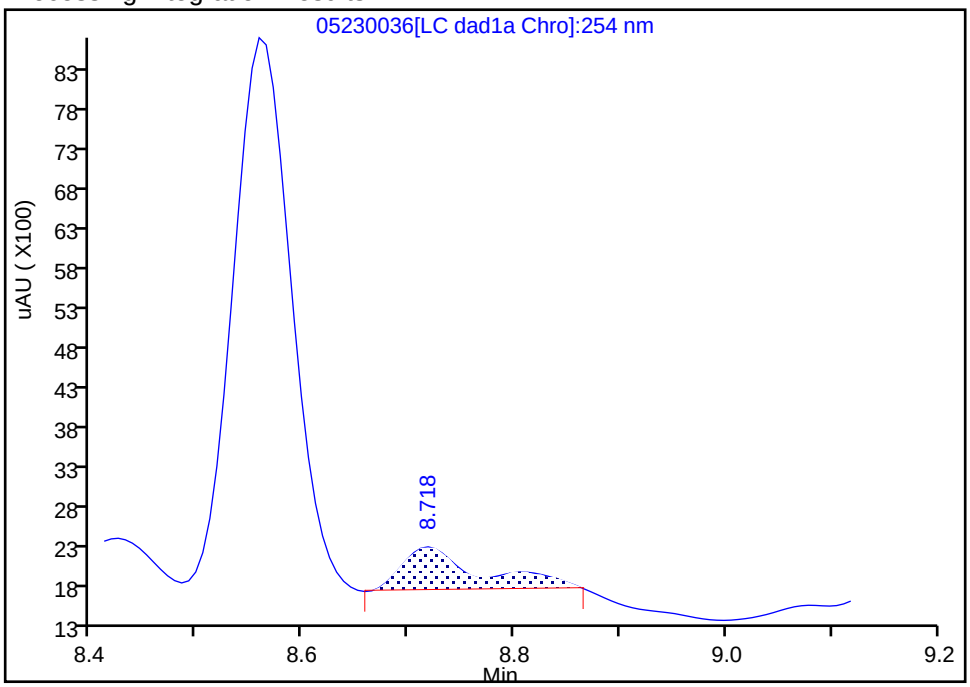
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240523-133725.b\05230036.d				
Injection Date:	24-May-2024 02:08:30	Instrument ID:	CHHPLC_X3		
Lims ID:	280-191424-B-5-A RE	Lab Sample ID:	280-191424-5		
Client ID:	FBQmw-178-240402-GW				
Operator ID:	JZ	ALS Bottle#:	36	Worklist Smp#:	36
Injection Vol:	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

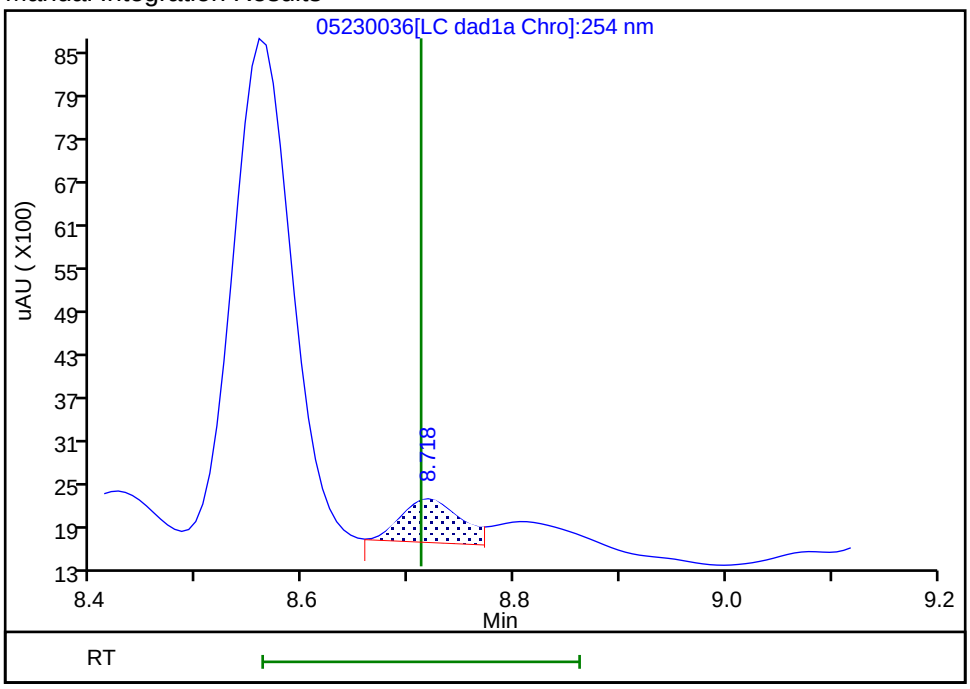
Processing Integration Results

RT: 8.72
Area: 2815
Amount: 0.012632
Amount Units: ug/mL



Manual Integration Results

RT: 8.72
Area: 2355
Amount: 0.010567
Amount Units: ug/mL



Reviewer: LV5D, 24-May-2024 11:41:40 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline

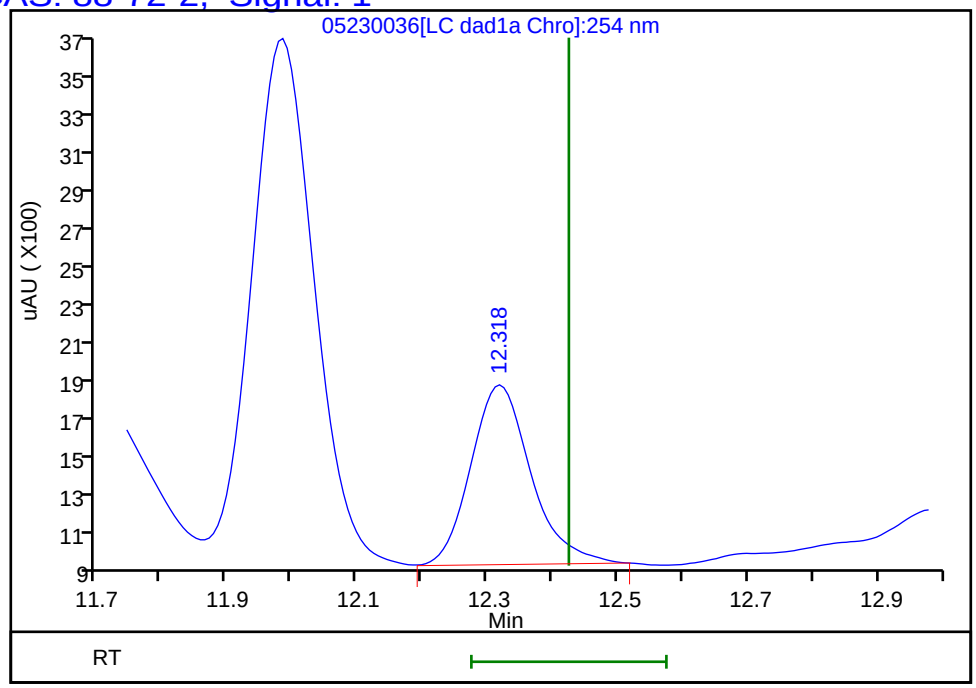
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20240523-133725.b\05230036.d				
Injection Date:	24-May-2024 02:08:30	Instrument ID:	CHHPLC_X3		
Lims ID:	280-191424-B-5-A RE	Lab Sample ID:	280-191424-5		
Client ID:	FBQmw-178-240402-GW				
Operator ID:	JZ	ALS Bottle#:	36	Worklist Smp#:	36
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		

22 o-Nitrotoluene, CAS: 88-72-2, Signal: 1

RT: 12.32
Response: 6022
Amount: 0.046572



Reviewer: LV5D, 24-May-2024 11:41:41
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

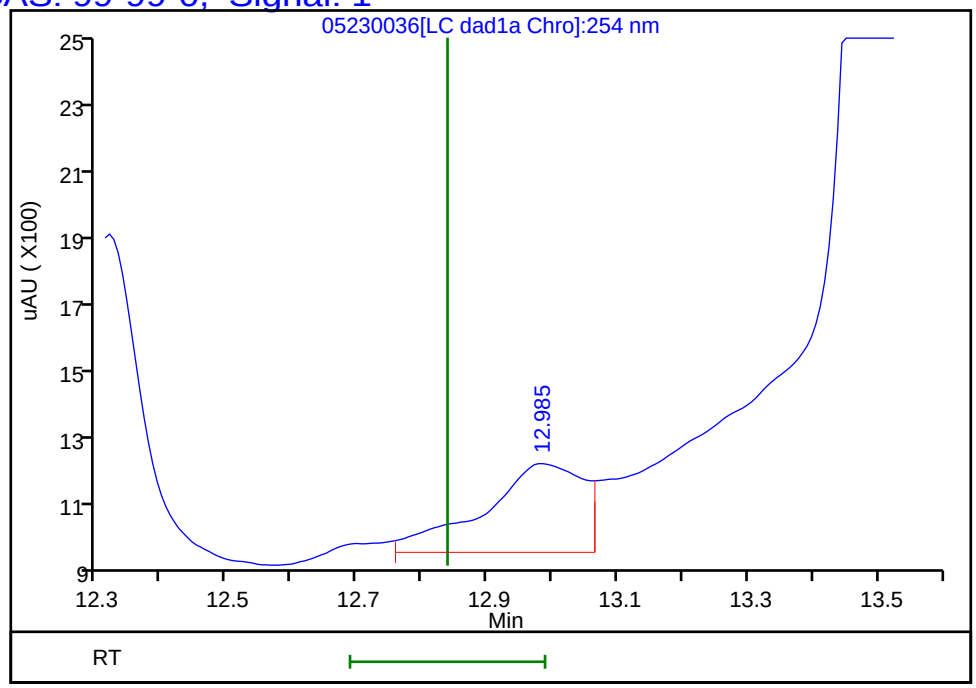
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20240523-133725.b\05230036.d				
Injection Date:	24-May-2024 02:08:30	Instrument ID:	CHHPLC_X3		
Lims ID:	280-191424-B-5-A RE	Lab Sample ID:	280-191424-5		
Client ID:	FBQmw-178-240402-GW				
Operator ID:	JZ	ALS Bottle#:	36	Worklist Smp#:	36
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		

23 p-Nitrotoluene, CAS: 99-99-0, Signal: 1

RT: 12.98
Response: 2689
Amount: 0.023839



Reviewer: LV5D, 24-May-2024 11:41:41
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Manual Integration/User Assign Peak Report

Eurofins Denver

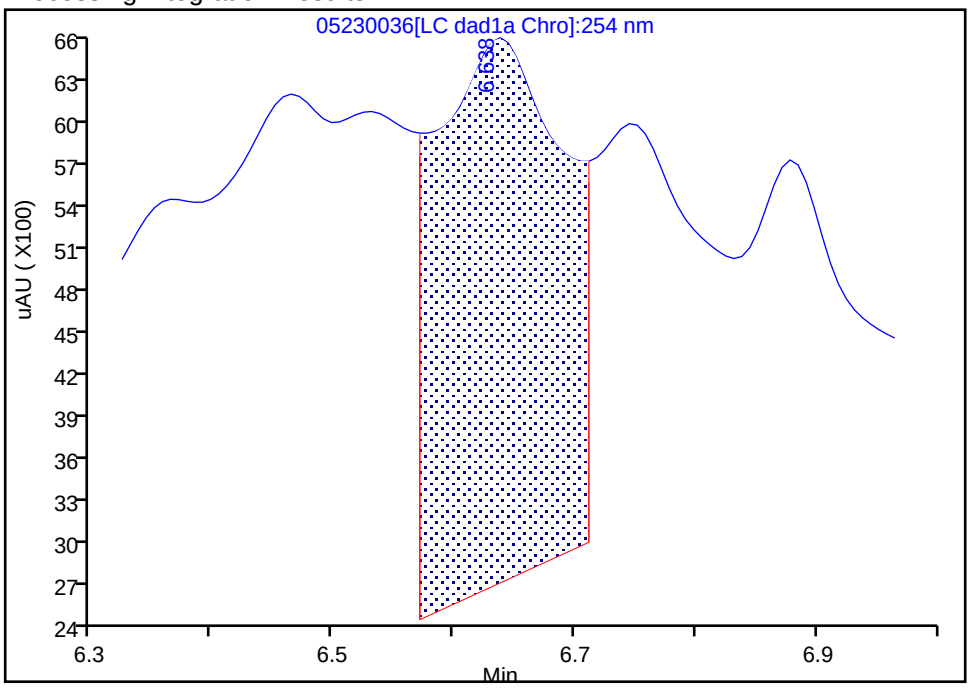
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240523-133725.b\05230036.d				
Injection Date:	24-May-2024 02:08:30	Instrument ID:	CHHPLC_X3		
Lims ID:	280-191424-B-5-A RE	Lab Sample ID:	280-191424-5		
Client ID:	FBQmw-178-240402-GW				
Operator ID:	JZ	ALS Bottle#:	36	Worklist Smp#:	36
Injection Vol:	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

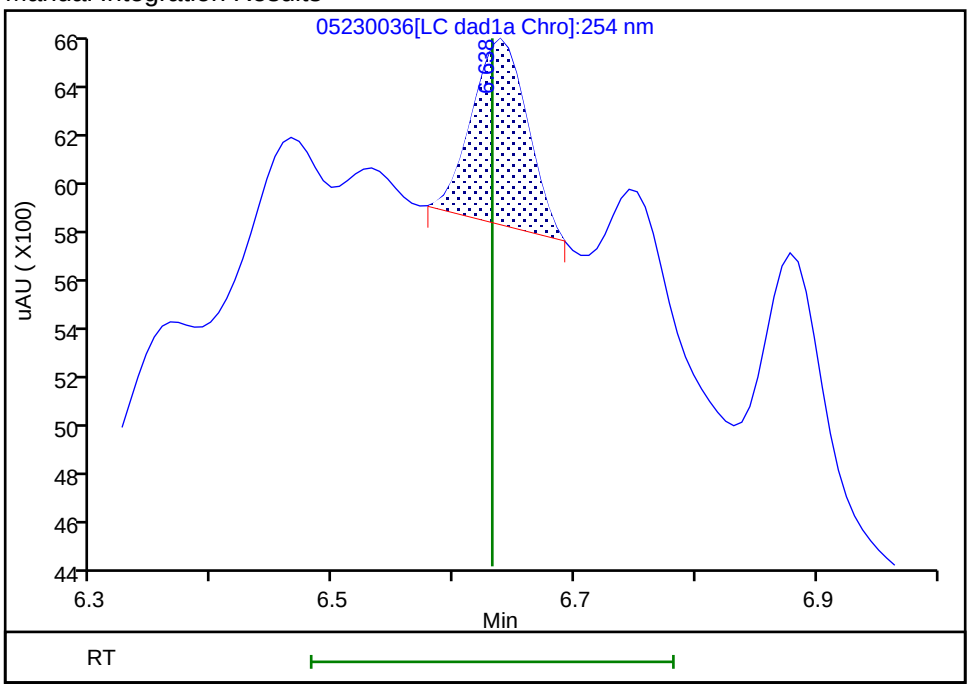
Processing Integration Results

RT: 6.64
Area: 28267
Amount: 0.295854
Amount Units: ug/mL



Manual Integration Results

RT: 6.64
Area: 2367
Amount: 0.024774
Amount Units: ug/mL



Reviewer: LV5D, 24-May-2024 11:41:25 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: Eurofins Denver | Job No.: 280-191424-1 | 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.: 280-191424-1 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.: 280-191424-1 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.: 280-191424-1 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.: 280-191424-1 | 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.: 280-191424-1 | 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

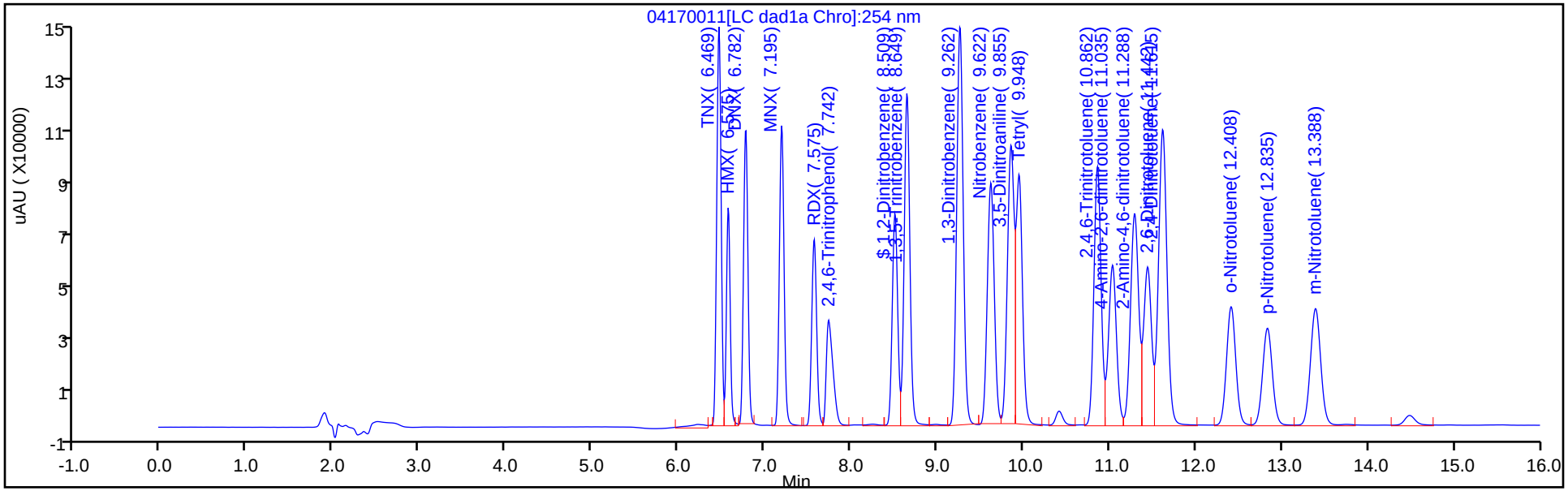
Report Date: 18-Apr-2024 11:59:21 Chrom Revision: 2.3 09-Apr-2024 17:43:44

Eurofins Denver

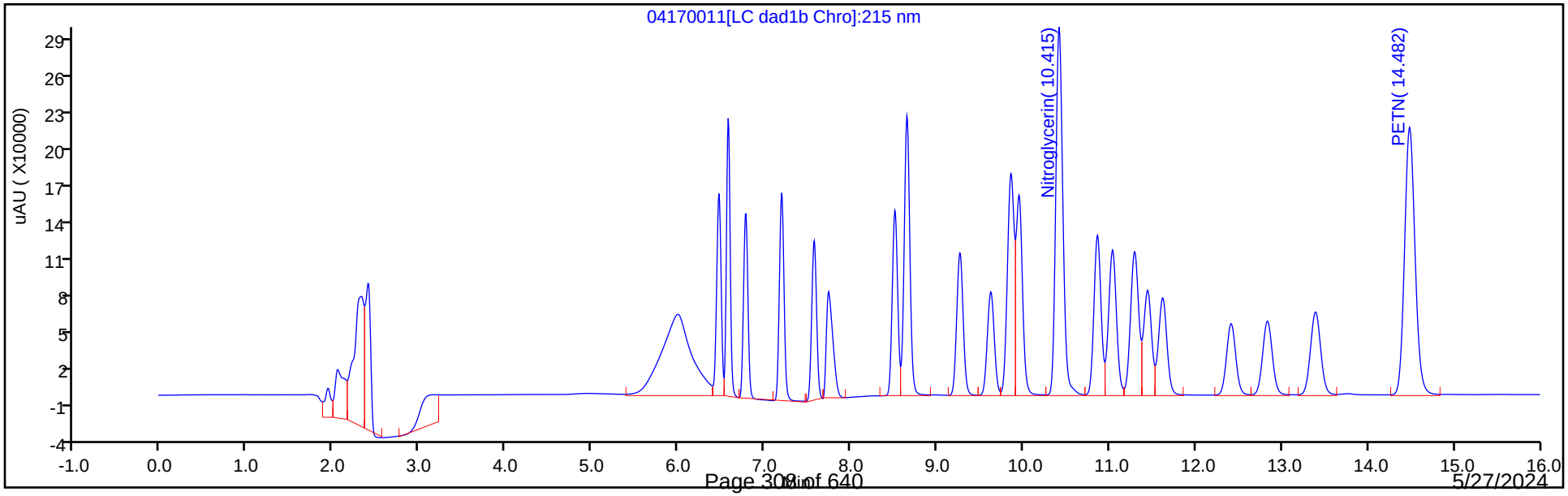
Data File: \\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170011.d

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



5/27/2024
7:57:40 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

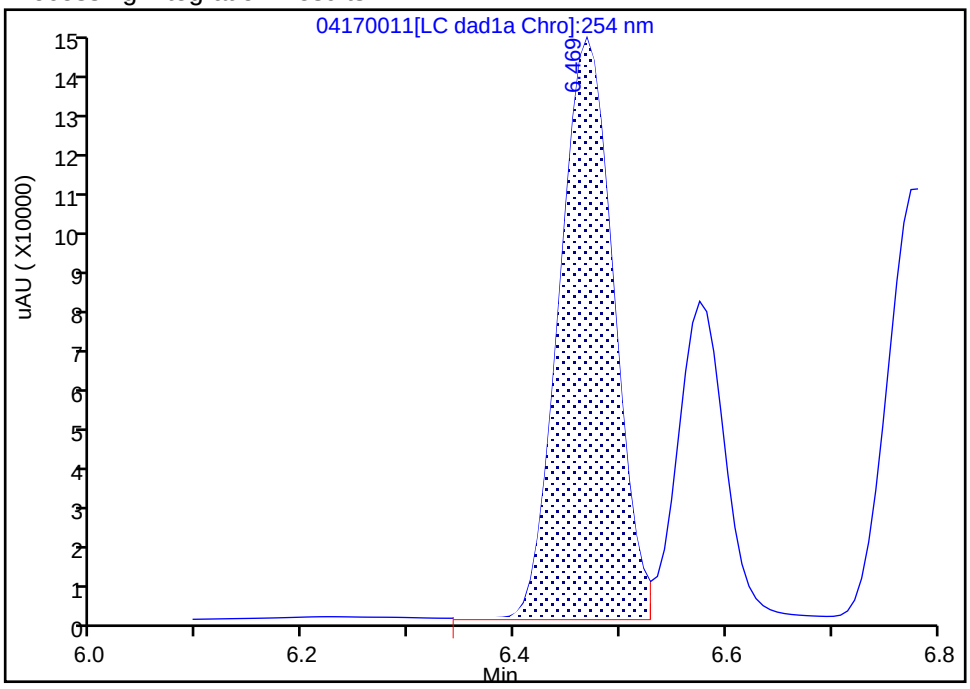
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170011.d				
Injection Date:	17-Apr-2024 20:37:59	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT/DMT 9				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	11	Worklist Smp#:	11
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

3 TNX, CAS: 13980-04-6

Signal: 1

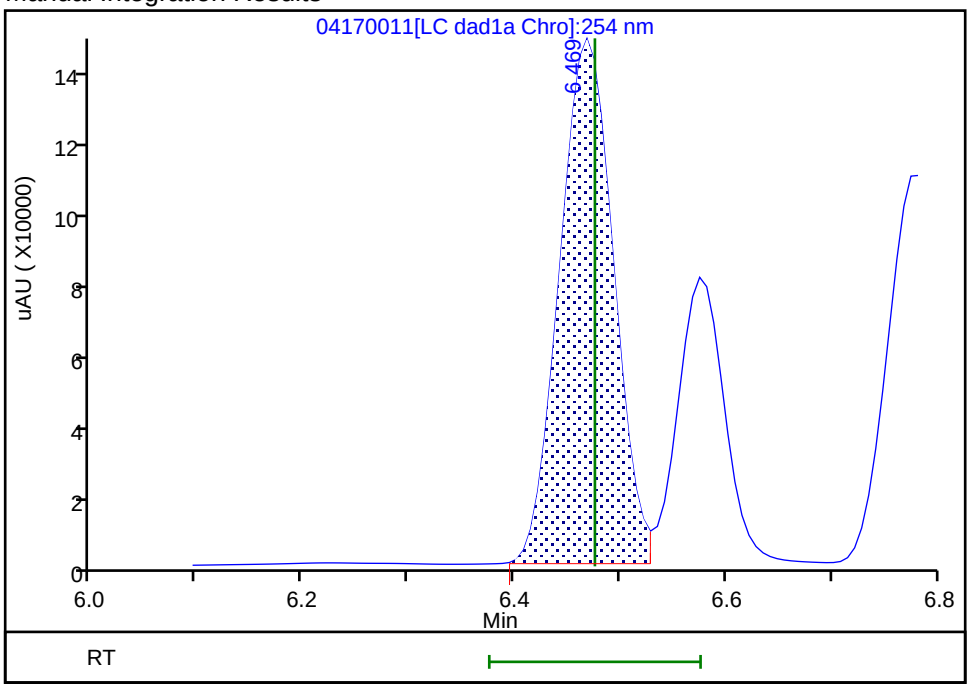
Processing Integration Results

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

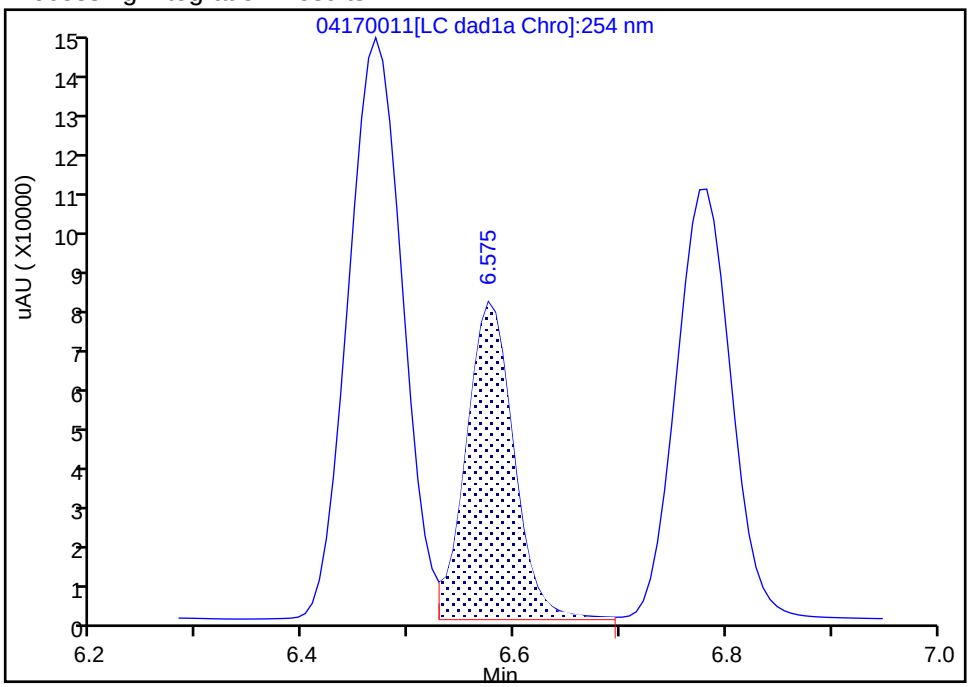
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170011.d				
Injection Date:	17-Apr-2024 20:37:59	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT/DMT 9				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	11	Worklist Smp#:	11
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

4 HMX, CAS: 2691-41-0

Signal: 1

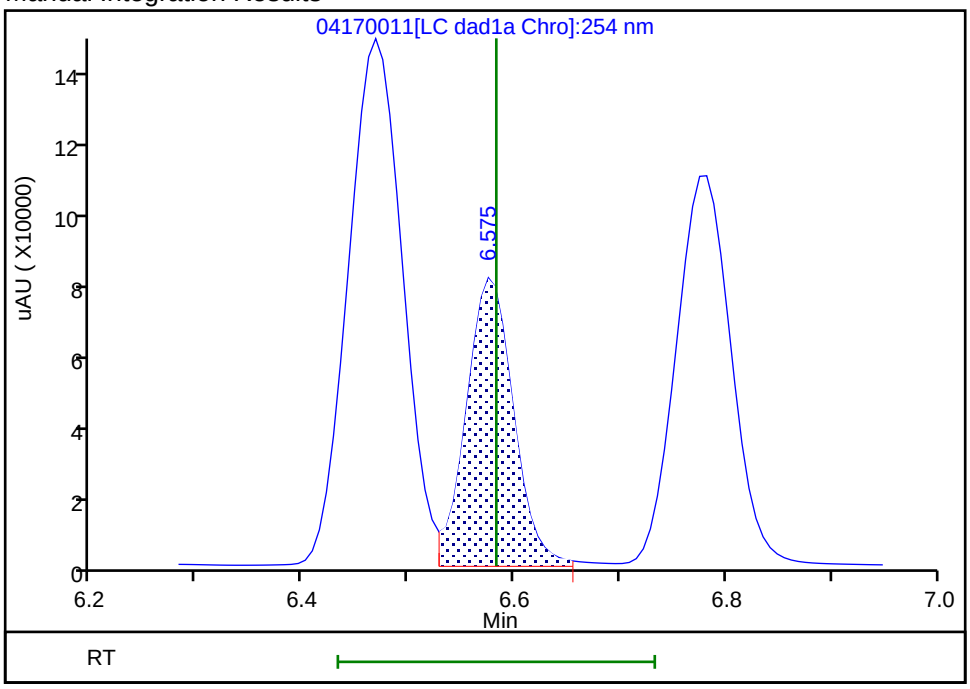
Processing Integration Results

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

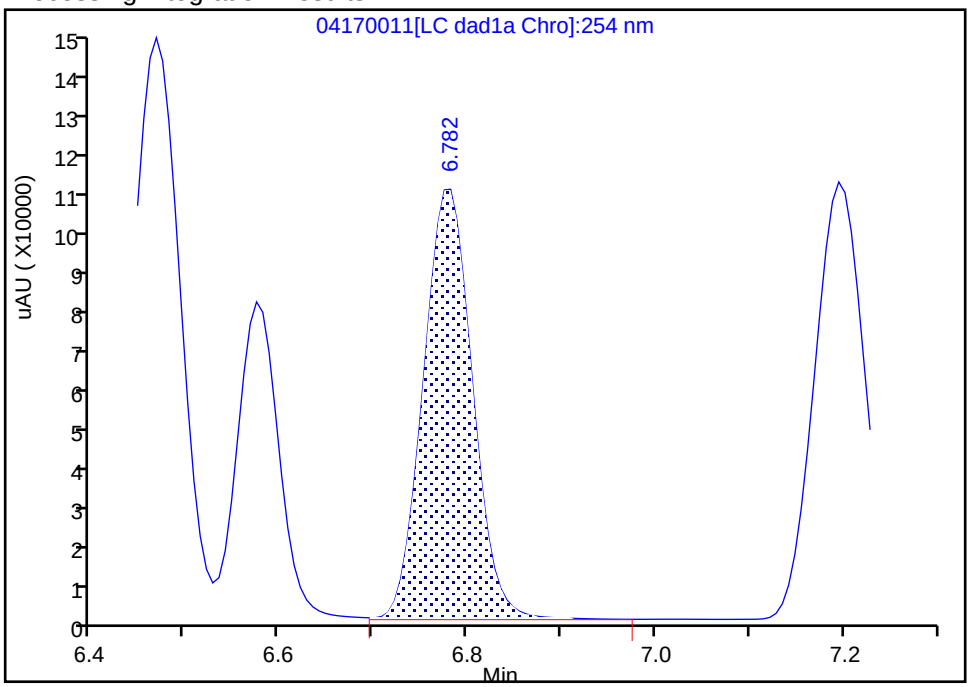
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170011.d				
Injection Date:	17-Apr-2024 20:37:59	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT/DMT 9				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	11	Worklist Smp#:	11
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

6 DNX, CAS: 80251-29-2

Signal: 1

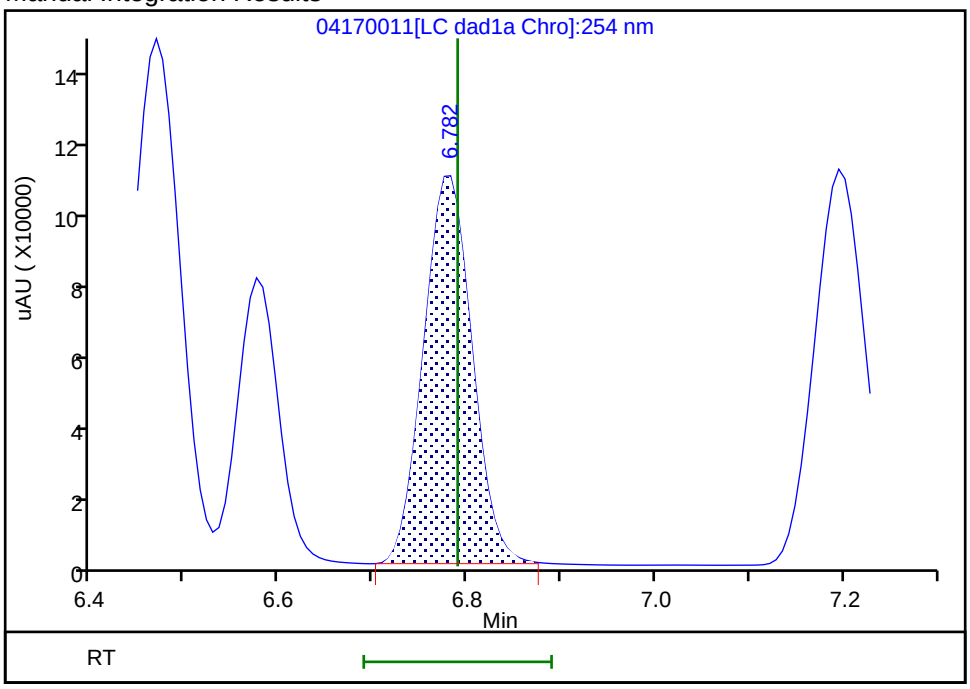
Processing Integration Results

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

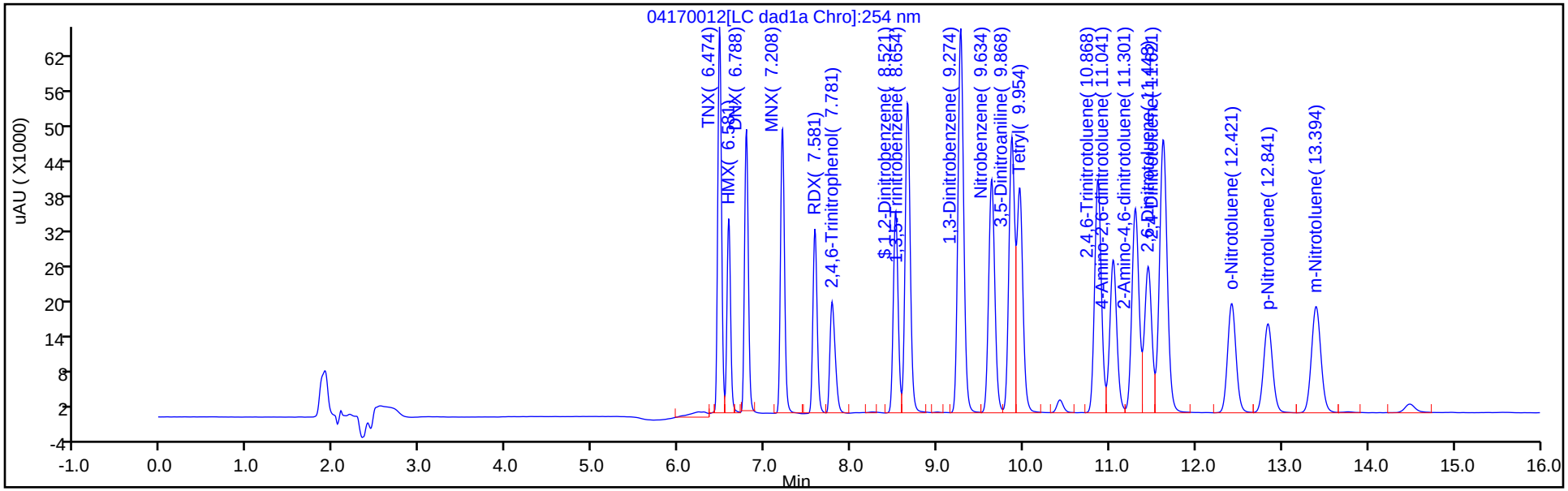
Report Date: 18-Apr-2024 11:59:23 Chrom Revision: 2.3 09-Apr-2024 17:43:44

Eurofins Denver

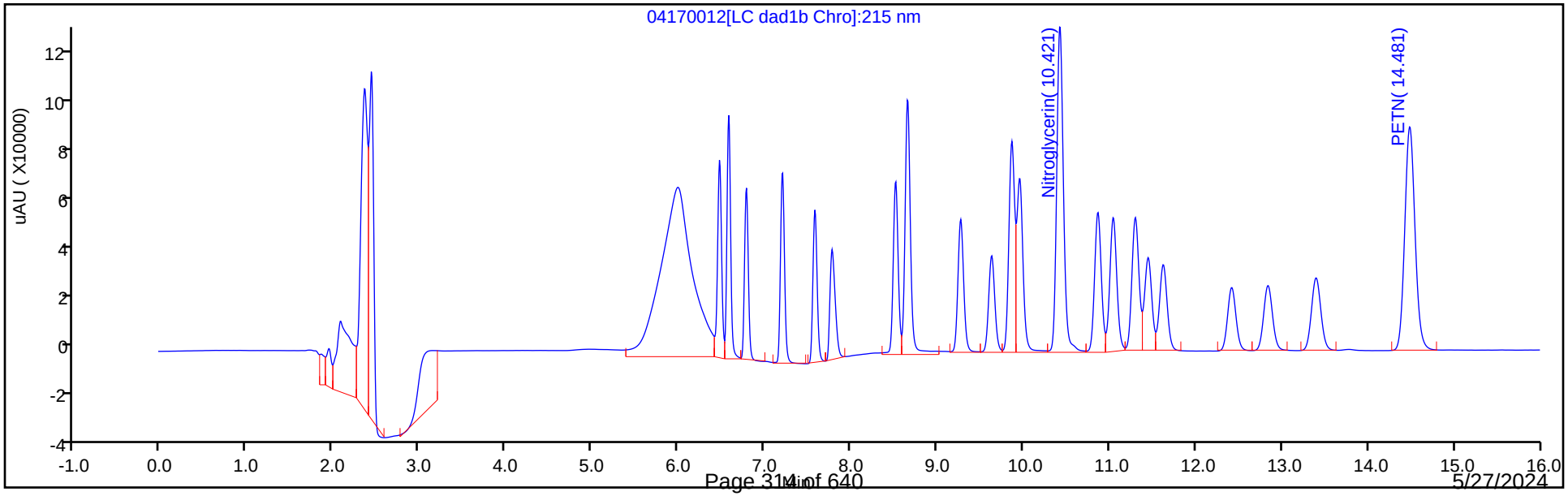
Data File: \\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170012.d

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



5/27/2024
7:57:40 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

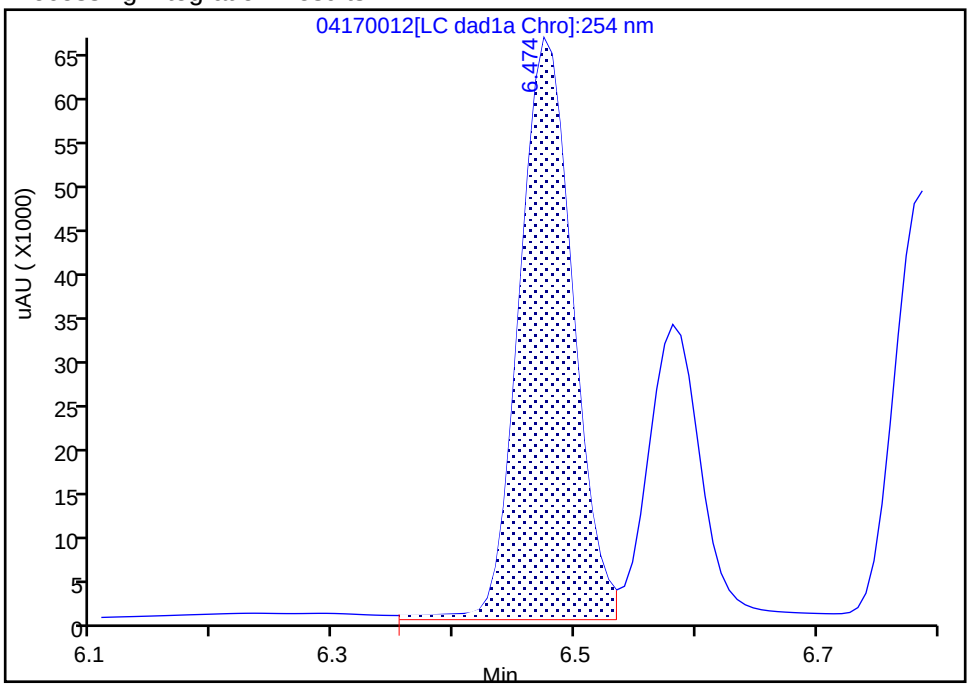
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170012.d				
Injection Date:	17-Apr-2024 21:00:56	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT/DMT 8				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	12	Worklist Smp#:	12
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

3 TNX, CAS: 13980-04-6

Signal: 1

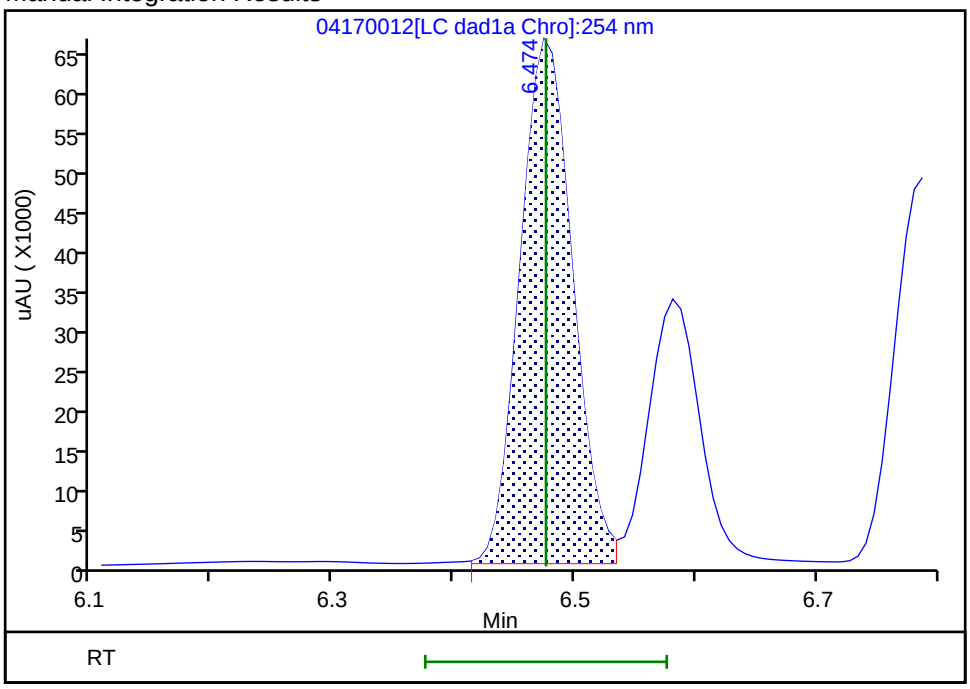
Processing Integration Results

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

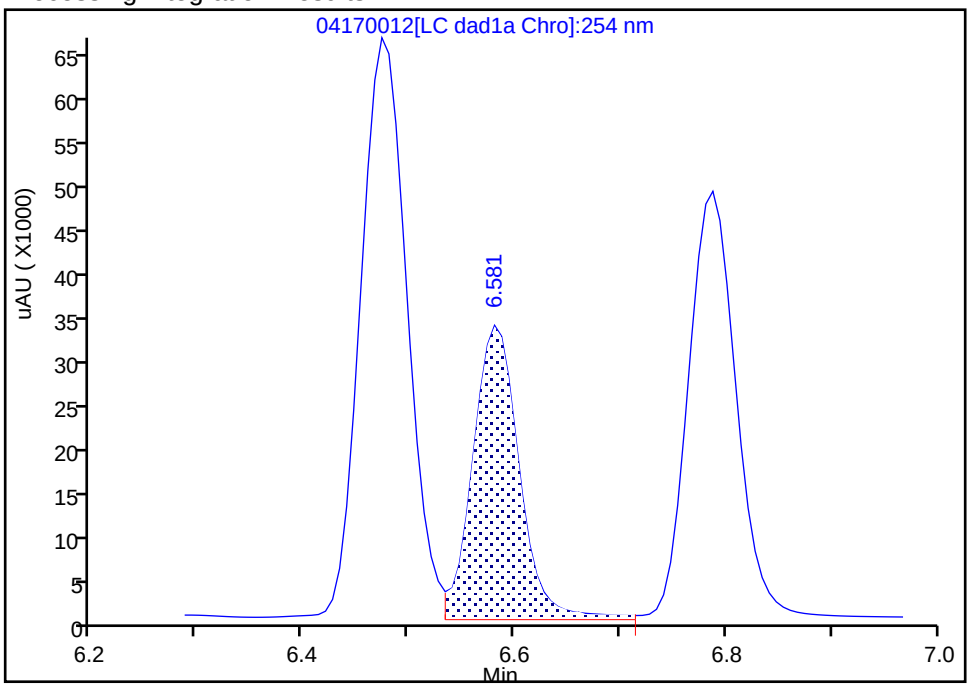
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170012.d				
Injection Date:	17-Apr-2024 21:00:56	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT/DMT 8				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	12	Worklist Smp#:	12
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

4 HMX, CAS: 2691-41-0

Signal: 1

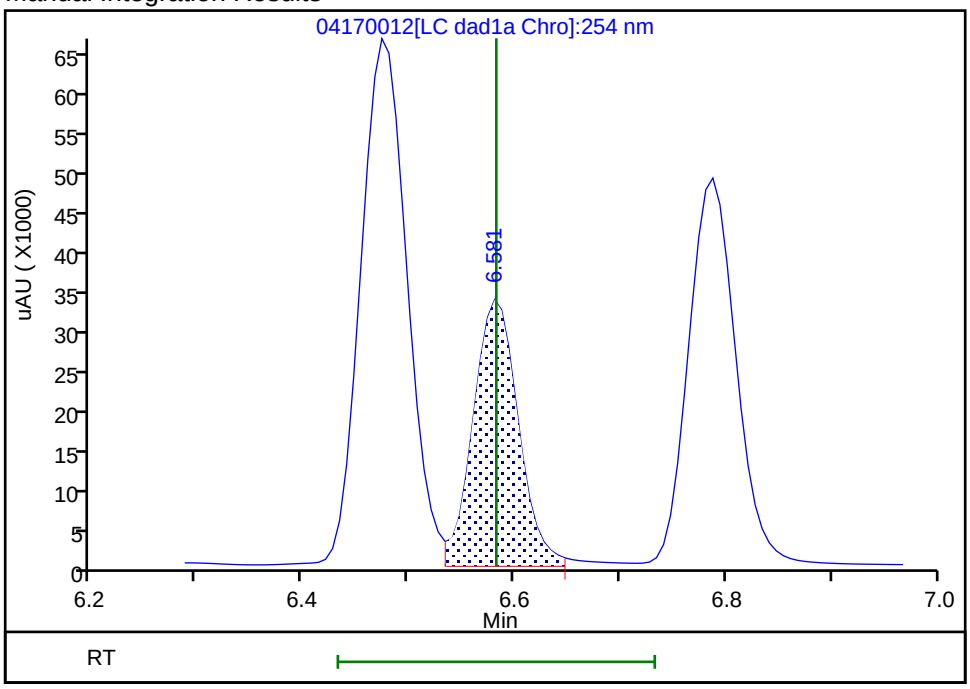
Processing Integration Results

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

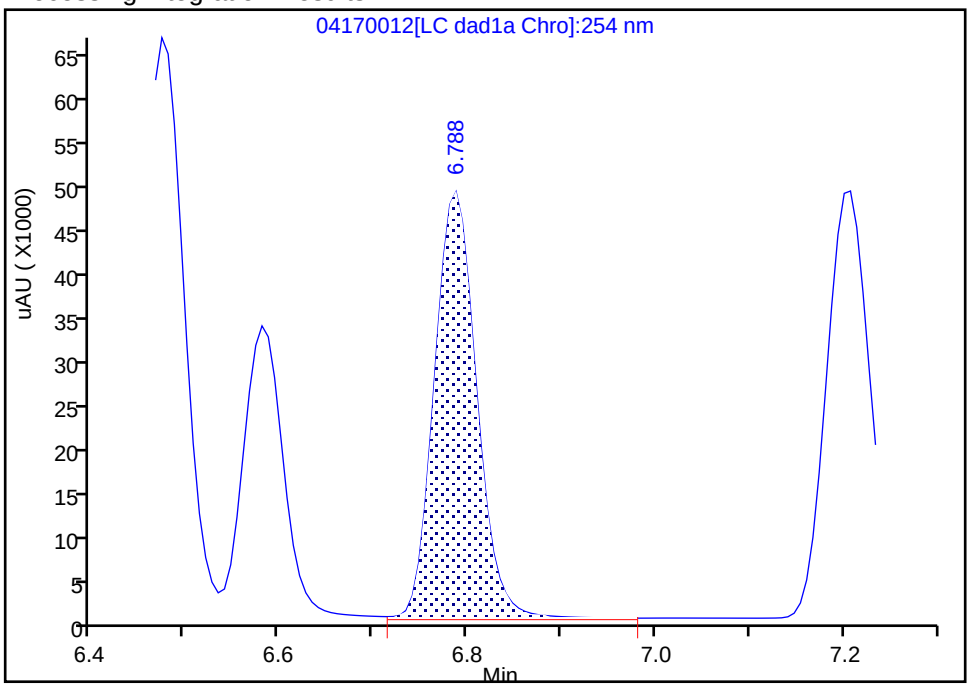
Data File: \\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170012.d
Injection Date: 17-Apr-2024 21:00:56 Instrument ID: CHHPLC_X3
Lims ID: IC INT/DMT 8
Client ID:
Operator ID: JZ/JG ALS Bottle#: 12 Worklist Smp#: 12
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

6 DNX, CAS: 80251-29-2

Signal: 1

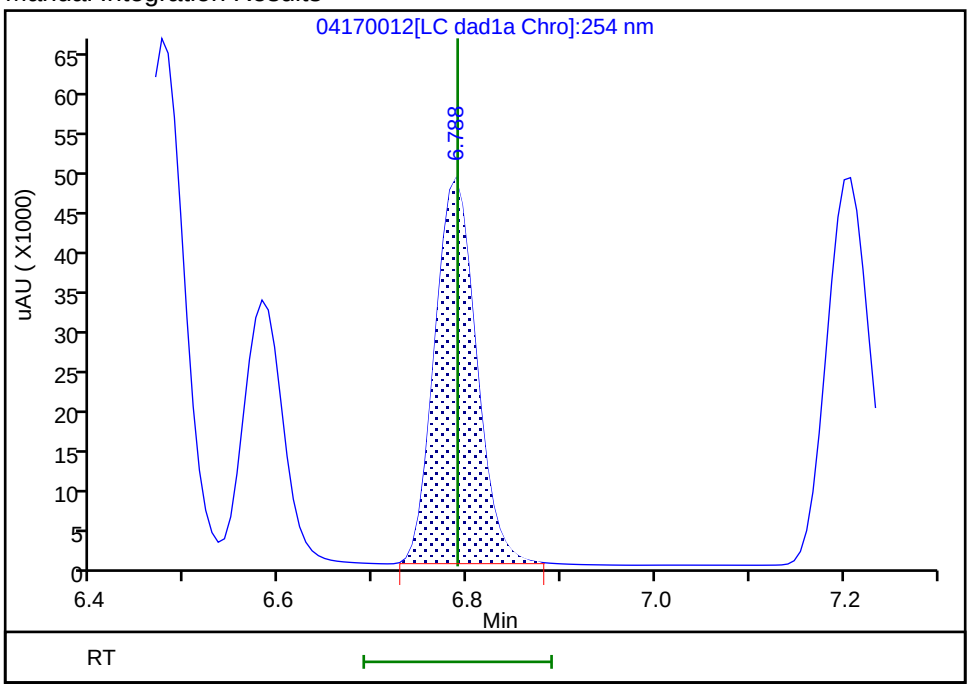
Processing Integration Results

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

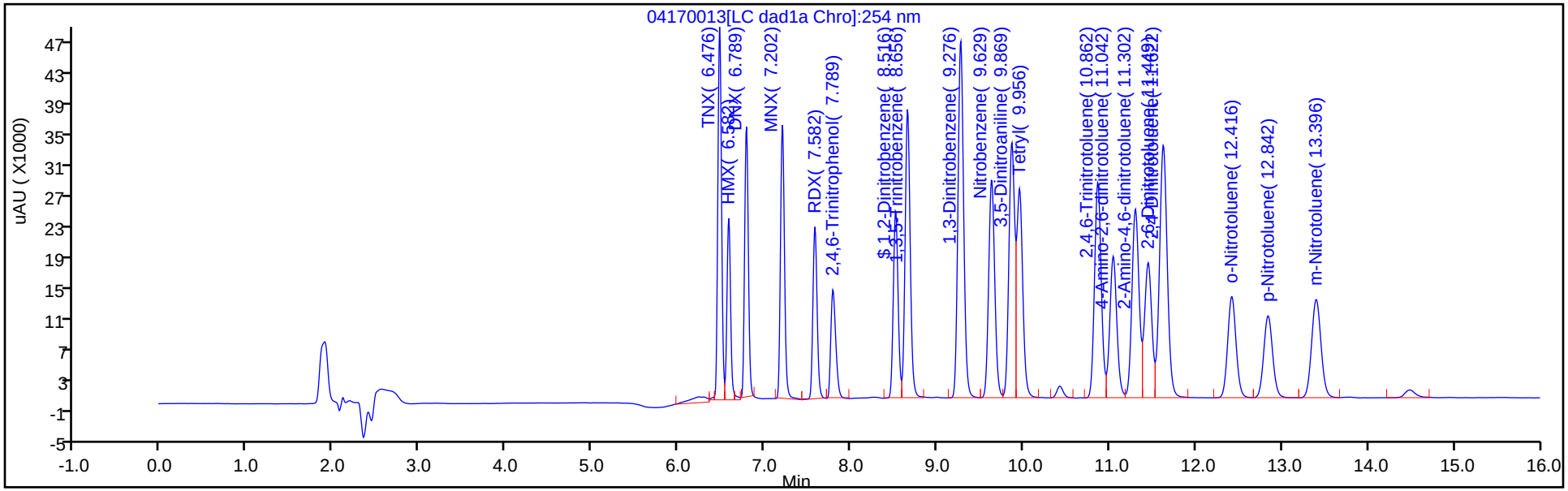
Report Date: 18-Apr-2024 11:59:24 Chrom Revision: 2.3 09-Apr-2024 17:43:44

Eurofins Denver

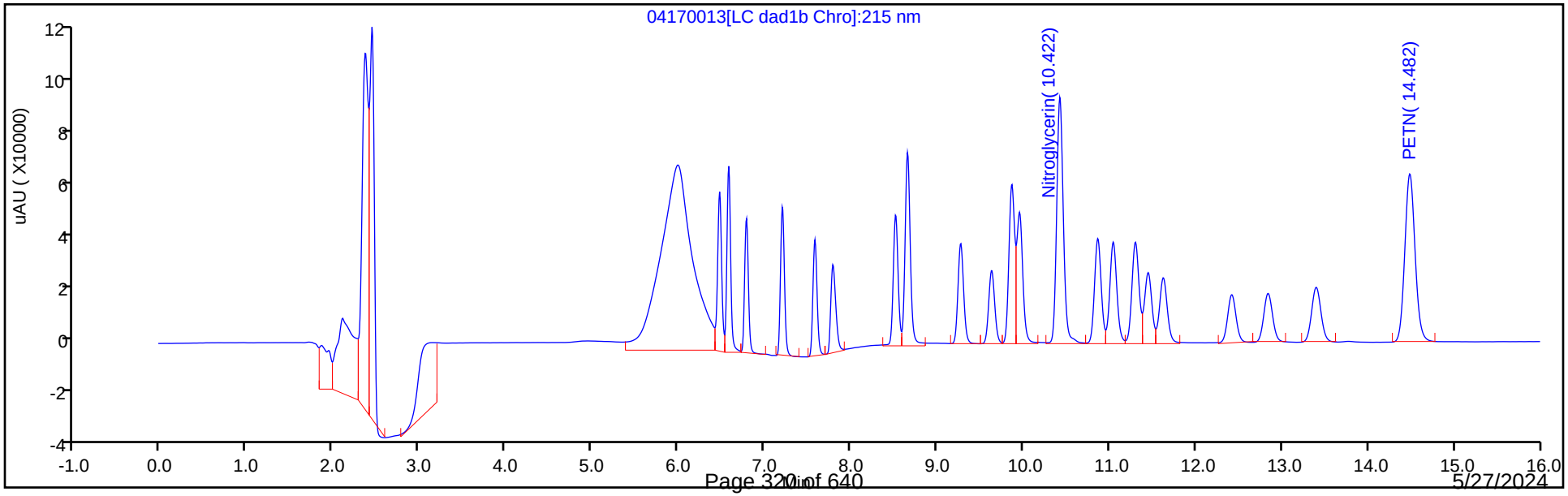
Data File: \\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170013.d

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



5/27/2024
7:57:40 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

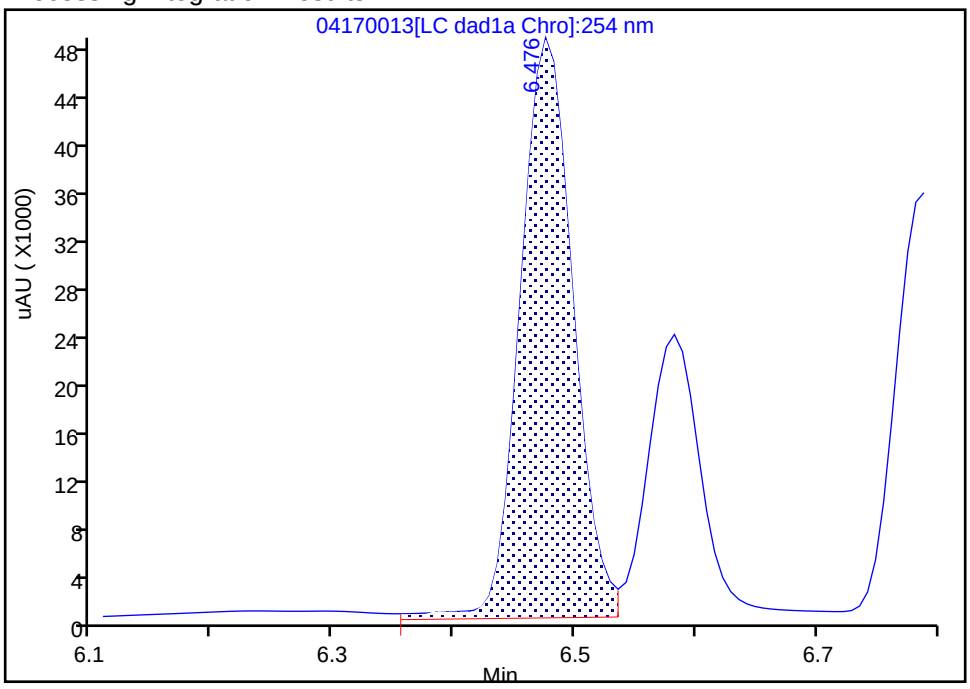
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170013.d				
Injection Date:	17-Apr-2024 21:23:54	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT/DMT 7				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

3 TNX, CAS: 13980-04-6

Signal: 1

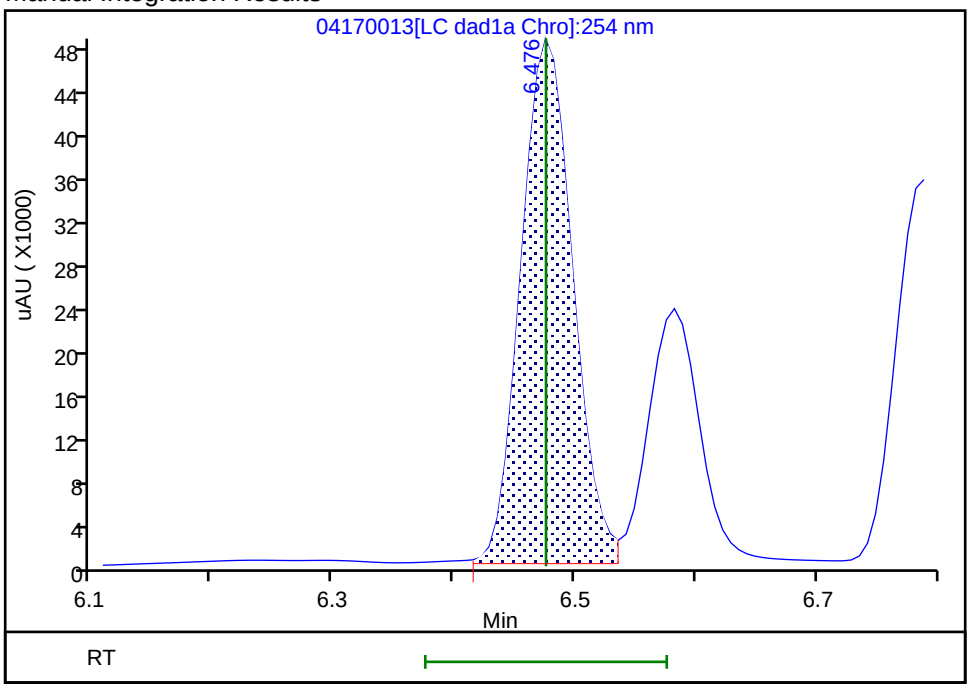
Processing Integration Results

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

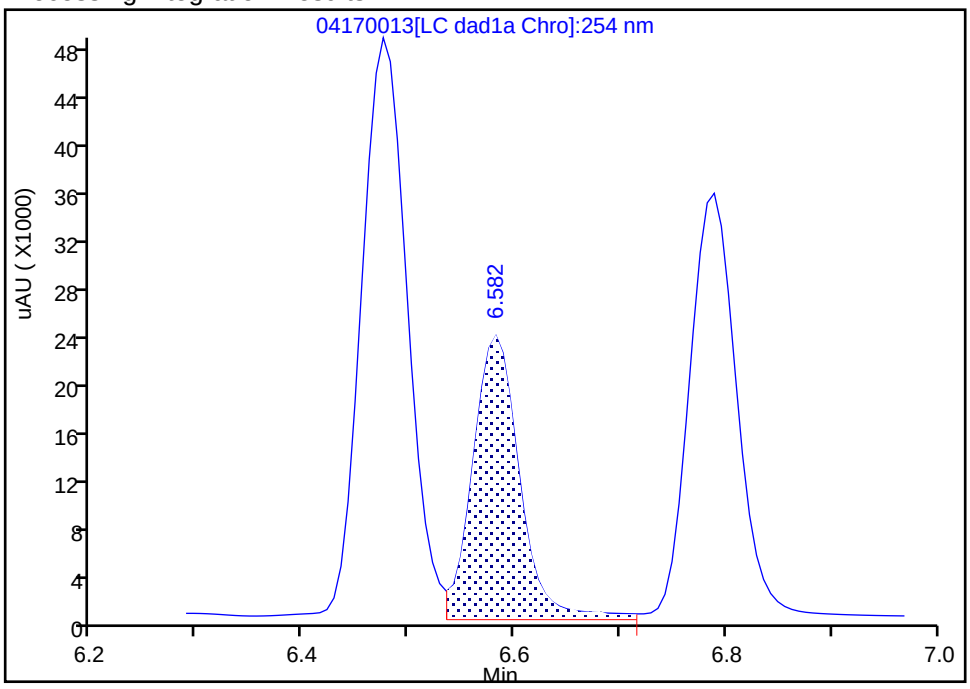
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170013.d				
Injection Date:	17-Apr-2024 21:23:54	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT/DMT 7				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

4 HMX, CAS: 2691-41-0

Signal: 1

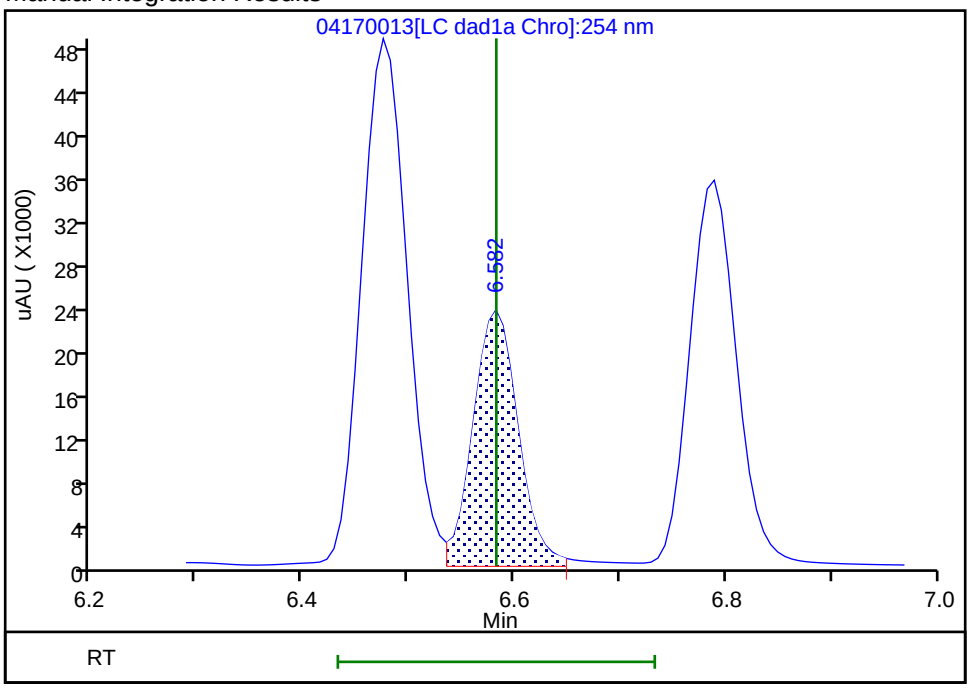
Processing Integration Results

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

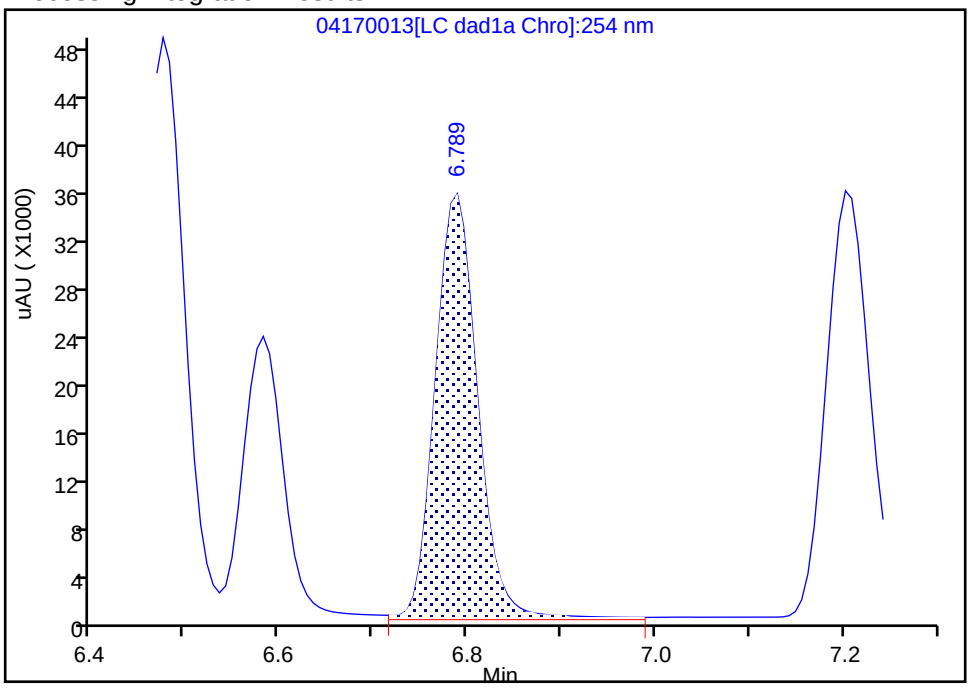
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170013.d				
Injection Date:	17-Apr-2024 21:23:54	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT/DMT 7				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

6 DNX, CAS: 80251-29-2

Signal: 1

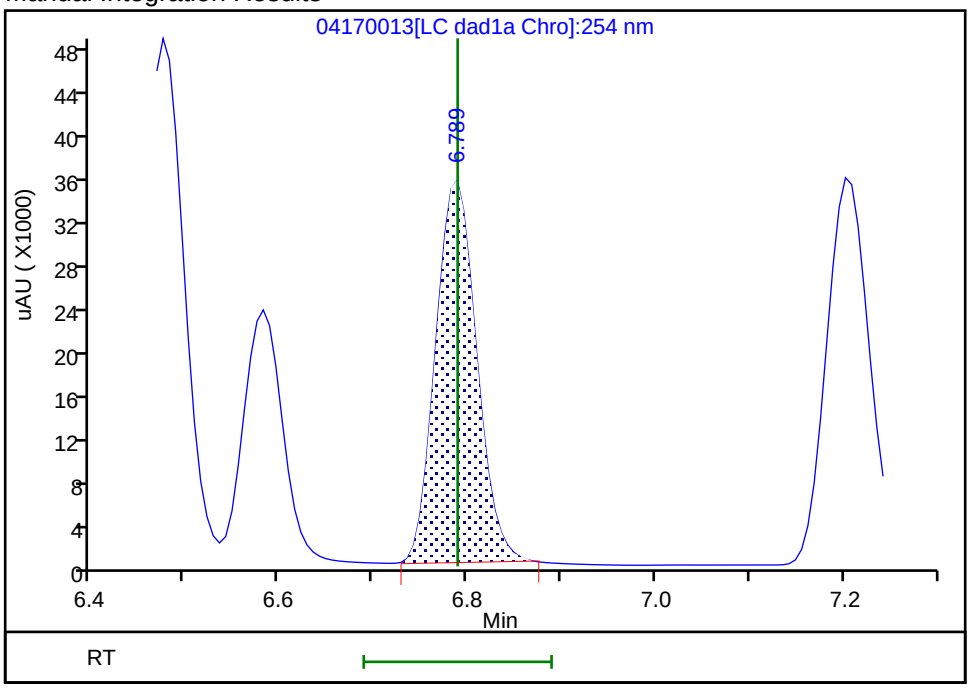
Processing Integration Results

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

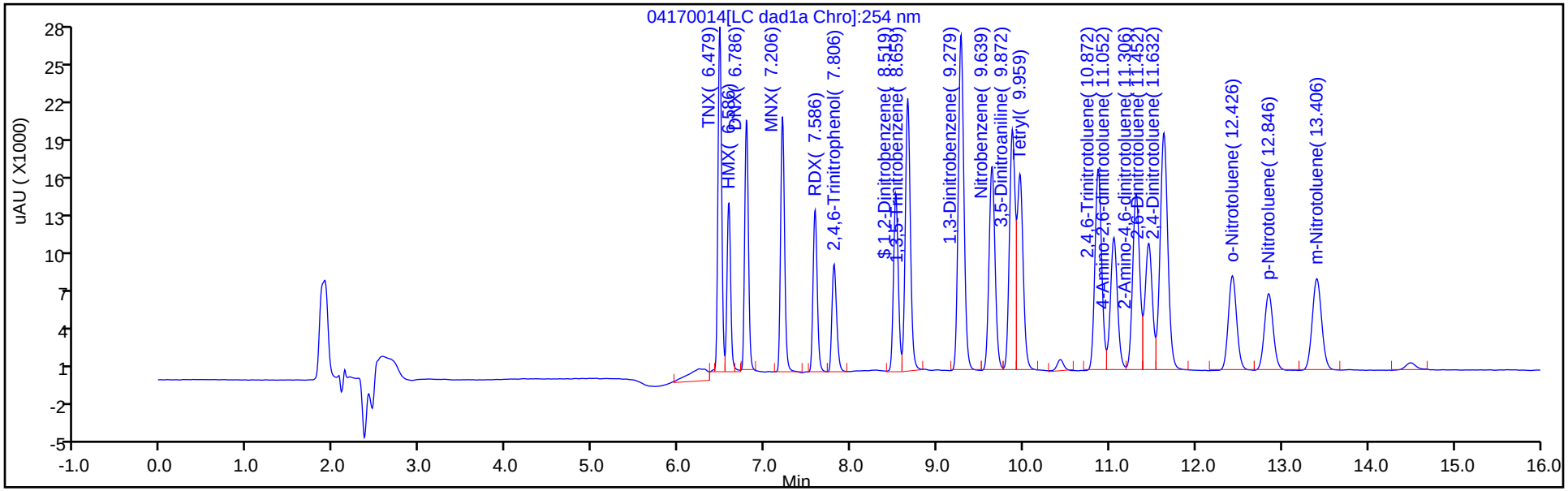
Report Date: 18-Apr-2024 11:59:25 Chrom Revision: 2.3 09-Apr-2024 17:43:44

Eurofins Denver

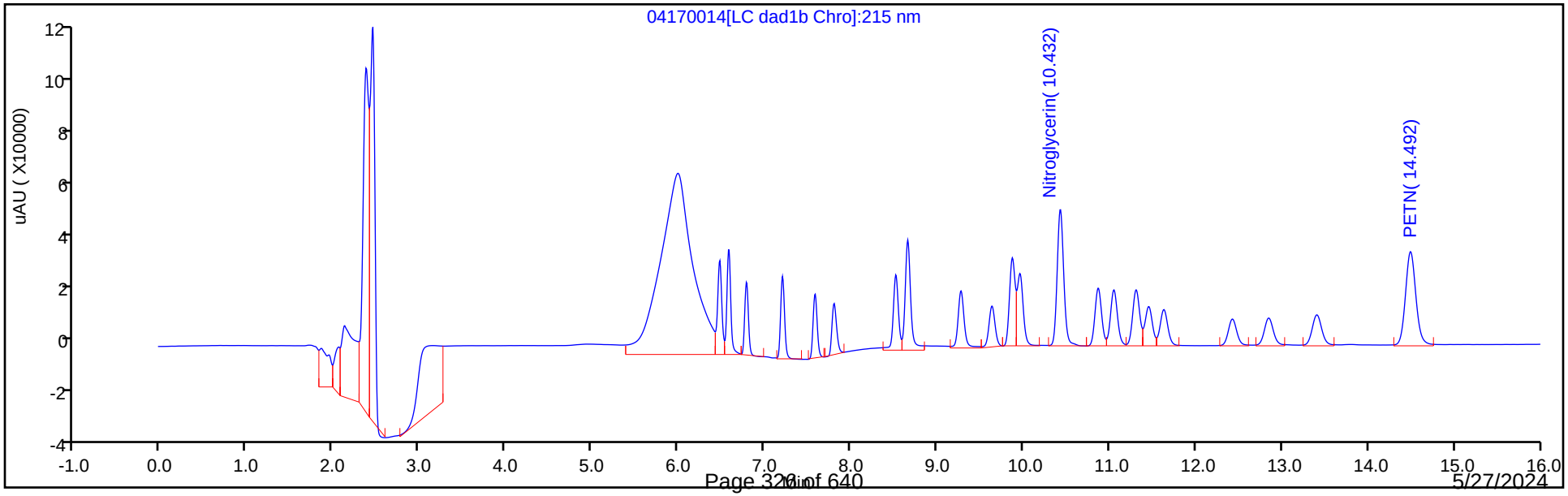
Data File: \\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170014.d

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



5/27/2024
7:57:40 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

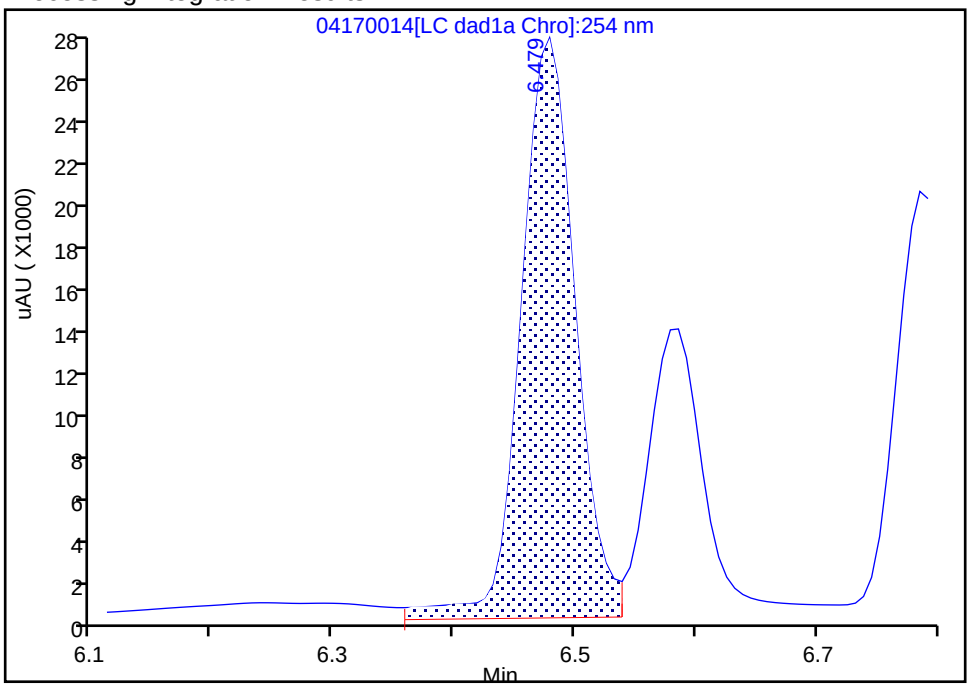
Data File: \\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170014.d
Injection Date: 17-Apr-2024 21:46:50 Instrument ID: CHHPLC_X3
Lims ID: IC INT/DMT 6
Client ID:
Operator ID: JZ/JG ALS Bottle#: 14 Worklist Smp#: 14
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

3 TNX, CAS: 13980-04-6

Signal: 1

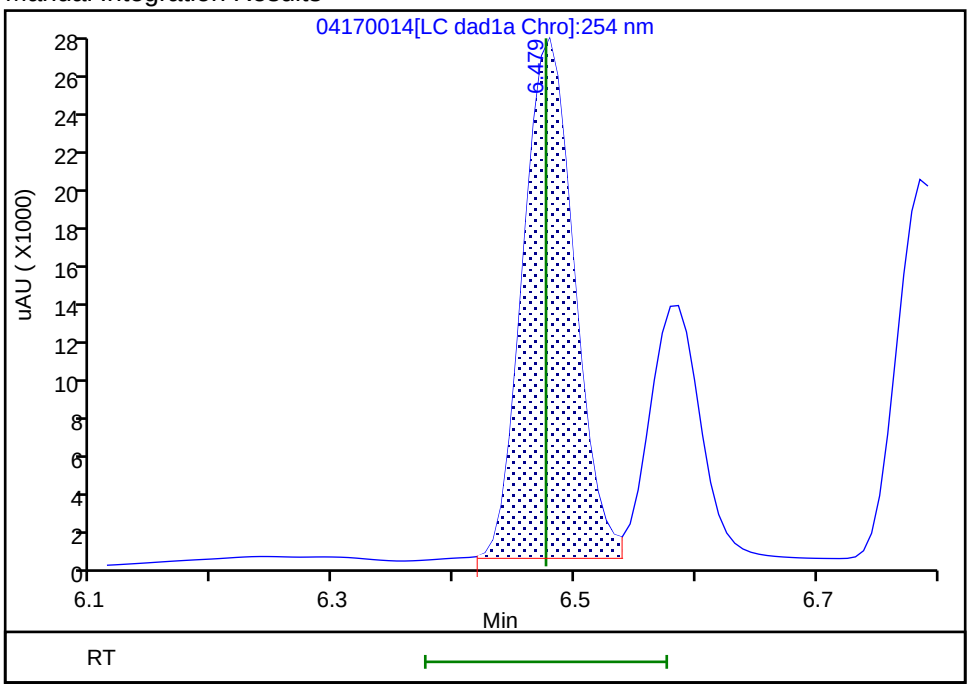
Processing Integration Results

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

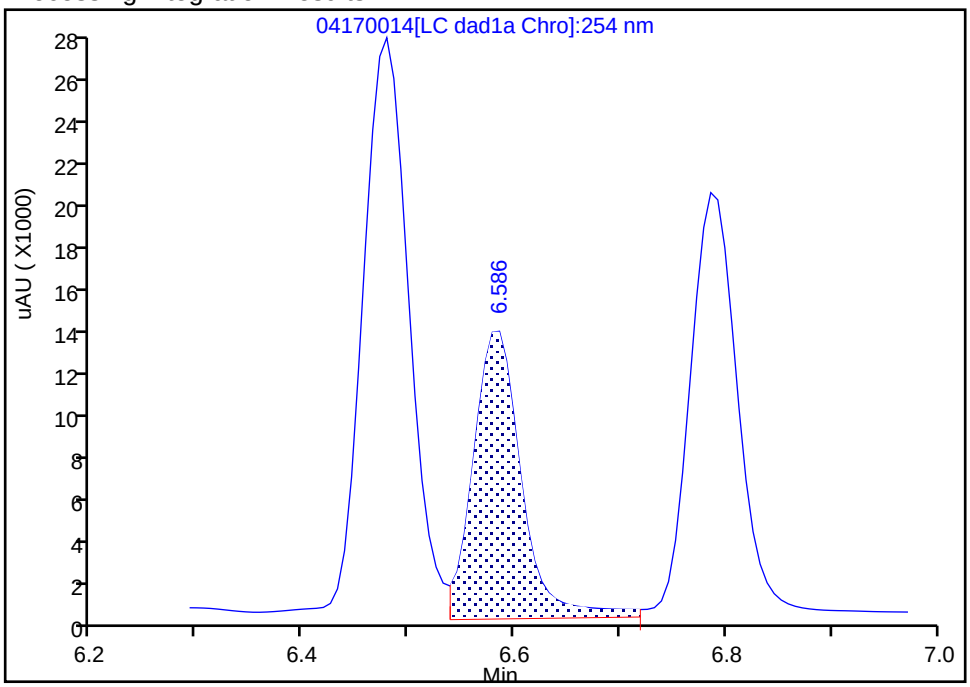
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170014.d				
Injection Date:	17-Apr-2024 21:46:50	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT/DMT 6				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

4 HMX, CAS: 2691-41-0

Signal: 1

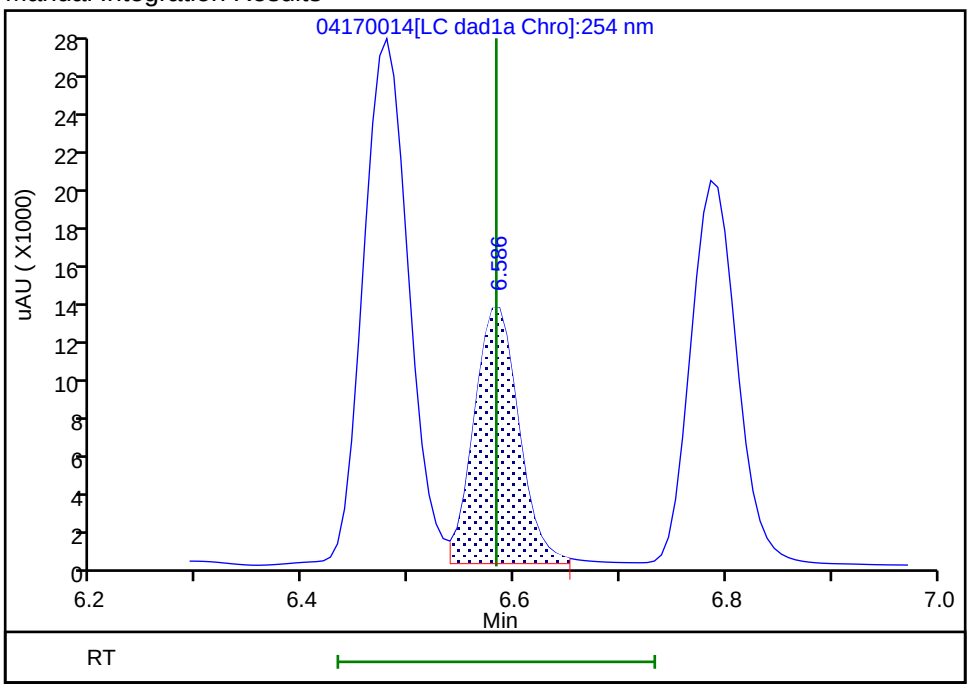
Processing Integration Results

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

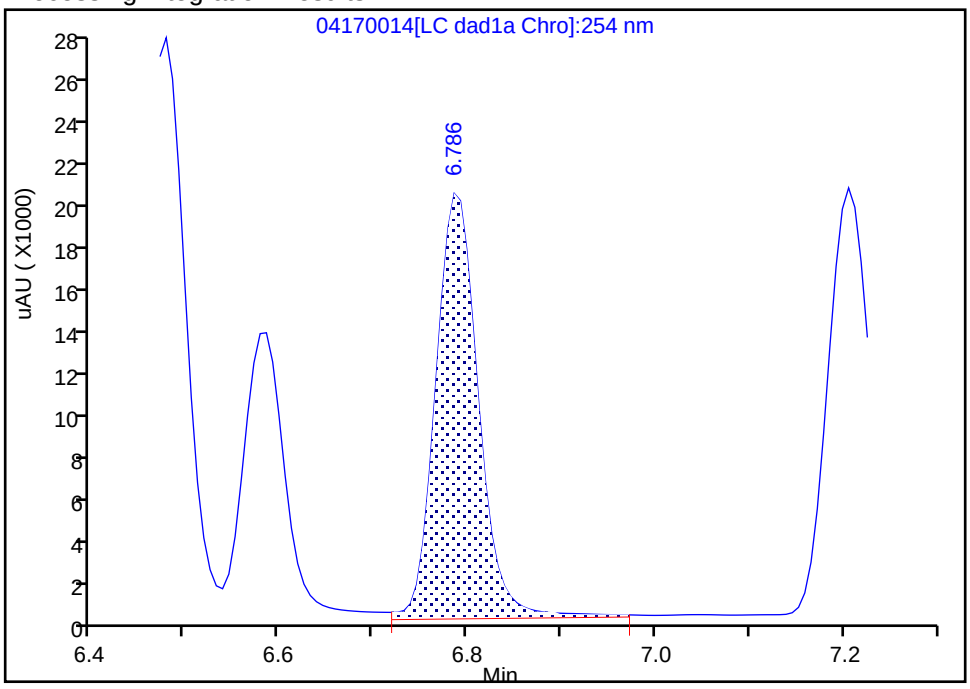
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170014.d				
Injection Date:	17-Apr-2024 21:46:50	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT/DMT 6				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

6 DNX, CAS: 80251-29-2

Signal: 1

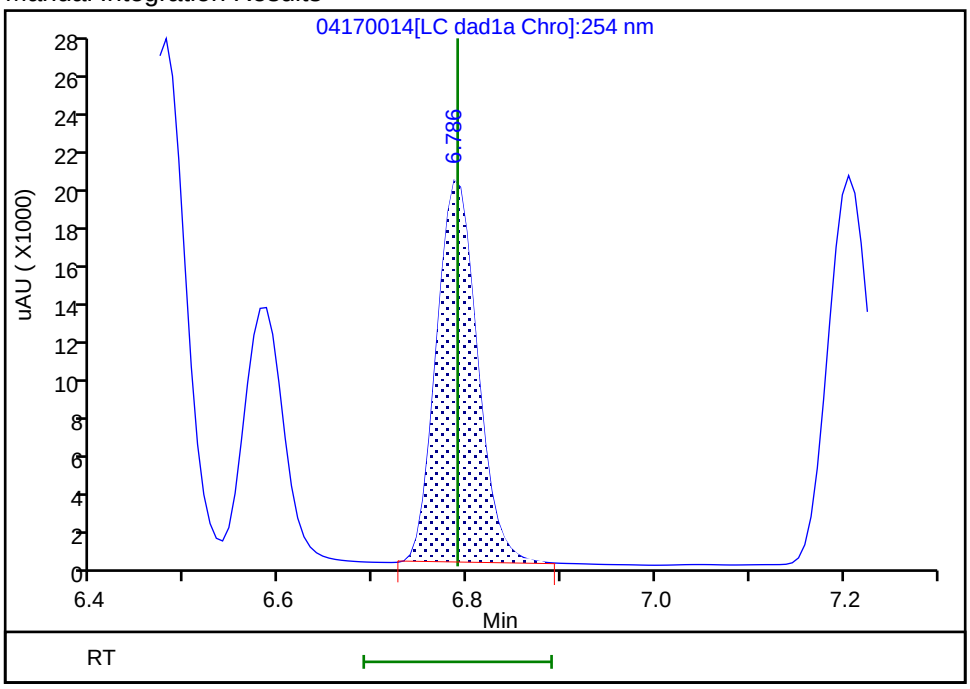
Processing Integration Results

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

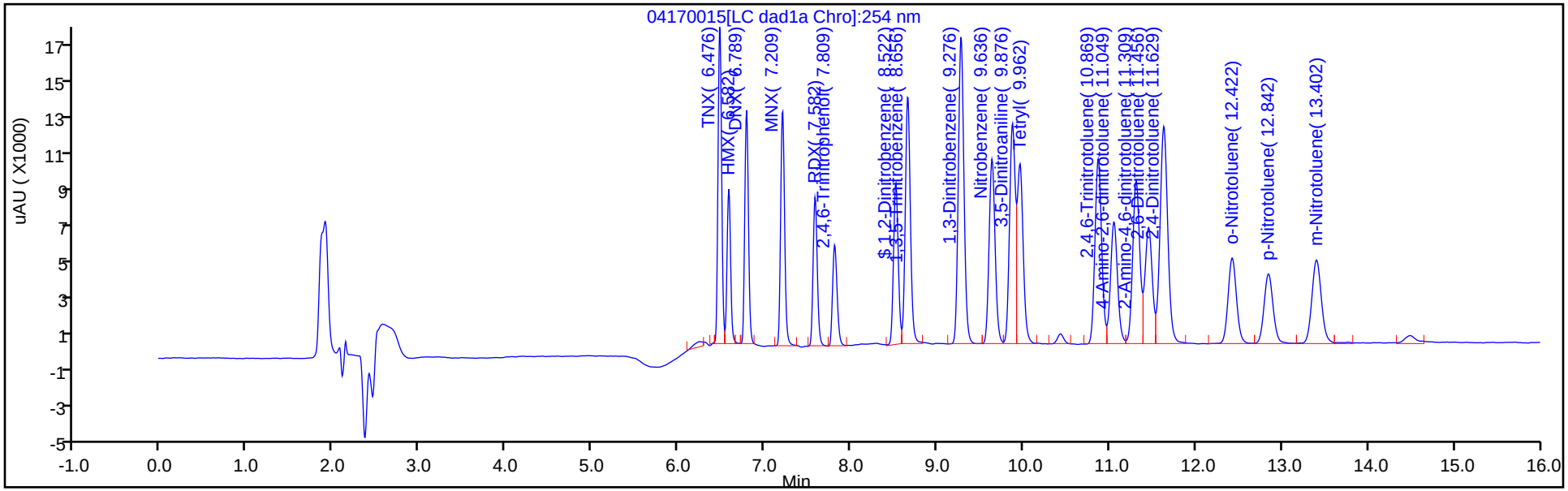
Report Date: 18-Apr-2024 11:59:26 Chrom Revision: 2.3 09-Apr-2024 17:43:44

Eurofins Denver

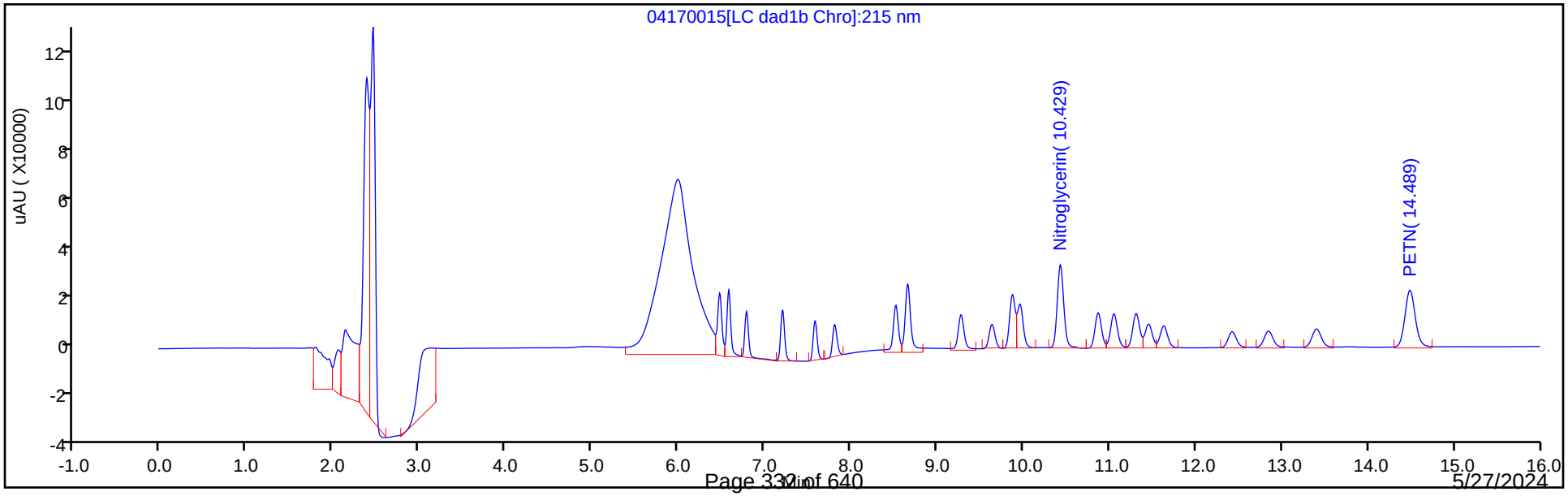
Data File: \\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170015.d

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



5/27/2024
7:57:40 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

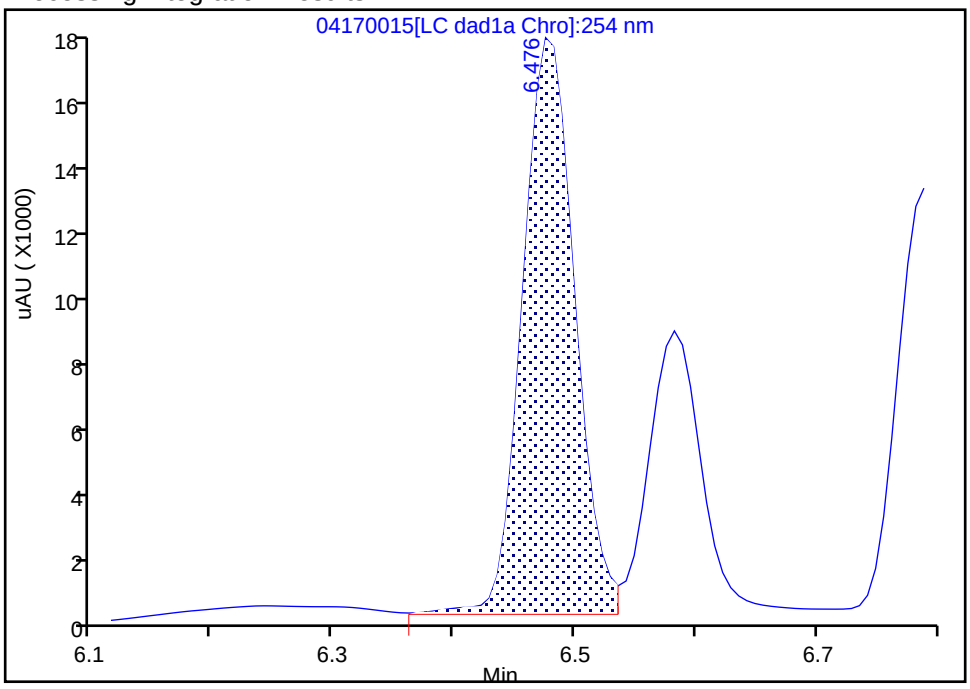
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170015.d				
Injection Date:	17-Apr-2024 22:09:45	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT/DMT 5				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	15	Worklist Smp#:	15
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

3 TNX, CAS: 13980-04-6

Signal: 1

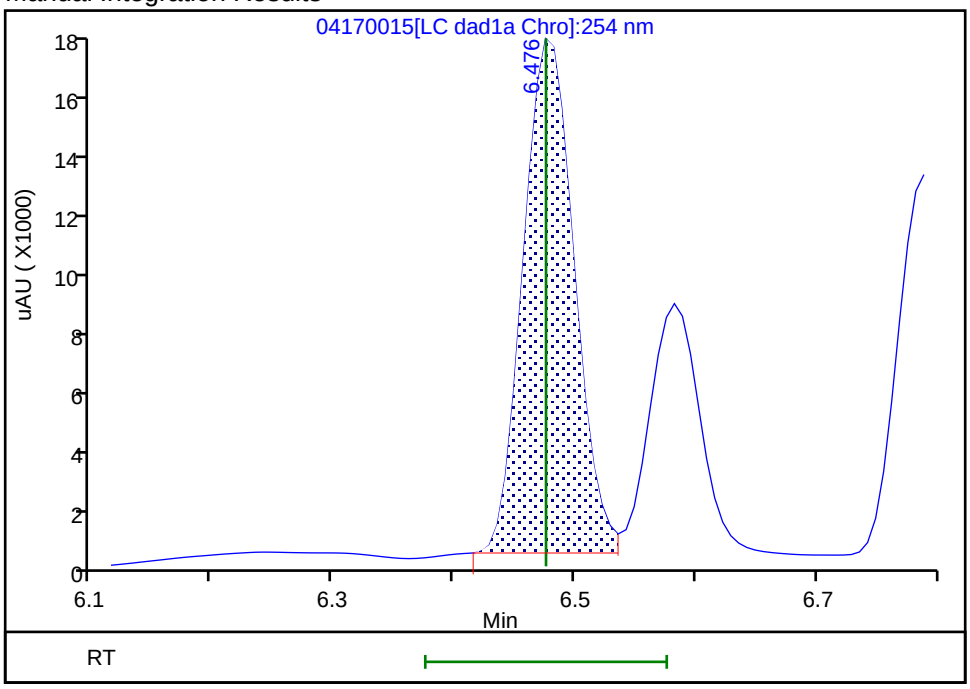
Processing Integration Results

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

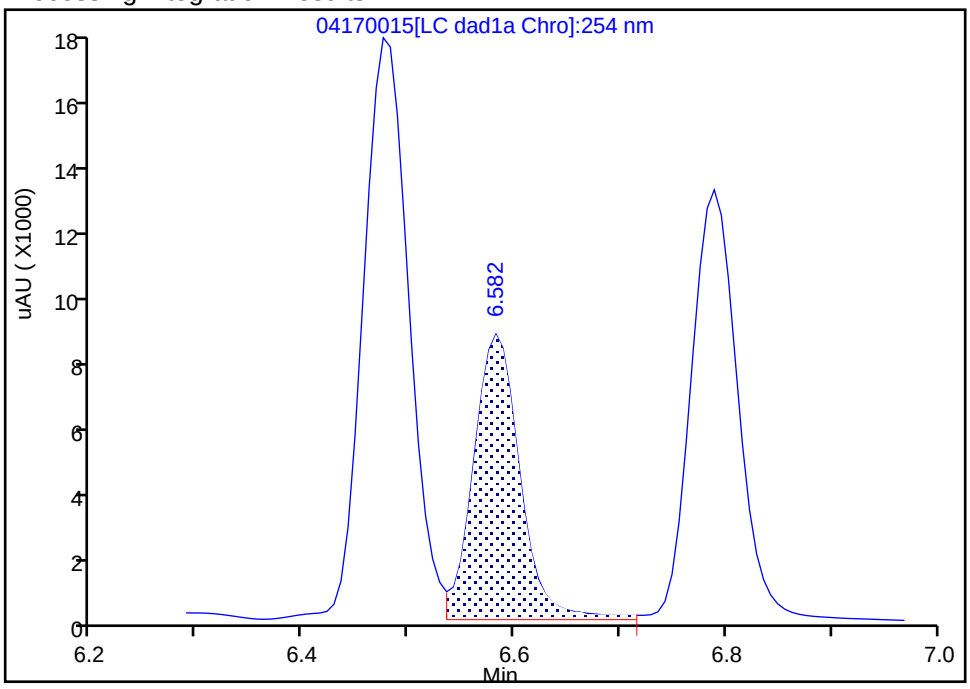
Data File: \\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170015.d
Injection Date: 17-Apr-2024 22:09:45 Instrument ID: CHHPLC_X3
Lims ID: IC INT/DMT 5
Client ID:
Operator ID: JZ/JG ALS Bottle#: 15 Worklist Smp#: 15
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

4 HMX, CAS: 2691-41-0

Signal: 1

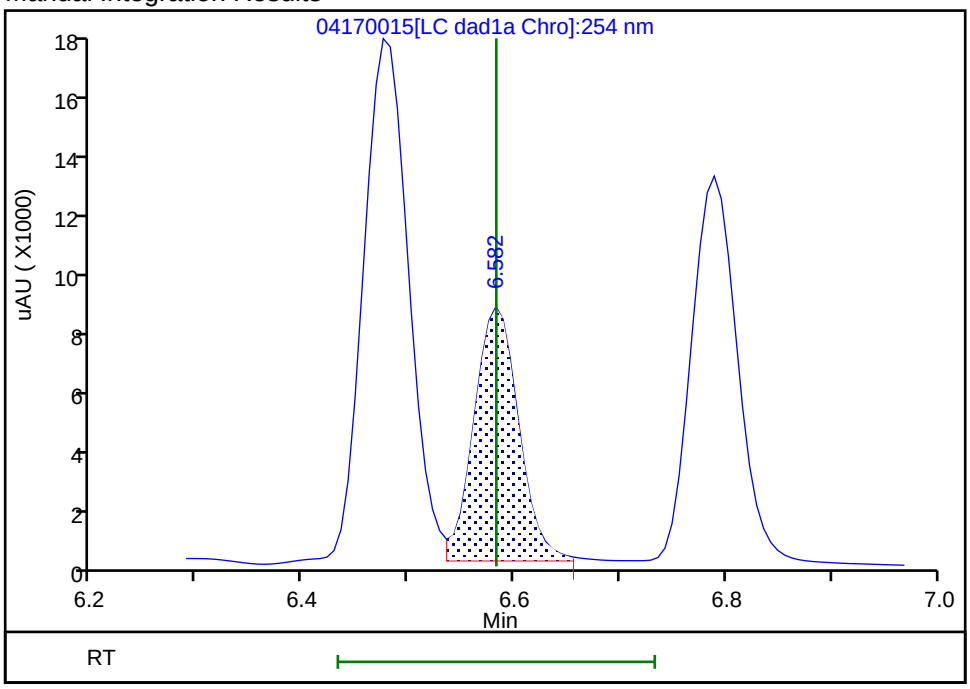
Processing Integration Results

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

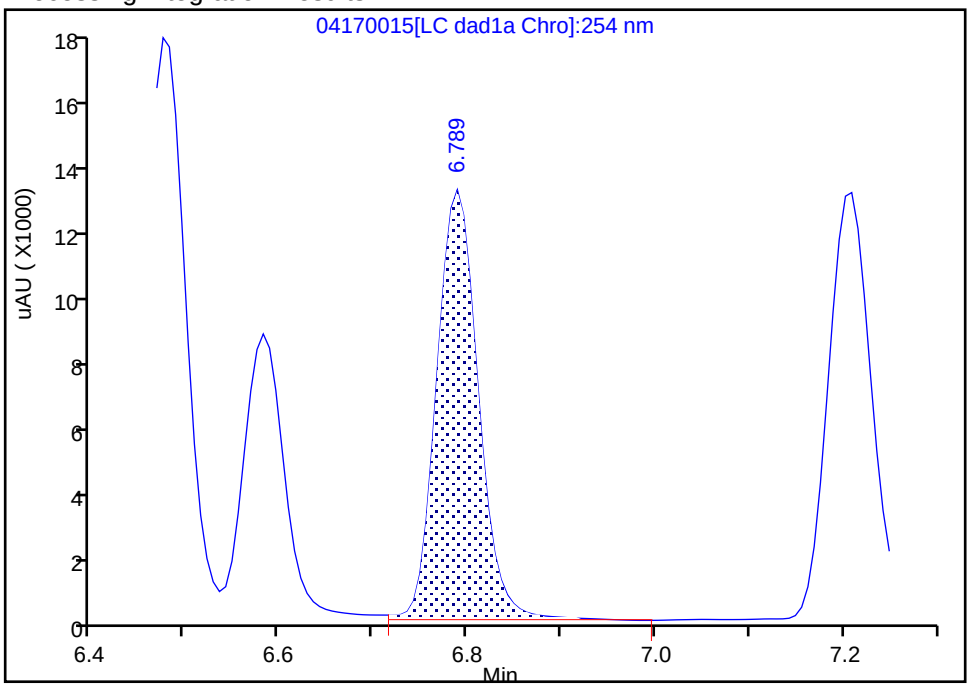
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170015.d				
Injection Date:	17-Apr-2024 22:09:45	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT/DMT 5				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	15	Worklist Smp#:	15
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

6 DNX, CAS: 80251-29-2

Signal: 1

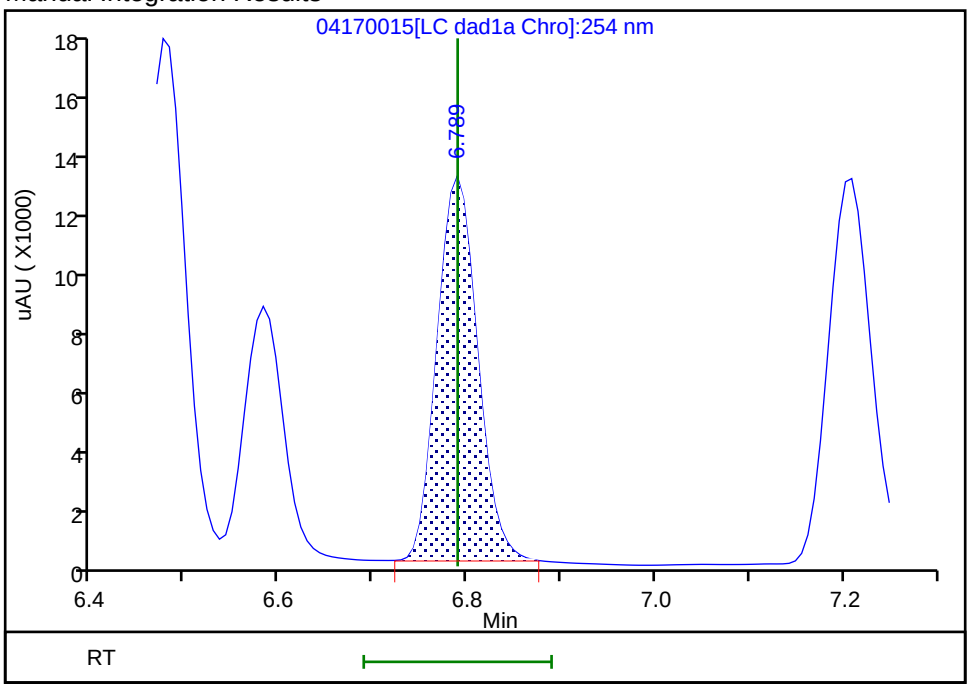
Processing Integration Results

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

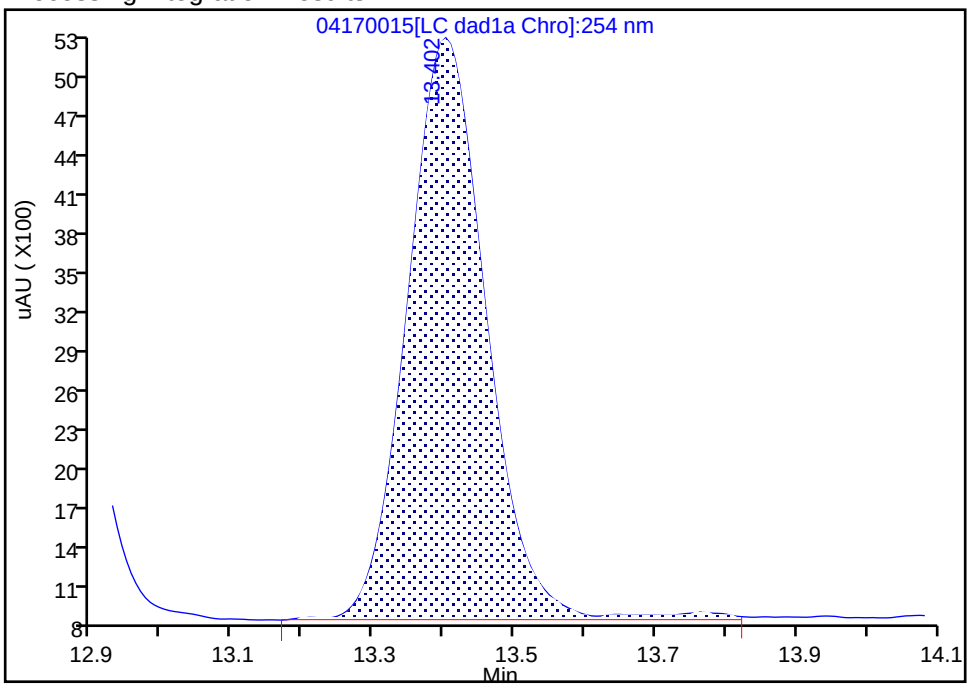
Data File: \\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170015.d
Injection Date: 17-Apr-2024 22:09:45 Instrument ID: CHHPLC_X3
Lims ID: IC INT/DMT 5
Client ID:
Operator ID: JZ/JG ALS Bottle#: 15 Worklist Smp#: 15
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

24 m-Nitrotoluene, CAS: 99-08-1

Signal: 1

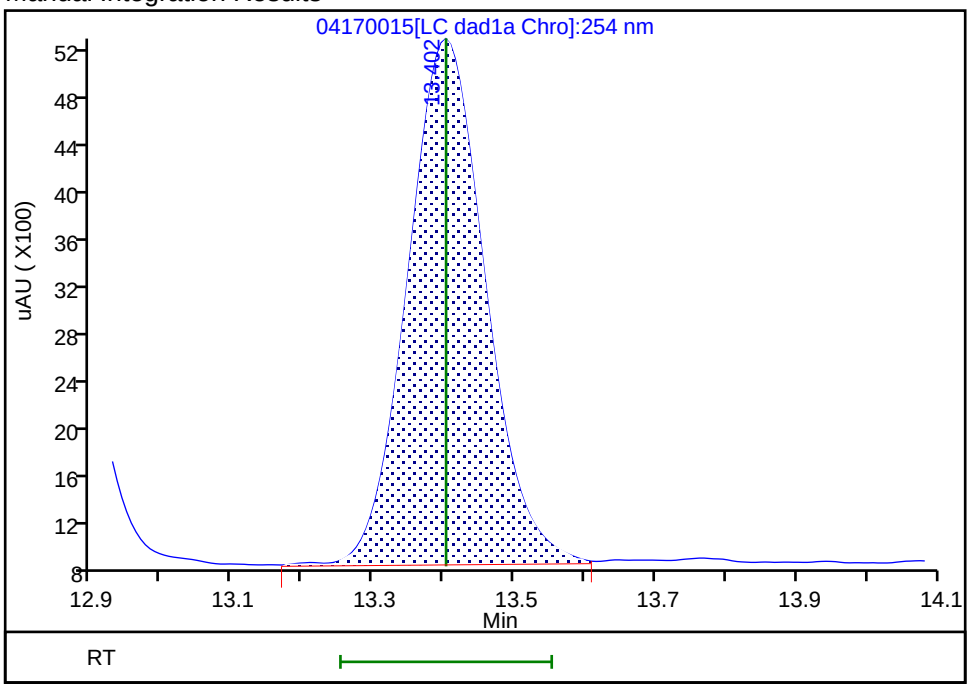
Processing Integration Results

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

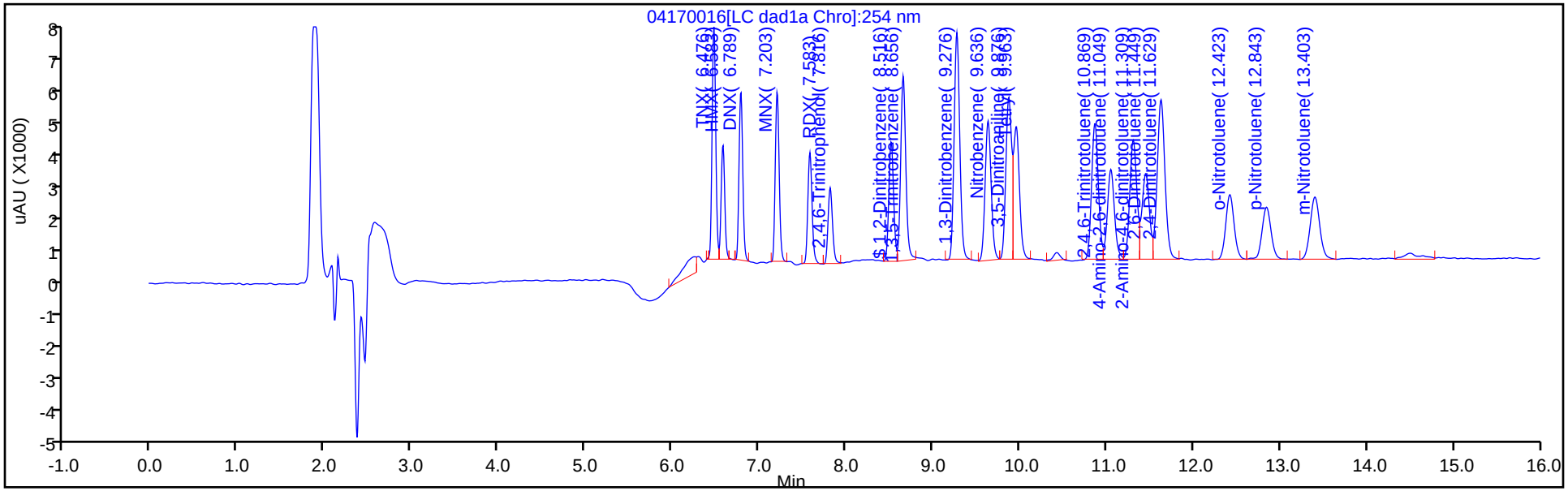
Report Date: 18-Apr-2024 11:59:27 Chrom Revision: 2.3 09-Apr-2024 17:43:44

Eurofins Denver

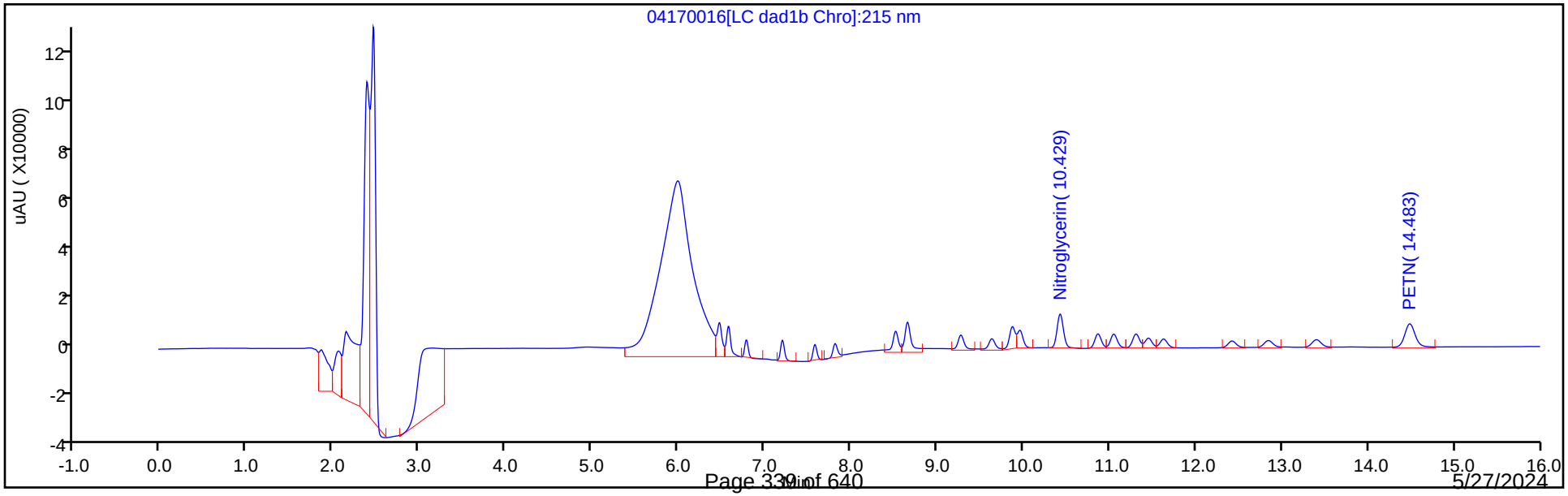
Data File: \\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170016.d

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



5/27/2024
7:57:40 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

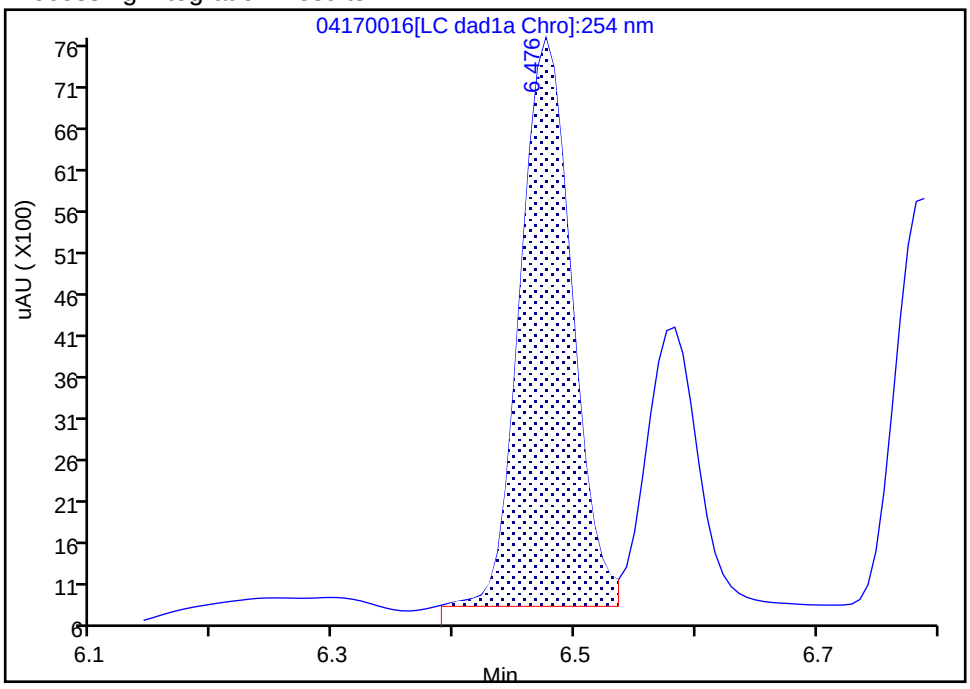
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170016.d				
Injection Date:	17-Apr-2024 22:32:42	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT/DMT 4				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

3 TNX, CAS: 13980-04-6

Signal: 1

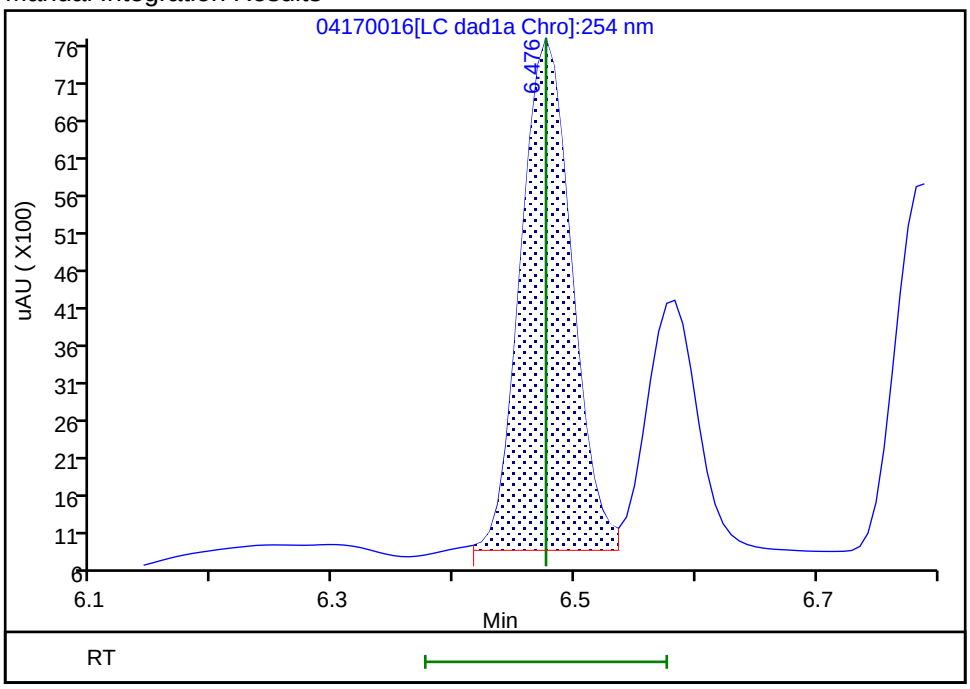
Processing Integration Results

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

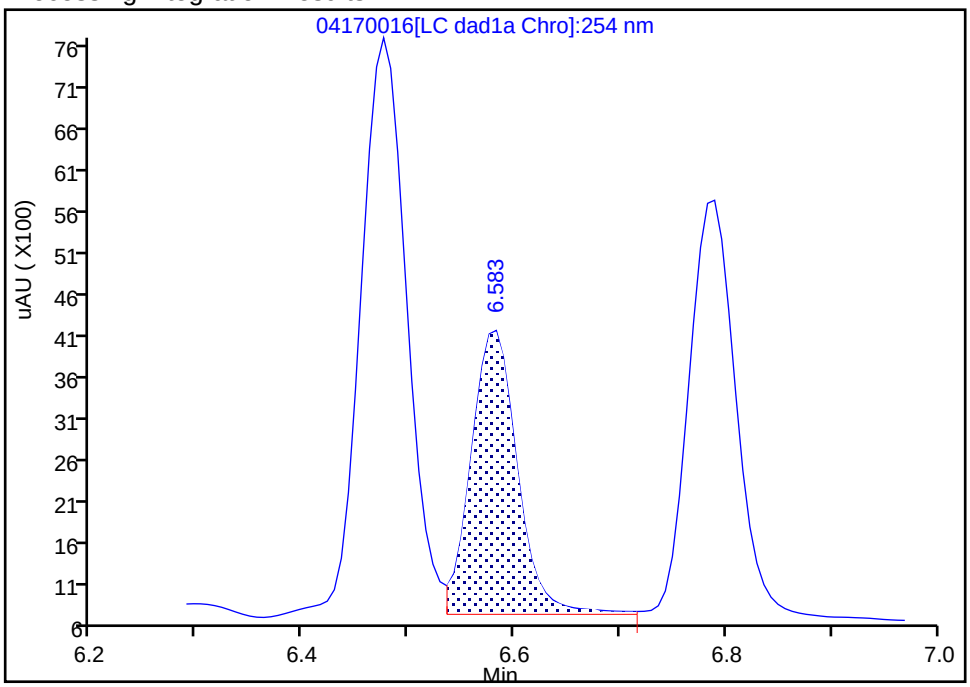
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170016.d				
Injection Date:	17-Apr-2024 22:32:42	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT/DMT 4				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

4 HMX, CAS: 2691-41-0

Signal: 1

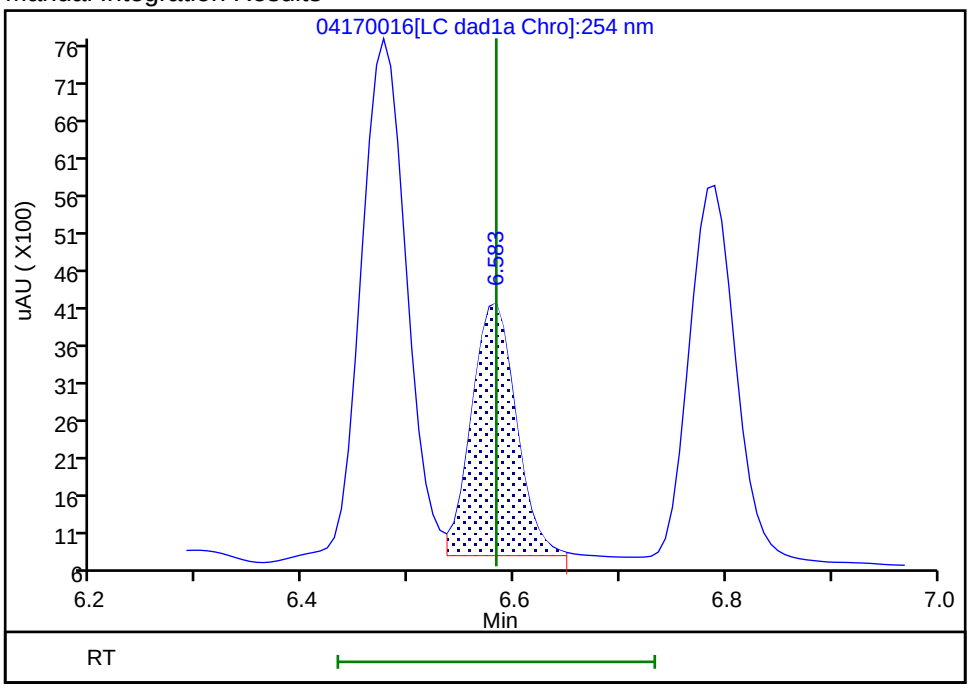
Processing Integration Results

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

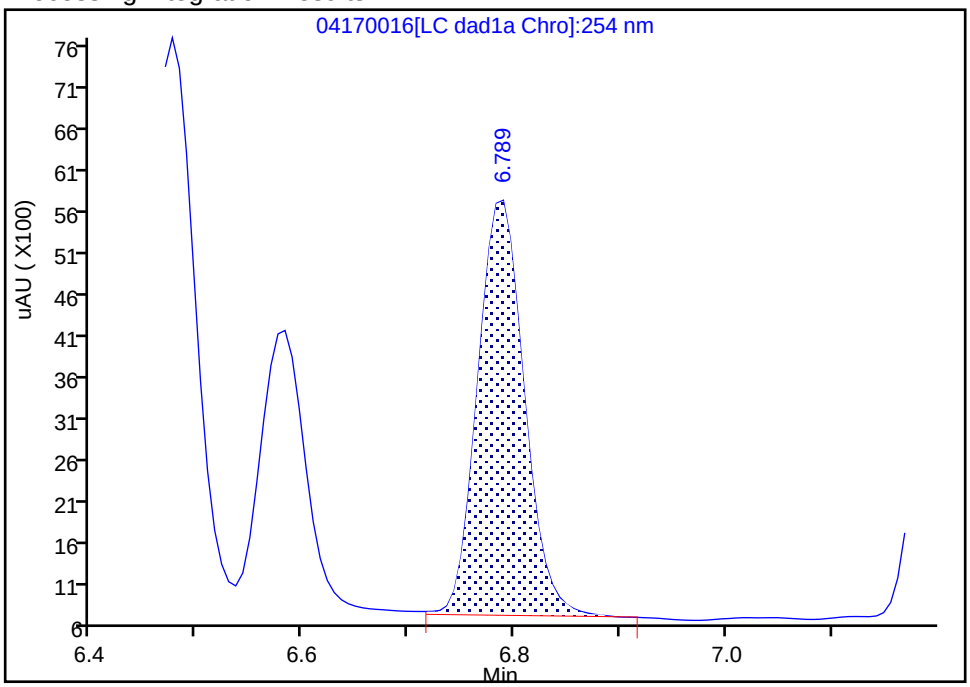
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170016.d				
Injection Date:	17-Apr-2024 22:32:42	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT/DMT 4				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

6 DNX, CAS: 80251-29-2

Signal: 1

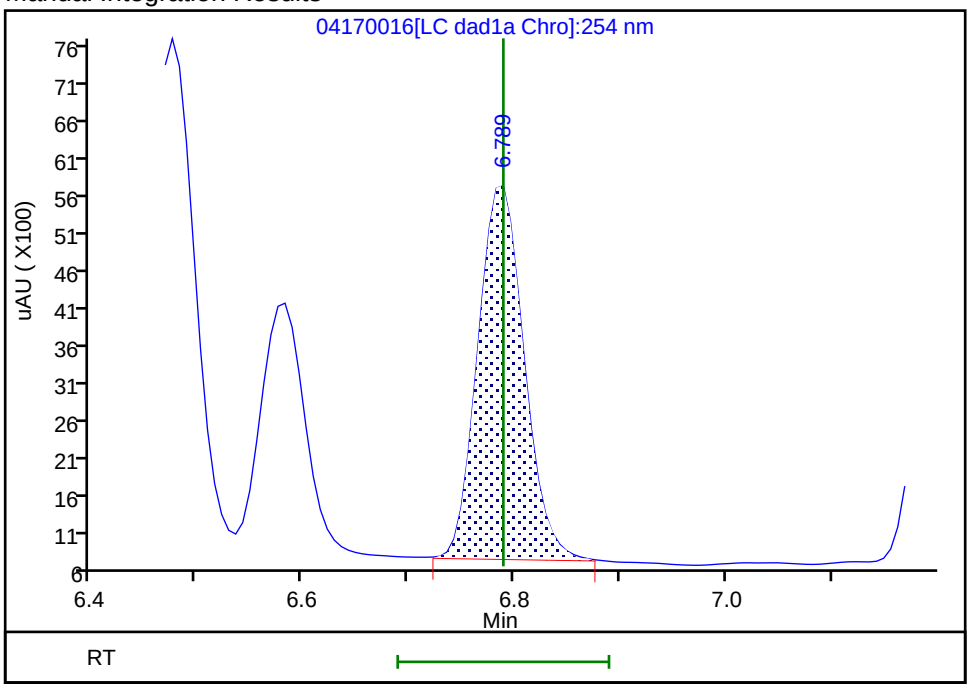
Processing Integration Results

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

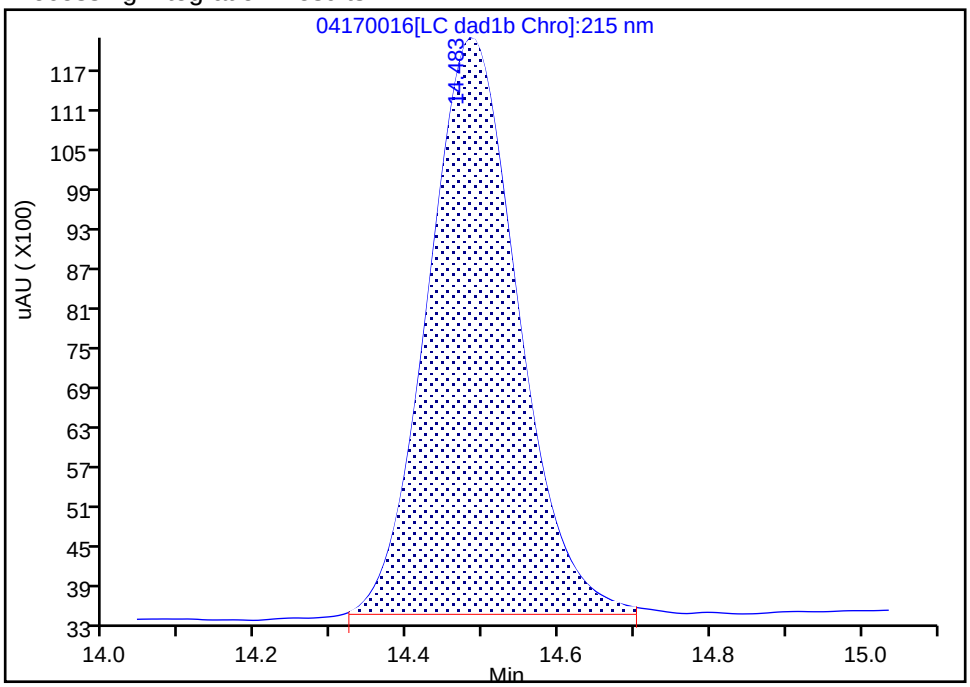
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170016.d				
Injection Date:	17-Apr-2024 22:32:42	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT/DMT 4				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1C, 215 nm		

25 PETN, CAS: 78-11-5

Signal: 1

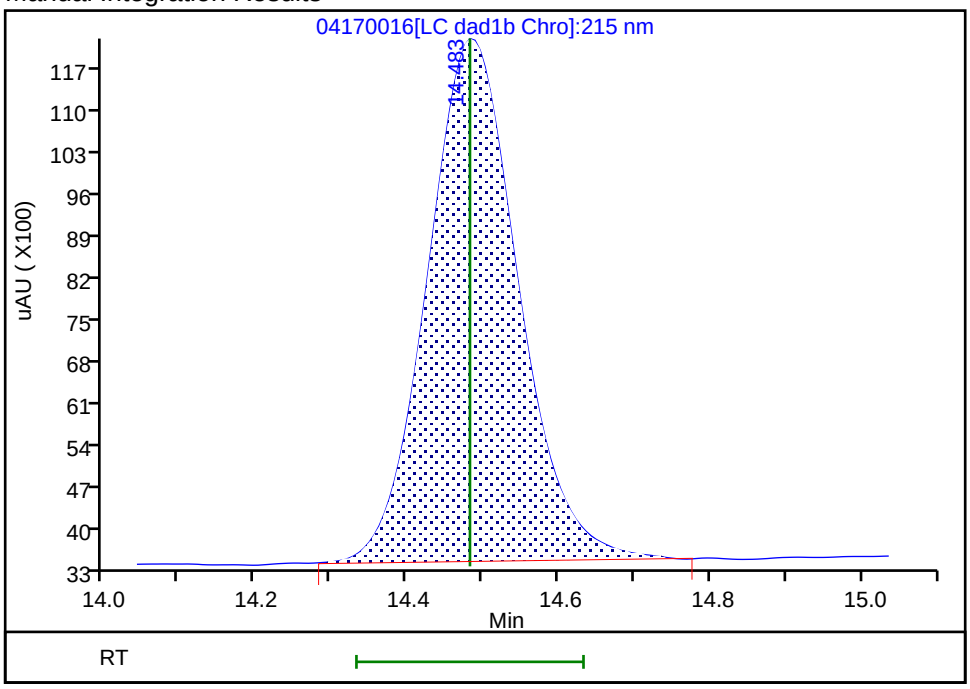
Processing Integration Results

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

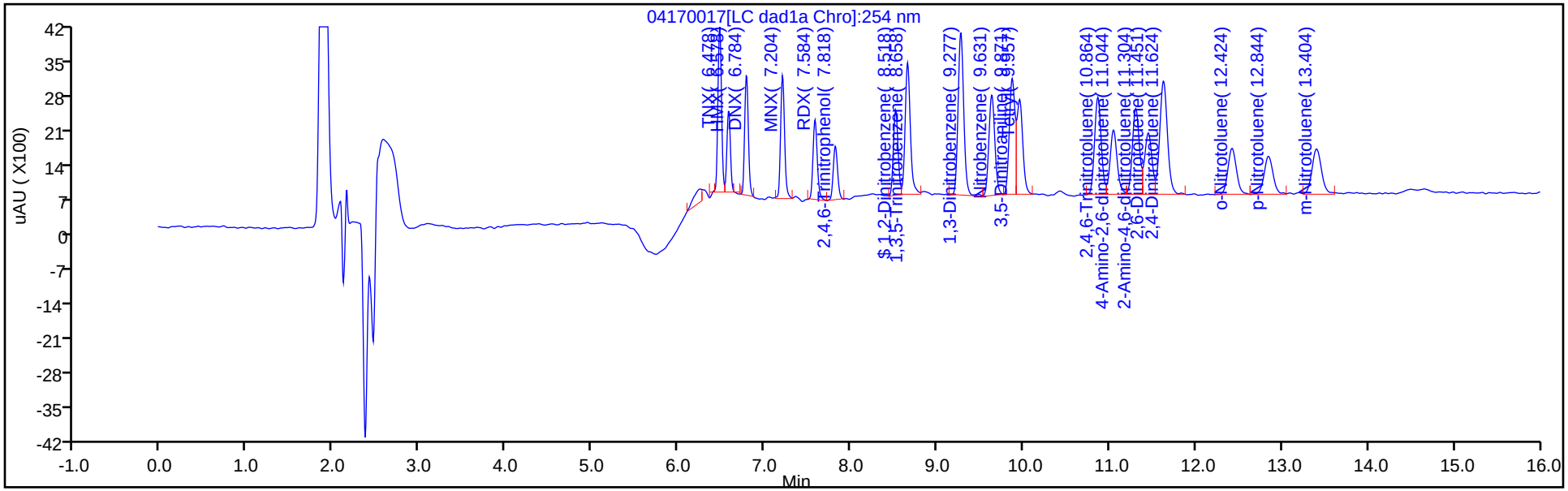
Report Date: 18-Apr-2024 11:59:28 Chrom Revision: 2.3 09-Apr-2024 17:43:44

Eurofins Denver

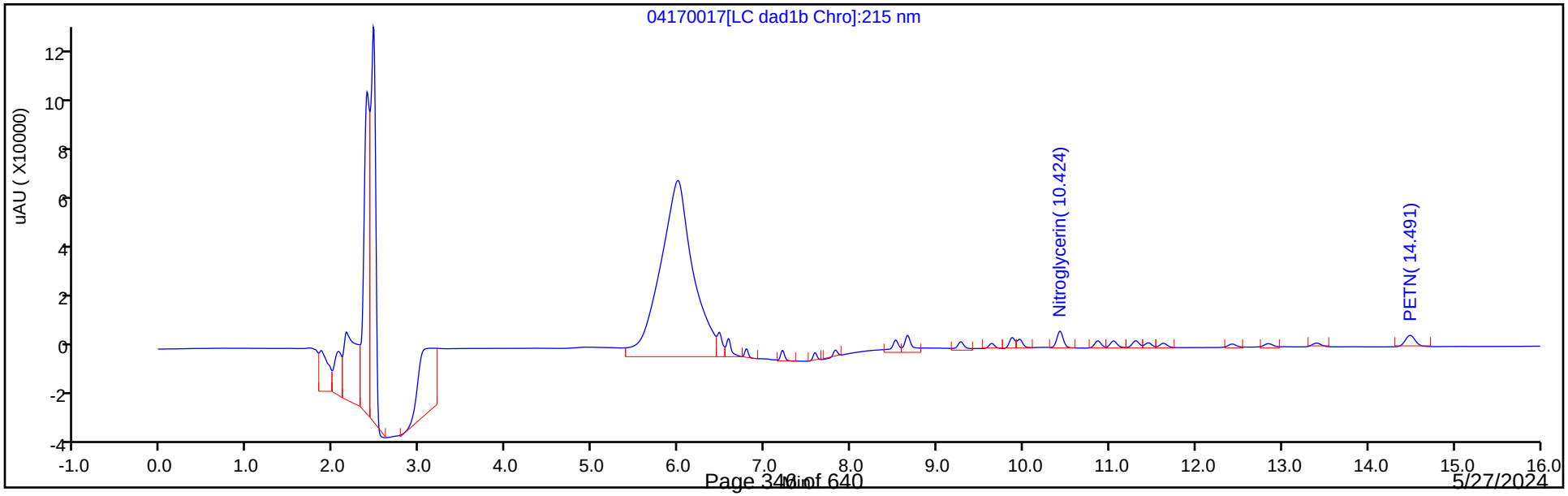
Data File: \\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170017.d

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



5/27/2024
7:57:40 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

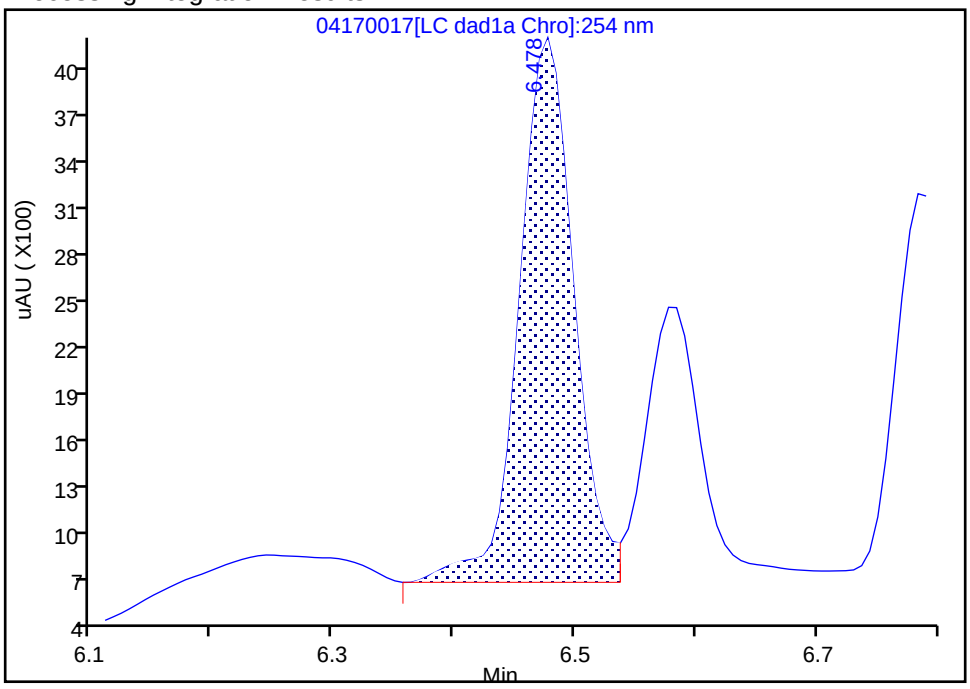
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170017.d				
Injection Date:	17-Apr-2024 22:55:38	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT/DMT 3				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

3 TNX, CAS: 13980-04-6

Signal: 1

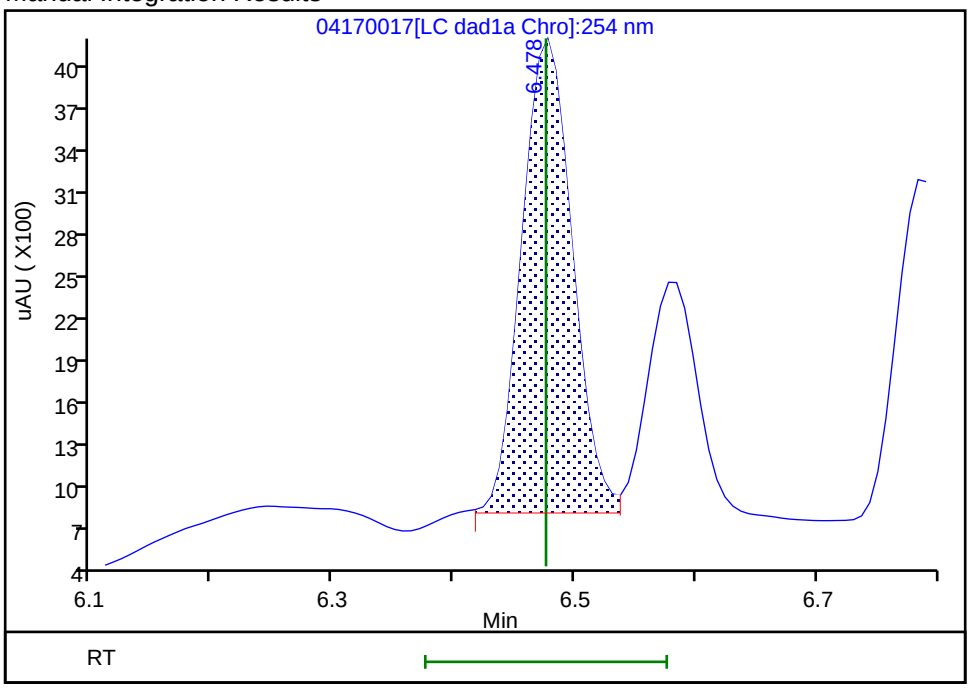
Processing Integration Results

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

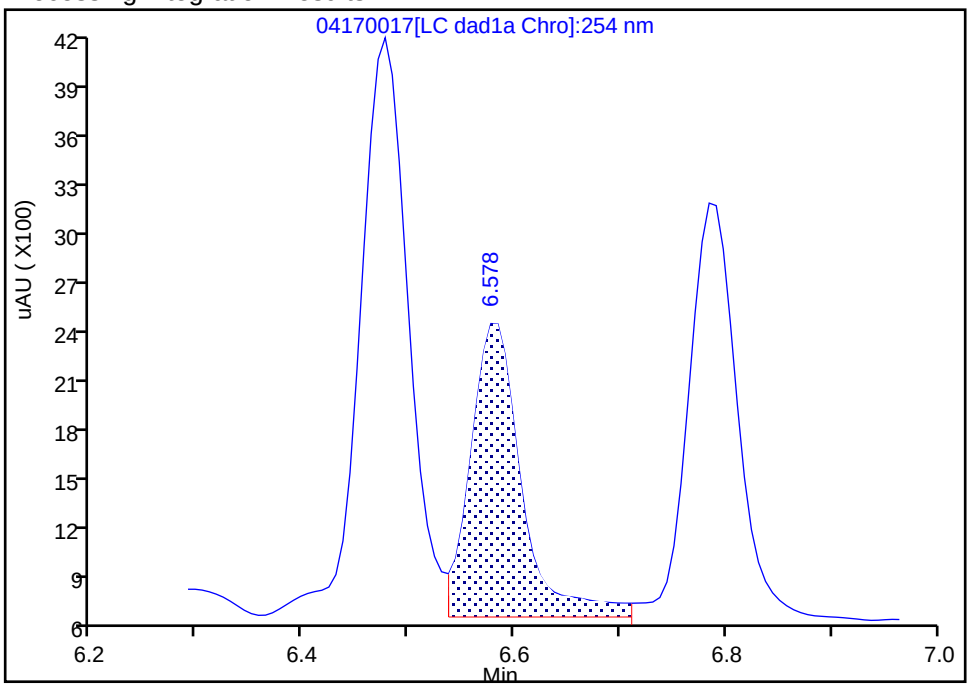
Data File: \\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170017.d
Injection Date: 17-Apr-2024 22:55:38 Instrument ID: CHHPLC_X3
Lims ID: IC INT/DMT 3
Client ID:
Operator ID: JZ/JG ALS Bottle#: 17 Worklist Smp#: 17
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

