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ANALYTICAL REPORT

PREPARED FOR

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JOB DESCRIPTION

RVAAP FWGW Spring 2023

JOB NUMBER

280-176609-1

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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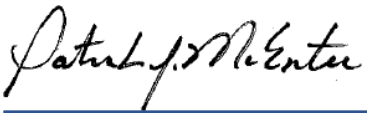

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Qualifiers

HPLC/IC

Qualifier	Qualifier Description
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: 280-176609-1

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 5/17/2023 9:20 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 0.5º C.

EXPLOSIVES (HPLC)

Samples FBQmw-178-230301-GW (280-176609-1), FBQmw-178-230302-GW (280-176609-2), LL1mw-092-230301-GW (280-176609-3) and LL1mw-093-230301-GW (280-176609-4) were analyzed for Explosives (HPLC) in accordance with 8330B. The samples were prepared on 05/18/2023 and analyzed on 05/19/2023 and 05/20/2023.

2-Nitrotoluene failed the recovery criteria high for the MS of sample FBQmw-178-230301-GWMS (280-176609-1) in batch 280-613169. 2-Nitrotoluene failed the recovery criteria high for the MSD of sample FBQmw-178-230301-GWMSD (280-176609-1) in batch 280-613169.

The %RPD between the primary and confirmation column exceeded 40% for RDX for the following samples: FBQmw-178-230301-GW (280-176609-1), FBQmw-178-230301-GW (280-176609-1[MS]), FBQmw-178-230301-GW (280-176609-1[MSD]), FBQmw-178-230302-GW (280-176609-2), LL1mw-092-230301-GW (280-176609-3) and LL1mw-093-230301-GW (280-176609-4) in preparation batch 280-612937 and analytical batch 280-613045. The results from both columns has been qualified and reported in accordance with the laboratory's QAS.

The laboratory control sample (LCS) for preparation batch 280-612937 and analytical batch 280-613045 recovered outside control limits for the following analytes:m-Nitrotoluene(73-125%R) at 72%R. The LCS recovered within control limit in the confirmation instrument. m-Nitrotoluene is ND in both primary and confirmation instrument. The associated samples are impacted: FBQmw-178-230301-GW (280-176609-1), FBQmw-178-230301-GW (280-176609-1[MS]), FBQmw-178-230301-GW (280-176609-1[MSD]), FBQmw-178-230302-GW (280-176609-2), LL1mw-092-230301-GW (280-176609-3) and LL1mw-093-230301-GW (280-176609-4).

In preparation batch 280-612937, the following sample required filtration to reduce matrix interferences: LL1mw-093-230301-GW (280-176609-4).

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

Detection Summary

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

Job ID: 280-176609-1

Client Sample ID: FBQmw-178-230301-GW — Lab Sample ID: 280-176609-1

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	Dil Fac	D	Method	Prep Type
RDX	2.7	M J1	0.22	0.21	0.055	ug/L	1		8330B	Total/NA
RDX	0.25	J1	0.22	0.21	0.055	ug/L	1		8330B	Total/NA

Client Sample ID: FBQmw-178-230302-GW — Lab Sample ID: 280-176609-2

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	Dil Fac	D	Method	Prep Type
RDX	2.6	M J1	0.21	0.20	0.052	ug/L	1		8330B	Total/NA
RDX	0.23	J1	0.21	0.20	0.052	ug/L	1		8330B	Total/NA

Client Sample ID: LL1mw-092-230301-GW — Lab Sample ID: 280-176609-3

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	Dil Fac	D	Method	Prep Type
RDX	1.0	J1	0.22	0.21	0.055	ug/L	1		8330B	Total/NA
RDX	0.14	J J1	0.22	0.21	0.055	ug/L	1		8330B	Total/NA

Client Sample ID: LL1mw-093-230301-GW — Lab Sample ID: 280-176609-4

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	Dil Fac	D	Method	Prep Type
RDX	0.67	M J1	0.23	0.22	0.056	ug/L	1		8330B	Total/NA
RDX	0.23	J1	0.23	0.22	0.056	ug/L	1		8330B	Total/NA

This Detection Summary does not include radiochemical test results.

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

Client Sample ID: FBQmw-178-230301-GW
Lab Sample ID: 280-176609-1
Date Collected: 05/16/23 13:37
Matrix: Water
Date Received: 05/17/23 09:20

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.21	U M	0.22	0.21	0.089	ug/L		05/19/23 07:19	1
1,3-Dinitrobenzene	0.11	U M	0.12	0.11	0.039	ug/L		05/19/23 07:19	1
2,4,6-Trinitrotoluene	0.11	U	0.12	0.11	0.048	ug/L		05/19/23 07:19	1
2,4-Dinitrotoluene	0.085	U	0.11	0.085	0.029	ug/L		05/19/23 07:19	1
2,6-Dinitrotoluene	0.085	U	0.11	0.085	0.043	ug/L		05/19/23 07:19	1
2-Amino-4,6-dinitrotoluene	0.11	U	0.12	0.11	0.054	ug/L		05/19/23 07:19	1
2-Nitrotoluene	0.21	U M J1	0.22	0.21	0.091	ug/L		05/19/23 21:30	1
3-Nitrotoluene	0.37	U Q	0.43	0.37	0.21	ug/L		05/19/23 07:19	1
4-Amino-2,6-dinitrotoluene	0.13	U	0.16	0.13	0.061	ug/L		05/19/23 07:19	1
4-Nitrotoluene	0.43	U	0.44	0.43	0.11	ug/L		05/19/23 07:19	1
HMX	0.21	U	0.22	0.21	0.093	ug/L		05/19/23 21:30	1
Nitrobenzene	0.21	U	0.22	0.21	0.097	ug/L		05/19/23 07:19	1
Nitroglycerin	2.1	U	2.2	2.1	0.98	ug/L		05/19/23 07:19	1
PETN	1.1	U	1.2	1.1	0.48	ug/L		05/19/23 07:19	1
RDX	**2.7**	**M J1**	0.22	0.21	0.055	ug/L		05/19/23 07:19	1
RDX	**0.25**	**J1**	0.22	0.21	0.055	ug/L		05/19/23 21:30	1
Tetryl	0.11	U	0.12	0.11	0.034	ug/L		05/19/23 07:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dinitrobenzene	*92*	*M*	*83 - 119*	*05/18/23 13:20*	*05/19/23 07:19*	*1*
1,2-Dinitrobenzene	*100*		*83 - 119*	*05/18/23 13:20*	*05/19/23 21:30*	*1*

Client Sample ID: FBQmw-178-230302-GW
Lab Sample ID: 280-176609-2
Date Collected: 05/16/23 13:37
Matrix: Water
Date Received: 05/17/23 09:20

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.20	U M	0.21	0.20	0.085	ug/L		05/19/23 08:28	1
1,3-Dinitrobenzene	0.10	U M	0.11	0.10	0.037	ug/L		05/19/23 08:28	1
2,4,6-Trinitrotoluene	0.10	U	0.11	0.10	0.046	ug/L		05/19/23 08:28	1
2,4-Dinitrotoluene	0.081	U	0.10	0.081	0.028	ug/L		05/19/23 08:28	1
2,6-Dinitrotoluene	0.081	U	0.10	0.081	0.041	ug/L		05/19/23 08:28	1
2-Amino-4,6-dinitrotoluene	0.10	U	0.11	0.10	0.051	ug/L		05/19/23 08:28	1
2-Nitrotoluene	0.20	U M	0.21	0.20	0.087	ug/L		05/19/23 23:18	1
3-Nitrotoluene	0.36	U Q	0.41	0.36	0.20	ug/L		05/19/23 08:28	1
4-Amino-2,6-dinitrotoluene	0.12	U	0.15	0.12	0.059	ug/L		05/19/23 08:28	1
4-Nitrotoluene	0.41	U	0.42	0.41	0.10	ug/L		05/19/23 08:28	1
HMX	0.20	U	0.21	0.20	0.089	ug/L		05/19/23 23:18	1
Nitrobenzene	0.20	U	0.21	0.20	0.092	ug/L		05/19/23 08:28	1
Nitroglycerin	2.0	U	2.1	2.0	0.94	ug/L		05/19/23 08:28	1
PETN	1.0	U	1.1	1.0	0.45	ug/L		05/19/23 08:28	1
RDX	**2.6**	**M J1**	0.21	0.20	0.052	ug/L		05/19/23 08:28	1
RDX	**0.23**	**J1**	0.21	0.20	0.052	ug/L		05/19/23 23:18	1
Tetryl	0.10	U	0.11	0.10	0.032	ug/L		05/19/23 08:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dinitrobenzene	*98*	*M*	*83 - 119*	*05/18/23 13:20*	*05/19/23 08:28*	*1*
1,2-Dinitrobenzene	*104*		*83 - 119*	*05/18/23 13:20*	*05/19/23 23:18*	*1*

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

Client Sample ID: LL1mw-092-230301-GW
Lab Sample ID: 280-176609-3
Date Collected: 05/16/23 10:40
Matrix: Water
Date Received: 05/17/23 09:20

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.21	U	0.22	0.21	0.089	ug/L		05/19/23 08:51	1
1,3-Dinitrobenzene	0.11	U	0.12	0.11	0.039	ug/L		05/19/23 08:51	1
2,4,6-Trinitrotoluene	0.11	U	0.12	0.11	0.048	ug/L		05/19/23 08:51	1
2,4-Dinitrotoluene	0.085	U	0.11	0.085	0.029	ug/L		05/19/23 08:51	1
2,6-Dinitrotoluene	0.085	U	0.11	0.085	0.042	ug/L		05/19/23 08:51	1
2-Amino-4,6-dinitrotoluene	0.11	U	0.12	0.11	0.054	ug/L		05/19/23 08:51	1
2-Nitrotoluene	0.21	U M	0.22	0.21	0.091	ug/L		05/19/23 23:54	1
3-Nitrotoluene	0.37	U Q	0.42	0.37	0.21	ug/L		05/19/23 08:51	1
4-Amino-2,6-dinitrotoluene	0.13	U	0.16	0.13	0.061	ug/L		05/19/23 08:51	1
4-Nitrotoluene	0.42	U	0.43	0.42	0.11	ug/L		05/19/23 08:51	1
HMX	0.21	U	0.22	0.21	0.093	ug/L		05/19/23 23:54	1
Nitrobenzene	0.21	U	0.22	0.21	0.096	ug/L		05/19/23 08:51	1
Nitroglycerin	2.1	U	2.2	2.1	0.98	ug/L		05/19/23 08:51	1
PETN	1.1	U	1.2	1.1	0.47	ug/L		05/19/23 08:51	1
RDX	**1.0**	**J1**	0.22	0.21	0.055	ug/L		05/19/23 08:51	1
RDX	**0.14**	**J J1**	0.22	0.21	0.055	ug/L		05/19/23 23:54	1
Tetryl	0.11	U	0.12	0.11	0.034	ug/L		05/19/23 08:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dinitrobenzene	*97*	*M*	*83 - 119*	*05/18/23 13:20*	*05/19/23 08:51*	*1*
1,2-Dinitrobenzene	*100*		*83 - 119*	*05/18/23 13:20*	*05/19/23 23:54*	*1*

Client Sample ID: LL1mw-093-230301-GW
Lab Sample ID: 280-176609-4
Date Collected: 05/16/23 09:18
Matrix: Water
Date Received: 05/17/23 09:20

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.22	U	0.23	0.22	0.091	ug/L		05/19/23 09:14	1
1,3-Dinitrobenzene	0.11	U M	0.12	0.11	0.040	ug/L		05/19/23 09:14	1
2,4,6-Trinitrotoluene	0.11	U	0.12	0.11	0.049	ug/L		05/19/23 09:14	1
2,4-Dinitrotoluene	0.086	U	0.11	0.086	0.030	ug/L		05/19/23 09:14	1
2,6-Dinitrotoluene	0.086	U	0.11	0.086	0.043	ug/L		05/19/23 09:14	1
2-Amino-4,6-dinitrotoluene	0.11	U	0.12	0.11	0.055	ug/L		05/19/23 09:14	1
2-Nitrotoluene	0.22	U M	0.23	0.22	0.092	ug/L		05/20/23 00:30	1
3-Nitrotoluene	0.38	U Q	0.43	0.38	0.21	ug/L		05/19/23 09:14	1
4-Amino-2,6-dinitrotoluene	0.13	U	0.16	0.13	0.062	ug/L		05/19/23 09:14	1
4-Nitrotoluene	0.43	U	0.44	0.43	0.11	ug/L		05/19/23 09:14	1
HMX	0.22	U	0.23	0.22	0.095	ug/L		05/20/23 00:30	1
Nitrobenzene	0.22	U	0.23	0.22	0.098	ug/L		05/19/23 09:14	1
Nitroglycerin	2.2	U	2.3	2.2	0.99	ug/L		05/19/23 09:14	1
PETN	1.1	U	1.2	1.1	0.48	ug/L		05/19/23 09:14	1
RDX	**0.67**	**M J1**	0.23	0.22	0.056	ug/L		05/19/23 09:14	1
RDX	**0.23**	**J1**	0.23	0.22	0.056	ug/L		05/20/23 00:30	1
Tetryl	0.11	U M	0.12	0.11	0.034	ug/L		05/19/23 09:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dinitrobenzene	*101*	*M*	*83 - 119*	*05/18/23 13:20*	*05/19/23 09:14*	*1*
1,2-Dinitrobenzene	*102*		*83 - 119*	*05/18/23 13:20*	*05/20/23 00:30*	*1*

Default Detection Limits

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

Job ID: 280-176609-1

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: 280-176609-1

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)
280-176609-1	FBQmw-178-230301-GW	92 M
280-176609-1 MS	FBQmw-178-230301-GW	100
280-176609-1 MSD	FBQmw-178-230301-GW	101
280-176609-2	FBQmw-178-230302-GW	98 M
280-176609-3	LL1mw-092-230301-GW	97 M
280-176609-4	LL1mw-093-230301-GW	101 M
LCS 280-612937/2-A	Lab Control Sample	104
LCSD 280-612937/3-A	Lab Control Sample Dup	102
MB 280-612937/1-A	Method Blank	106 M

Surrogate Legend

12DNB = 1,2-Dinitrobenzene

Method: 8330B - Nitroaromatics and Nitramines (HPLC)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)
Lab Sample ID	Client Sample ID	12DNB2 (83-119)
280-176609-1	FBQmw-178-230301-GW	100
280-176609-1 MS	FBQmw-178-230301-GW	105
280-176609-1 MSD	FBQmw-178-230301-GW	108
280-176609-2	FBQmw-178-230302-GW	104
280-176609-3	LL1mw-092-230301-GW	100
280-176609-4	LL1mw-093-230301-GW	102

Surrogate Legend

12DNB = 1,2-Dinitrobenzene

Method: 8330B - Nitroaromatics and Nitramines (HPLC)

Lab Sample ID: MB 280-612937/1-A
Matrix: Water
Analysis Batch: 613045

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 612937

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.20	U	0.21	0.20	0.084	ug/L		05/18/23 22:09	1
1,3-Dinitrobenzene	0.10	U	0.11	0.10	0.037	ug/L		05/18/23 22:09	1
2,4,6-Trinitrotoluene	0.10	U	0.11	0.10	0.045	ug/L		05/18/23 22:09	1
2,4-Dinitrotoluene	0.080	U	0.10	0.080	0.027	ug/L		05/18/23 22:09	1
2,6-Dinitrotoluene	0.080	U	0.10	0.080	0.040	ug/L		05/18/23 22:09	1
2-Amino-4,6-dinitrotoluene	0.10	U	0.11	0.10	0.051	ug/L		05/18/23 22:09	1
2-Nitrotoluene	0.20	U	0.21	0.20	0.086	ug/L		05/18/23 22:09	1
3-Nitrotoluene	0.35	U	0.40	0.35	0.20	ug/L		05/18/23 22:09	1
4-Amino-2,6-dinitrotoluene	0.12	U	0.15	0.12	0.058	ug/L		05/18/23 22:09	1
4-Nitrotoluene	0.40	U	0.41	0.40	0.10	ug/L		05/18/23 22:09	1
HMX	0.20	U	0.21	0.20	0.088	ug/L		05/18/23 22:09	1
Nitrobenzene	0.20	U	0.21	0.20	0.091	ug/L		05/18/23 22:09	1
Nitroglycerin	2.0	U	2.1	2.0	0.92	ug/L		05/18/23 22:09	1
PETN	1.0	U	1.1	1.0	0.45	ug/L		05/18/23 22:09	1
RDX	0.20	U	0.21	0.20	0.052	ug/L		05/18/23 22:09	1
Tetryl	0.10	U	0.11	0.10	0.032	ug/L		05/18/23 22:09	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dinitrobenzene	*106*	*M*	*83 - 119*	*05/18/23 13:20*	*05/18/23 22:09*	*1*

Lab Sample ID: LCS 280-612937/2-A
Matrix: Water
Analysis Batch: 613045

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 612937

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,3,5-Trinitrobenzene	2.00	2.05		ug/L		103	73 - 125
1,3-Dinitrobenzene	2.00	1.94		ug/L		97	78 - 120
2,4,6-Trinitrotoluene	2.00	1.86		ug/L		93	71 - 123
2,4-Dinitrotoluene	2.00	1.84		ug/L		92	78 - 120
2,6-Dinitrotoluene	2.00	1.85		ug/L		92	77 - 127
2-Amino-4,6-dinitrotoluene	2.00	1.82		ug/L		91	79 - 120
2-Nitrotoluene	2.00	1.51		ug/L		76	70 - 127
3-Nitrotoluene	2.00	1.45	Q	ug/L		72	73 - 125
4-Amino-2,6-dinitrotoluene	2.00	1.76		ug/L		88	76 - 125
4-Nitrotoluene	2.00	1.50		ug/L		75	71 - 127
HMX	2.00	1.81	M	ug/L		90	65 - 135
Nitrobenzene	2.00	1.71		ug/L		86	65 - 134
Nitroglycerin	20.0	19.9		ug/L		99	74 - 127
PETN	20.0	21.0		ug/L		105	73 - 127
RDX	2.00	1.92	M	ug/L		96	68 - 130
Tetryl	2.00	2.04		ug/L		102	64 - 128

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

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

Lab Sample ID: LCSD 280-612937/3-A
Client Sample ID: Lab Control Sample Dup
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 613045
Prep Batch: 612937

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,3,5-Trinitrobenzene			2.00	2.05		ug/L		102	73 - 125	0	20
1,3-Dinitrobenzene			2.00	1.94		ug/L		97	78 - 120	0	20
2,4,6-Trinitrotoluene			2.00	1.87		ug/L		93	71 - 123	0	20
2,4-Dinitrotoluene			2.00	1.83		ug/L		92	78 - 120	0	20
2,6-Dinitrotoluene			2.00	1.91		ug/L		95	77 - 127	3	20
2-Amino-4,6-dinitrotoluene			2.00	1.79		ug/L		90	79 - 120	1	20
2-Nitrotoluene			2.00	1.54		ug/L		77	70 - 127	2	20
3-Nitrotoluene			2.00	1.46		ug/L		73	73 - 125	1	20
4-Amino-2,6-dinitrotoluene			2.00	1.81		ug/L		90	76 - 125	2	20
4-Nitrotoluene			2.00	1.50		ug/L		75	71 - 127	0	20
HMX			2.00	1.88	M	ug/L		94	65 - 135	4	20
Nitrobenzene			2.00	1.72		ug/L		86	65 - 134	1	20
Nitroglycerin			20.0	19.9		ug/L		100	74 - 127	0	20
PETN			20.0	20.9		ug/L		104	73 - 127	1	20
RDX			2.00	1.88	M	ug/L		94	68 - 130	2	20
Tetryl			2.00	2.07		ug/L		104	64 - 128	2	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dinitrobenzene	*102*		*83 - 119*

Lab Sample ID: 280-176609-1 MS
Client Sample ID: FBQmw-178-230301-GW
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 613045
Prep Batch: 612937

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
1,3,5-Trinitrobenzene	0.21	U M	2.12	2.25	M	ug/L		106	73 - 125		
1,3-Dinitrobenzene	0.11	U M	2.12	2.10		ug/L		99	78 - 120		
2,4,6-Trinitrotoluene	0.11	U	2.12	1.97		ug/L		93	71 - 123		
2,4-Dinitrotoluene	0.085	U	2.12	2.32		ug/L		110	78 - 120		
2,6-Dinitrotoluene	0.085	U	2.12	2.09		ug/L		99	77 - 127		
2-Amino-4,6-dinitrotoluene	0.11	U	2.12	1.95		ug/L		92	79 - 120		
3-Nitrotoluene	0.37	U Q	2.12	2.00	M	ug/L		94	73 - 125		
4-Amino-2,6-dinitrotoluene	0.13	U	2.12	1.88		ug/L		89	76 - 125		
4-Nitrotoluene	0.43	U	2.12	1.73	M	ug/L		82	71 - 127		
Nitrobenzene	0.21	U	2.12	1.88		ug/L		89	65 - 134		
Nitroglycerin	2.1	U	21.2	20.3		ug/L		96	74 - 127		
PETN	1.1	U	21.2	21.6		ug/L		102	73 - 127		
RDX	2.7	M J1	2.12	4.75	M	ug/L		97	68 - 130		
Tetryl	0.11	U	2.12	2.23		ug/L		105	64 - 128		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,2-Dinitrobenzene	*100*		*83 - 119*

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

Lab Sample ID: 280-176609-1 MS
Matrix: Water
Analysis Batch: 613169

Client Sample ID: FBQmw-178-230301-GW
Prep Type: Total/NA
Prep Batch: 612937

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
2-Nitrotoluene	0.21	U M J1	2.12	12.7	M J1	ug/L		600	70 - 127		
HMX	0.21	U	2.12	1.84		ug/L		87	65 - 135		
RDX	0.25	J1	2.12	2.07		ug/L		86	68 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,2-Dinitrobenzene	*105*		*83 - 119*

Lab Sample ID: 280-176609-1 MSD
Matrix: Water
Analysis Batch: 613045

Client Sample ID: FBQmw-178-230301-GW
Prep Type: Total/NA
Prep Batch: 612937

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,3,5-Trinitrobenzene	0.21	U M	2.11	2.30	M	ug/L		109	73 - 125	3	20
1,3-Dinitrobenzene	0.11	U M	2.11	2.13		ug/L		101	78 - 120	1	20
2,4,6-Trinitrotoluene	0.11	U	2.11	2.00		ug/L		95	71 - 123	2	20
2,4-Dinitrotoluene	0.085	U	2.11	2.34		ug/L		111	78 - 120	1	20
2,6-Dinitrotoluene	0.085	U	2.11	2.11		ug/L		100	77 - 127	1	20
2-Amino-4,6-dinitrotoluene	0.11	U	2.11	1.94		ug/L		92	79 - 120	0	20
3-Nitrotoluene	0.37	U Q	2.11	2.00	M	ug/L		95	73 - 125	0	20
4-Amino-2,6-dinitrotoluene	0.13	U	2.11	1.80		ug/L		85	76 - 125	4	20
4-Nitrotoluene	0.43	U	2.11	1.73	M	ug/L		82	71 - 127	0	20
Nitrobenzene	0.21	U	2.11	1.89		ug/L		90	65 - 134	1	20
Nitroglycerin	2.1	U	21.1	20.7		ug/L		98	74 - 127	2	20
PETN	1.1	U	21.1	22.2		ug/L		105	73 - 127	3	20
RDX	2.7	M J1	2.11	5.08	M	ug/L		113	68 - 130	7	20
Tetryl	0.11	U	2.11	2.23		ug/L		106	64 - 128	0	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,2-Dinitrobenzene	*101*		*83 - 119*

Lab Sample ID: 280-176609-1 MSD
Matrix: Water
Analysis Batch: 613169

Client Sample ID: FBQmw-178-230301-GW
Prep Type: Total/NA
Prep Batch: 612937

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
2-Nitrotoluene	0.21	U M J1	2.11	13.0	M J1	ug/L		614	70 - 127	2	20
HMX	0.21	U	2.11	1.82		ug/L		86	65 - 135	1	20
RDX	0.25	J1	2.11	2.10		ug/L		88	68 - 130	1	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,2-Dinitrobenzene	*108*		*83 - 119*

HPLC/IC

Prep Batch: 612937

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-176609-1	FBQmw-178-230301-GW	Total/NA	Water	3535	
280-176609-2	FBQmw-178-230302-GW	Total/NA	Water	3535	
280-176609-3	LL1mw-092-230301-GW	Total/NA	Water	3535	
280-176609-4	LL1mw-093-230301-GW	Total/NA	Water	3535	
MB 280-612937/1-A	Method Blank	Total/NA	Water	3535	
LCS 280-612937/2-A	Lab Control Sample	Total/NA	Water	3535	
LCSD 280-612937/3-A	Lab Control Sample Dup	Total/NA	Water	3535	
280-176609-1 MS	FBQmw-178-230301-GW	Total/NA	Water	3535	
280-176609-1 MSD	FBQmw-178-230301-GW	Total/NA	Water	3535	

Analysis Batch: 613045

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-176609-1	FBQmw-178-230301-GW	Total/NA	Water	8330B	612937
280-176609-2	FBQmw-178-230302-GW	Total/NA	Water	8330B	612937
280-176609-3	LL1mw-092-230301-GW	Total/NA	Water	8330B	612937
280-176609-4	LL1mw-093-230301-GW	Total/NA	Water	8330B	612937
MB 280-612937/1-A	Method Blank	Total/NA	Water	8330B	612937
LCS 280-612937/2-A	Lab Control Sample	Total/NA	Water	8330B	612937
LCSD 280-612937/3-A	Lab Control Sample Dup	Total/NA	Water	8330B	612937
280-176609-1 MS	FBQmw-178-230301-GW	Total/NA	Water	8330B	612937
280-176609-1 MSD	FBQmw-178-230301-GW	Total/NA	Water	8330B	612937

Analysis Batch: 613169

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-176609-1	FBQmw-178-230301-GW	Total/NA	Water	8330B	612937
280-176609-2	FBQmw-178-230302-GW	Total/NA	Water	8330B	612937
280-176609-3	LL1mw-092-230301-GW	Total/NA	Water	8330B	612937
280-176609-4	LL1mw-093-230301-GW	Total/NA	Water	8330B	612937
280-176609-1 MS	FBQmw-178-230301-GW	Total/NA	Water	8330B	612937
280-176609-1 MSD	FBQmw-178-230301-GW	Total/NA	Water	8330B	612937

Client Sample ID: FBQmw-178-230301-GW — Lab Sample ID: 280-176609-1

Date Collected: 05/16/23 13:37 — **Matrix: Water**
Date Received: 05/17/23 09:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			470.3 mL	5 mL	612937	05/18/23 13:20	EH	EET DEN
Total/NA	Analysis	8330B		1	1 mL	1 mL	613169	05/19/23 21:30	JZ	EET DEN
Total/NA	Prep	3535			470.3 mL	5 mL	612937	05/18/23 13:20	EH	EET DEN
Total/NA	Analysis	8330B		1	1 mL	1 mL	613045	05/19/23 07:19	JZ	EET DEN

Client Sample ID: FBQmw-178-230302-GW — Lab Sample ID: 280-176609-2

Date Collected: 05/16/23 13:37 — **Matrix: Water**
Date Received: 05/17/23 09:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			492.5 mL	5 mL	612937	05/18/23 13:20	EH	EET DEN
Total/NA	Analysis	8330B		1	1 mL	1 mL	613169	05/19/23 23:18	JZ	EET DEN
Total/NA	Prep	3535			492.5 mL	5 mL	612937	05/18/23 13:20	EH	EET DEN
Total/NA	Analysis	8330B		1	1 mL	1 mL	613045	05/19/23 08:28	JZ	EET DEN

Client Sample ID: LL1mw-092-230301-GW — Lab Sample ID: 280-176609-3

Date Collected: 05/16/23 10:40 — **Matrix: Water**
Date Received: 05/17/23 09:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			472 mL	5 mL	612937	05/18/23 13:20	EH	EET DEN
Total/NA	Analysis	8330B		1	1 mL	1 mL	613169	05/19/23 23:54	JZ	EET DEN
Total/NA	Prep	3535			472 mL	5 mL	612937	05/18/23 13:20	EH	EET DEN
Total/NA	Analysis	8330B		1	1 mL	1 mL	613045	05/19/23 08:51	JZ	EET DEN

Client Sample ID: LL1mw-093-230301-GW — Lab Sample ID: 280-176609-4

Date Collected: 05/16/23 09:18 — **Matrix: Water**
Date Received: 05/17/23 09:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			462.9 mL	5 mL	612937	05/18/23 13:20	EH	EET DEN
Total/NA	Analysis	8330B		1	1 mL	1 mL	613169	05/20/23 00:30	JZ	EET DEN
Total/NA	Prep	3535			462.9 mL	5 mL	612937	05/18/23 13:20	EH	EET DEN
Total/NA	Analysis	8330B		1	1 mL	1 mL	613045	05/19/23 09:14	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: 280-176609-1
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: 280-176609-1
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: 280-176609-1
Project/Site: RVAAP FWGW Spring 2023

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
280-176609-1	FBQmw-178-230301-GW	Water	05/16/23 13:37	05/17/23 09:20
280-176609-2	FBQmw-178-230302-GW	Water	05/16/23 13:37	05/17/23 09:20
280-176609-3	LL1mw-092-230301-GW	Water	05/16/23 10:40	05/17/23 09:20
280-176609-4	LL1mw-093-230301-GW	Water	05/16/23 09:18	05/17/23 09:20

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-176609-1

SDG No.:

Instrument ID: CHHPLC_G2_LUNA Analysis Batch Number: 494886

Lab Sample ID: IC 280-494886/7 Client Sample ID:

Date Analyzed: 05/14/20 16:16 Lab File ID: 05140007.D GC Column: Luna-phenylhe ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2,6-diamino-4-nitrotoluene	4.30	Baseline	zhangji	05/15/20 11:21
2,4-diamino-6-nitrotoluene	4.77	Baseline	zhangji	05/15/20 11:21
3,5-Dinitroaniline	14.80	Split Peak	zhangji	05/14/20 17:09
2-Nitrotoluene	16.48	Split Peak	zhangji	05/14/20 17:09
4-Nitrotoluene	16.72	Split Peak	zhangji	05/14/20 17:09
4-Amino-2,6-dinitrotoluene	17.07	Split Peak	zhangji	05/14/20 17:08
3-Nitrotoluene	17.78	Split Peak	zhangji	05/14/20 17:08
2-Amino-4,6-dinitrotoluene	17.94	Split Peak	zhangji	05/14/20 17:08
1,3,5-Trinitrobenzene	18.83	Peak assignment corrected	zhangji	05/14/20 17:08
2,6-Dinitrotoluene	19.74	Peak assignment corrected	zhangji	05/14/20 17:08
2,4-Dinitrotoluene	20.24	Peak assignment corrected	zhangji	05/14/20 17:08
Tetryl	23.52	Peak assignment corrected	zhangji	05/14/20 17:08
2,4,6-Trinitrotoluene	24.62	Peak assignment corrected	zhangji	05/14/20 17:08

Lab Sample ID: IC 280-494886/8 Client Sample ID:

Date Analyzed: 05/14/20 16:51 Lab File ID: 05140008.D GC Column: Luna-phenylhe ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2,6-diamino-4-nitrotoluene	4.32	Baseline	zhangji	05/15/20 11:19
2,4-diamino-6-nitrotoluene	4.91	Baseline	zhangji	05/15/20 11:19
1,2-Dinitrobenzene	13.03	Baseline	zhangji	05/15/20 11:34

Lab Sample ID: IC 280-494886/9 Client Sample ID:

Date Analyzed: 05/14/20 17:26 Lab File ID: 05140009.D GC Column: Luna-phenylhe ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,2-Dinitrobenzene	13.03	Baseline	zhangji	05/15/20 11:34

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-176609-1

SDG No.:

Instrument ID: CHHPLC_G2_LUNA Analysis Batch Number: 494886

Lab Sample ID: IC 280-494886/10 Client Sample ID:

Date Analyzed: 05/14/20 18:01 Lab File ID: 05140010.D GC Column: Luna-phenylhe ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2,6-diamino-4-nitrotoluene	4.35	Baseline	zhangji	05/15/20 11:20
2,4-diamino-6-nitrotoluene	4.94	Baseline	zhangji	05/15/20 11:20
Picric acid	6.27	Peak assignment corrected	zhangji	05/15/20 11:20
1,2-Dinitrobenzene	13.04	Baseline	zhangji	05/15/20 11:34
3,5-Dinitroaniline	14.89	Baseline	zhangji	05/15/20 11:20
1,3-Dinitrobenzene	15.55	Baseline	zhangji	05/15/20 11:20
2-Nitrotoluene	16.54	Baseline	zhangji	05/15/20 11:20
4-Nitrotoluene	16.82	Baseline	zhangji	05/15/20 11:20
4-Amino-2,6-dinitrotoluene	17.15	Baseline	zhangji	05/15/20 11:20
3-Nitrotoluene	17.75	Baseline	zhangji	05/15/20 11:20
2-Amino-4,6-dinitrotoluene	18.04	Baseline	zhangji	05/15/20 11:20
2,6-Dinitrotoluene	19.81	Baseline	zhangji	05/15/20 11:20
2,4-Dinitrotoluene	20.29	Baseline	zhangji	05/15/20 11:20
PETN	25.28	Peak Tail	zhangji	05/15/20 11:25

Lab Sample ID: IC 280-494886/11 Client Sample ID:

Date Analyzed: 05/14/20 18:36 Lab File ID: 05140011.D GC Column: Luna-phenylhe ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Picric acid	6.30	Peak assignment corrected	zhangji	05/15/20 11:20
1,2-Dinitrobenzene	13.04	Baseline	zhangji	05/15/20 11:35
Nitroglycerin	15.85	Baseline	zhangji	05/15/20 11:32
PETN	25.28	Peak Tail	zhangji	05/15/20 11:25

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-176609-1

SDG No.:

Instrument ID: CHHPLC_G2_LUNA Analysis Batch Number: 494886

Lab Sample ID: IC 280-494886/12 Client Sample ID:

Date Analyzed: 05/14/20 19:11 Lab File ID: 05140012.D GC Column: Luna-phenylhe ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Picric acid	6.31	Peak assignment corrected	zhangji	05/15/20 11:22
3,5-Dinitroaniline	14.90	Baseline	zhangji	05/15/20 11:21
1,3-Dinitrobenzene	15.55	Baseline	zhangji	05/15/20 11:21
Nitroglycerin	15.85	Baseline	zhangji	05/15/20 11:32
2-Nitrotoluene	16.53	Baseline	zhangji	05/15/20 11:21
4-Nitrotoluene	16.83	Baseline	zhangji	05/15/20 11:21
4-Amino-2,6-dinitrotoluene	17.15	Baseline	zhangji	05/15/20 11:21
3-Nitrotoluene	17.74	Baseline	zhangji	05/15/20 11:21
2-Amino-4,6-dinitrotoluene	18.05	Baseline	zhangji	05/15/20 11:21
1,3,5-Trinitrobenzene	18.88	Baseline	zhangji	05/15/20 11:21
2,6-Dinitrotoluene	19.79	Baseline	zhangji	05/15/20 11:21
2,4-Dinitrotoluene	20.29	Baseline	zhangji	05/15/20 11:21
PETN	25.28	Peak Tail	zhangji	05/15/20 11:24

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-176609-1

SDG No.:

Instrument ID: CHHPLC_G2_LUNA Analysis Batch Number: 494886

Lab Sample ID: IC 280-494886/13 Client Sample ID:

Date Analyzed: 05/14/20 19:46 Lab File ID: 05140013.D GC Column: Luna-phenylhe ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Picric acid	6.33	Baseline	zhangji	05/15/20 11:22
1,2-Dinitrobenzene	13.04	Baseline	zhangji	05/15/20 11:35
3,5-Dinitroaniline	14.89	Baseline	zhangji	05/15/20 11:22
1,3-Dinitrobenzene	15.54	Baseline	zhangji	05/15/20 11:22
Nitroglycerin	15.84	Incomplete Integration	zhangji	05/15/20 11:32
2-Nitrotoluene	16.55	Baseline	zhangji	05/15/20 11:22
4-Nitrotoluene	16.84	Baseline	zhangji	05/15/20 11:22
4-Amino-2,6-dinitrotoluene	17.16	Baseline	zhangji	05/15/20 11:22
3-Nitrotoluene	17.72	Baseline	zhangji	05/15/20 11:22
2-Amino-4,6-dinitrotoluene	18.03	Baseline	zhangji	05/15/20 11:22
1,3,5-Trinitrobenzene	18.86	Baseline	zhangji	05/15/20 11:22
2,6-Dinitrotoluene	19.82	Baseline	zhangji	05/15/20 11:22
2,4-Dinitrotoluene	20.29	Baseline	zhangji	05/15/20 11:22
PETN	25.28	Peak Tail	zhangji	05/15/20 11:24

Lab Sample ID: IC 280-494886/14 Client Sample ID:

Date Analyzed: 05/14/20 20:21 Lab File ID: 05140014.D GC Column: Luna-phenylhe ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Picric acid	6.32	Peak assignment corrected	zhangji	05/15/20 11:22
1,2-Dinitrobenzene	13.02	Split Peak	zhangji	05/15/20 11:35
PETN	25.28	Split Peak	zhangji	05/15/20 11:24

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-176609-1

SDG No.:

Instrument ID: CHHPLC_G2_LUNA Analysis Batch Number: 494886

Lab Sample ID: IC 280-494886/15 Client Sample ID:

Date Analyzed: 05/14/20 20:56 Lab File ID: 05140015.D GC Column: Luna-phenylhe ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2,6-Dinitrotoluene	19.76	Baseline	zhangji	05/15/20 11:30
2,4-Dinitrotoluene	20.30	Baseline	zhangji	05/15/20 11:30

Lab Sample ID: ICV 280-494886/16 Client Sample ID:

Date Analyzed: 05/14/20 21:31 Lab File ID: 05140016.D GC Column: Luna-phenylhe ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2,6-diamino-4-nitrotoluene	4.31	Baseline	zhangji	05/15/20 11:33
2,4-diamino-6-nitrotoluene	4.84	Baseline	zhangji	05/15/20 11:33
Picric acid	6.23	Peak assignment corrected	zhangji	05/15/20 11:14
2-Nitrotoluene	16.49	Baseline	zhangji	05/15/20 11:33
4-Nitrotoluene	16.77	Baseline	zhangji	05/15/20 11:33
4-Amino-2,6-dinitrotoluene	17.10	Baseline	zhangji	05/15/20 11:33
3-Nitrotoluene	17.69	Baseline	zhangji	05/15/20 11:33
2-Amino-4,6-dinitrotoluene	17.99	Baseline	zhangji	05/15/20 11:33
1,3,5-Trinitrobenzene	18.83	Baseline	zhangji	05/15/20 11:33
2,6-Dinitrotoluene	19.75	Baseline	zhangji	05/15/20 11:33
2,4-Dinitrotoluene	20.24	Baseline	zhangji	05/15/20 11:33

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-176609-1

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.: 280-176609-1

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.: 280-176609-1

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.: 280-176609-1

SDG No.:

Instrument ID: CHHPLC_G2_LUNA Analysis Batch Number: 613169

Lab Sample ID: CCV 280-613169/18 Client Sample ID:

Date Analyzed: 05/19/23 20:54 Lab File ID: 05190018.D GC Column: Luna-phenylhe ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
3,5-Dinitroaniline	14.44	Baseline	LV5D	05/20/23 11:48
1,3-Dinitrobenzene	14.70	Baseline	LV5D	05/20/23 11:48
2-Nitrotoluene	15.77	Baseline	LV5D	05/20/23 11:48
4-Nitrotoluene	16.00	Baseline	LV5D	05/20/23 11:48
4-Amino-2,6-dinitrotoluene	16.54	Baseline	LV5D	05/20/23 11:48
3-Nitrotoluene	16.84	Baseline	LV5D	05/20/23 11:48
2-Amino-4,6-dinitrotoluene	17.36	Baseline	LV5D	05/20/23 11:48
1,3,5-Trinitrobenzene	17.52	Baseline	LV5D	05/20/23 11:48

Lab Sample ID: 280-176609-1 Client Sample ID: FBQmw-178-230301-GW

Date Analyzed: 05/19/23 21:30 Lab File ID: 05190019.D GC Column: Luna-phenylhe ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2-Amino-4,6-dinitrotoluene		Invalid Compound ID	LV5D	05/20/23 11:49
2-Nitrotoluene		Invalid Compound ID	LV5D	05/20/23 11:48
Nitroglycerin		Invalid Compound ID	LV5D	05/20/23 11:48

Lab Sample ID: 280-176609-1 MS Client Sample ID: FBQmw-178-230301-GW MS

Date Analyzed: 05/19/23 22:06 Lab File ID: 05190020.D GC Column: Luna-phenylhe ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2-Nitrotoluene	15.85	Baseline	LV5D	05/20/23 11:49
4-Nitrotoluene	16.00	Unspecified		
2-Amino-4,6-dinitrotoluene	17.41	Baseline	LV5D	05/20/23 11:49
1,3,5-Trinitrobenzene	17.50	Unspecified		

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-176609-1

SDG No.:

Instrument ID: CHHPLC_G2_LUNA Analysis Batch Number: 613169

Lab Sample ID: 280-176609-1 MSD Client Sample ID: FBQmw-178-230301-GW MSD

Date Analyzed: 05/19/23 22:42 Lab File ID: 05190021.D GC Column: Luna-phenylhe ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2-Nitrotoluene	15.85	Baseline	LV5D	05/20/23 11:49
4-Nitrotoluene	16.00	Unspecified		
2-Amino-4,6-dinitrotoluene	17.44	Baseline	LV5D	05/20/23 11:49
1,3,5-Trinitrobenzene	17.51	Baseline	LV5D	05/20/23 11:49

Lab Sample ID: 280-176609-2 Client Sample ID: FBQmw-178-230302-GW

Date Analyzed: 05/19/23 23:18 Lab File ID: 05190022.D GC Column: Luna-phenylhe ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2-Amino-4,6-dinitrotoluene		Invalid Compound ID	LV5D	05/20/23 11:50
2-Nitrotoluene		Invalid Compound ID	LV5D	05/20/23 11:50
4-Amino-2,6-dinitrotoluene		Invalid Compound ID	LV5D	05/20/23 11:50
Nitroglycerin		Invalid Compound ID	LV5D	05/20/23 11:50

Lab Sample ID: 280-176609-3 Client Sample ID: LL1mw-092-230301-GW

Date Analyzed: 05/19/23 23:54 Lab File ID: 05190023.D GC Column: Luna-phenylhe ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2-Amino-4,6-dinitrotoluene		Invalid Compound ID	LV5D	05/20/23 11:50
2-Nitrotoluene		Invalid Compound ID	LV5D	05/20/23 11:50
4-Amino-2,6-dinitrotoluene		Invalid Compound ID	LV5D	05/20/23 11:50

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-176609-1

SDG No.:

Instrument ID: CHHPLC_G2_LUNA Analysis Batch Number: 613169

Lab Sample ID: 280-176609-4 Client Sample ID: LL1mw-093-230301-GW

Date Analyzed: 05/20/23 00:30 Lab File ID: 05190024.D GC Column: Luna-phenylhe ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,3,5-Trinitrobenzene		Invalid Compound ID	LV5D	05/20/23 11:50
2-Amino-4,6-dinitrotoluene		Invalid Compound ID	LV5D	05/20/23 11:50
2-Nitrotoluene		Invalid Compound ID	LV5D	05/20/23 11:50
4-Amino-2,6-dinitrotoluene		Invalid Compound ID	LV5D	05/20/23 11:50
Nitroglycerin		Invalid Compound ID	LV5D	05/20/23 11:50

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-176609-1

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

8330B

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-176609-1

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.: 280-176609-1

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.: 280-176609-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 613045

Lab Sample ID: MB 280-612937/1-A Client Sample ID:

Date Analyzed: 05/18/23 22:09 Lab File ID: 05180011.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,2-Dinitrobenzene	8.52	Baseline	LV5D	05/19/23 11:37
1,3,5-Trinitrobenzene		Baseline	LV5D	05/19/23 11:37

Lab Sample ID: LCS 280-612937/2-A Client Sample ID:

Date Analyzed: 05/18/23 22:32 Lab File ID: 05180012.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.55	Baseline	LV5D	05/19/23 11:28
RDX	7.57	Baseline	LV5D	05/19/23 11:28

Lab Sample ID: LCSD 280-612937/3-A Client Sample ID:

Date Analyzed: 05/18/23 22:55 Lab File ID: 05180013.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.55	Baseline	LV5D	05/19/23 11:29
RDX	7.57	Baseline	LV5D	05/19/23 11:29

Lab Sample ID: CCV 280-613045/21 Client Sample ID:

Date Analyzed: 05/19/23 01:58 Lab File ID: 05180021.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TNX	6.43	Baseline	LV5D	05/19/23 11:36
HMX	6.55	Baseline	LV5D	05/19/23 11:36
DNX	6.76	Baseline	LV5D	05/19/23 11:36

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-176609-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 613045

Lab Sample ID: CCV 280-613045/33 Client Sample ID:

Date Analyzed: 05/19/23 06:34 Lab File ID: 05180033.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TNX	6.43	Baseline	LV5D	05/19/23 12:10
HMX	6.55	Baseline	LV5D	05/19/23 12:10
DNX	6.76	Baseline	LV5D	05/19/23 12:10

Lab Sample ID: 280-176609-1 Client Sample ID: FBQmw-178-230301-GW

Date Analyzed: 05/19/23 07:19 Lab File ID: 05180035.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.56	Baseline	LV5D	05/19/23 12:11
RDX	7.58	Baseline	LV5D	05/19/23 12:11
1,2-Dinitrobenzene	8.52	Baseline	LV5D	05/19/23 12:10
1,3,5-Trinitrobenzene		Invalid Compound ID	LV5D	05/19/23 12:10
1,3-Dinitrobenzene		Invalid Compound ID	LV5D	05/19/23 12:10

Lab Sample ID: 280-176609-1 MS Client Sample ID: FBQmw-178-230301-GW MS

Date Analyzed: 05/19/23 07:42 Lab File ID: 05180036.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.55	Baseline	LV5D	05/19/23 12:15
RDX	7.58	Baseline	LV5D	05/19/23 12:16
1,3,5-Trinitrobenzene	8.64	Baseline	LV5D	05/19/23 12:16
4-Nitrotoluene	12.90	Baseline	LV5D	05/19/23 12:17
3-Nitrotoluene	13.48	Baseline	LV5D	05/19/23 12:17

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-176609-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 613045

Lab Sample ID: 280-176609-1 MSD Client Sample ID: FBQmw-178-230301-GW MSD

Date Analyzed: 05/19/23 08:05 Lab File ID: 05180037.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.55	Baseline	LV5D	05/19/23 12:16
RDX	7.58	Baseline	LV5D	05/19/23 12:17
1,3,5-Trinitrobenzene	8.65	Baseline	LV5D	05/19/23 12:17
4-Nitrotoluene	12.89	Baseline	LV5D	05/19/23 12:17
3-Nitrotoluene	13.47	Baseline	LV5D	05/19/23 12:17

Lab Sample ID: 280-176609-2 Client Sample ID: FBQmw-178-230302-GW

Date Analyzed: 05/19/23 08:28 Lab File ID: 05180038.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.56	Baseline	LV5D	05/19/23 12:18
RDX	7.58	Baseline	LV5D	05/19/23 12:18
1,2-Dinitrobenzene	8.52	Baseline	LV5D	05/19/23 12:18
1,3,5-Trinitrobenzene		Invalid Compound ID	LV5D	05/19/23 12:17
1,3-Dinitrobenzene		Invalid Compound ID	LV5D	05/19/23 12:17

Lab Sample ID: 280-176609-3 Client Sample ID: LL1mw-092-230301-GW

Date Analyzed: 05/19/23 08:51 Lab File ID: 05180039.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,2-Dinitrobenzene	8.52	Baseline	LV5D	05/19/23 12:20

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-176609-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 613045

Lab Sample ID: 280-176609-4 Client Sample ID: LL1mw-093-230301-GW

Date Analyzed: 05/19/23 09:14 Lab File ID: 05180040.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.55	Baseline	LV5D	05/19/23 12:21
RDX	7.58	Baseline	LV5D	05/19/23 12:21
1,2-Dinitrobenzene	8.51	Baseline	LV5D	05/19/23 12:21
1,3-Dinitrobenzene		Invalid Compound ID	LV5D	05/19/23 12:21
Tetryl		Invalid Compound ID	LV5D	05/19/23 12:21

Lab Sample ID: CCV 280-613045/41 Client Sample ID:

Date Analyzed: 05/19/23 09:37 Lab File ID: 05180041.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TNX	6.43	Baseline	LV5D	05/19/23 12:21
HMX	6.55	Baseline	LV5D	05/19/23 12:21
DNX	6.76	Baseline	LV5D	05/19/23 12:21

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-176609-1

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_00098	07/31/20	04/28/20	Acetonitrile, Lot Acetonitrile_00233	100 mL	8330_NG_Stk_00084	1 mL	Nitroglycerin	100 ug/mL
					8330_NG_Stk_00085	1 mL	Nitroglycerin	100 ug/mL
					8330_PETN_Stk_00091	1 mL	PETN	100 ug/mL
					8330_PETN_Stk_00095	1 mL	PETN	100 ug/mL
					8330LCSMix1_00111	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_00011	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_00084	10/28/20		Restek, Lot A0151571		(Purchased Reagent)		Nitroglycerin	5000 ug/mL
.8330_NG_Stk_00085	10/28/20		Restek, Lot A0151571		(Purchased Reagent)		Nitroglycerin	5000 ug/mL
.8330_PETN_Stk_00091	10/28/20		Restek, Lot A0158915		(Purchased Reagent)		PETN	5000 ug/mL
.8330_PETN_Stk_00095	10/28/20		Restek, Lot A0158915		(Purchased Reagent)		PETN	5000 ug/mL
.8330LCSMix1_00111	10/28/20		Restek, Lot A0151407		(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_00011	10/28/20		Restek, Lot A0157533		(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_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

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-176609-1

SDG No.:

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

Lab Name: Eurofins Denver Job No.: 280-176609-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4-Amino-2,6-dinitrotoluene	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
							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

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-176609-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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_ADDs_00026	06/02/20	05/08/20	Acetonitrile, Lot 245163	5 mL	2,4Diamino6NT_00074	1 mL	2,4-diamino-6-nitrotoluene	20 ug/mL
					2,6Diamino4NT_00075	1 mL	2,6-diamino-4-nitrotoluene	20 ug/mL
					833035DNAStk_00040	1 mL	3,5-Dinitroaniline	20 ug/mL
.2,4Diamino6NT_00074	05/08/21	AccuStandard, Lot 218051455			(Purchased Reagent)		2,4-diamino-6-nitrotoluene	100 ug/mL
.2,6Diamino4NT_00075	05/08/21	AccuStandard, Lot 219071008			(Purchased Reagent)		2,6-diamino-4-nitrotoluene	100 ug/mL
.833035DNAStk_00040	06/02/20	Accustandard, Lot 21891229-01			(Purchased Reagent)		3,5-Dinitroaniline	100 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_00064	09/09/21	04/06/20	Acetonitrile, Lot 130057	10 mL	8330_NG_Stk_00075	200 uL	Nitroglycerin	100 ug/mL
					8330_PETN_Stk_00087	200 uL	PETN	100 ug/mL
					8330ICALStock_00030	1 mL	1,3,5-Trinitrobenzene	10.02 ug/mL
							1,3-Dinitrobenzene	10.02 ug/mL
							2,4,6-Trinitrotoluene	10.04 ug/mL
							2,4-Dinitrotoluene	10.04 ug/mL
							2,6-Dinitrotoluene	10.04 ug/mL
							2-Amino-4,6-dinitrotoluene	10.04 ug/mL
							2-Nitrotoluene	10 ug/mL
							3-Nitrotoluene	10.01 ug/mL
							4-Amino-2,6-dinitrotoluene	10.01 ug/mL
							4-Nitrotoluene	10.02 ug/mL
							HMX	10 ug/mL
							Nitrobenzene	10.04 ug/mL
							RDX	10 ug/mL
							Tetryl	10.02 ug/mL
							1,2-Dinitrobenzene	10 ug/mL
					8330PAStkPS_00061	1 mL	2,4,6-Trinitrophenol	10 ug/mL

Lab Name: Eurofins Denver Job No.: 280-176609-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.8330_NG_Stk_00075	08/31/22	Restek, Lot A0151571			(Purchased Reagent)		Nitroglycerin	5000 ug/mL
.8330_PETN_Stk_00087	11/30/22	Restek, Lot A0154763			(Purchased Reagent)		PETN	5000 ug/mL
.8330ICALStock_00030	03/03/22	01/09/20	Acetonitrile, Lot 130057	10 mL	8330 Stock_TS_00015	1 mL	1,3,5-Trinitrobenzene	100.2 ug/mL
							1,3-Dinitrobenzene	100.2 ug/mL
							2,4,6-Trinitrotoluene	100.4 ug/mL
							2,4-Dinitrotoluene	100.4 ug/mL
							2,6-Dinitrotoluene	100.4 ug/mL
							2-Amino-4,6-dinitrotoluene	100.4 ug/mL
							2-Nitrotoluene	100 ug/mL
							3-Nitrotoluene	100.1 ug/mL
							4-Amino-2,6-dinitrotoluene	100.1 ug/mL
							4-Nitrotoluene	100.2 ug/mL
							HMX	100 ug/mL
							Nitrobenzene	100.4 ug/mL
							RDX	100 ug/mL
							Tetryl	100.2 ug/mL
					8330SurrStock_00164	1 mL	1,2-Dinitrobenzene	100 ug/mL
..8330 Stock_TS_00015	03/31/22	Ultra Scientific, Lot CT-0801			(Purchased Reagent)		1,3,5-Trinitrobenzene	1002 ug/mL
							1,3-Dinitrobenzene	1002 ug/mL
							2,4,6-Trinitrotoluene	1004 ug/mL
							2,4-Dinitrotoluene	1004 ug/mL
							2,6-Dinitrotoluene	1004 ug/mL
							2-Amino-4,6-dinitrotoluene	1004 ug/mL
							2-Nitrotoluene	1000 ug/mL
							3-Nitrotoluene	1001 ug/mL
							4-Amino-2,6-dinitrotoluene	1001 ug/mL
							4-Nitrotoluene	1002 ug/mL
							HMX	1000 ug/mL
							Nitrobenzene	1004 ug/mL
							RDX	1000 ug/mL
							Tetryl	1002 ug/mL
..8330SurrStock_00164	07/01/26	AccuStandard, Lot 216071012			(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
.8330PAStkPS_00061	09/09/21	AccuStandard, Lot 214121302-02			(Purchased Reagent)		2,4,6-Trinitrophenol	100 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

Lab Name: Eurofins Denver Job No.: 280-176609-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							HMX	10 ug/mL
							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

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-176609-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2,4-Dinitrotoluene	10 ug/mL
							2,6-Dinitrotoluene	10 ug/mL
							2-Amino-4,6-dinitrotoluene	10 ug/mL
							2-Nitrotoluene	10 ug/mL
							3-Nitrotoluene	10 ug/mL
							4-Amino-2,6-dinitrotoluene	10 ug/mL
							4-Nitrotoluene	10 ug/mL
							HMX	10 ug/mL
							Nitrobenzene	10 ug/mL
							RDX	10 ug/mL
							Tetryl	10 ug/mL
							1,2-Dinitrobenzene	10 ug/mL
					8330PAStkPS_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

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-176609-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
8330Surrogate_00114	11/07/20	05/07/20	Acetonitrile, Lot ACN 00234	100 mL	8330SurrStkSS_00157	1 mL	1,2-Dinitrobenzene	10 ug/mL
.8330SurrStkSS_00157	11/07/20		Restek, Lot A0146866		(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
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
							1,2-Dinitrobenzene (Surr)	10 ug/mL
					8330SurrStkSS_00265	1 mL	1,2-Dinitrobenzene	10 ug/mL
							1,2-Dinitrobenzene (Surr)	10 ug/mL
					8330SurrStkSS_00266	1 mL	1,2-Dinitrobenzene	10 ug/mL
							1,2-Dinitrobenzene (Surr)	10 ug/mL
					8330SurrStkSS_00267	1 mL	1,2-Dinitrobenzene	10 ug/mL
							1,2-Dinitrobenzene (Surr)	10 ug/mL
					8330SurrStkSS_00268	1 mL	1,2-Dinitrobenzene	10 ug/mL
							1,2-Dinitrobenzene (Surr)	10 ug/mL
.8330SurrStkSS_00263	04/12/24		Restek, Lot A0193444		(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
							1,2-Dinitrobenzene (Surr)	1000 ug/mL
.8330SurrStkSS_00265	04/12/24		Restek, Lot A0193444		(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
							1,2-Dinitrobenzene (Surr)	1000 ug/mL
.8330SurrStkSS_00266	04/12/24		Restek, Lot A0194831		(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
							1,2-Dinitrobenzene (Surr)	1000 ug/mL
.8330SurrStkSS_00267	04/12/24		Restek, Lot A0194831		(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
							1,2-Dinitrobenzene (Surr)	1000 ug/mL
.8330SurrStkSS_00268	04/12/24		Restek, Lot A0194831		(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
							1,2-Dinitrobenzene (Surr)	1000 ug/mL

Reagent

2,4Diamino6NT_00074

125 Market Street
New Haven, CT 06513
USA

AccuStandard®

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

CERTIFICATE OF ANALYSIS

Catalog No: M-8330-ADD-12
Description: 2,4-Diamino-6-nitrotoluene
Lot: 218051455-01
Solvent: Acetonitrile
Hazards: *Refer to SDS for complete safety information*

Signal Word: Danger

Date Certified: Jun 28, 2019
Expiration: Jul 28, 2021
Sample Size: 1 mL
Components: 1
Storage Condition: Refrig (0-5 °C)

Certified Reference Material

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER AR-1463

ANAB ACCREDITED TESTING LABORATORY AT-1339

ilac-MRA

Component	CAS #	Purity % (GC/MS)	Prepared Concentration[2] (µg/mL)	Certified Analyte Concentration[1] (µg/mL)
2,4-Diamino-6-nitrotoluene	6629-29-4	99.0	100.0	99.0

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

Certified By: Larry Decker, Organic QC Manager

For use in routine laboratory analysis.

Reagent

2,6Diamino4NT_00075

125 Market Street
New Haven, CT 06513
USA

AccuStandard®

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

CERTIFICATE OF ANALYSIS

Catalog No: M-8330-ADD-13
Description: 2,6-Diamino-4-nitrotoluene
Lot: 219071008
Solvent: Acetonitrile
Hazards: *Refer to SDS for complete safety information*

Signal Word: Danger

Date Certified: Jul 1, 2019
Expiration: Aug 1, 2021
Sample Size: 1 mL
Components: 1
Storage Condition: Refrig (0-5 °C)

Certified Reference Material

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER AR-1463

ANAB ACCREDITED TESTING LABORATORY AT-1339

ilac-MRA

Component	CAS #	Purity % (GC/FID)	Prepared Concentration[2] (µg/mL)	Certified Analyte Concentration[1] (µg/mL)
2,6-Diamino-4-nitrotoluene	59229-75-3	99.7	100.3	100.0

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.

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. 5/18

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)

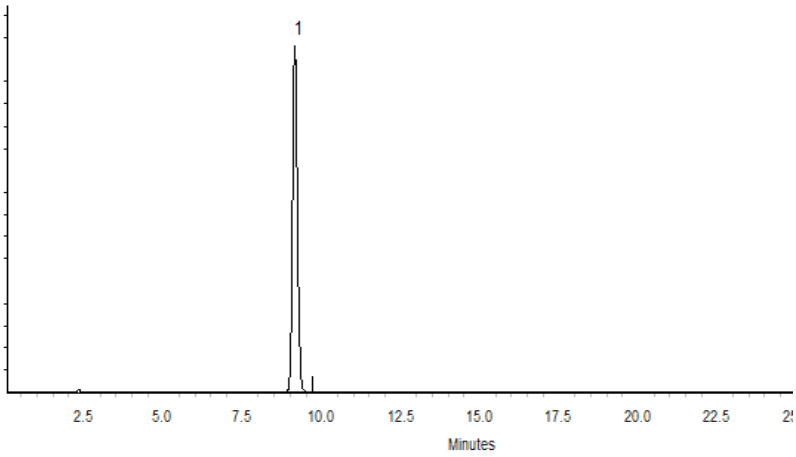
Flow Rate:
1.0 ml/min.

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_00098

Preliminary Report

Eurofins TestAmerica, Denver

LCS, Lab Control Sample Report

Sample Path: \\chromfs\Denver\ChromData\CHHPLC_X\20200429-91143.b\04290006.D

Lims ID: C18column:B16162 Inj. Date: 29-Apr-2020 19:29:58

Worklist ID: 280-0091143-006 Instrument: CHHPLC_X3

Method: 8330_X3

Compound	Amount Added	Amount Recovered	%Rec	Limits 1 0B_Sonc_	Limits 2 3535
3 HMX	0.1000	0.0988	98.8	65-135	66-115
7 RDX	0.1000	0.0968	96.8	68-130	69-122
8 2,4,6-Trinitrophenol	0.1000	0.1027	102.7	80-120	63-135
10 1,3,5-Trinitrobenzene	0.1000	0.1037	103.7	73-125	62-127
11 1,3-Dinitrobenzene	0.1000	0.1029	102.9	78-120	59-131
12 Nitrobenzene	0.1000	0.1031	103.1	65-134	46-144
14 Tetryl	0.1000	0.1003	100.3	64-128	56-131
15 Nitroglycerin	1.00	0.9742	97.4	74-127	70-125
16 2,4,6-Trinitrotoluene	0.1000	0.1014	101.4	71-123	46-139
17 4-Amino-2,6-dinitrotolu	0.1000	0.0973	97.3	76-125	43-120
18 2-Amino-4,6-dinitrotolu	0.1000	0.1006	100.6	79-120	46-124
19 2,6-Dinitrotoluene	0.1000	0.1019	101.9	77-127	51-130
20 2,4-Dinitrotoluene	0.1000	0.0984	98.4	78-120	53-127
21 o-Nitrotoluene	0.1000	0.1039	103.9	70-127	37-138
22 p-Nitrotoluene	0.1000	0.1015	101.5	71-127	41-137
23 m-Nitrotoluene	0.1000	0.1043	104.3	73-125	31-140
24 PETN	1.00	0.9068	90.7	73-127	67-127

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

280-135793-A-1-A	280-135793-A-2-A	280-135793-A-3-A
280-135793-B-4-A	280-135793-A-5-A	280-135793-A-6-A
280-135871-A-1-A	280-135930-A-1-A	280-135930-A-2-A

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

480-168872-A-18-A	480-168872-A-19-A	480-168872-A-20-A
480-168872-A-21-A	600-204066-C-1-A	

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_00015

Agilent

Certificate of Analysis
ISO Guide 34

Stock Standard

Product Number: NAIM-833E **Page:** 1 of 2

Lot Number: CT-0801 **Lot Issue Date:** 25-Feb-2019 **Expiration Date:** 31-Mar-2022

This ISO Guide 34 Reference Material (RM) was manufactured and verified in accordance with Agilent's ISO 9001 registered quality system, and the analyte concentrations were verified by our ISO 17025 accredited laboratory. The true value and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	True Value
HMX	002691-41-0	RM06237	1000 ± 5 µg/mL
RDX	000121-82-4	RM10915	1000 ± 5 µg/mL
1,3,5-trinitrobenzene	000099-35-4	RM06608	1002 ± 5 µg/mL
m-dinitrobenzene	000099-65-0	RM14290	1002 ± 5 µg/mL
nitrobenzene	000098-95-3	RM11472	1004 ± 5 µg/mL
2,4,6-trinitrotoluene (TNT)	000118-96-7	RM11972	1004 ± 5 µg/mL
2,4-dinitrotoluene	000121-14-2	RM10279	1004 ± 5 µg/mL
tetryl	000479-45-8	RM14651	1002 ± 5 µg/mL
2,6-dinitrotoluene	000606-20-2	NT00450	1004 ± 5 µg/mL
2-nitrotoluene	000088-72-2	NT01996	1000 ± 5 µg/mL
3-nitrotoluene	000099-08-1	NT02212	1001 ± 5 µg/mL
4-nitrotoluene	000099-99-0	NT02096	1002 ± 5 µg/mL
2-amino-4,6-dinitrotoluene	035572-78-2	RM04229	1004 ± 5 µg/mL
4-amino-2,6-dinitrotoluene	019406-51-0	RM04226	1001 ± 5 µg/mL

Matrix: acetonitrile

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

Agilent uses balances calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z-540-1 and ISO 9001, and calibrated Class A glassware in the manufacturing of these standards.

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER
ISO Guide 34 Cert No. AR-1936

Produced in accordance with TUV USA Inc 56 100 18560026 registered ISO 9001 Quality Management System

ANAB ACCREDITED TESTING LABORATORY
ISO17025 Cert No. AT-1937

Certificate of Analysis
ISO Guide 34

Stock Standard

Product Number: NAIM-833E **Page:** 2 of 2

Lot Number: CT-0801 **Lot Issue Date:** 25-Feb-2019 **Expiration Date:** 31-Mar-2022

Analyte	CAS#	Analyte Lot	True Value

Monica Bourgeois
QMS Representative

ISO Guide 34 Cert No.
AR-1936

Produced in accordance with TUV USA Inc 56 100 18560026
registered ISO 9001 Quality Management System

ISO17025 Cert No.
AT-1937

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_00075

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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.:** A0151571

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, 2022 **Storage:** 10°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Nitroglycerin	5,036.0 µg/mL	+/- 46.8321	µg/mL	Gravimetric
	CAS # 55-63-0 (Lot 170616JLM)		+/- 278.2306	µg/mL	Unstressed
	Purity 99%		+/- 323.7234	µg/mL	Stressed

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

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

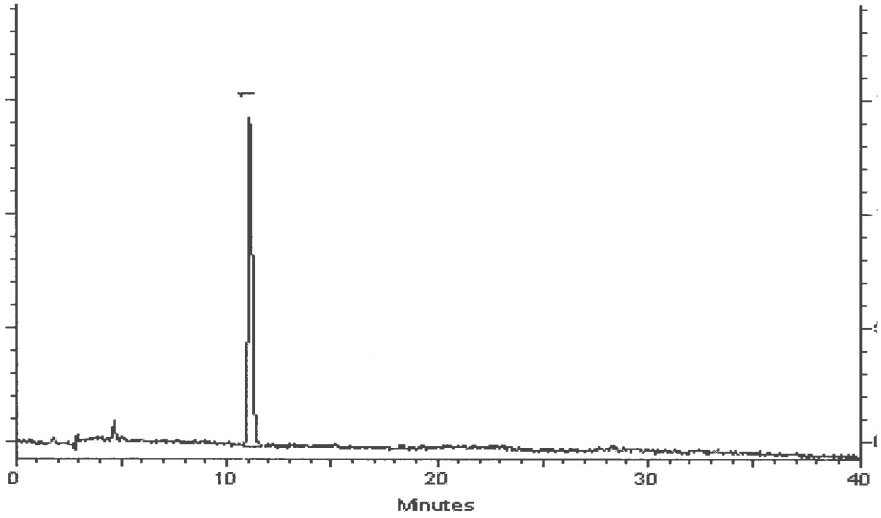
Flow Rate:
1.0 ml/min.

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

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210 nm



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.

Joseph A Jaglowski
Joseph Jaglowski - Mix Technician

Date Mixed: 05-Aug-2019 **Balance:** B707717271

Jennifer A Pollino
Jennifer Pollino - Operations Tech-ARM QC

Date Passed: 09-Aug-2019

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

Reagent

8330_NG_Stk_00084

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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. : 568871 **Lot No.:** A0151571

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, 2022 **Storage:** 10°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Nitroglycerin	5,036.0 µg/mL	+/- 46.8321	µg/mL	Gravimetric
	CAS # 55-63-0 (Lot 170616JLM)		+/- 278.2306	µg/mL	Unstressed
	Purity 99%		+/- 323.7234	µg/mL	Stressed

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

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

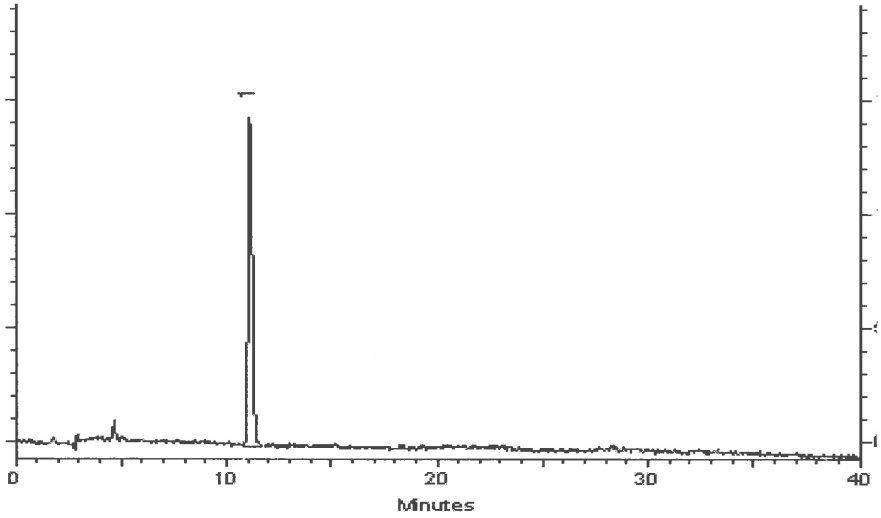
Flow Rate:
1.0 ml/min.

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

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210 nm



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.

Joseph J Jaglowski - Mix Technician **Date Mixed:** 05-Aug-2019 **Balance:** B707717271

Jennifer J Pollino - Operations Tech-ARM QC **Date Passed:** 09-Aug-2019

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

Reagent

8330_NG_Stk_00085

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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. : 568871 **Lot No.:** A0151571

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, 2022 **Storage:** 10°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Nitroglycerin	5,036.0 µg/mL	+/- 46.8321	µg/mL	Gravimetric
	CAS # 55-63-0 (Lot 170616JLM)		+/- 278.2306	µg/mL	Unstressed
	Purity 99%		+/- 323.7234	µg/mL	Stressed

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

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

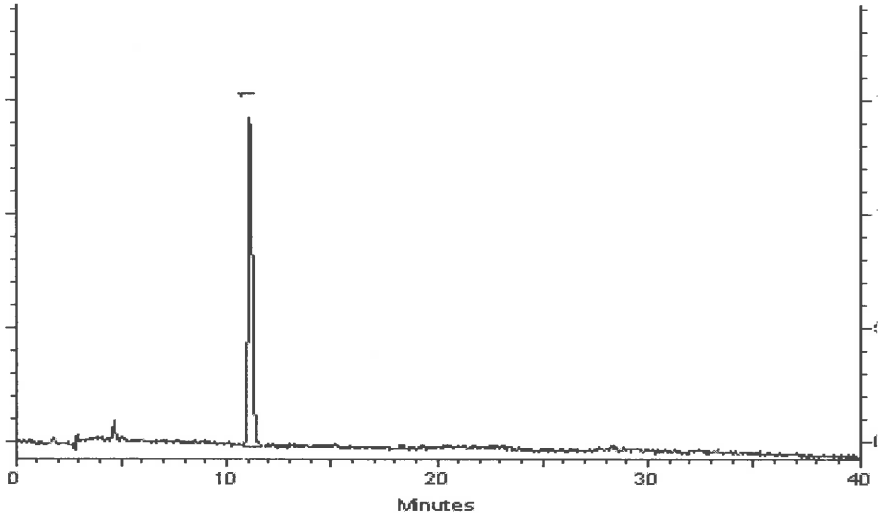
Flow Rate:
1.0 ml/min.

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

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210 nm



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.

Joseph Jaglowski - Mix Technician **Date Mixed:** 05-Aug-2019 **Balance:** B707717271

Jennifer Pollino - Operations Tech-ARM QC **Date Passed:** 09-Aug-2019

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

Reagent

8330_NG_Stk_00118

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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. : 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)

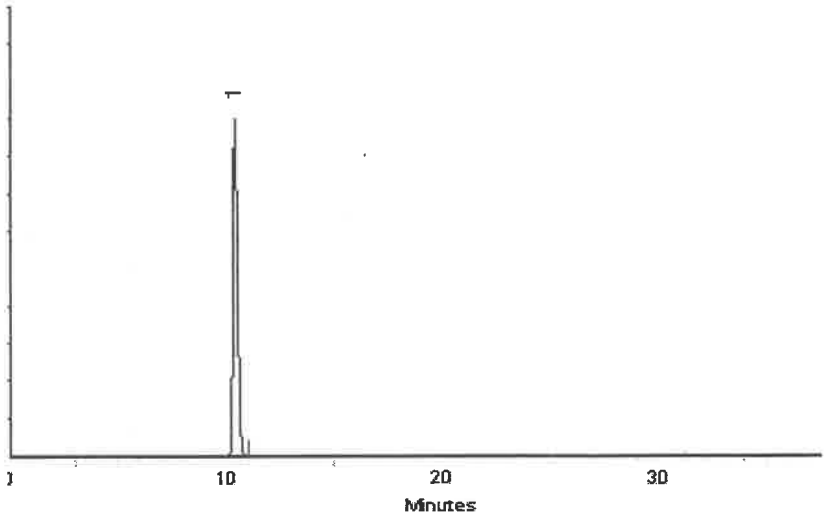
Flow Rate:
1.0 ml/min.

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_00120

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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)

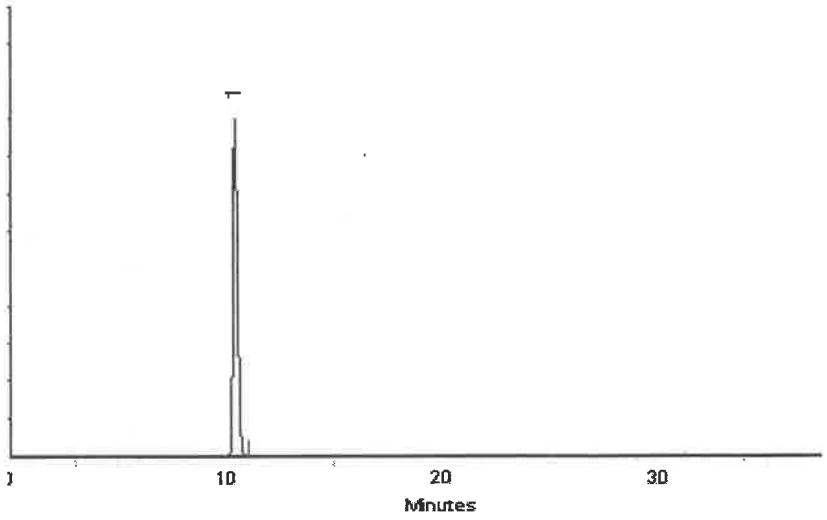
Flow Rate:
1.0 ml/min.

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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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.

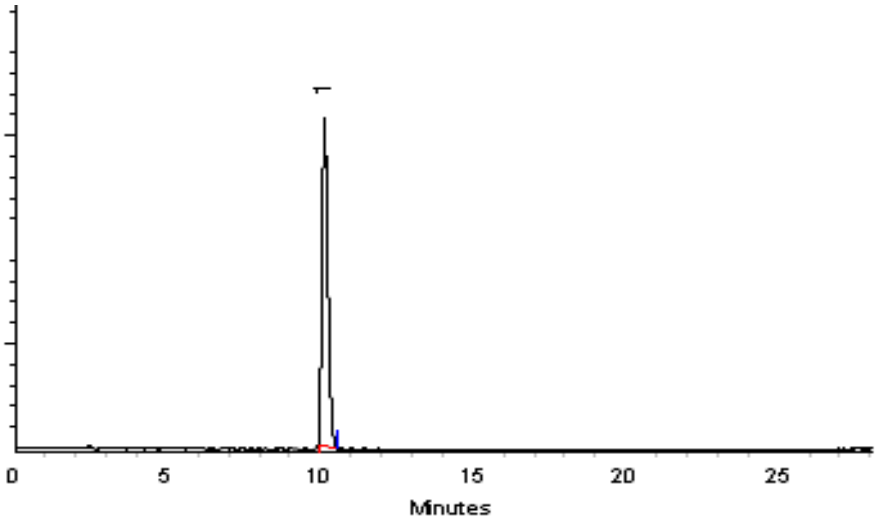
Mobile Phase A:
water:methanol (44:56 V/V)

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_00129

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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.

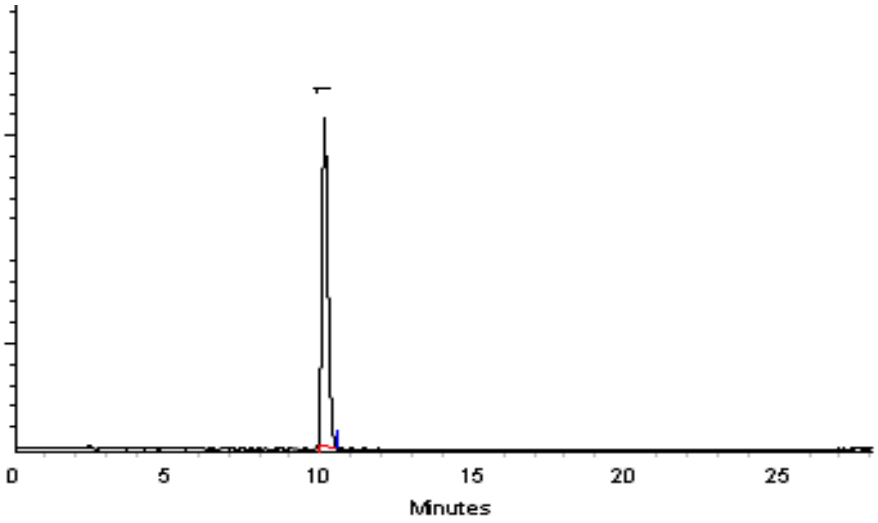
Mobile Phase A:
water:methanol (44:56 V/V)

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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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.

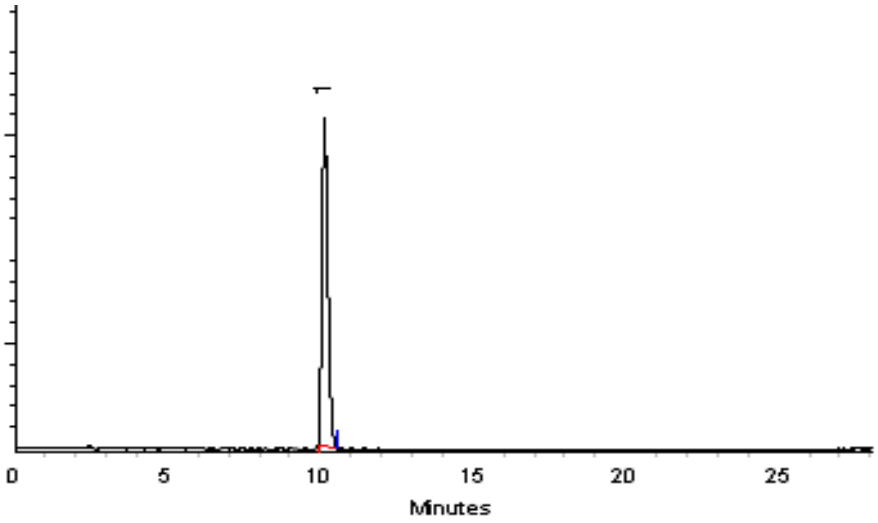
Mobile Phase A:
water:methanol (44:56 V/V)

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.
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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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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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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.

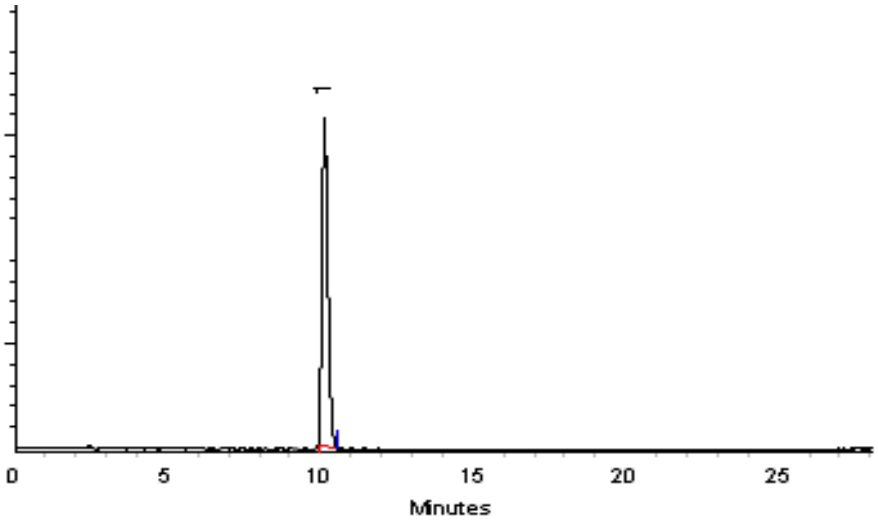
Mobile Phase A:
water:methanol (44:56 V/V)

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:

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- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

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

Manufacturing Notes:

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

Handling Notes:

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

Reagent

8330_NG1000_00007

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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. : 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 (Lot 200507JLM)	1,000.0 µg/mL	+/- 5.9397 µg/mL	Gravimetric
	CAS # 55-63-0		+/- 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

8330_NG1000_00010

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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. : 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_00087

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CERTIFIED REFERENCE MATERIAL

Certificate of Composition

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. : 568872 **Lot No.:** A0154763

Description : Custom PETN Standard

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

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

Expiration Date : November 30, 2022 **Storage:** 10°C or colder

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	PETN	5,024.0 µg/mL	+/- 46.7205 µg/mL	Gravimetric
	CAS # 78-11-5 (Lot 051108JLM)		+/- 277.5676 µg/mL	Unstressed
	Purity 99%		+/- 322.9521 µg/mL	Stressed

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

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

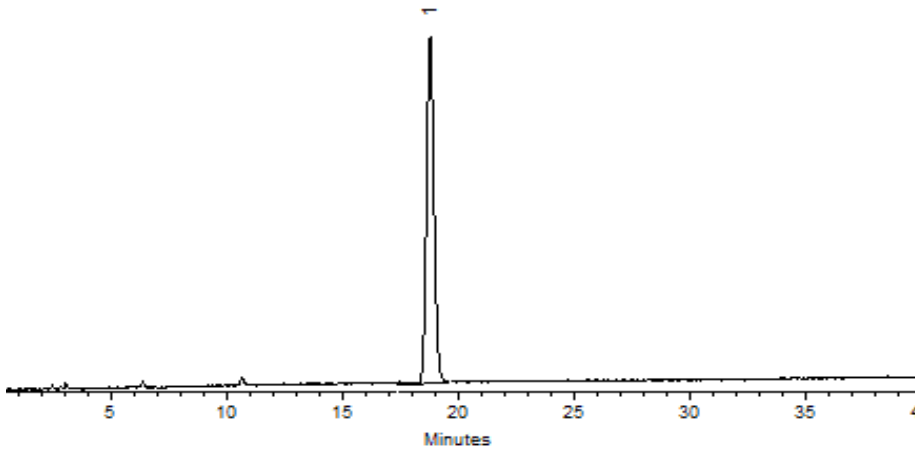
Flow Rate:
1.0 ml/min.

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

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210 nm



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.

Clara Windle - Operations Technician I

Date Mixed: 05-Nov-2019 **Balance:** B442140311

Jennifer Pollino - Operations Tech-ARM QC

Date Passed: 08-Nov-2019

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:

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

Reagent

8330_PETN_Stk_00091

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Certificate of Composition

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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.:** A0158915

Description : Custom PETN Standard

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

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

Expiration Date : March 31, 2023 **Storage:** 10°C or colder

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)

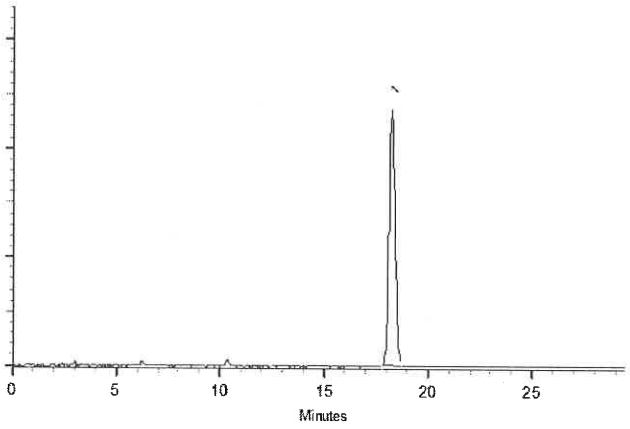
Flow Rate:
1.0 ml/min.

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.

Michael J Maye

Date Mixed: 17-Mar-2020 **Balance:** 1127510105

Justine Albertson - Operations Tech-ARM QC

Date Passed: 18-Mar-2020

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

Reagent

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Catalog No. : 568872 **Lot No.:** A0158915

Description : Custom PETN Standard

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

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

Expiration Date : March 31, 2023 **Storage:** 10°C or colder

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)

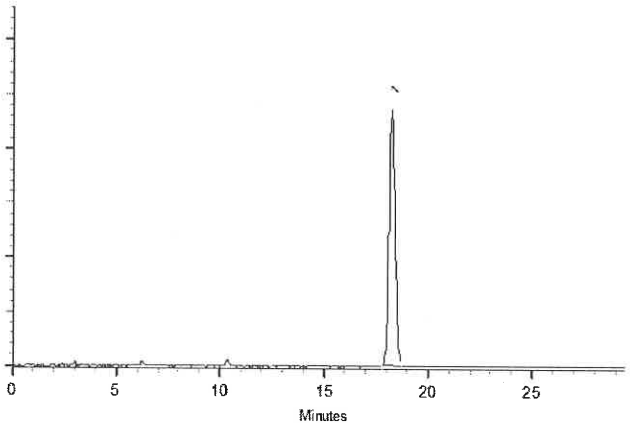
Flow Rate:
1.0 ml/min.

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

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm



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Michael J Maye

Date Mixed: 17-Mar-2020 **Balance:** 1127510105

Justine Albertson - Operations Tech-ARM QC

Date Passed: 18-Mar-2020

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

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. : 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)

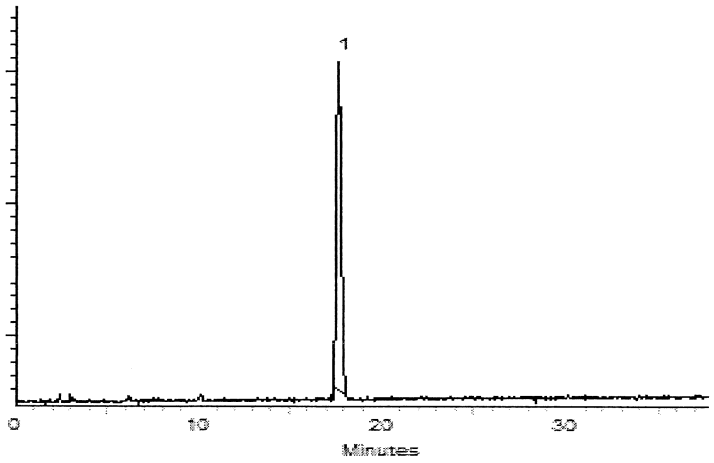
Flow Rate:
1.0 ml/min.

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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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)

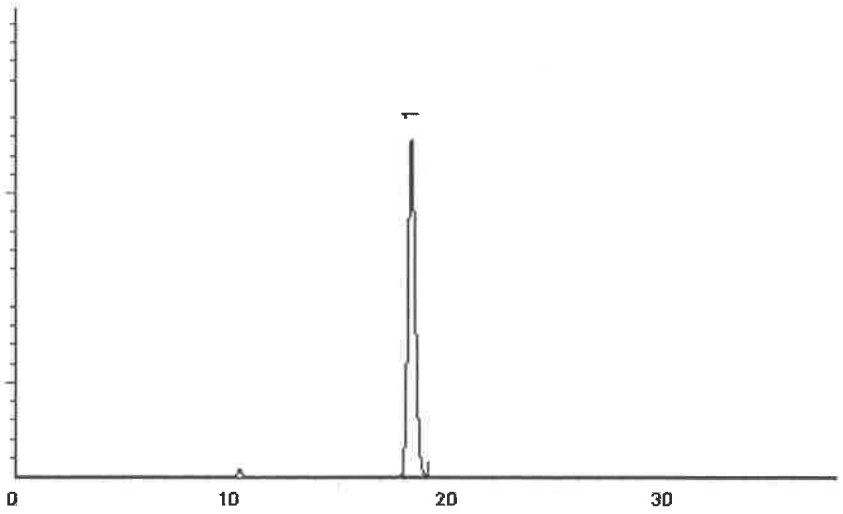
Flow Rate:
1.0 ml/min.

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

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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)

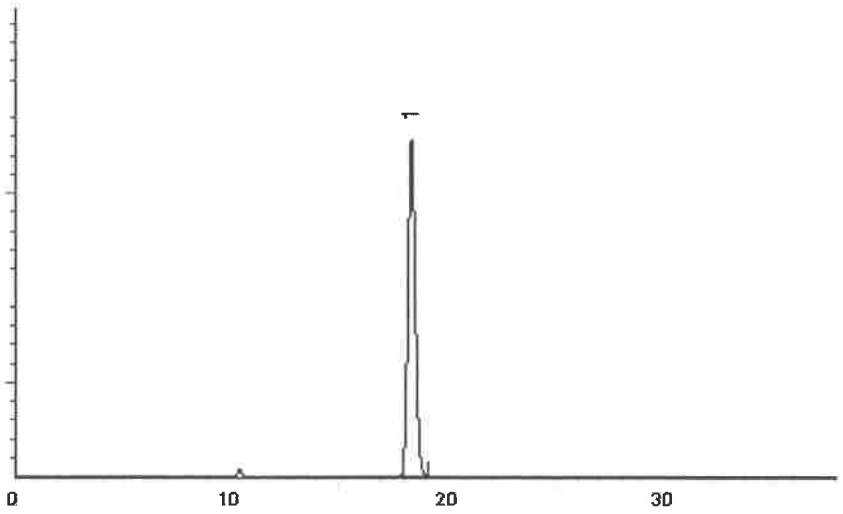
Flow Rate:
1.0 ml/min.

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

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm



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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:

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- 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:

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Reagent

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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)

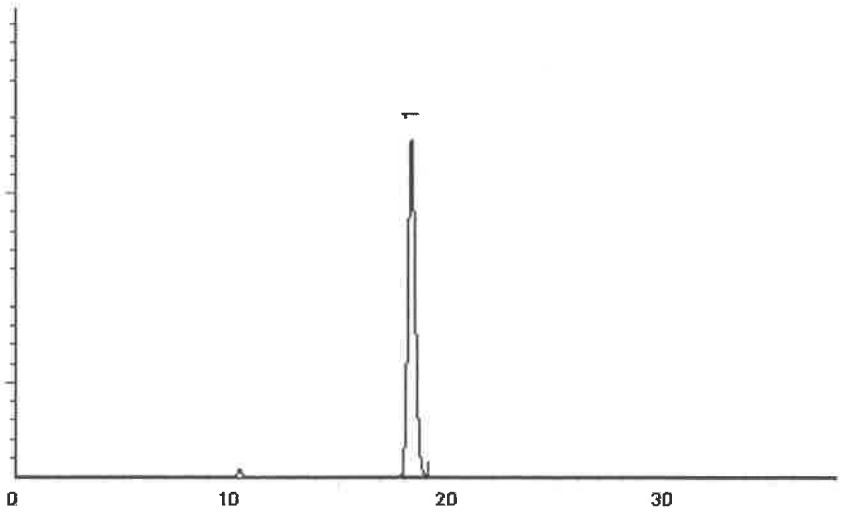
Flow Rate:
1.0 ml/min.

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

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm



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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:

- 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_PETN_Stk_00136

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Fax: (814)353-1309

www.restek.com

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. : 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)

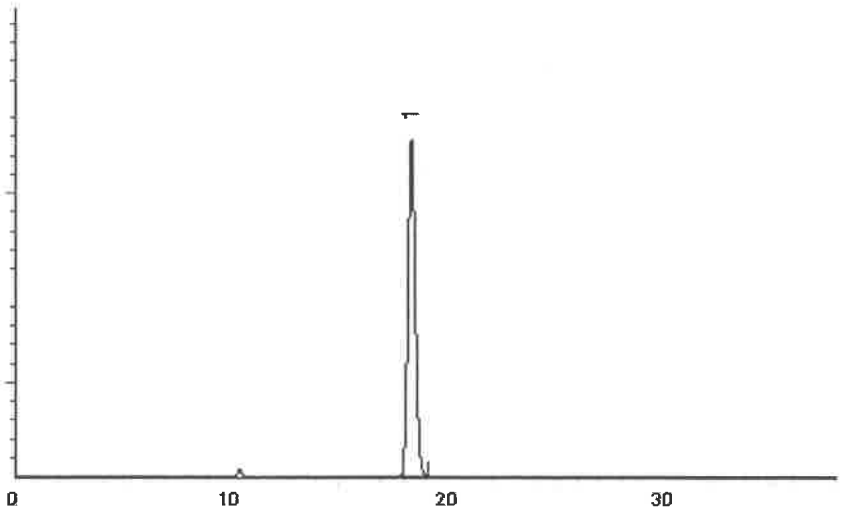
Flow Rate:
1.0 ml/min.

