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ANALYTICAL REPORT

PREPARED FOR

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JOB DESCRIPTION

RVAAP FWGW Spring 2023

JOB NUMBER

280-176866-1

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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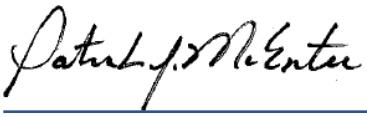

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Qualifiers

HPLC/IC

Qualifier	Qualifier Description
B	Blank contamination: The analyte was detected above one-half the reporting limit in an associated blank.
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

CASE NARRATIVE

Client: Leidos, Inc.

Project: RVAAP FWGW Spring 2023

Report Number: 280-176866-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT
The samples were received on 5/23/2023 9:30 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 was 1.0º C.

EXPLOSIVES (HPLC)
Samples FBQmw-179-230301-GW (280-176866-1) and FBQmw-181-230301-GW (280-176866-2) were analyzed for Explosives (HPLC) in accordance with 8330B. The samples were prepared on 05/24/2023 and 05/25/2023 and analyzed on 05/25/2023, 05/26/2023 and 05/27/2023.

The %RPD between the primary and confirmation column exceeded 40% for o-Nitrotoluene and RDX for the following samples: FBQmw-179-230301-GW (280-176866-1) and FBQmw-181-230301-GW (280-176866-2) in preparation batch 280-613600 and 280-613758 and analytical batch 280-613678. The results from both columns has been qualified and reported in accordance with the laboratory's QAS.

The method blank(MB) associated with preparation batch 280-613600 and analytical batch 280-613822 contained analyte RDX greater than one-half the limit of quantitation (LOQ) in the confirmation instrument. The analyte was ND in the MB in the primary instrument. The analyte is reported from both instrument. The associated samples are impacted: FBQmw-179-230301-GW (280-176866-1) and FBQmw-181-230301-GW (280-176866-2).

The laboratory control sample duplicate (LCSD) for preparation batch 280-613600 and analytical batch 280-613678 recovered outside control limits for the following analytes:m-Nitrotoluene (73-125%R) at 65%R, o-Nitrotoluene (70-127%R) at 66%R, and p-Nitrotoluene (71-127%R) at 65%R. Samples were re-extracted within holding time in preparation batch 613758. o-Nitrotoluene and p-Nitrotoluene recovered within control limit in the re-extraction LCS/LCSD and is reported primary in re-extraction with RE suffix. m-Nitrotoluene failed control limit in re-extraction and is reported secondary in re-extraction with RE suffix. The associated samples are impacted: FBQmw-179-230301-GW (280-176866-1) and FBQmw-181-230301-GW (280-176866-2).

The laboratory control sample duplicate (LCSD) for re-extraction preparation batch 280-613758 and analytical batch 280-613812 recovered outside control limits for the following analytes:o-Nitrotoluene (71-127%R) at 70%R. The LCSD recovered within control limit in the confirmation instrument. o-Nitrotoluene is ND in both primary and confirmation instrument. The associated sample is impacted: FBQmw-179-230301-GW (280-176866-1).

Surrogate recovery for the following sample in preparation batch 280-613600 and analytical batch 280-613822 was outside the lower control limits: FBQmw-179-230301-GW (280-176866-1). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed. Surrogate recovered within control limit in the primary instrument.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Detection Summary

Client: Leidos, Inc.
Job ID: 280-176866-1
Project/Site: RVAAP FWGW Spring 2023

Client Sample ID: FBQmw-179-230301-GW
Lab Sample ID: 280-176866-1

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	Dil Fac	D	Method	Prep Type
2-Nitrotoluene	3.2	Q J1	0.22	0.21	0.091	ug/L	1		8330B	Total/NA
RDX	0.77	J1	0.22	0.21	0.055	ug/L	1		8330B	Total/NA
RDX	0.24	Q B J1	0.22	0.21	0.055	ug/L	1		8330B	Total/NA
2-Nitrotoluene - RE	0.28	M J1	0.22	0.21	0.090	ug/L	1		8330B	Total/NA
2-Nitrotoluene - RE	4.1	M J1	0.22	0.21	0.090	ug/L	1		8330B	Total/NA

Client Sample ID: FBQmw-181-230301-GW
Lab Sample ID: 280-176866-2

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	Dil Fac	D	Method	Prep Type
2-Nitrotoluene	4.0	Q J1	0.22	0.21	0.090	ug/L	1		8330B	Total/NA
RDX	0.96	J1	0.22	0.21	0.054	ug/L	1		8330B	Total/NA
RDX	0.13	J B J1	0.22	0.21	0.054	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-179-230301-GW
Lab Sample ID: 280-176866-1
Date Collected: 05/22/23 11:22
Matrix: Water
Date Received: 05/23/23 09:30

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		05/25/23 04:31	1
1,3-Dinitrobenzene	0.11	U	0.12	0.11	0.039	ug/L		05/25/23 04:31	1
2,4,6-Trinitrotoluene	0.11	U	0.12	0.11	0.048	ug/L		05/25/23 04:31	1
2,4-Dinitrotoluene	0.086	U	0.11	0.086	0.029	ug/L		05/25/23 04:31	1
2,6-Dinitrotoluene	0.086	U	0.11	0.086	0.043	ug/L		05/25/23 04:31	1
2-Amino-4,6-dinitrotoluene	0.11	U	0.12	0.11	0.054	ug/L		05/25/23 04:31	1
2-Nitrotoluene	**3.2**	**Q J1**	0.22	0.21	0.091	ug/L		05/25/23 21:10	1
3-Nitrotoluene	0.37	U Q	0.43	0.37	0.21	ug/L		05/25/23 04:31	1
4-Amino-2,6-dinitrotoluene	0.13	U	0.16	0.13	0.062	ug/L		05/25/23 04:31	1
HMX	0.21	U Q	0.22	0.21	0.094	ug/L		05/25/23 21:10	1
Nitrobenzene	0.21	U	0.22	0.21	0.097	ug/L		05/25/23 04:31	1
Nitroglycerin	2.1	U	2.2	2.1	0.99	ug/L		05/25/23 04:31	1
PETN	1.1	U	1.2	1.1	0.48	ug/L		05/25/23 04:31	1
RDX	**0.77**	**J1**	0.22	0.21	0.055	ug/L		05/25/23 04:31	1
RDX	**0.24**	**Q B J1**	0.22	0.21	0.055	ug/L		05/25/23 21:10	1
Tetryl	0.11	U	0.12	0.11	0.034	ug/L		05/25/23 04:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dinitrobenzene	*85*		*83 - 119*	*05/24/23 12:32*	*05/25/23 04:31*	*1*
1,2-Dinitrobenzene	*80*	*Q*	*83 - 119*	*05/24/23 12:32*	*05/25/23 21:10*	*1*

Client Sample ID: FBQmw-181-230301-GW
Lab Sample ID: 280-176866-2
Date Collected: 05/22/23 14:00
Matrix: Water
Date Received: 05/23/23 09:30

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.21	U	0.22	0.21	0.088	ug/L		05/25/23 04:54	1
1,3-Dinitrobenzene	0.11	U M	0.12	0.11	0.039	ug/L		05/25/23 04:54	1
2,4,6-Trinitrotoluene	0.11	U	0.12	0.11	0.047	ug/L		05/25/23 04:54	1
2,4-Dinitrotoluene	0.084	U	0.11	0.084	0.029	ug/L		05/25/23 04:54	1
2,6-Dinitrotoluene	0.084	U	0.11	0.084	0.042	ug/L		05/25/23 04:54	1
2-Amino-4,6-dinitrotoluene	0.11	U	0.12	0.11	0.053	ug/L		05/25/23 04:54	1
2-Nitrotoluene	**4.0**	**Q J1**	0.22	0.21	0.090	ug/L		05/25/23 21:45	1
3-Nitrotoluene	0.37	U Q	0.42	0.37	0.21	ug/L		05/25/23 04:54	1
4-Amino-2,6-dinitrotoluene	0.13	U	0.16	0.13	0.061	ug/L		05/25/23 04:54	1
HMX	0.21	U	0.22	0.21	0.092	ug/L		05/25/23 21:45	1
Nitrobenzene	0.21	U	0.22	0.21	0.096	ug/L		05/25/23 04:54	1
Nitroglycerin	2.1	U	2.2	2.1	0.97	ug/L		05/25/23 04:54	1
PETN	1.1	U	1.2	1.1	0.47	ug/L		05/25/23 04:54	1
RDX	**0.96**	**J1**	0.22	0.21	0.054	ug/L		05/25/23 04:54	1
RDX	**0.13**	**J B J1**	0.22	0.21	0.054	ug/L		05/25/23 21:45	1
Tetryl	0.11	U	0.12	0.11	0.033	ug/L		05/25/23 04:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dinitrobenzene	*93*	*M*	*83 - 119*	*05/24/23 12:32*	*05/25/23 04:54*	*1*
1,2-Dinitrobenzene	*87*		*83 - 119*	*05/24/23 12:32*	*05/25/23 21:45*	*1*

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

Client Sample ID: FBQmw-179-230301-GW **Lab Sample ID: 280-176866-1**
Date Collected: 05/22/23 11:22 **Matrix: Water**
Date Received: 05/23/23 09:30

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
2-Nitrotoluene	**0.28**	**M J1**	0.22	0.21	0.090	ug/L		05/26/23 06:46	1
2-Nitrotoluene	**4.1**	**M J1**	0.22	0.21	0.090	ug/L		05/27/23 05:44	1
3-Nitrotoluene	0.37	U Q	0.42	0.37	0.20	ug/L		05/26/23 06:46	1
4-Nitrotoluene	0.42	U Q	0.43	0.42	0.10	ug/L		05/26/23 06:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dinitrobenzene	*96*	*M*	*83 - 119*	*05/25/23 14:07*	*05/26/23 06:46*	*1*
1,2-Dinitrobenzene	*96*		*83 - 119*	*05/25/23 14:07*	*05/27/23 05:44*	*1*

Client Sample ID: FBQmw-181-230301-GW **Lab Sample ID: 280-176866-2**
Date Collected: 05/22/23 14:00 **Matrix: Water**
Date Received: 05/23/23 09:30

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
2-Nitrotoluene	0.21	U M	0.22	0.21	0.088	ug/L		05/26/23 07:09	1
3-Nitrotoluene	0.36	U Q	0.41	0.36	0.20	ug/L		05/26/23 07:09	1
4-Nitrotoluene	0.41	U Q	0.42	0.41	0.10	ug/L		05/26/23 07:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dinitrobenzene	*92*		*83 - 119*	*05/25/23 14:07*	*05/26/23 07:09*	*1*

Default Detection Limits

Client: Leidos, Inc.
Project/Site: RVAAP FWGW Spring 2023

Job ID: 280-176866-1

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 Spring 2023

Job ID: 280-176866-1

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)
280-176866-1	FBQmw-179-230301-GW	85
280-176866-1 - RE	FBQmw-179-230301-GW	96 M
280-176866-2	FBQmw-181-230301-GW	93 M
280-176866-2 - RE	FBQmw-181-230301-GW	92
LCS 280-613600/2-A	Lab Control Sample	94 M
LCS 280-613758/2-A	Lab Control Sample	93
LCSD 280-613600/3-A	Lab Control Sample Dup	85
LCSD 280-613758/24-A	Lab Control Sample Dup	93
MB 280-613600/1-A	Method Blank	93
MB 280-613758/1-A	Method Blank	100

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)
280-176866-1	FBQmw-179-230301-GW	80 Q
280-176866-1 - RE	FBQmw-179-230301-GW	96
280-176866-2	FBQmw-181-230301-GW	87

Surrogate Legend

12DNB = 1,2-Dinitrobenzene

Method: 8330B - Nitroaromatics and Nitramines (HPLC)

Lab Sample ID: MB 280-613600/1-A
Matrix: Water
Analysis Batch: 613678

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 613600

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		05/24/23 23:33	1
1,3-Dinitrobenzene	0.10	U	0.11	0.10	0.037	ug/L		05/24/23 23:33	1
2,4,6-Trinitrotoluene	0.10	U	0.11	0.10	0.045	ug/L		05/24/23 23:33	1
2,4-Dinitrotoluene	0.080	U	0.10	0.080	0.027	ug/L		05/24/23 23:33	1
2,6-Dinitrotoluene	0.080	U	0.10	0.080	0.040	ug/L		05/24/23 23:33	1
2-Amino-4,6-dinitrotoluene	0.10	U	0.11	0.10	0.051	ug/L		05/24/23 23:33	1
2-Nitrotoluene	0.20	U	0.21	0.20	0.086	ug/L		05/24/23 23:33	1
3-Nitrotoluene	0.35	U	0.40	0.35	0.20	ug/L		05/24/23 23:33	1
4-Amino-2,6-dinitrotoluene	0.12	U	0.15	0.12	0.058	ug/L		05/24/23 23:33	1
4-Nitrotoluene	0.40	U	0.41	0.40	0.10	ug/L		05/24/23 23:33	1
HMX	0.20	U	0.21	0.20	0.088	ug/L		05/24/23 23:33	1
Nitrobenzene	0.20	U	0.21	0.20	0.091	ug/L		05/24/23 23:33	1
Nitroglycerin	2.0	U	2.1	2.0	0.92	ug/L		05/24/23 23:33	1
PETN	1.0	U	1.1	1.0	0.45	ug/L		05/24/23 23:33	1
RDX	0.20	U	0.21	0.20	0.052	ug/L		05/24/23 23:33	1
Tetryl	0.10	U	0.11	0.10	0.032	ug/L		05/24/23 23:33	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dinitrobenzene	*93*		*83 - 119*	*05/24/23 12:32*	*05/24/23 23:33*	*1*

Lab Sample ID: LCS 280-613600/2-A
Matrix: Water
Analysis Batch: 613678

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 613600

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
1,3,5-Trinitrobenzene			2.00	2.08	M	ug/L		104	73 - 125		
1,3-Dinitrobenzene			2.00	1.95		ug/L		98	78 - 120		
2,4,6-Trinitrotoluene			2.00	1.87		ug/L		93	71 - 123		
2,4-Dinitrotoluene			2.00	1.84		ug/L		92	78 - 120		
2,6-Dinitrotoluene			2.00	1.91		ug/L		96	77 - 127		
2-Amino-4,6-dinitrotoluene			2.00	1.81		ug/L		91	79 - 120		
2-Nitrotoluene			2.00	1.52		ug/L		76	70 - 127		
3-Nitrotoluene			2.00	1.48		ug/L		74	73 - 125		
4-Amino-2,6-dinitrotoluene			2.00	1.82		ug/L		91	76 - 125		
4-Nitrotoluene			2.00	1.50		ug/L		75	71 - 127		
HMX			2.00	1.77		ug/L		89	65 - 135		
Nitrobenzene			2.00	1.73		ug/L		86	65 - 134		
Nitroglycerin			20.0	19.8		ug/L		99	74 - 127		
PETN			20.0	21.1		ug/L		105	73 - 127		
RDX			2.00	1.95		ug/L		98	68 - 130		
Tetryl			2.00	2.04		ug/L		102	64 - 128		

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

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

Lab Sample ID: LCSD 280-613600/3-A
Matrix: Water
Analysis Batch: 613678

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 613600

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,3,5-Trinitrobenzene			2.00	1.94		ug/L		97	73 - 125	7	20
1,3-Dinitrobenzene			2.00	1.75		ug/L		88	78 - 120	11	20
2,4,6-Trinitrotoluene			2.00	1.70		ug/L		85	71 - 123	9	20
2,4-Dinitrotoluene			2.00	1.65		ug/L		82	78 - 120	11	20
2,6-Dinitrotoluene			2.00	1.65		ug/L		83	77 - 127	15	20
2-Amino-4,6-dinitrotoluene			2.00	1.63		ug/L		82	79 - 120	11	20
2-Nitrotoluene			2.00	1.31	Q	ug/L		66	70 - 127	15	20
3-Nitrotoluene			2.00	1.30	Q	ug/L		65	73 - 125	12	20
4-Amino-2,6-dinitrotoluene			2.00	1.62		ug/L		81	76 - 125	12	20
4-Nitrotoluene			2.00	1.31	Q	ug/L		65	71 - 127	14	20
HMX			2.00	1.69		ug/L		84	65 - 135	5	20
Nitrobenzene			2.00	1.51		ug/L		75	65 - 134	14	20
Nitroglycerin			20.0	18.2		ug/L		91	74 - 127	8	20
PETN			20.0	19.5		ug/L		98	73 - 127	8	20
RDX			2.00	1.76		ug/L		88	68 - 130	10	20
Tetryl			2.00	1.90		ug/L		95	64 - 128	7	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dinitrobenzene	*85*		*83 - 119*

Lab Sample ID: MB 280-613758/1-A
Matrix: Water
Analysis Batch: 613812

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 613758

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		05/25/23 21:35	1
1,3-Dinitrobenzene	0.10	U	0.11	0.10	0.037	ug/L		05/25/23 21:35	1
2,4,6-Trinitrotoluene	0.10	U	0.11	0.10	0.045	ug/L		05/25/23 21:35	1
2,4-Dinitrotoluene	0.080	U	0.10	0.080	0.027	ug/L		05/25/23 21:35	1
2,6-Dinitrotoluene	0.080	U	0.10	0.080	0.040	ug/L		05/25/23 21:35	1
2-Amino-4,6-dinitrotoluene	0.10	U	0.11	0.10	0.051	ug/L		05/25/23 21:35	1
2-Nitrotoluene	0.20	U	0.21	0.20	0.086	ug/L		05/25/23 21:35	1
3-Nitrotoluene	0.35	U	0.40	0.35	0.20	ug/L		05/25/23 21:35	1
4-Amino-2,6-dinitrotoluene	0.12	U	0.15	0.12	0.058	ug/L		05/25/23 21:35	1
4-Nitrotoluene	0.40	U	0.41	0.40	0.10	ug/L		05/25/23 21:35	1
HMX	0.20	U	0.21	0.20	0.088	ug/L		05/25/23 21:35	1
Nitrobenzene	0.20	U	0.21	0.20	0.091	ug/L		05/25/23 21:35	1
Nitroglycerin	2.0	U	2.1	2.0	0.92	ug/L		05/25/23 21:35	1
PETN	1.0	U	1.1	1.0	0.45	ug/L		05/25/23 21:35	1
RDX	0.20	U	0.21	0.20	0.052	ug/L		05/25/23 21:35	1
Tetryl	0.10	U	0.11	0.10	0.032	ug/L		05/25/23 21:35	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dinitrobenzene	*100*		*83 - 119*	*05/25/23 14:07*	*05/25/23 21:35*	*1*

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

Lab Sample ID: LCS 280-613758/2-A
Matrix: Water
Analysis Batch: 613812

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 613758

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
1,3,5-Trinitrobenzene			2.50	2.53		ug/L		101	73 - 125		
1,3-Dinitrobenzene			2.50	2.43		ug/L		97	78 - 120		
2,4,6-Trinitrotoluene			2.50	2.35		ug/L		94	71 - 123		
2,4-Dinitrotoluene			2.50	2.30		ug/L		92	78 - 120		
2,6-Dinitrotoluene			2.50	2.37		ug/L		95	77 - 127		
2-Amino-4,6-dinitrotoluene			2.50	2.25		ug/L		90	79 - 120		
2-Nitrotoluene			2.50	1.81		ug/L		73	70 - 127		
3-Nitrotoluene			2.50	1.79	Q	ug/L		71	73 - 125		
4-Amino-2,6-dinitrotoluene			2.50	2.28		ug/L		91	76 - 125		
4-Nitrotoluene			2.50	1.82		ug/L		73	71 - 127		
HMX			2.50	2.25	M	ug/L		90	65 - 135		
Nitrobenzene			2.50	2.14		ug/L		85	65 - 134		
Nitroglycerin			25.0	24.6		ug/L		98	74 - 127		
PETN			25.0	26.7		ug/L		107	73 - 127		
RDX			2.50	2.51		ug/L		100	68 - 130		
Tetryl			2.50	2.68		ug/L		107	64 - 128		

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

Lab Sample ID: LCSD 280-613758/24-A
Matrix: Water
Analysis Batch: 613812

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 613758

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,3,5-Trinitrobenzene			2.50	2.56		ug/L		103	73 - 125	1	20
1,3-Dinitrobenzene			2.50	2.42		ug/L		97	78 - 120	0	20
2,4,6-Trinitrotoluene			2.50	2.33		ug/L		93	71 - 123	1	20
2,4-Dinitrotoluene			2.50	2.26		ug/L		90	78 - 120	2	20
2,6-Dinitrotoluene			2.50	2.33		ug/L		93	77 - 127	2	20
2-Amino-4,6-dinitrotoluene			2.50	2.25		ug/L		90	79 - 120	0	20
2-Nitrotoluene			2.50	1.80		ug/L		72	70 - 127	1	20
3-Nitrotoluene			2.50	1.75	Q	ug/L		70	73 - 125	2	20
4-Amino-2,6-dinitrotoluene			2.50	2.24		ug/L		89	76 - 125	2	20
4-Nitrotoluene			2.50	1.74	Q	ug/L		70	71 - 127	4	20
HMX			2.50	2.24	M	ug/L		90	65 - 135	0	20
Nitrobenzene			2.50	2.12		ug/L		85	65 - 134	1	20
Nitroglycerin			25.0	24.6		ug/L		98	74 - 127	0	20
PETN			25.0	26.7		ug/L		107	73 - 127	0	20
RDX			2.50	2.52		ug/L		101	68 - 130	1	20
Tetryl			2.50	2.62		ug/L		105	64 - 128	2	20

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

HPLC/IC

Prep Batch: 613600

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-176866-1	FBQmw-179-230301-GW	Total/NA	Water	3535	
280-176866-2	FBQmw-181-230301-GW	Total/NA	Water	3535	
MB 280-613600/1-A	Method Blank	Total/NA	Water	3535	
LCS 280-613600/2-A	Lab Control Sample	Total/NA	Water	3535	
LCSD 280-613600/3-A	Lab Control Sample Dup	Total/NA	Water	3535	

Analysis Batch: 613678

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-176866-1	FBQmw-179-230301-GW	Total/NA	Water	8330B	613600
280-176866-2	FBQmw-181-230301-GW	Total/NA	Water	8330B	613600
MB 280-613600/1-A	Method Blank	Total/NA	Water	8330B	613600
LCS 280-613600/2-A	Lab Control Sample	Total/NA	Water	8330B	613600
LCSD 280-613600/3-A	Lab Control Sample Dup	Total/NA	Water	8330B	613600

Prep Batch: 613758

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-176866-1 - RE	FBQmw-179-230301-GW	Total/NA	Water	3535	
280-176866-2 - RE	FBQmw-181-230301-GW	Total/NA	Water	3535	
MB 280-613758/1-A	Method Blank	Total/NA	Water	3535	
LCS 280-613758/2-A	Lab Control Sample	Total/NA	Water	3535	
LCSD 280-613758/24-A	Lab Control Sample Dup	Total/NA	Water	3535	

Analysis Batch: 613812

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-176866-1 - RE	FBQmw-179-230301-GW	Total/NA	Water	8330B	613758
280-176866-2 - RE	FBQmw-181-230301-GW	Total/NA	Water	8330B	613758
MB 280-613758/1-A	Method Blank	Total/NA	Water	8330B	613758
LCS 280-613758/2-A	Lab Control Sample	Total/NA	Water	8330B	613758
LCSD 280-613758/24-A	Lab Control Sample Dup	Total/NA	Water	8330B	613758

Analysis Batch: 613822

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-176866-1	FBQmw-179-230301-GW	Total/NA	Water	8330B	613600
280-176866-2	FBQmw-181-230301-GW	Total/NA	Water	8330B	613600

Analysis Batch: 613968

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-176866-1 - RE	FBQmw-179-230301-GW	Total/NA	Water	8330B	613758

Lab Chronicle

Client: Leidos, Inc.
Job ID: 280-176866-1
Project/Site: RVAAP FWGW Spring 2023

Client Sample ID: FBQmw-179-230301-GW
Lab Sample ID: 280-176866-1
Date Collected: 05/22/23 11:22
Matrix: Water
Date Received: 05/23/23 09:30

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		477.1 mL	5 mL	613758	05/25/23 14:07	EH	EET DEN
Total/NA	Analysis	8330B	RE	1	1 mL	1 mL	613968	05/27/23 05:44	JZ	EET DEN
Total/NA	Prep	3535			467.4 mL	5 mL	613600	05/24/23 12:32	AAA	EET DEN
Total/NA	Analysis	8330B		1	1 mL	1 mL	613678	05/25/23 04:31	JZ	EET DEN
Total/NA	Prep	3535	RE		477.1 mL	5 mL	613758	05/25/23 14:07	EH	EET DEN
Total/NA	Analysis	8330B	RE	1	1 mL	1 mL	613812	05/26/23 06:46	JZ	EET DEN
Total/NA	Prep	3535			467.4 mL	5 mL	613600	05/24/23 12:32	AAA	EET DEN
Total/NA	Analysis	8330B		1	1 mL	1 mL	613822	05/25/23 21:10	JZ	EET DEN

Client Sample ID: FBQmw-181-230301-GW
Lab Sample ID: 280-176866-2
Date Collected: 05/22/23 14:00
Matrix: Water
Date Received: 05/23/23 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			475.4 mL	5 mL	613600	05/24/23 12:32	AAA	EET DEN
Total/NA	Analysis	8330B		1	1 mL	1 mL	613678	05/25/23 04:54	JZ	EET DEN
Total/NA	Prep	3535	RE		483.8 mL	5 mL	613758	05/25/23 14:07	EH	EET DEN
Total/NA	Analysis	8330B	RE	1	1 mL	1 mL	613812	05/26/23 07:09	JZ	EET DEN
Total/NA	Prep	3535			475.4 mL	5 mL	613600	05/24/23 12:32	AAA	EET DEN
Total/NA	Analysis	8330B		1	1 mL	1 mL	613822	05/25/23 21:45	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. Job ID: 280-176866-1
Project/Site: RVAAP FWGW Spring 2023

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	10-31-23

Method Summary

Client: Leidos, Inc. Job ID: 280-176866-1
Project/Site: RVAAP FWGW Spring 2023

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.
Job ID: 280-176866-1
Project/Site: RVAAP FWGW Spring 2023

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
280-176866-1	FBQmw-179-230301-GW	Water	05/22/23 11:22	05/23/23 09:30
280-176866-2	FBQmw-181-230301-GW	Water	05/22/23 14:00	05/23/23 09:30

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-176866-1

SDG No.:

Instrument ID: CHHPLC_G2_LUNA Analysis Batch Number: 607981

Lab Sample ID: IC 280-607981/10 Client Sample ID:

Date Analyzed: 04/07/23 19:03 Lab File ID: 04070010.D GC Column: Luna-phenylhe ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
DNX	6.08	Baseline	LV5D	04/07/23 20:06
2-Amino-4,6-dinitrotoluene	17.37	Baseline	LV5D	04/07/23 20:06
1,3,5-Trinitrobenzene	17.44	Unspecified		

Lab Sample ID: IC 280-607981/11 Client Sample ID:

Date Analyzed: 04/07/23 19:39 Lab File ID: 04070011.D GC Column: Luna-phenylhe ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
DNX	6.16	Baseline	LV5D	04/07/23 21:06
Picric acid	8.10	Baseline	LV5D	04/07/23 21:06

Lab Sample ID: IC 280-607981/15 Client Sample ID:

Date Analyzed: 04/07/23 22:02 Lab File ID: 04070015.D GC Column: Luna-phenylhe ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2-Nitrotoluene	15.83	Baseline	LV5D	04/08/23 10:38
4-Nitrotoluene	16.05	Baseline	LV5D	04/08/23 10:38
4-Amino-2,6-dinitrotoluene	16.59	Baseline	LV5D	04/08/23 10:38
3-Nitrotoluene	16.90	Baseline	LV5D	04/08/23 10:38
2-Amino-4,6-dinitrotoluene	17.41	Baseline	LV5D	04/08/23 10:38
1,3,5-Trinitrobenzene	17.57	Baseline	LV5D	04/08/23 10:38

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-176866-1

SDG No.:

Instrument ID: CHHPLC_G2_LUNA Analysis Batch Number: 607981

Lab Sample ID: IC 280-607981/16 Client Sample ID:

Date Analyzed: 04/07/23 22:38 Lab File ID: 04070016.D GC Column: Luna-phenylhe ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2-Nitrotoluene	15.84	Baseline	LV5D	04/08/23 10:39
4-Nitrotoluene	16.07	Baseline	LV5D	04/08/23 10:39
4-Amino-2,6-dinitrotoluene	16.61	Baseline	LV5D	04/08/23 10:39
3-Nitrotoluene	16.91	Baseline	LV5D	04/08/23 10:39
2-Amino-4,6-dinitrotoluene	17.43	Baseline	LV5D	04/08/23 10:39
1,3,5-Trinitrobenzene	17.59	Baseline	LV5D	04/08/23 10:39
PETN	24.55	Baseline	LV5D	04/08/23 10:40

Lab Sample ID: IC 280-607981/17 Client Sample ID:

Date Analyzed: 04/07/23 23:14 Lab File ID: 04070017.D GC Column: Luna-phenylhe ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2-Amino-4,6-dinitrotoluene	17.43	Baseline	LV5D	04/08/23 10:40
1,3,5-Trinitrobenzene	17.59	Baseline	LV5D	04/08/23 10:40
PETN	24.56	Baseline	LV5D	04/08/23 10:40

Lab Sample ID: IC 280-607981/18 Client Sample ID:

Date Analyzed: 04/07/23 23:50 Lab File ID: 04070018.D GC Column: Luna-phenylhe ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2-Nitrotoluene	15.84	Baseline	LV5D	04/08/23 10:40
4-Nitrotoluene	16.06	Baseline	LV5D	04/08/23 10:40
2-Amino-4,6-dinitrotoluene	17.42	Baseline	LV5D	04/08/23 10:40
1,3,5-Trinitrobenzene	17.58	Baseline	LV5D	04/08/23 10:40
PETN	24.57	Baseline	LV5D	04/08/23 10:40

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-176866-1

SDG No.:

Instrument ID: CHHPLC_G2_LUNA Analysis Batch Number: 607981

Lab Sample ID: ICV 280-607981/19 Client Sample ID:

Date Analyzed: 04/08/23 00:26 Lab File ID: 04070019.D GC Column: Luna-phenylhe ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PETN	24.53	Baseline	LV5D	04/08/23 10:42

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-176866-1

SDG No.:

Instrument ID: CHHPLC_G2_LUNA Analysis Batch Number: 613968

Lab Sample ID: 280-176866-1 RE Client Sample ID: FBQmw-179-230301-GW RE

Date Analyzed: 05/27/23 05:44 Lab File ID: 05260029.D GC Column: Luna-phenylhe ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2-Nitrotoluene	15.72	Baseline	LV5D	05/27/23 10:13

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-176866-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 601664

Lab Sample ID: IC 280-601664/11 Client Sample ID:

Date Analyzed: 02/08/23 15:38 Lab File ID: 02080011.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.55	Baseline Smoothing	LV5D	02/08/23 16:28

Lab Sample ID: IC 280-601664/12 Client Sample ID:

Date Analyzed: 02/08/23 16:01 Lab File ID: 02080012.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.55	Baseline Smoothing	LV5D	02/08/23 16:28

Lab Sample ID: IC 280-601664/13 Client Sample ID:

Date Analyzed: 02/08/23 16:24 Lab File ID: 02080013.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.54	Baseline Smoothing	LV5D	02/08/23 16:55
RDX	7.56	Baseline Smoothing	LV5D	02/08/23 19:09

Lab Sample ID: IC 280-601664/14 Client Sample ID:

Date Analyzed: 02/08/23 16:47 Lab File ID: 02080014.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.55	Baseline Smoothing	LV5D	02/08/23 17:11
RDX	7.56	Baseline Smoothing	LV5D	02/08/23 19:09

Lab Sample ID: IC 280-601664/15 Client Sample ID:

Date Analyzed: 02/08/23 17:10 Lab File ID: 02080015.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
RDX	7.57	Baseline Smoothing	LV5D	02/08/23 19:09

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-176866-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 601664

Lab Sample ID: IC 280-601664/16 Client Sample ID:

Date Analyzed: 02/08/23 17:33 Lab File ID: 02080016.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
RDX	7.56	Baseline Smoothing	LV5D	02/08/23 19:09
PETN	14.55	Baseline Smoothing	LV5D	02/08/23 19:08

Lab Sample ID: IC 280-601664/17 Client Sample ID:

Date Analyzed: 02/08/23 17:56 Lab File ID: 02080017.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.55	Baseline Smoothing	LV5D	02/08/23 19:07
RDX	7.57	Baseline Smoothing	LV5D	02/08/23 19:09
PETN	14.58	Baseline Smoothing	LV5D	02/08/23 19:08

Lab Sample ID: IC 280-601664/18 Client Sample ID:

Date Analyzed: 02/08/23 18:19 Lab File ID: 02080018.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.55	Baseline Smoothing	LV5D	02/08/23 19:09
RDX	7.56	Baseline Smoothing	LV5D	02/08/23 19:09
PETN	14.59	Baseline Smoothing	LV5D	02/08/23 19:08

Lab Sample ID: IC 280-601664/19 Client Sample ID:

Date Analyzed: 02/08/23 18:42 Lab File ID: 02080019.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.55	Baseline Smoothing	LV5D	02/08/23 19:09
RDX	7.56	Baseline Smoothing	LV5D	02/08/23 19:08
PETN	14.58	Unspecified		

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-176866-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 601664

Lab Sample ID: ICV 280-601664/20 Client Sample ID:

Date Analyzed: 02/08/23 19:05 Lab File ID: 02080020.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.55	Baseline Smoothing	LV5D	02/08/23 19:31
RDX	7.56	Baseline Smoothing	LV5D	02/08/23 19:32

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-176866-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 613678

Lab Sample ID: MB 280-613600/1-A Client Sample ID:

Date Analyzed: 05/24/23 23:33 Lab File ID: 05240027.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,3,5-Trinitrobenzene		Invalid Compound ID	LV5D	05/25/23 11:21

Lab Sample ID: LCS 280-613600/2-A Client Sample ID:

Date Analyzed: 05/24/23 23:55 Lab File ID: 05240028.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,2-Dinitrobenzene	8.53	Baseline	K8YG	05/25/23 08:15
1,3,5-Trinitrobenzene	8.65	Baseline	K8YG	05/25/23 08:15

Lab Sample ID: 280-176866-1 Client Sample ID: FBQmw-179-230301-GW

Date Analyzed: 05/25/23 04:31 Lab File ID: 05240040.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.57	Baseline	K8YG	05/25/23 08:34

Lab Sample ID: 280-176866-2 Client Sample ID: FBQmw-181-230301-GW

Date Analyzed: 05/25/23 04:54 Lab File ID: 05240041.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.56	Baseline	K8YG	05/25/23 08:35
1,2-Dinitrobenzene	8.53	Baseline	K8YG	05/25/23 08:36
1,3-Dinitrobenzene		Invalid Compound ID	K8YG	05/25/23 08:36

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-176866-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 613812

Lab Sample ID: CCV 280-613812/26 Client Sample ID:

Date Analyzed: 05/25/23 21:12 Lab File ID: 05250026.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TNX	6.44	Baseline	K8YG	05/26/23 07:10
HMX	6.56	Baseline	K8YG	05/26/23 07:10
DNX	6.76	Baseline	K8YG	05/26/23 07:10

Lab Sample ID: MB 280-613758/1-A Client Sample ID:

Date Analyzed: 05/25/23 21:35 Lab File ID: 05250027.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,3,5-Trinitrobenzene		Invalid Compound ID	K8YG	05/26/23 07:13

Lab Sample ID: LCS 280-613758/2-A Client Sample ID:

Date Analyzed: 05/25/23 21:58 Lab File ID: 05250028.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.55	Baseline	K8YG	05/26/23 07:14

Lab Sample ID: LCSD 280-613758/24-A Client Sample ID:

Date Analyzed: 05/25/23 22:21 Lab File ID: 05250029.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.55	Baseline	K8YG	05/26/23 07:18

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-176866-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 613812

Lab Sample ID: CCV 280-613812/35 Client Sample ID:

Date Analyzed: 05/26/23 00:38 Lab File ID: 05250035.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TNX	6.43	Baseline	K8YG	05/26/23 07:29
HMX	6.55	Baseline	K8YG	05/26/23 07:29
DNX	6.75	Baseline	K8YG	05/26/23 07:30

Lab Sample ID: CCV 280-613812/46 Client Sample ID:

Date Analyzed: 05/26/23 04:51 Lab File ID: 05250046.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TNX	6.43	Baseline	K8YG	05/26/23 07:55
HMX	6.55	Baseline	K8YG	05/26/23 07:55
DNX	6.75	Baseline	K8YG	05/26/23 07:55
1,3,5-Trinitrobenzene	8.64	Baseline	K8YG	05/26/23 07:55

Lab Sample ID: 280-176866-1 RE Client Sample ID: FBQmw-179-230301-GW RE

Date Analyzed: 05/26/23 06:46 Lab File ID: 05250051.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.56	Baseline	K8YG	05/26/23 08:03
1,2-Dinitrobenzene	8.51	Baseline	K8YG	05/26/23 08:03
1,3,5-Trinitrobenzene		Invalid Compound ID	K8YG	05/26/23 08:04
1,3-Dinitrobenzene		Invalid Compound ID	K8YG	05/26/23 08:04
2-Nitrotoluene	12.48	Baseline	K8YG	05/26/23 08:04

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-176866-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 613812

Lab Sample ID: 280-176866-2 RE Client Sample ID: FBQmw-181-230301-GW RE

Date Analyzed: 05/26/23 07:09 Lab File ID: 05250052.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.56	Baseline	K8YG	05/26/23 08:05
1,3,5-Trinitrobenzene		Invalid Compound ID	K8YG	05/26/23 08:06
1,3-Dinitrobenzene		Invalid Compound ID	K8YG	05/26/23 08:06
2-Nitrotoluene		Baseline	K8YG	05/26/23 08:06
2,4-Dinitrotoluene	11.68	Baseline	K8YG	05/26/23 08:06

Lab Sample ID: CCV 280-613812/53 Client Sample ID:

Date Analyzed: 05/26/23 07:32 Lab File ID: 05250053.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TNX	6.43	Baseline	K8YG	05/26/23 08:08
HMX	6.55	Baseline	K8YG	05/26/23 08:08
DNX	6.75	Baseline	K8YG	05/26/23 08:08
1,3,5-Trinitrobenzene	8.65	Baseline	K8YG	05/26/23 08:09

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-176866-1

SDG No.:

Instrument ID: CHHPLC_X5 Analysis Batch Number: 610603

Lab Sample ID: IC 280-610603/10 Client Sample ID:

Date Analyzed: 04/28/23 18:24 Lab File ID: 04280010.D GC Column: Luna-phenylhe ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
3,5-Dinitroaniline	14.37	Baseline Smoothing	LV5D	04/28/23 19:01
1,3-Dinitrobenzene	14.53	Baseline Smoothing	LV5D	04/28/23 19:01
2-Nitrotoluene	15.66	Baseline Smoothing	LV5D	04/28/23 19:01
4-Nitrotoluene	15.83	Baseline Smoothing	LV5D	04/28/23 19:01
4-Amino-2,6-dinitrotoluene	16.44	Baseline Smoothing	LV5D	04/28/23 19:01
3-Nitrotoluene	16.73	Baseline Smoothing	LV5D	04/28/23 19:01
1,3,5-Trinitrobenzene	17.37	Baseline Smoothing	LV5D	04/28/23 19:01
2-Amino-4,6-dinitrotoluene	17.37	Baseline Smoothing	LV5D	04/28/23 19:01
2,6-Dinitrotoluene	18.56	Baseline Smoothing	LV5D	04/28/23 19:01
2,4-Dinitrotoluene	19.02	Baseline Smoothing	LV5D	04/28/23 19:01

Lab Sample ID: IC 280-610603/11 Client Sample ID:

Date Analyzed: 04/28/23 18:59 Lab File ID: 04280011.D GC Column: Luna-phenylhe ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2-Amino-4,6-dinitrotoluene	17.40	Baseline Smoothing	LV5D	04/28/23 20:43
1,3,5-Trinitrobenzene	17.44	Baseline Smoothing	LV5D	04/28/23 20:43

Lab Sample ID: IC 280-610603/12 Client Sample ID:

Date Analyzed: 04/28/23 19:34 Lab File ID: 04280012.D GC Column: Luna-phenylhe ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2-Amino-4,6-dinitrotoluene	17.33	Baseline Smoothing	LV5D	04/28/23 20:43
1,3,5-Trinitrobenzene	17.39	Baseline Smoothing	LV5D	04/28/23 20:43

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-176866-1

SDG No.:

Instrument ID: CHHPLC_X5 Analysis Batch Number: 610603

Lab Sample ID: IC 280-610603/13 Client Sample ID:

Date Analyzed: 04/28/23 20:08 Lab File ID: 04280013.D GC Column: Luna-phenylhe ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2-Amino-4,6-dinitrotoluene	17.35	Baseline Smoothing	LV5D	04/28/23 20:52
1,3,5-Trinitrobenzene	17.41	Baseline Smoothing	LV5D	04/28/23 20:52

Lab Sample ID: IC 280-610603/14 Client Sample ID:

Date Analyzed: 04/28/23 20:43 Lab File ID: 04280014.D GC Column: Luna-phenylhe ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2-Amino-4,6-dinitrotoluene	17.36	Unspecified		
1,3,5-Trinitrobenzene	17.42	Baseline Smoothing	LV5D	04/29/23 10:22

Lab Sample ID: IC 280-610603/15 Client Sample ID:

Date Analyzed: 04/28/23 21:18 Lab File ID: 04280015.D GC Column: Luna-phenylhe ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2-Amino-4,6-dinitrotoluene	17.37	Unspecified		
1,3,5-Trinitrobenzene	17.42	Baseline Smoothing	LV5D	04/29/23 10:22

Lab Sample ID: IC 280-610603/16 Client Sample ID:

Date Analyzed: 04/28/23 21:53 Lab File ID: 04280016.D GC Column: Luna-phenylhe ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2-Amino-4,6-dinitrotoluene	17.38	Unspecified		
1,3,5-Trinitrobenzene	17.43	Baseline Smoothing	LV5D	04/29/23 10:22

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-176866-1

SDG No.:

Instrument ID: CHHPLC_X5 Analysis Batch Number: 610603

Lab Sample ID: IC 280-610603/17 Client Sample ID:

Date Analyzed: 04/28/23 22:28 Lab File ID: 04280017.D GC Column: Luna-phenylhe ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2-Nitrotoluene	15.77	Baseline Smoothing	LV5D	04/29/23 10:23
4-Nitrotoluene	16.00	Unspecified		
4-Amino-2,6-dinitrotoluene	16.56	Baseline Smoothing	LV5D	04/29/23 10:23
3-Nitrotoluene	16.84	Baseline Smoothing	LV5D	04/29/23 10:23
2-Amino-4,6-dinitrotoluene	17.41	Unspecified		
1,3,5-Trinitrobenzene	17.46	Baseline Smoothing	LV5D	04/29/23 10:23

Lab Sample ID: IC 280-610603/18 Client Sample ID:

Date Analyzed: 04/28/23 23:03 Lab File ID: 04280018.D GC Column: Luna-phenylhe ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2-Nitrotoluene	15.74	Baseline Smoothing	LV5D	04/29/23 10:24
4-Nitrotoluene	15.97	Unspecified		
4-Amino-2,6-dinitrotoluene	16.53	Baseline Smoothing	LV5D	04/29/23 13:01
3-Nitrotoluene	16.84	Baseline Smoothing	LV5D	04/29/23 13:01
2-Amino-4,6-dinitrotoluene	17.37	Unspecified		
1,3,5-Trinitrobenzene	17.44	Baseline Smoothing	LV5D	04/29/23 10:24

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-176866-1

SDG No.:

Instrument ID: CHHPLC_X5 Analysis Batch Number: 610603

Lab Sample ID: ICV 280-610603/19 Client Sample ID:

Date Analyzed: 04/28/23 23:38 Lab File ID: 04280019.D GC Column: Luna-phenylhe ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
3,5-Dinitroaniline	14.32	Baseline Smoothing	LV5D	04/29/23 10:27
1,3-Dinitrobenzene	14.59	Baseline Smoothing	LV5D	04/29/23 10:27
2-Nitrotoluene	15.70	Baseline Smoothing	LV5D	04/29/23 10:27
4-Nitrotoluene	15.92	Baseline Smoothing	LV5D	04/29/23 10:27
4-Amino-2,6-dinitrotoluene	16.48	Baseline Smoothing	LV5D	04/29/23 10:27
3-Nitrotoluene	16.78	Baseline Smoothing	LV5D	04/29/23 10:27
2-Amino-4,6-dinitrotoluene	17.34	Unspecified		
1,3,5-Trinitrobenzene	17.42	Baseline Smoothing	LV5D	04/29/23 10:27

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-176866-1

SDG No.:

Instrument ID: CHHPLC_X5 Analysis Batch Number: 613822

Lab Sample ID: CCV 280-613822/7 Client Sample ID:

Date Analyzed: 05/25/23 17:05 Lab File ID: 05250007.D GC Column: Luna-phenylhe ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2-Nitrotoluene	15.59	Baseline Smoothing	LV5D	05/25/23 17:57
4-Nitrotoluene	15.81	Baseline Smoothing	LV5D	05/25/23 17:57
4-Amino-2,6-dinitrotoluene	16.36	Baseline Smoothing	LV5D	05/25/23 17:57
3-Nitrotoluene	16.65	Baseline Smoothing	LV5D	05/25/23 17:57
2-Amino-4,6-dinitrotoluene	17.18	Baseline Smoothing	LV5D	05/25/23 17:57
1,3,5-Trinitrobenzene	17.31	Baseline Smoothing	LV5D	05/25/23 17:57

Lab Sample ID: 280-176866-2 Client Sample ID: FBQmw-181-230301-GW

Date Analyzed: 05/25/23 21:45 Lab File ID: 05250017.D GC Column: Luna-phenylhe ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitroglycerin		Invalid Compound ID	LV5D	05/26/23 14:32

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-176866-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
8330 DMT_00013	08/24/23	02/24/23	Acetonitrile, Lot ACN_237	5 mL	MNX,TNX,DNX_00076	1 mL	DNX	20.02 ug/mL
							MNX	23.34 ug/mL
							TNX	20.06 ug/mL
.MNX,TNX,DNX_00076	02/29/24		Agilent, Lot 0006725091		(Purchased Reagent)		DNX	100.1 ug/mL
							MNX	116.7 ug/mL
							TNX	100.3 ug/mL
8330 LCS_00121	07/21/23	01/21/23	Acetonitrile, Lot Acetonitrile_00073	50 mL	8330_NG_Stk_00118	0.6 mL	Nitroglycerin	100 ug/mL
					8330_NG_Stk_00120	0.4 mL	Nitroglycerin	100 ug/mL
					8330_PETN_Stk_00128	1 mL	PETN	100 ug/mL
					8330LCSMix1_00136	0.5 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
					8330LCSmix2_00034	0.5 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_00118	12/24/23		Restek, Lot A0188553		(Purchased Reagent)		Nitroglycerin	5000 ug/mL
.8330_NG_Stk_00120	01/21/24		Restek, Lot A0188553		(Purchased Reagent)		Nitroglycerin	5000 ug/mL
.8330_PETN_Stk_00128	01/21/24		Restek, Lot A0187506		(Purchased Reagent)		PETN	5000 ug/mL
.8330LCSMix1_00136	10/19/23		Restek, Lot A0171502		(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
.8330LCSmix2_00034	01/21/24		Restek, Lot A0186475		(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 LCS_00125	12/23/23	04/03/23	Acetonitrile, Lot Acetonitrile_00073	100 mL	8330_NG_Stk_00128	1 mL	Nitroglycerin	100 ug/mL
					8330_NG_Stk_00129	1 mL	Nitroglycerin	100 ug/mL
					8330_PETN_Stk_00133	1 mL	PETN	100 ug/mL
					8330_PETN_Stk_00134	1 mL	PETN	100 ug/mL

Lab Name: Eurofins Denver Job No.: 280-176866-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
					8330LCSMix1_00140	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
					8330LCSmix2_00038	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_00128	04/03/24		Restek, Lot A0194013		(Purchased Reagent)		Nitroglycerin	5000 ug/mL
.8330_NG_Stk_00129	04/03/24		Restek, Lot A0194013		(Purchased Reagent)		Nitroglycerin	5000 ug/mL
.8330_PETN_Stk_00133	04/03/24		Restek, Lot A0188550		(Purchased Reagent)		PETN	5000 ug/mL
.8330_PETN_Stk_00134	04/03/24		Restek, Lot A0188550		(Purchased Reagent)		PETN	5000 ug/mL
.8330LCSMix1_00140	04/03/24		Restek, Lot A0183848		(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
.8330LCSmix2_00038	04/03/24		Restek, Lot A0192237		(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 LCS_00126	04/26/24	04/26/23	Acetonitrile, Lot Acetonitrile_00077	100 mL	3,5-DNA Stock_00042	1 mL	3,5-Dinitroaniline	10 ug/mL
					8330_NG_Stk_00130	1 mL	Nitroglycerin	100 ug/mL
					8330_NG_Stk_00131	1 mL	Nitroglycerin	100 ug/mL
					8330_PETN_Stk_00135	1 mL	PETN	100 ug/mL
					8330_PETN_Stk_00136	1 mL	PETN	100 ug/mL
					8330LCSMix1_00141	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
					8330LCSmix2_00039	1 mL	2,6-Dinitrotoluene	10 ug/mL
							2-Amino-4,6-dinitrotoluene	10 ug/mL
							2-Nitrotoluene	10 ug/mL

Lab Name: Eurofins Denver Job No.: 280-176866-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							3-Nitrotoluene	10 ug/mL
							4-Amino-2,6-dinitrotoluene	10 ug/mL
							4-Nitrotoluene	10 ug/mL
							Tetryl	10 ug/mL
					PicricARestek_00114	1 mL	2,4,6-Trinitrophenol	10 ug/mL
.3,5-DNA Stock_00042	04/26/24		Restek, Lot A0185772		(Purchased Reagent)		3,5-Dinitroaniline	1000 ug/mL
.8330_NG_Stk_00130	04/26/24		Restek, Lot A0194013		(Purchased Reagent)		Nitroglycerin	5000 ug/mL
.8330_NG_Stk_00131	04/26/24		Restek, Lot A0194013		(Purchased Reagent)		Nitroglycerin	5000 ug/mL
.8330_PETN_Stk_00135	04/26/24		Restek, Lot A0188550		(Purchased Reagent)		PETN	5000 ug/mL
.8330_PETN_Stk_00136	04/26/24		Restek, Lot A0188550		(Purchased Reagent)		PETN	5000 ug/mL
.8330LCSMix1_00141	04/26/24		Restek, Lot A0183848		(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
.8330LCSmix2_00039	04/26/24		Restek, Lot A0192237		(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
.PicricARestek_00114	04/26/24		Restek, Lot A0183202		(Purchased Reagent)		2,4,6-Trinitrophenol	1000 ug/mL
8330_OP_DMT_00020	02/29/24	05/09/23	Acetonitrile, Lot Acetonitrile_00077	10 mL	MNX,TNX,DNX_00079	1 mL	DNX	10.01 ug/mL
							MNX	11.67 ug/mL
							TNX	10.03 ug/mL
.MNX,TNX,DNX_00079	02/29/24		Agilent, Lot 0006725091		(Purchased Reagent)		DNX	100.1 ug/mL
							MNX	116.7 ug/mL
							TNX	100.3 ug/mL
8330IntermStk_00075	08/07/23	02/03/23	Acetonitrile, Lot ACN_238	10 mL	8330_NG1000_00007	1 mL	Nitroglycerin	100 ug/mL
					8330_PETN1000_00011	1 mL	PETN	100 ug/mL
					833035DNAStk_00053	1 mL	3,5-Dinitroaniline	10 ug/mL
					8330ICALStock_00034	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

Lab Name: Eurofins Denver Job No.: 280-176866-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Nitrobenzene	10 ug/mL
							RDX	10 ug/mL
							Tetryl	10 ug/mL
							1,2-Dinitrobenzene	10 ug/mL
					8330PAStkPS_00070	1 mL	2,4,6-Trinitrophenol	10 ug/mL
.8330_NG1000_00007	02/03/24		Restek, Lot A0175997		(Purchased Reagent)		Nitroglycerin	1000 ug/mL
.8330_PETN1000_00011	02/03/24		Restek, Lot A0187142		(Purchased Reagent)		PETN	1000 ug/mL
.833035DNAStk_00053	10/06/23		Accustandard, Lot 222011692-01		(Purchased Reagent)		3,5-Dinitroaniline	100 ug/mL
.8330ICALStock_00034	02/03/24	02/03/23	Acetonitrile, Lot ACN_238	10 mL	8330 Stock_TS_00023	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_00172	1 mL	1,2-Dinitrobenzene	100 ug/mL
..8330 Stock_TS_00023	02/03/24		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_00172	02/03/24		AccuStandard, Lot 219051500		(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
.8330PAStkPS_00070	08/07/23		AccuStandard, Lot 218031154-03		(Purchased Reagent)		2,4,6-Trinitrophenol	100 ug/mL
8330IntermStk_00076	09/23/23	03/23/23	Acetonitrile, Lot ACN_237	10 mL	8330_NG1000_00010	1 mL	Nitroglycerin	100 ug/mL
					8330_PETN1000_00010	1 mL	PETN	100 ug/mL
					833035DNAStk_00054	1 mL	3,5-Dinitroaniline	10 ug/mL
					8330ICALStock_00034	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

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-176866-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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_00071	1 mL	2,4,6-Trinitrophenol	10 ug/mL
.8330_NG1000_00010	03/23/24		Restek, Lot A0187280		(Purchased Reagent)		Nitroglycerin	1000 ug/mL
.8330_PETN1000_00010	03/23/24		Restek, Lot A0187142		(Purchased Reagent)		PETN	1000 ug/mL
.833035DNAStk_00054	10/06/23		Accustandard, Lot 222011692-01		(Purchased Reagent)		3,5-Dinitroaniline	100 ug/mL
.8330ICALStock_00034	02/03/24	02/03/23	Acetonitrile, Lot ACN_238	10 mL	8330 Stock_TS_00023	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_00172	1 mL	1,2-Dinitrobenzene	100 ug/mL
..8330 Stock_TS_00023	02/03/24		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_00172	02/03/24		AccuStandard, Lot 219051500		(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
.8330PAStkPS_00071	03/23/24		AccuStandard, Lot 218031154-04		(Purchased Reagent)		2,4,6-Trinitrophenol	100 ug/mL

Lab Name: Eurofins Denver Job No.: 280-176866-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
8330Surrogate_00138	08/02/23	02/02/23	Acetonitrile, Lot Acetonitrile_00074	500 mL	8330SurrStkSS_00245	1 mL	1,2-Dinitrobenzene	10 ug/mL
					8330SurrStkSS_00246	1 mL	1,2-Dinitrobenzene	10 ug/mL
					8330SurrStkSS_00247	1 mL	1,2-Dinitrobenzene	10 ug/mL
					8330SurrStkSS_00248	1 mL	1,2-Dinitrobenzene	10 ug/mL
					8330SurrStkSS_00249	1 mL	1,2-Dinitrobenzene	10 ug/mL
.8330SurrStkSS_00245	02/02/24		Restek, Lot A0192220		(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
.8330SurrStkSS_00246	02/02/24		Restek, Lot A0192220		(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
.8330SurrStkSS_00247	02/02/24		Restek, Lot A0192220		(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
.8330SurrStkSS_00248	02/02/24		Restek, Lot A0192220		(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
.8330SurrStkSS_00249	02/02/24		Restek, Lot A0192220		(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
8330Surrogate_00141	09/28/23	03/28/23	Acetonitrile, Lot Acetonitrile_00077	500 mL	8330SurrStkSS_00259	1.25 mL	1,2-Dinitrobenzene	10 ug/mL
					8330SurrStkSS_00260	1.25 mL	1,2-Dinitrobenzene	10 ug/mL
					8330SurrStkSS_00261	1.25 mL	1,2-Dinitrobenzene	10 ug/mL
					8330SurrStkSS_00262	1.25 mL	1,2-Dinitrobenzene	10 ug/mL
.8330SurrStkSS_00259	01/31/28		Restek, Lot A0193444		(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
.8330SurrStkSS_00260	03/28/24		Restek, Lot A0193444		(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
.8330SurrStkSS_00261	03/28/24		Restek, Lot A0193444		(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
.8330SurrStkSS_00262	03/28/24		Restek, Lot A0193444		(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
8330Surrogate_00143	10/12/23	04/12/23	Acetonitrile, Lot Acetonitrile_00077	500 mL	8330SurrStkSS_00263	1 mL	1,2-Dinitrobenzene	10 ug/mL
					8330SurrStkSS_00265	1 mL	1,2-Dinitrobenzene	10 ug/mL
					8330SurrStkSS_00266	1 mL	1,2-Dinitrobenzene	10 ug/mL
					8330SurrStkSS_00267	1 mL	1,2-Dinitrobenzene	10 ug/mL
					8330SurrStkSS_00268	1 mL	1,2-Dinitrobenzene	10 ug/mL
.8330SurrStkSS_00263	04/12/24		Restek, Lot A0193444		(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
.8330SurrStkSS_00265	04/12/24		Restek, Lot A0193444		(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
.8330SurrStkSS_00266	04/12/24		Restek, Lot A0194831		(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
.8330SurrStkSS_00267	04/12/24		Restek, Lot A0194831		(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
.8330SurrStkSS_00268	04/12/24		Restek, Lot A0194831		(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
8330Surrogate_00144	11/17/23	05/17/23	Acetonitrile, Lot Acetonitrile_00078	500 mL	8330SurrStkSS_00269	1 mL	1,2-Dinitrobenzene	10 ug/mL
							1,2-Dinitrobenzene (Surr)	10 ug/mL
					8330SurrStkSS_00270	1 mL	1,2-Dinitrobenzene	10 ug/mL
							1,2-Dinitrobenzene (Surr)	10 ug/mL
					8330SurrStkSS_00271	1 mL	1,2-Dinitrobenzene	10 ug/mL
							1,2-Dinitrobenzene (Surr)	10 ug/mL
					8330SurrStkSS_00272	1 mL	1,2-Dinitrobenzene	10 ug/mL
							1,2-Dinitrobenzene (Surr)	10 ug/mL
					8330SurrStkSS_00273	1 mL	1,2-Dinitrobenzene	10 ug/mL
							1,2-Dinitrobenzene (Surr)	10 ug/mL
.8330SurrStkSS_00269	05/17/24		Restek, Lot A0194831		(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
							1,2-Dinitrobenzene (Surr)	1000 ug/mL
.8330SurrStkSS_00270	05/17/24		Restek, Lot A0194831		(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
							1,2-Dinitrobenzene (Surr)	1000 ug/mL
.8330SurrStkSS_00271	05/17/24		Restek, Lot A0194831		(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-176866-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2-Dinitrobenzene (Surr)	1000 ug/mL
.8330SurrStkSS_00272	05/17/24		Restek, Lot A0194831		(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
							1,2-Dinitrobenzene (Surr)	1000 ug/mL
.8330SurrStkSS_00273	05/17/24		Restek, Lot A0197062		(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
							1,2-Dinitrobenzene (Surr)	1000 ug/mL

Reagent

3,5-DNA Stock_00042

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

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.:** A0185772

Description : 3,5-Dinitroaniline Standard

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

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

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

Ship: Ambient

C E R T I F I E D V A L U E S

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	3,5-Dinitroaniline	1,008.0 µg/mL	+/- 10.1543 µg/mL	Gravimetric
	CAS # 618-87-1 (Lot 10311HS)		+/- 31.5977 µg/mL	Unstressed
	Purity 99%		+/- 31.5977 µg/mL	Stressed

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

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

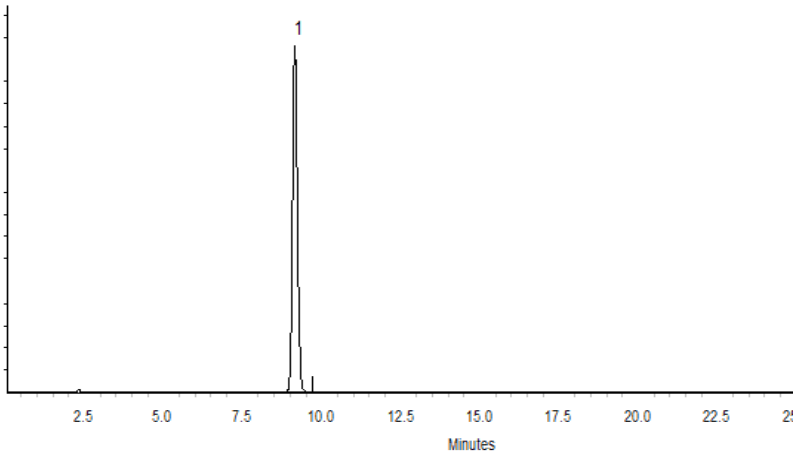
Flow Rate:
1.0 ml/min.

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

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm



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: 27-May-2022 **Balance:** 1128353505

Marlina Cowan - Operations Tech I

Date Passed: 02-Jun-2022

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 combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

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

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

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules 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 ampules. 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.

Reagent

8330 LCS_00121

Preliminary Report

Eurofins Denver

LCS, Lab Control Sample Report

Sample Path: \\chromfs\Denver\ChromData\CHHPLC_X\20230121-117963.b\01210012.D

Lims ID: 8330 LCS 121 Inj. Date: 21-Jan-2023 14:04:20

Worklist ID: 280-0117963-012 Instrument: CHHPLC_X3

Method: 8330_X3

Compound	Amount Added	Amount Recovered	%Rec	Limits 1 3535	Limits 2 3535	Limits 3 3535
4 HMX	0.5000	0.4694	93.9	65-135	66-115	
8 RDX	0.5000	0.4904	98.1	68-130	69-122	
9 2,4,6-Trinitrophenol	0.5000	0.5399	108.0	80-120	63-135	
11 1,3,5-Trinitrobenzene	0.5000	0.5414	108.3	73-125	62-127	
12 1,3-Dinitrobenzene	0.5000	0.5314	106.3	78-120	59-131	
13 Nitrobenzene	0.5000	0.5214	104.3	65-134	46-144	
15 Tetryl	0.5000	0.5279	105.6	64-128	56-131	
16 Nitroglycerin	5.00	5.40	107.9	74-127	70-125	
17 2,4,6-Trinitrotoluene	0.5000	0.4569	91.4	71-123	46-139	
18 4-Amino-2,6-dinitrotolu	0.5000	0.5716	114.3	76-125	43-120	
19 2-Amino-4,6-dinitrotolu	0.5000	0.4927	98.5	79-120	46-124	
20 2,6-Dinitrotoluene	0.5000	0.5185	103.7	77-127	51-130	
21 2,4-Dinitrotoluene	0.5000	0.5353	107.1	78-120	53-127	
22 o-Nitrotoluene	0.5000	0.5106	102.1	70-127	37-138	
23 p-Nitrotoluene	0.5000	0.4984	99.7	71-127	41-137	
24 m-Nitrotoluene	0.5000	0.4984	99.7	73-125	31-140	
25 PETN	5.00	5.27	105.5	73-127	67-127	

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

280-171404-A-21-A 280-171267-A-1-A 280-171267-A-2-A
280-171267-A-3-A 280-171267-A-4-A 280-171267-A-5-A
280-171267-A-6-A 280-171267-A-7-A

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

550-196288-AO-1-A 570-123967-A-1-A

Samples for Limit Group: 3, Lims Prep Method: 3535

280-171237-A-1-A 280-171237-A-2-A 280-171237-A-3-A
280-171237-A-4-A

Reagent

8330 LCS_00126

Preliminary Report

Eurofins Denver

LCS, Lab Control Sample Report

Sample Path: \\chromfs\Denver\ChromData\CHHPLC_X\20230426-120796.b\04260006.D

Lims ID: C18column:B16162 Inj. Date: 26-Apr-2023 15:04:00

Worklist ID: 280-0120796-006 Instrument: CHHPLC_X3

Method: 8330_X3

Compound	Amount Added	Amount Recovered	%Rec	Limits 1 0B_Sonc_	Limits 2 0B_Sonc_
4 HMX	0.5000	0.4359	87.2	80-120	74-124
8 RDX	0.5000	0.4718	94.4	80-124	67-129
9 2,4,6-Trinitrophenol	0.5000	0.5241	104.8	38-154	
11 1,3,5-Trinitrobenzene	0.5000	0.5064	101.3	80-120	80-116
12 1,3-Dinitrobenzene	0.5000	0.5004	100.1	80-120	73-119
13 Nitrobenzene	0.5000	0.5010	100.2	76-122	67-129
14 3,5-Dinitroaniline	0.5000	0.4725	94.5	80-120	86-118
15 Tetryl	0.5000	0.5711	114.2	80-120	68-135
16 Nitroglycerin	5.00	5.04	100.8	75-120	73-124
17 2,4,6-Trinitrotoluene	0.5000	0.4643	92.9	80-120	71-120
18 4-Amino-2,6-dinitrotolu	0.5000	0.4973	99.5	80-120	64-127
19 2-Amino-4,6-dinitrotolu	0.5000	0.4766	95.3	78-120	71-123
20 2,6-Dinitrotoluene	0.5000	0.4994	99.9	80-120	79-117
21 2,4-Dinitrotoluene	0.5000	0.4894	97.9	80-120	75-121
22 o-Nitrotoluene	0.5000	0.4896	97.9	80-124	70-124
23 p-Nitrotoluene	0.5000	0.4868	97.4	80-120	71-124
24 m-Nitrotoluene	0.5000	0.4890	97.8	80-122	67-129
25 PETN	5.00	5.34	106.9	80-120	72-128

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

280-174348-A-25-B	280-174348-A-26-B	280-174348-A-27-B
280-174348-A-28-B	280-174348-A-29-B	280-174348-A-30-D
280-174348-A-31-B	280-174348-A-16-B	280-174348-A-18-B
280-174348-A-19-B	280-174348-A-20-B	280-174348-A-22-B
280-174348-A-24-B	280-174485-A-7-B	280-174485-A-8-B
280-174485-A-9-B	280-174482-A-1-B	280-174482-A-2-B
280-174482-A-3-B	280-174482-A-4-B	280-174482-A-5-B
280-174482-A-6-B	280-174482-A-7-B	280-174482-A-8-B
280-174482-A-9-D	280-174482-A-10-B	280-174482-A-11-B
280-174482-A-12-B	280-174482-A-13-B	280-174482-A-14-B
280-174482-A-15-B	280-174482-A-16-B	280-174482-A-17-B
280-174482-A-18-B	280-174482-A-19-C	

Samples for Limit Group: 2, Lims Prep Method: 8330B_Sonc_10g

280-174408-A-1-I	280-174408-A-2-I

Reagent

8330 Stock_TS_00023

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_00118

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CERTIFIED REFERENCE MATERIAL

Certificate of Composition

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.:** A0188553

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, 2025 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Nitroglycerin	5,016.0 µg/mL	+/- 46.6461	µg/mL	Gravimetric
	CAS # 55-63-0 (Lot 200507JLM)		+/- 277.1256	µg/mL	Unstressed
	Purity 99%		+/- 322.4378	µg/mL	Stressed

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

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

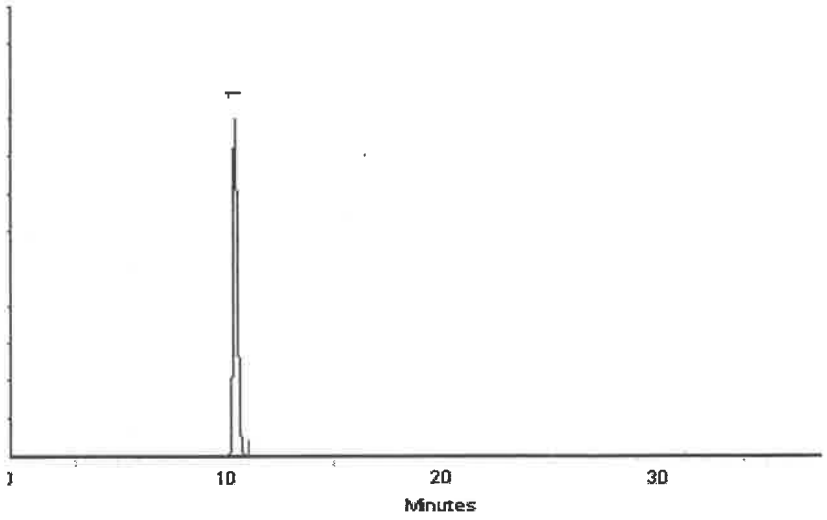
Flow Rate:
1.0 ml/min.

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

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm



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.

Matt Fragassi - Mix Technician

Date Mixed: 15-Aug-2022 **Balance:** 1128353505

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 16-Aug-2022

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 combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

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

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

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules 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 ampules. 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.

Reagent

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CERTIFIED REFERENCE MATERIAL

Certificate of Composition

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.:** A0188553

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, 2025 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Nitroglycerin	5,016.0 µg/mL	+/- 46.6461	µg/mL	Gravimetric
	CAS # 55-63-0 (Lot 200507JLM)		+/- 277.1256	µg/mL	Unstressed
	Purity 99%		+/- 322.4378	µg/mL	Stressed

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

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

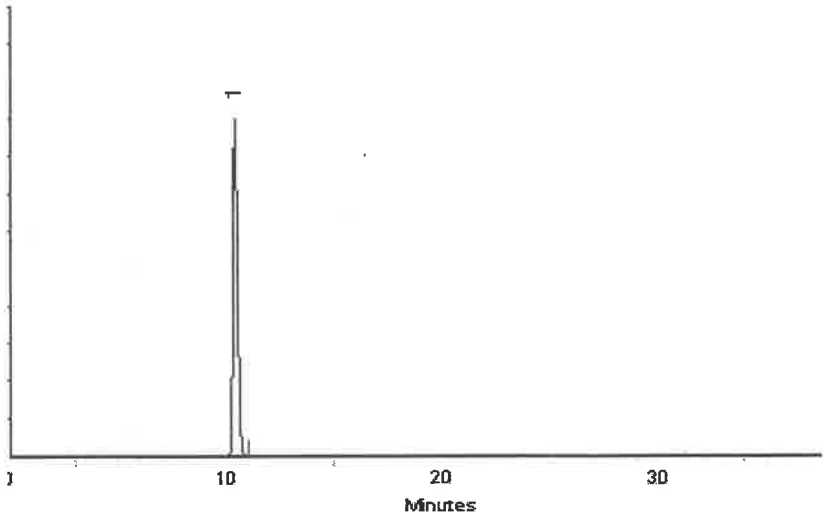
Flow Rate:
1.0 ml/min.

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

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm



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.

Matt Fragassi - Mix Technician

Date Mixed: 15-Aug-2022 **Balance:** 1128353505

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 16-Aug-2022

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 combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

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

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

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules 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 ampules. 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.

Reagent

8330_NG_Stk_00128

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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.:** A0194013

Description : Custom Nitroglycerin Standard

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

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

Expiration Date : January 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%	5,036.0 µg/mL	+/- 237.6858

* 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.

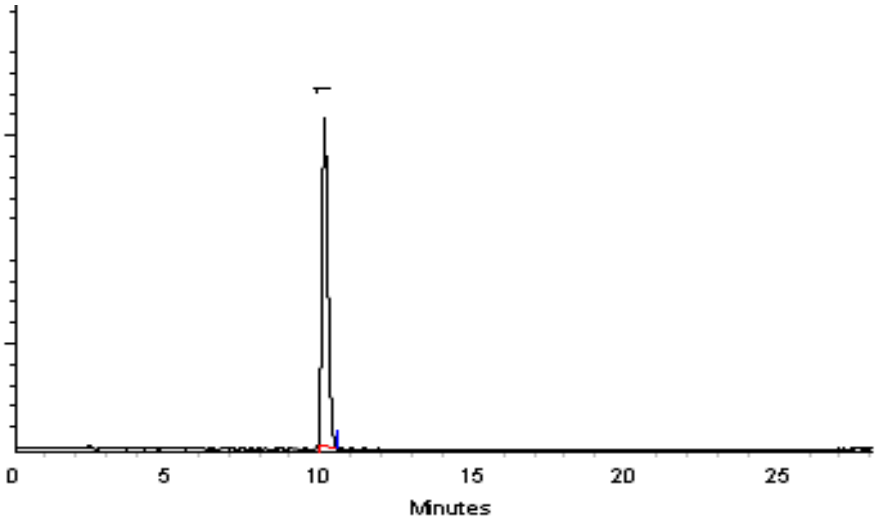
Mobile Phase A:
water:methanol (44:56 V/V)

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.

Brandon Reish - Operations Technician II

Date Mixed: 27-Jan-2023 **Balance Serial #** B251644995

Christie Mills - Operations Tech II - ARM QC

Date Passed: 31-Jan-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_00129

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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. : 568871 **Lot No.:** A0194013

Description : Custom Nitroglycerin Standard

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

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

Expiration Date : January 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%	5,036.0 µg/mL	+/- 237.6858

* 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.

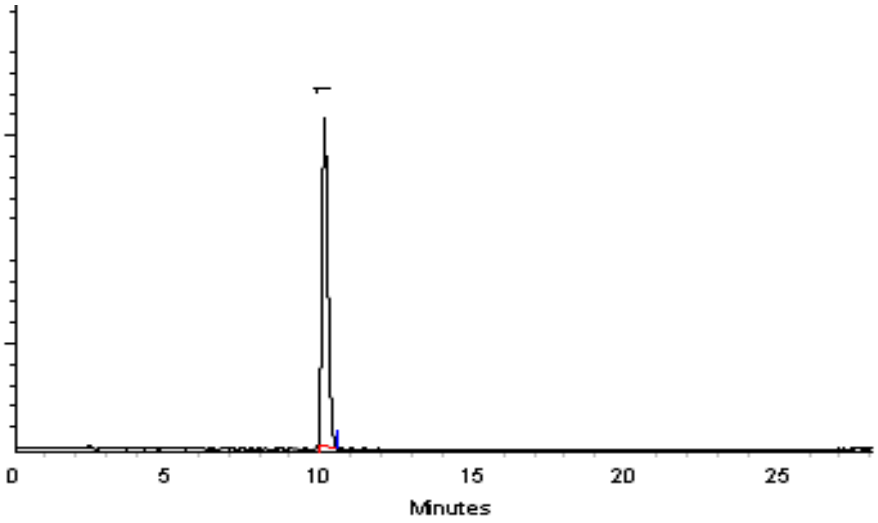
Mobile Phase A:
water:methanol (44:56 V/V)

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.

Brandon Reish - Operations Technician II

Date Mixed: 27-Jan-2023 **Balance Serial #** B251644995

Christie Mills - Operations Tech II - ARM QC

Date Passed: 31-Jan-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_00130

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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.:** A0194013

Description : Custom Nitroglycerin Standard

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

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

Expiration Date : January 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%	5,036.0 µg/mL	+/- 237.6858

* 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.

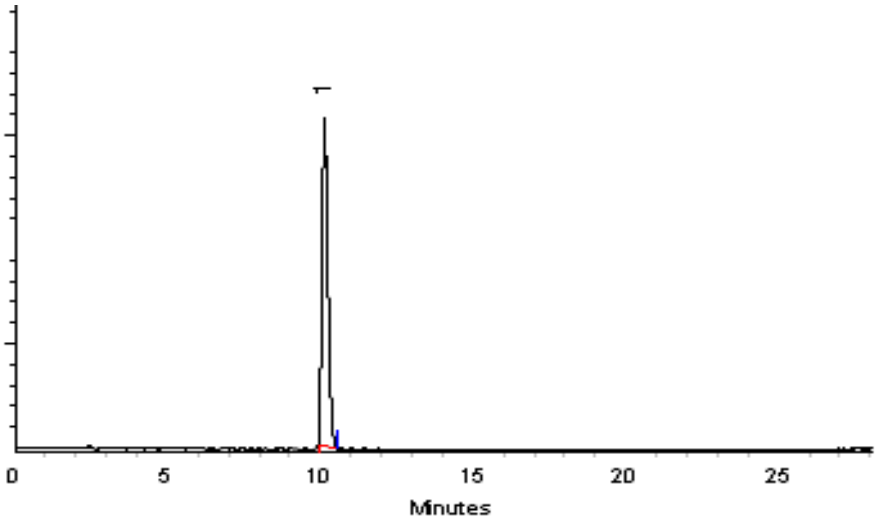
Mobile Phase A:
water:methanol (44:56 V/V)

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.

Brandon Reish - Operations Technician II

Date Mixed: 27-Jan-2023 **Balance Serial #** B251644995

Christie Mills - Operations Tech II - ARM QC

Date Passed: 31-Jan-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_00131

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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.:** A0194013

Description : Custom Nitroglycerin Standard

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

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

Expiration Date : January 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%	5,036.0 µg/mL	+/- 237.6858

* 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.

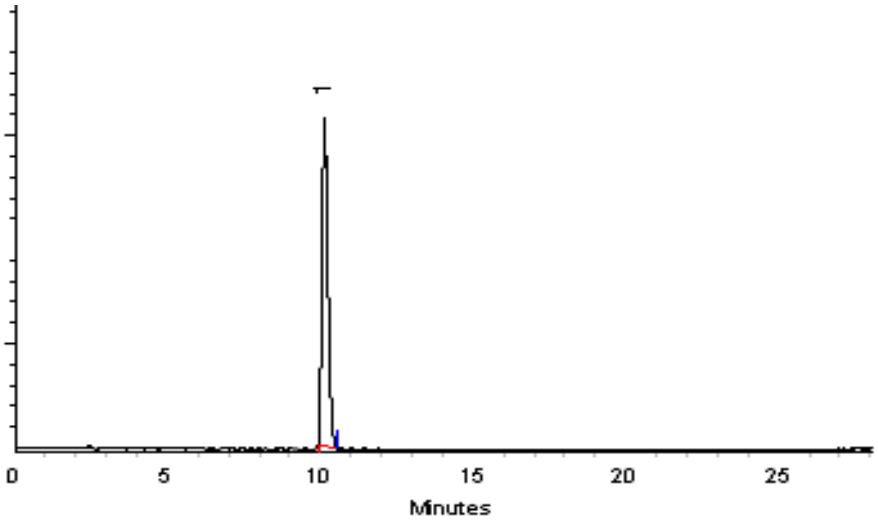
Mobile Phase A:
water:methanol (44:56 V/V)

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.

Brandon Reish - Operations Technician II

Date Mixed: 27-Jan-2023 **Balance Serial #** B251644995

Christie Mills - Operations Tech II - ARM QC

Date Passed: 31-Jan-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.

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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.:** A0175997

Description : Nitroglycerin Standard

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

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

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

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Nitroglycerin	1,000.0 µg/mL	+/- 5.9397 µg/mL	Gravimetric
	CAS # 55-63-0 (Lot 200507JLM)		+/- 54.7830 µg/mL	Unstressed
	Purity 99%		+/- 63.8824 µg/mL	Stressed

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 combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

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

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

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules 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 ampules. 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.

Reagent

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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.:** A0187280

Description : Nitroglycerin Standard

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

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

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

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Nitroglycerin	1,004.0 µg/mL	+/- 5.9635	µg/mL	Gravimetric
	CAS # 55-63-0 (Lot 200507JLM)		+/- 55.0021	µg/mL	Unstressed
	Purity 99%		+/- 64.1379	µg/mL	Stressed

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

Reagent

8330_OP_DMT_00020

Preliminary Report

Eurofins Denver

LCS, Lab Control Sample Report

Sample Path: \\chromfs\Denver\ChromData\CHHPLC_X\20230509-121258.b\05090011.D

Lims ID: DMT LCS20 Inj. Date: 09-May-2023 16:32:44

Worklist ID: 280-0121258-011 Instrument: CHHPLC_X3

Method: 8330_X3

Compound	Amount Added	Amount Recovered	%Rec	Limits 1 3535	Limits 2 0B_Sonc_	Limits 3 3535
3 TNX	0.5015	0.5099	101.7	50-150		
6 DNX	0.5005	0.5059	101.1	66-119	50-150	
7 MNX	0.5835	0.6032	103.4	57-132	68-123	

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

280-175420-A-1-A 280-175420-A-2-A 280-175459-A-1-A

280-175942-A-3-A 280-175942-A-4-A 280-175942-A-5-A

Samples for Limit Group: 2, Lims Prep Method: 8330B_Sonc_10g

410-124886-B-1-A 550-201589-N-1-A 550-201670-N-1-A

Samples for Limit Group: 3, Lims Prep Method: 3535

280-175990-A-1-A 280-175990-A-2-A 280-175990-A-3-A

280-175990-A-4-A 860-48196-C-1-A

Reagent

8330_PETN_Stk_00128

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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.:** A0187506

Description : Custom PETN Standard

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

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

Expiration Date : July 31, 2025 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	PETN	5,028.0 µg/mL	+/- 46.7577 µg/mL	Gravimetric
	CAS # 78-11-5 (Lot 051108JLM)		+/- 277.7886 µg/mL	Unstressed
	Purity 99%		+/- 323.2092 µg/mL	Stressed

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

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

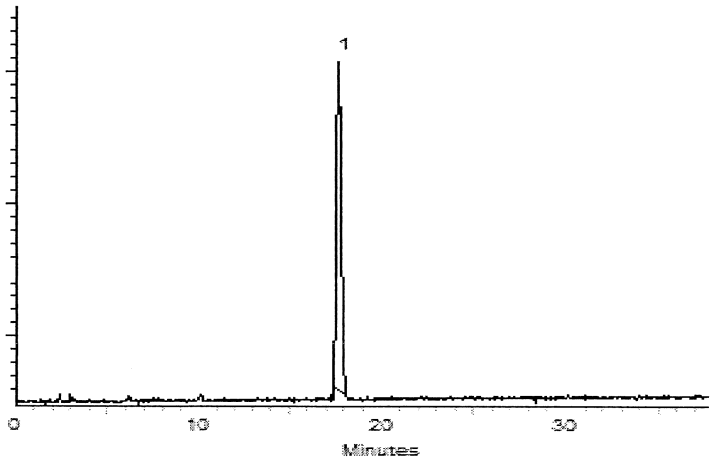
Flow Rate:
1.0 ml/min.

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

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm



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.

Miranda Kline

Miranda Kline - Operations Technician I **Date Mixed:** 19-Jul-2022 **Balance:** B345965662

Fang-Yun Weaver - Operations Lead Tech - ARM QC **Date Passed:** 22-Jul-2022

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 combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

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

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

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules 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 ampules. 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.

Reagent

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ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 568872 **Lot No.:** A0188550

Description : Custom PETN Standard

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

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

Expiration Date : August 31, 2025 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	PETN	5,000.0 µg/mL	+/- 46.4973 µg/mL	Gravimetric
	CAS # 78-11-5 (Lot 051108JLM)		+/- 276.2417 µg/mL	Unstressed
	Purity 99%		+/- 321.4093 µg/mL	Stressed

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

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

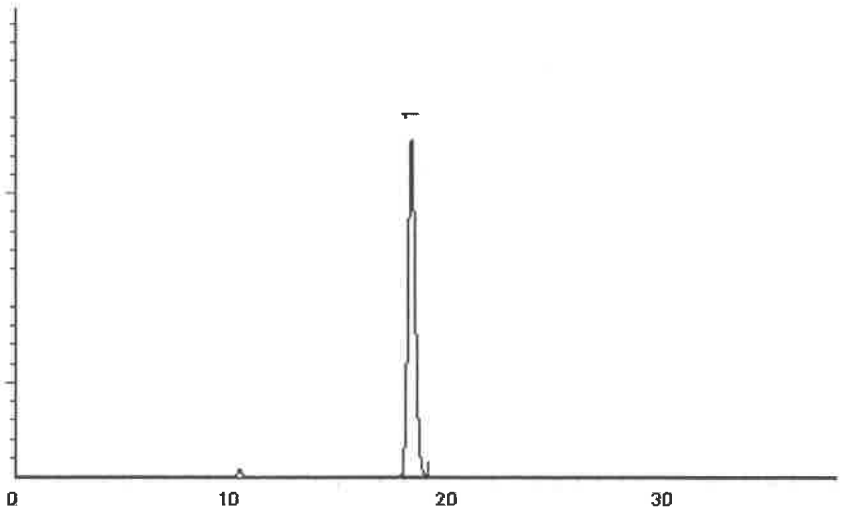
Flow Rate:
1.0 ml/min.

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

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm



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.

Matt Fragassi - Mix Technician

Date Mixed: 15-Aug-2022 **Balance:** 1128353505

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 16-Aug-2022

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.
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- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

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

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- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules 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 ampules. 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.

Reagent

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Certificate #3222.02

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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.:** A0188550

Description : Custom PETN Standard

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

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

Expiration Date : August 31, 2025 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)		Expanded Uncertainty (95% C.L.; K=2)		
1	PETN		5,000.0	µg/mL	+/- 46.4973	µg/mL	Gravimetric
	CAS # 78-11-5	(Lot 051108JLM)			+/- 276.2417	µg/mL	Unstressed
	Purity 99%				+/- 321.4093	µg/mL	Stressed

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

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

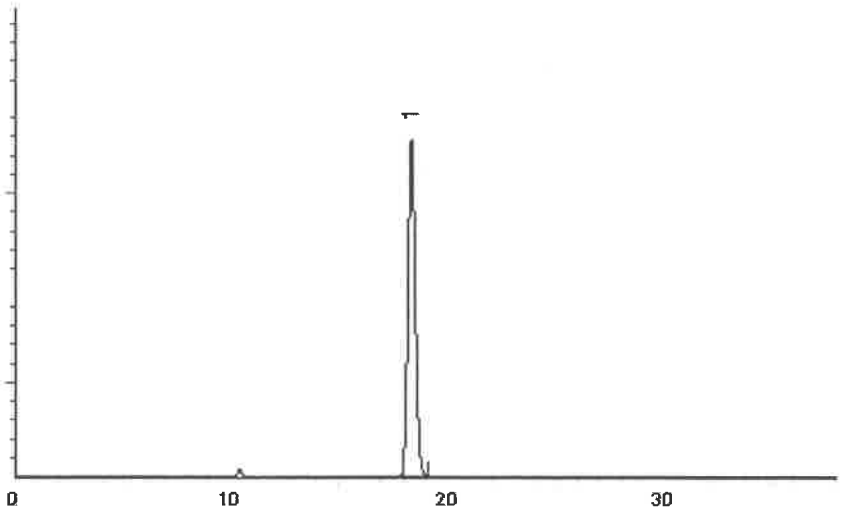
Flow Rate:
1.0 ml/min.

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

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm



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.

Matt Fragassi - Mix Technician

Date Mixed: 15-Aug-2022 **Balance:** 1128353505

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 16-Aug-2022

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 combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

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

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

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules 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 ampules. 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.

Reagent

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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.:** A0188550

Description : Custom PETN Standard

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

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

Expiration Date : August 31, 2025 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)		Expanded Uncertainty (95% C.L.; K=2)		
1	PETN		5,000.0	µg/mL	+/- 46.4973	µg/mL	Gravimetric
	CAS # 78-11-5	(Lot 051108JLM)			+/- 276.2417	µg/mL	Unstressed
	Purity 99%				+/- 321.4093	µg/mL	Stressed

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

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

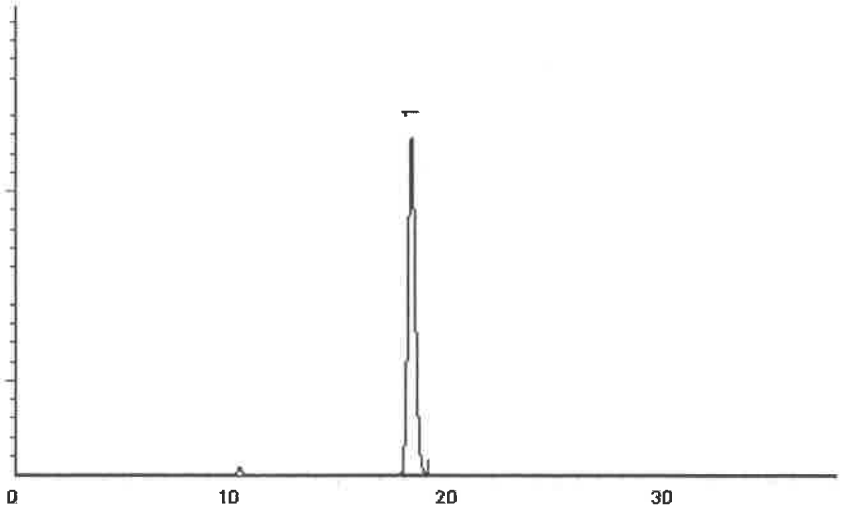
Flow Rate:
1.0 ml/min.

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

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm



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.

Matt Fragassi - Mix Technician

Date Mixed: 15-Aug-2022 **Balance:** 1128353505

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 16-Aug-2022

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 combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

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

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

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

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- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules 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 ampules. 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.

Reagent

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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.:** A0188550

Description : Custom PETN Standard

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

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

Expiration Date : August 31, 2025 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	PETN	5,000.0 µg/mL	+/- 46.4973 µg/mL	Gravimetric
	CAS # 78-11-5 (Lot 051108JLM)		+/- 276.2417 µg/mL	Unstressed
	Purity 99%		+/- 321.4093 µg/mL	Stressed

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

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

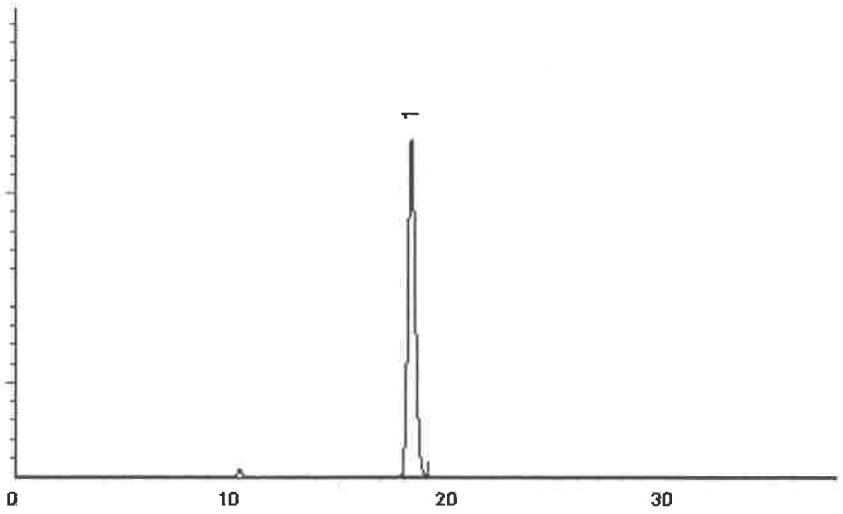
Flow Rate:
1.0 ml/min.

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

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm



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.

Matt Fragassi - Mix Technician

Date Mixed: 15-Aug-2022 **Balance:** 1128353505

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 16-Aug-2022

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 combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

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

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

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
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0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules 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 ampules. 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.

Reagent

8330_PETN1000_00010

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Certificate #3222.01

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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.:** A0187142

Description : PETN Standard

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

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

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

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

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
I	PETN	1,001.0 µg/mL	+/- 5.9456	µg/mL	Gravimetric
	CAS # 78-11-5 (Lot 051108JLM)		+/- 54.8378	µg/mL	Unstressed
	Purity 99%		+/- 63.9463	µg/mL	Stressed

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

Reagent

8330_PETN1000_00011

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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.:** A0187142

Description : PETN Standard

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

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

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

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

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
I	PETN	1,001.0 µg/mL	+/- 5.9456 µg/mL	Gravimetric
	CAS # 78-11-5 (Lot 051108JLM)		+/- 54.8378 µg/mL	Unstressed
	Purity 99%		+/- 63.9463 µg/mL	Stressed

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

Reagent

833035DNAStk_00053

125 Market Street
New Haven, CT 06513
USA

AccuStandard®

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CERTIFICATE OF ANALYSIS

Catalog No: M-8330-ADD-4
Description: 3,5-Dinitroaniline
Lot: 222011692-01
Solvent: Methanol (50%)
Acetonitrile (50%)
Hazards: *Refer to SDS for complete safety information*

Signal Word: Danger

Date Certified: Sep 6, 2022
Expiration: Oct 6, 2023
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/MS)	Prepared Concentration[2] (µg/mL)	Certified Analyte Concentration[1] (µg/mL)
3,5-Dinitroaniline	618-87-1	100.0	100.6	100.6

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.

Reagent

833035DNAStk_00054

125 Market Street
New Haven, CT 06513
USA

AccuStandard®

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www.AccuStandard.com

CERTIFICATE OF ANALYSIS

Catalog No: M-8330-ADD-4
Description: 3,5-Dinitroaniline
Lot: 222011692-01
Solvent: Methanol (50%)
Acetonitrile (50%)
Hazards: *Refer to SDS for complete safety information*

Signal Word: Danger

Date Certified: Sep 6, 2022
Expiration: Oct 6, 2023
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/MS)	Prepared Concentration[2] (µg/mL)	Certified Analyte Concentration[1] (µg/mL)
3,5-Dinitroaniline	618-87-1	100.0	100.6	100.6

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.

Reagent

8330LCSMix1_00136

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Bellefonte, PA 16823-8812
Tel: (800)356-1688
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CERTIFIED REFERENCE MATERIAL

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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. : 31450 **Lot No.:** A0183848

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, 2027 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	HMX **CAS #** 2691-41-0 (Lot 210324JLM) **Purity** 99%	1,008.0 µg/mL	+/- 5.9872 µg/mL +/- 55.2213 µg/mL +/- 64.3934 µg/mL	Gravimetric Unstressed Stressed
2	RDX **CAS #** 121-82-4 (Lot 080228JLM) **Purity** 99%	1,007.0 µg/mL	+/- 5.9813 µg/mL +/- 55.1665 µg/mL +/- 64.3295 µg/mL	Gravimetric Unstressed Stressed
3	1,3,5-Trinitrobenzene **CAS #** 99-35-4 (Lot A6TDK) **Purity** 99%	1,008.0 µg/mL	+/- 5.9872 µg/mL +/- 55.2213 µg/mL +/- 64.3934 µg/mL	Gravimetric Unstressed Stressed
4	1,3-Dinitrobenzene **CAS #** 99-65-0 (Lot 1-DXX-24-1) **Purity** 99%	1,006.0 µg/mL	+/- 5.9753 µg/mL +/- 55.1117 µg/mL +/- 64.2657 µg/mL	Gravimetric Unstressed Stressed
5	Nitrobenzene **CAS #** 98-95-3 (Lot 10224044) **Purity** 99%	1,007.0 µg/mL	+/- 5.9813 µg/mL +/- 55.1665 µg/mL +/- 64.3295 µg/mL	Gravimetric Unstressed Stressed
6	2,4,6-Trinitrotoluene **CAS #** 118-96-7 (Lot D11836200) **Purity** 99%	1,002.0 µg/mL	+/- 5.9516 µg/mL +/- 54.8926 µg/mL +/- 64.0101 µg/mL	Gravimetric Unstressed Stressed
7	2,4-Dinitrotoluene **CAS #** 121-14-2 (Lot MKAA0690V) **Purity** 99%	1,005.0 µg/mL	+/- 5.9694 µg/mL +/- 55.0569 µg/mL +/- 64.2018 µg/mL	Gravimetric Unstressed Stressed

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

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

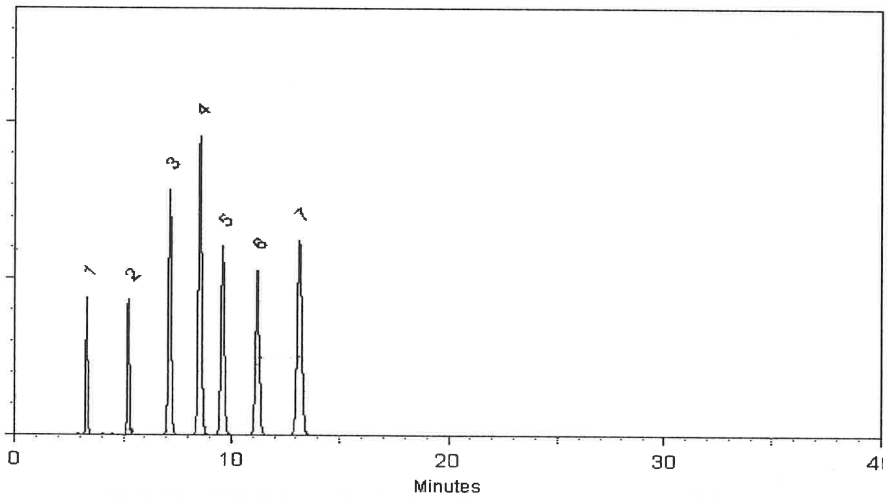
Flow Rate:
1.0 ml/min.

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

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm



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.

Tom Suckar - Mix Technician

Date Mixed: 08-Apr-2022 **Balance:** B251644995

Feng-Yan Lo - QC Analyst

Date Passed: 13-Apr-2022

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 combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

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

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

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules 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 ampules. 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.

Reagent

8330LCSMix1_00140

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

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.:** A0183848

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, 2027 **Storage:** 10°C or colder

Ship: Ambient

C E R T I F I E D V A L U E S

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	HMX	1,008.0 µg/mL	+/- 5.9872 µg/mL	Gravimetric
	CAS # 2691-41-0 (Lot 210324JLM)		+/- 55.2213 µg/mL	Unstressed
	Purity 99%		+/- 64.3934 µg/mL	Stressed
2	RDX	1,007.0 µg/mL	+/- 5.9813 µg/mL	Gravimetric
	CAS # 121-82-4 (Lot 080228JLM)		+/- 55.1665 µg/mL	Unstressed
	Purity 99%		+/- 64.3295 µg/mL	Stressed
3	1,3,5-Trinitrobenzene	1,008.0 µg/mL	+/- 5.9872 µg/mL	Gravimetric
	CAS # 99-35-4 (Lot A6TDK)		+/- 55.2213 µg/mL	Unstressed
	Purity 99%		+/- 64.3934 µg/mL	Stressed
4	1,3-Dinitrobenzene	1,006.0 µg/mL	+/- 5.9753 µg/mL	Gravimetric
	CAS # 99-65-0 (Lot 1-DXX-24-1)		+/- 55.1117 µg/mL	Unstressed
	Purity 99%		+/- 64.2657 µg/mL	Stressed
5	Nitrobenzene	1,007.0 µg/mL	+/- 5.9813 µg/mL	Gravimetric
	CAS # 98-95-3 (Lot 10224044)		+/- 55.1665 µg/mL	Unstressed
	Purity 99%		+/- 64.3295 µg/mL	Stressed
6	2,4,6-Trinitrotoluene	1,002.0 µg/mL	+/- 5.9516 µg/mL	Gravimetric
	CAS # 118-96-7 (Lot D11836200)		+/- 54.8926 µg/mL	Unstressed
	Purity 99%		+/- 64.0101 µg/mL	Stressed
7	2,4-Dinitrotoluene	1,005.0 µg/mL	+/- 5.9694 µg/mL	Gravimetric
	CAS # 121-14-2 (Lot MKAA0690V)		+/- 55.0569 µg/mL	Unstressed
	Purity 99%		+/- 64.2018 µg/mL	Stressed

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

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

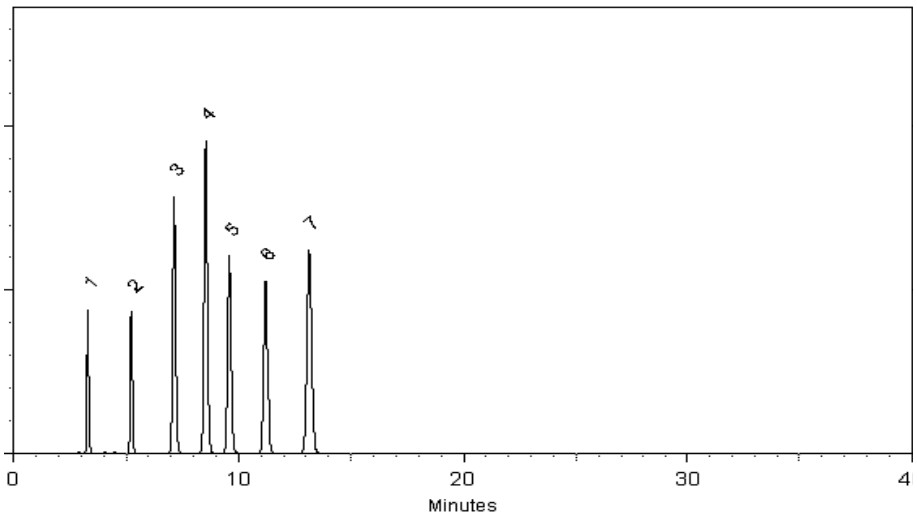
Flow Rate:
1.0 ml/min.

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

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm



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.

Tom Suckar - Mix Technician

Date Mixed: 08-Apr-2022 **Balance:** B251644995

Fang-Yun Lo - QC Analyst

Date Passed: 13-Apr-2022

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 combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

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

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

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules 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 ampules. 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.

Reagent

8330LCSMix1_00141

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Certificate #3222.01

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. : 31450 **Lot No.:** A0183848

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, 2027 **Storage:** 10°C or colder

Ship: Ambient

C E R T I F I E D V A L U E S

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	HMX	1,008.0 µg/mL	+/- 5.9872 µg/mL	Gravimetric
	CAS # 2691-41-0 (Lot 210324JLM)		+/- 55.2213 µg/mL	Unstressed
	Purity 99%		+/- 64.3934 µg/mL	Stressed
2	RDX	1,007.0 µg/mL	+/- 5.9813 µg/mL	Gravimetric
	CAS # 121-82-4 (Lot 080228JLM)		+/- 55.1665 µg/mL	Unstressed
	Purity 99%		+/- 64.3295 µg/mL	Stressed
3	1,3,5-Trinitrobenzene	1,008.0 µg/mL	+/- 5.9872 µg/mL	Gravimetric
	CAS # 99-35-4 (Lot A6TDK)		+/- 55.2213 µg/mL	Unstressed
	Purity 99%		+/- 64.3934 µg/mL	Stressed
4	1,3-Dinitrobenzene	1,006.0 µg/mL	+/- 5.9753 µg/mL	Gravimetric
	CAS # 99-65-0 (Lot 1-DXX-24-1)		+/- 55.1117 µg/mL	Unstressed
	Purity 99%		+/- 64.2657 µg/mL	Stressed
5	Nitrobenzene	1,007.0 µg/mL	+/- 5.9813 µg/mL	Gravimetric
	CAS # 98-95-3 (Lot 10224044)		+/- 55.1665 µg/mL	Unstressed
	Purity 99%		+/- 64.3295 µg/mL	Stressed
6	2,4,6-Trinitrotoluene	1,002.0 µg/mL	+/- 5.9516 µg/mL	Gravimetric
	CAS # 118-96-7 (Lot D11836200)		+/- 54.8926 µg/mL	Unstressed
	Purity 99%		+/- 64.0101 µg/mL	Stressed
7	2,4-Dinitrotoluene	1,005.0 µg/mL	+/- 5.9694 µg/mL	Gravimetric
	CAS # 121-14-2 (Lot MKAA0690V)		+/- 55.0569 µg/mL	Unstressed
	Purity 99%		+/- 64.2018 µg/mL	Stressed

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

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

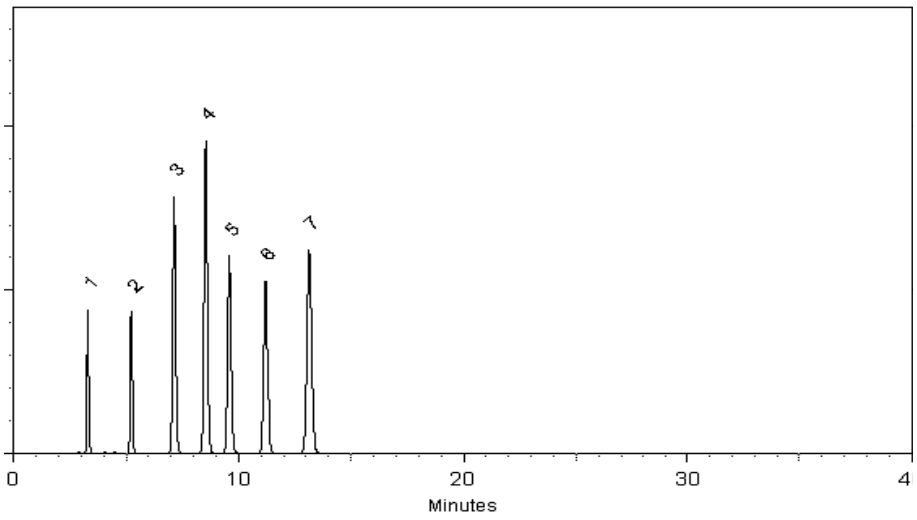
Flow Rate:
1.0 ml/min.

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

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm



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.

Tom Suckar - Mix Technician

Date Mixed: 08-Apr-2022 **Balance:** B251644995

Fang-Yun Lo - QC Analyst

Date Passed: 13-Apr-2022

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 combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

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

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

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules 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 ampules. 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.

Reagent

8330LCSmix2_00034

4

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Certificate of Analysis

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Reference Material Producer
Certificate #3222.01

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ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 31451 **Lot No.:** A0186475

Description : 8330 Calibration Mix #2

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

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

Expiration Date : June 30, 2027 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Tetryl **CAS #** 479-45-8 **Purity** 99% (Lot 211028JLM)	1,004.0 µg/mL	+/- 5.9635 µg/mL +/- 55.0021 µg/mL +/- 64.1379 µg/mL	Gravimetric Unstressed Stressed
2	4-Amino-2,6-dinitrotoluene **CAS #** 19406-51-0 **Purity** 99% (Lot ER070908-01)	1,002.0 µg/mL	+/- 5.9516 µg/mL +/- 54.8926 µg/mL +/- 64.0101 µg/mL	Gravimetric Unstressed Stressed
3	2-Amino-4,6-dinitrotoluene **CAS #** 35572-78-2 **Purity** 99% (Lot 29550-55)	1,002.0 µg/mL	+/- 5.9516 µg/mL +/- 54.8926 µg/mL +/- 64.0101 µg/mL	Gravimetric Unstressed Stressed
4	2,6-Dinitrotoluene **CAS #** 606-20-2 **Purity** 99% (Lot BCBB8606)	1,004.0 µg/mL	+/- 5.9635 µg/mL +/- 55.0021 µg/mL +/- 64.1379 µg/mL	Gravimetric Unstressed Stressed
5	2-Nitrotoluene **CAS #** 88-72-2 **Purity** 99% (Lot BCBZ7826)	1,002.0 µg/mL	+/- 5.9516 µg/mL +/- 54.8926 µg/mL +/- 64.0101 µg/mL	Gravimetric Unstressed Stressed
6	4-Nitrotoluene **CAS #** 99-99-0 **Purity** 99% (Lot BCCB0171)	1,002.0 µg/mL	+/- 5.9516 µg/mL +/- 54.8926 µg/mL +/- 64.0101 µg/mL	Gravimetric Unstressed Stressed
7	3-Nitrotoluene **CAS #** 99-08-1 **Purity** 99% (Lot FBO01)	1,000.0 µg/mL	+/- 5.9397 µg/mL +/- 54.7830 µg/mL +/- 63.8824 µg/mL	Gravimetric Unstressed Stressed

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

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

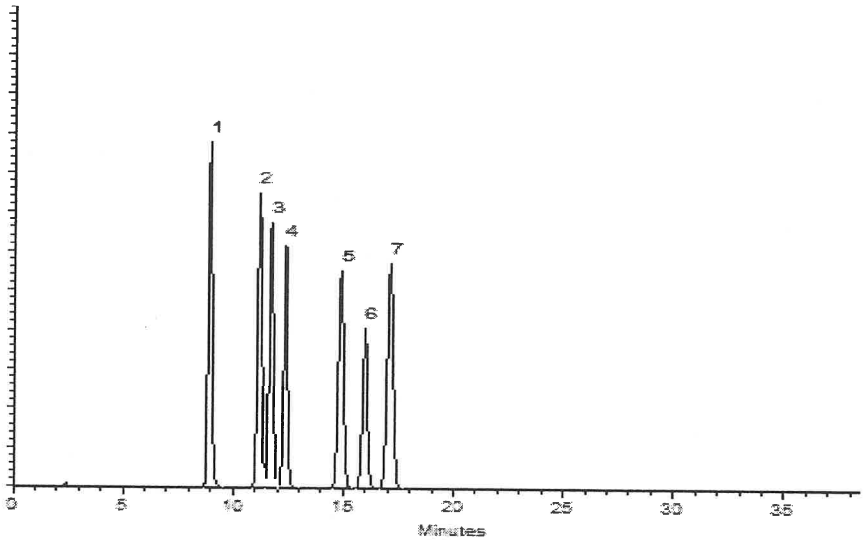
Flow Rate:
1.0 ml/min.

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

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm



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.

Ashley Frantz - Quoting Technician

Date Mixed: 21-Jun-2022 **Balance:** 1128360905

Christie Mills - Operations Tech II - ARM QC

Date Passed: 29-Jun-2022

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 combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

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

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
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0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules 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 ampules. 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.

Reagent

8330LCSmix2_00038

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

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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.:** A0192237

Description : 8330 Calibration Mix #2

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

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

Expiration Date : December 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	Tetryl	479-45-8	211028JLM	99%	1,006.0 µg/mL	+/- 46.9317
2	4-Amino-2,6-dinitrotoluene	19406-51-0	ER070908-01	99%	1,004.0 µg/mL	+/- 46.8384
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%	1,004.0 µg/mL	+/- 46.8384
5	2-Nitrotoluene	88-72-2	BCBZ7826	99%	1,008.0 µg/mL	+/- 47.0250
6	4-Nitrotoluene	99-99-0	BCCB0171	99%	1,002.0 µg/mL	+/- 46.7451
7	3-Nitrotoluene	99-08-1	07329LG	99%	1,008.0 µg/mL	+/- 47.0250

* 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.

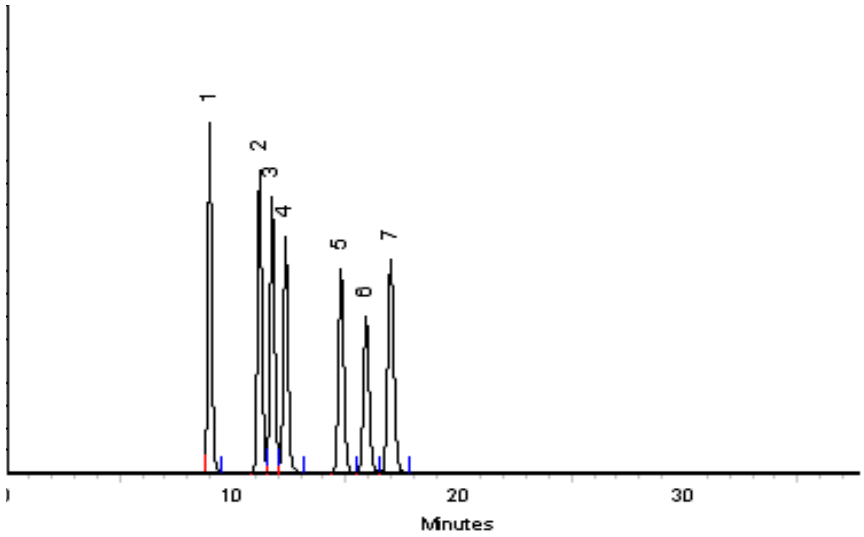
Mobile Phase A:
water:methanol (44:56 V/V)

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.

John Friedline - Operations Technician I

Date Mixed: 05-Dec-2022 **Balance Serial #** 1128342314

Christie Mills - Operations Tech II - ARM QC

Date Passed: 07-Dec-2022

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

8330LCSmix2_00039

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.:** A0192237

Description : 8330 Calibration Mix #2

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

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

Expiration Date : December 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	Tetryl	479-45-8	211028JLM	99%	1,006.0 µg/mL	+/- 46.9317
2	4-Amino-2,6-dinitrotoluene	19406-51-0	ER070908-01	99%	1,004.0 µg/mL	+/- 46.8384
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%	1,004.0 µg/mL	+/- 46.8384
5	2-Nitrotoluene	88-72-2	BCBZ7826	99%	1,008.0 µg/mL	+/- 47.0250
6	4-Nitrotoluene	99-99-0	BCCB0171	99%	1,002.0 µg/mL	+/- 46.7451
7	3-Nitrotoluene	99-08-1	07329LG	99%	1,008.0 µg/mL	+/- 47.0250

* 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.

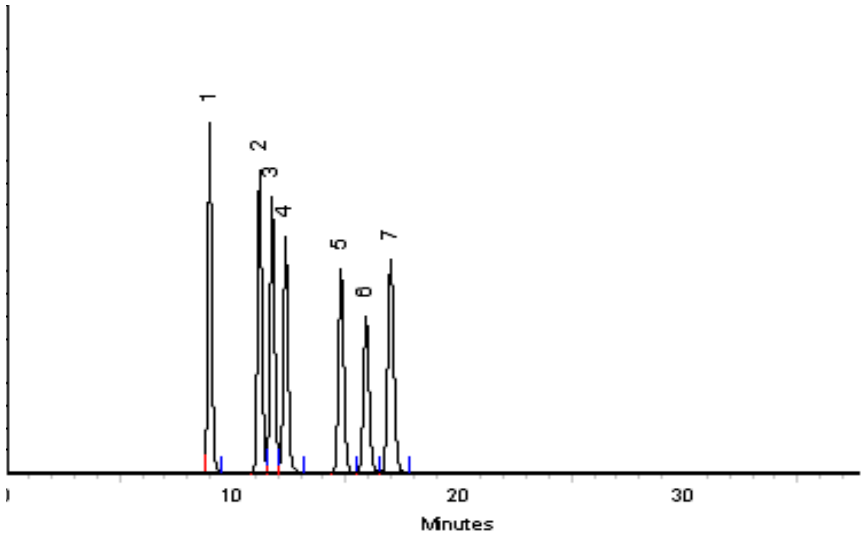
Mobile Phase A:
water:methanol (44:56 V/V)

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.

John Friedline - Operations Technician I

Date Mixed: 05-Dec-2022 **Balance Serial #** 1128342314

Christie Mills - Operations Tech II - ARM QC

Date Passed: 07-Dec-2022

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:

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Reagent

8330PAStkPS_00070

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: 218031154-03
Solvent: Acetonitrile (50%)
Methanol (50%)
Hazards: *Refer to SDS for complete safety information*

Signal Word: Danger

Date Certified: Jul 7, 2021
Expiration: Aug 7, 2023
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 % (HPLC)	Prepared Concentration² (µg/mL)	Certified Analyte Concentration¹ (µg/mL)
Picric acid	88-89-1	99.1	100.1	99.2

31499

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. 822-275872-11

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

8330PAStkPS_00071

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: 218031154-04
Solvent: Acetonitrile (50%)
Methanol (50%)
Hazards: *Refer to SDS for complete safety information*

Signal Word: Danger

Date Certified: Aug 30, 2022
Expiration: Sep 30, 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 % (HPLC)	Prepared Concentration² (µg/mL)	Certified Analyte Concentration¹ (µg/mL)
Picric acid	88-89-1	99.1	100.1	99.2

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. 822-275872-11

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.

Reagent

8330Surrogate_00138

Preliminary Report

Eurofins Denver

LCS, Lab Control Sample Report

Sample Path: \\chromfs\Denver\ChromData\CHHPLC_X\20230202-118305.b\02020011.D

Lims ID: Surr138 Inj. Date: 02-Feb-2023 19:11:17

Worklist ID: 280-0118305-011 Instrument: CHHPLC_X3

Method: 8330_X3

Compound	Amount Added	Amount Recovered	%Rec	Limits 1 0B_Sonc_
$ 10 1,2-Dinitrobenzene	0.5000	0.5112	102.2	78-119

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

280-171573-C-4-B	280-171573-C-5-B	280-171573-C-6-B
280-171573-C-7-B	280-171573-C-8-B	280-171573-C-9-D
280-171573-C-10-B	280-171573-C-11-B	280-171573-B-12-B
280-171573-B-13-B	280-171573-B-14-B	280-171573-B-15-B
280-171573-B-16-B	280-171573-C-42-B	280-171573-B-43-B
280-171586-A-1-C	280-171586-A-2-C	280-171586-A-3-C
280-171586-A-4-C	280-171586-A-5-C	280-171586-A-6-J
280-171586-A-7-C		

Reagent

8330Surrogate_00141

Preliminary Report

Eurofins Denver

LCS, Lab Control Sample Report

Sample Path: \\chromfs\Denver\ChromData\CHHPLC_X\20230329-119943.b\03290011.D

Lims ID: 8330Surr141 Inj. Date: 29-Mar-2023 16:36:57

Worklist ID: 280-0119943-011 Instrument: CHHPLC_X3

Method: 8330_X3

Compound	Amount Added	Amount Recovered	%Rec	Limits 1 3535	Limits 2 3535	Limits 3 3535
$ 10 1,2-Dinitrobenzene	0.5000	0.5368	107.4	63-127	83-119	

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

410-119649-AB-1-A 410-119649-AB-2-A 410-119649-AB-3-A

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

280-173931-A-1-A

Samples for Limit Group: 3, Lims Prep Method: 3535

280-173911-A-1-A 280-173911-A-2-A 860-45374-C-1-A

Reagent

8330Surrogate_00143

Preliminary Report

Eurofins Denver

LCS, Lab Control Sample Report

Sample Path: \\chromfs\Denver\ChromData\CHHPLC_X\20230413-120394.b\04130011.D

Lims ID: 8330Surr143 Inj. Date: 13-Apr-2023 17:28:02

Worklist ID: 280-0120394-011 Instrument: CHHPLC_X3

Method: 8330_X3

Compound	Amount Added	Amount Recovered	%Rec	Limits 1 0B_Sonc_	Limits 2 0B_Sonc_
$ 10 1,2-Dinitrobenzene	0.5000	0.5398	108.0	83-122	78-119

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

280-174145-A-1-E	280-174145-A-2-C	280-174145-A-3-B
280-174145-A-4-B	280-174145-A-5-B	280-174145-A-6-B
280-174145-A-7-C	280-174145-A-8-B	280-174145-A-9-B
280-174145-A-10-B	280-174145-A-11-B	280-174145-A-12-B
280-174145-A-13-B	280-174145-A-14-B	280-174145-A-15-D
280-174145-A-16-B	280-174145-A-17-B	280-174145-A-18-B
280-174145-A-19-B	280-174145-A-20-B	

Samples for Limit Group: 2, Lims Prep Method: 8330B_Sonc_10g

280-174388-A-1-C	280-174388-A-2-C	280-174388-A-3-C
280-174388-A-4-C	280-174388-A-5-C	280-174388-A-6-C
280-174388-A-7-G	280-174388-A-8-G	280-174388-A-9-C
280-174388-A-10-C	280-174388-A-11-C	280-174388-A-12-C
280-174388-A-13-C	280-174388-A-14-C	280-174388-A-15-C
280-174388-A-16-C	280-174388-A-17-C	280-174388-A-18-C
280-174388-A-19-C	280-174388-A-20-C	

Reagent

8330Surrogate_00144

Preliminary Report

Eurofins Denver

LCS, Lab Control Sample Report

Sample Path: \\chromfs\Denver\ChromData\CHHPLC_X\20230517-121556.b\05170006.D

Lims ID: C18column:B16162 Inj. Date: 17-May-2023 17:57:37

Worklist ID: 280-0121556-006 Instrument: CHHPLC_X3

Method: 8330_X3

Compound	Amount Added	Amount Recovered	%Rec	Limits 1 3535	Limits 2 3535	Limits 3 3535
$ 10 1,2-Dinitrobenzene	0.5000	0.5038	100.8	83-119	63-127	

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

280-176194-A-9-A	280-176284-C-2-A	280-176284-B-3-A
280-176284-C-5-A	280-176284-C-7-A	280-176434-I-1-A
280-176434-E-4-A	280-176434-B-7-A	280-176284-B-4-C
280-176434-H-2-A	280-176524-B-1-A	280-176524-A-2-A
280-176524-A-3-A	280-176524-A-4-A	280-176335-A-1-A
280-176335-A-2-A	280-176335-B-3-A	280-176335-A-4-A

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

570-137880-R-1-A	570-137880-S-2-A	570-137880-S-3-A
570-137880-R-4-A	570-138095-R-2-A	570-138095-S-3-A
570-138095-R-4-A	570-138095-S-5-A	550-201994-O-1-A
550-201994-O-3-A		

Samples for Limit Group: 3, Lims Prep Method: 3535

380-47016-AV-1-A	380-47022-Q-1-A	280-176543-B-1-A
280-176543-B-2-A		

Reagent

8330SurrStkSS_00245

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 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. : 31453 **Lot No.:** A0192220

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, 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	1,2-Dinitrobenzene	528-29-0	MKCH6067	99%	1,000.0 µg/mL	+/- 56.1888

* 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.

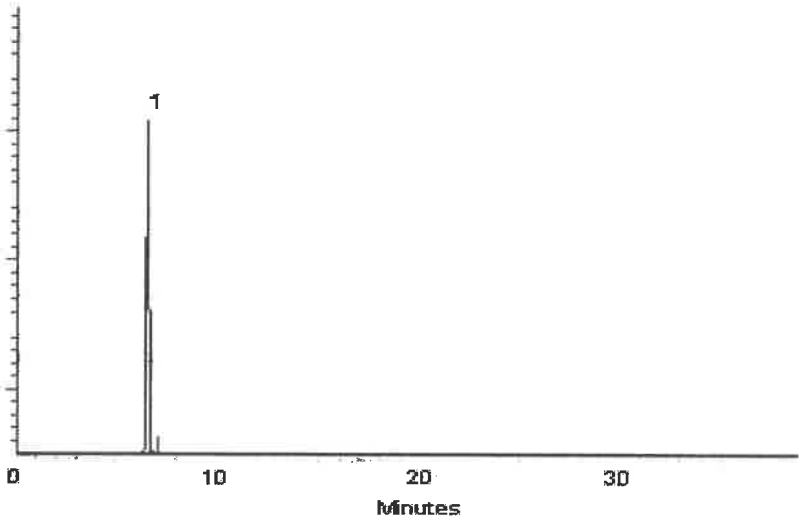
Mobile Phase A:
water:methanol (44:56 V/V)

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.

Alicia Leathers - Operation Technician I **Date Mixed:** 04-Dec-2022 **Balance Serial #** 1128353505

Jennifer Pollino - Operations Tech III - ARM QC **Date Passed:** 06-Dec-2022

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

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

Manufacturing Notes:

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

Handling Notes:

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

Reagent

8330SurrStkSS_00246

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.:** A0192220

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, 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	1,2-Dinitrobenzene	528-29-0	MKCH6067	99%	1,000.0 µg/mL	+/- 56.1888

* 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.

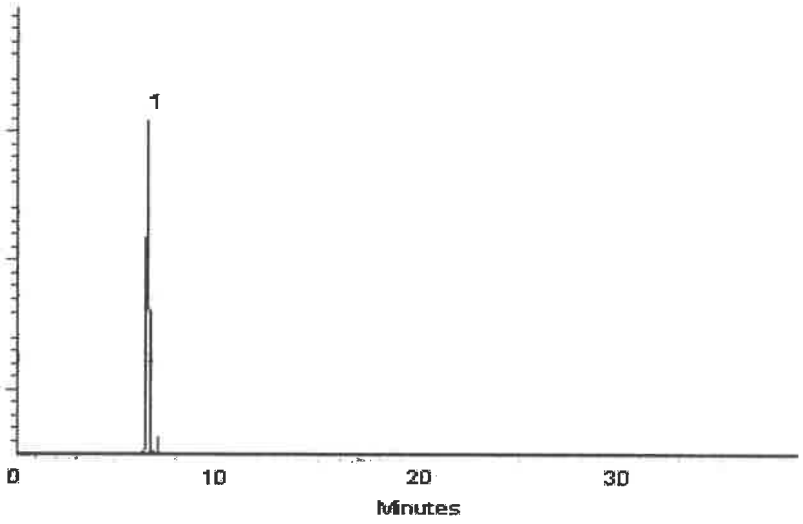
Mobile Phase A:
water:methanol (44:56 V/V)

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.

Alicia Leathers - Operation Technician I **Date Mixed:** 04-Dec-2022 **Balance Serial #** 1128353505

Jennifer Pollino - Operations Tech III - ARM QC **Date Passed:** 06-Dec-2022

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

General Certified Reference Material Notes

Expiration Notes:

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

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

Manufacturing Notes:

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

Handling Notes:

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

Reagent

8330SurrStkSS_00247

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 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. : 31453 **Lot No.:** A0192220

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, 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	1,2-Dinitrobenzene	528-29-0	MKCH6067	99%	1,000.0 µg/mL	+/- 56.1888

* 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.

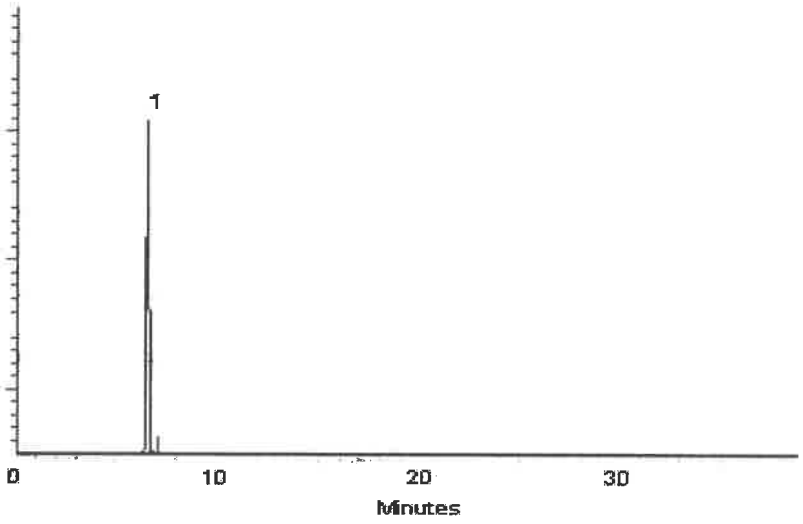
Mobile Phase A:
water:methanol (44:56 V/V)

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.

Alicia Leathers - Operation Technician I **Date Mixed:** 04-Dec-2022 **Balance Serial #** 1128353505

Jennifer Pollino - Operations Tech III - ARM QC **Date Passed:** 06-Dec-2022

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_00248

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 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. : 31453 **Lot No.:** A0192220

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, 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	1,2-Dinitrobenzene	528-29-0	MKCH6067	99%	1,000.0 µg/mL	+/- 56.1888

* 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.

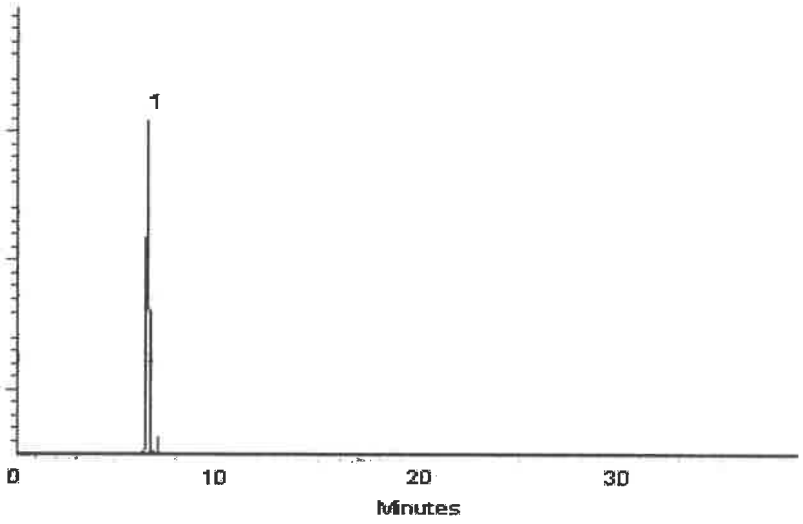
Mobile Phase A:
water:methanol (44:56 V/V)

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.

Alicia Leathers - Operation Technician I **Date Mixed:** 04-Dec-2022 **Balance Serial #** 1128353505

Jennifer Pollino - Operations Tech III - ARM QC **Date Passed:** 06-Dec-2022

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_00249

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 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. : 31453 **Lot No.:** A0192220

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, 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	1,2-Dinitrobenzene	528-29-0	MKCH6067	99%	1,000.0 µg/mL	+/- 56.1888

* 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.

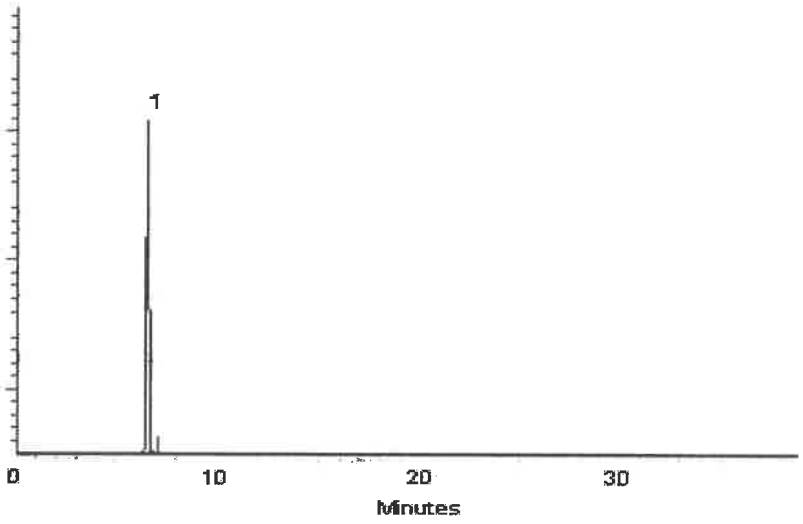
Mobile Phase A:
water:methanol (44:56 V/V)

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.

Alicia Leathers - Operation Technician I **Date Mixed:** 04-Dec-2022 **Balance Serial #** 1128353505

Jennifer Pollino - Operations Tech III - ARM QC **Date Passed:** 06-Dec-2022

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_00259

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.:** A0193444

Description : 8330 Surrogate Mix

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

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

Expiration Date : January 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	MKCH6067	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.

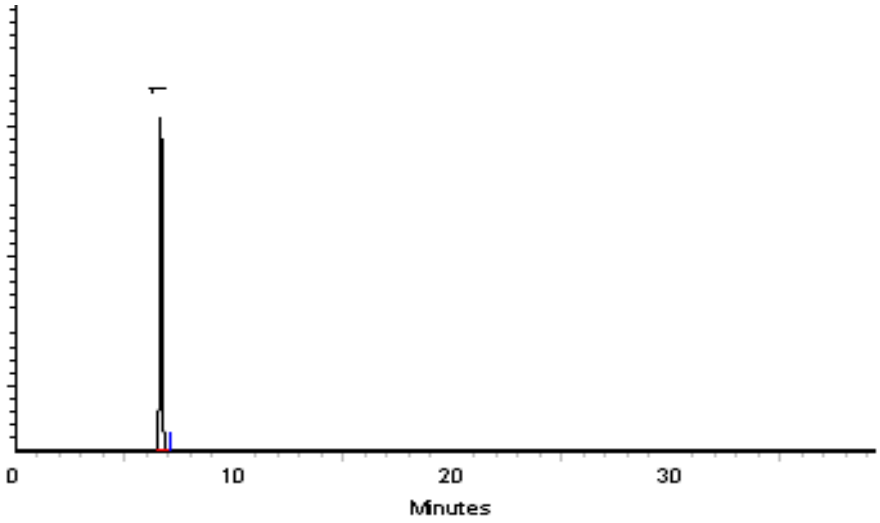
Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm

Inj. Vol
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.

Bryan Snyder - Operations Tech I

Date Mixed: 11-Jan-2023 **Balance Serial #** 1127510105

Christie Mills - Operations Tech II - ARM QC

Date Passed: 16-Jan-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_00260

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.:** A0193444

Description : 8330 Surrogate Mix

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

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

Expiration Date : January 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	MKCH6067	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.

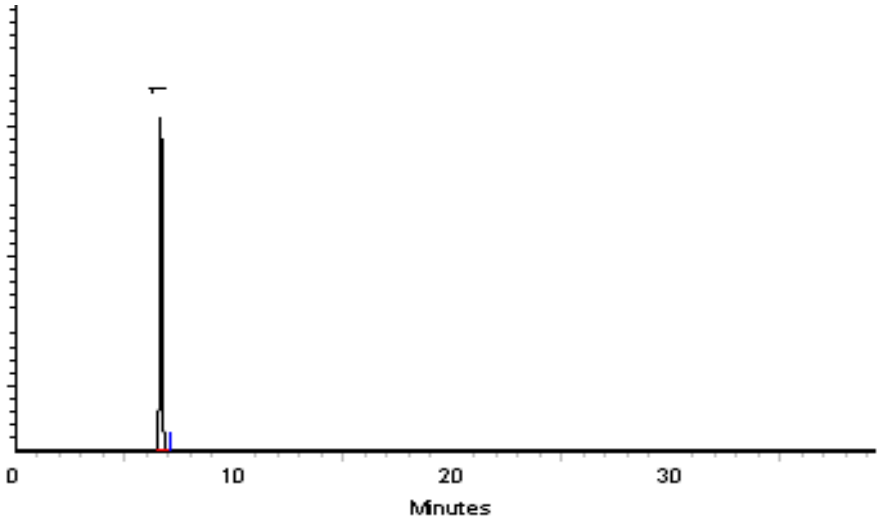
Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm

Inj. Vol
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.

Bryan Snyder - Operations Tech I

Date Mixed: 11-Jan-2023 **Balance Serial #** 1127510105

Christie Mills - Operations Tech II - ARM QC

Date Passed: 16-Jan-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_00261

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.:** A0193444

Description : 8330 Surrogate Mix

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

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

Expiration Date : January 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	MKCH6067	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.

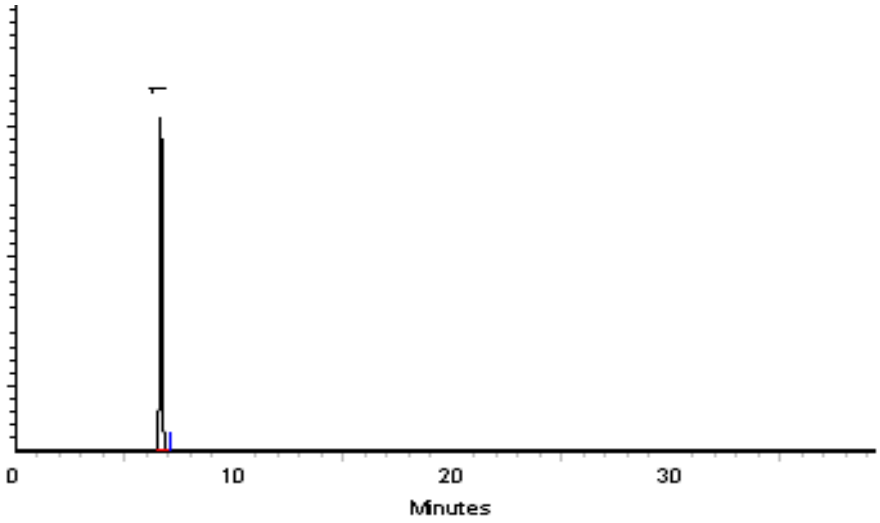
Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm

Inj. Vol
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.

Bryan Snyder - Operations Tech I

Date Mixed: 11-Jan-2023 **Balance Serial #** 1127510105

Christie Mills - Operations Tech II - ARM QC

Date Passed: 16-Jan-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_00262

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

ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

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.:** A0193444

Description : 8330 Surrogate Mix

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

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

Expiration Date : January 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	MKCH6067	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.

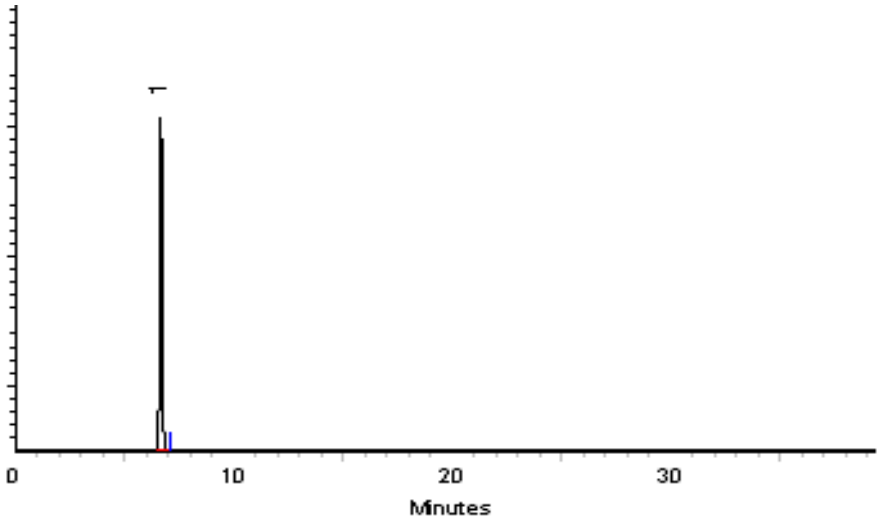
Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm

Inj. Vol
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.

Bryan Snyder - Operations Tech I

Date Mixed: 11-Jan-2023 **Balance Serial #** 1127510105

Christie Mills - Operations Tech II - ARM QC

Date Passed: 16-Jan-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_00263

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

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 31453 **Lot No.:** A0193444

Description : 8330 Surrogate Mix

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

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

Expiration Date : January 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	MKCH6067	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.

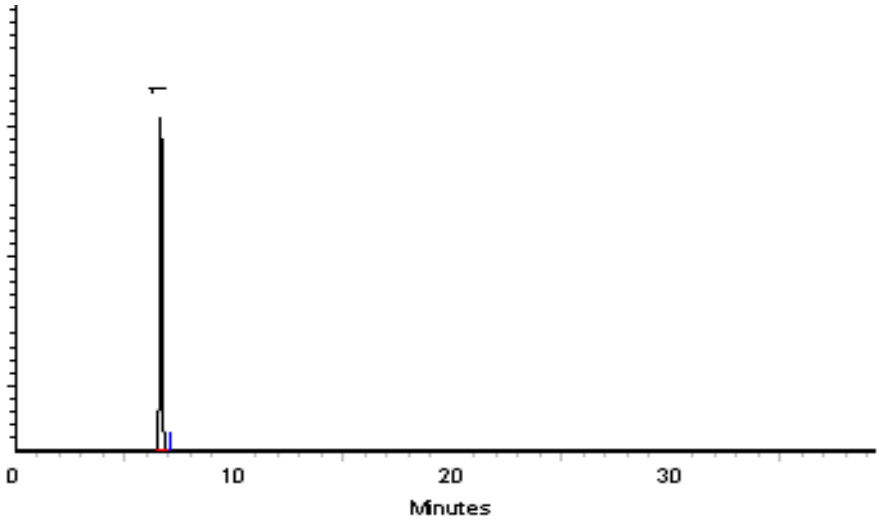
Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm

Inj. Vol
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.

Bryan Snyder - Operations Tech I

Date Mixed: 11-Jan-2023 **Balance Serial #** 1127510105

Christie Mills - Operations Tech II - ARM QC

Date Passed: 16-Jan-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_00265

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

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CERTIFIED REFERENCE MATERIAL

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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.:** A0193444

Description : 8330 Surrogate Mix

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

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

Expiration Date : January 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	MKCH6067	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.

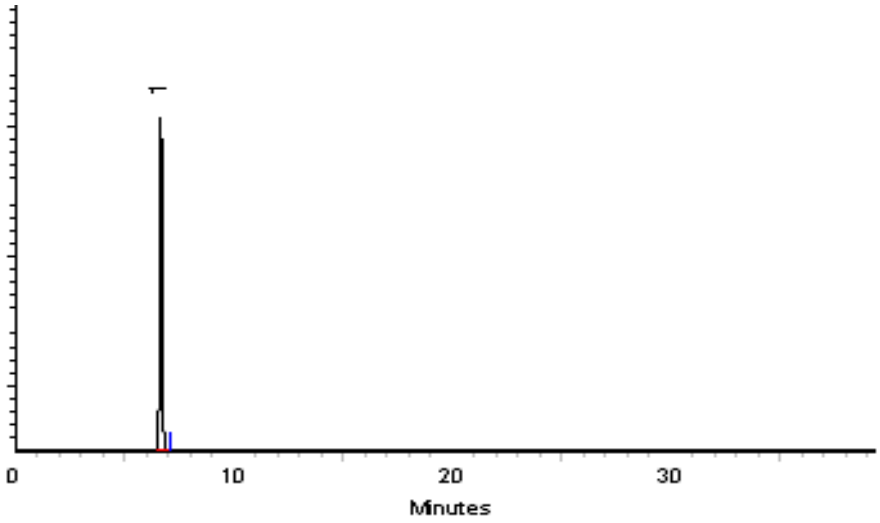
Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm

Inj. Vol
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.

Bryan Snyder - Operations Tech I

Date Mixed: 11-Jan-2023 **Balance Serial #** 1127510105

Christie Mills - Operations Tech II - ARM QC

Date Passed: 16-Jan-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_00266

RESTEK

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

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Reference Material Producer
Certificate #3222.01

Certificate of Analysis

chromatographic plus

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.:** A0194831

Description : 8330 Surrogate Mix

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

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

Expiration Date : February 29, 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	MKCH6067	99%	1,004.8 µg/mL	+/- 56.4585

* 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.

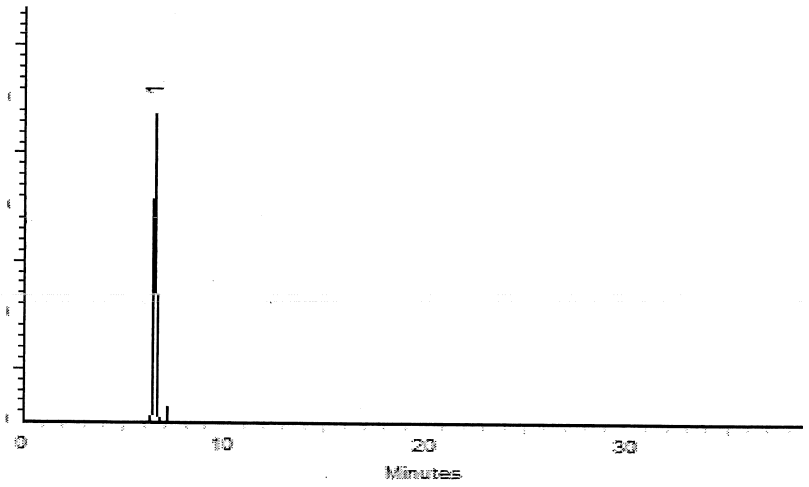
Mobile Phase A:
water:methanol (44:56 V/V)

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.

Stacey Wanner - Operations Technician I **Date Mixed:** 20-Feb-2023 **Balance Serial #** B442140311

Jennifer Pollino - Operations Tech III - ARM QC **Date Passed:** 21-Feb-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_00267

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

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ACCREDITED
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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. : 31453 **Lot No.:** A0194831

Description : 8330 Surrogate Mix

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

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

Expiration Date : February 29, 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	MKCH6067	99%	1,004.8 µg/mL	+/- 56.4585

* 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.

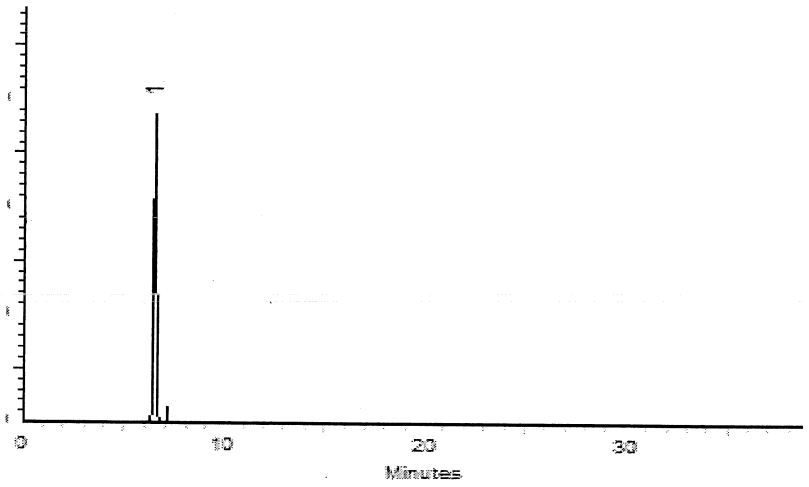
Mobile Phase A:
water:methanol (44:56 V/V)

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.

Stacey Wanner - Operations Technician I **Date Mixed:** 20-Feb-2023 **Balance Serial #** B442140311

Jennifer Pollino - Operations Tech III - ARM QC **Date Passed:** 21-Feb-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_00268

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

www.restek.com

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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. : 31453 **Lot No.:** A0194831

Description : 8330 Surrogate Mix

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

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

Expiration Date : February 29, 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	MKCH6067	99%	1,004.8 µg/mL	+/- 56.4585

* 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.

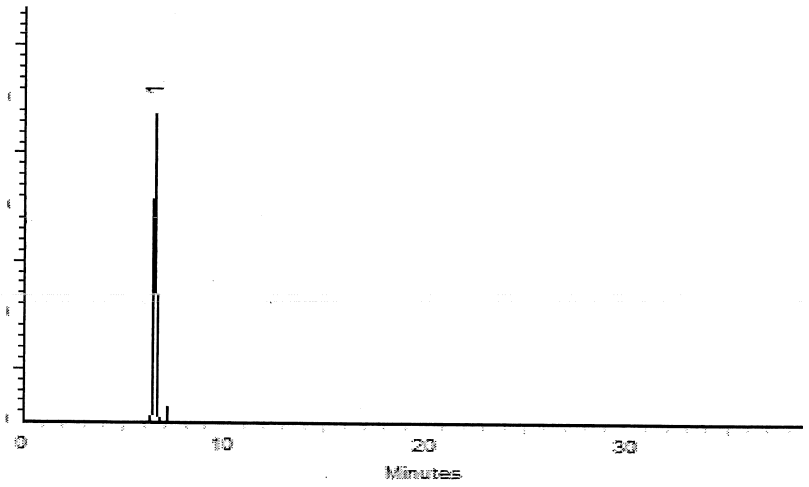
Mobile Phase A:
water:methanol (44:56 V/V)

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.

Stacey Wanner - Operations Technician I **Date Mixed:** 20-Feb-2023 **Balance Serial #** B442140311

Jennifer Pollino - Operations Tech III - ARM QC **Date Passed:** 21-Feb-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_00269

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

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Reference Material Producer
Certificate #3222.01

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. : 31453 **Lot No.:** A0194831

Description : 8330 Surrogate Mix

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

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

Expiration Date : February 29, 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	MKCH6067	99%	1,004.8 µg/mL	+/- 56.4585

* 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.

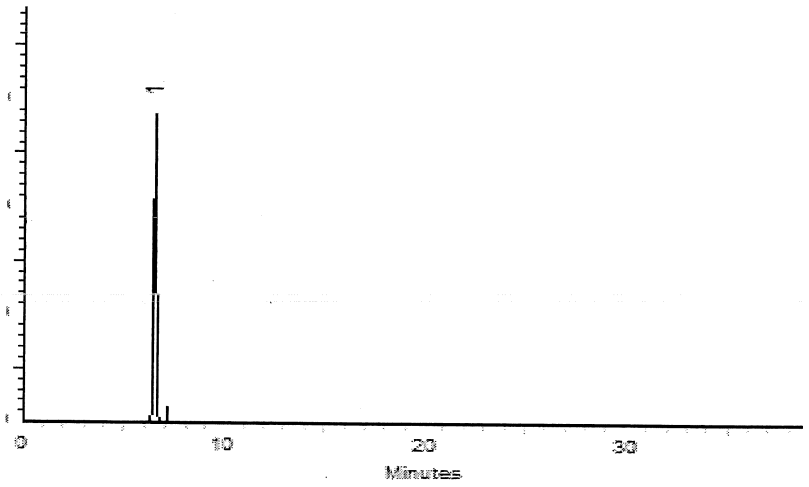
Mobile Phase A:
water:methanol (44:56 V/V)

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.

Stacey Wanner - Operations Technician I **Date Mixed:** 20-Feb-2023 **Balance Serial #** B442140311

Jennifer Pollino - Operations Tech III - ARM QC **Date Passed:** 21-Feb-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_00270

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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. : 31453 **Lot No.:** A0194831

Description : 8330 Surrogate Mix

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

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

Expiration Date : February 29, 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	MKCH6067	99%	1,004.8 µg/mL	+/- 56.4585

* 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.

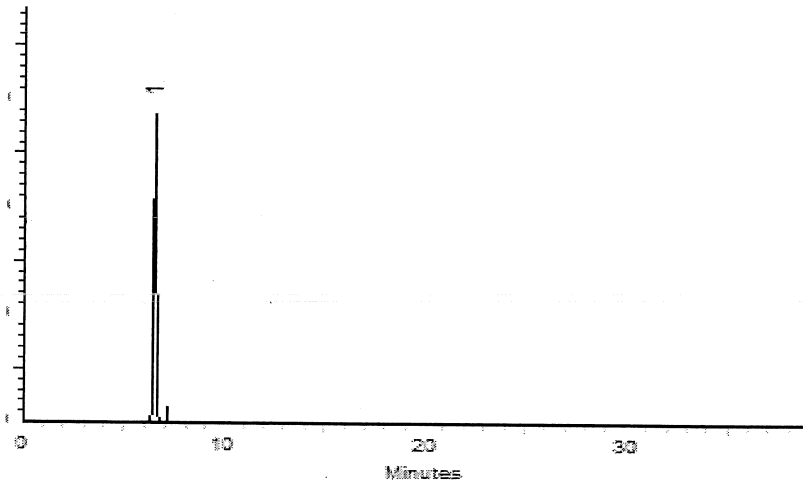
Mobile Phase A:
water:methanol (44:56 V/V)

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.

Stacey Wanner - Operations Technician I **Date Mixed:** 20-Feb-2023 **Balance Serial #** B442140311

Jennifer Pollino - Operations Tech III - ARM QC **Date Passed:** 21-Feb-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.
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Reagent

8330SurrStkSS_00271

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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. : 31453 **Lot No.:** A0194831

Description : 8330 Surrogate Mix

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

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

Expiration Date : February 29, 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	MKCH6067	99%	1,004.8 µg/mL	+/- 56.4585

* 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.

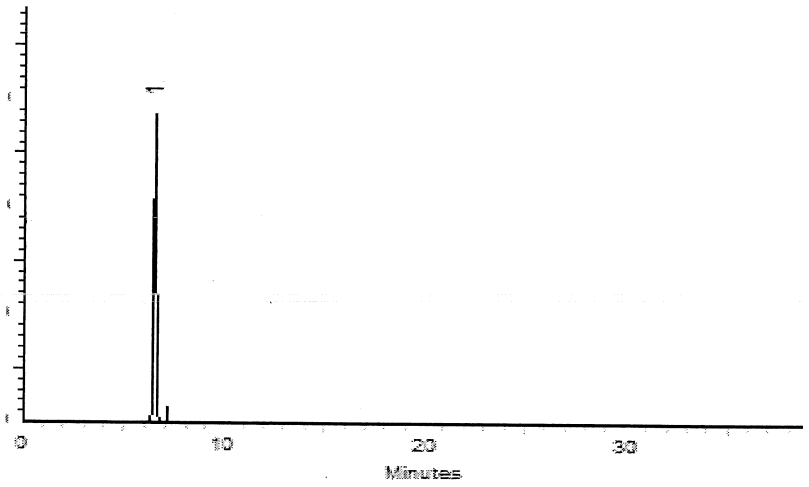
Mobile Phase A:
water:methanol (44:56 V/V)

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.

Stacey Wanner - Operations Technician I **Date Mixed:** 20-Feb-2023 **Balance Serial #** B442140311

Jennifer Pollino - Operations Tech III - ARM QC **Date Passed:** 21-Feb-2023

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
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- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

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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:

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Reagent

8330SurrStkSS_00272

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Certificate of Analysis

chromatographic plus

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Catalog No. : 31453 **Lot No.:** A0194831

Description : 8330 Surrogate Mix

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

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

Expiration Date : February 29, 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	MKCH6067	99%	1,004.8 µg/mL	+/- 56.4585

* 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.

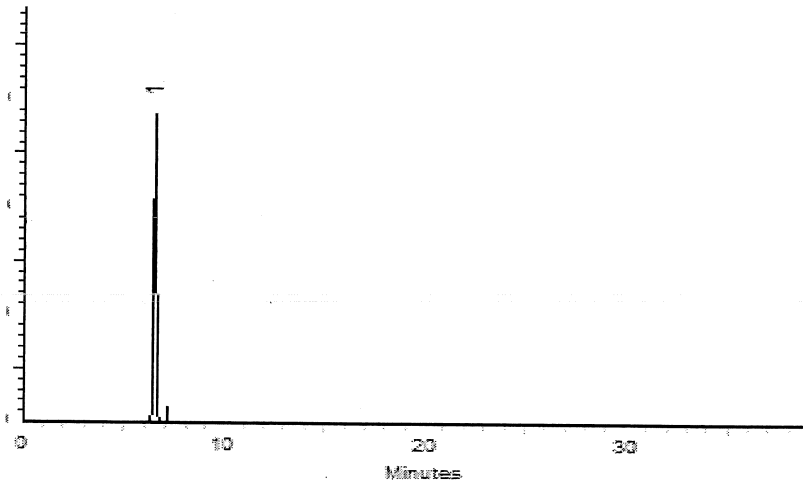
Mobile Phase A:
water:methanol (44:56 V/V)

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.

Stacey Wanner - Operations Technician I **Date Mixed:** 20-Feb-2023 **Balance Serial #** B442140311

Jennifer Pollino - Operations Tech III - ARM QC **Date Passed:** 21-Feb-2023

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
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Certified Uncertainty Value Notes:

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Manufacturing Notes:

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Reagent

8330SurrStkSS_00273

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Catalog No. : 31453 **Lot No.:** A0197062

Description : 8330 Surrogate Mix

8330 Surrogate Mix 1000 µg/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	1,2-Dinitrobenzene	528-29-0	STBK9056	99%	1,001.6 µg/mL	+/- 56.2801

* 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.

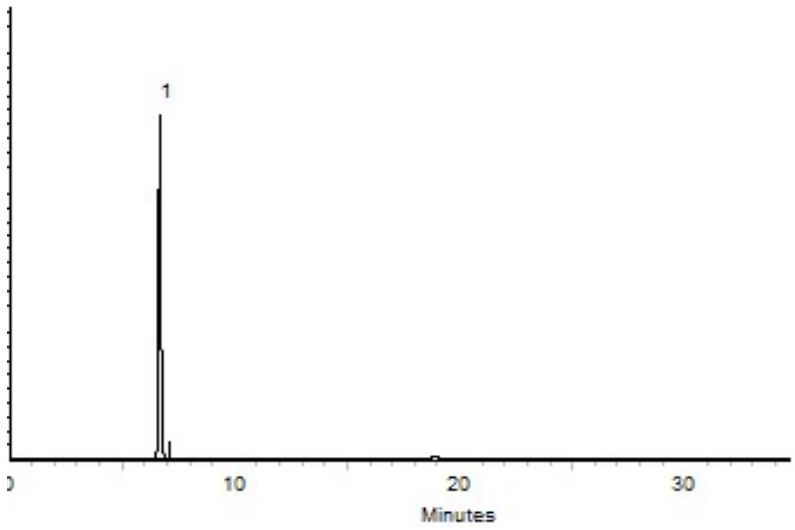
Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm

Inj. Vol
2.0µl



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Penelope Riglin - Operations Tech I

Date Mixed: 17-Apr-2023 **Balance Serial #** 1128360905

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 19-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.
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Manufacturing Notes:

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

Handling Notes:

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

Reagent

8330SurrStock_00172

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_00076

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: 0006725091
Lot Issue Date: 31-Jan-2023
Expiration Date: 29-Feb-2024

Component Name	Concentration		Uncertainty	CAS#	Analyte Lot
1,3,5-trinitroso-1,3,5-triazacyclohexane (TNX)	100.3	±	0.5 µg/mL	N/A	RM12426
1-nitro-3,5-dinitroso-1,3,5-triazacyclohexane (DNX)	100.1	±	0.5 µg/mL	N/A	RM12428
1-nitroso-3,5-dinitro-1,3,5-triazacyclohexane (MNX)	116.7	±	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 (RM) 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. Purity values are taken from approved vendor raw material certificates.

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 (RM) 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.

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

Intended Use:
This analytical reference (RM) 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:

Reagent

MNX,TNX,DNX_00079

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: 0006725091

Lot Issue Date: 31-Jan-2023

Expiration Date: 29-Feb-2024

Component Name	Concentration		Uncertainty	CAS#	Analyte Lot
1,3,5-trinitroso-1,3,5-triazacyclohexane (TNX)	100.3	±	0.5 µg/mL	N/A	RM12426
1-nitro-3,5-dinitroso-1,3,5-triazacyclohexane (DNX)	100.1	±	0.5 µg/mL	N/A	RM12428
1-nitroso-3,5-dinitro-1,3,5-triazacyclohexane (MNX)	116.7	±	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 (RM) 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. Purity values are taken from approved vendor raw material certificates.

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 (RM) 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.

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

Intended Use:
This analytical reference (RM) 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:

Reagent

PicricARestek_00114

RESTEK®
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

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.:** A0183202

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, 2027 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Picric Acid	1,004.0 µg/mL	+/- 5.9635	µg/mL	Gravimetric
	CAS # 88-89-1 (Lot 06130CU)		+/- 55.0021	µg/mL	Unstressed
	Purity 99%		+/- 64.1379	µg/mL	Stressed

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

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

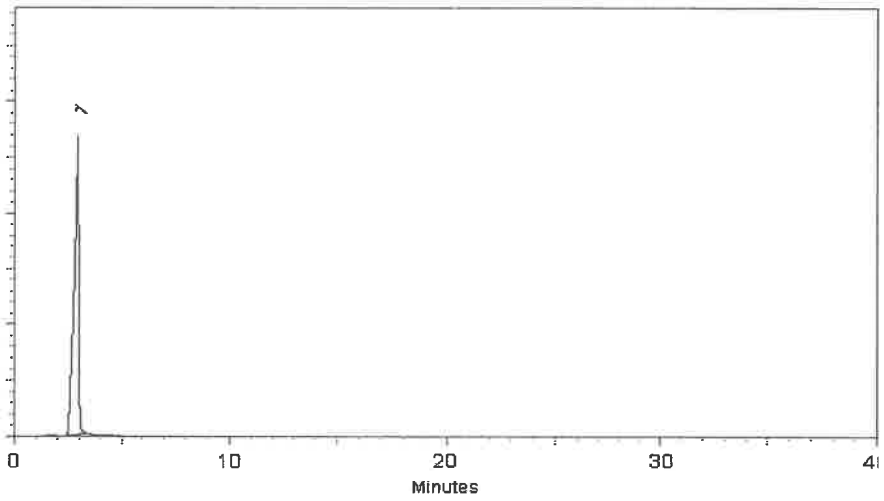
Flow Rate:
1.0 ml/min.

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

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm



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.

Brandon Reish - Mix Technician

Date Mixed: 23-Mar-2022 **Balance:** 1128360905

Amanda Miller - Operations Tech-ARM QC

Date Passed: 28-Mar-2022

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 combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

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

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

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules 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 ampules. 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.

8330B_DOD5

Nitroaromatics and Nitramines (HPLC)

FORM II
HPLC/IC SURROGATE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-176866-1

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-179-230301-GW	280-176866-1	85	
FBQmw-179-230301-GW	280-176866-1		80 Q
FBQmw-179-230301-GW RE	280-176866-1 RE		96
FBQmw-179-230301-GW RE	280-176866-1 RE	96 M	
FBQmw-181-230301-GW	280-176866-2	93 M	
FBQmw-181-230301-GW	280-176866-2		87
FBQmw-181-230301-GW RE	280-176866-2 RE	92	
	MB 280-613600/1-A	93	
	MB 280-613758/1-A	100	
	LCS 280-613600/2-A	94 M	
	LCS 280-613758/2-A	93	
	LCSD 280-613600/3-A	85	
	LCSD 280-613758/24-A	93	

	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.: 280-176866-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 05240028.D

Lab ID: LCS 280-613600/2-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,3,5-Trinitrobenzene	2.00	2.08	104	73-125	M
1,3-Dinitrobenzene	2.00	1.95	98	78-120	
2,4,6-Trinitrotoluene	2.00	1.87	93	71-123	
2,4-Dinitrotoluene	2.00	1.84	92	78-120	
2,6-Dinitrotoluene	2.00	1.91	96	77-127	
2-Amino-4,6-dinitrotoluene	2.00	1.81	91	79-120	
2-Nitrotoluene	2.00	1.52	76	70-127	
3-Nitrotoluene	2.00	1.48	74	73-125	
4-Amino-2,6-dinitrotoluene	2.00	1.82	91	76-125	
4-Nitrotoluene	2.00	1.50	75	71-127	
HMX	2.00	1.77	89	65-135	
Nitrobenzene	2.00	1.73	86	65-134	
Nitroglycerin	20.0	19.8	99	74-127	
PETN	20.0	21.1	105	73-127	
RDX	2.00	1.95	98	68-130	
Tetryl	2.00	2.04	102	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.: 280-176866-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 05250028.D

Lab ID: LCS 280-613758/2-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,3,5-Trinitrobenzene	2.50	2.53	101	73-125	
1,3-Dinitrobenzene	2.50	2.43	97	78-120	
2,4,6-Trinitrotoluene	2.50	2.35	94	71-123	
2,4-Dinitrotoluene	2.50	2.30	92	78-120	
2,6-Dinitrotoluene	2.50	2.37	95	77-127	
2-Amino-4,6-dinitrotoluene	2.50	2.25	90	79-120	
2-Nitrotoluene	2.50	1.81	73	70-127	
3-Nitrotoluene	2.50	1.79	71	73-125	Q
4-Amino-2,6-dinitrotoluene	2.50	2.28	91	76-125	
4-Nitrotoluene	2.50	1.82	73	71-127	
HMX	2.50	2.25	90	65-135	M
Nitrobenzene	2.50	2.14	85	65-134	
Nitroglycerin	25.0	24.6	98	74-127	
PETN	25.0	26.7	107	73-127	
RDX	2.50	2.51	100	68-130	
Tetryl	2.50	2.68	107	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.: 280-176866-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 05240029.D

Lab ID: LCSD 280-613600/3-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	1.94	97	7	20	73-125	
1,3-Dinitrobenzene	2.00	1.75	88	11	20	78-120	
2,4,6-Trinitrotoluene	2.00	1.70	85	9	20	71-123	
2,4-Dinitrotoluene	2.00	1.65	82	11	20	78-120	
2,6-Dinitrotoluene	2.00	1.65	83	15	20	77-127	
2-Amino-4,6-dinitrotoluene	2.00	1.63	82	11	20	79-120	
2-Nitrotoluene	2.00	1.31	66	15	20	70-127	Q
3-Nitrotoluene	2.00	1.30	65	12	20	73-125	Q
4-Amino-2,6-dinitrotoluene	2.00	1.62	81	12	20	76-125	
4-Nitrotoluene	2.00	1.31	65	14	20	71-127	Q
HMX	2.00	1.69	84	5	20	65-135	
Nitrobenzene	2.00	1.51	75	14	20	65-134	
Nitroglycerin	20.0	18.2	91	8	20	74-127	
PETN	20.0	19.5	98	8	20	73-127	
RDX	2.00	1.76	88	10	20	68-130	
Tetryl	2.00	1.90	95	7	20	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.: 280-176866-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 05250029.D

Lab ID: LCSD 280-613758/24-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	2.50	2.56	103	1	20	73-125	
1,3-Dinitrobenzene	2.50	2.42	97	0	20	78-120	
2,4,6-Trinitrotoluene	2.50	2.33	93	1	20	71-123	
2,4-Dinitrotoluene	2.50	2.26	90	2	20	78-120	
2,6-Dinitrotoluene	2.50	2.33	93	2	20	77-127	
2-Amino-4,6-dinitrotoluene	2.50	2.25	90	0	20	79-120	
2-Nitrotoluene	2.50	1.80	72	1	20	70-127	
3-Nitrotoluene	2.50	1.75	70	2	20	73-125	Q
4-Amino-2,6-dinitrotoluene	2.50	2.24	89	2	20	76-125	
4-Nitrotoluene	2.50	1.74	70	4	20	71-127	Q
HMX	2.50	2.24	90	0	20	65-135	M
Nitrobenzene	2.50	2.12	85	1	20	65-134	
Nitroglycerin	25.0	24.6	98	0	20	74-127	
PETN	25.0	26.7	107	0	20	73-127	
RDX	2.50	2.52	101	1	20	68-130	
Tetryl	2.50	2.62	105	2	20	64-128	

Column to be used to flag recovery and RPD values

FORM III 8330B

FORM IV
HPLC/IC METHOD BLANK SUMMARY

Lab Name: Eurofins Denver Job No.: 280-176866-1

SDG No.:

Lab Sample ID: MB 280-613600/1-A

Matrix: Water Date Extracted: 05/24/2023 12:32

Lab File ID:(1) 05240027.D Lab File ID:(2)

Date Analyzed:(1) 05/24/2023 23:33 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 280-613600/2-A	05/24/2023 23:55	
	LCSD 280-613600/3-A	05/25/2023 00:18	
FBQmw-179-230301-GW	280-176866-1	05/25/2023 04:31	05/25/2023 21:10
FBQmw-181-230301-GW	280-176866-2	05/25/2023 04:54	05/25/2023 21:45

FORM IV
HPLC/IC METHOD BLANK SUMMARY

Lab Name: Eurofins Denver Job No.: 280-176866-1

SDG No.:

Lab Sample ID: MB 280-613758/1-A

Matrix: Water Date Extracted: 05/25/2023 14:07

Lab File ID:(1) 05250027.D Lab File ID:(2)

Date Analyzed:(1) 05/25/2023 21:35 Date Analyzed:(2)

Instrument ID:(1) CHHPLC_X3 Instrument ID:(2) CHHPLC_G2_LUNA

GC Column:(1) UltraCarb5uO ID: 4.6(mm) GC Column:(2) Luna-phenylh ID: 4.6(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 280-613758/2-A	05/25/2023 21:58	
	LCSD 280-613758/24-A	05/25/2023 22:21	
FBQmw-179-230301-GW RE	280-176866-1 RE	05/26/2023 06:46	05/27/2023 05:44
FBQmw-181-230301-GW RE	280-176866-2 RE	05/26/2023 07:09	

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-176866-1

SDG No.:

Client Sample ID: FBQmw-179-230301-GW Lab Sample ID: 280-176866-1

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

Date Analyzed (1): 05/25/2023 04:31 Date Analyzed (2): 05/25/2023 21:10

GC Column (1): UltraCarb5uOD ID: 4.6(mm) GC Column (2): Luna-phenylhe ID: 4.6(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
RDX	1		7.59	7.42	7.72	0.77		105.6
	2		8.89	8.78	9.08	0.24		
2-Nitrotoluene	1		12.52	12.33	12.63	0.22		173.9
	2		15.64	15.44	15.74	3.2		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-176866-1

SDG No.:

Client Sample ID: FBQmw-179-230301-GW RE Lab Sample ID: 280-176866-1 RE

Instrument ID (1): CHHPLC_X3 Instrument ID (2): CHHPLC_G2_LUNA

Date Analyzed (1): 05/26/2023 06:46 Date Analyzed (2): 05/27/2023 05:44

GC Column (1): UltraCarb5uOD ID: 4.6(mm) GC Column (2): Luna-phenylhe ID: 4.6(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
RDX	1		7.58	7.42	7.72	1.0		145.1
	2		9.01	8.92	9.22	0.17		
2-Nitrotoluene	1		12.48	12.36	12.66	0.28		174.0
	2		15.72	15.57	15.87	4.1		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-176866-1

SDG No.:

Client Sample ID: FBQmw-181-230301-GW Lab Sample ID: 280-176866-2

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

Date Analyzed (1): 05/25/2023 04:54 Date Analyzed (2): 05/25/2023 21:45

GC Column (1): UltraCarb5uOD ID: 4.6(mm) GC Column (2): Luna-phenylhe ID: 4.6(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
RDX	1		7.59	7.42	7.72	0.96		153.1
	2		8.92	8.78	9.08	0.13		
2-Nitrotoluene	1		12.52	12.33	12.63	0.28		173.8
	2		15.62	15.44	15.74	4.0		

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-176866-1

SDG No.:

Client Sample ID: FBQmw-179-230301-GW | Lab Sample ID: 280-176866-1

Matrix: Water | Lab File ID: 05240040.D

Analysis Method: 8330B | Date Collected: 05/22/2023 11:22

Extraction Method: 3535 | Date Extracted: 05/24/2023 12:32

Sample wt/vol: 467.4(mL) | Date Analyzed: 05/25/2023 04:31

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 100(uL) | GC Column: UltraCarb5uODS ID: 4.6(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 613678 | 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
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	0.086	U	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
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
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	0.77	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	85		83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20230524-121799.b\05240040.D
Lims ID: 280-176866-B-1-A
Client ID: FBQmw-179-230301-GW
Sample Type: Client
Inject. Date: 25-May-2023 04:31:34 ALS Bottle#: 40 Worklist Smp#: 40
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-176866-B-1-A
Operator ID: JZ/JG Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20230524-121799.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 25-May-2023 11:52:02 Calib Date: 24-Feb-2023 17:41:20
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20230224-118952.b\02240018.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1654

First Level Reviewer: K8YG Date: 25-May-2023 08:35:03

	Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/mL	Flags
4	HMX	1	6.569	6.550	0.019	1396	0.0149	M
8	RDX	1	7.589	7.570	0.019	7614	0.0716	
$ 10	1,2-Dinitrobenzene	1	8.529	8.523	0.006	21415	0.1695	
11	1,3,5-Trinitrobenzene	1		8.650			ND	7
12	1,3-Dinitrobenzene	1		9.270			ND	7
13	Nitrobenzene	1		9.636			ND	
15	Tetryl	1		10.003			ND	
16	Nitroglycerin	2		10.456			ND	
17	2,4,6-Trinitrotoluene	1		10.896			ND	
18	4-Amino-2,6-dinitrotoluene	1		11.090			ND	
19	2-Amino-4,6-dinitrotoluene	1		11.343			ND	
20	2,6-Dinitrotoluene	1		11.490			ND	
21	2,4-Dinitrotoluene	1		11.663			ND	
22	o-Nitrotoluene	1	12.515	12.483	0.032	2665	0.0208	
23	p-Nitrotoluene	1		12.903			ND	
24	m-Nitrotoluene	1		13.476			ND	
25	PETN	2		14.636			ND	

QC Flag Legend

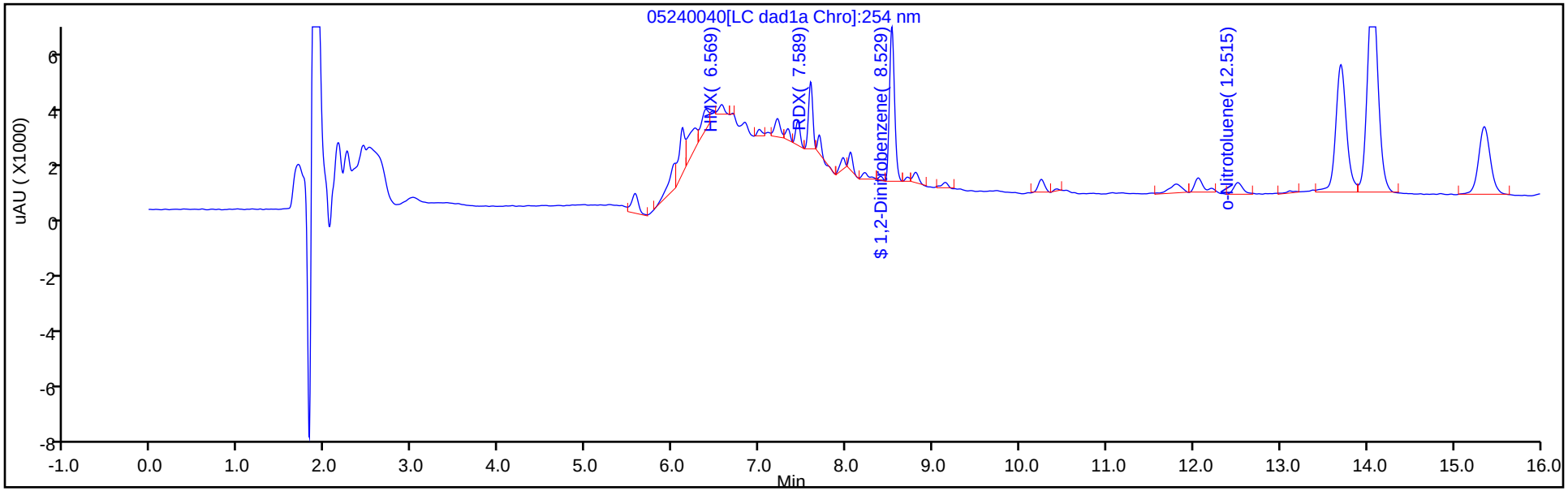
Processing Flags
7 - Failed Limit of Detection
Review Flags
M - Manually Integrated

Report Date: 25-May-2023 11:52:05 Chrom Revision: 2.3 23-May-2023 13:55:56

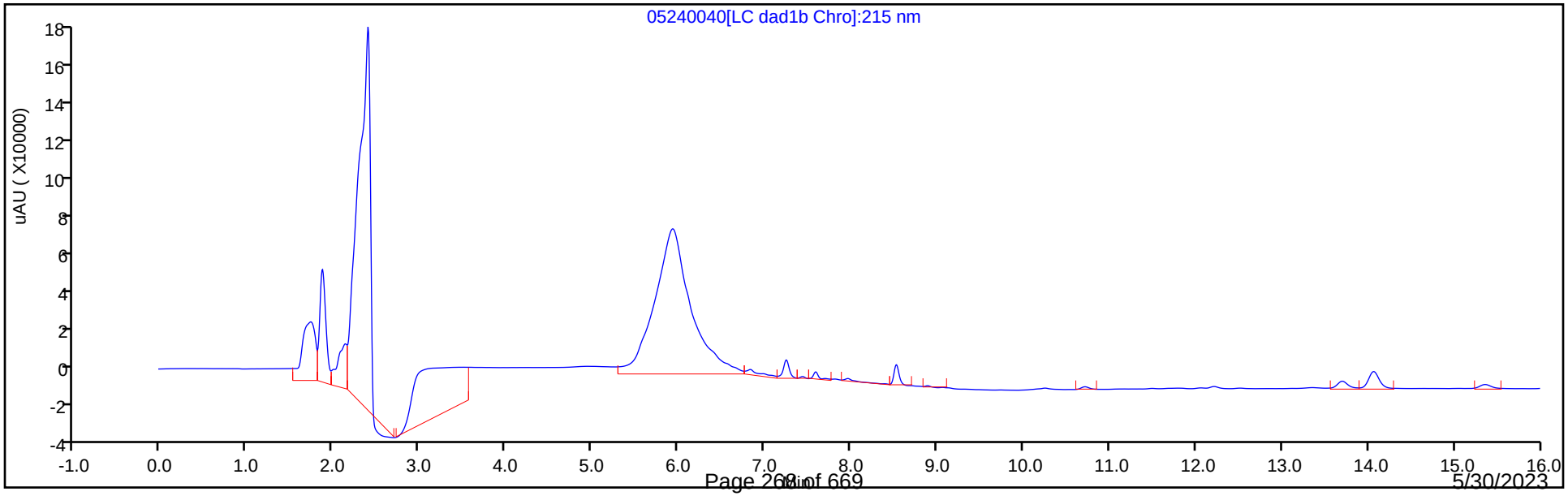
Eurofins Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20230524-121799.b\05240040.d				
Injection Date:	25-May-2023 04:31:34	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	280-176866-B-1-A	Lab Sample ID:	280-176866-1	Worklist Smp#:	40
Client ID:	FBQmw-179-230301-GW				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	40
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\20230524-121799.b\05240040.D				
Lims ID:	280-176866-B-1-A				
Client ID:	FBQmw-179-230301-GW				
Sample Type:	Client				
Inject. Date:	25-May-2023 04:31:34	ALS Bottle#:	40	Worklist Smp#:	40
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-176866-B-1-A				
Operator ID:	JZ/JG	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20230524-121799.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	25-May-2023 11:52:02	Calib Date:	24-Feb-2023 17:41:20		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X\20230224-118952.b\02240018.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1654				

First Level Reviewer: K8YG Date: 25-May-2023 08:35:03

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.1695	84.77

Manual Integration/User Assign Peak Report

Eurofins Denver

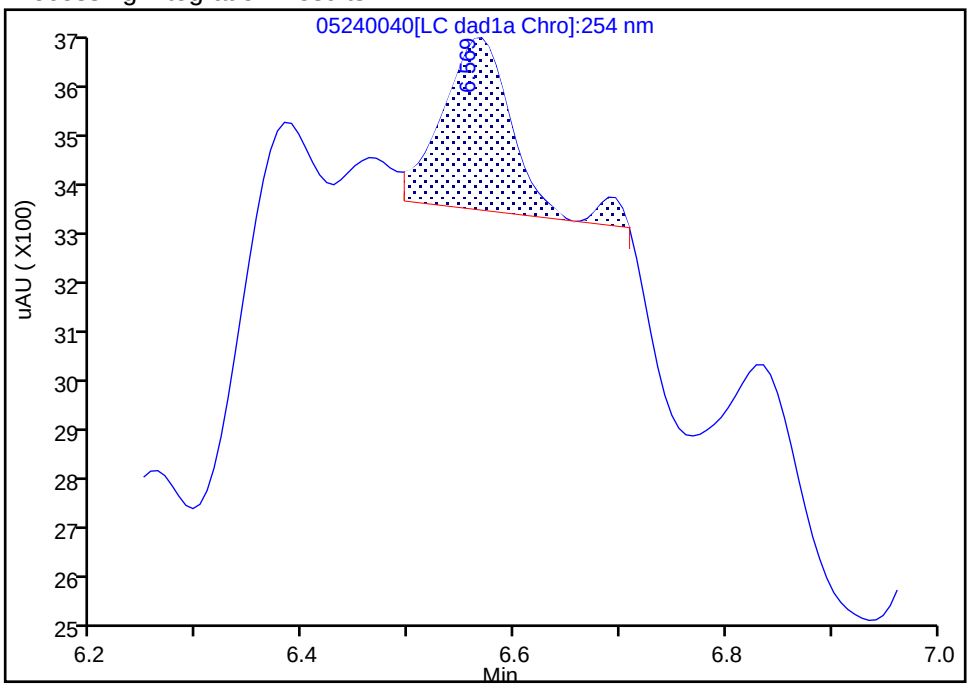
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230524-121799.b\05240040.d				
Injection Date:	25-May-2023 04:31:34	Instrument ID:	CHHPLC_X3		
Lims ID:	280-176866-B-1-A	Lab Sample ID:	280-176866-1		
Client ID:	FBQmw-179-230301-GW				
Operator ID:	JZ/JG	ALS Bottle#:	40	Worklist Smp#:	40
Injection Vol:	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

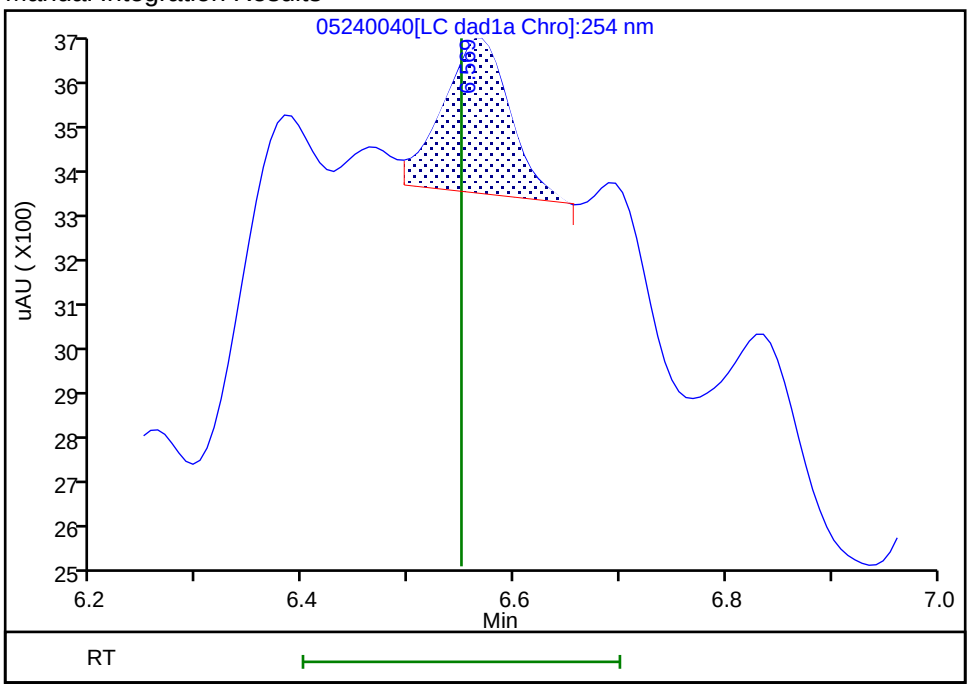
Processing Integration Results

RT: 6.57
Area: 1488
Amount: 0.015910
Amount Units: ug/mL



Manual Integration Results

RT: 6.57
Area: 1396
Amount: 0.014926
Amount Units: ug/mL



Reviewer: K8YG, 25-May-2023 08:34:54 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-176866-1

SDG No.:

Client Sample ID: FBQmw-179-230301-GW | Lab Sample ID: 280-176866-1

Matrix: Water | Lab File ID: 05250016.D

Analysis Method: 8330B | Date Collected: 05/22/2023 11:22

Extraction Method: 3535 | Date Extracted: 05/24/2023 12:32

Sample wt/vol: 467.4(mL) | Date Analyzed: 05/25/2023 21:10

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.: 613822 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
88-72-2	*2-Nitrotoluene*	*3.2*	*Q J1*	*0.22*	0.21	*0.091*
2691-41-0	HMX	0.21	U Q	0.22	0.21	0.094
121-82-4	*RDX*	*0.24*	*Q B J1*	*0.22*	0.21	*0.055*

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

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230525-121840.b\05250016.D
Lims ID: 280-176866-B-1-A
Client ID: FBQmw-179-230301-GW
Sample Type: Client
Inject. Date: 25-May-2023 21:10:16 ALS Bottle#: 16 Worklist Smp#: 16
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-176866-B-1-A
Operator ID: JZ/JG Instrument ID: CHHPLC_X5

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20230525-121840.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 26-May-2023 14:34:26 Calib Date: 29-Apr-2023 04:18:01
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230428-120896.b\04280027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1649

First Level Reviewer: K8YG Date: 26-May-2023 08:58:57

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
5 HMX	1		6.699			ND	
8 RDX	1	8.890	8.933	-0.043	5442	0.0221	
9 Nitrobenzene	1	11.410	11.439	-0.029	3738	0.009372	
$ 10 1,2-Dinitrobenzene	1	12.390	12.399	-0.009	44759	0.1595	
12 1,3-Dinitrobenzene	1		14.526			ND	
13 Nitroglycerin	2		15.039			ND	
14 o-Nitrotoluene	1	15.643	15.592	0.051	73832	0.2990	
16 p-Nitrotoluene	1		15.812			ND	
17 4-Amino-2,6-dinitrotoluene	1		16.359			ND	
18 m-Nitrotoluene	1		16.652			ND	
19 2-Amino-4,6-dinitrotoluene	1	17.230	17.179	0.051	18335	0.0428	
20 1,3,5-Trinitrobenzene	1		17.312			ND	
21 2,6-Dinitrotoluene	1		18.446			ND	
22 2,4-Dinitrotoluene	1		18.899			ND	
23 Tetryl	1		22.166			ND	
24 2,4,6-Trinitrotoluene	1		22.966			ND	
25 PETN	2		24.199			ND	

QC Flag Legend
Processing Flags

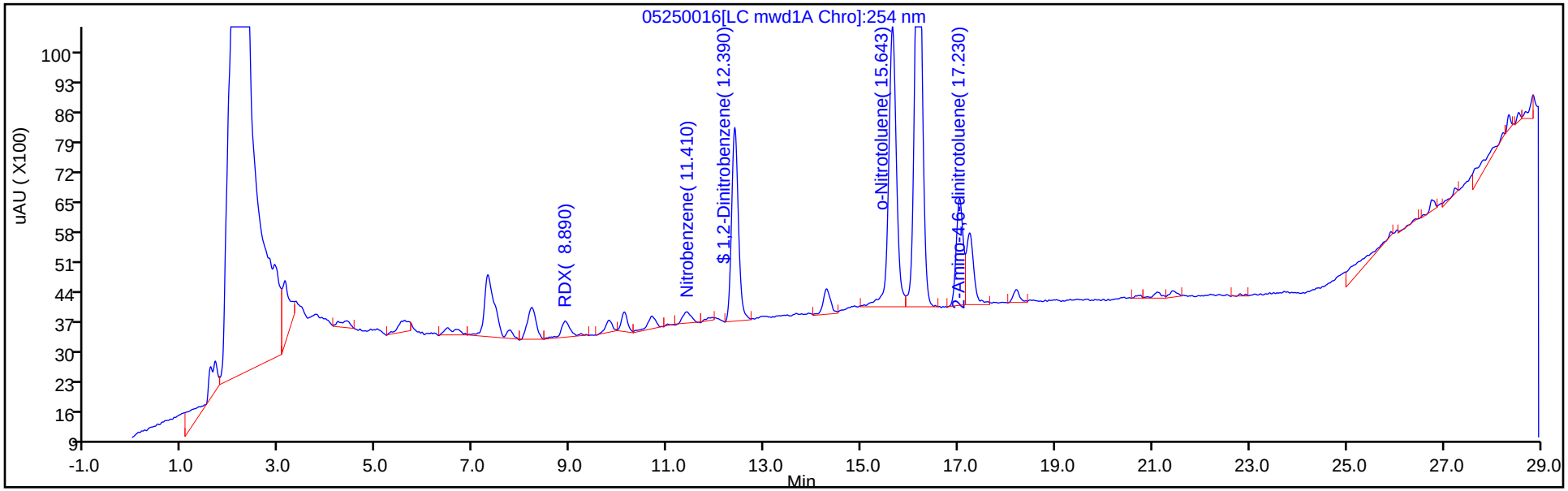
Report Date: 26-May-2023 14:34:32 Chrom Revision: 2.3 23-May-2023 13:55:56

Eurofins Denver

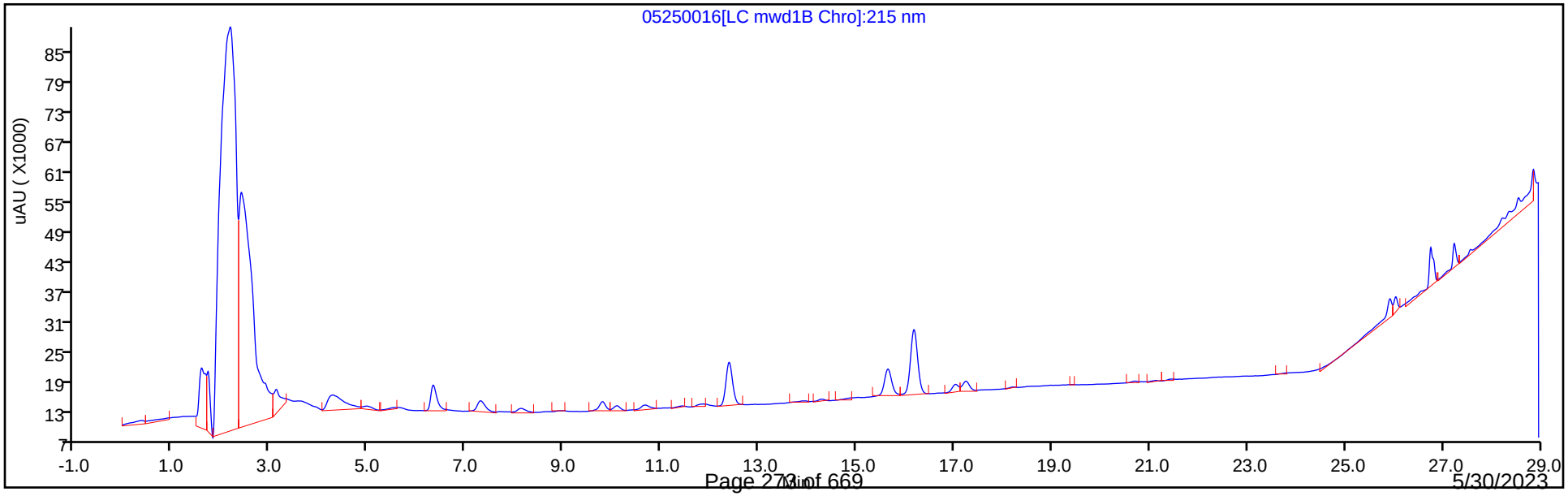
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230525-121840.b\05250016.D

Injection Date:	25-May-2023 21:10:16	Instrument ID:	CHHPLC_X5	Operator ID:	JZ/JG
Lims ID:	280-176866-B-1-A	Lab Sample ID:	280-176866-1	Worklist Smp#:	16
Client ID:	FBQmw-179-230301-GW				
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



Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20230525-121840.b\05250016.D				
Lims ID:	280-176866-B-1-A				
Client ID:	FBQmw-179-230301-GW				
Sample Type:	Client				
Inject. Date:	25-May-2023 21:10:16	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-176866-B-1-A				
Operator ID:	JZ/JG	Instrument ID:	CHHPLC_X5		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X5\20230525-121840.b\8330_X5_Luna.m				
Limit Group:	GCSV - 8330				
Last Update:	26-May-2023 14:34:26	Calib Date:	29-Apr-2023 04:18:01		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20230428-120896.b\04280027.D				
Column 1 :	Luna-Phenyl hexyl (4.60 mm)		Det: LC mwd1A, 254 nm		
Process Host:	CTX1649				

First Level Reviewer: K8YG Date: 26-May-2023 08:58:57

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.1595	79.73

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-176866-1

SDG No.:

Client Sample ID: FBQmw-179-230301-GW RE | Lab Sample ID: 280-176866-1 RE

Matrix: Water | Lab File ID: 05250051.D

Analysis Method: 8330B | Date Collected: 05/22/2023 11:22

Extraction Method: 3535 | Date Extracted: 05/25/2023 14:07

Sample wt/vol: 477.1(mL) | Date Analyzed: 05/26/2023 06:46

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.: 613812 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
88-72-2	2-Nitrotoluene	0.28	M J1	0.22	0.21	0.090
99-08-1	*3-Nitrotoluene*	*0.37*	*U Q*	*0.42*	0.37	*0.20*
99-99-0	4-Nitrotoluene	0.42	U Q	0.43	0.42	0.10

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\20230525-121837.b\05250051.D
Lims ID: 280-176866-A-1-A
Client ID: FBQmw-179-230301-GW
Sample Type: Client
Inject. Date: 26-May-2023 06:46:12 ALS Bottle#: 51 Worklist Smp#: 51
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-176866-A-1-A
Operator ID: JZ/JG Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20230525-121837.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 26-May-2023 11:54:17 Calib Date: 24-Feb-2023 17:41:20
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20230224-118952.b\02240018.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1649

First Level Reviewer: K8YG Date: 26-May-2023 08:04:57

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/mL	Flags
4 HMX	1	6.557	6.552	0.005	1097	0.0117	M
8 RDX	1	7.577	7.572	0.005	10624	0.0999	
$ 10 1,2-Dinitrobenzene	1	8.510	8.525	-0.015	30312	0.2400	M
11 1,3,5-Trinitrobenzene	1		8.652			ND	U
12 1,3-Dinitrobenzene	1		9.271			ND	U
13 Nitrobenzene	1		9.645			ND	
15 Tetryl	1		10.011			ND	
16 Nitroglycerin	2		10.465			ND	
17 2,4,6-Trinitrotoluene	1		10.905			ND	
18 4-Amino-2,6-dinitrotoluene	1		11.098			ND	
19 2-Amino-4,6-dinitrotoluene	1		11.351			ND	
20 2,6-Dinitrotoluene	1		11.505			ND	
21 2,4-Dinitrotoluene	1		11.678			ND	
22 o-Nitrotoluene	1	12.477	12.505	-0.028	3468	0.0271	M
23 p-Nitrotoluene	1		12.925			ND	
24 m-Nitrotoluene	1		13.498			ND	
25 PETN	2		14.665			ND	

QC Flag Legend

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

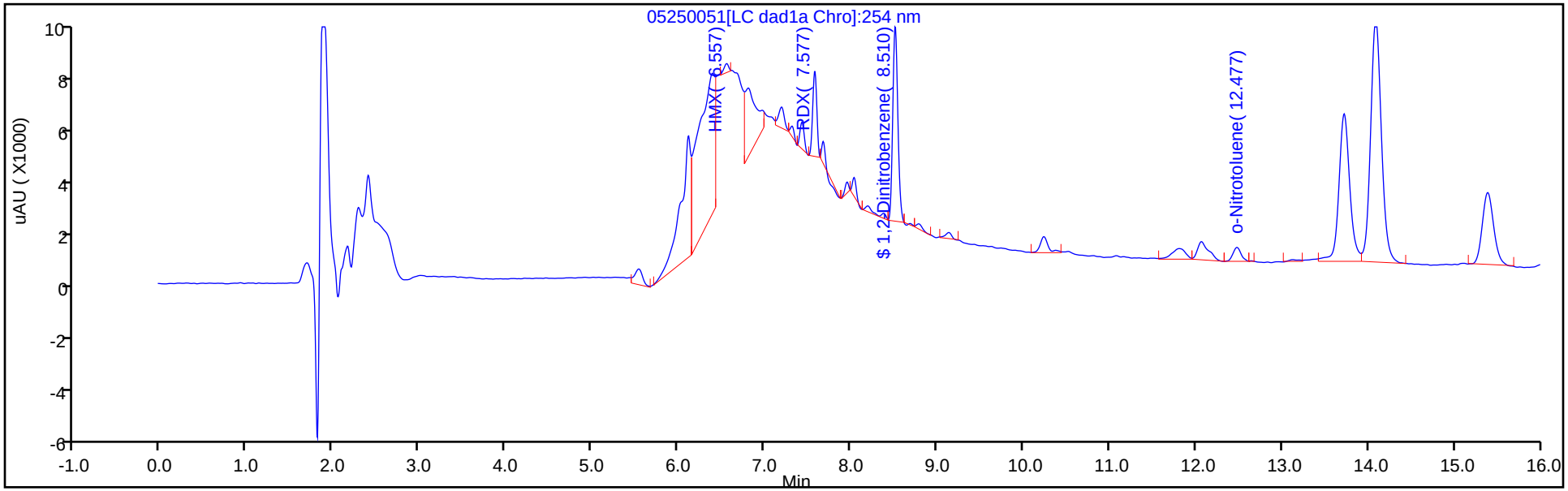
Report Date: 26-May-2023 11:54:23 Chrom Revision: 2.3 23-May-2023 13:55:56

Eurofins Denver

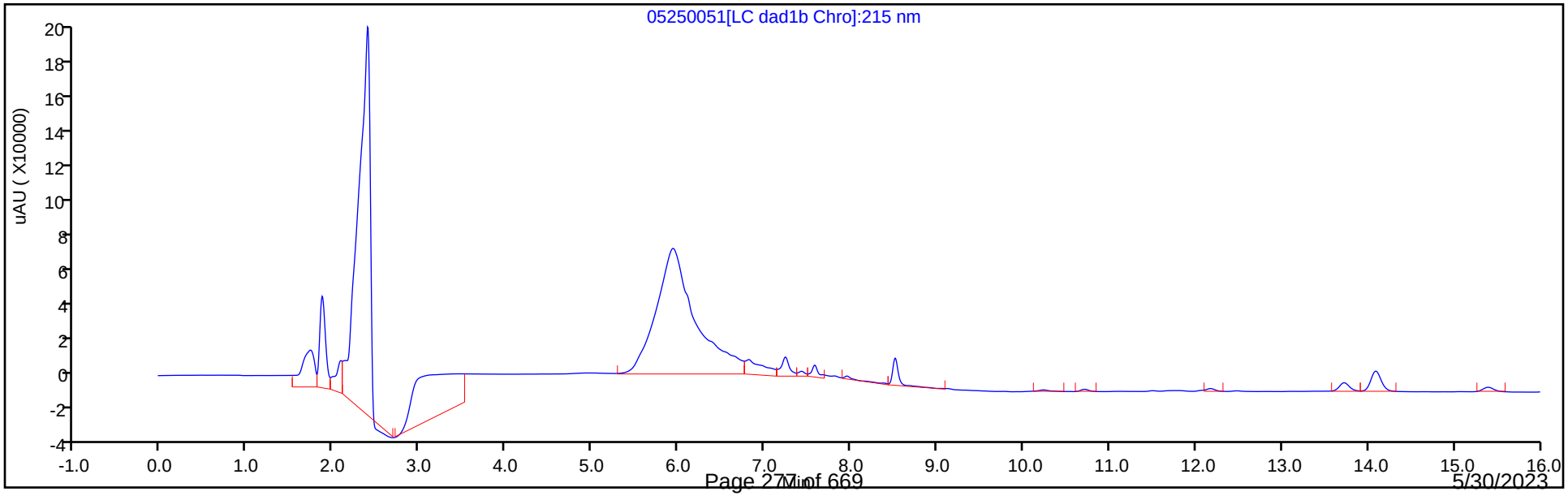
Data File: \\chromfs\denver\chromdata\chhplc_x\20230525-121837.b\05250051.d

Injection Date:	26-May-2023 06:46:12	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	280-176866-A-1-A	Lab Sample ID:	280-176866-1	Worklist Smp#:	51
Client ID:	FBQmw-179-230301-GW				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	51
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\20230525-121837.b\05250051.D				
Lims ID:	280-176866-A-1-A				
Client ID:	FBQmw-179-230301-GW				
Sample Type:	Client				
Inject. Date:	26-May-2023 06:46:12	ALS Bottle#:	51	Worklist Smp#:	51
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-176866-A-1-A				
Operator ID:	JZ/JG	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20230525-121837.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	26-May-2023 11:54:17	Calib Date:	24-Feb-2023 17:41:20		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X\20230224-118952.b\02240018.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1649				

First Level Reviewer: K8YG Date: 26-May-2023 08:04:57

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2500	0.2400	95.99

Manual Integration/User Assign Peak Report

Eurofins Denver

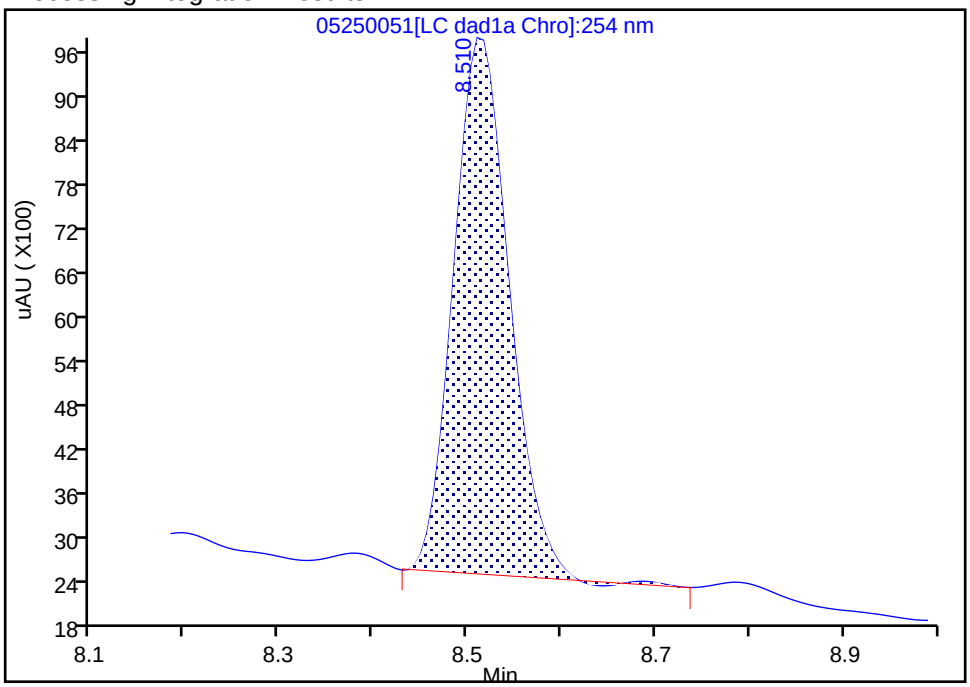
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230525-121837.b\05250051.d				
Injection Date:	26-May-2023 06:46:12	Instrument ID:	CHHPLC_X3		
Lims ID:	280-176866-A-1-A	Lab Sample ID:	280-176866-1		
Client ID:	FBQmw-179-230301-GW				
Operator ID:	JZ/JG	ALS Bottle#:	51	Worklist Smp#:	51
Injection Vol:	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

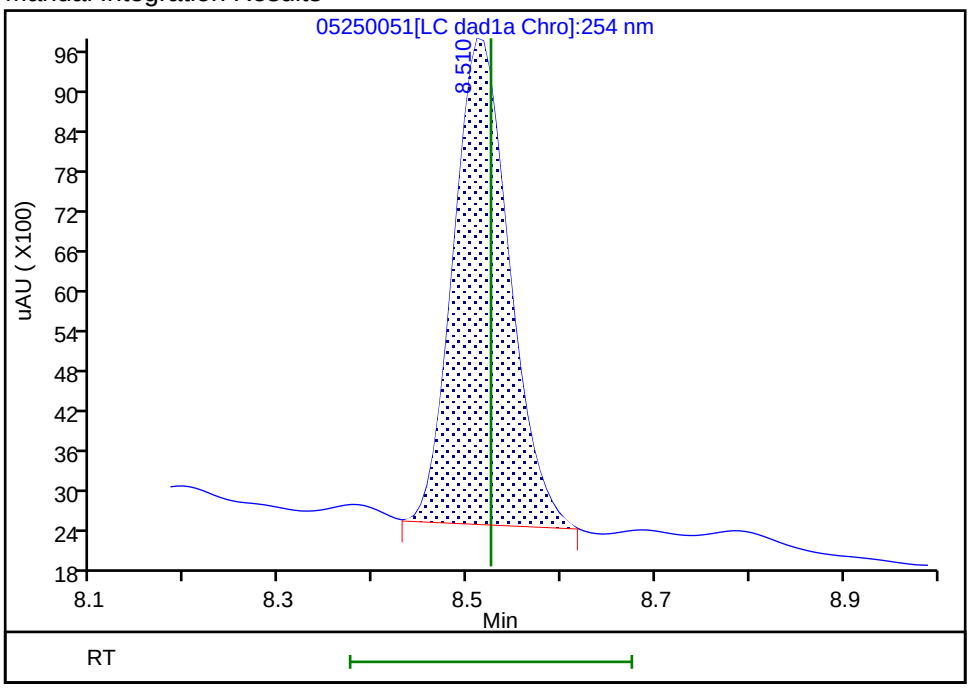
Processing Integration Results

RT: 8.51
Area: 30625
Amount: 0.242462
Amount Units: ug/mL



Manual Integration Results

RT: 8.51
Area: 30312
Amount: 0.239983
Amount Units: ug/mL



Reviewer: K8YG, 26-May-2023 08:03:58 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline

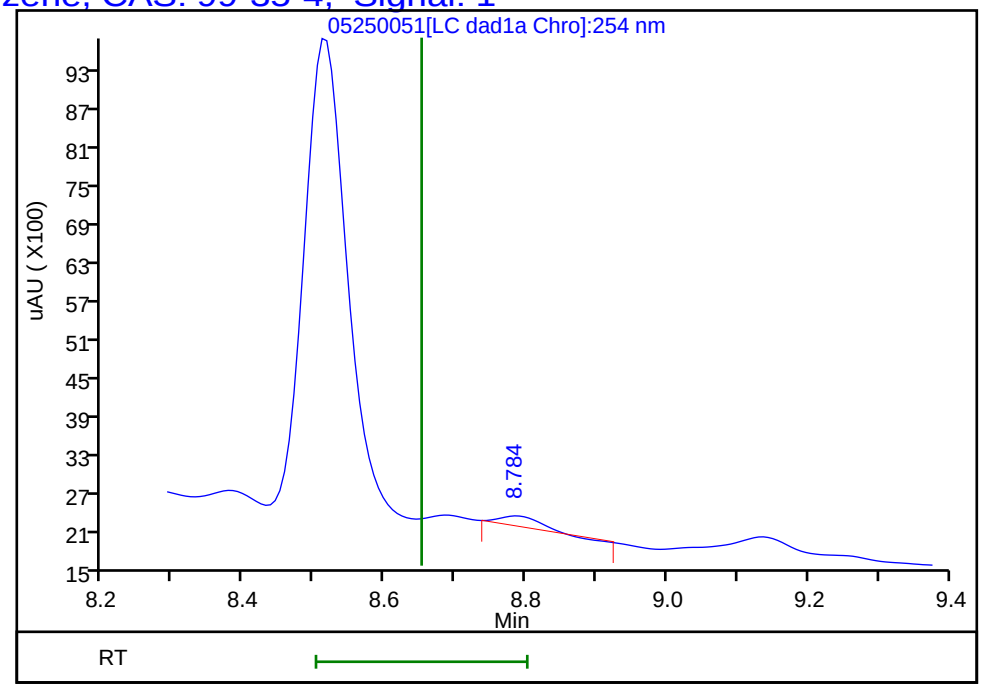
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20230525-121837.b\05250051.d				
Injection Date:	26-May-2023 06:46:12	Instrument ID:	CHHPLC_X3		
Lims ID:	280-176866-A-1-A	Lab Sample ID:	280-176866-1		
Client ID:	FBQmw-179-230301-GW				
Operator ID:	JZ/JG	ALS Bottle#:	51	Worklist Smp#:	51
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: 8.78
Response: 770
Amount: 0.003546



Reviewer: K8YG, 26-May-2023 08:04:57
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

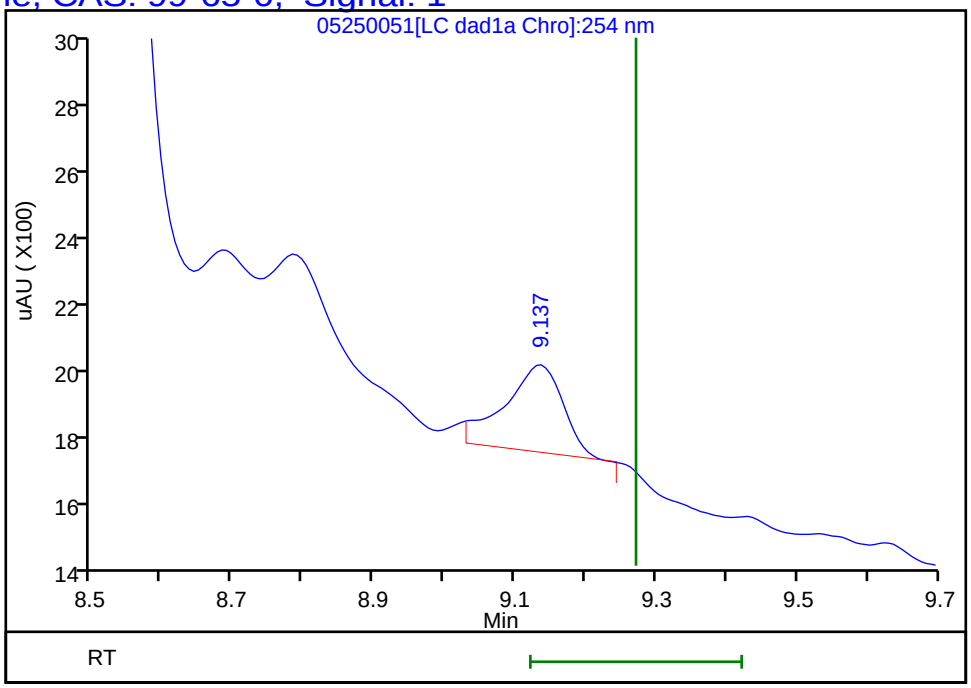
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20230525-121837.b\05250051.d				
Injection Date:	26-May-2023 06:46:12	Instrument ID:	CHHPLC_X3		
Lims ID:	280-176866-A-1-A	Lab Sample ID:	280-176866-1		
Client ID:	FBQmw-179-230301-GW				
Operator ID:	JZ/JG	ALS Bottle#:	51	Worklist Smp#:	51
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: 9.14
Response: 1466
Amount: 0.004980



Reviewer: K8YG, 26-May-2023 08:04:57
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Manual Integration/User Assign Peak Report

Eurofins Denver

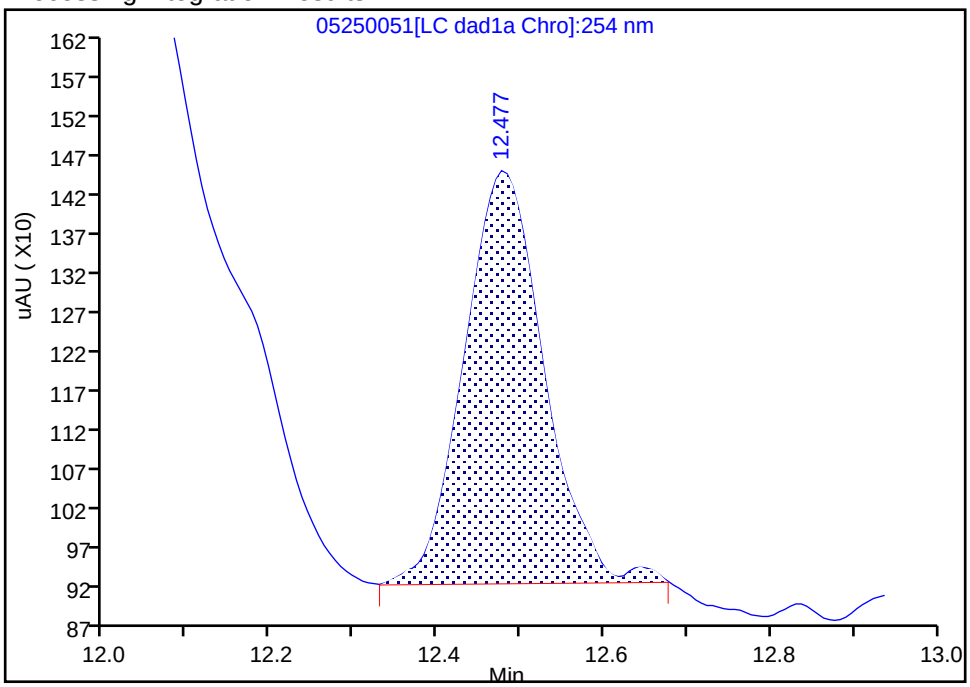
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230525-121837.b\05250051.d				
Injection Date:	26-May-2023 06:46:12	Instrument ID:	CHHPLC_X3		
Lims ID:	280-176866-A-1-A	Lab Sample ID:	280-176866-1		
Client ID:	FBQmw-179-230301-GW				
Operator ID:	JZ/JG	ALS Bottle#:	51	Worklist Smp#:	51
Injection Vol:	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

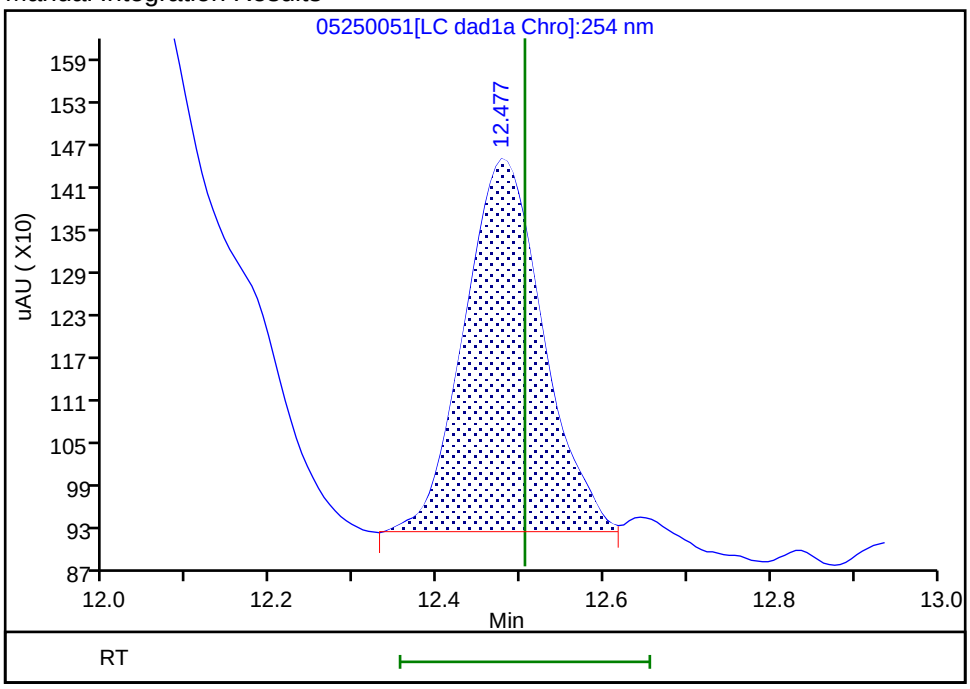
Processing Integration Results

RT: 12.48
Area: 3509
Amount: 0.027436
Amount Units: ug/mL



Manual Integration Results

RT: 12.48
Area: 3468
Amount: 0.027116
Amount Units: ug/mL



Reviewer: K8YG, 26-May-2023 08:04:15 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

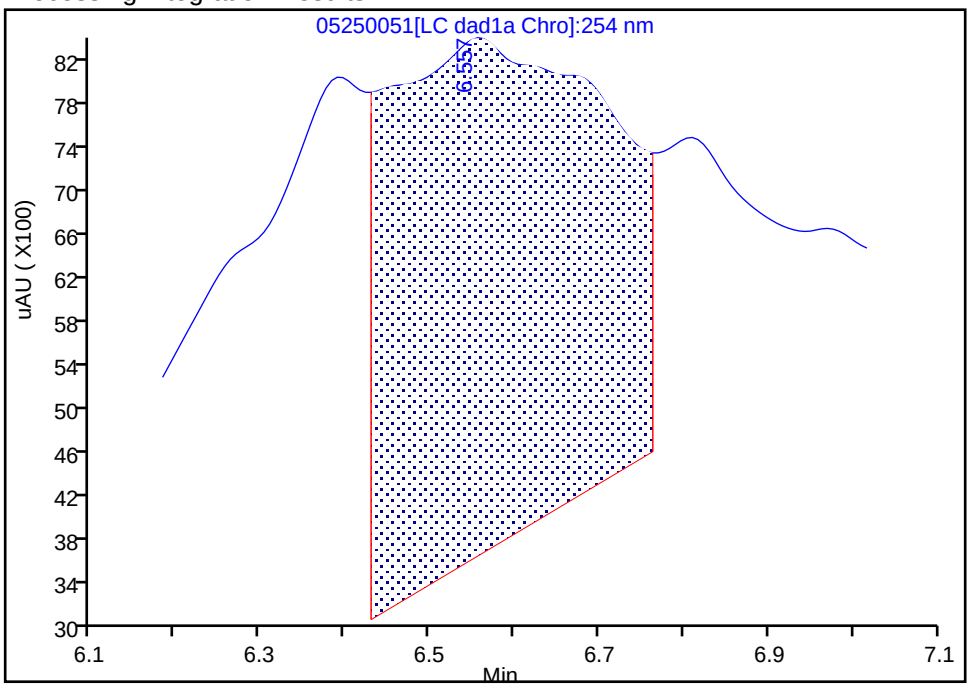
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230525-121837.b\05250051.d				
Injection Date:	26-May-2023 06:46:12	Instrument ID:	CHHPLC_X3		
Lims ID:	280-176866-A-1-A	Lab Sample ID:	280-176866-1		
Client ID:	FBQmw-179-230301-GW				
Operator ID:	JZ/JG	ALS Bottle#:	51	Worklist Smp#:	51
Injection Vol:	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

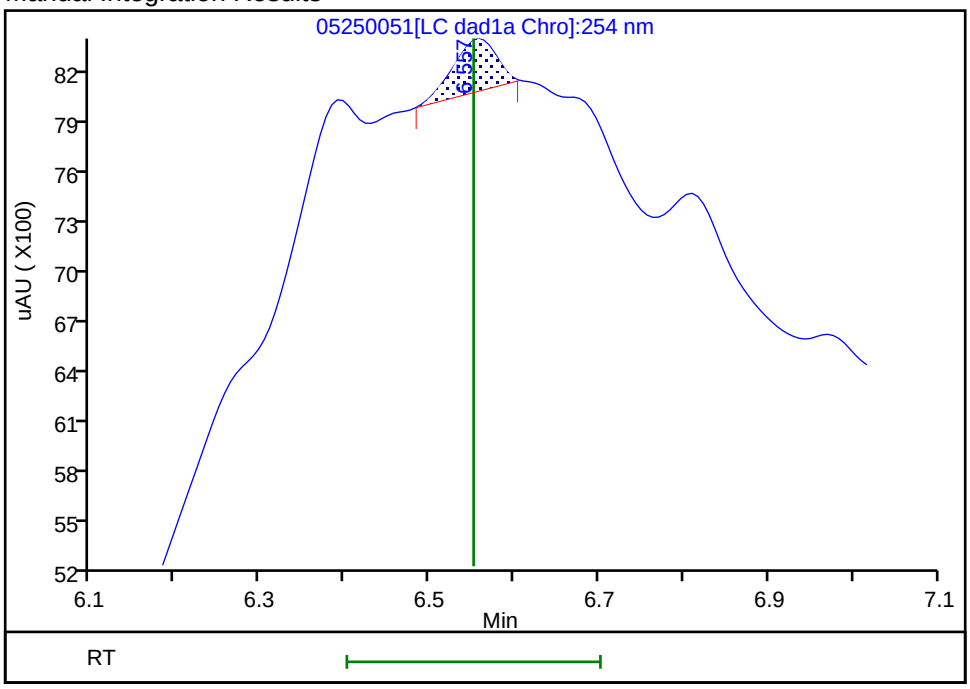
Processing Integration Results

RT: 6.56
Area: 84173
Amount: 0.899975
Amount Units: ug/mL



Manual Integration Results

RT: 6.56
Area: 1097
Amount: 0.011729
Amount Units: ug/mL



Reviewer: K8YG, 26-May-2023 08:03:49 -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.: 280-176866-1

SDG No.:

Client Sample ID: FBQmw-179-230301-GW RE | Lab Sample ID: 280-176866-1 RE

Matrix: Water | Lab File ID: 05260029.D

Analysis Method: 8330B | Date Collected: 05/22/2023 11:22

Extraction Method: 3535 | Date Extracted: 05/25/2023 14:07

Sample wt/vol: 477.1(mL) | Date Analyzed: 05/27/2023 05:44

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 100(uL) | GC Column: Luna-phenylhex ID: 4.6(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 613968 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
88-72-2	*2-Nitrotoluene*	*4.1*	*M J1*	*0.22*	0.21	*0.090*

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	96		83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2_LUNA\20230526-121879.b\05260029.D
Lims ID: 280-176866-A-1-A
Client ID: FBQmw-179-230301-GW
Sample Type: Client
Inject. Date: 27-May-2023 05:44:34 ALS Bottle#: 29 Worklist Smp#: 29
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-176866-A-1-A
Operator ID: JZ/JG Instrument ID: CHHPLC_G2_LUNA

Method: \\chromfs\Denver\ChromData\G2_LUNA\20230526-121879.b\G2_8330_Luna.m
Limit Group: GCSV - 8330
Last Update: 27-May-2023 10:14:27 Calib Date: 07-Apr-2023 23:50:31
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\G2_LUNA\20230407-120232.b\04070018.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC DAD1A, 254 nm
Process Host: CTX1660

First Level Reviewer: LV5D Date: 27-May-2023 10:14:00

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
6 HMX	1		6.815			ND	
8 RDX	1	9.011	9.068	-0.057	3430	0.0159	
9 Nitrobenzene	1	11.524	11.581	-0.057	5008	0.0132	
$ 10 1,2-Dinitrobenzene	1	12.504	12.541	-0.037	63508	0.2393	
12 1,3-Dinitrobenzene	1		14.668			ND	
13 Nitroglycerin	2		15.141			ND	
14 o-Nitrotoluene	1	15.724	15.721	0.003	94678	0.3893	M
15 p-Nitrotoluene	1		15.941			ND	
16 4-Amino-2,6-dinitrotoluene	1		16.488			ND	
17 m-Nitrotoluene	1		16.781			ND	
18 2-Amino-4,6-dinitrotoluene	1	17.297	17.308	-0.011	20992	0.0524	
19 1,3,5-Trinitrobenzene	1		17.475			ND	
20 2,6-Dinitrotoluene	1		18.595			ND	
21 2,4-Dinitrotoluene	1		19.048			ND	
22 Tetryl	1		22.308			ND	
23 2,4,6-Trinitrotoluene	1		23.135			ND	
24 PETN	2		24.322			ND	

QC Flag Legend

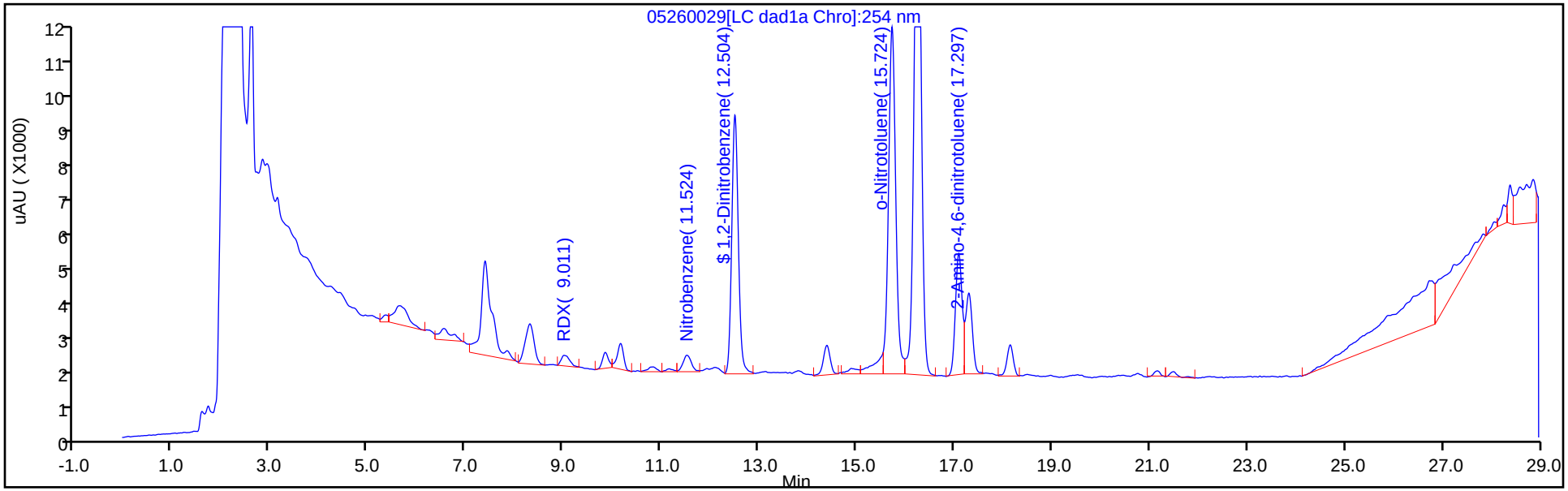
Processing Flags
Review Flags
M - Manually Integrated

Report Date: 27-May-2023 10:14:31 Chrom Revision: 2.3 23-May-2023 13:55:56

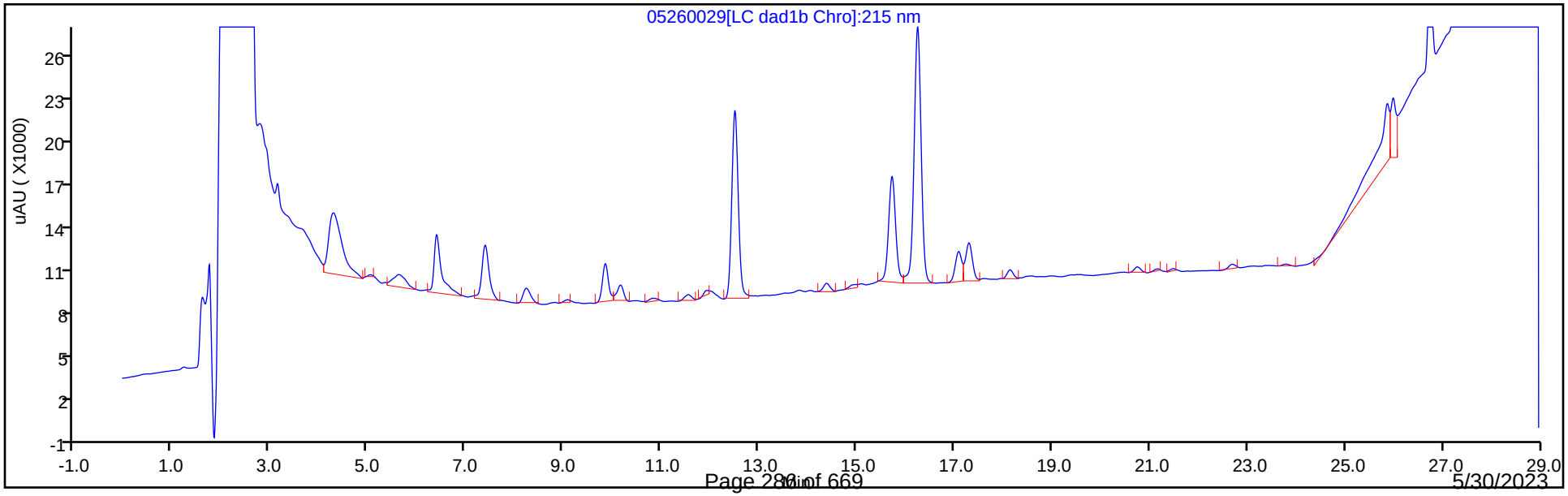
Eurofins Denver

Data File:	\\chromfs\denver\chromdata\g2_luna\20230526-121879.b\05260029.d				
Injection Date:	27-May-2023 05:44:34	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	JZ/JG
Lims ID:	280-176866-A-1-A	Lab Sample ID:	280-176866-1	Worklist Smp#:	29
Client ID:	FBQmw-179-230301-GW				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	29
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\G2_LUNA\20230526-121879.b\05260029.D				
Lims ID:	280-176866-A-1-A				
Client ID:	FBQmw-179-230301-GW				
Sample Type:	Client				
Inject. Date:	27-May-2023 05:44:34	ALS Bottle#:	29	Worklist Smp#:	29
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-176866-A-1-A				
Operator ID:	JZ/JG	Instrument ID:	CHHPLC_G2_LUNA		
Method:	\\chromfs\Denver\ChromData\G2_LUNA\20230526-121879.b\G2_8330_Luna.m				
Limit Group:	GCSV - 8330				
Last Update:	27-May-2023 10:14:27	Calib Date:	07-Apr-2023 23:50:31		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\G2_LUNA\20230407-120232.b\04070018.D				
Column 1 :	Luna-Phenyl hexyl (4.60 mm)		Det: LC DAD1A, 254 nm		
Process Host:	CTX1660				

First Level Reviewer: LV5D Date: 27-May-2023 10:14:00

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2500	0.2393	95.71

Manual Integration/User Assign Peak Report

Eurofins Denver

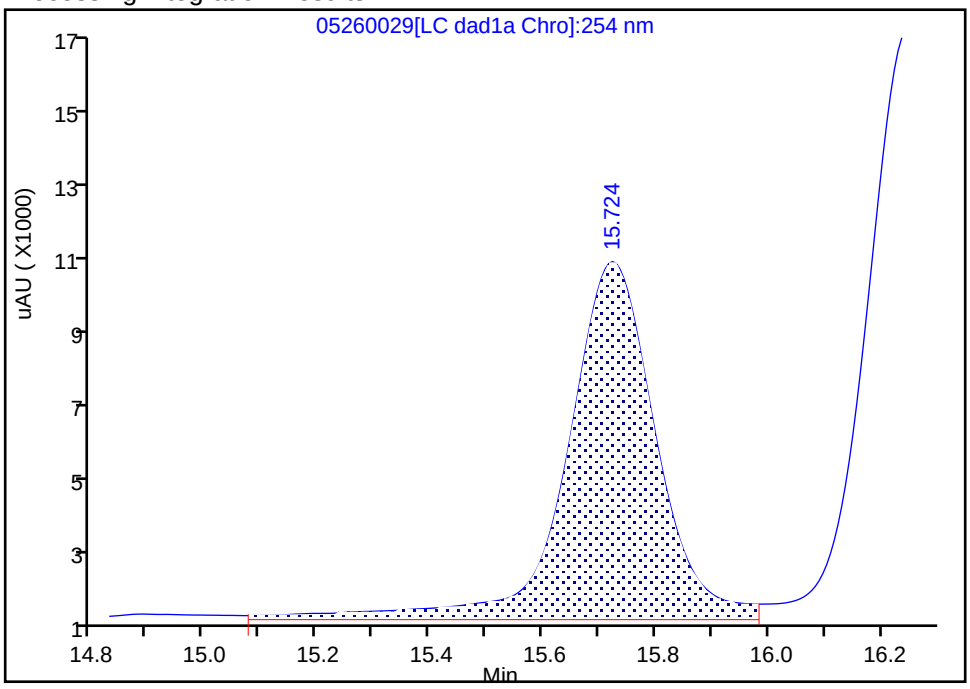
Data File:	\\chromfs\denver\chromdata\g2_luna\20230526-121879.b\05260029.d				
Injection Date:	27-May-2023 05:44:34	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	280-176866-A-1-A	Lab Sample ID:	280-176866-1		
Client ID:	FBQmw-179-230301-GW				
Operator ID:	JZ/JG	ALS Bottle#:	29	Worklist Smp#:	29
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

14 o-Nitrotoluene, CAS: 88-72-2

Signal: 1

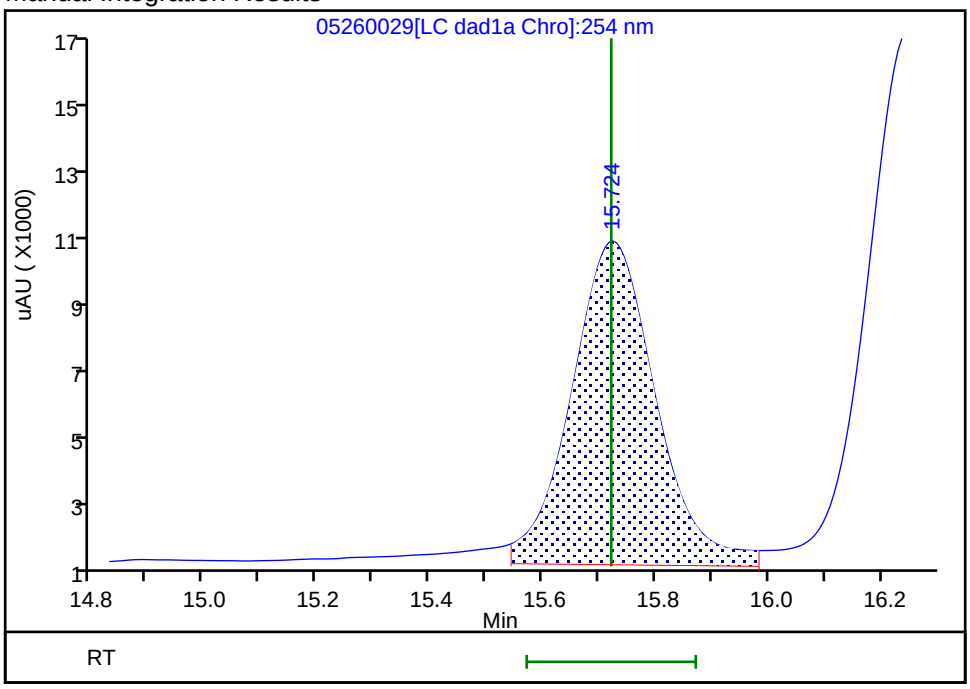
Processing Integration Results

RT: 15.72
Area: 101714
Amount: 0.418252
Amount Units: ug/ml



Manual Integration Results

RT: 15.72
Area: 94678
Amount: 0.389320
Amount Units: ug/ml



Reviewer: LV5D, 27-May-2023 10:13:55 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-176866-1

SDG No.:

Client Sample ID: FBQmw-181-230301-GW | Lab Sample ID: 280-176866-2

Matrix: Water | Lab File ID: 05240041.D

Analysis Method: 8330B | Date Collected: 05/22/2023 14:00

Extraction Method: 3535 | Date Extracted: 05/24/2023 12:32

Sample wt/vol: 475.4(mL) | Date Analyzed: 05/25/2023 04:54

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 100(uL) | GC Column: UltraCarb5uODS ID: 4.6(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 613678 | 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	0.088
99-65-0	1,3-Dinitrobenzene	0.11	U M	0.12	0.11	0.039
118-96-7	2,4,6-Trinitrotoluene	0.11	U	0.12	0.11	0.047
121-14-2	2,4-Dinitrotoluene	0.084	U	0.11	0.084	0.029
606-20-2	2,6-Dinitrotoluene	0.084	U	0.11	0.084	0.042
35572-78-2	2-Amino-4,6-dinitrotoluene	0.11	U	0.12	0.11	0.053
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
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	0.96	J1	0.22	0.21	0.054
479-45-8	Tetryl	0.11	U	0.12	0.11	0.033

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

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20230524-121799.b\05240041.D
Lims ID: 280-176866-A-2-A
Client ID: FBQmw-181-230301-GW
Sample Type: Client
Inject. Date: 25-May-2023 04:54:32 ALS Bottle#: 41 Worklist Smp#: 41
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-176866-A-2-A
Operator ID: JZ/JG Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20230524-121799.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 25-May-2023 11:52:02 Calib Date: 24-Feb-2023 17:41:20
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20230224-118952.b\02240018.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1654

First Level Reviewer: K8YG Date: 25-May-2023 08:35:16

	Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/mL	Flags
4	HMX	1	6.560	6.550	0.010	2617	0.0280	M
8	RDX	1	7.593	7.570	0.023	9751	0.0917	
$ 10	1,2-Dinitrobenzene	1	8.526	8.523	0.003	23517	0.1862	M
11	1,3,5-Trinitrobenzene	1		8.650			ND	7
12	1,3-Dinitrobenzene	1		9.270			ND	U
13	Nitrobenzene	1		9.636			ND	
15	Tetryl	1		10.003			ND	
16	Nitroglycerin	2		10.456			ND	
17	2,4,6-Trinitrotoluene	1		10.896			ND	
18	4-Amino-2,6-dinitrotoluene	1		11.090			ND	
19	2-Amino-4,6-dinitrotoluene	1		11.343			ND	
20	2,6-Dinitrotoluene	1		11.490			ND	
21	2,4-Dinitrotoluene	1		11.663			ND	
22	o-Nitrotoluene	1	12.520	12.483	0.037	3442	0.0269	
23	p-Nitrotoluene	1		12.903			ND	
24	m-Nitrotoluene	1		13.476			ND	
25	PETN	2		14.636			ND	

QC Flag Legend

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

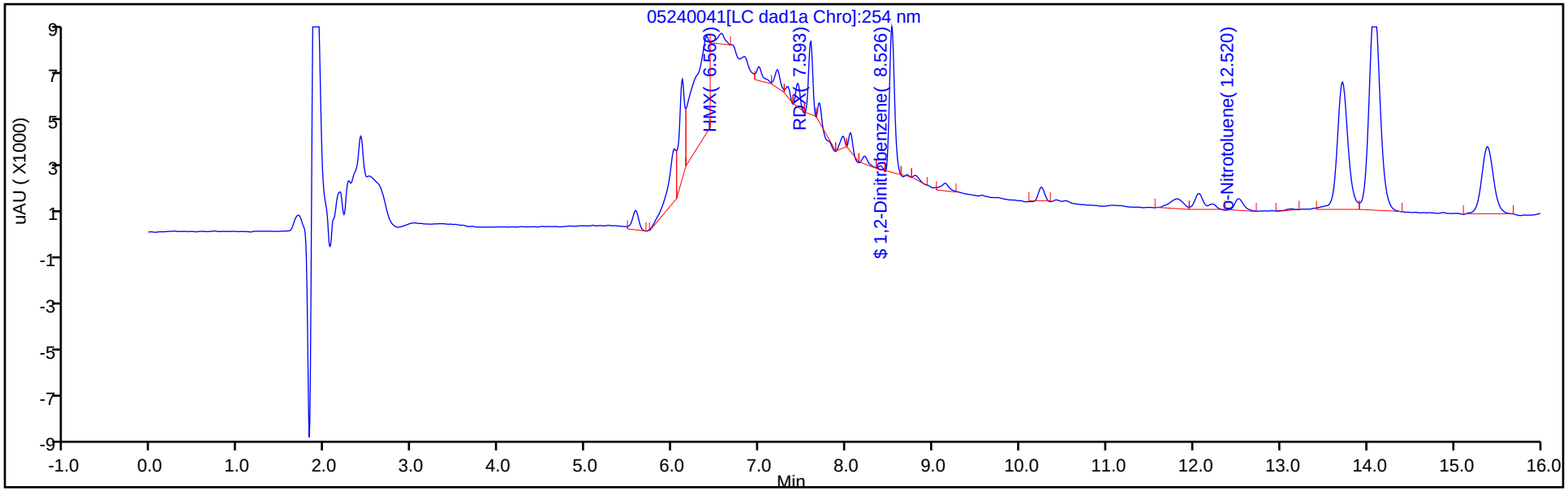
Report Date: 25-May-2023 11:52:05 Chrom Revision: 2.3 23-May-2023 13:55:56

Eurofins Denver

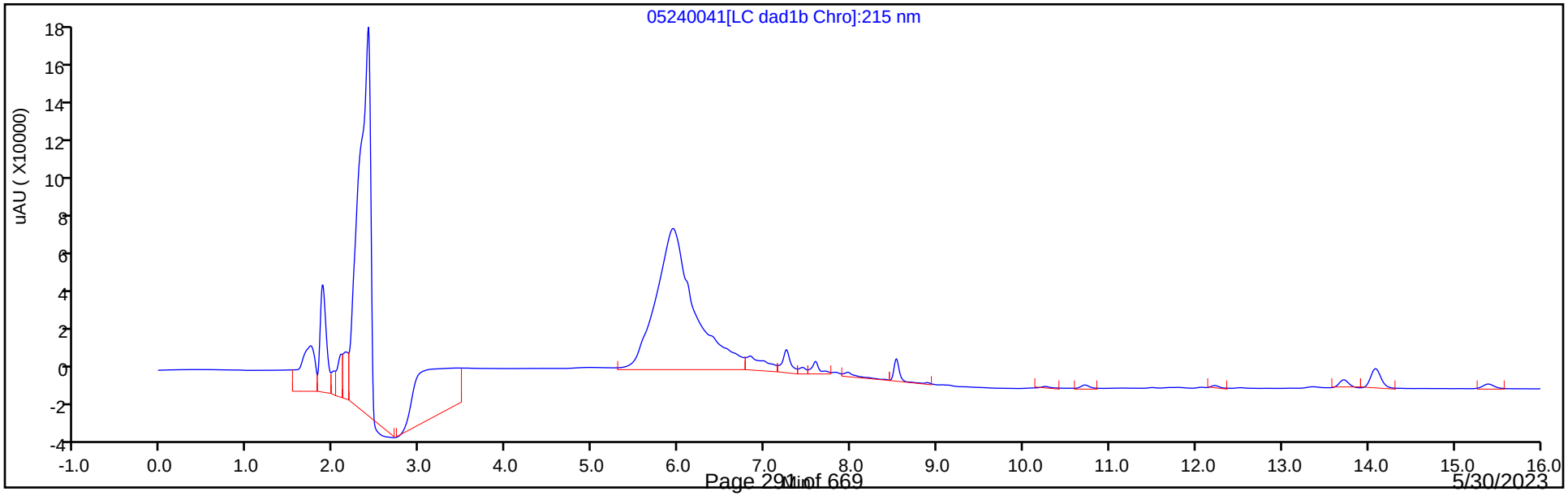
Data File: \\chromfs\denver\chromdata\chhplc_x\20230524-121799.b\05240041.d

Injection Date:	25-May-2023 04:54:32	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	280-176866-A-2-A	Lab Sample ID:	280-176866-2	Worklist Smp#:	41
Client ID:	FBQmw-181-230301-GW				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	41
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\20230524-121799.b\05240041.D
Lims ID: 280-176866-A-2-A
Client ID: FBQmw-181-230301-GW
Sample Type: Client
Inject. Date: 25-May-2023 04:54:32 ALS Bottle#: 41 Worklist Smp#: 41
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-176866-A-2-A
Operator ID: JZ/JG Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20230524-121799.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 25-May-2023 11:52:02 Calib Date: 24-Feb-2023 17:41:20
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20230224-118952.b\02240018.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1654

First Level Reviewer: K8YG Date: 25-May-2023 08:35:16

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.1862	93.09

Manual Integration/User Assign Peak Report

Eurofins Denver

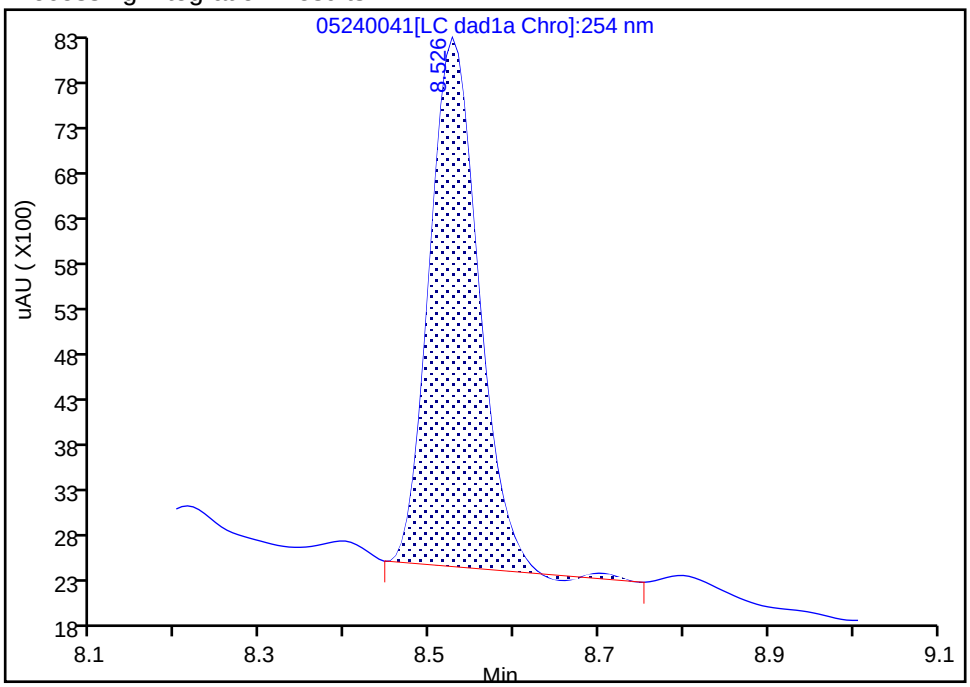
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230524-121799.b\05240041.d				
Injection Date:	25-May-2023 04:54:32	Instrument ID:	CHHPLC_X3		
Lims ID:	280-176866-A-2-A	Lab Sample ID:	280-176866-2		
Client ID:	FBQmw-181-230301-GW				
Operator ID:	JZ/JG	ALS Bottle#:	41	Worklist Smp#:	41
Injection Vol:	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

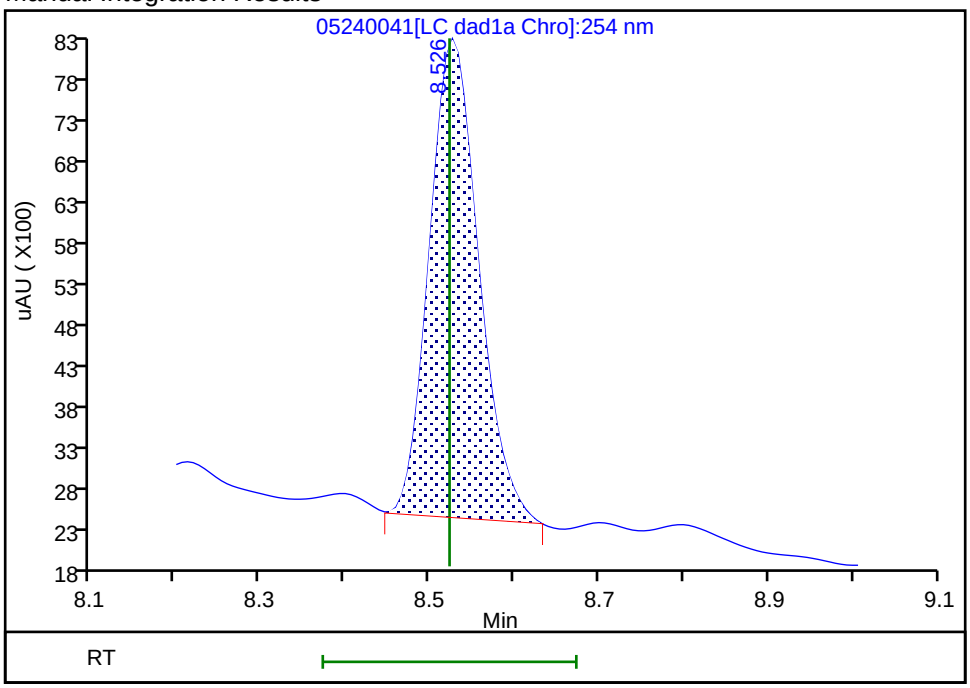
Processing Integration Results

RT: 8.53
Area: 23839
Amount: 0.188736
Amount Units: ug/mL



Manual Integration Results

RT: 8.53
Area: 23517
Amount: 0.186187
Amount Units: ug/mL



Reviewer: K8YG, 25-May-2023 08:36:16 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline

User Disabled Compound Report

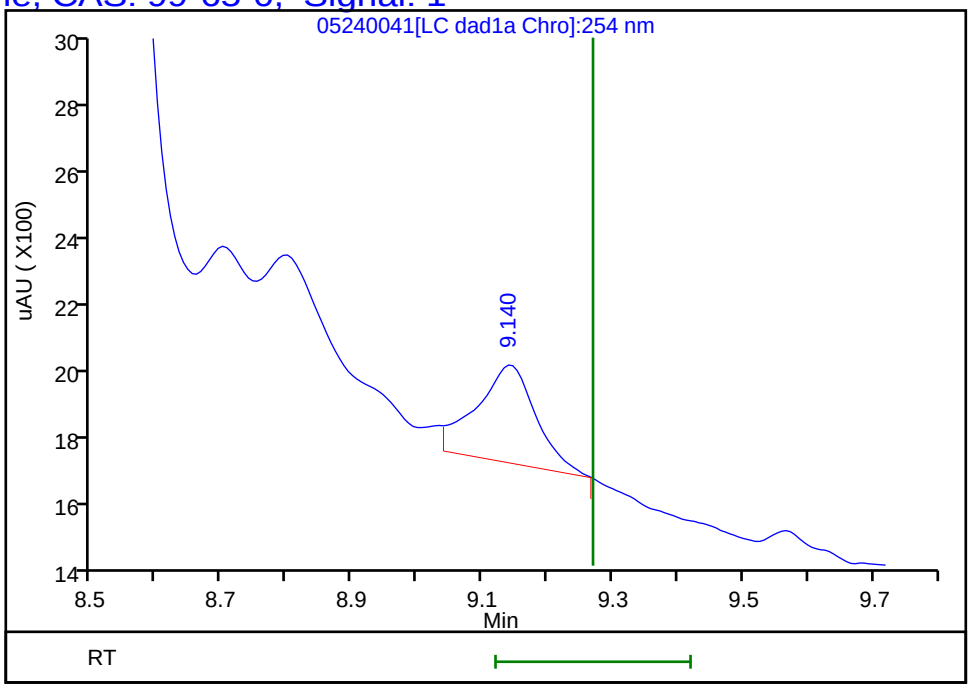
Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20230524-121799.b\05240041.d
Injection Date: 25-May-2023 04:54:32 Instrument ID: CHHPLC_X3
Lims ID: 280-176866-A-2-A Lab Sample ID: 280-176866-2
Client ID: FBQmw-181-230301-GW
Operator ID: JZ/JG ALS Bottle#: 41 Worklist Smp#: 41
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: 9.14
Response: 1776
Amount: 0.006033



Reviewer: K8YG, 25-May-2023 08:36:54
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Manual Integration/User Assign Peak Report

Eurofins Denver

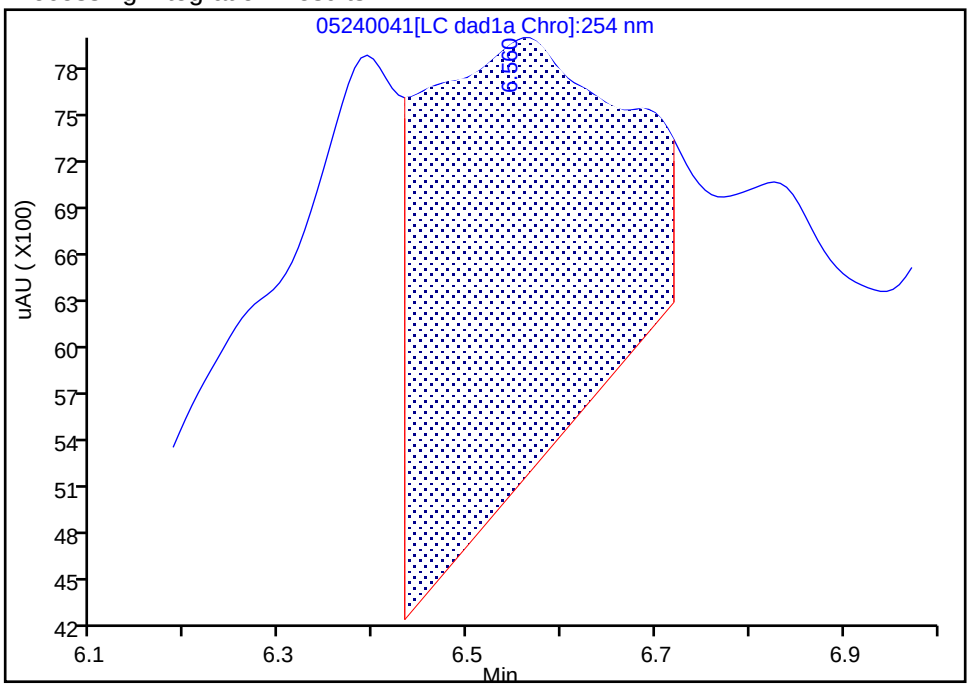
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230524-121799.b\05240041.d				
Injection Date:	25-May-2023 04:54:32	Instrument ID:	CHHPLC_X3		
Lims ID:	280-176866-A-2-A	Lab Sample ID:	280-176866-2		
Client ID:	FBQmw-181-230301-GW				
Operator ID:	JZ/JG	ALS Bottle#:	41	Worklist Smp#:	41
Injection Vol:	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

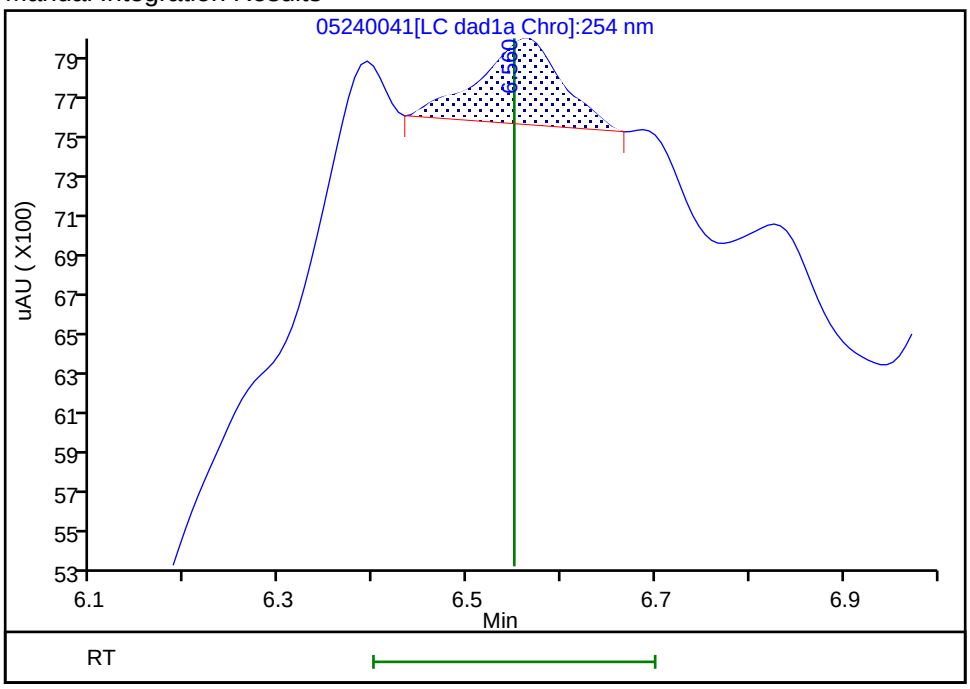
Processing Integration Results

RT: 6.56
Area: 41647
Amount: 0.445288
Amount Units: ug/mL



Manual Integration Results

RT: 6.56
Area: 2617
Amount: 0.027981
Amount Units: ug/mL



Reviewer: K8YG, 25-May-2023 08:35:54 -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.: 280-176866-1

SDG No.:

Client Sample ID: FBQmw-181-230301-GW | Lab Sample ID: 280-176866-2

Matrix: Water | Lab File ID: 05250017.D

Analysis Method: 8330B | Date Collected: 05/22/2023 14:00

Extraction Method: 3535 | Date Extracted: 05/24/2023 12:32

Sample wt/vol: 475.4(mL) | Date Analyzed: 05/25/2023 21:45

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.: 613822 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
88-72-2	*2-Nitrotoluene*	*4.0*	*Q J1*	*0.22*	0.21	*0.090*
2691-41-0	HMX	0.21	U	0.22	0.21	0.092
121-82-4	*RDX*	*0.13*	*J B J1*	*0.22*	0.21	*0.054*

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_X5\20230525-121840.b\05250017.D
Lims ID: 280-176866-A-2-A
Client ID: FBQmw-181-230301-GW
Sample Type: Client
Inject. Date: 25-May-2023 21:45:11 ALS Bottle#: 17 Worklist Smp#: 17
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-176866-A-2-A
Operator ID: JZ/JG Instrument ID: CHHPLC_X5

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20230525-121840.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 26-May-2023 14:34:26 Calib Date: 29-Apr-2023 04:18:01
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230428-120896.b\04280027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1649

First Level Reviewer: K8YG Date: 26-May-2023 14:30:39

	Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
	5 HMX	1		6.699			ND	
	8 RDX	1	8.921	8.933	-0.012	3295	0.0122	
	9 Nitrobenzene	1	11.395	11.439	-0.044	5020	0.0126	
$	10 1,2-Dinitrobenzene	1	12.361	12.399	-0.038	48701	0.1735	
	12 1,3-Dinitrobenzene	1		14.526			ND	
	13 Nitroglycerin	2		15.039			ND	U
	14 o-Nitrotoluene	1	15.615	15.592	0.023	94781	0.3838	
	16 p-Nitrotoluene	1		15.812			ND	
	17 4-Amino-2,6-dinitrotoluene	1		16.359			ND	
	18 m-Nitrotoluene	1		16.652			ND	
	19 2-Amino-4,6-dinitrotoluene	1	17.208	17.179	0.029	21216	0.0496	
	20 1,3,5-Trinitrobenzene	1		17.312			ND	
	21 2,6-Dinitrotoluene	1		18.446			ND	
	22 2,4-Dinitrotoluene	1		18.899			ND	
	23 Tetryl	1		22.166			ND	
	24 2,4,6-Trinitrotoluene	1		22.966			ND	
	25 PETN	2		24.199			ND	

QC Flag Legend

Processing Flags
Review Flags
U - Marked Undetected

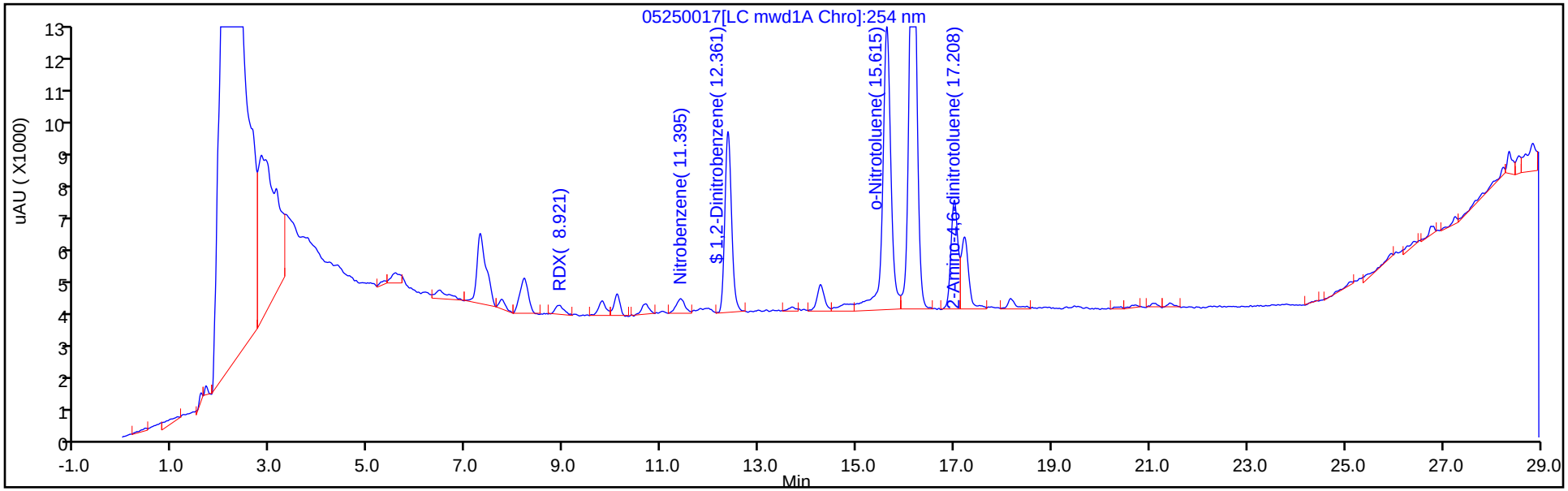
Report Date: 26-May-2023 14:34:32 Chrom Revision: 2.3 23-May-2023 13:55:56

Eurofins Denver

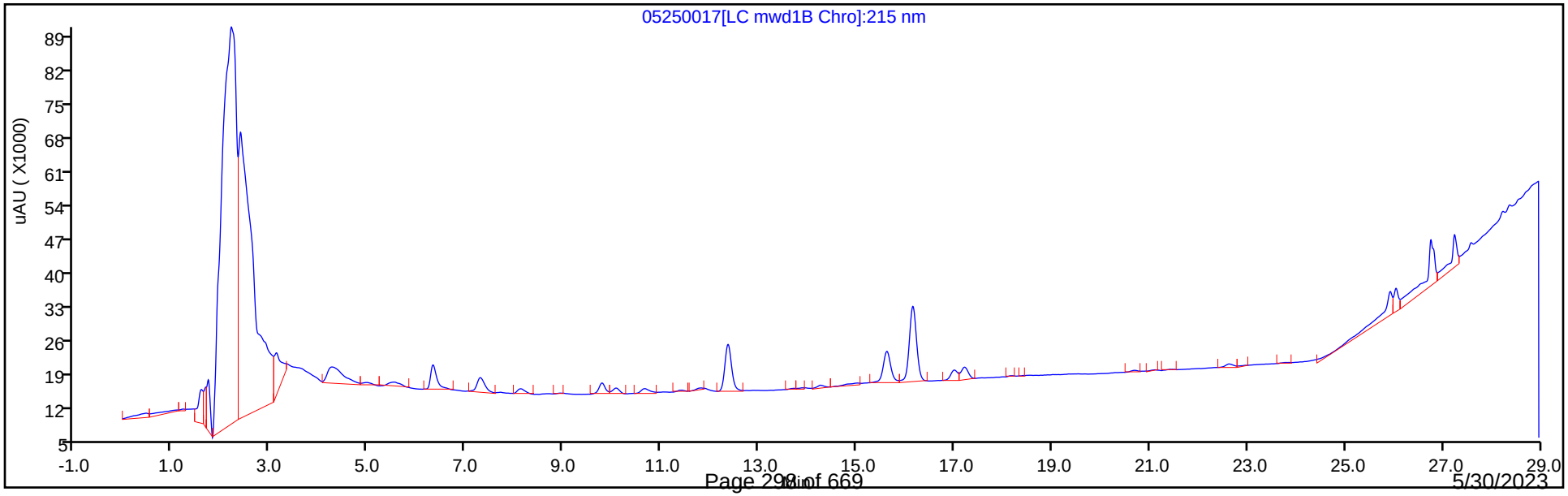
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230525-121840.b\05250017.D

Injection Date:	25-May-2023 21:45:11	Instrument ID:	CHHPLC_X5	Operator ID:	JZ/JG
Lims ID:	280-176866-A-2-A	Lab Sample ID:	280-176866-2	Worklist Smp#:	17
Client ID:	FBQmw-181-230301-GW				
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



Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20230525-121840.b\05250017.D				
Lims ID:	280-176866-A-2-A				
Client ID:	FBQmw-181-230301-GW				
Sample Type:	Client				
Inject. Date:	25-May-2023 21:45:11	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-176866-A-2-A				
Operator ID:	JZ/JG	Instrument ID:	CHHPLC_X5		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X5\20230525-121840.b\8330_X5_Luna.m				
Limit Group:	GCSV - 8330				
Last Update:	26-May-2023 14:34:26	Calib Date:	29-Apr-2023 04:18:01		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20230428-120896.b\04280027.D				
Column 1 :	Luna-Phenyl hexyl (4.60 mm)		Det: LC mwd1A, 254 nm		
Process Host:	CTX1649				

First Level Reviewer: K8YG Date: 26-May-2023 14:30:39

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.1735	86.75

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-176866-1

SDG No.:

Client Sample ID: FBQmw-181-230301-GW RE | Lab Sample ID: 280-176866-2 RE

Matrix: Water | Lab File ID: 05250052.D

Analysis Method: 8330B | Date Collected: 05/22/2023 14:00

Extraction Method: 3535 | Date Extracted: 05/25/2023 14:07

Sample wt/vol: 483.8(mL) | Date Analyzed: 05/26/2023 07:09

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.: 613812 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
88-72-2	2-Nitrotoluene	0.21	U M	0.22	0.21	0.088
99-08-1	*3-Nitrotoluene*	*0.36*	*U Q*	*0.41*	0.36	*0.20*
99-99-0	4-Nitrotoluene	0.41	U Q	0.42	0.41	0.10

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	92		83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20230525-121837.b\05250052.D
Lims ID: 280-176866-B-2-A
Client ID: FBQmw-181-230301-GW
Sample Type: Client
Inject. Date: 26-May-2023 07:09:10 ALS Bottle#: 52 Worklist Smp#: 52
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-176866-B-2-A
Operator ID: JZ/JG Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20230525-121837.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 26-May-2023 11:54:17 Calib Date: 24-Feb-2023 17:41:20
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20230224-118952.b\02240018.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1649

First Level Reviewer: K8YG Date: 26-May-2023 08:07:21

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/mL	Flags
4 HMX	1	6.562	6.552	0.010	1371	0.0147	M
8 RDX	1	7.588	7.572	0.016	11408	0.1072	
$ 10 1,2-Dinitrobenzene	1	8.522	8.525	-0.003	29147	0.2308	
11 1,3,5-Trinitrobenzene	1		8.652			ND	U
12 1,3-Dinitrobenzene	1		9.271			ND	U
13 Nitrobenzene	1		9.645			ND	
15 Tetryl	1		10.011			ND	
16 Nitroglycerin	2		10.465			ND	
17 2,4,6-Trinitrotoluene	1	10.895	10.905	-0.010	17504	0.0829	
18 4-Amino-2,6-dinitrotoluene	1		11.098			ND	
19 2-Amino-4,6-dinitrotoluene	1		11.351			ND	
20 2,6-Dinitrotoluene	1		11.505			ND	
21 2,4-Dinitrotoluene	1	11.675	11.678	-0.003	2336	0.007874	M
22 o-Nitrotoluene	1		12.505			ND	MU
23 p-Nitrotoluene	1		12.925			ND	
24 m-Nitrotoluene	1		13.498			ND	
25 PETN	2		14.665			ND	

QC Flag Legend

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

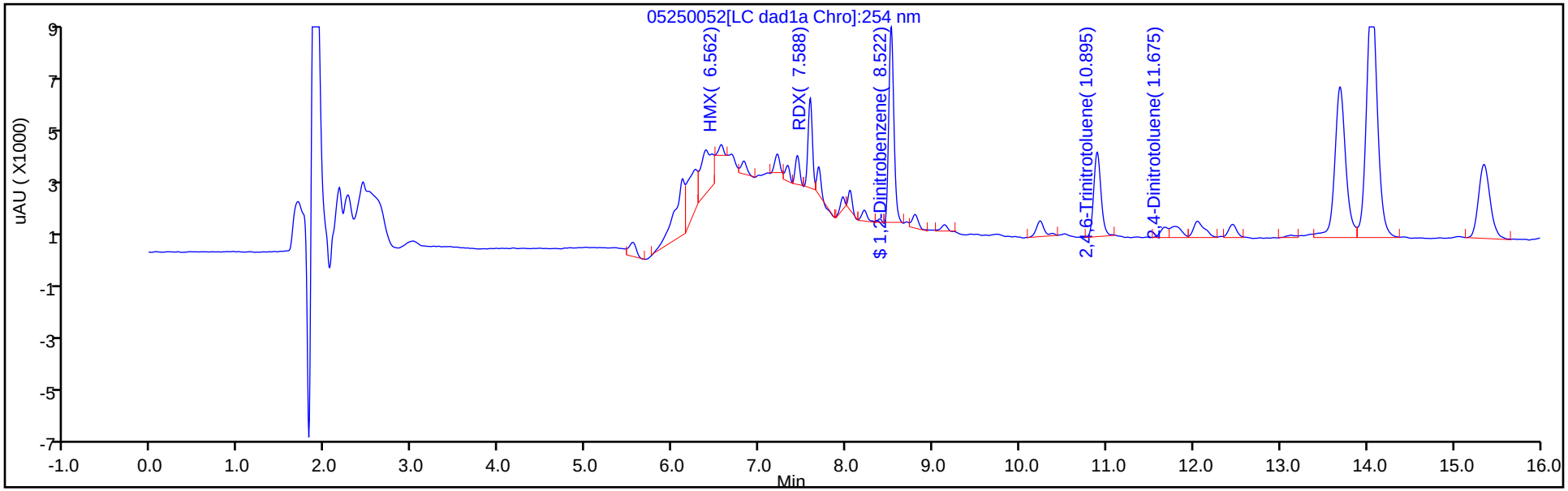
Report Date: 26-May-2023 11:54:25 Chrom Revision: 2.3 23-May-2023 13:55:56

Eurofins Denver

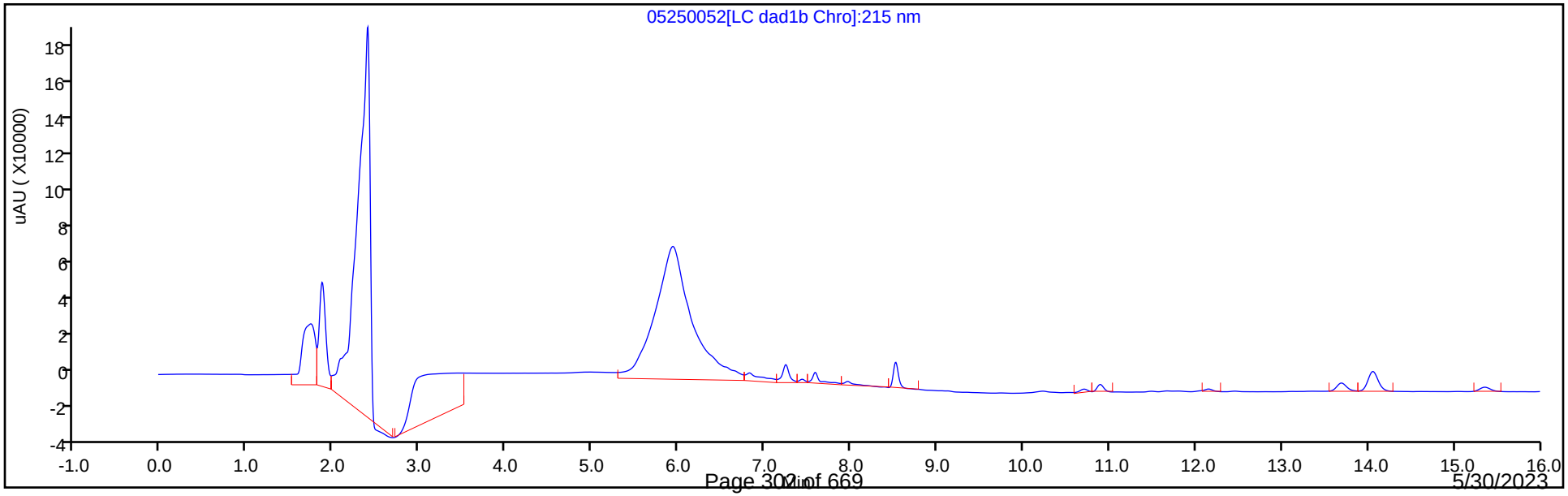
Data File: \\chromfs\denver\chromdata\chhplc_x\20230525-121837.b\05250052.d

Injection Date:	26-May-2023 07:09:10	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	280-176866-B-2-A	Lab Sample ID:	280-176866-2	Worklist Smp#:	52
Client ID:	FBQmw-181-230301-GW				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	52
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\20230525-121837.b\05250052.D				
Lims ID:	280-176866-B-2-A				
Client ID:	FBQmw-181-230301-GW				
Sample Type:	Client				
Inject. Date:	26-May-2023 07:09:10	ALS Bottle#:	52	Worklist Smp#:	52
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-176866-B-2-A				
Operator ID:	JZ/JG	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20230525-121837.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	26-May-2023 11:54:17	Calib Date:	24-Feb-2023 17:41:20		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X\20230224-118952.b\02240018.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1649				

First Level Reviewer: K8YG Date: 26-May-2023 08:07:21

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2500	0.2308	92.30

User Disabled Compound Report

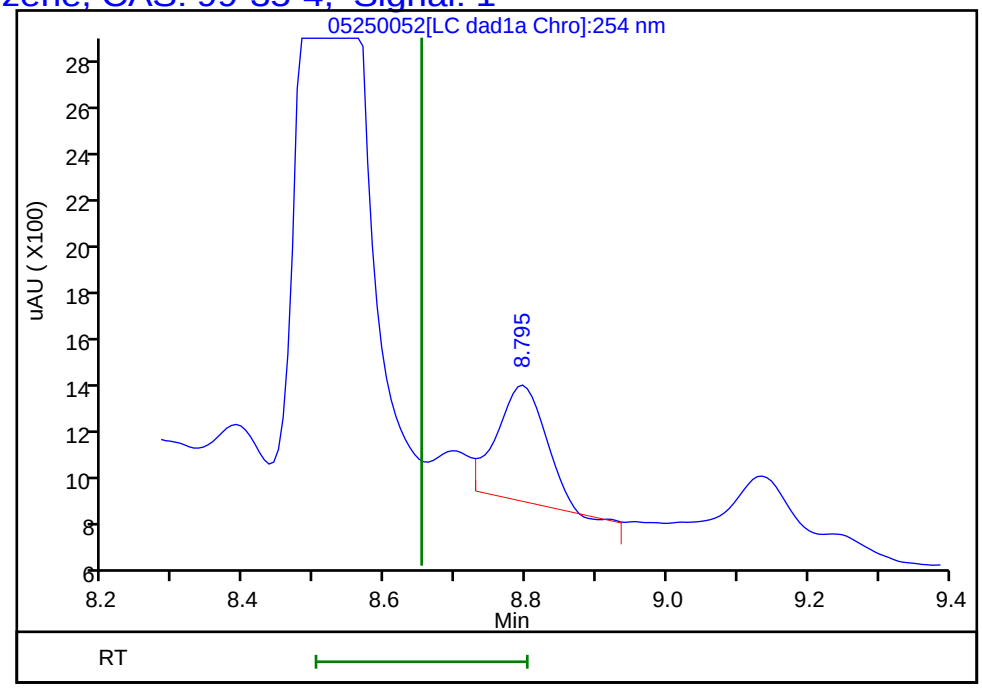
Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20230525-121837.b\05250052.d
Injection Date: 26-May-2023 07:09:10 Instrument ID: CHHPLC_X3
Lims ID: 280-176866-B-2-A Lab Sample ID: 280-176866-2
Client ID: FBQmw-181-230301-GW
Operator ID: JZ/JG ALS Bottle#: 52 Worklist Smp#: 52
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: 8.79
Response: 2318
Amount: 0.010675



Reviewer: K8YG, 26-May-2023 08:07:21
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

User Disabled Compound Report

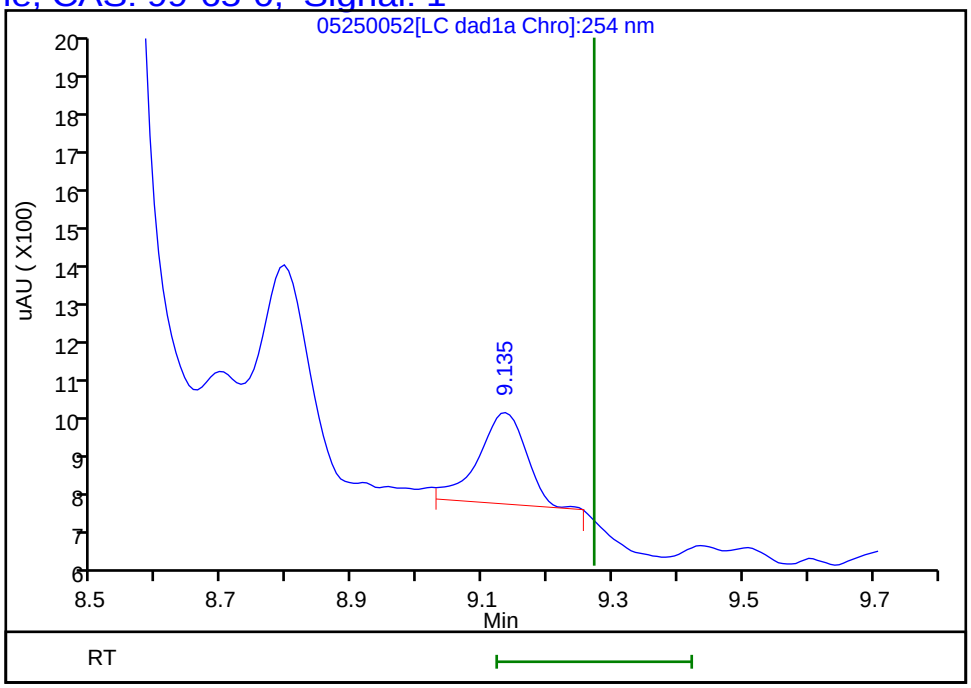
Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20230525-121837.b\05250052.d
Injection Date: 26-May-2023 07:09:10 Instrument ID: CHHPLC_X3
Lims ID: 280-176866-B-2-A Lab Sample ID: 280-176866-2
Client ID: FBQmw-181-230301-GW
Operator ID: JZ/JG ALS Bottle#: 52 Worklist Smp#: 52
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: 9.13
Response: 1181
Amount: 0.004012



Reviewer: K8YG, 26-May-2023 08:07:21
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Manual Integration/User Assign Peak Report

Eurofins Denver

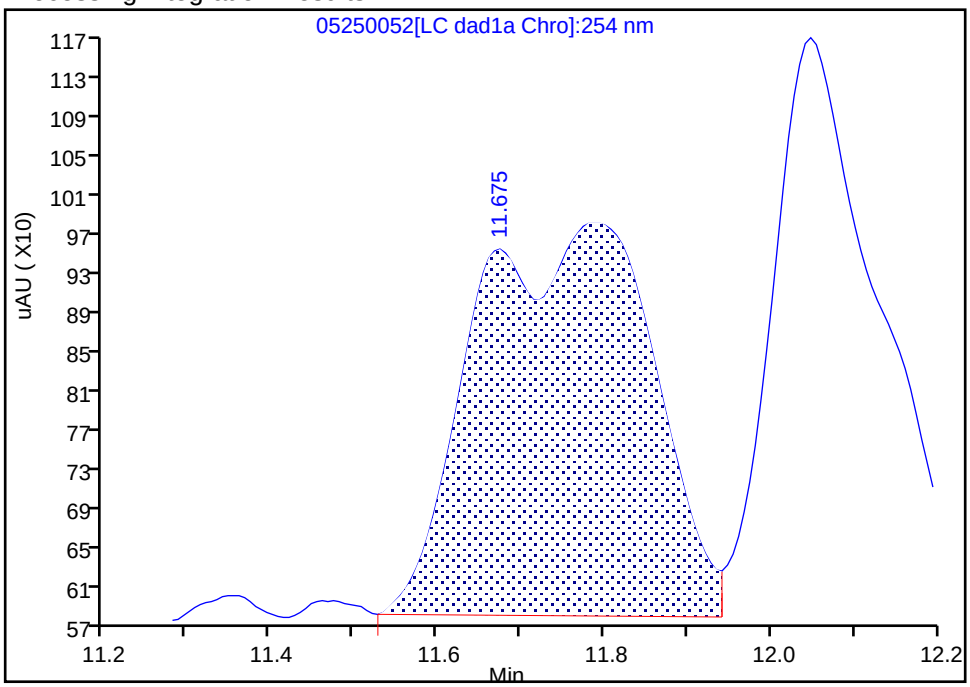
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230525-121837.b\05250052.d				
Injection Date:	26-May-2023 07:09:10	Instrument ID:	CHHPLC_X3		
Lims ID:	280-176866-B-2-A	Lab Sample ID:	280-176866-2		
Client ID:	FBQmw-181-230301-GW				
Operator ID:	JZ/JG	ALS Bottle#:	52	Worklist Smp#:	52
Injection Vol:	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

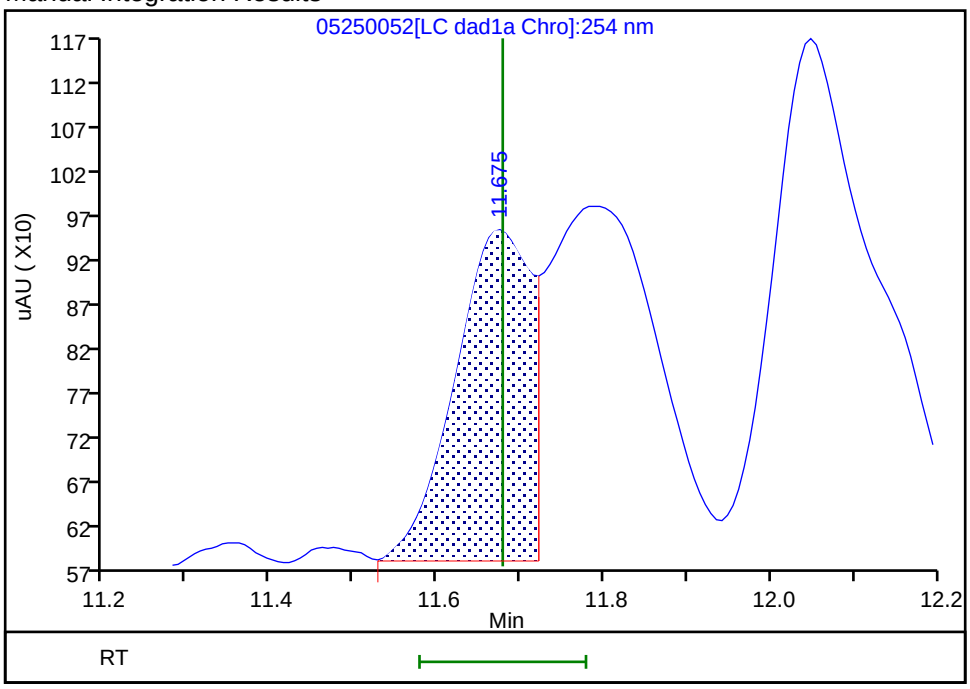
Processing Integration Results

RT: 11.67
Area: 5959
Amount: 0.020086
Amount Units: ug/mL



Manual Integration Results

RT: 11.67
Area: 2336
Amount: 0.007874
Amount Units: ug/mL



Reviewer: K8YG, 26-May-2023 08:06:36 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline

User Disabled Compound Report

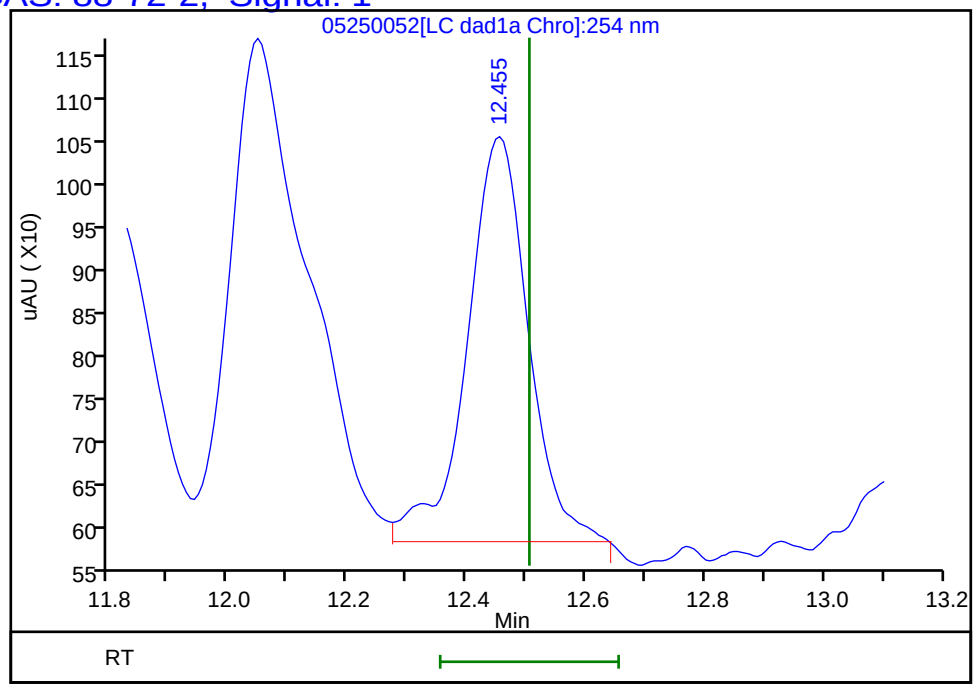
Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20230525-121837.b\05250052.d
Injection Date: 26-May-2023 07:09:10 Instrument ID: CHHPLC_X3
Lims ID: 280-176866-B-2-A Lab Sample ID: 280-176866-2
Client ID: FBQmw-181-230301-GW
Operator ID: JZ/JG ALS Bottle#: 52 Worklist Smp#: 52
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: 12.45
Response: 3402
Amount: 0.026600



Reviewer: LV5D, 26-May-2023 11:54:01
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Eurofins Denver

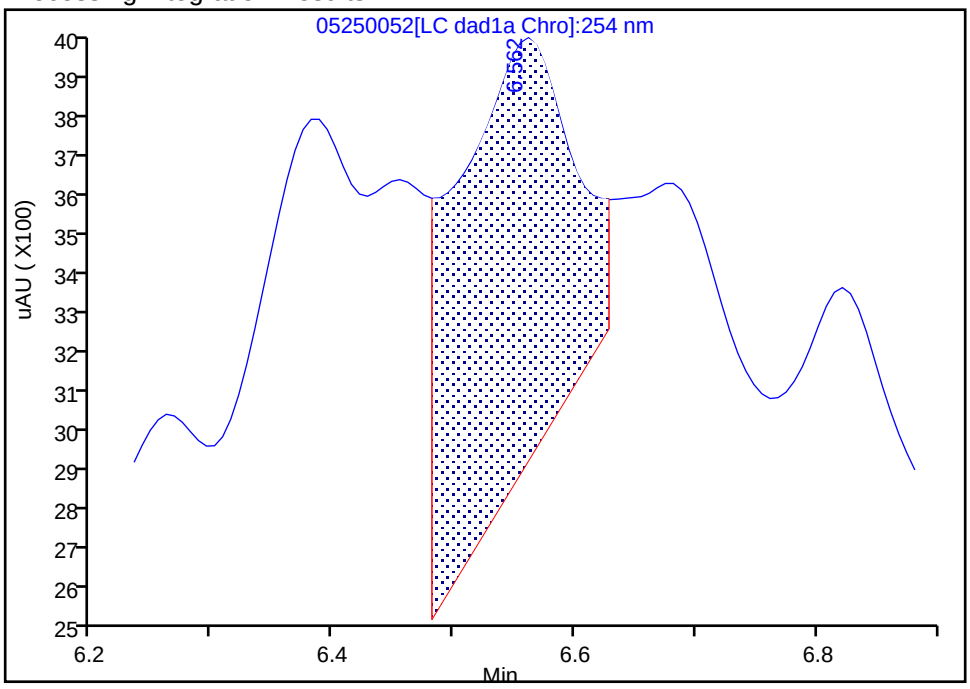
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230525-121837.b\05250052.d				
Injection Date:	26-May-2023 07:09:10	Instrument ID:	CHHPLC_X3		
Lims ID:	280-176866-B-2-A	Lab Sample ID:	280-176866-2		
Client ID:	FBQmw-181-230301-GW				
Operator ID:	JZ/JG	ALS Bottle#:	52	Worklist Smp#:	52
Injection Vol:	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

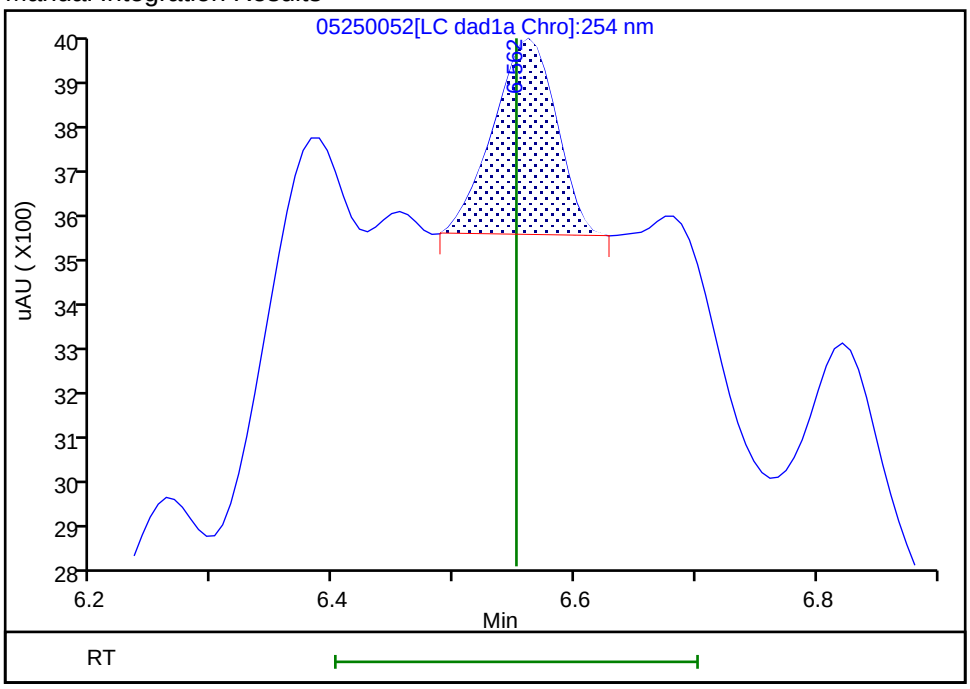
Processing Integration Results

RT: 6.56
Area: 7079
Amount: 0.075688
Amount Units: ug/mL



Manual Integration Results

RT: 6.56
Area: 1371
Amount: 0.014659
Amount Units: ug/mL



Reviewer: K8YG, 26-May-2023 08:05:09 -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.: 280-176866-1 Analy Batch No.: 607981

SDG No.:

Instrument ID: CHHPLC_G2_LUNA GC Column: Luna-phenyl ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/07/2023 19:03 Calibration End Date: 04/07/2023 23:50 Calibration ID: 79168

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-607981/18	04070018.D
Level 2	IC 280-607981/17	04070017.D
Level 3	IC 280-607981/16	04070016.D
Level 4	IC 280-607981/15	04070015.D
Level 5	IC 280-607981/14	04070014.D
Level 6	IC 280-607981/13	04070013.D
Level 7	IC 280-607981/12	04070012.D
Level 8	IC 280-607981/11	04070011.D
Level 9	IC 280-607981/10	04070010.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	5.328	5.338	5.338	5.334	5.321	5.320	5.310	5.302	5.225		5.171 - 5.471	5.313
DNX	6.195	6.212	6.205	6.201	6.194	6.187	6.177	6.162	6.078		6.044 - 6.344	6.179
HMX	6.855	6.865	6.858	6.854	6.847	6.840	6.837	6.829	6.745		6.697 - 6.997	6.837
MNX	7.715	7.732	7.732	7.721	7.714	7.700	7.697	7.682	7.591		7.564 - 7.864	7.698
Picric acid	8.215	8.245	8.245	8.221	8.187	8.153	8.124	8.095	+++++		8.037 - 8.337	8.186
RDX	9.135	9.145	9.145	9.134	9.127	9.113	9.110	9.095	9.005		8.977 - 9.277	9.112
Nitrobenzene	11.661	11.672	11.672	11.654	11.654	11.640	11.623	11.615	11.518		11.504 - 11.804	11.634
3,5-Dinitroaniline	14.481	14.498	14.492	14.474	14.480	14.453	14.443	14.435	14.378		14.330 - 14.630	14.459
1,3-Dinitrobenzene	14.761	14.765	14.765	14.747	14.754	14.727	14.717	14.709	14.624		14.604 - 14.904	14.730
Nitroglycerin	15.268	15.278	15.278	15.267	15.274	15.247	15.243	15.235	15.178		15.124 - 15.424	15.252
2-Nitrotoluene	15.835	15.845	15.838	15.827	15.827	15.807	15.797	15.789	15.731		15.677 - 15.977	15.811
4-Nitrotoluene	16.055	16.072	16.072	16.054	16.054	16.033	16.023	16.015	15.904		15.904 - 16.204	16.031
4-Amino-2,6-dinitrotoluene	16.608	16.605	16.605	16.594	16.594	16.567	16.557	16.549	16.478		16.444 - 16.744	16.573
3-Nitrotoluene	16.908	16.912	16.912	16.901	16.900	16.880	16.870	16.862	16.791		16.750 - 17.050	16.882
2-Amino-4,6-dinitrotoluene	17.421	17.425	17.425	17.414	17.414	17.387	17.377	17.369	17.371		17.264 - 17.564	17.400
1,3,5-Trinitrobenzene	17.581	17.592	17.585	17.574	17.574	17.553	17.550	17.542	17.438		17.424 - 17.724	17.554
2,6-Dinitrotoluene	18.728	18.732	18.725	18.714	18.714	18.693	18.683	18.675	18.611		18.564 - 18.864	18.697
2,4-Dinitrotoluene	19.175	19.185	19.178	19.174	19.174	19.153	19.143	19.135	19.071		19.024 - 19.324	19.154
Tetryl	22.495	22.492	22.485	22.474	22.481	22.447	22.450	22.429	22.378		22.331 - 22.631	22.459
2,4,6-Trinitrotoluene	23.302	23.312	23.305	23.301	23.301	23.267	23.277	23.249	23.205		23.151 - 23.451	23.280
PETN	24.568	24.558	24.545	24.541	24.547	24.520	24.530	24.502	24.478		24.397 - 24.697	24.532
1,2-Dinitrobenzene	12.628	12.645	12.638	12.621	12.627	12.600	12.590	12.582	12.491		12.477 - 12.777	12.602

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Denver Job No.: 280-176866-1 Analy Batch No.: 607981

SDG No.:

Instrument ID: CHHPLC_G2_LUNA GC Column: Luna-phenyl ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/07/2023 19:03 Calibration End Date: 04/07/2023 23:50 Calibration ID: 79168

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-607981/18	04070018.D
Level 2	IC 280-607981/17	04070017.D
Level 3	IC 280-607981/16	04070016.D
Level 4	IC 280-607981/15	04070015.D
Level 5	IC 280-607981/14	04070014.D
Level 6	IC 280-607981/13	04070013.D
Level 7	IC 280-607981/12	04070012.D
Level 8	IC 280-607981/11	04070011.D
Level 9	IC 280-607981/10	04070010.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	465503 385731 393451	400548 373592	406720 387204	392213 387967	Ave		399214.403				6.7		20.0			
DNX	309391 281722 284665	294505 271389	285075 282166	284875 282014	Ave		286200.308				3.7		20.0			
HMX	211600 169036 174964	191550 174635	182080 173619	177110 174813	Ave		181045.130				7.2		20.0			
MNX	271208 255969 286553	265081 247519	261919 257565	259135 256473	Ave		262380.384				4.3		20.0			
Picric acid	160100 146960 +++++	159050 153050	162080 153380	156040 154224	Ave		155610.500				3.1		20.0			
RDX	254300 201916 209153	227100 208078	215980 206971	210150 207770	Ave		215713.081				7.5		20.0			
Nitrobenzene	400200 363800 377966	387200 370995	388100 375580	379000 376803	Ave		379960.400				2.8		20.0			
3,5-Dinitroaniline	472500 427012 391169	440550 442010	445360 440969	441460 444605	Lin2	402.650561	429933.502							0.9980		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
CURVE EVALUATION

Lab Name: Eurofins Denver Job No.: 280-176866-1 Analy Batch No.: 607981

SDG No.:

Instrument ID: CHHPLC_G2_LUNA GC Column: Luna-phenyl ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/07/2023 19:03 Calibration End Date: 04/07/2023 23:50 Calibration ID: 79168

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								
1,3-Dinitrobenzene	620200 550236 629665	571250 567240	589440 569037	562610 573365	Ave		581449.216				4.6		20.0			
Nitroglycerin	127250 119170 122979	126325 122944	128966 122575	125509 123389	Ave		124345.324				2.4		20.0			
2-Nitrotoluene	259600 232616 248130	238950 239330	243700 242191	241150 243027	Ave		243188.270				3.1		20.0			
4-Nitrotoluene	238800 207820 211238	222200 213408	218540 214554	215370 215111	Ave		217448.976				4.1		20.0			
4-Amino-2,6-dinitrotoluene	300400 264248 275631	242000 273790	274440 273276	274610 275101	Ave		272610.657				5.5		20.0			
3-Nitrotoluene	267300 262304 274153	251050 269340	270580 272416	271500 273461	Ave		268011.502				2.7		20.0			
2-Amino-4,6-dinitrotoluene	414800 392412 354280	414750 406103	403820 402883	408660 404845	Ave		400283.640				4.6		20.0			
1,3,5-Trinitrobenzene	374800 362856 434595	358900 372675	367000 377386	376350 381831	Ave		378488.102				5.9		20.0			
2,6-Dinitrotoluene	350900 258664 269431	293450 267680	271600 267216	270760 269366	Ave		279896.324				10.1		20.0			
2,4-Dinitrotoluene	665000 523424 547166	569100 539635	562660 540656	547910 545578	Ave		560125.368				7.4		20.0			
Tetryl	284700 259416 268784	273000 265883	268940 265971	279690 268469	Ave		270539.259				2.8		20.0			
2,4,6-Trinitrotoluene	404200 386072 401631	476500 398653	420760 398173	418170 401312	Ave		411718.951				6.4		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.: 280-176866-1 Analy Batch No.: 607981

SDG No.:

Instrument ID: CHHPLC_G2_LUNA GC Column: Luna-phenyl ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/07/2023 19:03 Calibration End Date: 04/07/2023 23:50 Calibration ID: 79168

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	92140 120485 127411	107635 124296	117230 125039	124639 126431	Ave		118367.323				9.8		20.0			
1,2-Dinitrobenzene	284000 249520 258328	281350 258703	276120 256417	266300 257906	Ave		265404.894				4.6		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.: 280-176866-1 Analy Batch No.: 607981

SDG No.:

Instrument ID: CHHPLC_G2_LUNA GC Column: Luna-phenyl ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/07/2023 19:03 Calibration End Date: 04/07/2023 23:50 Calibration ID: 79168

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-607981/18	04070018.D
Level 2	IC 280-607981/17	04070017.D
Level 3	IC 280-607981/16	04070016.D
Level 4	IC 280-607981/15	04070015.D
Level 5	IC 280-607981/14	04070014.D
Level 6	IC 280-607981/13	04070013.D
Level 7	IC 280-607981/12	04070012.D
Level 8	IC 280-607981/11	04070011.D
Level 9	IC 280-607981/10	04070010.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	4669	8035	20397	39339	96722	0.0100	0.0201	0.0502	0.100	0.251
		149885	271856	389131	986578		0.401	0.702	1.00	2.51	
DNX	Ave	3097	5896	14268	28516	70501	0.0100	0.0200	0.0501	0.100	0.250
		108664	197714	282296	712375		0.400	0.701	1.00	2.50	
HMX	Ave	2116	3831	9104	17711	42259	0.0100	0.0200	0.0500	0.100	0.250
		69854	121533	174813	437409		0.400	0.700	1.00	2.50	
MNX	Ave	3165	6187	15283	30241	74679	0.0117	0.0233	0.0584	0.117	0.292
		115542	210405	299304	836019		0.467	0.817	1.17	2.92	
Picric acid	Ave	1601	3181	8104	15604	36740	0.0100	0.0200	0.0500	0.100	0.250
		61220	107366	154224	+++++		0.400	0.700	1.00	+++++	
RDX	Ave	2543	4542	10799	21015	50479	0.0100	0.0200	0.0500	0.100	0.250
		83231	144880	207770	522882		0.400	0.700	1.00	2.50	
Nitrobenzene	Ave	4002	7744	19405	37900	90950	0.0100	0.0200	0.0500	0.100	0.250
		148398	262906	376803	944914		0.400	0.700	1.00	2.50	
3,5-Dinitroaniline	Lin2	4725	8811	22268	44146	106753	0.0100	0.0200	0.0500	0.100	0.250
		176804	308678	444605	977923		0.400	0.700	1.00	2.50	
1,3-Dinitrobenzene	Ave	6202	11425	29472	56261	137559	0.0100	0.0200	0.0500	0.100	0.250
		226896	398326	573365	1574162		0.400	0.700	1.00	2.50	
Nitroglycerin	Ave	12725	25265	64483	125509	297926	0.100	0.200	0.500	1.00	2.50
		491776	858025	1233892	3074483		4.00	7.00	10.0	25.0	
2-Nitrotoluene	Ave	2596	4779	12185	24115	58154	0.0100	0.0200	0.0500	0.100	0.250
		95732	169534	243027	620325		0.400	0.700	1.00	2.50	
4-Nitrotoluene	Ave	2388	4444	10927	21537	51955	0.0100	0.0200	0.0500	0.100	0.250
		85363	150188	215111	528095		0.400	0.700	1.00	2.50	
4-Amino-2,6-dinitrotoluene	Ave	3004	4840	13722	27461	66062	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.: 280-176866-1 Analy Batch No.: 607981

SDG No.:

Instrument ID: CHHPLC_G2_LUNA GC Column: Luna-phenyl ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/07/2023 19:03 Calibration End Date: 04/07/2023 23:50 Calibration ID: 79168

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
		109516	191293	275101	689078		0.400	0.700	1.00	2.50	
3-Nitrotoluene	Ave	2673 107736	5021 190691	13529 273461	27150 685382	65576	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
2-Amino-4,6-dinitrotoluene	Ave	4148 162441	8295 282018	20191 404845	40866 885701	98103	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
1,3,5-Trinitrobenzene	Ave	3748 149070	7178 264170	18350 381831	37635 1086488	90714	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
2,6-Dinitrotoluene	Ave	3509 107072	5869 187051	13580 269366	27076 673578	64666	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
2,4-Dinitrotoluene	Ave	6650 215854	11382 378459	28133 545578	54791 1367914	130856	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
Tetryl	Ave	2847 106353	5460 186180	13447 268469	27969 671961	64854	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
2,4,6-Trinitrotoluene	Ave	4042 159461	9530 278721	21038 401312	41817 1004078	96518	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
PETN	Ave	9214 497183	21527 875273	58615 1264310	124639 3185284	301212	0.100 4.00	0.200 7.00	0.500 10.0	1.00 25.0	2.50
1,2-Dinitrobenzene	Ave	2840 103481	5627 179492	13806 257906	26630 645821	62380	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250

Curve Type Legend
Ave = Average
Lin2 = Linear 1/conc^2

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2_LUNA\20230407-120232.b\04070010.D
Lims ID: IC INT DMT 9
Client ID:
Sample Type: IC Calib Level: 9
Inject. Date: 07-Apr-2023 19:03:08 ALS Bottle#: 10 Worklist Smp#: 10
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT DMT 9
Operator ID: JZ Instrument ID: CHHPLC_G2_LUNA
Sublist: chrom-G2_8330_Luna*sub18

Method: \\chromfs\Denver\ChromData\G2_LUNA\20230407-120232.b\G2_8330_Luna.m
Limit Group: GCSV - 8330
Last Update: 12-Apr-2023 15:55:23 Calib Date: 07-Apr-2023 23:50:31
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\G2_LUNA\20230407-120232.b\04070018.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC DAD1A, 254 nm
Process Host: CTX1657

First Level Reviewer: LV5D Date: 07-Apr-2023 20:07:11

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
3 TNX	1	5.225	5.321	-0.096	986578	2.51	2.47	
4 DNX	1	6.078	6.194	-0.116	712375	2.50	2.49	a
6 HMX	1	6.745	6.847	-0.102	437409	2.50	2.42	
7 MNX	1	7.591	7.714	-0.123	836019	2.92	3.19	
5 2,4,6-Trinitrophenol	1	8.018	8.187	-0.169	230437	2.50	1.48	
8 RDX	1	9.005	9.127	-0.122	522882	2.50	2.42	
9 Nitrobenzene	1	11.518	11.654	-0.136	944914	2.50	2.49	
$ 10 1,2-Dinitrobenzene	1	12.491	12.627	-0.136	645821	2.50	2.43	
11 3,5-Dinitroaniline	1	14.378	14.480	-0.102	977923	2.50	2.27	
12 1,3-Dinitrobenzene	1	14.624	14.754	-0.130	1574162	2.50	2.71	
13 Nitroglycerin	2	15.178	15.274	-0.096	3074483	25.0	24.7	
14 o-Nitrotoluene	1	15.731	15.827	-0.096	620325	2.50	2.55	
15 p-Nitrotoluene	1	15.904	16.054	-0.150	528095	2.50	2.43	
16 4-Amino-2,6-dinitrotoluene	1	16.478	16.594	-0.116	689078	2.50	2.53	
17 m-Nitrotoluene	1	16.791	16.900	-0.109	685382	2.50	2.56	
18 2-Amino-4,6-dinitrotoluene	1	17.371	17.414	-0.043	885701	2.50	2.21	M
19 1,3,5-Trinitrobenzene	1	17.438	17.574	-0.136	1086488	2.50	2.87	M
20 2,6-Dinitrotoluene	1	18.611	18.714	-0.103	673578	2.50	2.41	
21 2,4-Dinitrotoluene	1	19.071	19.174	-0.103	1367914	2.50	2.44	
22 Tetryl	1	22.378	22.481	-0.103	671961	2.50	2.48	
23 2,4,6-Trinitrotoluene	1	23.205	23.301	-0.096	1004078	2.50	2.44	
24 PETN	2	24.478	24.547	-0.069	3185284	25.0	26.9	

QC Flag Legend
Processing Flags

Review Flags
M - Manually Integrated
a - User Assigned ID

Reagents:

8330IntermStk_00076	Amount Added: 250.00	Units: uL
8330 DMT_00013	Amount Added: 125.00	Units: uL

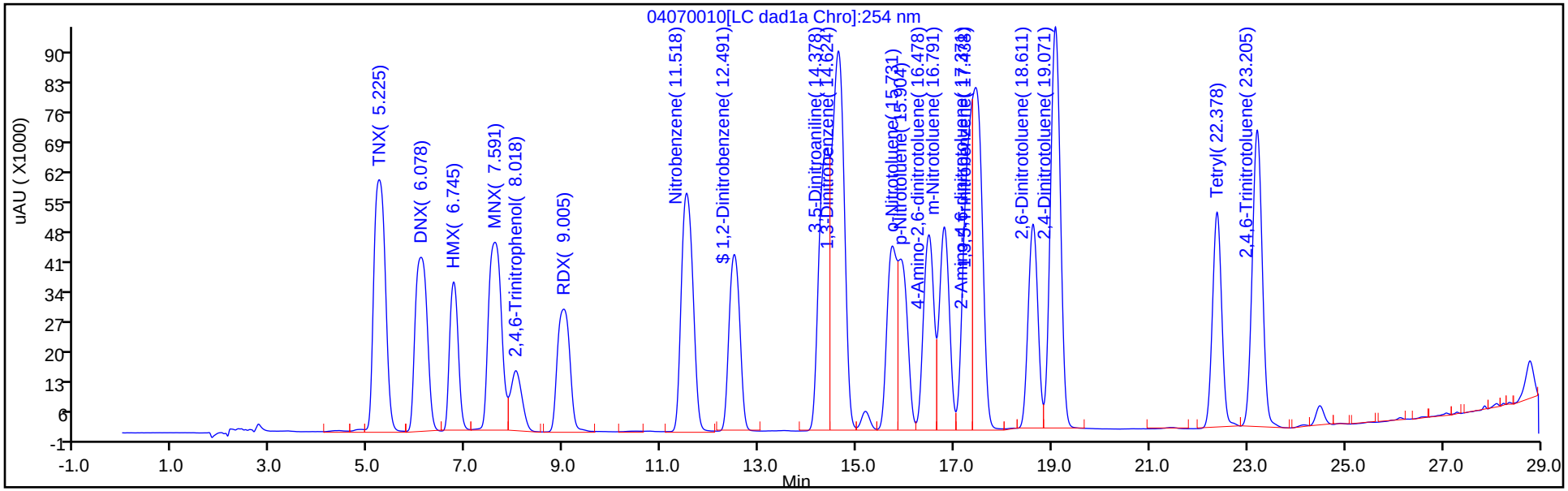
Report Date: 12-Apr-2023 15:55:23 Chrom Revision: 2.3 29-Mar-2023 18:39:10

Eurofins Denver

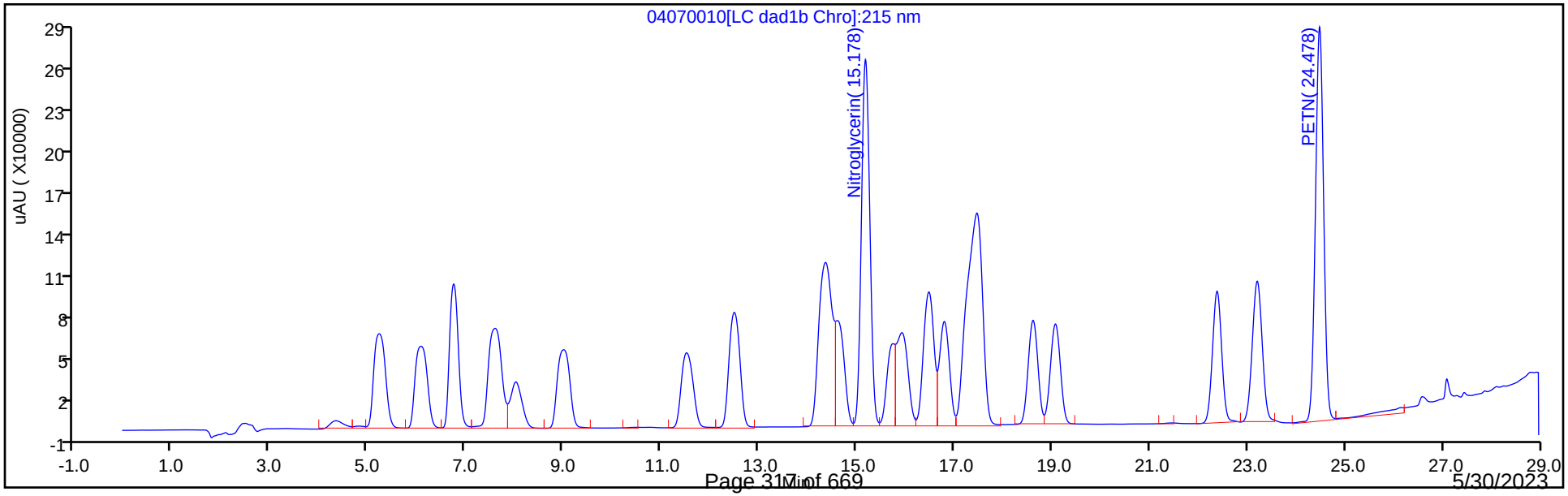
Data File: \\chromfs\denver\chromdata\g2_luna\20230407-120232.b\04070010.d

Injection Date:	07-Apr-2023 19:03:08	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	JZ
Lims ID:	IC INT DMT 9			Worklist Smp#:	10
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	10
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



5/30/2023
10:34 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

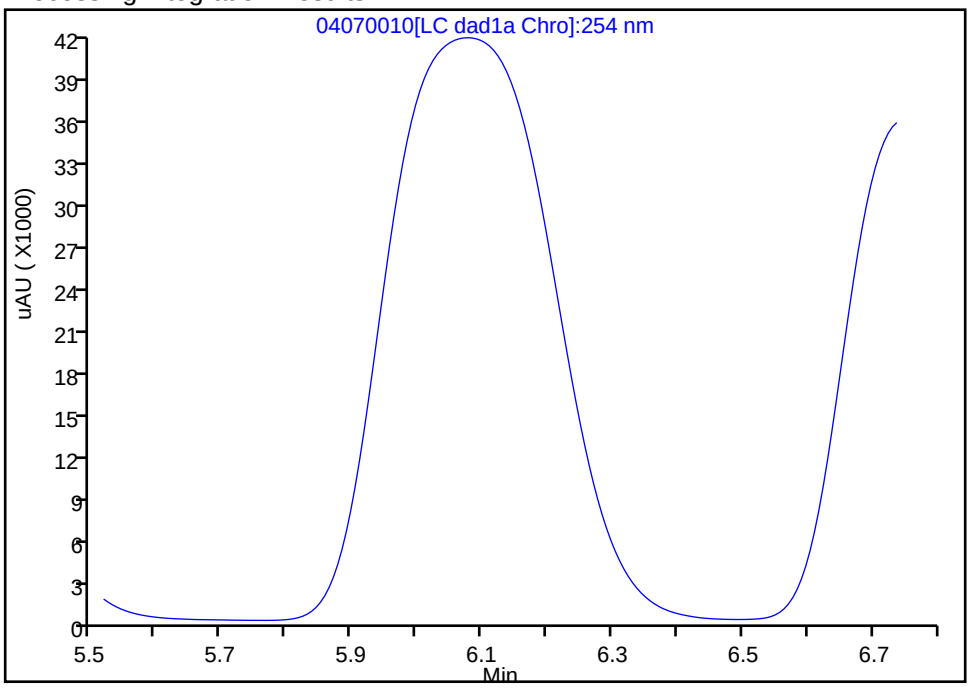
Data File:	\\chromfs\denver\chromdata\g2_luna\20230407-120232.b\04070010.d				
Injection Date:	07-Apr-2023 19:03:08	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT DMT 9				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	10	Worklist Smp#:	10
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

4 DNX, CAS: 80251-29-2

Signal: 1

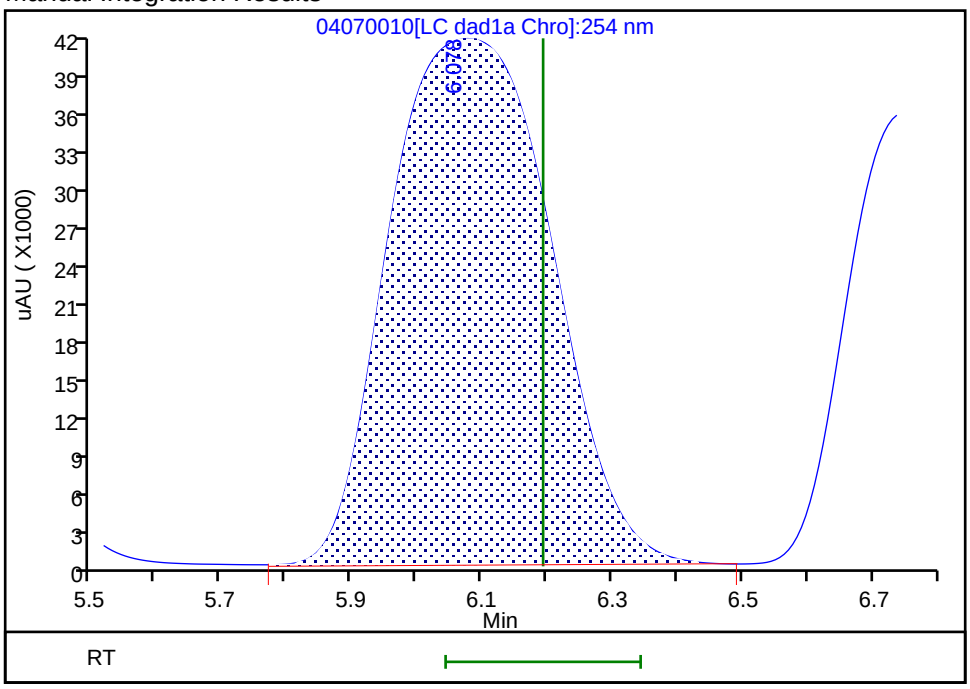
Processing Integration Results

Not Detected
Expected RT: 6.19



Manual Integration Results

RT: 6.08
Area: 712375
Amount: 2.489078
Amount Units: ug/ml



Reviewer: LV5D, 07-Apr-2023 20:06:38
Audit Action: Assigned Compound ID Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

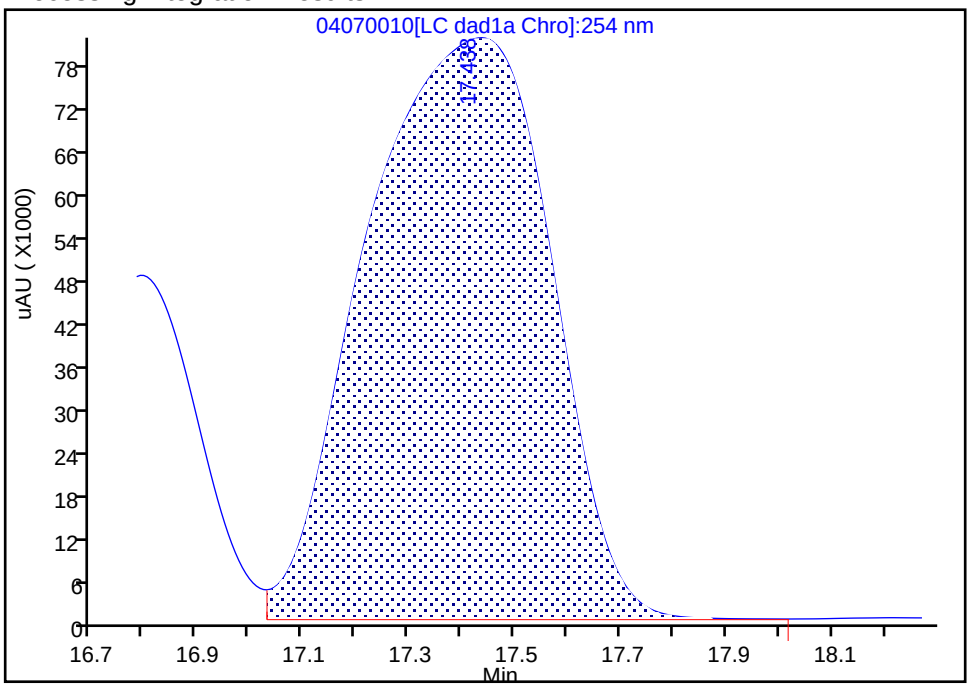
Data File: \\chromfs\denver\chromdata\g2_luna\20230407-120232.b\04070010.d
Injection Date: 07-Apr-2023 19:03:08 Instrument ID: CHHPLC_G2_LUNA
Lims ID: IC INT DMT 9
Client ID:
Operator ID: JZ ALS Bottle#: 10 Worklist Smp#: 10
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC DAD1A, 254 nm

18 2-Amino-4,6-dinitrotoluene, CAS: 35572-78-2

Signal: 1

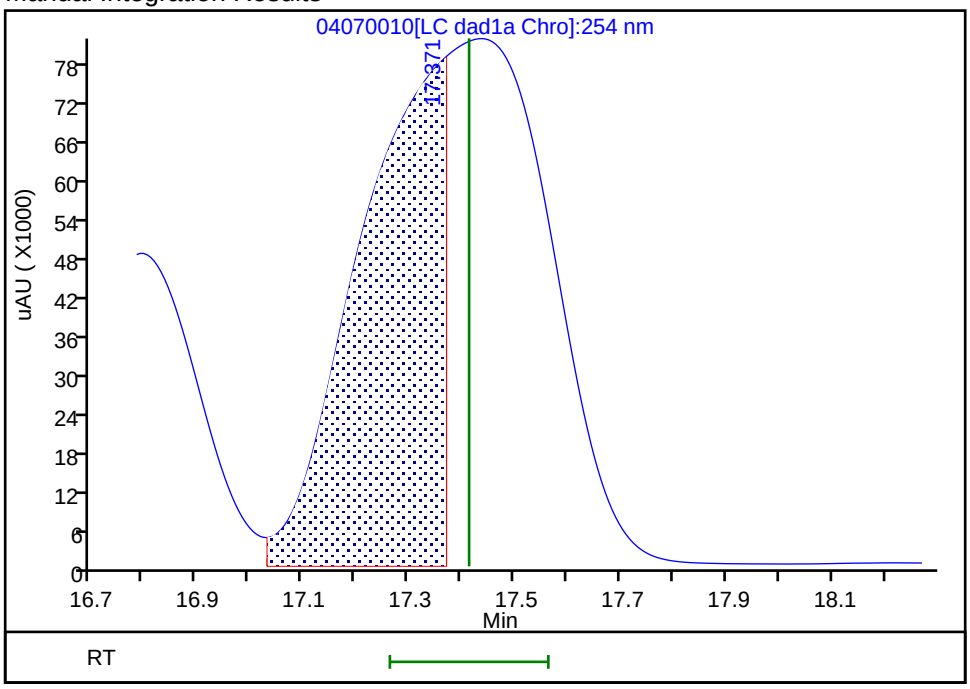
Processing Integration Results

RT: 17.44
Area: 1972184
Amount: 2.500000
Amount Units: ug/ml



Manual Integration Results

RT: 17.37
Area: 885701
Amount: 2.212683
Amount Units: ug/ml



Reviewer: LV5D, 07-Apr-2023 20:06:29
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2_LUNA\20230407-120232.b\04070011.D
Lims ID: IC INT DMT 8
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 07-Apr-2023 19:39:05 ALS Bottle#: 11 Worklist Smp#: 11
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT DMT 8
Operator ID: JZ Instrument ID: CHHPLC_G2_LUNA
Sublist: chrom-G2_8330_Luna*sub18

Method: \\chromfs\Denver\ChromData\G2_LUNA\20230407-120232.b\G2_8330_Luna.m
Limit Group: GCSV - 8330
Last Update: 12-Apr-2023 15:55:24 Calib Date: 07-Apr-2023 23:50:31
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\G2_LUNA\20230407-120232.b\04070018.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC DAD1A, 254 nm
Process Host: CTX1657

First Level Reviewer: LV5D Date: 07-Apr-2023 20:28:24

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
3 TNX	1	5.302	5.321	-0.019	389131	1.00	0.9747	
4 DNX	1	6.162	6.194	-0.032	282296	1.00	0.9864	a
6 HMX	1	6.829	6.847	-0.018	174813	1.00	0.9656	
7 MNX	1	7.682	7.714	-0.032	299304	1.17	1.14	
5 2,4,6-Trinitrophenol	1	8.095	8.187	-0.092	154224	1.00	0.99	a
8 RDX	1	9.095	9.127	-0.032	207770	1.00	0.9632	
9 Nitrobenzene	1	11.615	11.654	-0.039	376803	1.00	0.99	
$ 10 1,2-Dinitrobenzene	1	12.582	12.627	-0.045	257906	1.00	0.9717	
11 3,5-Dinitroaniline	1	14.435	14.480	-0.045	444605	1.00	1.03	
12 1,3-Dinitrobenzene	1	14.709	14.754	-0.045	573365	1.00	0.9861	
13 Nitroglycerin	2	15.235	15.274	-0.039	1233892	10.0	9.92	
14 o-Nitrotoluene	1	15.789	15.827	-0.038	243027	1.00	1.00	
15 p-Nitrotoluene	1	16.015	16.054	-0.039	215111	1.00	0.9892	
16 4-Amino-2,6-dinitrotoluene	1	16.549	16.594	-0.045	275101	1.00	1.01	
17 m-Nitrotoluene	1	16.862	16.900	-0.038	273461	1.00	1.02	
18 2-Amino-4,6-dinitrotoluene	1	17.369	17.414	-0.045	404845	1.00	1.01	
19 1,3,5-Trinitrobenzene	1	17.542	17.574	-0.032	381831	1.00	1.01	
20 2,6-Dinitrotoluene	1	18.675	18.714	-0.039	269366	1.00	0.9624	
21 2,4-Dinitrotoluene	1	19.135	19.174	-0.039	545578	1.00	0.9740	
22 Tetryl	1	22.429	22.481	-0.052	268469	1.00	0.99	
23 2,4,6-Trinitrotoluene	1	23.249	23.301	-0.052	401312	1.00	0.9747	
24 PETN	2	24.502	24.547	-0.045	1264310	10.0	10.7	

QC Flag Legend

Processing Flags
Review Flags
a - User Assigned ID

Reagents:

8330IntermStk_00076	Amount Added: 100.00	Units: uL
8330 DMT_00013	Amount Added: 50.00	Units: uL

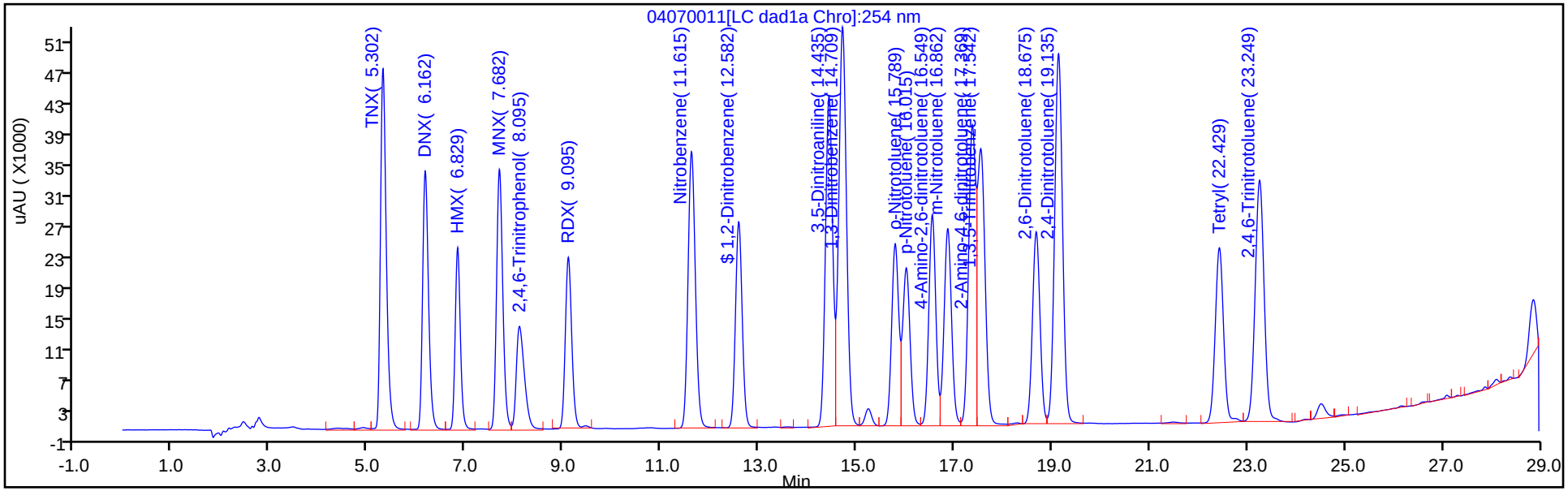
Report Date: 12-Apr-2023 15:55:24 Chrom Revision: 2.3 29-Mar-2023 18:39:10

Eurofins Denver

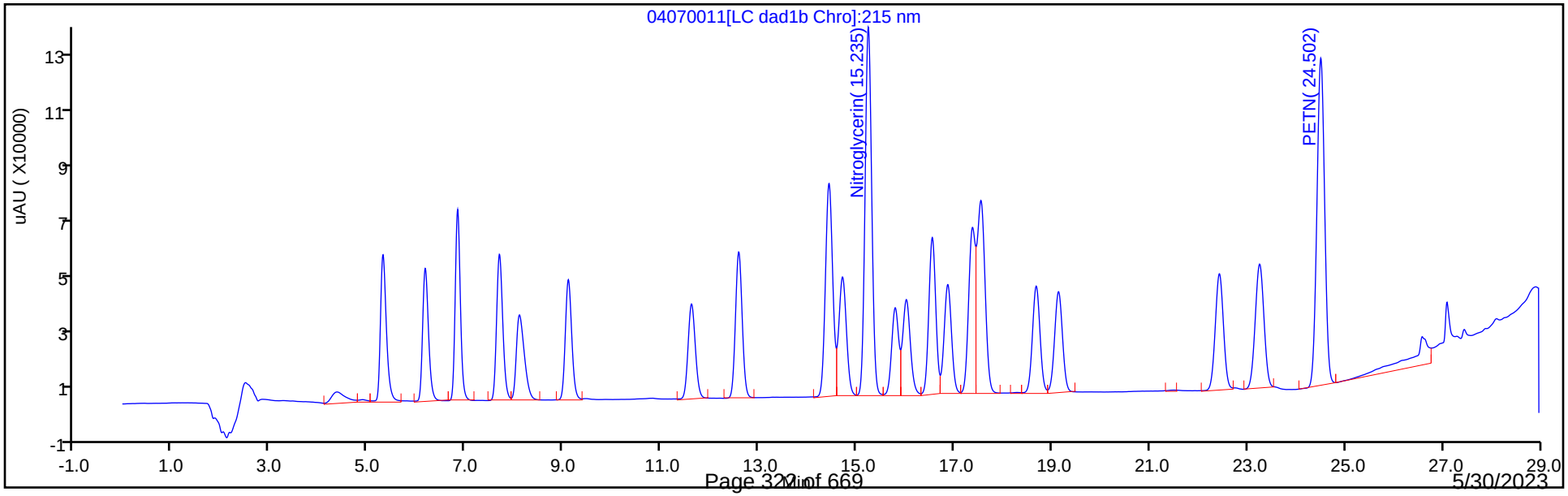
Data File: \\chromfs\denver\chromdata\g2_luna\20230407-120232.b\04070011.d

Injection Date:	07-Apr-2023 19:39:05	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	JZ
Lims ID:	IC INT DMT 8			Worklist Smp#:	11
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	11
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



5/30/2023
10:34 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

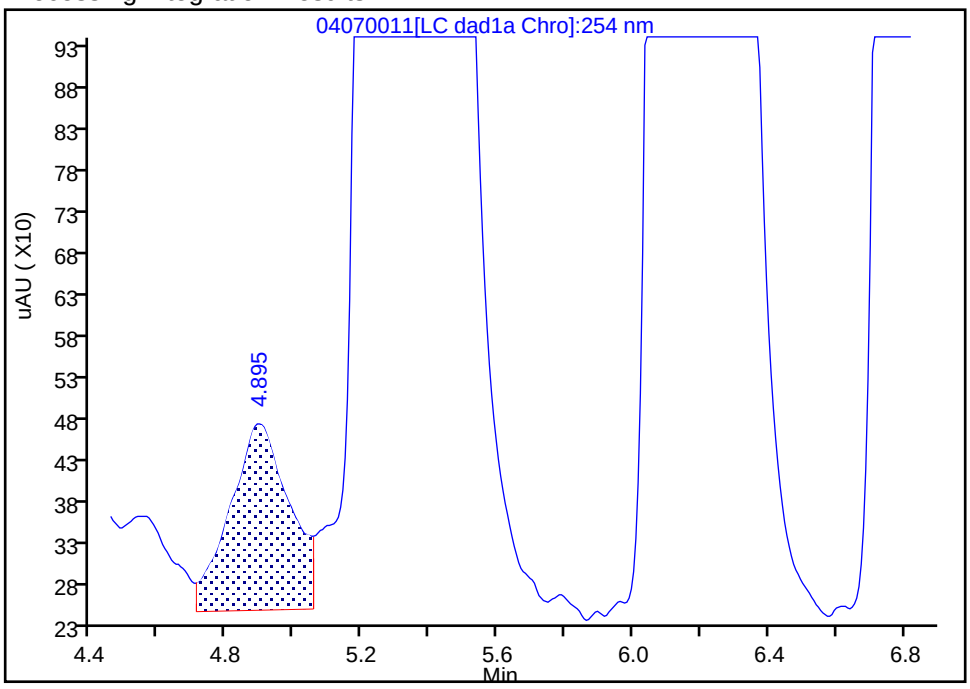
Data File:	\\chromfs\denver\chromdata\g2_luna\20230407-120232.b\04070011.d				
Injection Date:	07-Apr-2023 19:39:05	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT DMT 8				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	11	Worklist Smp#:	11
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

4 DNX, CAS: 80251-29-2

Signal: 1

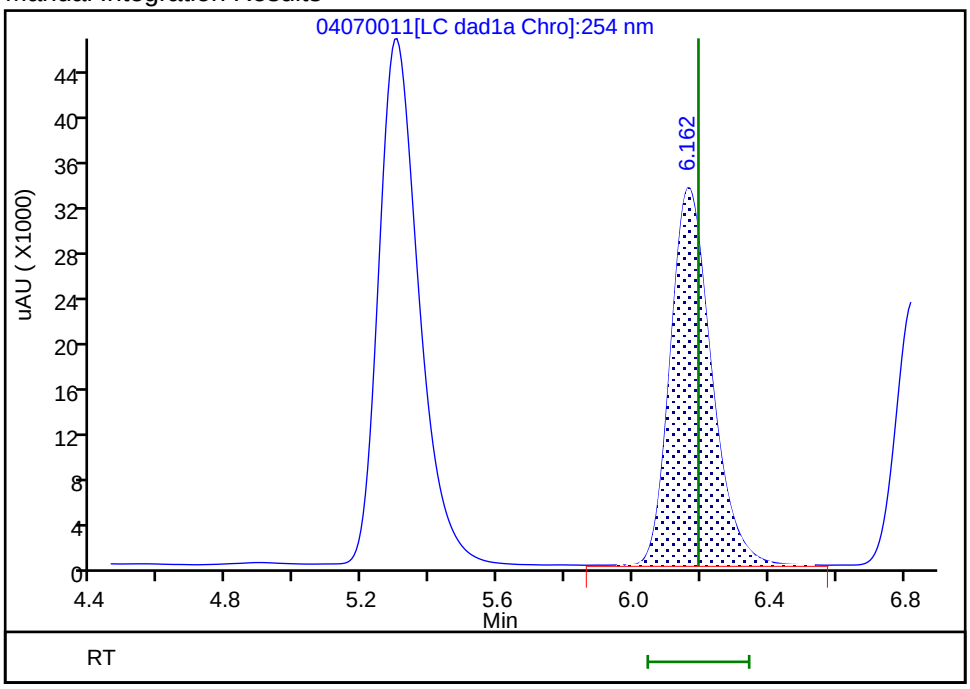
Processing Integration Results

RT: 4.90
Area: 2755
Amount: 0.014511
Amount Units: ug/ml



Manual Integration Results

RT: 6.16
Area: 282296
Amount: 0.986358
Amount Units: ug/ml



Reviewer: LV5D, 07-Apr-2023 21:06:28
Audit Action: Assigned Compound ID Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

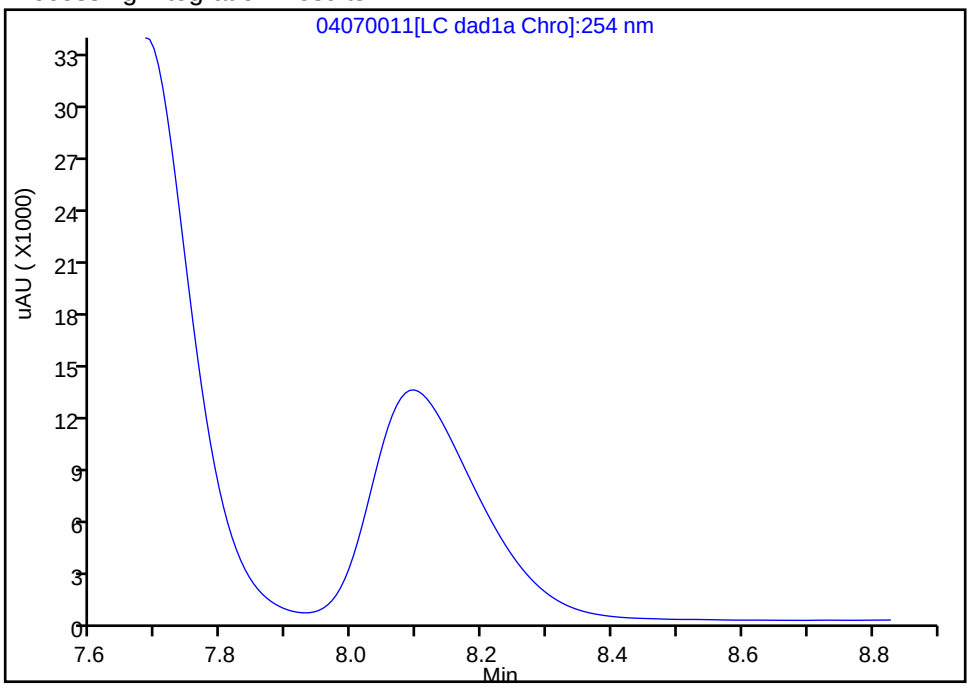
Data File:	\\chromfs\denver\chromdata\g2_luna\20230407-120232.b\04070011.d				
Injection Date:	07-Apr-2023 19:39:05	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT DMT 8				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	11	Worklist Smp#:	11
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

5 2,4,6-Trinitrophenol, CAS: 88-89-1

Signal: 1

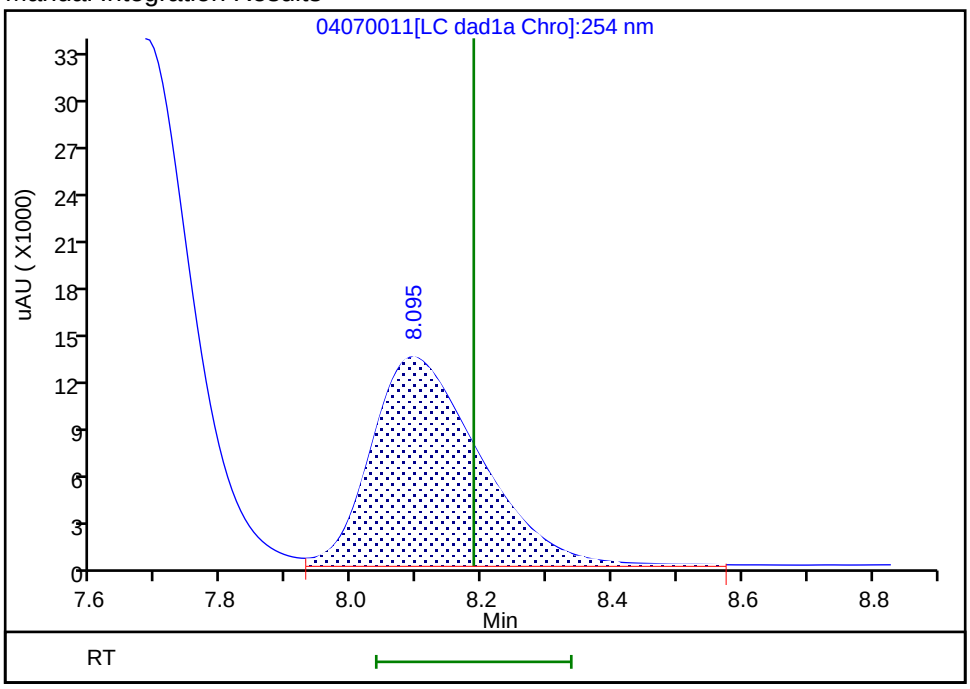
Not Detected
Expected RT: 8.19

Processing Integration Results



Manual Integration Results

RT: 8.10
Area: 154224
Amount: 0.991090
Amount Units: ug/ml



Reviewer: LV5D, 07-Apr-2023 21:06:31
Audit Action: Assigned Compound ID Audit Reason: Baseline

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2_LUNA\20230407-120232.b\04070012.D
Lims ID: IC INT DMT 7
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 07-Apr-2023 20:14:59 ALS Bottle#: 12 Worklist Smp#: 12
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT DMT 7
Operator ID: JZ Instrument ID: CHHPLC_G2_LUNA
Sublist: chrom-G2_8330_Luna*sub18

Method: \\chromfs\Denver\ChromData\G2_LUNA\20230407-120232.b\G2_8330_Luna.m
Limit Group: GCSV - 8330
Last Update: 12-Apr-2023 15:55:25 Calib Date: 07-Apr-2023 23:50:31
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\G2_LUNA\20230407-120232.b\04070018.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC DAD1A, 254 nm
Process Host: CTX1657

First Level Reviewer: LV5D Date: 07-Apr-2023 21:06:15

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
3 TNX	1	5.310	5.321	-0.011	271856	0.7021	0.6810	
4 DNX	1	6.177	6.194	-0.017	197714	0.7007	0.6908	
6 HMX	1	6.837	6.847	-0.010	121533	0.7000	0.6713	
7 MNX	1	7.697	7.714	-0.017	210405	0.8169	0.8019	
5 2,4,6-Trinitrophenol	1	8.124	8.187	-0.063	107366	0.7000	0.6900	
8 RDX	1	9.110	9.127	-0.017	144880	0.7000	0.6716	
9 Nitrobenzene	1	11.623	11.654	-0.031	262906	0.7000	0.6919	
$ 10 1,2-Dinitrobenzene	1	12.590	12.627	-0.037	179492	0.7000	0.6763	
11 3,5-Dinitroaniline	1	14.443	14.480	-0.037	308678	0.7000	0.7170	
12 1,3-Dinitrobenzene	1	14.717	14.754	-0.037	398326	0.7000	0.6851	
13 Nitroglycerin	2	15.243	15.274	-0.031	858025	7.00	6.90	
14 o-Nitrotoluene	1	15.797	15.827	-0.030	169534	0.7000	0.6971	
15 p-Nitrotoluene	1	16.023	16.054	-0.031	150188	0.7000	0.6907	
16 4-Amino-2,6-dinitrotoluene	1	16.557	16.594	-0.037	191293	0.7000	0.7017	
17 m-Nitrotoluene	1	16.870	16.900	-0.030	190691	0.7000	0.7115	
18 2-Amino-4,6-dinitrotoluene	1	17.377	17.414	-0.037	282018	0.7000	0.7045	
19 1,3,5-Trinitrobenzene	1	17.550	17.574	-0.024	264170	0.7000	0.6980	
20 2,6-Dinitrotoluene	1	18.683	18.714	-0.031	187051	0.7000	0.6683	
21 2,4-Dinitrotoluene	1	19.143	19.174	-0.031	378459	0.7000	0.6757	
22 Tetryl	1	22.450	22.481	-0.031	186180	0.7000	0.6882	
23 2,4,6-Trinitrotoluene	1	23.277	23.301	-0.024	278721	0.7000	0.6770	
24 PETN	2	24.530	24.547	-0.017	875273	7.00	7.39	

QC Flag Legend
Processing Flags

Reagents:

8330IntermStk_00076	Amount Added:	70.00	Units: uL
8330 DMT_00013	Amount Added:	35.00	Units: uL

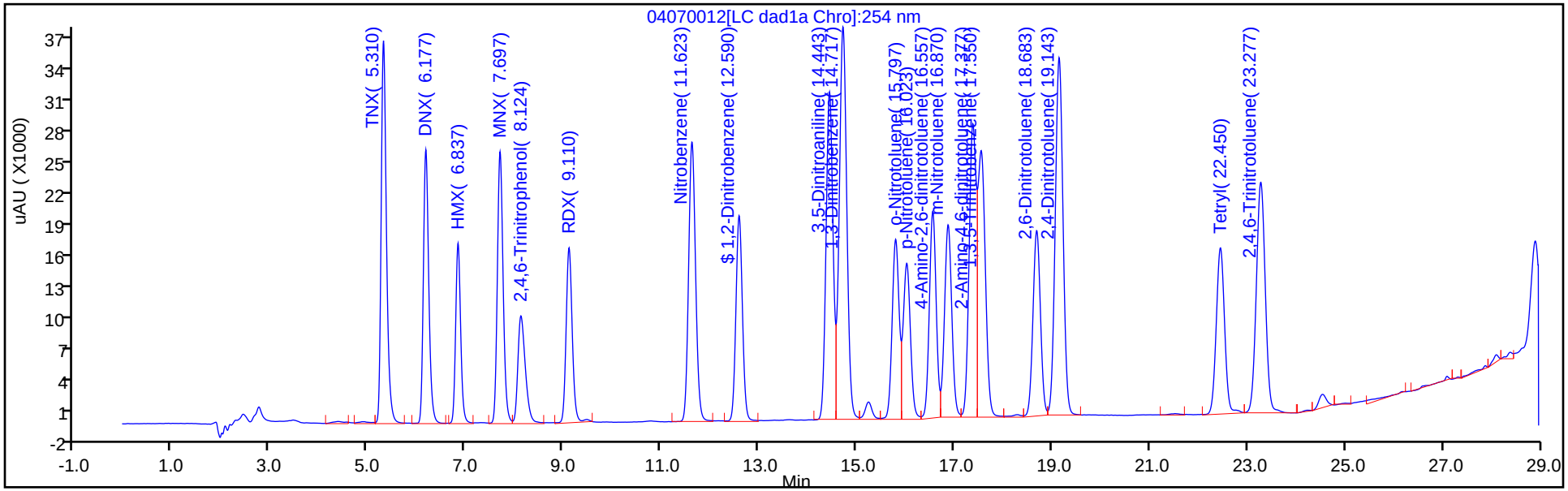
Report Date: 12-Apr-2023 15:55:25 Chrom Revision: 2.3 29-Mar-2023 18:39:10

Eurofins Denver

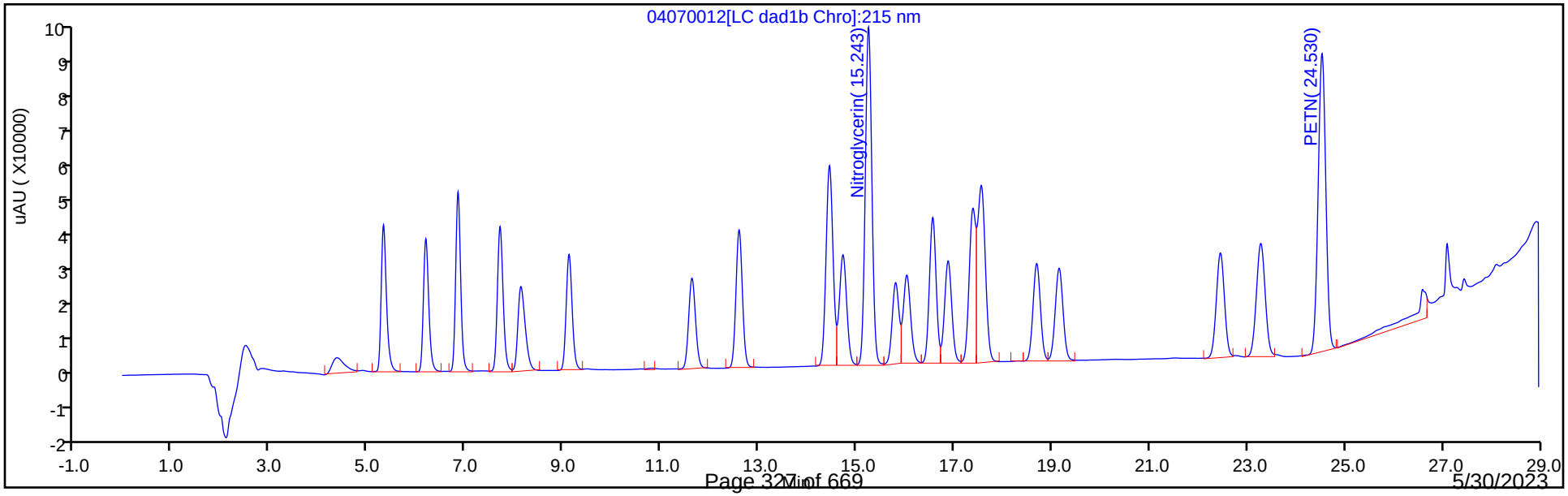
Data File: \\chromfs\denver\chromdata\g2_luna\20230407-120232.b\04070012.d

Injection Date:	07-Apr-2023 20:14:59	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	JZ
Lims ID:	IC INT DMT 7			Worklist Smp#:	12
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	12
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



5/30/2023
10:34 AM

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2_LUNA\20230407-120232.b\04070013.D
Lims ID: IC INT DMT 6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 07-Apr-2023 20:50:53 ALS Bottle#: 13 Worklist Smp#: 13
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT DMT 6
Operator ID: JZ Instrument ID: CHHPLC_G2_LUNA
Sublist: chrom-G2_8330_Luna*sub18

Method: \\chromfs\Denver\ChromData\G2_LUNA\20230407-120232.b\G2_8330_Luna.m
Limit Group: GCSV - 8330
Last Update: 12-Apr-2023 15:55:26 Calib Date: 07-Apr-2023 23:50:31
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\G2_LUNA\20230407-120232.b\04070018.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC DAD1A, 254 nm
Process Host: CTX1657

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
3 TNX	1	5.320	5.321	-0.001	149885	0.4012	0.3754	
4 DNX	1	6.187	6.194	-0.007	108664	0.4004	0.3797	
6 HMX	1	6.840	6.847	-0.007	69854	0.4000	0.3858	
7 MNX	1	7.700	7.714	-0.014	115542	0.4668	0.4404	
5 2,4,6-Trinitrophenol	1	8.153	8.187	-0.034	61220	0.4000	0.3934	
8 RDX	1	9.113	9.127	-0.014	83231	0.4000	0.3858	
9 Nitrobenzene	1	11.640	11.654	-0.014	148398	0.4000	0.3906	
$ 10 1,2-Dinitrobenzene	1	12.600	12.627	-0.027	103481	0.4000	0.3899	
11 3,5-Dinitroaniline	1	14.453	14.480	-0.027	176804	0.4000	0.4103	
12 1,3-Dinitrobenzene	1	14.727	14.754	-0.027	226896	0.4000	0.3902	
13 Nitroglycerin	2	15.247	15.274	-0.027	491776	4.00	3.95	
14 o-Nitrotoluene	1	15.807	15.827	-0.020	95732	0.4000	0.3937	
15 p-Nitrotoluene	1	16.033	16.054	-0.021	85363	0.4000	0.3926	
16 4-Amino-2,6-dinitrotoluene	1	16.567	16.594	-0.027	109516	0.4000	0.4017	
17 m-Nitrotoluene	1	16.880	16.900	-0.020	107736	0.4000	0.4020	
18 2-Amino-4,6-dinitrotoluene	1	17.387	17.414	-0.027	162441	0.4000	0.4058	
19 1,3,5-Trinitrobenzene	1	17.553	17.574	-0.021	149070	0.4000	0.3939	
20 2,6-Dinitrotoluene	1	18.693	18.714	-0.021	107072	0.4000	0.3825	
21 2,4-Dinitrotoluene	1	19.153	19.174	-0.021	215854	0.4000	0.3854	
22 Tetryl	1	22.447	22.481	-0.034	106353	0.4000	0.3931	
23 2,4,6-Trinitrotoluene	1	23.267	23.301	-0.034	159461	0.4000	0.3873	
24 PETN	2	24.520	24.547	-0.027	497183	4.00	4.20	

Reagents:

8330IntermStk_00076 Amount Added: 40.00 Units: uL
8330 DMT_00013 Amount Added: 20.00 Units: uL

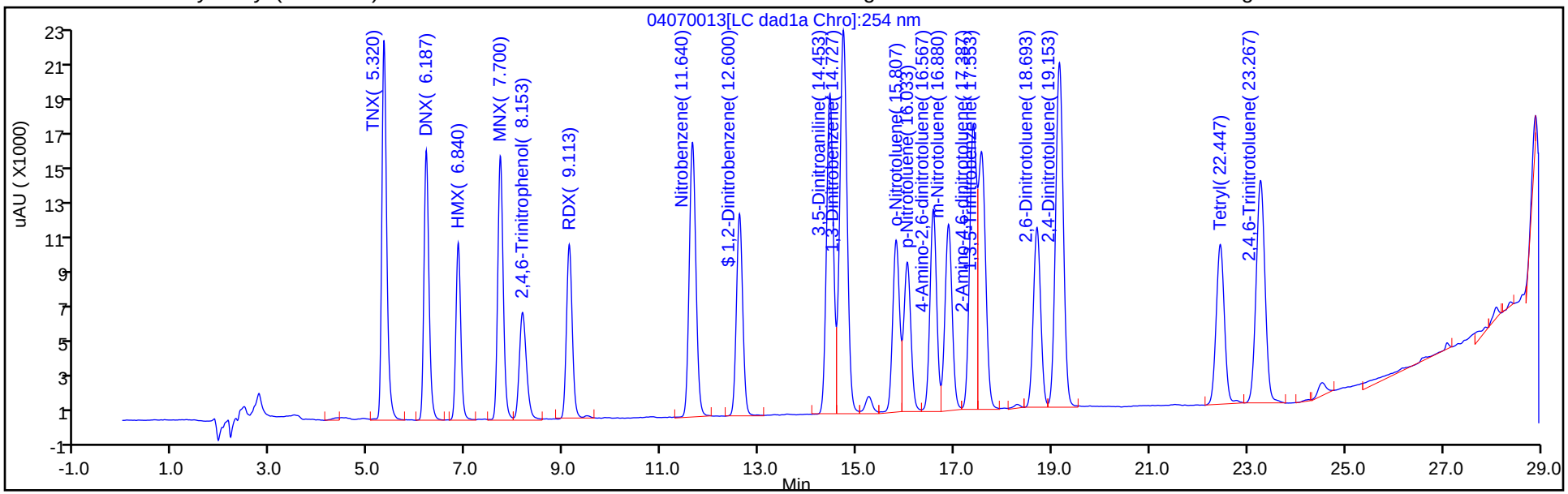
Report Date: 12-Apr-2023 15:55:26 Chrom Revision: 2.3 29-Mar-2023 18:39:10

Eurofins Denver

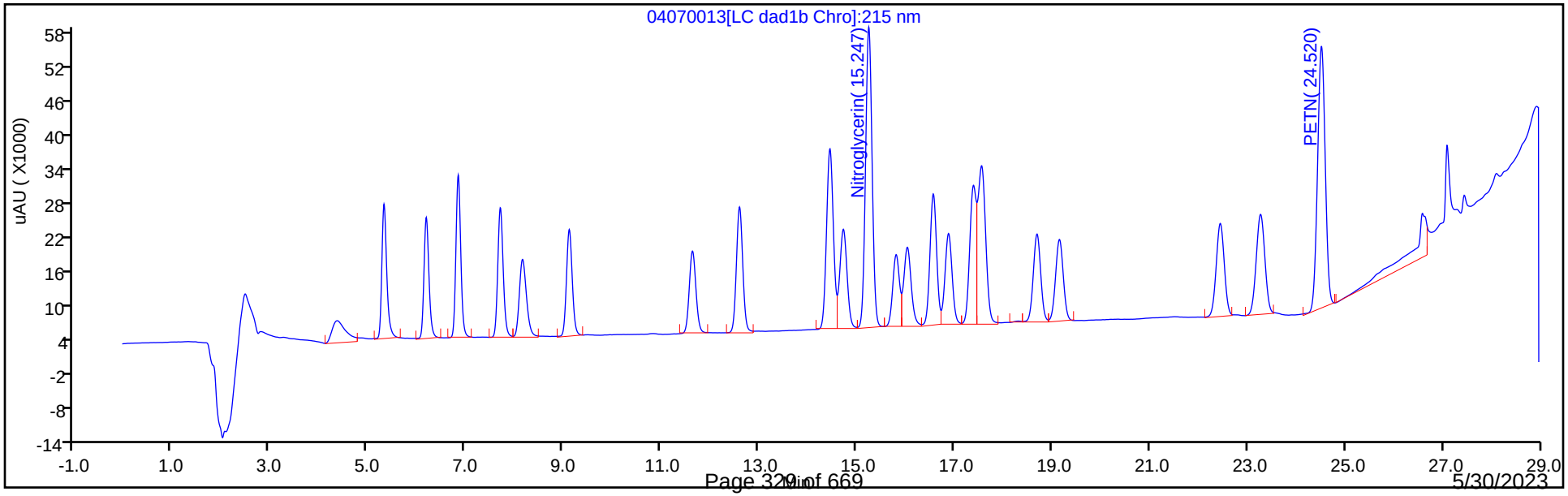
Data File: \\chromfs\denver\chromdata\g2_luna\20230407-120232.b\04070013.d

Injection Date:	07-Apr-2023 20:50:53	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	JZ
Lims ID:	IC INT DMT 6			Worklist Smp#:	13
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	13
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



5/30/2023
10:34 AM

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2_LUNA\20230407-120232.b\04070014.D
Lims ID: IC INT DMT 5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 07-Apr-2023 21:26:49 ALS Bottle#: 14 Worklist Smp#: 14
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT DMT 5
Operator ID: JZ Instrument ID: CHHPLC_G2_LUNA
Sublist: chrom-G2_8330_Luna*sub18

Method: \\chromfs\Denver\ChromData\G2_LUNA\20230407-120232.b\G2_8330_Luna.m
Limit Group: GCSV - 8330
Last Update: 12-Apr-2023 15:55:26 Calib Date: 07-Apr-2023 23:50:31
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\G2_LUNA\20230407-120232.b\04070018.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC DAD1A, 254 nm
Process Host: CTX1657

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
3 TNX	1	5.321	5.321	0.000	96722	0.2508	0.2423	
4 DNX	1	6.194	6.194	0.000	70501	0.2503	0.2463	
6 HMX	1	6.847	6.847	0.000	42259	0.2500	0.2334	
7 MNX	1	7.714	7.714	0.000	74679	0.2918	0.2846	
5 2,4,6-Trinitrophenol	1	8.187	8.187	0.000	36740	0.2500	0.2361	
8 RDX	1	9.127	9.127	0.000	50479	0.2500	0.2340	
9 Nitrobenzene	1	11.654	11.654	0.000	90950	0.2500	0.2394	
$ 10 1,2-Dinitrobenzene	1	12.627	12.627	0.000	62380	0.2500	0.2350	
11 3,5-Dinitroaniline	1	14.480	14.480	0.000	106753	0.2500	0.2474	
12 1,3-Dinitrobenzene	1	14.754	14.754	0.000	137559	0.2500	0.2366	
13 Nitroglycerin	2	15.274	15.274	0.000	297926	2.50	2.40	
14 o-Nitrotoluene	1	15.827	15.827	0.000	58154	0.2500	0.2391	
15 p-Nitrotoluene	1	16.054	16.054	0.000	51955	0.2500	0.2389	
16 4-Amino-2,6-dinitrotoluene	1	16.594	16.594	0.000	66062	0.2500	0.2423	
17 m-Nitrotoluene	1	16.900	16.900	0.000	65576	0.2500	0.2447	
18 2-Amino-4,6-dinitrotoluene	1	17.414	17.414	0.000	98103	0.2500	0.2451	
19 1,3,5-Trinitrobenzene	1	17.574	17.574	0.000	90714	0.2500	0.2397	
20 2,6-Dinitrotoluene	1	18.714	18.714	0.000	64666	0.2500	0.2310	
21 2,4-Dinitrotoluene	1	19.174	19.174	0.000	130856	0.2500	0.2336	
22 Tetryl	1	22.481	22.481	0.000	64854	0.2500	0.2397	
23 2,4,6-Trinitrotoluene	1	23.301	23.301	0.000	96518	0.2500	0.2344	
24 PETN	2	24.547	24.547	0.000	301212	2.50	2.54	

Reagents:

8330IntermStk_00076 Amount Added: 25.00 Units: uL
8330 DMT_00013 Amount Added: 12.50 Units: uL

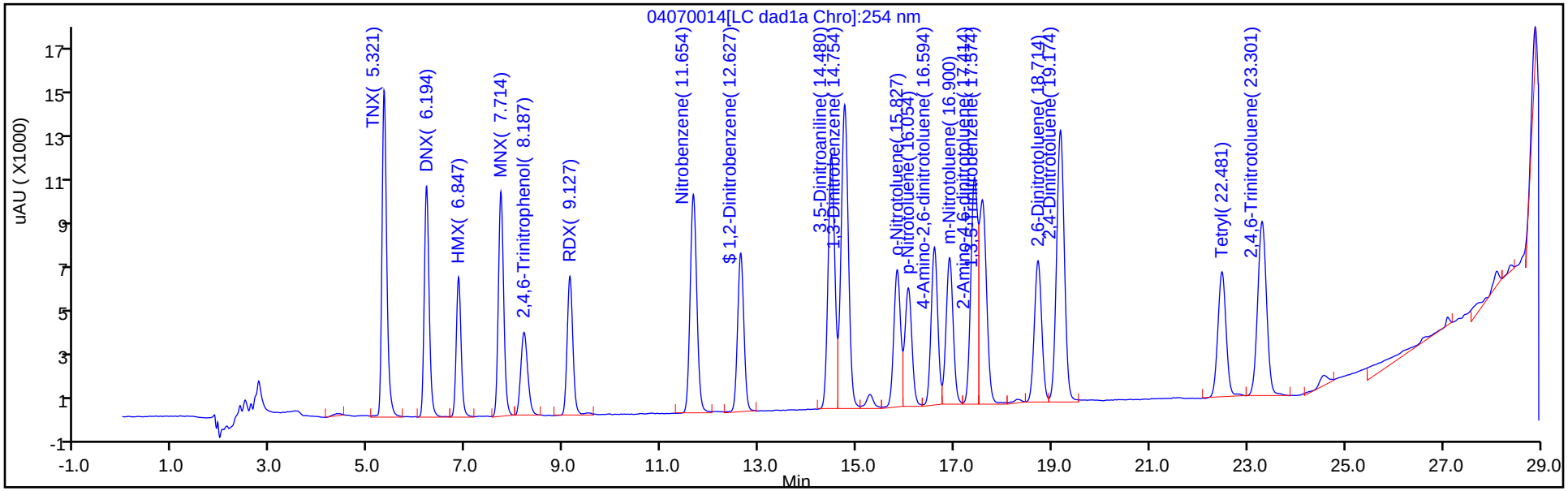
Report Date: 12-Apr-2023 15:55:26 Chrom Revision: 2.3 29-Mar-2023 18:39:10

Eurofins Denver

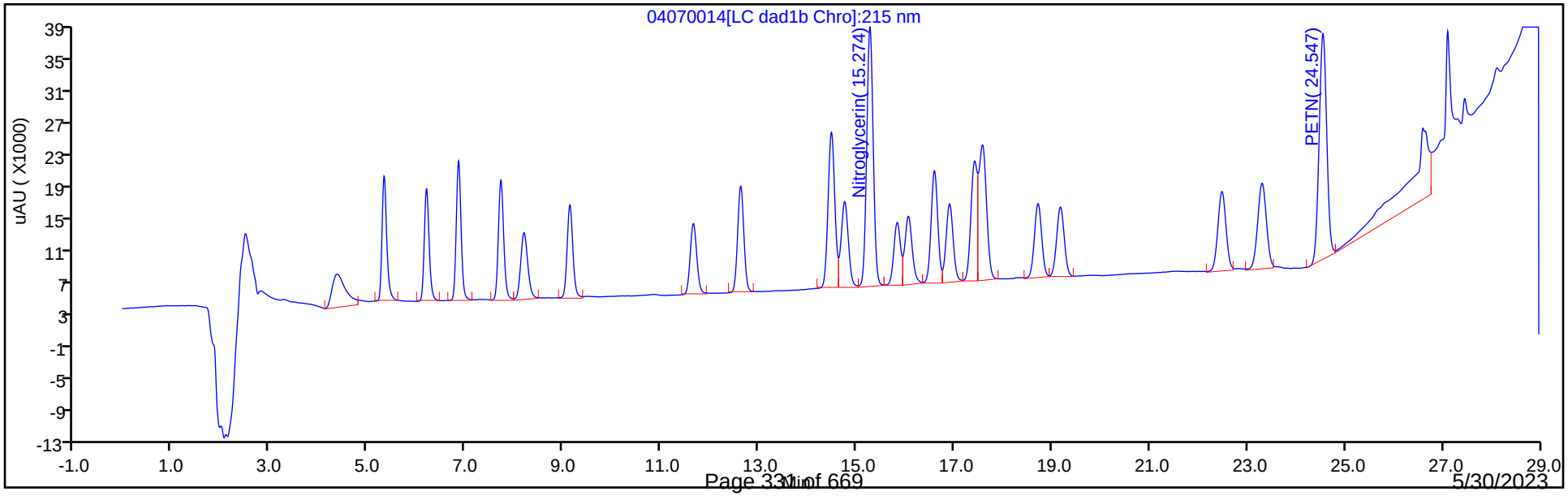
Data File: \\chromfs\denver\chromdata\g2_luna\20230407-120232.b\04070014.d

Injection Date:	07-Apr-2023 21:26:49	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	JZ
Lims ID:	IC INT DMT 5			Worklist Smp#:	14
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	14
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



5/30/2023
10:34 AM

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2_LUNA\20230407-120232.b\04070015.D
Lims ID: IC INT DMT 4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 07-Apr-2023 22:02:48 ALS Bottle#: 15 Worklist Smp#: 15
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT DMT 4
Operator ID: JZ Instrument ID: CHHPLC_G2_LUNA
Sublist: chrom-G2_8330_Luna*sub18

Method: \\chromfs\Denver\ChromData\G2_LUNA\20230407-120232.b\G2_8330_Luna.m
Limit Group: GCSV - 8330
Last Update: 12-Apr-2023 15:55:27 Calib Date: 07-Apr-2023 23:50:31
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\G2_LUNA\20230407-120232.b\04070018.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC DAD1A, 254 nm
Process Host: CTX1657

First Level Reviewer: LV5D Date: 08-Apr-2023 10:39:08

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
3 TNX	1	5.334	5.321	0.013	39339	0.1003	0.0985	
4 DNX	1	6.201	6.194	0.007	28516	0.1001	0.0996	
6 HMX	1	6.854	6.847	0.007	17711	0.1000	0.0978	
7 MNX	1	7.721	7.714	0.007	30241	0.1167	0.1153	
5 2,4,6-Trinitrophenol	1	8.221	8.187	0.034	15604	0.1000	0.1003	
8 RDX	1	9.134	9.127	0.007	21015	0.1000	0.0974	
9 Nitrobenzene	1	11.654	11.654	0.000	37900	0.1000	0.0997	
$ 10 1,2-Dinitrobenzene	1	12.621	12.627	-0.006	26630	0.1000	0.1003	
11 3,5-Dinitroaniline	1	14.474	14.480	-0.006	44146	0.1000	0.1017	
12 1,3-Dinitrobenzene	1	14.747	14.754	-0.007	56261	0.1000	0.0968	
13 Nitroglycerin	2	15.267	15.274	-0.007	125509	1.00	1.01	
14 o-Nitrotoluene	1	15.827	15.827	0.000	24115	0.1000	0.0992	Ma
15 p-Nitrotoluene	1	16.054	16.054	0.000	21537	0.1000	0.0990	Ma
16 4-Amino-2,6-dinitrotoluene	1	16.594	16.594	0.000	27461	0.1000	0.1007	Ma
17 m-Nitrotoluene	1	16.901	16.900	0.001	27150	0.1000	0.1013	Ma
18 2-Amino-4,6-dinitrotoluene	1	17.414	17.414	0.000	40866	0.1000	0.1021	Ma
19 1,3,5-Trinitrobenzene	1	17.574	17.574	0.000	37635	0.1000	0.0994	Ma
20 2,6-Dinitrotoluene	1	18.714	18.714	0.000	27076	0.1000	0.0967	
21 2,4-Dinitrotoluene	1	19.174	19.174	0.000	54791	0.1000	0.0978	
22 Tetryl	1	22.474	22.481	-0.007	27969	0.1000	0.1034	
23 2,4,6-Trinitrotoluene	1	23.301	23.301	0.000	41817	0.1000	0.1016	
24 PETN	2	24.541	24.547	-0.006	124639	1.00	1.05	

QC Flag Legend
Processing Flags

Review Flags
M - Manually Integrated
a - User Assigned ID

Reagents:

8330IntermStk_00076	Amount Added: 10.00	Units: uL
8330 DMT_00013	Amount Added: 5.00	Units: uL

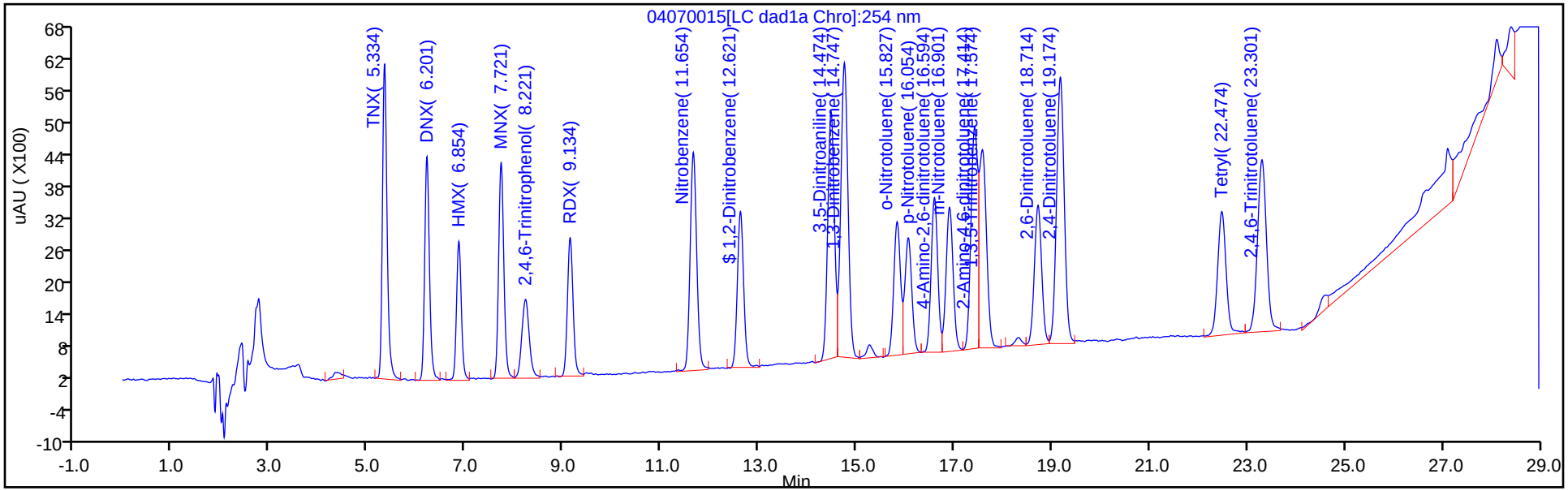
Report Date: 12-Apr-2023 15:55:27 Chrom Revision: 2.3 29-Mar-2023 18:39:10

Eurofins Denver

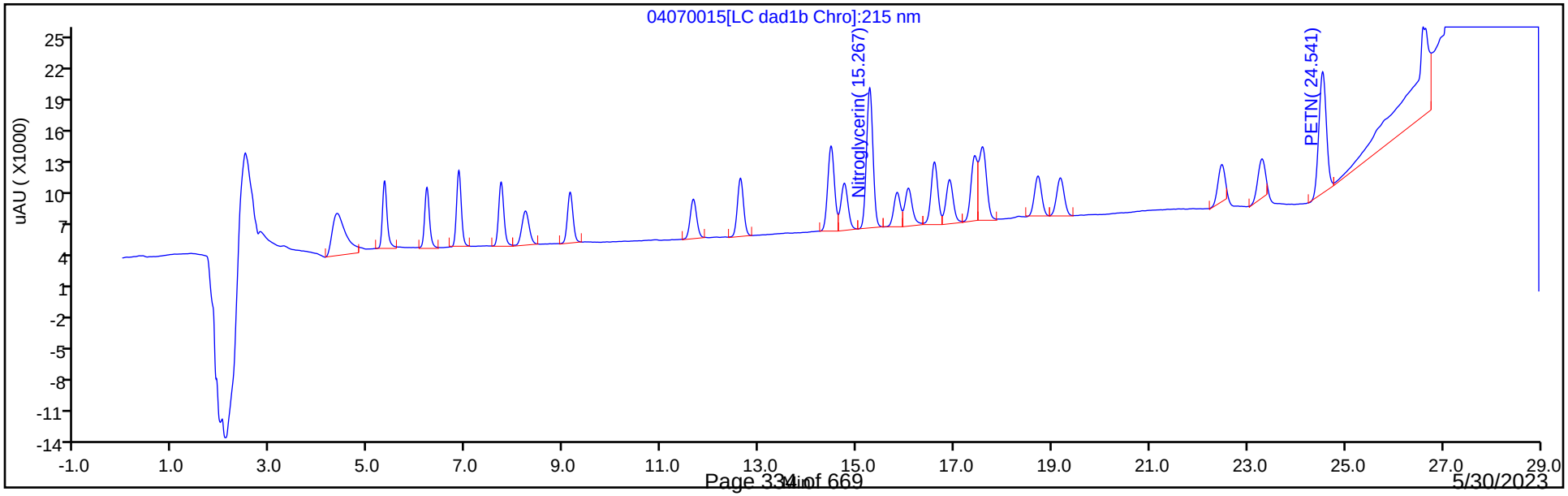
Data File: \\chromfs\denver\chromdata\g2_luna\20230407-120232.b\04070015.d

Injection Date:	07-Apr-2023 22:02:48	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	JZ
Lims ID:	IC INT DMT 4			Worklist Smp#:	15
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	15
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



5/30/2023
10:34 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

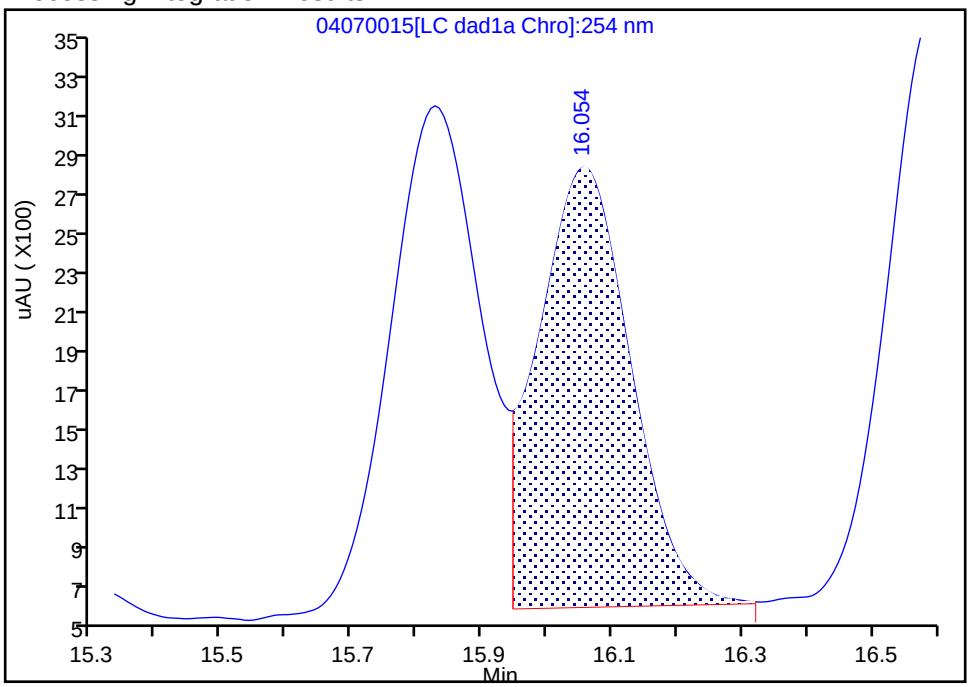
Data File:	\\chromfs\denver\chromdata\g2_luna\20230407-120232.b\04070015.d				
Injection Date:	07-Apr-2023 22:02:48	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT DMT 4				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	15	Worklist Smp#:	15
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

14 o-Nitrotoluene, CAS: 88-72-2

Signal: 1

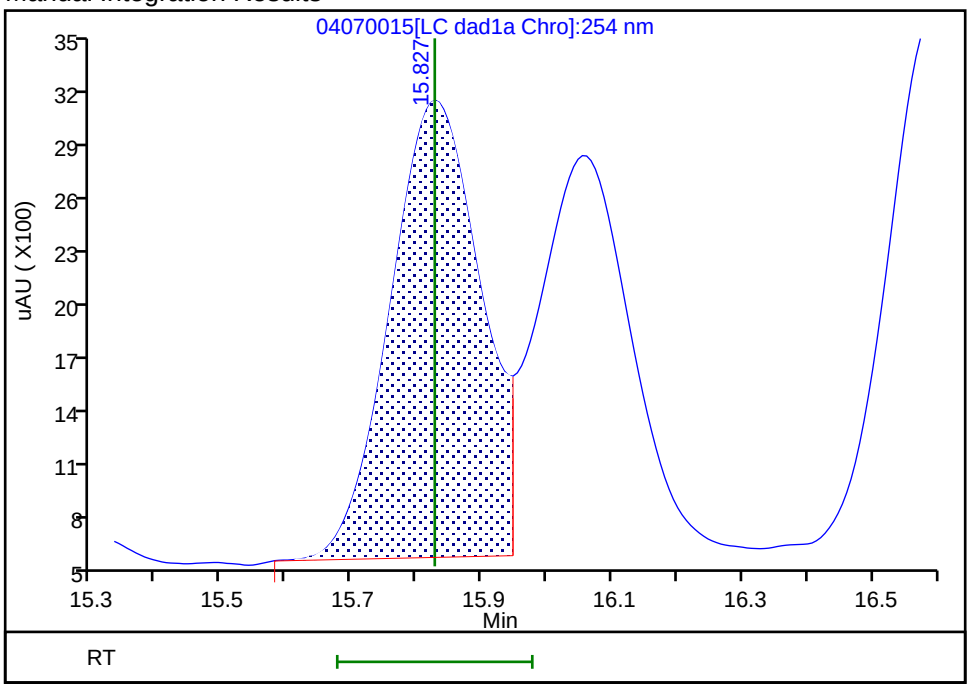
Processing Integration Results

RT: 16.05
Area: 21537
Amount: 0.080916
Amount Units: ug/ml



Manual Integration Results

RT: 15.83
Area: 24115
Amount: 0.099162
Amount Units: ug/ml



Reviewer: LV5D, 08-Apr-2023 10:38:38

Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

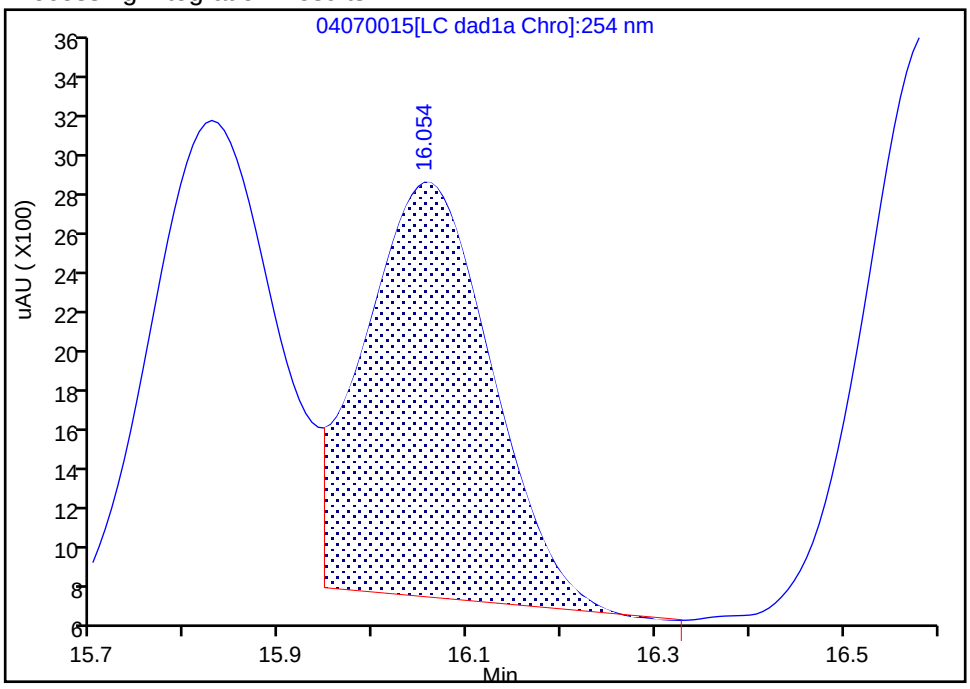
Data File:	\\chromfs\denver\chromdata\g2_luna\20230407-120232.b\04070015.d				
Injection Date:	07-Apr-2023 22:02:48	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT DMT 4				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	15	Worklist Smp#:	15
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