4 HMX, CAS: 2691-41-0

Signal: 1

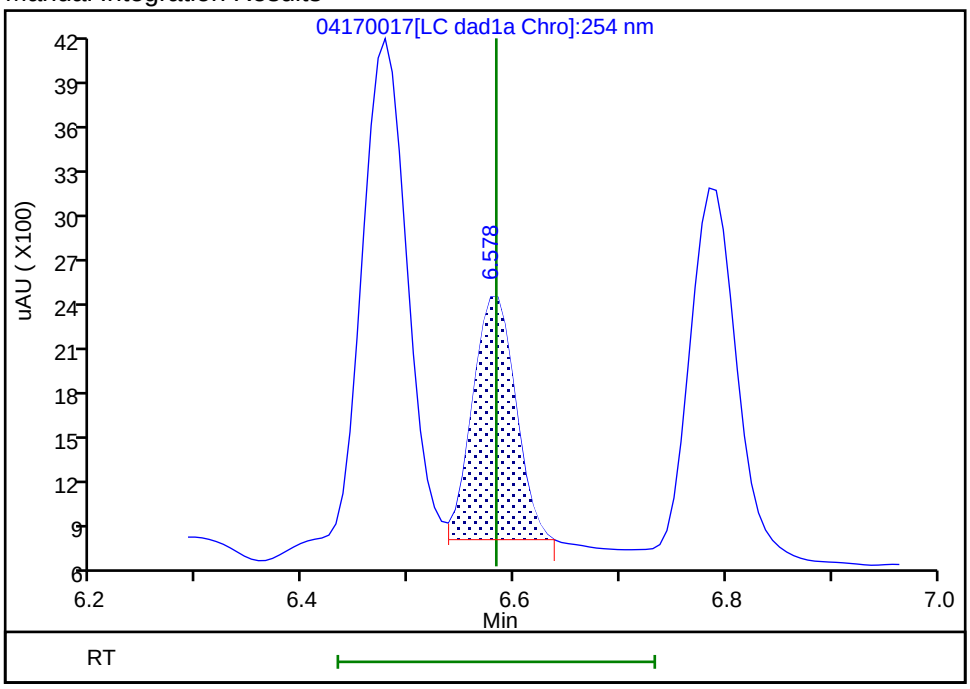
Processing Integration Results

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

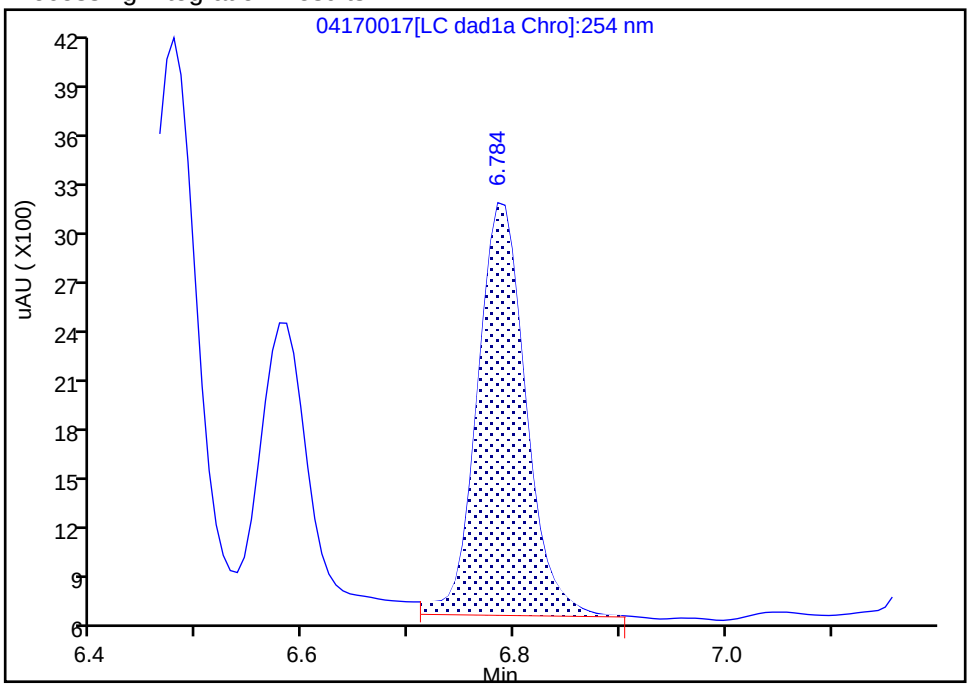
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170017.d				
Injection Date:	17-Apr-2024 22:55:38	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT/DMT 3				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

6 DNX, CAS: 80251-29-2

Signal: 1

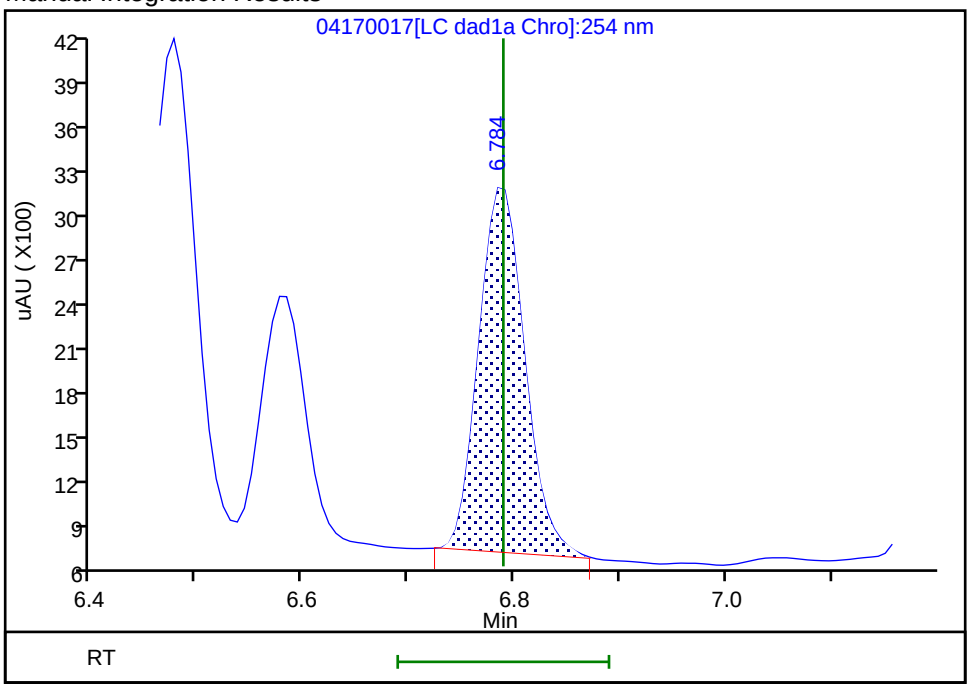
Processing Integration Results

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

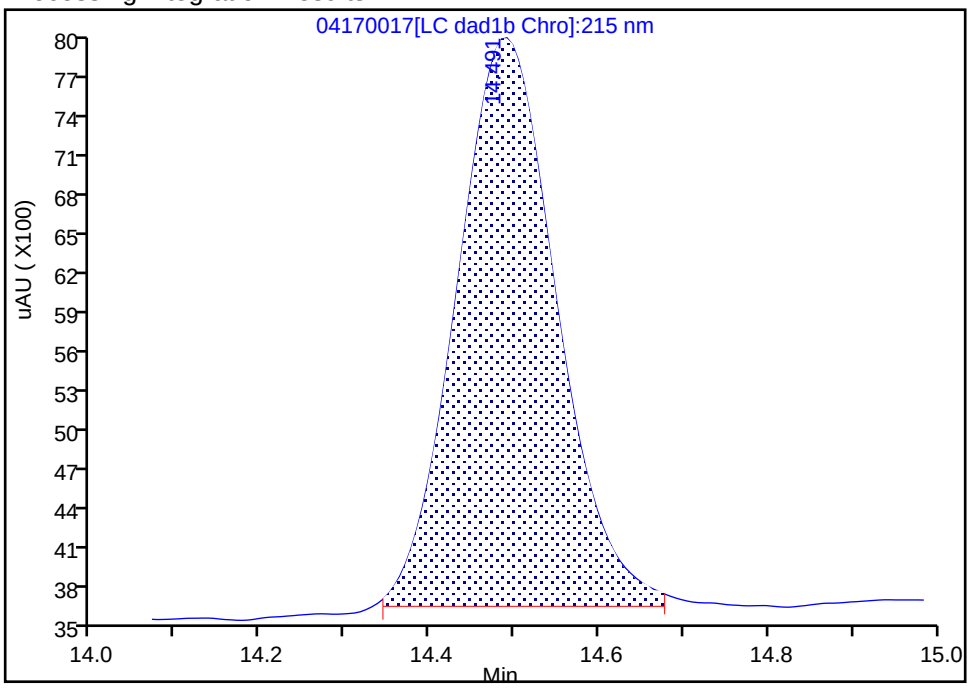
Data File: \\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170017.d
Injection Date: 17-Apr-2024 22:55:38 Instrument ID: CHHPLC_X3
Lims ID: IC INT/DMT 3
Client ID:
Operator ID: JZ/JG ALS Bottle#: 17 Worklist Smp#: 17
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1C, 215 nm

25 PETN, CAS: 78-11-5

Signal: 1

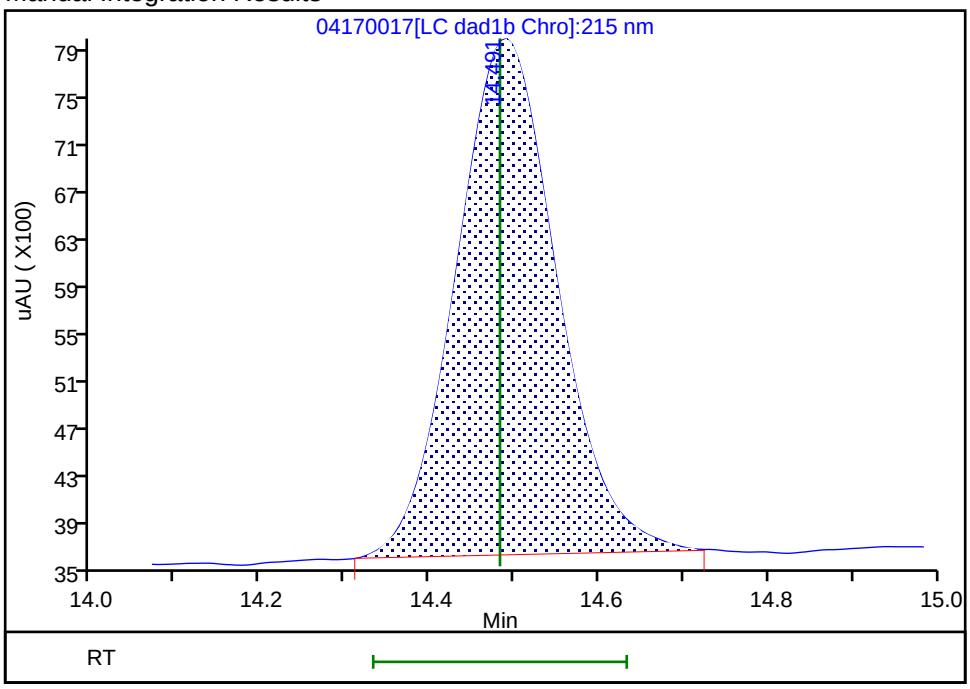
Processing Integration Results

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

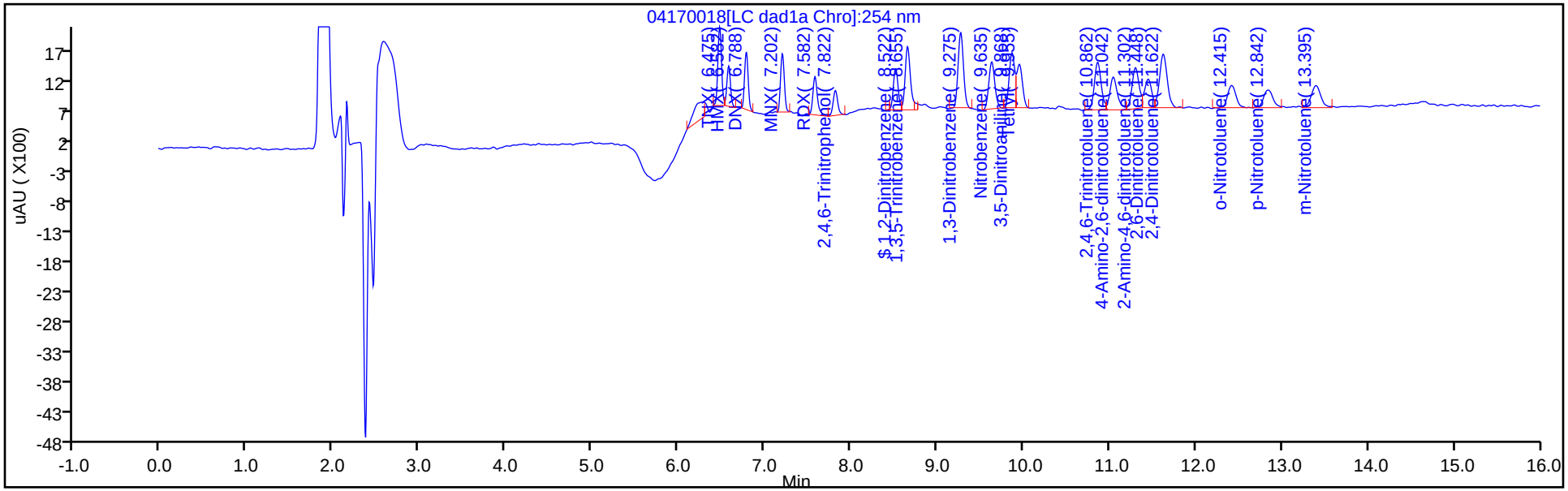
Report Date: 18-Apr-2024 11:59:29 Chrom Revision: 2.3 09-Apr-2024 17:43:44

Eurofins Denver

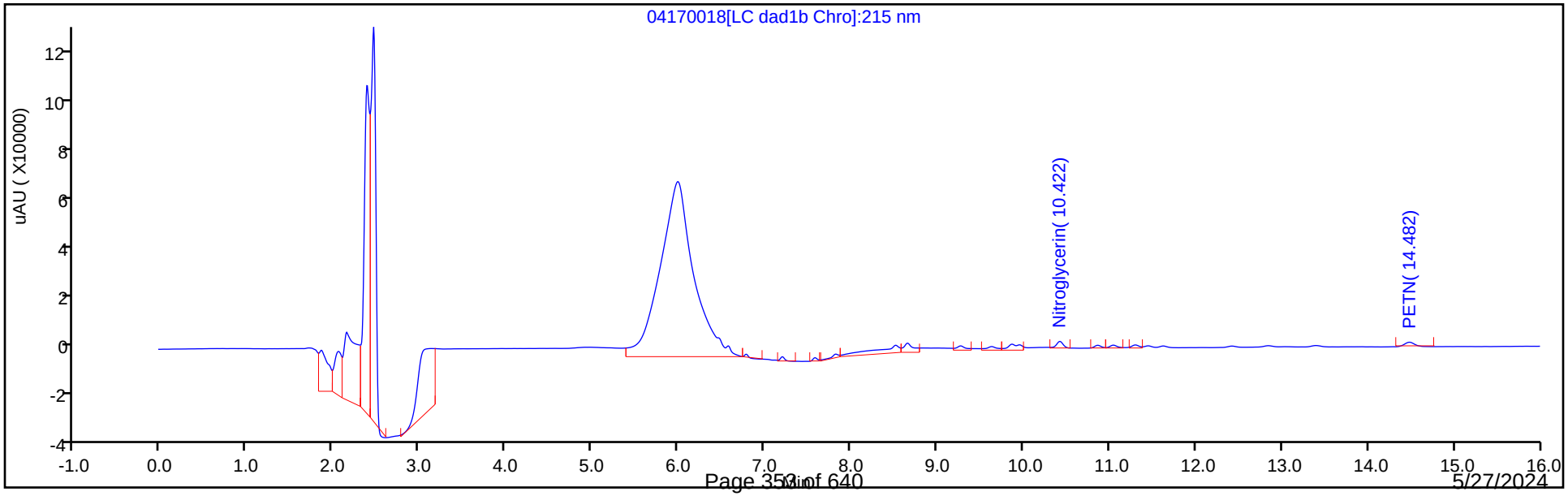
Data File: \\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170018.d

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



5/27/2024
7:57:40 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

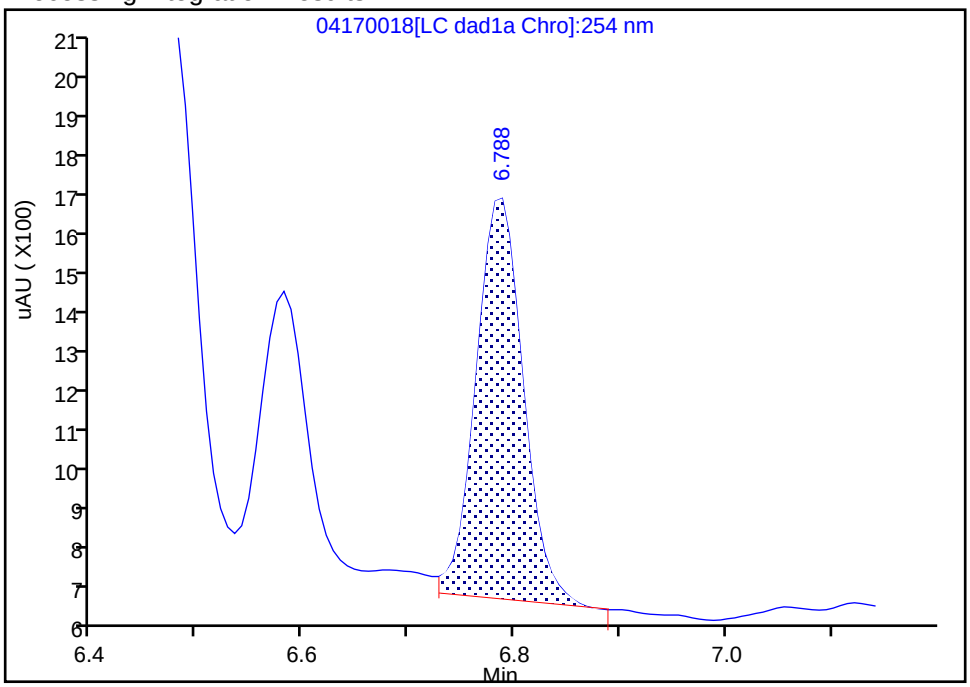
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170018.d				
Injection Date:	17-Apr-2024 23:18:32	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT/DMT 2				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

6 DNX, CAS: 80251-29-2

Signal: 1

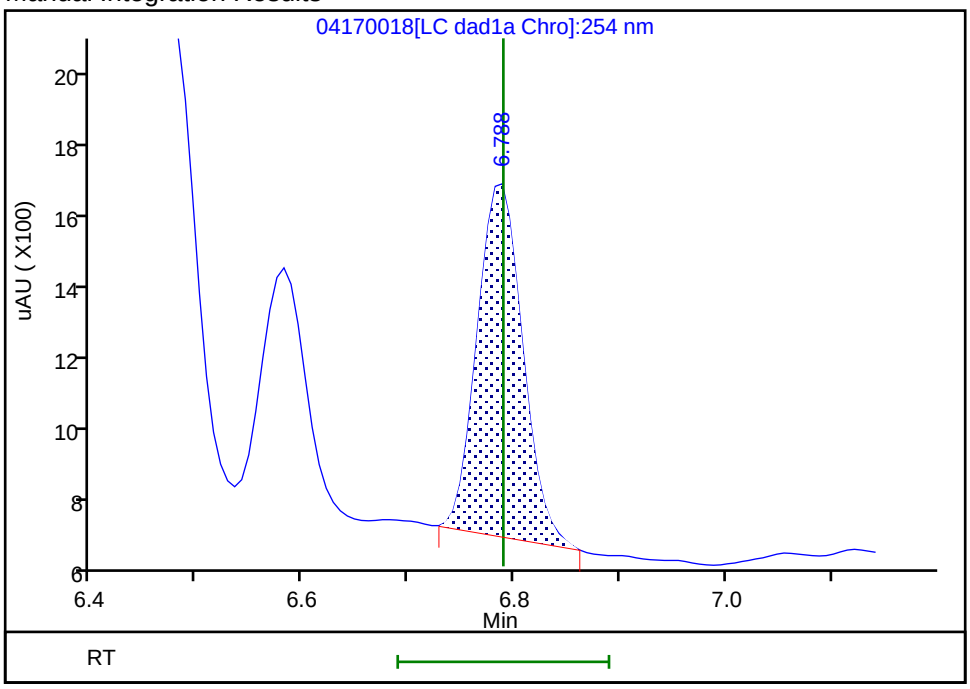
Processing Integration Results

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

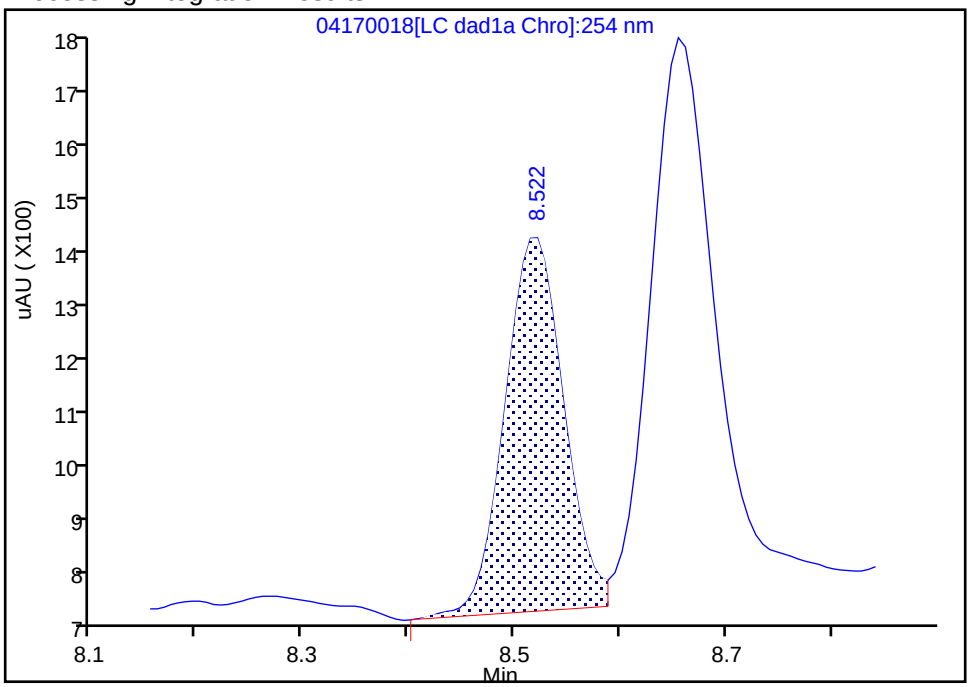
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170018.d				
Injection Date:	17-Apr-2024 23:18:32	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT/DMT 2				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	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

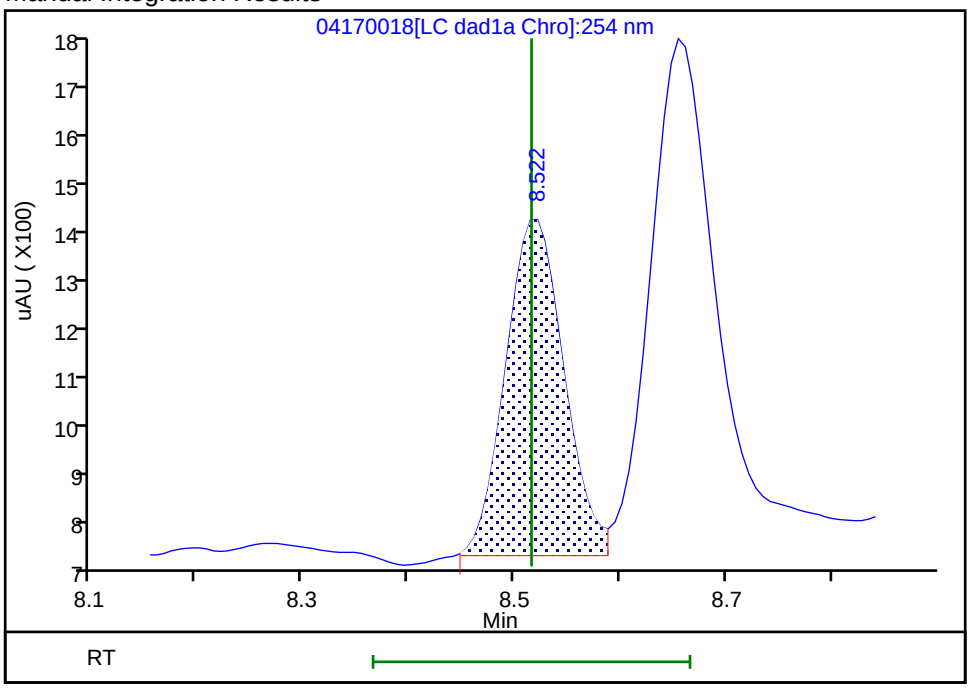
Processing Integration Results

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

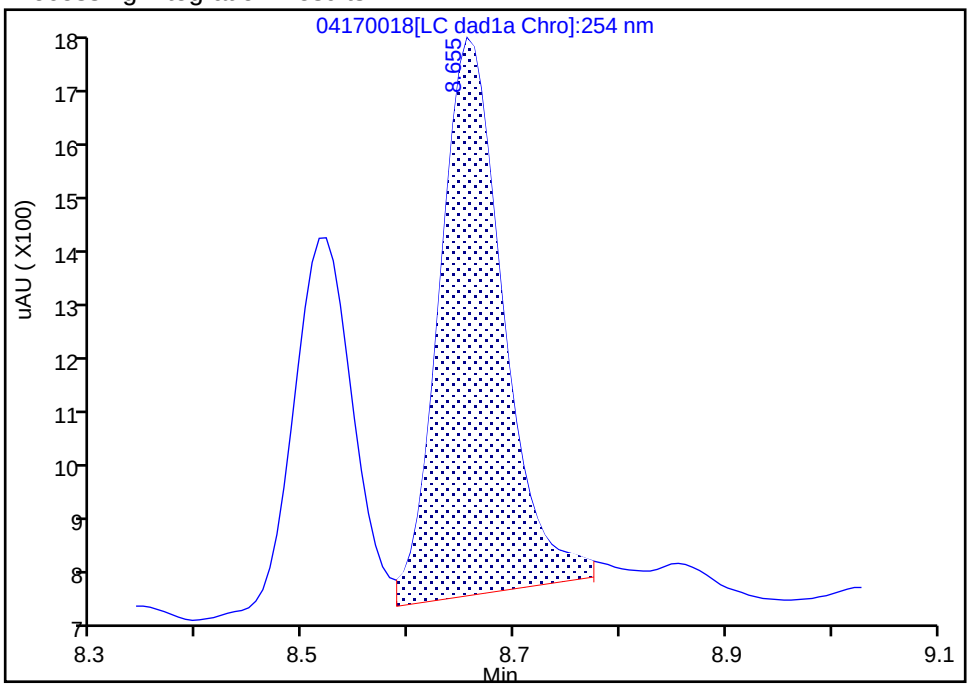
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170018.d				
Injection Date:	17-Apr-2024 23:18:32	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT/DMT 2				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	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

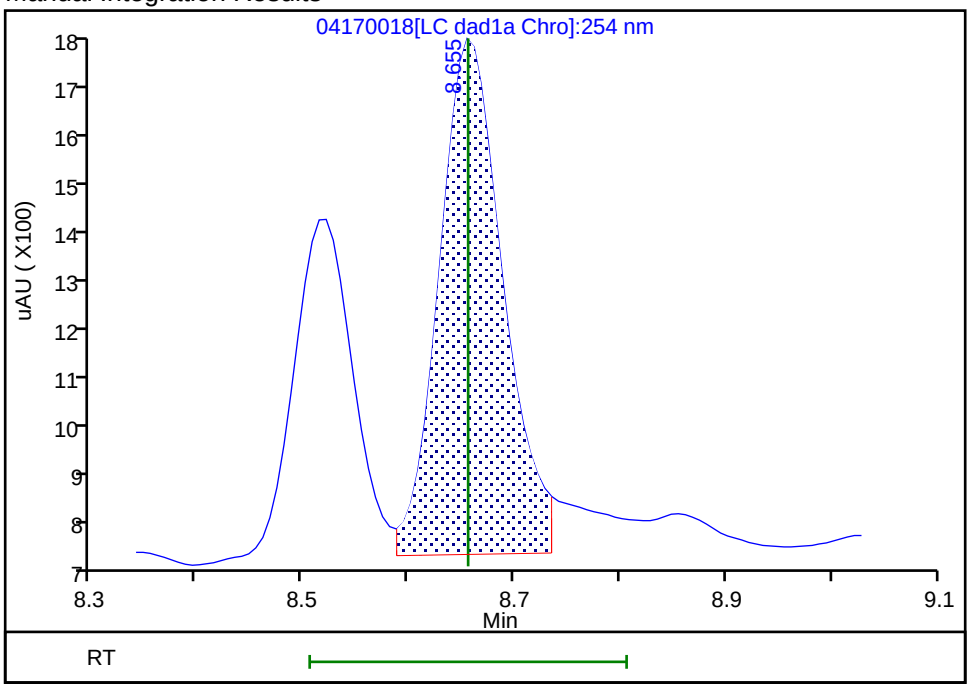
Processing Integration Results

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

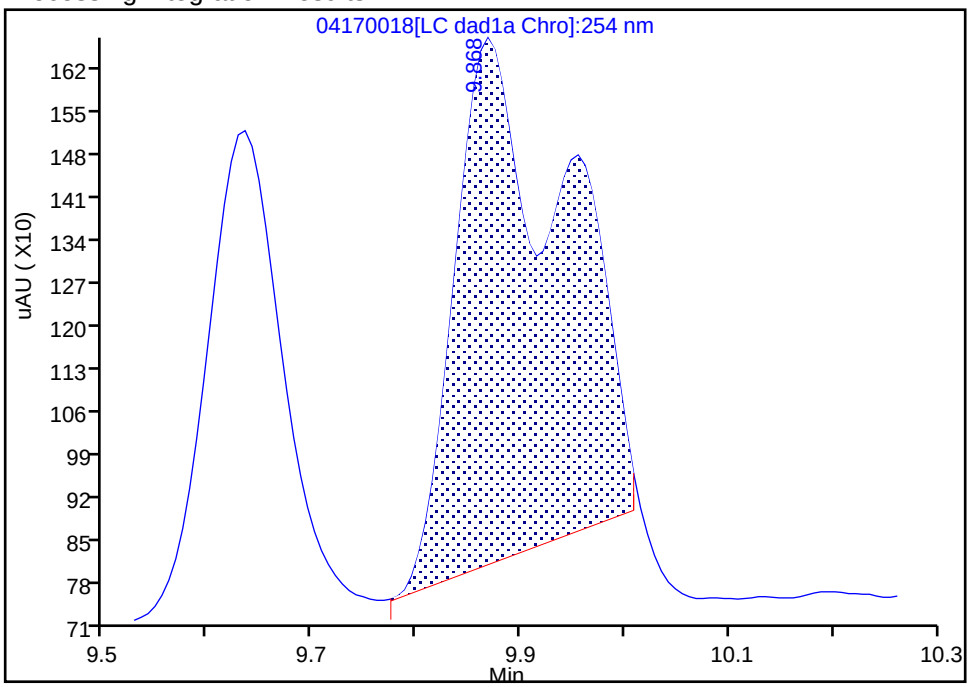
Data File: \\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170018.d
Injection Date: 17-Apr-2024 23:18:32 Instrument ID: CHHPLC_X3
Lims ID: IC INT/DMT 2
Client ID:
Operator ID: JZ/JG ALS Bottle#: 18 Worklist Smp#: 18
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

14 3,5-Dinitroaniline, CAS: 618-87-1

Signal: 1

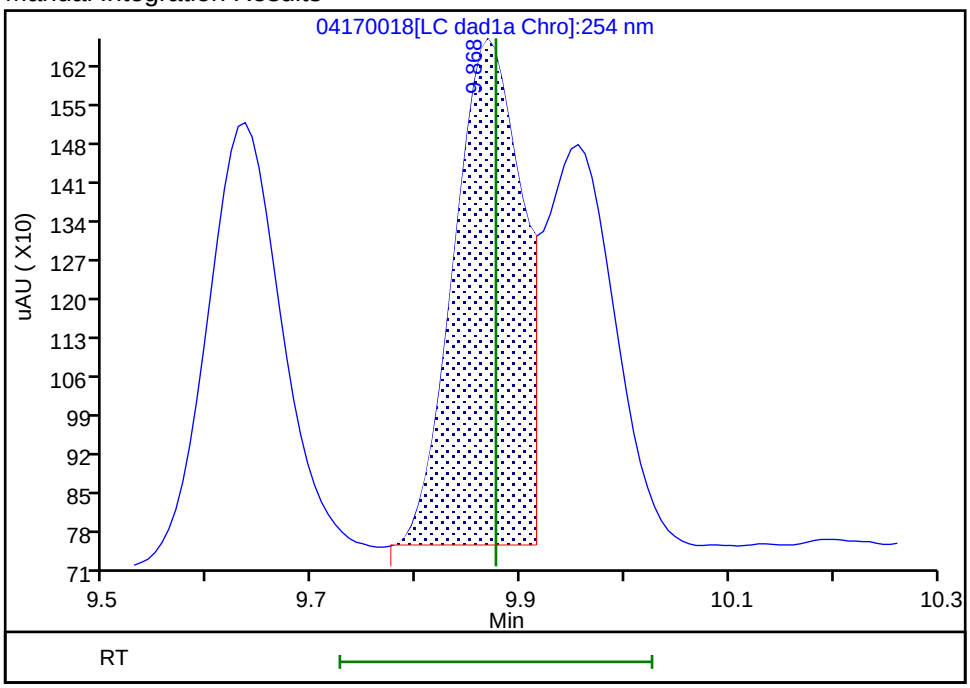
Processing Integration Results

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

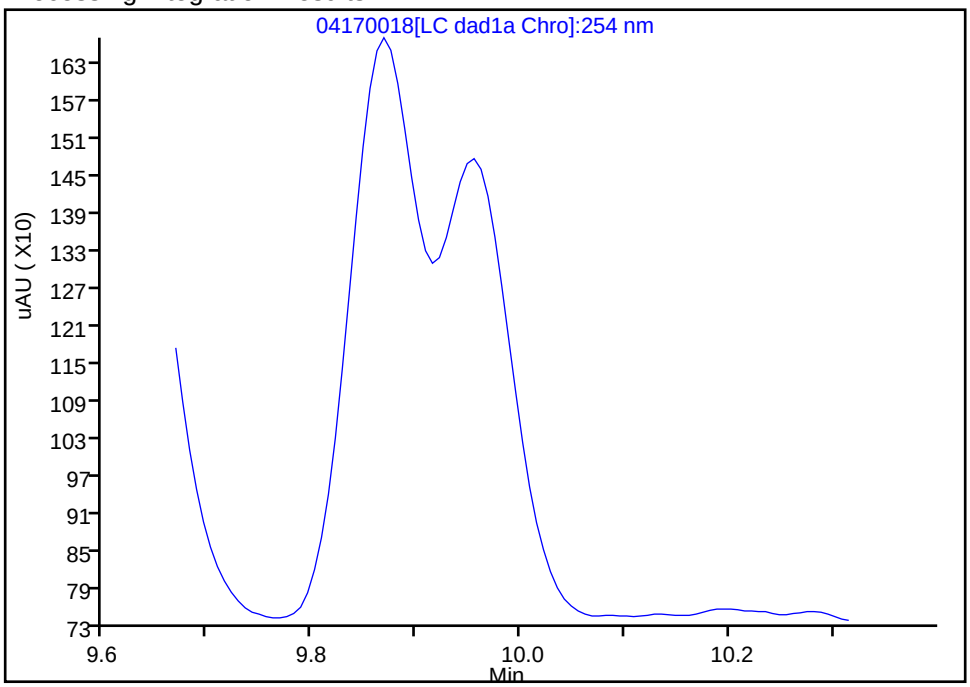
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170018.d				
Injection Date:	17-Apr-2024 23:18:32	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT/DMT 2				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

15 Tetryl, CAS: 479-45-8

Signal: 1

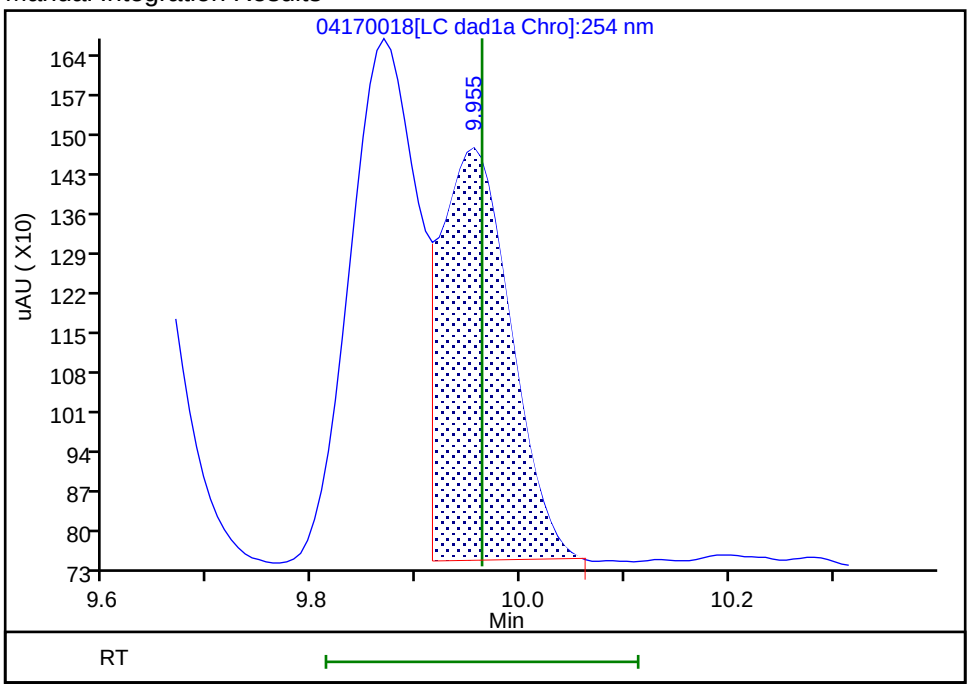
Not Detected
Expected RT: 9.96

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

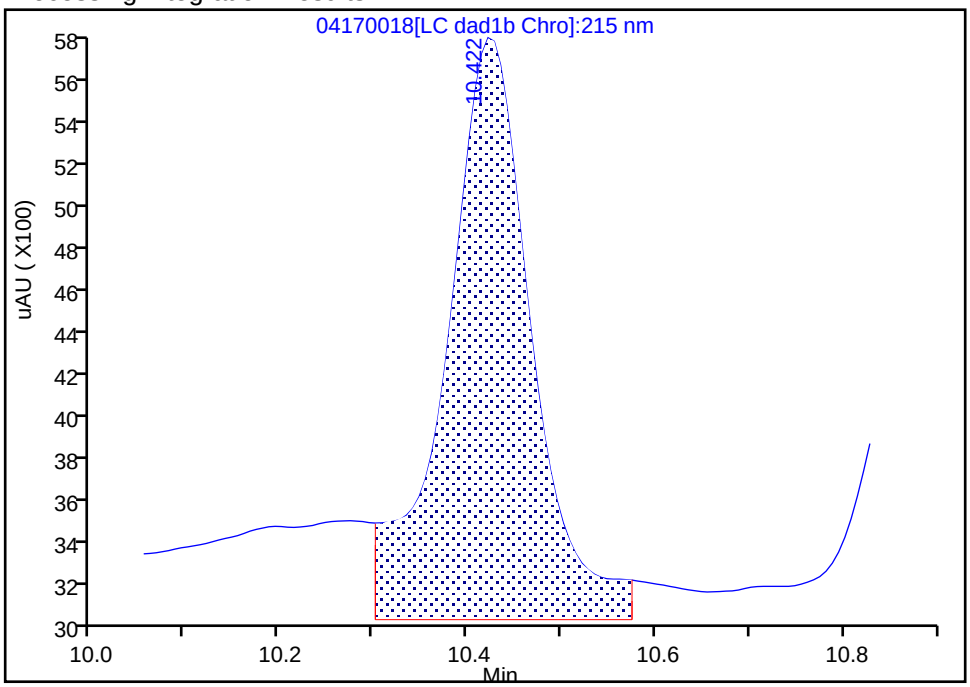
Data File: \\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170018.d
Injection Date: 17-Apr-2024 23:18:32 Instrument ID: CHHPLC_X3
Lims ID: IC INT/DMT 2
Client ID:
Operator ID: JZ/JG ALS Bottle#: 18 Worklist Smp#: 18
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1C, 215 nm

16 Nitroglycerin, CAS: 55-63-0

Signal: 1

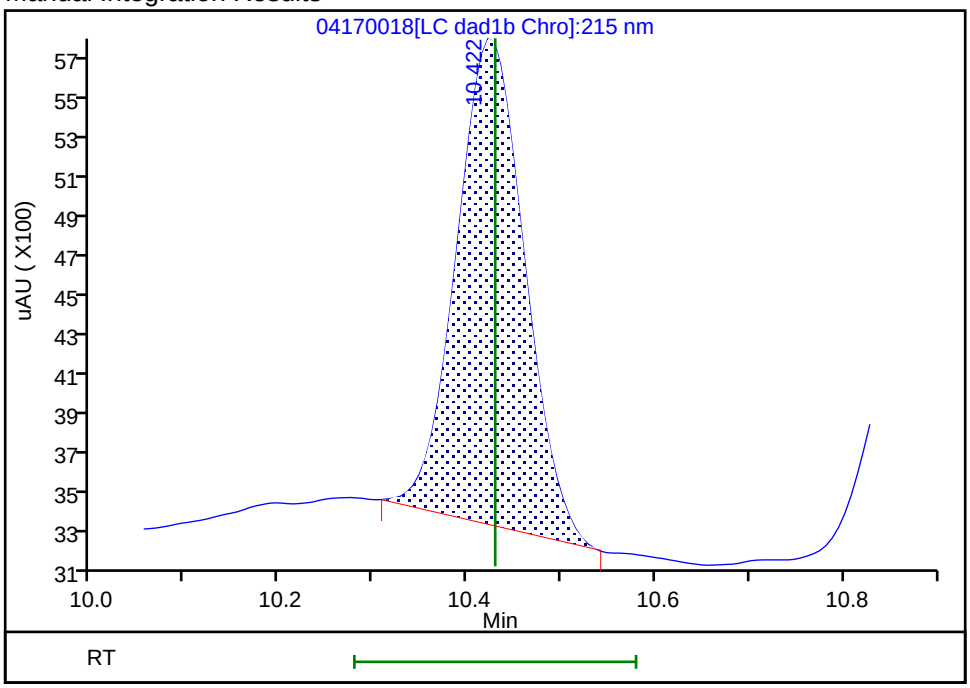
Processing Integration Results

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

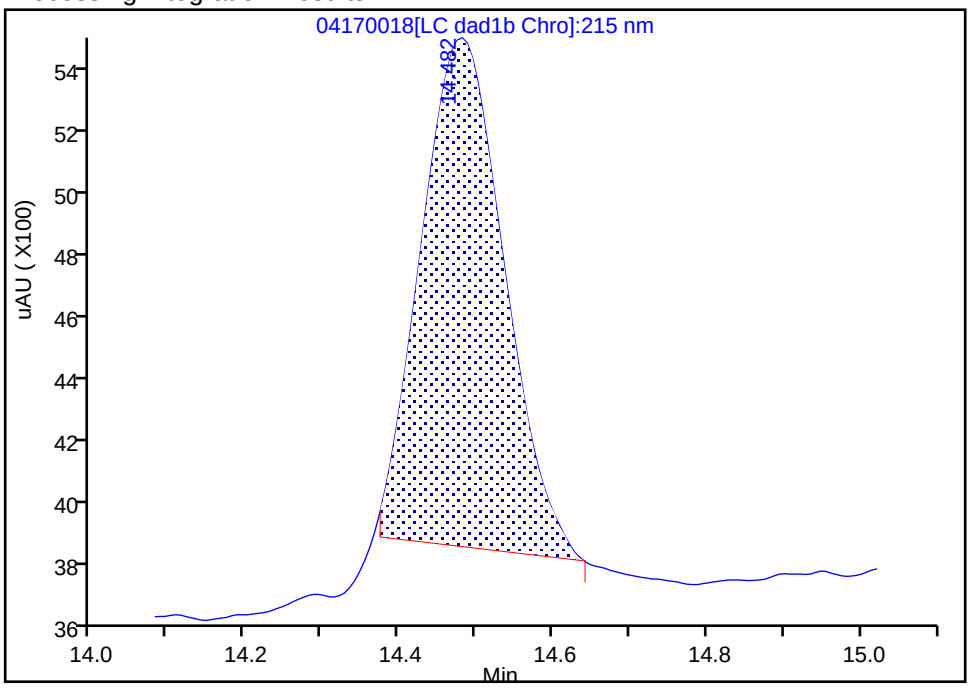
Data File: \\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170018.d
Injection Date: 17-Apr-2024 23:18:32 Instrument ID: CHHPLC_X3
Lims ID: IC INT/DMT 2
Client ID:
Operator ID: JZ/JG ALS Bottle#: 18 Worklist Smp#: 18
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1C, 215 nm

25 PETN, CAS: 78-11-5

Signal: 1

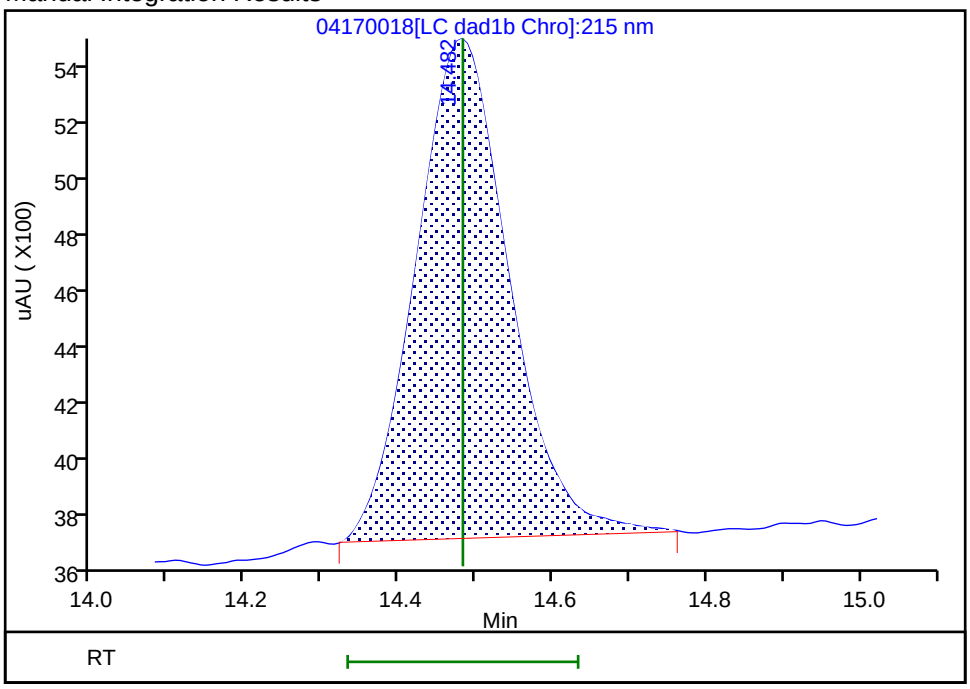
Processing Integration Results

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

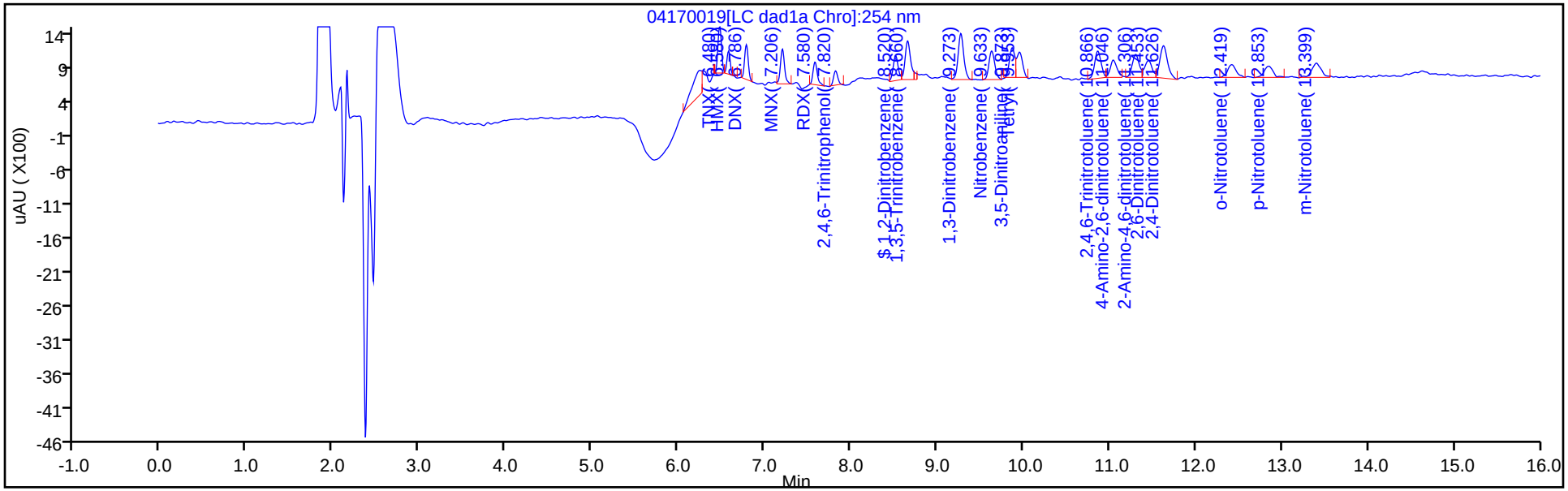
Report Date: 18-Apr-2024 11:59:31 Chrom Revision: 2.3 09-Apr-2024 17:43:44

Eurofins Denver

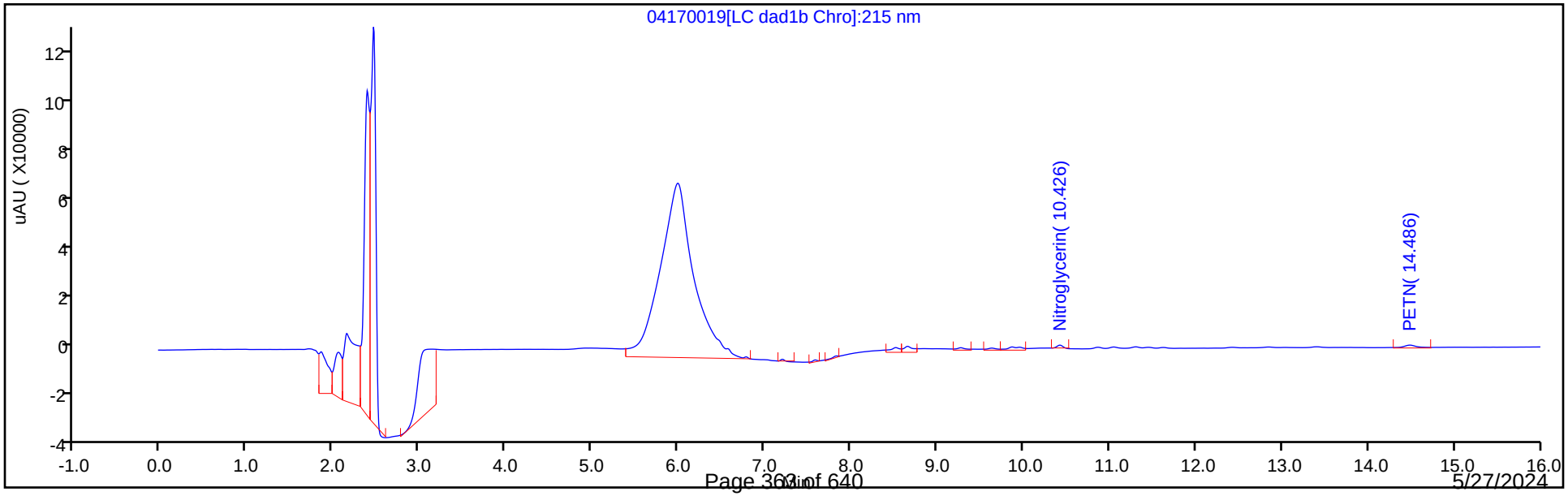
Data File: \\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170019.d

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



5/27/2024
7:57:40 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

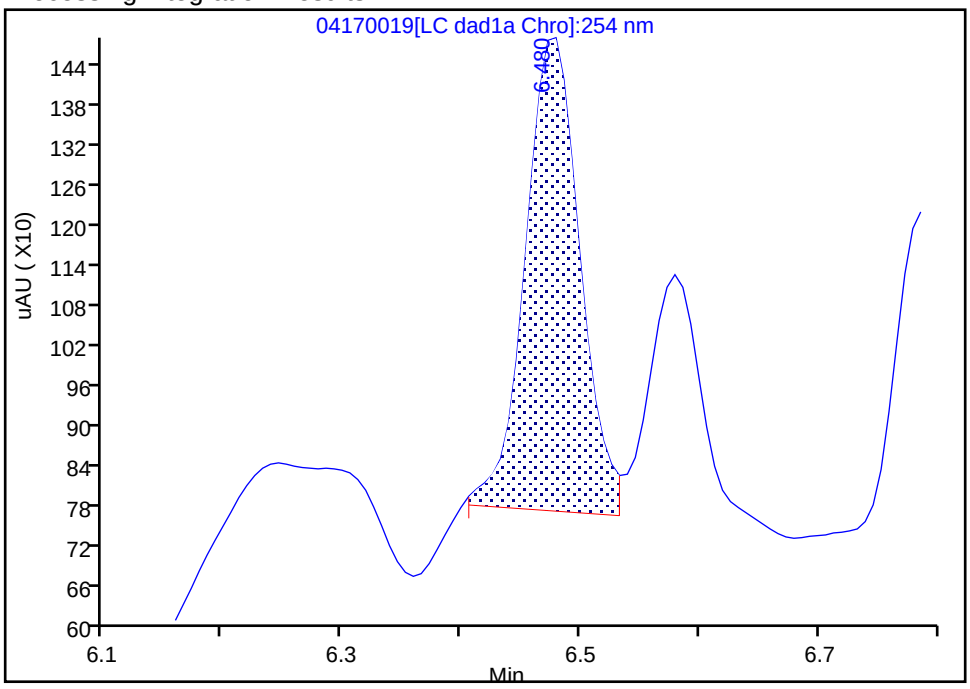
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170019.d				
Injection Date:	17-Apr-2024 23:41:30	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT/DMT 1				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

3 TNX, CAS: 13980-04-6

Signal: 1

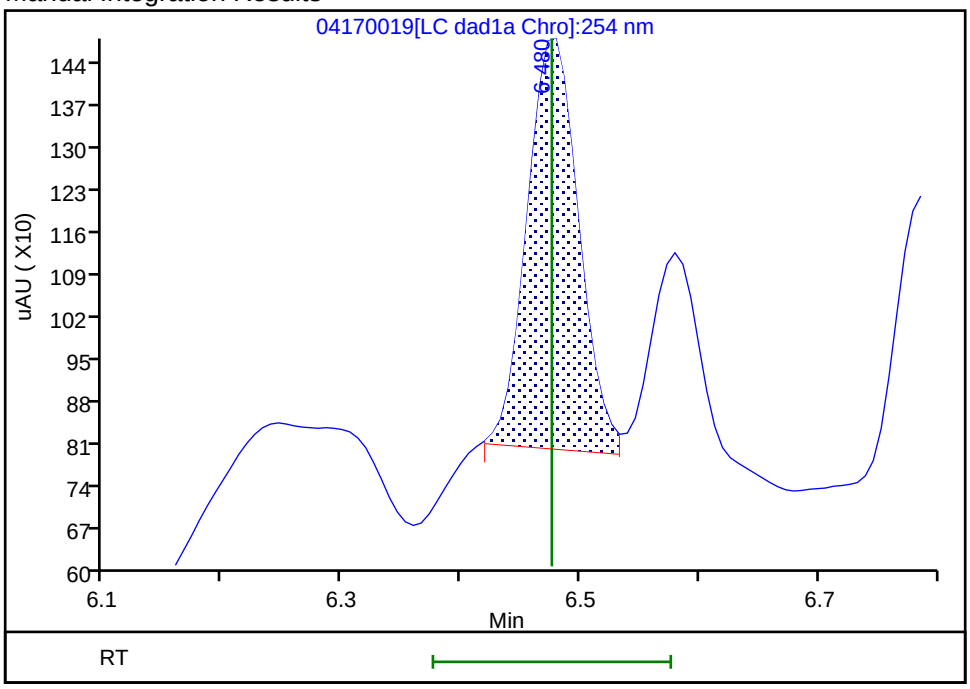
Processing Integration Results

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

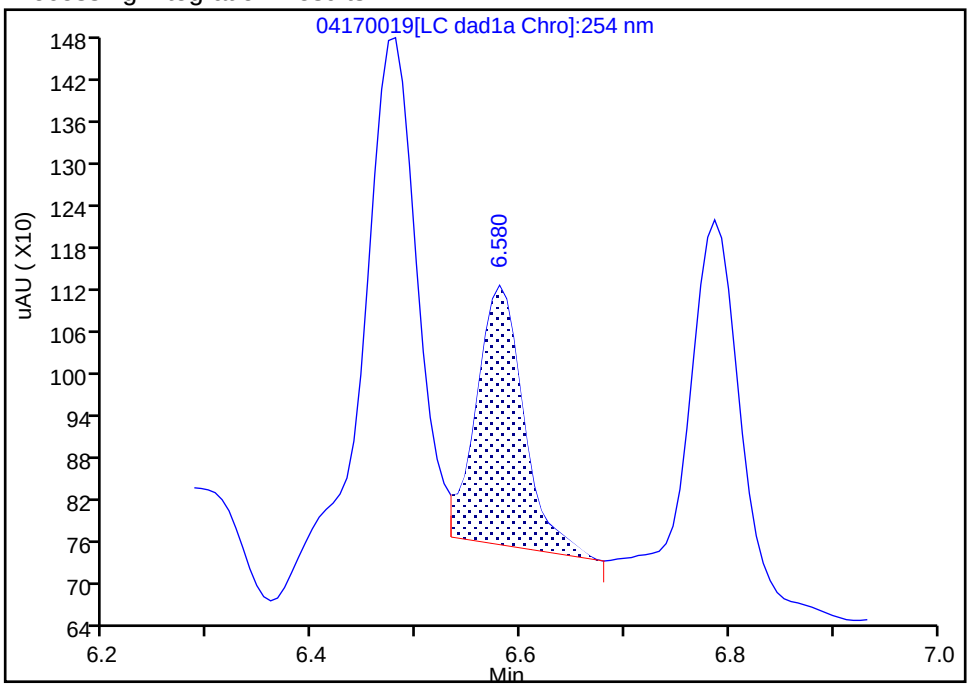
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170019.d				
Injection Date:	17-Apr-2024 23:41:30	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT/DMT 1				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

4 HMX, CAS: 2691-41-0

Signal: 1

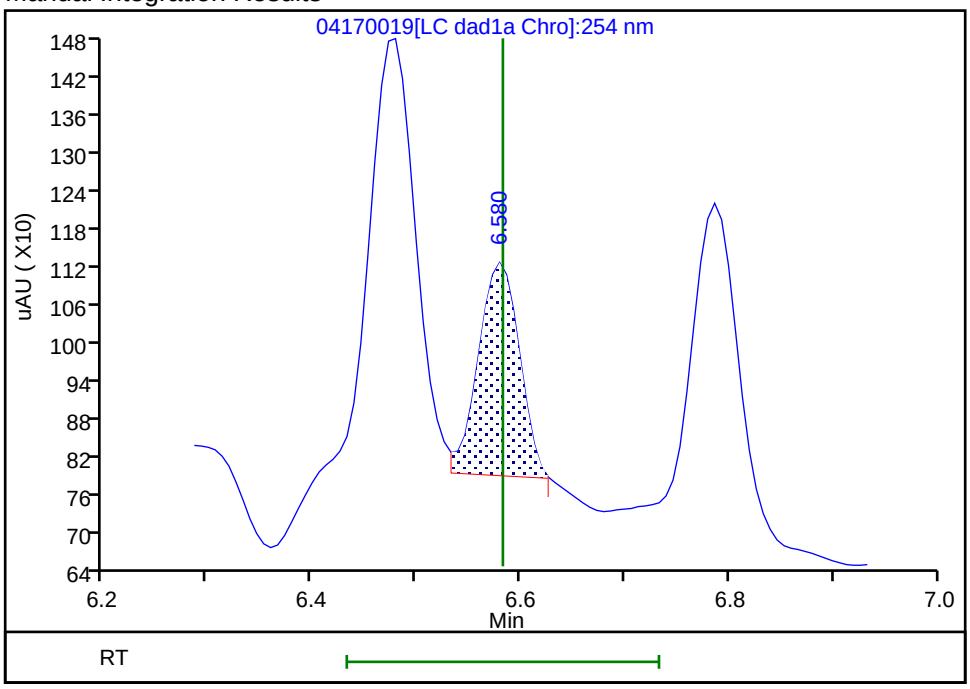
Processing Integration Results

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

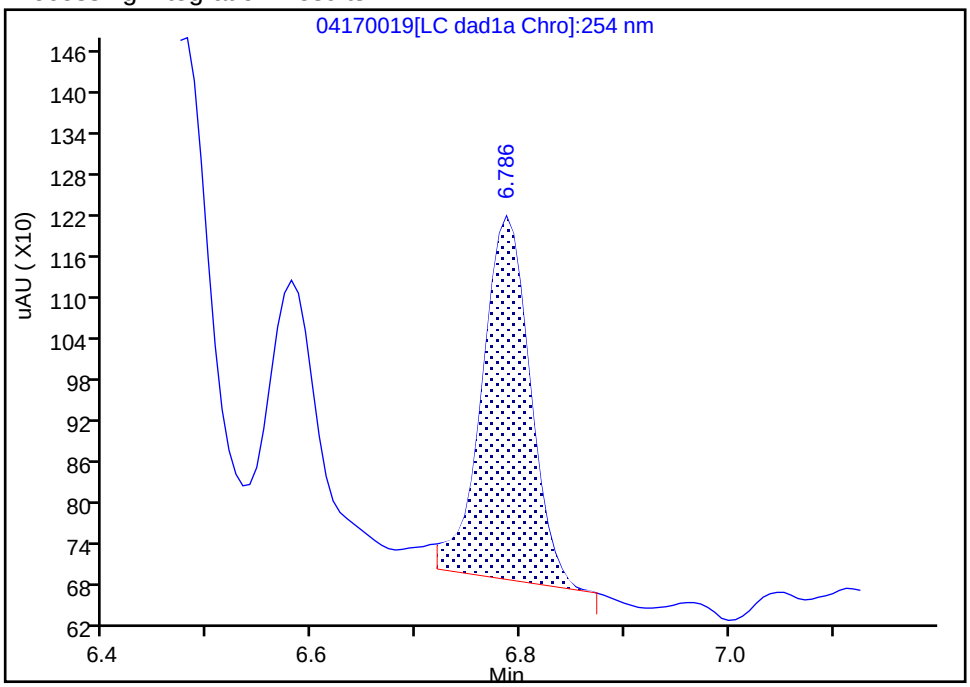
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170019.d				
Injection Date:	17-Apr-2024 23:41:30	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT/DMT 1				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

6 DNX, CAS: 80251-29-2

Signal: 1

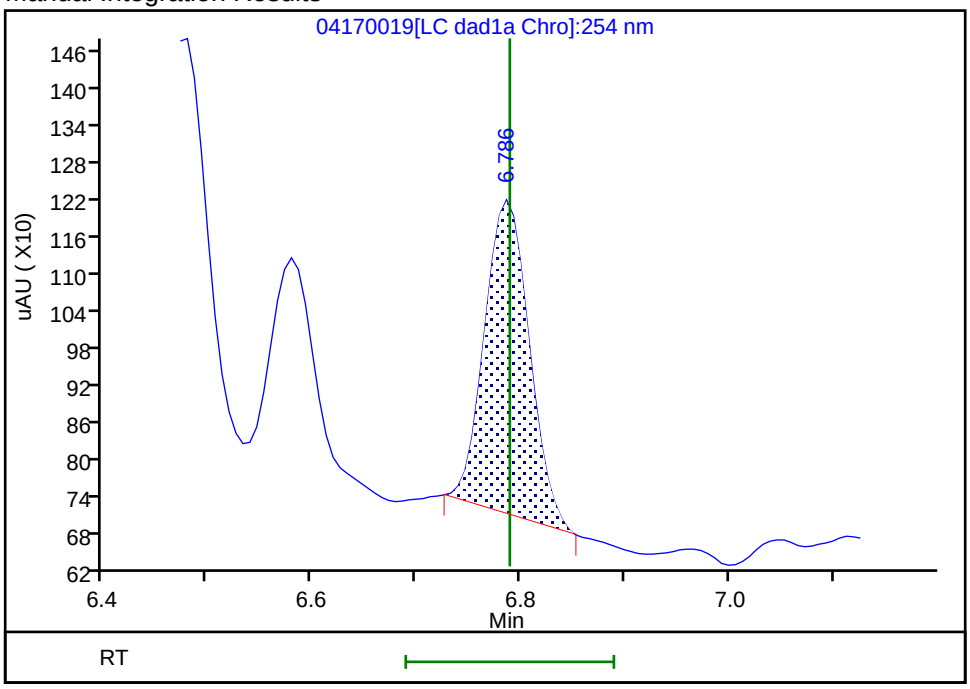
Processing Integration Results

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

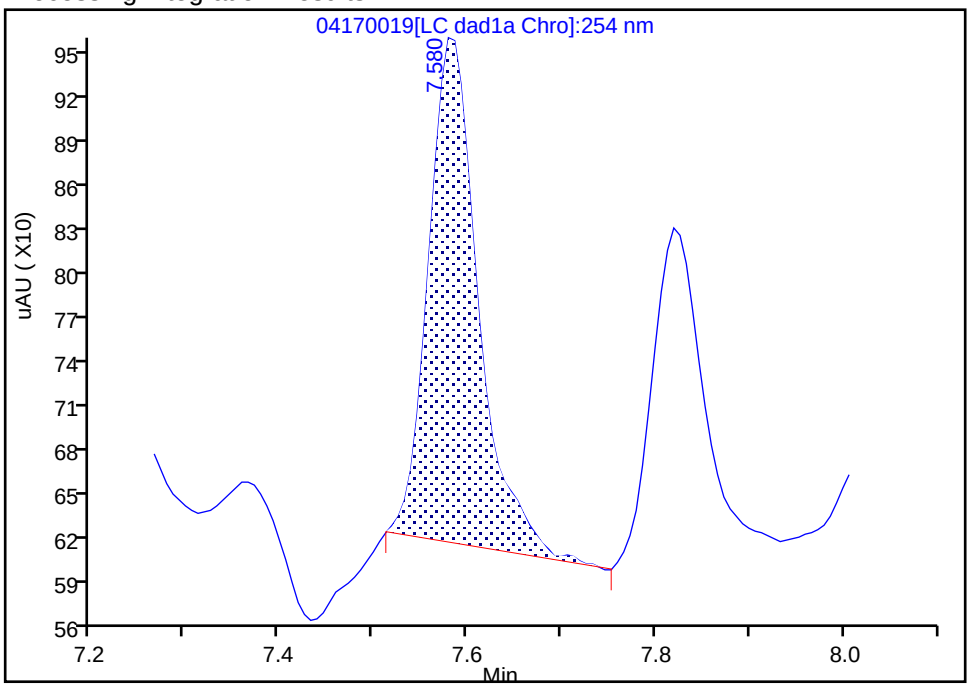
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170019.d				
Injection Date:	17-Apr-2024 23:41:30	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT/DMT 1				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

8 RDX, CAS: 121-82-4

Signal: 1

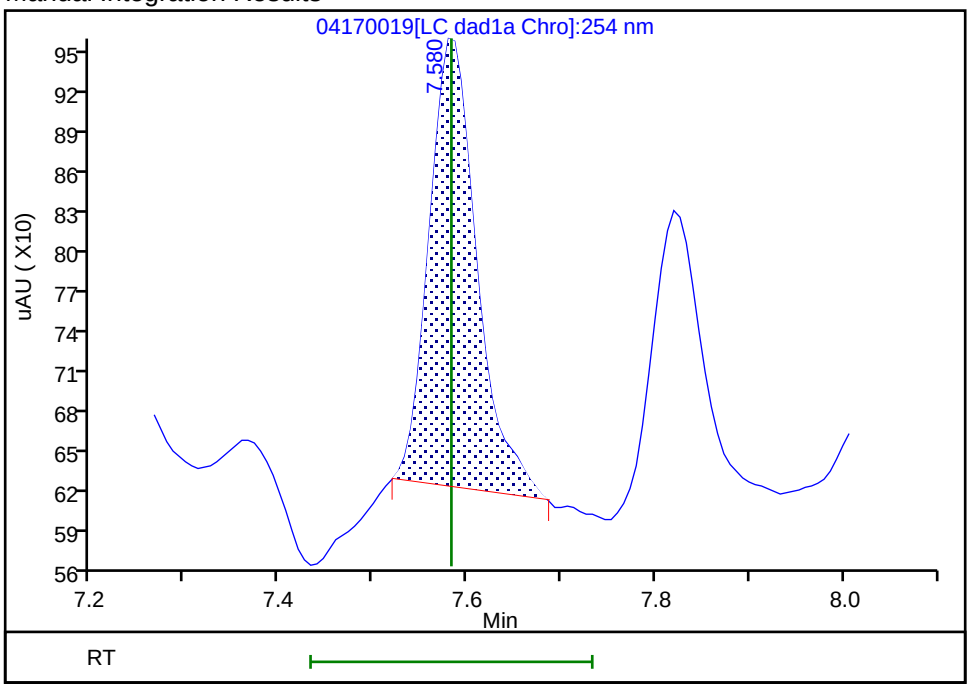
Processing Integration Results

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

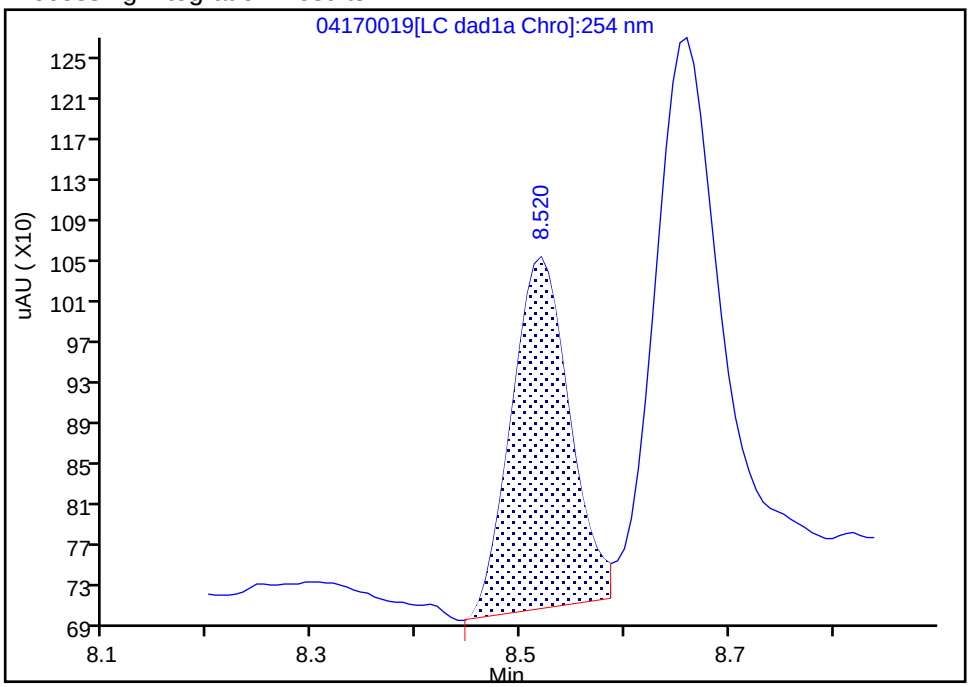
Data File: \\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170019.d
Injection Date: 17-Apr-2024 23:41:30 Instrument ID: CHHPLC_X3
Lims ID: IC INT/DMT 1
Client ID:
Operator ID: JZ/JG ALS Bottle#: 19 Worklist Smp#: 19
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

$ 10 1,2-Dinitrobenzene, CAS: 528-29-0

Signal: 1

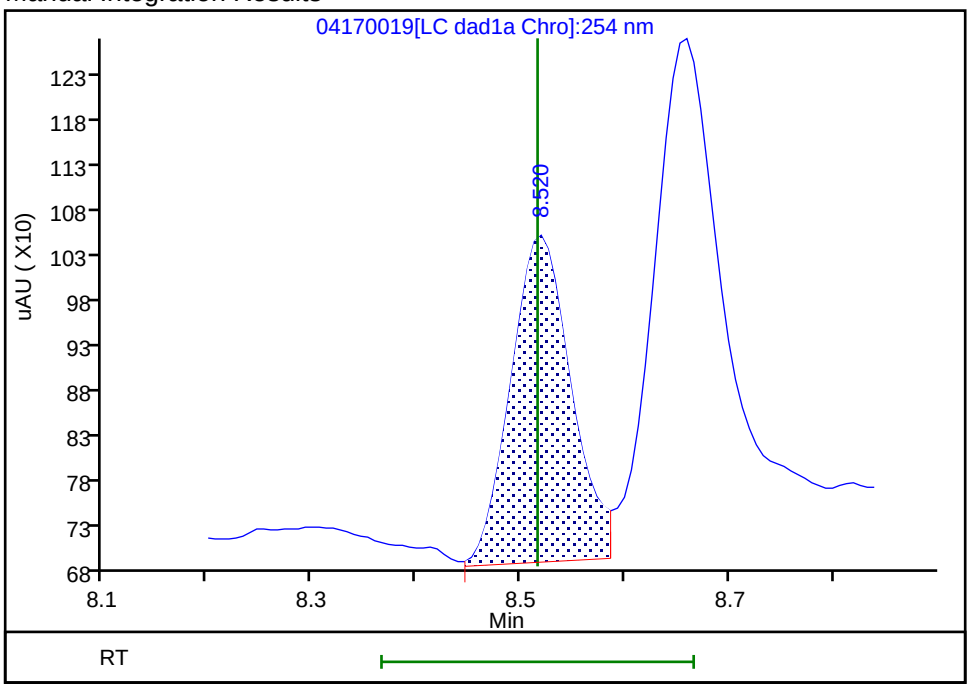
Processing Integration Results

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

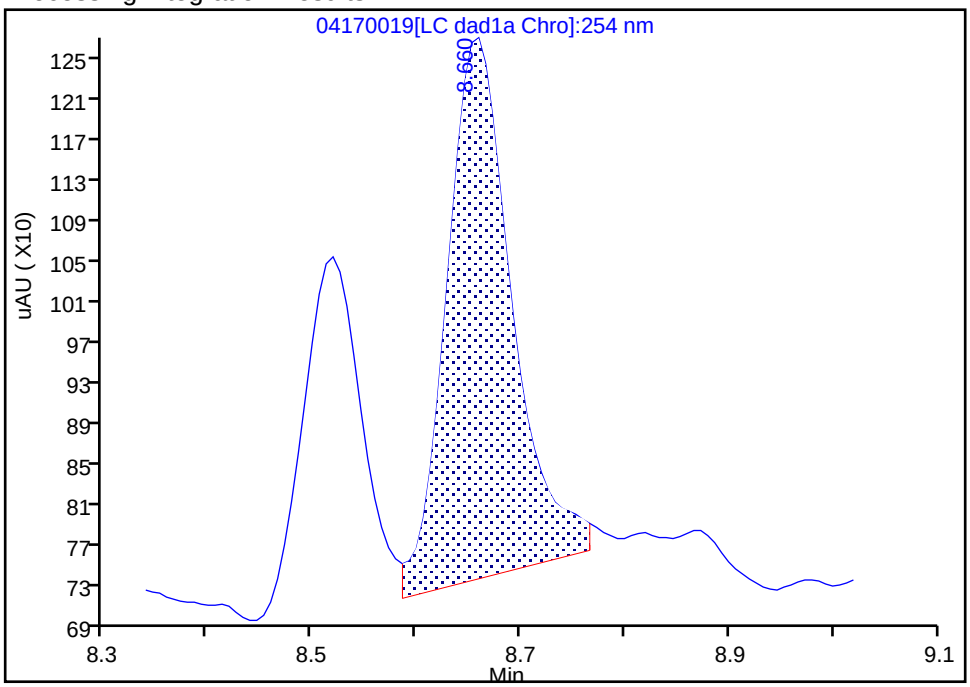
Data File: \\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170019.d
Injection Date: 17-Apr-2024 23:41:30 Instrument ID: CHHPLC_X3
Lims ID: IC INT/DMT 1
Client ID:
Operator ID: JZ/JG ALS Bottle#: 19 Worklist Smp#: 19
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

11 1,3,5-Trinitrobenzene, CAS: 99-35-4

Signal: 1

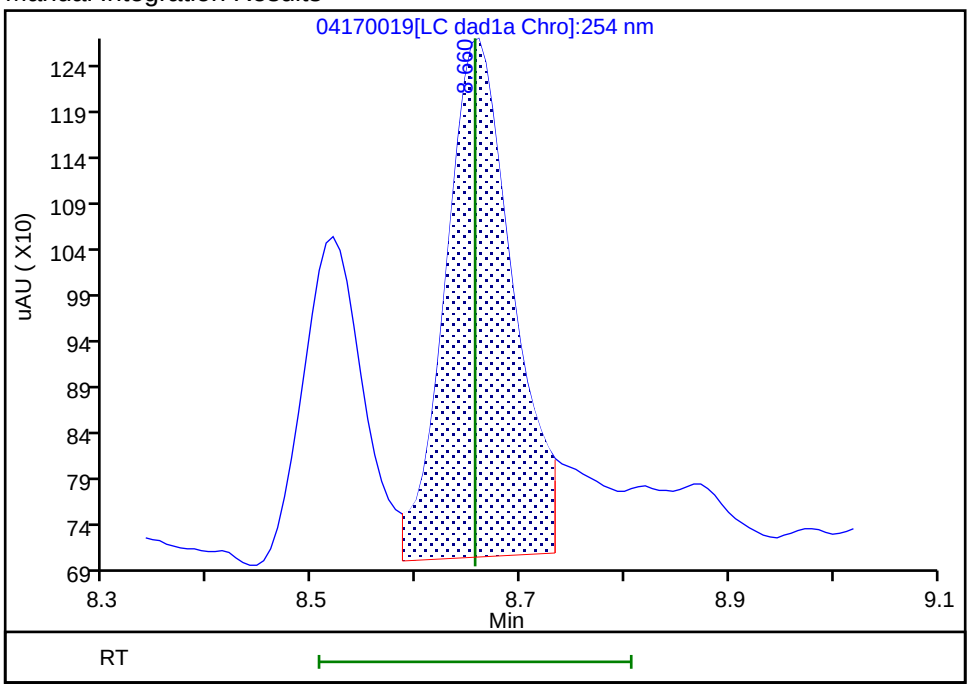
Processing Integration Results

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

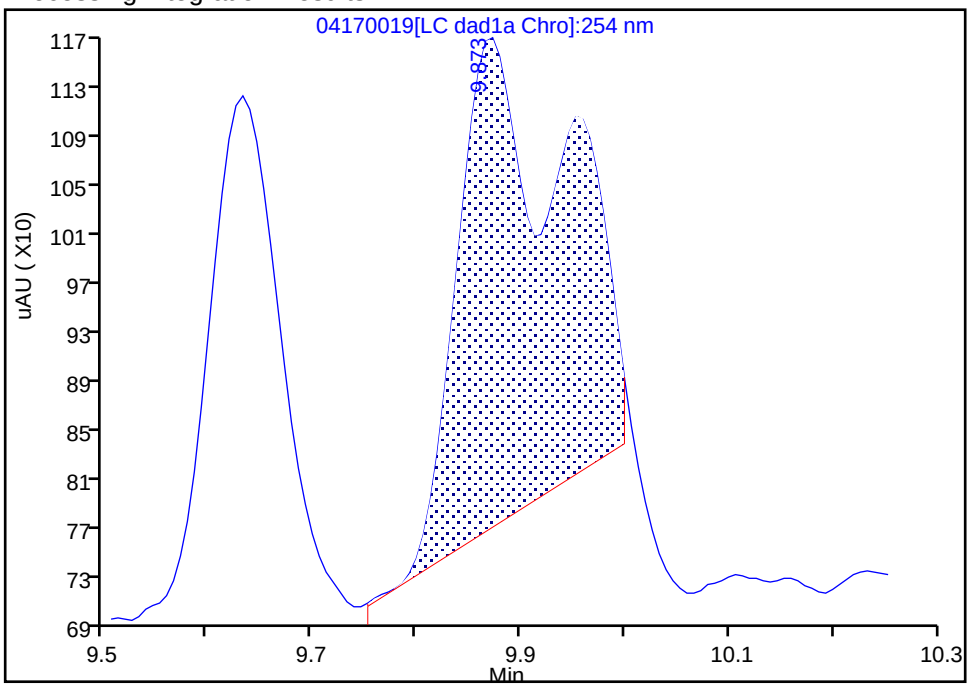
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170019.d				
Injection Date:	17-Apr-2024 23:41:30	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT/DMT 1				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	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

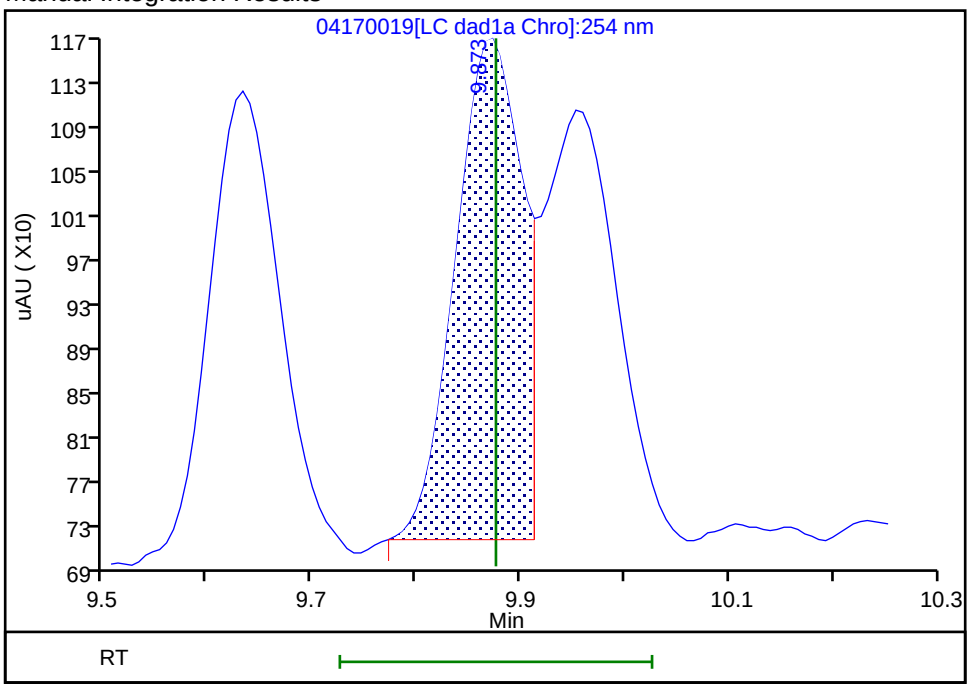
Processing Integration Results

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

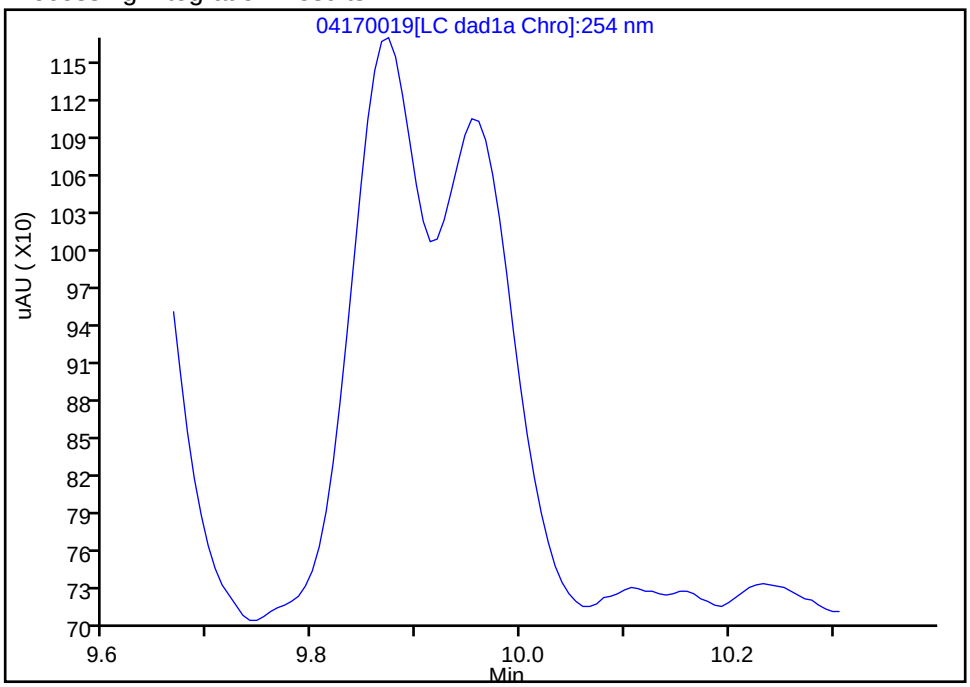
Data File: \\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170019.d
Injection Date: 17-Apr-2024 23:41:30 Instrument ID: CHHPLC_X3
Lims ID: IC INT/DMT 1
Client ID:
Operator ID: JZ/JG ALS Bottle#: 19 Worklist Smp#: 19
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

15 Tetryl, CAS: 479-45-8

Signal: 1

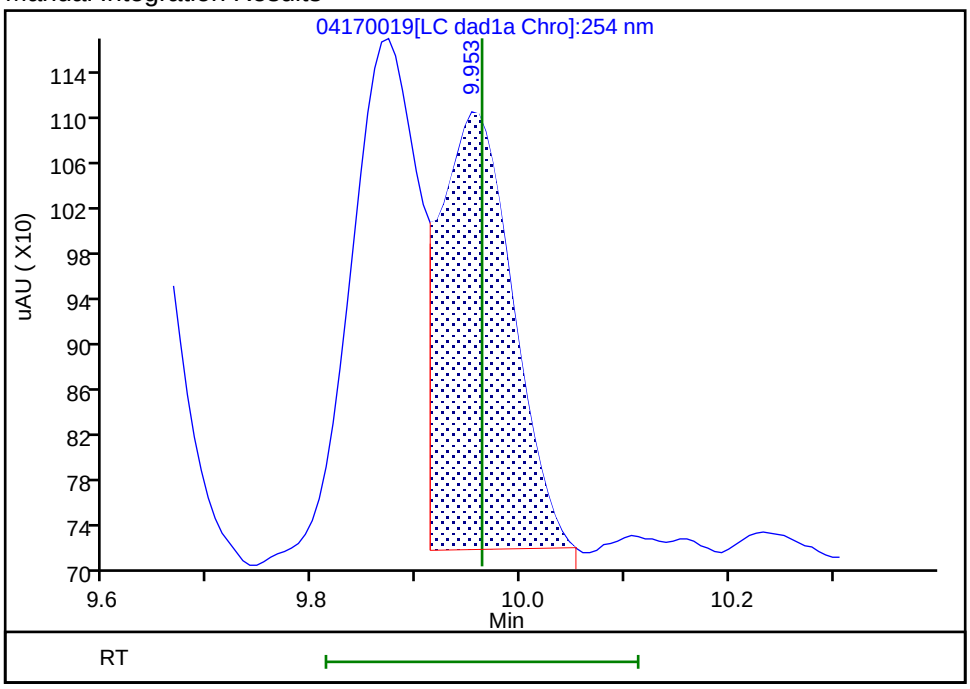
Not Detected
Expected RT: 9.96

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

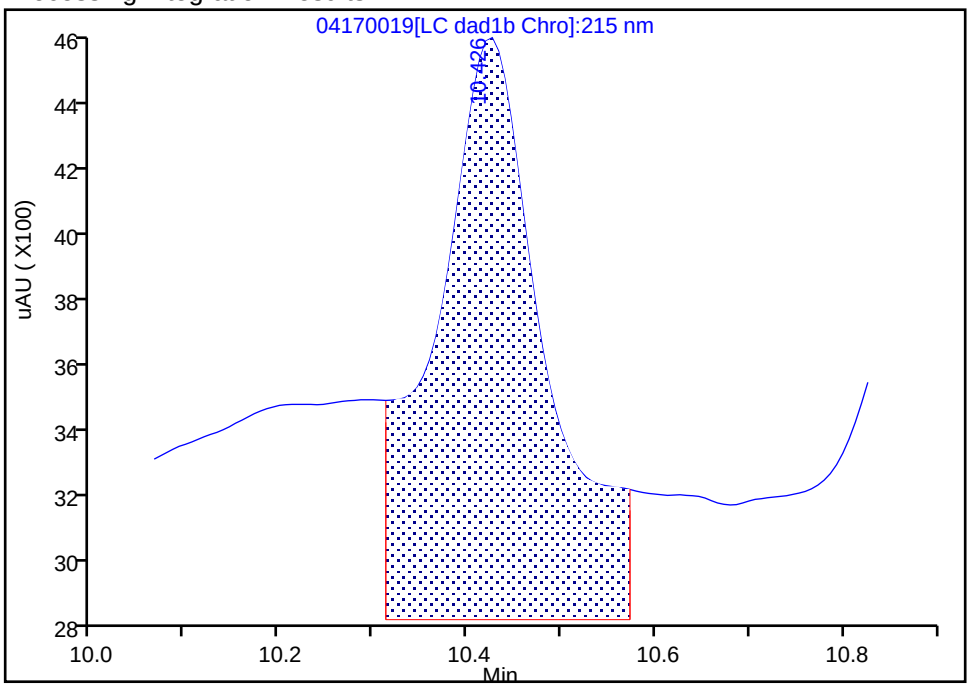
Data File: \\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170019.d
Injection Date: 17-Apr-2024 23:41:30 Instrument ID: CHHPLC_X3
Lims ID: IC INT/DMT 1
Client ID:
Operator ID: JZ/JG ALS Bottle#: 19 Worklist Smp#: 19
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1C, 215 nm

16 Nitroglycerin, CAS: 55-63-0

Signal: 1

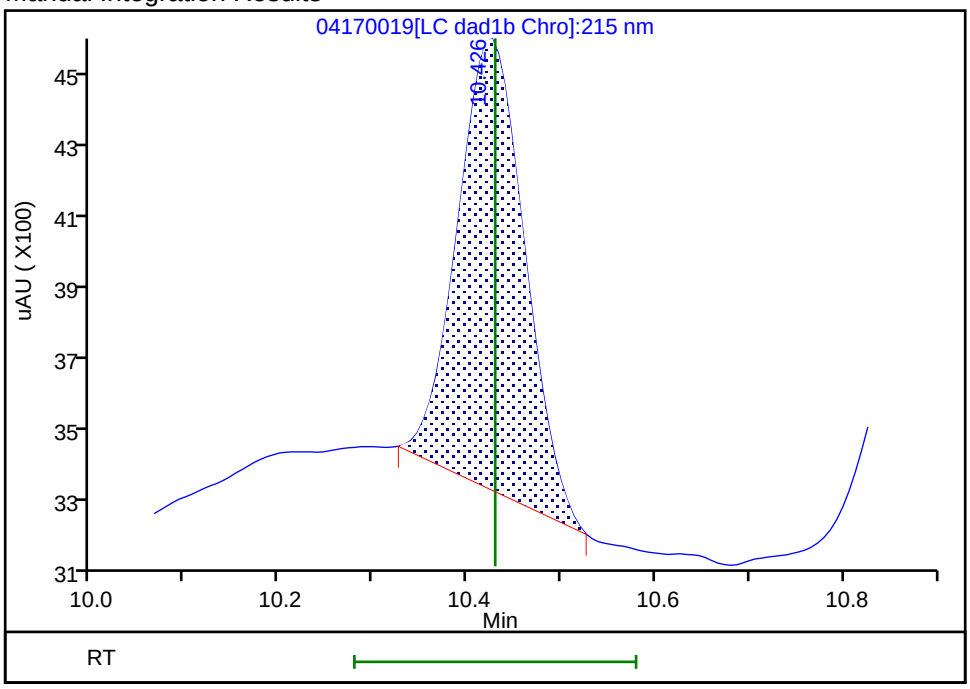
Processing Integration Results

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

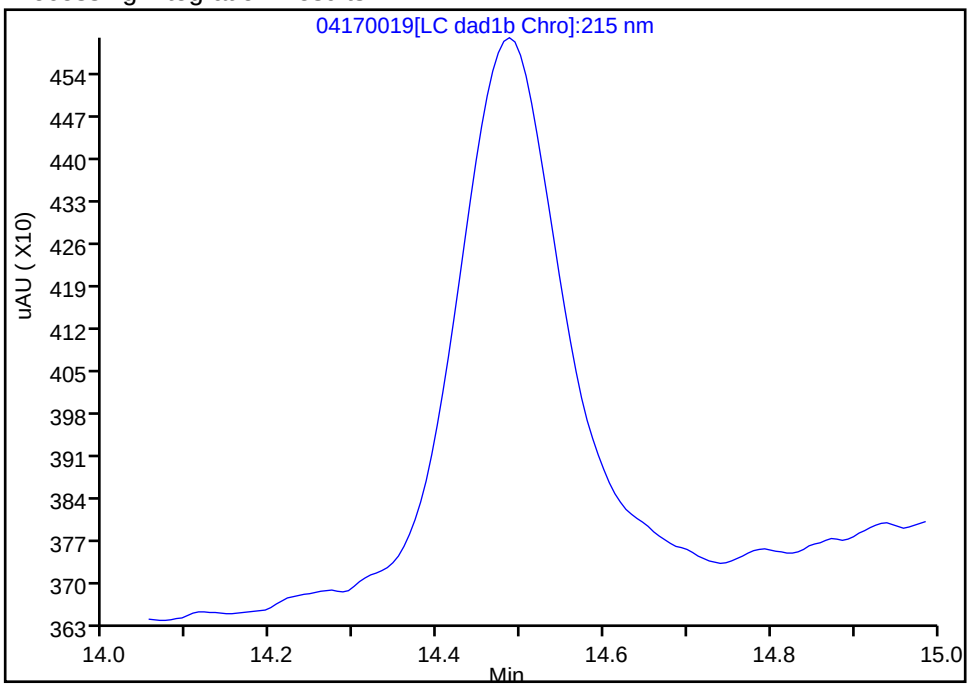
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170019.d				
Injection Date:	17-Apr-2024 23:41:30	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT/DMT 1				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1C, 215 nm		

25 PETN, CAS: 78-11-5

Signal: 1

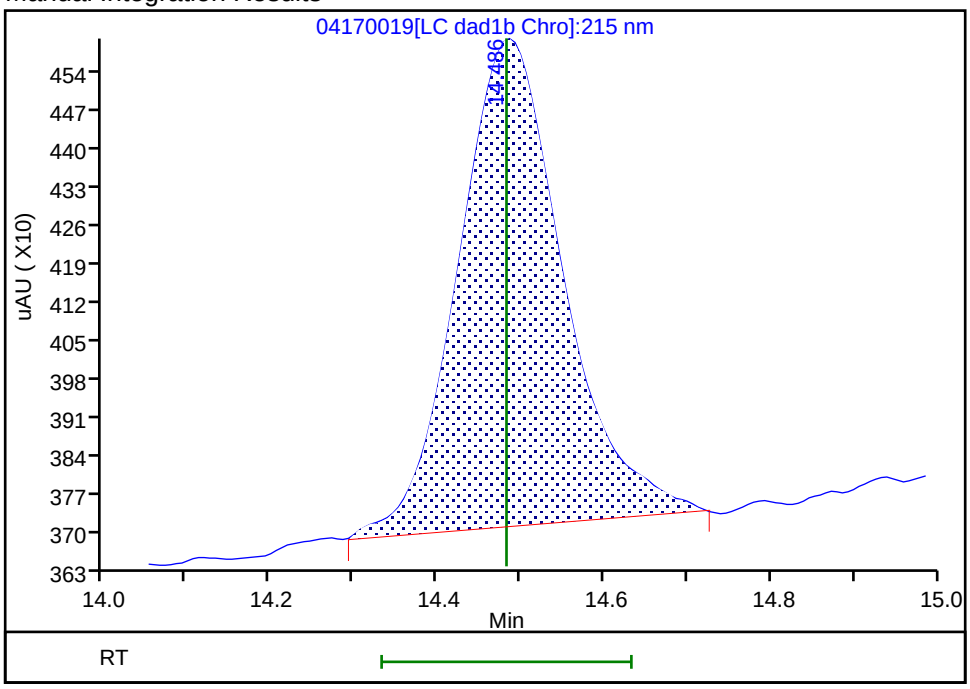
Not Detected
Expected RT: 14.48

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

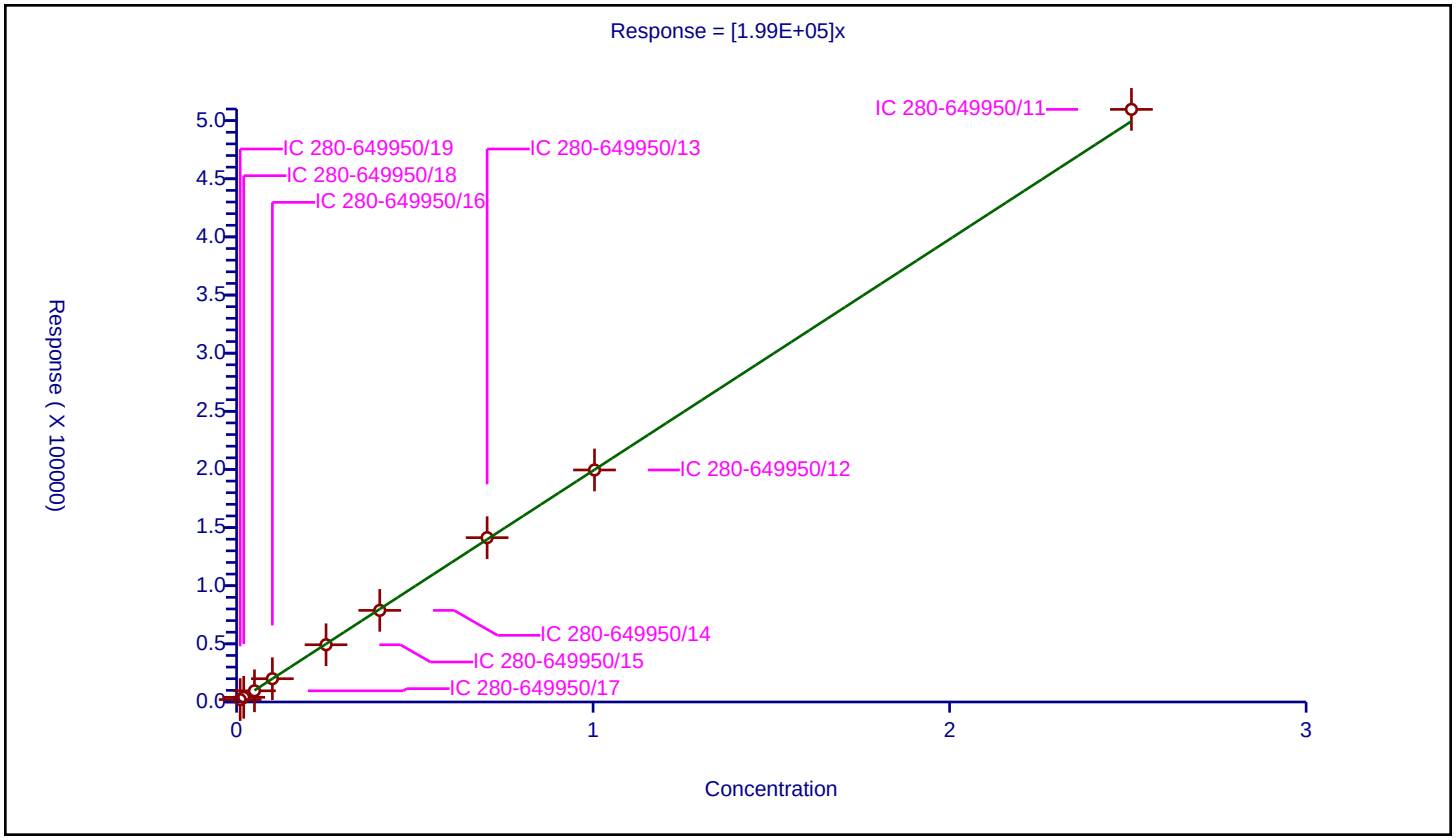
Curve Coefficients

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

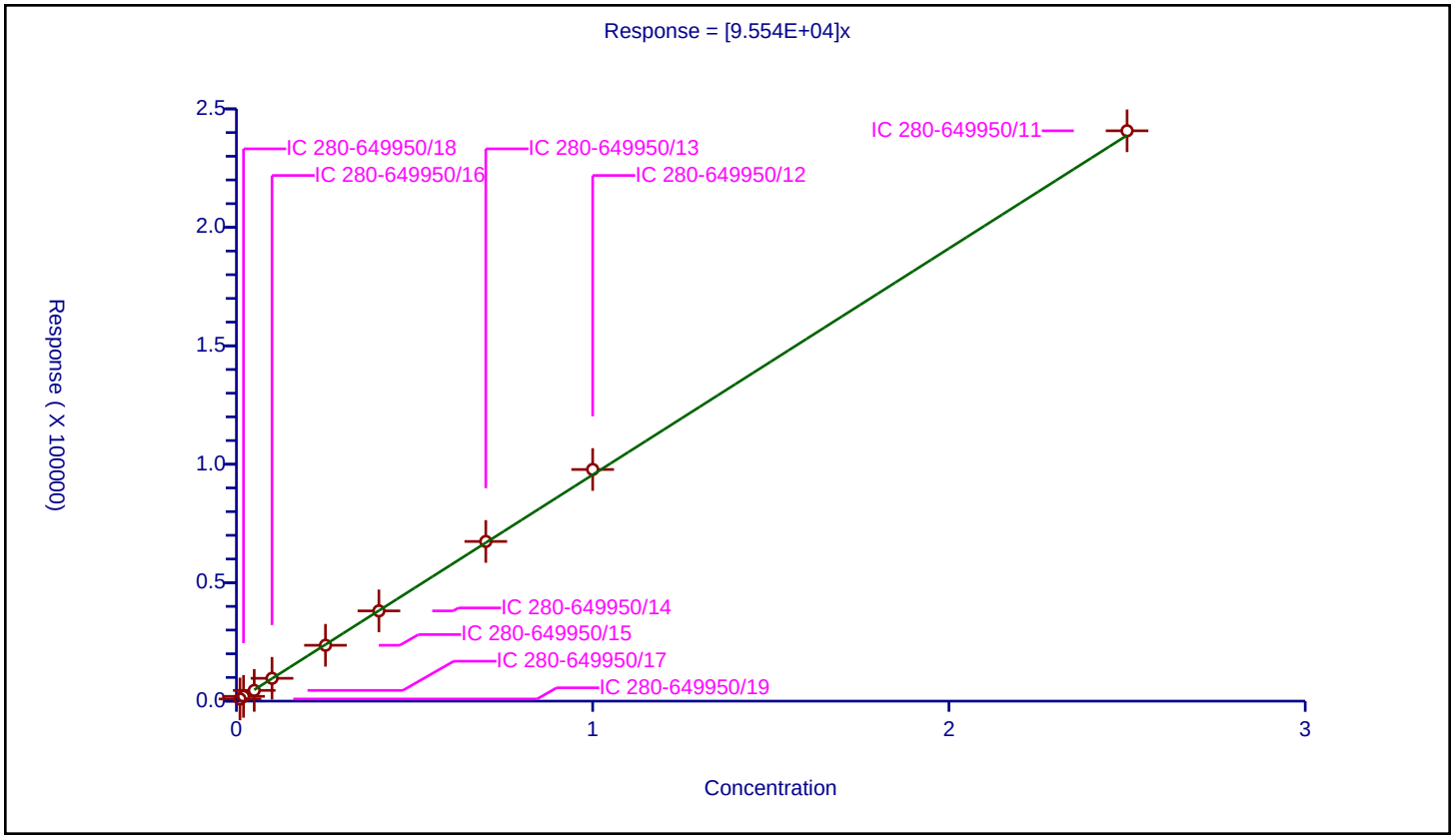
Curve Coefficients

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



Calibration / DNX

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

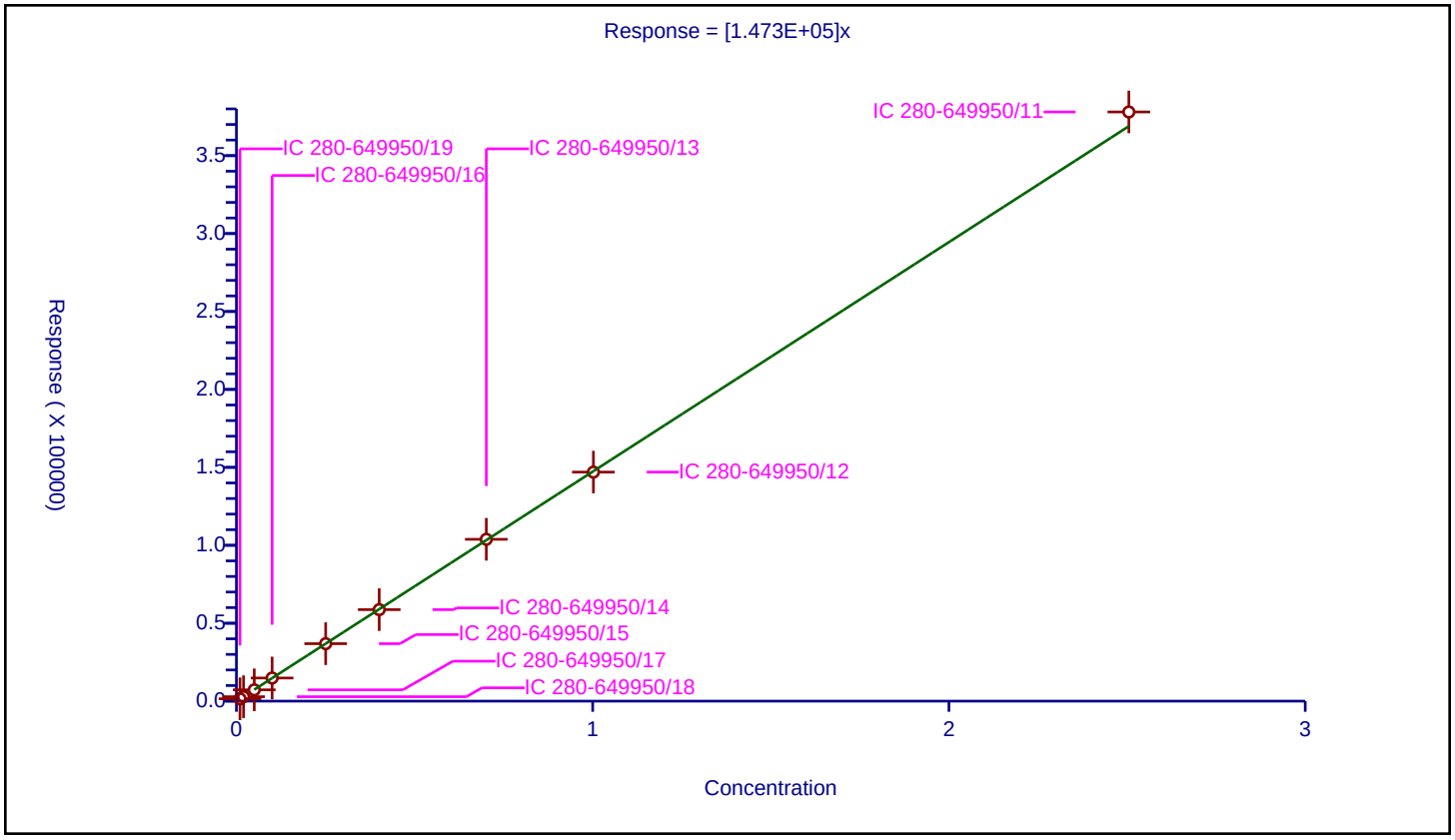
Curve Coefficients

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



Calibration / MNX

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

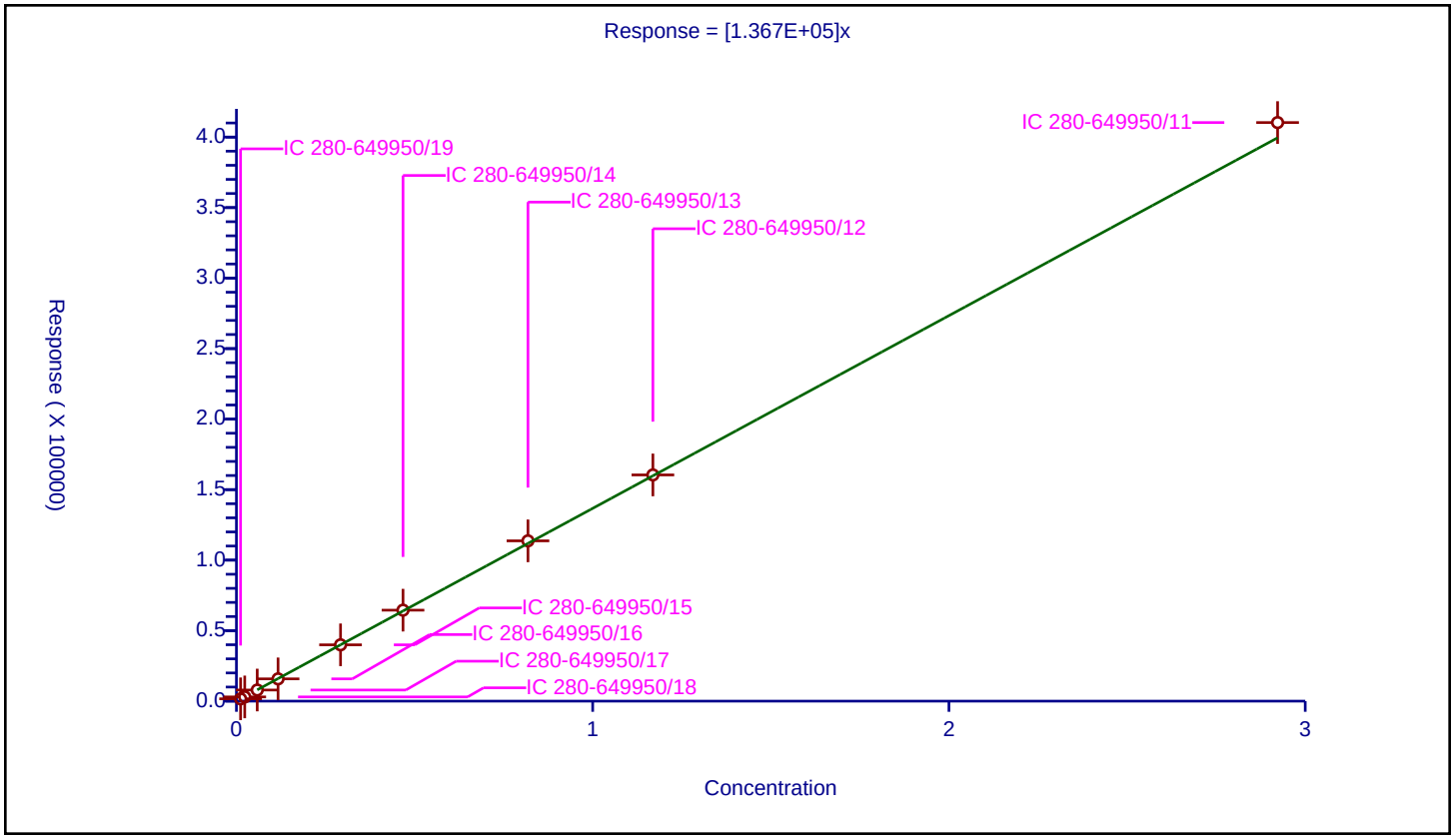
Curve Coefficients

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

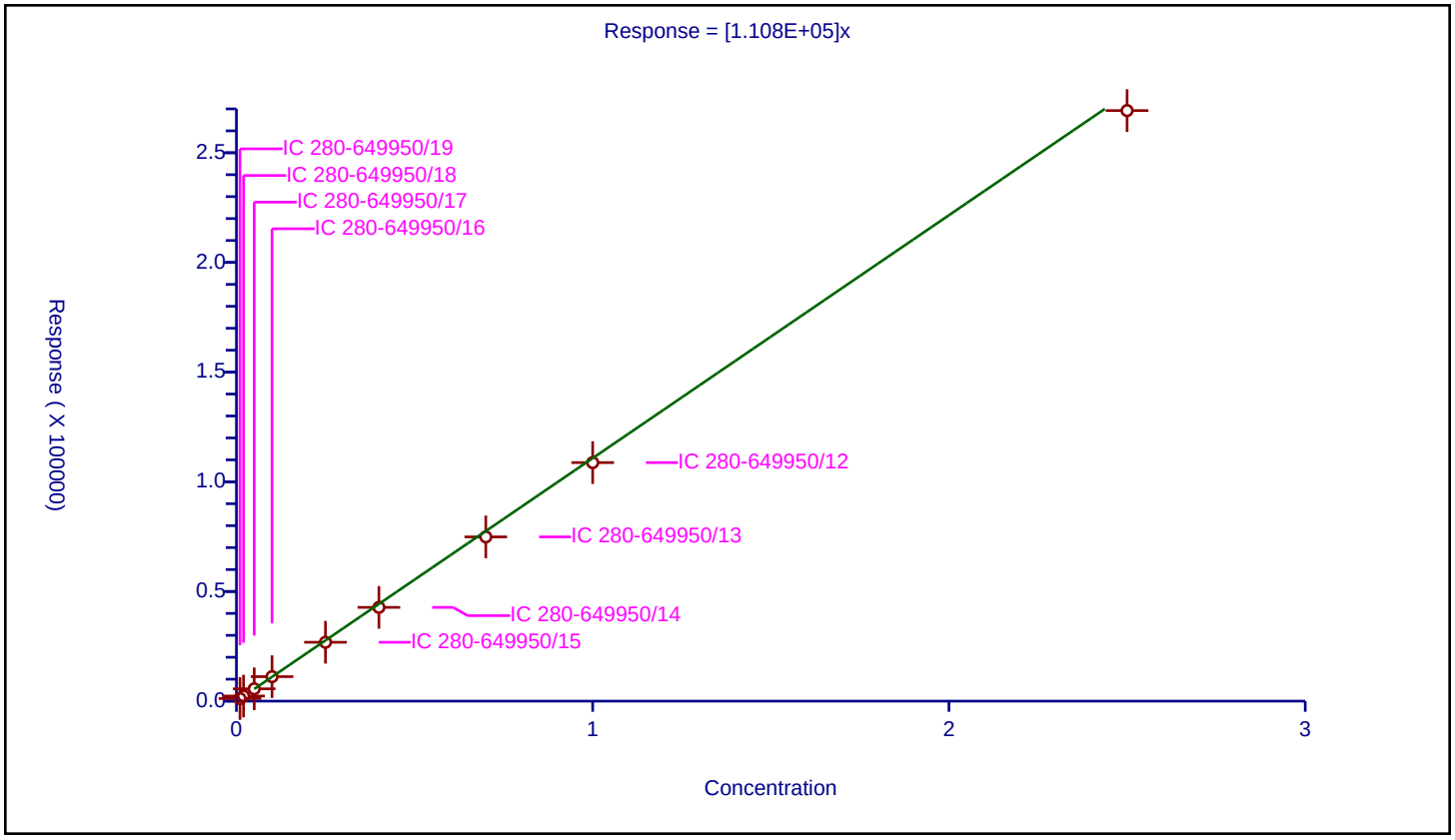
Curve Coefficients

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



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Calibration / 2,4,6-Trinitrophenol

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

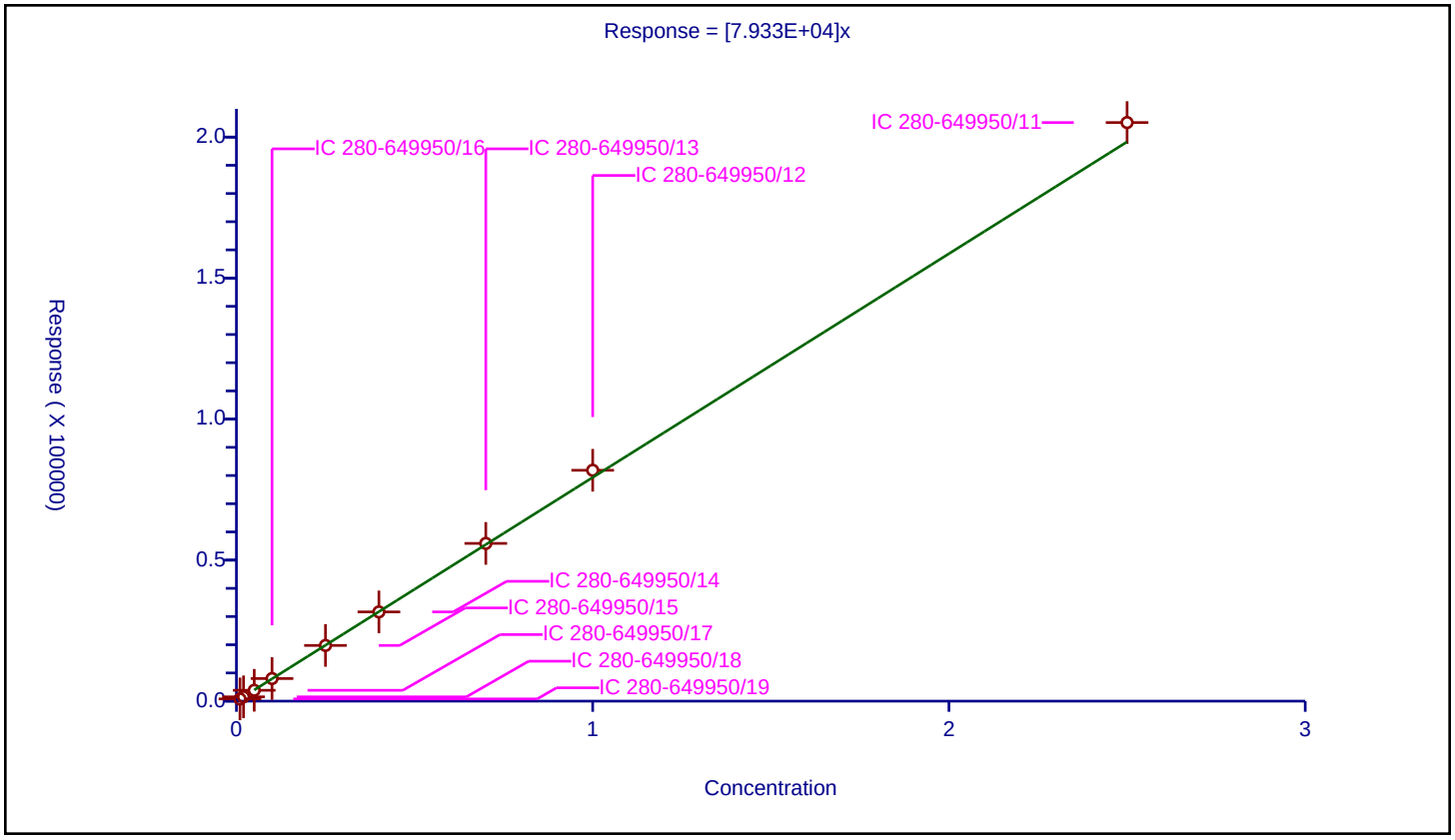
Curve Coefficients

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



Calibration / 1,2-Dinitrobenzene

Curve Type:	Linear
Weighting:	Conc_Sq
Origin:	None
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

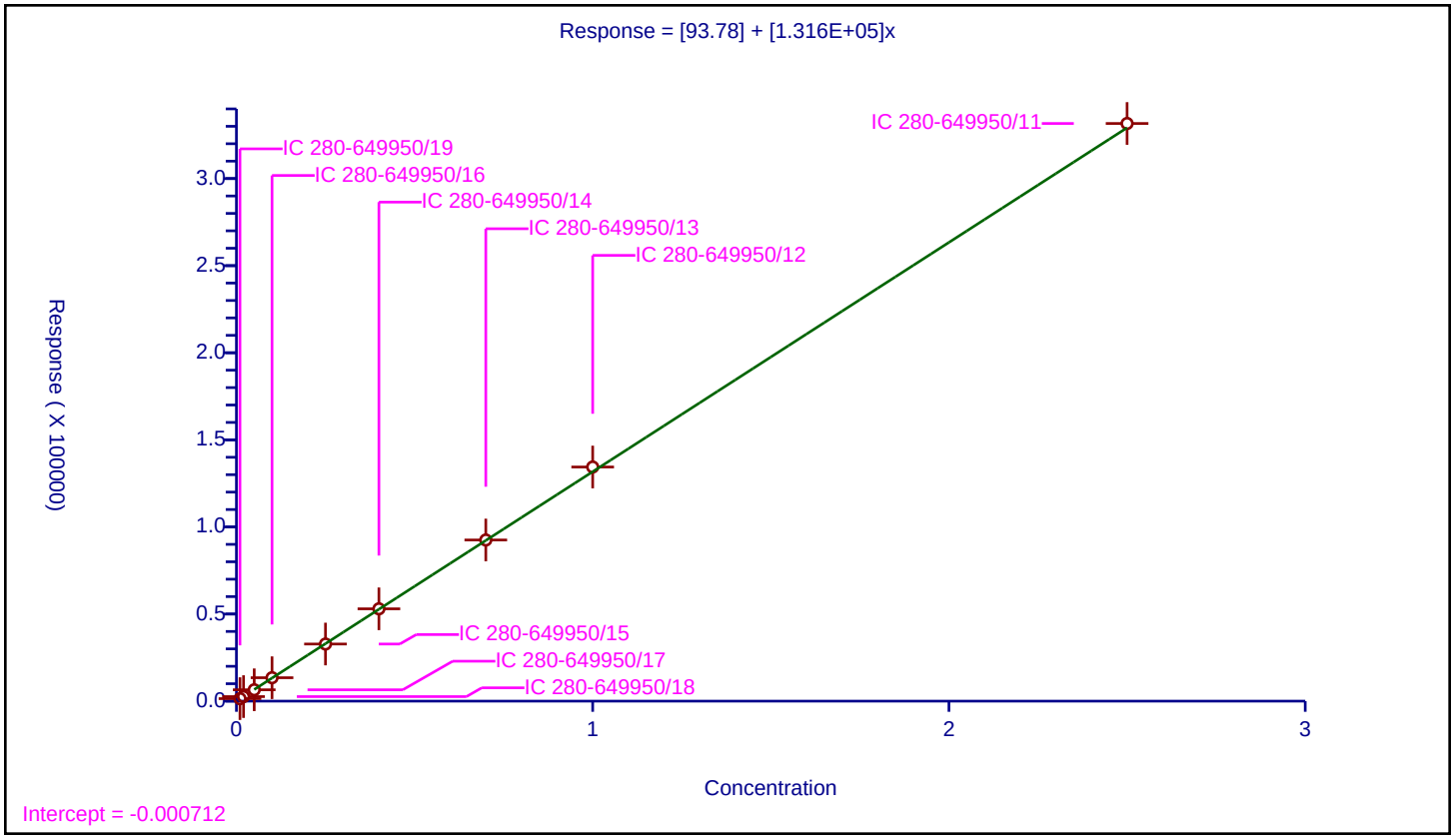
Curve Coefficients

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



Calibration / 1,3,5-Trinitrobenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

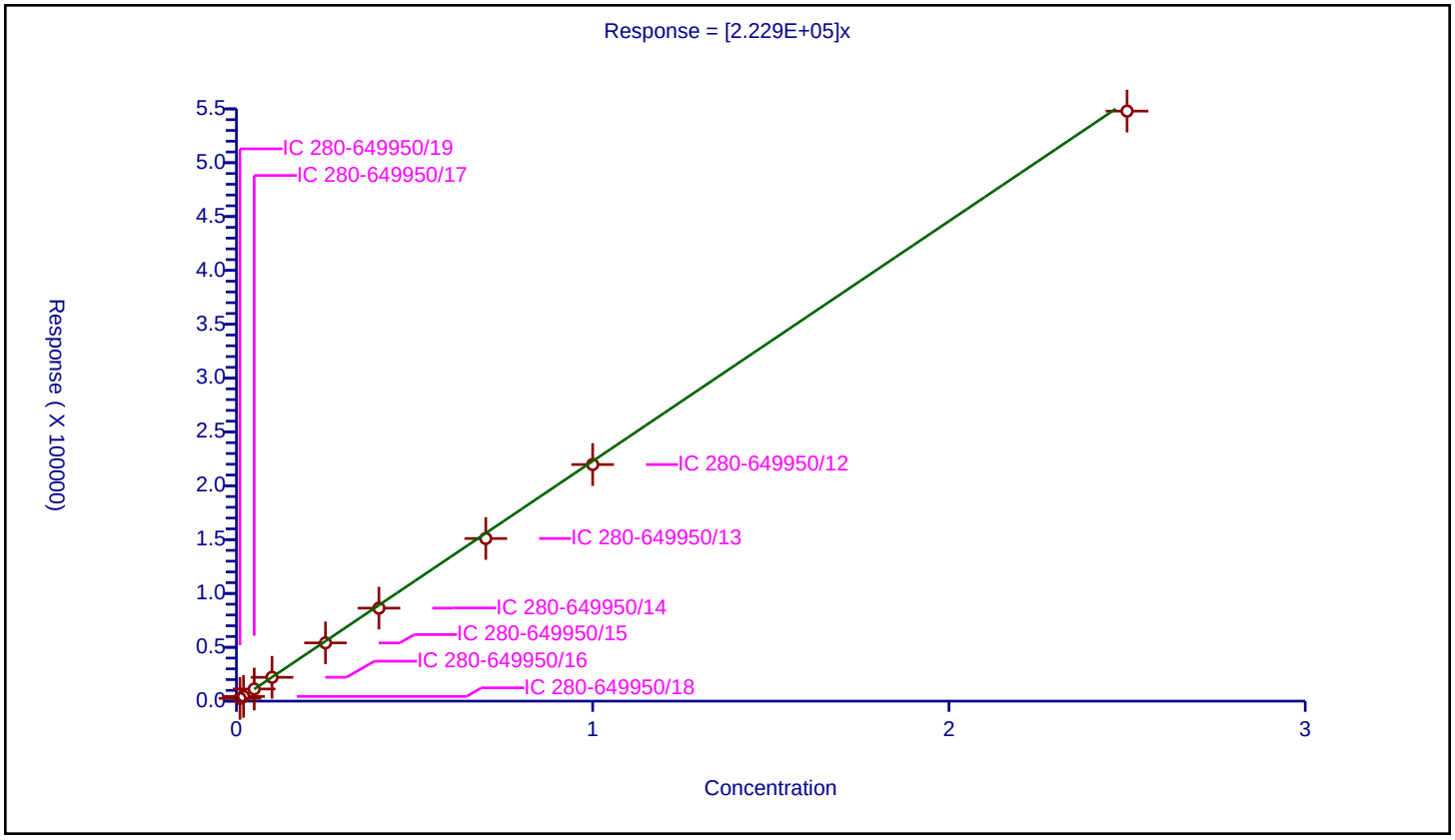
Curve Coefficients

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

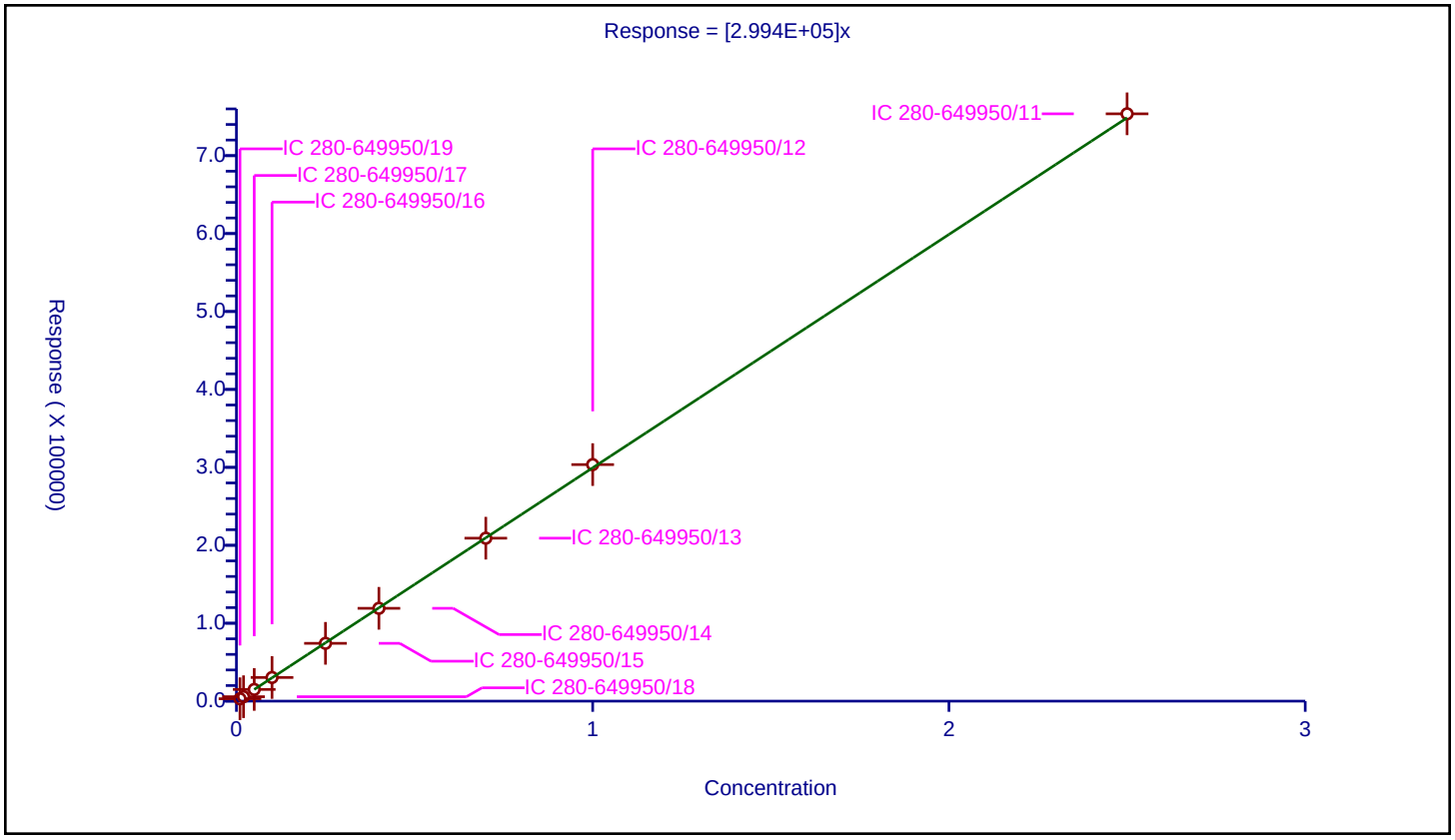
Curve Coefficients

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

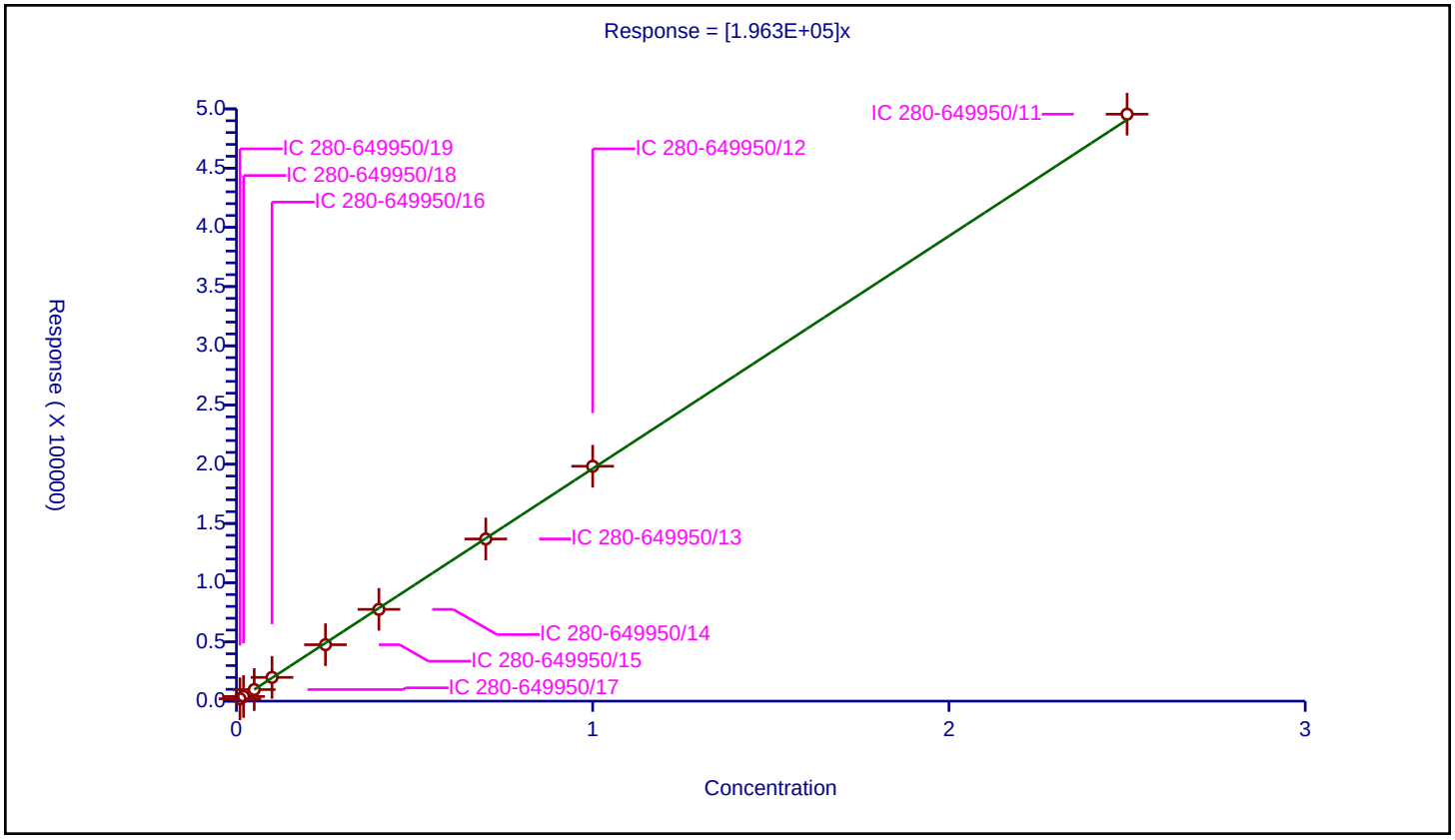
Curve Coefficients

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



Calibration / 3,5-Dinitroaniline

Curve Type:	Linear
Weighting:	Conc_Sq
Origin:	None
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