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

8330_PETN1000_00010

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Fax: (814)353-1309

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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. : 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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CERTIFIED REFERENCE MATERIAL

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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

833035DNAStk_00040

125 Market Street
New Haven, CT 06513
USA

AccuStandard®

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

CERTIFICATE OF ANALYSIS

Catalog No: M-8330-ADD-4
Description: 3,5-Dinitroaniline
Lot: 218091229-01
Solvent: Methanol (50%)
Acetonitrile (50%)
Hazards: *Refer to SDS for complete safety information*

Signal Word: Danger

Date Certified: May 2, 2019
Expiration: Jun 2, 2020
Sample Size: 1 mL
Components: 1
Storage Condition: Ambient (>5 °C)

Certified Reference Material

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER AR-1463
ANAB ACCREDITED PROFICIENCY TESTING LABORATORY AT-1339
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	100.8	100.8

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.

Certified By: Larry Decker, Organic QC Manager

For use in routine laboratory analysis.

Reagent

833035DNAStk_00053

125 Market Street
New Haven, CT 06513
USA

AccuStandard®

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

CERTIFICATE OF ANALYSIS

Catalog No: M-8330-ADD-4
Description: 3,5-Dinitroaniline
Lot: 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

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

CERTIFICATE OF ANALYSIS

Catalog No: M-8330-ADD-4
Description: 3,5-Dinitroaniline
Lot: 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_00111

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

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Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 31450 **Lot No.:** A0151407

Description : 8330 Calibration Mix #1

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

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

Expiration Date : July 31, 2024 **Storage:** 10°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	HMX **CAS #** 2691-41-0 (Lot 190402JLM) **Purity** 97%	1,004.9 µg/mL	+/- 5.9689 µg/mL +/- 55.0525 µg/mL +/- 64.1967 µg/mL	Gravimetric Unstressed Stressed
2	RDX **CAS #** 121-82-4 (Lot 080228JLM) **Purity** 99%	1,005.0 µg/mL	+/- 5.9694 µg/mL +/- 55.0569 µg/mL +/- 64.2018 µg/mL	Gravimetric Unstressed Stressed
3	1,3,5-Trinitrobenzene **CAS #** 99-35-4 (Lot DJ5QO) **Purity** 97%	1,003.0 µg/mL	+/- 5.9574 µg/mL +/- 54.9463 µg/mL +/- 64.0727 µg/mL	Gravimetric Unstressed Stressed
4	1,3-Dinitrobenzene **CAS #** 99-65-0 (Lot BCBN4329V) **Purity** 99%	1,001.0 µg/mL	+/- 5.9456 µg/mL +/- 54.8378 µg/mL +/- 63.9463 µg/mL	Gravimetric Unstressed Stressed
5	Nitrobenzene **CAS #** 98-95-3 (Lot SHBJ3622) **Purity** 99%	1,001.0 µg/mL	+/- 5.9456 µg/mL +/- 54.8378 µg/mL +/- 63.9463 µg/mL	Gravimetric Unstressed Stressed
6	2,4,6-Trinitrotoluene **CAS #** 118-96-7 (Lot 5737200) **Purity** 99%	1,005.0 µg/mL	+/- 5.9694 µg/mL +/- 55.0569 µg/mL +/- 64.2018 µg/mL	Gravimetric Unstressed Stressed
7	2,4-Dinitrotoluene **CAS #** 121-14-2 (Lot MKAA0690) **Purity** 99%	1,001.0 µg/mL	+/- 5.9456 µg/mL +/- 54.8378 µg/mL +/- 63.9463 µg/mL	Gravimetric Unstressed Stressed

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

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

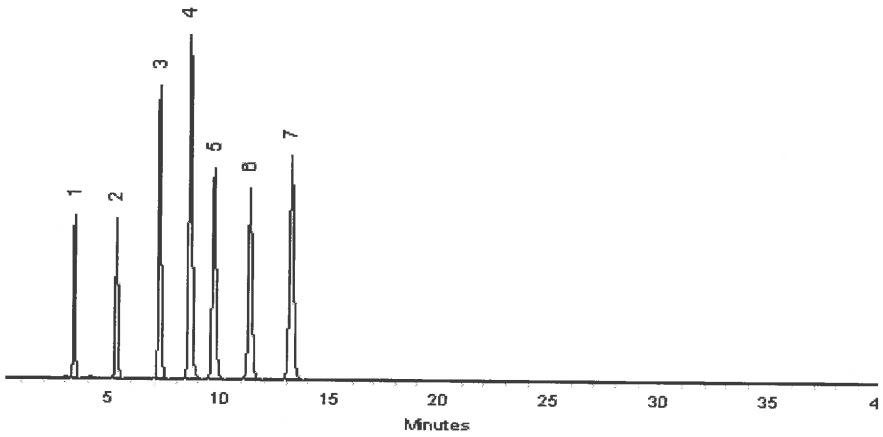
Flow Rate:
1.0 ml/min.

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

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210 nm



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: 30-Jul-2019 **Balance:** 1127510105

Jennifer Pollino - Operations Tech-ARM QC

Date Passed: 01-Aug-2019

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

Reagent

8330LCSMix1_00136

RESTEK
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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

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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. : 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 **Purity** 99%	(Lot 210324JLM)	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 **Purity** 99%	(Lot 080228JLM)	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 **Purity** 99%	(Lot A6TDK)	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 **Purity** 99%	(Lot 1-DXX-24-1)	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 **Purity** 99%	(Lot 10224044)	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 **Purity** 99%	(Lot D11836200)	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 **Purity** 99%	(Lot MKAA0690V)	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)

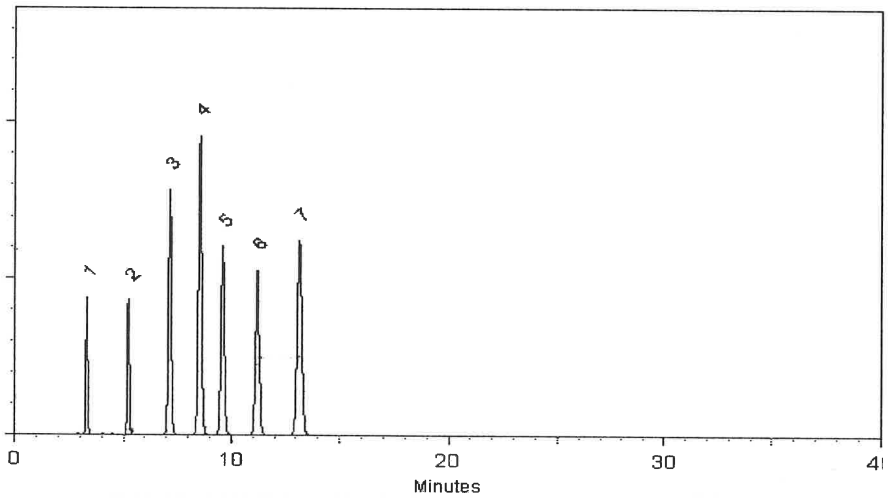
Flow Rate:
1.0 ml/min.

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-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_00140

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CERTIFIED REFERENCE MATERIAL

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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. : 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)

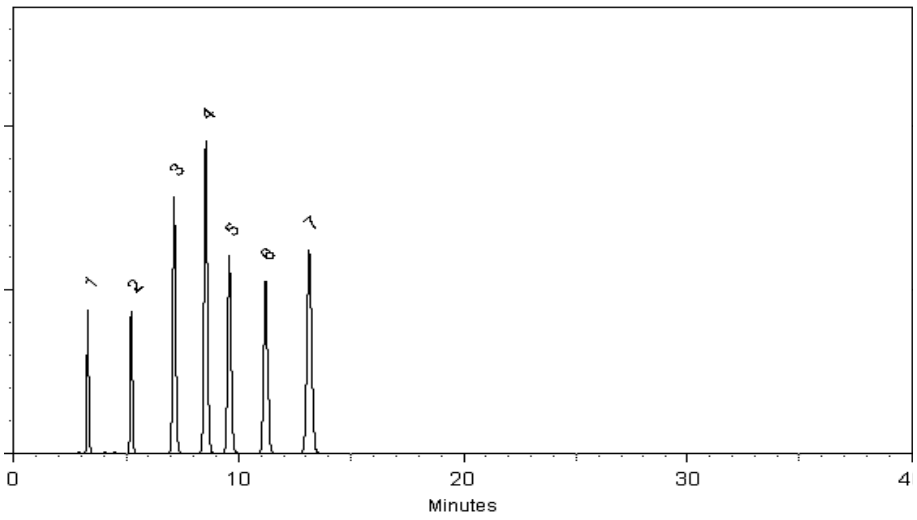
Flow Rate:
1.0 ml/min.

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 #3222.02

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)

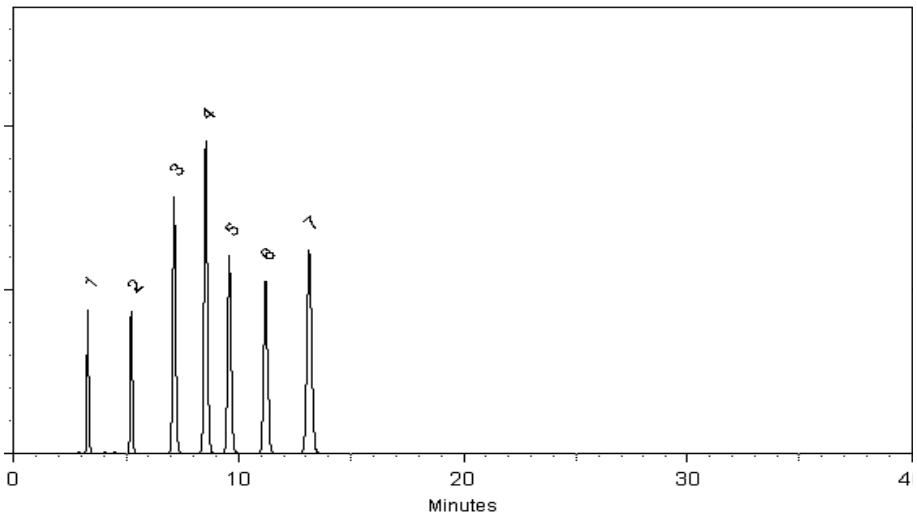
Flow Rate:
1.0 ml/min.

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_00011

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Certificate #3222.01

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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. : 31451 **Lot No.:** A0157533

Description : 8330 Calibration Mix #2

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

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

Expiration Date : February 28, 2025 **Storage:** 10°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Tetryl **CAS #** 479-45-8 (Lot 091120JLM) **Purity** 99%	1,004.0 µg/mL	+/- 5.9635 +/- 55.0021 +/- 64.1379	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
2	4-Amino-2,6-dinitrotoluene **CAS #** 19406-51-0 (Lot ER070908-01) **Purity** 99%	1,004.0 µg/mL	+/- 5.9635 +/- 55.0021 +/- 64.1379	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
3	2-Amino-4,6-dinitrotoluene **CAS #** 35572-78-2 (Lot 29550-55) **Purity** 98%	999.6 µg/mL	+/- 5.9373 +/- 54.7611 +/- 63.8568	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
4	2,6-Dinitrotoluene **CAS #** 606-20-2 (Lot BCBB8606) **Purity** 99%	1,002.0 µg/mL	+/- 5.9516 +/- 54.8926 +/- 64.0101	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
5	2-Nitrotoluene **CAS #** 88-72-2 (Lot BCBZ7826) **Purity** 99%	1,004.0 µg/mL	+/- 5.9635 +/- 55.0021 +/- 64.1379	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
6	4-Nitrotoluene **CAS #** 99-99-0 (Lot FAU01) **Purity** 99%	1,000.0 µg/mL	+/- 5.9397 +/- 54.7830 +/- 63.8824	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
7	3-Nitrotoluene **CAS #** 99-08-1 (Lot FBO01) **Purity** 98%	1,003.5 µg/mL	+/- 5.9606 +/- 54.9758 +/- 64.1072	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

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

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

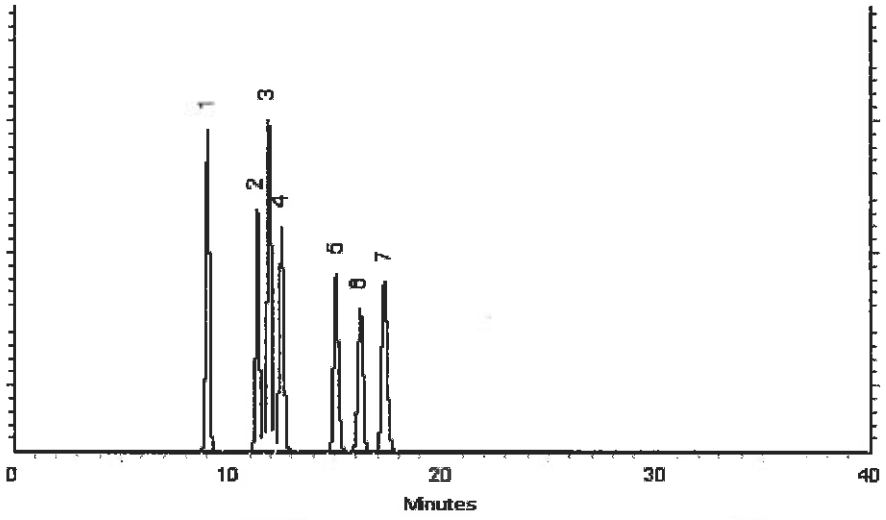
Flow Rate:
1.0 ml/min.

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.

Clara Windle - Operations Technician I

Date Mixed: 06-Feb-2020 **Balance:** B251644995

Jennifer Pollino - Operations Tech-ARM QC

Date Passed: 10-Feb-2020

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

Reagent

8330LCSmix2_00034

4

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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. : 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)

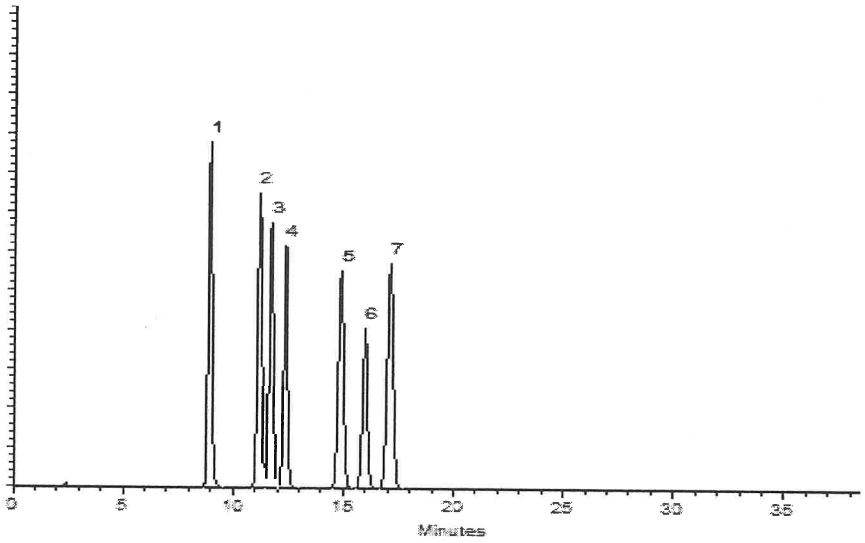
Flow Rate:
1.0 ml/min.

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
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_00038

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.

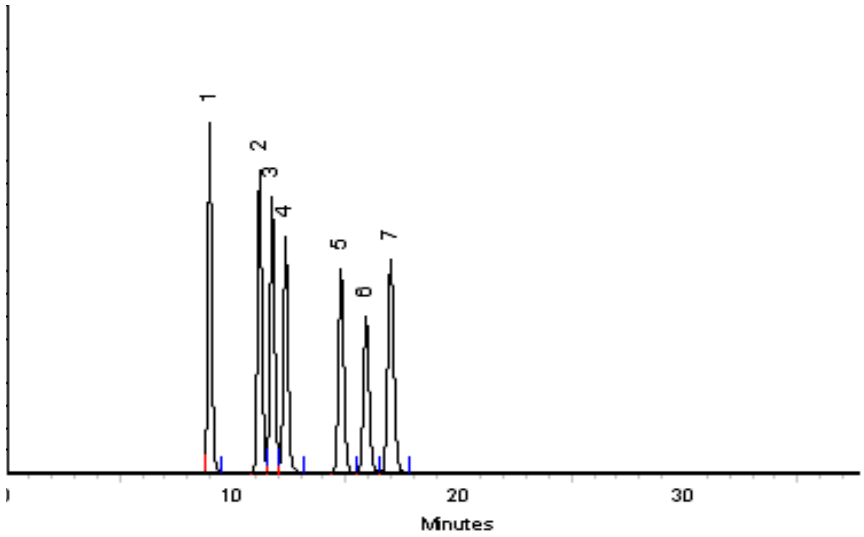
Mobile Phase A:
water:methanol (44:56 V/V)

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:

- 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.

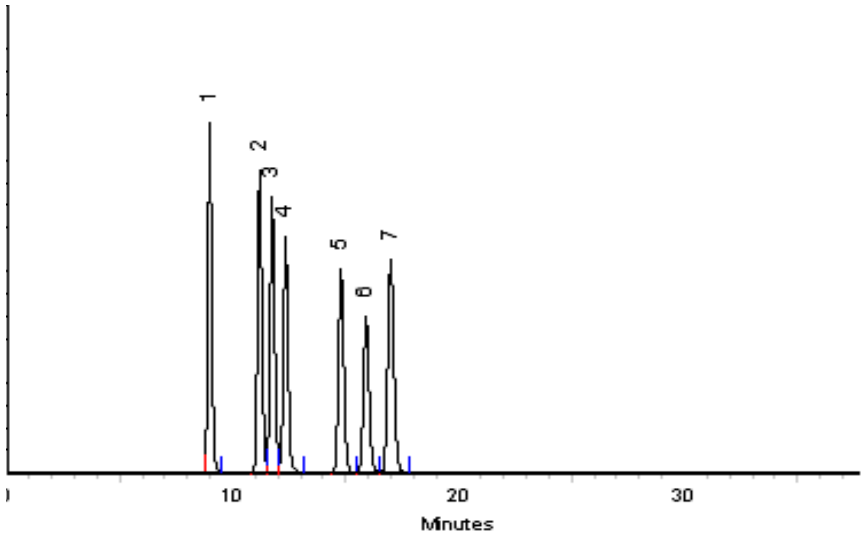
Mobile Phase A:
water:methanol (44:56 V/V)

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:

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

Reagent

8330PAStkPS_00061

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: 214121302-02
Solvent: Acetonitrile (50%)
Methanol (50%)
Hazards: *Refer to SDS for complete safety information*

Signal Word: Danger

Date Certified: Aug 9, 2019
Expiration: Sep 9, 2021
Sample Size: 1 mL
Components: 1
Storage Condition: Ambient (>5 °C)

Certified Reference Material

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER AR-1463
ANAB ACCREDITED TESTING LABORATORY AT-1339
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

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.

Certified By: Larry Decker, Organic QC Manager

For use in routine laboratory analysis.

AccuStandard, Inc.
125 Market St., New Haven, CT 06513 USA
Tel: 203-786-5290 Fax: 203-786-5287

SAFETY DATA SHEET

SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

1.1 - Product Identifiers

Catalog Name: M-8330-ADD-3

Description: Picric Acid in Acetonitrile/Methanol Blend

1.2 - Relevant Identified Uses of the Substance or Mixture

Laboratory Chemical Reference Material

1.3 - Supplier Details

Company: AccuStandard, Inc.
125 Market St.
New Haven, CT 06513 USA

Telephone Number: 203-786-5290

Fax: 203-786-5287

Email: edocs@accustandard.com

1.4 - Emergency Telephone Number

Emergency Phone #: AccuStandard, Inc.
1-203-502-7070 (USA)
+001-203-502-7070 (International)

24 hours / 7 days a week

SECTION 2 - HAZARDS IDENTIFICATION

2.1 - GHS Label Elements

Signal Word: Danger

Hazard Codes:

H225 - Highly Flammable (Flammable liquids, category 2)

H315 - Irritating to skin. (Skin corrosion/irritation, category 2)

H319 - Causes severe eye irritation. (Eye damage/irritation, category 2A)

H332 - Harmful if inhaled. (Acute toxicity, inhalation, category 4)

H336 - Overexposure may cause dizziness, nausea, muscle weakness, narcosis and respiratory failure.

H360 - California Proposition 65 Warning: This product contains a component (or components) that may cause birth defects or other reproductive harm in a quantity greater than or equal to 0.1%.

H370 - Causes damage to organs. (Specific target organ toxicity, single exposure, category 1)

Precautionary Codes:

P202 - This product should only by used by persons trained in the safe handling of hazardous chemicals.

P233 - Store in a tightly closed container. (P404)

SECTION 2 - HAZARDS IDENTIFICATION - *continued*

2.1 - GHS Label Elements - *continued*

P260 - Do not breathe vapor.

P262 - Do not get in eyes, on skin or clothing.

P264 - Wash thoroughly after handling. Do not take internally. Eye wash and safety equipment should be readily available.

P284 - Respiratory Protection: If workplace exposure limit(s) of product or any component is exceeded (see TLV/PEL), or a risk assessment shows air-purifying respirators are appropriate, use of a NIOSH/MSHA approved air supplied respirator is advised. Use a full-face respirator with multi-purpose combination (US) or type ABEK (EN14387) respirator cartridges in absence of proper environmental control. Always use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). Engineering and/or administrative controls should be implemented to reduce exposure.

P338 - Eye contact: Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers.

P340 - Inhalation: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

P352 - Skin contact: Wash thoroughly with soap and water. Get medical attention if irritation develops or persists.

2.2 - Other Hazards

2.2.1 - Symptom of Exposure Health/Environment

Highly Flammable (Flammable liquids, category 2)

Causes damage to organs. (Specific target organ toxicity, single exposure, category 1)

After ingestion or inhalation, initial symptoms may be only that of mild intoxication, but may become severe after 12 or 18 hours.

Overexposure may cause dizziness, nausea, muscle weakness, narcosis and respiratory failure.

2.2.2 - Potential Health Effects

Causes severe eye irritation. (Eye damage/irritation, category 2A)

Irritating to skin. (Skin corrosion/irritation, category 2)

May be harmful if absorbed through the skin. (Acute toxicity, dermal, category 5)

Irritating to mucous membrane and upper respiratory system.

Harmful if inhaled. (Acute toxicity, inhalation, category 4)

May be harmful if swallowed. (Acute toxicity, oral, category 5)

2.2.3 - Routes of Entry

Inhalation, ingestion or skin contact.

2.2.4 - Carcinogenicity

California Proposition 65 Warning: This product contains a component (or components) that may cause birth defects or other reproductive harm in a quantity greater than or equal to 0.1%.

SECTION 3 - COMPOSITION / ANALYTES DATA

Description: Picric Acid in Acetonitrile/Methanol Blend

			ACGIH -TLV (mg/m³)			OSHA -PEL (mg/m³)		
Analyte	CAS #	% Concentration	TWA	STEL	Skin	TWA	STEL	Skin
Picric acid	88-89-1	0.010	0.1			0.1		
Acetonitrile	75-05-8	49.995				70		
Methanol	67-56-1	49.995				260		

SECTION 10 - STABILITY AND REACTIVITY

Stability: Stable

Materials to Avoid: Acids
Bases
Oxidizers

Hazardous Decomposition: Hydrogen cyanide (HCN); Carbon oxides; Nitrogen oxides Forms HCN when heated to about 120 °C

Hazardous Polymerization: Will not occur

Condition to Avoid: Heat; Contact with ignition sources

SECTION 11 - TOXICOLOGICAL INFORMATION

Human Health Toxicity

See section 2 for specific toxicological information for the ingredients of this product.

LD50 (Oral): N/A

LD50 (Dermal) : N/A

LC50 (Inhalation): N/A

No specific human health toxicity information is available for this product. Information provided is based on similar products.

WARNING: This product contains chemicals known to the state of California to cause birth defects or other reproductive harm.

No other information related to the toxicological properties of this product is available at this time.

SECTION 12 - ECOLOGICAL INFORMATION

Environmental Toxicity

By complying with sections 6 and 7 there should be no release to the environment.

LC50 (Fish): N/A

EC50 (Aquatic Invertebrate): N/A

BCF: N/A

No specific environmental toxicity information is available for this product. It is not expected to be an environmental concern.

No other information related to the ecological properties of this product is available at this time.

SECTION 13 - DISPOSAL CONSIDERATIONS

Recycle or incinerate at any EPA approved facility or dispose in compliance with Federal, State and local regulations. Empty containers must be triple-rinsed prior to disposal.

SECTION 14 - TRANSPORT INFORMATION

Transportation Information (DOT/IATA)

UN Number: UN1993

Class: 3

Packing Group: II

Proper Shipping Name: Flammable liquid, n.o.s. (Acetonitrile, Methanol)

Poison by Inhalation: No

Marine Pollutant: No

SECTION 15 - REGULATORY INFORMATION

WARNING: This product contains chemicals known to the state of California to cause birth defects or other reproductive harm.

All components are listed on the TSCA Inventory.

For laboratory, research and development use only. Not for manufacturing or commercial purposes.

In addition to federal and state regulations, local regulations may apply. Check with your local regulatory authorities.

SECTION 16 - OTHER INFORMATION

This document has been designed to meet the requirements of OSHA, ANSI, GHS and CHIPs regulations. Chemicals are classified using the Globally Harmonized System for Classification and Labeling of Chemicals and CLP Regulation (EC) No. 1272/2008.

The statements contained herein are offered for informational purposes only and are based on technical data that we believe to be accurate. The manufacturer will not assume any liability for the accuracy and completeness of this information. Final determination of the suitability of the material is the responsibility of the user. Although certain hazards are described herein, the user should not presume that these are the only hazards that exist. Since conditions and manner of use are outside of the manufacturers control, we make

NO WARRANTY OF MERCHANTABILITY, EXPRESSED OR IMPLIED, AND ASSUME NO LIABILITY RESULTING FROM ITS USE.

Legend : N/A = Not Available ND = Not Determined NR = Not Regulated

HMIS/NFPA HAZARD INDEX

0 - Minimal
1 - Slight
2 - Moderate
3 - Serious
4 - Severe

* - Additional Hazard

GHS HAZARD INDEX

Category 1 - Most Severe
Category 5 - Least Severe

**** End of Document ****

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 Concentration[2] (µg/mL)	Certified Analyte Concentration[1] (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_00114

Preliminary Report

Eurofins TestAmerica, Denver

LCS, Lab Control Sample Report

Sample Path: \\chromfs\Denver\ChromData\G2_LUNA\20200507-91339.b\05070004.D

Lims ID: CaCl2_Sol_00054 Inj. Date: 07-May-2020 12:25:53

Worklist ID: 280-0091339-004 Instrument: CHHPLC_G2_LUNA

Method: G2_8330_Luna

Compound	Amount Added	Amount Recovered	%Rec	Limits 1 0B_Sonc_
$ 10 1,2-Dinitrobenzene	0.2000	0.1868	93.4	83-122

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

280-135356-A-2-D

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

8330SurrStkSS_00157

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
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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.:** A0146866

Description : 8330 Surrogate Mix

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

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

Expiration Date : March 31, 2024 **Storage:** 10°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	1,2-Dinitrobenzene	1,003.0 µg/mL	+/- 5.9575	µg/mL	Gravimetric
	CAS # 528-29-0 (Lot MKCH6067)		+/- 56.2504	µg/mL	Unstressed
	Purity 99%		+/- 57.5660	µg/mL	Stressed

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

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

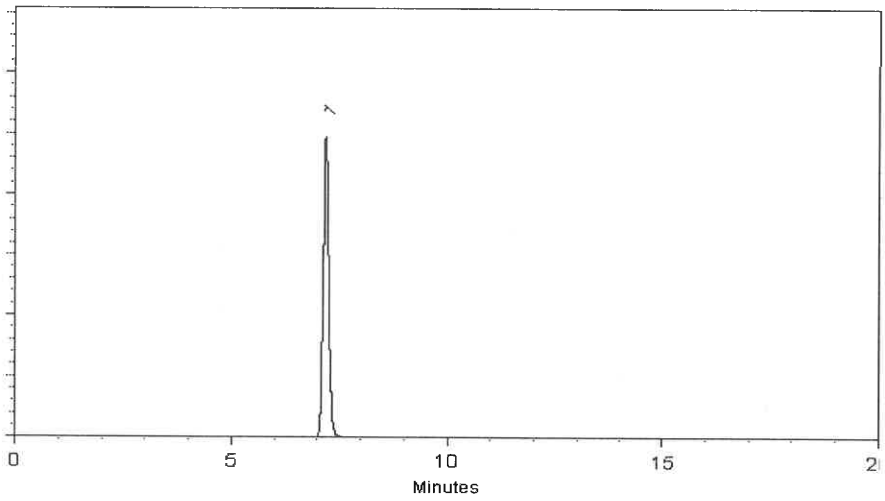
Flow Rate:
1.0 ml/min.

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

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210 nm



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.

Michael J Maye

Date Mixed: 11-Mar-2019 **Balance:** 1128353505

Fang-Yun Lo - GC Analyst

Date Passed: 14-Mar-2019

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

Reagent

8330SurrStkSS_00245

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CERTIFIED REFERENCE MATERIAL

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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.

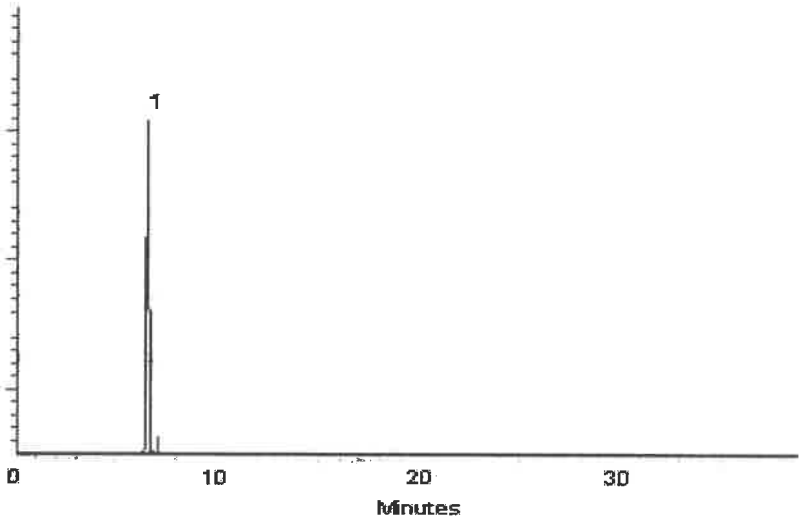
Mobile Phase A:
water:methanol (44:56 V/V)

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_00246

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Fax: 1-814-353-1309

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

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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.

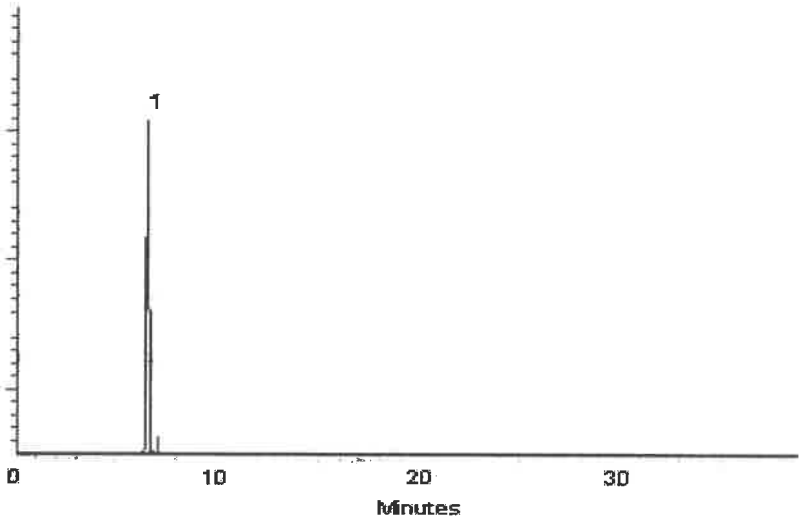
Mobile Phase A:
water:methanol (44:56 V/V)

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:

- 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_00247

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

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

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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.

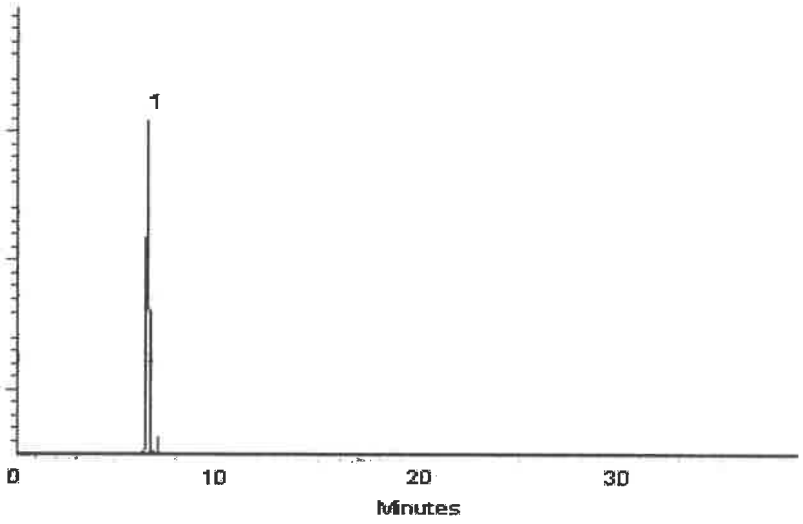
Mobile Phase A:
water:methanol (44:56 V/V)

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

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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

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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. : 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.

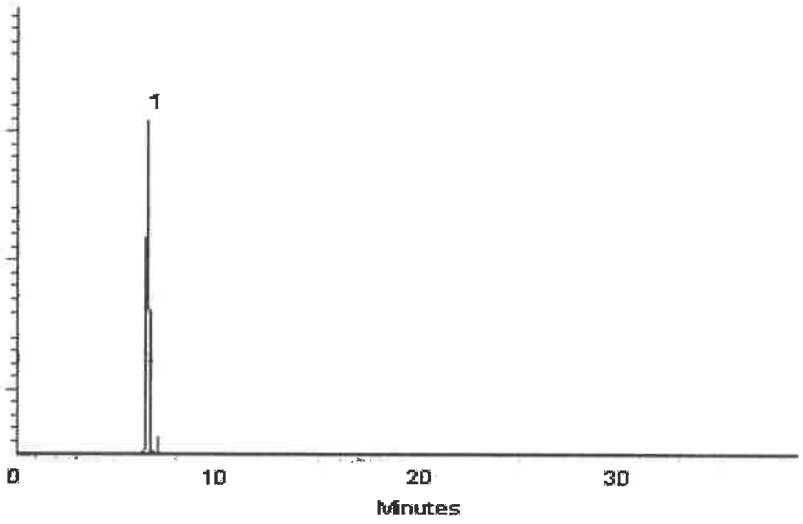
Mobile Phase A:
water:methanol (44:56 V/V)

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

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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.

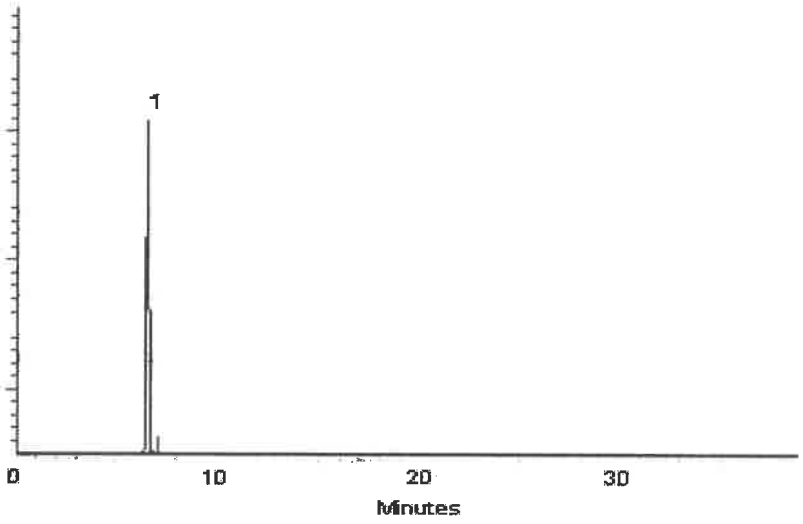
Mobile Phase A:
water:methanol (44:56 V/V)

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

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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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.

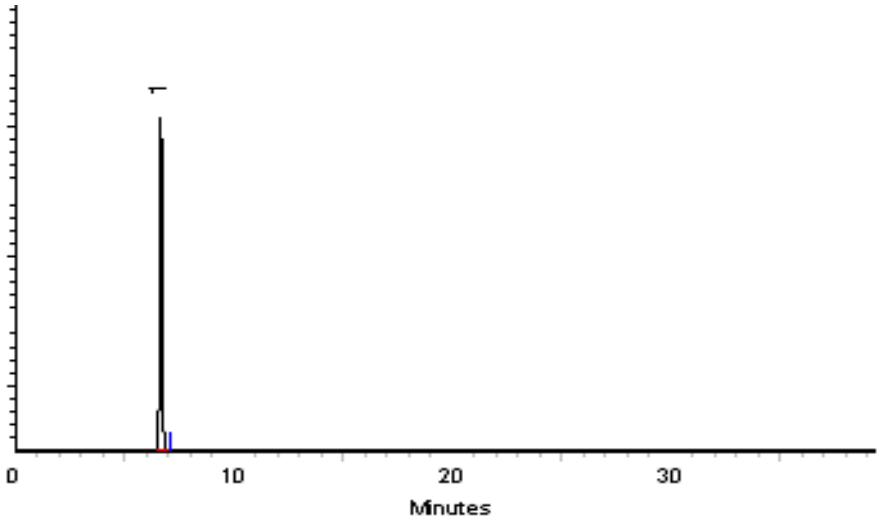
Mobile Phase A:
water:methanol (44:56 V/V)

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_00260

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Fax: 1-814-353-1309

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

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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. : 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.

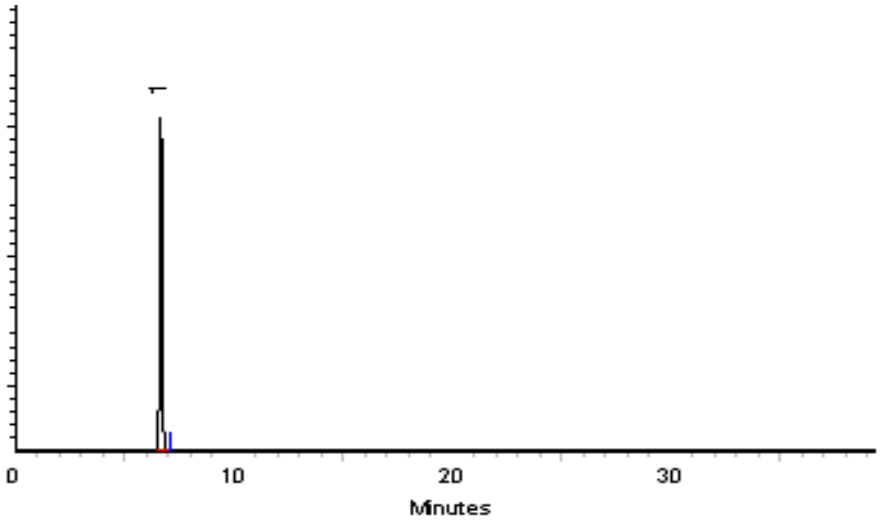
Mobile Phase A:
water:methanol (44:56 V/V)

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

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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

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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. : 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.

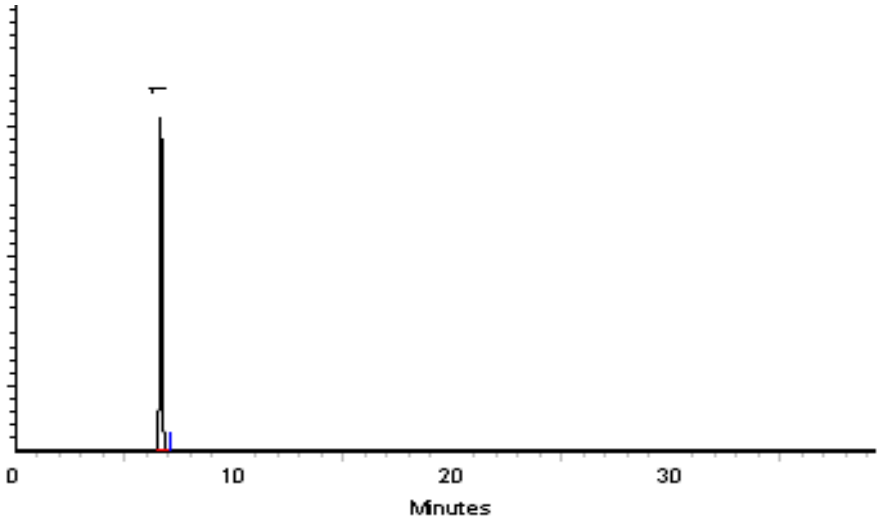
Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm

Inj. Vol
2µl



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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.
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Manufacturing Notes:

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

Handling Notes:

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

Reagent

8330SurrStkSS_00262

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

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Certificate of Analysis

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Certificate #3222.01

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Certificate #3222.02

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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.

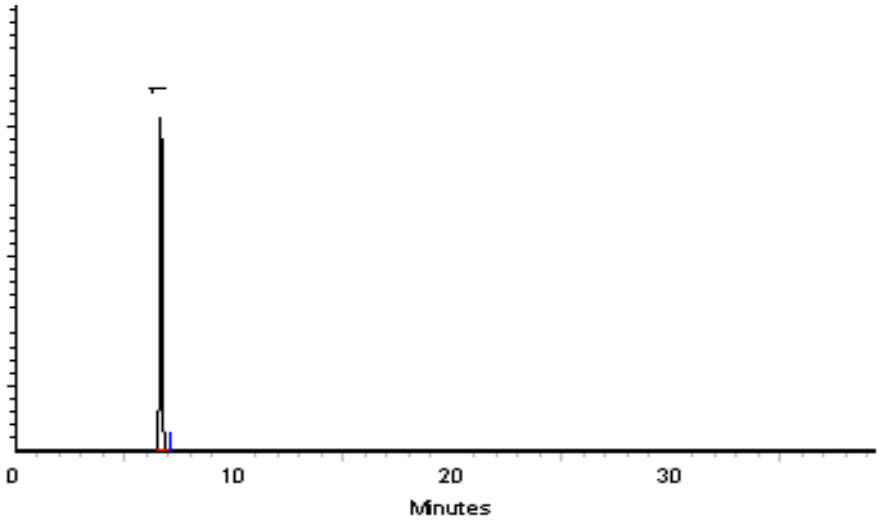
Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm

Inj. Vol
2µl



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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:

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Handling Notes:

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Reagent

8330SurrStkSS_00263

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

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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.

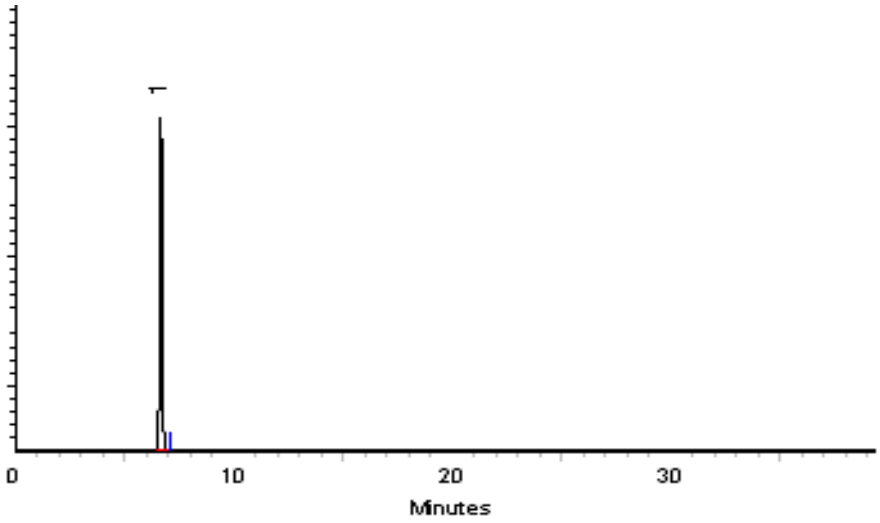
Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm

Inj. Vol
2µl



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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

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Reagent

8330SurrStkSS_00265

RESTEK
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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

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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.

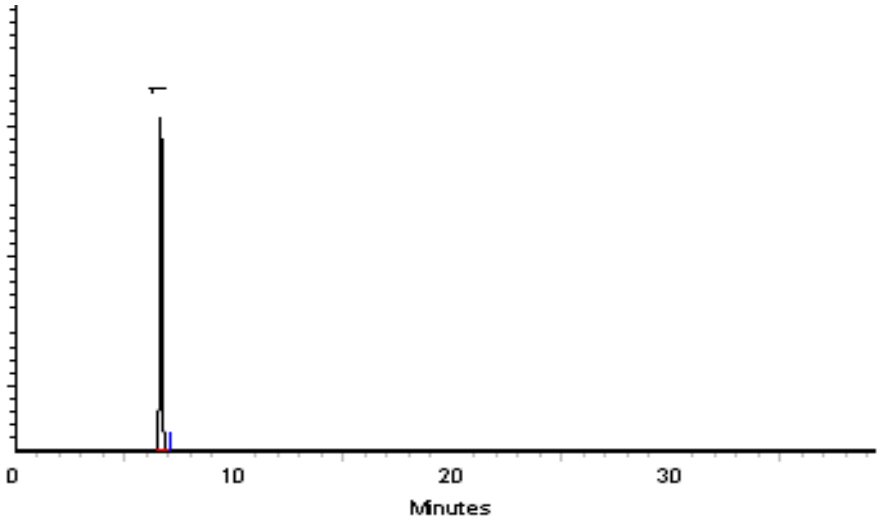
Mobile Phase A:
water:methanol (44:56 V/V)

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

ACCREDITED
ISO 17034 Accredited
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.

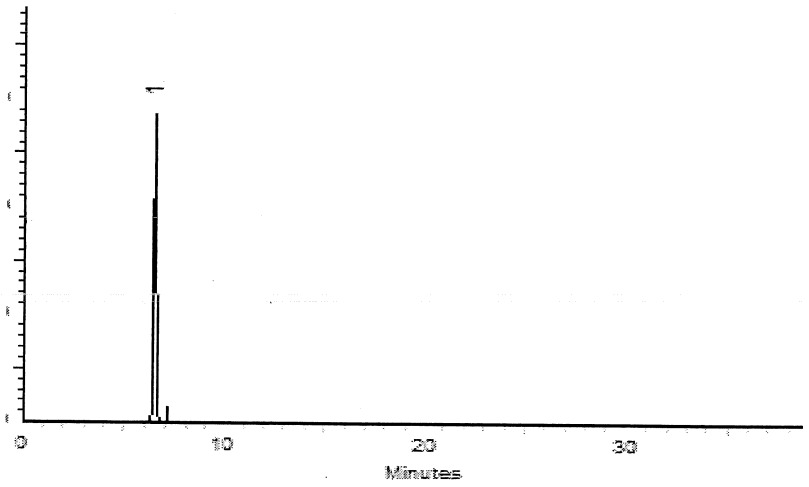
Mobile Phase A:
water:methanol (44:56 V/V)

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_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

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.:** 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.

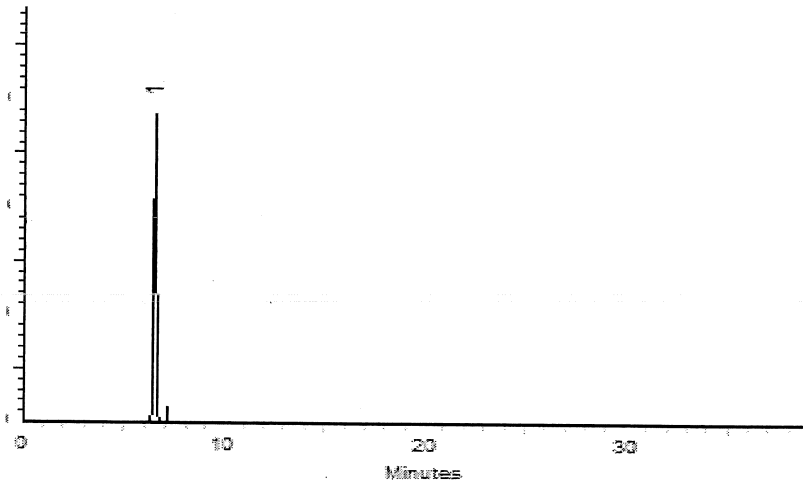
Mobile Phase A:
water:methanol (44:56 V/V)

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

CERTIFIED REFERENCE MATERIAL

ACCREDITED
ISO 17034 Accredited
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.

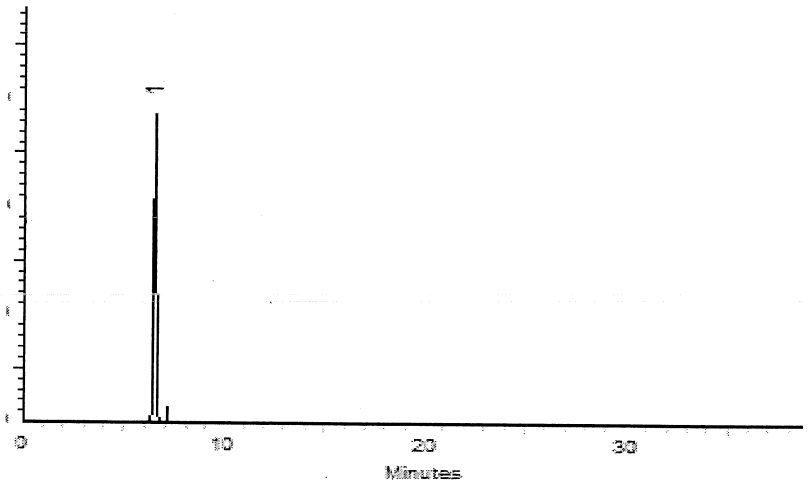
Mobile Phase A:
water:methanol (44:56 V/V)

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:

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

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

Manufacturing Notes:

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

Handling Notes:

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

Reagent

8330SurrStock_00164

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: 216071012
Solvent: Methanol
Hazards: **HIGHLY FLAMMABLE** - *Refer to SDS for safety info*

Danger 2

Date Certified: Jul 1, 2016
Expiration: Jul 1, 2026
Sample Size: 1 mL
Components: 1
Storage Condition: Ambient (>5 °C)

Included on ISO/IEC 17025 Scope of Accreditation: Yes

Included on ISO Guide 34 Scope of Accreditation: Yes

Component	CAS #	Purity % (GC/FID)	Prepared Concentration[1] (µg/mL)	Certified Analyte Concentration[2] (µg/mL)
1,2-Dinitrobenzene	528-29-0	100.0	100.1	1001

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

[1] All weights are traceable through NIST, Test No. 822-275872-11

[2] Certified Analyte Concentration = Purity x Prepared Concentration. The Uncertainty associated with the gravimetric values reported on this certificate is ±0.24%. The CRM Uncertainty calculated for this product is ±5%. These values are the expanded uncertainty and represent 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.

See reverse side for additional information

Certified By: _____
Larry Decker, Organic QC Manager

Page 1 of 1

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. 5/18

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)

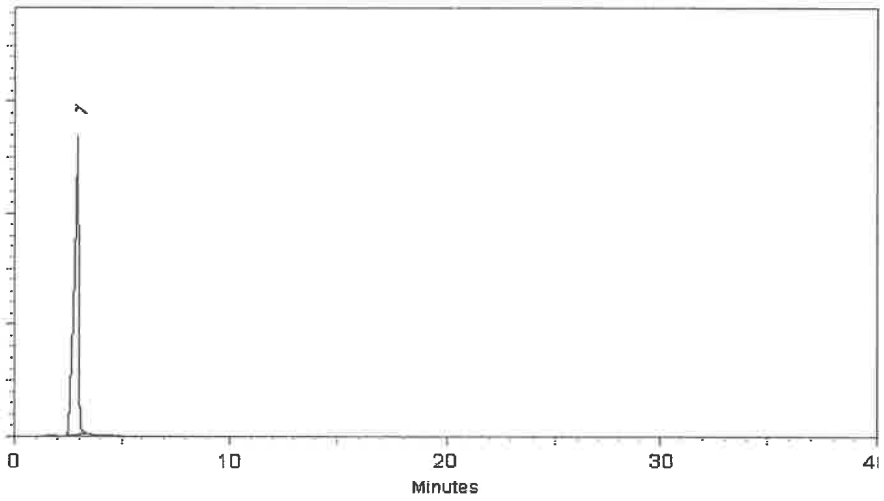
Flow Rate:
1.0 ml/min.

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.: 280-176609-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): UltraCarb5u ID: 4.6 (mm) GC Column (2): Luna-phenyl 4.6 (mm)

Client Sample ID	Lab Sample ID	12DNB1 #	12DNB2 #
FBQmw-178-230301-GW	280-176609-1		100
FBQmw-178-230301-GW	280-176609-1	92 M	
FBQmw-178-230302-GW	280-176609-2		104
FBQmw-178-230302-GW	280-176609-2	98 M	
LL1mw-092-230301-GW	280-176609-3		100
LL1mw-092-230301-GW	280-176609-3	97 M	
LL1mw-093-230301-GW	280-176609-4		102
LL1mw-093-230301-GW	280-176609-4	101 M	
	MB 280-612937/1-A	106 M	
	LCS 280-612937/2-A	104	
	LCSD 280-612937/3-A	102	
FBQmw-178-230301-GW MS	280-176609-1 MS		105
FBQmw-178-230301-GW MS	280-176609-1 MS	100	
FBQmw-178-230301-GW MSD	280-176609-1 MSD		108
FBQmw-178-230301-GW MSD	280-176609-1 MSD	101	

	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.: 280-176609-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 05180012.D

Lab ID: LCS 280-612937/2-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,3,5-Trinitrobenzene	2.00	2.05	103	73-125	
1,3-Dinitrobenzene	2.00	1.94	97	78-120	
2,4,6-Trinitrotoluene	2.00	1.86	93	71-123	
2,4-Dinitrotoluene	2.00	1.84	92	78-120	
2,6-Dinitrotoluene	2.00	1.85	92	77-127	
2-Amino-4,6-dinitrotoluene	2.00	1.82	91	79-120	
2-Nitrotoluene	2.00	1.51	76	70-127	
3-Nitrotoluene	2.00	1.45	72	73-125	Q
4-Amino-2,6-dinitrotoluene	2.00	1.76	88	76-125	
4-Nitrotoluene	2.00	1.50	75	71-127	
HMX	2.00	1.81	90	65-135	M
Nitrobenzene	2.00	1.71	86	65-134	
Nitroglycerin	20.0	19.9	99	74-127	
PETN	20.0	21.0	105	73-127	
RDX	2.00	1.92	96	68-130	M
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 DUPLICATE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-176609-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 05180013.D

Lab ID: LCSD 280-612937/3-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,3,5-Trinitrobenzene	2.00	2.05	102	0	20	73-125	
1,3-Dinitrobenzene	2.00	1.94	97	0	20	78-120	
2,4,6-Trinitrotoluene	2.00	1.87	93	0	20	71-123	
2,4-Dinitrotoluene	2.00	1.83	92	0	20	78-120	
2,6-Dinitrotoluene	2.00	1.91	95	3	20	77-127	
2-Amino-4,6-dinitrotoluene	2.00	1.79	90	1	20	79-120	
2-Nitrotoluene	2.00	1.54	77	2	20	70-127	
3-Nitrotoluene	2.00	1.46	73	1	20	73-125	
4-Amino-2,6-dinitrotoluene	2.00	1.81	90	2	20	76-125	
4-Nitrotoluene	2.00	1.50	75	0	20	71-127	
HMX	2.00	1.88	94	4	20	65-135	M
Nitrobenzene	2.00	1.72	86	1	20	65-134	
Nitroglycerin	20.0	19.9	100	0	20	74-127	
PETN	20.0	20.9	104	1	20	73-127	
RDX	2.00	1.88	94	2	20	68-130	M
Tetryl	2.00	2.07	104	2	20	64-128	

Column to be used to flag recovery and RPD values

FORM III 8330B

FORM III
HPLC/IC MATRIX SPIKE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-176609-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 05180036.D

Lab ID: 280-176609-1 MS Client ID: FBQmw-178-230301-GW MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
1,3,5-Trinitrobenzene	2.12	0.21 U	2.25	106	73-125	M
1,3-Dinitrobenzene	2.12	0.11 U	2.10	99	78-120	
2,4,6-Trinitrotoluene	2.12	0.11 U	1.97	93	71-123	
2,4-Dinitrotoluene	2.12	0.085 U	2.32	110	78-120	
2,6-Dinitrotoluene	2.12	0.085 U	2.09	99	77-127	
2-Amino-4,6-dinitrotoluene	2.12	0.11 U	1.95	92	79-120	
3-Nitrotoluene	2.12	0.37 U	2.00	94	73-125	M
4-Amino-2,6-dinitrotoluene	2.12	0.13 U	1.88	89	76-125	
4-Nitrotoluene	2.12	0.43 U	1.73	82	71-127	M
Nitrobenzene	2.12	0.21 U	1.88	89	65-134	
Nitroglycerin	21.2	2.1 U	20.3	96	74-127	
PETN	21.2	1.1 U	21.6	102	73-127	
RDX	2.12	2.7	4.75	97	68-130	M
Tetryl	2.12	0.11 U	2.23	105	64-128	

Column to be used to flag recovery and RPD values

FORM III 8330B

FORM III
HPLC/IC MATRIX SPIKE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-176609-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 05190020.D

Lab ID: 280-176609-1 MS Client ID: FBQmw-178-230301-GW MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
2-Nitrotoluene	2.12	0.21 U	12.7	600	70-127	M J1
HMX	2.12	0.21 U	1.84	87	65-135	
RDX	2.12	0.25	2.07	86	68-130	

Column to be used to flag recovery and RPD values

FORM III 8330B

FORM III
HPLC/IC MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-176609-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 05180037.D

Lab ID: 280-176609-1 MSD Client ID: FBQmw-178-230301-GW MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,3,5-Trinitrobenzene	2.11	2.30	109	3	20	73-125	M
1,3-Dinitrobenzene	2.11	2.13	101	1	20	78-120	
2,4,6-Trinitrotoluene	2.11	2.00	95	2	20	71-123	
2,4-Dinitrotoluene	2.11	2.34	111	1	20	78-120	
2,6-Dinitrotoluene	2.11	2.11	100	1	20	77-127	
2-Amino-4,6-dinitrotoluene	2.11	1.94	92	0	20	79-120	
3-Nitrotoluene	2.11	2.00	95	0	20	73-125	M
4-Amino-2,6-dinitrotoluene	2.11	1.80	85	4	20	76-125	
4-Nitrotoluene	2.11	1.73	82	0	20	71-127	M
Nitrobenzene	2.11	1.89	90	1	20	65-134	
Nitroglycerin	21.1	20.7	98	2	20	74-127	
PETN	21.1	22.2	105	3	20	73-127	
RDX	2.11	5.08	113	7	20	68-130	M
Tetryl	2.11	2.23	106	0	20	64-128	

Column to be used to flag recovery and RPD values

FORM III 8330B

FORM III
HPLC/IC MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-176609-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 05190021.D

Lab ID: 280-176609-1 MSD Client ID: FBQmw-178-230301-GW MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
2-Nitrotoluene	2.11	13.0	614	2	20	70-127	M J1
HMX	2.11	1.82	86	1	20	65-135	
RDX	2.11	2.10	88	1	20	68-130	

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.: 280-176609-1

SDG No.:

Lab Sample ID: MB 280-612937/1-A

Matrix: Water Date Extracted: 05/18/2023 13:20

Lab File ID:(1) 05180011.D Lab File ID:(2)

Date Analyzed:(1) 05/18/2023 22:09 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 280-612937/2-A	05/18/2023 22:32	
	LCSD 280-612937/3-A	05/18/2023 22:55	
FBQmw-178-230301-GW	280-176609-1	05/19/2023 07:19	05/19/2023 21:30
FBQmw-178-230301-GW MS	280-176609-1 MS	05/19/2023 07:42	05/19/2023 22:06
FBQmw-178-230301-GW MSD	280-176609-1 MSD	05/19/2023 08:05	05/19/2023 22:42
FBQmw-178-230302-GW	280-176609-2	05/19/2023 08:28	05/19/2023 23:18
LL1mw-092-230301-GW	280-176609-3	05/19/2023 08:51	05/19/2023 23:54
LL1mw-093-230301-GW	280-176609-4	05/19/2023 09:14	05/20/2023 00:30

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-176609-1

SDG No.:

Client Sample ID: FBQmw-178-230301-GW Lab Sample ID: 280-176609-1

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

Date Analyzed (1): 05/19/2023 07:19 Date Analyzed (2): 05/19/2023 21:30

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	7.41	7.71	2.7		166.0
	2		9.10	8.95	9.25	0.25		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-176609-1

SDG No.:

Client Sample ID: FBQmw-178-230301-GW MS Lab Sample ID: 280-176609-1 MS

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

Date Analyzed (1): 05/19/2023 07:42 Date Analyzed (2): 05/19/2023 22:06

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	
HMX	1		6.55	6.40	6.70	2.19		17.4
	2		6.83	6.69	6.99	1.84		
RDX	1		7.58	7.41	7.71	4.75		78.5
	2		9.10	8.95	9.25	2.07		
1,3,5-Trinitrobenzene	1		8.64	8.49	8.79	2.25		4.3
	2		17.50	17.35	17.65	2.15		
1,3-Dinitrobenzene	1		9.26	9.10	9.40	2.10		0.1
	2		14.73	14.55	14.85	2.10		
Nitrobenzene	1		9.63	9.48	9.78	1.88		13.7
	2		11.63	11.47	11.77	2.16		
Tetryl	1		10.00	9.84	10.14	2.23		11.6
	2		22.40	22.21	22.51	2.51		
Nitroglycerin	1		10.45	10.29	10.59	20.3		11.6
	2		15.23	15.02	15.32	22.8		
2,4,6-Trinitrotoluene	1		10.89	10.77	10.97	1.97		0.3
	2		23.22	23.03	23.33	1.97		
4-Amino-2,6-dinitrotoluene	1		11.08	10.97	11.17	1.88		159.3
	2		16.38	16.36	16.66	16.6		
2-Amino-4,6-dinitrotoluene	1		11.34	11.22	11.42	1.95		46.1
	2		17.41	17.18	17.48	3.12		
2,6-Dinitrotoluene	1		11.49	11.37	11.57	2.09		5.0
	2		18.68	18.47	18.77	1.99		
2,4-Dinitrotoluene	1		11.66	11.54	11.74	2.32		16.9
	2		19.13	18.93	19.23	1.96		
2-Nitrotoluene	1		12.48	12.31	12.61	2.25		139.8
	2		15.85	15.60	15.90	12.7		
4-Nitrotoluene	1		12.90	12.72	13.02	1.73		0.3
	2		16.00	15.82	16.12	1.73		
3-Nitrotoluene	1		13.48	13.30	13.60	2.00		17.8
	2		16.87	16.66	16.96	1.67		
PETN	1		14.64	14.45	14.75	21.6		4.9
	2		24.43	24.23	24.53	22.7		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-176609-1

SDG No.:

Client Sample ID: FBQmw-178-230301-GW MSD Lab Sample ID: 280-176609-1 MSD

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

Date Analyzed (1): 05/19/2023 08:05 Date Analyzed (2): 05/19/2023 22:42

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	
HMX	1		6.55	6.40	6.70	2.08		13.3
	2		6.82	6.69	6.99	1.82		
RDX	1		7.58	7.41	7.71	5.08		82.9
	2		9.10	8.95	9.25	2.10		
1,3,5-Trinitrobenzene	1		8.65	8.49	8.79	2.30		2.7
	2		17.51	17.35	17.65	2.24		
1,3-Dinitrobenzene	1		9.27	9.10	9.40	2.13		2.5
	2		14.73	14.55	14.85	2.18		
Nitrobenzene	1		9.63	9.48	9.78	1.89		16.0
	2		11.62	11.47	11.77	2.22		
Tetryl	1		10.00	9.84	10.14	2.23		12.2
	2		22.42	22.21	22.51	2.52		
Nitroglycerin	1		10.45	10.29	10.59	20.7		11.3
	2		15.23	15.02	15.32	23.2		
2,4,6-Trinitrotoluene	1		10.89	10.77	10.97	2.00		0.3
	2		23.24	23.03	23.33	1.99		
4-Amino-2,6-dinitrotoluene	1		11.09	10.97	11.17	1.80		161.8
	2		16.39	16.36	16.66	17.1		
2-Amino-4,6-dinitrotoluene	1		11.34	11.22	11.42	1.94		42.3
	2		17.44	17.18	17.48	2.98		
2,6-Dinitrotoluene	1		11.49	11.37	11.57	2.11		5.8
	2		18.69	18.47	18.77	2.00		
2,4-Dinitrotoluene	1		11.66	11.54	11.74	2.34		19.1
	2		19.14	18.93	19.23	1.93		
2-Nitrotoluene	1		12.47	12.31	12.61	2.24		141.1
	2		15.85	15.60	15.90	13.0		
4-Nitrotoluene	1		12.89	12.72	13.02	1.73		10.1
	2		16.00	15.82	16.12	1.92		
3-Nitrotoluene	1		13.47	13.30	13.60	2.00		19.1
	2		16.88	16.66	16.96	1.65		
PETN	1		14.63	14.45	14.75	22.2		3.8
	2		24.44	24.23	24.53	23.1		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-176609-1

SDG No.:

Client Sample ID: FBQmw-178-230302-GW Lab Sample ID: 280-176609-2

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

Date Analyzed (1): 05/19/2023 08:28 Date Analyzed (2): 05/19/2023 23:18

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	7.41	7.71	2.6		167.5
	2		9.12	8.95	9.25	0.23		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-176609-1

SDG No.:

Client Sample ID: LL1mw-092-230301-GW Lab Sample ID: 280-176609-3

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

Date Analyzed (1): 05/19/2023 08:51 Date Analyzed (2): 05/19/2023 23:54

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	7.41	7.71	1.0		150.5
	2		9.11	8.95	9.25	0.14		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-176609-1

SDG No.:

Client Sample ID: LL1mw-093-230301-GW Lab Sample ID: 280-176609-4

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

Date Analyzed (1): 05/19/2023 09:14 Date Analyzed (2): 05/20/2023 00:30

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	7.41	7.71	0.67		97.8
	2		9.13	8.95	9.25	0.23		

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-176609-1

SDG No.:

Client Sample ID: FBQmw-178-230301-GW | Lab Sample ID: 280-176609-1

Matrix: Water | Lab File ID: 05180035.D

Analysis Method: 8330B | Date Collected: 05/16/2023 13:37

Extraction Method: 3535 | Date Extracted: 05/18/2023 13:20

Sample wt/vol: 470.3(mL) | Date Analyzed: 05/19/2023 07:19

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.: 613045 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	0.21	U M	0.22	0.21	0.089
99-65-0	1,3-Dinitrobenzene	0.11	U M	0.12	0.11	0.039
118-96-7	2,4,6-Trinitrotoluene	0.11	U	0.12	0.11	0.048
121-14-2	2,4-Dinitrotoluene	0.085	U	0.11	0.085	0.029
606-20-2	2,6-Dinitrotoluene	0.085	U	0.11	0.085	0.043
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	0.061
99-99-0	4-Nitrotoluene	0.43	U	0.44	0.43	0.11
98-95-3	Nitrobenzene	0.21	U	0.22	0.21	0.097
55-63-0	Nitroglycerin	2.1	U	2.2	2.1	0.98
78-11-5	PETN	1.1	U	1.2	1.1	0.48
121-82-4	RDX	2.7	M 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	92	M	83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20230518-121611.b\05180035.D
Lims ID: 280-176609-B-1-A
Client ID: FBQmw-178-230301-GW
Sample Type: Client
Inject. Date: 19-May-2023 07:19:59 ALS Bottle#: 35 Worklist Smp#: 35
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-176609-B-1-A
Operator ID: JZ/JG Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20230518-121611.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 19-May-2023 12:22:06 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: 19-May-2023 12:11:29

	Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/mL	Flags
	1 Triamine Trinitrobenzene	1		2.444			ND	
	3 TNX	1		6.426			ND	U
	2 2,6-diamino-4-nitrotoluene	1		6.431			ND	MU
	4 HMX	1	6.557	6.546	0.011	2479	0.0265	M
	5 2,4-diamino-6-nitrotoluene	1		6.618			ND	U
	6 DNX	1		6.753			ND	U
	7 MNX	1	7.210	7.180	0.030	8044	0.0613	M
	8 RDX	1	7.584	7.560	0.024	26967	0.2535	M
	9 2,4,6-Trinitrophenol	1	7.964	7.960	0.004	4595	0.0606	M
$	10 1,2-Dinitrobenzene	1	8.517	8.513	0.004	23226	0.1839	M
	11 1,3,5-Trinitrobenzene	1		8.640			ND	U
	12 1,3-Dinitrobenzene	1		9.253			ND	U
	13 Nitrobenzene	1		9.626			ND	
	14 3,5-Dinitroaniline	1		9.859			ND	
	15 Tetryl	1		9.986			ND	
	16 Nitroglycerin	2		10.439			ND	
	17 2,4,6-Trinitrotoluene	1		10.873			ND	
	18 4-Amino-2,6-dinitrotoluene	1		11.066			ND	
	19 2-Amino-4,6-dinitrotoluene	1		11.319			ND	
	20 2,6-Dinitrotoluene	1		11.473			ND	
	21 2,4-Dinitrotoluene	1		11.639			ND	
	22 o-Nitrotoluene	1	12.477	12.459	0.018	6845	0.0535	
	23 p-Nitrotoluene	1		12.873			ND	
	24 m-Nitrotoluene	1		13.446			ND	
	25 PETN	2		14.599			ND	
	26 Ammonium Picrate	1		0.000			ND	

QC Flag Legend
Processing Flags

Review Flags
M - Manually Integrated
U - Marked Undetected

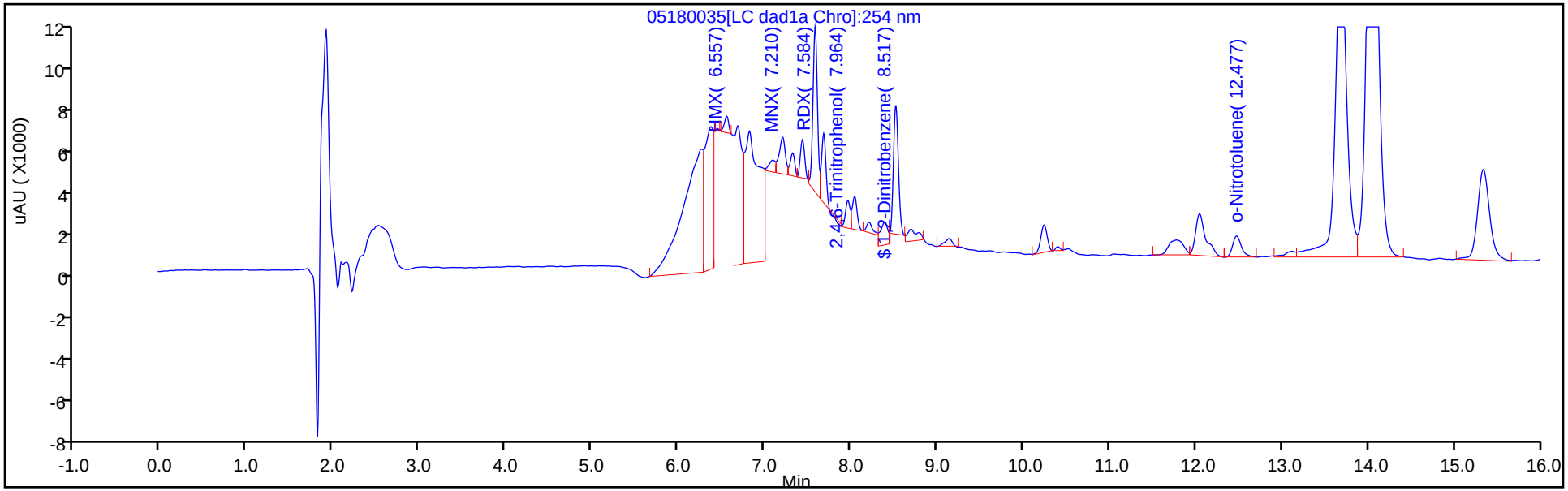
Report Date: 19-May-2023 12:22:07 Chrom Revision: 2.3 16-May-2023 16:37:30

Eurofins Denver

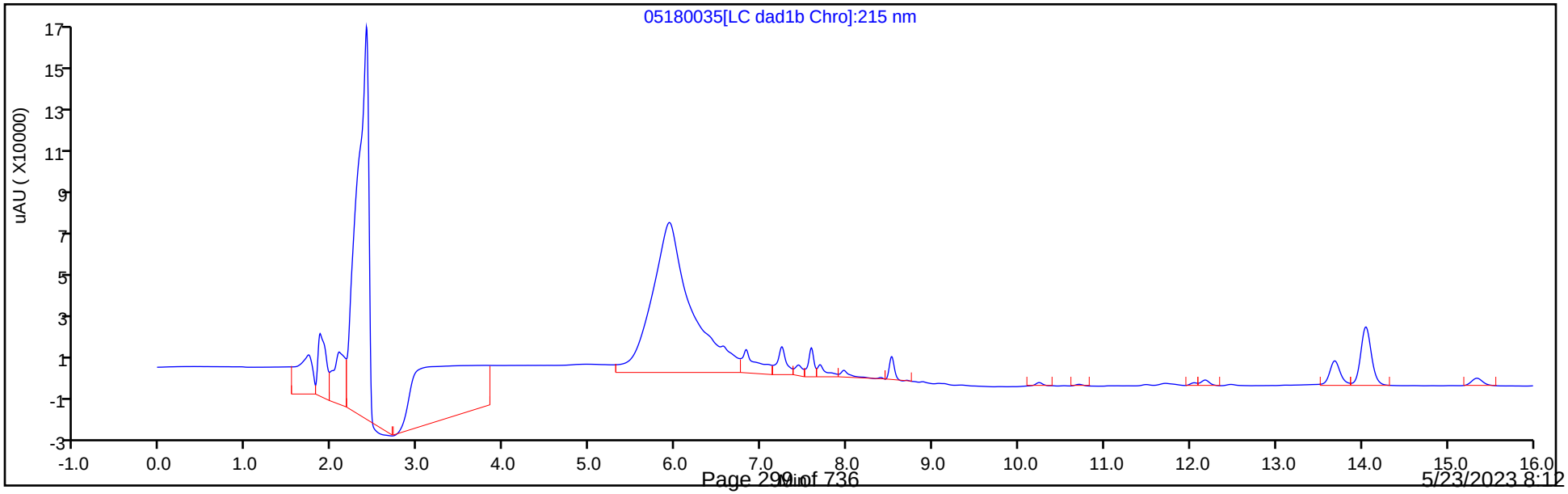
Data File: \\chromfs\denver\chromdata\chhplc_x\20230518-121611.b\05180035.d

Injection Date:	19-May-2023 07:19:59	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	280-176609-B-1-A	Lab Sample ID:	280-176609-1	Worklist Smp#:	35
Client ID:	FBQmw-178-230301-GW				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	35
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20230518-121611.b\05180035.D				
Lims ID:	280-176609-B-1-A				
Client ID:	FBQmw-178-230301-GW				
Sample Type:	Client				
Inject. Date:	19-May-2023 07:19:59	ALS Bottle#:	35	Worklist Smp#:	35
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-176609-B-1-A				
Operator ID:	JZ/JG	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20230518-121611.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	19-May-2023 12:22:06	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: 19-May-2023 12:11:29

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.1839	91.94

Manual Integration/User Assign Peak Report

Eurofins Denver

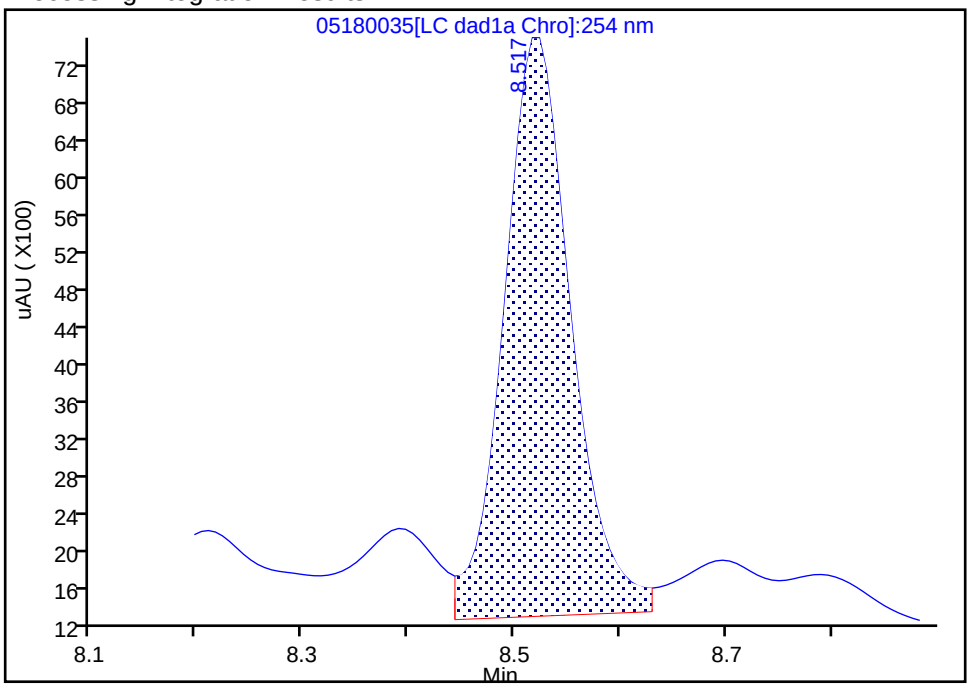
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230518-121611.b\05180035.d				
Injection Date:	19-May-2023 07:19:59	Instrument ID:	CHHPLC_X3		
Lims ID:	280-176609-B-1-A	Lab Sample ID:	280-176609-1		
Client ID:	FBQmw-178-230301-GW				
Operator ID:	JZ/JG	ALS Bottle#:	35	Worklist Smp#:	35
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

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

Signal: 1

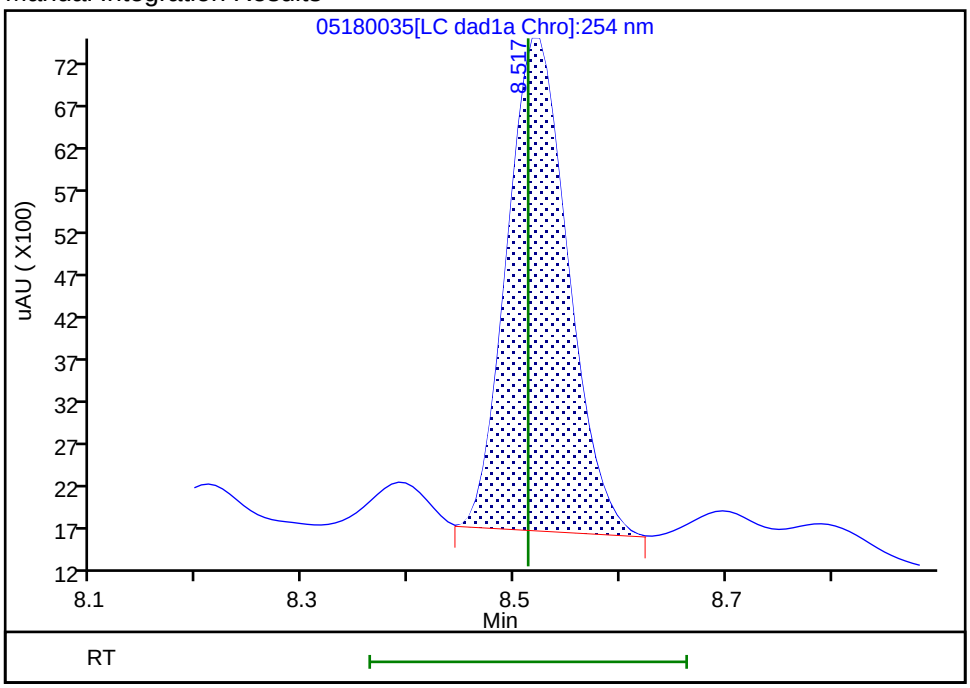
Processing Integration Results

RT: 8.52
Area: 27255
Amount: 0.215781
Amount Units: ug/mL



Manual Integration Results

RT: 8.52
Area: 23226
Amount: 0.183883
Amount Units: ug/mL



Reviewer: LV5D, 19-May-2023 12:10:46 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline

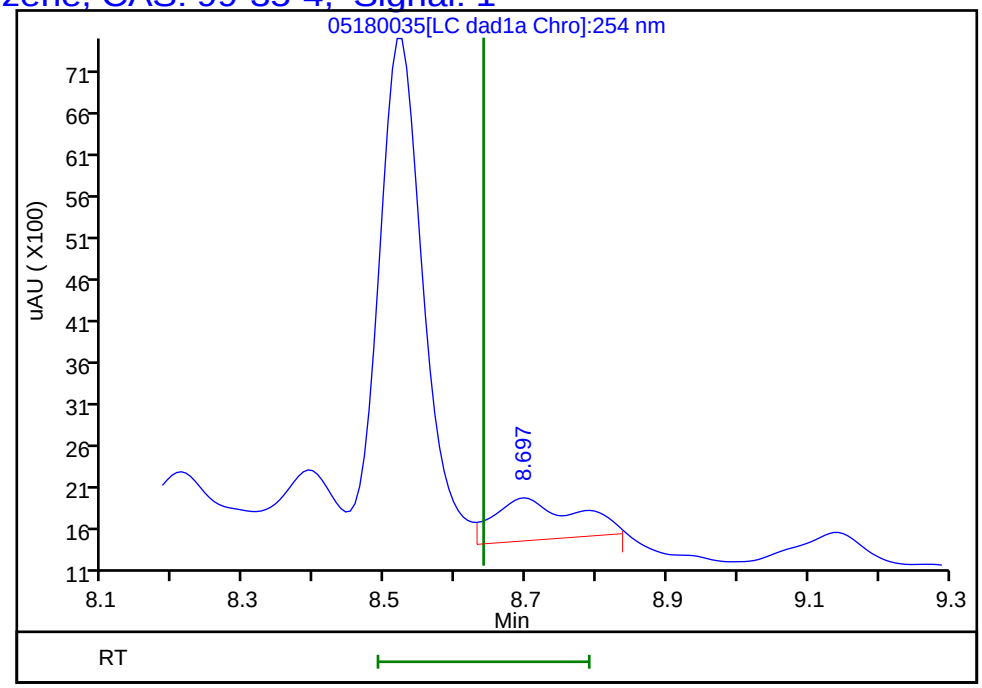
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20230518-121611.b\05180035.d				
Injection Date:	19-May-2023 07:19:59	Instrument ID:	CHHPLC_X3		
Lims ID:	280-176609-B-1-A	Lab Sample ID:	280-176609-1		
Client ID:	FBQmw-178-230301-GW				
Operator ID:	JZ/JG	ALS Bottle#:	35	Worklist Smp#:	35
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

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

RT: 8.70
Response: 4090
Amount: 0.018835



Reviewer: LV5D, 19-May-2023 12:11:29
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

User Disabled Compound Report

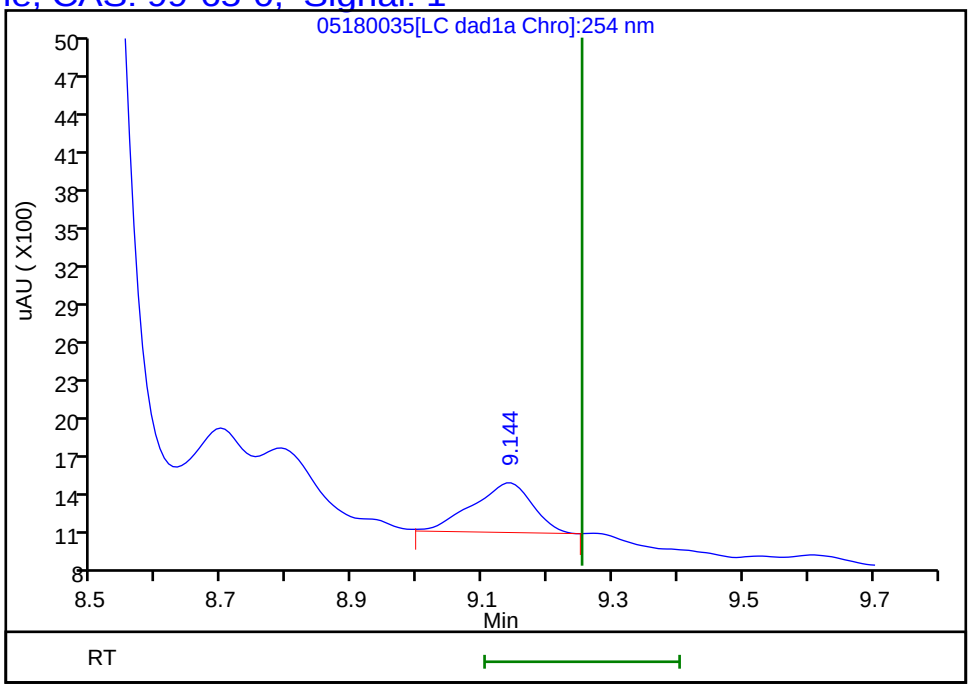
Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20230518-121611.b\05180035.d

Injection Date:	19-May-2023 07:19:59	Instrument ID:	CHHPLC_X3		
Lims ID:	280-176609-B-1-A	Lab Sample ID:	280-176609-1		
Client ID:	FBQmw-178-230301-GW				
Operator ID:	JZ/JG	ALS Bottle#:	35	Worklist Smp#:	35
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

12 1,3-Dinitrobenzene, CAS: 99-65-0, Signal: 1

RT: 9.14
Response: 2452
Amount: 0.008329



Reviewer: LV5D, 19-May-2023 12:11:29
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Manual Integration/User Assign Peak Report

Eurofins Denver

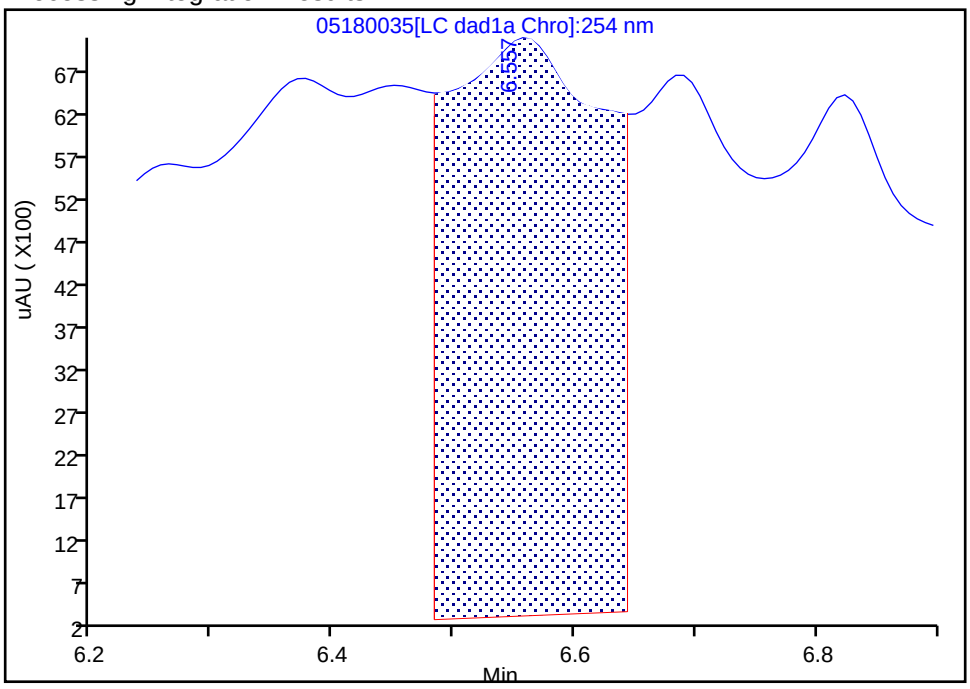
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230518-121611.b\05180035.d				
Injection Date:	19-May-2023 07:19:59	Instrument ID:	CHHPLC_X3		
Lims ID:	280-176609-B-1-A	Lab Sample ID:	280-176609-1		
Client ID:	FBQmw-178-230301-GW				
Operator ID:	JZ/JG	ALS Bottle#:	35	Worklist Smp#:	35
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

4 HMX, CAS: 2691-41-0

Signal: 1

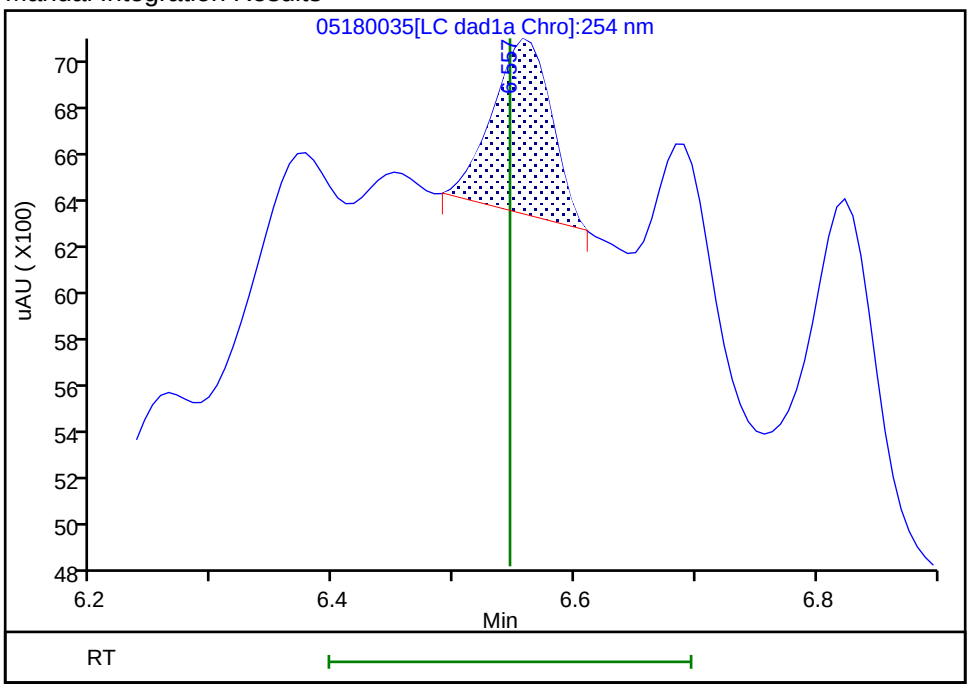
Processing Integration Results

RT: 6.56
Area: 60176
Amount: 0.643400
Amount Units: ug/mL



Manual Integration Results

RT: 6.56
Area: 2479
Amount: 0.026505
Amount Units: ug/mL



Reviewer: LV5D, 19-May-2023 12:11:27 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