15 p-Nitrotoluene, CAS: 99-99-0

Signal: 1

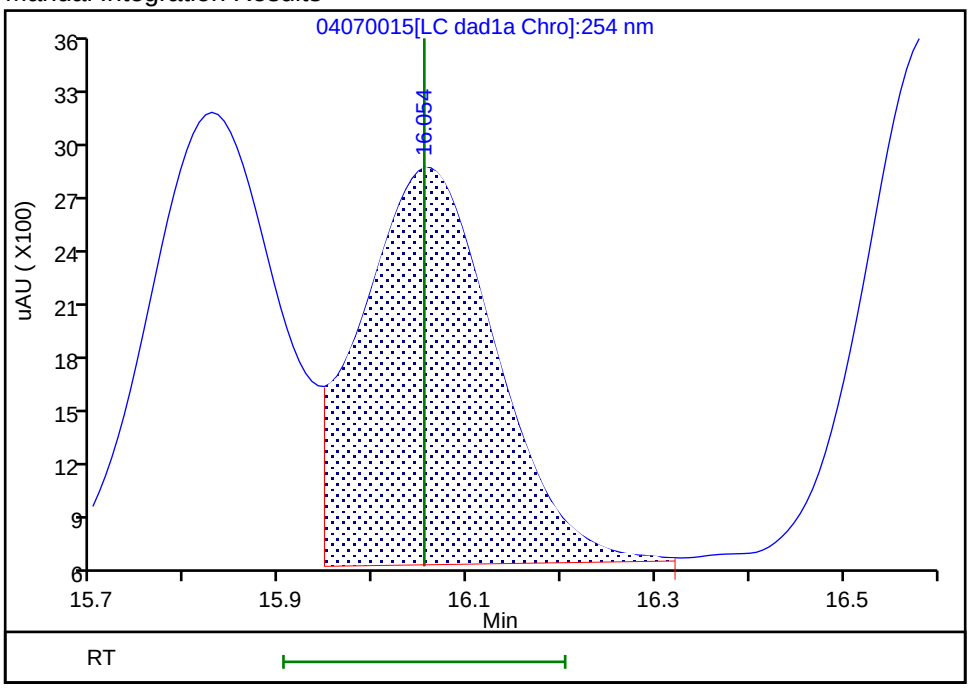
Processing Integration Results

RT: 16.05
Area: 19182
Amount: 0.091061
Amount Units: ug/ml



Manual Integration Results

RT: 16.05
Area: 21537
Amount: 0.099044
Amount Units: ug/ml



Reviewer: LV5D, 08-Apr-2023 10:38:39

Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

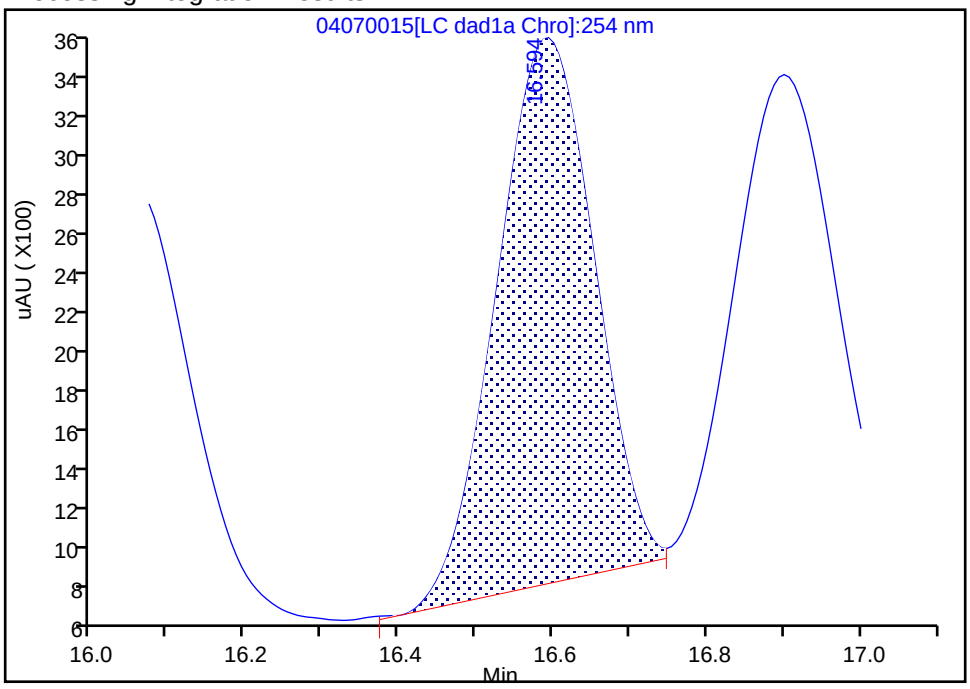
Data File:	\\chromfs\denver\chromdata\g2_luna\20230407-120232.b\04070015.d				
Injection Date:	07-Apr-2023 22:02:48	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT DMT 4				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	15	Worklist Smp#:	15
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

16 4-Amino-2,6-dinitrotoluene, CAS: 19406-51-0

Signal: 1

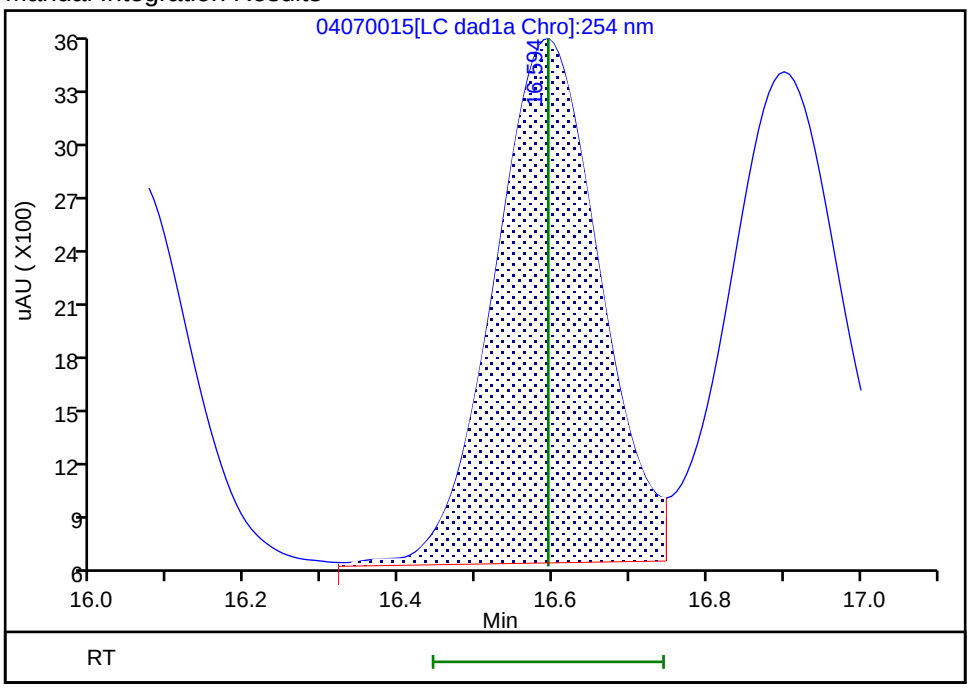
Processing Integration Results

RT: 16.59
Area: 24031
Amount: 0.090376
Amount Units: ug/ml



Manual Integration Results

RT: 16.59
Area: 27461
Amount: 0.100733
Amount Units: ug/ml



Reviewer: LV5D, 08-Apr-2023 10:38:40

Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

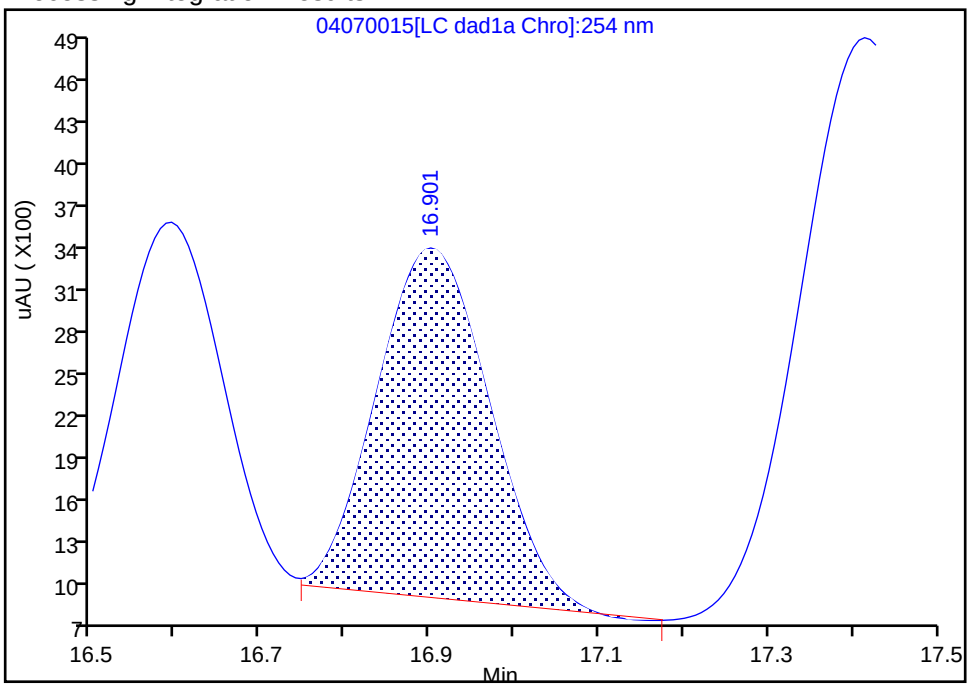
Data File: \\chromfs\denver\chromdata\g2_luna\20230407-120232.b\04070015.d
Injection Date: 07-Apr-2023 22:02:48 Instrument ID: CHHPLC_G2_LUNA
Lims ID: IC INT DMT 4
Client ID:
Operator ID: JZ ALS Bottle#: 15 Worklist Smp#: 15
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC DAD1A, 254 nm

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

Signal: 1

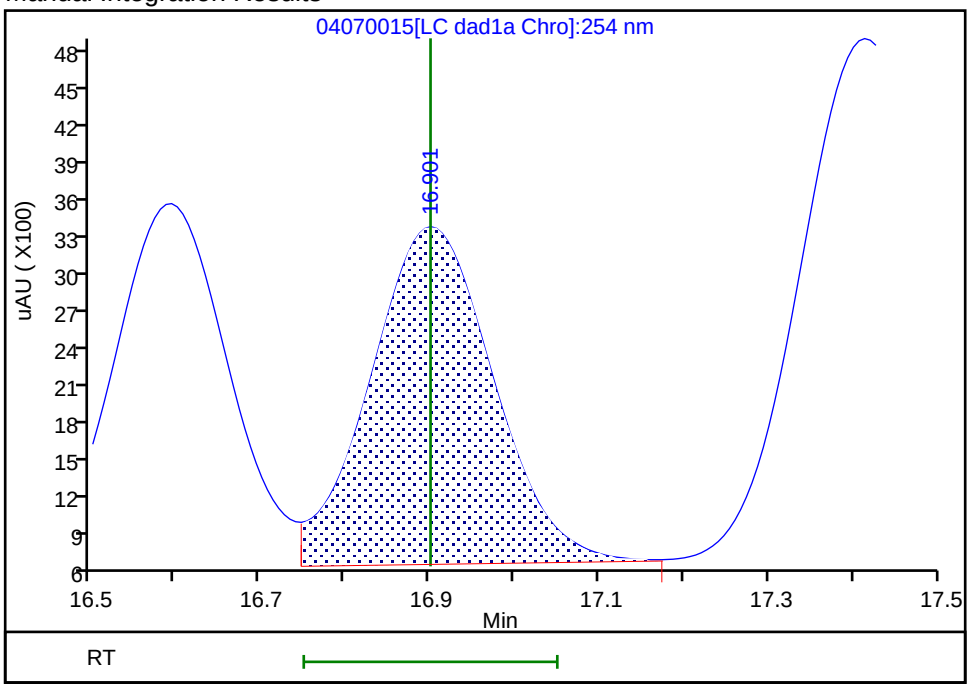
Processing Integration Results

RT: 16.90
Area: 23442
Amount: 0.089730
Amount Units: ug/ml



Manual Integration Results

RT: 16.90
Area: 27150
Amount: 0.101302
Amount Units: ug/ml



Reviewer: LV5D, 08-Apr-2023 10:38:41
Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

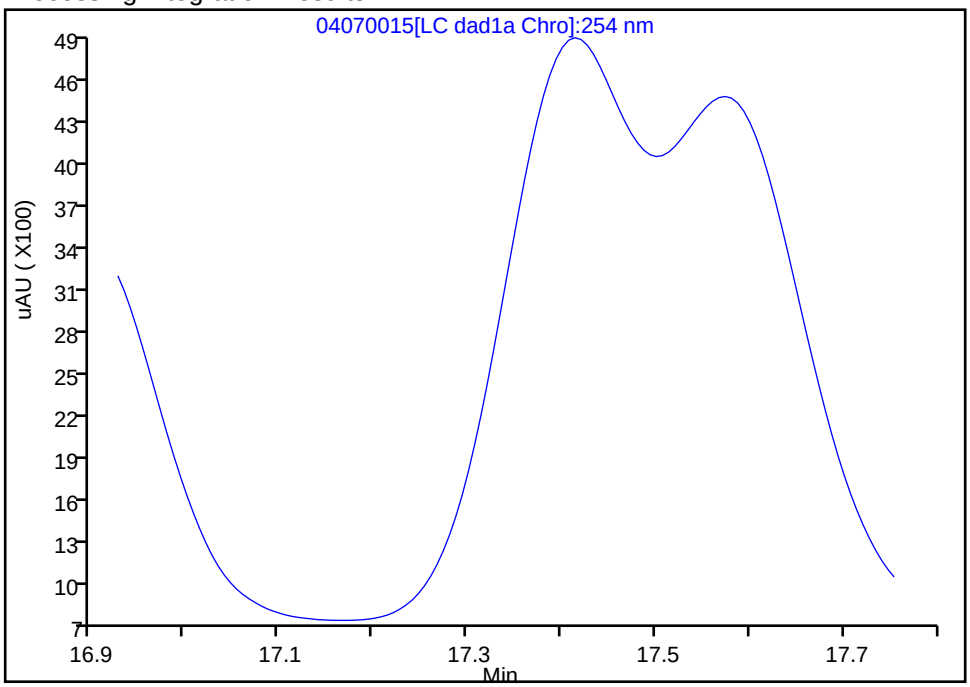
Data File:	\\chromfs\denver\chromdata\g2_luna\20230407-120232.b\04070015.d				
Injection Date:	07-Apr-2023 22:02:48	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT DMT 4				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	15	Worklist Smp#:	15
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

18 2-Amino-4,6-dinitrotoluene, CAS: 35572-78-2

Signal: 1

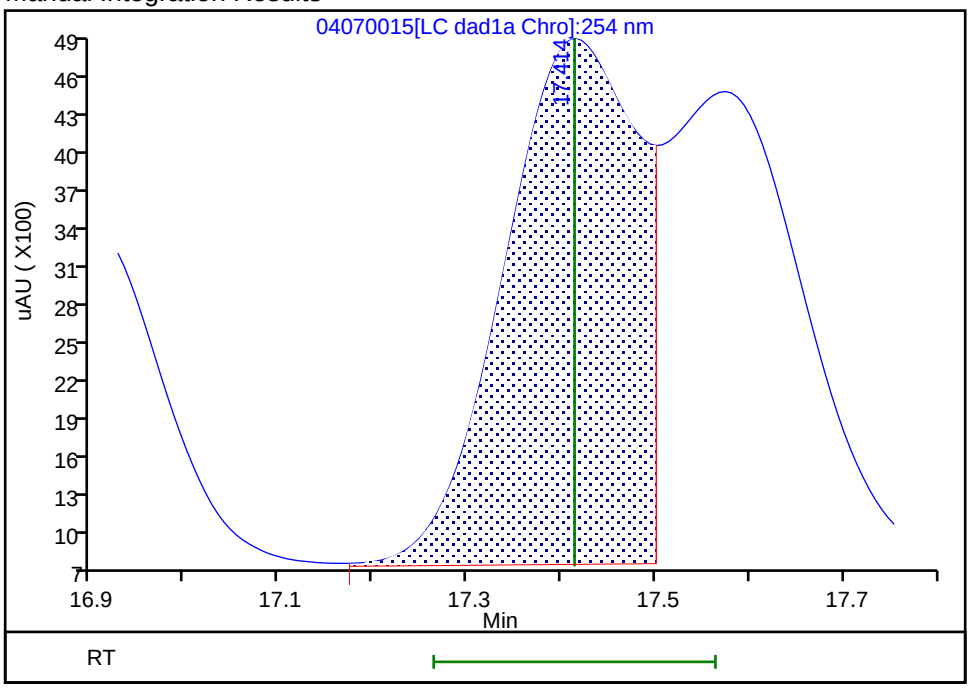
Not Detected
Expected RT: 17.41

Processing Integration Results



Manual Integration Results

RT: 17.41
Area: 40866
Amount: 0.102093
Amount Units: ug/ml



Reviewer: LV5D, 08-Apr-2023 10:38:42
Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Baseline

Eurofins Denver

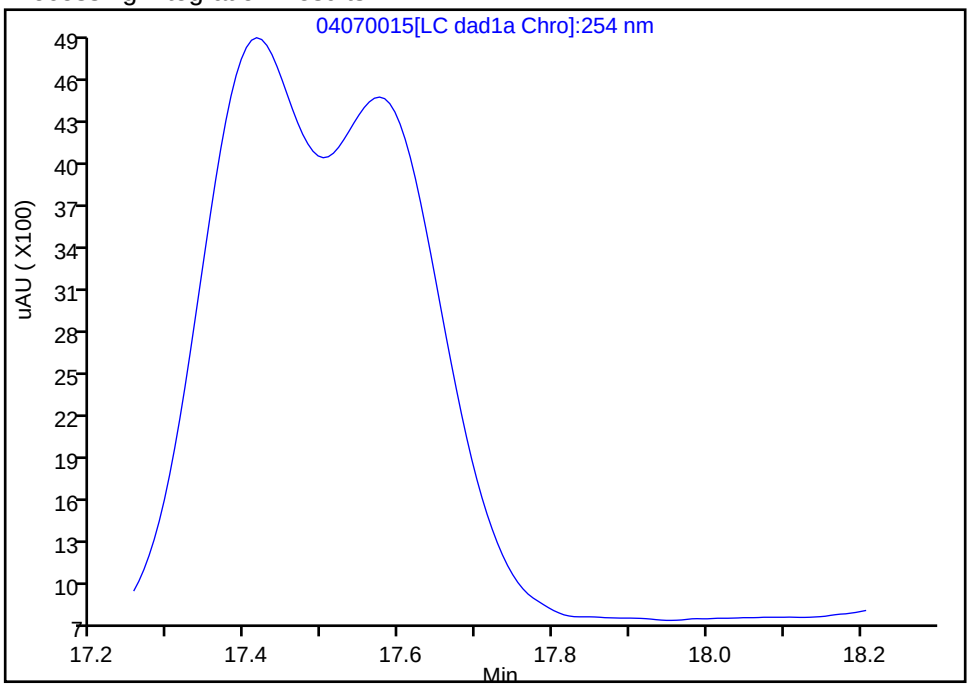
Data File:	\\chromfs\denver\chromdata\g2_luna\20230407-120232.b\04070015.d				
Injection Date:	07-Apr-2023 22:02:48	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT DMT 4				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	15	Worklist Smp#:	15
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

19 1,3,5-Trinitrobenzene, CAS: 99-35-4

Signal: 1

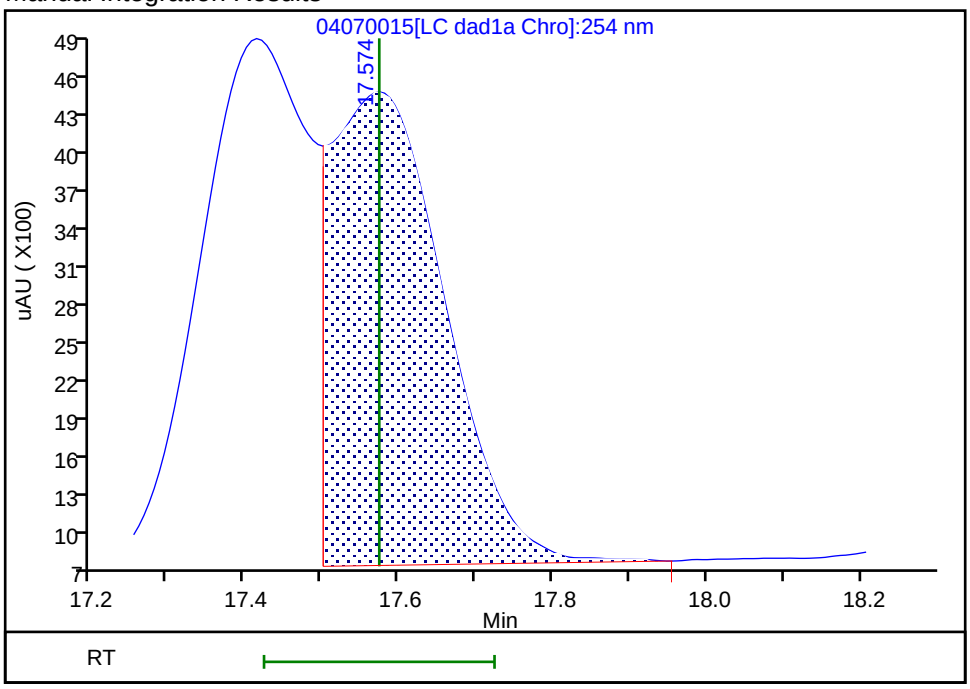
Not Detected
Expected RT: 17.57

Processing Integration Results



Manual Integration Results

RT: 17.57
Area: 37635
Amount: 0.099435
Amount Units: ug/ml



Reviewer: LV5D, 08-Apr-2023 10:38:43
Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Baseline

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2_LUNA\20230407-120232.b\04070016.D
Lims ID: IC INT DMT 3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 07-Apr-2023 22:38:44 ALS Bottle#: 16 Worklist Smp#: 16
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT DMT 3
Operator ID: JZ Instrument ID: CHHPLC_G2_LUNA
Sublist: chrom-G2_8330_Luna*sub18

Method: \\chromfs\Denver\ChromData\G2_LUNA\20230407-120232.b\G2_8330_Luna.m
Limit Group: GCSV - 8330
Last Update: 12-Apr-2023 15:55:28 Calib Date: 07-Apr-2023 23:50:31
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\G2_LUNA\20230407-120232.b\04070018.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC DAD1A, 254 nm
Process Host: CTX1657

First Level Reviewer: LV5D Date: 08-Apr-2023 10:39:45

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
3 TNX	1	5.338	5.321	0.017	20397	0.0502	0.0511	
4 DNX	1	6.205	6.194	0.011	14268	0.0501	0.0499	
6 HMX	1	6.858	6.847	0.011	9104	0.0500	0.0503	
7 MNX	1	7.732	7.714	0.018	15283	0.0584	0.0582	
5 2,4,6-Trinitrophenol	1	8.245	8.187	0.058	8104	0.0500	0.0521	
8 RDX	1	9.145	9.127	0.018	10799	0.0500	0.0501	
9 Nitrobenzene	1	11.672	11.654	0.018	19405	0.0500	0.0511	
$ 10 1,2-Dinitrobenzene	1	12.638	12.627	0.011	13806	0.0500	0.0520	
11 3,5-Dinitroaniline	1	14.492	14.480	0.012	22268	0.0500	0.0509	
12 1,3-Dinitrobenzene	1	14.765	14.754	0.011	29472	0.0500	0.0507	
13 Nitroglycerin	2	15.278	15.274	0.004	64483	0.5000	0.5186	
14 o-Nitrotoluene	1	15.838	15.827	0.011	12185	0.0500	0.0501	M
15 p-Nitrotoluene	1	16.072	16.054	0.018	10927	0.0500	0.0503	M
16 4-Amino-2,6-dinitrotoluene	1	16.605	16.594	0.011	13722	0.0500	0.0503	M
17 m-Nitrotoluene	1	16.912	16.900	0.012	13529	0.0500	0.0505	M
18 2-Amino-4,6-dinitrotoluene	1	17.425	17.414	0.011	20191	0.0500	0.0504	M
19 1,3,5-Trinitrobenzene	1	17.585	17.574	0.011	18350	0.0500	0.0485	Ma
20 2,6-Dinitrotoluene	1	18.725	18.714	0.011	13580	0.0500	0.0485	
21 2,4-Dinitrotoluene	1	19.178	19.174	0.004	28133	0.0500	0.0502	
22 Tetryl	1	22.485	22.481	0.004	13447	0.0500	0.0497	
23 2,4,6-Trinitrotoluene	1	23.305	23.301	0.004	21038	0.0500	0.0511	
24 PETN	2	24.545	24.547	-0.002	58615	0.5000	0.4952	M

QC Flag Legend
Processing Flags

Review Flags
M - Manually Integrated
a - User Assigned ID

Reagents:

8330IntermStk_00076	Amount Added:	5.00	Units: uL
8330 DMT_00013	Amount Added:	2.50	Units: uL

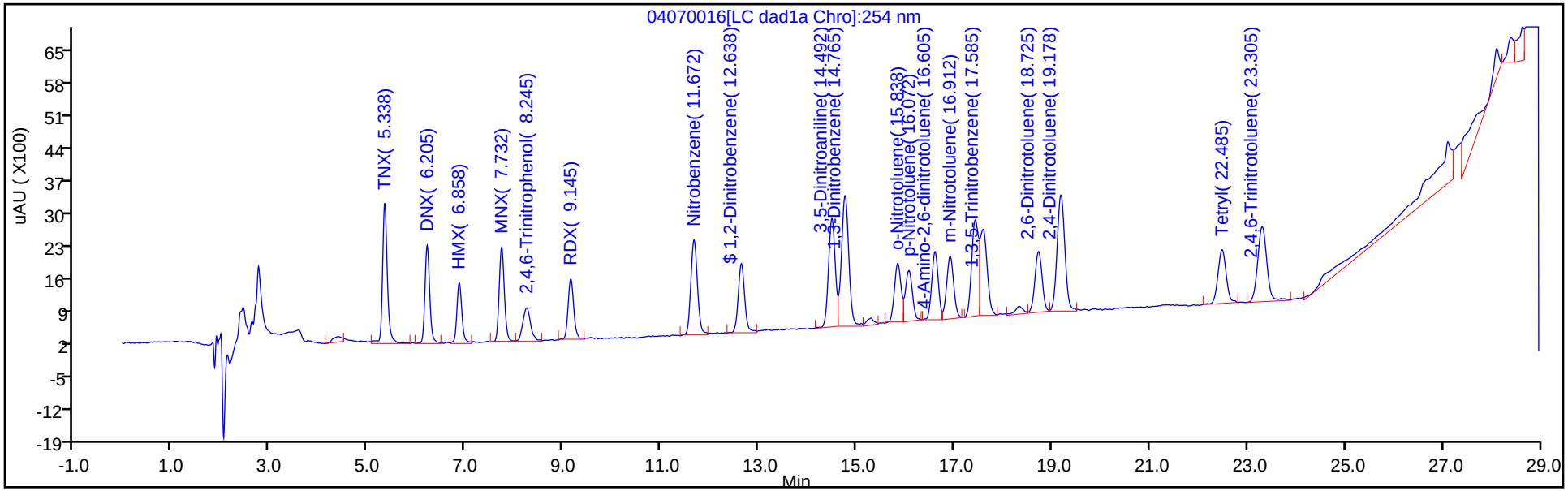
Report Date: 12-Apr-2023 15:55:28 Chrom Revision: 2.3 29-Mar-2023 18:39:10

Eurofins Denver

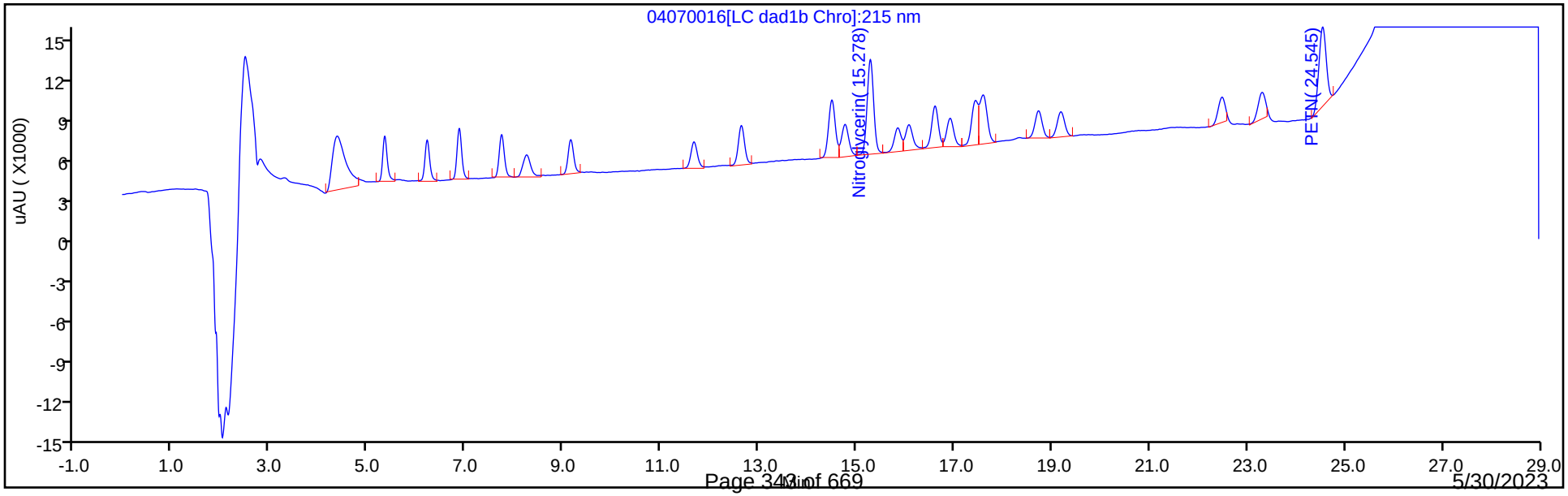
Data File: \\chromfs\denver\chromdata\g2_luna\20230407-120232.b\04070016.d

Injection Date:	07-Apr-2023 22:38:44	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	JZ
Lims ID:	IC INT DMT 3			Worklist Smp#:	16
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



5/30/2023
10:34 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

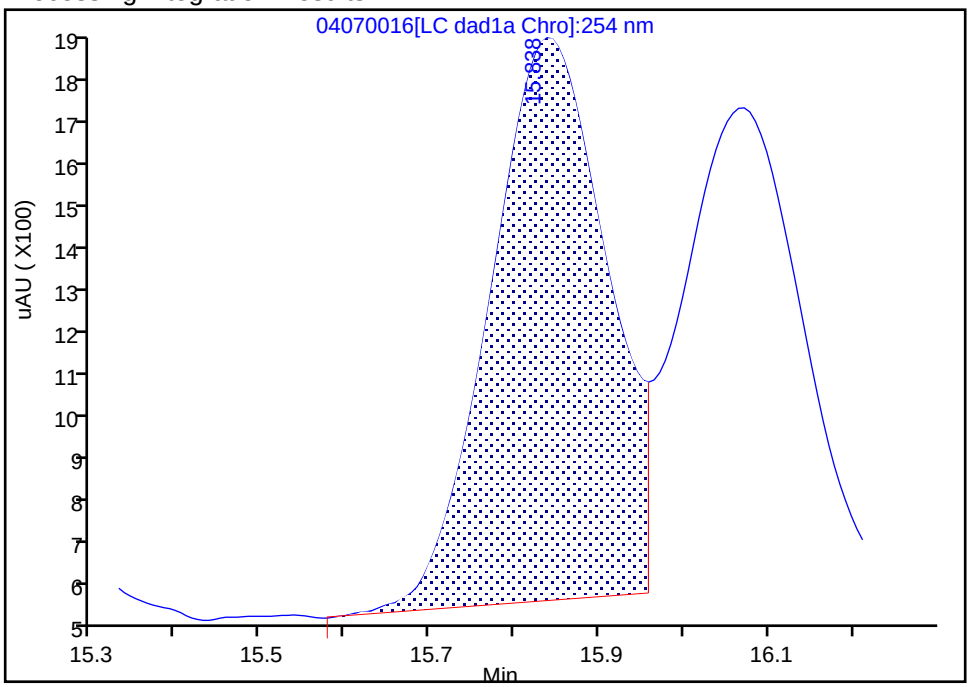
Data File: \\chromfs\denver\chromdata\g2_luna\20230407-120232.b\04070016.d
Injection Date: 07-Apr-2023 22:38:44 Instrument ID: CHHPLC_G2_LUNA
Lims ID: IC INT DMT 3
Client ID:
Operator ID: JZ ALS Bottle#: 16 Worklist Smp#: 16
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC DAD1A, 254 nm

14 o-Nitrotoluene, CAS: 88-72-2

Signal: 1

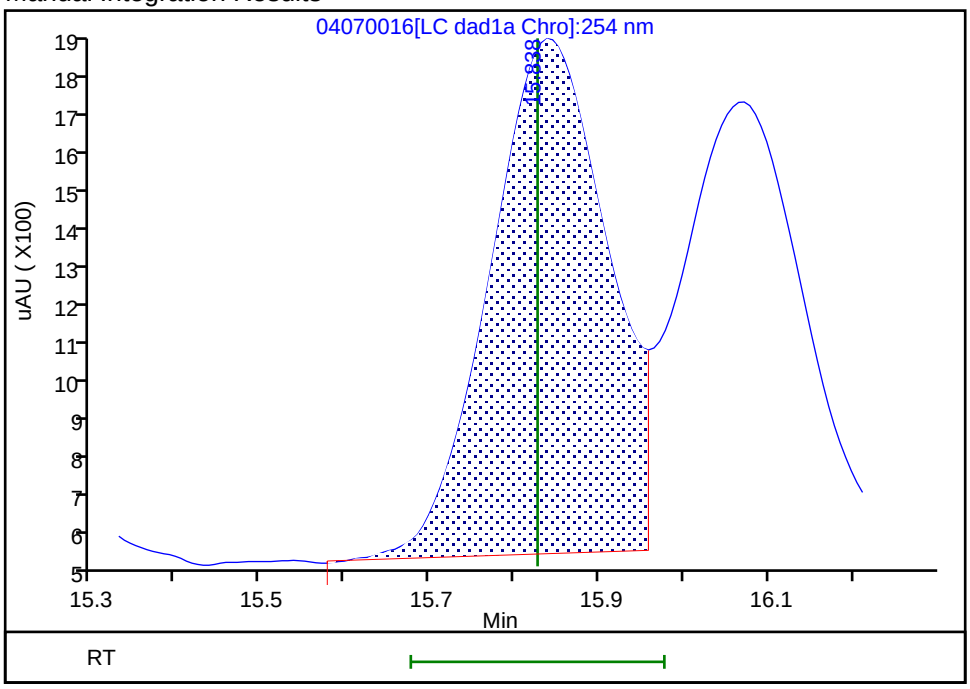
Processing Integration Results

RT: 15.84
Area: 11923
Amount: 0.044319
Amount Units: ug/ml



Manual Integration Results

RT: 15.84
Area: 12185
Amount: 0.050105
Amount Units: ug/ml



Reviewer: LV5D, 08-Apr-2023 10:39:29
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

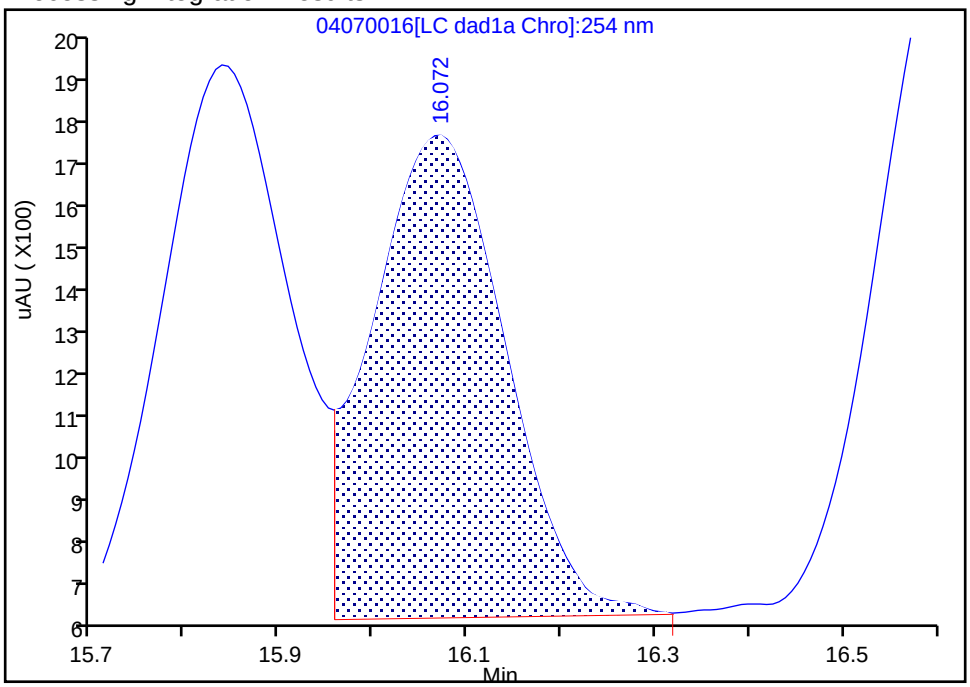
Data File:	\\chromfs\denver\chromdata\g2_luna\20230407-120232.b\04070016.d				
Injection Date:	07-Apr-2023 22:38:44	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT DMT 3				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

15 p-Nitrotoluene, CAS: 99-99-0

Signal: 1

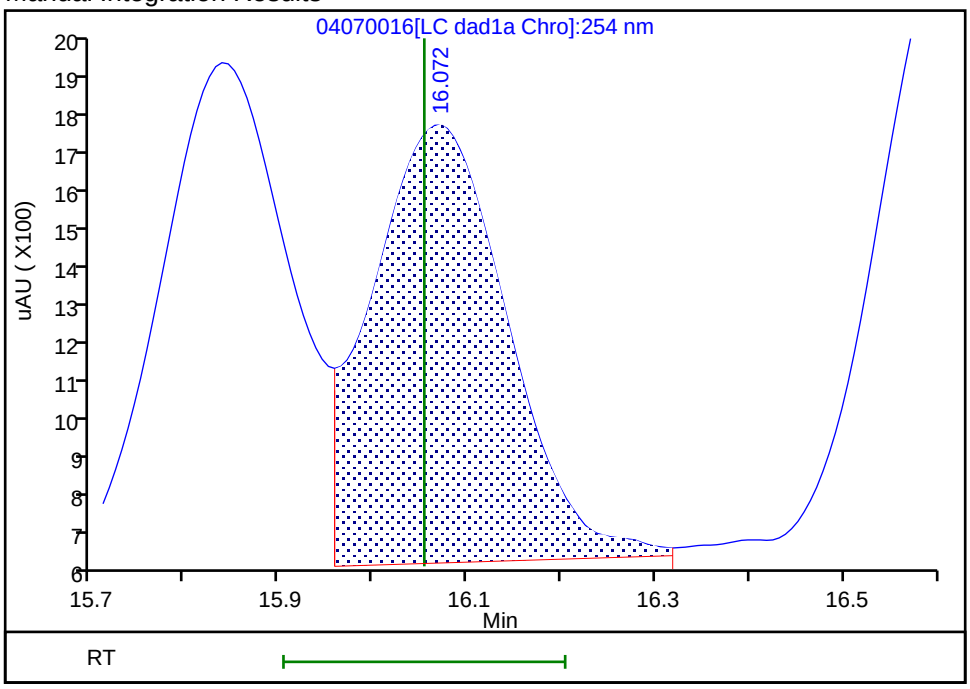
Processing Integration Results

RT: 16.07
Area: 10452
Amount: 0.048934
Amount Units: ug/ml



Manual Integration Results

RT: 16.07
Area: 10927
Amount: 0.050251
Amount Units: ug/ml



Reviewer: LV5D, 08-Apr-2023 10:39:29
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

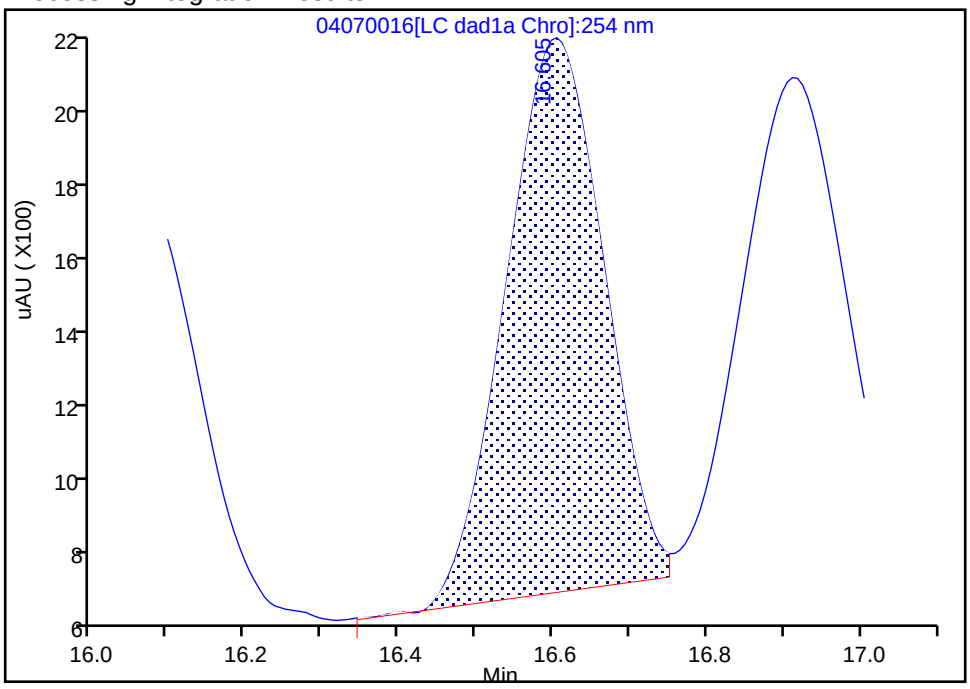
Data File:	\\chromfs\denver\chromdata\g2_luna\20230407-120232.b\04070016.d				
Injection Date:	07-Apr-2023 22:38:44	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT DMT 3				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

16 4-Amino-2,6-dinitrotoluene, CAS: 19406-51-0

Signal: 1

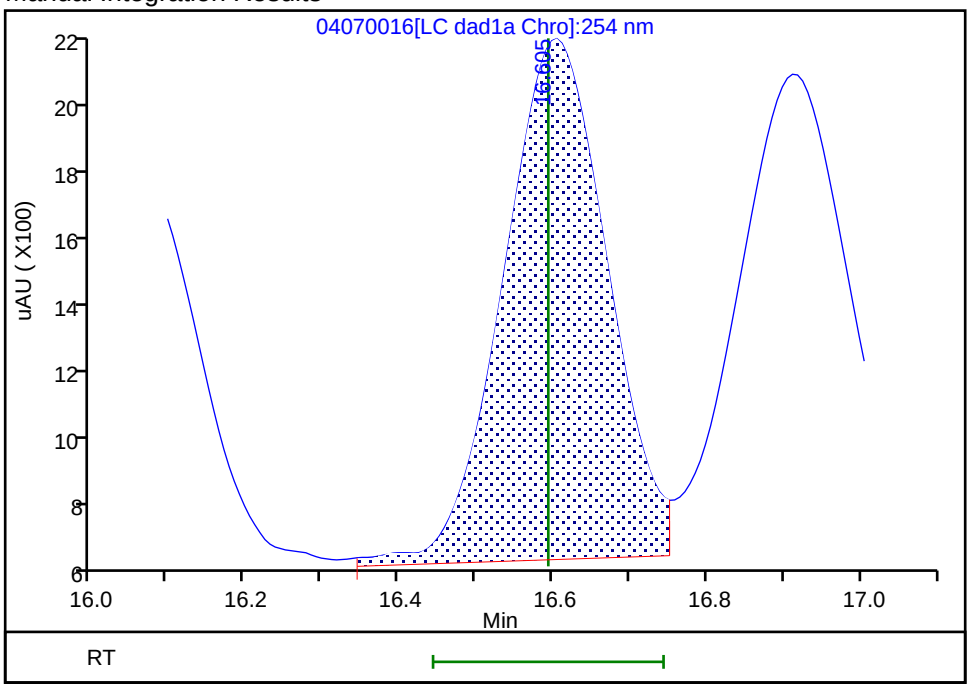
Processing Integration Results

RT: 16.60
Area: 12417
Amount: 0.046038
Amount Units: ug/ml



Manual Integration Results

RT: 16.60
Area: 13722
Amount: 0.050336
Amount Units: ug/ml



Reviewer: LV5D, 08-Apr-2023 10:39:29
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

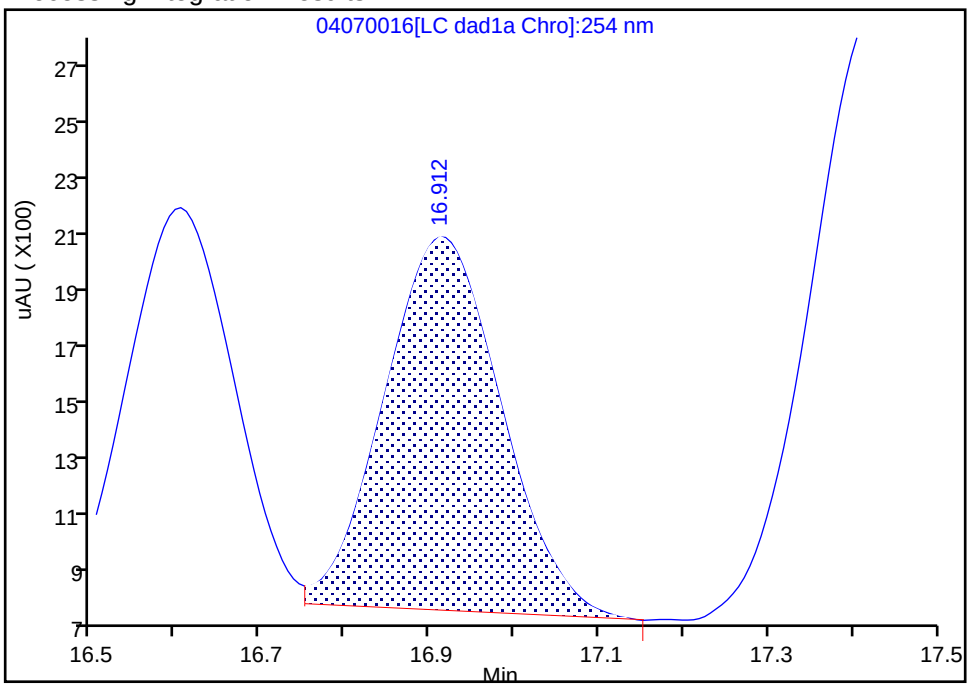
Data File:	\\chromfs\denver\chromdata\g2_luna\20230407-120232.b\04070016.d				
Injection Date:	07-Apr-2023 22:38:44	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT DMT 3				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

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

Signal: 1

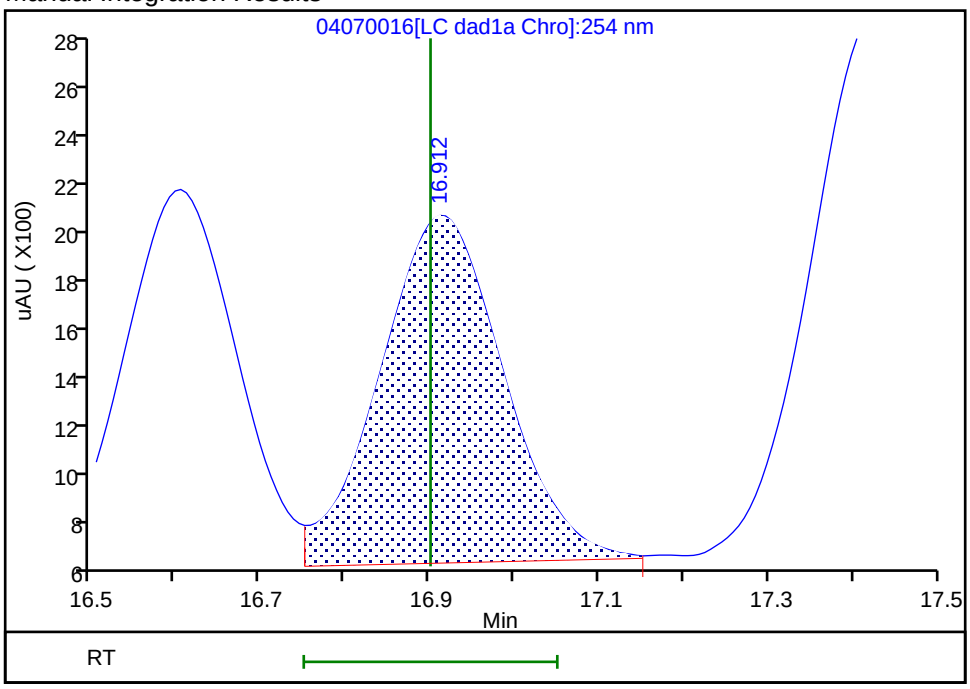
Processing Integration Results

RT: 16.91
Area: 12341
Amount: 0.046505
Amount Units: ug/ml



Manual Integration Results

RT: 16.91
Area: 13529
Amount: 0.050479
Amount Units: ug/ml



Reviewer: LV5D, 08-Apr-2023 10:39:29
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

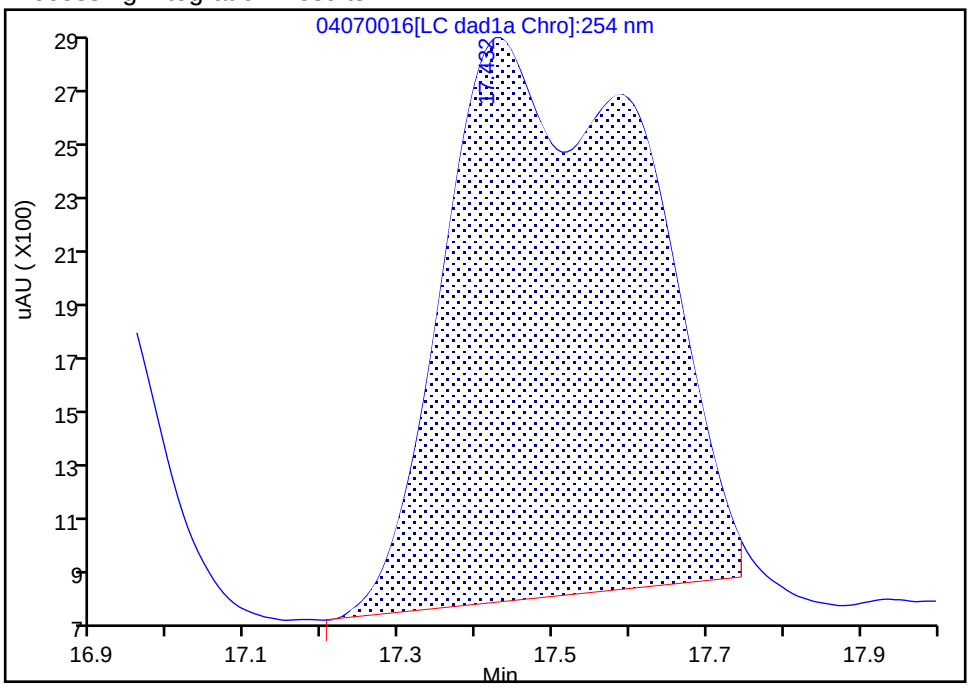
Data File: \\chromfs\denver\chromdata\g2_luna\20230407-120232.b\04070016.d
Injection Date: 07-Apr-2023 22:38:44 Instrument ID: CHHPLC_G2_LUNA
Lims ID: IC INT DMT 3
Client ID:
Operator ID: JZ ALS Bottle#: 16 Worklist Smp#: 16
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC DAD1A, 254 nm

18 2-Amino-4,6-dinitrotoluene, CAS: 35572-78-2

Signal: 1

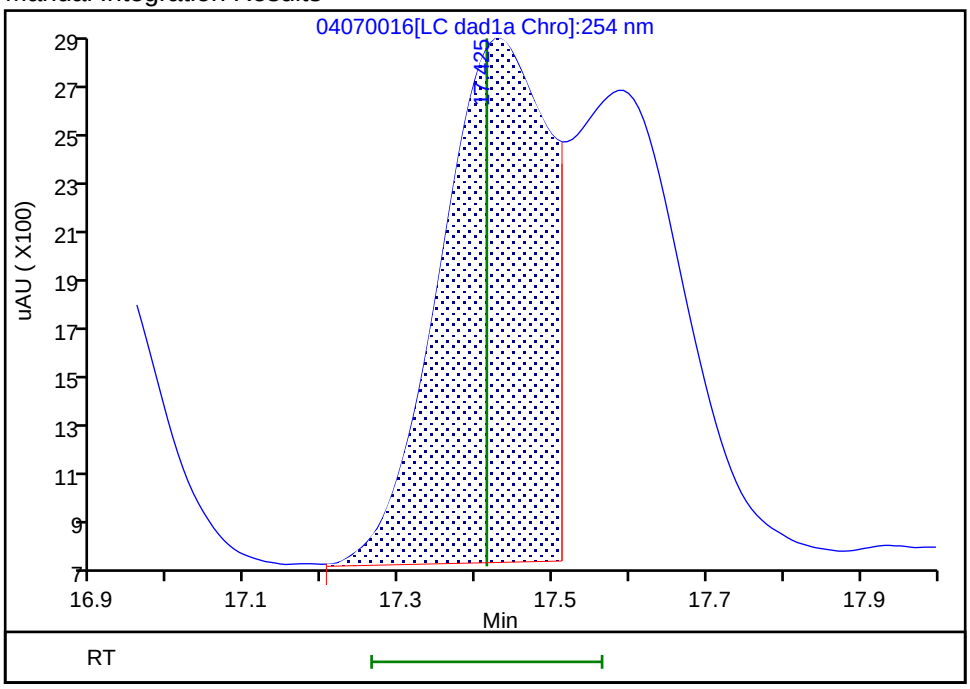
Processing Integration Results

RT: 17.43
Area: 36682
Amount: 0.079883
Amount Units: ug/ml



Manual Integration Results

RT: 17.42
Area: 20191
Amount: 0.050442
Amount Units: ug/ml



Reviewer: LV5D, 08-Apr-2023 10:39:29
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

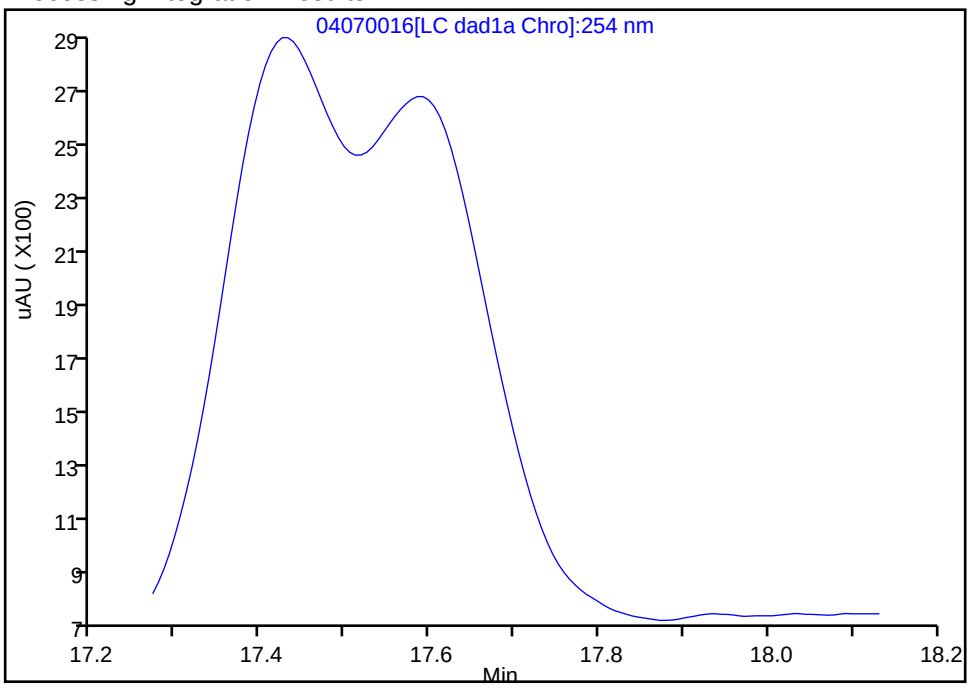
Data File:	\\chromfs\denver\chromdata\g2_luna\20230407-120232.b\04070016.d				
Injection Date:	07-Apr-2023 22:38:44	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT DMT 3				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

19 1,3,5-Trinitrobenzene, CAS: 99-35-4

Signal: 1

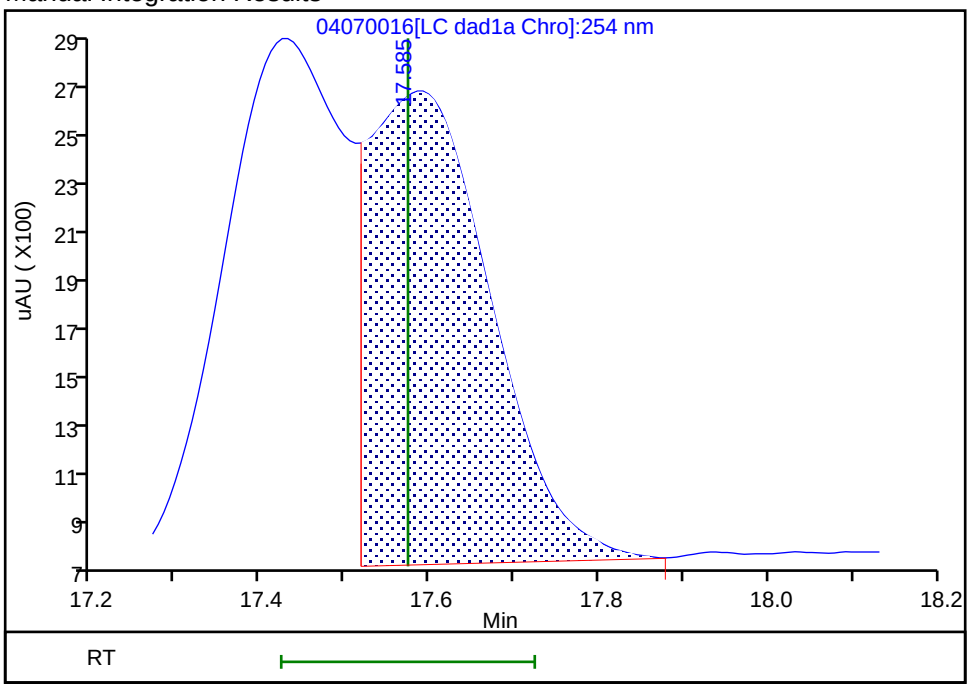
Not Detected
Expected RT: 17.57

Processing Integration Results



Manual Integration Results

RT: 17.58
Area: 18350
Amount: 0.048482
Amount Units: ug/ml



Reviewer: LV5D, 08-Apr-2023 10:39:42
Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

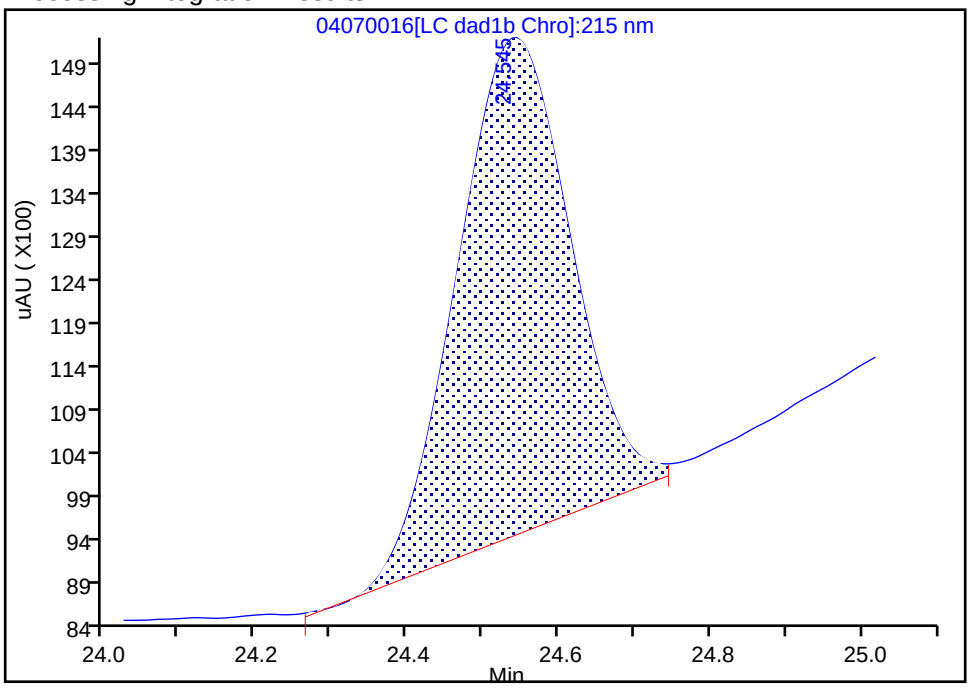
Data File:	\\chromfs\denver\chromdata\g2_luna\20230407-120232.b\04070016.d				
Injection Date:	07-Apr-2023 22:38:44	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT DMT 3				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1B, 215 nm		

24 PETN, CAS: 78-11-5

Signal: 1

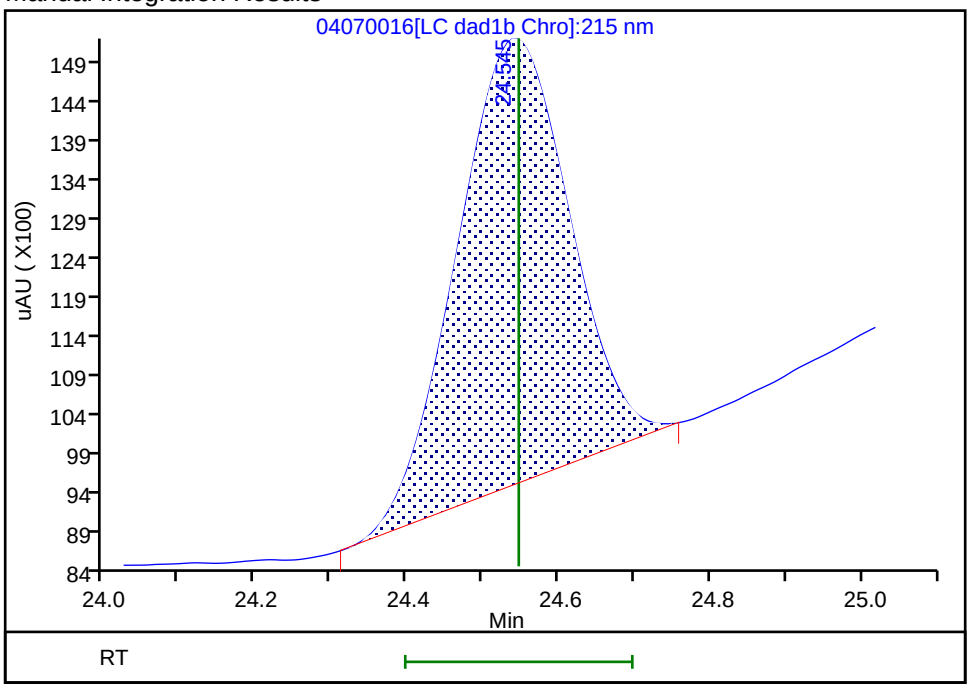
Processing Integration Results

RT: 24.55
Area: 59907
Amount: 0.504886
Amount Units: ug/ml



Manual Integration Results

RT: 24.55
Area: 58615
Amount: 0.495196
Amount Units: ug/ml



Reviewer: LV5D, 08-Apr-2023 10:40:46

Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2_LUNA\20230407-120232.b\04070017.D
Lims ID: IC INT DMT 2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 07-Apr-2023 23:14:38 ALS Bottle#: 17 Worklist Smp#: 17
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT DMT 2
Operator ID: JZ Instrument ID: CHHPLC_G2_LUNA
Sublist: chrom-G2_8330_Luna*sub18

Method: \\chromfs\Denver\ChromData\G2_LUNA\20230407-120232.b\G2_8330_Luna.m
Limit Group: GCSV - 8330
Last Update: 12-Apr-2023 15:55:29 Calib Date: 07-Apr-2023 23:50:31
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\G2_LUNA\20230407-120232.b\04070018.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC DAD1A, 254 nm
Process Host: CTX1657

First Level Reviewer: LV5D Date: 08-Apr-2023 10:40:04

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
3 TNX	1	5.338	5.321	0.017	8035	0.0201	0.0201	
4 DNX	1	6.212	6.194	0.018	5896	0.0200	0.0206	
6 HMX	1	6.865	6.847	0.018	3831	0.0200	0.0212	
7 MNX	1	7.732	7.714	0.018	6187	0.0233	0.0236	
5 2,4,6-Trinitrophenol	1	8.245	8.187	0.058	3181	0.0200	0.0204	
8 RDX	1	9.145	9.127	0.018	4542	0.0200	0.0211	
9 Nitrobenzene	1	11.672	11.654	0.018	7744	0.0200	0.0204	
$ 10 1,2-Dinitrobenzene	1	12.645	12.627	0.018	5627	0.0200	0.0212	
11 3,5-Dinitroaniline	1	14.498	14.480	0.018	8811	0.0200	0.0196	
12 1,3-Dinitrobenzene	1	14.765	14.754	0.011	11425	0.0200	0.0196	
13 Nitroglycerin	2	15.278	15.274	0.004	25265	0.2000	0.2032	
14 o-Nitrotoluene	1	15.845	15.827	0.018	4779	0.0200	0.0197	
15 p-Nitrotoluene	1	16.072	16.054	0.018	4444	0.0200	0.0204	
16 4-Amino-2,6-dinitrotoluene	1	16.605	16.594	0.011	4840	0.0200	0.0178	
17 m-Nitrotoluene	1	16.912	16.900	0.012	5021	0.0200	0.0187	
18 2-Amino-4,6-dinitrotoluene	1	17.425	17.414	0.011	8295	0.0200	0.0207	M
19 1,3,5-Trinitrobenzene	1	17.592	17.574	0.018	7178	0.0200	0.0190	Ma
20 2,6-Dinitrotoluene	1	18.732	18.714	0.018	5869	0.0200	0.0210	
21 2,4-Dinitrotoluene	1	19.185	19.174	0.011	11382	0.0200	0.0203	
22 Tetryl	1	22.492	22.481	0.011	5460	0.0200	0.0202	
23 2,4,6-Trinitrotoluene	1	23.312	23.301	0.011	9530	0.0200	0.0231	
24 PETN	2	24.558	24.547	0.011	21527	0.2000	0.1819	M

QC Flag Legend
Processing Flags

Review Flags
M - Manually Integrated
a - User Assigned ID

Reagents:

8330IntermStk_00076	Amount Added:	2.00	Units: uL
8330 DMT_00013	Amount Added:	1.00	Units: uL

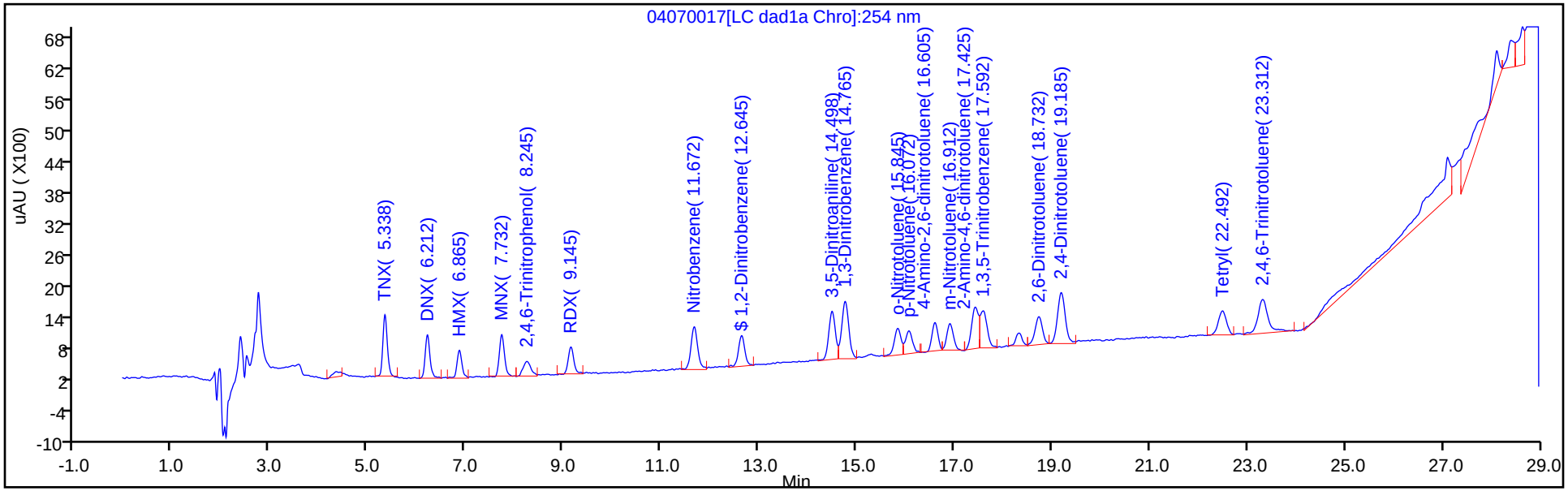
Report Date: 12-Apr-2023 15:55:29 Chrom Revision: 2.3 29-Mar-2023 18:39:10

Eurofins Denver

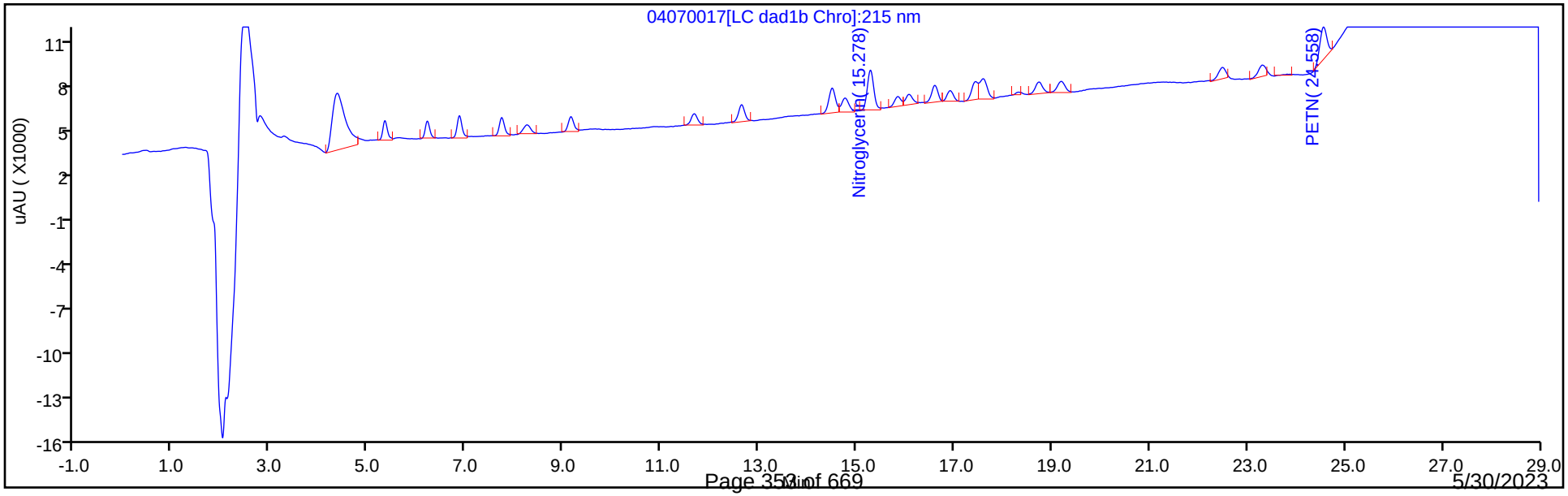
Data File: \\chromfs\denver\chromdata\g2_luna\20230407-120232.b\04070017.d

Injection Date:	07-Apr-2023 23:14:38	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	JZ
Lims ID:	IC INT DMT 2			Worklist Smp#:	17
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	17
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



5/30/2023
10:34 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

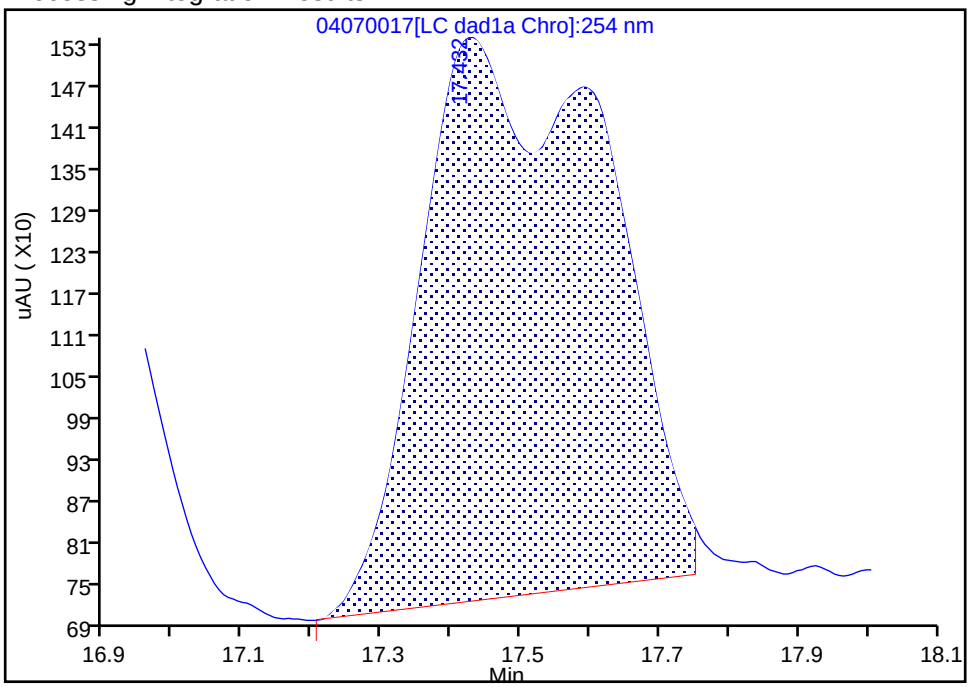
Data File:	\\chromfs\denver\chromdata\g2_luna\20230407-120232.b\04070017.d				
Injection Date:	07-Apr-2023 23:14:38	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT DMT 2				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

18 2-Amino-4,6-dinitrotoluene, CAS: 35572-78-2

Signal: 1

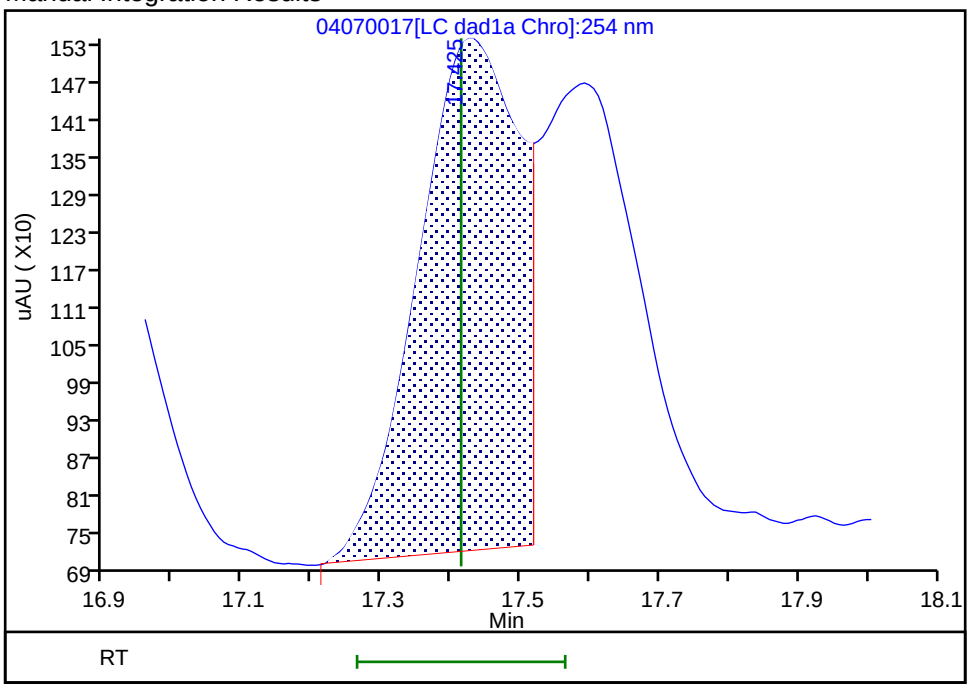
Processing Integration Results

RT: 17.43
Area: 15089
Amount: 0.026510
Amount Units: ug/ml



Manual Integration Results

RT: 17.42
Area: 8295
Amount: 0.020723
Amount Units: ug/ml



Reviewer: LV5D, 08-Apr-2023 10:40:01

Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

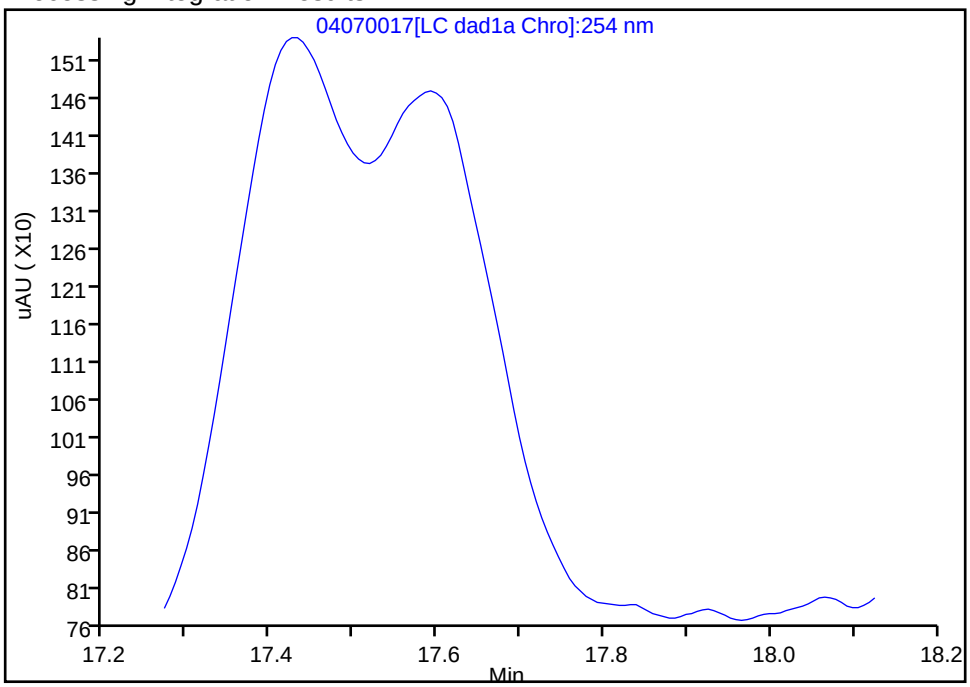
Data File: \\chromfs\denver\chromdata\g2_luna\20230407-120232.b\04070017.d
Injection Date: 07-Apr-2023 23:14:38 Instrument ID: CHHPLC_G2_LUNA
Lims ID: IC INT DMT 2
Client ID:
Operator ID: JZ ALS Bottle#: 17 Worklist Smp#: 17
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC DAD1A, 254 nm

19 1,3,5-Trinitrobenzene, CAS: 99-35-4

Signal: 1

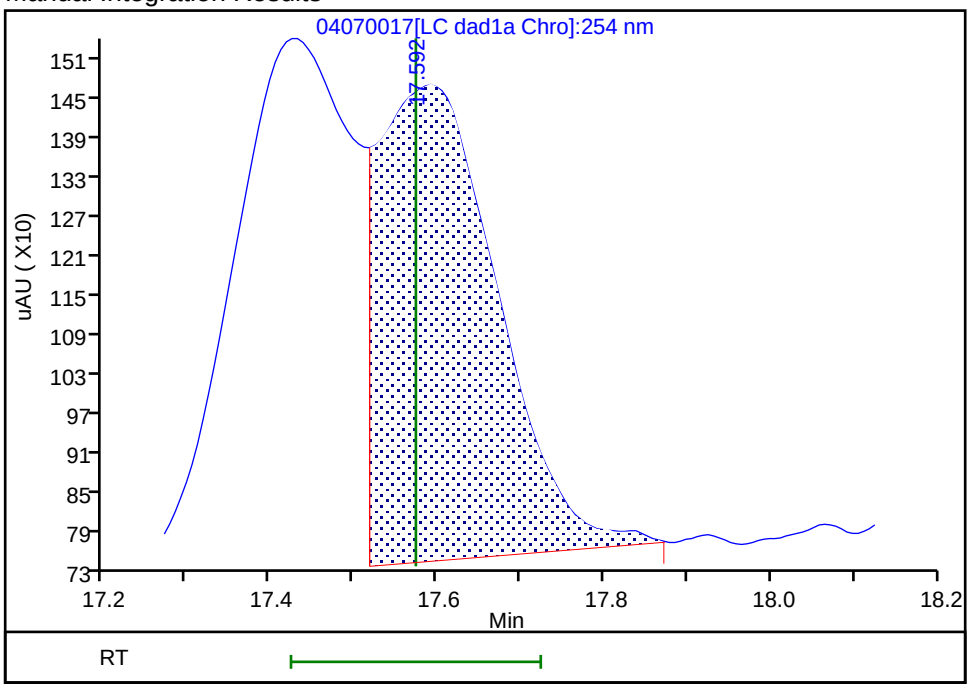
Processing Integration Results

Not Detected
Expected RT: 17.57



Manual Integration Results

RT: 17.59
Area: 7178
Amount: 0.018965
Amount Units: ug/ml



Reviewer: LV5D, 08-Apr-2023 10:40:03
Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

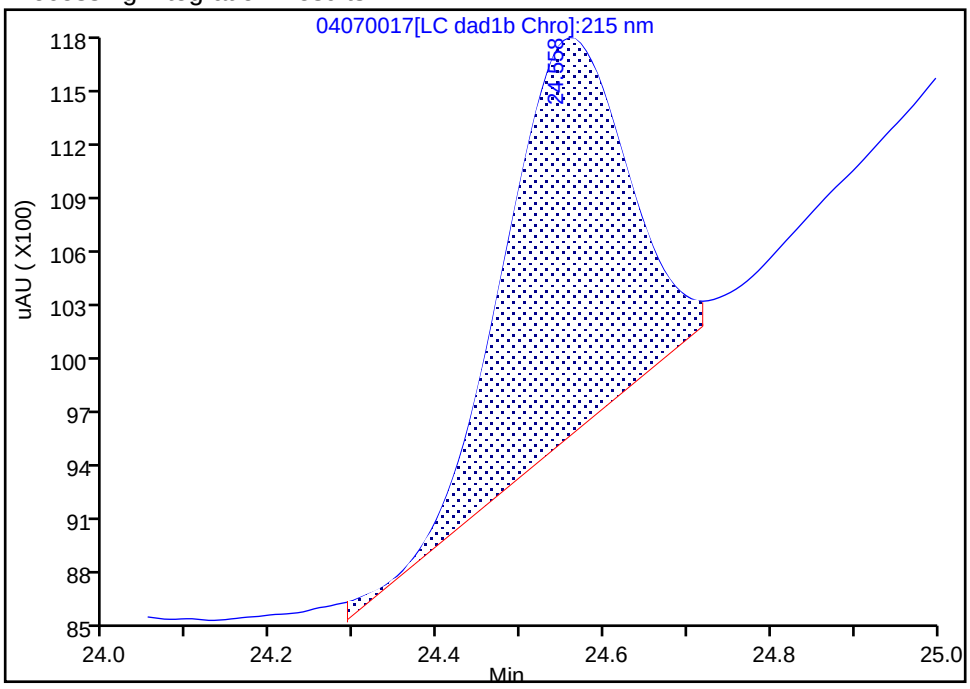
Data File:	\\chromfs\denver\chromdata\g2_luna\20230407-120232.b\04070017.d				
Injection Date:	07-Apr-2023 23:14:38	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT DMT 2				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1B, 215 nm		

24 PETN, CAS: 78-11-5

Signal: 1

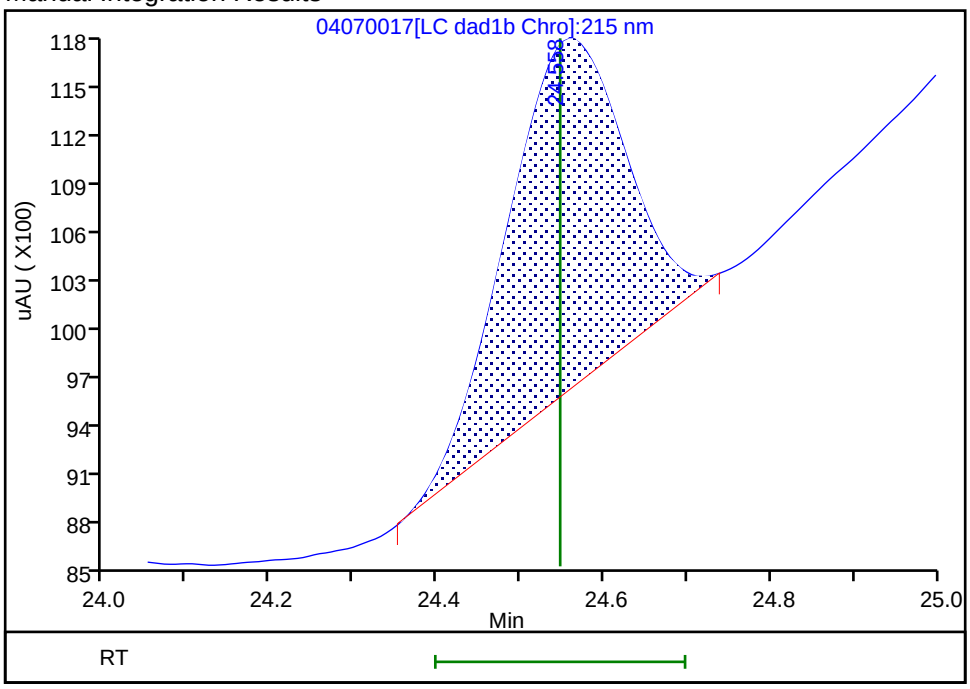
Processing Integration Results

RT: 24.56
Area: 22662
Amount: 0.189982
Amount Units: ug/ml



Manual Integration Results

RT: 24.56
Area: 21527
Amount: 0.181866
Amount Units: ug/ml



Reviewer: LV5D, 08-Apr-2023 10:40:41

Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2_LUNA\20230407-120232.b\04070018.D
Lims ID: IC INT DMT 1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 07-Apr-2023 23:50:31 ALS Bottle#: 18 Worklist Smp#: 18
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT DMT 1
Operator ID: JZ Instrument ID: CHHPLC_G2_LUNA
Sublist: chrom-G2_8330_Luna*sub18

Method: \\chromfs\Denver\ChromData\G2_LUNA\20230407-120232.b\G2_8330_Luna.m
Limit Group: GCSV - 8330
Last Update: 12-Apr-2023 15:55:29 Calib Date: 07-Apr-2023 23:50:31
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\G2_LUNA\20230407-120232.b\04070018.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC DAD1A, 254 nm
Process Host: CTX1657

First Level Reviewer: LV5D Date: 12-Apr-2023 15:55:06

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
3 TNX	1	5.328	5.321	0.007	4669	0.0100	0.0117	
4 DNX	1	6.195	6.194	0.001	3097	0.0100	0.0108	
6 HMX	1	6.855	6.847	0.008	2116	0.0100	0.0117	
7 MNX	1	7.715	7.714	0.001	3165	0.0117	0.0121	
5 2,4,6-Trinitrophenol	1	8.215	8.187	0.028	1601	0.0100	0.0103	
8 RDX	1	9.135	9.127	0.008	2543	0.0100	0.0118	
9 Nitrobenzene	1	11.661	11.654	0.007	4002	0.0100	0.0105	
$ 10 1,2-Dinitrobenzene	1	12.628	12.627	0.001	2840	0.0100	0.0107	
11 3,5-Dinitroaniline	1	14.481	14.480	0.001	4725	0.0100	0.0101	
12 1,3-Dinitrobenzene	1	14.761	14.754	0.007	6202	0.0100	0.0107	
13 Nitroglycerin	2	15.268	15.274	-0.006	12725	0.1000	0.1023	
14 o-Nitrotoluene	1	15.835	15.827	0.008	2596	0.0100	0.0107	M
15 p-Nitrotoluene	1	16.055	16.054	0.001	2388	0.0100	0.0110	Ma
16 4-Amino-2,6-dinitrotoluene	1	16.608	16.594	0.014	3004	0.0100	0.0110	
17 m-Nitrotoluene	1	16.908	16.900	0.008	2673	0.0100	0.0100	
18 2-Amino-4,6-dinitrotoluene	1	17.421	17.414	0.007	4148	0.0100	0.0104	M
19 1,3,5-Trinitrobenzene	1	17.581	17.574	0.007	3748	0.0100	0.0099	Ma
20 2,6-Dinitrotoluene	1	18.728	18.714	0.014	3509	0.0100	0.0125	
21 2,4-Dinitrotoluene	1	19.175	19.174	0.001	6650	0.0100	0.0119	
22 Tetryl	1	22.495	22.481	0.014	2847	0.0100	0.0105	
23 2,4,6-Trinitrotoluene	1	23.302	23.301	0.001	4042	0.0100	0.009817	
24 PETN	2	24.568	24.547	0.021	9214	0.1000	0.0778	M

QC Flag Legend
Processing Flags

Review Flags
M - Manually Integrated
a - User Assigned ID

Reagents:

8330IntermStk_00076	Amount Added:	1.00	Units: uL
8330 DMT_00013	Amount Added:	0.50	Units: uL

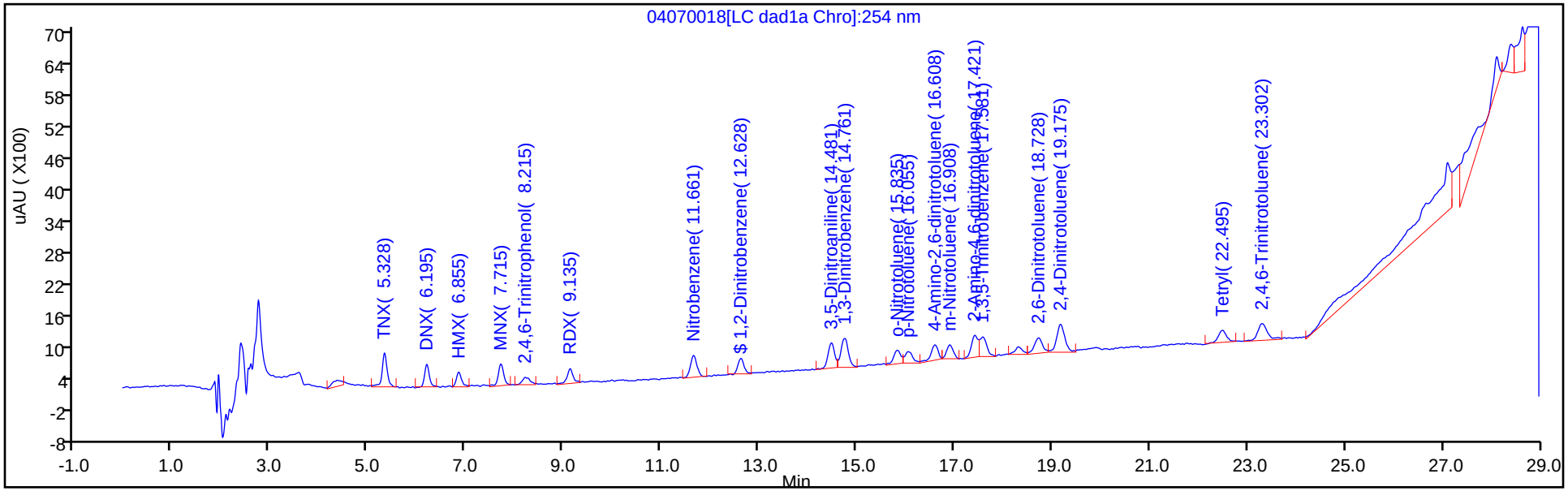
Report Date: 12-Apr-2023 15:55:29 Chrom Revision: 2.3 29-Mar-2023 18:39:10

Eurofins Denver

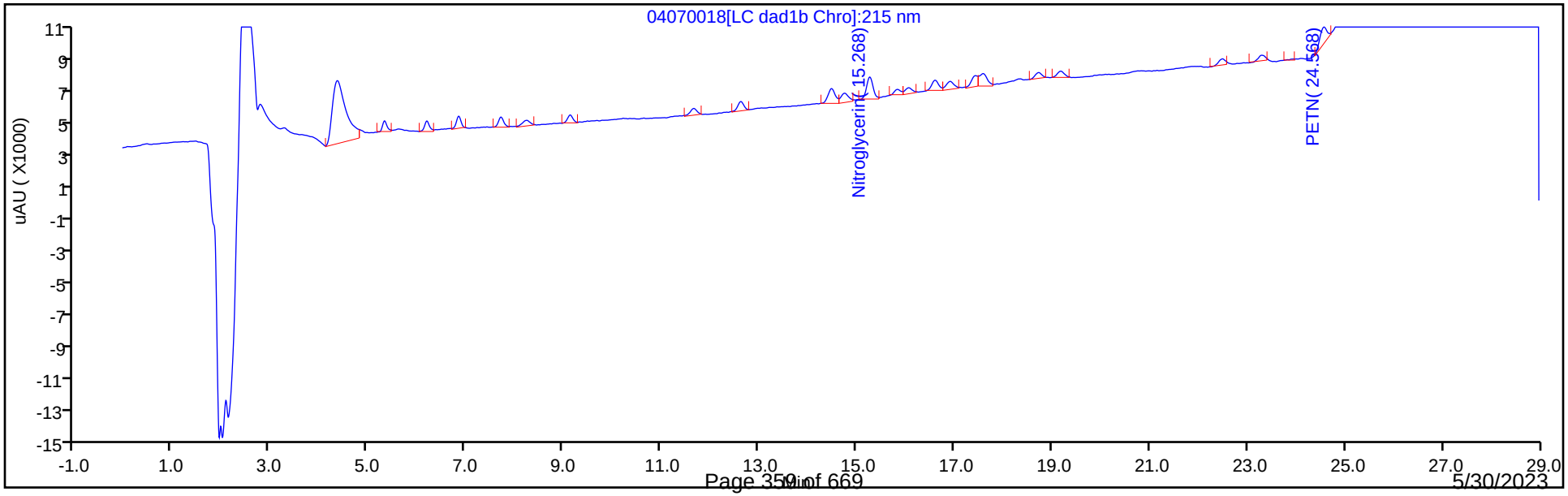
Data File: \\chromfs\denver\chromdata\g2_luna\20230407-120232.b\04070018.d

Injection Date:	07-Apr-2023 23:50:31	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	JZ
Lims ID:	IC INT DMT 1			Worklist Smp#:	18
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	18
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



5/30/2023
10:34 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

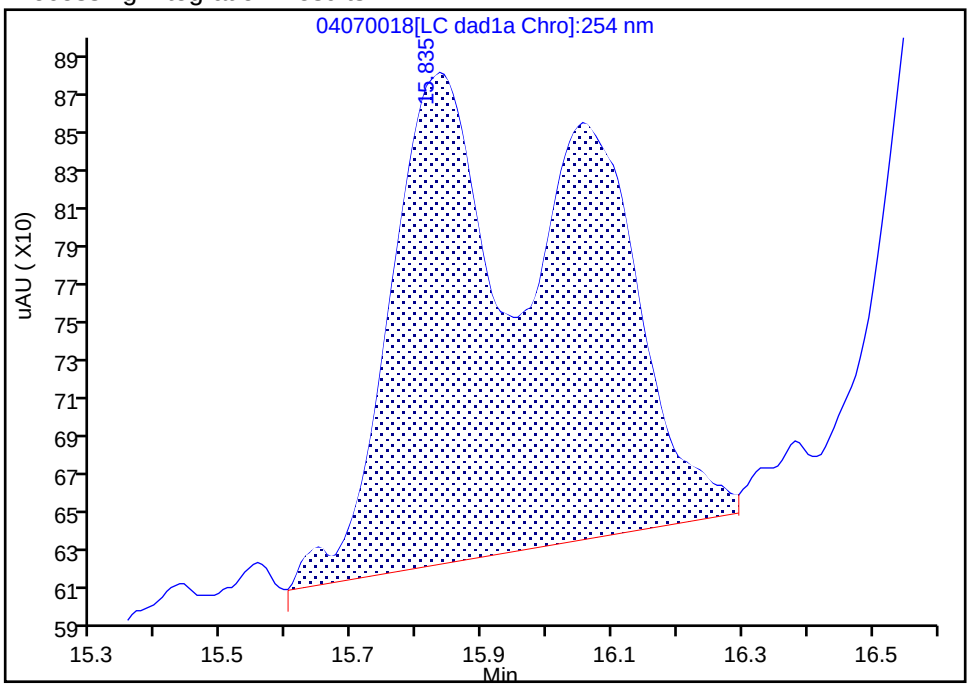
Data File: \\chromfs\denver\chromdata\g2_luna\20230407-120232.b\04070018.d
Injection Date: 07-Apr-2023 23:50:31 Instrument ID: CHHPLC_G2_LUNA
Lims ID: IC INT DMT 1
Client ID:
Operator ID: JZ ALS Bottle#: 18 Worklist Smp#: 18
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC DAD1A, 254 nm

14 o-Nitrotoluene, CAS: 88-72-2

Signal: 1

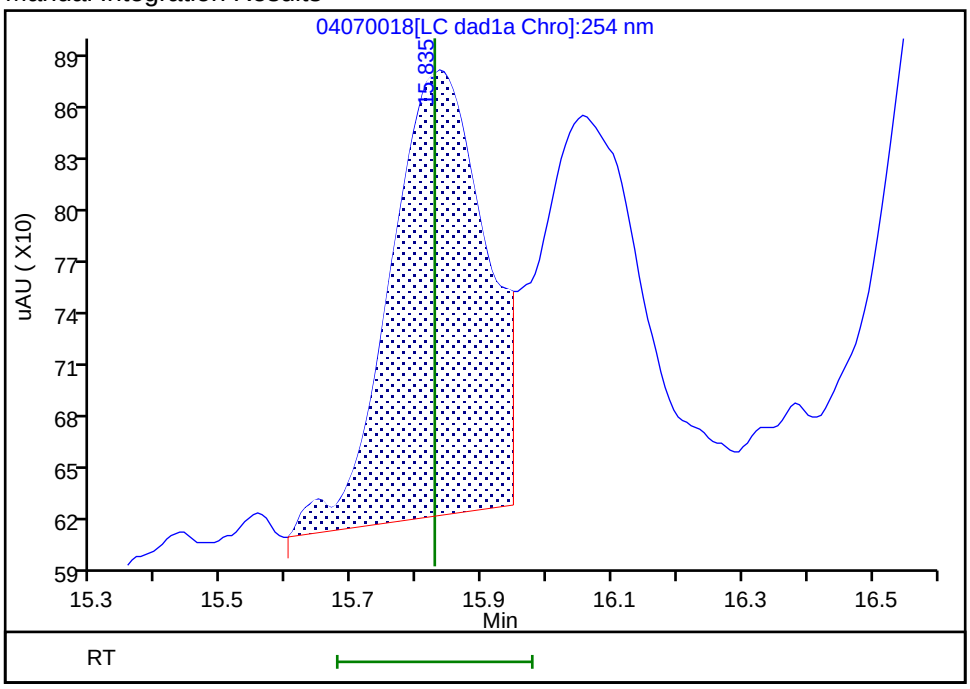
Processing Integration Results

RT: 15.83
Area: 4974
Amount: 0.018449
Amount Units: ug/ml



Manual Integration Results

RT: 15.83
Area: 2596
Amount: 0.010675
Amount Units: ug/ml



Reviewer: LV5D, 08-Apr-2023 10:40:09
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

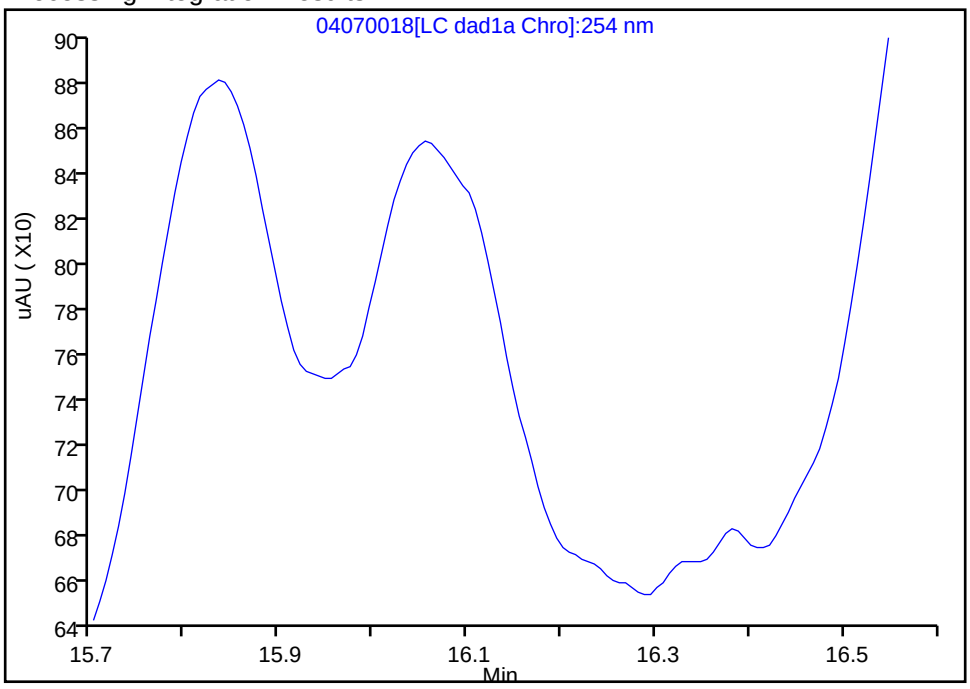
Data File:	\\chromfs\denver\chromdata\g2_luna\20230407-120232.b\04070018.d				
Injection Date:	07-Apr-2023 23:50:31	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT DMT 1				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

15 p-Nitrotoluene, CAS: 99-99-0

Signal: 1

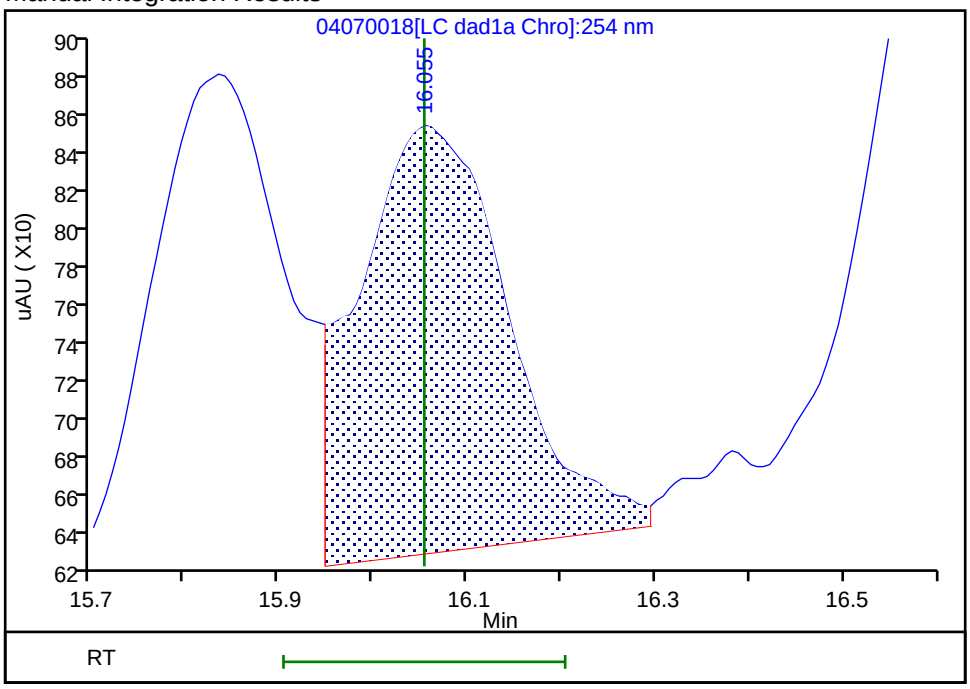
Not Detected
Expected RT: 16.05

Processing Integration Results



Manual Integration Results

RT: 16.05
Area: 2388
Amount: 0.010982
Amount Units: ug/ml



Reviewer: LV5D, 08-Apr-2023 10:40:12
Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

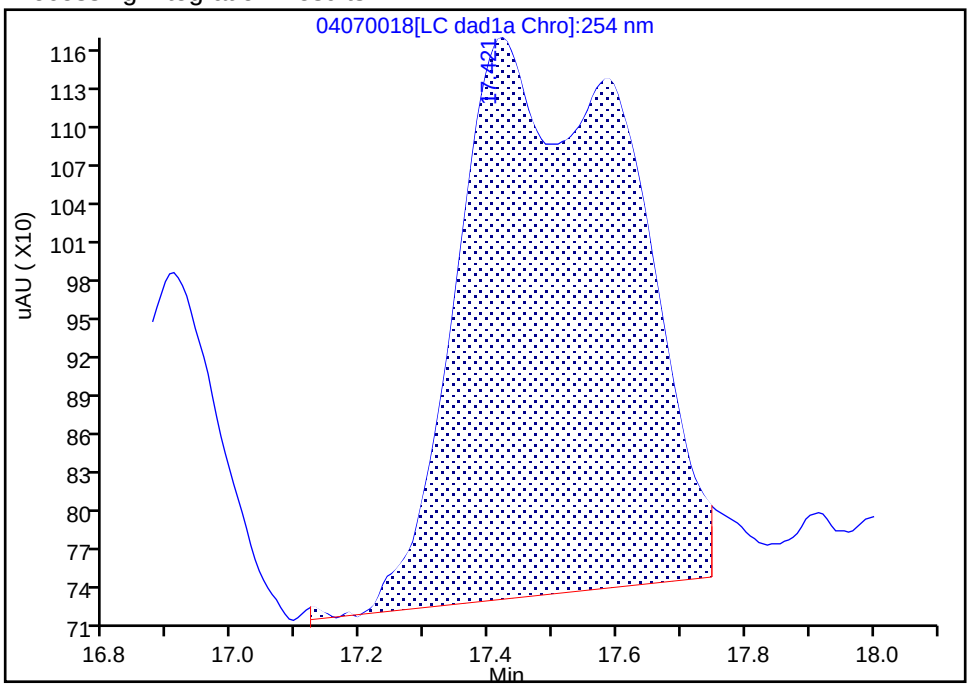
Data File:	\\chromfs\denver\chromdata\g2_luna\20230407-120232.b\04070018.d				
Injection Date:	07-Apr-2023 23:50:31	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT DMT 1				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

18 2-Amino-4,6-dinitrotoluene, CAS: 35572-78-2

Signal: 1

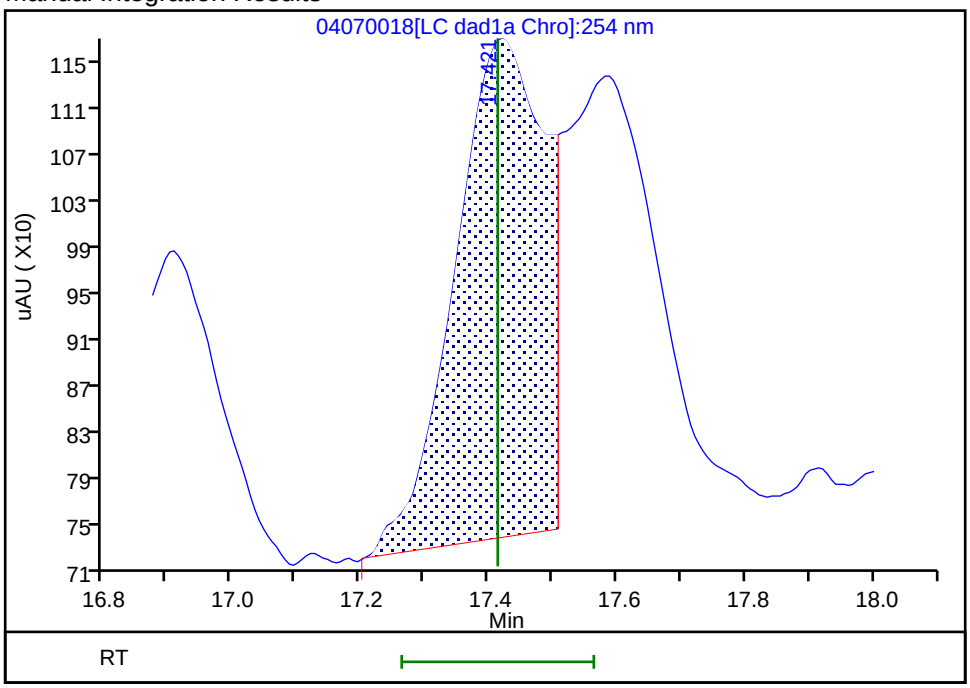
Processing Integration Results

RT: 17.42
Area: 8095
Amount: 0.012716
Amount Units: ug/ml



Manual Integration Results

RT: 17.42
Area: 4148
Amount: 0.010363
Amount Units: ug/ml



Reviewer: LV5D, 08-Apr-2023 10:40:27

Audit Action: Split an Integrated Peak Audit Reason: Baseline

Eurofins Denver

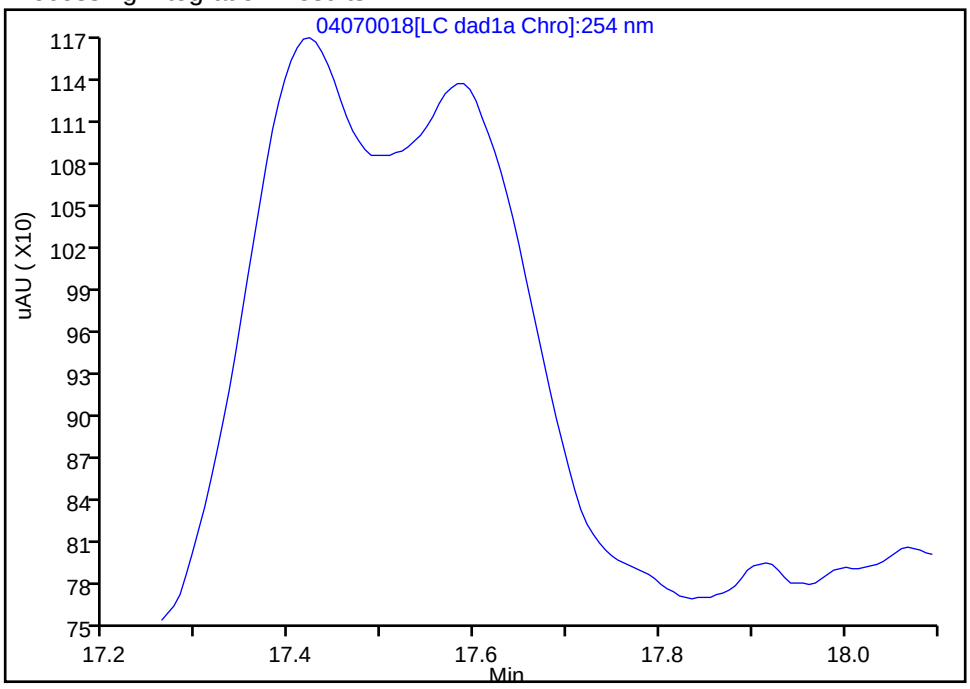
Data File:	\\chromfs\denver\chromdata\g2_luna\20230407-120232.b\04070018.d				
Injection Date:	07-Apr-2023 23:50:31	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT DMT 1				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

19 1,3,5-Trinitrobenzene, CAS: 99-35-4

Signal: 1

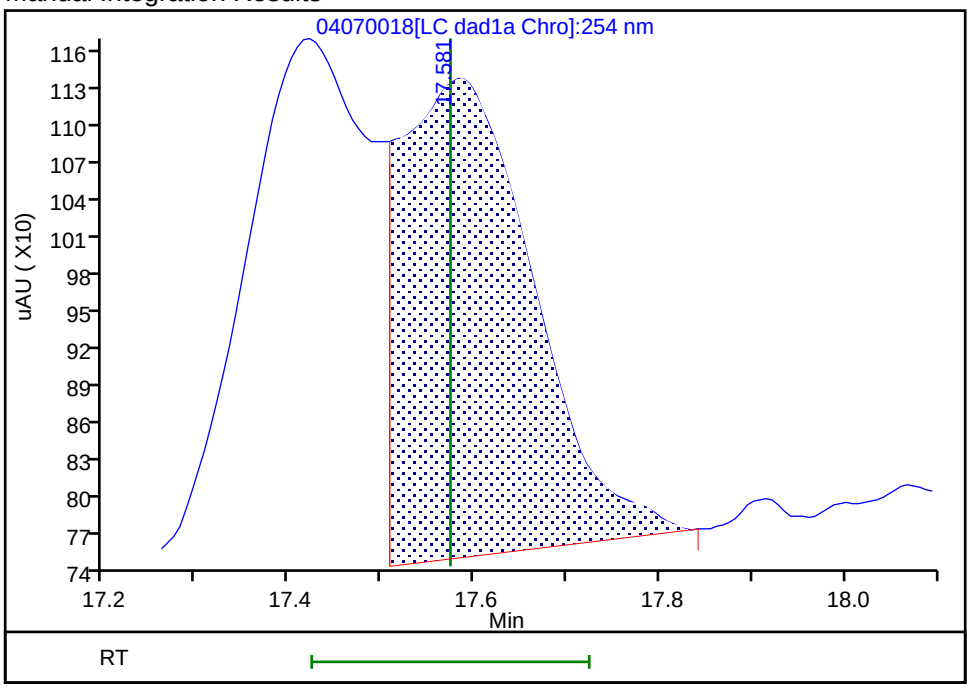
Not Detected
Expected RT: 17.57

Processing Integration Results



Manual Integration Results

RT: 17.58
Area: 3748
Amount: 0.009903
Amount Units: ug/ml



Reviewer: LV5D, 08-Apr-2023 10:40:30
Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

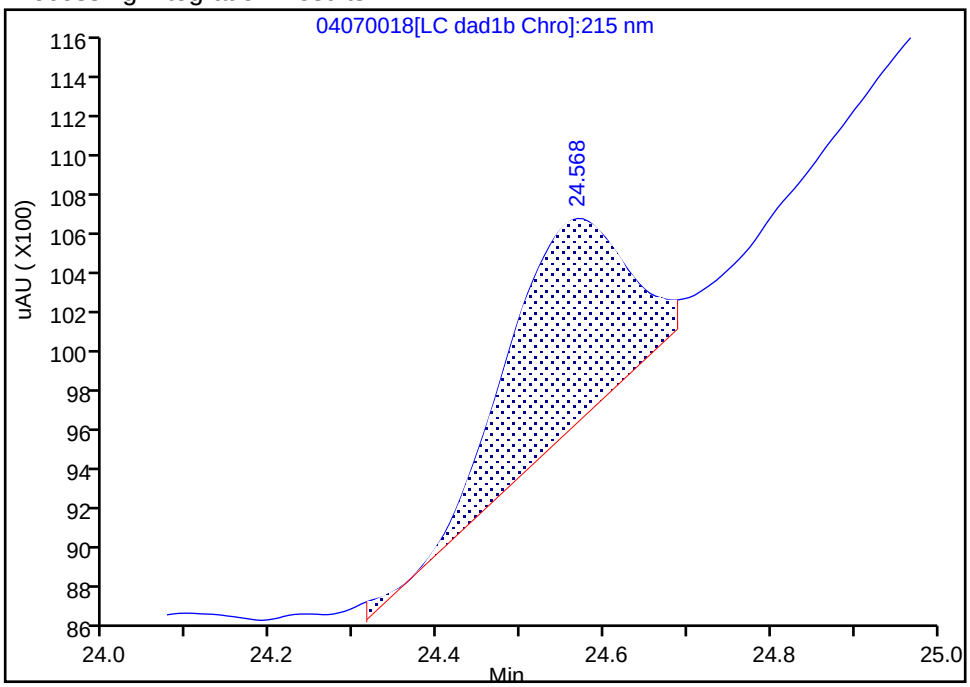
Data File: \\chromfs\denver\chromdata\g2_luna\20230407-120232.b\04070018.d
Injection Date: 07-Apr-2023 23:50:31 Instrument ID: CHHPLC_G2_LUNA
Lims ID: IC INT DMT 1
Client ID:
Operator ID: JZ ALS Bottle#: 18 Worklist Smp#: 18
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC DAD1B, 215 nm

24 PETN, CAS: 78-11-5

Signal: 1

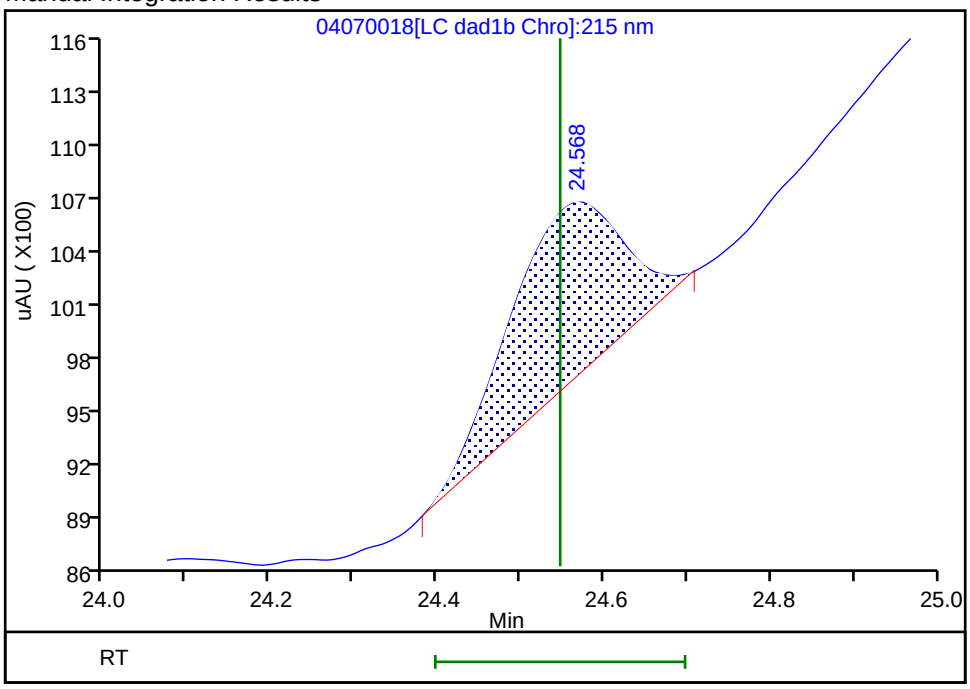
Processing Integration Results

RT: 24.57
Area: 10181
Amount: 0.084588
Amount Units: ug/ml



Manual Integration Results

RT: 24.57
Area: 9214
Amount: 0.077842
Amount Units: ug/ml



Reviewer: LV5D, 08-Apr-2023 10:40:36
Audit Action: Manually Integrated Audit Reason: Baseline

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

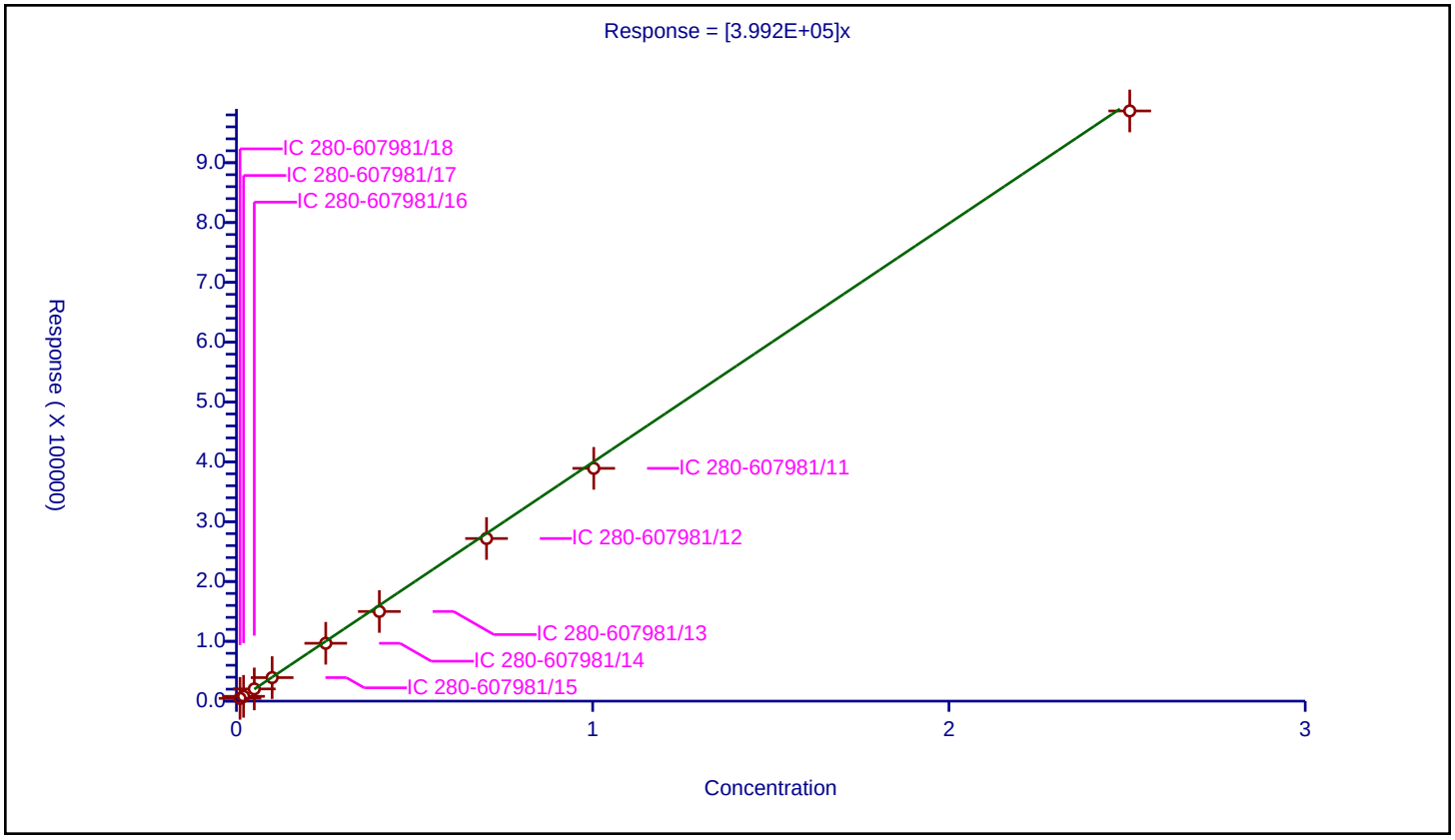
Curve Coefficients

Intercept:	0
Slope:	3.992E+05

Error Coefficients

Standard Error:	8100
Relative Standard Error:	6.7
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.994

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-607981/18	0.01003	4669.0			465503.489531	Y
2	IC 280-607981/17	0.02006	8035.0			400548.354935	Y
3	IC 280-607981/16	0.05015	20397.0			406719.840479	Y
4	IC 280-607981/15	0.1003	39339.0			392213.35992	Y
5	IC 280-607981/14	0.25075	96722.0			385730.807577	Y
6	IC 280-607981/13	0.4012	149885.0			373591.724826	Y
7	IC 280-607981/12	0.7021	271856.0			387204.10198	Y
8	IC 280-607981/11	1.003	389131.0			387967.098704	Y
9	IC 280-607981/10	2.5075	986578.0			393450.847458	Y



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

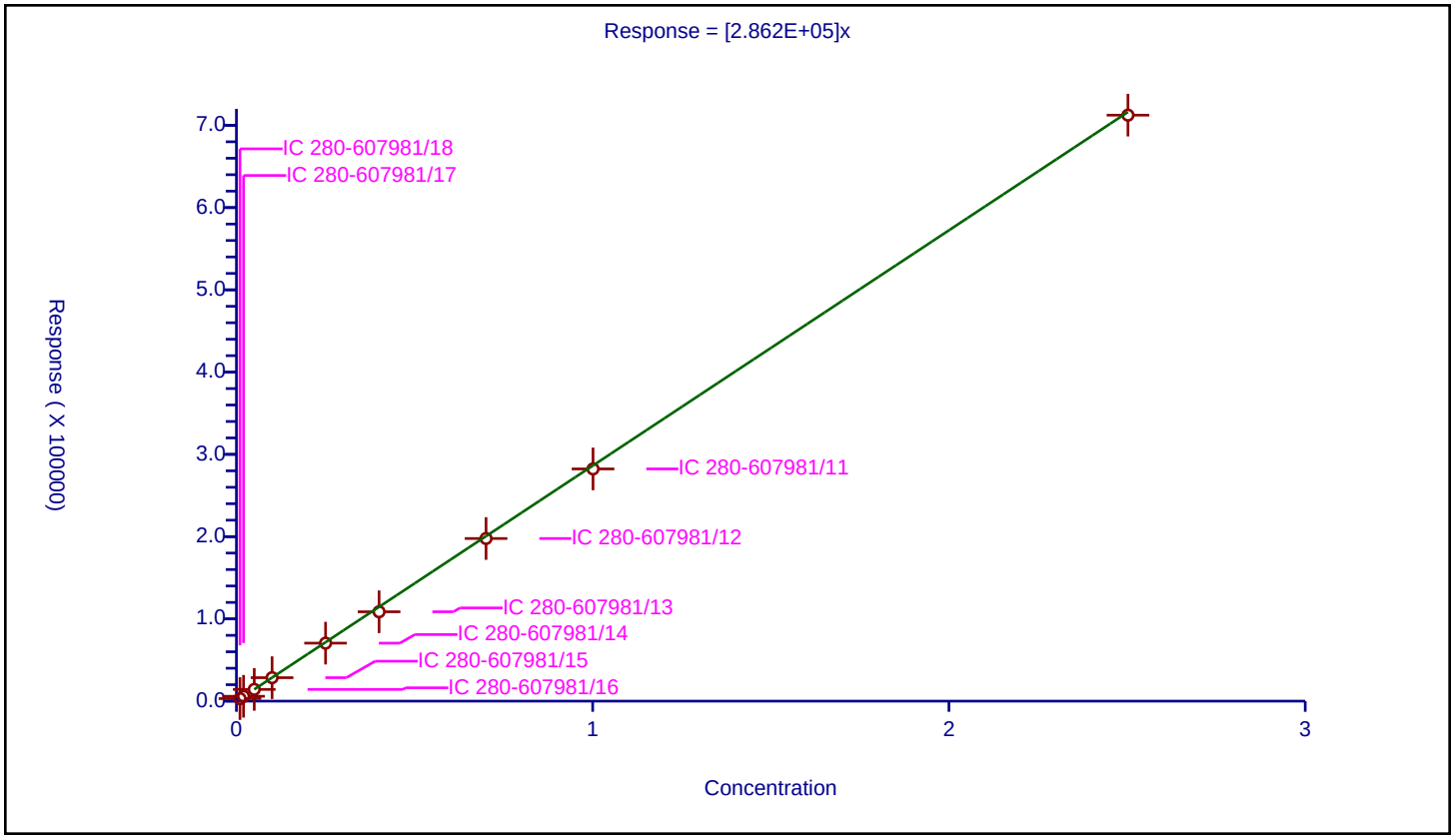
Curve Coefficients

Intercept:	0
Slope:	2.862E+05

Error Coefficients

Standard Error:	3100
Relative Standard Error:	3.7
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-607981/18	0.01001	3097.0			309390.609391	Y
2	IC 280-607981/17	0.02002	5896.0			294505.494505	Y
3	IC 280-607981/16	0.05005	14268.0			285074.925075	Y
4	IC 280-607981/15	0.1001	28516.0			284875.124875	Y
5	IC 280-607981/14	0.25025	70501.0			281722.277722	Y
6	IC 280-607981/13	0.4004	108664.0			271388.611389	Y
7	IC 280-607981/12	0.7007	197714.0			282166.405024	Y
8	IC 280-607981/11	1.001	282296.0			282013.986014	Y
9	IC 280-607981/10	2.5025	712375.0			284665.334665	Y



Calibration / HMX

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

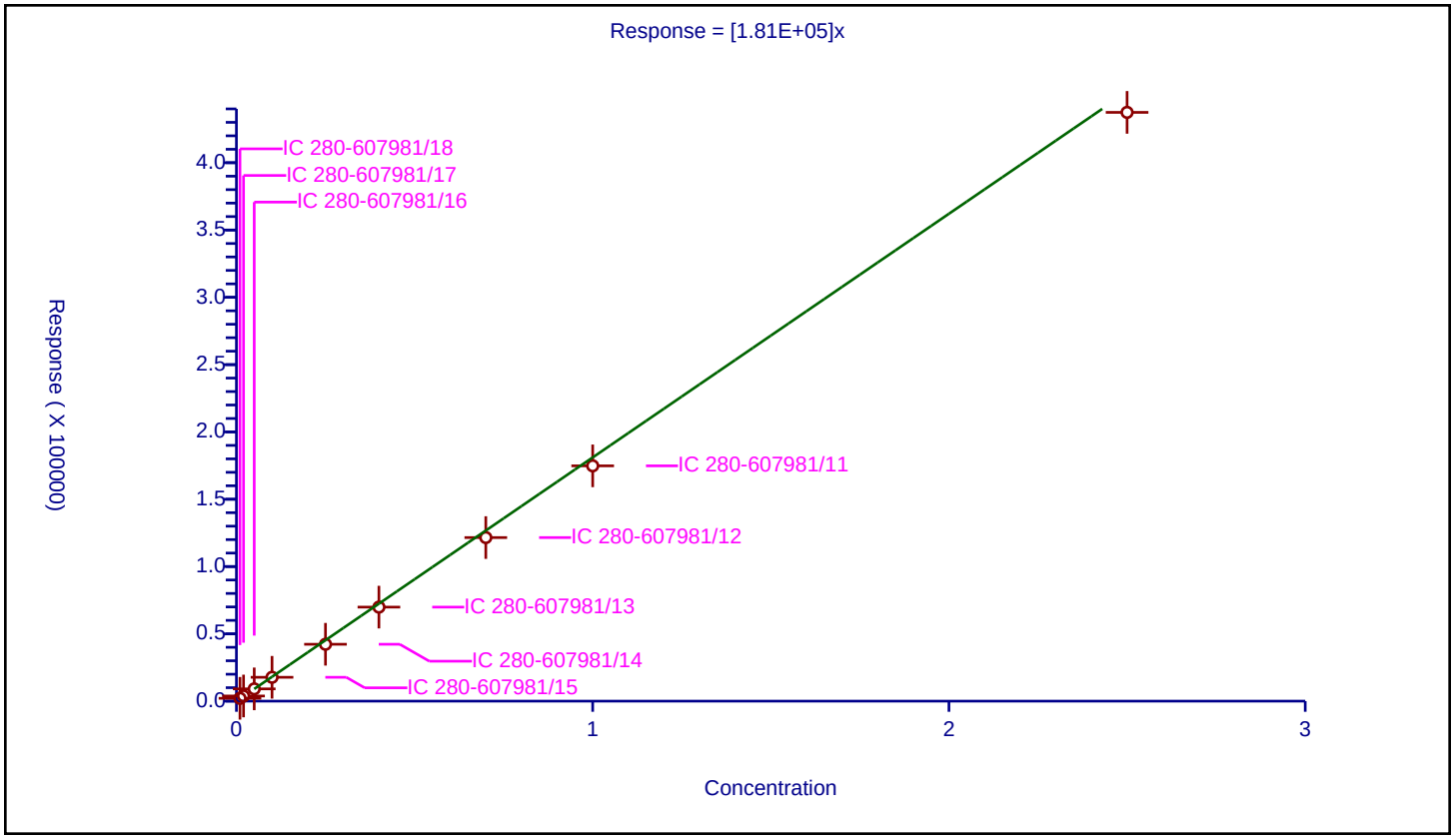
Curve Coefficients

Intercept:	0
Slope:	1.81E+05

Error Coefficients

Standard Error:	6250
Relative Standard Error:	7.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.993

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-607981/18	0.01	2116.0			211600.0	Y
2	IC 280-607981/17	0.02	3831.0			191550.0	Y
3	IC 280-607981/16	0.05	9104.0			182080.0	Y
4	IC 280-607981/15	0.1	17711.0			177110.0	Y
5	IC 280-607981/14	0.25	42259.0			169036.0	Y
6	IC 280-607981/13	0.4	69854.0			174635.0	Y
7	IC 280-607981/12	0.7	121533.0			173618.571429	Y
8	IC 280-607981/11	1.0	174813.0			174813.0	Y
9	IC 280-607981/10	2.5	437409.0			174963.6	Y



Calibration / MNX

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

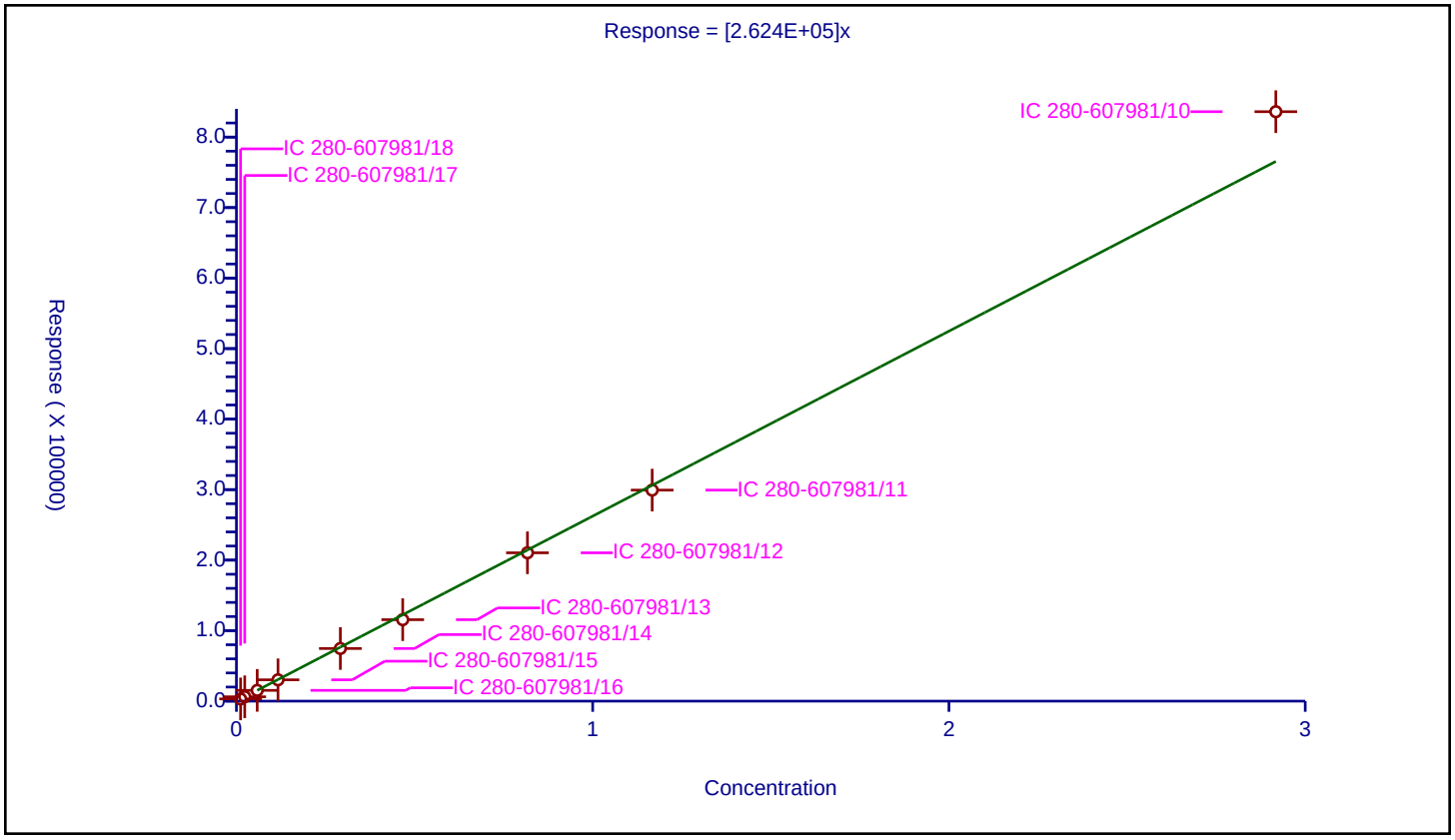
Curve Coefficients

Intercept:	0
Slope:	2.624E+05

Error Coefficients

Standard Error:	25200
Relative Standard Error:	4.3
Correlation Coefficient:	0.998
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-607981/18	0.01167	3165.0			271208.226221	Y
2	IC 280-607981/17	0.02334	6187.0			265081.405313	Y
3	IC 280-607981/16	0.05835	15283.0			261919.451585	Y
4	IC 280-607981/15	0.1167	30241.0			259134.532991	Y
5	IC 280-607981/14	0.29175	74679.0			255969.151671	Y
6	IC 280-607981/13	0.4668	115542.0			247519.280206	Y
7	IC 280-607981/12	0.8169	210405.0			257565.185457	Y
8	IC 280-607981/11	1.167	299304.0			256473.007712	Y
9	IC 280-607981/10	2.9175	836019.0			286553.213368	Y



5/30/2023
10:34 AM

Calibration / 2,4,6-Trinitrophenol

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

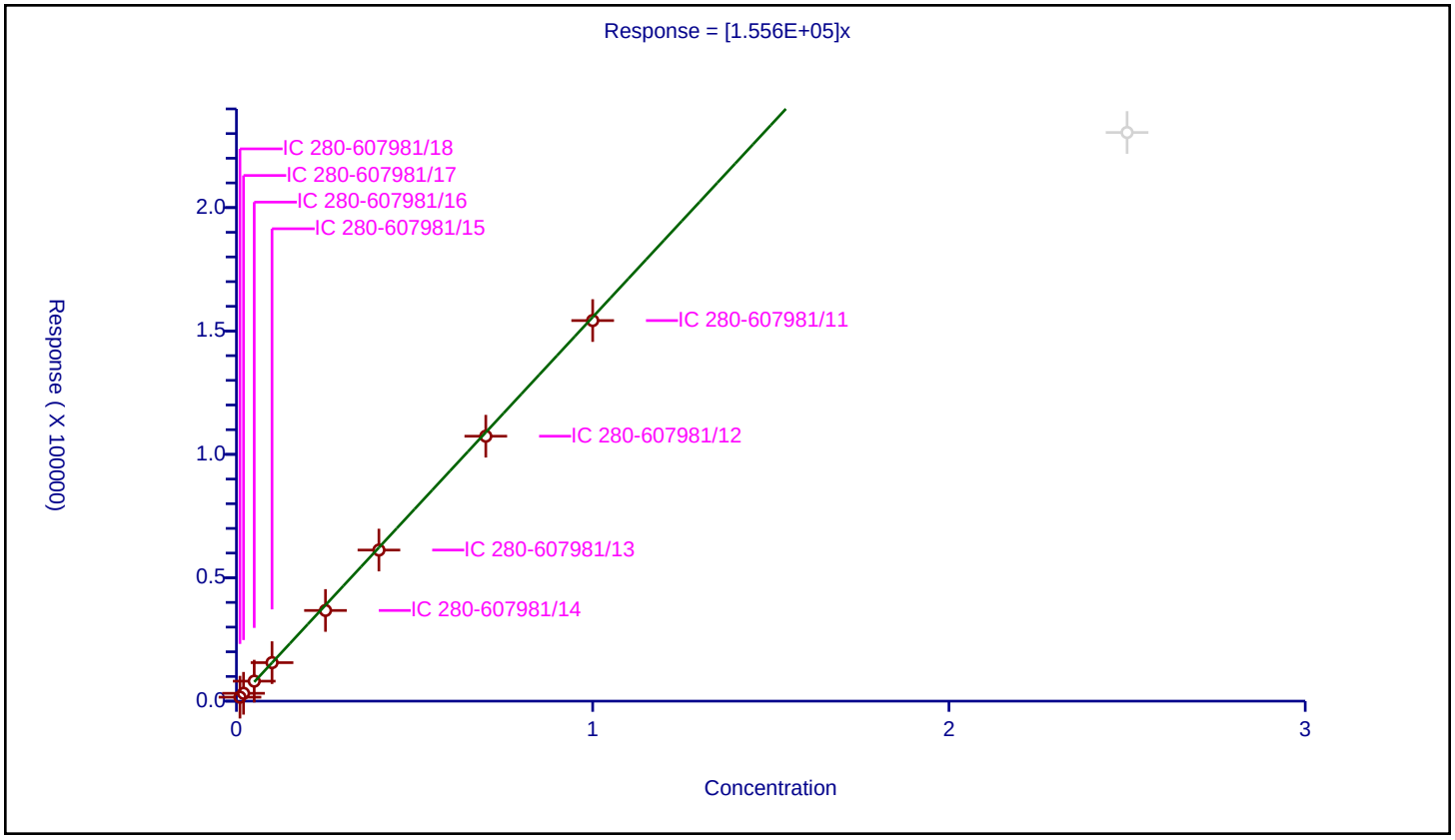
Curve Coefficients

Intercept:	0
Slope:	1.556E+05

Error Coefficients

Standard Error:	1210
Relative Standard Error:	3.1
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-607981/18	0.01	1601.0			160100.0	Y
2	IC 280-607981/17	0.02	3181.0			159050.0	Y
3	IC 280-607981/16	0.05	8104.0			162080.0	Y
4	IC 280-607981/15	0.1	15604.0			156040.0	Y
5	IC 280-607981/14	0.25	36740.0			146960.0	Y
6	IC 280-607981/13	0.4	61220.0			153050.0	Y
7	IC 280-607981/12	0.7	107366.0			153380.0	Y
8	IC 280-607981/11	1.0	154224.0			154224.0	Y
9	IC 280-607981/10	2.5	230437.0			92174.8	N



5/30/2023
10:34 AM

Calibration / RDX

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

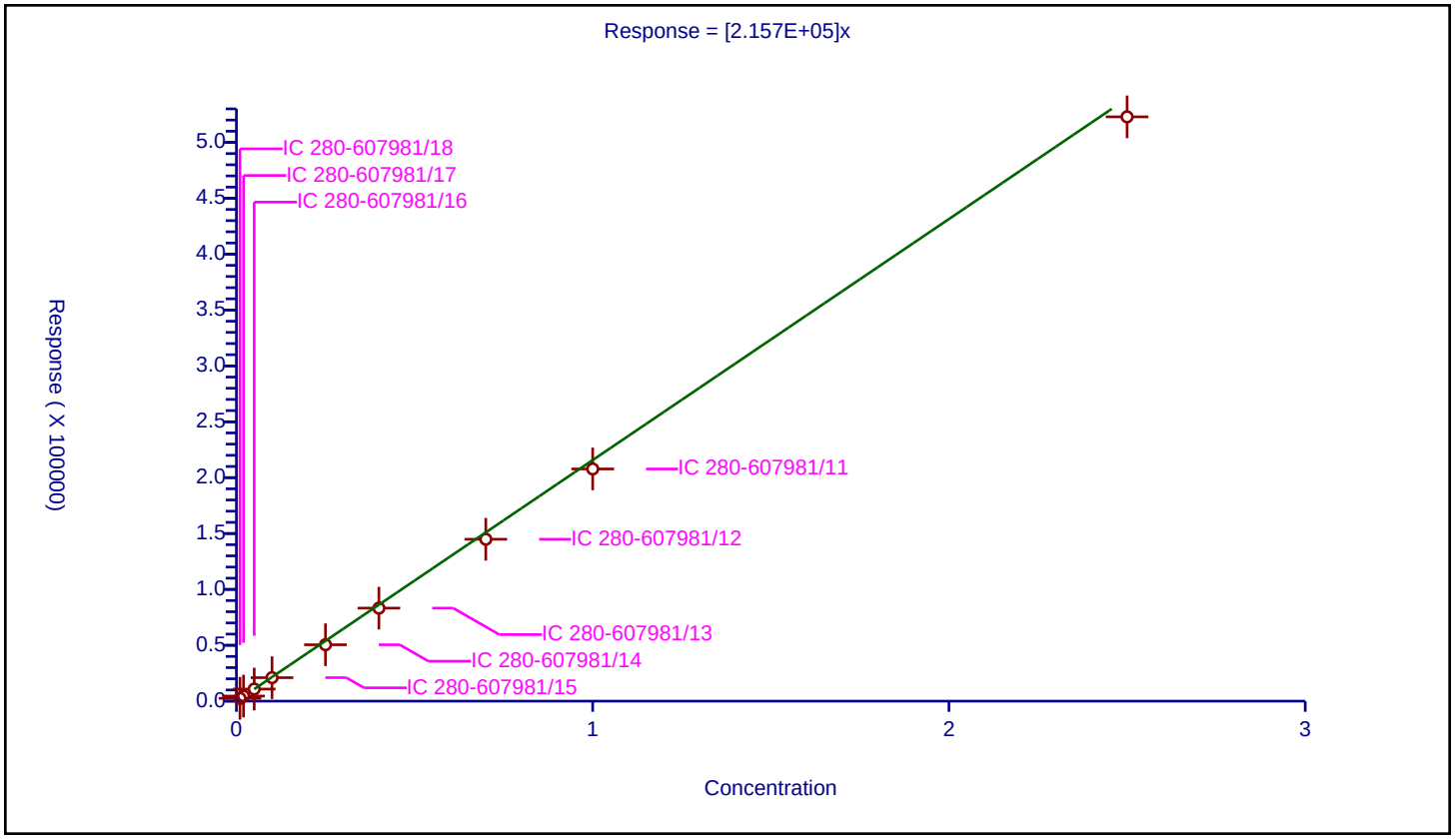
Curve Coefficients

Intercept:	0
Slope:	2.157E+05

Error Coefficients

Standard Error:	6990
Relative Standard Error:	7.5
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.992

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-607981/18	0.01	2543.0			254300.0	Y
2	IC 280-607981/17	0.02	4542.0			227100.0	Y
3	IC 280-607981/16	0.05	10799.0			215980.0	Y
4	IC 280-607981/15	0.1	21015.0			210150.0	Y
5	IC 280-607981/14	0.25	50479.0			201916.0	Y
6	IC 280-607981/13	0.4	83231.0			208077.5	Y
7	IC 280-607981/12	0.7	144880.0			206971.428571	Y
8	IC 280-607981/11	1.0	207770.0			207770.0	Y
9	IC 280-607981/10	2.5	522882.0			209152.8	Y



Calibration / Nitrobenzene

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

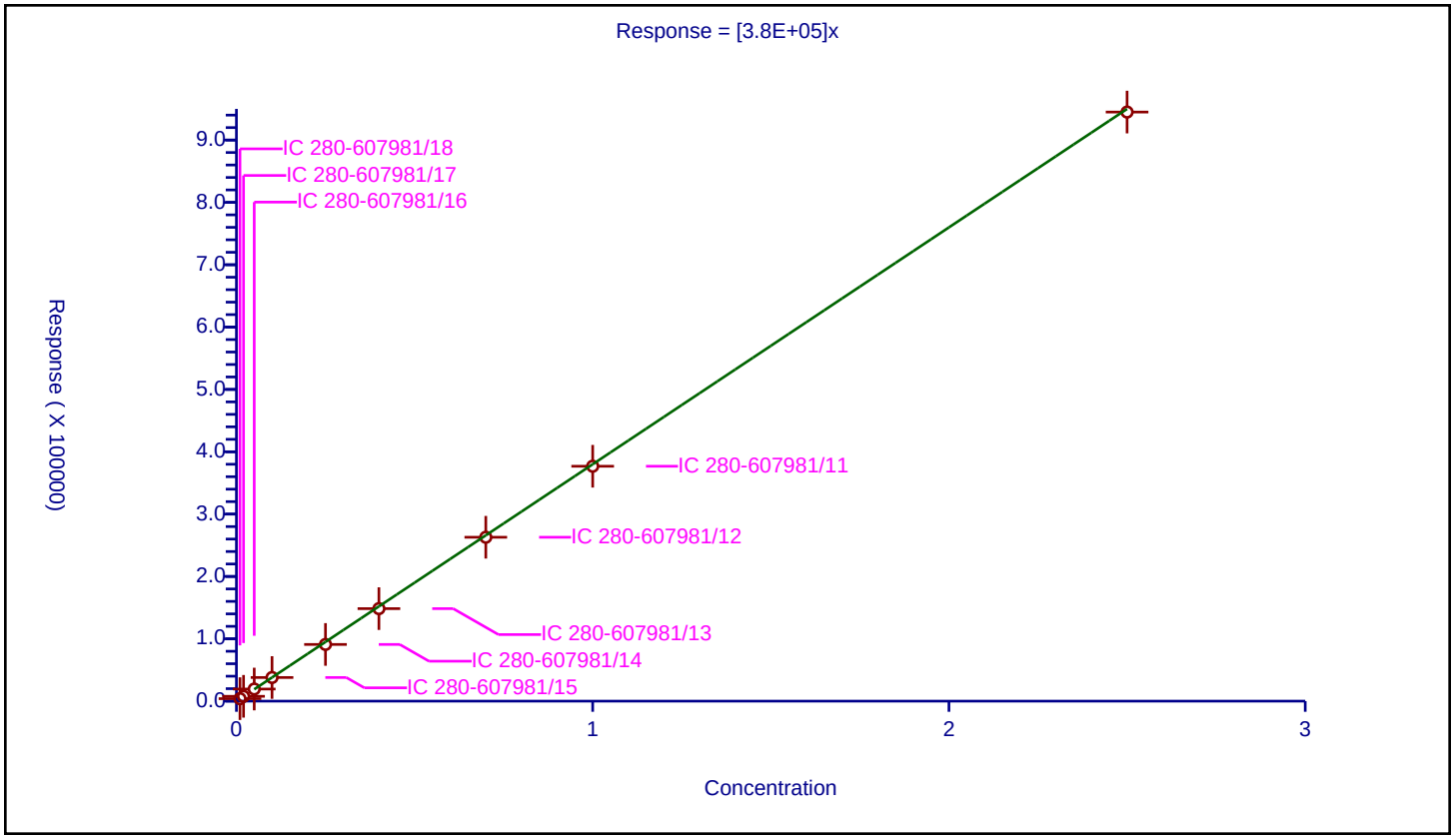
Curve Coefficients

Intercept:	0
Slope:	3.8E+05

Error Coefficients

Standard Error:	3030
Relative Standard Error:	2.8
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-607981/18	0.01	4002.0			400200.0	Y
2	IC 280-607981/17	0.02	7744.0			387200.0	Y
3	IC 280-607981/16	0.05	19405.0			388100.0	Y
4	IC 280-607981/15	0.1	37900.0			379000.0	Y
5	IC 280-607981/14	0.25	90950.0			363800.0	Y
6	IC 280-607981/13	0.4	148398.0			370995.0	Y
7	IC 280-607981/12	0.7	262906.0			375580.0	Y
8	IC 280-607981/11	1.0	376803.0			376803.0	Y
9	IC 280-607981/10	2.5	944914.0			377965.6	Y



Calibration / 1,2-Dinitrobenzene

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

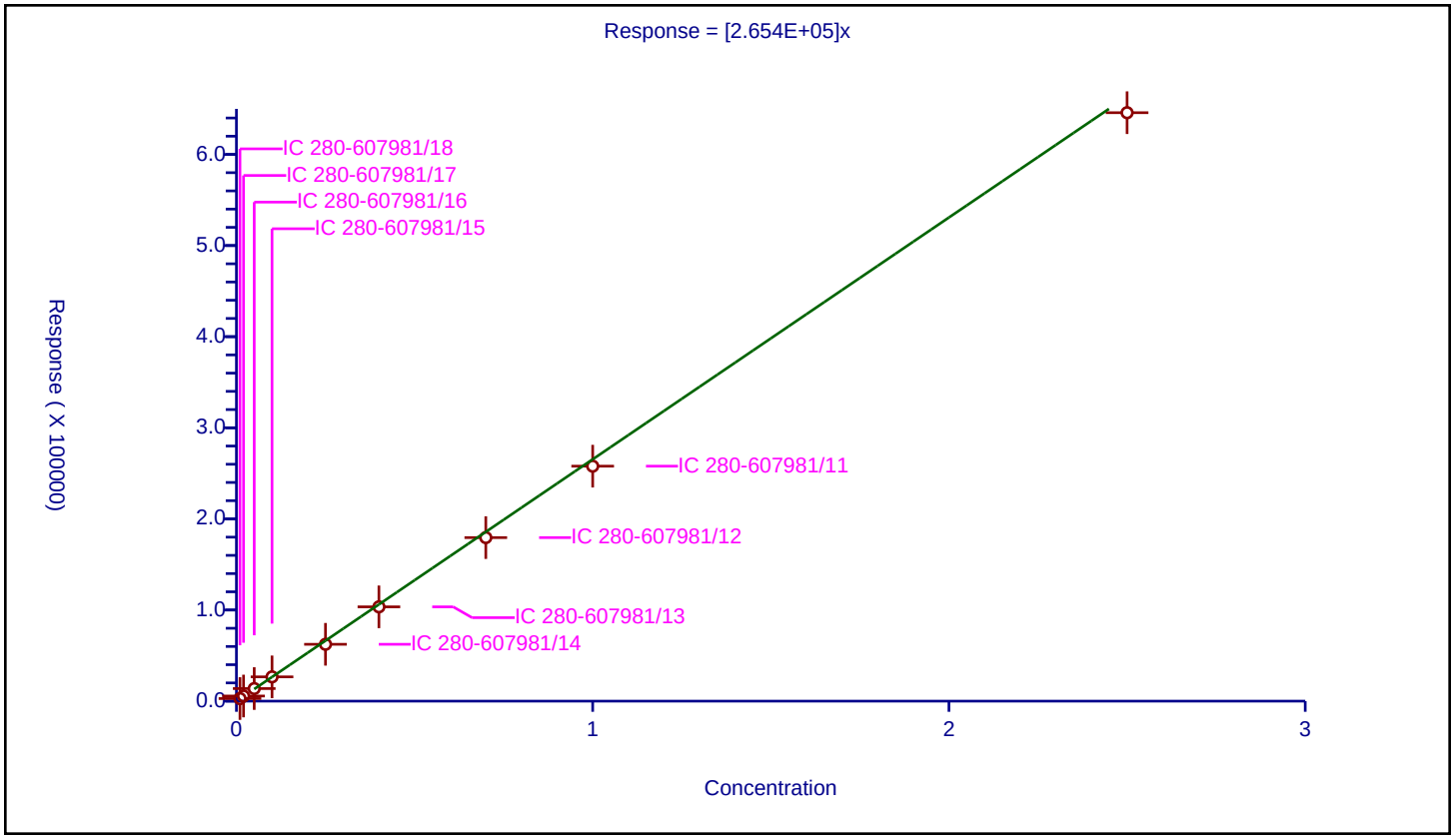
Curve Coefficients

Intercept:	0
Slope:	2.654E+05

Error Coefficients

Standard Error:	7350
Relative Standard Error:	4.6
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-607981/18	0.01	2840.0			284000.0	Y
2	IC 280-607981/17	0.02	5627.0			281350.0	Y
3	IC 280-607981/16	0.05	13806.0			276120.0	Y
4	IC 280-607981/15	0.1	26630.0			266300.0	Y
5	IC 280-607981/14	0.25	62380.0			249520.0	Y
6	IC 280-607981/13	0.4	103481.0			258702.5	Y
7	IC 280-607981/12	0.7	179492.0			256417.142857	Y
8	IC 280-607981/11	1.0	257906.0			257906.0	Y
9	IC 280-607981/10	2.5	645821.0			258328.4	Y



Calibration / 3,5-Dinitroaniline

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

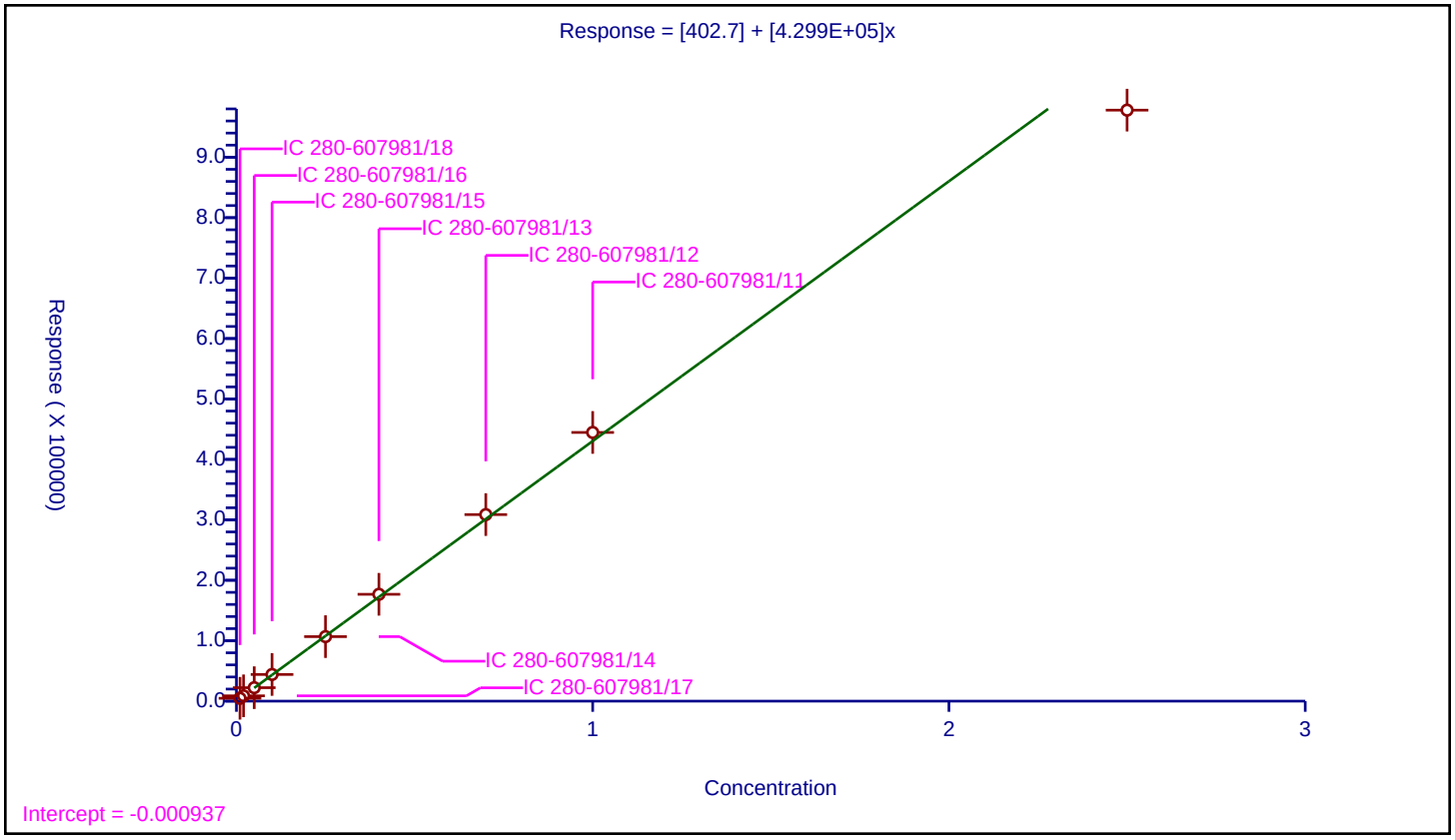
Curve Coefficients

Intercept:	402.7
Slope:	4.299E+05

Error Coefficients

Standard Error:	37300
Relative Standard Error:	4.1
Correlation Coefficient:	0.997
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-607981/18	0.01	4725.0			472500.0	Y
2	IC 280-607981/17	0.02	8811.0			440550.0	Y
3	IC 280-607981/16	0.05	22268.0			445360.0	Y
4	IC 280-607981/15	0.1	44146.0			441460.0	Y
5	IC 280-607981/14	0.25	106753.0			427012.0	Y
6	IC 280-607981/13	0.4	176804.0			442010.0	Y
7	IC 280-607981/12	0.7	308678.0			440968.571429	Y
8	IC 280-607981/11	1.0	444605.0			444605.0	Y
9	IC 280-607981/10	2.5	977923.0			391169.2	Y



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

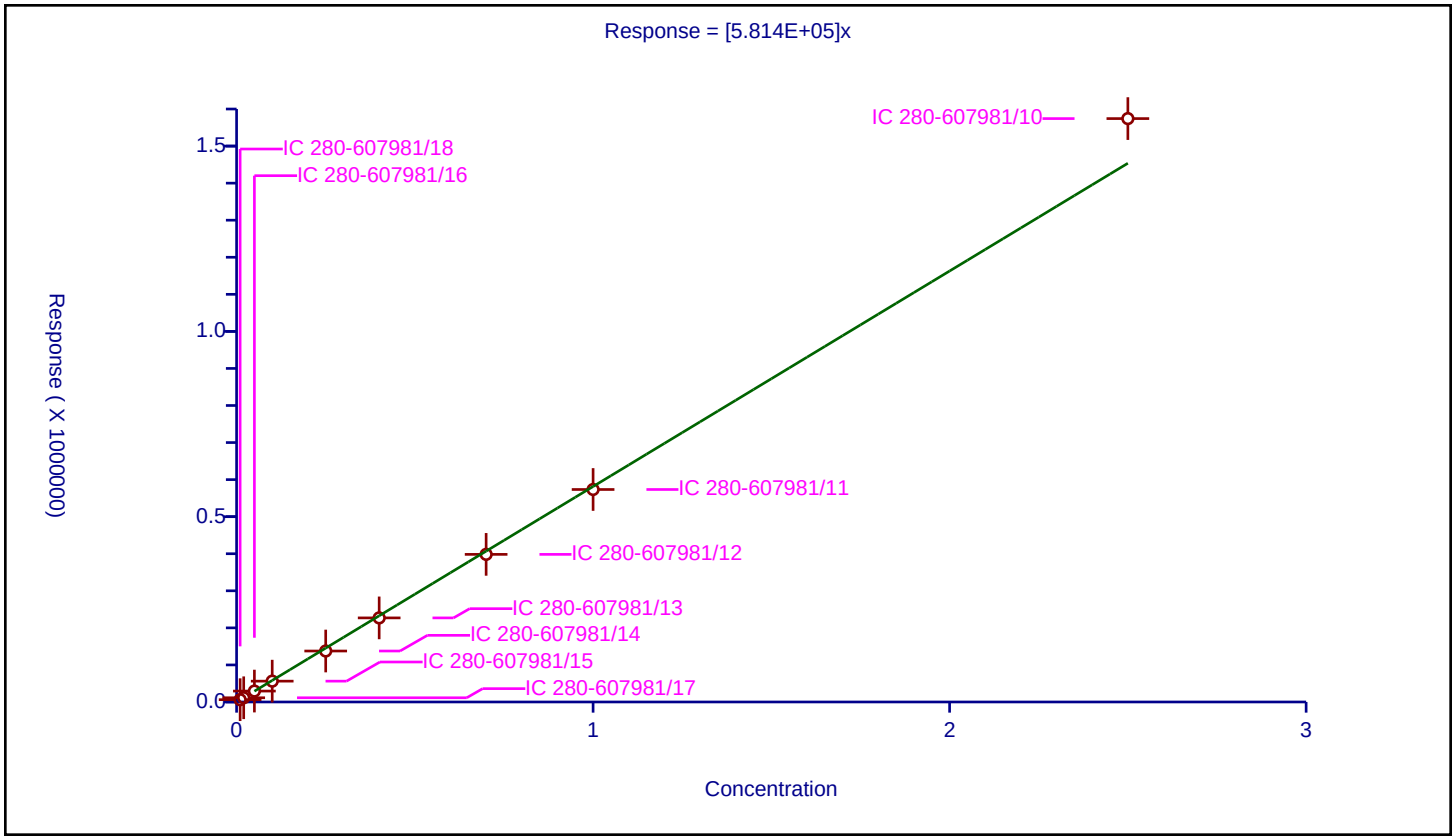
Curve Coefficients

Intercept:	0
Slope:	5.814E+05

Error Coefficients

Standard Error:	43000
Relative Standard Error:	4.6
Correlation Coefficient:	0.998
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-607981/18	0.01	6202.0			620200.0	Y
2	IC 280-607981/17	0.02	11425.0			571250.0	Y
3	IC 280-607981/16	0.05	29472.0			589440.0	Y
4	IC 280-607981/15	0.1	56261.0			562610.0	Y
5	IC 280-607981/14	0.25	137559.0			550236.0	Y
6	IC 280-607981/13	0.4	226896.0			567240.0	Y
7	IC 280-607981/12	0.7	398326.0			569037.142857	Y
8	IC 280-607981/11	1.0	573365.0			573365.0	Y
9	IC 280-607981/10	2.5	1574162.0			629664.8	Y



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

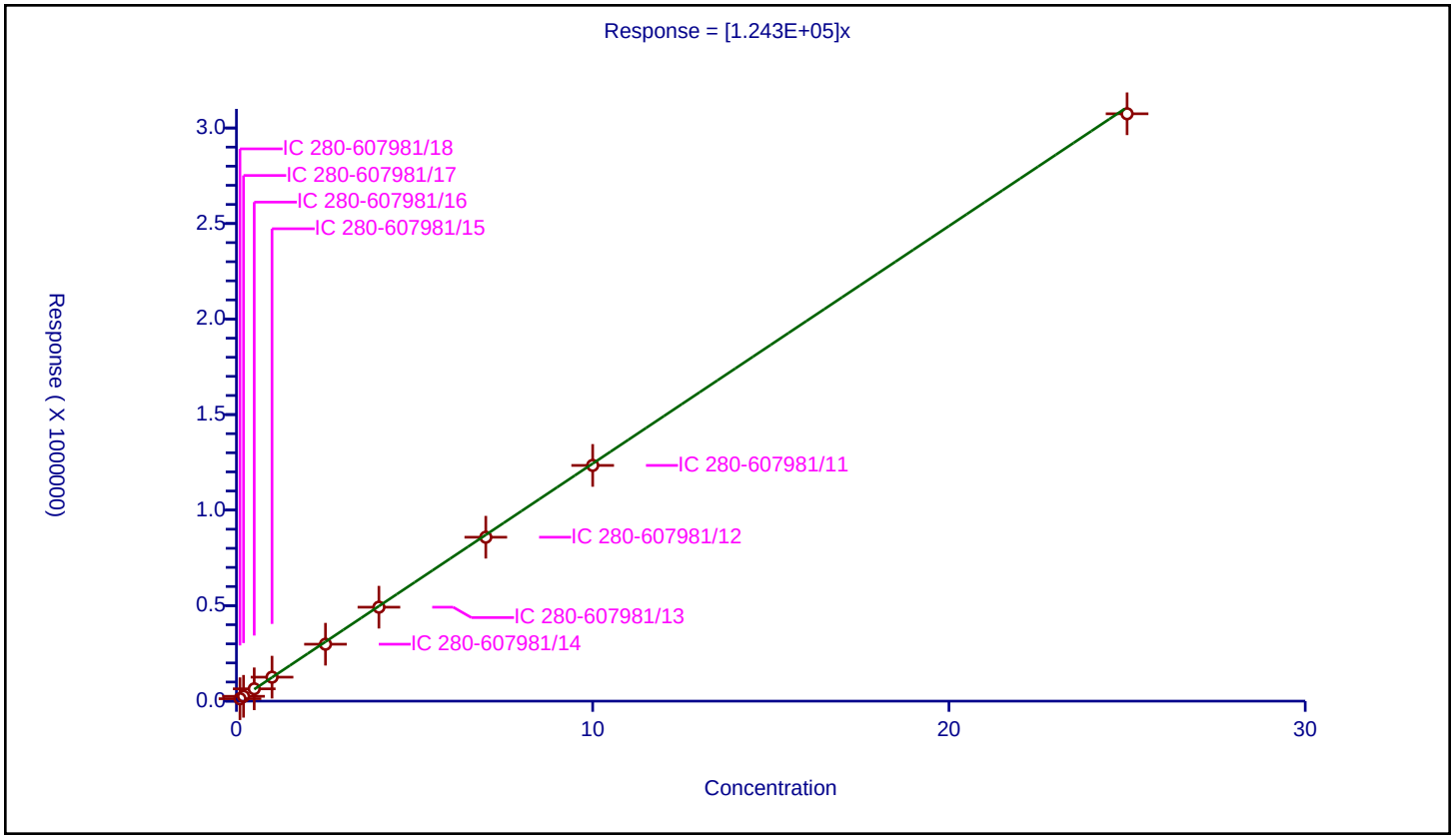
Curve Coefficients

Intercept:	0
Slope:	1.243E+05

Error Coefficients

Standard Error:	14200
Relative Standard Error:	2.4
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-607981/18	0.1	12725.0			127250.0	Y
2	IC 280-607981/17	0.2	25265.0			126325.0	Y
3	IC 280-607981/16	0.5	64483.0			128966.0	Y
4	IC 280-607981/15	1.0	125509.0			125509.0	Y
5	IC 280-607981/14	2.5	297926.0			119170.4	Y
6	IC 280-607981/13	4.0	491776.0			122944.0	Y
7	IC 280-607981/12	7.0	858025.0			122575.0	Y
8	IC 280-607981/11	10.0	1233892.0			123389.2	Y
9	IC 280-607981/10	25.0	3074483.0			122979.32	Y



Calibration / o-Nitrotoluene

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

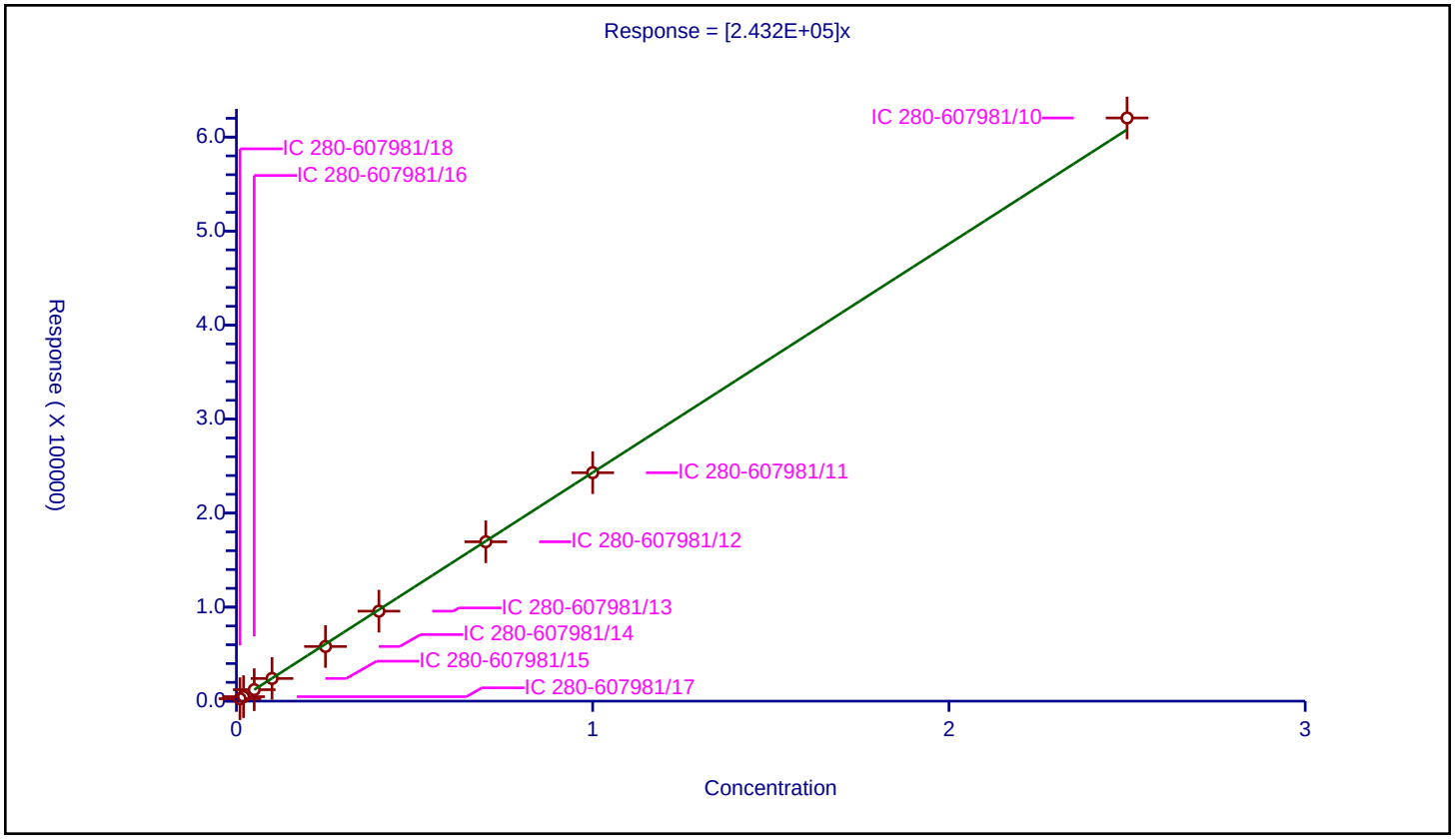
Curve Coefficients

Intercept:	0
Slope:	2.432E+05

Error Coefficients

Standard Error:	4510
Relative Standard Error:	3.1
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-607981/18	0.01	2596.0			259600.0	Y
2	IC 280-607981/17	0.02	4779.0			238950.0	Y
3	IC 280-607981/16	0.05	12185.0			243700.0	Y
4	IC 280-607981/15	0.1	24115.0			241150.0	Y
5	IC 280-607981/14	0.25	58154.0			232616.0	Y
6	IC 280-607981/13	0.4	95732.0			239330.0	Y
7	IC 280-607981/12	0.7	169534.0			242191.428571	Y
8	IC 280-607981/11	1.0	243027.0			243027.0	Y
9	IC 280-607981/10	2.5	620325.0			248130.0	Y



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Calibration / p-Nitrotoluene

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

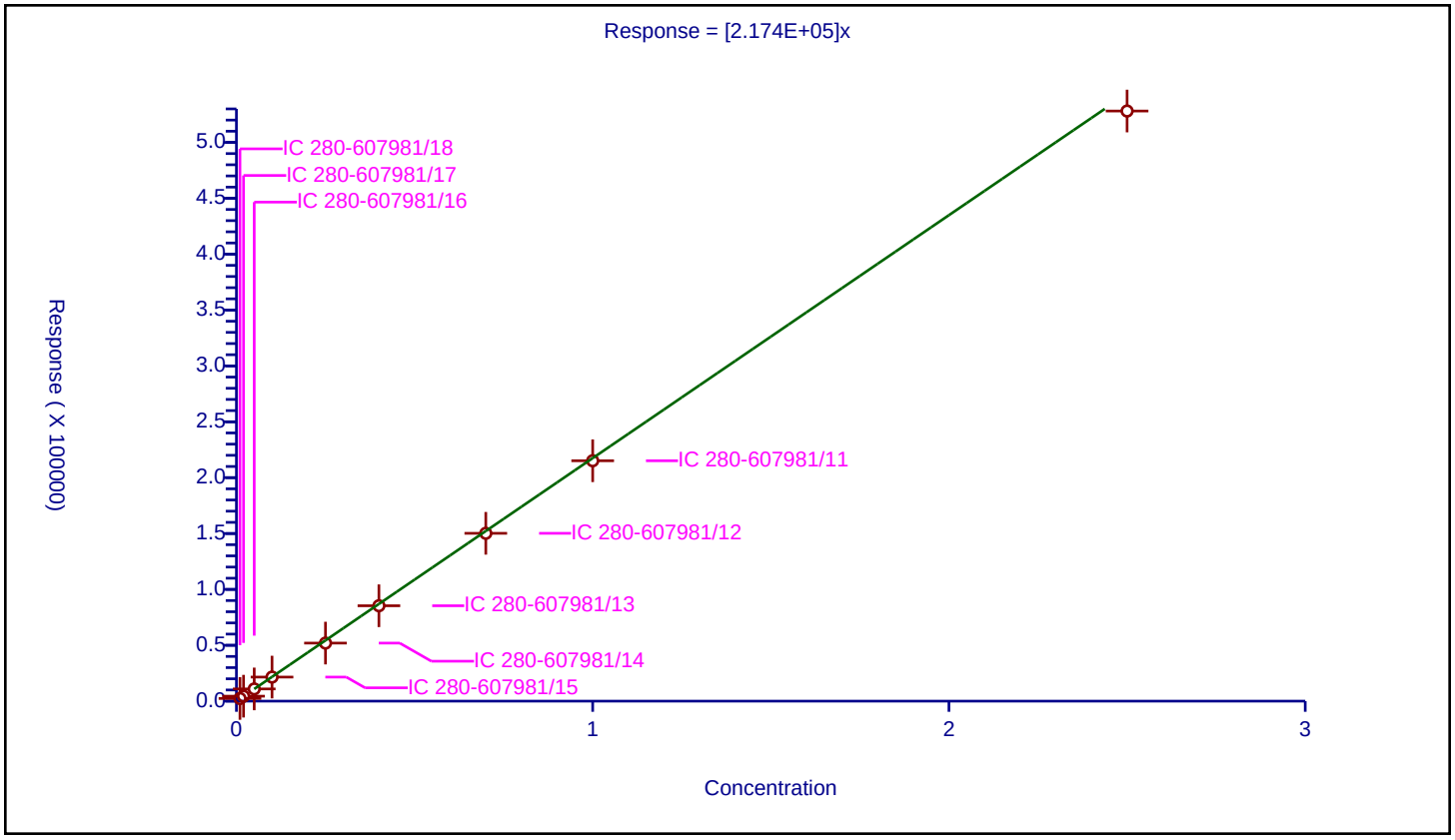
Curve Coefficients

Intercept:	0
Slope:	2.174E+05

Error Coefficients

Standard Error:	5690
Relative Standard Error:	4.1
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-607981/18	0.01	2388.0			238800.0	Y
2	IC 280-607981/17	0.02	4444.0			222200.0	Y
3	IC 280-607981/16	0.05	10927.0			218540.0	Y
4	IC 280-607981/15	0.1	21537.0			215370.0	Y
5	IC 280-607981/14	0.25	51955.0			207820.0	Y
6	IC 280-607981/13	0.4	85363.0			213407.5	Y
7	IC 280-607981/12	0.7	150188.0			214554.285714	Y
8	IC 280-607981/11	1.0	215111.0			215111.0	Y
9	IC 280-607981/10	2.5	528095.0			211238.0	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

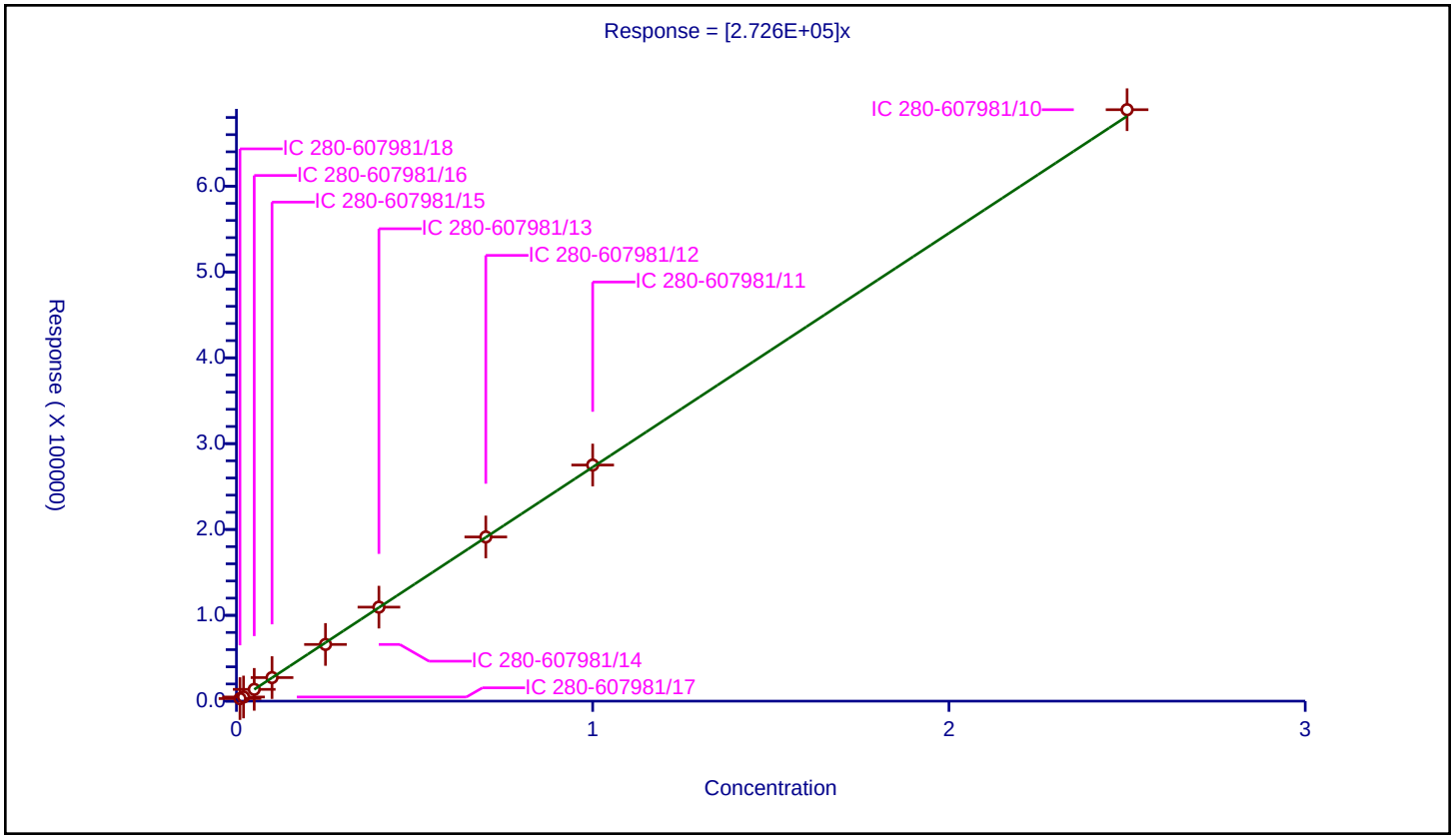
Curve Coefficients

Intercept:	0
Slope:	2.726E+05

Error Coefficients

Standard Error:	2930
Relative Standard Error:	5.5
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-607981/18	0.01	3004.0			300400.0	Y
2	IC 280-607981/17	0.02	4840.0			242000.0	Y
3	IC 280-607981/16	0.05	13722.0			274440.0	Y
4	IC 280-607981/15	0.1	27461.0			274610.0	Y
5	IC 280-607981/14	0.25	66062.0			264248.0	Y
6	IC 280-607981/13	0.4	109516.0			273790.0	Y
7	IC 280-607981/12	0.7	191293.0			273275.714286	Y
8	IC 280-607981/11	1.0	275101.0			275101.0	Y
9	IC 280-607981/10	2.5	689078.0			275631.2	Y



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Calibration / m-Nitrotoluene

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

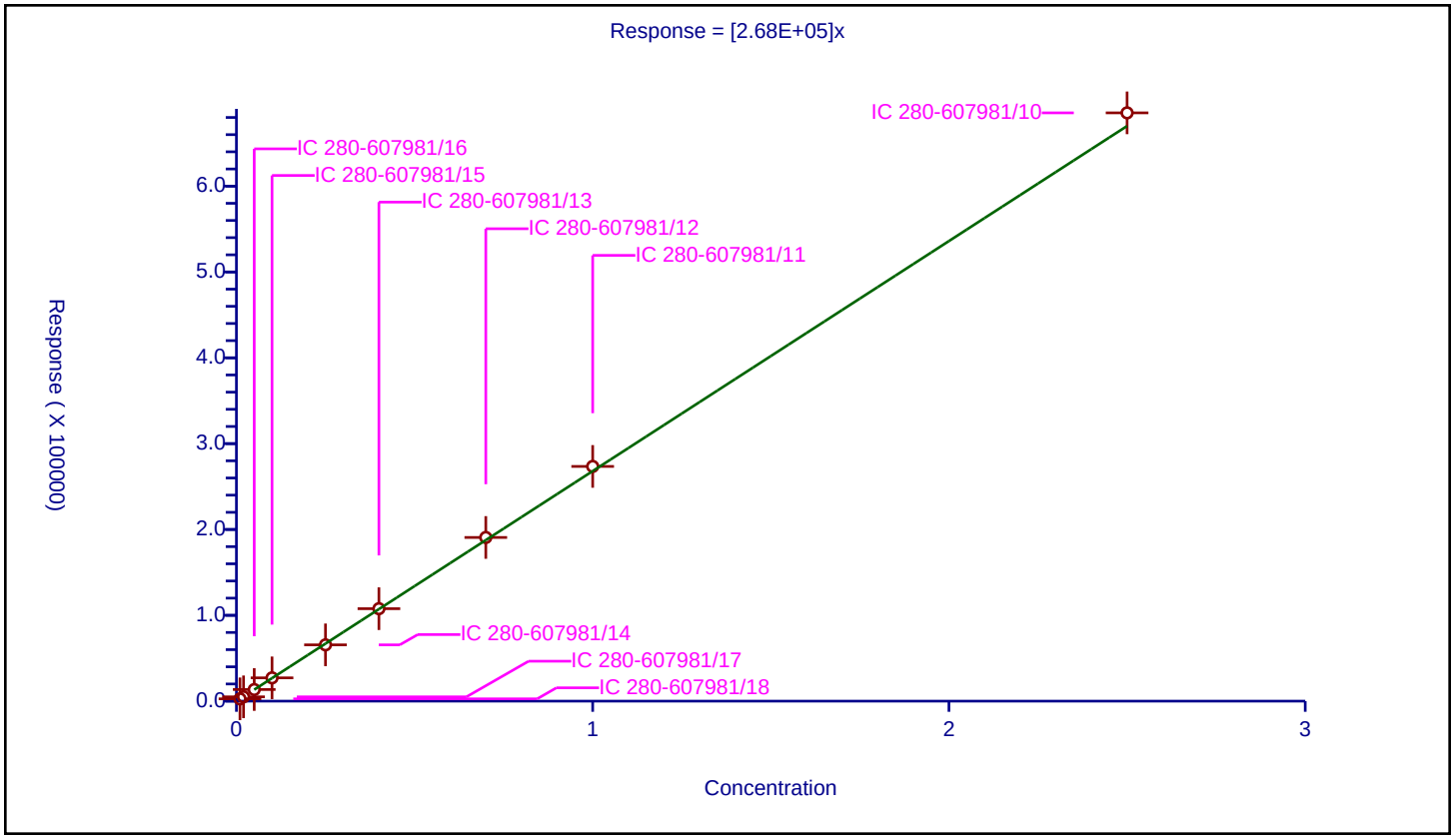
Curve Coefficients

Intercept:	0
Slope:	2.68E+05

Error Coefficients

Standard Error:	5890
Relative Standard Error:	2.7
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-607981/18	0.01	2673.0			267300.0	Y
2	IC 280-607981/17	0.02	5021.0			251050.0	Y
3	IC 280-607981/16	0.05	13529.0			270580.0	Y
4	IC 280-607981/15	0.1	27150.0			271500.0	Y
5	IC 280-607981/14	0.25	65576.0			262304.0	Y
6	IC 280-607981/13	0.4	107736.0			269340.0	Y
7	IC 280-607981/12	0.7	190691.0			272415.714286	Y
8	IC 280-607981/11	1.0	273461.0			273461.0	Y
9	IC 280-607981/10	2.5	685382.0			274152.8	Y



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Calibration / 2-Amino-4,6-dinitrotoluene