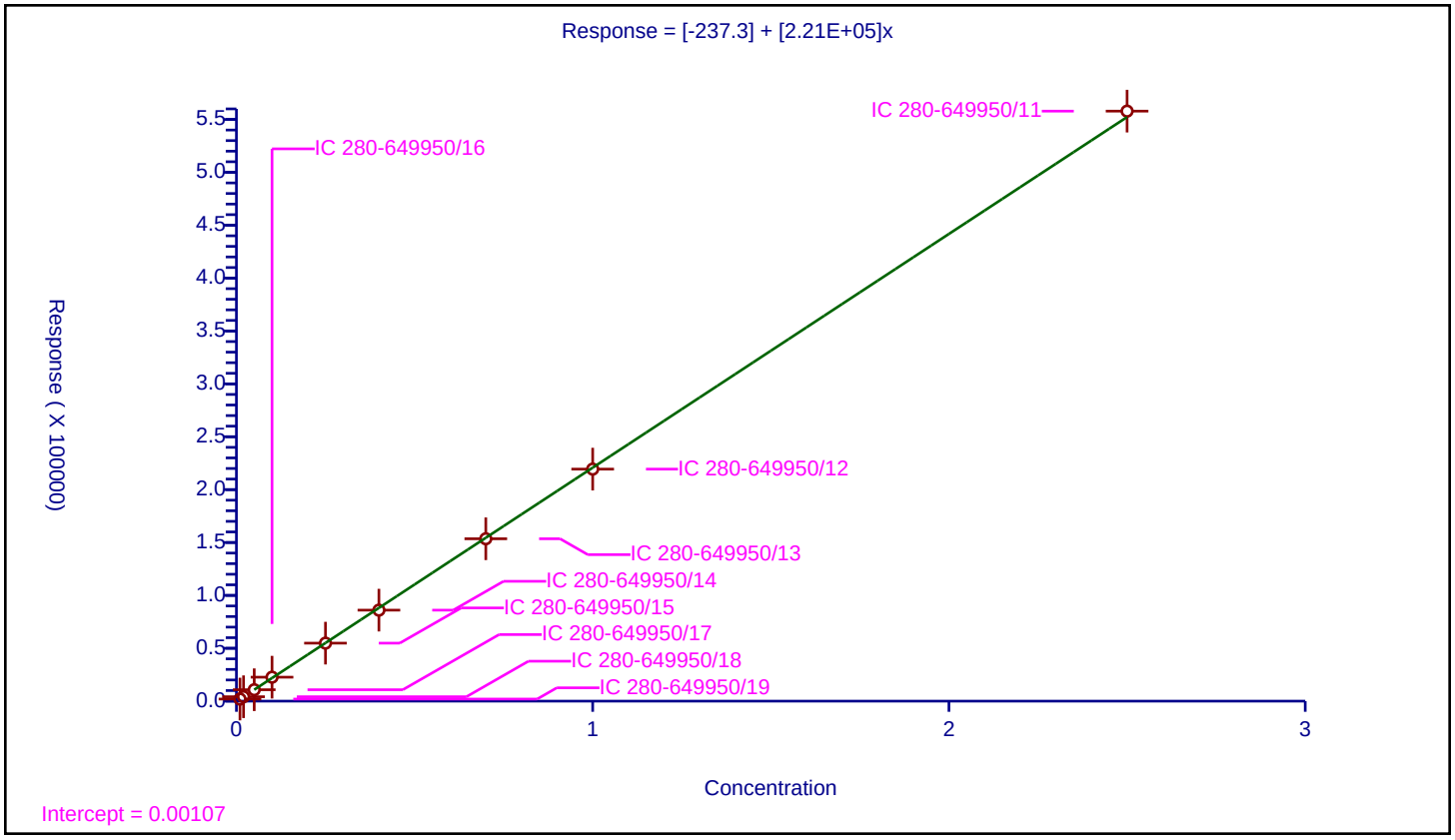
Curve Coefficients

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

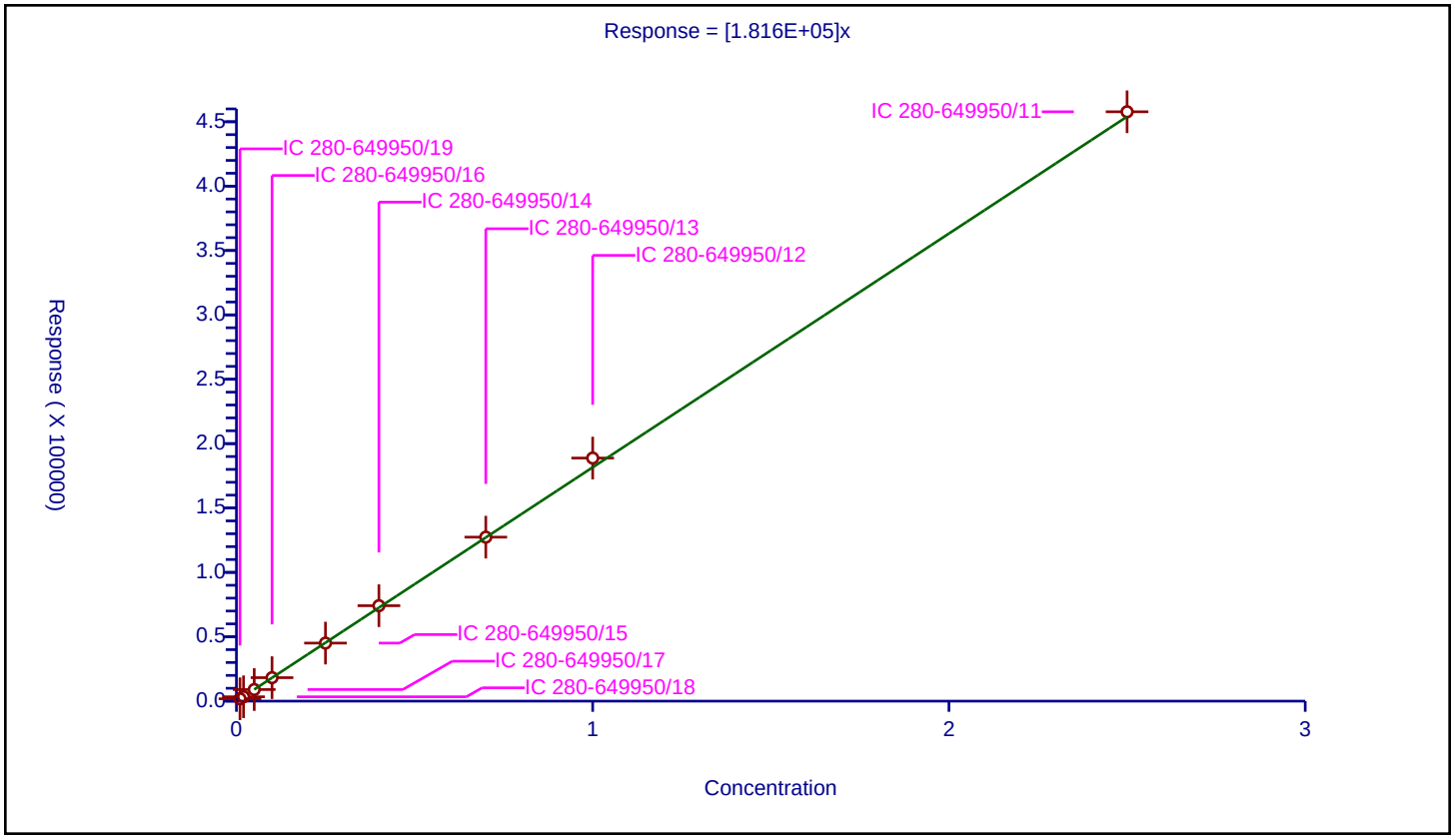
Curve Coefficients

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



Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

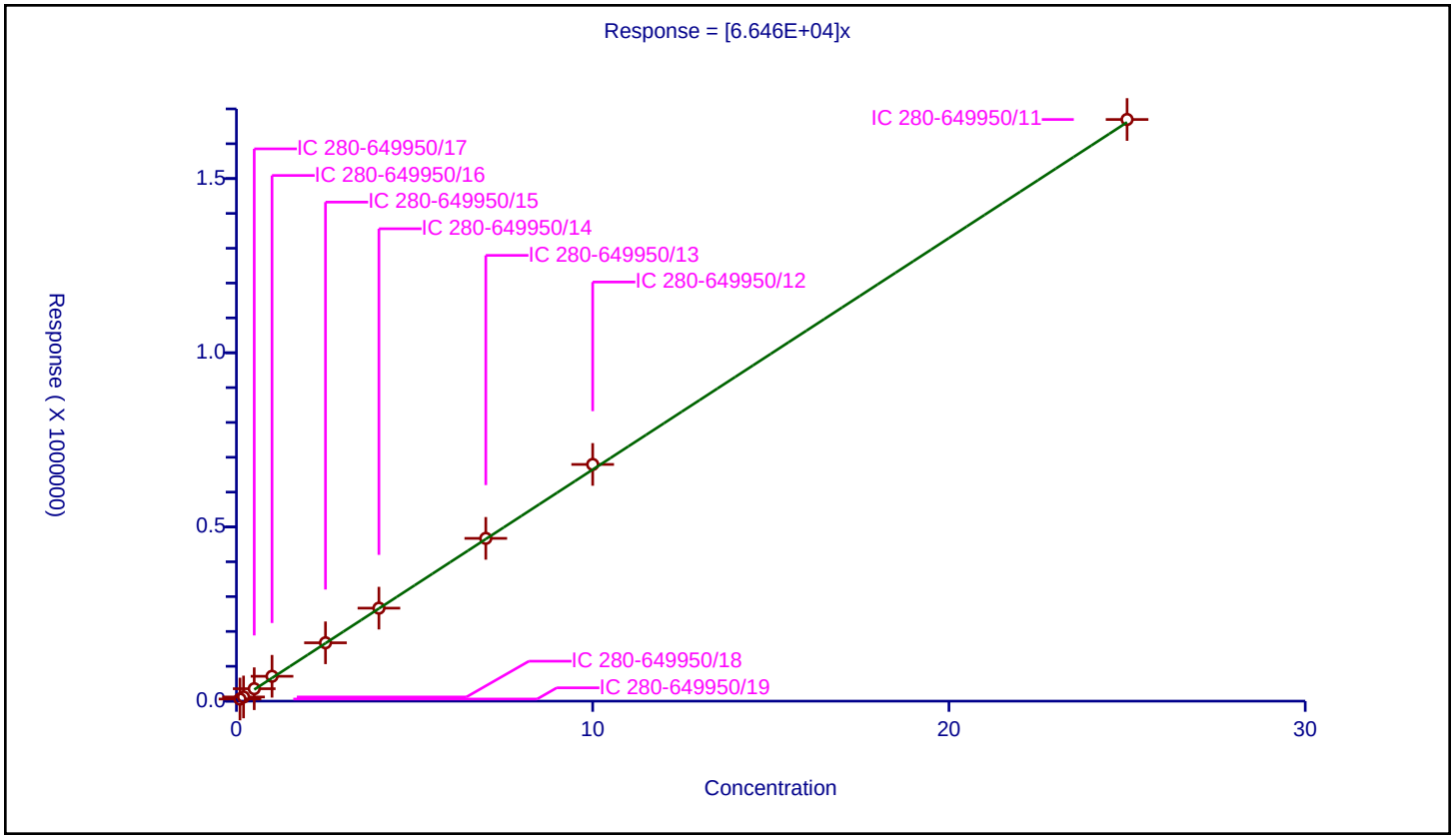
Curve Coefficients

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

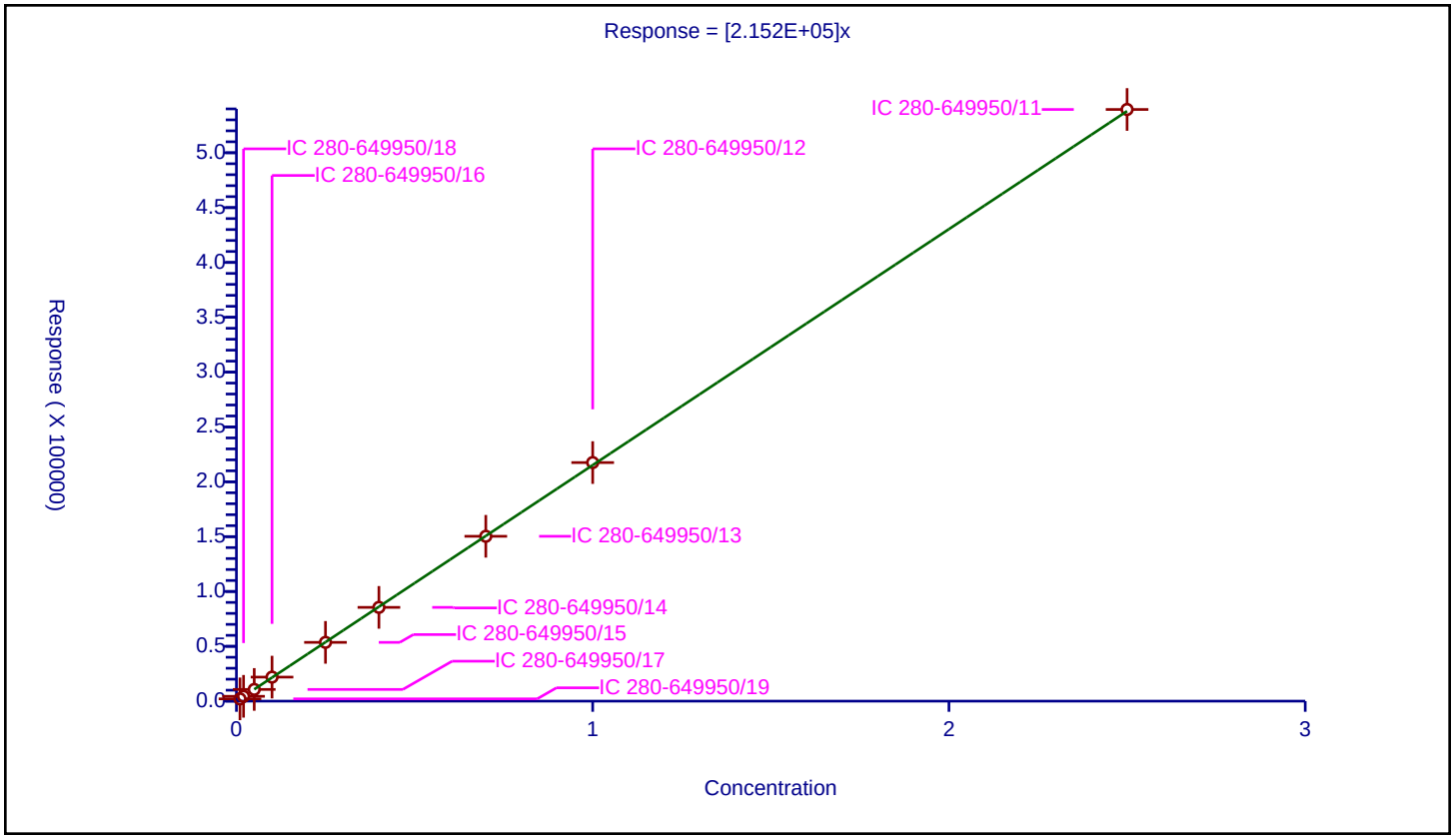
Curve Coefficients

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



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

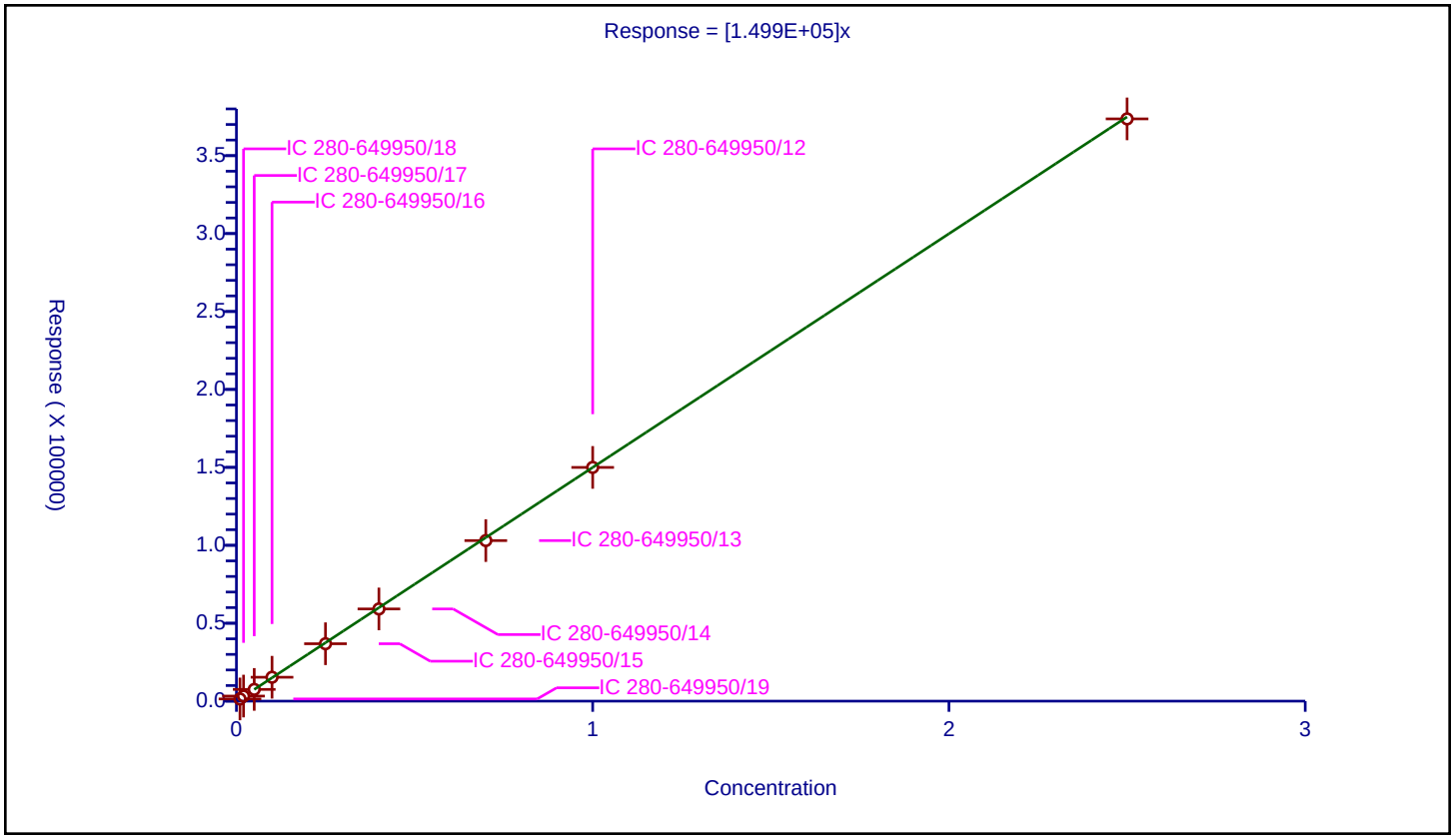
Curve Coefficients

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



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

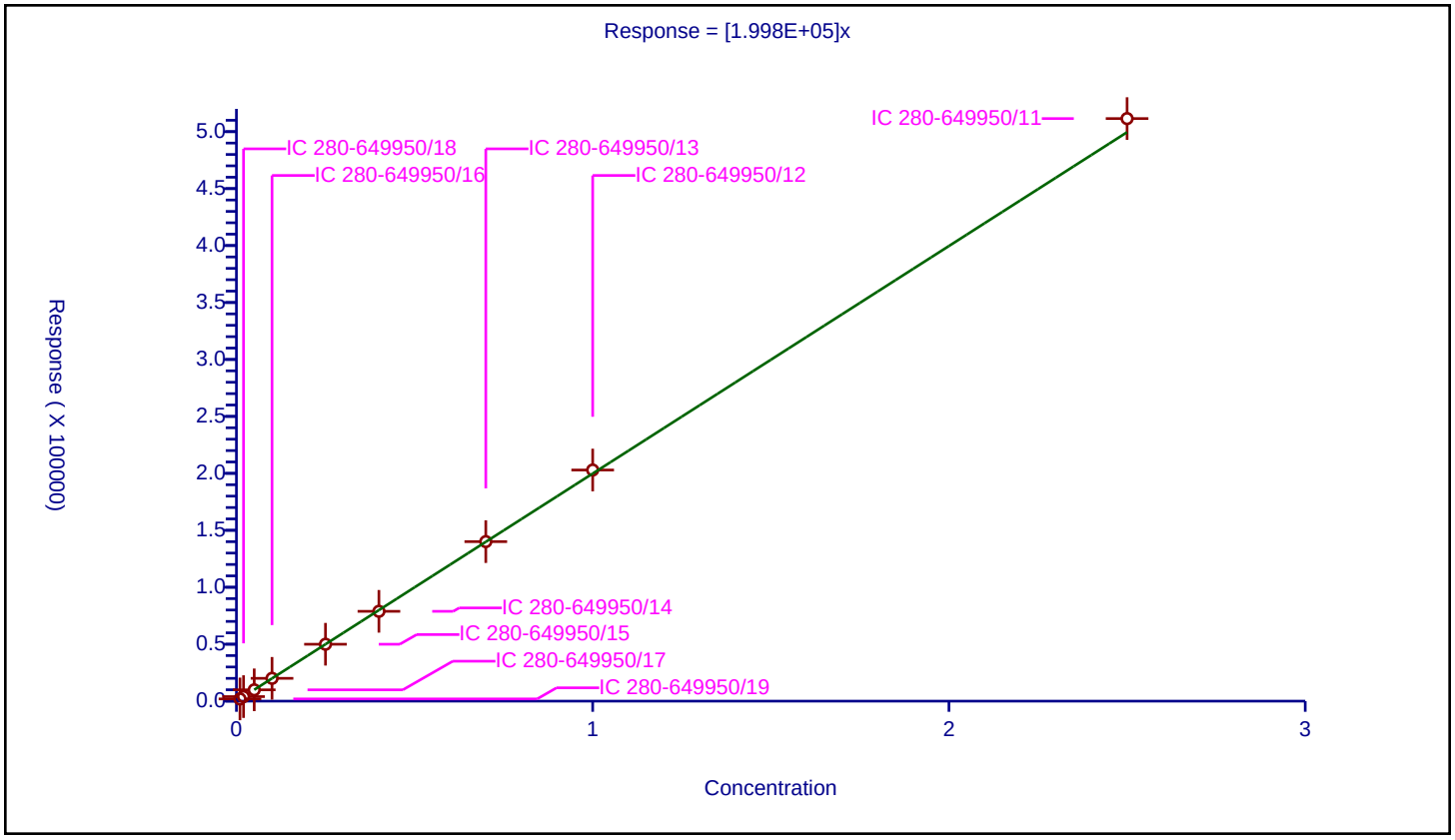
Curve Coefficients

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

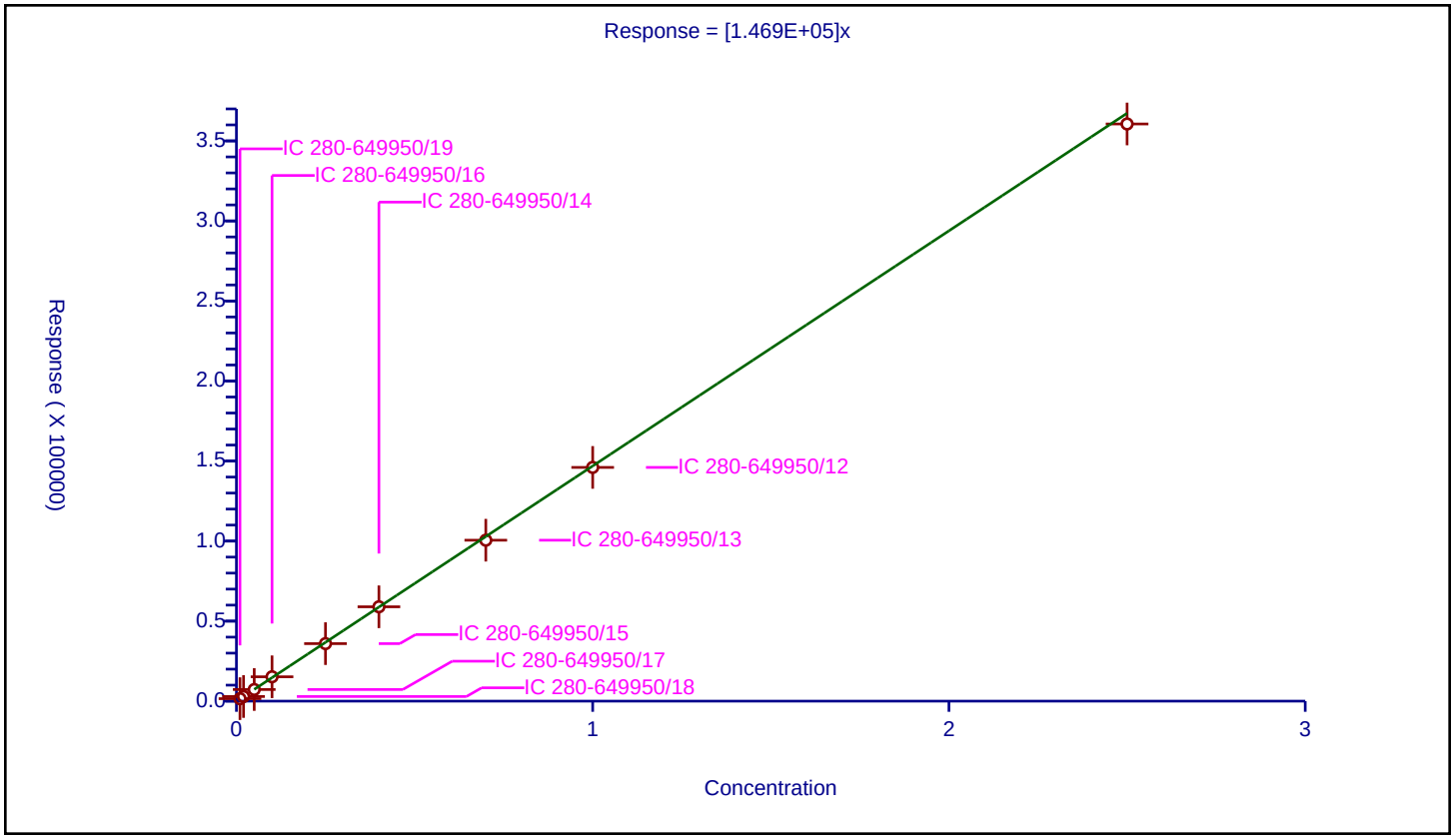
Curve Coefficients

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

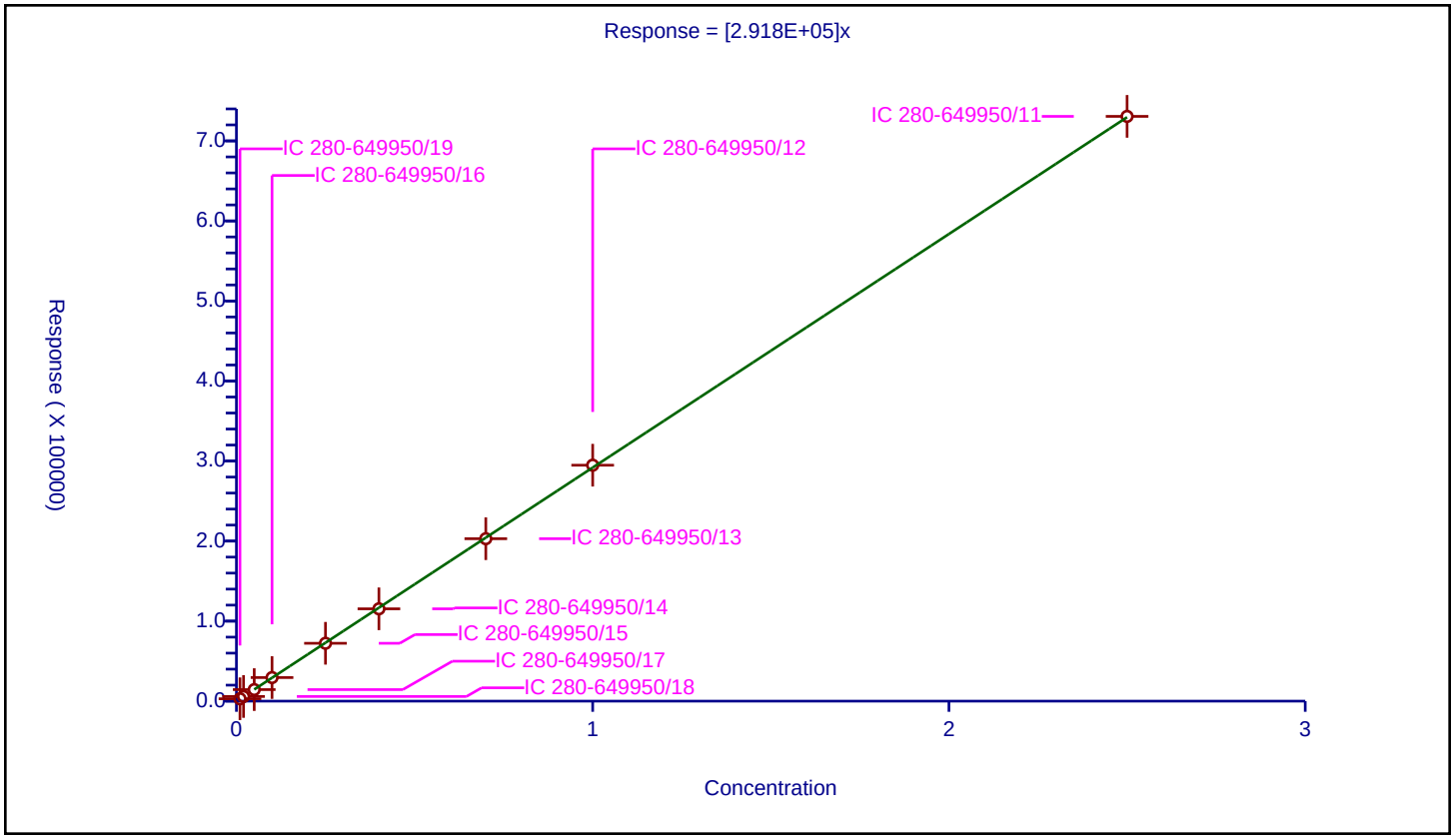
Curve Coefficients

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



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Calibration / o-Nitrotoluene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

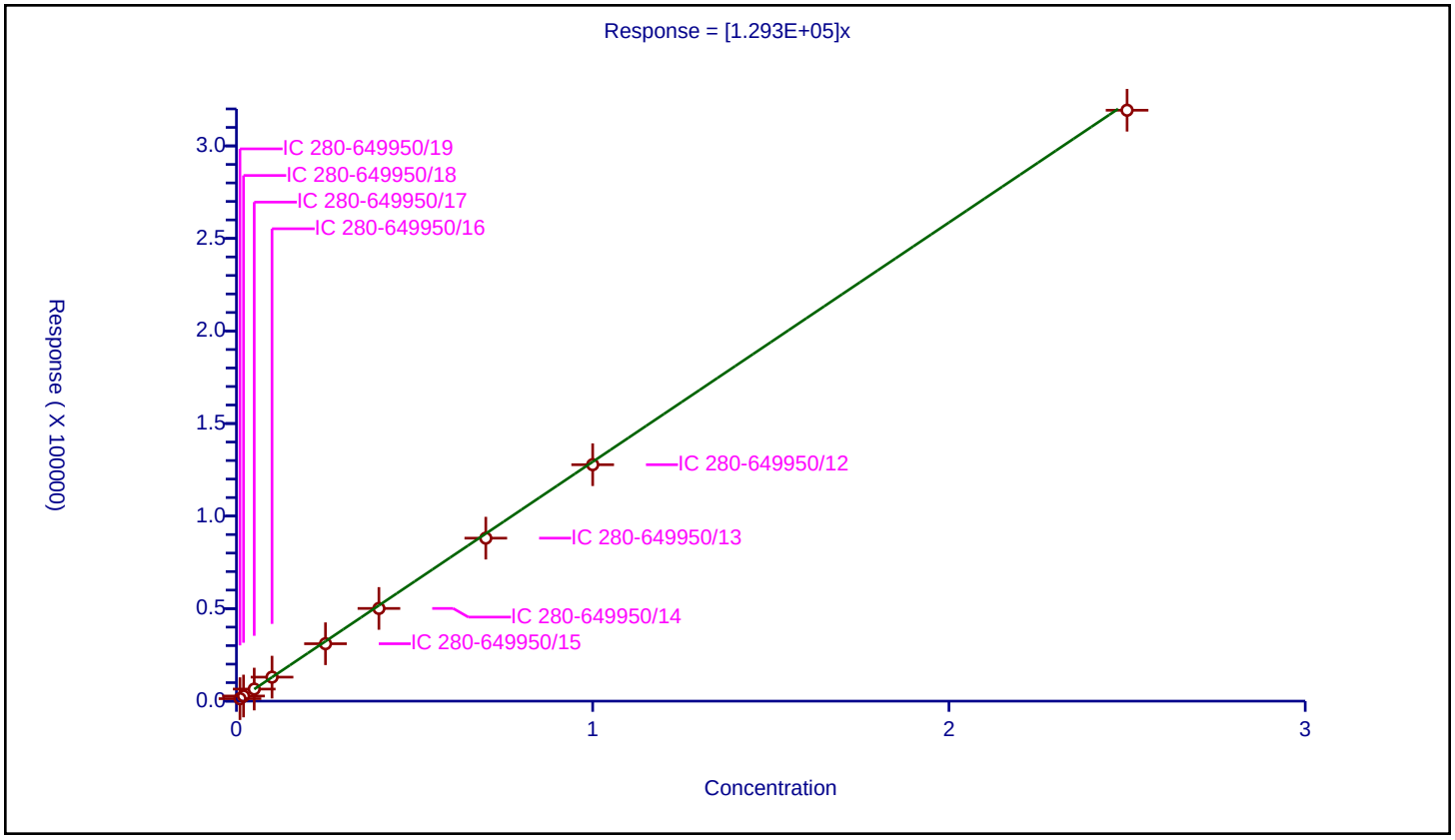
Curve Coefficients

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



5/27/2024
7:57:40 AM

Calibration / p-Nitrotoluene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

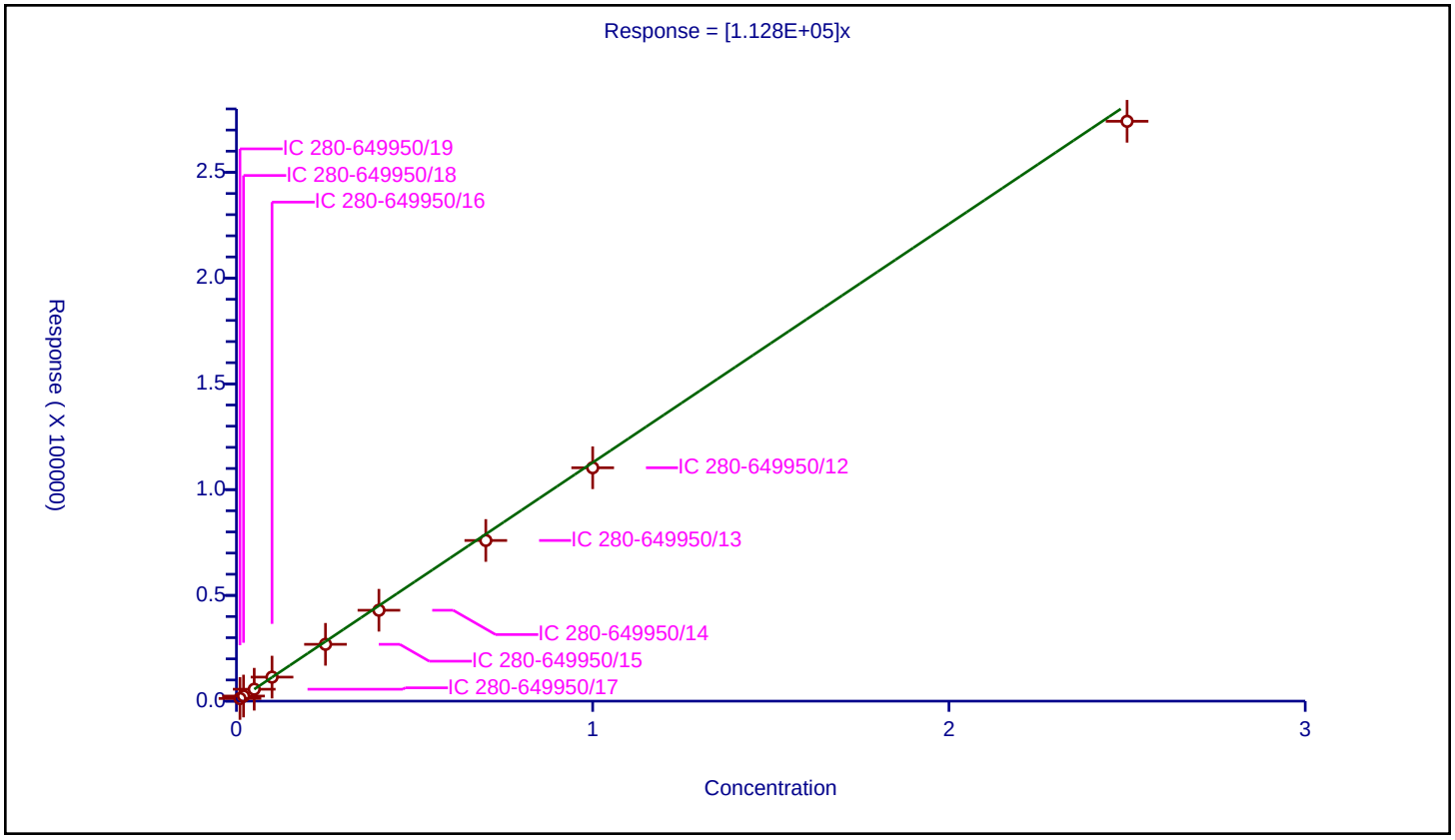
Curve Coefficients

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



Calibration / m-Nitrotoluene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

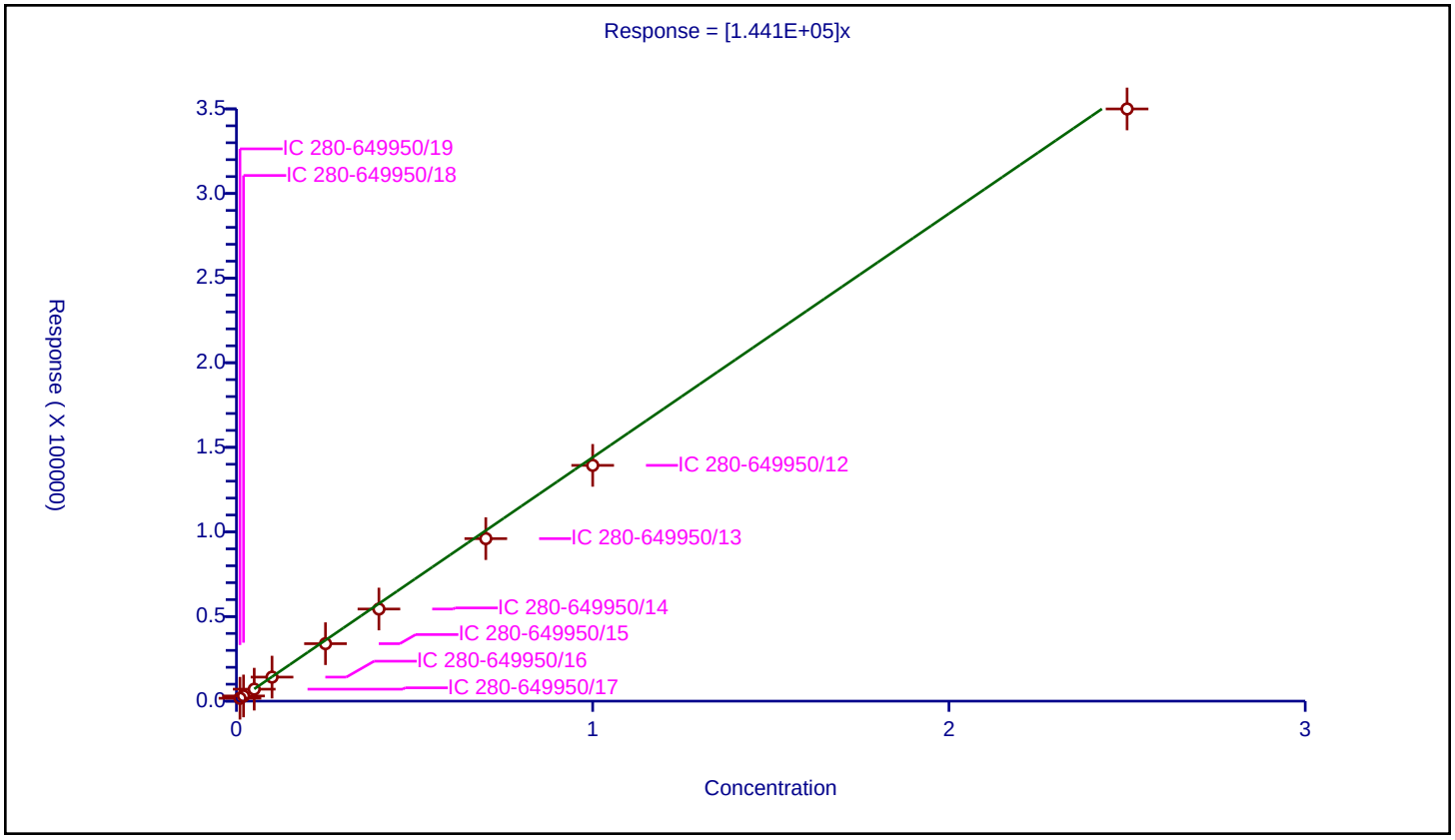
Curve Coefficients

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



Calibration / PETN

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

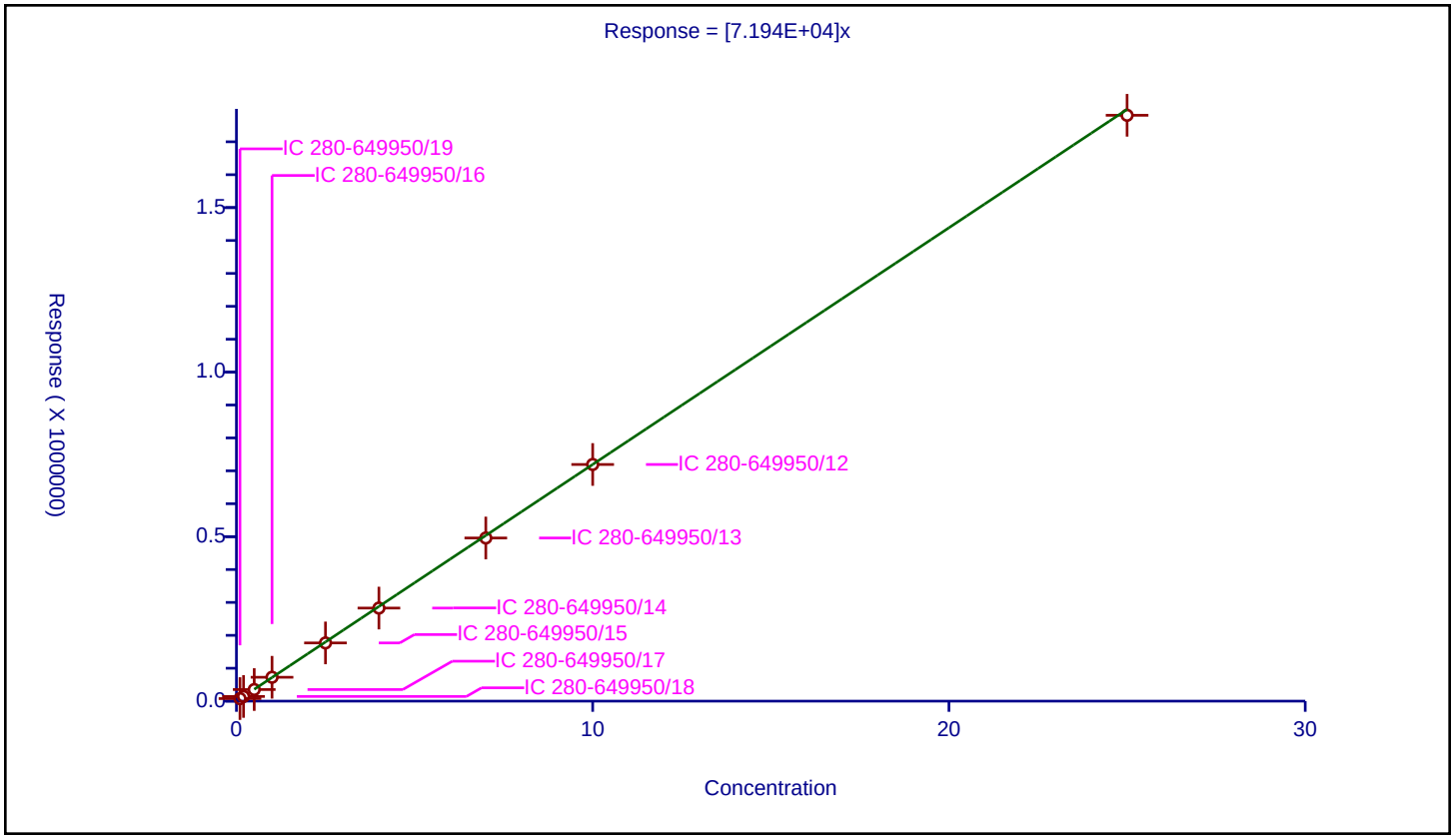
Curve Coefficients

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



FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: Eurofins Denver | Job No.: 280-191424-1 | Analy Batch No.: 647408

SDG No.:

Instrument ID: CHHPLC_X5 | GC Column: Luna-phenyl ID: 4.6(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 03/27/2024 19:58 | Calibration End Date: 03/28/2024 00:38 | Calibration ID: 91606

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-647408/18	03270018.D
Level 2	IC 280-647408/17	03270017.D
Level 3	IC 280-647408/16	03270016.D
Level 4	IC 280-647408/15	03270015.D
Level 5	IC 280-647408/14	03270014.D
Level 6	IC 280-647408/13	03270013.D
Level 7	IC 280-647408/12	03270012.D
Level 8	IC 280-647408/11	03270011.D
Level 9	IC 280-647408/10	03270010.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	6.792	6.785	6.786	6.792	6.787	6.780	6.776	6.776	6.746		6.637 - 6.937	6.780
Picric acid	7.978	7.985	7.979	7.959	7.934	7.900	7.862	7.829	7.720		7.784 - 8.084	7.905
RDX	8.885	8.878	8.886	8.886	8.881	8.873	8.869	8.862	8.813		8.731 - 9.031	8.870
Nitrobenzene	11.558	11.558	11.566	11.566	11.554	11.546	11.542	11.535	11.493		11.404 - 11.704	11.546
3,5-Dinitroaniline	14.392	14.391	14.399	14.399	14.394	14.386	14.382	14.369	14.326		14.244 - 14.544	14.382
1,3-Dinitrobenzene	14.812	14.811	14.826	14.826	14.821	14.813	14.809	14.795	14.759		14.671 - 14.971	14.808
Nitroglycerin	15.072	15.071	15.079	15.079	15.074	15.066	15.062	15.049	15.026		14.924 - 15.224	15.064
2-Nitrotoluene	15.758	15.751	15.759	15.759	15.754	15.746	15.742	15.729	15.699		15.604 - 15.904	15.744
4-Nitrotoluene	16.012	16.018	16.026	16.026	16.021	16.013	16.002	15.995	15.959		15.871 - 16.171	16.008
4-Amino-2,6-dinitrotoluene	16.498	16.498	16.519	16.519	16.514	16.500	16.496	16.482	16.453		16.364 - 16.664	16.498
3-Nitrotoluene	16.878	16.878	16.886	16.892	16.881	16.866	16.862	16.855	16.826		16.731 - 17.031	16.869
2-Amino-4,6-dinitrotoluene	17.372	17.384	17.399	17.399	17.394	17.380	17.376	17.362	17.333		17.244 - 17.544	17.378
1,3,5-Trinitrobenzene	17.812	17.804	17.819	17.819	17.807	17.800	17.796	17.789	17.766		17.657 - 17.957	17.801
2,6-Dinitrotoluene	18.818	18.811	18.826	18.832	18.827	18.813	18.809	18.795	18.773		18.677 - 18.977	18.812
2,4-Dinitrotoluene	19.298	19.311	19.312	19.319	19.314	19.306	19.302	19.282	19.259		19.164 - 19.464	19.300
Tetryl	22.725	22.725	22.739	22.746	22.741	22.733	22.722	22.709	22.686		22.591 - 22.891	22.725
2,4,6-Trinitrotoluene	23.692	23.705	23.706	23.712	23.707	23.700	23.696	23.676	23.660		23.557 - 23.857	23.695
PETN	24.825	24.685	24.686	24.692	24.687	24.680	24.669	24.649	24.640		24.537 - 24.837	24.690
1,2-Dinitrobenzene	12.578	12.578	12.586	12.586	12.581	12.573	12.569	12.555	12.519		12.431 - 12.731	12.569

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Denver Job No.: 280-191424-1 Analy Batch No.: 647408

SDG No.:

Instrument ID: CHHPLC_X5 GC Column: Luna-phenyl ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/27/2024 19:58 Calibration End Date: 03/28/2024 00:38 Calibration ID: 91606

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-647408/18	03270018.D
Level 2	IC 280-647408/17	03270017.D
Level 3	IC 280-647408/16	03270016.D
Level 4	IC 280-647408/15	03270015.D
Level 5	IC 280-647408/14	03270014.D
Level 6	IC 280-647408/13	03270013.D
Level 7	IC 280-647408/12	03270012.D
Level 8	IC 280-647408/11	03270011.D
Level 9	IC 280-647408/10	03270010.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	253600 178576 178724	210600 179675	187120 175606	185210 176039	Ave		191683.346				13.4		20.0			
Picric acid	168700 146368 150000	149450 146663	151540 145471	149350 146238	Ave		150420.037				4.8		20.0			
RDX	236800 204796 206088	239950 205348	213060 202331	210660 203312	Ave		213593.925				6.8		20.0			
Nitrobenzene	411300 364912 376028	390750 370663	376560 366150	375790 367527	Ave		377742.211				3.9		20.0			
3,5-Dinitroaniline	442500 441216 439684	418300 443008	452440 435431	450830 435844	Lin2	-50.938523	440988.605							0.9990		0.9900
1,3-Dinitrobenzene	531200 611432 602033	579400 618725	609240 601600	631690 599978	Ave		598366.467				4.8		20.0			
Nitroglycerin	125370 132075 132712	148120 135788	139970 133151	139113 132211	Ave		135389.835				4.7		20.0			
2-Nitrotoluene	261200 250920 237708	268250 245000	243220 241149	239700 239038	Ave		247353.841				4.3		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.: 280-191424-1 Analy Batch No.: 647408

SDG No.:

Instrument ID: CHHPLC_X5 GC Column: Luna-phenyl ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/27/2024 19:58 Calibration End Date: 03/28/2024 00:38 Calibration ID: 91606

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	304900 221044 219752	270450 221805	229980 218320	220830 212404	Lin2	916.184358	216224.969							0.9990		0.9900
4-Amino-2,6-dinitrotoluene	356400 281540 275792	342050 282180	291760 277401	285350 274352	Lin2	878.402026	277835.425							0.9990		0.9900
3-Nitrotoluene	447900 278012 273901	350650 276580	298180 273564	285700 268594	Lin2	1747.31496	269140.538							1.0000		0.9900
2-Amino-4,6-dinitrotoluene	475100 396684 397012	486350 397985	420200 395076	410300 391883	Lin2	963.350593	398688.925							0.9980		0.9900
1,3,5-Trinitrobenzene	437600 409628 414341	496800 414988	443840 415713	426790 407003	Ave		429633.573				6.6		20.0			
2,6-Dinitrotoluene	271600 277536 275752	261150 274760	269860 278736	275560 270529	Ave		272831.457				2.0		20.0			
2,4-Dinitrotoluene	545500 552684 552028	549950 548203	540320 545894	541960 542165	Ave		546522.687				0.8		20.0			
Tetryl	369000 328732 333232	346250 330055	331380 327494	331100 328904	Ave		336238.587				4.0		20.0			
2,4,6-Trinitrotoluene	453400 409840 415288	420800 412215	407920 406460	413330 408906	Ave		416462.111				3.5		20.0			
PETN	89820 128835 134788	105930 131269	113402 131115	125929 132355	Lin2	-4400.5935	130750.946							0.9990		0.9900
1,2-Dinitrobenzene	303200 255328 259343	272300 257463	261300 254114	259500 254825	Ave		264152.554				5.9		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.: 280-191424-1 | Analy Batch No.: 647408

SDG No.:

Instrument ID: CHHPLC_X5 | GC Column: Luna-pheny ID: 4.6(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 03/27/2024 19:58 | Calibration End Date: 03/28/2024 00:38 | Calibration ID: 91606

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-647408/18	03270018.D
Level 2	IC 280-647408/17	03270017.D
Level 3	IC 280-647408/16	03270016.D
Level 4	IC 280-647408/15	03270015.D
Level 5	IC 280-647408/14	03270014.D
Level 6	IC 280-647408/13	03270013.D
Level 7	IC 280-647408/12	03270012.D
Level 8	IC 280-647408/11	03270011.D
Level 9	IC 280-647408/10	03270010.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	2536 71870	4212 122924	9356 176039	18521 446811	44644	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
Picric acid	Ave	1687 58665	2989 101830	7577 146238	14935 375001	36592	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
RDX	Ave	2368 82139	4799 141632	10653 203312	21066 515221	51199	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
Nitrobenzene	Ave	4113 148265	7815 256305	18828 367527	37579 940071	91228	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
3,5-Dinitroaniline	Lin2	4425 177203	8366 304802	22622 435844	45083 1099211	110304	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
1,3-Dinitrobenzene	Ave	5312 247490	11588 421120	30462 599978	63169 1505083	152858	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
Nitroglycerin	Ave	12537 543150	29624 932056	69985 1322106	139113 3317794	330187	0.100 4.00	0.200 7.00	0.500 10.0	1.00 25.0	2.50
2-Nitrotoluene	Ave	2612 98000	5365 168804	12161 239038	23970 594270	62730	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
4-Nitrotoluene	Lin2	3049 88722	5409 152824	11499 212404	22083 549379	55261	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
4-Amino-2,6-dinitrotoluene	Lin2	3564 112872	6841 194181	14588 274352	28535 689480	70385	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
3-Nitrotoluene	Lin2	4479 110632	7013 191495	14909 268594	28570 684753	69503	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
2-Amino-4,6-dinitrotoluene	Lin2	4751 159194	9727 276553	21010 391883	41030 992531	99171	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
1,3,5-Trinitrobenzene	Ave	4376 165995	9936 290999	22192 407003	42679 1035852	102407	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
2,6-Dinitrotoluene	Ave	2716 109904	5223 195115	13493 270529	27556 689381	69384	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
2,4-Dinitrotoluene	Ave	5455	10999	27016	54196	138171	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.: 280-191424-1 | Analy Batch No.: 647408

SDG No.:

Instrument ID: CHHPLC_X5 | GC Column: Luna-pheny ID: 4.6(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 03/27/2024 19:58 | Calibration End Date: 03/28/2024 00:38 | Calibration ID: 91606

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
		219281	382126	542165	1380071		0.400	0.700	1.00	2.50	
Tetryl	Ave	3690 132022	6925 229246	16569 328904	33110 833080	82183	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
2,4,6-Trinitrotoluene	Ave	4534 164886	8416 284522	20396 408906	41333 1038220	102460	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
PETN	Lin2	8982 525075	21186 917804	56701 1323551	125929 3369705	322087	0.100 4.00	0.200 7.00	0.500 10.0	1.00 25.0	2.50
1,2-Dinitrobenzene	Ave	3032 102985	5446 177880	13065 254825	25950 648358	63832	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_X5\20240327-131602.b\03270010.D
Lims ID: IC INT 9
Client ID:
Sample Type: IC Calib Level: 9
Inject. Date: 27-Mar-2024 19:58:57 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_X5
Sublist: chrom-8330_X5_Luna*sub7

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 28-Mar-2024 14:09:24 Calib Date: 28-Mar-2024 05:53:05
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1687

First Level Reviewer: LV5D Date: 28-Mar-2024 11:16:57

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
5 HMX	1	6.746	6.787	-0.041	446811	2.50	2.33	
7 2,4,6-Trinitrophenol	1	7.720	7.934	-0.214	375001	2.50	2.49	a
8 RDX	1	8.813	8.881	-0.068	515221	2.50	2.41	
9 Nitrobenzene	1	11.493	11.554	-0.061	940071	2.50	2.49	
$ 10 1,2-Dinitrobenzene	1	12.519	12.581	-0.062	648358	2.50	2.45	
11 3,5-Dinitroaniline	1	14.326	14.394	-0.068	1099211	2.50	2.49	
12 1,3-Dinitrobenzene	1	14.759	14.821	-0.062	1505083	2.50	2.52	
13 Nitroglycerin	2	15.026	15.074	-0.048	3317794	25.0	24.5	M
14 o-Nitrotoluene	1	15.699	15.754	-0.055	594270	2.50	2.40	
16 p-Nitrotoluene	1	15.959	16.021	-0.062	549379	2.50	2.54	
17 4-Amino-2,6-dinitrotoluene	1	16.453	16.514	-0.061	689480	2.50	2.48	
18 m-Nitrotoluene	1	16.826	16.881	-0.055	684753	2.50	2.54	
19 2-Amino-4,6-dinitrotoluene	1	17.333	17.394	-0.061	992531	2.50	2.49	
20 1,3,5-Trinitrobenzene	1	17.766	17.807	-0.041	1035852	2.50	2.41	
21 2,6-Dinitrotoluene	1	18.773	18.827	-0.054	689381	2.50	2.53	
22 2,4-Dinitrotoluene	1	19.259	19.314	-0.055	1380071	2.50	2.53	
23 Tetryl	1	22.686	22.741	-0.055	833080	2.50	2.48	
24 2,4,6-Trinitrotoluene	1	23.660	23.707	-0.047	1038220	2.50	2.49	
25 PETN	2	24.640	24.687	-0.047	3369705	25.0	25.8	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated
a - User Assigned ID

Reagents:

8330IntermStk_00079 Amount Added: 250.00 Units: uL

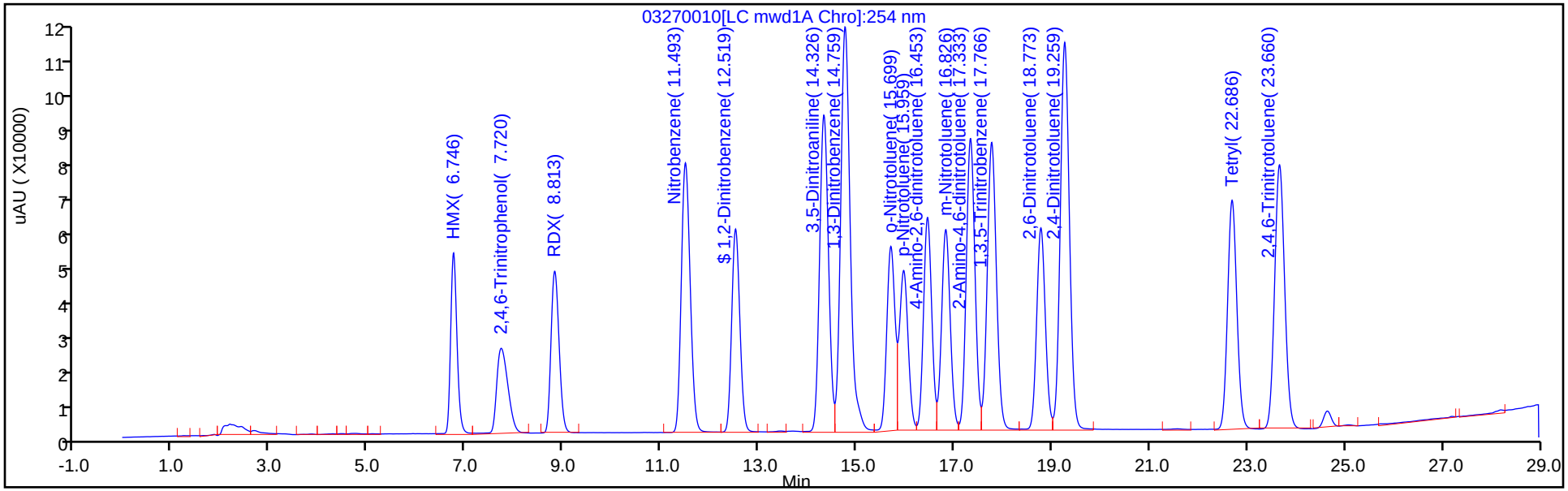
Report Date: 28-Mar-2024 14:09:24 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver

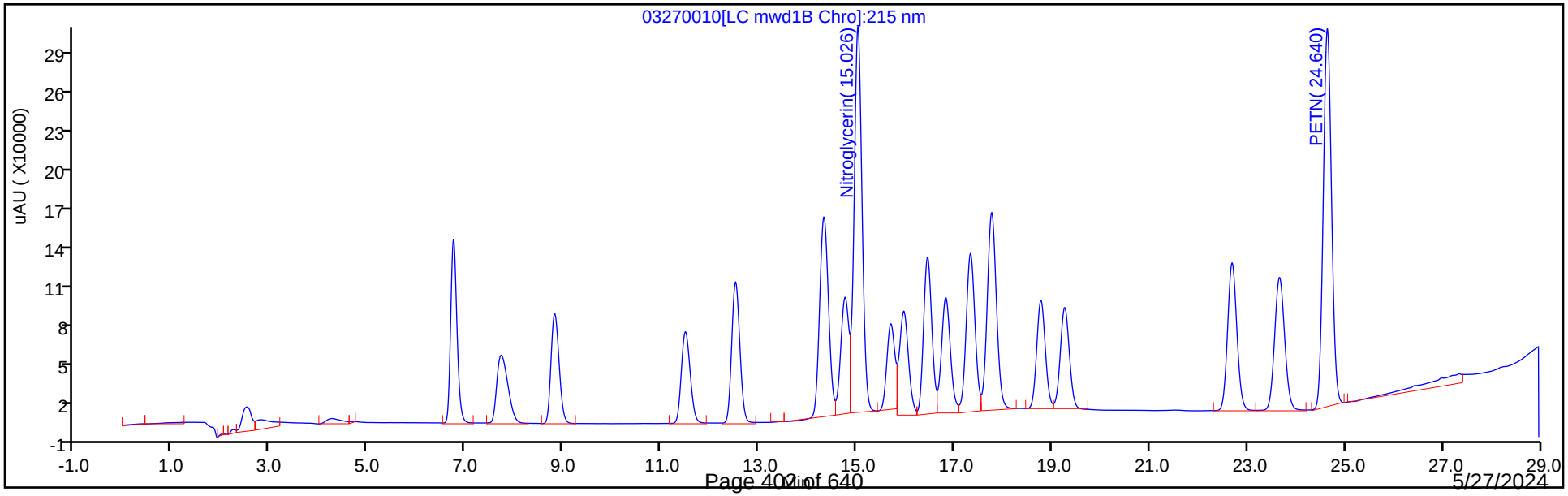
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270010.D

Injection Date:	27-Mar-2024 19:58:57	Instrument ID:	CHHPLC_X5	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:	8330_X5_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



5/27/2024
7:57:40 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

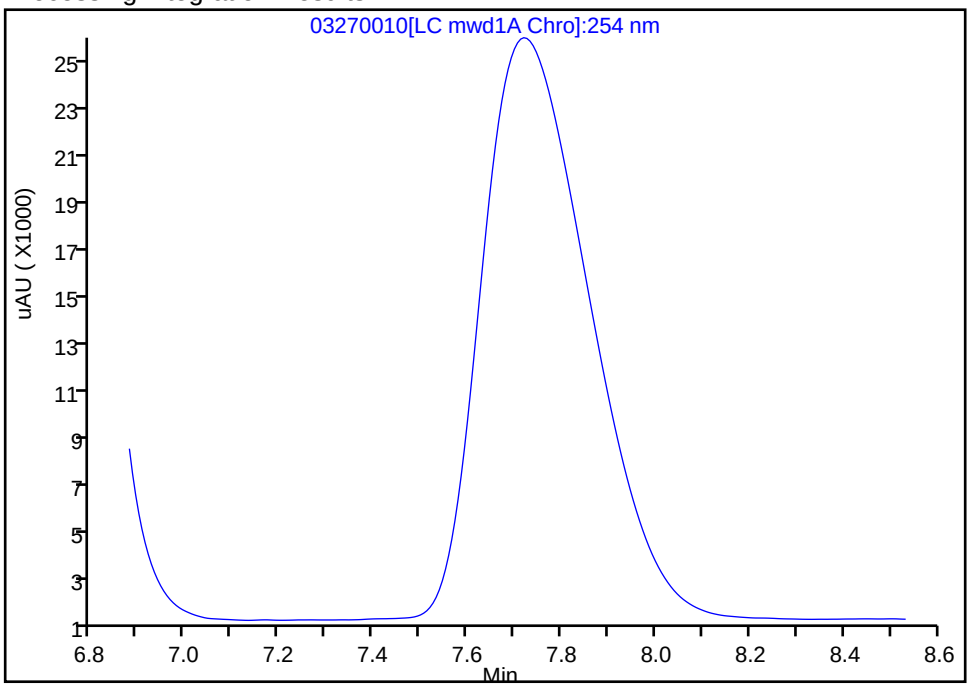
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270010.D				
Injection Date:	27-Mar-2024 19:58:57	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 9				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	10	Worklist Smp#:	10
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

7 2,4,6-Trinitrophenol, CAS: 88-89-1

Signal: 1

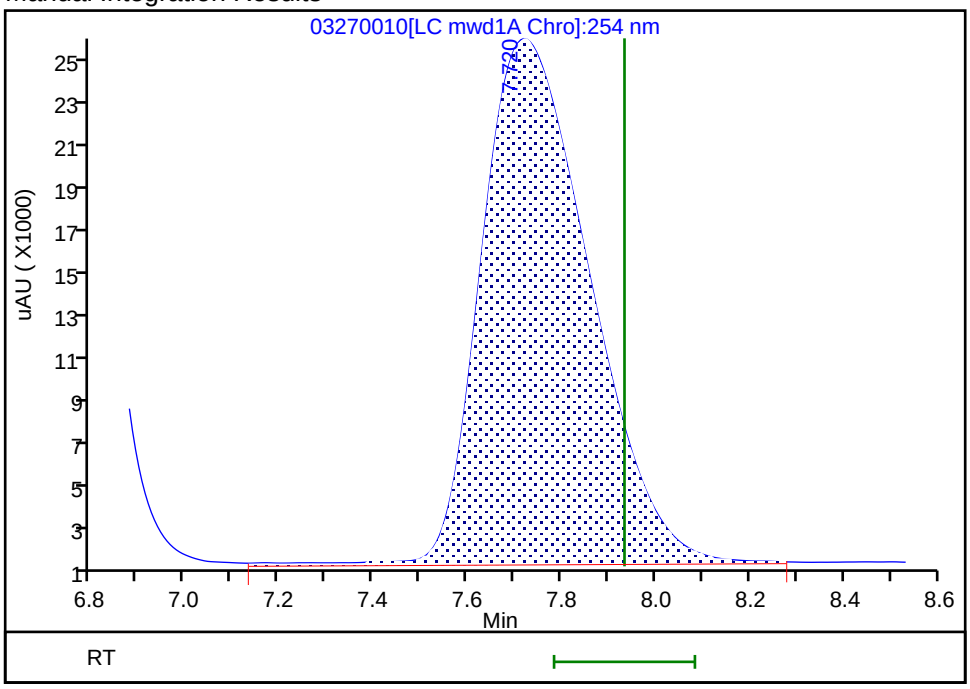
Not Detected
Expected RT: 7.93

Processing Integration Results



Manual Integration Results

RT: 7.72
Area: 375001
Amount: 2.493026
Amount Units: ug/ml



Reviewer: LV5D, 28-Mar-2024 11:16:55 -06:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

Manual Integration/User Assign Peak Report

Eurofins Denver

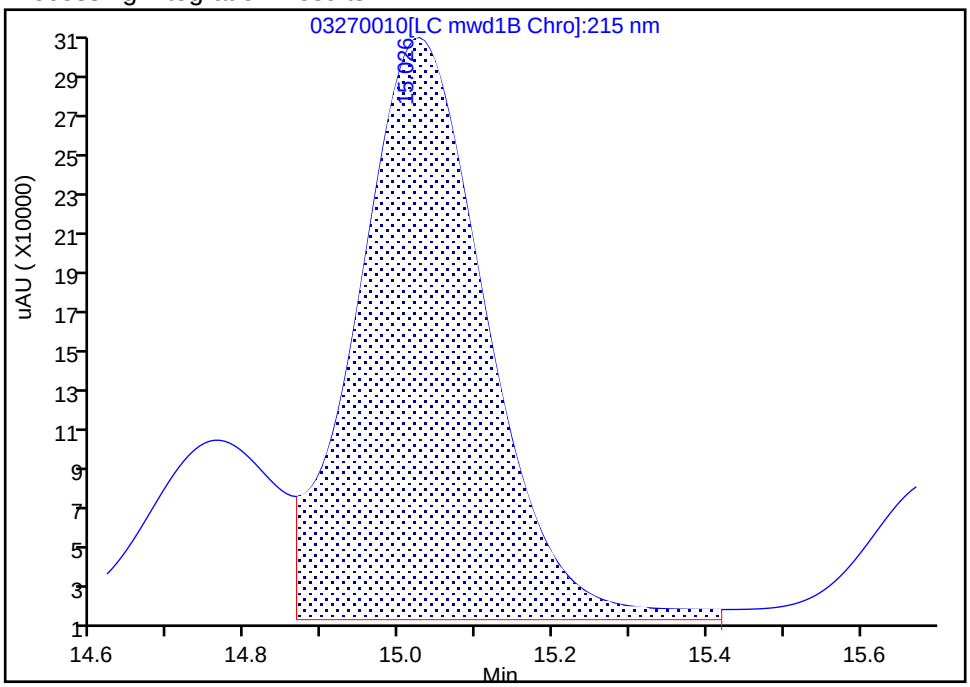
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270010.D				
Injection Date:	27-Mar-2024 19:58:57	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 9				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	10	Worklist Smp#:	10
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1B, 215 nm		

13 Nitroglycerin, CAS: 55-63-0

Signal: 1

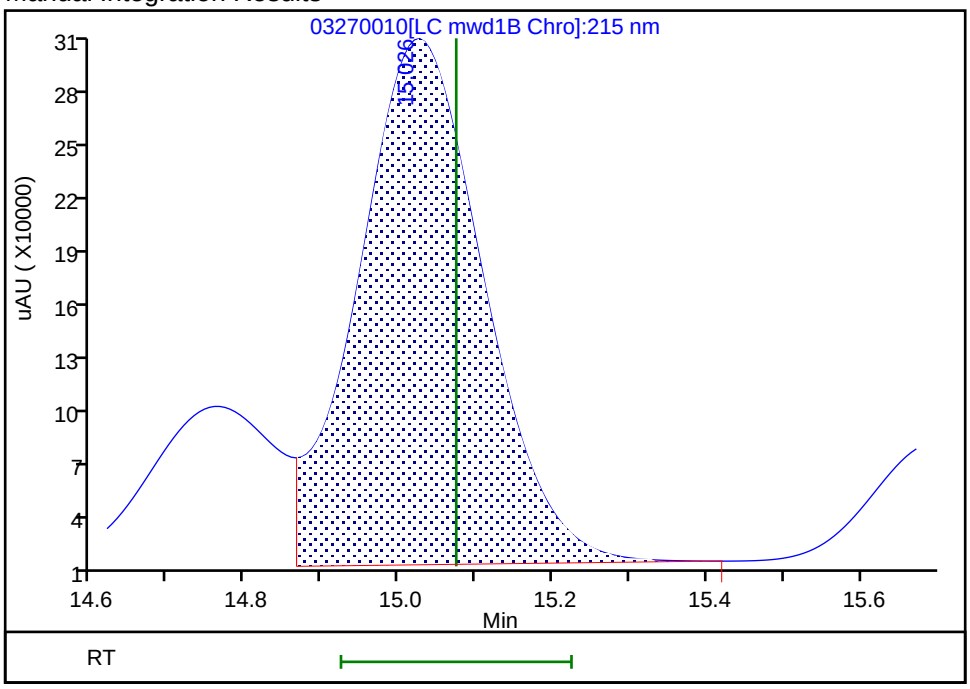
Processing Integration Results

RT: 15.03
Area: 3446477
Amount: 12.481393
Amount Units: ug/ml



Manual Integration Results

RT: 15.03
Area: 3317794
Amount: 24.505488
Amount Units: ug/ml



Reviewer: LV5D, 28-Mar-2024 11:35:19 -06:00:00 (UTC)
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270011.D
Lims ID: IC INT 8
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 27-Mar-2024 20:33:55 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_X5
Sublist: chrom-8330_X5_Luna*sub7

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 28-Mar-2024 14:09:24 Calib Date: 28-Mar-2024 05:53:05
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1687

First Level Reviewer: LV5D Date: 28-Mar-2024 11:35:38

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
5 HMX	1	6.776	6.787	-0.011	176039	1.00	0.9184	
7 2,4,6-Trinitrophenol	1	7.829	7.934	-0.105	146238	1.00	0.9722	
8 RDX	1	8.862	8.881	-0.019	203312	1.00	0.9519	
9 Nitrobenzene	1	11.535	11.554	-0.019	367527	1.00	0.9730	
$ 10 1,2-Dinitrobenzene	1	12.555	12.581	-0.026	254825	1.00	0.9647	
11 3,5-Dinitroaniline	1	14.369	14.394	-0.025	435844	1.00	0.9884	
12 1,3-Dinitrobenzene	1	14.795	14.821	-0.026	599978	1.00	1.00	
13 Nitroglycerin	2	15.049	15.074	-0.025	1322106	10.0	9.77	M
14 o-Nitrotoluene	1	15.729	15.754	-0.025	239038	1.00	0.9664	
16 p-Nitrotoluene	1	15.995	16.021	-0.026	212404	1.00	0.9781	
17 4-Amino-2,6-dinitrotoluene	1	16.482	16.514	-0.032	274352	1.00	0.9843	
18 m-Nitrotoluene	1	16.855	16.881	-0.026	268594	1.00	0.99	
19 2-Amino-4,6-dinitrotoluene	1	17.362	17.394	-0.032	391883	1.00	0.9805	
20 1,3,5-Trinitrobenzene	1	17.789	17.807	-0.018	407003	1.00	0.9473	
21 2,6-Dinitrotoluene	1	18.795	18.827	-0.032	270529	1.00	0.99	
22 2,4-Dinitrotoluene	1	19.282	19.314	-0.032	542165	1.00	0.99	
23 Tetryl	1	22.709	22.741	-0.032	328904	1.00	0.9782	
24 2,4,6-Trinitrotoluene	1	23.676	23.707	-0.031	408906	1.00	0.9819	
25 PETN	2	24.649	24.687	-0.038	1323551	10.0	10.2	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330IntermStk_00079 Amount Added: 100.00 Units: uL

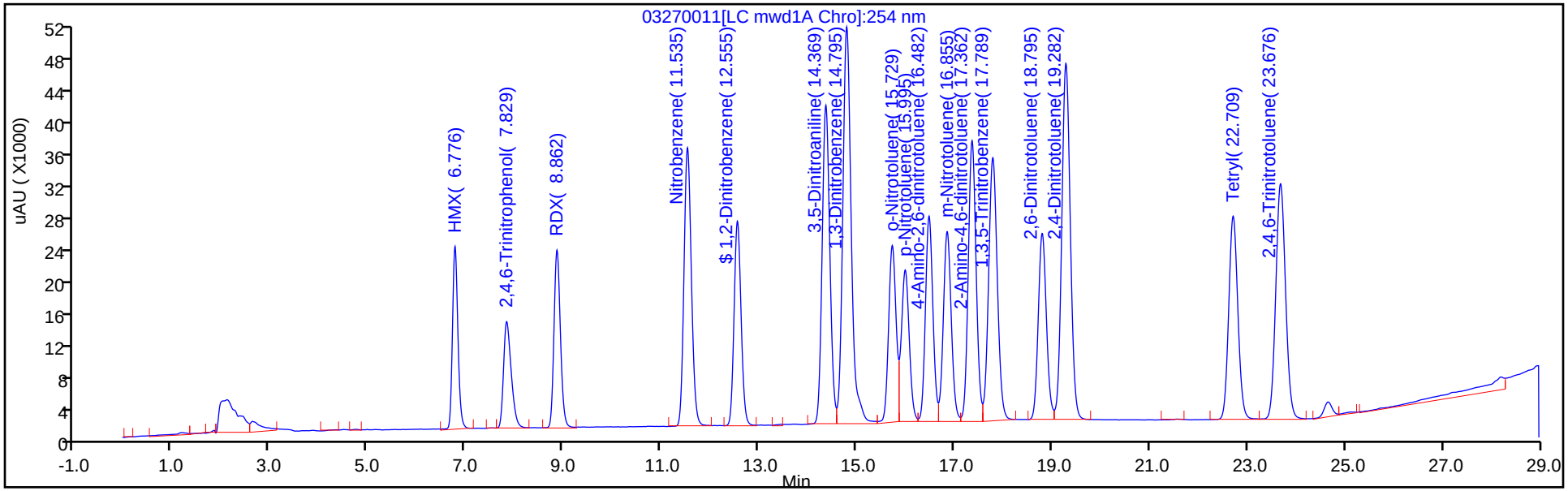
Report Date: 28-Mar-2024 14:09:25 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver

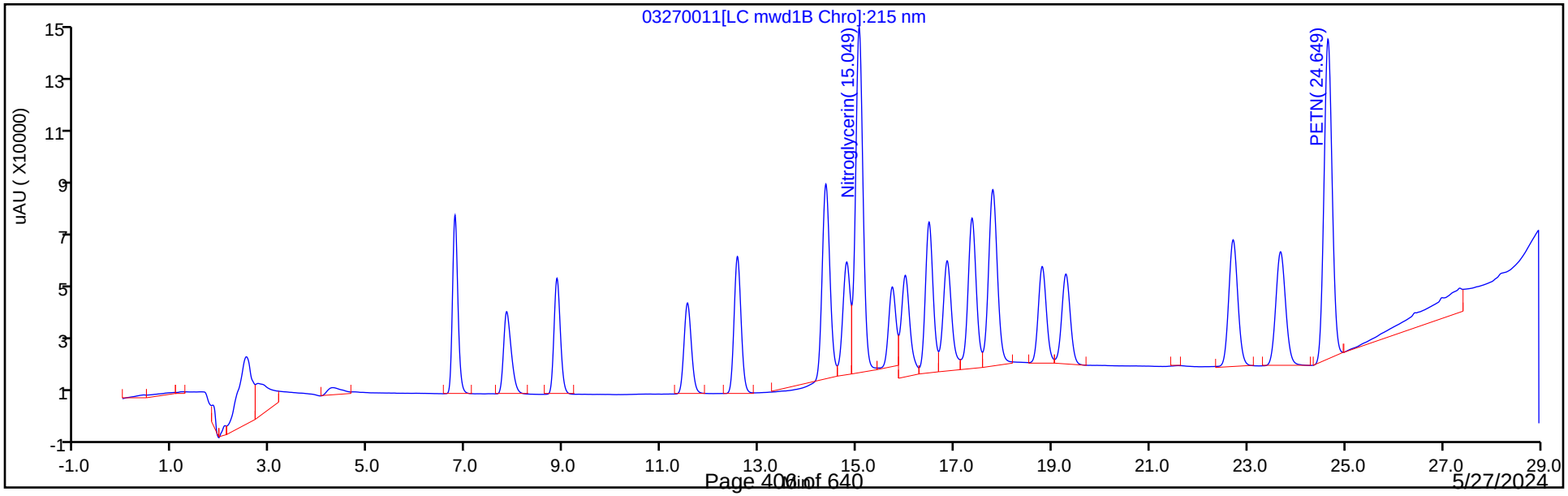
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270011.D

Injection Date:	27-Mar-2024 20:33:55	Instrument ID:	CHHPLC_X5	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:	8330_X5_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



5/27/2024
7:57:40 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

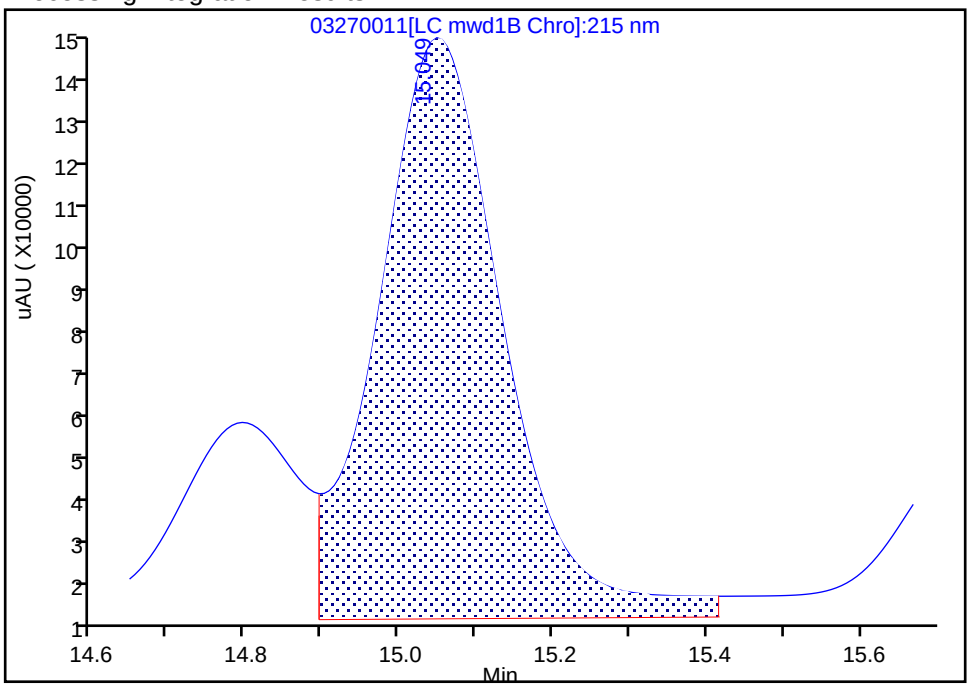
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270011.D				
Injection Date:	27-Mar-2024 20:33:55	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 8				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	11	Worklist Smp#:	11
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1B, 215 nm		

13 Nitroglycerin, CAS: 55-63-0

Signal: 1

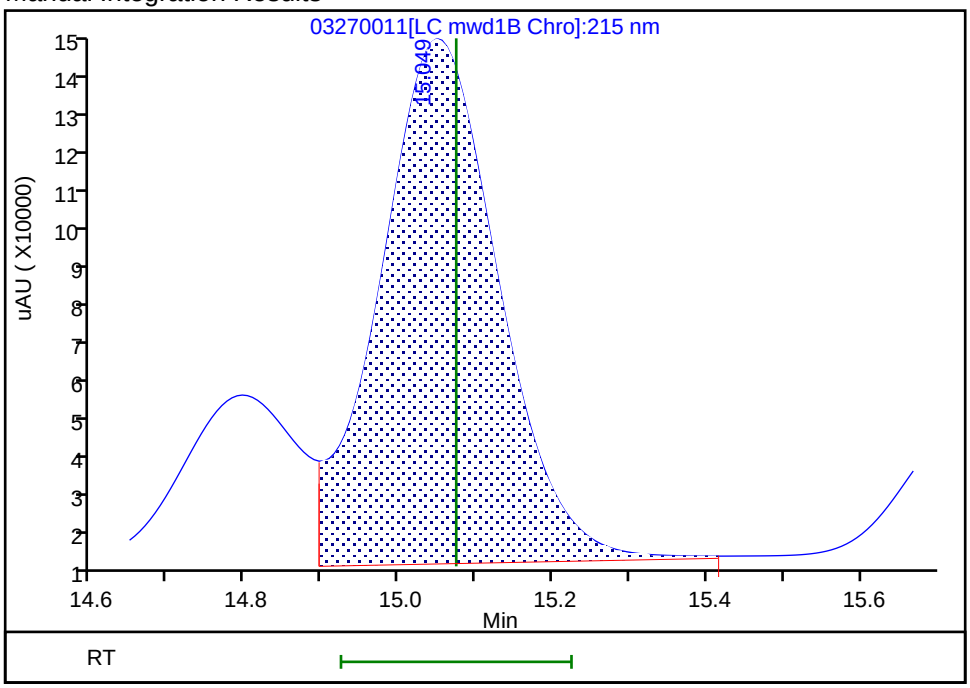
Processing Integration Results

RT: 15.05
Area: 1435019
Amount: 5.207698
Amount Units: ug/ml



Manual Integration Results

RT: 15.05
Area: 1322106
Amount: 9.765179
Amount Units: ug/ml



Reviewer: LV5D, 28-Mar-2024 11:35:36 -06:00:00 (UTC)
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270012.D
Lims ID: IC INT 7
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 27-Mar-2024 21:08:51 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_X5
Sublist: chrom-8330_X5_Luna*sub7

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 28-Mar-2024 14:09:26 Calib Date: 28-Mar-2024 05:53:05
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1687

First Level Reviewer: LV5D Date: 28-Mar-2024 11:35:47

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
5 HMX	1	6.776	6.787	-0.011	122924	0.7000	0.6413	
7 2,4,6-Trinitrophenol	1	7.862	7.934	-0.072	101830	0.7000	0.6770	
8 RDX	1	8.869	8.881	-0.012	141632	0.7000	0.6631	
9 Nitrobenzene	1	11.542	11.554	-0.012	256305	0.7000	0.6785	
$ 10 1,2-Dinitrobenzene	1	12.569	12.581	-0.012	177880	0.7000	0.6734	
11 3,5-Dinitroaniline	1	14.382	14.394	-0.012	304802	0.7000	0.6913	
12 1,3-Dinitrobenzene	1	14.809	14.821	-0.012	421120	0.7000	0.7038	
13 Nitroglycerin	2	15.062	15.074	-0.012	932056	7.00	6.88	M
14 o-Nitrotoluene	1	15.742	15.754	-0.012	168804	0.7000	0.6824	
16 p-Nitrotoluene	1	16.002	16.021	-0.019	152824	0.7000	0.7025	
17 4-Amino-2,6-dinitrotoluene	1	16.496	16.514	-0.018	194181	0.7000	0.6957	
18 m-Nitrotoluene	1	16.862	16.881	-0.019	191495	0.7000	0.7050	
19 2-Amino-4,6-dinitrotoluene	1	17.376	17.394	-0.018	276553	0.7000	0.6912	
20 1,3,5-Trinitrobenzene	1	17.796	17.807	-0.011	290999	0.7000	0.6773	
21 2,6-Dinitrotoluene	1	18.809	18.827	-0.018	195115	0.7000	0.7151	
22 2,4-Dinitrotoluene	1	19.302	19.314	-0.012	382126	0.7000	0.6992	
23 Tetryl	1	22.722	22.741	-0.019	229246	0.7000	0.6818	
24 2,4,6-Trinitrotoluene	1	23.696	23.707	-0.011	284522	0.7000	0.6832	
25 PETN	2	24.669	24.687	-0.018	917804	7.00	7.05	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330IntermStk_00079 Amount Added: 70.00 Units: uL

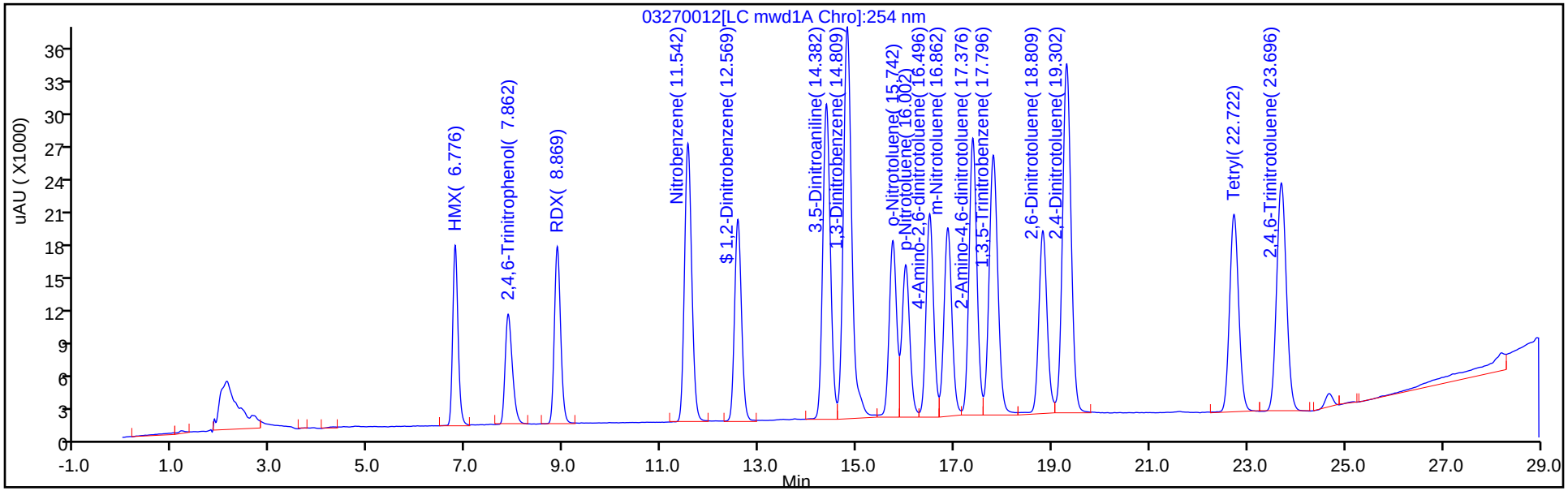
Report Date: 28-Mar-2024 14:09:26 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver

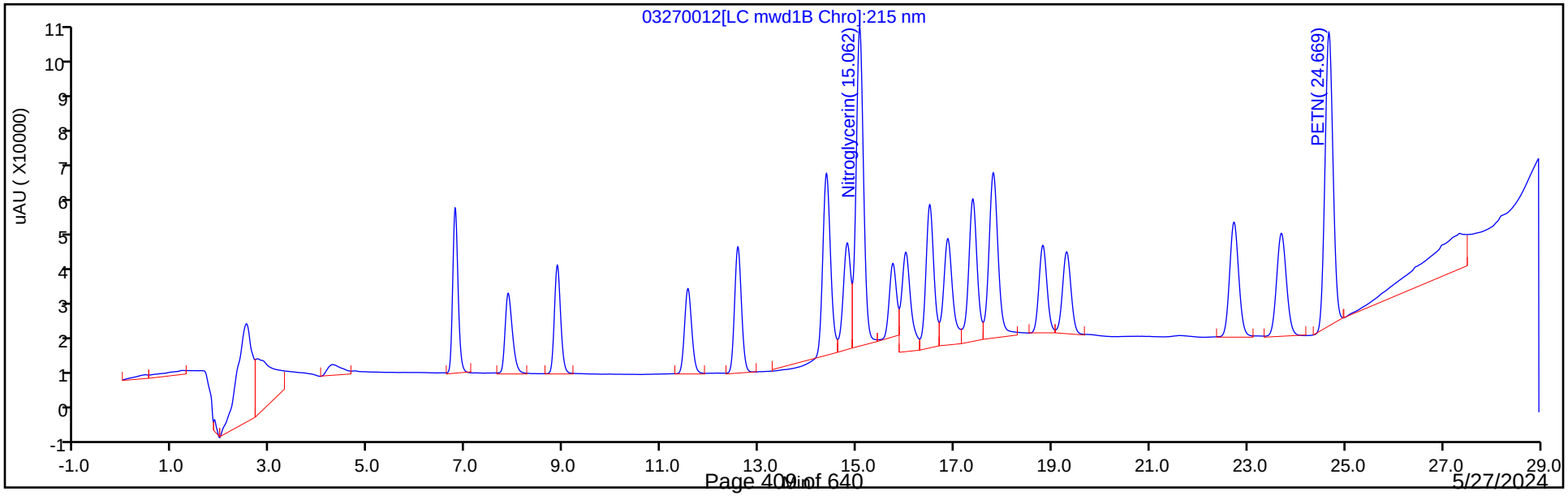
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270012.D

Injection Date:	27-Mar-2024 21:08:51	Instrument ID:	CHHPLC_X5	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:	8330_X5_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



5/27/2024
7:57:40 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

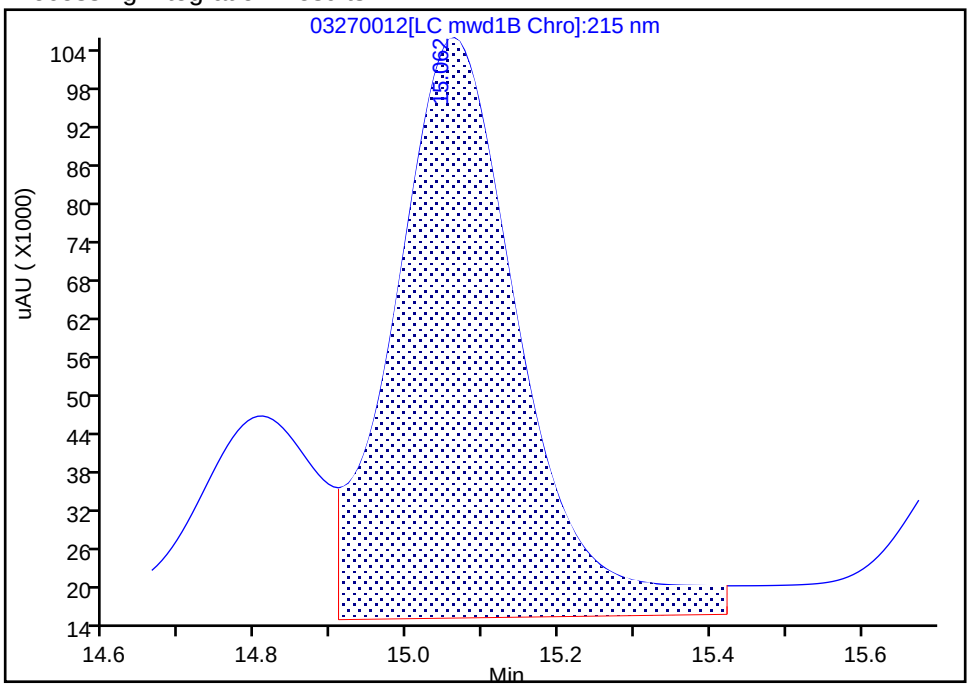
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270012.D				
Injection Date:	27-Mar-2024 21:08:51	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 7				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	12	Worklist Smp#:	12
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1B, 215 nm		

13 Nitroglycerin, CAS: 55-63-0

Signal: 1

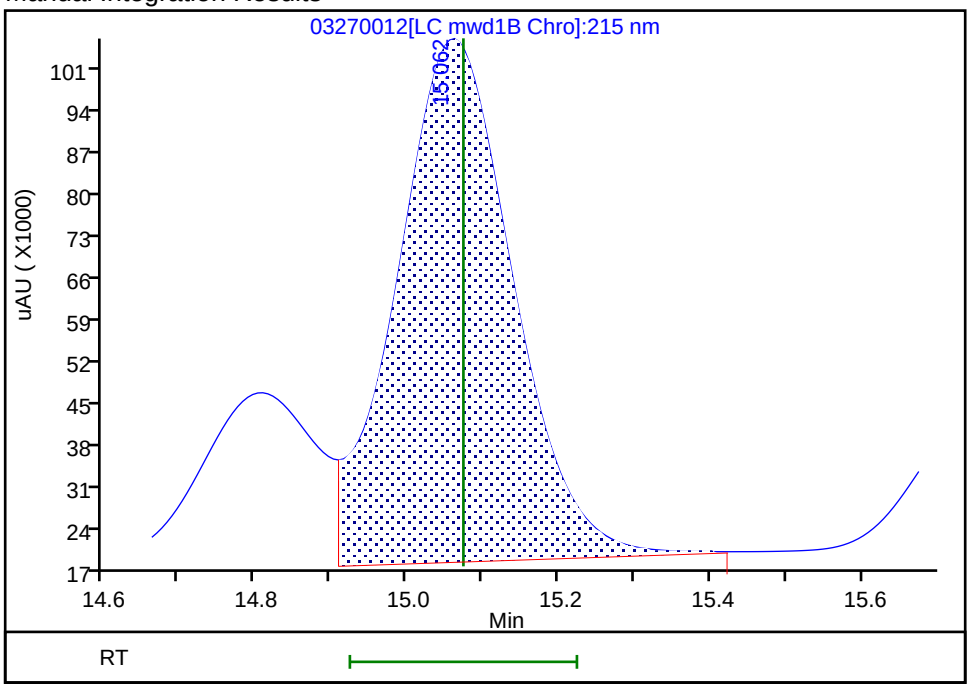
Processing Integration Results

RT: 15.06
Area: 1044814
Amount: 3.808982
Amount Units: ug/ml



Manual Integration Results

RT: 15.06
Area: 932056
Amount: 6.884239
Amount Units: ug/ml



Reviewer: LV5D, 28-Mar-2024 11:35:45 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270013.D
Lims ID: IC INT 6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 27-Mar-2024 21:43:46 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_X5
Sublist: chrom-8330_X5_Luna*sub7

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 28-Mar-2024 14:09:26 Calib Date: 28-Mar-2024 05:53:05
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1687

First Level Reviewer: LV5D Date: 28-Mar-2024 11:35:54

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
5 HMX	1	6.780	6.787	-0.007	71870	0.4000	0.3749	
7 2,4,6-Trinitrophenol	1	7.900	7.934	-0.034	58665	0.4000	0.3900	
8 RDX	1	8.873	8.881	-0.008	82139	0.4000	0.3846	
9 Nitrobenzene	1	11.546	11.554	-0.008	148265	0.4000	0.3925	
$ 10 1,2-Dinitrobenzene	1	12.573	12.581	-0.008	102985	0.4000	0.3899	
11 3,5-Dinitroaniline	1	14.386	14.394	-0.008	177203	0.4000	0.4019	
12 1,3-Dinitrobenzene	1	14.813	14.821	-0.008	247490	0.4000	0.4136	
13 Nitroglycerin	2	15.066	15.074	-0.008	543150	4.00	4.01	M
14 o-Nitrotoluene	1	15.746	15.754	-0.008	98000	0.4000	0.3962	
16 p-Nitrotoluene	1	16.013	16.021	-0.008	88722	0.4000	0.4061	
17 4-Amino-2,6-dinitrotoluene	1	16.500	16.514	-0.014	112872	0.4000	0.4031	
18 m-Nitrotoluene	1	16.866	16.881	-0.015	110632	0.4000	0.4046	
19 2-Amino-4,6-dinitrotoluene	1	17.380	17.394	-0.014	159194	0.4000	0.3969	
20 1,3,5-Trinitrobenzene	1	17.800	17.807	-0.007	165995	0.4000	0.3864	
21 2,6-Dinitrotoluene	1	18.813	18.827	-0.014	109904	0.4000	0.4028	
22 2,4-Dinitrotoluene	1	19.306	19.314	-0.008	219281	0.4000	0.4012	
23 Tetryl	1	22.733	22.741	-0.008	132022	0.4000	0.3926	
24 2,4,6-Trinitrotoluene	1	23.700	23.707	-0.007	164886	0.4000	0.3959	
25 PETN	2	24.680	24.687	-0.007	525075	4.00	4.05	M

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330IntermStk_00079 Amount Added: 40.00 Units: uL

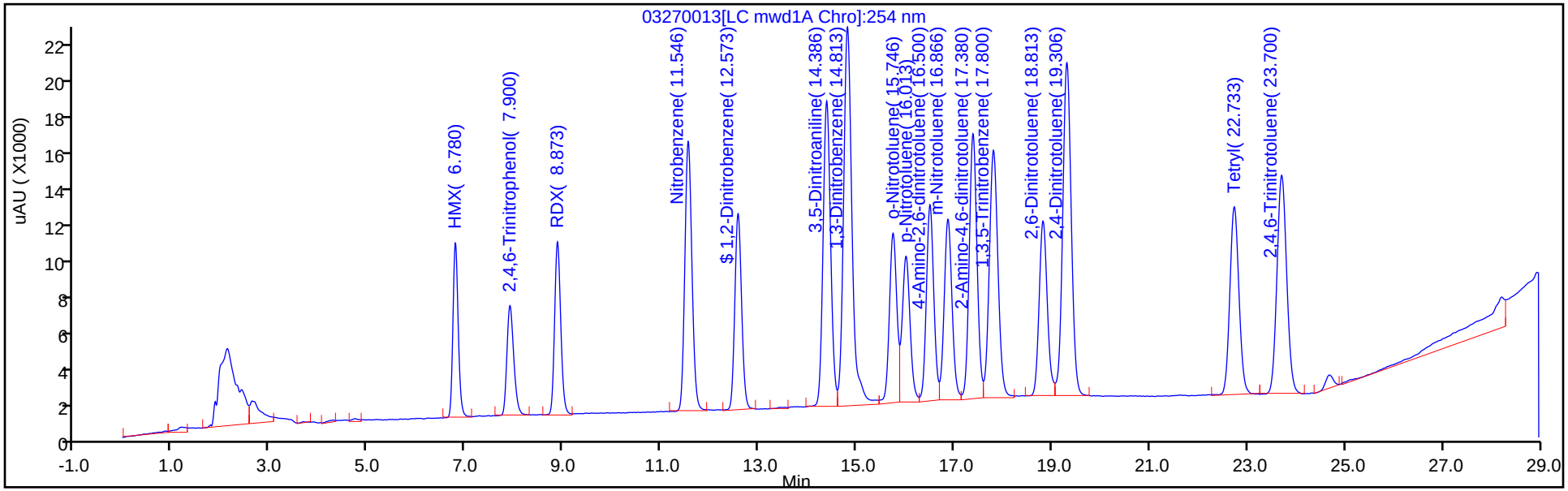
Report Date: 28-Mar-2024 14:09:27 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver

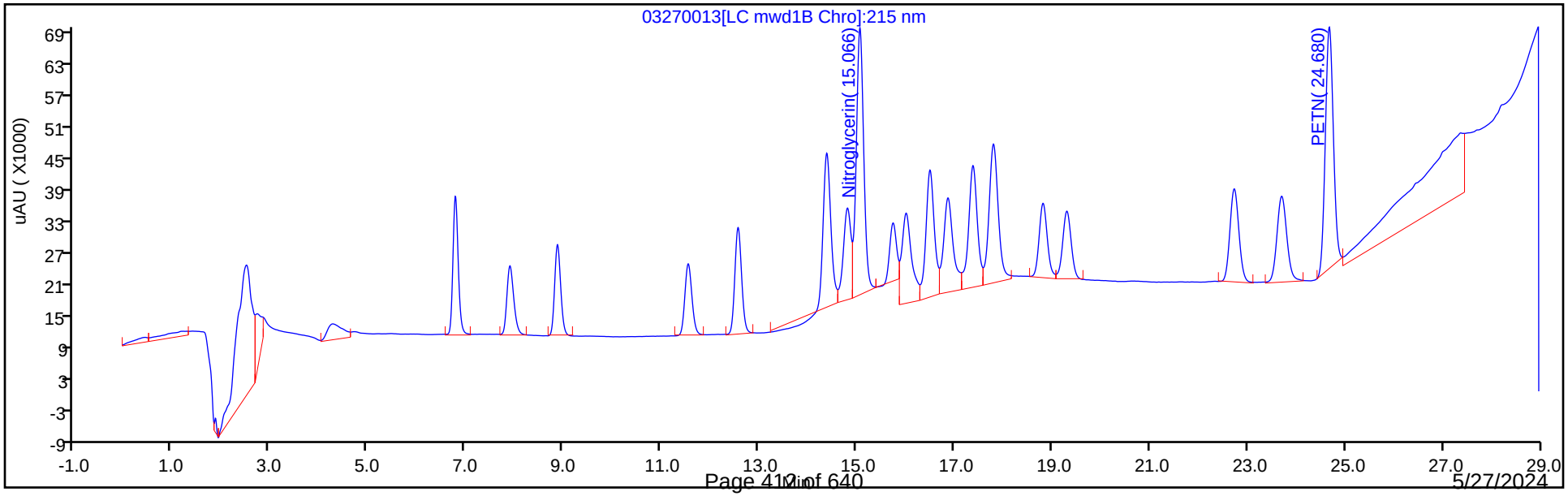
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270013.D

Injection Date:	27-Mar-2024 21:43:46	Instrument ID:	CHHPLC_X5	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:	8330_X5_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



5/27/2024
7:57:40 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

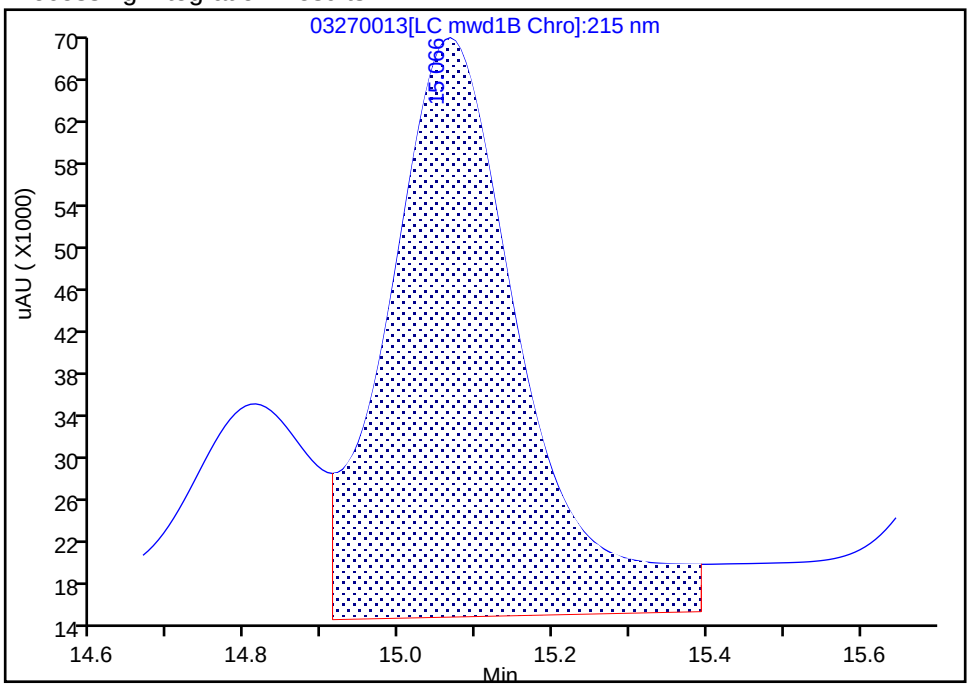
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270013.D				
Injection Date:	27-Mar-2024 21:43:46	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 6				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1B, 215 nm		

13 Nitroglycerin, CAS: 55-63-0

Signal: 1

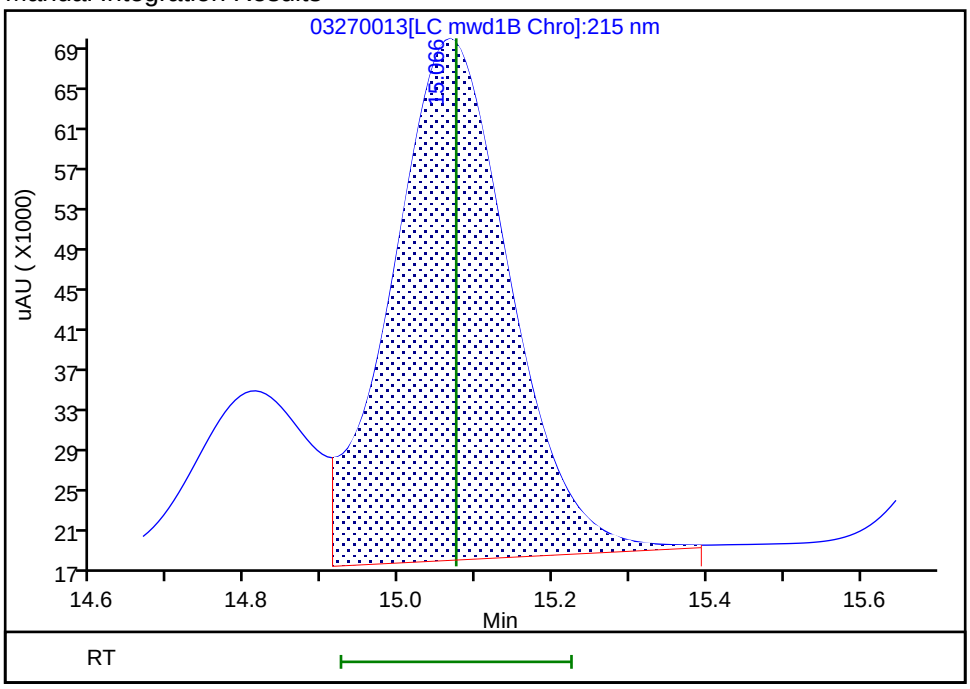
Processing Integration Results

RT: 15.07
Area: 652029
Amount: 2.392654
Amount Units: ug/ml



Manual Integration Results

RT: 15.07
Area: 543150
Amount: 4.011749
Amount Units: ug/ml



Reviewer: LV5D, 28-Mar-2024 11:35:52 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

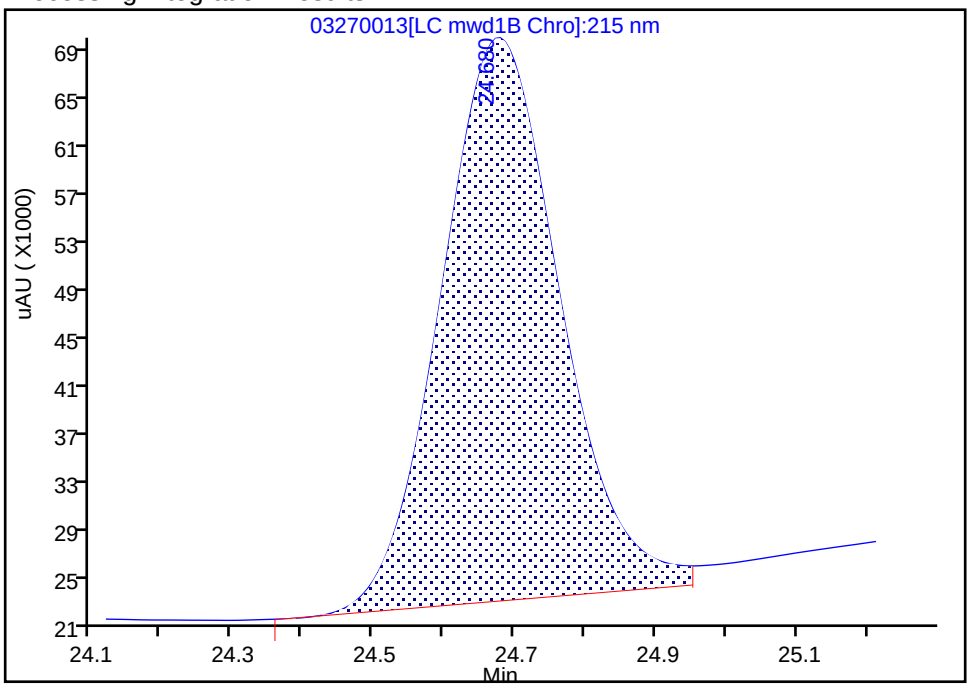
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270013.D
Injection Date: 27-Mar-2024 21:43:46 Instrument ID: CHHPLC_X5
Lims ID: IC INT 6
Client ID:
Operator ID: JZ/JG ALS Bottle#: 13 Worklist Smp#: 13
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X5_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC mwd1B, 215 nm

25 PETN, CAS: 78-11-5

Signal: 1

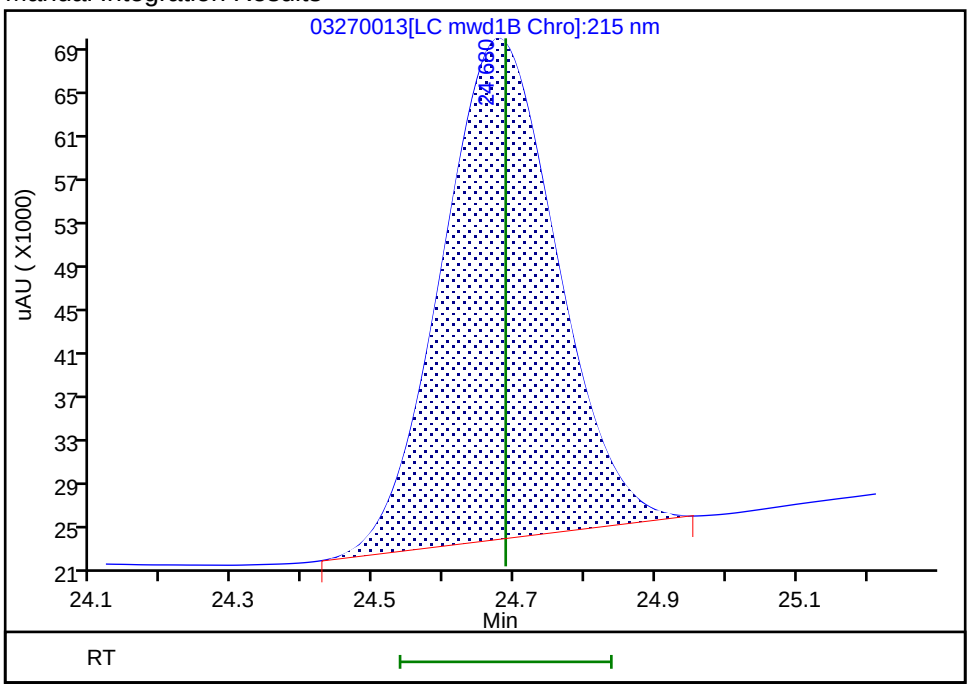
Processing Integration Results

RT: 24.68
Area: 552157
Amount: 4.031774
Amount Units: ug/ml



Manual Integration Results

RT: 24.68
Area: 525075
Amount: 4.049497
Amount Units: ug/ml



Reviewer: LV5D, 28-Mar-2024 11:39:31 -06:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270014.D
Lims ID: IC INT 5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 27-Mar-2024 22:18:46 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_X5
Sublist: chrom-8330_X5_Luna*sub7

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 28-Mar-2024 14:09:27 Calib Date: 28-Mar-2024 05:53:05
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1687

First Level Reviewer: LV5D Date: 28-Mar-2024 11:36:04

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
5 HMX	1	6.787	6.787	0.000	44644	0.2500	0.2329	
7 2,4,6-Trinitrophenol	1	7.934	7.934	0.000	36592	0.2500	0.2433	
8 RDX	1	8.881	8.881	0.000	51199	0.2500	0.2397	
9 Nitrobenzene	1	11.554	11.554	0.000	91228	0.2500	0.2415	
$ 10 1,2-Dinitrobenzene	1	12.581	12.581	0.000	63832	0.2500	0.2416	
11 3,5-Dinitroaniline	1	14.394	14.394	0.000	110304	0.2500	0.2502	M
12 1,3-Dinitrobenzene	1	14.821	14.821	0.000	152858	0.2500	0.2555	M
13 Nitroglycerin	2	15.074	15.074	0.000	330187	2.50	2.44	M
14 o-Nitrotoluene	1	15.754	15.754	0.000	62730	0.2500	0.2536	M
16 p-Nitrotoluene	1	16.021	16.021	0.000	55261	0.2500	0.2513	M
17 4-Amino-2,6-dinitrotoluene	1	16.514	16.514	0.000	70385	0.2500	0.2502	M
18 m-Nitrotoluene	1	16.881	16.881	0.000	69503	0.2500	0.2517	M
19 2-Amino-4,6-dinitrotoluene	1	17.394	17.394	0.000	99171	0.2500	0.2463	M
20 1,3,5-Trinitrobenzene	1	17.807	17.807	0.000	102407	0.2500	0.2384	M
21 2,6-Dinitrotoluene	1	18.827	18.827	0.000	69384	0.2500	0.2543	
22 2,4-Dinitrotoluene	1	19.314	19.314	0.000	138171	0.2500	0.2528	
23 Tetryl	1	22.741	22.741	0.000	82183	0.2500	0.2444	
24 2,4,6-Trinitrotoluene	1	23.707	23.707	0.000	102460	0.2500	0.2460	
25 PETN	2	24.687	24.687	0.000	322087	2.50	2.50	M

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

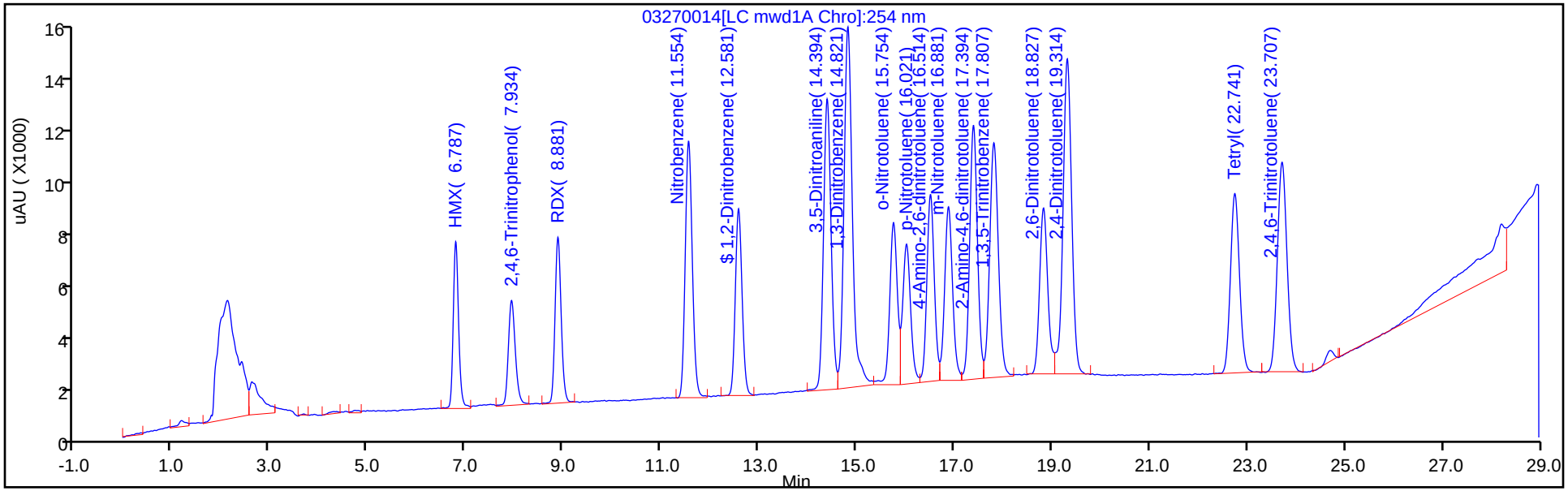
8330IntermStk_00079 Amount Added: 25.00 Units: uL

Report Date: 28-Mar-2024 14:09:28 Chrom Revision: 2.3 23-Feb-2024 16:51:14

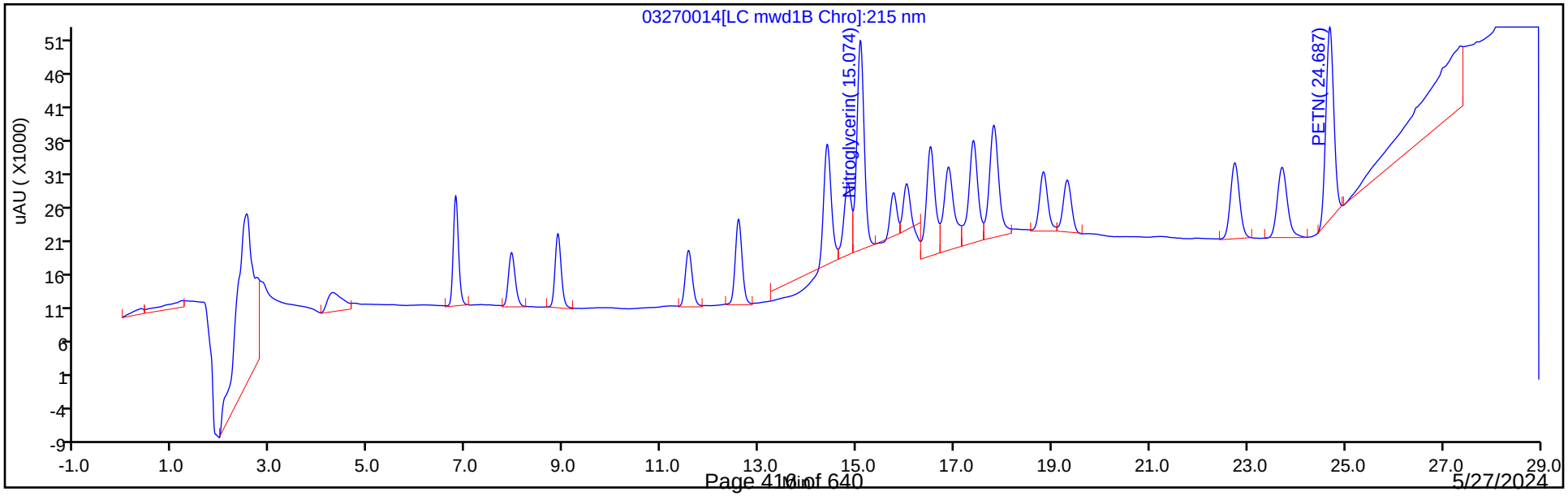
Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270014.D				
Injection Date:	27-Mar-2024 22:18:46	Instrument ID:	CHHPLC_X5	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:	8330_X5_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



5/27/2024
7:57:40 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

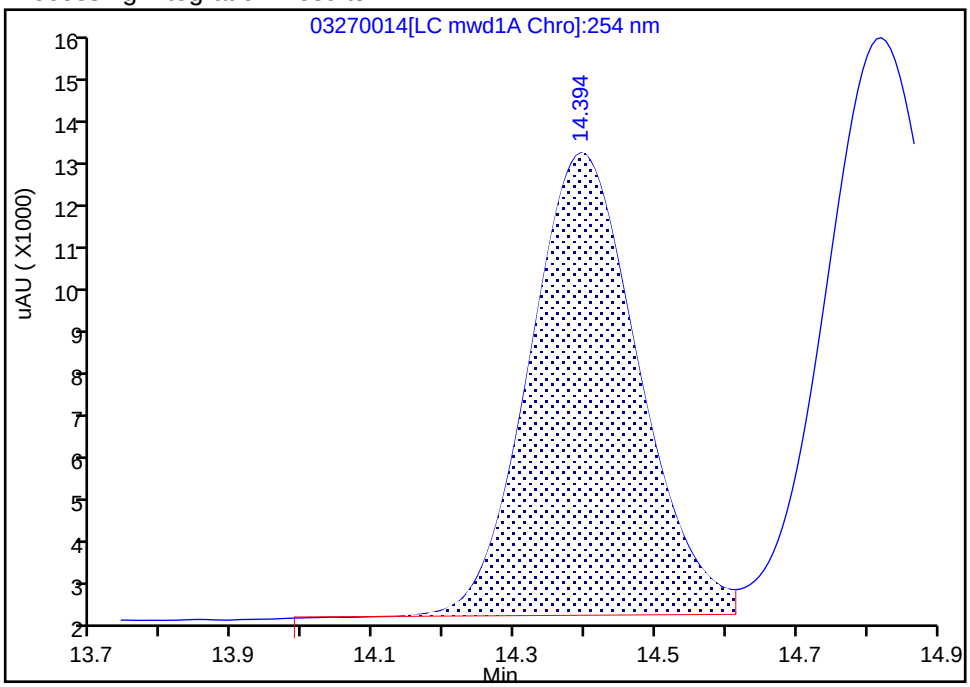
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270014.D
Injection Date: 27-Mar-2024 22:18:46 Instrument ID: CHHPLC_X5
Lims ID: IC INT 5
Client ID:
Operator ID: JZ/JG ALS Bottle#: 14 Worklist Smp#: 14
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X5_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC mwd1A, 254 nm

11 3,5-Dinitroaniline, CAS: 618-87-1

Signal: 1

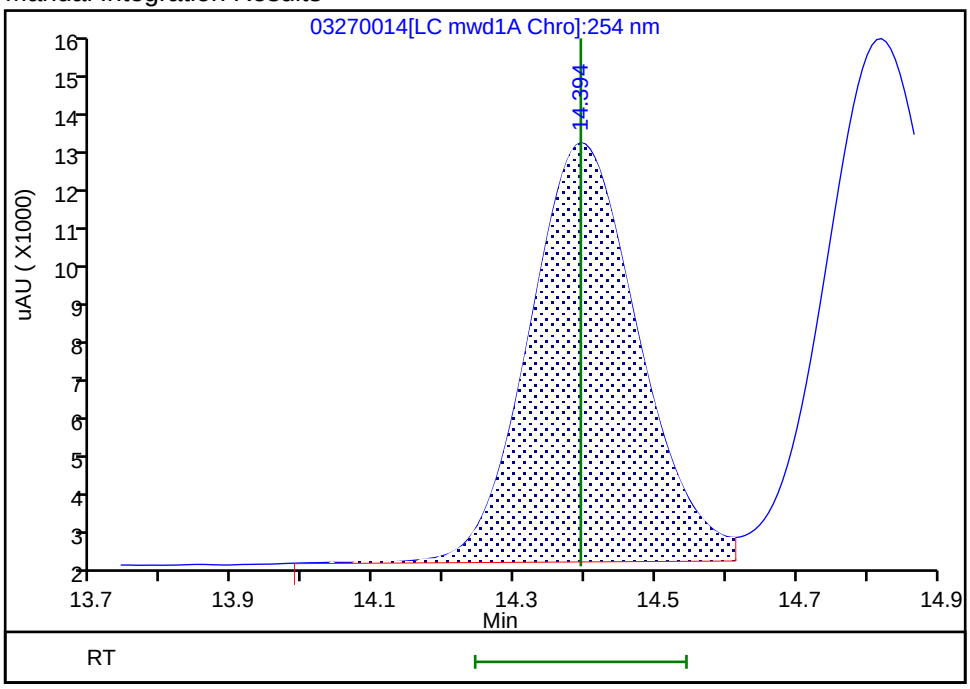
Processing Integration Results

RT: 14.39
Area: 110022
Amount: 0.249696
Amount Units: ug/ml



Manual Integration Results

RT: 14.39
Area: 110304
Amount: 0.250244
Amount Units: ug/ml



Reviewer: LV5D, 28-Mar-2024 12:08:56 -06:00:00 (UTC)
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

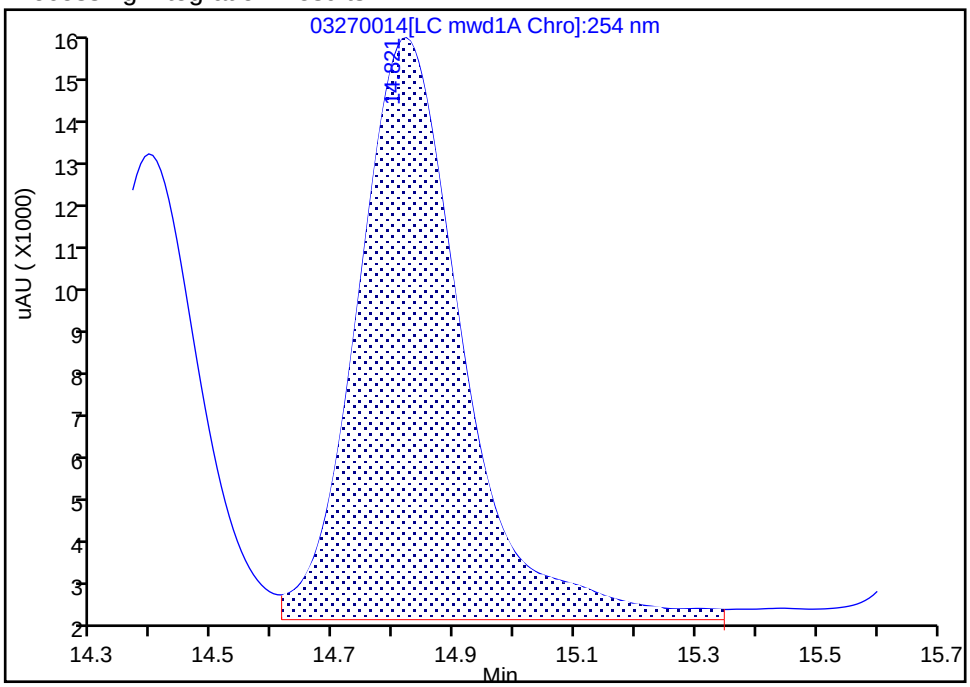
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270014.D				
Injection Date:	27-Mar-2024 22:18:46	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 5				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

12 1,3-Dinitrobenzene, CAS: 99-65-0

Signal: 1

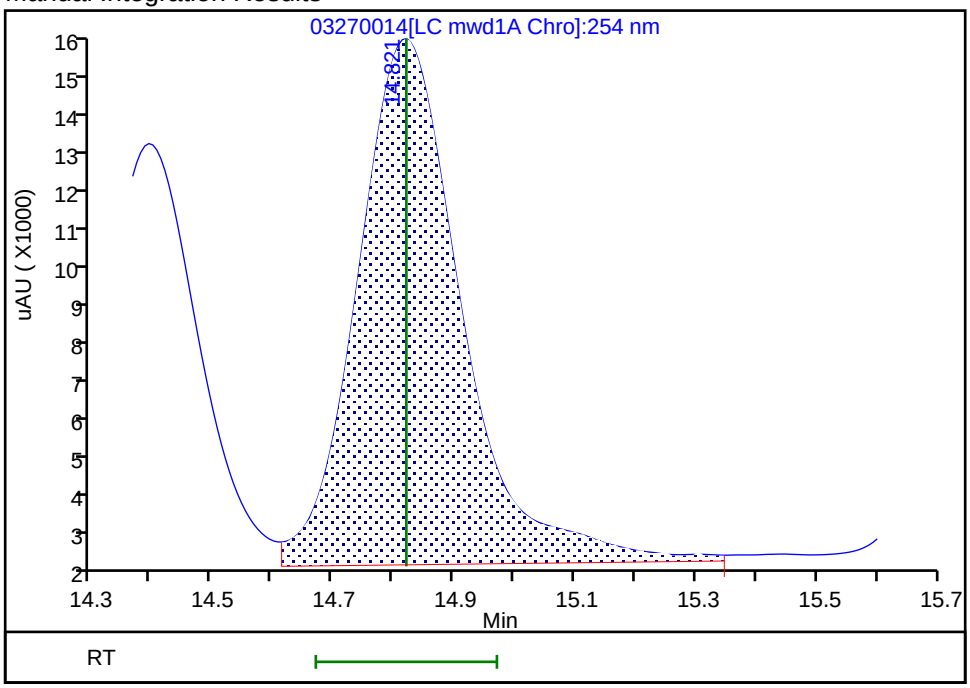
Processing Integration Results

RT: 14.82
Area: 154024
Amount: 0.257185
Amount Units: ug/ml



Manual Integration Results

RT: 14.82
Area: 152858
Amount: 0.255459
Amount Units: ug/ml



Reviewer: LV5D, 28-Mar-2024 12:08:56 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

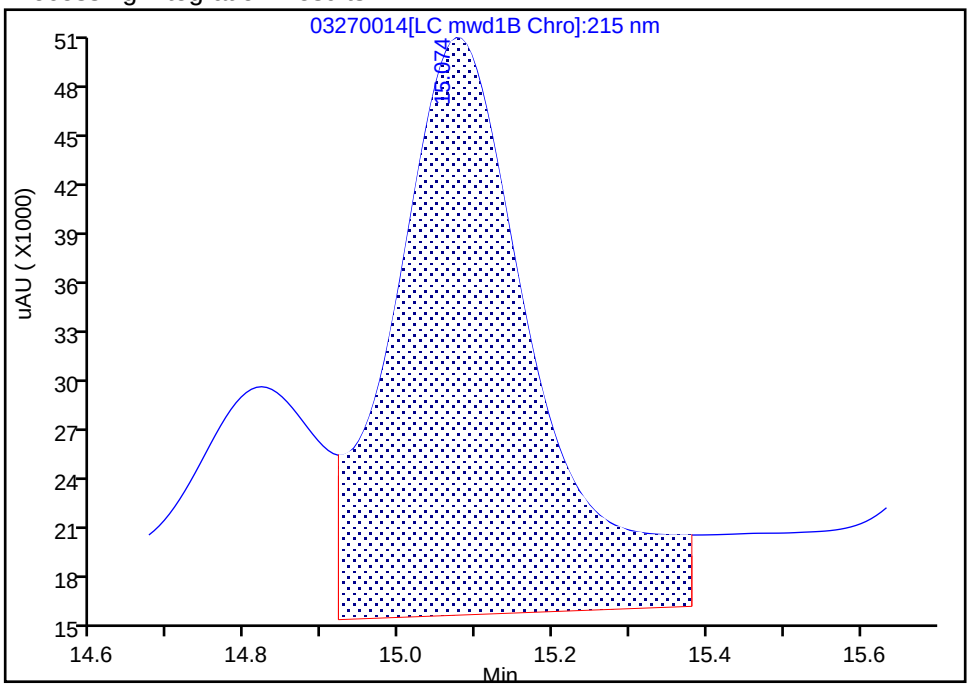
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270014.D
Injection Date: 27-Mar-2024 22:18:46 Instrument ID: CHHPLC_X5
Lims ID: IC INT 5
Client ID:
Operator ID: JZ/JG ALS Bottle#: 14 Worklist Smp#: 14
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X5_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC mwd1B, 215 nm

13 Nitroglycerin, CAS: 55-63-0

Signal: 1

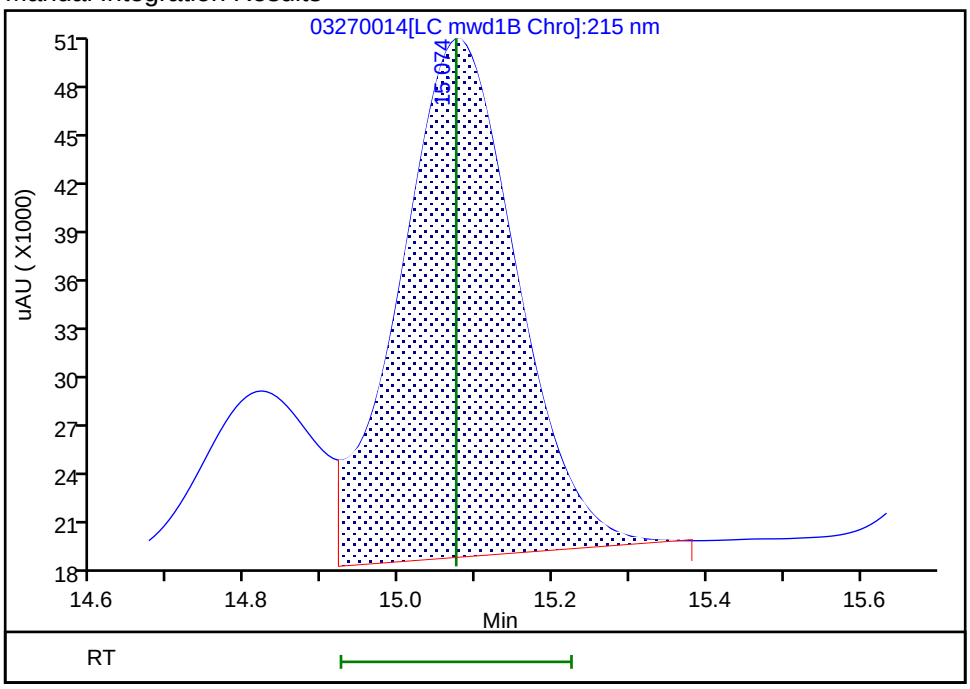
Processing Integration Results

RT: 15.07
Area: 442091
Amount: 1.640482
Amount Units: ug/ml



Manual Integration Results

RT: 15.07
Area: 330187
Amount: 2.438787
Amount Units: ug/ml



Reviewer: LV5D, 28-Mar-2024 11:36:02 -06:00:00 (UTC)
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

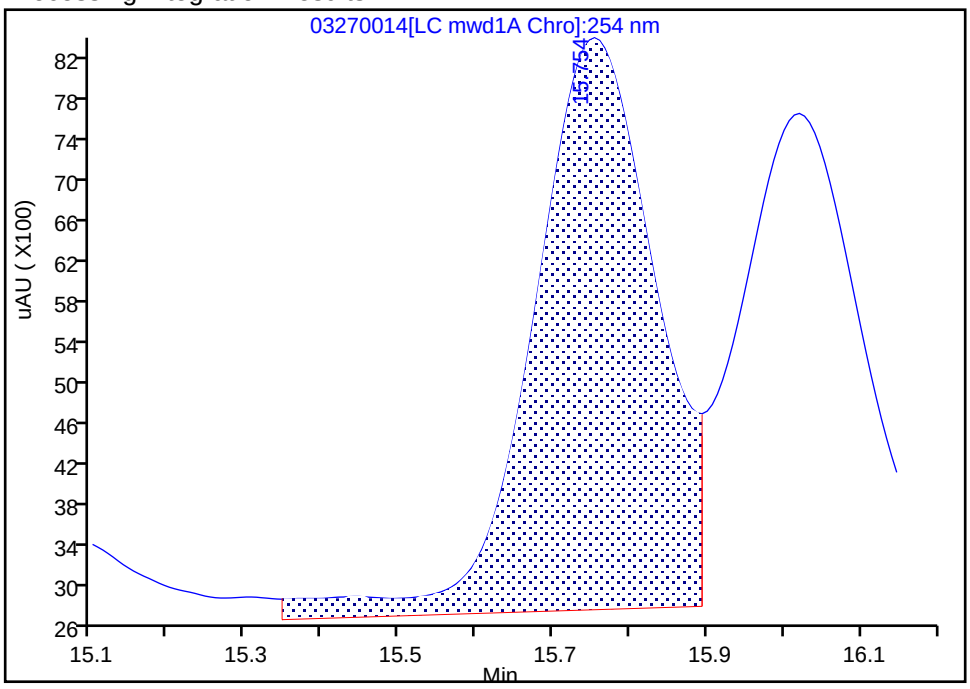
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270014.D				
Injection Date:	27-Mar-2024 22:18:46	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 5				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

14 o-Nitrotoluene, CAS: 88-72-2

Signal: 1

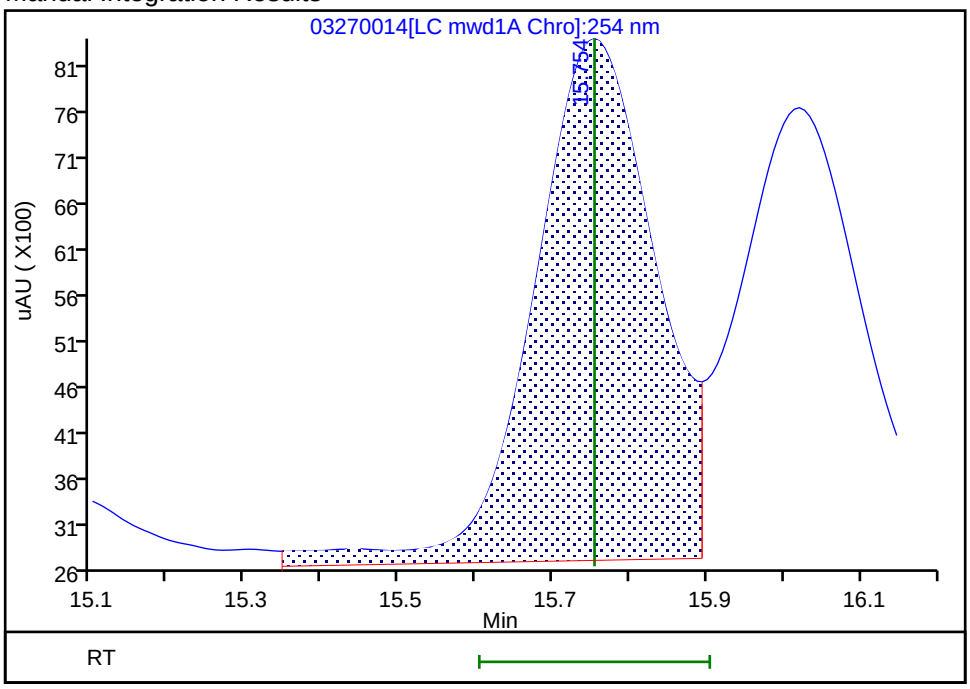
Processing Integration Results

RT: 15.75
Area: 63370
Amount: 0.255897
Amount Units: ug/ml



Manual Integration Results

RT: 15.75
Area: 62730
Amount: 0.253604
Amount Units: ug/ml



Reviewer: LV5D, 28-Mar-2024 12:08:56 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

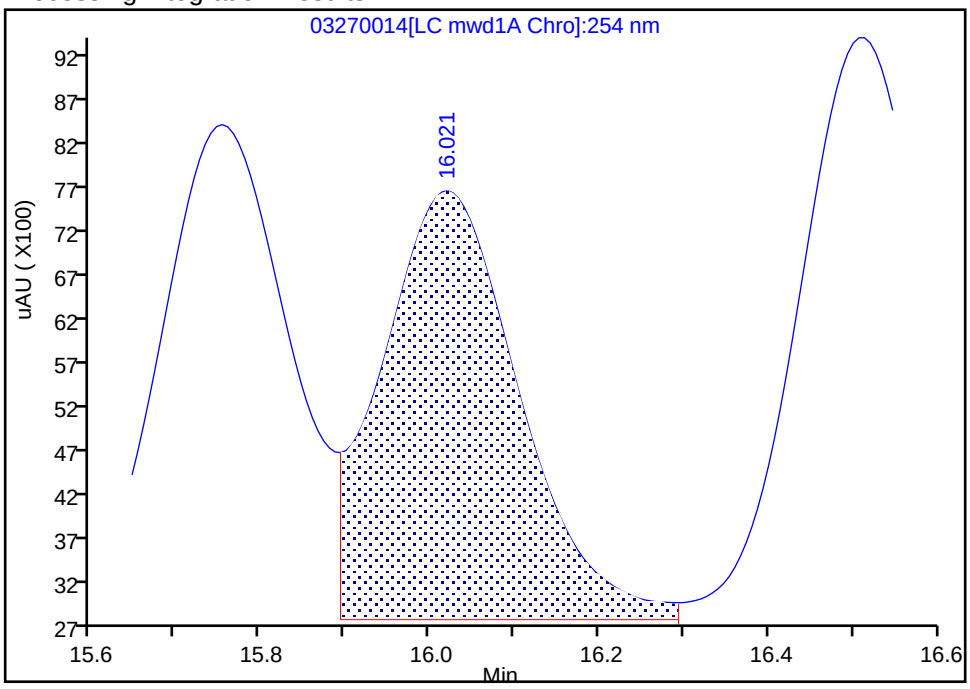
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270014.D				
Injection Date:	27-Mar-2024 22:18:46	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 5				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

16 p-Nitrotoluene, CAS: 99-99-0

Signal: 1

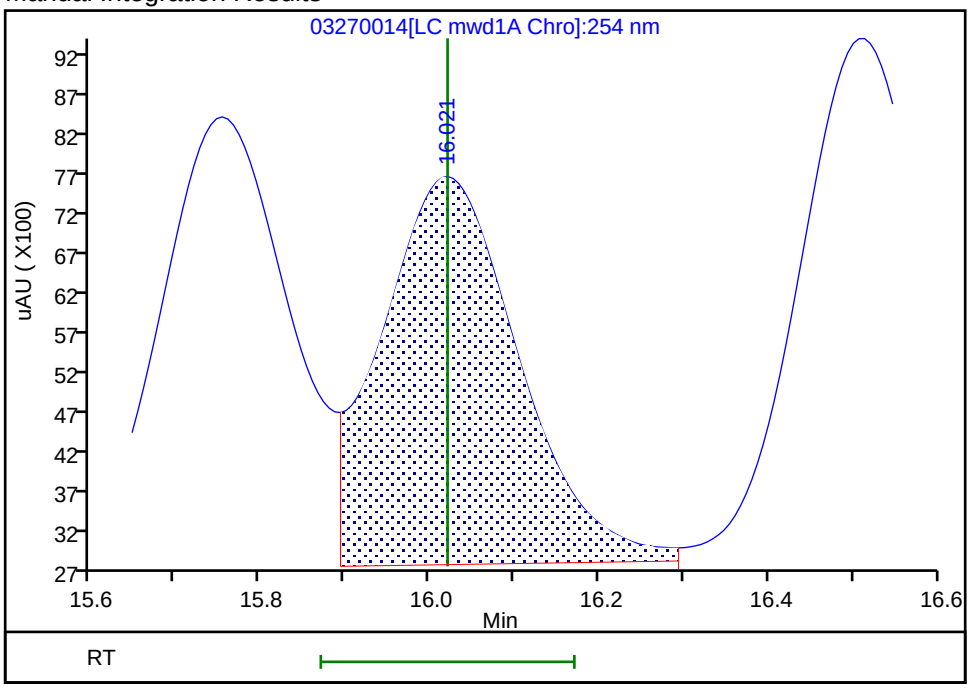
Processing Integration Results

RT: 16.02
Area: 55201
Amount: 0.234427
Amount Units: ug/ml



Manual Integration Results

RT: 16.02
Area: 55261
Amount: 0.251335
Amount Units: ug/ml



Reviewer: LV5D, 28-Mar-2024 12:08:56 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

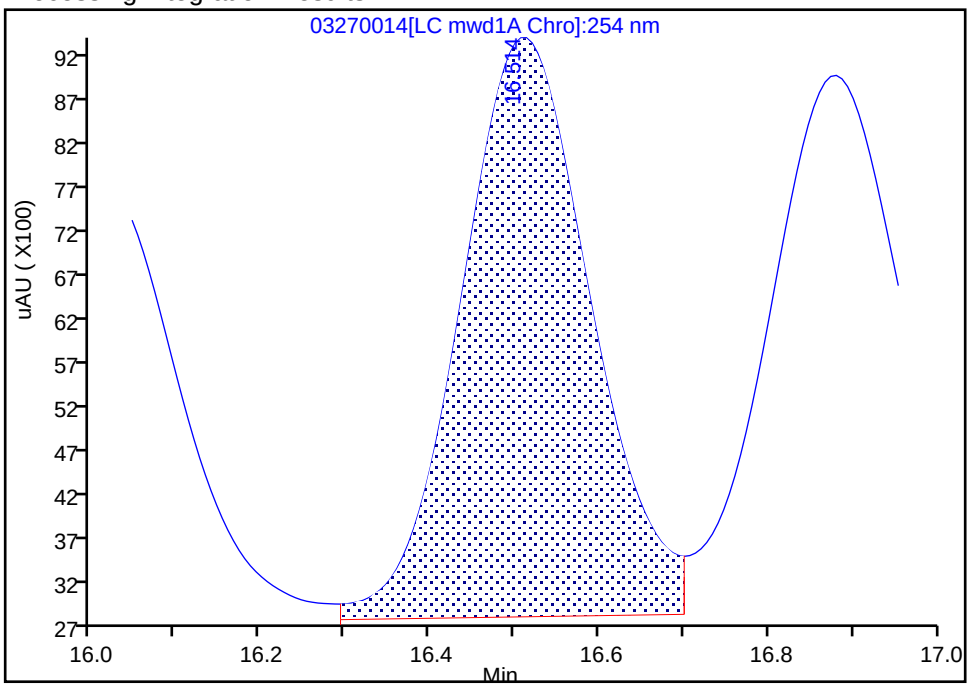
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270014.D				
Injection Date:	27-Mar-2024 22:18:46	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 5				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

17 4-Amino-2,6-dinitrotoluene, CAS: 19406-51-0

Signal: 1

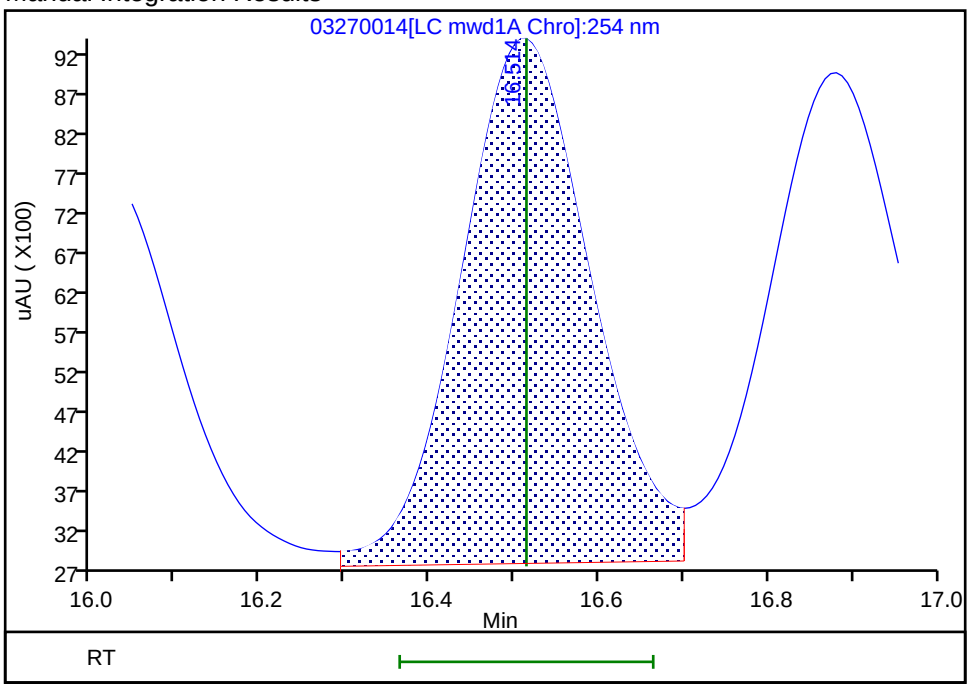
Processing Integration Results

RT: 16.51
Area: 70665
Amount: 0.238380
Amount Units: ug/ml



Manual Integration Results

RT: 16.51
Area: 70385
Amount: 0.250172
Amount Units: ug/ml



Reviewer: LV5D, 28-Mar-2024 12:08:56 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

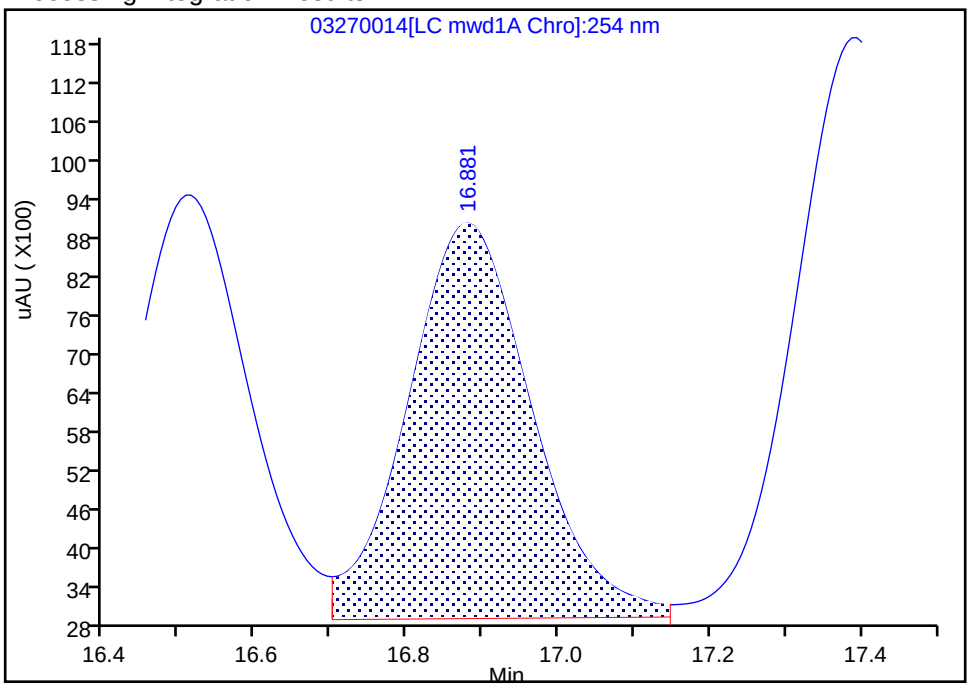
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270014.D				
Injection Date:	27-Mar-2024 22:18:46	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 5				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

18 m-Nitrotoluene, CAS: 99-08-1

Signal: 1

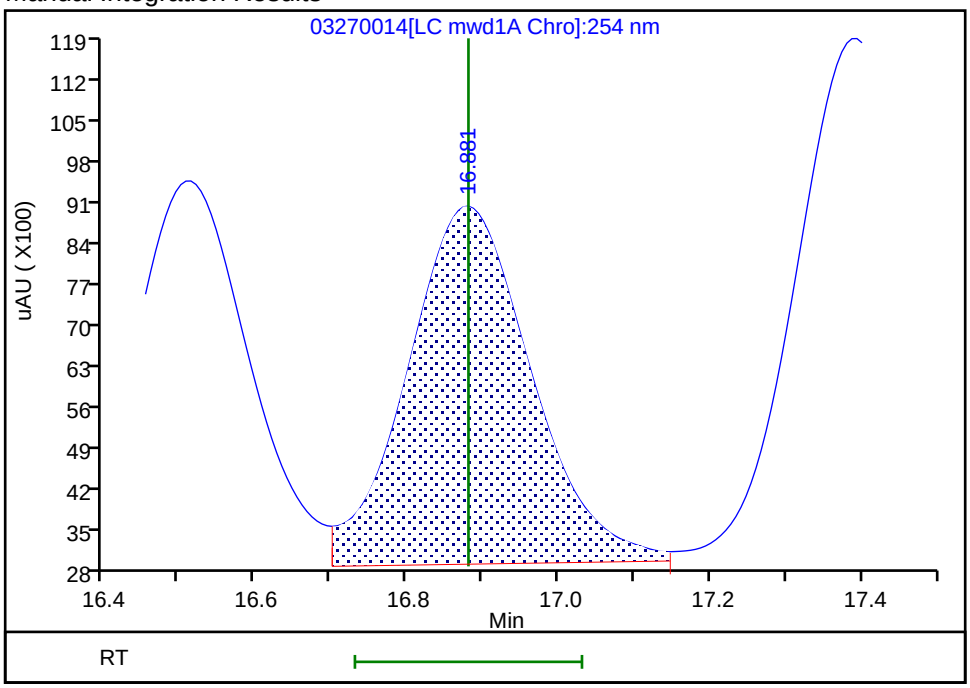
Processing Integration Results

RT: 16.88
Area: 69825
Amount: 0.228156
Amount Units: ug/ml



Manual Integration Results

RT: 16.88
Area: 69503
Amount: 0.251748
Amount Units: ug/ml



Reviewer: LV5D, 28-Mar-2024 12:08:56 -06:00:00 (UTC)
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