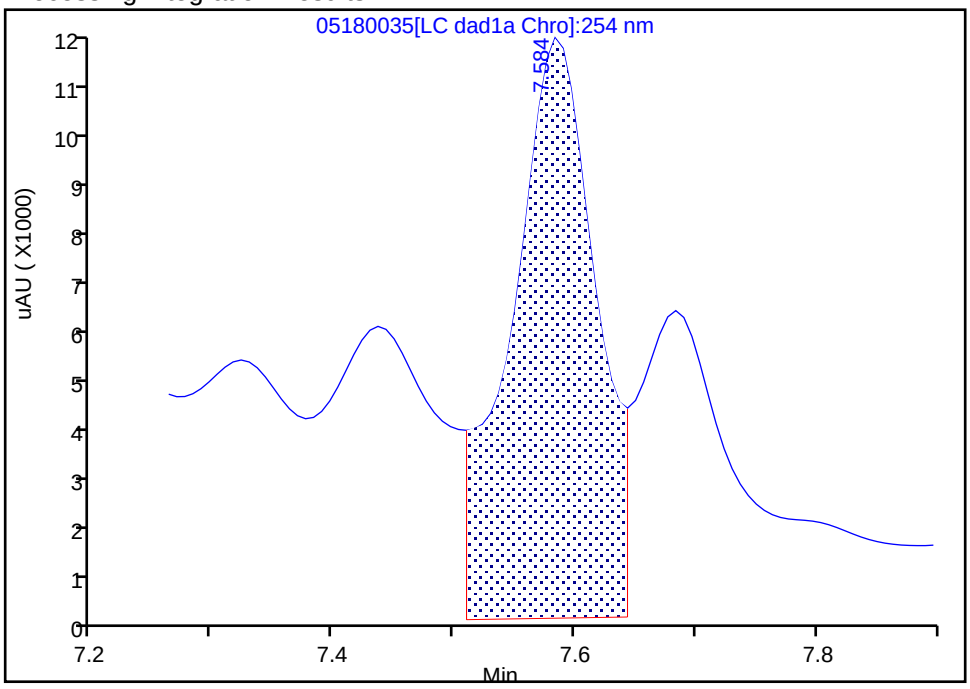
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230518-121611.b\05180035.d				
Injection Date:	19-May-2023 07:19:59	Instrument ID:	CHHPLC_X3		
Lims ID:	280-176609-B-1-A	Lab Sample ID:	280-176609-1		
Client ID:	FBQmw-178-230301-GW				
Operator ID:	JZ/JG	ALS Bottle#:	35	Worklist Smp#:	35
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

8 RDX, CAS: 121-82-4

Signal: 1

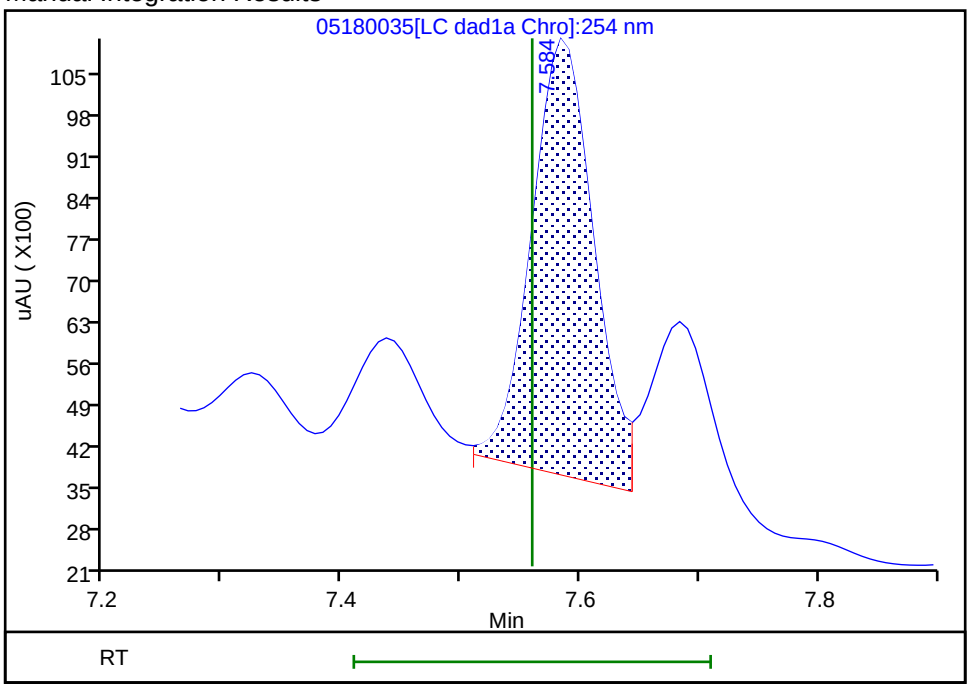
Processing Integration Results

RT: 7.58
Area: 49747
Amount: 0.467636
Amount Units: ug/mL



Manual Integration Results

RT: 7.58
Area: 26967
Amount: 0.253497
Amount Units: ug/mL



Reviewer: LV5D, 19-May-2023 12:11:01 -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.: 280-176609-1

SDG No.:

Client Sample ID: FBQmw-178-230301-GW | Lab Sample ID: 280-176609-1

Matrix: Water | Lab File ID: 05190019.D

Analysis Method: 8330B | Date Collected: 05/16/2023 13:37

Extraction Method: 3535 | Date Extracted: 05/18/2023 13:20

Sample wt/vol: 470.3(mL) | Date Analyzed: 05/19/2023 21:30

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.: 613169 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
88-72-2	2-Nitrotoluene	0.21	U M J1	0.22	0.21	0.091
2691-41-0	HMX	0.21	U	0.22	0.21	0.093
121-82-4	*RDX*	*0.25*	*J1*	*0.22*	0.21	*0.055*

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\G2_LUNA\20230519-121648.b\05190019.D
Lims ID: 280-176609-B-1-A
Client ID: FBQmw-178-230301-GW
Sample Type: Client
Inject. Date: 19-May-2023 21:30:43 ALS Bottle#: 19 Worklist Smp#: 19
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-176609-B-1-A
Operator ID: JZ/JG Instrument ID: CHHPLC_G2_LUNA

Method: \\chromfs\Denver\ChromData\G2_LUNA\20230519-121648.b\G2_8330_Luna.m
Limit Group: GCSV - 8330
Last Update: 20-May-2023 11:50:53 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: CTX1663

First Level Reviewer: LV5D Date: 20-May-2023 11:49:02

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 2,6-diamino-4-nitrotoluene	1		4.501			ND	
2 2,4-diamino-6-nitrotoluene	1		5.128			ND	
3 TNX	1		5.315			ND	
4 DNX	1		6.175			ND	
6 HMX	1		6.835			ND	
7 MNX	1		7.695			ND	
5 2,4,6-Trinitrophenol	1		8.562			ND	
8 RDX	1	9.097	9.102	-0.005	5083	0.0236	
9 Nitrobenzene	1	11.597	11.622	-0.025	12195	0.0321	
$ 10 1,2-Dinitrobenzene	1	12.570	12.582	-0.012	53290	0.2008	
11 3,5-Dinitroaniline	1	14.470	14.429	0.041	24541	0.0561	
12 1,3-Dinitrobenzene	1		14.695			ND	
13 Nitroglycerin	2		15.169			ND	U
14 o-Nitrotoluene	1		15.749			ND	U
15 p-Nitrotoluene	1		15.969			ND	
16 4-Amino-2,6-dinitrotoluene	1		16.509			ND	
17 m-Nitrotoluene	1		16.809			ND	
18 2-Amino-4,6-dinitrotoluene	1		17.329			ND	U
26 Triamine Trinitrobenzene	1	17.390	17.438	-0.048	31277	NC	
19 1,3,5-Trinitrobenzene	1		17.502			ND	
20 2,6-Dinitrotoluene	1		18.622			ND	
21 2,4-Dinitrotoluene	1		19.082			ND	
22 Tetryl	1		22.355			ND	
23 2,4,6-Trinitrotoluene	1		23.182			ND	
24 PETN	2		24.382			ND	
25 Ammonium Picrate	1		0.000			ND	

QC Flag Legend

Processing Flags
NC - Not Calibrated

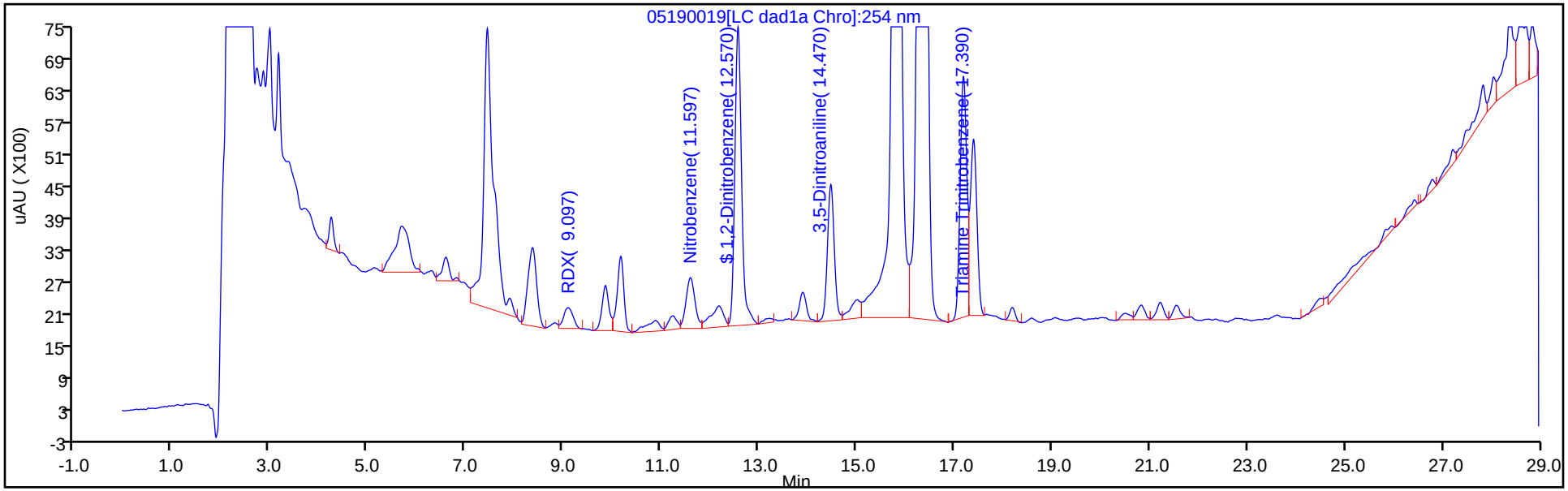
Review Flags
U - Marked Undetected

Report Date: 20-May-2023 11:50:53 Chrom Revision: 2.3 16-May-2023 16:37:30

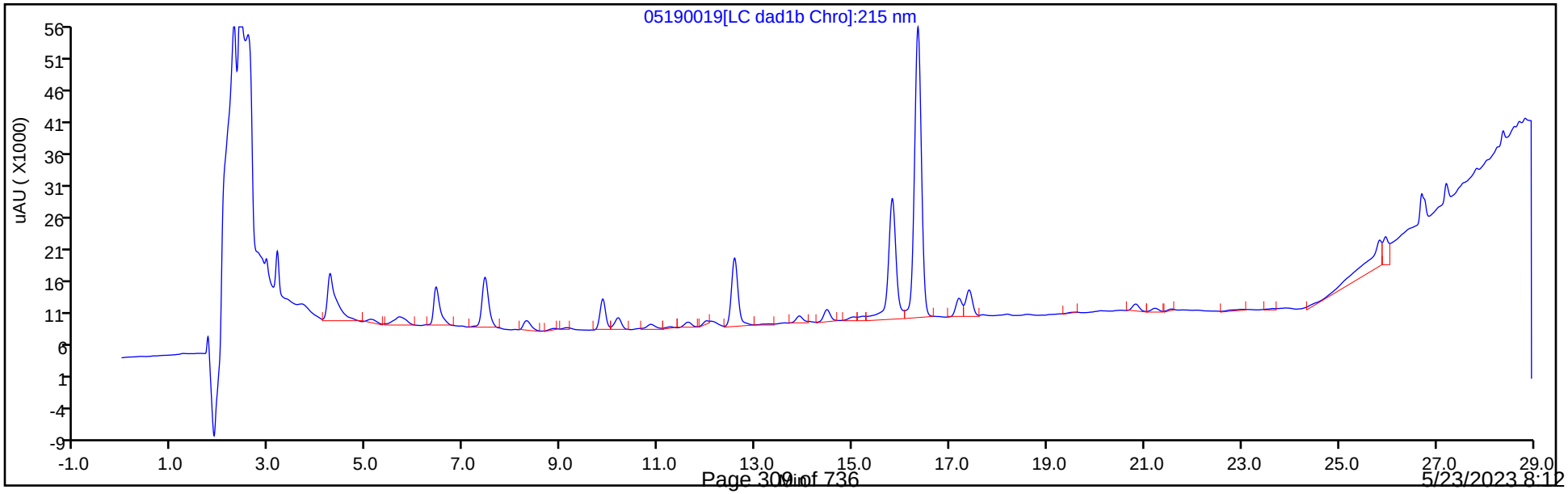
Eurofins Denver

Data File:	\\chromfs\denver\chromdata\g2_luna\20230519-121648.b\05190019.d				
Injection Date:	19-May-2023 21:30:43	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	JZ/JG
Lims ID:	280-176609-B-1-A	Lab Sample ID:	280-176609-1	Worklist Smp#:	19
Client ID:	FBQmw-178-230301-GW				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	19
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		

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



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



Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\G2_LUNA\20230519-121648.b\05190019.D				
Lims ID:	280-176609-B-1-A				
Client ID:	FBQmw-178-230301-GW				
Sample Type:	Client				
Inject. Date:	19-May-2023 21:30:43	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-176609-B-1-A				
Operator ID:	JZ/JG	Instrument ID:	CHHPLC_G2_LUNA		
Method:	\\chromfs\Denver\ChromData\G2_LUNA\20230519-121648.b\G2_8330_Luna.m				
Limit Group:	GCSV - 8330				
Last Update:	20-May-2023 11:50:53	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:	CTX1663				

First Level Reviewer: LV5D Date: 20-May-2023 11:49:02

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.2008	100.39

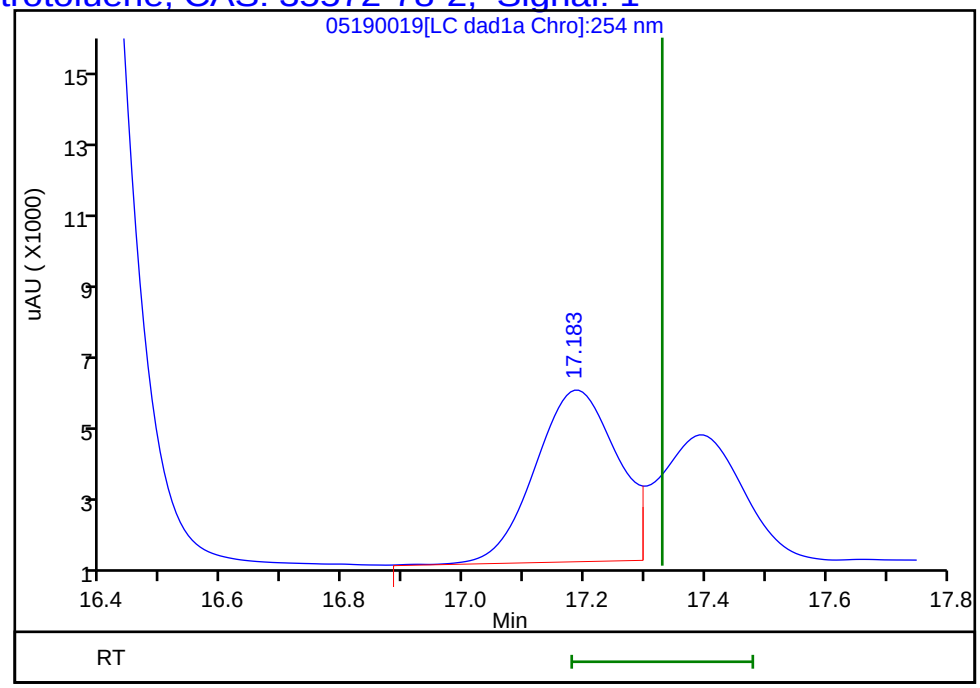
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\denver\chromdata\g2_luna\20230519-121648.b\05190019.d				
Injection Date:	19-May-2023 21:30:43	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	280-176609-B-1-A	Lab Sample ID:	280-176609-1		
Client ID:	FBQmw-178-230301-GW				
Operator ID:	JZ/JG	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

18 2-Amino-4,6-dinitrotoluene, CAS: 35572-78-2, Signal: 1

RT: 17.18
Response: 42430
Amount: 0.106000



Reviewer: LV5D, 20-May-2023 11:49:02
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

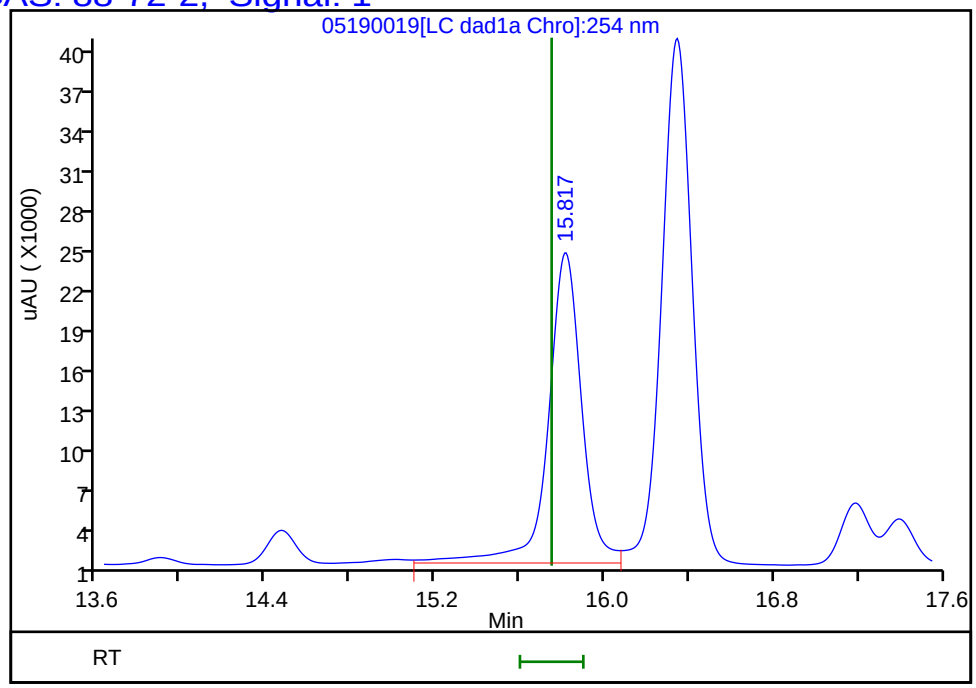
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\denver\chromdata\g2_luna\20230519-121648.b\05190019.d				
Injection Date:	19-May-2023 21:30:43	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	280-176609-B-1-A	Lab Sample ID:	280-176609-1		
Client ID:	FBQmw-178-230301-GW				
Operator ID:	JZ/JG	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

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

RT: 15.82
Response: 258086
Amount: 1.061260



Reviewer: LV5D, 20-May-2023 11:49:02
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-176609-1

SDG No.:

Client Sample ID: FBQmw-178-230302-GW | Lab Sample ID: 280-176609-2

Matrix: Water | Lab File ID: 05180038.D

Analysis Method: 8330B | Date Collected: 05/16/2023 13:37

Extraction Method: 3535 | Date Extracted: 05/18/2023 13:20

Sample wt/vol: 492.5(mL) | Date Analyzed: 05/19/2023 08:28

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.: 613045 | 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	0.085
99-65-0	1,3-Dinitrobenzene	0.10	U M	0.11	0.10	0.037
118-96-7	2,4,6-Trinitrotoluene	0.10	U	0.11	0.10	0.046
121-14-2	2,4-Dinitrotoluene	0.081	U	0.10	0.081	0.028
606-20-2	2,6-Dinitrotoluene	0.081	U	0.10	0.081	0.041
35572-78-2	2-Amino-4,6-dinitrotoluene	0.10	U	0.11	0.10	0.051
99-08-1	3-Nitrotoluene	0.36	U Q	0.41	0.36	0.20
19406-51-0	4-Amino-2,6-dinitrotoluene	0.12	U	0.15	0.12	0.059
99-99-0	4-Nitrotoluene	0.41	U	0.42	0.41	0.10
98-95-3	Nitrobenzene	0.20	U	0.21	0.20	0.092
55-63-0	Nitroglycerin	2.0	U	2.1	2.0	0.94
78-11-5	PETN	1.0	U	1.1	1.0	0.45
121-82-4	RDX	2.6	M J1	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	98	M	83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20230518-121611.b\05180038.D
Lims ID: 280-176609-B-2-A
Client ID: FBQmw-178-230302-GW
Sample Type: Client
Inject. Date: 19-May-2023 08:28:47 ALS Bottle#: 38 Worklist Smp#: 38
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-176609-B-2-A
Operator ID: JZ/JG Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20230518-121611.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 19-May-2023 12:22:06 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: 19-May-2023 12:18:13

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/mL	Flags
4 HMX	1	6.564	6.546	0.018	2809	0.0300	M
8 RDX	1	7.584	7.560	0.024	27625	0.2597	M
$ 10 1,2-Dinitrobenzene	1	8.518	8.513	0.005	24725	0.1958	M
11 1,3,5-Trinitrobenzene	1		8.640			ND	U
12 1,3-Dinitrobenzene	1		9.253			ND	U
13 Nitrobenzene	1		9.626			ND	
15 Tetryl	1		9.986			ND	
16 Nitroglycerin	2		10.439			ND	
17 2,4,6-Trinitrotoluene	1		10.873			ND	
18 4-Amino-2,6-dinitrotoluene	1		11.066			ND	
19 2-Amino-4,6-dinitrotoluene	1		11.319			ND	
20 2,6-Dinitrotoluene	1		11.473			ND	
21 2,4-Dinitrotoluene	1		11.639			ND	
22 o-Nitrotoluene	1	12.464	12.459	0.005	7115	0.0556	
23 p-Nitrotoluene	1		12.873			ND	
24 m-Nitrotoluene	1		13.446			ND	
25 PETN	2		14.599			ND	

QC Flag Legend

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

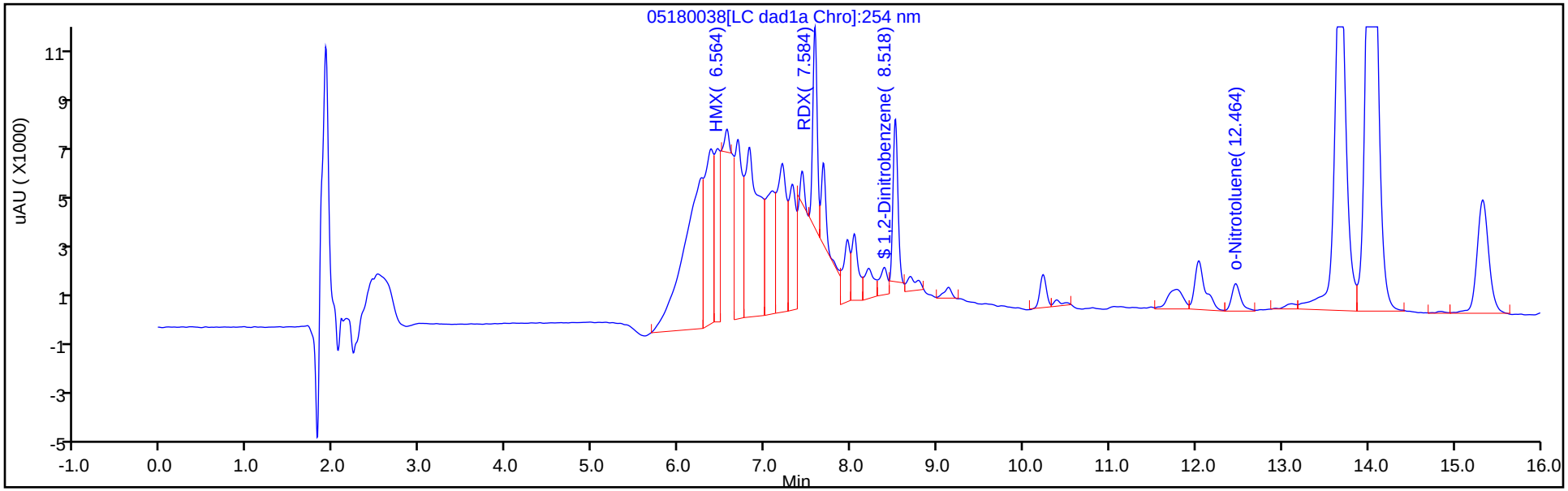
Report Date: 19-May-2023 12:22:09 Chrom Revision: 2.3 16-May-2023 16:37:30

Eurofins Denver

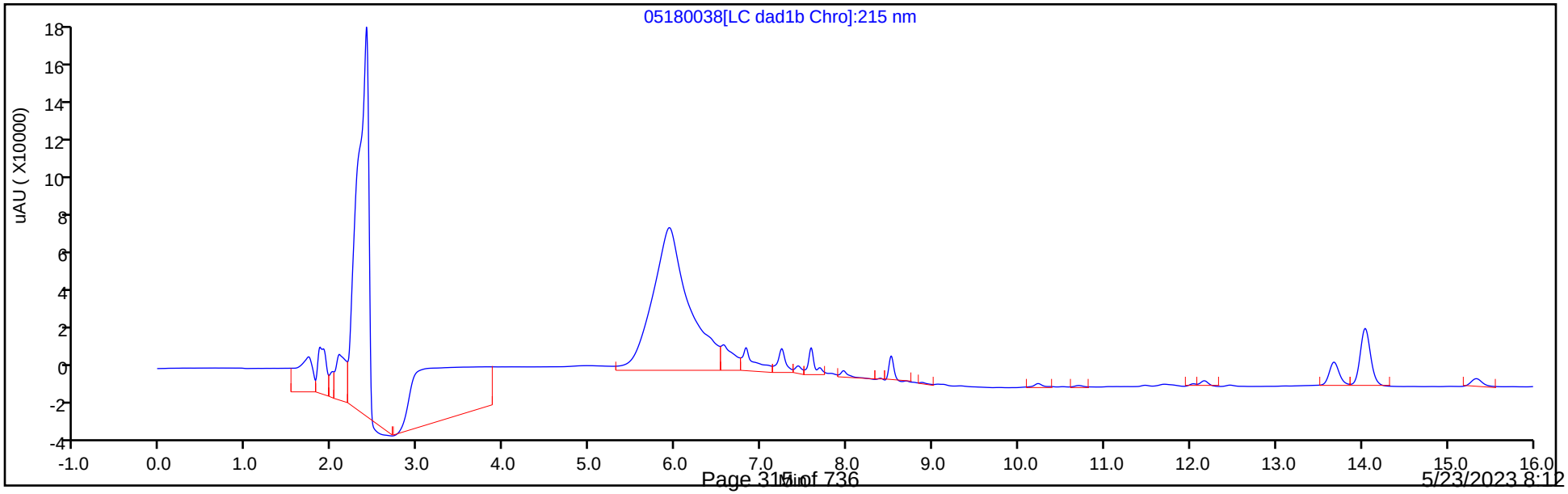
Data File: \\chromfs\denver\chromdata\chhplc_x\20230518-121611.b\05180038.d

Injection Date:	19-May-2023 08:28:47	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	280-176609-B-2-A	Lab Sample ID:	280-176609-2	Worklist Smp#:	38
Client ID:	FBQmw-178-230302-GW				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	38
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20230518-121611.b\05180038.D				
Lims ID:	280-176609-B-2-A				
Client ID:	FBQmw-178-230302-GW				
Sample Type:	Client				
Inject. Date:	19-May-2023 08:28:47	ALS Bottle#:	38	Worklist Smp#:	38
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-176609-B-2-A				
Operator ID:	JZ/JG	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20230518-121611.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	19-May-2023 12:22:06	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: 19-May-2023 12:18:13

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.1958	97.88

Eurofins Denver

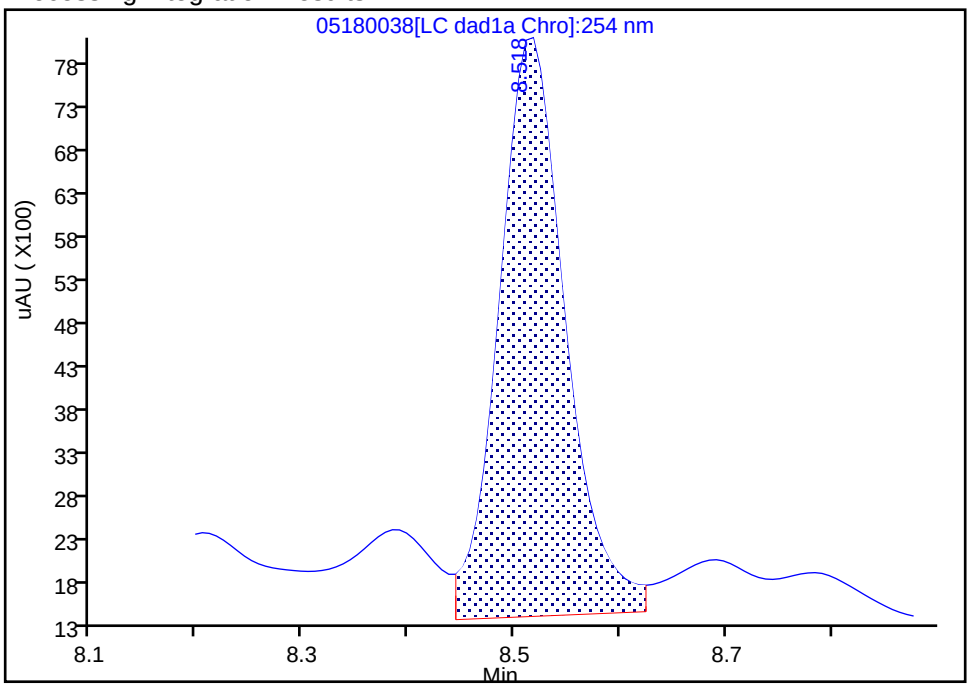
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230518-121611.b\05180038.d				
Injection Date:	19-May-2023 08:28:47	Instrument ID:	CHHPLC_X3		
Lims ID:	280-176609-B-2-A	Lab Sample ID:	280-176609-2		
Client ID:	FBQmw-178-230302-GW				
Operator ID:	JZ/JG	ALS Bottle#:	38	Worklist Smp#:	38
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

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

Signal: 1

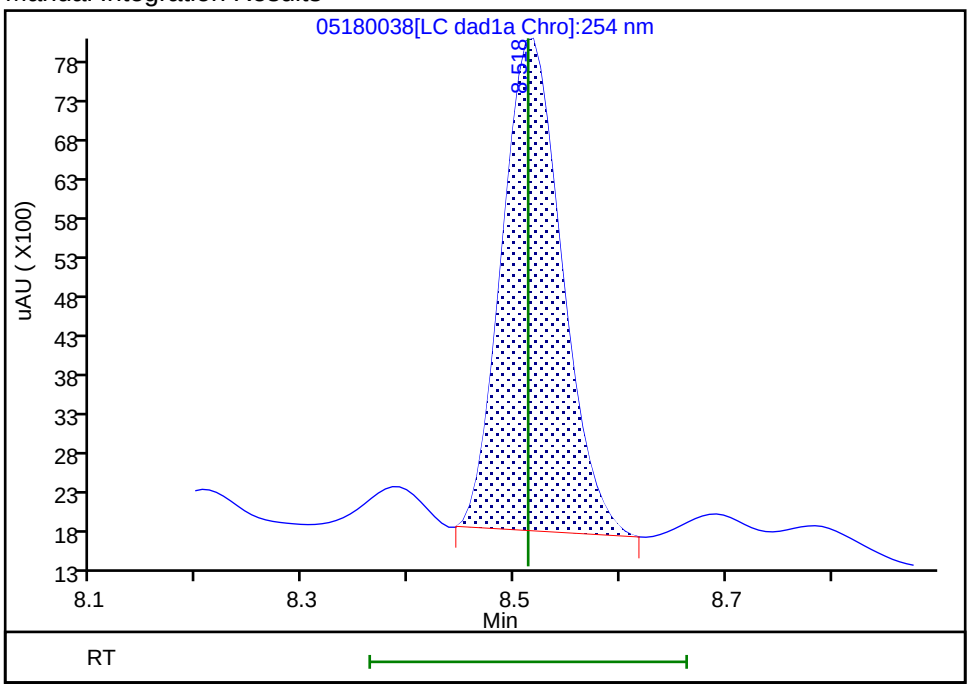
Processing Integration Results

RT: 8.52
Area: 29316
Amount: 0.232098
Amount Units: ug/mL



Manual Integration Results

RT: 8.52
Area: 24725
Amount: 0.195751
Amount Units: ug/mL



Reviewer: LV5D, 19-May-2023 12:18:12 -06:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Baseline

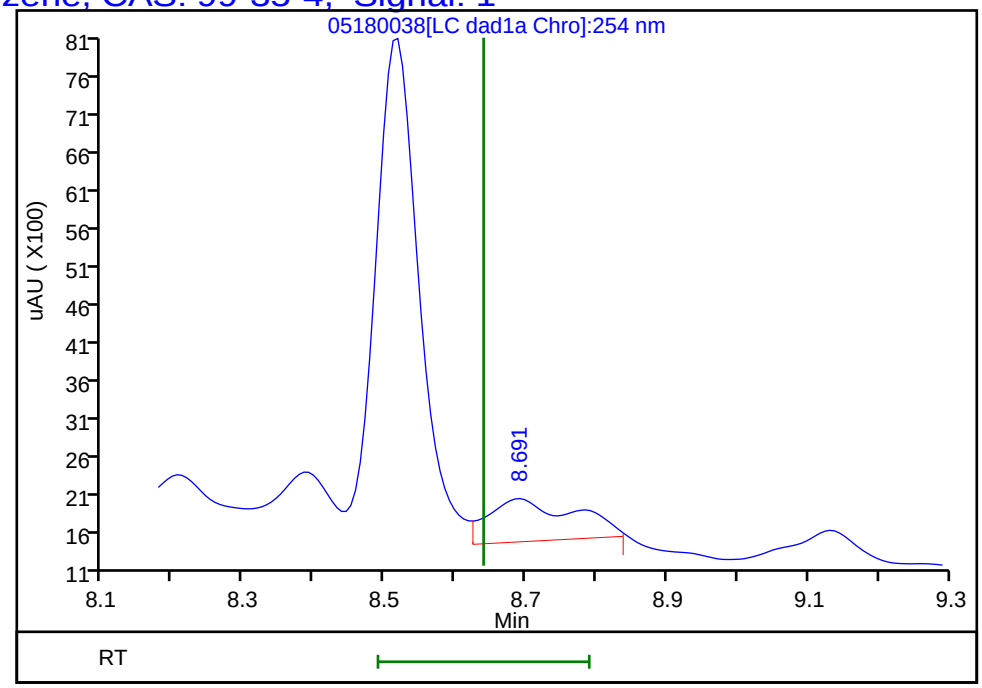
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20230518-121611.b\05180038.d				
Injection Date:	19-May-2023 08:28:47	Instrument ID:	CHHPLC_X3		
Lims ID:	280-176609-B-2-A	Lab Sample ID:	280-176609-2		
Client ID:	FBQmw-178-230302-GW				
Operator ID:	JZ/JG	ALS Bottle#:	38	Worklist Smp#:	38
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

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

RT: 8.69
Response: 4886
Amount: 0.022501



Reviewer: LV5D, 19-May-2023 12:18:13
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

User Disabled Compound Report

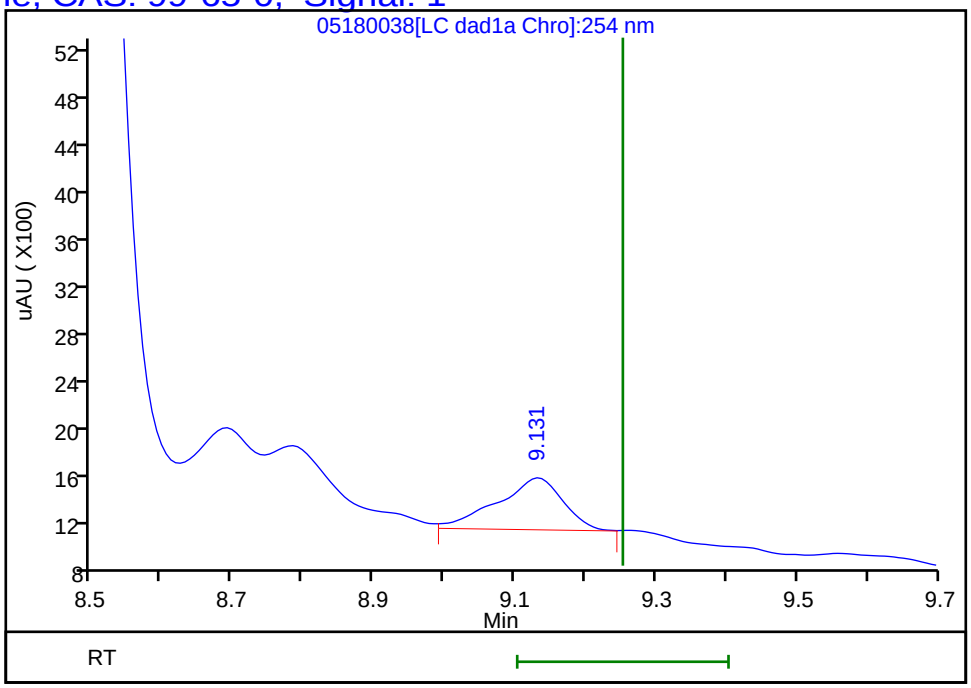
Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20230518-121611.b\05180038.d
Injection Date: 19-May-2023 08:28:47 Instrument ID: CHHPLC_X3
Lims ID: 280-176609-B-2-A Lab Sample ID: 280-176609-2
Client ID: FBQmw-178-230302-GW
Operator ID: JZ/JG ALS Bottle#: 38 Worklist Smp#: 38
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330

Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

12 1,3-Dinitrobenzene, CAS: 99-65-0, Signal: 1

RT: 9.13
Response: 2702
Amount: 0.009178



Reviewer: LV5D, 19-May-2023 12:18:13
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Manual Integration/User Assign Peak Report

Eurofins Denver

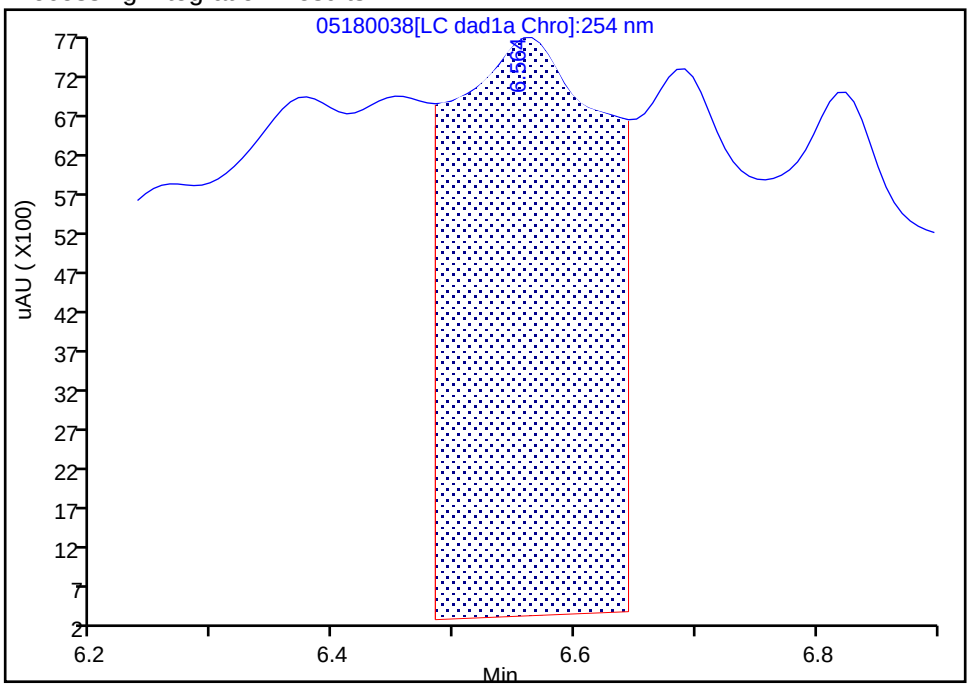
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230518-121611.b\05180038.d				
Injection Date:	19-May-2023 08:28:47	Instrument ID:	CHHPLC_X3		
Lims ID:	280-176609-B-2-A	Lab Sample ID:	280-176609-2		
Client ID:	FBQmw-178-230302-GW				
Operator ID:	JZ/JG	ALS Bottle#:	38	Worklist Smp#:	38
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

4 HMX, CAS: 2691-41-0

Signal: 1

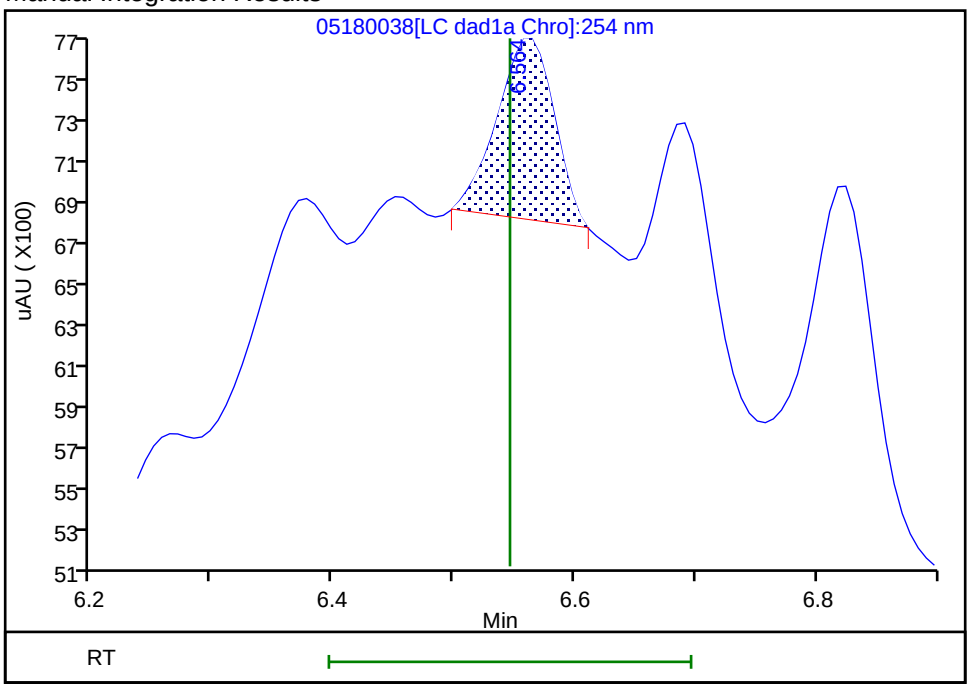
Processing Integration Results

RT: 6.56
Area: 65131
Amount: 0.696379
Amount Units: ug/mL



Manual Integration Results

RT: 6.56
Area: 2809
Amount: 0.030034
Amount Units: ug/mL



Reviewer: LV5D, 19-May-2023 12:18:00 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

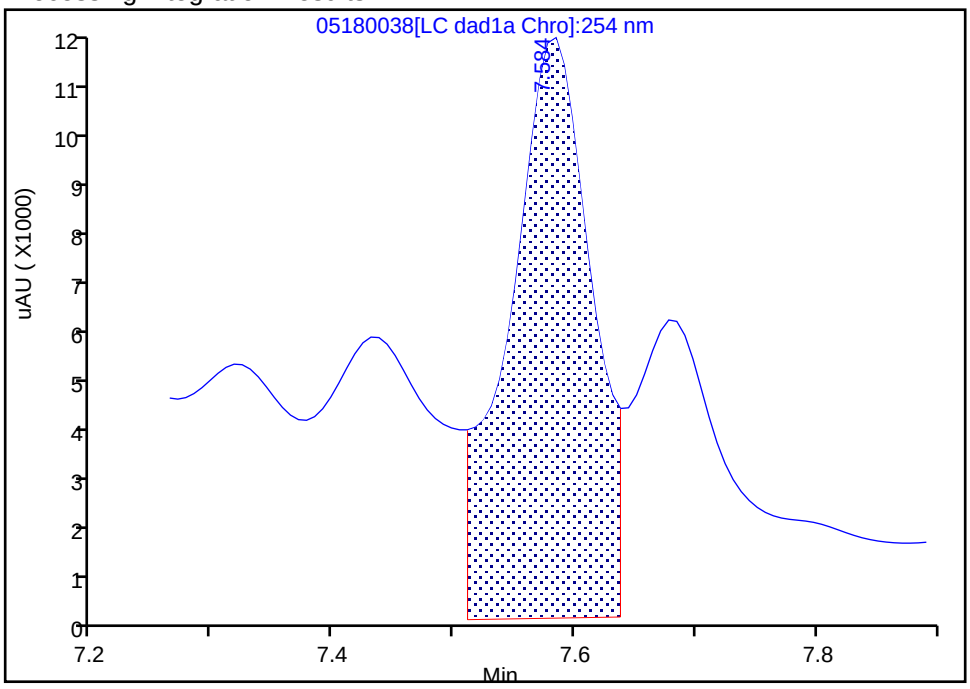
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230518-121611.b\05180038.d				
Injection Date:	19-May-2023 08:28:47	Instrument ID:	CHHPLC_X3		
Lims ID:	280-176609-B-2-A	Lab Sample ID:	280-176609-2		
Client ID:	FBQmw-178-230302-GW				
Operator ID:	JZ/JG	ALS Bottle#:	38	Worklist Smp#:	38
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

8 RDX, CAS: 121-82-4

Signal: 1

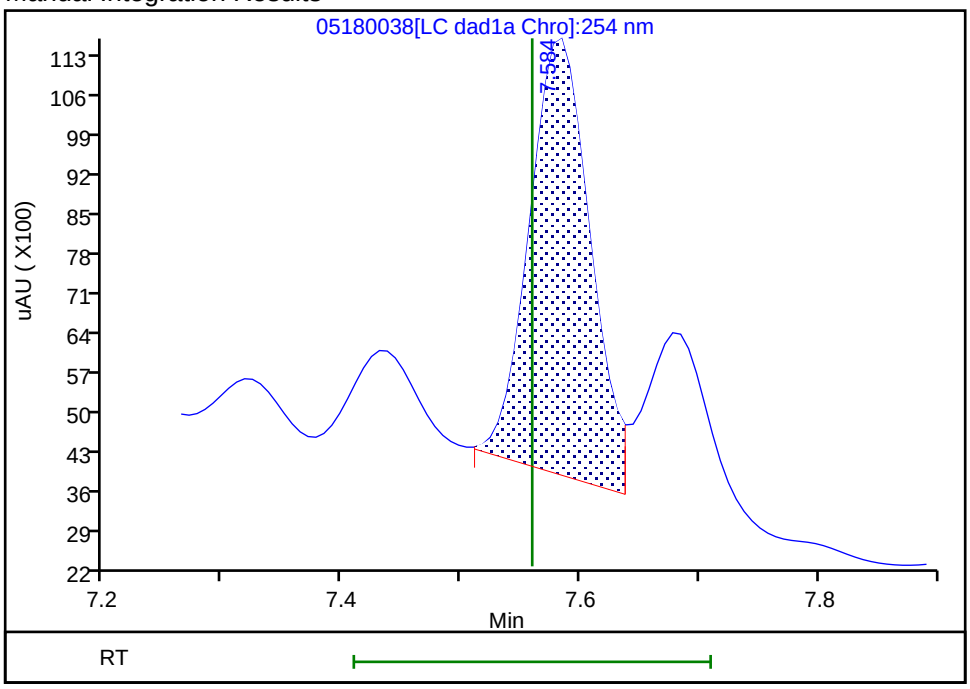
Processing Integration Results

RT: 7.58
Area: 50767
Amount: 0.477224
Amount Units: ug/mL



Manual Integration Results

RT: 7.58
Area: 27625
Amount: 0.259683
Amount Units: ug/mL



Reviewer: LV5D, 19-May-2023 12:18:05 -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.: 280-176609-1

SDG No.:

Client Sample ID: FBQmw-178-230302-GW | Lab Sample ID: 280-176609-2

Matrix: Water | Lab File ID: 05190022.D

Analysis Method: 8330B | Date Collected: 05/16/2023 13:37

Extraction Method: 3535 | Date Extracted: 05/18/2023 13:20

Sample wt/vol: 492.5(mL) | Date Analyzed: 05/19/2023 23:18

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.: 613169 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
88-72-2	2-Nitrotoluene	0.20	U M	0.21	0.20	0.087
2691-41-0	HMX	0.20	U	0.21	0.20	0.089
121-82-4	*RDX*	*0.23*	*J1*	*0.21*	0.20	*0.052*

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

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2_LUNA\20230519-121648.b\05190022.D
Lims ID: 280-176609-B-2-A
Client ID: FBQmw-178-230302-GW
Sample Type: Client
Inject. Date: 19-May-2023 23:18:35 ALS Bottle#: 22 Worklist Smp#: 22
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-176609-B-2-A
Operator ID: JZ/JG Instrument ID: CHHPLC_G2_LUNA

Method: \\chromfs\Denver\ChromData\G2_LUNA\20230519-121648.b\G2_8330_Luna.m
Limit Group: GCSV - 8330
Last Update: 20-May-2023 11:50:53 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: CTX1663

First Level Reviewer: LV5D Date: 20-May-2023 11:50:11

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
6 HMX	1		6.835			ND	
8 RDX	1	9.124	9.102	0.022	4960	0.0230	
9 Nitrobenzene	1	11.618	11.622	-0.004	11086	0.0292	
$ 10 1,2-Dinitrobenzene	1	12.598	12.582	0.016	55058	0.2074	
12 1,3-Dinitrobenzene	1		14.695			ND	
13 Nitroglycerin	2		15.169			ND	U
14 o-Nitrotoluene	1		15.749			ND	U
15 p-Nitrotoluene	1		15.969			ND	
16 4-Amino-2,6-dinitrotoluene	1		16.509			ND	U
17 m-Nitrotoluene	1		16.809			ND	
18 2-Amino-4,6-dinitrotoluene	1		17.329			ND	U
19 1,3,5-Trinitrobenzene	1	17.444	17.502	-0.058	33665	0.0889	
20 2,6-Dinitrotoluene	1		18.622			ND	7
21 2,4-Dinitrotoluene	1		19.082			ND	
22 Tetryl	1		22.355			ND	7
23 2,4,6-Trinitrotoluene	1		23.182			ND	
24 PETN	2		24.382			ND	

QC Flag Legend

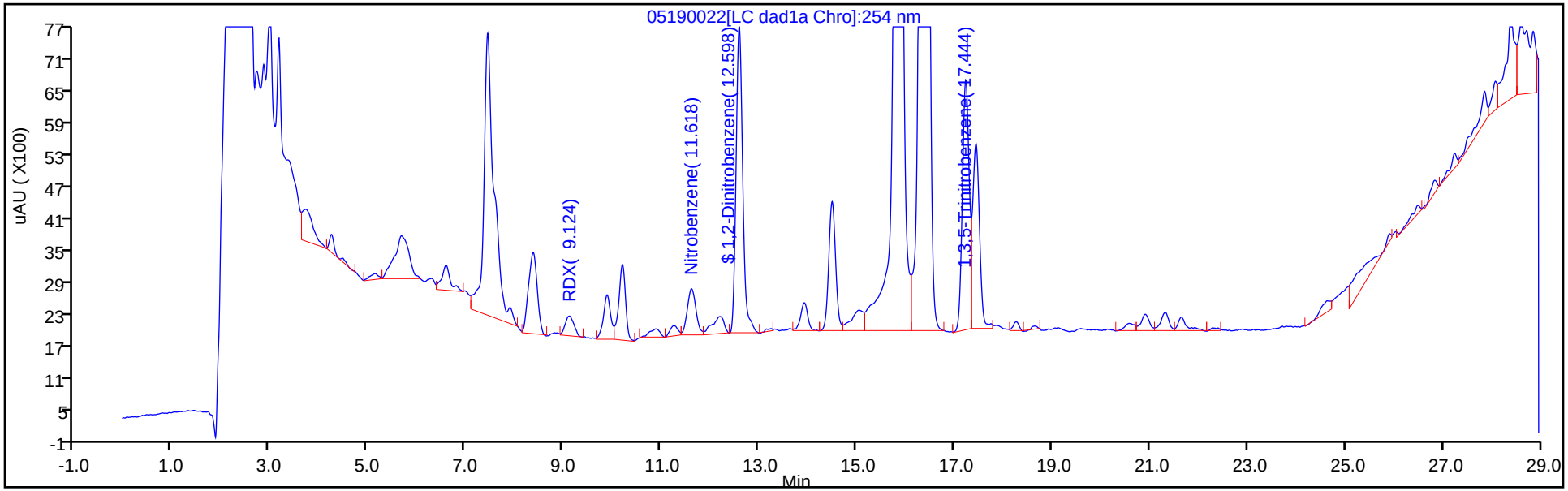
Processing Flags
7 - Failed Limit of Detection
Review Flags
U - Marked Undetected

Report Date: 20-May-2023 11:50:55 Chrom Revision: 2.3 16-May-2023 16:37:30

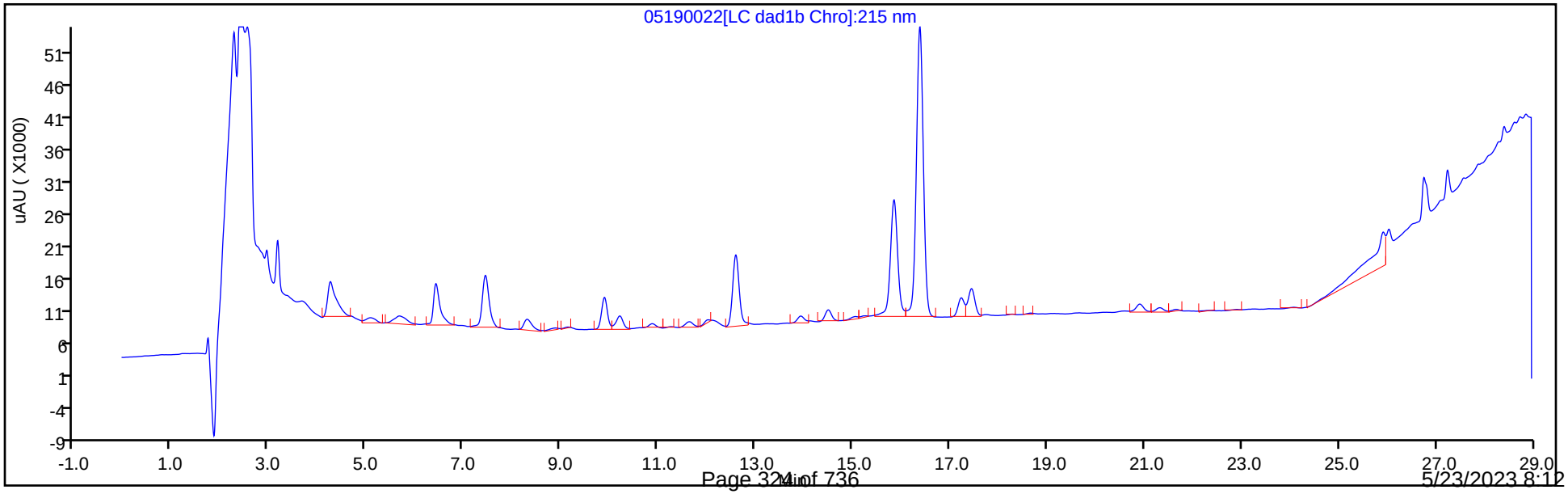
Eurofins Denver

Data File:	\\chromfs\denver\chromdata\g2_luna\20230519-121648.b\05190022.d				
Injection Date:	19-May-2023 23:18:35	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	JZ/JG
Lims ID:	280-176609-B-2-A	Lab Sample ID:	280-176609-2	Worklist Smp#:	22
Client ID:	FBQmw-178-230302-GW				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	22
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\20230519-121648.b\05190022.D				
Lims ID:	280-176609-B-2-A				
Client ID:	FBQmw-178-230302-GW				
Sample Type:	Client				
Inject. Date:	19-May-2023 23:18:35	ALS Bottle#:	22	Worklist Smp#:	22
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-176609-B-2-A				
Operator ID:	JZ/JG	Instrument ID:	CHHPLC_G2_LUNA		
Method:	\\chromfs\Denver\ChromData\G2_LUNA\20230519-121648.b\G2_8330_Luna.m				
Limit Group:	GCSV - 8330				
Last Update:	20-May-2023 11:50:53	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:	CTX1663				

First Level Reviewer: LV5D Date: 20-May-2023 11:50:11

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.2074	103.72

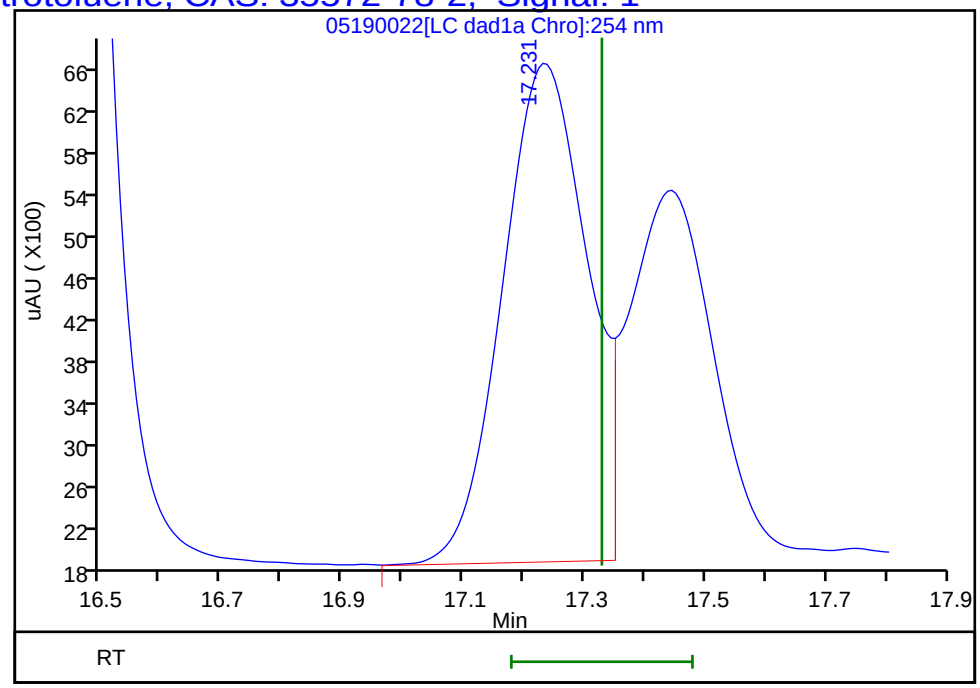
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\denver\chromdata\g2_luna\20230519-121648.b\05190022.d				
Injection Date:	19-May-2023 23:18:35	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	280-176609-B-2-A	Lab Sample ID:	280-176609-2		
Client ID:	FBQmw-178-230302-GW				
Operator ID:	JZ/JG	ALS Bottle#:	22	Worklist Smp#:	22
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

18 2-Amino-4,6-dinitrotoluene, CAS: 35572-78-2, Signal: 1

RT: 17.23
Response: 45809
Amount: 0.114441



Reviewer: LV5D, 20-May-2023 11:50:11
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

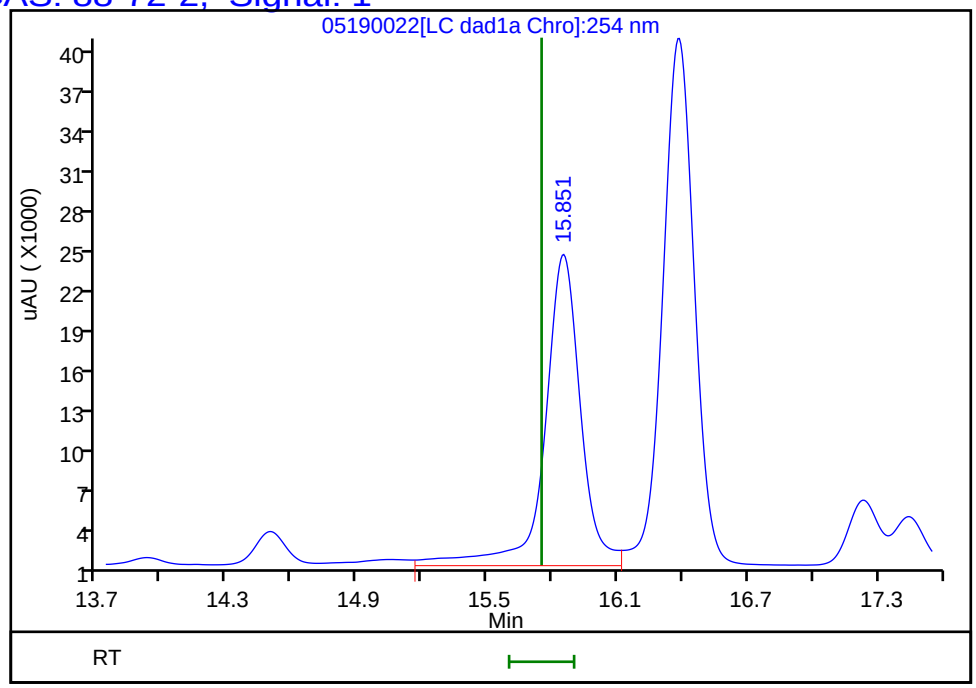
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\denver\chromdata\g2_luna\20230519-121648.b\05190022.d				
Injection Date:	19-May-2023 23:18:35	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	280-176609-B-2-A	Lab Sample ID:	280-176609-2		
Client ID:	FBQmw-178-230302-GW				
Operator ID:	JZ/JG	ALS Bottle#:	22	Worklist Smp#:	22
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

RT: 15.85
Response: 258051
Amount: 1.061116



Reviewer: LV5D, 20-May-2023 11:50:11
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

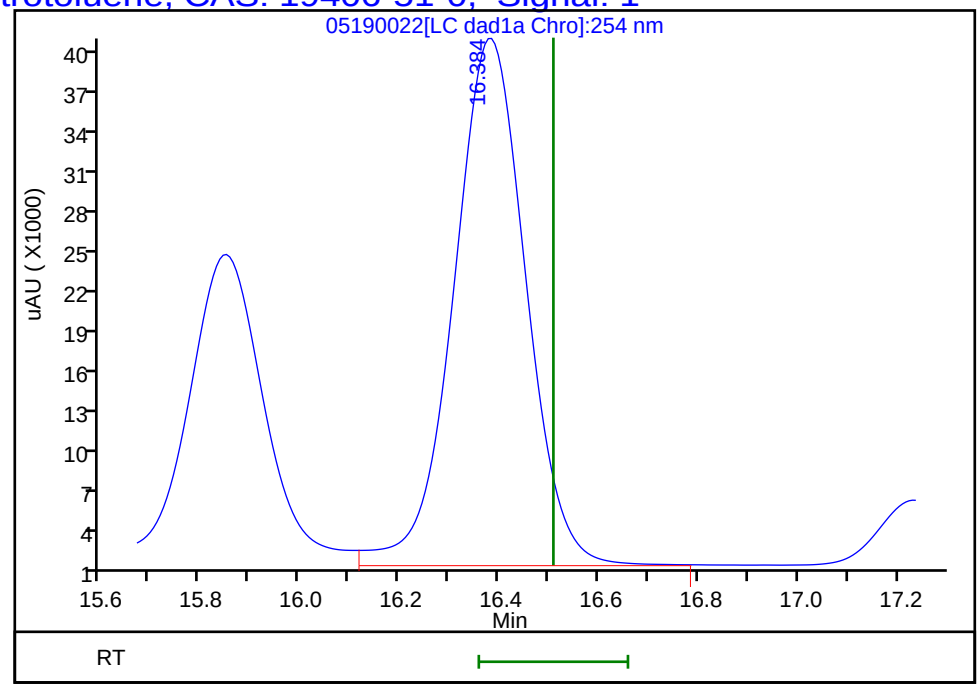
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\denver\chromdata\g2_luna\20230519-121648.b\05190022.d				
Injection Date:	19-May-2023 23:18:35	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	280-176609-B-2-A	Lab Sample ID:	280-176609-2		
Client ID:	FBQmw-178-230302-GW				
Operator ID:	JZ/JG	ALS Bottle#:	22	Worklist Smp#:	22
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

16 4-Amino-2,6-dinitrotoluene, CAS: 19406-51-0, Signal: 1

RT: 16.38
Response: 386181
Amount: 1.416603



Reviewer: LV5D, 20-May-2023 11:50:11
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-176609-1

SDG No.:

Client Sample ID: LL1mw-092-230301-GW | Lab Sample ID: 280-176609-3

Matrix: Water | Lab File ID: 05180039.D

Analysis Method: 8330B | Date Collected: 05/16/2023 10:40

Extraction Method: 3535 | Date Extracted: 05/18/2023 13:20

Sample wt/vol: 472(mL) | Date Analyzed: 05/19/2023 08:51

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.: 613045 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	0.21	U	0.22	0.21	0.089
99-65-0	1,3-Dinitrobenzene	0.11	U	0.12	0.11	0.039
118-96-7	2,4,6-Trinitrotoluene	0.11	U	0.12	0.11	0.048
121-14-2	2,4-Dinitrotoluene	0.085	U	0.11	0.085	0.029
606-20-2	2,6-Dinitrotoluene	0.085	U	0.11	0.085	0.042
35572-78-2	2-Amino-4,6-dinitrotoluene	0.11	U	0.12	0.11	0.054
99-08-1	3-Nitrotoluene	0.37	U Q	0.42	0.37	0.21
19406-51-0	4-Amino-2,6-dinitrotoluene	0.13	U	0.16	0.13	0.061
99-99-0	4-Nitrotoluene	0.42	U	0.43	0.42	0.11
98-95-3	Nitrobenzene	0.21	U	0.22	0.21	0.096
55-63-0	Nitroglycerin	2.1	U	2.2	2.1	0.98
78-11-5	PETN	1.1	U	1.2	1.1	0.47
121-82-4	RDX	1.0	J1	0.22	0.21	0.055
479-45-8	Tetryl	0.11	U	0.12	0.11	0.034

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	97	M	83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20230518-121611.b\05180039.D
Lims ID: 280-176609-A-3-A
Client ID: LL1mw-092-230301-GW
Sample Type: Client
Inject. Date: 19-May-2023 08:51:43 ALS Bottle#: 39 Worklist Smp#: 39
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-176609-A-3-A
Operator ID: JZ/JG Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20230518-121611.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 19-May-2023 12:22:06 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: 19-May-2023 12:20:46

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/mL	Flags
4 HMX	1	6.559	6.546	0.013	1220	0.0130	
8 RDX	1	7.586	7.560	0.026	10218	0.0961	
$ 10 1,2-Dinitrobenzene	1	8.519	8.513	0.006	24588	0.1947	M
11 1,3,5-Trinitrobenzene	1		8.640			ND	
12 1,3-Dinitrobenzene	1		9.253			ND	7
13 Nitrobenzene	1		9.626			ND	7
15 Tetryl	1		9.986			ND	
16 Nitroglycerin	2		10.439			ND	
17 2,4,6-Trinitrotoluene	1		10.873			ND	
18 4-Amino-2,6-dinitrotoluene	1		11.066			ND	
19 2-Amino-4,6-dinitrotoluene	1		11.319			ND	
20 2,6-Dinitrotoluene	1		11.473			ND	
21 2,4-Dinitrotoluene	1		11.639			ND	
22 o-Nitrotoluene	1	12.485	12.459	0.026	3342	0.0261	
23 p-Nitrotoluene	1		12.873			ND	
24 m-Nitrotoluene	1		13.446			ND	
25 PETN	2		14.599			ND	

QC Flag Legend

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

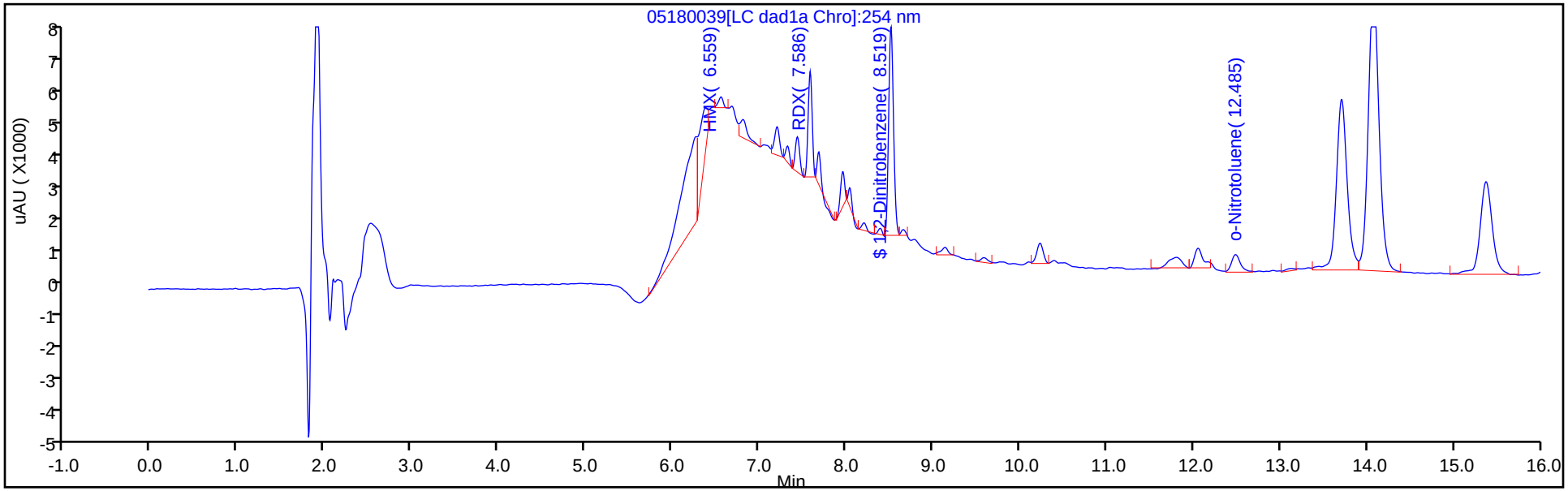
Report Date: 19-May-2023 12:22:10 Chrom Revision: 2.3 16-May-2023 16:37:30

Eurofins Denver

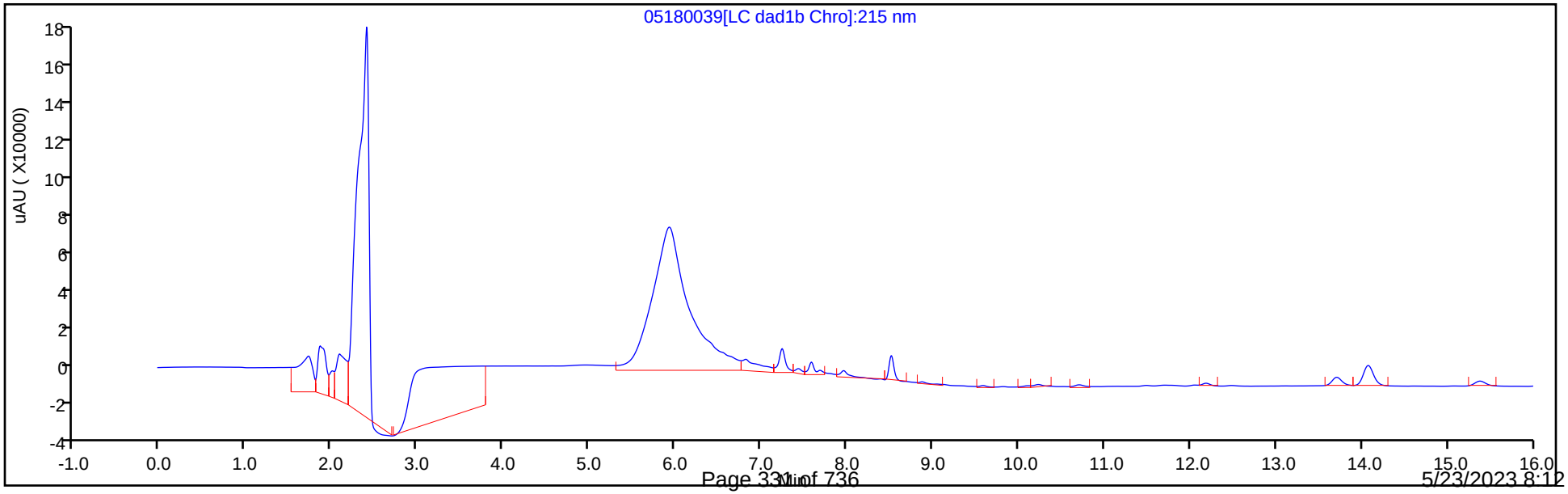
Data File: \\chromfs\denver\chromdata\chhplc_x\20230518-121611.b\05180039.d

Injection Date:	19-May-2023 08:51:43	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	280-176609-A-3-A	Lab Sample ID:	280-176609-3	Worklist Smp#:	39
Client ID:	LL1mw-092-230301-GW				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	39
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\20230518-121611.b\05180039.D				
Lims ID:	280-176609-A-3-A				
Client ID:	LL1mw-092-230301-GW				
Sample Type:	Client				
Inject. Date:	19-May-2023 08:51:43	ALS Bottle#:	39	Worklist Smp#:	39
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-176609-A-3-A				
Operator ID:	JZ/JG	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20230518-121611.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	19-May-2023 12:22:06	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: 19-May-2023 12:20:46

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.1947	97.33

Manual Integration/User Assign Peak Report

Eurofins Denver

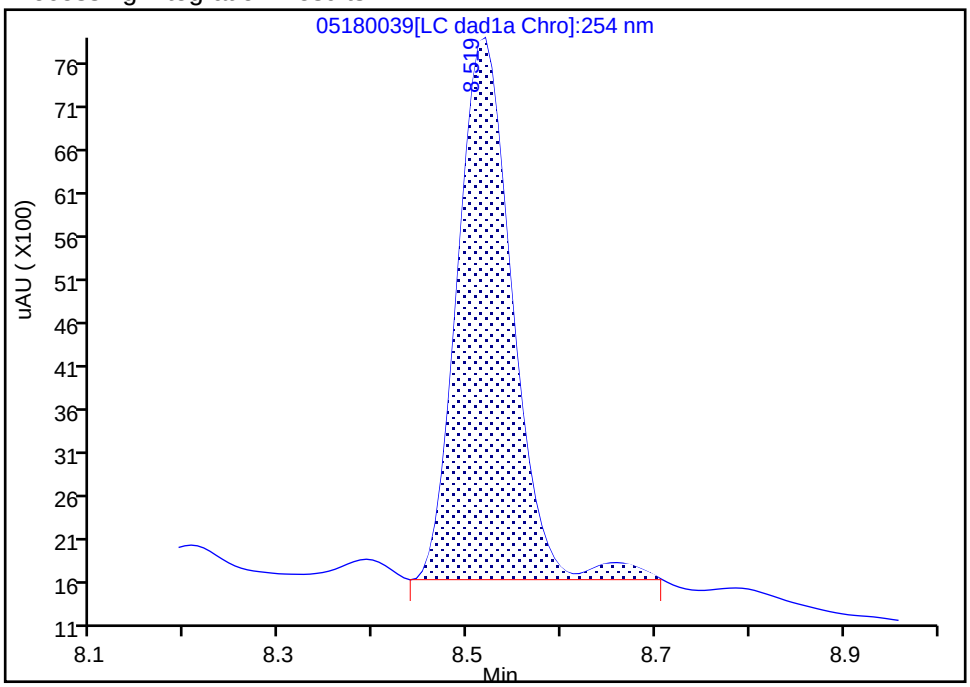
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230518-121611.b\05180039.d				
Injection Date:	19-May-2023 08:51:43	Instrument ID:	CHHPLC_X3		
Lims ID:	280-176609-A-3-A	Lab Sample ID:	280-176609-3		
Client ID:	LL1mw-092-230301-GW				
Operator ID:	JZ/JG	ALS Bottle#:	39	Worklist Smp#:	39
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

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

Signal: 1

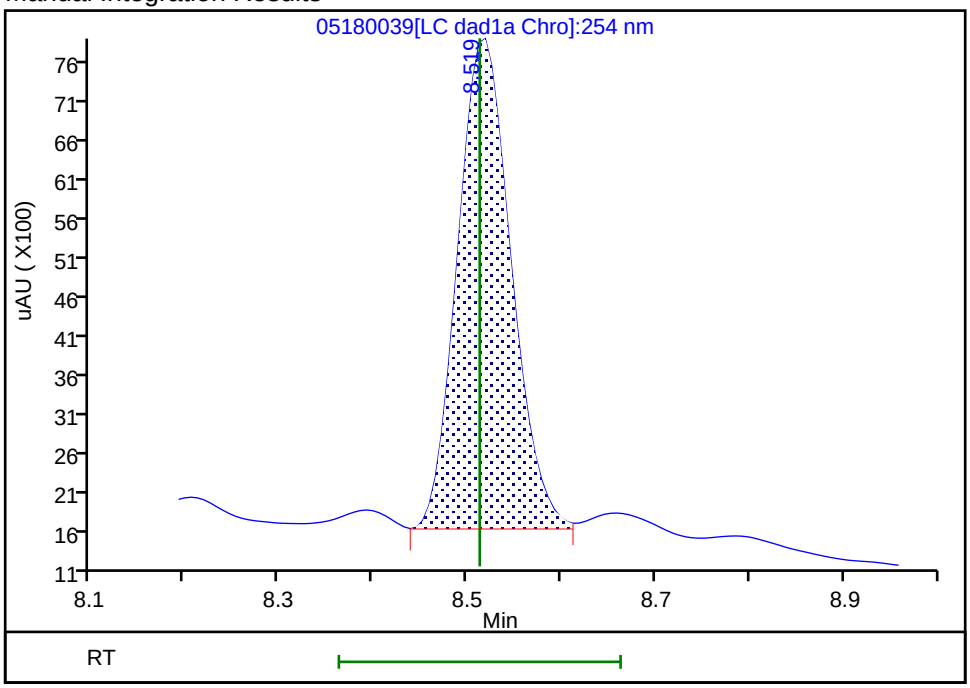
Processing Integration Results

RT: 8.52
Area: 25263
Amount: 0.200010
Amount Units: ug/mL



Manual Integration Results

RT: 8.52
Area: 24588
Amount: 0.194666
Amount Units: ug/mL



Reviewer: LV5D, 19-May-2023 12:20:52 -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.: 280-176609-1

SDG No.:

Client Sample ID: LL1mw-092-230301-GW | Lab Sample ID: 280-176609-3

Matrix: Water | Lab File ID: 05190023.D

Analysis Method: 8330B | Date Collected: 05/16/2023 10:40

Extraction Method: 3535 | Date Extracted: 05/18/2023 13:20

Sample wt/vol: 472(mL) | Date Analyzed: 05/19/2023 23:54

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.: 613169 | 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	0.091
2691-41-0	HMX	0.21	U	0.22	0.21	0.093
121-82-4	*RDX*	*0.14*	*J J1*	*0.22*	0.21	*0.055*

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\G2_LUNA\20230519-121648.b\05190023.D
Lims ID: 280-176609-A-3-A
Client ID: LL1mw-092-230301-GW
Sample Type: Client
Inject. Date: 19-May-2023 23:54:31 ALS Bottle#: 23 Worklist Smp#: 23
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-176609-A-3-A
Operator ID: JZ/JG Instrument ID: CHHPLC_G2_LUNA

Method: \\chromfs\Denver\ChromData\G2_LUNA\20230519-121648.b\G2_8330_Luna.m
Limit Group: GCSV - 8330
Last Update: 20-May-2023 11:50:53 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: CTX1663

First Level Reviewer: LV5D Date: 20-May-2023 11:50:21

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
6 HMX	1		6.835			ND	
8 RDX	1	9.114	9.102	0.012	2929	0.0136	
9 Nitrobenzene	1	11.627	11.622	0.005	5144	0.0135	
$ 10 1,2-Dinitrobenzene	1	12.600	12.582	0.018	52871	0.1992	
12 1,3-Dinitrobenzene	1		14.695			ND	
13 Nitroglycerin	2		15.169			ND	7
14 o-Nitrotoluene	1		15.749			ND	U
15 p-Nitrotoluene	1		15.969			ND	
16 4-Amino-2,6-dinitrotoluene	1		16.509			ND	U
17 m-Nitrotoluene	1		16.809			ND	
18 2-Amino-4,6-dinitrotoluene	1		17.329			ND	U
19 1,3,5-Trinitrobenzene	1	17.440	17.502	-0.062	20411	0.0539	
20 2,6-Dinitrotoluene	1		18.622			ND	
21 2,4-Dinitrotoluene	1		19.082			ND	
22 Tetryl	1		22.355			ND	
23 2,4,6-Trinitrotoluene	1		23.182			ND	
24 PETN	2		24.382			ND	

QC Flag Legend

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

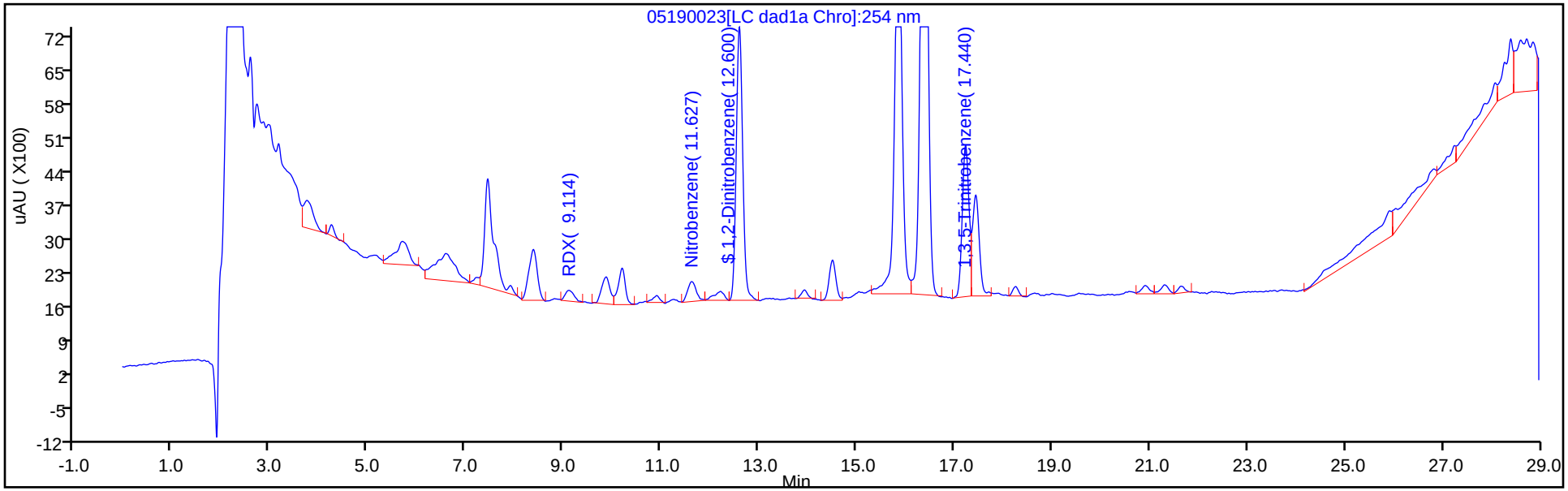
Report Date: 20-May-2023 11:50:55 Chrom Revision: 2.3 16-May-2023 16:37:30

Eurofins Denver

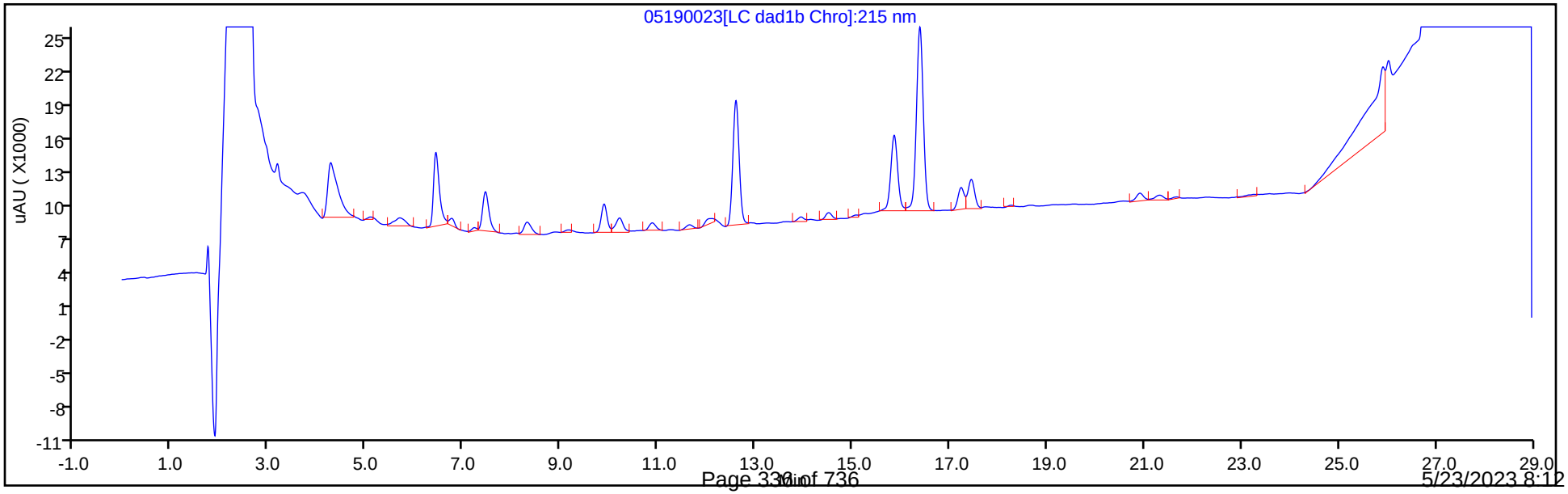
Data File: \\chromfs\denver\chromdata\g2_luna\20230519-121648.b\05190023.d

Injection Date:	19-May-2023 23:54:31	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	JZ/JG
Lims ID:	280-176609-A-3-A	Lab Sample ID:	280-176609-3	Worklist Smp#:	23
Client ID:	LL1mw-092-230301-GW				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	23
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\20230519-121648.b\05190023.D				
Lims ID:	280-176609-A-3-A				
Client ID:	LL1mw-092-230301-GW				
Sample Type:	Client				
Inject. Date:	19-May-2023 23:54:31	ALS Bottle#:	23	Worklist Smp#:	23
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-176609-A-3-A				
Operator ID:	JZ/JG	Instrument ID:	CHHPLC_G2_LUNA		
Method:	\\chromfs\Denver\ChromData\G2_LUNA\20230519-121648.b\G2_8330_Luna.m				
Limit Group:	GCSV - 8330				
Last Update:	20-May-2023 11:50:53	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:	CTX1663				

First Level Reviewer: LV5D Date: 20-May-2023 11:50:21

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.1992	99.60

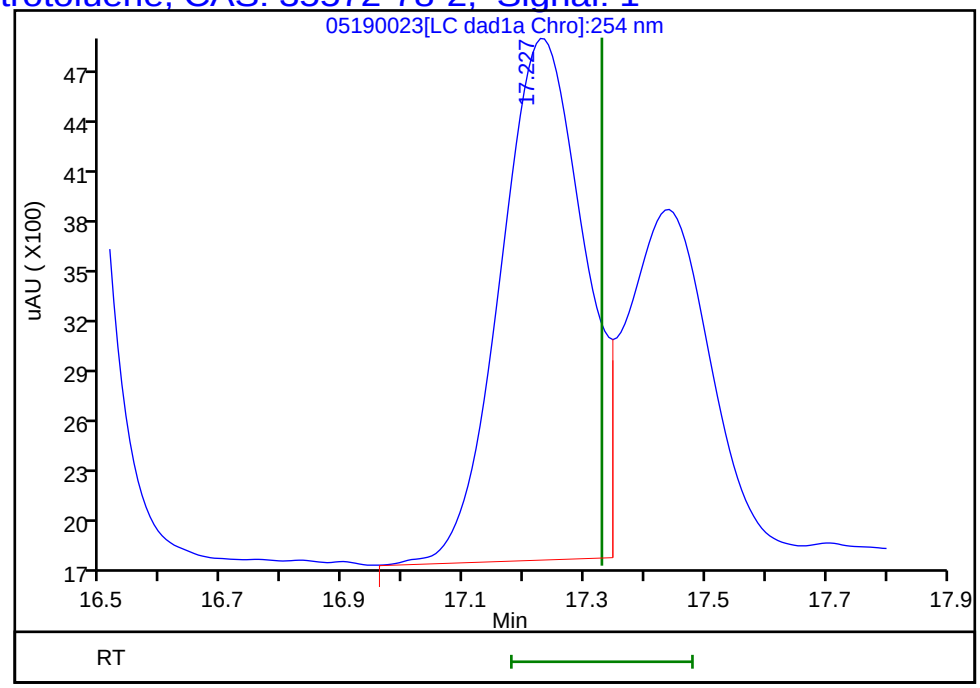
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\denver\chromdata\g2_luna\20230519-121648.b\05190023.d				
Injection Date:	19-May-2023 23:54:31	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	280-176609-A-3-A	Lab Sample ID:	280-176609-3		
Client ID:	LL1mw-092-230301-GW				
Operator ID:	JZ/JG	ALS Bottle#:	23	Worklist Smp#:	23
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

18 2-Amino-4,6-dinitrotoluene, CAS: 35572-78-2, Signal: 1

RT: 17.23
Response: 30453
Amount: 0.076079



Reviewer: LV5D, 20-May-2023 11:50:21
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

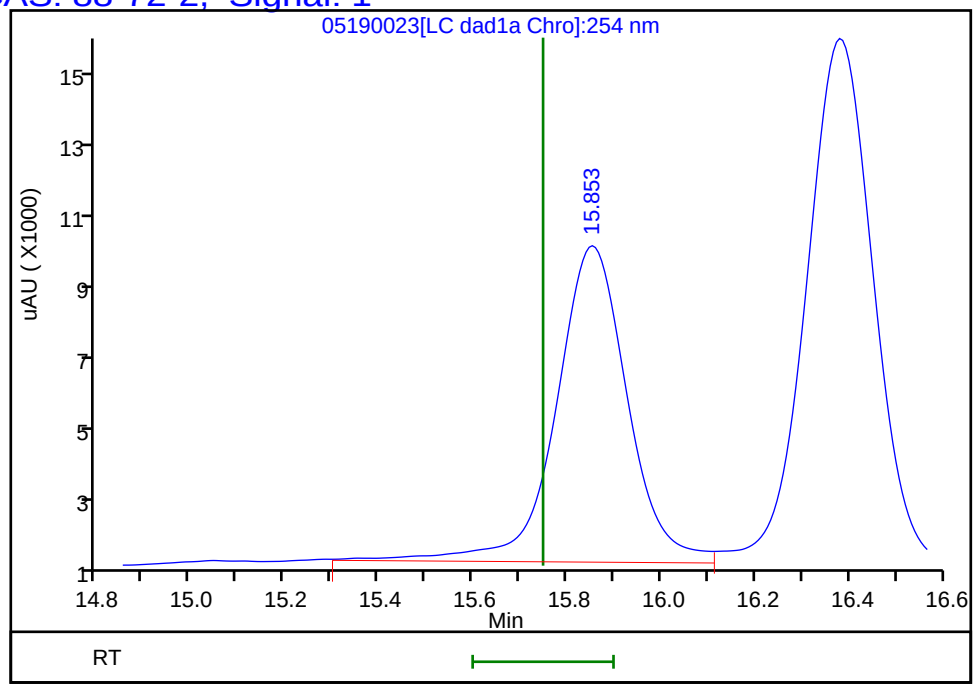
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\denver\chromdata\g2_luna\20230519-121648.b\05190023.d				
Injection Date:	19-May-2023 23:54:31	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	280-176609-A-3-A	Lab Sample ID:	280-176609-3		
Client ID:	LL1mw-092-230301-GW				
Operator ID:	JZ/JG	ALS Bottle#:	23	Worklist Smp#:	23
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

RT: 15.85
Response: 87674
Amount: 0.360519



Reviewer: LV5D, 20-May-2023 11:50:21
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