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

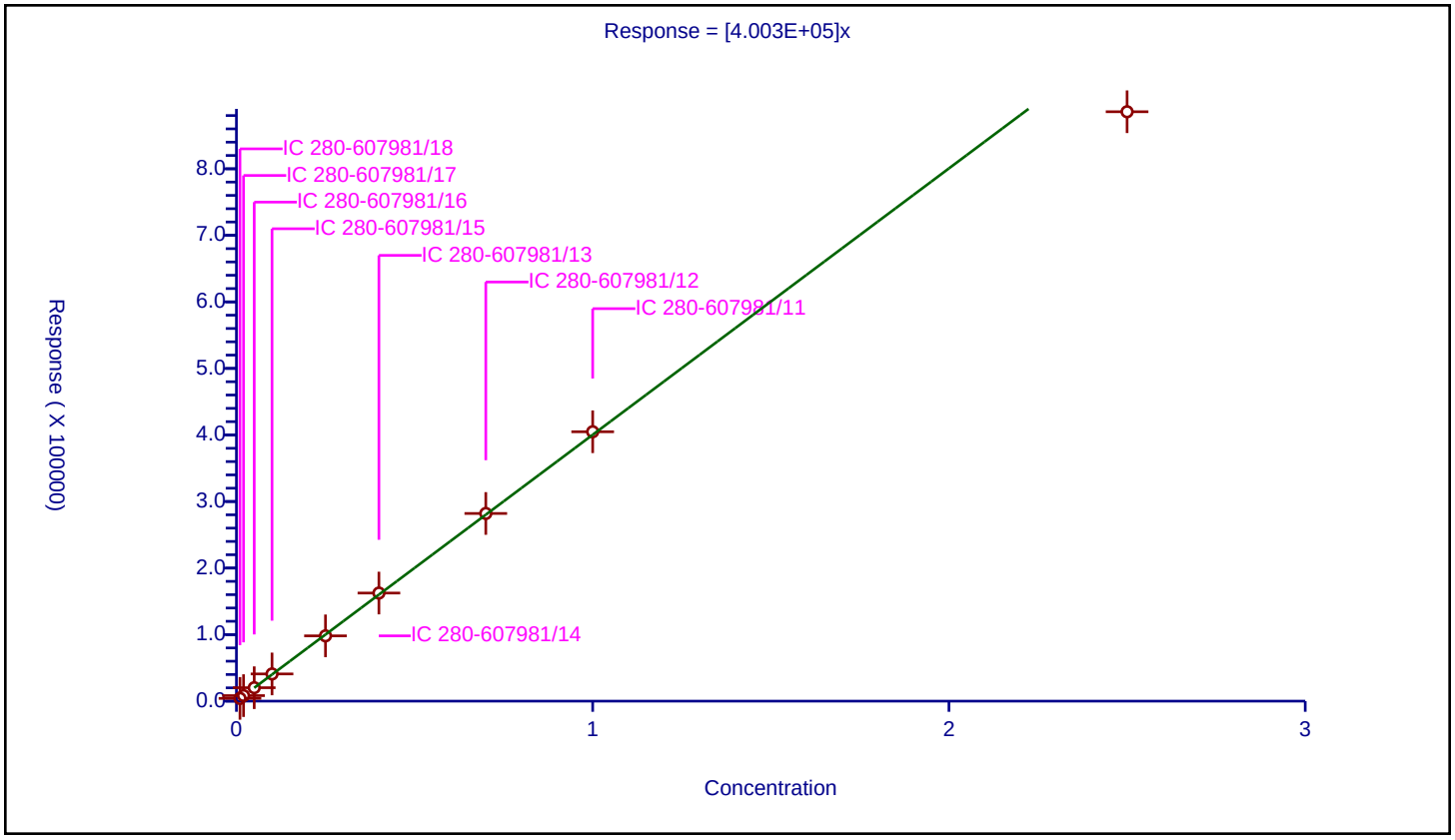
Curve Coefficients

Intercept:	0
Slope:	4.003E+05

Error Coefficients

Standard Error:	40700
Relative Standard Error:	4.6
Correlation Coefficient:	0.996
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-607981/18	0.01	4148.0			414800.0	Y
2	IC 280-607981/17	0.02	8295.0			414750.0	Y
3	IC 280-607981/16	0.05	20191.0			403820.0	Y
4	IC 280-607981/15	0.1	40866.0			408660.0	Y
5	IC 280-607981/14	0.25	98103.0			392412.0	Y
6	IC 280-607981/13	0.4	162441.0			406102.5	Y
7	IC 280-607981/12	0.7	282018.0			402882.857143	Y
8	IC 280-607981/11	1.0	404845.0			404845.0	Y
9	IC 280-607981/10	2.5	885701.0			354280.4	Y



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Calibration / 1,3,5-Trinitrobenzene

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

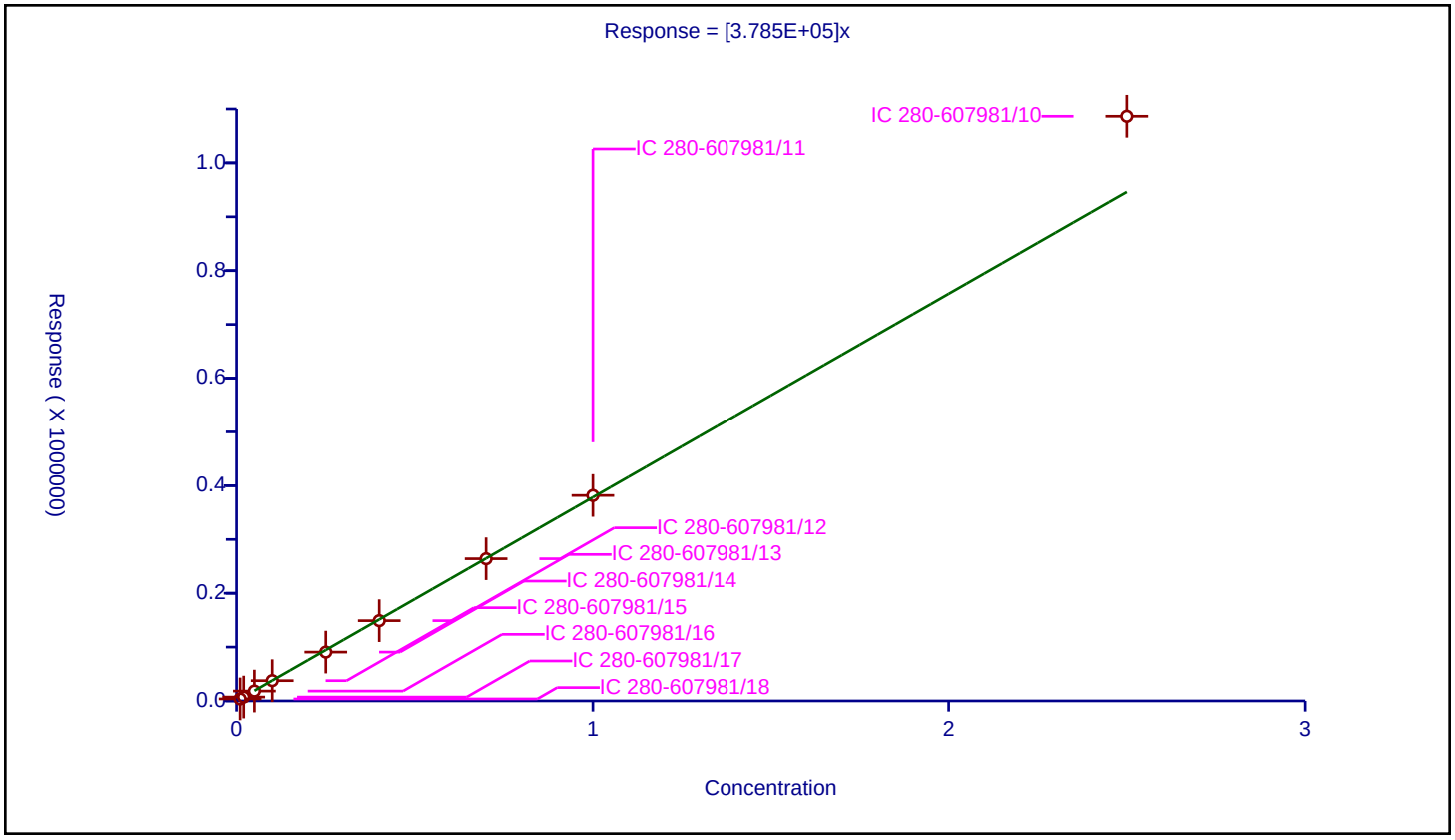
Curve Coefficients

Intercept:	0
Slope:	3.785E+05

Error Coefficients

Standard Error:	49600
Relative Standard Error:	5.9
Correlation Coefficient:	0.997
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-607981/18	0.01	3748.0			374800.0	Y
2	IC 280-607981/17	0.02	7178.0			358900.0	Y
3	IC 280-607981/16	0.05	18350.0			367000.0	Y
4	IC 280-607981/15	0.1	37635.0			376350.0	Y
5	IC 280-607981/14	0.25	90714.0			362856.0	Y
6	IC 280-607981/13	0.4	149070.0			372675.0	Y
7	IC 280-607981/12	0.7	264170.0			377385.714286	Y
8	IC 280-607981/11	1.0	381831.0			381831.0	Y
9	IC 280-607981/10	2.5	1086488.0			434595.2	Y



Calibration / 2,6-Dinitrotoluene

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

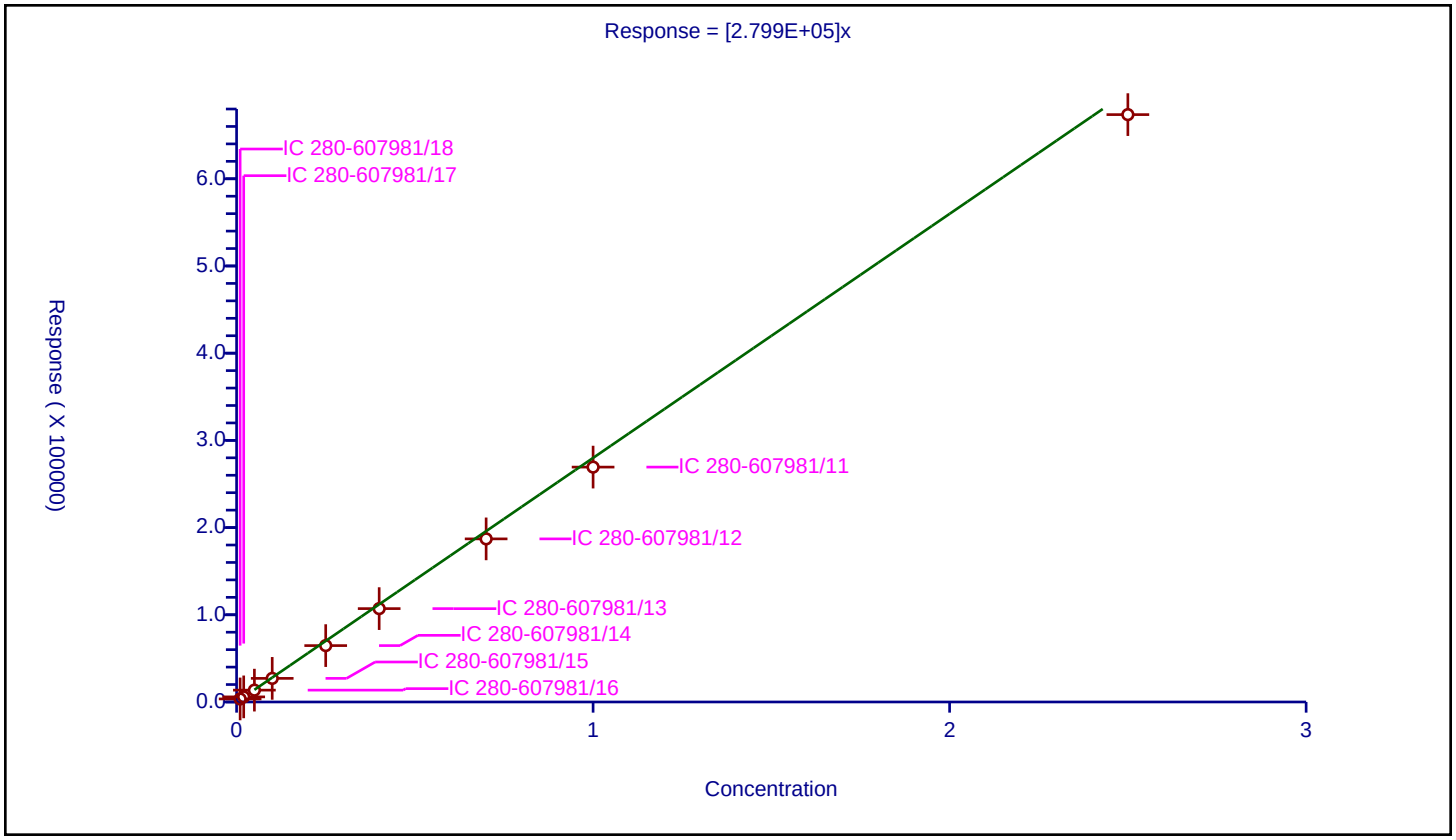
Curve Coefficients

Intercept:	0
Slope:	2.799E+05

Error Coefficients

Standard Error:	10800
Relative Standard Error:	10.1
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.985

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-607981/18	0.01	3509.0			350900.0	Y
2	IC 280-607981/17	0.02	5869.0			293450.0	Y
3	IC 280-607981/16	0.05	13580.0			271600.0	Y
4	IC 280-607981/15	0.1	27076.0			270760.0	Y
5	IC 280-607981/14	0.25	64666.0			258664.0	Y
6	IC 280-607981/13	0.4	107072.0			267680.0	Y
7	IC 280-607981/12	0.7	187051.0			267215.714286	Y
8	IC 280-607981/11	1.0	269366.0			269366.0	Y
9	IC 280-607981/10	2.5	673578.0			269431.2	Y



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

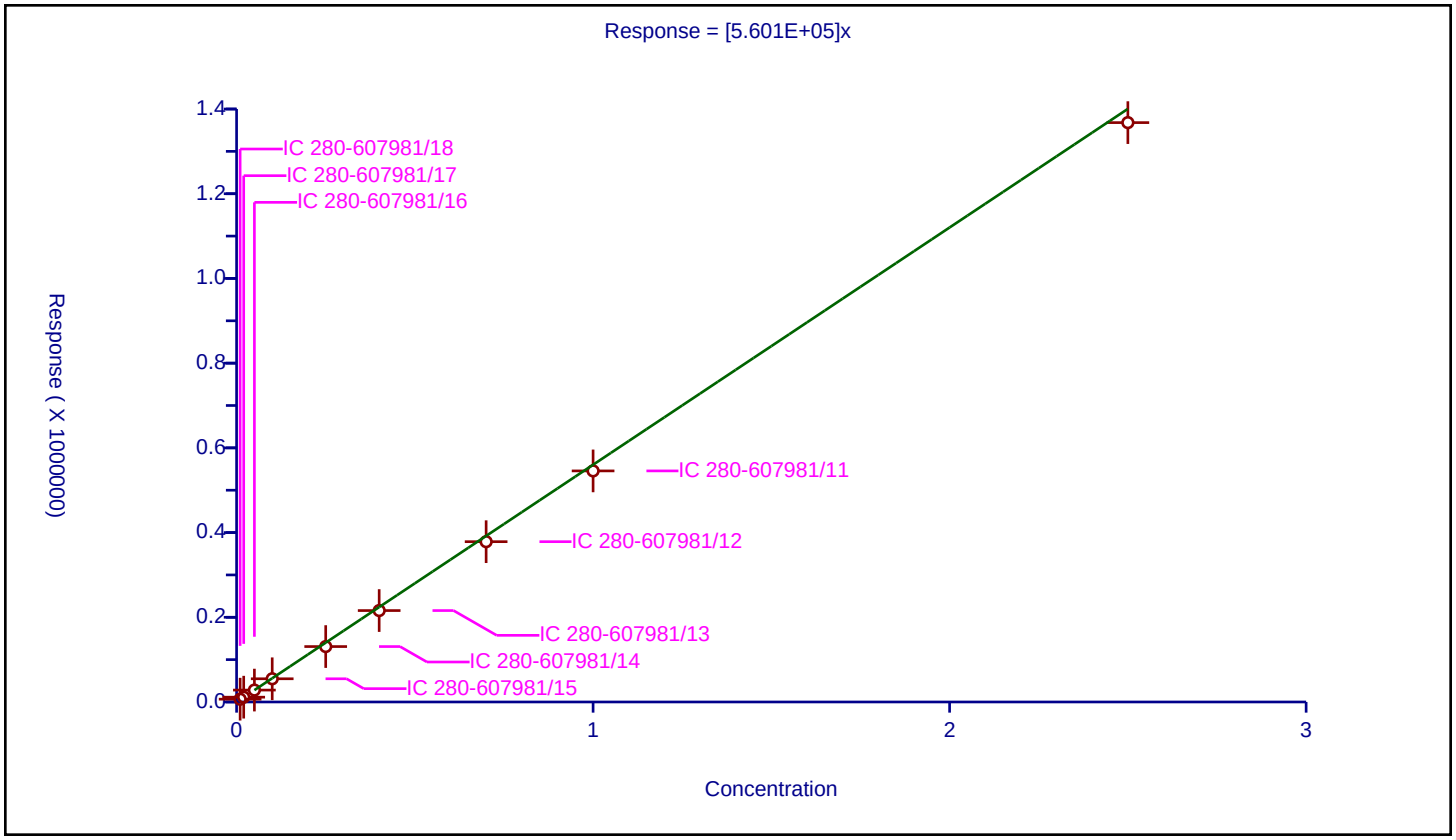
Curve Coefficients

Intercept:	0
Slope:	5.601E+05

Error Coefficients

Standard Error:	14100
Relative Standard Error:	7.4
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.992

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-607981/18	0.01	6650.0			665000.0	Y
2	IC 280-607981/17	0.02	11382.0			569100.0	Y
3	IC 280-607981/16	0.05	28133.0			562660.0	Y
4	IC 280-607981/15	0.1	54791.0			547910.0	Y
5	IC 280-607981/14	0.25	130856.0			523424.0	Y
6	IC 280-607981/13	0.4	215854.0			539635.0	Y
7	IC 280-607981/12	0.7	378459.0			540655.714286	Y
8	IC 280-607981/11	1.0	545578.0			545578.0	Y
9	IC 280-607981/10	2.5	1367914.0			547165.6	Y



Calibration / Tetryl

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

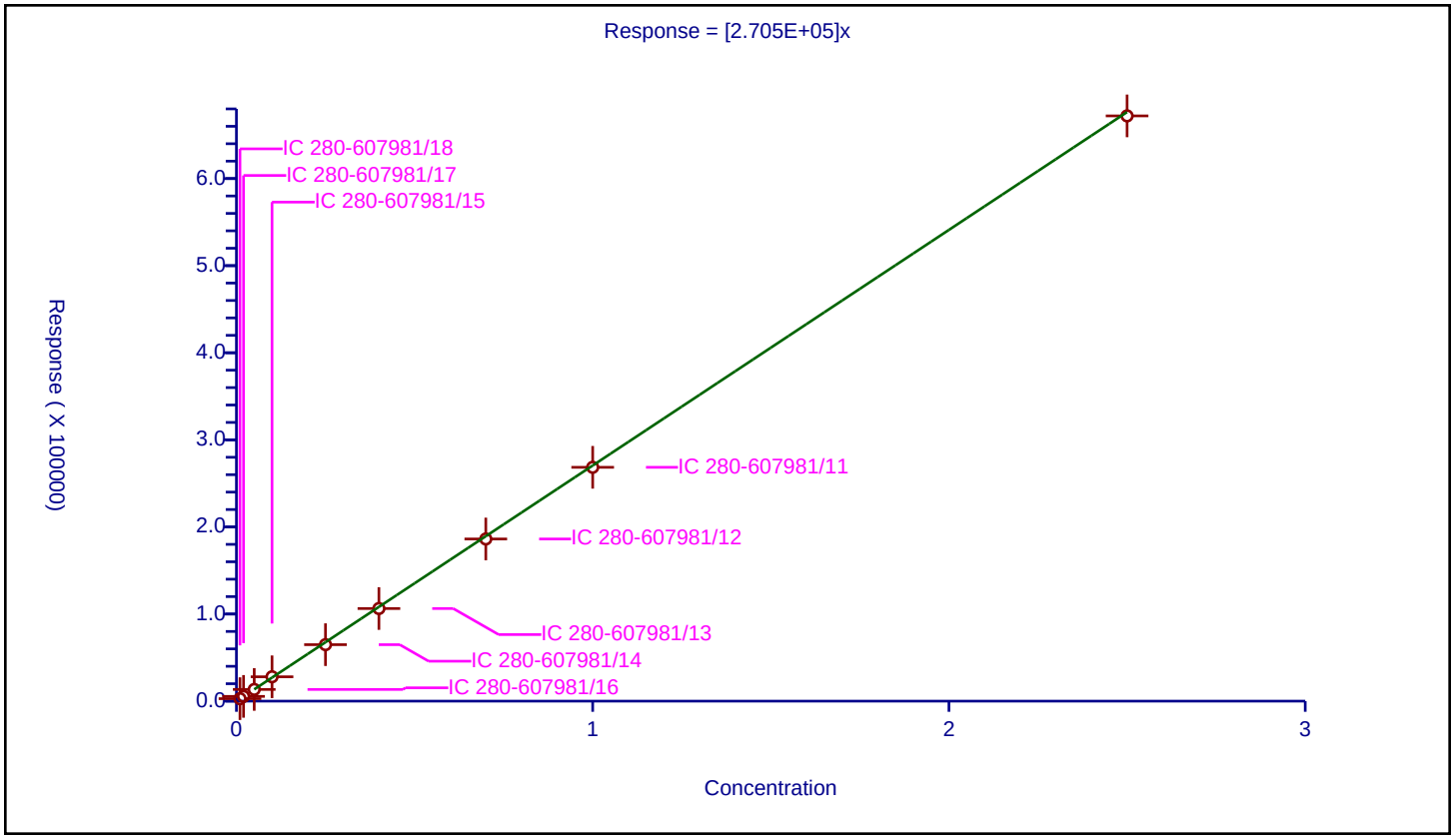
Curve Coefficients

Intercept:	0
Slope:	2.705E+05

Error Coefficients

Standard Error:	2390
Relative Standard Error:	2.8
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-607981/18	0.01	2847.0			284700.0	Y
2	IC 280-607981/17	0.02	5460.0			273000.0	Y
3	IC 280-607981/16	0.05	13447.0			268940.0	Y
4	IC 280-607981/15	0.1	27969.0			279690.0	Y
5	IC 280-607981/14	0.25	64854.0			259416.0	Y
6	IC 280-607981/13	0.4	106353.0			265882.5	Y
7	IC 280-607981/12	0.7	186180.0			265971.428571	Y
8	IC 280-607981/11	1.0	268469.0			268469.0	Y
9	IC 280-607981/10	2.5	671961.0			268784.4	Y



5/30/2023
10:34 AM

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

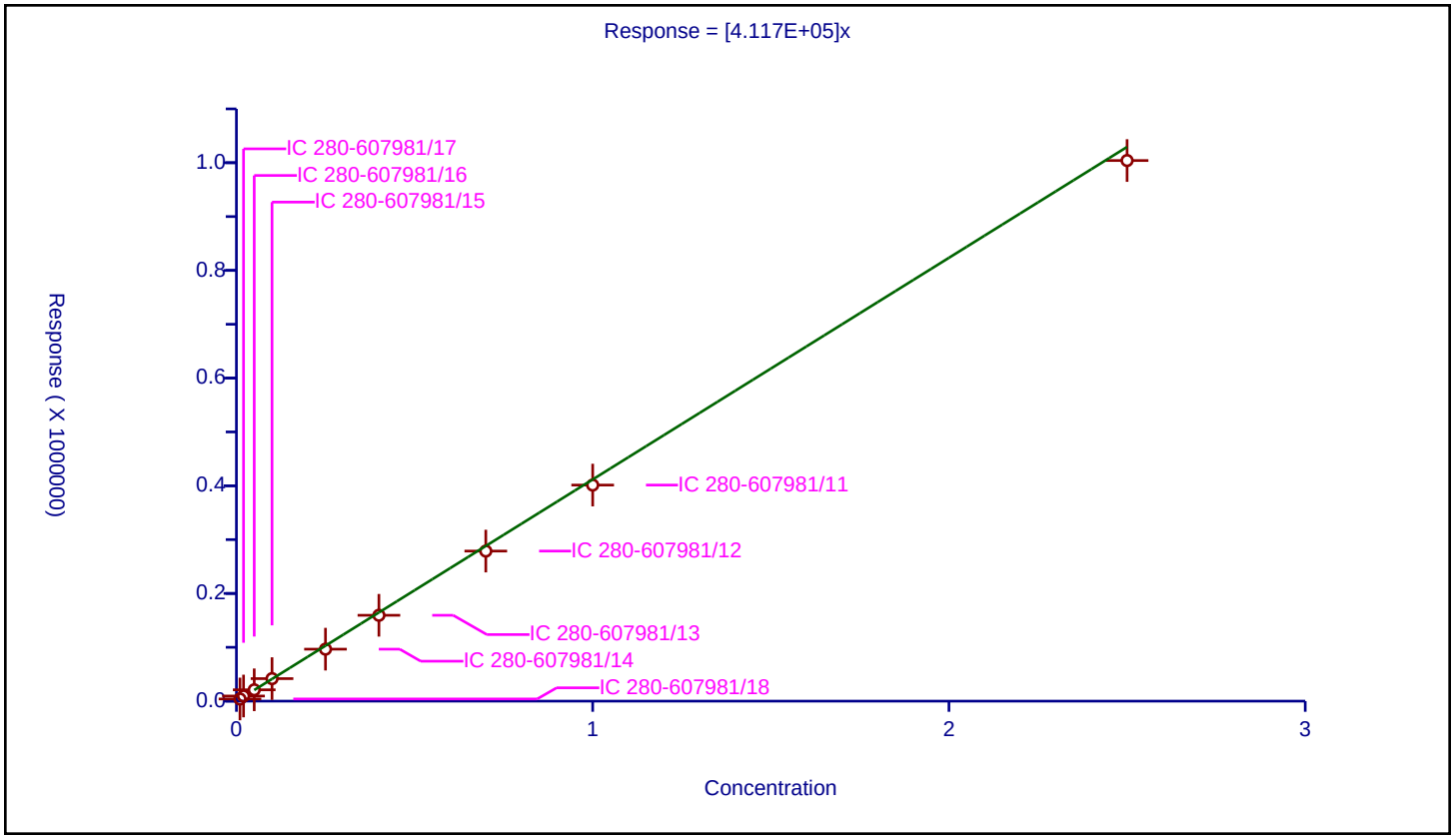
Curve Coefficients

Intercept:	0
Slope:	4.117E+05

Error Coefficients

Standard Error:	10600
Relative Standard Error:	6.4
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.995

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-607981/18	0.01	4042.0			404200.0	Y
2	IC 280-607981/17	0.02	9530.0			476500.0	Y
3	IC 280-607981/16	0.05	21038.0			420760.0	Y
4	IC 280-607981/15	0.1	41817.0			418170.0	Y
5	IC 280-607981/14	0.25	96518.0			386072.0	Y
6	IC 280-607981/13	0.4	159461.0			398652.5	Y
7	IC 280-607981/12	0.7	278721.0			398172.857143	Y
8	IC 280-607981/11	1.0	401312.0			401312.0	Y
9	IC 280-607981/10	2.5	1004078.0			401631.2	Y



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

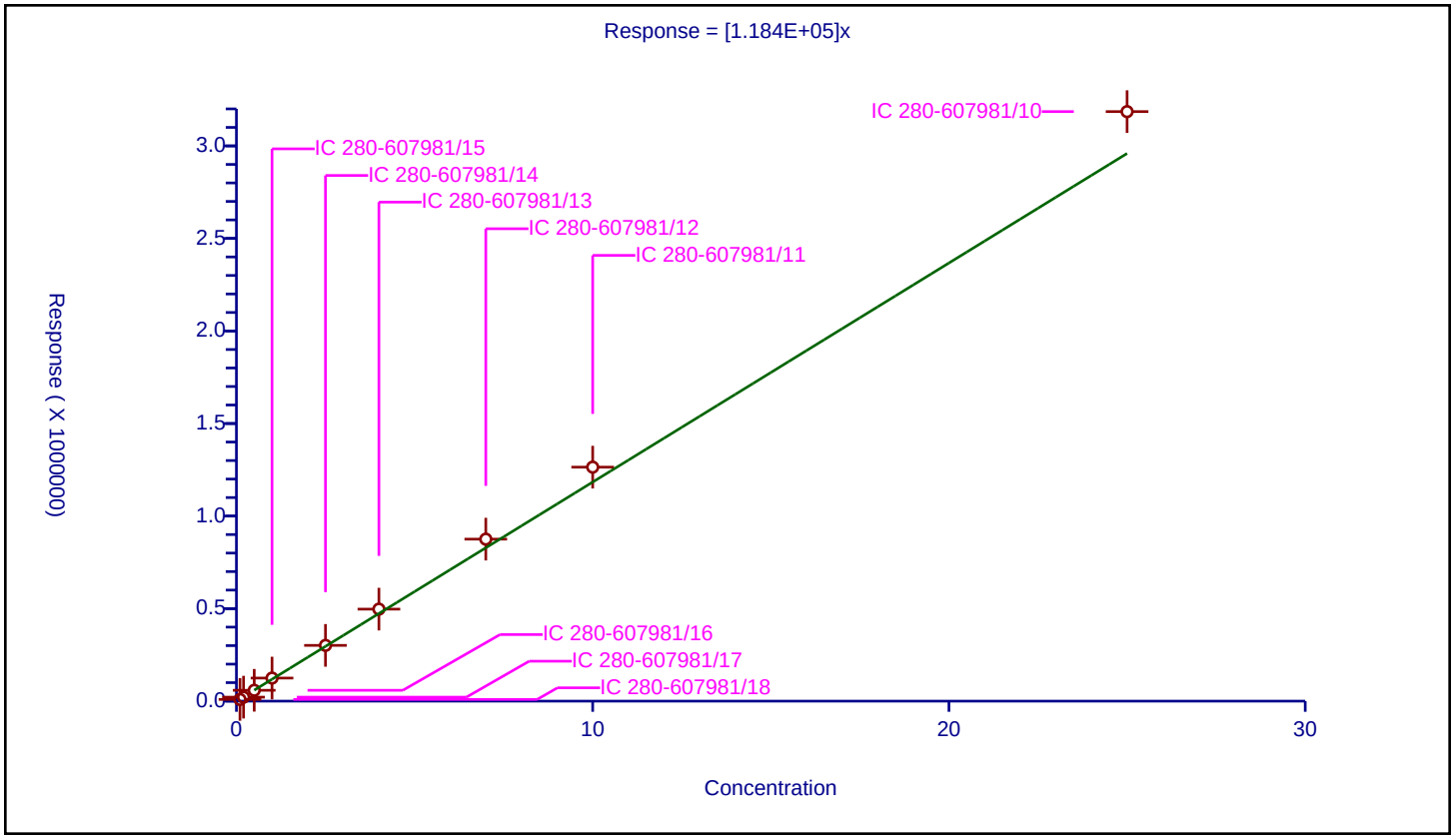
Curve Coefficients

Intercept:	0
Slope:	1.184E+05

Error Coefficients

Standard Error:	86900
Relative Standard Error:	9.8
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.989

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-607981/18	0.1	9214.0			92140.0	Y
2	IC 280-607981/17	0.2	21527.0			107635.0	Y
3	IC 280-607981/16	0.5	58615.0			117230.0	Y
4	IC 280-607981/15	1.0	124639.0			124639.0	Y
5	IC 280-607981/14	2.5	301212.0			120484.8	Y
6	IC 280-607981/13	4.0	497183.0			124295.75	Y
7	IC 280-607981/12	7.0	875273.0			125039.0	Y
8	IC 280-607981/11	10.0	1264310.0			126431.0	Y
9	IC 280-607981/10	25.0	3185284.0			127411.36	Y



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

Lab Name: Eurofins Denver Job No.: 280-176866-1 Analy Batch No.: 601664

SDG No.:

Instrument ID: CHHPLC_X3 GC Column: UltraCarb5u ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 02/08/2023 15:38 Calibration End Date: 02/08/2023 18:42 Calibration ID: 76877

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-601664/19	02080019.D
Level 2	IC 280-601664/18	02080018.D
Level 3	IC 280-601664/17	02080017.D
Level 4	IC 280-601664/16	02080016.D
Level 5	IC 280-601664/15	02080015.D
Level 6	IC 280-601664/14	02080014.D
Level 7	IC 280-601664/13	02080013.D
Level 8	IC 280-601664/12	02080012.D
Level 9	IC 280-601664/11	02080011.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	6.550	6.549	6.547	6.544	6.548	6.548	6.544	6.547	6.546		6.394 - 6.694	6.547
RDX	7.563	7.563	7.567	7.564	7.568	7.562	7.564	7.567	7.559		7.414 - 7.714	7.564
Picric acid	8.050	8.049	8.047	8.044	8.041	8.028	8.018	8.014	7.966		7.894 - 8.194	8.029
1,3,5-Trinitrobenzene	8.643	8.643	8.647	8.644	8.641	8.642	8.638	8.647	8.639		8.494 - 8.794	8.643
1,3-Dinitrobenzene	9.263	9.256	9.260	9.257	9.255	9.255	9.251	9.260	9.246		9.107 - 9.407	9.256
Nitrobenzene	9.636	9.636	9.633	9.631	9.628	9.628	9.624	9.634	9.619		9.481 - 9.781	9.630
3,5-Dinitroaniline	9.836	9.836	9.840	9.831	9.828	9.828	9.824	9.840	9.819		9.681 - 9.981	9.831
Tetryl	9.983	9.982	9.987	9.977	9.975	9.968	9.971	9.987	9.966		9.827 - 10.127	9.977
Nitroglycerin	10.450	10.449	10.453	10.437	10.441	10.435	10.437	10.454	10.426		10.287 - 10.587	10.442
2,4,6-Trinitrotoluene	10.876	10.876	10.880	10.864	10.868	10.868	10.864	10.880	10.859		10.764 - 10.964	10.871
4-Amino-2,6-dinitrotoluene	11.043	11.042	11.040	11.031	11.028	11.022	11.024	11.040	11.013		10.931 - 11.131	11.031
2-Amino-4,6-dinitrotoluene	11.296	11.289	11.293	11.277	11.275	11.275	11.271	11.287	11.259		11.177 - 11.377	11.280
2,6-Dinitrotoluene	11.470	11.469	11.467	11.451	11.455	11.448	11.451	11.467	11.439		11.351 - 11.551	11.457
2,4-Dinitrotoluene	11.636	11.636	11.633	11.617	11.621	11.615	11.617	11.634	11.606		11.517 - 11.717	11.624
2-Nitrotoluene	12.456	12.456	12.453	12.437	12.441	12.435	12.431	12.447	12.426		12.287 - 12.587	12.442
4-Nitrotoluene	12.863	12.869	12.867	12.844	12.848	12.842	12.844	12.860	12.833		12.694 - 12.994	12.852
3-Nitrotoluene	13.430	13.442	13.433	13.411	13.415	13.408	13.404	13.420	13.399		13.261 - 13.561	13.418
PETN	14.583	14.589	14.580	14.551	14.555	14.548	14.544	14.567	14.539		14.401 - 14.701	14.562
1,2-Dinitrobenzene	8.517	8.516	8.520	8.517	8.515	8.515	8.511	8.521	8.506		8.367 - 8.667	8.515

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Denver | Job No.: 280-176866-1 | Analy Batch No.: 601664

SDG No.:

Instrument ID: CHHPLC_X3 | GC Column: UltraCarb5u ID: 4.6(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 02/08/2023 15:38 | Calibration End Date: 02/08/2023 18:42 | Calibration ID: 76877

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-601664/19	02080019.D
Level 2	IC 280-601664/18	02080018.D
Level 3	IC 280-601664/17	02080017.D
Level 4	IC 280-601664/16	02080016.D
Level 5	IC 280-601664/15	02080015.D
Level 6	IC 280-601664/14	02080014.D
Level 7	IC 280-601664/13	02080013.D
Level 8	IC 280-601664/12	02080012.D
Level 9	IC 280-601664/11	02080011.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	96200 93960 91737	98050 92130	92960 91317	93870 91529	Ave		93528.1492				2.5		20.0			
RDX	120300 102168 106491	109800 103248	104720 102589	101120 106983	Ave		106379.808				5.5		20.0			
Picric acid	67300 77436 78734	74600 77483	75360 77481	76400 77676	Ave		75829.9476				4.5		20.0			
1,3,5-Trinitrobenzene	219600 217528 217838	215650 218445	213580 218654	213990 219038	Ave		217147.032				1.0		20.0			
1,3-Dinitrobenzene	290200 296196 297242	292450 296278	293280 294821	292490 296615	Ave		294396.925				0.8		20.0			
Nitrobenzene	190500 190360 192956	190800 192660	192100 189984	190190 191651	Ave		191244.543				0.6		20.0			
3,5-Dinitroaniline	214700 228212 230510	218850 227498	228520 228160	227230 229927	Lin2	-154.28261	229201.890							1.0000		0.9900
Tetryl	161100 165680 166480	153650 171658	163060 165663	164380 165416	Ave		164120.706				3.0		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.: 280-176866-1 Analy Batch No.: 601664

SDG No.:

Instrument ID: CHHPLC_X3 GC Column: UltraCarb5u ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 02/08/2023 15:38 Calibration End Date: 02/08/2023 18:42 Calibration ID: 76877

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								
Nitroglycerin	61590 64985 65842	59395 66398	63298 66047	63170 65903	Ave		64069.9243				3.7		20.0			
2,4,6-Trinitrotoluene	216700 210476 209648	213100 208335	214160 208960	207870 210110	Ave		211039.889				1.4		20.0			
4-Amino-2,6-dinitrotoluene	167000 152884 152878	155300 152868	157500 150916	154070 150980	Ave		154932.802				3.2		20.0			
2-Amino-4,6-dinitrotoluene	221400 198056 200205	201050 198963	201440 196574	197650 197356	Ave		201410.398				3.8		20.0			
2,6-Dinitrotoluene	148600 143452 140114	145550 140035	142180 142239	139670 142869	Ave		142745.397				2.0		20.0			
2,4-Dinitrotoluene	314100 293052 294340	299250 294023	297440 290757	295390 291656	Ave		296667.471				2.4		20.0			
2-Nitrotoluene	137700 124752 126235	130550 125108	132460 124116	125480 124668	Ave		127896.490				3.7		20.0			
4-Nitrotoluene	126300 108612 108849	119650 108228	111680 107359	108570 107671	Ave		111879.808				5.9		20.0			
3-Nitrotoluene	147300 137292 138526	153100 136790	141920 136640	136660 136203	Ave		140492.289				4.2		20.0			
PETN	72730 68498 68809	67310 68653	68114 68586	68161 68748	Ave		68845.4251				2.2		20.0			
1,2-Dinitrobenzene	118800 127432 129675	124550 128775	125560 126837	127270 127879	Ave		126308.705				2.5		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.: 280-176866-1 Analy Batch No.: 601664

SDG No.:

Instrument ID: CHHPLC_X3 GC Column: UltraCarb5u ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 02/08/2023 15:38 Calibration End Date: 02/08/2023 18:42 Calibration ID: 76877

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-601664/19	02080019.D
Level 2	IC 280-601664/18	02080018.D
Level 3	IC 280-601664/17	02080017.D
Level 4	IC 280-601664/16	02080016.D
Level 5	IC 280-601664/15	02080015.D
Level 6	IC 280-601664/14	02080014.D
Level 7	IC 280-601664/13	02080013.D
Level 8	IC 280-601664/12	02080012.D
Level 9	IC 280-601664/11	02080011.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	962 36852	1961 63922	4648 91529	9387 229343	23490	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
RDX	Ave	1203 41299	2196 71812	5236 106983	10112 266228	25542	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
Picric acid	Ave	673 30993	1492 54237	3768 77676	7640 196834	19359	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
1,3,5-Trinitrobenzene	Ave	2196 87378	4313 153058	10679 219038	21399 544595	54382	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
1,3-Dinitrobenzene	Ave	2902 118511	5849 206375	14664 296615	29249 743106	74049	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
Nitrobenzene	Ave	1905 77064	3816 132989	9605 191651	19019 482389	47590	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
3,5-Dinitroaniline	Lin2	2147 90999	4377 159712	11426 229927	22723 576276	57053	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
Tetryl	Ave	1611 68663	3073 115964	8153 165416	16438 416200	41420	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
Nitroglycerin	Ave	6159 265593	11879 462332	31649 659032	63170 1646056	162463	0.100 4.00	0.200 7.00	0.500 10.0	1.00 25.0	2.50
2,4,6-Trinitrotoluene	Ave	2167 83334	4262 146272	10708 210110	20787 524120	52619	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
4-Amino-2,6-dinitrotoluene	Ave	1670 61147	3106 105641	7875 150980	15407 382195	38221	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
2-Amino-4,6-dinitrotoluene	Ave	2214 79585	4021 137602	10072 197356	19765 500512	49514	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
2,6-Dinitrotoluene	Ave	1486	2911	7109	13967	35863	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.: 280-176866-1 Analy Batch No.: 601664

SDG No.:

Instrument ID: CHHPLC_X3 GC Column: UltraCarb5u ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 02/08/2023 15:38 Calibration End Date: 02/08/2023 18:42 Calibration ID: 76877

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
		56014	99567	142869	350285		0.400	0.700	1.00	2.50	
2,4-Dinitrotoluene	Ave	3141	5985	14872	29539	73263	0.0100	0.0200	0.0500	0.100	0.250
		117609	203530	291656	735849		0.400	0.700	1.00	2.50	
2-Nitrotoluene	Ave	1377	2611	6623	12548	31188	0.0100	0.0200	0.0500	0.100	0.250
		50043	86881	124668	315588		0.400	0.700	1.00	2.50	
4-Nitrotoluene	Ave	1263	2393	5584	10857	27153	0.0100	0.0200	0.0500	0.100	0.250
		43291	75151	107671	272123		0.400	0.700	1.00	2.50	
3-Nitrotoluene	Ave	1473	3062	7096	13666	34323	0.0100	0.0200	0.0500	0.100	0.250
		54716	95648	136203	346314		0.400	0.700	1.00	2.50	
PETN	Ave	7273	13462	34057	68161	171245	0.100	0.200	0.500	1.00	2.50
		274612	480104	687477	1720221		4.00	7.00	10.0	25.0	
1,2-Dinitrobenzene	Ave	1188	2491	6278	12727	31858	0.0100	0.0200	0.0500	0.100	0.250
		51510	88786	127879	324188		0.400	0.700	1.00	2.50	

Curve Type Legend
Ave = Average
Lin2 = Linear 1/conc^2

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20230208-118465.b\02080011.D
Lims ID: IC INT 9
Client ID:
Sample Type: IC Calib Level: 9
Inject. Date: 08-Feb-2023 15:38:53 ALS Bottle#: 11 Worklist Smp#: 11
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT 9
Operator ID: JZ/MAR Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub26

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20230208-118465.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 09-Feb-2023 12:48:02 Calib Date: 08-Feb-2023 18:42:13
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20230208-118465.b\02080019.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1604

First Level Reviewer: LV5D Date: 08-Feb-2023 16:28:55

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
4 HMX	1	6.546	6.544	0.002	229343	2.50	2.45	M
8 RDX	1	7.559	7.564	-0.005	266228	2.50	2.50	
9 2,4,6-Trinitrophenol	1	7.966	8.044	-0.078	196834	2.50	2.60	
$ 10 1,2-Dinitrobenzene	1	8.506	8.517	-0.011	324188	2.50	2.57	
11 1,3,5-Trinitrobenzene	1	8.639	8.644	-0.005	544595	2.50	2.51	
12 1,3-Dinitrobenzene	1	9.246	9.257	-0.011	743106	2.50	2.52	
13 Nitrobenzene	1	9.619	9.631	-0.012	482389	2.50	2.52	
14 3,5-Dinitroaniline	1	9.819	9.831	-0.012	576276	2.50	2.51	
15 Tetryl	1	9.966	9.977	-0.011	416200	2.50	2.54	
16 Nitroglycerin	2	10.426	10.437	-0.011	1646056	25.0	25.7	
17 2,4,6-Trinitrotoluene	1	10.859	10.864	-0.005	524120	2.50	2.48	
18 4-Amino-2,6-dinitrotoluene	1	11.013	11.031	-0.018	382195	2.50	2.47	
19 2-Amino-4,6-dinitrotoluene	1	11.259	11.277	-0.018	500512	2.50	2.49	
20 2,6-Dinitrotoluene	1	11.439	11.451	-0.012	350285	2.50	2.45	
21 2,4-Dinitrotoluene	1	11.606	11.617	-0.011	735849	2.50	2.48	
22 o-Nitrotoluene	1	12.426	12.437	-0.011	315588	2.50	2.47	
23 p-Nitrotoluene	1	12.833	12.844	-0.011	272123	2.50	2.43	
24 m-Nitrotoluene	1	13.399	13.411	-0.012	346314	2.50	2.47	
25 PETN	2	14.539	14.551	-0.012	1720221	25.0	25.0	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330IntermStk_00075 Amount Added: 250.00 Units: uL

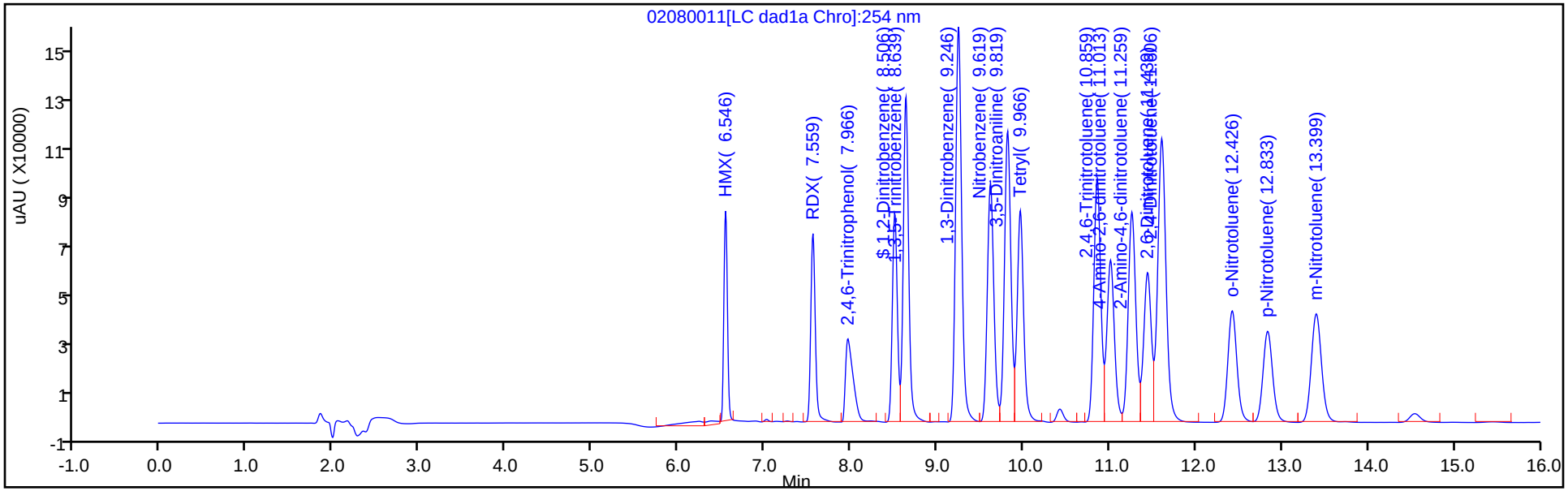
Report Date: 09-Feb-2023 12:48:02 Chrom Revision: 2.3 01-Feb-2023 13:23:06

Eurofins Denver

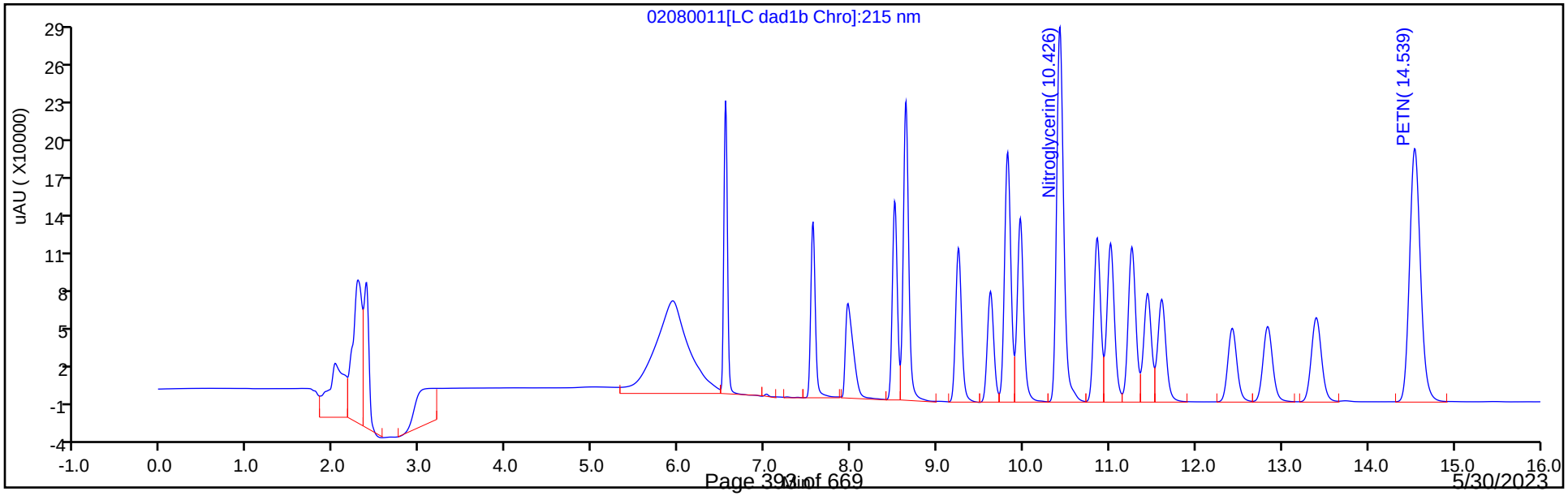
Data File: \\chromfs\denver\chromdata\chhplc_x\20230208-118465.b\02080011.d

Injection Date:	08-Feb-2023 15:38:53	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/MAR
Lims ID:	IC INT 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



5/30/2023
10:34 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

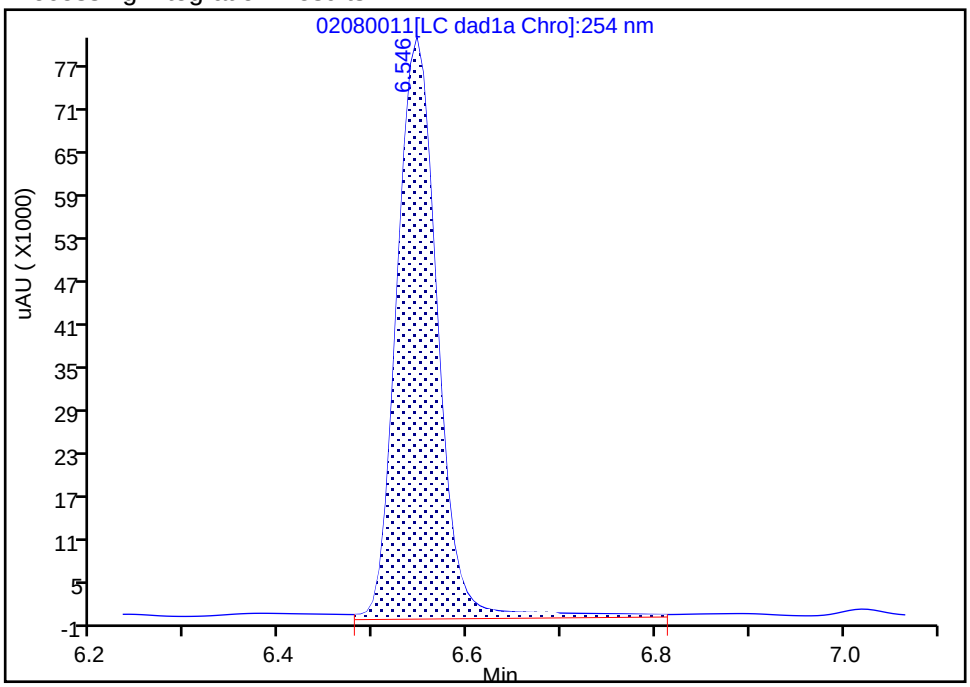
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230208-118465.b\02080011.d				
Injection Date:	08-Feb-2023 15:38:53	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT 9				
Client ID:					
Operator ID:	JZ/MAR	ALS Bottle#:	11	Worklist Smp#:	11
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

4 HMX, CAS: 2691-41-0

Signal: 1

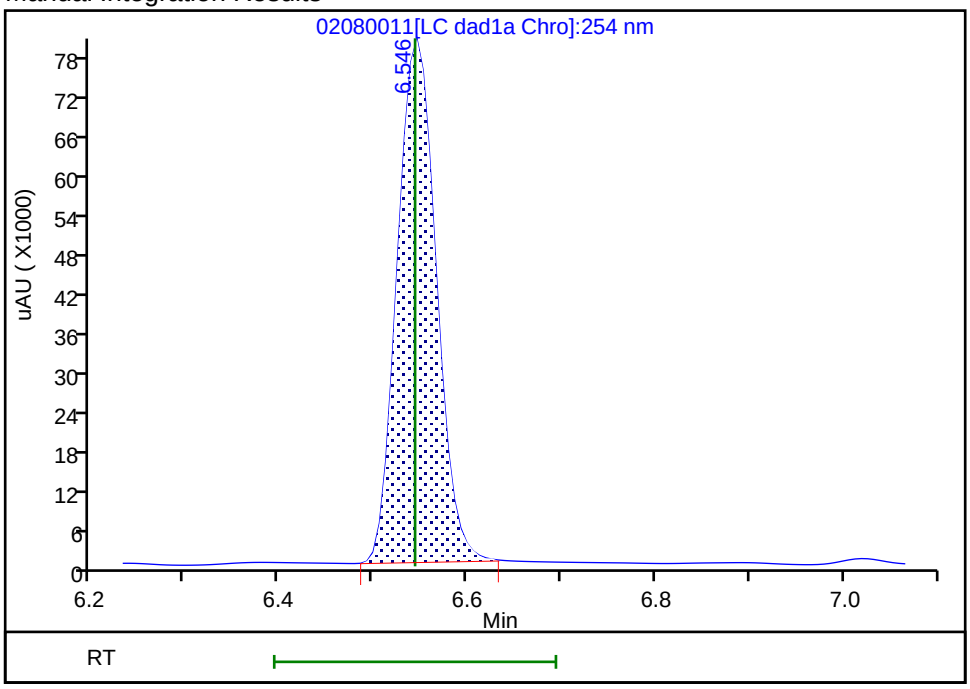
Processing Integration Results

RT: 6.55
Area: 245170
Amount: 2.586222
Amount Units: ug/mL



Manual Integration Results

RT: 6.55
Area: 229343
Amount: 2.452128
Amount Units: ug/mL



Reviewer: LV5D, 08-Feb-2023 16:28:37
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20230208-118465.b\02080012.D
Lims ID: IC INT 8
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 08-Feb-2023 16:01:51 ALS Bottle#: 12 Worklist Smp#: 12
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT 8
Operator ID: JZ/MAR Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub26

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20230208-118465.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 09-Feb-2023 12:48:03 Calib Date: 08-Feb-2023 18:42:13
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20230208-118465.b\02080019.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1604

First Level Reviewer: LV5D Date: 08-Feb-2023 16:28:33

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
4 HMX	1	6.547	6.544	0.003	91529	1.00	0.9786	M
8 RDX	1	7.567	7.564	0.003	106983	1.00	1.01	
9 2,4,6-Trinitrophenol	1	8.014	8.044	-0.030	77676	1.00	1.02	
$ 10 1,2-Dinitrobenzene	1	8.521	8.517	0.004	127879	1.00	1.01	
11 1,3,5-Trinitrobenzene	1	8.647	8.644	0.003	219038	1.00	1.01	
12 1,3-Dinitrobenzene	1	9.260	9.257	0.003	296615	1.00	1.01	
13 Nitrobenzene	1	9.634	9.631	0.003	191651	1.00	1.00	
14 3,5-Dinitroaniline	1	9.840	9.831	0.009	229927	1.00	1.00	
15 Tetryl	1	9.987	9.977	0.010	165416	1.00	1.01	
16 Nitroglycerin	2	10.454	10.437	0.017	659032	10.0	10.3	
17 2,4,6-Trinitrotoluene	1	10.880	10.864	0.016	210110	1.00	1.00	
18 4-Amino-2,6-dinitrotoluene	1	11.040	11.031	0.009	150980	1.00	0.9745	
19 2-Amino-4,6-dinitrotoluene	1	11.287	11.277	0.010	197356	1.00	0.9799	
20 2,6-Dinitrotoluene	1	11.467	11.451	0.016	142869	1.00	1.00	
21 2,4-Dinitrotoluene	1	11.634	11.617	0.017	291656	1.00	0.9831	
22 o-Nitrotoluene	1	12.447	12.437	0.010	124668	1.00	0.9748	
23 p-Nitrotoluene	1	12.860	12.844	0.016	107671	1.00	0.9624	
24 m-Nitrotoluene	1	13.420	13.411	0.009	136203	1.00	0.9695	
25 PETN	2	14.567	14.551	0.016	687477	10.0	9.99	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330IntermStk_00075 Amount Added: 100.00 Units: uL

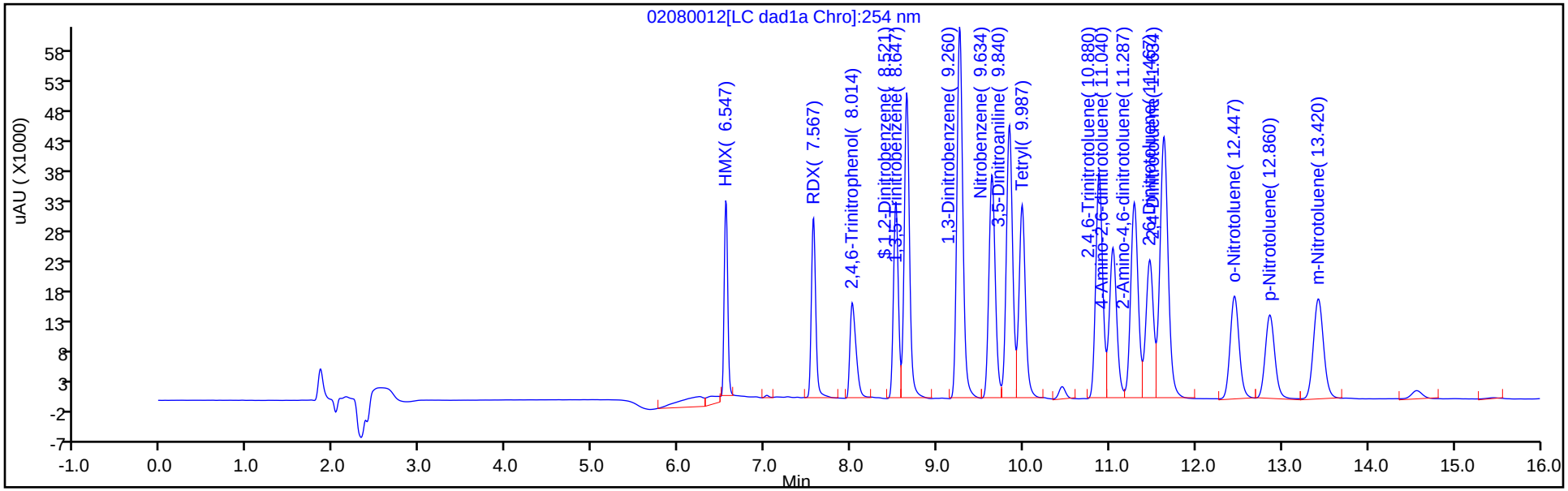
Report Date: 09-Feb-2023 12:48:03 Chrom Revision: 2.3 01-Feb-2023 13:23:06

Eurofins Denver

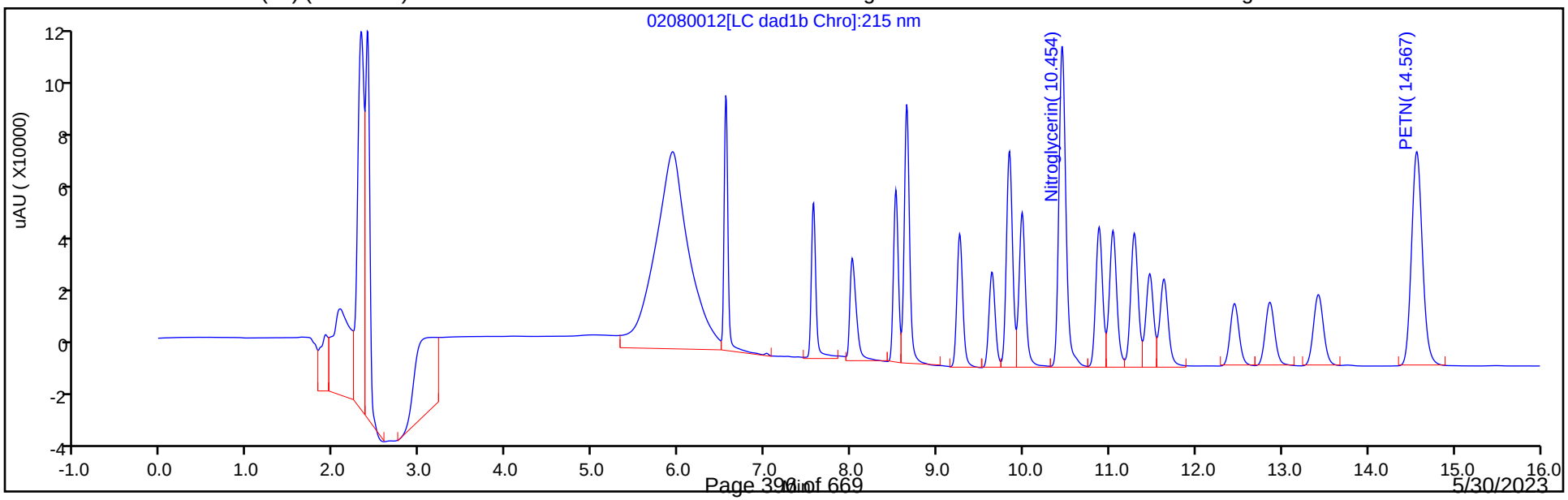
Data File: \\chromfs\denver\chromdata\chhplc_x\20230208-118465.b\02080012.d

Injection Date:	08-Feb-2023 16:01:51	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/MAR
Lims ID:	IC INT 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



5/30/2023
10:34 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

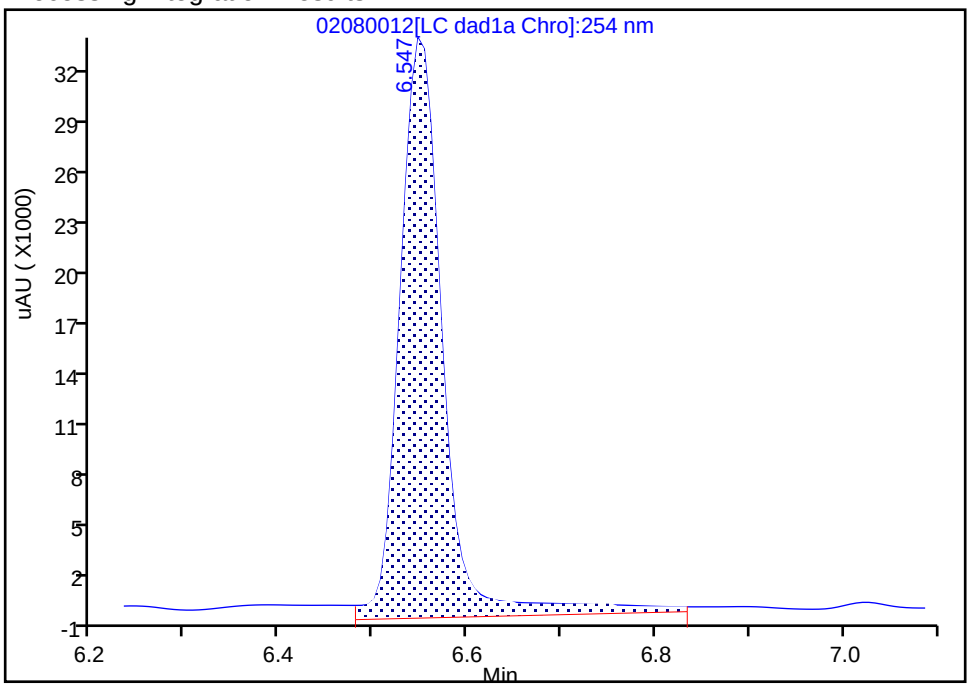
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230208-118465.b\02080012.d				
Injection Date:	08-Feb-2023 16:01:51	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT 8				
Client ID:					
Operator ID:	JZ/MAR	ALS Bottle#:	12	Worklist Smp#:	12
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

4 HMX, CAS: 2691-41-0

Signal: 1

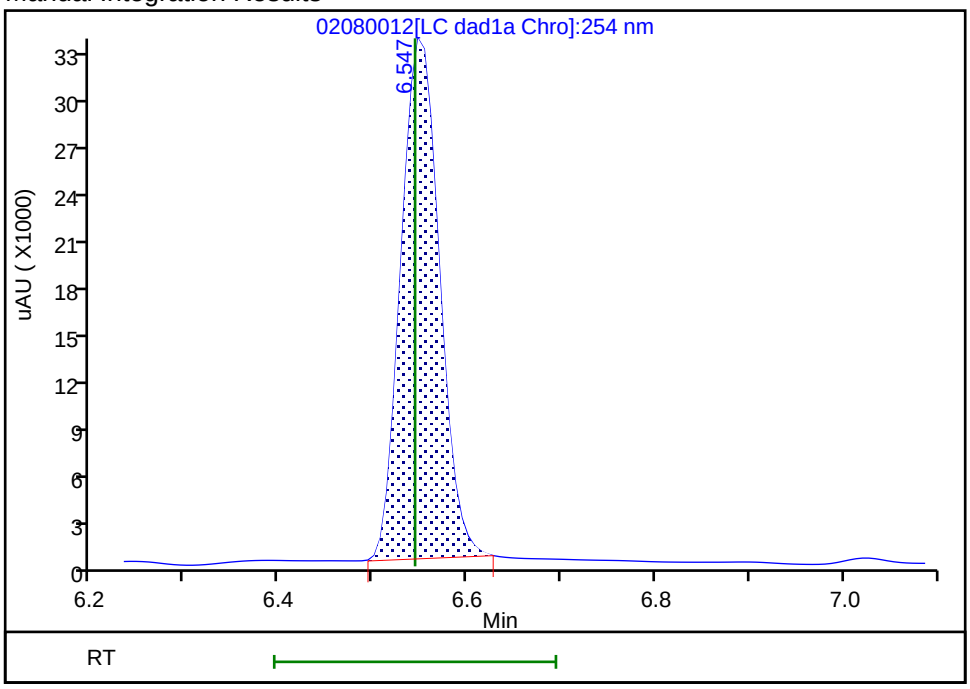
Processing Integration Results

RT: 6.55
Area: 107005
Amount: 1.043580
Amount Units: ug/mL



Manual Integration Results

RT: 6.55
Area: 91529
Amount: 0.978625
Amount Units: ug/mL



Reviewer: LV5D, 08-Feb-2023 16:28:16
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20230208-118465.b\02080013.D
Lims ID: IC INT 7
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 08-Feb-2023 16:24:45 ALS Bottle#: 13 Worklist Smp#: 13
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT 7
Operator ID: JZ/MAR Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub26

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20230208-118465.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 09-Feb-2023 12:48:04 Calib Date: 08-Feb-2023 18:42:13
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20230208-118465.b\02080019.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1604

First Level Reviewer: LV5D Date: 08-Feb-2023 16:55:38

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
4 HMX	1	6.544	6.544	0.000	63922	0.7000	0.6835	M
8 RDX	1	7.564	7.564	0.000	71812	0.7000	0.6751	M
9 2,4,6-Trinitrophenol	1	8.018	8.044	-0.026	54237	0.7000	0.7152	
$ 10 1,2-Dinitrobenzene	1	8.511	8.517	-0.006	88786	0.7000	0.7029	
11 1,3,5-Trinitrobenzene	1	8.638	8.644	-0.006	153058	0.7000	0.7049	
12 1,3-Dinitrobenzene	1	9.251	9.257	-0.006	206375	0.7000	0.7010	
13 Nitrobenzene	1	9.624	9.631	-0.007	132989	0.7000	0.6954	
14 3,5-Dinitroaniline	1	9.824	9.831	-0.007	159712	0.7000	0.6975	
15 Tetryl	1	9.971	9.977	-0.006	115964	0.7000	0.7066	
16 Nitroglycerin	2	10.437	10.437	0.000	462332	7.00	7.22	
17 2,4,6-Trinitrotoluene	1	10.864	10.864	0.000	146272	0.7000	0.6931	
18 4-Amino-2,6-dinitrotoluene	1	11.024	11.031	-0.007	105641	0.7000	0.6819	
19 2-Amino-4,6-dinitrotoluene	1	11.271	11.277	-0.006	137602	0.7000	0.6832	
20 2,6-Dinitrotoluene	1	11.451	11.451	0.000	99567	0.7000	0.6975	
21 2,4-Dinitrotoluene	1	11.617	11.617	0.000	203530	0.7000	0.6861	
22 o-Nitrotoluene	1	12.431	12.437	-0.006	86881	0.7000	0.6793	
23 p-Nitrotoluene	1	12.844	12.844	0.000	75151	0.7000	0.6717	
24 m-Nitrotoluene	1	13.404	13.411	-0.007	95648	0.7000	0.6808	
25 PETN	2	14.544	14.551	-0.007	480104	7.00	6.97	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330IntermStk_00075 Amount Added: 70.00 Units: uL

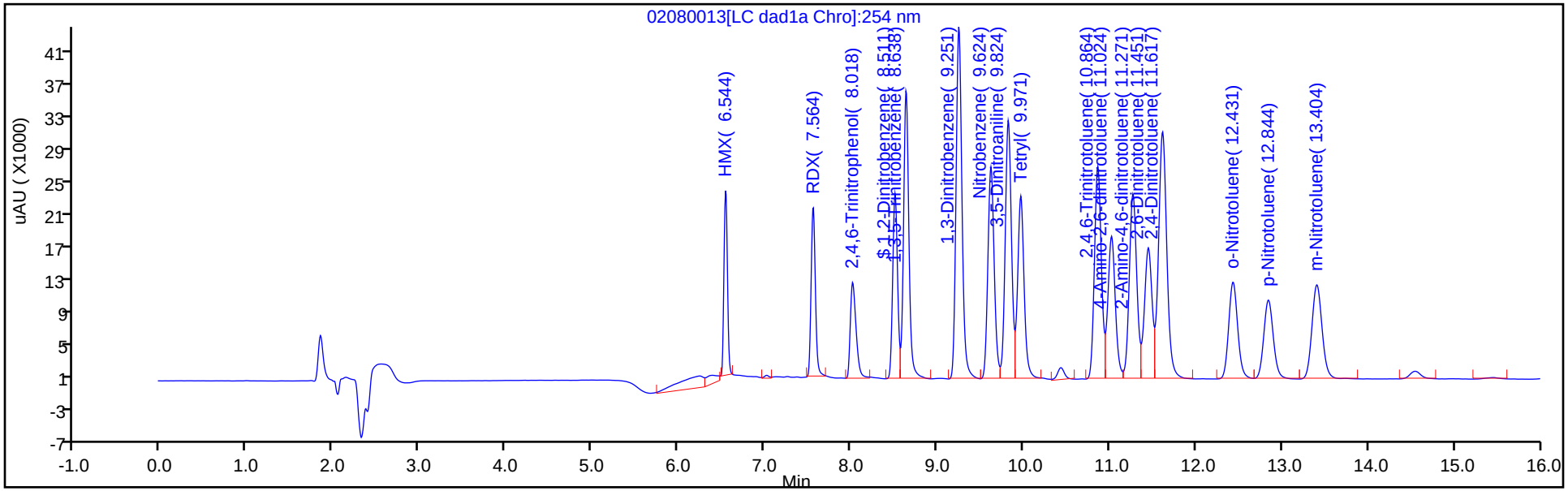
Report Date: 09-Feb-2023 12:48:04 Chrom Revision: 2.3 01-Feb-2023 13:23:06

Eurofins Denver

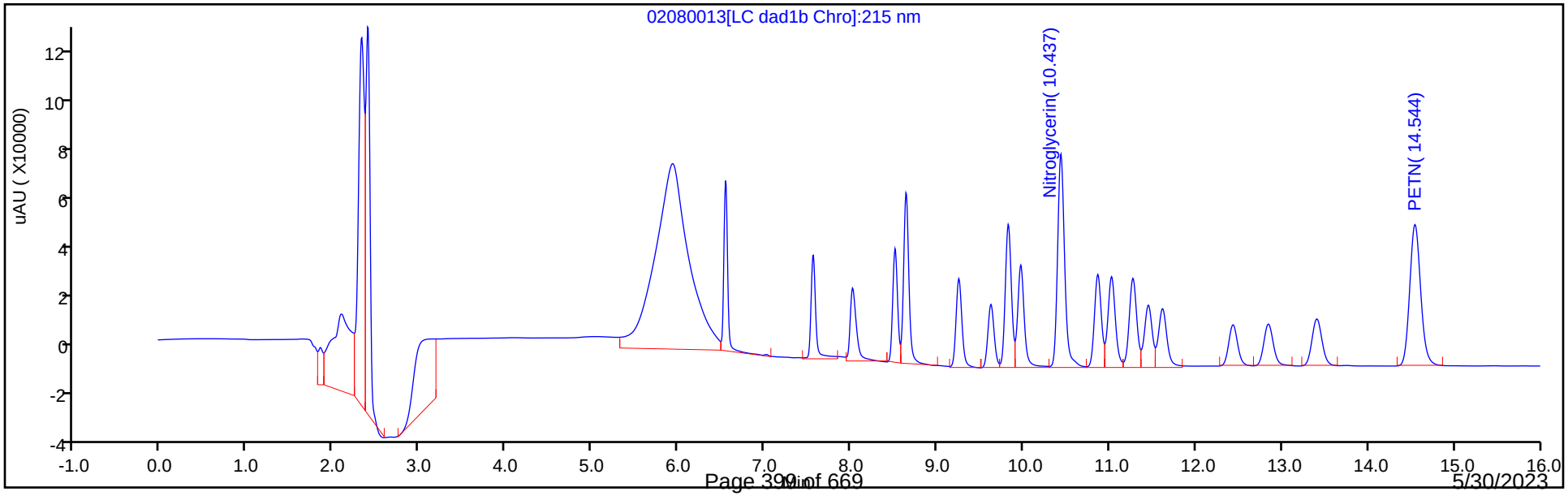
Data File: \\chromfs\denver\chromdata\chhplc_x\20230208-118465.b\02080013.d

Injection Date:	08-Feb-2023 16:24:45	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/MAR
Lims ID:	IC INT 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



5/30/2023
10:34 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

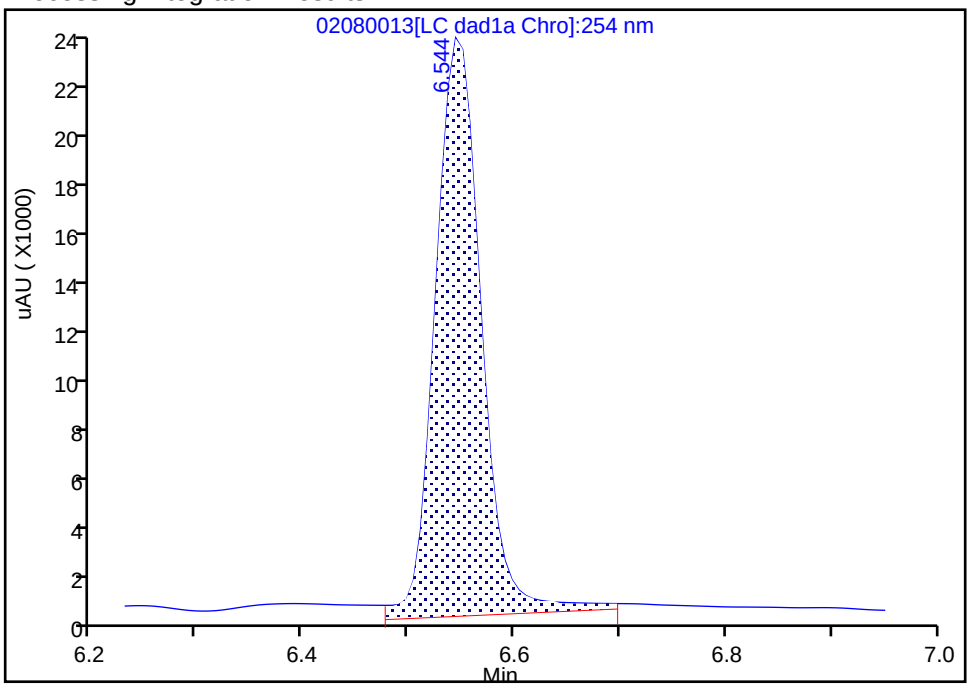
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230208-118465.b\02080013.d				
Injection Date:	08-Feb-2023 16:24:45	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT 7				
Client ID:					
Operator ID:	JZ/MAR	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

4 HMX, CAS: 2691-41-0

Signal: 1

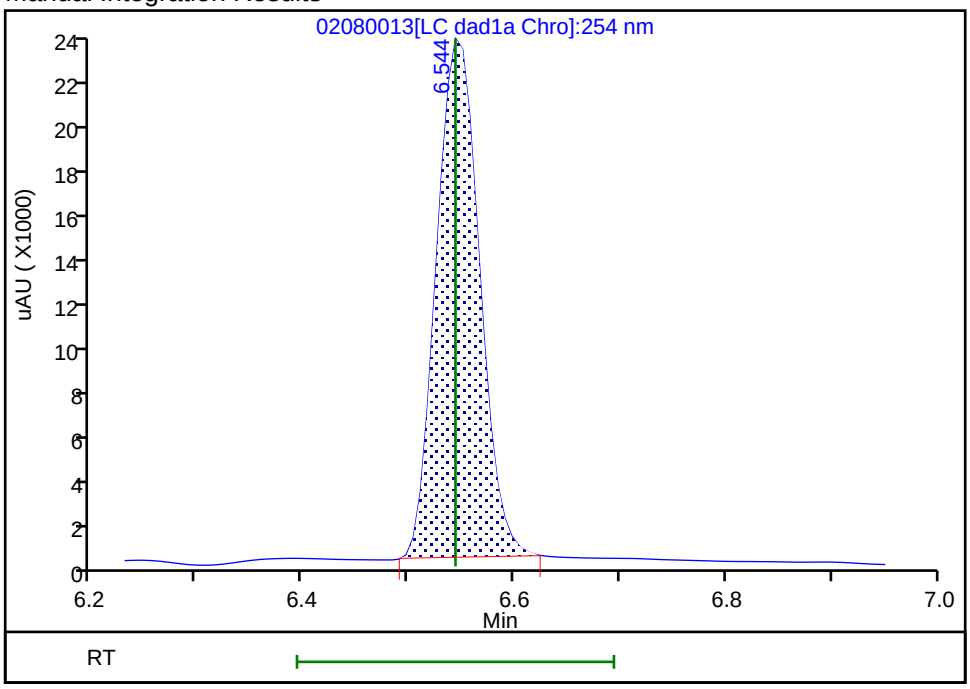
Processing Integration Results

RT: 6.54
Area: 70424
Amount: 0.744251
Amount Units: ug/mL



Manual Integration Results

RT: 6.54
Area: 63922
Amount: 0.683452
Amount Units: ug/mL



Reviewer: LV5D, 08-Feb-2023 16:55:19
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

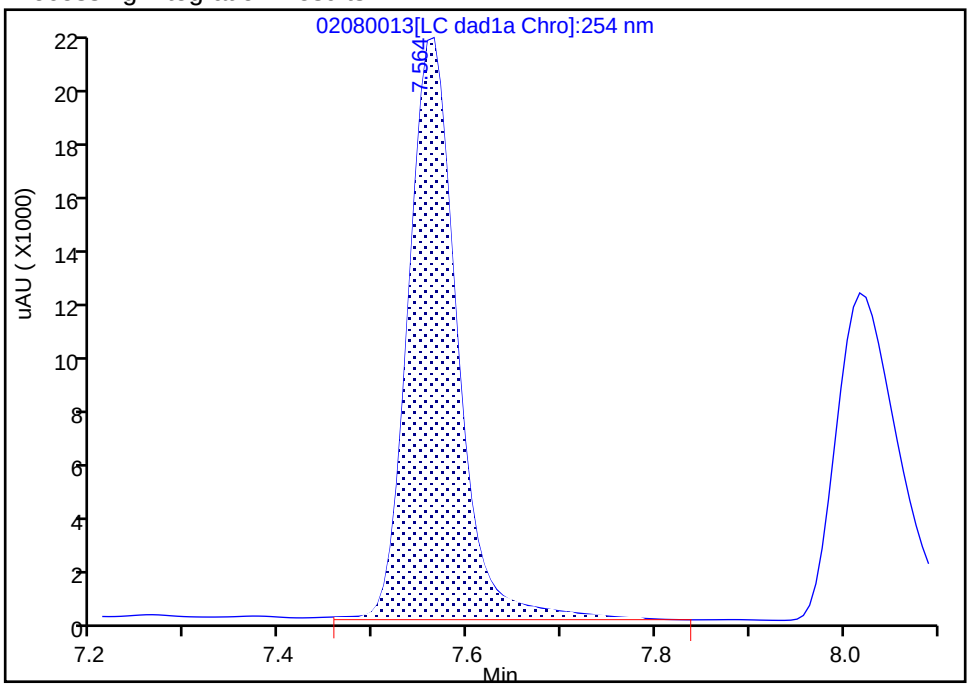
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230208-118465.b\02080013.d				
Injection Date:	08-Feb-2023 16:24:45	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT 7				
Client ID:					
Operator ID:	JZ/MAR	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

8 RDX, CAS: 121-82-4

Signal: 1

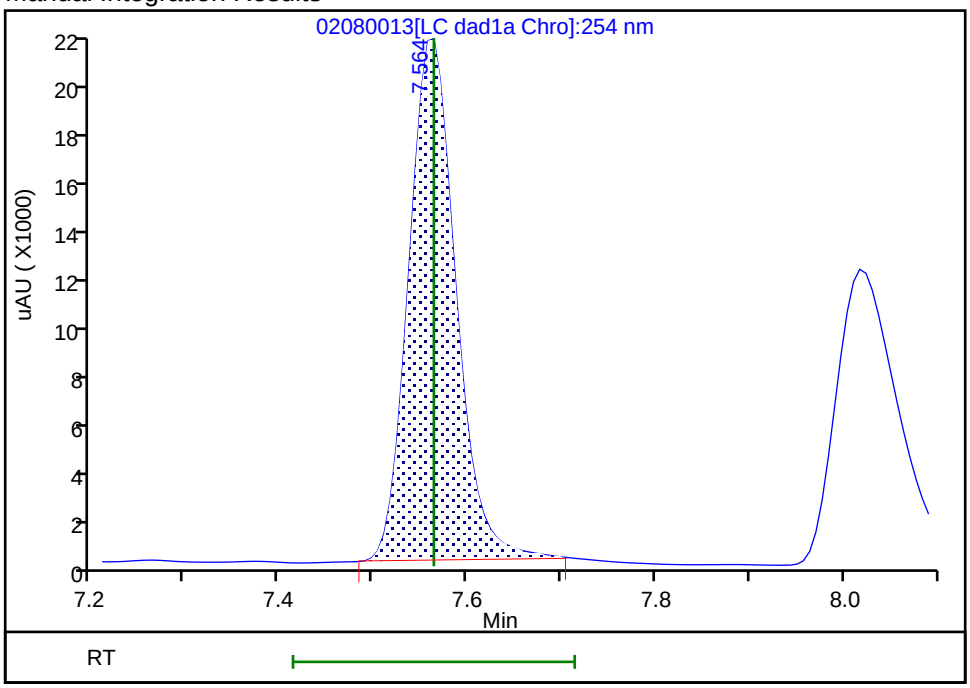
Processing Integration Results

RT: 7.56
Area: 75013
Amount: 0.701791
Amount Units: ug/mL



Manual Integration Results

RT: 7.56
Area: 71812
Amount: 0.675053
Amount Units: ug/mL



Reviewer: LV5D, 08-Feb-2023 19:09:56
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20230208-118465.b\02080014.D
Lims ID: IC INT 6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 08-Feb-2023 16:47:39 ALS Bottle#: 14 Worklist Smp#: 14
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT 6
Operator ID: JZ/MAR Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub26

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20230208-118465.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 09-Feb-2023 12:48:05 Calib Date: 08-Feb-2023 18:42:13
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20230208-118465.b\02080019.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1604

First Level Reviewer: LV5D Date: 08-Feb-2023 17:11:22

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
4 HMX	1	6.548	6.544	0.004	36852	0.4000	0.3940	M
8 RDX	1	7.562	7.564	-0.002	41299	0.4000	0.3882	M
9 2,4,6-Trinitrophenol	1	8.028	8.044	-0.016	30993	0.4000	0.4087	
$ 10 1,2-Dinitrobenzene	1	8.515	8.517	-0.002	51510	0.4000	0.4078	
11 1,3,5-Trinitrobenzene	1	8.642	8.644	-0.002	87378	0.4000	0.4024	
12 1,3-Dinitrobenzene	1	9.255	9.257	-0.002	118511	0.4000	0.4026	
13 Nitrobenzene	1	9.628	9.631	-0.003	77064	0.4000	0.4030	
14 3,5-Dinitroaniline	1	9.828	9.831	-0.003	90999	0.4000	0.3977	
15 Tetryl	1	9.968	9.977	-0.009	68663	0.4000	0.4184	
16 Nitroglycerin	2	10.435	10.437	-0.002	265593	4.00	4.15	
17 2,4,6-Trinitrotoluene	1	10.868	10.864	0.004	83334	0.4000	0.3949	
18 4-Amino-2,6-dinitrotoluene	1	11.022	11.031	-0.009	61147	0.4000	0.3947	
19 2-Amino-4,6-dinitrotoluene	1	11.275	11.277	-0.002	79585	0.4000	0.3951	
20 2,6-Dinitrotoluene	1	11.448	11.451	-0.003	56014	0.4000	0.3924	
21 2,4-Dinitrotoluene	1	11.615	11.617	-0.002	117609	0.4000	0.3964	
22 o-Nitrotoluene	1	12.435	12.437	-0.002	50043	0.4000	0.3913	
23 p-Nitrotoluene	1	12.842	12.844	-0.002	43291	0.4000	0.3869	
24 m-Nitrotoluene	1	13.408	13.411	-0.003	54716	0.4000	0.3895	
25 PETN	2	14.548	14.551	-0.003	274612	4.00	3.99	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330IntermStk_00075 Amount Added: 40.00 Units: uL

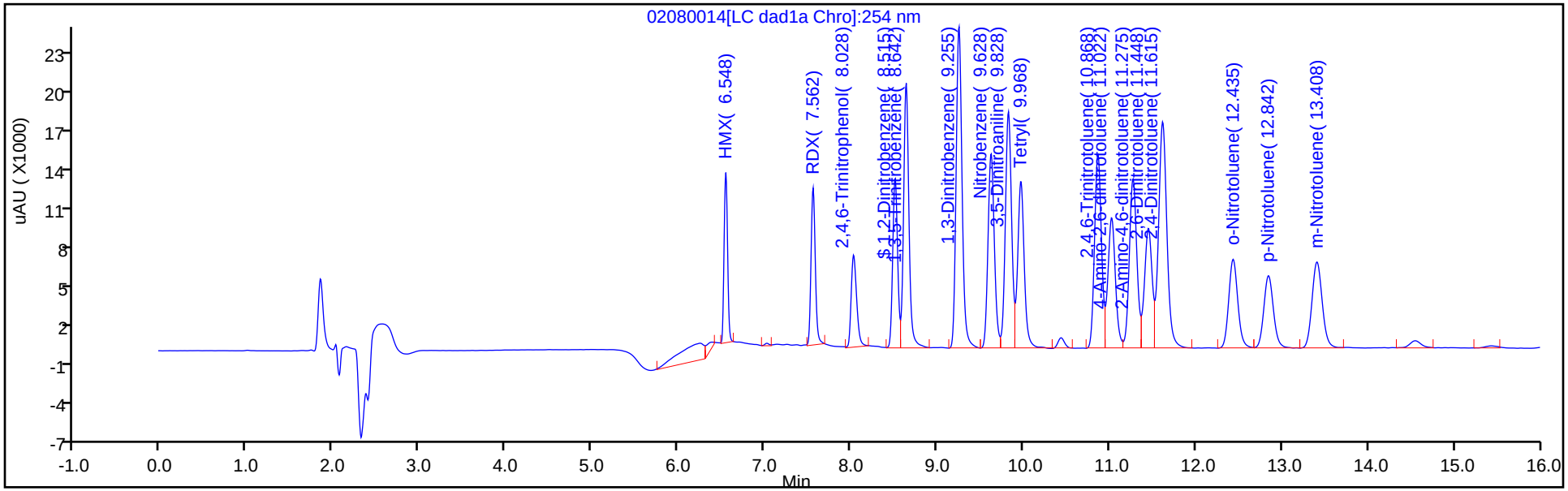
Report Date: 09-Feb-2023 12:48:05 Chrom Revision: 2.3 01-Feb-2023 13:23:06

Eurofins Denver

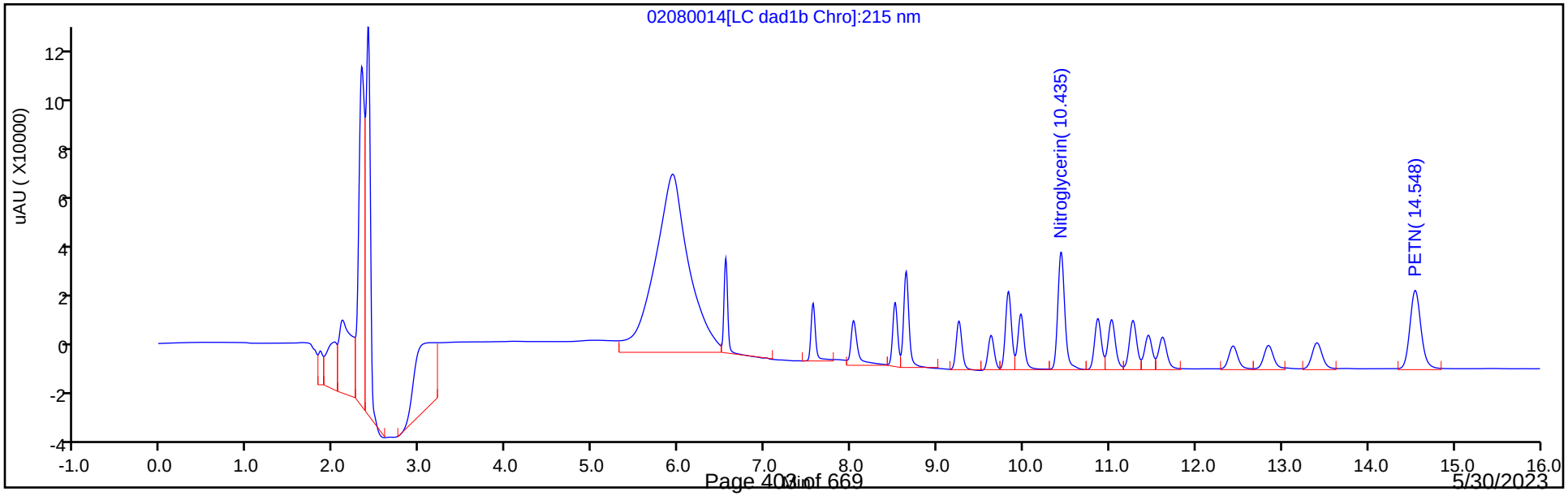
Data File: \\chromfs\denver\chromdata\chhplc_x\20230208-118465.b\02080014.d

Injection Date:	08-Feb-2023 16:47:39	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/MAR
Lims ID:	IC INT 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



5/30/2023
10:34 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

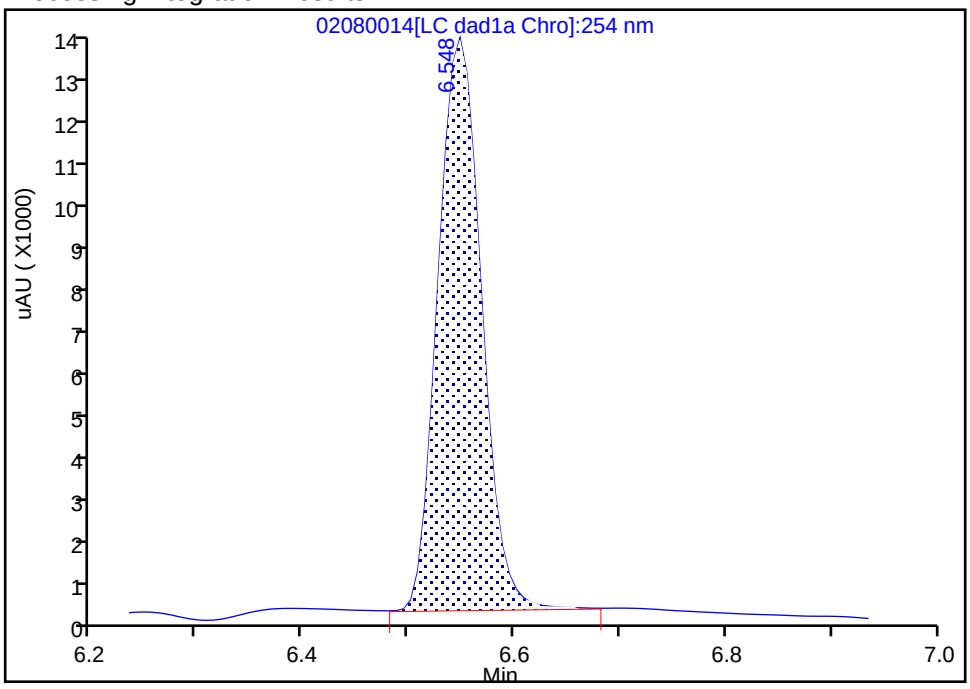
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230208-118465.b\02080014.d				
Injection Date:	08-Feb-2023 16:47:39	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT 6				
Client ID:					
Operator ID:	JZ/MAR	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

4 HMX, CAS: 2691-41-0

Signal: 1

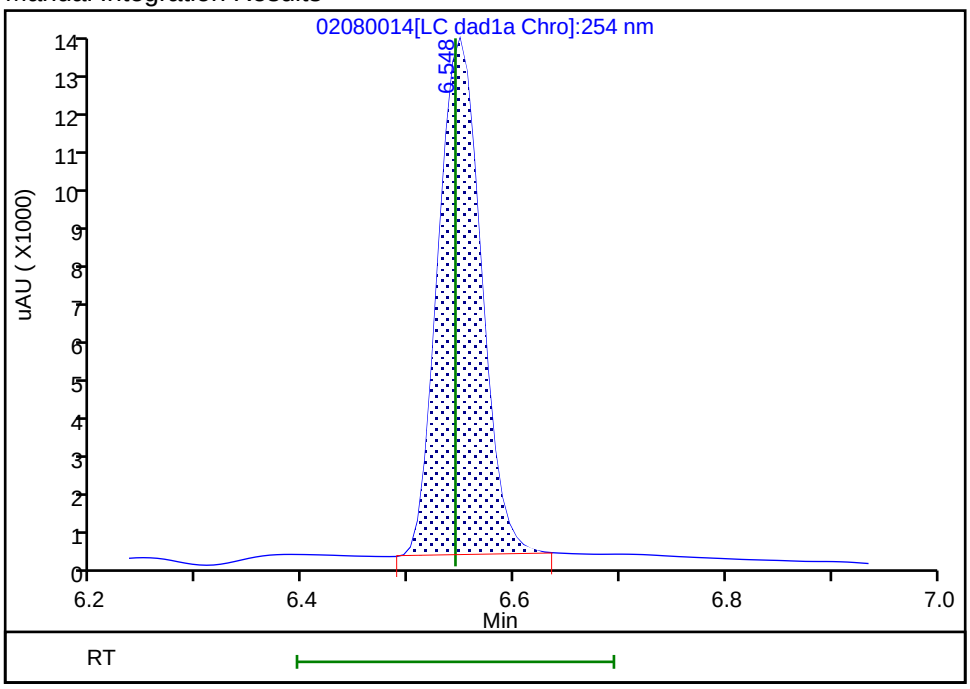
Processing Integration Results

RT: 6.55
Area: 37332
Amount: 0.405878
Amount Units: ug/mL



Manual Integration Results

RT: 6.55
Area: 36852
Amount: 0.394020
Amount Units: ug/mL



Reviewer: LV5D, 08-Feb-2023 17:11:10
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

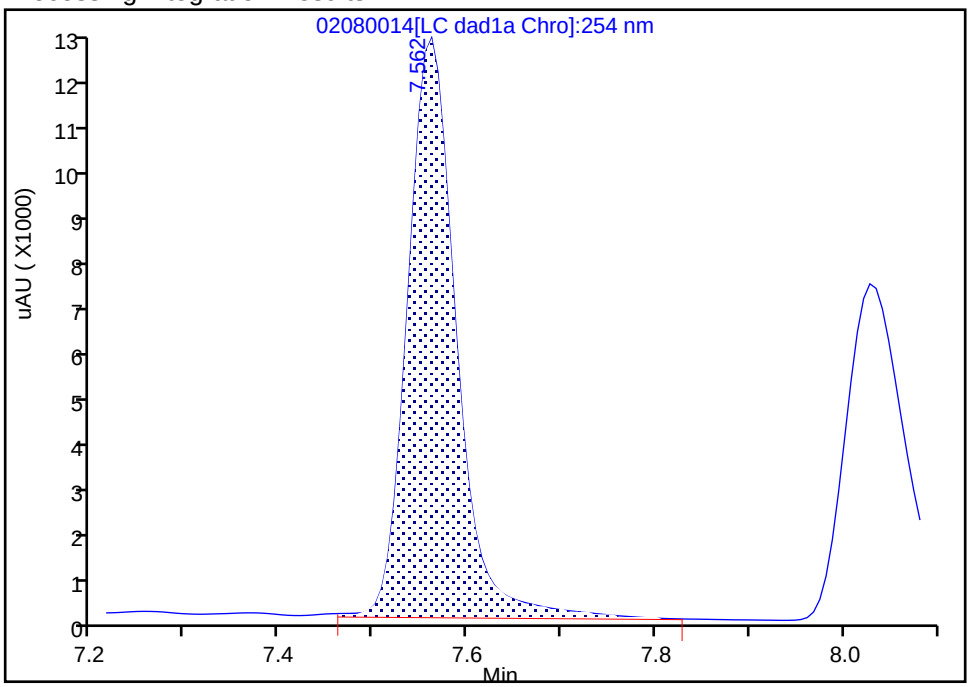
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230208-118465.b\02080014.d				
Injection Date:	08-Feb-2023 16:47:39	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT 6				
Client ID:					
Operator ID:	JZ/MAR	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

8 RDX, CAS: 121-82-4

Signal: 1

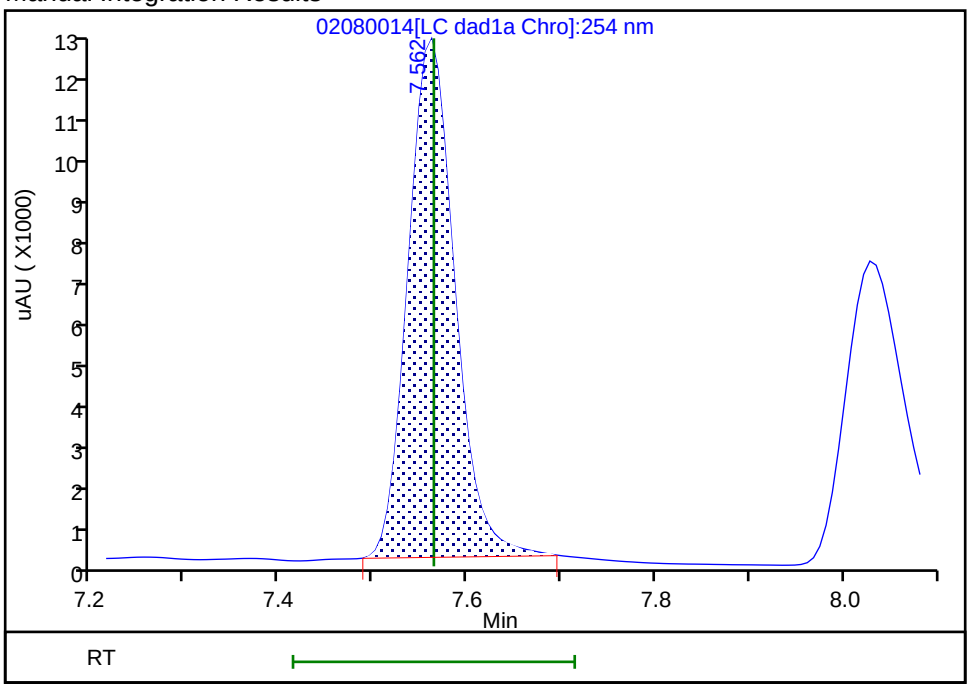
Processing Integration Results

RT: 7.56
Area: 43581
Amount: 0.405322
Amount Units: ug/mL



Manual Integration Results

RT: 7.56
Area: 41299
Amount: 0.388222
Amount Units: ug/mL



Reviewer: LV5D, 08-Feb-2023 19:09:51
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20230208-118465.b\02080015.D
Lims ID: IC INT 5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 08-Feb-2023 17:10:30 ALS Bottle#: 15 Worklist Smp#: 15
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT 5
Operator ID: JZ/MAR Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub26

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20230208-118465.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 09-Feb-2023 12:48:05 Calib Date: 08-Feb-2023 18:42:13
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20230208-118465.b\02080019.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1604

First Level Reviewer: LV5D Date: 08-Feb-2023 17:44:54

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
4 HMX	1	6.548	6.544	0.004	23490	0.2500	0.2512	
8 RDX	1	7.568	7.564	0.004	25542	0.2500	0.2401	M
9 2,4,6-Trinitrophenol	1	8.041	8.044	-0.003	19359	0.2500	0.2553	
$ 10 1,2-Dinitrobenzene	1	8.515	8.517	-0.002	31858	0.2500	0.2522	
11 1,3,5-Trinitrobenzene	1	8.641	8.644	-0.003	54382	0.2500	0.2504	
12 1,3-Dinitrobenzene	1	9.255	9.257	-0.002	74049	0.2500	0.2515	
13 Nitrobenzene	1	9.628	9.631	-0.003	47590	0.2500	0.2488	
14 3,5-Dinitroaniline	1	9.828	9.831	-0.003	57053	0.2500	0.2496	
15 Tetryl	1	9.975	9.977	-0.002	41420	0.2500	0.2524	
16 Nitroglycerin	2	10.441	10.437	0.004	162463	2.50	2.54	
17 2,4,6-Trinitrotoluene	1	10.868	10.864	0.004	52619	0.2500	0.2493	
18 4-Amino-2,6-dinitrotoluene	1	11.028	11.031	-0.003	38221	0.2500	0.2467	
19 2-Amino-4,6-dinitrotoluene	1	11.275	11.277	-0.002	49514	0.2500	0.2458	
20 2,6-Dinitrotoluene	1	11.455	11.451	0.004	35863	0.2500	0.2512	
21 2,4-Dinitrotoluene	1	11.621	11.617	0.004	73263	0.2500	0.2470	
22 o-Nitrotoluene	1	12.441	12.437	0.004	31188	0.2500	0.2439	
23 p-Nitrotoluene	1	12.848	12.844	0.004	27153	0.2500	0.2427	
24 m-Nitrotoluene	1	13.415	13.411	0.004	34323	0.2500	0.2443	
25 PETN	2	14.555	14.551	0.004	171245	2.50	2.49	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330IntermStk_00075 Amount Added: 25.00 Units: uL

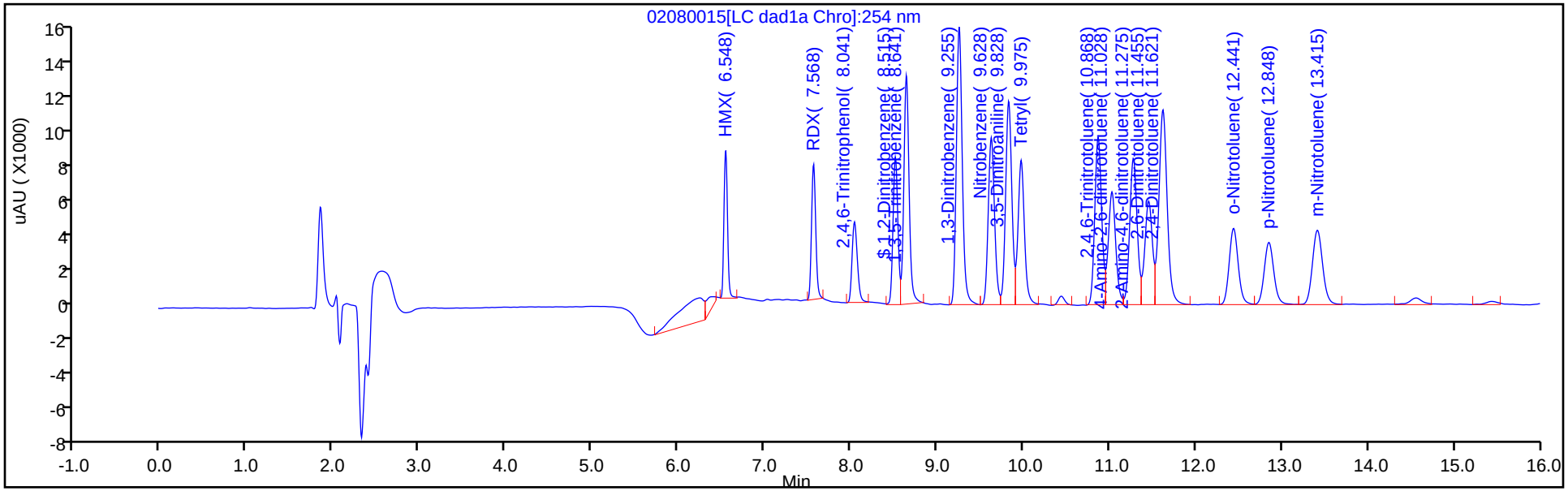
Report Date: 09-Feb-2023 12:48:06 Chrom Revision: 2.3 01-Feb-2023 13:23:06

Eurofins Denver

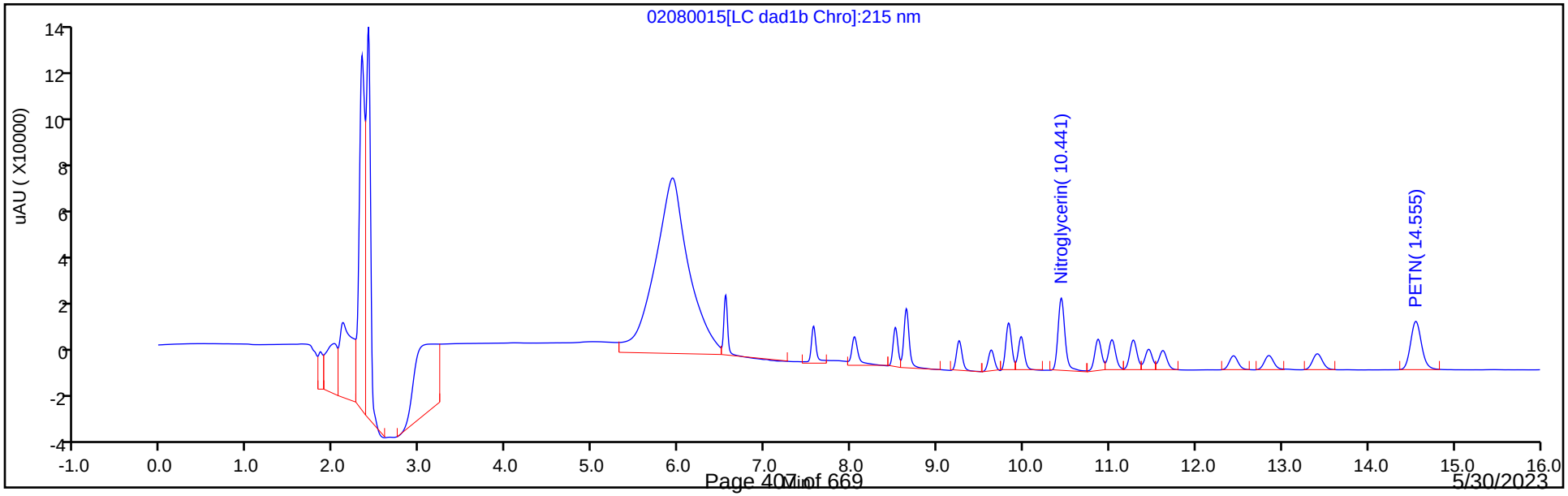
Data File: \\chromfs\denver\chromdata\chhplc_x\20230208-118465.b\02080015.d

Injection Date:	08-Feb-2023 17:10:30	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/MAR
Lims ID:	IC INT 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



5/30/2023
10:34 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

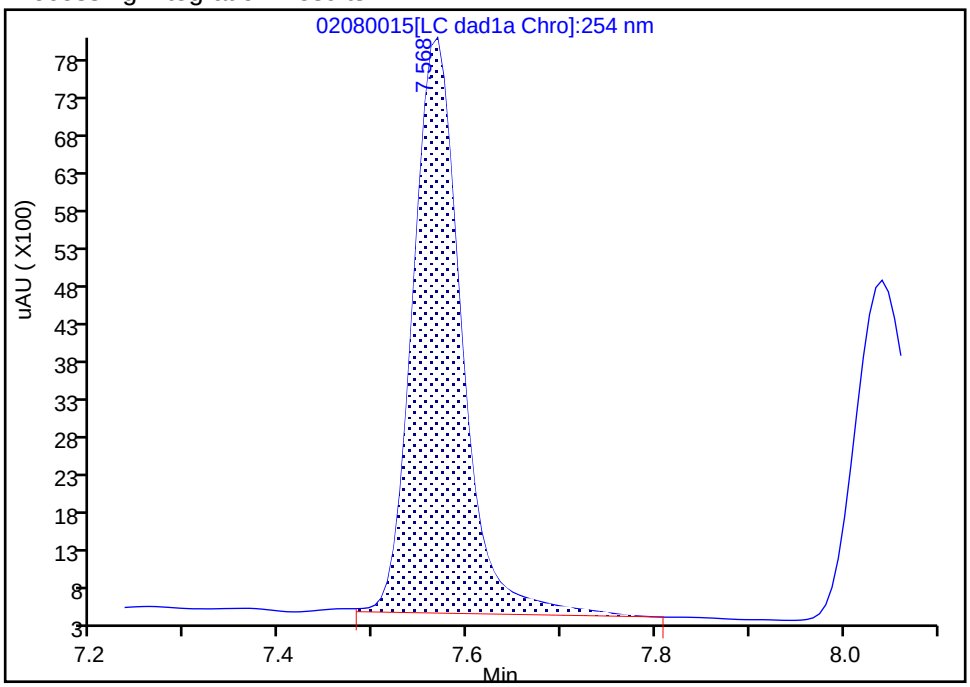
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230208-118465.b\02080015.d				
Injection Date:	08-Feb-2023 17:10:30	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT 5				
Client ID:					
Operator ID:	JZ/MAR	ALS Bottle#:	15	Worklist Smp#:	15
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

8 RDX, CAS: 121-82-4

Signal: 1

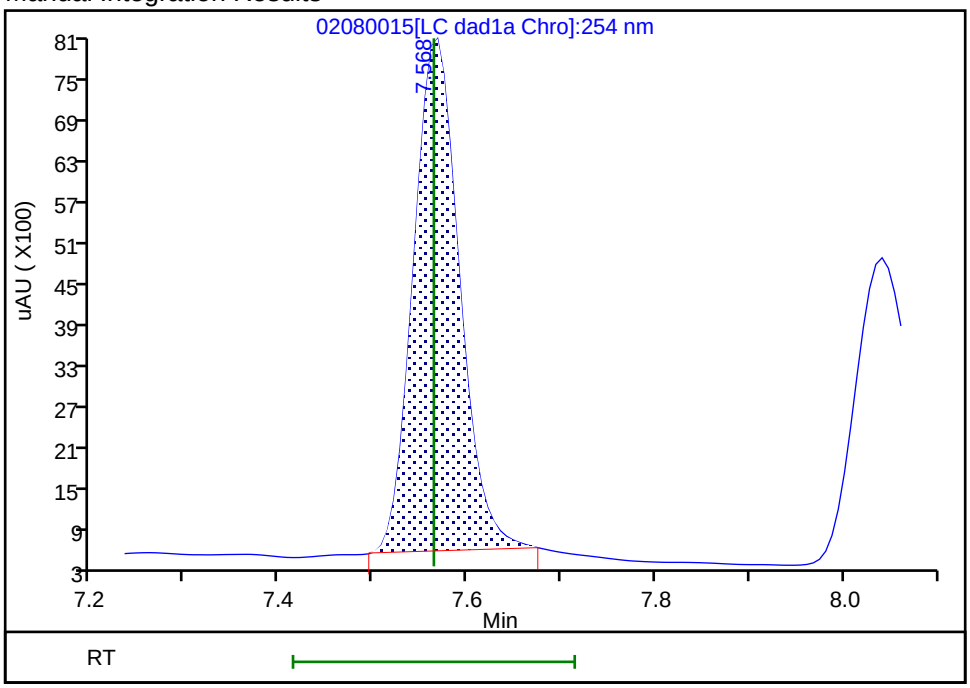
Processing Integration Results

RT: 7.57
Area: 27559
Amount: 0.254192
Amount Units: ug/mL



Manual Integration Results

RT: 7.57
Area: 25542
Amount: 0.240102
Amount Units: ug/mL



Reviewer: LV5D, 08-Feb-2023 19:09:46
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20230208-118465.b\02080016.D
Lims ID: IC INT 4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 08-Feb-2023 17:33:25 ALS Bottle#: 16 Worklist Smp#: 16
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT 4
Operator ID: JZ/MAR Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub26

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20230208-118465.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 09-Feb-2023 12:48:06 Calib Date: 08-Feb-2023 18:42:13
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20230208-118465.b\02080019.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1604

First Level Reviewer: LV5D Date: 08-Feb-2023 18:05:31

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
4 HMX	1	6.544	6.544	0.000	9387	0.1000	0.1004	
8 RDX	1	7.564	7.564	0.000	10112	0.1000	0.0951	M
9 2,4,6-Trinitrophenol	1	8.044	8.044	0.000	7640	0.1000	0.1008	
$ 10 1,2-Dinitrobenzene	1	8.517	8.517	0.000	12727	0.1000	0.1008	
11 1,3,5-Trinitrobenzene	1	8.644	8.644	0.000	21399	0.1000	0.0985	
12 1,3-Dinitrobenzene	1	9.257	9.257	0.000	29249	0.1000	0.0994	
13 Nitrobenzene	1	9.631	9.631	0.000	19019	0.1000	0.0994	
14 3,5-Dinitroaniline	1	9.831	9.831	0.000	22723	0.1000	0.0998	
15 Tetryl	1	9.977	9.977	0.000	16438	0.1000	0.1002	
16 Nitroglycerin	2	10.437	10.437	0.000	63170	1.00	0.9860	
17 2,4,6-Trinitrotoluene	1	10.864	10.864	0.000	20787	0.1000	0.0985	
18 4-Amino-2,6-dinitrotoluene	1	11.031	11.031	0.000	15407	0.1000	0.0994	
19 2-Amino-4,6-dinitrotoluene	1	11.277	11.277	0.000	19765	0.1000	0.0981	
20 2,6-Dinitrotoluene	1	11.451	11.451	0.000	13967	0.1000	0.0978	
21 2,4-Dinitrotoluene	1	11.617	11.617	0.000	29539	0.1000	0.0996	
22 o-Nitrotoluene	1	12.437	12.437	0.000	12548	0.1000	0.0981	
23 p-Nitrotoluene	1	12.844	12.844	0.000	10857	0.1000	0.0970	
24 m-Nitrotoluene	1	13.411	13.411	0.000	13666	0.1000	0.0973	
25 PETN	2	14.551	14.551	0.000	68161	1.00	0.99	M

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330IntermStk_00075 Amount Added: 10.00 Units: uL

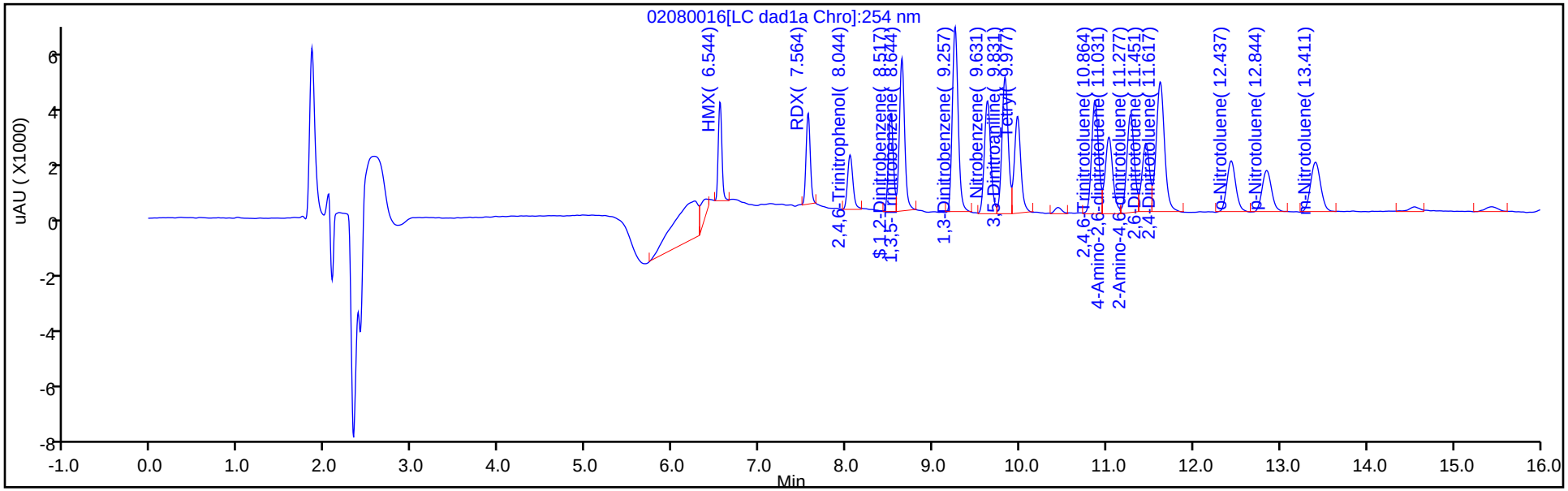
Report Date: 09-Feb-2023 12:48:06 Chrom Revision: 2.3 01-Feb-2023 13:23:06

Eurofins Denver

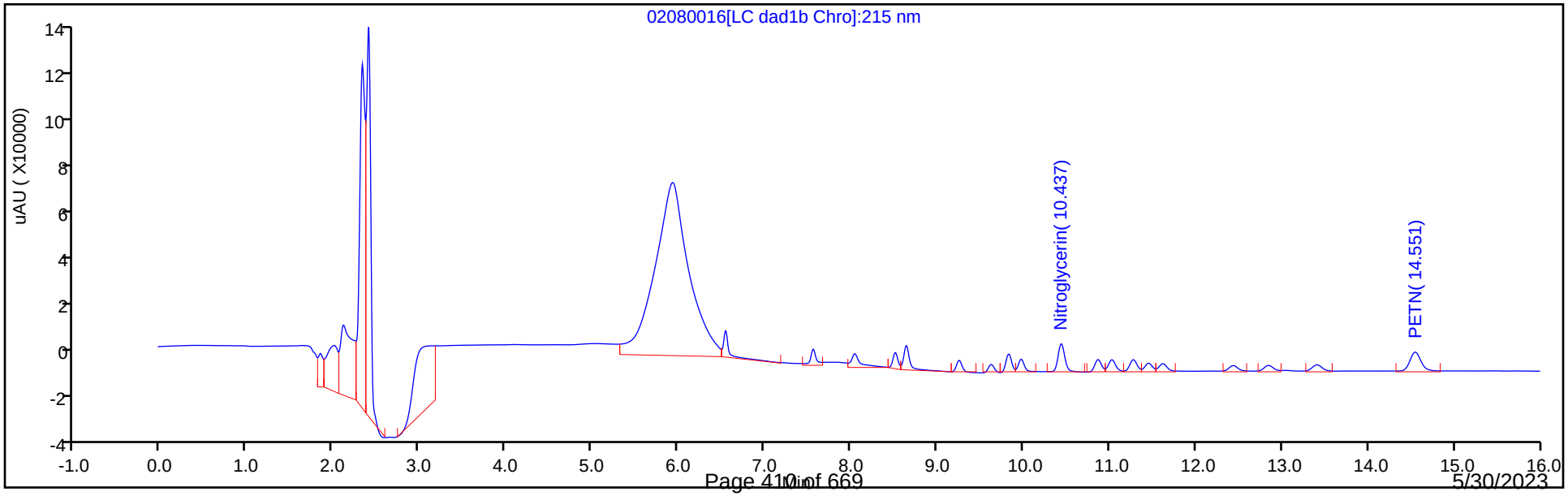
Data File: \\chromfs\denver\chromdata\chhplc_x\20230208-118465.b\02080016.d

Injection Date:	08-Feb-2023 17:33:25	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/MAR
Lims ID:	IC INT 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



5/30/2023
10:34 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

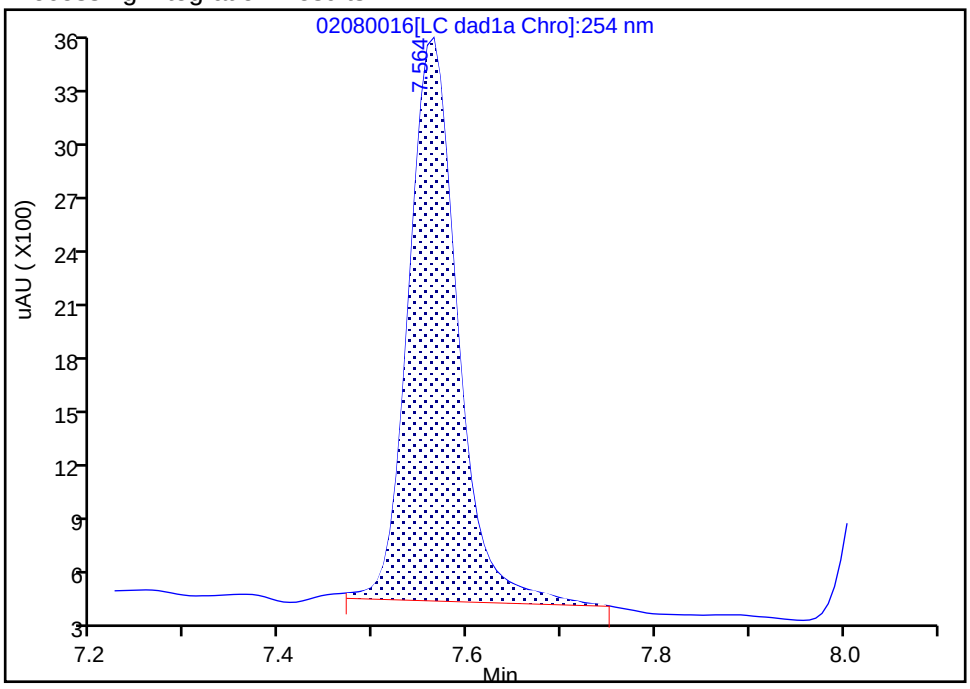
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230208-118465.b\02080016.d				
Injection Date:	08-Feb-2023 17:33:25	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT 4				
Client ID:					
Operator ID:	JZ/MAR	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

8 RDX, CAS: 121-82-4

Signal: 1

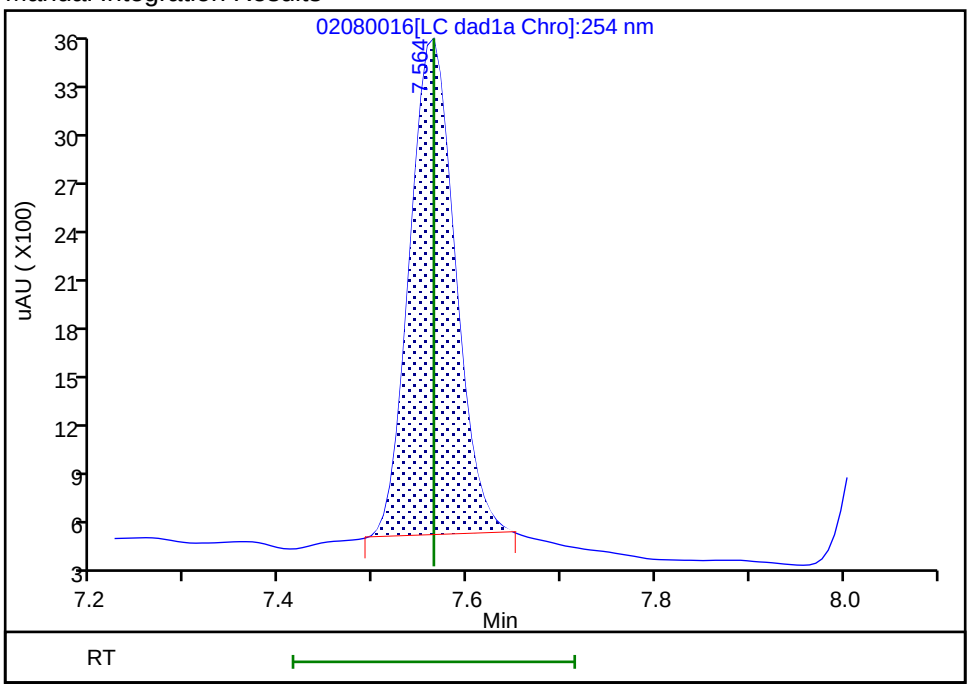
Processing Integration Results

RT: 7.56
Area: 11152
Amount: 0.101776
Amount Units: ug/mL



Manual Integration Results

RT: 7.56
Area: 10112
Amount: 0.095056
Amount Units: ug/mL



Reviewer: LV5D, 08-Feb-2023 19:09:38
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

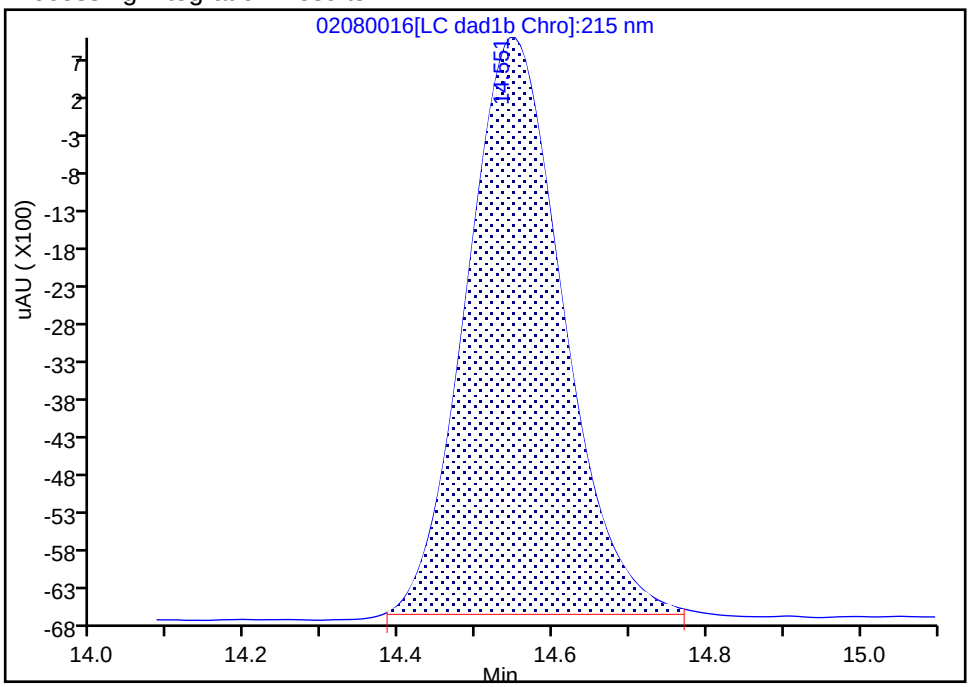
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230208-118465.b\02080016.d				
Injection Date:	08-Feb-2023 17:33:25	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT 4				
Client ID:					
Operator ID:	JZ/MAR	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1C, 215 nm		

25 PETN, CAS: 78-11-5

Signal: 1

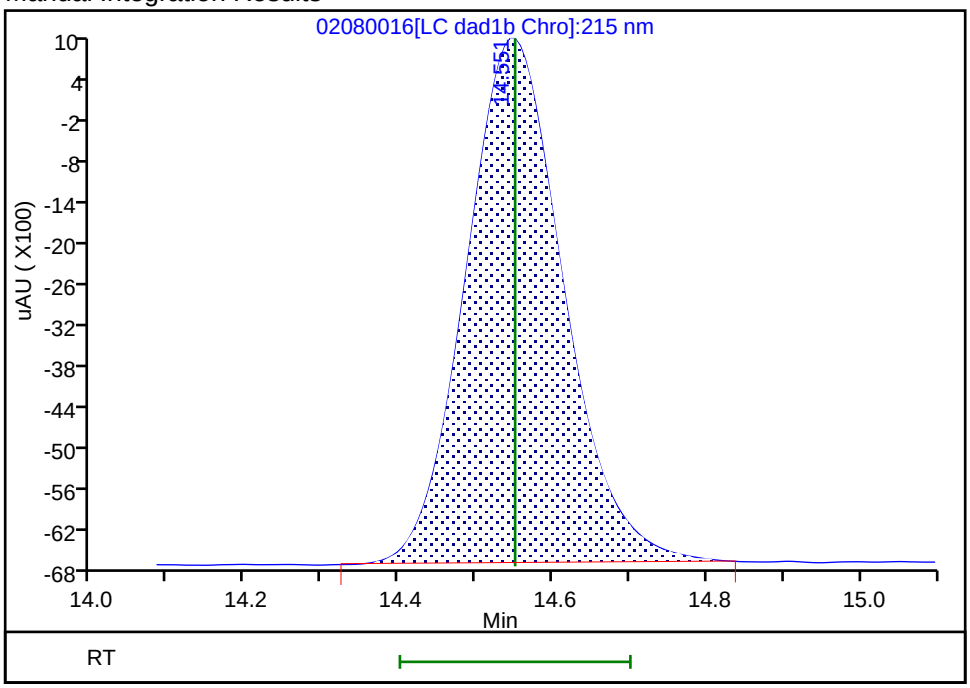
Processing Integration Results

RT: 14.55
Area: 66752
Amount: 0.971802
Amount Units: ug/mL



Manual Integration Results

RT: 14.55
Area: 68161
Amount: 0.990059
Amount Units: ug/mL



Reviewer: LV5D, 08-Feb-2023 19:08:31

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20230208-118465.b\02080017.D
Lims ID: IC INT 3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 08-Feb-2023 17:56:21 ALS Bottle#: 17 Worklist Smp#: 17
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT 3
Operator ID: JZ/MAR Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub26

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20230208-118465.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 09-Feb-2023 12:48:07 Calib Date: 08-Feb-2023 18:42:13
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20230208-118465.b\02080019.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1604

First Level Reviewer: LV5D Date: 08-Feb-2023 19:07:50

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
4 HMX	1	6.547	6.544	0.003	4648	0.0500	0.0497	M
8 RDX	1	7.567	7.564	0.003	5236	0.0500	0.0492	M
9 2,4,6-Trinitrophenol	1	8.047	8.044	0.003	3768	0.0500	0.0497	
$ 10 1,2-Dinitrobenzene	1	8.520	8.517	0.003	6278	0.0500	0.0497	
11 1,3,5-Trinitrobenzene	1	8.647	8.644	0.003	10679	0.0500	0.0492	
12 1,3-Dinitrobenzene	1	9.260	9.257	0.003	14664	0.0500	0.0498	
13 Nitrobenzene	1	9.633	9.631	0.002	9605	0.0500	0.0502	
14 3,5-Dinitroaniline	1	9.840	9.831	0.009	11426	0.0500	0.0505	
15 Tetryl	1	9.987	9.977	0.010	8153	0.0500	0.0497	
16 Nitroglycerin	2	10.453	10.437	0.016	31649	0.5000	0.4940	
17 2,4,6-Trinitrotoluene	1	10.880	10.864	0.016	10708	0.0500	0.0507	
18 4-Amino-2,6-dinitrotoluene	1	11.040	11.031	0.009	7875	0.0500	0.0508	
19 2-Amino-4,6-dinitrotoluene	1	11.293	11.277	0.016	10072	0.0500	0.0500	
20 2,6-Dinitrotoluene	1	11.467	11.451	0.016	7109	0.0500	0.0498	
21 2,4-Dinitrotoluene	1	11.633	11.617	0.016	14872	0.0500	0.0501	
22 o-Nitrotoluene	1	12.453	12.437	0.016	6623	0.0500	0.0518	
23 p-Nitrotoluene	1	12.867	12.844	0.023	5584	0.0500	0.0499	
24 m-Nitrotoluene	1	13.433	13.411	0.022	7096	0.0500	0.0505	
25 PETN	2	14.580	14.551	0.029	34057	0.5000	0.4947	M

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330IntermStk_00075 Amount Added: 5.00 Units: uL

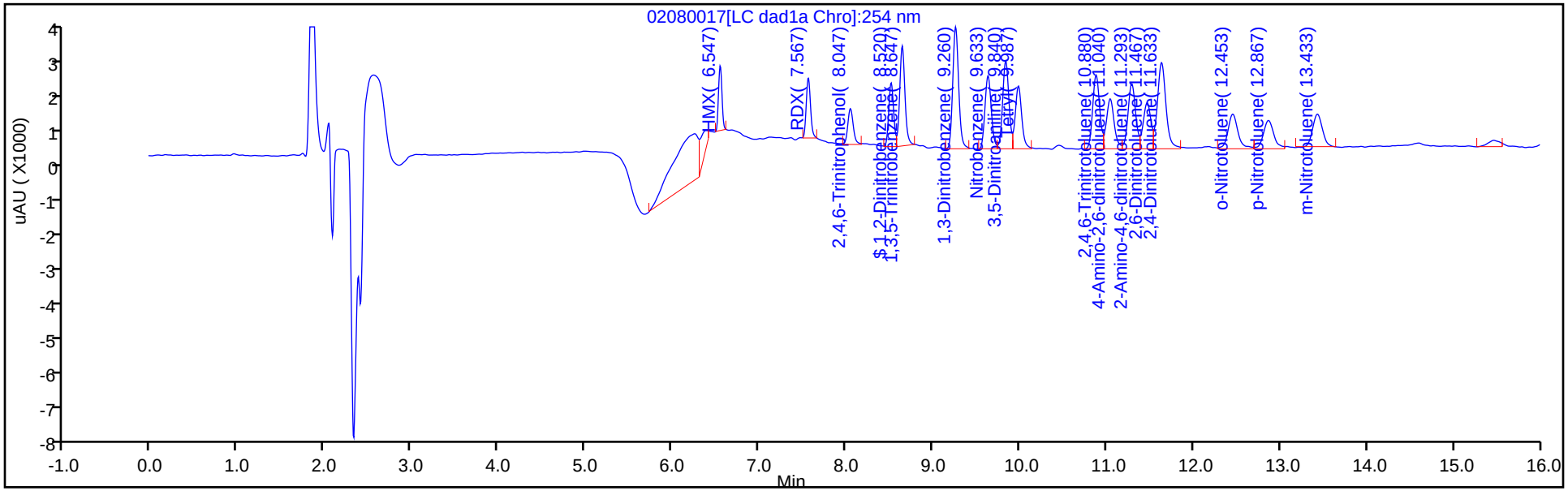
Report Date: 09-Feb-2023 12:48:07 Chrom Revision: 2.3 01-Feb-2023 13:23:06

Eurofins Denver

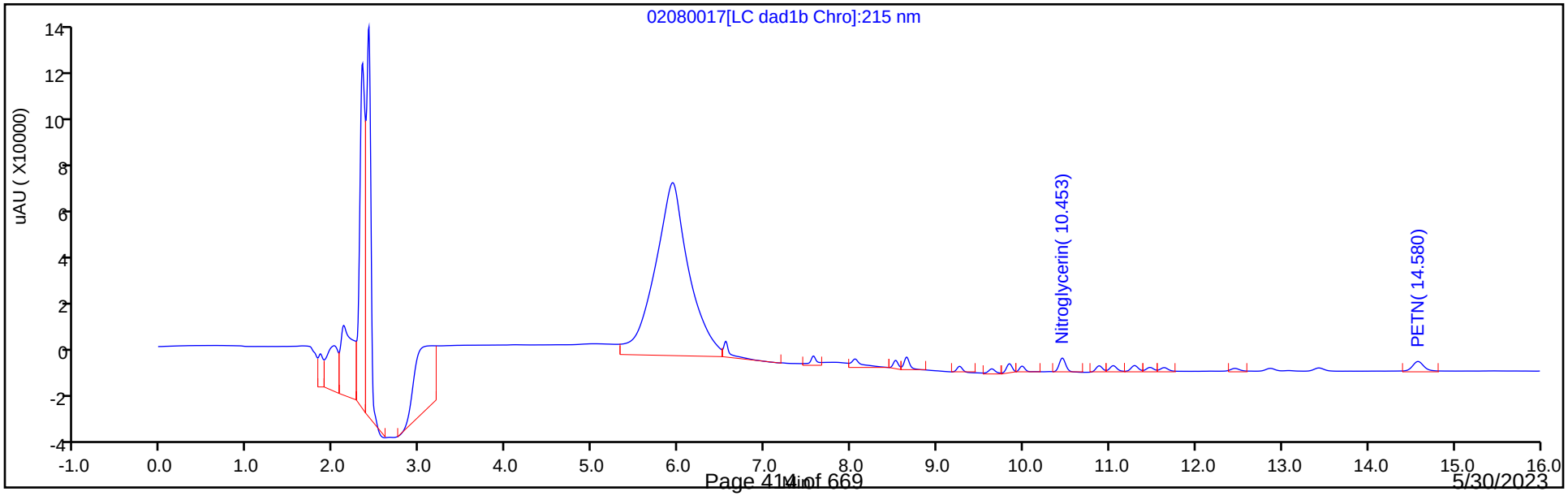
Data File: \\chromfs\denver\chromdata\chhplc_x\20230208-118465.b\02080017.d

Injection Date:	08-Feb-2023 17:56:21	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/MAR
Lims ID:	IC INT 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



5/30/2023
10:34 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

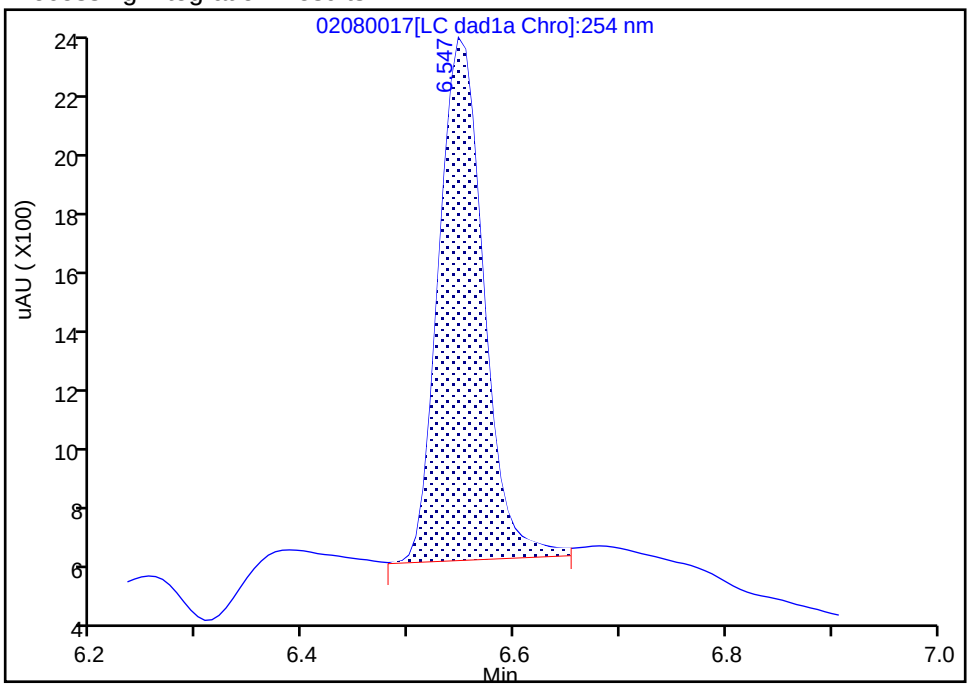
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230208-118465.b\02080017.d				
Injection Date:	08-Feb-2023 17:56:21	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT 3				
Client ID:					
Operator ID:	JZ/MAR	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

4 HMX, CAS: 2691-41-0

Signal: 1

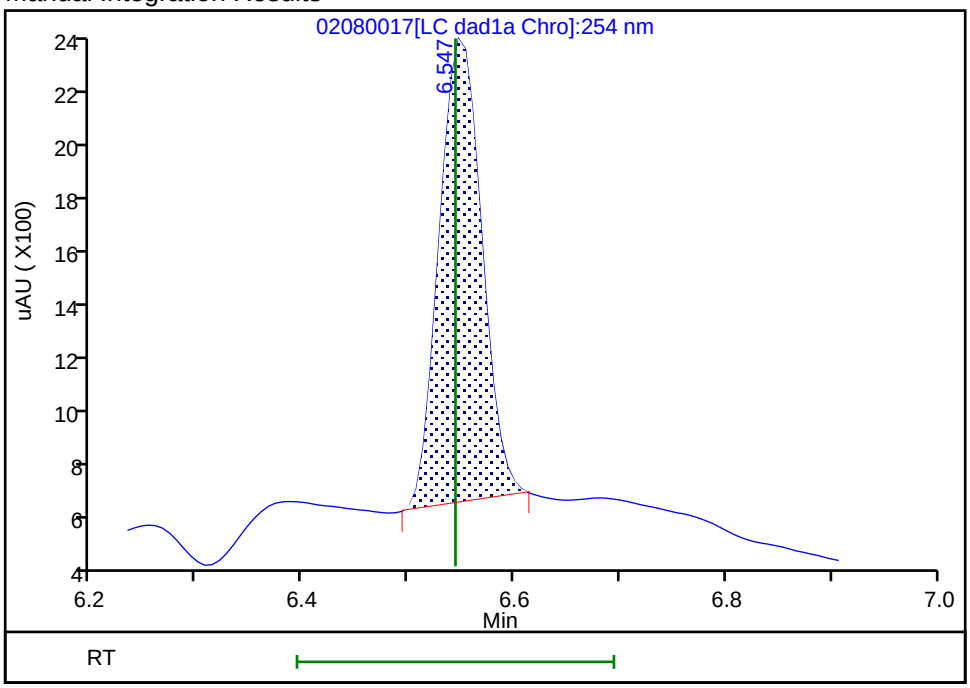
Processing Integration Results

RT: 6.55
Area: 4942
Amount: 0.050700
Amount Units: ug/mL



Manual Integration Results

RT: 6.55
Area: 4648
Amount: 0.049696
Amount Units: ug/mL



Reviewer: LV5D, 08-Feb-2023 19:07:46
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

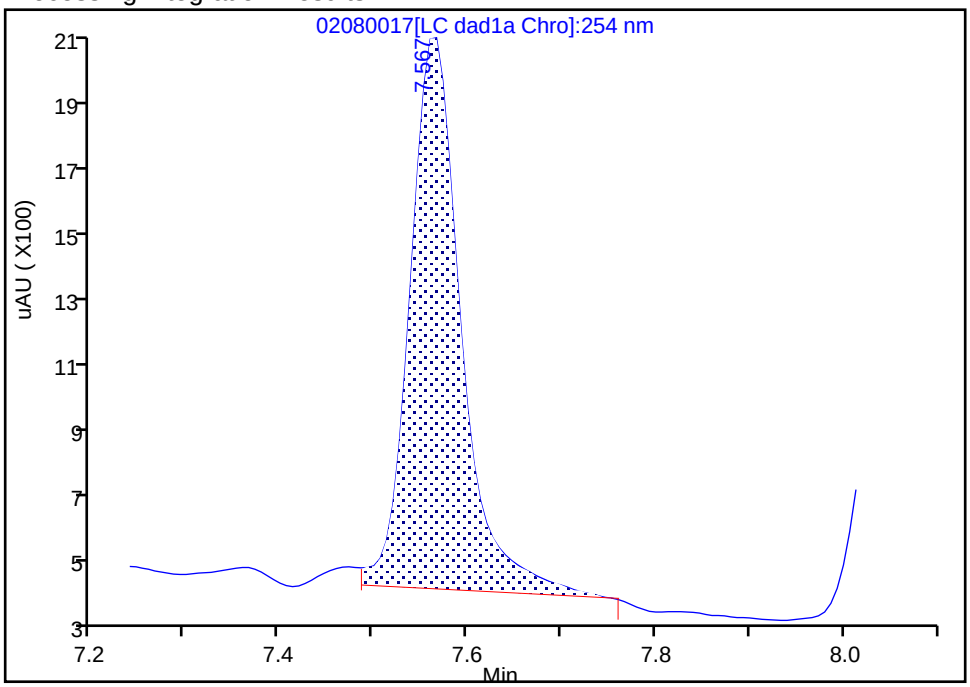
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230208-118465.b\02080017.d				
Injection Date:	08-Feb-2023 17:56:21	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT 3				
Client ID:					
Operator ID:	JZ/MAR	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

8 RDX, CAS: 121-82-4

Signal: 1

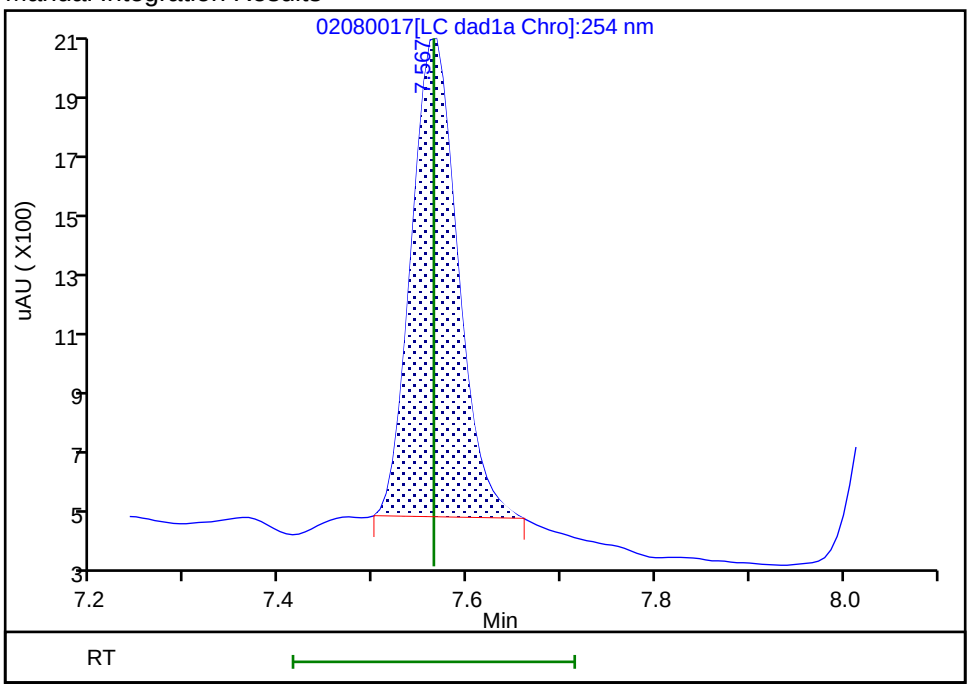
Processing Integration Results

RT: 7.57
Area: 6041
Amount: 0.054246
Amount Units: ug/mL



Manual Integration Results

RT: 7.57
Area: 5236
Amount: 0.049220
Amount Units: ug/mL



Reviewer: LV5D, 08-Feb-2023 19:09:26
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

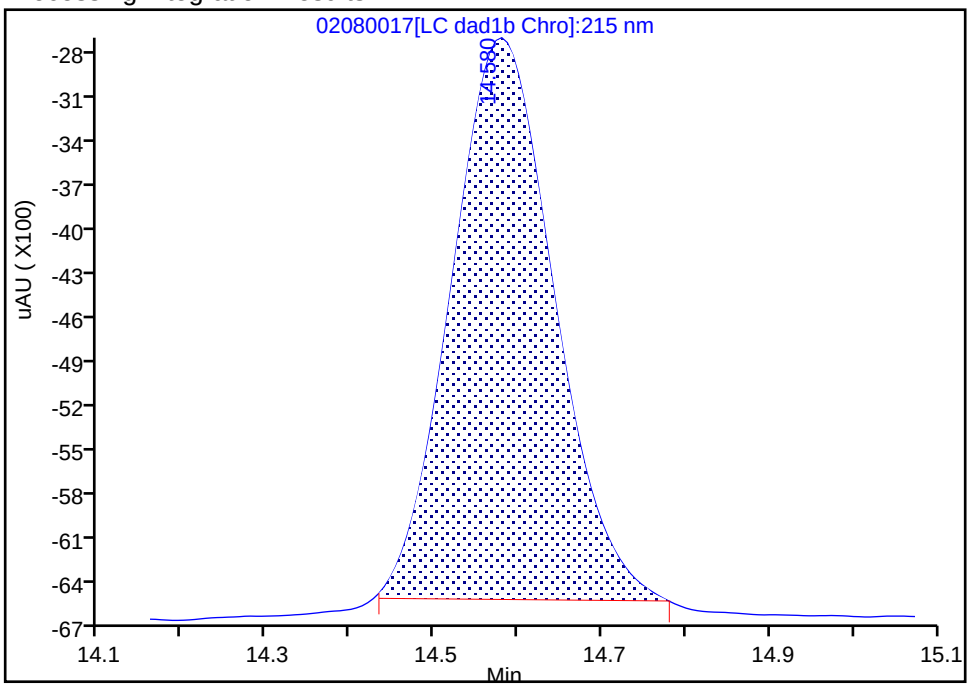
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230208-118465.b\02080017.d				
Injection Date:	08-Feb-2023 17:56:21	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT 3				
Client ID:					
Operator ID:	JZ/MAR	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1C, 215 nm		

25 PETN, CAS: 78-11-5

Signal: 1

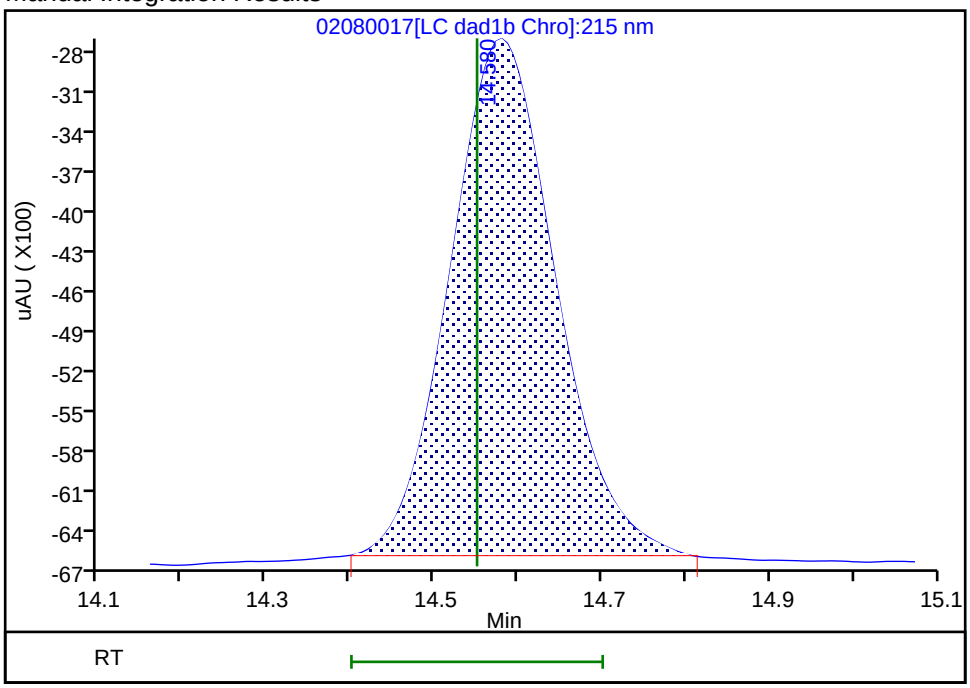
Processing Integration Results

RT: 14.58
Area: 32403
Amount: 0.474274
Amount Units: ug/mL



Manual Integration Results

RT: 14.58
Area: 34057
Amount: 0.494688
Amount Units: ug/mL



Reviewer: LV5D, 08-Feb-2023 19:08:23

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20230208-118465.b\02080018.D
Lims ID: IC INT 2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 08-Feb-2023 18:19:14 ALS Bottle#: 18 Worklist Smp#: 18
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT 2
Operator ID: JZ/MAR Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub26

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20230208-118465.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 09-Feb-2023 12:48:08 Calib Date: 08-Feb-2023 18:42:13
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20230208-118465.b\02080019.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1604

First Level Reviewer: LV5D Date: 08-Feb-2023 19:08:08

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
4 HMX	1	6.549	6.544	0.005	1961	0.0200	0.0210	M
8 RDX	1	7.563	7.564	-0.001	2196	0.0200	0.0206	M
9 2,4,6-Trinitrophenol	1	8.049	8.044	0.005	1492	0.0200	0.0197	
$ 10 1,2-Dinitrobenzene	1	8.516	8.517	-0.001	2491	0.0200	0.0197	
11 1,3,5-Trinitrobenzene	1	8.643	8.644	-0.001	4313	0.0200	0.0199	
12 1,3-Dinitrobenzene	1	9.256	9.257	-0.001	5849	0.0200	0.0199	
13 Nitrobenzene	1	9.636	9.631	0.005	3816	0.0200	0.0200	
14 3,5-Dinitroaniline	1	9.836	9.831	0.005	4377	0.0200	0.0198	
15 Tetryl	1	9.982	9.977	0.005	3073	0.0200	0.0187	
16 Nitroglycerin	2	10.449	10.437	0.012	11879	0.2000	0.1854	
17 2,4,6-Trinitrotoluene	1	10.876	10.864	0.012	4262	0.0200	0.0202	
18 4-Amino-2,6-dinitrotoluene	1	11.042	11.031	0.011	3106	0.0200	0.0200	
19 2-Amino-4,6-dinitrotoluene	1	11.289	11.277	0.012	4021	0.0200	0.0200	
20 2,6-Dinitrotoluene	1	11.469	11.451	0.018	2911	0.0200	0.0204	
21 2,4-Dinitrotoluene	1	11.636	11.617	0.019	5985	0.0200	0.0202	
22 o-Nitrotoluene	1	12.456	12.437	0.019	2611	0.0200	0.0204	
23 p-Nitrotoluene	1	12.869	12.844	0.025	2393	0.0200	0.0214	
24 m-Nitrotoluene	1	13.442	13.411	0.031	3062	0.0200	0.0218	
25 PETN	2	14.589	14.551	0.038	13462	0.2000	0.1955	M

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330IntermStk_00075 Amount Added: 2.00 Units: uL

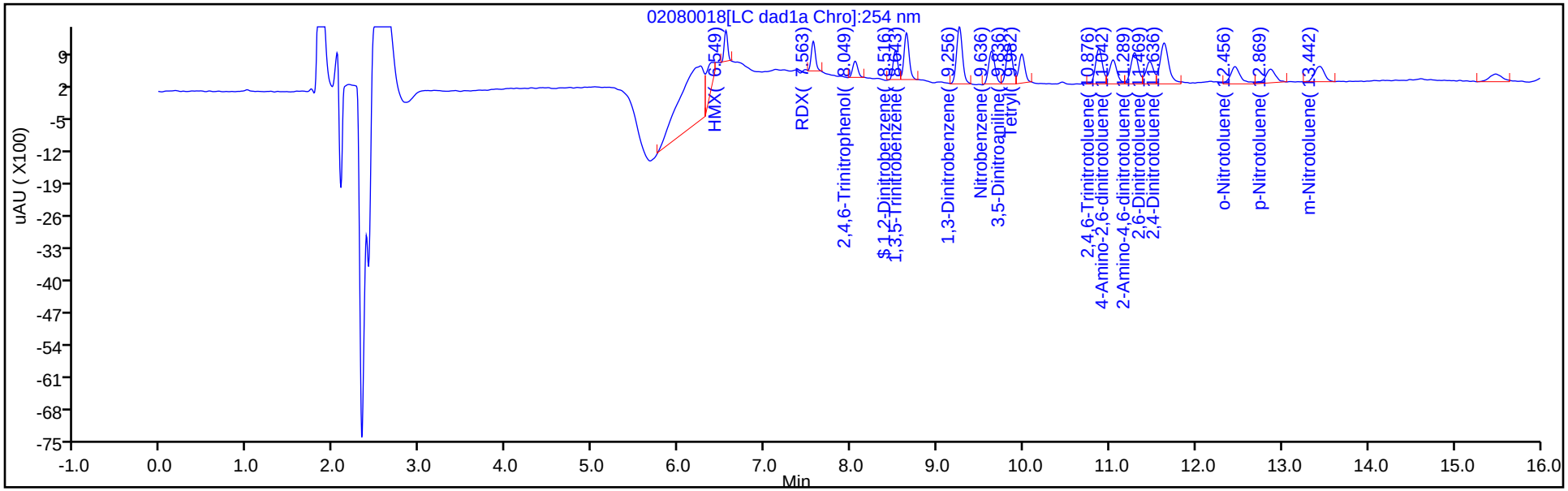
Report Date: 09-Feb-2023 12:48:08 Chrom Revision: 2.3 01-Feb-2023 13:23:06

Eurofins Denver

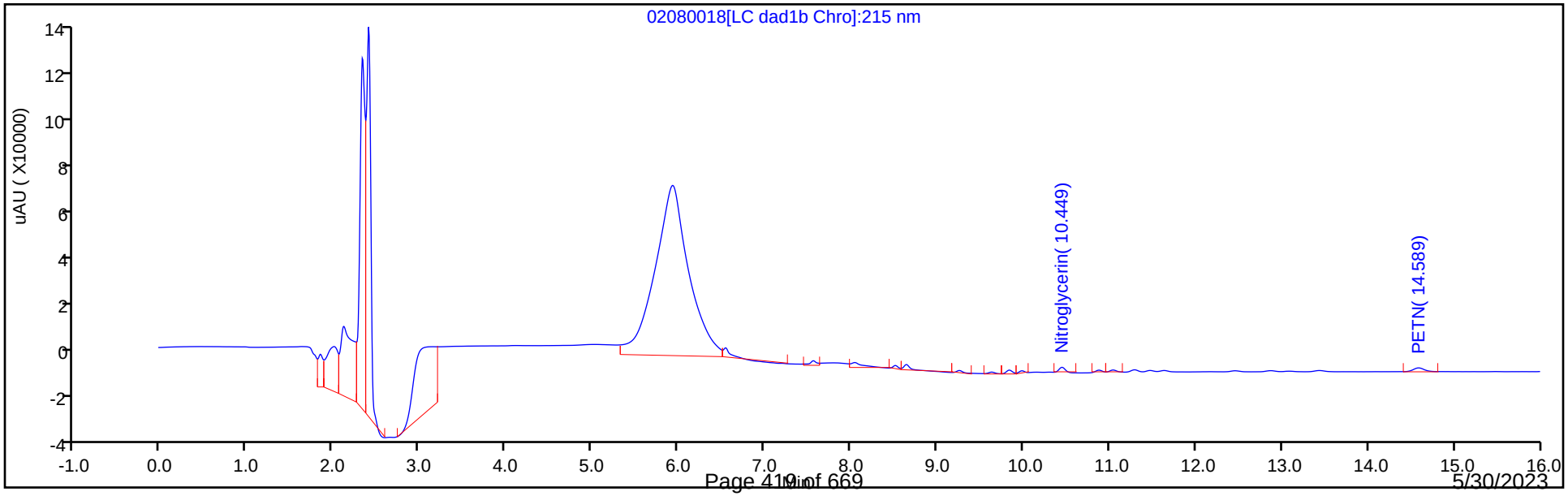
Data File: \\chromfs\denver\chromdata\chhplc_x\20230208-118465.b\02080018.d

Injection Date:	08-Feb-2023 18:19:14	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/MAR
Lims ID:	IC INT 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



5/30/2023
10:34 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

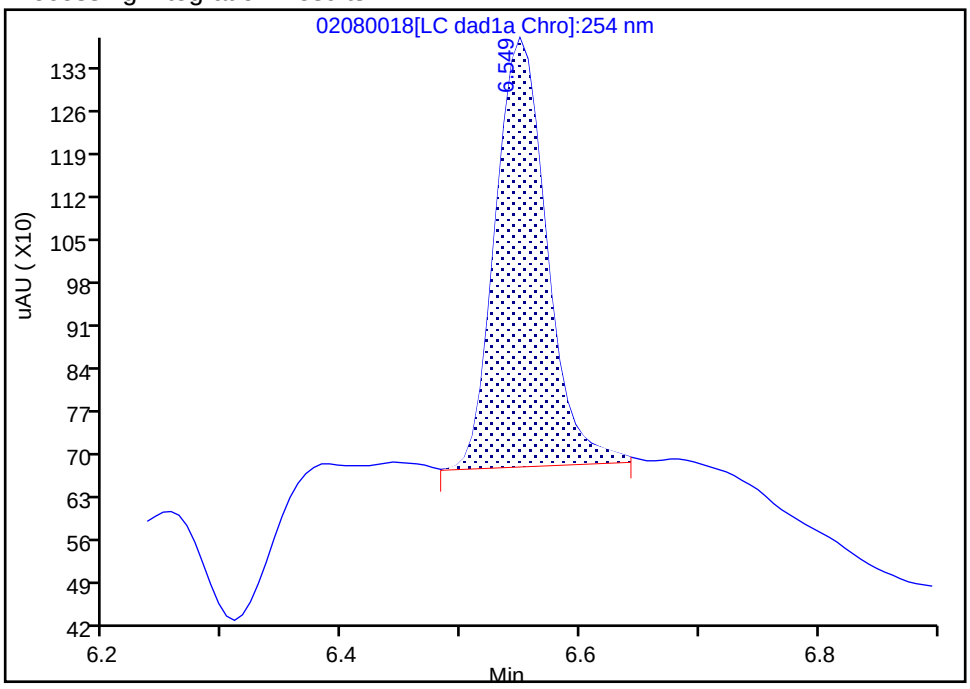
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230208-118465.b\02080018.d				
Injection Date:	08-Feb-2023 18:19:14	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT 2				
Client ID:					
Operator ID:	JZ/MAR	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

4 HMX, CAS: 2691-41-0

Signal: 1

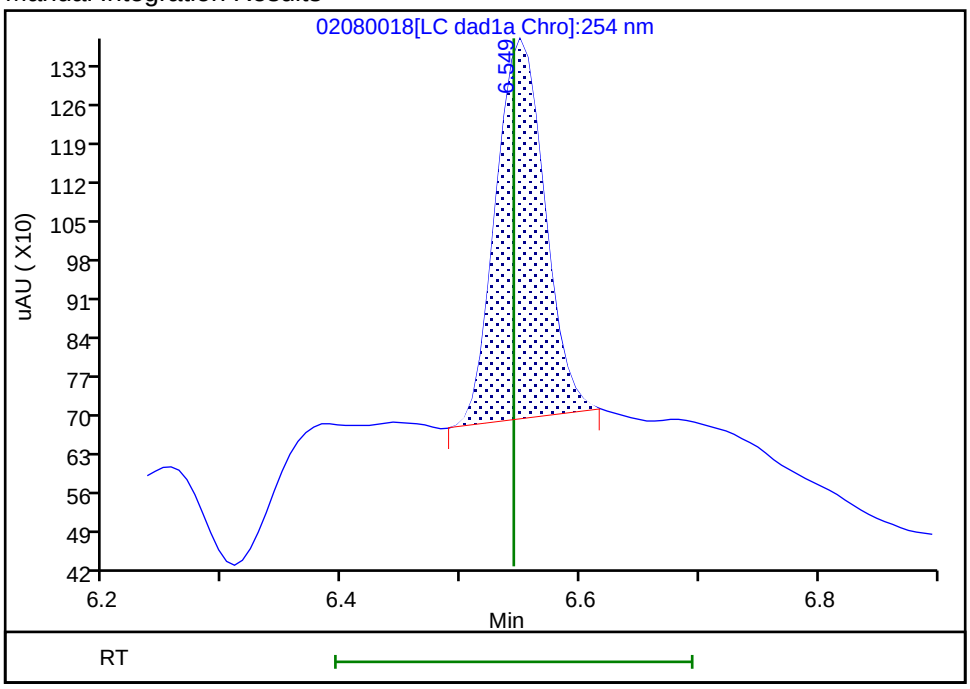
Processing Integration Results

RT: 6.55
Area: 2102
Amount: 0.022288
Amount Units: ug/mL



Manual Integration Results

RT: 6.55
Area: 1961
Amount: 0.020967
Amount Units: ug/mL



Reviewer: LV5D, 08-Feb-2023 19:09:07
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

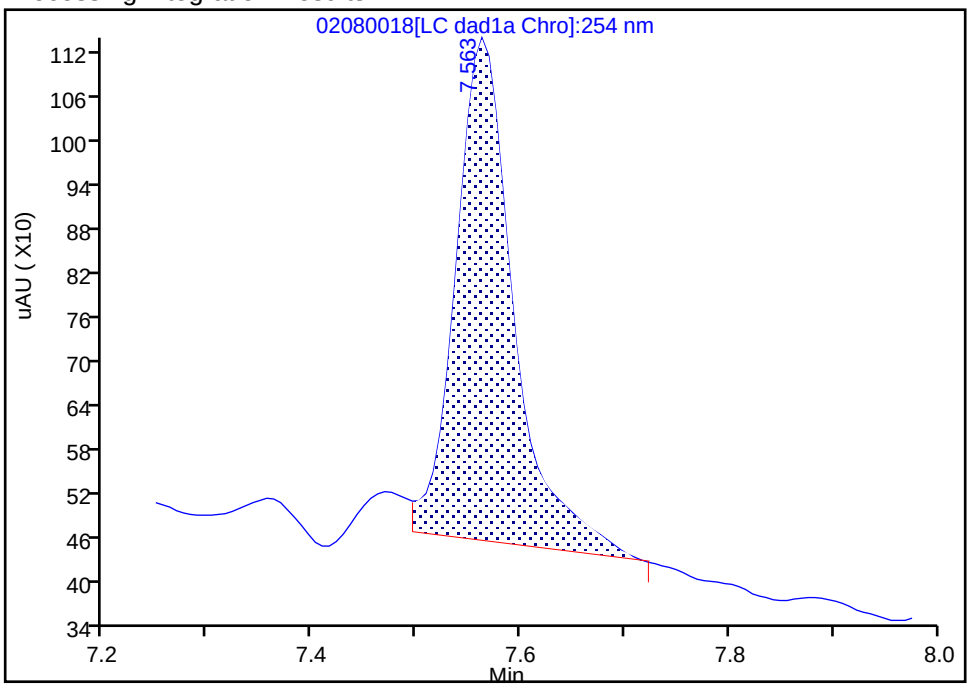
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230208-118465.b\02080018.d				
Injection Date:	08-Feb-2023 18:19:14	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT 2				
Client ID:					
Operator ID:	JZ/MAR	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

8 RDX, CAS: 121-82-4

Signal: 1

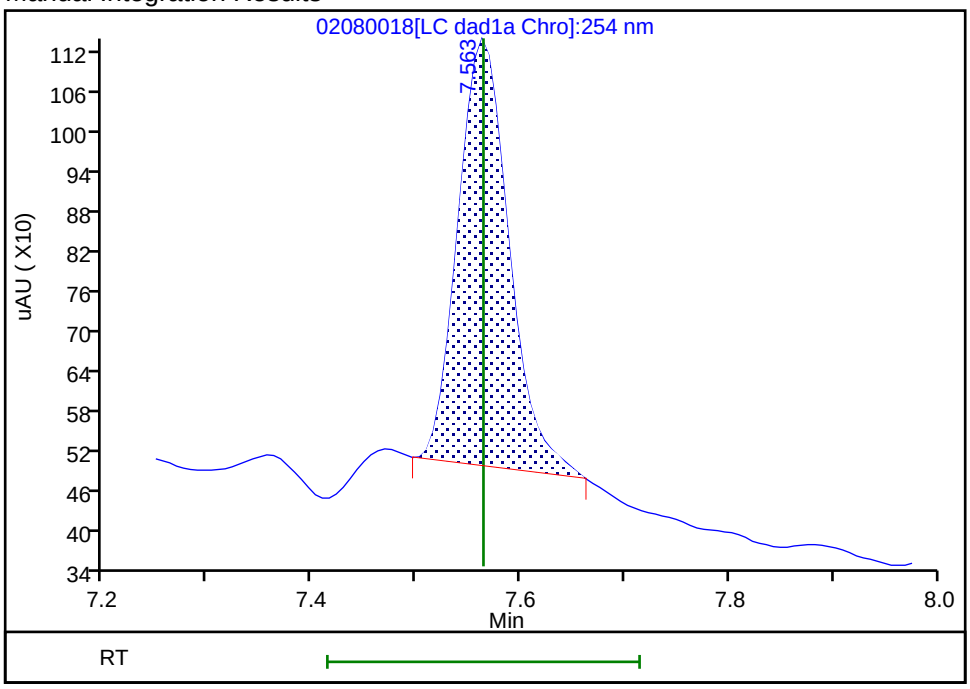
Processing Integration Results

RT: 7.56
Area: 2668
Amount: 0.023407
Amount Units: ug/mL



Manual Integration Results

RT: 7.56
Area: 2196
Amount: 0.020643
Amount Units: ug/mL



Reviewer: LV5D, 08-Feb-2023 19:09:19
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

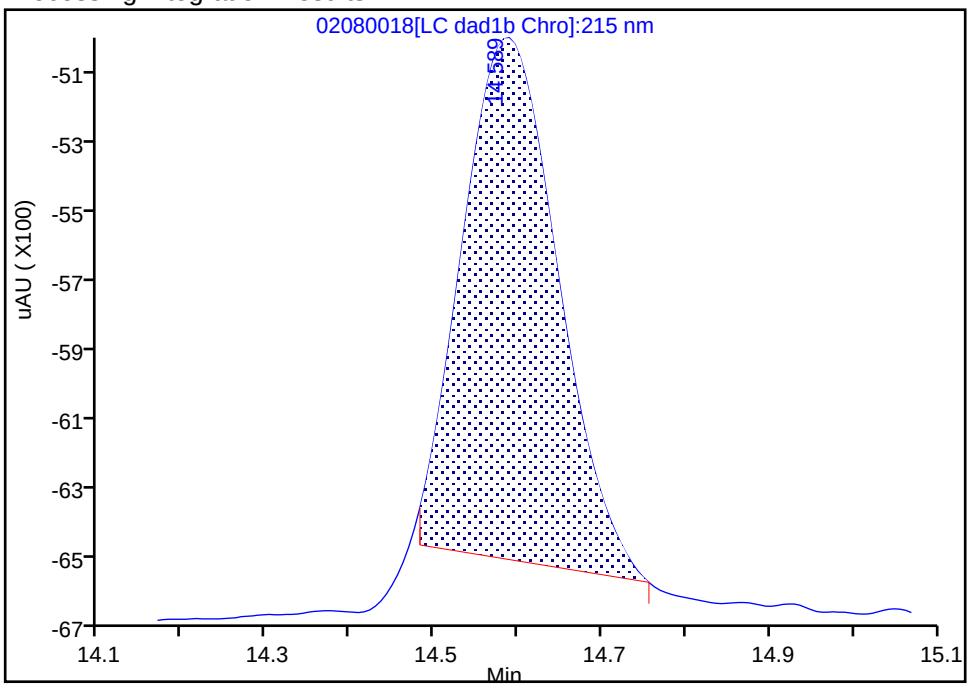
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230208-118465.b\02080018.d				
Injection Date:	08-Feb-2023 18:19:14	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT 2				
Client ID:					
Operator ID:	JZ/MAR	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1C, 215 nm		

25 PETN, CAS: 78-11-5

Signal: 1

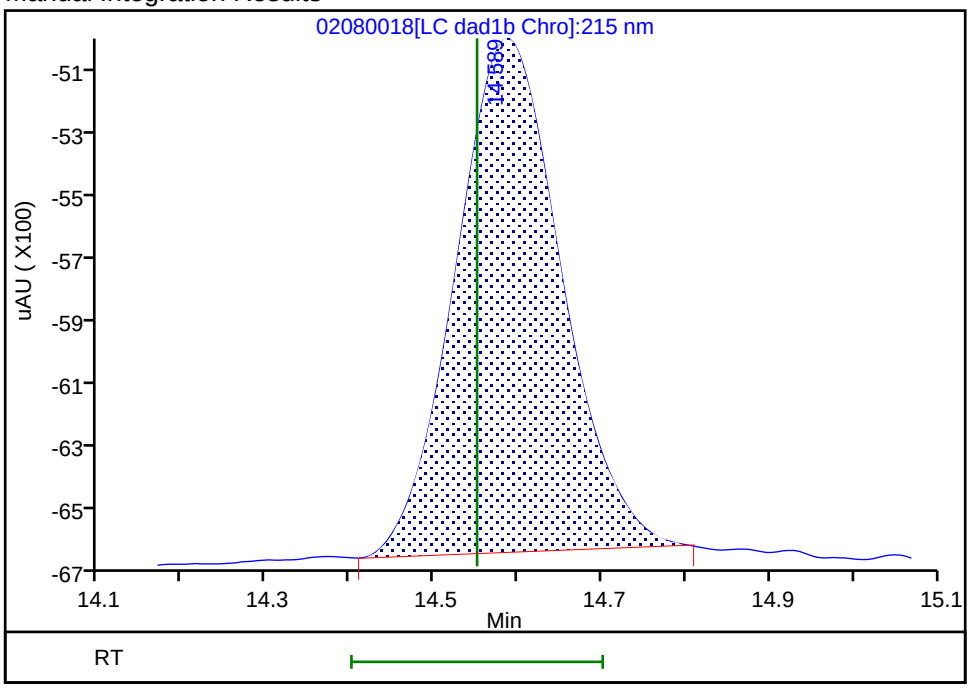
Processing Integration Results

RT: 14.59
Area: 11186
Amount: 0.166814
Amount Units: ug/mL



Manual Integration Results

RT: 14.59
Area: 13462
Amount: 0.195540
Amount Units: ug/mL



Reviewer: LV5D, 08-Feb-2023 19:08:19

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20230208-118465.b\02080019.D
Lims ID: IC INT 1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 08-Feb-2023 18:42:13 ALS Bottle#: 19 Worklist Smp#: 19
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT 1
Operator ID: JZ/MAR Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub26

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20230208-118465.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 09-Feb-2023 12:48:08 Calib Date: 08-Feb-2023 18:42:13
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20230208-118465.b\02080019.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1604

First Level Reviewer: LV5D Date: 08-Feb-2023 19:08:17

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
4 HMX	1	6.550	6.544	0.006	962	0.0100	0.0103	M
8 RDX	1	7.563	7.564	-0.001	1203	0.0100	0.0113	M
9 2,4,6-Trinitrophenol	1	8.050	8.044	0.006	673	0.0100	0.008875	
$ 10 1,2-Dinitrobenzene	1	8.517	8.517	0.000	1188	0.0100	0.009406	
11 1,3,5-Trinitrobenzene	1	8.643	8.644	-0.001	2196	0.0100	0.0101	
12 1,3-Dinitrobenzene	1	9.263	9.257	0.006	2902	0.0100	0.009857	
13 Nitrobenzene	1	9.636	9.631	0.005	1905	0.0100	0.0100	
14 3,5-Dinitroaniline	1	9.836	9.831	0.005	2147	0.0100	0.0100	
15 Tetryl	1	9.983	9.977	0.006	1611	0.0100	0.009816	
16 Nitroglycerin	2	10.450	10.437	0.013	6159	0.1000	0.0961	
17 2,4,6-Trinitrotoluene	1	10.876	10.864	0.012	2167	0.0100	0.0103	
18 4-Amino-2,6-dinitrotoluene	1	11.043	11.031	0.012	1670	0.0100	0.0108	
19 2-Amino-4,6-dinitrotoluene	1	11.296	11.277	0.019	2214	0.0100	0.0110	
20 2,6-Dinitrotoluene	1	11.470	11.451	0.019	1486	0.0100	0.0104	
21 2,4-Dinitrotoluene	1	11.636	11.617	0.019	3141	0.0100	0.0106	
22 o-Nitrotoluene	1	12.456	12.437	0.019	1377	0.0100	0.0108	
23 p-Nitrotoluene	1	12.863	12.844	0.019	1263	0.0100	0.0113	
24 m-Nitrotoluene	1	13.430	13.411	0.019	1473	0.0100	0.0105	
25 PETN	2	14.583	14.551	0.032	7273	0.1000	0.1056	M

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330IntermStk_00075 Amount Added: 1.00 Units: uL

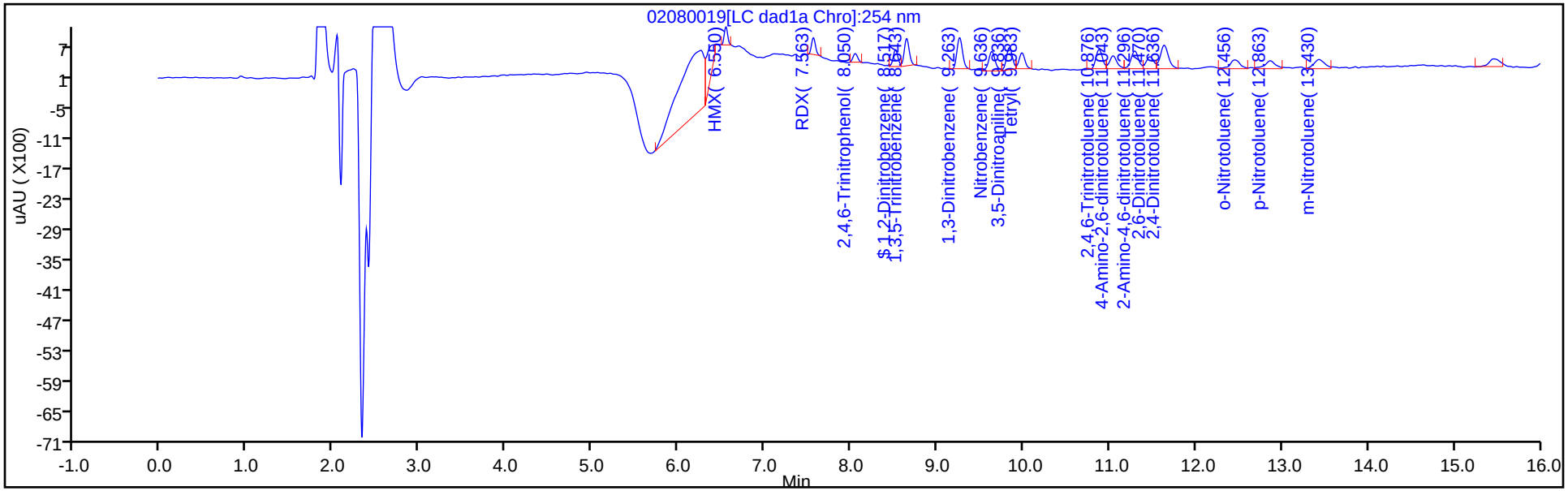
Report Date: 09-Feb-2023 12:48:08 Chrom Revision: 2.3 01-Feb-2023 13:23:06

Eurofins Denver

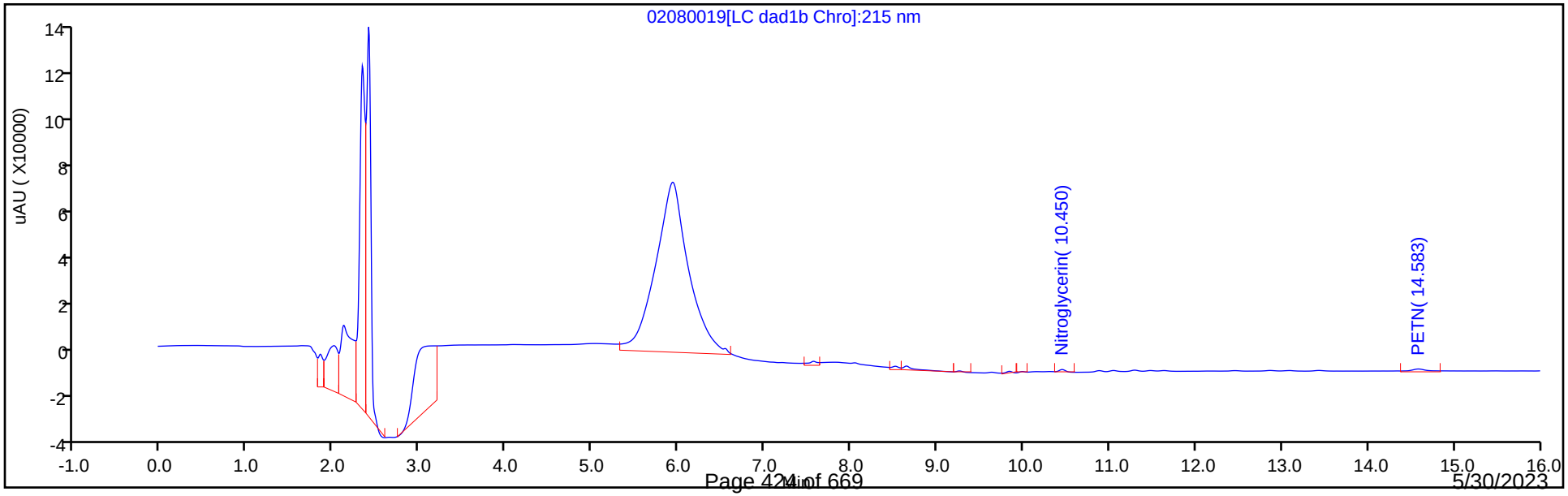
Data File: \\chromfs\denver\chromdata\chhplc_x\20230208-118465.b\02080019.d

Injection Date:	08-Feb-2023 18:42:13	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/MAR
Lims ID:	IC INT 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



5/30/2023
10:34 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

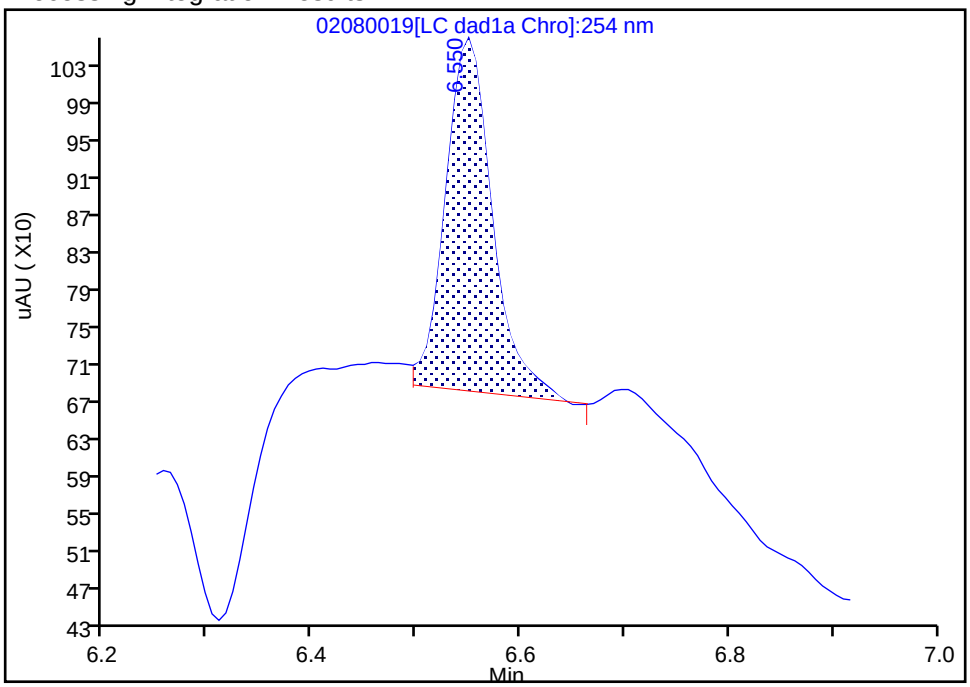
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230208-118465.b\02080019.d				
Injection Date:	08-Feb-2023 18:42:13	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT 1				
Client ID:					
Operator ID:	JZ/MAR	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

4 HMX, CAS: 2691-41-0

Signal: 1

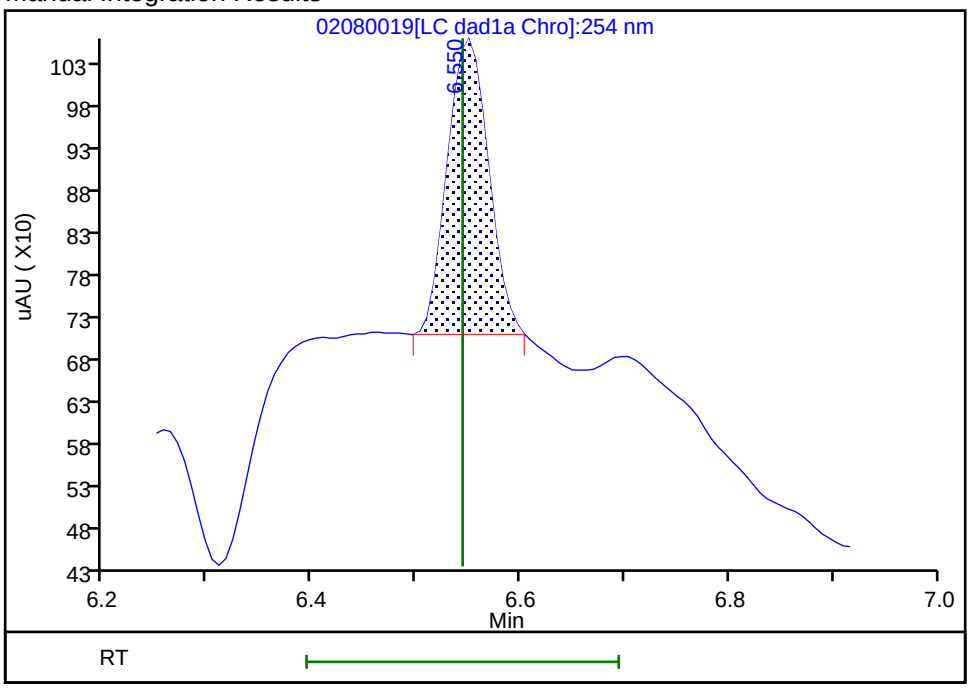
Processing Integration Results

RT: 6.55
Area: 1188
Amount: 0.012270
Amount Units: ug/mL



Manual Integration Results

RT: 6.55
Area: 962
Amount: 0.010286
Amount Units: ug/mL



Reviewer: LV5D, 08-Feb-2023 19:09:00
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

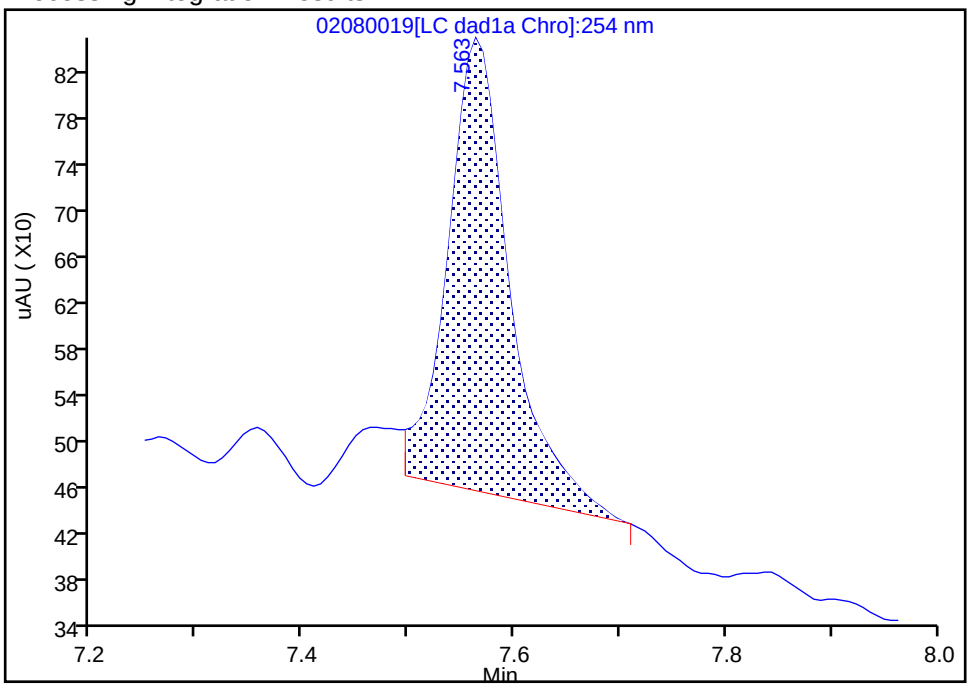
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230208-118465.b\02080019.d				
Injection Date:	08-Feb-2023 18:42:13	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT 1				
Client ID:					
Operator ID:	JZ/MAR	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

8 RDX, CAS: 121-82-4

Signal: 1

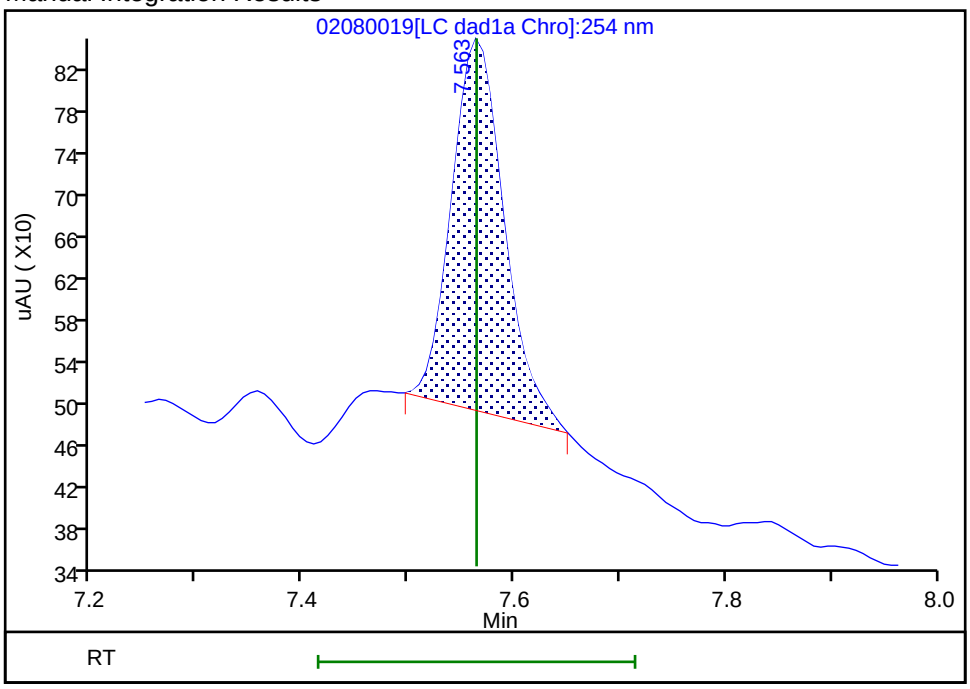
Processing Integration Results

RT: 7.56
Area: 1576
Amount: 0.013341
Amount Units: ug/mL



Manual Integration Results

RT: 7.56
Area: 1203
Amount: 0.011309
Amount Units: ug/mL



Reviewer: LV5D, 08-Feb-2023 19:08:52
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