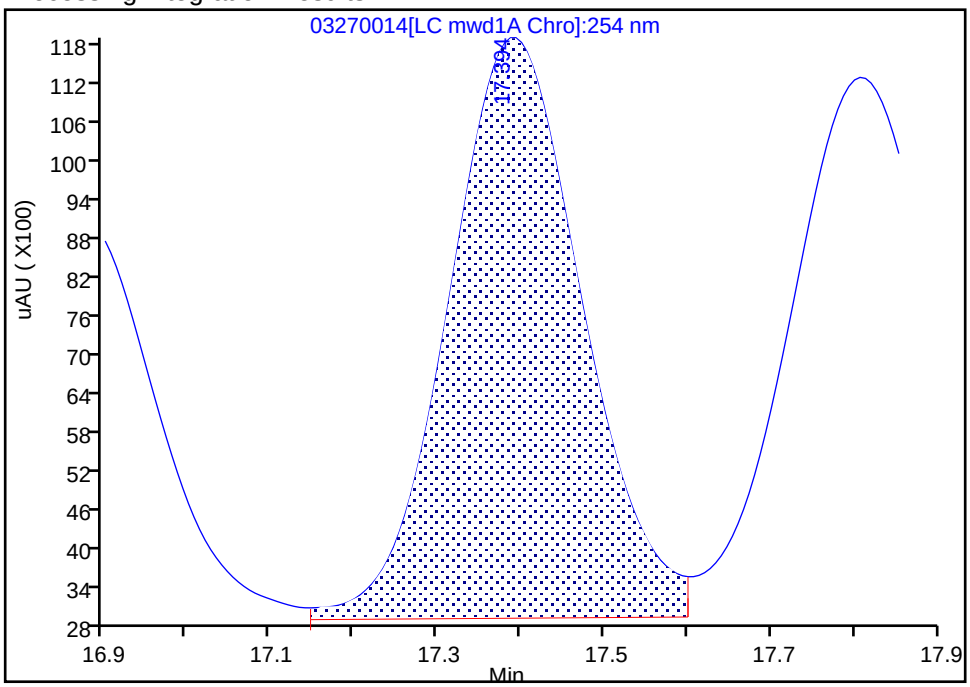
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270014.D				
Injection Date:	27-Mar-2024 22:18:46	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 5				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

19 2-Amino-4,6-dinitrotoluene, CAS: 35572-78-2

Signal: 1

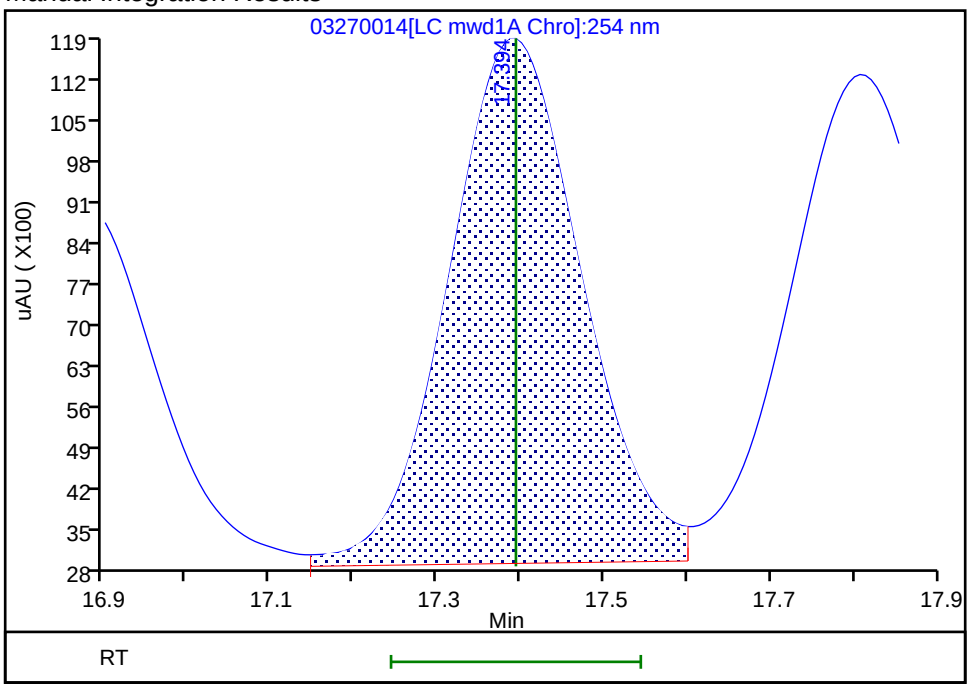
Processing Integration Results

RT: 17.39
Area: 99484
Amount: 0.237379
Amount Units: ug/ml



Manual Integration Results

RT: 17.39
Area: 99171
Amount: 0.246327
Amount Units: ug/ml



Reviewer: LV5D, 28-Mar-2024 12:08:56 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

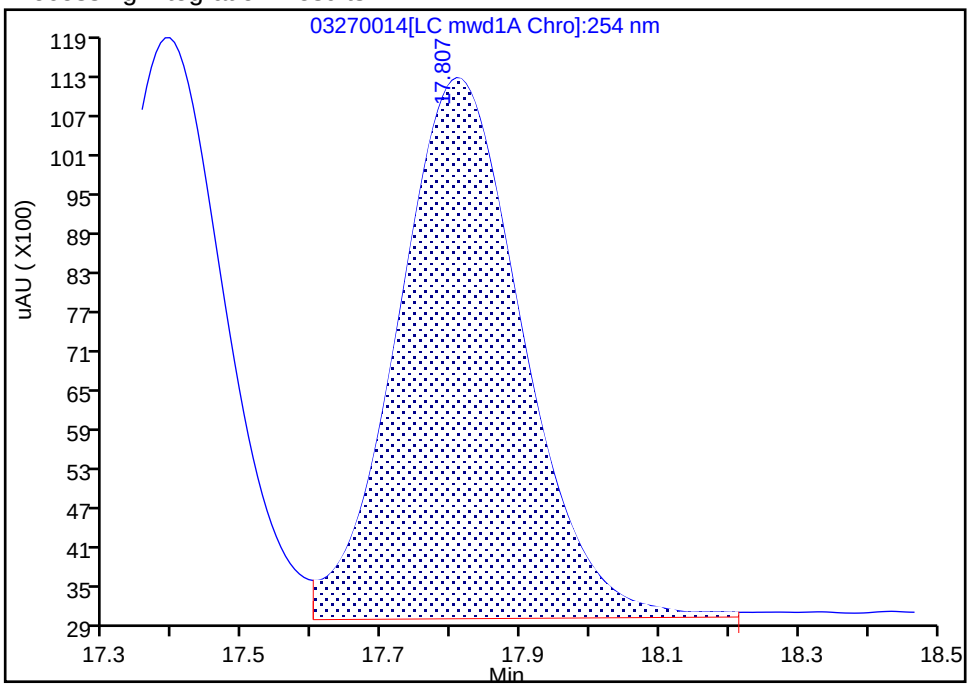
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270014.D				
Injection Date:	27-Mar-2024 22:18:46	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 5				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

20 1,3,5-Trinitrobenzene, CAS: 99-35-4

Signal: 1

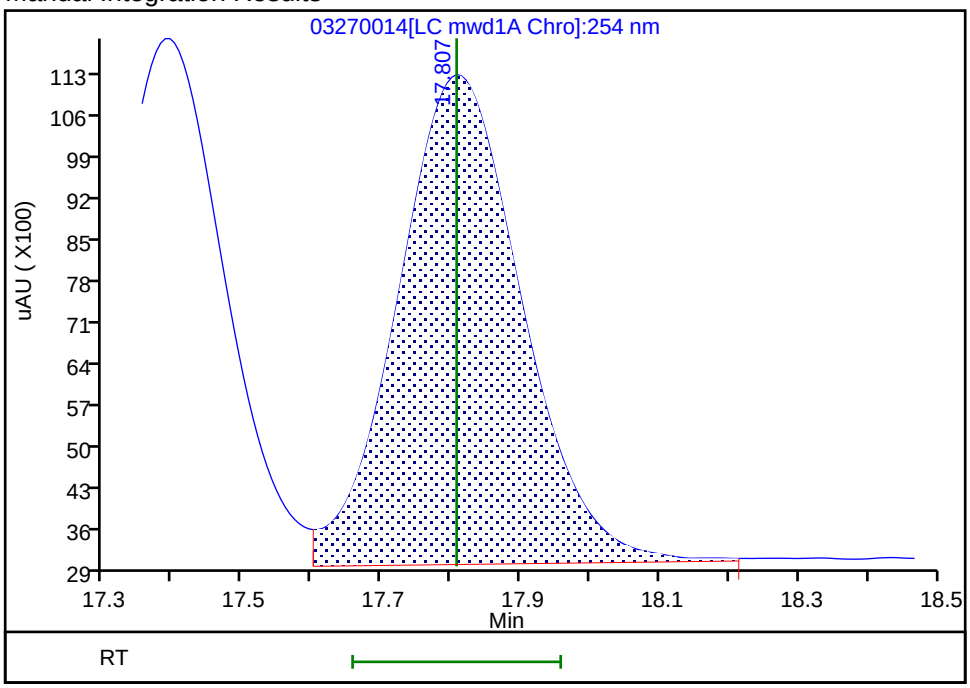
Processing Integration Results

RT: 17.81
Area: 103455
Amount: 0.240537
Amount Units: ug/ml



Manual Integration Results

RT: 17.81
Area: 102407
Amount: 0.238359
Amount Units: ug/ml



Reviewer: LV5D, 28-Mar-2024 12:08:56 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

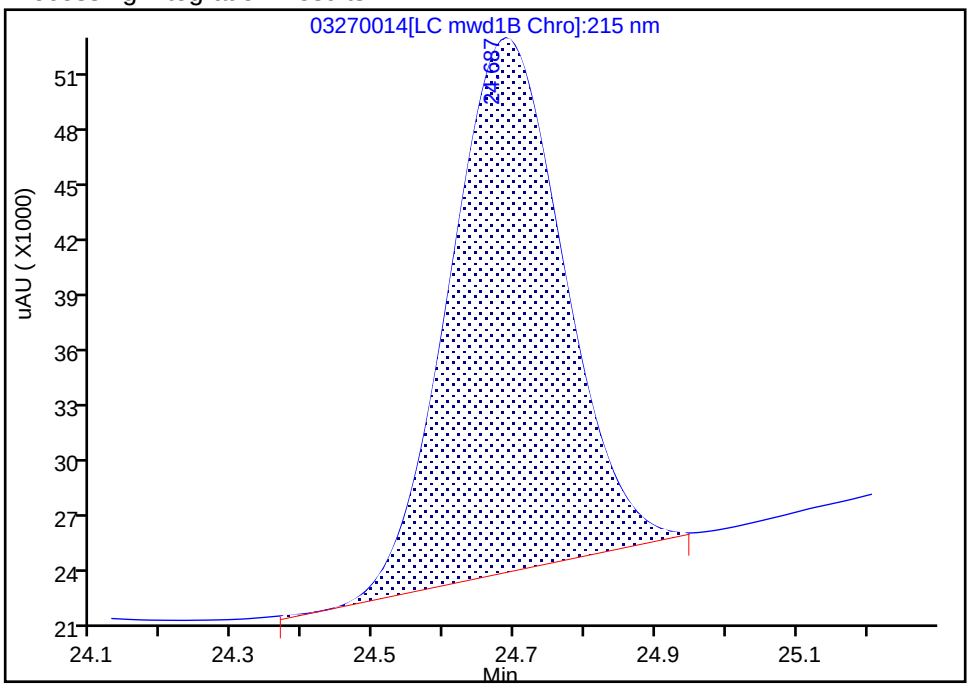
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270014.D				
Injection Date:	27-Mar-2024 22:18:46	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 5				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1B, 215 nm		

25 PETN, CAS: 78-11-5

Signal: 1

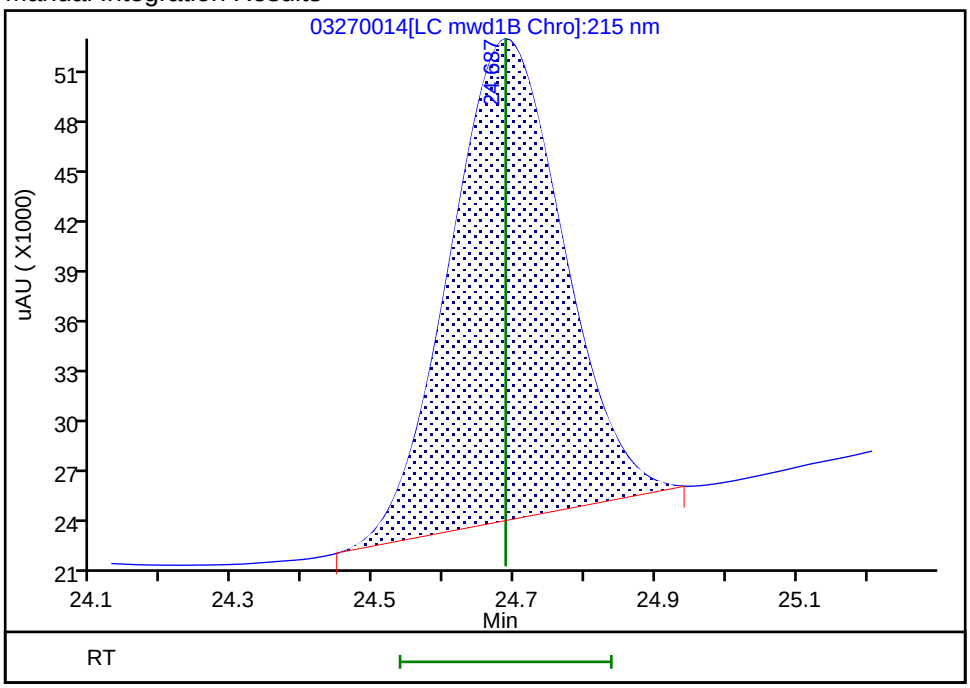
Processing Integration Results

RT: 24.69
Area: 324210
Amount: 2.380412
Amount Units: ug/ml



Manual Integration Results

RT: 24.69
Area: 322087
Amount: 2.497019
Amount Units: ug/ml



Reviewer: LV5D, 28-Mar-2024 11:39:37 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270015.D
Lims ID: IC INT 4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 27-Mar-2024 22:53:40 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_X5
Sublist: chrom-8330_X5_Luna*sub7

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 28-Mar-2024 14:09:28 Calib Date: 28-Mar-2024 05:53:05
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1687

First Level Reviewer: LV5D Date: 28-Mar-2024 14:07:46

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
5 HMX	1	6.792	6.787	0.005	18521	0.1000	0.0966	
7 2,4,6-Trinitrophenol	1	7.959	7.934	0.025	14935	0.1000	0.0993	
8 RDX	1	8.886	8.881	0.005	21066	0.1000	0.0986	
9 Nitrobenzene	1	11.566	11.554	0.012	37579	0.1000	0.0995	
$ 10 1,2-Dinitrobenzene	1	12.586	12.581	0.005	25950	0.1000	0.0982	
11 3,5-Dinitroaniline	1	14.399	14.394	0.005	45083	0.1000	0.1023	
12 1,3-Dinitrobenzene	1	14.826	14.821	0.005	63169	0.1000	0.1056	
13 Nitroglycerin	2	15.079	15.074	0.005	139113	1.00	1.03	M
14 o-Nitrotoluene	1	15.759	15.754	0.005	23970	0.1000	0.0969	
16 p-Nitrotoluene	1	16.026	16.021	0.005	22083	0.1000	0.0979	
17 4-Amino-2,6-dinitrotoluene	1	16.519	16.514	0.005	28535	0.1000	0.0995	
18 m-Nitrotoluene	1	16.892	16.881	0.011	28570	0.1000	0.0997	
19 2-Amino-4,6-dinitrotoluene	1	17.399	17.394	0.005	41030	0.1000	0.1005	
20 1,3,5-Trinitrobenzene	1	17.819	17.807	0.012	42679	0.1000	0.0993	
21 2,6-Dinitrotoluene	1	18.832	18.827	0.005	27556	0.1000	0.1010	
22 2,4-Dinitrotoluene	1	19.319	19.314	0.005	54196	0.1000	0.0992	M
23 Tetryl	1	22.746	22.741	0.005	33110	0.1000	0.0985	
24 2,4,6-Trinitrotoluene	1	23.712	23.707	0.005	41333	0.1000	0.0992	
25 PETN	2	24.692	24.687	0.005	125929	1.00	1.00	M

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330IntermStk_00079 Amount Added: 10.00 Units: uL

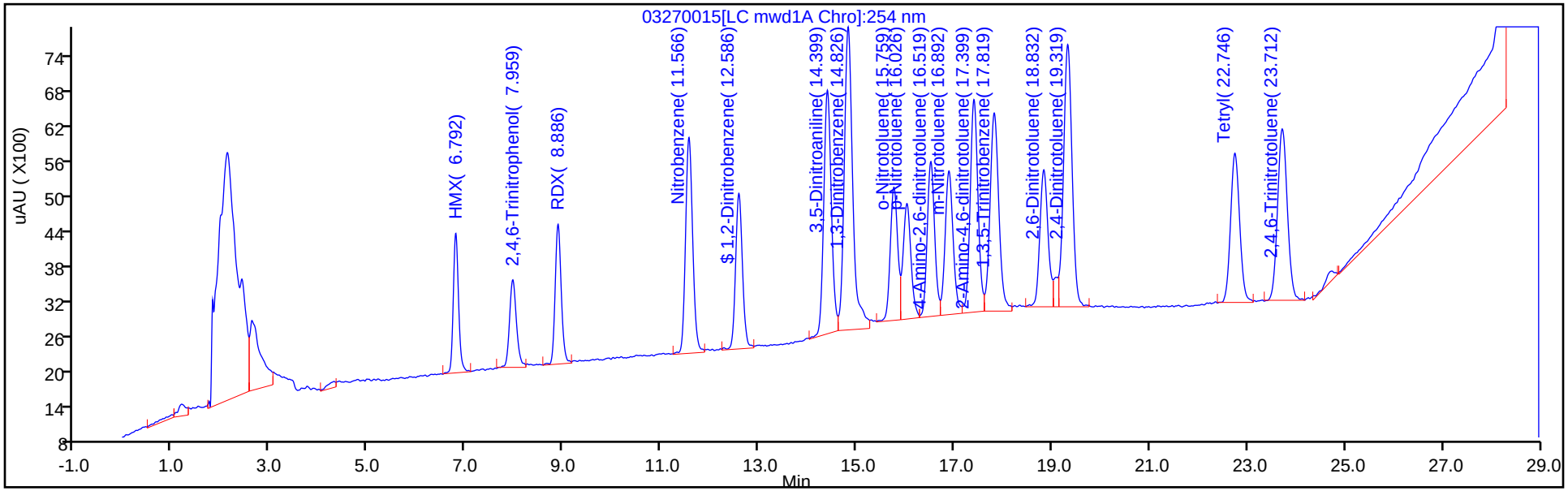
Report Date: 28-Mar-2024 14:09:29 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver

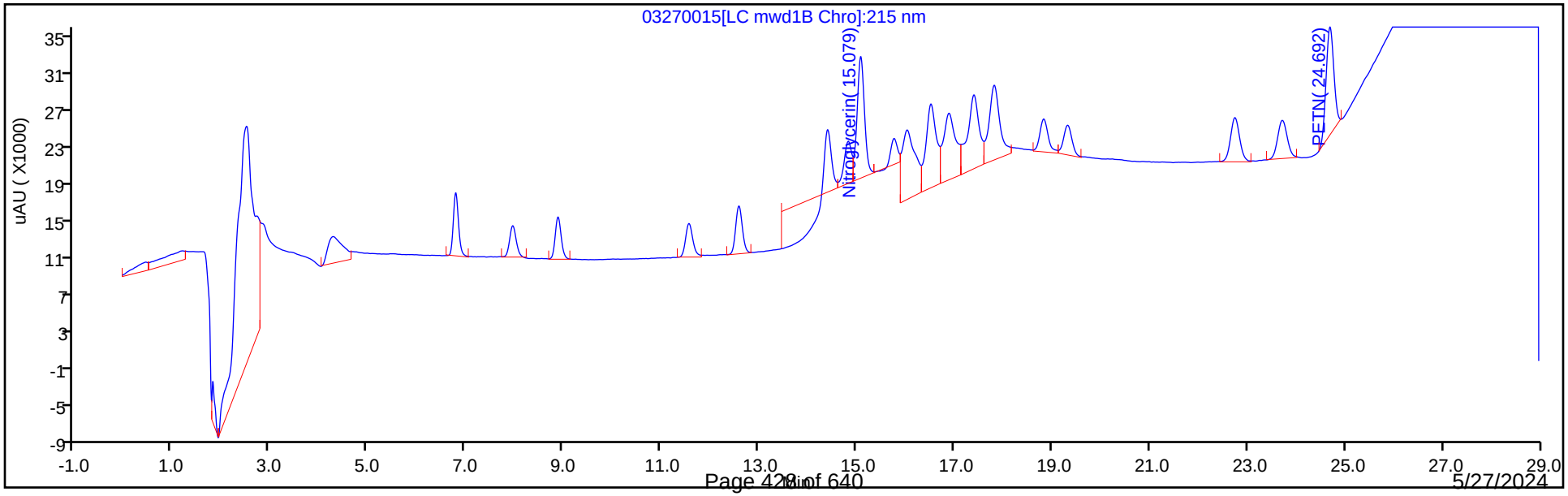
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270015.D

Injection Date:	27-Mar-2024 22:53:40	Instrument ID:	CHHPLC_X5	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:	8330_X5_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



5/27/2024
7:57:40 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

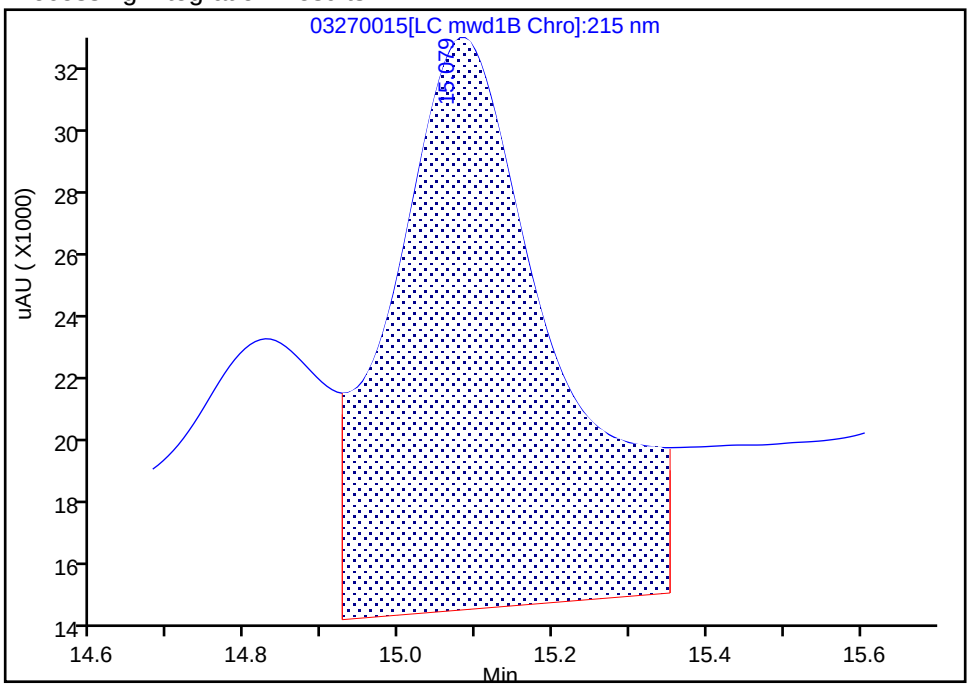
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270015.D				
Injection Date:	27-Mar-2024 22:53:40	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 4				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	15	Worklist Smp#:	15
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1B, 215 nm		

13 Nitroglycerin, CAS: 55-63-0

Signal: 1

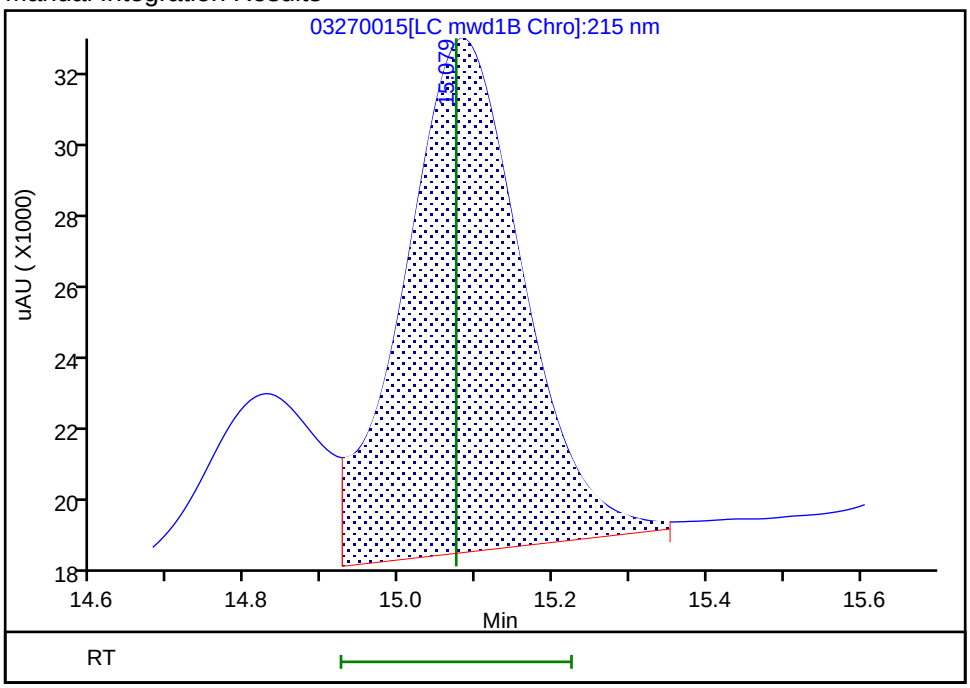
Processing Integration Results

RT: 15.08
Area: 243113
Amount: 0.919090
Amount Units: ug/ml



Manual Integration Results

RT: 15.08
Area: 139113
Amount: 1.027500
Amount Units: ug/ml



Reviewer: LV5D, 28-Mar-2024 11:36:11 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

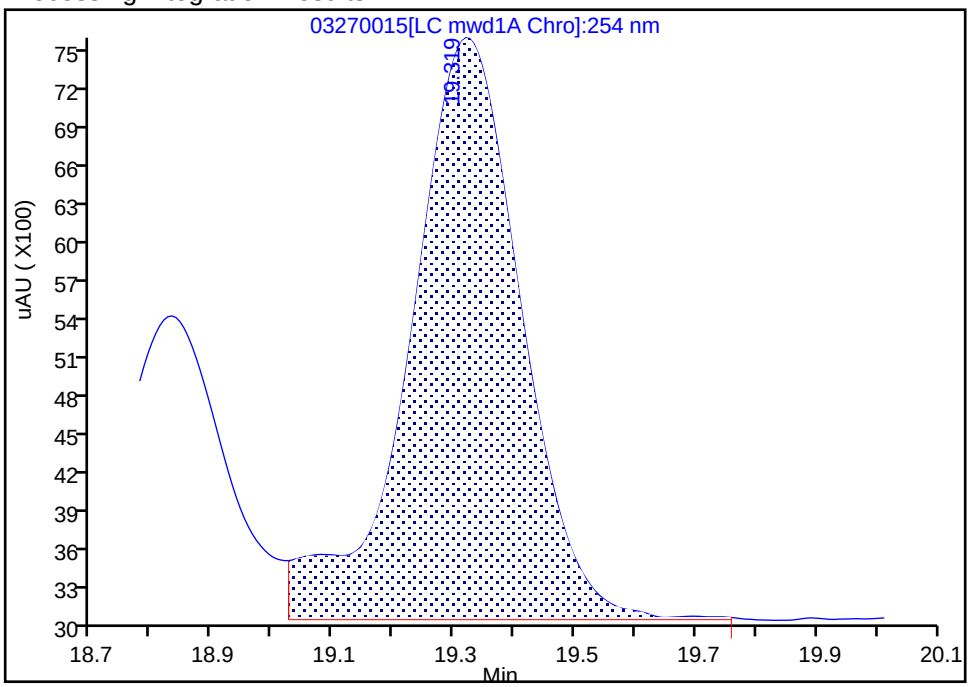
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270015.D				
Injection Date:	27-Mar-2024 22:53:40	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 4				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	15	Worklist Smp#:	15
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

22 2,4-Dinitrotoluene, CAS: 121-14-2

Signal: 1

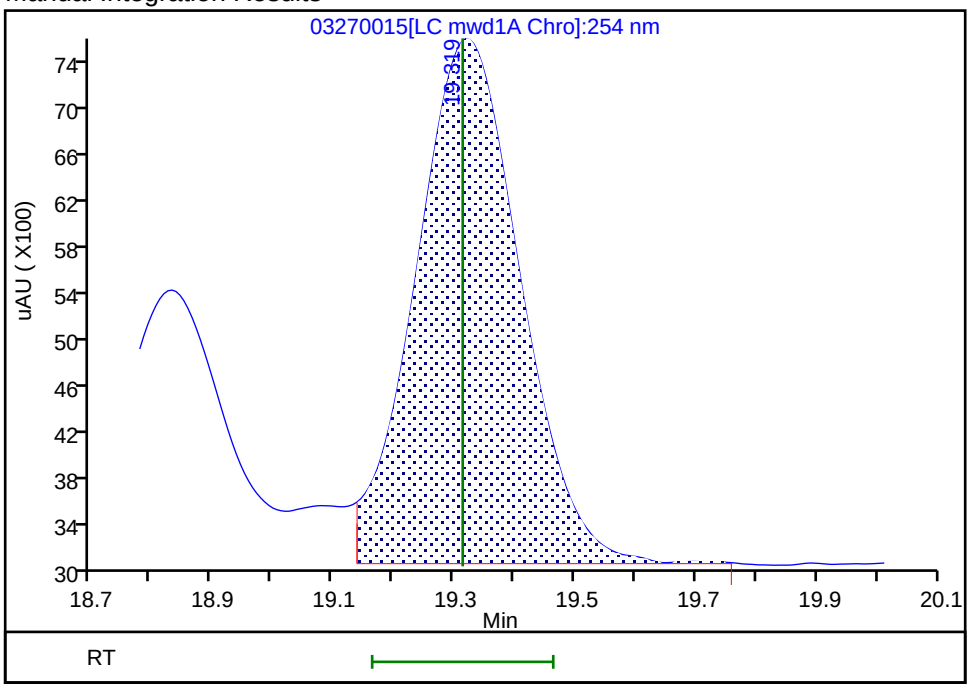
Processing Integration Results

RT: 19.32
Area: 57498
Amount: 0.104505
Amount Units: ug/ml



Manual Integration Results

RT: 19.32
Area: 54196
Amount: 0.099165
Amount Units: ug/ml



Reviewer: LV5D, 28-Mar-2024 11:37:09 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

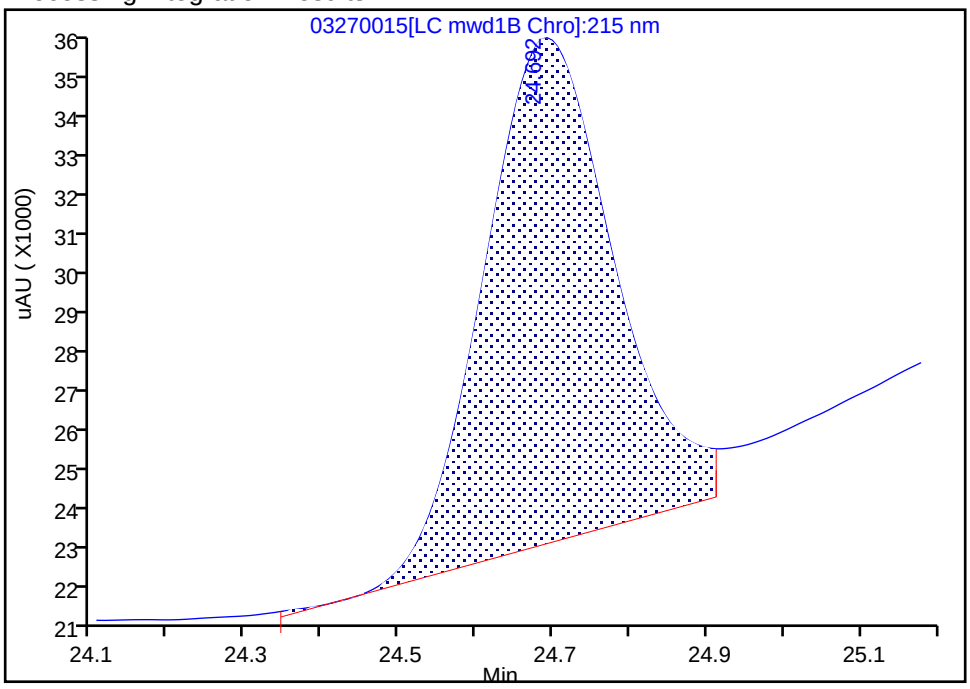
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270015.D				
Injection Date:	27-Mar-2024 22:53:40	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 4				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	15	Worklist Smp#:	15
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1B, 215 nm		

25 PETN, CAS: 78-11-5

Signal: 1

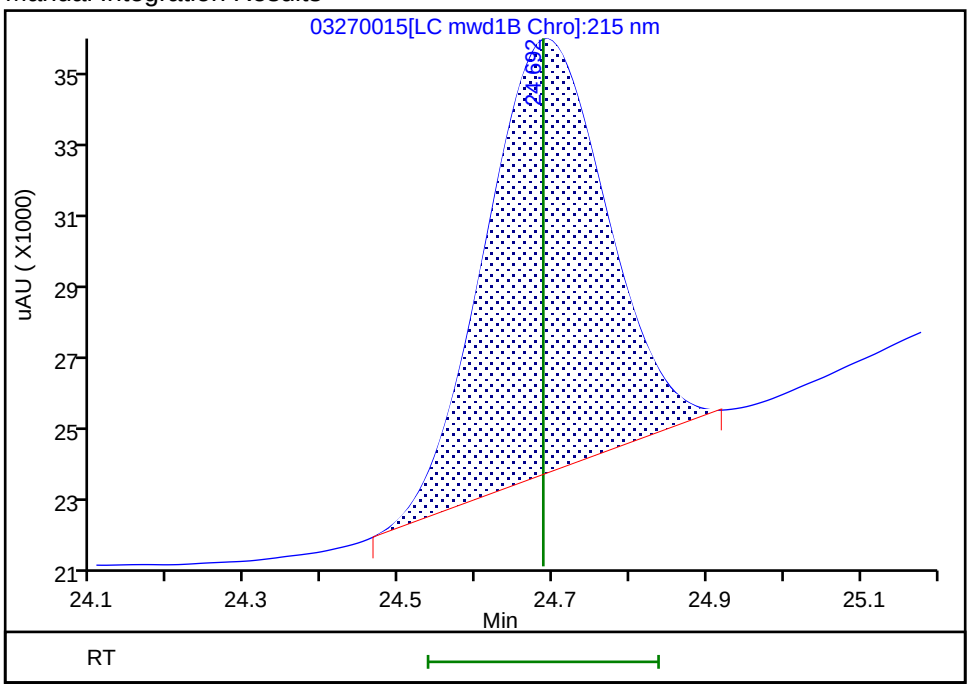
Processing Integration Results

RT: 24.69
Area: 141762
Amount: 1.041565
Amount Units: ug/ml



Manual Integration Results

RT: 24.69
Area: 125929
Amount: 0.996777
Amount Units: ug/ml



Reviewer: LV5D, 28-Mar-2024 11:39:44 -06:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270016.D
Lims ID: IC INT 3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 27-Mar-2024 23:28:41 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_X5
Sublist: chrom-8330_X5_Luna*sub7

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 28-Mar-2024 14:09:29 Calib Date: 28-Mar-2024 05:53:05
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1687

First Level Reviewer: LV5D Date: 28-Mar-2024 11:37:02

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
5 HMX	1	6.786	6.787	-0.001	9356	0.0500	0.0488	
7 2,4,6-Trinitrophenol	1	7.979	7.934	0.045	7577	0.0500	0.0504	
8 RDX	1	8.886	8.881	0.005	10653	0.0500	0.0499	
9 Nitrobenzene	1	11.566	11.554	0.012	18828	0.0500	0.0498	
$ 10 1,2-Dinitrobenzene	1	12.586	12.581	0.005	13065	0.0500	0.0495	
11 3,5-Dinitroaniline	1	14.399	14.394	0.005	22622	0.0500	0.0514	M
12 1,3-Dinitrobenzene	1	14.826	14.821	0.005	30462	0.0500	0.0509	M
13 Nitroglycerin	2	15.079	15.074	0.005	69985	0.5000	0.5169	M
14 o-Nitrotoluene	1	15.759	15.754	0.005	12161	0.0500	0.0492	M
16 p-Nitrotoluene	1	16.026	16.021	0.005	11499	0.0500	0.0489	
17 4-Amino-2,6-dinitrotoluene	1	16.519	16.514	0.005	14588	0.0500	0.0493	
18 m-Nitrotoluene	1	16.886	16.881	0.005	14909	0.0500	0.0489	
19 2-Amino-4,6-dinitrotoluene	1	17.399	17.394	0.005	21010	0.0500	0.0503	
20 1,3,5-Trinitrobenzene	1	17.819	17.807	0.012	22192	0.0500	0.0517	
21 2,6-Dinitrotoluene	1	18.826	18.827	-0.001	13493	0.0500	0.0495	
22 2,4-Dinitrotoluene	1	19.312	19.314	-0.002	27016	0.0500	0.0494	M
23 Tetryl	1	22.739	22.741	-0.002	16569	0.0500	0.0493	
24 2,4,6-Trinitrotoluene	1	23.706	23.707	-0.001	20396	0.0500	0.0490	
25 PETN	2	24.686	24.687	-0.001	56701	0.5000	0.4673	M

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330IntermStk_00079 Amount Added: 5.00 Units: uL

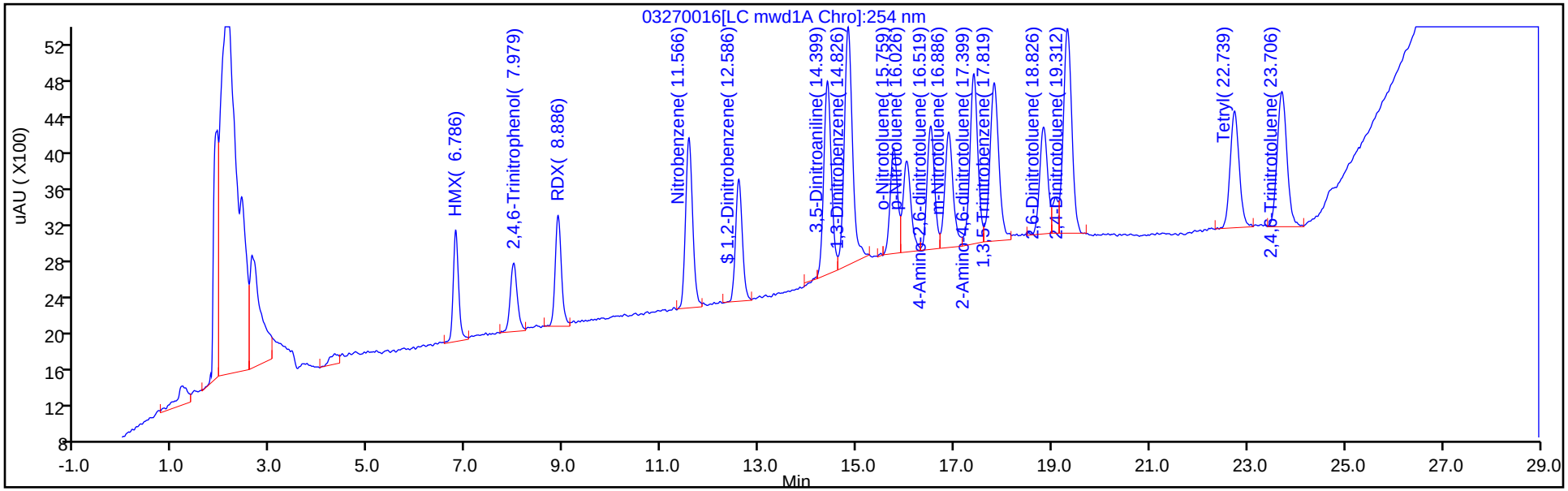
Report Date: 28-Mar-2024 14:09:29 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver

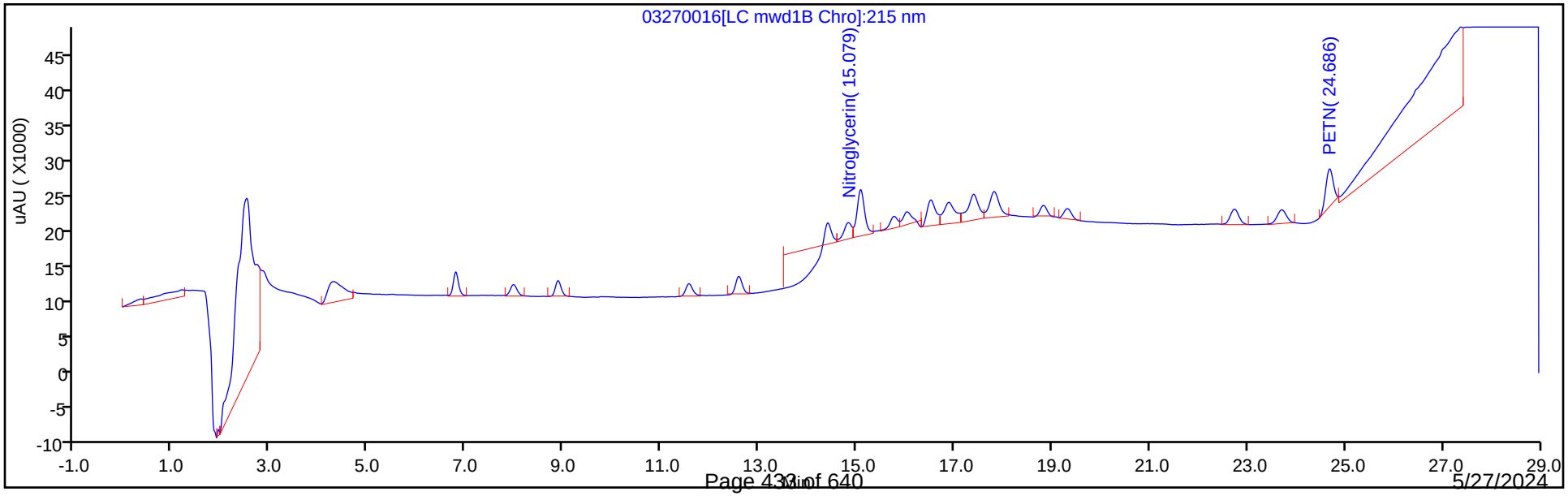
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270016.D

Injection Date:	27-Mar-2024 23:28:41	Instrument ID:	CHHPLC_X5	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:	8330_X5_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



5/27/2024
7:57:40 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

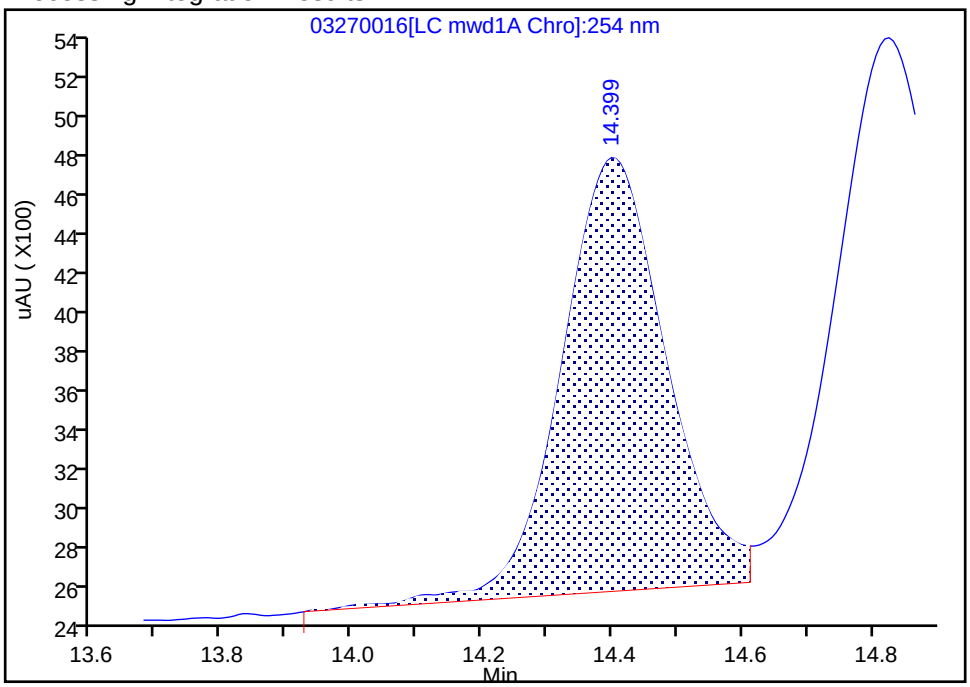
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270016.D				
Injection Date:	27-Mar-2024 23:28:41	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 3				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

11 3,5-Dinitroaniline, CAS: 618-87-1

Signal: 1

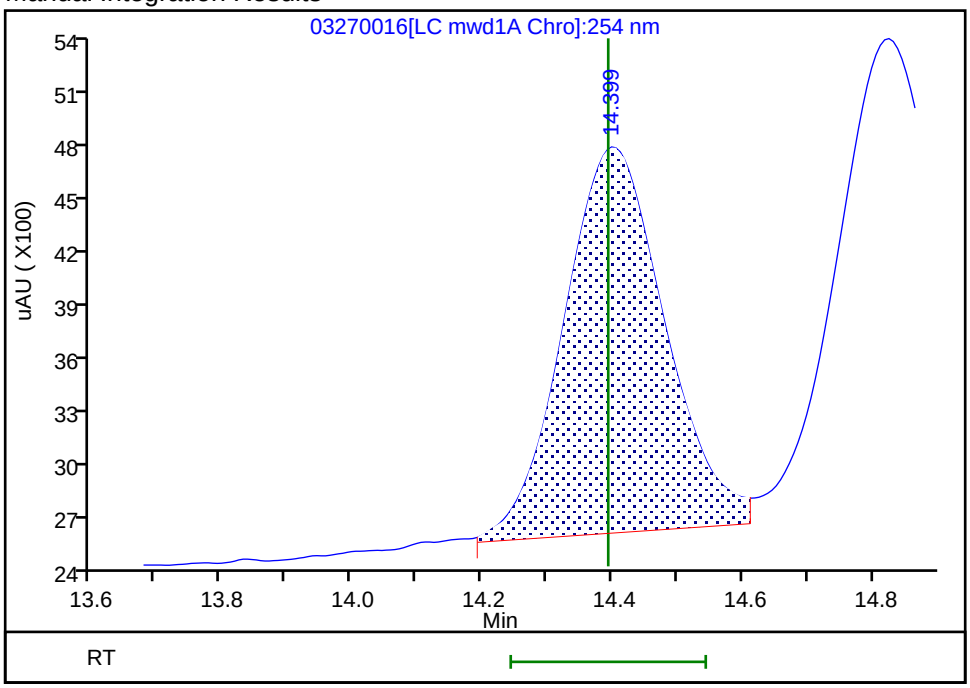
Processing Integration Results

RT: 14.40
Area: 23798
Amount: 0.050100
Amount Units: ug/ml



Manual Integration Results

RT: 14.40
Area: 22622
Amount: 0.051414
Amount Units: ug/ml



Reviewer: LV5D, 28-Mar-2024 11:36:52 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

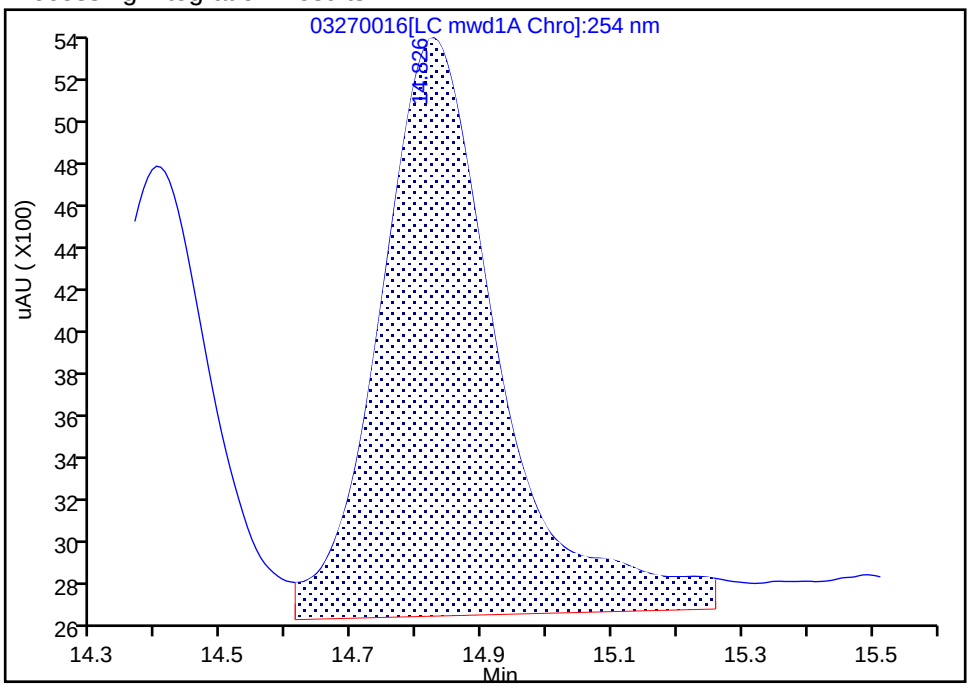
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270016.D				
Injection Date:	27-Mar-2024 23:28:41	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 3				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

12 1,3-Dinitrobenzene, CAS: 99-65-0

Signal: 1

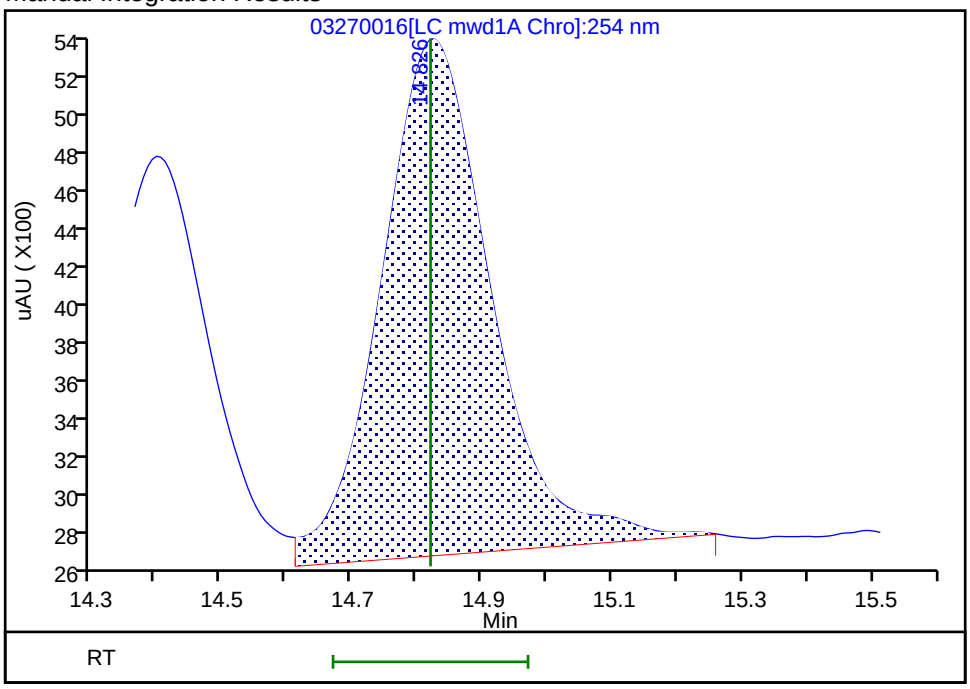
Processing Integration Results

RT: 14.83
Area: 33780
Amount: 0.051704
Amount Units: ug/ml



Manual Integration Results

RT: 14.83
Area: 30462
Amount: 0.050909
Amount Units: ug/ml



Reviewer: LV5D, 28-Mar-2024 11:36:49 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

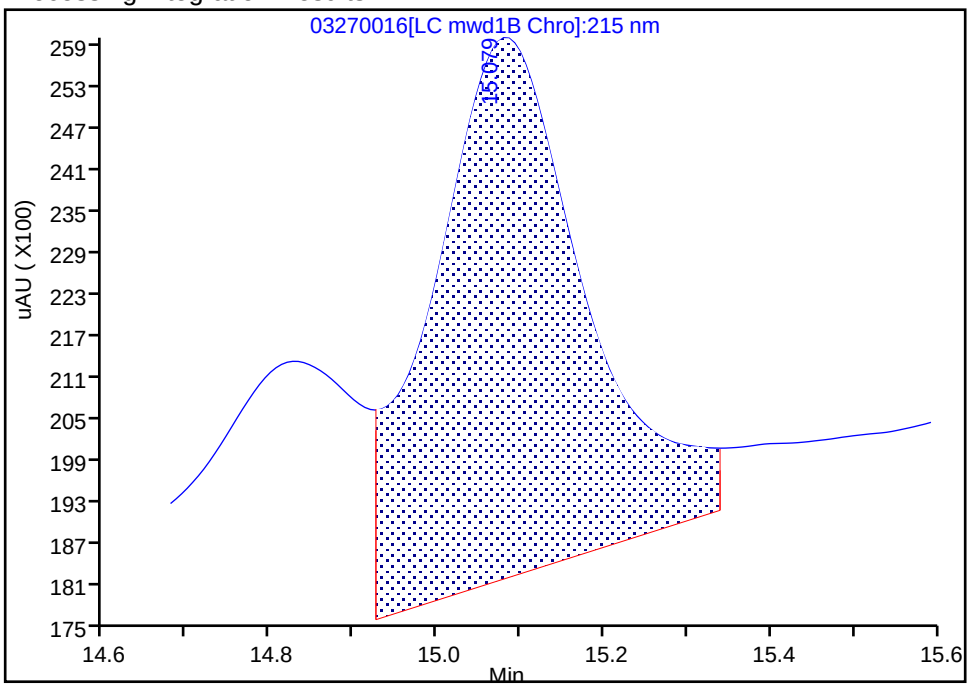
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270016.D				
Injection Date:	27-Mar-2024 23:28:41	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 3				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1B, 215 nm		

13 Nitroglycerin, CAS: 55-63-0

Signal: 1

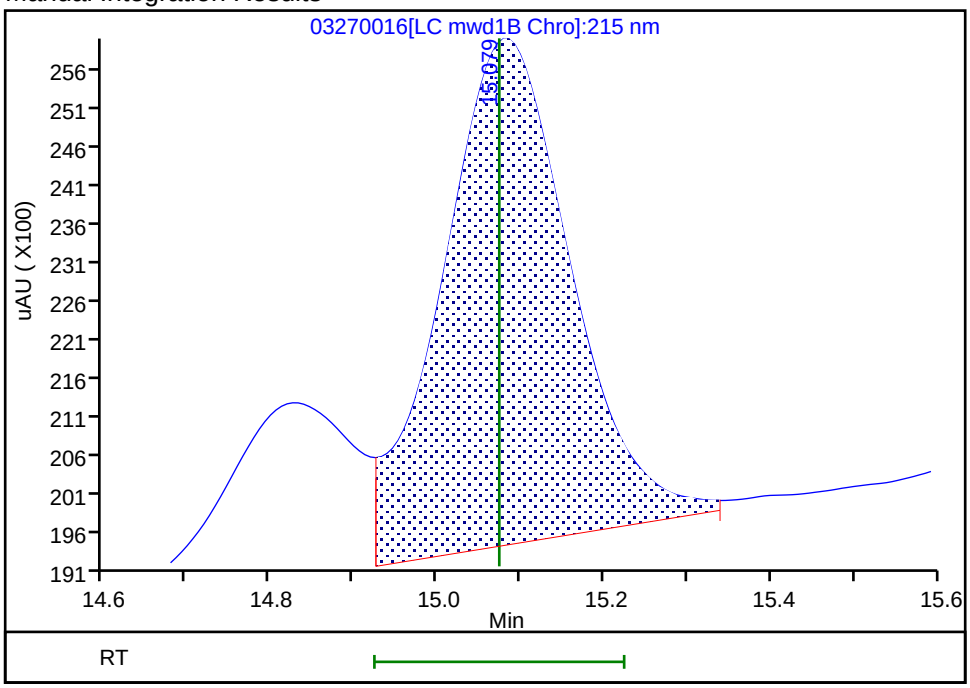
Processing Integration Results

RT: 15.08
Area: 99658
Amount: 0.393968
Amount Units: ug/ml



Manual Integration Results

RT: 15.08
Area: 69985
Amount: 0.516915
Amount Units: ug/ml



Reviewer: LV5D, 28-Mar-2024 11:36:32 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

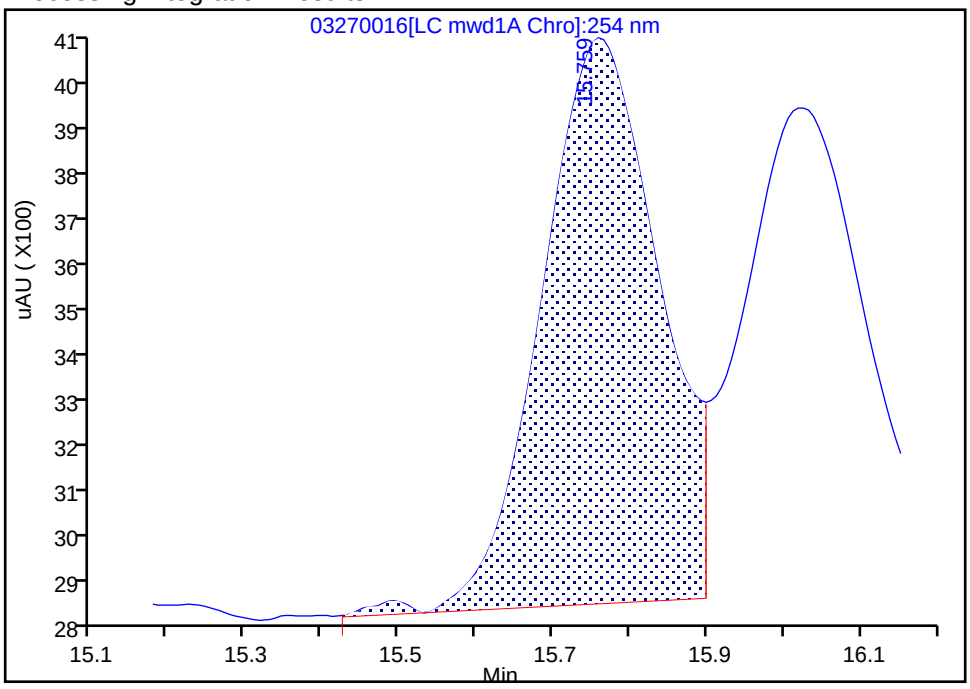
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270016.D				
Injection Date:	27-Mar-2024 23:28:41	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 3				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

14 o-Nitrotoluene, CAS: 88-72-2

Signal: 1

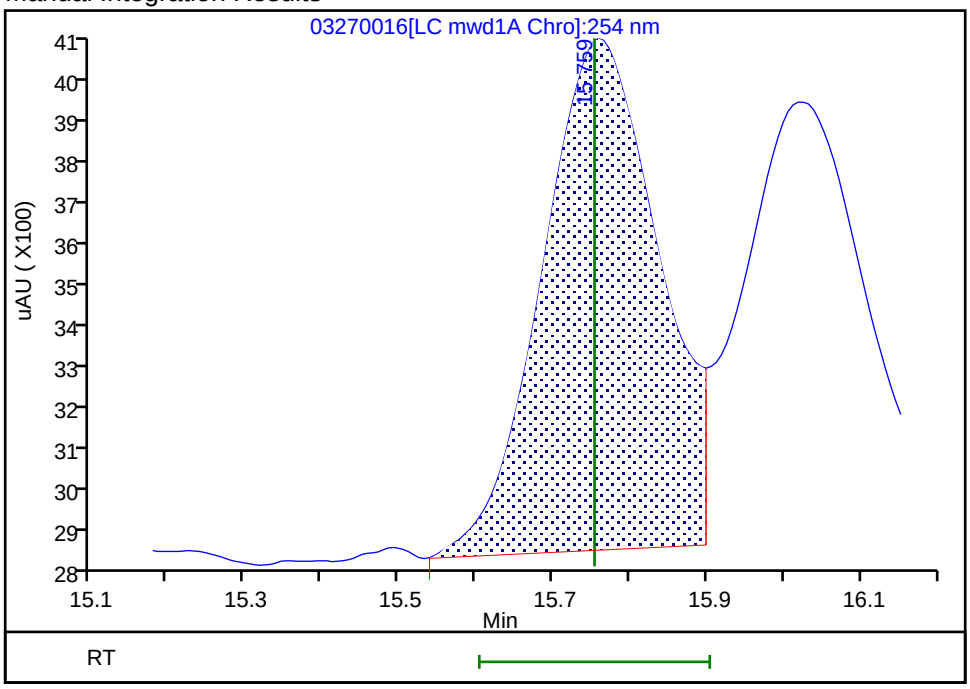
Processing Integration Results

RT: 15.76
Area: 12251
Amount: 0.049220
Amount Units: ug/ml



Manual Integration Results

RT: 15.76
Area: 12161
Amount: 0.049164
Amount Units: ug/ml



Reviewer: LV5D, 28-Mar-2024 11:36:54 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

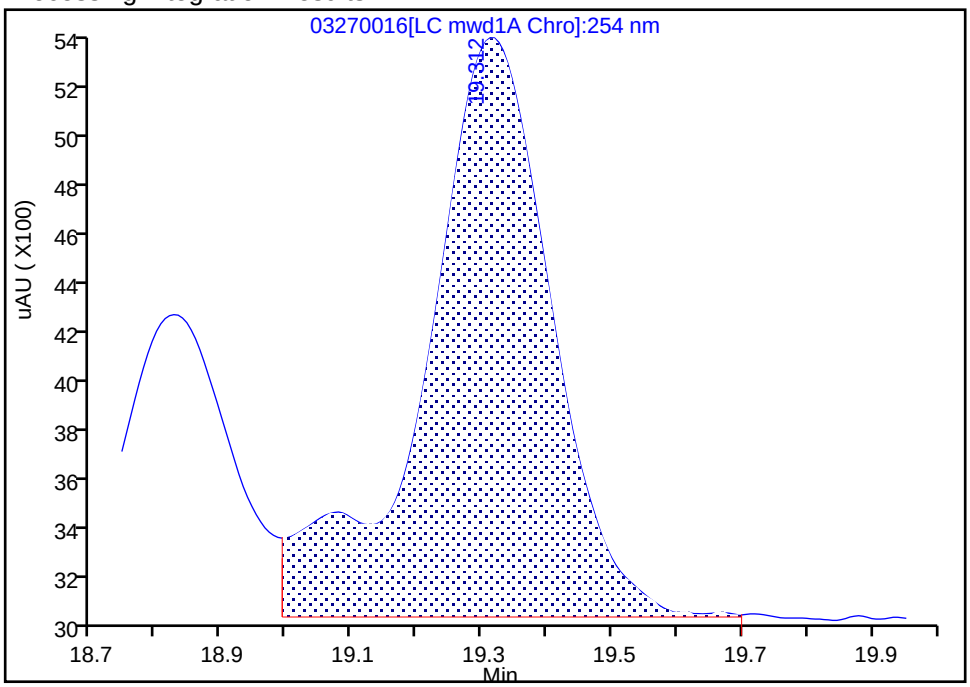
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270016.D				
Injection Date:	27-Mar-2024 23:28:41	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 3				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

22 2,4-Dinitrotoluene, CAS: 121-14-2

Signal: 1

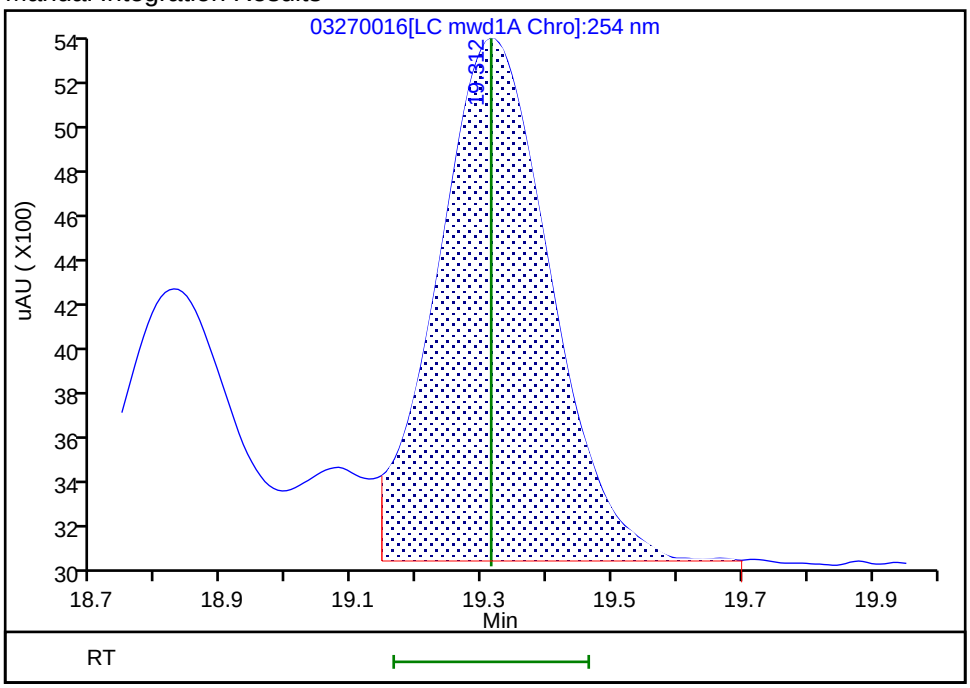
Processing Integration Results

RT: 19.31
Area: 30318
Amount: 0.054379
Amount Units: ug/ml



Manual Integration Results

RT: 19.31
Area: 27016
Amount: 0.049433
Amount Units: ug/ml



Reviewer: LV5D, 28-Mar-2024 11:36:59 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

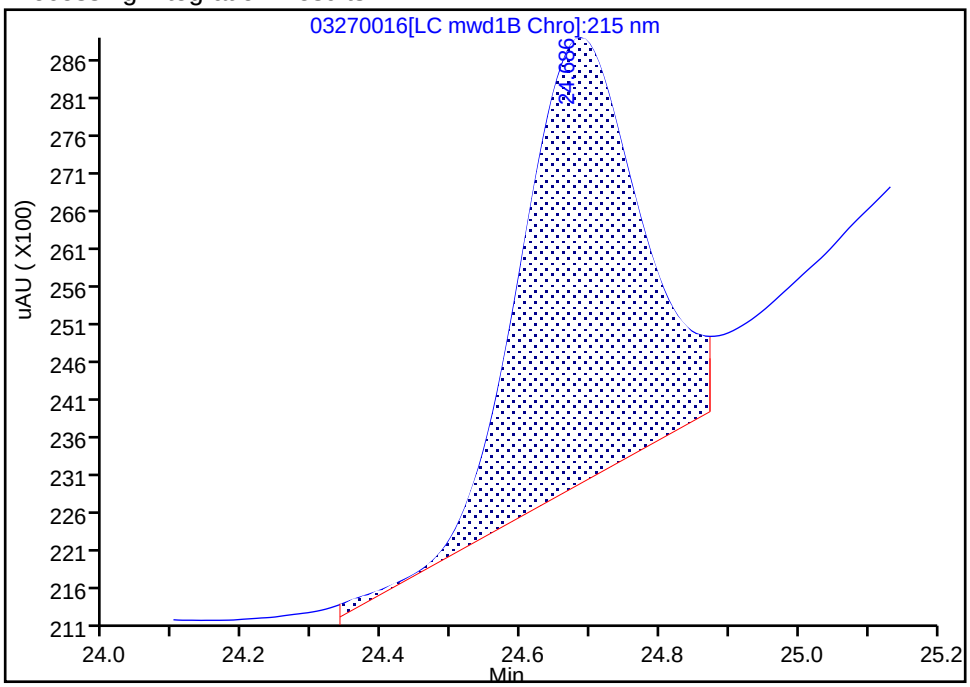
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270016.D				
Injection Date:	27-Mar-2024 23:28:41	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 3				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1B, 215 nm		

25 PETN, CAS: 78-11-5

Signal: 1

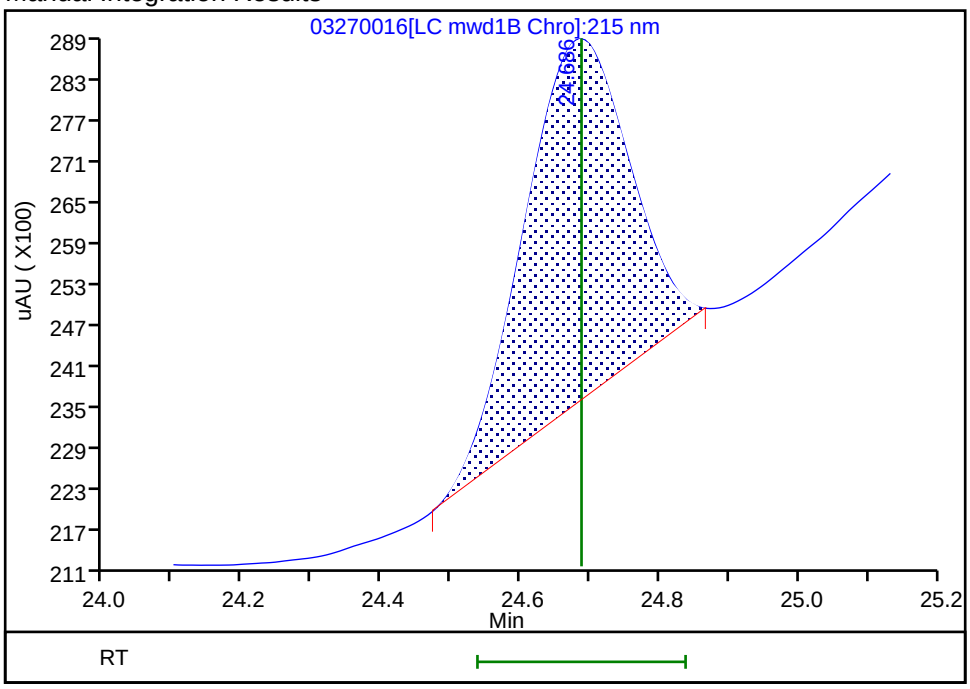
Processing Integration Results

RT: 24.69
Area: 70537
Amount: 0.525042
Amount Units: ug/ml



Manual Integration Results

RT: 24.69
Area: 56701
Amount: 0.467313
Amount Units: ug/ml



Reviewer: LV5D, 28-Mar-2024 11:40:12 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270017.D
Lims ID: IC INT 2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 28-Mar-2024 00:03:36 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_X5
Sublist: chrom-8330_X5_Luna*sub7

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 28-Mar-2024 14:09:30 Calib Date: 28-Mar-2024 05:53:05
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1687

First Level Reviewer: LV5D Date: 28-Mar-2024 14:09:02

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
5 HMX	1	6.785	6.787	-0.002	4212	0.0200	0.0220	
7 2,4,6-Trinitrophenol	1	7.985	7.934	0.051	2989	0.0200	0.0199	
8 RDX	1	8.878	8.881	-0.003	4799	0.0200	0.0225	
9 Nitrobenzene	1	11.558	11.554	0.004	7815	0.0200	0.0207	
$ 10 1,2-Dinitrobenzene	1	12.578	12.581	-0.003	5446	0.0200	0.0206	
11 3,5-Dinitroaniline	1	14.391	14.394	-0.003	8366	0.0200	0.0191	M
12 1,3-Dinitrobenzene	1	14.811	14.821	-0.010	11588	0.0200	0.0194	M
13 Nitroglycerin	2	15.071	15.074	-0.003	29624	0.2000	0.2188	M
14 o-Nitrotoluene	1	15.751	15.754	-0.003	5365	0.0200	0.0217	
16 p-Nitrotoluene	1	16.018	16.021	-0.003	5409	0.0200	0.0208	
17 4-Amino-2,6-dinitrotoluene	1	16.498	16.514	-0.016	6841	0.0200	0.0215	
18 m-Nitrotoluene	1	16.878	16.881	-0.003	7013	0.0200	0.0196	
19 2-Amino-4,6-dinitrotoluene	1	17.384	17.394	-0.010	9727	0.0200	0.0220	
20 1,3,5-Trinitrobenzene	1	17.804	17.807	-0.003	9936	0.0200	0.0231	
21 2,6-Dinitrotoluene	1	18.811	18.827	-0.016	5223	0.0200	0.0191	
22 2,4-Dinitrotoluene	1	19.311	19.314	-0.003	10999	0.0200	0.0201	
23 Tetryl	1	22.725	22.741	-0.016	6925	0.0200	0.0206	
24 2,4,6-Trinitrotoluene	1	23.705	23.707	-0.002	8416	0.0200	0.0202	
25 PETN	2	24.685	24.687	-0.002	21186	0.2000	0.1957	M

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330IntermStk_00079 Amount Added: 2.00 Units: uL

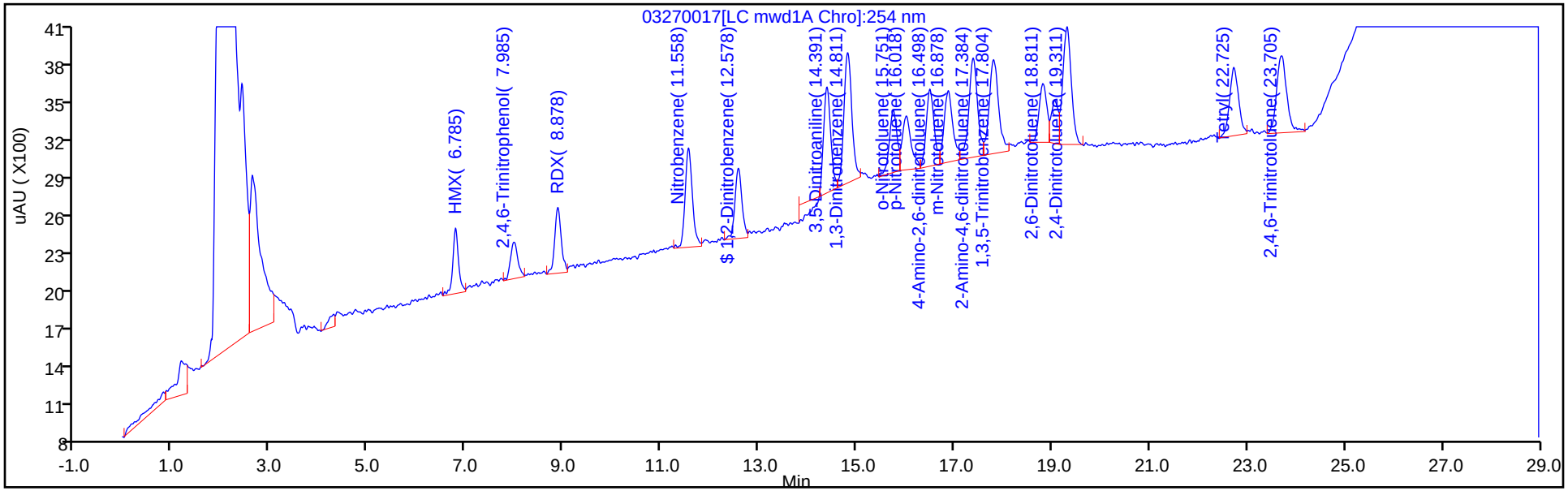
Report Date: 28-Mar-2024 14:09:30 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver

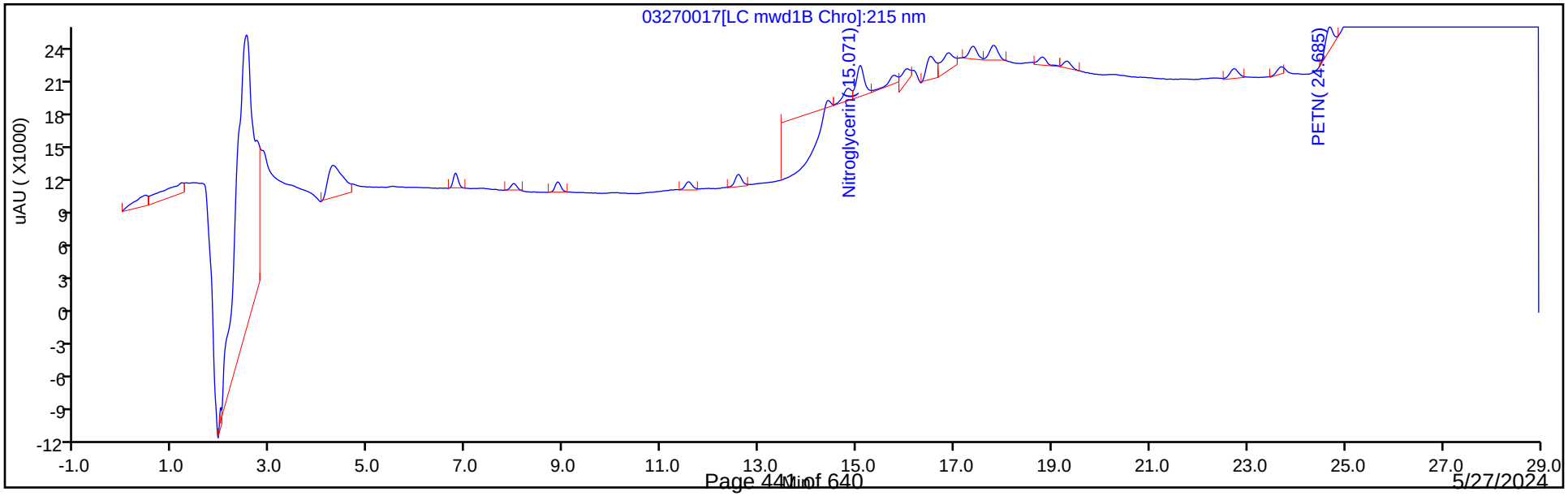
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270017.D

Injection Date:	28-Mar-2024 00:03:36	Instrument ID:	CHHPLC_X5	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:	8330_X5_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



5/27/2024
7:57:40 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

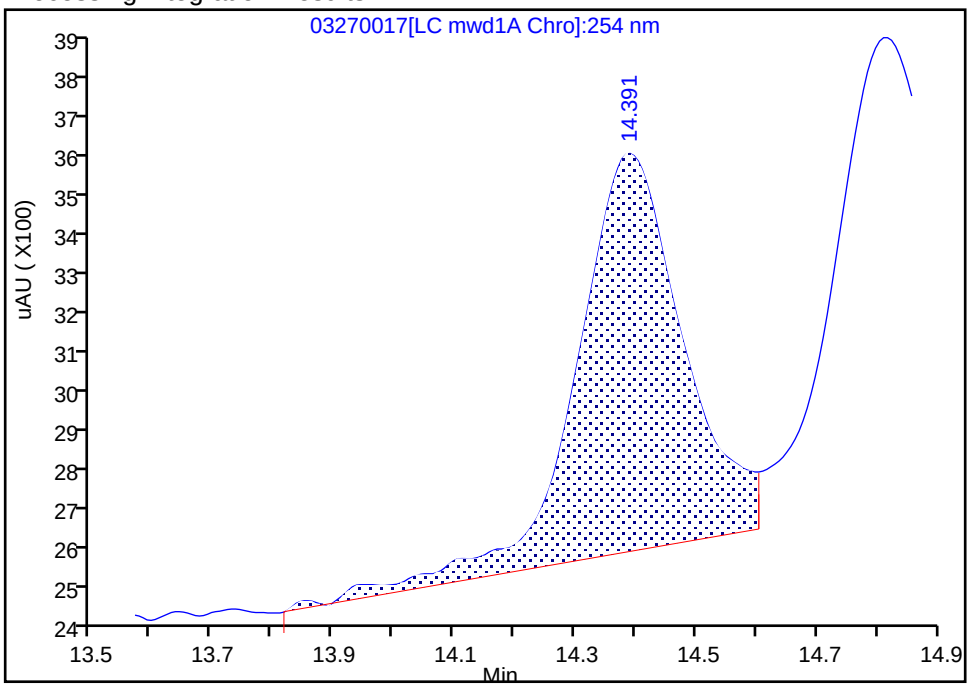
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270017.D				
Injection Date:	28-Mar-2024 00:03:36	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 2				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

11 3,5-Dinitroaniline, CAS: 618-87-1

Signal: 1

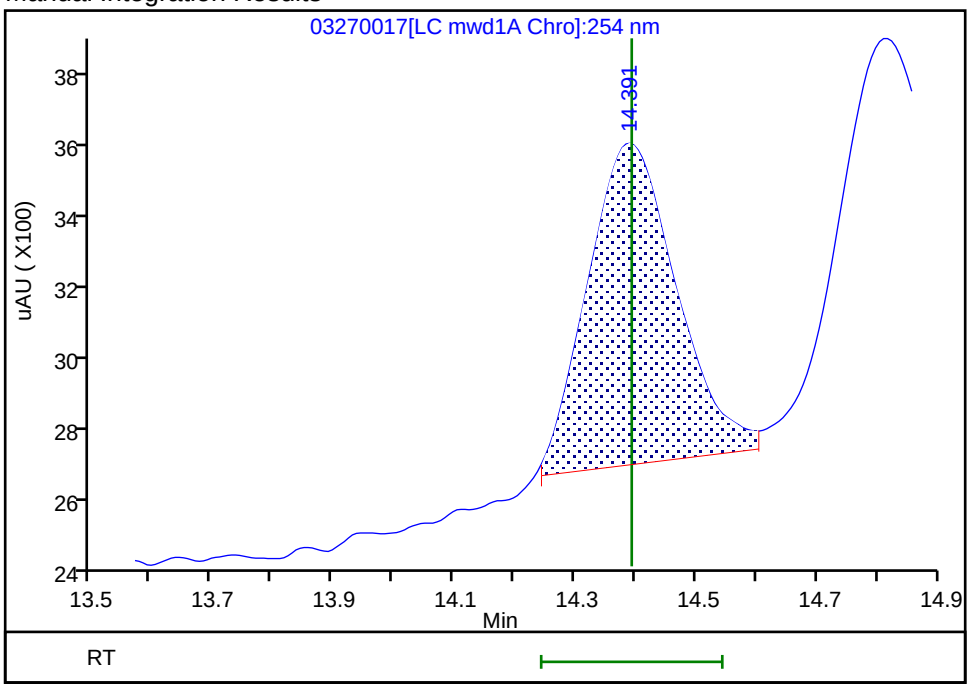
Processing Integration Results

RT: 14.39
Area: 11417
Amount: 0.022003
Amount Units: ug/ml



Manual Integration Results

RT: 14.39
Area: 8366
Amount: 0.019087
Amount Units: ug/ml



Reviewer: LV5D, 28-Mar-2024 11:37:29 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

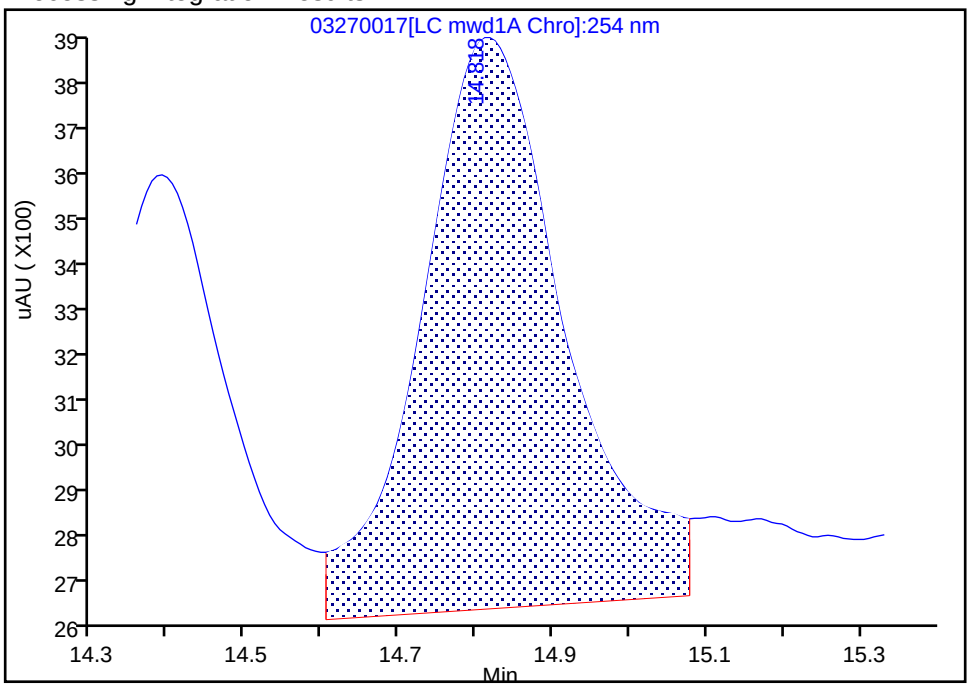
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270017.D				
Injection Date:	28-Mar-2024 00:03:36	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 2				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

12 1,3-Dinitrobenzene, CAS: 99-65-0

Signal: 1

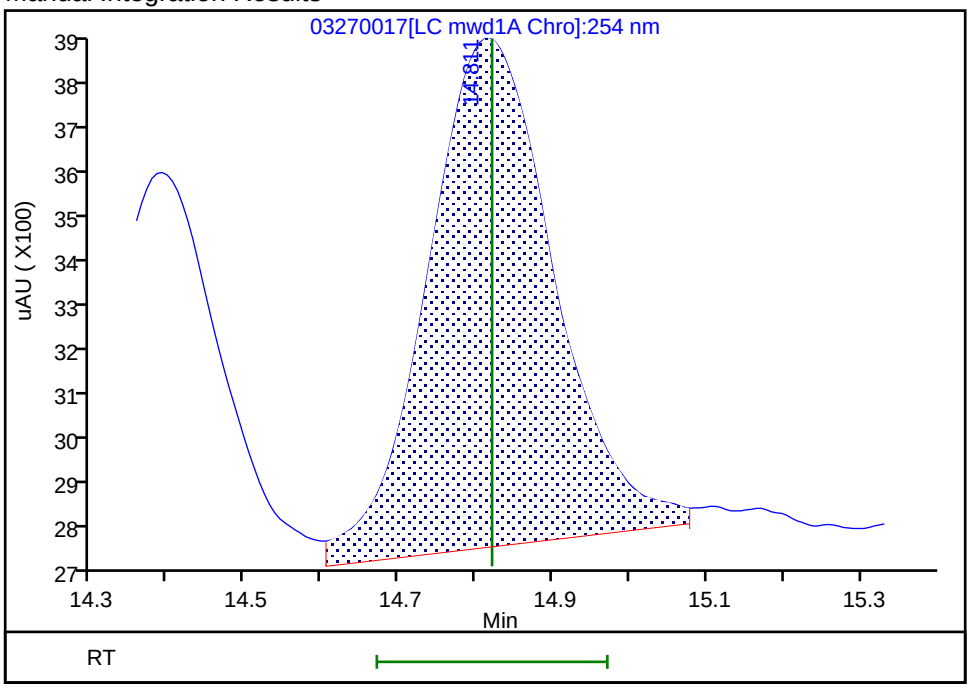
Processing Integration Results

RT: 14.82
Area: 14456
Amount: 0.022379
Amount Units: ug/ml



Manual Integration Results

RT: 14.81
Area: 11588
Amount: 0.019366
Amount Units: ug/ml



Reviewer: LV5D, 28-Mar-2024 11:37:26 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

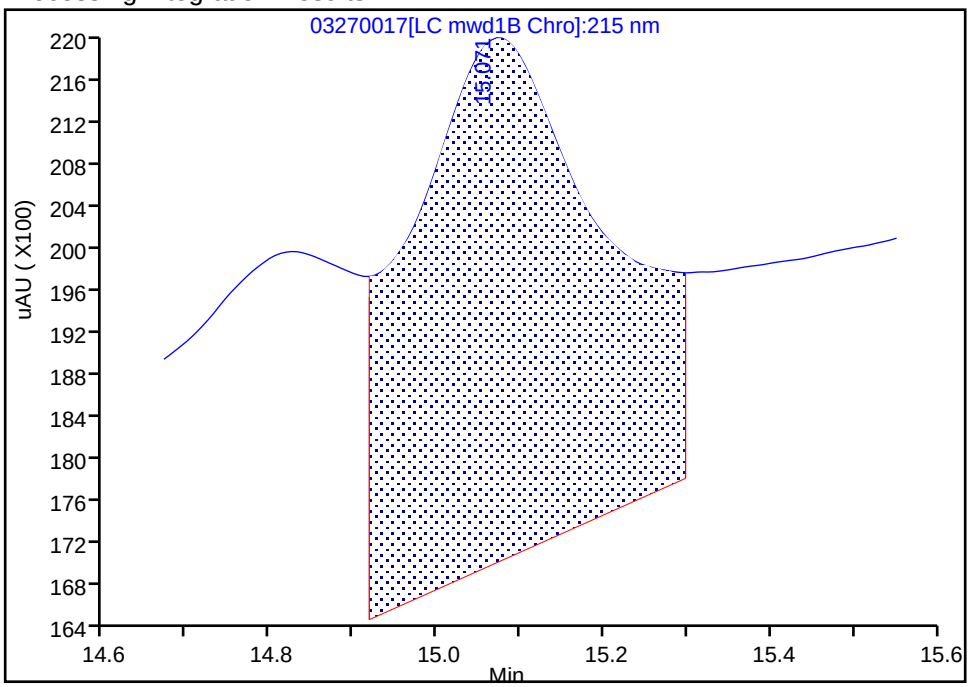
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270017.D				
Injection Date:	28-Mar-2024 00:03:36	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 2				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1B, 215 nm		

13 Nitroglycerin, CAS: 55-63-0

Signal: 1

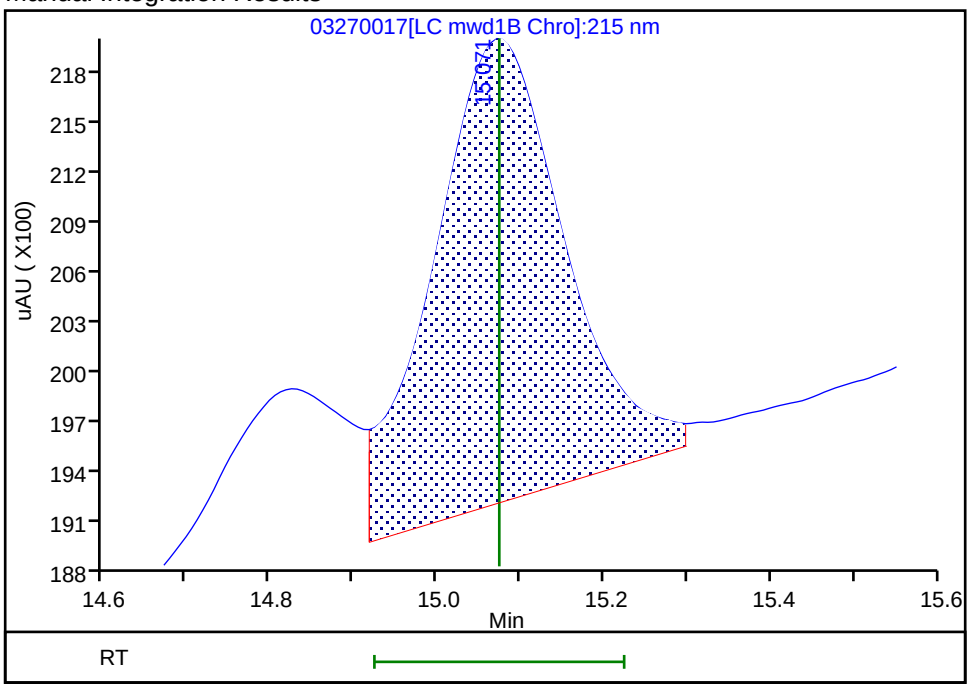
Processing Integration Results

RT: 15.07
Area: 79624
Amount: 0.323195
Amount Units: ug/ml



Manual Integration Results

RT: 15.07
Area: 29624
Amount: 0.218805
Amount Units: ug/ml



Reviewer: LV5D, 28-Mar-2024 11:37:38 -06:00:00 (UTC)
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

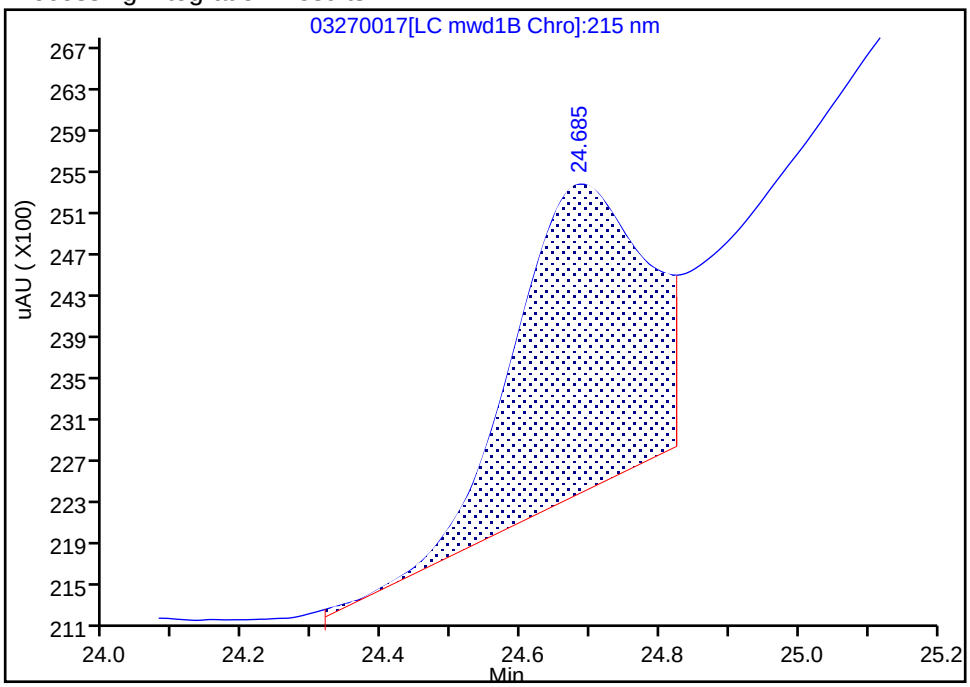
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270017.D
Injection Date: 28-Mar-2024 00:03:36 Instrument ID: CHHPLC_X5
Lims ID: IC INT 2
Client ID:
Operator ID: JZ/JG ALS Bottle#: 17 Worklist Smp#: 17
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X5_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC mwd1B, 215 nm

25 PETN, CAS: 78-11-5

Signal: 1

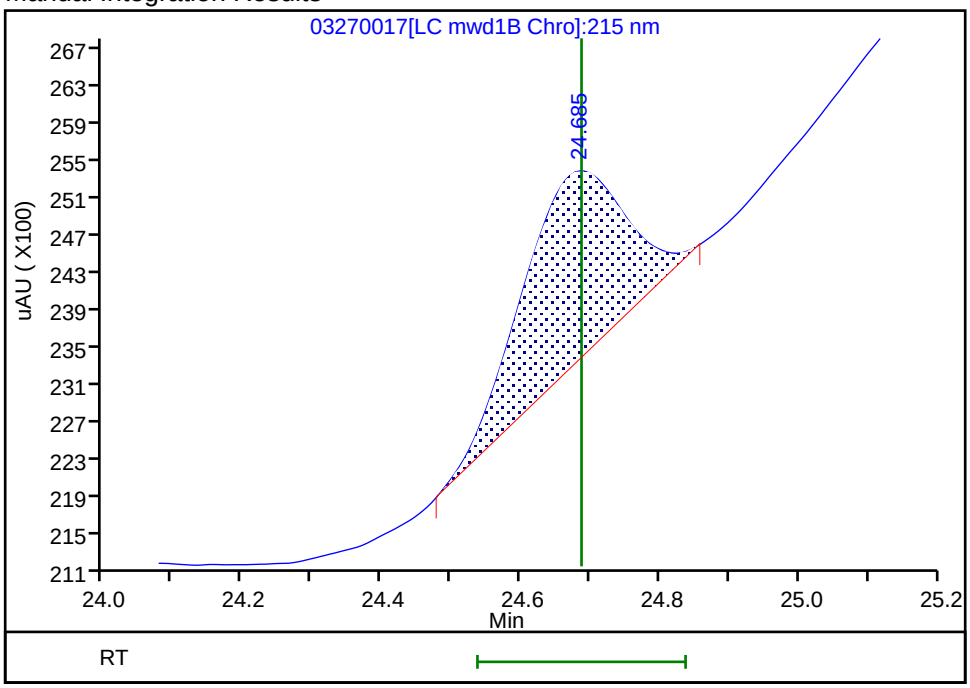
Processing Integration Results

RT: 24.68
Area: 38785
Amount: 0.297974
Amount Units: ug/ml



Manual Integration Results

RT: 24.68
Area: 21186
Amount: 0.195690
Amount Units: ug/ml



Reviewer: LV5D, 28-Mar-2024 11:40:17 -06:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270018.D
Lims ID: IC INT 1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 28-Mar-2024 00:38:31 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_X5
Sublist: chrom-8330_X5_Luna*sub7

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 28-Mar-2024 14:09:31 Calib Date: 28-Mar-2024 05:53:05
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1687

First Level Reviewer: LV5D Date: 28-Mar-2024 14:09:13

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
5 HMX	1	6.792	6.787	0.005	2536	0.0100	0.0132	
7 2,4,6-Trinitrophenol	1	7.978	7.934	0.044	1687	0.0100	0.0112	
8 RDX	1	8.885	8.881	0.004	2368	0.0100	0.0111	
9 Nitrobenzene	1	11.558	11.554	0.004	4113	0.0100	0.0109	
$ 10 1,2-Dinitrobenzene	1	12.578	12.581	-0.003	3032	0.0100	0.0115	
11 3,5-Dinitroaniline	1	14.392	14.394	-0.002	4425	0.0100	0.0101	M
12 1,3-Dinitrobenzene	1	14.812	14.821	-0.009	5312	0.0100	0.008878	M
13 Nitroglycerin	2	15.072	15.074	-0.002	12537	0.1000	0.0926	M
14 o-Nitrotoluene	1	15.758	15.754	0.004	2612	0.0100	0.0106	M
16 p-Nitrotoluene	1	16.012	16.021	-0.009	3049	0.0100	0.009864	M
17 4-Amino-2,6-dinitrotoluene	1	16.498	16.514	-0.016	3564	0.0100	0.009666	M
18 m-Nitrotoluene	1	16.878	16.881	-0.003	4479	0.0100	0.0101	M
19 2-Amino-4,6-dinitrotoluene	1	17.372	17.394	-0.022	4751	0.0100	0.009500	M
20 1,3,5-Trinitrobenzene	1	17.812	17.807	0.005	4376	0.0100	0.0102	M
21 2,6-Dinitrotoluene	1	18.818	18.827	-0.009	2716	0.0100	0.0100	
22 2,4-Dinitrotoluene	1	19.298	19.314	-0.016	5455	0.0100	0.0100	
23 Tetryl	1	22.725	22.741	-0.016	3690	0.0100	0.0110	
24 2,4,6-Trinitrotoluene	1	23.692	23.707	-0.015	4534	0.0100	0.0109	
25 PETN	2	24.825	24.687	0.138	8982	0.1000	0.1024	M

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330IntermStk_00079 Amount Added: 1.00 Units: uL

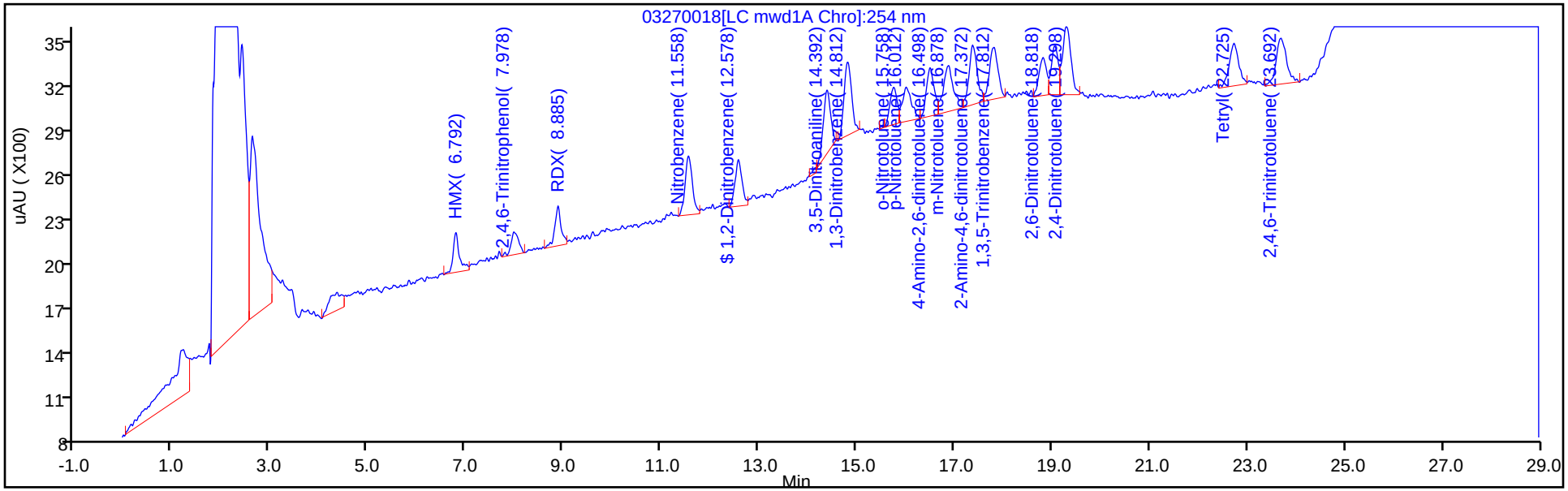
Report Date: 28-Mar-2024 14:09:32 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver

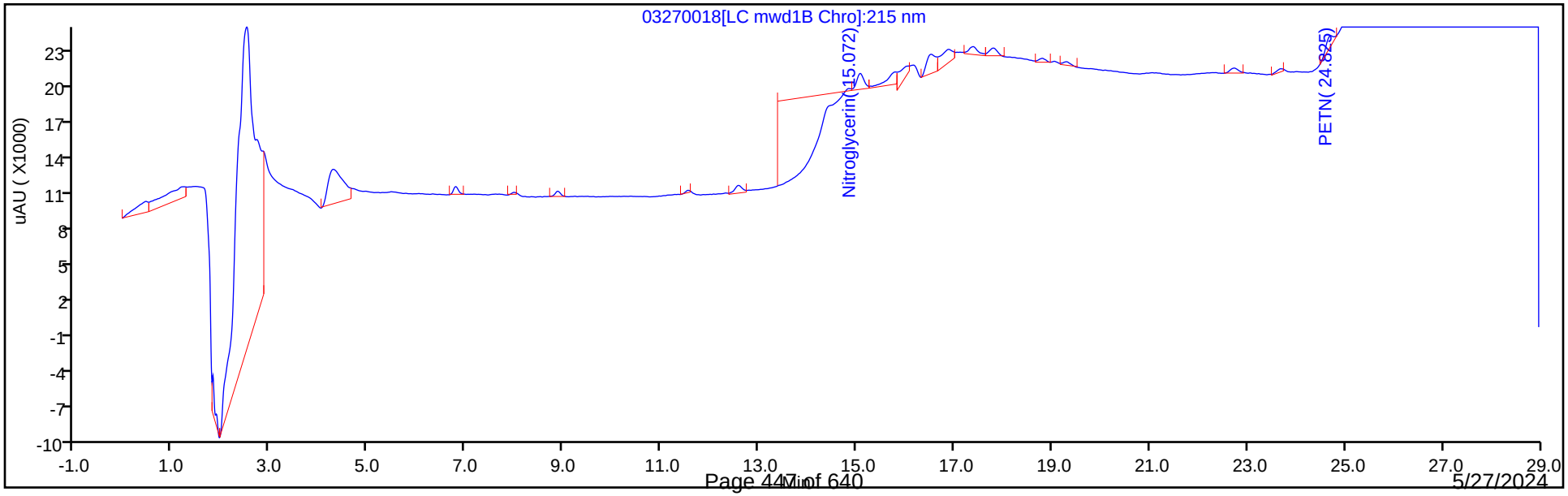
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270018.D

Injection Date:	28-Mar-2024 00:38:31	Instrument ID:	CHHPLC_X5	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:	8330_X5_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



5/27/2024
7:57:40 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

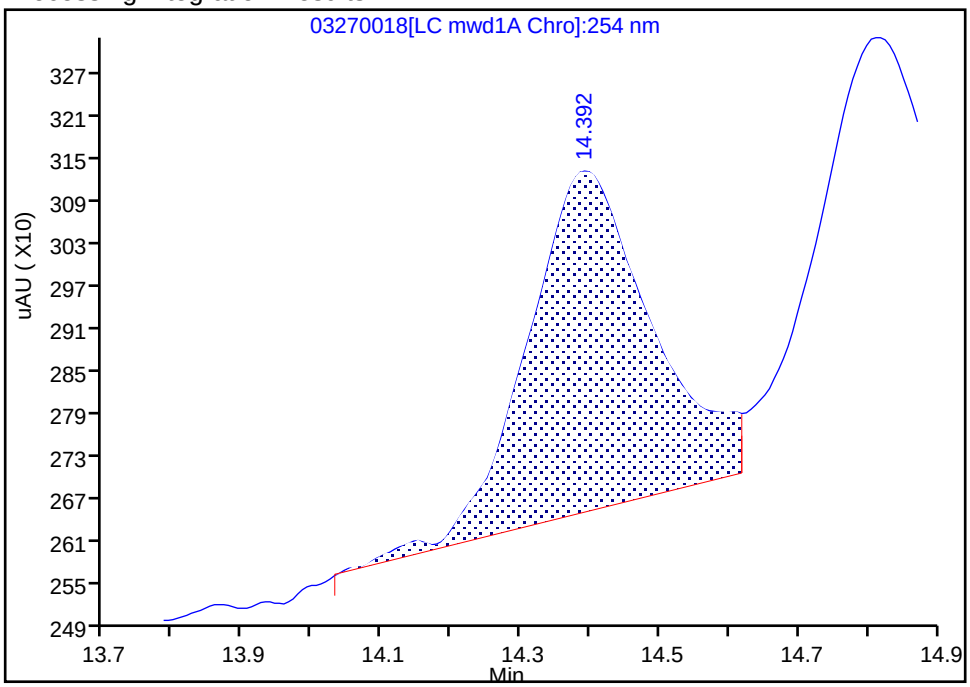
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270018.D				
Injection Date:	28-Mar-2024 00:38:31	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 1				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

11 3,5-Dinitroaniline, CAS: 618-87-1

Signal: 1

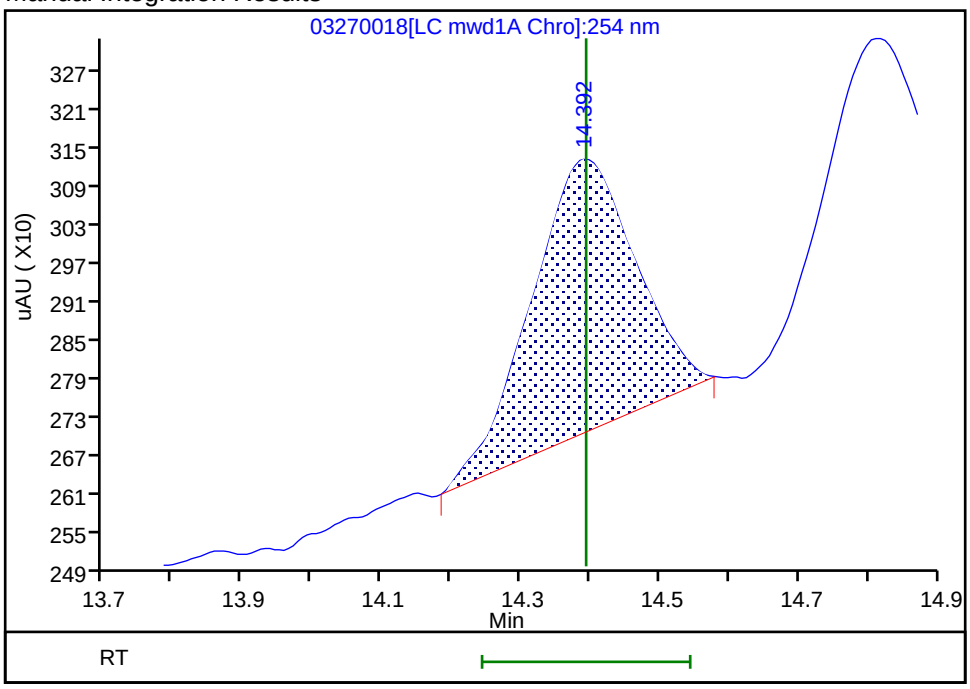
Processing Integration Results

RT: 14.39
Area: 6010
Amount: 0.010889
Amount Units: ug/ml



Manual Integration Results

RT: 14.39
Area: 4425
Amount: 0.010150
Amount Units: ug/ml



Reviewer: LV5D, 28-Mar-2024 11:38:35 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

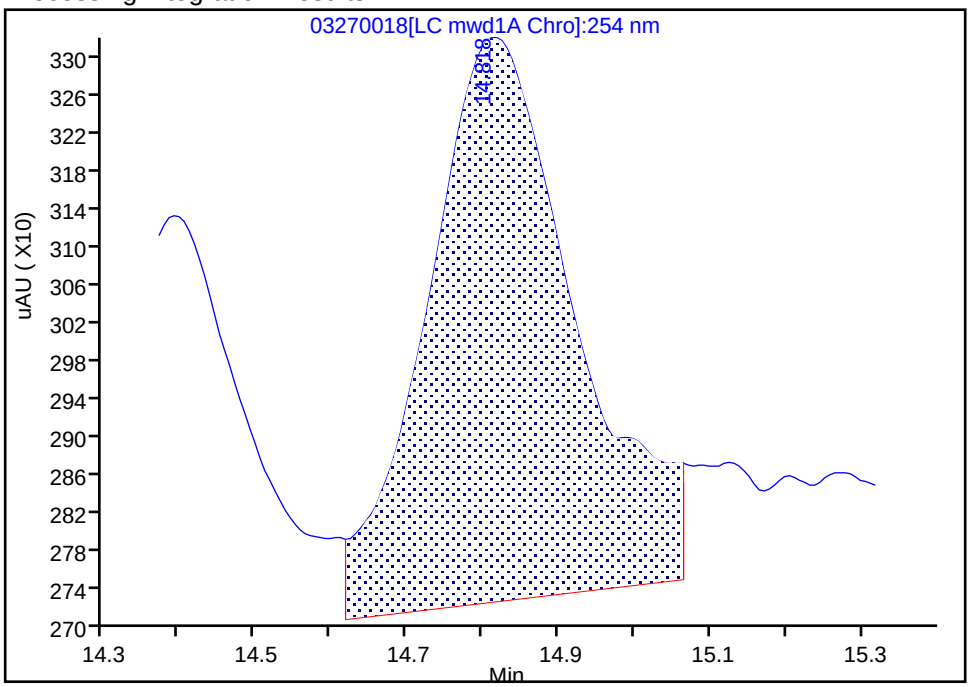
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270018.D
Injection Date: 28-Mar-2024 00:38:31 Instrument ID: CHHPLC_X5
Lims ID: IC INT 1
Client ID:
Operator ID: JZ/JG ALS Bottle#: 18 Worklist Smp#: 18
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X5_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC mwd1A, 254 nm

12 1,3-Dinitrobenzene, CAS: 99-65-0

Signal: 1

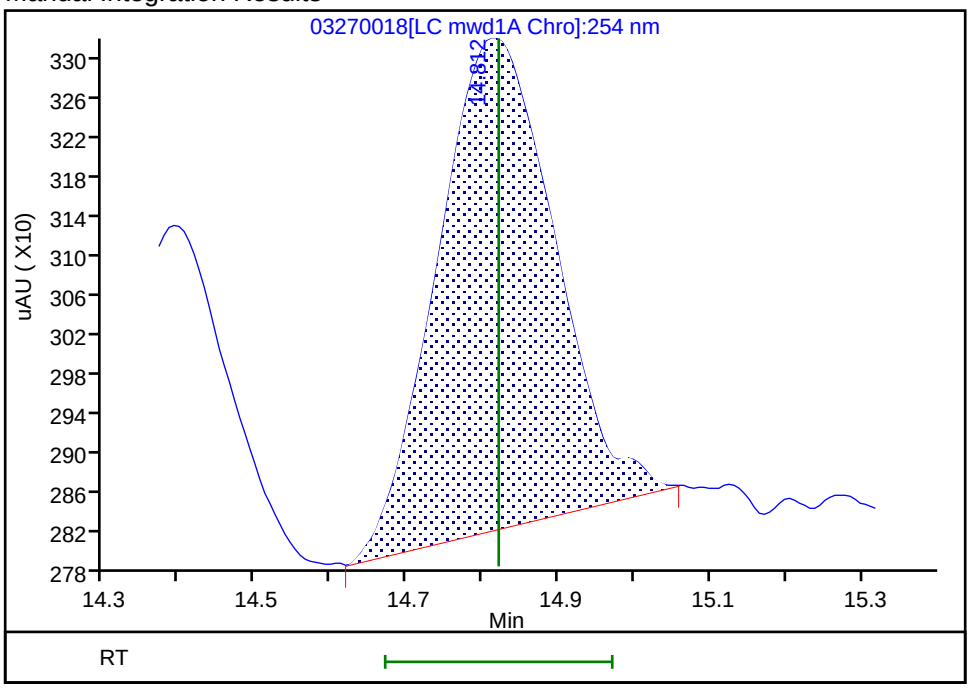
Processing Integration Results

RT: 14.82
Area: 8115
Amount: 0.012880
Amount Units: ug/ml



Manual Integration Results

RT: 14.81
Area: 5312
Amount: 0.008878
Amount Units: ug/ml



Reviewer: LV5D, 28-Mar-2024 11:38:44 -06:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

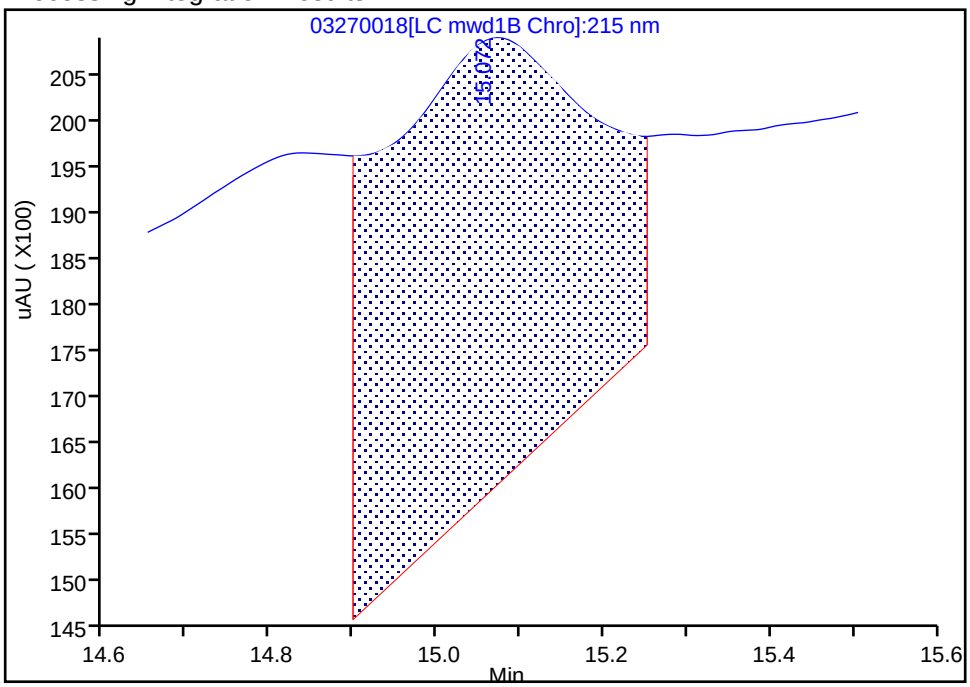
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270018.D				
Injection Date:	28-Mar-2024 00:38:31	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 1				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1B, 215 nm		

13 Nitroglycerin, CAS: 55-63-0

Signal: 1

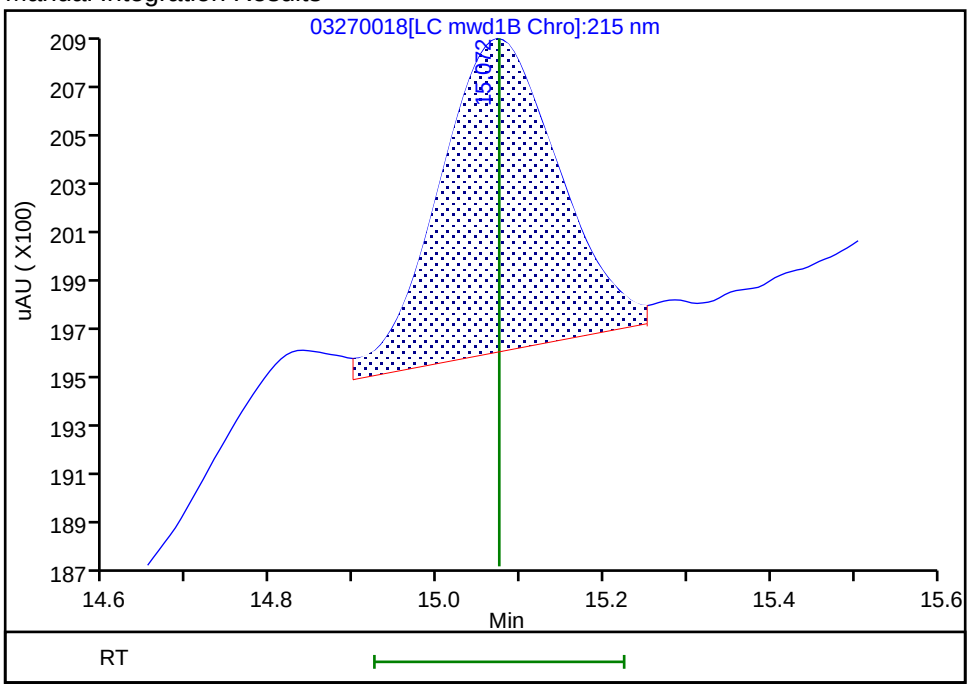
Processing Integration Results

RT: 15.07
Area: 87415
Amount: 0.399908
Amount Units: ug/ml



Manual Integration Results

RT: 15.07
Area: 12537
Amount: 0.092599
Amount Units: ug/ml



Reviewer: LV5D, 28-Mar-2024 11:37:46 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

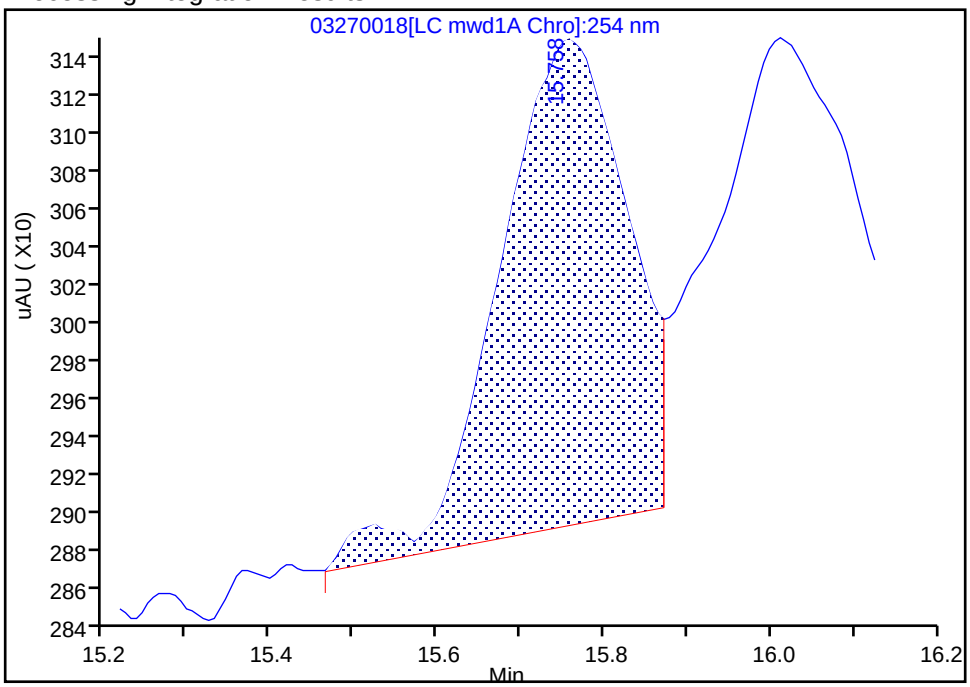
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270018.D
Injection Date: 28-Mar-2024 00:38:31 Instrument ID: CHHPLC_X5
Lims ID: IC INT 1
Client ID:
Operator ID: JZ/JG ALS Bottle#: 18 Worklist Smp#: 18
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X5_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC mwd1A, 254 nm

14 o-Nitrotoluene, CAS: 88-72-2

Signal: 1

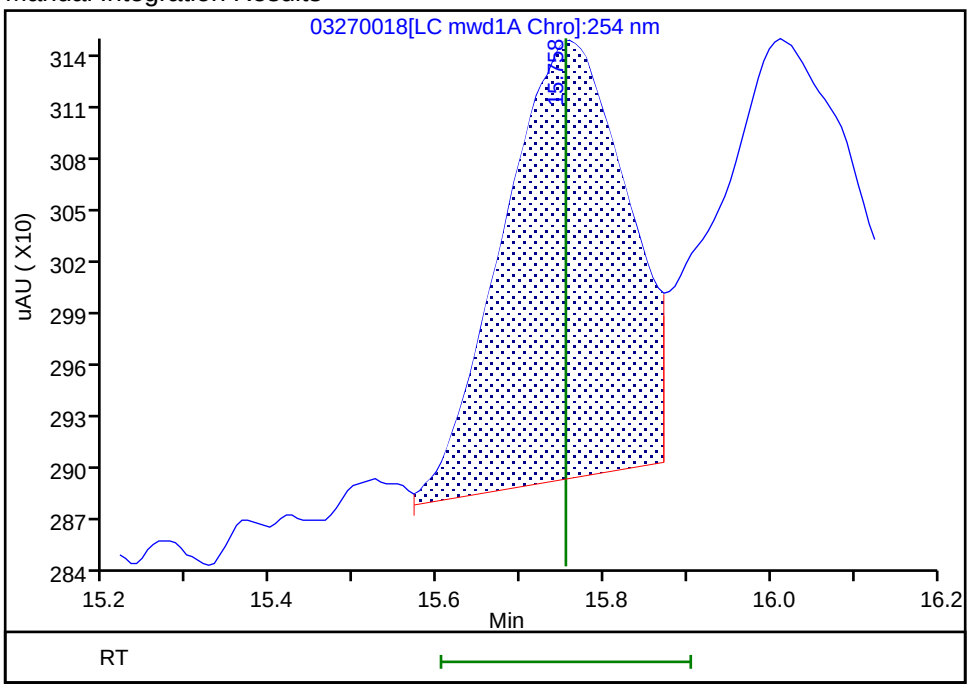
Processing Integration Results

RT: 15.76
Area: 2708
Amount: 0.010888
Amount Units: ug/ml



Manual Integration Results

RT: 15.76
Area: 2612
Amount: 0.010560
Amount Units: ug/ml



Reviewer: LV5D, 28-Mar-2024 11:39:02 -06:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

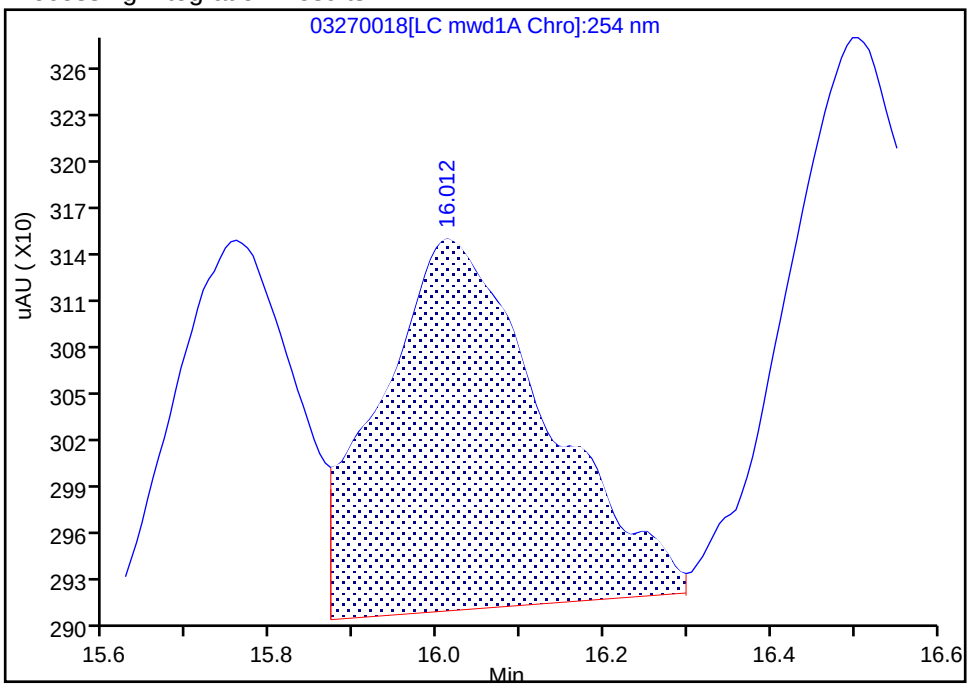
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270018.D				
Injection Date:	28-Mar-2024 00:38:31	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 1				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

16 p-Nitrotoluene, CAS: 99-99-0

Signal: 1

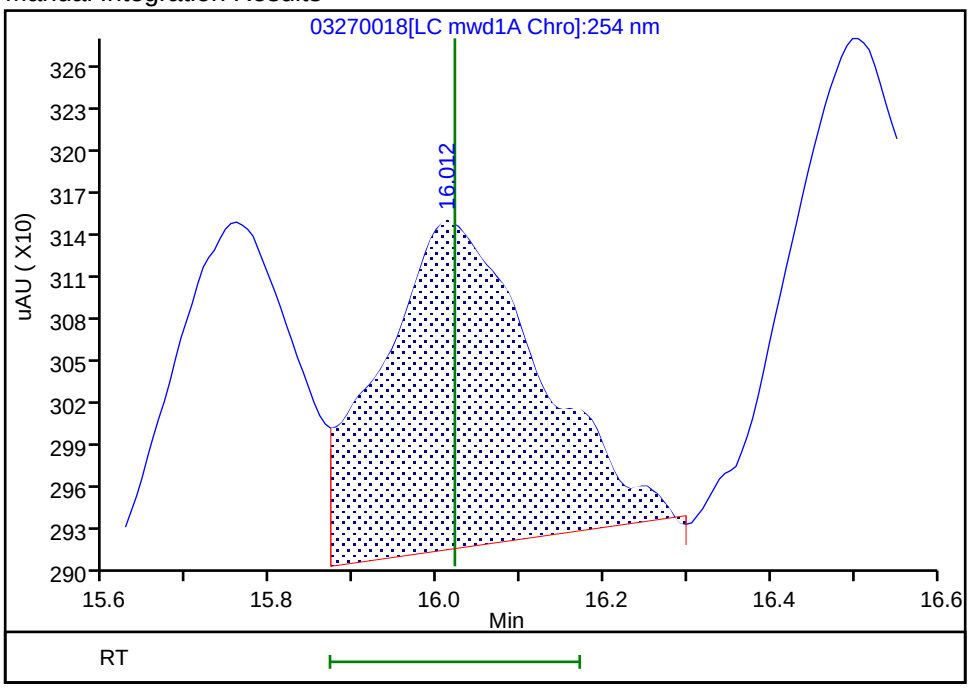
Processing Integration Results

RT: 16.01
Area: 3305
Amount: 0.013868
Amount Units: ug/ml



Manual Integration Results

RT: 16.01
Area: 3049
Amount: 0.009864
Amount Units: ug/ml



Reviewer: LV5D, 28-Mar-2024 11:38:57 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

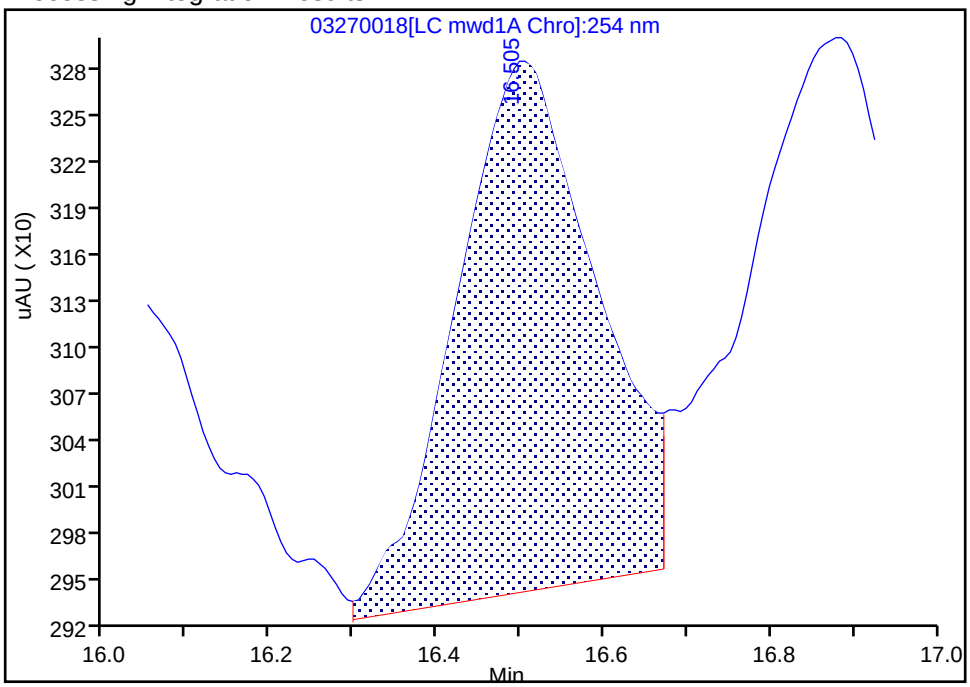
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270018.D				
Injection Date:	28-Mar-2024 00:38:31	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 1				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

17 4-Amino-2,6-dinitrotoluene, CAS: 19406-51-0

Signal: 1

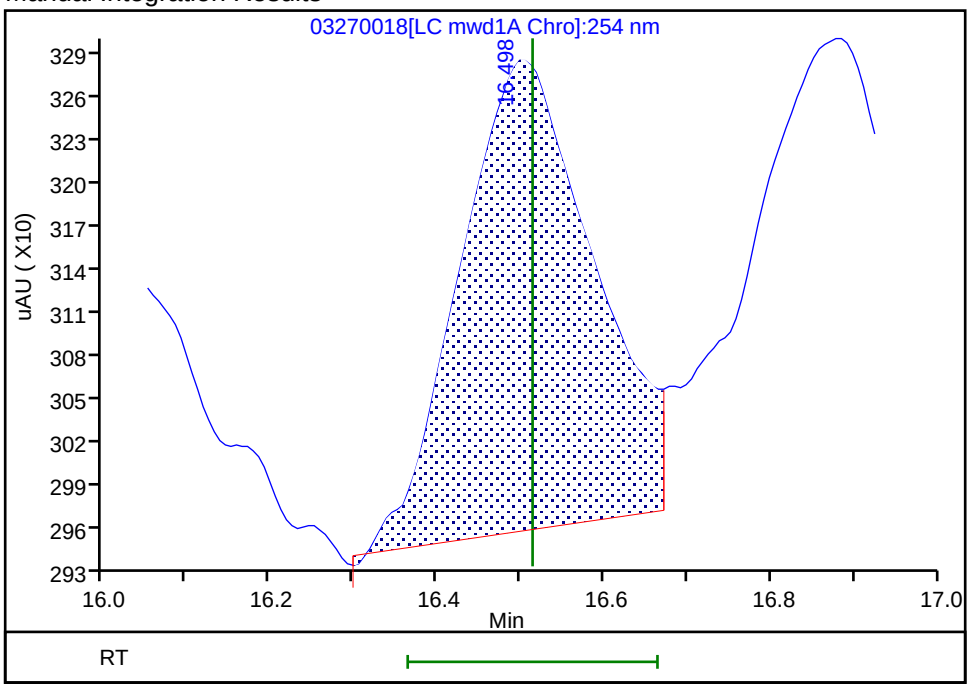
Processing Integration Results

RT: 16.50
Area: 3978
Amount: 0.013214
Amount Units: ug/ml



Manual Integration Results

RT: 16.50
Area: 3564
Amount: 0.009666
Amount Units: ug/ml



Reviewer: LV5D, 28-Mar-2024 11:38:57 -06:00:00 (UTC)
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

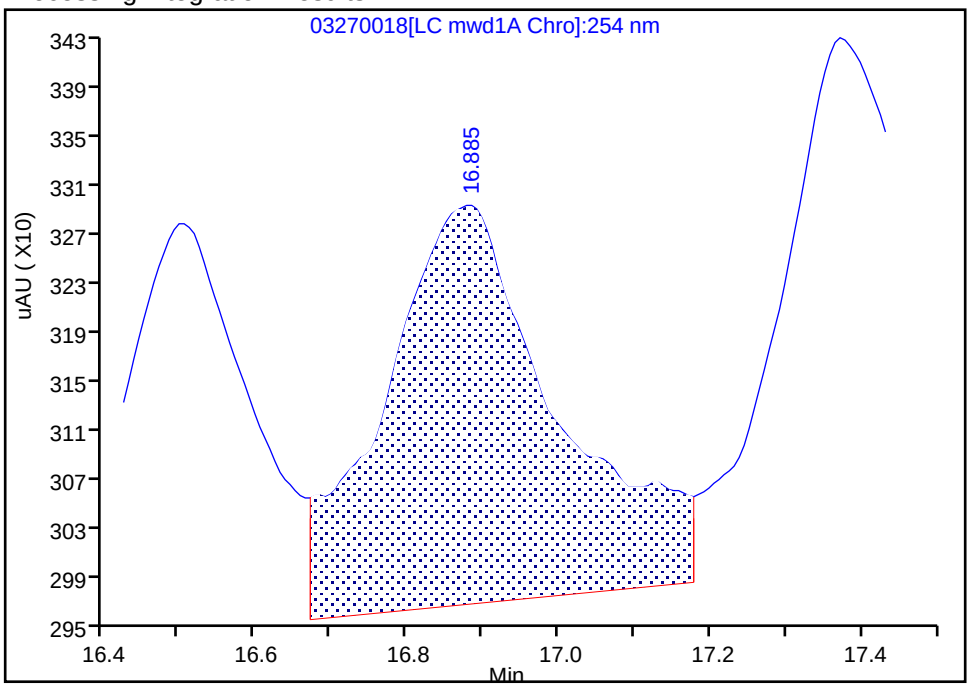
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270018.D				
Injection Date:	28-Mar-2024 00:38:31	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 1				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

18 m-Nitrotoluene, CAS: 99-08-1

Signal: 1

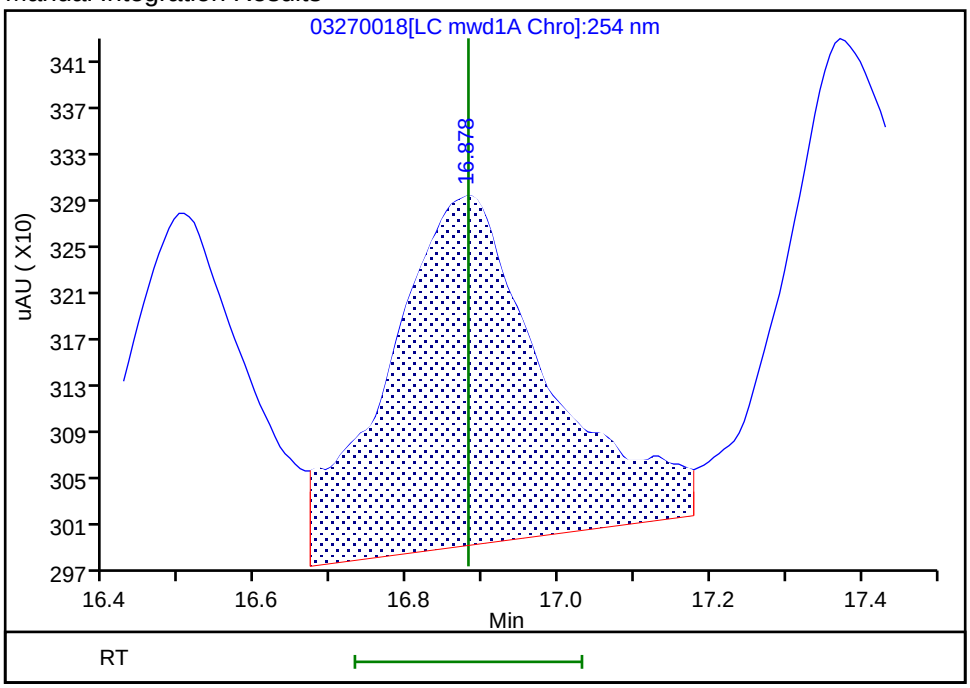
Processing Integration Results

RT: 16.88
Area: 5194
Amount: 0.010694
Amount Units: ug/ml



Manual Integration Results

RT: 16.88
Area: 4479
Amount: 0.010150
Amount Units: ug/ml



Reviewer: LV5D, 28-Mar-2024 11:38:57 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

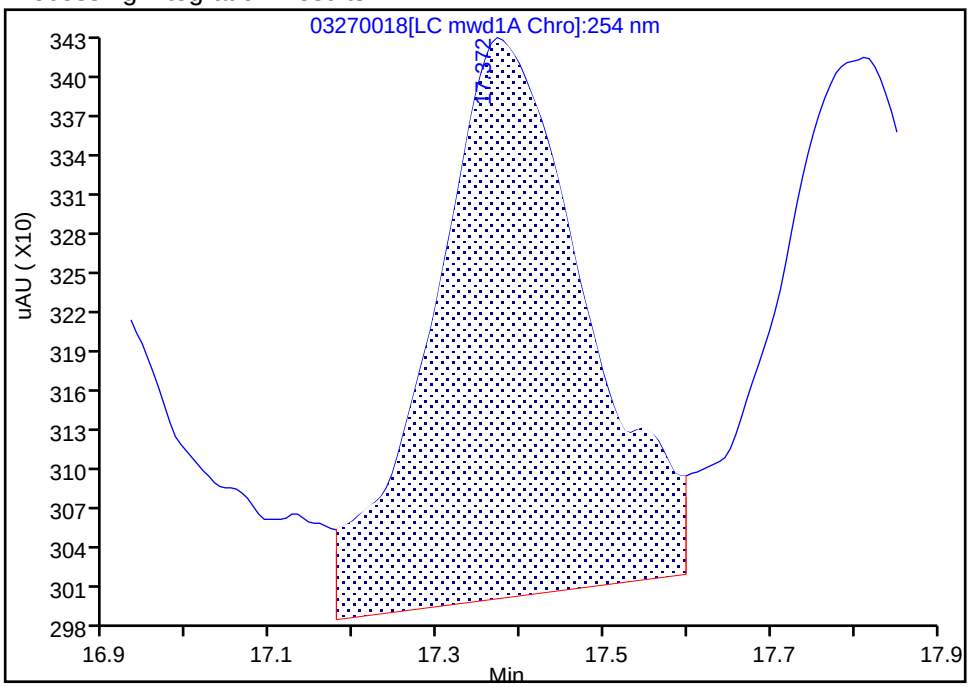
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270018.D				
Injection Date:	28-Mar-2024 00:38:31	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 1				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

19 2-Amino-4,6-dinitrotoluene, CAS: 35572-78-2

Signal: 1

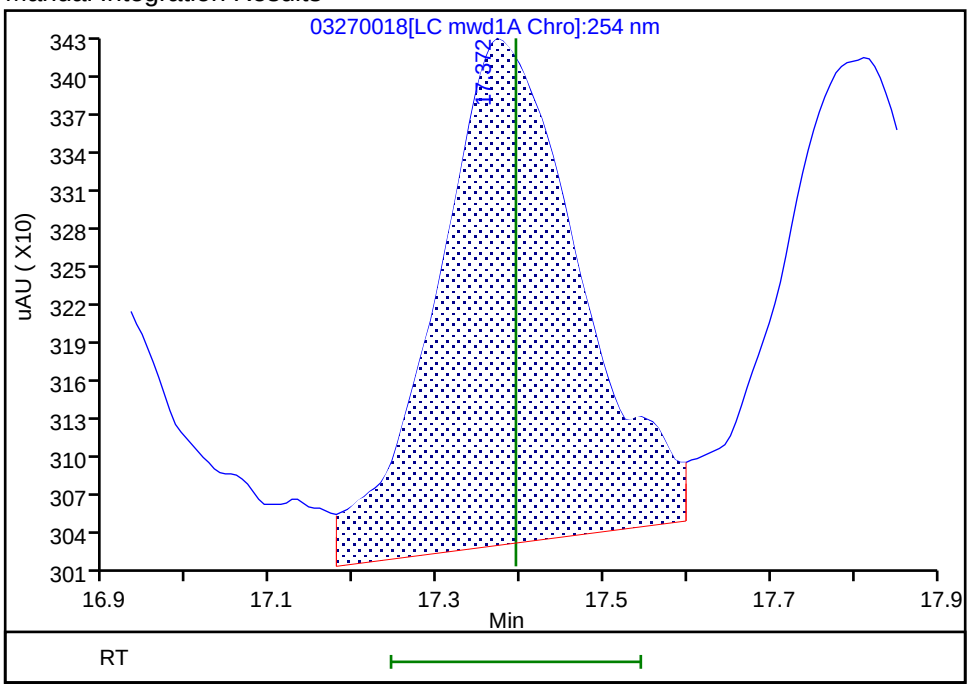
Processing Integration Results

RT: 17.37
Area: 5469
Amount: 0.012806
Amount Units: ug/ml



Manual Integration Results

RT: 17.37
Area: 4751
Amount: 0.009500
Amount Units: ug/ml



Reviewer: LV5D, 28-Mar-2024 11:38:57 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

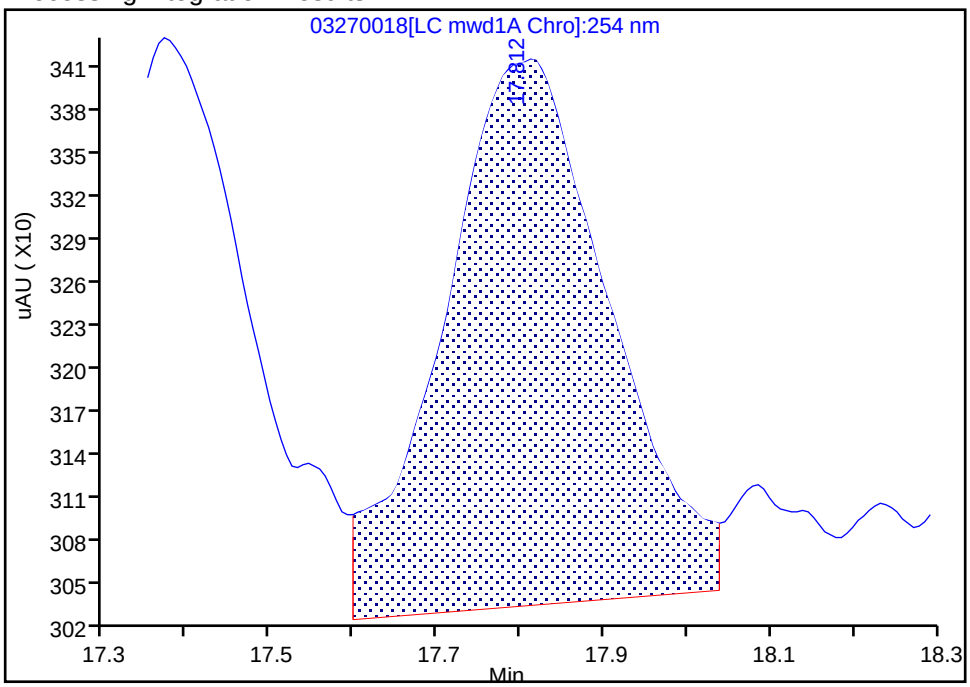
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270018.D				
Injection Date:	28-Mar-2024 00:38:31	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 1				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