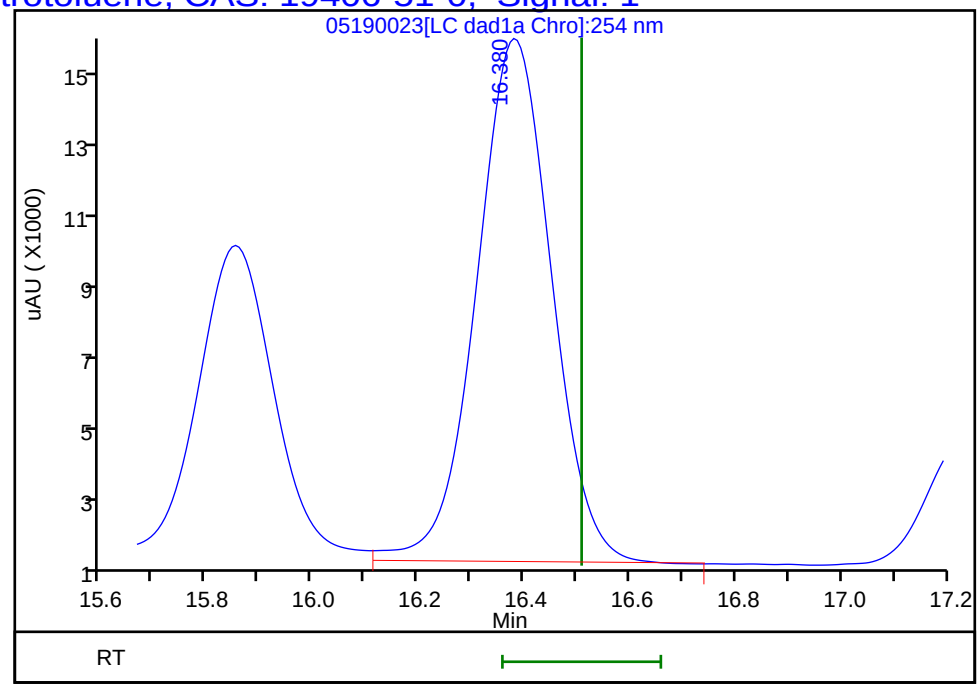
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\denver\chromdata\g2_luna\20230519-121648.b\05190023.d				
Injection Date:	19-May-2023 23:54:31	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	280-176609-A-3-A	Lab Sample ID:	280-176609-3		
Client ID:	LL1mw-092-230301-GW				
Operator ID:	JZ/JG	ALS Bottle#:	23	Worklist Smp#:	23
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

16 4-Amino-2,6-dinitrotoluene, CAS: 19406-51-0, Signal: 1

RT: 16.38
Response: 135086
Amount: 0.495527



Reviewer: LV5D, 20-May-2023 11:50:21
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-176609-1

SDG No.:

Client Sample ID: LL1mw-093-230301-GW | Lab Sample ID: 280-176609-4

Matrix: Water | Lab File ID: 05180040.D

Analysis Method: 8330B | Date Collected: 05/16/2023 09:18

Extraction Method: 3535 | Date Extracted: 05/18/2023 13:20

Sample wt/vol: 462.9(mL) | Date Analyzed: 05/19/2023 09:14

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

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

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

Cleanup Factor:

Analysis Batch No.: 613045 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	0.22	U	0.23	0.22	0.091
99-65-0	1,3-Dinitrobenzene	0.11	U M	0.12	0.11	0.040
118-96-7	2,4,6-Trinitrotoluene	0.11	U	0.12	0.11	0.049
121-14-2	2,4-Dinitrotoluene	0.086	U	0.11	0.086	0.030
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	0.055
99-08-1	3-Nitrotoluene	0.38	U Q	0.43	0.38	0.21
19406-51-0	4-Amino-2,6-dinitrotoluene	0.13	U	0.16	0.13	0.062
99-99-0	4-Nitrotoluene	0.43	U	0.44	0.43	0.11
98-95-3	Nitrobenzene	0.22	U	0.23	0.22	0.098
55-63-0	Nitroglycerin	2.2	U	2.3	2.2	0.99
78-11-5	PETN	1.1	U	1.2	1.1	0.48
121-82-4	RDX	0.67	M J1	0.23	0.22	0.056
479-45-8	Tetryl	0.11	U M	0.12	0.11	0.034

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

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20230518-121611.b\05180040.D
Lims ID: 280-176609-A-4-A
Client ID: LL1mw-093-230301-GW
Sample Type: Client
Inject. Date: 19-May-2023 09:14:43 ALS Bottle#: 40 Worklist Smp#: 40
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-176609-A-4-A
Operator ID: JZ/JG Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20230518-121611.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 19-May-2023 12:22:06 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: 19-May-2023 12:21:16

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/mL	Flags
4 HMX	1	6.553	6.546	0.007	1397	0.0149	M
8 RDX	1	7.580	7.560	0.020	6568	0.0617	M
$ 10 1,2-Dinitrobenzene	1	8.513	8.513	0.000	25475	0.2017	M
11 1,3,5-Trinitrobenzene	1		8.640			ND	
12 1,3-Dinitrobenzene	1		9.253			ND	U
13 Nitrobenzene	1		9.626			ND	
15 Tetryl	1		9.986			ND	U
16 Nitroglycerin	2		10.439			ND	
17 2,4,6-Trinitrotoluene	1		10.873			ND	
18 4-Amino-2,6-dinitrotoluene	1		11.066			ND	
19 2-Amino-4,6-dinitrotoluene	1		11.319			ND	
20 2,6-Dinitrotoluene	1		11.473			ND	
21 2,4-Dinitrotoluene	1		11.639			ND	
22 o-Nitrotoluene	1	12.467	12.459	0.008	2499	0.0195	
23 p-Nitrotoluene	1		12.873			ND	
24 m-Nitrotoluene	1		13.446			ND	
25 PETN	2		14.599			ND	

QC Flag Legend

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

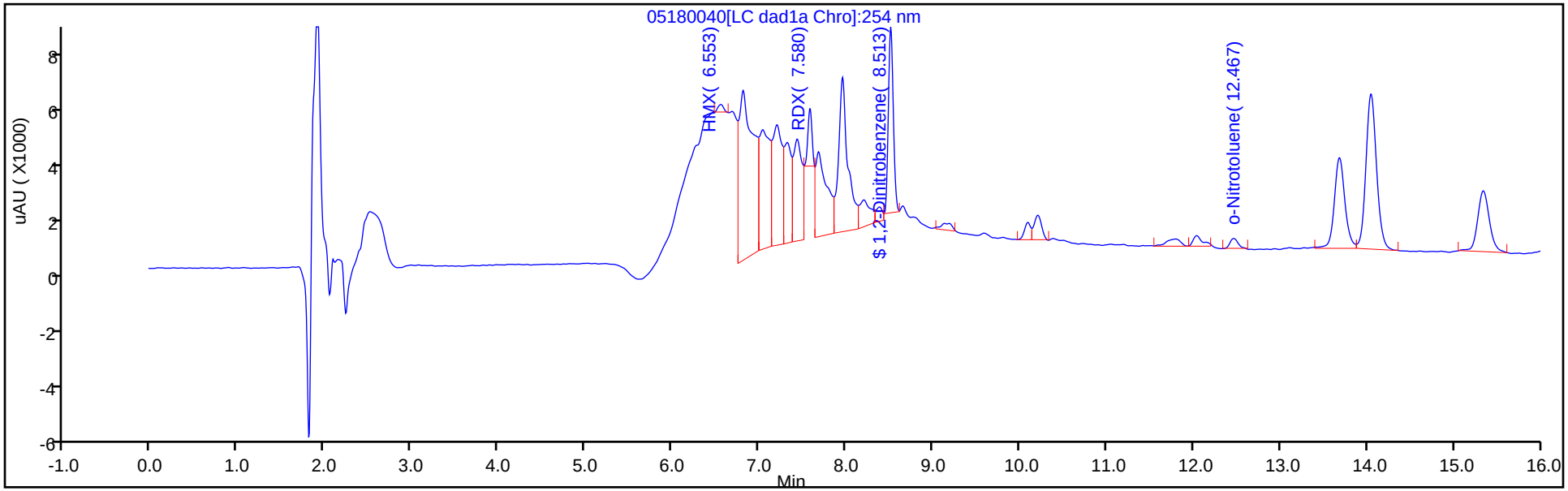
Report Date: 19-May-2023 12:22:10 Chrom Revision: 2.3 16-May-2023 16:37:30

Eurofins Denver

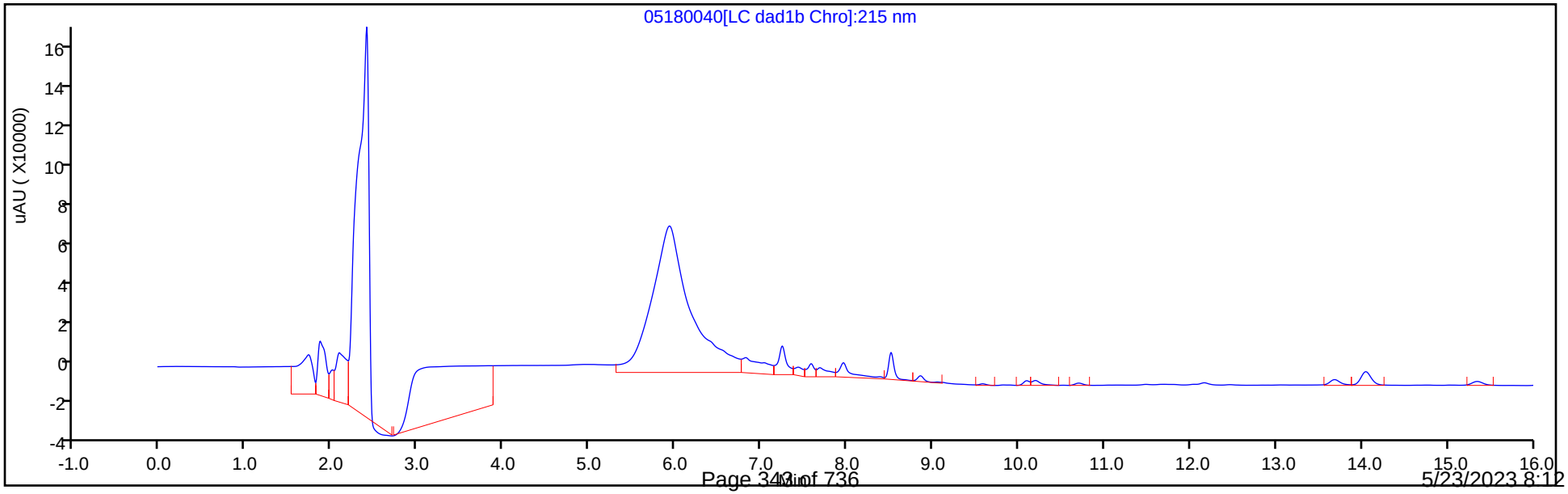
Data File: \\chromfs\denver\chromdata\chhplc_x\20230518-121611.b\05180040.d

Injection Date:	19-May-2023 09:14:43	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	280-176609-A-4-A	Lab Sample ID:	280-176609-4	Worklist Smp#:	40
Client ID:	LL1mw-093-230301-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\20230518-121611.b\05180040.D				
Lims ID:	280-176609-A-4-A				
Client ID:	LL1mw-093-230301-GW				
Sample Type:	Client				
Inject. Date:	19-May-2023 09:14:43	ALS Bottle#:	40	Worklist Smp#:	40
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-176609-A-4-A				
Operator ID:	JZ/JG	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20230518-121611.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	19-May-2023 12:22:06	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: 19-May-2023 12:21:16

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.2017	100.84

Eurofins Denver

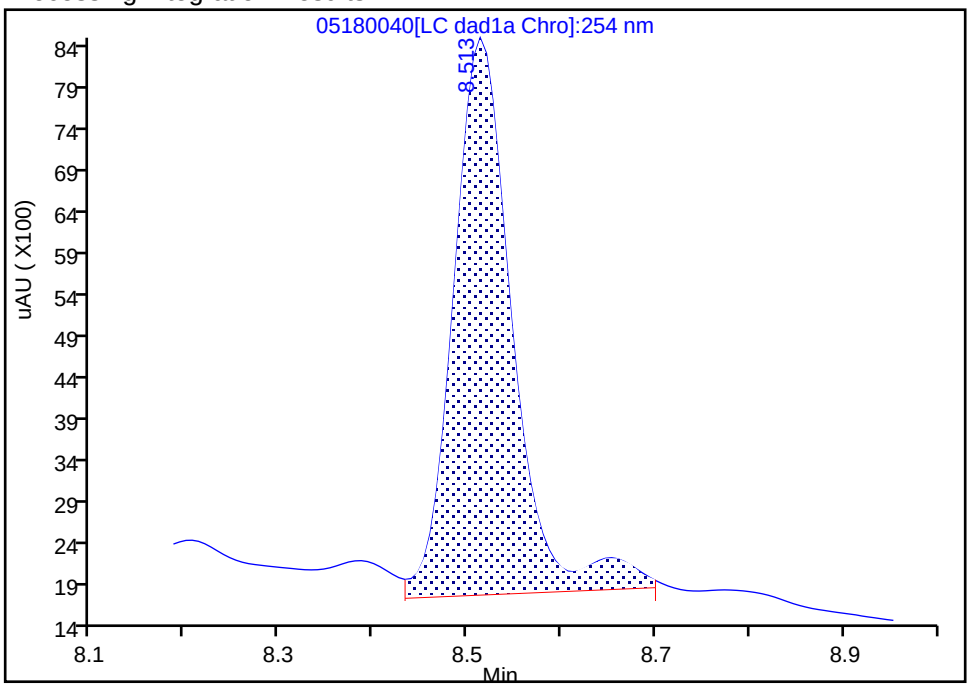
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230518-121611.b\05180040.d				
Injection Date:	19-May-2023 09:14:43	Instrument ID:	CHHPLC_X3		
Lims ID:	280-176609-A-4-A	Lab Sample ID:	280-176609-4		
Client ID:	LL1mw-093-230301-GW				
Operator ID:	JZ/JG	ALS Bottle#:	40	Worklist Smp#:	40
Injection Vol:	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		

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

Signal: 1

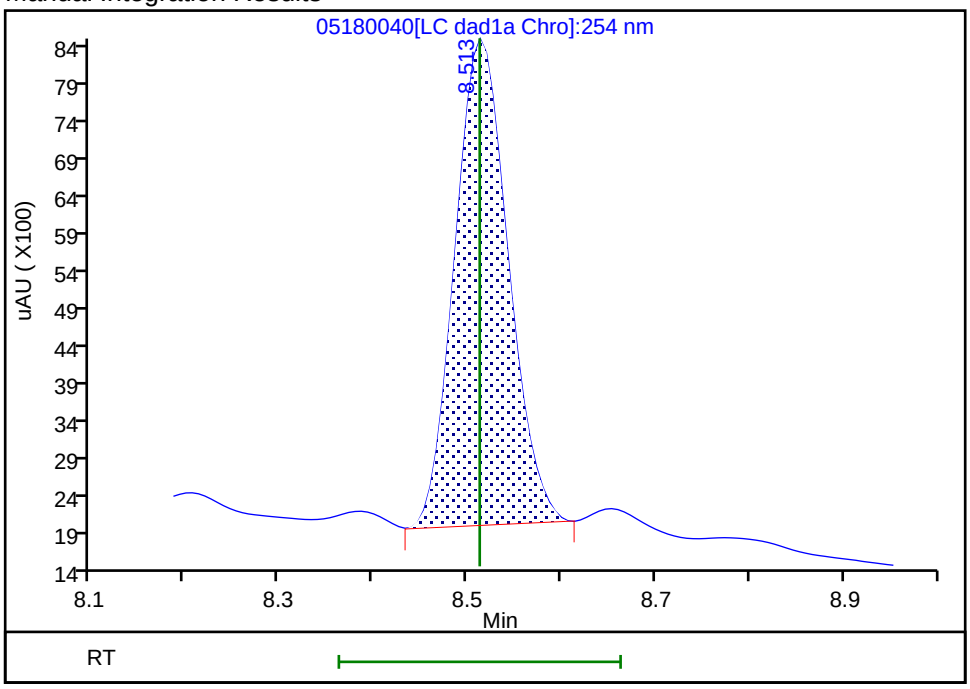
Processing Integration Results

RT: 8.51
Area: 29564
Amount: 0.234061
Amount Units: ug/mL



Manual Integration Results

RT: 8.51
Area: 25475
Amount: 0.201688
Amount Units: ug/mL



Reviewer: LV5D, 19-May-2023 12:21:08 -06:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Baseline

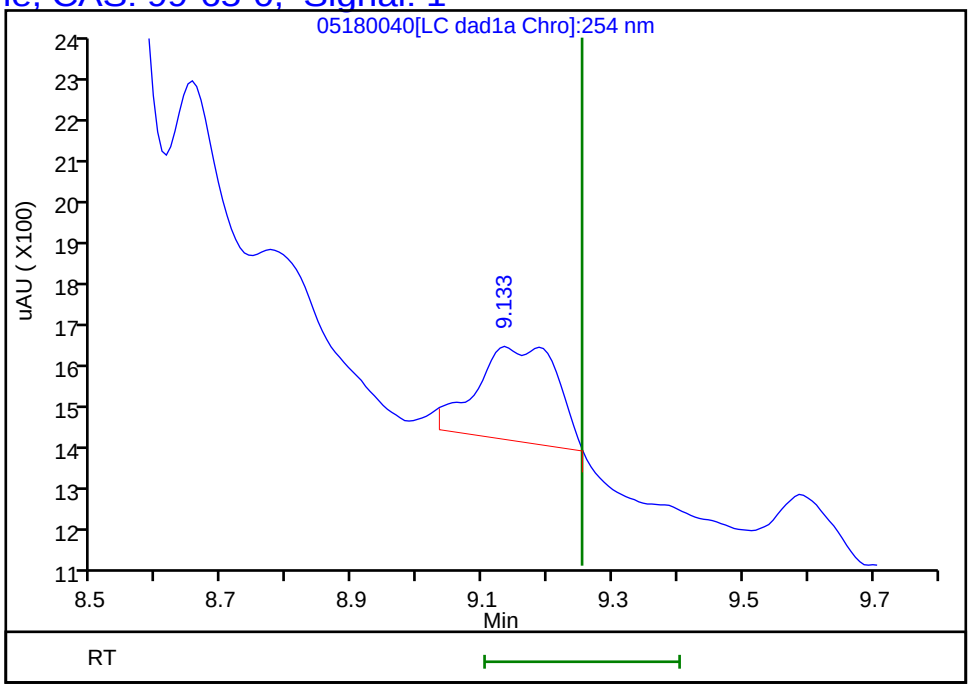
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20230518-121611.b\05180040.d				
Injection Date:	19-May-2023 09:14:43	Instrument ID:	CHHPLC_X3		
Lims ID:	280-176609-A-4-A	Lab Sample ID:	280-176609-4		
Client ID:	LL1mw-093-230301-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		

12 1,3-Dinitrobenzene, CAS: 99-65-0, Signal: 1

RT: 9.13
Response: 1836
Amount: 0.006236



Reviewer: LV5D, 19-May-2023 12:21:16
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Manual Integration/User Assign Peak Report

Eurofins Denver

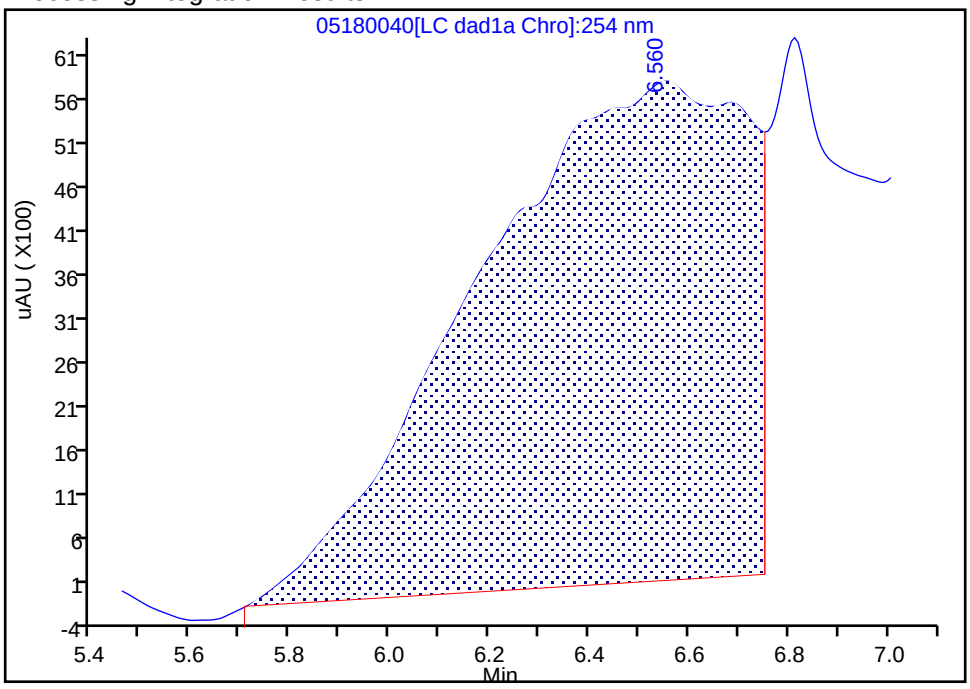
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230518-121611.b\05180040.d				
Injection Date:	19-May-2023 09:14:43	Instrument ID:	CHHPLC_X3		
Lims ID:	280-176609-A-4-A	Lab Sample ID:	280-176609-4		
Client ID:	LL1mw-093-230301-GW				
Operator ID:	JZ/JG	ALS Bottle#:	40	Worklist Smp#:	40
Injection Vol:	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

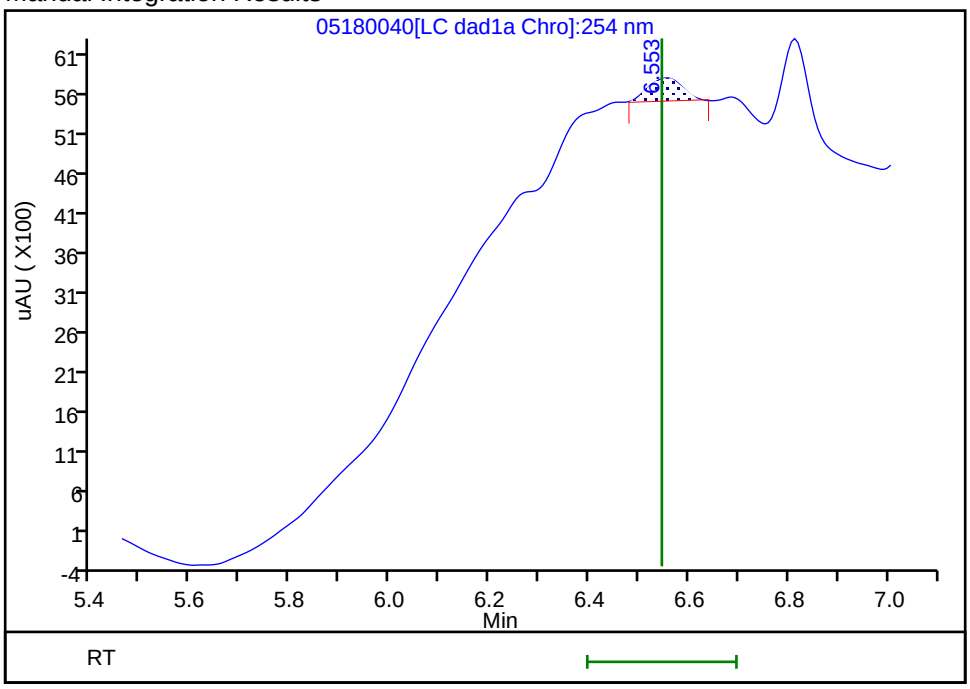
Processing Integration Results

RT: 6.56
Area: 213586
Amount: 2.283655
Amount Units: ug/mL



Manual Integration Results

RT: 6.55
Area: 1397
Amount: 0.014937
Amount Units: ug/mL



Reviewer: LV5D, 19-May-2023 12:21:00 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

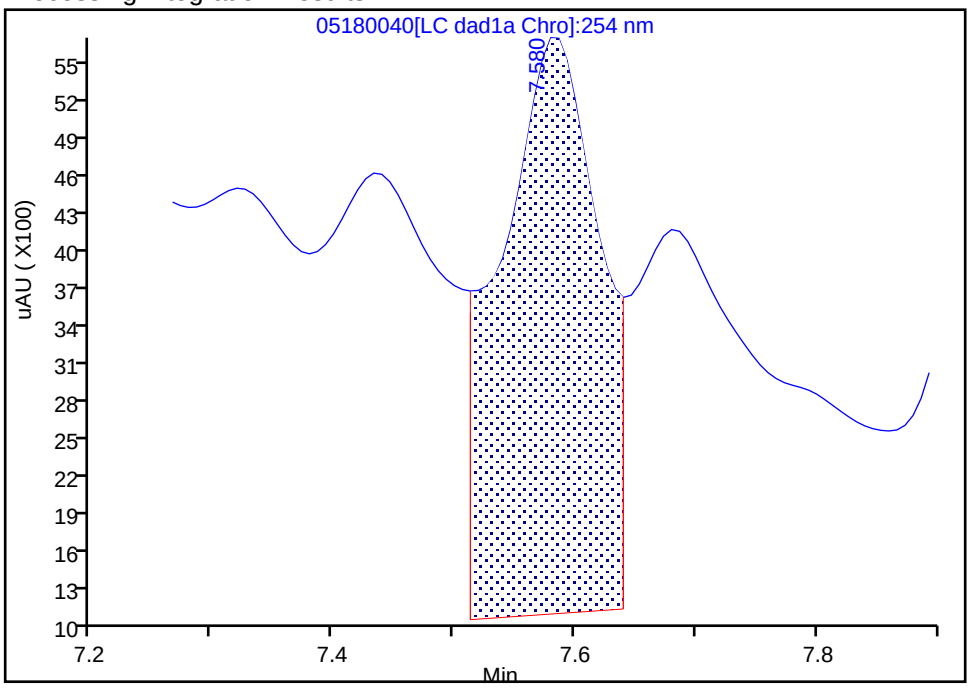
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230518-121611.b\05180040.d				
Injection Date:	19-May-2023 09:14:43	Instrument ID:	CHHPLC_X3		
Lims ID:	280-176609-A-4-A	Lab Sample ID:	280-176609-4		
Client ID:	LL1mw-093-230301-GW				
Operator ID:	JZ/JG	ALS Bottle#:	40	Worklist Smp#:	40
Injection Vol:	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		

8 RDX, CAS: 121-82-4

Signal: 1

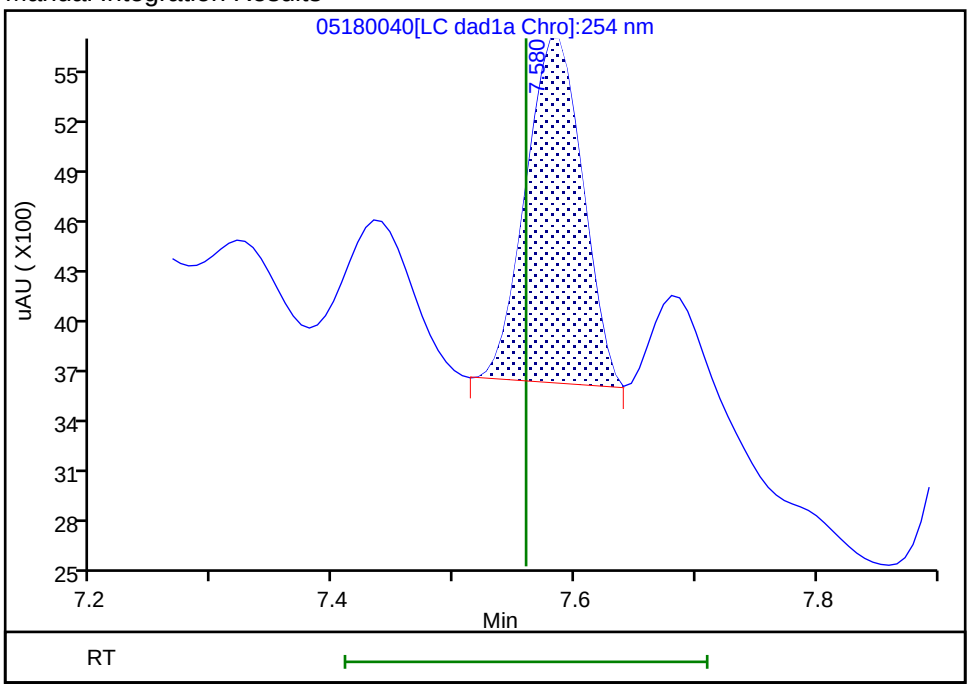
Processing Integration Results

RT: 7.58
Area: 25595
Amount: 0.240600
Amount Units: ug/mL



Manual Integration Results

RT: 7.58
Area: 6568
Amount: 0.061741
Amount Units: ug/mL



Reviewer: LV5D, 19-May-2023 12:21:04 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline

User Disabled Compound Report

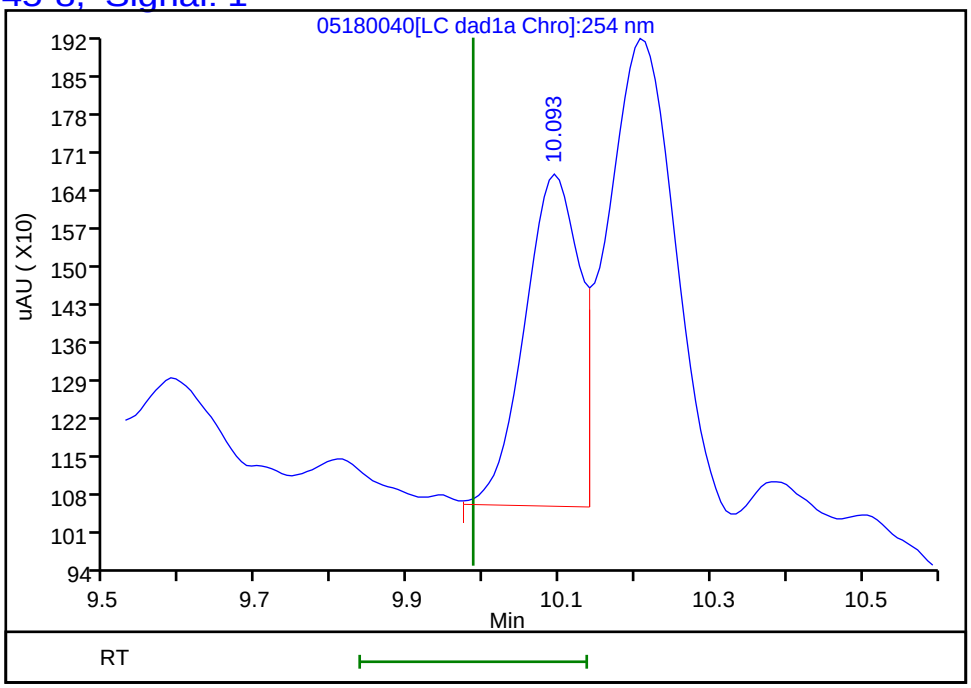
Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20230518-121611.b\05180040.d

Injection Date:	19-May-2023 09:14:43	Instrument ID:	CHHPLC_X3		
Lims ID:	280-176609-A-4-A	Lab Sample ID:	280-176609-4		
Client ID:	LL1mw-093-230301-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		

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

RT: 10.09
Response: 3073
Amount: 0.018724



Reviewer: LV5D, 19-May-2023 12:21:16
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-176609-1

SDG No.:

Client Sample ID: LL1mw-093-230301-GW | Lab Sample ID: 280-176609-4

Matrix: Water | Lab File ID: 05190024.D

Analysis Method: 8330B | Date Collected: 05/16/2023 09:18

Extraction Method: 3535 | Date Extracted: 05/18/2023 13:20

Sample wt/vol: 462.9(mL) | Date Analyzed: 05/20/2023 00:30

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.: 613169 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
88-72-2	2-Nitrotoluene	0.22	U M	0.23	0.22	0.092
2691-41-0	HMX	0.22	U	0.23	0.22	0.095
121-82-4	*RDX*	*0.23*	*J1*	*0.23*	0.22	*0.056*

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	102		83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2_LUNA\20230519-121648.b\05190024.D
Lims ID: 280-176609-A-4-A
Client ID: LL1mw-093-230301-GW
Sample Type: Client
Inject. Date: 20-May-2023 00:30:30 ALS Bottle#: 24 Worklist Smp#: 24
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-176609-A-4-A
Operator ID: JZ/JG Instrument ID: CHHPLC_G2_LUNA

Method: \\chromfs\Denver\ChromData\G2_LUNA\20230519-121648.b\G2_8330_Luna.m
Limit Group: GCSV - 8330
Last Update: 20-May-2023 11:50:53 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: CTX1663

First Level Reviewer: LV5D Date: 20-May-2023 11:50:34

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
6 HMX	1		6.835			ND	
8 RDX	1	9.130	9.102	0.028	4573	0.0212	
9 Nitrobenzene	1	11.610	11.622	-0.012	3440	0.009054	
$ 10 1,2-Dinitrobenzene	1	12.583	12.582	0.001	54032	0.2036	
12 1,3-Dinitrobenzene	1		14.695			ND	
13 Nitroglycerin	2		15.169			ND	U
14 o-Nitrotoluene	1		15.749			ND	U
15 p-Nitrotoluene	1		15.969			ND	
16 4-Amino-2,6-dinitrotoluene	1		16.509			ND	U
17 m-Nitrotoluene	1		16.809			ND	
18 2-Amino-4,6-dinitrotoluene	1		17.329			ND	U
19 1,3,5-Trinitrobenzene	1		17.502			ND	U
20 2,6-Dinitrotoluene	1		18.622			ND	
21 2,4-Dinitrotoluene	1		19.082			ND	
22 Tetryl	1		22.355			ND	
23 2,4,6-Trinitrotoluene	1		23.182			ND	
24 PETN	2		24.382			ND	

QC Flag Legend

Processing Flags
Review Flags
U - Marked Undetected

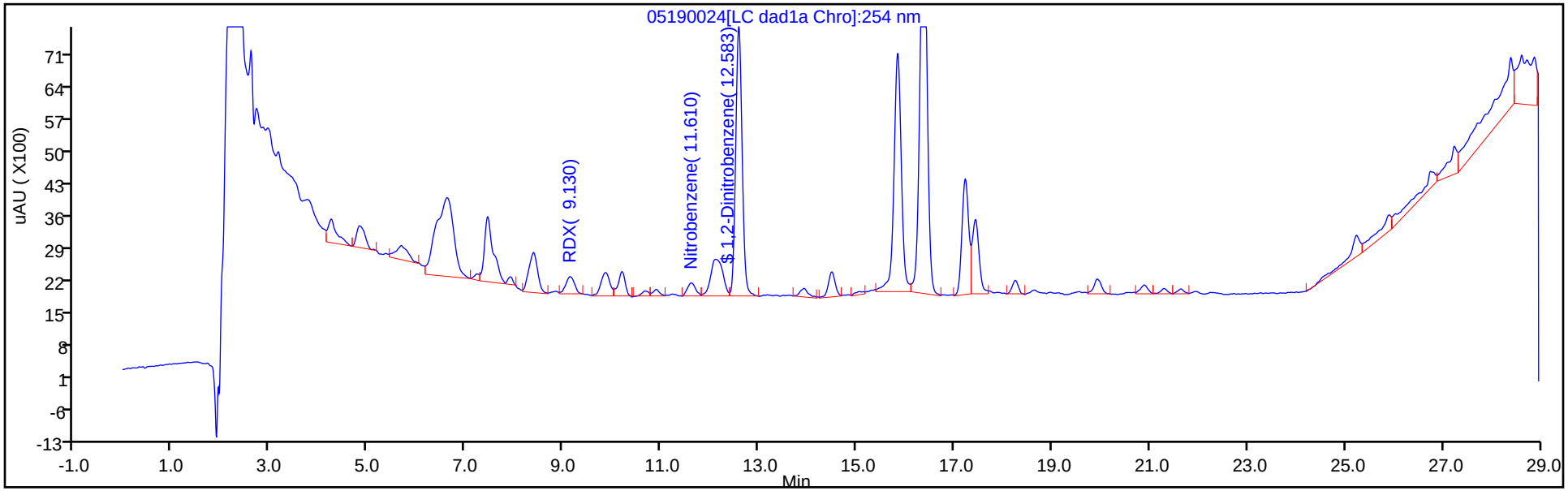
Report Date: 20-May-2023 11:50:56 Chrom Revision: 2.3 16-May-2023 16:37:30

Eurofins Denver

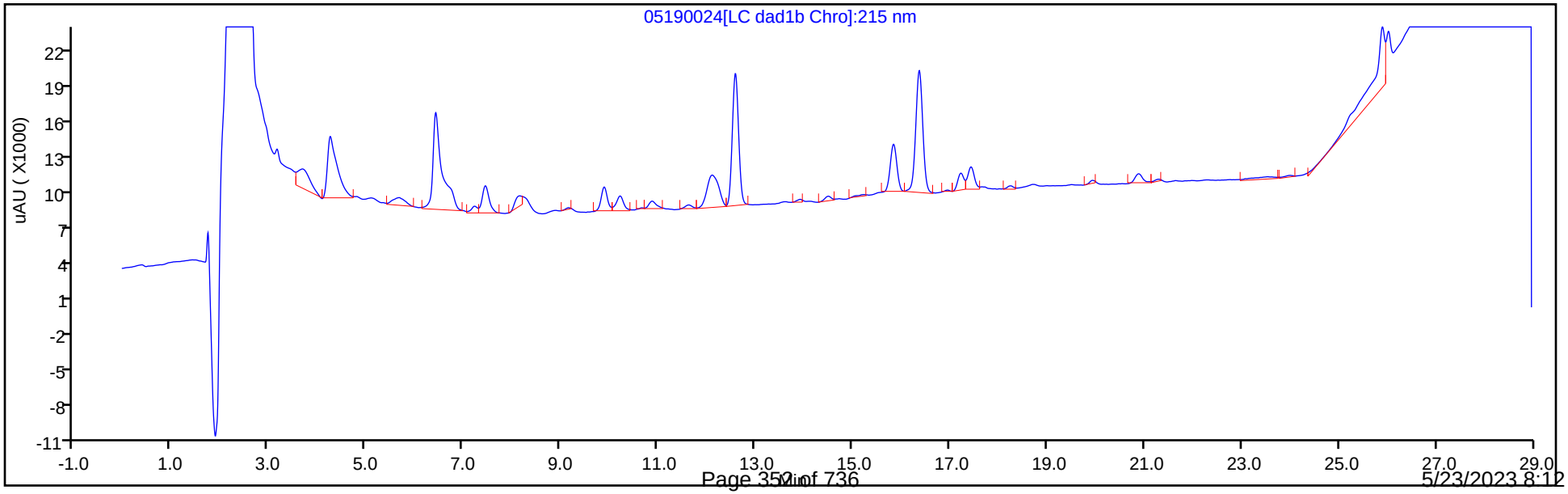
Data File: \\chromfs\denver\chromdata\g2_luna\20230519-121648.b\05190024.d

Injection Date:	20-May-2023 00:30:30	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	JZ/JG
Lims ID:	280-176609-A-4-A	Lab Sample ID:	280-176609-4	Worklist Smp#:	24
Client ID:	LL1mw-093-230301-GW				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	24
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\20230519-121648.b\05190024.D				
Lims ID:	280-176609-A-4-A				
Client ID:	LL1mw-093-230301-GW				
Sample Type:	Client				
Inject. Date:	20-May-2023 00:30:30	ALS Bottle#:	24	Worklist Smp#:	24
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-176609-A-4-A				
Operator ID:	JZ/JG	Instrument ID:	CHHPLC_G2_LUNA		
Method:	\\chromfs\Denver\ChromData\G2_LUNA\20230519-121648.b\G2_8330_Luna.m				
Limit Group:	GCSV - 8330				
Last Update:	20-May-2023 11:50:53	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:	CTX1663				
First Level Reviewer: LV5D		Date:	20-May-2023 11:50:34		

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.2036	101.79

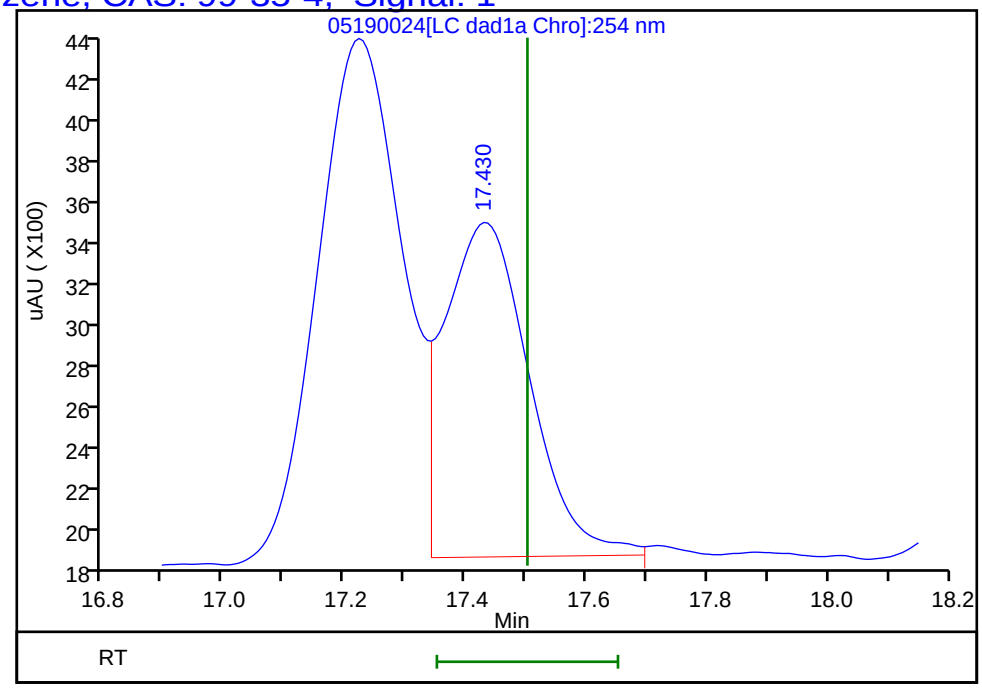
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\denver\chromdata\g2_luna\20230519-121648.b\05190024.d				
Injection Date:	20-May-2023 00:30:30	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	280-176609-A-4-A	Lab Sample ID:	280-176609-4		
Client ID:	LL1mw-093-230301-GW				
Operator ID:	JZ/JG	ALS Bottle#:	24	Worklist Smp#:	24
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

19 1,3,5-Trinitrobenzene, CAS: 99-35-4, Signal: 1

RT: 17.43
Response: 15410
Amount: 0.040715



Reviewer: LV5D, 20-May-2023 11:50:39
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

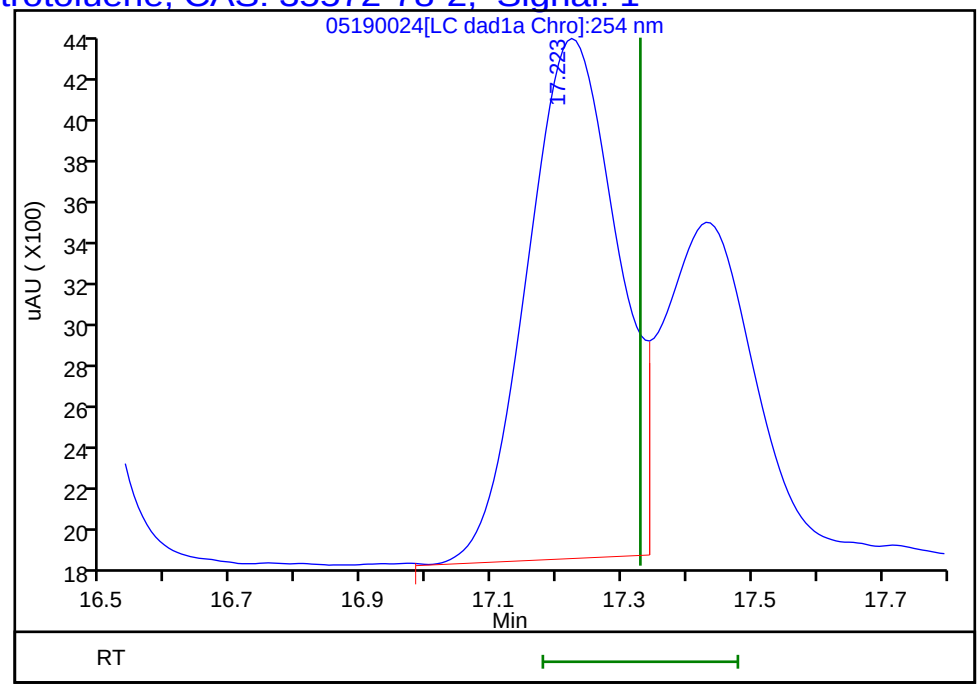
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\denver\chromdata\g2_luna\20230519-121648.b\05190024.d				
Injection Date:	20-May-2023 00:30:30	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	280-176609-A-4-A	Lab Sample ID:	280-176609-4		
Client ID:	LL1mw-093-230301-GW				
Operator ID:	JZ/JG	ALS Bottle#:	24	Worklist Smp#:	24
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

18 2-Amino-4,6-dinitrotoluene, CAS: 35572-78-2, Signal: 1

RT: 17.22
Response: 24186
Amount: 0.060422



Reviewer: LV5D, 20-May-2023 11:50:34
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

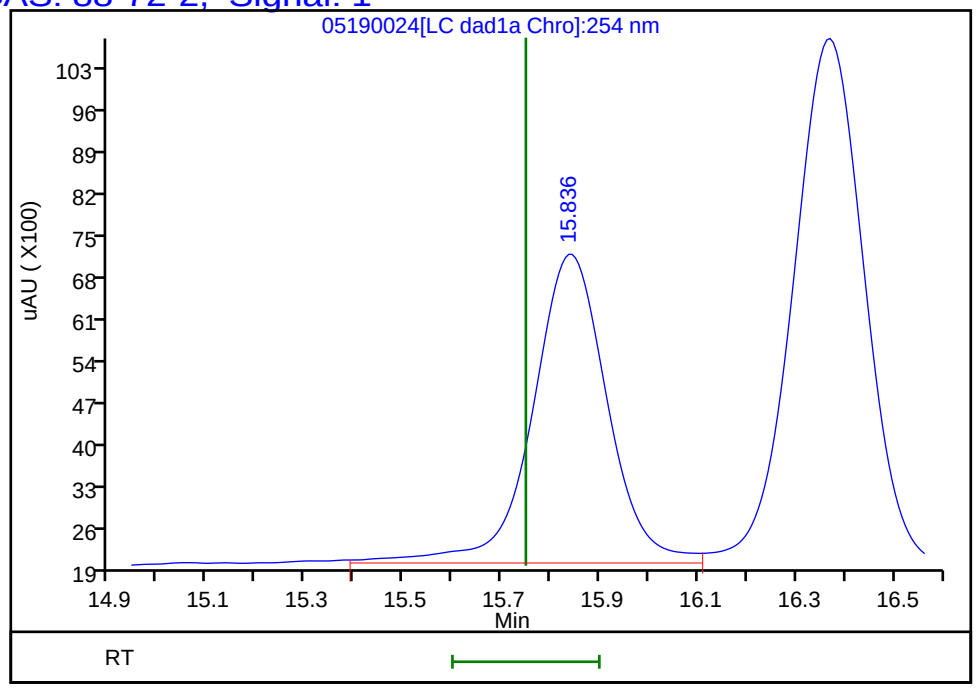
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\denver\chromdata\g2_luna\20230519-121648.b\05190024.d				
Injection Date:	20-May-2023 00:30:30	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	280-176609-A-4-A	Lab Sample ID:	280-176609-4		
Client ID:	LL1mw-093-230301-GW				
Operator ID:	JZ/JG	ALS Bottle#:	24	Worklist Smp#:	24
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

RT: 15.84
Response: 55585
Amount: 0.228568



Reviewer: LV5D, 20-May-2023 11:50:34
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

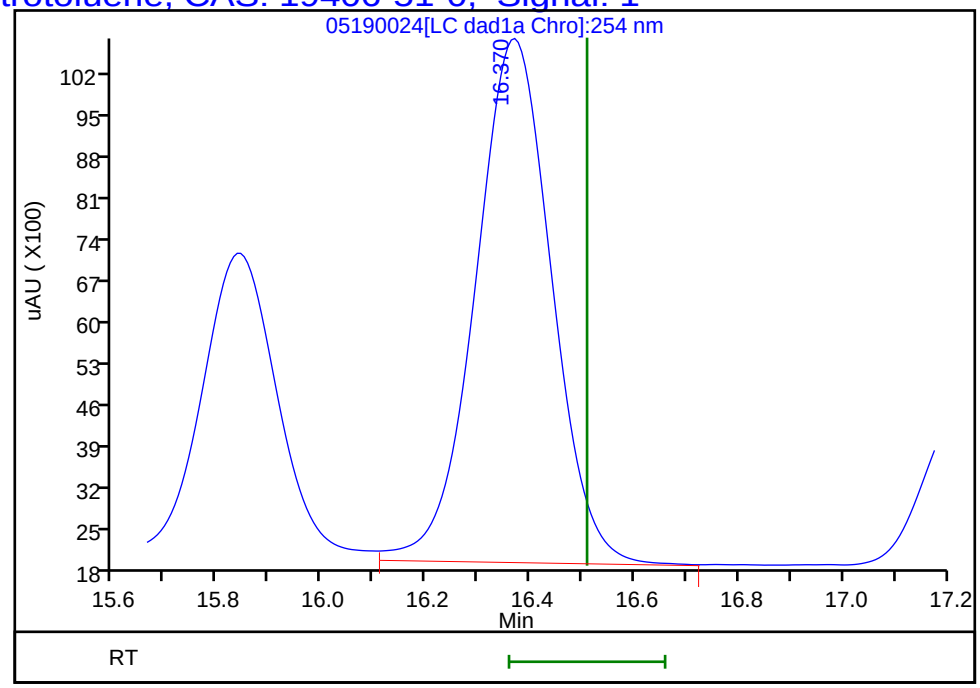
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\denver\chromdata\g2_luna\20230519-121648.b\05190024.d				
Injection Date:	20-May-2023 00:30:30	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	280-176609-A-4-A	Lab Sample ID:	280-176609-4		
Client ID:	LL1mw-093-230301-GW				
Operator ID:	JZ/JG	ALS Bottle#:	24	Worklist Smp#:	24
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

16 4-Amino-2,6-dinitrotoluene, CAS: 19406-51-0, Signal: 1

RT: 16.37
Response: 89753
Amount: 0.329235



Reviewer: LV5D, 20-May-2023 11:50:34
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

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

Lab Name: Eurofins Denver Job No.: 280-176609-1 Analy Batch No.: 494886

SDG No.:

Instrument ID: CHHPLC_G2_LUNA GC Column: Luna-phenyl ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/14/2020 16:16 Calibration End Date: 05/14/2020 20:56 Calibration ID: 44234

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-494886/15	05140015.D
Level 2	IC 280-494886/14	05140014.D
Level 3	IC 280-494886/13	05140013.D
Level 4	IC 280-494886/12	05140012.D
Level 5	IC 280-494886/11	05140011.D
Level 6	IC 280-494886/10	05140010.D
Level 7	IC 280-494886/9	05140009.D
Level 8	IC 280-494886/8	05140008.D
Level 9	IC 280-494886/7	05140007.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	LVL 7	LVL 8	LVL 9		RT WINDOW	AVG RT
2,6-diamino-4-nitrotoluene		4.375	4.357	4.361	4.366	4.347	4.342	4.315	4.302		4.216 - 4.516	4.346
2,4-diamino-6-nitrotoluene		4.855	4.851	4.941	4.880	4.940	4.915	4.908	+++++		4.730 - 5.030	4.899
Picric acid		6.322	6.331	6.308	6.300	6.267	6.235	6.195	+++++		6.150 - 6.450	6.280
HMX		6.982	6.984	6.994	6.986	6.987	6.982	6.968	6.916		6.836 - 7.136	6.975
RDX		9.095	9.184	9.181	9.173	9.173	9.162	9.148	9.076		9.023 - 9.323	9.149
Nitrobenzene		12.095	12.110	12.114	12.106	12.107	12.095	12.088	11.995		11.956 - 12.256	12.089
3,5-Dinitroaniline		14.862	14.890	14.901	14.886	14.887	14.875	14.868	14.795		14.736 - 15.036	14.871
1,3-Dinitrobenzene		15.542	15.544	15.554	15.553	15.553	15.548	15.541	15.469		15.403 - 15.703	15.538
Nitroglycerin		15.855	15.844	15.848	15.853	15.853	15.842	15.848	15.782		15.703 - 16.003	15.841
o-Nitrotoluene		16.515	16.550	16.534	16.533	16.540	16.535	16.535	16.475		16.383 - 16.683	16.527
p-Nitrotoluene		16.795	16.837	16.828	16.820	16.820	16.808	16.815	16.715		16.670 - 16.970	16.805
4-Amino-2,6-dinitrotoluene		17.155	17.157	17.148	17.146	17.153	17.142	17.141	17.069		16.996 - 17.296	17.139
m-Nitrotoluene		17.748	17.724	17.741	17.753	17.747	17.742	17.741	17.782		17.603 - 17.903	17.747
2-Amino-4,6-dinitrotoluene		18.048	18.030	18.054	18.046	18.040	18.035	18.028	17.935		17.896 - 18.196	18.027
1,3,5-Trinitrobenzene		18.855	18.864	18.881	18.886	18.887	18.875	18.881	18.829		18.736 - 19.036	18.870
2,6-Dinitrotoluene	+++++	19.828	19.817	19.794	19.806	19.807	19.795	19.801	19.742		19.656 - 19.956	19.799
2,4-Dinitrotoluene	20.295	20.295	20.290	20.288	20.293	20.293	20.288	20.288	20.235		20.143 - 20.443	20.285
Tetryl		23.529	23.557	23.548	23.553	23.553	23.542	23.555	23.516		23.403 - 23.703	23.544
2,4,6-Trinitrotoluene		24.682	24.637	24.654	24.653	24.647	24.642	24.648	24.616		24.503 - 24.803	24.647
PETN		+++++	25.277	25.281	25.280	25.280	25.275	25.281	25.269		25.130 - 25.430	25.278
1,2-Dinitrobenzene		13.022	13.037	13.048	13.040	13.040	13.028	13.028	12.949		12.890 - 13.190	13.024

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Denver Job No.: 280-176609-1 Analy Batch No.: 494886

SDG No.:

Instrument ID: CHHPLC_G2_LUNA GC Column: Luna-phenyl ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/14/2020 16:16 Calibration End Date: 05/14/2020 20:56 Calibration ID: 44234

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-494886/15	05140015.D
Level 2	IC 280-494886/14	05140014.D
Level 3	IC 280-494886/13	05140013.D
Level 4	IC 280-494886/12	05140012.D
Level 5	IC 280-494886/11	05140011.D
Level 6	IC 280-494886/10	05140010.D
Level 7	IC 280-494886/9	05140009.D
Level 8	IC 280-494886/8	05140008.D
Level 9	IC 280-494886/7	05140007.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								
2,6-diamino-4-nitrotoluene	427016 378673	505300 403228	459380 388674	447390 424864	Ave		429315.573				9.6		20.0			
2,4-diamino-6-nitrotoluene	299752 +++++	457350 250425	331240 252376	338890 226554	Lin1	5534.76596	237769.698							0.9910		0.9900
Picric acid	194456 +++++	227320 170053	189240 169399	231700 174504	Ave		193810.153				13.5		20.0			
HMX	216260 175837	400720 186210	252920 179567	242940 183992	Lin2	5323.97093	177012.867							0.9900		0.9900
RDX	250504 220101	251440 221363	302380 217280	272330 219481	Ave		244359.838				12.7		20.0			
Nitrobenzene	422566 420057	411355 413613	566215 420302	425090 434621	Ave		439227.211				11.8		20.0			
3,5-Dinitroaniline	521204 487312	615250 475038	558320 457941	517160 495596	Lin2	2774.20567	485000.587							0.9980		0.9900
1,3-Dinitrobenzene	687780 651230	649900 645107	741737 661018	688743 667994	Ave		674188.610				4.7		20.0			

Note: The M1 coefficient is the same as Ave CF for an Ave curve type. RSD is calculated for Ave curve types. RSE is used for all other types.

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Denver Job No.: 280-176609-1 Analy Batch No.: 494886

SDG No.:

Instrument ID: CHHPLC_G2_LUNA GC Column: Luna-phenyl ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/14/2020 16:16 Calibration End Date: 05/14/2020 20:56 Calibration ID: 44234

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	132151 128856	106184 127479	128084 121758	141489 128426	Ave		126803.331				7.9		20.0			
o-Nitrotoluene	252584 263350	272480 263733	320060 259206	290620 261684	Ave		272964.527				8.1		20.0			
p-Nitrotoluene	237944 205745	214531 233965	309222 235547	259042 231055	Ave		240881.296				13.2		20.0			
4-Amino-2,6-dinitrotoluene	316356 338348	374386 325764	441918 319452	324156 321498	Ave		345234.619				12.5		20.0			
m-Nitrotoluene	284364 280237	276523 288039	385215 286309	305554 280373	Ave		298326.800				12.1		20.0			
2-Amino-4,6-dinitrotoluene	449641 452344	413386 446609	577331 454954	473367 454056	Ave		465211.017				10.4		20.0			
1,3,5-Trinitrobenzene	473888 459025	432016 445838	531916 461195	509261 466466	Ave		472450.766				7.0		20.0			
2,6-Dinitrotoluene	+++++ 296084 293622	462869 294056	380618 294513	345209 297272	Lin2	4435.9560 4	289218.236							0.9990		0.9900
2,4-Dinitrotoluene	636653 610554 606816	669761 610082	743068 605778	672311 605997	Ave		640113.339				7.4		20.0			
Tetryl	368208 349575	394172 348927	403234 350489	384701 350116	Ave		368677.570				6.1		20.0			
2,4,6-Trinitrotoluene	399076 406271	460040 393653	565060 401302	430359 406644	Lin1	3158.0341 6	401610.023							0.9990		0.9900
PETN	135296 128081	+++++ 139434	204240 136840	132172 136576	Lin1	27366.023 2	129287.517							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.: 280-176609-1 Analy Batch No.: 494886

SDG No.:

Instrument ID: CHHPLC_G2_LUNA GC Column: Luna-phenyl ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/14/2020 16:16 Calibration End Date: 05/14/2020 20:56 Calibration ID: 44234

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								
1,2-Dinitrobenzene	249500 288347	337440 268080	374880 263961	306830 274673	Lin1	1839.02265	277228.024							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
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Denver Job No.: 280-176609-1 Analy Batch No.: 494886

SDG No.:

Instrument ID: CHHPLC_G2_LUNA GC Column: Luna-phenyl ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/14/2020 16:16 Calibration End Date: 05/14/2020 20:56 Calibration ID: 44234

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-494886/15	05140015.D
Level 2	IC 280-494886/14	05140014.D
Level 3	IC 280-494886/13	05140013.D
Level 4	IC 280-494886/12	05140012.D
Level 5	IC 280-494886/11	05140011.D
Level 6	IC 280-494886/10	05140010.D
Level 7	IC 280-494886/9	05140009.D
Level 8	IC 280-494886/8	05140008.D
Level 9	IC 280-494886/7	05140007.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 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
2,6-diamino-4-nitrotoluene	Ave	161291	10106 272072	22969 424864	44739 946682	106754	0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
2,4-diamino-6-nitrotoluene	Lin1	100170	9147 176663	16562 226554	33889 +++++	74938	0.400	0.0200 0.700	0.0500 1.00	0.100 +++++	0.250
Picric acid	Ave	68021	5683 118579	9462 174504	23170 +++++	48614	0.400	0.0250 0.700	0.0500 1.00	0.100 +++++	0.250
HMX	Lin2	74484	10018 125697	12646 183992	24294 439592	54065	0.400	0.0250 0.700	0.0500 1.00	0.100 2.50	0.250
RDX	Ave	88545	6286 152096	15119 219481	27233 550253	62626	0.400	0.0250 0.700	0.0500 1.00	0.100 2.50	0.250
Nitrobenzene	Ave	166107	10325 295388	28424 436359	42679 1054344	106064	0.402	0.0251 0.703	0.0502 1.00	0.100 2.51	0.251
3,5-Dinitroaniline	Lin2	190015	12305 320559	27916 495596	51716 1218279	130301	0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
1,3-Dinitrobenzene	Ave	258559	16280 463638	37161 669330	69012 1631331	172289	0.401	0.0251 0.701	0.0501 1.00	0.100 2.51	0.251
Nitroglycerin	Ave	509915	26546 852305	64042 1284256	141489 3221406	330378	4.00	0.250 7.00	0.500 10.0	1.00 25.0	2.50
o-Nitrotoluene	Ave	105493	6812 181444	16003 261684	29062 658375	63146	0.400	0.0250 0.700	0.0500 1.00	0.100 2.50	0.250
p-Nitrotoluene	Ave	93773	5374 165213	15492 231517	25956 515391	59605	0.401	0.0251 0.701	0.0501 1.00	0.100 2.51	0.251
4-Amino-2,6-dinitrotoluene	Ave	130436	9369 223840	22118 321819	32448 846716	79168	0.400	0.0250 0.701	0.0501 1.00	0.100 2.50	0.250
m-Nitrotoluene	Ave		6920	19280	30586	71162		0.0250	0.0501	0.100	0.250

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Denver Job No.: 280-176609-1 Analy Batch No.: 494886

SDG No.:

Instrument ID: CHHPLC_G2_LUNA GC Column: Luna-phenyl ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/14/2020 16:16 Calibration End Date: 05/14/2020 20:56 Calibration ID: 44234

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 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
		115331	200617	280653	701292		0.400	0.701	1.00	2.50	
2-Amino-4,6-dinitrotoluene	Ave	179358	10376 319742	28982 455872	47526 1135384	112860	0.402	0.0251 0.703	0.0502 1.00	0.100 2.51	0.251
1,3,5-Trinitrobenzene	Ave	178692	10822 323482	26649 467399	51028 1149858	118709	0.401	0.0251 0.701	0.0501 1.00	0.100 2.51	0.251
2,6-Dinitrotoluene	Lin2	+++++ 118093	11618 206984	19107 298461	34659 736990	74317	+++++ 0.402	0.0251 0.703	0.0502 1.00	0.100 2.51	0.251
2,4-Dinitrotoluene	Ave	7990 245009	16811 425741	37302 608421	67500 1523108	153249	0.0126 0.402	0.0251 0.703	0.0502 1.00	0.100 2.51	0.251
Tetryl	Ave	139850	9874 245833	20202 350816	38547 875686	92236	0.401	0.0251 0.701	0.0501 1.00	0.100 2.51	0.251
2,4,6-Trinitrotoluene	Lin1	158091	11547 282035	28366 408271	43208 1019741	100168	0.402	0.0251 0.703	0.0502 1.00	0.100 2.51	0.251
PETN	Lin1	557734	+++++ 957879	102120 1365764	132172 3202028	338241	4.00	+++++ 7.00	0.500 10.0	1.00 25.0	2.50
1,2-Dinitrobenzene	Lin1	107232	8436 184773	18744 274673	30683 720867	62375	0.400	0.0250 0.700	0.0500 1.00	0.100 2.50	0.250

Curve Type Legend

Ave = Average
Lin1 = Linear 1/conc
Lin2 = Linear 1/conc^2

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140007.D
Lims ID: IC FULL 9
Client ID:
Sample Type: IC Calib Level: 9
Inject. Date: 14-May-2020 16:16:43 ALS Bottle#: 7 Worklist Smp#: 7
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC FULL 9
Misc. Info.: 280-0091518-007
Operator ID: CB Instrument ID: CHHPLC_G2_LUNA
Sublist: chrom-G2_8330_Luna*sub6

Method: \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\G2_8330_Luna.m
Limit Group: GCSV - 8330
Last Update: 15-May-2020 12:00:54 Calib Date: 15-May-2020 02:11:20
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140024.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC DAD1A, 254 nm
Process Host: CTX0318

First Level Reviewer: zhangji Date: 14-May-2020 17:09:51

	Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
	1 2,6-diamino-4-nitrotoluene	1	4.302	4.366	-0.064	946682	2.50	2.21	M
	2 2,4-diamino-6-nitrotoluene	1	4.769	4.880	-0.111	410736	2.50	1.70	M
	5 2,4,6-Trinitrophenol	1	6.096	6.300	-0.204	359637	2.50	1.86	
	6 HMX	1	6.916	6.986	-0.070	439592	2.50	2.45	
	8 RDX	1	9.076	9.173	-0.097	550253	2.50	2.25	
	9 Nitrobenzene	1	11.995	12.106	-0.111	1054344	2.51	2.40	
$	10 1,2-Dinitrobenzene	1	12.949	13.040	-0.091	720867	2.50	2.59	
	11 3,5-Dinitroaniline	1	14.795	14.886	-0.091	1218279	2.50	2.51	a
	12 1,3-Dinitrobenzene	1	15.469	15.553	-0.084	1631331	2.51	2.42	
	13 Nitroglycerin	2	15.782	15.853	-0.071	3221406	25.0	25.4	
	14 o-Nitrotoluene	1	16.475	16.533	-0.058	658375	2.50	2.41	a
	15 p-Nitrotoluene	1	16.715	16.820	-0.105	515391	2.51	2.14	a
	16 4-Amino-2,6-dinitrotoluene	1	17.069	17.146	-0.077	846716	2.50	2.45	a
	17 m-Nitrotoluene	1	17.782	17.753	0.029	701292	2.50	2.35	Ma
	18 2-Amino-4,6-dinitrotoluene	1	17.935	18.046	-0.111	1135384	2.51	2.44	Ma
	19 1,3,5-Trinitrobenzene	1	18.829	18.886	-0.057	1149858	2.51	2.43	a
	20 2,6-Dinitrotoluene	1	19.742	19.806	-0.064	736990	2.51	2.53	a
	21 2,4-Dinitrotoluene	1	20.235	20.293	-0.058	1523108	2.51	2.38	a
	22 Tetryl	1	23.516	23.553	-0.037	875686	2.51	2.38	a
	23 2,4,6-Trinitrotoluene	1	24.616	24.653	-0.037	1019741	2.51	2.53	a
	24 PETN	2	25.269	25.280	-0.011	3202028	25.0	24.6	

QC Flag Legend

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

8330IntermStk_00064	Amount Added: 250.00	Units: uL
8330_ADDs_00026	Amount Added: 125.00	Units: uL

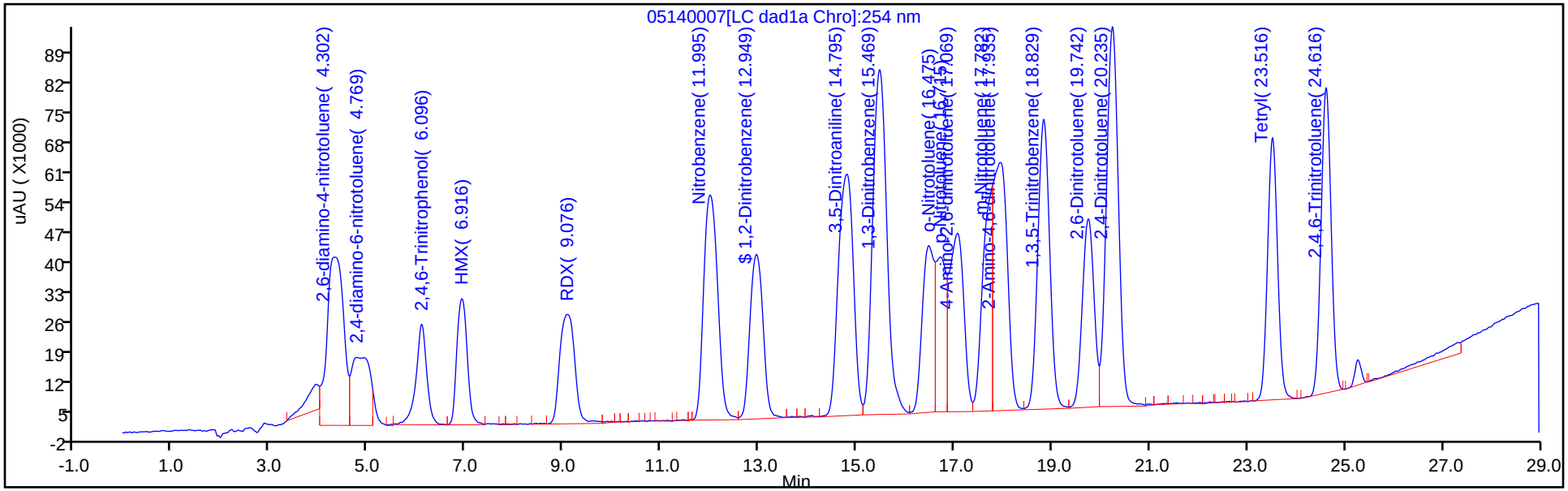
Report Date: 15-May-2020 12:00:54 Chrom Revision: 2.3 05-May-2020 17:48:18

Eurofins TestAmerica, Denver

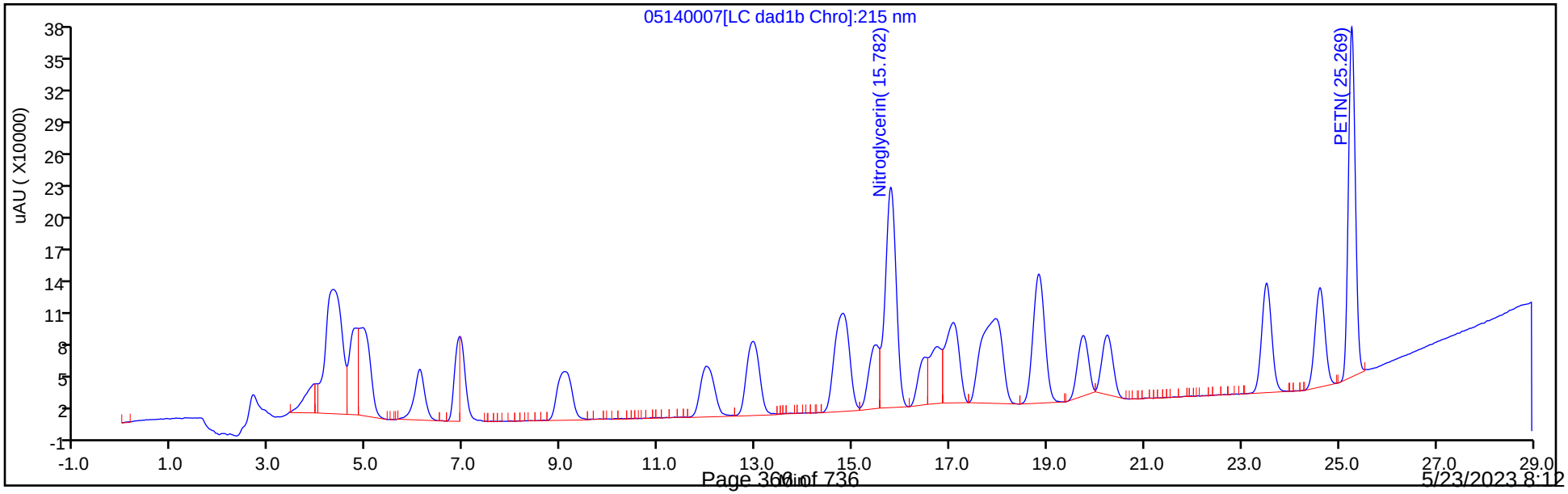
Data File: \\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140007.d

Injection Date:	14-May-2020 16:16:43	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	CB
Lims ID:	IC FULL 9			Worklist Smp#:	7
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		

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



Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

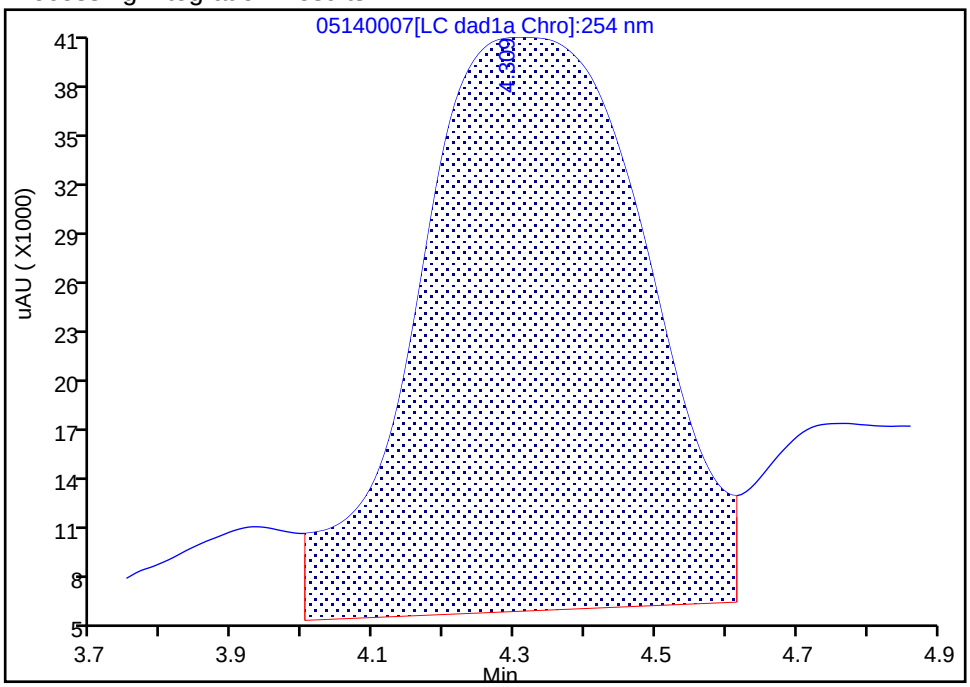
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140007.d				
Injection Date:	14-May-2020 16:16:43	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 9				
Client ID:					
Operator ID:	CB	ALS Bottle#:	7	Worklist Smp#:	7
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

1 2,6-diamino-4-nitrotoluene, CAS: 59229-75-3

Signal: 1

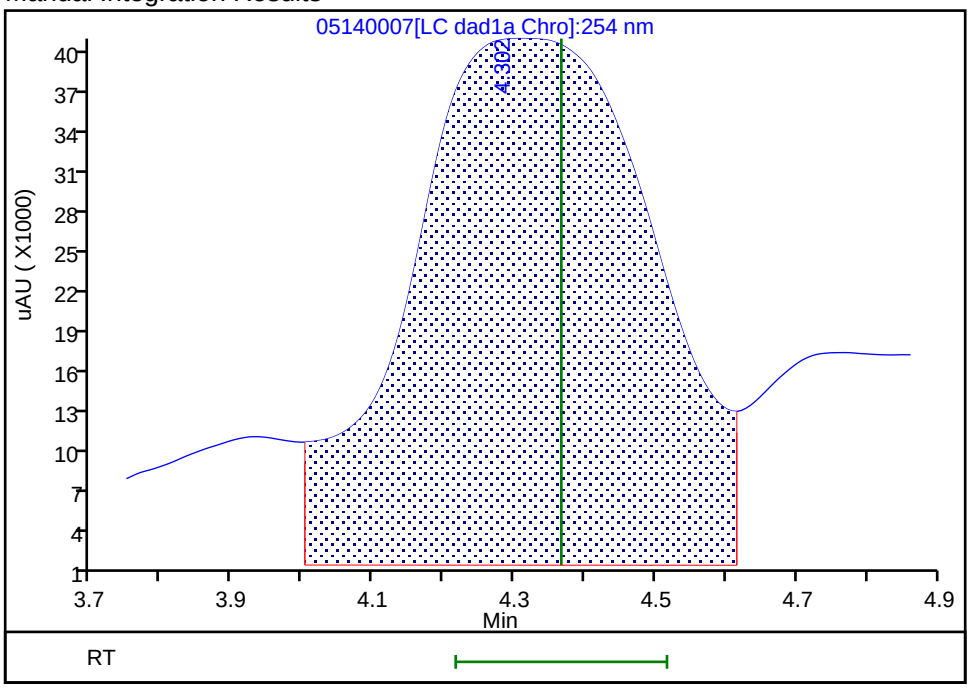
Processing Integration Results

RT: 4.31
Area: 782775
Amount: 1.780400
Amount Units: ug/ml



Manual Integration Results

RT: 4.30
Area: 946682
Amount: 2.205096
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:21:15
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

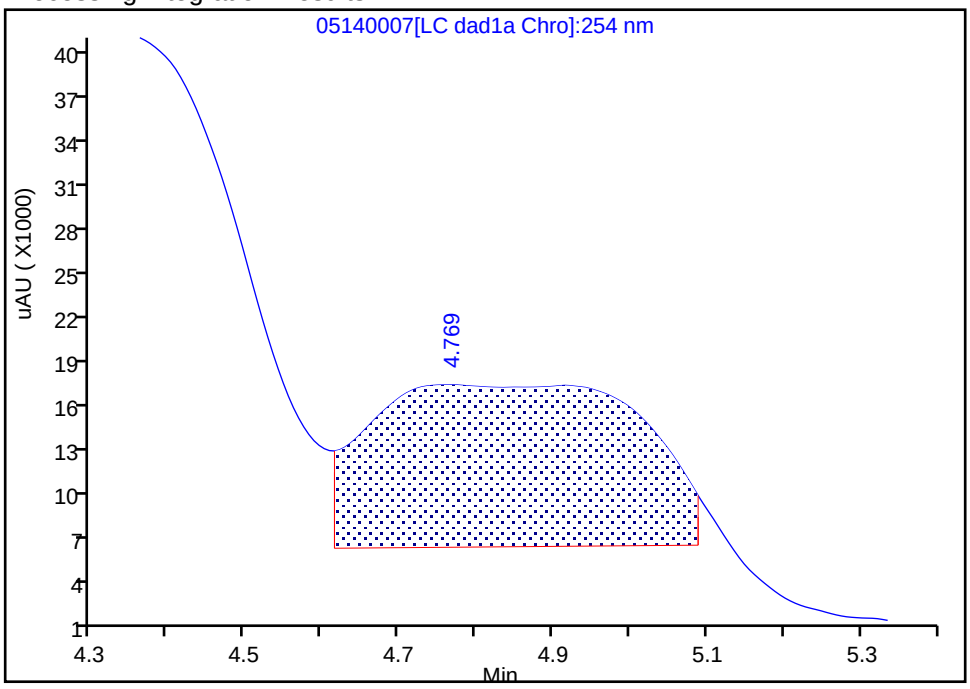
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140007.d				
Injection Date:	14-May-2020 16:16:43	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 9				
Client ID:					
Operator ID:	CB	ALS Bottle#:	7	Worklist Smp#:	7
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

2 2,4-diamino-6-nitrotoluene, CAS: 6629-29-4

Signal: 1

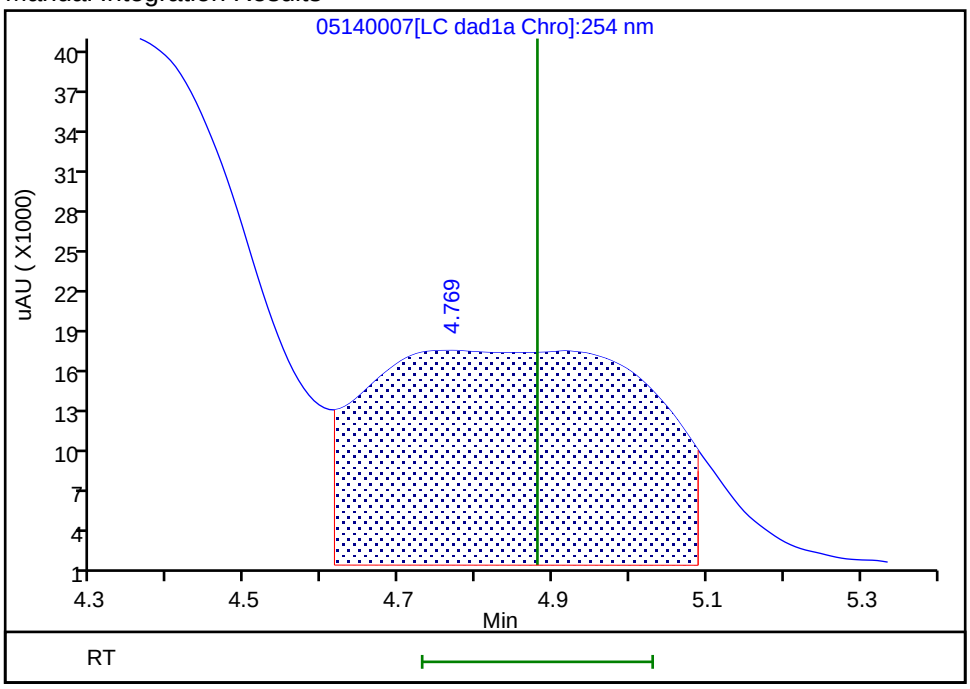
Processing Integration Results

RT: 4.77
Area: 265215
Amount: 1.351017
Amount Units: ug/ml



Manual Integration Results

RT: 4.77
Area: 410736
Amount: 1.704175
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:21:15
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

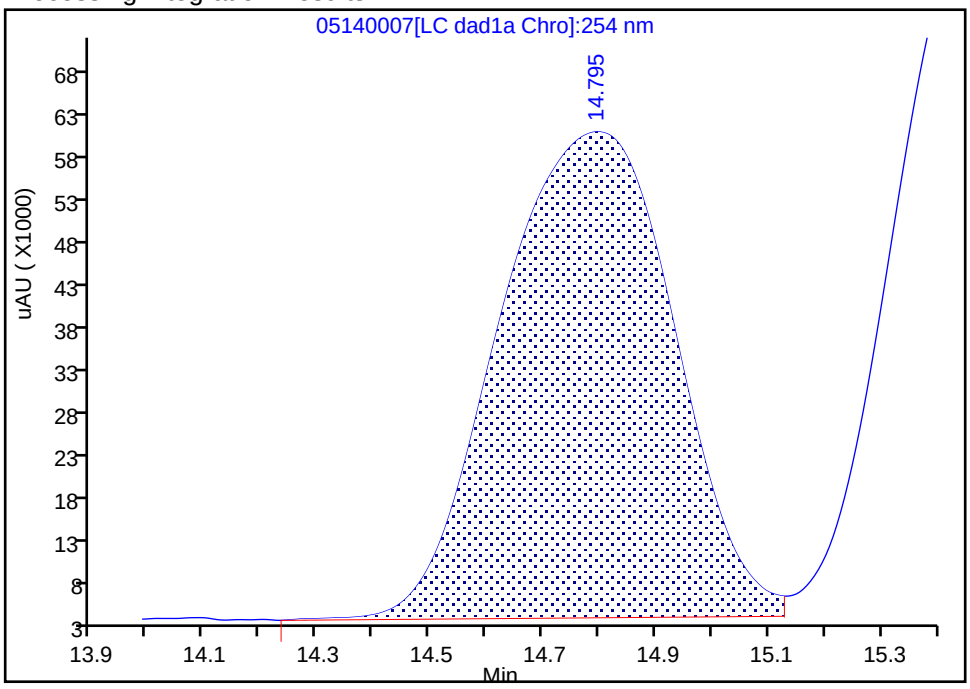
Data File: \\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140007.d
Injection Date: 14-May-2020 16:16:43 Instrument ID: CHHPLC_G2_LUNA
Lims ID: IC FULL 9
Client ID:
Operator ID: CB ALS Bottle#: 7 Worklist Smp#: 7
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC DAD1A, 254 nm

11 3,5-Dinitroaniline, CAS: 618-87-1

Signal: 1

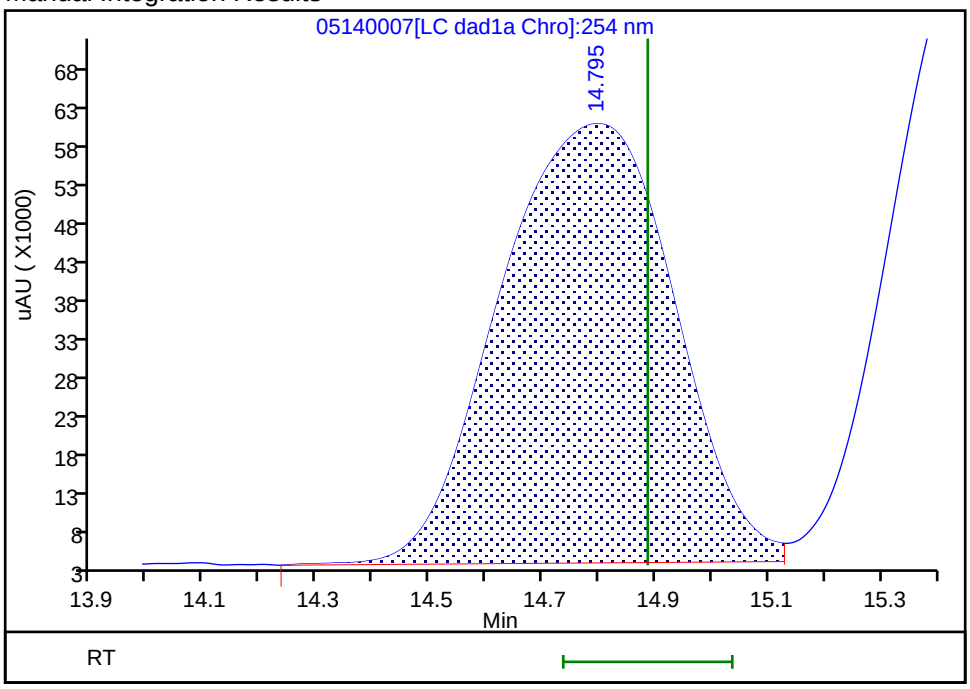
Processing Integration Results

RT: 14.80
Area: 1218279
Amount: 0
Amount Units: ug/ml



Manual Integration Results

RT: 14.80
Area: 1218279
Amount: 2.506192
Amount Units: ug/ml



Reviewer: zhangji, 14-May-2020 17:09:29
Audit Action: Assigned Compound ID Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

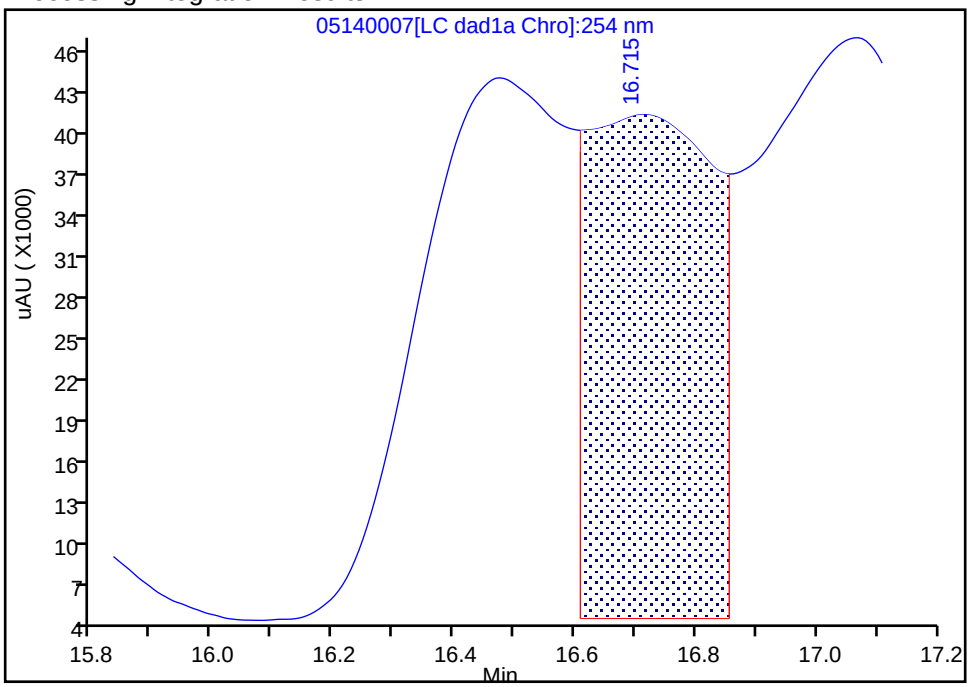
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140007.d				
Injection Date:	14-May-2020 16:16:43	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 9				
Client ID:					
Operator ID:	CB	ALS Bottle#:	7	Worklist Smp#:	7
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

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

Signal: 1

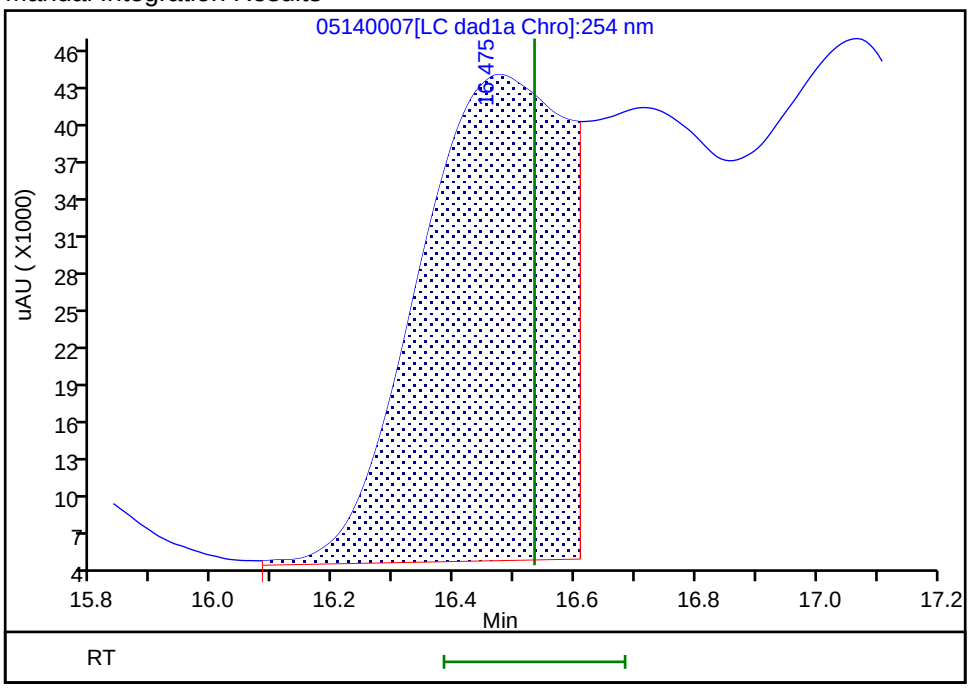
Processing Integration Results

RT: 16.72
Area: 515391
Amount: 1.955872
Amount Units: ug/ml



Manual Integration Results

RT: 16.48
Area: 658375
Amount: 2.411943
Amount Units: ug/ml



Reviewer: zhangji, 14-May-2020 17:09:15

Audit Action: Assigned Compound ID Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

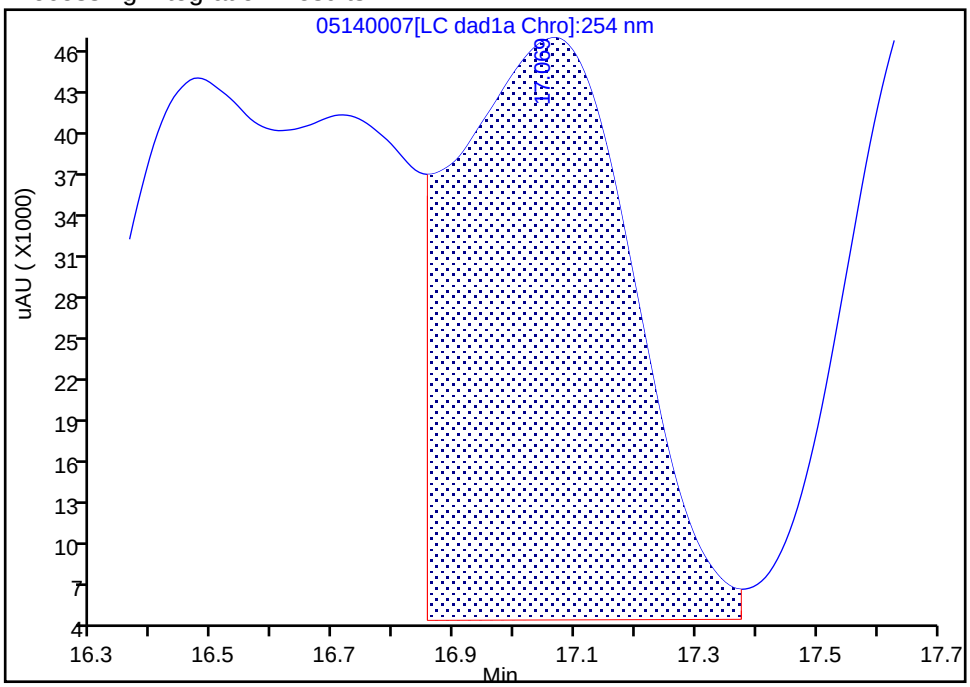
Data File: \\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140007.d
Injection Date: 14-May-2020 16:16:43 Instrument ID: CHHPLC_G2_LUNA
Lims ID: IC FULL 9
Client ID:
Operator ID: CB ALS Bottle#: 7 Worklist Smp#: 7
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC DAD1A, 254 nm