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

Lab Name: Eurofins Denver Job No.: 280-176866-1 Analy Batch No.: 610603

SDG No.:

Instrument ID: CHHPLC_X5 GC Column: Luna-phenyl ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/28/2023 18:24 Calibration End Date: 04/28/2023 23:03 Calibration ID: 79725

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-610603/18	04280018.D
Level 2	IC 280-610603/17	04280017.D
Level 3	IC 280-610603/16	04280016.D
Level 4	IC 280-610603/15	04280015.D
Level 5	IC 280-610603/14	04280014.D
Level 6	IC 280-610603/13	04280013.D
Level 7	IC 280-610603/12	04280012.D
Level 8	IC 280-610603/11	04280011.D
Level 9	IC 280-610603/10	04280010.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	5.116	5.136	5.116	5.116	5.115	5.108	5.096	5.095	5.014		4.965 - 5.265	5.101
DNX	5.963	5.983	5.969	5.963	5.955	5.954	5.943	5.942	5.854		5.805 - 6.105	5.947
HMX	+++++	6.630	6.603	6.603	6.595	6.594	6.589	6.588	6.521		6.445 - 6.745	6.590
MNX	7.496	7.523	7.503	7.496	7.489	7.488	7.476	7.475	7.387		7.339 - 7.639	7.481
Picric acid	8.063	8.116	8.076	8.056	8.029	8.008	7.956	7.935	+++++		7.879 - 8.179	8.030
RDX	8.923	8.956	8.929	8.923	8.915	8.908	8.903	8.902	8.814		8.765 - 9.065	8.908
Nitrobenzene	11.489	11.523	11.489	11.483	11.482	11.461	11.462	11.462	11.374		11.332 - 11.632	11.469
3,5-Dinitroaniline	14.376	14.410	14.369	14.363	14.355	14.334	14.329	14.355	14.367		14.205 - 14.505	14.362
1,3-Dinitrobenzene	14.636	14.663	14.629	14.623	14.622	14.601	14.596	14.615	14.527		14.472 - 14.772	14.612
Nitroglycerin	15.196	15.216	15.176	15.176	15.182	15.154	15.149	15.175	15.121		15.032 - 15.332	15.172
2-Nitrotoluene	15.736	15.770	15.723	15.730	15.729	15.708	15.696	15.722	15.661		15.579 - 15.879	15.719
4-Nitrotoluene	15.969	15.996	15.956	15.956	15.955	15.934	15.922	15.948	15.834		15.805 - 16.105	15.941
4-Amino-2,6-dinitrotoluene	16.529	16.556	16.523	16.523	16.515	16.501	16.482	16.528	16.441		16.365 - 16.665	16.511
3-Nitrotoluene	16.843	16.843	16.816	16.816	16.815	16.801	16.782	16.828	16.734		16.665 - 16.965	16.809
2-Amino-4,6-dinitrotoluene	17.369	17.410	17.376	17.370	17.362	17.354	17.329	17.402	17.367		17.212 - 17.512	17.371
1,3,5-Trinitrobenzene	17.443	17.456	17.429	17.423	17.422	17.414	17.389	17.442	17.367		17.272 - 17.572	17.421
2,6-Dinitrotoluene	18.643	18.670	18.643	18.636	18.629	18.628	18.622	18.675	18.561		18.479 - 18.779	18.634
2,4-Dinitrotoluene	19.096	19.123	19.096	19.090	19.082	19.081	19.076	19.128	19.021		18.932 - 19.232	19.088
Tetryl	22.363	22.396	22.369	22.363	22.389	22.361	22.389	22.442	22.341		22.239 - 22.539	22.379
2,4,6-Trinitrotoluene	23.176	23.196	23.163	23.156	23.182	23.154	23.183	23.228	23.134		23.032 - 23.332	23.175
PETN	24.430	24.450	24.423	24.416	24.475	24.428	24.469	24.508	24.421		24.325 - 24.625	24.447
1,2-Dinitrobenzene	12.483	12.516	12.476	12.470	12.469	12.448	12.442	12.455	12.374		12.319 - 12.619	12.459

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Denver Job No.: 280-176866-1 Analy Batch No.: 610603

SDG No.:

Instrument ID: CHHPLC_X5 GC Column: Luna-phenyl ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/28/2023 18:24 Calibration End Date: 04/28/2023 23:03 Calibration ID: 79725

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-610603/18	04280018.D
Level 2	IC 280-610603/17	04280017.D
Level 3	IC 280-610603/16	04280016.D
Level 4	IC 280-610603/15	04280015.D
Level 5	IC 280-610603/14	04280014.D
Level 6	IC 280-610603/13	04280013.D
Level 7	IC 280-610603/12	04280012.D
Level 8	IC 280-610603/11	04280011.D
Level 9	IC 280-610603/10	04280010.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	453838 343462 370331	407727 368303	404407 394444	416291 390186	Ave		394332.075				8.1		20.0			
DNX	280120 247976 265367	286114 268282	294366 283929	286124 281374	Ave		277072.290				5.1		20.0			
HMX	+++++ 184440 193632	222450 169983	215220 187240	195730 189027	Lin2	831.975634	185425.338							0.9970		0.9900
MNX	312425 228103 265422	263710 245259	268963 258928	261611 255982	Ave		262267.073				8.6		20.0			
Picric acid	219700 160808 +++++	172650 149730	179000 163827	170600 165319	Lin2	546.111079	159807.270							0.9960		0.9900
RDX	285200 214572 225981	243150 197783	232420 219114	228270 221588	Lin2	672.503491	215639.318							0.9980		0.9900
Nitrobenzene	426900 386724 401056	393550 354198	417660 395110	415850 398454	Ave		398833.544				5.3		20.0			
3,5-Dinitroaniline	505300 452216 407228	461050 414810	483520 461404	469800 460771	Lin2	607.261331	444569.707							0.9970		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
CURVE EVALUATION

Lab Name: Eurofins Denver Job No.: 280-176866-1 Analy Batch No.: 610603

SDG No.:

Instrument ID: CHHPLC_X5 GC Column: Luna-phenyl ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/28/2023 18:24 Calibration End Date: 04/28/2023 23:03 Calibration ID: 79725

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								
1,3-Dinitrobenzene	694600 610632 687042	615350 554495	629180 616069	625960 630835	Ave		629351.397				6.6		20.0			
Nitroglycerin	146030 130878 134334	137045 120030	142168 132805	134661 134666	Ave		134735.154				5.4		20.0			
2-Nitrotoluene	233600 242696 244772	264050 225665	259020 249076	252900 250892	Ave		246963.368				4.8		20.0			
4-Nitrotoluene	220600 226220 241286	223300 203570	243580 227886	230020 230951	Ave		227490.302				5.2		20.0			
4-Amino-2,6-dinitrotoluene	327500 286712 289176	303200 260730	305300 288184	294720 292369	Ave		294210.143				6.1		20.0			
3-Nitrotoluene	326900 284164 298841	291150 260845	310920 290920	295690 292277	Ave		294634.089				6.1		20.0			
2-Amino-4,6-dinitrotoluene	391200 434020 467007	412850 397298	463240 420357	439480 426004	Ave		427939.494				6.1		20.0			
1,3,5-Trinitrobenzene	443800 392672 378606	389950 354488	441180 413963	419460 417113	Ave		405692.417				7.2		20.0			
2,6-Dinitrotoluene	309300 283472 290190	285800 257870	317520 287934	302600 290390	Ave		291675.187				5.9		20.0			
2,4-Dinitrotoluene	598700 572392 588866	612050 519843	608140 580639	594330 585209	Ave		584463.075				4.7		20.0			
Tetryl	328200 273308 283850	317400 246538	284660 274789	275340 278494	Ave		284730.941				8.6		20.0			
2,4,6-Trinitrotoluene	491900 418244 436729	496250 380470	443680 421144	431360 430103	Ave		438875.565				8.2		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.: 280-176866-1 Analy Batch No.: 610603

SDG No.:

Instrument ID: CHHPLC_X5 GC Column: Luna-phenyl ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/28/2023 18:24 Calibration End Date: 04/28/2023 23:03 Calibration ID: 79725

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	163440 140765 142965	144025 128148	145886 141788	146450 141973	Ave		143937.770				6.3		20.0			
1,2-Dinitrobenzene	316900 269384 276674	301900 245698	287580 273104	278930 276103	Ave		280697.021				7.2		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.: 280-176866-1 Analy Batch No.: 610603

SDG No.:

Instrument ID: CHHPLC_X5 GC Column: Luna-phenyl ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/28/2023 18:24 Calibration End Date: 04/28/2023 23:03 Calibration ID: 79725

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-610603/18	04280018.D
Level 2	IC 280-610603/17	04280017.D
Level 3	IC 280-610603/16	04280016.D
Level 4	IC 280-610603/15	04280015.D
Level 5	IC 280-610603/14	04280014.D
Level 6	IC 280-610603/13	04280013.D
Level 7	IC 280-610603/12	04280012.D
Level 8	IC 280-610603/11	04280011.D
Level 9	IC 280-610603/10	04280010.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	4552 147763	8179 276939	20281 391357	41754 928605	86123	0.0100 0.401	0.0201 0.702	0.0502 1.00	0.100 2.51	0.251
DNX	Ave	2804 107420	5728 198949	14733 281655	28641 664081	62056	0.0100 0.400	0.0200 0.701	0.0501 1.00	0.100 2.50	0.250
HMX	Lin2	+++++ 67993	4449 131068	10761 189027	19573 484081	46110	+++++ 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
MNX	Ave	3646 114487	6155 211518	15694 298731	30530 774370	66549	0.0117 0.467	0.0233 0.817	0.0584 1.17	0.117 2.92	0.292
Picric acid	Lin2	2197 59892	3453 114679	8950 165319	17060 +++++	40202	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 +++++	0.250
RDX	Lin2	2852 79113	4863 153380	11621 221588	22827 564953	53643	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
Nitrobenzene	Ave	4269 141679	7871 276577	20883 398454	41585 1002641	96681	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
3,5-Dinitroaniline	Lin2	5053 165924	9221 322983	24176 460771	46980 1018070	113054	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
1,3-Dinitrobenzene	Ave	6946 221798	12307 431248	31459 630835	62596 1717605	152658	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
Nitroglycerin	Ave	14603 480119	27409 929634	71084 1346659	134661 3358347	327195	0.100 4.00	0.200 7.00	0.500 10.0	1.00 25.0	2.50
2-Nitrotoluene	Ave	2336 90266	5281 174353	12951 250892	25290 611929	60674	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
4-Nitrotoluene	Ave	2206 81428	4466 159520	12179 230951	23002 603215	56555	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
4-Amino-2,6-dinitrotoluene	Ave	3275	6064	15265	29472	71678	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.: 280-176866-1 Analy Batch No.: 610603

SDG No.:

Instrument ID: CHHPLC_X5 GC Column: Luna-phenyl ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/28/2023 18:24 Calibration End Date: 04/28/2023 23:03 Calibration ID: 79725

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
		104292	201729	292369	722940		0.400	0.700	1.00	2.50	
3-Nitrotoluene	Ave	3269	5823	15546	29569	71041	0.0100	0.0200	0.0500	0.100	0.250
		104338	203644	292277	747102		0.400	0.700	1.00	2.50	
2-Amino-4,6-dinitrotoluene	Ave	3912	8257	23162	43948	108505	0.0100	0.0200	0.0500	0.100	0.250
		158919	294250	426004	1167517		0.400	0.700	1.00	2.50	
1,3,5-Trinitrobenzene	Ave	4438	7799	22059	41946	98168	0.0100	0.0200	0.0500	0.100	0.250
		141795	289774	417113	946516		0.400	0.700	1.00	2.50	
2,6-Dinitrotoluene	Ave	3093	5716	15876	30260	70868	0.0100	0.0200	0.0500	0.100	0.250
		103148	201554	290390	725476		0.400	0.700	1.00	2.50	
2,4-Dinitrotoluene	Ave	5987	12241	30407	59433	143098	0.0100	0.0200	0.0500	0.100	0.250
		207937	406447	585209	1472164		0.400	0.700	1.00	2.50	
Tetryl	Ave	3282	6348	14233	27534	68327	0.0100	0.0200	0.0500	0.100	0.250
		98615	192352	278494	709626		0.400	0.700	1.00	2.50	
2,4,6-Trinitrotoluene	Ave	4919	9925	22184	43136	104561	0.0100	0.0200	0.0500	0.100	0.250
		152188	294801	430103	1091822		0.400	0.700	1.00	2.50	
PETN	Ave	16344	28805	72943	146450	351913	0.100	0.200	0.500	1.00	2.50
		512590	992519	1419730	3574120		4.00	7.00	10.0	25.0	
1,2-Dinitrobenzene	Ave	3169	6038	14379	27893	67346	0.0100	0.0200	0.0500	0.100	0.250
		98279	191173	276103	691686		0.400	0.700	1.00	2.50	

Curve Type Legend
Ave = Average
Lin2 = Linear 1/conc^2

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230428-120896.b\04280010.D
Lims ID: IC INT 9
Client ID:
Sample Type: IC Calib Level: 9
Inject. Date: 28-Apr-2023 18:24:11 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*sub6

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20230428-120896.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 29-Apr-2023 13:04:16 Calib Date: 29-Apr-2023 04:18:01
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230428-120896.b\04280027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1621

First Level Reviewer: LV5D Date: 29-Apr-2023 13:01:46

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
3 TNX	1	5.014	5.115	-0.101	928605	2.51	2.35	
4 DNX	1	5.854	5.955	-0.101	664081	2.50	2.40	
5 HMX	1	6.521	6.595	-0.074	484081	2.50	2.61	
6 MNX	1	7.387	7.489	-0.102	774370	2.92	2.95	
7 2,4,6-Trinitrophenol	1	7.867	8.029	-0.162	285146	2.50	1.78	
8 RDX	1	8.814	8.915	-0.101	564953	2.50	2.62	
9 Nitrobenzene	1	11.374	11.482	-0.108	1002641	2.50	2.51	
$ 10 1,2-Dinitrobenzene	1	12.374	12.469	-0.095	691686	2.50	2.46	
11 3,5-Dinitroaniline	1	14.367	14.355	0.012	1018070	2.50	2.29	Ma
12 1,3-Dinitrobenzene	1	14.527	14.622	-0.095	1717605	2.50	2.73	M
13 Nitroglycerin	2	15.121	15.182	-0.061	3358347	25.0	24.9	
14 o-Nitrotoluene	1	15.661	15.729	-0.068	611929	2.50	2.48	M
16 p-Nitrotoluene	1	15.834	15.955	-0.121	603215	2.50	2.65	M
17 4-Amino-2,6-dinitrotoluene	1	16.441	16.515	-0.074	722940	2.50	2.46	M
18 m-Nitrotoluene	1	16.734	16.815	-0.081	747102	2.50	2.54	M
19 2-Amino-4,6-dinitrotoluene	1	17.367	17.362	0.005	1167517	2.50	2.73	M
20 1,3,5-Trinitrobenzene	1	17.367	17.422	-0.055	946516	2.50	2.33	M
21 2,6-Dinitrotoluene	1	18.561	18.629	-0.068	725476	2.50	2.49	M
22 2,4-Dinitrotoluene	1	19.021	19.082	-0.061	1472164	2.50	2.52	M
23 Tetryl	1	22.341	22.389	-0.048	709626	2.50	2.49	
24 2,4,6-Trinitrotoluene	1	23.134	23.182	-0.048	1091822	2.50	2.49	
25 PETN	2	24.421	24.475	-0.054	3574120	25.0	24.8	

QC Flag Legend
Processing Flags

Review Flags
M - Manually Integrated
a - User Assigned ID

Reagents:

8330IntermStk_00076	Amount Added: 250.00	Units: uL
8330 DMT_00013	Amount Added: 125.00	Units: uL

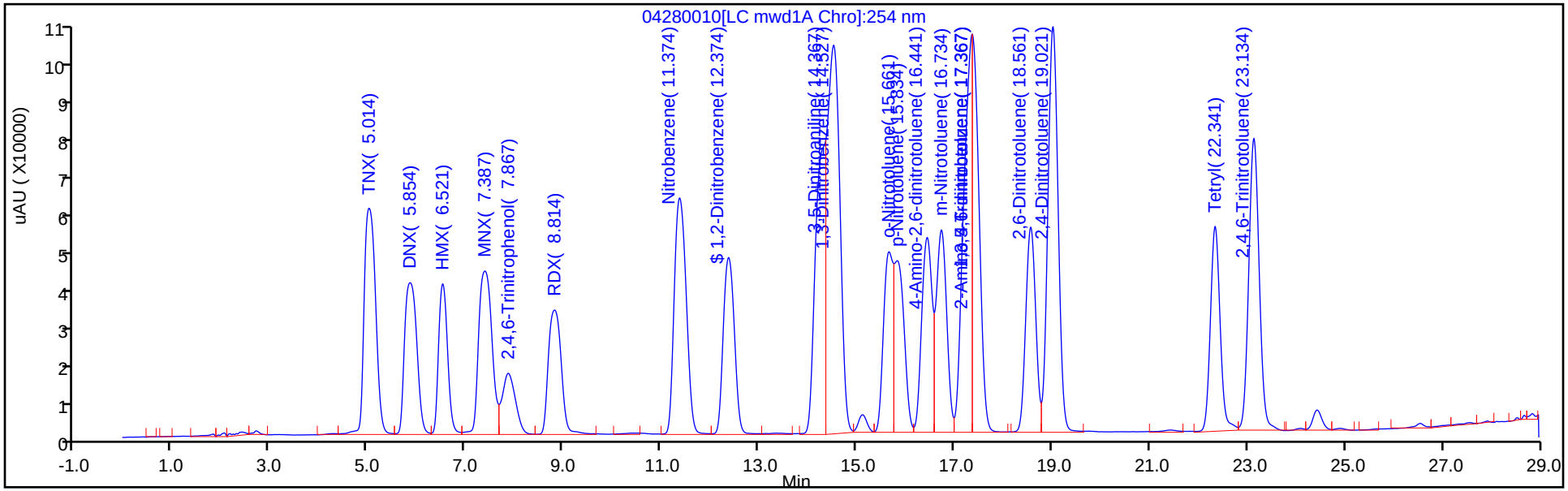
Report Date: 29-Apr-2023 13:04:16 Chrom Revision: 2.3 29-Mar-2023 18:39:10

Eurofins Denver

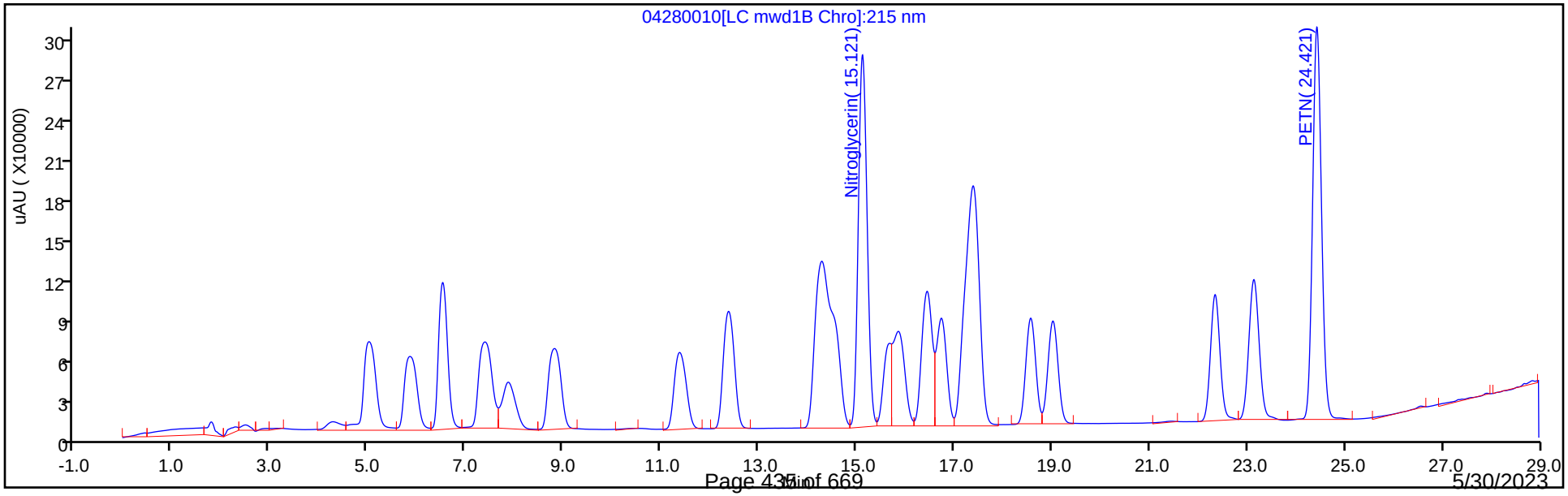
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230428-120896.b\04280010.D

Injection Date:	28-Apr-2023 18:24:11	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



5/30/2023
10:34 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

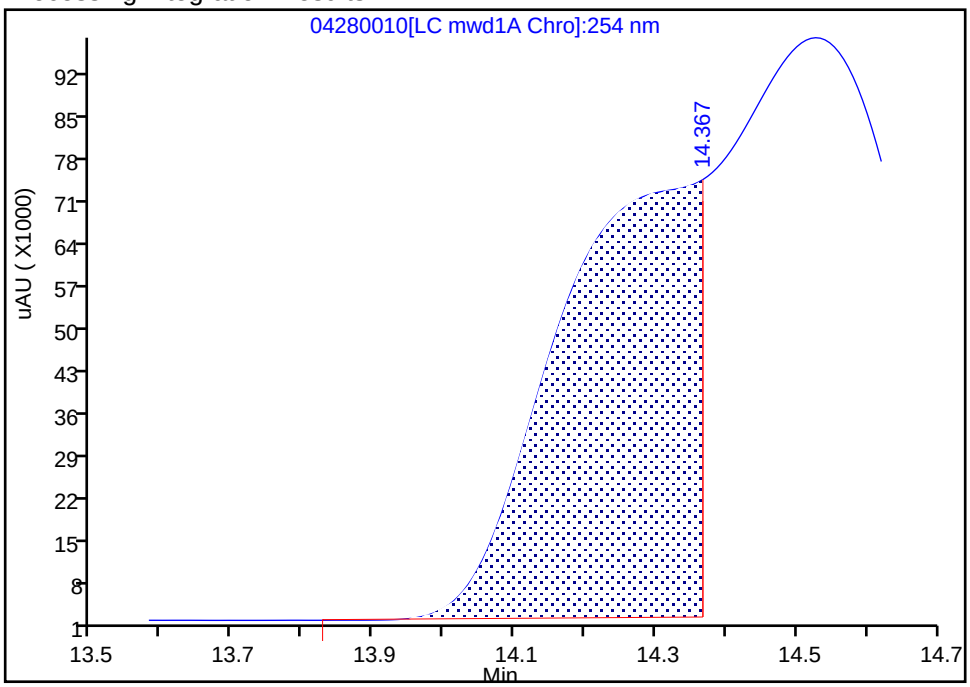
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20230428-120896.b\04280010.D				
Injection Date:	28-Apr-2023 18:24:11	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 9				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	10	Worklist Smp#:	10
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

11 3,5-Dinitroaniline, CAS: 618-87-1

Signal: 1

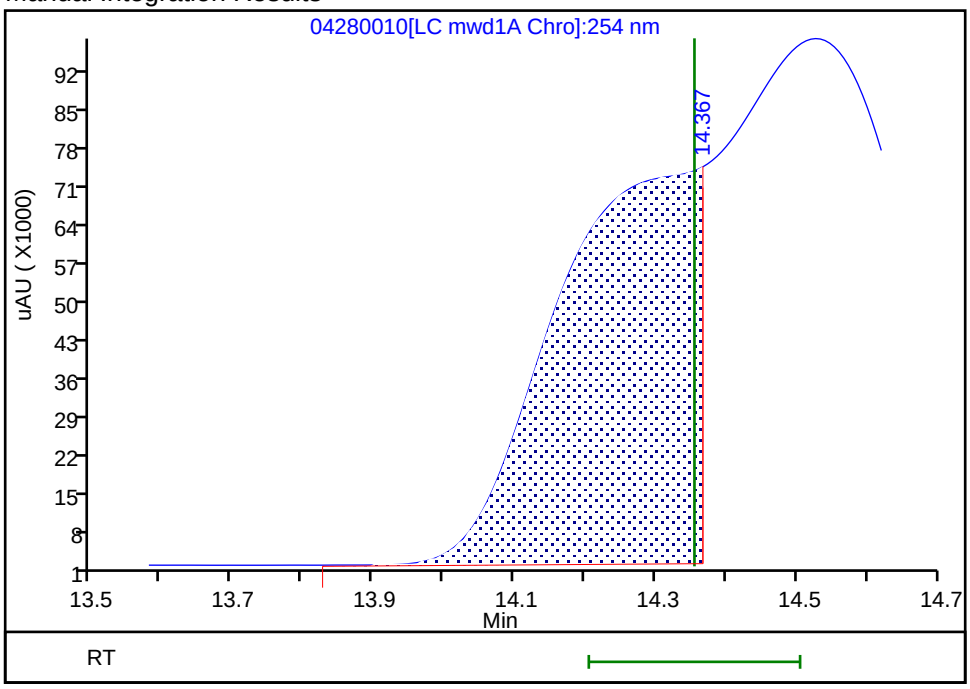
Processing Integration Results

RT: 14.37
Area: 1013469
Amount: 2.724745
Amount Units: ug/ml



Manual Integration Results

RT: 14.37
Area: 1018070
Amount: 2.288646
Amount Units: ug/ml



Reviewer: LV5D, 28-Apr-2023 19:01:40
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

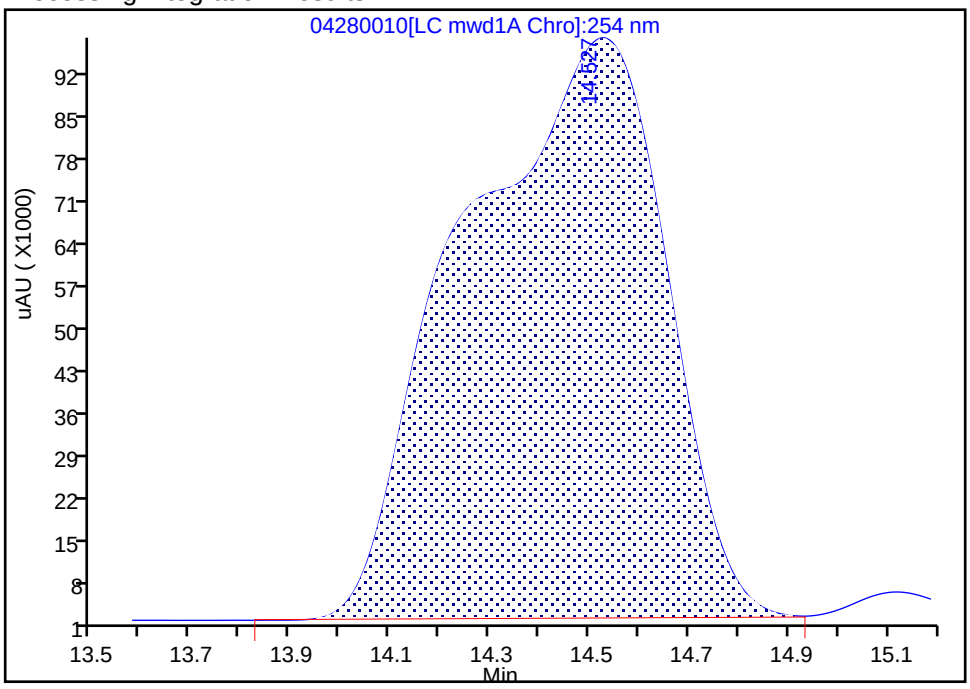
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20230428-120896.b\04280010.D				
Injection Date:	28-Apr-2023 18:24:11	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 9				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	10	Worklist Smp#:	10
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

12 1,3-Dinitrobenzene, CAS: 99-65-0

Signal: 1

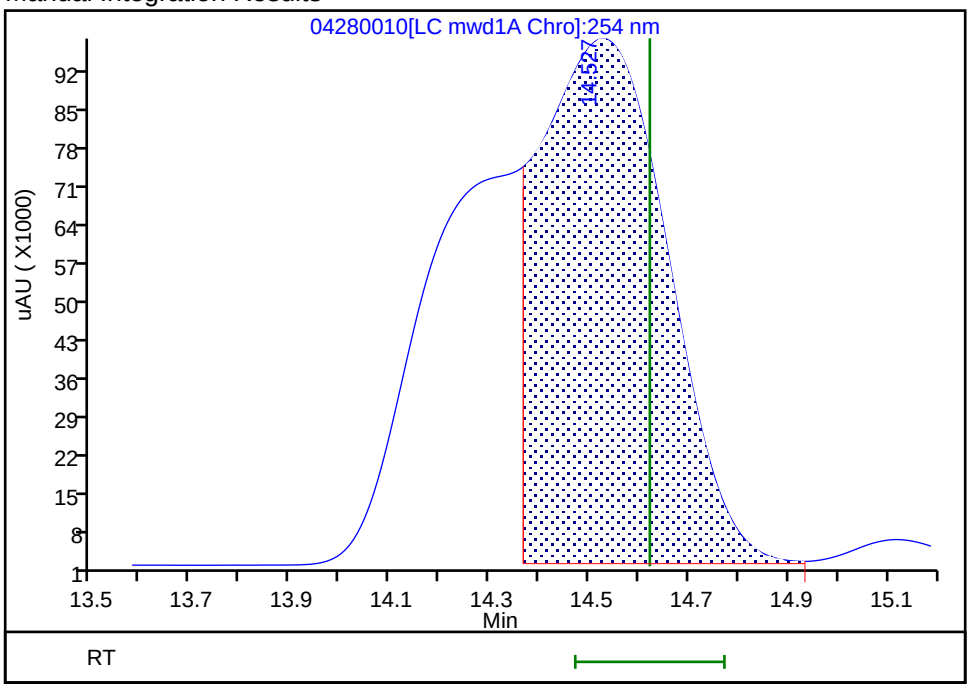
Processing Integration Results

RT: 14.53
Area: 2715993
Amount: 3.616571
Amount Units: ug/ml



Manual Integration Results

RT: 14.53
Area: 1717605
Amount: 2.729167
Amount Units: ug/ml



Reviewer: LV5D, 28-Apr-2023 19:01:40

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

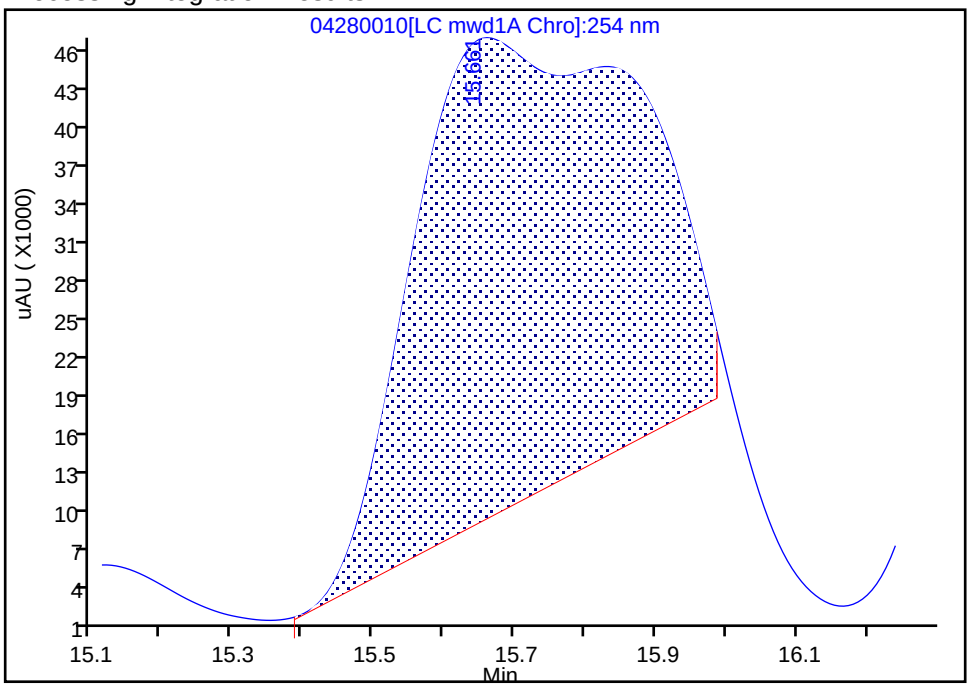
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20230428-120896.b\04280010.D				
Injection Date:	28-Apr-2023 18:24:11	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 9				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	10	Worklist Smp#:	10
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

14 o-Nitrotoluene, CAS: 88-72-2

Signal: 1

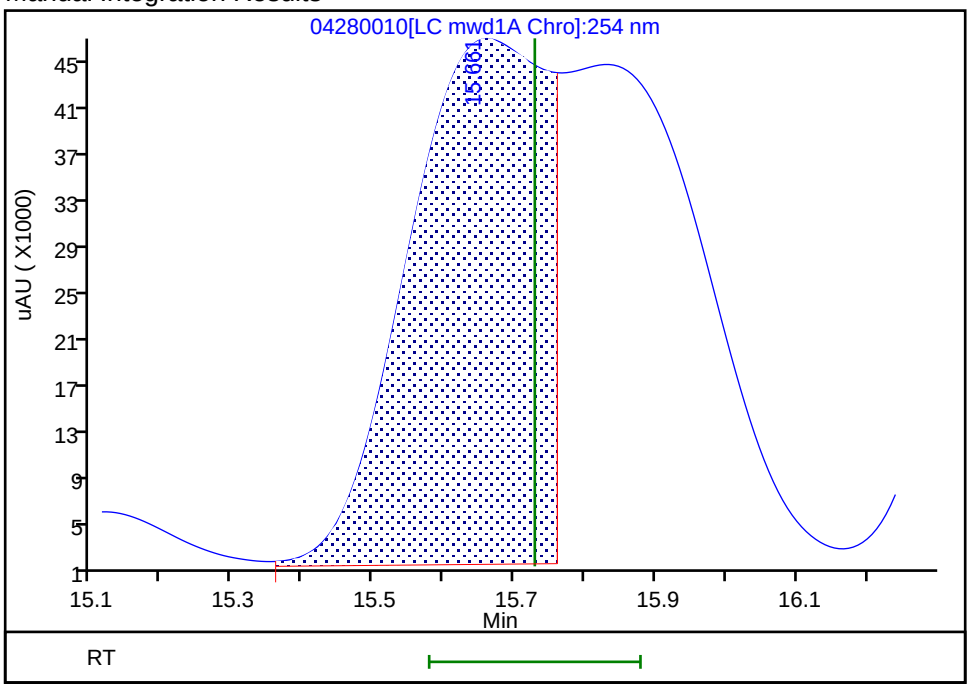
Processing Integration Results

RT: 15.66
Area: 811716
Amount: 3.605542
Amount Units: ug/ml



Manual Integration Results

RT: 15.66
Area: 611929
Amount: 2.477813
Amount Units: ug/ml



Reviewer: LV5D, 28-Apr-2023 19:01:40
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

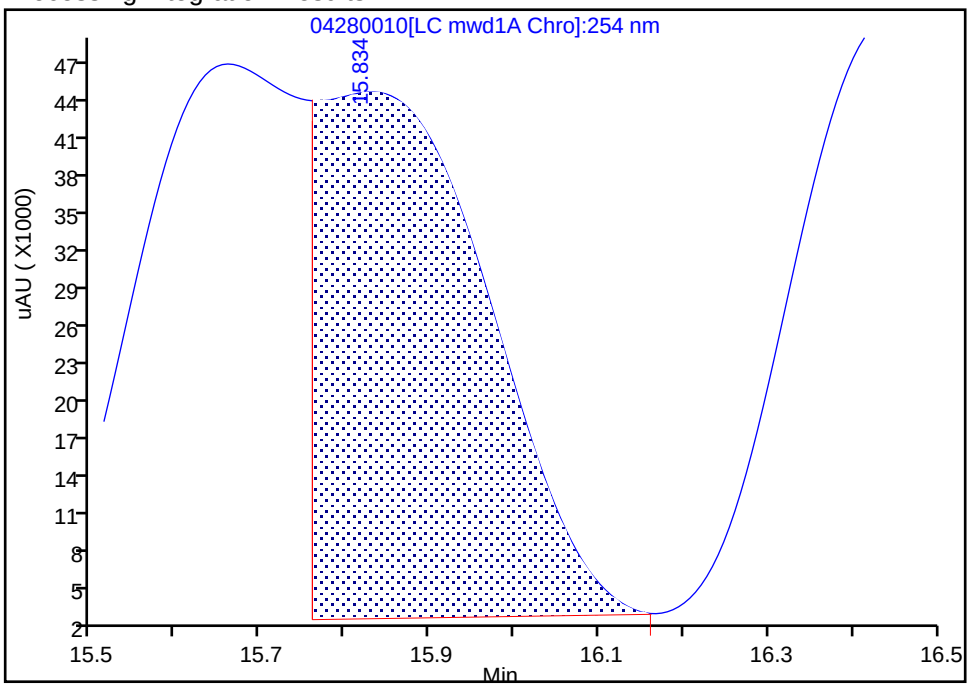
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20230428-120896.b\04280010.D				
Injection Date:	28-Apr-2023 18:24:11	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 9				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	10	Worklist Smp#:	10
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

16 p-Nitrotoluene, CAS: 99-99-0

Signal: 1

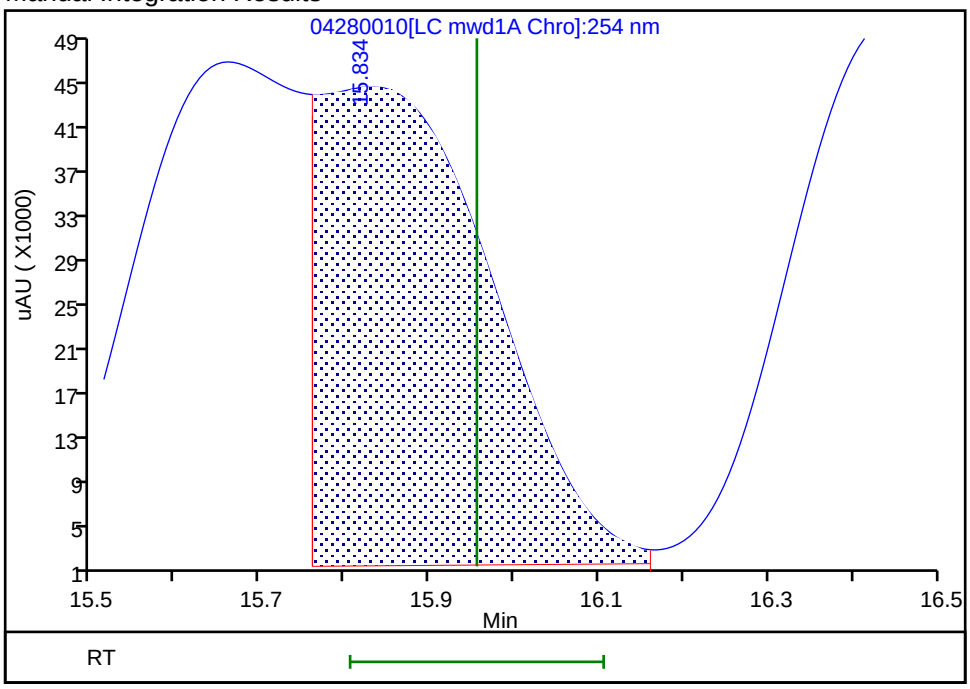
Processing Integration Results

RT: 15.83
Area: 577007
Amount: 2.272934
Amount Units: ug/ml



Manual Integration Results

RT: 15.83
Area: 603215
Amount: 2.651608
Amount Units: ug/ml



Reviewer: LV5D, 28-Apr-2023 19:01:40
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

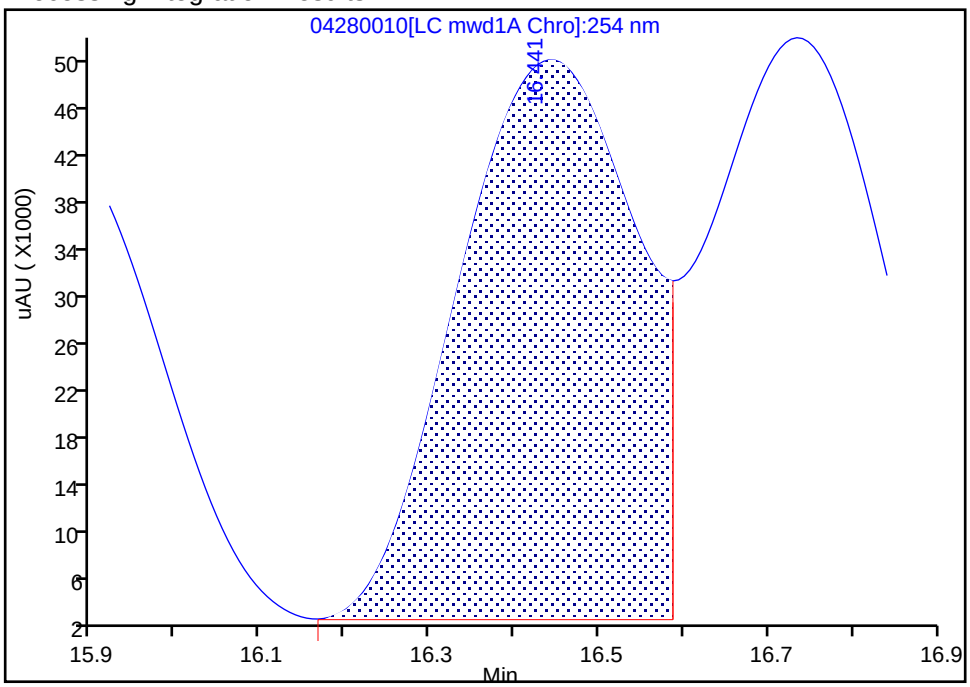
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20230428-120896.b\04280010.D				
Injection Date:	28-Apr-2023 18:24:11	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 9				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	10	Worklist Smp#:	10
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

17 4-Amino-2,6-dinitrotoluene, CAS: 19406-51-0

Signal: 1

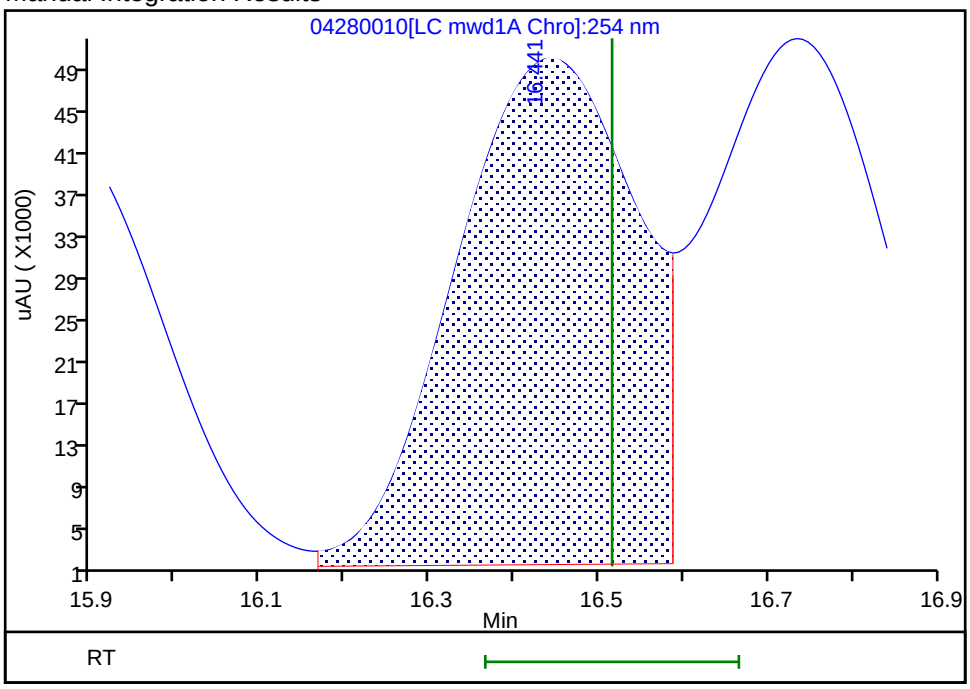
Processing Integration Results

RT: 16.44
Area: 691163
Amount: 2.645631
Amount Units: ug/ml



Manual Integration Results

RT: 16.44
Area: 722940
Amount: 2.457223
Amount Units: ug/ml



Reviewer: LV5D, 28-Apr-2023 19:01:40
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

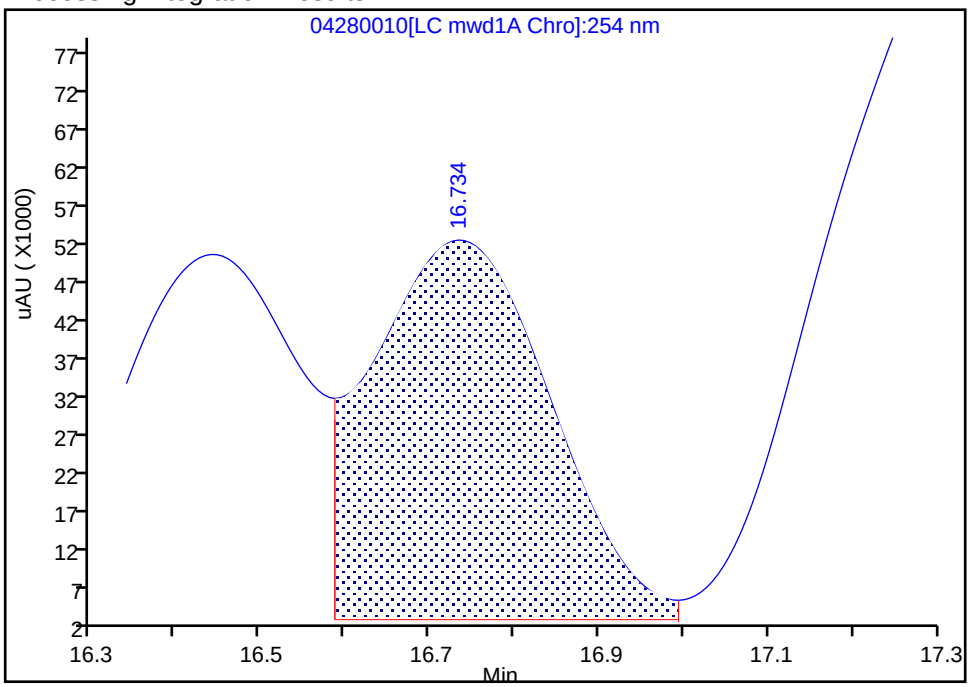
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20230428-120896.b\04280010.D				
Injection Date:	28-Apr-2023 18:24:11	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 9				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	10	Worklist Smp#:	10
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

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

Signal: 1

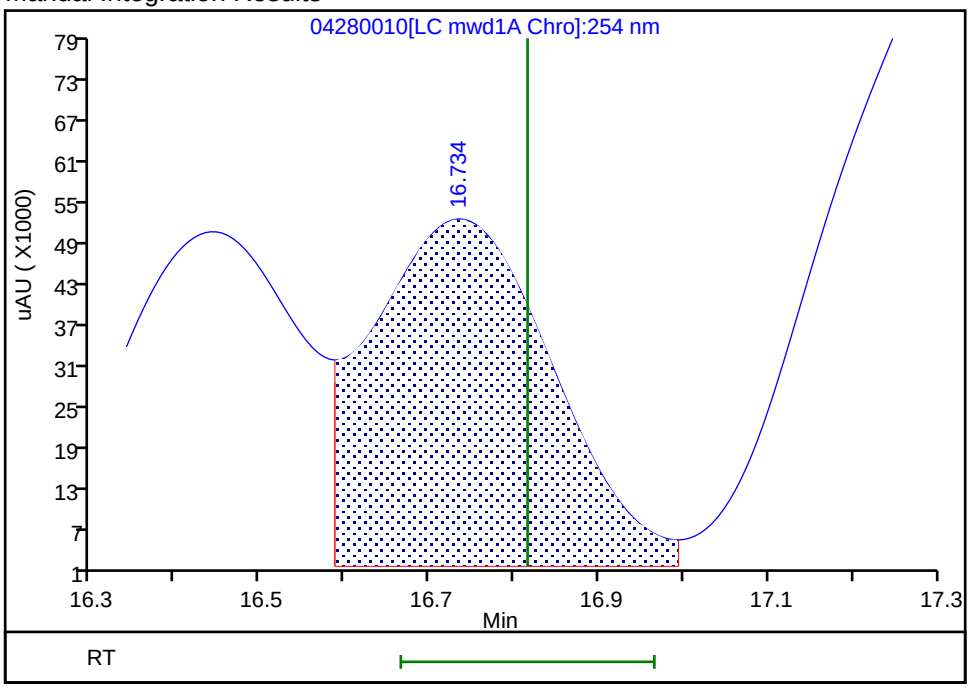
Processing Integration Results

RT: 16.73
Area: 719908
Amount: 2.277668
Amount Units: ug/ml



Manual Integration Results

RT: 16.73
Area: 747102
Amount: 2.535694
Amount Units: ug/ml



Reviewer: LV5D, 28-Apr-2023 19:01:40
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

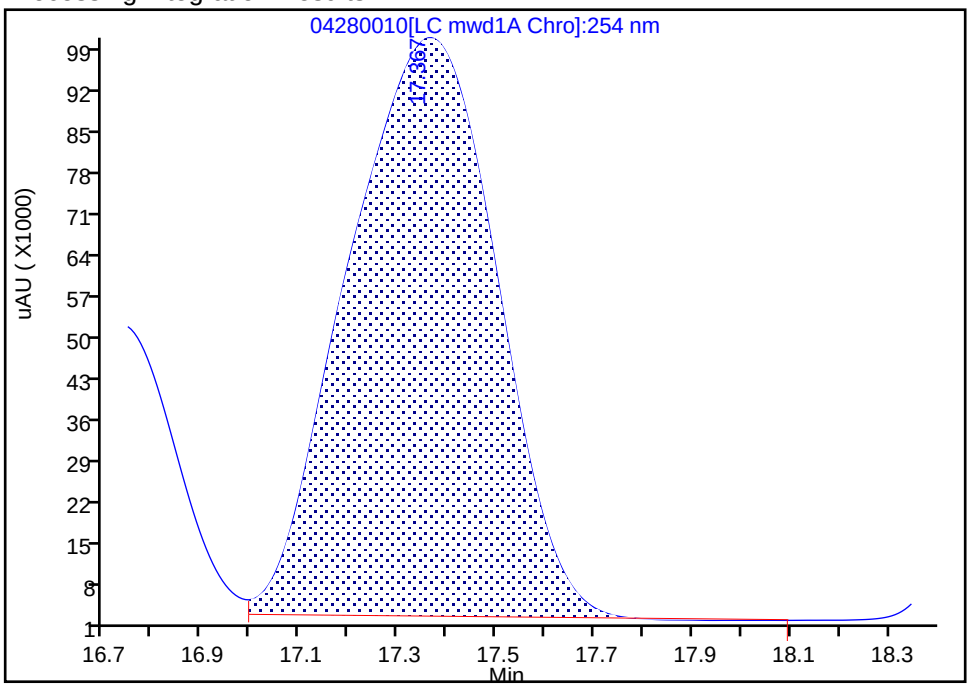
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20230428-120896.b\04280010.D				
Injection Date:	28-Apr-2023 18:24:11	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 9				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	10	Worklist Smp#:	10
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

20 1,3,5-Trinitrobenzene, CAS: 99-35-4

Signal: 1

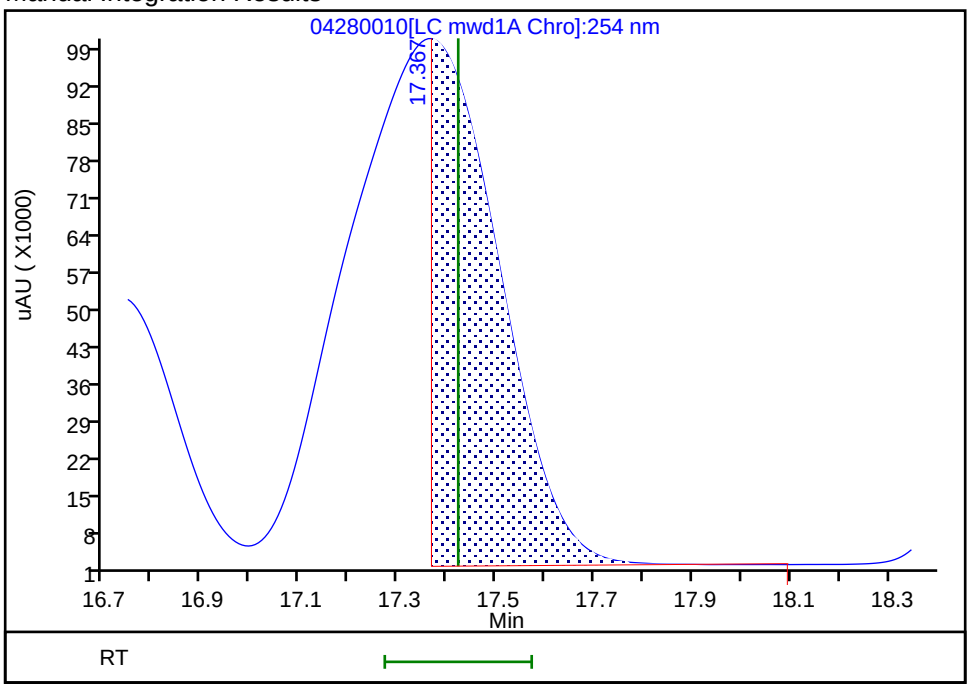
Processing Integration Results

RT: 17.37
Area: 2081660
Amount: 3.645357
Amount Units: ug/ml



Manual Integration Results

RT: 17.37
Area: 946516
Amount: 2.333088
Amount Units: ug/ml



Reviewer: LV5D, 28-Apr-2023 19:01:40

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

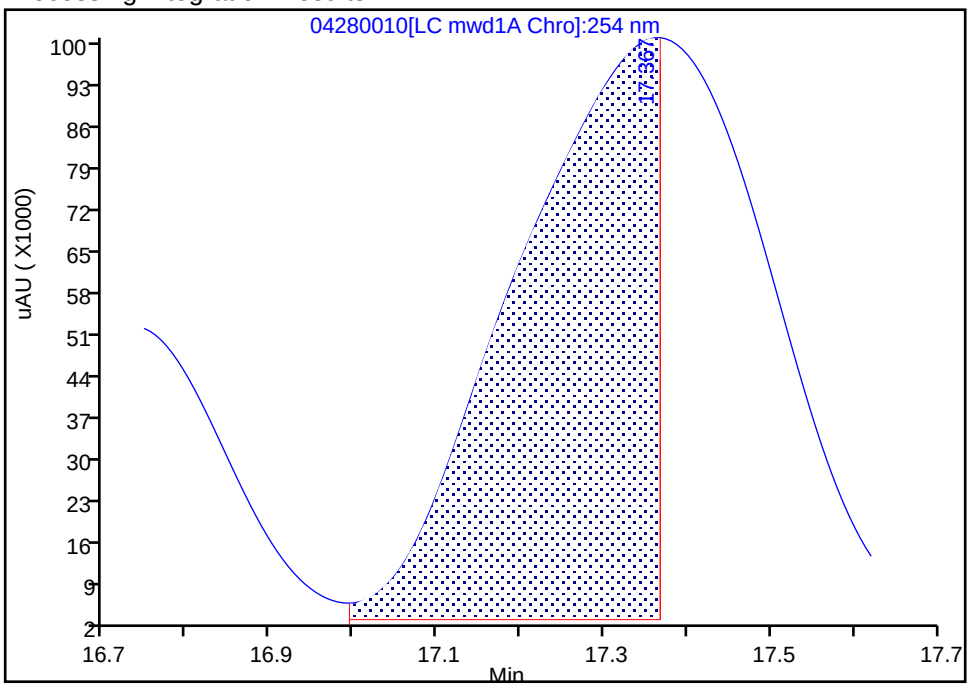
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20230428-120896.b\04280010.D				
Injection Date:	28-Apr-2023 18:24:11	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 9				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	10	Worklist Smp#:	10
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

19 2-Amino-4,6-dinitrotoluene, CAS: 35572-78-2

Signal: 1

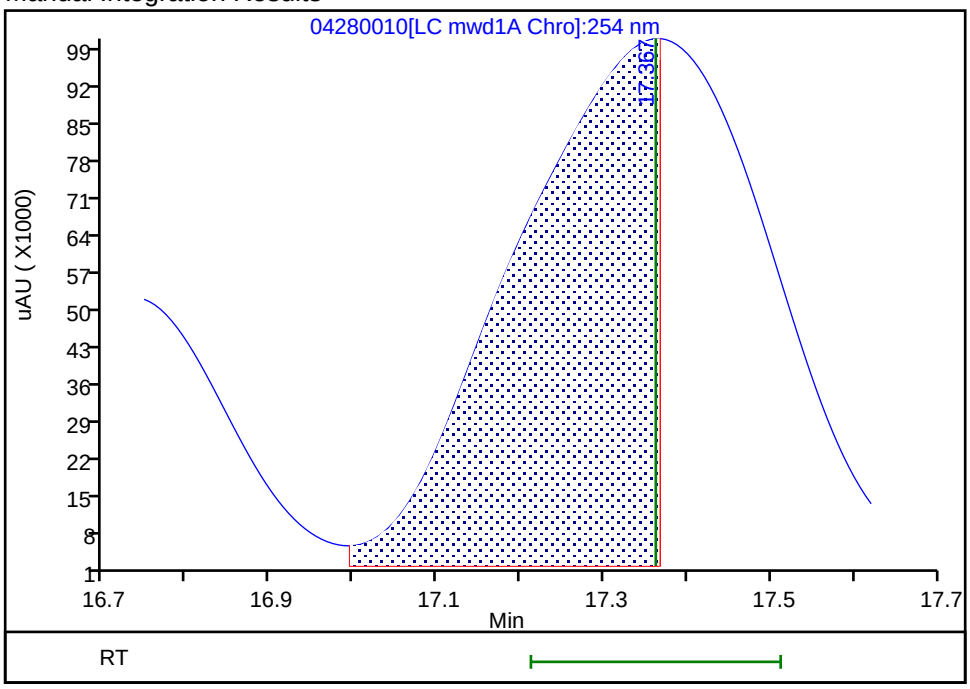
Processing Integration Results

RT: 17.37
Area: 1147839
Amount: 3.846971
Amount Units: ug/ml



Manual Integration Results

RT: 17.37
Area: 1167517
Amount: 2.728229
Amount Units: ug/ml



Reviewer: LV5D, 28-Apr-2023 19:01:40
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

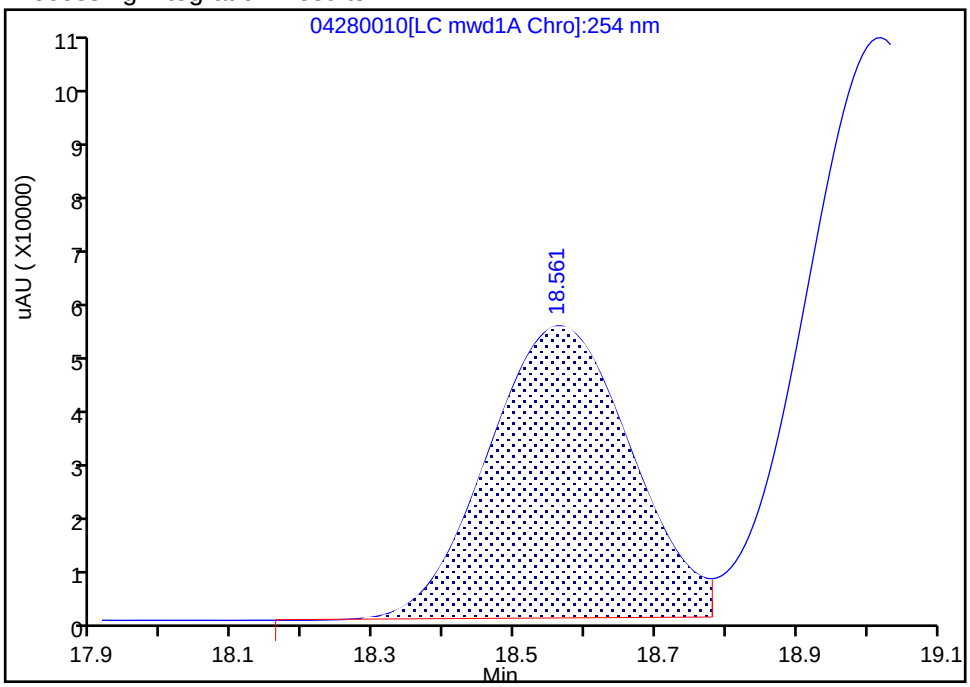
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20230428-120896.b\04280010.D				
Injection Date:	28-Apr-2023 18:24:11	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 9				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	10	Worklist Smp#:	10
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

21 2,6-Dinitrotoluene, CAS: 606-20-2

Signal: 1

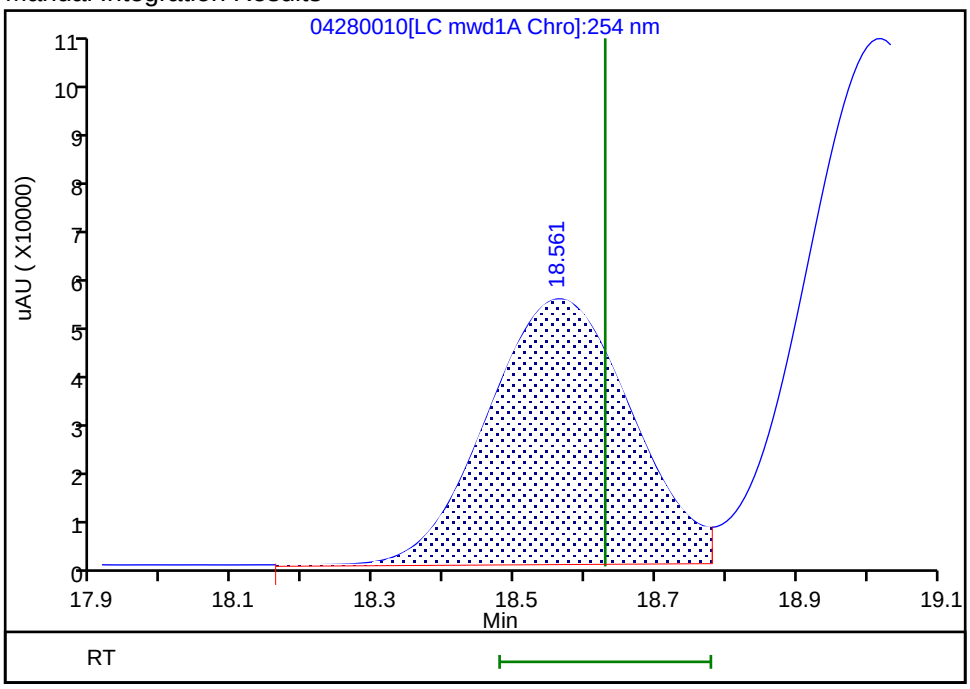
Processing Integration Results

RT: 18.56
Area: 716752
Amount: 2.903314
Amount Units: ug/ml



Manual Integration Results

RT: 18.56
Area: 725476
Amount: 2.487274
Amount Units: ug/ml



Reviewer: LV5D, 28-Apr-2023 19:01:40
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

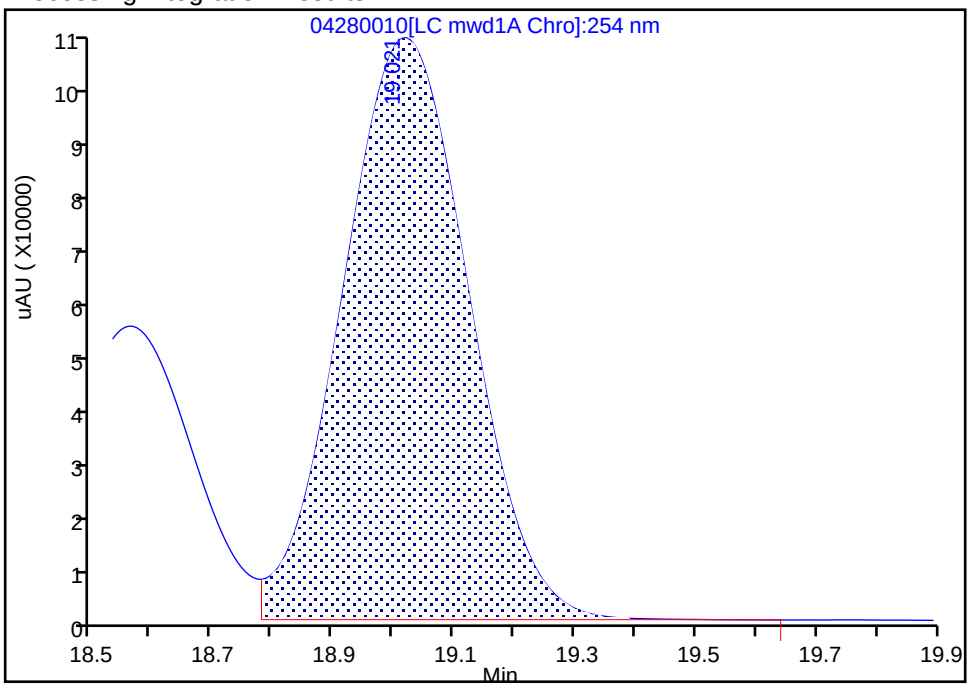
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20230428-120896.b\04280010.D				
Injection Date:	28-Apr-2023 18:24:11	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 9				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	10	Worklist Smp#:	10
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

22 2,4-Dinitrotoluene, CAS: 121-14-2

Signal: 1

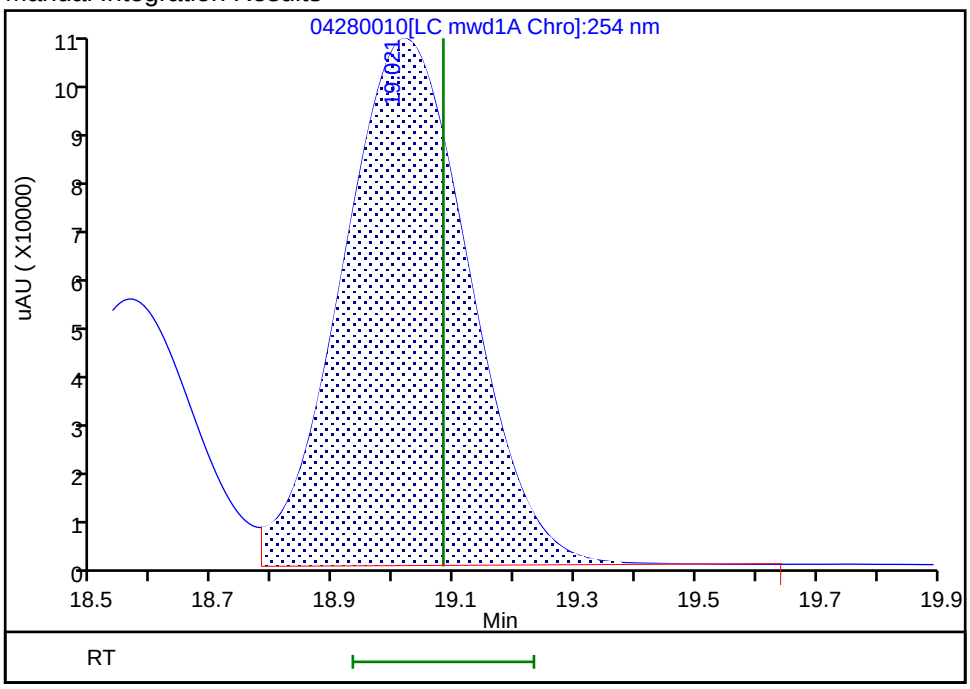
Processing Integration Results

RT: 19.02
Area: 1458826
Amount: 2.601930
Amount Units: ug/ml



Manual Integration Results

RT: 19.02
Area: 1472164
Amount: 2.518831
Amount Units: ug/ml



Reviewer: LV5D, 28-Apr-2023 19:01:40
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230428-120896.b\04280011.D
Lims ID: IC INT 8
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 28-Apr-2023 18:59:07 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*sub6

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20230428-120896.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 29-Apr-2023 13:04:17 Calib Date: 29-Apr-2023 04:18:01
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230428-120896.b\04280027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1621

First Level Reviewer: LV5D Date: 28-Apr-2023 20:43:46

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
3 TNX	1	5.095	5.115	-0.020	391357	1.00	0.99	
4 DNX	1	5.942	5.955	-0.013	281655	1.00	1.02	
5 HMX	1	6.588	6.595	-0.007	189027	1.00	1.01	
6 MNX	1	7.475	7.489	-0.014	298731	1.17	1.14	
7 2,4,6-Trinitrophenol	1	7.935	8.029	-0.094	165319	1.00	1.03	
8 RDX	1	8.902	8.915	-0.013	221588	1.00	1.02	
9 Nitrobenzene	1	11.462	11.482	-0.020	398454	1.00	1.00	
$ 10 1,2-Dinitrobenzene	1	12.455	12.469	-0.014	276103	1.00	0.9836	
11 3,5-Dinitroaniline	1	14.355	14.355	0.000	460771	1.00	1.04	
12 1,3-Dinitrobenzene	1	14.615	14.622	-0.007	630835	1.00	1.00	
13 Nitroglycerin	2	15.175	15.182	-0.007	1346659	10.0	10.0	
14 o-Nitrotoluene	1	15.722	15.729	-0.007	250892	1.00	1.02	
16 p-Nitrotoluene	1	15.948	15.955	-0.007	230951	1.00	1.02	
17 4-Amino-2,6-dinitrotoluene	1	16.528	16.515	0.013	292369	1.00	0.99	
18 m-Nitrotoluene	1	16.828	16.815	0.013	292277	1.00	0.99	
19 2-Amino-4,6-dinitrotoluene	1	17.402	17.362	0.040	426004	1.00	1.00	Ma
20 1,3,5-Trinitrobenzene	1	17.442	17.422	0.020	417113	1.00	1.03	M
21 2,6-Dinitrotoluene	1	18.675	18.629	0.046	290390	1.00	1.00	
22 2,4-Dinitrotoluene	1	19.128	19.082	0.046	585209	1.00	1.00	
23 Tetryl	1	22.442	22.389	0.053	278494	1.00	0.9781	
24 2,4,6-Trinitrotoluene	1	23.228	23.182	0.046	430103	1.00	0.9800	
25 PETN	2	24.508	24.475	0.033	1419730	10.0	9.86	

QC Flag Legend
Processing Flags

Review Flags
M - Manually Integrated
a - User Assigned ID

Reagents:

8330IntermStk_00076	Amount Added: 100.00	Units: uL
8330 DMT_00013	Amount Added: 50.00	Units: uL

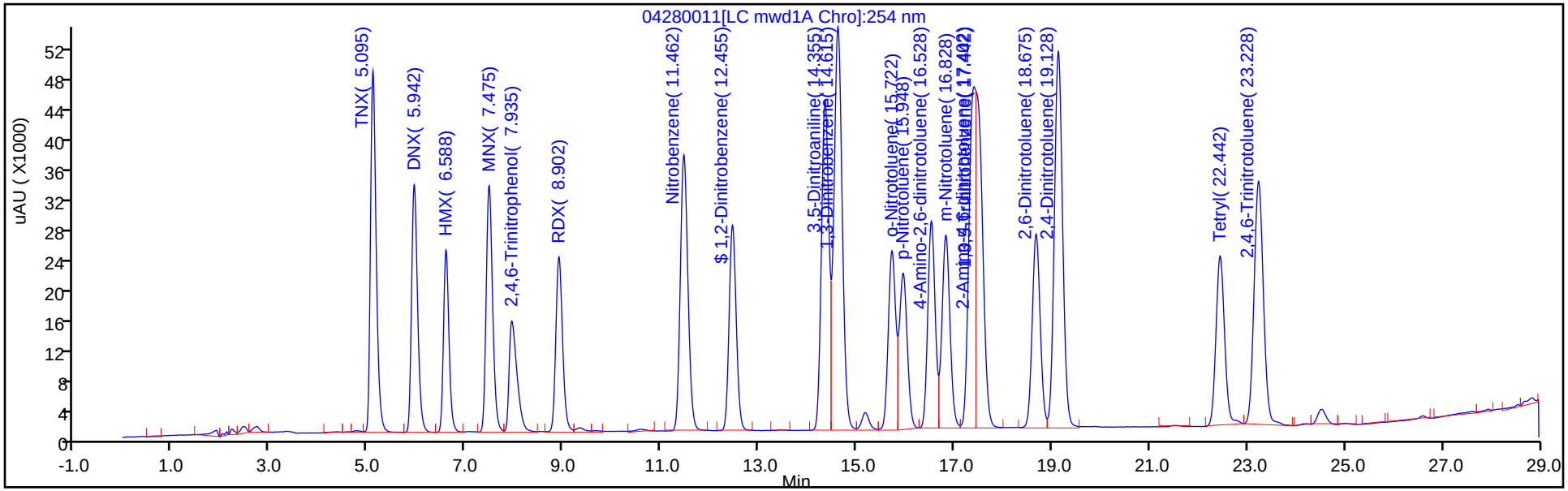
Report Date: 29-Apr-2023 13:04:17 Chrom Revision: 2.3 29-Mar-2023 18:39:10

Eurofins Denver

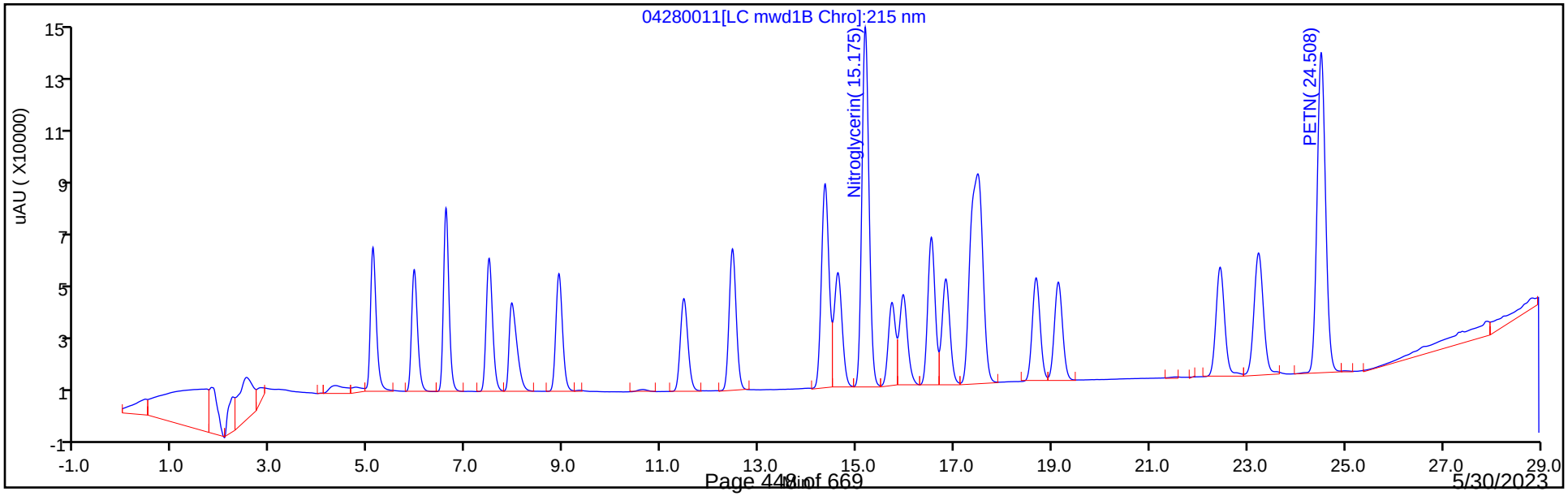
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230428-120896.b\04280011.D

Injection Date:	28-Apr-2023 18:59:07	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



5/30/2023
10:34 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

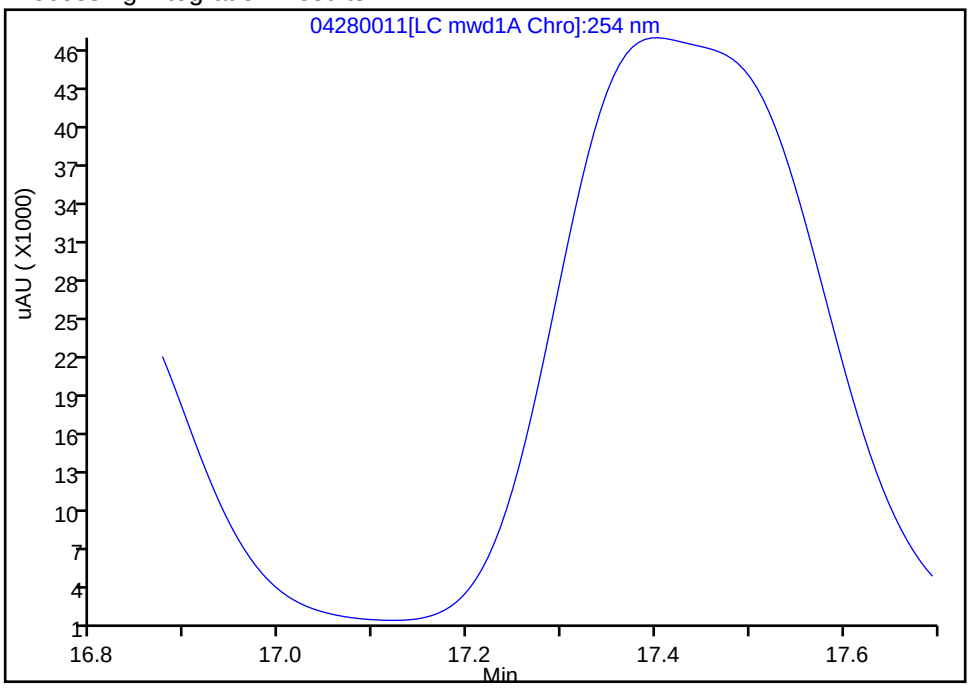
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20230428-120896.b\04280011.D				
Injection Date:	28-Apr-2023 18:59:07	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 8				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	11	Worklist Smp#:	11
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

19 2-Amino-4,6-dinitrotoluene, CAS: 35572-78-2

Signal: 1

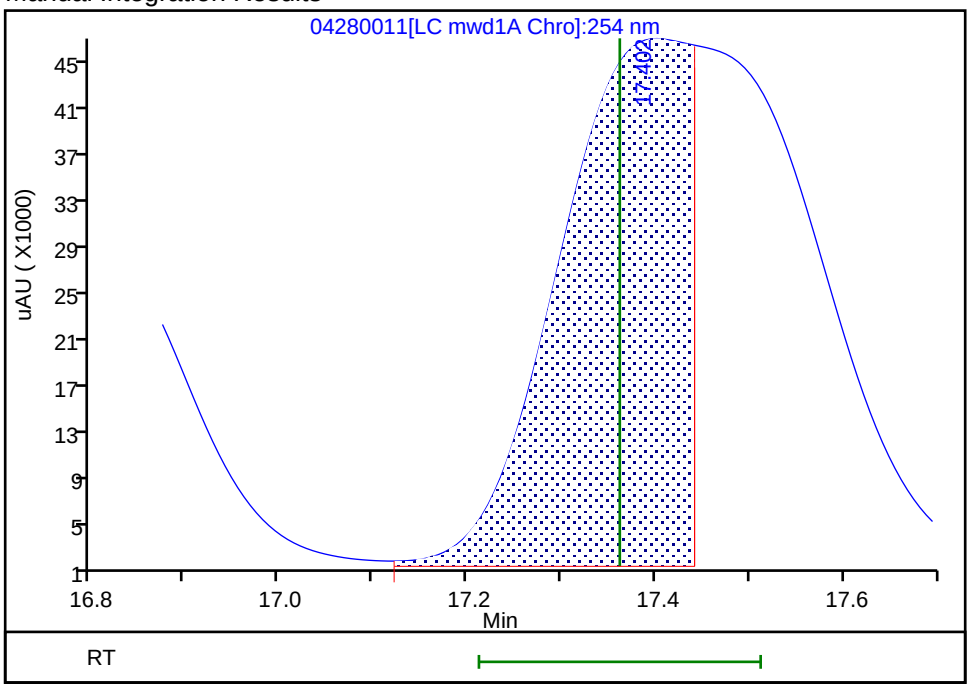
Not Detected
Expected RT: 17.36

Processing Integration Results



Manual Integration Results

RT: 17.40
Area: 426004
Amount: 0.995477
Amount Units: ug/ml



Reviewer: LV5D, 28-Apr-2023 20:43:43
Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

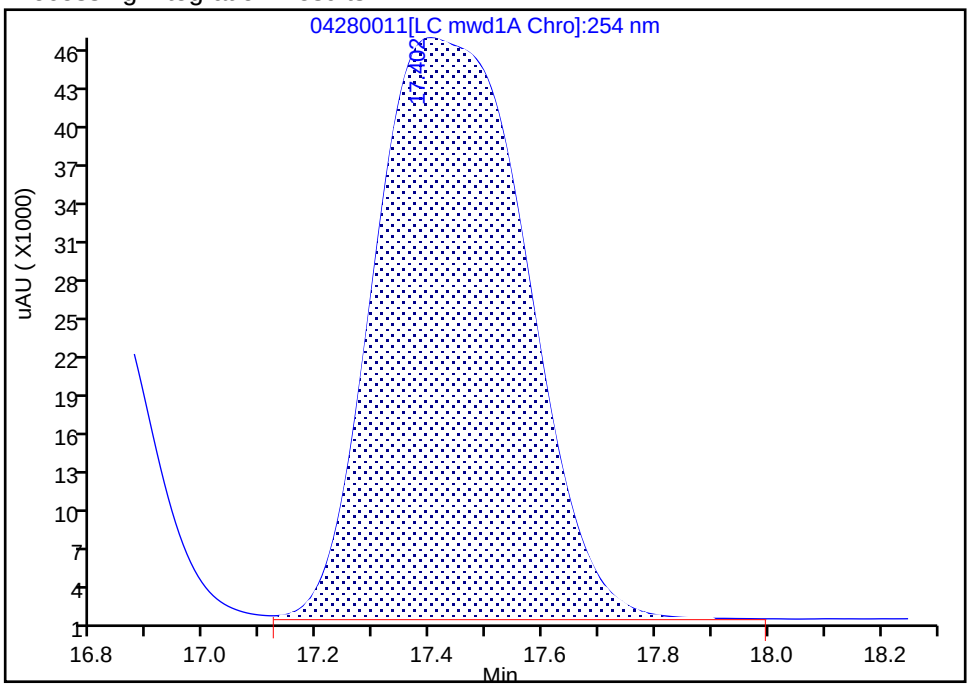
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20230428-120896.b\04280011.D				
Injection Date:	28-Apr-2023 18:59:07	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 8				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	11	Worklist Smp#:	11
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

20 1,3,5-Trinitrobenzene, CAS: 99-35-4

Signal: 1

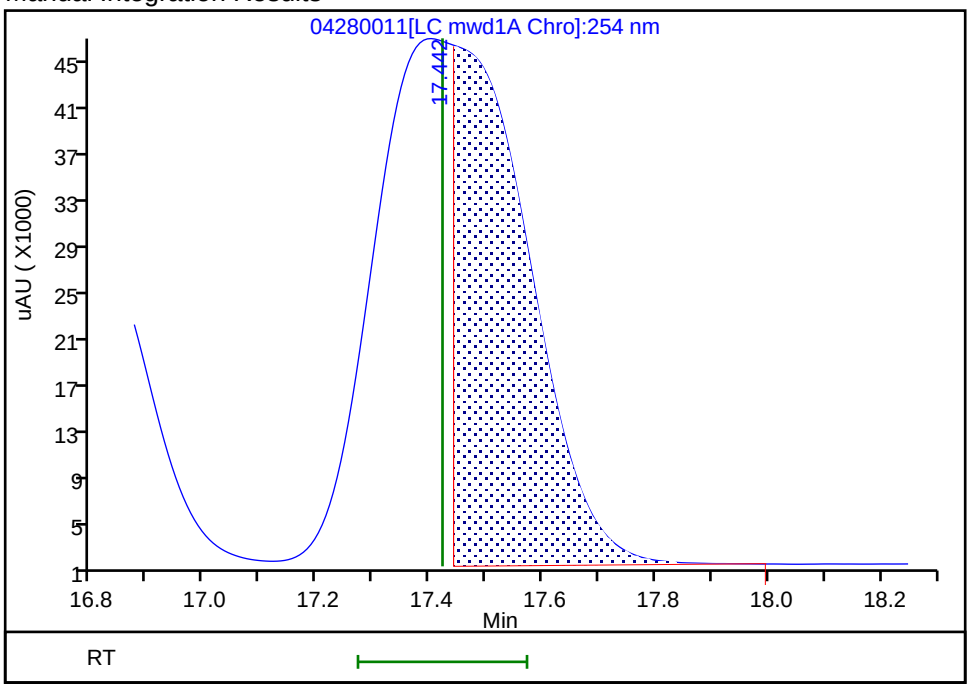
Processing Integration Results

RT: 17.40
Area: 843108
Amount: 1.537916
Amount Units: ug/ml



Manual Integration Results

RT: 17.44
Area: 417113
Amount: 1.028151
Amount Units: ug/ml



Reviewer: LV5D, 28-Apr-2023 20:43:40

Audit Action: Split an Integrated Peak Audit Reason: Baseline Smoothing

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230428-120896.b\04280012.D
Lims ID: IC INT 7
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 28-Apr-2023 19:34:01 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*sub6

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20230428-120896.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 29-Apr-2023 13:04:17 Calib Date: 29-Apr-2023 04:18:01
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230428-120896.b\04280027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1621

First Level Reviewer: LV5D Date: 28-Apr-2023 20:44:11

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
3 TNX	1	5.096	5.115	-0.019	276939	0.7021	0.7023	
4 DNX	1	5.943	5.955	-0.012	198949	0.7007	0.7180	
5 HMX	1	6.589	6.595	-0.006	131068	0.7000	0.7024	
6 MNX	1	7.476	7.489	-0.013	211518	0.8169	0.8065	
7 2,4,6-Trinitrophenol	1	7.956	8.029	-0.073	114679	0.7000	0.7142	
8 RDX	1	8.903	8.915	-0.012	153380	0.7000	0.7082	
9 Nitrobenzene	1	11.462	11.482	-0.020	276577	0.7000	0.6935	
$ 10 1,2-Dinitrobenzene	1	12.442	12.469	-0.027	191173	0.7000	0.6811	
11 3,5-Dinitroaniline	1	14.329	14.355	-0.026	322983	0.7000	0.7251	
12 1,3-Dinitrobenzene	1	14.596	14.622	-0.026	431248	0.7000	0.6852	
13 Nitroglycerin	2	15.149	15.182	-0.033	929634	7.00	6.90	
14 o-Nitrotoluene	1	15.696	15.729	-0.033	174353	0.7000	0.7060	
16 p-Nitrotoluene	1	15.922	15.955	-0.033	159520	0.7000	0.7012	
17 4-Amino-2,6-dinitrotoluene	1	16.482	16.515	-0.033	201729	0.7000	0.6857	
18 m-Nitrotoluene	1	16.782	16.815	-0.033	203644	0.7000	0.6912	
19 2-Amino-4,6-dinitrotoluene	1	17.329	17.362	-0.033	294250	0.7000	0.6876	M
20 1,3,5-Trinitrobenzene	1	17.389	17.422	-0.033	289774	0.7000	0.7143	Ma
21 2,6-Dinitrotoluene	1	18.622	18.629	-0.007	201554	0.7000	0.6910	
22 2,4-Dinitrotoluene	1	19.076	19.082	-0.006	406447	0.7000	0.6954	
23 Tetryl	1	22.389	22.389	0.000	192352	0.7000	0.6756	
24 2,4,6-Trinitrotoluene	1	23.183	23.182	0.001	294801	0.7000	0.6717	
25 PETN	2	24.469	24.475	-0.006	992519	7.00	6.90	

QC Flag Legend
Processing Flags

Review Flags
M - Manually Integrated
a - User Assigned ID

Reagents:

8330IntermStk_00076	Amount Added:	70.00	Units: uL
8330 DMT_00013	Amount Added:	35.00	Units: uL

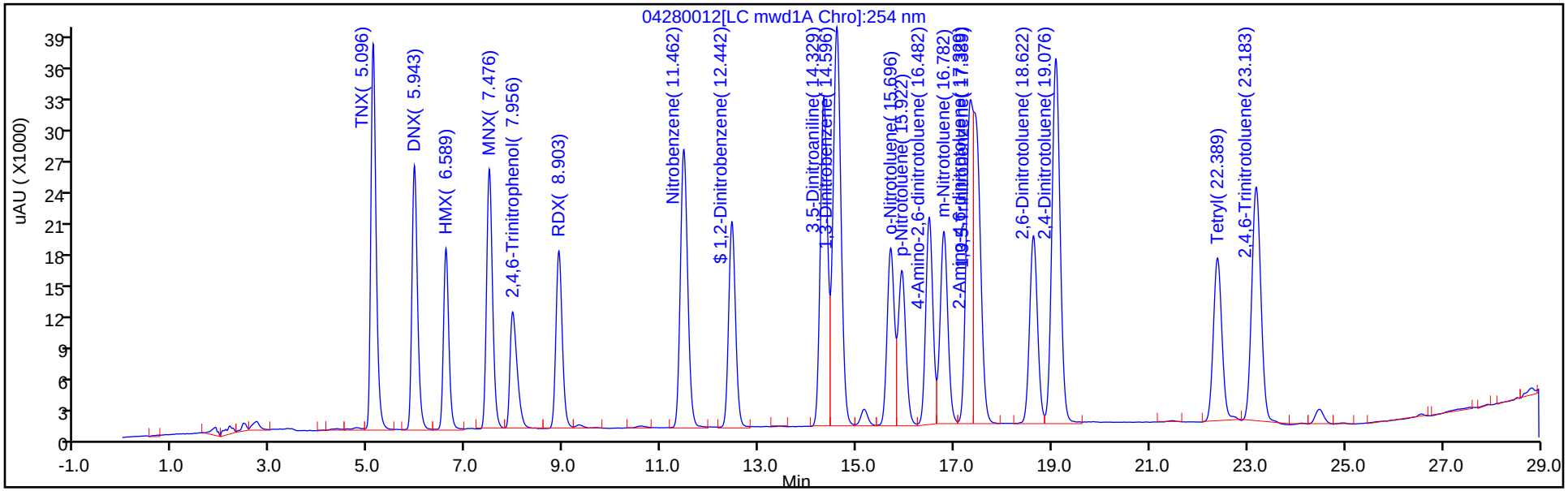
Report Date: 29-Apr-2023 13:04:17 Chrom Revision: 2.3 29-Mar-2023 18:39:10

Eurofins Denver

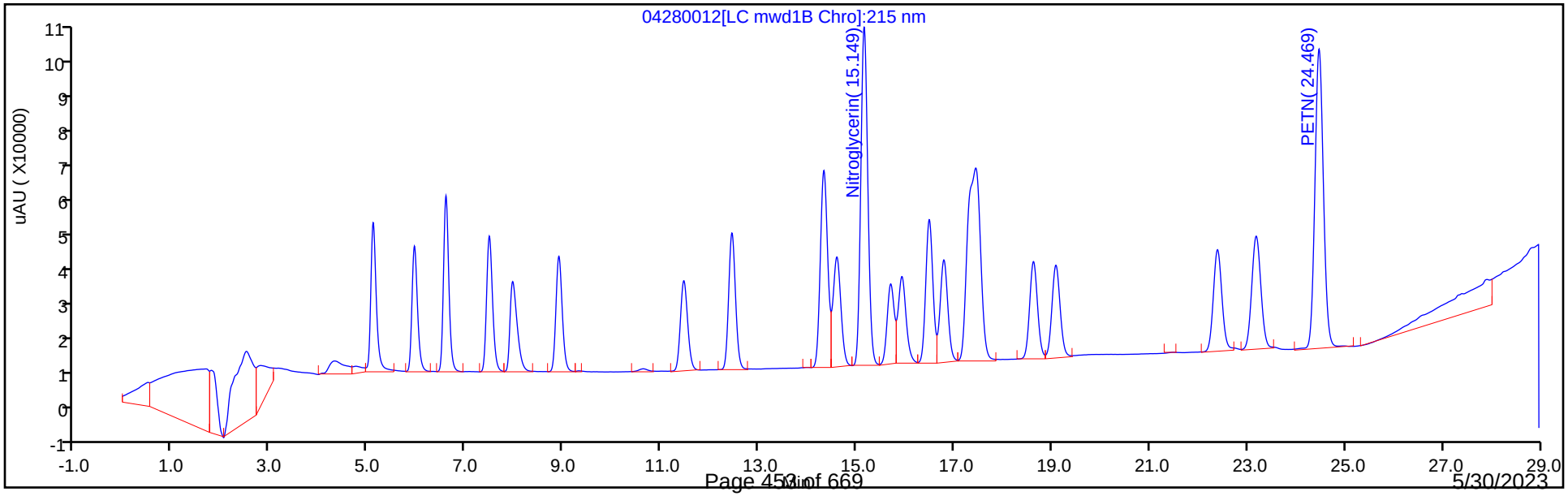
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230428-120896.b\04280012.D

Injection Date:	28-Apr-2023 19:34:01	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



5/30/2023
10:34 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

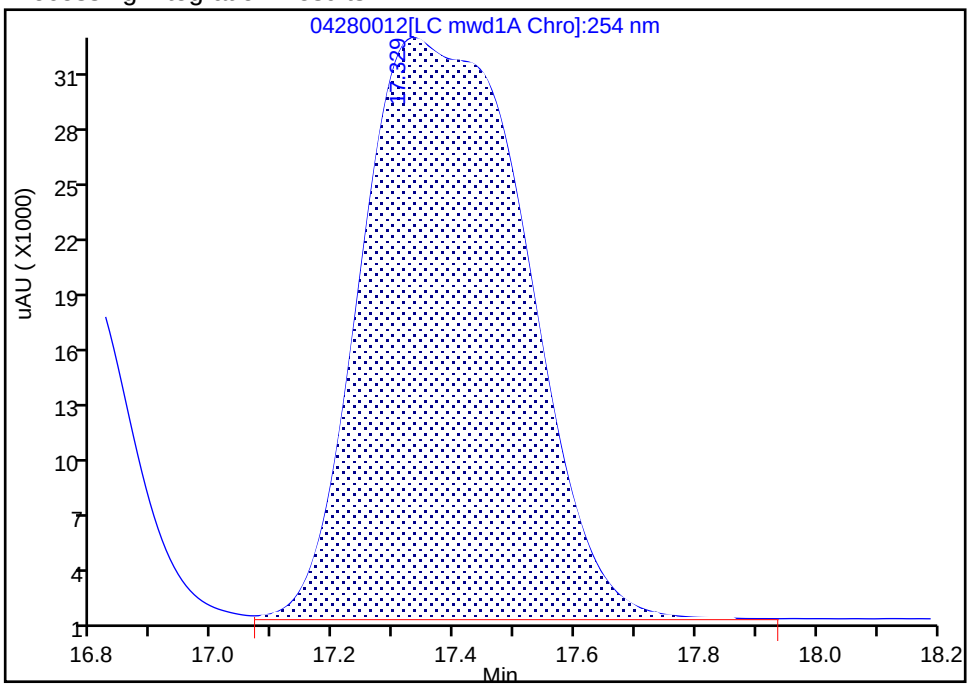
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20230428-120896.b\04280012.D				
Injection Date:	28-Apr-2023 19:34:01	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 7				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	12	Worklist Smp#:	12
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

19 2-Amino-4,6-dinitrotoluene, CAS: 35572-78-2

Signal: 1

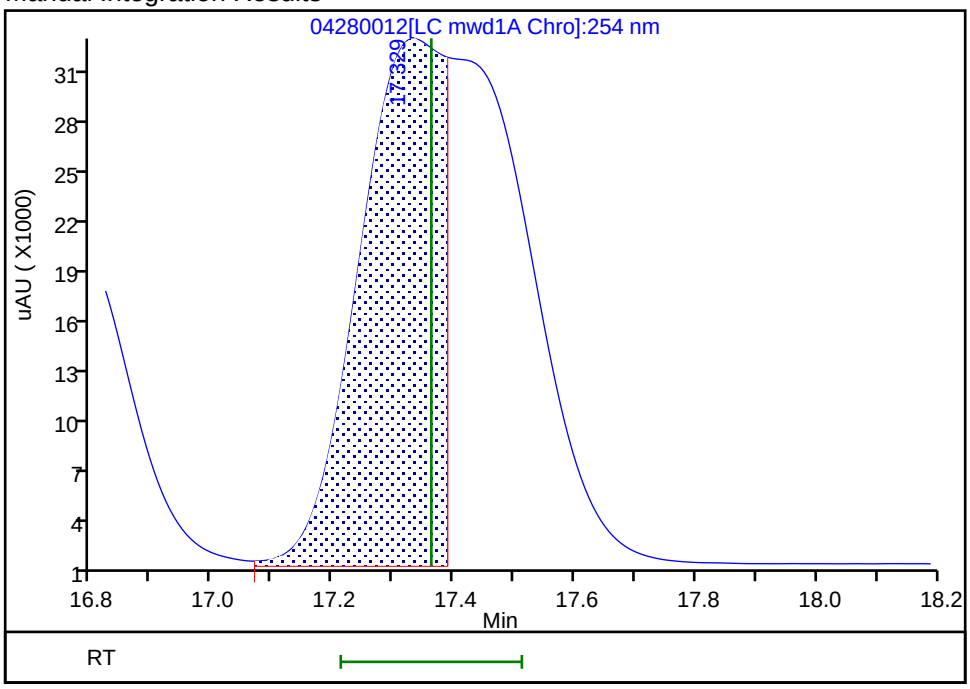
Processing Integration Results

RT: 17.33
Area: 584005
Amount: 1.540308
Amount Units: ug/ml



Manual Integration Results

RT: 17.33
Area: 294250
Amount: 0.687597
Amount Units: ug/ml



Reviewer: LV5D, 28-Apr-2023 20:43:51
Audit Action: Split an Integrated Peak Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

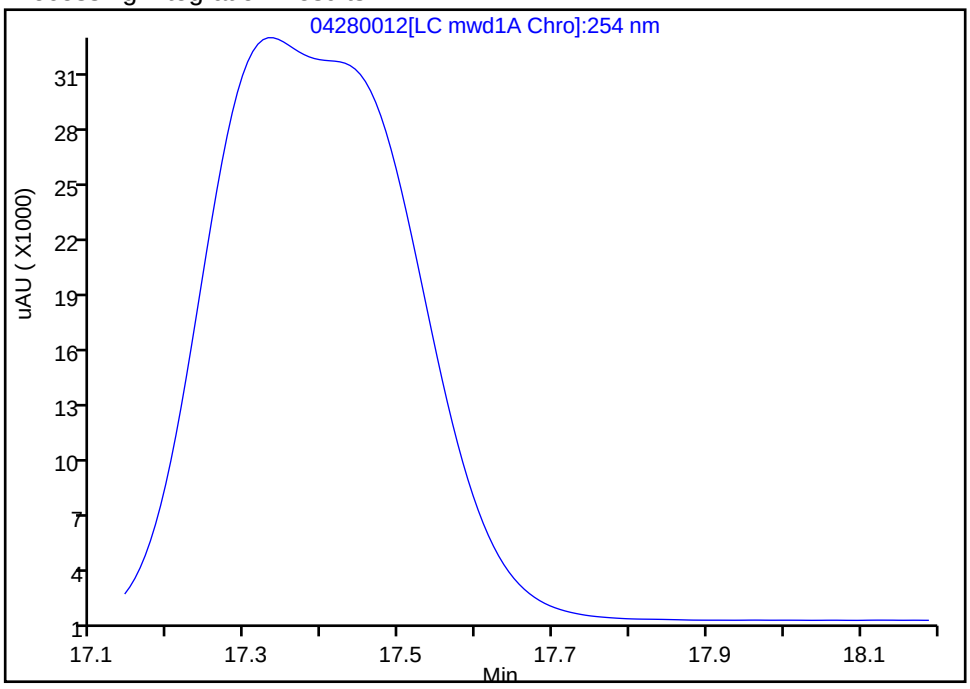
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20230428-120896.b\04280012.D				
Injection Date:	28-Apr-2023 19:34:01	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 7				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	12	Worklist Smp#:	12
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

20 1,3,5-Trinitrobenzene, CAS: 99-35-4

Signal: 1

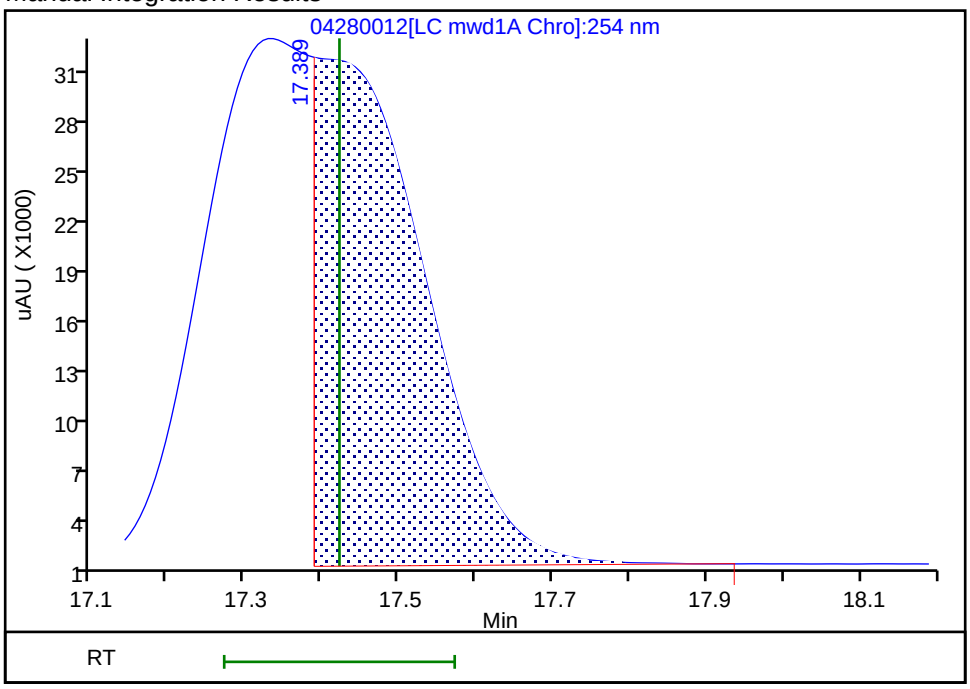
Not Detected
Expected RT: 17.42

Processing Integration Results



Manual Integration Results

RT: 17.39
Area: 289774
Amount: 0.714270
Amount Units: ug/ml



Reviewer: LV5D, 28-Apr-2023 20:43:53
Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Baseline Smoothing

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230428-120896.b\04280013.D
Lims ID: IC INT 6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 28-Apr-2023 20:08:59 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*sub6

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20230428-120896.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 29-Apr-2023 13:04:18 Calib Date: 29-Apr-2023 04:18:01
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230428-120896.b\04280027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1621

First Level Reviewer: LV5D Date: 28-Apr-2023 20:52:44

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
3 TNX	1	5.108	5.115	-0.007	147763	0.4012	0.3747	
4 DNX	1	5.954	5.955	-0.001	107420	0.4004	0.3877	
5 HMX	1	6.594	6.595	-0.001	67993	0.4000	0.3622	
6 MNX	1	7.488	7.489	-0.001	114487	0.4668	0.4365	
7 2,4,6-Trinitrophenol	1	8.008	8.029	-0.021	59892	0.4000	0.3714	
8 RDX	1	8.908	8.915	-0.007	79113	0.4000	0.3638	
9 Nitrobenzene	1	11.461	11.482	-0.021	141679	0.4000	0.3552	
$ 10 1,2-Dinitrobenzene	1	12.448	12.469	-0.021	98279	0.4000	0.3501	
11 3,5-Dinitroaniline	1	14.334	14.355	-0.021	165924	0.4000	0.3719	
12 1,3-Dinitrobenzene	1	14.601	14.622	-0.021	221798	0.4000	0.3524	
13 Nitroglycerin	2	15.154	15.182	-0.028	480119	4.00	3.56	
14 o-Nitrotoluene	1	15.708	15.729	-0.021	90266	0.4000	0.3655	
16 p-Nitrotoluene	1	15.934	15.955	-0.021	81428	0.4000	0.3579	
17 4-Amino-2,6-dinitrotoluene	1	16.501	16.515	-0.014	104292	0.4000	0.3545	
18 m-Nitrotoluene	1	16.801	16.815	-0.014	104338	0.4000	0.3541	
19 2-Amino-4,6-dinitrotoluene	1	17.354	17.362	-0.008	158919	0.4000	0.3714	Ma
20 1,3,5-Trinitrobenzene	1	17.414	17.422	-0.008	141795	0.4000	0.3495	Ma
21 2,6-Dinitrotoluene	1	18.628	18.629	-0.001	103148	0.4000	0.3536	
22 2,4-Dinitrotoluene	1	19.081	19.082	-0.001	207937	0.4000	0.3558	
23 Tetryl	1	22.361	22.389	-0.028	98615	0.4000	0.3463	
24 2,4,6-Trinitrotoluene	1	23.154	23.182	-0.028	152188	0.4000	0.3468	
25 PETN	2	24.428	24.475	-0.047	512590	4.00	3.56	

QC Flag Legend
Processing Flags

Review Flags
M - Manually Integrated
a - User Assigned ID

Reagents:

8330IntermStk_00076	Amount Added:	40.00	Units: uL
8330 DMT_00013	Amount Added:	20.00	Units: uL

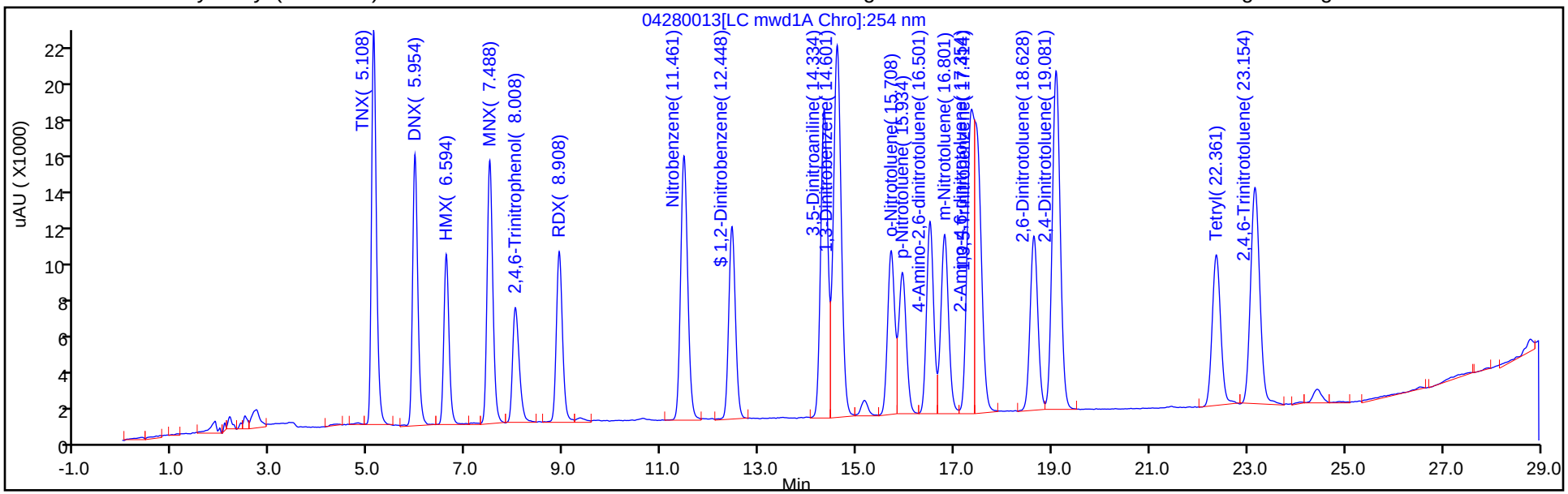
Report Date: 29-Apr-2023 13:04:18 Chrom Revision: 2.3 29-Mar-2023 18:39:10

Eurofins Denver

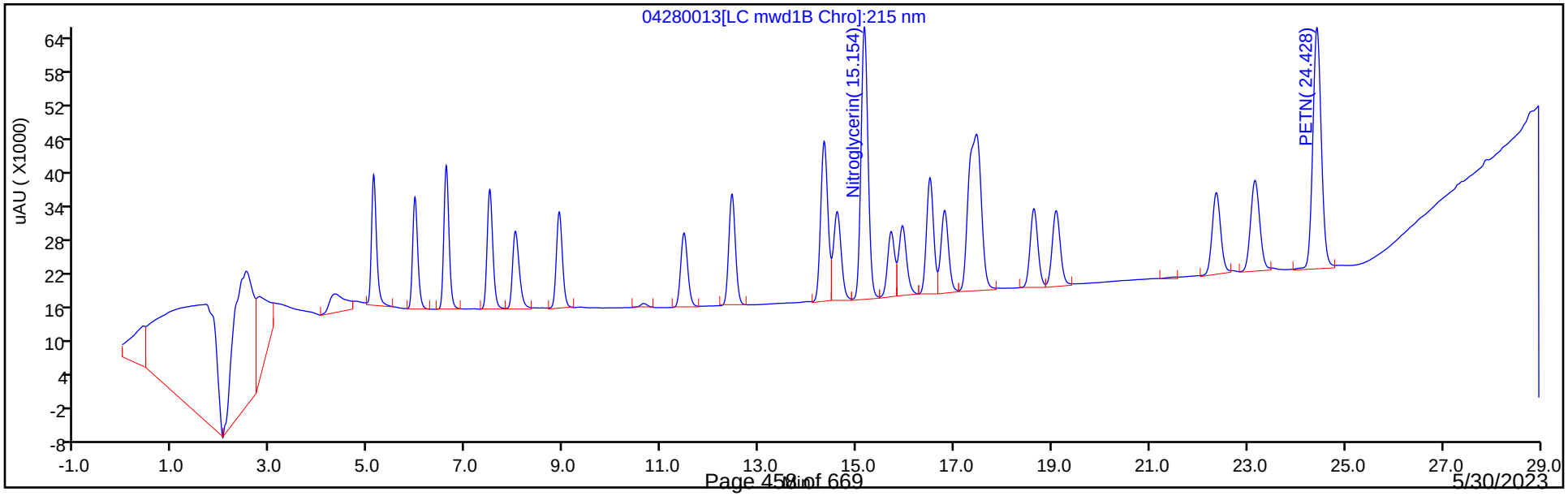
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230428-120896.b\04280013.D

Injection Date:	28-Apr-2023 20:08:59	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



5/30/2023
10:34 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

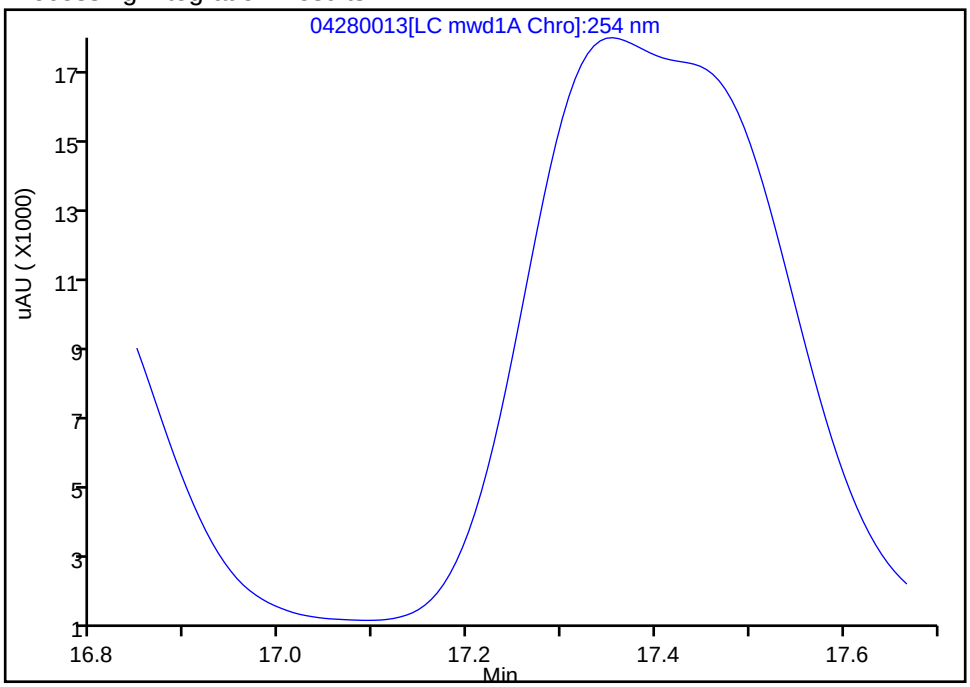
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20230428-120896.b\04280013.D				
Injection Date:	28-Apr-2023 20:08:59	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 6				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

19 2-Amino-4,6-dinitrotoluene, CAS: 35572-78-2

Signal: 1

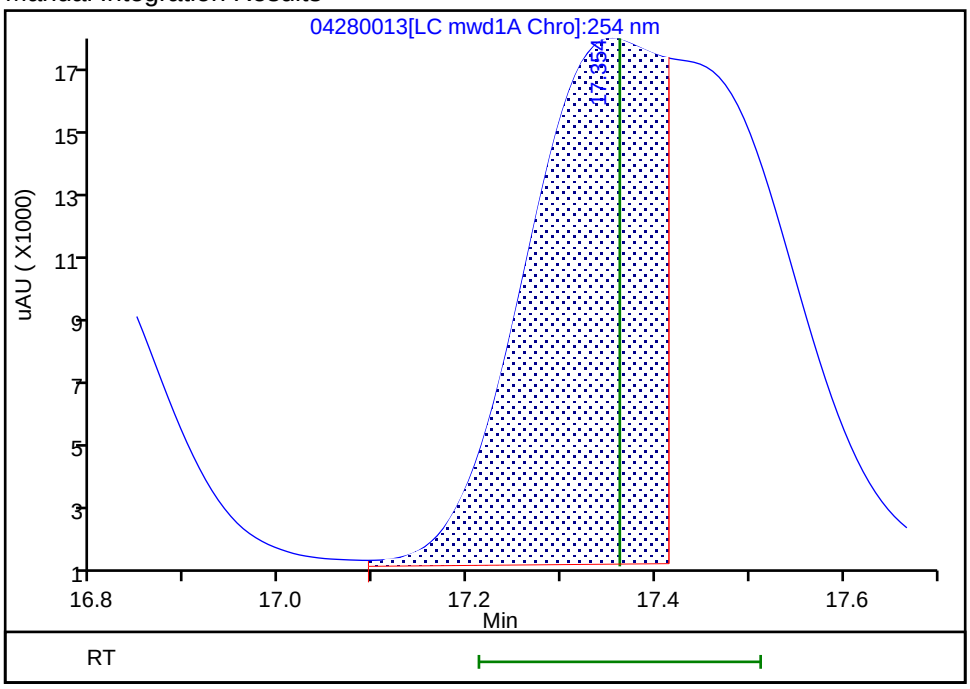
Not Detected
Expected RT: 17.36

Processing Integration Results



Manual Integration Results

RT: 17.35
Area: 158919
Amount: 0.371359
Amount Units: ug/ml



Reviewer: LV5D, 28-Apr-2023 20:52:42
Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

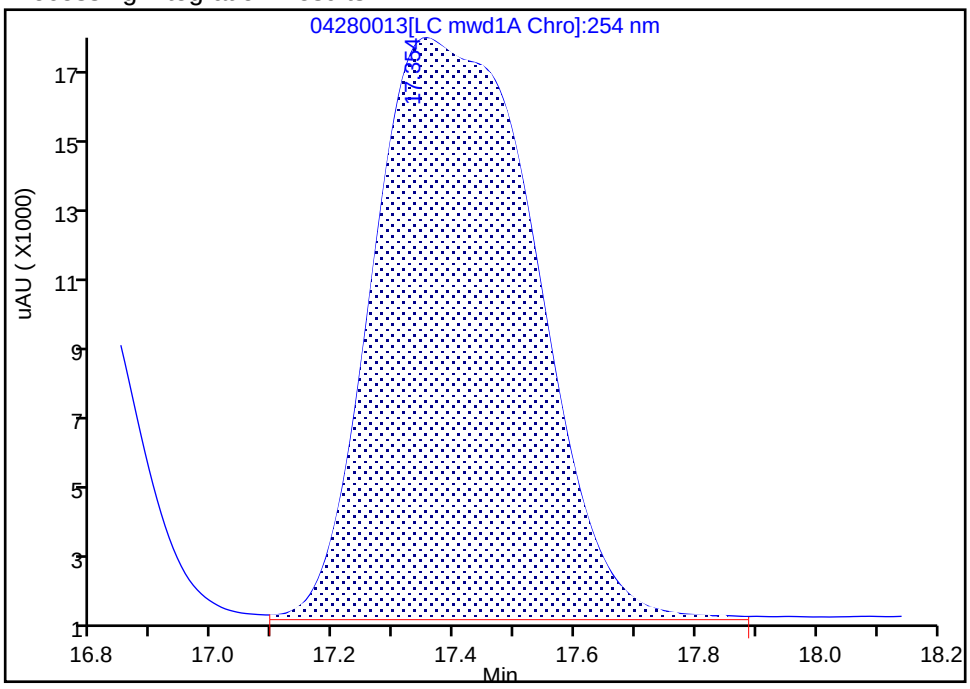
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20230428-120896.b\04280013.D				
Injection Date:	28-Apr-2023 20:08:59	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 6				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

20 1,3,5-Trinitrobenzene, CAS: 99-35-4

Signal: 1

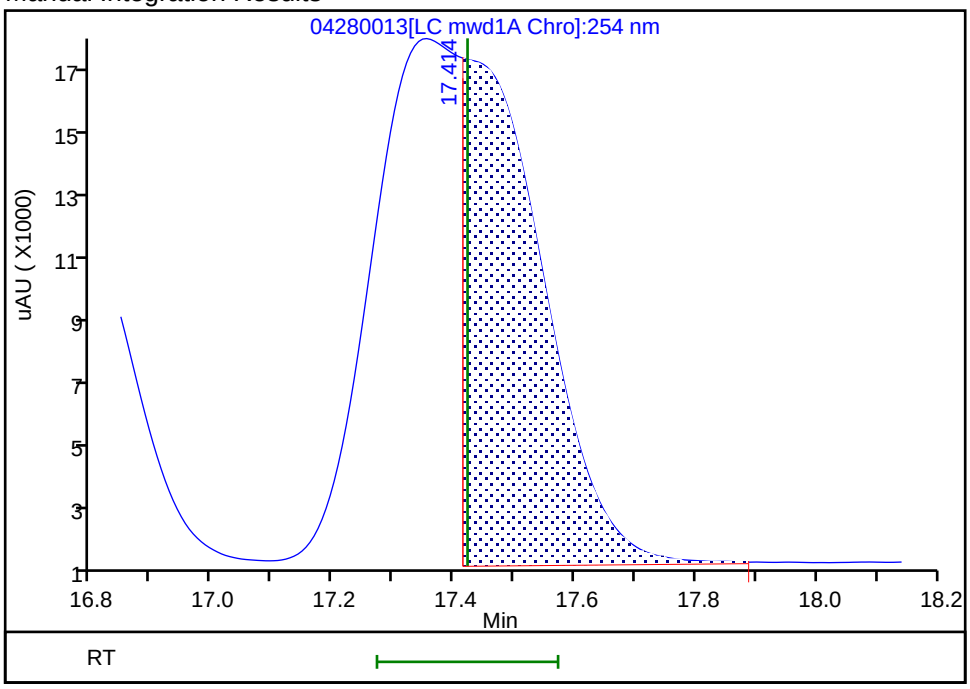
Processing Integration Results

RT: 17.35
Area: 300702
Amount: 0.613228
Amount Units: ug/ml



Manual Integration Results

RT: 17.41
Area: 141795
Amount: 0.349514
Amount Units: ug/ml



Reviewer: LV5D, 28-Apr-2023 20:52:40

Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Baseline Smoothing

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230428-120896.b\04280014.D
Lims ID: IC INT 5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 28-Apr-2023 20:43:54 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*sub6

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20230428-120896.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 29-Apr-2023 13:04:18 Calib Date: 29-Apr-2023 04:18:01
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230428-120896.b\04280027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1621

First Level Reviewer: LV5D Date: 29-Apr-2023 10:22:21

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
3 TNX	1	5.115	5.115	0.000	86123	0.2508	0.2184	
4 DNX	1	5.955	5.955	0.000	62056	0.2503	0.2240	
5 HMX	1	6.595	6.595	0.000	46110	0.2500	0.2442	
6 MNX	1	7.489	7.489	0.000	66549	0.2918	0.2537	
7 2,4,6-Trinitrophenol	1	8.029	8.029	0.000	40202	0.2500	0.2481	
8 RDX	1	8.915	8.915	0.000	53643	0.2500	0.2456	
9 Nitrobenzene	1	11.482	11.482	0.000	96681	0.2500	0.2424	
$ 10 1,2-Dinitrobenzene	1	12.469	12.469	0.000	67346	0.2500	0.2399	
11 3,5-Dinitroaniline	1	14.355	14.355	0.000	113054	0.2500	0.2529	
12 1,3-Dinitrobenzene	1	14.622	14.622	0.000	152658	0.2500	0.2426	
13 Nitroglycerin	2	15.182	15.182	0.000	327195	2.50	2.43	
14 o-Nitrotoluene	1	15.729	15.729	0.000	60674	0.2500	0.2457	
16 p-Nitrotoluene	1	15.955	15.955	0.000	56555	0.2500	0.2486	
17 4-Amino-2,6-dinitrotoluene	1	16.515	16.515	0.000	71678	0.2500	0.2436	
18 m-Nitrotoluene	1	16.815	16.815	0.000	71041	0.2500	0.2411	
19 2-Amino-4,6-dinitrotoluene	1	17.362	17.362	0.000	108505	0.2500	0.2536	M
20 1,3,5-Trinitrobenzene	1	17.422	17.422	0.000	98168	0.2500	0.2420	M
21 2,6-Dinitrotoluene	1	18.629	18.629	0.000	70868	0.2500	0.2430	
22 2,4-Dinitrotoluene	1	19.082	19.082	0.000	143098	0.2500	0.2448	
23 Tetryl	1	22.389	22.389	0.000	68327	0.2500	0.2400	
24 2,4,6-Trinitrotoluene	1	23.182	23.182	0.000	104561	0.2500	0.2382	
25 PETN	2	24.475	24.475	0.000	351913	2.50	2.44	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330IntermStk_00076	Amount Added:	25.00	Units: uL
8330 DMT_00013	Amount Added:	12.50	Units: uL

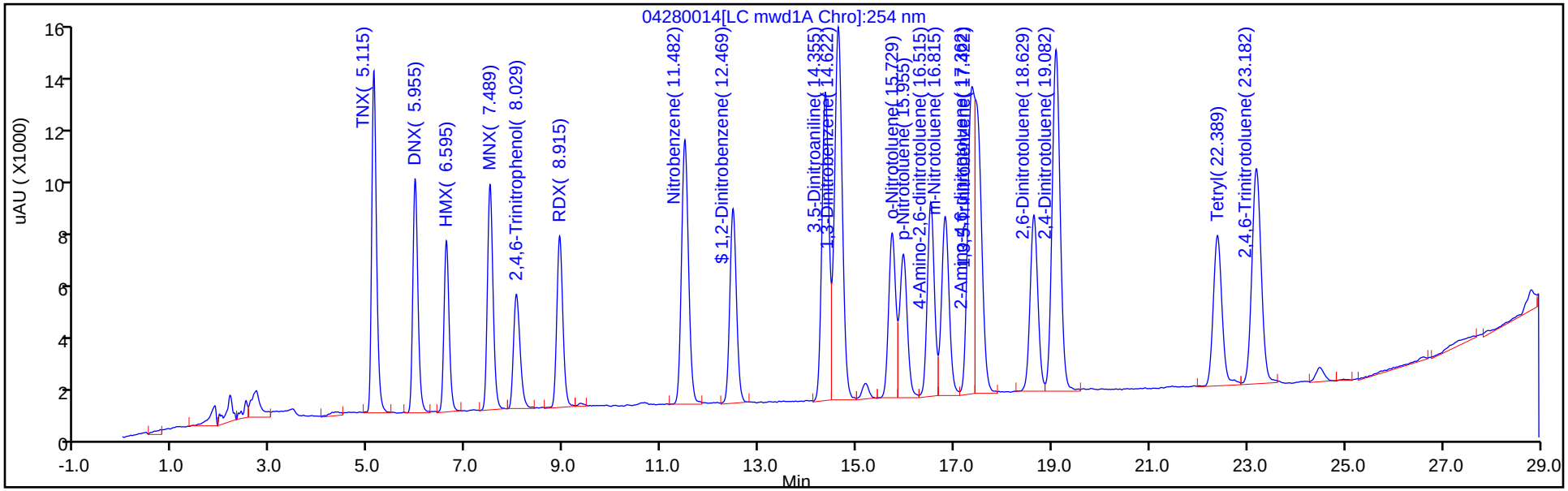
Report Date: 29-Apr-2023 13:04:18 Chrom Revision: 2.3 29-Mar-2023 18:39:10

Eurofins Denver

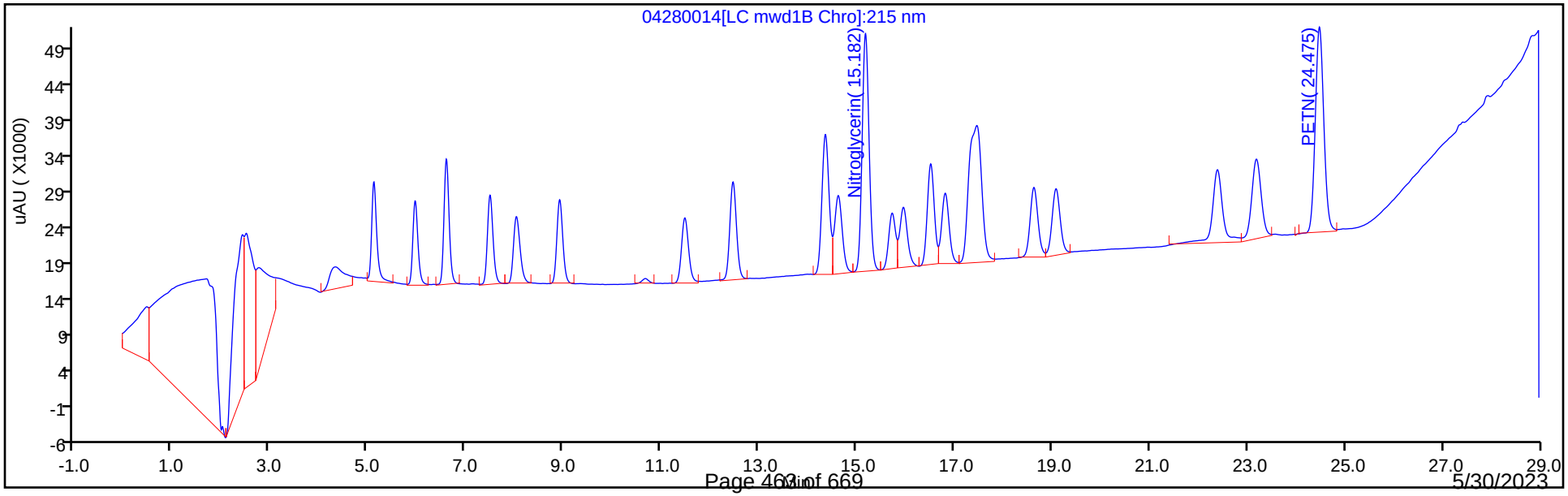
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230428-120896.b\04280014.D

Injection Date:	28-Apr-2023 20:43:54	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



5/30/2023
10:34 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

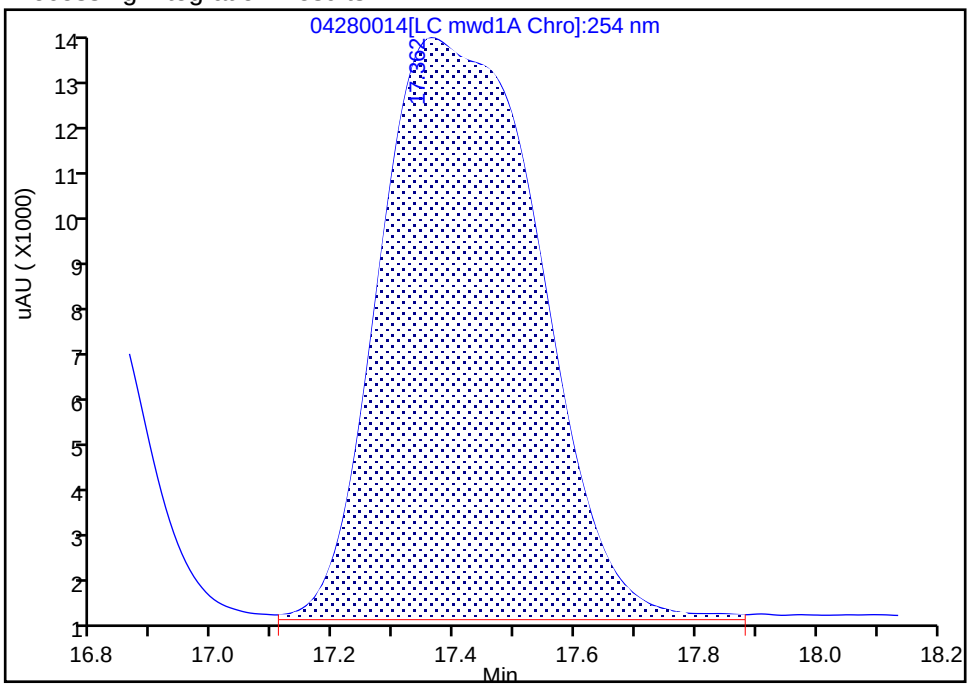
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20230428-120896.b\04280014.D				
Injection Date:	28-Apr-2023 20:43:54	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 5				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	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

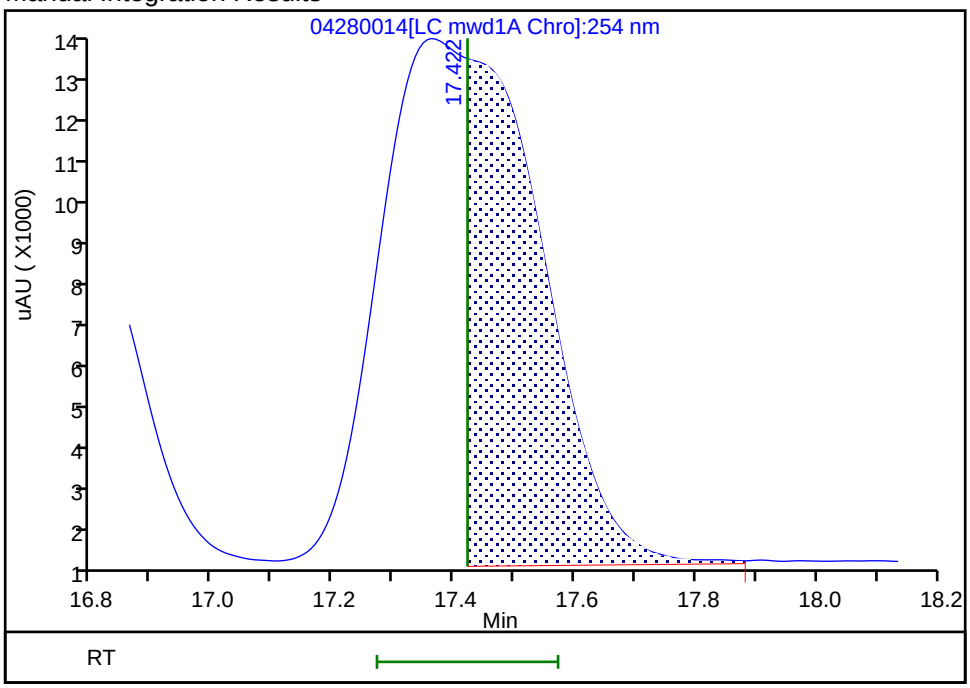
Processing Integration Results

RT: 17.36
Area: 206659
Amount: 0.382644
Amount Units: ug/ml



Manual Integration Results

RT: 17.42
Area: 98168
Amount: 0.241976
Amount Units: ug/ml



Reviewer: LV5D, 29-Apr-2023 10:22:17

Audit Action: Split an Integrated Peak Audit Reason: Baseline Smoothing

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230428-120896.b\04280015.D
Lims ID: IC INT 4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 28-Apr-2023 21:18:48 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*sub6

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20230428-120896.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 29-Apr-2023 13:04:19 Calib Date: 29-Apr-2023 04:18:01
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230428-120896.b\04280027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1621

First Level Reviewer: LV5D Date: 29-Apr-2023 10:22:33

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
3 TNX	1	5.116	5.115	0.001	41754	0.1003	0.1059	
4 DNX	1	5.963	5.955	0.008	28641	0.1001	0.1034	
5 HMX	1	6.603	6.595	0.008	19573	0.1000	0.1011	
6 MNX	1	7.496	7.489	0.007	30530	0.1167	0.1164	
7 2,4,6-Trinitrophenol	1	8.056	8.029	0.027	17060	0.1000	0.1033	
8 RDX	1	8.923	8.915	0.008	22827	0.1000	0.1027	
9 Nitrobenzene	1	11.483	11.482	0.001	41585	0.1000	0.1043	
$ 10 1,2-Dinitrobenzene	1	12.470	12.469	0.001	27893	0.1000	0.0994	
11 3,5-Dinitroaniline	1	14.363	14.355	0.008	46980	0.1000	0.1043	
12 1,3-Dinitrobenzene	1	14.623	14.622	0.001	62596	0.1000	0.0995	
13 Nitroglycerin	2	15.176	15.182	-0.006	134661	1.00	1.00	
14 o-Nitrotoluene	1	15.730	15.729	0.001	25290	0.1000	0.1024	
16 p-Nitrotoluene	1	15.956	15.955	0.001	23002	0.1000	0.1011	
17 4-Amino-2,6-dinitrotoluene	1	16.523	16.515	0.008	29472	0.1000	0.1002	
18 m-Nitrotoluene	1	16.816	16.815	0.001	29569	0.1000	0.1004	
19 2-Amino-4,6-dinitrotoluene	1	17.370	17.362	0.008	43948	0.1000	0.1027	M
20 1,3,5-Trinitrobenzene	1	17.423	17.422	0.001	41946	0.1000	0.1034	M
21 2,6-Dinitrotoluene	1	18.636	18.629	0.007	30260	0.1000	0.1037	
22 2,4-Dinitrotoluene	1	19.090	19.082	0.008	59433	0.1000	0.1017	
23 Tetryl	1	22.363	22.389	-0.026	27534	0.1000	0.0967	
24 2,4,6-Trinitrotoluene	1	23.156	23.182	-0.026	43136	0.1000	0.0983	
25 PETN	2	24.416	24.475	-0.059	146450	1.00	1.02	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330IntermStk_00076	Amount Added: 10.00	Units: uL
8330 DMT_00013	Amount Added: 5.00	Units: uL

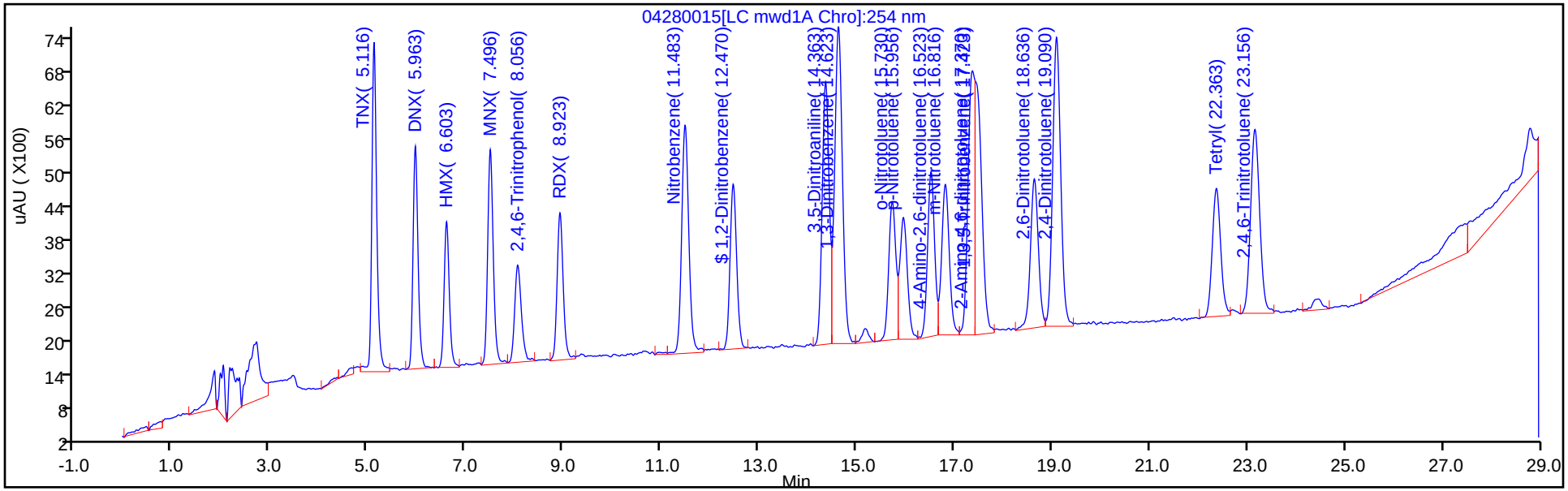
Report Date: 29-Apr-2023 13:04:19 Chrom Revision: 2.3 29-Mar-2023 18:39:10

Eurofins Denver

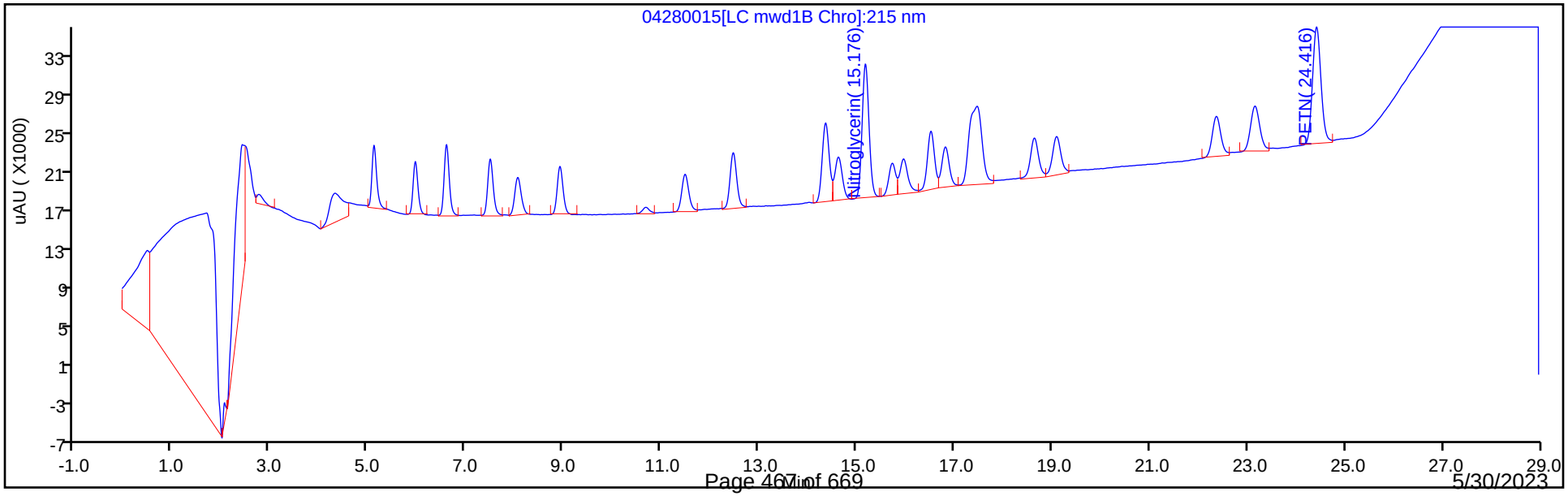
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230428-120896.b\04280015.D

Injection Date:	28-Apr-2023 21:18:48	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



5/30/2023
10:34 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

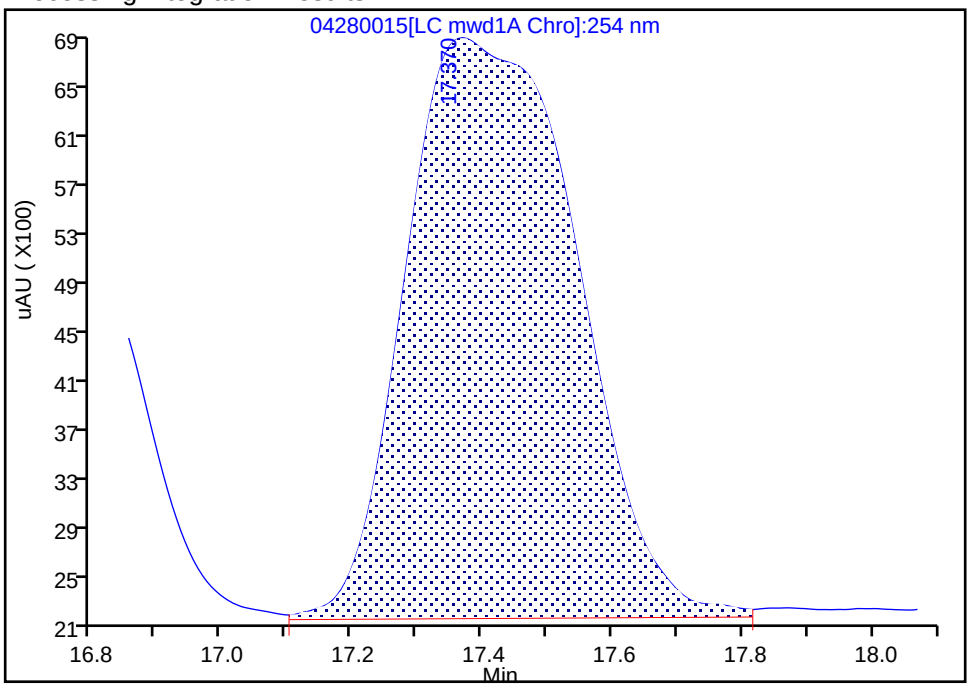
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20230428-120896.b\04280015.D				
Injection Date:	28-Apr-2023 21:18:48	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 4				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	15	Worklist Smp#:	15
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

20 1,3,5-Trinitrobenzene, CAS: 99-35-4

Signal: 1

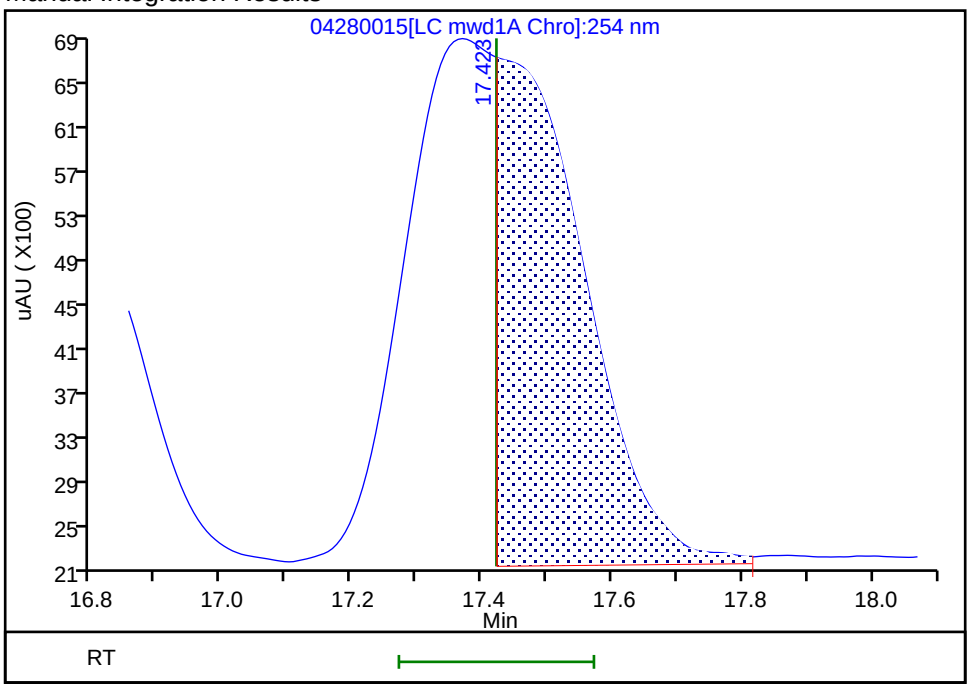
Processing Integration Results

RT: 17.37
Area: 85885
Amount: 0.174611
Amount Units: ug/ml



Manual Integration Results

RT: 17.42
Area: 41946
Amount: 0.103394
Amount Units: ug/ml



Reviewer: LV5D, 29-Apr-2023 10:22:30

Audit Action: Split an Integrated Peak Audit Reason: Baseline Smoothing

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230428-120896.b\04280016.D
Lims ID: IC INT 3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 28-Apr-2023 21:53:46 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*sub6

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20230428-120896.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 29-Apr-2023 13:04:19 Calib Date: 29-Apr-2023 04:18:01
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230428-120896.b\04280027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1621

First Level Reviewer: LV5D Date: 29-Apr-2023 10:22:43

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
3 TNX	1	5.116	5.115	0.001	20281	0.0502	0.0514	
4 DNX	1	5.969	5.955	0.014	14733	0.0501	0.0532	
5 HMX	1	6.603	6.595	0.008	10761	0.0500	0.0535	
6 MNX	1	7.503	7.489	0.014	15694	0.0584	0.0598	
7 2,4,6-Trinitrophenol	1	8.076	8.029	0.047	8950	0.0500	0.0526	
8 RDX	1	8.929	8.915	0.014	11621	0.0500	0.0508	
9 Nitrobenzene	1	11.489	11.482	0.007	20883	0.0500	0.0524	
$ 10 1,2-Dinitrobenzene	1	12.476	12.469	0.007	14379	0.0500	0.0512	
11 3,5-Dinitroaniline	1	14.369	14.355	0.014	24176	0.0500	0.0530	
12 1,3-Dinitrobenzene	1	14.629	14.622	0.007	31459	0.0500	0.0500	
13 Nitroglycerin	2	15.176	15.182	-0.006	71084	0.5000	0.5276	
14 o-Nitrotoluene	1	15.723	15.729	-0.006	12951	0.0500	0.0524	
16 p-Nitrotoluene	1	15.956	15.955	0.001	12179	0.0500	0.0535	
17 4-Amino-2,6-dinitrotoluene	1	16.523	16.515	0.008	15265	0.0500	0.0519	
18 m-Nitrotoluene	1	16.816	16.815	0.001	15546	0.0500	0.0528	
19 2-Amino-4,6-dinitrotoluene	1	17.376	17.362	0.014	23162	0.0500	0.0541	M
20 1,3,5-Trinitrobenzene	1	17.429	17.422	0.007	22059	0.0500	0.0544	M
21 2,6-Dinitrotoluene	1	18.643	18.629	0.014	15876	0.0500	0.0544	
22 2,4-Dinitrotoluene	1	19.096	19.082	0.014	30407	0.0500	0.0520	
23 Tetryl	1	22.369	22.389	-0.020	14233	0.0500	0.0500	
24 2,4,6-Trinitrotoluene	1	23.163	23.182	-0.019	22184	0.0500	0.0505	
25 PETN	2	24.423	24.475	-0.052	72943	0.5000	0.5068	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330IntermStk_00076	Amount Added:	5.00	Units: uL
8330 DMT_00013	Amount Added:	2.50	Units: uL

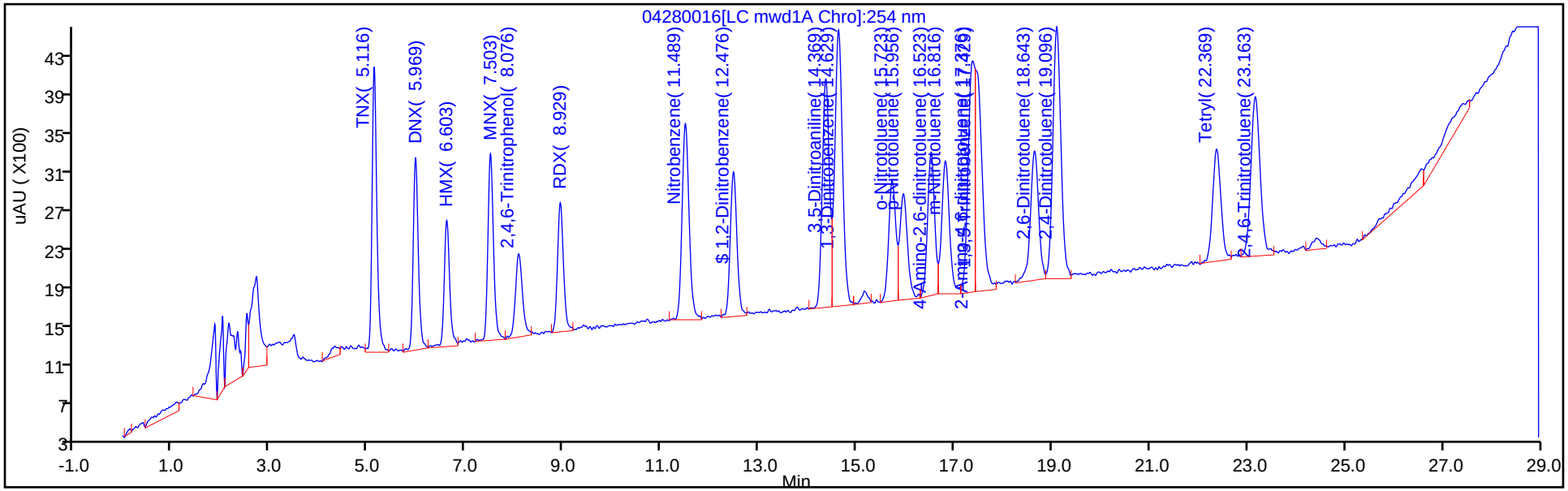
Report Date: 29-Apr-2023 13:04:19 Chrom Revision: 2.3 29-Mar-2023 18:39:10

Eurofins Denver

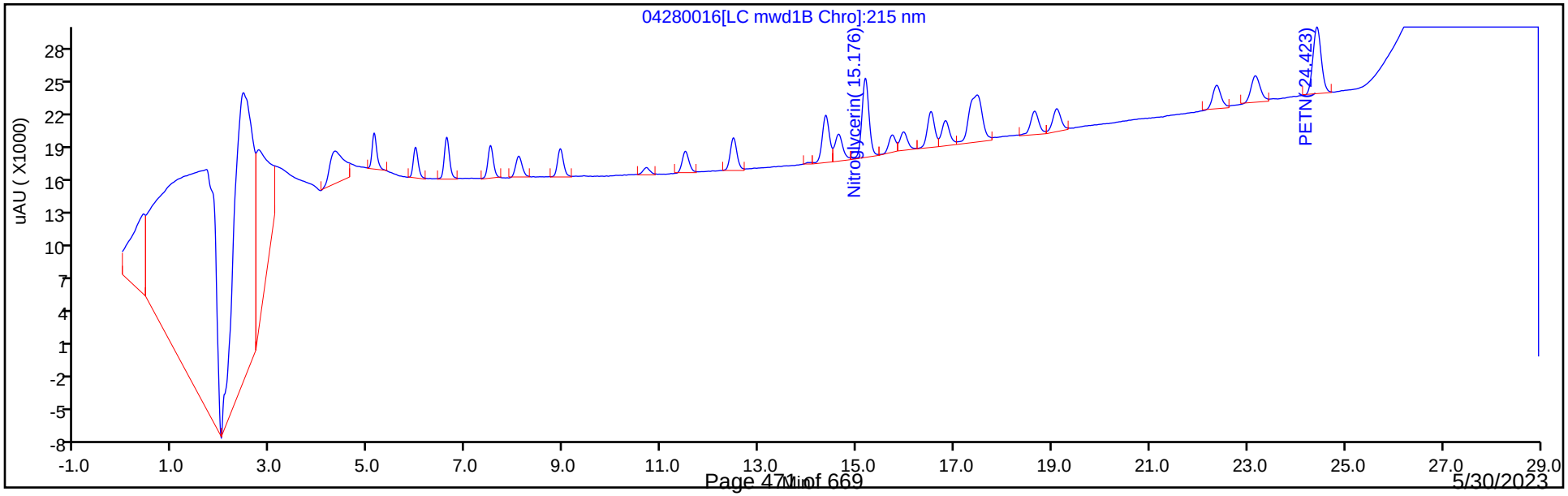
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230428-120896.b\04280016.D

Injection Date:	28-Apr-2023 21:53:46	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



5/30/2023
10:34 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

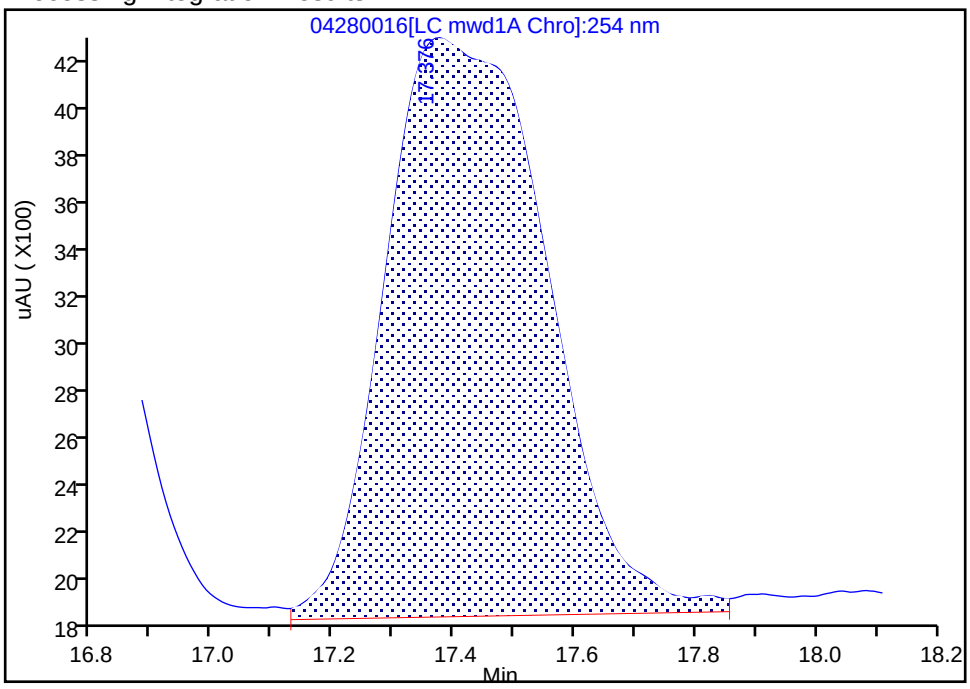
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20230428-120896.b\04280016.D				
Injection Date:	28-Apr-2023 21:53:46	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 3				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

20 1,3,5-Trinitrobenzene, CAS: 99-35-4

Signal: 1

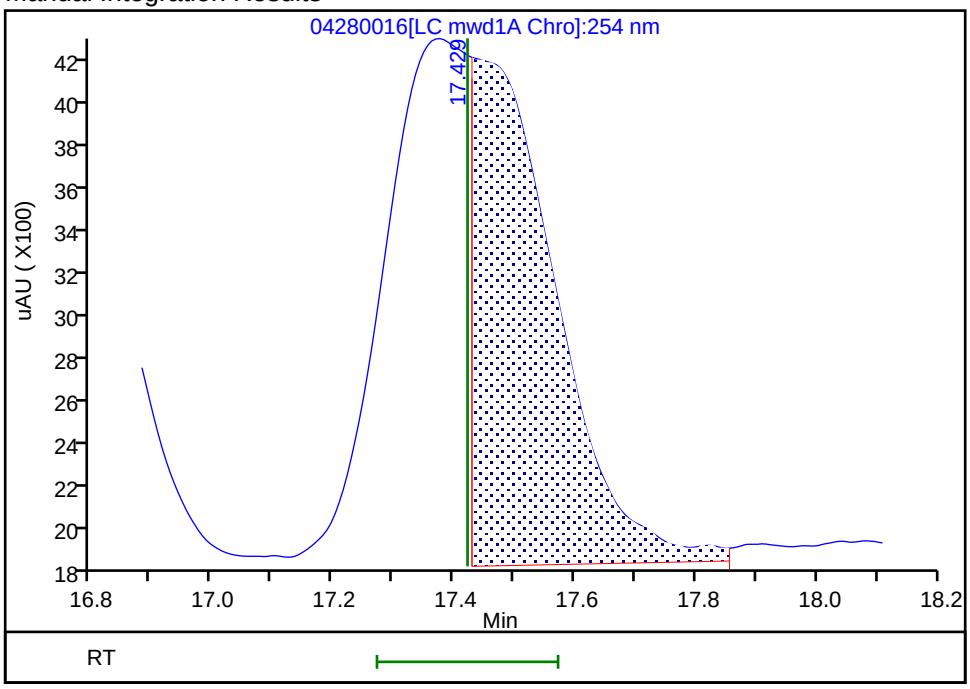
Processing Integration Results

RT: 17.38
Area: 45204
Amount: 0.102031
Amount Units: ug/ml



Manual Integration Results

RT: 17.43
Area: 22059
Amount: 0.054374
Amount Units: ug/ml



Reviewer: LV5D, 29-Apr-2023 10:22:40

Audit Action: Split an Integrated Peak Audit Reason: Baseline Smoothing

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230428-120896.b\04280017.D
Lims ID: IC INT 2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 28-Apr-2023 22:28:39 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*sub6

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20230428-120896.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 29-Apr-2023 13:04:20 Calib Date: 29-Apr-2023 04:18:01
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230428-120896.b\04280027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1621

First Level Reviewer: LV5D Date: 29-Apr-2023 10:23:35

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
3 TNX	1	5.136	5.115	0.021	8179	0.0201	0.0207	
4 DNX	1	5.983	5.955	0.028	5728	0.0200	0.0207	
5 HMX	1	6.630	6.595	0.035	4449	0.0200	0.0195	
6 MNX	1	7.523	7.489	0.034	6155	0.0233	0.0235	
7 2,4,6-Trinitrophenol	1	8.116	8.029	0.087	3453	0.0200	0.0182	
8 RDX	1	8.956	8.915	0.041	4863	0.0200	0.0194	
9 Nitrobenzene	1	11.523	11.482	0.041	7871	0.0200	0.0197	
$ 10 1,2-Dinitrobenzene	1	12.516	12.469	0.047	6038	0.0200	0.0215	
11 3,5-Dinitroaniline	1	14.410	14.355	0.055	9221	0.0200	0.0194	
12 1,3-Dinitrobenzene	1	14.663	14.622	0.041	12307	0.0200	0.0196	
13 Nitroglycerin	2	15.216	15.182	0.034	27409	0.2000	0.2034	
14 o-Nitrotoluene	1	15.770	15.729	0.041	5281	0.0200	0.0214	M
16 p-Nitrotoluene	1	15.996	15.955	0.041	4466	0.0200	0.0196	M
17 4-Amino-2,6-dinitrotoluene	1	16.556	16.515	0.041	6064	0.0200	0.0206	M
18 m-Nitrotoluene	1	16.843	16.815	0.028	5823	0.0200	0.0198	M
19 2-Amino-4,6-dinitrotoluene	1	17.410	17.362	0.048	8257	0.0200	0.0193	M
20 1,3,5-Trinitrobenzene	1	17.456	17.422	0.034	7799	0.0200	0.0192	M
21 2,6-Dinitrotoluene	1	18.670	18.629	0.041	5716	0.0200	0.0196	
22 2,4-Dinitrotoluene	1	19.123	19.082	0.041	12241	0.0200	0.0209	
23 Tetryl	1	22.396	22.389	0.007	6348	0.0200	0.0223	
24 2,4,6-Trinitrotoluene	1	23.196	23.182	0.014	9925	0.0200	0.0226	
25 PETN	2	24.450	24.475	-0.025	28805	0.2000	0.2001	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330IntermStk_00076	Amount Added:	2.00	Units: uL
8330 DMT_00013	Amount Added:	1.00	Units: uL

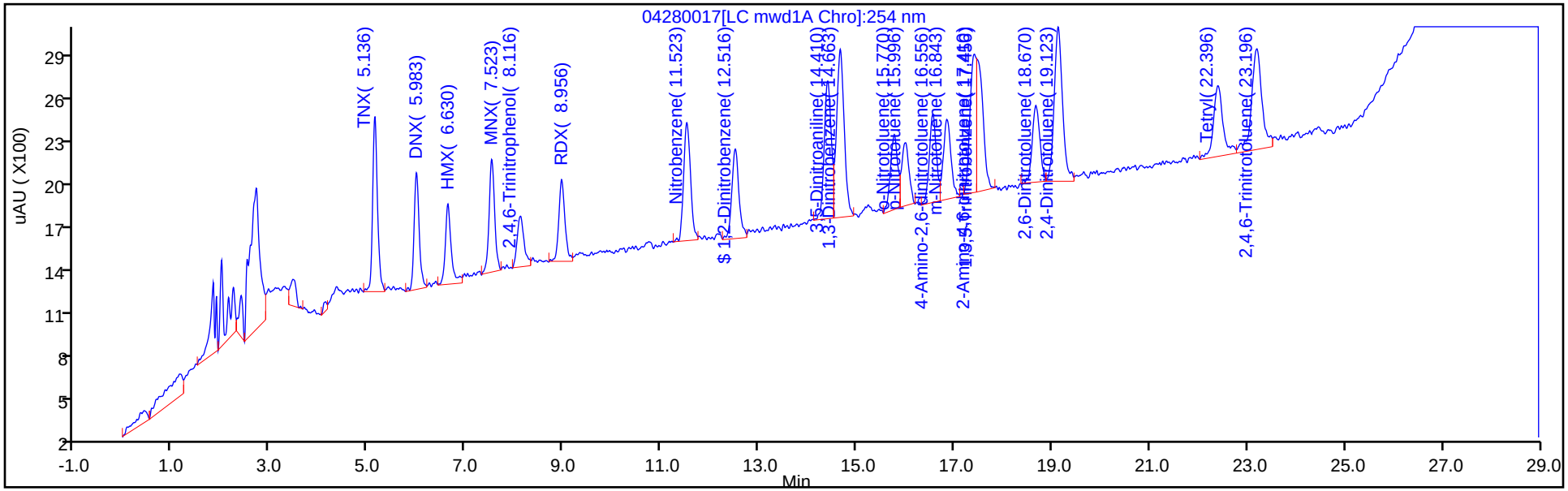
Report Date: 29-Apr-2023 13:04:20 Chrom Revision: 2.3 29-Mar-2023 18:39:10

Eurofins Denver

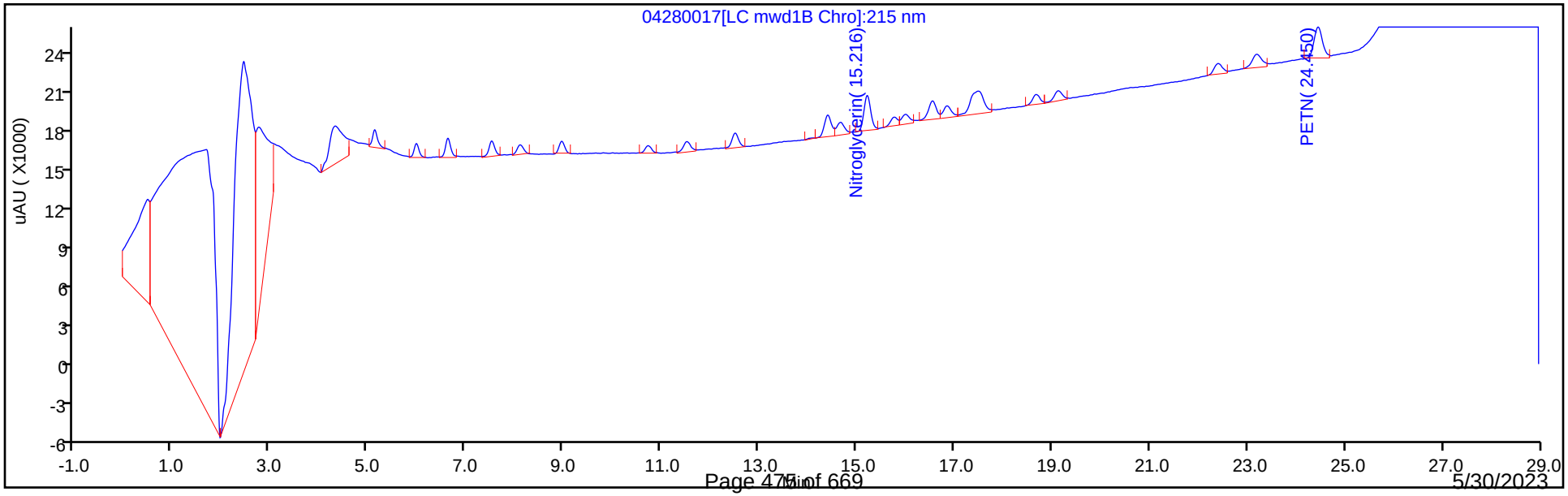
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230428-120896.b\04280017.D

Injection Date:	28-Apr-2023 22:28:39	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



5/30/2023
10:34 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

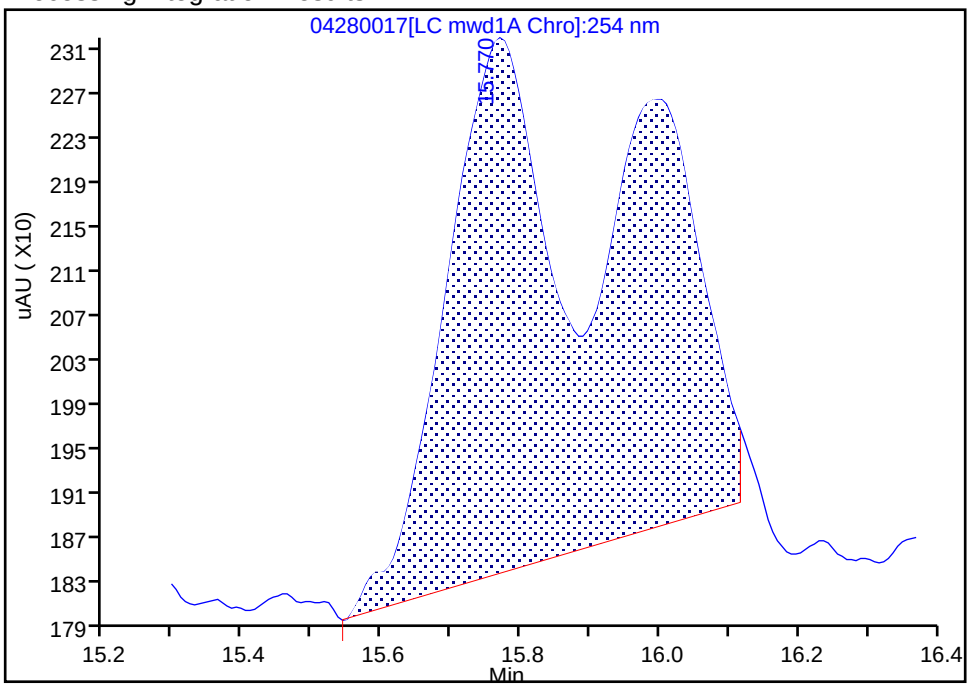
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20230428-120896.b\04280017.D				
Injection Date:	28-Apr-2023 22:28:39	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 2				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

14 o-Nitrotoluene, CAS: 88-72-2

Signal: 1

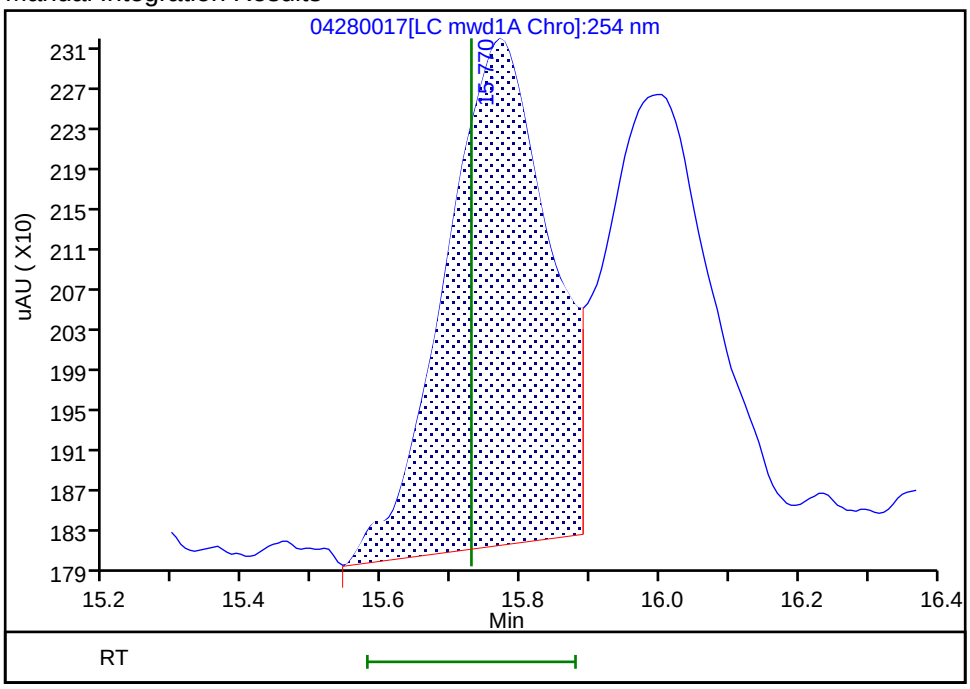
Processing Integration Results

RT: 15.77
Area: 8594
Amount: 0.026168
Amount Units: ug/ml



Manual Integration Results

RT: 15.77
Area: 5281
Amount: 0.021384
Amount Units: ug/ml



Reviewer: LV5D, 29-Apr-2023 10:23:05

Audit Action: Split an Integrated Peak Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

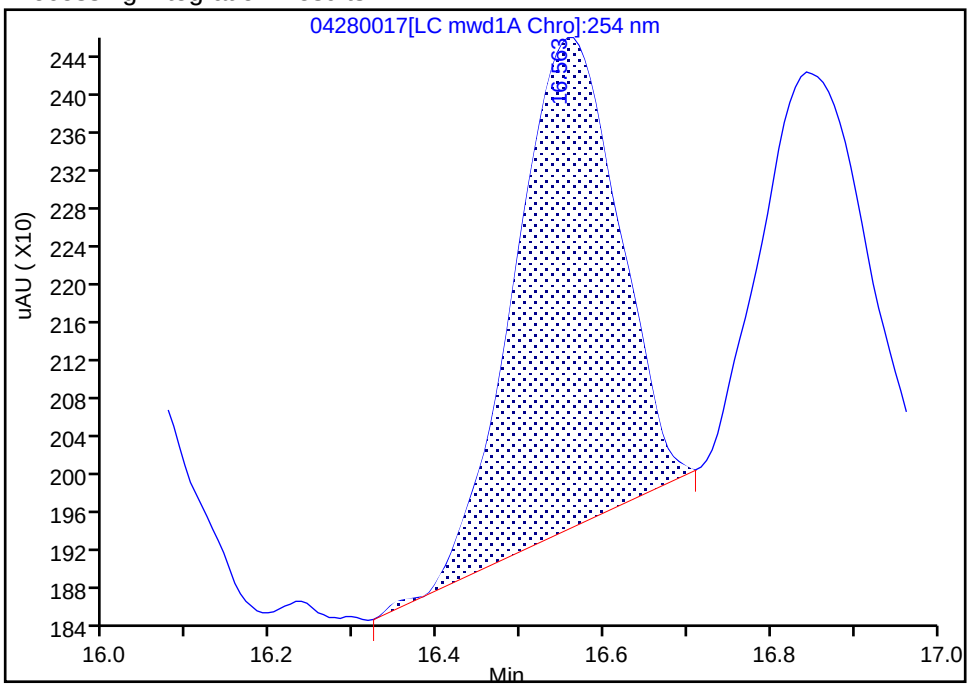
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20230428-120896.b\04280017.D				
Injection Date:	28-Apr-2023 22:28:39	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 2				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

17 4-Amino-2,6-dinitrotoluene, CAS: 19406-51-0

Signal: 1

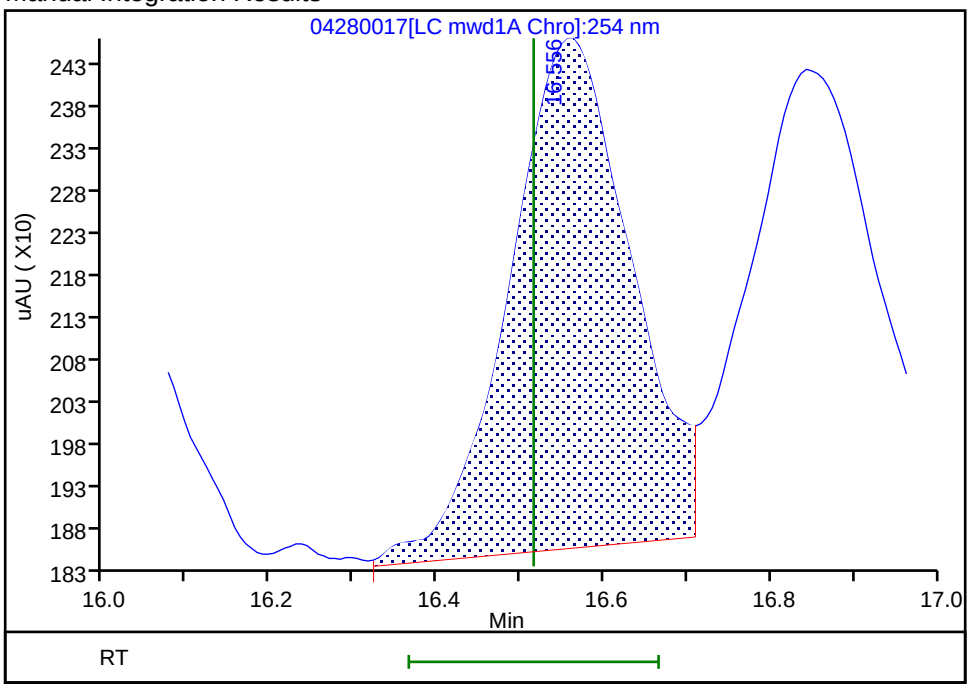
Processing Integration Results

RT: 16.56
Area: 4498
Amount: 0.016304
Amount Units: ug/ml



Manual Integration Results

RT: 16.56
Area: 6064
Amount: 0.020611
Amount Units: ug/ml



Reviewer: LV5D, 29-Apr-2023 10:23:33
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

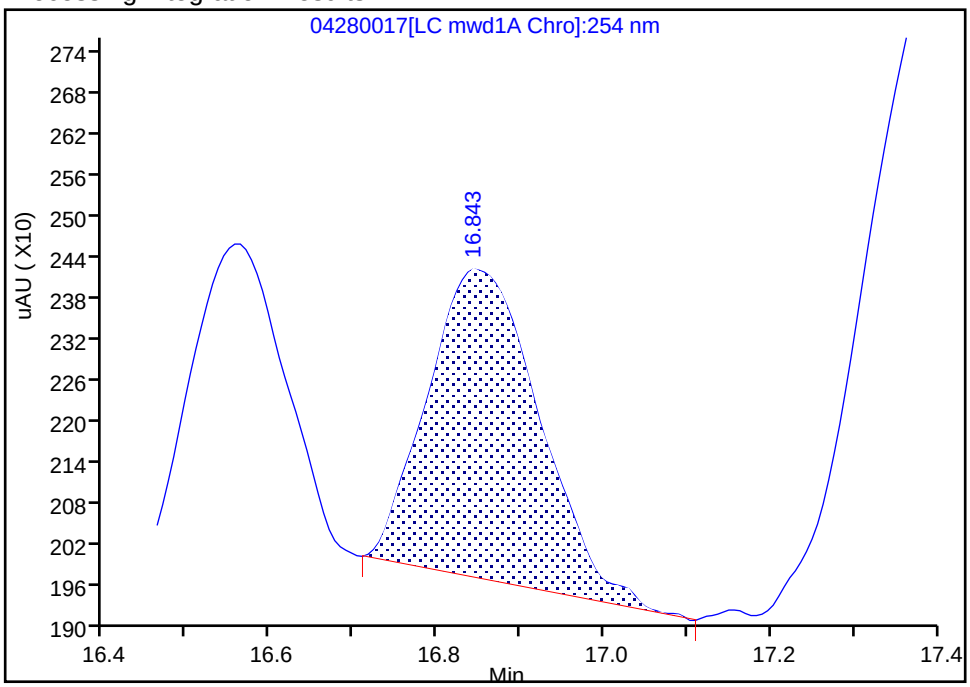
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20230428-120896.b\04280017.D				
Injection Date:	28-Apr-2023 22:28:39	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 2				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

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

Signal: 1

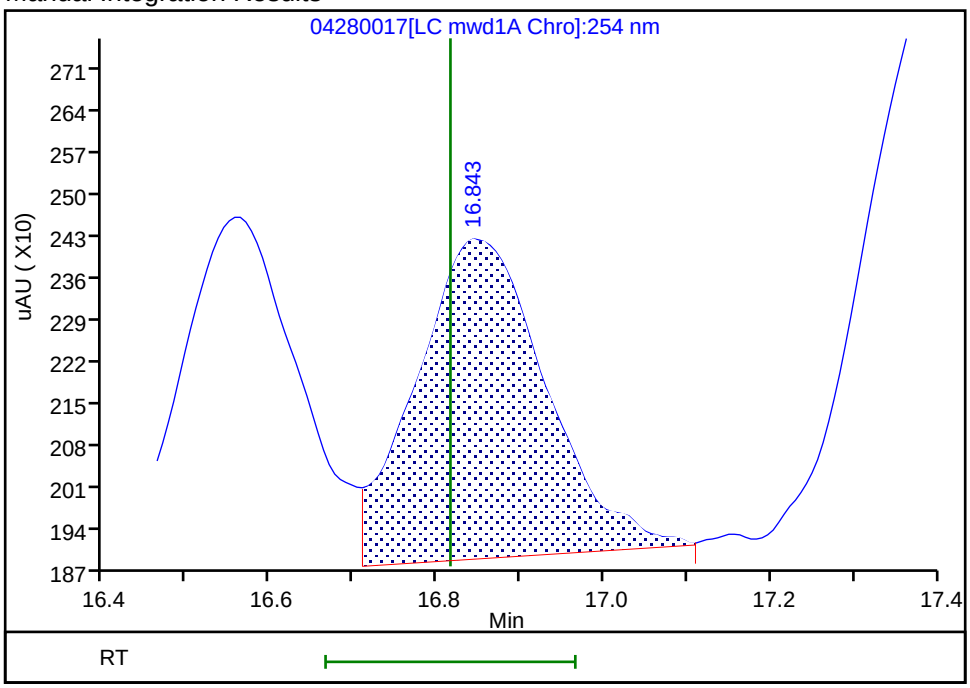
Processing Integration Results

RT: 16.84
Area: 4234
Amount: 0.015427
Amount Units: ug/ml



Manual Integration Results

RT: 16.84
Area: 5823
Amount: 0.019763
Amount Units: ug/ml



Reviewer: LV5D, 29-Apr-2023 10:23:33
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

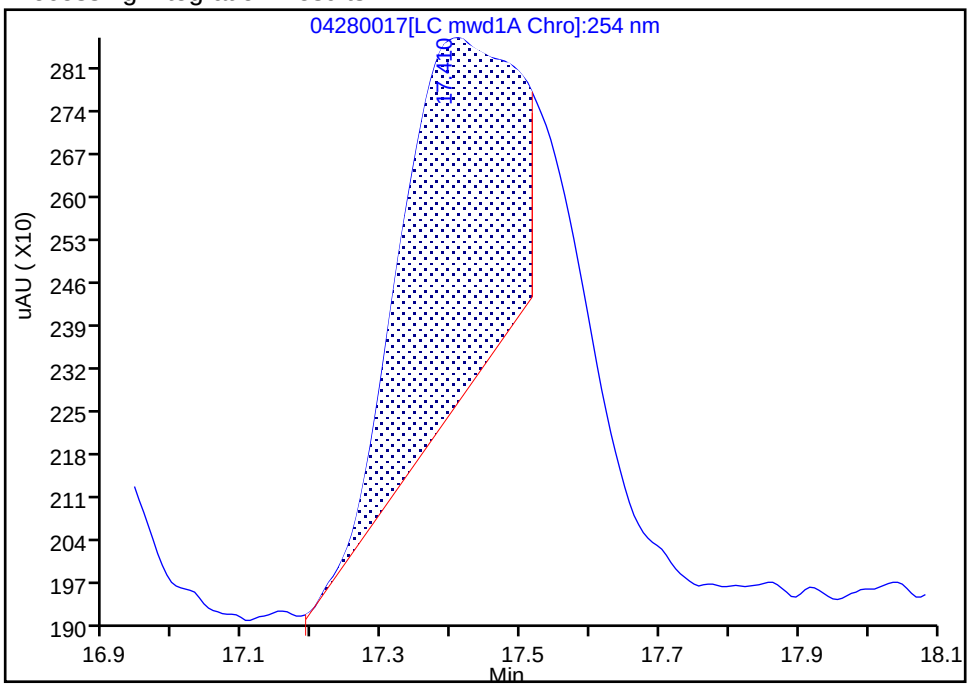
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20230428-120896.b\04280017.D				
Injection Date:	28-Apr-2023 22:28:39	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 2				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

20 1,3,5-Trinitrobenzene, CAS: 99-35-4

Signal: 1

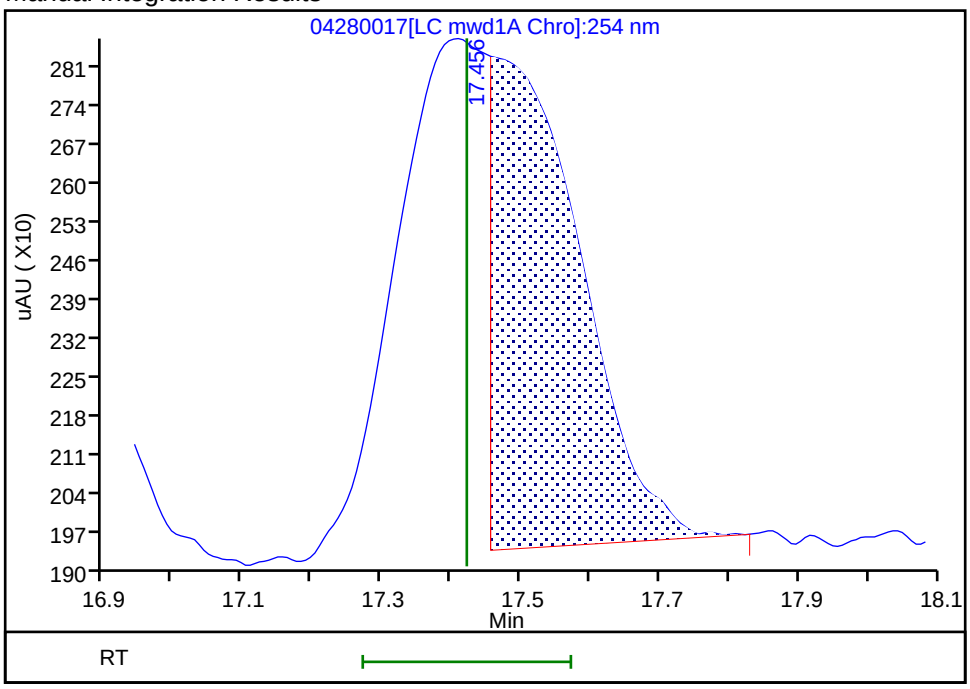
Processing Integration Results

RT: 17.41
Area: 6616
Amount: 0.016894
Amount Units: ug/ml



Manual Integration Results

RT: 17.46
Area: 7799
Amount: 0.019224
Amount Units: ug/ml



Reviewer: LV5D, 29-Apr-2023 10:23:23

Audit Action: Split an Integrated Peak Audit Reason: Baseline Smoothing

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230428-120896.b\04280018.D
Lims ID: IC INT 1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 28-Apr-2023 23:03:35 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*sub6

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20230428-120896.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 29-Apr-2023 13:04:20 Calib Date: 29-Apr-2023 04:18:01
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230428-120896.b\04280027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1621

First Level Reviewer: LV5D Date: 29-Apr-2023 10:24:45

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
3 TNX	1	5.116	5.115	0.001	4552	0.0100	0.0115	
4 DNX	1	5.963	5.955	0.008	2804	0.0100	0.0101	
5 HMX	1	6.596	6.595	0.001	2178	0.0100	0.007259	
6 MNX	1	7.496	7.489	0.007	3646	0.0117	0.0139	
7 2,4,6-Trinitrophenol	1	8.063	8.029	0.034	2197	0.0100	0.0103	
8 RDX	1	8.923	8.915	0.008	2852	0.0100	0.0101	
9 Nitrobenzene	1	11.489	11.482	0.007	4269	0.0100	0.0107	
$ 10 1,2-Dinitrobenzene	1	12.483	12.469	0.014	3169	0.0100	0.0113	
11 3,5-Dinitroaniline	1	14.376	14.355	0.021	5053	0.0100	0.0100	
12 1,3-Dinitrobenzene	1	14.636	14.622	0.014	6946	0.0100	0.0110	
13 Nitroglycerin	2	15.196	15.182	0.014	14603	0.1000	0.1084	
14 o-Nitrotoluene	1	15.736	15.729	0.007	2336	0.0100	0.009459	M
16 p-Nitrotoluene	1	15.969	15.955	0.014	2206	0.0100	0.009697	M
17 4-Amino-2,6-dinitrotoluene	1	16.529	16.515	0.014	3275	0.0100	0.0111	M
18 m-Nitrotoluene	1	16.843	16.815	0.028	3269	0.0100	0.0111	M
19 2-Amino-4,6-dinitrotoluene	1	17.369	17.362	0.007	3912	0.0100	0.009141	M
20 1,3,5-Trinitrobenzene	1	17.443	17.422	0.021	4438	0.0100	0.0109	M
21 2,6-Dinitrotoluene	1	18.643	18.629	0.014	3093	0.0100	0.0106	
22 2,4-Dinitrotoluene	1	19.096	19.082	0.014	5987	0.0100	0.0102	
23 Tetryl	1	22.363	22.389	-0.026	3282	0.0100	0.0115	
24 2,4,6-Trinitrotoluene	1	23.176	23.182	-0.006	4919	0.0100	0.0112	
25 PETN	2	24.430	24.475	-0.045	16344	0.1000	0.1135	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330IntermStk_00076	Amount Added:	1.00	Units: uL
8330 DMT_00013	Amount Added:	0.50	Units: uL

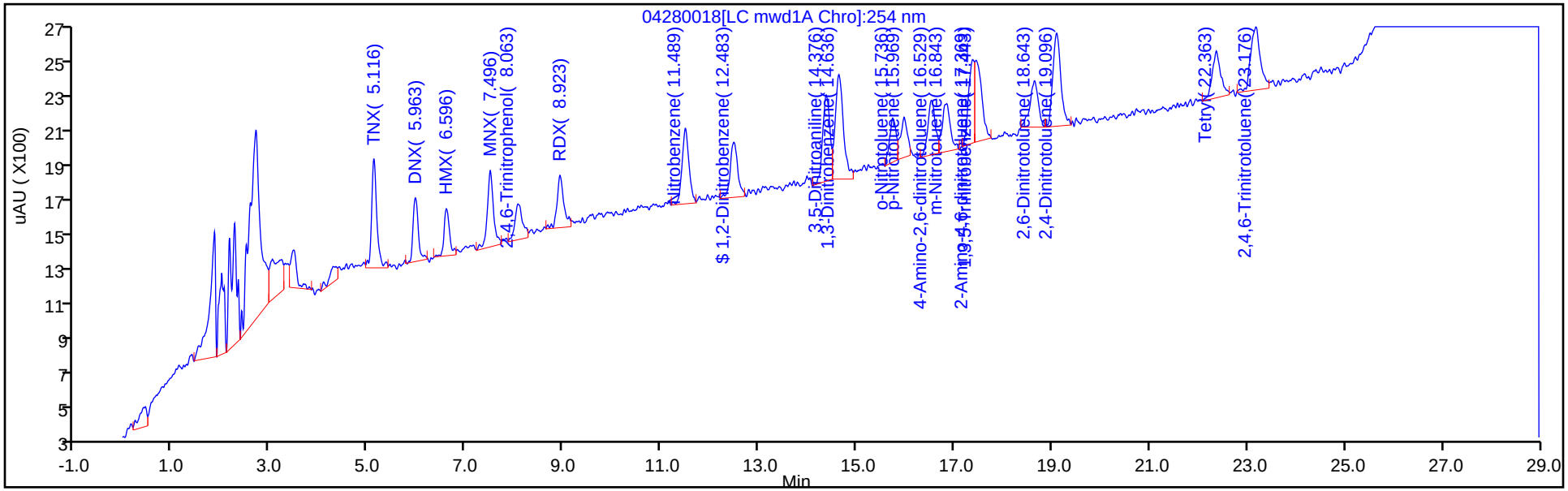
Report Date: 29-Apr-2023 13:04:20 Chrom Revision: 2.3 29-Mar-2023 18:39:10