20 1,3,5-Trinitrobenzene, CAS: 99-35-4

Signal: 1

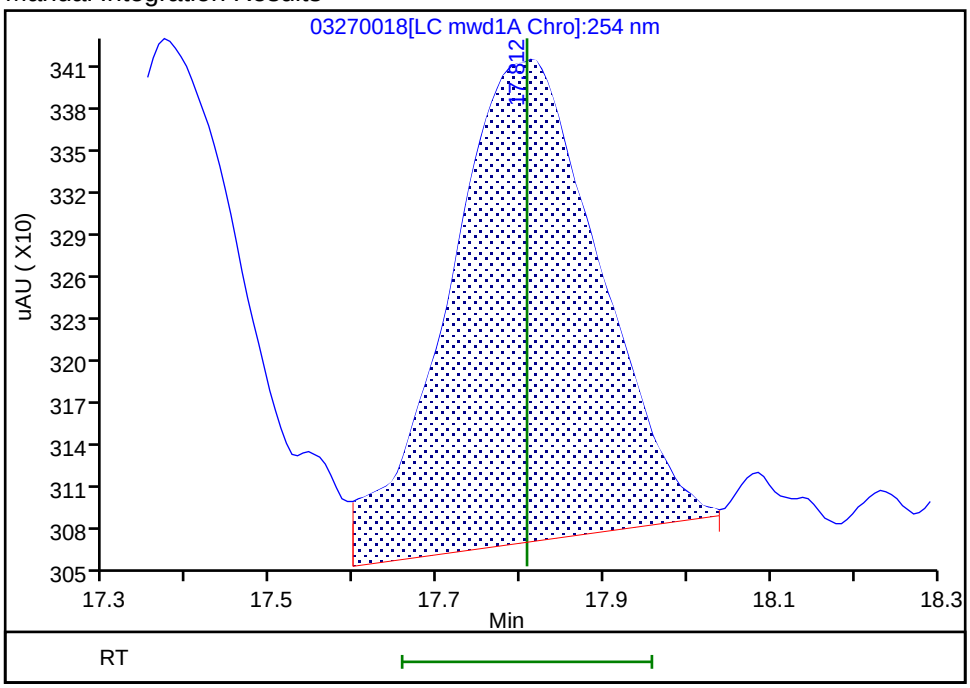
Processing Integration Results

RT: 17.81
Area: 5314
Amount: 0.012063
Amount Units: ug/ml



Manual Integration Results

RT: 17.81
Area: 4376
Amount: 0.010185
Amount Units: ug/ml



Reviewer: LV5D, 28-Mar-2024 11:38:57 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

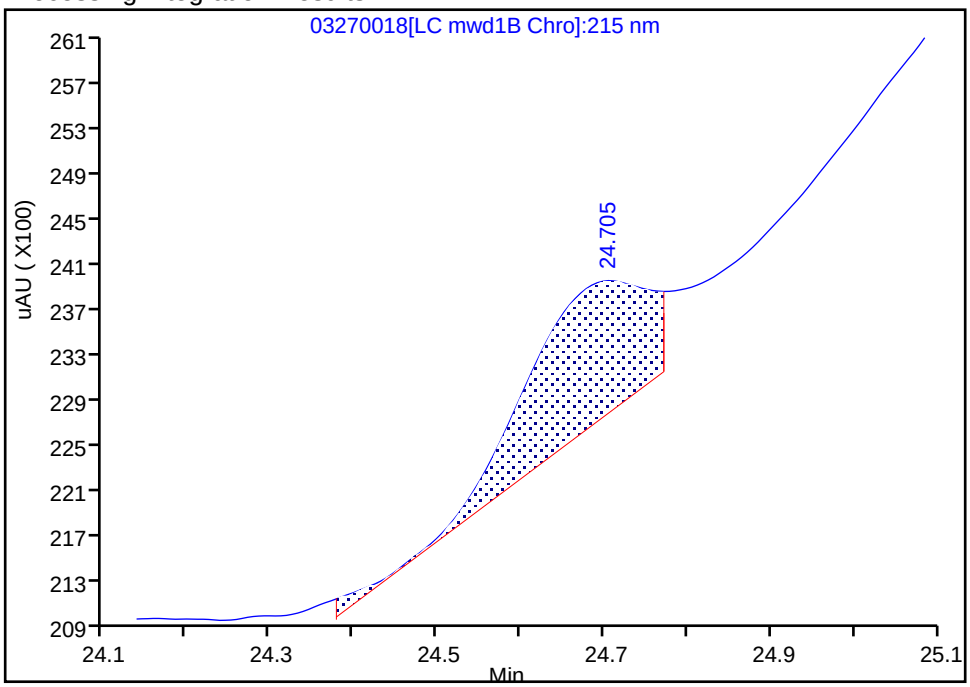
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270018.D
Injection Date: 28-Mar-2024 00:38:31 Instrument ID: CHHPLC_X5
Lims ID: IC INT 1
Client ID:
Operator ID: JZ/JG ALS Bottle#: 18 Worklist Smp#: 18
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X5_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC mwd1B, 215 nm

25 PETN, CAS: 78-11-5

Signal: 1

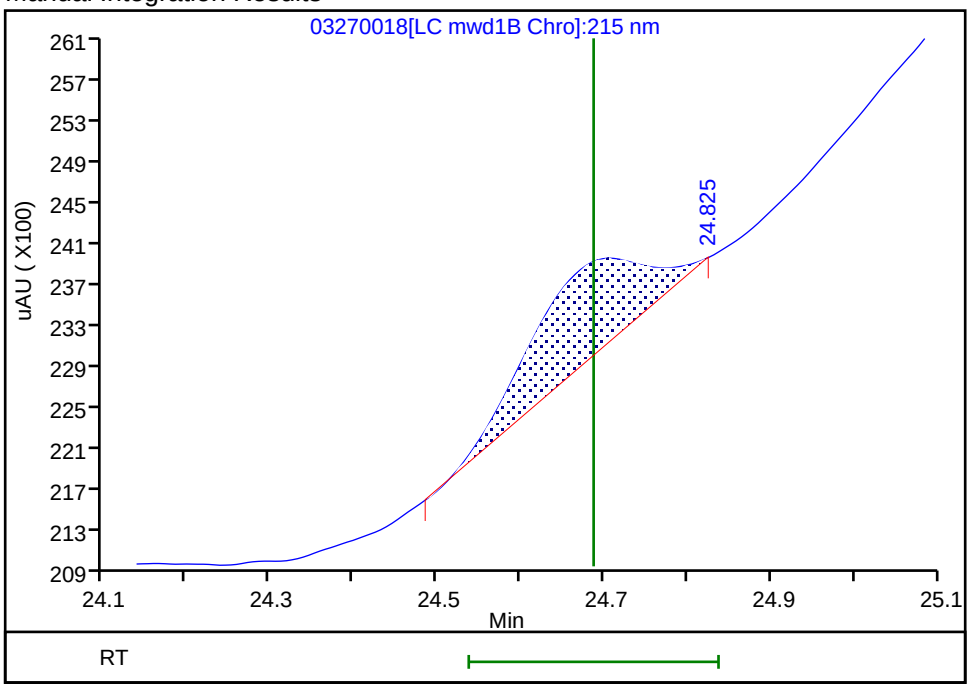
Processing Integration Results

RT: 24.71
Area: 12976
Amount: 0.091775
Amount Units: ug/ml



Manual Integration Results

RT: 24.83
Area: 8982
Amount: 0.102352
Amount Units: ug/ml



Reviewer: LV5D, 28-Mar-2024 11:39:20 -06:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Calibration / HMX

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

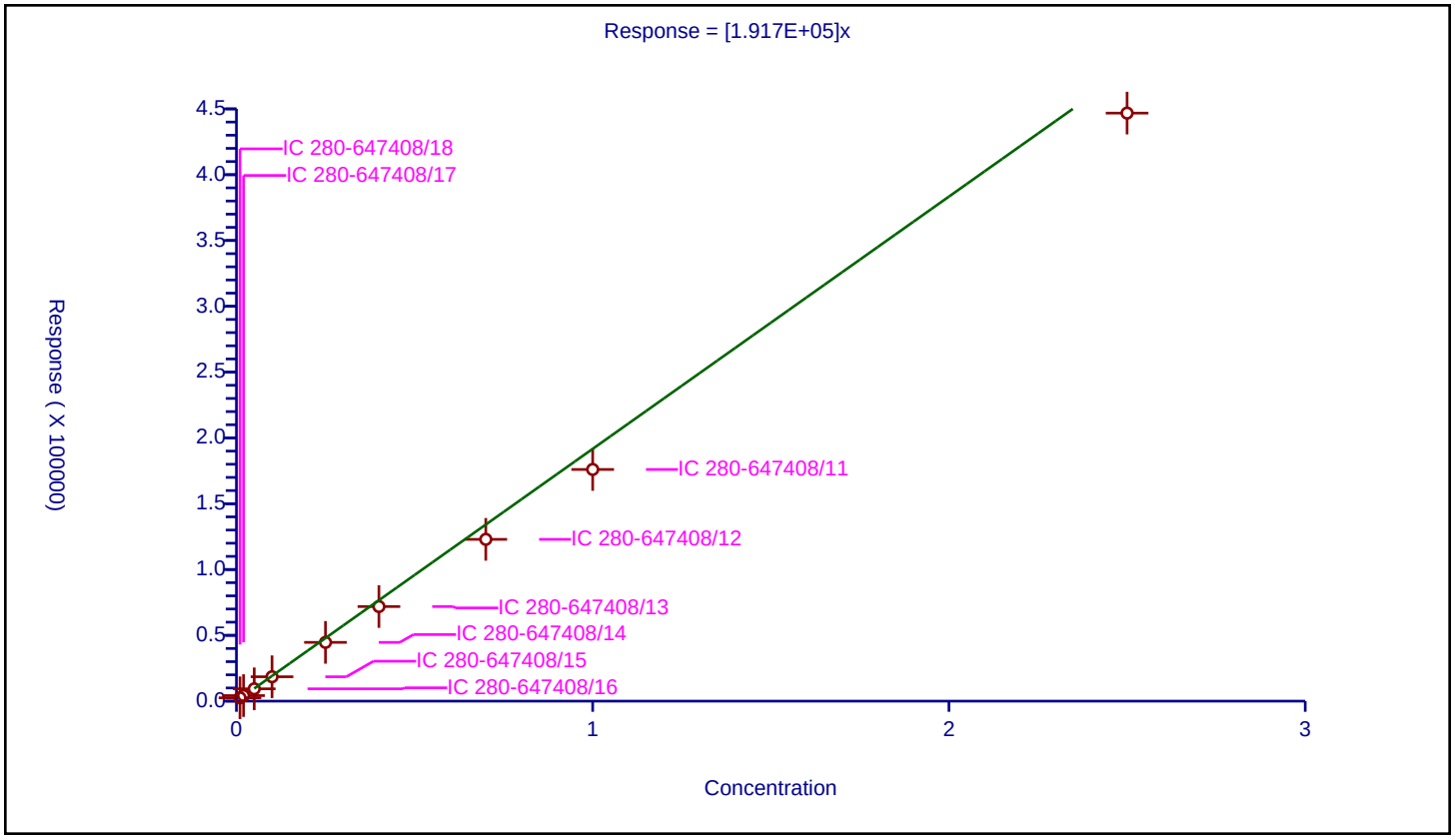
Curve Coefficients

Intercept:	0
Slope:	1.917E+05

Error Coefficients

Relative Standard Deviation:	13.4

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-647408/18	0.01	2536.0			253600.0	Y
2	IC 280-647408/17	0.02	4212.0			210600.0	Y
3	IC 280-647408/16	0.05	9356.0			187120.0	Y
4	IC 280-647408/15	0.1	18521.0			185210.0	Y
5	IC 280-647408/14	0.25	44644.0			178576.0	Y
6	IC 280-647408/13	0.4	71870.0			179675.0	Y
7	IC 280-647408/12	0.7	122924.0			175605.714286	Y
8	IC 280-647408/11	1.0	176039.0			176039.0	Y
9	IC 280-647408/10	2.5	446811.0			178724.4	Y



Calibration / 2,4,6-Trinitrophenol

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

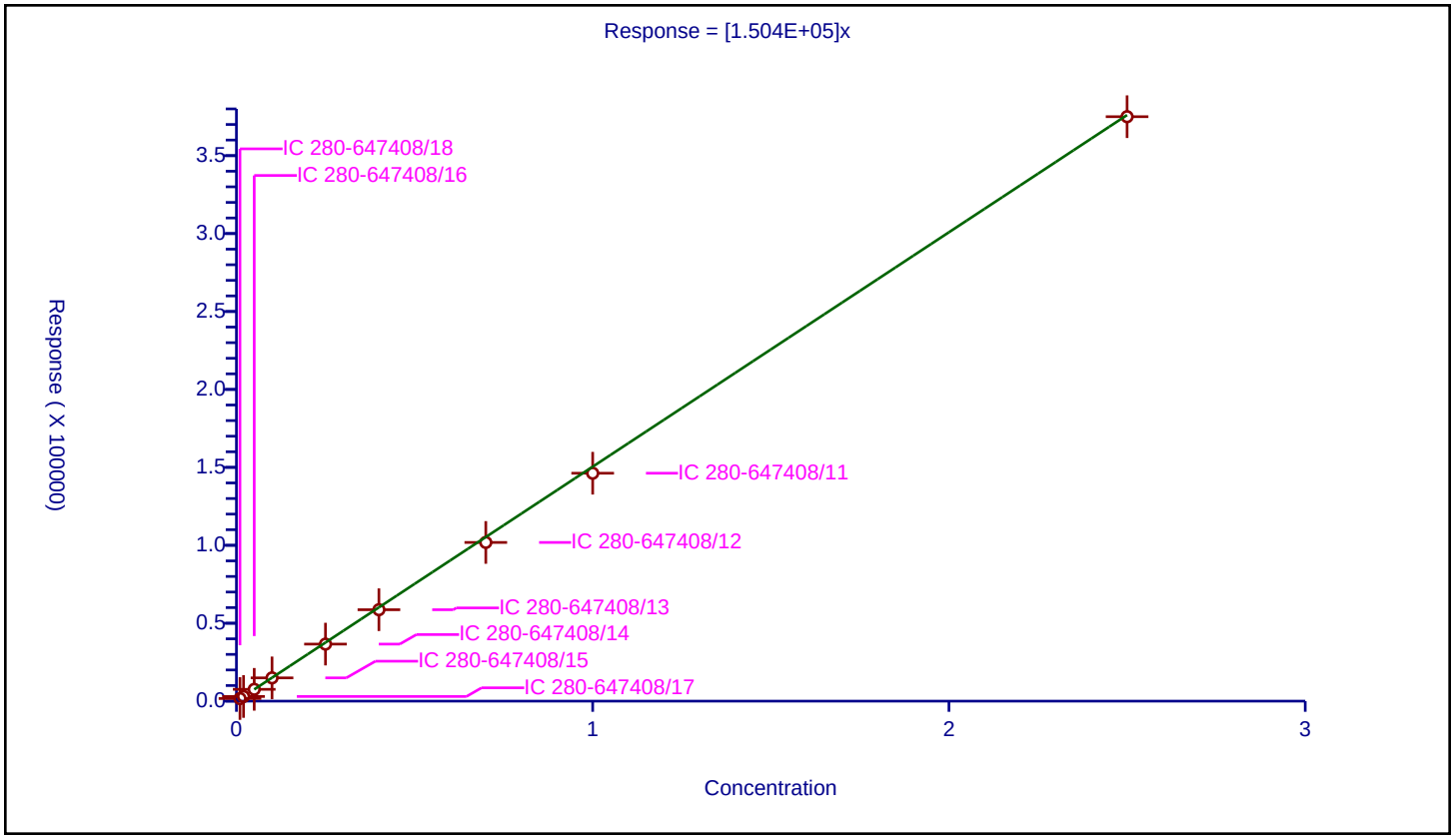
Curve Coefficients

Intercept:	0
Slope:	1.504E+05

Error Coefficients

Relative Standard Deviation:	4.8

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-647408/18	0.01	1687.0			168700.0	Y
2	IC 280-647408/17	0.02	2989.0			149450.0	Y
3	IC 280-647408/16	0.05	7577.0			151540.0	Y
4	IC 280-647408/15	0.1	14935.0			149350.0	Y
5	IC 280-647408/14	0.25	36592.0			146368.0	Y
6	IC 280-647408/13	0.4	58665.0			146662.5	Y
7	IC 280-647408/12	0.7	101830.0			145471.428571	Y
8	IC 280-647408/11	1.0	146238.0			146238.0	Y
9	IC 280-647408/10	2.5	375001.0			150000.4	Y



Calibration / RDX

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

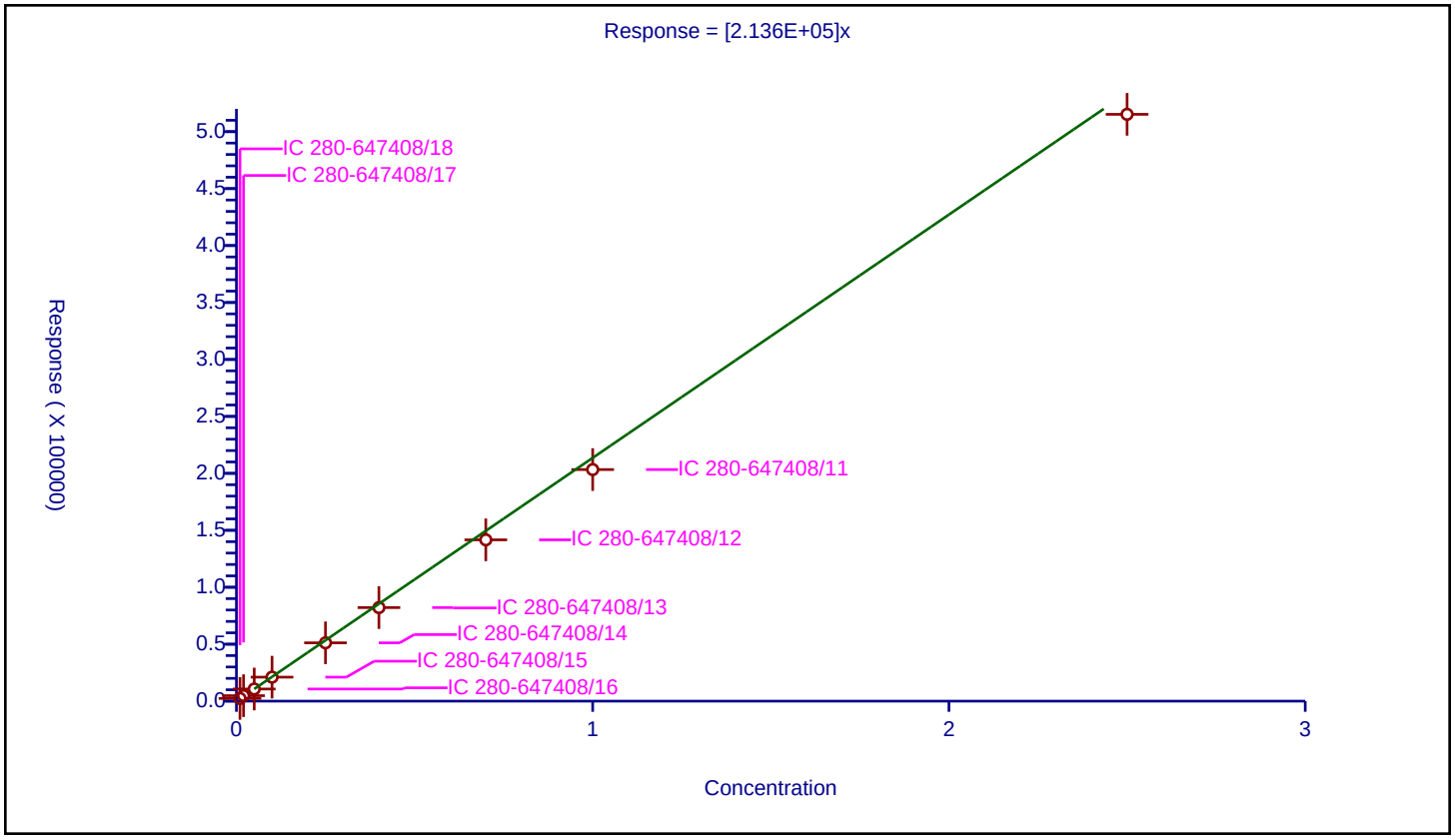
Curve Coefficients

Intercept:	0
Slope:	2.136E+05

Error Coefficients

Relative Standard Deviation:	6.8

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-647408/18	0.01	2368.0			236800.0	Y
2	IC 280-647408/17	0.02	4799.0			239950.0	Y
3	IC 280-647408/16	0.05	10653.0			213060.0	Y
4	IC 280-647408/15	0.1	21066.0			210660.0	Y
5	IC 280-647408/14	0.25	51199.0			204796.0	Y
6	IC 280-647408/13	0.4	82139.0			205347.5	Y
7	IC 280-647408/12	0.7	141632.0			202331.428571	Y
8	IC 280-647408/11	1.0	203312.0			203312.0	Y
9	IC 280-647408/10	2.5	515221.0			206088.4	Y



5/27/2024
7:57:40 AM

Calibration / Nitrobenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

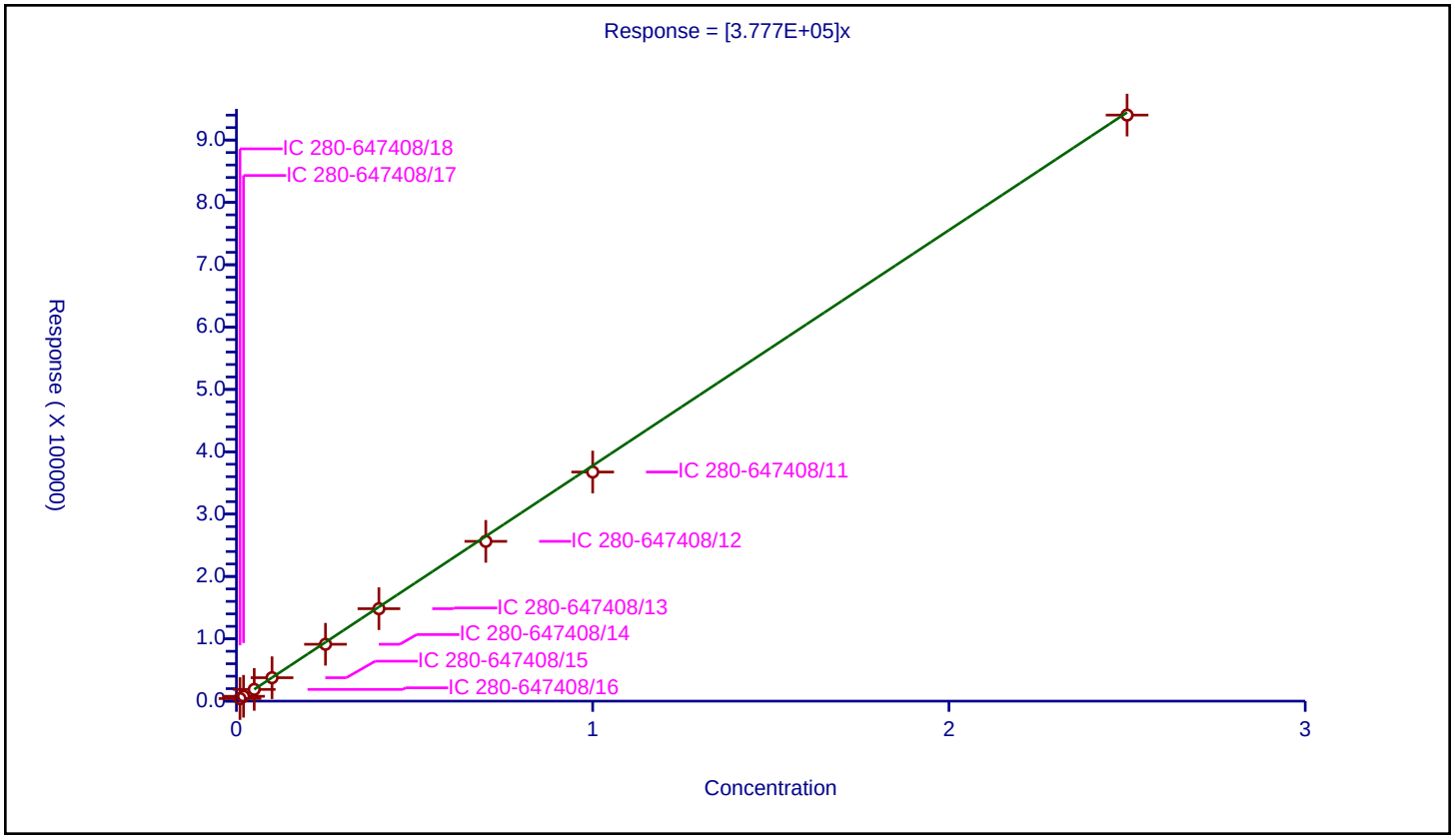
Curve Coefficients

Intercept:	0
Slope:	3.777E+05

Error Coefficients

Relative Standard Deviation:	3.9

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-647408/18	0.01	4113.0			411300.0	Y
2	IC 280-647408/17	0.02	7815.0			390750.0	Y
3	IC 280-647408/16	0.05	18828.0			376560.0	Y
4	IC 280-647408/15	0.1	37579.0			375790.0	Y
5	IC 280-647408/14	0.25	91228.0			364912.0	Y
6	IC 280-647408/13	0.4	148265.0			370662.5	Y
7	IC 280-647408/12	0.7	256305.0			366150.0	Y
8	IC 280-647408/11	1.0	367527.0			367527.0	Y
9	IC 280-647408/10	2.5	940071.0			376028.4	Y



5/27/2024
7:57:40 AM

Calibration / 1,2-Dinitrobenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

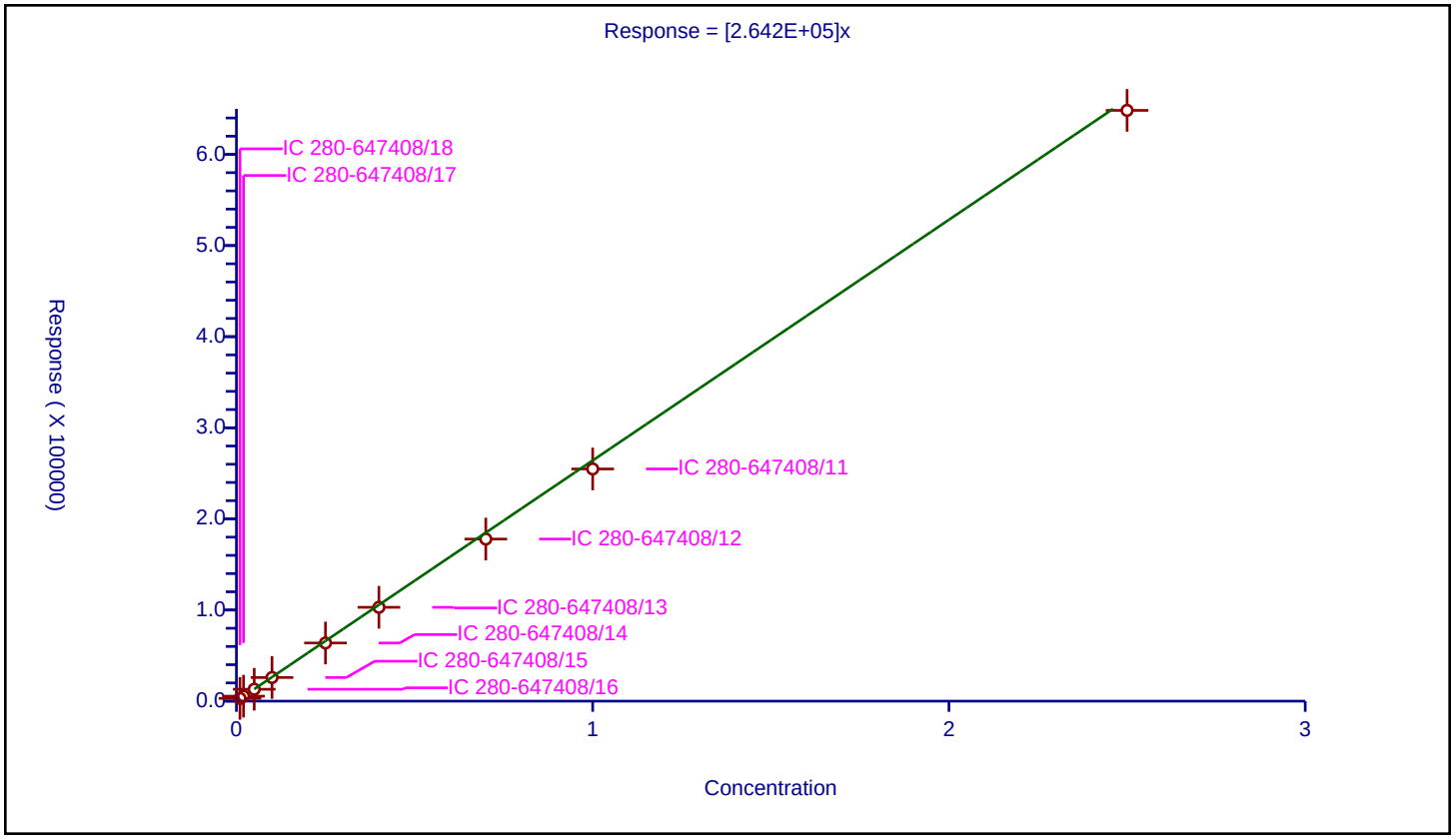
Curve Coefficients

Intercept:	0
Slope:	2.642E+05

Error Coefficients

Relative Standard Deviation:	5.9

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-647408/18	0.01	3032.0			303200.0	Y
2	IC 280-647408/17	0.02	5446.0			272300.0	Y
3	IC 280-647408/16	0.05	13065.0			261300.0	Y
4	IC 280-647408/15	0.1	25950.0			259500.0	Y
5	IC 280-647408/14	0.25	63832.0			255328.0	Y
6	IC 280-647408/13	0.4	102985.0			257462.5	Y
7	IC 280-647408/12	0.7	177880.0			254114.285714	Y
8	IC 280-647408/11	1.0	254825.0			254825.0	Y
9	IC 280-647408/10	2.5	648358.0			259343.2	Y



Calibration / 3,5-Dinitroaniline

Curve Type:	Linear
Weighting:	Conc_Sq
Origin:	None
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

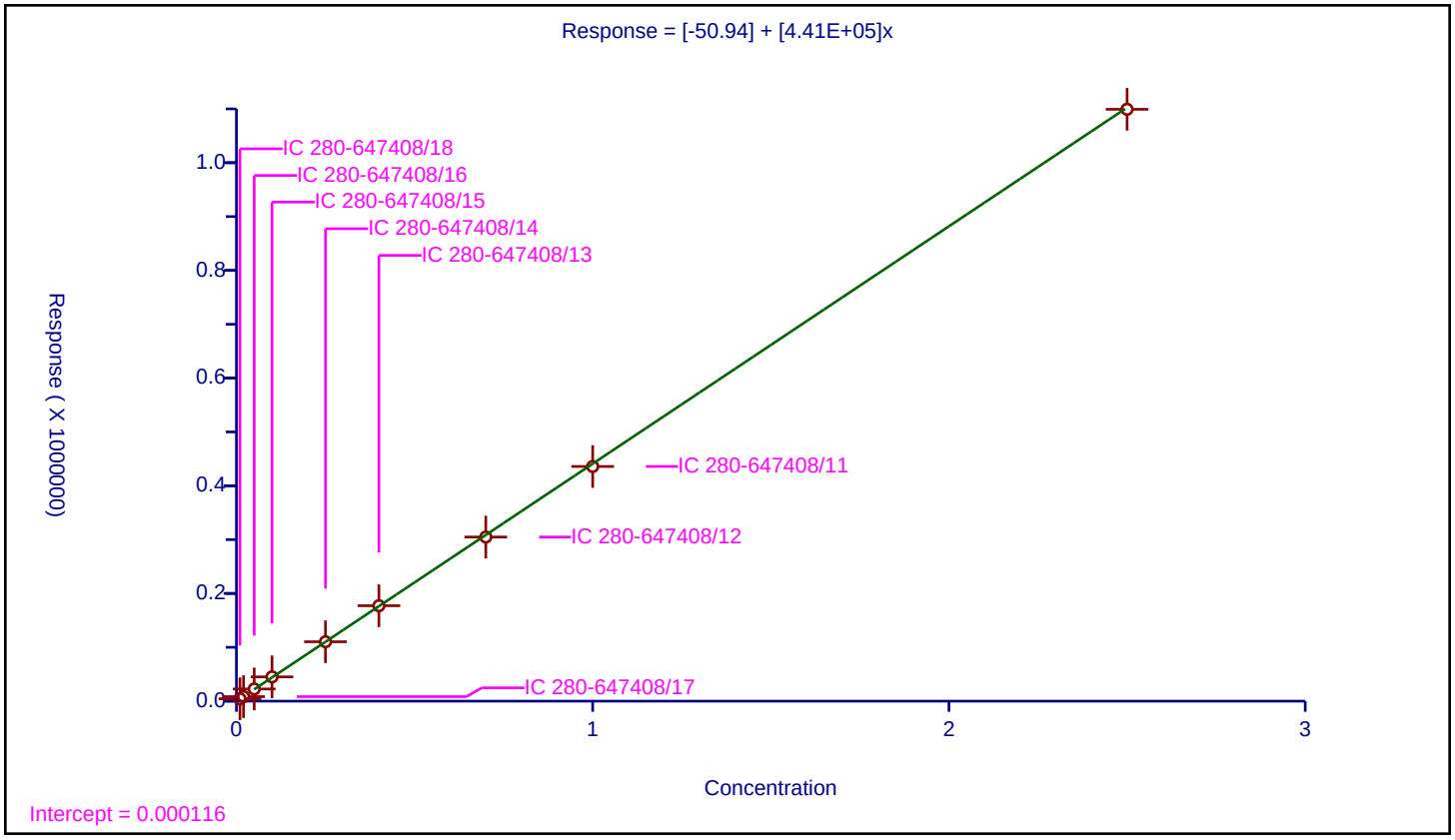
Curve Coefficients

Intercept:	-50.94
Slope:	4.41E+05

Error Coefficients

Relative Standard Deviation:	2.4

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-647408/18	0.01	4425.0			442500.0	Y
2	IC 280-647408/17	0.02	8366.0			418300.0	Y
3	IC 280-647408/16	0.05	22622.0			452440.0	Y
4	IC 280-647408/15	0.1	45083.0			450830.0	Y
5	IC 280-647408/14	0.25	110304.0			441216.0	Y
6	IC 280-647408/13	0.4	177203.0			443007.5	Y
7	IC 280-647408/12	0.7	304802.0			435431.428571	Y
8	IC 280-647408/11	1.0	435844.0			435844.0	Y
9	IC 280-647408/10	2.5	1099211.0			439684.4	Y



Calibration / 1,3-Dinitrobenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

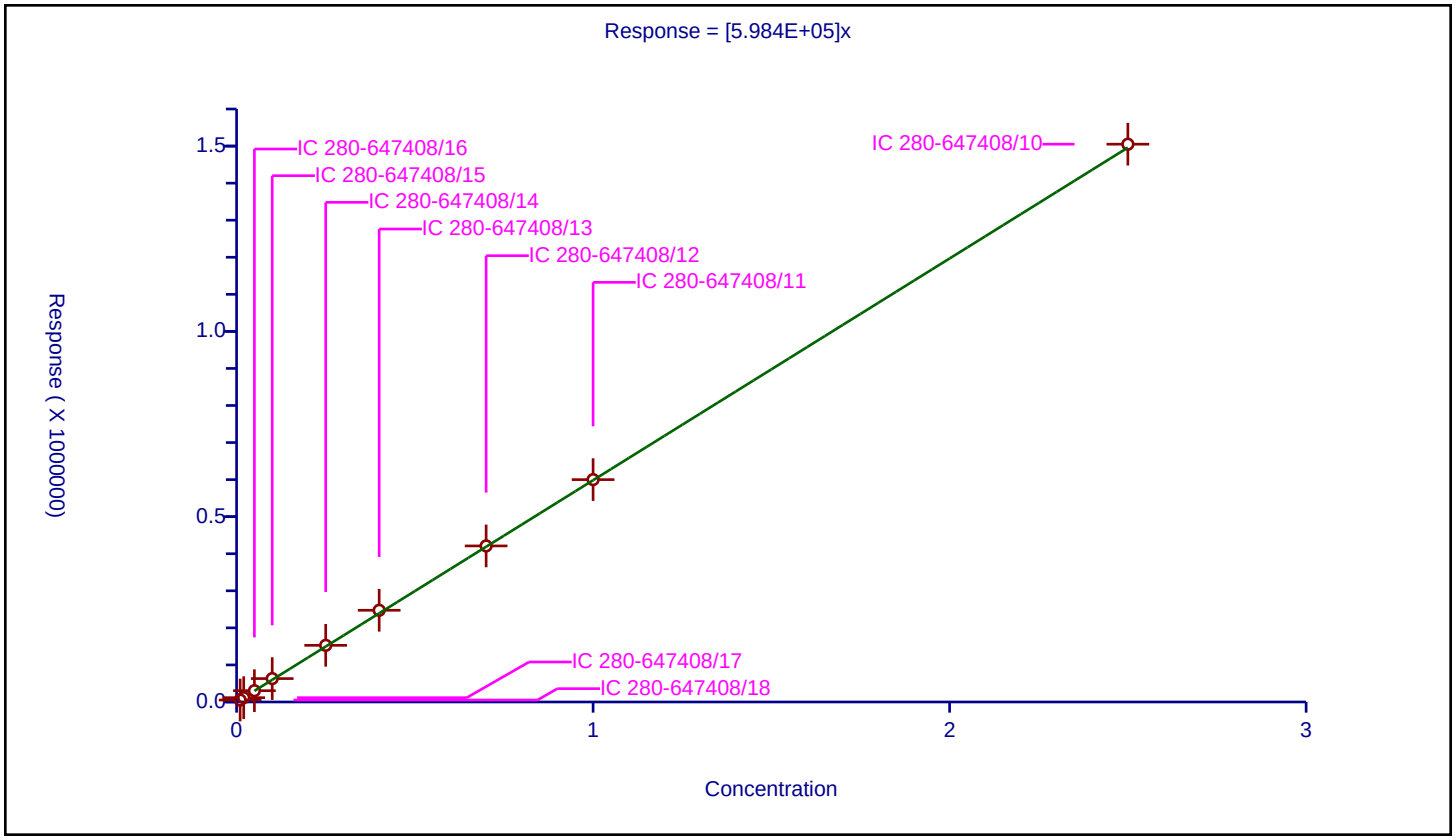
Curve Coefficients

Intercept:	0
Slope:	5.984E+05

Error Coefficients

Relative Standard Deviation:	4.8

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-647408/18	0.01	5312.0			531200.0	Y
2	IC 280-647408/17	0.02	11588.0			579400.0	Y
3	IC 280-647408/16	0.05	30462.0			609240.0	Y
4	IC 280-647408/15	0.1	63169.0			631690.0	Y
5	IC 280-647408/14	0.25	152858.0			611432.0	Y
6	IC 280-647408/13	0.4	247490.0			618725.0	Y
7	IC 280-647408/12	0.7	421120.0			601600.0	Y
8	IC 280-647408/11	1.0	599978.0			599978.0	Y
9	IC 280-647408/10	2.5	1505083.0			602033.2	Y



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Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

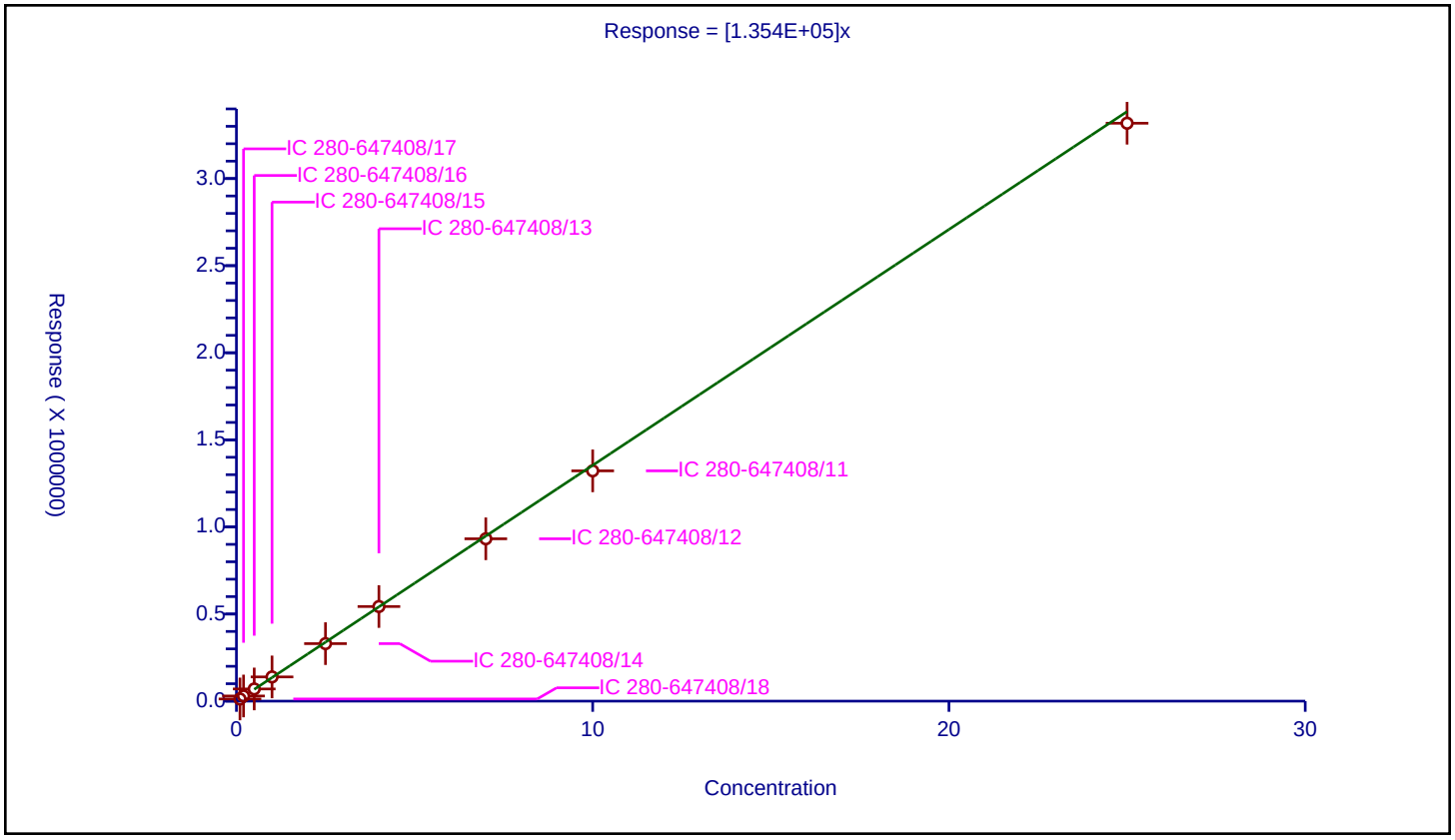
Curve Coefficients

Intercept:	0
Slope:	1.354E+05

Error Coefficients

Relative Standard Deviation:	4.7

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-647408/18	0.1	12537.0			125370.0	Y
2	IC 280-647408/17	0.2	29624.0			148120.0	Y
3	IC 280-647408/16	0.5	69985.0			139970.0	Y
4	IC 280-647408/15	1.0	139113.0			139113.0	Y
5	IC 280-647408/14	2.5	330187.0			132074.8	Y
6	IC 280-647408/13	4.0	543150.0			135787.5	Y
7	IC 280-647408/12	7.0	932056.0			133150.857143	Y
8	IC 280-647408/11	10.0	1322106.0			132210.6	Y
9	IC 280-647408/10	25.0	3317794.0			132711.76	Y



Calibration / o-Nitrotoluene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

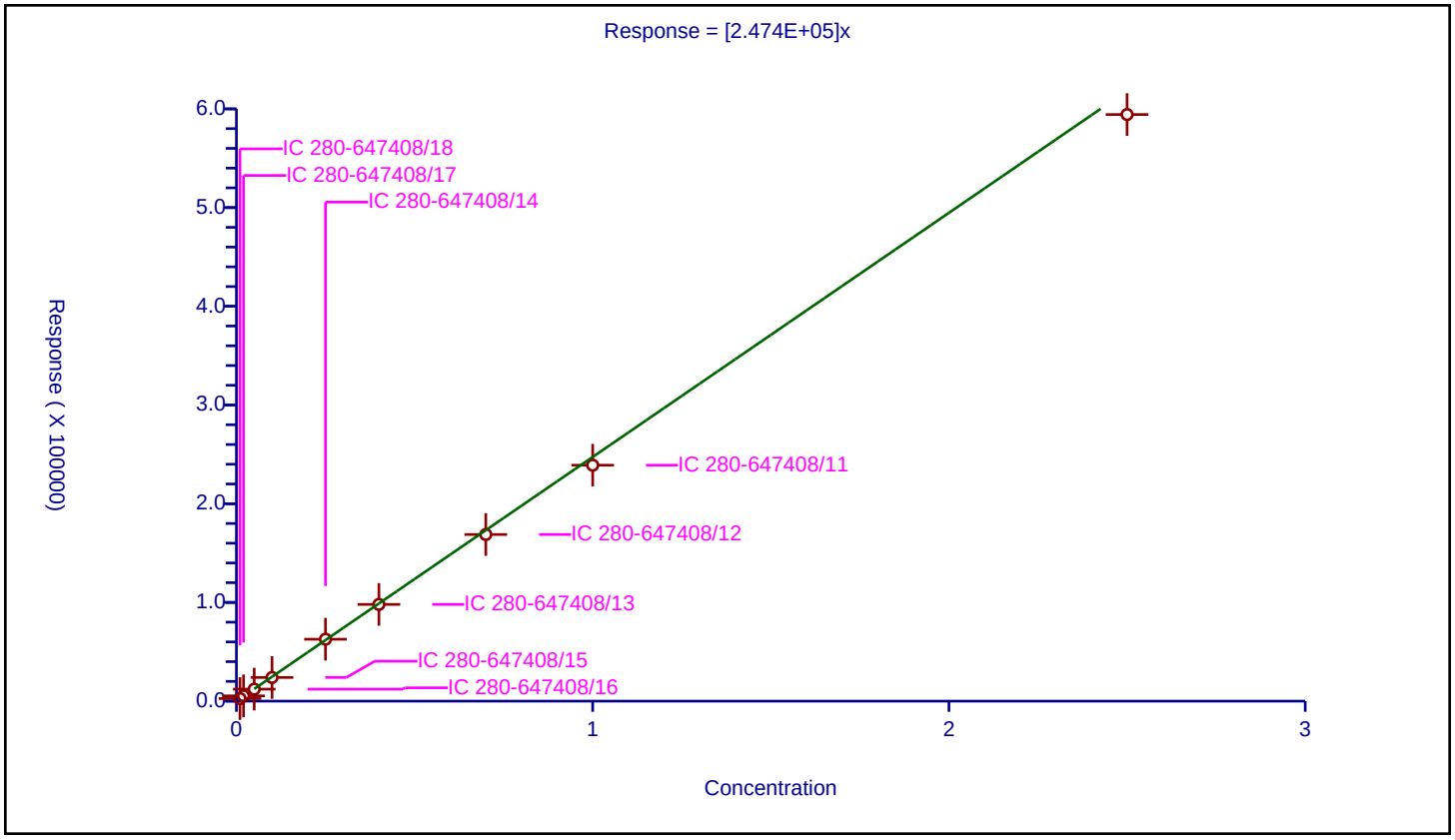
Curve Coefficients

Intercept:	0
Slope:	2.474E+05

Error Coefficients

Relative Standard Deviation:	4.3

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-647408/18	0.01	2612.0			261200.0	Y
2	IC 280-647408/17	0.02	5365.0			268250.0	Y
3	IC 280-647408/16	0.05	12161.0			243220.0	Y
4	IC 280-647408/15	0.1	23970.0			239700.0	Y
5	IC 280-647408/14	0.25	62730.0			250920.0	Y
6	IC 280-647408/13	0.4	98000.0			245000.0	Y
7	IC 280-647408/12	0.7	168804.0			241148.571429	Y
8	IC 280-647408/11	1.0	239038.0			239038.0	Y
9	IC 280-647408/10	2.5	594270.0			237708.0	Y



Calibration / p-Nitrotoluene

Curve Type:	Linear
Weighting:	Conc_Sq
Origin:	None
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

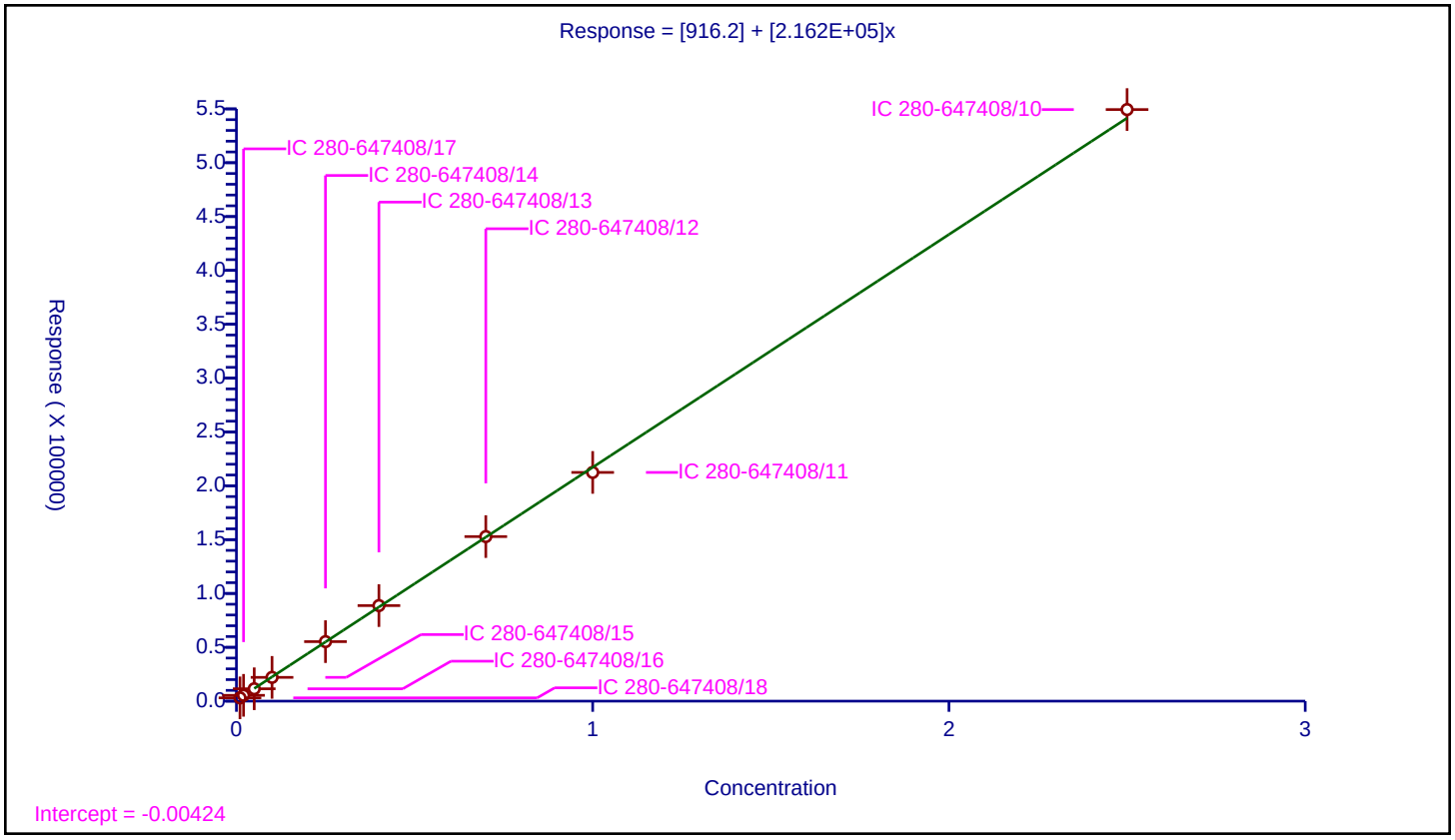
Curve Coefficients

Intercept:	916.2
Slope:	2.162E+05

Error Coefficients

Relative Standard Deviation:	2.3

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-647408/18	0.01	3049.0			304900.0	Y
2	IC 280-647408/17	0.02	5409.0			270450.0	Y
3	IC 280-647408/16	0.05	11499.0			229980.0	Y
4	IC 280-647408/15	0.1	22083.0			220830.0	Y
5	IC 280-647408/14	0.25	55261.0			221044.0	Y
6	IC 280-647408/13	0.4	88722.0			221805.0	Y
7	IC 280-647408/12	0.7	152824.0			218320.0	Y
8	IC 280-647408/11	1.0	212404.0			212404.0	Y
9	IC 280-647408/10	2.5	549379.0			219751.6	Y



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

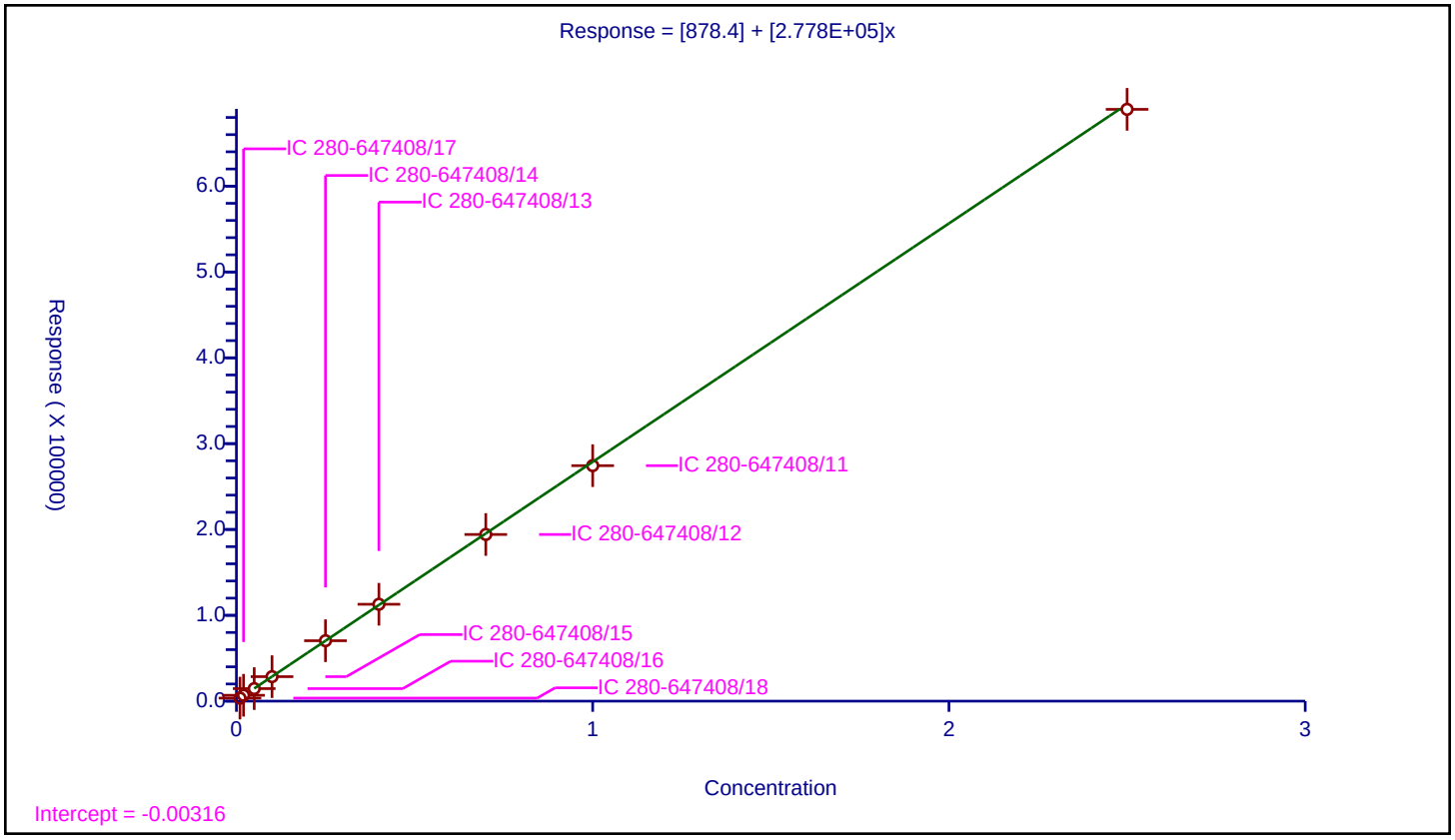
Curve Coefficients

Intercept:	878.4
Slope:	2.778E+05

Error Coefficients

Relative Standard Deviation:	3.2

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-647408/18	0.01	3564.0			356400.0	Y
2	IC 280-647408/17	0.02	6841.0			342050.0	Y
3	IC 280-647408/16	0.05	14588.0			291760.0	Y
4	IC 280-647408/15	0.1	28535.0			285350.0	Y
5	IC 280-647408/14	0.25	70385.0			281540.0	Y
6	IC 280-647408/13	0.4	112872.0			282180.0	Y
7	IC 280-647408/12	0.7	194181.0			277401.428571	Y
8	IC 280-647408/11	1.0	274352.0			274352.0	Y
9	IC 280-647408/10	2.5	689480.0			275792.0	Y



Calibration / m-Nitrotoluene

Curve Type:	Linear
Weighting:	Conc_Sq
Origin:	None
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

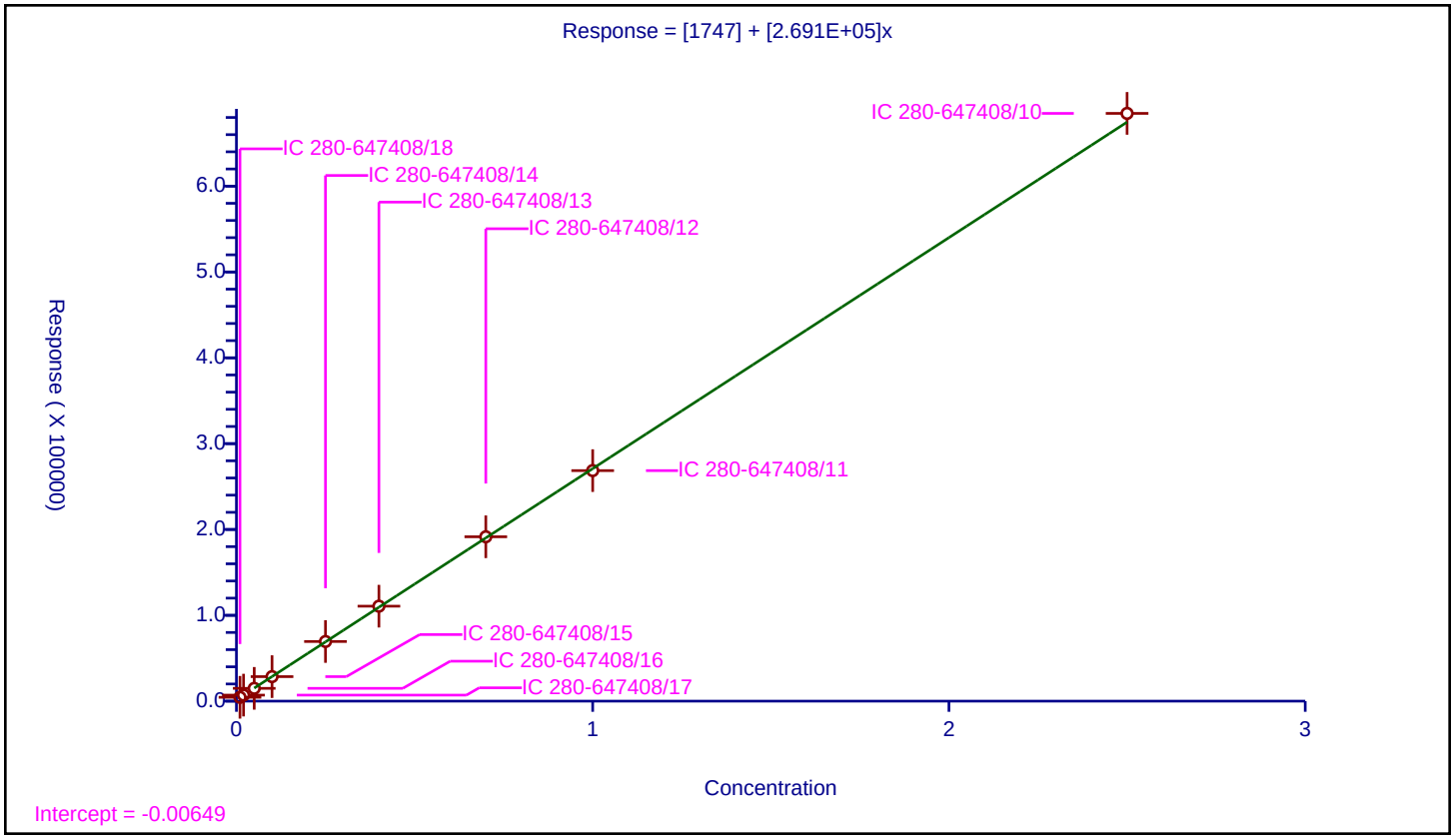
Curve Coefficients

Intercept:	1747
Slope:	2.691E+05

Error Coefficients

Relative Standard Deviation:	1.6

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-647408/18	0.01	4479.0			447900.0	Y
2	IC 280-647408/17	0.02	7013.0			350650.0	Y
3	IC 280-647408/16	0.05	14909.0			298180.0	Y
4	IC 280-647408/15	0.1	28570.0			285700.0	Y
5	IC 280-647408/14	0.25	69503.0			278012.0	Y
6	IC 280-647408/13	0.4	110632.0			276580.0	Y
7	IC 280-647408/12	0.7	191495.0			273564.285714	Y
8	IC 280-647408/11	1.0	268594.0			268594.0	Y
9	IC 280-647408/10	2.5	684753.0			273901.2	Y



Calibration / 2-Amino-4,6-dinitrotoluene

Curve Type:	Linear
Weighting:	Conc_Sq
Origin:	None
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

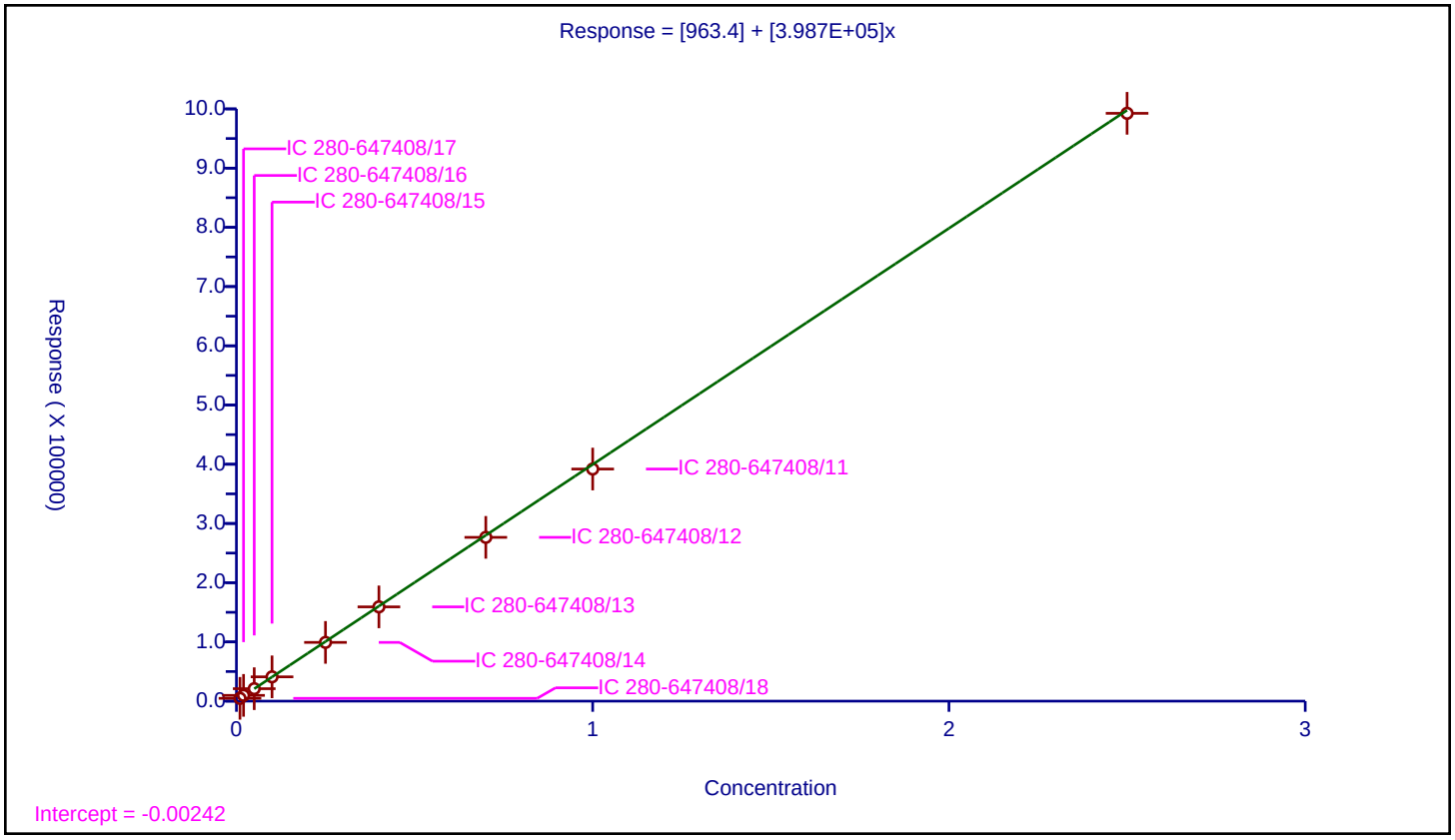
Curve Coefficients

Intercept:	963.4
Slope:	3.987E+05

Error Coefficients

Relative Standard Deviation:	4.3

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-647408/18	0.01	4751.0			475100.0	Y
2	IC 280-647408/17	0.02	9727.0			486350.0	Y
3	IC 280-647408/16	0.05	21010.0			420200.0	Y
4	IC 280-647408/15	0.1	41030.0			410300.0	Y
5	IC 280-647408/14	0.25	99171.0			396684.0	Y
6	IC 280-647408/13	0.4	159194.0			397985.0	Y
7	IC 280-647408/12	0.7	276553.0			395075.714286	Y
8	IC 280-647408/11	1.0	391883.0			391883.0	Y
9	IC 280-647408/10	2.5	992531.0			397012.4	Y



Calibration / 1,3,5-Trinitrobenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

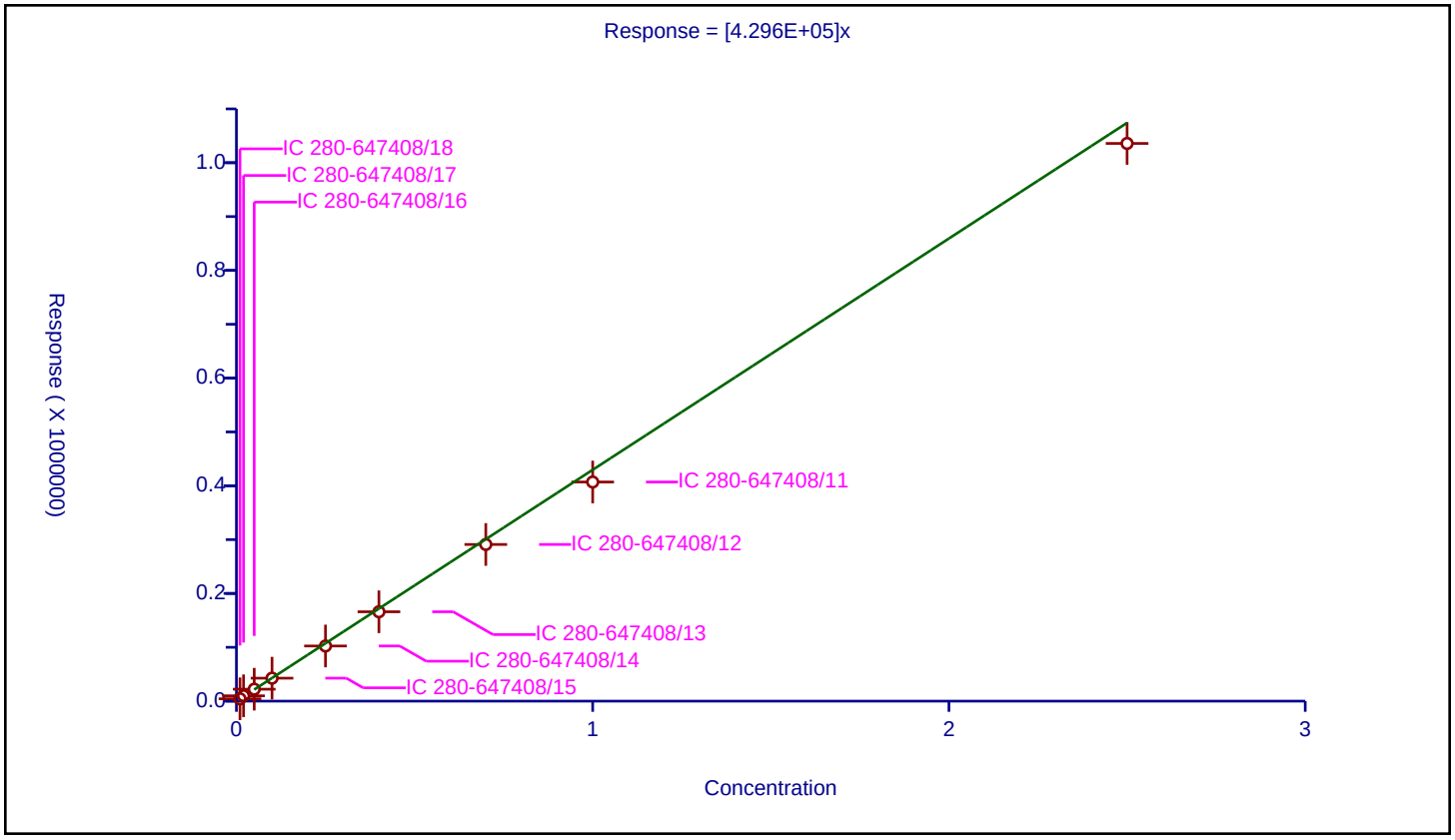
Curve Coefficients

Intercept:	0
Slope:	4.296E+05

Error Coefficients

Relative Standard Deviation:	6.6

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-647408/18	0.01	4376.0			437600.0	Y
2	IC 280-647408/17	0.02	9936.0			496800.0	Y
3	IC 280-647408/16	0.05	22192.0			443840.0	Y
4	IC 280-647408/15	0.1	42679.0			426790.0	Y
5	IC 280-647408/14	0.25	102407.0			409628.0	Y
6	IC 280-647408/13	0.4	165995.0			414987.5	Y
7	IC 280-647408/12	0.7	290999.0			415712.857143	Y
8	IC 280-647408/11	1.0	407003.0			407003.0	Y
9	IC 280-647408/10	2.5	1035852.0			414340.8	Y



Calibration / 2,6-Dinitrotoluene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

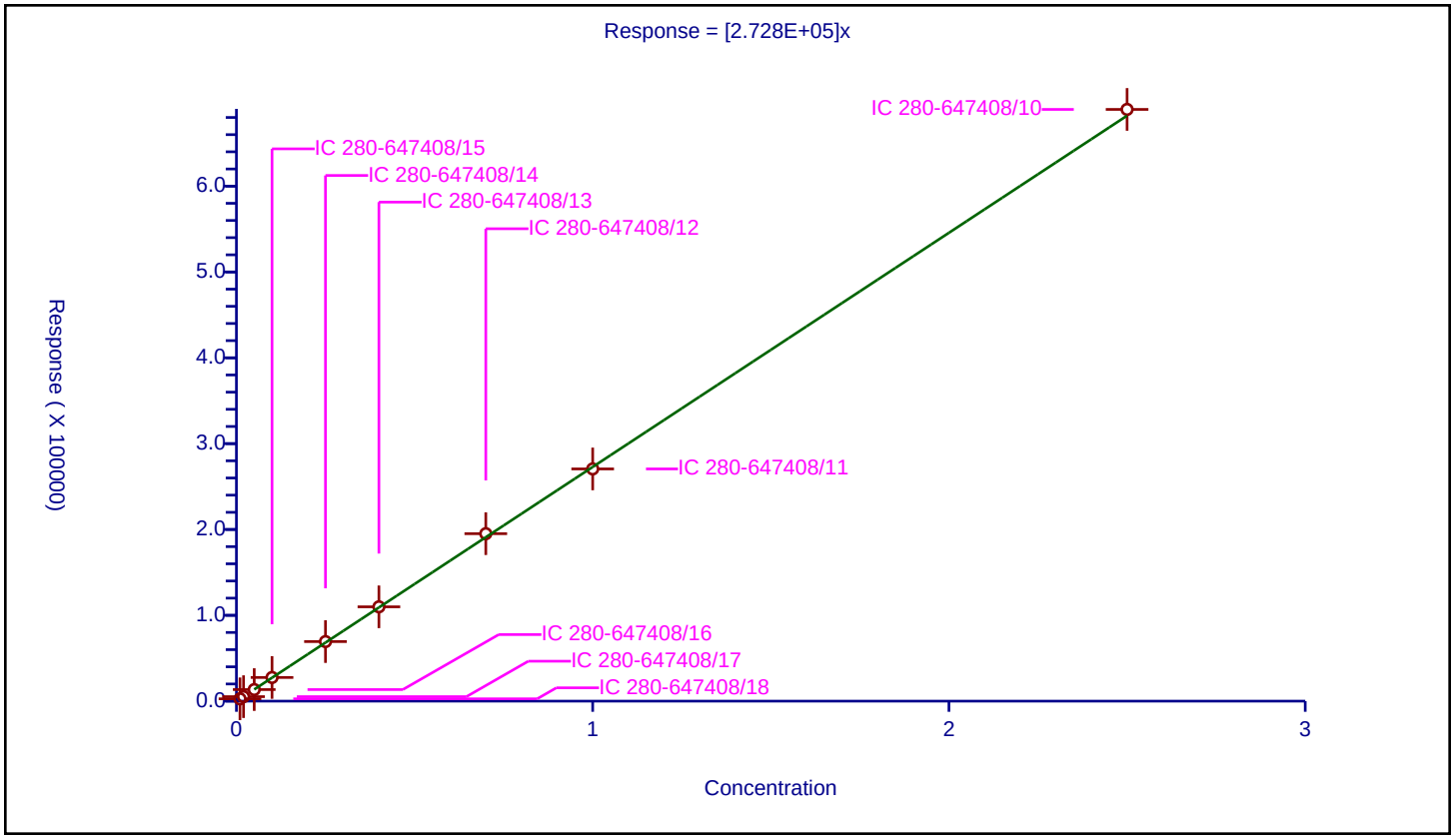
Curve Coefficients

Intercept:	0
Slope:	2.728E+05

Error Coefficients

Relative Standard Deviation:	2.0

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-647408/18	0.01	2716.0			271600.0	Y
2	IC 280-647408/17	0.02	5223.0			261150.0	Y
3	IC 280-647408/16	0.05	13493.0			269860.0	Y
4	IC 280-647408/15	0.1	27556.0			275560.0	Y
5	IC 280-647408/14	0.25	69384.0			277536.0	Y
6	IC 280-647408/13	0.4	109904.0			274760.0	Y
7	IC 280-647408/12	0.7	195115.0			278735.714286	Y
8	IC 280-647408/11	1.0	270529.0			270529.0	Y
9	IC 280-647408/10	2.5	689381.0			275752.4	Y



Calibration / 2,4-Dinitrotoluene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

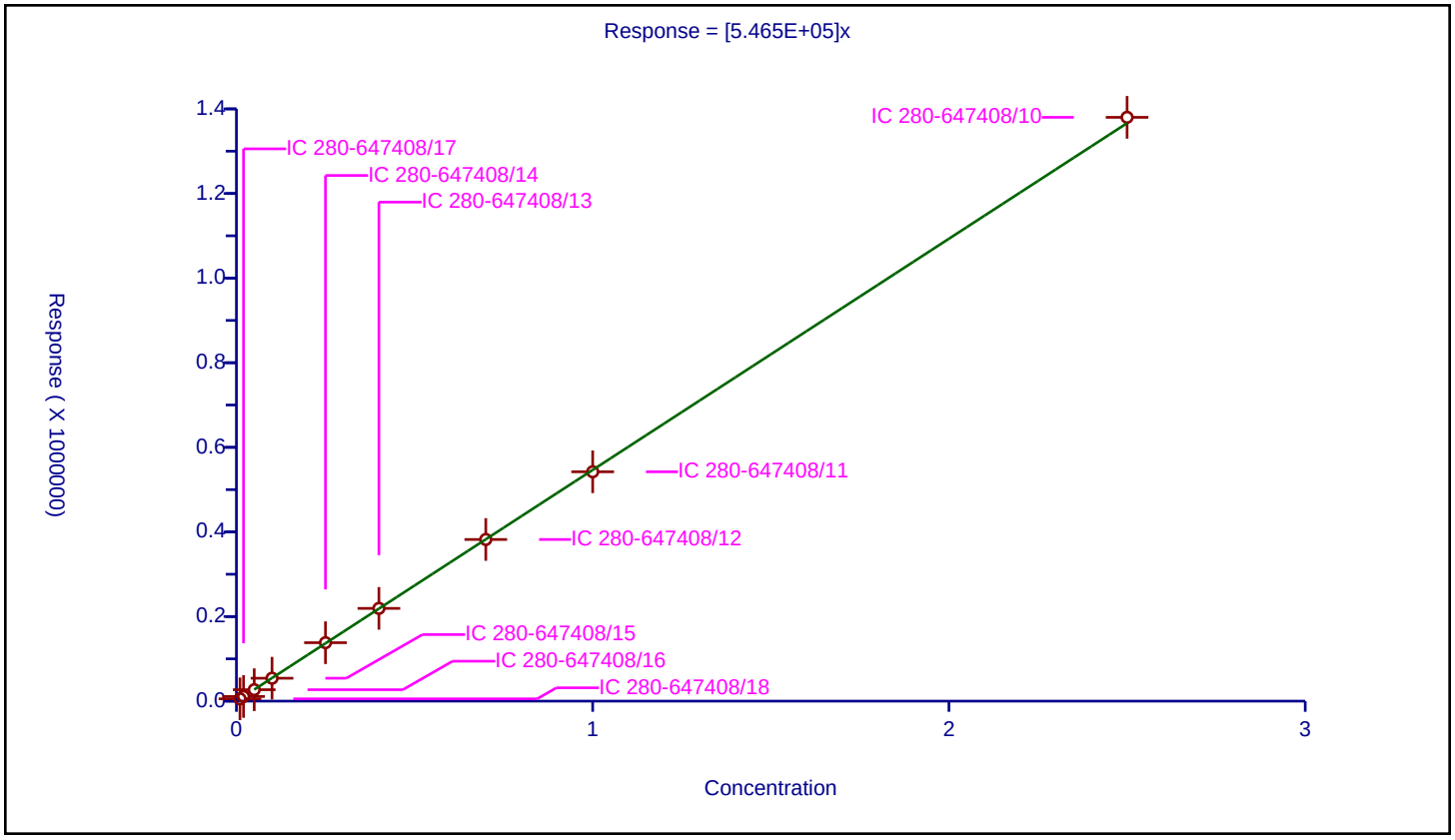
Curve Coefficients

Intercept:	0
Slope:	5.465E+05

Error Coefficients

Relative Standard Deviation:	0.8

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-647408/18	0.01	5455.0			545500.0	Y
2	IC 280-647408/17	0.02	10999.0			549950.0	Y
3	IC 280-647408/16	0.05	27016.0			540320.0	Y
4	IC 280-647408/15	0.1	54196.0			541960.0	Y
5	IC 280-647408/14	0.25	138171.0			552684.0	Y
6	IC 280-647408/13	0.4	219281.0			548202.5	Y
7	IC 280-647408/12	0.7	382126.0			545894.285714	Y
8	IC 280-647408/11	1.0	542165.0			542165.0	Y
9	IC 280-647408/10	2.5	1380071.0			552028.4	Y



Calibration / Tetryl

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

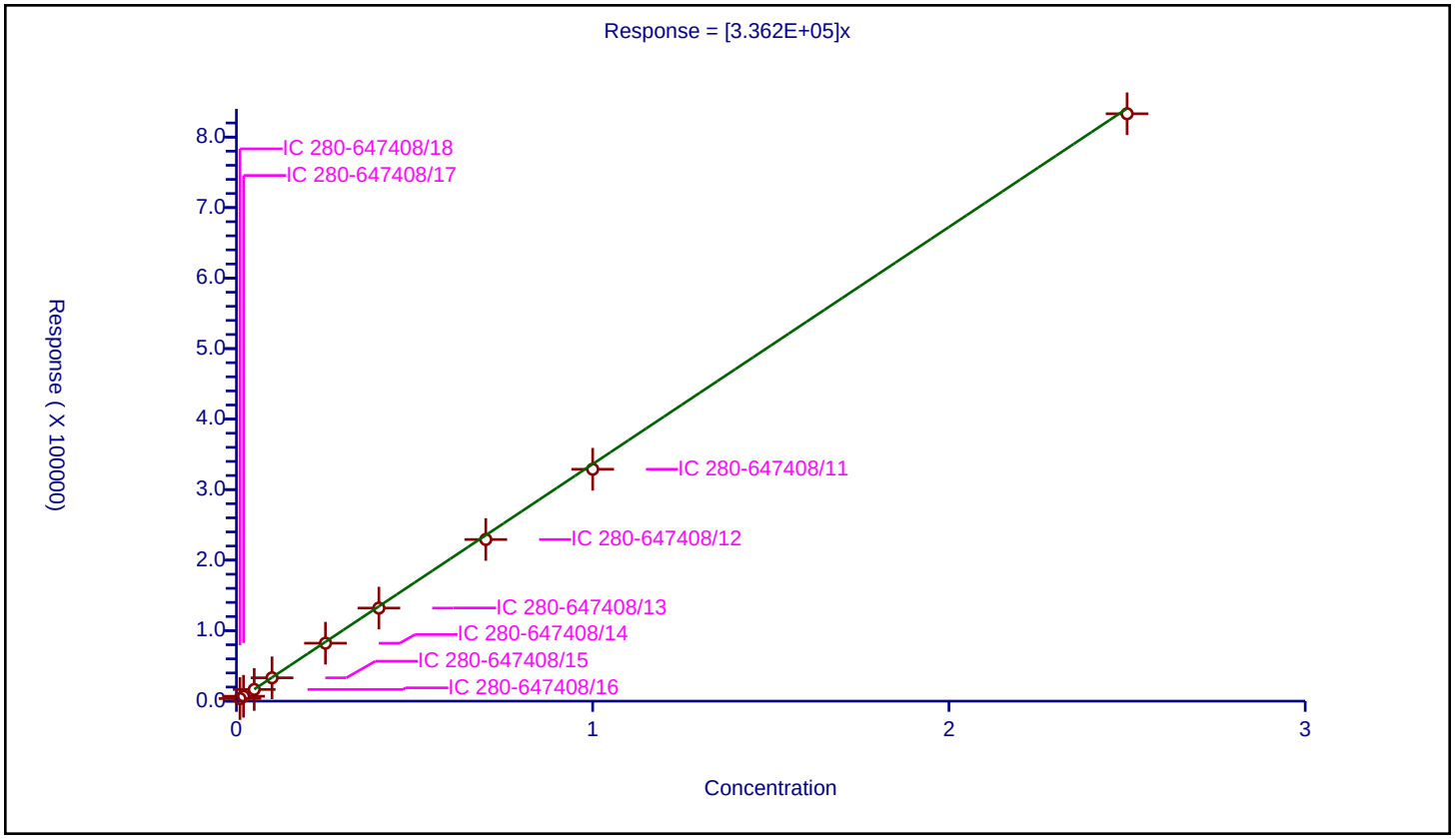
Curve Coefficients

Intercept:	0
Slope:	3.362E+05

Error Coefficients

Relative Standard Deviation:	4.0

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-647408/18	0.01	3690.0			369000.0	Y
2	IC 280-647408/17	0.02	6925.0			346250.0	Y
3	IC 280-647408/16	0.05	16569.0			331380.0	Y
4	IC 280-647408/15	0.1	33110.0			331100.0	Y
5	IC 280-647408/14	0.25	82183.0			328732.0	Y
6	IC 280-647408/13	0.4	132022.0			330055.0	Y
7	IC 280-647408/12	0.7	229246.0			327494.285714	Y
8	IC 280-647408/11	1.0	328904.0			328904.0	Y
9	IC 280-647408/10	2.5	833080.0			333232.0	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

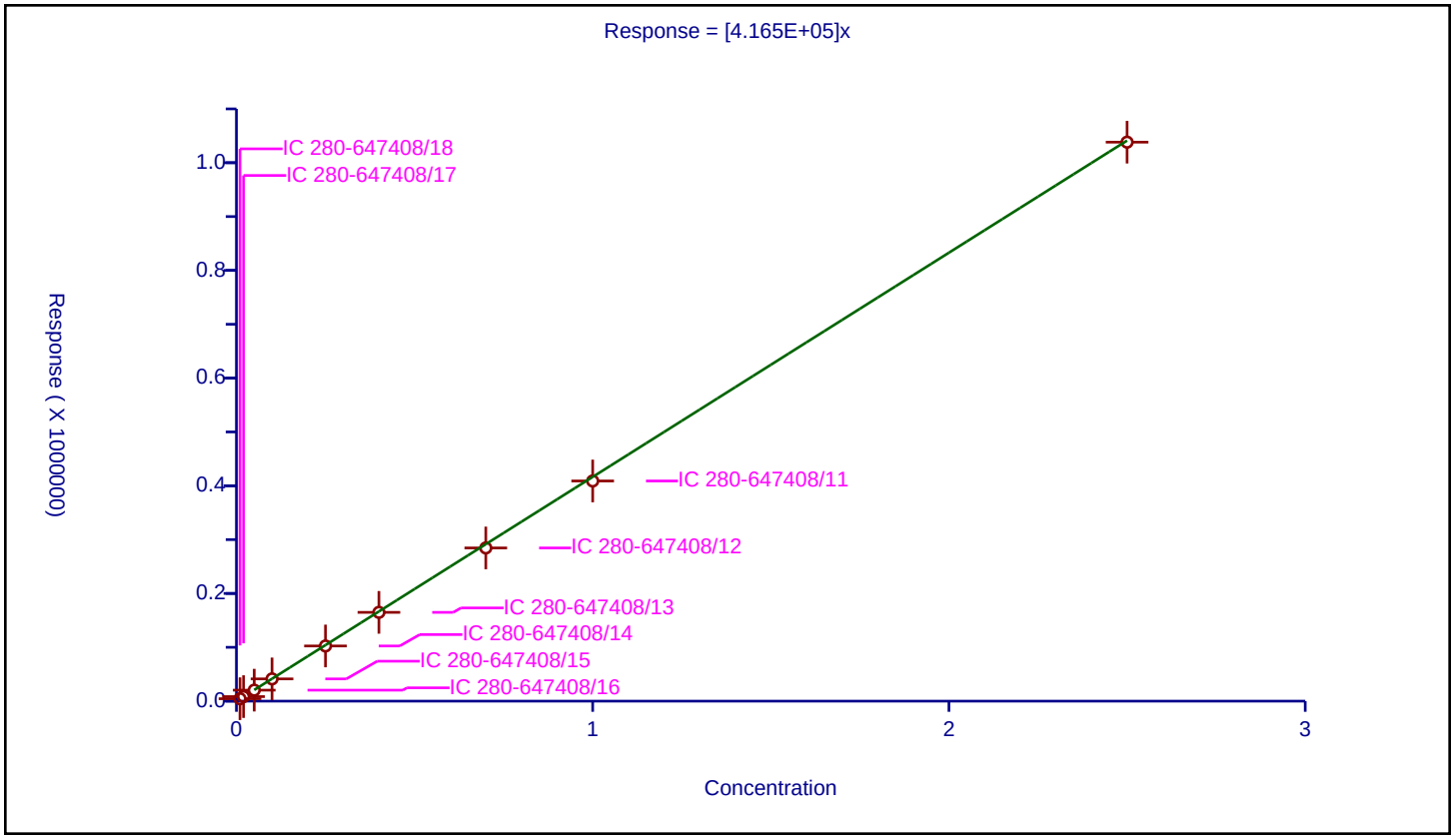
Curve Coefficients

Intercept:	0
Slope:	4.165E+05

Error Coefficients

Relative Standard Deviation:	3.5

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-647408/18	0.01	4534.0			453400.0	Y
2	IC 280-647408/17	0.02	8416.0			420800.0	Y
3	IC 280-647408/16	0.05	20396.0			407920.0	Y
4	IC 280-647408/15	0.1	41333.0			413330.0	Y
5	IC 280-647408/14	0.25	102460.0			409840.0	Y
6	IC 280-647408/13	0.4	164886.0			412215.0	Y
7	IC 280-647408/12	0.7	284522.0			406460.0	Y
8	IC 280-647408/11	1.0	408906.0			408906.0	Y
9	IC 280-647408/10	2.5	1038220.0			415288.0	Y



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Calibration / PETN

Curve Type:	Linear
Weighting:	Conc_Sq
Origin:	None
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

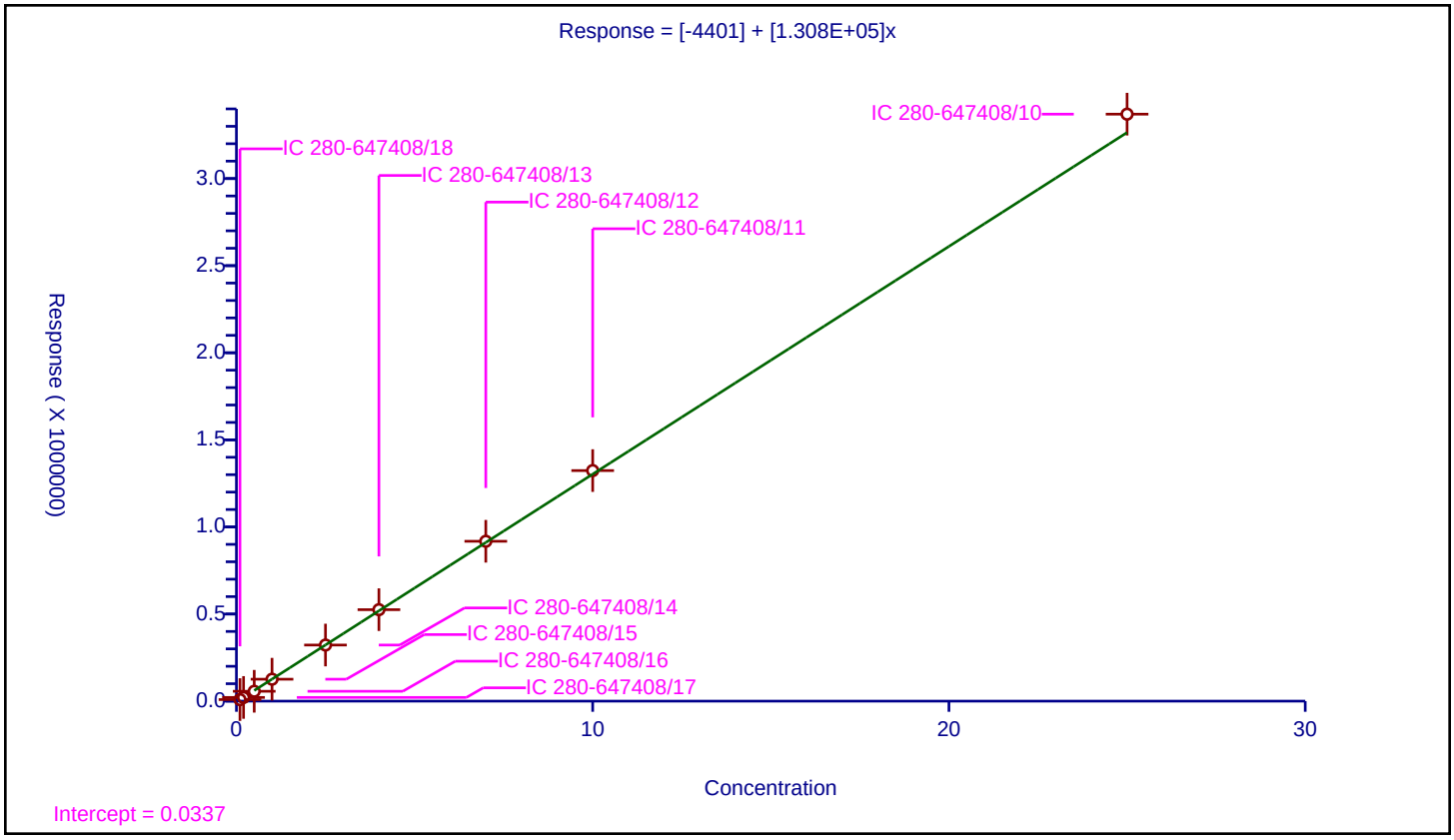
Curve Coefficients

Intercept:	-4401
Slope:	1.308E+05

Error Coefficients

Relative Standard Deviation:	3.1

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-647408/18	0.1	8982.0			89820.0	Y
2	IC 280-647408/17	0.2	21186.0			105930.0	Y
3	IC 280-647408/16	0.5	56701.0			113402.0	Y
4	IC 280-647408/15	1.0	125929.0			125929.0	Y
5	IC 280-647408/14	2.5	322087.0			128834.8	Y
6	IC 280-647408/13	4.0	525075.0			131268.75	Y
7	IC 280-647408/12	7.0	917804.0			131114.857143	Y
8	IC 280-647408/11	10.0	1323551.0			132355.1	Y
9	IC 280-647408/10	25.0	3369705.0			134788.2	Y



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FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver | Job No.: 280-191424-1

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.: 280-191424-1

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

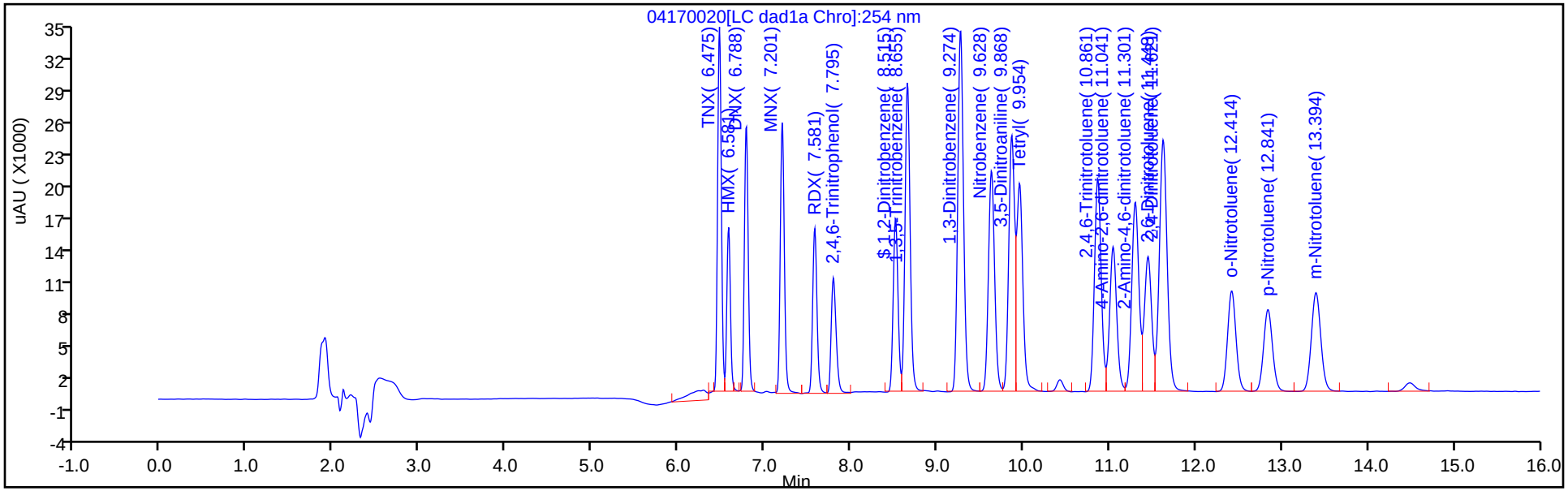
Report Date: 18-Apr-2024 12:06:16 Chrom Revision: 2.3 09-Apr-2024 17:43:44

Eurofins Denver

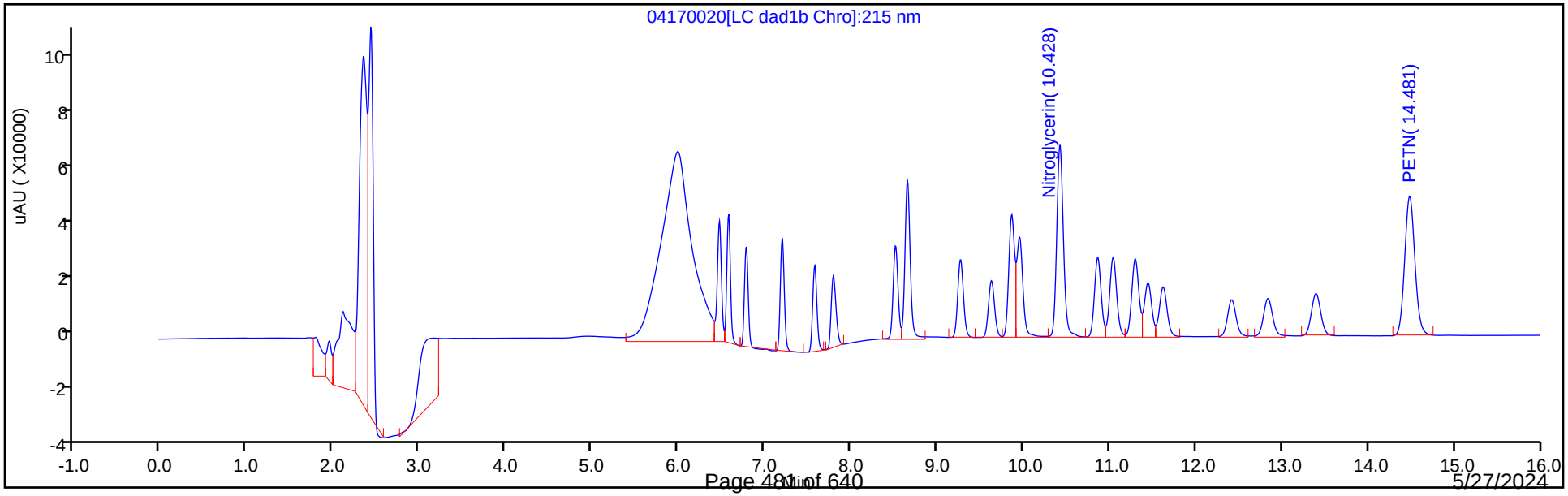
Data File: \\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170020.d

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



Manual Integration/User Assign Peak Report

Eurofins Denver

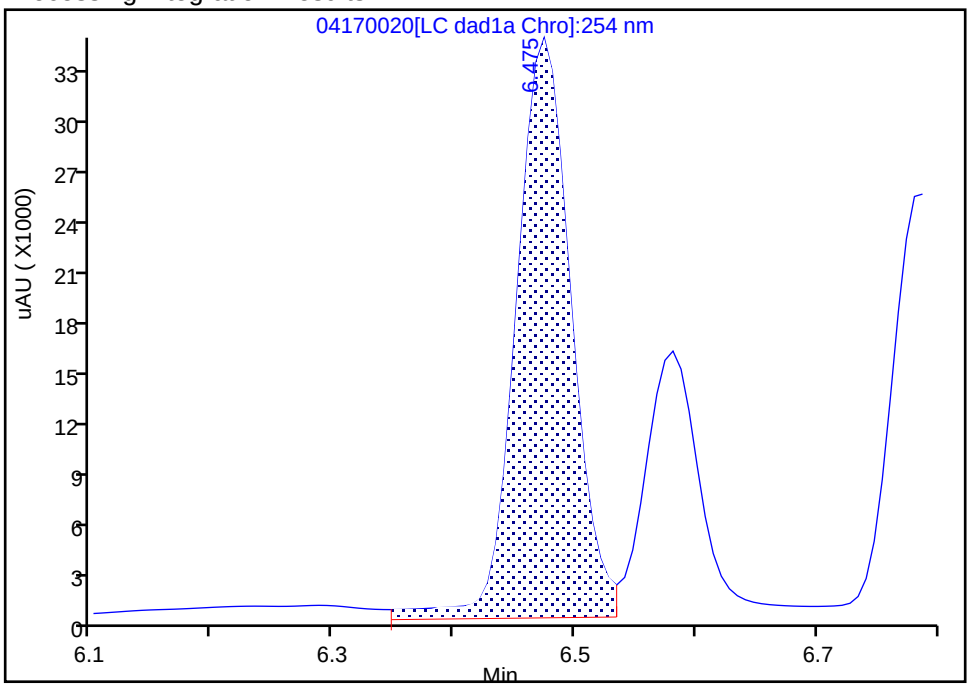
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170020.d				
Injection Date:	18-Apr-2024 00:04:28	Instrument ID:	CHHPLC_X3		
Lims ID:	ICV INT/DMT				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

3 TNX, CAS: 13980-04-6

Signal: 1

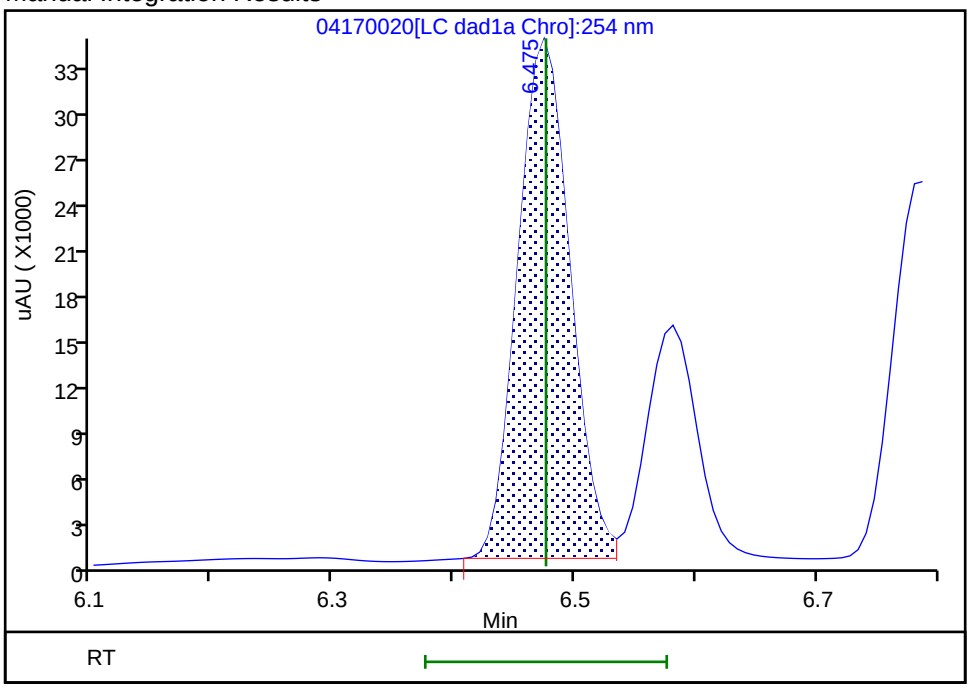
Processing Integration Results

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

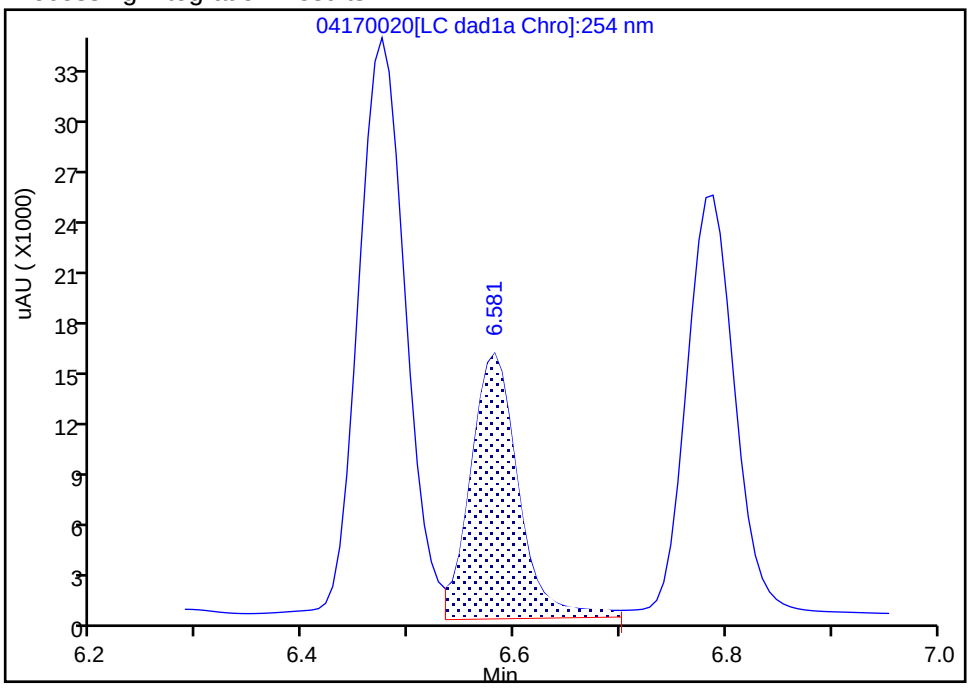
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170020.d				
Injection Date:	18-Apr-2024 00:04:28	Instrument ID:	CHHPLC_X3		
Lims ID:	ICV INT/DMT				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

4 HMX, CAS: 2691-41-0

Signal: 1

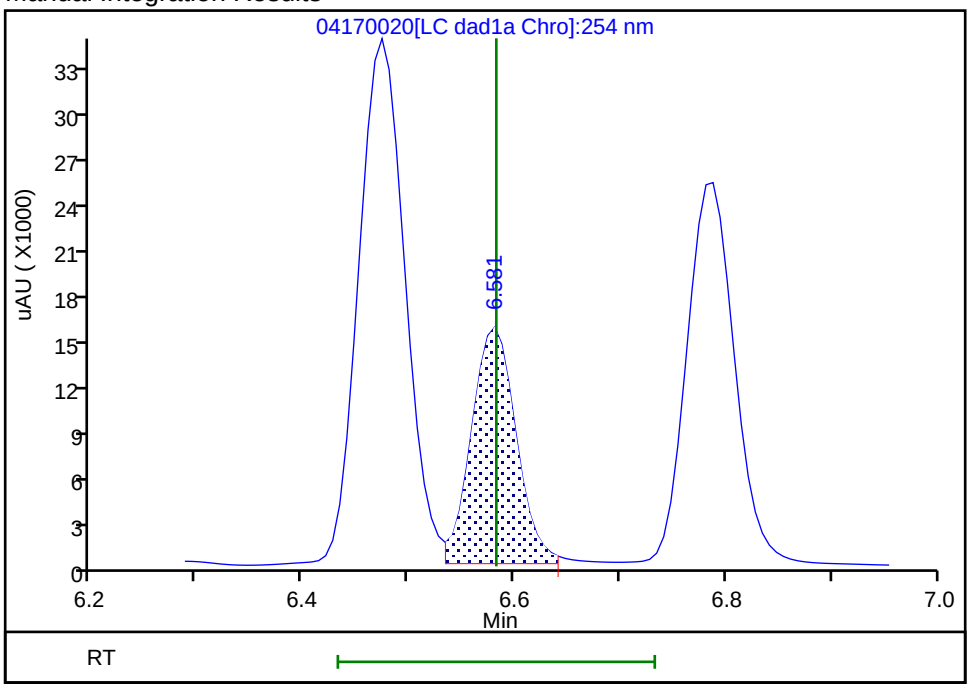
Processing Integration Results

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

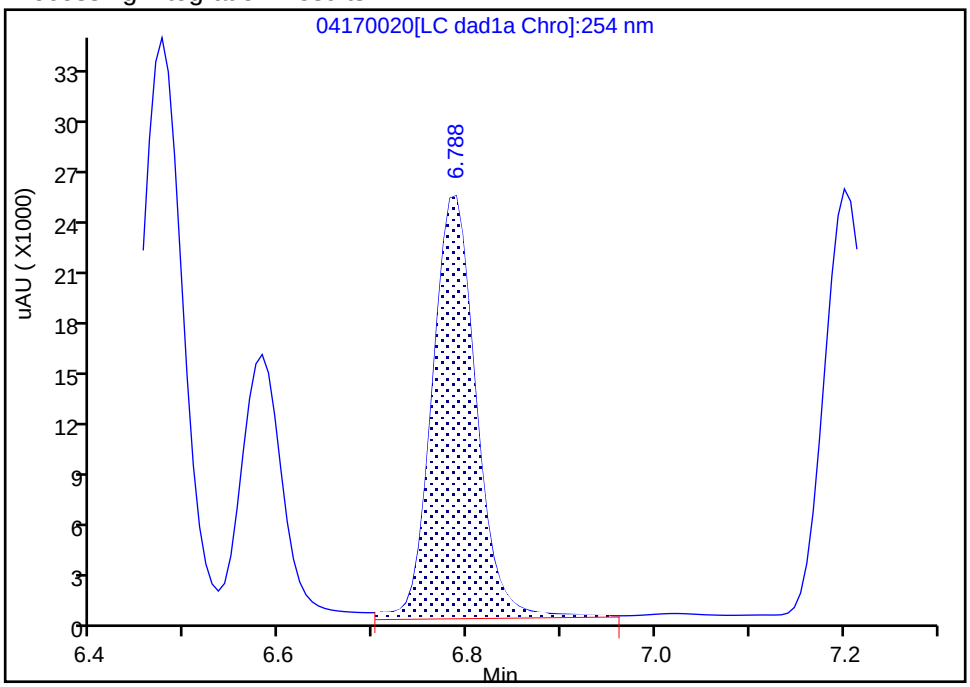
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170020.d				
Injection Date:	18-Apr-2024 00:04:28	Instrument ID:	CHHPLC_X3		
Lims ID:	ICV INT/DMT				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

6 DNX, CAS: 80251-29-2

Signal: 1

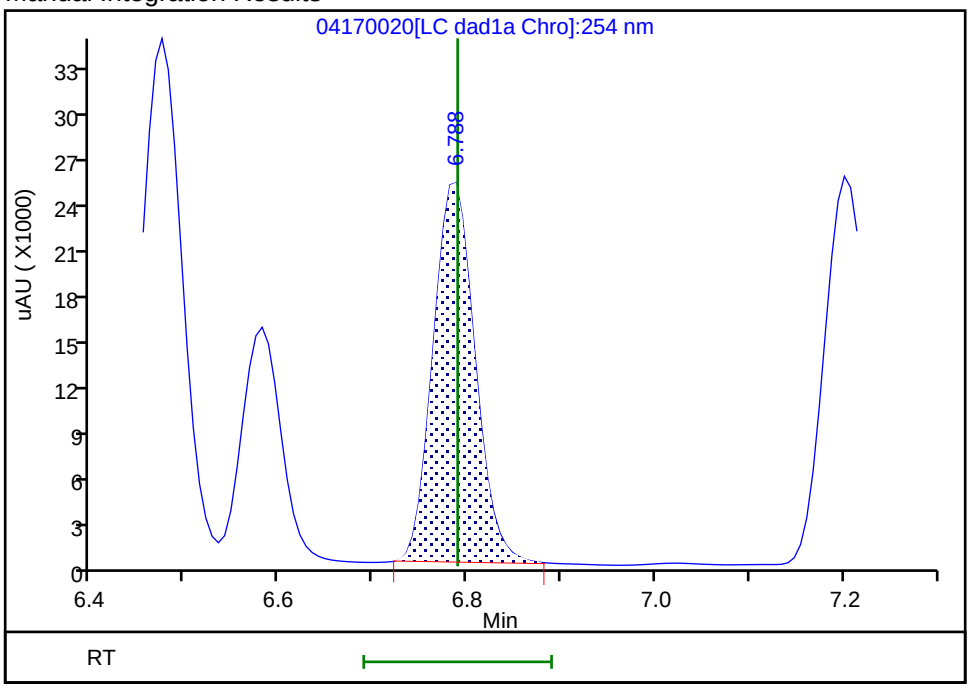
Processing Integration Results

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.: 280-191424-1

SDG No.:

Lab Sample ID: CCV 280-653693/13 | Calibration Date: 05/16/2024 16:51

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: 05160013.D | Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
HMX	Ave	95544	95320		249	250	-0.2	20.0
RDX	Ave	110767	108724		245	250	-1.8	20.0
Picric acid	Ave	79326	81932		258	250	3.3	20.0
1,3,5-Trinitrobenzene	Ave	222853	220144		247	250	-1.2	20.0
1,3-Dinitrobenzene	Ave	299436	304840		255	250	1.8	20.0
Nitrobenzene	Ave	196329	196940		251	250	0.3	20.0
3,5-Dinitroaniline	Lin2		220360		250	250	0.1	20.0
Tetryl	Ave	181588	181556		250	250	-0.0	20.0
Nitroglycerin	Ave	66464	68643		2580	2500	3.3	20.0
2,4,6-Trinitrotoluene	Ave	215192	217348		253	250	1.0	20.0
4-Amino-2,6-dinitrotoluene	Ave	149948	152928		255	250	2.0	20.0
2-Amino-4,6-dinitrotoluene	Ave	199809	200840		251	250	0.5	20.0
2,6-Dinitrotoluene	Ave	146914	150088		255	250	2.2	20.0
2,4-Dinitrotoluene	Ave	291844	299336		256	250	2.6	20.0
2-Nitrotoluene	Ave	129305	128044		248	250	-1.0	20.0
4-Nitrotoluene	Ave	112799	110556		245	250	-2.0	20.0
3-Nitrotoluene	Ave	144063	139348		242	250	-3.3	20.0
PETN	Ave	71937	72460		2520	2500	0.7	20.0
1,2-Dinitrobenzene	Lin2		134044		254	250	1.5	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191424-1

SDG No.:

Lab Sample ID: CCV 280-653693/13 Calibration Date: 05/16/2024 16:51

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: 05160013.D

Analyte	RT	RT WINDOW	
		FROM	TO
HMX	6.62	6.47	6.77
RDX	7.63	7.48	7.78
Picric acid	7.85	7.71	8.01
1,3,5-Trinitrobenzene	8.69	8.54	8.84
1,3-Dinitrobenzene	9.29	9.15	9.45
Nitrobenzene	9.65	9.50	9.80
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	10.87	10.76	10.96
4-Amino-2,6-dinitrotoluene	11.03	10.93	11.13
2-Amino-4,6-dinitrotoluene	11.28	11.18	11.38
2,6-Dinitrotoluene	11.43	11.33	11.53
2,4-Dinitrotoluene	11.61	11.51	11.71
2-Nitrotoluene	12.39	12.24	12.54
4-Nitrotoluene	12.80	12.65	12.95
3-Nitrotoluene	13.35	13.20	13.50
PETN	14.39	14.25	14.55
1,2-Dinitrobenzene	8.55	8.40	8.70

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240516-133471.b\05160013.D
Lims ID: CCV INT
Client ID:
Sample Type: CCV
Inject. Date: 16-May-2024 16:51:35 ALS Bottle#: 7 Worklist Smp#: 13
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\20240516-133471.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 17-May-2024 12:38:04 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: CTX1618

First Level Reviewer: LV5D Date: 16-May-2024 17:15:01

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
4 HMX	1	6.620	6.621	-0.001	23830	0.2500	0.2494	
8 RDX	1	7.627	7.628	-0.001	27181	0.2500	0.2454	
9 2,4,6-Trinitrophenol	1	7.853	7.861	-0.008	20483	0.2500	0.2582	
$ 10 1,2-Dinitrobenzene	1	8.547	8.554	-0.007	33511	0.2500	0.2539	
11 1,3,5-Trinitrobenzene	1	8.687	8.694	-0.007	55036	0.2500	0.2470	
12 1,3-Dinitrobenzene	1	9.293	9.301	-0.008	76210	0.2500	0.2545	
13 Nitrobenzene	1	9.653	9.654	-0.001	49235	0.2500	0.2508	
14 3,5-Dinitroaniline	1	9.873	9.881	-0.008	55090	0.2500	0.2503	
15 Tetryl	1	9.953	9.961	-0.008	45389	0.2500	0.2500	
16 Nitroglycerin	2	10.433	10.434	-0.001	171608	2.50	2.58	
17 2,4,6-Trinitrotoluene	1	10.866	10.861	0.005	54337	0.2500	0.2525	
18 4-Amino-2,6-dinitrotoluene	1	11.026	11.027	-0.001	38232	0.2500	0.2550	
19 2-Amino-4,6-dinitrotoluene	1	11.280	11.281	-0.001	50210	0.2500	0.2513	
20 2,6-Dinitrotoluene	1	11.433	11.434	-0.001	37522	0.2500	0.2554	
21 2,4-Dinitrotoluene	1	11.606	11.607	-0.001	74834	0.2500	0.2564	
22 o-Nitrotoluene	1	12.386	12.387	-0.001	32011	0.2500	0.2476	
23 p-Nitrotoluene	1	12.800	12.801	-0.001	27639	0.2500	0.2450	
24 m-Nitrotoluene	1	13.346	13.347	-0.001	34837	0.2500	0.2418	
25 PETN	2	14.386	14.401	-0.015	181149	2.50	2.52	

QC Flag Legend
Processing Flags

Reagents:
8330IntermStk_00081 Amount Added: 25.00 Units: uL

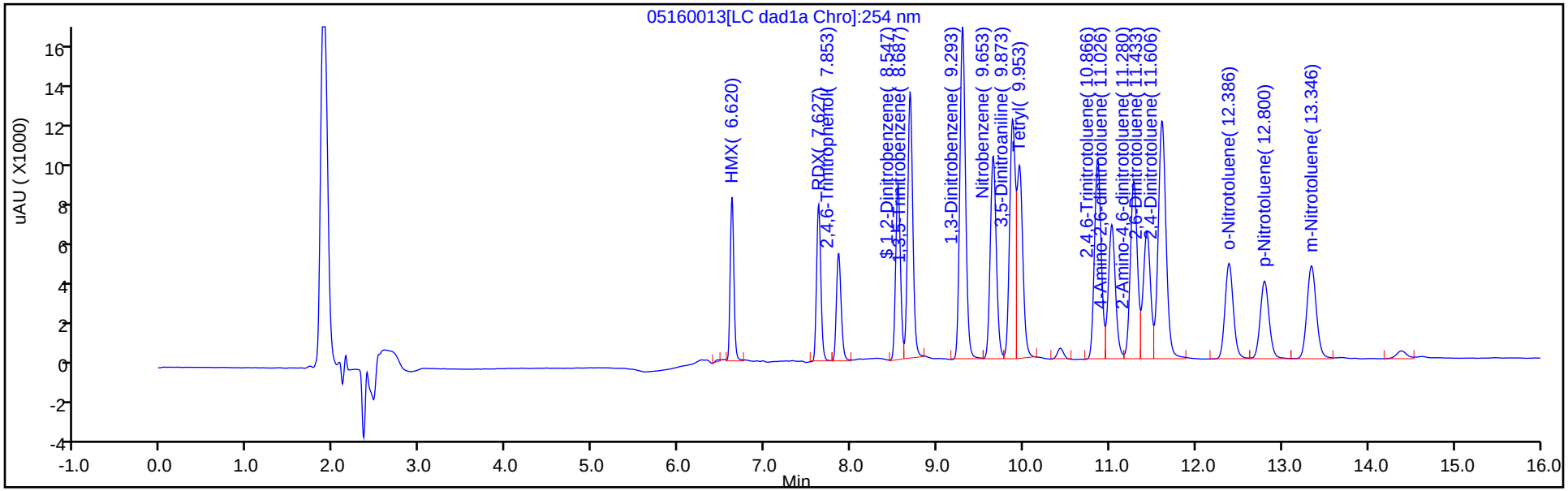
Report Date: 17-May-2024 12:38:05 Chrom Revision: 2.3 14-May-2024 14:23:08

Eurofins Denver

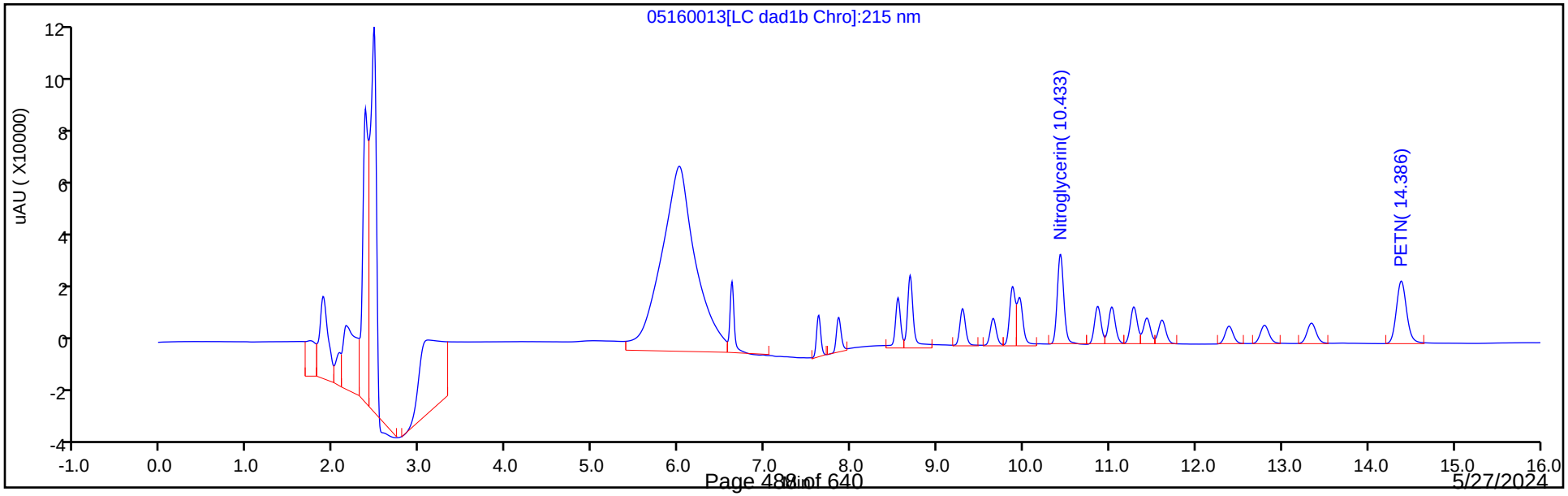
Data File: \\chromfs\denver\chromdata\chhplc_x\20240516-133471.b\05160013.d

Injection Date:	16-May-2024 16:51:35	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	CCV INT			Worklist Smp#:	13
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



5/27/2024
7:57:40 AM

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver | Job No.: 280-191424-1

SDG No.:

Lab Sample ID: CCV 280-653693/24 | Calibration Date: 05/16/2024 21:04

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: 05160024.D | Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
HMX	Ave	95544	94176		246	250	-1.4	20.0
RDX	Ave	110767	109104		246	250	-1.5	20.0
Picric acid	Ave	79326	81980		258	250	3.3	20.0
1,3,5-Trinitrobenzene	Ave	222853	219724		246	250	-1.4	20.0
1,3-Dinitrobenzene	Ave	299436	304740		254	250	1.8	20.0
Nitrobenzene	Ave	196329	193424		246	250	-1.5	20.0
3,5-Dinitroaniline	Lin2		220472		250	250	0.2	20.0
Tetryl	Ave	181588	179184		247	250	-1.3	20.0
Nitroglycerin	Ave	66464	68064		2560	2500	2.4	20.0
2,4,6-Trinitrotoluene	Ave	215192	216148		251	250	0.4	20.0
4-Amino-2,6-dinitrotoluene	Ave	149948	152352		254	250	1.6	20.0
2-Amino-4,6-dinitrotoluene	Ave	199809	202704		254	250	1.4	20.0
2,6-Dinitrotoluene	Ave	146914	149308		254	250	1.6	20.0
2,4-Dinitrotoluene	Ave	291844	297628		255	250	2.0	20.0
2-Nitrotoluene	Ave	129305	125268		242	250	-3.1	20.0
4-Nitrotoluene	Ave	112799	107944		239	250	-4.3	20.0
3-Nitrotoluene	Ave	144063	137300		238	250	-4.7	20.0
PETN	Ave	71937	72822		2530	2500	1.2	20.0
1,2-Dinitrobenzene	Lin2		134256		254	250	1.7	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191424-1

SDG No.:

Lab Sample ID: CCV 280-653693/24 Calibration Date: 05/16/2024 21:04

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: 05160024.D

Analyte	RT	RT WINDOW	
		FROM	TO
HMX	6.62	6.47	6.77
RDX	7.62	7.48	7.78
Picric acid	7.86	7.71	8.01
1,3,5-Trinitrobenzene	8.69	8.54	8.84
1,3-Dinitrobenzene	9.30	9.15	9.45
Nitrobenzene	9.66	9.50	9.80
3,5-Dinitroaniline	9.89	9.73	10.03
Tetryl	9.98	9.81	10.11
Nitroglycerin	10.45	10.28	10.58
2,4,6-Trinitrotoluene	10.88	10.76	10.96
4-Amino-2,6-dinitrotoluene	11.04	10.93	11.13
2-Amino-4,6-dinitrotoluene	11.30	11.18	11.38
2,6-Dinitrotoluene	11.46	11.33	11.53
2,4-Dinitrotoluene	11.63	11.51	11.71
2-Nitrotoluene	12.41	12.24	12.54
4-Nitrotoluene	12.82	12.65	12.95
3-Nitrotoluene	13.37	13.20	13.50
PETN	14.42	14.25	14.55
1,2-Dinitrobenzene	8.55	8.40	8.70

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240516-133471.b\05160024.D
Lims ID: CCV INT
Client ID:
Sample Type: CCV
Inject. Date: 16-May-2024 21:04:00 ALS Bottle#: 7 Worklist Smp#: 24
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\20240516-133471.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 17-May-2024 12:38:15 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: CTX1618

First Level Reviewer: LV5D Date: 17-May-2024 12:22:43

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
4 HMX	1	6.616	6.621	-0.005	23544	0.2500	0.2464	M
8 RDX	1	7.623	7.628	-0.005	27276	0.2500	0.2462	
9 2,4,6-Trinitrophenol	1	7.856	7.861	-0.005	20495	0.2500	0.2584	
$ 10 1,2-Dinitrobenzene	1	8.550	8.554	-0.004	33564	0.2500	0.2543	
11 1,3,5-Trinitrobenzene	1	8.690	8.694	-0.004	54931	0.2500	0.2465	
12 1,3-Dinitrobenzene	1	9.303	9.301	0.002	76185	0.2500	0.2544	
13 Nitrobenzene	1	9.663	9.654	0.009	48356	0.2500	0.2463	
14 3,5-Dinitroaniline	1	9.890	9.881	0.009	55118	0.2500	0.2505	
15 Tetryl	1	9.976	9.961	0.015	44796	0.2500	0.2467	
16 Nitroglycerin	2	10.450	10.434	0.016	170159	2.50	2.56	
17 2,4,6-Trinitrotoluene	1	10.876	10.861	0.015	54037	0.2500	0.2511	
18 4-Amino-2,6-dinitrotoluene	1	11.043	11.027	0.016	38088	0.2500	0.2540	
19 2-Amino-4,6-dinitrotoluene	1	11.303	11.281	0.022	50676	0.2500	0.2536	
20 2,6-Dinitrotoluene	1	11.456	11.434	0.022	37327	0.2500	0.2541	
21 2,4-Dinitrotoluene	1	11.630	11.607	0.023	74407	0.2500	0.2550	
22 o-Nitrotoluene	1	12.410	12.387	0.023	31317	0.2500	0.2422	
23 p-Nitrotoluene	1	12.816	12.801	0.015	26986	0.2500	0.2392	
24 m-Nitrotoluene	1	13.370	13.347	0.023	34325	0.2500	0.2383	
25 PETN	2	14.423	14.401	0.022	182055	2.50	2.53	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330IntermStk_00081 Amount Added: 25.00 Units: uL

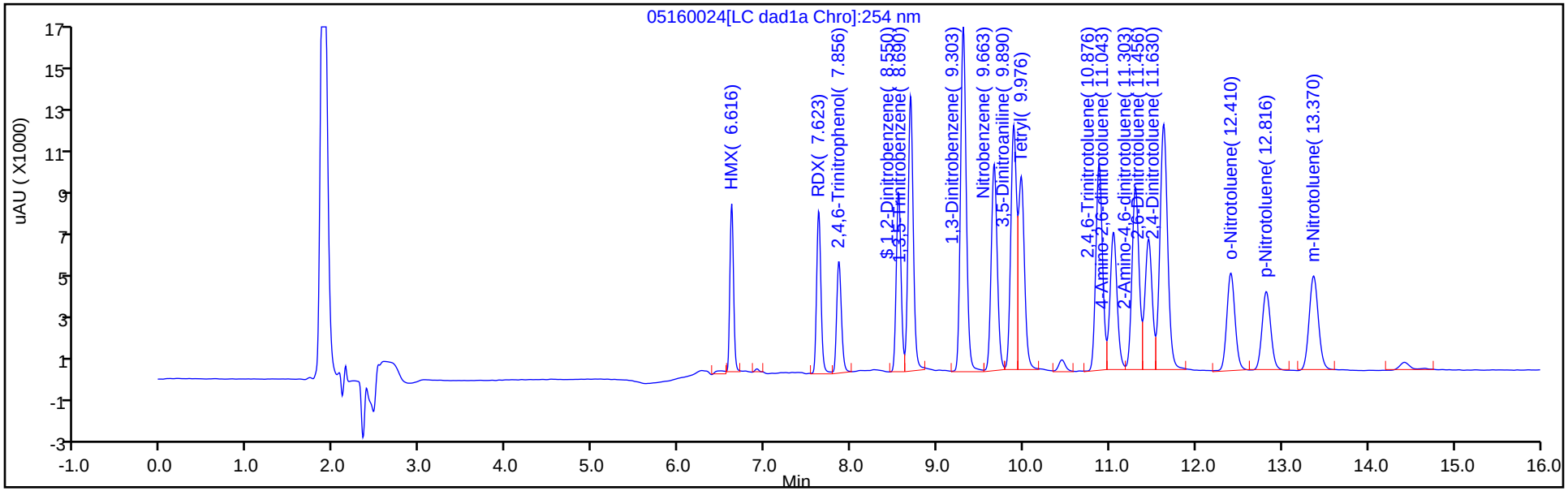
Report Date: 17-May-2024 12:38:15 Chrom Revision: 2.3 14-May-2024 14:23:08

Eurofins Denver

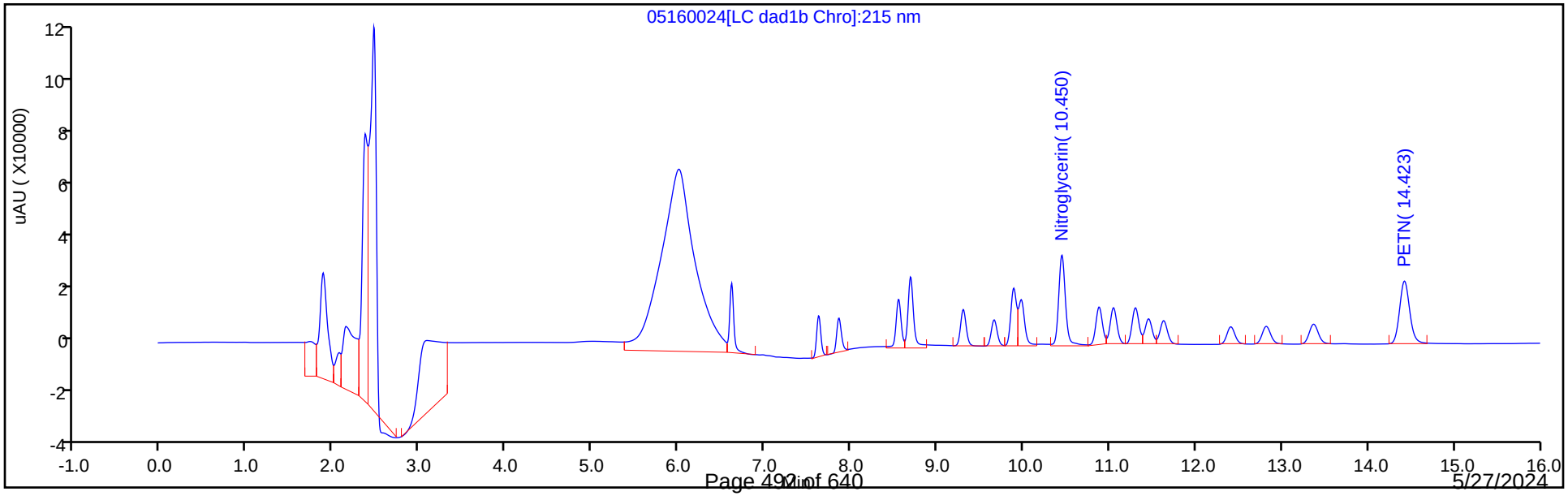
Data File: \\chromfs\denver\chromdata\chhplc_x\20240516-133471.b\05160024.d

Injection Date:	16-May-2024 21:04:00	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	CCV INT			Worklist Smp#:	24
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



5/27/2024
7:57:40 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

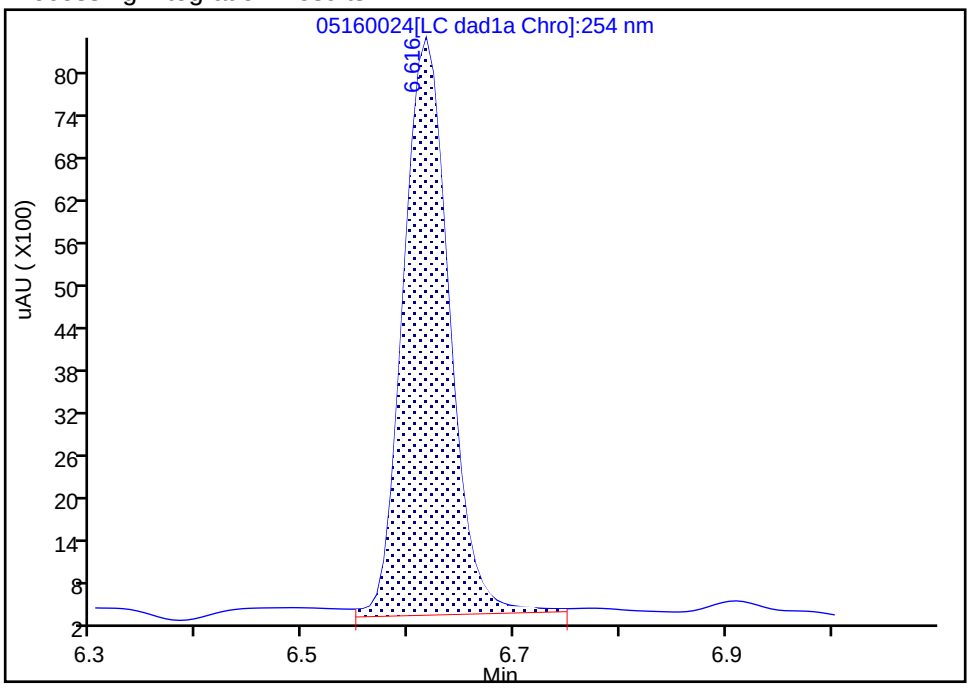
Data File: \\chromfs\denver\chromdata\chhplc_x\20240516-133471.b\05160024.d
Injection Date: 16-May-2024 21:04:00 Instrument ID: CHHPLC_X3
Lims ID: CCV INT
Client ID:
Operator ID: JZ ALS Bottle#: 7 Worklist Smp#: 24
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

4 HMX, CAS: 2691-41-0

Signal: 1

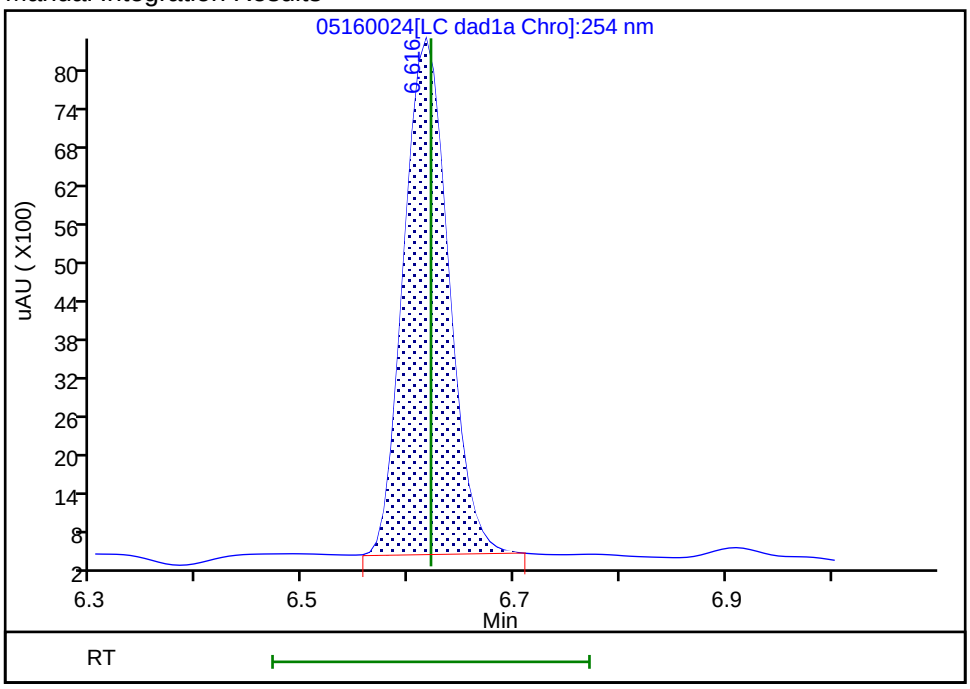
Processing Integration Results

RT: 6.62
Area: 24692
Amount: 0.258437
Amount Units: ug/mL



Manual Integration Results

RT: 6.62
Area: 23544
Amount: 0.246421
Amount Units: ug/mL



Reviewer: LV5D, 17-May-2024 12:22:42 -06:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Baseline

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver | Job No.: 280-191424-1

SDG No.:

Lab Sample ID: CCV 280-653693/35 | Calibration Date: 05/17/2024 01:16

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: 05160035.D | Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
HMX	Ave	95544	95536		250	250	-0.0	20.0
RDX	Ave	110767	108604		245	250	-2.0	20.0
Picric acid	Ave	79326	81148		256	250	2.3	20.0
1,3,5-Trinitrobenzene	Ave	222853	219288		246	250	-1.6	20.0
1,3-Dinitrobenzene	Ave	299436	305128		255	250	1.9	20.0
Nitrobenzene	Ave	196329	191532		244	250	-2.4	20.0
3,5-Dinitroaniline	Lin2		223576		254	250	1.6	20.0
Tetryl	Ave	181588	177064		244	250	-2.5	20.0
Nitroglycerin	Ave	66464	68511		2580	2500	3.1	20.0
2,4,6-Trinitrotoluene	Ave	215192	216492		252	250	0.6	20.0
4-Amino-2,6-dinitrotoluene	Ave	149948	153836		256	250	2.6	20.0
2-Amino-4,6-dinitrotoluene	Ave	199809	202624		254	250	1.4	20.0
2,6-Dinitrotoluene	Ave	146914	151576		258	250	3.2	20.0
2,4-Dinitrotoluene	Ave	291844	299220		256	250	2.5	20.0
2-Nitrotoluene	Ave	129305	124972		242	250	-3.4	20.0
4-Nitrotoluene	Ave	112799	108164		240	250	-4.1	20.0
3-Nitrotoluene	Ave	144063	136940		238	250	-4.9	20.0
PETN	Ave	71937	72284		2510	2500	0.5	20.0
1,2-Dinitrobenzene	Lin2		134312		254	250	1.8	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191424-1

SDG No.:

Lab Sample ID: CCV 280-653693/35 Calibration Date: 05/17/2024 01:16

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: 05160035.D

Analyte	RT	RT WINDOW	
		FROM	TO
HMX	6.61	6.47	6.77
RDX	7.63	7.48	7.78
Picric acid	7.86	7.71	8.01
1,3,5-Trinitrobenzene	8.69	8.54	8.84
1,3-Dinitrobenzene	9.30	9.15	9.45
Nitrobenzene	9.66	9.50	9.80
3,5-Dinitroaniline	9.89	9.73	10.03
Tetryl	9.97	9.81	10.11
Nitroglycerin	10.44	10.28	10.58
2,4,6-Trinitrotoluene	10.87	10.76	10.96
4-Amino-2,6-dinitrotoluene	11.04	10.93	11.13
2-Amino-4,6-dinitrotoluene	11.30	11.18	11.38
2,6-Dinitrotoluene	11.44	11.33	11.53
2,4-Dinitrotoluene	11.62	11.51	11.71
2-Nitrotoluene	12.40	12.24	12.54
4-Nitrotoluene	12.81	12.65	12.95
3-Nitrotoluene	13.36	13.20	13.50
PETN	14.41	14.25	14.55
1,2-Dinitrobenzene	8.55	8.40	8.70

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240516-133471.b\05160035.D
Lims ID: CCV INT
Client ID:
Sample Type: CCV
Inject. Date: 17-May-2024 01:16:39 ALS Bottle#: 7 Worklist Smp#: 35
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\20240516-133471.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 17-May-2024 12:38:25 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: CTX1618

First Level Reviewer: LV5D Date: 17-May-2024 12:36:40

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
4 HMX	1	6.611	6.621	-0.010	23884	0.2500	0.2500	
8 RDX	1	7.631	7.628	0.003	27151	0.2500	0.2451	
9 2,4,6-Trinitrophenol	1	7.864	7.861	0.003	20287	0.2500	0.2557	
$ 10 1,2-Dinitrobenzene	1	8.551	8.554	-0.003	33578	0.2500	0.2544	
11 1,3,5-Trinitrobenzene	1	8.691	8.694	-0.003	54822	0.2500	0.2460	
12 1,3-Dinitrobenzene	1	9.304	9.301	0.003	76282	0.2500	0.2548	
13 Nitrobenzene	1	9.657	9.654	0.003	47883	0.2500	0.2439	
14 3,5-Dinitroaniline	1	9.891	9.881	0.010	55894	0.2500	0.2540	
15 Tetryl	1	9.971	9.961	0.010	44266	0.2500	0.2438	
16 Nitroglycerin	2	10.444	10.434	0.010	171277	2.50	2.58	
17 2,4,6-Trinitrotoluene	1	10.871	10.861	0.010	54123	0.2500	0.2515	
18 4-Amino-2,6-dinitrotoluene	1	11.044	11.027	0.017	38459	0.2500	0.2565	
19 2-Amino-4,6-dinitrotoluene	1	11.297	11.281	0.016	50656	0.2500	0.2535	
20 2,6-Dinitrotoluene	1	11.444	11.434	0.010	37894	0.2500	0.2579	
21 2,4-Dinitrotoluene	1	11.624	11.607	0.017	74805	0.2500	0.2563	
22 o-Nitrotoluene	1	12.397	12.387	0.010	31243	0.2500	0.2416	
23 p-Nitrotoluene	1	12.811	12.801	0.010	27041	0.2500	0.2397	
24 m-Nitrotoluene	1	13.364	13.347	0.017	34235	0.2500	0.2376	
25 PETN	2	14.411	14.401	0.010	180709	2.50	2.51	

QC Flag Legend
Processing Flags

Reagents:
8330IntermStk_00081 Amount Added: 25.00 Units: uL

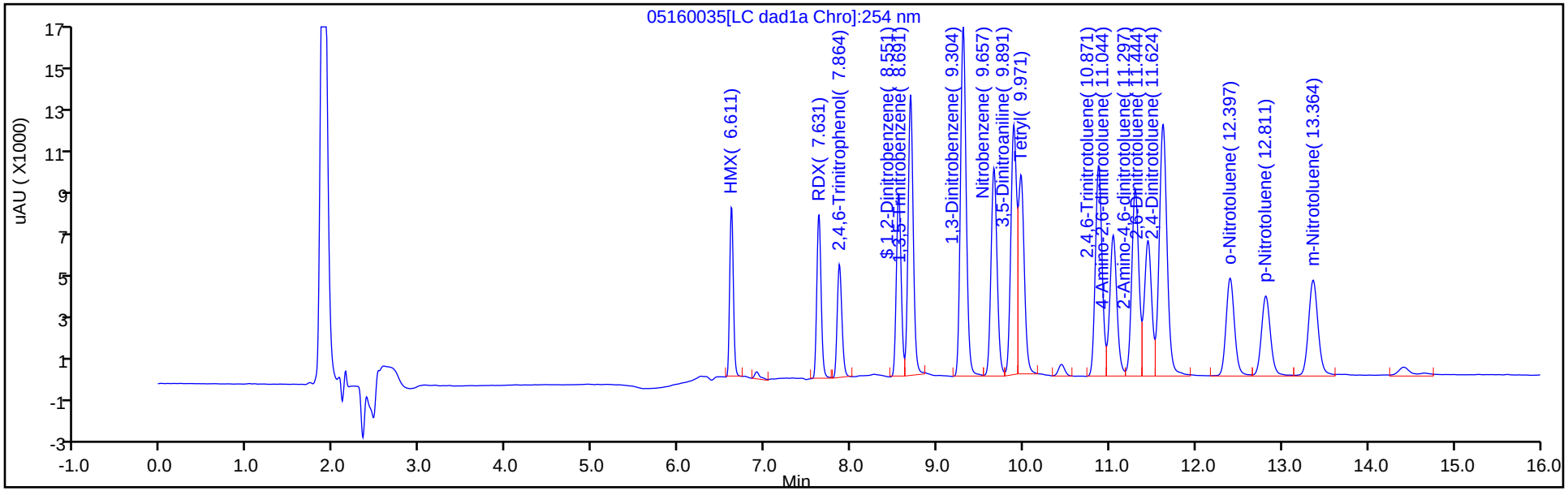
Report Date: 17-May-2024 12:38:26 Chrom Revision: 2.3 14-May-2024 14:23:08