15 p-Nitrotoluene, CAS: 99-99-0

Signal: 1

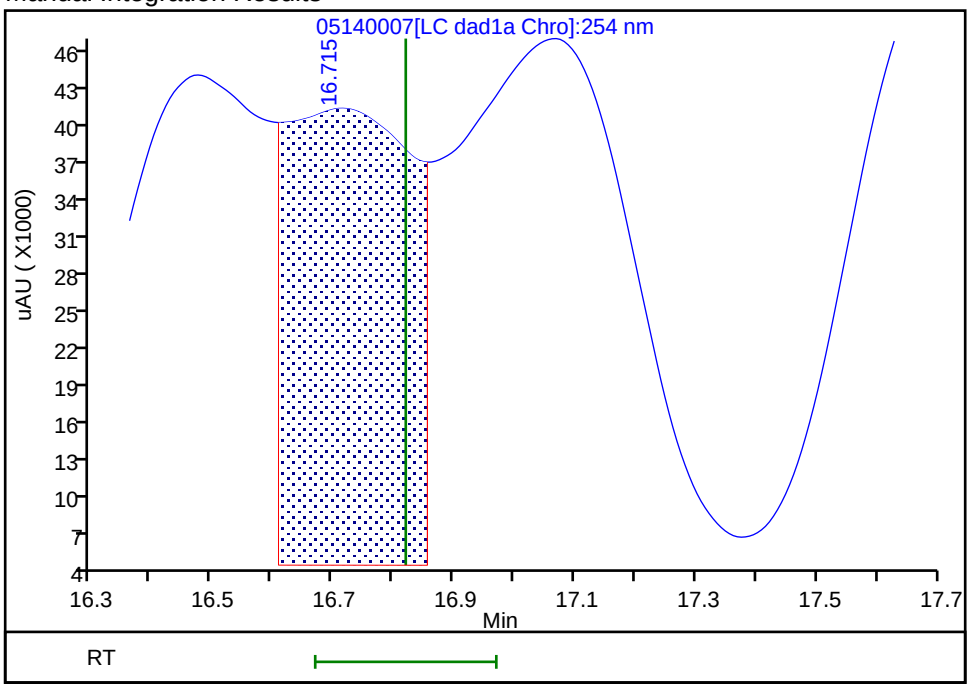
Processing Integration Results

RT: 17.07
Area: 846716
Amount: 4.099164
Amount Units: ug/ml



Manual Integration Results

RT: 16.72
Area: 515391
Amount: 2.139606
Amount Units: ug/ml



Reviewer: zhangji, 14-May-2020 17:09:12
Audit Action: Assigned Compound ID Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

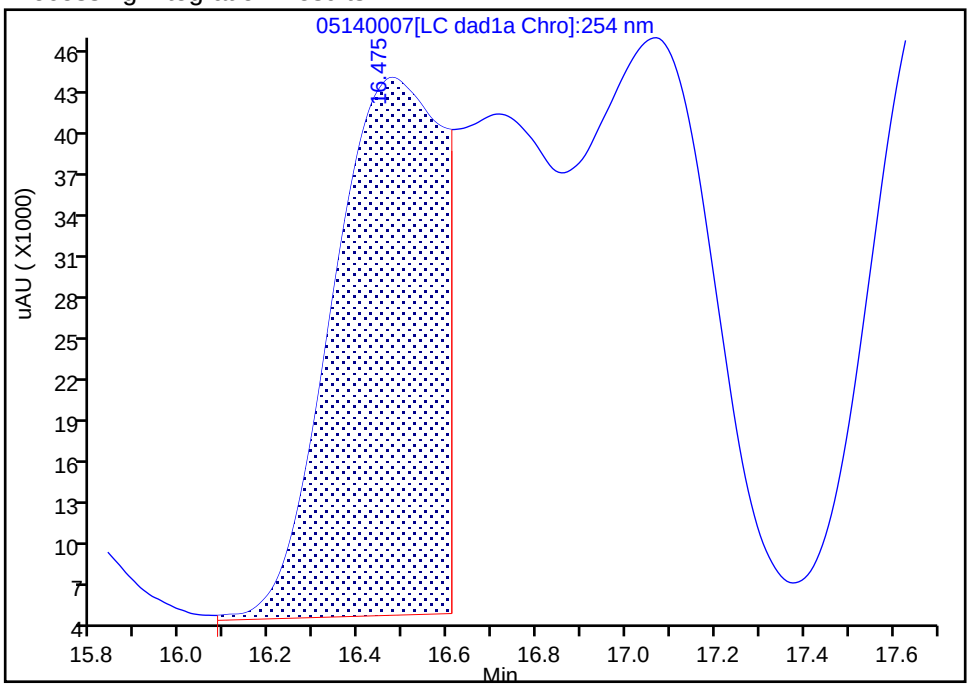
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140007.d				
Injection Date:	14-May-2020 16:16:43	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 9				
Client ID:					
Operator ID:	CB	ALS Bottle#:	7	Worklist Smp#:	7
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

16 4-Amino-2,6-dinitrotoluene, CAS: 19406-51-0

Signal: 1

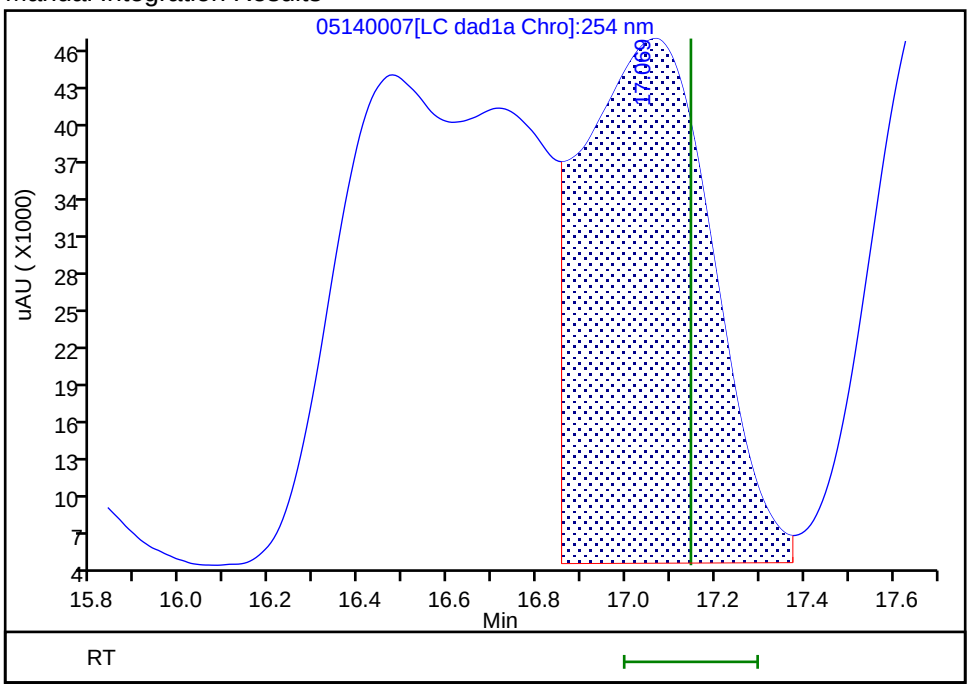
Processing Integration Results

RT: 16.48
Area: 658375
Amount: 2.145710
Amount Units: ug/ml



Manual Integration Results

RT: 17.07
Area: 846716
Amount: 2.452581
Amount Units: ug/ml



Reviewer: zhangji, 14-May-2020 17:08:59

Audit Action: Assigned Compound ID Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

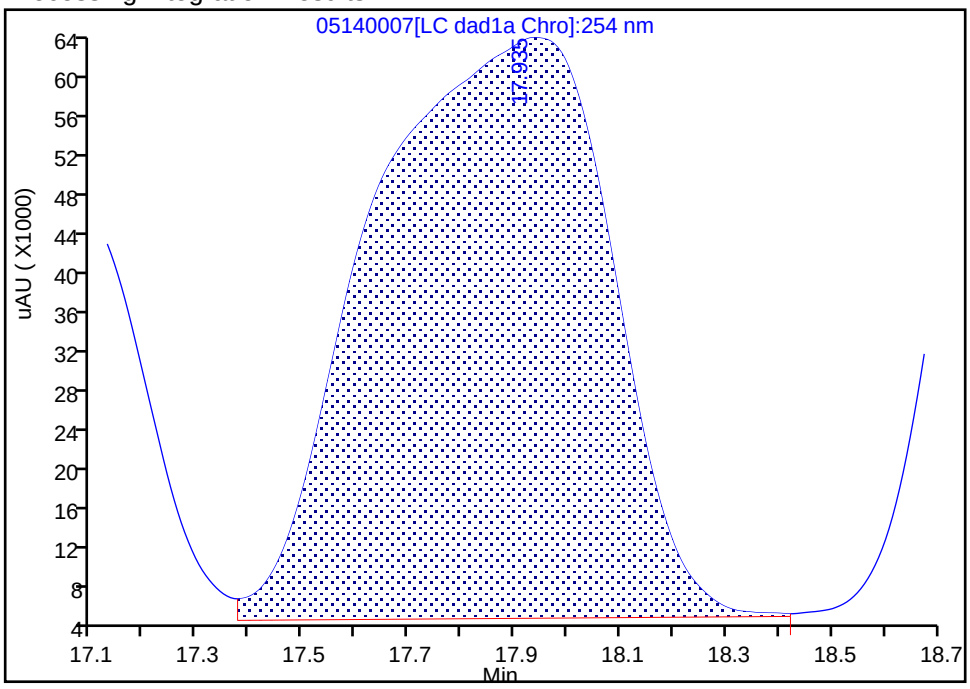
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140007.d				
Injection Date:	14-May-2020 16:16:43	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 9				
Client ID:					
Operator ID:	CB	ALS Bottle#:	7	Worklist Smp#:	7
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

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

Signal: 1

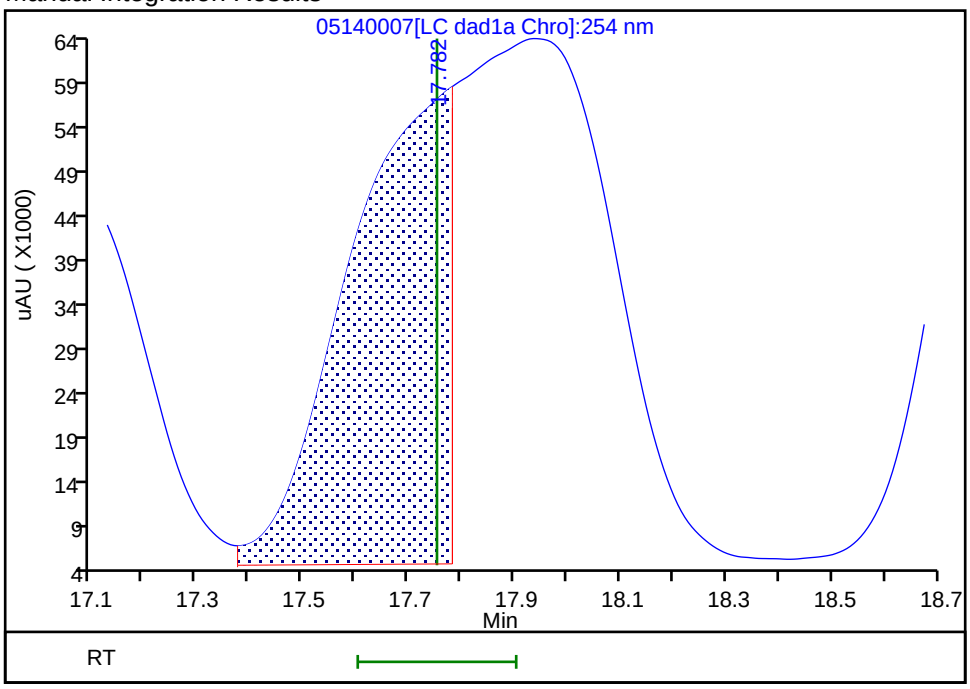
Processing Integration Results

RT: 17.94
Area: 1836650
Amount: 6.513789
Amount Units: ug/ml



Manual Integration Results

RT: 17.78
Area: 701292
Amount: 2.350751
Amount Units: ug/ml



Reviewer: zhangji, 14-May-2020 17:08:45

Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

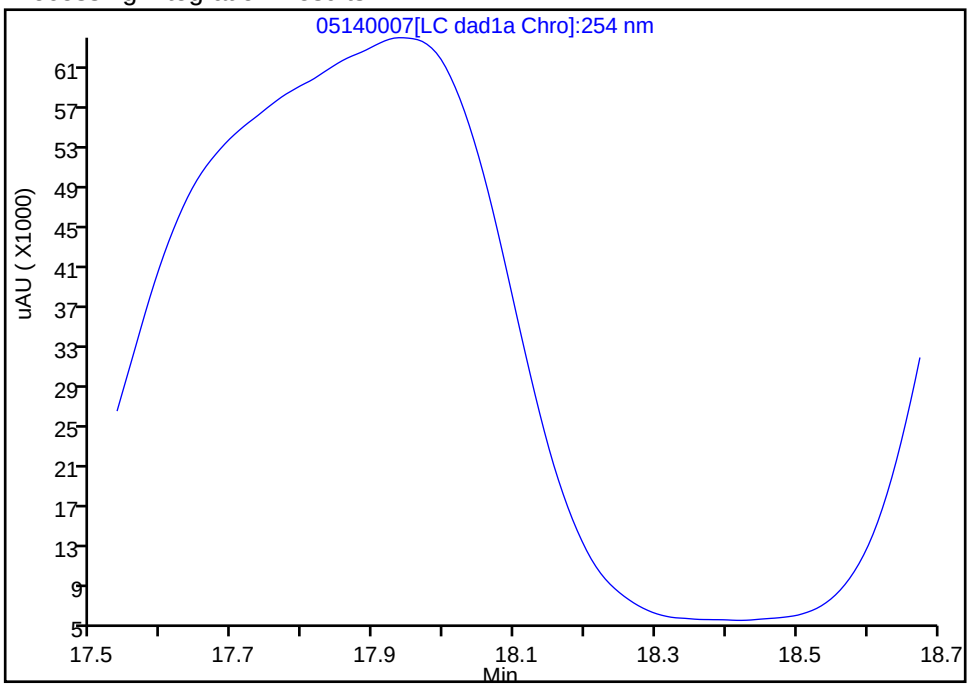
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140007.d				
Injection Date:	14-May-2020 16:16:43	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 9				
Client ID:					
Operator ID:	CB	ALS Bottle#:	7	Worklist Smp#:	7
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

18 2-Amino-4,6-dinitrotoluene, CAS: 35572-78-2

Signal: 1

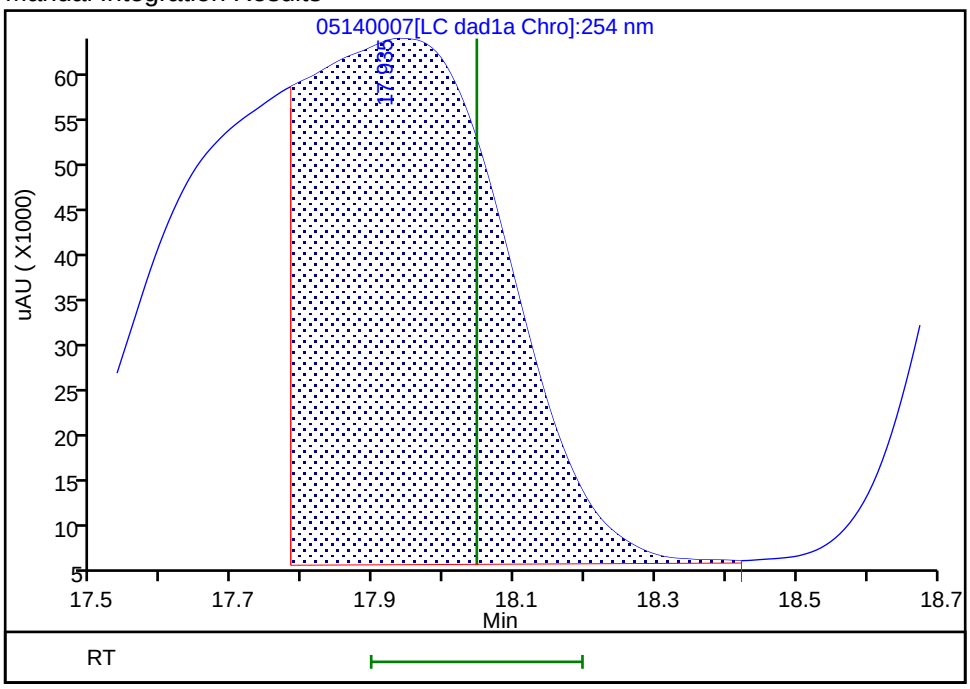
Not Detected
Expected RT: 18.05

Processing Integration Results



Manual Integration Results

RT: 17.94
Area: 1135384
Amount: 2.440578
Amount Units: ug/ml



Reviewer: zhangji, 14-May-2020 17:08:40
Audit Action: Split an Integrated Peak Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

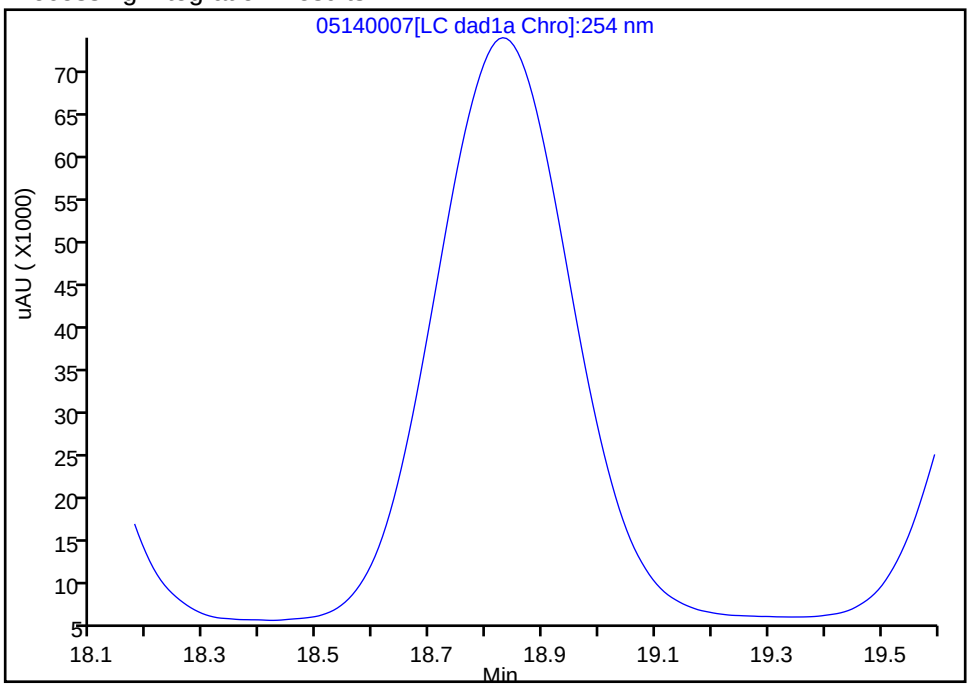
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140007.d				
Injection Date:	14-May-2020 16:16:43	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 9				
Client ID:					
Operator ID:	CB	ALS Bottle#:	7	Worklist Smp#:	7
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

19 1,3,5-Trinitrobenzene, CAS: 99-35-4

Signal: 1

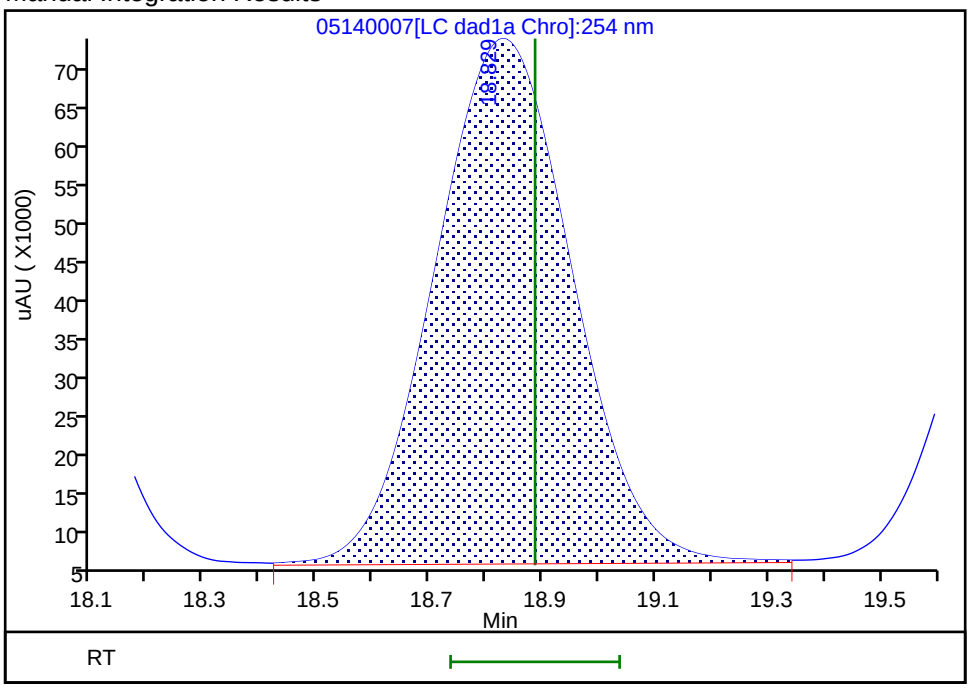
Not Detected
Expected RT: 18.89

Processing Integration Results



Manual Integration Results

RT: 18.83
Area: 1149858
Amount: 2.433816
Amount Units: ug/ml



Reviewer: zhangji, 14-May-2020 17:08:26
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

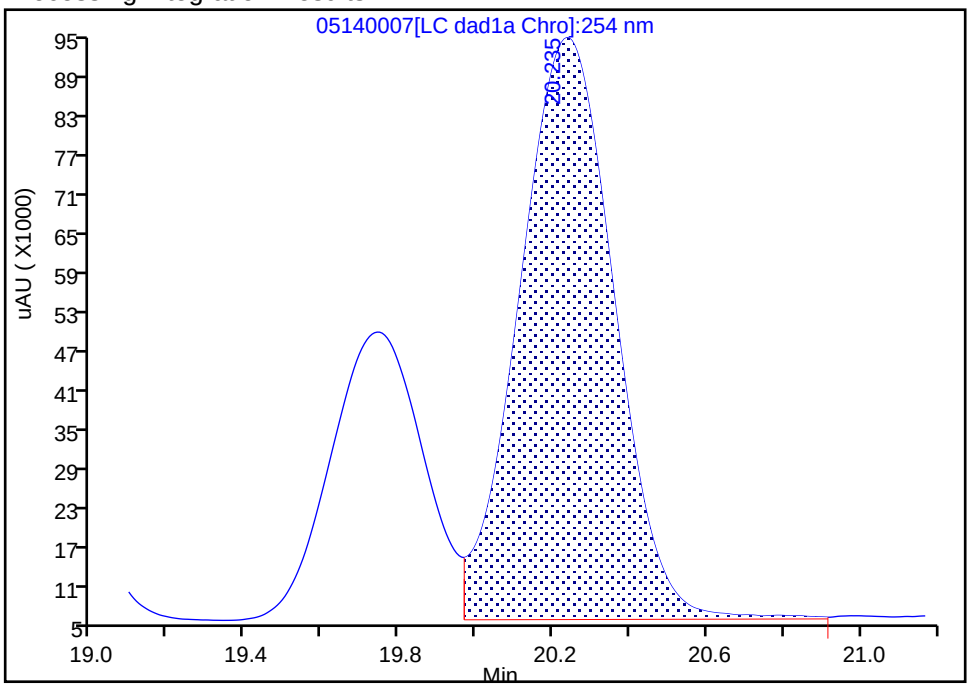
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140007.d				
Injection Date:	14-May-2020 16:16:43	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 9				
Client ID:					
Operator ID:	CB	ALS Bottle#:	7	Worklist Smp#:	7
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

20 2,6-Dinitrotoluene, CAS: 606-20-2

Signal: 1

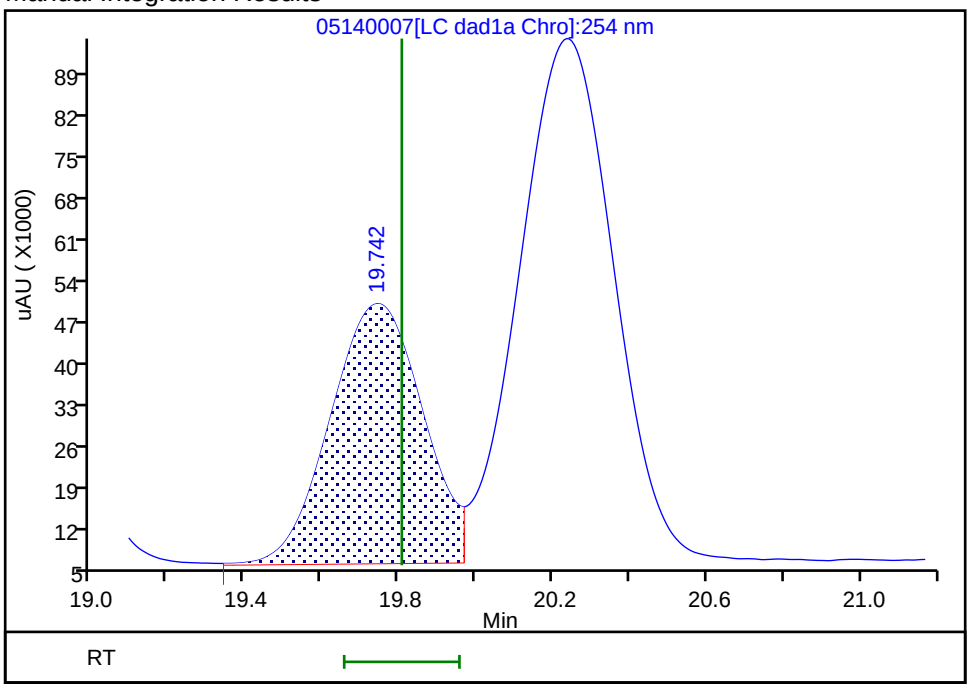
Processing Integration Results

RT: 20.24
Area: 1523108
Amount: 2.510000
Amount Units: ug/ml



Manual Integration Results

RT: 19.74
Area: 736990
Amount: 2.532876
Amount Units: ug/ml



Reviewer: zhangji, 14-May-2020 17:08:23
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

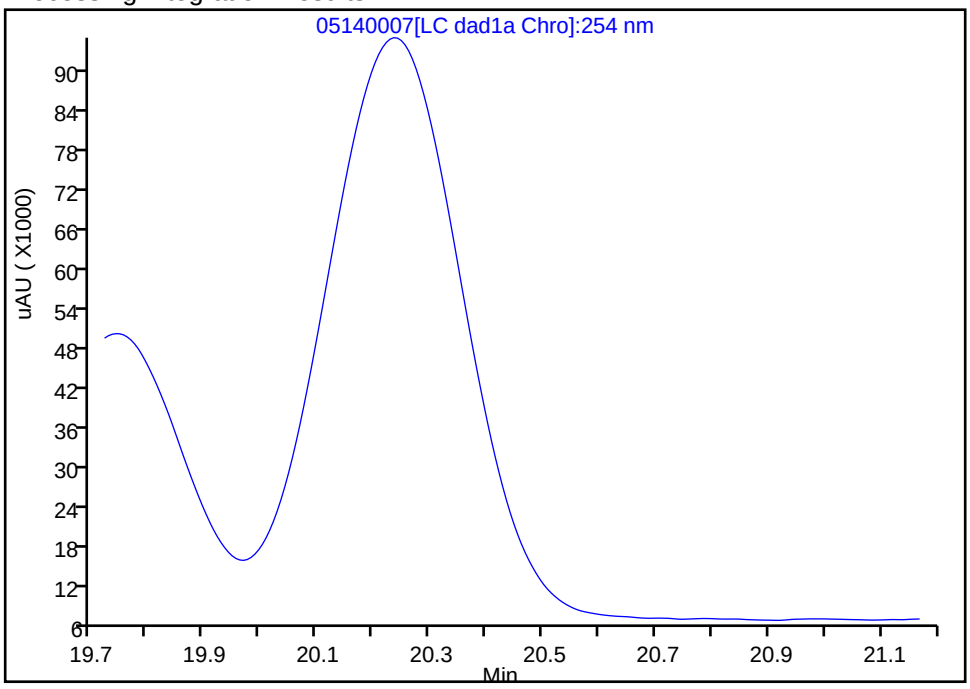
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140007.d				
Injection Date:	14-May-2020 16:16:43	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 9				
Client ID:					
Operator ID:	CB	ALS Bottle#:	7	Worklist Smp#:	7
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

21 2,4-Dinitrotoluene, CAS: 121-14-2

Signal: 1

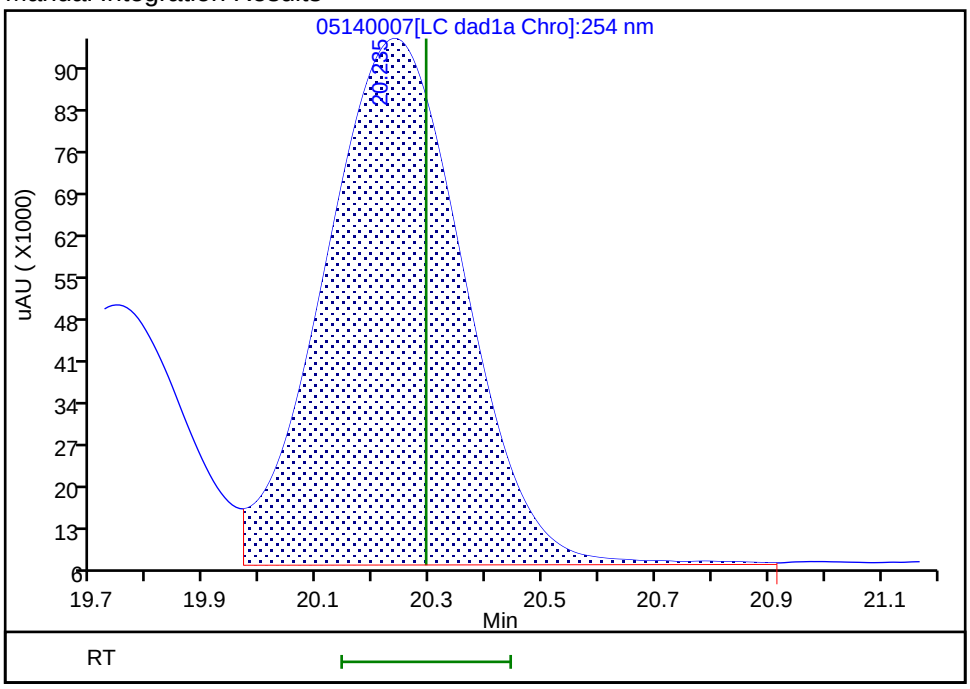
Not Detected
Expected RT: 20.29

Processing Integration Results



Manual Integration Results

RT: 20.24
Area: 1523108
Amount: 2.379435
Amount Units: ug/ml



Reviewer: zhangji, 14-May-2020 17:08:20
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

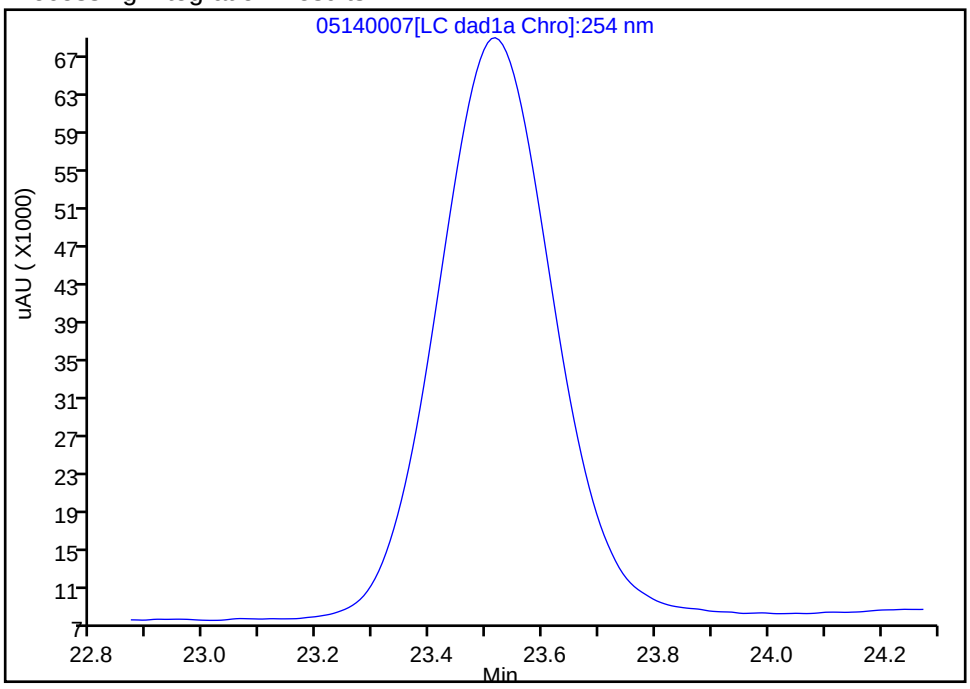
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140007.d				
Injection Date:	14-May-2020 16:16:43	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 9				
Client ID:					
Operator ID:	CB	ALS Bottle#:	7	Worklist Smp#:	7
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

22 Tetryl, CAS: 479-45-8

Signal: 1

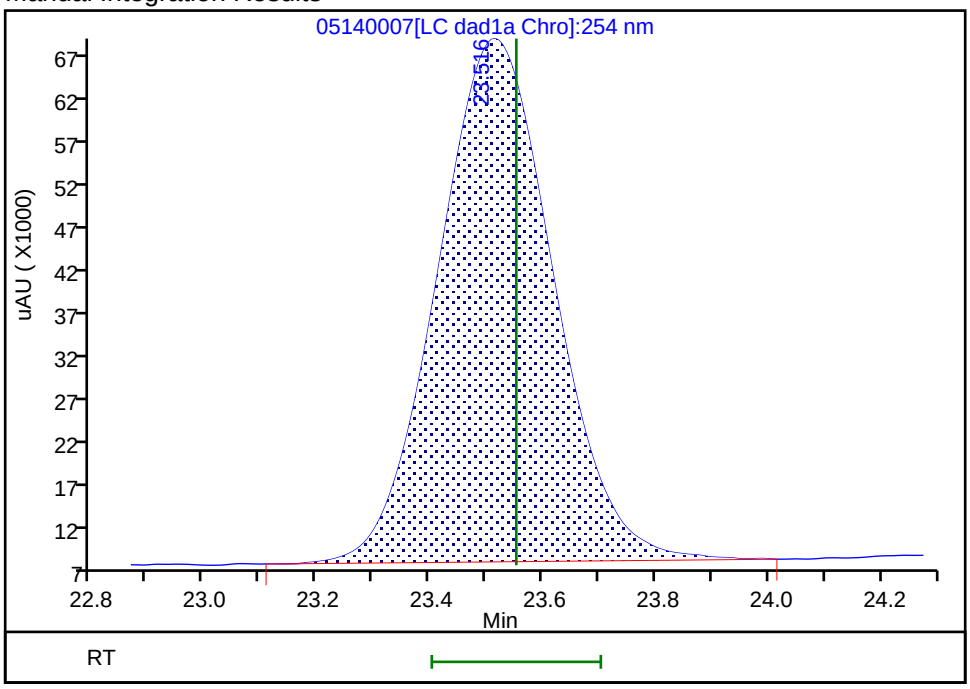
Not Detected
Expected RT: 23.55

Processing Integration Results



Manual Integration Results

RT: 23.52
Area: 875686
Amount: 2.375208
Amount Units: ug/ml



Reviewer: zhangji, 14-May-2020 17:08:11
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

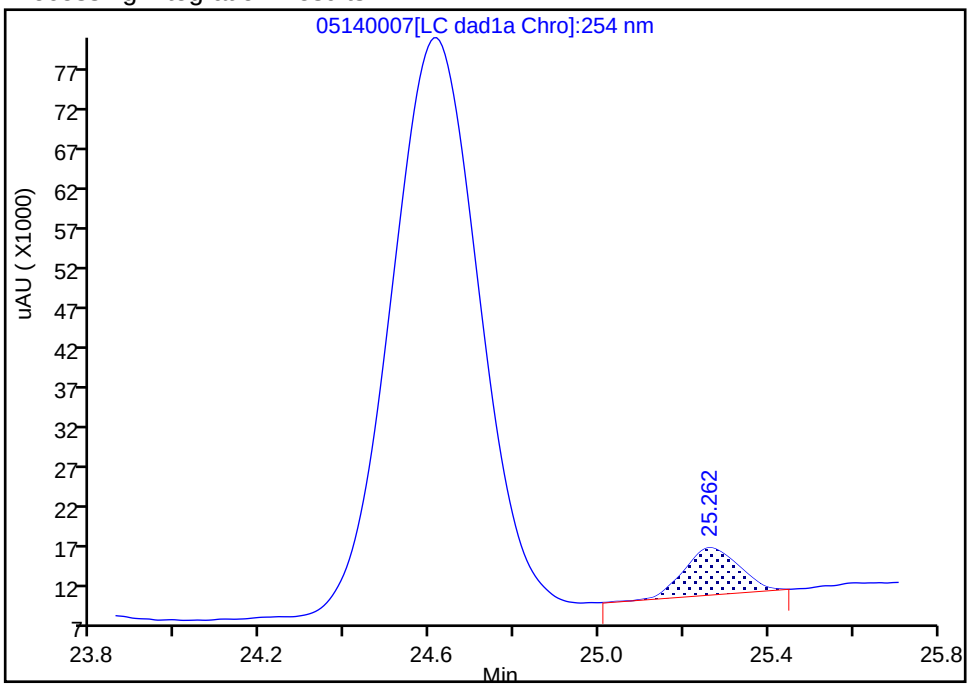
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140007.d				
Injection Date:	14-May-2020 16:16:43	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 9				
Client ID:					
Operator ID:	CB	ALS Bottle#:	7	Worklist Smp#:	7
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

23 2,4,6-Trinitrotoluene, CAS: 118-96-7

Signal: 1

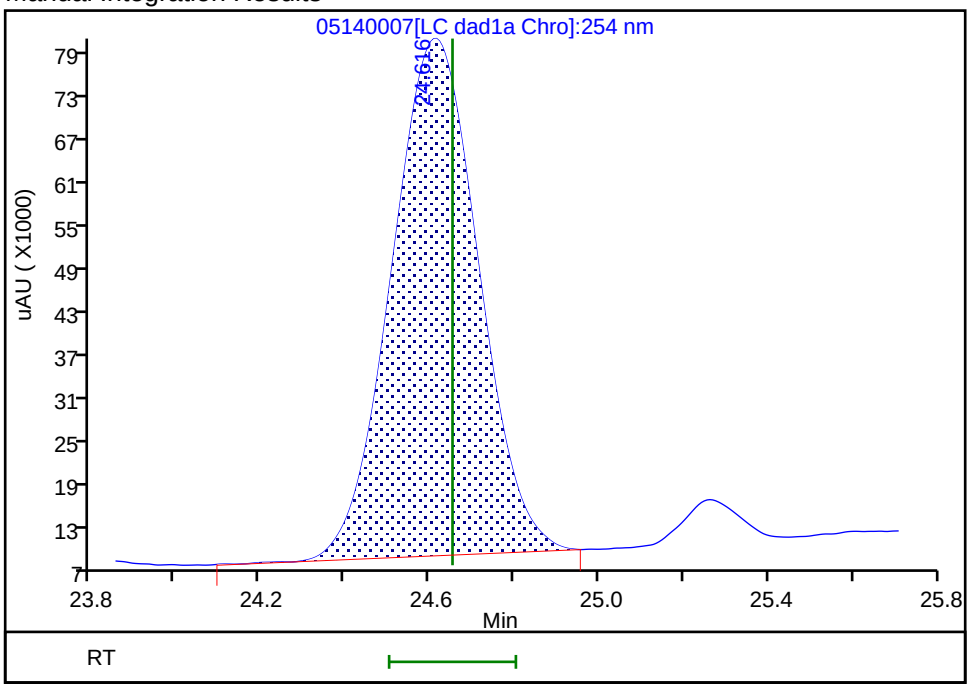
Processing Integration Results

RT: 25.26
Area: 53117
Amount: 0.098897
Amount Units: ug/ml



Manual Integration Results

RT: 24.62
Area: 1019741
Amount: 2.531269
Amount Units: ug/ml



Reviewer: zhangji, 14-May-2020 17:08:08
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140008.D
Lims ID: IC FULL 8
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 14-May-2020 16:51:43 ALS Bottle#: 8 Worklist Smp#: 8
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC FULL 8
Misc. Info.: 280-0091518-008
Operator ID: CB Instrument ID: CHHPLC_G2_LUNA
Sublist: chrom-G2_8330_Luna*sub6

Method: \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\G2_8330_Luna.m
Limit Group: GCSV - 8330
Last Update: 15-May-2020 12:00:55 Calib Date: 15-May-2020 02:11:20
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140024.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC DAD1A, 254 nm
Process Host: CTX0318

First Level Reviewer: zhangji Date: 15-May-2020 11:19:25

	Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
	1 2,6-diamino-4-nitrotoluene	1	4.315	4.366	-0.051	424864	1.00	0.9896	M
	2 2,4-diamino-6-nitrotoluene	1	4.908	4.880	0.028	226554	1.00	0.9296	M
	5 2,4,6-Trinitrophenol	1	6.195	6.300	-0.105	174504	1.00	0.9004	
	6 HMX	1	6.968	6.986	-0.018	183992	1.00	1.01	
	8 RDX	1	9.148	9.173	-0.025	219481	1.00	0.8982	
	9 Nitrobenzene	1	12.088	12.106	-0.018	436359	1.00	0.99	
$	10 1,2-Dinitrobenzene	1	13.028	13.040	-0.012	274673	1.00	0.9842	M
	11 3,5-Dinitroaniline	1	14.868	14.886	-0.018	495596	1.00	1.02	
	12 1,3-Dinitrobenzene	1	15.541	15.553	-0.012	669330	1.00	0.99	
	13 Nitroglycerin	2	15.848	15.853	-0.005	1284256	10.0	10.1	
	14 o-Nitrotoluene	1	16.535	16.533	0.002	261684	1.00	0.9587	
	15 p-Nitrotoluene	1	16.815	16.820	-0.005	231517	1.00	0.9611	
	16 4-Amino-2,6-dinitrotoluene	1	17.141	17.146	-0.005	321819	1.00	0.9322	
	17 m-Nitrotoluene	1	17.741	17.753	-0.012	280653	1.00	0.9408	
	18 2-Amino-4,6-dinitrotoluene	1	18.028	18.046	-0.018	455872	1.00	0.9799	
	19 1,3,5-Trinitrobenzene	1	18.881	18.886	-0.005	467399	1.00	0.9893	
	20 2,6-Dinitrotoluene	1	19.801	19.806	-0.005	298461	1.00	1.02	
	21 2,4-Dinitrotoluene	1	20.288	20.293	-0.005	608421	1.00	0.9505	
	22 Tetryl	1	23.555	23.553	0.002	350816	1.00	0.9516	
	23 2,4,6-Trinitrotoluene	1	24.648	24.653	-0.005	408271	1.00	1.01	
	24 PETN	2	25.281	25.280	0.001	1365764	10.0	10.4	

QC Flag Legend

Review Flags
M - Manually Integrated

Reagents:

8330IntermStk_00064	Amount Added: 100.00	Units: uL
8330_ADDs_00026	Amount Added: 50.00	Units: uL

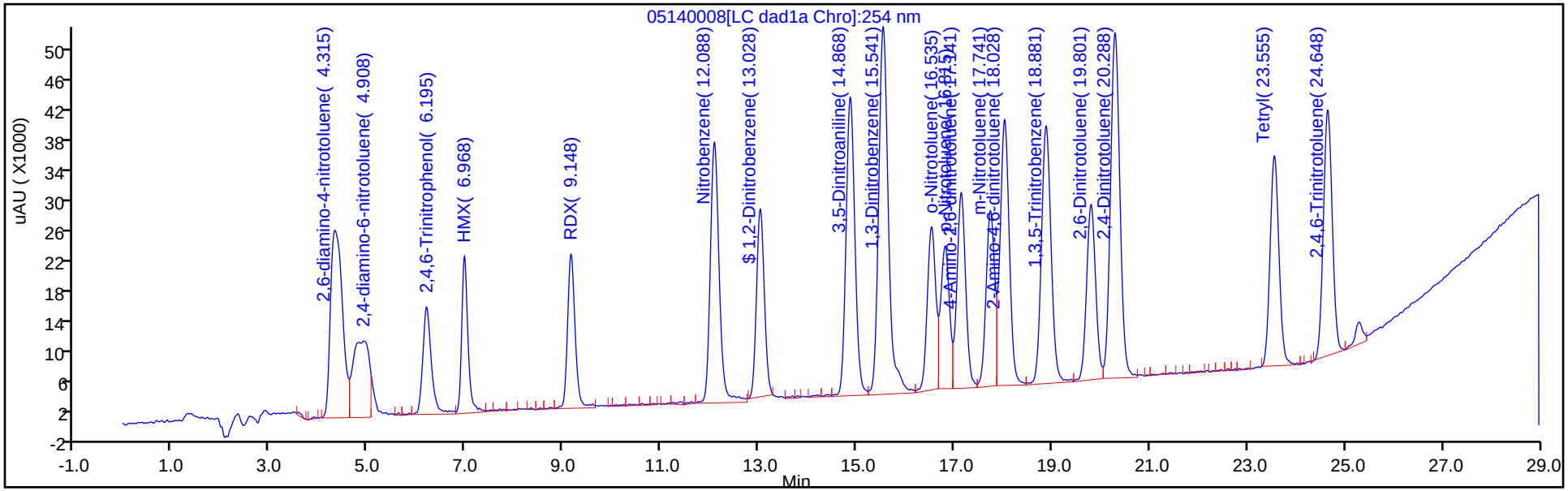
Report Date: 15-May-2020 12:00:55 Chrom Revision: 2.3 05-May-2020 17:48:18

Eurofins TestAmerica, Denver

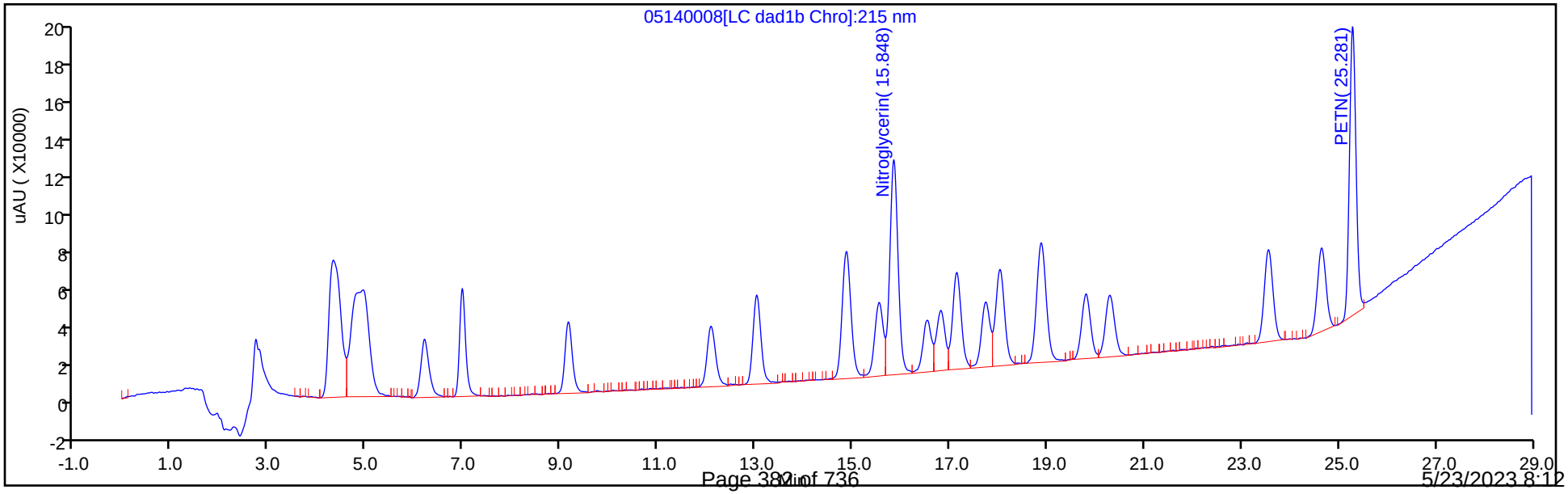
Data File: \\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140008.d

Injection Date:	14-May-2020 16:51:43	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	CB
Lims ID:	IC FULL 8			Worklist Smp#:	8
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	8
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



Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

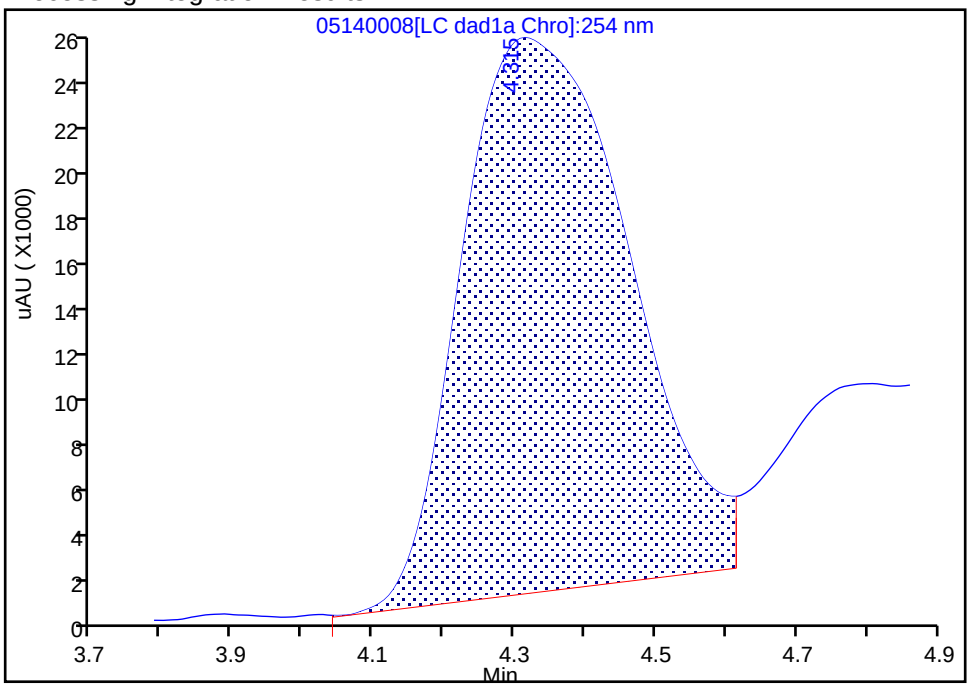
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140008.d				
Injection Date:	14-May-2020 16:51:43	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 8				
Client ID:					
Operator ID:	CB	ALS Bottle#:	8	Worklist Smp#:	8
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

1 2,6-diamino-4-nitrotoluene, CAS: 59229-75-3

Signal: 1

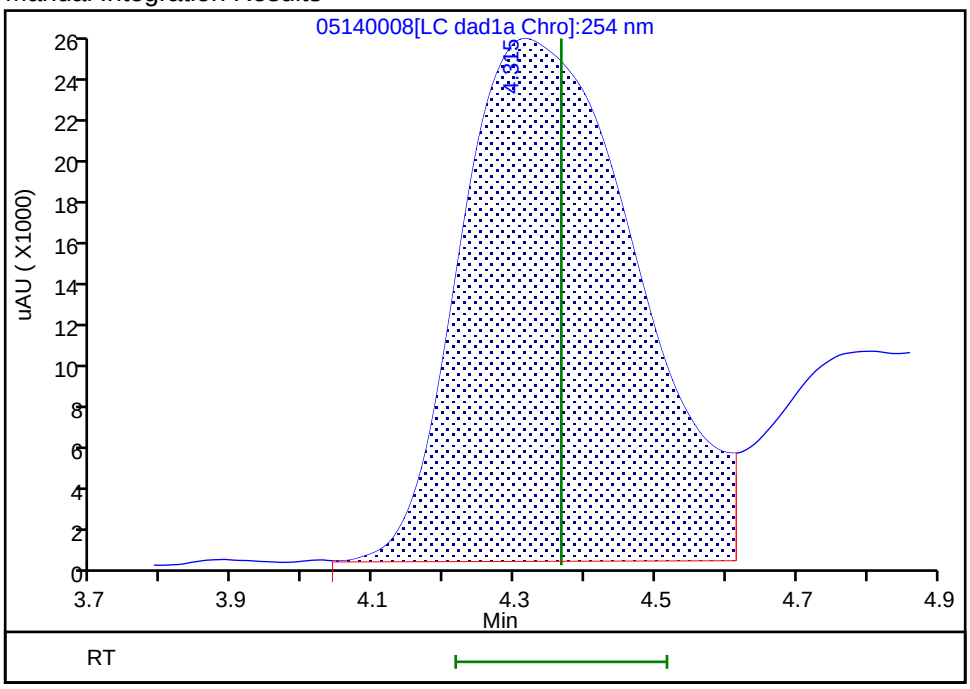
Processing Integration Results

RT: 4.31
Area: 390739
Amount: 0.900341
Amount Units: ug/ml



Manual Integration Results

RT: 4.31
Area: 424864
Amount: 0.989631
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:19:02
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

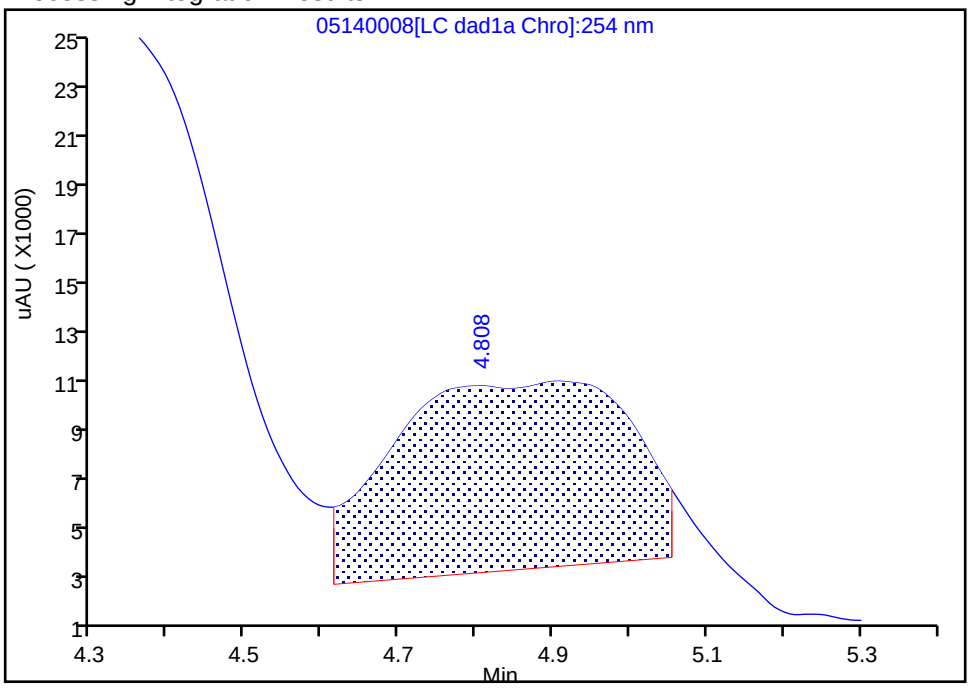
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140008.d				
Injection Date:	14-May-2020 16:51:43	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 8				
Client ID:					
Operator ID:	CB	ALS Bottle#:	8	Worklist Smp#:	8
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

2 2,4-diamino-6-nitrotoluene, CAS: 6629-29-4

Signal: 1

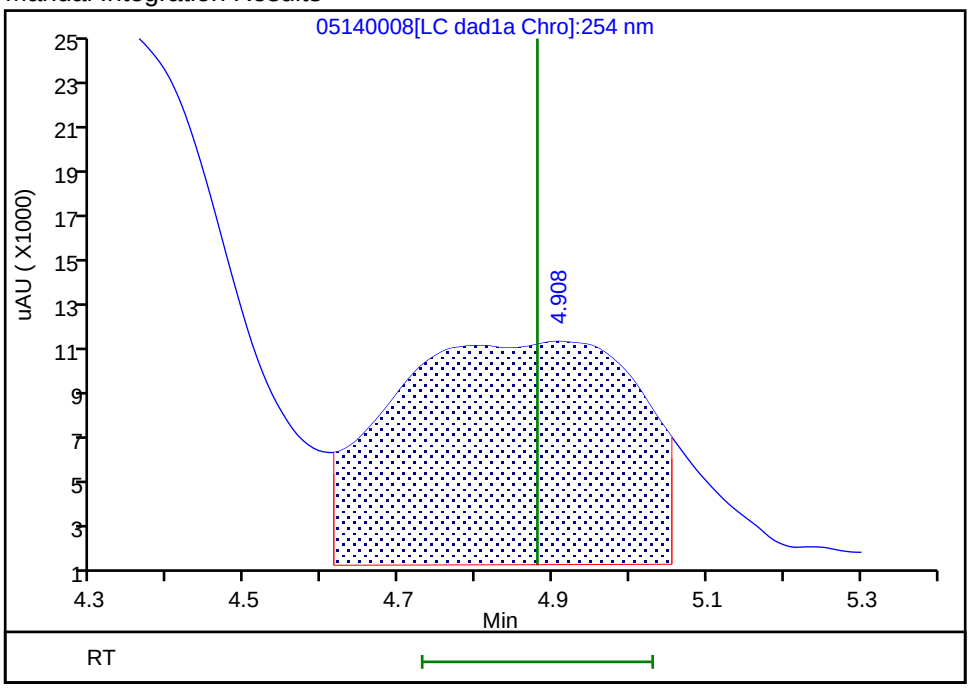
Processing Integration Results

RT: 4.81
Area: 160171
Amount: 0.492769
Amount Units: ug/ml



Manual Integration Results

RT: 4.91
Area: 226554
Amount: 0.929552
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:19:02
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

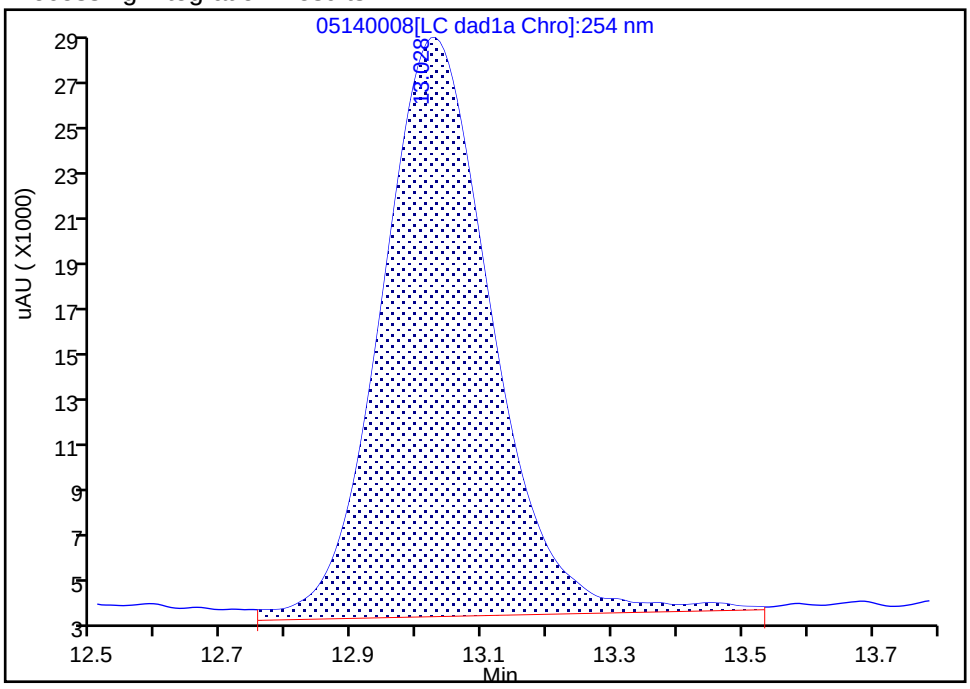
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140008.d				
Injection Date:	14-May-2020 16:51:43	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 8				
Client ID:					
Operator ID:	CB	ALS Bottle#:	8	Worklist Smp#:	8
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

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

Signal: 1

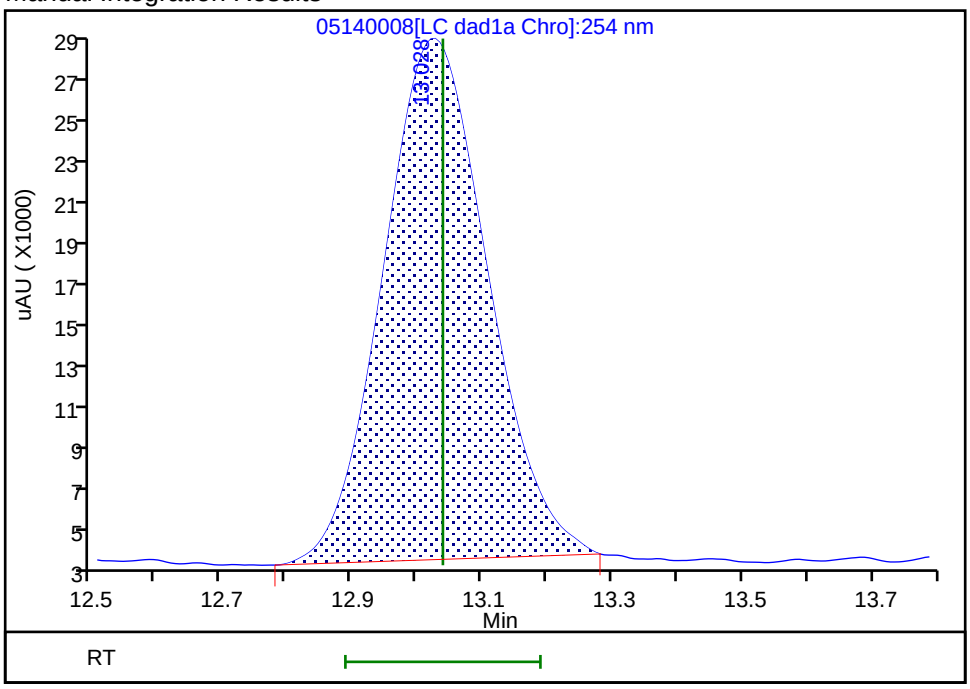
Processing Integration Results

RT: 13.03
Area: 297550
Amount: 0.923853
Amount Units: ug/ml



Manual Integration Results

RT: 13.03
Area: 274673
Amount: 0.984150
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:34:32

Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140009.D
Lims ID: IC FULL 7
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 14-May-2020 17:26:40 ALS Bottle#: 9 Worklist Smp#: 9
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC FULL 7
Misc. Info.: 280-0091518-009
Operator ID: CB Instrument ID: CHHPLC_G2_LUNA
Sublist: chrom-G2_8330_Luna*sub6

Method: \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\G2_8330_Luna.m
Limit Group: GCSV - 8330
Last Update: 15-May-2020 12:00:55 Calib Date: 15-May-2020 02:11:20
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140024.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC DAD1A, 254 nm
Process Host: CTX0318

First Level Reviewer: zhangji Date: 15-May-2020 11:20:09

	Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
	1 2,6-diamino-4-nitrotoluene	1	4.342	4.366	-0.024	272072	0.7000	0.6337	
	2 2,4-diamino-6-nitrotoluene	1	4.915	4.880	0.035	176663	0.7000	0.7197	
	5 2,4,6-Trinitrophenol	1	6.235	6.300	-0.065	118579	0.7000	0.6118	
	6 HMX	1	6.982	6.986	-0.004	125697	0.7000	0.6800	
	8 RDX	1	9.162	9.173	-0.011	152096	0.7000	0.6224	
	9 Nitrobenzene	1	12.095	12.106	-0.011	295388	0.7028	0.6725	
$	10 1,2-Dinitrobenzene	1	13.028	13.040	-0.012	184773	0.7000	0.6599	M
	11 3,5-Dinitroaniline	1	14.875	14.886	-0.011	320559	0.7000	0.6552	
	12 1,3-Dinitrobenzene	1	15.548	15.553	-0.005	463638	0.7014	0.6877	
	13 Nitroglycerin	2	15.842	15.853	-0.011	852305	7.00	6.72	
	14 o-Nitrotoluene	1	16.535	16.533	0.002	181444	0.7000	0.6647	
	15 p-Nitrotoluene	1	16.808	16.820	-0.012	165213	0.7014	0.6859	
	16 4-Amino-2,6-dinitrotoluene	1	17.142	17.146	-0.004	223840	0.7007	0.6484	
	17 m-Nitrotoluene	1	17.742	17.753	-0.011	200617	0.7007	0.6725	
	18 2-Amino-4,6-dinitrotoluene	1	18.035	18.046	-0.011	319742	0.7028	0.6873	
	19 1,3,5-Trinitrobenzene	1	18.875	18.886	-0.011	323482	0.7014	0.6847	
	20 2,6-Dinitrotoluene	1	19.795	19.806	-0.011	206984	0.7028	0.7003	
	21 2,4-Dinitrotoluene	1	20.288	20.293	-0.005	425741	0.7028	0.6651	
	22 Tetryl	1	23.542	23.553	-0.011	245833	0.7014	0.6668	
	23 2,4,6-Trinitrotoluene	1	24.642	24.653	-0.011	282035	0.7028	0.6944	
	24 PETN	2	25.275	25.280	-0.005	957879	7.00	7.20	

QC Flag Legend

Review Flags
M - Manually Integrated

Reagents:

8330_ADDs_00026	Amount Added:	35.00	Units: uL
8330IntermStk_00064	Amount Added:	70.00	Units: uL

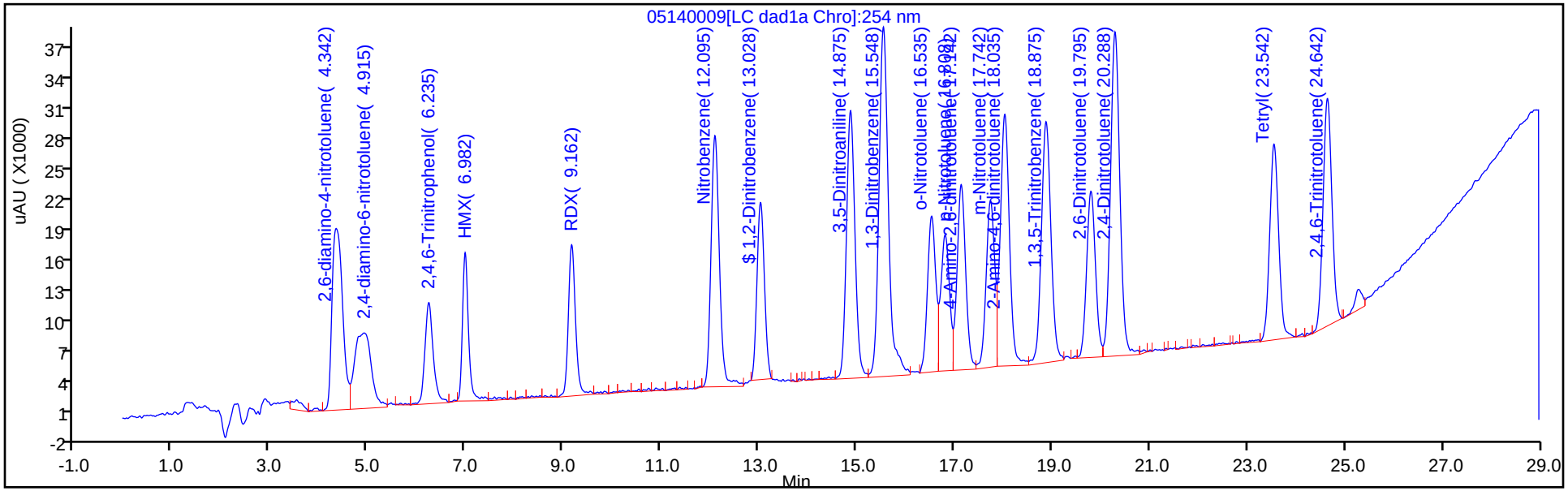
Report Date: 15-May-2020 12:00:55 Chrom Revision: 2.3 05-May-2020 17:48:18

Eurofins TestAmerica, Denver

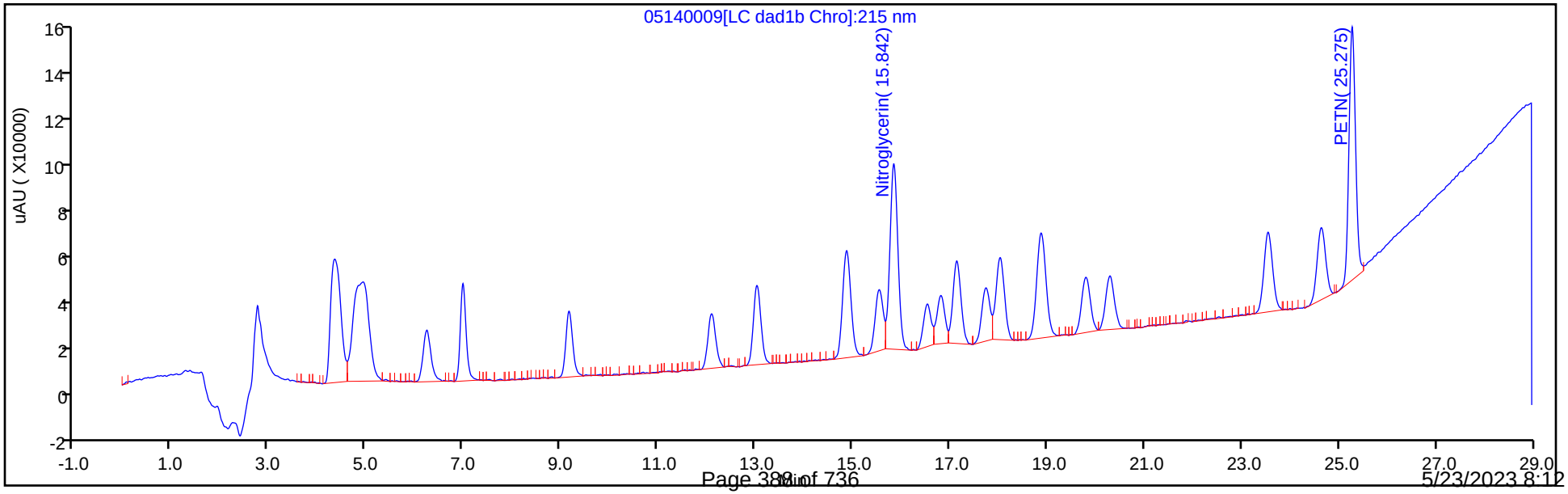
Data File: \\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140009.d

Injection Date:	14-May-2020 17:26:40	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	CB
Lims ID:	IC FULL 7			Worklist Smp#:	9
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	9
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



Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

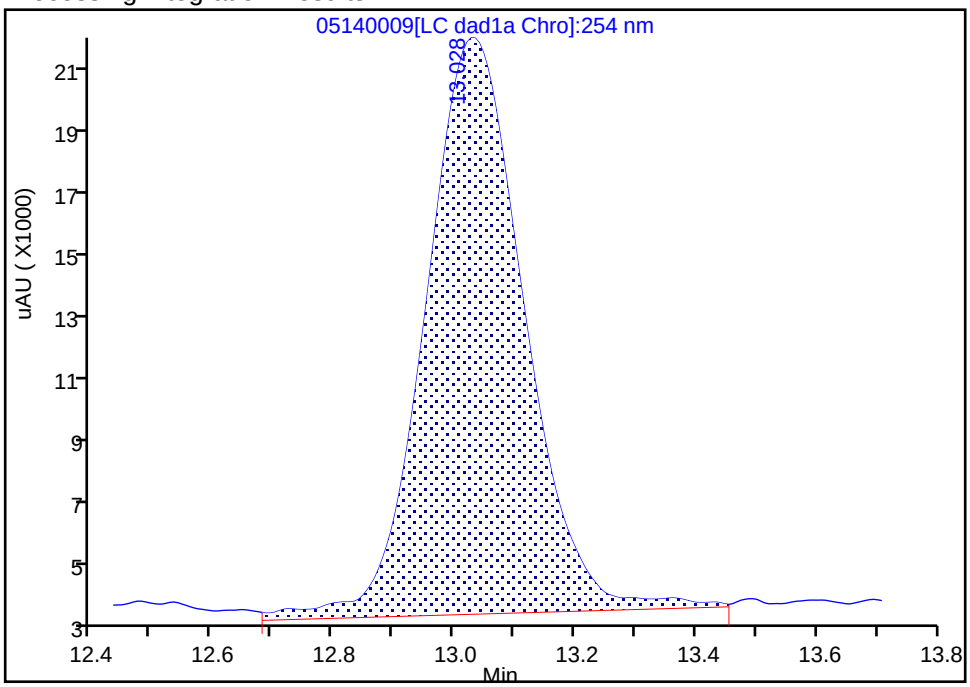
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140009.d				
Injection Date:	14-May-2020 17:26:40	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 7				
Client ID:					
Operator ID:	CB	ALS Bottle#:	9	Worklist Smp#:	9
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

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

Signal: 1

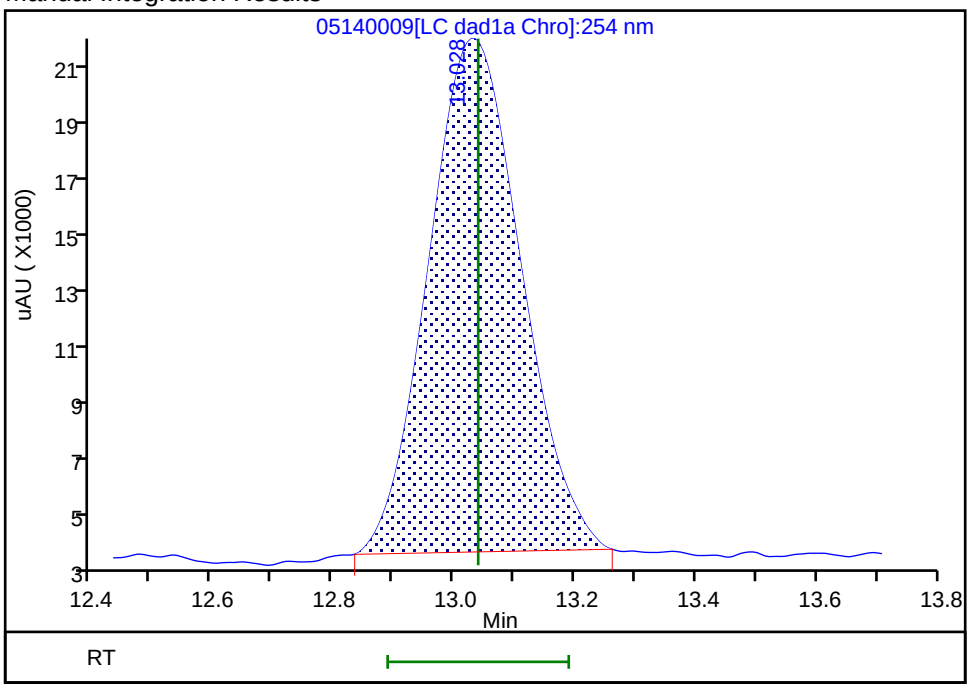
Processing Integration Results

RT: 13.03
Area: 203295
Amount: 0.637674
Amount Units: ug/ml



Manual Integration Results

RT: 13.03
Area: 184773
Amount: 0.659868
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:34:40

Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140010.D
Lims ID: IC FULL 6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 14-May-2020 18:01:41 ALS Bottle#: 10 Worklist Smp#: 10
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC FULL 6
Misc. Info.: 280-0091518-010
Operator ID: CB Instrument ID: CHHPLC_G2_LUNA
Sublist: chrom-G2_8330_Luna*sub6

Method: \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\G2_8330_Luna.m
Limit Group: GCSV - 8330
Last Update: 15-May-2020 12:00:56 Calib Date: 15-May-2020 02:11:20
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140024.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC DAD1A, 254 nm
Process Host: CTX0318

First Level Reviewer: zhangji Date: 15-May-2020 11:52:49

	Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1	2,6-diamino-4-nitrotoluene	1	4.347	4.366	-0.019	161291	0.4000	0.3757	M
2	2,4-diamino-6-nitrotoluene	1	4.940	4.880	0.060	100170	0.4000	0.3980	M
5	2,4,6-Trinitrophenol	1	6.267	6.300	-0.033	68021	0.4000	0.3510	a
6	HMX	1	6.987	6.986	0.001	74484	0.4000	0.3907	
8	RDX	1	9.173	9.173	0.000	88545	0.4000	0.3624	
9	Nitrobenzene	1	12.107	12.106	0.001	166107	0.4016	0.3782	
$ 10	1,2-Dinitrobenzene	1	13.040	13.040	0.000	107232	0.4000	0.3802	M
11	3,5-Dinitroaniline	1	14.887	14.886	0.001	190015	0.4000	0.3861	M
12	1,3-Dinitrobenzene	1	15.553	15.553	0.000	258559	0.4008	0.3835	M
13	Nitroglycerin	2	15.853	15.853	0.000	509915	4.00	4.02	
14	o-Nitrotoluene	1	16.540	16.533	0.007	105493	0.4000	0.3865	M
15	p-Nitrotoluene	1	16.820	16.820	0.000	93773	0.4008	0.3893	M
16	4-Amino-2,6-dinitrotoluene	1	17.153	17.146	0.007	130436	0.4004	0.3778	M
17	m-Nitrotoluene	1	17.747	17.753	-0.006	115331	0.4004	0.3866	M
18	2-Amino-4,6-dinitrotoluene	1	18.040	18.046	-0.006	179358	0.4016	0.3855	M
19	1,3,5-Trinitrobenzene	1	18.887	18.886	0.001	178692	0.4008	0.3782	
20	2,6-Dinitrotoluene	1	19.807	19.806	0.001	118093	0.4016	0.3930	M
21	2,4-Dinitrotoluene	1	20.293	20.293	0.000	245009	0.4016	0.3828	M
22	Tetryl	1	23.553	23.553	0.000	139850	0.4008	0.3793	
23	2,4,6-Trinitrotoluene	1	24.647	24.653	-0.006	158091	0.4016	0.3858	
24	PETN	2	25.280	25.280	0.000	557734	4.00	4.10	M

QC Flag Legend

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

8330IntermStk_00064	Amount Added:	40.00	Units: uL
8330_ADDs_00026	Amount Added:	20.00	Units: uL

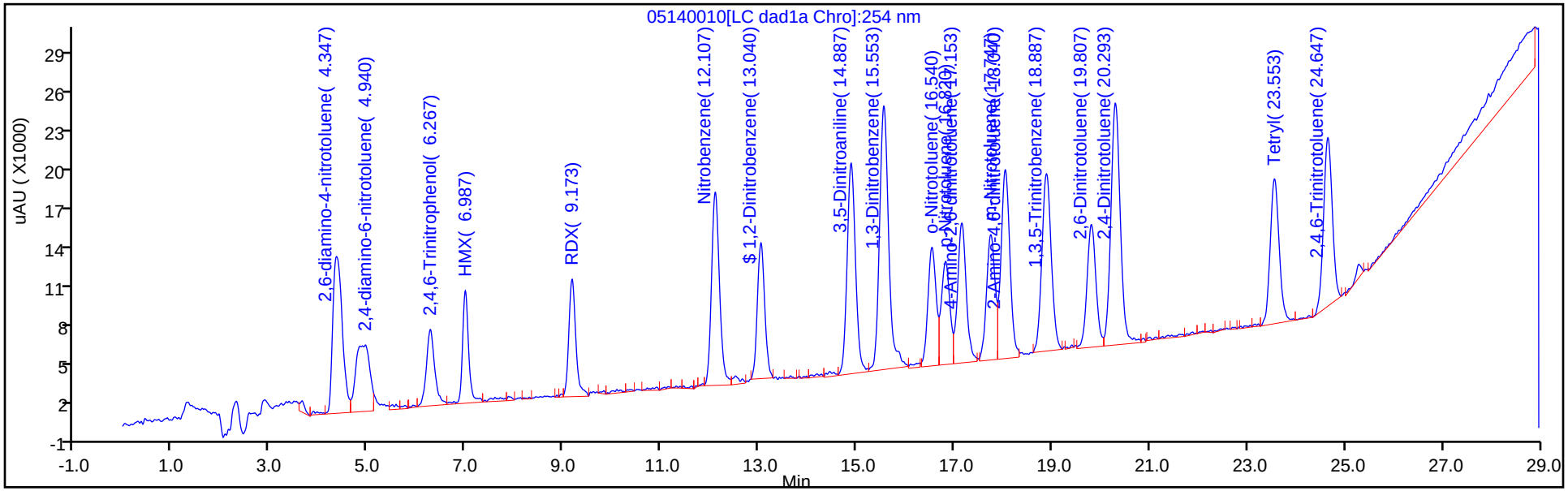
Report Date: 15-May-2020 12:00:56 Chrom Revision: 2.3 05-May-2020 17:48:18

Eurofins TestAmerica, Denver

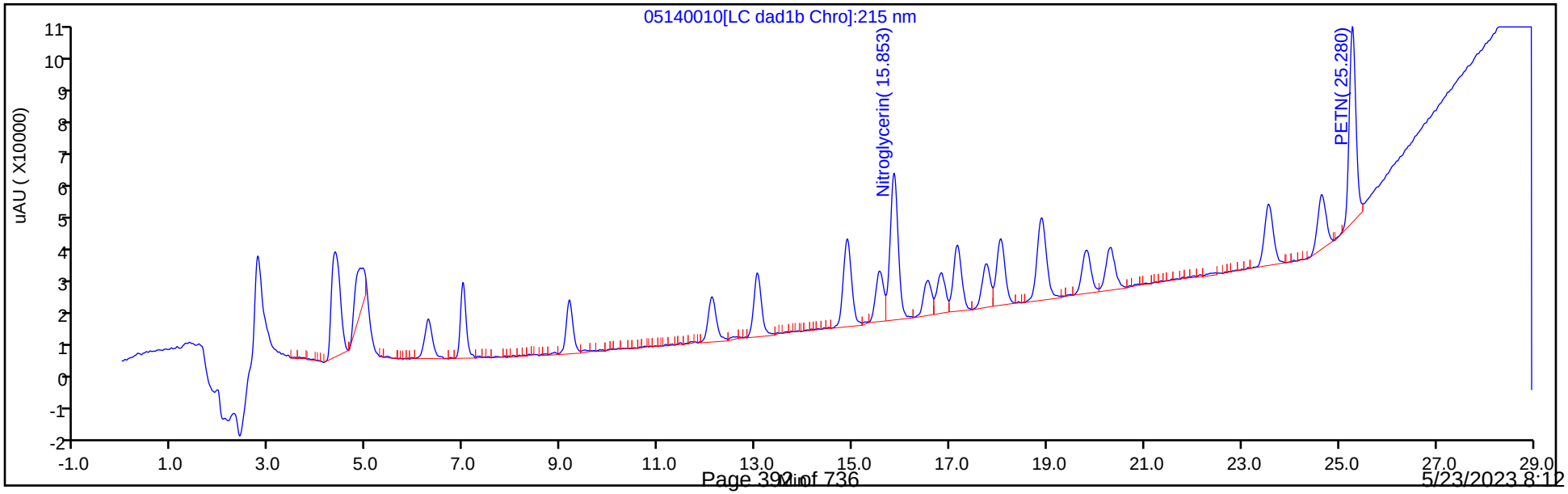
Data File: \\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140010.d

Injection Date:	14-May-2020 18:01:41	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	CB
Lims ID:	IC FULL 6			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



Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

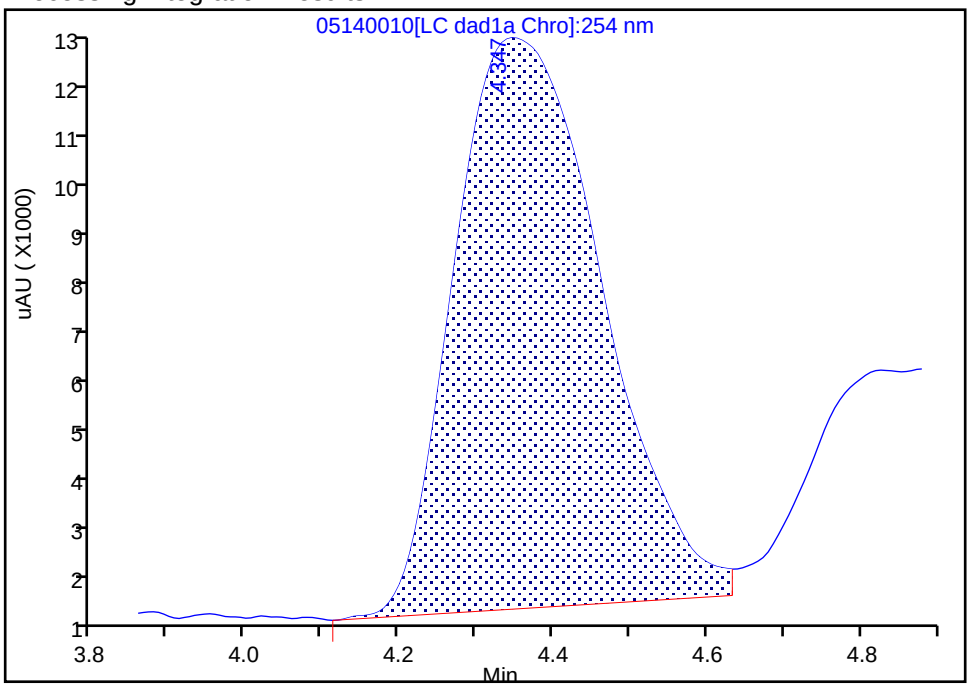
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140010.d				
Injection Date:	14-May-2020 18:01:41	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 6				
Client ID:					
Operator ID:	CB	ALS Bottle#:	10	Worklist Smp#:	10
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

1 2,6-diamino-4-nitrotoluene, CAS: 59229-75-3

Signal: 1

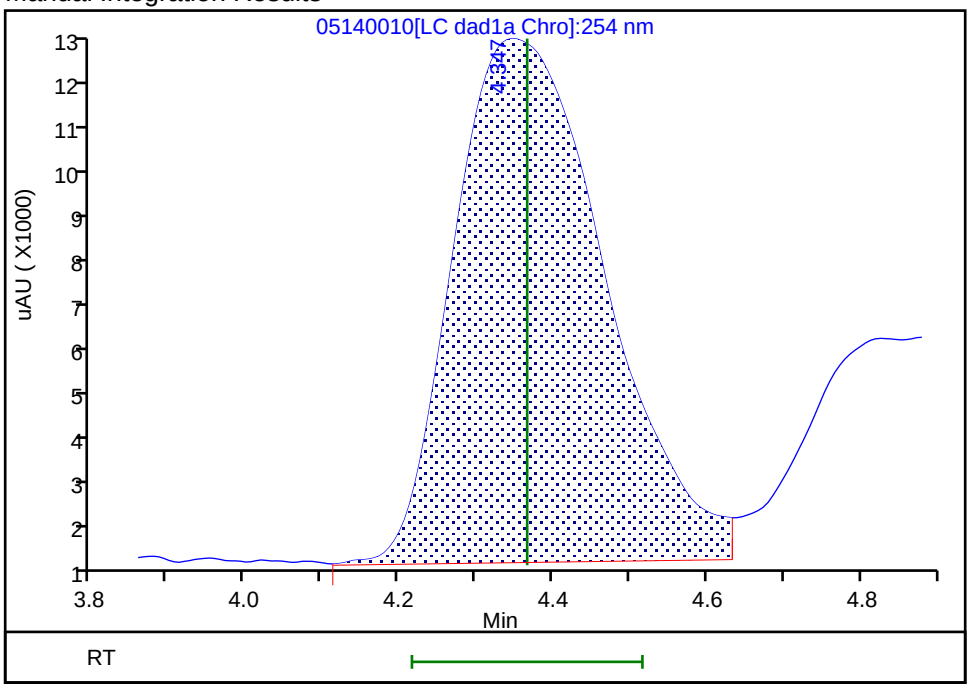
Processing Integration Results

RT: 4.35
Area: 154520
Amount: 0.352961
Amount Units: ug/ml



Manual Integration Results

RT: 4.35
Area: 161291
Amount: 0.375693
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:20:25
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

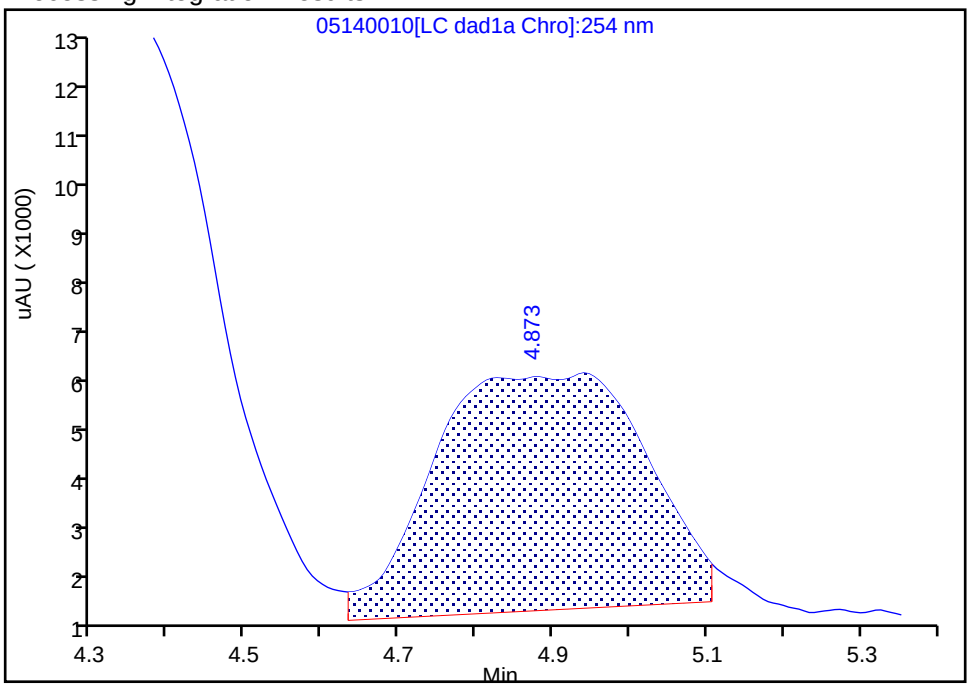
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140010.d				
Injection Date:	14-May-2020 18:01:41	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 6				
Client ID:					
Operator ID:	CB	ALS Bottle#:	10	Worklist Smp#:	10
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

2 2,4-diamino-6-nitrotoluene, CAS: 6629-29-4

Signal: 1

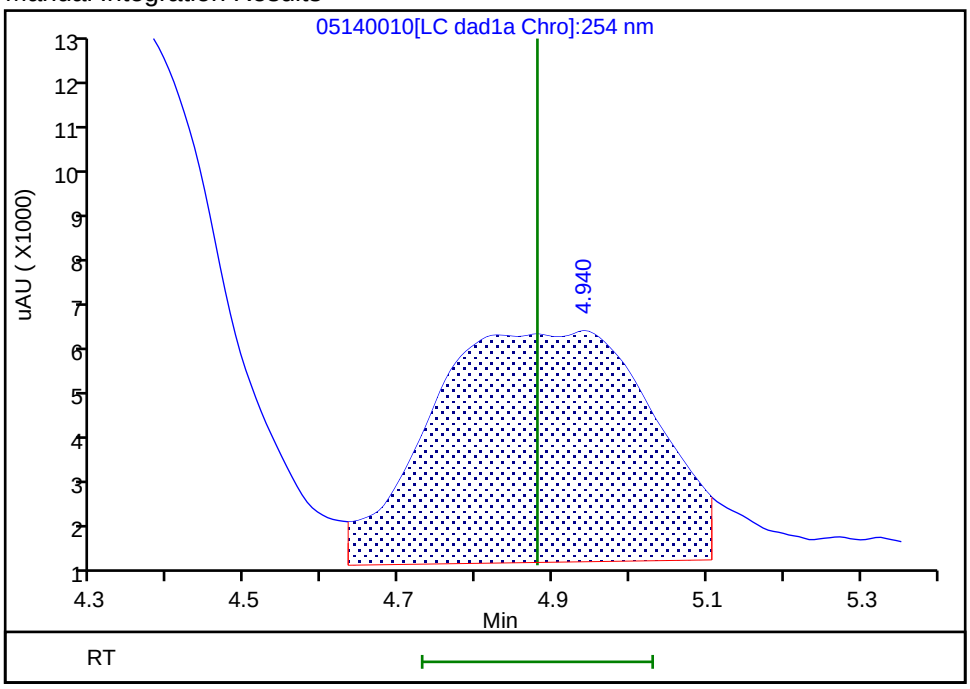
Processing Integration Results

RT: 4.87
Area: 85288
Amount: 0.307387
Amount Units: ug/ml



Manual Integration Results

RT: 4.94
Area: 100170
Amount: 0.398012
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:20:25
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