Eurofins Denver

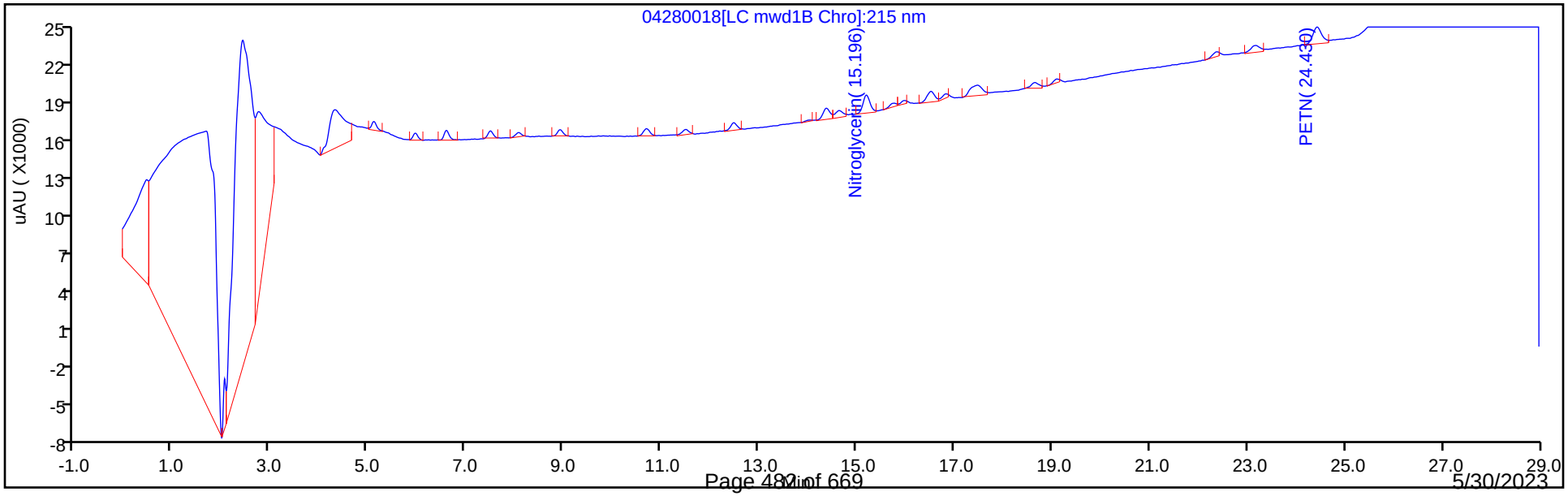
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230428-120896.b\04280018.D

Injection Date:	28-Apr-2023 23:03:35	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



5/30/2023
10:34 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

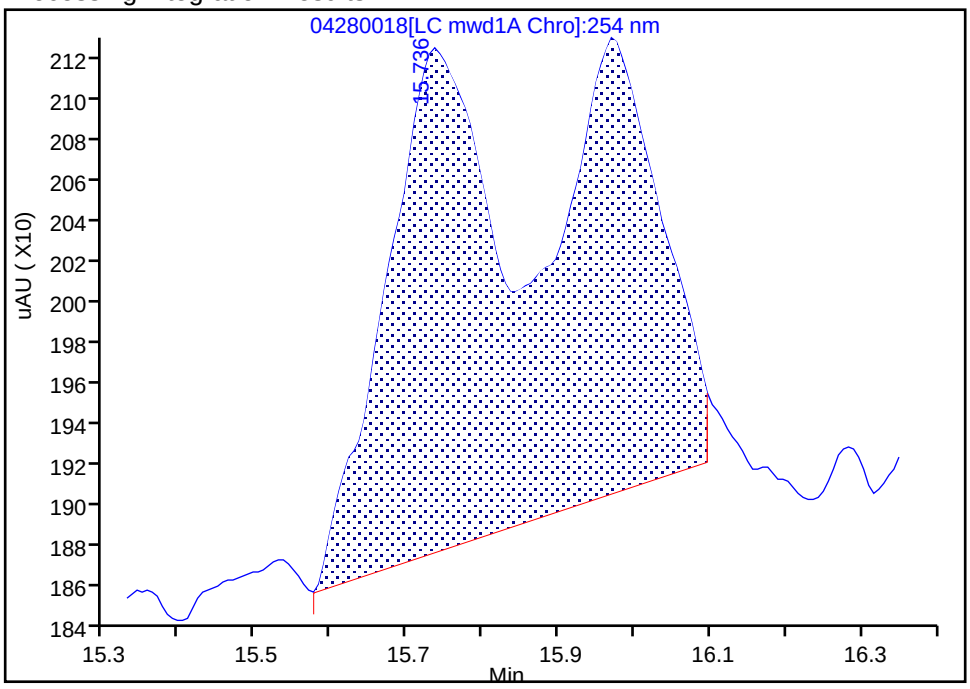
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20230428-120896.b\04280018.D				
Injection Date:	28-Apr-2023 23:03:35	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 1				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	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

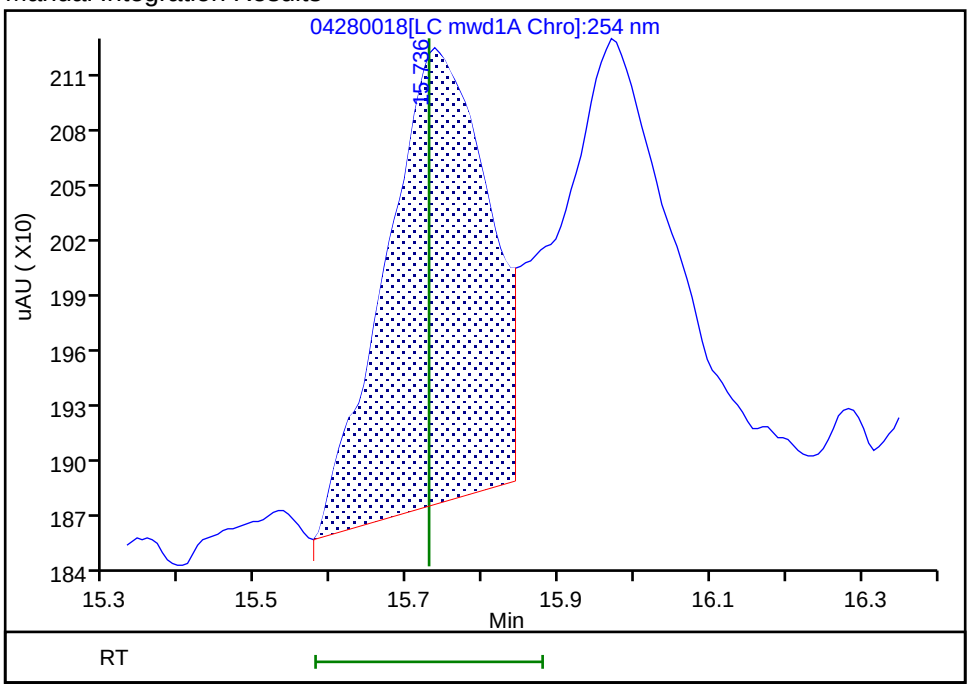
Processing Integration Results

RT: 15.74
Area: 4530
Amount: 0.013152
Amount Units: ug/ml



Manual Integration Results

RT: 15.74
Area: 2336
Amount: 0.009459
Amount Units: ug/ml



Reviewer: LV5D, 29-Apr-2023 10:24:06

Audit Action: Split an Integrated Peak Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

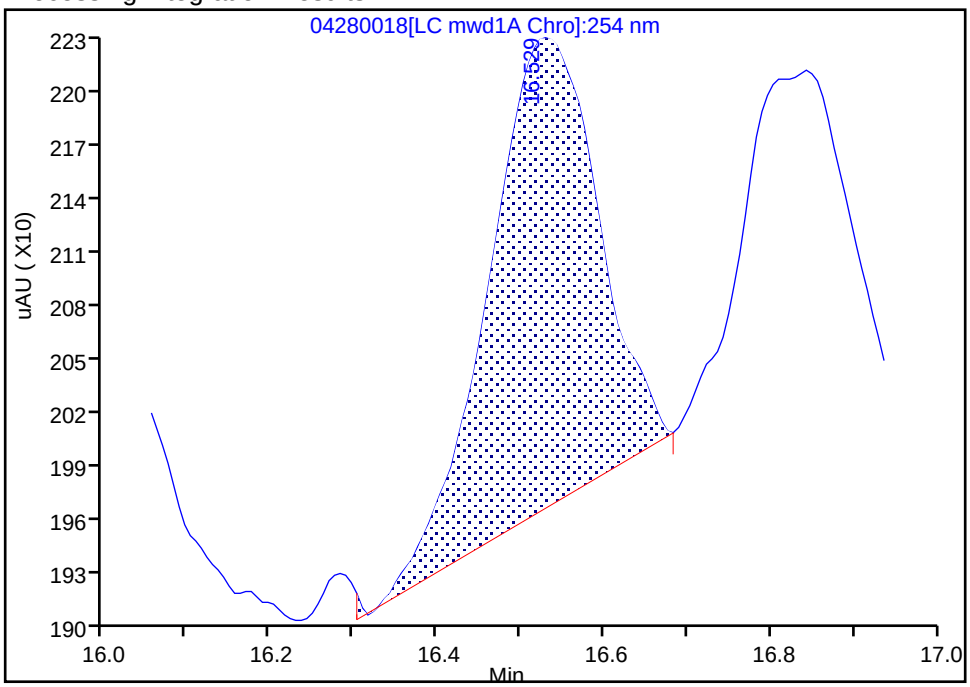
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20230428-120896.b\04280018.D				
Injection Date:	28-Apr-2023 23:03:35	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 1				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	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

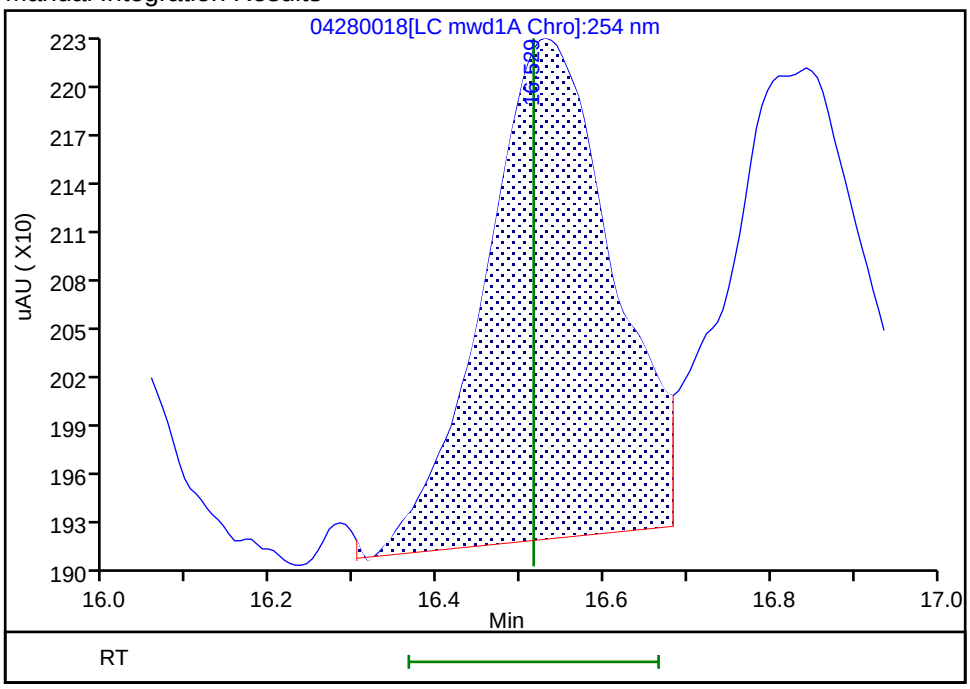
Processing Integration Results

RT: 16.53
Area: 2409
Amount: 0.008465
Amount Units: ug/ml



Manual Integration Results

RT: 16.53
Area: 3275
Amount: 0.011131
Amount Units: ug/ml



Reviewer: LV5D, 29-Apr-2023 13:01:58
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

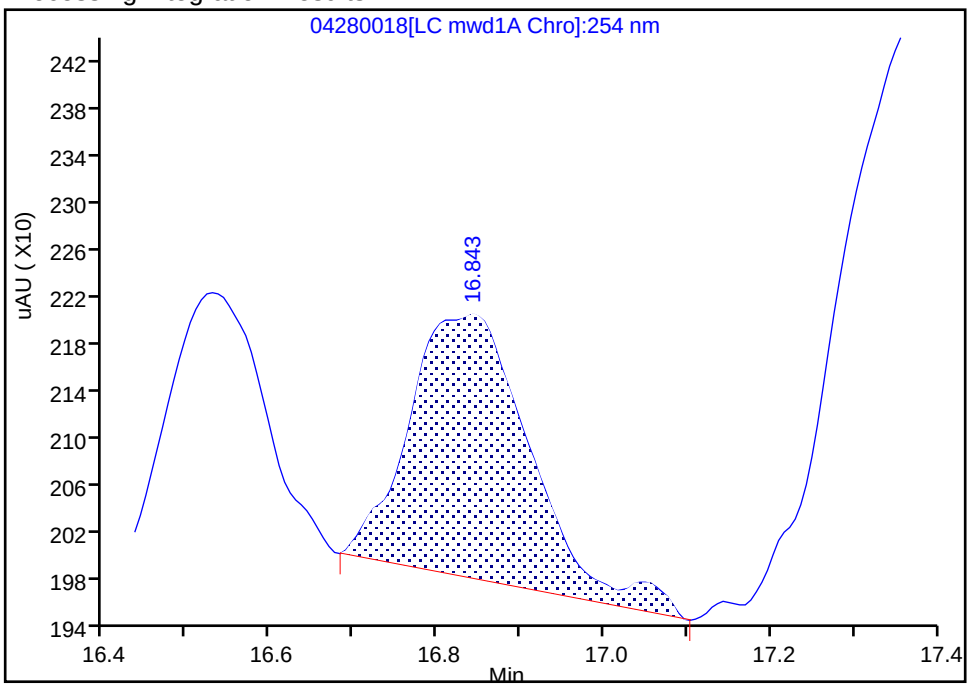
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20230428-120896.b\04280018.D				
Injection Date:	28-Apr-2023 23:03:35	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 1				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	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

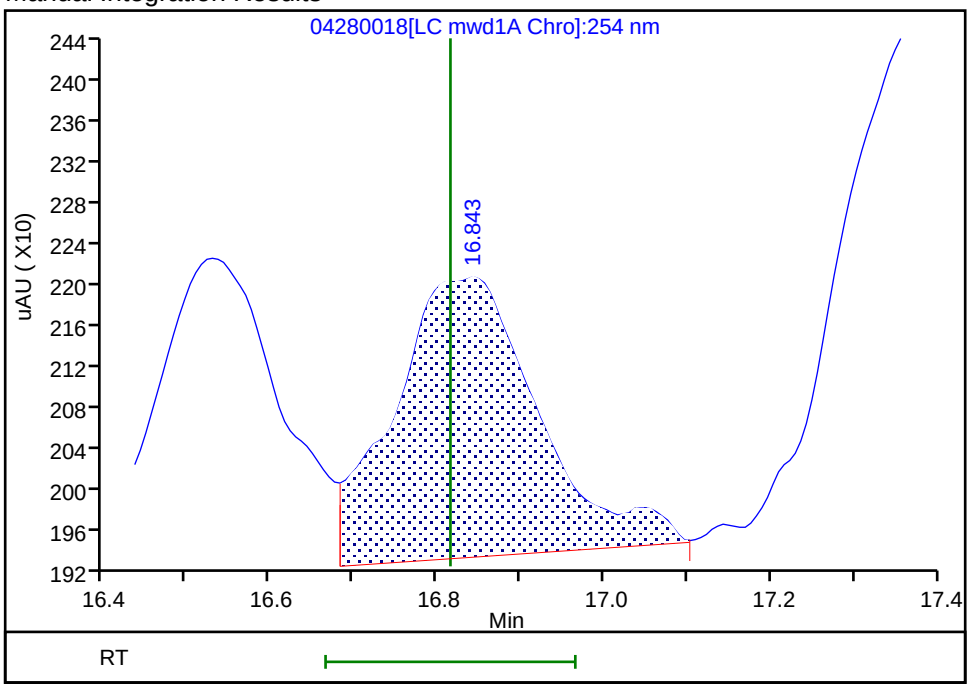
Processing Integration Results

RT: 16.84
Area: 2248
Amount: 0.007935
Amount Units: ug/ml



Manual Integration Results

RT: 16.84
Area: 3269
Amount: 0.011095
Amount Units: ug/ml



Reviewer: LV5D, 29-Apr-2023 13:01:58
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

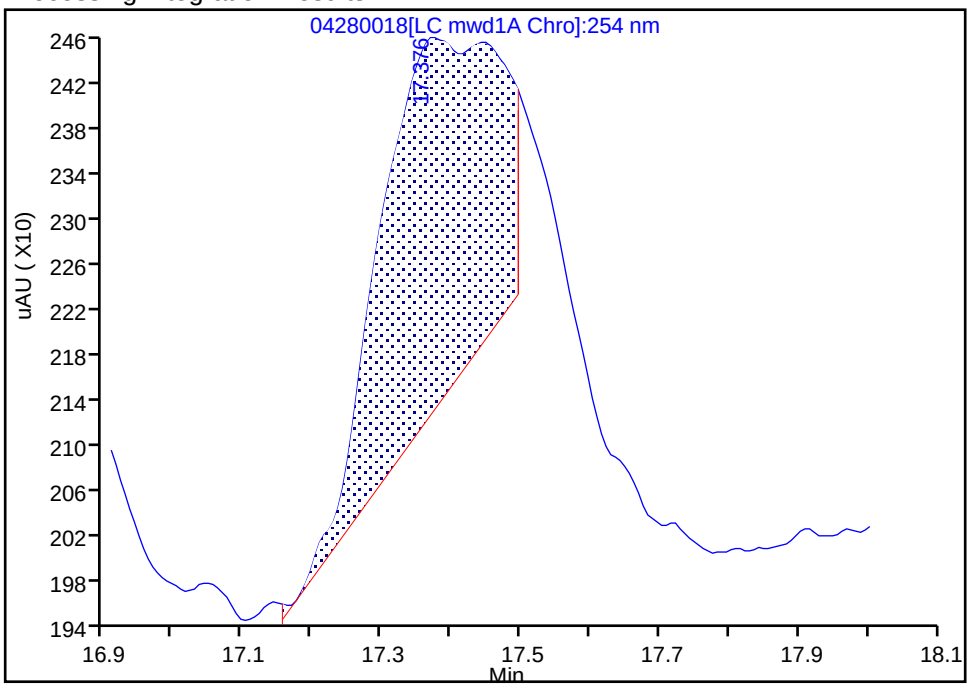
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20230428-120896.b\04280018.D				
Injection Date:	28-Apr-2023 23:03:35	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 1				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	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

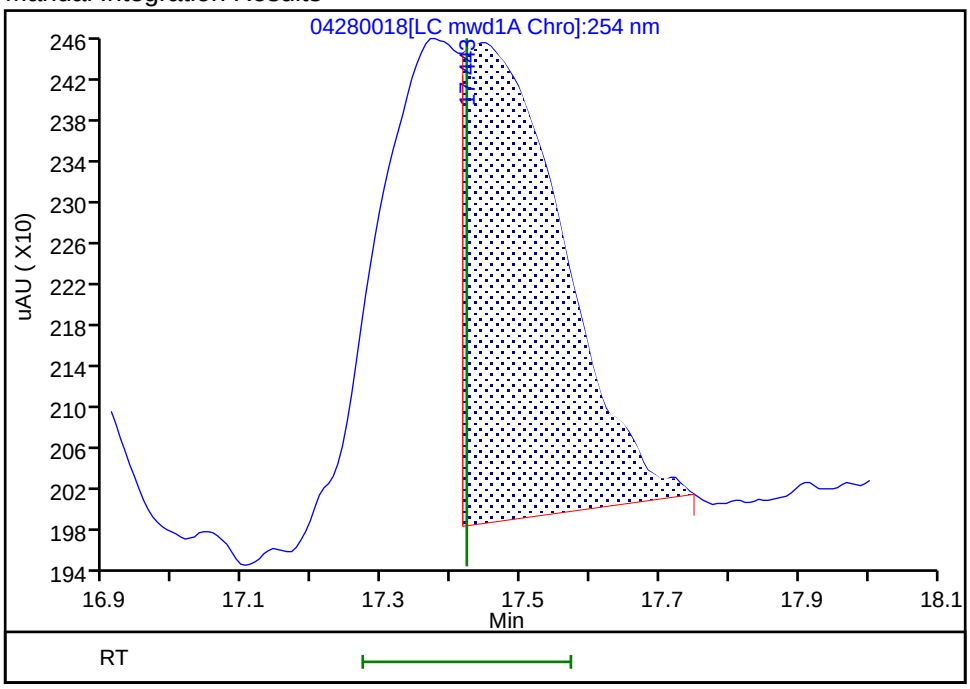
Processing Integration Results

RT: 17.38
Area: 3762
Amount: 0.009448
Amount Units: ug/ml



Manual Integration Results

RT: 17.44
Area: 4438
Amount: 0.010939
Amount Units: ug/ml



Reviewer: LV5D, 29-Apr-2023 10:24:15

Audit Action: Split an Integrated Peak Audit Reason: Baseline Smoothing

Calibration / TNX

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

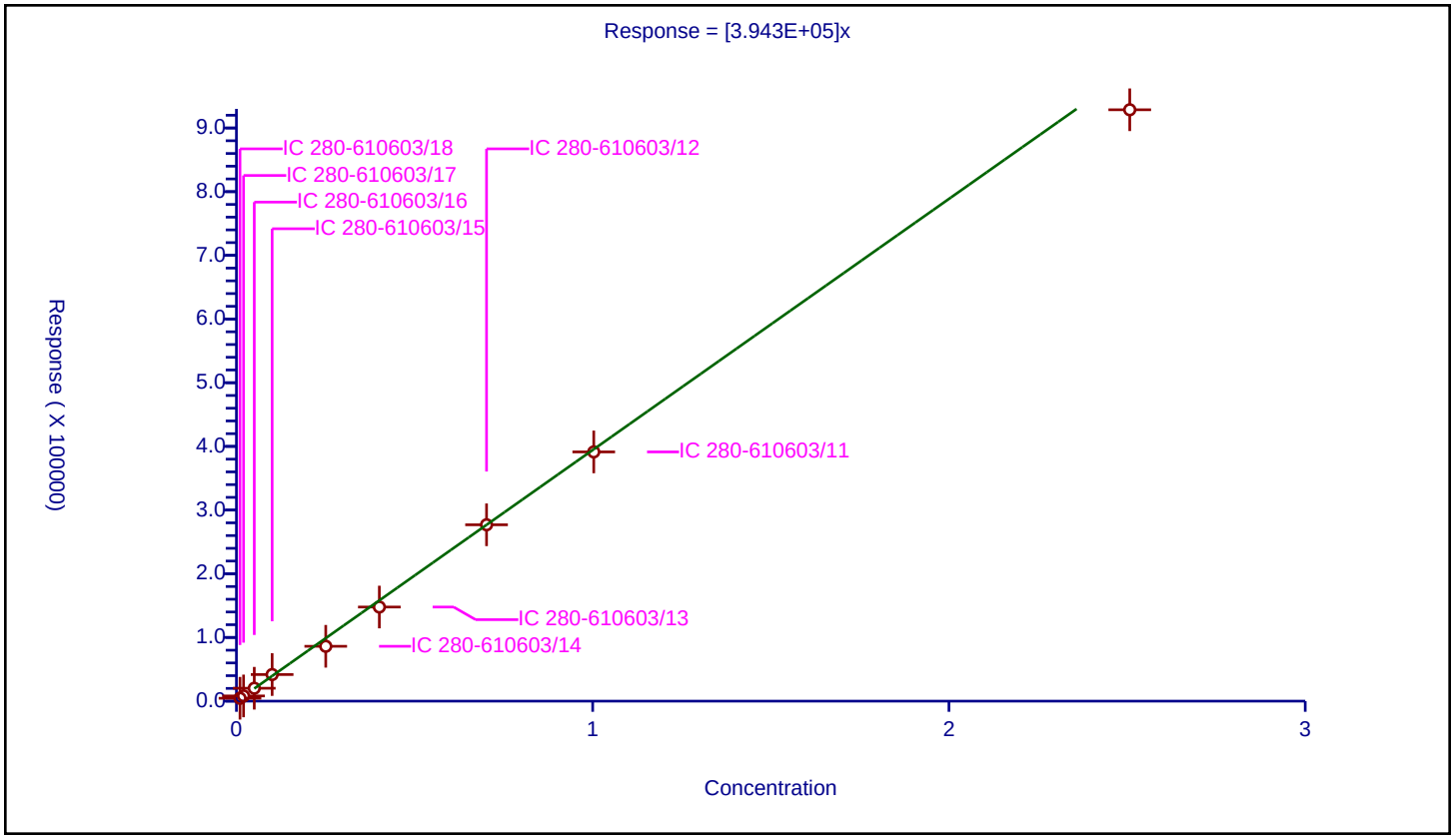
Curve Coefficients

Intercept:	0
Slope:	3.943E+05

Error Coefficients

Standard Error:	22100
Relative Standard Error:	8.1
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.991

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-610603/18	0.01003	4552.0			453838.484546	Y
2	IC 280-610603/17	0.02006	8179.0			407726.819541	Y
3	IC 280-610603/16	0.05015	20281.0			404406.779661	Y
4	IC 280-610603/15	0.1003	41754.0			416291.12662	Y
5	IC 280-610603/14	0.25075	86123.0			343461.615155	Y
6	IC 280-610603/13	0.4012	147763.0			368302.592223	Y
7	IC 280-610603/12	0.7021	276939.0			394443.811423	Y
8	IC 280-610603/11	1.003	391357.0			390186.440678	Y
9	IC 280-610603/10	2.5075	928605.0			370331.006979	Y



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

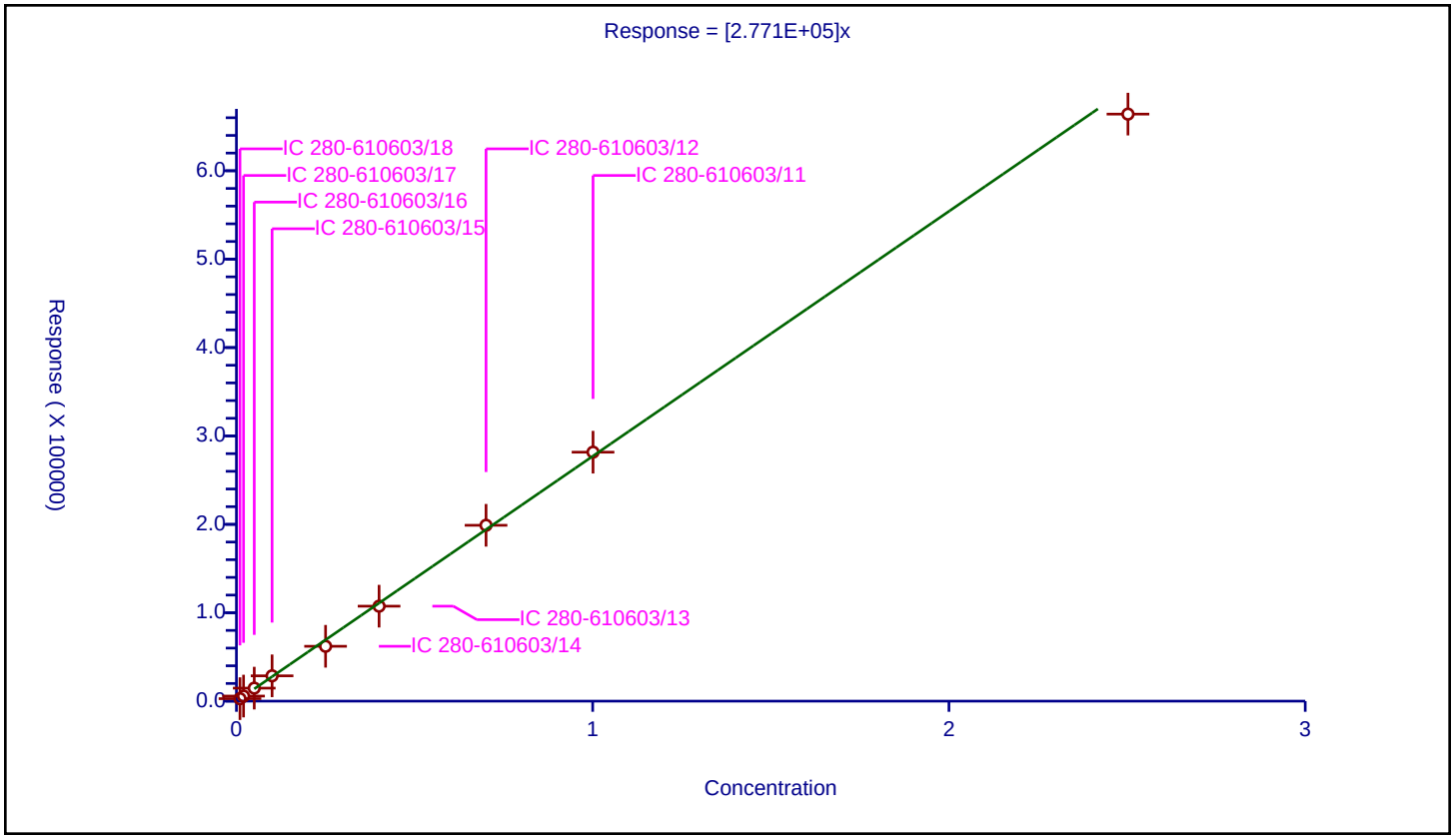
Curve Coefficients

Intercept:	0
Slope:	2.771E+05

Error Coefficients

Standard Error:	11000
Relative Standard Error:	5.1
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-610603/18	0.01001	2804.0			280119.88012	Y
2	IC 280-610603/17	0.02002	5728.0			286113.886114	Y
3	IC 280-610603/16	0.05005	14733.0			294365.634366	Y
4	IC 280-610603/15	0.1001	28641.0			286123.876124	Y
5	IC 280-610603/14	0.25025	62056.0			247976.023976	Y
6	IC 280-610603/13	0.4004	107420.0			268281.718282	Y
7	IC 280-610603/12	0.7007	198949.0			283928.928215	Y
8	IC 280-610603/11	1.001	281655.0			281373.626374	Y
9	IC 280-610603/10	2.5025	664081.0			265367.032967	Y



Calibration / HMX

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

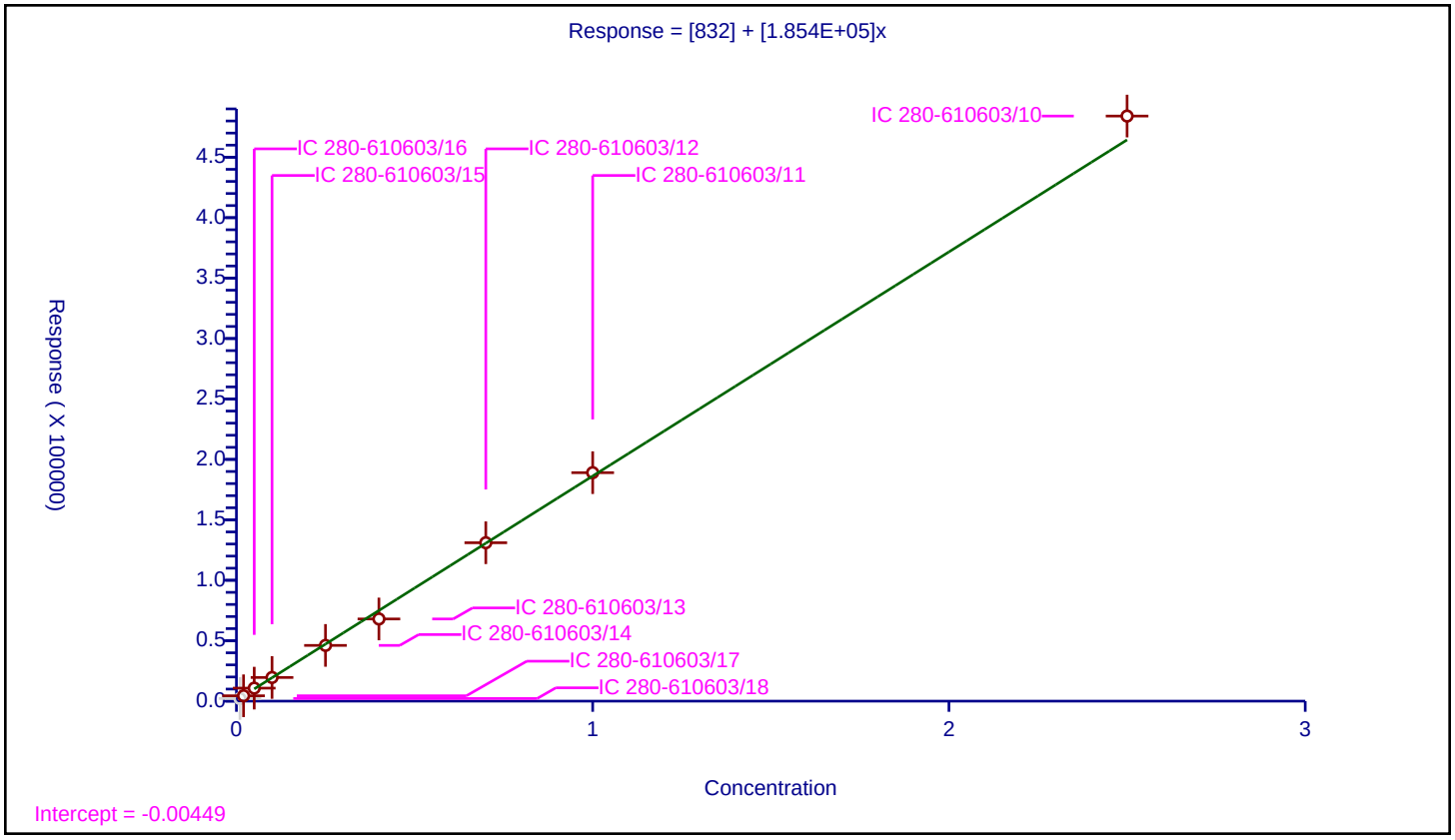
Curve Coefficients

Intercept:	832
Slope:	1.854E+05

Error Coefficients

Standard Error:	8620
Relative Standard Error:	5.4
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-610603/18	0.01	2178.0			217800.0	N
2	IC 280-610603/17	0.02	4449.0			222450.0	Y
3	IC 280-610603/16	0.05	10761.0			215220.0	Y
4	IC 280-610603/15	0.1	19573.0			195730.0	Y
5	IC 280-610603/14	0.25	46110.0			184440.0	Y
6	IC 280-610603/13	0.4	67993.0			169982.5	Y
7	IC 280-610603/12	0.7	131068.0			187240.0	Y
8	IC 280-610603/11	1.0	189027.0			189027.0	Y
9	IC 280-610603/10	2.5	484081.0			193632.4	Y



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

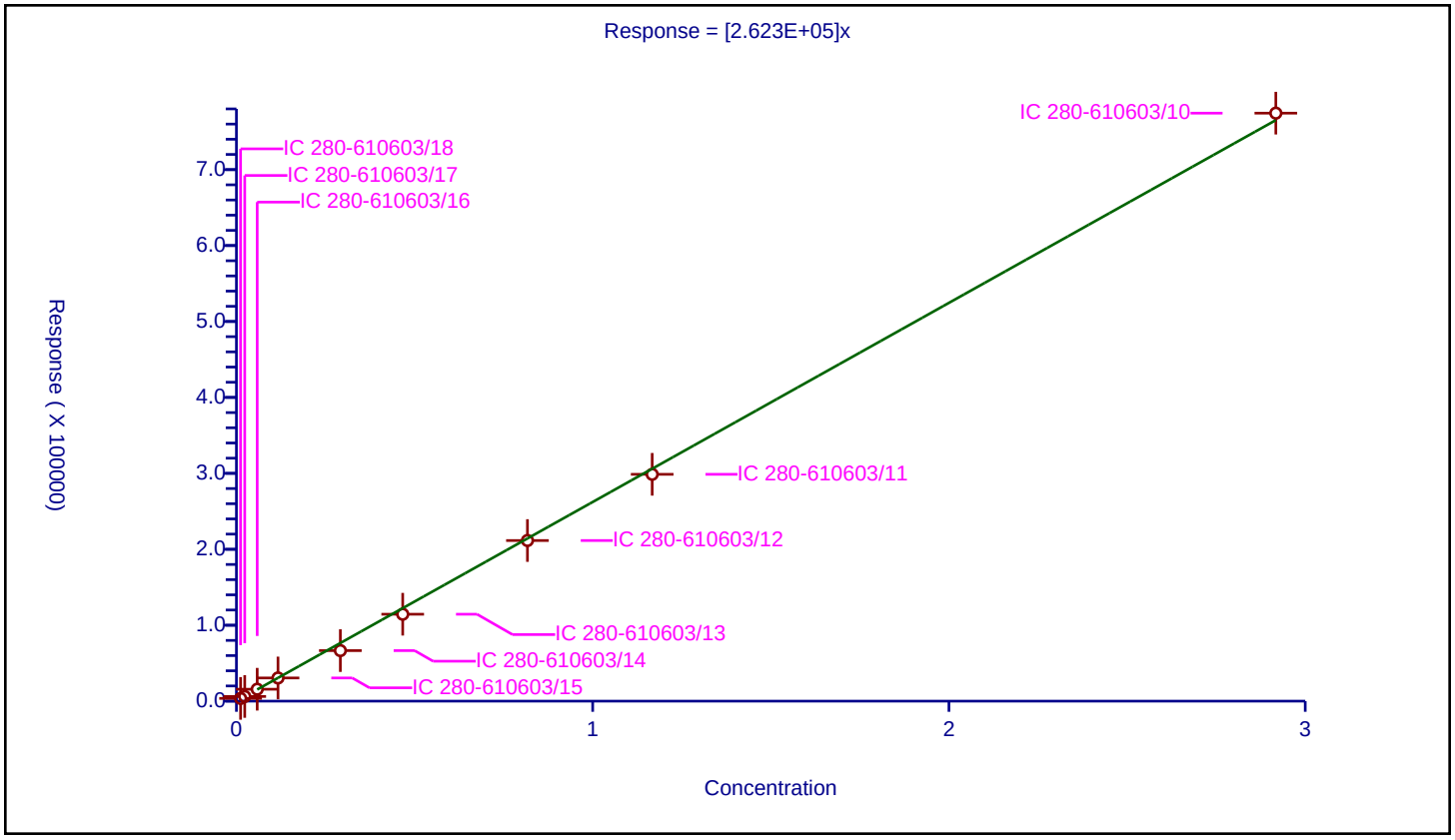
Curve Coefficients

Intercept:	0
Slope:	2.623E+05

Error Coefficients

Standard Error:	6210
Relative Standard Error:	8.6
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.990

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-610603/18	0.01167	3646.0			312425.021422	Y
2	IC 280-610603/17	0.02334	6155.0			263710.368466	Y
3	IC 280-610603/16	0.05835	15694.0			268963.153385	Y
4	IC 280-610603/15	0.1167	30530.0			261610.968295	Y
5	IC 280-610603/14	0.29175	66549.0			228102.827763	Y
6	IC 280-610603/13	0.4668	114487.0			245259.211654	Y
7	IC 280-610603/12	0.8169	211518.0			258927.653324	Y
8	IC 280-610603/11	1.167	298731.0			255982.005141	Y
9	IC 280-610603/10	2.9175	774370.0			265422.450728	Y



Calibration / 2,4,6-Trinitrophenol

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

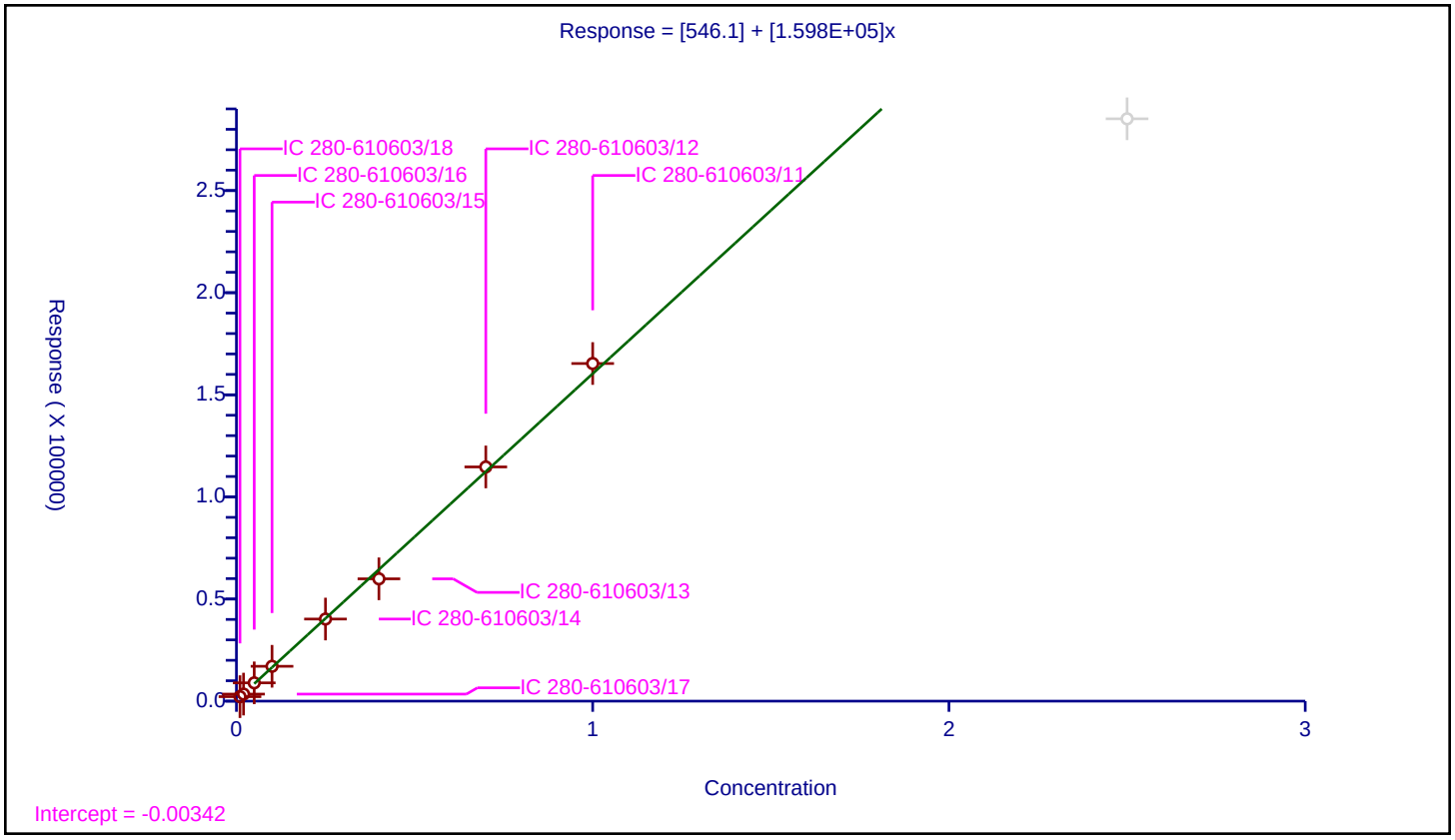
Curve Coefficients

Intercept:	546.1
Slope:	1.598E+05

Error Coefficients

Standard Error:	2930
Relative Standard Error:	5.7
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-610603/18	0.01	2197.0			219700.0	Y
2	IC 280-610603/17	0.02	3453.0			172650.0	Y
3	IC 280-610603/16	0.05	8950.0			179000.0	Y
4	IC 280-610603/15	0.1	17060.0			170600.0	Y
5	IC 280-610603/14	0.25	40202.0			160808.0	Y
6	IC 280-610603/13	0.4	59892.0			149730.0	Y
7	IC 280-610603/12	0.7	114679.0			163827.142857	Y
8	IC 280-610603/11	1.0	165319.0			165319.0	Y
9	IC 280-610603/10	2.5	285146.0			114058.4	N



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Calibration / RDX

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

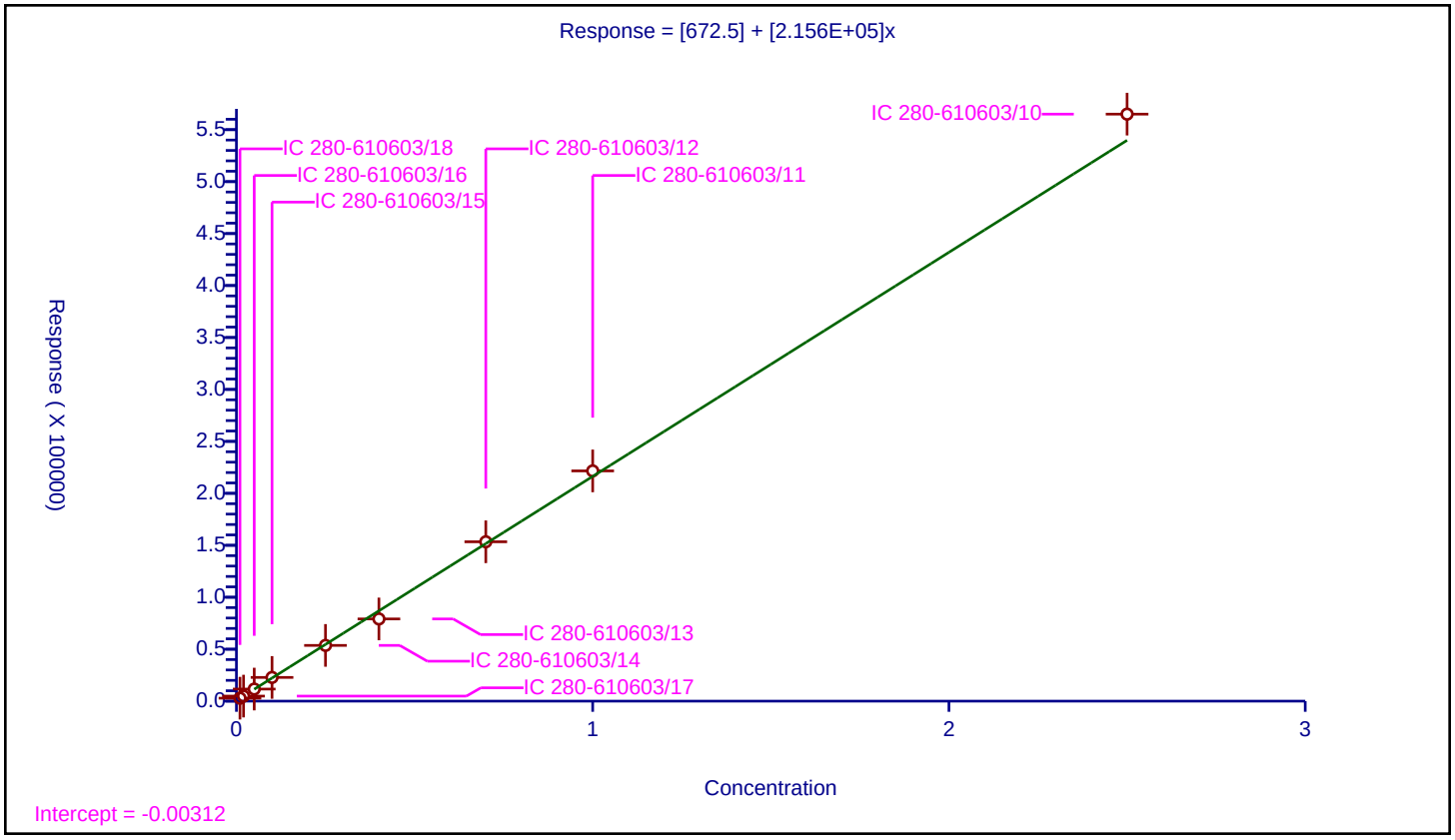
Curve Coefficients

Intercept:	672.5
Slope:	2.156E+05

Error Coefficients

Standard Error:	10200
Relative Standard Error:	4.4
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-610603/18	0.01	2852.0			285200.0	Y
2	IC 280-610603/17	0.02	4863.0			243150.0	Y
3	IC 280-610603/16	0.05	11621.0			232420.0	Y
4	IC 280-610603/15	0.1	22827.0			228270.0	Y
5	IC 280-610603/14	0.25	53643.0			214572.0	Y
6	IC 280-610603/13	0.4	79113.0			197782.5	Y
7	IC 280-610603/12	0.7	153380.0			219114.285714	Y
8	IC 280-610603/11	1.0	221588.0			221588.0	Y
9	IC 280-610603/10	2.5	564953.0			225981.2	Y



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Calibration / Nitrobenzene

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

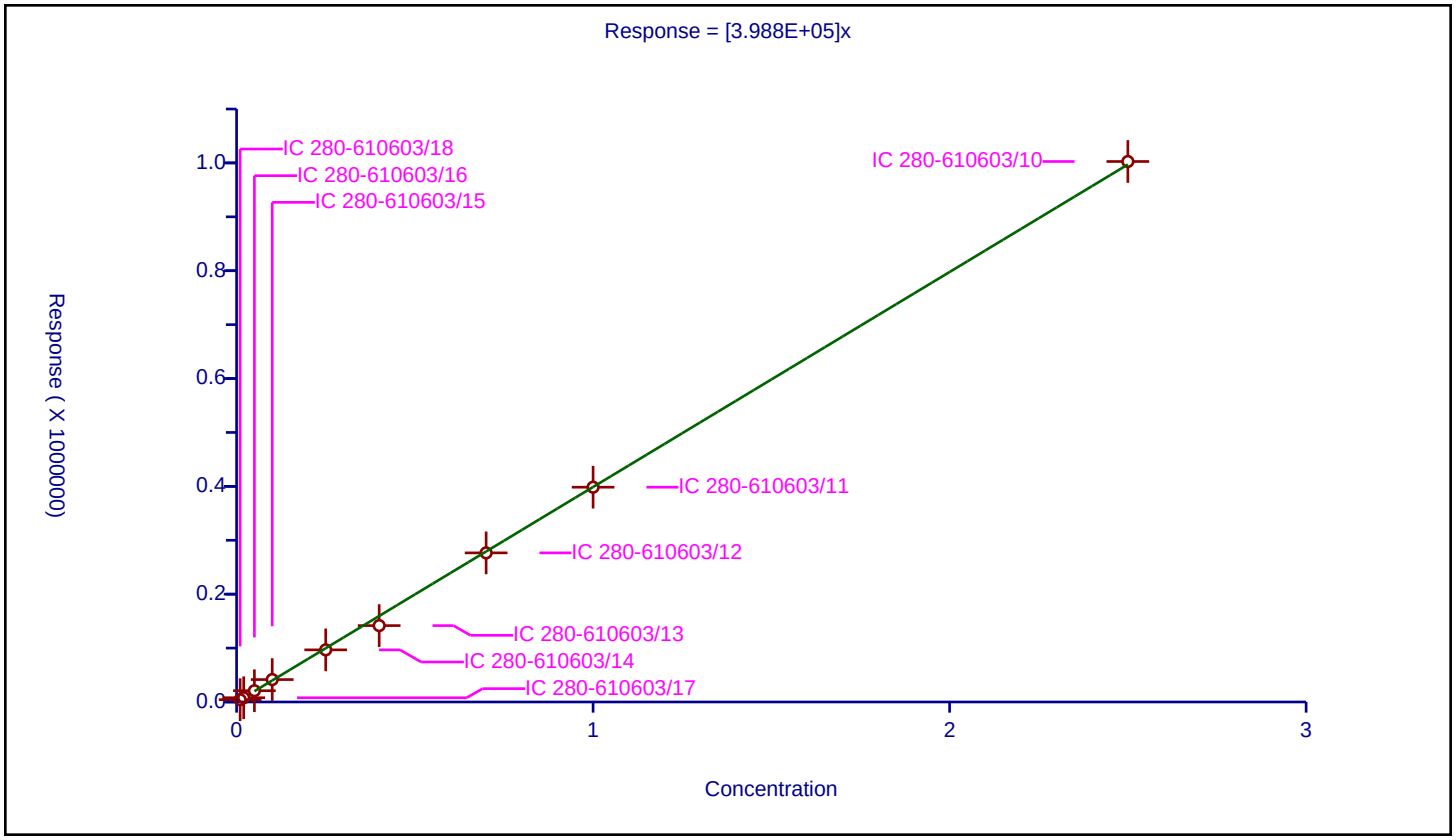
Curve Coefficients

Intercept:	0
Slope:	3.988E+05

Error Coefficients

Standard Error:	6800
Relative Standard Error:	5.3
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-610603/18	0.01	4269.0			426900.0	Y
2	IC 280-610603/17	0.02	7871.0			393550.0	Y
3	IC 280-610603/16	0.05	20883.0			417660.0	Y
4	IC 280-610603/15	0.1	41585.0			415850.0	Y
5	IC 280-610603/14	0.25	96681.0			386724.0	Y
6	IC 280-610603/13	0.4	141679.0			354197.5	Y
7	IC 280-610603/12	0.7	276577.0			395110.0	Y
8	IC 280-610603/11	1.0	398454.0			398454.0	Y
9	IC 280-610603/10	2.5	1002641.0			401056.4	Y



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Calibration / 1,2-Dinitrobenzene

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

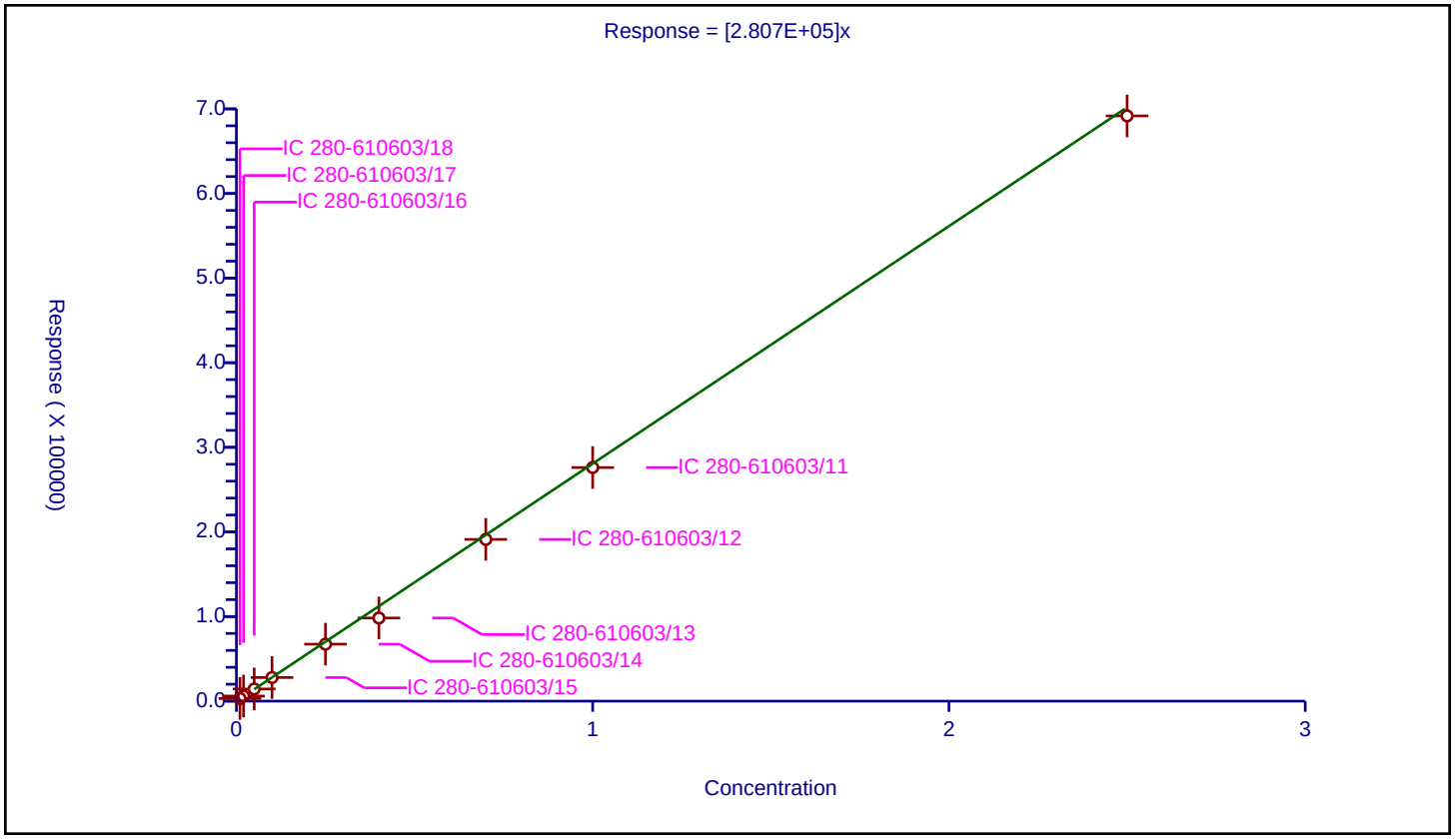
Curve Coefficients

Intercept:	0
Slope:	2.807E+05

Error Coefficients

Standard Error:	6660
Relative Standard Error:	7.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.993

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-610603/18	0.01	3169.0			316900.0	Y
2	IC 280-610603/17	0.02	6038.0			301900.0	Y
3	IC 280-610603/16	0.05	14379.0			287580.0	Y
4	IC 280-610603/15	0.1	27893.0			278930.0	Y
5	IC 280-610603/14	0.25	67346.0			269384.0	Y
6	IC 280-610603/13	0.4	98279.0			245697.5	Y
7	IC 280-610603/12	0.7	191173.0			273104.285714	Y
8	IC 280-610603/11	1.0	276103.0			276103.0	Y
9	IC 280-610603/10	2.5	691686.0			276674.4	Y



Calibration / 3,5-Dinitroaniline

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

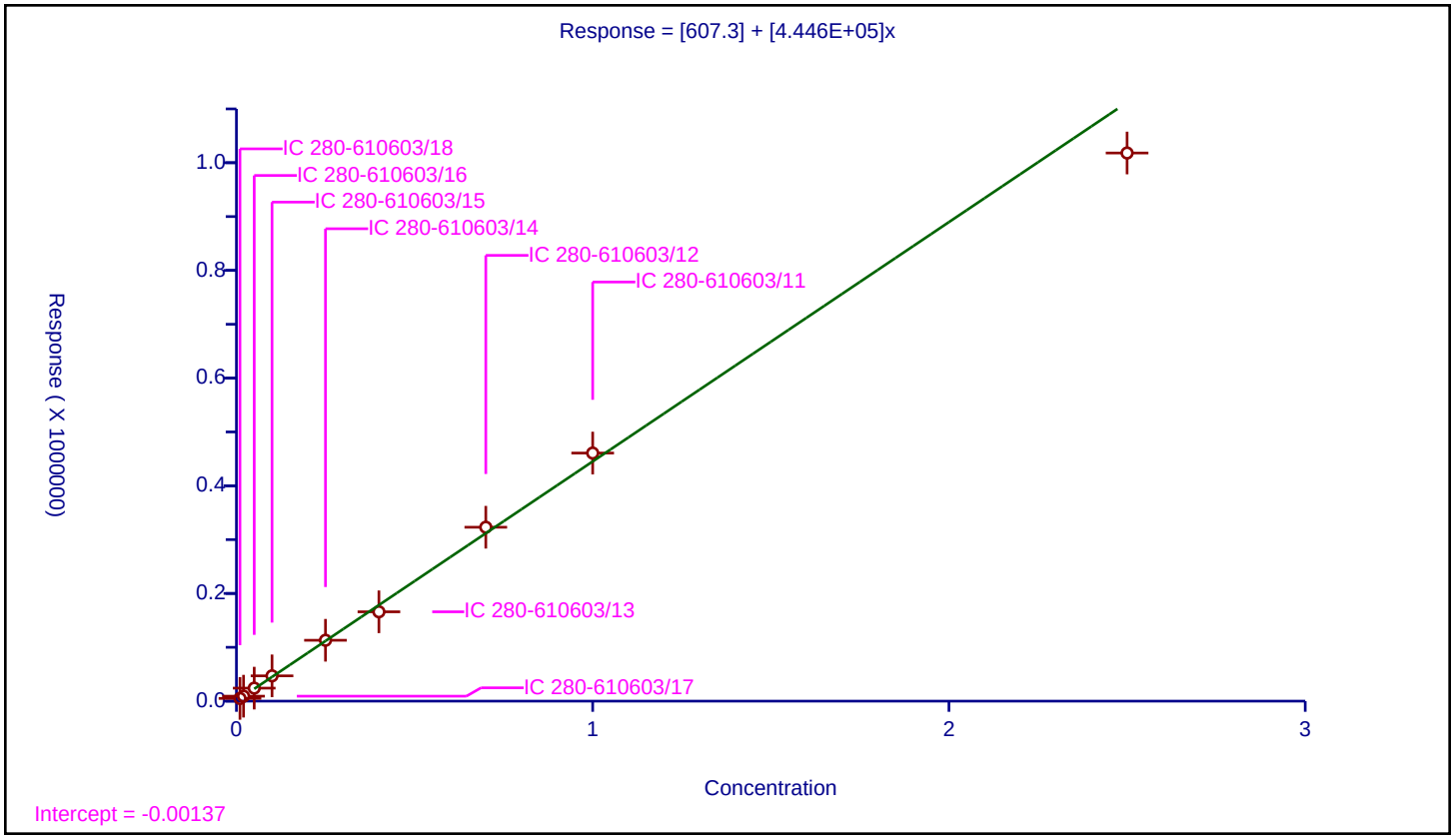
Curve Coefficients

Intercept:	607.3
Slope:	4.446E+05

Error Coefficients

Standard Error:	36600
Relative Standard Error:	5.5
Correlation Coefficient:	0.997
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-610603/18	0.01	5053.0			505300.0	Y
2	IC 280-610603/17	0.02	9221.0			461050.0	Y
3	IC 280-610603/16	0.05	24176.0			483520.0	Y
4	IC 280-610603/15	0.1	46980.0			469800.0	Y
5	IC 280-610603/14	0.25	113054.0			452216.0	Y
6	IC 280-610603/13	0.4	165924.0			414810.0	Y
7	IC 280-610603/12	0.7	322983.0			461404.285714	Y
8	IC 280-610603/11	1.0	460771.0			460771.0	Y
9	IC 280-610603/10	2.5	1018070.0			407228.0	Y



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Calibration / 1,3-Dinitrobenzene

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

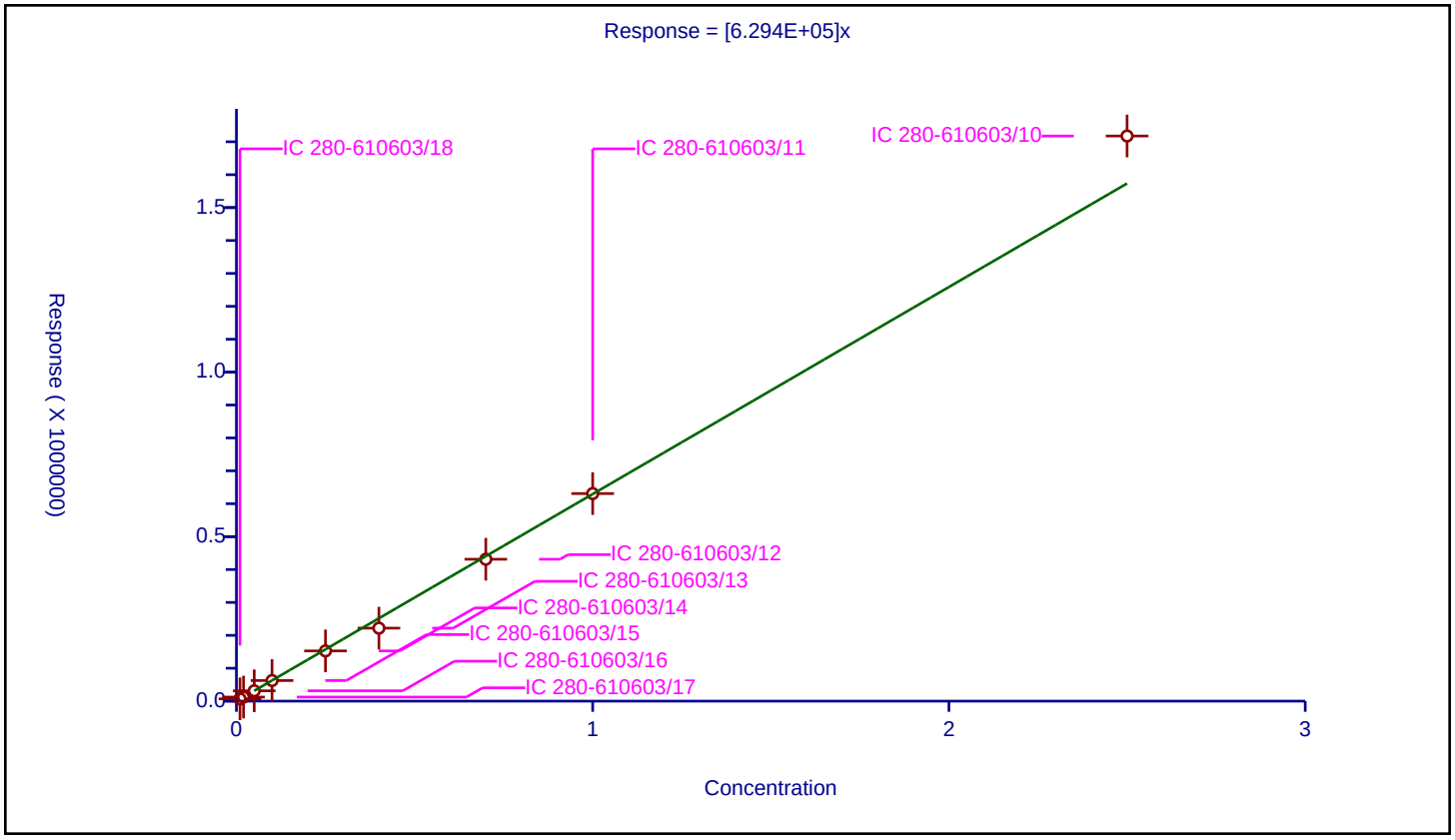
Curve Coefficients

Intercept:	0
Slope:	6.294E+05

Error Coefficients

Standard Error:	52200
Relative Standard Error:	6.6
Correlation Coefficient:	0.998
Coefficient of Determination (Adjusted):	0.994

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-610603/18	0.01	6946.0			694600.0	Y
2	IC 280-610603/17	0.02	12307.0			615350.0	Y
3	IC 280-610603/16	0.05	31459.0			629180.0	Y
4	IC 280-610603/15	0.1	62596.0			625960.0	Y
5	IC 280-610603/14	0.25	152658.0			610632.0	Y
6	IC 280-610603/13	0.4	221798.0			554495.0	Y
7	IC 280-610603/12	0.7	431248.0			616068.571429	Y
8	IC 280-610603/11	1.0	630835.0			630835.0	Y
9	IC 280-610603/10	2.5	1717605.0			687042.0	Y



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

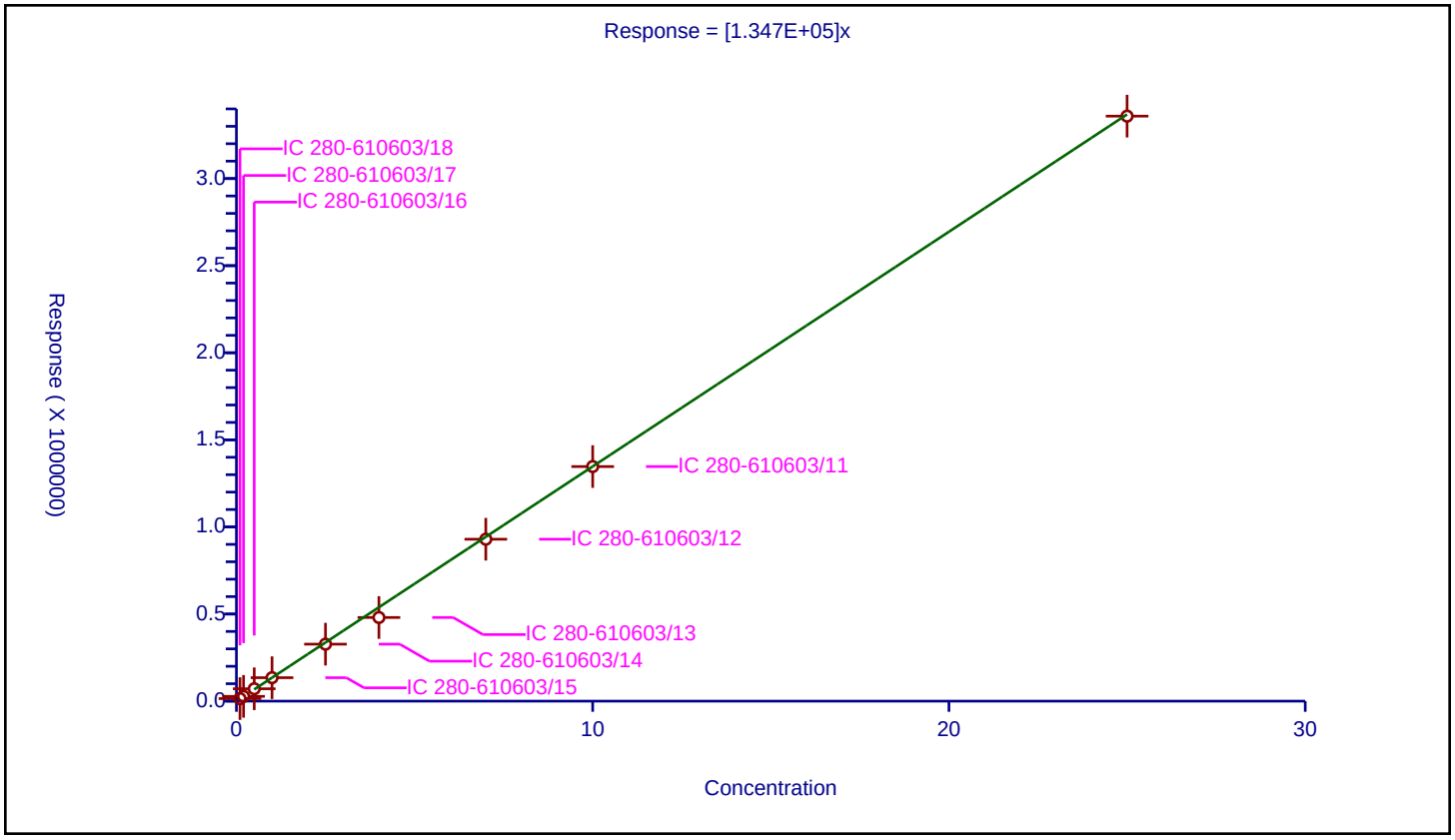
Curve Coefficients

Intercept:	0
Slope:	1.347E+05

Error Coefficients

Standard Error:	21900
Relative Standard Error:	5.4
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-610603/18	0.1	14603.0			146030.0	Y
2	IC 280-610603/17	0.2	27409.0			137045.0	Y
3	IC 280-610603/16	0.5	71084.0			142168.0	Y
4	IC 280-610603/15	1.0	134661.0			134661.0	Y
5	IC 280-610603/14	2.5	327195.0			130878.0	Y
6	IC 280-610603/13	4.0	480119.0			120029.75	Y
7	IC 280-610603/12	7.0	929634.0			132804.857143	Y
8	IC 280-610603/11	10.0	1346659.0			134665.9	Y
9	IC 280-610603/10	25.0	3358347.0			134333.88	Y



Calibration / o-Nitrotoluene

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

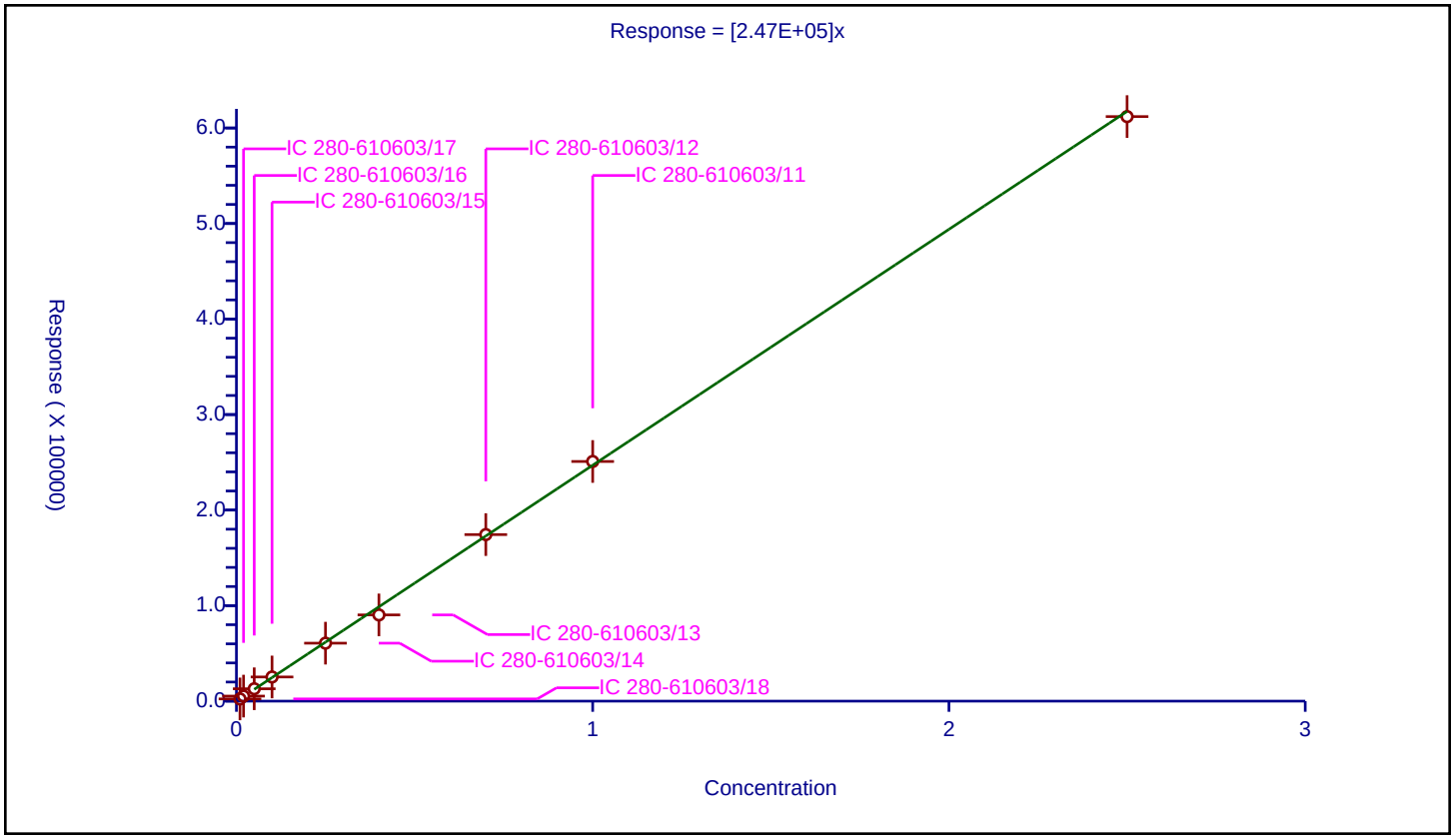
Curve Coefficients

Intercept:	0
Slope:	2.47E+05

Error Coefficients

Standard Error:	3910
Relative Standard Error:	4.8
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-610603/18	0.01	2336.0			233600.0	Y
2	IC 280-610603/17	0.02	5281.0			264050.0	Y
3	IC 280-610603/16	0.05	12951.0			259020.0	Y
4	IC 280-610603/15	0.1	25290.0			252900.0	Y
5	IC 280-610603/14	0.25	60674.0			242696.0	Y
6	IC 280-610603/13	0.4	90266.0			225665.0	Y
7	IC 280-610603/12	0.7	174353.0			249075.714286	Y
8	IC 280-610603/11	1.0	250892.0			250892.0	Y
9	IC 280-610603/10	2.5	611929.0			244771.6	Y



Calibration / p-Nitrotoluene

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

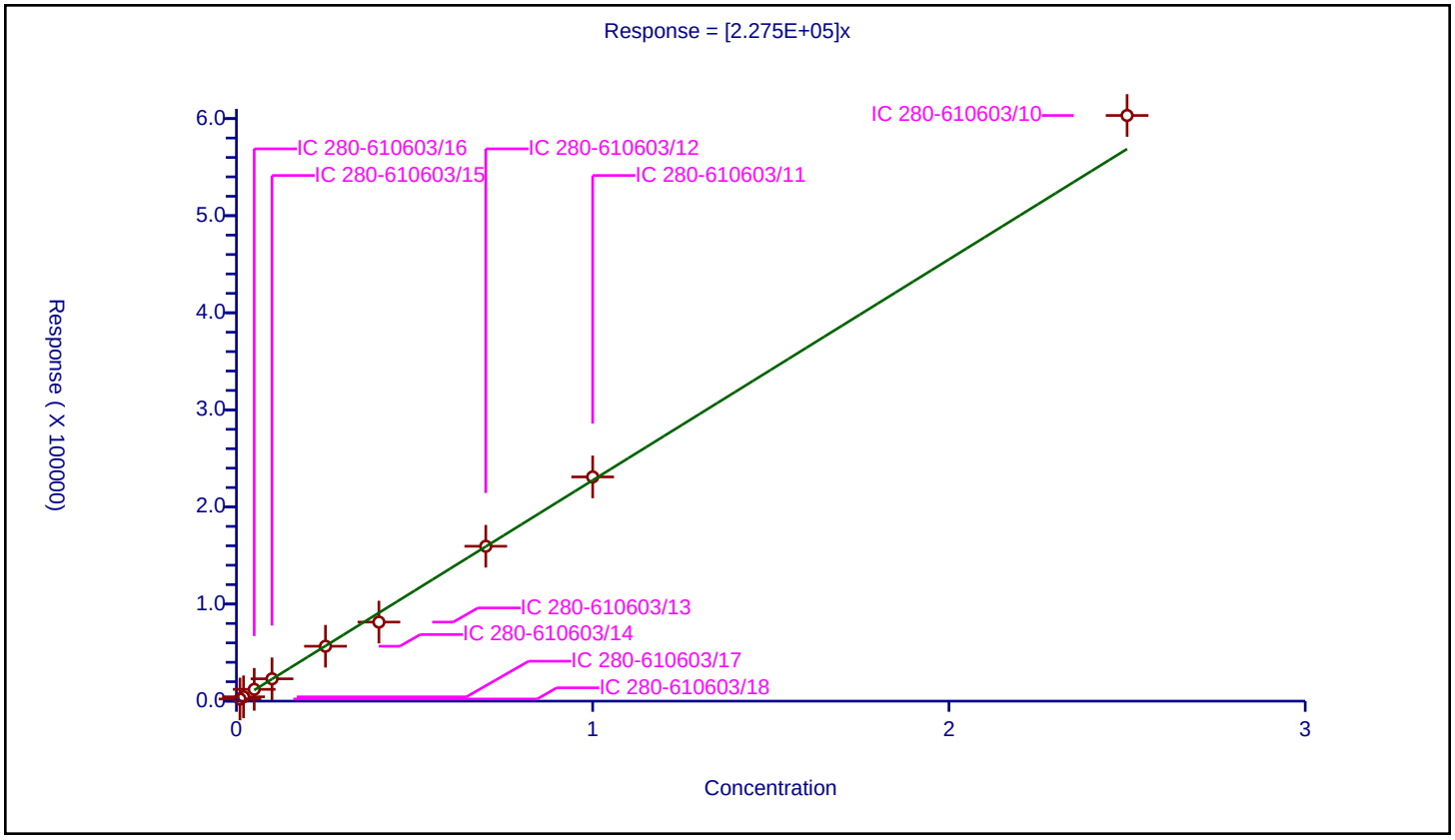
Curve Coefficients

Intercept:	0
Slope:	2.275E+05

Error Coefficients

Standard Error:	12700
Relative Standard Error:	5.2
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-610603/18	0.01	2206.0			220600.0	Y
2	IC 280-610603/17	0.02	4466.0			223300.0	Y
3	IC 280-610603/16	0.05	12179.0			243580.0	Y
4	IC 280-610603/15	0.1	23002.0			230020.0	Y
5	IC 280-610603/14	0.25	56555.0			226220.0	Y
6	IC 280-610603/13	0.4	81428.0			203570.0	Y
7	IC 280-610603/12	0.7	159520.0			227885.714286	Y
8	IC 280-610603/11	1.0	230951.0			230951.0	Y
9	IC 280-610603/10	2.5	603215.0			241286.0	Y



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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

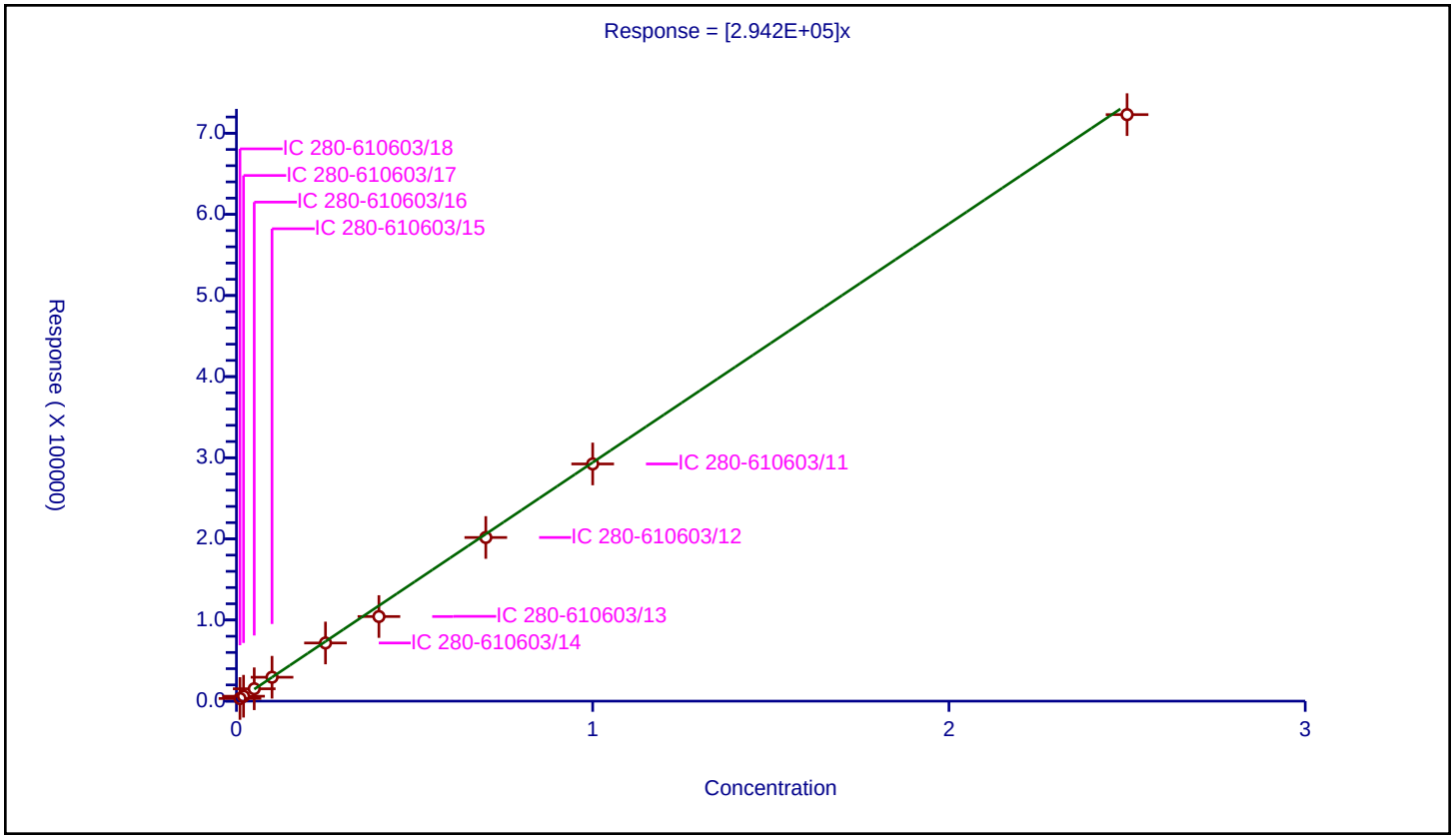
Curve Coefficients

Intercept:	0
Slope:	2.942E+05

Error Coefficients

Standard Error:	6740
Relative Standard Error:	6.1
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.995

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-610603/18	0.01	3275.0			327500.0	Y
2	IC 280-610603/17	0.02	6064.0			303200.0	Y
3	IC 280-610603/16	0.05	15265.0			305300.0	Y
4	IC 280-610603/15	0.1	29472.0			294720.0	Y
5	IC 280-610603/14	0.25	71678.0			286712.0	Y
6	IC 280-610603/13	0.4	104292.0			260730.0	Y
7	IC 280-610603/12	0.7	201729.0			288184.285714	Y
8	IC 280-610603/11	1.0	292369.0			292369.0	Y
9	IC 280-610603/10	2.5	722940.0			289176.0	Y



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Calibration / m-Nitrotoluene

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

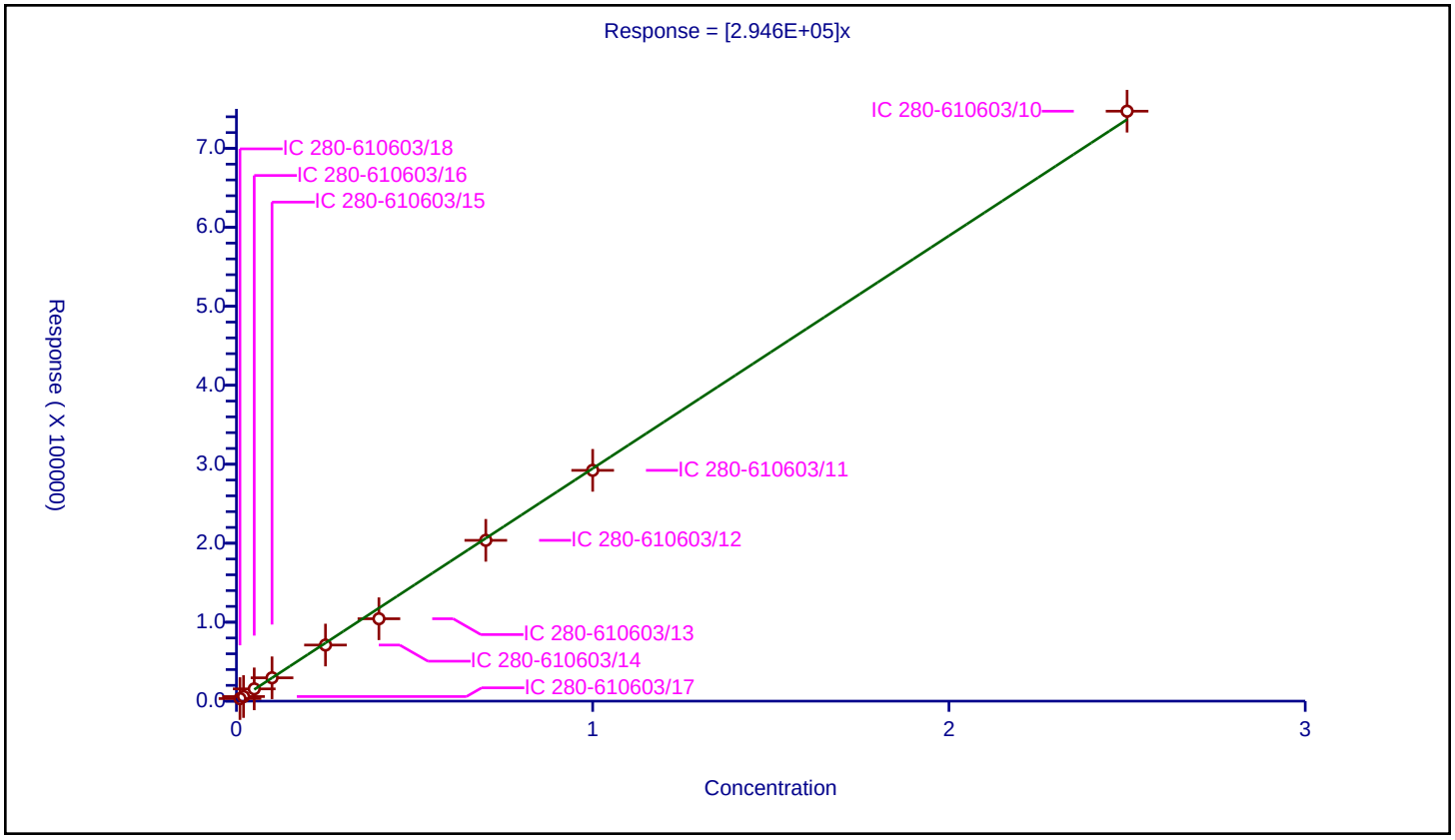
Curve Coefficients

Intercept:	0
Slope:	2.946E+05

Error Coefficients

Standard Error:	6260
Relative Standard Error:	6.1
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.995

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-610603/18	0.01	3269.0			326900.0	Y
2	IC 280-610603/17	0.02	5823.0			291150.0	Y
3	IC 280-610603/16	0.05	15546.0			310920.0	Y
4	IC 280-610603/15	0.1	29569.0			295690.0	Y
5	IC 280-610603/14	0.25	71041.0			284164.0	Y
6	IC 280-610603/13	0.4	104338.0			260845.0	Y
7	IC 280-610603/12	0.7	203644.0			290920.0	Y
8	IC 280-610603/11	1.0	292277.0			292277.0	Y
9	IC 280-610603/10	2.5	747102.0			298840.8	Y



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Calibration / 2-Amino-4,6-dinitrotoluene

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

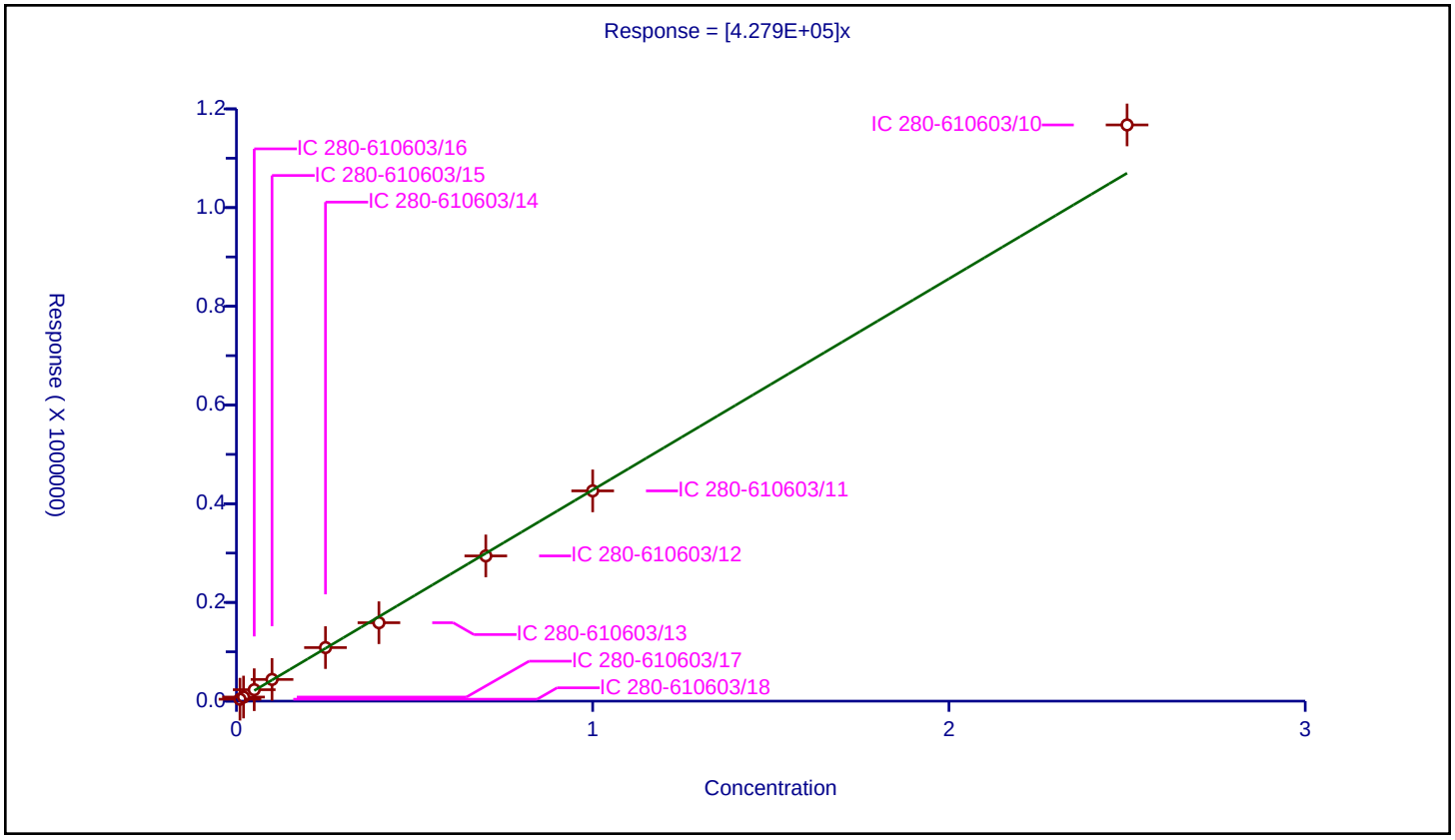
Curve Coefficients

Intercept:	0
Slope:	4.279E+05

Error Coefficients

Standard Error:	34900
Relative Standard Error:	6.1
Correlation Coefficient:	0.998
Coefficient of Determination (Adjusted):	0.995

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-610603/18	0.01	3912.0			391200.0	Y
2	IC 280-610603/17	0.02	8257.0			412850.0	Y
3	IC 280-610603/16	0.05	23162.0			463240.0	Y
4	IC 280-610603/15	0.1	43948.0			439480.0	Y
5	IC 280-610603/14	0.25	108505.0			434020.0	Y
6	IC 280-610603/13	0.4	158919.0			397297.5	Y
7	IC 280-610603/12	0.7	294250.0			420357.142857	Y
8	IC 280-610603/11	1.0	426004.0			426004.0	Y
9	IC 280-610603/10	2.5	1167517.0			467006.8	Y



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

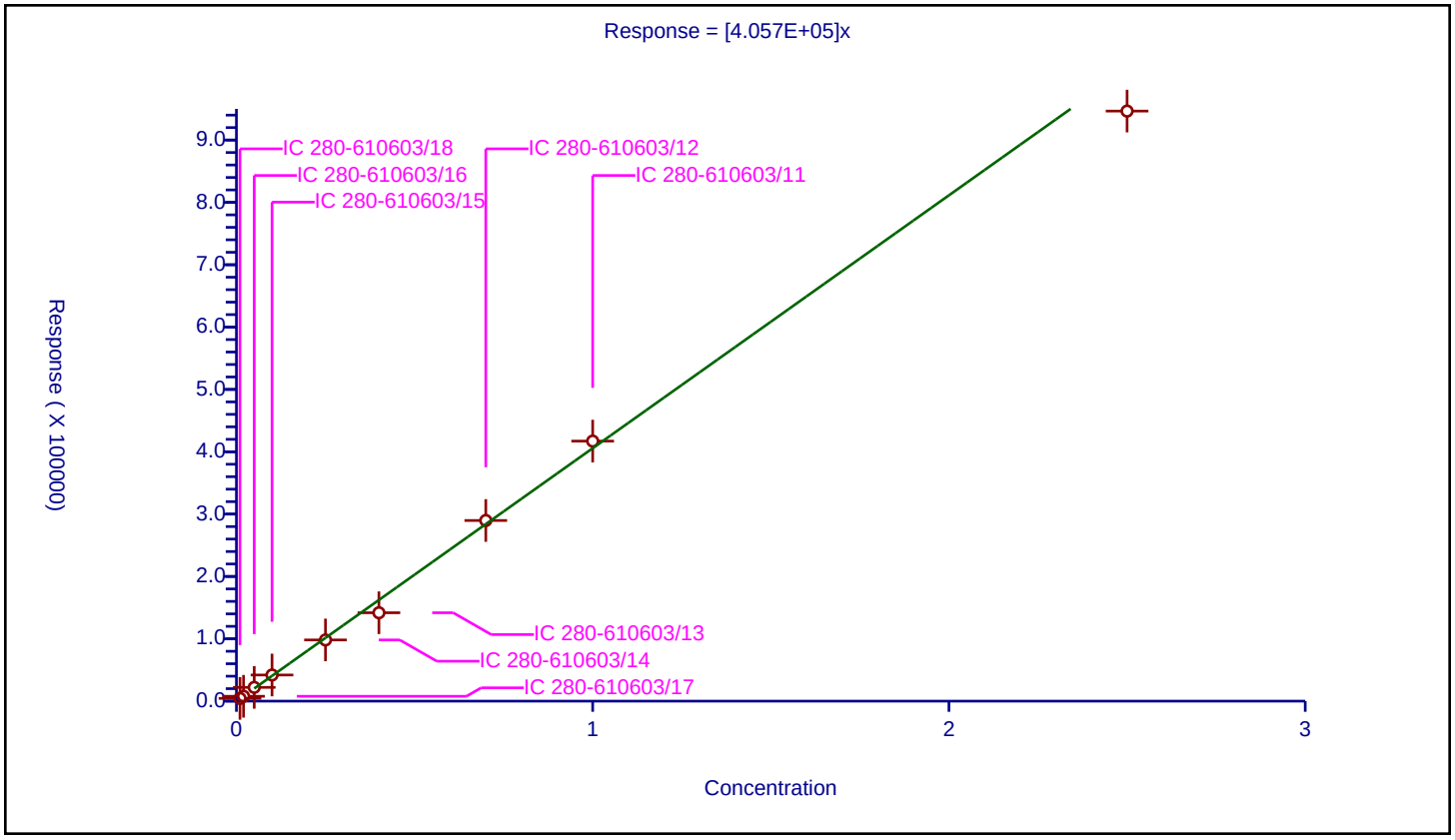
Curve Coefficients

Intercept:	0
Slope:	4.057E+05

Error Coefficients

Standard Error:	25500
Relative Standard Error:	7.2
Correlation Coefficient:	0.998
Coefficient of Determination (Adjusted):	0.993

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-610603/18	0.01	4438.0			443800.0	Y
2	IC 280-610603/17	0.02	7799.0			389950.0	Y
3	IC 280-610603/16	0.05	22059.0			441180.0	Y
4	IC 280-610603/15	0.1	41946.0			419460.0	Y
5	IC 280-610603/14	0.25	98168.0			392672.0	Y
6	IC 280-610603/13	0.4	141795.0			354487.5	Y
7	IC 280-610603/12	0.7	289774.0			413962.857143	Y
8	IC 280-610603/11	1.0	417113.0			417113.0	Y
9	IC 280-610603/10	2.5	946516.0			378606.4	Y



Calibration / 2,6-Dinitrotoluene

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

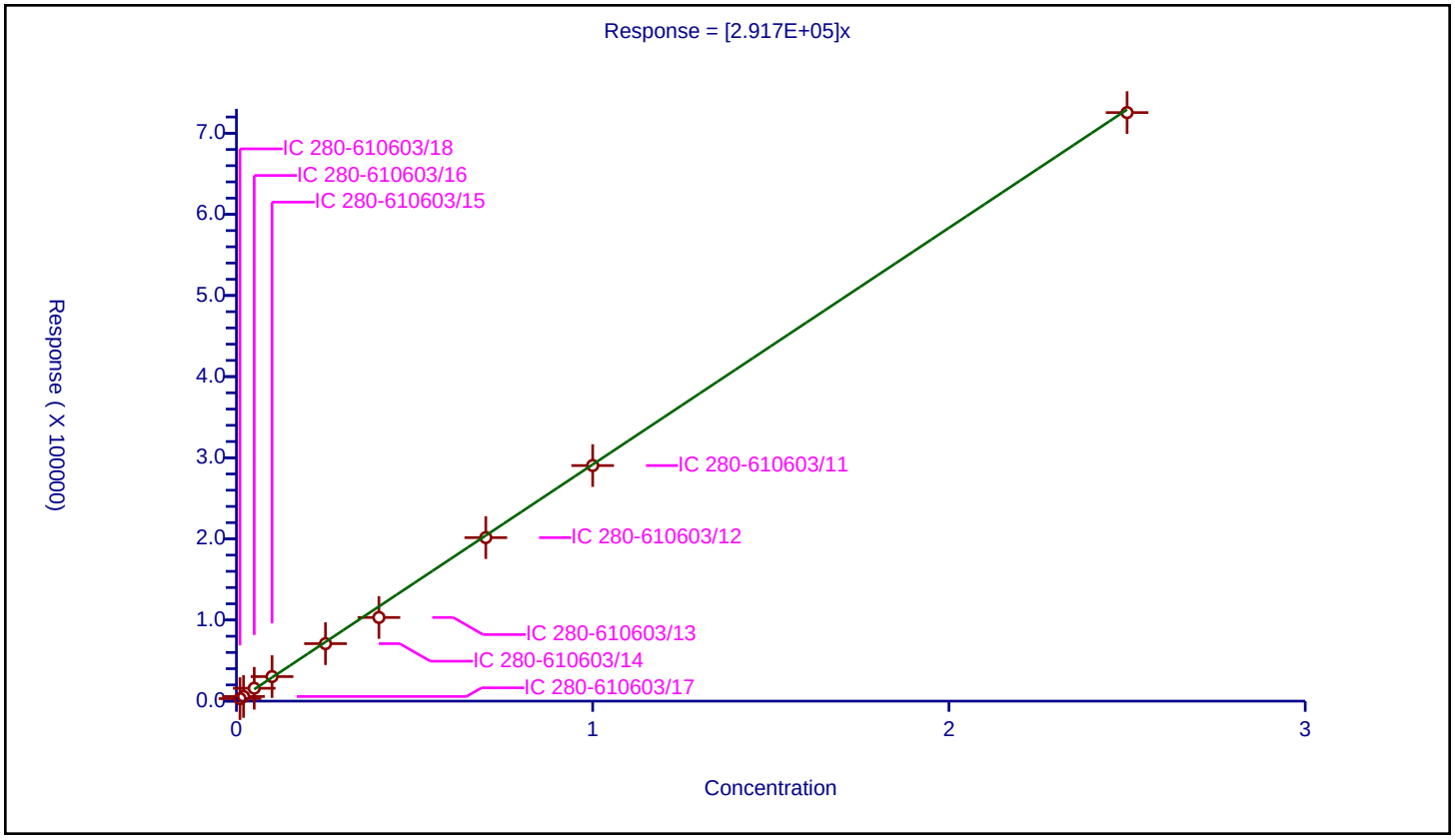
Curve Coefficients

Intercept:	0
Slope:	2.917E+05

Error Coefficients

Standard Error:	5150
Relative Standard Error:	5.9
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.995

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-610603/18	0.01	3093.0			309300.0	Y
2	IC 280-610603/17	0.02	5716.0			285800.0	Y
3	IC 280-610603/16	0.05	15876.0			317520.0	Y
4	IC 280-610603/15	0.1	30260.0			302600.0	Y
5	IC 280-610603/14	0.25	70868.0			283472.0	Y
6	IC 280-610603/13	0.4	103148.0			257870.0	Y
7	IC 280-610603/12	0.7	201554.0			287934.285714	Y
8	IC 280-610603/11	1.0	290390.0			290390.0	Y
9	IC 280-610603/10	2.5	725476.0			290190.4	Y



Calibration / 2,4-Dinitrotoluene

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

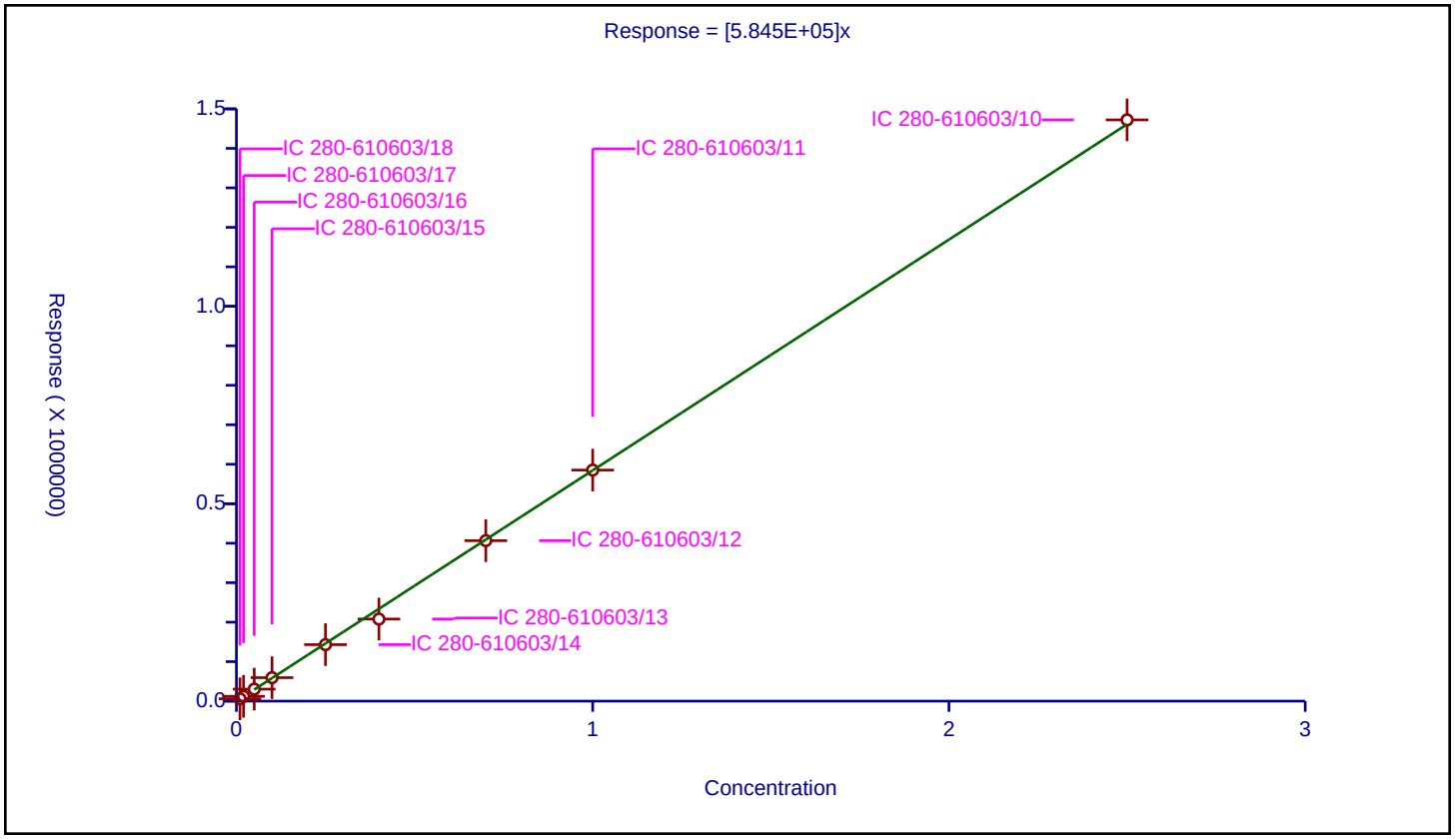
Curve Coefficients

Intercept:	0
Slope:	5.845E+05

Error Coefficients

Standard Error:	10100
Relative Standard Error:	4.7
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-610603/18	0.01	5987.0			598700.0	Y
2	IC 280-610603/17	0.02	12241.0			612050.0	Y
3	IC 280-610603/16	0.05	30407.0			608140.0	Y
4	IC 280-610603/15	0.1	59433.0			594330.0	Y
5	IC 280-610603/14	0.25	143098.0			572392.0	Y
6	IC 280-610603/13	0.4	207937.0			519842.5	Y
7	IC 280-610603/12	0.7	406447.0			580638.571429	Y
8	IC 280-610603/11	1.0	585209.0			585209.0	Y
9	IC 280-610603/10	2.5	1472164.0			588865.6	Y



5/30/2023
10:34 AM

Calibration / Tetryl

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

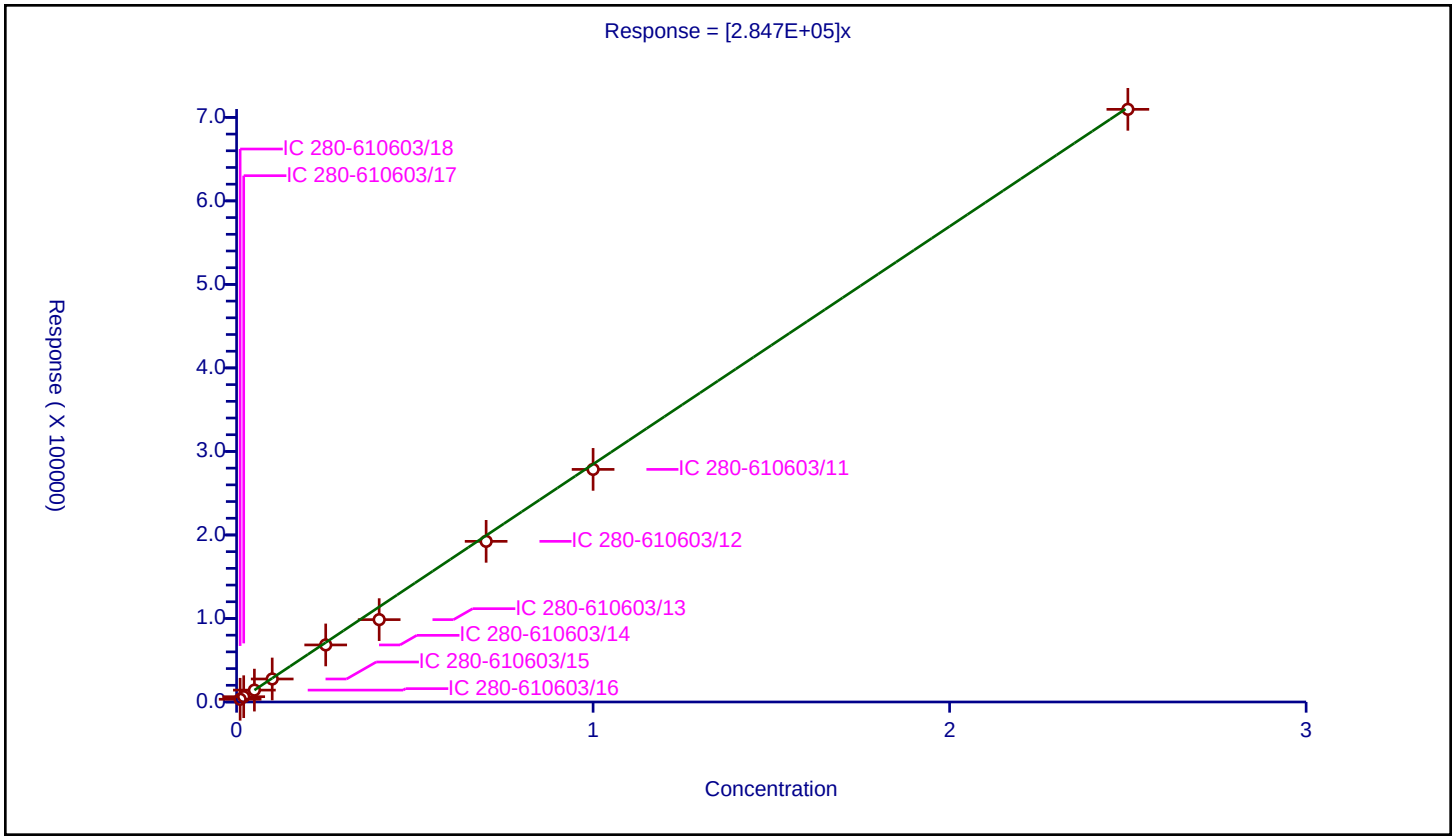
Curve Coefficients

Intercept:	0
Slope:	2.847E+05

Error Coefficients

Standard Error:	6470
Relative Standard Error:	8.6
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.990

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-610603/18	0.01	3282.0			328200.0	Y
2	IC 280-610603/17	0.02	6348.0			317400.0	Y
3	IC 280-610603/16	0.05	14233.0			284660.0	Y
4	IC 280-610603/15	0.1	27534.0			275340.0	Y
5	IC 280-610603/14	0.25	68327.0			273308.0	Y
6	IC 280-610603/13	0.4	98615.0			246537.5	Y
7	IC 280-610603/12	0.7	192352.0			274788.571429	Y
8	IC 280-610603/11	1.0	278494.0			278494.0	Y
9	IC 280-610603/10	2.5	709626.0			283850.4	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

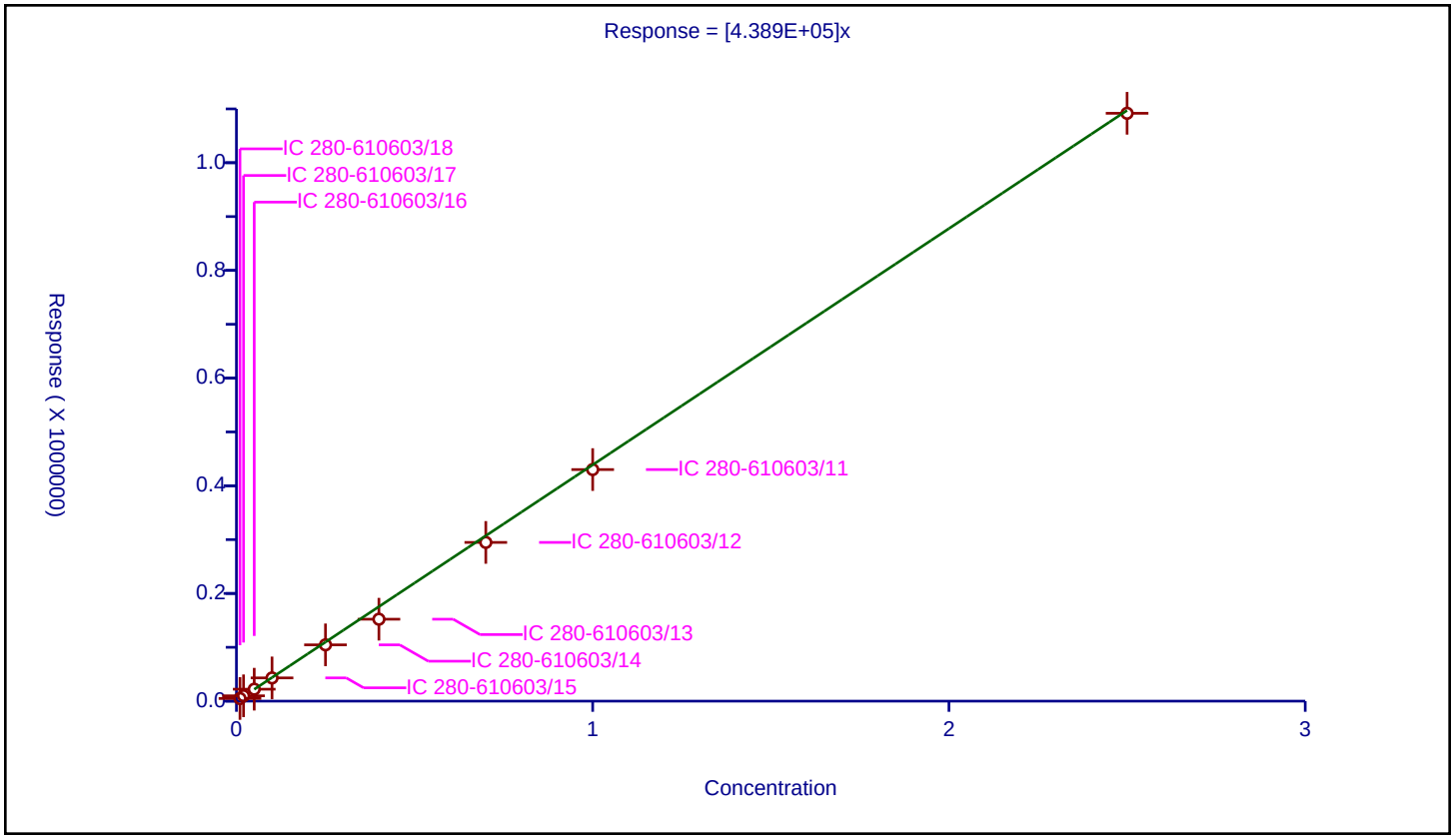
Curve Coefficients

Intercept:	0
Slope:	4.389E+05

Error Coefficients

Standard Error:	10200
Relative Standard Error:	8.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.991

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-610603/18	0.01	4919.0			491900.0	Y
2	IC 280-610603/17	0.02	9925.0			496250.0	Y
3	IC 280-610603/16	0.05	22184.0			443680.0	Y
4	IC 280-610603/15	0.1	43136.0			431360.0	Y
5	IC 280-610603/14	0.25	104561.0			418244.0	Y
6	IC 280-610603/13	0.4	152188.0			380470.0	Y
7	IC 280-610603/12	0.7	294801.0			421144.285714	Y
8	IC 280-610603/11	1.0	430103.0			430103.0	Y
9	IC 280-610603/10	2.5	1091822.0			436728.8	Y



5/30/2023
10:34 AM

Calibration / PETN

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

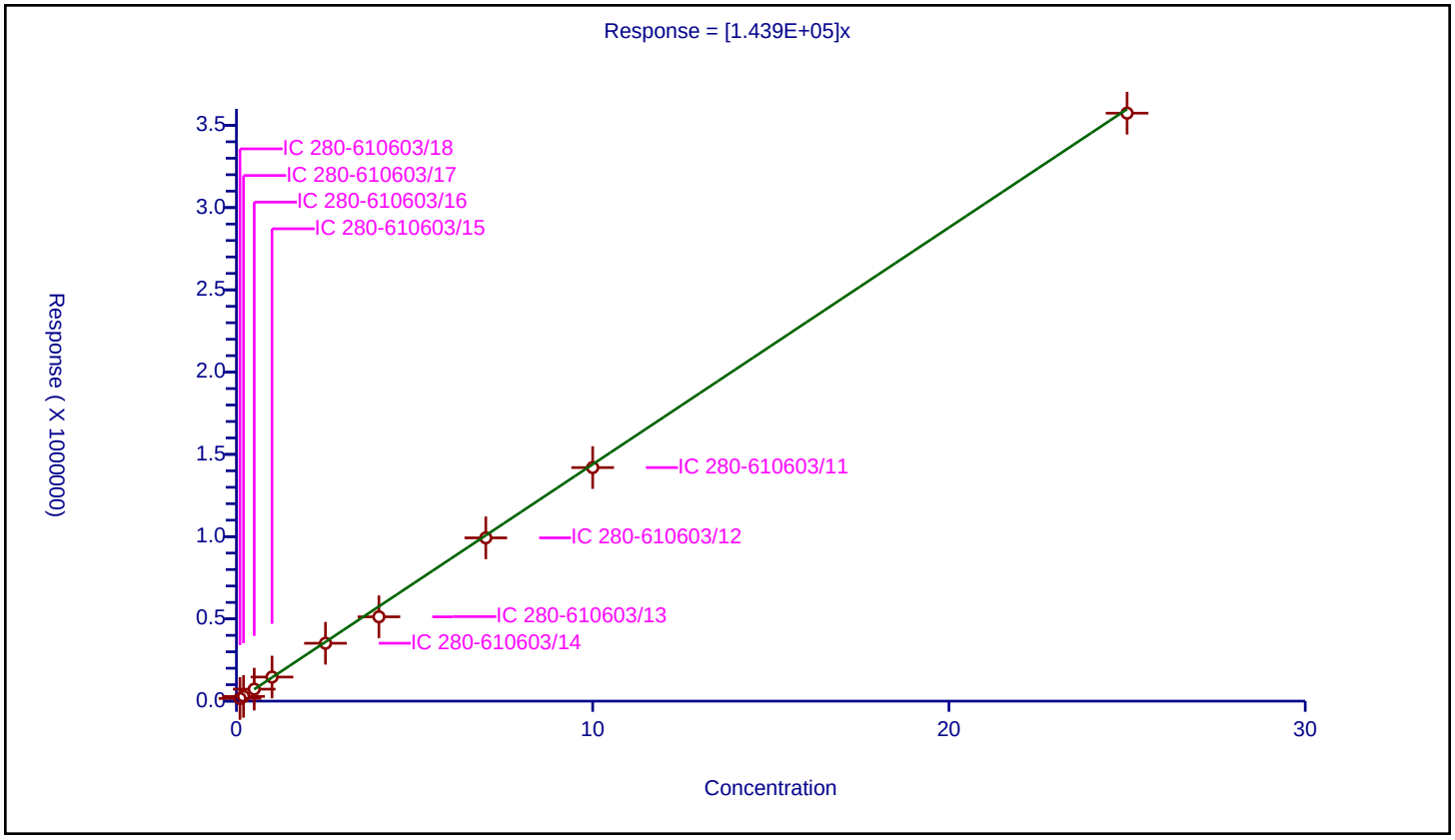
Curve Coefficients

Intercept:	0
Slope:	1.439E+05

Error Coefficients

Standard Error:	25700
Relative Standard Error:	6.3
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.995

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-610603/18	0.1	16344.0			163440.0	Y
2	IC 280-610603/17	0.2	28805.0			144025.0	Y
3	IC 280-610603/16	0.5	72943.0			145886.0	Y
4	IC 280-610603/15	1.0	146450.0			146450.0	Y
5	IC 280-610603/14	2.5	351913.0			140765.2	Y
6	IC 280-610603/13	4.0	512590.0			128147.5	Y
7	IC 280-610603/12	7.0	992519.0			141788.428571	Y
8	IC 280-610603/11	10.0	1419730.0			141973.0	Y
9	IC 280-610603/10	25.0	3574120.0			142964.8	Y



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver | Job No.: 280-176866-1

SDG No.:

Lab Sample ID: ICV 280-607981/19 | Calibration Date: 04/08/2023 00:26

Instrument ID: CHHPLC_G2_LUNA | Calib Start Date: 04/07/2023 19:03

GC Column: Luna-phenylhex ID: 4.60(mm) | Calib End Date: 04/07/2023 23:50

Lab File ID: 04070019.D | Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
TNX	Ave	399214	395611		497	502	-0.9	20.0
DNX	Ave	286200	292252		511	501	2.1	20.0
HMX	Ave	181045	154926		428	500	-14.4	20.0
MNX	Ave	262380	264929		589	584	1.0	20.0
Picric acid	Ave	155611	159032		511	500	2.2	20.0
RDX	Ave	215713	192400		446	500	-10.8	20.0
Nitrobenzene	Ave	379960	370424		487	500	-2.5	20.0
3,5-Dinitroaniline	Lin2		432678		502	500	0.5	20.0
1,3-Dinitrobenzene	Ave	581449	566740		487	500	-2.5	20.0
Nitroglycerin	Ave	124345	123410		4960	5000	-0.8	20.0
2-Nitrotoluene	Ave	243188	233752		481	500	-3.9	20.0
4-Nitrotoluene	Ave	217449	211762		487	500	-2.6	20.0
4-Amino-2,6-dinitrotoluene	Ave	272611	275652		506	500	1.1	20.0
3-Nitrotoluene	Ave	268012	262928		491	500	-1.9	20.0
2-Amino-4,6-dinitrotoluene	Ave	400284	386562		483	500	-3.4	20.0
1,3,5-Trinitrobenzene	Ave	378488	411990		544	500	8.9	20.0
2,6-Dinitrotoluene	Ave	279896	260986		466	500	-6.8	20.0
2,4-Dinitrotoluene	Ave	560125	522904		467	500	-6.6	20.0
Tetryl	Ave	270539	317230		586	500	17.3	20.0
2,4,6-Trinitrotoluene	Ave	411719	385322		468	500	-6.4	20.0
PETN	Ave	118367	131706		5560	5000	11.3	20.0
1,2-Dinitrobenzene	Ave	265405	273592		515	500	3.1	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-176866-1

SDG No.:

Lab Sample ID: ICV 280-607981/19 Calibration Date: 04/08/2023 00:26

Instrument ID: CHHPLC_G2_LUNA Calib Start Date: 04/07/2023 19:03

GC Column: Luna-phenylhex ID: 4.60(mm) Calib End Date: 04/07/2023 23:50

Lab File ID: 04070019.D

Analyte	RT	RT WINDOW	
		FROM	TO
TNX	5.30	5.17	5.47
DNX	6.17	6.04	6.34
HMX	6.84	6.70	7.00
MNX	7.69	7.56	7.86
Picric acid	8.11	8.04	8.34
RDX	9.11	8.98	9.28
Nitrobenzene	11.63	11.50	11.80
3,5-Dinitroaniline	14.45	14.33	14.63
1,3-Dinitrobenzene	14.73	14.60	14.90
Nitroglycerin	15.25	15.12	15.42
2-Nitrotoluene	15.80	15.68	15.98
4-Nitrotoluene	16.03	15.90	16.20
4-Amino-2,6-dinitrotoluene	16.57	16.44	16.74
3-Nitrotoluene	16.88	16.75	17.05
2-Amino-4,6-dinitrotoluene	17.40	17.26	17.56
1,3,5-Trinitrobenzene	17.56	17.42	17.72
2,6-Dinitrotoluene	18.71	18.56	18.86
2,4-Dinitrotoluene	19.16	19.02	19.32
Tetryl	22.47	22.33	22.63
2,4,6-Trinitrotoluene	23.29	23.15	23.45
PETN	24.53	24.40	24.70
1,2-Dinitrobenzene	12.60	12.48	12.78

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2_LUNA\20230407-120232.b\04070019.D
Lims ID: ICV INT DMT
Client ID:
Sample Type: ICV
Inject. Date: 08-Apr-2023 00:26:27 ALS Bottle#: 19 Worklist Smp#: 19
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: ICV INT DMT
Operator ID: JZ Instrument ID: CHHPLC_G2_LUNA
Sublist:

Method: \\chromfs\Denver\ChromData\G2_LUNA\20230407-120232.b\G2_8330_Luna.m
Limit Group: GCSV - 8330
Last Update: 12-Apr-2023 15:59:25 Calib Date: 07-Apr-2023 23:50:31
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\G2_LUNA\20230407-120232.b\04070018.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC DAD1A, 254 nm
Process Host: CTX1657

First Level Reviewer: LV5D Date: 08-Apr-2023 10:41:39

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
3 TNX	1	5.299	5.321	-0.022	198399	0.5015	0.4970	
4 DNX	1	6.166	6.194	-0.028	146272	0.5005	0.5111	
6 HMX	1	6.839	6.847	-0.008	77463	0.5000	0.4279	
7 MNX	1	7.686	7.714	-0.028	154586	0.5835	0.5892	
5 2,4,6-Trinitrophenol	1	8.113	8.187	-0.074	79516	0.5000	0.5110	
8 RDX	1	9.106	9.127	-0.021	96200	0.5000	0.4460	
9 Nitrobenzene	1	11.626	11.654	-0.028	185212	0.5000	0.4875	
$ 10 1,2-Dinitrobenzene	1	12.599	12.627	-0.028	136796	0.5000	0.5154	
11 3,5-Dinitroaniline	1	14.453	14.480	-0.027	216339	0.5000	0.5023	
12 1,3-Dinitrobenzene	1	14.726	14.754	-0.028	283370	0.5000	0.4874	
13 Nitroglycerin	2	15.253	15.274	-0.021	617048	5.00	4.96	
14 o-Nitrotoluene	1	15.799	15.827	-0.028	116876	0.5000	0.4806	
15 p-Nitrotoluene	1	16.026	16.054	-0.028	105881	0.5000	0.4869	
16 4-Amino-2,6-dinitrotoluene	1	16.573	16.594	-0.021	137826	0.5000	0.5056	
17 m-Nitrotoluene	1	16.879	16.900	-0.021	131464	0.5000	0.4905	
18 2-Amino-4,6-dinitrotoluene	1	17.399	17.414	-0.015	193281	0.5000	0.4829	
19 1,3,5-Trinitrobenzene	1	17.559	17.574	-0.015	205995	0.5000	0.5443	
20 2,6-Dinitrotoluene	1	18.706	18.714	-0.008	130493	0.5000	0.4662	
21 2,4-Dinitrotoluene	1	19.159	19.174	-0.015	261452	0.5000	0.4668	
22 Tetryl	1	22.466	22.481	-0.015	158615	0.5000	0.5863	
23 2,4,6-Trinitrotoluene	1	23.286	23.301	-0.015	192661	0.5000	0.4679	
24 PETN	2	24.533	24.547	-0.014	658530	5.00	5.56	M

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330Surrogate_00141	Amount Added:	50.00	Units: uL
8330 LCS_00125	Amount Added:	50.00	Units: uL
8330_OP_DMT_00017	Amount Added:	50.00	Units: uL

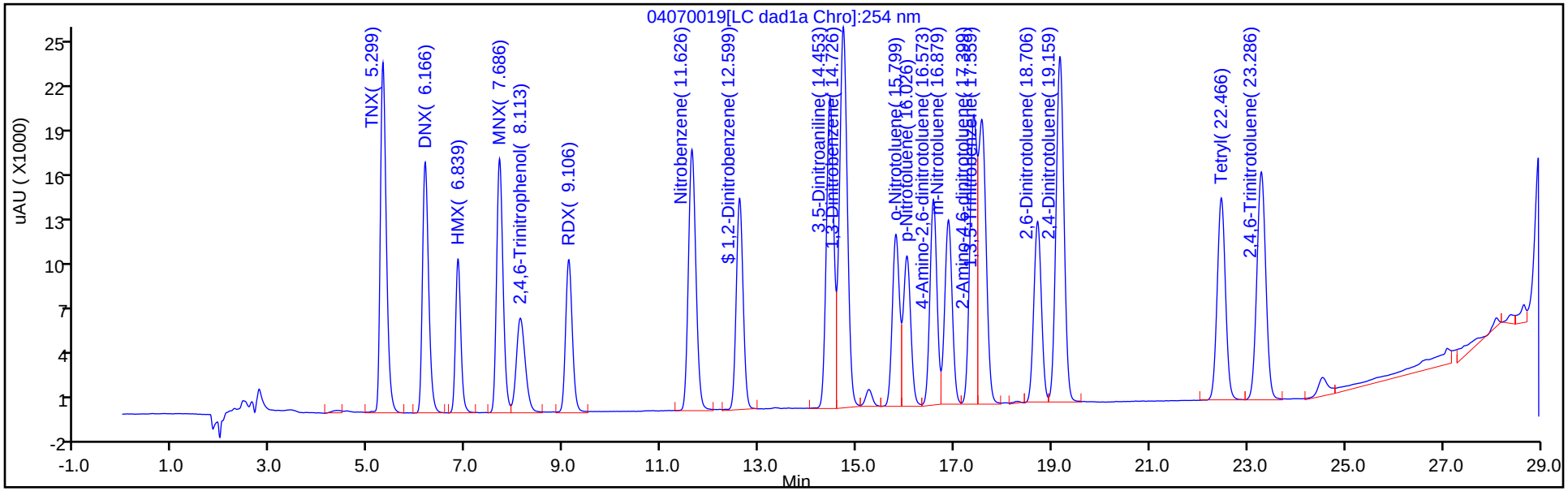
Report Date: 12-Apr-2023 15:59:45 Chrom Revision: 2.3 29-Mar-2023 18:39:10

Eurofins Denver

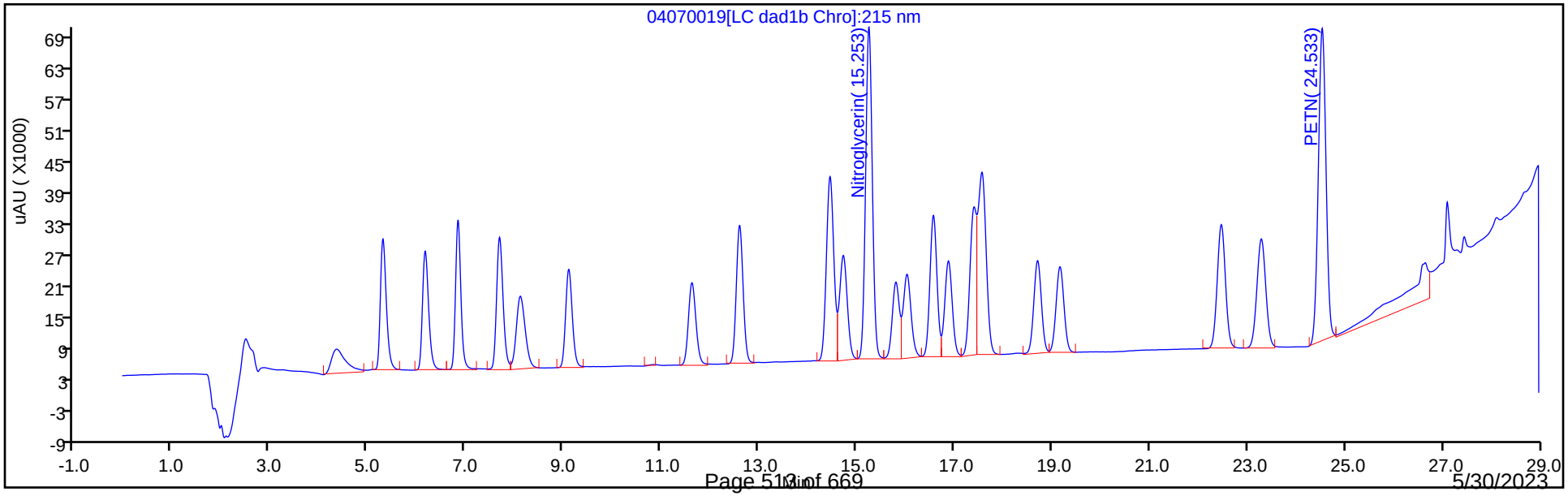
Data File: \\chromfs\denver\chromdata\g2_luna\20230407-120232.b\04070019.d

Injection Date:	08-Apr-2023 00:26:27	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	JZ
Lims ID:	ICV INT DMT			Worklist Smp#:	19
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	19
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



5/30/2023
10:34 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

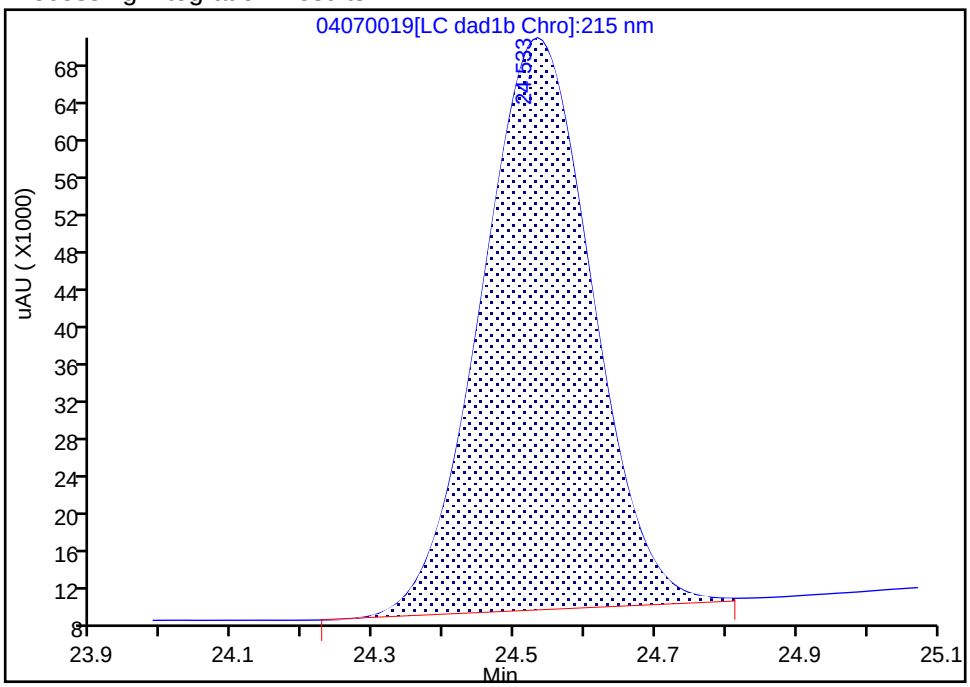
Data File:	\\chromfs\denver\chromdata\g2_luna\20230407-120232.b\04070019.d				
Injection Date:	08-Apr-2023 00:26:27	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	ICV INT DMT				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1B, 215 nm		

24 PETN, CAS: 78-11-5

Signal: 1

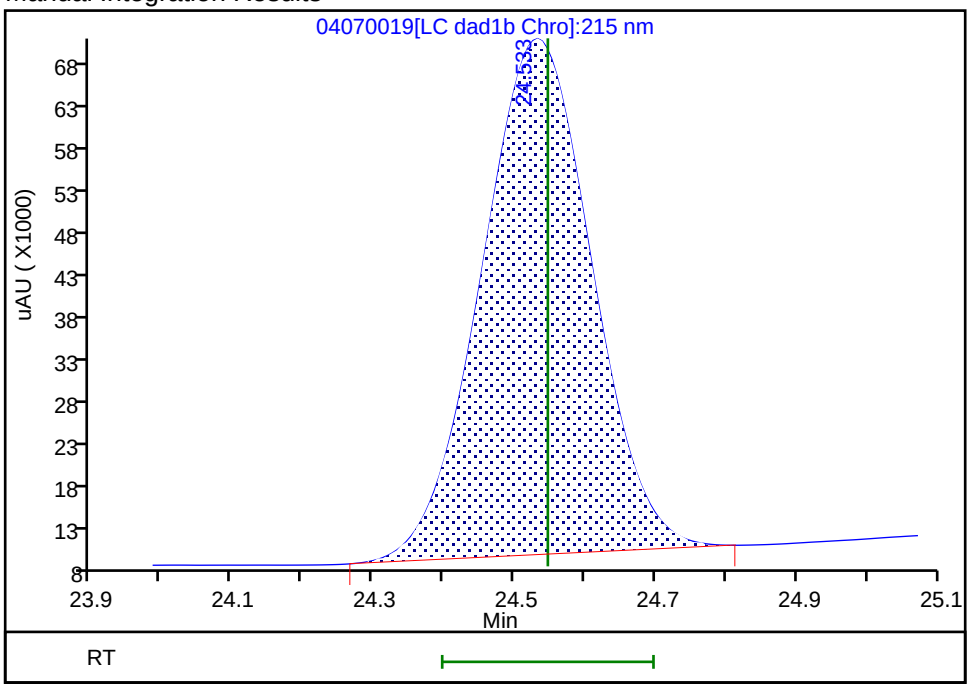
Processing Integration Results

RT: 24.53
Area: 665106
Amount: 5.619000
Amount Units: ug/ml



Manual Integration Results

RT: 24.53
Area: 658530
Amount: 5.563444
Amount Units: ug/ml



Reviewer: LV5D, 08-Apr-2023 10:42:14
Audit Action: Manually Integrated Audit Reason: Baseline

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver | Job No.: 280-176866-1

SDG No.:

Lab Sample ID: CCV 280-613968/20 | Calibration Date: 05/27/2023 00:21

Instrument ID: CHHPLC_G2_LUNA | Calib Start Date: 04/07/2023 19:03

GC Column: Luna-phenylhex ID: 4.60(mm) | Calib End Date: 04/07/2023 23:50

Lab File ID: 05260020.D | Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
TNX	Ave	399214	400706		252	251	0.4	20.0
DNX	Ave	286200	291916		255	250	2.0	20.0
HMX	Ave	181045	188012		260	250	3.8	20.0
MNX	Ave	262380	267818		298	292	2.1	20.0
Picric acid	Ave	155611	164784		265	250	5.9	20.0
RDX	Ave	215713	223860		259	250	3.8	20.0
Nitrobenzene	Ave	379960	392120		258	250	3.2	20.0
3,5-Dinitroaniline	Lin2		476416		276	250	10.4	20.0
1,3-Dinitrobenzene	Ave	581449	615536		265	250	5.9	20.0
Nitroglycerin	Ave	124345	133143		2680	2500	7.1	20.0
2-Nitrotoluene	Ave	243188	253072		260	250	4.1	20.0
4-Nitrotoluene	Ave	217449	230016		264	250	5.8	20.0
4-Amino-2,6-dinitrotoluene	Ave	272611	294628		270	250	8.1	20.0
3-Nitrotoluene	Ave	268012	293164		273	250	9.4	20.0
2-Amino-4,6-dinitrotoluene	Ave	400284	427012		267	250	6.7	20.0
1,3,5-Trinitrobenzene	Ave	378488	423392		280	250	11.9	20.0
2,6-Dinitrotoluene	Ave	279896	289240		258	250	3.3	20.0
2,4-Dinitrotoluene	Ave	560125	586380		262	250	4.7	20.0
Tetryl	Ave	270539	283536		262	250	4.8	20.0
2,4,6-Trinitrotoluene	Ave	411719	437184		265	250	6.2	20.0
PETN	Ave	118367	132976		2810	2500	12.3	20.0
1,2-Dinitrobenzene	Ave	265405	276700		261	250	4.3	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-176866-1

SDG No.:

Lab Sample ID: CCV 280-613968/20 Calibration Date: 05/27/2023 00:21

Instrument ID: CHHPLC_G2_LUNA Calib Start Date: 04/07/2023 19:03

GC Column: Luna-phenylhex ID: 4.60(mm) Calib End Date: 04/07/2023 23:50

Lab File ID: 05260020.D

Analyte	RT	RT WINDOW	
		FROM	TO
TNX	5.30	5.15	5.45
DNX	6.15	6.01	6.31
HMX	6.80	6.67	6.97
MNX	7.66	7.52	7.82
Picric acid	8.58	8.49	8.79
RDX	9.06	8.92	9.22
Nitrobenzene	11.58	11.43	11.73
3,5-Dinitroaniline	14.39	14.25	14.55
1,3-Dinitrobenzene	14.66	14.52	14.82
Nitroglycerin	15.14	14.99	15.29
2-Nitrotoluene	15.72	15.57	15.87
4-Nitrotoluene	15.94	15.79	16.09
4-Amino-2,6-dinitrotoluene	16.48	16.34	16.64
3-Nitrotoluene	16.78	16.63	16.93
2-Amino-4,6-dinitrotoluene	17.30	17.16	17.46
1,3,5-Trinitrobenzene	17.48	17.33	17.63
2,6-Dinitrotoluene	18.59	18.45	18.75
2,4-Dinitrotoluene	19.04	18.90	19.20
Tetryl	22.29	22.16	22.46
2,4,6-Trinitrotoluene	23.12	22.99	23.29
PETN	24.29	24.17	24.47
1,2-Dinitrobenzene	12.54	12.39	12.69

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2_LUNA\20230526-121879.b\05260020.D
Lims ID: CCV DMT
Client ID:
Sample Type: CCV
Inject. Date: 27-May-2023 00:21:00 ALS Bottle#: 7 Worklist Smp#: 20
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: CCV DMT
Operator ID: JZ/JG Instrument ID: CHHPLC_G2_LUNA
Sublist: chrom-G2_8330_Luna*sub18

Method: \\chromfs\Denver\ChromData\G2_LUNA\20230526-121879.b\G2_8330_Luna.m
Limit Group: GCSV - 8330
Last Update: 27-May-2023 10:14:27 Calib Date: 07-Apr-2023 23:50:31
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\G2_LUNA\20230407-120232.b\04070018.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC DAD1A, 254 nm
Process Host: CTX1660

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
3 TNX	1	5.295	5.302	-0.007	100477	0.2508	0.2517	
4 DNX	1	6.148	6.162	-0.014	73052	0.2503	0.2552	
6 HMX	1	6.801	6.815	-0.014	47003	0.2500	0.2596	
7 MNX	1	7.655	7.668	-0.013	78136	0.2918	0.2978	
5 2,4,6-Trinitrophenol	1	8.581	8.635	-0.054	41196	0.2500	0.2647	
8 RDX	1	9.061	9.068	-0.007	55965	0.2500	0.2594	
9 Nitrobenzene	1	11.575	11.581	-0.006	98030	0.2500	0.2580	
$ 10 1,2-Dinitrobenzene	1	12.541	12.541	0.000	69175	0.2500	0.2606	
11 3,5-Dinitroaniline	1	14.388	14.395	-0.007	119104	0.2500	0.2761	
12 1,3-Dinitrobenzene	1	14.661	14.668	-0.007	153884	0.2500	0.2647	
13 Nitroglycerin	2	15.135	15.141	-0.006	332858	2.50	2.68	
14 o-Nitrotoluene	1	15.715	15.721	-0.006	63268	0.2500	0.2602	
15 p-Nitrotoluene	1	15.935	15.941	-0.006	57504	0.2500	0.2644	
16 4-Amino-2,6-dinitrotoluene	1	16.481	16.488	-0.007	73657	0.2500	0.2702	
17 m-Nitrotoluene	1	16.781	16.781	0.000	73291	0.2500	0.2735	
18 2-Amino-4,6-dinitrotoluene	1	17.301	17.308	-0.007	106753	0.2500	0.2667	
19 1,3,5-Trinitrobenzene	1	17.475	17.475	0.000	105848	0.2500	0.2797	
20 2,6-Dinitrotoluene	1	18.588	18.595	-0.007	72310	0.2500	0.2583	
21 2,4-Dinitrotoluene	1	19.041	19.048	-0.007	146595	0.2500	0.2617	
22 Tetryl	1	22.288	22.308	-0.020	70884	0.2500	0.2620	
23 2,4,6-Trinitrotoluene	1	23.115	23.135	-0.020	109296	0.2500	0.2655	
24 PETN	2	24.288	24.322	-0.034	332440	2.50	2.81	

Reagents:

8330IntermStk_00076 Amount Added: 25.00 Units: uL
8330 DMT_00013 Amount Added: 12.50 Units: uL

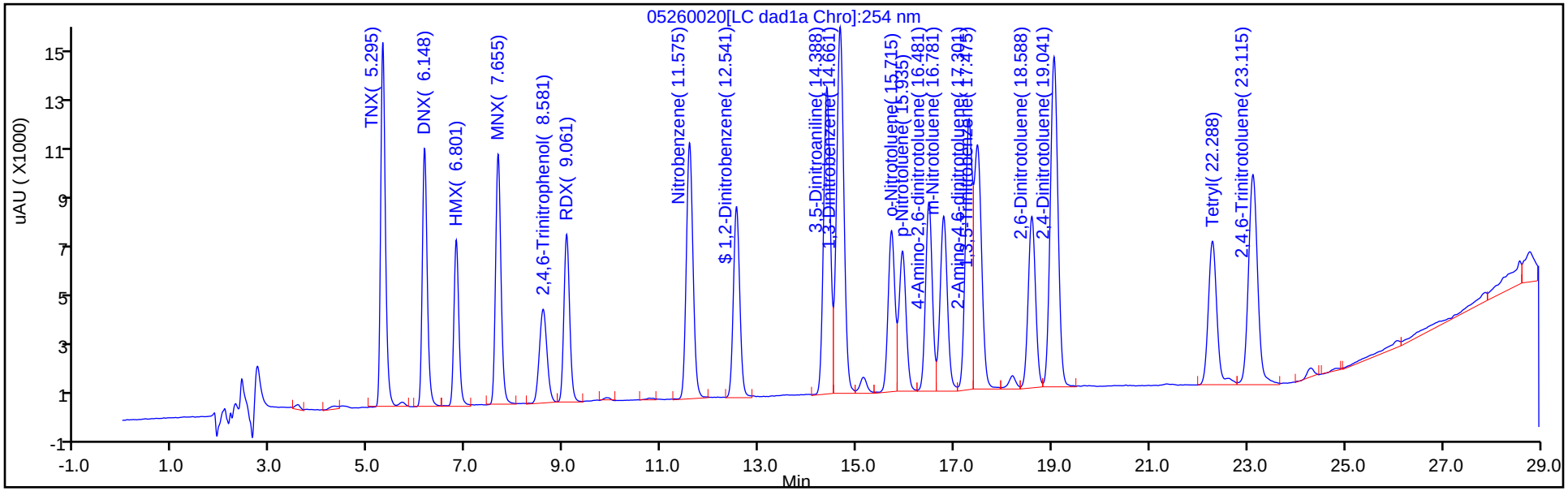
Report Date: 27-May-2023 10:14:27 Chrom Revision: 2.3 23-May-2023 13:55:56

Eurofins Denver

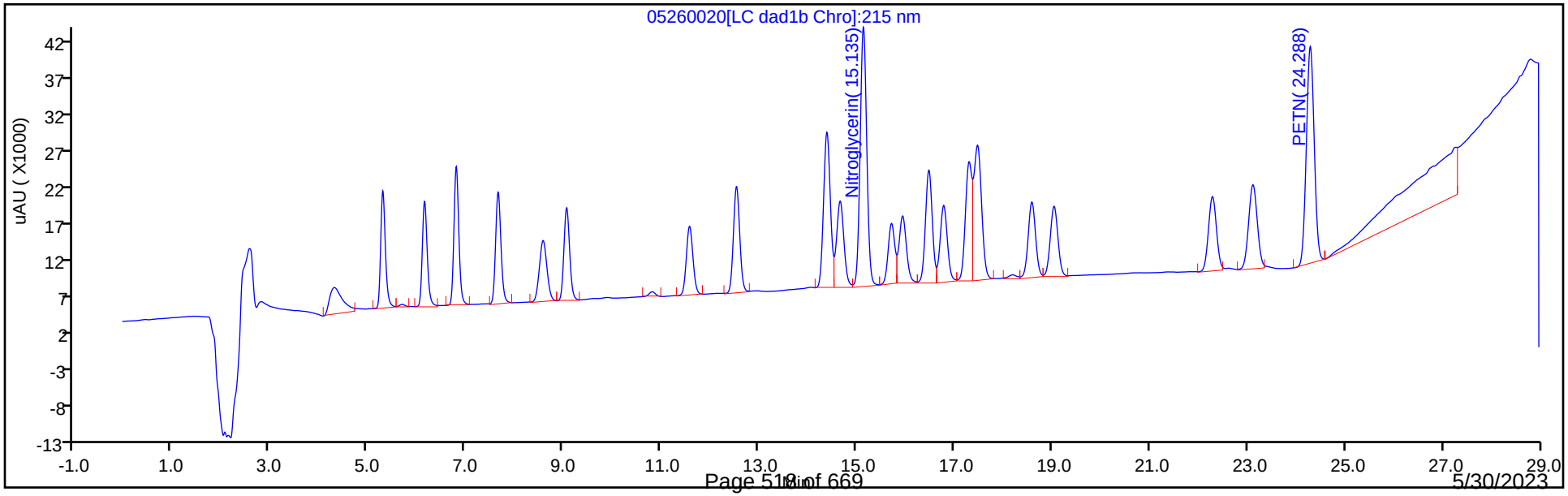
Data File: \\chromfs\denver\chromdata\g2_luna\20230526-121879.b\05260020.d

Injection Date:	27-May-2023 00:21:00	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	JZ/JG
Lims ID:	CCV DMT			Worklist Smp#:	20
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



5/30/2023
10:34 AM

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver | Job No.: 280-176866-1

SDG No.:

Lab Sample ID: CCV 280-613968/31 | Calibration Date: 05/27/2023 06:56

Instrument ID: CHHPLC_G2_LUNA | Calib Start Date: 04/07/2023 19:03

GC Column: Luna-phenylhex ID: 4.60(mm) | Calib End Date: 04/07/2023 23:50

Lab File ID: 05260031.D | Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
TNX	Ave	399214	402672		253	251	0.9	20.0
DNX	Ave	286200	293259		256	250	2.5	20.0
HMX	Ave	181045	188760		261	250	4.3	20.0
MNX	Ave	262380	269100		299	292	2.6	20.0
Picric acid	Ave	155611	165068		265	250	6.1	20.0
RDX	Ave	215713	226008		262	250	4.8	20.0
Nitrobenzene	Ave	379960	385544		254	250	1.5	20.0
3,5-Dinitroaniline	Lin2		477948		277	250	10.8	20.0
1,3-Dinitrobenzene	Ave	581449	615232		265	250	5.8	20.0
Nitroglycerin	Ave	124345	134052		2700	2500	7.8	20.0
2-Nitrotoluene	Ave	243188	247736		255	250	1.9	20.0
4-Nitrotoluene	Ave	217449	223880		257	250	3.0	20.0
4-Amino-2,6-dinitrotoluene	Ave	272611	295684		271	250	8.5	20.0
3-Nitrotoluene	Ave	268012	285372		266	250	6.5	20.0
2-Amino-4,6-dinitrotoluene	Ave	400284	429324		268	250	7.3	20.0
1,3,5-Trinitrobenzene	Ave	378488	415900		275	250	9.9	20.0
2,6-Dinitrotoluene	Ave	279896	288356		258	250	3.0	20.0
2,4-Dinitrotoluene	Ave	560125	585892		262	250	4.6	20.0
Tetryl	Ave	270539	282108		261	250	4.3	20.0
2,4,6-Trinitrotoluene	Ave	411719	435976		265	250	5.9	20.0
PETN	Ave	118367	137080		2900	2500	15.8	20.0
1,2-Dinitrobenzene	Ave	265405	278424		262	250	4.9	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-176866-1

SDG No.:

Lab Sample ID: CCV 280-613968/31 Calibration Date: 05/27/2023 06:56

Instrument ID: CHHPLC_G2_LUNA Calib Start Date: 04/07/2023 19:03

GC Column: Luna-phenylhex ID: 4.60(mm) Calib End Date: 04/07/2023 23:50

Lab File ID: 05260031.D

Analyte	RT	RT WINDOW	
		FROM	TO
TNX	5.29	5.15	5.45
DNX	6.14	6.01	6.31
HMX	6.79	6.67	6.97
MNX	7.65	7.52	7.82
Picric acid	8.56	8.49	8.79
RDX	9.04	8.92	9.22
Nitrobenzene	11.55	11.43	11.73
3,5-Dinitroaniline	14.36	14.25	14.55
1,3-Dinitrobenzene	14.64	14.52	14.82
Nitroglycerin	15.11	14.99	15.29
2-Nitrotoluene	15.68	15.57	15.87
4-Nitrotoluene	15.91	15.79	16.09
4-Amino-2,6-dinitrotoluene	16.46	16.34	16.64
3-Nitrotoluene	16.75	16.63	16.93
2-Amino-4,6-dinitrotoluene	17.27	17.16	17.46
1,3,5-Trinitrobenzene	17.44	17.33	17.63
2,6-Dinitrotoluene	18.57	18.45	18.75
2,4-Dinitrotoluene	19.02	18.90	19.20
Tetryl	22.28	22.16	22.46
2,4,6-Trinitrotoluene	23.11	22.99	23.29
PETN	24.28	24.17	24.47
1,2-Dinitrobenzene	12.51	12.39	12.69

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2_LUNA\20230526-121879.b\05260031.D
Lims ID: CCV DMT
Client ID:
Sample Type: CCV
Inject. Date: 27-May-2023 06:56:30 ALS Bottle#: 7 Worklist Smp#: 31
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: CCV DMT
Operator ID: JZ/JG Instrument ID: CHHPLC_G2_LUNA
Sublist: chrom-G2_8330_Luna*sub18

Method: \\chromfs\Denver\ChromData\G2_LUNA\20230526-121879.b\G2_8330_Luna.m
Limit Group: GCSV - 8330
Last Update: 27-May-2023 10:14:32 Calib Date: 07-Apr-2023 23:50:31
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\G2_LUNA\20230407-120232.b\04070018.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC DAD1A, 254 nm
Process Host: CTX1660

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
3 TNX	1	5.285	5.302	-0.017	100970	0.2508	0.2529	
4 DNX	1	6.138	6.162	-0.024	73388	0.2503	0.2564	
6 HMX	1	6.785	6.815	-0.030	47190	0.2500	0.2607	
7 MNX	1	7.645	7.668	-0.023	78510	0.2918	0.2992	
5 2,4,6-Trinitrophenol	1	8.558	8.635	-0.077	41267	0.2500	0.2652	
8 RDX	1	9.038	9.068	-0.030	56502	0.2500	0.2619	
9 Nitrobenzene	1	11.551	11.581	-0.030	96386	0.2500	0.2537	
$ 10 1,2-Dinitrobenzene	1	12.511	12.541	-0.030	69606	0.2500	0.2623	
11 3,5-Dinitroaniline	1	14.364	14.395	-0.031	119487	0.2500	0.2770	
12 1,3-Dinitrobenzene	1	14.638	14.668	-0.030	153808	0.2500	0.2645	
13 Nitroglycerin	2	15.111	15.141	-0.030	335129	2.50	2.70	
14 o-Nitrotoluene	1	15.684	15.721	-0.037	61934	0.2500	0.2547	
15 p-Nitrotoluene	1	15.911	15.941	-0.030	55970	0.2500	0.2574	
16 4-Amino-2,6-dinitrotoluene	1	16.458	16.488	-0.030	73921	0.2500	0.2712	
17 m-Nitrotoluene	1	16.751	16.781	-0.030	71343	0.2500	0.2662	
18 2-Amino-4,6-dinitrotoluene	1	17.271	17.308	-0.037	107331	0.2500	0.2681	
19 1,3,5-Trinitrobenzene	1	17.444	17.475	-0.031	103975	0.2500	0.2747	
20 2,6-Dinitrotoluene	1	18.571	18.595	-0.024	72089	0.2500	0.2576	
21 2,4-Dinitrotoluene	1	19.024	19.048	-0.024	146473	0.2500	0.2615	
22 Tetryl	1	22.278	22.308	-0.030	70527	0.2500	0.2607	
23 2,4,6-Trinitrotoluene	1	23.105	23.135	-0.030	108994	0.2500	0.2647	
24 PETN	2	24.278	24.322	-0.044	342701	2.50	2.90	

Reagents:

8330IntermStk_00076 Amount Added: 25.00 Units: uL
8330 DMT_00013 Amount Added: 12.50 Units: uL

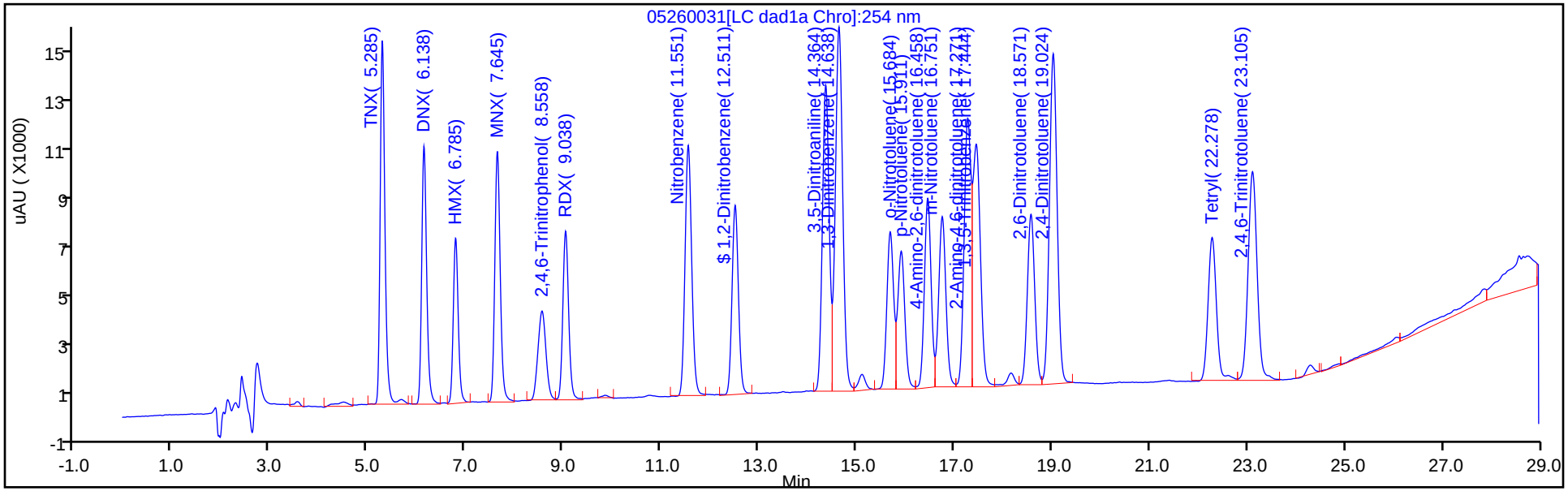
Report Date: 27-May-2023 10:14:32 Chrom Revision: 2.3 23-May-2023 13:55:56

Eurofins Denver

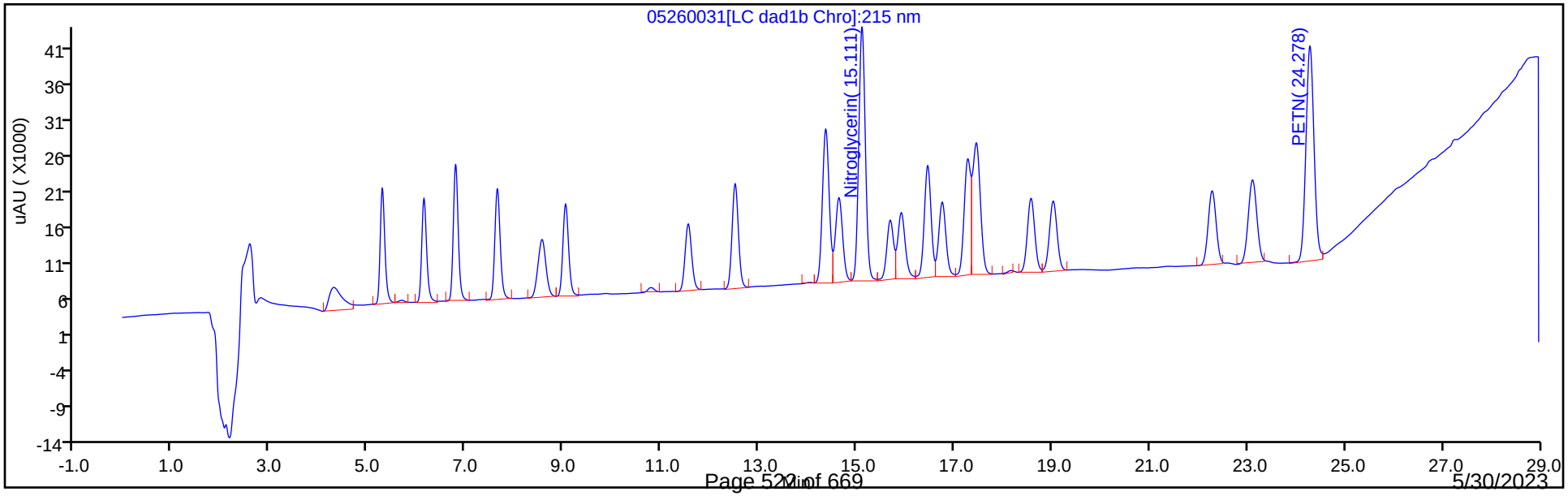
Data File: \\chromfs\denver\chromdata\g2_luna\20230526-121879.b\05260031.d

Injection Date:	27-May-2023 06:56:30	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	JZ/JG
Lims ID:	CCV DMT			Worklist Smp#:	31
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-176866-1

SDG No.:

Lab Sample ID: ICV 280-601664/20 Calibration Date: 02/08/2023 19:05

Instrument ID: CHHPLC_X3 Calib Start Date: 02/08/2023 15:38

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 02/08/2023 18:42

Lab File ID: 02080020.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
HMX	Ave	93528	88148		471	500	-5.8	20.0
RDX	Ave	106380	105642		497	500	-0.7	20.0
Picric acid	Ave	75830	83408		550	500	10.0	20.0
1,3,5-Trinitrobenzene	Ave	217147	243558		561	500	12.2	20.0
1,3-Dinitrobenzene	Ave	294397	317476		539	500	7.8	20.0
Nitrobenzene	Ave	191245	205682		538	500	7.5	20.0
3,5-Dinitroaniline	Lin2		223846		489	500	-2.2	20.0
Tetryl	Ave	164121	182414		556	500	11.1	20.0
Nitroglycerin	Ave	64070	67923		5300	5000	6.0	20.0
2,4,6-Trinitrotoluene	Ave	211040	213428		506	500	1.1	20.0
4-Amino-2,6-dinitrotoluene	Ave	154933	158824		513	500	2.5	20.0
2-Amino-4,6-dinitrotoluene	Ave	201410	204888		509	500	1.7	20.0
2,6-Dinitrotoluene	Ave	142745	147024		515	500	3.0	20.0
2,4-Dinitrotoluene	Ave	296667	301684		508	500	1.7	20.0
2-Nitrotoluene	Ave	127896	128960		504	500	0.8	20.0
4-Nitrotoluene	Ave	111880	111646		499	500	-0.2	20.0
3-Nitrotoluene	Ave	140492	138998		495	500	-1.1	20.0
PETN	Ave	68845	76520		5560	5000	11.1	20.0
1,2-Dinitrobenzene	Ave	126309	125412		496	500	-0.7	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-176866-1

SDG No.:

Lab Sample ID: ICV 280-601664/20 Calibration Date: 02/08/2023 19:05

Instrument ID: CHHPLC_X3 Calib Start Date: 02/08/2023 15:38

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 02/08/2023 18:42

Lab File ID: 02080020.D

Analyte	RT	RT WINDOW	
		FROM	TO
HMX	6.55	6.39	6.69
RDX	7.56	7.41	7.71
Picric acid	8.02	7.89	8.19
1,3,5-Trinitrobenzene	8.65	8.49	8.79
1,3-Dinitrobenzene	9.26	9.11	9.41
Nitrobenzene	9.64	9.48	9.78
3,5-Dinitroaniline	9.84	9.68	9.98
Tetryl	9.99	9.83	10.13
Nitroglycerin	10.46	10.29	10.59
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	11.30	11.18	11.38
2,6-Dinitrotoluene	11.48	11.35	11.55
2,4-Dinitrotoluene	11.64	11.52	11.72
2-Nitrotoluene	12.46	12.29	12.59
4-Nitrotoluene	12.88	12.69	12.99
3-Nitrotoluene	13.44	13.26	13.56
PETN	14.60	14.40	14.70
1,2-Dinitrobenzene	8.52	8.37	8.67

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20230208-118465.b\02080020.D
Lims ID: ICV INT
Client ID:
Sample Type: ICV
Inject. Date: 08-Feb-2023 19:05:10 ALS Bottle#: 20 Worklist Smp#: 20
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: ICV INT
Operator ID: JZ/MAR Instrument ID: CHHPLC_X3
Sublist:

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20230208-118465.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 09-Feb-2023 13:03:49 Calib Date: 08-Feb-2023 18:42:13
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20230208-118465.b\02080019.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1604

First Level Reviewer: LV5D Date: 08-Feb-2023 19:31:36

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
4 HMX	1	6.549	6.544	0.005	44074	0.5000	0.4712	M
8 RDX	1	7.563	7.564	-0.001	52821	0.5000	0.4965	M
9 2,4,6-Trinitrophenol	1	8.023	8.044	-0.021	41704	0.5000	0.5500	
$ 10 1,2-Dinitrobenzene	1	8.523	8.517	0.006	62706	0.5000	0.4965	
11 1,3,5-Trinitrobenzene	1	8.649	8.644	0.005	121779	0.5000	0.5608	
12 1,3-Dinitrobenzene	1	9.263	9.257	0.006	158738	0.5000	0.5392	
13 Nitrobenzene	1	9.636	9.631	0.005	102841	0.5000	0.5377	
14 3,5-Dinitroaniline	1	9.843	9.831	0.012	111923	0.5000	0.4890	
15 Tetryl	1	9.989	9.977	0.012	91207	0.5000	0.5557	
16 Nitroglycerin	2	10.456	10.437	0.019	339614	5.00	5.30	
17 2,4,6-Trinitrotoluene	1	10.883	10.864	0.019	106714	0.5000	0.5057	
18 4-Amino-2,6-dinitrotoluene	1	11.049	11.031	0.018	79412	0.5000	0.5126	
19 2-Amino-4,6-dinitrotoluene	1	11.296	11.277	0.019	102444	0.5000	0.5086	
20 2,6-Dinitrotoluene	1	11.476	11.451	0.025	73512	0.5000	0.5150	
21 2,4-Dinitrotoluene	1	11.643	11.617	0.026	150842	0.5000	0.5085	
22 o-Nitrotoluene	1	12.463	12.437	0.026	64480	0.5000	0.5042	
23 p-Nitrotoluene	1	12.876	12.844	0.032	55823	0.5000	0.4990	
24 m-Nitrotoluene	1	13.443	13.411	0.032	69499	0.5000	0.4947	
25 PETN	2	14.596	14.551	0.045	382602	5.00	5.56	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330Surrogate_00138	Amount Added:	50.00	Units: uL
8330 LCS_00121	Amount Added:	50.00	Units: uL
3,5-DNA LCS_00043	Amount Added:	50.00	Units: uL

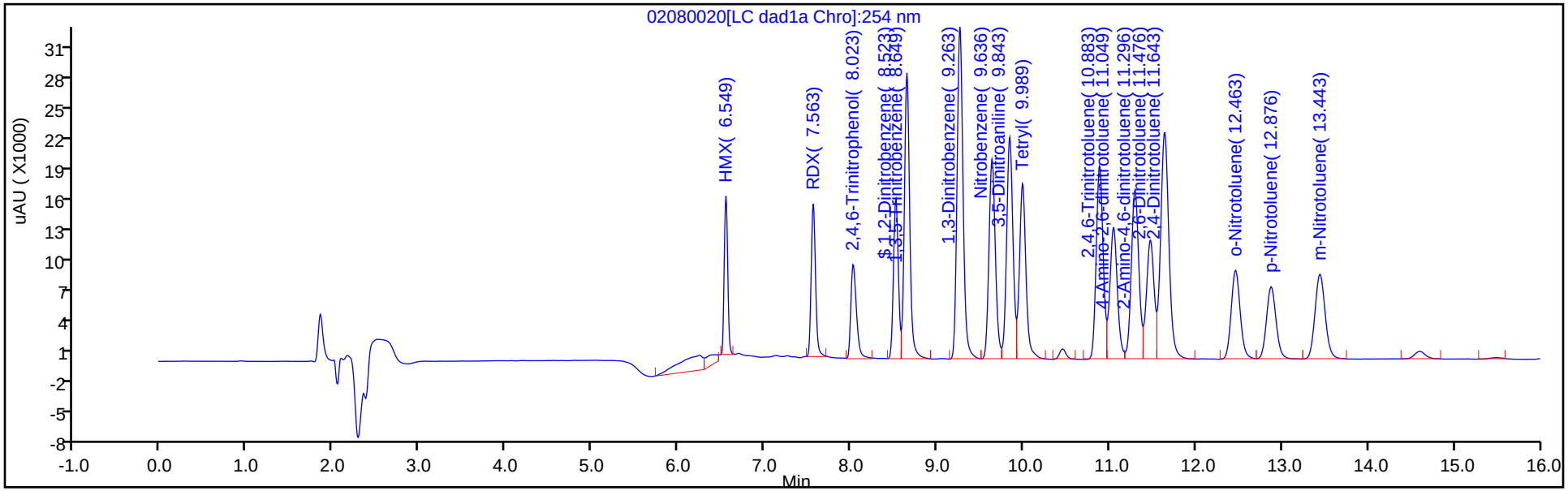
Report Date: 09-Feb-2023 13:04:01 Chrom Revision: 2.3 01-Feb-2023 13:23:06

Eurofins Denver

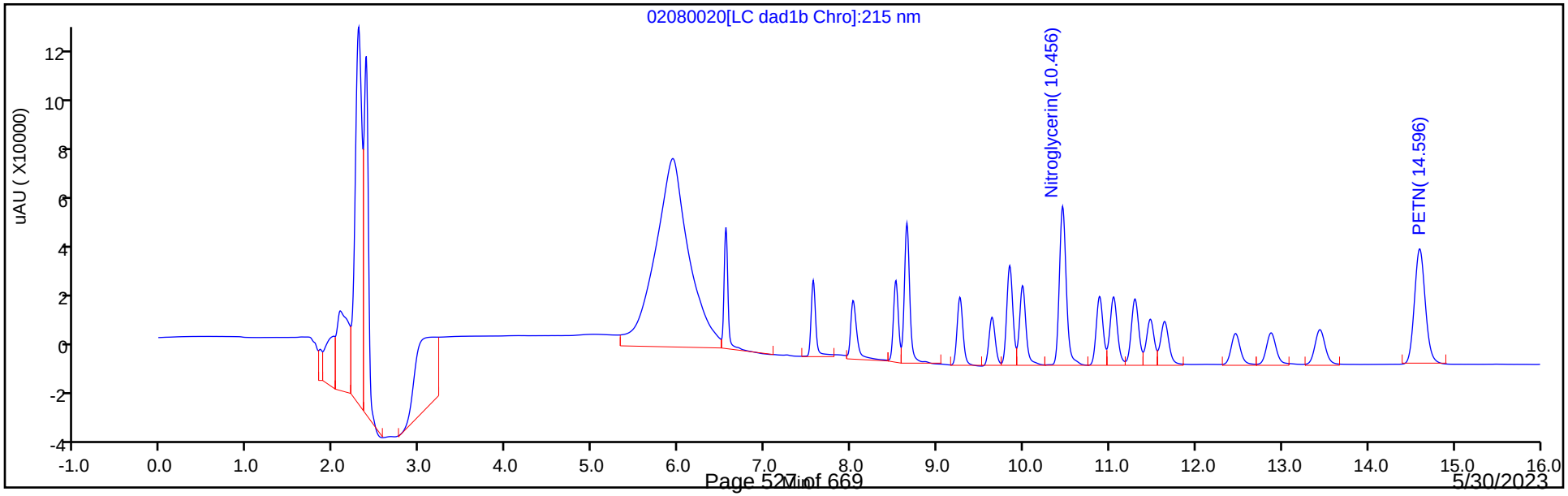
Data File: \\chromfs\denver\chromdata\chhplc_x\20230208-118465.b\02080020.d

Injection Date:	08-Feb-2023 19:05:10	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/MAR
Lims ID:	ICV INT			Worklist Smp#:	20
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	20
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



5/30/2023
10:34 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

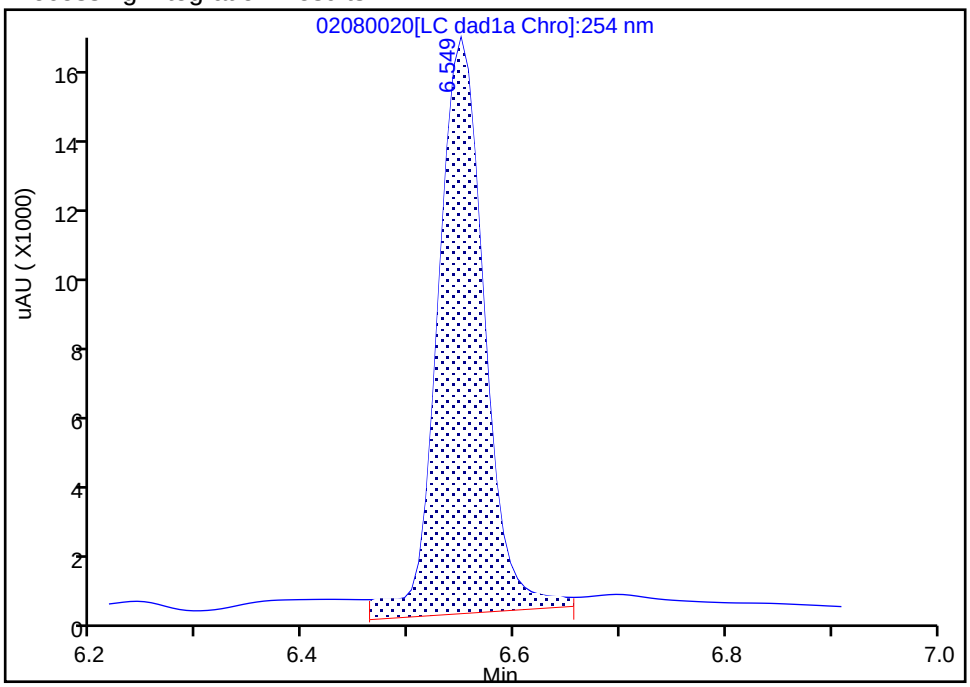
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230208-118465.b\02080020.d				
Injection Date:	08-Feb-2023 19:05:10	Instrument ID:	CHHPLC_X3		
Lims ID:	ICV INT				
Client ID:					
Operator ID:	JZ/MAR	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

4 HMX, CAS: 2691-41-0

Signal: 1

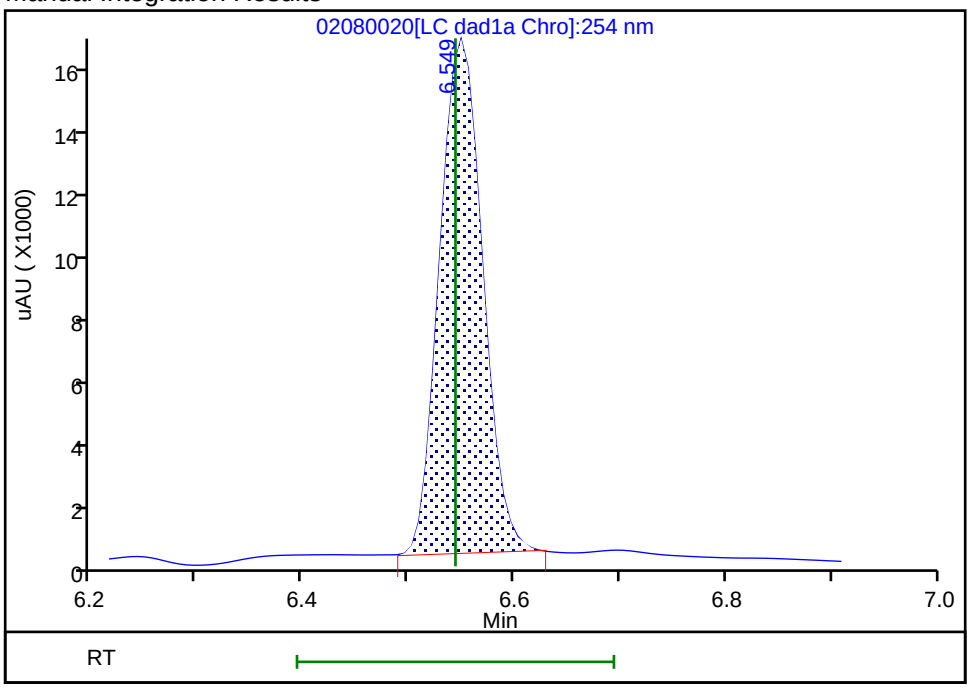
Processing Integration Results

RT: 6.55
Area: 49010
Amount: 0.524013
Amount Units: ug/mL



Manual Integration Results

RT: 6.55
Area: 44074
Amount: 0.471238
Amount Units: ug/mL



Reviewer: LV5D, 08-Feb-2023 19:31:27
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

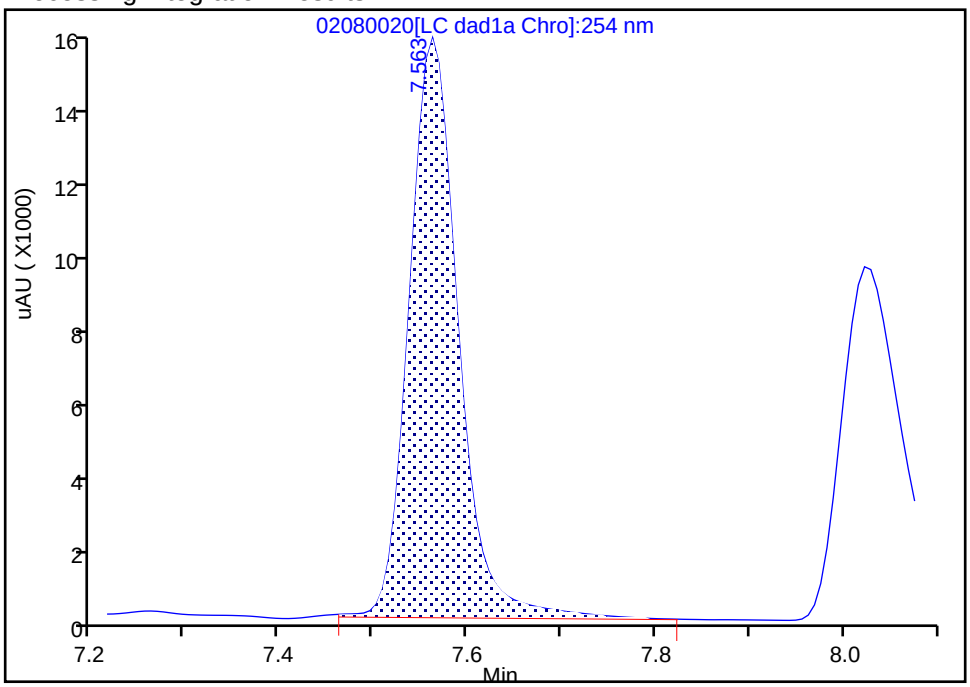
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230208-118465.b\02080020.d				
Injection Date:	08-Feb-2023 19:05:10	Instrument ID:	CHHPLC_X3		
Lims ID:	ICV INT				
Client ID:					
Operator ID:	JZ/MAR	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

8 RDX, CAS: 121-82-4

Signal: 1

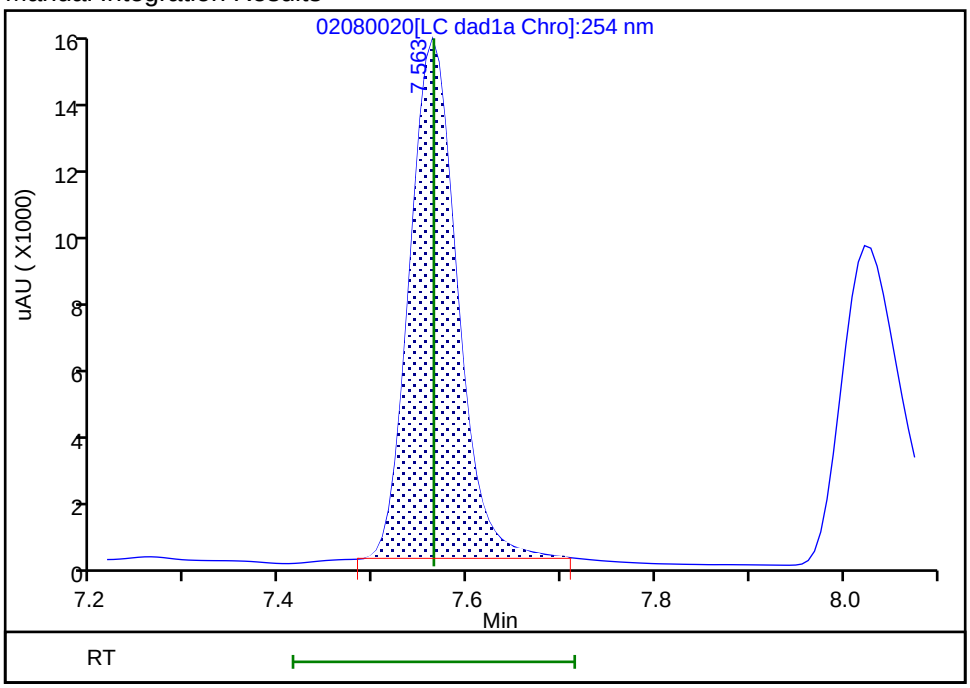
Processing Integration Results

RT: 7.56
Area: 54996
Amount: 0.516978
Amount Units: ug/mL



Manual Integration Results

RT: 7.56
Area: 52821
Amount: 0.496532
Amount Units: ug/mL



Reviewer: LV5D, 08-Feb-2023 19:32:23
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-176866-1

SDG No.:

Lab Sample ID: CCV 280-613678/26 Calibration Date: 05/24/2023 23:10

Instrument ID: CHHPLC_X3 Calib Start Date: 02/08/2023 15:38

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 02/08/2023 18:42

Lab File ID: 05240026.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
HMX	Ave	93528	103476		277	250	10.6	20.0
RDX	Ave	106380	119340		280	250	12.2	20.0
Picric acid	Ave	75830	88244		291	250	16.4	20.0
1,3,5-Trinitrobenzene	Ave	217147	241940		279	250	11.4	20.0
1,3-Dinitrobenzene	Ave	294397	328300		279	250	11.5	20.0
Nitrobenzene	Ave	191245	204612		267	250	7.0	20.0
3,5-Dinitroaniline	Lin2		250916		274	250	9.7	20.0
Tetryl	Ave	164121	157208		239	250	-4.2	20.0
Nitroglycerin	Ave	64070	71898		2810	2500	12.2	20.0
2,4,6-Trinitrotoluene	Ave	211040	226688		269	250	7.4	20.0
4-Amino-2,6-dinitrotoluene	Ave	154933	169432		273	250	9.4	20.0
2-Amino-4,6-dinitrotoluene	Ave	201410	216656		269	250	7.6	20.0
2,6-Dinitrotoluene	Ave	142745	161548		283	250	13.2	20.0
2,4-Dinitrotoluene	Ave	296667	327576		276	250	10.4	20.0
2-Nitrotoluene	Ave	127896	132560		259	250	3.6	20.0
4-Nitrotoluene	Ave	111880	114084		255	250	2.0	20.0
3-Nitrotoluene	Ave	140492	145144		258	250	3.3	20.0
PETN	Ave	68845	77862		2830	2500	13.1	20.0
1,2-Dinitrobenzene	Ave	126309	145604		288	250	15.3	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-176866-1

SDG No.:

Lab Sample ID: CCV 280-613678/26 Calibration Date: 05/24/2023 23:10

Instrument ID: CHHPLC_X3 Calib Start Date: 02/08/2023 15:38

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 02/08/2023 18:42

Lab File ID: 05240026.D

Analyte	RT	RT WINDOW	
		FROM	TO
HMX	6.56	6.40	6.70
RDX	7.58	7.42	7.72
Picric acid	7.97	7.81	8.11
1,3,5-Trinitrobenzene	8.65	8.50	8.80
1,3-Dinitrobenzene	9.27	9.12	9.42
Nitrobenzene	9.64	9.49	9.79
3,5-Dinitroaniline	9.87	9.72	10.02
Tetryl	10.01	9.85	10.15
Nitroglycerin	10.46	10.31	10.61
2,4,6-Trinitrotoluene	10.89	10.80	11.00
4-Amino-2,6-dinitrotoluene	11.09	10.99	11.19
2-Amino-4,6-dinitrotoluene	11.35	11.24	11.44
2,6-Dinitrotoluene	11.49	11.39	11.59
2,4-Dinitrotoluene	11.67	11.56	11.76
2-Nitrotoluene	12.49	12.33	12.63
4-Nitrotoluene	12.91	12.75	13.05
3-Nitrotoluene	13.48	13.33	13.63
PETN	14.65	14.49	14.79
1,2-Dinitrobenzene	8.52	8.37	8.67

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20230524-121799.b\05240026.D
Lims ID: CCV INT
Client ID:
Sample Type: CCV
Inject. Date: 24-May-2023 23:10:05 ALS Bottle#: 7 Worklist Smp#: 26
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: CCV INT
Operator ID: JZ/JG Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub26

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20230524-121799.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 25-May-2023 11:51:52 Calib Date: 24-Feb-2023 17:41:20
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20230224-118952.b\02240018.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1654

First Level Reviewer: LV5D Date: 25-May-2023 11:21:38

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
4 HMX	1	6.555	6.550	0.005	25869	0.2500	0.2766	
8 RDX	1	7.575	7.570	0.005	29835	0.2500	0.2805	
9 2,4,6-Trinitrophenol	1	7.968	7.963	0.005	22061	0.2500	0.2909	
$ 10 1,2-Dinitrobenzene	1	8.521	8.523	-0.002	36401	0.2500	0.2882	
11 1,3,5-Trinitrobenzene	1	8.648	8.650	-0.002	60485	0.2500	0.2785	
12 1,3-Dinitrobenzene	1	9.268	9.270	-0.002	82075	0.2500	0.2788	
13 Nitrobenzene	1	9.641	9.636	0.005	51153	0.2500	0.2675	
14 3,5-Dinitroaniline	1	9.874	9.870	0.004	62729	0.2500	0.2744	
15 Tetryl	1	10.008	10.003	0.005	39302	0.2500	0.2395	
16 Nitroglycerin	2	10.461	10.456	0.005	179746	2.50	2.81	
17 2,4,6-Trinitrotoluene	1	10.894	10.896	-0.002	56672	0.2500	0.2685	
18 4-Amino-2,6-dinitrotoluene	1	11.094	11.090	0.004	42358	0.2500	0.2734	
19 2-Amino-4,6-dinitrotoluene	1	11.348	11.343	0.005	54164	0.2500	0.2689	
20 2,6-Dinitrotoluene	1	11.494	11.490	0.004	40387	0.2500	0.2829	
21 2,4-Dinitrotoluene	1	11.668	11.663	0.005	81894	0.2500	0.2760	
22 o-Nitrotoluene	1	12.488	12.483	0.005	33140	0.2500	0.2591	
23 p-Nitrotoluene	1	12.908	12.903	0.005	28521	0.2500	0.2549	
24 m-Nitrotoluene	1	13.481	13.476	0.005	36286	0.2500	0.2583	
25 PETN	2	14.648	14.636	0.012	194656	2.50	2.83	