Eurofins Denver

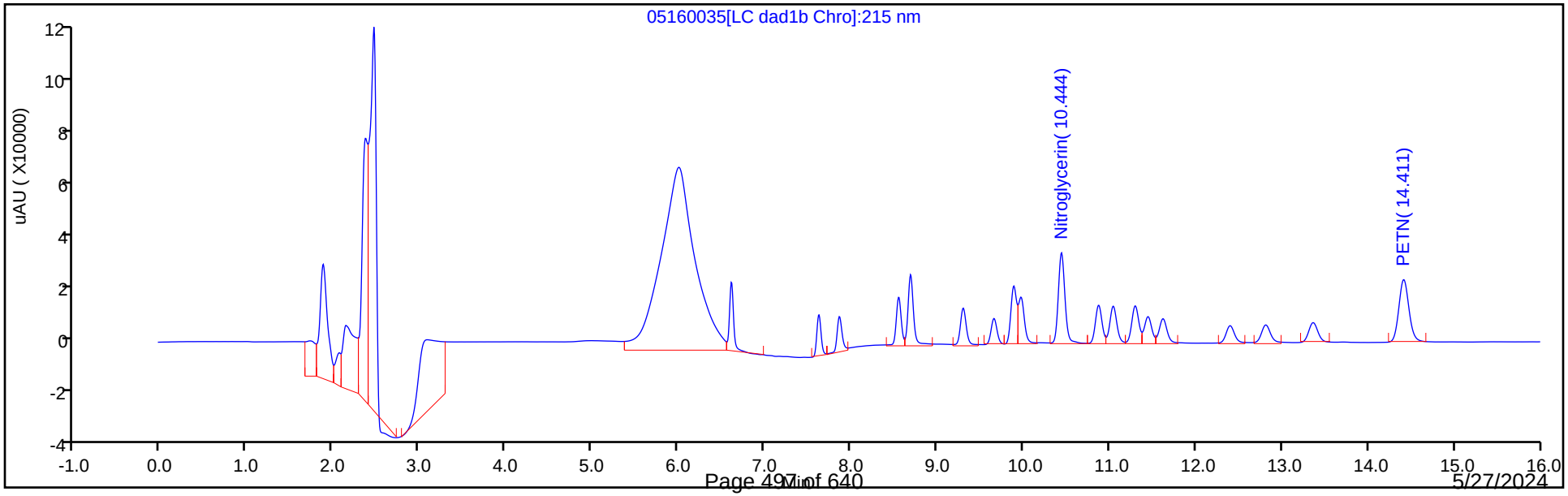
Data File: \\chromfs\denver\chromdata\chhplc_x\20240516-133471.b\05160035.d

Injection Date:	17-May-2024 01:16:39	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	CCV INT			Worklist Smp#:	35
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.: 280-191424-1

SDG No.:

Lab Sample ID: CCV 280-653693/39 | Calibration Date: 05/17/2024 02:48

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: 05160039.D | Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
HMX	Ave	95544	95284		249	250	-0.3	20.0
RDX	Ave	110767	109896		248	250	-0.8	20.0
Picric acid	Ave	79326	82408		260	250	3.9	20.0
1,3,5-Trinitrobenzene	Ave	222853	219648		246	250	-1.4	20.0
1,3-Dinitrobenzene	Ave	299436	305084		255	250	1.9	20.0
Nitrobenzene	Ave	196329	189860		242	250	-3.3	20.0
3,5-Dinitroaniline	Lin2		223732		254	250	1.7	20.0
Tetryl	Ave	181588	176432		243	250	-2.8	20.0
Nitroglycerin	Ave	66464	68610		2580	2500	3.2	20.0
2,4,6-Trinitrotoluene	Ave	215192	217412		253	250	1.0	20.0
4-Amino-2,6-dinitrotoluene	Ave	149948	152152		254	250	1.5	20.0
2-Amino-4,6-dinitrotoluene	Ave	199809	202588		253	250	1.4	20.0
2,6-Dinitrotoluene	Ave	146914	148076		252	250	0.8	20.0
2,4-Dinitrotoluene	Ave	291844	301112		258	250	3.2	20.0
2-Nitrotoluene	Ave	129305	123448		239	250	-4.5	20.0
4-Nitrotoluene	Ave	112799	107728		239	250	-4.5	20.0
3-Nitrotoluene	Ave	144063	135932		236	250	-5.6	20.0
PETN	Ave	71937	72533		2520	2500	0.8	20.0
1,2-Dinitrobenzene	Lin2		133820		253	250	1.4	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191424-1

SDG No.:

Lab Sample ID: CCV 280-653693/39 Calibration Date: 05/17/2024 02:48

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: 05160039.D

Analyte	RT	RT WINDOW	
		FROM	TO
HMX	6.61	6.47	6.77
RDX	7.62	7.48	7.78
Picric acid	7.86	7.71	8.01
1,3,5-Trinitrobenzene	8.69	8.54	8.84
1,3-Dinitrobenzene	9.30	9.15	9.45
Nitrobenzene	9.66	9.50	9.80
3,5-Dinitroaniline	9.89	9.73	10.03
Tetryl	9.97	9.81	10.11
Nitroglycerin	10.45	10.28	10.58
2,4,6-Trinitrotoluene	10.88	10.76	10.96
4-Amino-2,6-dinitrotoluene	11.05	10.93	11.13
2-Amino-4,6-dinitrotoluene	11.31	11.18	11.38
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	12.65	12.95
3-Nitrotoluene	13.37	13.20	13.50
PETN	14.43	14.25	14.55
1,2-Dinitrobenzene	8.55	8.40	8.70

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240516-133471.b\05160039.D
Lims ID: CCV INT
Client ID:
Sample Type: CCV
Inject. Date: 17-May-2024 02:48:27 ALS Bottle#: 7 Worklist Smp#: 39
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\20240516-133471.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 17-May-2024 12:38:29 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: CTX1618

First Level Reviewer: LV5D Date: 17-May-2024 12:37:58

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	6.621	-0.007	23821	0.2500	0.2493	
8 RDX	1	7.621	7.628	-0.007	27474	0.2500	0.2480	
9 2,4,6-Trinitrophenol	1	7.861	7.861	0.000	20602	0.2500	0.2597	
$ 10 1,2-Dinitrobenzene	1	8.554	8.554	0.000	33455	0.2500	0.2534	
11 1,3,5-Trinitrobenzene	1	8.688	8.694	-0.006	54912	0.2500	0.2464	
12 1,3-Dinitrobenzene	1	9.301	9.301	0.000	76271	0.2500	0.2547	
13 Nitrobenzene	1	9.661	9.654	0.007	47465	0.2500	0.2418	
14 3,5-Dinitroaniline	1	9.894	9.881	0.013	55933	0.2500	0.2542	
15 Tetryl	1	9.974	9.961	0.013	44108	0.2500	0.2429	
16 Nitroglycerin	2	10.447	10.434	0.013	171525	2.50	2.58	
17 2,4,6-Trinitrotoluene	1	10.881	10.861	0.020	54353	0.2500	0.2526	
18 4-Amino-2,6-dinitrotoluene	1	11.054	11.027	0.027	38038	0.2500	0.2537	
19 2-Amino-4,6-dinitrotoluene	1	11.307	11.281	0.026	50647	0.2500	0.2535	
20 2,6-Dinitrotoluene	1	11.454	11.434	0.020	37019	0.2500	0.2520	
21 2,4-Dinitrotoluene	1	11.634	11.607	0.027	75278	0.2500	0.2579	
22 o-Nitrotoluene	1	12.414	12.387	0.027	30862	0.2500	0.2387	
23 p-Nitrotoluene	1	12.827	12.801	0.026	26932	0.2500	0.2388	
24 m-Nitrotoluene	1	13.374	13.347	0.027	33983	0.2500	0.2359	
25 PETN	2	14.434	14.401	0.033	181333	2.50	2.52	

QC Flag Legend

Processing Flags

Reagents:

8330IntermStk_00081 Amount Added: 25.00 Units: uL

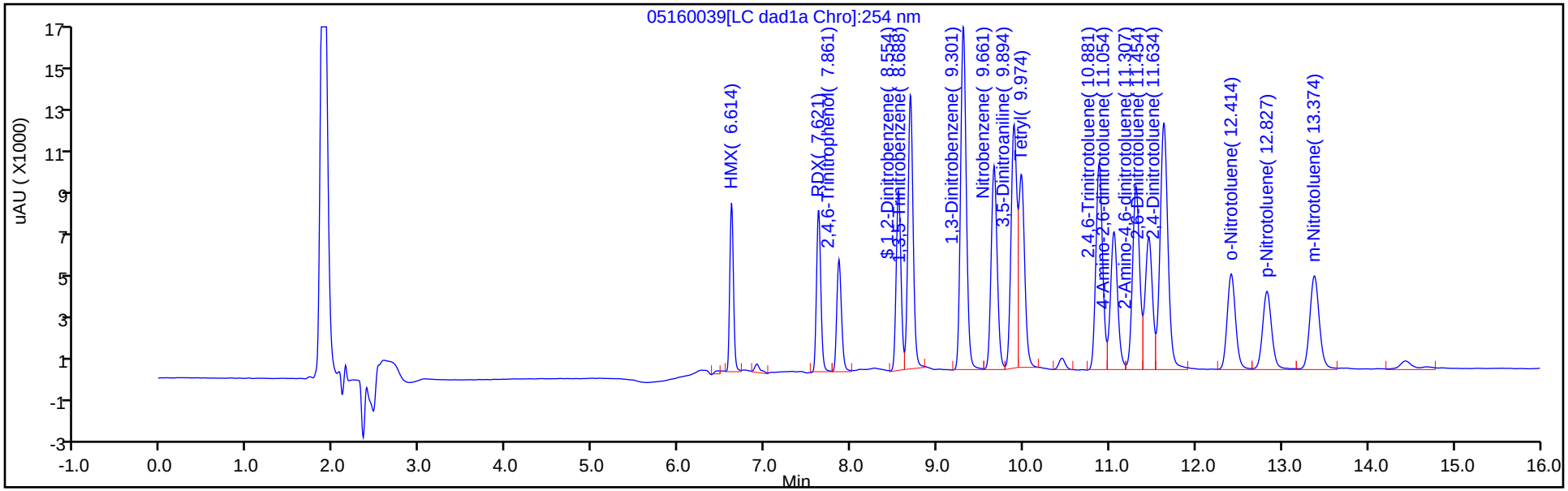
Report Date: 17-May-2024 12:38:29 Chrom Revision: 2.3 14-May-2024 14:23:08

Eurofins Denver

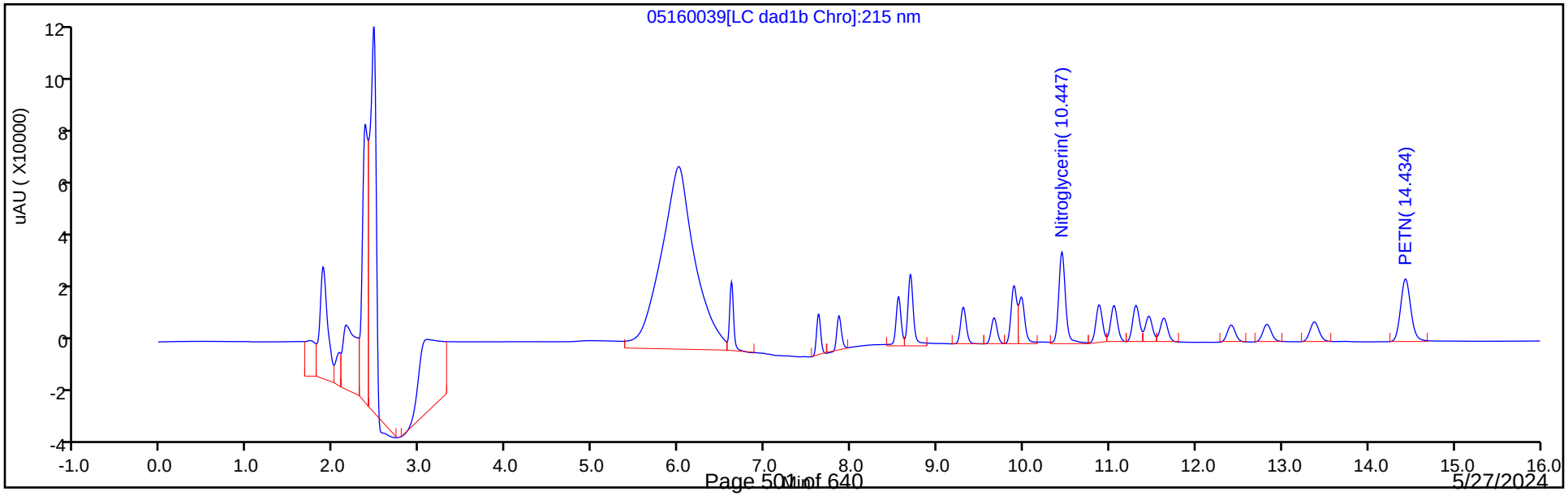
Data File: \\chromfs\denver\chromdata\chhplc_x\20240516-133471.b\05160039.d

Injection Date:	17-May-2024 02:48:27	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	CCV INT			Worklist Smp#:	39
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



5/27/2024
7:57:40 AM

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-191424-1

SDG No.:

Lab Sample ID: CCV 280-654555/15 Calibration Date: 05/23/2024 18:06

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: 05230015.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
HMX	Ave	95544	96332		252	250	0.8	20.0
RDX	Ave	110767	110980		250	250	0.2	20.0
Picric acid	Ave	79326	82944		261	250	4.6	20.0
1,3,5-Trinitrobenzene	Ave	222853	228784		257	250	2.7	20.0
1,3-Dinitrobenzene	Ave	299436	308644		258	250	3.1	20.0
Nitrobenzene	Ave	196329	201612		257	250	2.7	20.0
3,5-Dinitroaniline	Lin2		233092		265	250	5.9	20.0
Tetryl	Ave	181588	177960		245	250	-2.0	20.0
Nitroglycerin	Ave	66464	68935		2590	2500	3.7	20.0
2,4,6-Trinitrotoluene	Ave	215192	222228		258	250	3.3	20.0
4-Amino-2,6-dinitrotoluene	Ave	149948	155392		259	250	3.6	20.0
2-Amino-4,6-dinitrotoluene	Ave	199809	205920		258	250	3.1	20.0
2,6-Dinitrotoluene	Ave	146914	153648		261	250	4.6	20.0
2,4-Dinitrotoluene	Ave	291844	299648		257	250	2.7	20.0
2-Nitrotoluene	Ave	129305	129720		251	250	0.3	20.0
4-Nitrotoluene	Ave	112799	111940		248	250	-0.8	20.0
3-Nitrotoluene	Ave	144063	141680		246	250	-1.7	20.0
PETN	Ave	71937	74784		2600	2500	4.0	20.0
1,2-Dinitrobenzene	Lin2		138744		263	250	5.1	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191424-1

SDG No.:

Lab Sample ID: CCV 280-654555/15 Calibration Date: 05/23/2024 18:06

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: 05230015.D

Analyte	RT	RT WINDOW	
		FROM	TO
HMX	6.64	6.48	6.78
RDX	7.64	7.49	7.79
Picric acid	7.88	7.72	8.02
1,3,5-Trinitrobenzene	8.72	8.56	8.86
1,3-Dinitrobenzene	9.32	9.18	9.48
Nitrobenzene	9.68	9.54	9.84
3,5-Dinitroaniline	9.92	9.77	10.07
Tetryl	9.98	9.84	10.14
Nitroglycerin	10.46	10.32	10.62
2,4,6-Trinitrotoluene	10.89	10.81	11.01
4-Amino-2,6-dinitrotoluene	11.06	10.97	11.17
2-Amino-4,6-dinitrotoluene	11.32	11.23	11.43
2,6-Dinitrotoluene	11.46	11.37	11.57
2,4-Dinitrotoluene	11.64	11.55	11.75
2-Nitrotoluene	12.42	12.28	12.58
4-Nitrotoluene	12.84	12.69	12.99
3-Nitrotoluene	13.38	13.24	13.54
PETN	14.42	14.28	14.58
1,2-Dinitrobenzene	8.57	8.42	8.72

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240523-133725.b\05230015.D
Lims ID: CCV INT
Client ID:
Sample Type: CCV
Inject. Date: 23-May-2024 18:06:48 ALS Bottle#: 7 Worklist Smp#: 15
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\20240523-133725.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 23-May-2024 18:38:09 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: CTX1639

First Level Reviewer: LV5D Date: 23-May-2024 18:37:54

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
4 HMX	1	6.638	6.632	0.006	24083	0.2500	0.2521	M
8 RDX	1	7.644	7.638	0.006	27745	0.2500	0.2505	
9 2,4,6-Trinitrophenol	1	7.884	7.872	0.012	20736	0.2500	0.2614	
$ 10 1,2-Dinitrobenzene	1	8.571	8.572	-0.001	34686	0.2500	0.2628	
11 1,3,5-Trinitrobenzene	1	8.718	8.712	0.006	57196	0.2500	0.2567	
12 1,3-Dinitrobenzene	1	9.324	9.325	-0.001	77161	0.2500	0.2577	
13 Nitrobenzene	1	9.677	9.685	-0.008	50403	0.2500	0.2567	M
14 3,5-Dinitroaniline	1	9.917	9.918	-0.001	58273	0.2500	0.2647	M
15 Tetryl	1	9.977	9.991	-0.014	44490	0.2500	0.2450	Ma
16 Nitroglycerin	2	10.457	10.471	-0.014	172337	2.50	2.59	
17 2,4,6-Trinitrotoluene	1	10.891	10.905	-0.014	55557	0.2500	0.2582	
18 4-Amino-2,6-dinitrotoluene	1	11.064	11.071	-0.007	38848	0.2500	0.2591	
19 2-Amino-4,6-dinitrotoluene	1	11.324	11.325	-0.001	51480	0.2500	0.2576	
20 2,6-Dinitrotoluene	1	11.464	11.471	-0.007	38412	0.2500	0.2615	
21 2,4-Dinitrotoluene	1	11.644	11.651	-0.007	74912	0.2500	0.2567	
22 o-Nitrotoluene	1	12.417	12.425	-0.008	32430	0.2500	0.2508	
23 p-Nitrotoluene	1	12.837	12.838	-0.001	27985	0.2500	0.2481	
24 m-Nitrotoluene	1	13.384	13.385	-0.001	35420	0.2500	0.2459	
25 PETN	2	14.424	14.425	-0.001	186960	2.50	2.60	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated
a - User Assigned ID

Reagents:

8330IntermStk_00081 Amount Added: 25.00 Units: uL

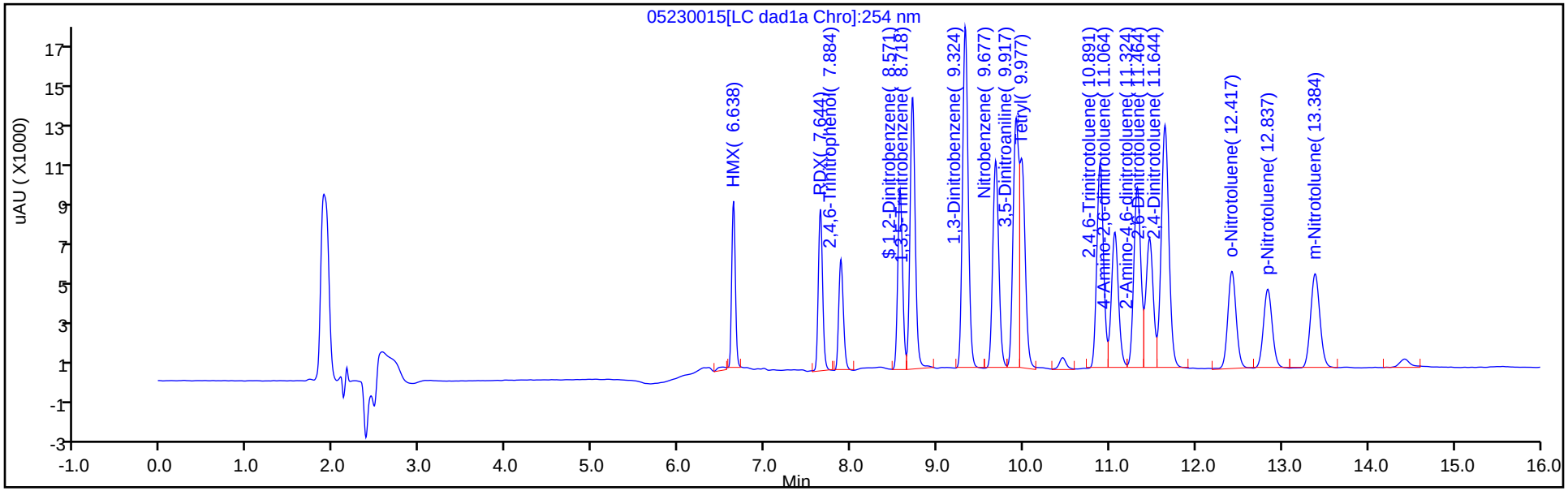
Report Date: 23-May-2024 18:38:10 Chrom Revision: 2.3 20-May-2024 22:00:34

Eurofins Denver

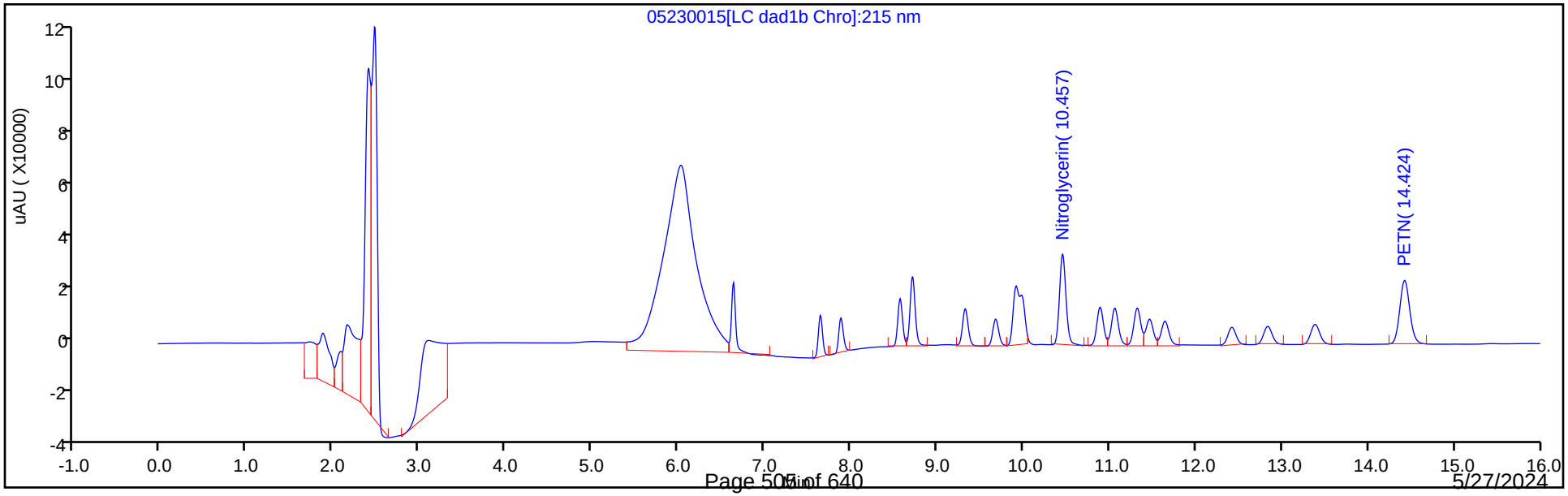
Data File: \\chromfs\denver\chromdata\chhplc_x\20240523-133725.b\05230015.d

Injection Date:	23-May-2024 18:06:48	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	CCV INT			Worklist Smp#:	15
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



5/27/2024
7:57:40 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

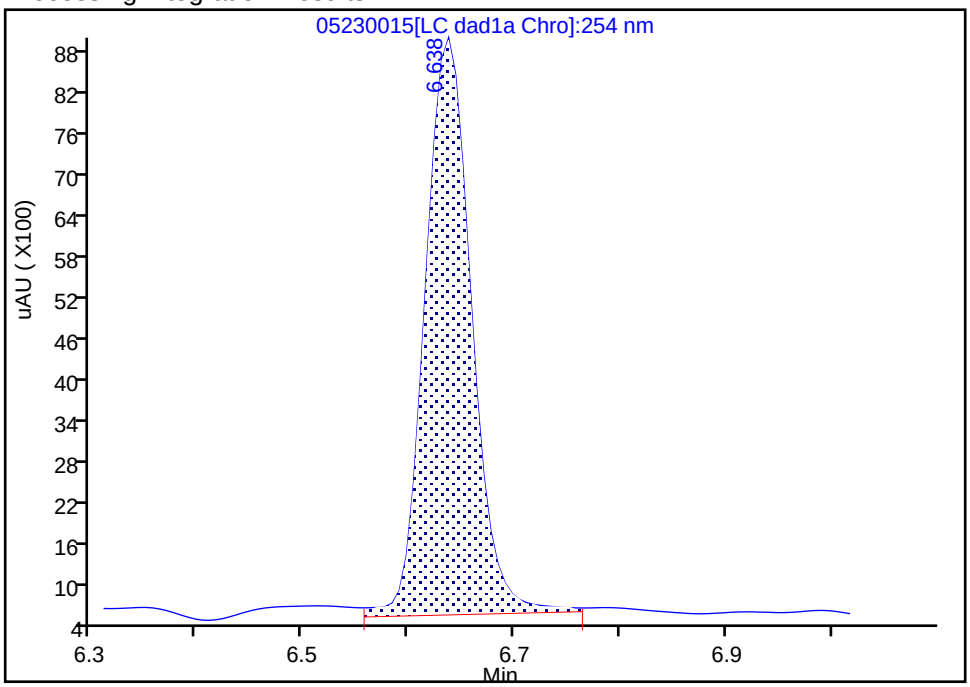
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240523-133725.b\05230015.d				
Injection Date:	23-May-2024 18:06:48	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV INT				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	7	Worklist Smp#:	15
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

4 HMX, CAS: 2691-41-0

Signal: 1

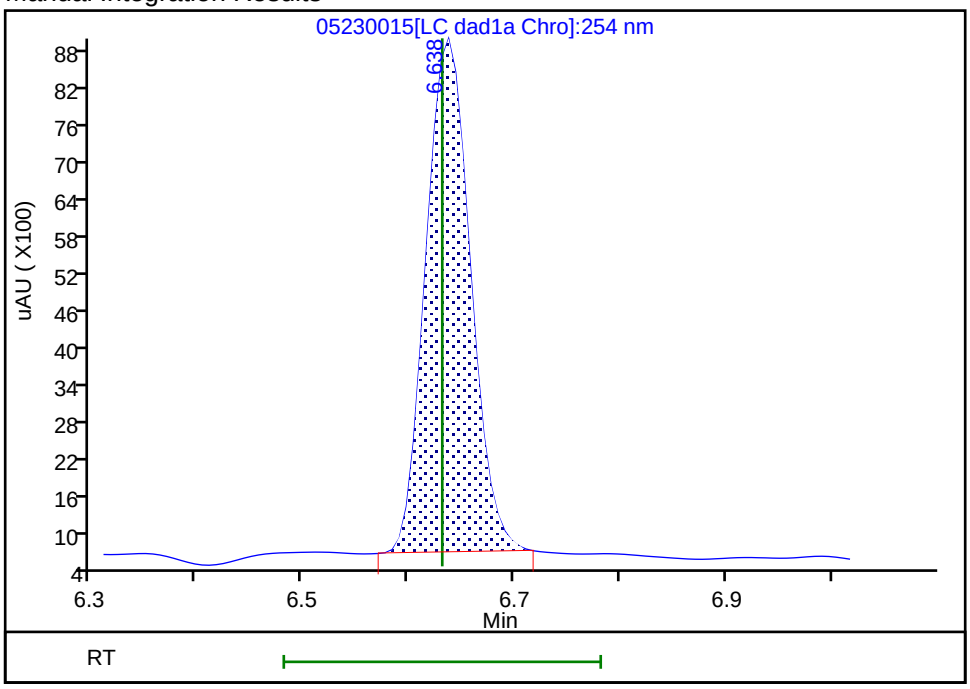
Processing Integration Results

RT: 6.64
Area: 25620
Amount: 0.268150
Amount Units: ug/mL



Manual Integration Results

RT: 6.64
Area: 24083
Amount: 0.252063
Amount Units: ug/mL



Reviewer: LV5D, 23-May-2024 18:38:01 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

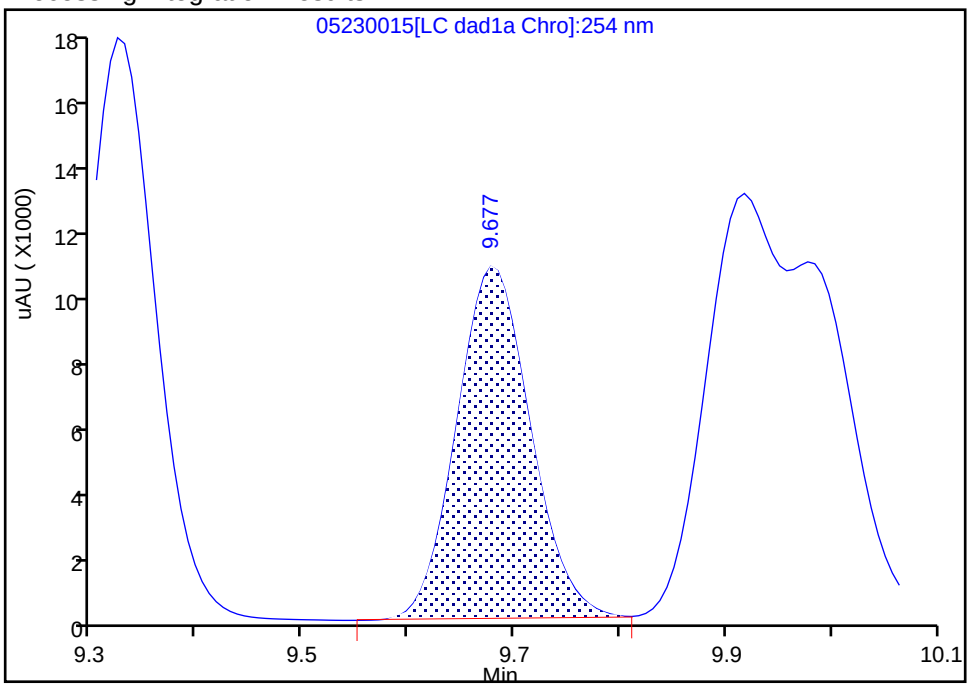
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240523-133725.b\05230015.d				
Injection Date:	23-May-2024 18:06:48	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV INT				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	7	Worklist Smp#:	15
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

13 Nitrobenzene, CAS: 98-95-3

Signal: 1

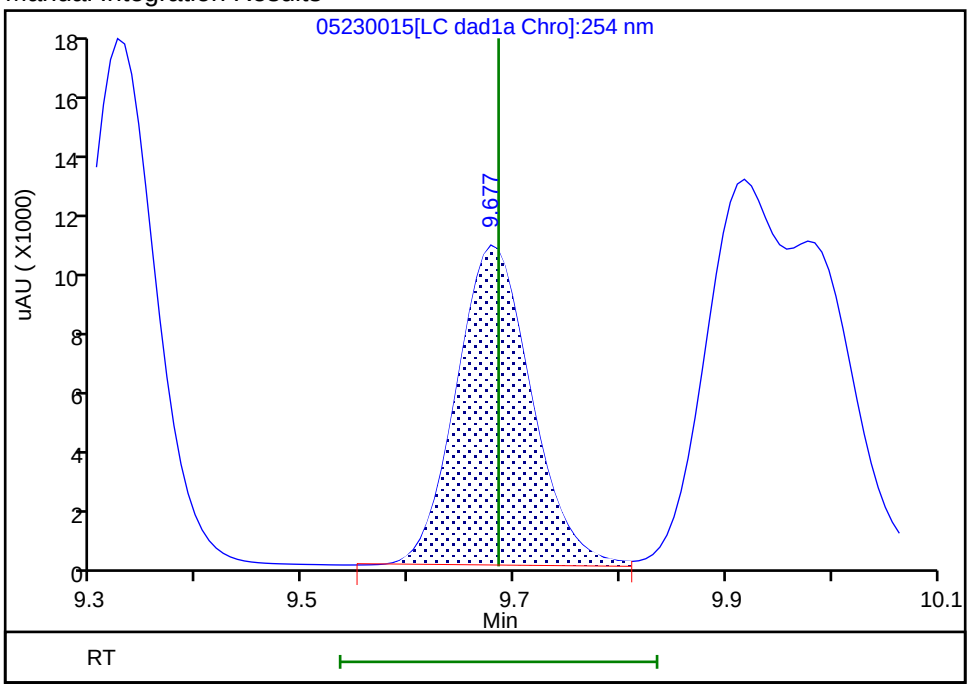
Processing Integration Results

RT: 9.68
Area: 49467
Amount: 0.251960
Amount Units: ug/mL



Manual Integration Results

RT: 9.68
Area: 50403
Amount: 0.256727
Amount Units: ug/mL



Reviewer: LV5D, 23-May-2024 18:37:51 -06:00:00 (UTC)
Audit Action: Assigned New Baseline Audit Reason: Baseline

Eurofins Denver

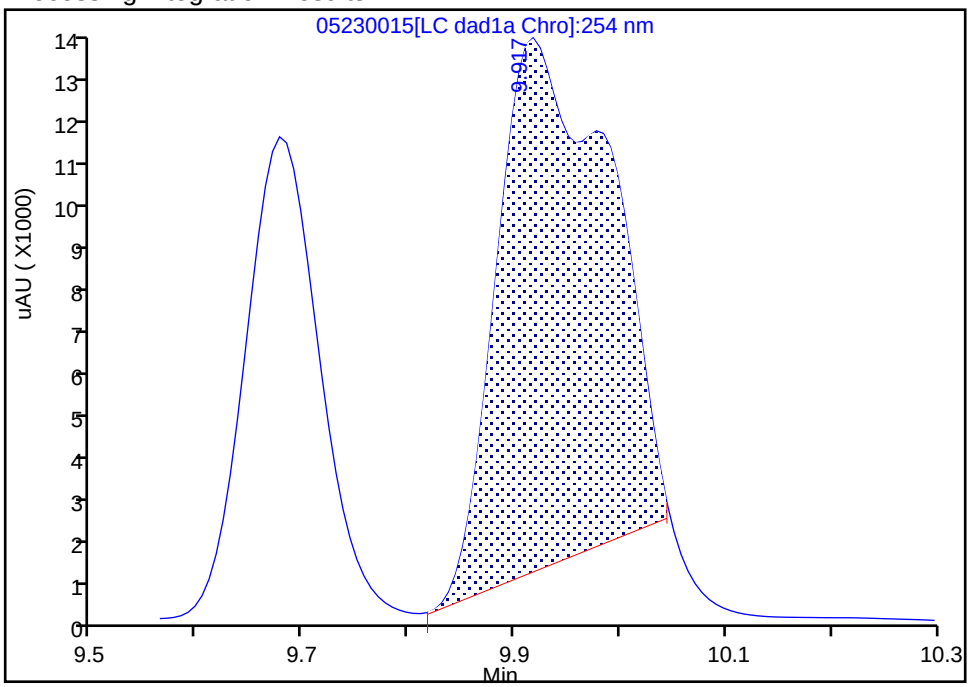
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240523-133725.b\05230015.d				
Injection Date:	23-May-2024 18:06:48	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV INT				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	7	Worklist Smp#:	15
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

14 3,5-Dinitroaniline, CAS: 618-87-1

Signal: 1

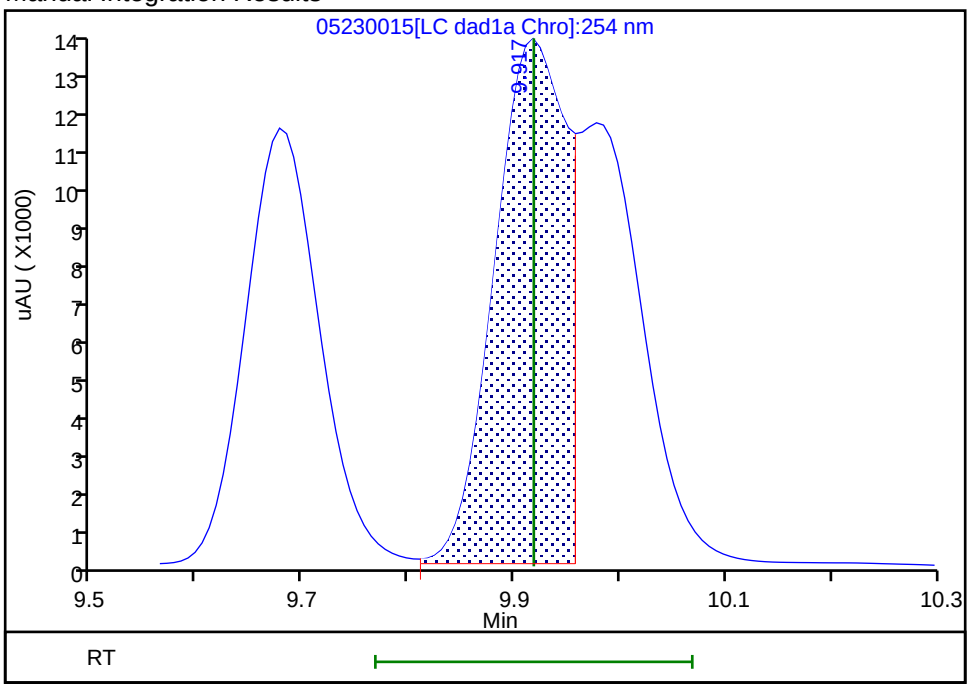
Processing Integration Results

RT: 9.92
Area: 83827
Amount: 0.380370
Amount Units: ug/mL



Manual Integration Results

RT: 9.92
Area: 58273
Amount: 0.264744
Amount Units: ug/mL



Reviewer: LV5D, 23-May-2024 18:37:51 -06:00:00 (UTC)
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

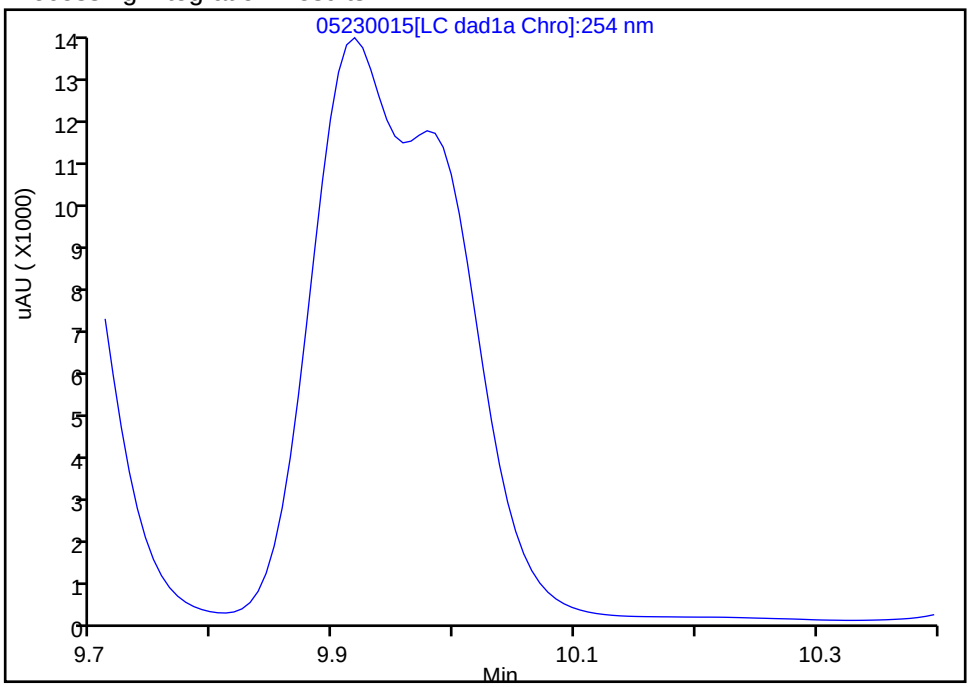
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240523-133725.b\05230015.d				
Injection Date:	23-May-2024 18:06:48	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV INT				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	7	Worklist Smp#:	15
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

15 Tetryl, CAS: 479-45-8

Signal: 1

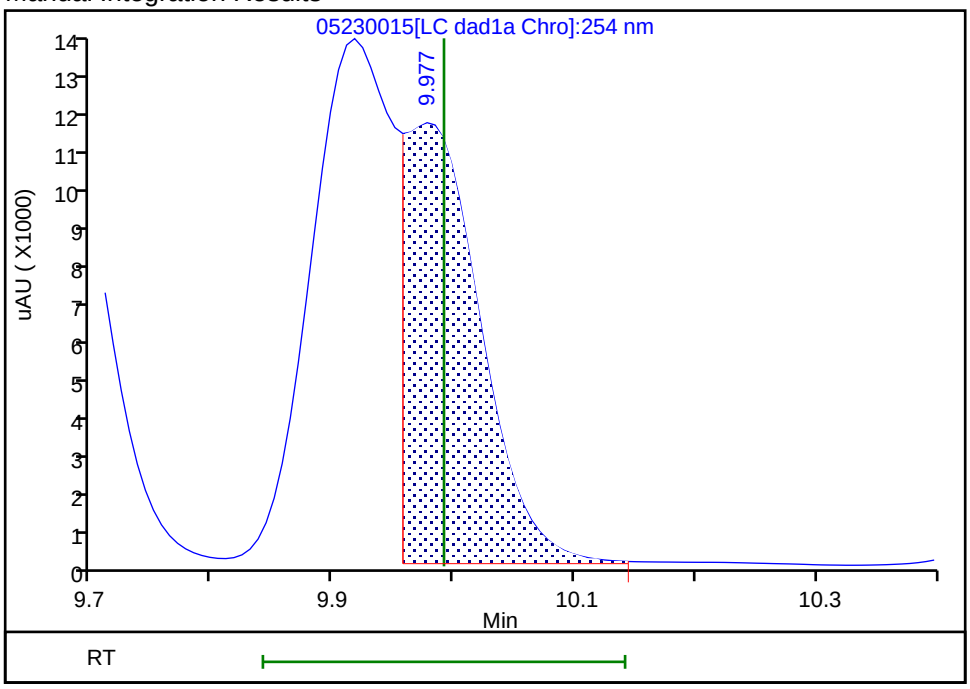
Not Detected
Expected RT: 9.99

Processing Integration Results



Manual Integration Results

RT: 9.98
Area: 44490
Amount: 0.245005
Amount Units: ug/mL



Reviewer: LV5D, 23-May-2024 18:37:51 -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.: 280-191424-1

SDG No.:

Lab Sample ID: CCV 280-654555/26 | Calibration Date: 05/23/2024 22:19

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: 05230026.D | Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
HMX	Ave	95544	99928		261	250	4.6	20.0
RDX	Ave	110767	111728		252	250	0.9	20.0
Picric acid	Ave	79326	83296		263	250	5.0	20.0
1,3,5-Trinitrobenzene	Ave	222853	224876		252	250	0.9	20.0
1,3-Dinitrobenzene	Ave	299436	309192		258	250	3.3	20.0
Nitrobenzene	Ave	196329	199444		254	250	1.6	20.0
3,5-Dinitroaniline	Lin2		226112		257	250	2.7	20.0
Tetryl	Ave	181588	185428		255	250	2.1	20.0
Nitroglycerin	Ave	66464	68828		2590	2500	3.6	20.0
2,4,6-Trinitrotoluene	Ave	215192	222188		258	250	3.3	20.0
4-Amino-2,6-dinitrotoluene	Ave	149948	156076		260	250	4.1	20.0
2-Amino-4,6-dinitrotoluene	Ave	199809	204244		256	250	2.2	20.0
2,6-Dinitrotoluene	Ave	146914	154868		264	250	5.4	20.0
2,4-Dinitrotoluene	Ave	291844	298004		255	250	2.1	20.0
2-Nitrotoluene	Ave	129305	127576		247	250	-1.3	20.0
4-Nitrotoluene	Ave	112799	110472		245	250	-2.1	20.0
3-Nitrotoluene	Ave	144063	139868		243	250	-2.9	20.0
PETN	Ave	71937	74596		2590	2500	3.7	20.0
1,2-Dinitrobenzene	Lin2		138076		262	250	4.6	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191424-1

SDG No.:

Lab Sample ID: CCV 280-654555/26 Calibration Date: 05/23/2024 22:19

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: 05230026.D

Analyte	RT	RT WINDOW	
		FROM	TO
HMX	6.63	6.48	6.78
RDX	7.64	7.49	7.79
Picric acid	7.88	7.72	8.02
1,3,5-Trinitrobenzene	8.71	8.56	8.86
1,3-Dinitrobenzene	9.32	9.18	9.48
Nitrobenzene	9.67	9.54	9.84
3,5-Dinitroaniline	9.91	9.77	10.07
Tetryl	9.97	9.84	10.14
Nitroglycerin	10.45	10.32	10.62
2,4,6-Trinitrotoluene	10.88	10.81	11.01
4-Amino-2,6-dinitrotoluene	11.06	10.97	11.17
2-Amino-4,6-dinitrotoluene	11.32	11.23	11.43
2,6-Dinitrotoluene	11.46	11.37	11.57
2,4-Dinitrotoluene	11.64	11.55	11.75
2-Nitrotoluene	12.41	12.28	12.58
4-Nitrotoluene	12.83	12.69	12.99
3-Nitrotoluene	13.38	13.24	13.54
PETN	14.42	14.28	14.58
1,2-Dinitrobenzene	8.56	8.42	8.72

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240523-133725.b\05230026.D
Lims ID: CCV INT
Client ID:
Sample Type: CCV
Inject. Date: 23-May-2024 22:19:14 ALS Bottle#: 7 Worklist Smp#: 26
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\20240523-133725.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 24-May-2024 12:35:12 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: CTX1640

First Level Reviewer: LV5D Date: 24-May-2024 11:31:28

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
4 HMX	1	6.628	6.632	-0.004	24982	0.2500	0.2615	
8 RDX	1	7.635	7.638	-0.003	27932	0.2500	0.2522	
9 2,4,6-Trinitrophenol	1	7.875	7.872	0.003	20824	0.2500	0.2625	
$ 10 1,2-Dinitrobenzene	1	8.562	8.572	-0.010	34519	0.2500	0.2615	
11 1,3,5-Trinitrobenzene	1	8.708	8.712	-0.004	56219	0.2500	0.2523	
12 1,3-Dinitrobenzene	1	9.315	9.325	-0.010	77298	0.2500	0.2581	
13 Nitrobenzene	1	9.668	9.685	-0.017	49861	0.2500	0.2540	M
14 3,5-Dinitroaniline	1	9.908	9.918	-0.010	56528	0.2500	0.2568	M
15 Tetryl	1	9.968	9.991	-0.023	46357	0.2500	0.2553	Ma
16 Nitroglycerin	2	10.448	10.471	-0.023	172070	2.50	2.59	
17 2,4,6-Trinitrotoluene	1	10.882	10.905	-0.023	55547	0.2500	0.2581	
18 4-Amino-2,6-dinitrotoluene	1	11.055	11.071	-0.016	39019	0.2500	0.2602	
19 2-Amino-4,6-dinitrotoluene	1	11.315	11.325	-0.010	51061	0.2500	0.2555	
20 2,6-Dinitrotoluene	1	11.455	11.471	-0.016	38717	0.2500	0.2635	
21 2,4-Dinitrotoluene	1	11.635	11.651	-0.016	74501	0.2500	0.2553	
22 o-Nitrotoluene	1	12.408	12.425	-0.017	31894	0.2500	0.2467	
23 p-Nitrotoluene	1	12.828	12.838	-0.010	27618	0.2500	0.2448	
24 m-Nitrotoluene	1	13.375	13.385	-0.010	34967	0.2500	0.2427	
25 PETN	2	14.415	14.425	-0.010	186491	2.50	2.59	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated
a - User Assigned ID

Reagents:

8330IntermStk_00081 Amount Added: 25.00 Units: uL

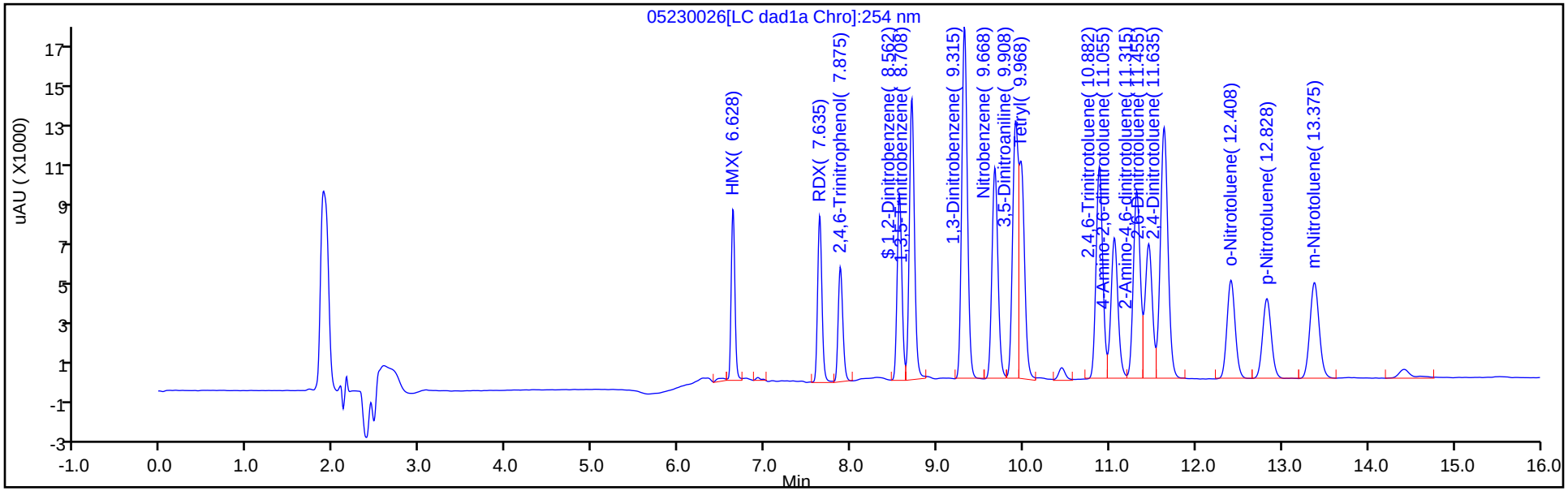
Report Date: 24-May-2024 12:35:12 Chrom Revision: 2.3 20-May-2024 22:00:34

Eurofins Denver

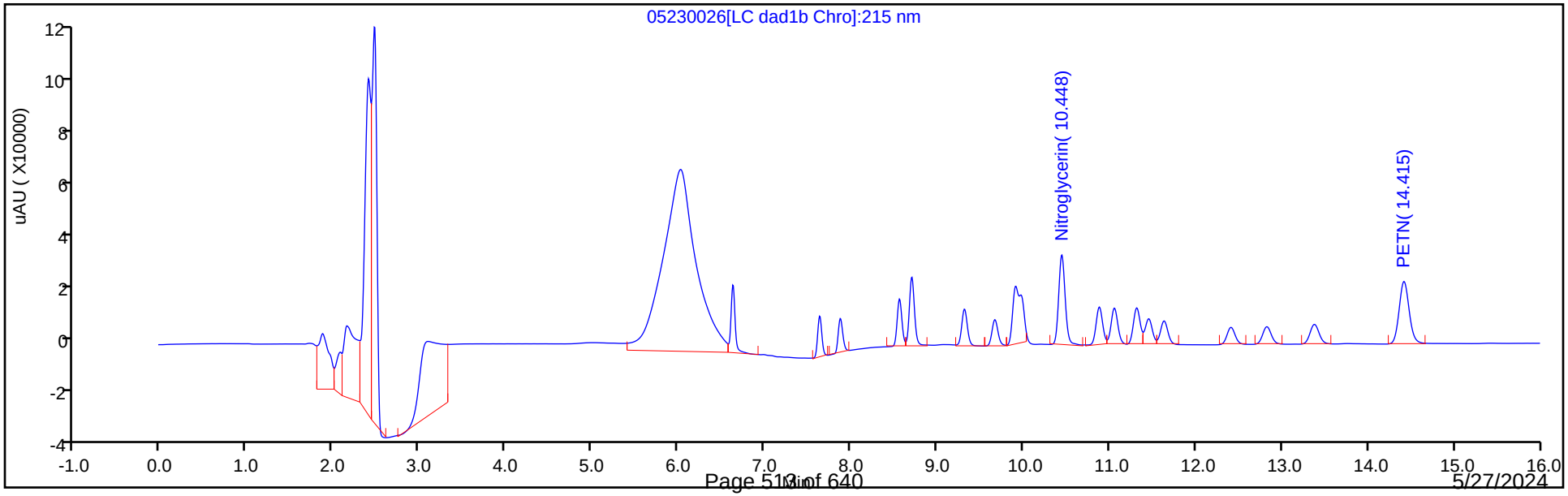
Data File: \\chromfs\denver\chromdata\chhplc_x\20240523-133725.b\05230026.d

Injection Date:	23-May-2024 22:19:14	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	CCV INT			Worklist Smp#:	26
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



5/27/2024
7:57:40 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

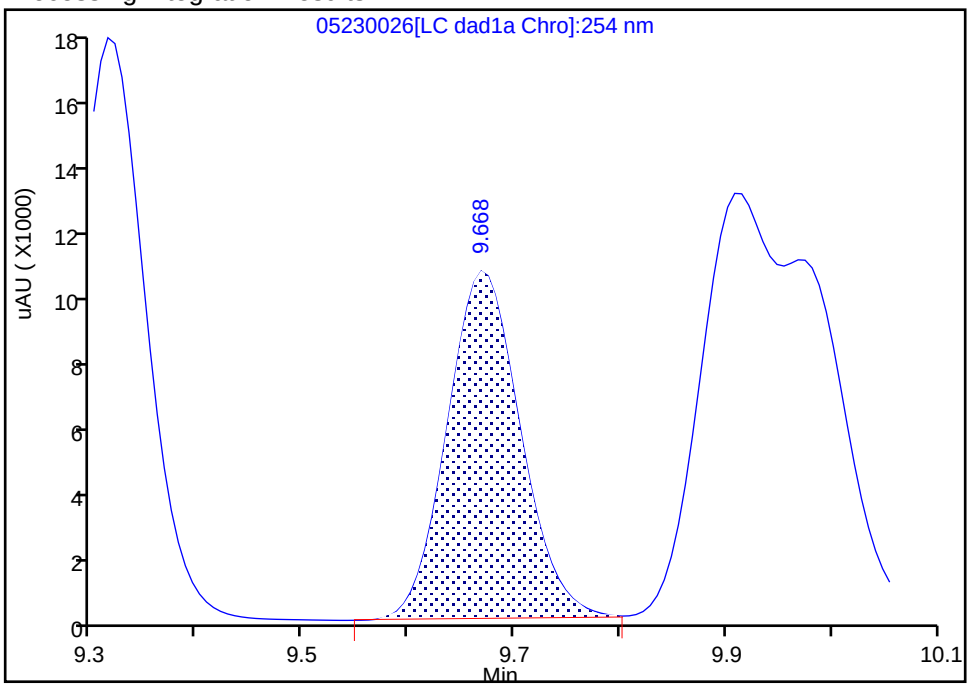
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240523-133725.b\05230026.d				
Injection Date:	23-May-2024 22:19:14	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV INT				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	7	Worklist Smp#:	26
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

13 Nitrobenzene, CAS: 98-95-3

Signal: 1

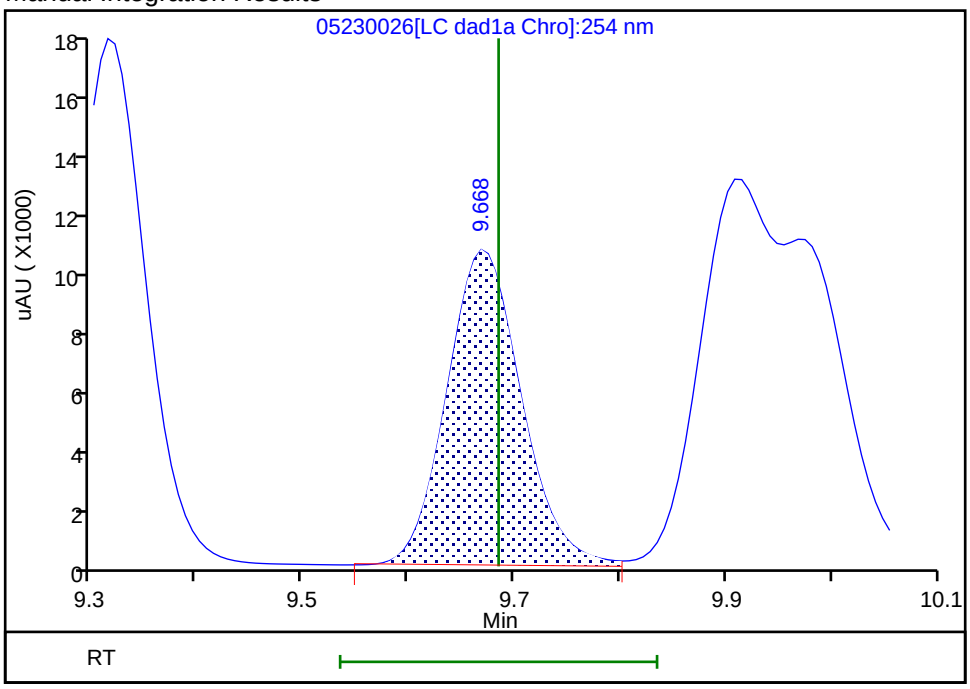
Processing Integration Results

RT: 9.67
Area: 48820
Amount: 0.248664
Amount Units: ug/mL



Manual Integration Results

RT: 9.67
Area: 49861
Amount: 0.253967
Amount Units: ug/mL



Reviewer: LV5D, 24-May-2024 11:31:26 -06:00:00 (UTC)
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

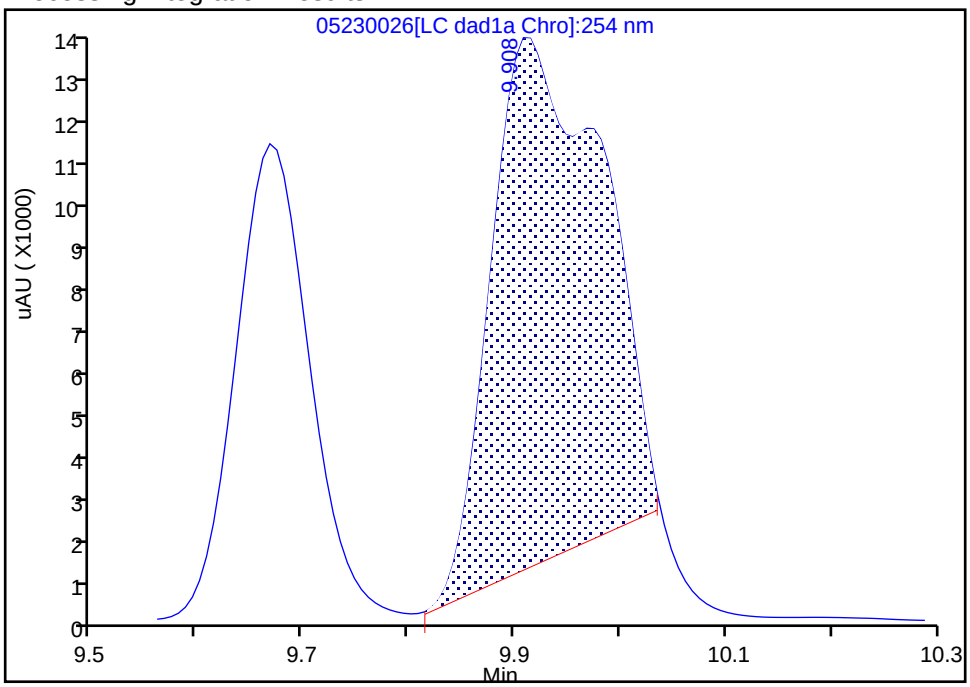
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240523-133725.b\05230026.d				
Injection Date:	23-May-2024 22:19:14	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV INT				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	7	Worklist Smp#:	26
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

14 3,5-Dinitroaniline, CAS: 618-87-1

Signal: 1

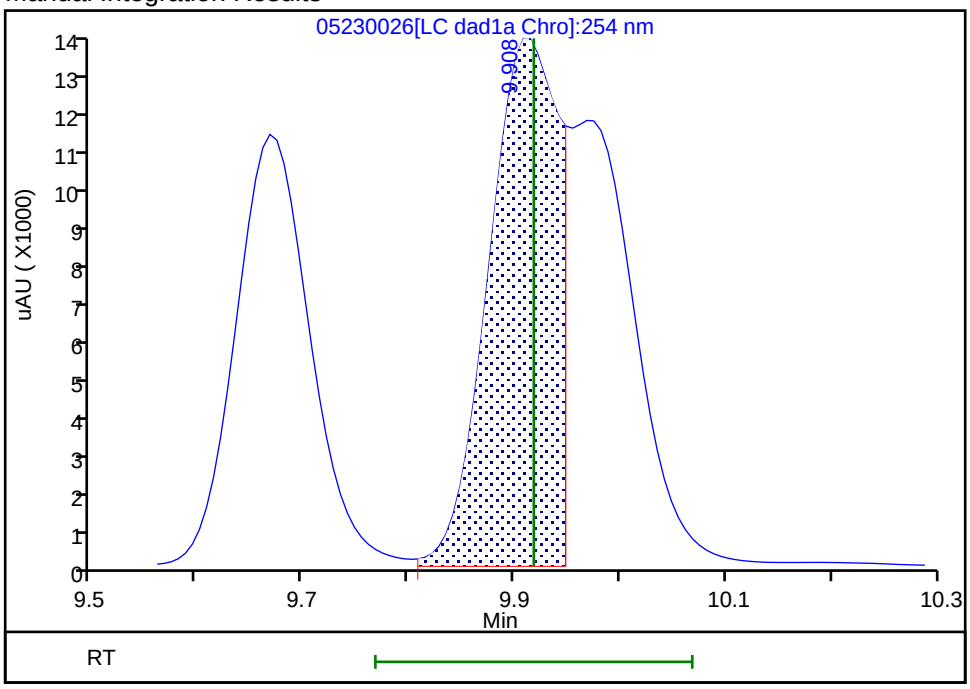
Processing Integration Results

RT: 9.91
Area: 82592
Amount: 0.374782
Amount Units: ug/mL



Manual Integration Results

RT: 9.91
Area: 56528
Amount: 0.256849
Amount Units: ug/mL



Reviewer: LV5D, 24-May-2024 11:31:26 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

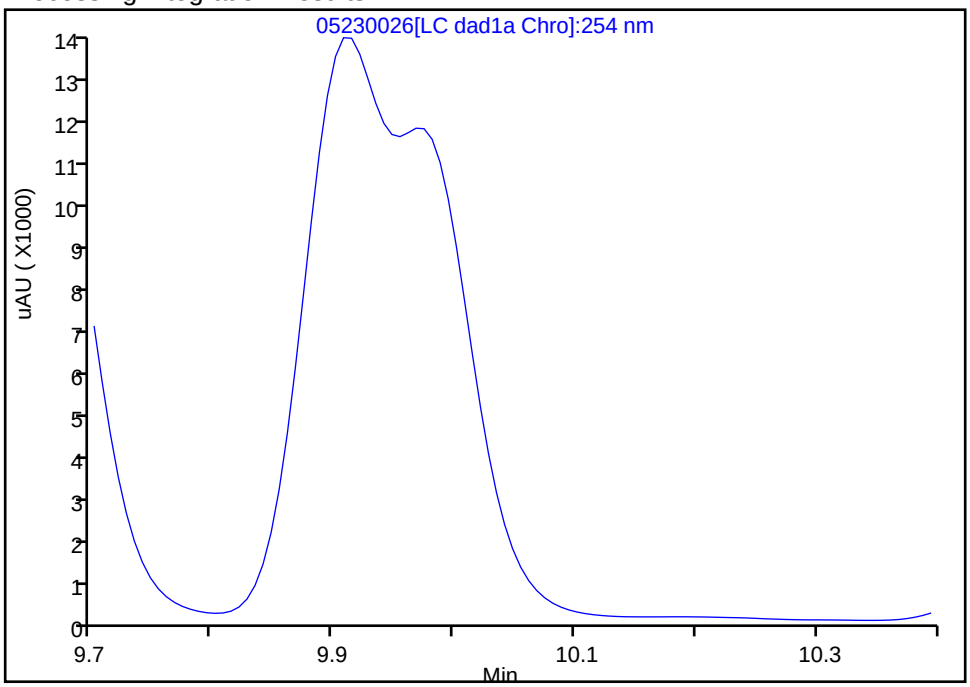
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240523-133725.b\05230026.d				
Injection Date:	23-May-2024 22:19:14	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV INT				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	7	Worklist Smp#:	26
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

15 Tetryl, CAS: 479-45-8

Signal: 1

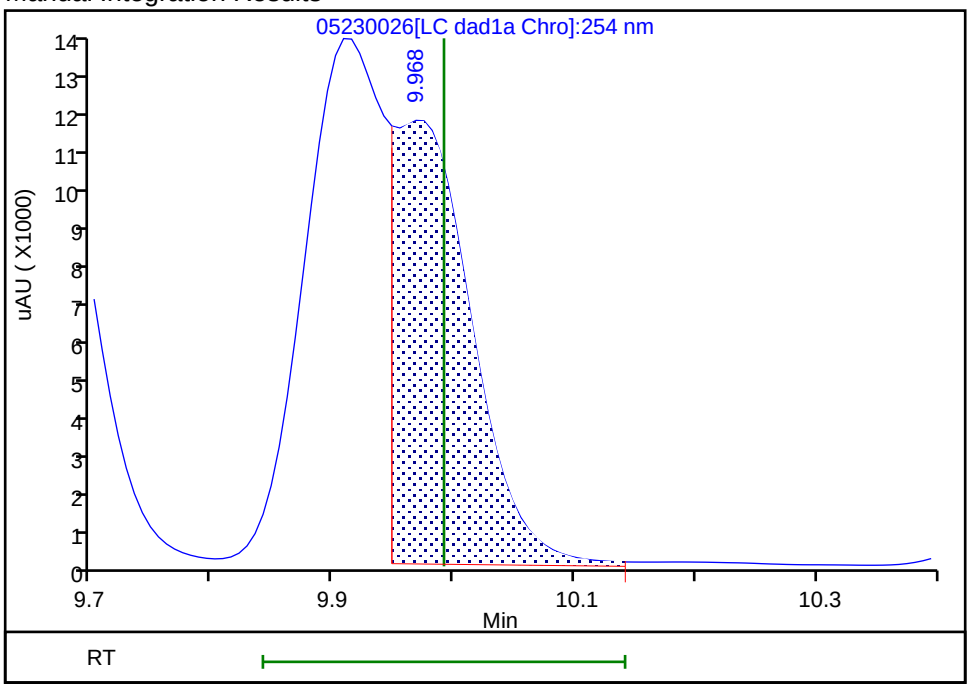
Not Detected
Expected RT: 9.99

Processing Integration Results



Manual Integration Results

RT: 9.97
Area: 46357
Amount: 0.255286
Amount Units: ug/mL



Reviewer: LV5D, 24-May-2024 11:31:26 -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.: 280-191424-1

SDG No.:

Lab Sample ID: CCV 280-654555/37 | Calibration Date: 05/24/2024 02:31

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: 05230037.D | Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
HMX	Ave	95544	96460		252	250	1.0	20.0
RDX	Ave	110767	111076		251	250	0.3	20.0
Picric acid	Ave	79326	83020		262	250	4.7	20.0
1,3,5-Trinitrobenzene	Ave	222853	225508		253	250	1.2	20.0
1,3-Dinitrobenzene	Ave	299436	309288		258	250	3.3	20.0
Nitrobenzene	Ave	196329	193300		246	250	-1.5	20.0
3,5-Dinitroaniline	Lin2		225412		256	250	2.4	20.0
Tetryl	Ave	181588	179524		247	250	-1.1	20.0
Nitroglycerin	Ave	66464	69229		2600	2500	4.2	20.0
2,4,6-Trinitrotoluene	Ave	215192	222656		259	250	3.5	20.0
4-Amino-2,6-dinitrotoluene	Ave	149948	155784		260	250	3.9	20.0
2-Amino-4,6-dinitrotoluene	Ave	199809	204032		255	250	2.1	20.0
2,6-Dinitrotoluene	Ave	146914	155704		265	250	6.0	20.0
2,4-Dinitrotoluene	Ave	291844	299284		256	250	2.5	20.0
2-Nitrotoluene	Ave	129305	125492		243	250	-2.9	20.0
4-Nitrotoluene	Ave	112799	108816		241	250	-3.5	20.0
3-Nitrotoluene	Ave	144063	138684		241	250	-3.7	20.0
PETN	Ave	71937	74546		2590	2500	3.6	20.0
1,2-Dinitrobenzene	Lin2		137524		260	250	4.2	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191424-1

SDG No.:

Lab Sample ID: CCV 280-654555/37 Calibration Date: 05/24/2024 02:31

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: 05230037.D

Analyte	RT	RT WINDOW	
		FROM	TO
HMX	6.63	6.48	6.78
RDX	7.63	7.49	7.79
Picric acid	7.87	7.72	8.02
1,3,5-Trinitrobenzene	8.70	8.56	8.86
1,3-Dinitrobenzene	9.31	9.18	9.48
Nitrobenzene	9.66	9.54	9.84
3,5-Dinitroaniline	9.90	9.77	10.07
Tetryl	9.96	9.84	10.14
Nitroglycerin	10.44	10.32	10.62
2,4,6-Trinitrotoluene	10.88	10.81	11.01
4-Amino-2,6-dinitrotoluene	11.05	10.97	11.17
2-Amino-4,6-dinitrotoluene	11.31	11.23	11.43
2,6-Dinitrotoluene	11.45	11.37	11.57
2,4-Dinitrotoluene	11.63	11.55	11.75
2-Nitrotoluene	12.41	12.28	12.58
4-Nitrotoluene	12.82	12.69	12.99
3-Nitrotoluene	13.37	13.24	13.54
PETN	14.41	14.28	14.58
1,2-Dinitrobenzene	8.56	8.42	8.72

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240523-133725.b\05230037.D
Lims ID: CCV INT
Client ID:
Sample Type: CCV
Inject. Date: 24-May-2024 02:31:24 ALS Bottle#: 7 Worklist Smp#: 37
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\20240523-133725.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 24-May-2024 12:35:20 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: CTX1640

First Level Reviewer: LV5D Date: 24-May-2024 11:42:02

	Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
	4 HMX	1	6.626	6.632	-0.006	24115	0.2500	0.2524	M
	8 RDX	1	7.632	7.638	-0.006	27769	0.2500	0.2507	
	9 2,4,6-Trinitrophenol	1	7.872	7.872	0.000	20755	0.2500	0.2616	
$	10 1,2-Dinitrobenzene	1	8.559	8.572	-0.013	34381	0.2500	0.2605	
	11 1,3,5-Trinitrobenzene	1	8.699	8.712	-0.013	56377	0.2500	0.2530	
	12 1,3-Dinitrobenzene	1	9.305	9.325	-0.020	77322	0.2500	0.2582	
	13 Nitrobenzene	1	9.659	9.685	-0.026	48325	0.2500	0.2461	
	14 3,5-Dinitroaniline	1	9.899	9.918	-0.019	56353	0.2500	0.2561	M
	15 Tetryl	1	9.959	9.991	-0.032	44881	0.2500	0.2472	Ma
	16 Nitroglycerin	2	10.439	10.471	-0.032	173073	2.50	2.60	
	17 2,4,6-Trinitrotoluene	1	10.879	10.905	-0.026	55664	0.2500	0.2587	
	18 4-Amino-2,6-dinitrotoluene	1	11.052	11.071	-0.019	38946	0.2500	0.2597	
	19 2-Amino-4,6-dinitrotoluene	1	11.312	11.325	-0.013	51008	0.2500	0.2553	
	20 2,6-Dinitrotoluene	1	11.452	11.471	-0.019	38926	0.2500	0.2650	
	21 2,4-Dinitrotoluene	1	11.632	11.651	-0.019	74821	0.2500	0.2564	
	22 o-Nitrotoluene	1	12.405	12.425	-0.020	31373	0.2500	0.2426	
	23 p-Nitrotoluene	1	12.819	12.838	-0.019	27204	0.2500	0.2412	
	24 m-Nitrotoluene	1	13.372	13.385	-0.013	34671	0.2500	0.2407	
	25 PETN	2	14.405	14.425	-0.020	186365	2.50	2.59	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated
a - User Assigned ID

Reagents:

8330IntermStk_00081 Amount Added: 25.00 Units: uL

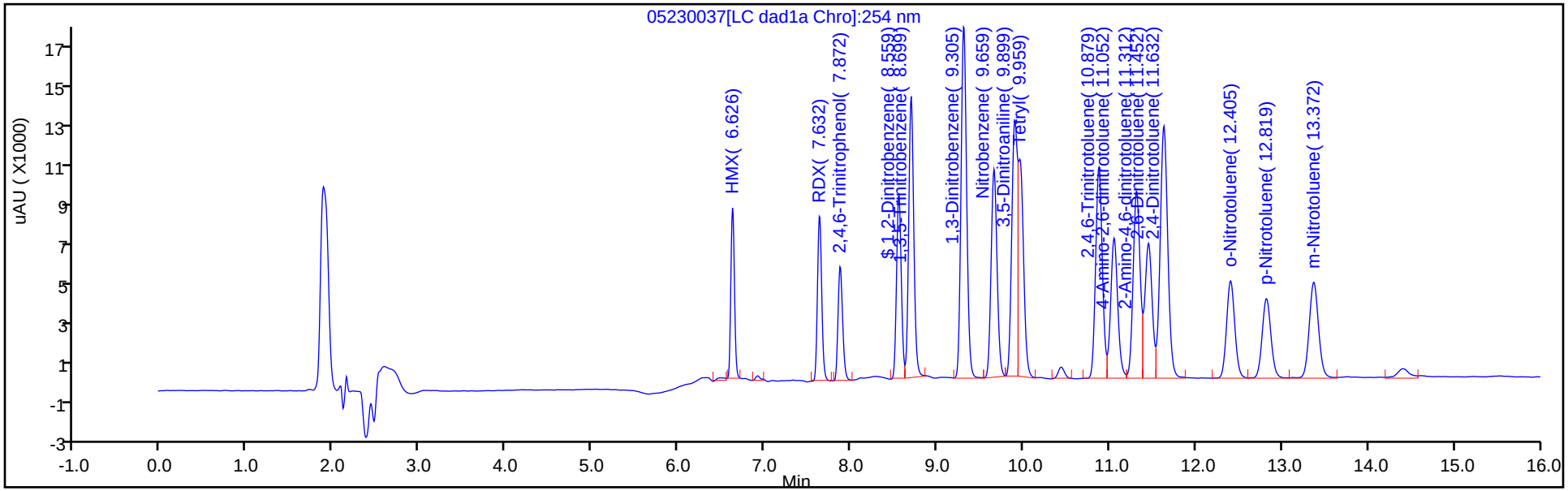
Report Date: 24-May-2024 12:35:20 Chrom Revision: 2.3 20-May-2024 22:00:34

Eurofins Denver

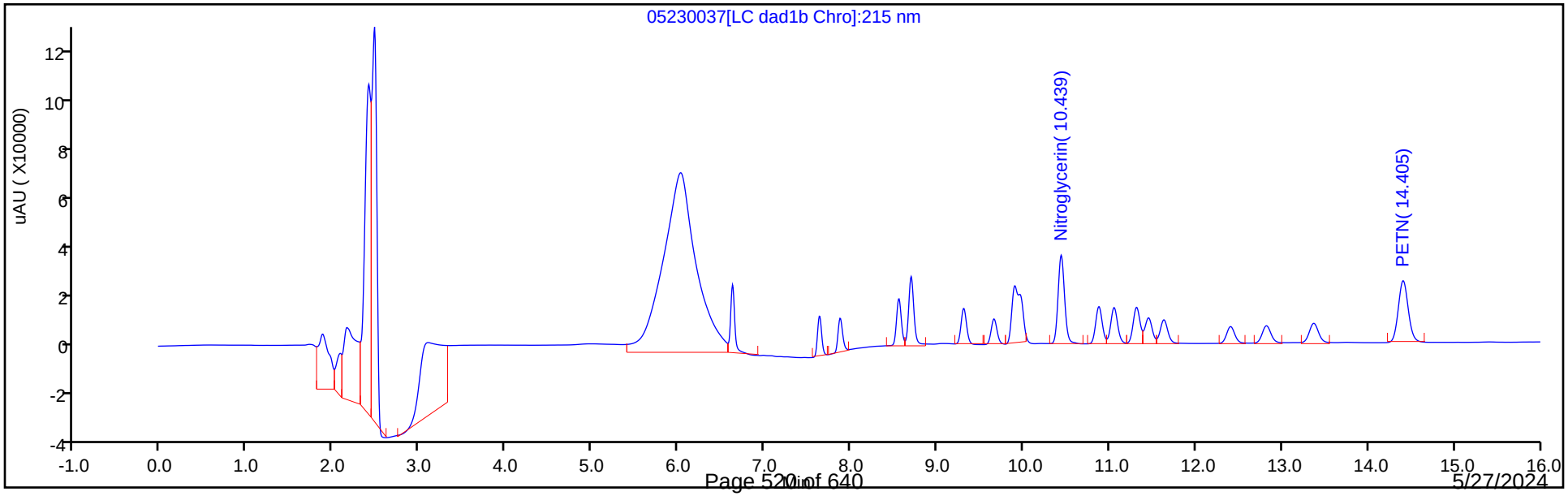
Data File: \\chromfs\denver\chromdata\chhplc_x\20240523-133725.b\05230037.d

Injection Date:	24-May-2024 02:31:24	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	CCV INT			Worklist Smp#:	37
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



5/27/2024
7:57:40 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

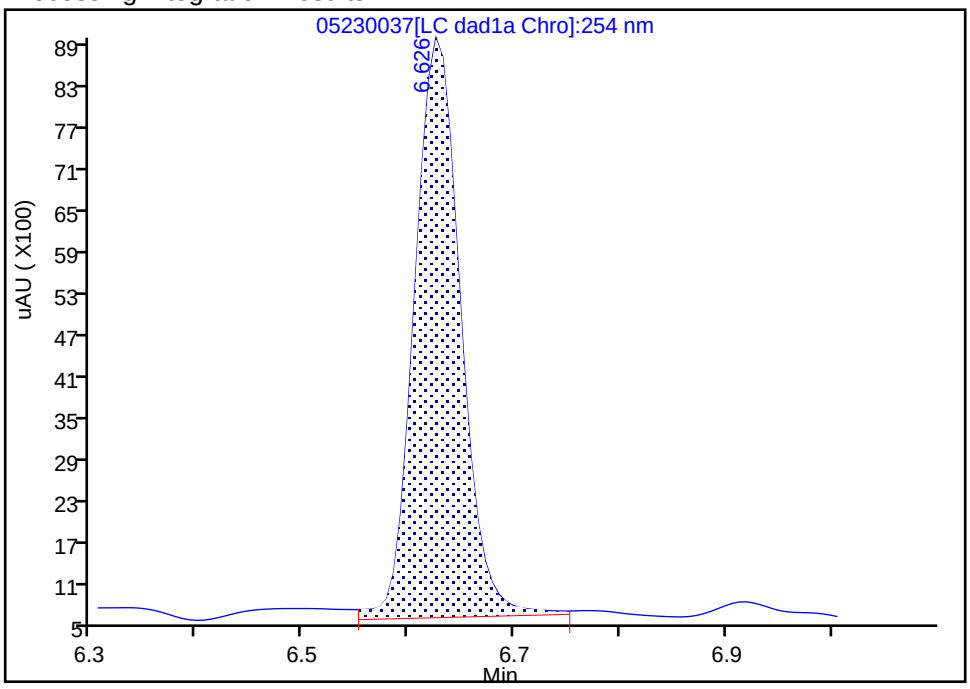
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240523-133725.b\05230037.d				
Injection Date:	24-May-2024 02:31:24	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV INT				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	7	Worklist Smp#:	37
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

4 HMX, CAS: 2691-41-0

Signal: 1

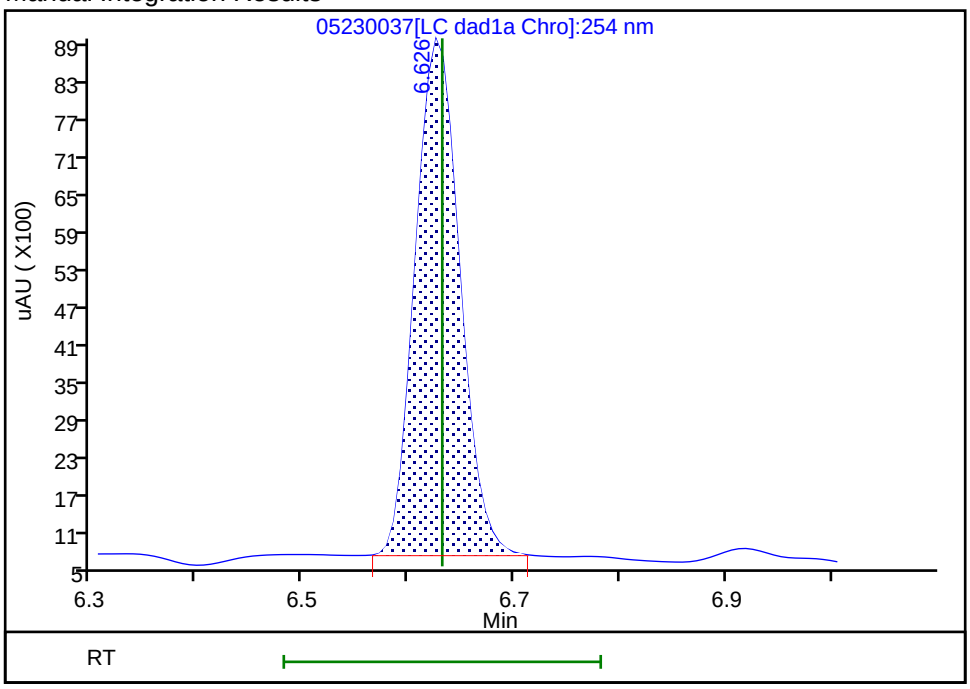
Processing Integration Results

RT: 6.63
Area: 25290
Amount: 0.264696
Amount Units: ug/mL



Manual Integration Results

RT: 6.63
Area: 24115
Amount: 0.252398
Amount Units: ug/mL



Reviewer: LV5D, 24-May-2024 11:42:00 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

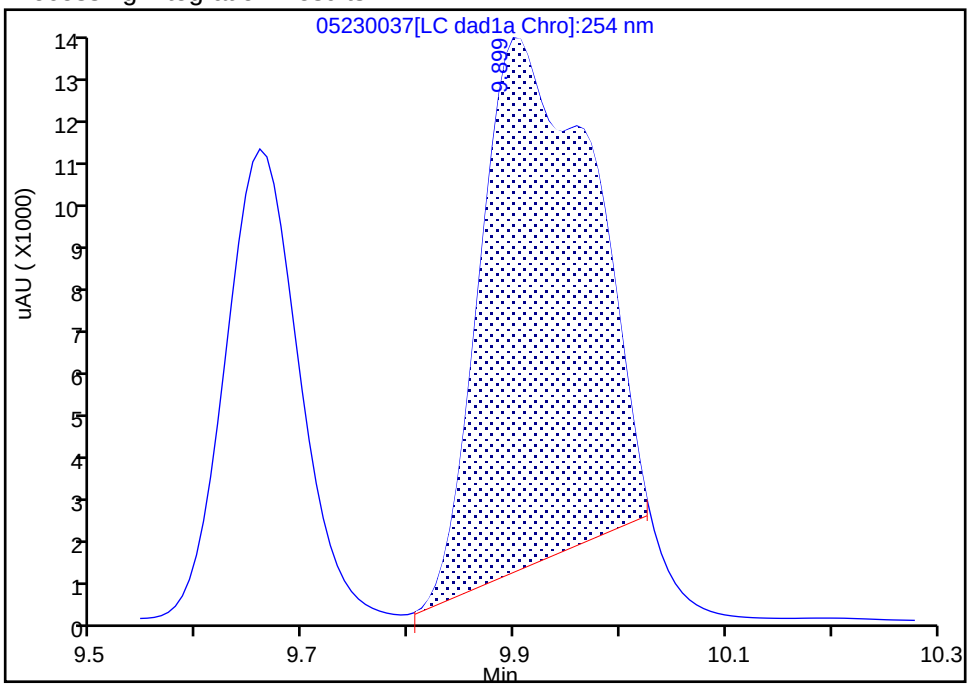
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240523-133725.b\05230037.d				
Injection Date:	24-May-2024 02:31:24	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV INT				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	7	Worklist Smp#:	37
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

14 3,5-Dinitroaniline, CAS: 618-87-1

Signal: 1

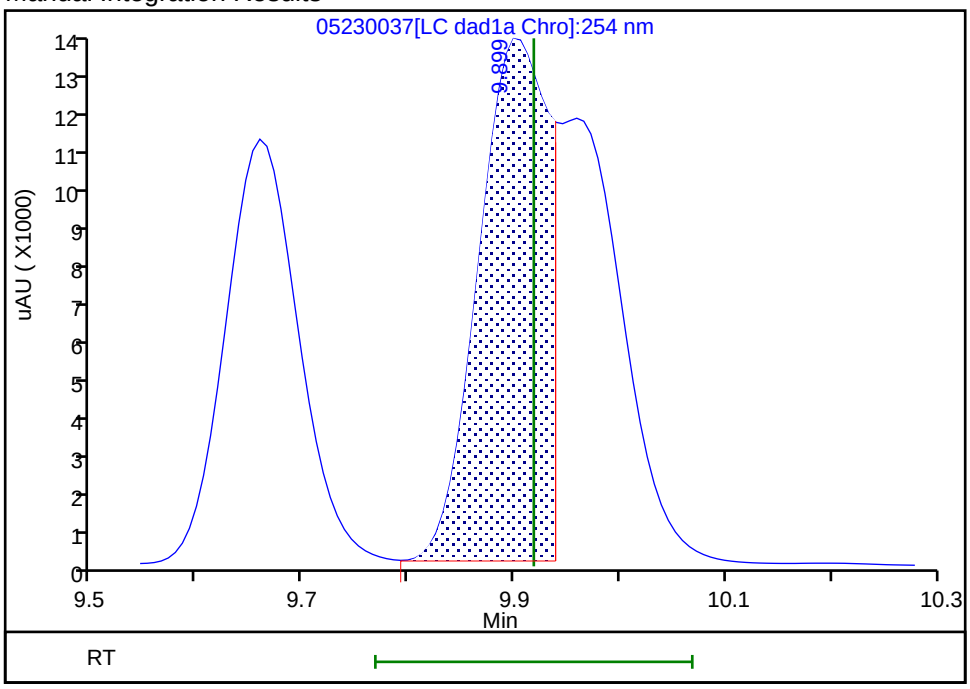
Processing Integration Results

RT: 9.90
Area: 83798
Amount: 0.380239
Amount Units: ug/mL



Manual Integration Results

RT: 9.90
Area: 56353
Amount: 0.256057
Amount Units: ug/mL



Reviewer: LV5D, 24-May-2024 11:41:53 -06:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

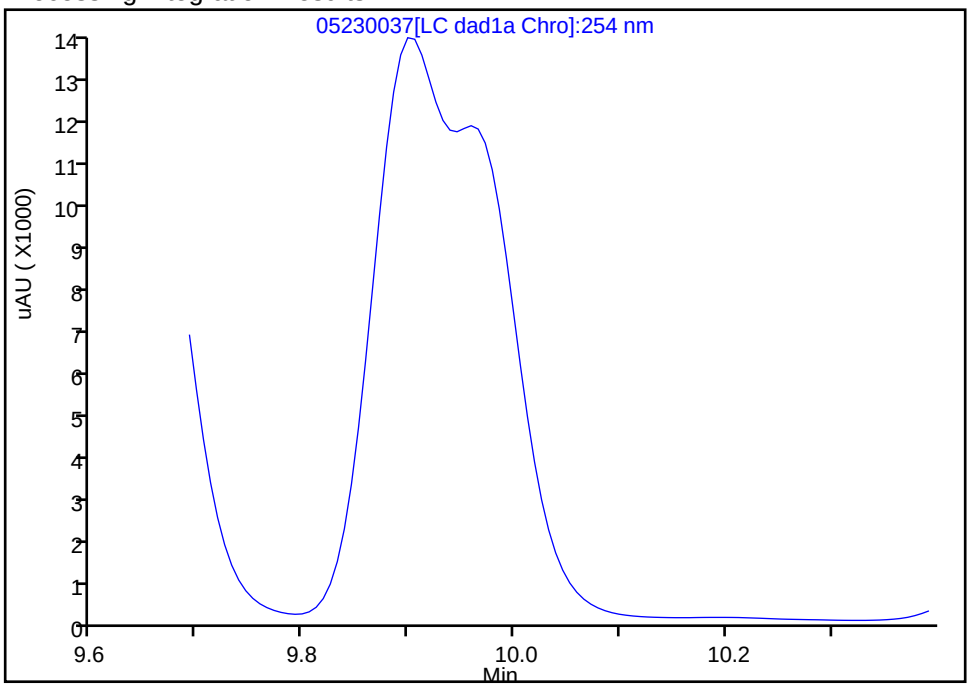
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240523-133725.b\05230037.d				
Injection Date:	24-May-2024 02:31:24	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV INT				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	7	Worklist Smp#:	37
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

15 Tetryl, CAS: 479-45-8

Signal: 1

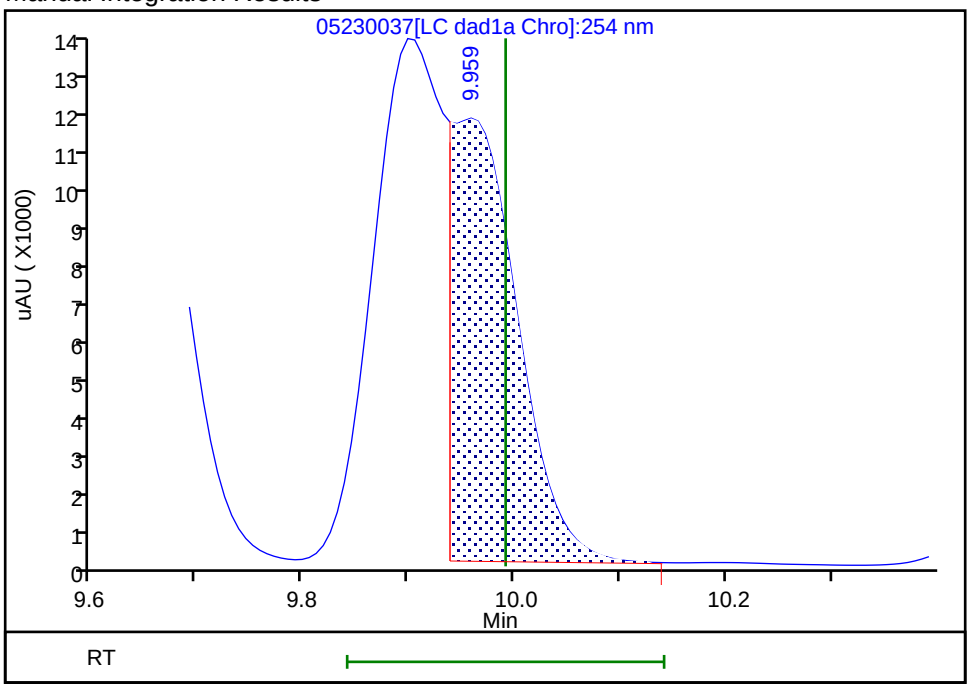
Not Detected
Expected RT: 9.99

Processing Integration Results



Manual Integration Results

RT: 9.96
Area: 44881
Amount: 0.247158
Amount Units: ug/mL



Reviewer: LV5D, 24-May-2024 11:41:55 -06:00:00 (UTC)
Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Baseline

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver | Job No.: 280-191424-1

SDG No.:

Lab Sample ID: ICV 280-647408/19 | Calibration Date: 03/28/2024 01:13

Instrument ID: CHHPLC_X5 | Calib Start Date: 03/27/2024 19:58

GC Column: Luna-phenylhex ID: 4.60(mm) | Calib End Date: 03/28/2024 00:38

Lab File ID: 03270019.D | Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
HMX	Ave	191683	167164		436	500	-12.8	20.0
Picric acid	Ave	150420	166198		552	500	10.5	20.0
RDX	Ave	213594	203324		476	500	-4.8	20.0
Nitrobenzene	Ave	377742	392296		519	500	3.9	20.0
3,5-Dinitroaniline	Lin2		459904		522	500	4.3	20.0
1,3-Dinitrobenzene	Ave	598366	638906		534	500	6.8	20.0
Nitroglycerin	Ave	135390	138980		5130	5000	2.7	20.0
2-Nitrotoluene	Ave	247354	249362		504	500	0.8	20.0
4-Nitrotoluene	Lin2		225116		516	500	3.3	20.0
4-Amino-2,6-dinitrotoluene	Lin2		292534		523	500	4.7	20.0
3-Nitrotoluene	Lin2		281860		517	500	3.4	20.0
2-Amino-4,6-dinitrotoluene	Lin2		407870		509	500	1.8	20.0
1,3,5-Trinitrobenzene	Ave	429634	451924		526	500	5.2	20.0
2,6-Dinitrotoluene	Ave	272831	283050		519	500	3.7	20.0
2,4-Dinitrotoluene	Ave	546523	560170		512	500	2.5	20.0
Tetryl	Ave	336239	335112		498	500	-0.3	20.0
2,4,6-Trinitrotoluene	Ave	416462	413246		496	500	-0.8	20.0
PETN	Lin2		137527		5290	5000	5.9	20.0
1,2-Dinitrobenzene	Ave	264153	251008		475	500	-5.0	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191424-1

SDG No.:

Lab Sample ID: ICV 280-647408/19 Calibration Date: 03/28/2024 01:13

Instrument ID: CHHPLC_X5 Calib Start Date: 03/27/2024 19:58

GC Column: Luna-phenylhex ID: 4.60(mm) Calib End Date: 03/28/2024 00:38

Lab File ID: 03270019.D

Analyte	RT	RT WINDOW	
		FROM	TO
HMX	6.78	6.64	6.94
Picric acid	7.89	7.78	8.08
RDX	8.87	8.73	9.03
Nitrobenzene	11.55	11.40	11.70
3,5-Dinitroaniline	14.39	14.24	14.54
1,3-Dinitrobenzene	14.81	14.67	14.97
Nitroglycerin	15.07	14.92	15.22
2-Nitrotoluene	15.75	15.60	15.90
4-Nitrotoluene	16.01	15.87	16.17
4-Amino-2,6-dinitrotoluene	16.50	16.36	16.66
3-Nitrotoluene	16.87	16.73	17.03
2-Amino-4,6-dinitrotoluene	17.38	17.24	17.54
1,3,5-Trinitrobenzene	17.80	17.66	17.96
2,6-Dinitrotoluene	18.81	18.68	18.98
2,4-Dinitrotoluene	19.30	19.16	19.46
Tetryl	22.73	22.59	22.89
2,4,6-Trinitrotoluene	23.69	23.56	23.86
PETN	24.67	24.54	24.84
1,2-Dinitrobenzene	12.57	12.43	12.73

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270019.D
Lims ID: ICV INT
Client ID:
Sample Type: ICV
Inject. Date: 28-Mar-2024 01:13:27 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_X5
Sublist:

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 28-Mar-2024 14:21:53 Calib Date: 28-Mar-2024 00:38:31
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270018.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1687

First Level Reviewer: LV5D Date: 28-Mar-2024 11:45:09

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
5 HMX	1	6.781	6.787	-0.006	83582	0.5000	0.4360	
7 2,4,6-Trinitrophenol	1	7.894	7.934	-0.040	83099	0.5000	0.5524	
8 RDX	1	8.867	8.881	-0.014	101662	0.5000	0.4760	
9 Nitrobenzene	1	11.547	11.554	-0.007	196148	0.5000	0.5193	
$ 10 1,2-Dinitrobenzene	1	12.574	12.581	-0.007	125504	0.5000	0.4751	
11 3,5-Dinitroaniline	1	14.387	14.394	-0.007	229952	0.5000	0.5216	
12 1,3-Dinitrobenzene	1	14.814	14.821	-0.007	319453	0.5000	0.5339	
13 Nitroglycerin	2	15.074	15.074	0.000	694898	5.00	5.13	M
14 o-Nitrotoluene	1	15.747	15.754	-0.007	124681	0.5000	0.5041	
16 p-Nitrotoluene	1	16.007	16.021	-0.014	112558	0.5000	0.5163	
17 4-Amino-2,6-dinitrotoluene	1	16.501	16.514	-0.013	146267	0.5000	0.5233	
18 m-Nitrotoluene	1	16.867	16.881	-0.014	140930	0.5000	0.5171	
19 2-Amino-4,6-dinitrotoluene	1	17.381	17.394	-0.013	203935	0.5000	0.5091	
20 1,3,5-Trinitrobenzene	1	17.801	17.807	-0.006	225962	0.5000	0.5259	
21 2,6-Dinitrotoluene	1	18.814	18.827	-0.013	141525	0.5000	0.5187	
22 2,4-Dinitrotoluene	1	19.301	19.314	-0.013	280085	0.5000	0.5125	
23 Tetryl	1	22.727	22.741	-0.014	167556	0.5000	0.4983	
24 2,4,6-Trinitrotoluene	1	23.694	23.707	-0.013	206623	0.5000	0.4961	
25 PETN	2	24.667	24.687	-0.020	687636	5.00	5.29	M
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

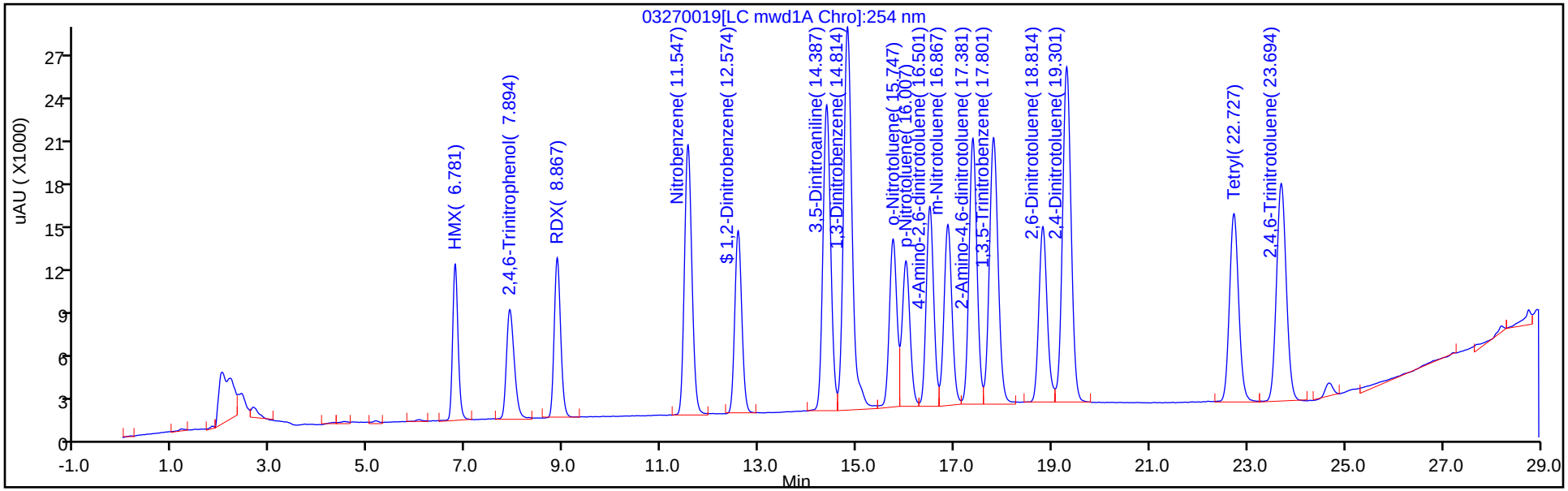
Report Date: 28-Mar-2024 14:21:55 Chrom Revision: 2.3 23-Feb-2024 16:51:14

Eurofins Denver

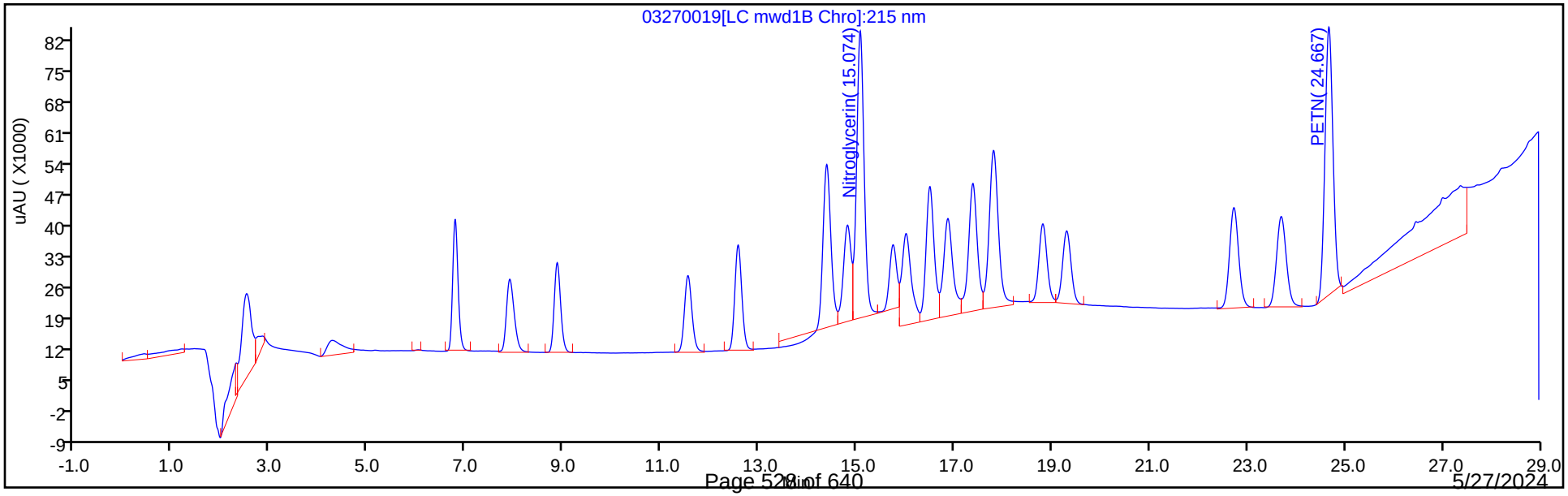
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270019.D

Injection Date:	28-Mar-2024 01:13:27	Instrument ID:	CHHPLC_X5	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:	8330_X5_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



5/27/2024
7:57:40 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

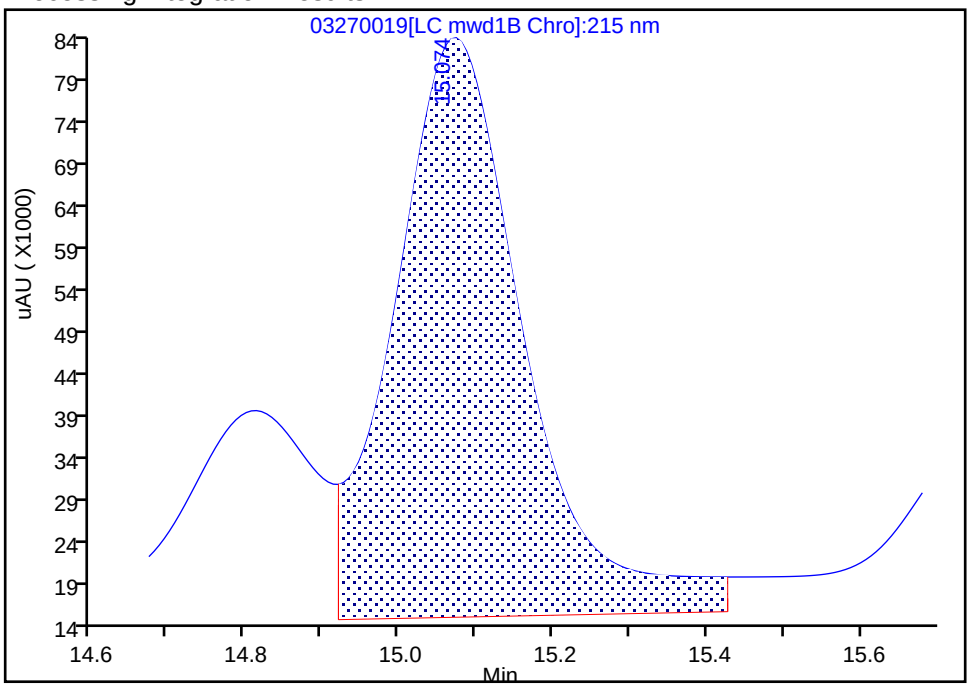
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270019.D				
Injection Date:	28-Mar-2024 01:13:27	Instrument ID:	CHHPLC_X5		
Lims ID:	ICV INT				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1B, 215 nm		

13 Nitroglycerin, CAS: 55-63-0

Signal: 1

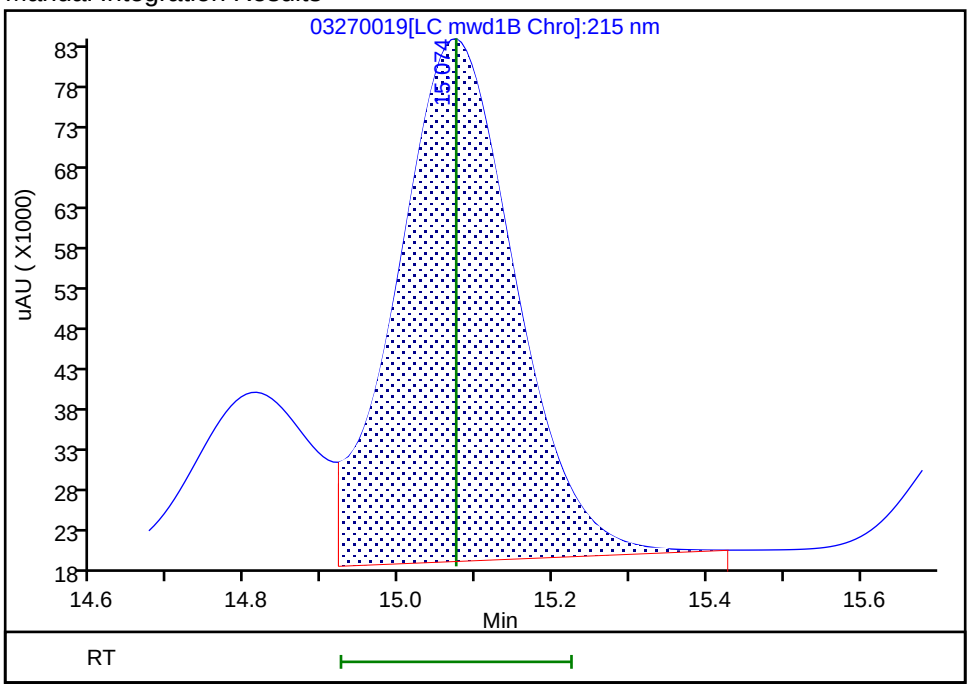
Processing Integration Results

RT: 15.07
Area: 805189
Amount: 5.947189
Amount Units: ug/ml



Manual Integration Results

RT: 15.07
Area: 694898
Amount: 5.132571
Amount Units: ug/ml



Reviewer: LV5D, 28-Mar-2024 11:41:18 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

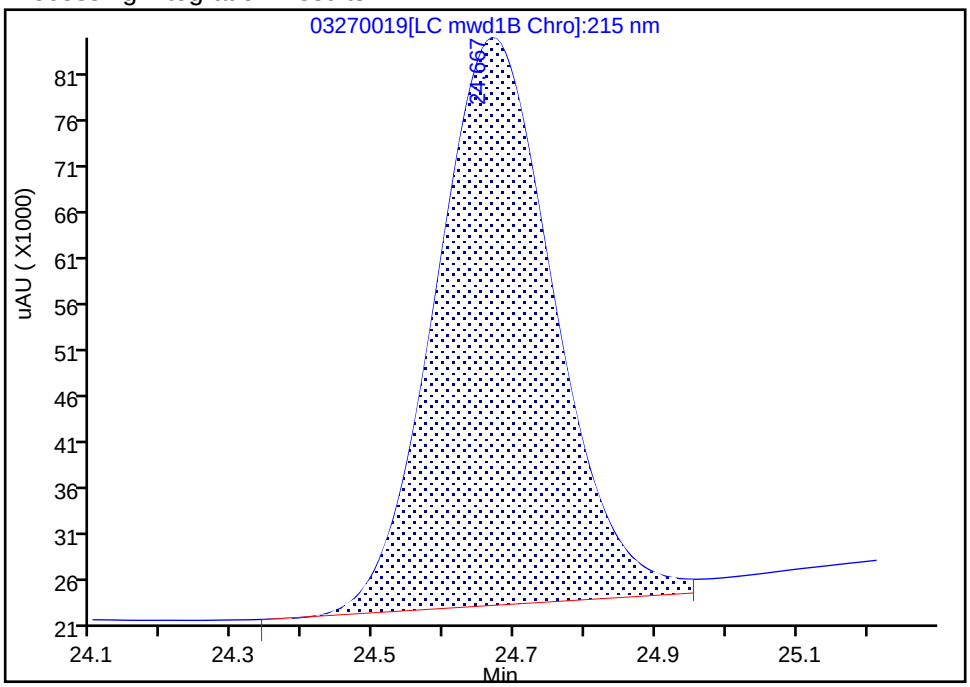
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270019.D				
Injection Date:	28-Mar-2024 01:13:27	Instrument ID:	CHHPLC_X5		
Lims ID:	ICV INT				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1B, 215 nm		

25 PETN, CAS: 78-11-5

Signal: 1

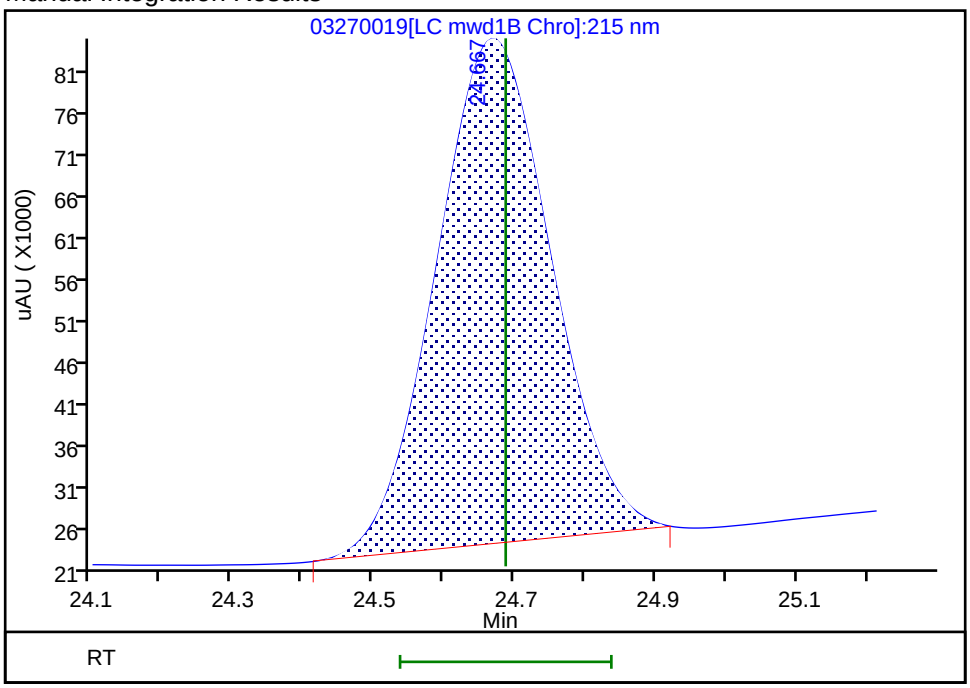
Processing Integration Results

RT: 24.67
Area: 722782
Amount: 5.561586
Amount Units: ug/ml



Manual Integration Results

RT: 24.67
Area: 687636
Amount: 5.292785
Amount Units: ug/ml



Reviewer: LV5D, 28-Mar-2024 11:43:32 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver | Job No.: 280-191424-1

SDG No.:

Lab Sample ID: CCV 280-653699/20 | Calibration Date: 05/17/2024 00:11

Instrument ID: CHHPLC_X5 | Calib Start Date: 03/27/2024 19:58

GC Column: Luna-phenylhex ID: 4.60(mm) | Calib End Date: 03/28/2024 00:38

Lab File ID: 05160020.D | Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
HMX	Ave	191683	183708		240	250	-4.2	20.0
Picric acid	Ave	150420	154976		258	250	3.0	20.0
RDX	Ave	213594	210392		246	250	-1.5	20.0
Nitrobenzene	Ave	377742	373204		247	250	-1.2	20.0
3,5-Dinitroaniline	Lin2		439584		249	250	-0.3	20.0
1,3-Dinitrobenzene	Ave	598366	636604		266	250	6.4	20.0
Nitroglycerin	Ave	135390	148259		2740	2500	9.5	20.0
2-Nitrotoluene	Ave	247354	226524		229	250	-8.4	20.0
4-Nitrotoluene	Lin2		247856		282	250	12.9	20.0
4-Amino-2,6-dinitrotoluene	Lin2		282628		251	250	0.5	20.0
3-Nitrotoluene	Lin2		296224		269	250	7.5	20.0
2-Amino-4,6-dinitrotoluene	Lin2		407432		253	250	1.2	20.0
1,3,5-Trinitrobenzene	Ave	429634	451056		262	250	5.0	20.0
2,6-Dinitrotoluene	Ave	272831	283956		260	250	4.1	20.0
2,4-Dinitrotoluene	Ave	546523	566092		259	250	3.6	20.0
Tetryl	Ave	336239	312052		232	250	-7.2	20.0
2,4,6-Trinitrotoluene	Ave	416462	404832		243	250	-2.8	20.0
PETN	Lin2		124398		2410	2500	-3.5	20.0
1,2-Dinitrobenzene	Ave	264153	259440		246	250	-1.8	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191424-1

SDG No.:

Lab Sample ID: CCV 280-653699/20 Calibration Date: 05/17/2024 00:11

Instrument ID: CHHPLC_X5 Calib Start Date: 03/27/2024 19:58

GC Column: Luna-phenylhex ID: 4.60(mm) Calib End Date: 03/28/2024 00:38

Lab File ID: 05160020.D

Analyte	RT	RT WINDOW	
		FROM	TO
HMX	6.66	6.52	6.82
Picric acid	8.29	8.22	8.52
RDX	8.69	8.55	8.85
Nitrobenzene	11.35	11.20	11.50
3,5-Dinitroaniline	14.13	13.98	14.28
1,3-Dinitrobenzene	14.57	14.42	14.72
Nitroglycerin	14.76	14.61	14.91
2-Nitrotoluene	15.46	15.30	15.60
4-Nitrotoluene	15.71	15.56	15.86
4-Amino-2,6-dinitrotoluene	16.19	16.04	16.34
3-Nitrotoluene	16.56	16.41	16.71
2-Amino-4,6-dinitrotoluene	17.06	16.91	17.21
1,3,5-Trinitrobenzene	17.51	17.36	17.66
2,6-Dinitrotoluene	18.47	18.32	18.62
2,4-Dinitrotoluene	18.96	18.81	19.11
Tetryl	22.29	22.13	22.43
2,4,6-Trinitrotoluene	23.27	23.11	23.41
PETN	24.19	24.03	24.33
1,2-Dinitrobenzene	12.34	12.19	12.49

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240516-133474.b\05160020.D
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 17-May-2024 00:11:38 ALS Bottle#: 7 Worklist Smp#: 20
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: CCV
Operator ID: JZ Instrument ID: CHHPLC_X5
Sublist: chrom-8330_X5_Luna*sub7

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20240516-133474.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 17-May-2024 16:54:58 Calib Date: 28-Mar-2024 05:53:05
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1618

First Level Reviewer: LV5D Date: 17-May-2024 16:43:42

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
5 HMX	1	6.659	6.666	-0.007	45927	0.2500	0.2396	
7 2,4,6-Trinitrophenol	1	8.293	8.372	-0.079	38744	0.2500	0.2576	
8 RDX	1	8.693	8.699	-0.006	52598	0.2500	0.2463	
9 Nitrobenzene	1	11.353	11.352	0.001	93301	0.2500	0.2470	
$ 10 1,2-Dinitrobenzene	1	12.339	12.339	0.000	64860	0.2500	0.2455	
11 3,5-Dinitroaniline	1	14.126	14.126	0.000	109896	0.2500	0.2493	
12 1,3-Dinitrobenzene	1	14.566	14.566	0.000	159151	0.2500	0.2660	
13 Nitroglycerin	2	14.759	14.759	0.000	370648	2.50	2.74	M
14 o-Nitrotoluene	1	15.459	15.452	0.007	56631	0.2500	0.2289	
16 p-Nitrotoluene	1	15.713	15.712	0.001	61964	0.2500	0.2823	
17 4-Amino-2,6-dinitrotoluene	1	16.193	16.186	0.007	70657	0.2500	0.2512	
18 m-Nitrotoluene	1	16.559	16.559	0.000	74056	0.2500	0.2687	
19 2-Amino-4,6-dinitrotoluene	1	17.059	17.059	0.000	101858	0.2500	0.2531	
20 1,3,5-Trinitrobenzene	1	17.513	17.512	0.001	112764	0.2500	0.2625	
21 2,6-Dinitrotoluene	1	18.473	18.472	0.001	70989	0.2500	0.2602	
22 2,4-Dinitrotoluene	1	18.959	18.959	0.000	141523	0.2500	0.2590	
23 Tetryl	1	22.286	22.279	0.007	78013	0.2500	0.2320	M
24 2,4,6-Trinitrotoluene	1	23.266	23.259	0.007	101208	0.2500	0.2430	
25 PETN	2	24.193	24.179	0.014	310996	2.50	2.41	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330IntermStk_00081 Amount Added: 25.00 Units: uL

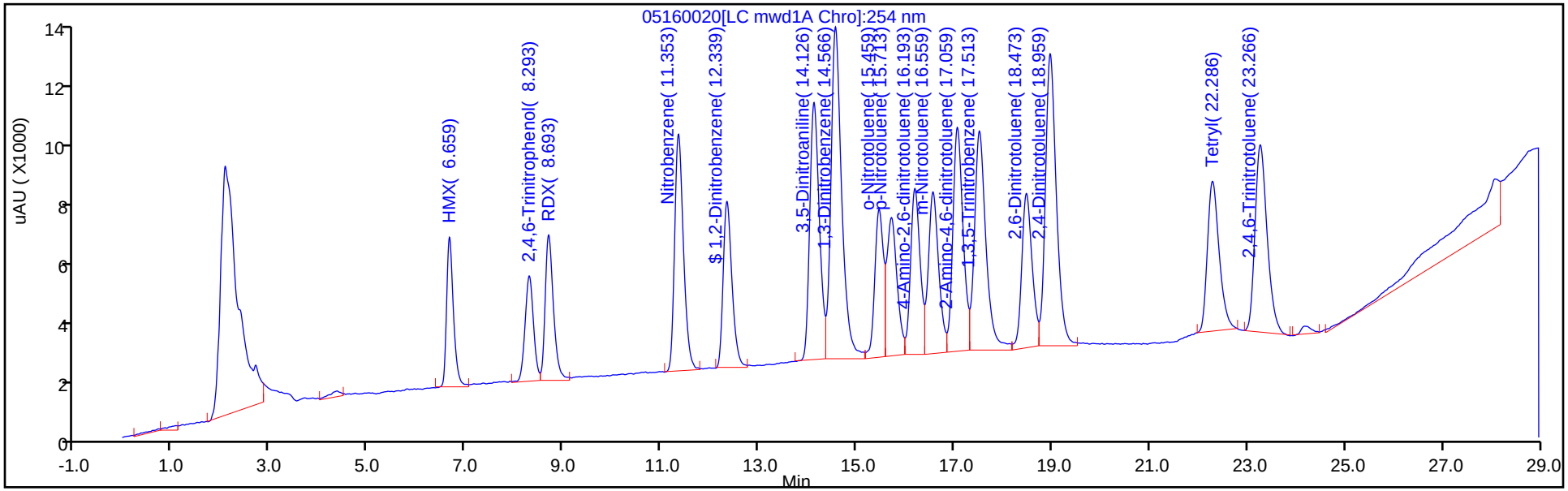
Report Date: 17-May-2024 16:54:58 Chrom Revision: 2.3 14-May-2024 14:23:08

Eurofins Denver

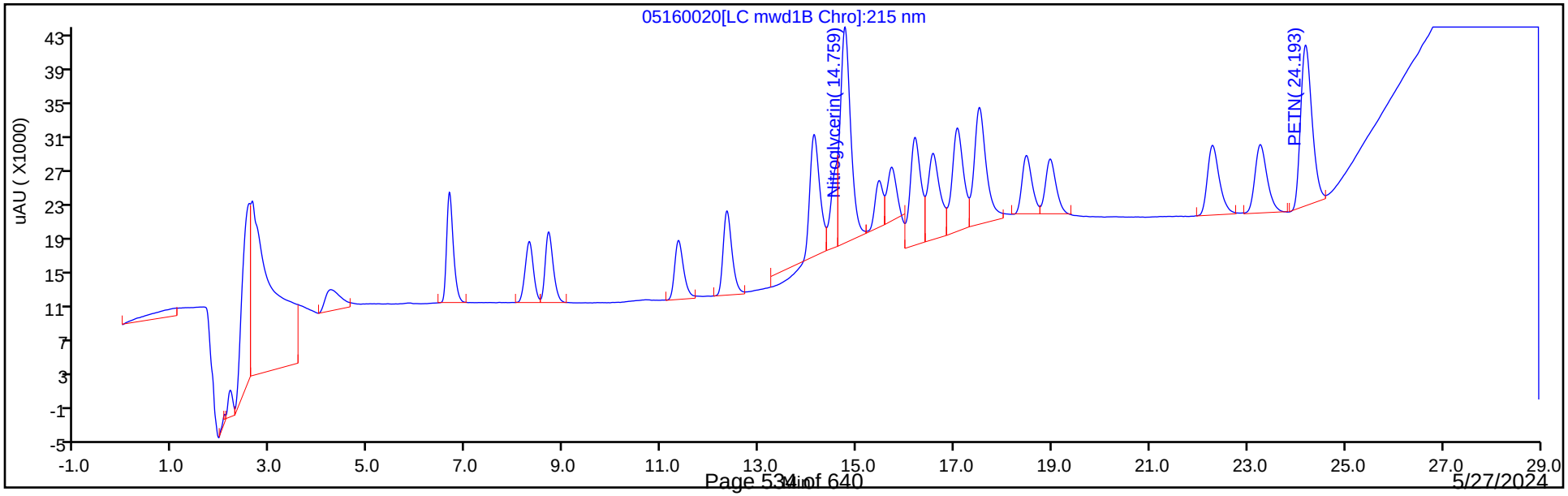
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240516-133474.b\05160020.D

Injection Date:	17-May-2024 00:11:38	Instrument ID:	CHHPLC_X5	Operator ID:	JZ
Lims ID:	CCV			Worklist Smp#:	20
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	8330_X5_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



5/27/2024
7:57:40 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

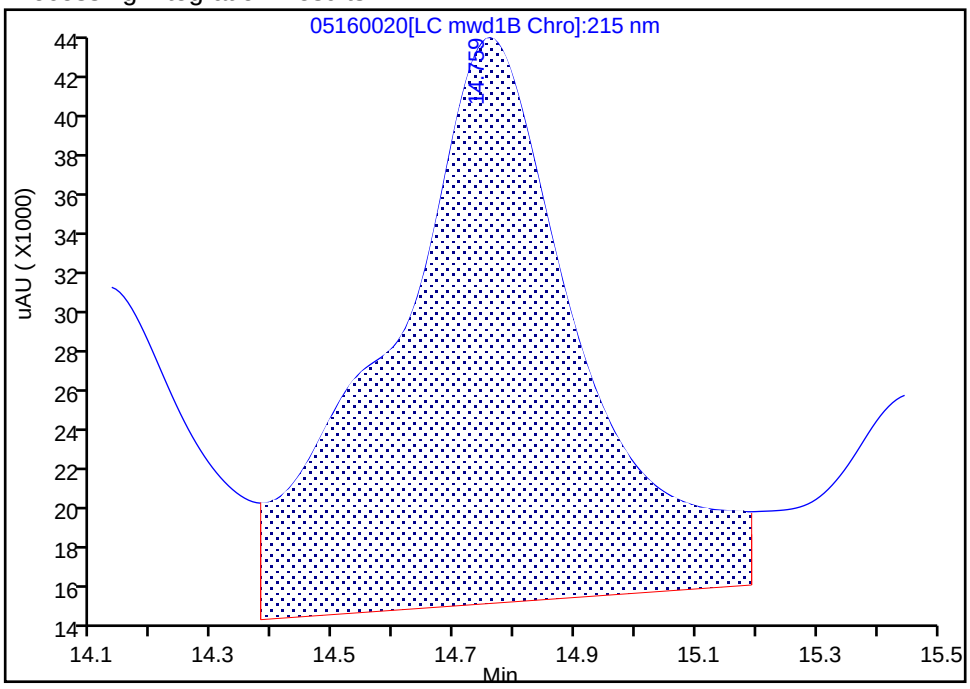
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20240516-133474.b\05160020.D				
Injection Date:	17-May-2024 00:11:38	Instrument ID:	CHHPLC_X5		
Lims ID:	CCV				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	7	Worklist Smp#:	20
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1B, 215 nm		

13 Nitroglycerin, CAS: 55-63-0

Signal: 1

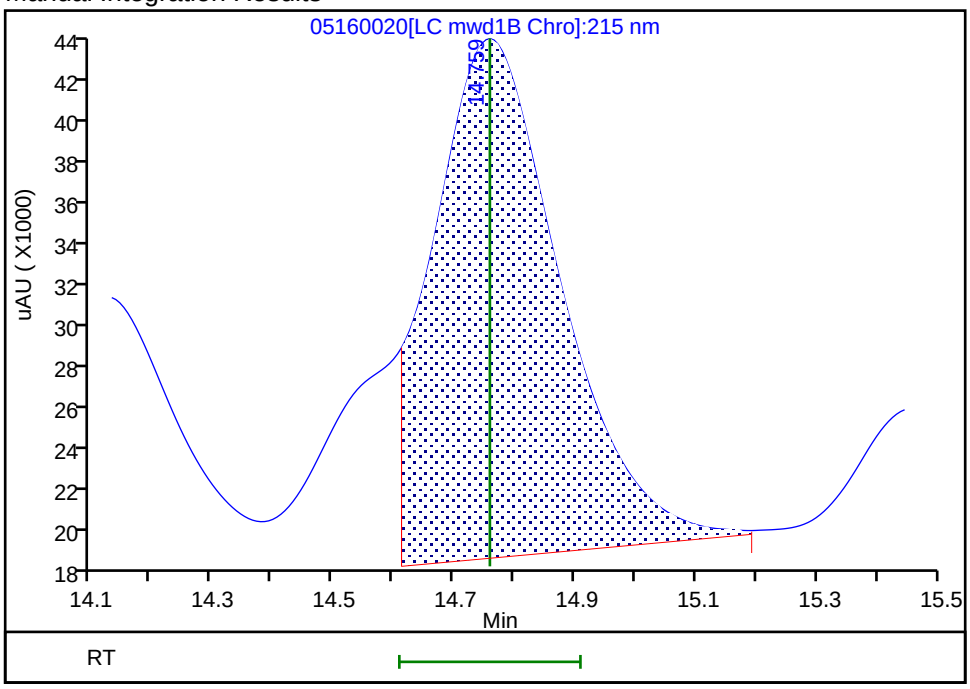
Processing Integration Results

RT: 14.76
Area: 627254
Amount: 4.632948
Amount Units: ug/ml



Manual Integration Results

RT: 14.76
Area: 370648
Amount: 2.737635
Amount Units: ug/ml



Reviewer: LV5D, 17-May-2024 16:43:34 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

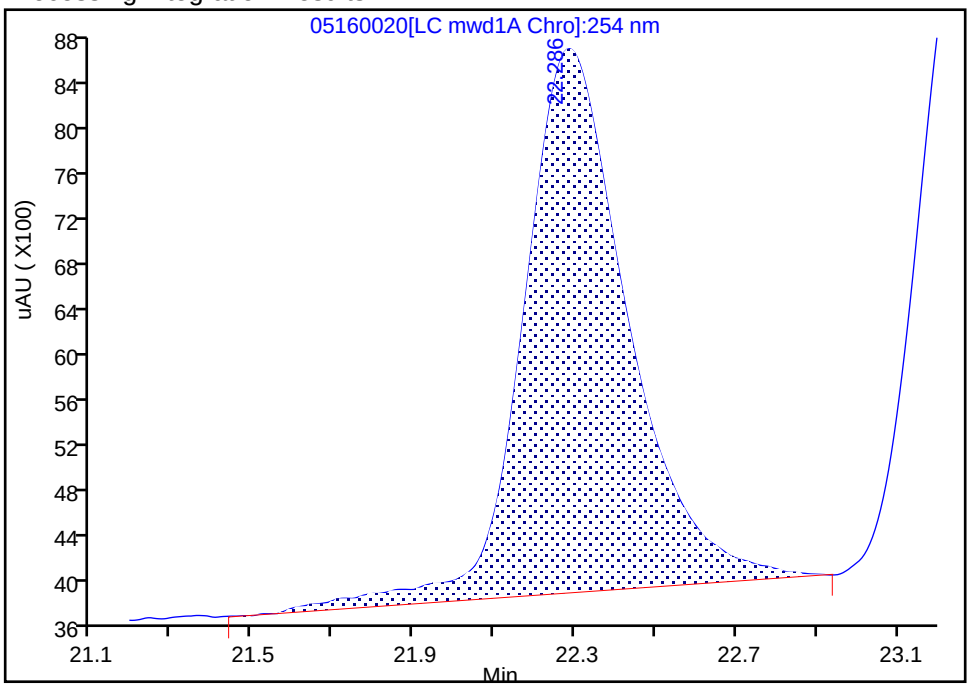
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20240516-133474.b\05160020.D				
Injection Date:	17-May-2024 00:11:38	Instrument ID:	CHHPLC_X5		
Lims ID:	CCV				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	7	Worklist Smp#:	20
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

23 Tetryl, CAS: 479-45-8

Signal: 1

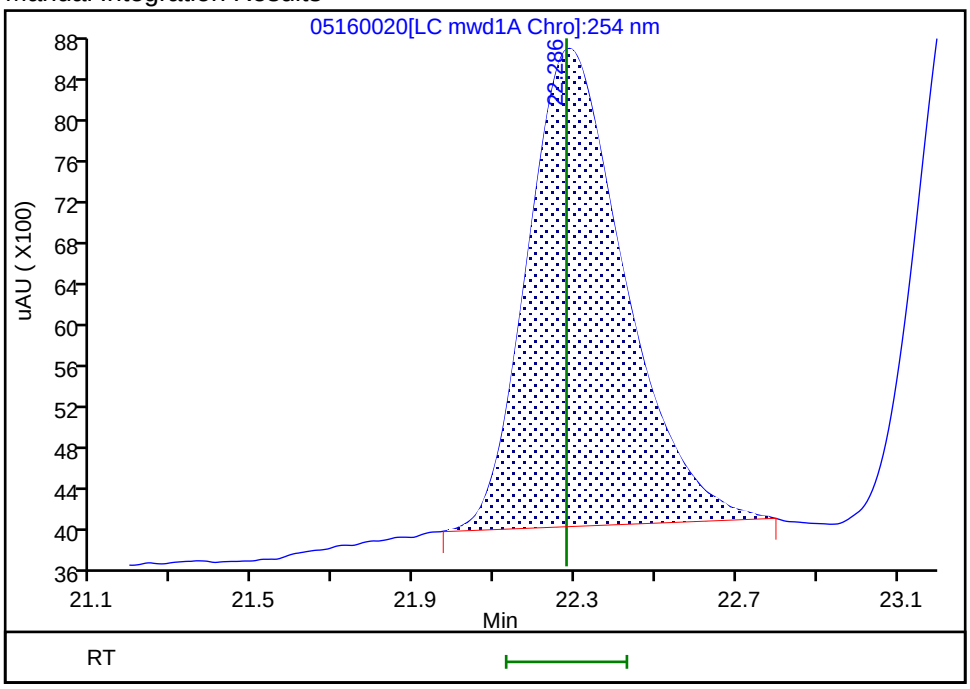
Processing Integration Results

RT: 22.29
Area: 87329
Amount: 0.259723
Amount Units: ug/ml



Manual Integration Results

RT: 22.29
Area: 78013
Amount: 0.232017
Amount Units: ug/ml



Reviewer: LV5D, 17-May-2024 16:43:41 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver | Job No.: 280-191424-1

SDG No.:

Lab Sample ID: CCV 280-653699/31 | Calibration Date: 05/17/2024 06:36

Instrument ID: CHHPLC_X5 | Calib Start Date: 03/27/2024 19:58

GC Column: Luna-phenylhex ID: 4.60(mm) | Calib End Date: 03/28/2024 00:38

Lab File ID: 05160031.D | Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
HMX	Ave	191683	183464		239	250	-4.3	20.0
Picric acid	Ave	150420	155556		259	250	3.4	20.0
RDX	Ave	213594	209756		246	250	-1.8	20.0
Nitrobenzene	Ave	377742	365880		242	250	-3.1	20.0
3,5-Dinitroaniline	Lin2		440548		250	250	-0.0	20.0
1,3-Dinitrobenzene	Ave	598366	636728		266	250	6.4	20.0
Nitroglycerin	Ave	135390	153888		2840	2500	13.7	20.0
2-Nitrotoluene	Ave	247354	227028		229	250	-8.2	20.0
4-Nitrotoluene	Lin2		246036		280	250	12.1	20.0
4-Amino-2,6-dinitrotoluene	Lin2		283180		252	250	0.7	20.0
3-Nitrotoluene	Lin2		294168		267	250	6.7	20.0
2-Amino-4,6-dinitrotoluene	Lin2		409264		254	250	1.7	20.0
1,3,5-Trinitrobenzene	Ave	429634	452224		263	250	5.3	20.0
2,6-Dinitrotoluene	Ave	272831	285580		262	250	4.7	20.0
2,4-Dinitrotoluene	Ave	546523	568176		260	250	4.0	20.0
Tetryl	Ave	336239	350116		260	250	4.1	20.0
2,4,6-Trinitrotoluene	Ave	416462	408620		245	250	-1.9	20.0
PETN	Lin2		121436		2360	2500	-5.8	20.0
1,2-Dinitrobenzene	Ave	264153	263156		249	250	-0.4	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191424-1

SDG No.:

Lab Sample ID: CCV 280-653699/31 Calibration Date: 05/17/2024 06:36

Instrument ID: CHHPLC_X5 Calib Start Date: 03/27/2024 19:58

GC Column: Luna-phenylhex ID: 4.60(mm) Calib End Date: 03/28/2024 00:38

Lab File ID: 05160031.D

Analyte	RT	RT WINDOW	
		FROM	TO
HMX	6.65	6.52	6.82
Picric acid	8.27	8.22	8.52
RDX	8.69	8.55	8.85
Nitrobenzene	11.34	11.20	11.50
3,5-Dinitroaniline	14.11	13.98	14.28
1,3-Dinitrobenzene	14.55	14.42	14.72
Nitroglycerin	14.75	14.61	14.91
2-Nitrotoluene	15.45	15.30	15.60
4-Nitrotoluene	15.70	15.56	15.86
4-Amino-2,6-dinitrotoluene	16.18	16.04	16.34
3-Nitrotoluene	16.55	16.41	16.71
2-Amino-4,6-dinitrotoluene	17.05	16.91	17.21
1,3,5-Trinitrobenzene	17.51	17.36	17.66
2,6-Dinitrotoluene	18.47	18.32	18.62
2,4-Dinitrotoluene	18.96	18.81	19.11
Tetryl	22.29	22.13	22.43
2,4,6-Trinitrotoluene	23.27	23.11	23.41
PETN	24.19	24.03	24.33
1,2-Dinitrobenzene	12.33	12.19	12.49

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240516-133474.b\05160031.D
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 17-May-2024 06:36:01 ALS Bottle#: 7 Worklist Smp#: 31
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: CCV
Operator ID: JZ Instrument ID: CHHPLC_X5
Sublist: chrom-8330_X5_Luna*sub7

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20240516-133474.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 17-May-2024 16:54:53 Calib Date: 28-Mar-2024 05:53:05
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1618

First Level Reviewer: LV5D Date: 17-May-2024 16:53:59

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
5 HMX	1	6.653	6.666	-0.013	45866	0.2500	0.2393	
7 2,4,6-Trinitrophenol	1	8.273	8.372	-0.099	38889	0.2500	0.2585	
8 RDX	1	8.686	8.699	-0.013	52439	0.2500	0.2455	
9 Nitrobenzene	1	11.339	11.352	-0.013	91470	0.2500	0.2421	
$ 10 1,2-Dinitrobenzene	1	12.333	12.339	-0.006	65789	0.2500	0.2491	
11 3,5-Dinitroaniline	1	14.113	14.126	-0.013	110137	0.2500	0.2499	
12 1,3-Dinitrobenzene	1	14.553	14.566	-0.013	159182	0.2500	0.2660	
13 Nitroglycerin	2	14.746	14.759	-0.013	384719	2.50	2.84	M
14 o-Nitrotoluene	1	15.446	15.452	-0.006	56757	0.2500	0.2295	
16 p-Nitrotoluene	1	15.699	15.712	-0.013	61509	0.2500	0.2802	
17 4-Amino-2,6-dinitrotoluene	1	16.179	16.186	-0.007	70795	0.2500	0.2516	
18 m-Nitrotoluene	1	16.553	16.559	-0.006	73542	0.2500	0.2668	
19 2-Amino-4,6-dinitrotoluene	1	17.053	17.059	-0.006	102316	0.2500	0.2542	
20 1,3,5-Trinitrobenzene	1	17.506	17.512	-0.006	113056	0.2500	0.2631	
21 2,6-Dinitrotoluene	1	18.473	18.472	0.001	71395	0.2500	0.2617	
22 2,4-Dinitrotoluene	1	18.959	18.959	0.000	142044	0.2500	0.2599	
23 Tetryl	1	22.286	22.279	0.007	87529	0.2500	0.2603	
24 2,4,6-Trinitrotoluene	1	23.266	23.259	0.007	102155	0.2500	0.2453	
25 PETN	2	24.193	24.179	0.014	303591	2.50	2.36	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330IntermStk_00081 Amount Added: 25.00 Units: uL

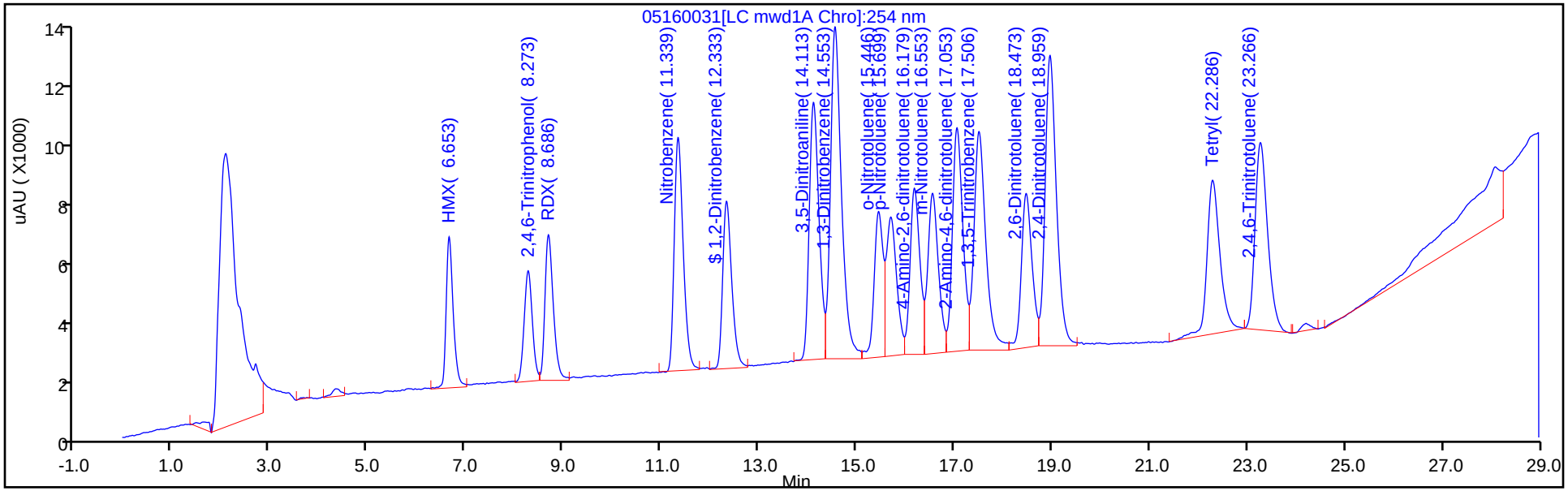
Report Date: 17-May-2024 16:54:53 Chrom Revision: 2.3 14-May-2024 14:23:08

Eurofins Denver

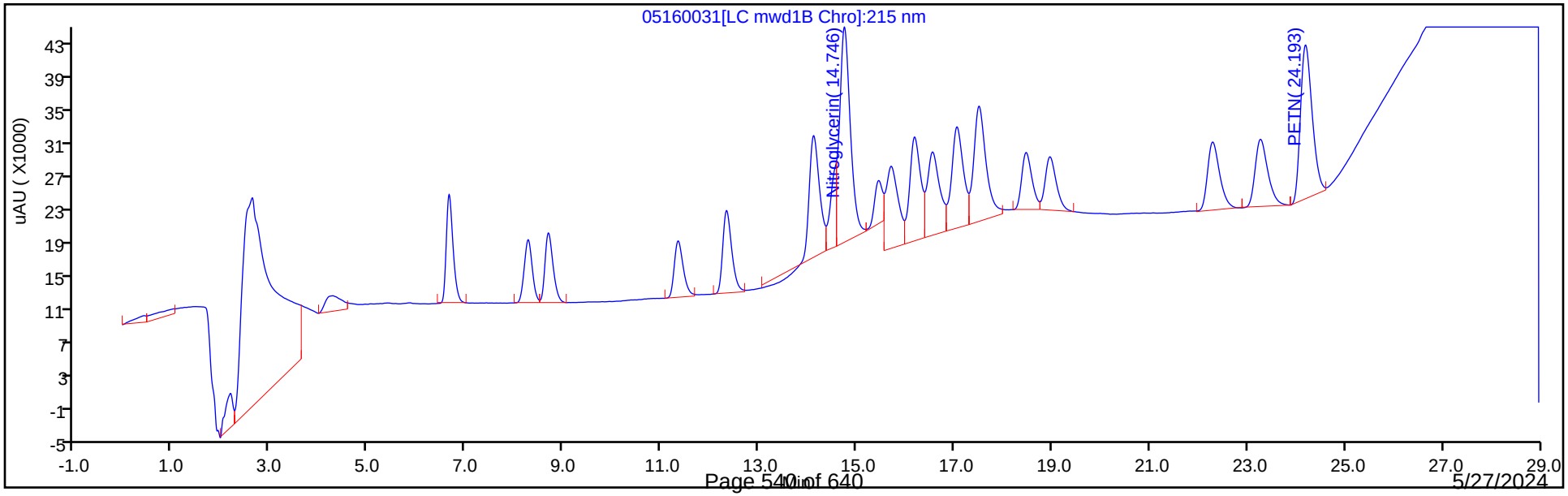
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240516-133474.b\05160031.D

Injection Date:	17-May-2024 06:36:01	Instrument ID:	CHHPLC_X5	Operator ID:	JZ
Lims ID:	CCV			Worklist Smp#:	31
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	8330_X5_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



5/27/2024
7:57:40 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

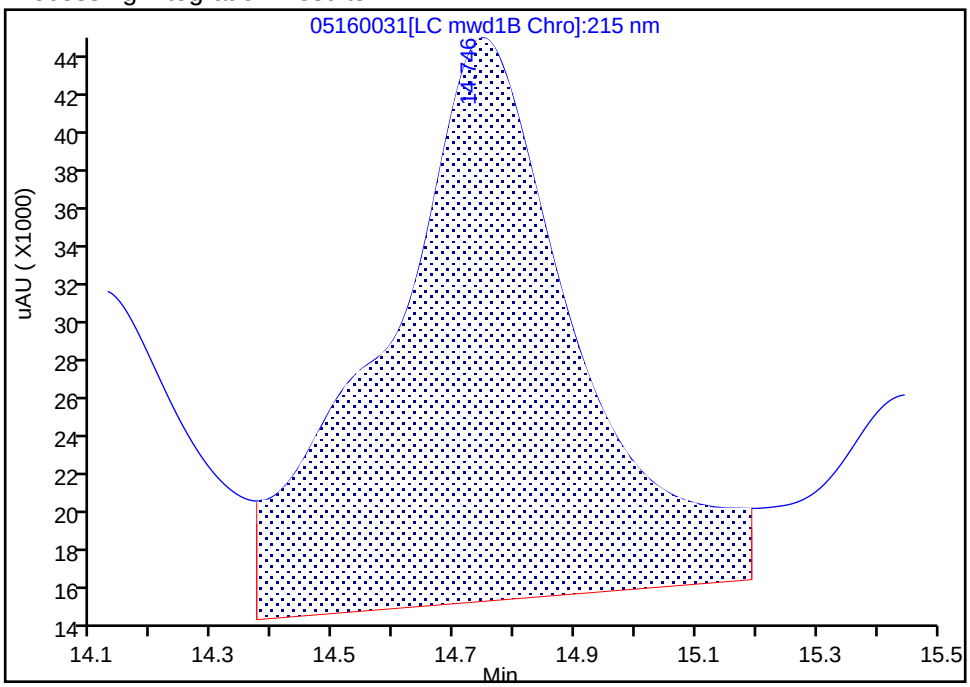
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20240516-133474.b\05160031.D				
Injection Date:	17-May-2024 06:36:01	Instrument ID:	CHHPLC_X5		
Lims ID:	CCV				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	7	Worklist Smp#:	31
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1B, 215 nm		