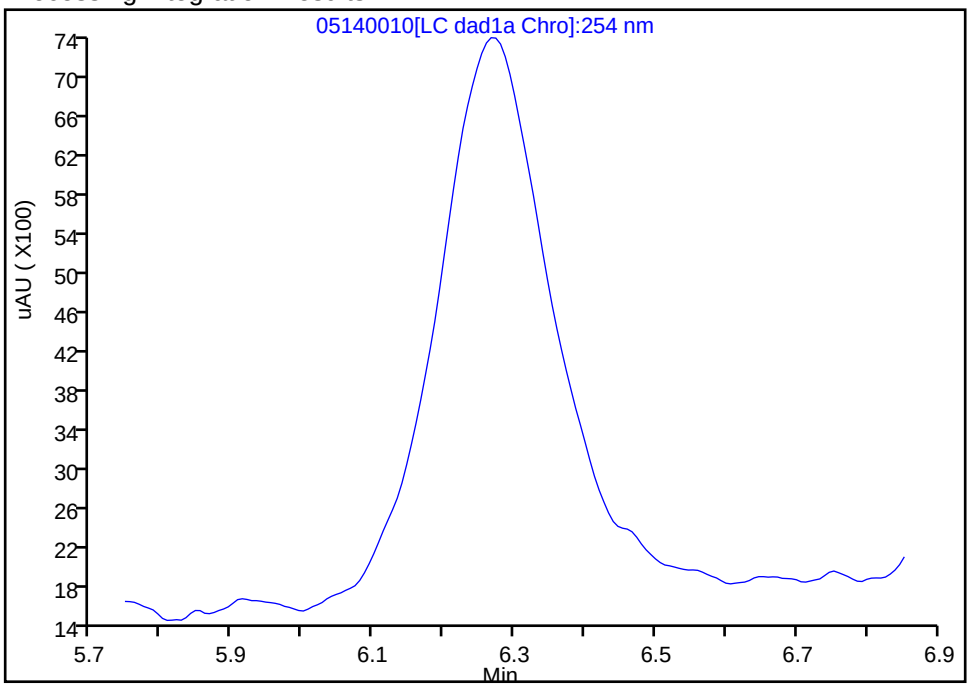
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140010.d				
Injection Date:	14-May-2020 18:01:41	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 6				
Client ID:					
Operator ID:	CB	ALS Bottle#:	10	Worklist Smp#:	10
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

5 2,4,6-Trinitrophenol, CAS: 88-89-1

Signal: 1

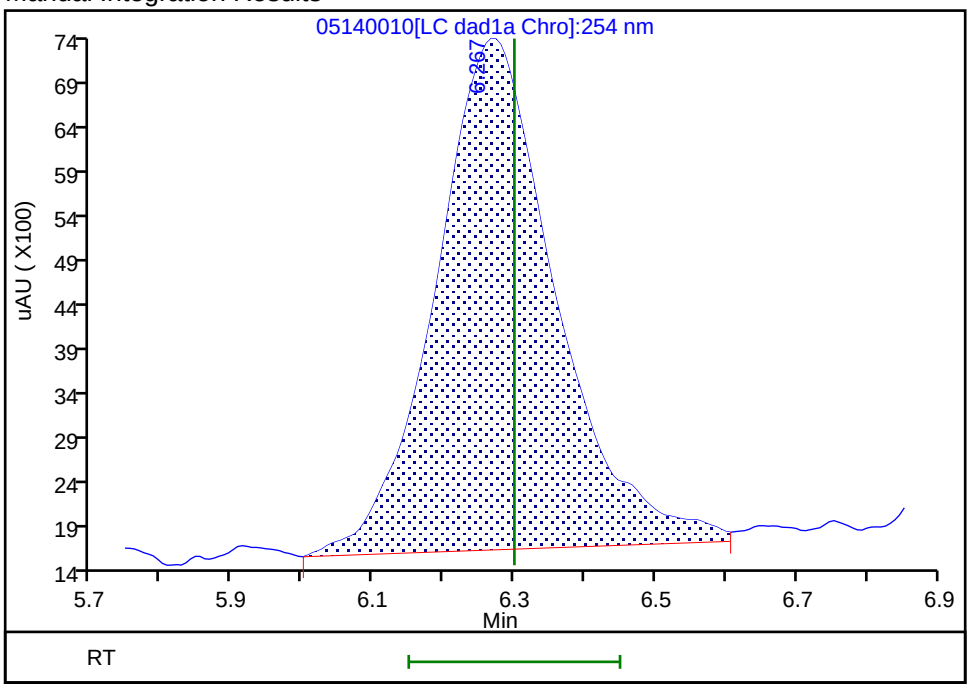
Not Detected
Expected RT: 6.30

Processing Integration Results



Manual Integration Results

RT: 6.27
Area: 68021
Amount: 0.350967
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:20:14
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

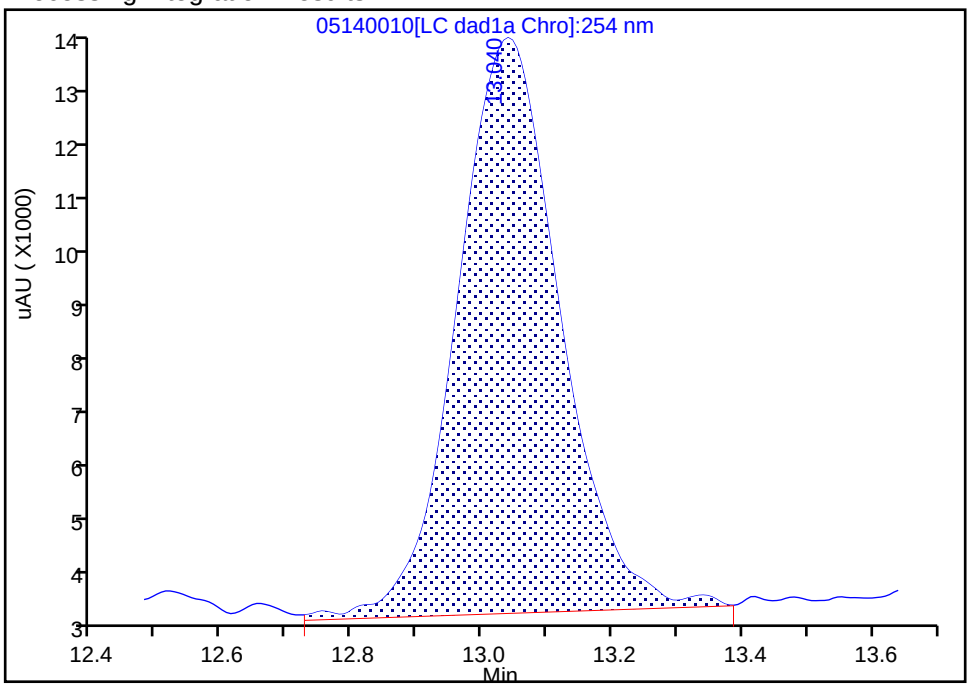
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140010.d				
Injection Date:	14-May-2020 18:01:41	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 6				
Client ID:					
Operator ID:	CB	ALS Bottle#:	10	Worklist Smp#:	10
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

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

Signal: 1

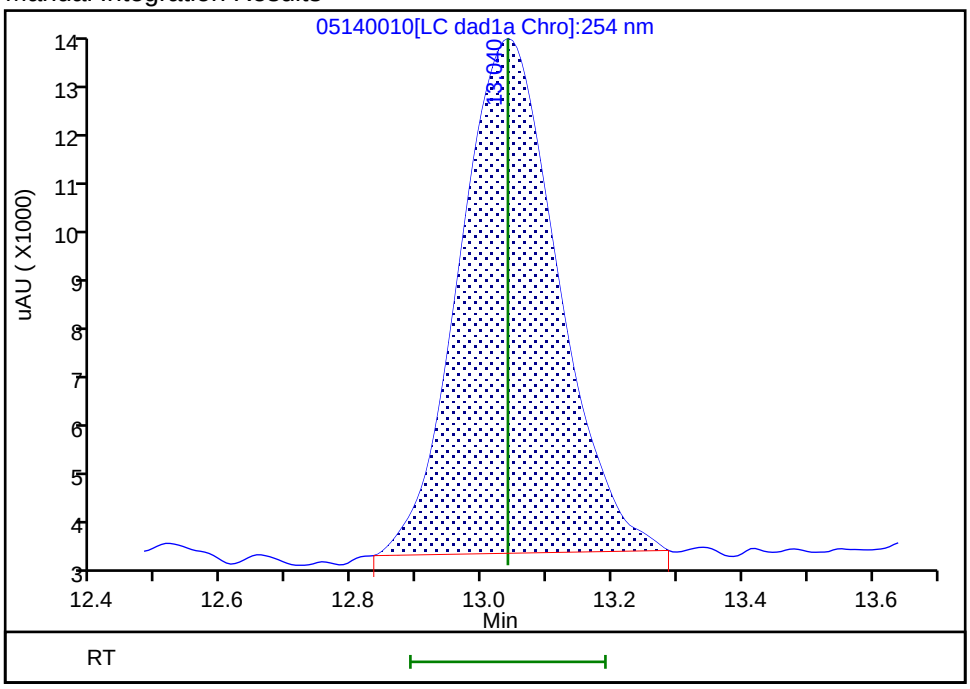
Processing Integration Results

RT: 13.04
Area: 114682
Amount: 0.364039
Amount Units: ug/ml



Manual Integration Results

RT: 13.04
Area: 107232
Amount: 0.380167
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:34:50

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

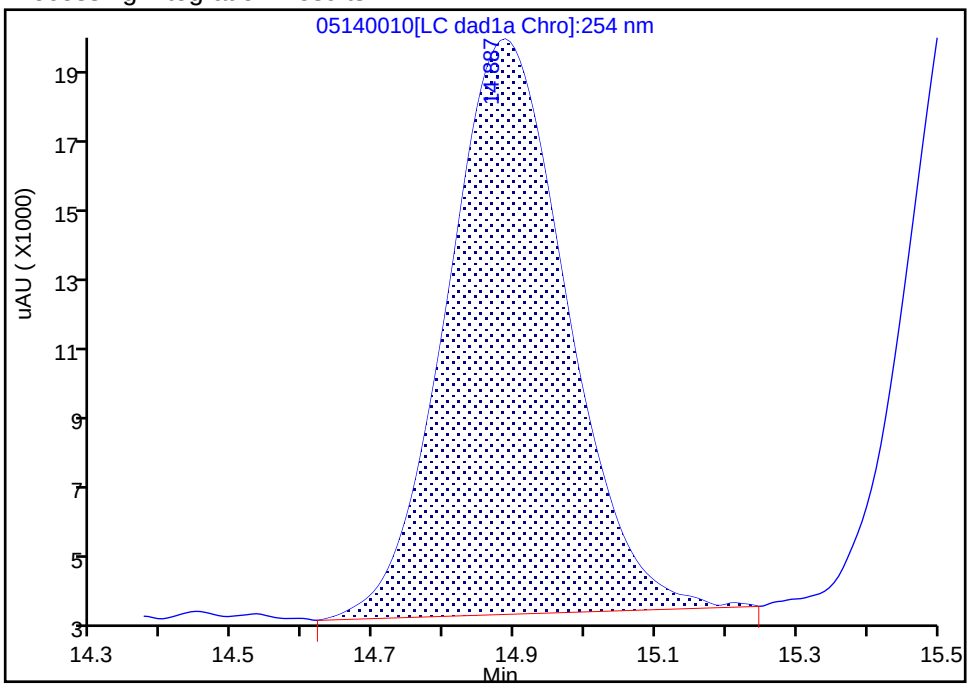
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140010.d				
Injection Date:	14-May-2020 18:01:41	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 6				
Client ID:					
Operator ID:	CB	ALS Bottle#:	10	Worklist Smp#:	10
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

11 3,5-Dinitroaniline, CAS: 618-87-1

Signal: 1

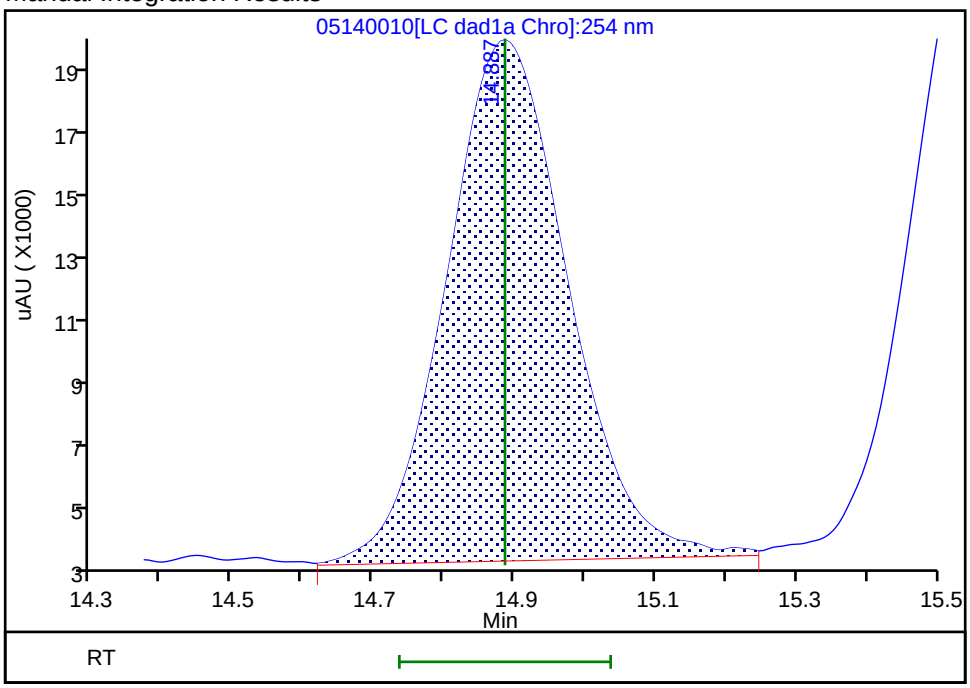
Processing Integration Results

RT: 14.89
Area: 186461
Amount: 0.379812
Amount Units: ug/ml



Manual Integration Results

RT: 14.89
Area: 190015
Amount: 0.386063
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:20:35
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

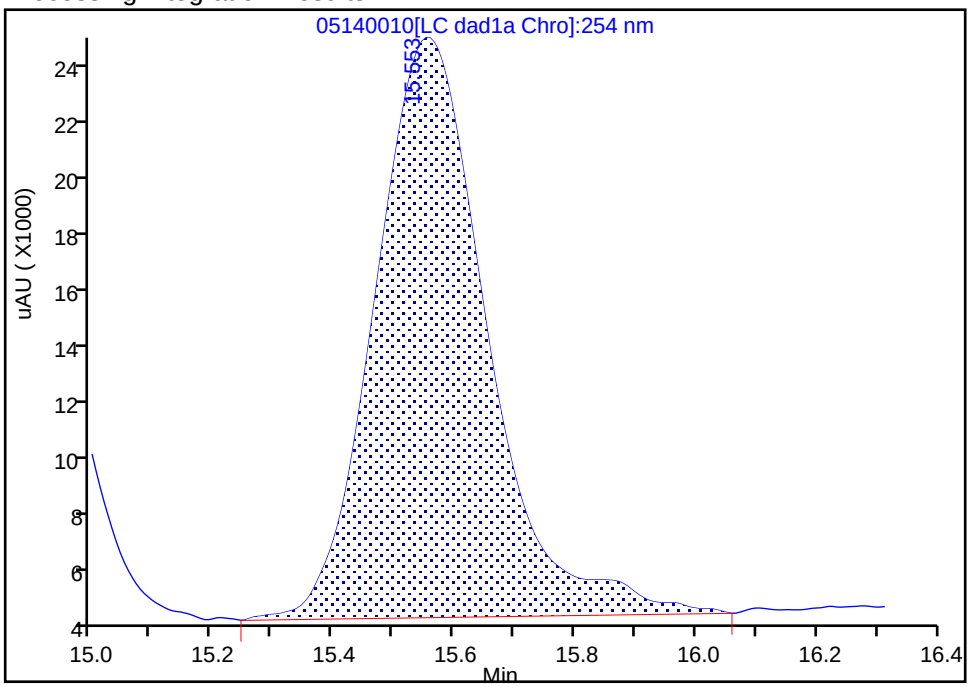
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140010.d				
Injection Date:	14-May-2020 18:01:41	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 6				
Client ID:					
Operator ID:	CB	ALS Bottle#:	10	Worklist Smp#:	10
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

12 1,3-Dinitrobenzene, CAS: 99-65-0

Signal: 1

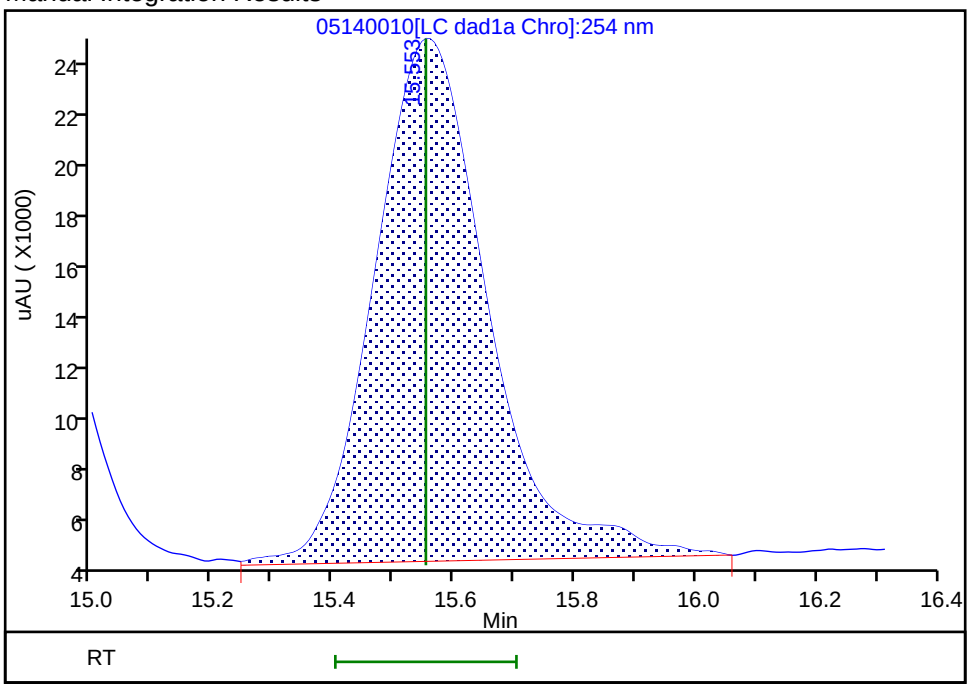
Processing Integration Results

RT: 15.55
Area: 255534
Amount: 0.374138
Amount Units: ug/ml



Manual Integration Results

RT: 15.55
Area: 258559
Amount: 0.383511
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:20:35

Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

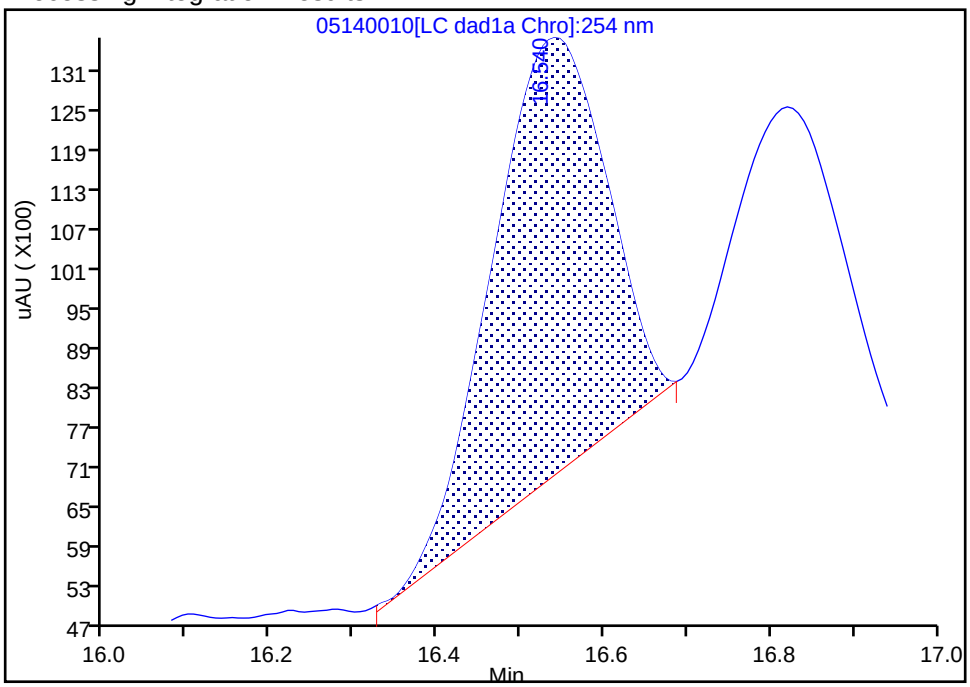
Data File: \\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140010.d
Injection Date: 14-May-2020 18:01:41 Instrument ID: CHHPLC_G2_LUNA
Lims ID: IC FULL 6
Client ID:
Operator ID: CB ALS Bottle#: 10 Worklist Smp#: 10
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC DAD1A, 254 nm

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

Signal: 1

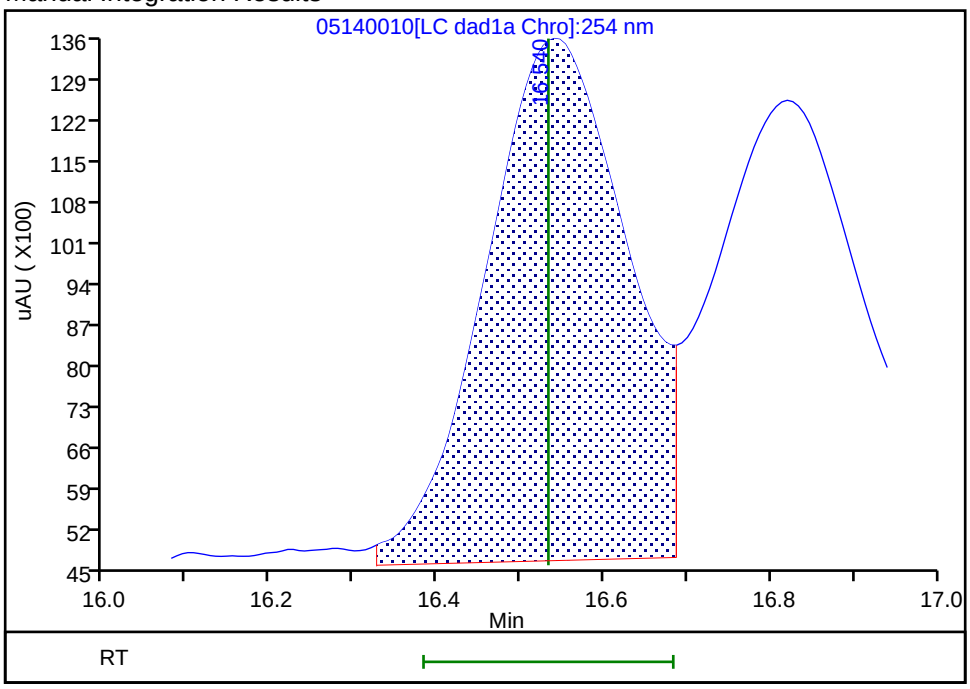
Processing Integration Results

RT: 16.54
Area: 63784
Amount: 0.238403
Amount Units: ug/ml



Manual Integration Results

RT: 16.54
Area: 105493
Amount: 0.386471
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:20:32
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

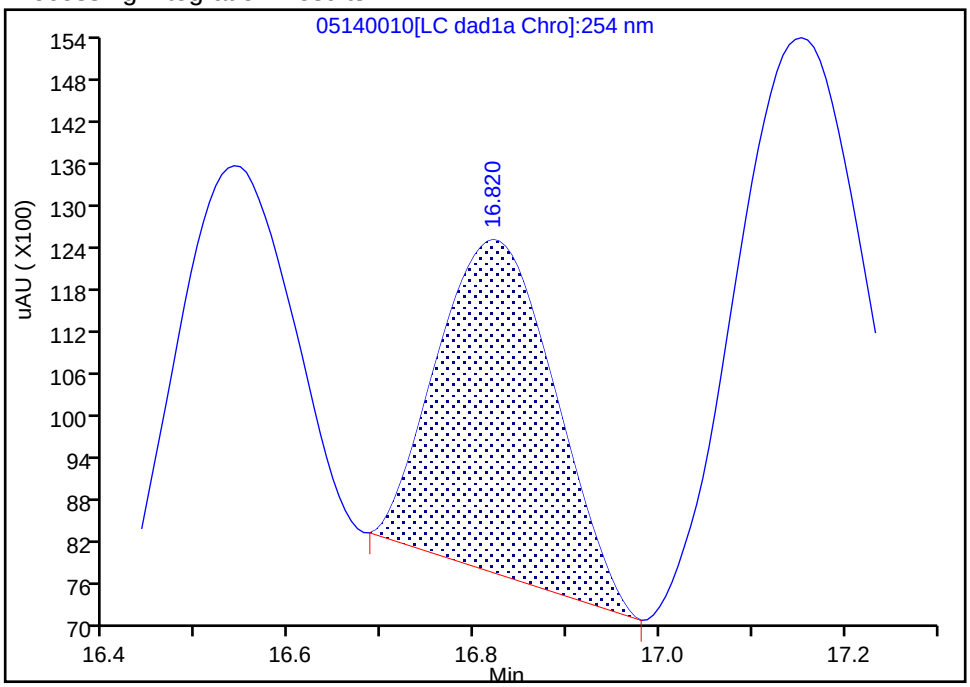
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140010.d				
Injection Date:	14-May-2020 18:01:41	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 6				
Client ID:					
Operator ID:	CB	ALS Bottle#:	10	Worklist Smp#:	10
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

15 p-Nitrotoluene, CAS: 99-99-0

Signal: 1

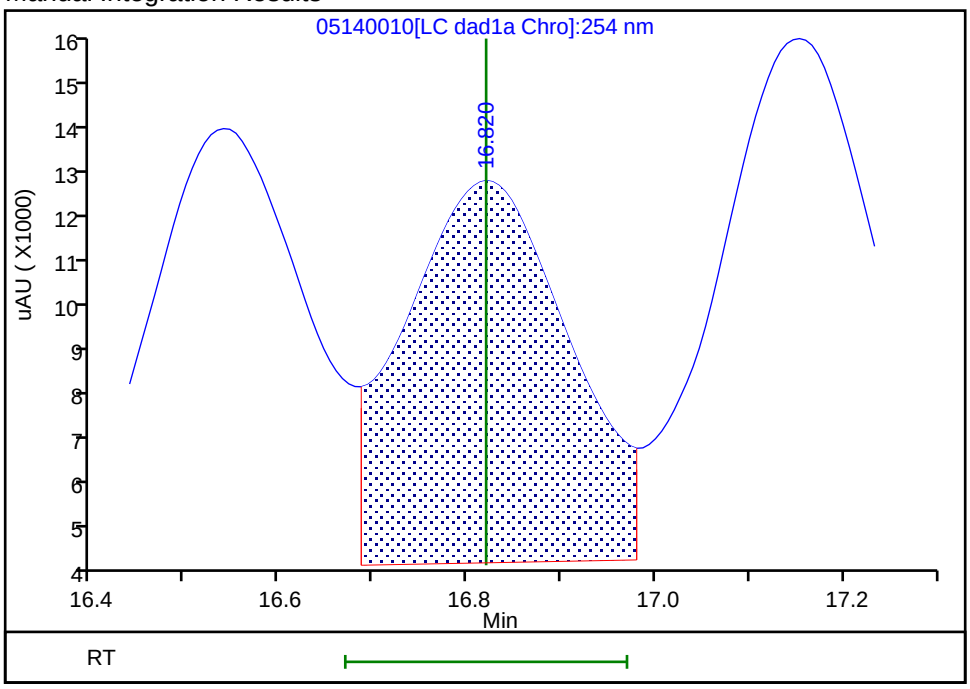
Processing Integration Results

RT: 16.82
Area: 42038
Amount: 0.176152
Amount Units: ug/ml



Manual Integration Results

RT: 16.82
Area: 93773
Amount: 0.389291
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:20:32

Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

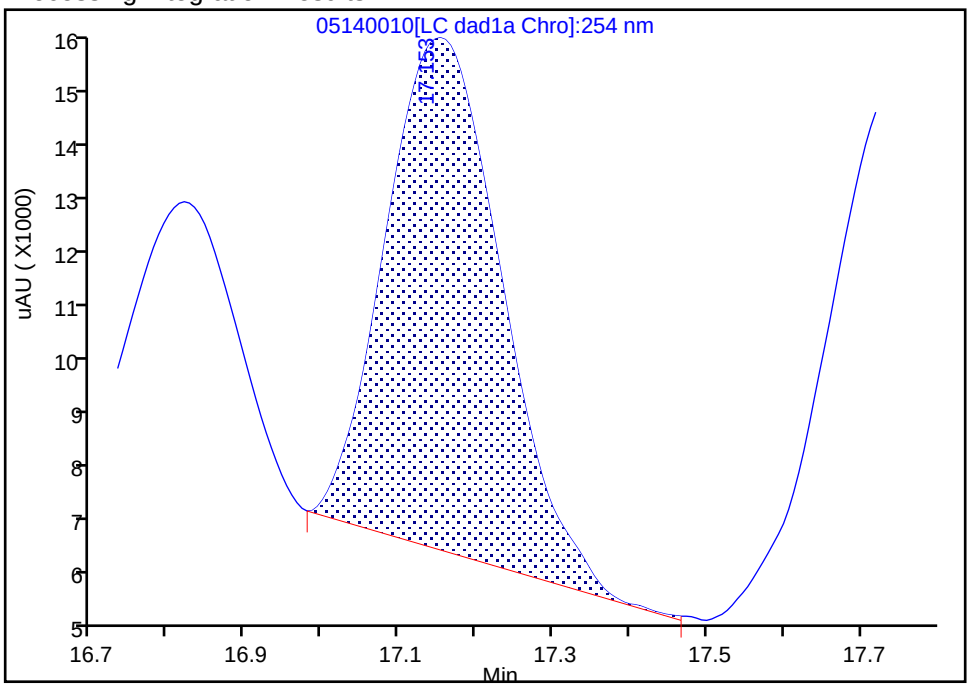
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140010.d				
Injection Date:	14-May-2020 18:01:41	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 6				
Client ID:					
Operator ID:	CB	ALS Bottle#:	10	Worklist Smp#:	10
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

16 4-Amino-2,6-dinitrotoluene, CAS: 19406-51-0

Signal: 1

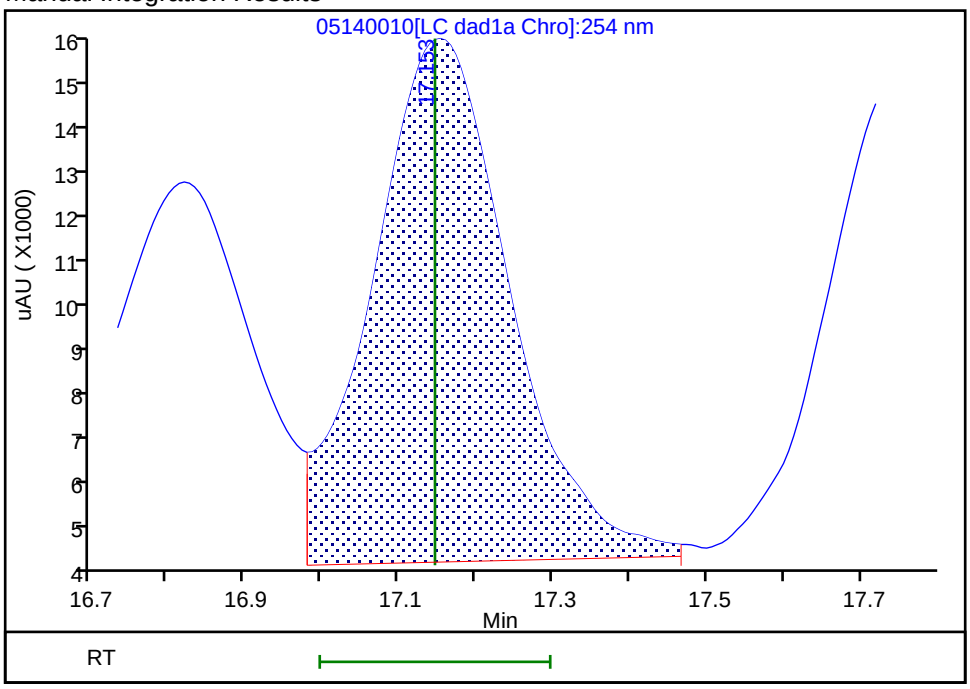
Processing Integration Results

RT: 17.15
Area: 95002
Amount: 0.278639
Amount Units: ug/ml



Manual Integration Results

RT: 17.15
Area: 130436
Amount: 0.377818
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:20:32
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

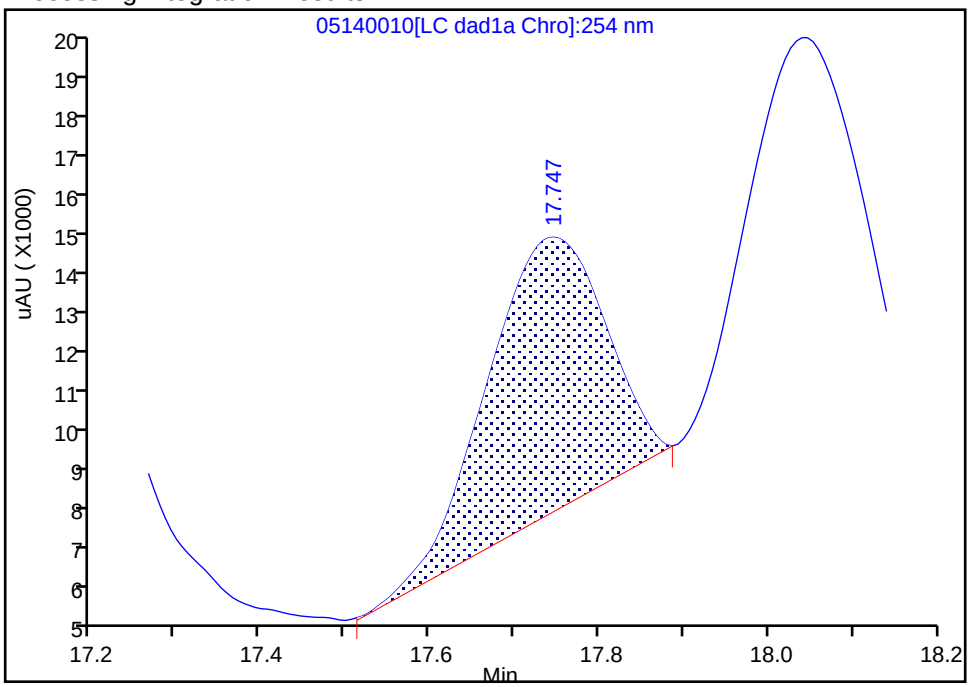
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140010.d				
Injection Date:	14-May-2020 18:01:41	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 6				
Client ID:					
Operator ID:	CB	ALS Bottle#:	10	Worklist Smp#:	10
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

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

Signal: 1

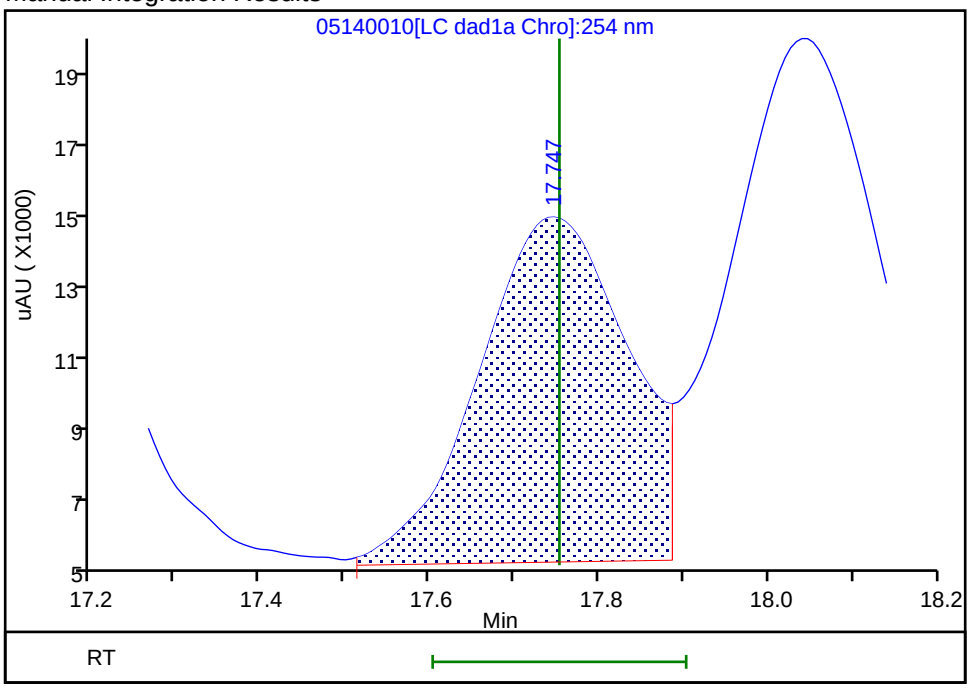
Processing Integration Results

RT: 17.75
Area: 65895
Amount: 0.232967
Amount Units: ug/ml



Manual Integration Results

RT: 17.75
Area: 115331
Amount: 0.386593
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:20:32
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

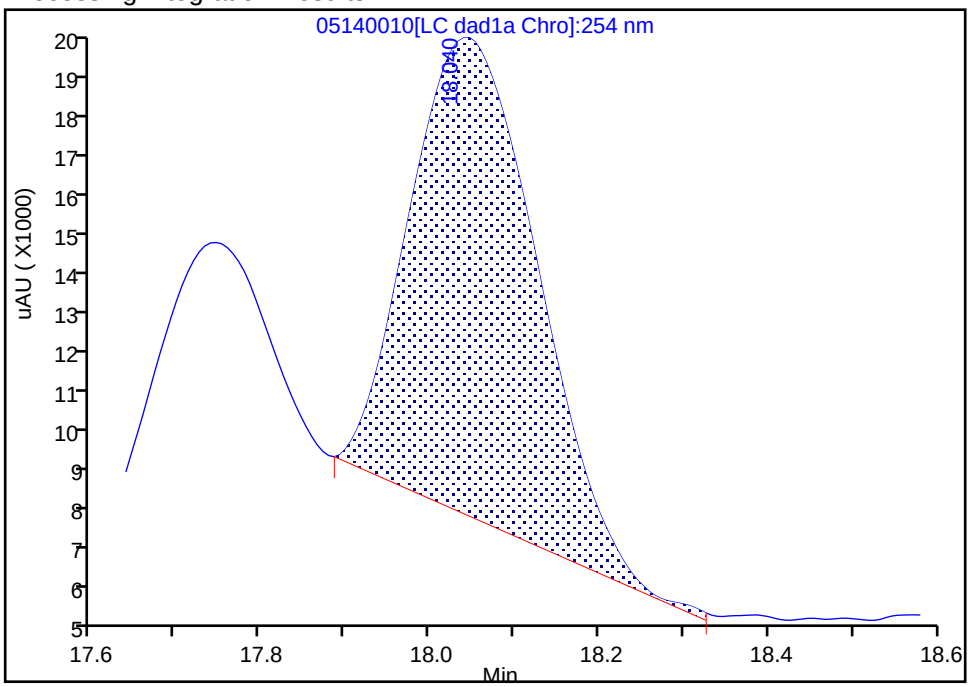
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140010.d				
Injection Date:	14-May-2020 18:01:41	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 6				
Client ID:					
Operator ID:	CB	ALS Bottle#:	10	Worklist Smp#:	10
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	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

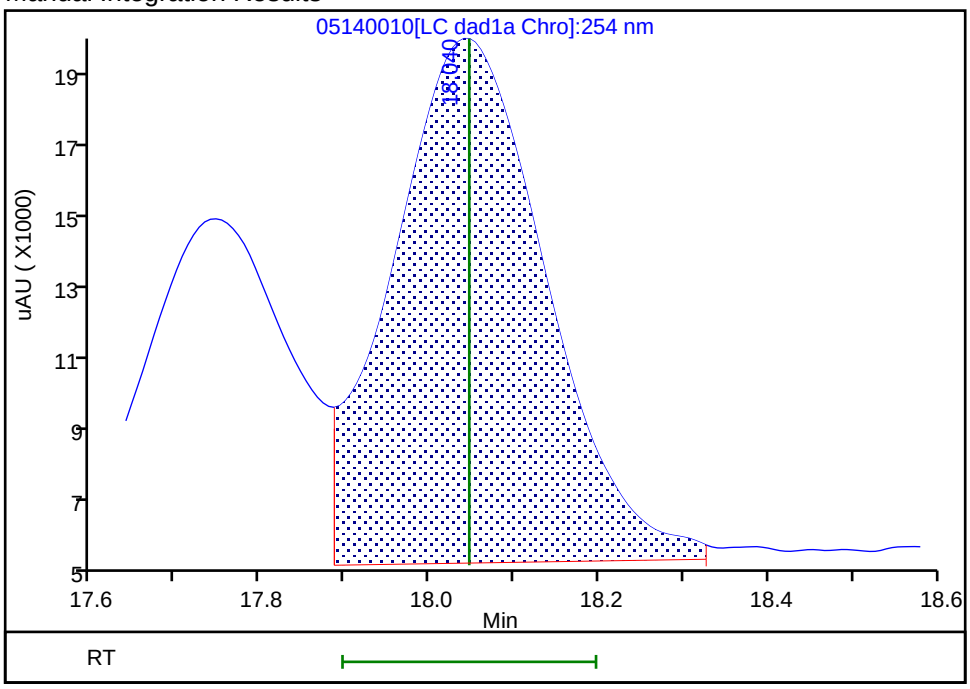
Processing Integration Results

RT: 18.04
Area: 120261
Amount: 0.277181
Amount Units: ug/ml



Manual Integration Results

RT: 18.04
Area: 179358
Amount: 0.385541
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:20:32
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

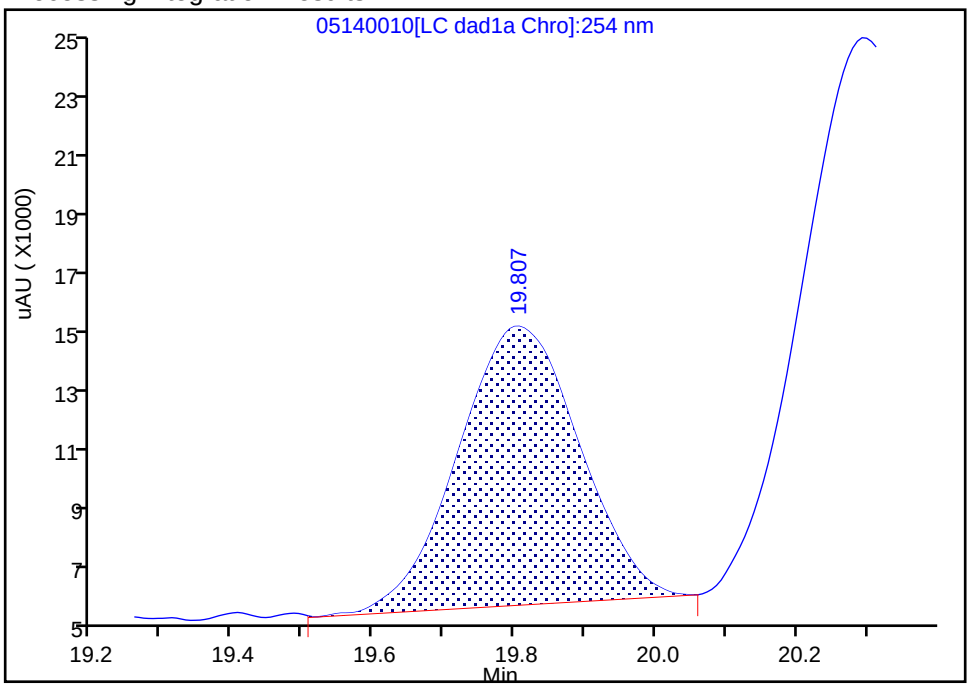
Data File: \\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140010.d
Injection Date: 14-May-2020 18:01:41 Instrument ID: CHHPLC_G2_LUNA
Lims ID: IC FULL 6
Client ID:
Operator ID: CB ALS Bottle#: 10 Worklist Smp#: 10
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC DAD1A, 254 nm

20 2,6-Dinitrotoluene, CAS: 606-20-2

Signal: 1

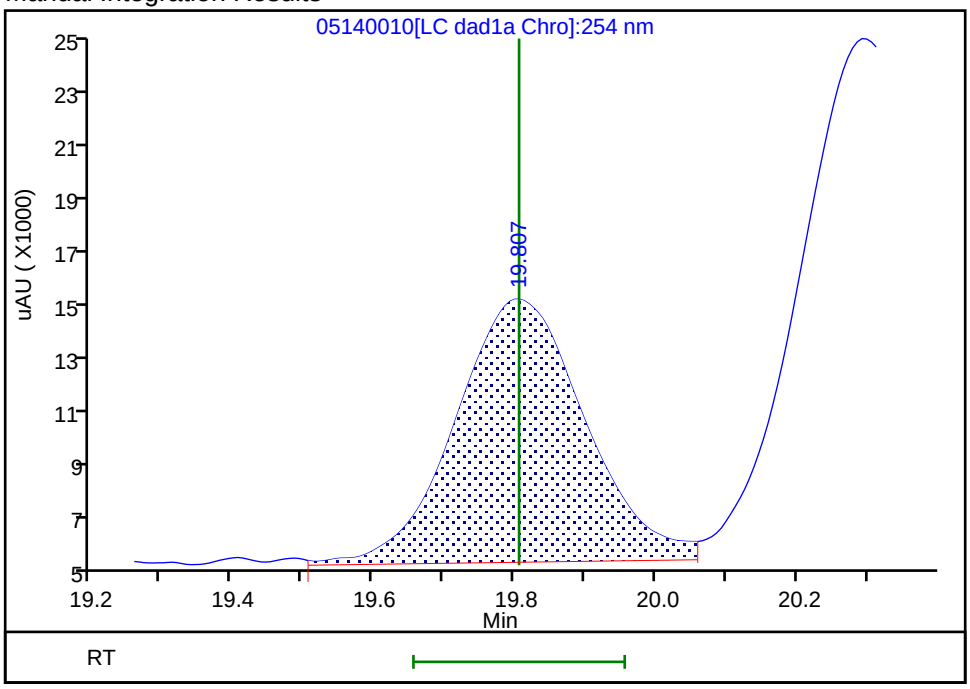
Processing Integration Results

RT: 19.81
Area: 105710
Amount: 0.311662
Amount Units: ug/ml



Manual Integration Results

RT: 19.81
Area: 118093
Amount: 0.392980
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:20:40
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

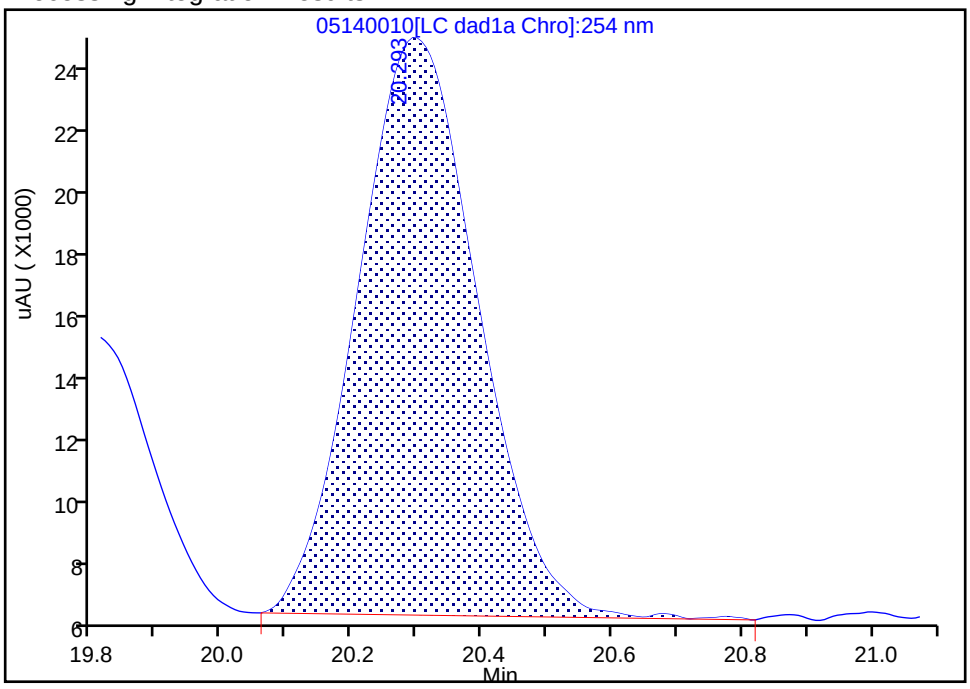
Data File: \\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140010.d
Injection Date: 14-May-2020 18:01:41 Instrument ID: CHHPLC_G2_LUNA
Lims ID: IC FULL 6
Client ID:
Operator ID: CB ALS Bottle#: 10 Worklist Smp#: 10
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC DAD1A, 254 nm

21 2,4-Dinitrotoluene, CAS: 121-14-2

Signal: 1

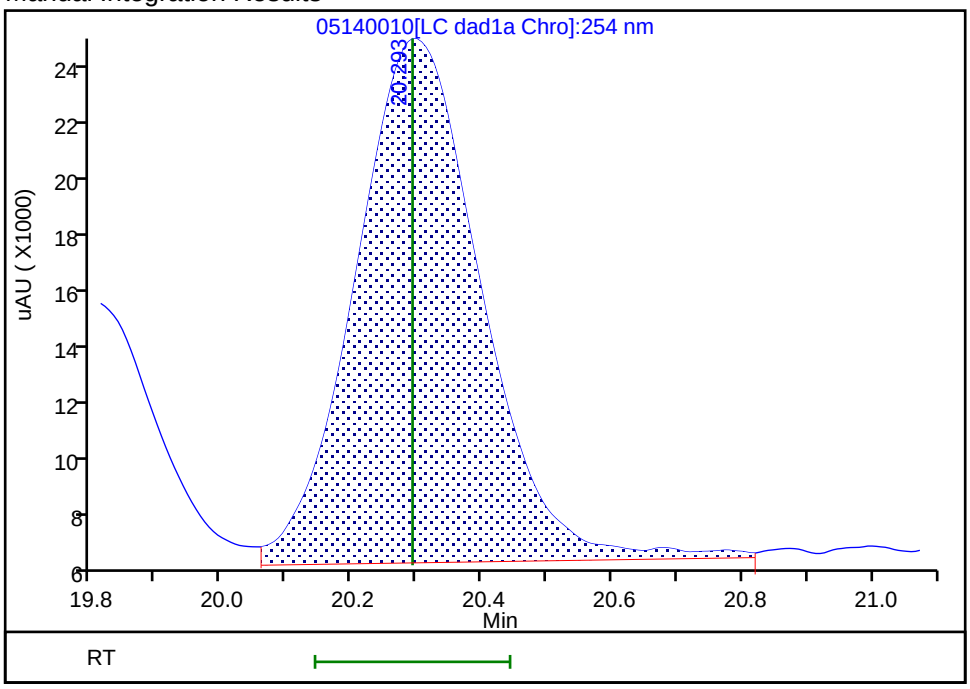
Processing Integration Results

RT: 20.29
Area: 226951
Amount: 0.348081
Amount Units: ug/ml



Manual Integration Results

RT: 20.29
Area: 245009
Amount: 0.382759
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:20:40
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

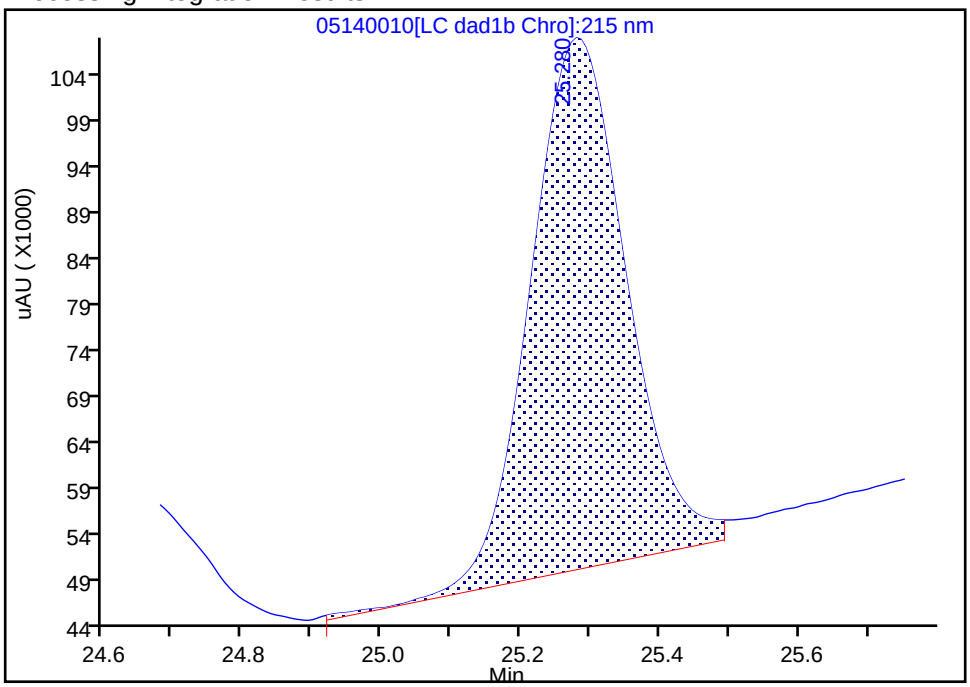
Data File: \\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140010.d
Injection Date: 14-May-2020 18:01:41 Instrument ID: CHHPLC_G2_LUNA
Lims ID: IC FULL 6
Client ID:
Operator ID: CB ALS Bottle#: 10 Worklist Smp#: 10
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Detector LC DAD1B, 215 nm

24 PETN, CAS: 78-11-5

Signal: 1

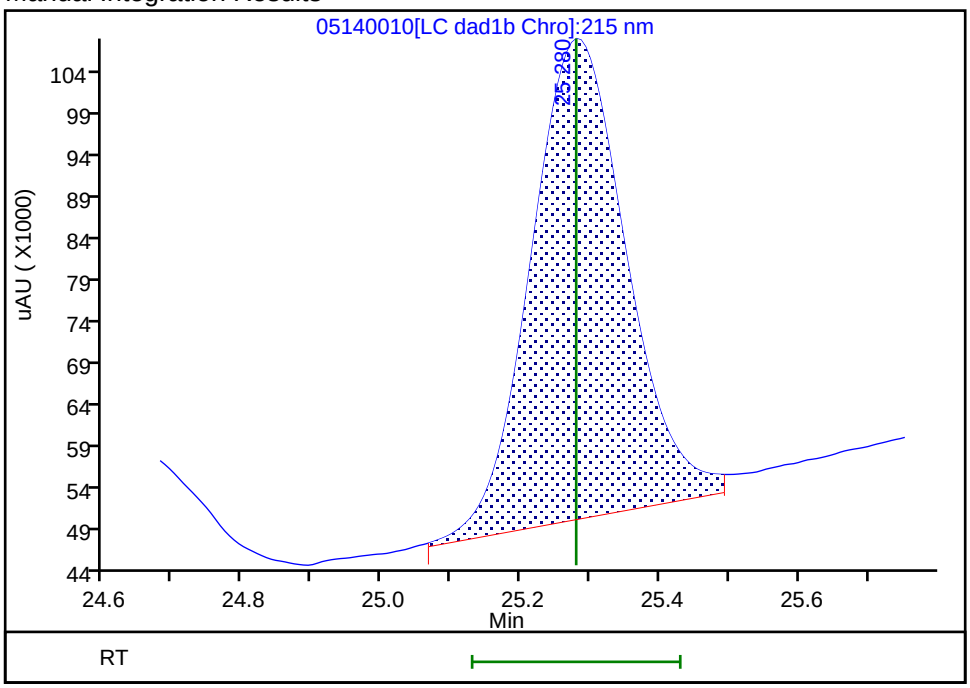
Processing Integration Results

RT: 25.28
Area: 559852
Amount: 4.200524
Amount Units: ug/ml



Manual Integration Results

RT: 25.28
Area: 557734
Amount: 4.102237
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:25:18
Audit Action: Split an Integrated Peak Audit Reason: Peak Tail

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140011.D
Lims ID: IC FULL 5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 14-May-2020 18:36:40 ALS Bottle#: 11 Worklist Smp#: 11
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC FULL 5
Misc. Info.: 280-0091518-011
Operator ID: CB Instrument ID: CHHPLC_G2_LUNA
Sublist: chrom-G2_8330_Luna*sub6

Method: \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\G2_8330_Luna.m
Limit Group: GCSV - 8330
Last Update: 15-May-2020 12:00:56 Calib Date: 15-May-2020 02:11:20
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140024.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC DAD1A, 254 nm
Process Host: CTX0318

First Level Reviewer: zhangji Date: 15-May-2020 11:20:54

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 2,6-diamino-4-nitrotoluene	1	4.366	4.366	0.000	106754	0.2500	0.2487	
2 2,4-diamino-6-nitrotoluene	1	4.880	4.880	0.000	74938	0.2500	0.2919	
5 2,4,6-Trinitrophenol	1	6.300	6.300	0.000	48614	0.2500	0.2508	a
6 HMX	1	6.986	6.986	0.000	54065	0.2500	0.2754	
8 RDX	1	9.173	9.173	0.000	62626	0.2500	0.2563	
9 Nitrobenzene	1	12.106	12.106	0.000	106064	0.2510	0.2415	
$ 10 1,2-Dinitrobenzene	1	13.040	13.040	0.000	62375	0.2500	0.2184	M
11 3,5-Dinitroaniline	1	14.886	14.886	0.000	130301	0.2500	0.2629	
12 1,3-Dinitrobenzene	1	15.553	15.553	0.000	172289	0.2505	0.2556	
13 Nitroglycerin	2	15.853	15.853	0.000	330378	2.50	2.61	M
14 o-Nitrotoluene	1	16.533	16.533	0.000	63146	0.2500	0.2313	
15 p-Nitrotoluene	1	16.820	16.820	0.000	59605	0.2505	0.2474	
16 4-Amino-2,6-dinitrotoluene	1	17.146	17.146	0.000	79168	0.2503	0.2293	
17 m-Nitrotoluene	1	17.753	17.753	0.000	71162	0.2503	0.2385	
18 2-Amino-4,6-dinitrotoluene	1	18.046	18.046	0.000	112860	0.2510	0.2426	
19 1,3,5-Trinitrobenzene	1	18.886	18.886	0.000	118709	0.2505	0.2513	
20 2,6-Dinitrotoluene	1	19.806	19.806	0.000	74317	0.2510	0.2416	
21 2,4-Dinitrotoluene	1	20.293	20.293	0.000	153249	0.2510	0.2394	
22 Tetryl	1	23.553	23.553	0.000	92236	0.2505	0.2502	
23 2,4,6-Trinitrotoluene	1	24.653	24.653	0.000	100168	0.2510	0.2416	
24 PETN	2	25.280	25.280	0.000	338241	2.50	2.40	M

QC Flag Legend

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

8330IntermStk_00064	Amount Added:	25.00	Units: uL
8330_ADDs_00026	Amount Added:	12.50	Units: uL

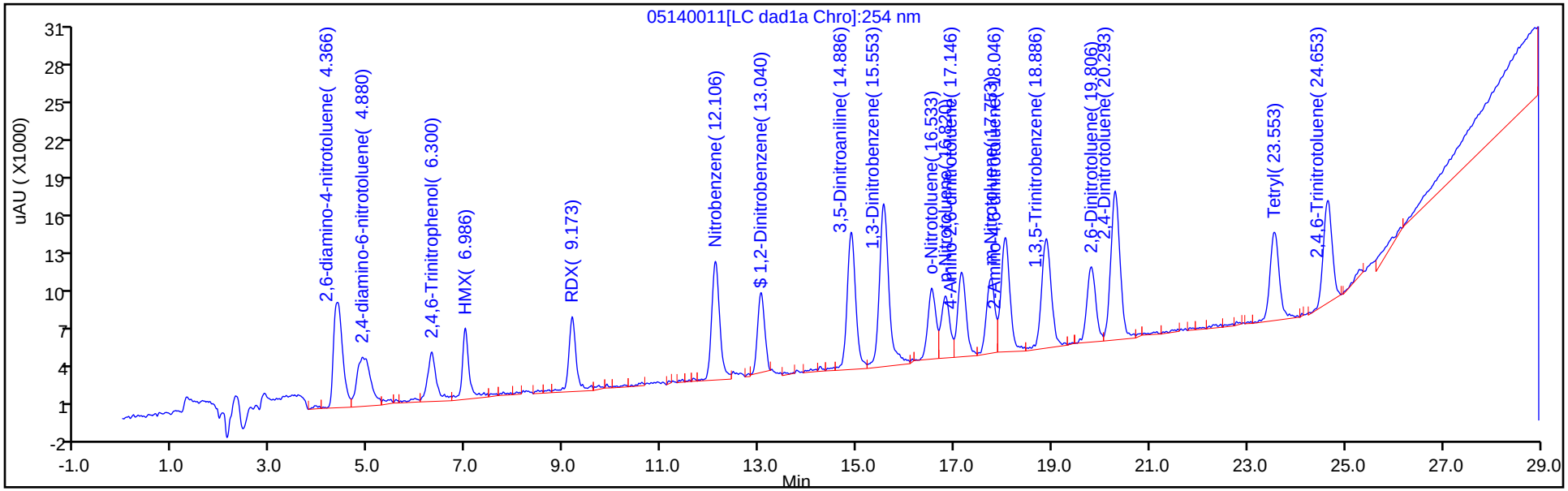
Report Date: 15-May-2020 12:00:57 Chrom Revision: 2.3 05-May-2020 17:48:18

Eurofins TestAmerica, Denver

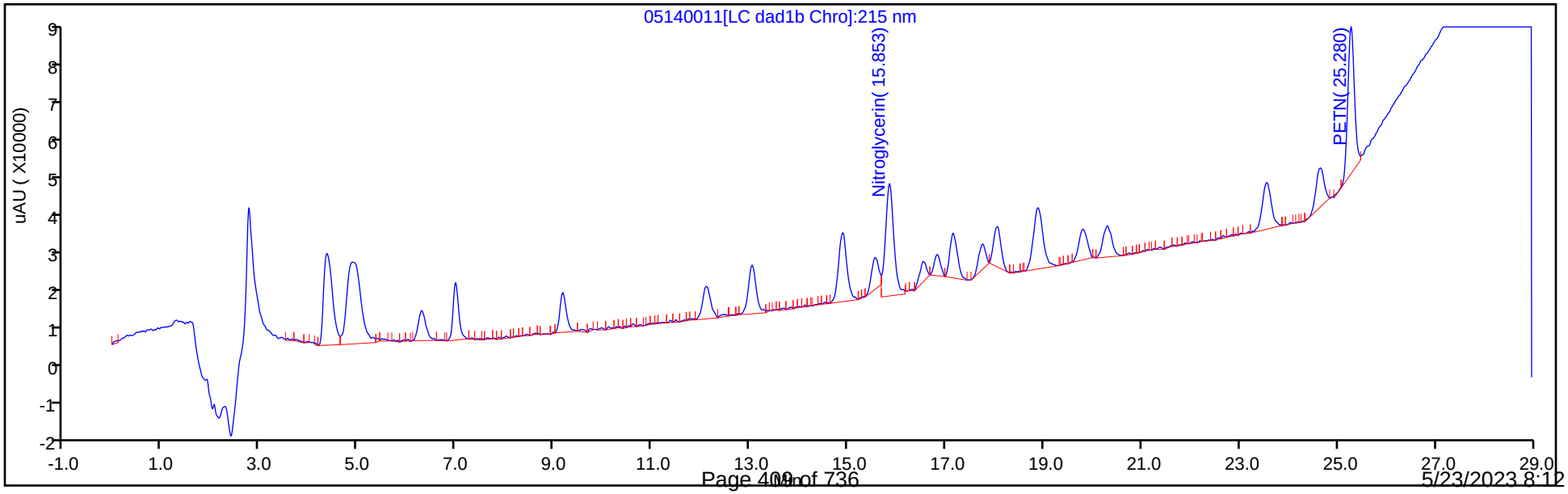
Data File: \\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140011.d

Injection Date:	14-May-2020 18:36:40	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	CB
Lims ID:	IC FULL 5			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



Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



5/23/2023 8:12 PM

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

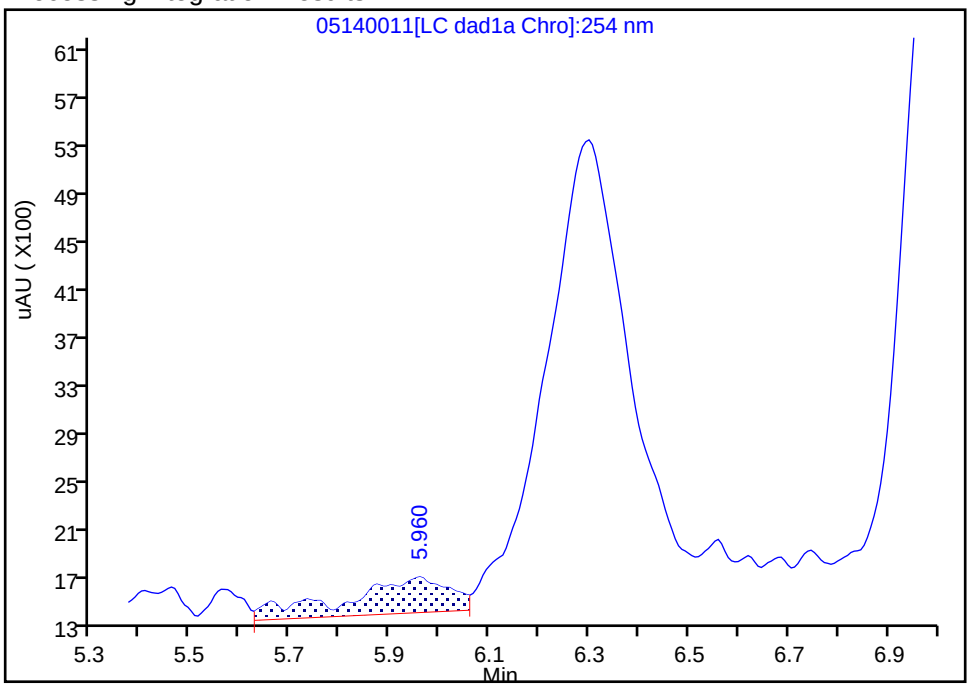
Data File: \\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140011.d
Injection Date: 14-May-2020 18:36:40 Instrument ID: CHHPLC_G2_LUNA
Lims ID: IC FULL 5
Client ID:
Operator ID: CB ALS Bottle#: 11 Worklist Smp#: 11
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC DAD1A, 254 nm

5 2,4,6-Trinitrophenol, CAS: 88-89-1

Signal: 1

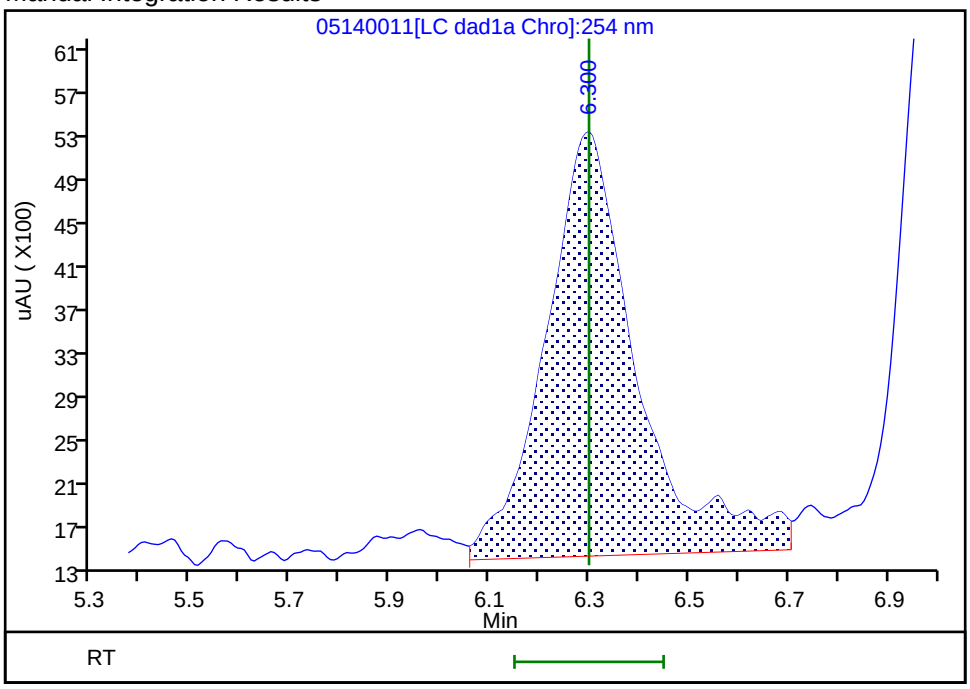
Processing Integration Results

RT: 5.96
Area: 4251
Amount: 0.036696
Amount Units: ug/ml



Manual Integration Results

RT: 6.30
Area: 48614
Amount: 0.250833
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:20:52
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

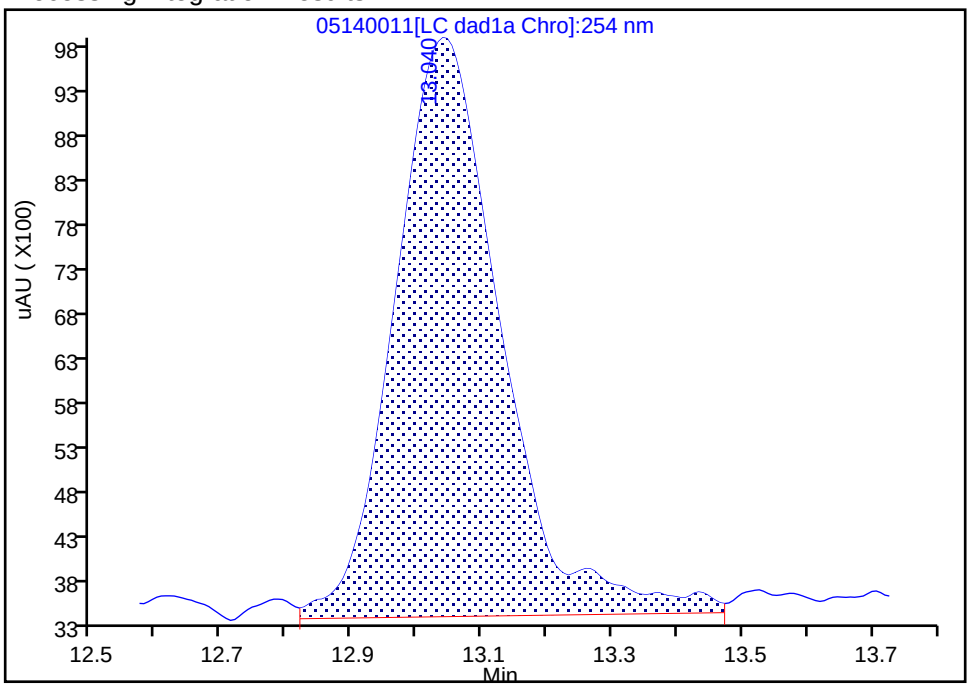
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140011.d				
Injection Date:	14-May-2020 18:36:40	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 5				
Client ID:					
Operator ID:	CB	ALS Bottle#:	11	Worklist Smp#:	11
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

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

Signal: 1

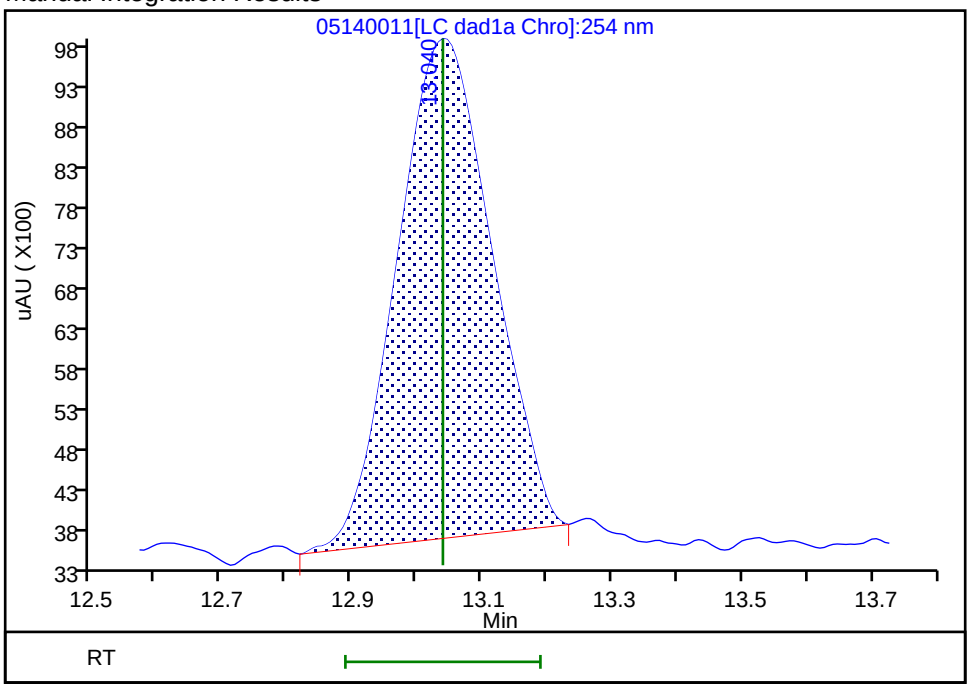
Processing Integration Results

RT: 13.04
Area: 73345
Amount: 0.234804
Amount Units: ug/ml



Manual Integration Results

RT: 13.04
Area: 62375
Amount: 0.218362
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:35:01

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

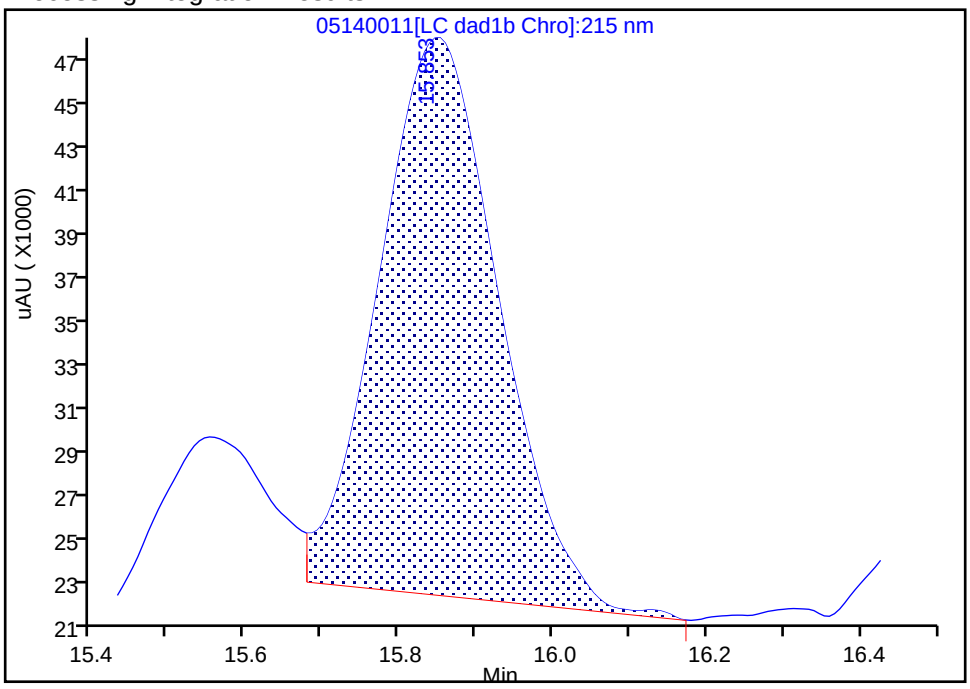
Data File: \\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140011.d
Injection Date: 14-May-2020 18:36:40 Instrument ID: CHHPLC_G2_LUNA
Lims ID: IC FULL 5
Client ID:
Operator ID: CB ALS Bottle#: 11 Worklist Smp#: 11
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Detector LC DAD1B, 215 nm

13 Nitroglycerin, CAS: 55-63-0

Signal: 1

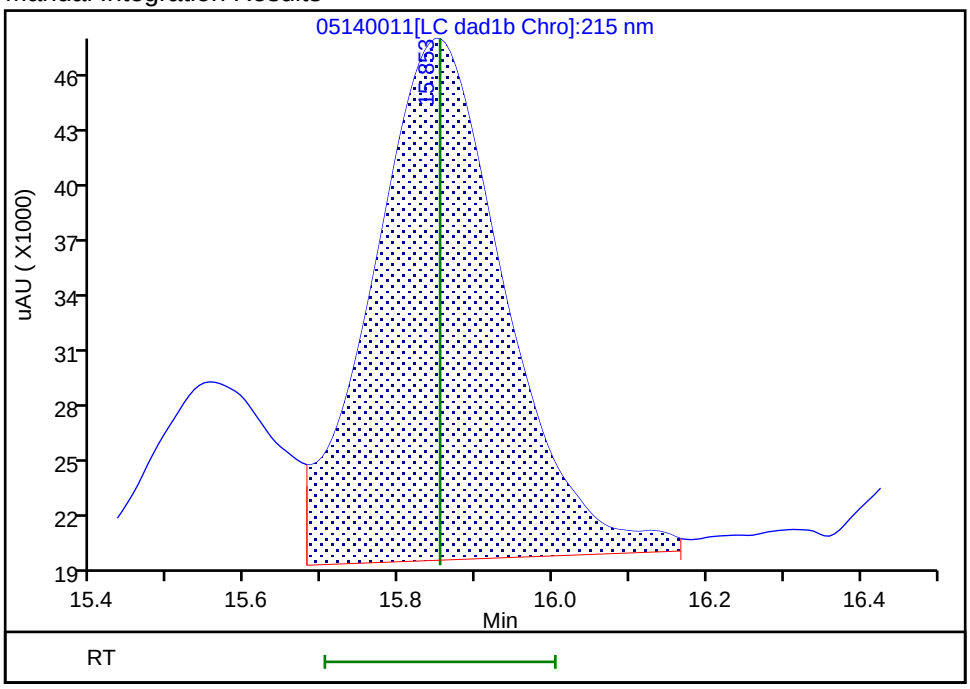
Processing Integration Results

RT: 15.85
Area: 276053
Amount: 2.464482
Amount Units: ug/ml



Manual Integration Results

RT: 15.85
Area: 330378
Amount: 2.605436
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:32:11
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

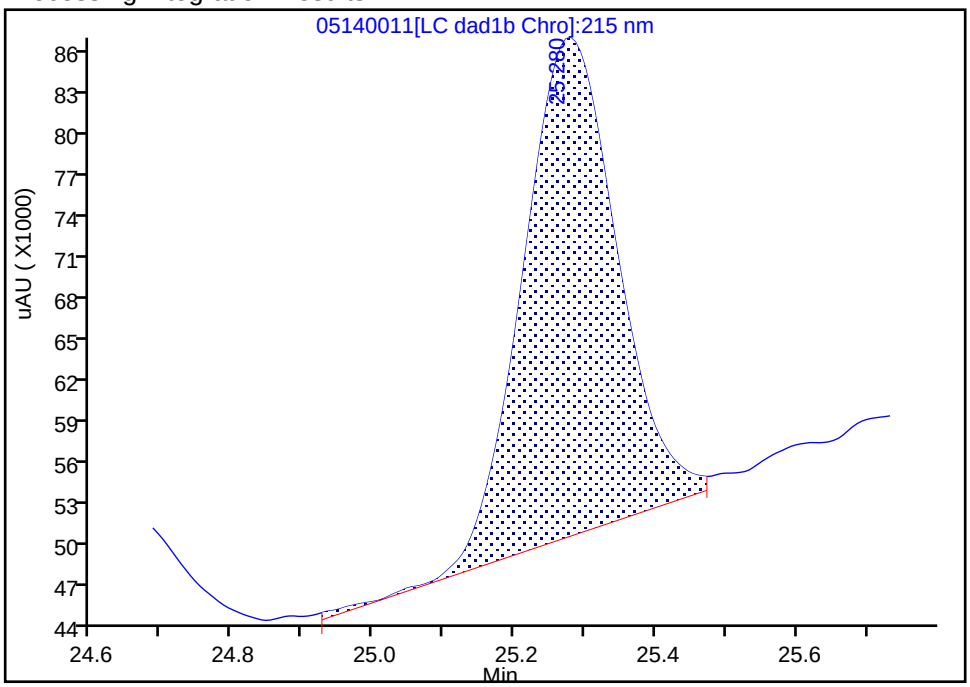
Data File: \\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140011.d
Injection Date: 14-May-2020 18:36:40 Instrument ID: CHHPLC_G2_LUNA
Lims ID: IC FULL 5
Client ID:
Operator ID: CB ALS Bottle#: 11 Worklist Smp#: 11
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Detector LC DAD1B, 215 nm

24 PETN, CAS: 78-11-5

Signal: 1

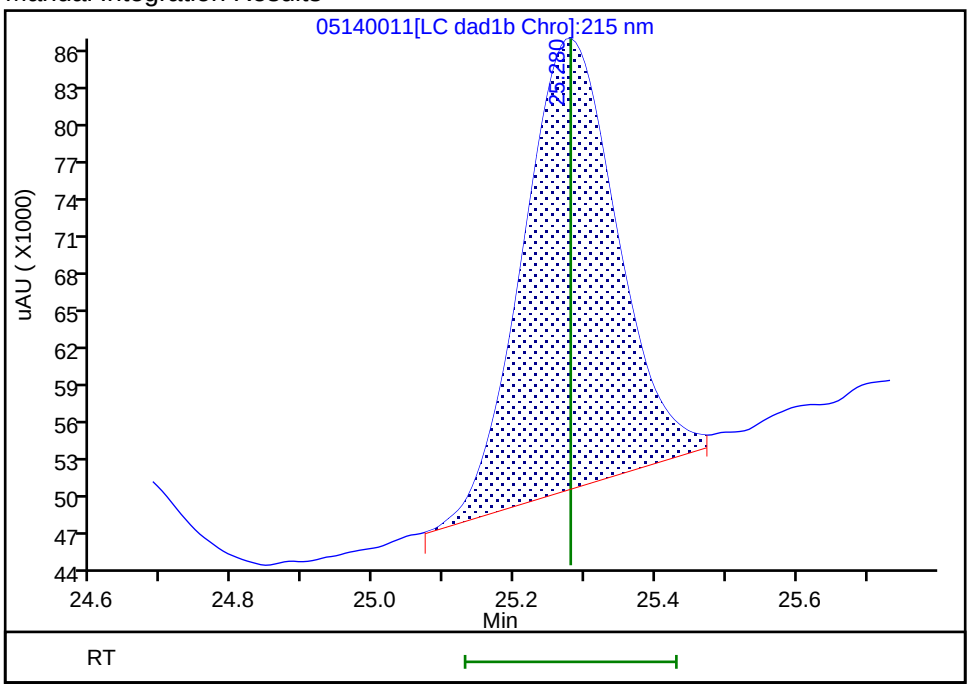
Processing Integration Results

RT: 25.28
Area: 339815
Amount: 2.534573
Amount Units: ug/ml



Manual Integration Results

RT: 25.28
Area: 338241
Amount: 2.404524
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:25:08
Audit Action: Split an Integrated Peak Audit Reason: Peak Tail

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140012.D
Lims ID: IC FULL 4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 14-May-2020 19:11:37 ALS Bottle#: 12 Worklist Smp#: 12
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC FULL 4
Misc. Info.: 280-0091518-012
Operator ID: CB Instrument ID: CHHPLC_G2_LUNA
Sublist: chrom-G2_8330_Luna*sub6

Method: \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\G2_8330_Luna.m
Limit Group: GCSV - 8330
Last Update: 15-May-2020 12:00:57 Calib Date: 15-May-2020 02:11:20
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140024.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC DAD1A, 254 nm
Process Host: CTX0318

First Level Reviewer: zhangji Date: 15-May-2020 11:21:52

	Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
	1 2,6-diamino-4-nitrotoluene	1	4.361	4.366	-0.005	44739	0.1000	0.1042	
	2 2,4-diamino-6-nitrotoluene	1	4.941	4.880	0.061	33889	0.1000	0.1193	
	5 2,4,6-Trinitrophenol	1	6.308	6.300	0.008	23170	0.1000	0.1195	a
	6 HMX	1	6.994	6.986	0.008	24294	0.1000	0.1072	
	8 RDX	1	9.181	9.173	0.008	27233	0.1000	0.1114	
	9 Nitrobenzene	1	12.114	12.106	0.008	42679	0.1004	0.0972	
$	10 1,2-Dinitrobenzene	1	13.048	13.040	0.008	30683	0.1000	0.1040	
	11 3,5-Dinitroaniline	1	14.901	14.886	0.015	51716	0.1000	0.1009	M
	12 1,3-Dinitrobenzene	1	15.554	15.553	0.001	69012	0.1002	0.1024	M
	13 Nitroglycerin	2	15.848	15.853	-0.005	141489	1.00	1.12	M
	14 o-Nitrotoluene	1	16.534	16.533	0.001	29062	0.1000	0.1065	M
	15 p-Nitrotoluene	1	16.828	16.820	0.008	25956	0.1002	0.1078	M
	16 4-Amino-2,6-dinitrotoluene	1	17.148	17.146	0.002	32448	0.1001	0.0940	M
	17 m-Nitrotoluene	1	17.741	17.753	-0.012	30586	0.1001	0.1025	M
	18 2-Amino-4,6-dinitrotoluene	1	18.054	18.046	0.008	47526	0.1004	0.1022	M
	19 1,3,5-Trinitrobenzene	1	18.881	18.886	-0.005	51028	0.1002	0.1080	M
	20 2,6-Dinitrotoluene	1	19.794	19.806	-0.012	34659	0.1004	0.1045	M
	21 2,4-Dinitrotoluene	1	20.288	20.293	-0.005	67500	0.1004	0.1055	M
	22 Tetryl	1	23.548	23.553	-0.005	38547	0.1002	0.1046	
	23 2,4,6-Trinitrotoluene	1	24.654	24.653	0.001	43208	0.1004	0.0997	
	24 PETN	2	25.281	25.280	0.001	132172	1.00	0.8106	M

QC Flag Legend

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

8330IntermStk_00064	Amount Added:	10.00	Units: uL
8330_ADDs_00026	Amount Added:	5.00	Units: uL

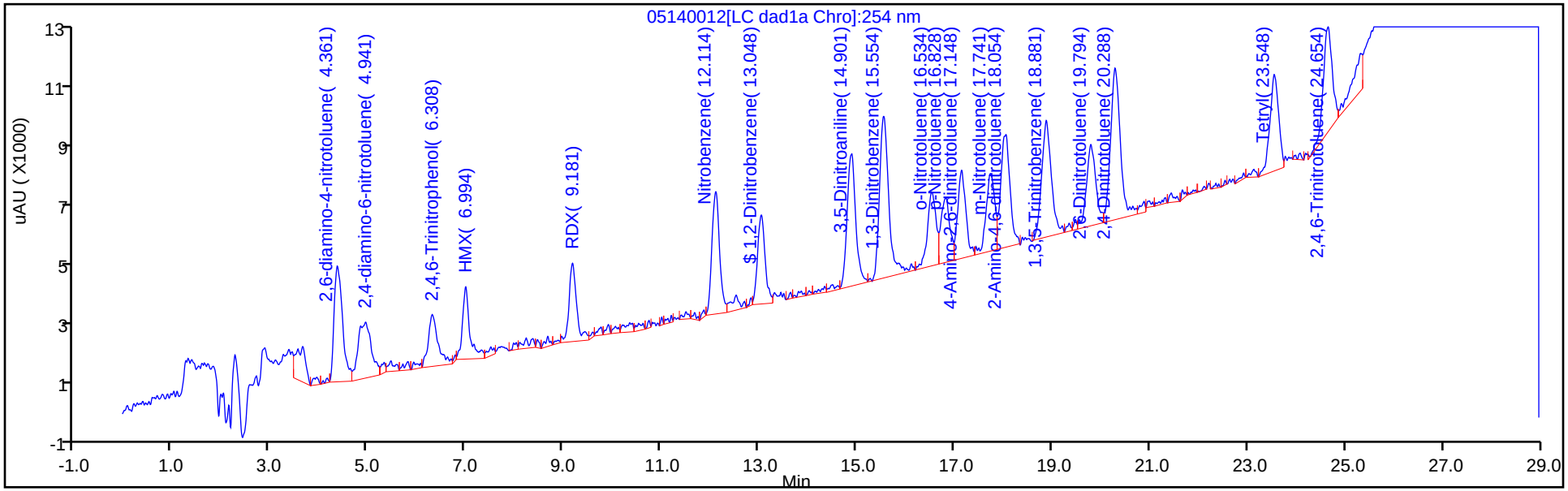
Report Date: 15-May-2020 12:00:57 Chrom Revision: 2.3 05-May-2020 17:48:18

Eurofins TestAmerica, Denver

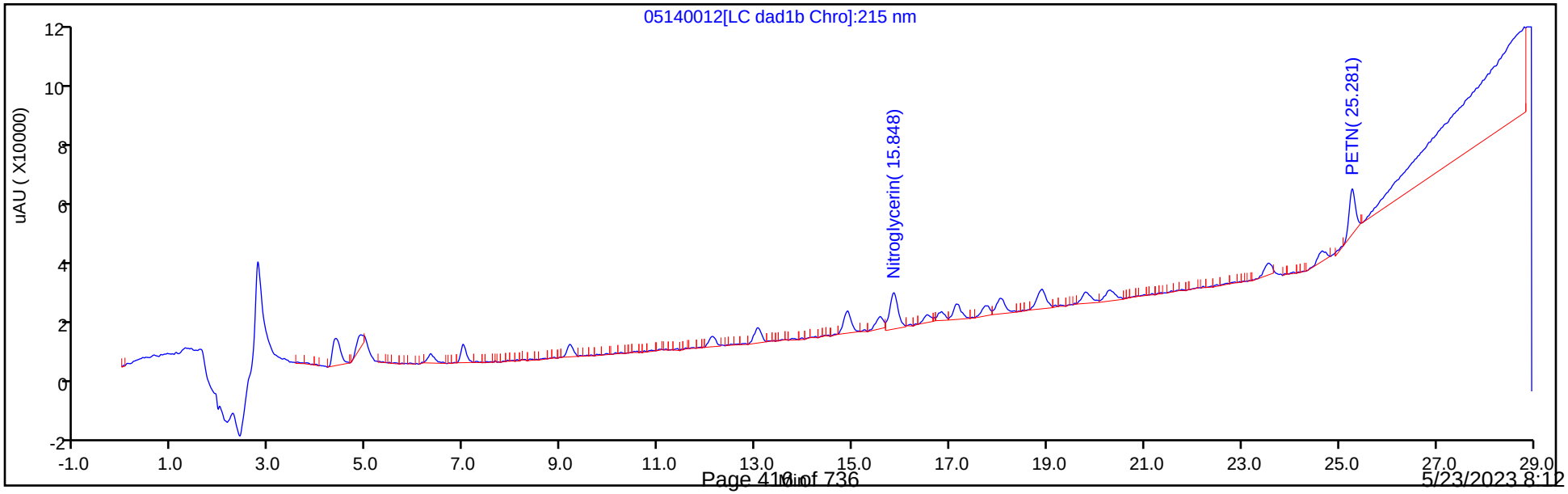
Data File: \\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140012.d

Injection Date:	14-May-2020 19:11:37	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	CB
Lims ID:	IC FULL 4			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



Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

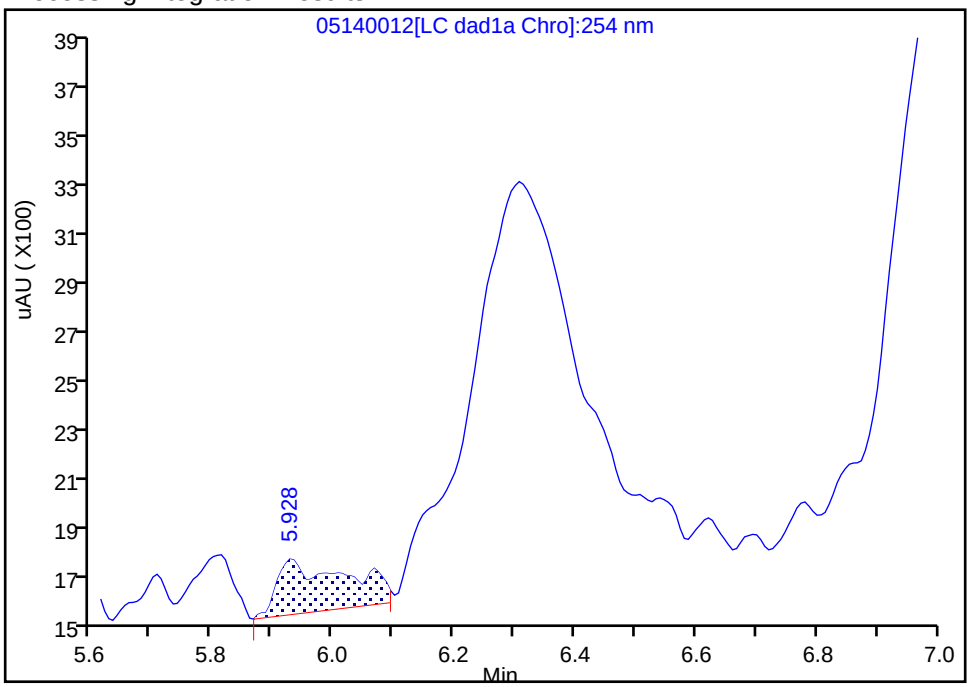
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140012.d				
Injection Date:	14-May-2020 19:11:37	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 4				
Client ID:					
Operator ID:	CB	ALS Bottle#:	12	Worklist Smp#:	12
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

5 2,4,6-Trinitrophenol, CAS: 88-89-1

Signal: 1

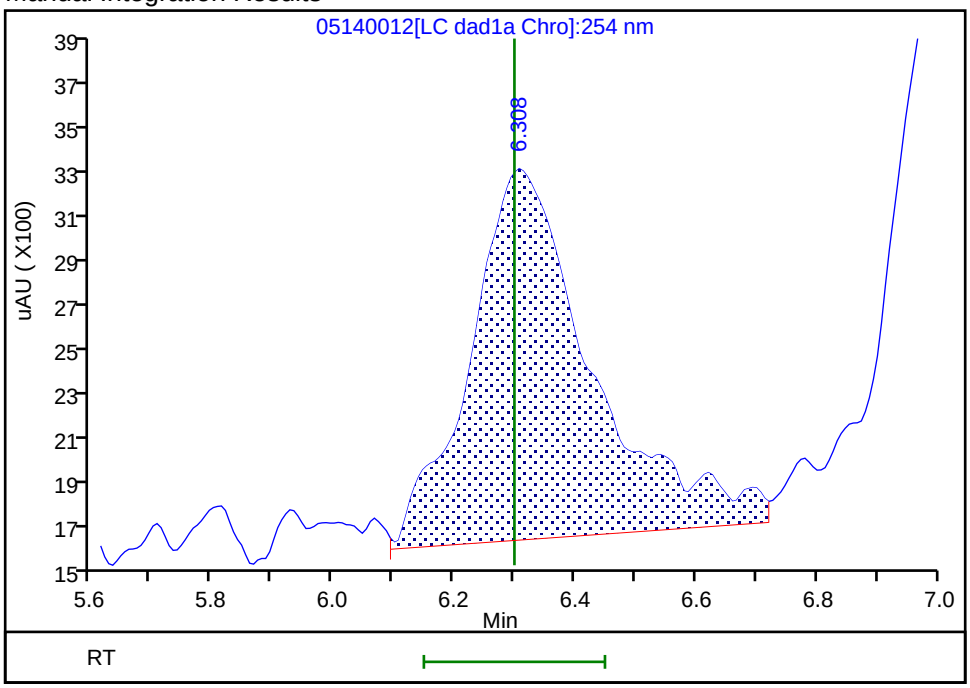
Processing Integration Results

RT: 5.93
Area: 1700
Amount: 0.010784
Amount Units: ug/ml



Manual Integration Results

RT: 6.31
Area: 23170
Amount: 0.119550
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:22:21
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver

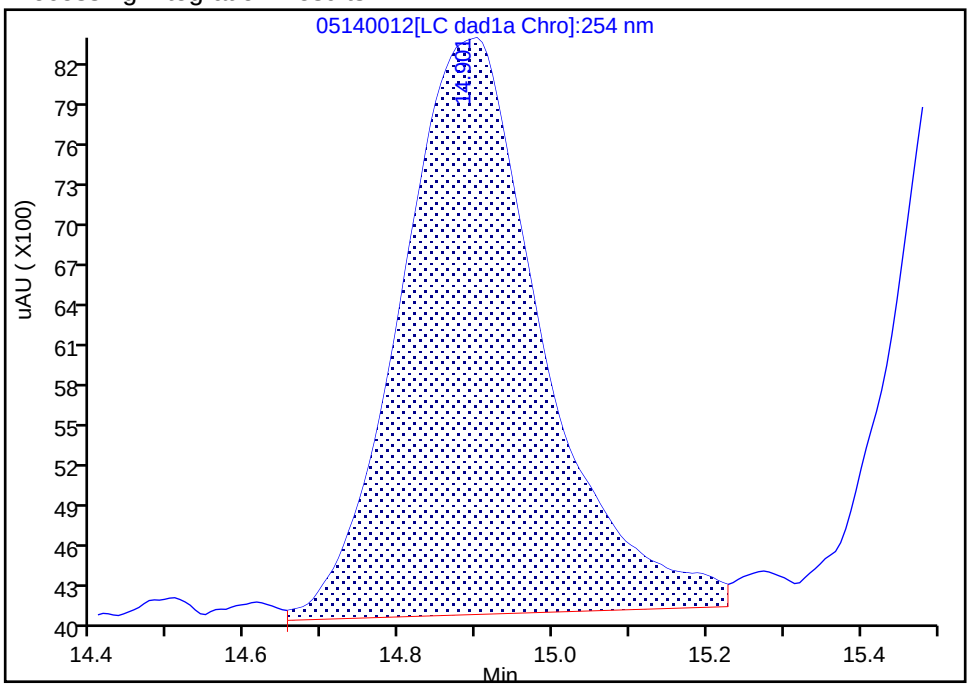
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140012.d				
Injection Date:	14-May-2020 19:11:37	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 4				
Client ID:					
Operator ID:	CB	ALS Bottle#:	12	Worklist Smp#:	12
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

11 3,5-Dinitroaniline, CAS: 618-87-1

Signal: 1

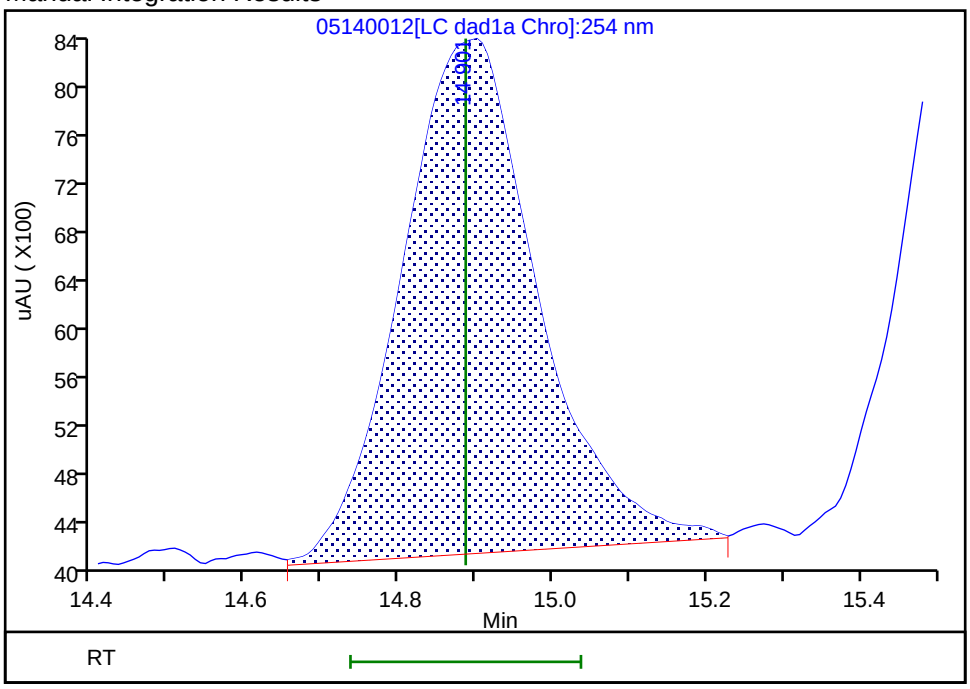
Processing Integration Results

RT: 14.90
Area: 54812
Amount: 0.106944
Amount Units: ug/ml



Manual Integration Results

RT: 14.90
Area: 51716
Amount: 0.100911
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:21:48
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

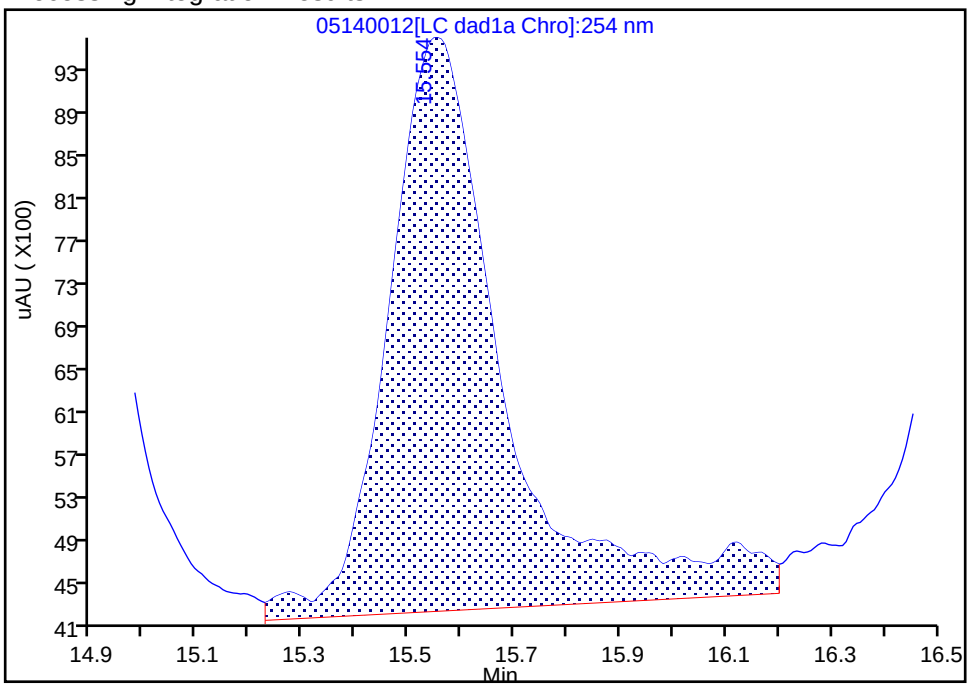
Data File: \\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140012.d
Injection Date: 14-May-2020 19:11:37 Instrument ID: CHHPLC_G2_LUNA
Lims ID: IC FULL 4
Client ID:
Operator ID: CB ALS Bottle#: 12 Worklist Smp#: 12
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC DAD1A, 254 nm

12 1,3-Dinitrobenzene, CAS: 99-65-0

Signal: 1

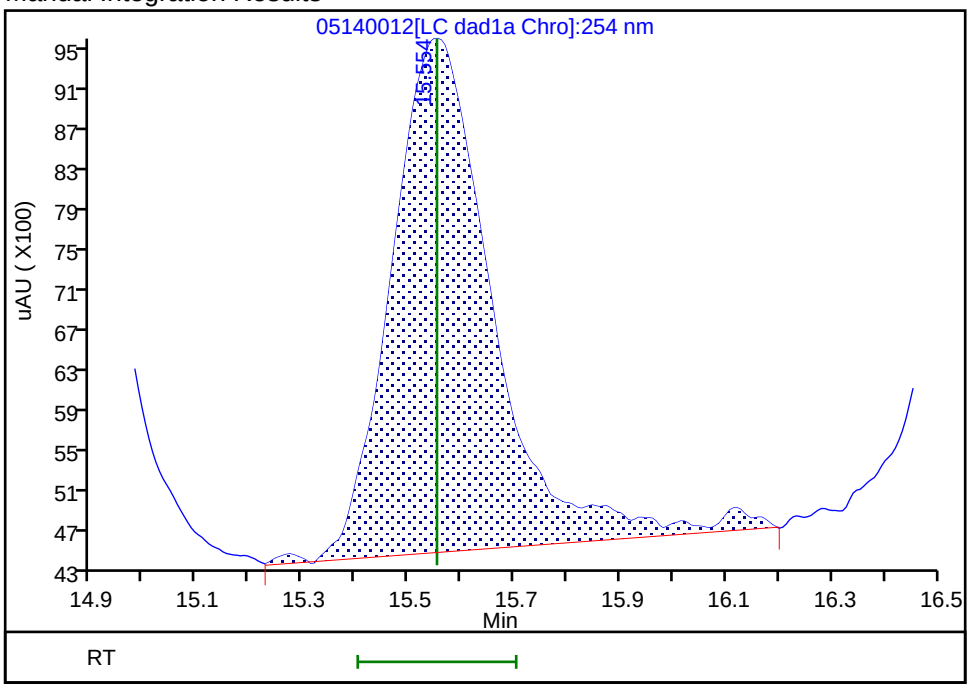
Processing Integration Results

RT: 15.55
Area: 81626
Amount: 0.119366
Amount Units: ug/ml



Manual Integration Results

RT: 15.55
Area: 69012
Amount: 0.102363
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:21:48
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

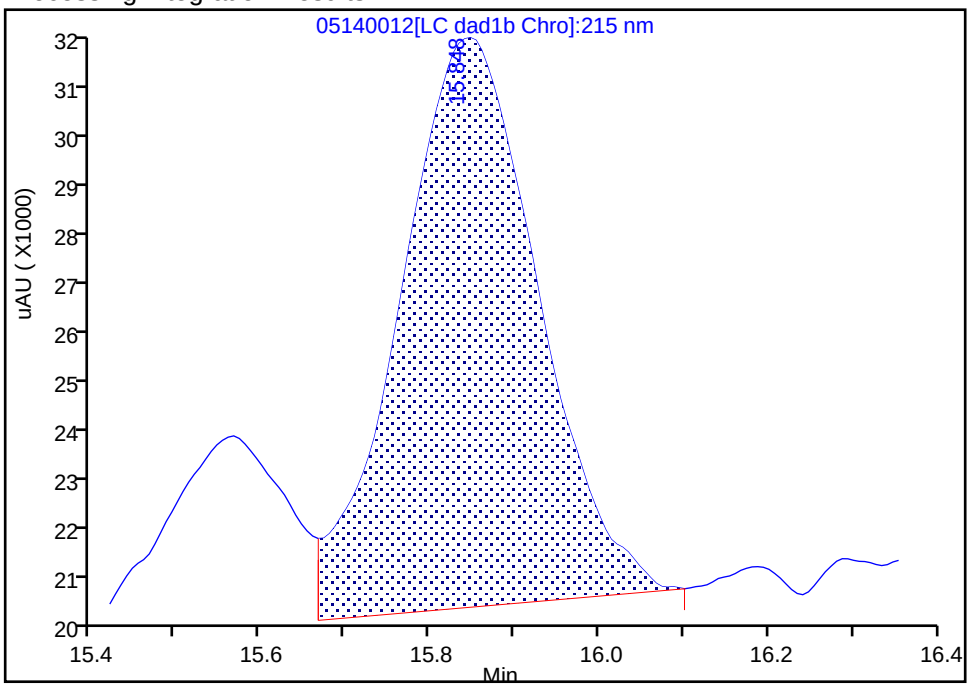
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140012.d				
Injection Date:	14-May-2020 19:11:37	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 4				
Client ID:					
Operator ID:	CB	ALS Bottle#:	12	Worklist Smp#:	12
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:		Detector	LC DAD1B, 215 nm		

13 Nitroglycerin, CAS: 55-63-0

Signal: 1

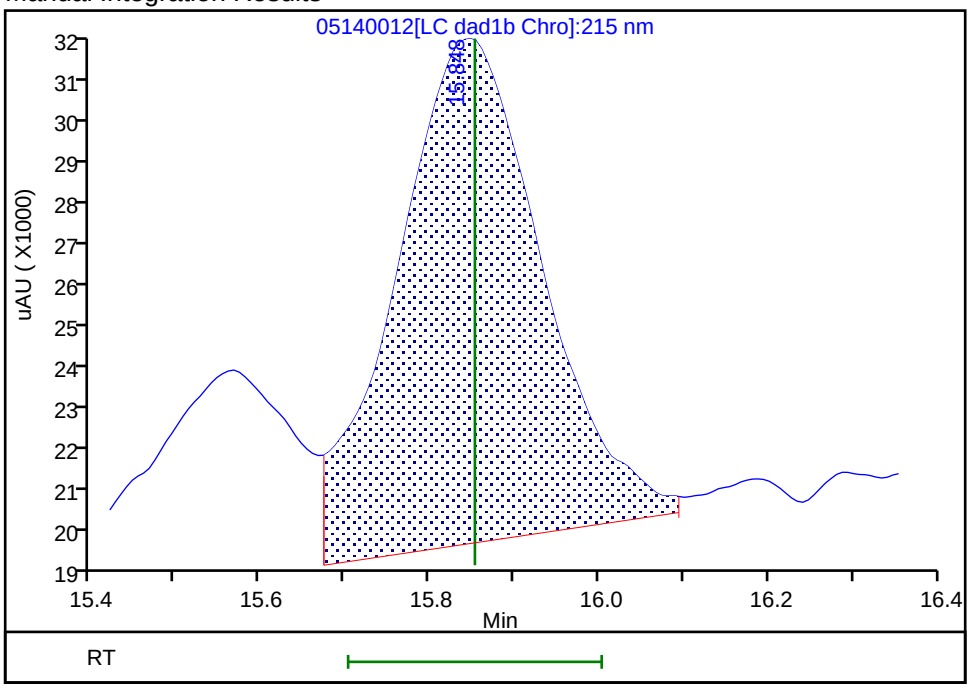
Processing Integration Results

RT: 15.85
Area: 125471
Amount: 1.093631
Amount Units: ug/ml



Manual Integration Results

RT: 15.85
Area: 141489
Amount: 1.115815
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:32:25

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

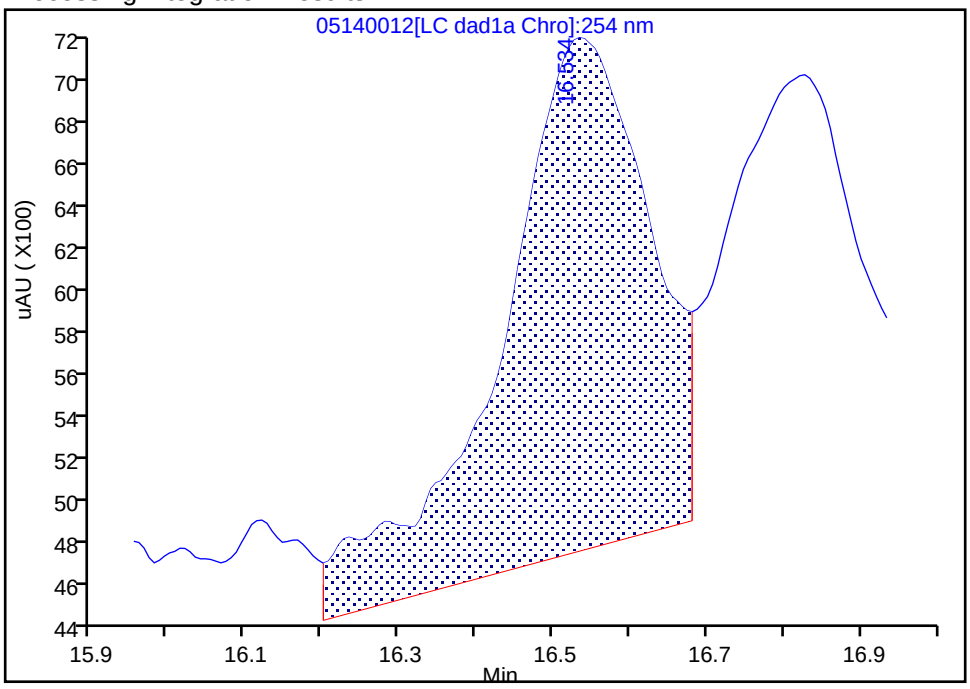
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140012.d				
Injection Date:	14-May-2020 19:11:37	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 4				
Client ID:					
Operator ID:	CB	ALS Bottle#:	12	Worklist Smp#:	12
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

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

Signal: 1

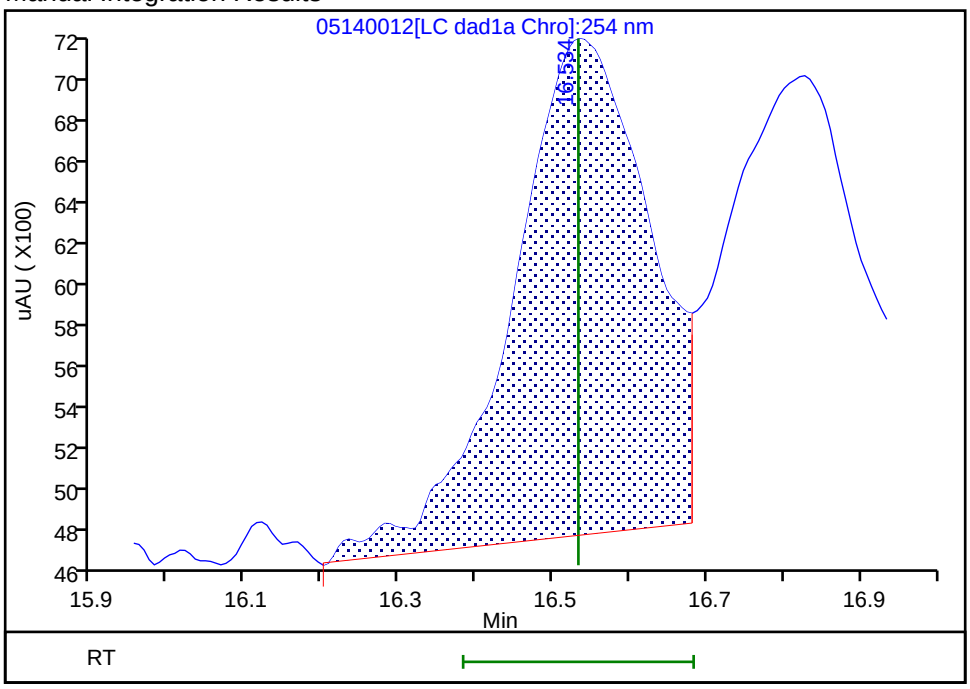
Processing Integration Results

RT: 16.53
Area: 33080
Amount: 0.118510
Amount Units: ug/ml



Manual Integration Results

RT: 16.53
Area: 29062
Amount: 0.106468
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:21:48
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

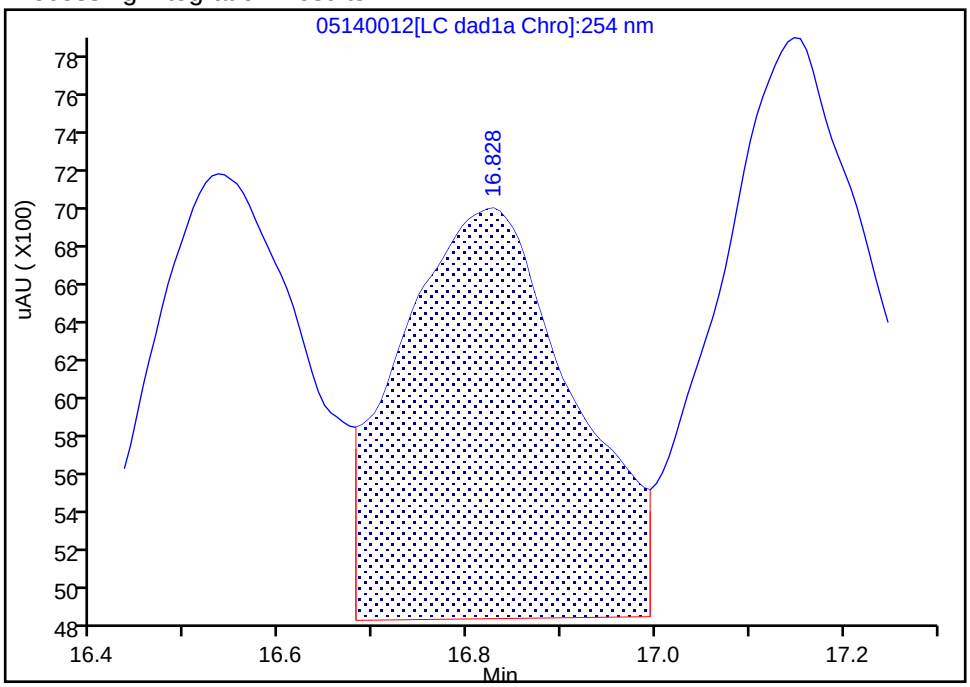
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140012.d				
Injection Date:	14-May-2020 19:11:37	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 4				
Client ID:					
Operator ID:	CB	ALS Bottle#:	12	Worklist Smp#:	12
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

15 p-Nitrotoluene, CAS: 99-99-0

Signal: 1

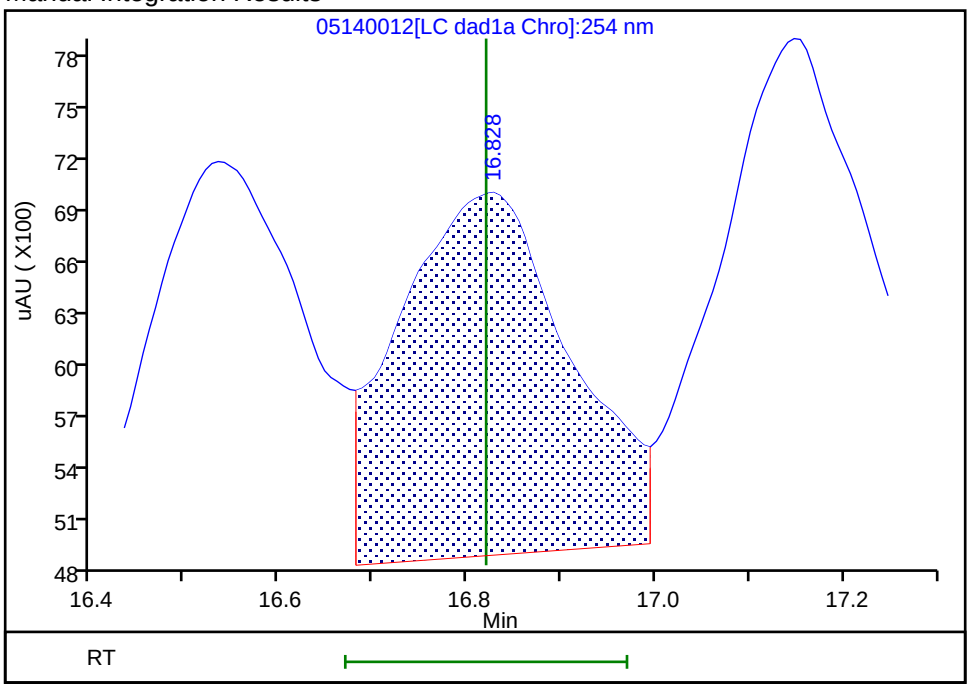
Processing Integration Results

RT: 16.83
Area: 26887
Amount: 0.106277
Amount Units: ug/ml



Manual Integration Results

RT: 16.83
Area: 25956
Amount: 0.107754
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:21:48
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

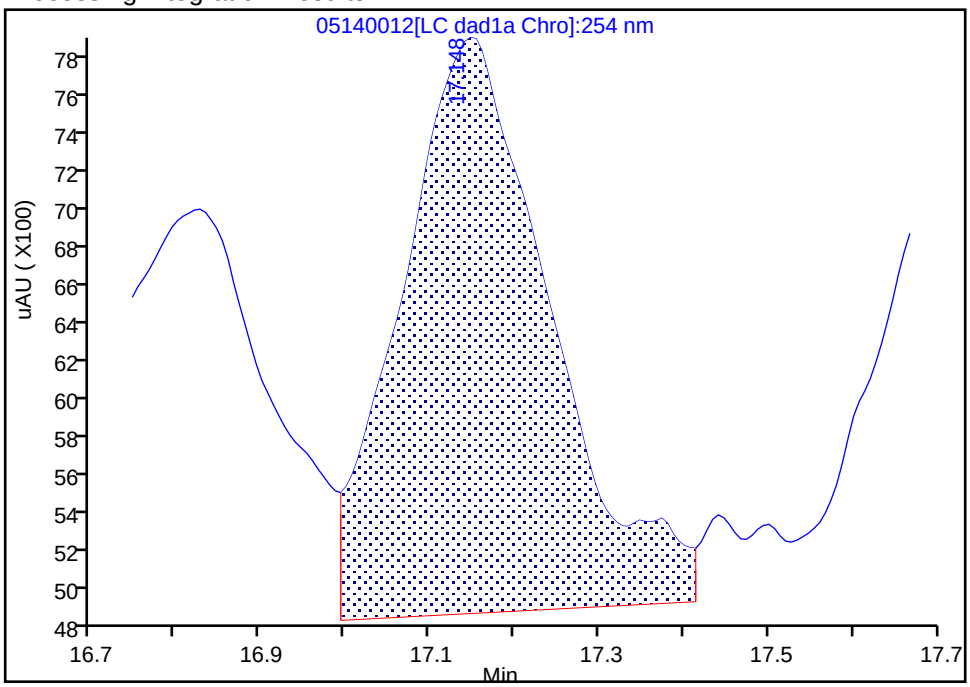
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140012.d				
Injection Date:	14-May-2020 19:11:37	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 4				
Client ID:					
Operator ID:	CB	ALS Bottle#:	12	Worklist Smp#:	12
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

16 4-Amino-2,6-dinitrotoluene, CAS: 19406-51-0

Signal: 1

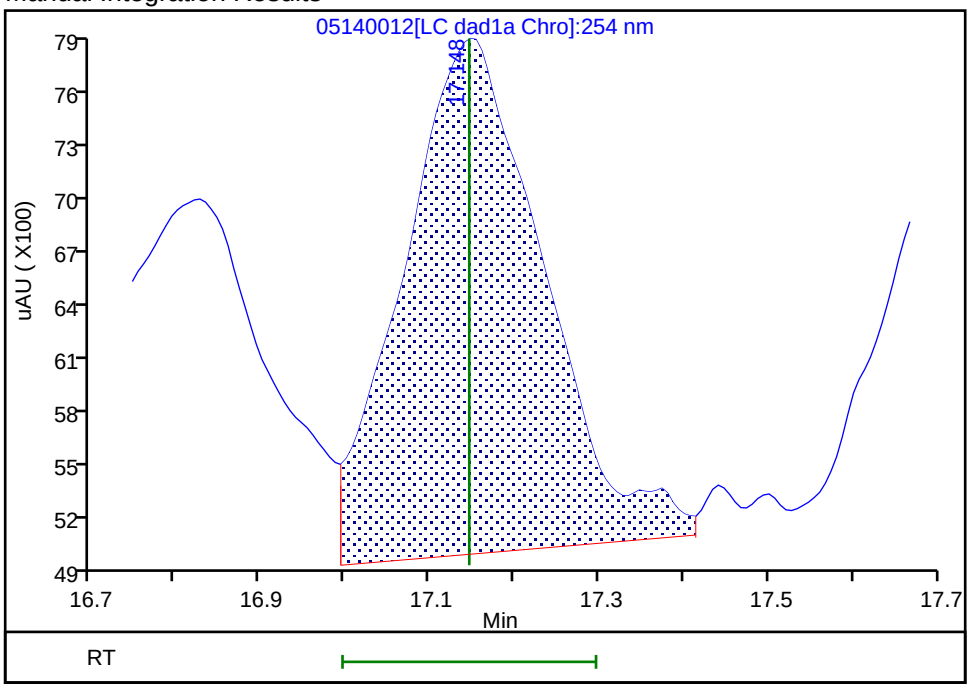
Processing Integration Results

RT: 17.15
Area: 35863
Amount: 0.102237
Amount Units: ug/ml



Manual Integration Results

RT: 17.15
Area: 32448
Amount: 0.093988
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:21:48
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

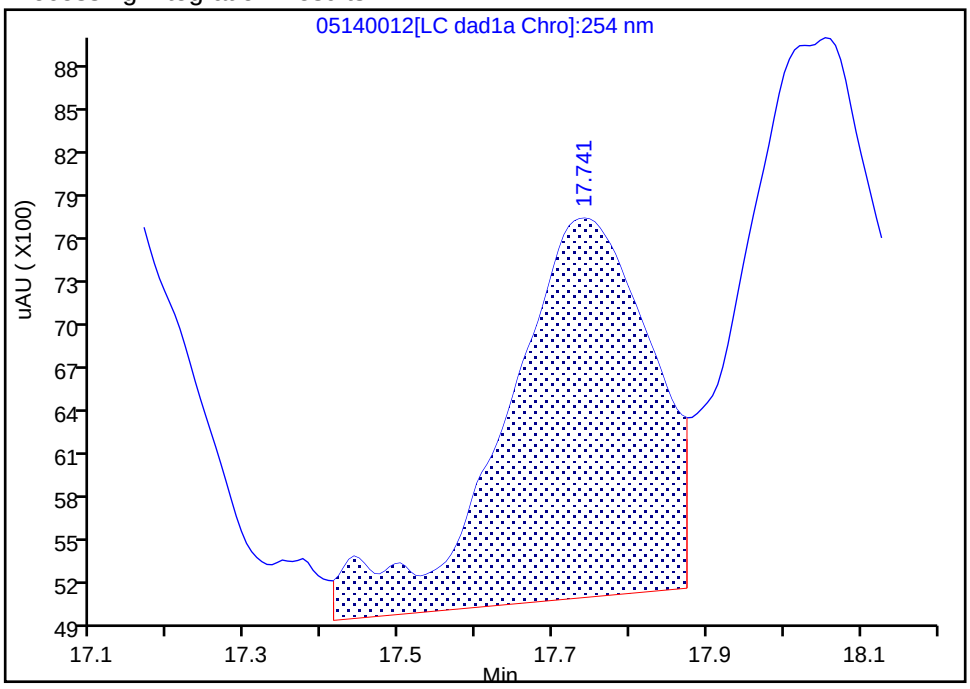
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140012.d				
Injection Date:	14-May-2020 19:11:37	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 4				
Client ID:					
Operator ID:	CB	ALS Bottle#:	12	Worklist Smp#:	12
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

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

Signal: 1

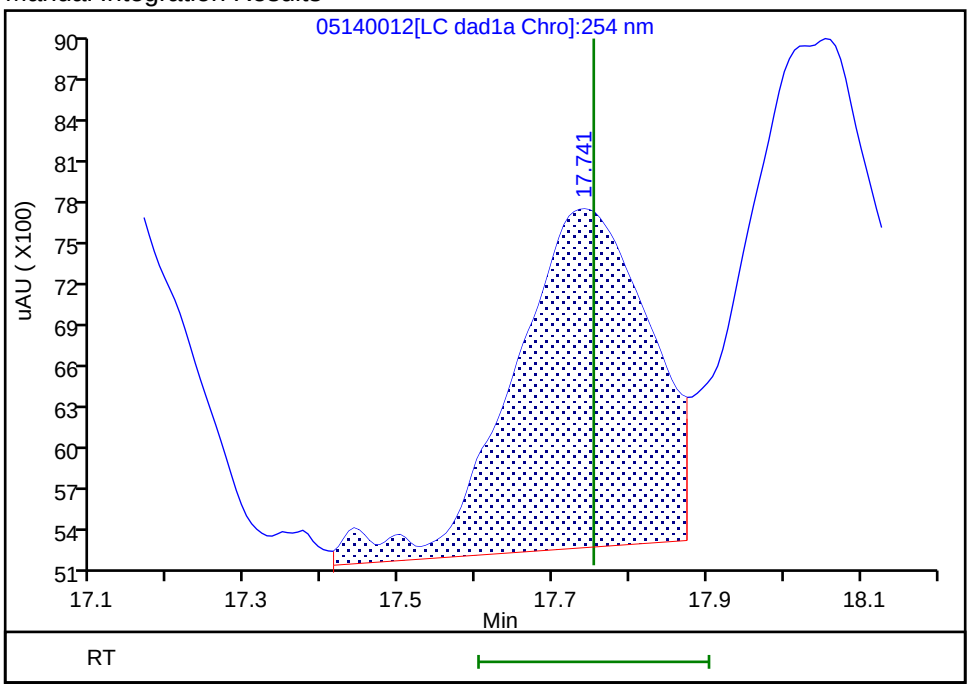
Processing Integration Results

RT: 17.74
Area: 34712
Amount: 0.117045
Amount Units: ug/ml



Manual Integration Results

RT: 17.74
Area: 30586
Amount: 0.102525
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:21:48

Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

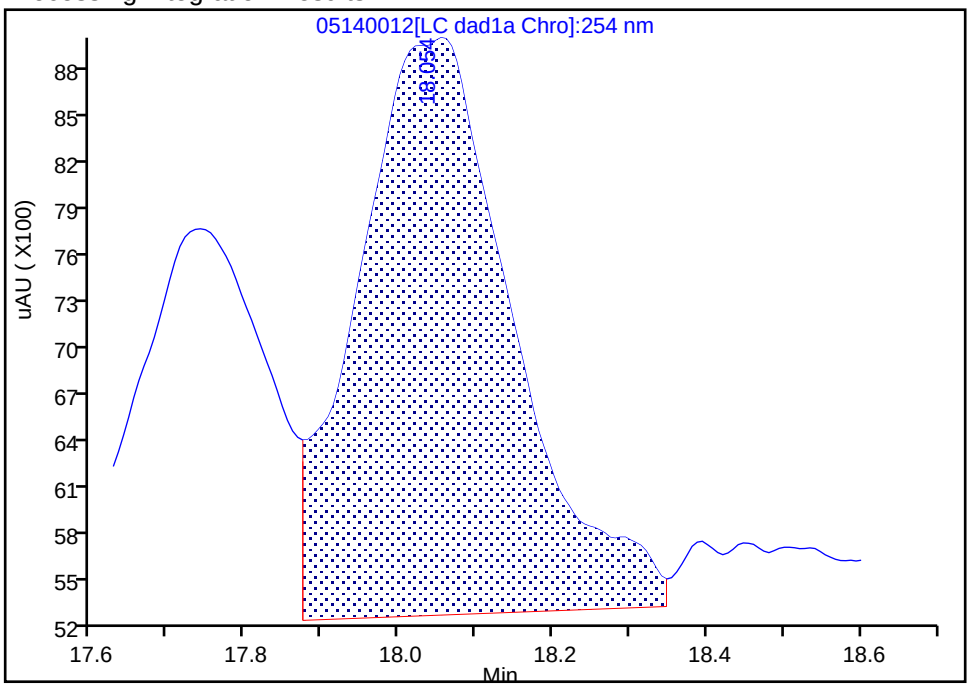
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140012.d				
Injection Date:	14-May-2020 19:11:37	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 4				
Client ID:					
Operator ID:	CB	ALS Bottle#:	12	Worklist Smp#:	12
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

18 2-Amino-4,6-dinitrotoluene, CAS: 35572-78-2

Signal: 1

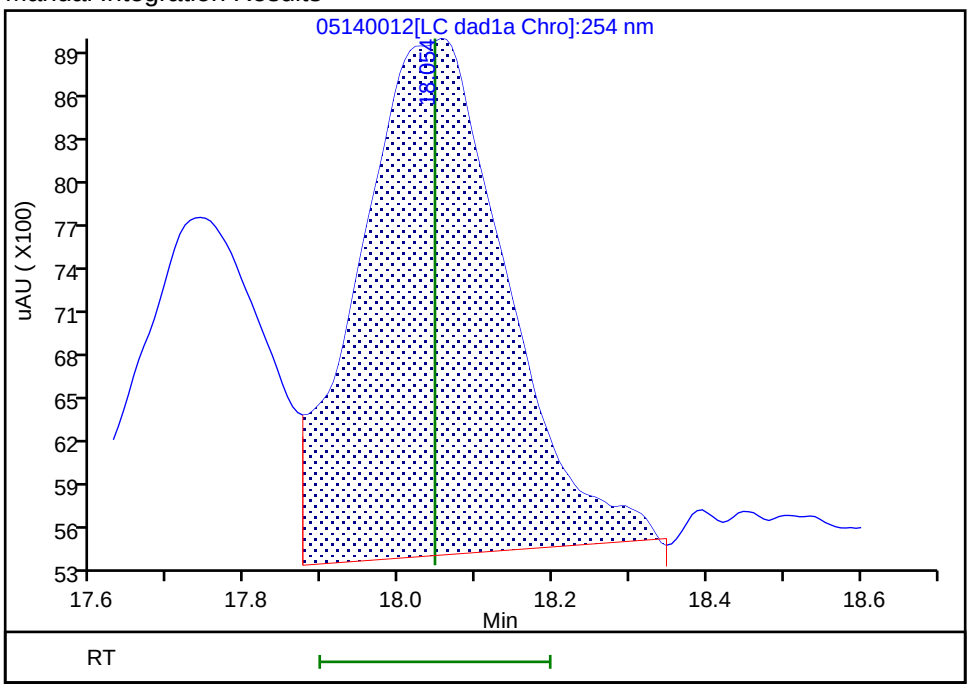
Processing Integration Results

RT: 18.05
Area: 52538
Amount: 0.110599
Amount Units: ug/ml



Manual Integration Results

RT: 18.05
Area: 47526
Amount: 0.102160
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:21:48
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

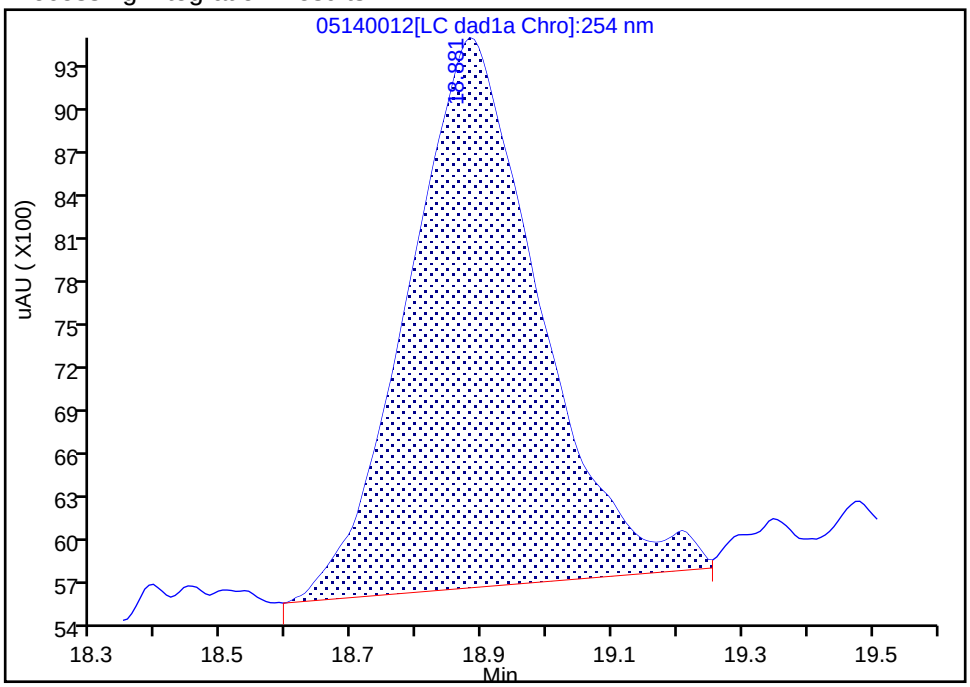
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140012.d				
Injection Date:	14-May-2020 19:11:37	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 4				
Client ID:					
Operator ID:	CB	ALS Bottle#:	12	Worklist Smp#:	12
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

19 1,3,5-Trinitrobenzene, CAS: 99-35-4

Signal: 1

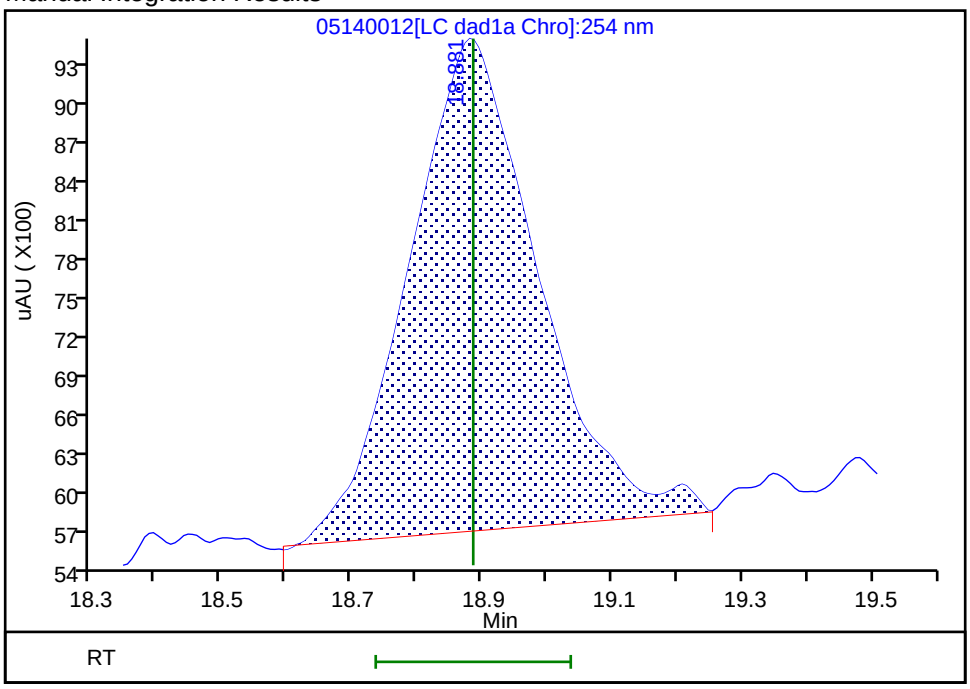
Processing Integration Results

RT: 18.88
Area: 52433
Amount: 0.109995
Amount Units: ug/ml



Manual Integration Results

RT: 18.88
Area: 51028
Amount: 0.108007
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:21:48

Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

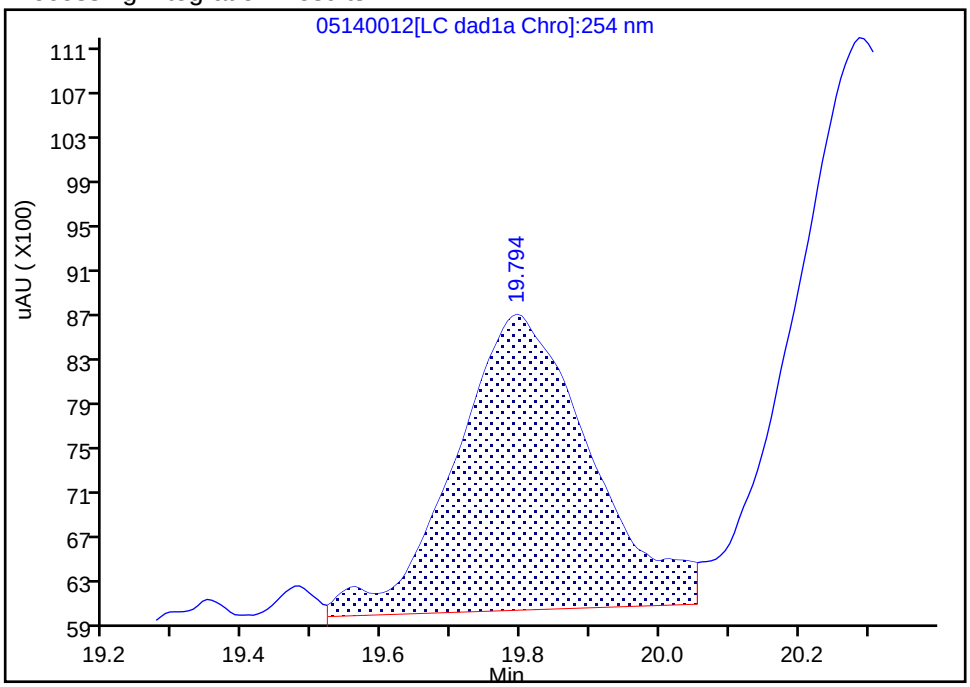
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140012.d				
Injection Date:	14-May-2020 19:11:37	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 4				
Client ID:					
Operator ID:	CB	ALS Bottle#:	12	Worklist Smp#:	12
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

20 2,6-Dinitrotoluene, CAS: 606-20-2

Signal: 1

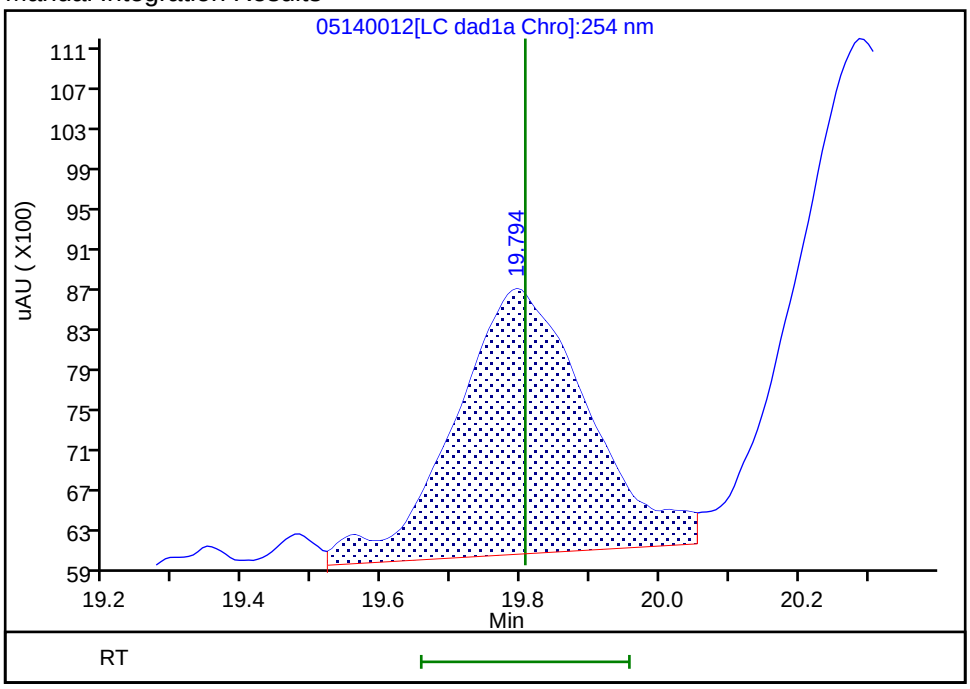
Processing Integration Results

RT: 19.79
Area: 35123
Amount: 0.102517
Amount Units: ug/ml



Manual Integration Results

RT: 19.79
Area: 34659
Amount: 0.104499
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:21:48

Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

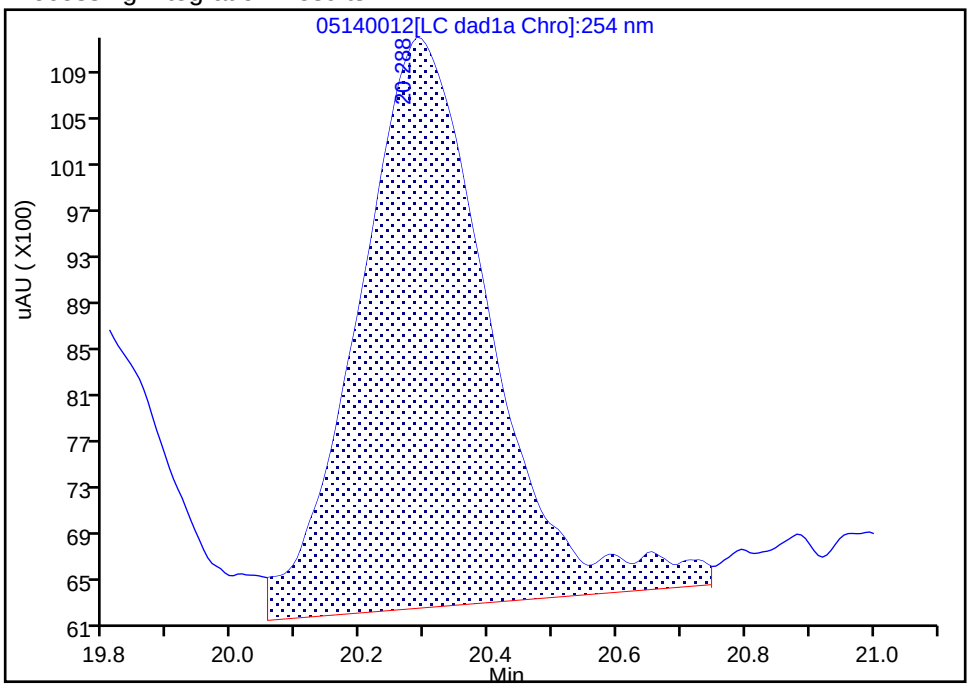
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140012.d				
Injection Date:	14-May-2020 19:11:37	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 4				
Client ID:					
Operator ID:	CB	ALS Bottle#:	12	Worklist Smp#:	12
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

21 2,4-Dinitrotoluene, CAS: 121-14-2

Signal: 1

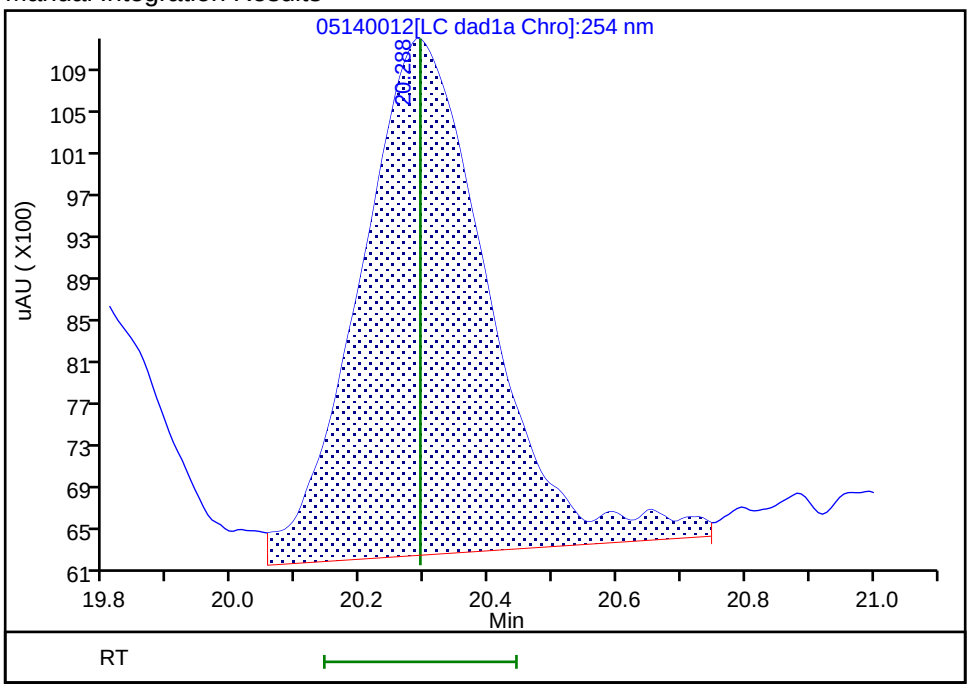
Processing Integration Results

RT: 20.29
Area: 69455
Amount: 0.105715
Amount Units: ug/ml



Manual Integration Results

RT: 20.29
Area: 67500
Amount: 0.105450
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:21:48
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

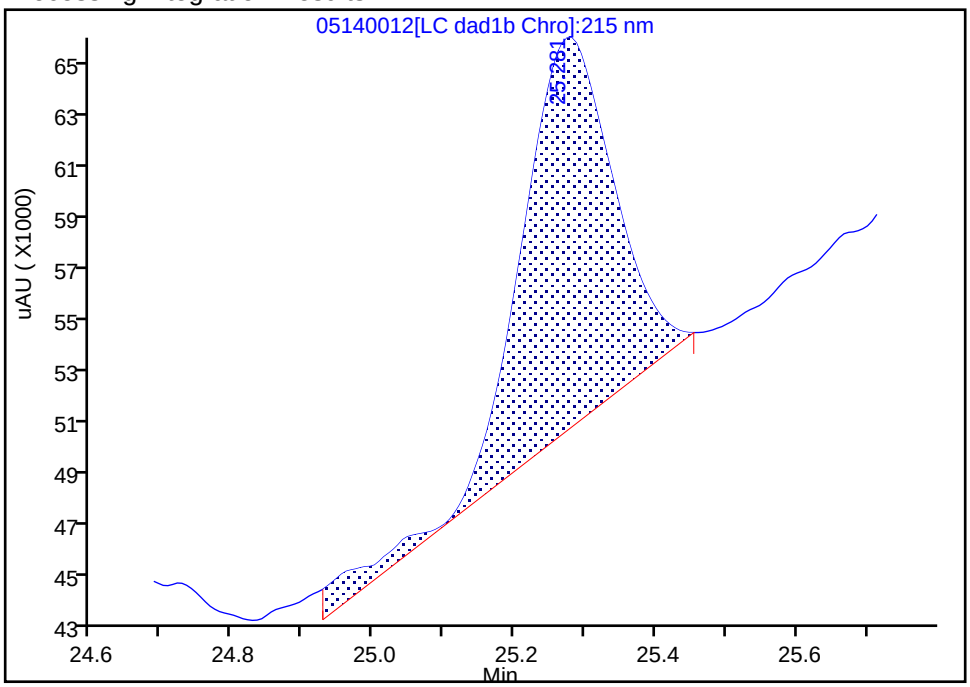
Data File: \\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140012.d
Injection Date: 14-May-2020 19:11:37 Instrument ID: CHHPLC_G2_LUNA
Lims ID: IC FULL 4
Client ID:
Operator ID: CB ALS Bottle#: 12 Worklist Smp#: 12
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Detector LC DAD1B, 215 nm

24 PETN, CAS: 78-11-5

Signal: 1

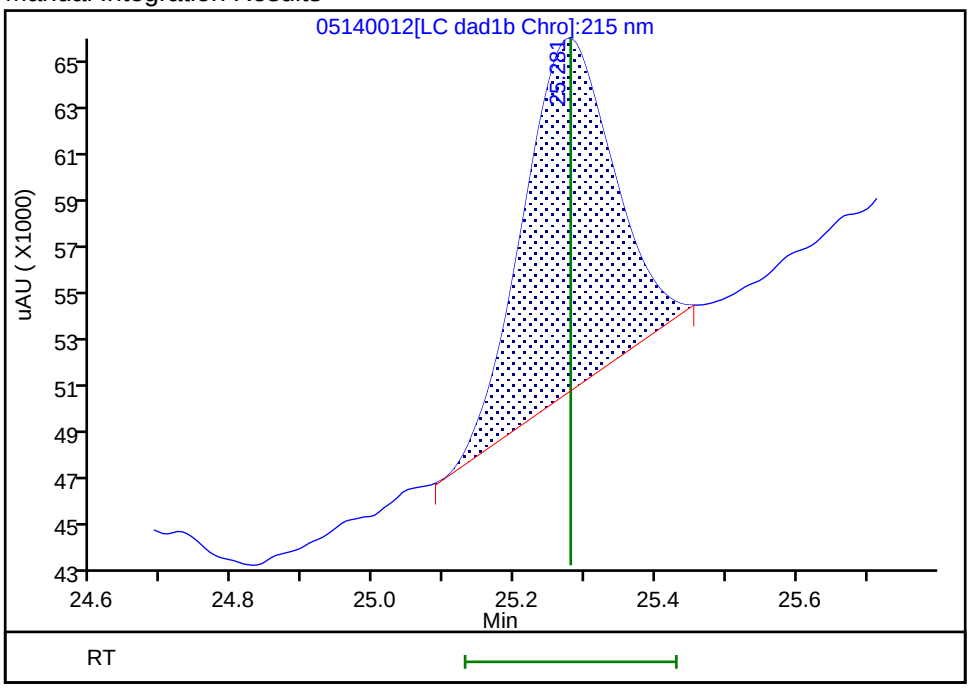
Processing Integration Results

RT: 25.28
Area: 139443
Amount: 1.011611
Amount Units: ug/ml



Manual Integration Results

RT: 25.28
Area: 132172
Amount: 0.810643
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:24:59
Audit Action: Split an Integrated Peak Audit Reason: Peak Tail

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140013.D
Lims ID: IC FULL 3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 14-May-2020 19:46:37 ALS Bottle#: 13 Worklist Smp#: 13
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC FULL 3
Misc. Info.: 280-0091518-013
Operator ID: CB Instrument ID: CHHPLC_G2_LUNA
Sublist: chrom-G2_8330_Luna*sub6

Method: \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\G2_8330_Luna.m
Limit Group: GCSV - 8330
Last Update: 15-May-2020 12:00:58 Calib Date: 15-May-2020 02:11:20
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140024.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC DAD1A, 254 nm
Process Host: CTX0318

First Level Reviewer: zhangji Date: 15-May-2020 11:22:17

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 2,6-diamino-4-nitrotoluene	1	4.357	4.366	-0.009	22969	0.0500	0.0535	
2 2,4-diamino-6-nitrotoluene	1	4.851	4.880	-0.029	16562	0.0500	0.0464	
5 2,4,6-Trinitrophenol	1	6.331	6.300	0.031	9462	0.0500	0.0488	a
6 HMX	1	6.984	6.986	-0.002	12646	0.0500	0.0414	
8 RDX	1	9.184	9.173	0.011	15119	0.0500	0.0619	
9 Nitrobenzene	1	12.110	12.106	0.004	28424	0.0502	0.0647	
$ 10 1,2-Dinitrobenzene	1	13.037	13.040	-0.003	18744	0.0500	0.0610	M
11 3,5-Dinitroaniline	1	14.890	14.886	0.004	27916	0.0500	0.0518	M
12 1,3-Dinitrobenzene	1	15.544	15.553	-0.009	37161	0.0501	0.0551	M
13 Nitroglycerin	2	15.844	15.853	-0.009	64042	0.5000	0.5050	M
14 o-Nitrotoluene	1	16.550	16.533	0.017	16003	0.0500	0.0586	M
15 p-Nitrotoluene	1	16.837	16.820	0.017	15492	0.0501	0.0643	M
16 4-Amino-2,6-dinitrotoluene	1	17.157	17.146	0.011	22118	0.0501	0.0641	M
17 m-Nitrotoluene	1	17.724	17.753	-0.029	19280	0.0501	0.0646	M
18 2-Amino-4,6-dinitrotoluene	1	18.030	18.046	-0.016	28982	0.0502	0.0623	M
19 1,3,5-Trinitrobenzene	1	18.864	18.886	-0.022	26649	0.0501	0.0564	M
20 2,6-Dinitrotoluene	1	19.817	19.806	0.011	19107	0.0502	0.0507	M
21 2,4-Dinitrotoluene	1	20.290	20.293	-0.003	37302	0.0502	0.0583	M
22 Tetryl	1	23.557	23.553	0.004	20202	0.0501	0.0548	
23 2,4,6-Trinitrotoluene	1	24.637	24.653	-0.016	28366	0.0502	0.0628	
24 PETN	2	25.277	25.280	-0.003	102120	0.5000	0.5782	M

QC Flag Legend

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

8330IntermStk_00064	Amount Added:	5.00	Units: uL
8330_ADDs_00026	Amount Added:	2.50	Units: uL

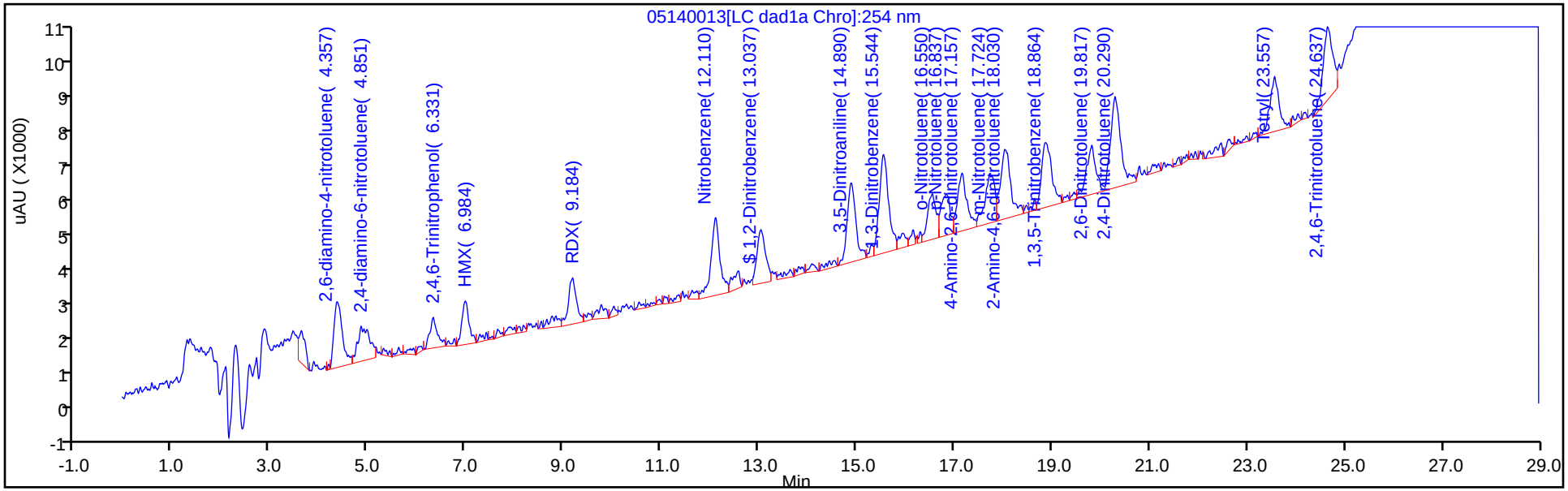
Report Date: 15-May-2020 12:00:58 Chrom Revision: 2.3 05-May-2020 17:48:18

Eurofins TestAmerica, Denver

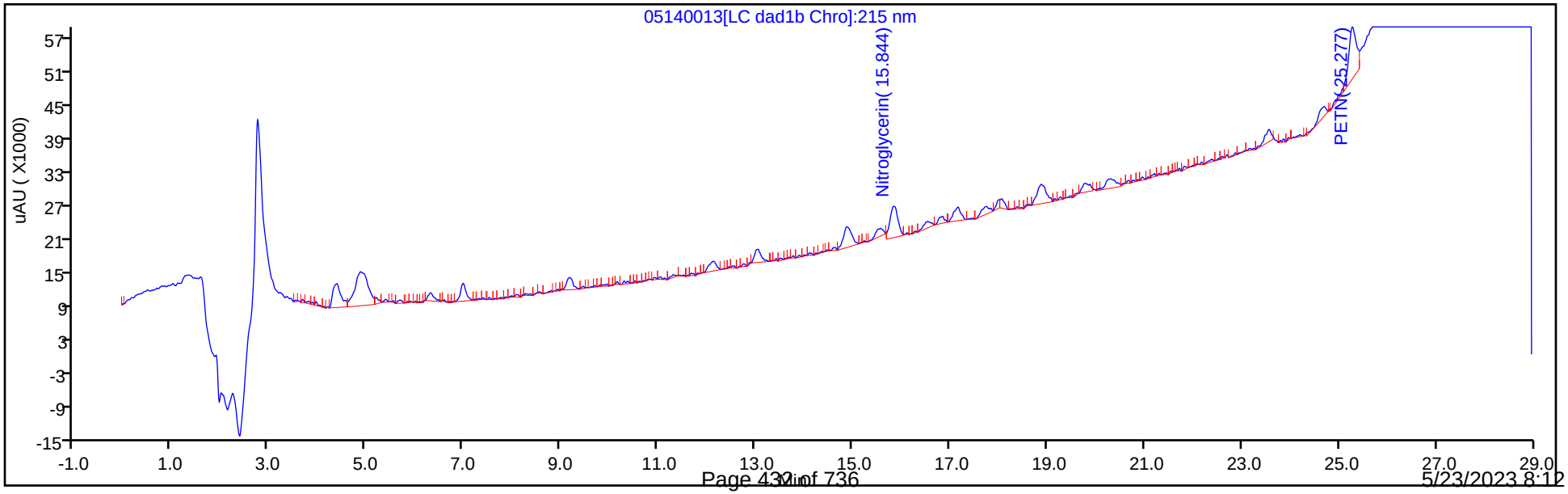
Data File: \\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140013.d

Injection Date:	14-May-2020 19:46:37	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	CB
Lims ID:	IC FULL 3			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



Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

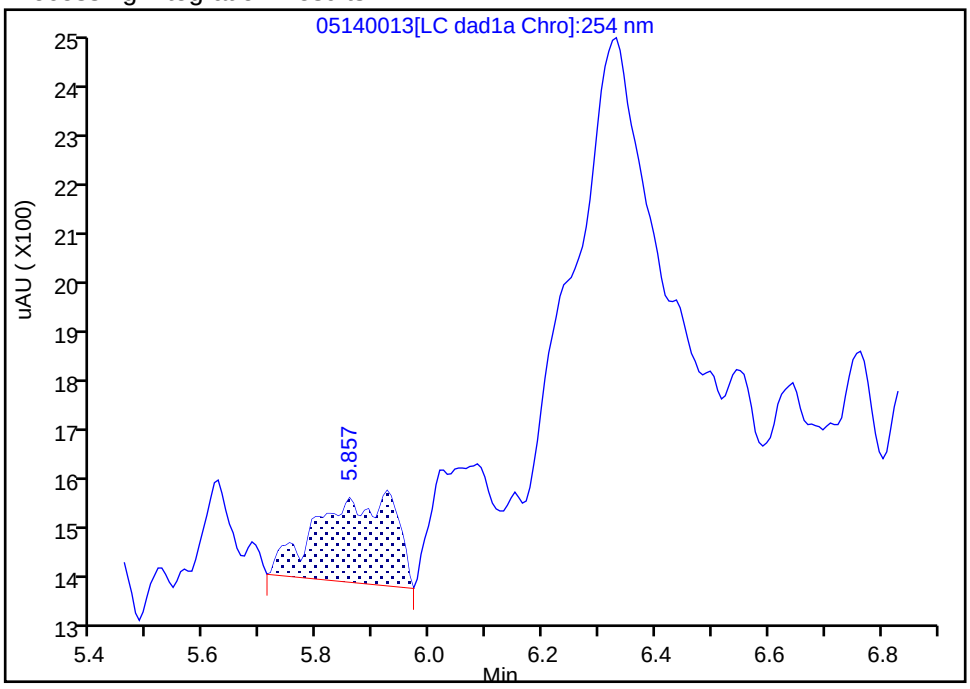
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140013.d				
Injection Date:	14-May-2020 19:46:37	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 3				
Client ID:					
Operator ID:	CB	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

5 2,4,6-Trinitrophenol, CAS: 88-89-1

Signal: 1

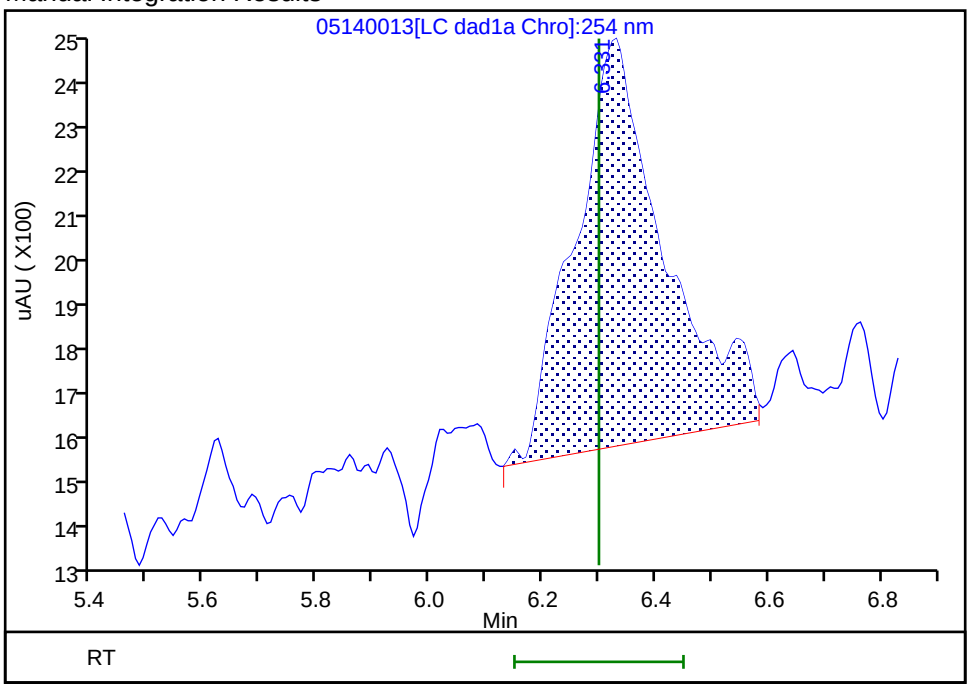
Processing Integration Results

RT: 5.86
Area: 1615
Amount: 0.011701
Amount Units: ug/ml



Manual Integration Results

RT: 6.33
Area: 9462
Amount: 0.048821
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:22:16
Audit Action: Assigned Compound ID Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

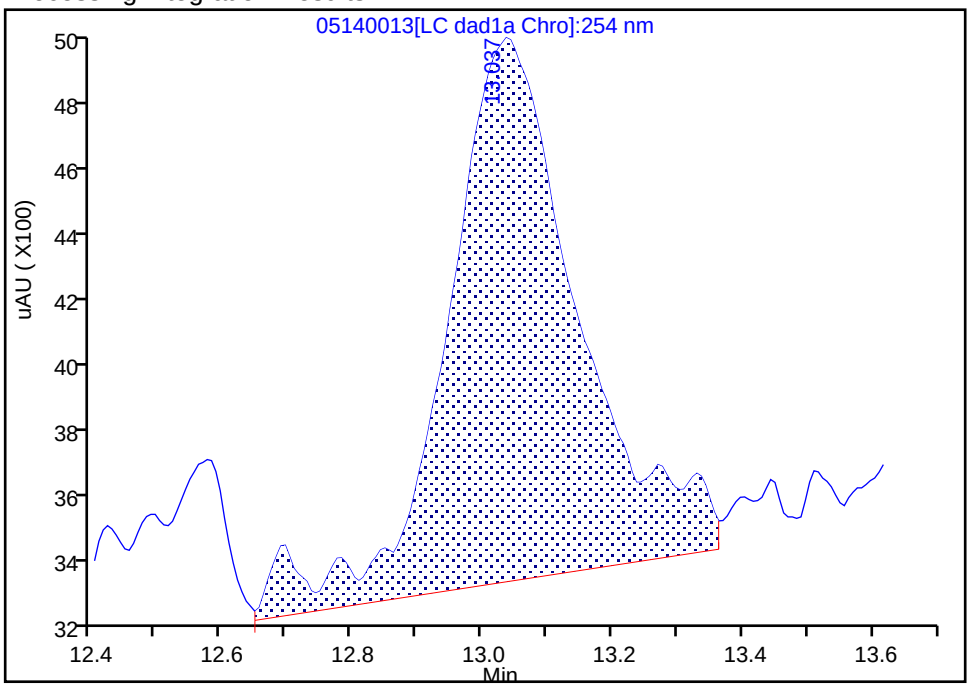
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140013.d				
Injection Date:	14-May-2020 19:46:37	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 3				
Client ID:					
Operator ID:	CB	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

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

Signal: 1

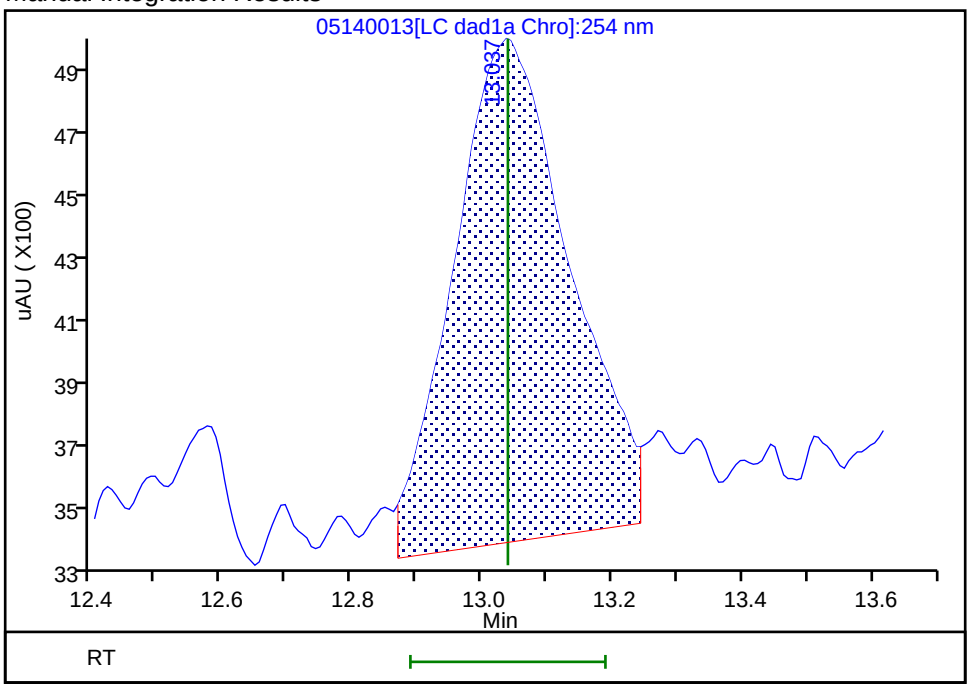
Processing Integration Results

RT: 13.04
Area: 21320
Amount: 0.066490
Amount Units: ug/ml



Manual Integration Results

RT: 13.04
Area: 18744
Amount: 0.060979
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:35:23

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

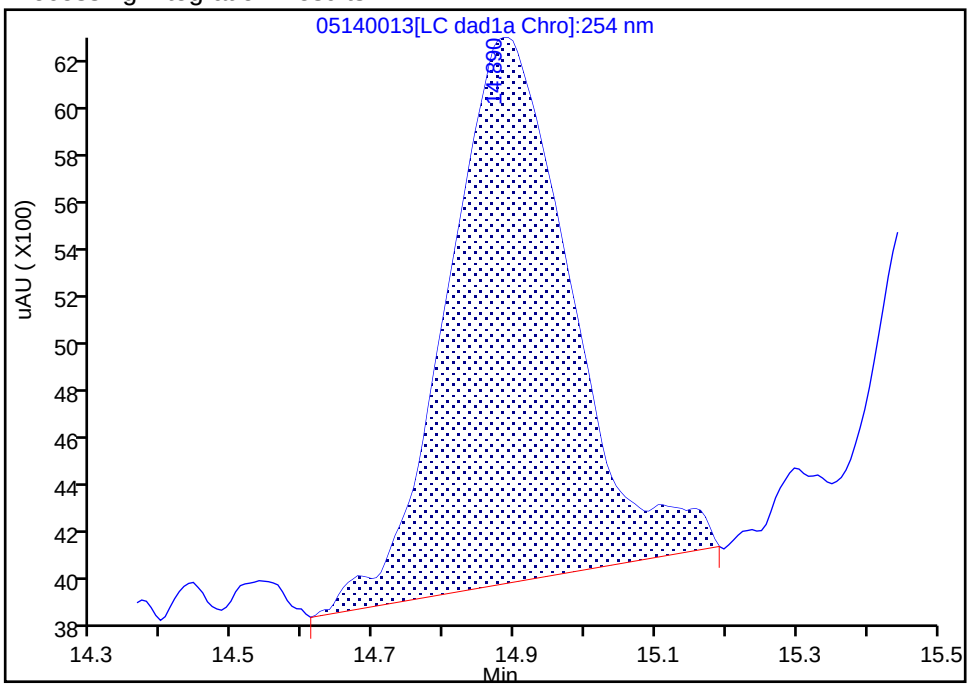
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140013.d				
Injection Date:	14-May-2020 19:46:37	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 3				
Client ID:					
Operator ID:	CB	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

11 3,5-Dinitroaniline, CAS: 618-87-1

Signal: 1

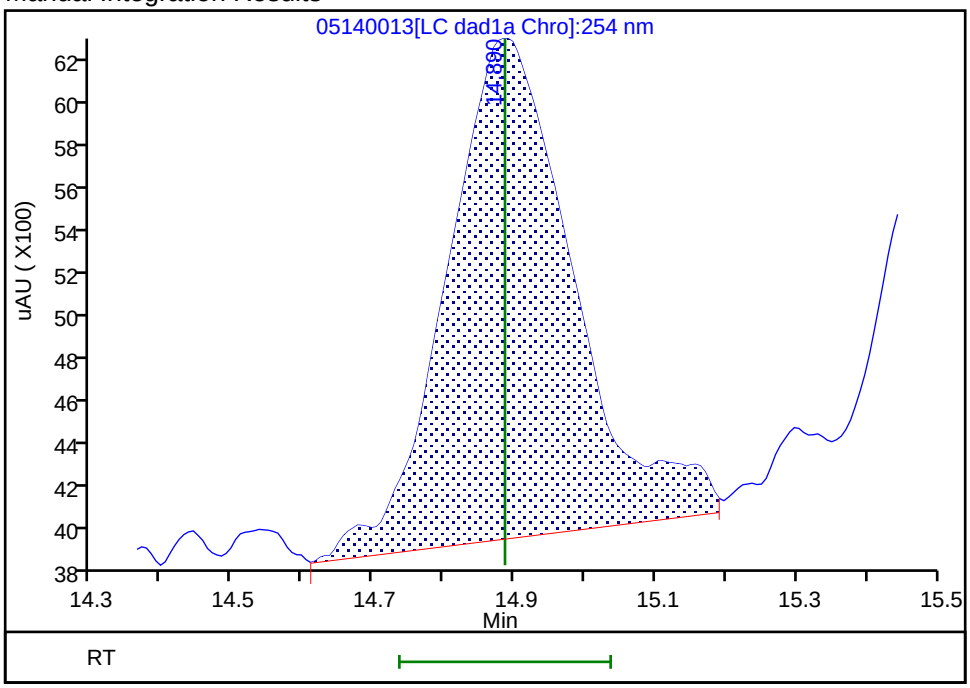
Processing Integration Results

RT: 14.89
Area: 26767
Amount: 0.049390
Amount Units: ug/ml



Manual Integration Results

RT: 14.89
Area: 27916
Amount: 0.051839
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:22:04
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

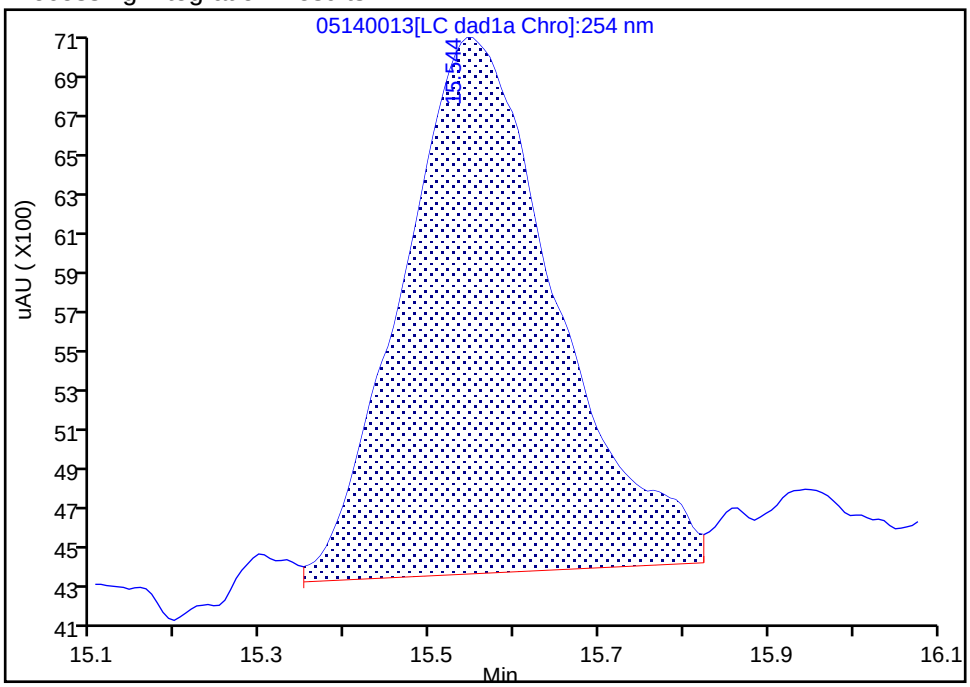
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140013.d				
Injection Date:	14-May-2020 19:46:37	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 3				
Client ID:					
Operator ID:	CB	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

12 1,3-Dinitrobenzene, CAS: 99-65-0

Signal: 1

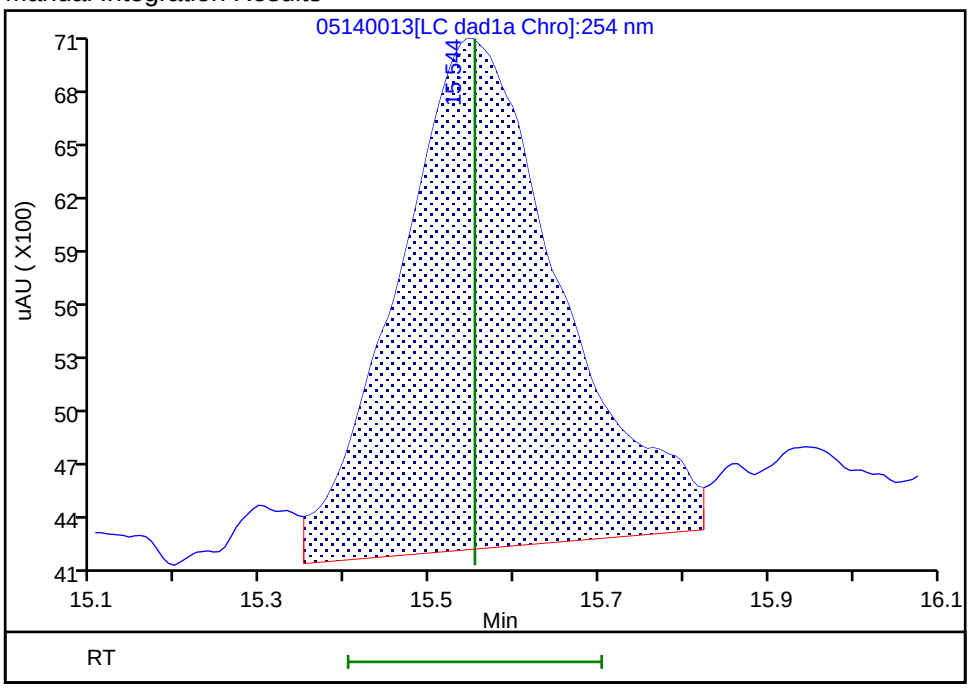
Processing Integration Results

RT: 15.54
Area: 33327
Amount: 0.049753
Amount Units: ug/ml



Manual Integration Results

RT: 15.54
Area: 37161
Amount: 0.055120
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:22:04
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

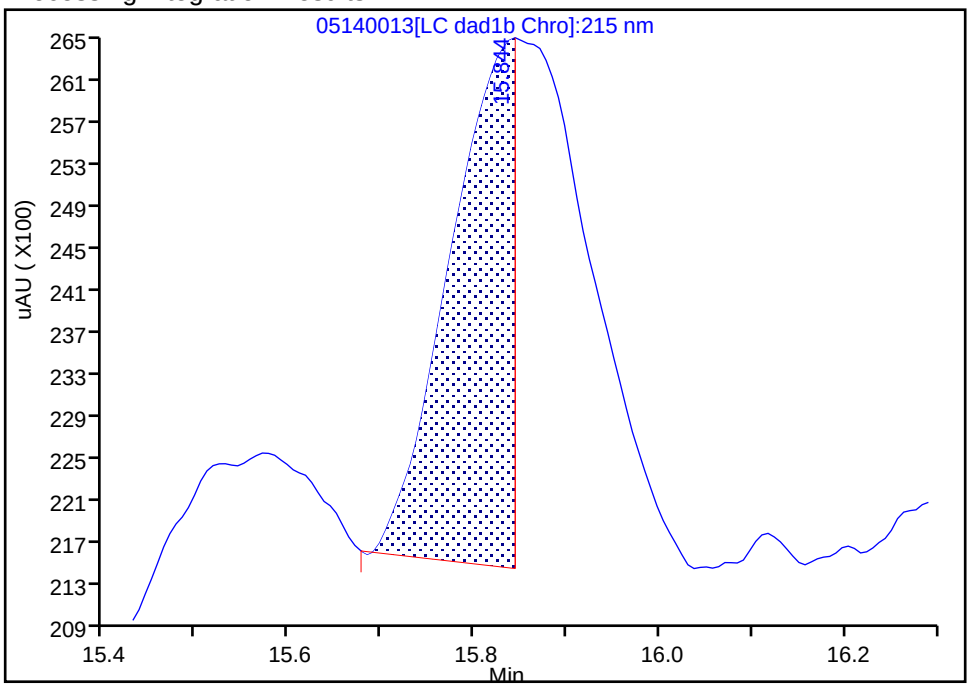
Data File: \\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140013.d
Injection Date: 14-May-2020 19:46:37 Instrument ID: CHHPLC_G2_LUNA
Lims ID: IC FULL 3
Client ID:
Operator ID: CB ALS Bottle#: 13 Worklist Smp#: 13
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Detector LC DAD1B, 215 nm

13 Nitroglycerin, CAS: 55-63-0

Signal: 1

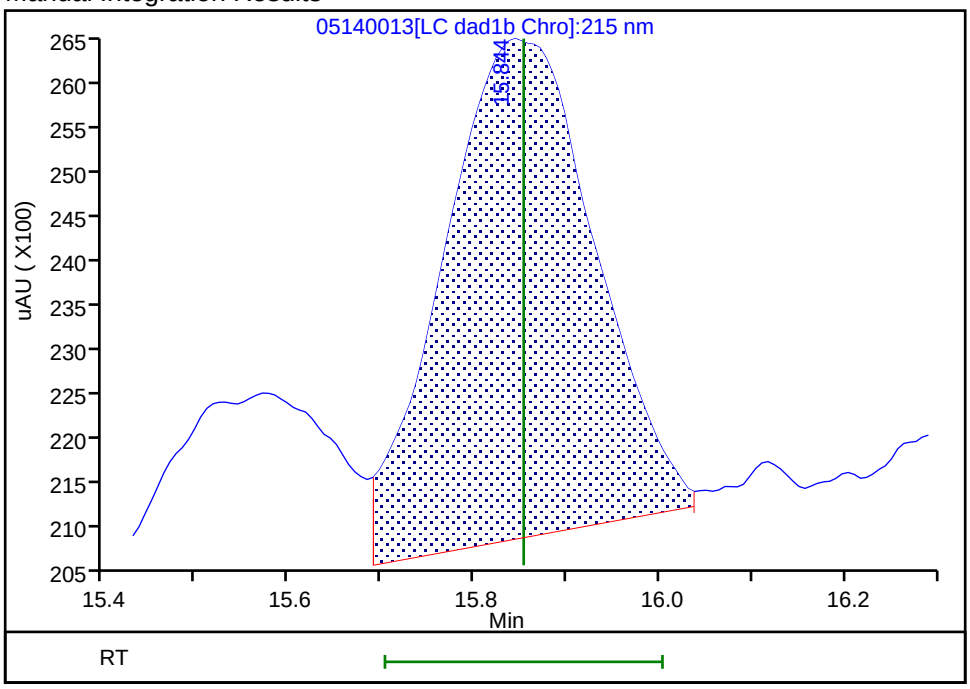
Processing Integration Results

RT: 15.84
Area: 23753
Amount: 0.203485
Amount Units: ug/ml



Manual Integration Results

RT: 15.84
Area: 64042
Amount: 0.505050
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:32:41
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