QC Flag Legend
Processing Flags

Reagents:
8330IntermStk_00076 Amount Added: 25.00 Units: uL

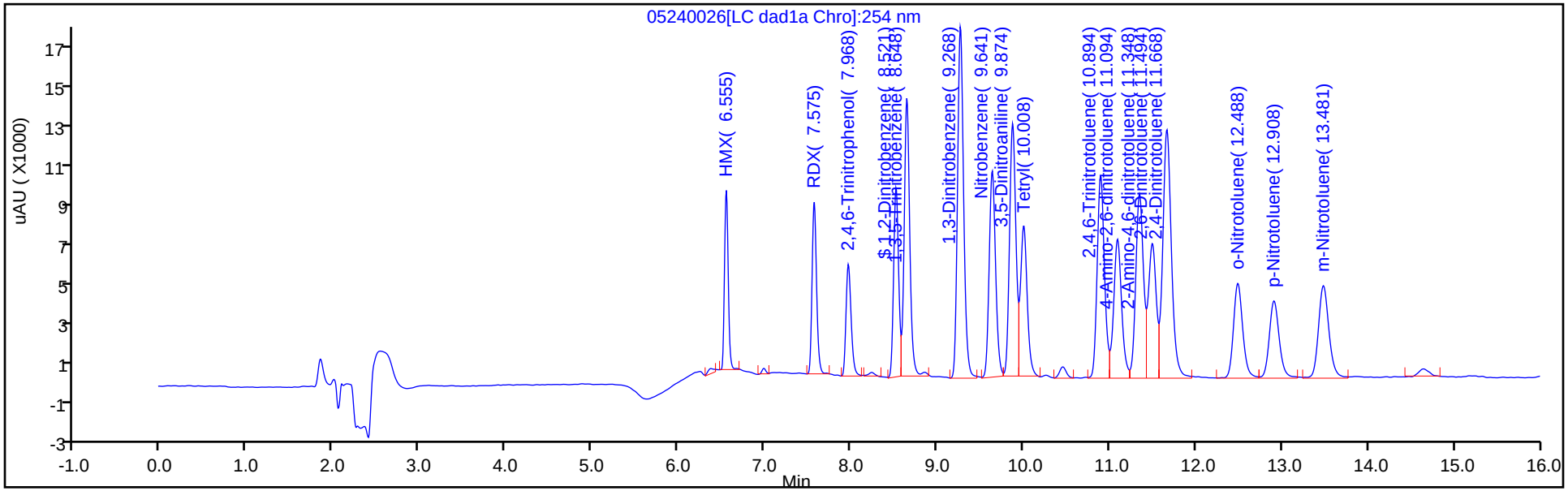
Report Date: 25-May-2023 11:51:53 Chrom Revision: 2.3 23-May-2023 13:55:56

Eurofins Denver

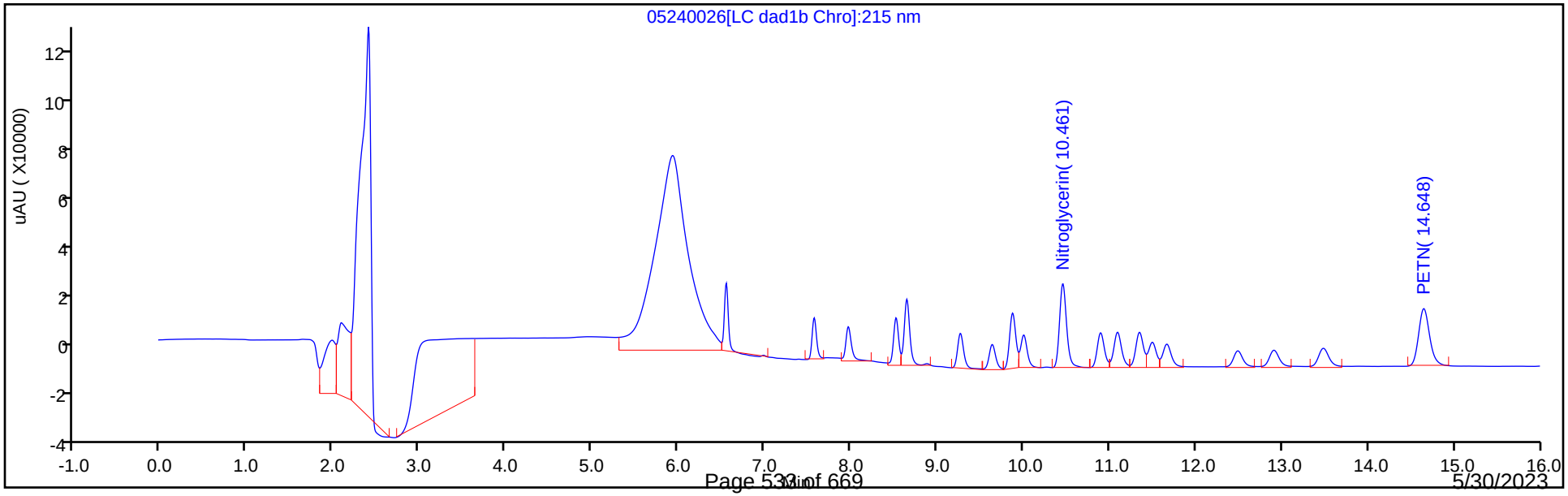
Data File: \\chromfs\denver\chromdata\chhplc_x\20230524-121799.b\05240026.d

Injection Date:	24-May-2023 23:10:05	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
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



5/30/2023
10:34 AM

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-176866-1

SDG No.:

Lab Sample ID: CCV 280-613678/37 Calibration Date: 05/25/2023 03:22

Instrument ID: CHHPLC_X3 Calib Start Date: 02/08/2023 15:38

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 02/08/2023 18:42

Lab File ID: 05240037.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
HMX	Ave	93528	103704		277	250	10.9	20.0
RDX	Ave	106380	119932		282	250	12.7	20.0
Picric acid	Ave	75830	90664		299	250	19.6	20.0
1,3,5-Trinitrobenzene	Ave	217147	241452		278	250	11.2	20.0
1,3-Dinitrobenzene	Ave	294397	330184		280	250	12.2	20.0
Nitrobenzene	Ave	191245	201688		264	250	5.5	20.0
3,5-Dinitroaniline	Lin2		254412		278	250	11.3	20.0
Tetryl	Ave	164121	155016		236	250	-5.5	20.0
Nitroglycerin	Ave	64070	72220		2820	2500	12.7	20.0
2,4,6-Trinitrotoluene	Ave	211040	228348		271	250	8.2	20.0
4-Amino-2,6-dinitrotoluene	Ave	154933	168512		272	250	8.8	20.0
2-Amino-4,6-dinitrotoluene	Ave	201410	217148		270	250	7.8	20.0
2,6-Dinitrotoluene	Ave	142745	161964		284	250	13.5	20.0
2,4-Dinitrotoluene	Ave	296667	330168		278	250	11.3	20.0
2-Nitrotoluene	Ave	127896	130980		256	250	2.4	20.0
4-Nitrotoluene	Ave	111880	112872		252	250	0.9	20.0
3-Nitrotoluene	Ave	140492	144436		257	250	2.8	20.0
PETN	Ave	68845	78469		2850	2500	14.0	20.0
1,2-Dinitrobenzene	Ave	126309	147376		292	250	16.7	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-176866-1

SDG No.:

Lab Sample ID: CCV 280-613678/37 Calibration Date: 05/25/2023 03:22

Instrument ID: CHHPLC_X3 Calib Start Date: 02/08/2023 15:38

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 02/08/2023 18:42

Lab File ID: 05240037.D

Analyte	RT	RT WINDOW	
		FROM	TO
HMX	6.55	6.40	6.70
RDX	7.58	7.42	7.72
Picric acid	7.97	7.81	8.11
1,3,5-Trinitrobenzene	8.65	8.50	8.80
1,3-Dinitrobenzene	9.27	9.12	9.42
Nitrobenzene	9.64	9.49	9.79
3,5-Dinitroaniline	9.88	9.72	10.02
Tetryl	10.00	9.85	10.15
Nitroglycerin	10.46	10.31	10.61
2,4,6-Trinitrotoluene	10.90	10.80	11.00
4-Amino-2,6-dinitrotoluene	11.09	10.99	11.19
2-Amino-4,6-dinitrotoluene	11.34	11.24	11.44
2,6-Dinitrotoluene	11.50	11.39	11.59
2,4-Dinitrotoluene	11.66	11.56	11.76
2-Nitrotoluene	12.48	12.33	12.63
4-Nitrotoluene	12.90	12.75	13.05
3-Nitrotoluene	13.47	13.33	13.63
PETN	14.63	14.49	14.79
1,2-Dinitrobenzene	8.52	8.37	8.67

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20230524-121799.b\05240037.D
Lims ID: CCV INT
Client ID:
Sample Type: CCV
Inject. Date: 25-May-2023 03:22:41 ALS Bottle#: 7 Worklist Smp#: 37
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: CCV INT
Operator ID: JZ/JG Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub26

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20230524-121799.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 25-May-2023 11:52:02 Calib Date: 24-Feb-2023 17:41:20
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20230224-118952.b\02240018.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1654

First Level Reviewer: K8YG Date: 25-May-2023 08:32:27

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
4 HMX	1	6.550	6.550	0.000	25926	0.2500	0.2772	
8 RDX	1	7.577	7.570	0.007	29983	0.2500	0.2818	
9 2,4,6-Trinitrophenol	1	7.970	7.963	0.007	22666	0.2500	0.2989	
$ 10 1,2-Dinitrobenzene	1	8.524	8.523	0.001	36844	0.2500	0.2917	
11 1,3,5-Trinitrobenzene	1	8.650	8.650	0.000	60363	0.2500	0.2780	
12 1,3-Dinitrobenzene	1	9.270	9.270	0.000	82546	0.2500	0.2804	
13 Nitrobenzene	1	9.643	9.636	0.007	50422	0.2500	0.2637	
14 3,5-Dinitroaniline	1	9.877	9.870	0.007	63603	0.2500	0.2782	
15 Tetryl	1	10.003	10.003	0.000	38754	0.2500	0.2361	
16 Nitroglycerin	2	10.457	10.456	0.001	180550	2.50	2.82	
17 2,4,6-Trinitrotoluene	1	10.897	10.896	0.001	57087	0.2500	0.2705	
18 4-Amino-2,6-dinitrotoluene	1	11.090	11.090	0.000	42128	0.2500	0.2719	
19 2-Amino-4,6-dinitrotoluene	1	11.343	11.343	0.000	54287	0.2500	0.2695	
20 2,6-Dinitrotoluene	1	11.497	11.490	0.007	40491	0.2500	0.2837	
21 2,4-Dinitrotoluene	1	11.663	11.663	0.000	82542	0.2500	0.2782	
22 o-Nitrotoluene	1	12.483	12.483	0.000	32745	0.2500	0.2560	
23 p-Nitrotoluene	1	12.903	12.903	0.000	28218	0.2500	0.2522	
24 m-Nitrotoluene	1	13.470	13.476	-0.006	36109	0.2500	0.2570	
25 PETN	2	14.630	14.636	-0.006	196173	2.50	2.85	

QC Flag Legend
Processing Flags

Reagents:
8330IntermStk_00076 Amount Added: 25.00 Units: uL

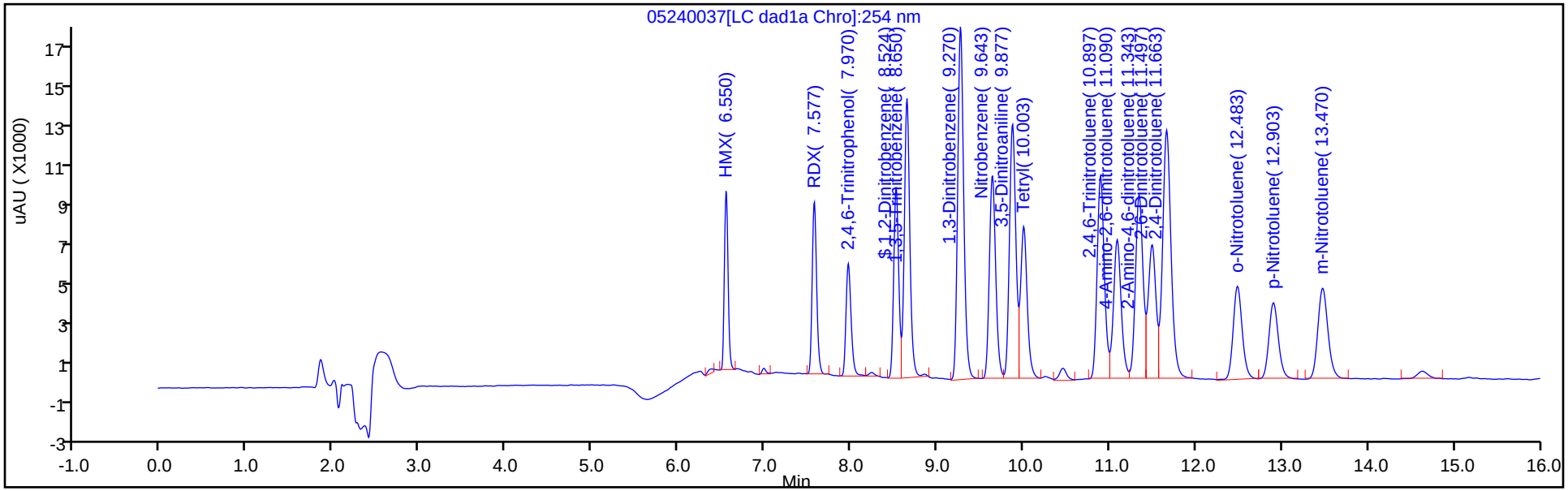
Report Date: 25-May-2023 11:52:03 Chrom Revision: 2.3 23-May-2023 13:55:56

Eurofins Denver

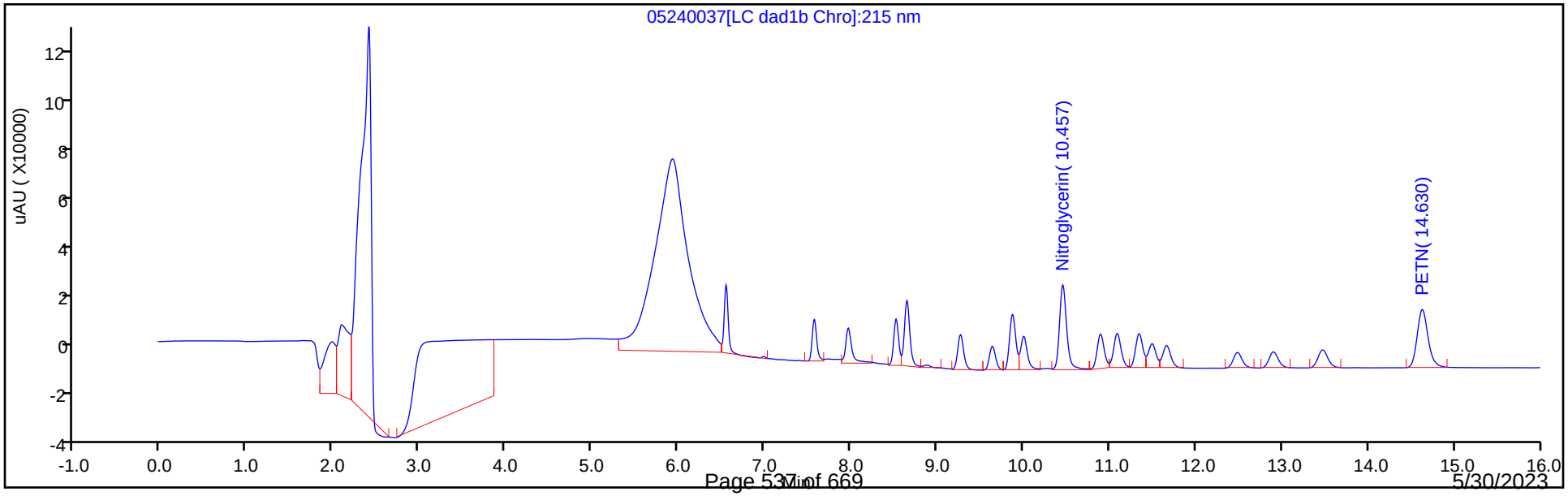
Data File: \\chromfs\denver\chromdata\chhplc_x\20230524-121799.b\05240037.d

Injection Date:	25-May-2023 03:22:41	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
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



5/30/2023
10:34 AM

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-176866-1

SDG No.:

Lab Sample ID: CCV 280-613678/48 Calibration Date: 05/25/2023 07:35

Instrument ID: CHHPLC_X3 Calib Start Date: 02/08/2023 15:38

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 02/08/2023 18:42

Lab File ID: 05240048.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
HMX	Ave	93528	105204		281	250	12.5	20.0
RDX	Ave	106380	119324		280	250	12.2	20.0
Picric acid	Ave	75830	90540		298	250	19.4	20.0
1,3,5-Trinitrobenzene	Ave	217147	241956		279	250	11.4	20.0
1,3-Dinitrobenzene	Ave	294397	331596		282	250	12.6	20.0
Nitrobenzene	Ave	191245	200964		263	250	5.1	20.0
3,5-Dinitroaniline	Lin2		253664		277	250	10.9	20.0
Tetryl	Ave	164121	158164		241	250	-3.6	20.0
Nitroglycerin	Ave	64070	72393		2820	2500	13.0	20.0
2,4,6-Trinitrotoluene	Ave	211040	228340		270	250	8.2	20.0
4-Amino-2,6-dinitrotoluene	Ave	154933	170688		275	250	10.2	20.0
2-Amino-4,6-dinitrotoluene	Ave	201410	218740		272	250	8.6	20.0
2,6-Dinitrotoluene	Ave	142745	162576		285	250	13.9	20.0
2,4-Dinitrotoluene	Ave	296667	328844		277	250	10.8	20.0
2-Nitrotoluene	Ave	127896	131248		257	250	2.6	20.0
4-Nitrotoluene	Ave	111880	115072		257	250	2.9	20.0
3-Nitrotoluene	Ave	140492	143760		256	250	2.3	20.0
PETN	Ave	68845	78734		2860	2500	14.4	20.0
1,2-Dinitrobenzene	Ave	126309	147660		292	250	16.9	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-176866-1

SDG No.:

Lab Sample ID: CCV 280-613678/48 Calibration Date: 05/25/2023 07:35

Instrument ID: CHHPLC_X3 Calib Start Date: 02/08/2023 15:38

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 02/08/2023 18:42

Lab File ID: 05240048.D

Analyte	RT	RT WINDOW	
		FROM	TO
HMX	6.55	6.40	6.70
RDX	7.58	7.42	7.72
Picric acid	7.98	7.81	8.11
1,3,5-Trinitrobenzene	8.66	8.50	8.80
1,3-Dinitrobenzene	9.28	9.12	9.42
Nitrobenzene	9.65	9.49	9.79
3,5-Dinitroaniline	9.88	9.72	10.02
Tetryl	10.02	9.85	10.15
Nitroglycerin	10.47	10.31	10.61
2,4,6-Trinitrotoluene	10.90	10.80	11.00
4-Amino-2,6-dinitrotoluene	11.10	10.99	11.19
2-Amino-4,6-dinitrotoluene	11.36	11.24	11.44
2,6-Dinitrotoluene	11.50	11.39	11.59
2,4-Dinitrotoluene	11.67	11.56	11.76
2-Nitrotoluene	12.50	12.33	12.63
4-Nitrotoluene	12.92	12.75	13.05
3-Nitrotoluene	13.48	13.33	13.63
PETN	14.65	14.49	14.79
1,2-Dinitrobenzene	8.53	8.37	8.67

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20230524-121799.b\05240048.D
Lims ID: CCV INT
Client ID:
Sample Type: CCV
Inject. Date: 25-May-2023 07:35:08 ALS Bottle#: 7 Worklist Smp#: 48
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: CCV INT
Operator ID: JZ/JG Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub26

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20230524-121799.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 25-May-2023 11:52:11 Calib Date: 24-Feb-2023 17:41:20
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20230224-118952.b\02240018.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1654

First Level Reviewer: K8YG Date: 25-May-2023 09:20:29

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
4 HMX	1	6.550	6.550	0.000	26301	0.2500	0.2812	
8 RDX	1	7.577	7.570	0.007	29831	0.2500	0.2804	
9 2,4,6-Trinitrophenol	1	7.977	7.963	0.014	22635	0.2500	0.2985	
$ 10 1,2-Dinitrobenzene	1	8.530	8.523	0.007	36915	0.2500	0.2923	
11 1,3,5-Trinitrobenzene	1	8.657	8.650	0.007	60489	0.2500	0.2786	
12 1,3-Dinitrobenzene	1	9.277	9.270	0.007	82899	0.2500	0.2816	
13 Nitrobenzene	1	9.650	9.636	0.014	50241	0.2500	0.2627	
14 3,5-Dinitroaniline	1	9.883	9.870	0.013	63416	0.2500	0.2774	
15 Tetryl	1	10.017	10.003	0.014	39541	0.2500	0.2409	
16 Nitroglycerin	2	10.470	10.456	0.014	180983	2.50	2.82	
17 2,4,6-Trinitrotoluene	1	10.903	10.896	0.007	57085	0.2500	0.2705	
18 4-Amino-2,6-dinitrotoluene	1	11.103	11.090	0.013	42672	0.2500	0.2754	
19 2-Amino-4,6-dinitrotoluene	1	11.357	11.343	0.014	54685	0.2500	0.2715	
20 2,6-Dinitrotoluene	1	11.503	11.490	0.013	40644	0.2500	0.2847	
21 2,4-Dinitrotoluene	1	11.670	11.663	0.007	82211	0.2500	0.2771	
22 o-Nitrotoluene	1	12.497	12.483	0.014	32812	0.2500	0.2566	
23 p-Nitrotoluene	1	12.917	12.903	0.014	28768	0.2500	0.2571	
24 m-Nitrotoluene	1	13.483	13.476	0.007	35940	0.2500	0.2558	
25 PETN	2	14.650	14.636	0.014	196835	2.50	2.86	

QC Flag Legend
Processing Flags

Reagents:
8330IntermStk_00076 Amount Added: 25.00 Units: uL

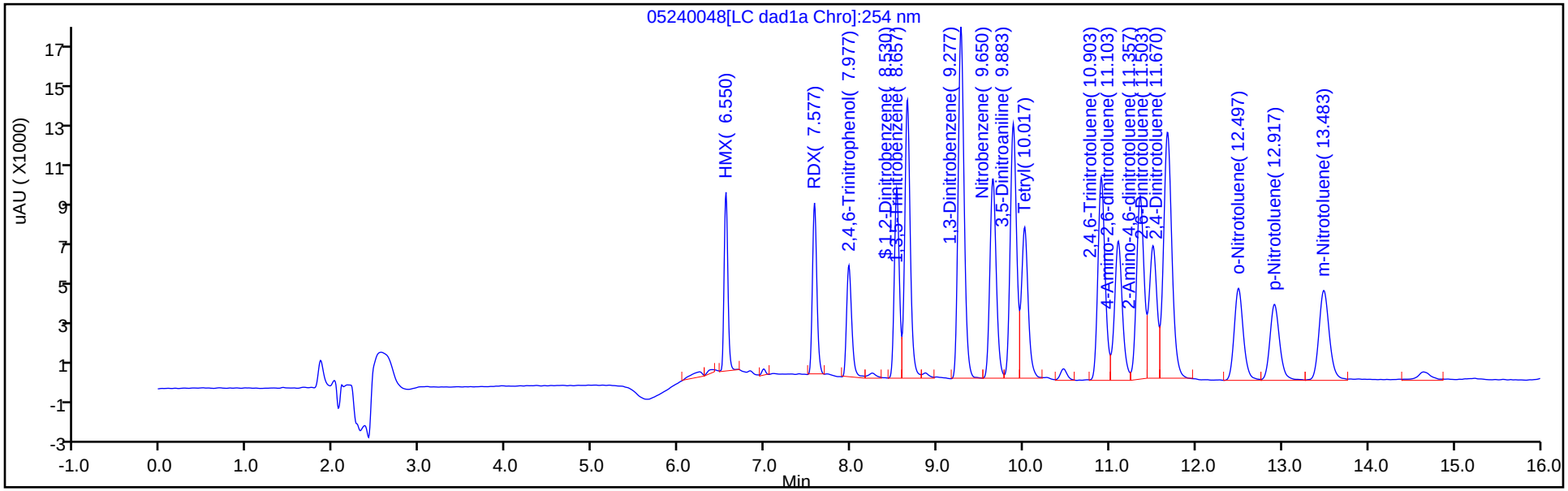
Report Date: 25-May-2023 11:52:11 Chrom Revision: 2.3 23-May-2023 13:55:56

Eurofins Denver

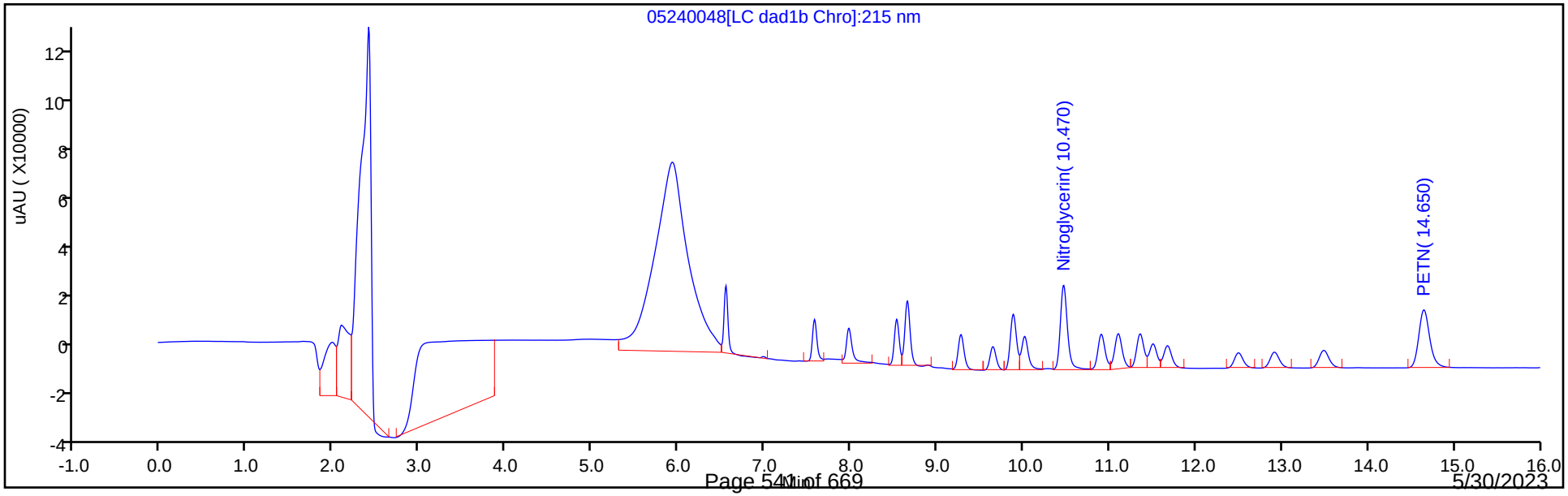
Data File: \\chromfs\denver\chromdata\chhplc_x\20230524-121799.b\05240048.d

Injection Date:	25-May-2023 07:35:08	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	CCV INT			Worklist Smp#:	48
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



5/30/2023
10:34 AM

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-176866-1

SDG No.:

Lab Sample ID: CCV 280-613812/26 Calibration Date: 05/25/2023 21:12

Instrument ID: CHHPLC_X3 Calib Start Date: 02/08/2023 15:38

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 02/08/2023 18:42

Lab File ID: 05250026.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
HMX	Ave	93528	101264		271	250	8.3	20.0
RDX	Ave	106380	117172		275	250	10.1	20.0
Picric acid	Ave	75830	85900		283	250	13.3	20.0
1,3,5-Trinitrobenzene	Ave	217147	236536		272	250	8.9	20.0
1,3-Dinitrobenzene	Ave	294397	319524		271	250	8.5	20.0
Nitrobenzene	Ave	191245	199224		260	250	4.2	20.0
3,5-Dinitroaniline	Lin2		246728		270	250	7.9	20.0
Tetryl	Ave	164121	151200		230	250	-7.9	20.0
Nitroglycerin	Ave	64070	69952		2730	2500	9.2	20.0
2,4,6-Trinitrotoluene	Ave	211040	221828		263	250	5.1	20.0
4-Amino-2,6-dinitrotoluene	Ave	154933	163848		264	250	5.8	20.0
2-Amino-4,6-dinitrotoluene	Ave	201410	212800		264	250	5.7	20.0
2,6-Dinitrotoluene	Ave	142745	156100		273	250	9.4	20.0
2,4-Dinitrotoluene	Ave	296667	320160		270	250	7.9	20.0
2-Nitrotoluene	Ave	127896	130988		256	250	2.4	20.0
4-Nitrotoluene	Ave	111880	111692		250	250	-0.2	20.0
3-Nitrotoluene	Ave	140492	141836		252	250	1.0	20.0
PETN	Ave	68845	76334		2770	2500	10.9	20.0
1,2-Dinitrobenzene	Ave	126309	141868		281	250	12.3	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-176866-1

SDG No.:

Lab Sample ID: CCV 280-613812/26 Calibration Date: 05/25/2023 21:12

Instrument ID: CHHPLC_X3 Calib Start Date: 02/08/2023 15:38

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 02/08/2023 18:42

Lab File ID: 05250026.D

Analyte	RT	RT WINDOW	
		FROM	TO
HMX	6.56	6.40	6.70
RDX	7.56	7.42	7.72
Picric acid	7.95	7.80	8.10
1,3,5-Trinitrobenzene	8.64	8.50	8.80
1,3-Dinitrobenzene	9.27	9.12	9.42
Nitrobenzene	9.64	9.50	9.80
3,5-Dinitroaniline	9.88	9.73	10.03
Tetryl	10.00	9.86	10.16
Nitroglycerin	10.46	10.32	10.62
2,4,6-Trinitrotoluene	10.90	10.81	11.01
4-Amino-2,6-dinitrotoluene	11.10	11.00	11.20
2-Amino-4,6-dinitrotoluene	11.35	11.25	11.45
2,6-Dinitrotoluene	11.50	11.41	11.61
2,4-Dinitrotoluene	11.68	11.58	11.78
2-Nitrotoluene	12.50	12.36	12.66
4-Nitrotoluene	12.92	12.78	13.08
3-Nitrotoluene	13.50	13.35	13.65
PETN	14.66	14.52	14.82
1,2-Dinitrobenzene	8.52	8.38	8.68

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20230525-121837.b\05250026.D
Lims ID: CCV DMT
Client ID:
Sample Type: CCV
Inject. Date: 25-May-2023 21:12:25 ALS Bottle#: 7 Worklist Smp#: 26
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: CCV DMT
Operator ID: JZ/JG Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub27

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20230525-121837.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 26-May-2023 11:54:45 Calib Date: 24-Feb-2023 17:41:20
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20230224-118952.b\02240018.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1649

First Level Reviewer: K8YG Date: 26-May-2023 07:13:23

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 TNX	1	6.436	6.432	0.004	50600	0.2508	0.2560	M
4 HMX	1	6.556	6.552	0.004	25316	0.2500	0.2707	M
6 DNX	1	6.756	6.758	-0.002	37603	0.2503	0.2603	M
7 MNX	1	7.183	7.185	-0.002	39624	0.2918	0.3021	
8 RDX	1	7.563	7.572	-0.009	29293	0.2500	0.2754	
9 2,4,6-Trinitrophenol	1	7.949	7.952	-0.003	21475	0.2500	0.2832	
$ 10 1,2-Dinitrobenzene	1	8.516	8.525	-0.009	35467	0.2500	0.2808	
11 1,3,5-Trinitrobenzene	1	8.643	8.652	-0.009	59134	0.2500	0.2723	
12 1,3-Dinitrobenzene	1	9.269	9.271	-0.002	79881	0.2500	0.2713	
13 Nitrobenzene	1	9.636	9.645	-0.009	49806	0.2500	0.2604	
14 3,5-Dinitroaniline	1	9.876	9.878	-0.002	61682	0.2500	0.2698	
15 Tetryl	1	10.003	10.011	-0.008	37800	0.2500	0.2303	
16 Nitroglycerin	2	10.463	10.465	-0.002	174881	2.50	2.73	
17 2,4,6-Trinitrotoluene	1	10.903	10.905	-0.002	55457	0.2500	0.2628	
18 4-Amino-2,6-dinitrotoluene	1	11.096	11.098	-0.002	40962	0.2500	0.2644	
19 2-Amino-4,6-dinitrotoluene	1	11.349	11.351	-0.002	53200	0.2500	0.2641	
20 2,6-Dinitrotoluene	1	11.503	11.505	-0.002	39025	0.2500	0.2734	
21 2,4-Dinitrotoluene	1	11.676	11.678	-0.002	80040	0.2500	0.2698	
22 o-Nitrotoluene	1	12.503	12.505	-0.002	32747	0.2500	0.2560	
23 p-Nitrotoluene	1	12.923	12.925	-0.002	27923	0.2500	0.2496	
24 m-Nitrotoluene	1	13.496	13.498	-0.002	35459	0.2500	0.2524	
25 PETN	2	14.663	14.665	-0.002	190835	2.50	2.77	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330 DMT_00013	Amount Added:	12.50	Units: uL
8330IntermStk_00075	Amount Added:	25.00	Units: uL

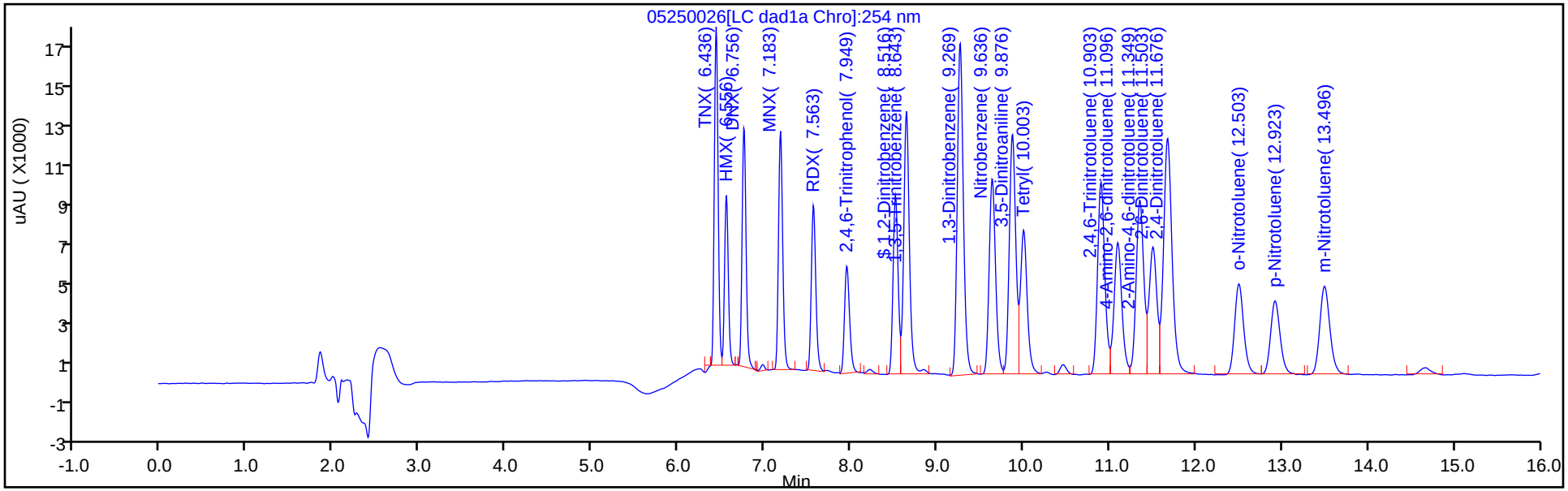
Report Date: 26-May-2023 11:54:46 Chrom Revision: 2.3 23-May-2023 13:55:56

Eurofins Denver

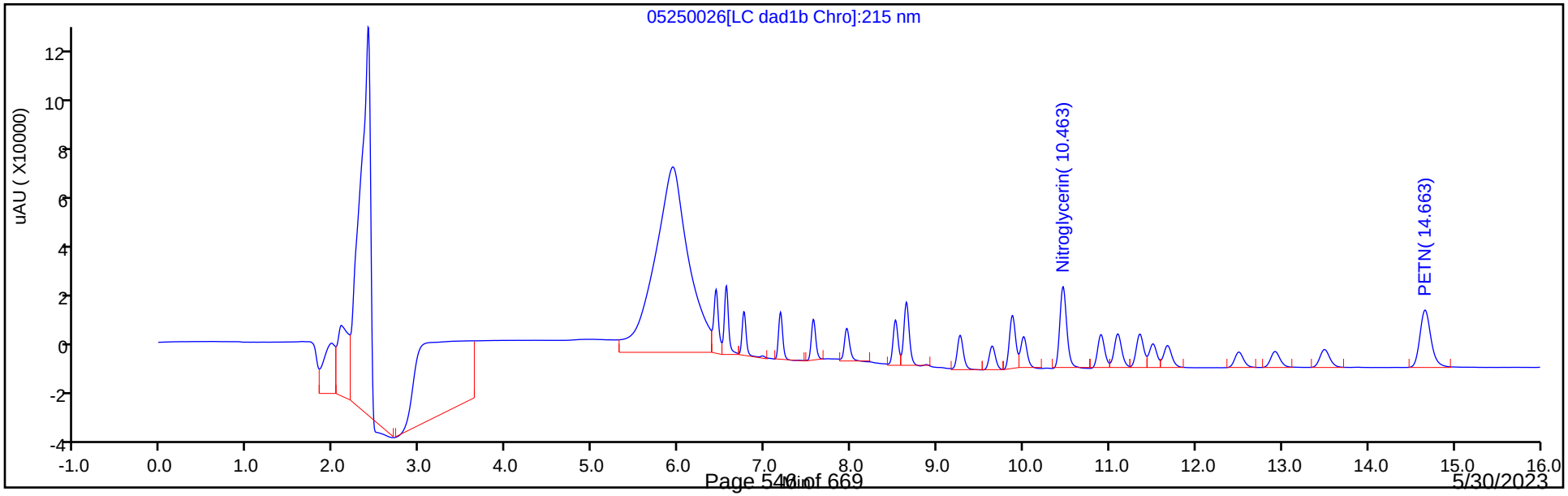
Data File: \\chromfs\denver\chromdata\chhplc_x\20230525-121837.b\05250026.d

Injection Date:	25-May-2023 21:12:25	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	CCV DMT			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



5/30/2023
10:34 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

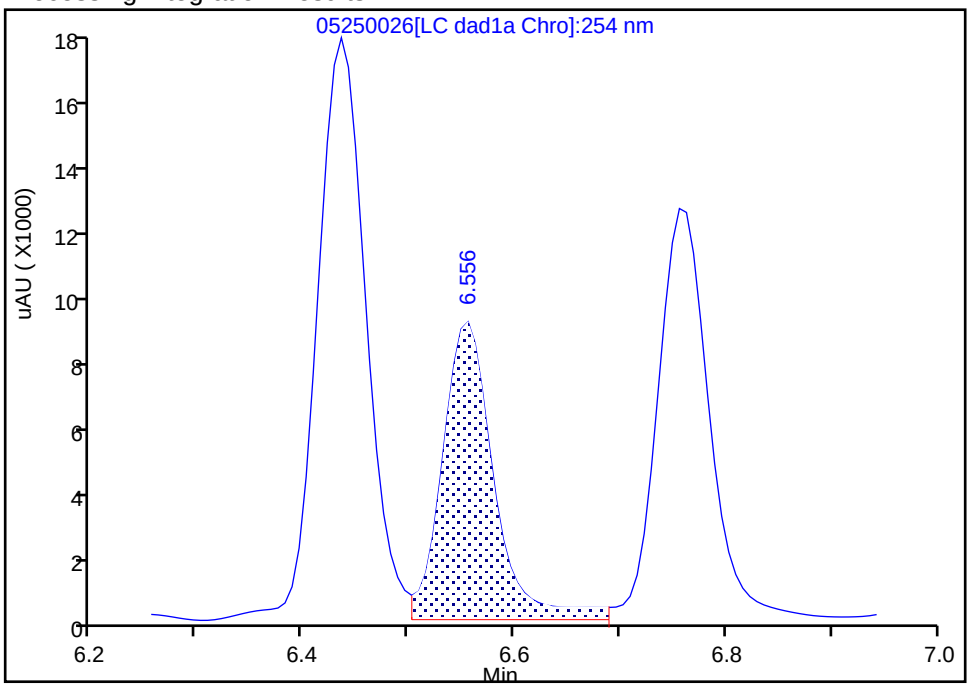
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230525-121837.b\05250026.d				
Injection Date:	25-May-2023 21:12:25	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV DMT				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	7	Worklist Smp#:	26
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

4 HMX, CAS: 2691-41-0

Signal: 1

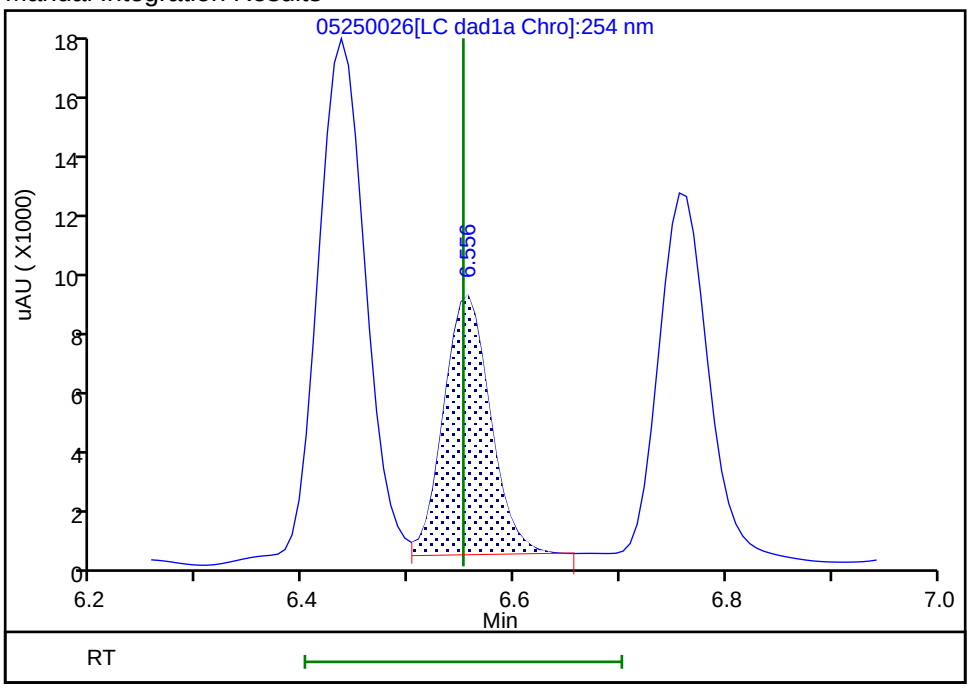
Processing Integration Results

RT: 6.56
Area: 29075
Amount: 0.310869
Amount Units: ug/mL



Manual Integration Results

RT: 6.56
Area: 25316
Amount: 0.270678
Amount Units: ug/mL



Reviewer: K8YG, 26-May-2023 07:10:22 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-176866-1

SDG No.:

Lab Sample ID: CCV 280-613812/26 Calibration Date: 05/25/2023 21:12

Instrument ID: CHHPLC_X3 Calib Start Date: 02/24/2023 15:00

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 02/24/2023 17:41

Lab File ID: 05250026.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
TNX	Ave	197687	201795		256	251	2.1	20.0
DNX	Ave	144462	150262		260	250	4.0	20.0
MNX	Ave	131172	135815		302	292	3.5	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-176866-1

SDG No.:

Lab Sample ID: CCV 280-613812/26 Calibration Date: 05/25/2023 21:12

Instrument ID: CHHPLC_X3 Calib Start Date: 02/24/2023 15:00

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 02/24/2023 17:41

Lab File ID: 05250026.D

Analyte	RT	RT WINDOW	
		FROM	TO
TNX	6.44	6.33	6.53
DNX	6.76	6.66	6.86
MNX	7.18	7.04	7.34

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20230525-121837.b\05250026.D
Lims ID: CCV DMT
Client ID:
Sample Type: CCV
Inject. Date: 25-May-2023 21:12:25 ALS Bottle#: 7 Worklist Smp#: 26
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: CCV DMT
Operator ID: JZ/JG Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub27

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20230525-121837.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 26-May-2023 11:54:45 Calib Date: 24-Feb-2023 17:41:20
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20230224-118952.b\02240018.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1649

First Level Reviewer: K8YG Date: 26-May-2023 07:13:23

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 TNX	1	6.436	6.432	0.004	50600	0.2508	0.2560	M
4 HMX	1	6.556	6.552	0.004	25316	0.2500	0.2707	M
6 DNX	1	6.756	6.758	-0.002	37603	0.2503	0.2603	M
7 MNX	1	7.183	7.185	-0.002	39624	0.2918	0.3021	
8 RDX	1	7.563	7.572	-0.009	29293	0.2500	0.2754	
9 2,4,6-Trinitrophenol	1	7.949	7.952	-0.003	21475	0.2500	0.2832	
$ 10 1,2-Dinitrobenzene	1	8.516	8.525	-0.009	35467	0.2500	0.2808	
11 1,3,5-Trinitrobenzene	1	8.643	8.652	-0.009	59134	0.2500	0.2723	
12 1,3-Dinitrobenzene	1	9.269	9.271	-0.002	79881	0.2500	0.2713	
13 Nitrobenzene	1	9.636	9.645	-0.009	49806	0.2500	0.2604	
14 3,5-Dinitroaniline	1	9.876	9.878	-0.002	61682	0.2500	0.2698	
15 Tetryl	1	10.003	10.011	-0.008	37800	0.2500	0.2303	
16 Nitroglycerin	2	10.463	10.465	-0.002	174881	2.50	2.73	
17 2,4,6-Trinitrotoluene	1	10.903	10.905	-0.002	55457	0.2500	0.2628	
18 4-Amino-2,6-dinitrotoluene	1	11.096	11.098	-0.002	40962	0.2500	0.2644	
19 2-Amino-4,6-dinitrotoluene	1	11.349	11.351	-0.002	53200	0.2500	0.2641	
20 2,6-Dinitrotoluene	1	11.503	11.505	-0.002	39025	0.2500	0.2734	
21 2,4-Dinitrotoluene	1	11.676	11.678	-0.002	80040	0.2500	0.2698	
22 o-Nitrotoluene	1	12.503	12.505	-0.002	32747	0.2500	0.2560	
23 p-Nitrotoluene	1	12.923	12.925	-0.002	27923	0.2500	0.2496	
24 m-Nitrotoluene	1	13.496	13.498	-0.002	35459	0.2500	0.2524	
25 PETN	2	14.663	14.665	-0.002	190835	2.50	2.77	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330 DMT_00013	Amount Added:	12.50	Units: uL
8330IntermStk_00075	Amount Added:	25.00	Units: uL

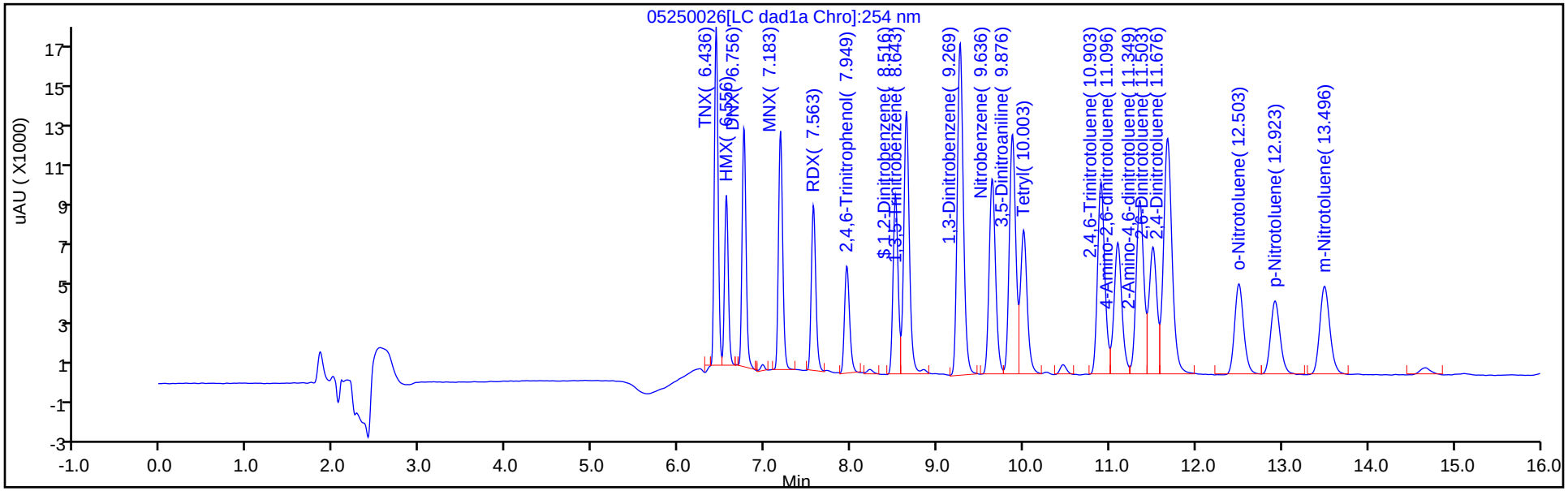
Report Date: 26-May-2023 11:54:46 Chrom Revision: 2.3 23-May-2023 13:55:56

Eurofins Denver

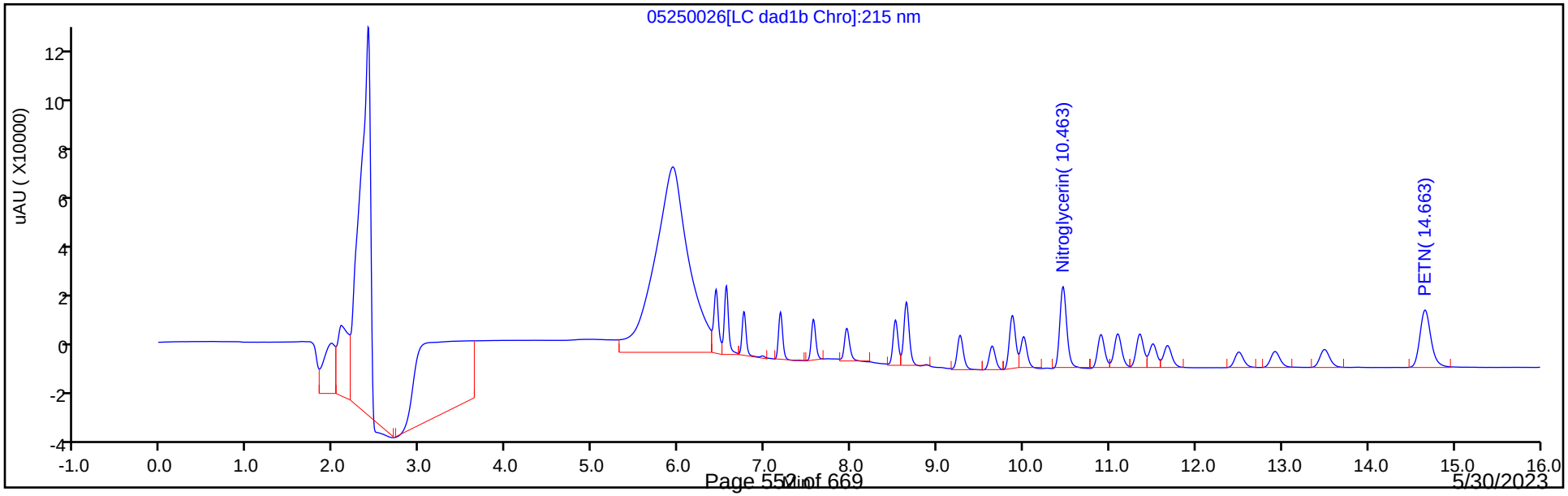
Data File: \\chromfs\denver\chromdata\chhplc_x\20230525-121837.b\05250026.d

Injection Date:	25-May-2023 21:12:25	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	CCV DMT			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



5/30/2023
10:34 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

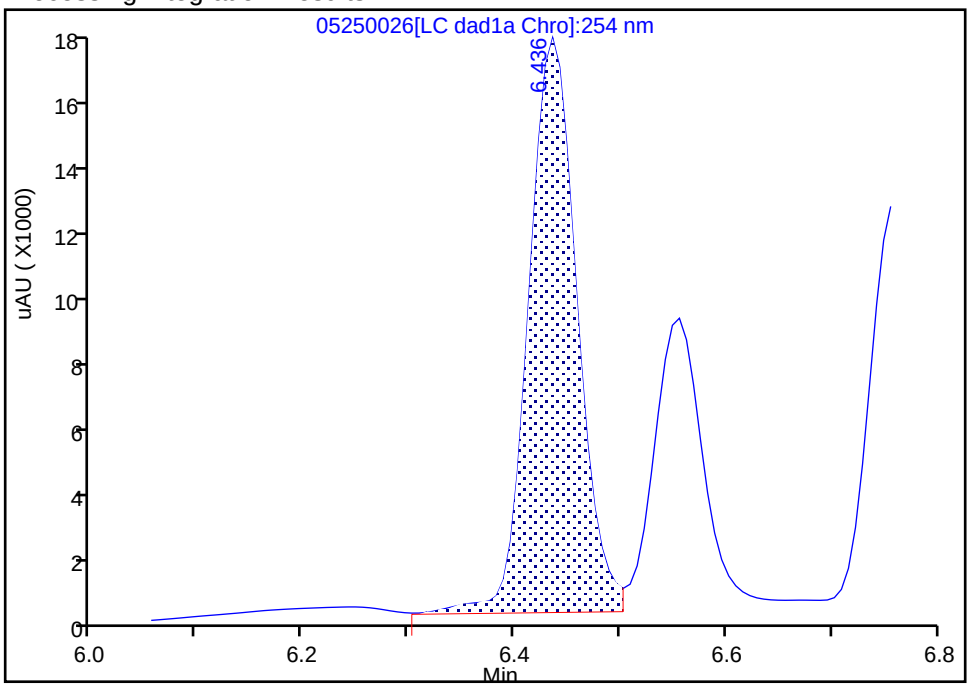
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230525-121837.b\05250026.d				
Injection Date:	25-May-2023 21:12:25	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV DMT				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	7	Worklist Smp#:	26
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

3 TNX, CAS: 13980-04-6

Signal: 1

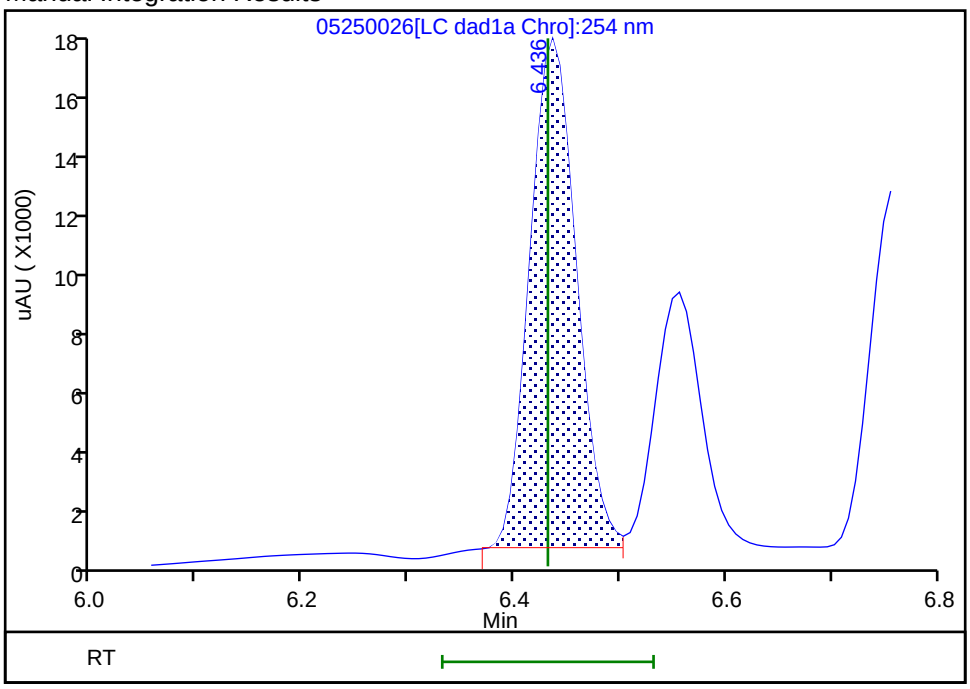
Processing Integration Results

RT: 6.44
Area: 53795
Amount: 0.272122
Amount Units: ug/mL



Manual Integration Results

RT: 6.44
Area: 50600
Amount: 0.255960
Amount Units: ug/mL



Reviewer: K8YG, 26-May-2023 07:10:19 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

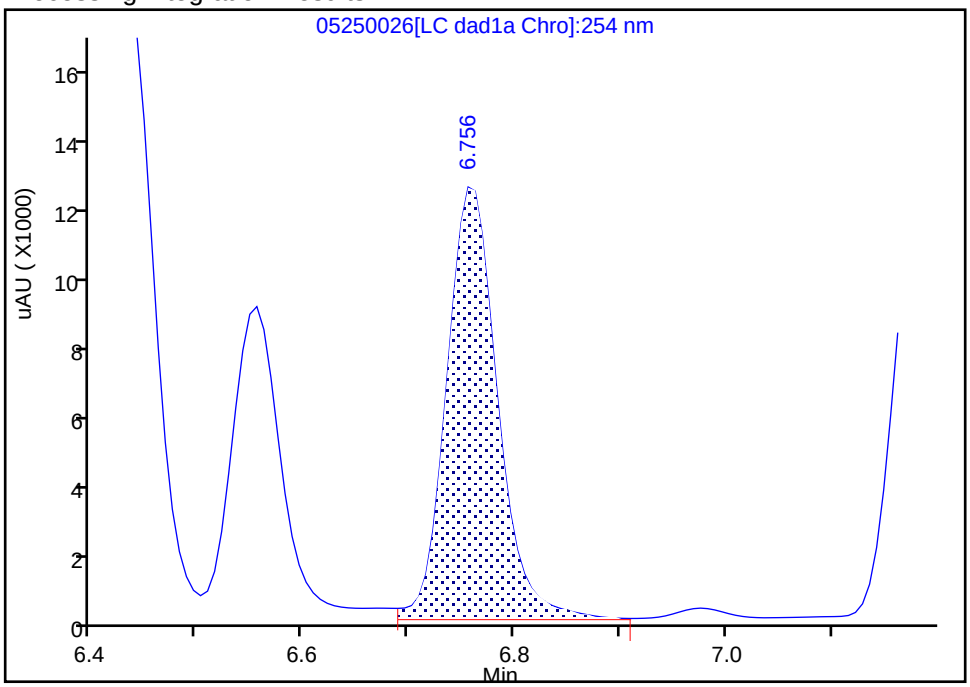
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230525-121837.b\05250026.d				
Injection Date:	25-May-2023 21:12:25	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV DMT				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	7	Worklist Smp#:	26
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

6 DNX, CAS: 80251-29-2

Signal: 1

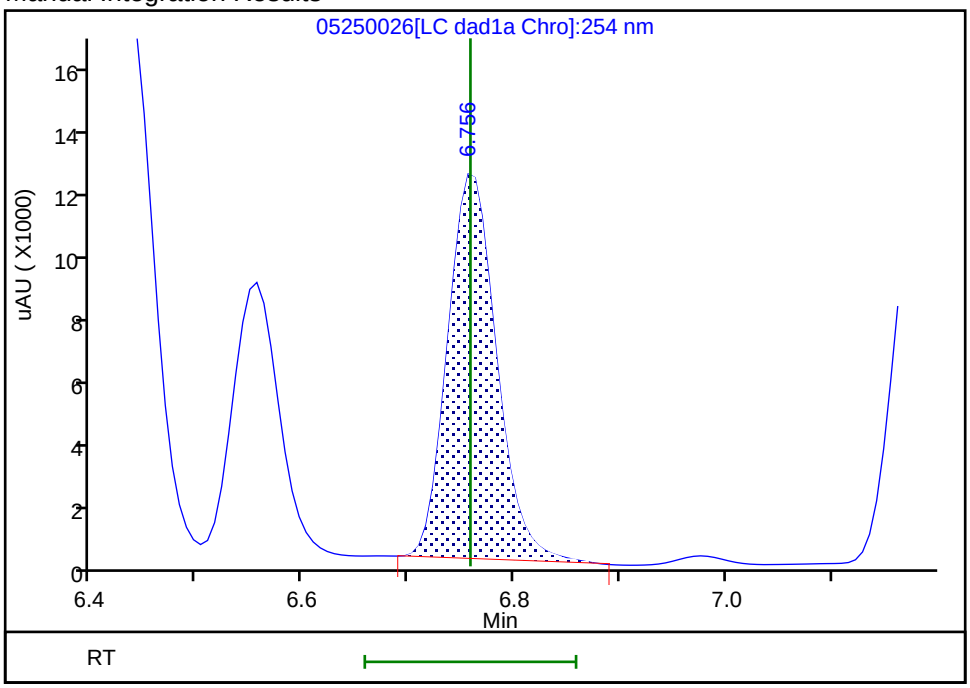
Processing Integration Results

RT: 6.76
Area: 39917
Amount: 0.276314
Amount Units: ug/mL



Manual Integration Results

RT: 6.76
Area: 37603
Amount: 0.260296
Amount Units: ug/mL



Reviewer: K8YG, 26-May-2023 07:10:58 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-176866-1

SDG No.:

Lab Sample ID: CCV 280-613812/35 Calibration Date: 05/26/2023 00:38

Instrument ID: CHHPLC_X3 Calib Start Date: 02/08/2023 15:38

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 02/08/2023 18:42

Lab File ID: 05250035.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
HMX	Ave	93528	101092		270	250	8.1	20.0
RDX	Ave	106380	118476		278	250	11.4	20.0
Picric acid	Ave	75830	86196		284	250	13.7	20.0
1,3,5-Trinitrobenzene	Ave	217147	236196		272	250	8.8	20.0
1,3-Dinitrobenzene	Ave	294397	320516		272	250	8.9	20.0
Nitrobenzene	Ave	191245	197668		258	250	3.4	20.0
3,5-Dinitroaniline	Lin2		246752		270	250	7.9	20.0
Tetryl	Ave	164121	152720		233	250	-6.9	20.0
Nitroglycerin	Ave	64070	70211		2740	2500	9.6	20.0
2,4,6-Trinitrotoluene	Ave	211040	220224		261	250	4.4	20.0
4-Amino-2,6-dinitrotoluene	Ave	154933	165820		268	250	7.0	20.0
2-Amino-4,6-dinitrotoluene	Ave	201410	212464		264	250	5.5	20.0
2,6-Dinitrotoluene	Ave	142745	156204		274	250	9.4	20.0
2,4-Dinitrotoluene	Ave	296667	322248		272	250	8.6	20.0
2-Nitrotoluene	Ave	127896	128196		251	250	0.2	20.0
4-Nitrotoluene	Ave	111880	110140		246	250	-1.6	20.0
3-Nitrotoluene	Ave	140492	141400		252	250	0.6	20.0
PETN	Ave	68845	76832		2790	2500	11.6	20.0
1,2-Dinitrobenzene	Ave	126309	143092		283	250	13.3	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-176866-1

SDG No.:

Lab Sample ID: CCV 280-613812/35 Calibration Date: 05/26/2023 00:38

Instrument ID: CHHPLC_X3 Calib Start Date: 02/08/2023 15:38

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 02/08/2023 18:42

Lab File ID: 05250035.D

Analyte	RT	RT WINDOW	
		FROM	TO
HMX	6.55	6.40	6.70
RDX	7.56	7.42	7.72
Picric acid	7.95	7.80	8.10
1,3,5-Trinitrobenzene	8.64	8.50	8.80
1,3-Dinitrobenzene	9.26	9.12	9.42
Nitrobenzene	9.63	9.50	9.80
3,5-Dinitroaniline	9.86	9.73	10.03
Tetryl	9.99	9.86	10.16
Nitroglycerin	10.45	10.32	10.62
2,4,6-Trinitrotoluene	10.89	10.81	11.01
4-Amino-2,6-dinitrotoluene	11.08	11.00	11.20
2-Amino-4,6-dinitrotoluene	11.34	11.25	11.45
2,6-Dinitrotoluene	11.49	11.41	11.61
2,4-Dinitrotoluene	11.66	11.58	11.78
2-Nitrotoluene	12.48	12.36	12.66
4-Nitrotoluene	12.90	12.78	13.08
3-Nitrotoluene	13.47	13.35	13.65
PETN	14.63	14.52	14.82
1,2-Dinitrobenzene	8.51	8.38	8.68

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20230525-121837.b\05250035.D
Lims ID: CCV DMT
Client ID:
Sample Type: CCV
Inject. Date: 26-May-2023 00:38:53 ALS Bottle#: 7 Worklist Smp#: 35
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: CCV DMT
Operator ID: JZ/JG Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub27

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20230525-121837.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 26-May-2023 11:54:54 Calib Date: 24-Feb-2023 17:41:20
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20230224-118952.b\02240018.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1649

First Level Reviewer: K8YG Date: 26-May-2023 07:34:49

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 TNX	1	6.431	6.432	-0.001	50664	0.2508	0.2563	M
4 HMX	1	6.551	6.552	-0.001	25273	0.2500	0.2702	M
6 DNX	1	6.751	6.758	-0.007	38030	0.2503	0.2633	M
7 MNX	1	7.178	7.185	-0.007	39799	0.2918	0.3034	
8 RDX	1	7.558	7.572	-0.014	29619	0.2500	0.2784	
9 2,4,6-Trinitrophenol	1	7.945	7.952	-0.007	21549	0.2500	0.2842	
$ 10 1,2-Dinitrobenzene	1	8.511	8.525	-0.014	35773	0.2500	0.2832	
11 1,3,5-Trinitrobenzene	1	8.638	8.652	-0.014	59049	0.2500	0.2719	
12 1,3-Dinitrobenzene	1	9.258	9.271	-0.013	80129	0.2500	0.2722	
13 Nitrobenzene	1	9.631	9.645	-0.014	49417	0.2500	0.2584	
14 3,5-Dinitroaniline	1	9.864	9.878	-0.014	61688	0.2500	0.2698	
15 Tetryl	1	9.991	10.011	-0.020	38180	0.2500	0.2326	
16 Nitroglycerin	2	10.451	10.465	-0.014	175527	2.50	2.74	
17 2,4,6-Trinitrotoluene	1	10.891	10.905	-0.014	55056	0.2500	0.2609	
18 4-Amino-2,6-dinitrotoluene	1	11.078	11.098	-0.020	41455	0.2500	0.2676	
19 2-Amino-4,6-dinitrotoluene	1	11.338	11.351	-0.013	53116	0.2500	0.2637	
20 2,6-Dinitrotoluene	1	11.491	11.505	-0.014	39051	0.2500	0.2736	
21 2,4-Dinitrotoluene	1	11.658	11.678	-0.020	80562	0.2500	0.2716	
22 o-Nitrotoluene	1	12.484	12.505	-0.021	32049	0.2500	0.2506	
23 p-Nitrotoluene	1	12.898	12.925	-0.027	27535	0.2500	0.2461	
24 m-Nitrotoluene	1	13.471	13.498	-0.027	35350	0.2500	0.2516	
25 PETN	2	14.631	14.665	-0.034	192081	2.50	2.79	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330 DMT_00013	Amount Added:	12.50	Units: uL
8330IntermStk_00075	Amount Added:	25.00	Units: uL

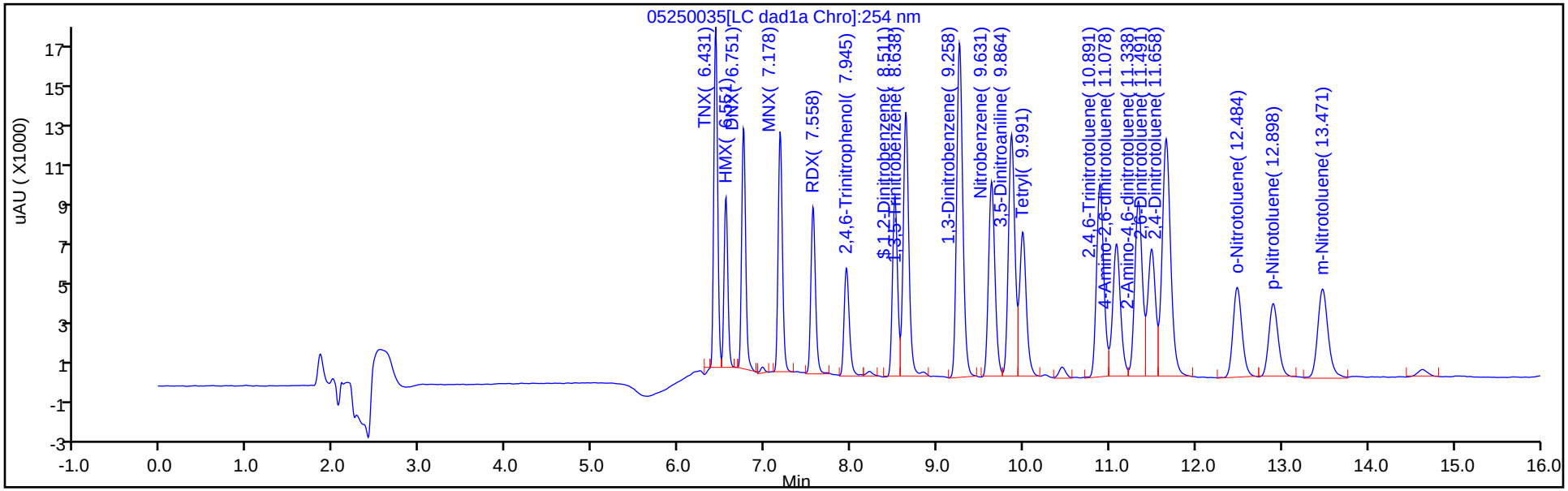
Report Date: 26-May-2023 11:54:54 Chrom Revision: 2.3 23-May-2023 13:55:56

Eurofins Denver

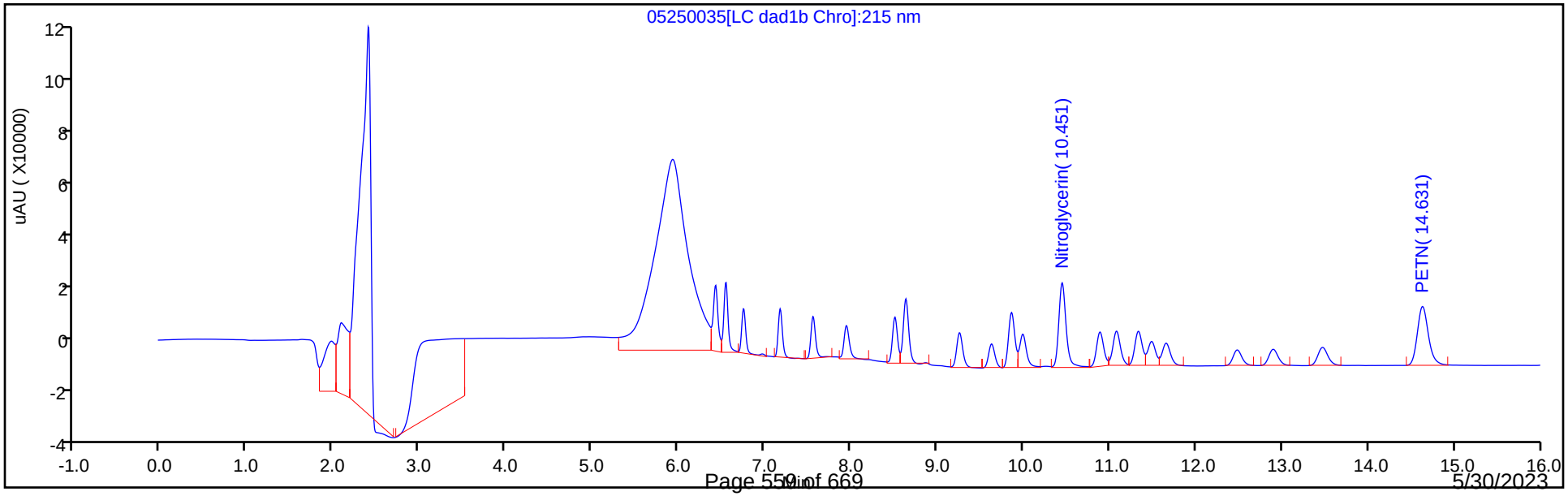
Data File: \\chromfs\denver\chromdata\chhplc_x\20230525-121837.b\05250035.d

Injection Date:	26-May-2023 00:38:53	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	CCV DMT			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



5/30/2023
10:34 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

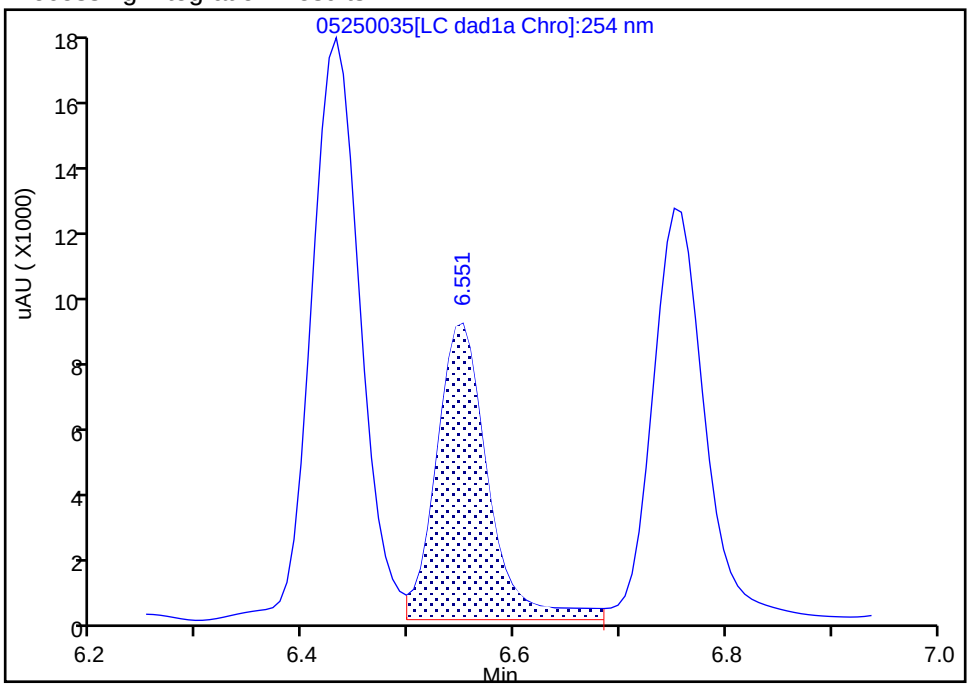
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230525-121837.b\05250035.d				
Injection Date:	26-May-2023 00:38:53	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV DMT				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	7	Worklist Smp#:	35
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

4 HMX, CAS: 2691-41-0

Signal: 1

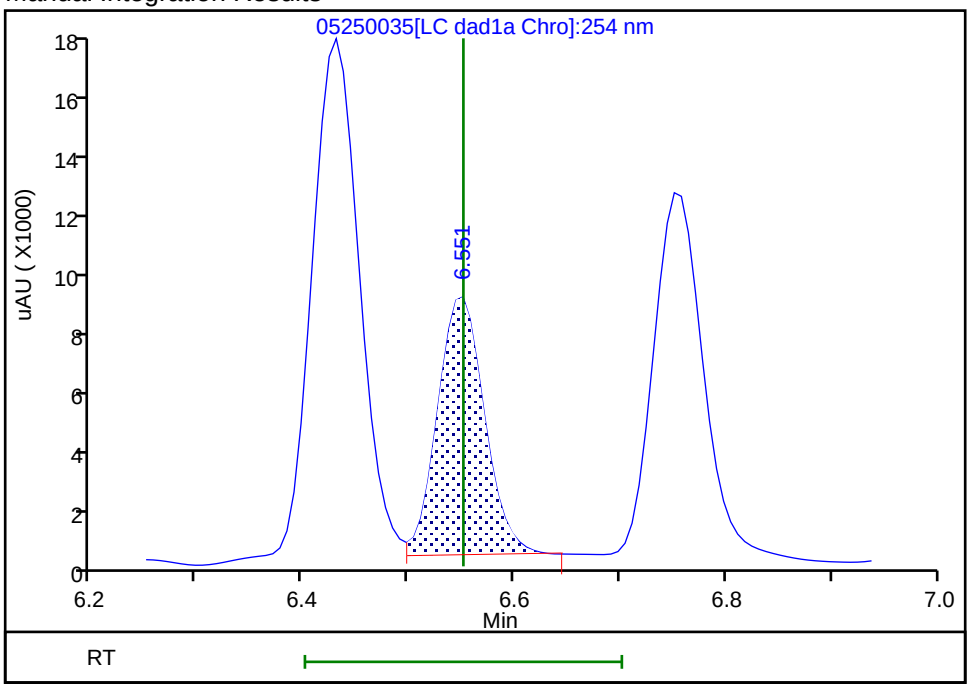
Processing Integration Results

RT: 6.55
Area: 28838
Amount: 0.308335
Amount Units: ug/mL



Manual Integration Results

RT: 6.55
Area: 25273
Amount: 0.270218
Amount Units: ug/mL



Reviewer: K8YG, 26-May-2023 07:29:52 -06:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Baseline

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver | Job No.: 280-176866-1

SDG No.:

Lab Sample ID: CCV 280-613812/35 | Calibration Date: 05/26/2023 00:38

Instrument ID: CHHPLC_X3 | Calib Start Date: 02/24/2023 15:00

GC Column: UltraCarb5uODS ID: 4.60(mm) | Calib End Date: 02/24/2023 17:41

Lab File ID: 05250035.D | Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
TNX	Ave	197687	202050		256	251	2.2	20.0
DNX	Ave	144462	151968		263	250	5.2	20.0
MNX	Ave	131172	136415		303	292	4.0	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-176866-1

SDG No.:

Lab Sample ID: CCV 280-613812/35 Calibration Date: 05/26/2023 00:38

Instrument ID: CHHPLC_X3 Calib Start Date: 02/24/2023 15:00

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 02/24/2023 17:41

Lab File ID: 05250035.D

Analyte	RT	RT WINDOW	
		FROM	TO
TNX	6.43	6.33	6.53
DNX	6.75	6.66	6.86
MNX	7.18	7.04	7.34

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20230525-121837.b\05250035.D
Lims ID: CCV DMT
Client ID:
Sample Type: CCV
Inject. Date: 26-May-2023 00:38:53 ALS Bottle#: 7 Worklist Smp#: 35
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: CCV DMT
Operator ID: JZ/JG Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub27

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20230525-121837.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 26-May-2023 11:54:54 Calib Date: 24-Feb-2023 17:41:20
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20230224-118952.b\02240018.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1649

First Level Reviewer: K8YG Date: 26-May-2023 07:34:49

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 TNX	1	6.431	6.432	-0.001	50664	0.2508	0.2563	M
4 HMX	1	6.551	6.552	-0.001	25273	0.2500	0.2702	M
6 DNX	1	6.751	6.758	-0.007	38030	0.2503	0.2633	M
7 MNX	1	7.178	7.185	-0.007	39799	0.2918	0.3034	
8 RDX	1	7.558	7.572	-0.014	29619	0.2500	0.2784	
9 2,4,6-Trinitrophenol	1	7.945	7.952	-0.007	21549	0.2500	0.2842	
$ 10 1,2-Dinitrobenzene	1	8.511	8.525	-0.014	35773	0.2500	0.2832	
11 1,3,5-Trinitrobenzene	1	8.638	8.652	-0.014	59049	0.2500	0.2719	
12 1,3-Dinitrobenzene	1	9.258	9.271	-0.013	80129	0.2500	0.2722	
13 Nitrobenzene	1	9.631	9.645	-0.014	49417	0.2500	0.2584	
14 3,5-Dinitroaniline	1	9.864	9.878	-0.014	61688	0.2500	0.2698	
15 Tetryl	1	9.991	10.011	-0.020	38180	0.2500	0.2326	
16 Nitroglycerin	2	10.451	10.465	-0.014	175527	2.50	2.74	
17 2,4,6-Trinitrotoluene	1	10.891	10.905	-0.014	55056	0.2500	0.2609	
18 4-Amino-2,6-dinitrotoluene	1	11.078	11.098	-0.020	41455	0.2500	0.2676	
19 2-Amino-4,6-dinitrotoluene	1	11.338	11.351	-0.013	53116	0.2500	0.2637	
20 2,6-Dinitrotoluene	1	11.491	11.505	-0.014	39051	0.2500	0.2736	
21 2,4-Dinitrotoluene	1	11.658	11.678	-0.020	80562	0.2500	0.2716	
22 o-Nitrotoluene	1	12.484	12.505	-0.021	32049	0.2500	0.2506	
23 p-Nitrotoluene	1	12.898	12.925	-0.027	27535	0.2500	0.2461	
24 m-Nitrotoluene	1	13.471	13.498	-0.027	35350	0.2500	0.2516	
25 PETN	2	14.631	14.665	-0.034	192081	2.50	2.79	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330 DMT_00013	Amount Added:	12.50	Units: uL
8330IntermStk_00075	Amount Added:	25.00	Units: uL

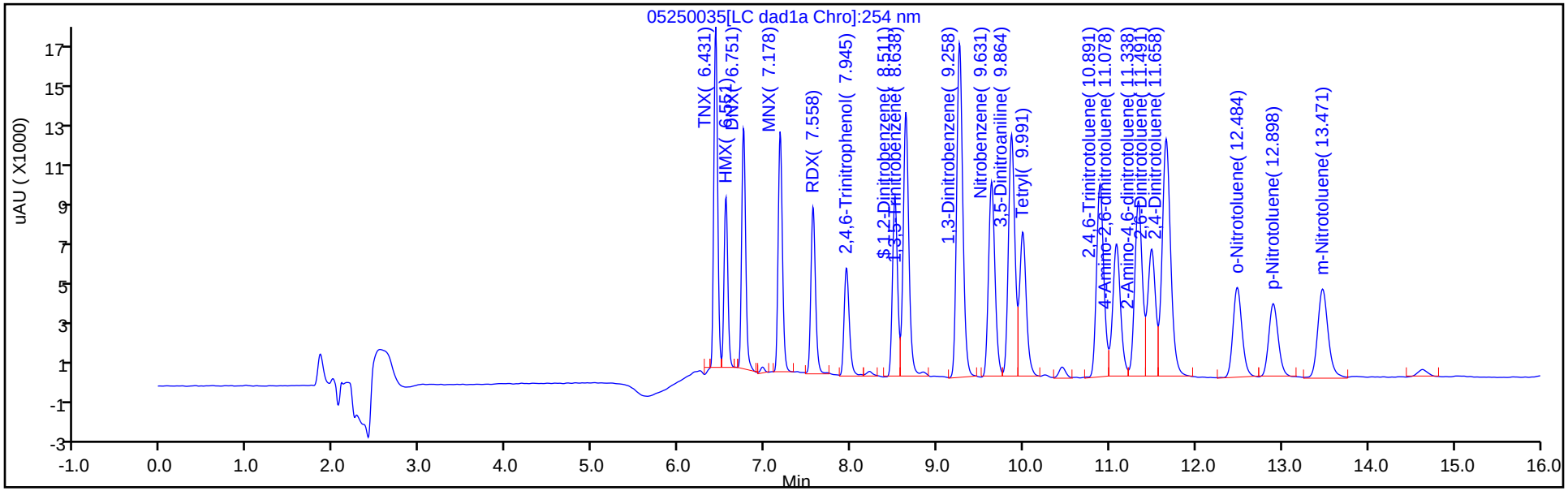
Report Date: 26-May-2023 11:54:54 Chrom Revision: 2.3 23-May-2023 13:55:56

Eurofins Denver

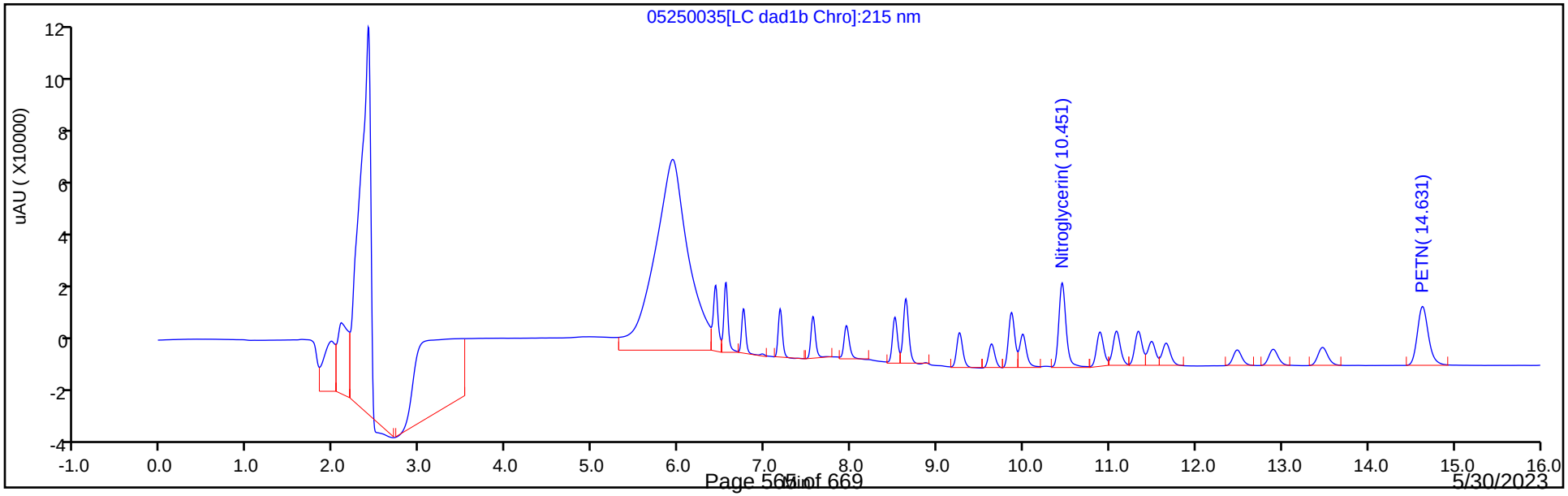
Data File: \\chromfs\denver\chromdata\chhplc_x\20230525-121837.b\05250035.d

Injection Date:	26-May-2023 00:38:53	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	CCV DMT			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



5/30/2023
10:34 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

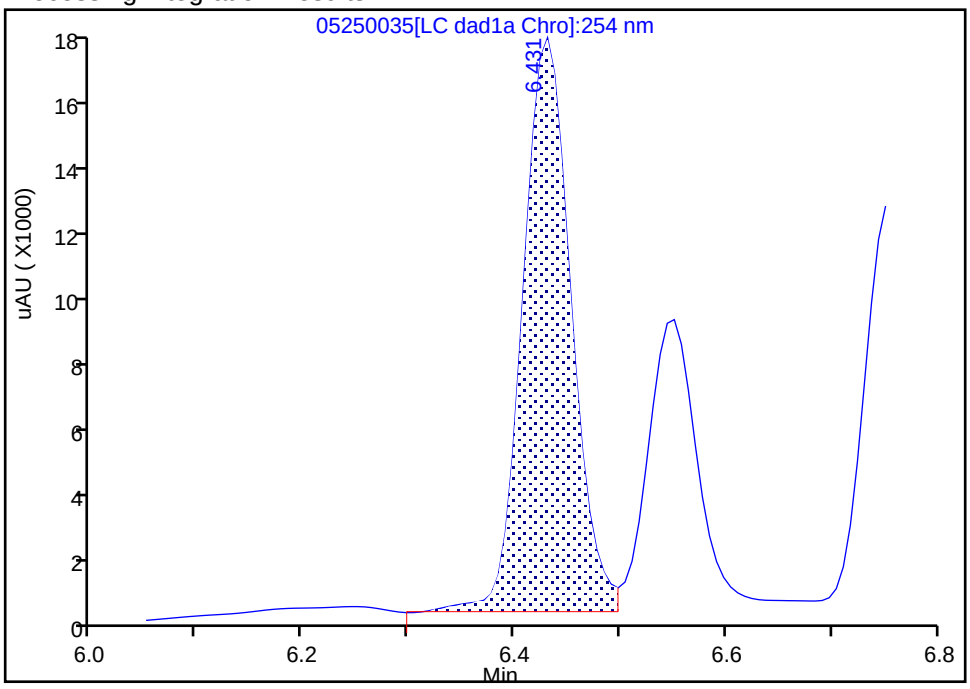
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230525-121837.b\05250035.d				
Injection Date:	26-May-2023 00:38:53	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV DMT				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	7	Worklist Smp#:	35
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

3 TNX, CAS: 13980-04-6

Signal: 1

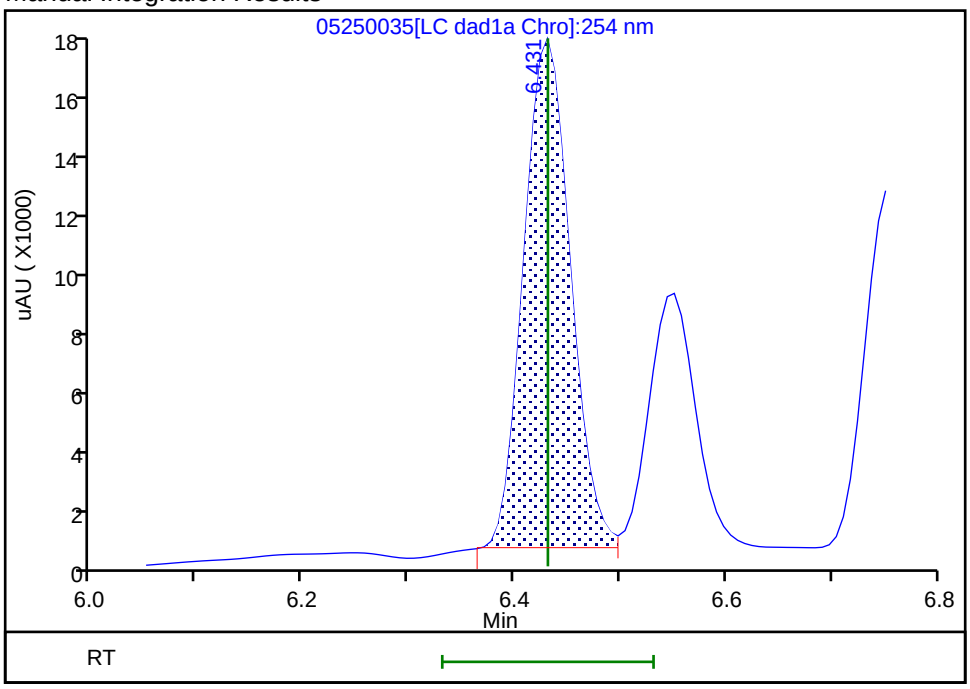
Processing Integration Results

RT: 6.43
Area: 53747
Amount: 0.271879
Amount Units: ug/mL



Manual Integration Results

RT: 6.43
Area: 50664
Amount: 0.256283
Amount Units: ug/mL



Reviewer: K8YG, 26-May-2023 07:29:49 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

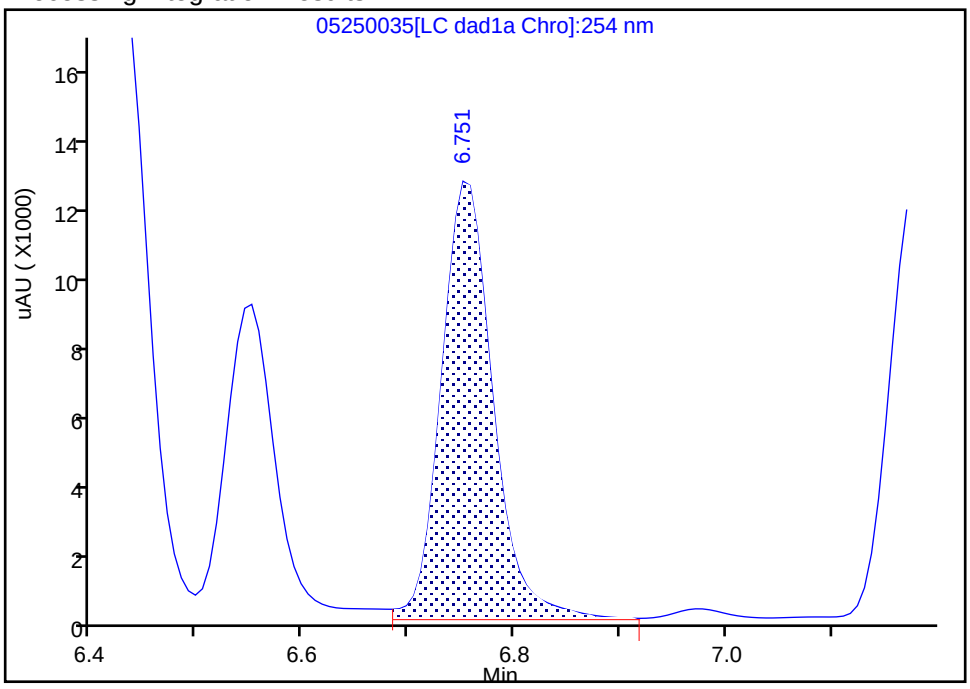
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230525-121837.b\05250035.d				
Injection Date:	26-May-2023 00:38:53	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV DMT				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	7	Worklist Smp#:	35
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

6 DNX, CAS: 80251-29-2

Signal: 1

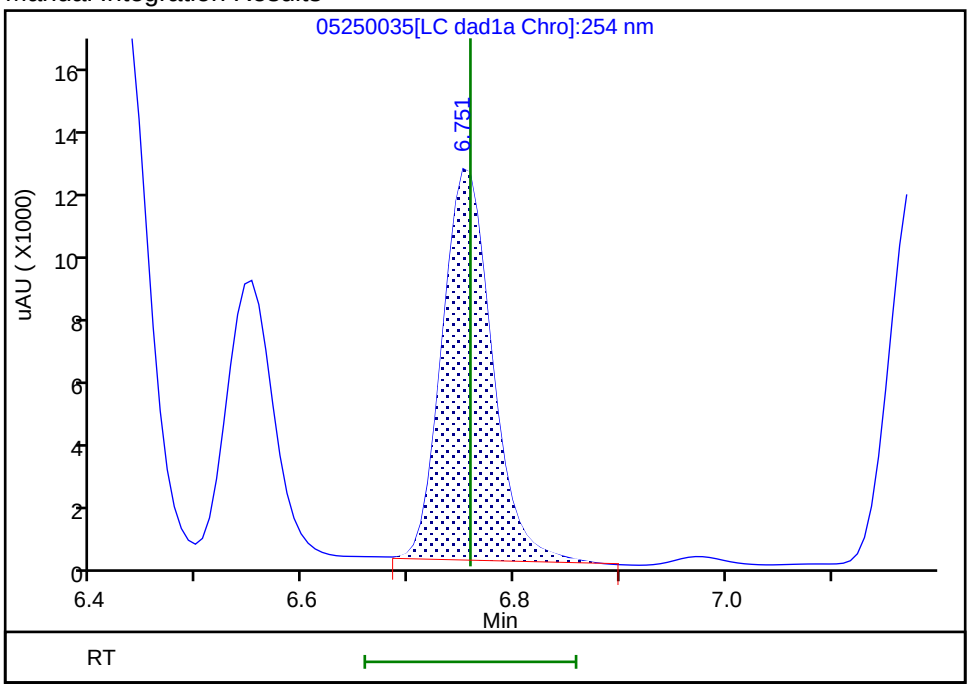
Processing Integration Results

RT: 6.75
Area: 40313
Amount: 0.279055
Amount Units: ug/mL



Manual Integration Results

RT: 6.75
Area: 38030
Amount: 0.263252
Amount Units: ug/mL



Reviewer: K8YG, 26-May-2023 07:30:03 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-176866-1

SDG No.:

Lab Sample ID: CCV 280-613812/46 Calibration Date: 05/26/2023 04:51

Instrument ID: CHHPLC_X3 Calib Start Date: 02/08/2023 15:38

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 02/08/2023 18:42

Lab File ID: 05250046.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
HMX	Ave	93528	102084		273	250	9.1	20.0
RDX	Ave	106380	119176		280	250	12.0	20.0
Picric acid	Ave	75830	86480		285	250	14.0	20.0
1,3,5-Trinitrobenzene	Ave	217147	231840		267	250	6.8	20.0
1,3-Dinitrobenzene	Ave	294397	320812		272	250	9.0	20.0
Nitrobenzene	Ave	191245	195644		256	250	2.3	20.0
3,5-Dinitroaniline	Lin2		246728		270	250	7.9	20.0
Tetryl	Ave	164121	155124		236	250	-5.5	20.0
Nitroglycerin	Ave	64070	70263		2740	2500	9.7	20.0
2,4,6-Trinitrotoluene	Ave	211040	221220		262	250	4.8	20.0
4-Amino-2,6-dinitrotoluene	Ave	154933	166068		268	250	7.2	20.0
2-Amino-4,6-dinitrotoluene	Ave	201410	211716		263	250	5.1	20.0
2,6-Dinitrotoluene	Ave	142745	157144		275	250	10.1	20.0
2,4-Dinitrotoluene	Ave	296667	322432		272	250	8.7	20.0
2-Nitrotoluene	Ave	127896	126412		247	250	-1.2	20.0
4-Nitrotoluene	Ave	111880	108620		243	250	-2.9	20.0
3-Nitrotoluene	Ave	140492	138916		247	250	-1.1	20.0
PETN	Ave	68845	76985		2800	2500	11.8	20.0
1,2-Dinitrobenzene	Ave	126309	142736		283	250	13.0	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-176866-1

SDG No.:

Lab Sample ID: CCV 280-613812/46 Calibration Date: 05/26/2023 04:51

Instrument ID: CHHPLC_X3 Calib Start Date: 02/08/2023 15:38

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 02/08/2023 18:42

Lab File ID: 05250046.D

Analyte	RT	RT WINDOW	
		FROM	TO
HMX	6.55	6.40	6.70
RDX	7.56	7.42	7.72
Picric acid	7.95	7.80	8.10
1,3,5-Trinitrobenzene	8.64	8.50	8.80
1,3-Dinitrobenzene	9.26	9.12	9.42
Nitrobenzene	9.63	9.50	9.80
3,5-Dinitroaniline	9.87	9.73	10.03
Tetryl	9.99	9.86	10.16
Nitroglycerin	10.45	10.32	10.62
2,4,6-Trinitrotoluene	10.89	10.81	11.01
4-Amino-2,6-dinitrotoluene	11.09	11.00	11.20
2-Amino-4,6-dinitrotoluene	11.34	11.25	11.45
2,6-Dinitrotoluene	11.49	11.41	11.61
2,4-Dinitrotoluene	11.66	11.58	11.78
2-Nitrotoluene	12.48	12.36	12.66
4-Nitrotoluene	12.90	12.78	13.08
3-Nitrotoluene	13.47	13.35	13.65
PETN	14.63	14.52	14.82
1,2-Dinitrobenzene	8.51	8.38	8.68

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20230525-121837.b\05250046.D
Lims ID: CCV DMT
Client ID:
Sample Type: CCV
Inject. Date: 26-May-2023 04:51:18 ALS Bottle#: 7 Worklist Smp#: 46
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: CCV DMT
Operator ID: JZ/JG Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub27

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20230525-121837.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 26-May-2023 11:54:17 Calib Date: 24-Feb-2023 17:41:20
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20230224-118952.b\02240018.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1649

First Level Reviewer: K8YG Date: 26-May-2023 07:55:59

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 TNX	1	6.434	6.432	0.002	50736	0.2508	0.2566	M
4 HMX	1	6.547	6.552	-0.005	25521	0.2500	0.2729	M
6 DNX	1	6.754	6.758	-0.004	38338	0.2503	0.2654	M
7 MNX	1	7.181	7.185	-0.004	40268	0.2918	0.3070	
8 RDX	1	7.561	7.572	-0.011	29794	0.2500	0.2801	
9 2,4,6-Trinitrophenol	1	7.954	7.952	0.002	21620	0.2500	0.2851	
$ 10 1,2-Dinitrobenzene	1	8.514	8.525	-0.011	35684	0.2500	0.2825	
11 1,3,5-Trinitrobenzene	1	8.641	8.652	-0.011	57960	0.2500	0.2669	M
12 1,3-Dinitrobenzene	1	9.261	9.271	-0.010	80203	0.2500	0.2724	
13 Nitrobenzene	1	9.634	9.645	-0.011	48911	0.2500	0.2558	
14 3,5-Dinitroaniline	1	9.867	9.878	-0.011	61682	0.2500	0.2698	
15 Tetryl	1	9.994	10.011	-0.017	38781	0.2500	0.2363	
16 Nitroglycerin	2	10.454	10.465	-0.011	175657	2.50	2.74	
17 2,4,6-Trinitrotoluene	1	10.894	10.905	-0.011	55305	0.2500	0.2621	
18 4-Amino-2,6-dinitrotoluene	1	11.087	11.098	-0.011	41517	0.2500	0.2680	
19 2-Amino-4,6-dinitrotoluene	1	11.341	11.351	-0.010	52929	0.2500	0.2628	
20 2,6-Dinitrotoluene	1	11.494	11.505	-0.011	39286	0.2500	0.2752	
21 2,4-Dinitrotoluene	1	11.661	11.678	-0.017	80608	0.2500	0.2717	
22 o-Nitrotoluene	1	12.481	12.505	-0.024	31603	0.2500	0.2471	
23 p-Nitrotoluene	1	12.901	12.925	-0.024	27155	0.2500	0.2427	
24 m-Nitrotoluene	1	13.474	13.498	-0.024	34729	0.2500	0.2472	
25 PETN	2	14.634	14.665	-0.031	192462	2.50	2.80	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330 DMT_00013	Amount Added:	12.50	Units: uL
8330IntermStk_00075	Amount Added:	25.00	Units: uL

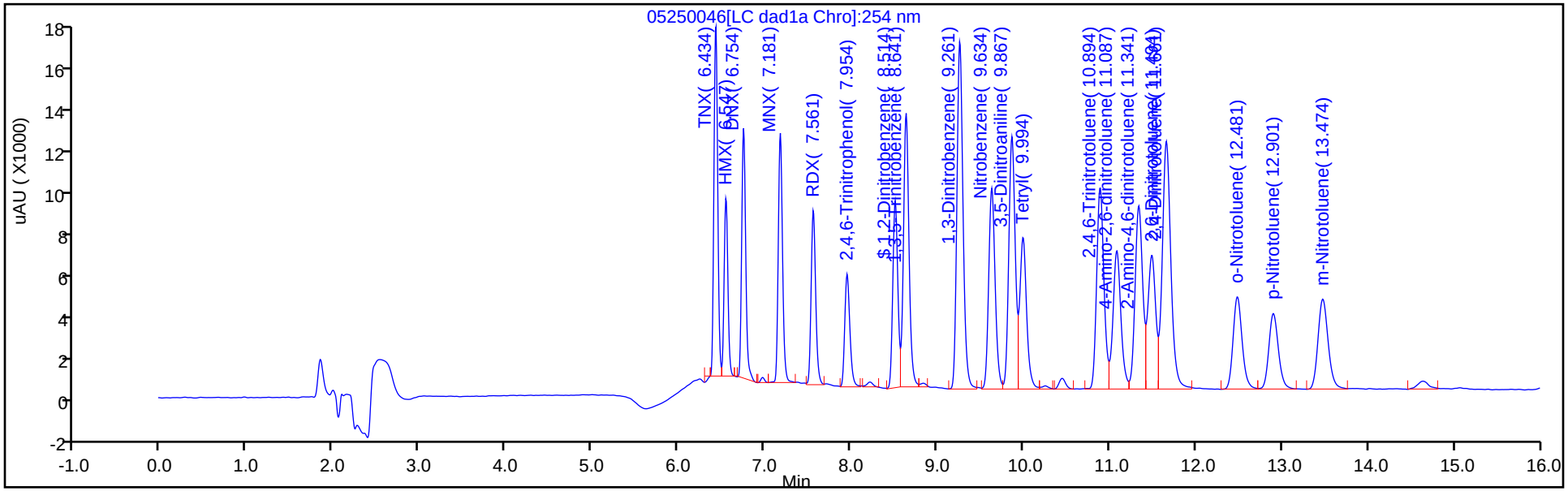
Report Date: 26-May-2023 11:54:18 Chrom Revision: 2.3 23-May-2023 13:55:56

Eurofins Denver

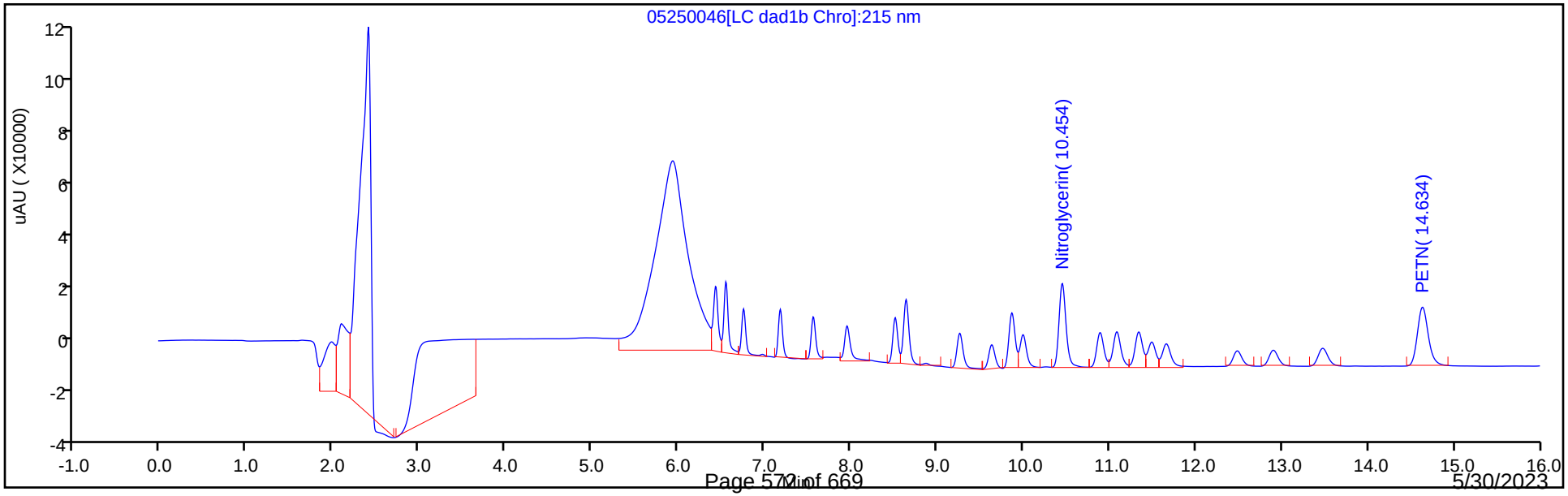
Data File: \\chromfs\denver\chromdata\chhplc_x\20230525-121837.b\05250046.d

Injection Date:	26-May-2023 04:51:18	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	CCV DMT			Worklist Smp#:	46
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



5/30/2023
10:34 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

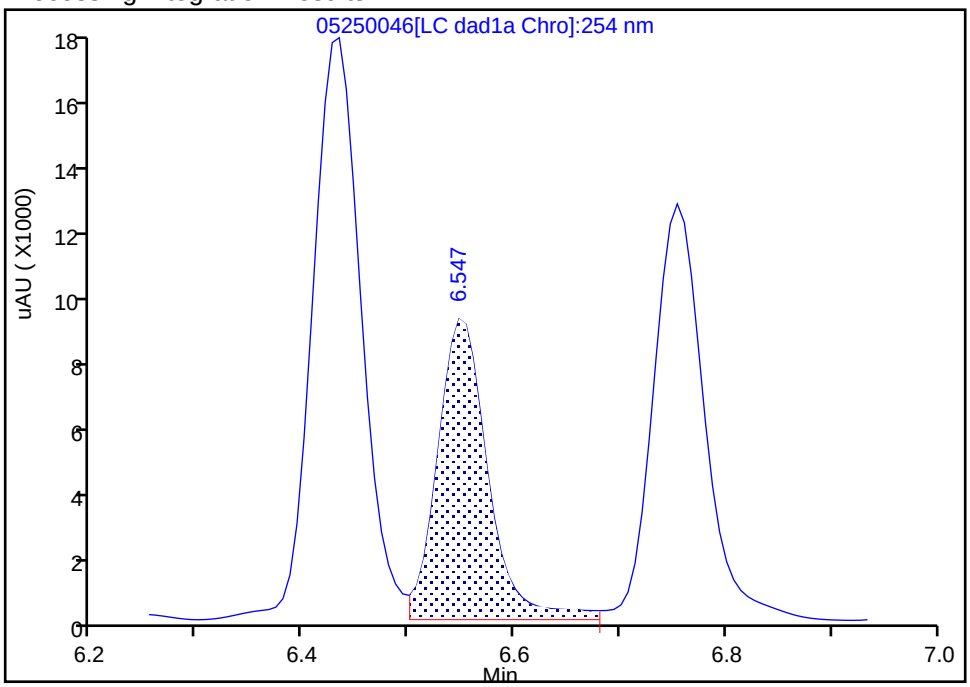
Data File: \\chromfs\denver\chromdata\chhplc_x\20230525-121837.b\05250046.d
Injection Date: 26-May-2023 04:51:18 Instrument ID: CHHPLC_X3
Lims ID: CCV DMT
Client ID:
Operator ID: JZ/JG ALS Bottle#: 7 Worklist Smp#: 46
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

4 HMX, CAS: 2691-41-0

Signal: 1

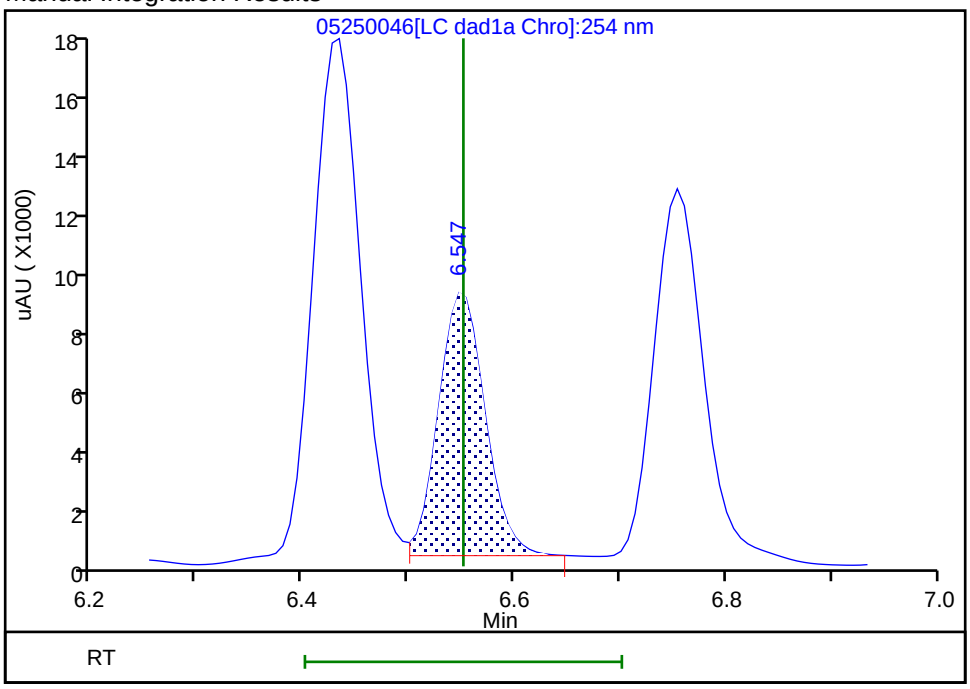
Processing Integration Results

RT: 6.55
Area: 28699
Amount: 0.306849
Amount Units: ug/mL



Manual Integration Results

RT: 6.55
Area: 25521
Amount: 0.272870
Amount Units: ug/mL



Reviewer: K8YG, 26-May-2023 07:55:06 -06:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Eurofins Denver

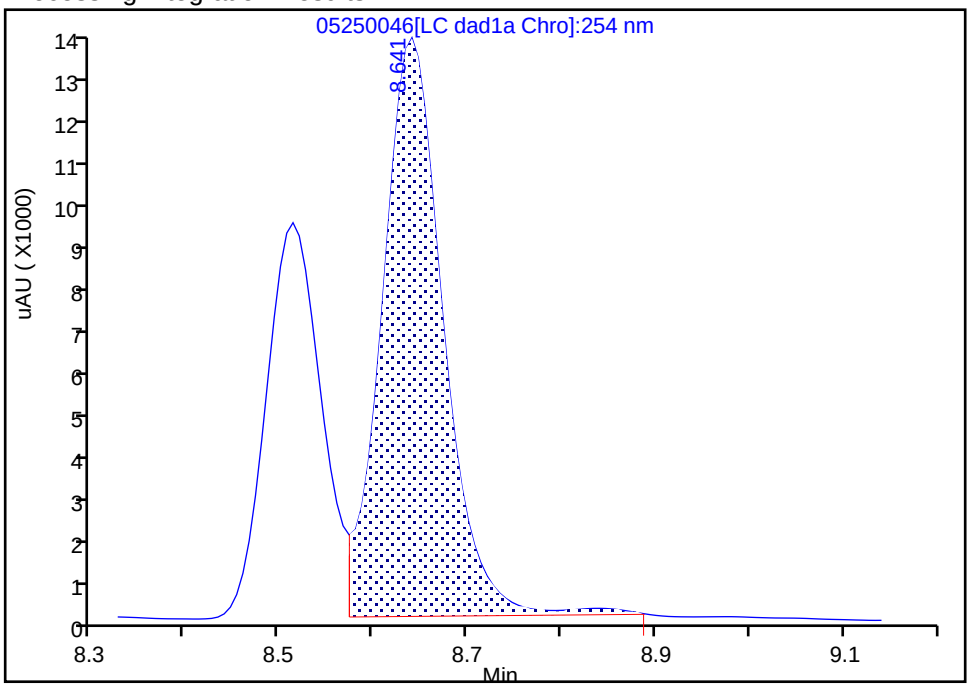
Data File: \\chromfs\denver\chromdata\chhplc_x\20230525-121837.b\05250046.d
Injection Date: 26-May-2023 04:51:18 Instrument ID: CHHPLC_X3
Lims ID: CCV DMT
Client ID:
Operator ID: JZ/JG ALS Bottle#: 7 Worklist Smp#: 46
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

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

Signal: 1

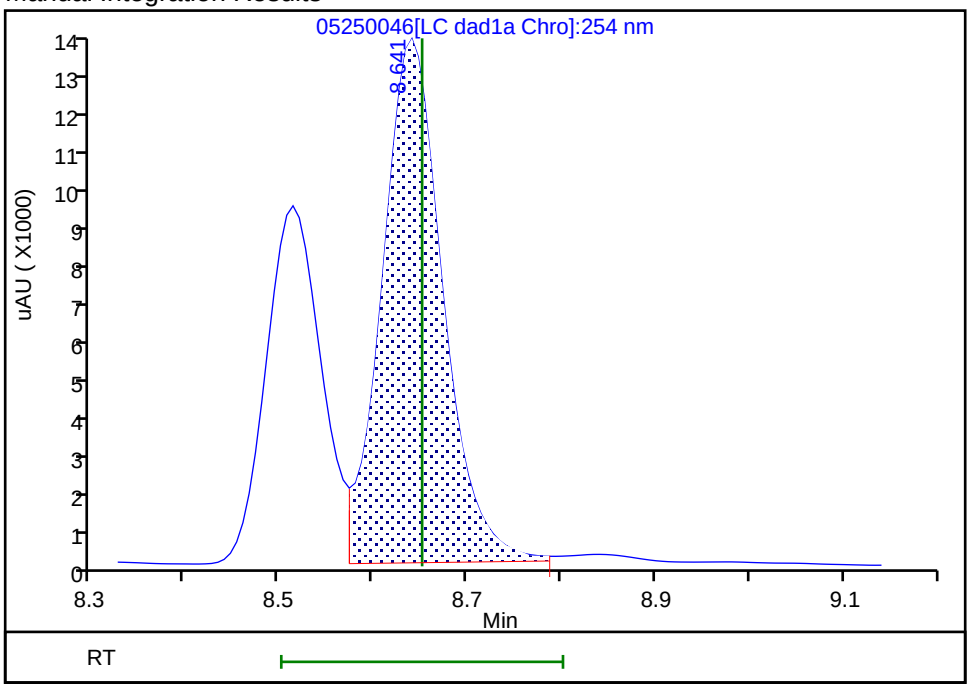
Processing Integration Results

RT: 8.64
Area: 58745
Amount: 0.270531
Amount Units: ug/mL



Manual Integration Results

RT: 8.64
Area: 57960
Amount: 0.266916
Amount Units: ug/mL



Reviewer: K8YG, 26-May-2023 07:55:49 -06:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Baseline

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver | Job No.: 280-176866-1

SDG No.:

Lab Sample ID: CCV 280-613812/46 | Calibration Date: 05/26/2023 04:51

Instrument ID: CHHPLC_X3 | Calib Start Date: 02/24/2023 15:00

GC Column: UltraCarb5uODS ID: 4.60(mm) | Calib End Date: 02/24/2023 17:41

Lab File ID: 05250046.D | Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
TNX	Ave	197687	202337		257	251	2.4	20.0
DNX	Ave	144462	153199		265	250	6.0	20.0
MNX	Ave	131172	138022		307	292	5.2	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-176866-1

SDG No.:

Lab Sample ID: CCV 280-613812/46 Calibration Date: 05/26/2023 04:51

Instrument ID: CHHPLC_X3 Calib Start Date: 02/24/2023 15:00

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 02/24/2023 17:41

Lab File ID: 05250046.D

Analyte	RT	RT WINDOW	
		FROM	TO
TNX	6.43	6.33	6.53
DNX	6.75	6.66	6.86
MNX	7.18	7.04	7.34

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20230525-121837.b\05250046.D
Lims ID: CCV DMT
Client ID:
Sample Type: CCV
Inject. Date: 26-May-2023 04:51:18 ALS Bottle#: 7 Worklist Smp#: 46
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: CCV DMT
Operator ID: JZ/JG Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub27

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20230525-121837.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 26-May-2023 11:54:17 Calib Date: 24-Feb-2023 17:41:20
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20230224-118952.b\02240018.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1649

First Level Reviewer: K8YG Date: 26-May-2023 07:55:59

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 TNX	1	6.434	6.432	0.002	50736	0.2508	0.2566	M
4 HMX	1	6.547	6.552	-0.005	25521	0.2500	0.2729	M
6 DNX	1	6.754	6.758	-0.004	38338	0.2503	0.2654	M
7 MNX	1	7.181	7.185	-0.004	40268	0.2918	0.3070	
8 RDX	1	7.561	7.572	-0.011	29794	0.2500	0.2801	
9 2,4,6-Trinitrophenol	1	7.954	7.952	0.002	21620	0.2500	0.2851	
$ 10 1,2-Dinitrobenzene	1	8.514	8.525	-0.011	35684	0.2500	0.2825	
11 1,3,5-Trinitrobenzene	1	8.641	8.652	-0.011	57960	0.2500	0.2669	M
12 1,3-Dinitrobenzene	1	9.261	9.271	-0.010	80203	0.2500	0.2724	
13 Nitrobenzene	1	9.634	9.645	-0.011	48911	0.2500	0.2558	
14 3,5-Dinitroaniline	1	9.867	9.878	-0.011	61682	0.2500	0.2698	
15 Tetryl	1	9.994	10.011	-0.017	38781	0.2500	0.2363	
16 Nitroglycerin	2	10.454	10.465	-0.011	175657	2.50	2.74	
17 2,4,6-Trinitrotoluene	1	10.894	10.905	-0.011	55305	0.2500	0.2621	
18 4-Amino-2,6-dinitrotoluene	1	11.087	11.098	-0.011	41517	0.2500	0.2680	
19 2-Amino-4,6-dinitrotoluene	1	11.341	11.351	-0.010	52929	0.2500	0.2628	
20 2,6-Dinitrotoluene	1	11.494	11.505	-0.011	39286	0.2500	0.2752	
21 2,4-Dinitrotoluene	1	11.661	11.678	-0.017	80608	0.2500	0.2717	
22 o-Nitrotoluene	1	12.481	12.505	-0.024	31603	0.2500	0.2471	
23 p-Nitrotoluene	1	12.901	12.925	-0.024	27155	0.2500	0.2427	
24 m-Nitrotoluene	1	13.474	13.498	-0.024	34729	0.2500	0.2472	
25 PETN	2	14.634	14.665	-0.031	192462	2.50	2.80	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330 DMT_00013	Amount Added:	12.50	Units: uL
8330IntermStk_00075	Amount Added:	25.00	Units: uL

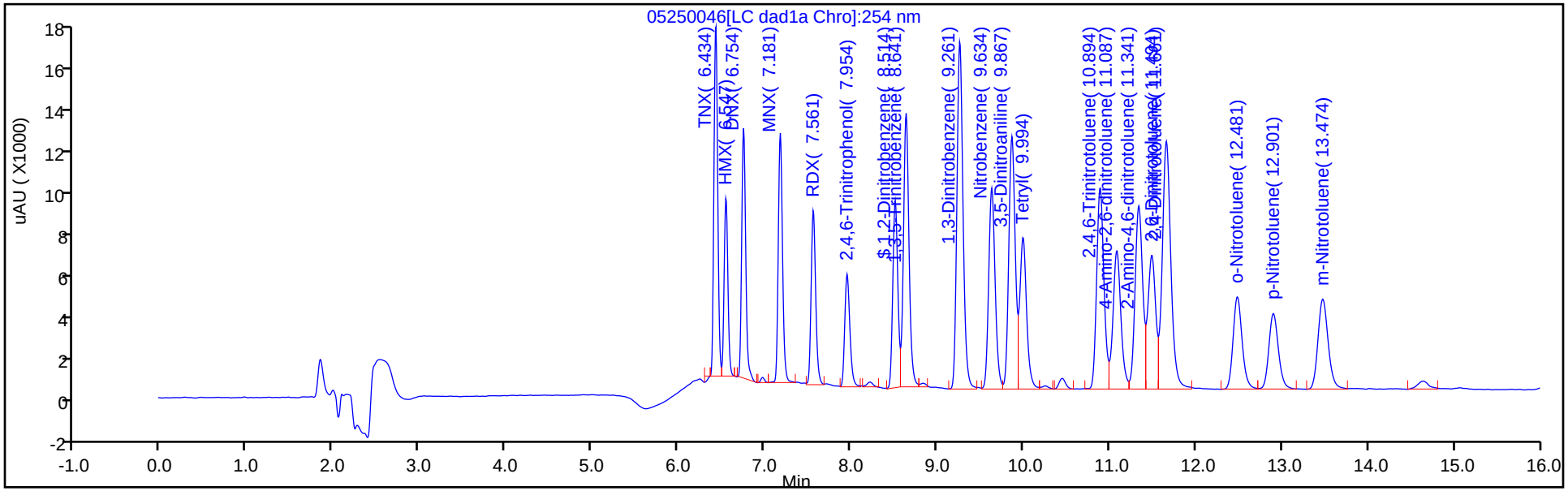
Report Date: 26-May-2023 11:54:18 Chrom Revision: 2.3 23-May-2023 13:55:56

Eurofins Denver

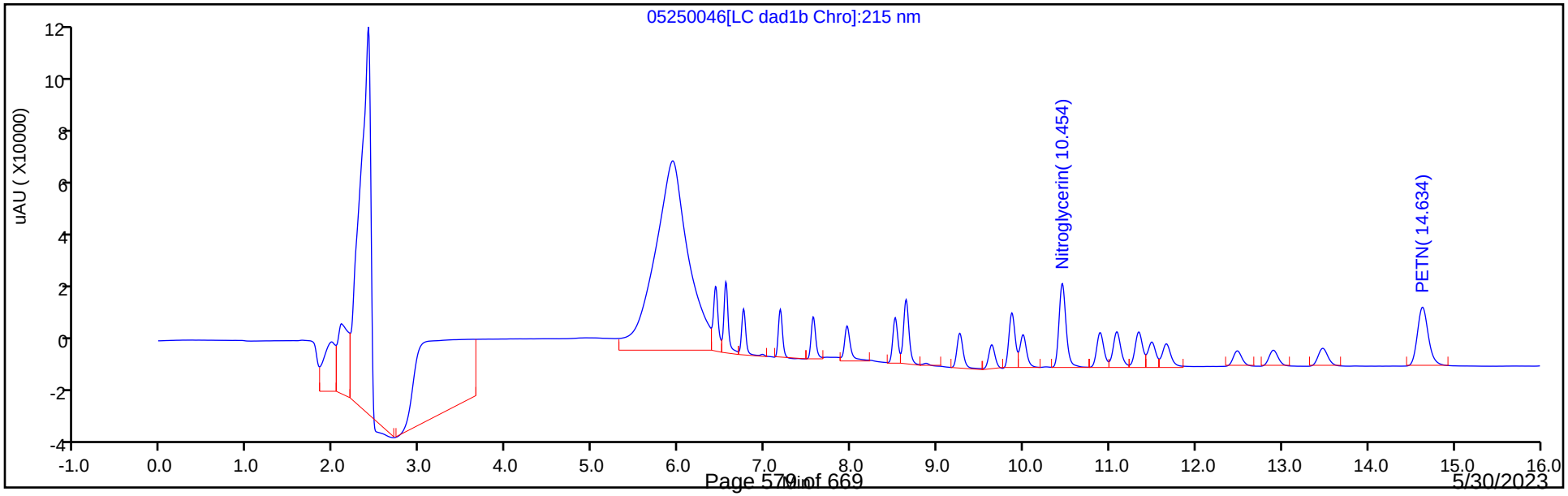
Data File: \\chromfs\denver\chromdata\chhplc_x\20230525-121837.b\05250046.d

Injection Date:	26-May-2023 04:51:18	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	CCV DMT			Worklist Smp#:	46
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



5/30/2023
10:34 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

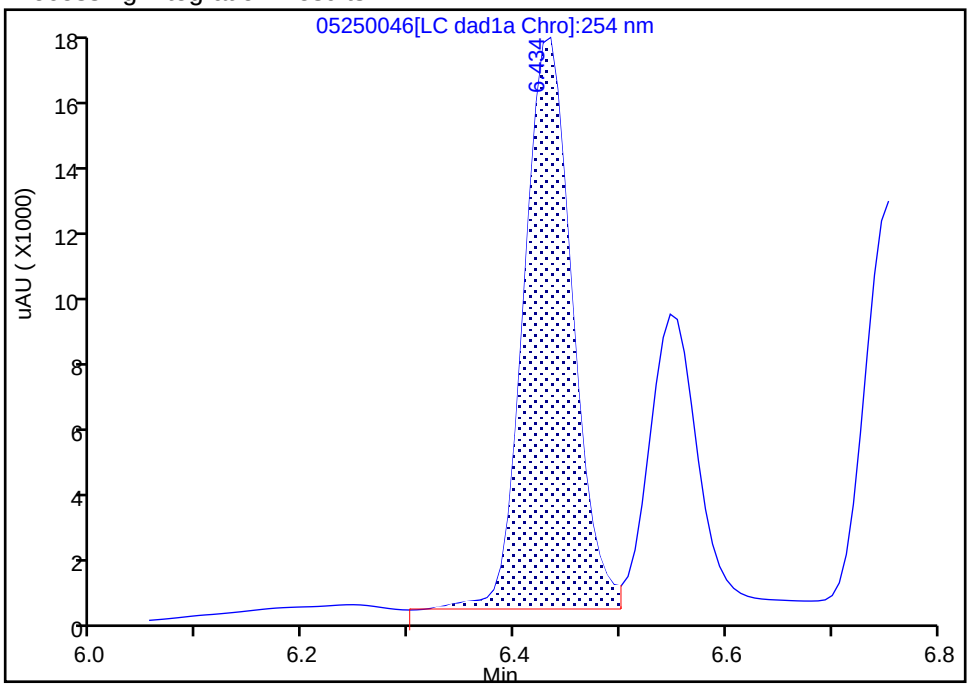
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230525-121837.b\05250046.d				
Injection Date:	26-May-2023 04:51:18	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV DMT				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	7	Worklist Smp#:	46
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

3 TNX, CAS: 13980-04-6

Signal: 1

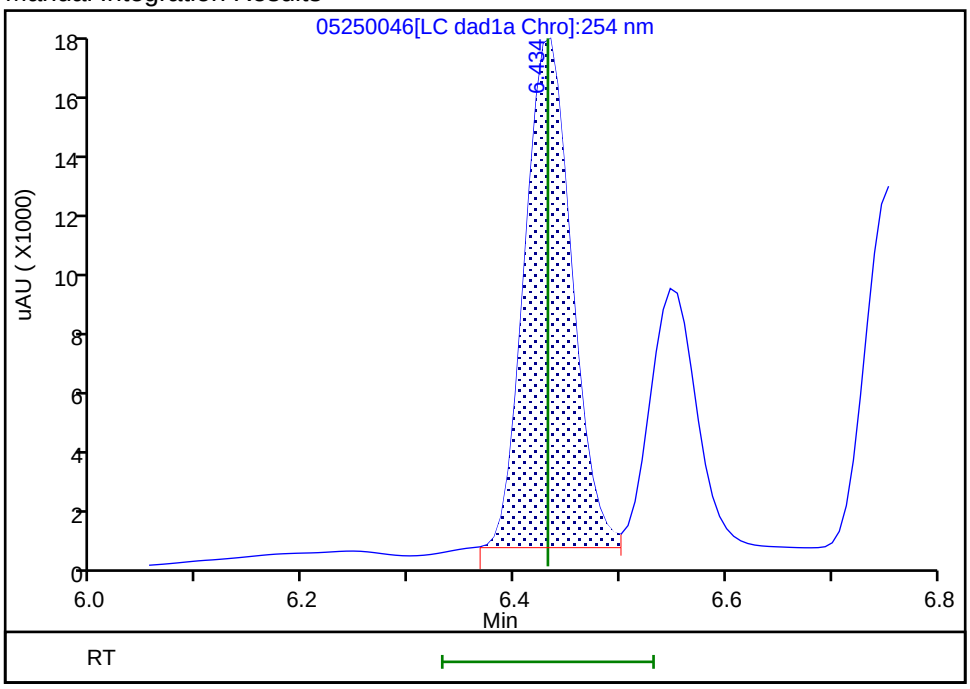
Processing Integration Results

RT: 6.43
Area: 53584
Amount: 0.271054
Amount Units: ug/mL



Manual Integration Results

RT: 6.43
Area: 50736
Amount: 0.256648
Amount Units: ug/mL



Reviewer: K8YG, 26-May-2023 07:55:03 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

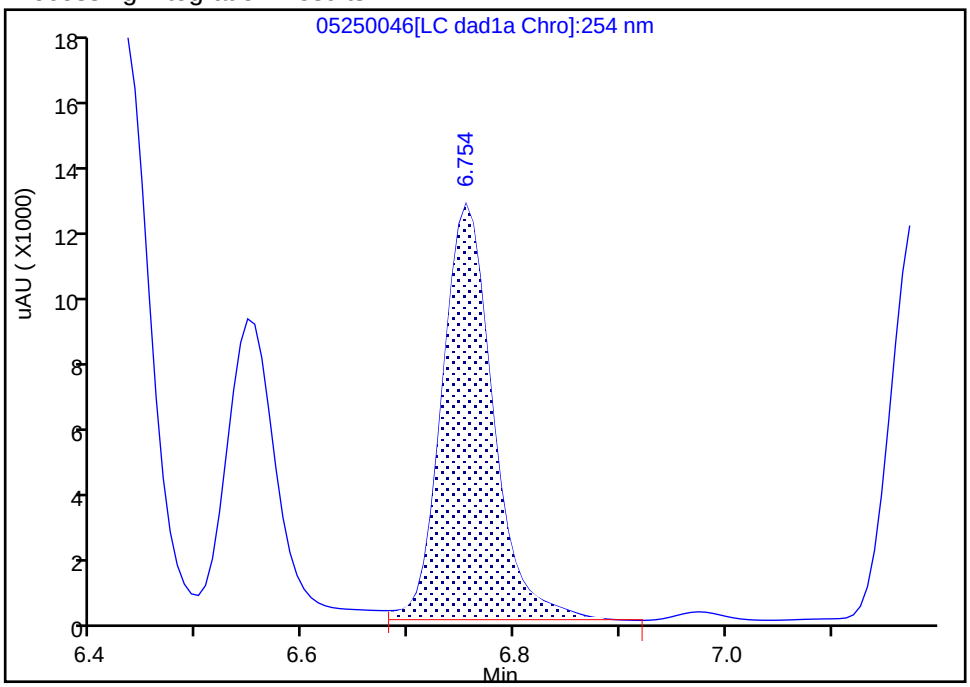
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230525-121837.b\05250046.d				
Injection Date:	26-May-2023 04:51:18	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV DMT				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	7	Worklist Smp#:	46
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

6 DNX, CAS: 80251-29-2

Signal: 1

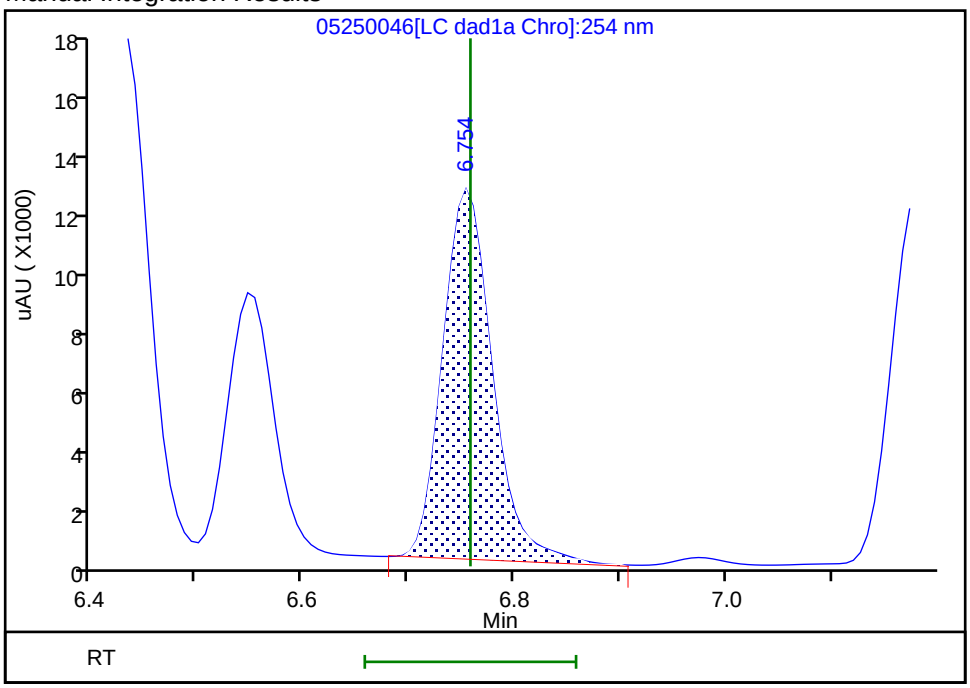
Processing Integration Results

RT: 6.75
Area: 40242
Amount: 0.278564
Amount Units: ug/mL



Manual Integration Results

RT: 6.75
Area: 38338
Amount: 0.265384
Amount Units: ug/mL



Reviewer: K8YG, 26-May-2023 07:55:22 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-176866-1

SDG No.:

Lab Sample ID: CCV 280-613812/53 Calibration Date: 05/26/2023 07:32

Instrument ID: CHHPLC_X3 Calib Start Date: 02/08/2023 15:38

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 02/08/2023 18:42

Lab File ID: 05250053.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
HMX	Ave	93528	103068		275	250	10.2	20.0
RDX	Ave	106380	118892		279	250	11.8	20.0
Picric acid	Ave	75830	85668		282	250	13.0	20.0
1,3,5-Trinitrobenzene	Ave	217147	233452		269	250	7.5	20.0
1,3-Dinitrobenzene	Ave	294397	321248		273	250	9.1	20.0
Nitrobenzene	Ave	191245	194008		254	250	1.4	20.0
3,5-Dinitroaniline	Lin2		247860		271	250	8.4	20.0
Tetryl	Ave	164121	150204		229	250	-8.5	20.0
Nitroglycerin	Ave	64070	70219		2740	2500	9.6	20.0
2,4,6-Trinitrotoluene	Ave	211040	222752		264	250	5.5	20.0
4-Amino-2,6-dinitrotoluene	Ave	154933	165436		267	250	6.8	20.0
2-Amino-4,6-dinitrotoluene	Ave	201410	213220		265	250	5.9	20.0
2,6-Dinitrotoluene	Ave	142745	156572		274	250	9.7	20.0
2,4-Dinitrotoluene	Ave	296667	321660		271	250	8.4	20.0
2-Nitrotoluene	Ave	127896	125848		246	250	-1.6	20.0
4-Nitrotoluene	Ave	111880	108524		243	250	-3.0	20.0
3-Nitrotoluene	Ave	140492	138920		247	250	-1.1	20.0
PETN	Ave	68845	77016		2800	2500	11.9	20.0
1,2-Dinitrobenzene	Ave	126309	142196		281	250	12.6	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-176866-1

SDG No.:

Lab Sample ID: CCV 280-613812/53 Calibration Date: 05/26/2023 07:32

Instrument ID: CHHPLC_X3 Calib Start Date: 02/08/2023 15:38

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 02/08/2023 18:42

Lab File ID: 05250053.D

Analyte	RT	RT WINDOW	
		FROM	TO
HMX	6.55	6.40	6.70
RDX	7.57	7.42	7.72
Picric acid	7.96	7.80	8.10
1,3,5-Trinitrobenzene	8.65	8.50	8.80
1,3-Dinitrobenzene	9.27	9.12	9.42
Nitrobenzene	9.64	9.50	9.80
3,5-Dinitroaniline	9.87	9.73	10.03
Tetryl	10.00	9.86	10.16
Nitroglycerin	10.45	10.32	10.62
2,4,6-Trinitrotoluene	10.89	10.81	11.01
4-Amino-2,6-dinitrotoluene	11.09	11.00	11.20
2-Amino-4,6-dinitrotoluene	11.35	11.25	11.45
2,6-Dinitrotoluene	11.49	11.41	11.61
2,4-Dinitrotoluene	11.67	11.58	11.78
2-Nitrotoluene	12.49	12.36	12.66
4-Nitrotoluene	12.91	12.78	13.08
3-Nitrotoluene	13.49	13.35	13.65
PETN	14.65	14.52	14.82
1,2-Dinitrobenzene	8.52	8.38	8.68

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20230525-121837.b\05250053.D
Lims ID: CCV DMT
Client ID:
Sample Type: CCV
Inject. Date: 26-May-2023 07:32:06 ALS Bottle#: 7 Worklist Smp#: 53
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: CCV DMT
Operator ID: JZ/JG Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub27

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20230525-121837.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 26-May-2023 11:54:25 Calib Date: 24-Feb-2023 17:41:20
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20230224-118952.b\02240018.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1649

First Level Reviewer: K8YG Date: 26-May-2023 08:21:42

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 TNX	1	6.434	6.432	0.002	50409	0.2508	0.2550	Ma
4 HMX	1	6.554	6.552	0.002	25767	0.2500	0.2755	Ma
6 DNX	1	6.754	6.758	-0.004	38598	0.2503	0.2672	M
7 MNX	1	7.180	7.185	-0.005	40430	0.2918	0.3082	
8 RDX	1	7.567	7.572	-0.005	29723	0.2500	0.2794	
9 2,4,6-Trinitrophenol	1	7.960	7.952	0.008	21417	0.2500	0.2824	
$ 10 1,2-Dinitrobenzene	1	8.520	8.525	-0.005	35549	0.2500	0.2814	
11 1,3,5-Trinitrobenzene	1	8.647	8.652	-0.005	58363	0.2500	0.2688	M
12 1,3-Dinitrobenzene	1	9.267	9.271	-0.004	80312	0.2500	0.2728	
13 Nitrobenzene	1	9.640	9.645	-0.005	48502	0.2500	0.2536	
14 3,5-Dinitroaniline	1	9.867	9.878	-0.011	61965	0.2500	0.2710	
15 Tetryl	1	10.000	10.011	-0.011	37551	0.2500	0.2288	
16 Nitroglycerin	2	10.453	10.465	-0.012	175548	2.50	2.74	
17 2,4,6-Trinitrotoluene	1	10.893	10.905	-0.012	55688	0.2500	0.2639	
18 4-Amino-2,6-dinitrotoluene	1	11.087	11.098	-0.011	41359	0.2500	0.2669	
19 2-Amino-4,6-dinitrotoluene	1	11.347	11.351	-0.004	53305	0.2500	0.2647	
20 2,6-Dinitrotoluene	1	11.493	11.505	-0.012	39143	0.2500	0.2742	
21 2,4-Dinitrotoluene	1	11.667	11.678	-0.011	80415	0.2500	0.2711	
22 o-Nitrotoluene	1	12.493	12.505	-0.012	31462	0.2500	0.2460	
23 p-Nitrotoluene	1	12.913	12.925	-0.012	27131	0.2500	0.2425	
24 m-Nitrotoluene	1	13.487	13.498	-0.011	34730	0.2500	0.2472	
25 PETN	2	14.653	14.665	-0.012	192541	2.50	2.80	

QC Flag Legend
Processing Flags

Review Flags
M - Manually Integrated
a - User Assigned ID

Reagents:

8330 DMT_00013	Amount Added:	12.50	Units: uL
8330IntermStk_00075	Amount Added:	25.00	Units: uL

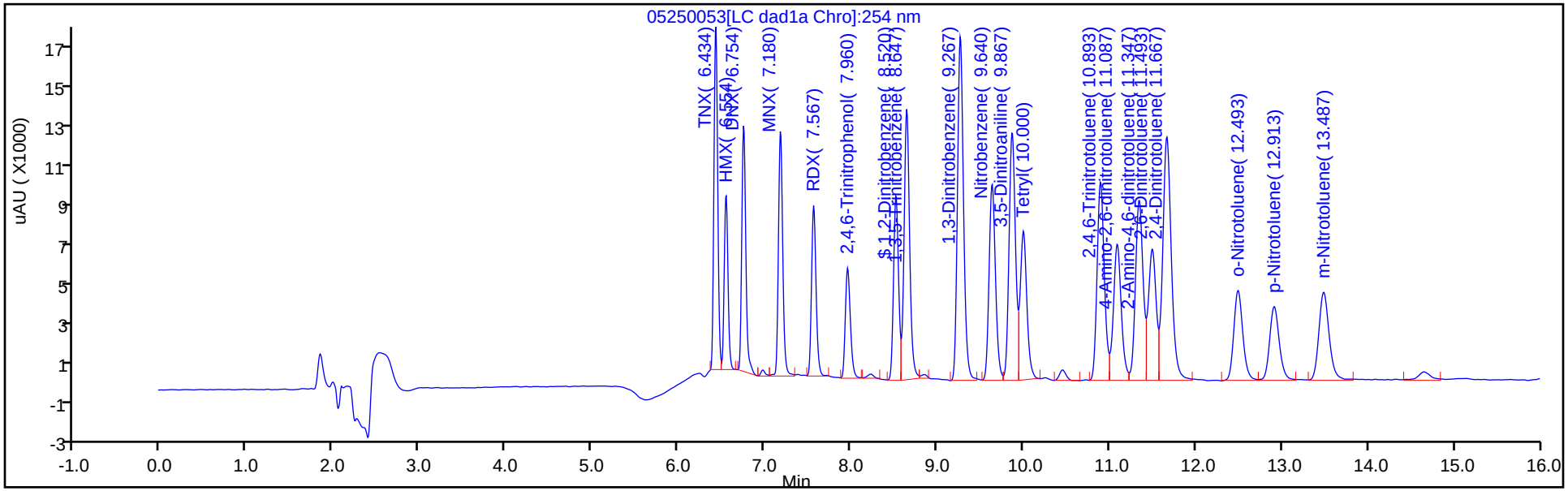
Report Date: 26-May-2023 11:54:26 Chrom Revision: 2.3 23-May-2023 13:55:56

Eurofins Denver

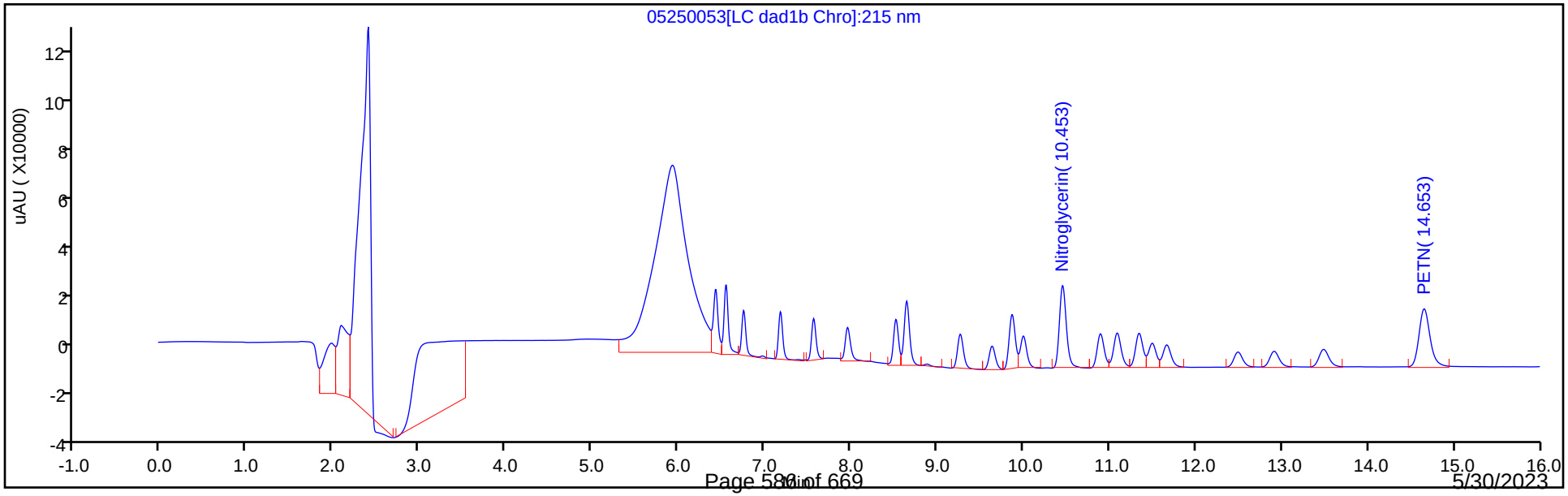
Data File: \\chromfs\denver\chromdata\chhplc_x\20230525-121837.b\05250053.d

Injection Date:	26-May-2023 07:32:06	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	CCV DMT			Worklist Smp#:	53
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



Manual Integration/User Assign Peak Report

Eurofins Denver

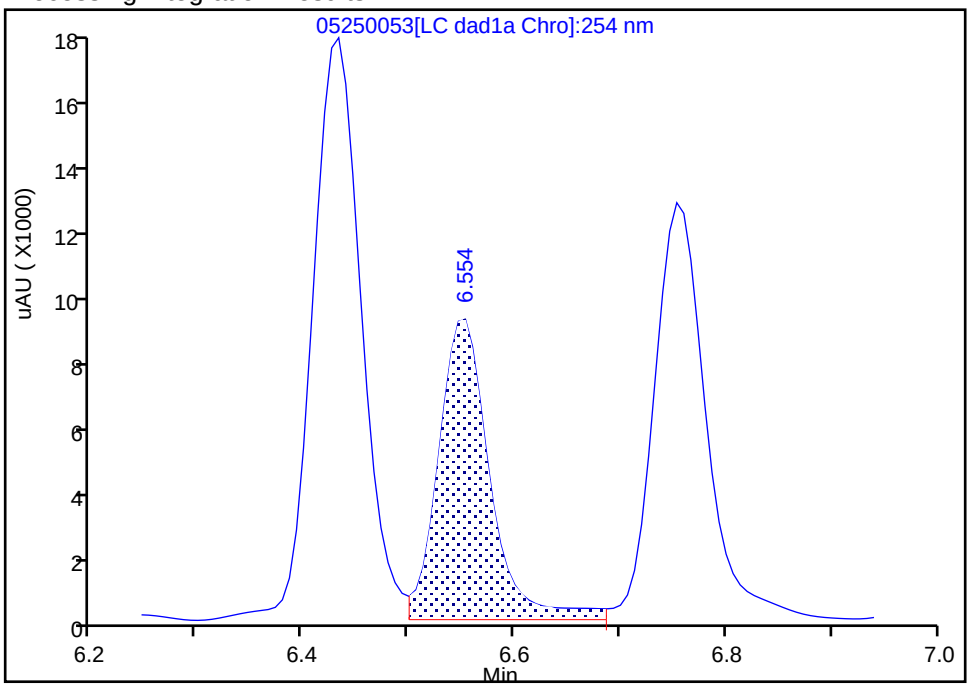
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230525-121837.b\05250053.d				
Injection Date:	26-May-2023 07:32:06	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV DMT				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	7	Worklist Smp#:	53
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

4 HMX, CAS: 2691-41-0

Signal: 1

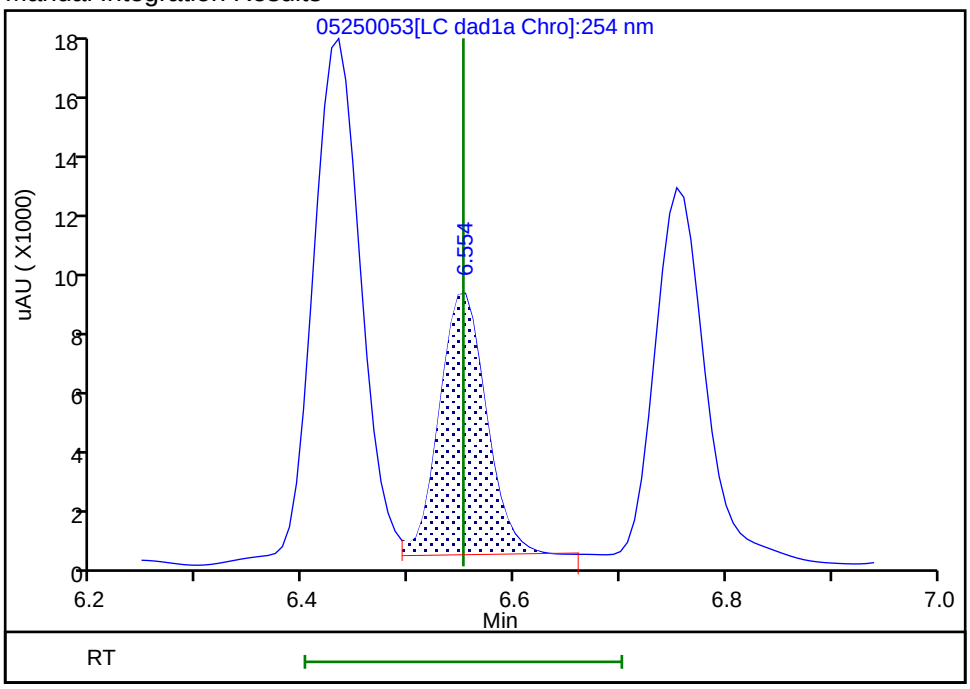
Processing Integration Results

RT: 6.55
Area: 29221
Amount: 0.312430
Amount Units: ug/mL



Manual Integration Results

RT: 6.55
Area: 25767
Amount: 0.275500
Amount Units: ug/mL



Reviewer: K8YG, 26-May-2023 08:08:40 -06:00:00 (UTC)
Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

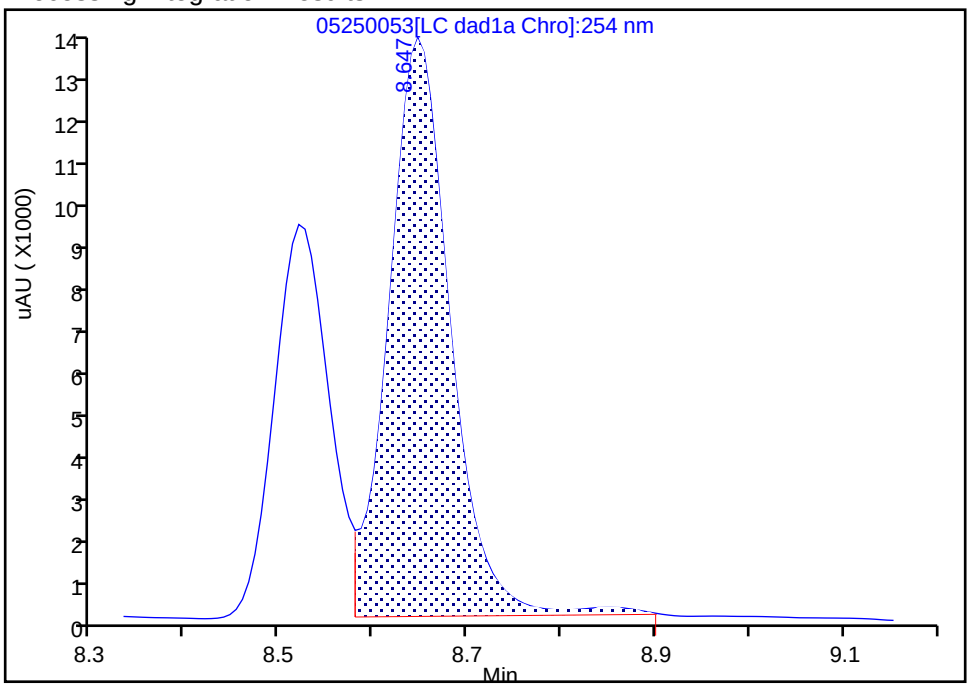
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230525-121837.b\05250053.d				
Injection Date:	26-May-2023 07:32:06	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV DMT				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	7	Worklist Smp#:	53
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit 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

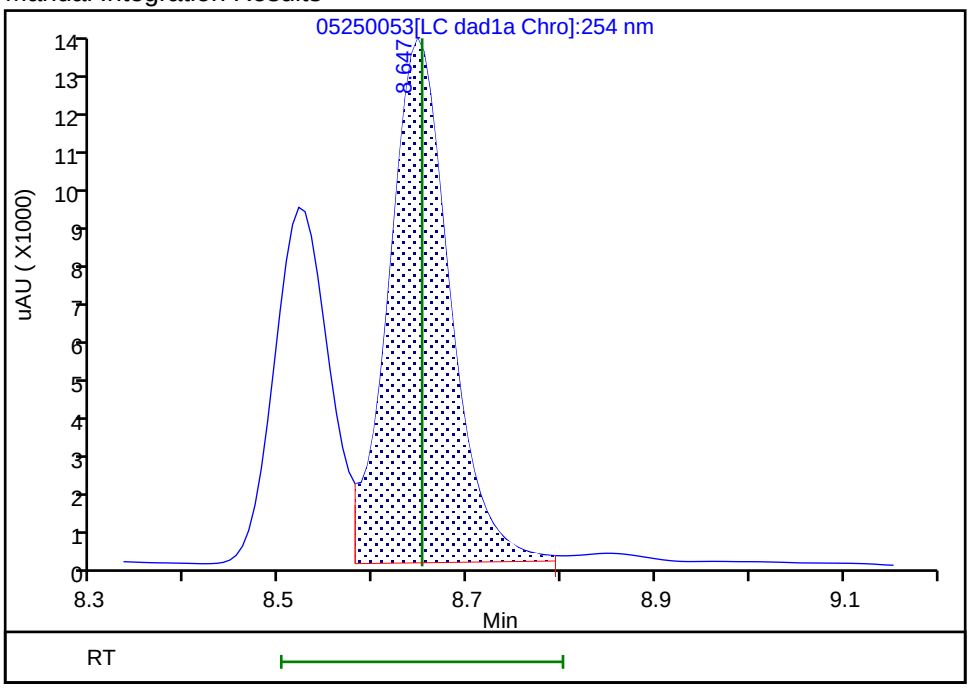
Processing Integration Results

RT: 8.65
Area: 59271
Amount: 0.272953
Amount Units: ug/mL



Manual Integration Results

RT: 8.65
Area: 58363
Amount: 0.268772
Amount Units: ug/mL



Reviewer: K8YG, 26-May-2023 08:09:27 -06:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Baseline

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-176866-1

SDG No.:

Lab Sample ID: CCV 280-613812/53 Calibration Date: 05/26/2023 07:32

Instrument ID: CHHPLC_X3 Calib Start Date: 02/24/2023 15:00

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 02/24/2023 17:41

Lab File ID: 05250053.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
TNX	Ave	197687	201033		255	251	1.7	20.0
DNX	Ave	144462	154238		267	250	6.8	20.0
MNX	Ave	131172	138578		308	292	5.6	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-176866-1

SDG No.:

Lab Sample ID: CCV 280-613812/53 Calibration Date: 05/26/2023 07:32

Instrument ID: CHHPLC_X3 Calib Start Date: 02/24/2023 15:00

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 02/24/2023 17:41

Lab File ID: 05250053.D

Analyte	RT	RT WINDOW	
		FROM	TO
TNX	6.43	6.33	6.53
DNX	6.75	6.66	6.86
MNX	7.18	7.04	7.34

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20230525-121837.b\05250053.D
Lims ID: CCV DMT
Client ID:
Sample Type: CCV
Inject. Date: 26-May-2023 07:32:06 ALS Bottle#: 7 Worklist Smp#: 53
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: CCV DMT
Operator ID: JZ/JG Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub27

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20230525-121837.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 26-May-2023 11:54:25 Calib Date: 24-Feb-2023 17:41:20
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20230224-118952.b\02240018.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1649

First Level Reviewer: K8YG Date: 26-May-2023 08:21:42

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 TNX	1	6.434	6.432	0.002	50409	0.2508	0.2550	Ma
4 HMX	1	6.554	6.552	0.002	25767	0.2500	0.2755	Ma
6 DNX	1	6.754	6.758	-0.004	38598	0.2503	0.2672	M
7 MNX	1	7.180	7.185	-0.005	40430	0.2918	0.3082	
8 RDX	1	7.567	7.572	-0.005	29723	0.2500	0.2794	
9 2,4,6-Trinitrophenol	1	7.960	7.952	0.008	21417	0.2500	0.2824	
$ 10 1,2-Dinitrobenzene	1	8.520	8.525	-0.005	35549	0.2500	0.2814	
11 1,3,5-Trinitrobenzene	1	8.647	8.652	-0.005	58363	0.2500	0.2688	M
12 1,3-Dinitrobenzene	1	9.267	9.271	-0.004	80312	0.2500	0.2728	
13 Nitrobenzene	1	9.640	9.645	-0.005	48502	0.2500	0.2536	
14 3,5-Dinitroaniline	1	9.867	9.878	-0.011	61965	0.2500	0.2710	
15 Tetryl	1	10.000	10.011	-0.011	37551	0.2500	0.2288	
16 Nitroglycerin	2	10.453	10.465	-0.012	175548	2.50	2.74	
17 2,4,6-Trinitrotoluene	1	10.893	10.905	-0.012	55688	0.2500	0.2639	
18 4-Amino-2,6-dinitrotoluene	1	11.087	11.098	-0.011	41359	0.2500	0.2669	
19 2-Amino-4,6-dinitrotoluene	1	11.347	11.351	-0.004	53305	0.2500	0.2647	
20 2,6-Dinitrotoluene	1	11.493	11.505	-0.012	39143	0.2500	0.2742	
21 2,4-Dinitrotoluene	1	11.667	11.678	-0.011	80415	0.2500	0.2711	
22 o-Nitrotoluene	1	12.493	12.505	-0.012	31462	0.2500	0.2460	
23 p-Nitrotoluene	1	12.913	12.925	-0.012	27131	0.2500	0.2425	
24 m-Nitrotoluene	1	13.487	13.498	-0.011	34730	0.2500	0.2472	
25 PETN	2	14.653	14.665	-0.012	192541	2.50	2.80	

QC Flag Legend
Processing Flags

Review Flags
M - Manually Integrated
a - User Assigned ID

Reagents:

8330 DMT_00013	Amount Added:	12.50	Units: uL
8330IntermStk_00075	Amount Added:	25.00	Units: uL

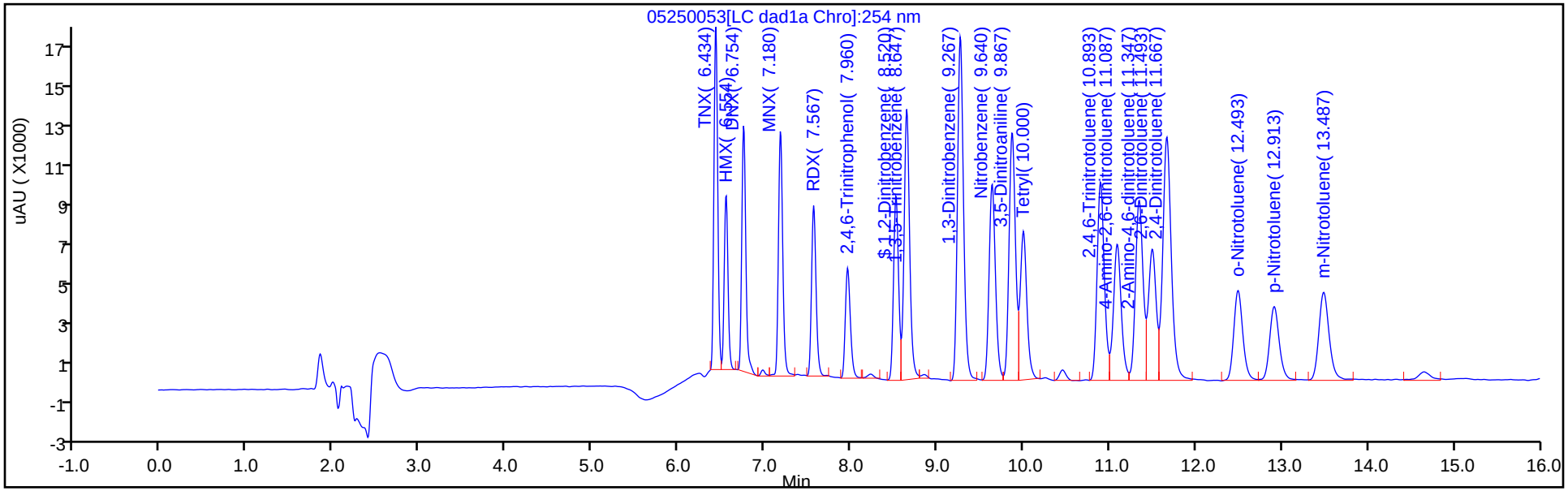
Report Date: 26-May-2023 11:54:26 Chrom Revision: 2.3 23-May-2023 13:55:56

Eurofins Denver

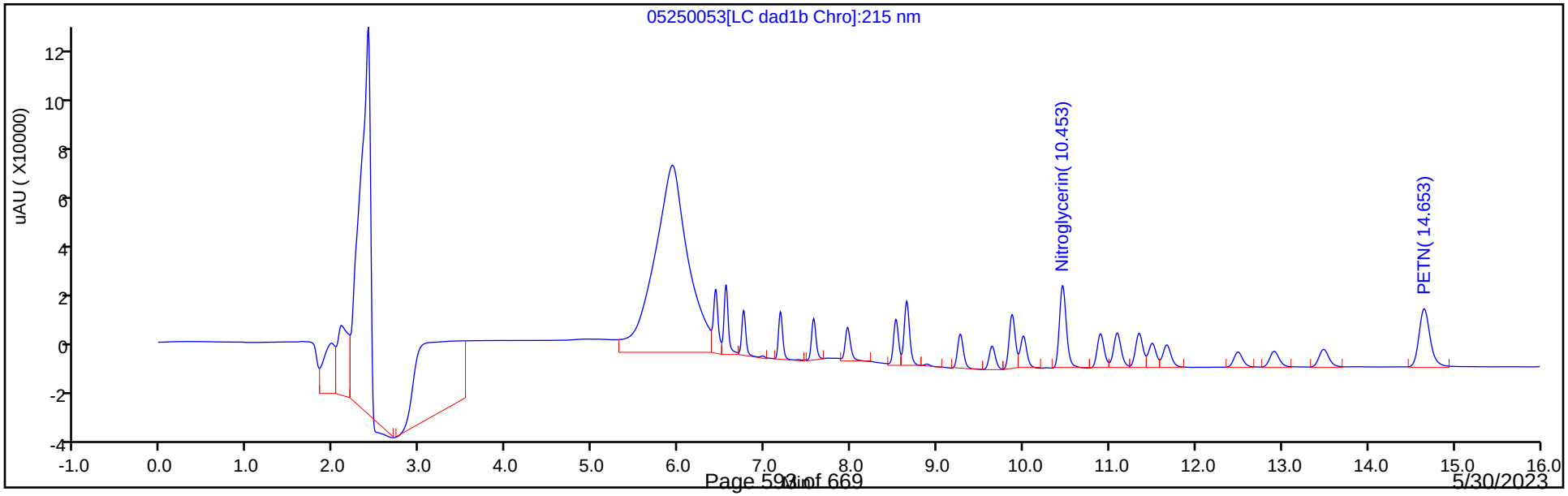
Data File: \\chromfs\denver\chromdata\chhplc_x\20230525-121837.b\05250053.d

Injection Date:	26-May-2023 07:32:06	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	CCV DMT			Worklist Smp#:	53
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



5/30/2023
10:34 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

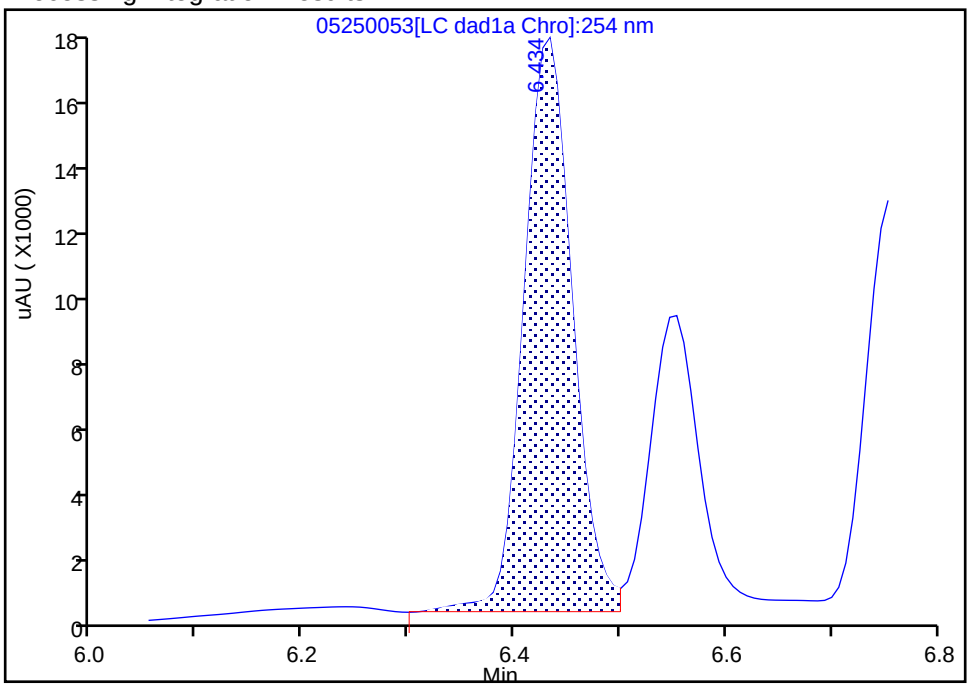
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230525-121837.b\05250053.d				
Injection Date:	26-May-2023 07:32:06	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV DMT				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	7	Worklist Smp#:	53
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

3 TNX, CAS: 13980-04-6

Signal: 1

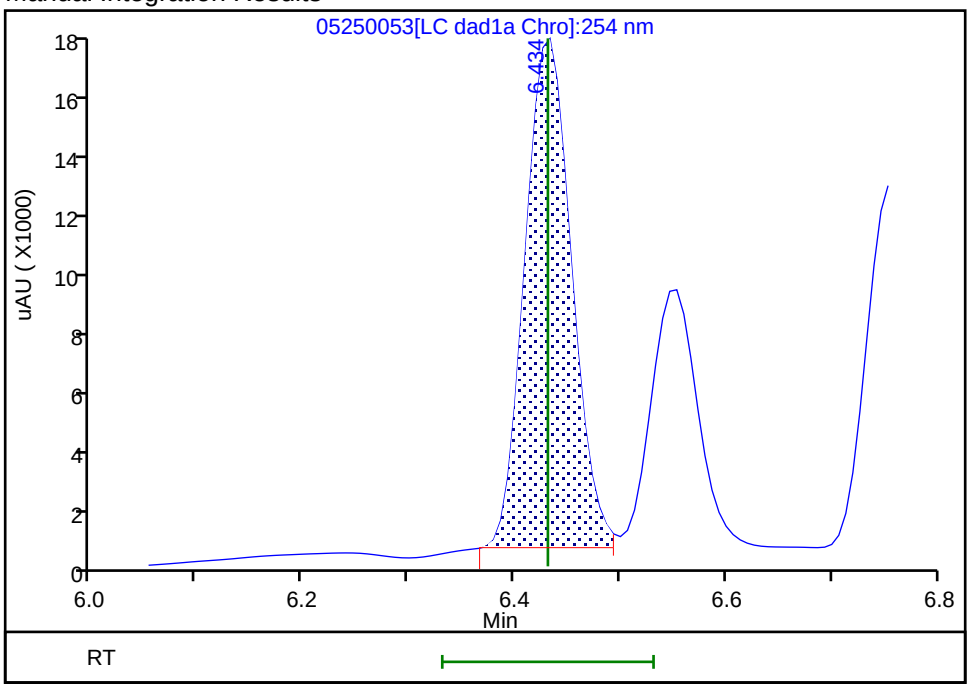
Processing Integration Results

RT: 6.43
Area: 53673
Amount: 0.271505
Amount Units: ug/mL



Manual Integration Results

RT: 6.43
Area: 50409
Amount: 0.254994
Amount Units: ug/mL



Reviewer: K8YG, 26-May-2023 08:08:37 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

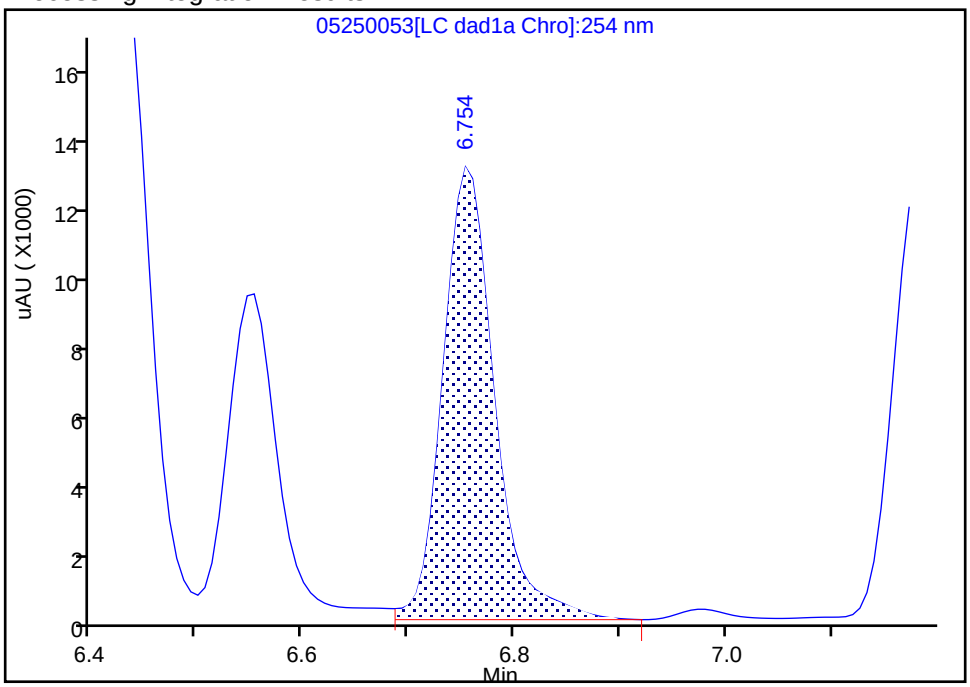
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230525-121837.b\05250053.d				
Injection Date:	26-May-2023 07:32:06	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV DMT				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	7	Worklist Smp#:	53
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

6 DNX, CAS: 80251-29-2

Signal: 1

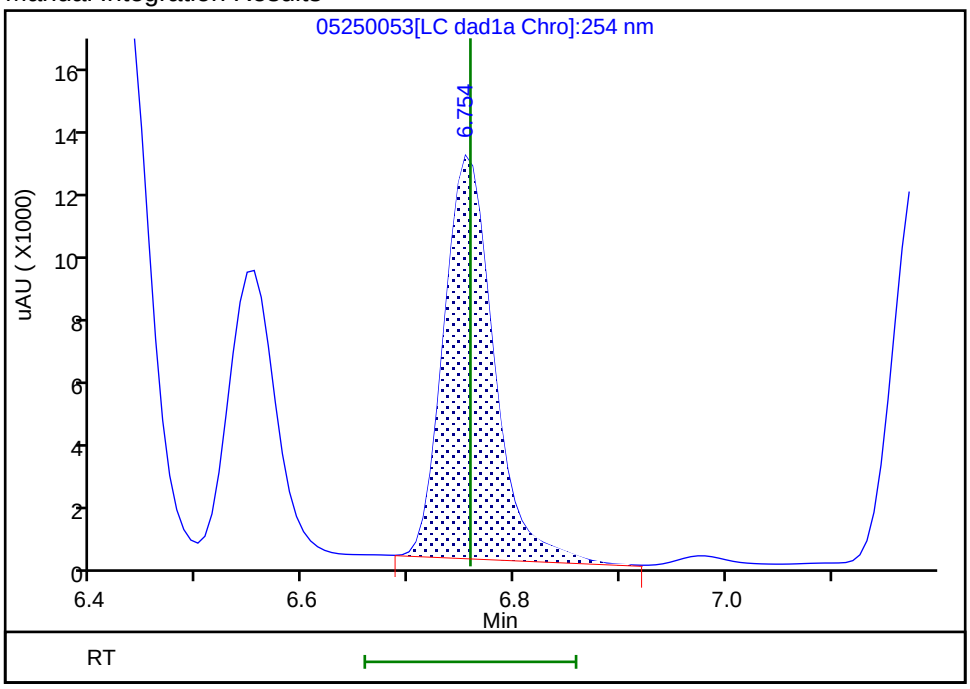
Processing Integration Results

RT: 6.75
Area: 40775
Amount: 0.282253
Amount Units: ug/mL



Manual Integration Results

RT: 6.75
Area: 38598
Amount: 0.267184
Amount Units: ug/mL



Reviewer: K8YG, 26-May-2023 08:08:20 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver | Job No.: 280-176866-1

SDG No.:

Lab Sample ID: ICV 280-610603/19 | Calibration Date: 04/28/2023 23:38

Instrument ID: CHHPLC_X5 | Calib Start Date: 04/28/2023 18:24

GC Column: Luna-phenylhex ID: 4.60(mm) | Calib End Date: 04/28/2023 23:03

Lab File ID: 04280019.D | Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
TNX	Ave	394332	392929		500	502	-0.4	20.0
DNX	Ave	277072	289930		524	501	4.6	20.0
HMX	Lin2		156404		417	500	-16.5	20.0
MNX	Ave	262267	264334		588	584	0.8	20.0
Picric acid	Lin2		156686		487	500	-2.6	20.0
RDX	Lin2		195166		449	500	-10.1	20.0
Nitrobenzene	Ave	398834	373736		469	500	-6.3	20.0
3,5-Dinitroaniline	Lin2		425372		477	500	-4.6	20.0
1,3-Dinitrobenzene	Ave	629351	577162		459	500	-8.3	20.0
Nitroglycerin	Ave	134735	124537		4620	5000	-7.6	20.0
2-Nitrotoluene	Ave	246963	231686		469	500	-6.2	20.0
4-Nitrotoluene	Ave	227490	217326		478	500	-4.5	20.0
4-Amino-2,6-dinitrotoluene	Ave	294210	272862		464	500	-7.3	20.0
3-Nitrotoluene	Ave	294634	265188		450	500	-10.0	20.0
2-Amino-4,6-dinitrotoluene	Ave	427939	400432		468	500	-6.4	20.0
1,3,5-Trinitrobenzene	Ave	405692	392558		484	500	-3.2	20.0
2,6-Dinitrotoluene	Ave	291675	264938		454	500	-9.2	20.0
2,4-Dinitrotoluene	Ave	584463	526892		451	500	-9.9	20.0
Tetryl	Ave	284731	322214		566	500	13.2	20.0
2,4,6-Trinitrotoluene	Ave	438876	392624		447	500	-10.5	20.0
PETN	Ave	143938	138644		4820	5000	-3.7	20.0
1,2-Dinitrobenzene	Ave	280697	261152		465	500	-7.0	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-176866-1

SDG No.:

Lab Sample ID: ICV 280-610603/19 Calibration Date: 04/28/2023 23:38

Instrument ID: CHHPLC_X5 Calib Start Date: 04/28/2023 18:24

GC Column: Luna-phenylhex ID: 4.60(mm) Calib End Date: 04/28/2023 23:03

Lab File ID: 04280019.D

Analyte	RT	RT WINDOW	
		FROM	TO
TNX	5.08	4.97	5.27
DNX	5.92	5.81	6.11
HMX	6.58	6.45	6.75
MNX	7.46	7.34	7.64
Picric acid	7.94	7.88	8.18
RDX	8.88	8.77	9.07
Nitrobenzene	11.45	11.33	11.63
3,5-Dinitroaniline	14.32	14.21	14.51
1,3-Dinitrobenzene	14.59	14.47	14.77
Nitroglycerin	15.16	15.03	15.33
2-Nitrotoluene	15.70	15.58	15.88
4-Nitrotoluene	15.92	15.81	16.11
4-Amino-2,6-dinitrotoluene	16.48	16.37	16.67
3-Nitrotoluene	16.78	16.67	16.97
2-Amino-4,6-dinitrotoluene	17.34	17.21	17.51
1,3,5-Trinitrobenzene	17.42	17.27	17.57
2,6-Dinitrotoluene	18.60	18.48	18.78
2,4-Dinitrotoluene	19.06	18.93	19.23
Tetryl	22.33	22.24	22.54
2,4,6-Trinitrotoluene	23.12	23.03	23.33
PETN	24.39	24.33	24.63
1,2-Dinitrobenzene	12.44	12.32	12.62

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230428-120896.b\04280019.D
Lims ID: ICV INT
Client ID:
Sample Type: ICV
Inject. Date: 28-Apr-2023 23:38:32 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\20230428-120896.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 29-Apr-2023 13:04:23 Calib Date: 28-Apr-2023 23:03:35
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230428-120896.b\04280018.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1621

First Level Reviewer: LV5D Date: 29-Apr-2023 10:26:41

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
3 TNX	1	5.082	5.115	-0.033	197054	0.5015	0.4997	
4 DNX	1	5.922	5.955	-0.033	145110	0.5005	0.5237	
5 HMX	1	6.576	6.595	-0.019	78202	0.5000	0.4173	
6 MNX	1	7.456	7.489	-0.033	154239	0.5835	0.5881	
7 2,4,6-Trinitrophenol	1	7.936	8.029	-0.093	78343	0.5000	0.4868	
8 RDX	1	8.882	8.915	-0.033	97583	0.5000	0.4494	
9 Nitrobenzene	1	11.449	11.482	-0.033	186868	0.5000	0.4685	
$ 10 1,2-Dinitrobenzene	1	12.436	12.469	-0.033	130576	0.5000	0.4652	
11 3,5-Dinitroaniline	1	14.322	14.355	-0.033	212686	0.5000	0.4770	M
12 1,3-Dinitrobenzene	1	14.589	14.622	-0.033	288581	0.5000	0.4585	M
13 Nitroglycerin	2	15.156	15.182	-0.026	622685	5.00	4.62	
14 o-Nitrotoluene	1	15.696	15.729	-0.033	115843	0.5000	0.4691	M
16 p-Nitrotoluene	1	15.922	15.955	-0.033	108663	0.5000	0.4777	M
17 4-Amino-2,6-dinitrotoluene	1	16.482	16.515	-0.033	136431	0.5000	0.4637	M
18 m-Nitrotoluene	1	16.782	16.815	-0.033	132594	0.5000	0.4500	M
19 2-Amino-4,6-dinitrotoluene	1	17.342	17.362	-0.020	200216	0.5000	0.4679	M
20 1,3,5-Trinitrobenzene	1	17.422	17.422	0.000	196279	0.5000	0.4838	M
21 2,6-Dinitrotoluene	1	18.602	18.629	-0.027	132469	0.5000	0.4542	
22 2,4-Dinitrotoluene	1	19.056	19.082	-0.026	263446	0.5000	0.4507	
23 Tetryl	1	22.329	22.389	-0.060	161107	0.5000	0.5658	
24 2,4,6-Trinitrotoluene	1	23.122	23.182	-0.060	196312	0.5000	0.4473	
25 PETN	2	24.389	24.475	-0.086	693219	5.00	4.82	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330Surrogate_00143	Amount Added:	50.00	Units: uL
8330_OP_DMT_00017	Amount Added:	50.00	Units: uL
8330 LCS_00126	Amount Added:	50.00	Units: uL

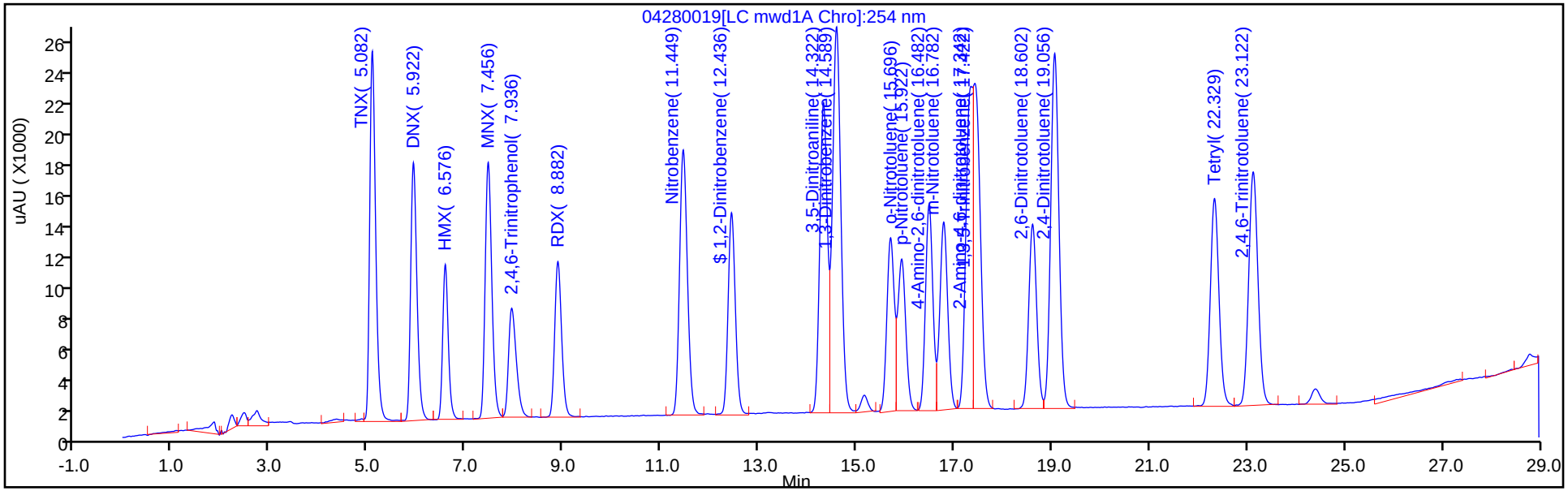
Report Date: 29-Apr-2023 13:06:04 Chrom Revision: 2.3 29-Mar-2023 18:39:10

Eurofins Denver

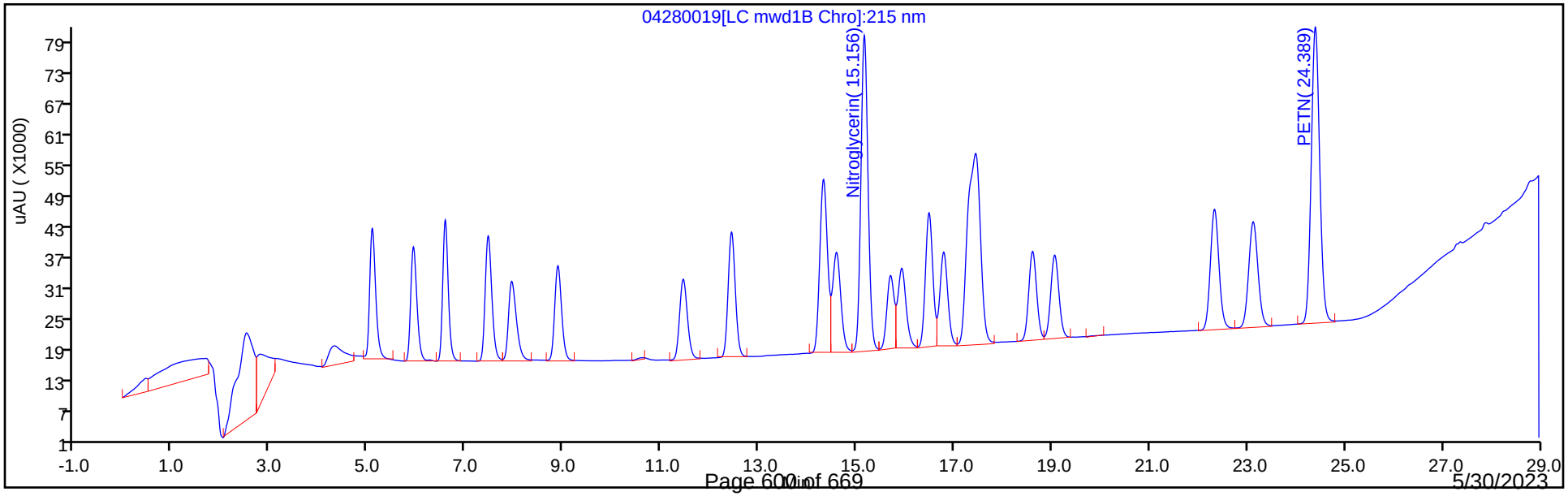
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230428-120896.b\04280019.D

Injection Date:	28-Apr-2023 23:38:32	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



5/30/2023
10:34 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

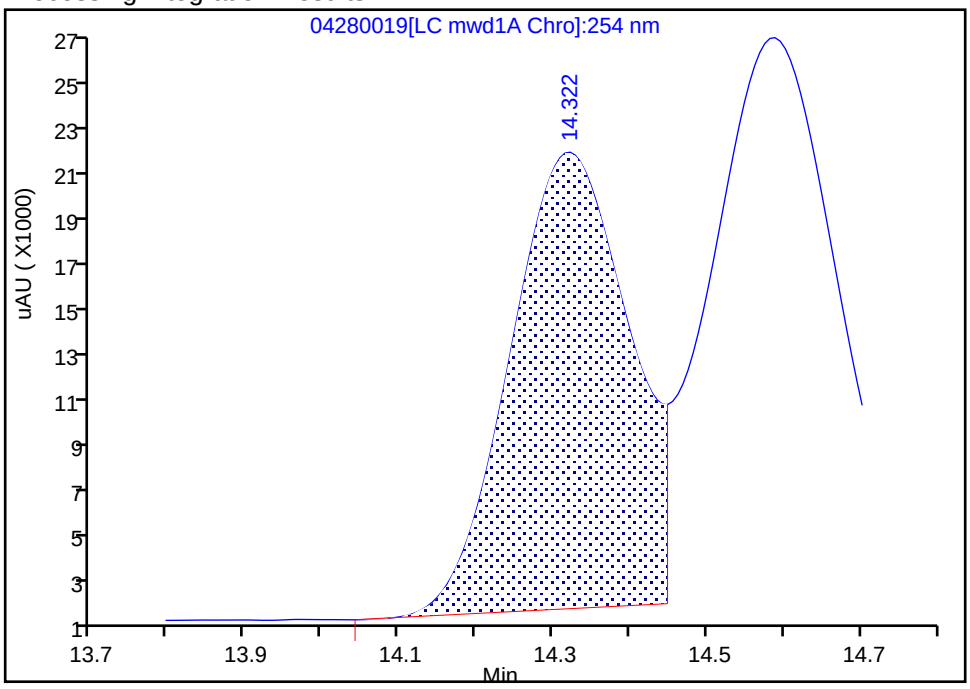
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20230428-120896.b\04280019.D				
Injection Date:	28-Apr-2023 23:38:32	Instrument ID:	CHHPLC_X5		
Lims ID:	ICV INT				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