13 Nitroglycerin, CAS: 55-63-0

Signal: 1

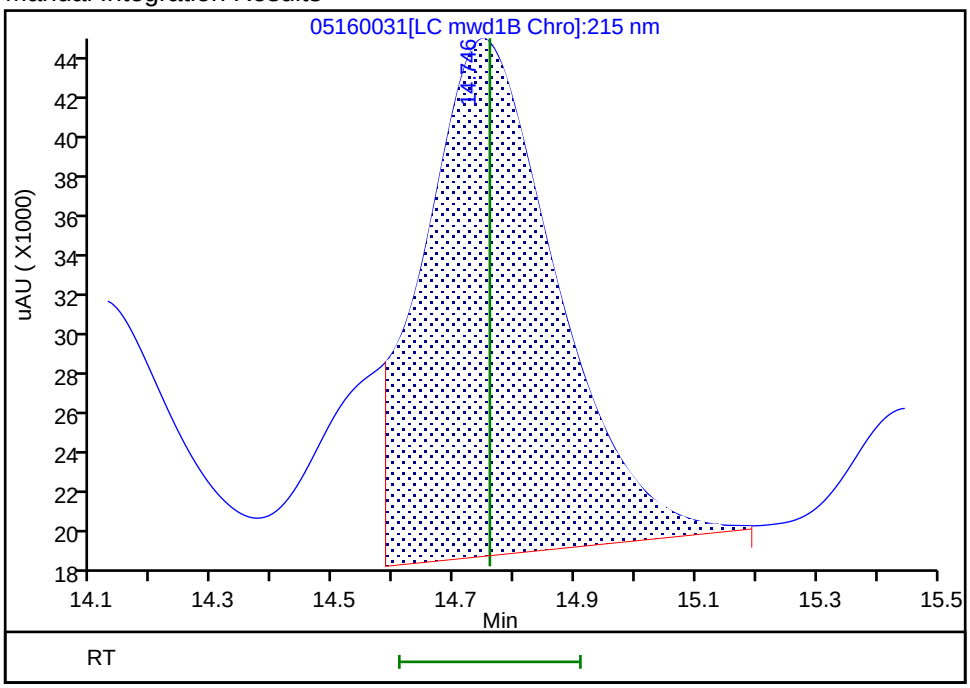
Processing Integration Results

RT: 14.75
Area: 627562
Amount: 4.635222
Amount Units: ug/ml



Manual Integration Results

RT: 14.75
Area: 384719
Amount: 2.841565
Amount Units: ug/ml



Reviewer: LV5D, 17-May-2024 16:53:58 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline Smoothing

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver | Job No.: 280-191424-1

SDG No.:

Lab Sample ID: CCV 280-653699/35 | Calibration Date: 05/17/2024 08:55

Instrument ID: CHHPLC_X5 | Calib Start Date: 03/27/2024 19:58

GC Column: Luna-phenylhex ID: 4.60(mm) | Calib End Date: 03/28/2024 00:38

Lab File ID: 05160035.D | Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
HMX	Ave	191683	187164		244	250	-2.4	20.0
Picric acid	Ave	150420	156144		260	250	3.8	20.0
RDX	Ave	213594	209416		245	250	-2.0	20.0
Nitrobenzene	Ave	377742	365392		242	250	-3.3	20.0
3,5-Dinitroaniline	Lin2		441508		250	250	0.2	20.0
1,3-Dinitrobenzene	Ave	598366	637360		266	250	6.5	20.0
Nitroglycerin	Ave	135390	150174		2770	2500	10.9	20.0
2-Nitrotoluene	Ave	247354	226624		229	250	-8.4	20.0
4-Nitrotoluene	Lin2		247280		282	250	12.7	20.0
4-Amino-2,6-dinitrotoluene	Lin2		284144		253	250	1.0	20.0
3-Nitrotoluene	Lin2		292120		265	250	5.9	20.0
2-Amino-4,6-dinitrotoluene	Lin2		408748		254	250	1.6	20.0
1,3,5-Trinitrobenzene	Ave	429634	454664		265	250	5.8	20.0
2,6-Dinitrotoluene	Ave	272831	286628		263	250	5.1	20.0
2,4-Dinitrotoluene	Ave	546523	566124		259	250	3.6	20.0
Tetryl	Ave	336239	351880		262	250	4.7	20.0
2,4,6-Trinitrotoluene	Ave	416462	407972		245	250	-2.0	20.0
PETN	Lin2		123731		2400	2500	-4.0	20.0
1,2-Dinitrobenzene	Ave	264153	264552		250	250	0.2	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-191424-1

SDG No.:

Lab Sample ID: CCV 280-653699/35 Calibration Date: 05/17/2024 08:55

Instrument ID: CHHPLC_X5 Calib Start Date: 03/27/2024 19:58

GC Column: Luna-phenylhex ID: 4.60(mm) Calib End Date: 03/28/2024 00:38

Lab File ID: 05160035.D

Analyte	RT	RT WINDOW	
		FROM	TO
HMX	6.65	6.52	6.82
Picric acid	8.26	8.22	8.52
RDX	8.68	8.55	8.85
Nitrobenzene	11.34	11.20	11.50
3,5-Dinitroaniline	14.10	13.98	14.28
1,3-Dinitrobenzene	14.55	14.42	14.72
Nitroglycerin	14.74	14.61	14.91
2-Nitrotoluene	15.44	15.30	15.60
4-Nitrotoluene	15.70	15.56	15.86
4-Amino-2,6-dinitrotoluene	16.17	16.04	16.34
3-Nitrotoluene	16.55	16.41	16.71
2-Amino-4,6-dinitrotoluene	17.04	16.91	17.21
1,3,5-Trinitrobenzene	17.50	17.36	17.66
2,6-Dinitrotoluene	18.46	18.32	18.62
2,4-Dinitrotoluene	18.94	18.81	19.11
Tetryl	22.26	22.13	22.43
2,4,6-Trinitrotoluene	23.25	23.11	23.41
PETN	24.18	24.03	24.33
1,2-Dinitrobenzene	12.33	12.19	12.49

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240516-133474.b\05160035.D
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 17-May-2024 08:55:53 ALS Bottle#: 7 Worklist Smp#: 35
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: CCV
Operator ID: JZ Instrument ID: CHHPLC_X5
Sublist: chrom-8330_X5_Luna*sub7

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20240516-133474.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 17-May-2024 16:55:03 Calib Date: 28-Mar-2024 05:53:05
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1618

First Level Reviewer: LV5D Date: 17-May-2024 16:54:29

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
5 HMX	1	6.649	6.666	-0.017	46791	0.2500	0.2441	
7 2,4,6-Trinitrophenol	1	8.256	8.372	-0.116	39036	0.2500	0.2595	
8 RDX	1	8.683	8.699	-0.016	52354	0.2500	0.2451	
9 Nitrobenzene	1	11.336	11.352	-0.016	91348	0.2500	0.2418	
$ 10 1,2-Dinitrobenzene	1	12.329	12.339	-0.010	66138	0.2500	0.2504	
11 3,5-Dinitroaniline	1	14.103	14.126	-0.023	110377	0.2500	0.2504	
12 1,3-Dinitrobenzene	1	14.549	14.566	-0.017	159340	0.2500	0.2663	
13 Nitroglycerin	2	14.743	14.759	-0.016	375436	2.50	2.77	M
14 o-Nitrotoluene	1	15.443	15.452	-0.009	56656	0.2500	0.2290	
16 p-Nitrotoluene	1	15.696	15.712	-0.016	61820	0.2500	0.2817	
17 4-Amino-2,6-dinitrotoluene	1	16.169	16.186	-0.017	71036	0.2500	0.2525	
18 m-Nitrotoluene	1	16.549	16.559	-0.010	73030	0.2500	0.2649	
19 2-Amino-4,6-dinitrotoluene	1	17.043	17.059	-0.016	102187	0.2500	0.2539	
20 1,3,5-Trinitrobenzene	1	17.496	17.512	-0.016	113666	0.2500	0.2646	
21 2,6-Dinitrotoluene	1	18.456	18.472	-0.016	71657	0.2500	0.2626	
22 2,4-Dinitrotoluene	1	18.943	18.959	-0.016	141531	0.2500	0.2590	
23 Tetryl	1	22.263	22.279	-0.016	87970	0.2500	0.2616	
24 2,4,6-Trinitrotoluene	1	23.249	23.259	-0.010	101993	0.2500	0.2449	
25 PETN	2	24.176	24.179	-0.003	309328	2.50	2.40	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330IntermStk_00081 Amount Added: 25.00 Units: uL

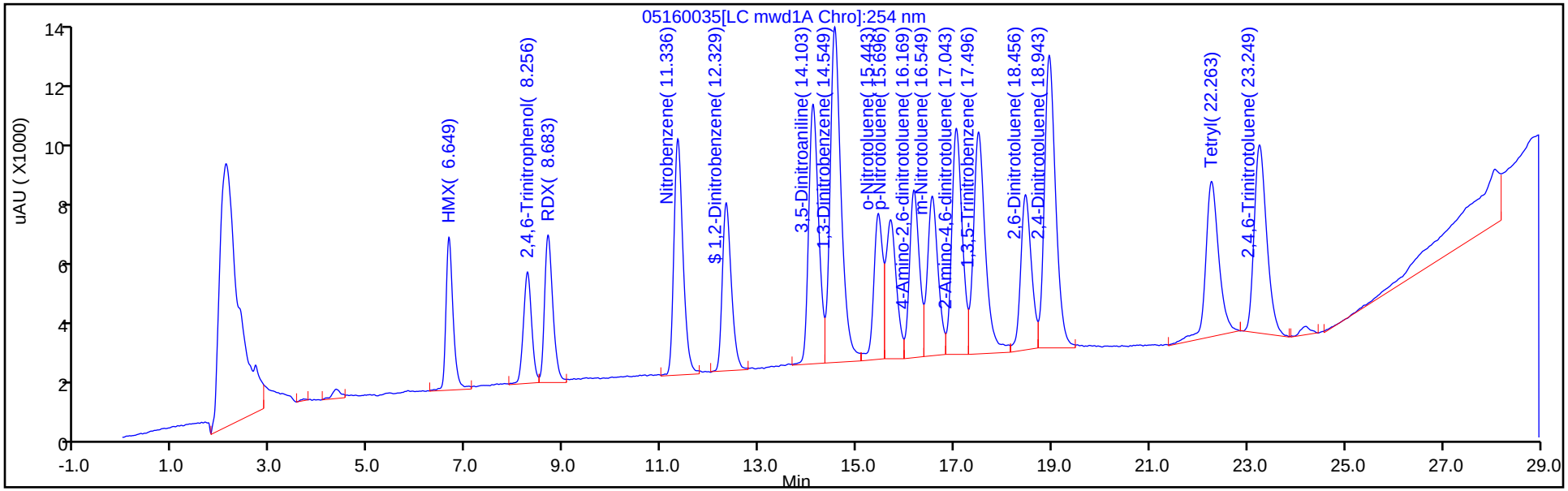
Report Date: 17-May-2024 16:55:03 Chrom Revision: 2.3 14-May-2024 14:23:08

Eurofins Denver

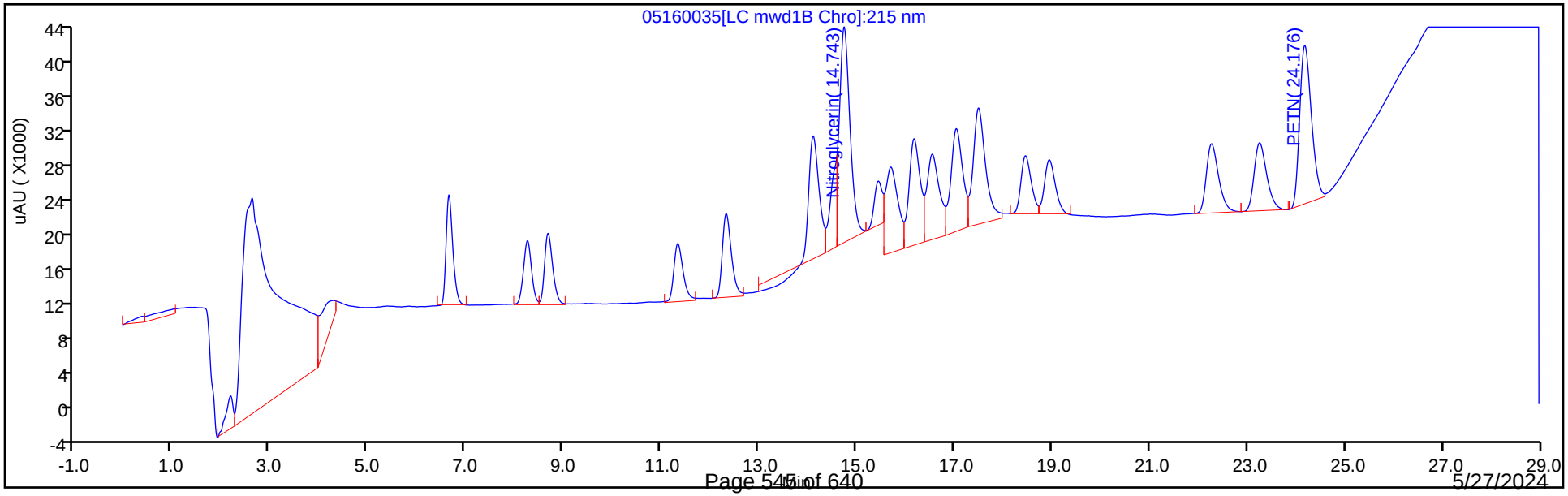
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240516-133474.b\05160035.D

Injection Date:	17-May-2024 08:55:53	Instrument ID:	CHHPLC_X5	Operator ID:	JZ
Lims ID:	CCV			Worklist Smp#:	35
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	8330_X5_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



5/27/2024
7:57:40 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

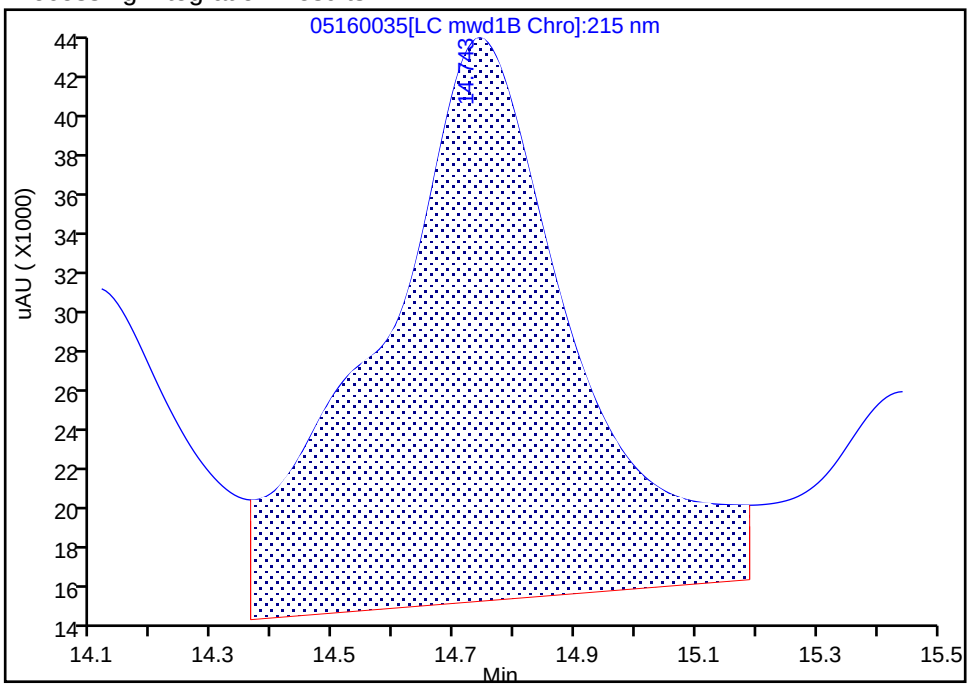
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20240516-133474.b\05160035.D				
Injection Date:	17-May-2024 08:55:53	Instrument ID:	CHHPLC_X5		
Lims ID:	CCV				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	7	Worklist Smp#:	35
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1B, 215 nm		

13 Nitroglycerin, CAS: 55-63-0

Signal: 1

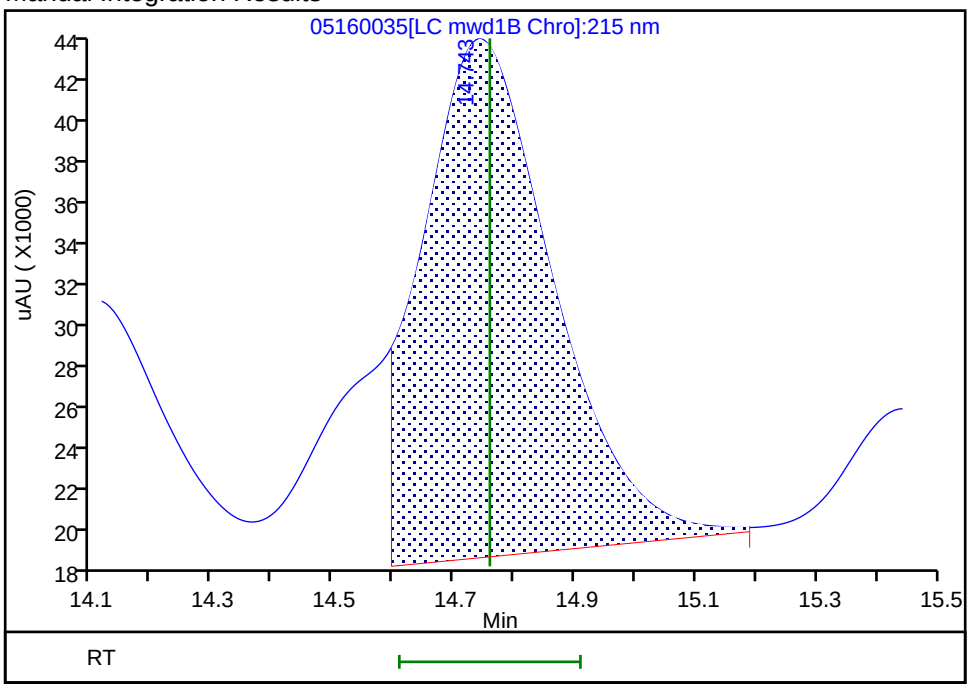
Processing Integration Results

RT: 14.74
Area: 639369
Amount: 4.722430
Amount Units: ug/ml



Manual Integration Results

RT: 14.74
Area: 375436
Amount: 2.773000
Amount Units: ug/ml



Reviewer: LV5D, 17-May-2024 16:54:26 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-191424-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 280-653460/1-A

Matrix: Water | Lab File ID: 05160014.D

Analysis Method: 8330B | Date Collected:

Extraction Method: 3535 | Date Extracted: 05/15/2024 12:30

Sample wt/vol: 500(mL) | Date Analyzed: 05/16/2024 17:14

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.: 653693 | 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 M	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	96	M	83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240516-133471.b\05160014.D
Lims ID: MB 280-653460/1-A
Client ID:
Sample Type: MB
Inject. Date: 16-May-2024 17:14:34 ALS Bottle#: 14 Worklist Smp#: 14
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: MB 280-653460/1-A
Operator ID: JZ Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20240516-133471.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 17-May-2024 12:38:04 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: CTX1618

First Level Reviewer: LV5D Date: 16-May-2024 18:21:49

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		6.621				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		7.628				ND	U
9 2,4,6-Trinitrophenol	1		7.861				ND	
$ 10 1,2-Dinitrobenzene	1	8.549	8.554	-0.005	25353	0.2000	0.1919	M
11 1,3,5-Trinitrobenzene	1		8.694				ND	U
12 1,3-Dinitrobenzene	1		9.301				ND	
13 Nitrobenzene	1		9.654				ND	
14 3,5-Dinitroaniline	1		9.881				ND	
15 Tetryl	1		9.961				ND	
16 Nitroglycerin	2		10.434				ND	
17 2,4,6-Trinitrotoluene	1		10.861				ND	
18 4-Amino-2,6-dinitrotoluene	1		11.027				ND	
19 2-Amino-4,6-dinitrotoluene	1		11.281				ND	
20 2,6-Dinitrotoluene	1		11.434				ND	
21 2,4-Dinitrotoluene	1		11.607				ND	
22 o-Nitrotoluene	1		12.387				ND	
23 p-Nitrotoluene	1		12.801				ND	
24 m-Nitrotoluene	1		13.347				ND	7
25 PETN	2		14.401				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

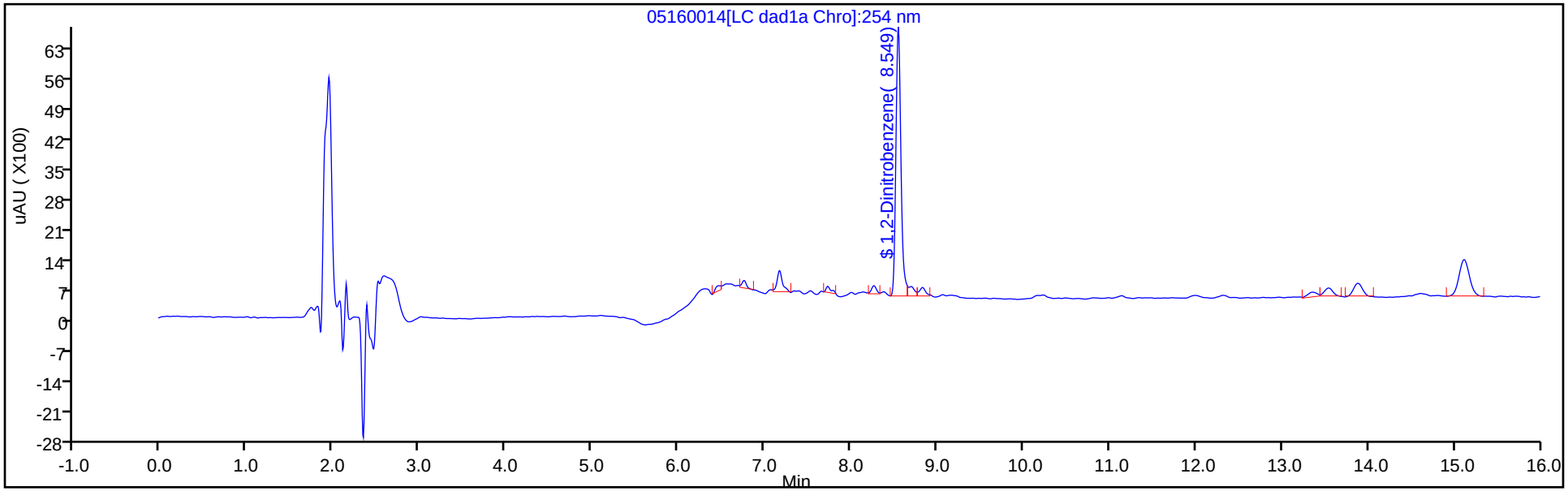
Report Date: 17-May-2024 12:38:05 Chrom Revision: 2.3 14-May-2024 14:23:08

Eurofins Denver

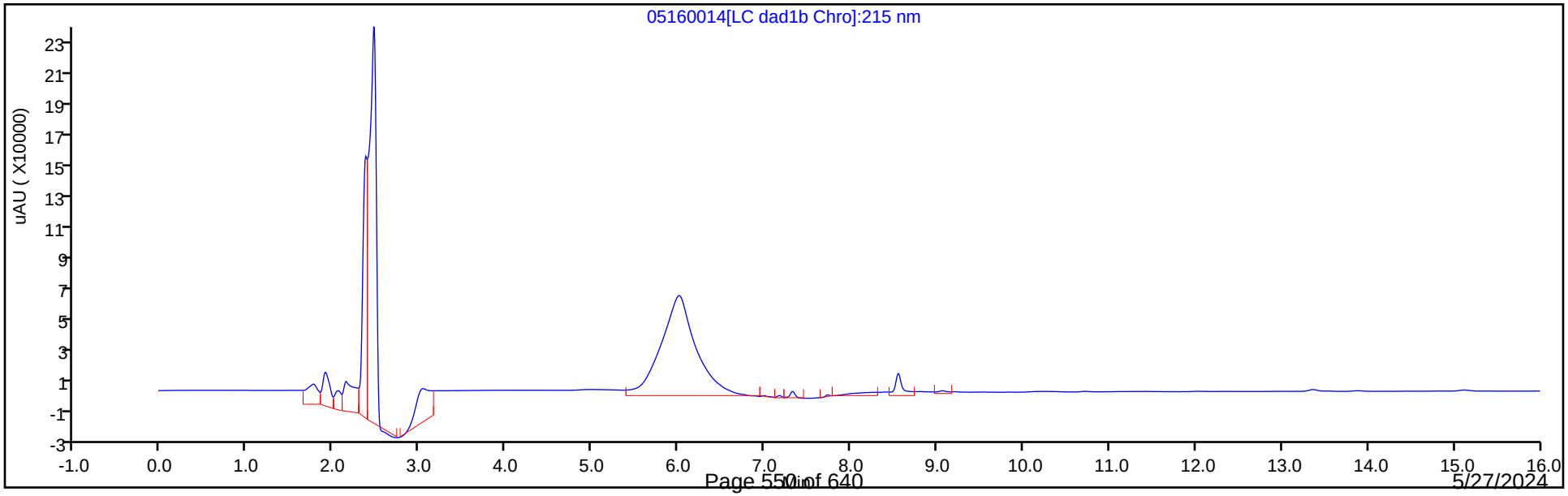
Data File: \\chromfs\denver\chromdata\chhplc_x\20240516-133471.b\05160014.d

Injection Date:	16-May-2024 17:14:34	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	MB 280-653460/1-A			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



Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20240516-133471.b\05160014.D				
Lims ID:	MB 280-653460/1-A				
Client ID:					
Sample Type:	MB				
Inject. Date:	16-May-2024 17:14:34	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	MB 280-653460/1-A				
Operator ID:	JZ	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20240516-133471.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	17-May-2024 12:38:04	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:	CTX1618				

First Level Reviewer: LV5D Date: 16-May-2024 18:21:49

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.1919	95.95

Manual Integration/User Assign Peak Report

Eurofins Denver

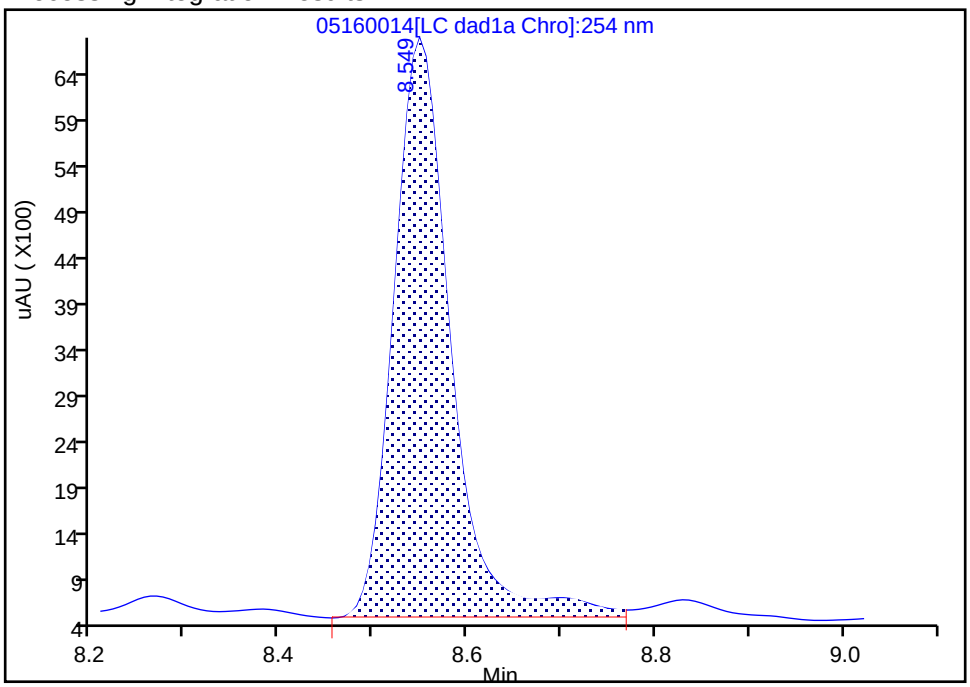
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240516-133471.b\05160014.d				
Injection Date:	16-May-2024 17:14:34	Instrument ID:	CHHPLC_X3		
Lims ID:	MB 280-653460/1-A				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

$ 10 1,2-Dinitrobenzene, CAS: 528-29-0

Signal: 1

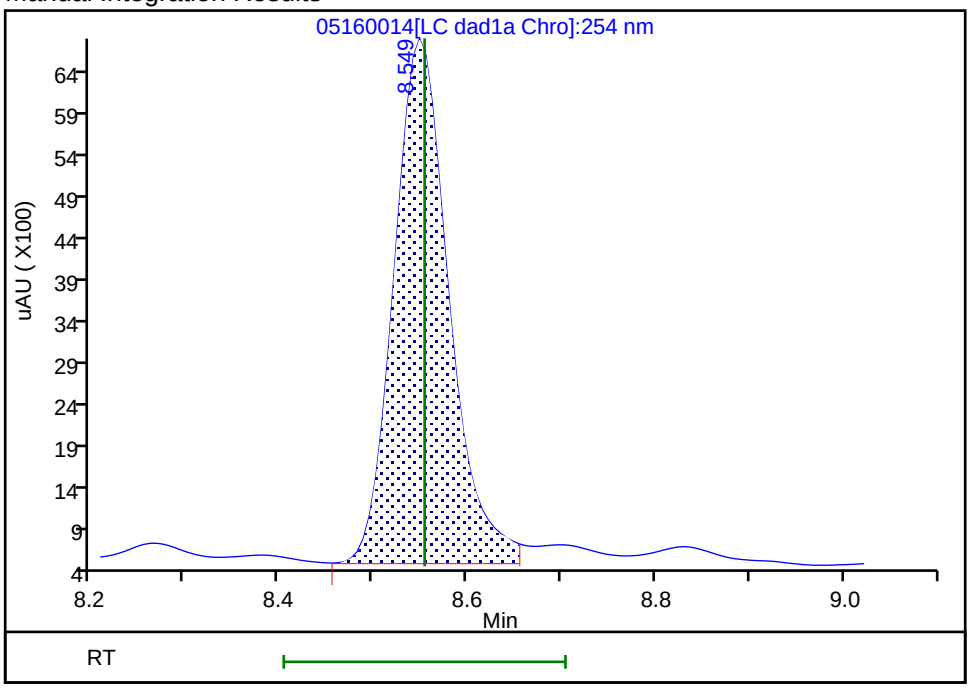
Processing Integration Results

RT: 8.55
Area: 26470
Amount: 0.200380
Amount Units: ug/mL



Manual Integration Results

RT: 8.55
Area: 25353
Amount: 0.191894
Amount Units: ug/mL



Reviewer: LV5D, 16-May-2024 18:21:48 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline

User Disabled Compound Report

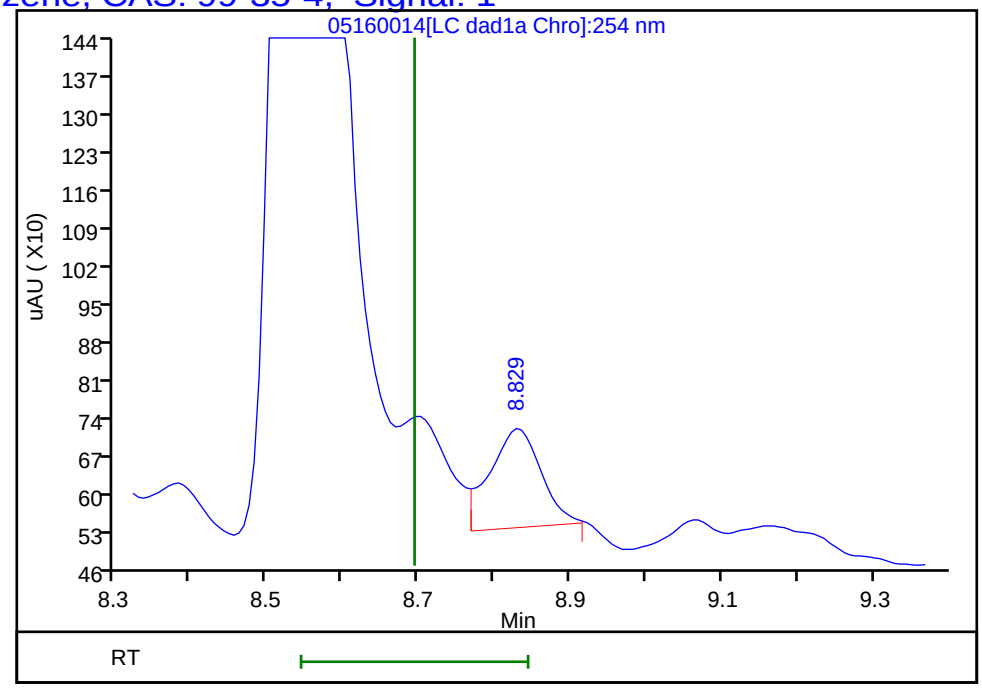
Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20240516-133471.b\05160014.d
Injection Date: 16-May-2024 17:14:34 Instrument ID: CHHPLC_X3
Lims ID: MB 280-653460/1-A
Client ID:
Operator ID: JZ 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

11 1,3,5-Trinitrobenzene, CAS: 99-35-4, Signal: 1

RT: 8.83
Response: 856
Amount: 0.003841



Reviewer: LV5D, 16-May-2024 18:21:49
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

User Disabled Compound Report

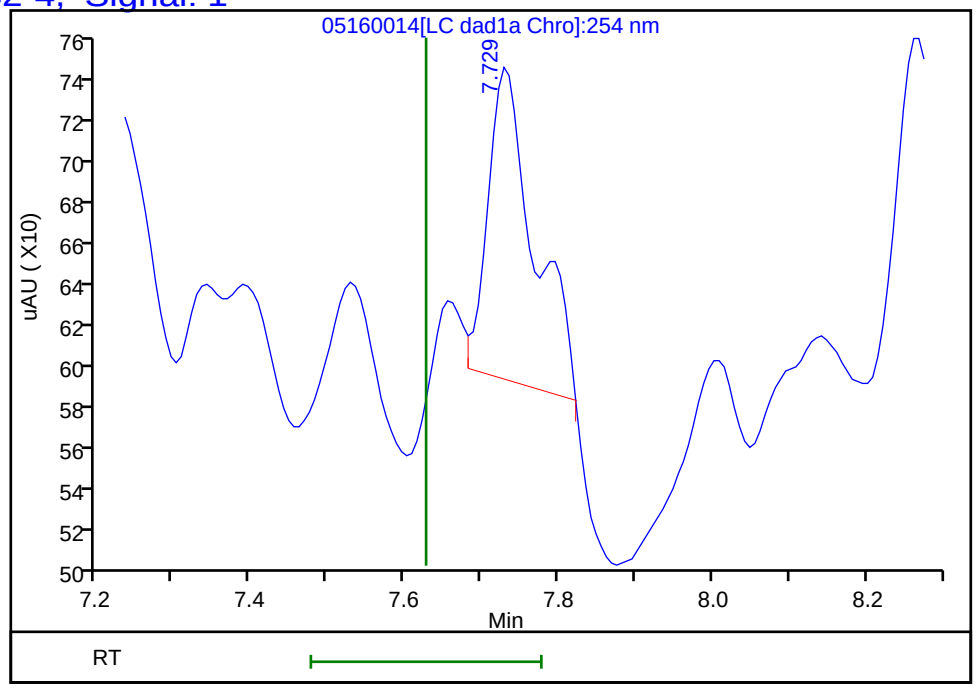
Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20240516-133471.b\05160014.d
Injection Date: 16-May-2024 17:14:34 Instrument ID: CHHPLC_X3
Lims ID: MB 280-653460/1-A
Client ID:
Operator ID: JZ 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

8 RDX, CAS: 121-82-4, Signal: 1

RT: 7.73
Response: 628
Amount: 0.005670



Reviewer: LV5D, 16-May-2024 18:21:49
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-191424-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 280-654401/1-A

Matrix: Water | Lab File ID: 05230016.D

Analysis Method: 8330B | Date Collected:

Extraction Method: 3535 | Date Extracted: 05/22/2024 14:37

Sample wt/vol: 500(mL) | Date Analyzed: 05/23/2024 18:29

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.: 654555 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	0.20	U	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	105		83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240523-133725.b\05230016.D
Lims ID: MB 280-654401/1-A
Client ID:
Sample Type: MB
Inject. Date: 23-May-2024 18:29:47 ALS Bottle#: 16 Worklist Smp#: 16
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: MB 280-654401/1-A
Operator ID: JZ Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20240523-133725.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 24-May-2024 11:42:23 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: CTX1640

First Level Reviewer: LV5D Date: 23-May-2024 18:59:40

	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		6.490				ND	7
	3 TNX	1		6.525				ND	
	4 HMX	1		6.632				ND	
	5 2,4-diamino-6-nitrotoluene	1		6.670				ND	
	6 DNX	1		6.845				ND	
	7 MNX	1		7.265				ND	
	8 RDX	1		7.638				ND	
	9 2,4,6-Trinitrophenol	1		7.872				ND	
$	10 1,2-Dinitrobenzene	1	8.568	8.572	-0.004	27624	0.2000	0.2091	
	11 1,3,5-Trinitrobenzene	1		8.712				ND	7
	12 1,3-Dinitrobenzene	1		9.325				ND	
	13 Nitrobenzene	1		9.685				ND	
	14 3,5-Dinitroaniline	1		9.918				ND	
	15 Tetryl	1		9.991				ND	
	16 Nitroglycerin	2		10.471				ND	
	17 2,4,6-Trinitrotoluene	1		10.905				ND	
	18 4-Amino-2,6-dinitrotoluene	1		11.071				ND	
	19 2-Amino-4,6-dinitrotoluene	1		11.325				ND	
	20 2,6-Dinitrotoluene	1		11.471				ND	
	21 2,4-Dinitrotoluene	1		11.651				ND	
	22 o-Nitrotoluene	1		12.425				ND	7
	23 p-Nitrotoluene	1		12.838				ND	
	24 m-Nitrotoluene	1		13.385				ND	
	25 PETN	2		14.425				ND	
	26 Ammonium Picrate	1		0.000				ND	

QC Flag Legend

Processing Flags
7 - Failed Limit of Detection

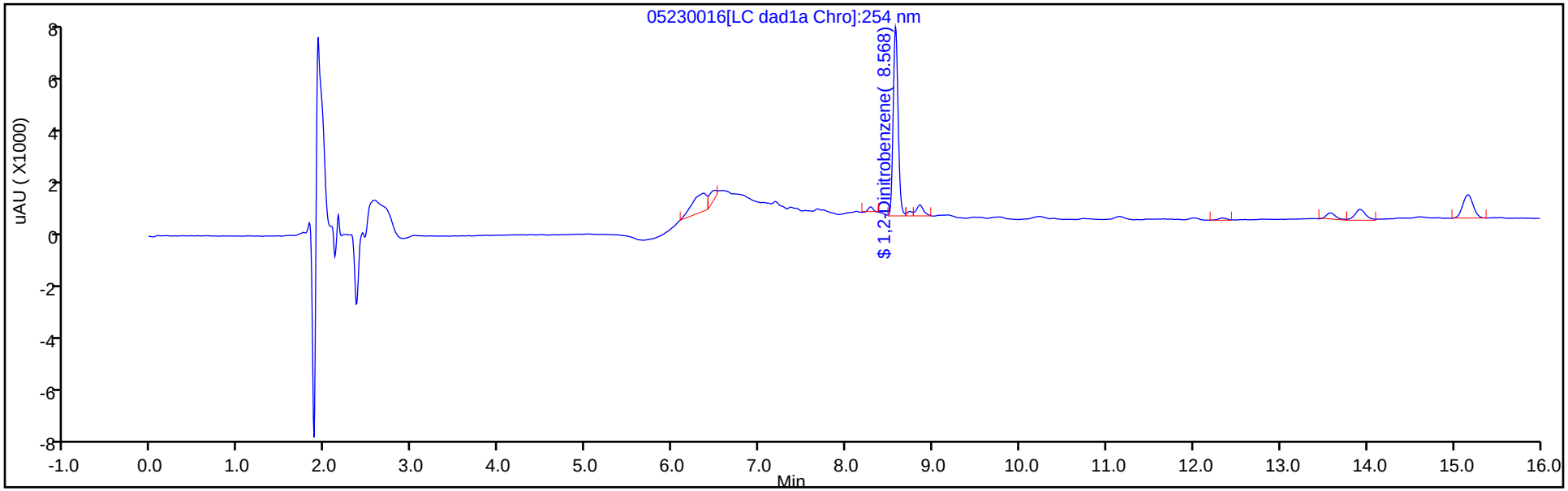
Report Date: 24-May-2024 12:35:06 Chrom Revision: 2.3 20-May-2024 22:00:34

Eurofins Denver

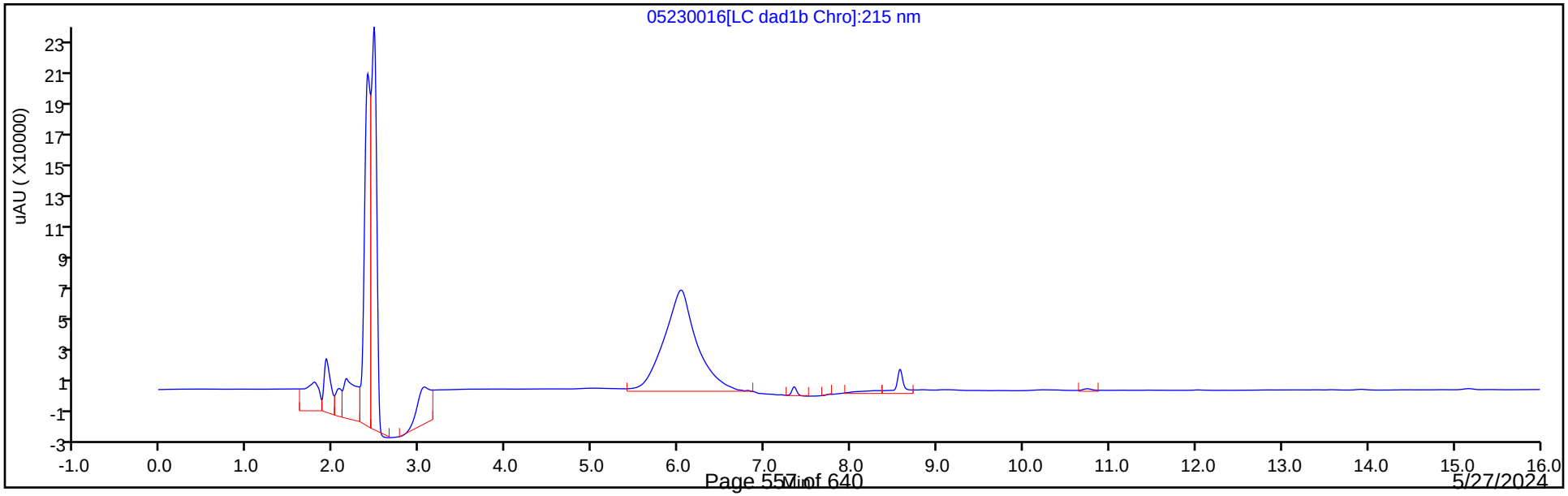
Data File: \\chromfs\denver\chromdata\chhplc_x\20240523-133725.b\05230016.d

Injection Date:	23-May-2024 18:29:47	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	MB 280-654401/1-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



Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20240523-133725.b\05230016.D				
Lims ID:	MB 280-654401/1-A				
Client ID:					
Sample Type:	MB				
Inject. Date:	23-May-2024 18:29:47	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	MB 280-654401/1-A				
Operator ID:	JZ	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20240523-133725.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	24-May-2024 11:42:23	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:	CTX1640				

First Level Reviewer: LV5D Date: 23-May-2024 18:59:40

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.2091	104.57

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-191424-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 280-653460/2-A

Matrix: Water | Lab File ID: 05160015.D

Analysis Method: 8330B | Date Collected:

Extraction Method: 3535 | Date Extracted: 05/15/2024 12:30

Sample wt/vol: 500(mL) | Date Analyzed: 05/16/2024 17:37

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.: 653693 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	1.89		0.21	0.20	0.084
99-65-0	1,3-Dinitrobenzene	1.77		0.11	0.10	0.037
118-96-7	2,4,6-Trinitrotoluene	1.74		0.11	0.10	0.045
121-14-2	2,4-Dinitrotoluene	1.64		0.10	0.080	0.027
606-20-2	2,6-Dinitrotoluene	1.67		0.10	0.080	0.040
35572-78-2	2-Amino-4,6-dinitrotoluene	1.69		0.11	0.10	0.051
88-72-2	2-Nitrotoluene	1.20	Q	0.21	0.20	0.086
99-08-1	3-Nitrotoluene	1.19	Q	0.40	0.35	0.20
19406-51-0	4-Amino-2,6-dinitrotoluene	1.74		0.15	0.12	0.058
99-99-0	4-Nitrotoluene	1.19	Q	0.41	0.40	0.10
2691-41-0	HMX	1.64	M	0.21	0.20	0.088
98-95-3	Nitrobenzene	1.50		0.21	0.20	0.091
55-63-0	Nitroglycerin	18.9		2.1	2.0	0.92
78-11-5	PETN	19.9		1.1	1.0	0.45
121-82-4	RDX	1.76		0.21	0.20	0.052
479-45-8	Tetryl	1.76		0.11	0.10	0.032

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	84		83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240516-133471.b\05160015.D
Lims ID: LCS 280-653460/2-A
Client ID:
Sample Type: LCS
Inject. Date: 16-May-2024 17:37:27 ALS Bottle#: 15 Worklist Smp#: 15
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: LCS 280-653460/2-A
Operator ID: JZ Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20240516-133471.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 17-May-2024 12:38:04 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: CTX1618

First Level Reviewer: LV5D Date: 16-May-2024 18:21:56

	Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
4	HMX	1	6.619	6.621	-0.002	15634	0.2000	0.1636	M
8	RDX	1	7.619	7.628	-0.009	19530	0.2000	0.1763	
9	2,4,6-Trinitrophenol	1	7.852	7.861	-0.009	15095	0.2000	0.1903	
$ 10	1,2-Dinitrobenzene	1	8.546	8.554	-0.008	22332	0.2000	0.1689	
11	1,3,5-Trinitrobenzene	1	8.686	8.694	-0.008	42080	0.2000	0.1888	
12	1,3-Dinitrobenzene	1	9.292	9.301	-0.009	53059	0.2000	0.1772	
13	Nitrobenzene	1	9.652	9.654	-0.002	29492	0.2000	0.1502	
14	3,5-Dinitroaniline	1	9.879	9.881	-0.002	37096	0.2000	0.1689	
15	Tetryl	1	9.959	9.961	-0.002	32008	0.2000	0.1763	
16	Nitroglycerin	2	10.439	10.434	0.005	125823	2.00	1.89	
17	2,4,6-Trinitrotoluene	1	10.872	10.861	0.011	37388	0.2000	0.1737	
18	4-Amino-2,6-dinitrotoluene	1	11.039	11.027	0.012	26135	0.2000	0.1743	
19	2-Amino-4,6-dinitrotoluene	1	11.292	11.281	0.011	33752	0.2000	0.1689	
20	2,6-Dinitrotoluene	1	11.445	11.434	0.011	24571	0.2000	0.1672	
21	2,4-Dinitrotoluene	1	11.619	11.607	0.012	48000	0.2000	0.1645	
22	o-Nitrotoluene	1	12.392	12.387	0.005	15559	0.2000	0.1203	
23	p-Nitrotoluene	1	12.805	12.801	0.004	13468	0.2000	0.1194	
24	m-Nitrotoluene	1	13.352	13.347	0.005	17196	0.2000	0.1194	
25	PETN	2	14.392	14.401	-0.009	143049	2.00	1.99	
26	Ammonium Picrate	1		0.000			ND	ND	

QC Flag Legend

Processing Flags
ND - Not Detected or Marked ND
Review Flags
M - Manually Integrated

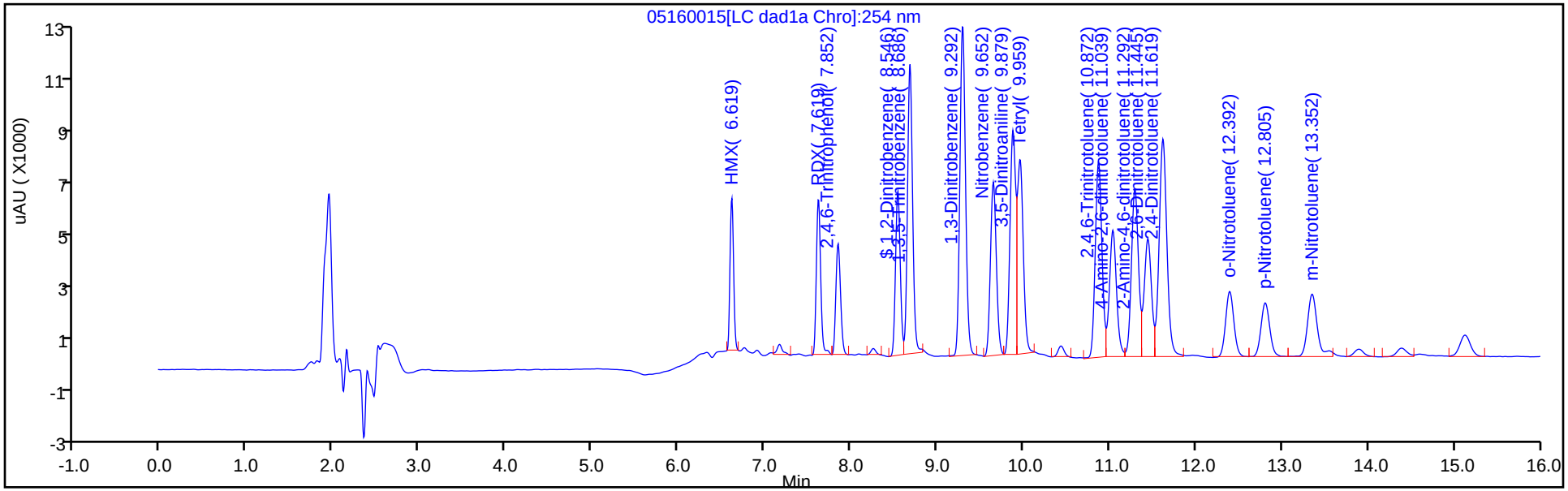
Report Date: 17-May-2024 12:38:06 Chrom Revision: 2.3 14-May-2024 14:23:08

Eurofins Denver

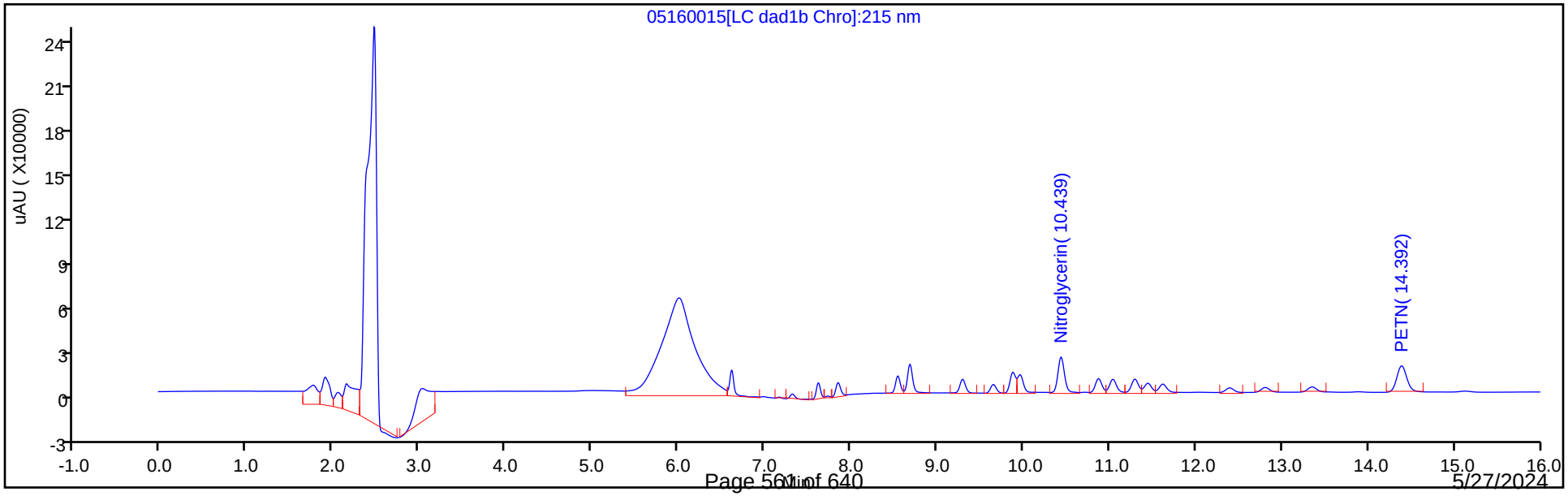
Data File: \\chromfs\denver\chromdata\chhplc_x\20240516-133471.b\05160015.d

Injection Date:	16-May-2024 17:37:27	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	LCS 280-653460/2-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



5/27/2024
7:57:40 AM

Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20240516-133471.b\05160015.D				
Lims ID:	LCS 280-653460/2-A				
Client ID:					
Sample Type:	LCS				
Inject. Date:	16-May-2024 17:37:27	ALS Bottle#:	15	Worklist Smp#:	15
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	LCS 280-653460/2-A				
Operator ID:	JZ	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20240516-133471.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	17-May-2024 12:38:04	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:	CTX1618				

First Level Reviewer: LV5D Date: 16-May-2024 18:21:56

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.1689	84.47

Eurofins Denver

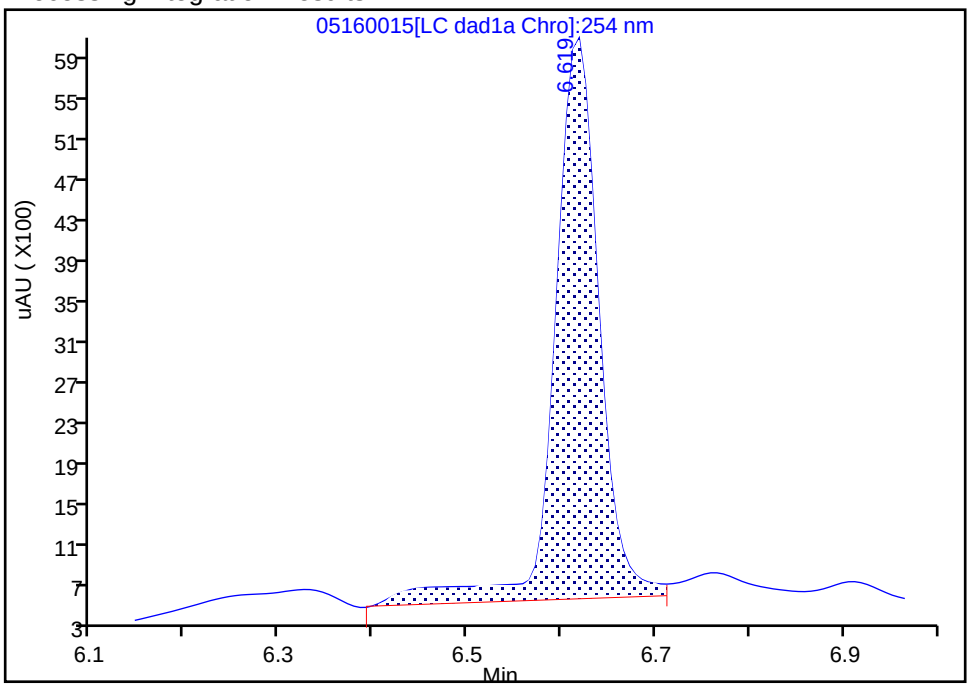
Data File: \\chromfs\denver\chromdata\chhplc_x\20240516-133471.b\05160015.d
Injection Date: 16-May-2024 17:37:27 Instrument ID: CHHPLC_X3
Lims ID: LCS 280-653460/2-A
Client ID:
Operator ID: JZ ALS Bottle#: 15 Worklist Smp#: 15
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

4 HMX, CAS: 2691-41-0

Signal: 1

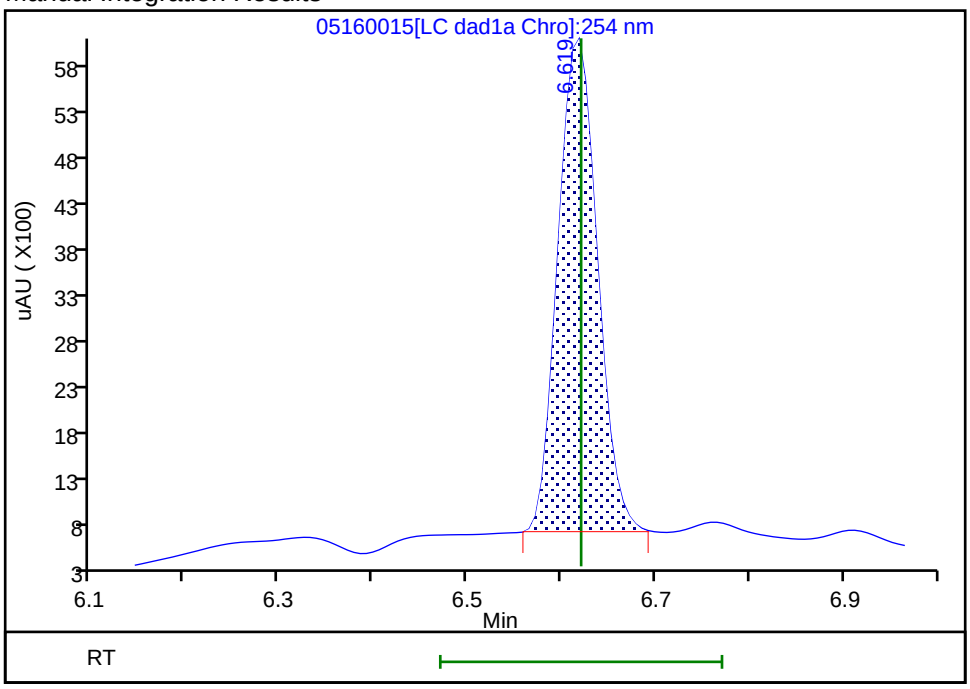
Processing Integration Results

RT: 6.62
Area: 18502
Amount: 0.193650
Amount Units: ug/mL



Manual Integration Results

RT: 6.62
Area: 15634
Amount: 0.163632
Amount Units: ug/mL



Reviewer: LV5D, 16-May-2024 18:21:54 -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.: 280-191424-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 280-654401/2-A

Matrix: Water | Lab File ID: 05230017.D

Analysis Method: 8330B | Date Collected:

Extraction Method: 3535 | Date Extracted: 05/22/2024 14:37

Sample wt/vol: 500(mL) | Date Analyzed: 05/23/2024 18:52

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.: 654555 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	2.05	M	0.21	0.20	0.084
99-65-0	1,3-Dinitrobenzene	1.87		0.11	0.10	0.037
118-96-7	2,4,6-Trinitrotoluene	1.85		0.11	0.10	0.045
121-14-2	2,4-Dinitrotoluene	1.67		0.10	0.080	0.027
606-20-2	2,6-Dinitrotoluene	1.70		0.10	0.080	0.040
35572-78-2	2-Amino-4,6-dinitrotoluene	1.75		0.11	0.10	0.051
88-72-2	2-Nitrotoluene	1.22	Q	0.21	0.20	0.086
99-08-1	3-Nitrotoluene	1.14	M Q	0.40	0.35	0.20
19406-51-0	4-Amino-2,6-dinitrotoluene	1.78		0.15	0.12	0.058
99-99-0	4-Nitrotoluene	1.20	Q	0.41	0.40	0.10
2691-41-0	HMX	1.84	M	0.21	0.20	0.088
98-95-3	Nitrobenzene	1.57		0.21	0.20	0.091
55-63-0	Nitroglycerin	21.2		2.1	2.0	0.92
78-11-5	PETN	22.2		1.1	1.0	0.45
121-82-4	RDX	1.99		0.21	0.20	0.052
479-45-8	Tetryl	1.89		0.11	0.10	0.032

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	97		83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240523-133725.b\05230017.D
Lims ID: LCS 280-654401/2-A
Client ID:
Sample Type: LCS
Inject. Date: 23-May-2024 18:52:44 ALS Bottle#: 17 Worklist Smp#: 17
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: LCS 280-654401/2-A
Operator ID: JZ Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20240523-133725.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 24-May-2024 11:42:23 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: CTX1640

First Level Reviewer: LV5D Date: 23-May-2024 19:21:56

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
4 HMX	1	6.634	6.632	0.002	17571	0.2000	0.1839	M
8 RDX	1	7.647	7.638	0.009	22092	0.2000	0.1994	
9 2,4,6-Trinitrophenol	1	7.874	7.872	0.002	16838	0.2000	0.2123	
$ 10 1,2-Dinitrobenzene	1	8.567	8.572	-0.005	25576	0.2000	0.1936	
11 1,3,5-Trinitrobenzene	1	8.714	8.712	0.002	45633	0.2000	0.2048	M
12 1,3-Dinitrobenzene	1	9.327	9.325	0.002	55852	0.2000	0.1865	
13 Nitrobenzene	1	9.680	9.685	-0.005	30855	0.2000	0.1572	
14 3,5-Dinitroaniline	1	9.914	9.918	-0.004	38643	0.2000	0.1759	
15 Tetryl	1	9.980	9.991	-0.011	34407	0.2000	0.1895	
16 Nitroglycerin	2	10.454	10.471	-0.017	140576	2.00	2.12	
17 2,4,6-Trinitrotoluene	1	10.887	10.905	-0.018	39738	0.2000	0.1847	
18 4-Amino-2,6-dinitrotoluene	1	11.060	11.071	-0.011	26764	0.2000	0.1785	
19 2-Amino-4,6-dinitrotoluene	1	11.320	11.325	-0.005	34950	0.2000	0.1749	
20 2,6-Dinitrotoluene	1	11.460	11.471	-0.011	24929	0.2000	0.1697	
21 2,4-Dinitrotoluene	1	11.640	11.651	-0.011	48697	0.2000	0.1669	
22 o-Nitrotoluene	1	12.414	12.425	-0.011	15716	0.2000	0.1215	
23 p-Nitrotoluene	1	12.834	12.838	-0.004	13546	0.2000	0.1201	
24 m-Nitrotoluene	1	13.380	13.385	-0.005	16379	0.2000	0.1137	M
25 PETN	2	14.420	14.425	-0.005	159383	2.00	2.22	
26 Ammonium Picrate	1		0.000			ND	ND	

QC Flag Legend

Processing Flags
ND - Not Detected or Marked ND
Review Flags
M - Manually Integrated

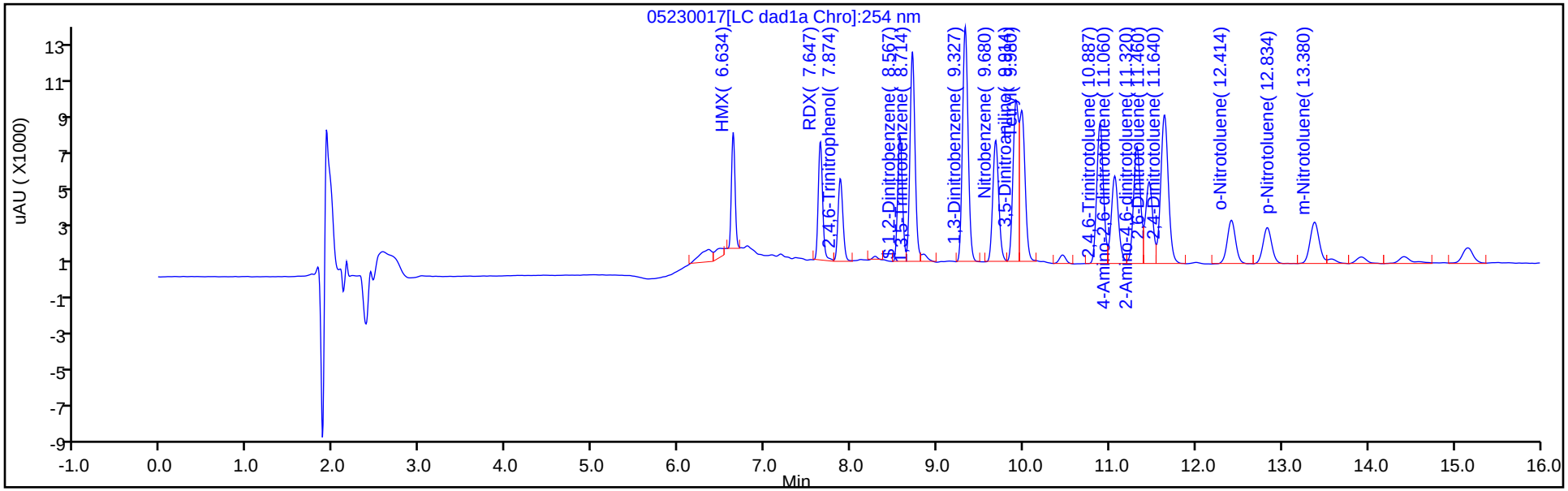
Report Date: 24-May-2024 12:35:06 Chrom Revision: 2.3 20-May-2024 22:00:34

Eurofins Denver

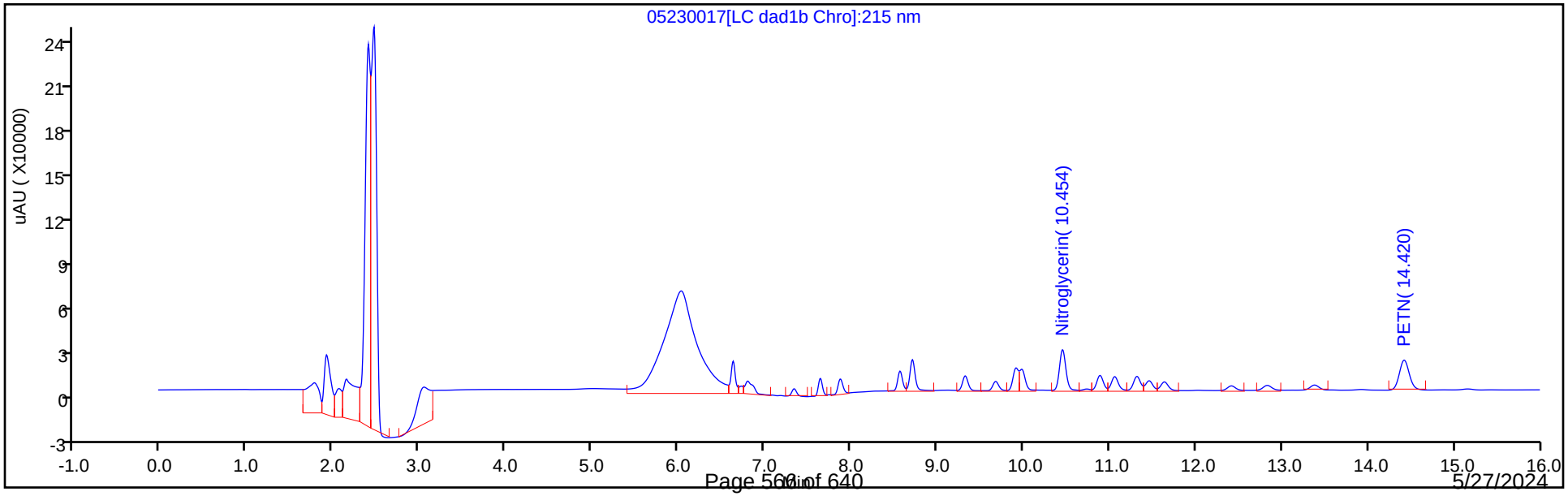
Data File: \\chromfs\denver\chromdata\chhplc_x\20240523-133725.b\05230017.d

Injection Date:	23-May-2024 18:52:44	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	LCS 280-654401/2-A			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



5/27/2024
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Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20240523-133725.b\05230017.D				
Lims ID:	LCS 280-654401/2-A				
Client ID:					
Sample Type:	LCS				
Inject. Date:	23-May-2024 18:52:44	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	LCS 280-654401/2-A				
Operator ID:	JZ	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20240523-133725.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	24-May-2024 11:42:23	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:	CTX1640				
First Level Reviewer: LV5D		Date:	23-May-2024 19:21:56		

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.1936	96.79

Manual Integration/User Assign Peak Report

Eurofins Denver

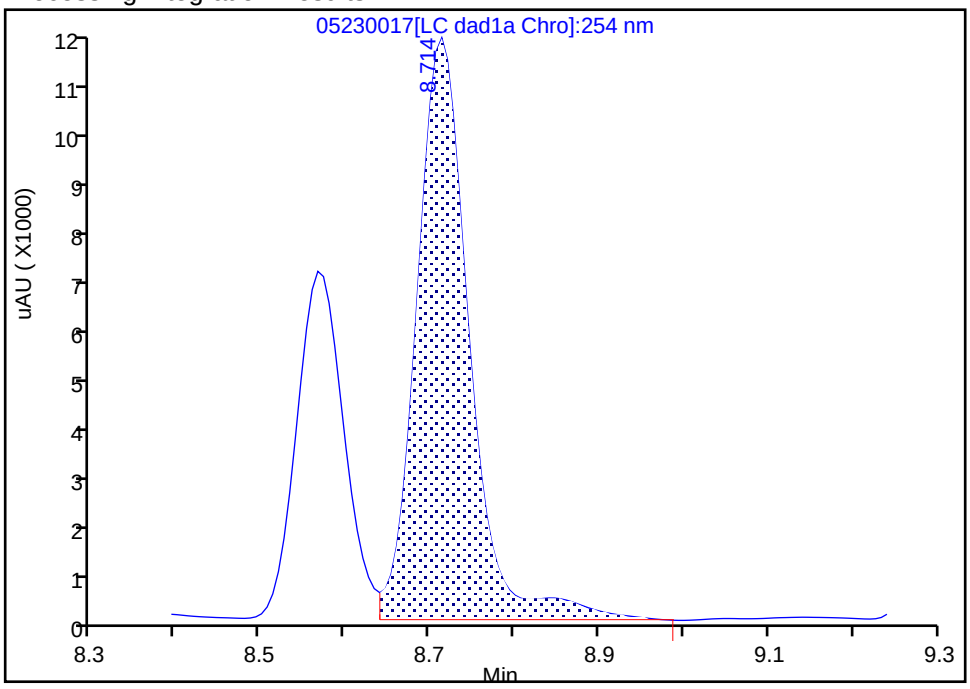
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240523-133725.b\05230017.d				
Injection Date:	23-May-2024 18:52:44	Instrument ID:	CHHPLC_X3		
Lims ID:	LCS 280-654401/2-A				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

11 1,3,5-Trinitrobenzene, CAS: 99-35-4

Signal: 1

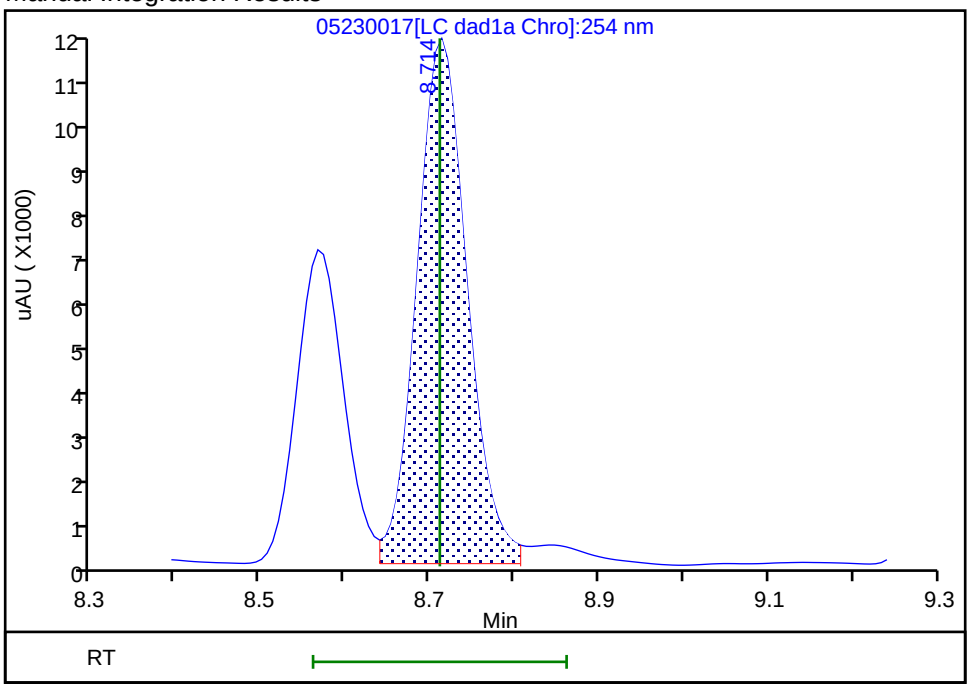
Processing Integration Results

RT: 8.71
Area: 47891
Amount: 0.214899
Amount Units: ug/mL



Manual Integration Results

RT: 8.71
Area: 45633
Amount: 0.204767
Amount Units: ug/mL



Reviewer: LV5D, 23-May-2024 19:21:49 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

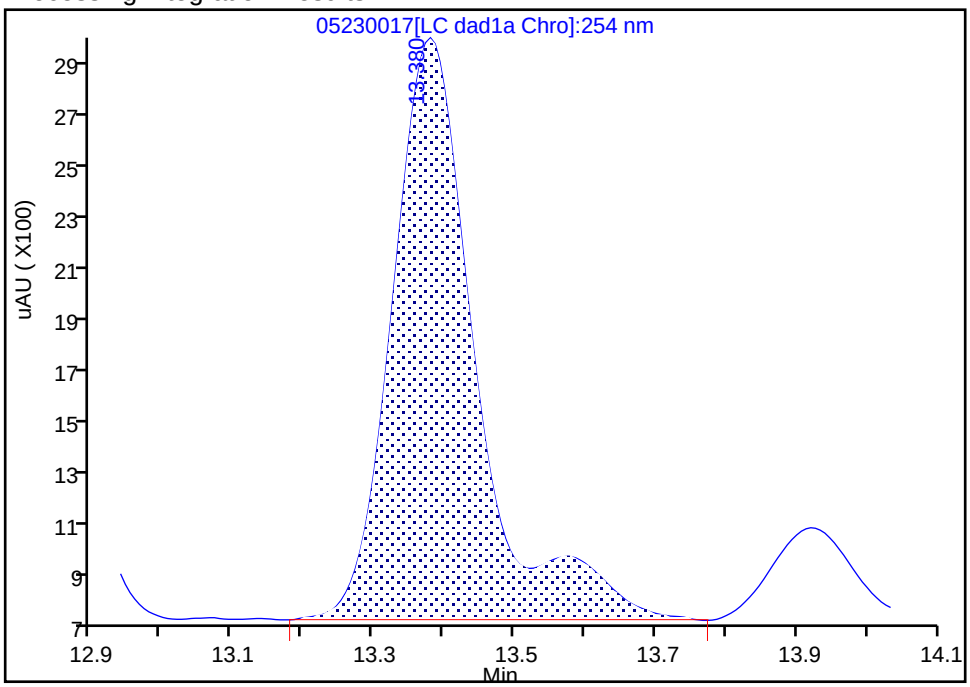
Data File: \\chromfs\denver\chromdata\chhplc_x\20240523-133725.b\05230017.d
Injection Date: 23-May-2024 18:52:44 Instrument ID: CHHPLC_X3
Lims ID: LCS 280-654401/2-A
Client ID:
Operator ID: JZ ALS Bottle#: 17 Worklist Smp#: 17
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

24 m-Nitrotoluene, CAS: 99-08-1

Signal: 1

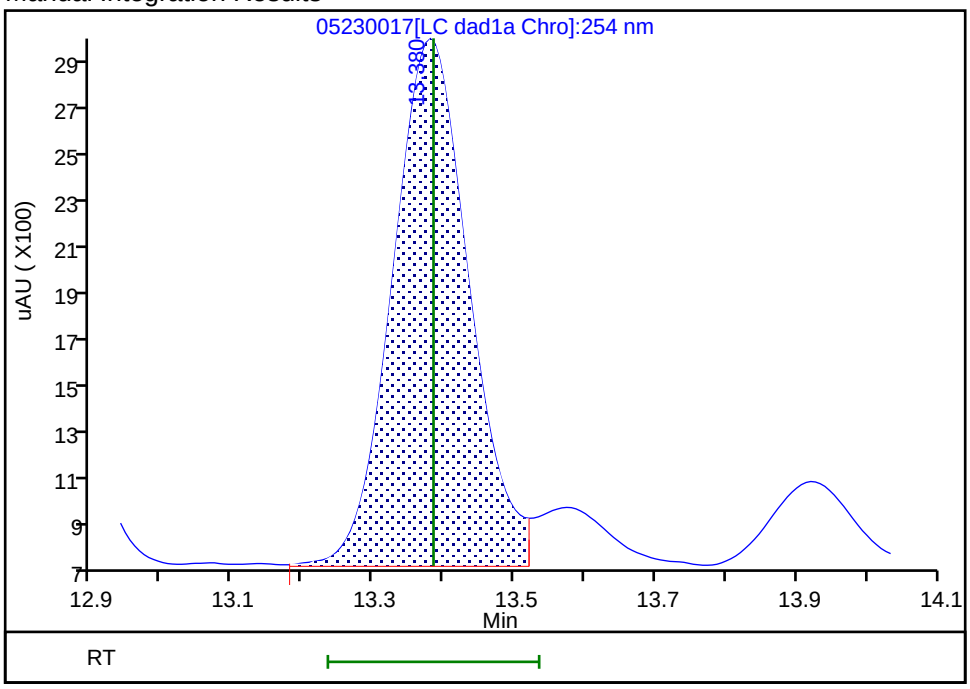
Processing Integration Results

RT: 13.38
Area: 18112
Amount: 0.125723
Amount Units: ug/mL



Manual Integration Results

RT: 13.38
Area: 16379
Amount: 0.113693
Amount Units: ug/mL



Reviewer: LV5D, 23-May-2024 19:21:53 -06:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

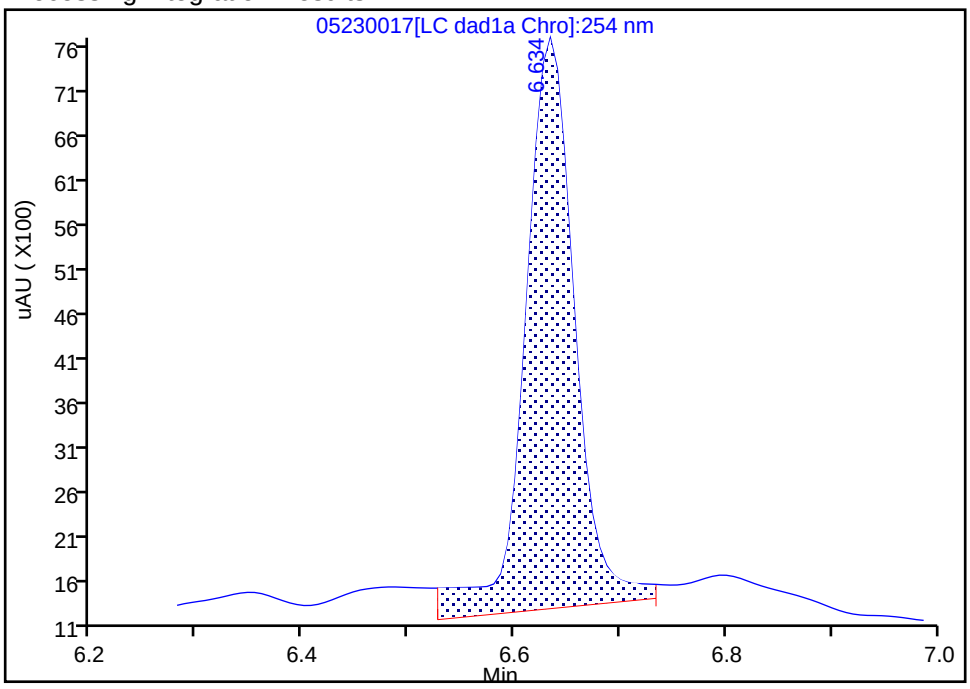
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240523-133725.b\05230017.d				
Injection Date:	23-May-2024 18:52:44	Instrument ID:	CHHPLC_X3		
Lims ID:	LCS 280-654401/2-A				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

4 HMX, CAS: 2691-41-0

Signal: 1

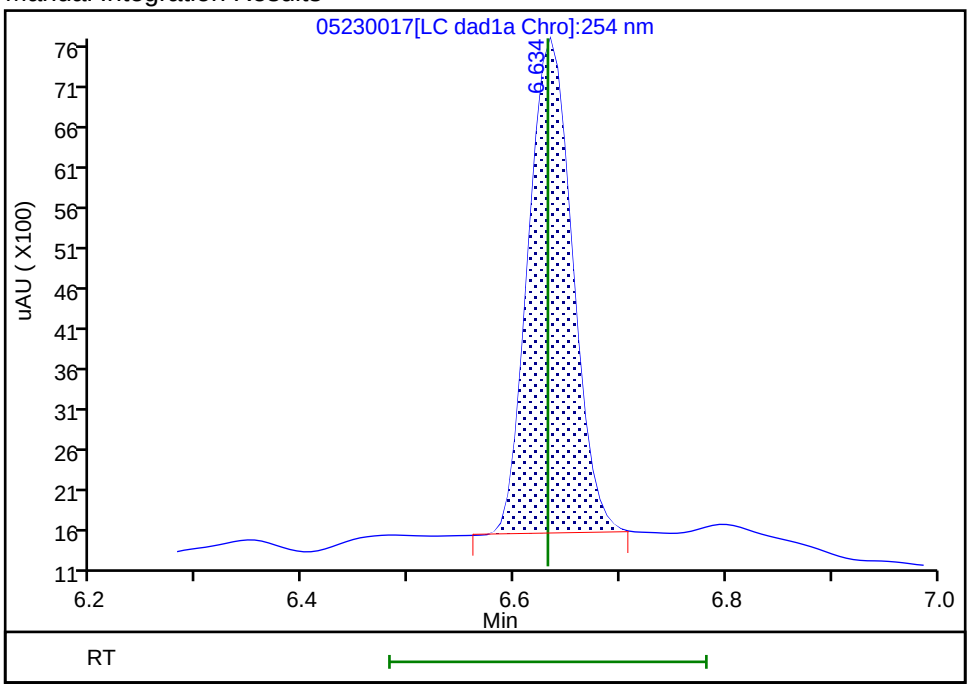
Processing Integration Results

RT: 6.63
Area: 20777
Amount: 0.217461
Amount Units: ug/mL



Manual Integration Results

RT: 6.63
Area: 17571
Amount: 0.183905
Amount Units: ug/mL



Reviewer: LV5D, 23-May-2024 19:21:45 -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.: 280-191424-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCSD 280-653460/3-A

Matrix: Water | Lab File ID: 05160016.D

Analysis Method: 8330B | Date Collected:

Extraction Method: 3535 | Date Extracted: 05/15/2024 12:30

Sample wt/vol: 500(mL) | Date Analyzed: 05/16/2024 18:00

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.: 653693 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	1.89		0.21	0.20	0.084
99-65-0	1,3-Dinitrobenzene	1.75		0.11	0.10	0.037
118-96-7	2,4,6-Trinitrotoluene	1.75		0.11	0.10	0.045
121-14-2	2,4-Dinitrotoluene	1.60		0.10	0.080	0.027
606-20-2	2,6-Dinitrotoluene	1.59		0.10	0.080	0.040
35572-78-2	2-Amino-4,6-dinitrotoluene	1.66		0.11	0.10	0.051
88-72-2	2-Nitrotoluene	1.15	Q	0.21	0.20	0.086
99-08-1	3-Nitrotoluene	1.14	Q	0.40	0.35	0.20
19406-51-0	4-Amino-2,6-dinitrotoluene	1.69		0.15	0.12	0.058
99-99-0	4-Nitrotoluene	1.10	Q	0.41	0.40	0.10
2691-41-0	HMX	1.68	M	0.21	0.20	0.088
98-95-3	Nitrobenzene	1.43		0.21	0.20	0.091
55-63-0	Nitroglycerin	19.2		2.1	2.0	0.92
78-11-5	PETN	20.3		1.1	1.0	0.45
121-82-4	RDX	1.73		0.21	0.20	0.052
479-45-8	Tetryl	1.86		0.11	0.10	0.032

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	84		83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240516-133471.b\05160016.D
Lims ID: LCSD 280-653460/3-A
Client ID:
Sample Type: LCSD
Inject. Date: 16-May-2024 18:00:19 ALS Bottle#: 16 Worklist Smp#: 16
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: LCSD 280-653460/3-A
Operator ID: JZ Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20240516-133471.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 17-May-2024 12:38:04 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: CTX1618

First Level Reviewer: LV5D Date: 16-May-2024 18:33:56

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
4 HMX	1	6.619	6.621	-0.002	16068	0.2000	0.1682	M
8 RDX	1	7.626	7.628	-0.002	19164	0.2000	0.1730	
9 2,4,6-Trinitrophenol	1	7.859	7.861	-0.002	15216	0.2000	0.1918	
$ 10 1,2-Dinitrobenzene	1	8.553	8.554	-0.001	22191	0.2000	0.1679	
11 1,3,5-Trinitrobenzene	1	8.693	8.694	-0.001	42030	0.2000	0.1886	
12 1,3-Dinitrobenzene	1	9.299	9.301	-0.002	52332	0.2000	0.1748	
13 Nitrobenzene	1	9.652	9.654	-0.002	28117	0.2000	0.1432	
14 3,5-Dinitroaniline	1	9.879	9.881	-0.002	34211	0.2000	0.1559	
15 Tetryl	1	9.959	9.961	-0.002	33805	0.2000	0.1862	
16 Nitroglycerin	2	10.432	10.434	-0.002	127505	2.00	1.92	
17 2,4,6-Trinitrotoluene	1	10.866	10.861	0.005	37655	0.2000	0.1750	
18 4-Amino-2,6-dinitrotoluene	1	11.026	11.027	-0.001	25278	0.2000	0.1686	
19 2-Amino-4,6-dinitrotoluene	1	11.286	11.281	0.005	33123	0.2000	0.1658	
20 2,6-Dinitrotoluene	1	11.432	11.434	-0.002	23374	0.2000	0.1591	
21 2,4-Dinitrotoluene	1	11.612	11.607	0.005	46802	0.2000	0.1604	
22 o-Nitrotoluene	1	12.392	12.387	0.005	14819	0.2000	0.1146	
23 p-Nitrotoluene	1	12.806	12.801	0.005	12439	0.2000	0.1103	
24 m-Nitrotoluene	1	13.352	13.347	0.005	16405	0.2000	0.1139	
25 PETN	2	14.399	14.401	-0.002	146045	2.00	2.03	
26 Ammonium Picrate	1		0.000			ND	ND	

QC Flag Legend

Processing Flags
ND - Not Detected or Marked ND
Review Flags
M - Manually Integrated

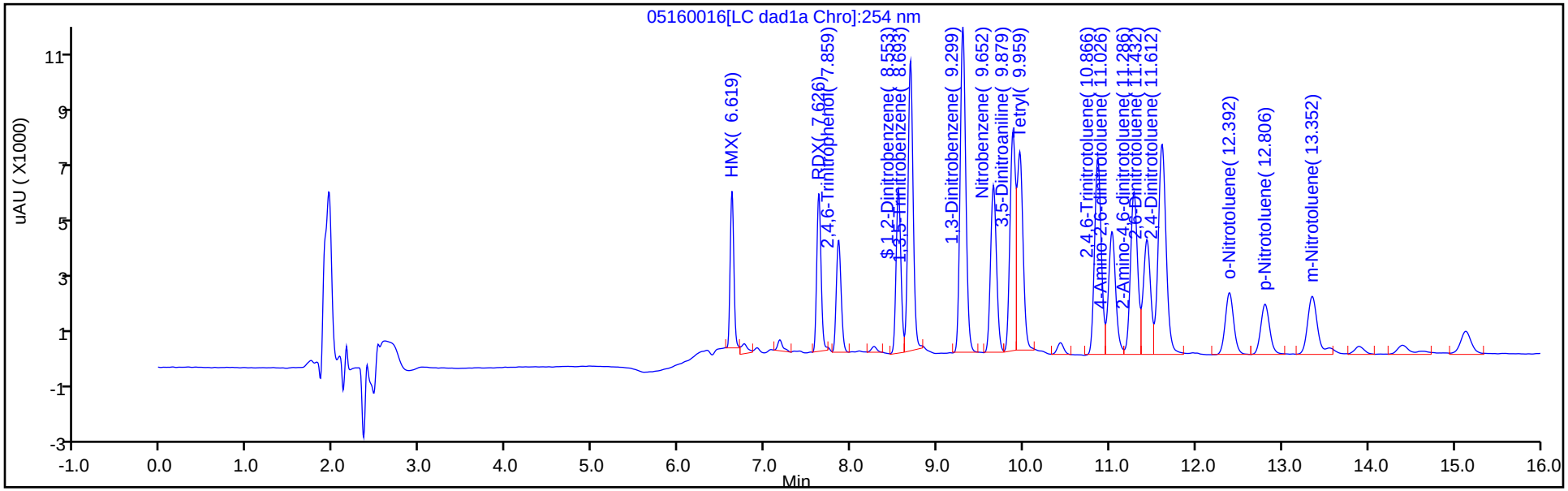
Report Date: 17-May-2024 12:38:07 Chrom Revision: 2.3 14-May-2024 14:23:08

Eurofins Denver

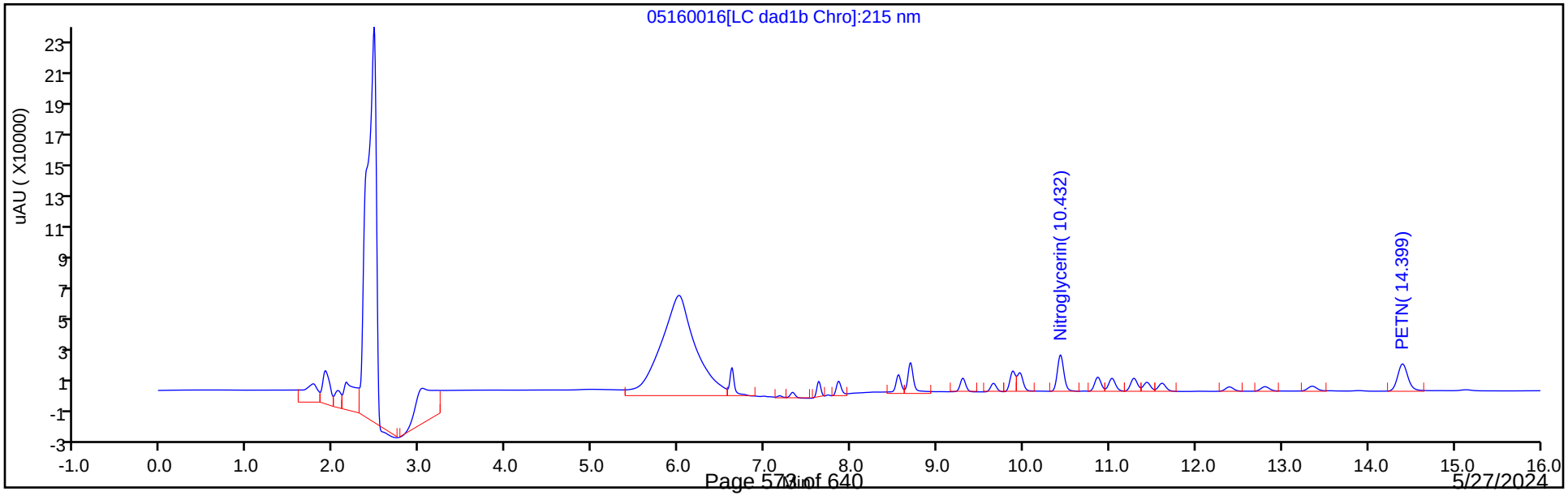
Data File: \\chromfs\denver\chromdata\chhplc_x\20240516-133471.b\05160016.d

Injection Date:	16-May-2024 18:00:19	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	LCSD 280-653460/3-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



5/27/2024
7:57:40 AM

Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20240516-133471.b\05160016.D				
Lims ID:	LCSD 280-653460/3-A				
Client ID:					
Sample Type:	LCSD				
Inject. Date:	16-May-2024 18:00:19	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	LCSD 280-653460/3-A				
Operator ID:	JZ	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20240516-133471.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	17-May-2024 12:38:04	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:	CTX1618				

First Level Reviewer: LV5D Date: 16-May-2024 18:33:56

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.1679	83.94

Manual Integration/User Assign Peak Report

Eurofins Denver

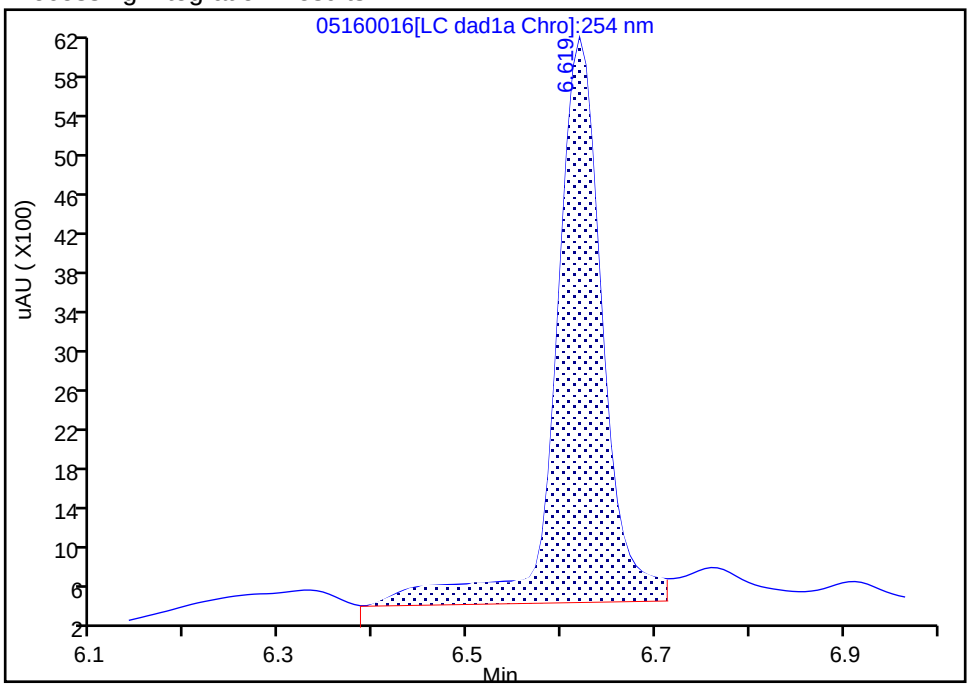
Data File: \\chromfs\denver\chromdata\chhplc_x\20240516-133471.b\05160016.d
Injection Date: 16-May-2024 18:00:19 Instrument ID: CHHPLC_X3
Lims ID: LCSD 280-653460/3-A
Client ID:
Operator ID: JZ ALS Bottle#: 16 Worklist Smp#: 16
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

4 HMX, CAS: 2691-41-0

Signal: 1

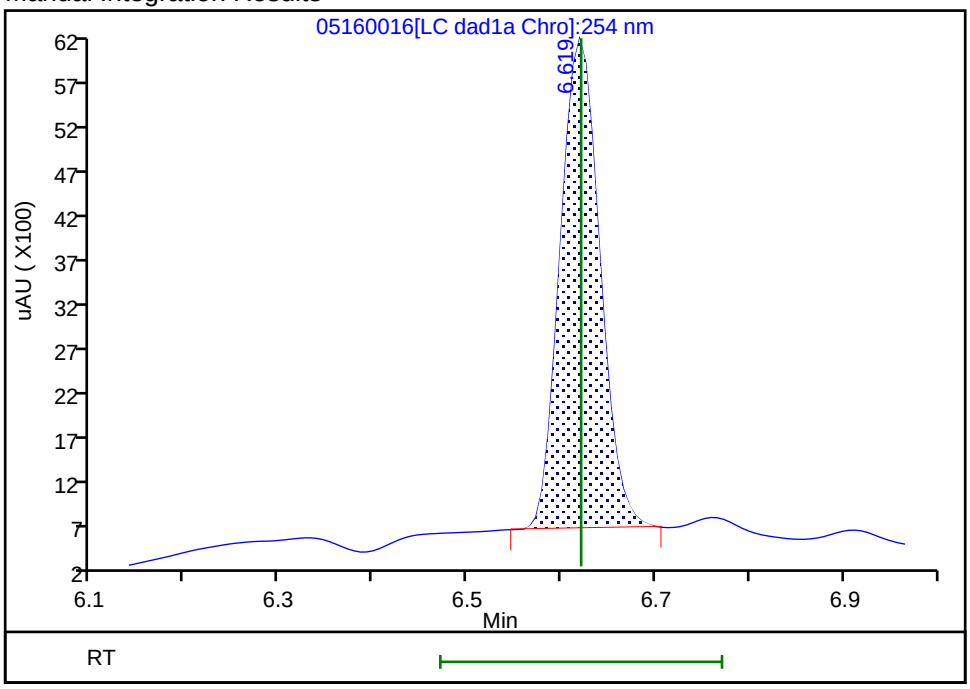
Processing Integration Results

RT: 6.62
Area: 19861
Amount: 0.207873
Amount Units: ug/mL



Manual Integration Results

RT: 6.62
Area: 16068
Amount: 0.168174
Amount Units: ug/mL



Reviewer: LV5D, 16-May-2024 18:33:53 -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.: 280-191424-1

SDG No.:

Client Sample ID: FBQmw-178-240401-GW MS | Lab Sample ID: 280-191424-1 MS

Matrix: Water | Lab File ID: 05160032.D

Analysis Method: 8330B | Date Collected: 05/09/2024 09:15

Extraction Method: 3535 | Date Extracted: 05/15/2024 12:30

Sample wt/vol: 469.3(mL) | Date Analyzed: 05/17/2024 00:07

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.: 653693 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-65-0	1,3-Dinitrobenzene	2.06		0.12	0.11	0.039
118-96-7	2,4,6-Trinitrotoluene	2.06		0.12	0.11	0.048
121-14-2	2,4-Dinitrotoluene	2.34		0.11	0.085	0.029
606-20-2	2,6-Dinitrotoluene	2.06		0.11	0.085	0.043
35572-78-2	2-Amino-4,6-dinitrotoluene	2.06		0.12	0.11	0.054
19406-51-0	4-Amino-2,6-dinitrotoluene	2.11		0.16	0.13	0.061
2691-41-0	HMX	2.26	M	0.22	0.21	0.093
98-95-3	Nitrobenzene	1.88		0.22	0.21	0.097
55-63-0	Nitroglycerin	21.8		2.2	2.1	0.98
78-11-5	PETN	22.9		1.2	1.1	0.48
121-82-4	RDX	3.88		0.22	0.21	0.055
479-45-8	Tetryl	2.10		0.12	0.11	0.034

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	91	M	83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240516-133471.b\05160032.D
Lims ID: 280-191424-A-1-B MS
Client ID: FBQmw-178-240401-GW
Sample Type: MS
Inject. Date: 17-May-2024 00:07:49 ALS Bottle#: 32 Worklist Smp#: 32
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-191424-A-1-B MS
Operator ID: JZ Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20240516-133471.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 17-May-2024 12:38:15 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: CTX1618

First Level Reviewer: LV5D Date: 17-May-2024 12:35:47

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	6.621	-0.003	20275	0.2000	0.2122	M
8 RDX	1	7.638	7.628	0.010	40334	0.2000	0.3641	
9 2,4,6-Trinitrophenol	1	7.858	7.861	-0.003	14097	0.2000	0.1777	
$ 10 1,2-Dinitrobenzene	1	8.558	8.554	0.004	24017	0.2000	0.1817	M
11 1,3,5-Trinitrobenzene	1	8.692	8.694	-0.002	48038	0.2000	0.2156	M
12 1,3-Dinitrobenzene	1	9.305	9.301	0.004	57877	0.2000	0.1933	
13 Nitrobenzene	1	9.665	9.654	0.011	34608	0.2000	0.1763	
14 3,5-Dinitroaniline	1	9.891	9.881	0.010	41414	0.2000	0.1885	
15 Tetryl	1	9.978	9.961	0.017	35844	0.2000	0.1974	
16 Nitroglycerin	2	10.445	10.434	0.011	136094	2.00	2.05	
17 2,4,6-Trinitrotoluene	1	10.878	10.861	0.017	41678	0.2000	0.1937	
18 4-Amino-2,6-dinitrotoluene	1	11.051	11.027	0.024	29633	0.2000	0.1976	
19 2-Amino-4,6-dinitrotoluene	1	11.305	11.281	0.024	38571	0.2000	0.1930	
20 2,6-Dinitrotoluene	1	11.451	11.434	0.017	28471	0.2000	0.1938	
21 2,4-Dinitrotoluene	1	11.631	11.607	0.024	64132	0.2000	0.2197	
22 o-Nitrotoluene	1	12.398	12.387	0.011	24578	0.2000	0.1901	
23 p-Nitrotoluene	1	12.818	12.801	0.017	17517	0.2000	0.1553	M
24 m-Nitrotoluene	1	13.365	13.347	0.018	24543	0.2000	0.1704	M
25 PETN	2	14.411	14.401	0.010	154696	2.00	2.15	
26 Ammonium Picrate	1		0.000			ND	ND	

QC Flag Legend

Processing Flags
ND - Not Detected or Marked ND
Review Flags
M - Manually Integrated

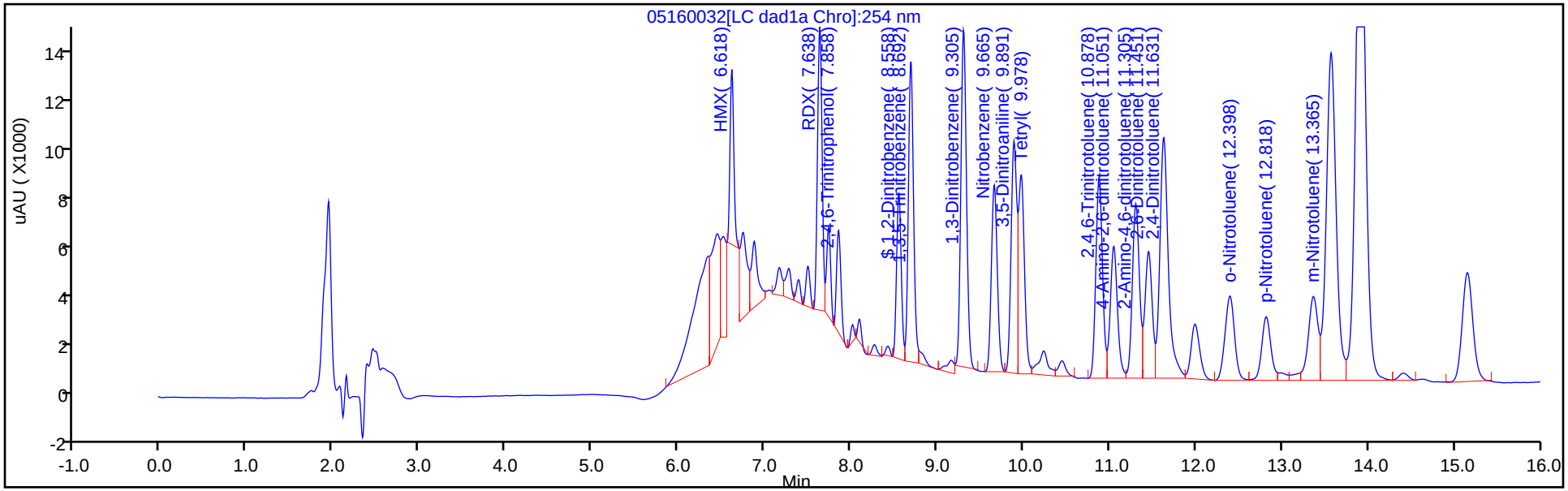
Report Date: 17-May-2024 12:38:22 Chrom Revision: 2.3 14-May-2024 14:23:08

Eurofins Denver

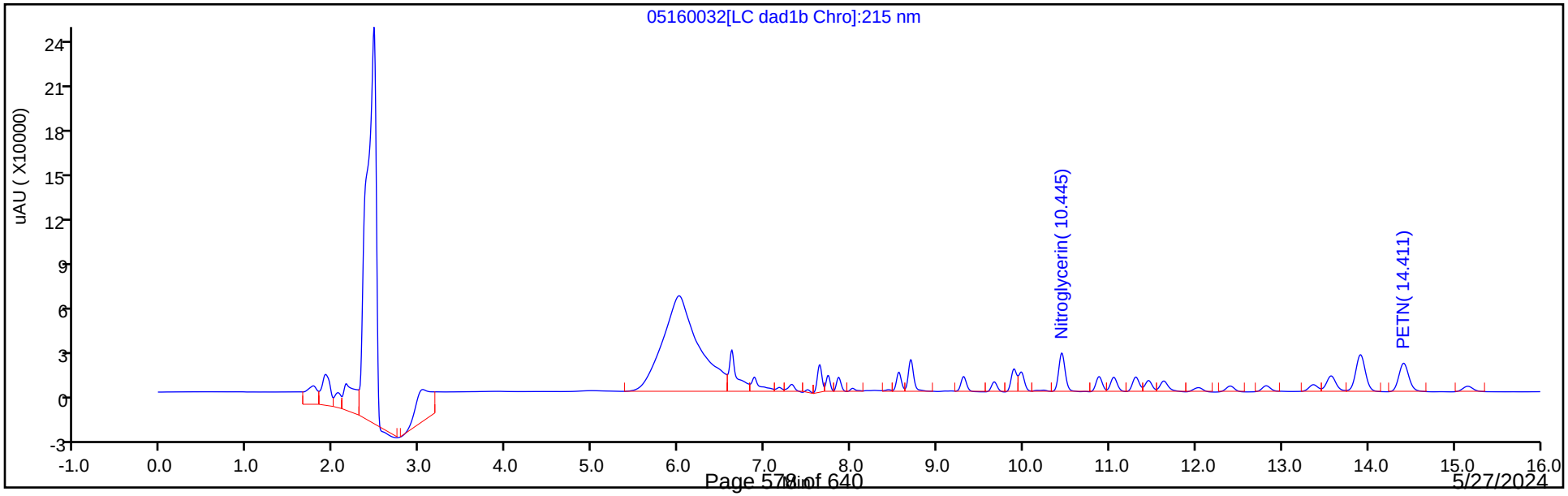
Data File: \\chromfs\denver\chromdata\chhplc_x\20240516-133471.b\05160032.d

Injection Date:	17-May-2024 00:07:49	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	280-191424-A-1-B MS			Worklist Smp#:	32
Client ID:	FBQmw-178-240401-GW				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	32
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\20240516-133471.b\05160032.D				
Lims ID:	280-191424-A-1-B MS				
Client ID:	FBQmw-178-240401-GW				
Sample Type:	MS				
Inject. Date:	17-May-2024 00:07:49	ALS Bottle#:	32	Worklist Smp#:	32
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-191424-A-1-B MS				
Operator ID:	JZ	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20240516-133471.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	17-May-2024 12:38:15	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:	CTX1618				

First Level Reviewer: LV5D Date: 17-May-2024 12:35:47

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.1817	90.87

Eurofins Denver

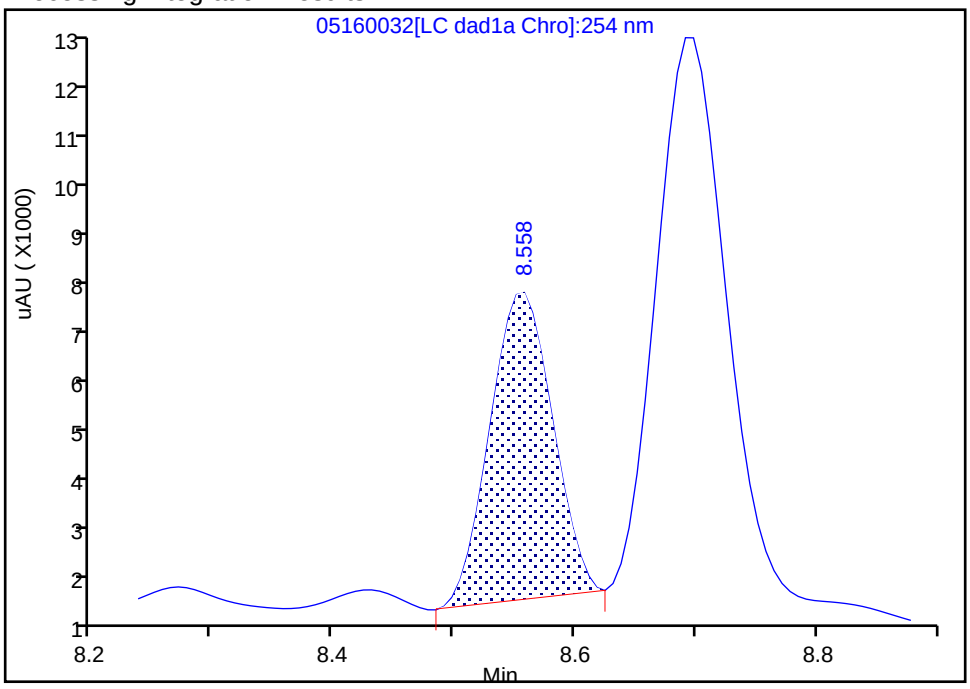
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240516-133471.b\05160032.d				
Injection Date:	17-May-2024 00:07:49	Instrument ID:	CHHPLC_X3		
Lims ID:	280-191424-A-1-B MS				
Client ID:	FBQmw-178-240401-GW				
Operator ID:	JZ	ALS Bottle#:	32	Worklist Smp#:	32
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
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

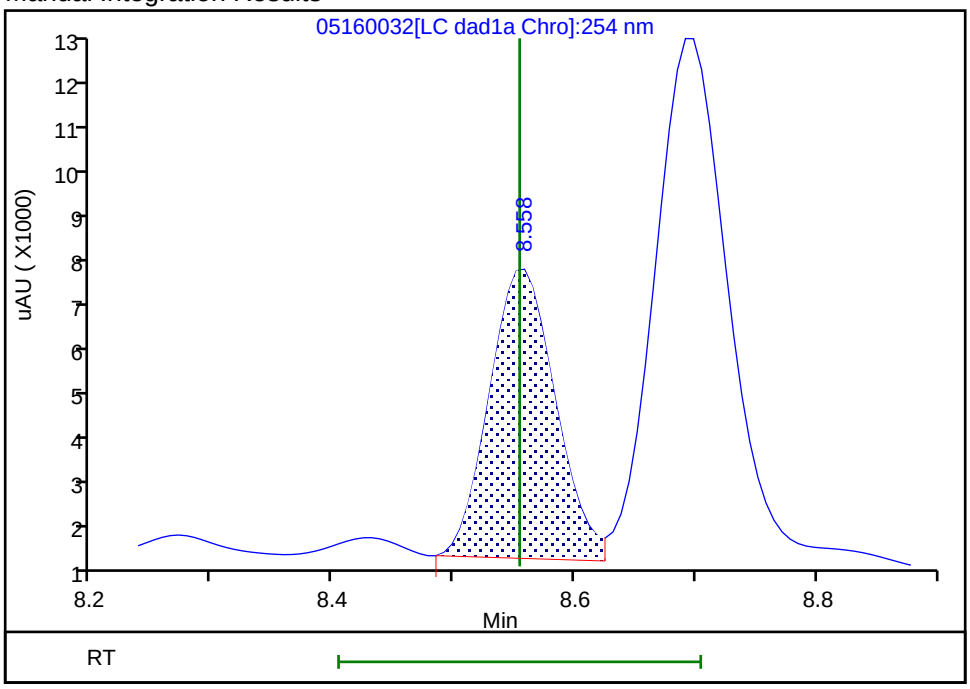
Processing Integration Results

RT: 8.56
Area: 21774
Amount: 0.164705
Amount Units: ug/mL



Manual Integration Results

RT: 8.56
Area: 24017
Amount: 0.181745
Amount Units: ug/mL



Reviewer: LV5D, 17-May-2024 12:35:27 -06:00:00 (UTC)
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

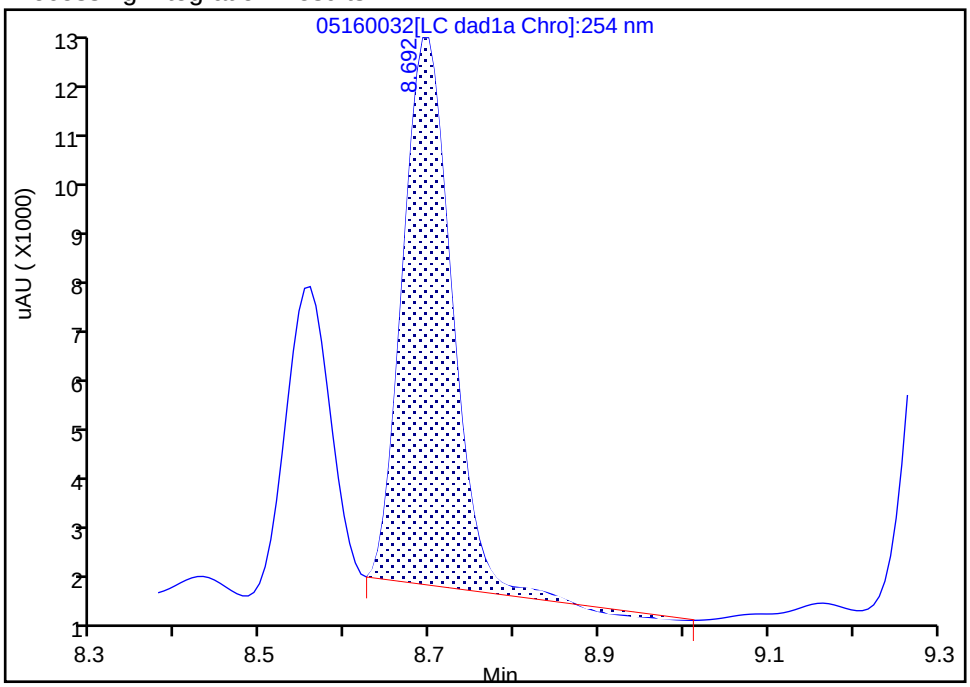
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240516-133471.b\05160032.d				
Injection Date:	17-May-2024 00:07:49	Instrument ID:	CHHPLC_X3		
Lims ID:	280-191424-A-1-B MS				
Client ID:	FBQmw-178-240401-GW				
Operator ID:	JZ	ALS Bottle#:	32	Worklist Smp#:	32
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
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

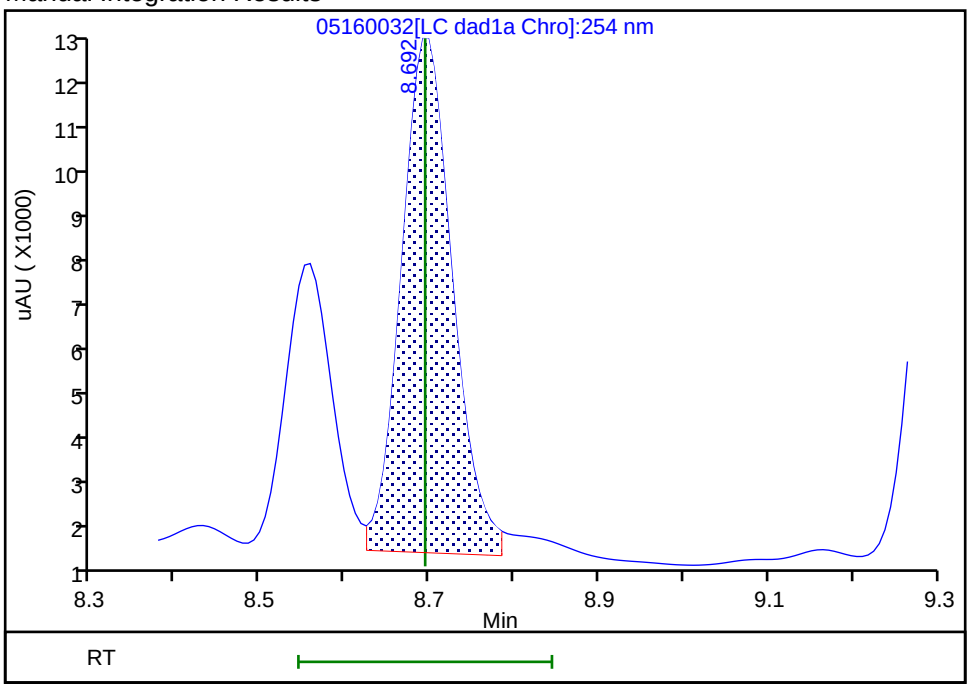
Processing Integration Results

RT: 8.69
Area: 45602
Amount: 0.204628
Amount Units: ug/mL



Manual Integration Results

RT: 8.69
Area: 48038
Amount: 0.215559
Amount Units: ug/mL



Reviewer: LV5D, 17-May-2024 12:35:35 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

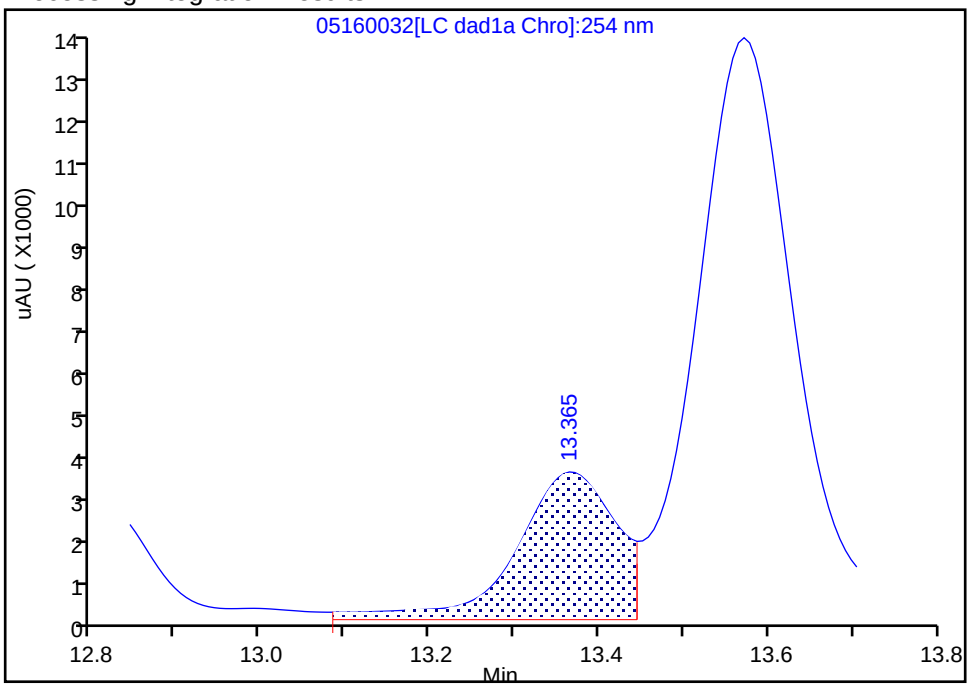
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240516-133471.b\05160032.d				
Injection Date:	17-May-2024 00:07:49	Instrument ID:	CHHPLC_X3		
Lims ID:	280-191424-A-1-B MS				
Client ID:	FBQmw-178-240401-GW				
Operator ID:	JZ	ALS Bottle#:	32	Worklist Smp#:	32
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
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

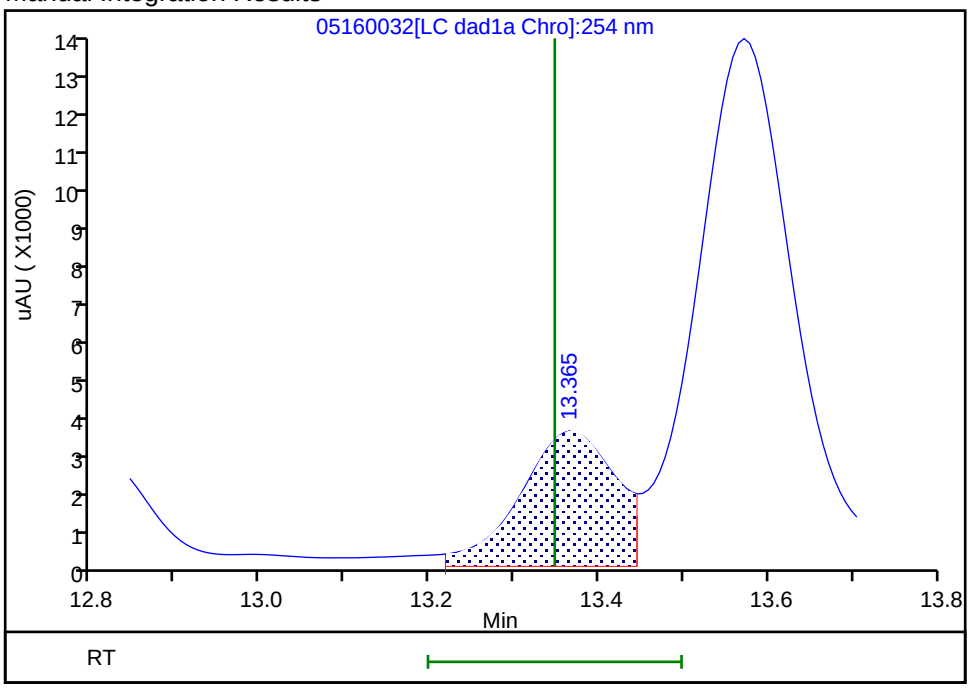
Processing Integration Results

RT: 13.36
Area: 26144
Amount: 0.181476
Amount Units: ug/mL



Manual Integration Results

RT: 13.36
Area: 24543
Amount: 0.170363
Amount Units: ug/mL



Reviewer: LV5D, 17-May-2024 12:35:39 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline

Eurofins Denver

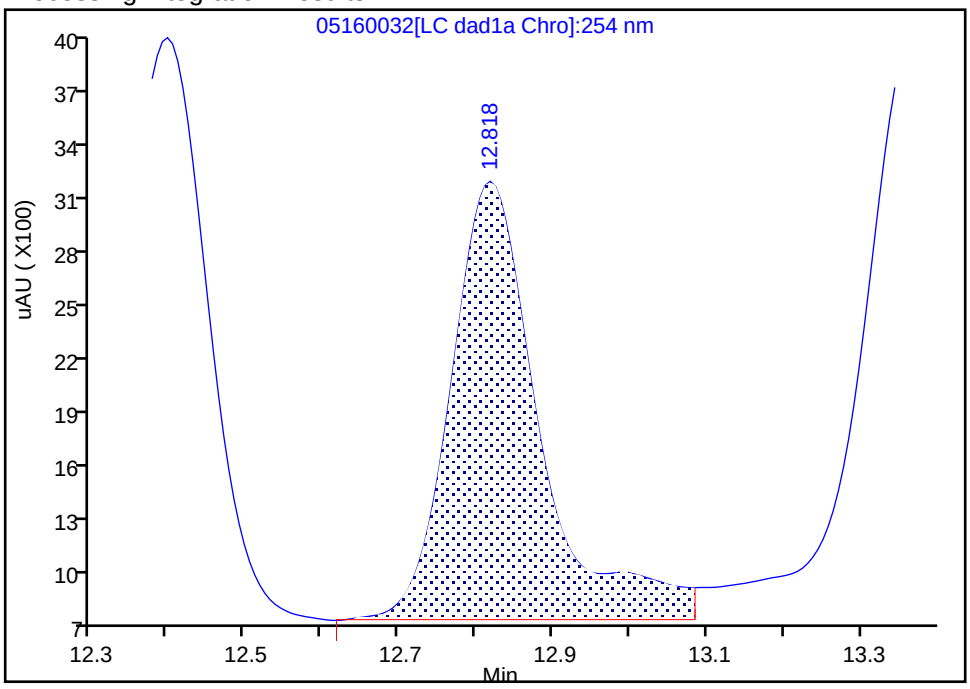
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240516-133471.b\05160032.d				
Injection Date:	17-May-2024 00:07:49	Instrument ID:	CHHPLC_X3		
Lims ID:	280-191424-A-1-B MS				
Client ID:	FBQmw-178-240401-GW				
Operator ID:	JZ	ALS Bottle#:	32	Worklist Smp#:	32
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

23 p-Nitrotoluene, CAS: 99-99-0

Signal: 1

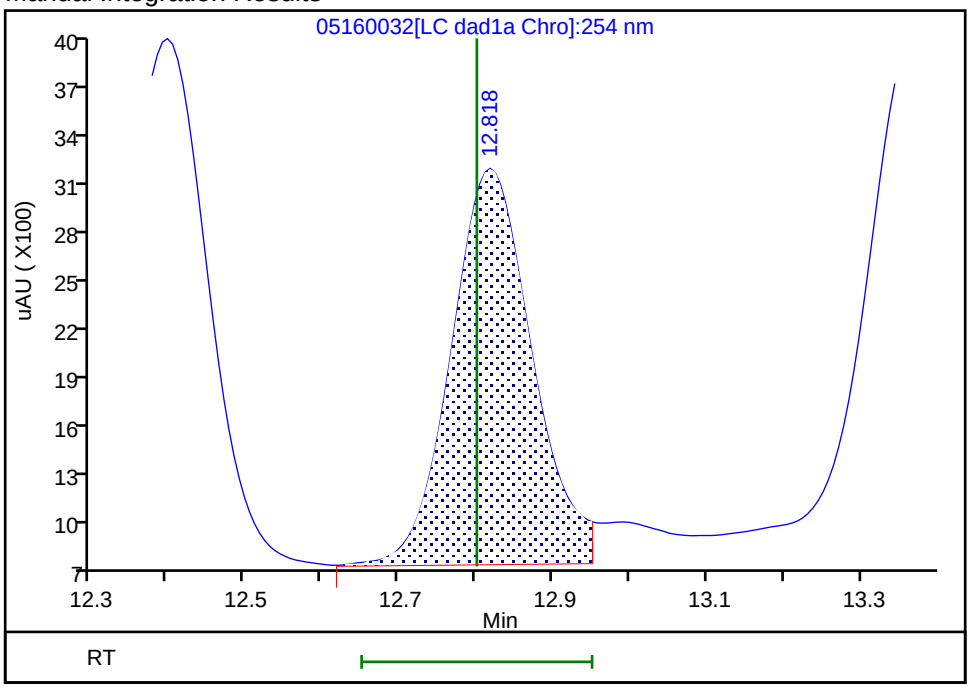
Processing Integration Results

RT: 12.82
Area: 19259
Amount: 0.170737
Amount Units: ug/mL



Manual Integration Results

RT: 12.82
Area: 17517
Amount: 0.155294
Amount Units: ug/mL



Reviewer: LV5D, 17-May-2024 12:35:41 -06:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Eurofins Denver

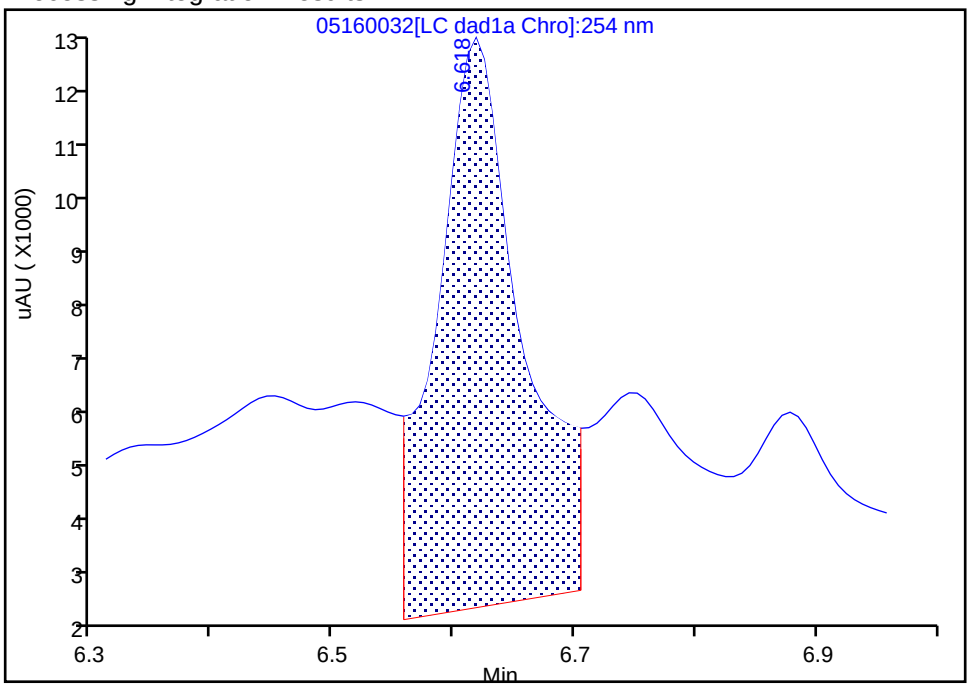
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240516-133471.b\05160032.d				
Injection Date:	17-May-2024 00:07:49	Instrument ID:	CHHPLC_X3		
Lims ID:	280-191424-A-1-B MS				
Client ID:	FBQmw-178-240401-GW				
Operator ID:	JZ	ALS Bottle#:	32	Worklist Smp#:	32
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
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

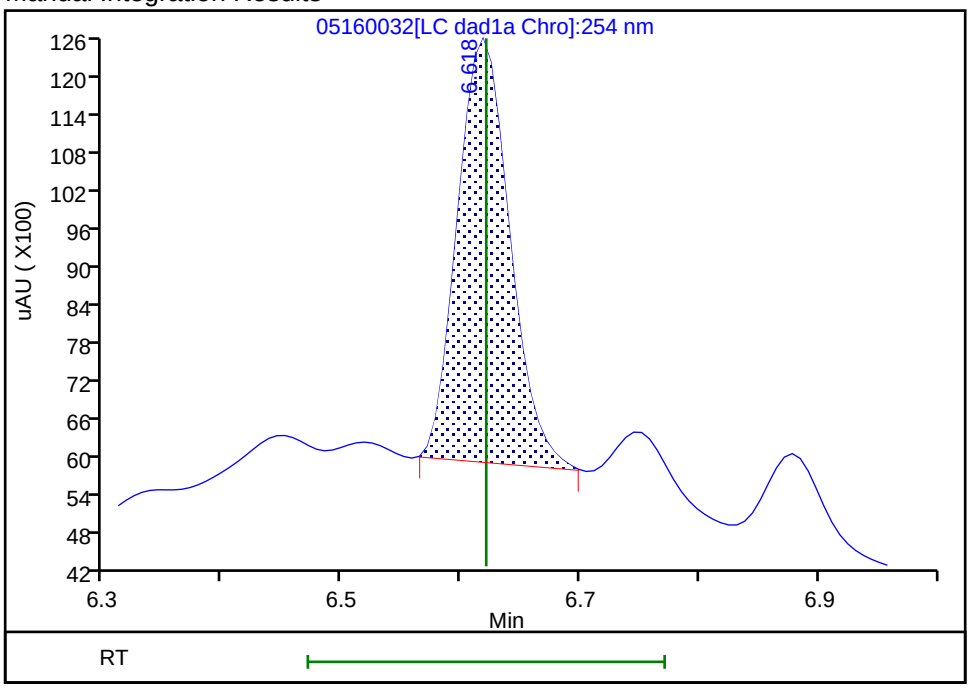
Processing Integration Results

RT: 6.62
Area: 48598
Amount: 0.508647
Amount Units: ug/mL



Manual Integration Results

RT: 6.62
Area: 20275
Amount: 0.212207
Amount Units: ug/mL



Reviewer: LV5D, 17-May-2024 12:35:16 -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.: 280-191424-1

SDG No.:

Client Sample ID: FBQmw-178-240401-GW MS | Lab Sample ID: 280-191424-1 MS

Matrix: Water | Lab File ID: 05160028.D

Analysis Method: 8330B | Date Collected: 05/09/2024 09:15

Extraction Method: 3535 | Date Extracted: 05/15/2024 12:30

Sample wt/vol: 469.3(mL) | Date Analyzed: 05/17/2024 04:51

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.: 653699 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	2.35		0.22	0.21	0.090
121-82-4	*RDX*	*2.19*		*0.22*	0.21	*0.055*

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	103		83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240516-133474.b\05160028.D
Lims ID: 280-191424-A-1-B MS
Client ID: FBQmw-178-240401-GW
Sample Type: MS
Inject. Date: 17-May-2024 04:51:11 ALS Bottle#: 28 Worklist Smp#: 28
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-191424-A-1-B MS
Operator ID: JZ Instrument ID: CHHPLC_X5

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20240516-133474.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 17-May-2024 16:54:53 Calib Date: 28-Mar-2024 05:53:05
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1618

First Level Reviewer: LV5D Date: 17-May-2024 16:52:46

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
5 HMX	1	6.645	6.666	-0.021	33075	0.2000	0.1726	
7 2,4,6-Trinitrophenol	1	8.172	8.372	-0.200	47176	0.2000	0.3136	
8 RDX	1	8.685	8.699	-0.014	43916	0.2000	0.2056	
9 Nitrobenzene	1	11.338	11.352	-0.014	80059	0.2000	0.2119	
$ 10 1,2-Dinitrobenzene	1	12.338	12.339	-0.001	54320	0.2000	0.2056	
11 3,5-Dinitroaniline	1	14.125	14.126	-0.001	106744	0.2000	0.2422	
12 1,3-Dinitrobenzene	1	14.565	14.566	-0.001	136229	0.2000	0.2277	
13 Nitroglycerin	2	14.751	14.759	-0.008	305186	2.00	2.25	M
14 o-Nitrotoluene	1	15.431	15.452	-0.021	269499	0.2000	1.09	
16 p-Nitrotoluene	1		15.712			ND	ND	
17 4-Amino-2,6-dinitrotoluene	1		16.186			ND	ND	
18 m-Nitrotoluene	1	16.565	16.559	0.006	32248	0.2000	0.1133	
19 2-Amino-4,6-dinitrotoluene	1	17.038	17.059	-0.021	114521	0.2000	0.2848	
20 1,3,5-Trinitrobenzene	1	17.511	17.512	-0.001	94818	0.2000	0.2207	
21 2,6-Dinitrotoluene	1	18.471	18.472	-0.001	57045	0.2000	0.2091	
22 2,4-Dinitrotoluene	1	18.965	18.959	0.006	106549	0.2000	0.1950	
23 Tetryl	1	22.285	22.279	0.006	63848	0.2000	0.1899	M
24 2,4,6-Trinitrotoluene	1	23.265	23.259	0.006	79624	0.2000	0.1912	
25 PETN	2	24.185	24.179	0.006	260277	2.00	2.02	
26 Ammonium Picrate	1		0.000			ND	ND	

QC Flag Legend

Processing Flags
ND - Not Detected or Marked ND
Review Flags
M - Manually Integrated

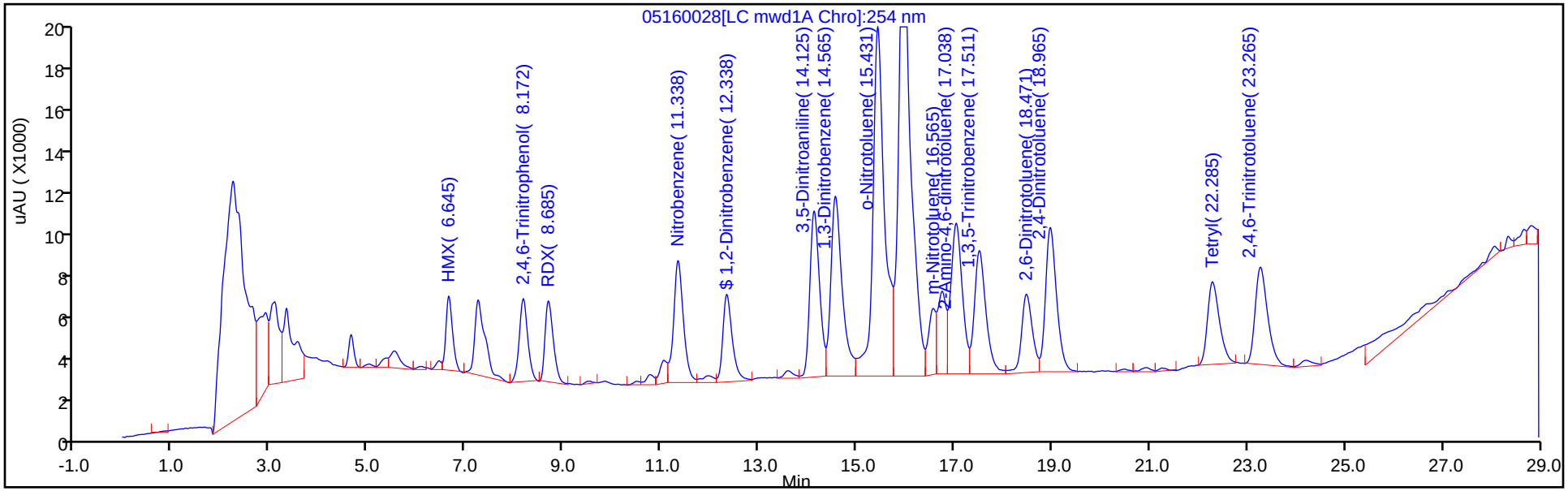
Report Date: 17-May-2024 16:54:55 Chrom Revision: 2.3 14-May-2024 14:23:08

Eurofins Denver

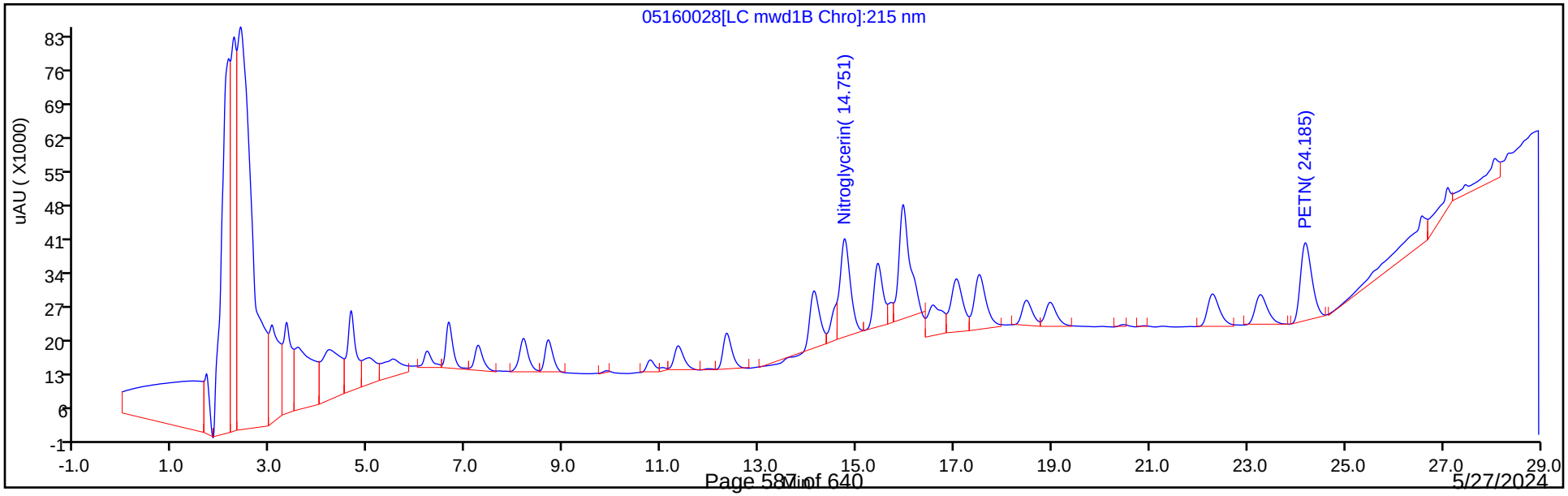
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240516-133474.b\05160028.D

Injection Date:	17-May-2024 04:51:11	Instrument ID:	CHHPLC_X5	Operator ID:	JZ
Lims ID:	280-191424-A-1-B MS			Worklist Smp#:	28
Client ID:	FBQmw-178-240401-GW				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	28
Method:	8330_X5_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



5/27/2024
7:57:40 AM

Eurofins Denver
Recovery Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240516-133474.b\05160028.D
Lims ID: 280-191424-A-1-B MS
Client ID: FBQmw-178-240401-GW
Sample Type: MS
Inject. Date: 17-May-2024 04:51:11 ALS Bottle#: 28 Worklist Smp#: 28
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-191424-A-1-B MS
Operator ID: JZ Instrument ID: CHHPLC_X5

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20240516-133474.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 17-May-2024 16:54:53 Calib Date: 28-Mar-2024 05:53:05
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1618

First Level Reviewer: LV5D Date: 17-May-2024 16:52:46

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.2056	102.82

Manual Integration/User Assign Peak Report

Eurofins Denver

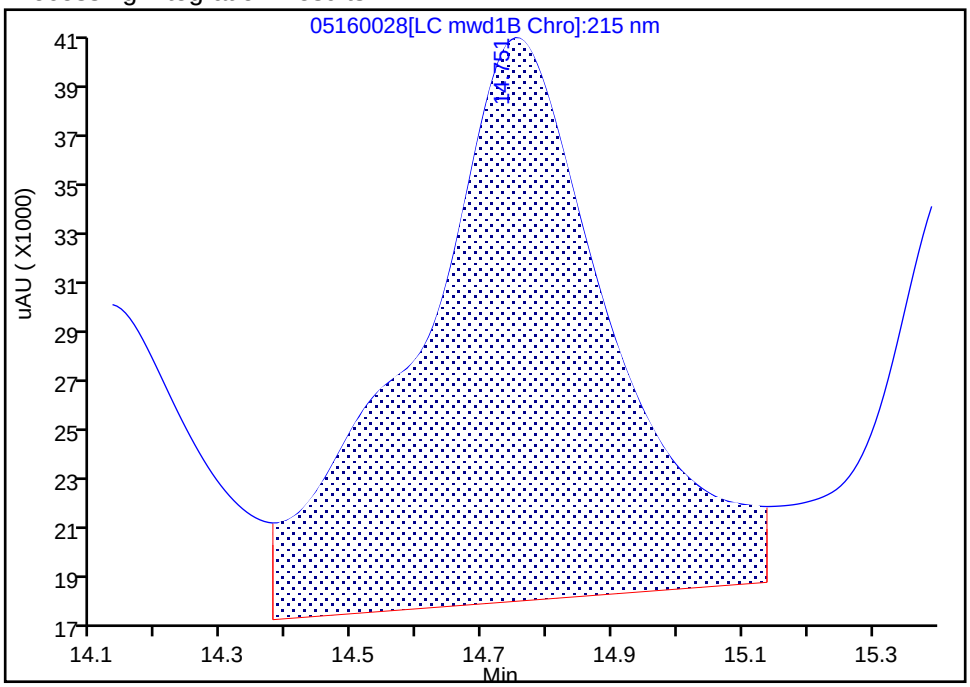
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20240516-133474.b\05160028.D				
Injection Date:	17-May-2024 04:51:11	Instrument ID:	CHHPLC_X5		
Lims ID:	280-191424-A-1-B MS				
Client ID:	FBQmw-178-240401-GW				
Operator ID:	JZ	ALS Bottle#:	28	Worklist Smp#:	28
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1B, 215 nm		

13 Nitroglycerin, CAS: 55-63-0

Signal: 1

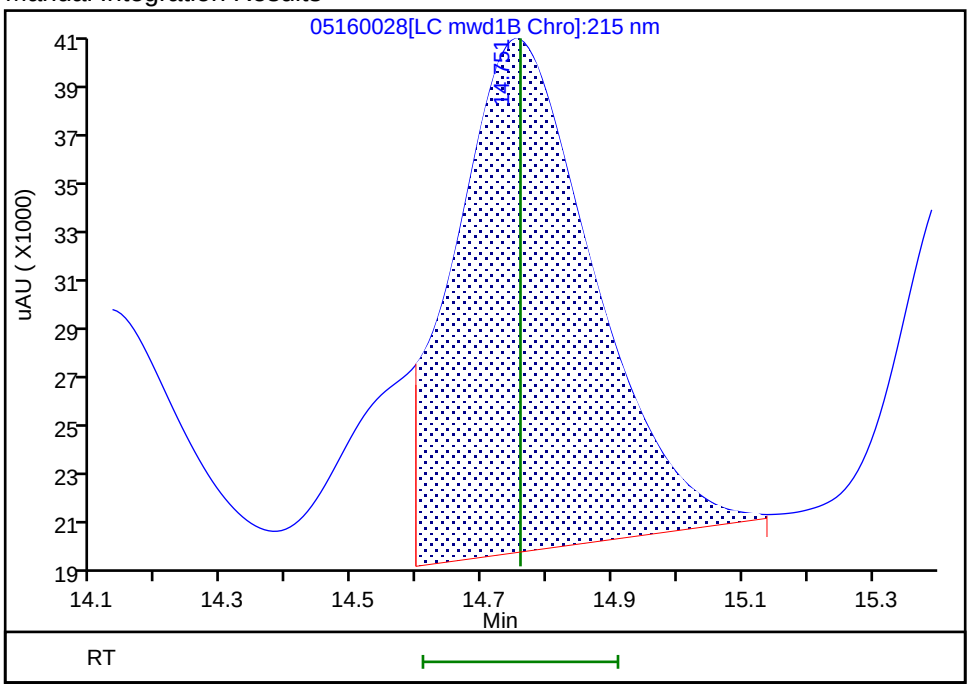
Processing Integration Results

RT: 14.75
Area: 477598
Amount: 3.527576
Amount Units: ug/ml



Manual Integration Results

RT: 14.75
Area: 305186
Amount: 2.254128
Amount Units: ug/ml



Reviewer: LV5D, 17-May-2024 16:53:22 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