11 3,5-Dinitroaniline, CAS: 618-87-1

Signal: 1

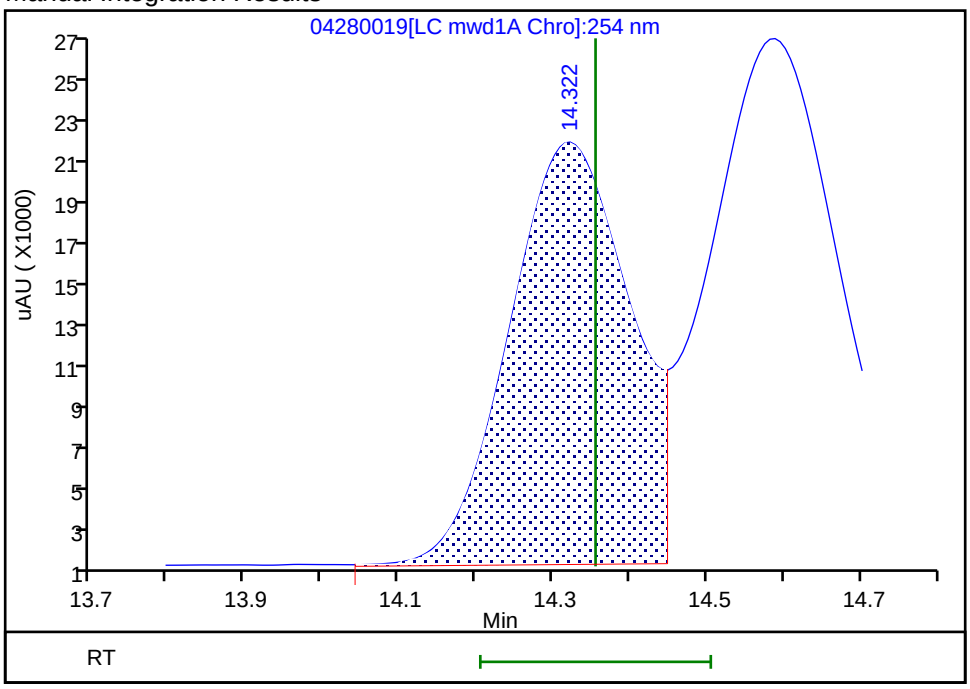
Processing Integration Results

RT: 14.32
Area: 204903
Amount: 0.459536
Amount Units: ug/ml



Manual Integration Results

RT: 14.32
Area: 212686
Amount: 0.477043
Amount Units: ug/ml



Reviewer: LV5D, 29-Apr-2023 10:27:10
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

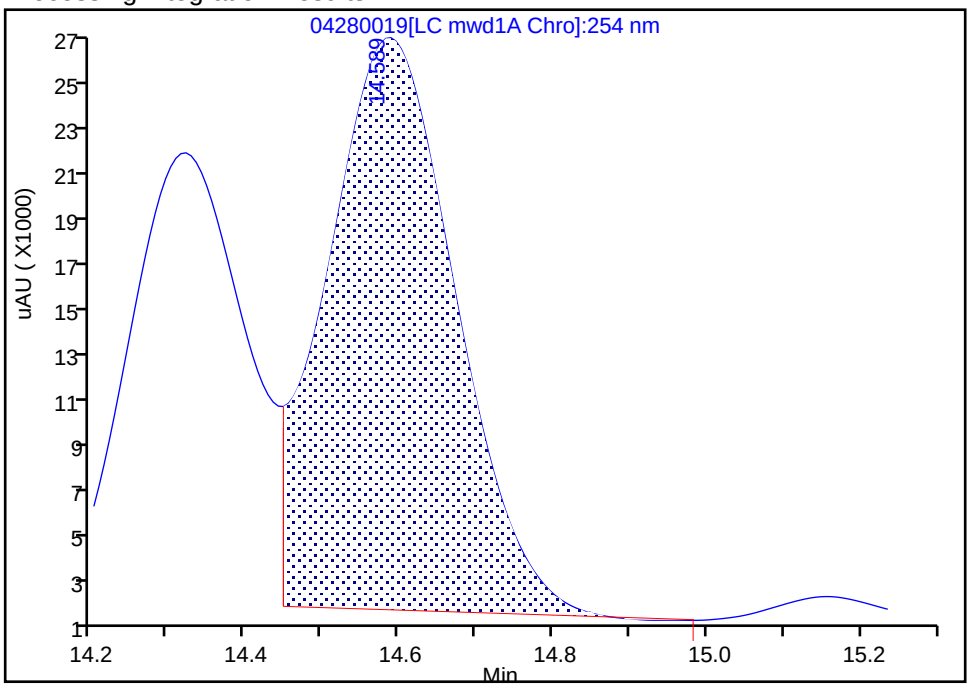
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230428-120896.b\04280019.D
Injection Date: 28-Apr-2023 23:38:32 Instrument ID: CHHPLC_X5
Lims ID: ICV INT
Client ID:
Operator ID: JZ/JG ALS Bottle#: 19 Worklist Smp#: 19
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X5_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC mwd1A, 254 nm

12 1,3-Dinitrobenzene, CAS: 99-65-0

Signal: 1

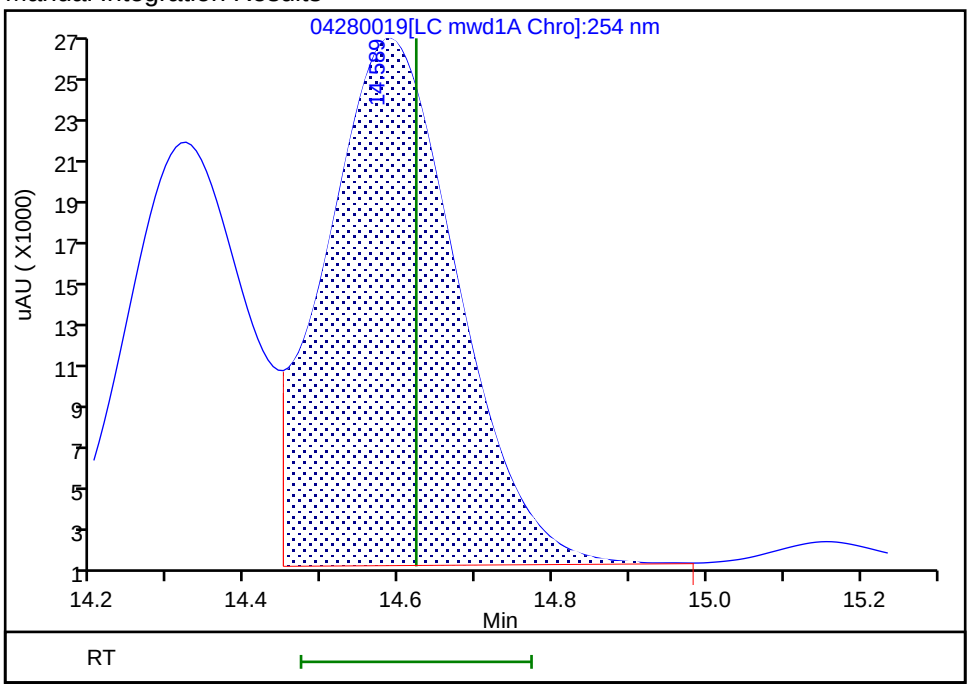
Processing Integration Results

RT: 14.59
Area: 278067
Amount: 0.441831
Amount Units: ug/ml



Manual Integration Results

RT: 14.59
Area: 288581
Amount: 0.458537
Amount Units: ug/ml



Reviewer: LV5D, 29-Apr-2023 10:27:10
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

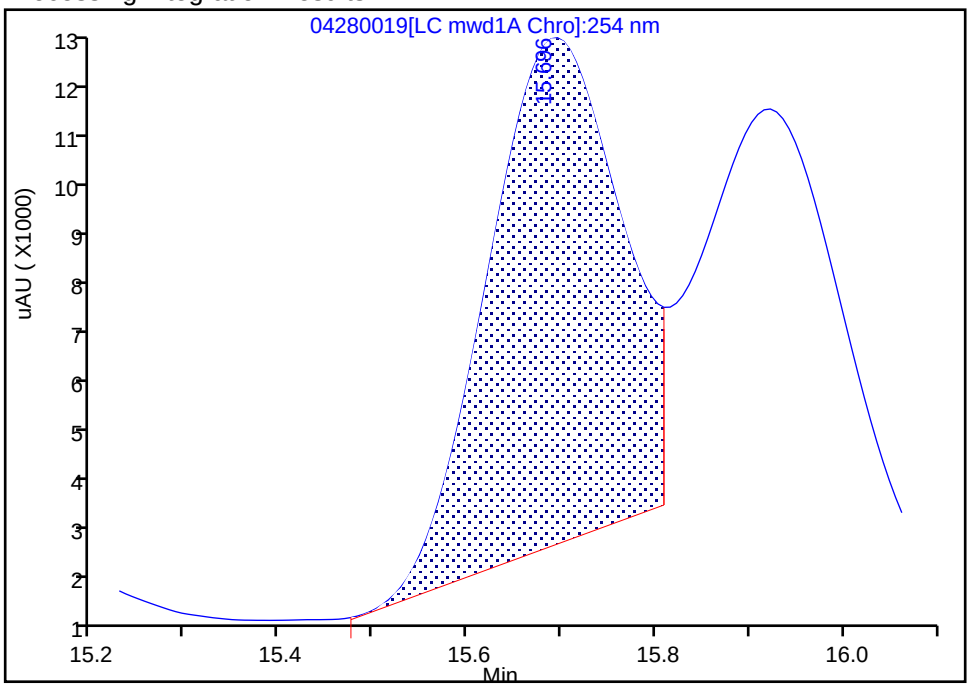
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20230428-120896.b\04280019.D				
Injection Date:	28-Apr-2023 23:38:32	Instrument ID:	CHHPLC_X5		
Lims ID:	ICV INT				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

14 o-Nitrotoluene, CAS: 88-72-2

Signal: 1

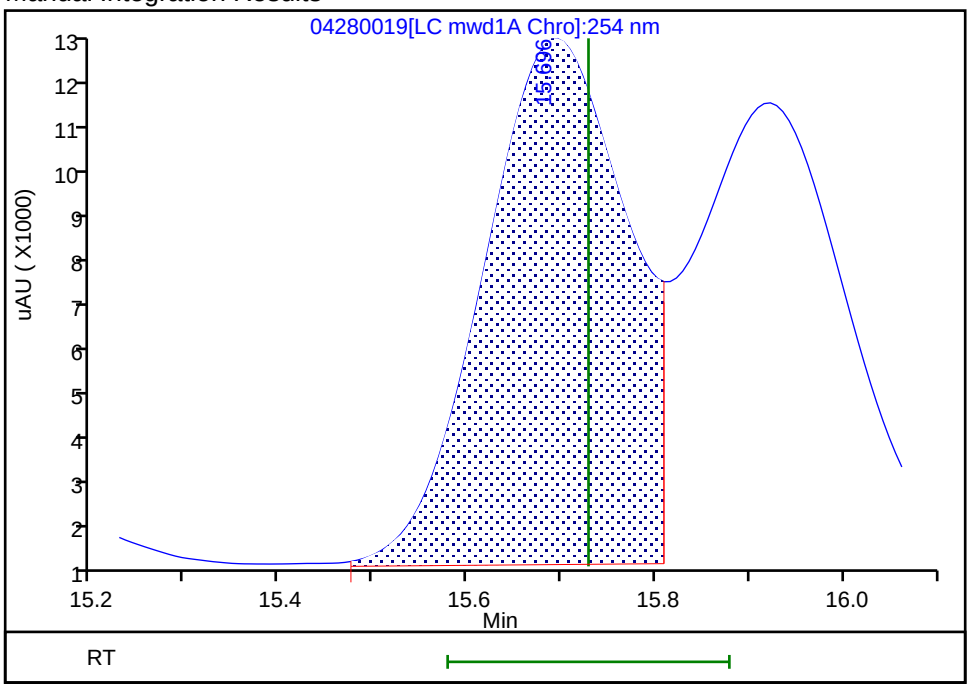
Processing Integration Results

RT: 15.70
Area: 94233
Amount: 0.381567
Amount Units: ug/ml



Manual Integration Results

RT: 15.70
Area: 115843
Amount: 0.469070
Amount Units: ug/ml



Reviewer: LV5D, 29-Apr-2023 10:27:13
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

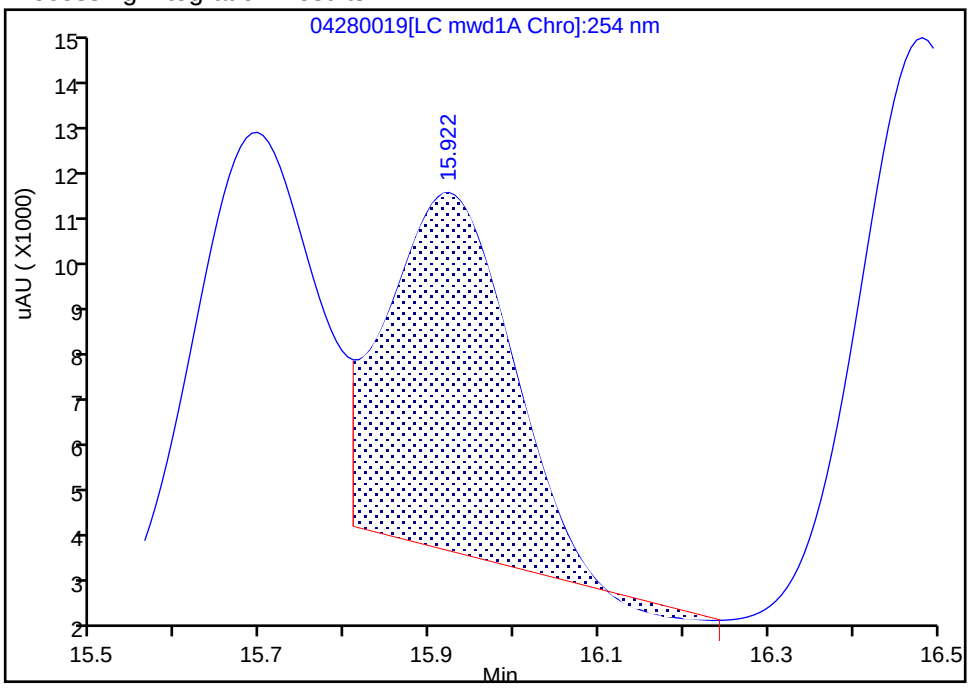
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20230428-120896.b\04280019.D				
Injection Date:	28-Apr-2023 23:38:32	Instrument ID:	CHHPLC_X5		
Lims ID:	ICV INT				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

16 p-Nitrotoluene, CAS: 99-99-0

Signal: 1

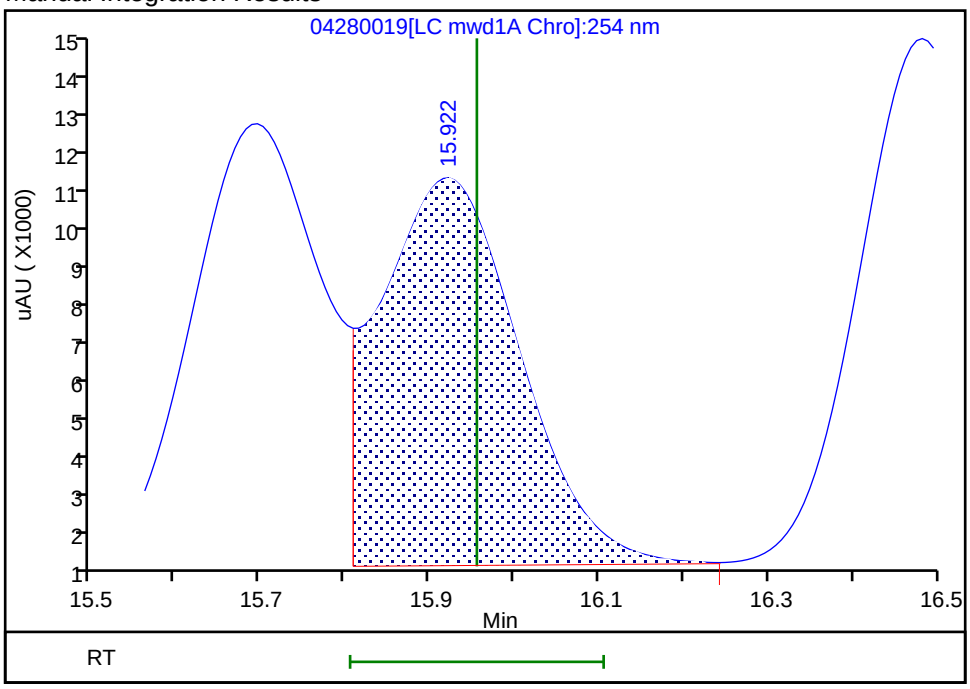
Processing Integration Results

RT: 15.92
Area: 83952
Amount: 0.369036
Amount Units: ug/ml



Manual Integration Results

RT: 15.92
Area: 108663
Amount: 0.477660
Amount Units: ug/ml



Reviewer: LV5D, 29-Apr-2023 10:27:13
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

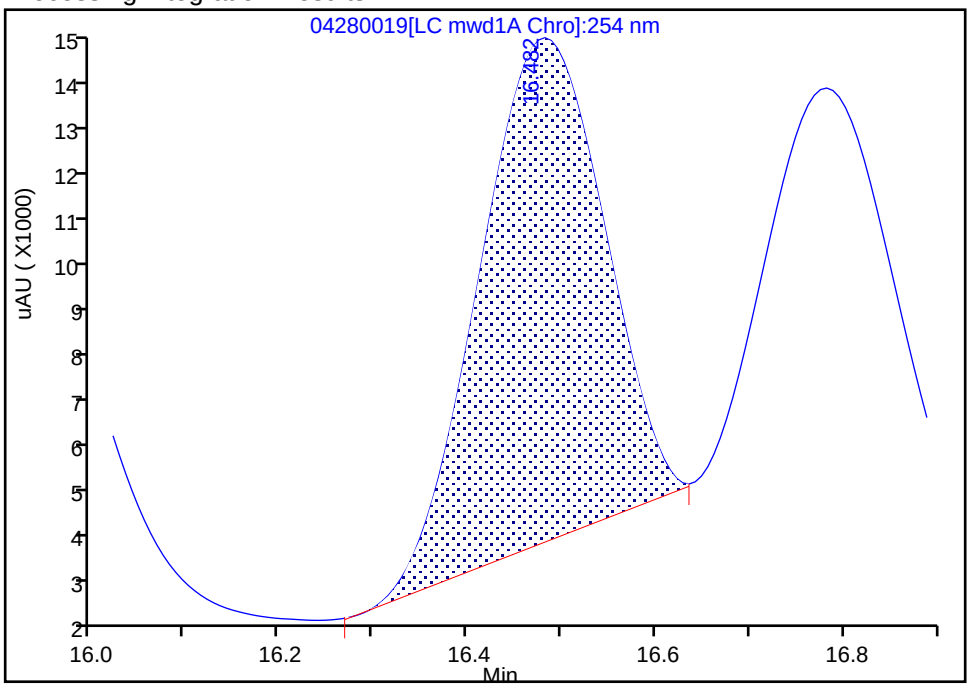
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230428-120896.b\04280019.D
Injection Date: 28-Apr-2023 23:38:32 Instrument ID: CHHPLC_X5
Lims ID: ICV INT
Client ID:
Operator ID: JZ/JG ALS Bottle#: 19 Worklist Smp#: 19
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X5_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC mwd1A, 254 nm

17 4-Amino-2,6-dinitrotoluene, CAS: 19406-51-0

Signal: 1

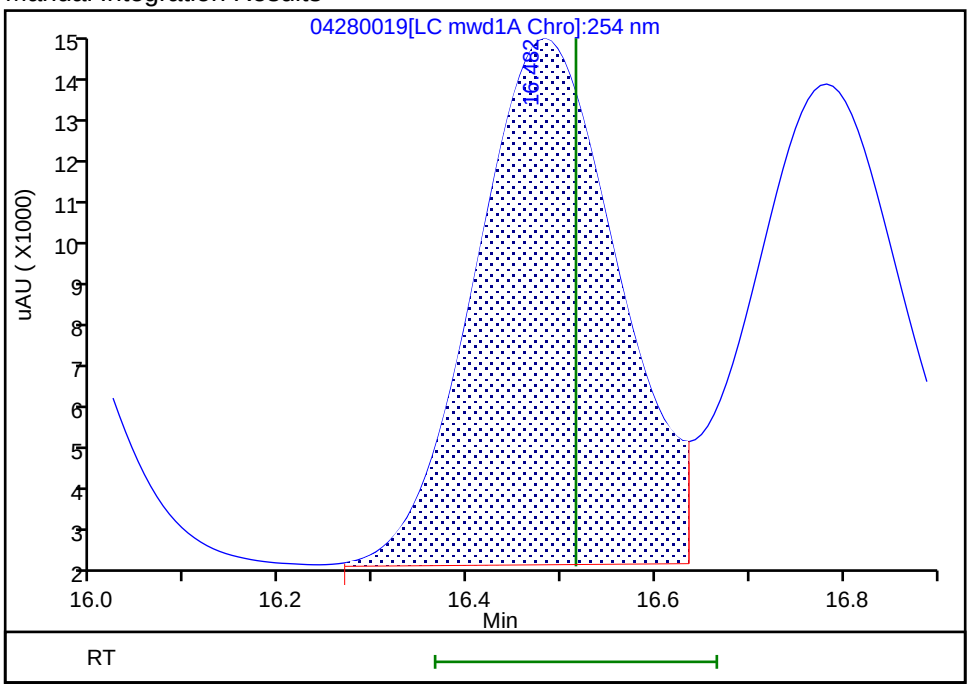
Processing Integration Results

RT: 16.48
Area: 103981
Amount: 0.365374
Amount Units: ug/ml



Manual Integration Results

RT: 16.48
Area: 136431
Amount: 0.463720
Amount Units: ug/ml



Reviewer: LV5D, 29-Apr-2023 10:27:13
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

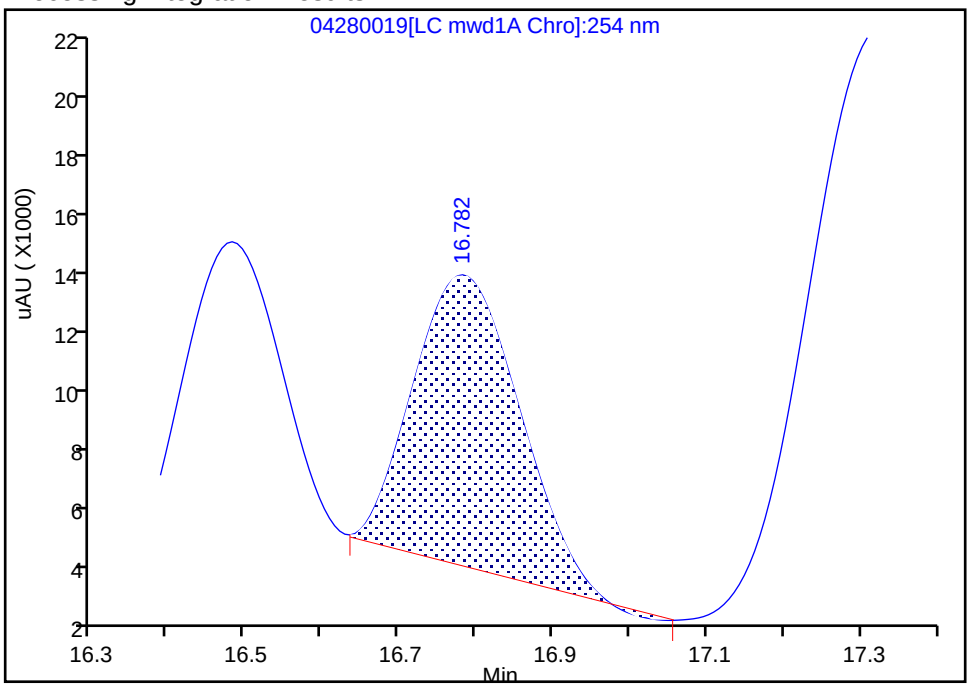
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20230428-120896.b\04280019.D				
Injection Date:	28-Apr-2023 23:38:32	Instrument ID:	CHHPLC_X5		
Lims ID:	ICV INT				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

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

Signal: 1

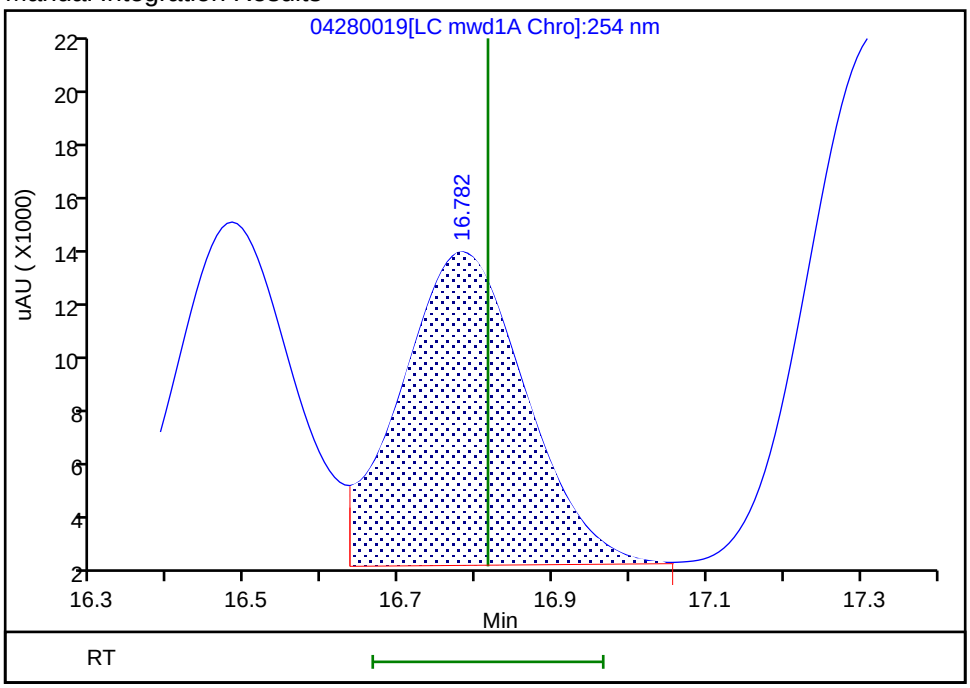
Processing Integration Results

RT: 16.78
Area: 97090
Amount: 0.342723
Amount Units: ug/ml



Manual Integration Results

RT: 16.78
Area: 132594
Amount: 0.450029
Amount Units: ug/ml



Reviewer: LV5D, 29-Apr-2023 10:27:13
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

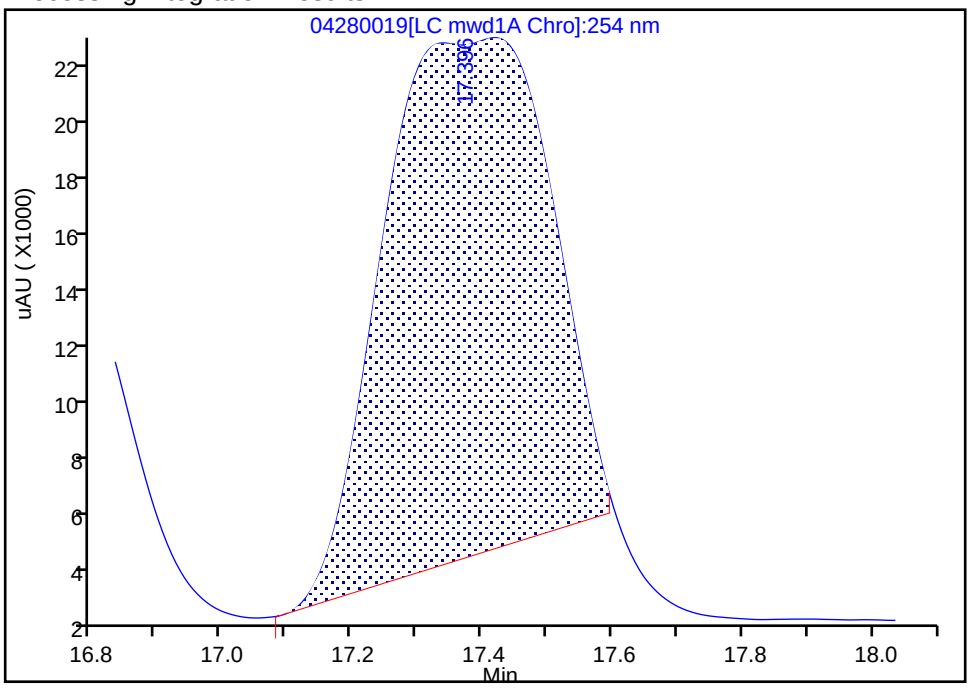
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20230428-120896.b\04280019.D				
Injection Date:	28-Apr-2023 23:38:32	Instrument ID:	CHHPLC_X5		
Lims ID:	ICV INT				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

20 1,3,5-Trinitrobenzene, CAS: 99-35-4

Signal: 1

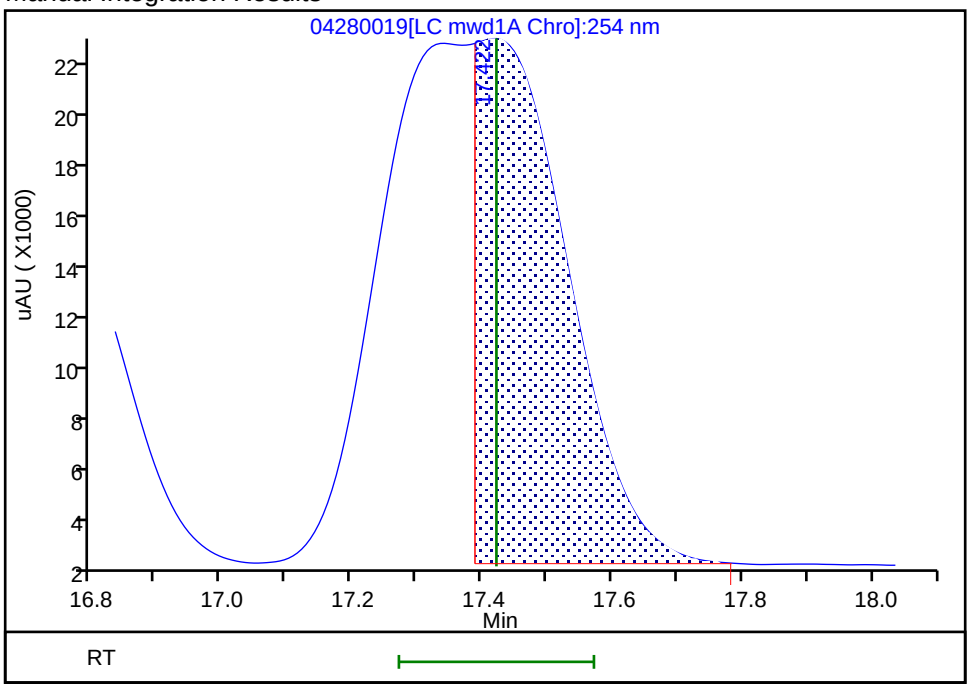
Processing Integration Results

RT: 17.40
Area: 328214
Amount: 0.809022
Amount Units: ug/ml



Manual Integration Results

RT: 17.42
Area: 196279
Amount: 0.483812
Amount Units: ug/ml



Reviewer: LV5D, 29-Apr-2023 10:27:01

Audit Action: Split an Integrated Peak Audit Reason: Baseline Smoothing

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver | Job No.: 280-176866-1

SDG No.:

Lab Sample ID: CCV 280-613822/7 | Calibration Date: 05/25/2023 17:05

Instrument ID: CHHPLC_X5 | Calib Start Date: 04/28/2023 18:24

GC Column: Luna-phenylhex ID: 4.60(mm) | Calib End Date: 04/28/2023 23:03

Lab File ID: 05250007.D | Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
HMX	Lin2		196480		260	250	4.2	20.0
Picric acid	Lin2		167360		258	250	3.4	20.0
RDX	Lin2		231104		265	250	5.9	20.0
Nitrobenzene	Ave	398834	398696		250	250	-0.0	20.0
3,5-Dinitroaniline	Lin2		468356		262	250	4.8	20.0
1,3-Dinitrobenzene	Ave	629351	622224		247	250	-1.1	20.0
Nitroglycerin	Ave	134735	136625		2540	2500	1.4	20.0
2-Nitrotoluene	Ave	246963	250220		253	250	1.3	20.0
4-Nitrotoluene	Ave	227490	230288		253	250	1.2	20.0
4-Amino-2,6-dinitrotoluene	Ave	294210	293164		249	250	-0.4	20.0
3-Nitrotoluene	Ave	294634	294568		250	250	-0.0	20.0
2-Amino-4,6-dinitrotoluene	Ave	427939	416056		243	250	-2.8	20.0
1,3,5-Trinitrobenzene	Ave	405692	426752		263	250	5.2	20.0
2,6-Dinitrotoluene	Ave	291675	291152		250	250	-0.2	20.0
2,4-Dinitrotoluene	Ave	584463	587912		251	250	0.6	20.0
Tetryl	Ave	284731	287556		252	250	1.0	20.0
2,4,6-Trinitrotoluene	Ave	438876	436308		249	250	-0.6	20.0
PETN	Ave	143938	141218		2450	2500	-1.9	20.0
1,2-Dinitrobenzene	Ave	280697	278404		248	250	-0.8	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-176866-1

SDG No.:

Lab Sample ID: CCV 280-613822/7 Calibration Date: 05/25/2023 17:05

Instrument ID: CHHPLC_X5 Calib Start Date: 04/28/2023 18:24

GC Column: Luna-phenylhex ID: 4.60(mm) Calib End Date: 04/28/2023 23:03

Lab File ID: 05250007.D

Analyte	RT	RT WINDOW	
		FROM	TO
HMX	6.70	6.55	6.85
Picric acid	8.49	8.34	8.64
RDX	8.93	8.78	9.08
Nitrobenzene	11.44	11.29	11.59
3,5-Dinitroaniline	14.26	14.11	14.41
1,3-Dinitrobenzene	14.53	14.38	14.68
Nitroglycerin	15.04	14.89	15.19
2-Nitrotoluene	15.59	15.44	15.74
4-Nitrotoluene	15.81	15.66	15.96
4-Amino-2,6-dinitrotoluene	16.36	16.21	16.51
3-Nitrotoluene	16.65	16.50	16.80
2-Amino-4,6-dinitrotoluene	17.18	17.03	17.33
1,3,5-Trinitrobenzene	17.31	17.16	17.46
2,6-Dinitrotoluene	18.45	18.30	18.60
2,4-Dinitrotoluene	18.90	18.75	19.05
Tetryl	22.17	22.02	22.32
2,4,6-Trinitrotoluene	22.97	22.82	23.12
PETN	24.20	24.05	24.35
1,2-Dinitrobenzene	12.40	12.25	12.55

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230525-121840.b\05250007.D
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 25-May-2023 17:05:28 ALS Bottle#: 7 Worklist Smp#: 7
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: CCV
Operator ID: JZ/JG Instrument ID: CHHPLC_X5
Sublist: chrom-8330_X5_Luna*sub7

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20230525-121840.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 26-May-2023 14:34:26 Calib Date: 29-Apr-2023 04:18:01
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230428-120896.b\04280027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1649

First Level Reviewer: LV5D Date: 25-May-2023 17:57:46

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
5 HMX	1	6.699	6.699	0.000	49120	0.2500	0.2604	
7 2,4,6-Trinitrophenol	1	8.493	8.493	0.000	41840	0.2500	0.2584	
8 RDX	1	8.933	8.933	0.000	57776	0.2500	0.2648	
9 Nitrobenzene	1	11.439	11.439	0.000	99674	0.2500	0.2499	
$ 10 1,2-Dinitrobenzene	1	12.399	12.399	0.000	69601	0.2500	0.2480	
11 3,5-Dinitroaniline	1	14.259	14.259	0.000	117089	0.2500	0.2620	
12 1,3-Dinitrobenzene	1	14.526	14.526	0.000	155556	0.2500	0.2472	
13 Nitroglycerin	2	15.039	15.039	0.000	341563	2.50	2.54	
14 o-Nitrotoluene	1	15.592	15.592	0.000	62555	0.2500	0.2533	M
16 p-Nitrotoluene	1	15.812	15.812	0.000	57572	0.2500	0.2531	M
17 4-Amino-2,6-dinitrotoluene	1	16.359	16.359	0.000	73291	0.2500	0.2491	M
18 m-Nitrotoluene	1	16.652	16.652	0.000	73642	0.2500	0.2499	M
19 2-Amino-4,6-dinitrotoluene	1	17.179	17.179	0.000	104014	0.2500	0.2431	M
20 1,3,5-Trinitrobenzene	1	17.312	17.312	0.000	106688	0.2500	0.2630	M
21 2,6-Dinitrotoluene	1	18.446	18.446	0.000	72788	0.2500	0.2496	
22 2,4-Dinitrotoluene	1	18.899	18.899	0.000	146978	0.2500	0.2515	
23 Tetryl	1	22.166	22.166	0.000	71889	0.2500	0.2525	
24 2,4,6-Trinitrotoluene	1	22.966	22.966	0.000	109077	0.2500	0.2485	
25 PETN	2	24.199	24.199	0.000	353045	2.50	2.45	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330IntermStk_00076 Amount Added: 25.00 Units: uL

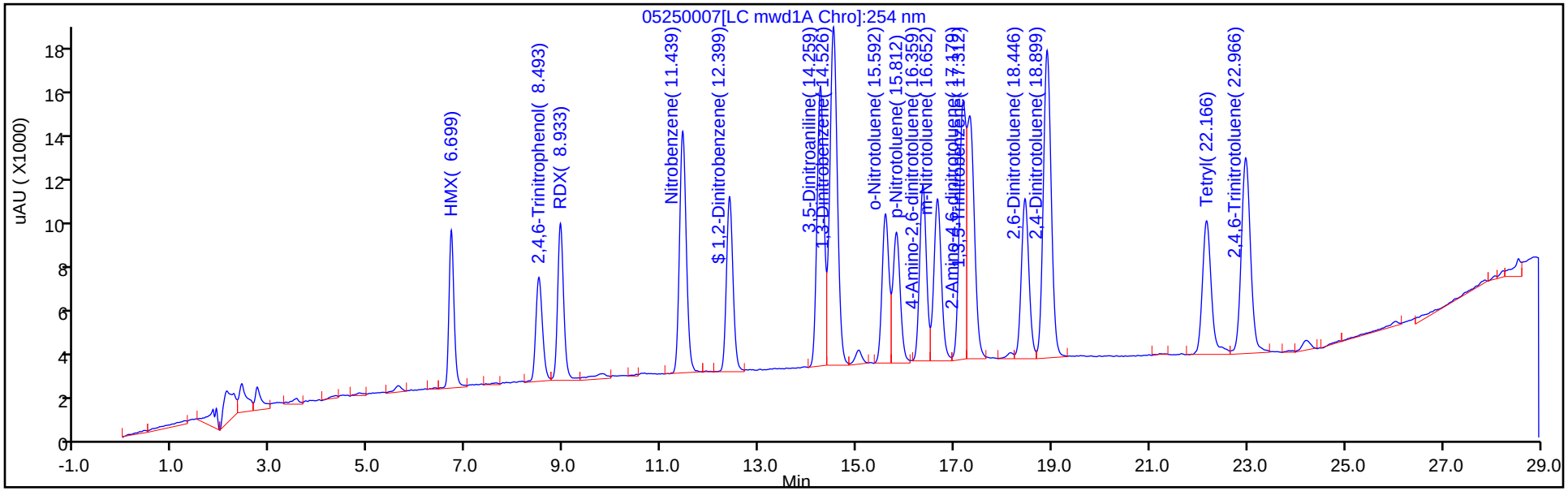
Report Date: 26-May-2023 14:34:26 Chrom Revision: 2.3 23-May-2023 13:55:56

Eurofins Denver

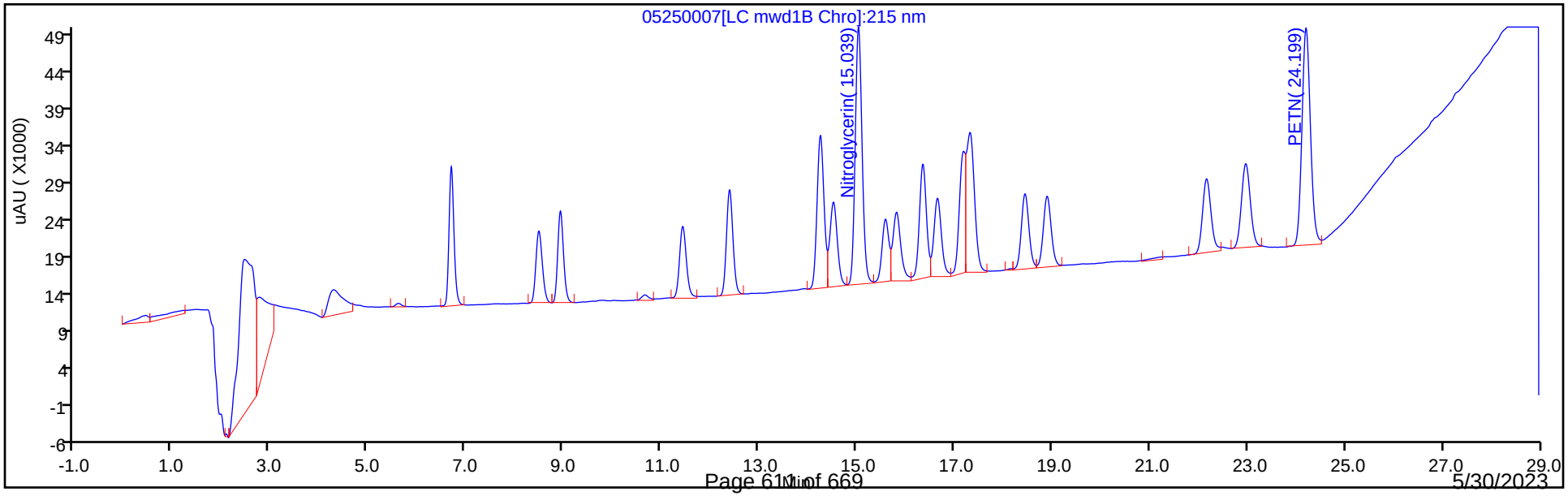
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230525-121840.b\05250007.D

Injection Date:	25-May-2023 17:05:28	Instrument ID:	CHHPLC_X5	Operator ID:	JZ/JG
Lims ID:	CCV			Worklist Smp#:	7
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



5/30/2023
10:34 AM

Manual Integration/User Assign Peak Report

Eurofins Denver

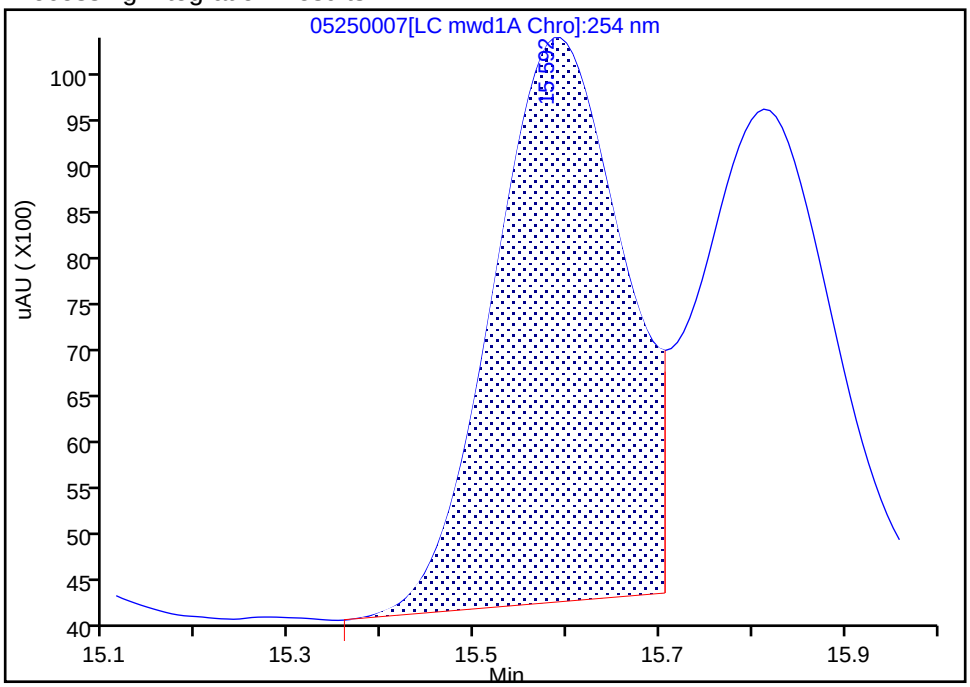
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20230525-121840.b\05250007.D				
Injection Date:	25-May-2023 17:05:28	Instrument ID:	CHHPLC_X5		
Lims ID:	CCV				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	7	Worklist Smp#:	7
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

14 o-Nitrotoluene, CAS: 88-72-2

Signal: 1

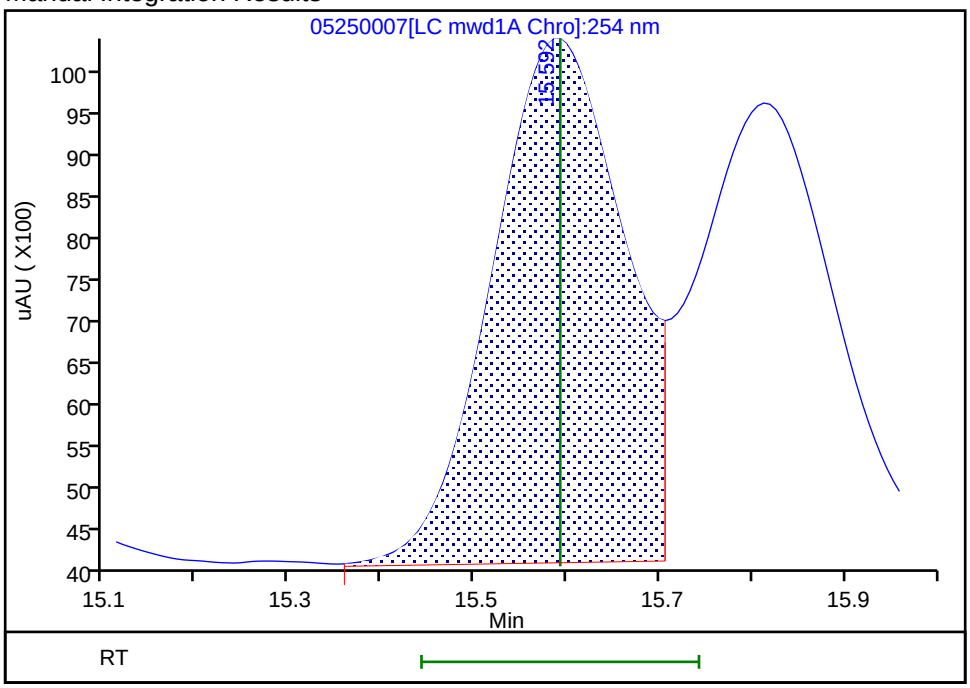
Processing Integration Results

RT: 15.59
Area: 59403
Amount: 0.240534
Amount Units: ug/ml



Manual Integration Results

RT: 15.59
Area: 62555
Amount: 0.253297
Amount Units: ug/ml



Reviewer: LV5D, 25-May-2023 17:57:41 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

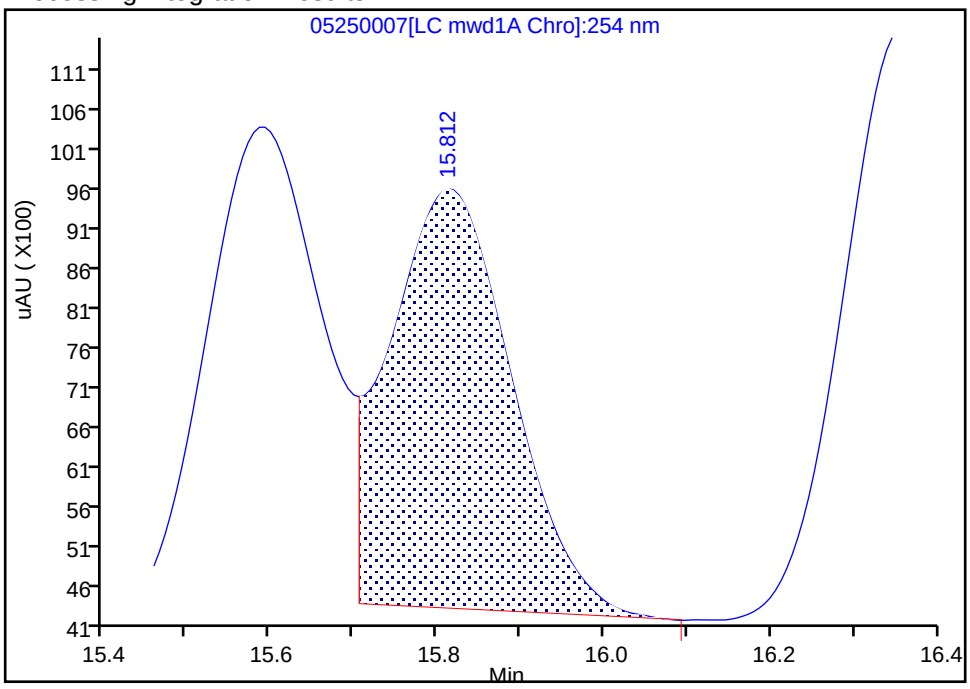
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20230525-121840.b\05250007.D				
Injection Date:	25-May-2023 17:05:28	Instrument ID:	CHHPLC_X5		
Lims ID:	CCV				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	7	Worklist Smp#:	7
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

16 p-Nitrotoluene, CAS: 99-99-0

Signal: 1

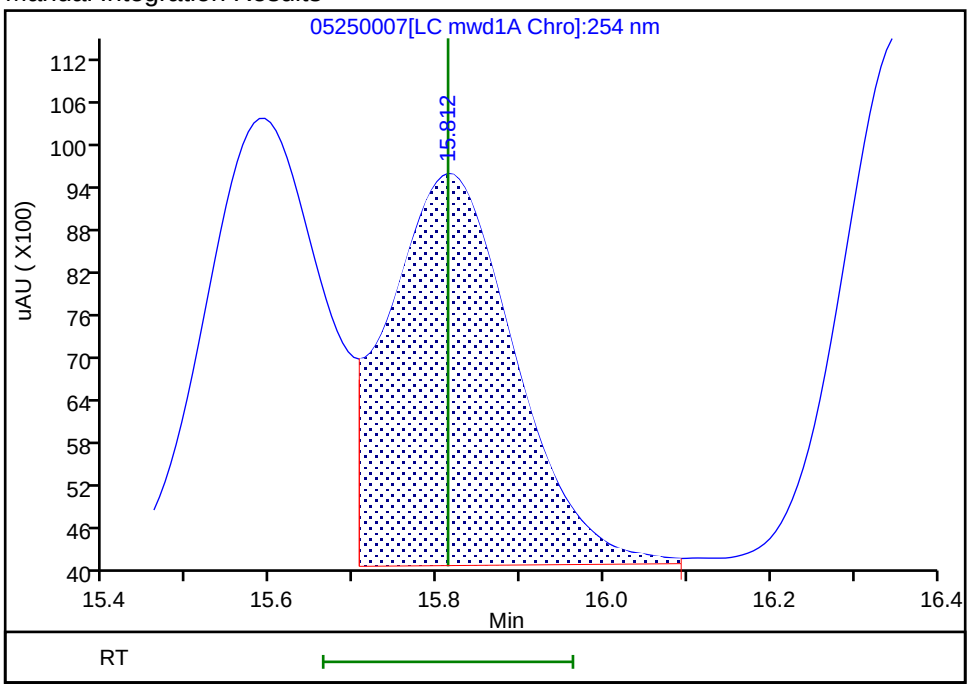
Processing Integration Results

RT: 15.81
Area: 53559
Amount: 0.235434
Amount Units: ug/ml



Manual Integration Results

RT: 15.81
Area: 57572
Amount: 0.253075
Amount Units: ug/ml



Reviewer: LV5D, 25-May-2023 17:57:41 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

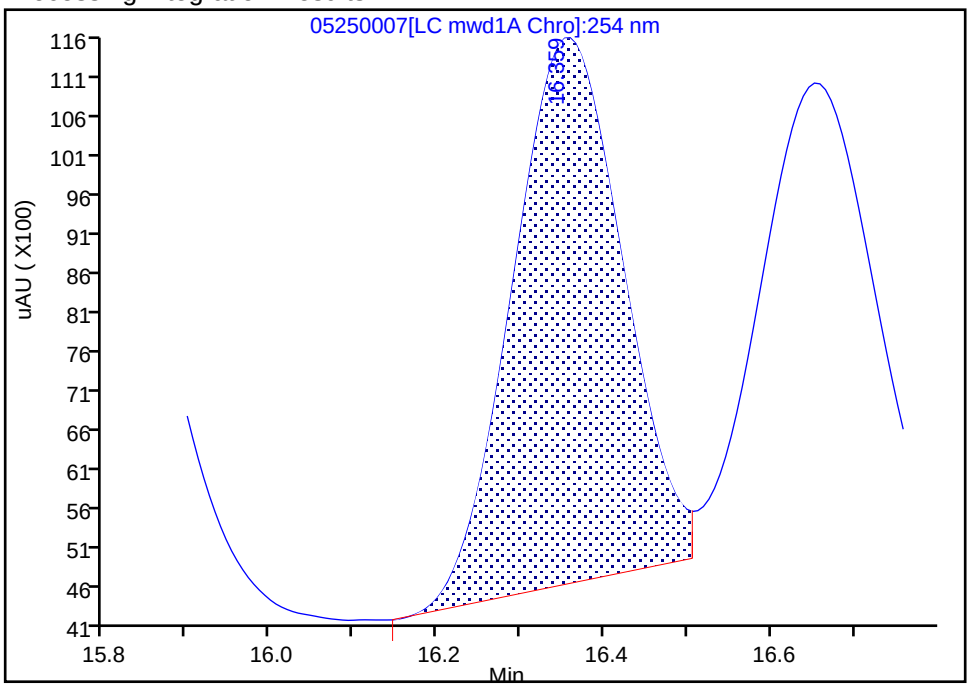
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20230525-121840.b\05250007.D				
Injection Date:	25-May-2023 17:05:28	Instrument ID:	CHHPLC_X5		
Lims ID:	CCV				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	7	Worklist Smp#:	7
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit 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

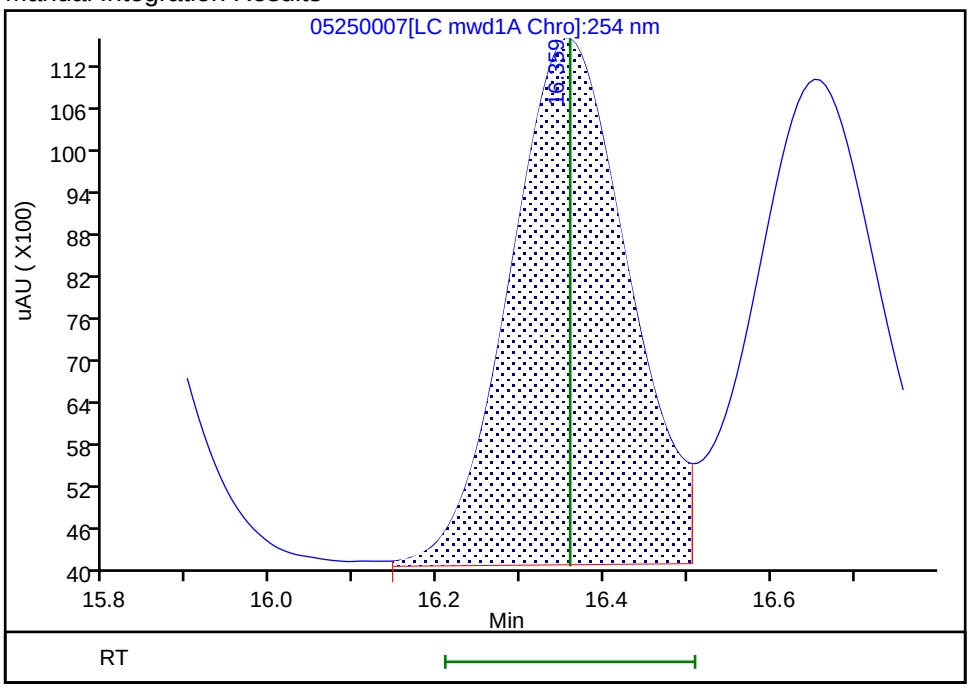
Processing Integration Results

RT: 16.36
Area: 63960
Amount: 0.217396
Amount Units: ug/ml



Manual Integration Results

RT: 16.36
Area: 73291
Amount: 0.249111
Amount Units: ug/ml



Reviewer: LV5D, 25-May-2023 17:57:41 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

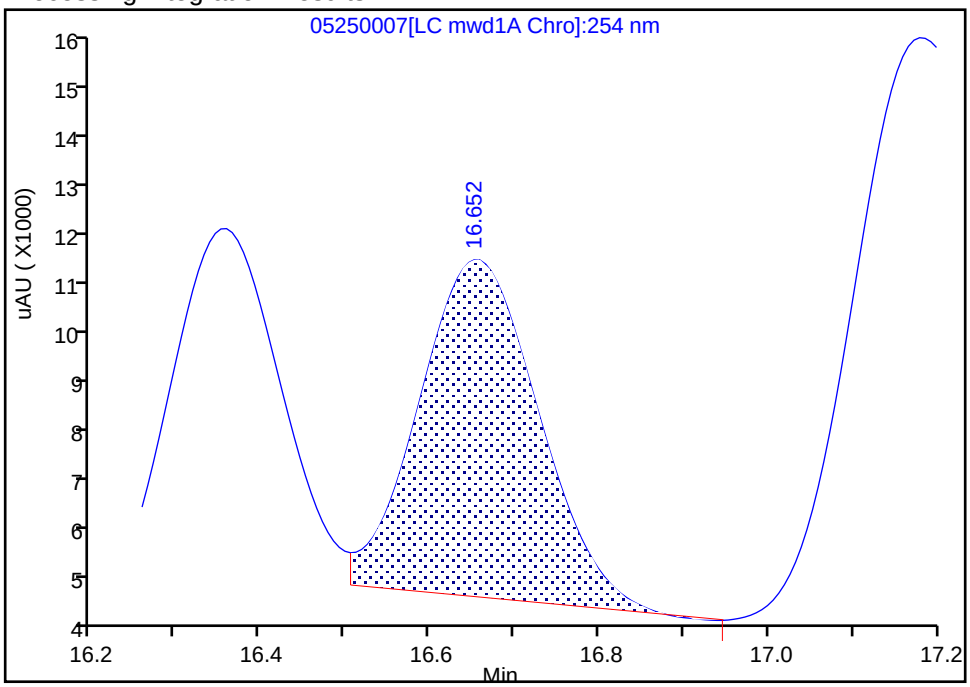
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20230525-121840.b\05250007.D				
Injection Date:	25-May-2023 17:05:28	Instrument ID:	CHHPLC_X5		
Lims ID:	CCV				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	7	Worklist Smp#:	7
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

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

Signal: 1

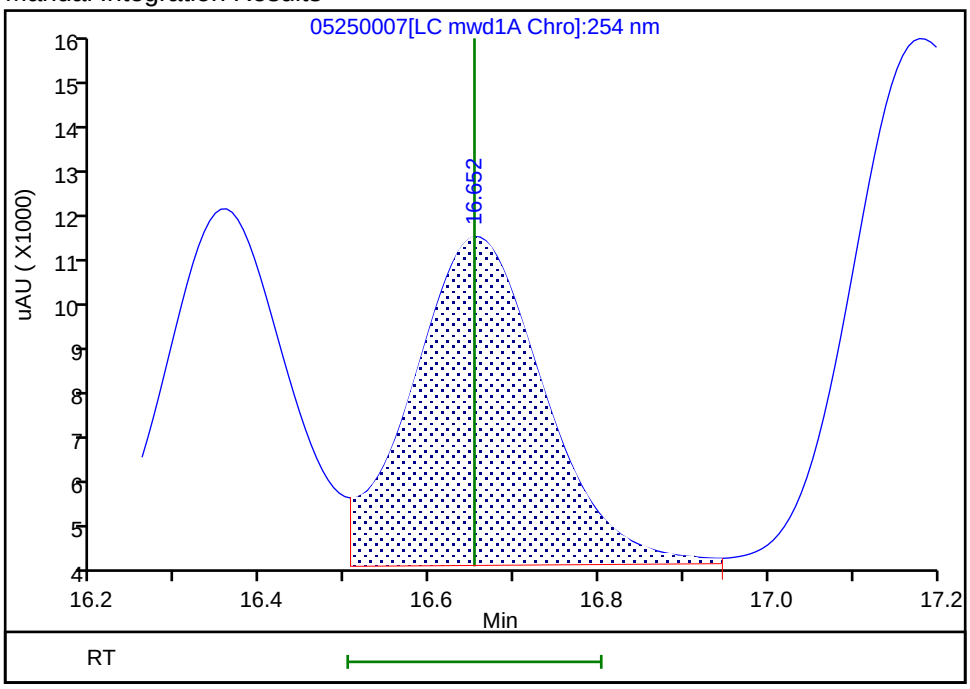
Processing Integration Results

RT: 16.65
Area: 61870
Amount: 0.209989
Amount Units: ug/ml



Manual Integration Results

RT: 16.65
Area: 73642
Amount: 0.249944
Amount Units: ug/ml



Reviewer: LV5D, 25-May-2023 17:57:41 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

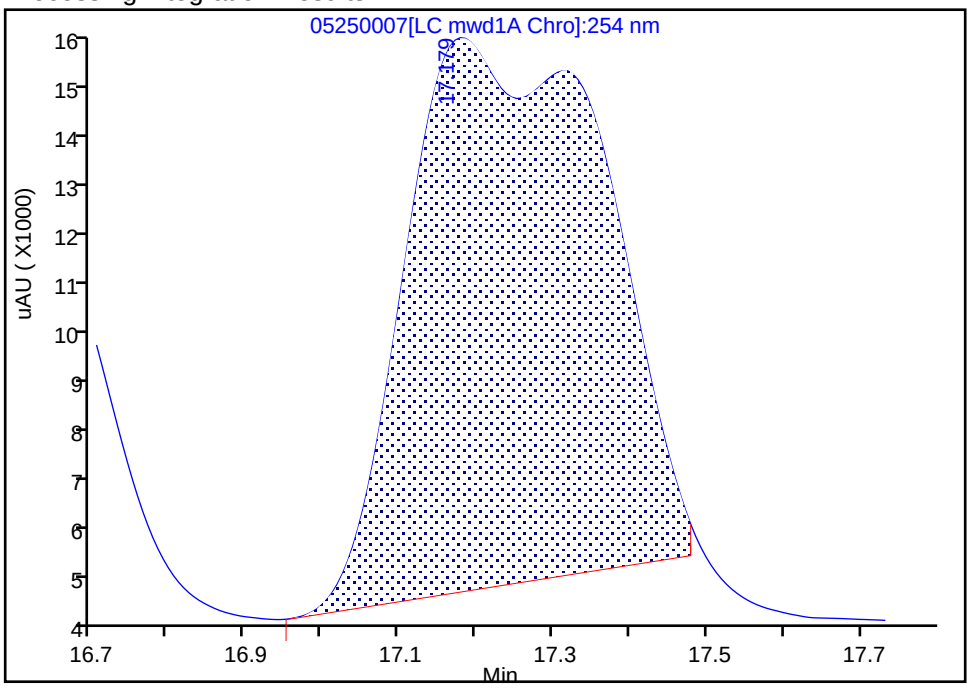
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20230525-121840.b\05250007.D				
Injection Date:	25-May-2023 17:05:28	Instrument ID:	CHHPLC_X5		
Lims ID:	CCV				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	7	Worklist Smp#:	7
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit 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

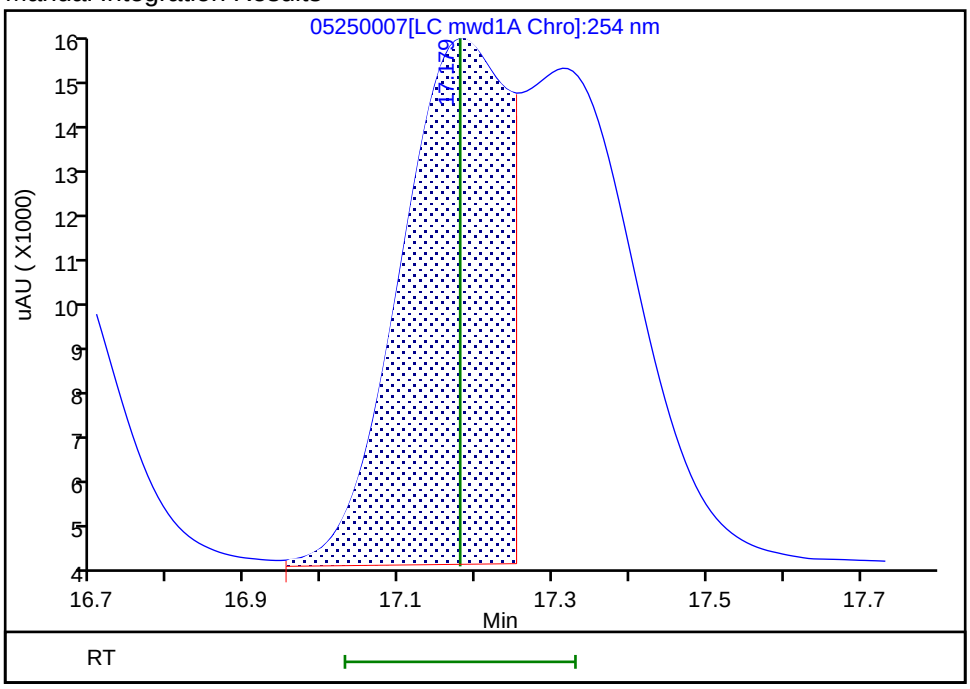
Processing Integration Results

RT: 17.18
Area: 184756
Amount: 0.431734
Amount Units: ug/ml



Manual Integration Results

RT: 17.18
Area: 104014
Amount: 0.243058
Amount Units: ug/ml



Reviewer: LV5D, 25-May-2023 17:57:41 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

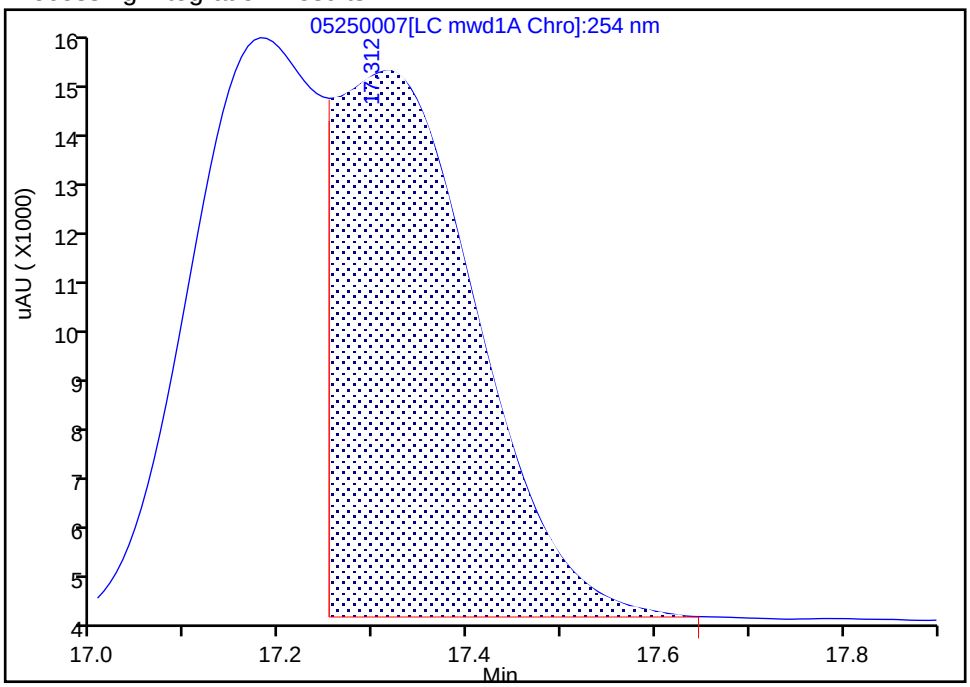
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20230525-121840.b\05250007.D				
Injection Date:	25-May-2023 17:05:28	Instrument ID:	CHHPLC_X5		
Lims ID:	CCV				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	7	Worklist Smp#:	7
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit 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

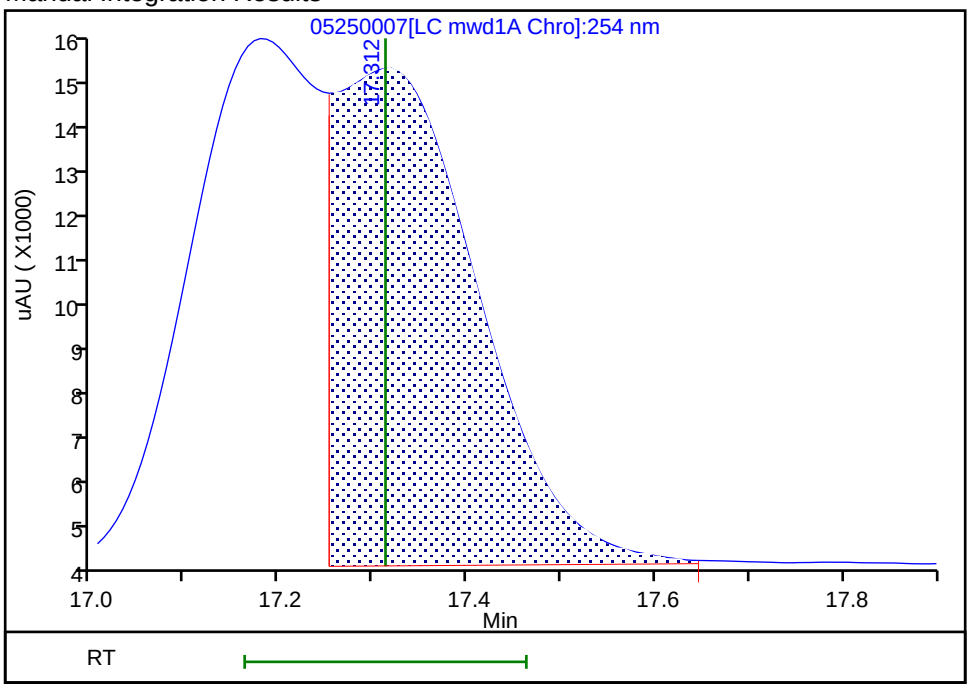
Processing Integration Results

RT: 17.31
Area: 104977
Amount: 0.258760
Amount Units: ug/ml



Manual Integration Results

RT: 17.31
Area: 106688
Amount: 0.262978
Amount Units: ug/ml



Reviewer: LV5D, 25-May-2023 17:57:41 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-176866-1

SDG No.:

Lab Sample ID: CCV 280-613822/20 Calibration Date: 05/25/2023 23:29

Instrument ID: CHHPLC_X5 Calib Start Date: 04/28/2023 18:24

GC Column: Luna-phenylhex ID: 4.60(mm) Calib End Date: 04/28/2023 23:03

Lab File ID: 05250020.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
HMX	Lin2		191888		254	250	1.7	20.0
Picric acid	Lin2		168292		260	250	3.9	20.0
RDX	Lin2		228352		262	250	4.6	20.0
Nitrobenzene	Ave	398834	391548		245	250	-1.8	20.0
3,5-Dinitroaniline	Lin2		465784		261	250	4.2	20.0
1,3-Dinitrobenzene	Ave	629351	626000		249	250	-0.5	20.0
Nitroglycerin	Ave	134735	135316		2510	2500	0.4	20.0
2-Nitrotoluene	Ave	246963	243780		247	250	-1.3	20.0
4-Nitrotoluene	Ave	227490	226192		249	250	-0.6	20.0
4-Amino-2,6-dinitrotoluene	Ave	294210	293120		249	250	-0.4	20.0
3-Nitrotoluene	Ave	294634	288432		245	250	-2.1	20.0
2-Amino-4,6-dinitrotoluene	Ave	427939	417672		244	250	-2.4	20.0
1,3,5-Trinitrobenzene	Ave	405692	429196		264	250	5.8	20.0
2,6-Dinitrotoluene	Ave	291675	290976		249	250	-0.2	20.0
2,4-Dinitrotoluene	Ave	584463	590152		252	250	1.0	20.0
Tetryl	Ave	284731	278000		244	250	-2.4	20.0
2,4,6-Trinitrotoluene	Ave	438876	427212		243	250	-2.7	20.0
PETN	Ave	143938	143213		2490	2500	-0.5	20.0
1,2-Dinitrobenzene	Ave	280697	279064		249	250	-0.6	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-176866-1

SDG No.:

Lab Sample ID: CCV 280-613822/20 Calibration Date: 05/25/2023 23:29

Instrument ID: CHHPLC_X5 Calib Start Date: 04/28/2023 18:24

GC Column: Luna-phenylhex ID: 4.60(mm) Calib End Date: 04/28/2023 23:03

Lab File ID: 05250020.D

Analyte	RT	RT WINDOW	
		FROM	TO
HMX	6.70	6.55	6.85
Picric acid	8.47	8.34	8.64
RDX	8.94	8.78	9.08
Nitrobenzene	11.43	11.29	11.59
3,5-Dinitroaniline	14.23	14.11	14.41
1,3-Dinitrobenzene	14.50	14.38	14.68
Nitroglycerin	15.00	14.89	15.19
2-Nitrotoluene	15.55	15.44	15.74
4-Nitrotoluene	15.78	15.66	15.96
4-Amino-2,6-dinitrotoluene	16.32	16.21	16.51
3-Nitrotoluene	16.62	16.50	16.80
2-Amino-4,6-dinitrotoluene	17.16	17.03	17.33
1,3,5-Trinitrobenzene	17.30	17.16	17.46
2,6-Dinitrotoluene	18.44	18.30	18.60
2,4-Dinitrotoluene	18.89	18.75	19.05
Tetryl	22.16	22.02	22.32
2,4,6-Trinitrotoluene	22.97	22.82	23.12
PETN	24.21	24.05	24.35
1,2-Dinitrobenzene	12.38	12.25	12.55

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230525-121840.b\05250020.D
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 25-May-2023 23:29:57 ALS Bottle#: 7 Worklist Smp#: 20
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: CCV
Operator ID: JZ/JG Instrument ID: CHHPLC_X5
Sublist: chrom-8330_X5_Luna*sub7

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20230525-121840.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 26-May-2023 14:34:35 Calib Date: 29-Apr-2023 04:18:01
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230428-120896.b\04280027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1649

First Level Reviewer: K8YG Date: 26-May-2023 12:48:04

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
5 HMX	1	6.697	6.699	-0.002	47972	0.2500	0.2542	
7 2,4,6-Trinitrophenol	1	8.470	8.493	-0.023	42073	0.2500	0.2599	
8 RDX	1	8.937	8.933	0.004	57088	0.2500	0.2616	
9 Nitrobenzene	1	11.430	11.439	-0.009	97887	0.2500	0.2454	
$ 10 1,2-Dinitrobenzene	1	12.383	12.399	-0.016	69766	0.2500	0.2485	
11 3,5-Dinitroaniline	1	14.230	14.259	-0.029	116446	0.2500	0.2606	
12 1,3-Dinitrobenzene	1	14.496	14.526	-0.030	156500	0.2500	0.2487	
13 Nitroglycerin	2	14.996	15.039	-0.043	338289	2.50	2.51	
14 o-Nitrotoluene	1	15.550	15.592	-0.042	60945	0.2500	0.2468	
16 p-Nitrotoluene	1	15.776	15.812	-0.036	56548	0.2500	0.2486	
17 4-Amino-2,6-dinitrotoluene	1	16.323	16.359	-0.036	73280	0.2500	0.2491	
18 m-Nitrotoluene	1	16.623	16.652	-0.029	72108	0.2500	0.2447	
19 2-Amino-4,6-dinitrotoluene	1	17.156	17.179	-0.023	104418	0.2500	0.2440	
20 1,3,5-Trinitrobenzene	1	17.296	17.312	-0.016	107299	0.2500	0.2645	
21 2,6-Dinitrotoluene	1	18.436	18.446	-0.010	72744	0.2500	0.2494	
22 2,4-Dinitrotoluene	1	18.890	18.899	-0.009	147538	0.2500	0.2524	
23 Tetryl	1	22.163	22.166	-0.003	69500	0.2500	0.2441	
24 2,4,6-Trinitrotoluene	1	22.970	22.966	0.004	106803	0.2500	0.2434	
25 PETN	2	24.210	24.199	0.011	358032	2.50	2.49	

QC Flag Legend
Processing Flags

Reagents:
8330IntermStk_00076 Amount Added: 25.00 Units: uL

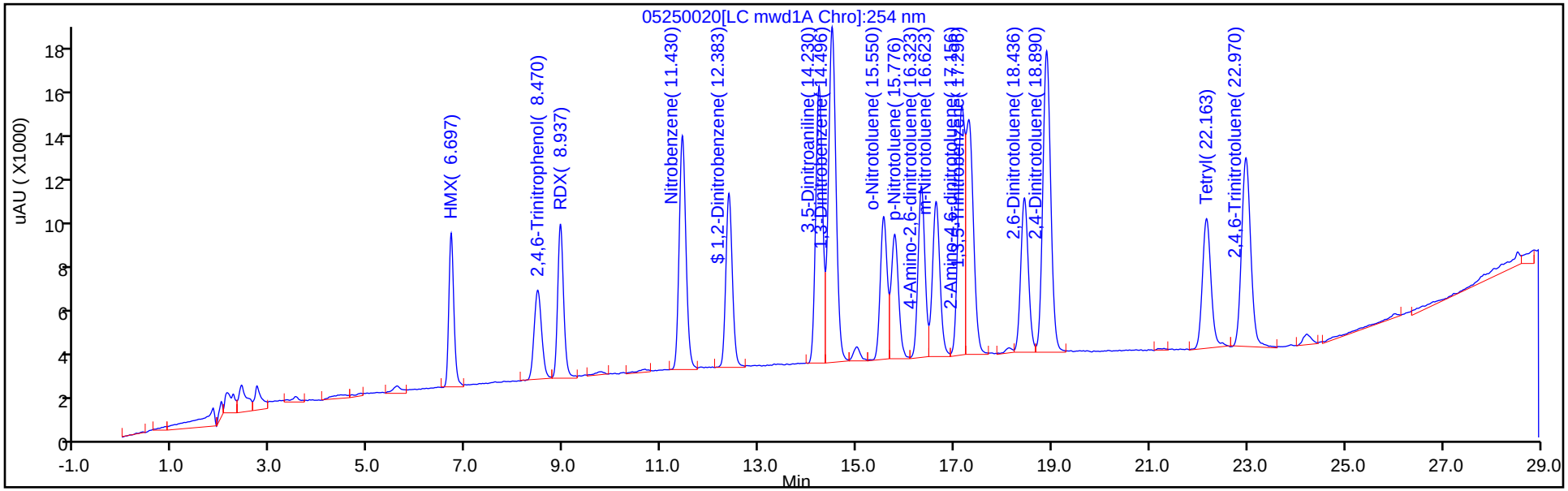
Report Date: 26-May-2023 14:34:35 Chrom Revision: 2.3 23-May-2023 13:55:56

Eurofins Denver

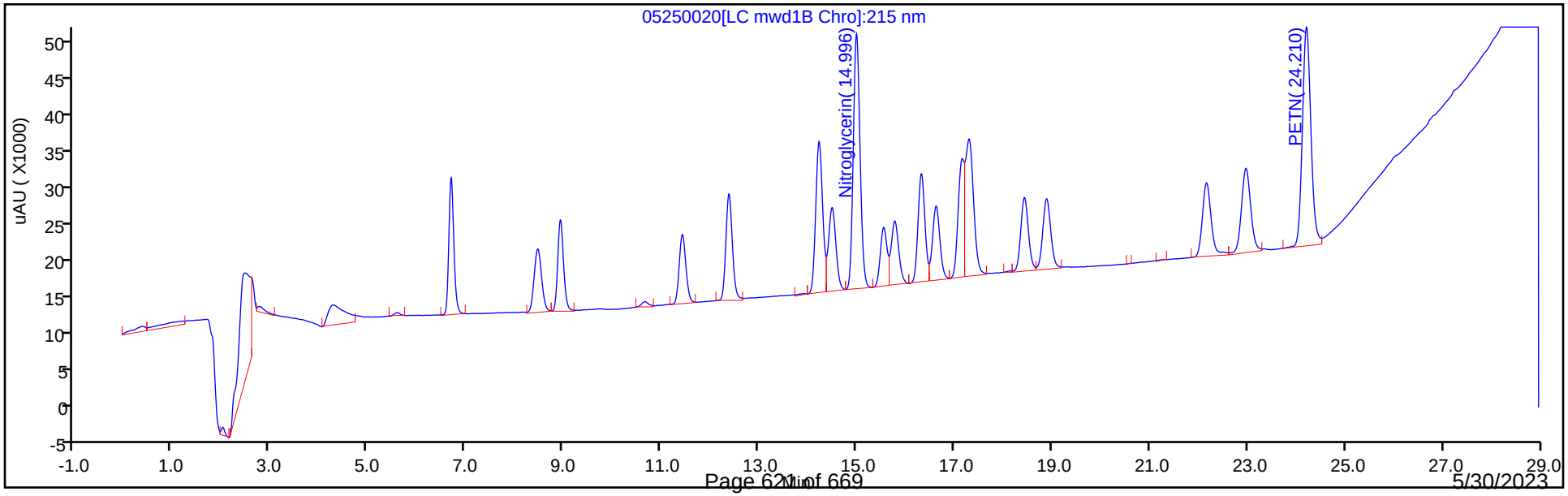
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230525-121840.b\05250020.D

Injection Date:	25-May-2023 23:29:57	Instrument ID:	CHHPLC_X5	Operator ID:	JZ/JG
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



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-176866-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 280-613600/1-A

Matrix: Water | Lab File ID: 05240027.D

Analysis Method: 8330B | Date Collected:

Extraction Method: 3535 | Date Extracted: 05/24/2023 12:32

Sample wt/vol: 500(mL) | Date Analyzed: 05/24/2023 23:33

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.: 613678 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	0.20	U M	0.21	0.20	0.084
99-65-0	1,3-Dinitrobenzene	0.10	U	0.11	0.10	0.037
118-96-7	2,4,6-Trinitrotoluene	0.10	U	0.11	0.10	0.045
121-14-2	2,4-Dinitrotoluene	0.080	U	0.10	0.080	0.027
606-20-2	2,6-Dinitrotoluene	0.080	U	0.10	0.080	0.040
35572-78-2	2-Amino-4,6-dinitrotoluene	0.10	U	0.11	0.10	0.051
88-72-2	2-Nitrotoluene	0.20	U	0.21	0.20	0.086
99-08-1	3-Nitrotoluene	0.35	U	0.40	0.35	0.20
19406-51-0	4-Amino-2,6-dinitrotoluene	0.12	U	0.15	0.12	0.058
99-99-0	4-Nitrotoluene	0.40	U	0.41	0.40	0.10
2691-41-0	HMX	0.20	U	0.21	0.20	0.088
98-95-3	Nitrobenzene	0.20	U	0.21	0.20	0.091
55-63-0	Nitroglycerin	2.0	U	2.1	2.0	0.92
78-11-5	PETN	1.0	U	1.1	1.0	0.45
121-82-4	RDX	0.20	U	0.21	0.20	0.052
479-45-8	Tetryl	0.10	U	0.11	0.10	0.032

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

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20230524-121799.b\05240027.D
Lims ID: MB 280-613600/1-A
Client ID:
Sample Type: MB
Inject. Date: 24-May-2023 23:33:00 ALS Bottle#: 27 Worklist Smp#: 27
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: MB 280-613600/1-A
Operator ID: JZ/JG Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20230524-121799.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 25-May-2023 11:51:52 Calib Date: 24-Feb-2023 17:41:20
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20230224-118952.b\02240018.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1654

First Level Reviewer: K8YG Date: 25-May-2023 08:15:06

	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	
	3 TNX	1		6.430				ND	U
	2 2,6-diamino-4-nitrotoluene	1		6.431				ND	
	4 HMX	1		6.550				ND	
	5 2,4-diamino-6-nitrotoluene	1		6.618				ND	
	6 DNX	1		6.757				ND	
	7 MNX	1		7.190				ND	
	8 RDX	1		7.570				ND	
	9 2,4,6-Trinitrophenol	1		7.963				ND	
$	10 1,2-Dinitrobenzene	1	8.524	8.523	0.001	23575	0.2000	0.1866	
	11 1,3,5-Trinitrobenzene	1		8.650				ND	U
	12 1,3-Dinitrobenzene	1		9.270				ND	
	13 Nitrobenzene	1		9.636				ND	
	14 3,5-Dinitroaniline	1		9.870				ND	
	15 Tetryl	1		10.003				ND	
	16 Nitroglycerin	2		10.456				ND	
	17 2,4,6-Trinitrotoluene	1		10.896				ND	7
	18 4-Amino-2,6-dinitrotoluene	1		11.090				ND	
	19 2-Amino-4,6-dinitrotoluene	1		11.343				ND	
	20 2,6-Dinitrotoluene	1		11.490				ND	
	21 2,4-Dinitrotoluene	1		11.663				ND	
	22 o-Nitrotoluene	1		12.483				ND	
	23 p-Nitrotoluene	1		12.903				ND	
	24 m-Nitrotoluene	1		13.476				ND	
	25 PETN	2		14.636				ND	
	26 Ammonium Picrate	1		0.000				ND	

QC Flag Legend

Processing Flags
7 - Failed Limit of Detection

Review Flags
U - Marked Undetected

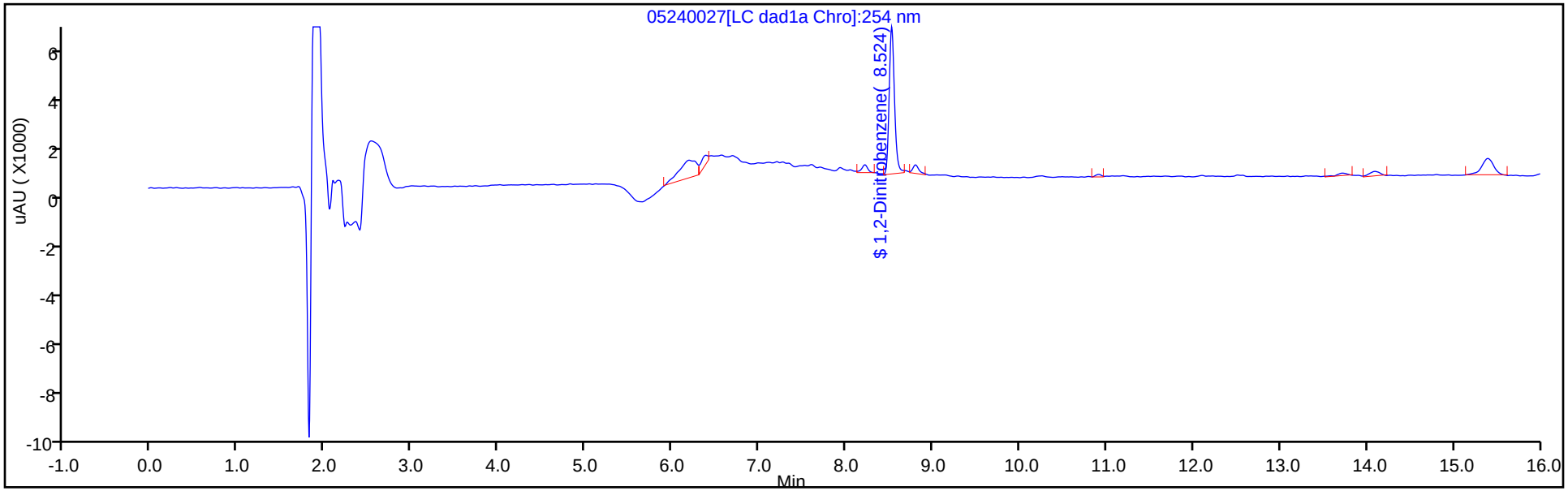
Report Date: 25-May-2023 11:51:54 Chrom Revision: 2.3 23-May-2023 13:55:56

Eurofins Denver

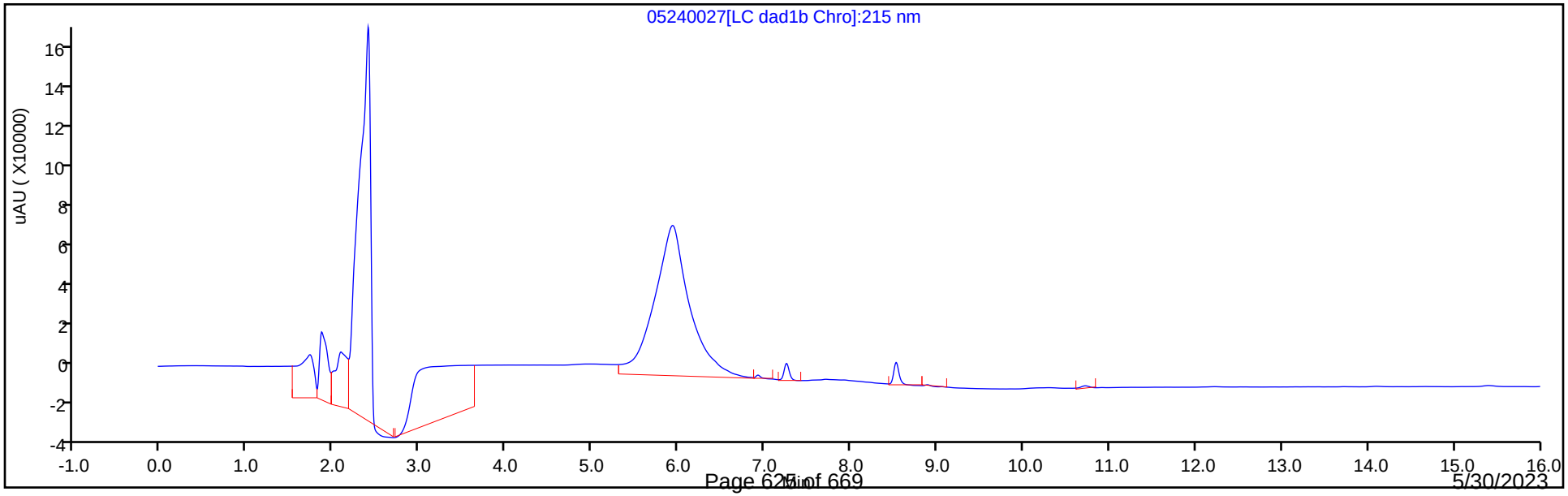
Data File: \\chromfs\denver\chromdata\chhplc_x\20230524-121799.b\05240027.d

Injection Date:	24-May-2023 23:33:00	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	MB 280-613600/1-A			Worklist Smp#:	27
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	27
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\20230524-121799.b\05240027.D
Lims ID: MB 280-613600/1-A
Client ID:
Sample Type: MB
Inject. Date: 24-May-2023 23:33:00 ALS Bottle#: 27 Worklist Smp#: 27
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: MB 280-613600/1-A
Operator ID: JZ/JG Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20230524-121799.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 25-May-2023 11:51:52 Calib Date: 24-Feb-2023 17:41:20
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20230224-118952.b\02240018.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1654

First Level Reviewer: K8YG Date: 25-May-2023 08:15:06

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.1866	93.32

User Disabled Compound Report

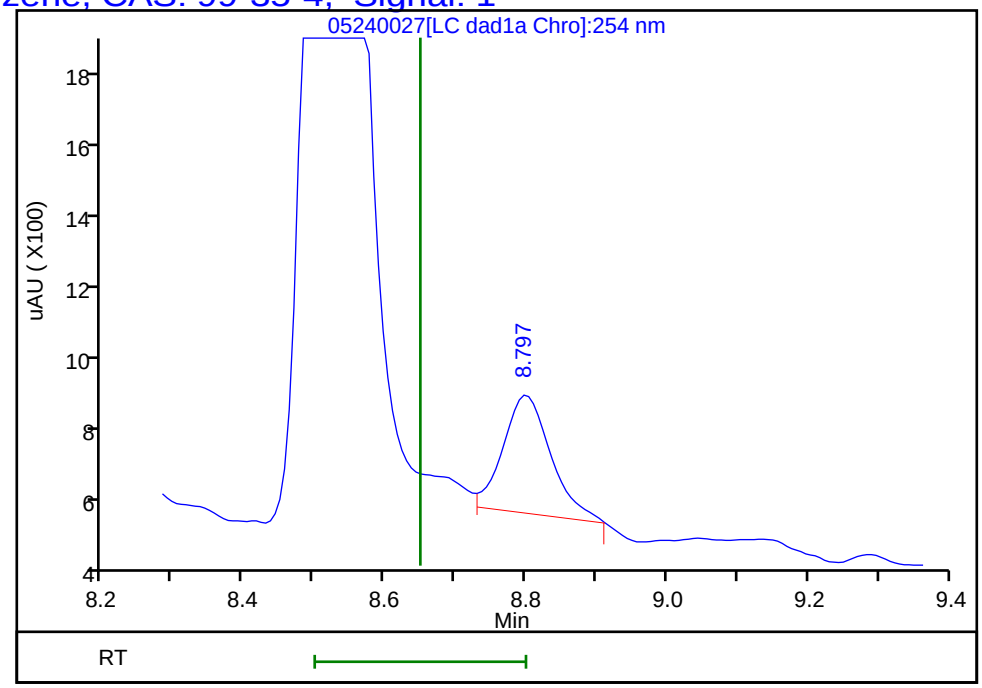
Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20230524-121799.b\05240027.d
Injection Date: 24-May-2023 23:33:00 Instrument ID: CHHPLC_X3
Lims ID: MB 280-613600/1-A
Client ID:
Operator ID: JZ/JG ALS Bottle#: 27 Worklist Smp#: 27
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: 1475
Amount: 0.006793



Reviewer: LV5D, 25-May-2023 11:21:44
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-176866-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 280-613758/1-A

Matrix: Water | Lab File ID: 05250027.D

Analysis Method: 8330B | Date Collected:

Extraction Method: 3535 | Date Extracted: 05/25/2023 14:07

Sample wt/vol: 500(mL) | Date Analyzed: 05/25/2023 21:35

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.: 613812 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	0.20	U M	0.21	0.20	0.084
99-65-0	1,3-Dinitrobenzene	0.10	U	0.11	0.10	0.037
118-96-7	2,4,6-Trinitrotoluene	0.10	U	0.11	0.10	0.045
121-14-2	2,4-Dinitrotoluene	0.080	U	0.10	0.080	0.027
606-20-2	2,6-Dinitrotoluene	0.080	U	0.10	0.080	0.040
35572-78-2	2-Amino-4,6-dinitrotoluene	0.10	U	0.11	0.10	0.051
88-72-2	2-Nitrotoluene	0.20	U	0.21	0.20	0.086
99-08-1	3-Nitrotoluene	0.35	U	0.40	0.35	0.20
19406-51-0	4-Amino-2,6-dinitrotoluene	0.12	U	0.15	0.12	0.058
99-99-0	4-Nitrotoluene	0.40	U	0.41	0.40	0.10
2691-41-0	HMX	0.20	U	0.21	0.20	0.088
98-95-3	Nitrobenzene	0.20	U	0.21	0.20	0.091
55-63-0	Nitroglycerin	2.0	U	2.1	2.0	0.92
78-11-5	PETN	1.0	U	1.1	1.0	0.45
121-82-4	RDX	0.20	U	0.21	0.20	0.052
479-45-8	Tetryl	0.10	U	0.11	0.10	0.032

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	100		83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20230525-121837.b\05250027.D
Lims ID: MB 280-613758/1-A
Client ID:
Sample Type: MB
Inject. Date: 25-May-2023 21:35:20 ALS Bottle#: 27 Worklist Smp#: 27
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: MB 280-613758/1-A
Operator ID: JZ/JG Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20230525-121837.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 26-May-2023 11:54:45 Calib Date: 24-Feb-2023 17:41:20
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20230224-118952.b\02240018.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1649

First Level Reviewer: K8YG Date: 26-May-2023 07:13:52

	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		6.431				ND	7
	3 TNX	1		6.432				ND	
	4 HMX	1		6.552				ND	
	5 2,4-diamino-6-nitrotoluene	1		6.618				ND	
	6 DNX	1		6.758				ND	
	7 MNX	1		7.185				ND	
	8 RDX	1		7.572				ND	
	9 2,4,6-Trinitrophenol	1		7.952				ND	
$	10 1,2-Dinitrobenzene	1	8.520	8.525	-0.005	31723	0.2500	0.2512	
	11 1,3,5-Trinitrobenzene	1		8.652				ND	U
	12 1,3-Dinitrobenzene	1		9.271				ND	
	13 Nitrobenzene	1		9.645				ND	
	14 3,5-Dinitroaniline	1		9.878				ND	
	15 Tetryl	1		10.011				ND	
	16 Nitroglycerin	2		10.465				ND	
	17 2,4,6-Trinitrotoluene	1		10.905				ND	
	18 4-Amino-2,6-dinitrotoluene	1		11.098				ND	
	19 2-Amino-4,6-dinitrotoluene	1		11.351				ND	
	20 2,6-Dinitrotoluene	1		11.505				ND	
	21 2,4-Dinitrotoluene	1		11.678				ND	
	22 o-Nitrotoluene	1		12.505				ND	
	23 p-Nitrotoluene	1		12.925				ND	
	24 m-Nitrotoluene	1		13.498				ND	
	25 PETN	2		14.665				ND	
	26 Ammonium Picrate	1		0.000				ND	

QC Flag Legend

Processing Flags
7 - Failed Limit of Detection

Review Flags
U - Marked Undetected

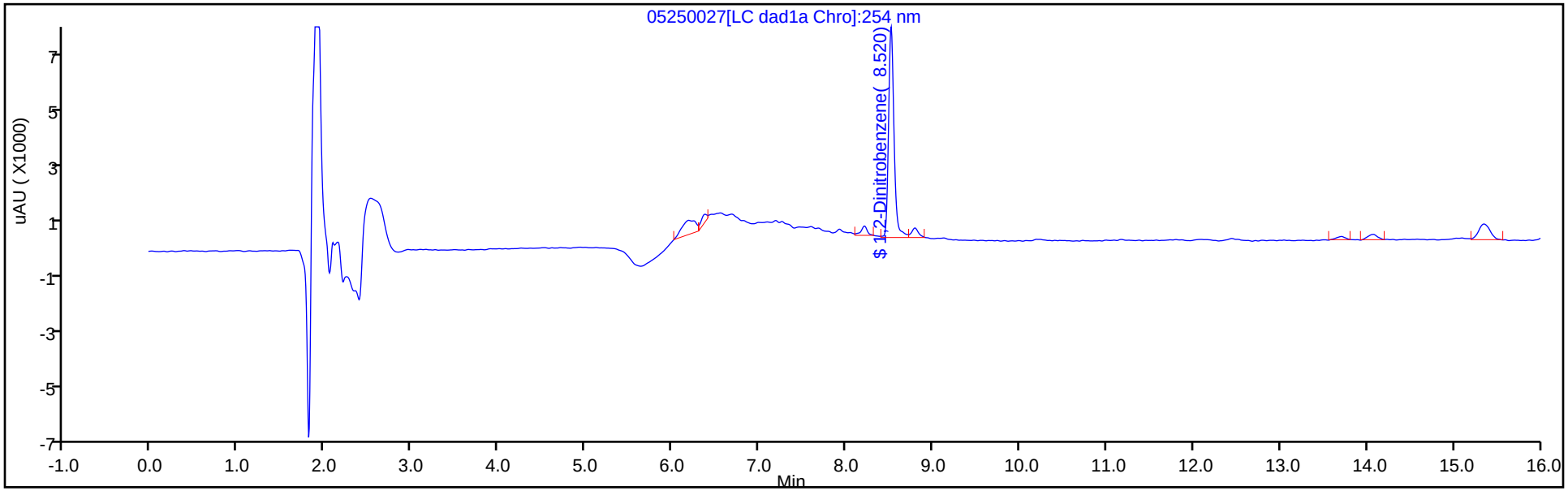
Report Date: 26-May-2023 11:54:47 Chrom Revision: 2.3 23-May-2023 13:55:56

Eurofins Denver

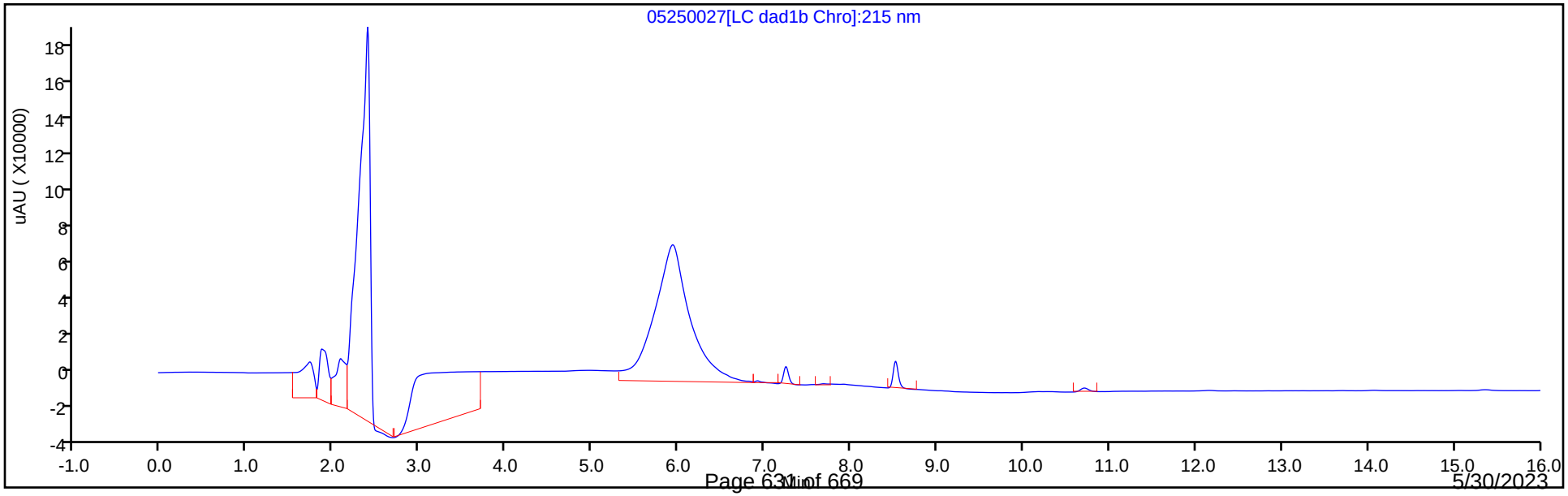
Data File: \\chromfs\denver\chromdata\chhplc_x\20230525-121837.b\05250027.d

Injection Date:	25-May-2023 21:35:20	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	MB 280-613758/1-A			Worklist Smp#:	27
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	27
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\20230525-121837.b\05250027.D
Lims ID: MB 280-613758/1-A
Client ID:
Sample Type: MB
Inject. Date: 25-May-2023 21:35:20 ALS Bottle#: 27 Worklist Smp#: 27
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: MB 280-613758/1-A
Operator ID: JZ/JG Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20230525-121837.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 26-May-2023 11:54:45 Calib Date: 24-Feb-2023 17:41:20
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20230224-118952.b\02240018.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1649

First Level Reviewer: K8YG Date: 26-May-2023 07:13:52

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2500	0.2512	100.46

User Disabled Compound Report

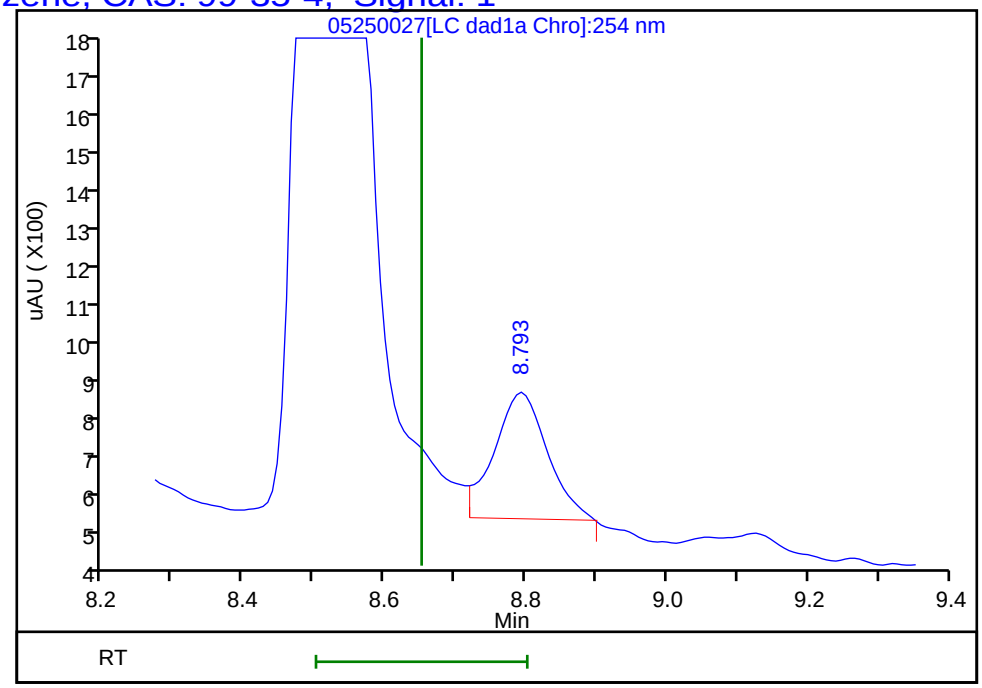
Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20230525-121837.b\05250027.d
Injection Date: 25-May-2023 21:35:20 Instrument ID: CHHPLC_X3
Lims ID: MB 280-613758/1-A
Client ID:
Operator ID: JZ/JG ALS Bottle#: 27 Worklist Smp#: 27
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: 8.79
Response: 1636
Amount: 0.007534



Reviewer: K8YG, 26-May-2023 07:13:52
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-176866-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 280-613600/2-A

Matrix: Water | Lab File ID: 05240028.D

Analysis Method: 8330B | Date Collected:

Extraction Method: 3535 | Date Extracted: 05/24/2023 12:32

Sample wt/vol: 500(mL) | Date Analyzed: 05/24/2023 23:55

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.: 613678 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	2.08	M	0.21	0.20	0.084
99-65-0	1,3-Dinitrobenzene	1.95		0.11	0.10	0.037
118-96-7	2,4,6-Trinitrotoluene	1.87		0.11	0.10	0.045
121-14-2	2,4-Dinitrotoluene	1.84		0.10	0.080	0.027
606-20-2	2,6-Dinitrotoluene	1.91		0.10	0.080	0.040
35572-78-2	2-Amino-4,6-dinitrotoluene	1.81		0.11	0.10	0.051
88-72-2	2-Nitrotoluene	1.52		0.21	0.20	0.086
99-08-1	3-Nitrotoluene	1.48		0.40	0.35	0.20
19406-51-0	4-Amino-2,6-dinitrotoluene	1.82		0.15	0.12	0.058
99-99-0	4-Nitrotoluene	1.50		0.41	0.40	0.10
2691-41-0	HMX	1.77		0.21	0.20	0.088
98-95-3	Nitrobenzene	1.73		0.21	0.20	0.091
55-63-0	Nitroglycerin	19.8		2.1	2.0	0.92
78-11-5	PETN	21.1		1.1	1.0	0.45
121-82-4	RDX	1.95		0.21	0.20	0.052
479-45-8	Tetryl	2.04		0.11	0.10	0.032

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	94	M	83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20230524-121799.b\05240028.D
Lims ID: LCS 280-613600/2-A
Client ID:
Sample Type: LCS
Inject. Date: 24-May-2023 23:55:57 ALS Bottle#: 28 Worklist Smp#: 28
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: LCS 280-613600/2-A
Operator ID: JZ/JG Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20230524-121799.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 25-May-2023 11:51:52 Calib Date: 24-Feb-2023 17:41:20
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20230224-118952.b\02240018.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1654

First Level Reviewer: K8YG Date: 25-May-2023 08:24:26

	Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
4	HMX	1	6.553	6.550	0.003	16573	0.2000	0.1772	
8	RDX	1	7.573	7.570	0.003	20773	0.2000	0.1953	
9	2,4,6-Trinitrophenol	1	7.967	7.963	0.004	16649	0.2000	0.2196	
$ 10	1,2-Dinitrobenzene	1	8.533	8.523	0.010	23799	0.2000	0.1884	M
11	1,3,5-Trinitrobenzene	1	8.653	8.650	0.003	45209	0.2000	0.2082	M
12	1,3-Dinitrobenzene	1	9.280	9.270	0.010	57431	0.2000	0.1951	
13	Nitrobenzene	1	9.646	9.636	0.010	33075	0.2000	0.1729	
14	3,5-Dinitroaniline	1	9.886	9.870	0.016	41118	0.2000	0.1801	
15	Tetryl	1	10.020	10.003	0.017	33535	0.2000	0.2043	
16	Nitroglycerin	2	10.473	10.456	0.017	126557	2.00	1.98	
17	2,4,6-Trinitrotoluene	1	10.906	10.896	0.010	39436	0.2000	0.1869	
18	4-Amino-2,6-dinitrotoluene	1	11.106	11.090	0.016	28274	0.2000	0.1825	
19	2-Amino-4,6-dinitrotoluene	1	11.360	11.343	0.017	36549	0.2000	0.1815	
20	2,6-Dinitrotoluene	1	11.506	11.490	0.016	27315	0.2000	0.1914	
21	2,4-Dinitrotoluene	1	11.680	11.663	0.017	54524	0.2000	0.1838	
22	o-Nitrotoluene	1	12.500	12.483	0.017	19447	0.2000	0.1521	
23	p-Nitrotoluene	1	12.920	12.903	0.017	16820	0.2000	0.1503	
24	m-Nitrotoluene	1	13.486	13.476	0.010	20724	0.2000	0.1475	
25	PETN	2	14.653	14.636	0.017	145128	2.00	2.11	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

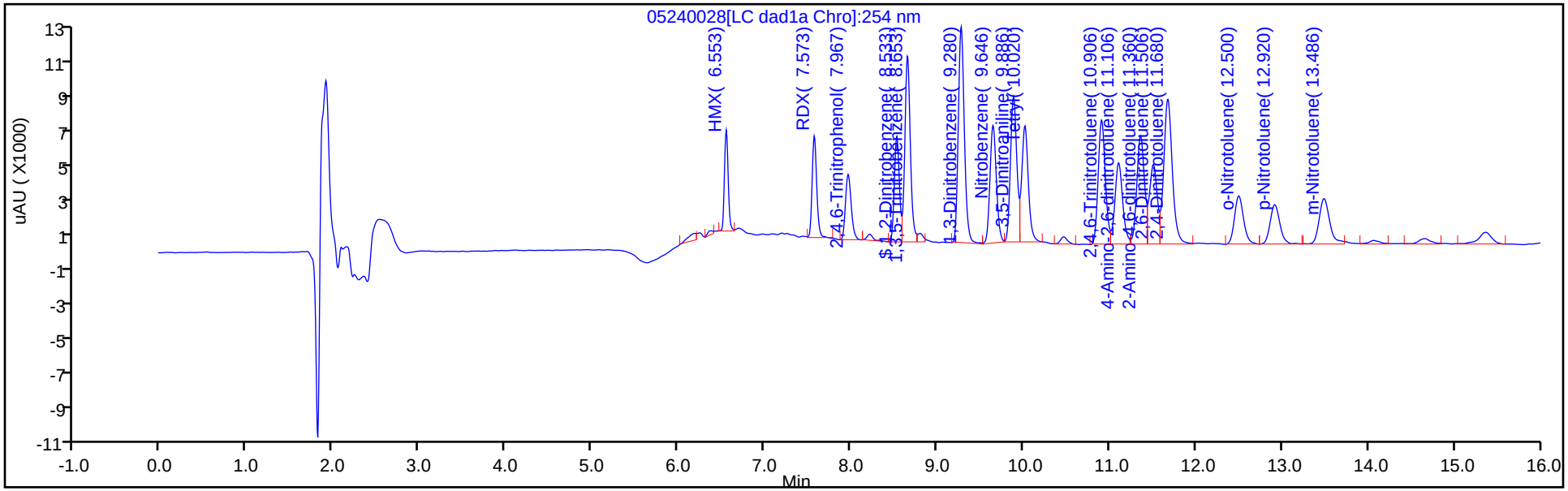
Report Date: 25-May-2023 11:51:54 Chrom Revision: 2.3 23-May-2023 13:55:56

Eurofins Denver

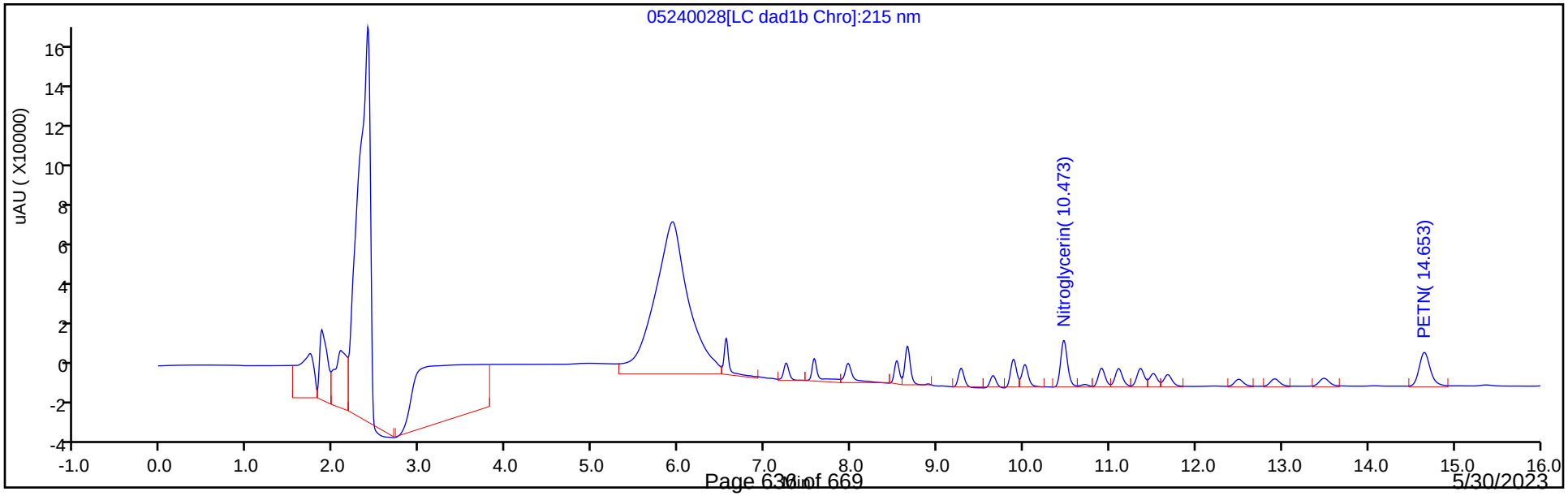
Data File: \\chromfs\denver\chromdata\chhplc_x\20230524-121799.b\05240028.d

Injection Date:	24-May-2023 23:55:57	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	LCS 280-613600/2-A			Worklist Smp#:	28
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	28
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



5/30/2023
10:34 AM

Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20230524-121799.b\05240028.D				
Lims ID:	LCS 280-613600/2-A				
Client ID:					
Sample Type:	LCS				
Inject. Date:	24-May-2023 23:55:57	ALS Bottle#:	28	Worklist Smp#:	28
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	LCS 280-613600/2-A				
Operator ID:	JZ/JG	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20230524-121799.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	25-May-2023 11:51:52	Calib Date:	24-Feb-2023 17:41:20		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X\20230224-118952.b\02240018.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1654				

First Level Reviewer: K8YG Date: 25-May-2023 08:24:26

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.1884	94.21

Manual Integration/User Assign Peak Report

Eurofins Denver

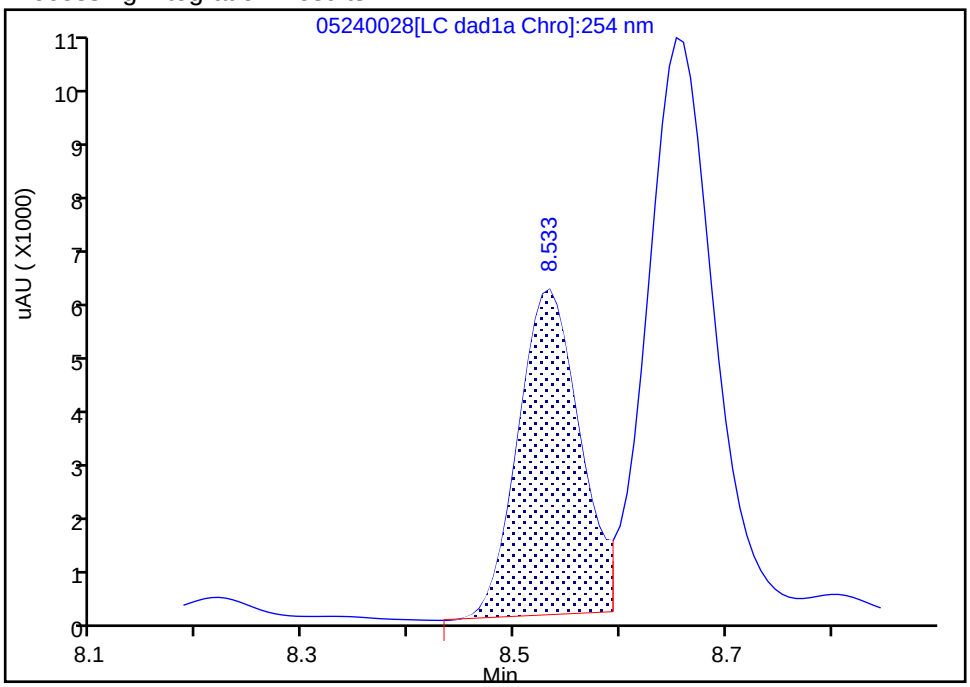
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230524-121799.b\05240028.d				
Injection Date:	24-May-2023 23:55:57	Instrument ID:	CHHPLC_X3		
Lims ID:	LCS 280-613600/2-A				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	28	Worklist Smp#:	28
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	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

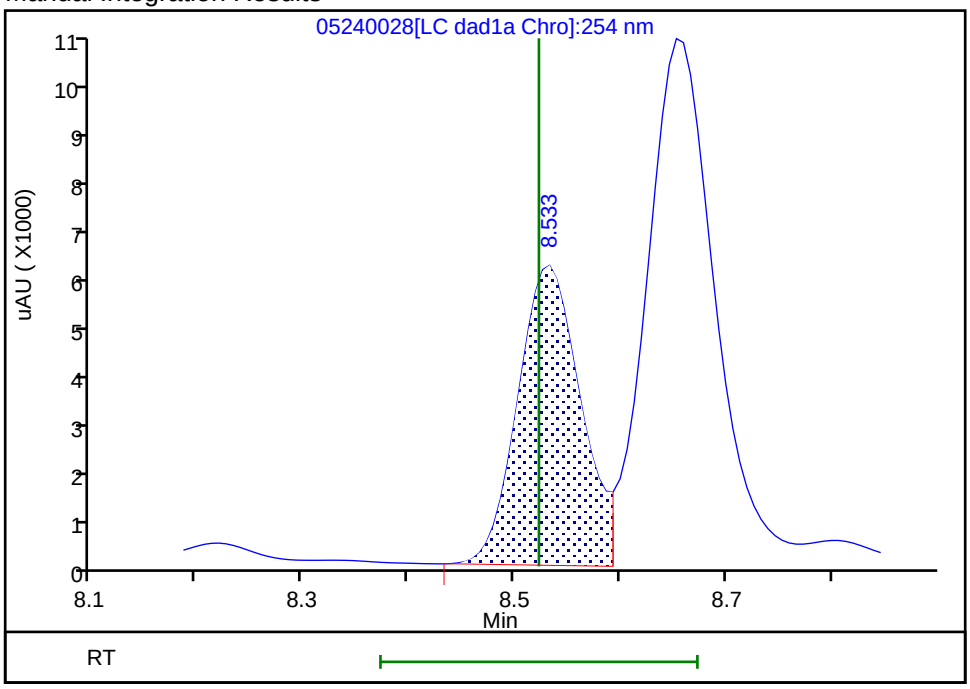
Processing Integration Results

RT: 8.53
Area: 22950
Amount: 0.181698
Amount Units: ug/mL



Manual Integration Results

RT: 8.53
Area: 23799
Amount: 0.188419
Amount Units: ug/mL



Reviewer: K8YG, 25-May-2023 08:15:24 -06:00:00 (UTC)
Audit Action: Assigned New Baseline Audit Reason: Baseline

Eurofins Denver

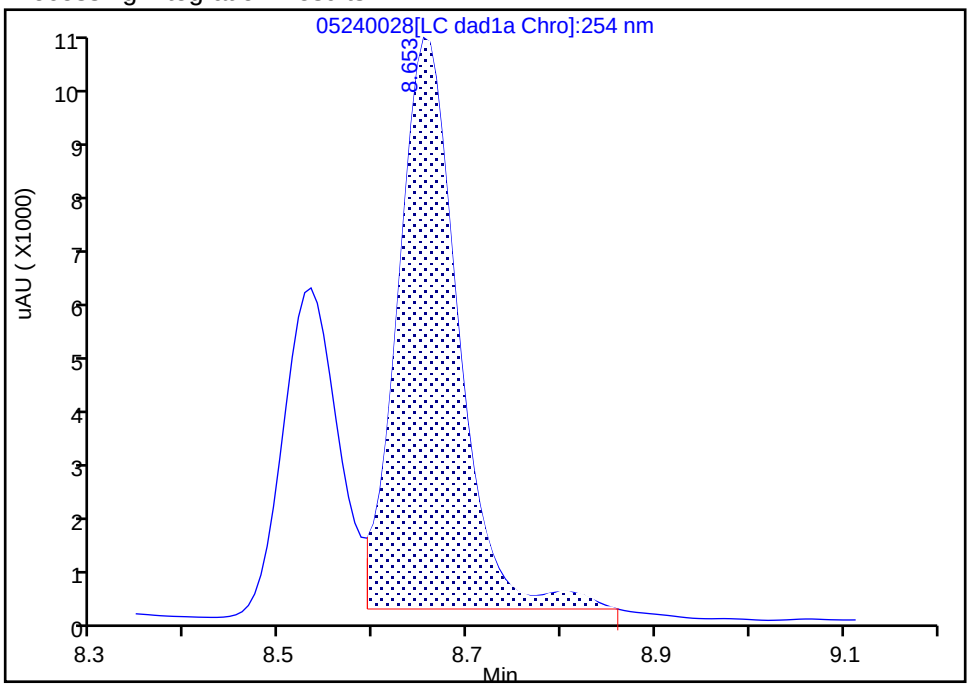
Data File: \\chromfs\denver\chromdata\chhplc_x\20230524-121799.b\05240028.d
Injection Date: 24-May-2023 23:55:57 Instrument ID: CHHPLC_X3
Lims ID: LCS 280-613600/2-A
Client ID:
Operator ID: JZ/JG ALS Bottle#: 28 Worklist Smp#: 28
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

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

Signal: 1

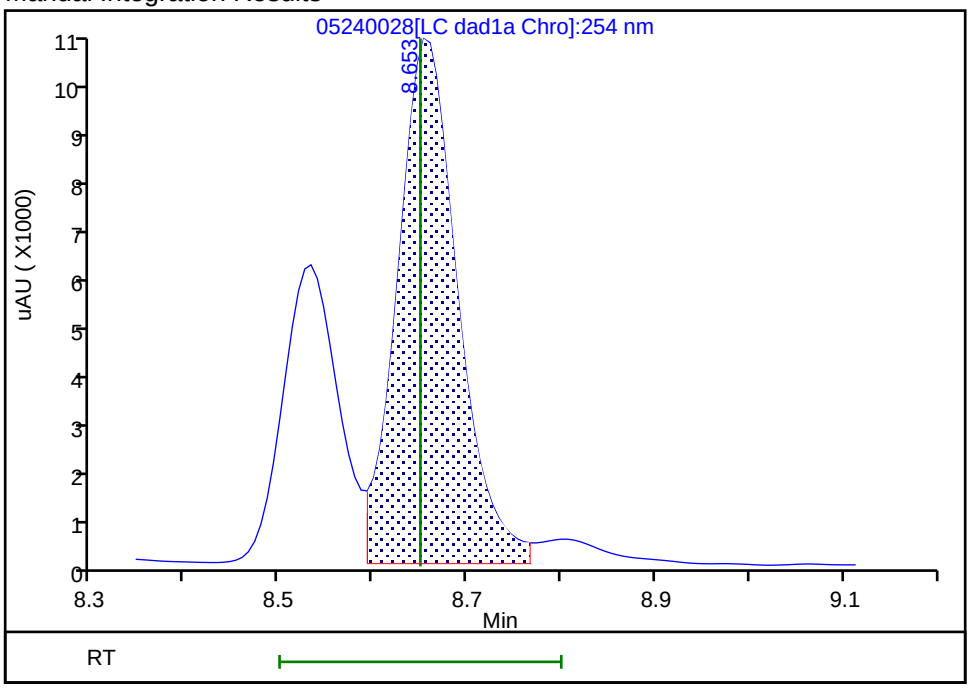
Processing Integration Results

RT: 8.65
Area: 44753
Amount: 0.206095
Amount Units: ug/mL



Manual Integration Results

RT: 8.65
Area: 45209
Amount: 0.208195
Amount Units: ug/mL



Reviewer: K8YG, 25-May-2023 08:15:30 -06:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Baseline

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-176866-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 280-613758/2-A

Matrix: Water | Lab File ID: 05250028.D

Analysis Method: 8330B | Date Collected:

Extraction Method: 3535 | Date Extracted: 05/25/2023 14:07

Sample wt/vol: 500(mL) | Date Analyzed: 05/25/2023 21:58

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.: 613812 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	2.53		0.21	0.20	0.084
99-65-0	1,3-Dinitrobenzene	2.43		0.11	0.10	0.037
118-96-7	2,4,6-Trinitrotoluene	2.35		0.11	0.10	0.045
121-14-2	2,4-Dinitrotoluene	2.30		0.10	0.080	0.027
606-20-2	2,6-Dinitrotoluene	2.37		0.10	0.080	0.040
35572-78-2	2-Amino-4,6-dinitrotoluene	2.25		0.11	0.10	0.051
88-72-2	2-Nitrotoluene	1.81		0.21	0.20	0.086
99-08-1	3-Nitrotoluene	1.79	Q	0.40	0.35	0.20
19406-51-0	4-Amino-2,6-dinitrotoluene	2.28		0.15	0.12	0.058
99-99-0	4-Nitrotoluene	1.82		0.41	0.40	0.10
2691-41-0	HMX	2.25	M	0.21	0.20	0.088
98-95-3	Nitrobenzene	2.14		0.21	0.20	0.091
55-63-0	Nitroglycerin	24.6		2.1	2.0	0.92
78-11-5	PETN	26.7		1.1	1.0	0.45
121-82-4	RDX	2.51		0.21	0.20	0.052
479-45-8	Tetryl	2.68		0.11	0.10	0.032

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_X\20230525-121837.b\05250028.D
Lims ID: LCS 280-613758/2-A
Client ID:
Sample Type: LCS
Inject. Date: 25-May-2023 21:58:20 ALS Bottle#: 28 Worklist Smp#: 28
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: LCS 280-613758/2-A
Operator ID: JZ/JG Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20230525-121837.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 26-May-2023 11:54:45 Calib Date: 24-Feb-2023 17:41:20
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20230224-118952.b\02240018.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1649

First Level Reviewer: K8YG Date: 26-May-2023 07:15:23

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 TNX	1	6.431	6.432	-0.001	48189	0.2508	0.2438	M
4 HMX	1	6.551	6.552	-0.001	21068	0.2500	0.2253	M
6 DNX	1	6.758	6.758	0.000	35853	0.2503	0.2482	M
7 MNX	1	7.178	7.185	-0.007	40440	0.2918	0.3083	
8 RDX	1	7.565	7.572	-0.007	26694	0.2500	0.2509	
9 2,4,6-Trinitrophenol	1	7.945	7.952	-0.007	21044	0.2500	0.2775	
$ 10 1,2-Dinitrobenzene	1	8.518	8.525	-0.007	29447	0.2500	0.2331	
11 1,3,5-Trinitrobenzene	1	8.645	8.652	-0.007	54927	0.2500	0.2529	
12 1,3-Dinitrobenzene	1	9.265	9.271	-0.006	71628	0.2500	0.2433	
13 Nitrobenzene	1	9.638	9.645	-0.007	40839	0.2500	0.2135	
14 3,5-Dinitroaniline	1	9.871	9.878	-0.007	50401	0.2500	0.2206	
15 Tetryl	1	9.998	10.011	-0.013	43905	0.2500	0.2675	
16 Nitroglycerin	2	10.458	10.465	-0.007	157458	2.50	2.46	
17 2,4,6-Trinitrotoluene	1	10.898	10.905	-0.007	49575	0.2500	0.2349	
18 4-Amino-2,6-dinitrotoluene	1	11.091	11.098	-0.007	35324	0.2500	0.2280	
19 2-Amino-4,6-dinitrotoluene	1	11.345	11.351	-0.006	45363	0.2500	0.2252	
20 2,6-Dinitrotoluene	1	11.498	11.505	-0.007	33830	0.2500	0.2370	
21 2,4-Dinitrotoluene	1	11.665	11.678	-0.013	68315	0.2500	0.2303	
22 o-Nitrotoluene	1	12.485	12.505	-0.020	23191	0.2500	0.1813	
23 p-Nitrotoluene	1	12.905	12.925	-0.020	20365	0.2500	0.1820	
24 m-Nitrotoluene	1	13.478	13.498	-0.020	25102	0.2500	0.1787	
25 PETN	2	14.638	14.665	-0.027	184039	2.50	2.67	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

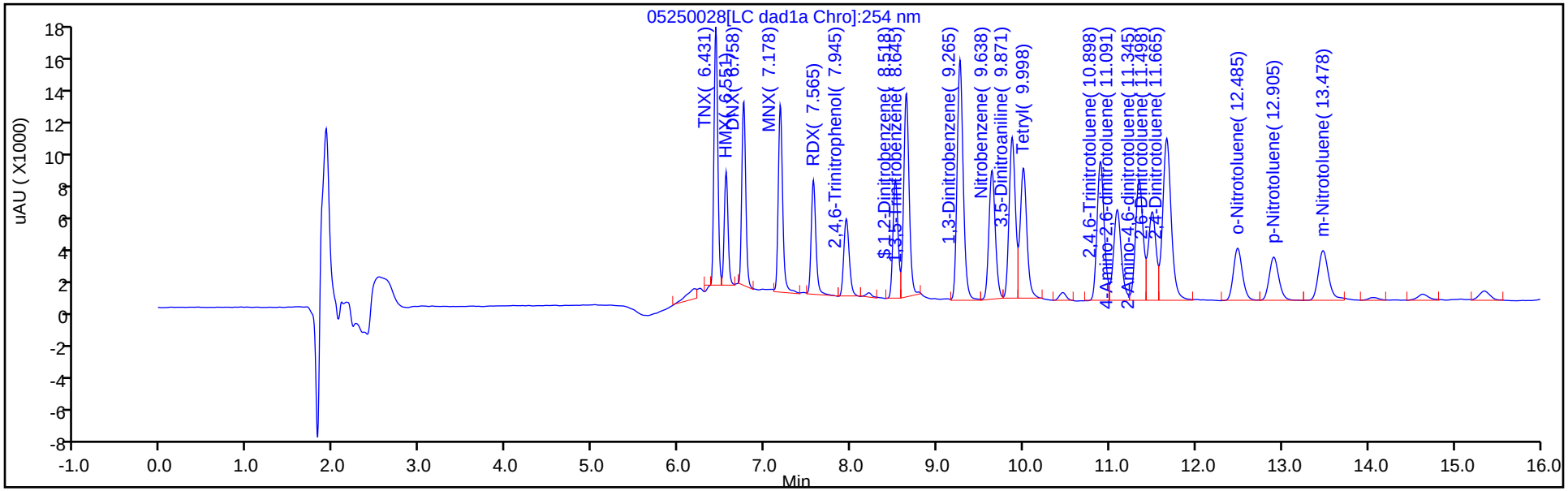
Report Date: 26-May-2023 11:54:47 Chrom Revision: 2.3 23-May-2023 13:55:56

Eurofins Denver

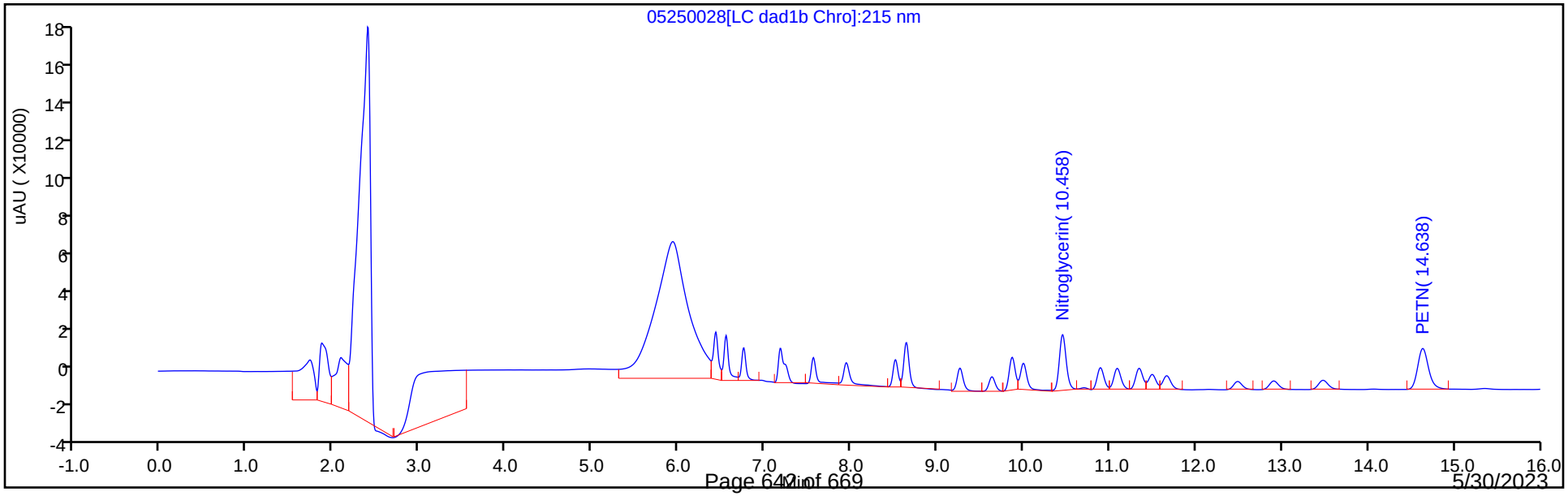
Data File: \\chromfs\denver\chromdata\chhplc_x\20230525-121837.b\05250028.d

Injection Date:	25-May-2023 21:58:20	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	LCS 280-613758/2-A			Worklist Smp#:	28
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	28
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



5/30/2023
10:34 AM

Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20230525-121837.b\05250028.D				
Lims ID:	LCS 280-613758/2-A				
Client ID:					
Sample Type:	LCS				
Inject. Date:	25-May-2023 21:58:20	ALS Bottle#:	28	Worklist Smp#:	28
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	LCS 280-613758/2-A				
Operator ID:	JZ/JG	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20230525-121837.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	26-May-2023 11:54:45	Calib Date:	24-Feb-2023 17:41:20		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X\20230224-118952.b\02240018.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1649				

First Level Reviewer: K8YG Date: 26-May-2023 07:15:23

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2500	0.2331	93.25

Manual Integration/User Assign Peak Report

Eurofins Denver

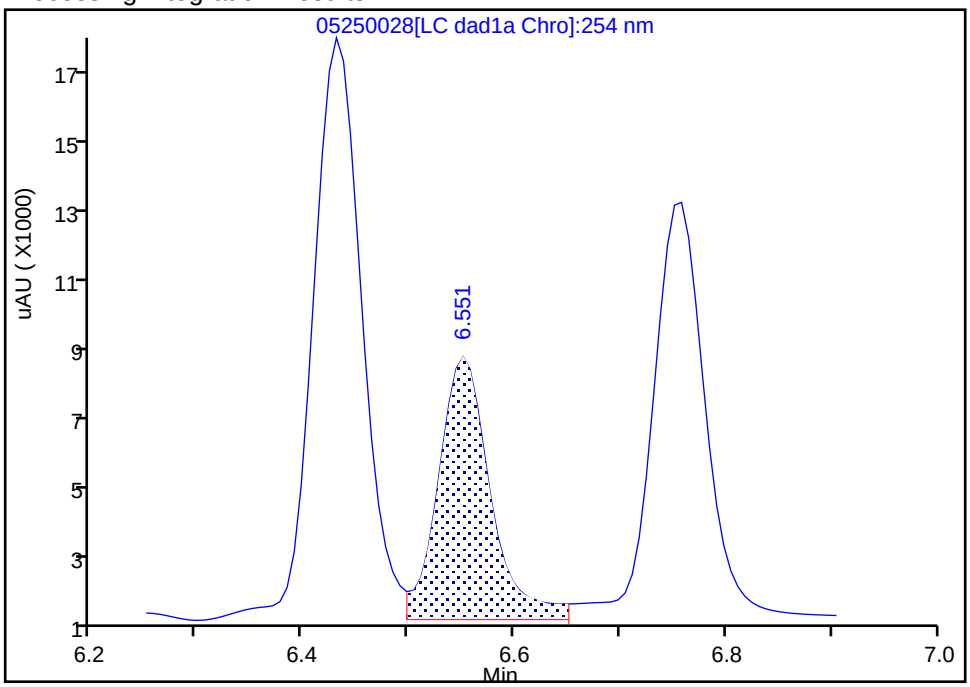
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230525-121837.b\05250028.d				
Injection Date:	25-May-2023 21:58:20	Instrument ID:	CHHPLC_X3		
Lims ID:	LCS 280-613758/2-A				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	28	Worklist Smp#:	28
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

4 HMX, CAS: 2691-41-0

Signal: 1

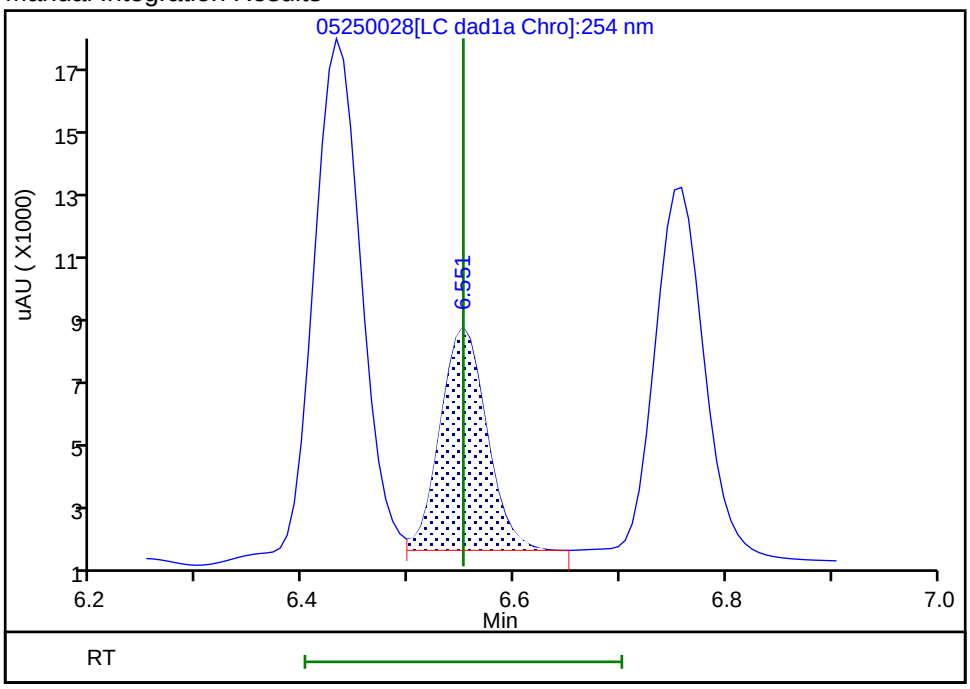
Processing Integration Results

RT: 6.55
Area: 24850
Amount: 0.265695
Amount Units: ug/mL



Manual Integration Results

RT: 6.55
Area: 21068
Amount: 0.225258
Amount Units: ug/mL



Reviewer: K8YG, 26-May-2023 07:14:35 -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.: 280-176866-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCSD 280-613600/3-A

Matrix: Water | Lab File ID: 05240029.D

Analysis Method: 8330B | Date Collected:

Extraction Method: 3535 | Date Extracted: 05/24/2023 12:32

Sample wt/vol: 500(mL) | Date Analyzed: 05/25/2023 00:18

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.: 613678 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	1.94		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	1.70		0.11	0.10	0.045
121-14-2	2,4-Dinitrotoluene	1.65		0.10	0.080	0.027
606-20-2	2,6-Dinitrotoluene	1.65		0.10	0.080	0.040
35572-78-2	2-Amino-4,6-dinitrotoluene	1.63		0.11	0.10	0.051
88-72-2	2-Nitrotoluene	1.31	Q	0.21	0.20	0.086
99-08-1	3-Nitrotoluene	1.30	Q	0.40	0.35	0.20
19406-51-0	4-Amino-2,6-dinitrotoluene	1.62		0.15	0.12	0.058
99-99-0	4-Nitrotoluene	1.31	Q	0.41	0.40	0.10
2691-41-0	HMX	1.69		0.21	0.20	0.088
98-95-3	Nitrobenzene	1.51		0.21	0.20	0.091
55-63-0	Nitroglycerin	18.2		2.1	2.0	0.92
78-11-5	PETN	19.5		1.1	1.0	0.45
121-82-4	RDX	1.76		0.21	0.20	0.052
479-45-8	Tetryl	1.90		0.11	0.10	0.032

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	85		83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20230524-121799.b\05240029.D
Lims ID: LCSD 280-613600/3-A
Client ID:
Sample Type: LCSD
Inject. Date: 25-May-2023 00:18:56 ALS Bottle#: 29 Worklist Smp#: 29
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: LCSD 280-613600/3-A
Operator ID: JZ/JG Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20230524-121799.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 25-May-2023 11:51:52 Calib Date: 24-Feb-2023 17:41:20
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20230224-118952.b\02240018.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1654

First Level Reviewer: K8YG Date: 25-May-2023 08:24:51

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
4 HMX	1	6.549	6.550	-0.001	15766	0.2000	0.1686	
8 RDX	1	7.575	7.570	0.005	18731	0.2000	0.1761	
9 2,4,6-Trinitrophenol	1	7.969	7.963	0.006	16483	0.2000	0.2174	
$ 10 1,2-Dinitrobenzene	1	8.529	8.523	0.006	21390	0.2000	0.1693	
11 1,3,5-Trinitrobenzene	1	8.655	8.650	0.005	42196	0.2000	0.1943	
12 1,3-Dinitrobenzene	1	9.275	9.270	0.005	51612	0.2000	0.1753	
13 Nitrobenzene	1	9.649	9.636	0.013	28867	0.2000	0.1509	
14 3,5-Dinitroaniline	1	9.882	9.870	0.012	36364	0.2000	0.1593	
15 Tetryl	1	10.015	10.003	0.012	31118	0.2000	0.1896	
16 Nitroglycerin	2	10.469	10.456	0.013	116662	2.00	1.82	
17 2,4,6-Trinitrotoluene	1	10.909	10.896	0.013	35875	0.2000	0.1700	
18 4-Amino-2,6-dinitrotoluene	1	11.109	11.090	0.019	25130	0.2000	0.1622	
19 2-Amino-4,6-dinitrotoluene	1	11.362	11.343	0.019	32900	0.2000	0.1633	
20 2,6-Dinitrotoluene	1	11.509	11.490	0.019	23616	0.2000	0.1654	
21 2,4-Dinitrotoluene	1	11.675	11.663	0.012	48939	0.2000	0.1650	
22 o-Nitrotoluene	1	12.502	12.483	0.019	16797	0.2000	0.1313	
23 p-Nitrotoluene	1	12.922	12.903	0.019	14628	0.2000	0.1307	
24 m-Nitrotoluene	1	13.495	13.476	0.019	18309	0.2000	0.1303	
25 PETN	2	14.662	14.636	0.026	134441	2.00	1.95	

QC Flag Legend
Processing Flags

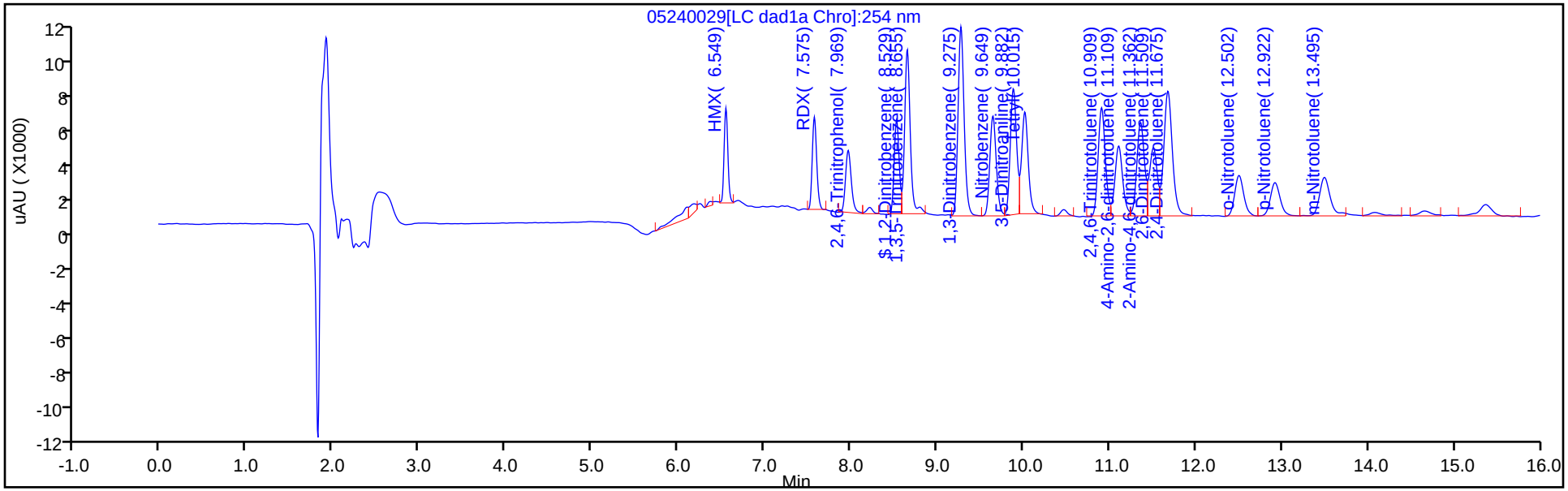
Report Date: 25-May-2023 11:51:55 Chrom Revision: 2.3 23-May-2023 13:55:56

Eurofins Denver

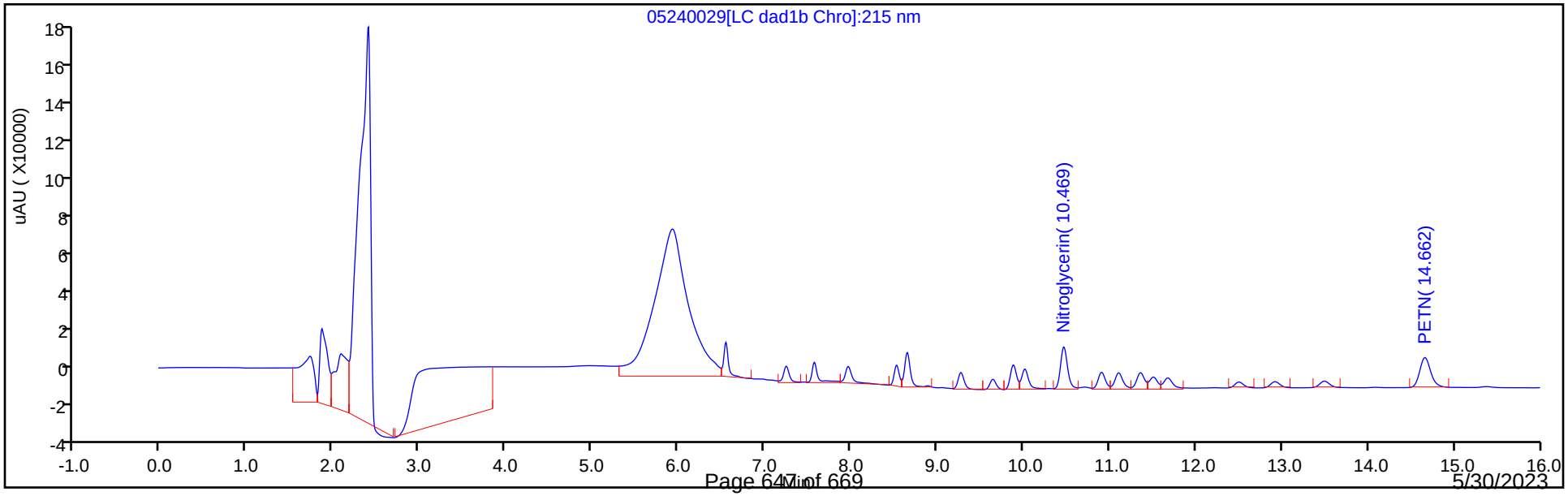
Data File: \\chromfs\denver\chromdata\chhplc_x\20230524-121799.b\05240029.d

Injection Date:	25-May-2023 00:18:56	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	LCSD 280-613600/3-A			Worklist Smp#:	29
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	29
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



5/30/2023
10:34 AM

Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20230524-121799.b\05240029.D				
Lims ID:	LCSD 280-613600/3-A				
Client ID:					
Sample Type:	LCSD				
Inject. Date:	25-May-2023 00:18:56	ALS Bottle#:	29	Worklist Smp#:	29
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	LCSD 280-613600/3-A				
Operator ID:	JZ/JG	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20230524-121799.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	25-May-2023 11:51:52	Calib Date:	24-Feb-2023 17:41:20		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X\20230224-118952.b\02240018.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1654				

First Level Reviewer: K8YG Date: 25-May-2023 08:24:51

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.1693	84.67

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-176866-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCSD 280-613758/24-A

Matrix: Water | Lab File ID: 05250029.D

Analysis Method: 8330B | Date Collected:

Extraction Method: 3535 | Date Extracted: 05/25/2023 14:07

Sample wt/vol: 500(mL) | Date Analyzed: 05/25/2023 22:21

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.: 613812 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	2.56		0.21	0.20	0.084
99-65-0	1,3-Dinitrobenzene	2.42		0.11	0.10	0.037
118-96-7	2,4,6-Trinitrotoluene	2.33		0.11	0.10	0.045
121-14-2	2,4-Dinitrotoluene	2.26		0.10	0.080	0.027
606-20-2	2,6-Dinitrotoluene	2.33		0.10	0.080	0.040
35572-78-2	2-Amino-4,6-dinitrotoluene	2.25		0.11	0.10	0.051
88-72-2	2-Nitrotoluene	1.80		0.21	0.20	0.086
99-08-1	3-Nitrotoluene	1.75	Q	0.40	0.35	0.20
19406-51-0	4-Amino-2,6-dinitrotoluene	2.24		0.15	0.12	0.058
99-99-0	4-Nitrotoluene	1.74	Q	0.41	0.40	0.10
2691-41-0	HMX	2.24	M	0.21	0.20	0.088
98-95-3	Nitrobenzene	2.12		0.21	0.20	0.091
55-63-0	Nitroglycerin	24.6		2.1	2.0	0.92
78-11-5	PETN	26.7		1.1	1.0	0.45
121-82-4	RDX	2.52		0.21	0.20	0.052
479-45-8	Tetryl	2.62		0.11	0.10	0.032

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_X\20230525-121837.b\05250029.D
Lims ID: LCSD 280-613758/24-A
Client ID:
Sample Type: LCSD
Inject. Date: 25-May-2023 22:21:21 ALS Bottle#: 29 Worklist Smp#: 29
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: LCSD 280-613758/24-A
Operator ID: JZ/JG Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20230525-121837.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 26-May-2023 11:54:45 Calib Date: 24-Feb-2023 17:41:20
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20230224-118952.b\02240018.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1649

First Level Reviewer: K8YG Date: 26-May-2023 07:18:08

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 TNX	1	6.436	6.432	0.004	47993	0.2508	0.2428	M
4 HMX	1	6.549	6.552	-0.003	20993	0.2500	0.2245	M
6 DNX	1	6.756	6.758	-0.002	36021	0.2503	0.2493	M
7 MNX	1	7.182	7.185	-0.003	40946	0.2918	0.3122	
8 RDX	1	7.562	7.572	-0.010	26837	0.2500	0.2523	
9 2,4,6-Trinitrophenol	1	7.949	7.952	-0.003	20601	0.2500	0.2717	
$ 10 1,2-Dinitrobenzene	1	8.516	8.525	-0.009	29260	0.2500	0.2317	
11 1,3,5-Trinitrobenzene	1	8.642	8.652	-0.010	55651	0.2500	0.2563	
12 1,3-Dinitrobenzene	1	9.269	9.271	-0.002	71284	0.2500	0.2421	
13 Nitrobenzene	1	9.642	9.645	-0.003	40589	0.2500	0.2122	
14 3,5-Dinitroaniline	1	9.875	9.878	-0.003	49787	0.2500	0.2179	
15 Tetryl	1	10.009	10.011	-0.002	43050	0.2500	0.2623	
16 Nitroglycerin	2	10.462	10.465	-0.003	157553	2.50	2.46	
17 2,4,6-Trinitrotoluene	1	10.902	10.905	-0.003	49168	0.2500	0.2330	
18 4-Amino-2,6-dinitrotoluene	1	11.095	11.098	-0.003	34628	0.2500	0.2235	
19 2-Amino-4,6-dinitrotoluene	1	11.349	11.351	-0.002	45330	0.2500	0.2251	
20 2,6-Dinitrotoluene	1	11.502	11.505	-0.003	33228	0.2500	0.2328	
21 2,4-Dinitrotoluene	1	11.675	11.678	-0.003	66972	0.2500	0.2257	
22 o-Nitrotoluene	1	12.495	12.505	-0.010	22998	0.2500	0.1798	
23 p-Nitrotoluene	1	12.915	12.925	-0.010	19501	0.2500	0.1743	
24 m-Nitrotoluene	1	13.489	13.498	-0.009	24654	0.2500	0.1755	
25 PETN	2	14.655	14.665	-0.010	183575	2.50	2.67	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

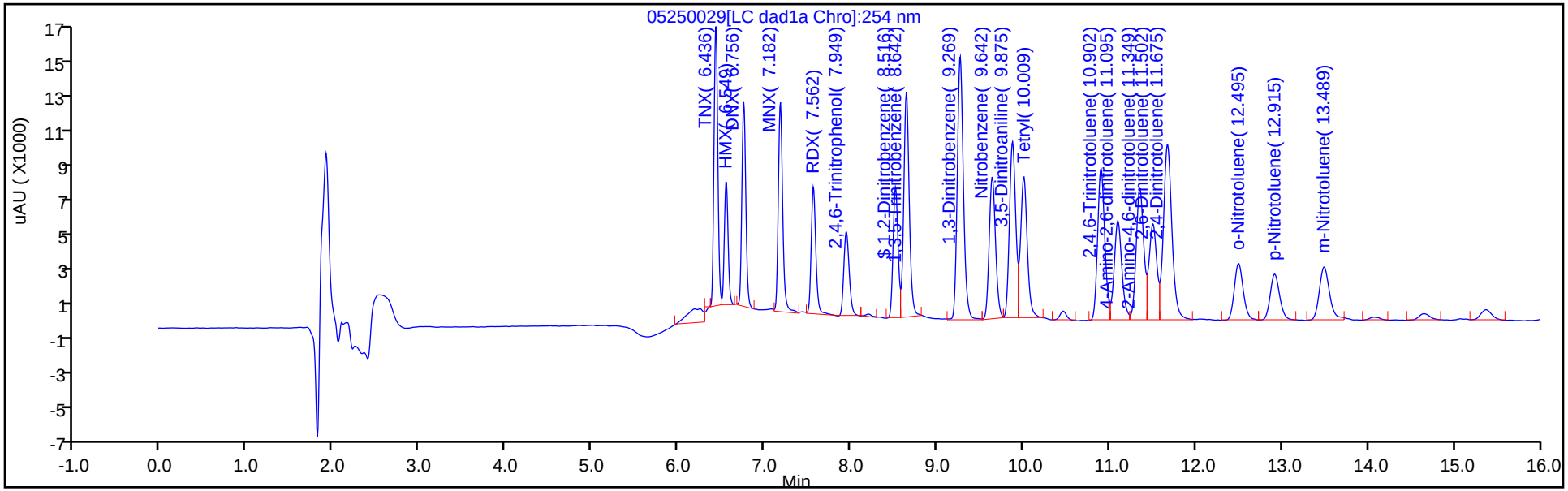
Report Date: 26-May-2023 11:54:48 Chrom Revision: 2.3 23-May-2023 13:55:56

Eurofins Denver

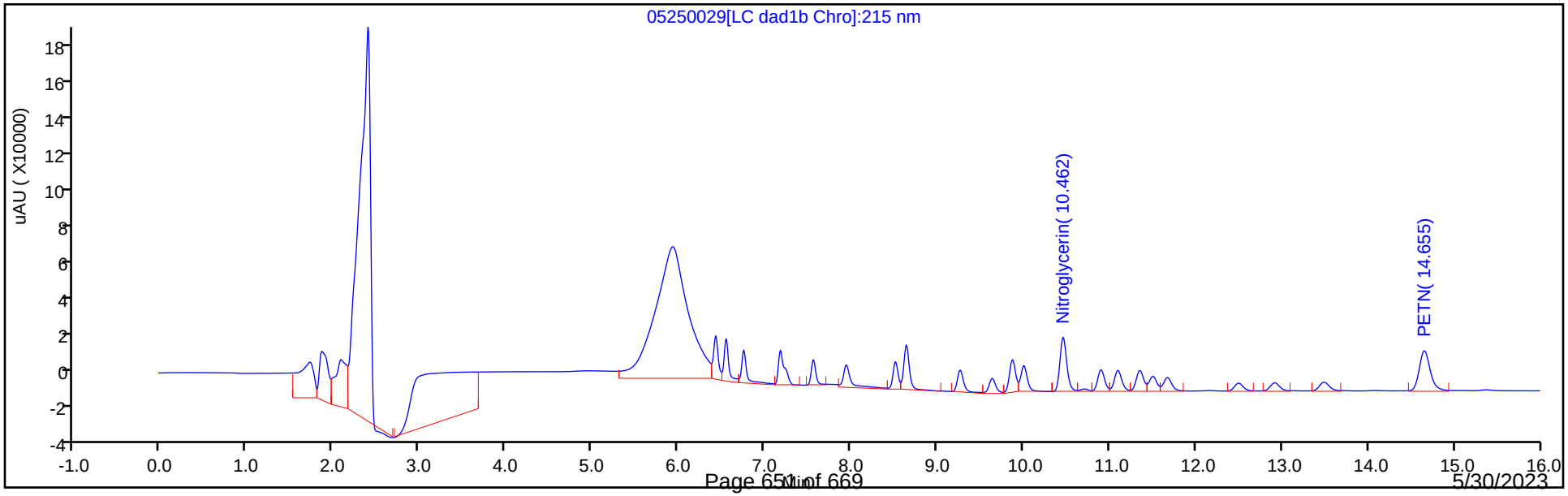
Data File: \\chromfs\denver\chromdata\chhplc_x\20230525-121837.b\05250029.d

Injection Date:	25-May-2023 22:21:21	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	LCSD 280-613758/24-A			Worklist Smp#:	29
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	29
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



5/30/2023
10:34 AM

Eurofins Denver
Recovery Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20230525-121837.b\05250029.D
Lims ID: LCSD 280-613758/24-A
Client ID:
Sample Type: LCSD
Inject. Date: 25-May-2023 22:21:21 ALS Bottle#: 29 Worklist Smp#: 29
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: LCSD 280-613758/24-A
Operator ID: JZ/JG Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20230525-121837.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 26-May-2023 11:54:45 Calib Date: 24-Feb-2023 17:41:20
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20230224-118952.b\02240018.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1649

First Level Reviewer: K8YG Date: 26-May-2023 07:18:08

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2500	0.2317	92.66

Manual Integration/User Assign Peak Report

Eurofins Denver

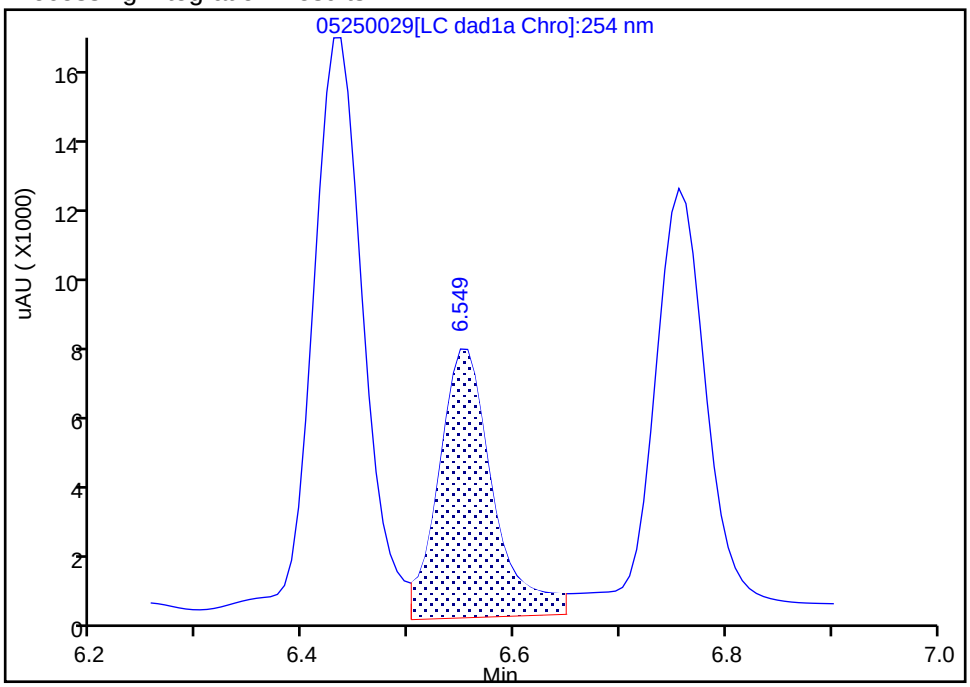
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230525-121837.b\05250029.d				
Injection Date:	25-May-2023 22:21:21	Instrument ID:	CHHPLC_X3		
Lims ID:	LCSD 280-613758/24-A				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	29	Worklist Smp#:	29
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	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

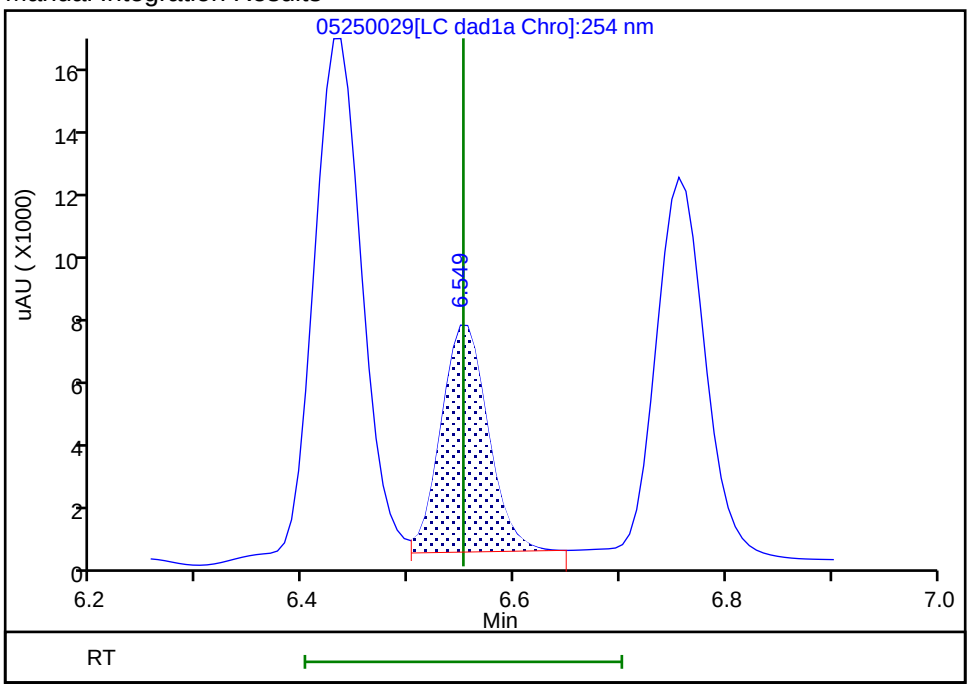
Processing Integration Results

RT: 6.55
Area: 26555
Amount: 0.283925
Amount Units: ug/mL



Manual Integration Results

RT: 6.55
Area: 20993
Amount: 0.224456
Amount Units: ug/mL



Reviewer: K8YG, 26-May-2023 07:18:24 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline

HPLC/IC ANALYSIS RUN LOG

Lab Name: Eurofins Denver Job No.: 280-176866-1

SDG No.:

Instrument ID: CHHPLC_X3 Start Date: 02/08/2023 15:38

Analysis Batch Number: 601664 End Date: 02/08/2023 19:05

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
IC 280-601664/11		02/08/2023 15:38	1	02080011.D	UltraCarb5uODS 4.6(mm)
IC 280-601664/12		02/08/2023 16:01	1	02080012.D	UltraCarb5uODS 4.6(mm)
IC 280-601664/13		02/08/2023 16:24	1	02080013.D	UltraCarb5uODS 4.6(mm)
IC 280-601664/14		02/08/2023 16:47	1	02080014.D	UltraCarb5uODS 4.6(mm)
IC 280-601664/15		02/08/2023 17:10	1	02080015.D	UltraCarb5uODS 4.6(mm)
IC 280-601664/16		02/08/2023 17:33	1	02080016.D	UltraCarb5uODS 4.6(mm)
IC 280-601664/17		02/08/2023 17:56	1	02080017.D	UltraCarb5uODS 4.6(mm)
IC 280-601664/18		02/08/2023 18:19	1	02080018.D	UltraCarb5uODS 4.6(mm)
IC 280-601664/19		02/08/2023 18:42	1	02080019.D	UltraCarb5uODS 4.6(mm)
ICV 280-601664/20		02/08/2023 19:05	1	02080020.D	UltraCarb5uODS 4.6(mm)

HPLC/IC ANALYSIS RUN LOG

Lab Name: Eurofins Denver Job No.: 280-176866-1

SDG No.:

Instrument ID: CHHPLC_G2_LUNA Start Date: 04/07/2023 19:03

Analysis Batch Number: 607981 End Date: 04/08/2023 00:26

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
IC 280-607981/10		04/07/2023 19:03	1	04070010.D	Luna-phenylhex 4.6(mm)
IC 280-607981/11		04/07/2023 19:39	1	04070011.D	Luna-phenylhex 4.6(mm)
IC 280-607981/12		04/07/2023 20:14	1	04070012.D	Luna-phenylhex 4.6(mm)
IC 280-607981/13		04/07/2023 20:50	1	04070013.D	Luna-phenylhex 4.6(mm)
IC 280-607981/14		04/07/2023 21:26	1	04070014.D	Luna-phenylhex 4.6(mm)
IC 280-607981/15		04/07/2023 22:02	1	04070015.D	Luna-phenylhex 4.6(mm)
IC 280-607981/16		04/07/2023 22:38	1	04070016.D	Luna-phenylhex 4.6(mm)
IC 280-607981/17		04/07/2023 23:14	1	04070017.D	Luna-phenylhex 4.6(mm)
IC 280-607981/18		04/07/2023 23:50	1	04070018.D	Luna-phenylhex 4.6(mm)
ICV 280-607981/19		04/08/2023 00:26	1	04070019.D	Luna-phenylhex 4.6(mm)

HPLC/IC ANALYSIS RUN LOG

Lab Name: Eurofins Denver Job No.: 280-176866-1

SDG No.:

Instrument ID: CHHPLC_X5 Start Date: 04/28/2023 18:24

Analysis Batch Number: 610603 End Date: 04/29/2023 04:52

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
IC 280-610603/10		04/28/2023 18:24	1	04280010.D	Luna-phenylhex 4.6(mm)
IC 280-610603/11		04/28/2023 18:59	1	04280011.D	Luna-phenylhex 4.6(mm)
IC 280-610603/12		04/28/2023 19:34	1	04280012.D	Luna-phenylhex 4.6(mm)
IC 280-610603/13		04/28/2023 20:08	1	04280013.D	Luna-phenylhex 4.6(mm)
IC 280-610603/14		04/28/2023 20:43	1	04280014.D	Luna-phenylhex 4.6(mm)
IC 280-610603/15		04/28/2023 21:18	1	04280015.D	Luna-phenylhex 4.6(mm)
IC 280-610603/16		04/28/2023 21:53	1	04280016.D	Luna-phenylhex 4.6(mm)
IC 280-610603/17		04/28/2023 22:28	1	04280017.D	Luna-phenylhex 4.6(mm)
IC 280-610603/18		04/28/2023 23:03	1	04280018.D	Luna-phenylhex 4.6(mm)
ICV 280-610603/19		04/28/2023 23:38	1	04280019.D	Luna-phenylhex 4.6(mm)
IC 280-610603/20		04/29/2023 00:13	1		Luna-phenylhex 4.6(mm)
IC 280-610603/21		04/29/2023 00:48	1		Luna-phenylhex 4.6(mm)
IC 280-610603/22		04/29/2023 01:23	1		Luna-phenylhex 4.6(mm)
IC 280-610603/23		04/29/2023 01:58	1		Luna-phenylhex 4.6(mm)
IC 280-610603/24		04/29/2023 02:33	1		Luna-phenylhex 4.6(mm)
IC 280-610603/25		04/29/2023 03:08	1		Luna-phenylhex 4.6(mm)
IC 280-610603/26		04/29/2023 03:43	1		Luna-phenylhex 4.6(mm)
IC 280-610603/27		04/29/2023 04:18	1		Luna-phenylhex 4.6(mm)
ICV 280-610603/28		04/29/2023 04:52	1		Luna-phenylhex 4.6(mm)

HPLC/IC ANALYSIS RUN LOG

Lab Name: Eurofins Denver Job No.: 280-176866-1

SDG No.:

Instrument ID: CHHPLC_X3 Start Date: 05/24/2023 23:10

Analysis Batch Number: 613678 End Date: 05/25/2023 08:20

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCV 280-613678/26		05/24/2023 23:10	1	05240026.D	UltraCarb5uODS 4.6(mm)
MB 280-613600/1-A		05/24/2023 23:33	1	05240027.D	UltraCarb5uODS 4.6(mm)
LCS 280-613600/2-A		05/24/2023 23:55	1	05240028.D	UltraCarb5uODS 4.6(mm)
LCSD 280-613600/3-A		05/25/2023 00:18	1	05240029.D	UltraCarb5uODS 4.6(mm)
ZZZZZ		05/25/2023 00:41	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		05/25/2023 01:04	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		05/25/2023 01:27	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		05/25/2023 01:50	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		05/25/2023 02:13	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		05/25/2023 02:36	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		05/25/2023 02:59	1		UltraCarb5uODS 4.6(mm)
CCV 280-613678/37		05/25/2023 03:22	1	05240037.D	UltraCarb5uODS 4.6(mm)
ZZZZZ		05/25/2023 03:45	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		05/25/2023 04:08	1		UltraCarb5uODS 4.6(mm)
280-176866-1	FBQmw-179-230301-GW	05/25/2023 04:31	1	05240040.D	UltraCarb5uODS 4.6(mm)
280-176866-2	FBQmw-181-230301-GW	05/25/2023 04:54	1	05240041.D	UltraCarb5uODS 4.6(mm)
ZZZZZ		05/25/2023 05:17	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		05/25/2023 05:40	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		05/25/2023 06:03	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		05/25/2023 06:26	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		05/25/2023 07:12	1		UltraCarb5uODS 4.6(mm)
CCV 280-613678/48		05/25/2023 07:35	1	05240048.D	UltraCarb5uODS 4.6(mm)
ZZZZZ		05/25/2023 07:58	1		UltraCarb5uODS 4.6(mm)
CCV 280-613678/50		05/25/2023 08:20	1		UltraCarb5uODS 4.6(mm)

HPLC/IC ANALYSIS RUN LOG

Lab Name: Eurofins Denver Job No.: 280-176866-1

SDG No.:

Instrument ID: CHHPLC_X3 Start Date: 05/25/2023 21:12

Analysis Batch Number: 613812 End Date: 05/26/2023 07:32

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCV 280-613812/26		05/25/2023 21:12	1	05250026.D	UltraCarb5uODS 4.6(mm)
MB 280-613758/1-A		05/25/2023 21:35	1	05250027.D	UltraCarb5uODS 4.6(mm)
LCS 280-613758/2-A		05/25/2023 21:58	1	05250028.D	UltraCarb5uODS 4.6(mm)
LCSD 280-613758/24-A		05/25/2023 22:21	1	05250029.D	UltraCarb5uODS 4.6(mm)
ZZZZZ		05/25/2023 22:44	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		05/25/2023 23:07	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		05/25/2023 23:30	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		05/25/2023 23:53	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		05/26/2023 00:16	1		UltraCarb5uODS 4.6(mm)
CCV 280-613812/35		05/26/2023 00:38	1	05250035.D	UltraCarb5uODS 4.6(mm)
ZZZZZ		05/26/2023 01:01	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		05/26/2023 01:24	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		05/26/2023 01:47	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		05/26/2023 02:33	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		05/26/2023 02:56	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		05/26/2023 03:19	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		05/26/2023 03:42	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		05/26/2023 04:05	1		UltraCarb5uODS 4.6(mm)
CCV 280-613812/46		05/26/2023 04:51	1	05250046.D	UltraCarb5uODS 4.6(mm)
ZZZZZ		05/26/2023 05:14	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		05/26/2023 05:37	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		05/26/2023 06:00	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		05/26/2023 06:23	1		UltraCarb5uODS 4.6(mm)
280-176866-1 RE	FBQmw-179-230301-GW RE	05/26/2023 06:46	1	05250051.D	UltraCarb5uODS 4.6(mm)
280-176866-2 RE	FBQmw-181-230301-GW RE	05/26/2023 07:09	1	05250052.D	UltraCarb5uODS 4.6(mm)
CCV 280-613812/53		05/26/2023 07:32	1	05250053.D	UltraCarb5uODS 4.6(mm)

HPLC/IC ANALYSIS RUN LOG

Lab Name: Eurofins Denver Job No.: 280-176866-1

SDG No.:

Instrument ID: CHHPLC_X5 Start Date: 05/25/2023 17:05

Analysis Batch Number: 613822 End Date: 05/26/2023 02:59

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCV 280-613822/7		05/25/2023 17:05	1	05250007.D	Luna-phenylhex 4.6(mm)
ZZZZZ		05/25/2023 17:40	1		Luna-phenylhex 4.6(mm)
ZZZZZ		05/25/2023 18:15	1		Luna-phenylhex 4.6(mm)
ZZZZZ		05/25/2023 18:50	1		Luna-phenylhex 4.6(mm)
ZZZZZ		05/25/2023 19:25	1		Luna-phenylhex 4.6(mm)
ZZZZZ		05/25/2023 20:00	1		Luna-phenylhex 4.6(mm)
ZZZZZ		05/25/2023 20:35	1		Luna-phenylhex 4.6(mm)
280-176866-1	FBQmw-179-230301-GW	05/25/2023 21:10	1	05250016.D	Luna-phenylhex 4.6(mm)
280-176866-2	FBQmw-181-230301-GW	05/25/2023 21:45	1	05250017.D	Luna-phenylhex 4.6(mm)
ZZZZZ		05/25/2023 22:20	1		Luna-phenylhex 4.6(mm)
ZZZZZ		05/25/2023 22:54	1		Luna-phenylhex 4.6(mm)
CCV 280-613822/20		05/25/2023 23:29	1	05250020.D	Luna-phenylhex 4.6(mm)
ZZZZZ		05/26/2023 00:04	1		Luna-phenylhex 4.6(mm)
ZZZZZ		05/26/2023 00:39	1		Luna-phenylhex 4.6(mm)
ZZZZZ		05/26/2023 01:49	1		Luna-phenylhex 4.6(mm)
ZZZZZ		05/26/2023 02:24	1		Luna-phenylhex 4.6(mm)
CCV 280-613822/26		05/26/2023 02:59	1		Luna-phenylhex 4.6(mm)

HPLC/IC ANALYSIS RUN LOG

Lab Name: Eurofins Denver Job No.: 280-176866-1

SDG No.:

Instrument ID: CHHPLC_G2_LUNA Start Date: 05/26/2023 17:45

Analysis Batch Number: 613968 End Date: 05/27/2023 06:56

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCV 280-613968/8		05/26/2023 17:45	1		Luna-phenylhex 4.6(mm)
ZZZZZ		05/26/2023 18:21	1		Luna-phenylhex 4.6(mm)
ZZZZZ		05/26/2023 18:57	1		Luna-phenylhex 4.6(mm)
ZZZZZ		05/26/2023 19:33	1		Luna-phenylhex 4.6(mm)
ZZZZZ		05/26/2023 20:09	1		Luna-phenylhex 4.6(mm)
ZZZZZ		05/26/2023 20:45	1		Luna-phenylhex 4.6(mm)
ZZZZZ		05/26/2023 21:21	1		Luna-phenylhex 4.6(mm)
ZZZZZ		05/26/2023 21:57	1		Luna-phenylhex 4.6(mm)
ZZZZZ		05/26/2023 22:33	1		Luna-phenylhex 4.6(mm)
ZZZZZ		05/26/2023 23:09	1		Luna-phenylhex 4.6(mm)
ZZZZZ		05/26/2023 23:45	1		Luna-phenylhex 4.6(mm)
CCV 280-613968/20		05/27/2023 00:21	1	05260020.D	Luna-phenylhex 4.6(mm)
ZZZZZ		05/27/2023 00:56	100		Luna-phenylhex 4.6(mm)
ZZZZZ		05/27/2023 01:32	1		Luna-phenylhex 4.6(mm)
ZZZZZ		05/27/2023 02:08	1		Luna-phenylhex 4.6(mm)
ZZZZZ		05/27/2023 02:44	1		Luna-phenylhex 4.6(mm)
ZZZZZ		05/27/2023 03:20	100		Luna-phenylhex 4.6(mm)
ZZZZZ		05/27/2023 03:56	1		Luna-phenylhex 4.6(mm)
ZZZZZ		05/27/2023 04:32	1		Luna-phenylhex 4.6(mm)
ZZZZZ		05/27/2023 05:08	1		Luna-phenylhex 4.6(mm)
280-176866-1 RE	FBQmw-179-230301-GW RE	05/27/2023 05:44	1	05260029.D	Luna-phenylhex 4.6(mm)
ZZZZZ		05/27/2023 06:20	1		Luna-phenylhex 4.6(mm)
CCV 280-613968/31		05/27/2023 06:56	1	05260031.D	Luna-phenylhex 4.6(mm)

HPLC/IC BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-176866-1

SDG No.:

Batch Number: 601664 Batch Start Date: 02/08/23 15:38 Batch Analyst: Zhang, Jian

Batch Method: 8330B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	FinalAmount	3,5-DNA LCS 00043	8330 LCS 00121	8330IntermStk 00075	8330Surrogate 00138	
IC 280-601664/11		8330B		1 mL			250 uL		
IC 280-601664/12		8330B		1 mL			100 uL		
IC 280-601664/13		8330B		1 mL			70 uL		
IC 280-601664/14		8330B		1 mL			40 uL		
IC 280-601664/15		8330B		1 mL			25 uL		
IC 280-601664/16		8330B		1 mL			10 uL		
IC 280-601664/17		8330B		1 mL			5 uL		
IC 280-601664/18		8330B		1 mL			2 uL		
IC 280-601664/19		8330B		1 mL			1 uL		
ICV 280-601664/20		8330B		1 mL	50 uL	50 uL		50 uL	

Batch Notes	
Methanol ID	221054

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.: 280-176866-1

SDG No.:

Batch Number: 607981 Batch Start Date: 04/07/23 19:03 Batch Analyst: Zhang, Jian

Batch Method: 8330B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	FinalAmount	8330 DMT 00013	8330 LCS 00125	8330_OP_DMT 00017	8330IntermStk 00076	8330Surrogate 00141
IC 280-607981/10		8330B		1 mL	125 uL			250 uL	
IC 280-607981/11		8330B		1 mL	50 uL			100 uL	
IC 280-607981/12		8330B		1 mL	35 uL			70 uL	
IC 280-607981/13		8330B		1 mL	20 uL			40 uL	
IC 280-607981/14		8330B		1 mL	12.5 uL			25 uL	
IC 280-607981/15		8330B		1 mL	5 uL			10 uL	
IC 280-607981/16		8330B		1 mL	2.5 uL			5 uL	
IC 280-607981/17		8330B		1 mL	1 uL			2 uL	
IC 280-607981/18		8330B		1 mL	0.5 uL			1 uL	
ICV 280-607981/19		8330B		1 mL		50 uL	50 uL		50 uL

Batch Notes	
Methanol ID	221056

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.: 280-176866-1

SDG No.:

Batch Number: 610603 Batch Start Date: 04/28/23 18:24 Batch Analyst: Zhang, Jian

Batch Method: 8330B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	FinalAmount	8330 DMT 00013	8330 LCS 00126	8330_OP_DMT 00017	8330IntermStk 00076	8330Surrogate 00143
IC 280-610603/10		8330B		1 mL	125 uL			250 uL	
IC 280-610603/11		8330B		1 mL	50 uL			100 uL	
IC 280-610603/12		8330B		1 mL	35 uL			70 uL	
IC 280-610603/13		8330B		1 mL	20 uL			40 uL	
IC 280-610603/14		8330B		1 mL	12.5 uL			25 uL	
IC 280-610603/15		8330B		1 mL	5 uL			10 uL	
IC 280-610603/16		8330B		1 mL	2.5 uL			5 uL	
IC 280-610603/17		8330B		1 mL	1 uL			2 uL	
IC 280-610603/18		8330B		1 mL	0.5 uL			1 uL	
ICV 280-610603/19		8330B		1 mL		50 uL	50 uL		50 uL

Batch Notes	
Methanol ID	221056

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.: 280-176866-1

SDG No.:

Batch Number: 613600 Batch Start Date: 05/24/23 12:32 Batch Analyst: Alwes, Ashley A

Batch Method: 3535 Batch End Date: 05/24/23 17:21

Lab Sample ID	Client Sample ID	Method Chain	Basis	GrossWeight	TareWeight	InitialAmount	FinalAmount	8330 LCS 00126	8330Surrogate 00144
MB 280-613600/1		3535, 8330B				500 mL	5 mL		0.1 mL
LCS 280-613600/2		3535, 8330B				500 mL	5 mL	0.1 mL	0.1 mL
LCSD 280-613600/3		3535, 8330B				500 mL	5 mL	0.1 mL	0.1 mL
280-176866-B-1	FBQmw-179-230301-GW	3535, 8330B	T	754.6 g	287.2 g	467.4 mL	5 mL		0.1 mL
280-176866-A-2	FBQmw-181-230301-GW	3535, 8330B	T	761.3 g	285.9 g	475.4 mL	5 mL		0.1 mL

Batch Notes	
First Start time	05/24/2023 14:10
First End time	05/24/2023 16:53
SPE Cartridge Type	Sep-Pak Porapak Rdx
SPE Cartridge Lot ID	005332286A
Balance ID	24350888
Manifold ID	Manifold: A, B
QC Bottle Lot ID	0420301F
Pipette/Syringe/Dispenser ID	Dobby/DOD/Pugsley
Solvent Name	CaCl2
Solvent Lot #	CaCl2_Sol_00085
Rinse Solvent Name	Acetonotrile
Rinse Solvent Lot	Acetonitrile_00078
Acid Name	0.1% AAinACN
Acid ID	0.1% AAinACN_00207
Analyst ID - Spike Analyst	EH (Trainee); AA (Trainer)
Analyst ID - Spike Witness Analyst	Reviewer:EB
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.: 280-176866-1

SDG No.:

Batch Number: 613758 Batch Start Date: 05/25/23 14:07 Batch Analyst: Hermanova, Eva

Batch Method: 3535 Batch End Date: 05/25/23 17:30

Lab Sample ID	Client Sample ID	Method Chain	Basis	GrossWeight	TareWeight	InitialAmount	FinalAmount	8330 LCS 00126	8330_OP_DMT 00020
MB 280-613758/1		3535, 8330B				500 mL	5 mL		
LCS 280-613758/2		3535, 8330B				500 mL	5 mL	0.125 mL	0.125 mL
280-176866-A-1	FBQmw-179-230301-GW	3535, 8330B	T	762.0 g	284.9 g	477.1 mL	5 mL		
280-176866-B-2	FBQmw-181-230301-GW	3535, 8330B	T	773.6 g	289.8 g	483.8 mL	5 mL		
LCSD 280-613758/24		3535, 8330B				500 mL	5 mL	0.125 mL	0.125 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	8330Surrogate 00144					
MB 280-613758/1		3535, 8330B		0.125 mL					
LCS 280-613758/2		3535, 8330B		0.125 mL					
280-176866-A-1	FBQmw-179-230301-GW	3535, 8330B	T	0.125 mL					
280-176866-B-2	FBQmw-181-230301-GW	3535, 8330B	T	0.125 mL					
LCSD 280-613758/24		3535, 8330B		0.125 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.: 280-176866-1

SDG No.:

Batch Number: 613758 Batch Start Date: 05/25/23 14:07 Batch Analyst: Hermanova, Eva

Batch Method: 3535 Batch End Date: 05/25/23 17:30

Batch Notes	
First Start time	05/25/2023 14:18
First End time	05/25/2023 17:08
SPE Cartridge Type	Sep-Pak Porapak Rdx
SPE Cartridge Lot ID	005332286A
Balance ID	24350888
Manifold ID	Manifold: A, B
QC Bottle Lot ID	0420301F
Pipette/Syringe/Dispenser ID	Dobby/DOD/Pugsley
Solvent Name	CaCl2
Solvent Lot #	CaCl2_Sol_00085
Rinse Solvent Name	Acetonotrile
Rinse Solvent Lot	Acetonitrile_00078
Acid Name	0.1% AAinACN
Acid ID	0.1% AAinACN_00218
Analyst ID - Spike Analyst	EH (Trainee); AA (Trainer)
Analyst ID - Spike Witness Analyst	Reviewer:JZ
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.

Shipping and Receiving Documents

Chain of Custody Record

leidos

COC No.: RVAAP-348-TA

Page 1 of 1

Date: 5/22/23

Name Leidos
Address: 8866 Commons Blvd. Suite 201, Twinsburg, OH 44087
Phone Number: (330) 405-5802
Project Manager: Jed Thomas
Project: RVAAP FWGW FS Well Sampling 2023
Job/P.O. No.: P010216426 Sampler: Charles Spurr

Laboratory Name: Eurofins-Denver
Address: 4955 Yarrow Street Arvada, CO 80002
Phone: (303) 736-0100
Fax:
Contact: Patrick McEntee

Laboratory No.	Sample ID	Depth	Date	Time	Matrix	VOCs (1)(B)	SVOCs (2)(A)	LL PAHs (3)(A)	TPH GRO (4)(B)	TPH DRO (5)(A)	Explosives (6)(A)	Nitrate (7)(A)	Ammonia (8)(D)	Metals - LEAD (9)(C)	Temperature Blank	Total Number of Contai	OBSERVATIONS COMMENTS
	FBQmw-179-230301-GW	—	5/22/23	1122	W						2					2	**RUSH** 5 DAY TAT
	FBQmw-181-230301-GW	—	5/22/23	1400	W						2					2	**RUSH** 5 DAY TAT

CS 5/22/23

Relinquished by	Date	Received by	Date
Signature: Charles Spurr	5/22/23	Signature	5/23/23
Printed Name: Charles Spurr	Time 1700	Printed Name: Charles Cannon	Time 0930
Company: Leidos		Company: ETAOEN	
Relinquished by	Date	Received by	Date
Signature		Signature	
Printed Name	Time	Printed Name	Time
Company		Company	

Notes:
A. Cool, 4C
B. HCl, pH<2, Cool, 4C
C. HNO3, pH<2, Cool, 4C
D. H2SO4, pH<2, Cool 4C

Total Number of Containers: 4

1. SW 8260C	3 x 40 ml-VOA
2. SW 8270E	2 x 125 ml-amber
3. SW 8270E SIM	2 x 250 ml-amber
4. Modified 8015 (GRO)	3 x 40 ml-VOA
5. Modified 8015 (DRO)	2 x 1-L amber
6. SW 8330	2 x 500-ml amber
7. SW 9056	1 x 250-ml plastic
8. EPA 350.1	1 x 250-ml amber
8. SW 6020	1 x 500 ml plastic

Shipment Method: FedEx

Tracking Numbers:

818036574434

Temperature upon receipt

Leidos
8866 Commons Drive
Twinsburg, OH 44087
(330) 405-5802

0.9 IR 14 CF 0.1

Login Sample Receipt Checklist

Client: Leidos, Inc.

Job Number: 280-176866-1
SDG Number:

Login Number: 176866
List Number: 1
Creator: Roehsner, Karen P

List Source: Eurofins Denver

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	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").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	