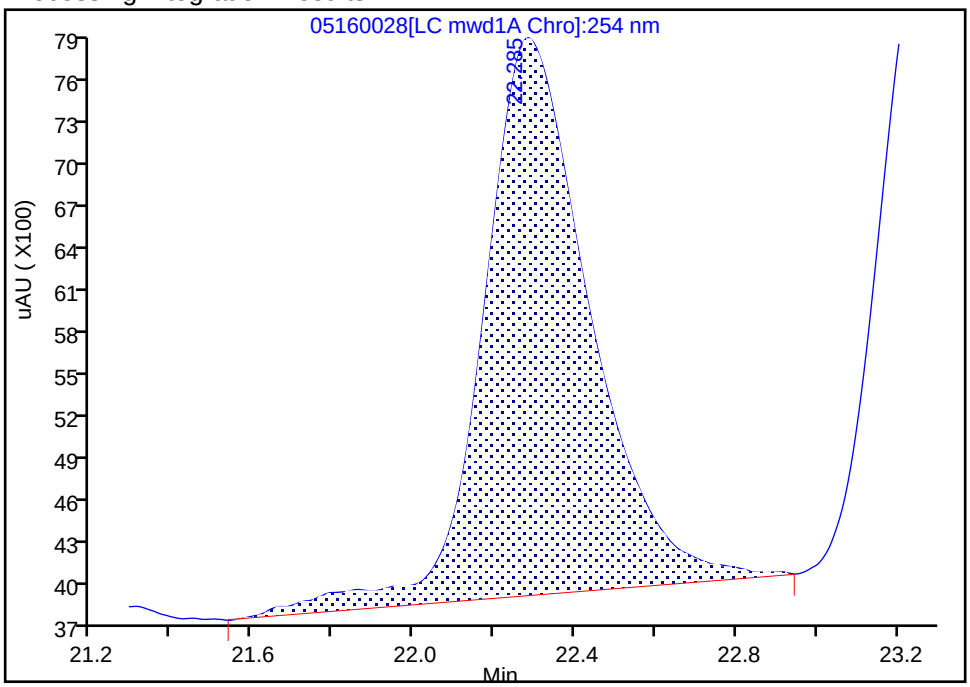
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20240516-133474.b\05160028.D				
Injection Date:	17-May-2024 04:51:11	Instrument ID:	CHHPLC_X5		
Lims ID:	280-191424-A-1-B MS				
Client ID:	FBQmw-178-240401-GW				
Operator ID:	JZ	ALS Bottle#:	28	Worklist Smp#:	28
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

23 Tetryl, CAS: 479-45-8

Signal: 1

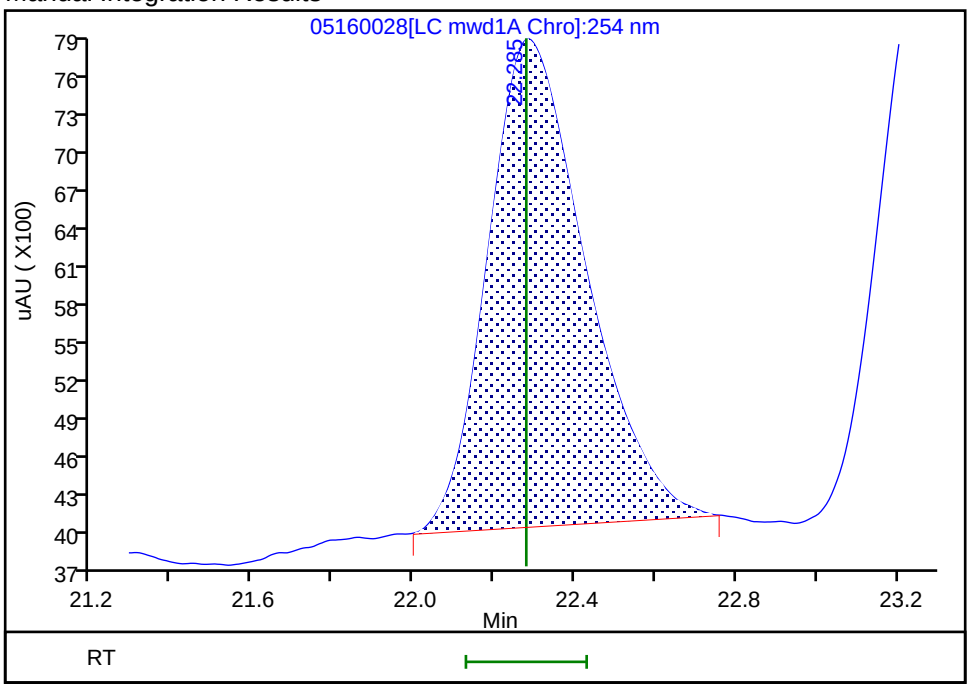
Processing Integration Results

RT: 22.28
Area: 72612
Amount: 0.215954
Amount Units: ug/ml



Manual Integration Results

RT: 22.28
Area: 63848
Amount: 0.189889
Amount Units: ug/ml



Reviewer: LV5D, 17-May-2024 16:53:13 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-191424-1

SDG No.:

Client Sample ID: FBQmw-178-240401-GW MS RE | Lab Sample ID: 280-191424-1 MS RE

Matrix: Water | Lab File ID: 05230031.D

Analysis Method: 8330B | Date Collected: 05/09/2024 09:15

Extraction Method: 3535 | Date Extracted: 05/22/2024 14:37

Sample wt/vol: 454.5(mL) | Date Analyzed: 05/24/2024 00:13

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.: 654555 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
88-72-2	2-Nitrotoluene	2.26	H	0.23	0.22	0.094
99-08-1	3-Nitrotoluene	2.30	H	0.44	0.39	0.21
99-99-0	4-Nitrotoluene	2.17	H	0.45	0.44	0.11

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	99	M	83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240523-133725.b\05230031.D
Lims ID: 280-191424-B-1-C MS RE
Client ID: FBQmw-178-240401-GW
Sample Type: MS
Inject. Date: 24-May-2024 00:13:55 ALS Bottle#: 31 Worklist Smp#: 31
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-191424-B-1-C MS
Operator ID: JZ Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20240523-133725.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 24-May-2024 12:35:12 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: CTX1640

First Level Reviewer: LV5D Date: 24-May-2024 11:39:53

	Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
	4 HMX	1	6.628	6.632	-0.004	19432	0.2000	0.2034	M
	8 RDX	1	7.648	7.638	0.010	41652	0.2000	0.3760	
	9 2,4,6-Trinitrophenol	1	7.874	7.872	0.002	15365	0.2000	0.1937	
$	10 1,2-Dinitrobenzene	1	8.568	8.572	-0.004	26148	0.2000	0.1979	M
	11 1,3,5-Trinitrobenzene	1	8.708	8.712	-0.004	50269	0.2000	0.2256	M
	12 1,3-Dinitrobenzene	1	9.327	9.325	0.002	62852	0.2000	0.2099	M
	13 Nitrobenzene	1	9.681	9.685	-0.004	36259	0.2000	0.1847	
	14 3,5-Dinitroaniline	1	9.921	9.918	0.003	43925	0.2000	0.1998	M
	15 Tetryl	1	9.981	9.991	-0.010	33874	0.2000	0.1865	Ma
	16 Nitroglycerin	2	10.454	10.471	-0.017	137883	2.00	2.07	
	17 2,4,6-Trinitrotoluene	1	10.887	10.905	-0.018	43063	0.2000	0.2001	
	18 4-Amino-2,6-dinitrotoluene	1	11.061	11.071	-0.010	31237	0.2000	0.2083	
	19 2-Amino-4,6-dinitrotoluene	1	11.321	11.325	-0.004	40885	0.2000	0.2046	
	20 2,6-Dinitrotoluene	1	11.454	11.471	-0.017	30290	0.2000	0.2062	
	21 2,4-Dinitrotoluene	1	11.634	11.651	-0.017	67336	0.2000	0.2307	
	22 o-Nitrotoluene	1	12.401	12.425	-0.024	26598	0.2000	0.2057	
	23 p-Nitrotoluene	1	12.821	12.838	-0.017	22218	0.2000	0.1970	
	24 m-Nitrotoluene	1	13.374	13.385	-0.011	30089	0.2000	0.2089	
	25 PETN	2	14.414	14.425	-0.011	158602	2.00	2.20	
	26 Ammonium Picrate	1		0.000			ND	ND	

QC Flag Legend

Processing Flags
ND - Not Detected or Marked ND
Review Flags
M - Manually Integrated
a - User Assigned ID

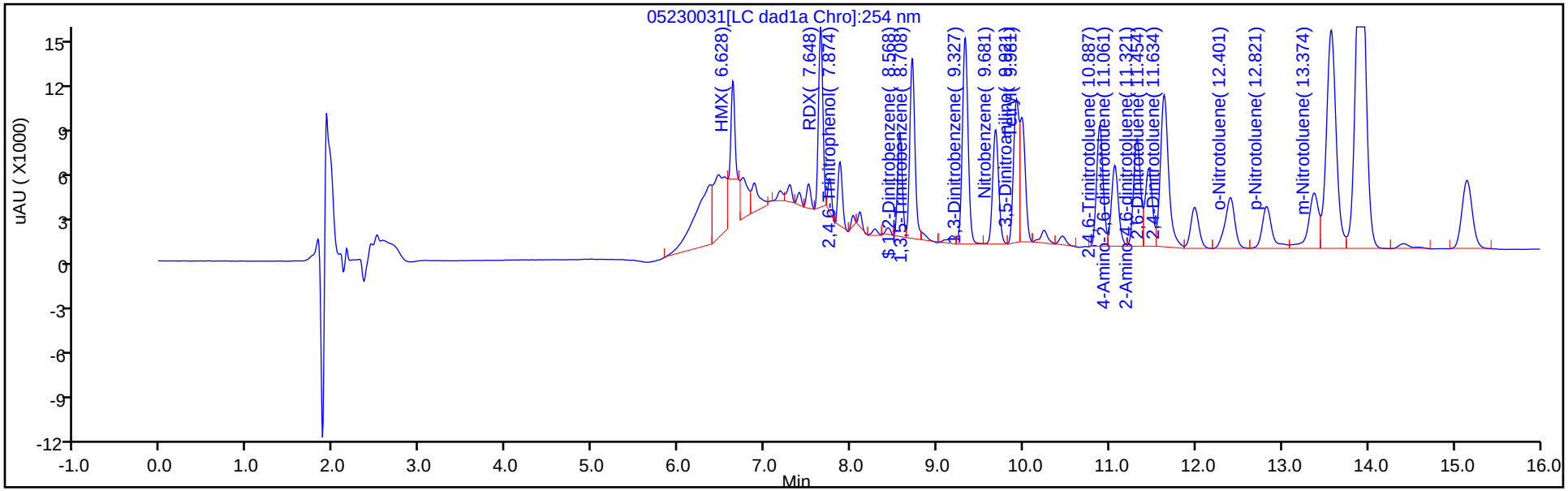
Report Date: 24-May-2024 12:35:16 Chrom Revision: 2.3 20-May-2024 22:00:34

Eurofins Denver

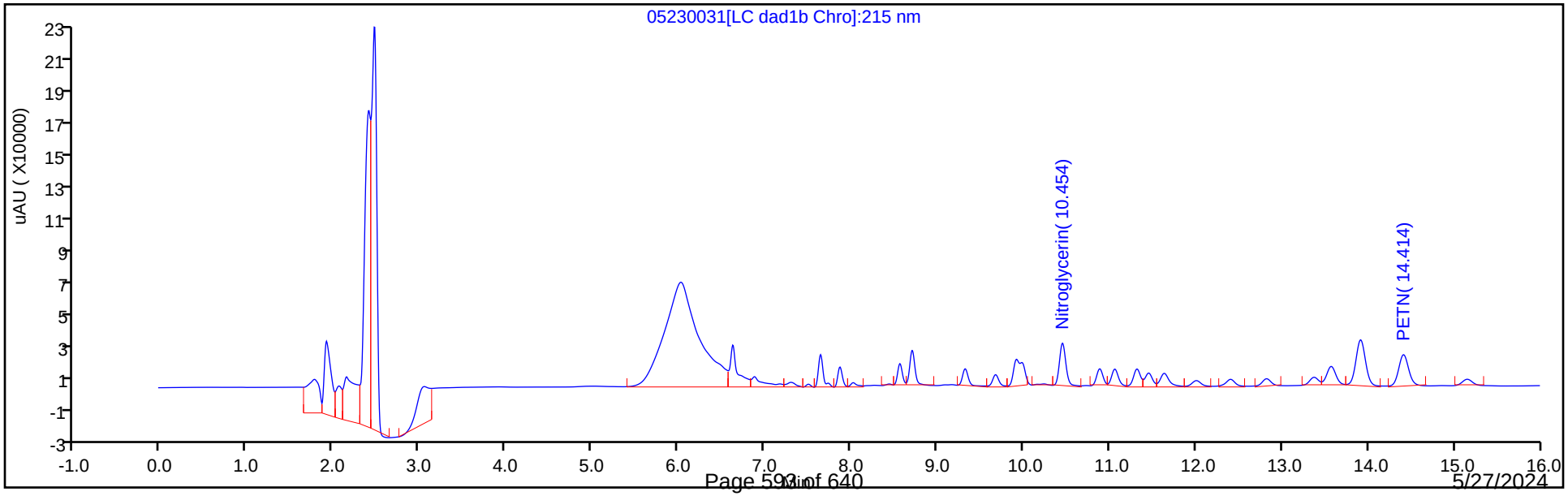
Data File: \\chromfs\denver\chromdata\chhplc_x\20240523-133725.b\05230031.d

Injection Date:	24-May-2024 00:13:55	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	280-191424-B-1-C MS RE			Worklist Smp#:	31
Client ID:	FBQmw-178-240401-GW				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	31
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



5/27/2024
7:57:40 AM

Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20240523-133725.b\05230031.D				
Lims ID:	280-191424-B-1-C MS RE				
Client ID:	FBQmw-178-240401-GW				
Sample Type:	MS				
Inject. Date:	24-May-2024 00:13:55	ALS Bottle#:	31	Worklist Smp#:	31
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-191424-B-1-C MS				
Operator ID:	JZ	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20240523-133725.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	24-May-2024 12:35:12	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:	CTX1640				

First Level Reviewer: LV5D Date: 24-May-2024 11:39:53

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.1979	98.97

Manual Integration/User Assign Peak Report

Eurofins Denver

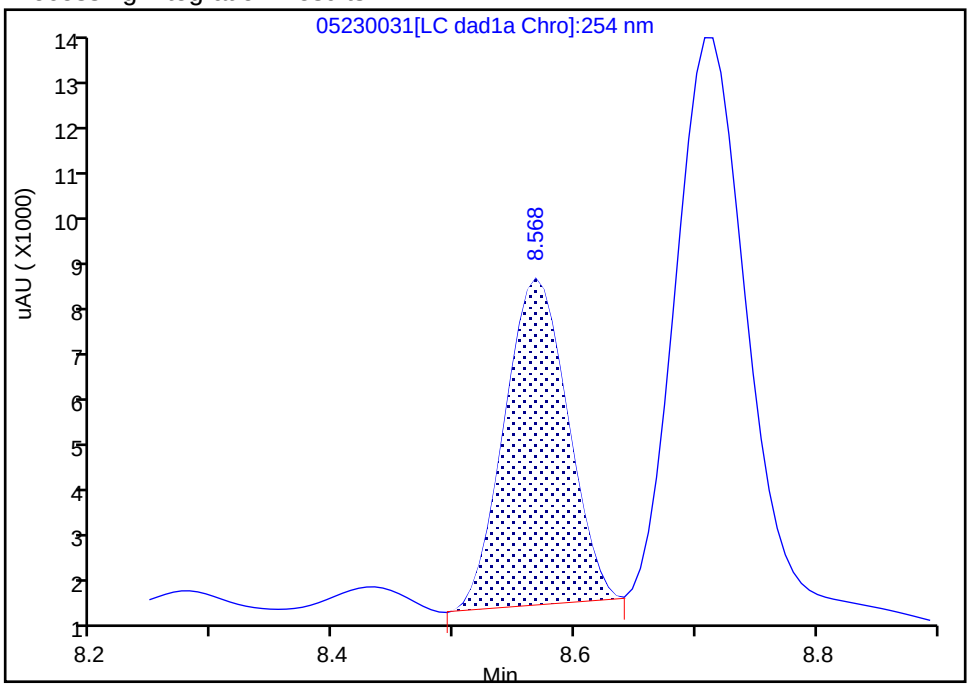
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240523-133725.b\05230031.d				
Injection Date:	24-May-2024 00:13:55	Instrument ID:	CHHPLC_X3		
Lims ID:	280-191424-B-1-C MS RE				
Client ID:	FBQmw-178-240401-GW				
Operator ID:	JZ	ALS Bottle#:	31	Worklist Smp#:	31
Injection Vol:	100.0 ul	Dil. Factor:	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

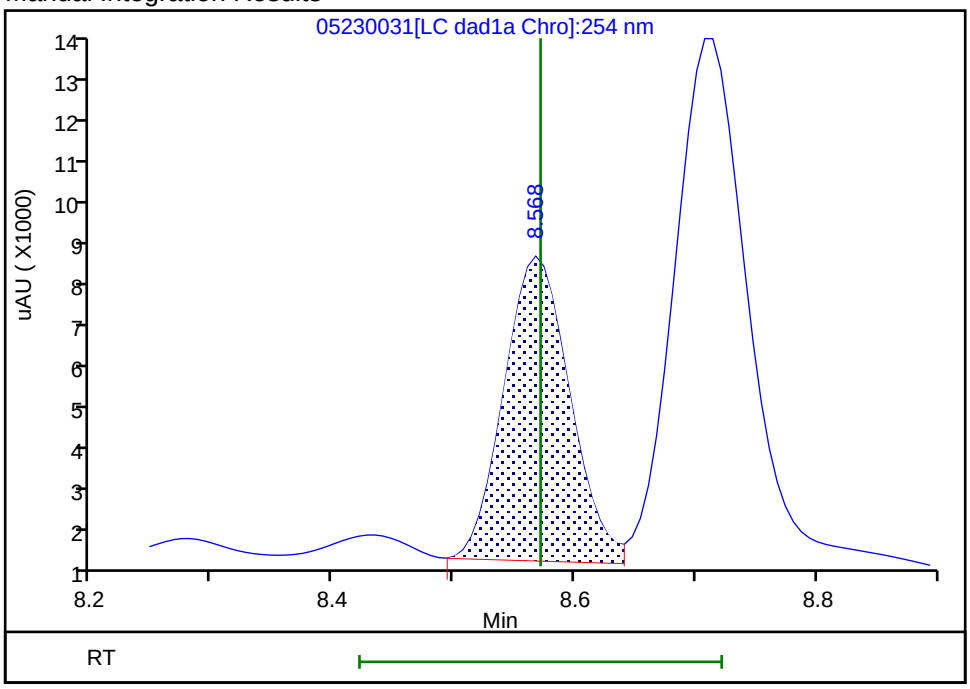
Processing Integration Results

RT: 8.57
Area: 24120
Amount: 0.182527
Amount Units: ug/mL



Manual Integration Results

RT: 8.57
Area: 26148
Amount: 0.197934
Amount Units: ug/mL



Reviewer: LV5D, 24-May-2024 11:39:45 -06:00:00 (UTC)
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

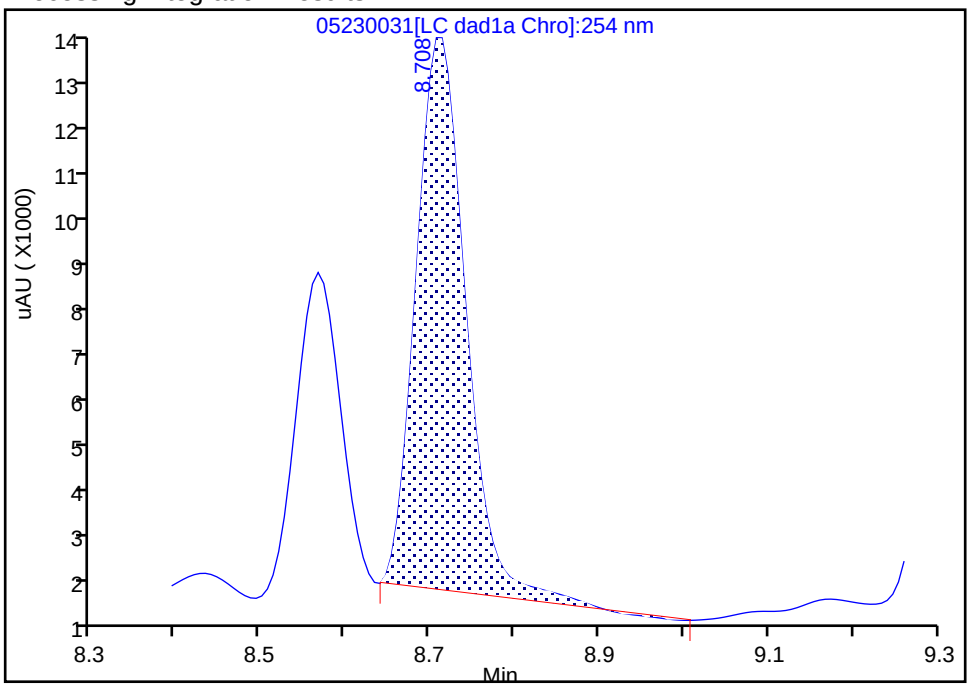
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240523-133725.b\05230031.d				
Injection Date:	24-May-2024 00:13:55	Instrument ID:	CHHPLC_X3		
Lims ID:	280-191424-B-1-C MS RE				
Client ID:	FBQmw-178-240401-GW				
Operator ID:	JZ	ALS Bottle#:	31	Worklist Smp#:	31
Injection Vol:	100.0 ul	Dil. Factor:	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

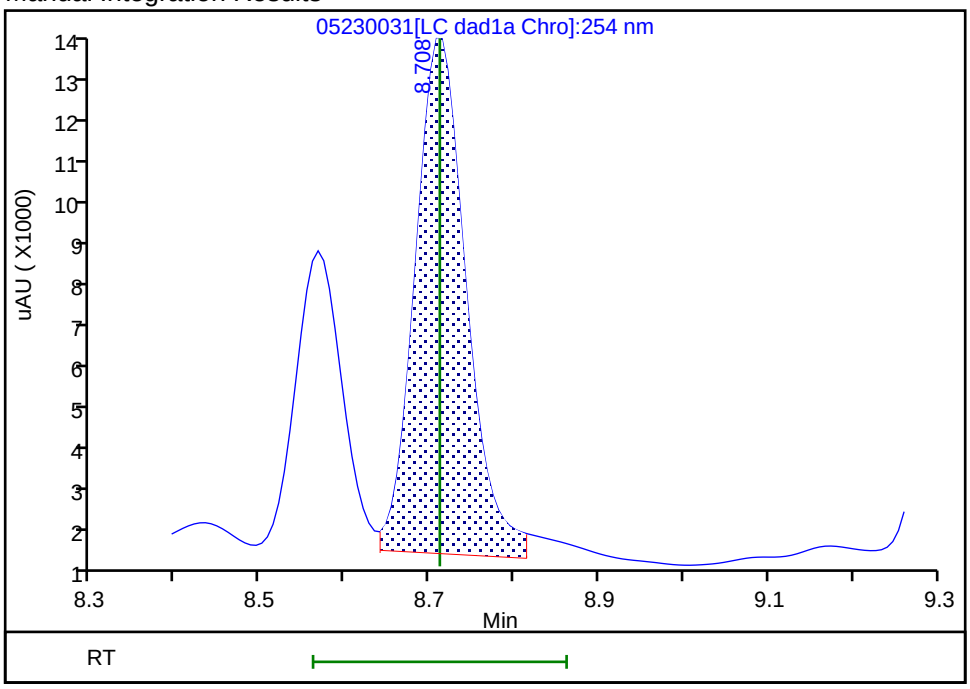
Processing Integration Results

RT: 8.71
Area: 48007
Amount: 0.215420
Amount Units: ug/mL



Manual Integration Results

RT: 8.71
Area: 50269
Amount: 0.225570
Amount Units: ug/mL



Reviewer: LV5D, 24-May-2024 11:39:51 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline

Eurofins Denver

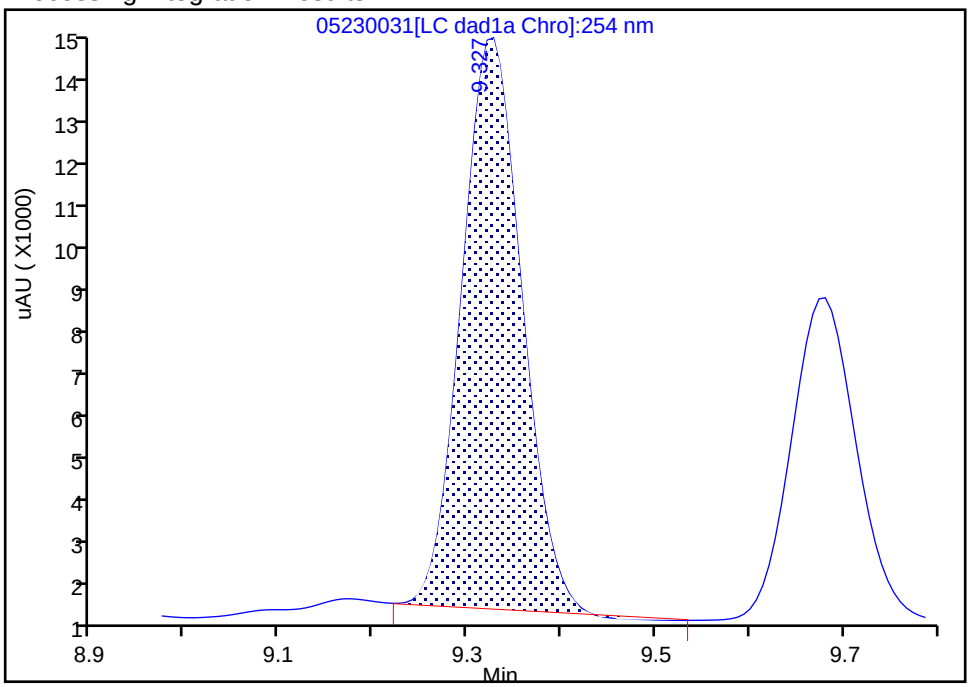
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240523-133725.b\05230031.d				
Injection Date:	24-May-2024 00:13:55	Instrument ID:	CHHPLC_X3		
Lims ID:	280-191424-B-1-C MS RE				
Client ID:	FBQmw-178-240401-GW				
Operator ID:	JZ	ALS Bottle#:	31	Worklist Smp#:	31
Injection Vol:	100.0 ul	Dil. Factor:	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

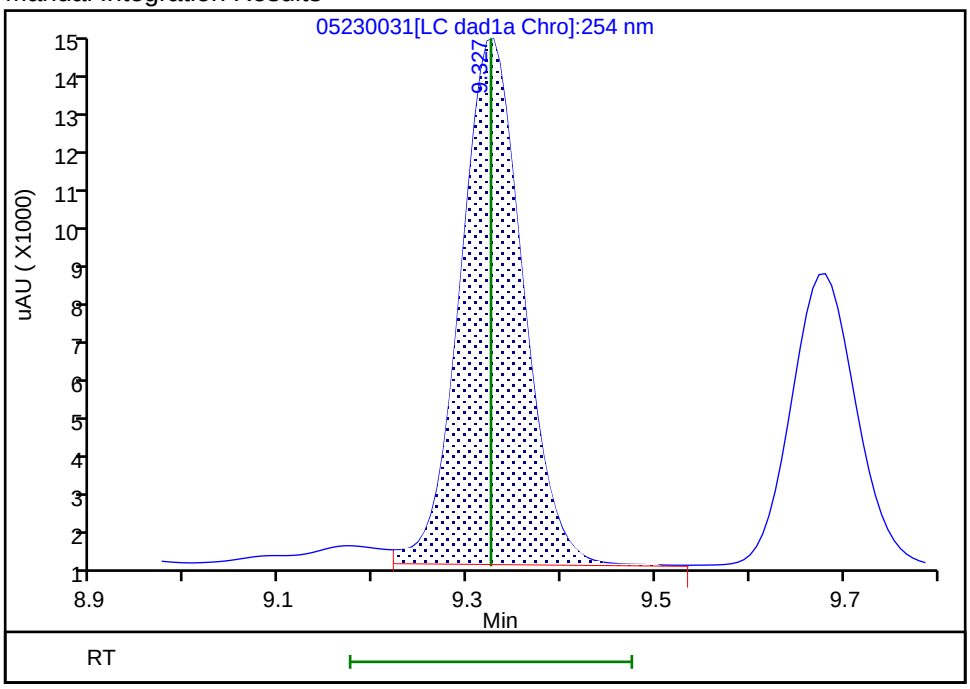
Processing Integration Results

RT: 9.33
Area: 59970
Amount: 0.200277
Amount Units: ug/mL



Manual Integration Results

RT: 9.33
Area: 62852
Amount: 0.209902
Amount Units: ug/mL



Reviewer: LV5D, 24-May-2024 11:39:47 -06:00:00 (UTC)
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

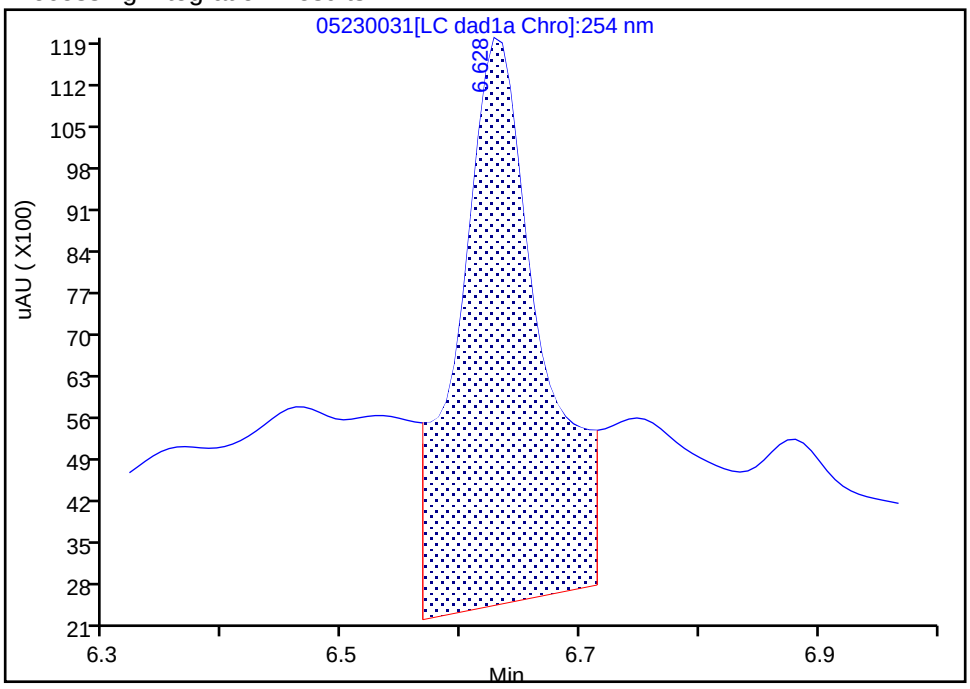
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240523-133725.b\05230031.d				
Injection Date:	24-May-2024 00:13:55	Instrument ID:	CHHPLC_X3		
Lims ID:	280-191424-B-1-C MS RE				
Client ID:	FBQmw-178-240401-GW				
Operator ID:	JZ	ALS Bottle#:	31	Worklist Smp#:	31
Injection Vol:	100.0 ul	Dil. Factor:	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

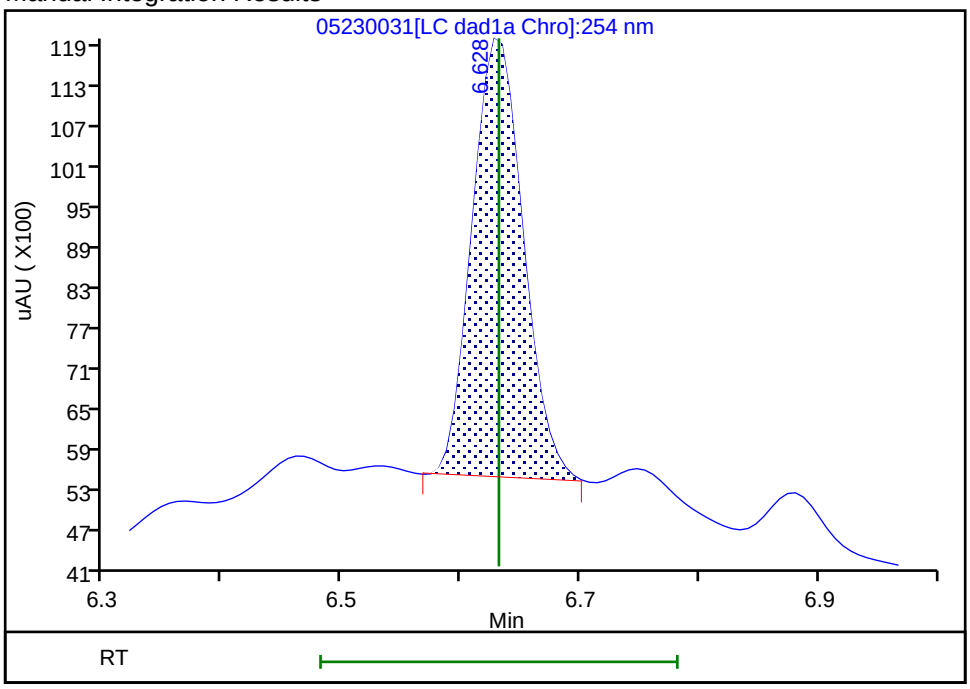
Processing Integration Results

RT: 6.63
Area: 45548
Amount: 0.476724
Amount Units: ug/mL



Manual Integration Results

RT: 6.63
Area: 19432
Amount: 0.203383
Amount Units: ug/mL



Reviewer: LV5D, 24-May-2024 11:39:16 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

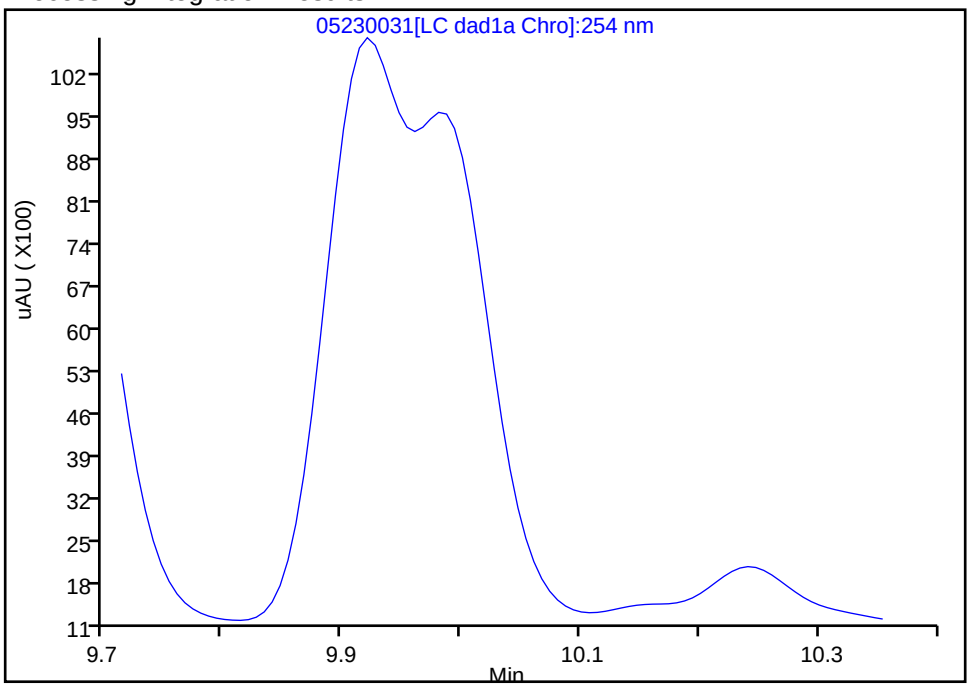
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240523-133725.b\05230031.d				
Injection Date:	24-May-2024 00:13:55	Instrument ID:	CHHPLC_X3		
Lims ID:	280-191424-B-1-C MS RE				
Client ID:	FBQmw-178-240401-GW				
Operator ID:	JZ	ALS Bottle#:	31	Worklist Smp#:	31
Injection Vol:	100.0 ul	Dil. Factor:	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

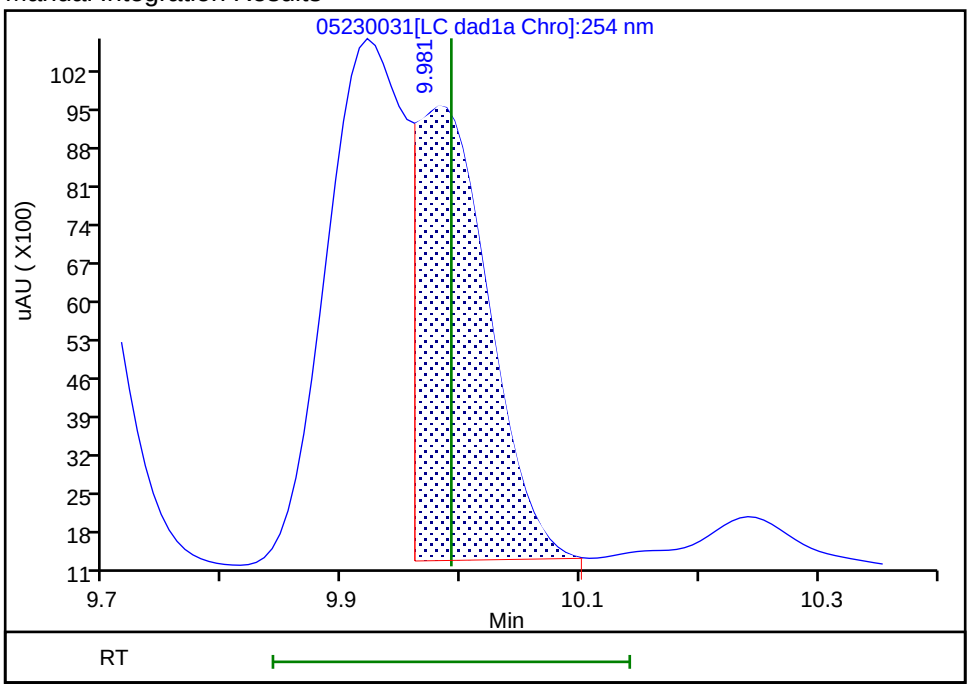
Not Detected
Expected RT: 9.99

Processing Integration Results



Manual Integration Results

RT: 9.98
Area: 33874
Amount: 0.186543
Amount Units: ug/mL



Reviewer: LV5D, 24-May-2024 11:39:11 -06:00:00 (UTC)
Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Baseline

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-191424-1

SDG No.:

Client Sample ID: FBQmw-178-240401-GW MSD | Lab Sample ID: 280-191424-1 MSD

Matrix: Water | Lab File ID: 05160033.D

Analysis Method: 8330B | Date Collected: 05/09/2024 09:15

Extraction Method: 3535 | Date Extracted: 05/15/2024 12:30

Sample wt/vol: 459.6(mL) | Date Analyzed: 05/17/2024 00:30

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.: 653693 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-65-0	1,3-Dinitrobenzene	2.14		0.12	0.11	0.040
118-96-7	2,4,6-Trinitrotoluene	2.14		0.12	0.11	0.049
121-14-2	2,4-Dinitrotoluene	2.44		0.11	0.087	0.030
606-20-2	2,6-Dinitrotoluene	2.13		0.11	0.087	0.044
35572-78-2	2-Amino-4,6-dinitrotoluene	2.13		0.12	0.11	0.055
19406-51-0	4-Amino-2,6-dinitrotoluene	2.19		0.16	0.13	0.063
2691-41-0	HMX	2.32	M	0.23	0.22	0.095
98-95-3	Nitrobenzene	1.96		0.23	0.22	0.099
55-63-0	Nitroglycerin	22.4		2.3	2.2	1.0
78-11-5	PETN	23.7		1.2	1.1	0.49
121-82-4	RDX	4.14		0.23	0.22	0.056
479-45-8	Tetryl	2.22		0.12	0.11	0.035

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\20240516-133471.b\05160033.D
Lims ID: 280-191424-B-1-A MSD
Client ID: FBQmw-178-240401-GW
Sample Type: MSD
Inject. Date: 17-May-2024 00:30:44 ALS Bottle#: 33 Worklist Smp#: 33
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-191424-B-1-A MSD
Operator ID: JZ Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20240516-133471.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 17-May-2024 12:38:15 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: CTX1618

First Level Reviewer: LV5D Date: 17-May-2024 12:36:12

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
4 HMX	1	6.620	6.621	-0.001	20396	0.2000	0.2135	M
8 RDX	1	7.640	7.628	0.012	42188	0.2000	0.3809	
9 2,4,6-Trinitrophenol	1	7.853	7.861	-0.008	13869	0.2000	0.1748	
$ 10 1,2-Dinitrobenzene	1	8.553	8.554	-0.001	24984	0.2000	0.1891	M
11 1,3,5-Trinitrobenzene	1	8.693	8.694	-0.001	48639	0.2000	0.2183	M
12 1,3-Dinitrobenzene	1	9.306	9.301	0.005	58880	0.2000	0.1966	
13 Nitrobenzene	1	9.659	9.654	0.005	35321	0.2000	0.1799	
14 3,5-Dinitroaniline	1	9.886	9.881	0.005	41821	0.2000	0.1903	
15 Tetryl	1	9.973	9.961	0.012	36987	0.2000	0.2037	
16 Nitroglycerin	2	10.439	10.434	0.005	136921	2.00	2.06	
17 2,4,6-Trinitrotoluene	1	10.873	10.861	0.012	42407	0.2000	0.1971	
18 4-Amino-2,6-dinitrotoluene	1	11.046	11.027	0.019	30137	0.2000	0.2010	
19 2-Amino-4,6-dinitrotoluene	1	11.299	11.281	0.018	39166	0.2000	0.1960	
20 2,6-Dinitrotoluene	1	11.446	11.434	0.012	28808	0.2000	0.1961	
21 2,4-Dinitrotoluene	1	11.626	11.607	0.019	65373	0.2000	0.2240	
22 o-Nitrotoluene	1	12.393	12.387	0.006	25091	0.2000	0.1940	
23 p-Nitrotoluene	1	12.813	12.801	0.012	17556	0.2000	0.1556	M
24 m-Nitrotoluene	1	13.359	13.347	0.012	25050	0.2000	0.1739	M
25 PETN	2	14.406	14.401	0.005	156495	2.00	2.18	
26 Ammonium Picrate	1		0.000			ND	ND	

QC Flag Legend

Processing Flags
ND - Not Detected or Marked ND
Review Flags
M - Manually Integrated

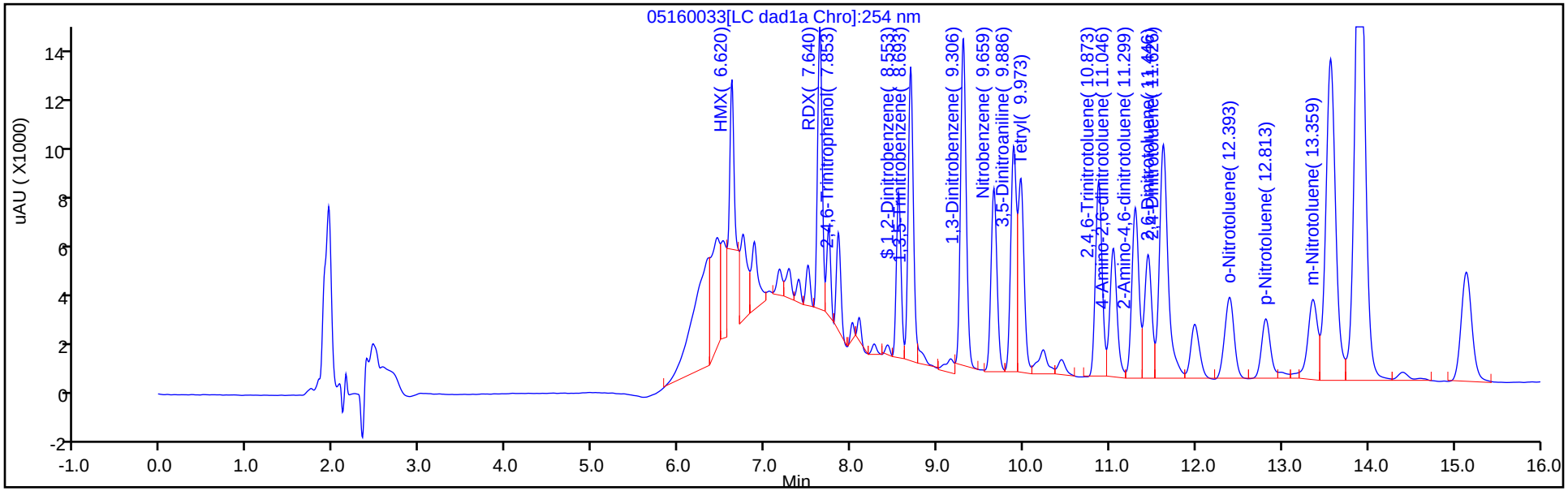
Report Date: 17-May-2024 12:38:23 Chrom Revision: 2.3 14-May-2024 14:23:08

Eurofins Denver

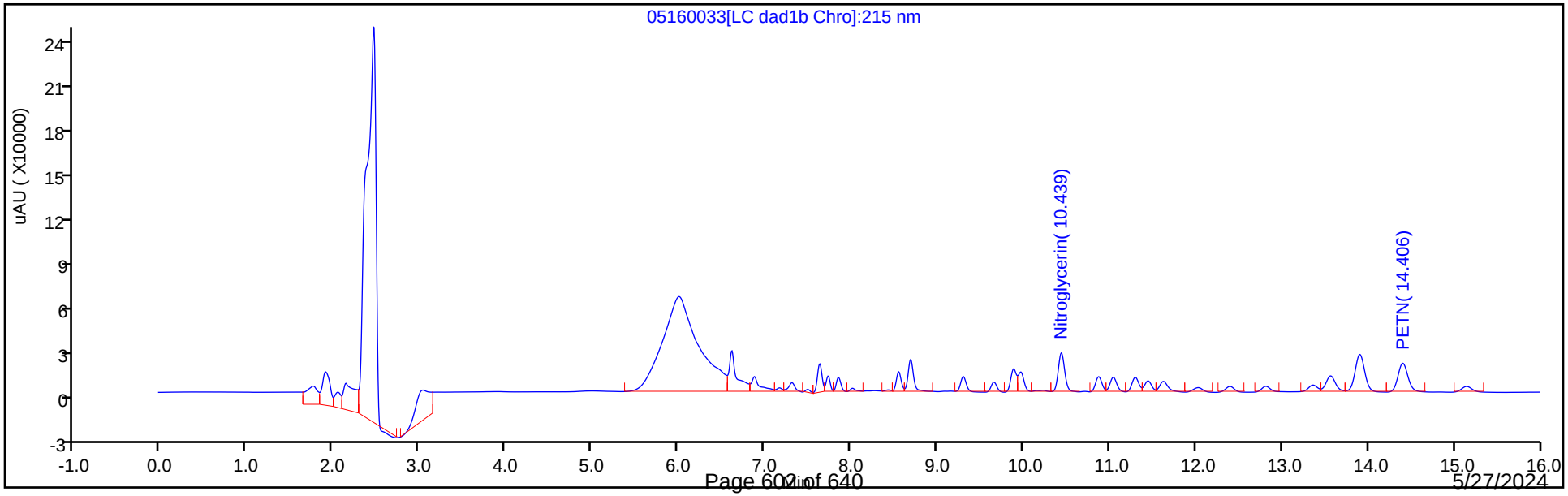
Data File: \\chromfs\denver\chromdata\chhplc_x\20240516-133471.b\05160033.d

Injection Date:	17-May-2024 00:30:44	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	280-191424-B-1-A MSD			Worklist Smp#:	33
Client ID:	FBQmw-178-240401-GW				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	33
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



5/27/2024
7:57:40 AM

Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20240516-133471.b\05160033.D				
Lims ID:	280-191424-B-1-A MSD				
Client ID:	FBQmw-178-240401-GW				
Sample Type:	MSD				
Inject. Date:	17-May-2024 00:30:44	ALS Bottle#:	33	Worklist Smp#:	33
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-191424-B-1-A MSD				
Operator ID:	JZ	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20240516-133471.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	17-May-2024 12:38:15	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:	CTX1618				

First Level Reviewer: LV5D Date: 17-May-2024 12:36:12

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.1891	94.55

Eurofins Denver

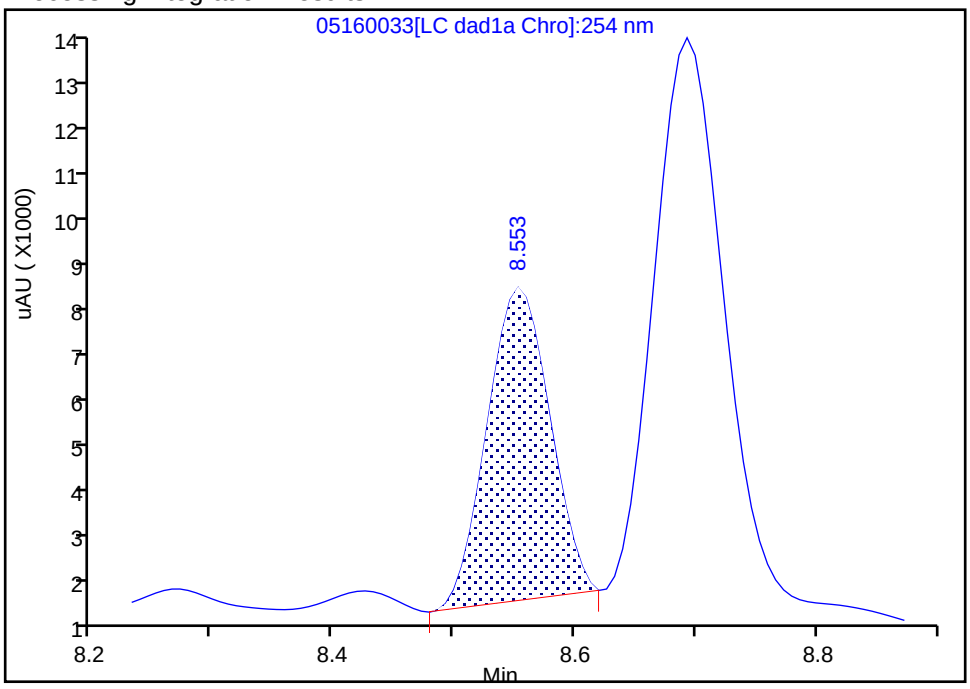
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240516-133471.b\05160033.d				
Injection Date:	17-May-2024 00:30:44	Instrument ID:	CHHPLC_X3		
Lims ID:	280-191424-B-1-A MSD				
Client ID:	FBQmw-178-240401-GW				
Operator ID:	JZ	ALS Bottle#:	33	Worklist Smp#:	33
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
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

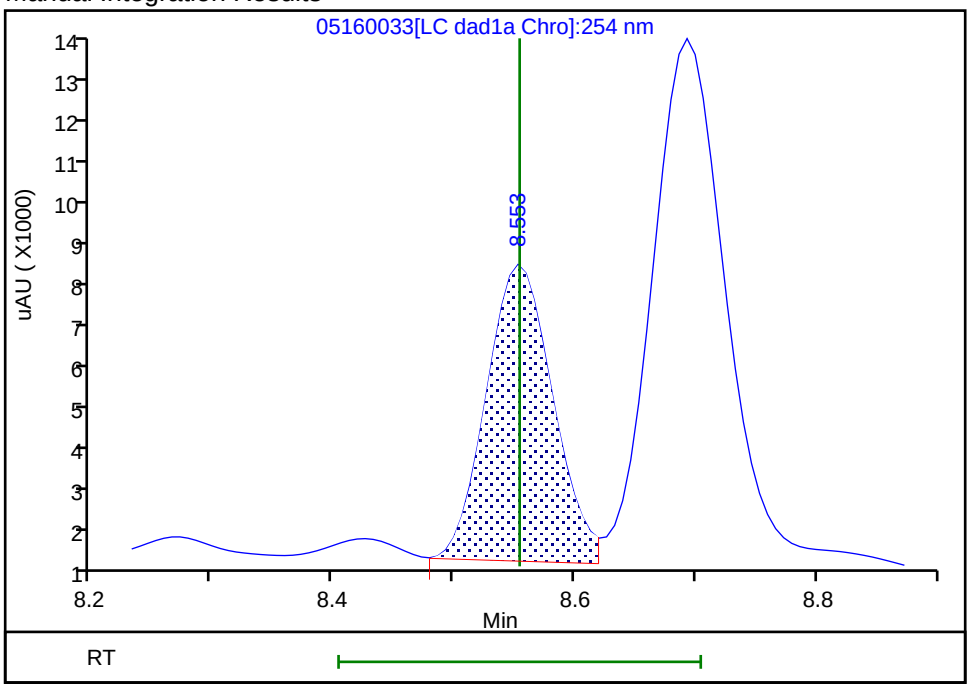
Processing Integration Results

RT: 8.55
Area: 22569
Amount: 0.170744
Amount Units: ug/mL



Manual Integration Results

RT: 8.55
Area: 24984
Amount: 0.189091
Amount Units: ug/mL



Reviewer: LV5D, 17-May-2024 12:36:20 -06:00:00 (UTC)
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

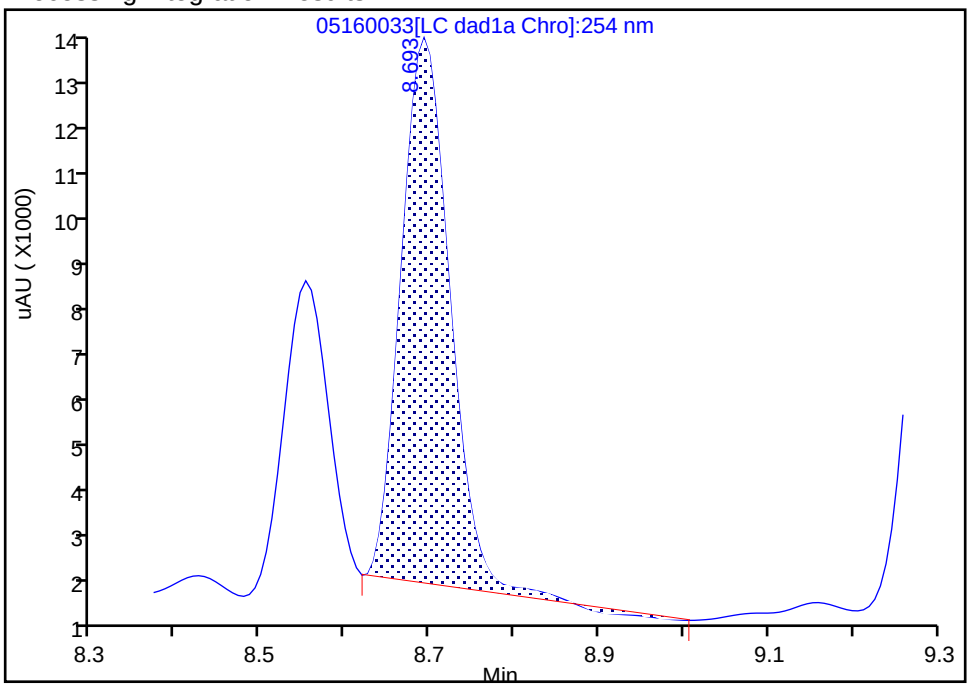
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240516-133471.b\05160033.d				
Injection Date:	17-May-2024 00:30:44	Instrument ID:	CHHPLC_X3		
Lims ID:	280-191424-B-1-A MSD				
Client ID:	FBQmw-178-240401-GW				
Operator ID:	JZ	ALS Bottle#:	33	Worklist Smp#:	33
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
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

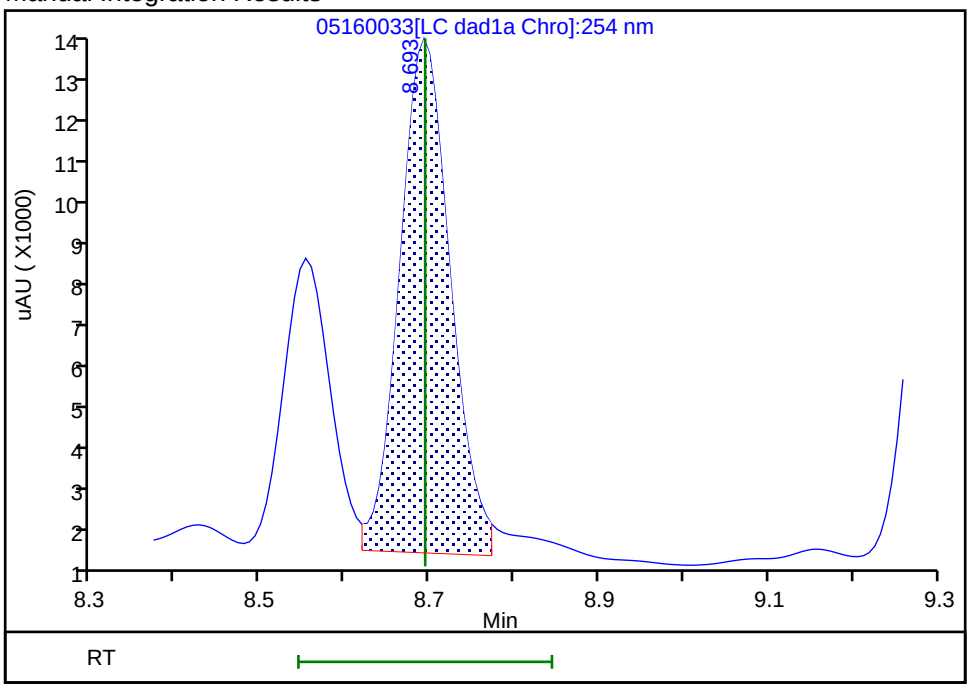
Processing Integration Results

RT: 8.69
Area: 46201
Amount: 0.207316
Amount Units: ug/mL



Manual Integration Results

RT: 8.69
Area: 48639
Amount: 0.218256
Amount Units: ug/mL



Reviewer: LV5D, 17-May-2024 12:36:25 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

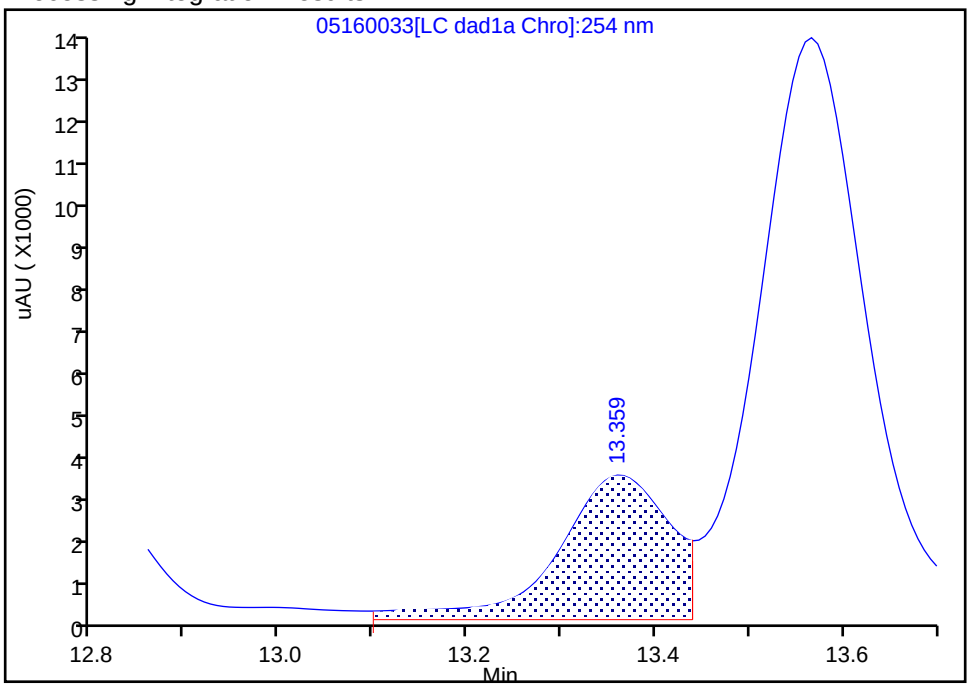
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240516-133471.b\05160033.d				
Injection Date:	17-May-2024 00:30:44	Instrument ID:	CHHPLC_X3		
Lims ID:	280-191424-B-1-A MSD				
Client ID:	FBQmw-178-240401-GW				
Operator ID:	JZ	ALS Bottle#:	33	Worklist Smp#:	33
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
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

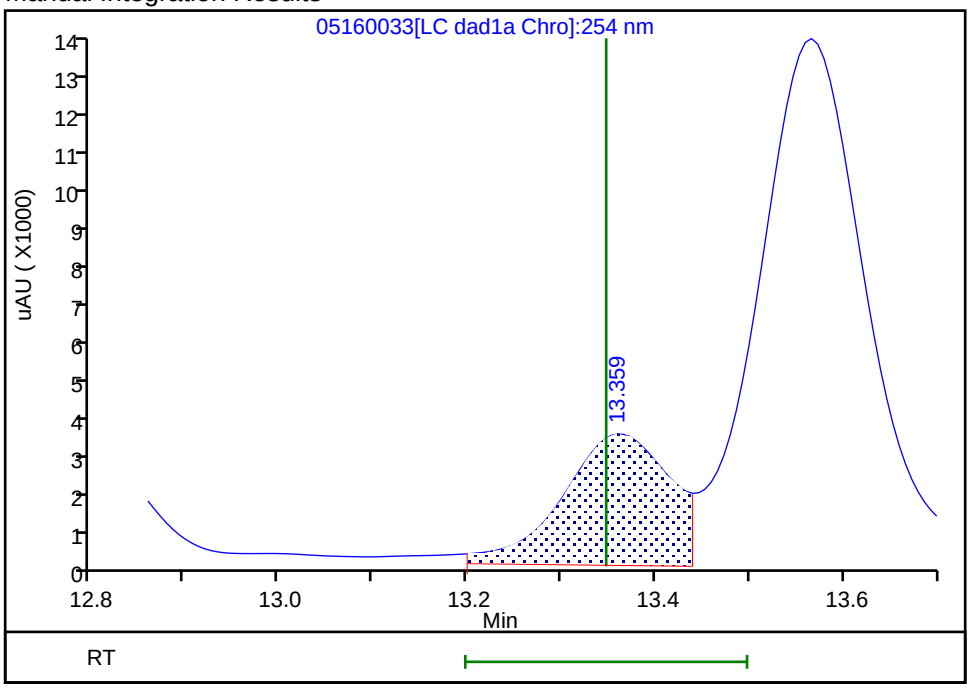
Processing Integration Results

RT: 13.36
Area: 26394
Amount: 0.183211
Amount Units: ug/mL



Manual Integration Results

RT: 13.36
Area: 25050
Amount: 0.173882
Amount Units: ug/mL



Reviewer: LV5D, 17-May-2024 12:35:55 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline

Eurofins Denver

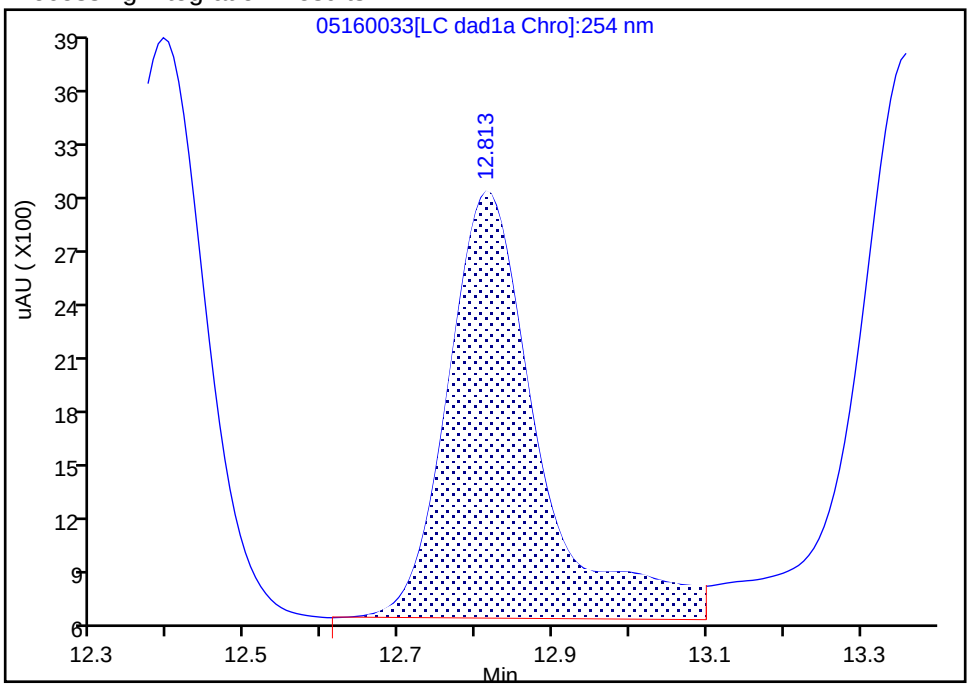
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240516-133471.b\05160033.d				
Injection Date:	17-May-2024 00:30:44	Instrument ID:	CHHPLC_X3		
Lims ID:	280-191424-B-1-A MSD				
Client ID:	FBQmw-178-240401-GW				
Operator ID:	JZ	ALS Bottle#:	33	Worklist Smp#:	33
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

23 p-Nitrotoluene, CAS: 99-99-0

Signal: 1

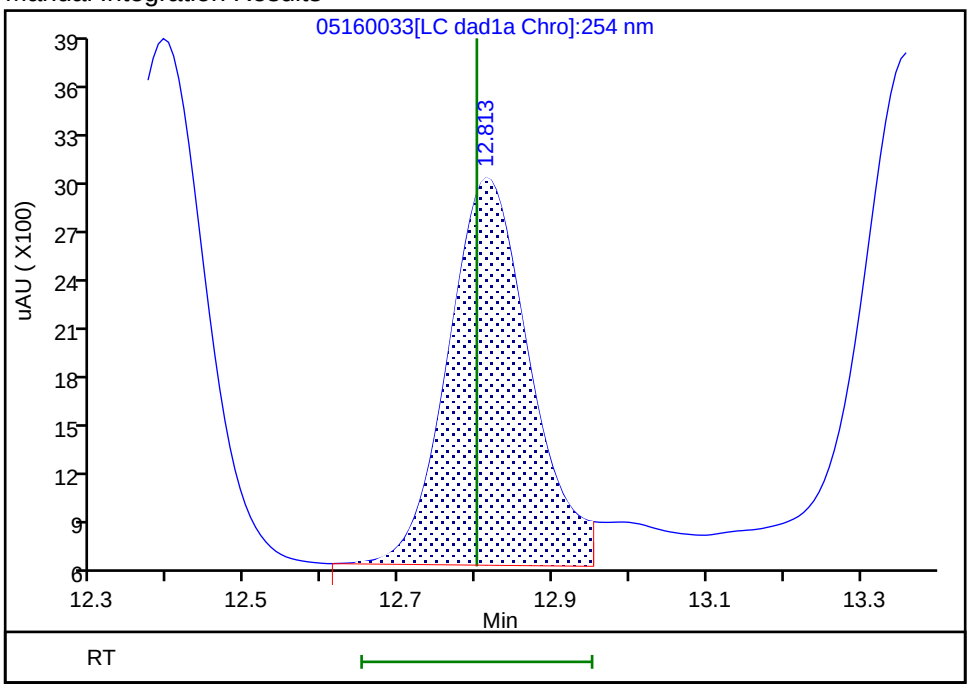
Processing Integration Results

RT: 12.81
Area: 19619
Amount: 0.173929
Amount Units: ug/mL



Manual Integration Results

RT: 12.81
Area: 17556
Amount: 0.155640
Amount Units: ug/mL



Reviewer: LV5D, 17-May-2024 12:35:54 -06:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

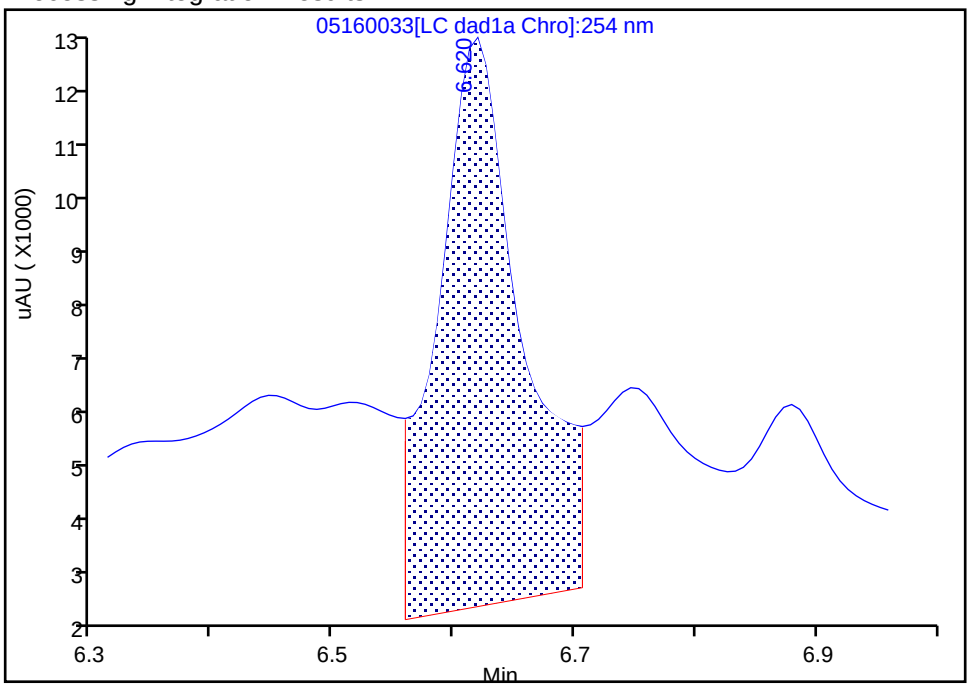
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240516-133471.b\05160033.d				
Injection Date:	17-May-2024 00:30:44	Instrument ID:	CHHPLC_X3		
Lims ID:	280-191424-B-1-A MSD				
Client ID:	FBQmw-178-240401-GW				
Operator ID:	JZ	ALS Bottle#:	33	Worklist Smp#:	33
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
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

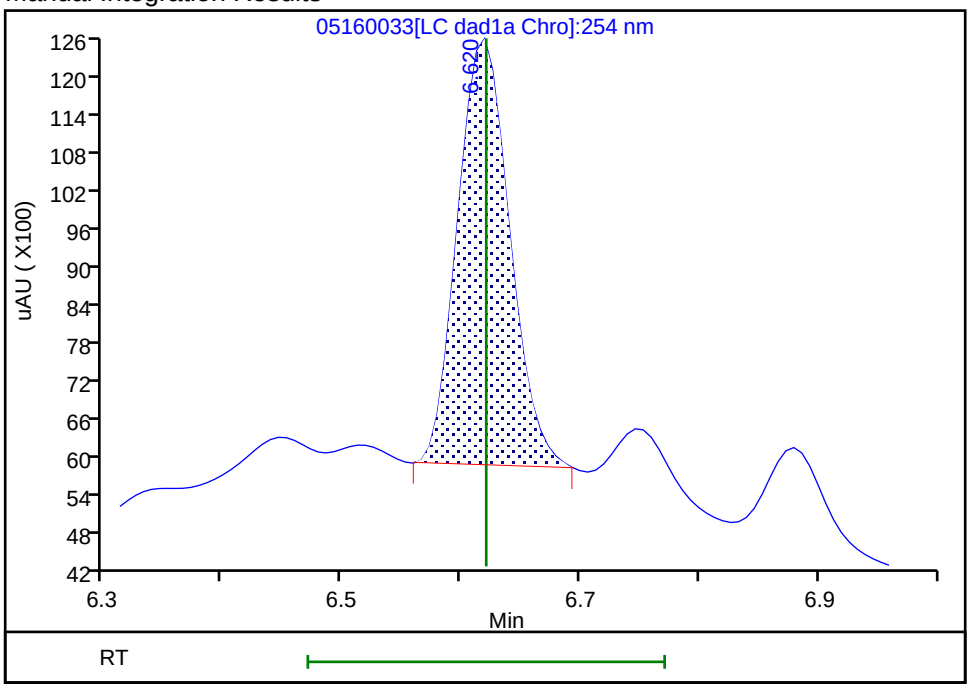
Processing Integration Results

RT: 6.62
Area: 48806
Amount: 0.510824
Amount Units: ug/mL



Manual Integration Results

RT: 6.62
Area: 20396
Amount: 0.213473
Amount Units: ug/mL



Reviewer: LV5D, 17-May-2024 12:36:09 -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.: 280-191424-1

SDG No.:

Client Sample ID: FBQmw-178-240401-GW MSD | Lab Sample ID: 280-191424-1 MSD

Matrix: Water | Lab File ID: 05160029.D

Analysis Method: 8330B | Date Collected: 05/09/2024 09:15

Extraction Method: 3535 | Date Extracted: 05/15/2024 12:30

Sample wt/vol: 459.6(mL) | Date Analyzed: 05/17/2024 05:26

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.: 653699 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	2.41		0.23	0.22	0.091
121-82-4	*RDX*	*2.36*		*0.23*	0.22	*0.056*

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	104		83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240516-133474.b\05160029.D
Lims ID: 280-191424-B-1-A MSD
Client ID: FBQmw-178-240401-GW
Sample Type: MSD
Inject. Date: 17-May-2024 05:26:07 ALS Bottle#: 29 Worklist Smp#: 29
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-191424-B-1-A MSD
Operator ID: JZ Instrument ID: CHHPLC_X5

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20240516-133474.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 17-May-2024 16:54:53 Calib Date: 28-Mar-2024 05:53:05
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1618

First Level Reviewer: LV5D Date: 17-May-2024 16:53:40

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
5 HMX	1	6.657	6.666	-0.009	32947	0.2000	0.1719	
7 2,4,6-Trinitrophenol	1	8.184	8.372	-0.188	50012	0.2000	0.3325	
8 RDX	1	8.690	8.699	-0.009	46310	0.2000	0.2168	
9 Nitrobenzene	1	11.344	11.352	-0.008	81983	0.2000	0.2170	
$ 10 1,2-Dinitrobenzene	1	12.344	12.339	0.005	55073	0.2000	0.2085	
11 3,5-Dinitroaniline	1	14.130	14.126	0.004	107920	0.2000	0.2448	
12 1,3-Dinitrobenzene	1	14.564	14.566	-0.002	140731	0.2000	0.2352	
13 Nitroglycerin	2	14.757	14.759	-0.002	300024	2.00	2.22	M
14 o-Nitrotoluene	1	15.430	15.452	-0.022	274507	0.2000	1.11	
16 p-Nitrotoluene	1		15.712			ND	ND	
17 4-Amino-2,6-dinitrotoluene	1		16.186			ND	ND	
18 m-Nitrotoluene	1	16.570	16.559	0.011	32038	0.2000	0.1125	
19 2-Amino-4,6-dinitrotoluene	1	17.037	17.059	-0.022	117222	0.2000	0.2916	
20 1,3,5-Trinitrobenzene	1	17.510	17.512	-0.002	95229	0.2000	0.2217	
21 2,6-Dinitrotoluene	1	18.477	18.472	0.005	56521	0.2000	0.2072	
22 2,4-Dinitrotoluene	1	18.964	18.959	0.005	106348	0.2000	0.1946	
23 Tetryl	1	22.290	22.279	0.011	64975	0.2000	0.1932	M
24 2,4,6-Trinitrotoluene	1	23.270	23.259	0.011	81104	0.2000	0.1947	
25 PETN	2	24.197	24.179	0.018	259386	2.00	2.02	
26 Ammonium Picrate	1		0.000			ND	ND	

QC Flag Legend

Processing Flags
ND - Not Detected or Marked ND
Review Flags
M - Manually Integrated

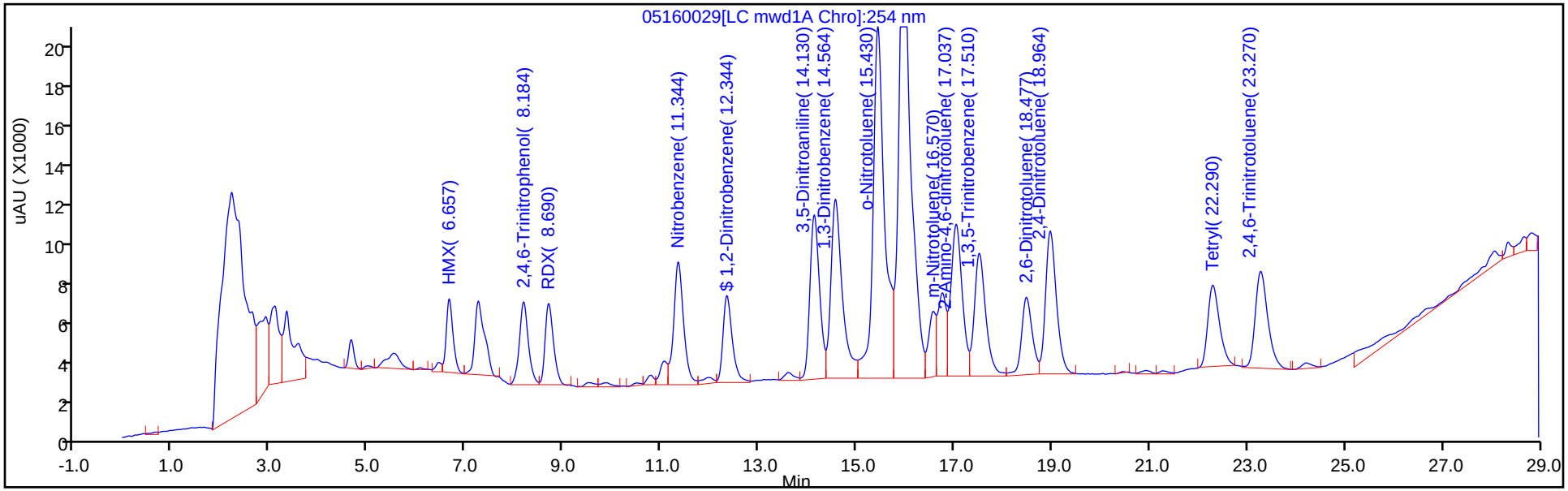
Report Date: 17-May-2024 16:54:56 Chrom Revision: 2.3 14-May-2024 14:23:08

Eurofins Denver

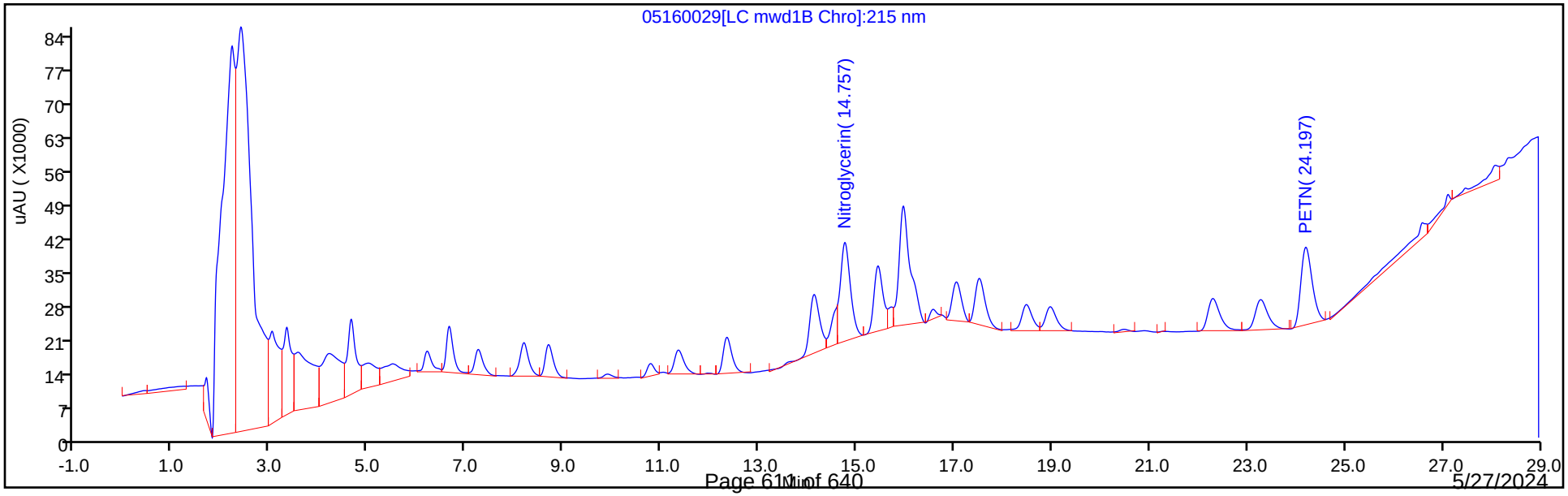
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20240516-133474.b\05160029.D

Injection Date:	17-May-2024 05:26:07	Instrument ID:	CHHPLC_X5	Operator ID:	JZ
Lims ID:	280-191424-B-1-A MSD			Worklist Smp#:	29
Client ID:	FBQmw-178-240401-GW				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	29
Method:	8330_X5_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



5/27/2024
7:57:40 AM

Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20240516-133474.b\05160029.D				
Lims ID:	280-191424-B-1-A MSD				
Client ID:	FBQmw-178-240401-GW				
Sample Type:	MSD				
Inject. Date:	17-May-2024 05:26:07	ALS Bottle#:	29	Worklist Smp#:	29
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-191424-B-1-A MSD				
Operator ID:	JZ	Instrument ID:	CHHPLC_X5		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X5\20240516-133474.b\8330_X5_Luna.m				
Limit Group:	GCSV - 8330				
Last Update:	17-May-2024 16:54:53	Calib Date:	28-Mar-2024 05:53:05		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20240327-131602.b\03270027.D				
Column 1 :	Luna-Phenyl hexyl (4.60 mm)		Det: LC mwd1A, 254 nm		
Process Host:	CTX1618				
First Level Reviewer: LV5D		Date:	17-May-2024 16:53:40		

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.2085	104.24

Manual Integration/User Assign Peak Report

Eurofins Denver

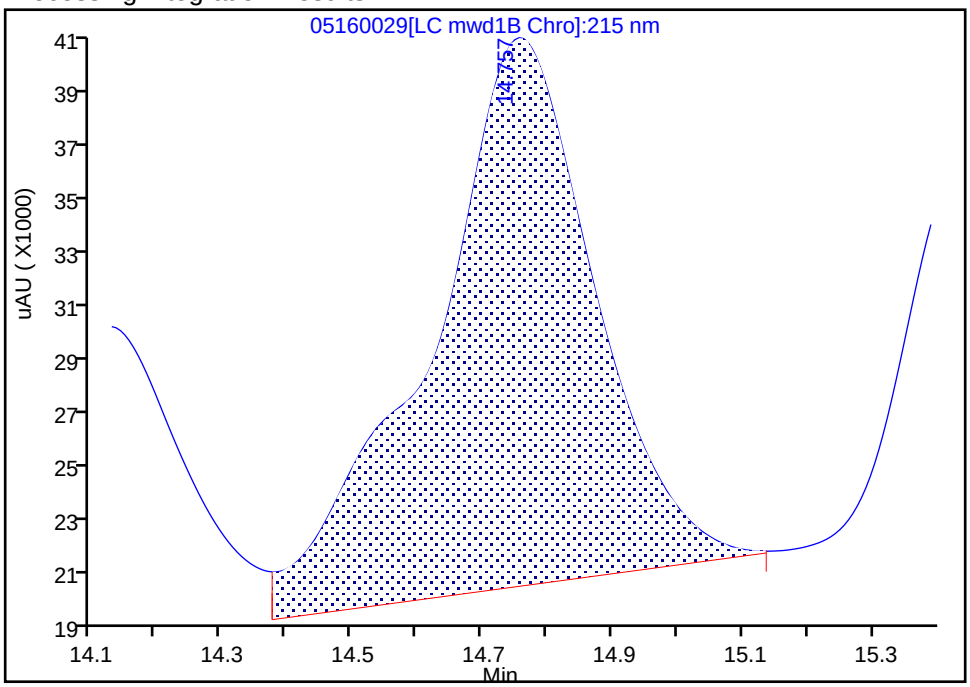
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20240516-133474.b\05160029.D				
Injection Date:	17-May-2024 05:26:07	Instrument ID:	CHHPLC_X5		
Lims ID:	280-191424-B-1-A MSD				
Client ID:	FBQmw-178-240401-GW				
Operator ID:	JZ	ALS Bottle#:	29	Worklist Smp#:	29
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1B, 215 nm		

13 Nitroglycerin, CAS: 55-63-0

Signal: 1

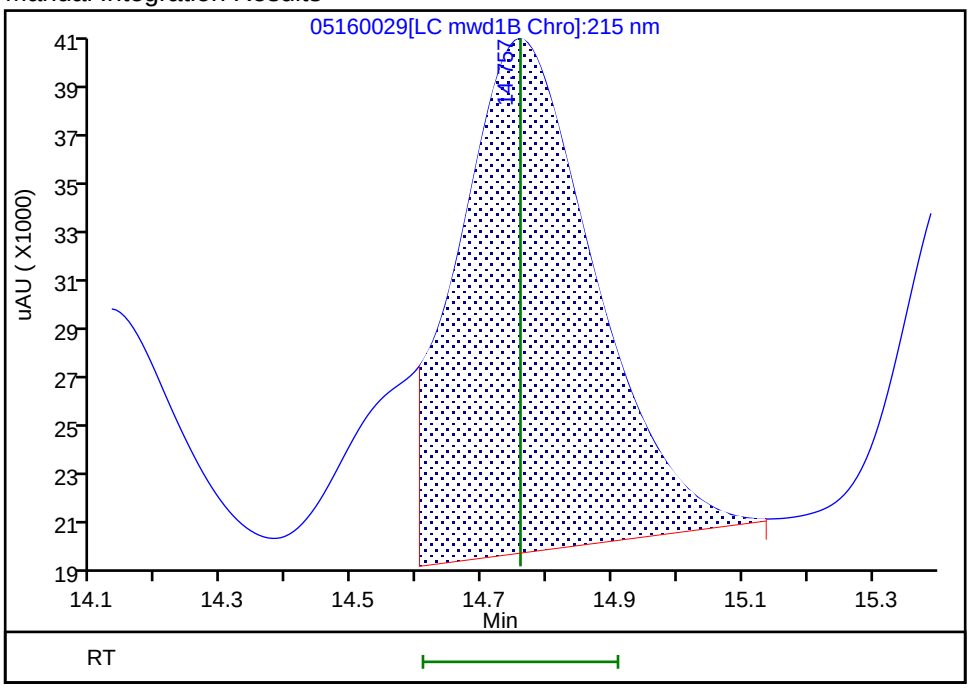
Processing Integration Results

RT: 14.76
Area: 364633
Amount: 2.693208
Amount Units: ug/ml



Manual Integration Results

RT: 14.76
Area: 300024
Amount: 2.216001
Amount Units: ug/ml



Reviewer: LV5D, 17-May-2024 16:53:26 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

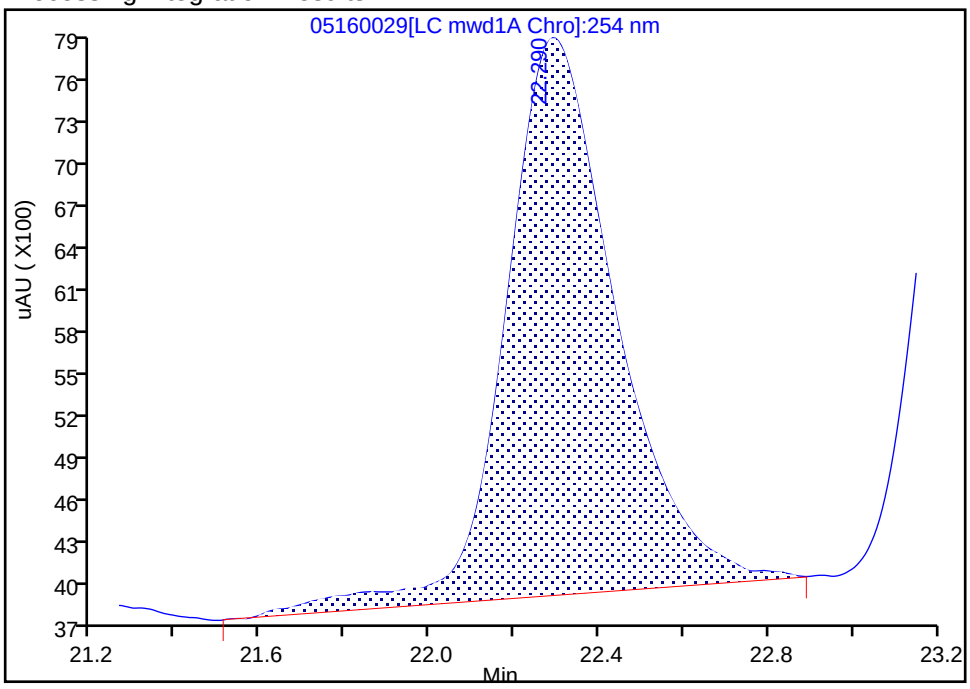
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20240516-133474.b\05160029.D				
Injection Date:	17-May-2024 05:26:07	Instrument ID:	CHHPLC_X5		
Lims ID:	280-191424-B-1-A MSD				
Client ID:	FBQmw-178-240401-GW				
Operator ID:	JZ	ALS Bottle#:	29	Worklist Smp#:	29
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

23 Tetryl, CAS: 479-45-8

Signal: 1

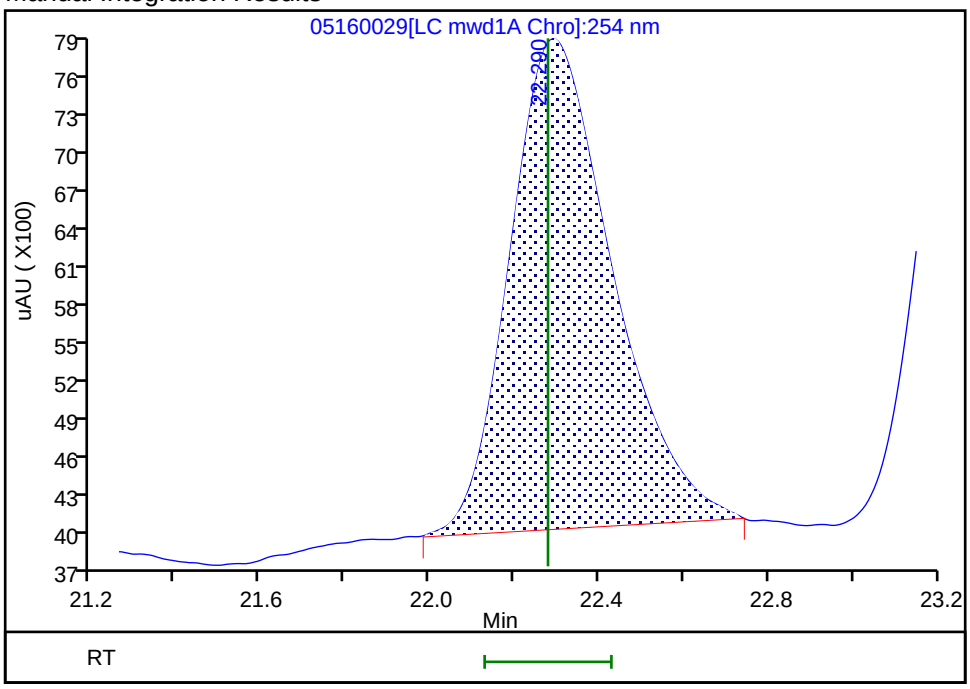
Processing Integration Results

RT: 22.29
Area: 72483
Amount: 0.215570
Amount Units: ug/ml



Manual Integration Results

RT: 22.29
Area: 64975
Amount: 0.193241
Amount Units: ug/ml



Reviewer: LV5D, 17-May-2024 16:53:39 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-191424-1

SDG No.:

Client Sample ID: FBQmw-178-240401-GW MSD RE | Lab Sample ID: 280-191424-1 MSD RE

Matrix: Water | Lab File ID: 05230032.D

Analysis Method: 8330B | Date Collected: 05/09/2024 09:15

Extraction Method: 3535 | Date Extracted: 05/22/2024 14:37

Sample wt/vol: 452.4(mL) | Date Analyzed: 05/24/2024 00:36

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.: 654555 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
88-72-2	2-Nitrotoluene	2.32	H	0.23	0.22	0.094
99-08-1	3-Nitrotoluene	2.40	H	0.44	0.39	0.22
99-99-0	4-Nitrotoluene	2.19	H	0.45	0.44	0.11

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	99	M	83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20240523-133725.b\05230032.D
Lims ID: 280-191424-A-1-C MSD RE
Client ID: FBQmw-178-240401-GW
Sample Type: MSD
Inject. Date: 24-May-2024 00:36:48 ALS Bottle#: 32 Worklist Smp#: 32
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-191424-A-1-C MSD
Operator ID: JZ Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20240523-133725.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 24-May-2024 12:35:12 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: CTX1640

First Level Reviewer: LV5D Date: 24-May-2024 11:40:45

	Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
	4 HMX	1	6.627	6.632	-0.005	19204	0.2000	0.2010	M
	8 RDX	1	7.647	7.638	0.009	41808	0.2000	0.3774	
	9 2,4,6-Trinitrophenol	1	7.874	7.872	0.002	14643	0.2000	0.1846	
$	10 1,2-Dinitrobenzene	1	8.567	8.572	-0.005	26077	0.2000	0.1974	M
	11 1,3,5-Trinitrobenzene	1	8.707	8.712	-0.005	50253	0.2000	0.2255	M
	12 1,3-Dinitrobenzene	1	9.320	9.325	-0.005	62250	0.2000	0.2079	M
	13 Nitrobenzene	1	9.674	9.685	-0.011	36774	0.2000	0.1873	
	14 3,5-Dinitroaniline	1	9.920	9.918	0.002	40036	0.2000	0.1822	M
	15 Tetryl	1	9.980	9.991	-0.011	36359	0.2000	0.2002	Ma
	16 Nitroglycerin	2	10.454	10.471	-0.017	136791	2.00	2.06	
	17 2,4,6-Trinitrotoluene	1	10.887	10.905	-0.018	42630	0.2000	0.1981	
	18 4-Amino-2,6-dinitrotoluene	1	11.067	11.071	-0.004	30301	0.2000	0.2021	
	19 2-Amino-4,6-dinitrotoluene	1	11.327	11.325	0.002	40074	0.2000	0.2006	
	20 2,6-Dinitrotoluene	1	11.460	11.471	-0.011	29972	0.2000	0.2040	
	21 2,4-Dinitrotoluene	1	11.640	11.651	-0.011	67000	0.2000	0.2296	
	22 o-Nitrotoluene	1	12.407	12.425	-0.018	27099	0.2000	0.2096	
	23 p-Nitrotoluene	1	12.827	12.838	-0.011	22342	0.2000	0.1981	
	24 m-Nitrotoluene	1	13.380	13.385	-0.005	31343	0.2000	0.2176	
	25 PETN	2	14.420	14.425	-0.005	157260	2.00	2.19	
	26 Ammonium Picrate	1		0.000			ND	ND	

QC Flag Legend

Processing Flags
ND - Not Detected or Marked ND
Review Flags
M - Manually Integrated
a - User Assigned ID

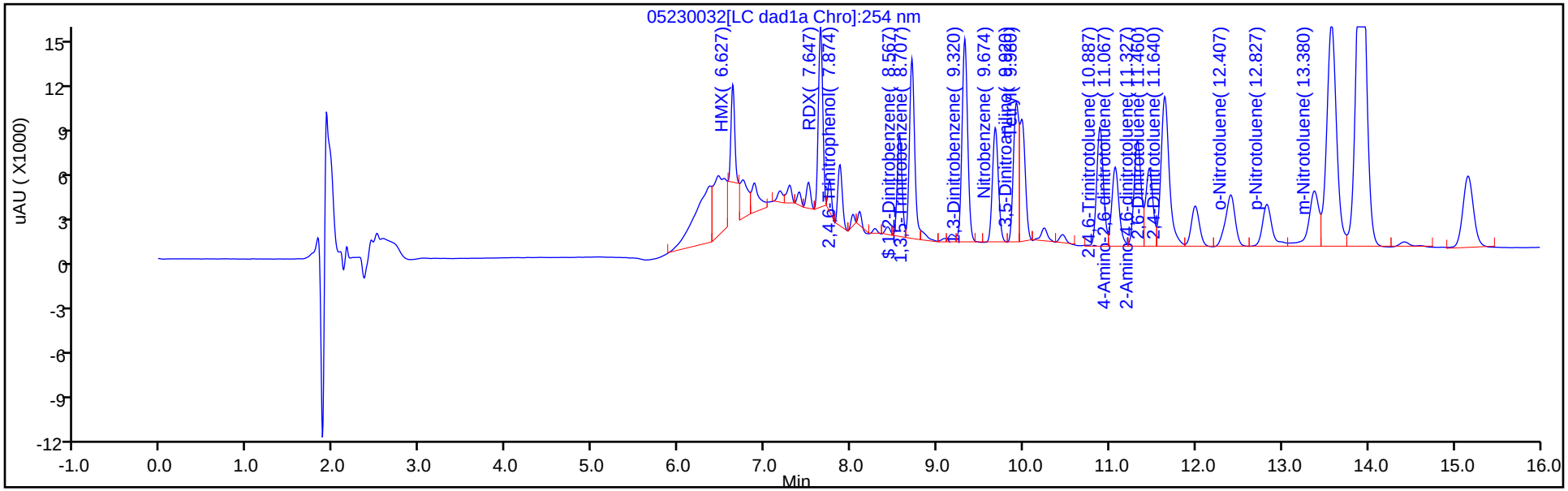
Report Date: 24-May-2024 12:35:17 Chrom Revision: 2.3 20-May-2024 22:00:34

Eurofins Denver

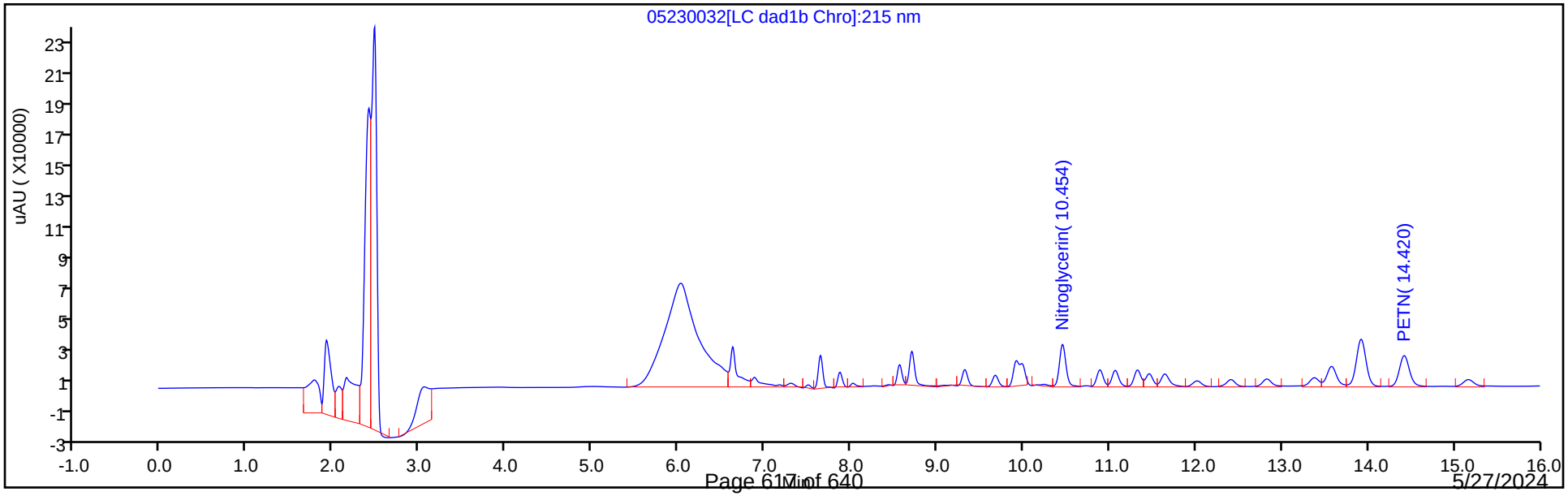
Data File: \\chromfs\denver\chromdata\chhplc_x\20240523-133725.b\05230032.d

Injection Date:	24-May-2024 00:36:48	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	280-191424-A-1-C MSD RE			Worklist Smp#:	32
Client ID:	FBQmw-178-240401-GW				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	32
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



5/27/2024
7:57:40 AM

Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20240523-133725.b\05230032.D				
Lims ID:	280-191424-A-1-C MSD RE				
Client ID:	FBQmw-178-240401-GW				
Sample Type:	MSD				
Inject. Date:	24-May-2024 00:36:48	ALS Bottle#:	32	Worklist Smp#:	32
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-191424-A-1-C MSD				
Operator ID:	JZ	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20240523-133725.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	24-May-2024 12:35:12	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:	CTX1640				

First Level Reviewer: LV5D Date: 24-May-2024 11:40:45

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.1974	98.70

Manual Integration/User Assign Peak Report

Eurofins Denver

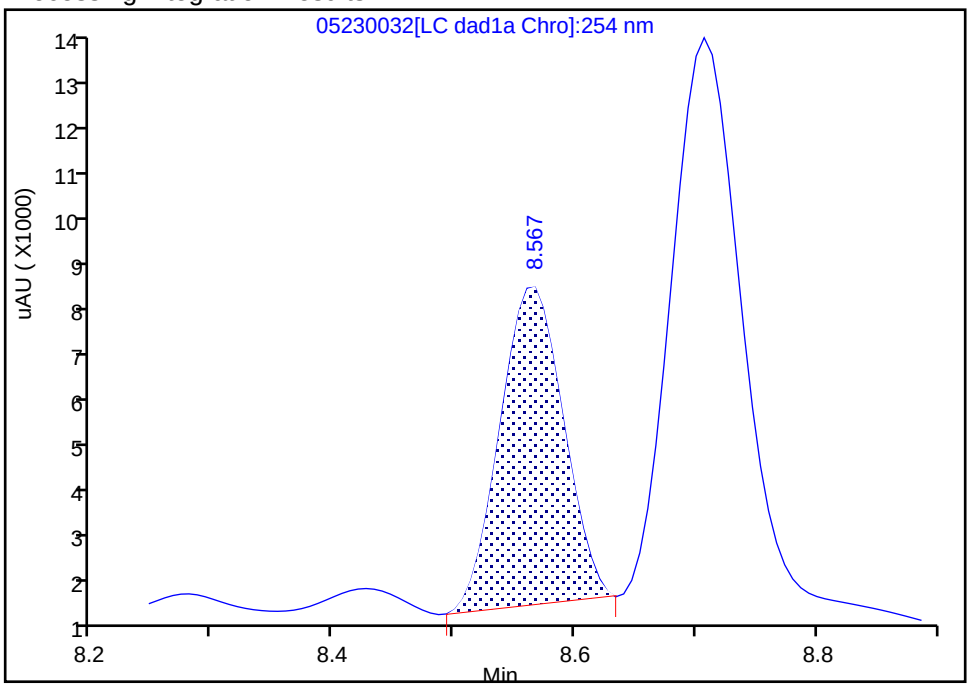
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240523-133725.b\05230032.d				
Injection Date:	24-May-2024 00:36:48	Instrument ID:	CHHPLC_X3		
Lims ID:	280-191424-A-1-C MSD RE				
Client ID:	FBQmw-178-240401-GW				
Operator ID:	JZ	ALS Bottle#:	32	Worklist Smp#:	32
Injection Vol:	100.0 ul	Dil. Factor:	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

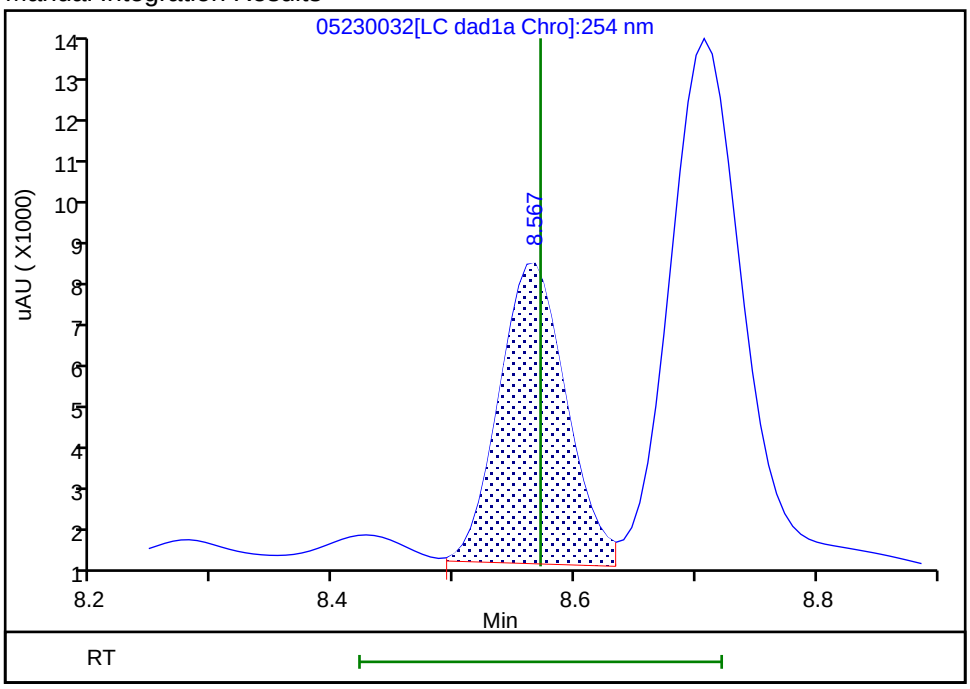
Processing Integration Results

RT: 8.57
Area: 23725
Amount: 0.179527
Amount Units: ug/mL



Manual Integration Results

RT: 8.57
Area: 26077
Amount: 0.197395
Amount Units: ug/mL



Reviewer: LV5D, 24-May-2024 11:40:04 -06:00:00 (UTC)
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

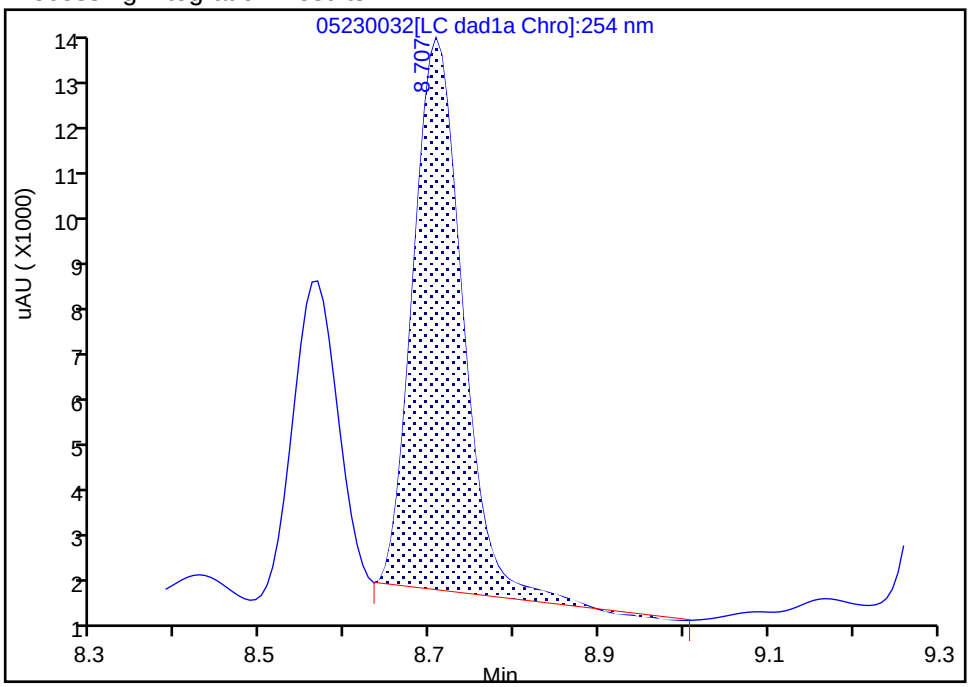
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240523-133725.b\05230032.d				
Injection Date:	24-May-2024 00:36:48	Instrument ID:	CHHPLC_X3		
Lims ID:	280-191424-A-1-C MSD RE				
Client ID:	FBQmw-178-240401-GW				
Operator ID:	JZ	ALS Bottle#:	32	Worklist Smp#:	32
Injection Vol:	100.0 ul	Dil. Factor:	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

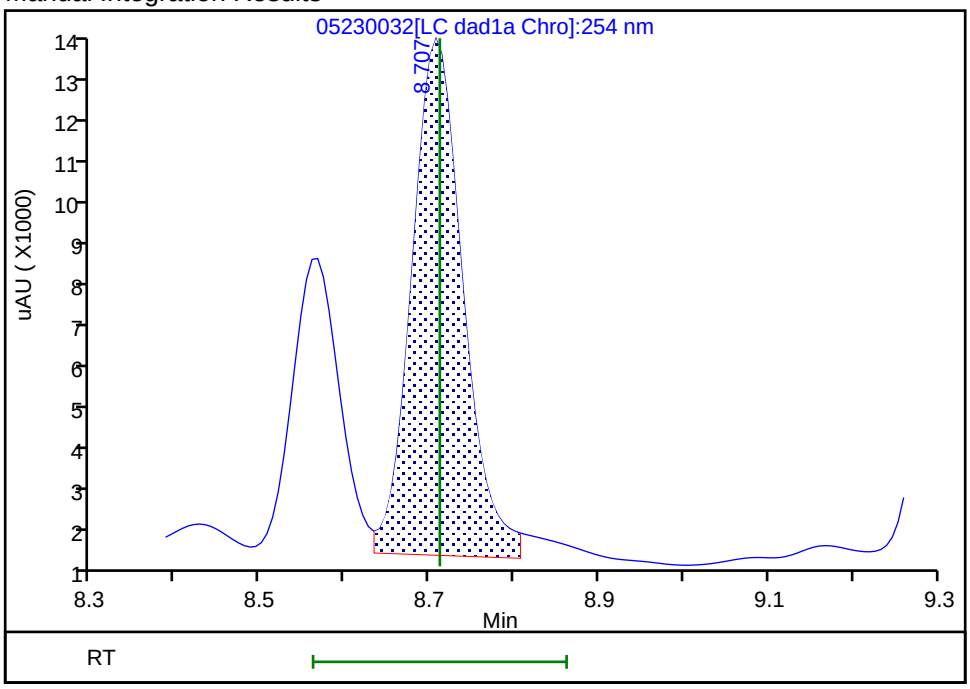
Processing Integration Results

RT: 8.71
Area: 47516
Amount: 0.213217
Amount Units: ug/mL



Manual Integration Results

RT: 8.71
Area: 50253
Amount: 0.225498
Amount Units: ug/mL



Reviewer: LV5D, 24-May-2024 11:40:11 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

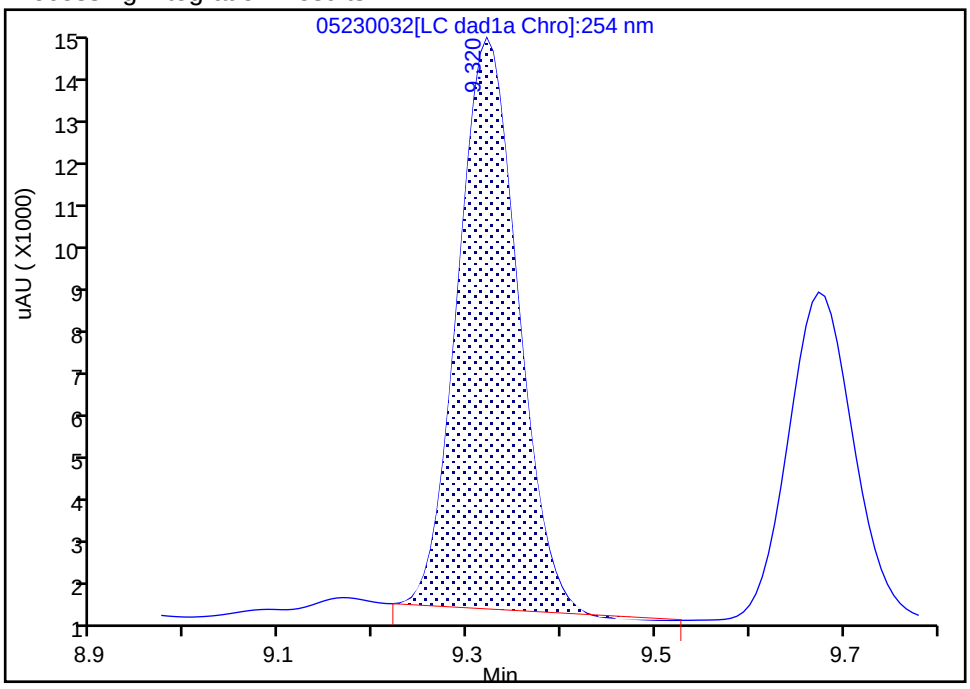
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240523-133725.b\05230032.d				
Injection Date:	24-May-2024 00:36:48	Instrument ID:	CHHPLC_X3		
Lims ID:	280-191424-A-1-C MSD RE				
Client ID:	FBQmw-178-240401-GW				
Operator ID:	JZ	ALS Bottle#:	32	Worklist Smp#:	32
Injection Vol:	100.0 ul	Dil. Factor:	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

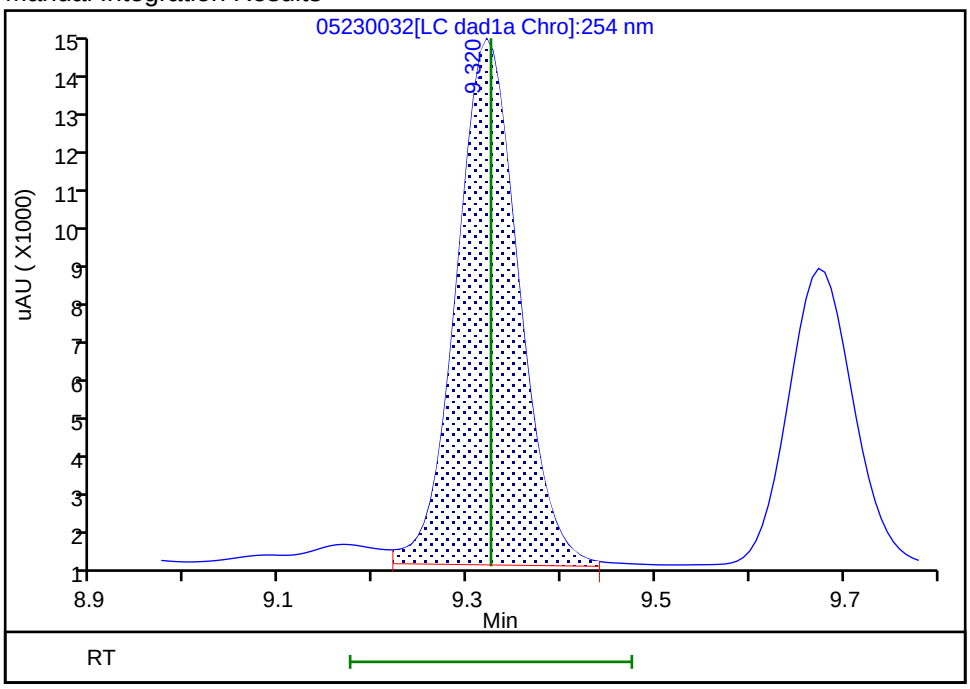
Processing Integration Results

RT: 9.32
Area: 59405
Amount: 0.198390
Amount Units: ug/mL



Manual Integration Results

RT: 9.32
Area: 62250
Amount: 0.207891
Amount Units: ug/mL



Reviewer: LV5D, 24-May-2024 11:40:09 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline

Eurofins Denver

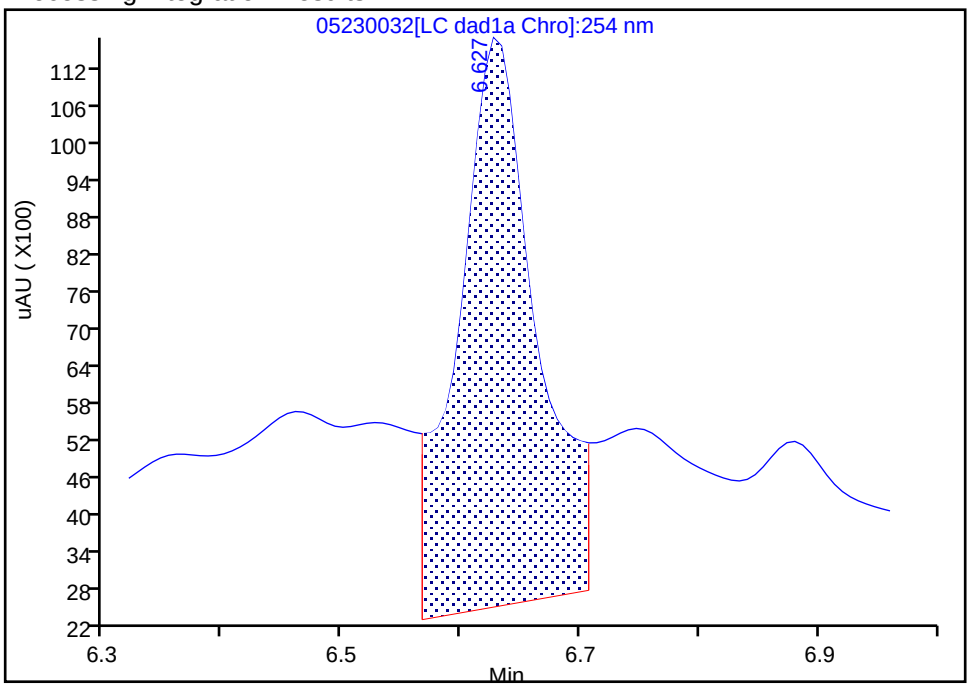
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240523-133725.b\05230032.d				
Injection Date:	24-May-2024 00:36:48	Instrument ID:	CHHPLC_X3		
Lims ID:	280-191424-A-1-C MSD RE				
Client ID:	FBQmw-178-240401-GW				
Operator ID:	JZ	ALS Bottle#:	32	Worklist Smp#:	32
Injection Vol:	100.0 ul	Dil. Factor:	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

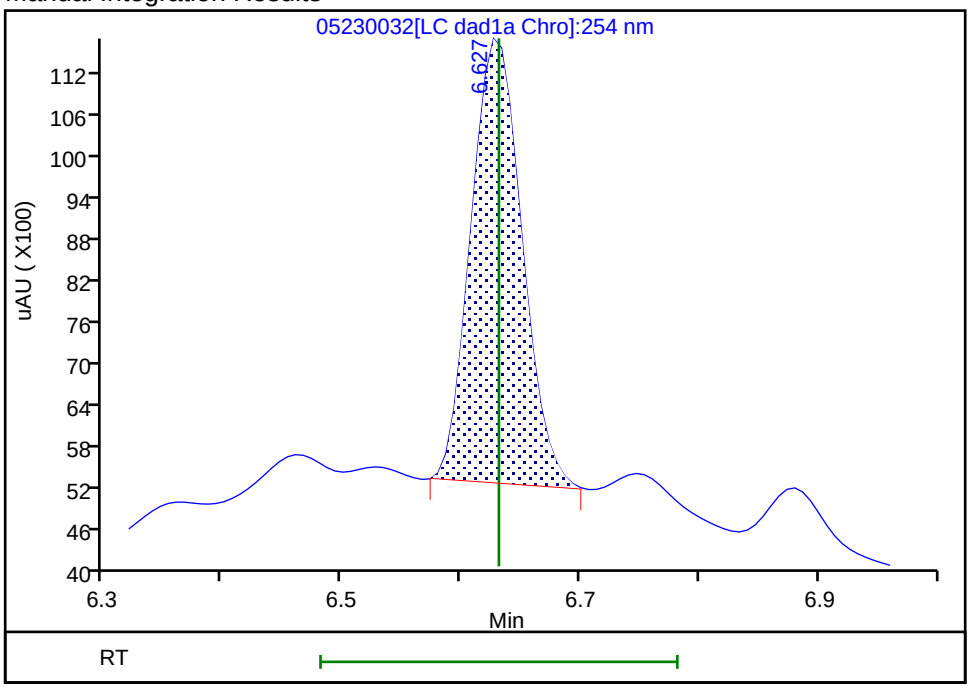
Processing Integration Results

RT: 6.63
Area: 42141
Amount: 0.441065
Amount Units: ug/mL



Manual Integration Results

RT: 6.63
Area: 19204
Amount: 0.200997
Amount Units: ug/mL



Reviewer: LV5D, 24-May-2024 11:40:17 -06:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

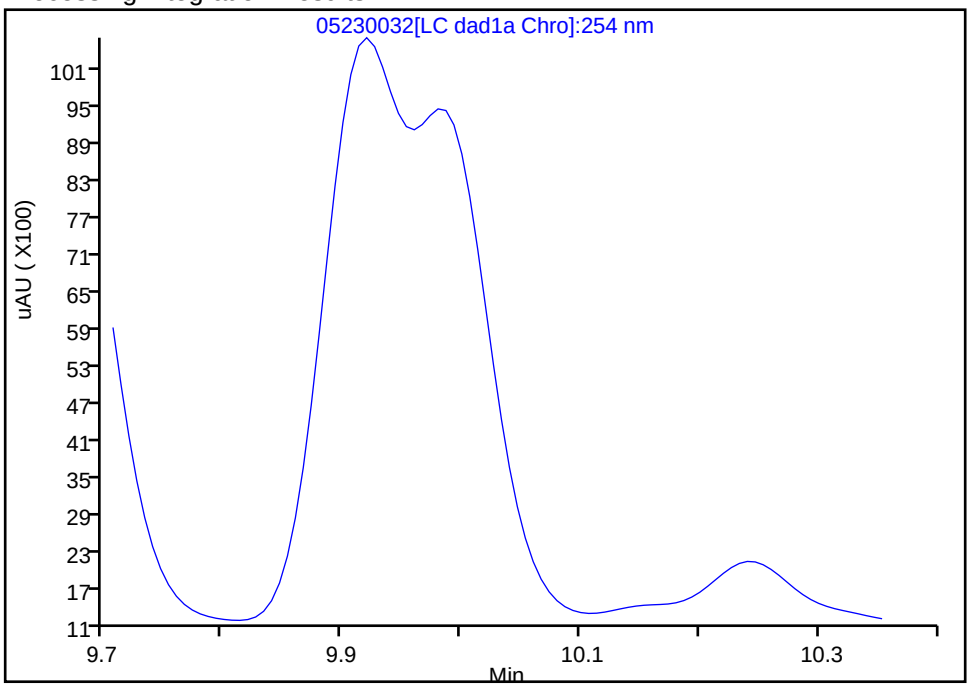
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240523-133725.b\05230032.d				
Injection Date:	24-May-2024 00:36:48	Instrument ID:	CHHPLC_X3		
Lims ID:	280-191424-A-1-C MSD RE				
Client ID:	FBQmw-178-240401-GW				
Operator ID:	JZ	ALS Bottle#:	32	Worklist Smp#:	32
Injection Vol:	100.0 ul	Dil. Factor:	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

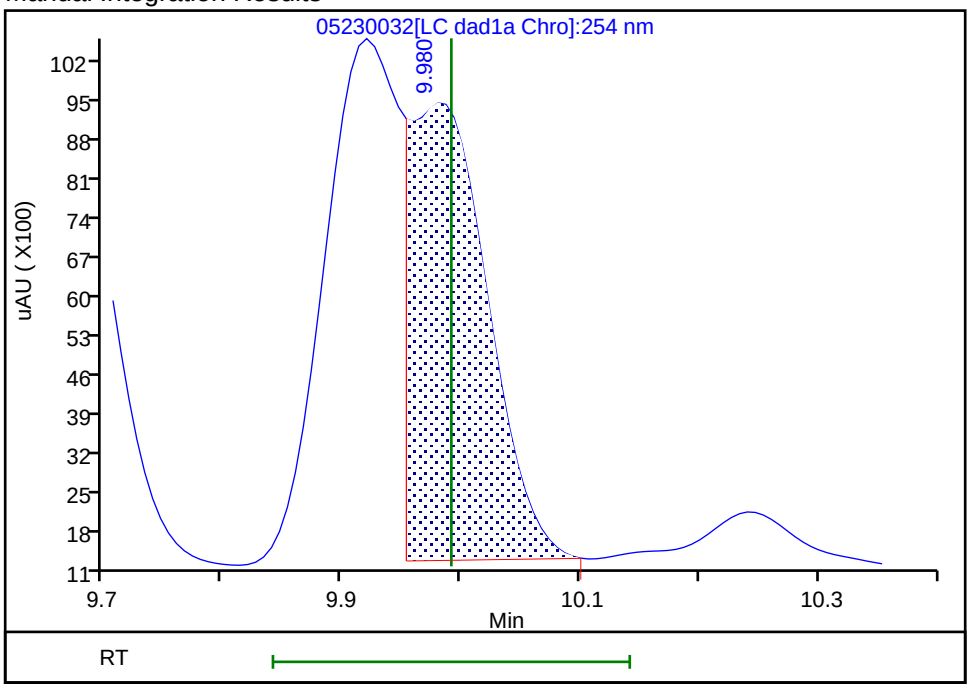
Not Detected
Expected RT: 9.99

Processing Integration Results



Manual Integration Results

RT: 9.98
Area: 36359
Amount: 0.200228
Amount Units: ug/mL



Reviewer: LV5D, 24-May-2024 11:40:41 -06:00:00 (UTC)
Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Baseline

HPLC/IC ANALYSIS RUN LOG

Lab Name: Eurofins Denver Job No.: 280-191424-1

SDG No.:

Instrument ID: CHHPLC_X5 Start Date: 03/27/2024 19:58

Analysis Batch Number: 647408 End Date: 03/28/2024 06:27

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
IC 280-647408/10		03/27/2024 19:58	1	03270010.D	Luna-phenylhex 4.6(mm)
IC 280-647408/11		03/27/2024 20:33	1	03270011.D	Luna-phenylhex 4.6(mm)
IC 280-647408/12		03/27/2024 21:08	1	03270012.D	Luna-phenylhex 4.6(mm)
IC 280-647408/13		03/27/2024 21:43	1	03270013.D	Luna-phenylhex 4.6(mm)
IC 280-647408/14		03/27/2024 22:18	1	03270014.D	Luna-phenylhex 4.6(mm)
IC 280-647408/15		03/27/2024 22:53	1	03270015.D	Luna-phenylhex 4.6(mm)
IC 280-647408/16		03/27/2024 23:28	1	03270016.D	Luna-phenylhex 4.6(mm)
IC 280-647408/17		03/28/2024 00:03	1	03270017.D	Luna-phenylhex 4.6(mm)
IC 280-647408/18		03/28/2024 00:38	1	03270018.D	Luna-phenylhex 4.6(mm)
ICV 280-647408/19		03/28/2024 01:13	1	03270019.D	Luna-phenylhex 4.6(mm)
IC 280-647408/20		03/28/2024 01:48	1		Luna-phenylhex 4.6(mm)
IC 280-647408/21		03/28/2024 02:23	1		Luna-phenylhex 4.6(mm)
IC 280-647408/22		03/28/2024 02:58	1		Luna-phenylhex 4.6(mm)
IC 280-647408/23		03/28/2024 03:33	1		Luna-phenylhex 4.6(mm)
IC 280-647408/24		03/28/2024 04:08	1		Luna-phenylhex 4.6(mm)
IC 280-647408/25		03/28/2024 04:43	1		Luna-phenylhex 4.6(mm)
IC 280-647408/26		03/28/2024 05:18	1		Luna-phenylhex 4.6(mm)
IC 280-647408/27		03/28/2024 05:53	1		Luna-phenylhex 4.6(mm)
ICV 280-647408/28		03/28/2024 06:27	1		Luna-phenylhex 4.6(mm)

HPLC/IC ANALYSIS RUN LOG

Lab Name: Eurofins Denver Job No.: 280-191424-1

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.: 280-191424-1

SDG No.:

Instrument ID: CHHPLC_X3 Start Date: 05/16/2024 16:51

Analysis Batch Number: 653693 End Date: 05/17/2024 02:48

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCV 280-653693/13		05/16/2024 16:51	1	05160013.D	UltraCarb5uODS 4.6(mm)
MB 280-653460/1-A		05/16/2024 17:14	1	05160014.D	UltraCarb5uODS 4.6(mm)
LCS 280-653460/2-A		05/16/2024 17:37	1	05160015.D	UltraCarb5uODS 4.6(mm)
LCSD 280-653460/3-A		05/16/2024 18:00	1	05160016.D	UltraCarb5uODS 4.6(mm)
ZZZZZ		05/16/2024 18:23	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		05/16/2024 18:46	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		05/16/2024 19:09	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		05/16/2024 19:32	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		05/16/2024 19:55	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		05/16/2024 20:18	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		05/16/2024 20:41	1		UltraCarb5uODS 4.6(mm)
CCV 280-653693/24		05/16/2024 21:04	1	05160024.D	UltraCarb5uODS 4.6(mm)
ZZZZZ		05/16/2024 21:26	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		05/16/2024 21:49	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		05/16/2024 22:12	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		05/16/2024 22:35	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		05/16/2024 22:58	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		05/16/2024 23:21	1		UltraCarb5uODS 4.6(mm)
280-191424-1	FBQmw-178-240401-GW	05/16/2024 23:44	1	05160031.D	UltraCarb5uODS 4.6(mm)
280-191424-1 MS	FBQmw-178-240401-GW MS	05/17/2024 00:07	1	05160032.D	UltraCarb5uODS 4.6(mm)
280-191424-1 MSD	FBQmw-178-240401-GW MSD	05/17/2024 00:30	1	05160033.D	UltraCarb5uODS 4.6(mm)
280-191424-2	FBQmw-179-240401-GW	05/17/2024 00:53	1	05160034.D	UltraCarb5uODS 4.6(mm)
CCV 280-653693/35		05/17/2024 01:16	1	05160035.D	UltraCarb5uODS 4.6(mm)
280-191424-3	FBQmw-180-240401-GW	05/17/2024 01:39	1	05160036.D	UltraCarb5uODS 4.6(mm)
280-191424-4	FBQmw-181-240401-GW	05/17/2024 02:02	1	05160037.D	UltraCarb5uODS 4.6(mm)
280-191424-5	FBQmw-178-240402-GW	05/17/2024 02:25	1	05160038.D	UltraCarb5uODS 4.6(mm)
CCV 280-653693/39		05/17/2024 02:48	1	05160039.D	UltraCarb5uODS 4.6(mm)

HPLC/IC ANALYSIS RUN LOG

Lab Name: Eurofins Denver Job No.: 280-191424-1

SDG No.:

Instrument ID: CHHPLC_X5 Start Date: 05/16/2024 17:12

Analysis Batch Number: 653699 End Date: 05/17/2024 08:55

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCV 280-653699/7		05/16/2024 17:12	1		Luna-phenylhex 4.6(mm)
ZZZZZ		05/16/2024 17:47	1		Luna-phenylhex 4.6(mm)
ZZZZZ		05/16/2024 18:22	1		Luna-phenylhex 4.6(mm)
ZZZZZ		05/16/2024 20:07	1		Luna-phenylhex 4.6(mm)
ZZZZZ		05/16/2024 21:51	1		Luna-phenylhex 4.6(mm)
ZZZZZ		05/16/2024 23:36	1		Luna-phenylhex 4.6(mm)
CCV 280-653699/20		05/17/2024 00:11	1	05160020.D	Luna-phenylhex 4.6(mm)
ZZZZZ		05/17/2024 01:21	1		Luna-phenylhex 4.6(mm)
ZZZZZ		05/17/2024 01:56	1		Luna-phenylhex 4.6(mm)
ZZZZZ		05/17/2024 03:06	1		Luna-phenylhex 4.6(mm)
280-191424-1	FBQmw-178-240401-GW	05/17/2024 04:16	1	05160027.D	Luna-phenylhex 4.6(mm)
280-191424-1 MS	FBQmw-178-240401-GW MS	05/17/2024 04:51	1	05160028.D	Luna-phenylhex 4.6(mm)
280-191424-1 MSD	FBQmw-178-240401-GW MSD	05/17/2024 05:26	1	05160029.D	Luna-phenylhex 4.6(mm)
CCV 280-653699/31		05/17/2024 06:36	1	05160031.D	Luna-phenylhex 4.6(mm)
280-191424-3	FBQmw-180-240401-GW	05/17/2024 07:11	1	05160032.D	Luna-phenylhex 4.6(mm)
280-191424-5	FBQmw-178-240402-GW	05/17/2024 08:20	1	05160034.D	Luna-phenylhex 4.6(mm)
CCV 280-653699/35		05/17/2024 08:55	1	05160035.D	Luna-phenylhex 4.6(mm)

HPLC/IC ANALYSIS RUN LOG

Lab Name: Eurofins Denver Job No.: 280-191424-1

SDG No.:

Instrument ID: CHHPLC_X3 Start Date: 05/23/2024 18:06

Analysis Batch Number: 654555 End Date: 05/24/2024 02:31

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCV 280-654555/15		05/23/2024 18:06	1	05230015.D	UltraCarb5uODS 4.6(mm)
MB 280-654401/1-A		05/23/2024 18:29	1	05230016.D	UltraCarb5uODS 4.6(mm)
LCS 280-654401/2-A		05/23/2024 18:52	1	05230017.D	UltraCarb5uODS 4.6(mm)
ZZZZZ		05/23/2024 19:15	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		05/23/2024 19:38	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		05/23/2024 20:01	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		05/23/2024 20:24	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		05/23/2024 20:47	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		05/23/2024 21:10	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		05/23/2024 21:33	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		05/23/2024 21:56	1		UltraCarb5uODS 4.6(mm)
CCV 280-654555/26		05/23/2024 22:19	1	05230026.D	UltraCarb5uODS 4.6(mm)
ZZZZZ		05/23/2024 22:42	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		05/23/2024 23:05	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		05/23/2024 23:27	1		UltraCarb5uODS 4.6(mm)
280-191424-1 RE	FBQmw-178-240401-GW RE	05/23/2024 23:50	1	05230030.D	UltraCarb5uODS 4.6(mm)
280-191424-1 MS RE	FBQmw-178-240401-GW MS RE	05/24/2024 00:13	1	05230031.D	UltraCarb5uODS 4.6(mm)
280-191424-1 MSD RE	FBQmw-178-240401-GW MSD RE	05/24/2024 00:36	1	05230032.D	UltraCarb5uODS 4.6(mm)
280-191424-2 RE	FBQmw-179-240401-GW RE	05/24/2024 00:59	1	05230033.D	UltraCarb5uODS 4.6(mm)
280-191424-3 RE	FBQmw-180-240401-GW RE	05/24/2024 01:22	1	05230034.D	UltraCarb5uODS 4.6(mm)
280-191424-4 RE	FBQmw-181-240401-GW RE	05/24/2024 01:45	1	05230035.D	UltraCarb5uODS 4.6(mm)
280-191424-5 RE	FBQmw-178-240402-GW RE	05/24/2024 02:08	1	05230036.D	UltraCarb5uODS 4.6(mm)
CCV 280-654555/37		05/24/2024 02:31	1	05230037.D	UltraCarb5uODS 4.6(mm)

HPLC/IC BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-191424-1

SDG No.:

Batch Number: 647408 Batch Start Date: 03/27/24 19:58 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 00079	8330Surrogate 00154		
IC 280-647408/10		8330B			1 mL		250 uL			
IC 280-647408/11		8330B			1 mL		100 uL			
IC 280-647408/12		8330B			1 mL		70 uL			
IC 280-647408/13		8330B			1 mL		40 uL			
IC 280-647408/14		8330B			1 mL		25 uL			
IC 280-647408/15		8330B			1 mL		10 uL			
IC 280-647408/16		8330B			1 mL		5 uL			
IC 280-647408/17		8330B			1 mL		2 uL			
IC 280-647408/18		8330B			1 mL		1 uL			
ICV 280-647408/19		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.: 280-191424-1

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.: 280-191424-1

SDG No.:

Batch Number: 653460 Batch Start Date: 05/15/24 12:30 Batch Analyst: Johnston, Malcolm S

Batch Method: 3535 Batch End Date: 05/15/24 15:37

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	GrossWeight	TareWeight	InitialAmount	FinalAmount	8330 LCS 00135	8330Surrogate 00155
MB 280-653460/1		3535, 8330B					500 mL	5 mL		0.1 mL
LCS 280-653460/2		3535, 8330B					500 mL	5 mL	0.1 mL	0.1 mL
LCSD 280-653460/3		3535, 8330B					500 mL	5 mL	0.1 mL	0.1 mL
280-191424-A-1	FBQmw-178-240401-GW	3535, 8330B	Water	T	750.1 g	283.1 g	467 mL	5 mL		0.1 mL
280-191424-A-1 MS	FBQmw-178-240401-GW	3535, 8330B	Water	T	749.6 g	280.3 g	469.3 mL	5 mL	0.1 mL	0.1 mL
280-191424-B-1 MSD	FBQmw-178-240401-GW	3535, 8330B	Water	T	742.3 g	282.7 g	459.6 mL	5 mL	0.1 mL	0.1 mL
280-191424-A-2	FBQmw-179-240401-GW	3535, 8330B	Water	T	725.9 g	282.1 g	443.8 mL	5 mL		0.1 mL
280-191424-A-3	FBQmw-180-240401-GW	3535, 8330B	Water	T	721.6 g	279.8 g	441.8 mL	5 mL		0.1 mL
280-191424-B-4	FBQmw-181-240401-GW	3535, 8330B	Water	T	752.9 g	279.7 g	473.2 mL	5 mL		0.1 mL
280-191424-A-5	FBQmw-178-240402-GW	3535, 8330B	Water	T	739.2 g	288.1 g	451.1 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.: 280-191424-1

SDG No.:

Batch Number: 653460 Batch Start Date: 05/15/24 12:30 Batch Analyst: Johnston, Malcolm S

Batch Method: 3535 Batch End Date: 05/15/24 15:37

Batch Notes	
First Start time	05/15/2024 13:08
First End time	05/15/2024 15:06
SPE Cartridge Type	Sep-Pak Porapak Rdx
SPE Cartridge Lot ID	005434002A
Balance ID	24950441
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_00005
Analyst ID - Spike Analyst	MJ
Analyst ID - Spike Witness Analyst	Reviewer: DL
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.

HPLC/IC BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-191424-1

SDG No.:

Batch Number: 654401 Batch Start Date: 05/22/24 14:37 Batch Analyst: Hermanova, Eva

Batch Method: 3535 Batch End Date: 05/22/24 18:25

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	GrossWeight	TareWeight	InitialAmount	FinalAmount	8330 LCS 00135	8330Surrogate 00155
MB 280-654401/1		3535, 8330B					500 mL	5 mL		0.1 mL
LCS 280-654401/2		3535, 8330B					500 mL	5 mL	0.1 mL	0.1 mL
280-191424-B-1	FBQmw-178-240401-GW	3535, 8330B	Water	T	754.3 g	283.1 g	471.2 mL	5 mL		0.1 mL
280-191424-B-1 MS	FBQmw-178-240401-GW	3535, 8330B	Water	T	741.2 g	286.7 g	454.5 mL	5 mL	0.1 mL	0.1 mL
280-191424-A-1 MSD	FBQmw-178-240401-GW	3535, 8330B	Water	T	735.6 g	283.2 g	452.4 mL	5 mL	0.1 mL	0.1 mL
280-191424-B-2	FBQmw-179-240401-GW	3535, 8330B	Water	T	740.6 g	282.9 g	457.7 mL	5 mL		0.1 mL
280-191424-B-3	FBQmw-180-240401-GW	3535, 8330B	Water	T	739.3 g	281.4 g	457.9 mL	5 mL		0.1 mL
280-191424-A-4	FBQmw-181-240401-GW	3535, 8330B	Water	T	740.3 g	279.2 g	461.1 mL	5 mL		0.1 mL
280-191424-B-5	FBQmw-178-240402-GW	3535, 8330B	Water	T	750.0 g	284.8 g	465.2 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.: 280-191424-1

SDG No.:

Batch Number: 654401 Batch Start Date: 05/22/24 14:37 Batch Analyst: Hermanova, Eva

Batch Method: 3535 Batch End Date: 05/22/24 18:25

Batch Notes	
First Start time	05/22/2024 14:58
First End time	05/22/2024 17:49
SPE Cartridge Type	Sep-Pak Porapak Rdx
SPE Cartridge Lot ID	005434002A
Balance ID	24350888
Balance is Level? (Y/N)	yes
Manifold ID	Manifold: C
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_00005
Analyst ID - Spike Analyst	EH
Analyst ID - Spike Witness Analyst	Reviewer: DL
Batch Comment	DV-OP-0017; sodium chloride_31 (Fisher)

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.

Shipping and Receiving Documents

Chain of Custody Record

leidos

COC No.: RVAAP-443-TA
Date: 5/9/24

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) Melissa Reyes (Printed Name) Melissa Reyes

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
	FBQmw-178-240401-GW	—	—	5/9/24	0915	W	2		2	
	FBQmw-178-240401-GWMSD	—	—	5/9/24	0915	W	4		4	extra volume for MS/MSD
	FBQmw-178-240402-GW	—	—	5/9/24	0915	W	2		2	

MR 5/9/24

280-191424 Chain of Custody

Relinquished by	Date	Received by	Date
Signature	5/9/24	Signature	
Printed Name: Charles Spurr	Time: 1700	Printed Name	Time
Company: Leidos		Company	
Relinquished by	Date	Received by: MF EETDEN	Date: 5-10-24
Signature		Signature: Wesley Held	Time: 0925
Printed Name	Time	Printed Name	
Company		Company	

Notes: Total Number of Containers: 8

A. Cool, 4C
B. HCl, pH<2, Cool, 4C
C. HNO3, pH<2, Cool, 4C
D. NaOH, pH>12, Cool 4C
E. NaOH/Zn Acetate, pH>9, Cool 4C

Notes:
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

Shipment Method: ~~Courier~~
FedEx
7382 6401 0835

0.6°C NAcH
CF 0.2

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

leidos

Chain of Custody Record

COC No.: RVAAP-443-TA
Date: 5/9/24

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)

Charles Spurr

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
	FBQmw-179-240401-GW			5/9/24	0945	W	2		2	

Requested Parameters

CS 5/9/24

Relinquished by: Charles Spurr — Signature — Printed Name: Charles Spurr — Leidos — Company — Date: 5/9/24 — Time: 1700

Received by: Jed FEDEN — Signature: Wesley Held — Printed Name — Company — Date: 5/10/24 — Time: 0925

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. NaOH/Zn Acetate, pH>9, Cool 4C

Notes:
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

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

Chain of Custody Record

leidos

COC No.: RVAAP-443-TA

Date: 5/9/24

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) Melissa Rego (Printed Name) Melissa Rego

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
	FBQmw-180-240401-GW	-	-	5/9/24	1041	W	2		2	

MR 5/9/24

Relinquished by	Date	Received by	Date	Notes: Total Number of Containers: 2
Signature:	5/9/24	Signature:	5-10-24	A. Cool, 4C; E. NaOH/Zn Acetate, pH>9, Cool 4C
Printed Name: Charles Spaur	Time: 1700	Printed Name: Wesley Held	Time: 0925	B. HCl, pH<2, Cool, 4C
Leidos				C. HNO3, pH<2, Cool, 4C
Company		Company		D. NaOH, pH>12, Cool 4C
Relinquished by	Date	Received by	Date	1. SW 8260B; Notes:
Signature		Signature		2. SW 8270D
Printed Name	Time	Printed Name	Time	3. SW 8270D SIM
Company		Company		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

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

leidos

Chain of Custody Record

COC No.: RVAAP-443-TA
Date: 5/9/24

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)

Charles Spurr

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
	FBQmw-181-240401-GW	-	-	5/9/24	1220	W	2		2	

Requested Parameters

CS 5/9/24

Relinquished by: Charles Spurr — Signature — Printed Name — Leidos — Company — Date: 5/9/24 — Time: 1700

Received by: [signature] — Signature — Printed Name: Wesley Held — Company — Date: 5-10-24 — Time: 0925

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. NaOH/Zn Acetate, pH>9, Cool 4C

Notes:
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

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

Login Sample Receipt Checklist

Client: Leidos, Inc.

Job Number: 280-191424-1

Login Number: 191424
List Number: 1
Creator: Rystrom, Joshua R

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.	True	
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.	N/A	
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").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	