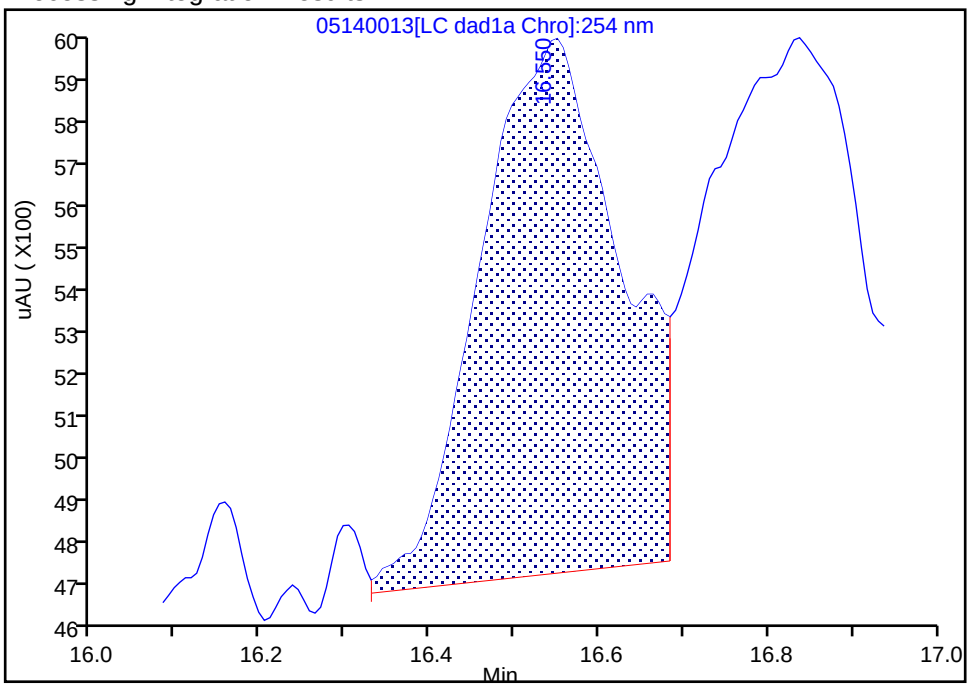
Data File: \\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140013.d
Injection Date: 14-May-2020 19:46:37 Instrument ID: CHHPLC_G2_LUNA
Lims ID: IC FULL 3
Client ID:
Operator ID: CB ALS Bottle#: 13 Worklist Smp#: 13
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC DAD1A, 254 nm

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

Signal: 1

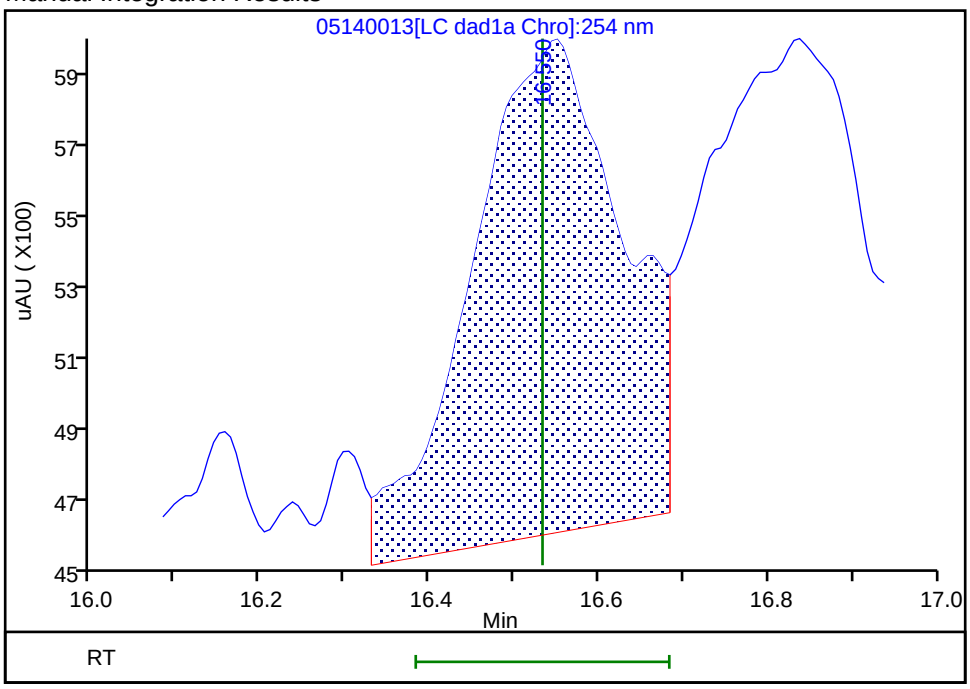
Processing Integration Results

RT: 16.55
Area: 13586
Amount: 0.049463
Amount Units: ug/ml



Manual Integration Results

RT: 16.55
Area: 16003
Amount: 0.058627
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:22:04
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

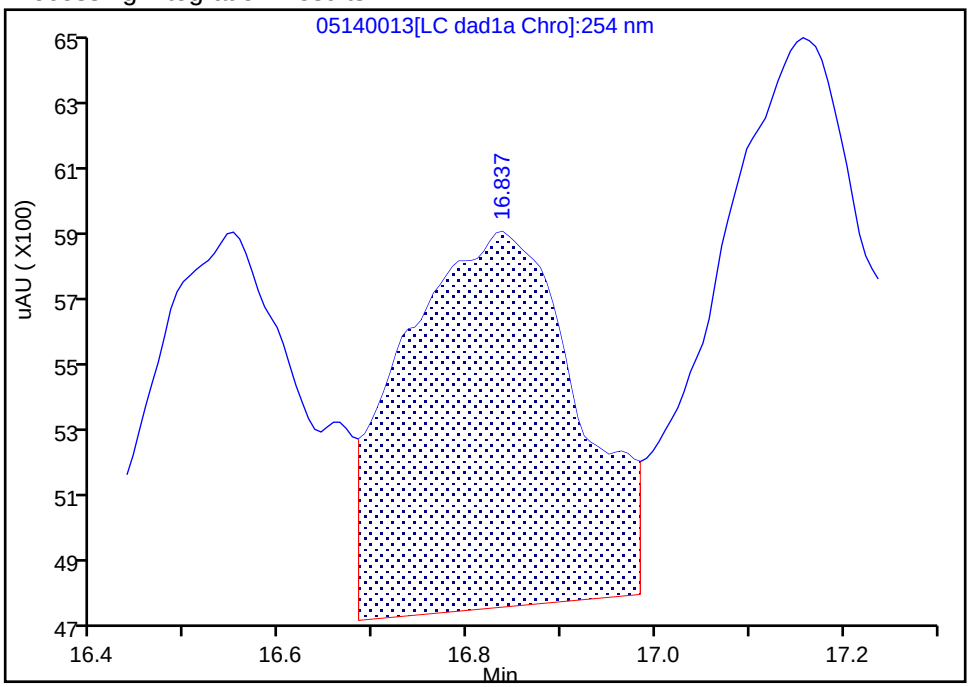
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140013.d				
Injection Date:	14-May-2020 19:46:37	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 3				
Client ID:					
Operator ID:	CB	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

15 p-Nitrotoluene, CAS: 99-99-0

Signal: 1

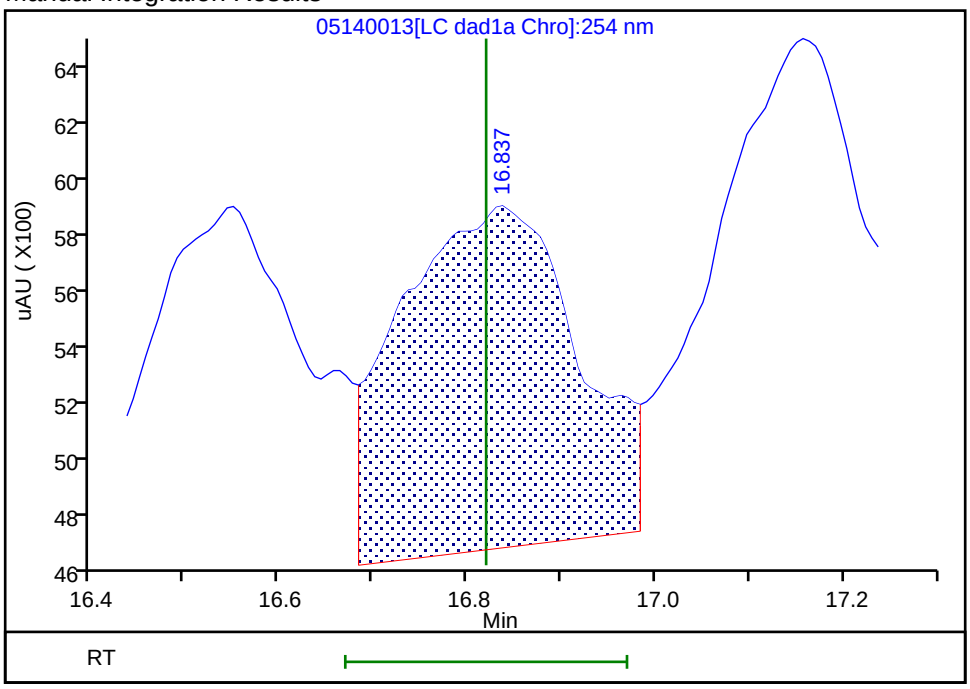
Processing Integration Results

RT: 16.84
Area: 14394
Amount: 0.057129
Amount Units: ug/ml



Manual Integration Results

RT: 16.84
Area: 15492
Amount: 0.064314
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:22:04
Audit Action: Assigned New Baseline Audit Reason: Baseline

Eurofins TestAmerica, Denver

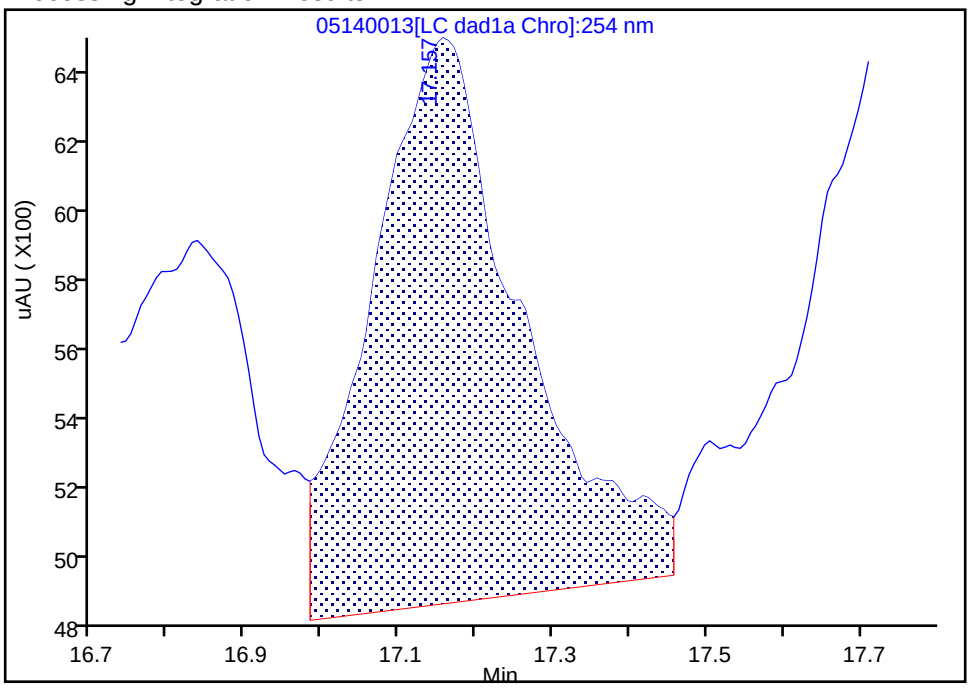
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140013.d				
Injection Date:	14-May-2020 19:46:37	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 3				
Client ID:					
Operator ID:	CB	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

16 4-Amino-2,6-dinitrotoluene, CAS: 19406-51-0

Signal: 1

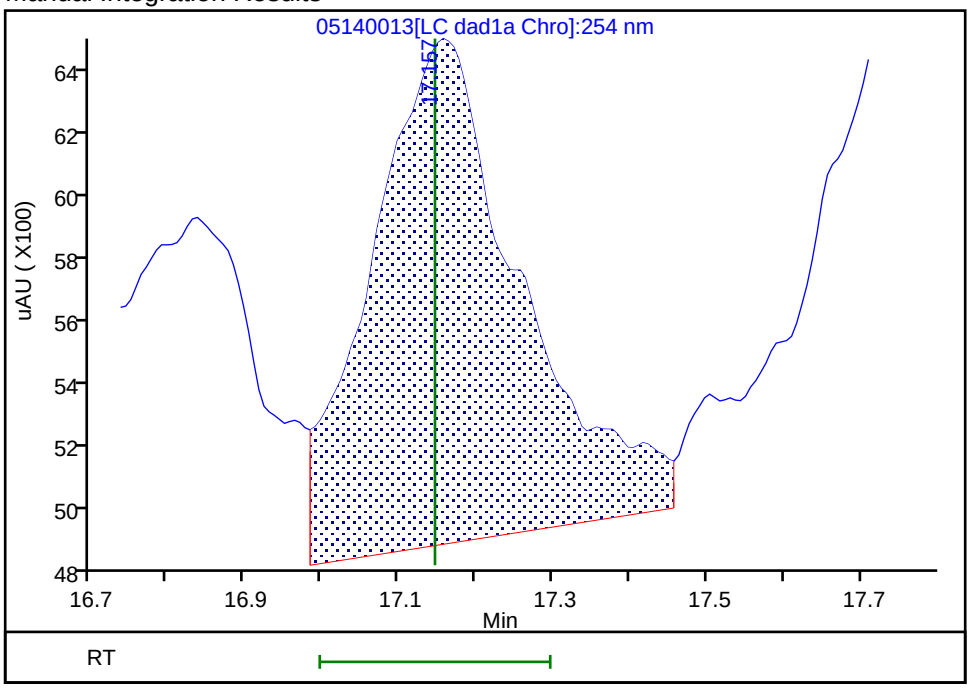
Processing Integration Results

RT: 17.16
Area: 21749
Amount: 0.062679
Amount Units: ug/ml



Manual Integration Results

RT: 17.16
Area: 22118
Amount: 0.064067
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:22:04
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

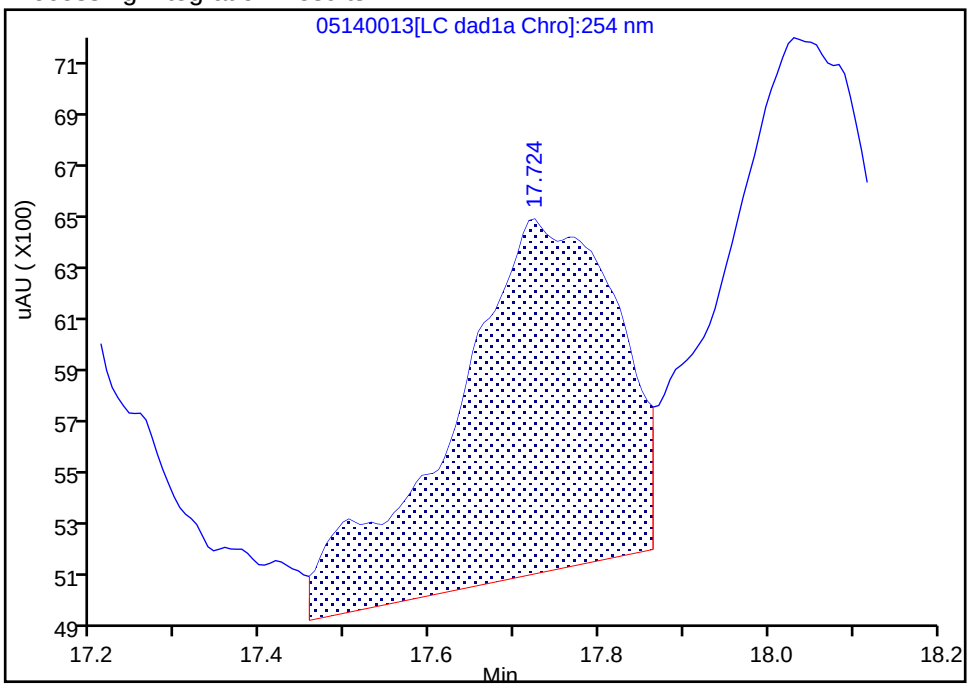
Data File: \\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140013.d
Injection Date: 14-May-2020 19:46:37 Instrument ID: CHHPLC_G2_LUNA
Lims ID: IC FULL 3
Client ID:
Operator ID: CB ALS Bottle#: 13 Worklist Smp#: 13
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC DAD1A, 254 nm

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

Signal: 1

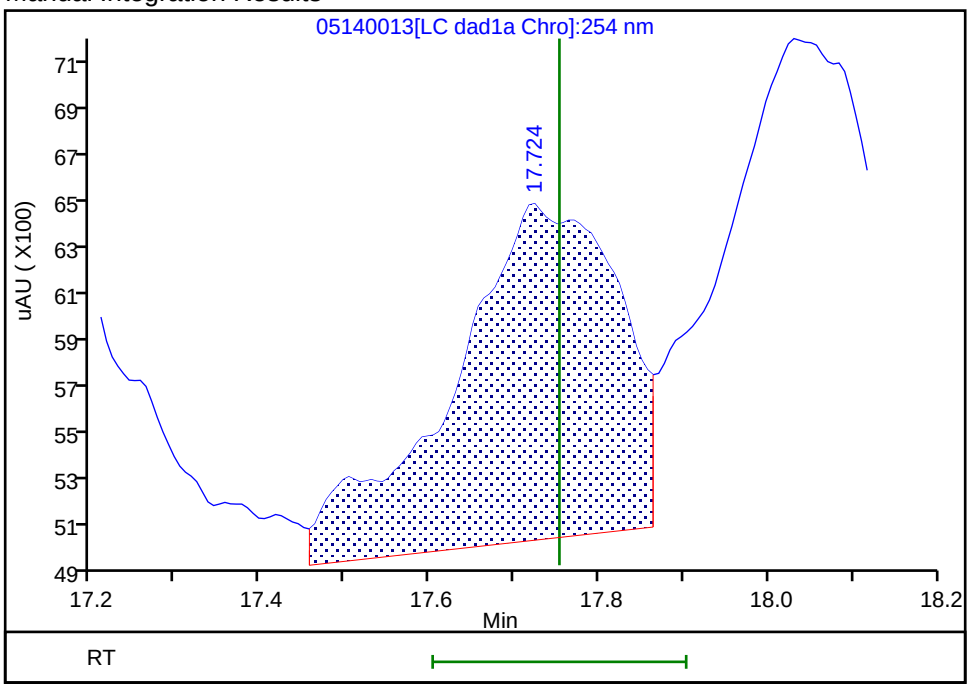
Processing Integration Results

RT: 17.72
Area: 18317
Amount: 0.062732
Amount Units: ug/ml



Manual Integration Results

RT: 17.72
Area: 19280
Amount: 0.064627
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:22:04
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

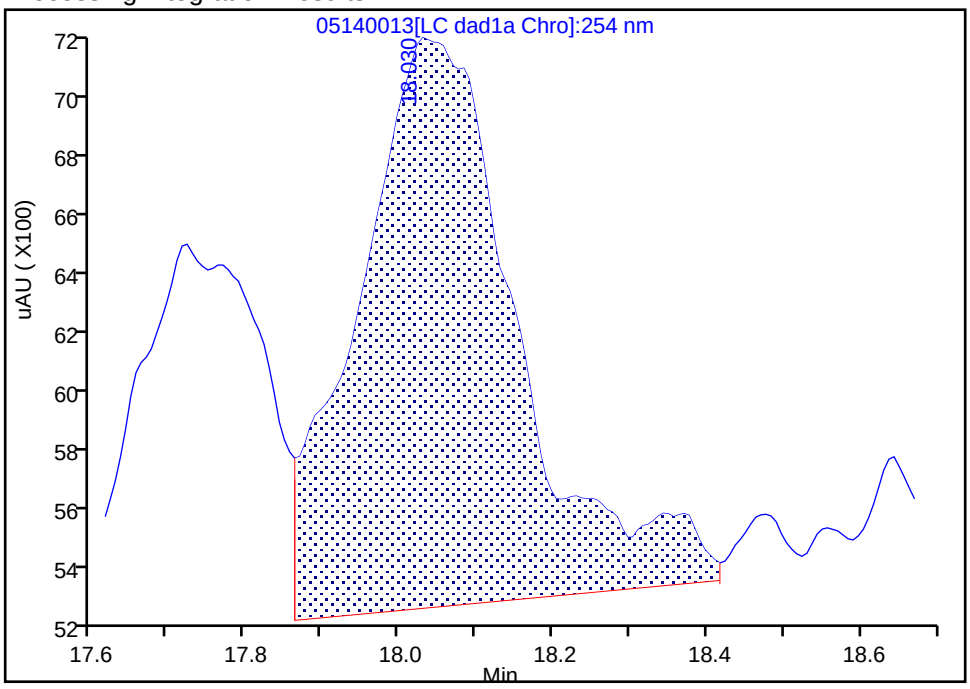
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140013.d				
Injection Date:	14-May-2020 19:46:37	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 3				
Client ID:					
Operator ID:	CB	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

18 2-Amino-4,6-dinitrotoluene, CAS: 35572-78-2

Signal: 1

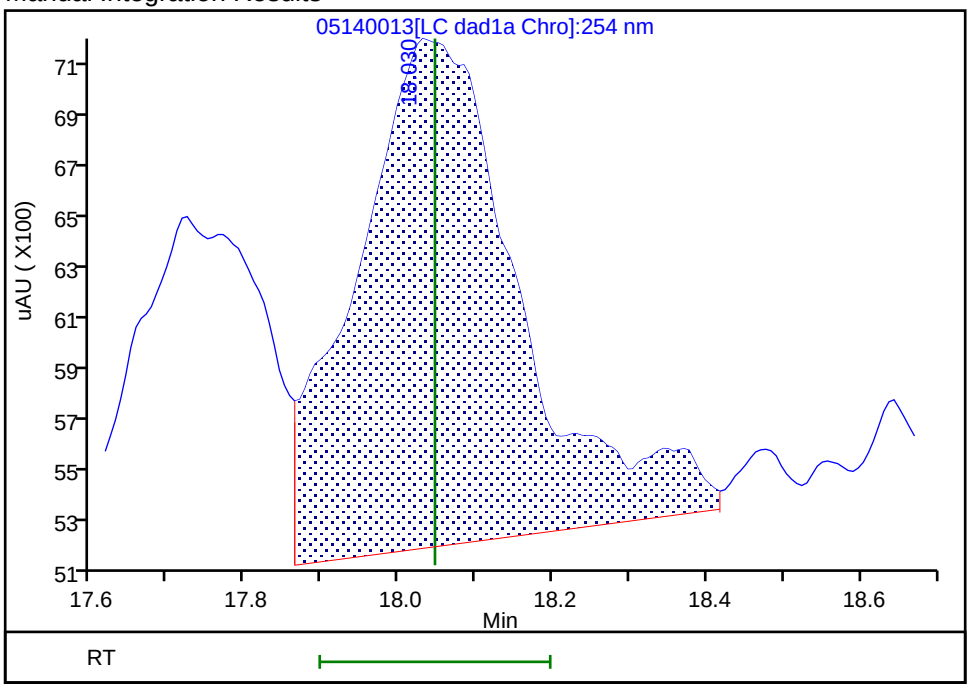
Processing Integration Results

RT: 18.03
Area: 27239
Amount: 0.055134
Amount Units: ug/ml



Manual Integration Results

RT: 18.03
Area: 28982
Amount: 0.062299
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:22:04
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

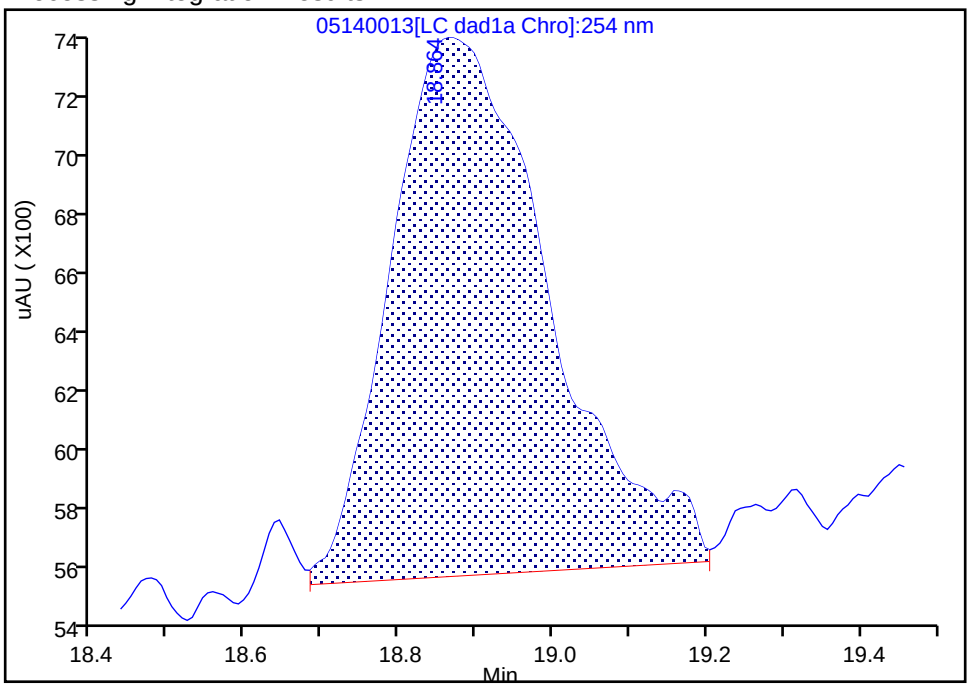
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140013.d				
Injection Date:	14-May-2020 19:46:37	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 3				
Client ID:					
Operator ID:	CB	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

19 1,3,5-Trinitrobenzene, CAS: 99-35-4

Signal: 1

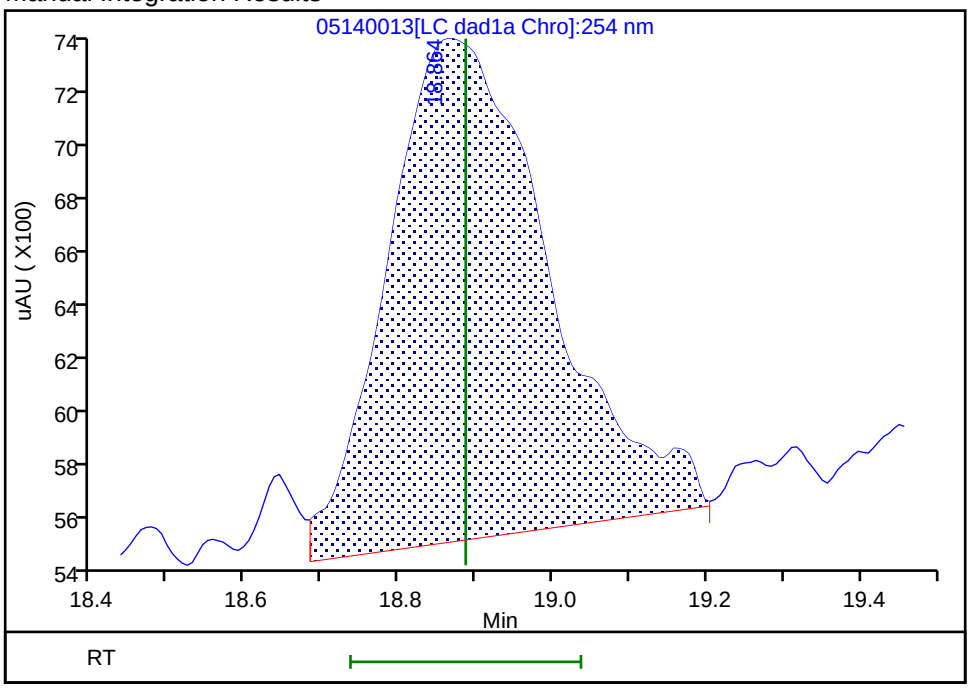
Processing Integration Results

RT: 18.86
Area: 25370
Amount: 0.053396
Amount Units: ug/ml



Manual Integration Results

RT: 18.86
Area: 26649
Amount: 0.056406
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:22:04

Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

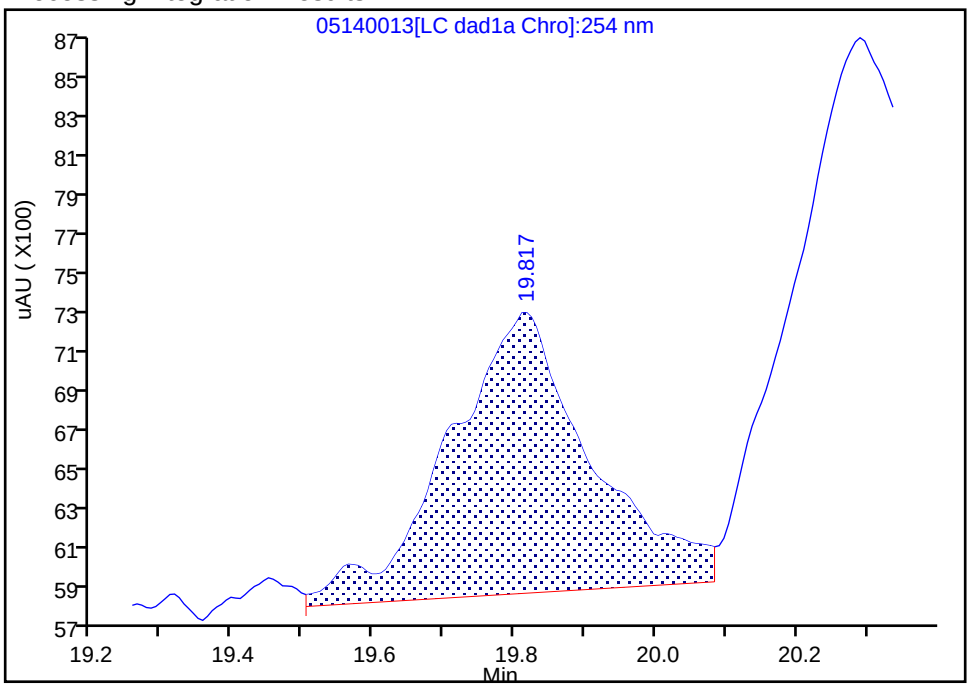
Data File: \\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140013.d
Injection Date: 14-May-2020 19:46:37 Instrument ID: CHHPLC_G2_LUNA
Lims ID: IC FULL 3
Client ID:
Operator ID: CB ALS Bottle#: 13 Worklist Smp#: 13
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC DAD1A, 254 nm

20 2,6-Dinitrotoluene, CAS: 606-20-2

Signal: 1

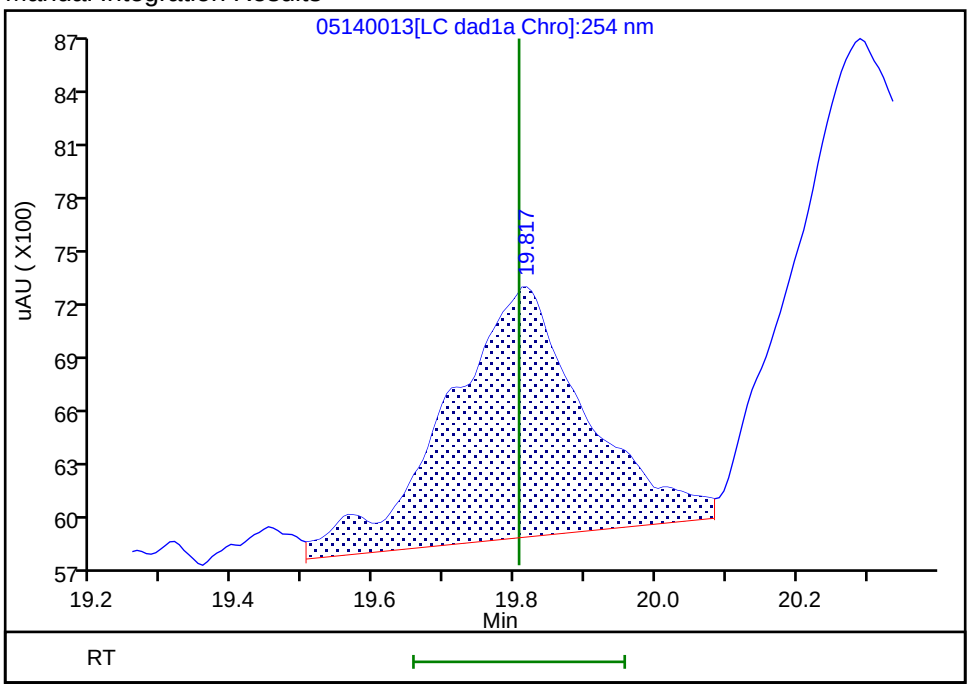
Processing Integration Results

RT: 19.82
Area: 19664
Amount: 0.057481
Amount Units: ug/ml



Manual Integration Results

RT: 19.82
Area: 19107
Amount: 0.050727
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:22:04
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

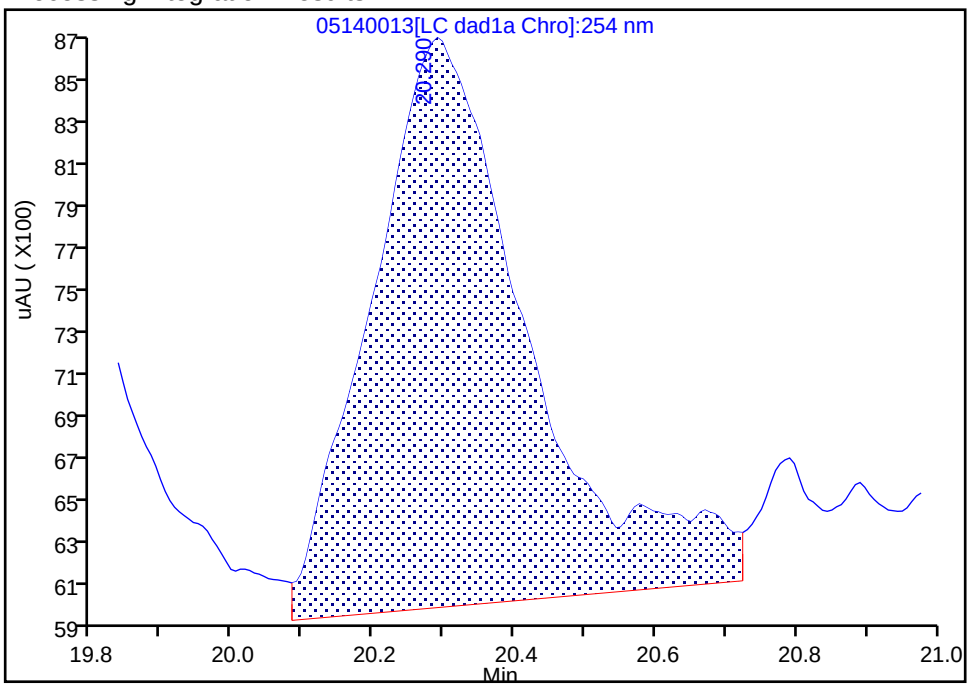
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140013.d				
Injection Date:	14-May-2020 19:46:37	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 3				
Client ID:					
Operator ID:	CB	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

21 2,4-Dinitrotoluene, CAS: 121-14-2

Signal: 1

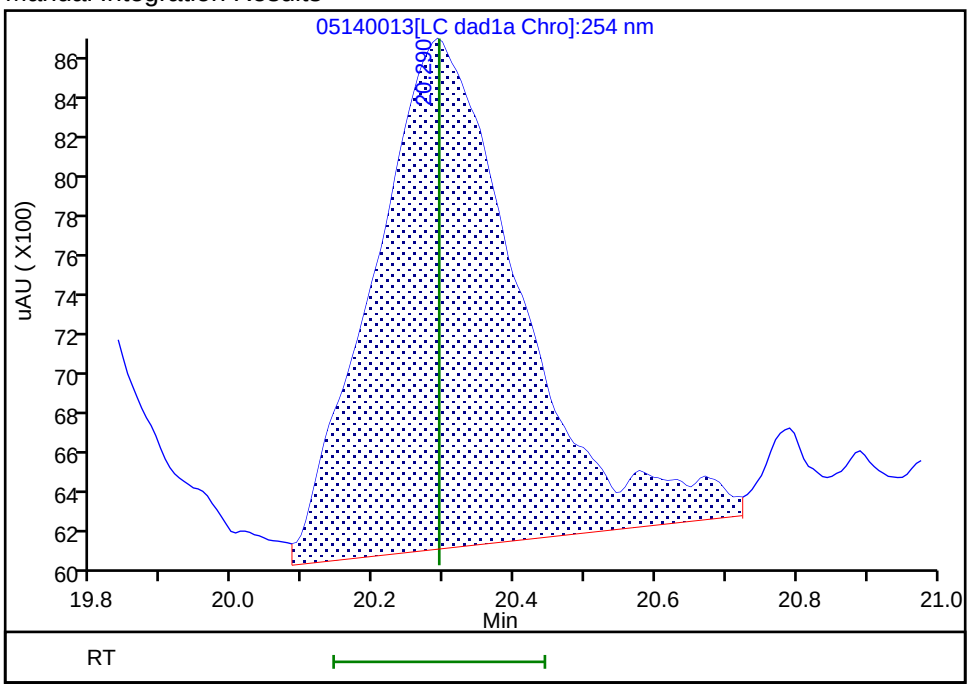
Processing Integration Results

RT: 20.29
Area: 41123
Amount: 0.062799
Amount Units: ug/ml



Manual Integration Results

RT: 20.29
Area: 37302
Amount: 0.058274
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:22:04

Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

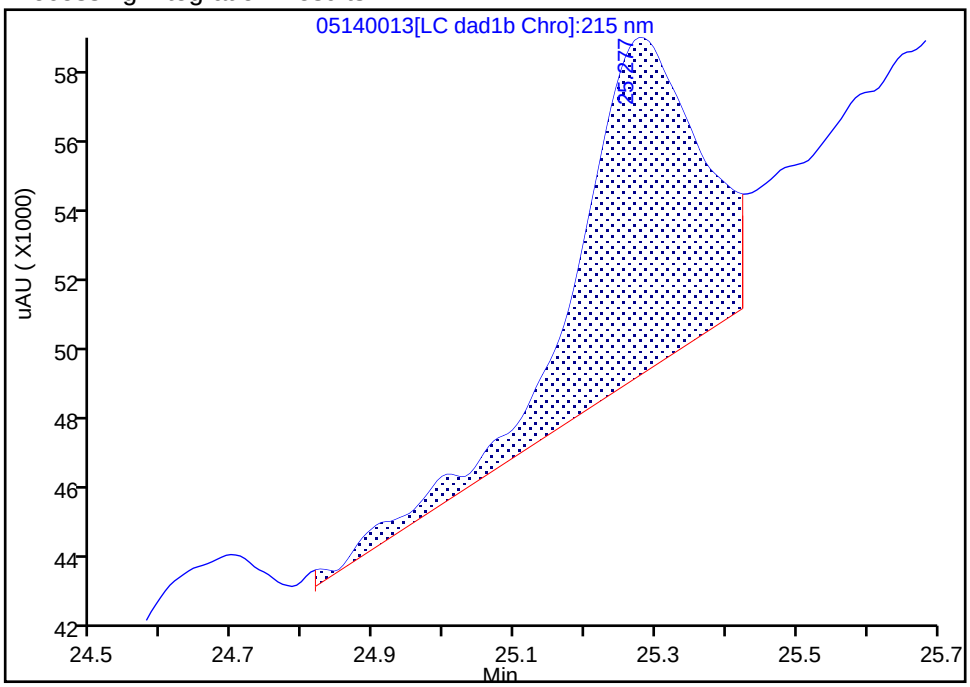
Data File: \\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140013.d
Injection Date: 14-May-2020 19:46:37 Instrument ID: CHHPLC_G2_LUNA
Lims ID: IC FULL 3
Client ID:
Operator ID: CB ALS Bottle#: 13 Worklist Smp#: 13
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Detector LC DAD1B, 215 nm

24 PETN, CAS: 78-11-5

Signal: 1

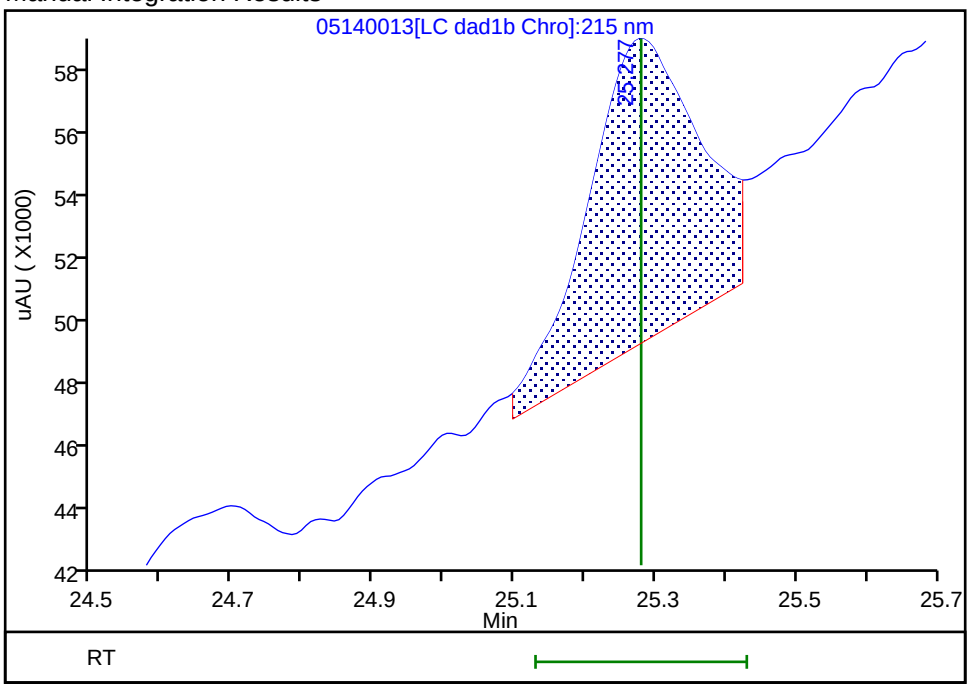
Processing Integration Results

RT: 25.28
Area: 109947
Amount: 0.773174
Amount Units: ug/ml



Manual Integration Results

RT: 25.28
Area: 102120
Amount: 0.578199
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:24:48
Audit Action: Split an Integrated Peak Audit Reason: Peak Tail

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140014.D
Lims ID: IC FULL 2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 14-May-2020 20:21:33 ALS Bottle#: 14 Worklist Smp#: 14
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC FULL 2
Misc. Info.: 280-0091518-014
Operator ID: CB Instrument ID: CHHPLC_G2_LUNA
Sublist: chrom-G2_8330_Luna*sub6

Method: \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\G2_8330_Luna.m
Limit Group: GCSV - 8330
Last Update: 15-May-2020 12:00:58 Calib Date: 15-May-2020 02:11:20
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140024.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC DAD1A, 254 nm
Process Host: CTX0318

First Level Reviewer: zhangji Date: 15-May-2020 11:22:32

	Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
	1 2,6-diamino-4-nitrotoluene	1	4.375	4.366	0.009	10106	0.0200	0.0235	
	2 2,4-diamino-6-nitrotoluene	1	4.855	4.880	-0.025	9147	0.0200	0.0152	
	5 2,4,6-Trinitrophenol	1	6.322	6.300	0.022	5683	0.0250	0.0293	a
	6 HMX	1	6.982	6.986	-0.004	10018	0.0250	0.0265	
	8 RDX	1	9.095	9.173	-0.078	6286	0.0250	0.0257	
	9 Nitrobenzene	1	12.095	12.106	-0.011	10325	0.0251	0.0235	
$	10 1,2-Dinitrobenzene	1	13.022	13.040	-0.018	8436	0.0250	0.0238	M
	11 3,5-Dinitroaniline	1	14.862	14.886	-0.024	12305	0.0200	0.0197	
	12 1,3-Dinitrobenzene	1	15.542	15.553	-0.011	16280	0.0251	0.0241	
	13 Nitroglycerin	2	15.855	15.853	0.002	26546	0.2500	0.2093	
	14 o-Nitrotoluene	1	16.515	16.533	-0.018	6812	0.0250	0.0250	
	15 p-Nitrotoluene	1	16.795	16.820	-0.025	5374	0.0251	0.0223	
	16 4-Amino-2,6-dinitrotoluene	1	17.155	17.146	0.009	9369	0.0250	0.0271	
	17 m-Nitrotoluene	1	17.748	17.753	-0.005	6920	0.0250	0.0232	
	18 2-Amino-4,6-dinitrotoluene	1	18.048	18.046	0.002	10376	0.0251	0.0223	
	19 1,3,5-Trinitrobenzene	1	18.855	18.886	-0.031	10822	0.0251	0.0229	
	20 2,6-Dinitrotoluene	1	19.828	19.806	0.022	11618	0.0251	0.0248	
	21 2,4-Dinitrotoluene	1	20.295	20.293	0.002	16811	0.0251	0.0263	
	22 Tetryl	1	23.529	23.553	-0.024	9874	0.0251	0.0268	
	23 2,4,6-Trinitrotoluene	1	24.682	24.653	0.029	11547	0.0251	0.0209	
	24 PETN	2	25.282	25.280	0.002	20453	0.2500	-0.0535	M

QC Flag Legend

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

8330IntermStk_00064	Amount Added:	2.50	Units: uL
8330_ADDs_00026	Amount Added:	1.00	Units: uL

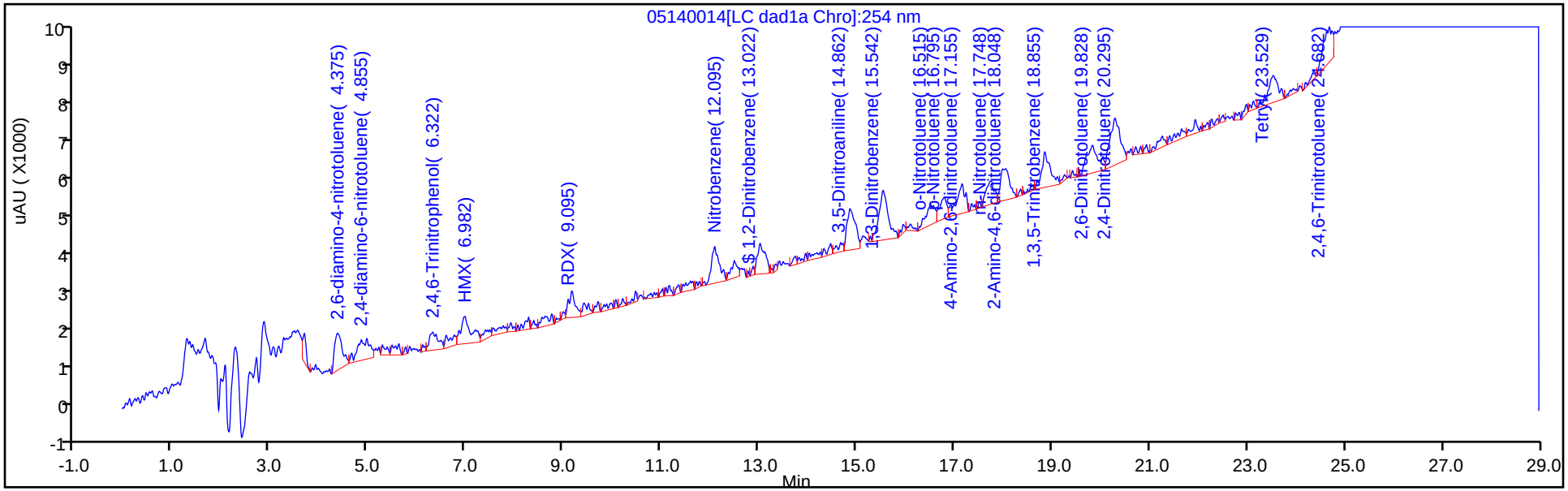
Report Date: 15-May-2020 12:00:59 Chrom Revision: 2.3 05-May-2020 17:48:18

Eurofins TestAmerica, Denver

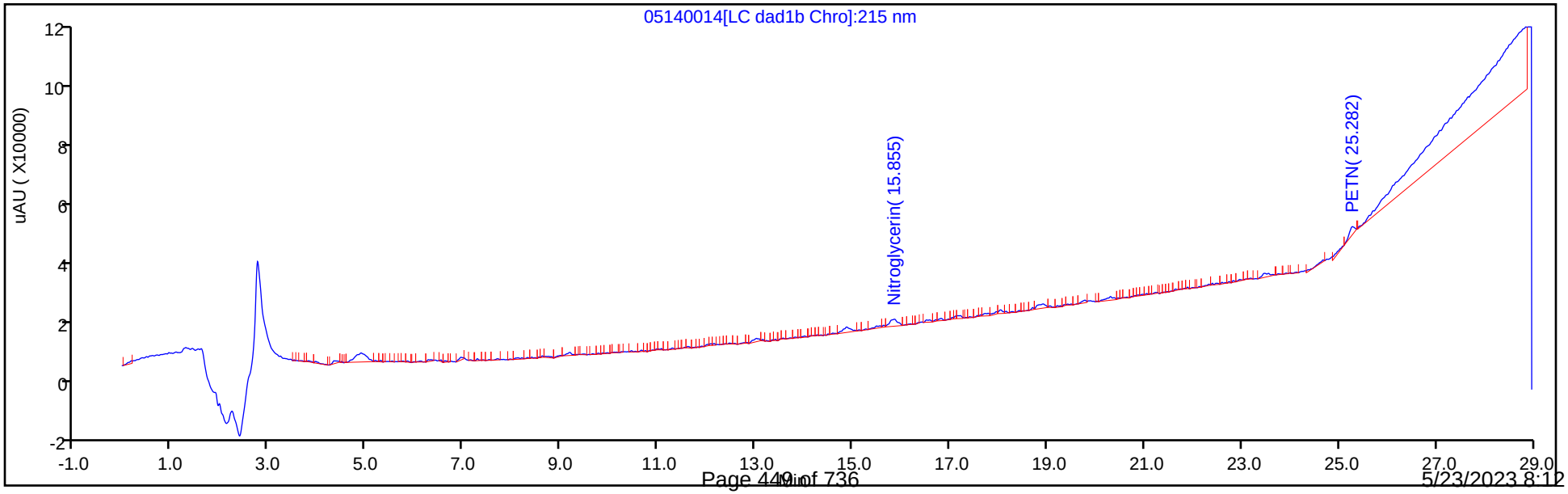
Data File: \\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140014.d

Injection Date:	14-May-2020 20:21:33	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	CB
Lims ID:	IC FULL 2			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



Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

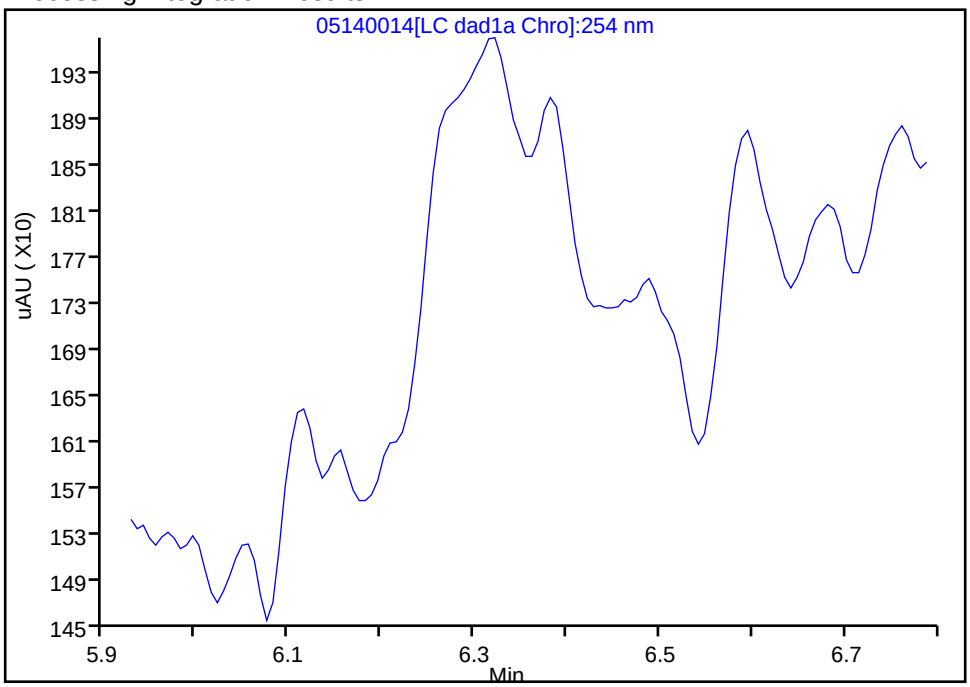
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140014.d				
Injection Date:	14-May-2020 20:21:33	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 2				
Client ID:					
Operator ID:	CB	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

5 2,4,6-Trinitrophenol, CAS: 88-89-1

Signal: 1

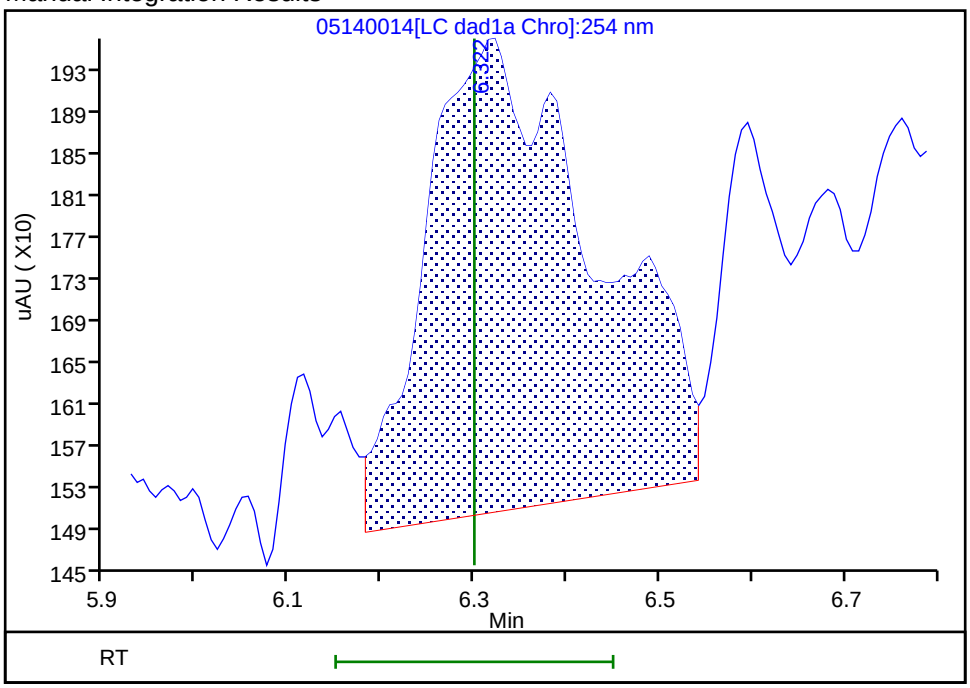
Not Detected
Expected RT: 6.30

Processing Integration Results



Manual Integration Results

RT: 6.32
Area: 5683
Amount: 0.029323
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:22:29
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

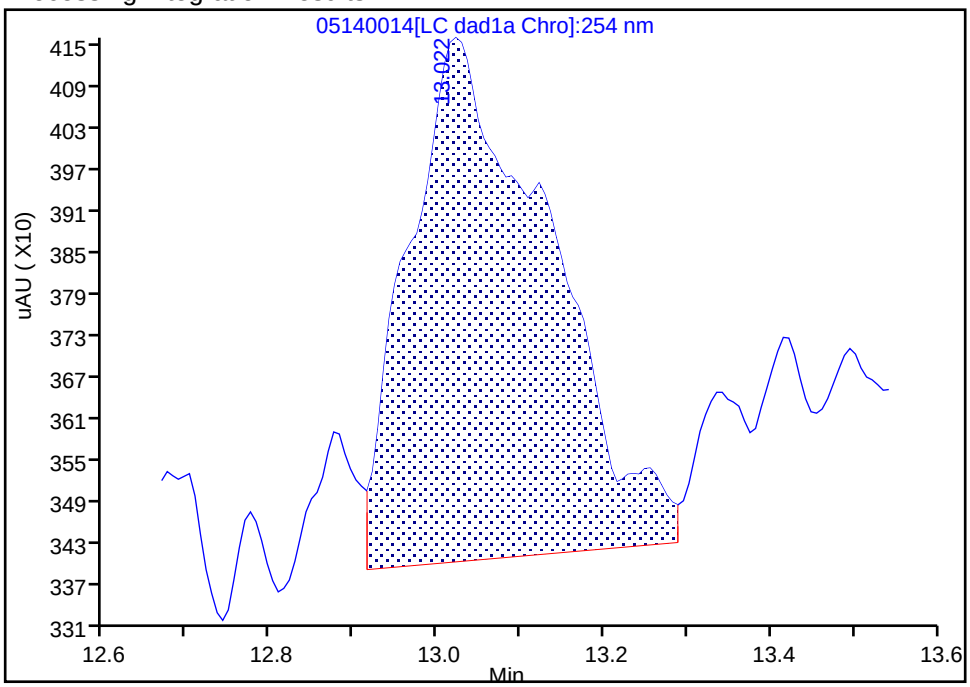
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140014.d				
Injection Date:	14-May-2020 20:21:33	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 2				
Client ID:					
Operator ID:	CB	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

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

Signal: 1

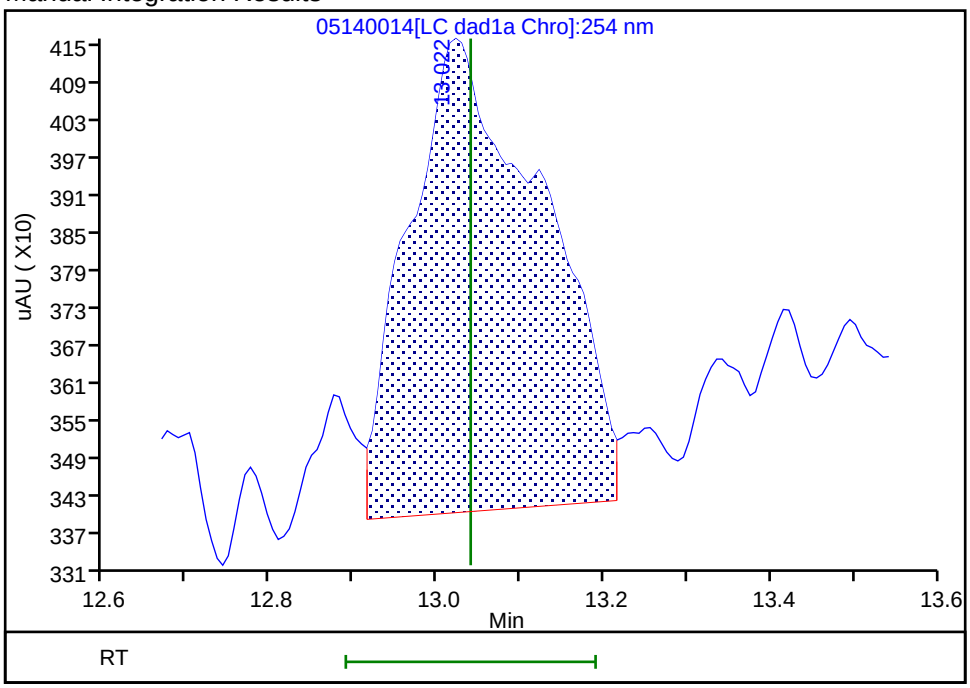
Processing Integration Results

RT: 13.02
Area: 8831
Amount: 0.029561
Amount Units: ug/ml



Manual Integration Results

RT: 13.02
Area: 8436
Amount: 0.023796
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:35:34

Audit Action: Split an Integrated Peak Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

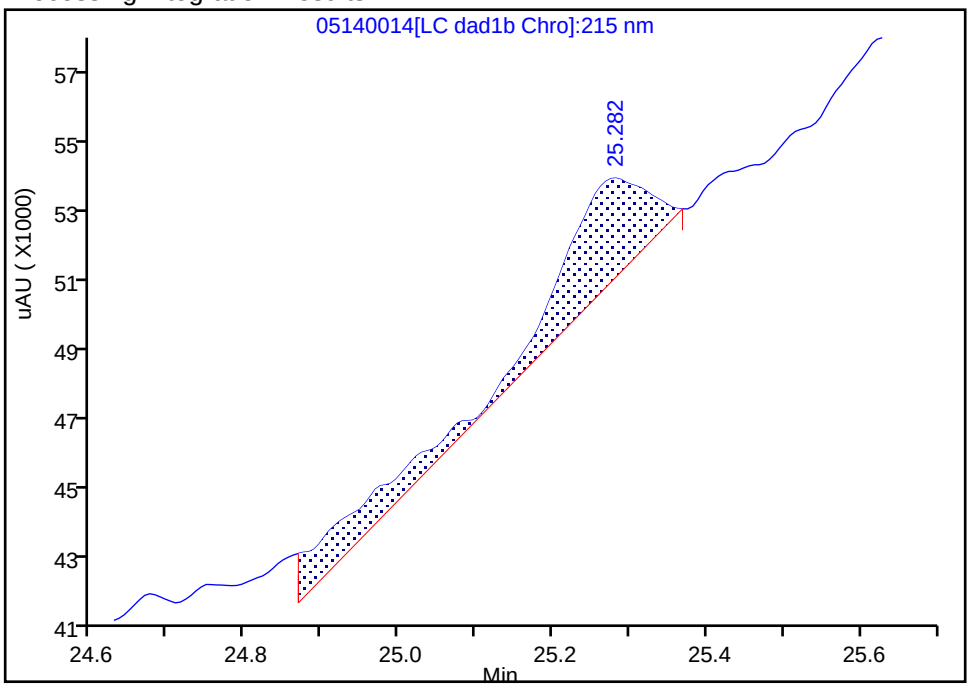
Data File: \\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140014.d
Injection Date: 14-May-2020 20:21:33 Instrument ID: CHHPLC_G2_LUNA
Lims ID: IC FULL 2
Client ID:
Operator ID: CB ALS Bottle#: 14 Worklist Smp#: 14
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Detector LC DAD1B, 215 nm

24 PETN, CAS: 78-11-5

Signal: 1

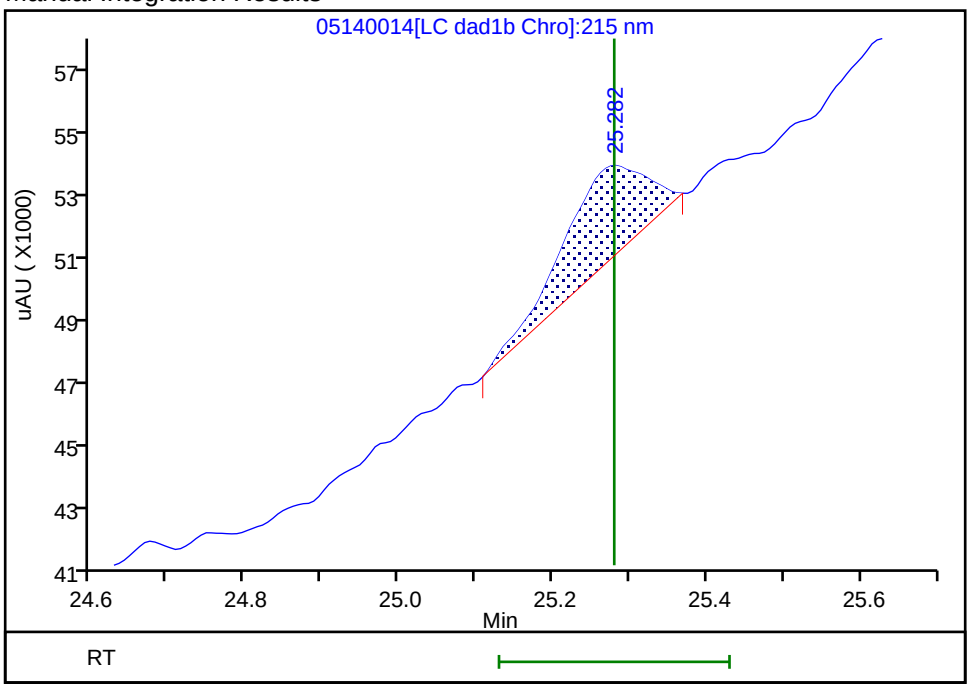
Processing Integration Results

RT: 25.28
Area: 31007
Amount: 0.129673
Amount Units: ug/ml



Manual Integration Results

RT: 25.28
Area: 20453
Amount: -0.053470
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:24:34
Audit Action: Split an Integrated Peak Audit Reason: Split Peak

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140015.D
Lims ID: IC FULL 1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 14-May-2020 20:56:30 ALS Bottle#: 15 Worklist Smp#: 15
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC FULL 1
Misc. Info.: 280-0091518-015
Operator ID: CB Instrument ID: CHHPLC_G2_LUNA
Sublist: chrom-G2_8330_Luna*sub6

Method: \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\G2_8330_Luna.m
Limit Group: GCSV - 8330
Last Update: 15-May-2020 12:00:59 Calib Date: 15-May-2020 02:11:20
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140024.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC DAD1A, 254 nm
Process Host: CTX0318

First Level Reviewer: zhangji Date: 15-May-2020 11:24:04

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 2,6-diamino-4-nitrotoluene	1		4.366			ND	ND	U
2 2,4-diamino-6-nitrotoluene	1		4.880			ND	ND	U
5 2,4,6-Trinitrophenol	1		6.300			ND	ND	U
6 HMX	1		6.986			ND	ND	U
8 RDX	1		9.173			ND	ND	U
9 Nitrobenzene	1		12.106			ND	ND	U
$ 10 1,2-Dinitrobenzene	1		13.040			ND	ND	U
11 3,5-Dinitroaniline	1		14.886			ND	ND	U
12 1,3-Dinitrobenzene	1		15.553			ND	ND	U
13 Nitroglycerin	2		15.853			ND	ND	U
14 o-Nitrotoluene	1		16.533			ND	ND	U
15 p-Nitrotoluene	1		16.820			ND	ND	U
16 4-Amino-2,6-dinitrotoluene	1		17.146			ND	ND	U
17 m-Nitrotoluene	1		17.753			ND	ND	U
18 2-Amino-4,6-dinitrotoluene	1		18.046			ND	ND	U
19 1,3,5-Trinitrobenzene	1		18.886			ND	ND	U
20 2,6-Dinitrotoluene	1	19.755	19.806	-0.051	4758	0.0126	0.001113	M
21 2,4-Dinitrotoluene	1	20.295	20.293	0.002	7990	0.0126	0.0125	M
22 Tetryl	1		23.553			ND	ND	U
23 2,4,6-Trinitrotoluene	1		24.653			ND	ND	U
24 PETN	2		25.280			ND	ND	U

QC Flag Legend

Processing Flags
ND - Not Detected or Marked ND

Review Flags
M - Manually Integrated
U - Marked Undetected

Reagents:

8330IntermStk_00064	Amount Added:	1.25	Units: uL
8330_ADDs_00026	Amount Added:	0.50	Units: uL

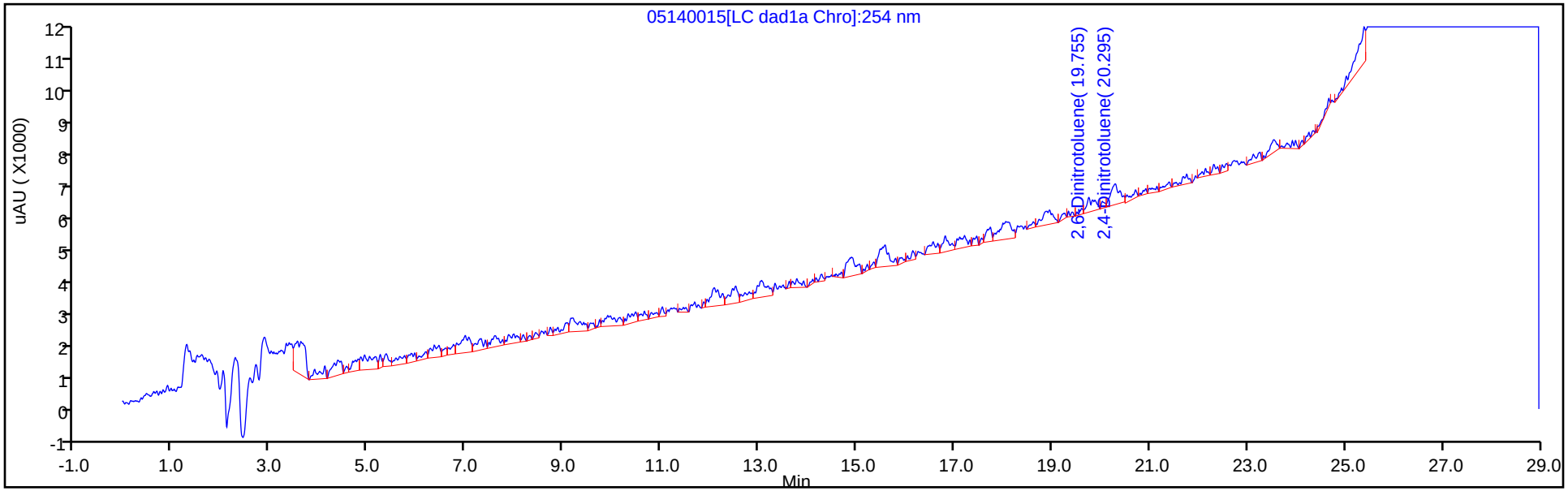
Report Date: 15-May-2020 12:00:59 Chrom Revision: 2.3 05-May-2020 17:48:18

Eurofins TestAmerica, Denver

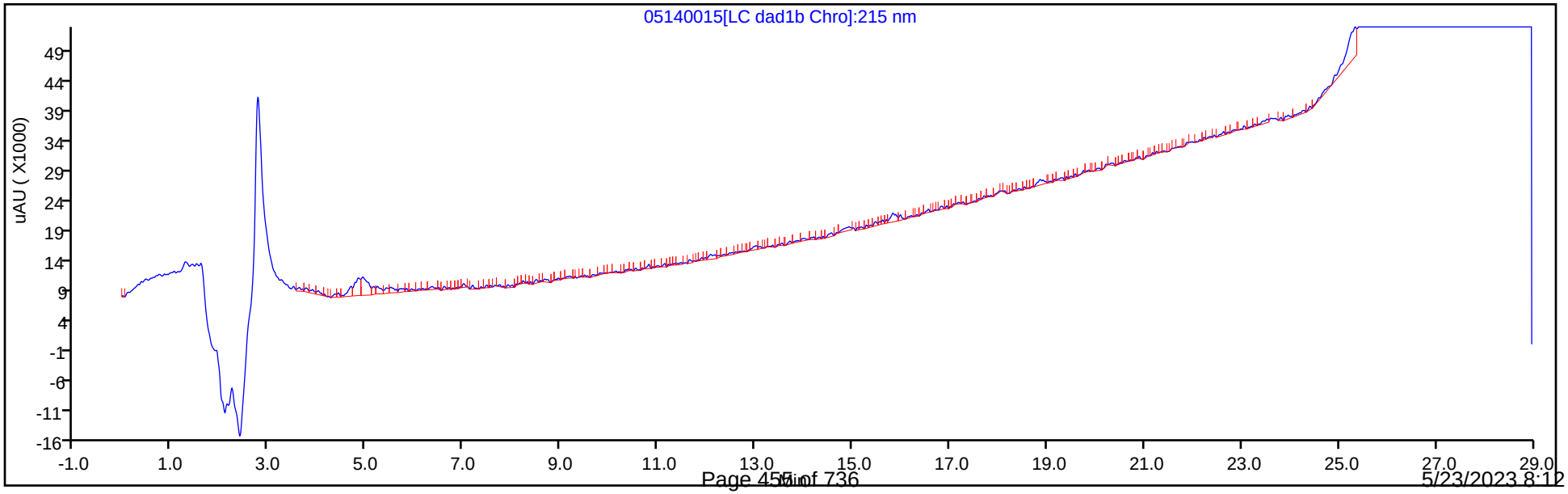
Data File: \\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140015.d

Injection Date:	14-May-2020 20:56:30	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	CB
Lims ID:	IC FULL 1			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



Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

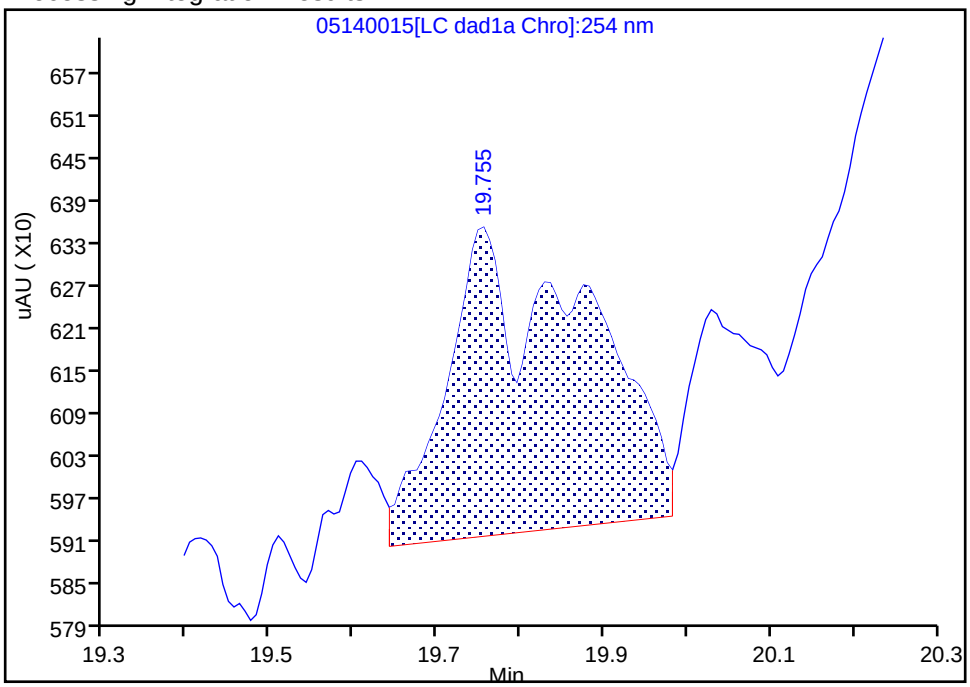
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140015.d				
Injection Date:	14-May-2020 20:56:30	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 1				
Client ID:					
Operator ID:	CB	ALS Bottle#:	15	Worklist Smp#:	15
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

20 2,6-Dinitrotoluene, CAS: 606-20-2

Signal: 1

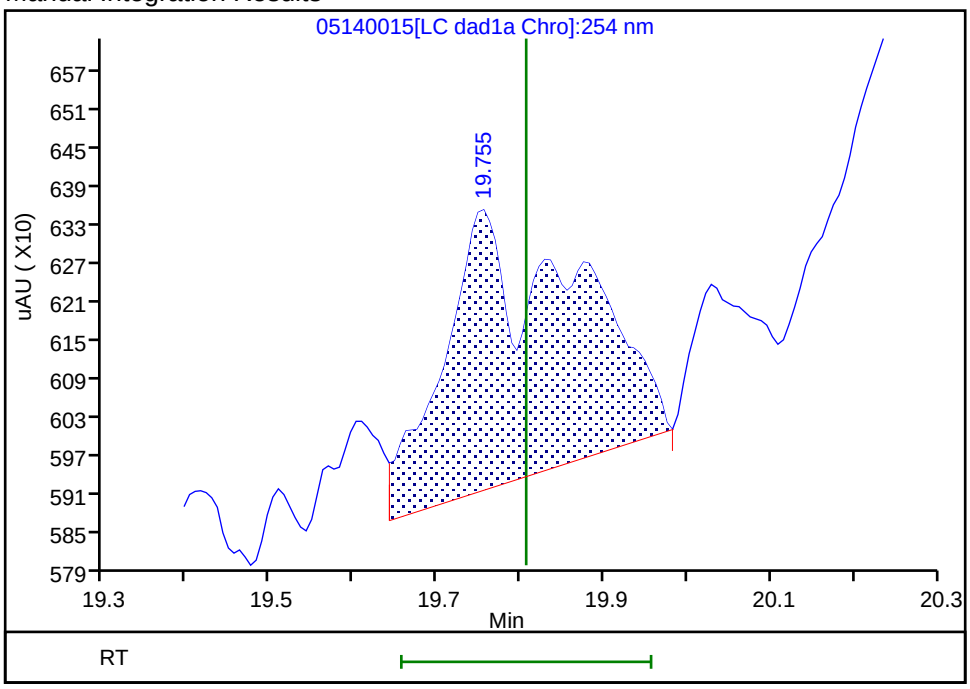
Processing Integration Results

RT: 19.76
Area: 5064
Amount: 0.014857
Amount Units: ug/ml



Manual Integration Results

RT: 19.76
Area: 4758
Amount: 0.001113
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:30:41
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

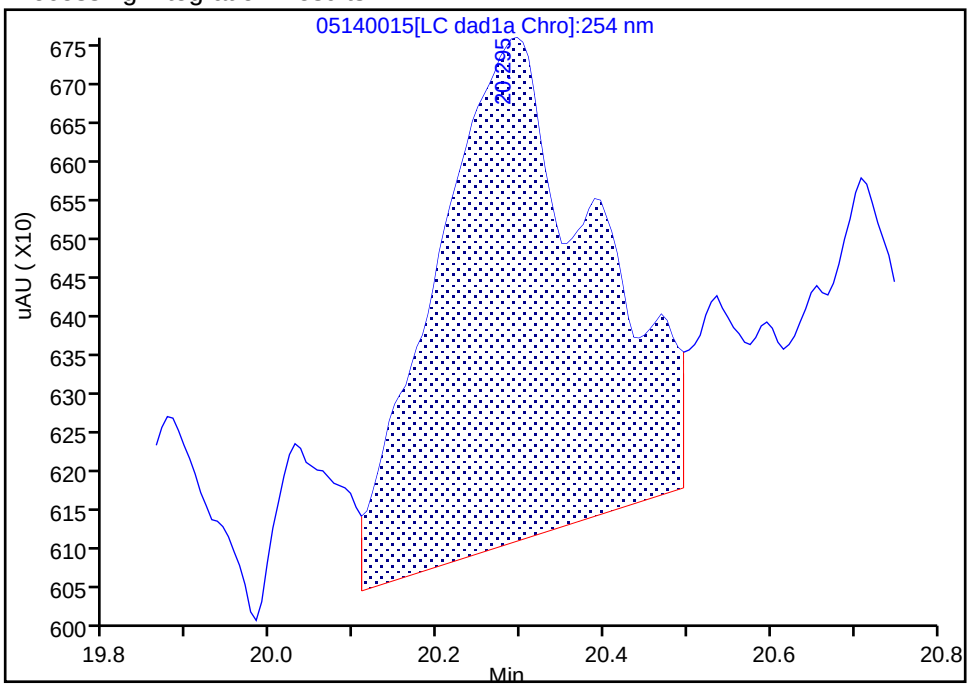
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140015.d				
Injection Date:	14-May-2020 20:56:30	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 1				
Client ID:					
Operator ID:	CB	ALS Bottle#:	15	Worklist Smp#:	15
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

21 2,4-Dinitrotoluene, CAS: 121-14-2

Signal: 1

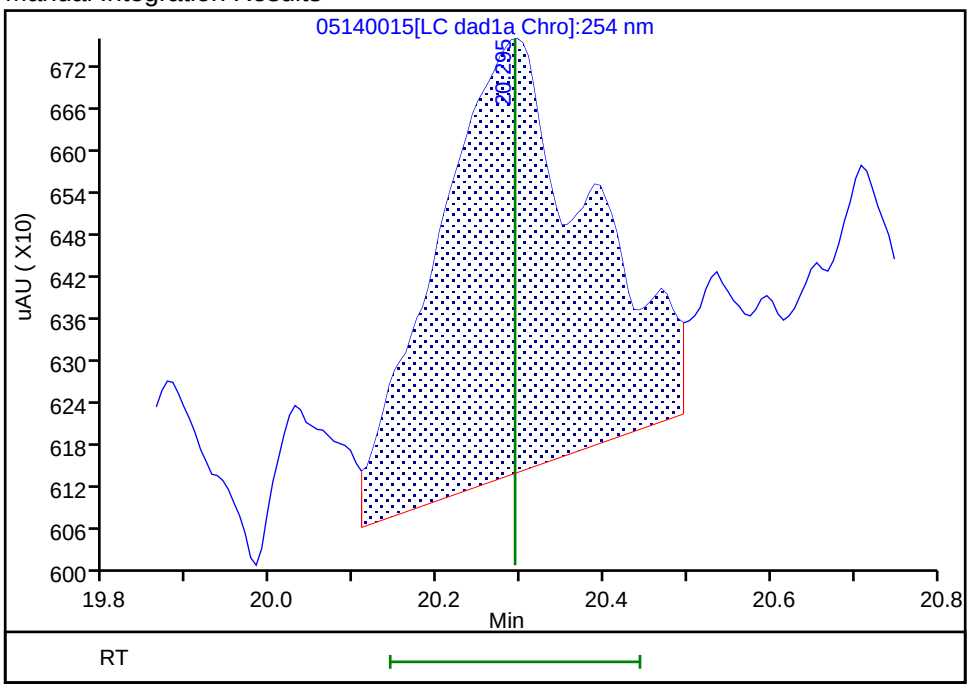
Processing Integration Results

RT: 20.30
Area: 8698
Amount: 0.013456
Amount Units: ug/ml



Manual Integration Results

RT: 20.30
Area: 7990
Amount: 0.012482
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:30:41
Audit Action: Assigned New Baseline Audit Reason: Baseline

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

Lab Name: Eurofins Denver Job No.: 280-176609-1 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.: 280-176609-1 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.: 280-176609-1 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.: 280-176609-1 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.: 280-176609-1 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 149885	8035 271856	20397 389131	39339 986578	96722	0.0100 0.401	0.0201 0.702	0.0502 1.00	0.100 2.51	0.251
DNX	Ave	3097 108664	5896 197714	14268 282296	28516 712375	70501	0.0100 0.400	0.0200 0.701	0.0501 1.00	0.100 2.50	0.250
HMX	Ave	2116 69854	3831 121533	9104 174813	17711 437409	42259	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
MNX	Ave	3165 115542	6187 210405	15283 299304	30241 836019	74679	0.0117 0.467	0.0233 0.817	0.0584 1.17	0.117 2.92	0.292
Picric acid	Ave	1601 61220	3181 107366	8104 154224	15604 +++++	36740	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 +++++	0.250
RDX	Ave	2543 83231	4542 144880	10799 207770	21015 522882	50479	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
Nitrobenzene	Ave	4002 148398	7744 262906	19405 376803	37900 944914	90950	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
3,5-Dinitroaniline	Lin2	4725 176804	8811 308678	22268 444605	44146 977923	106753	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
1,3-Dinitrobenzene	Ave	6202 226896	11425 398326	29472 573365	56261 1574162	137559	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
Nitroglycerin	Ave	12725 491776	25265 858025	64483 1233892	125509 3074483	297926	0.100 4.00	0.200 7.00	0.500 10.0	1.00 25.0	2.50
2-Nitrotoluene	Ave	2596 95732	4779 169534	12185 243027	24115 620325	58154	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
4-Nitrotoluene	Ave	2388 85363	4444 150188	10927 215111	21537 528095	51955	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
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.: 280-176609-1 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

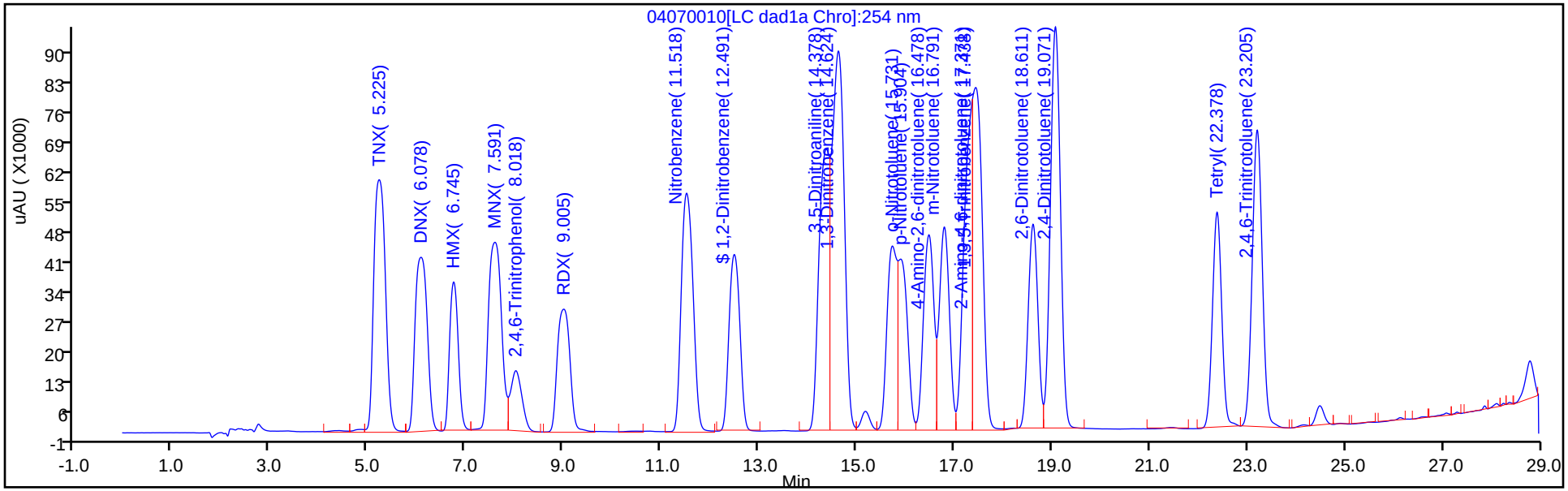
Report Date: 12-Apr-2023 15:55:23 Chrom Revision: 2.3 29-Mar-2023 18:39:10

Eurofins Denver

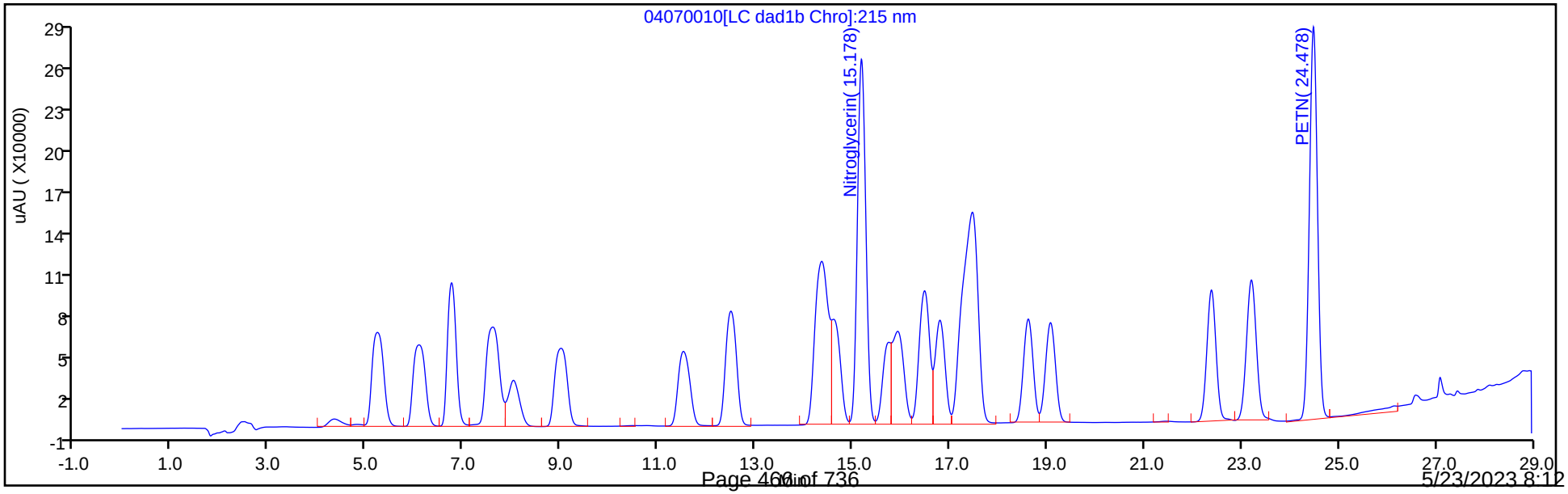
Data File: \\chromfs\denver\chromdata\g2_luna\20230407-120232.b\04070010.d

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



Manual Integration/User Assign Peak Report

Eurofins Denver

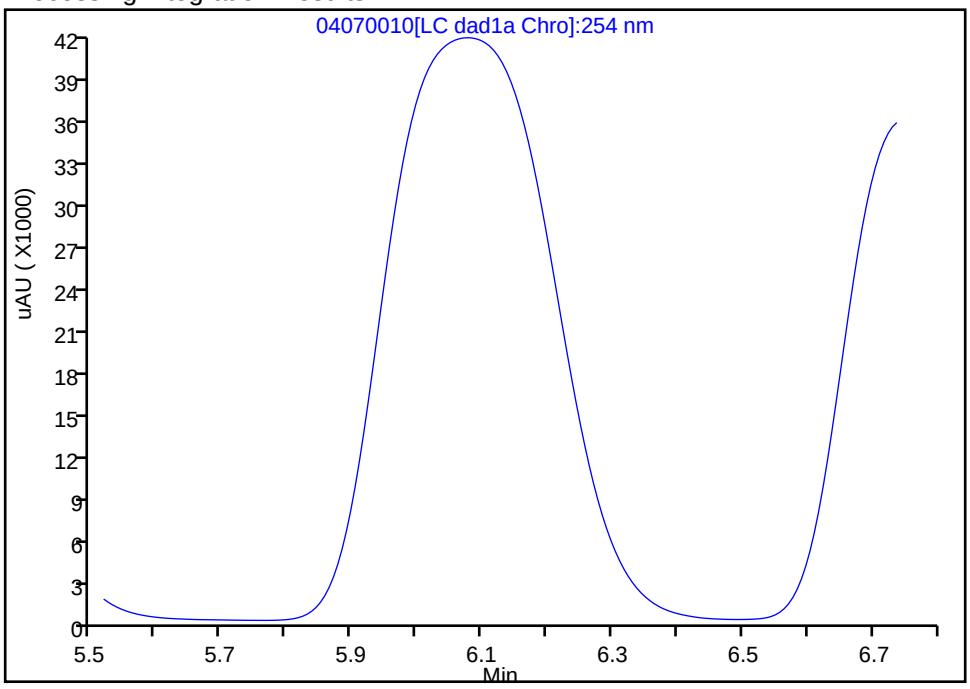
Data File:	\\chromfs\denver\chromdata\g2_luna\20230407-120232.b\04070010.d				
Injection Date:	07-Apr-2023 19:03:08	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT DMT 9				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	10	Worklist Smp#:	10
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

4 DNX, CAS: 80251-29-2

Signal: 1

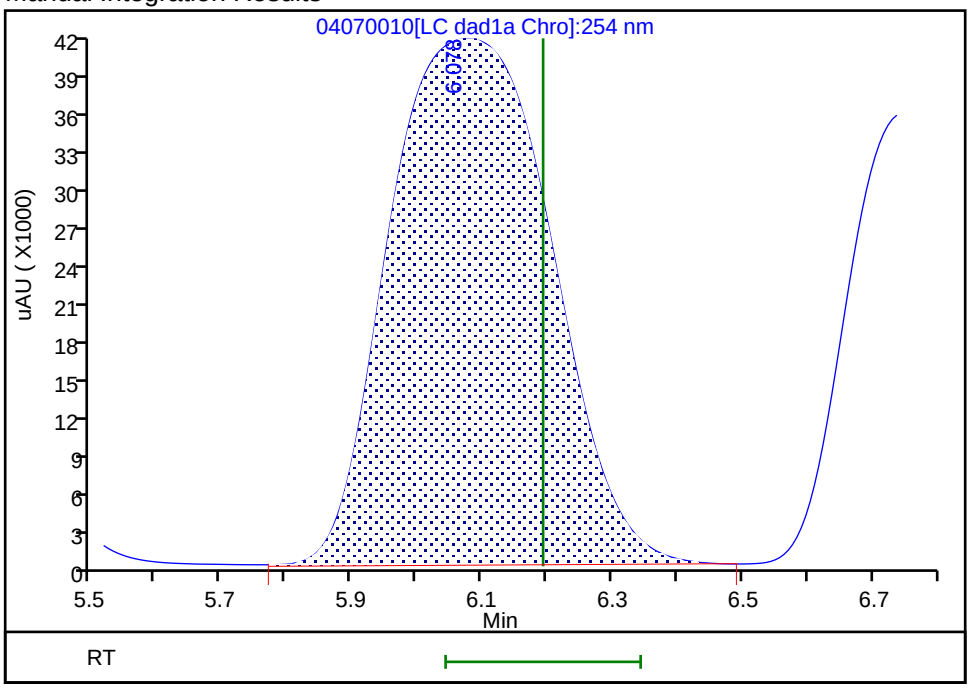
Processing Integration Results

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

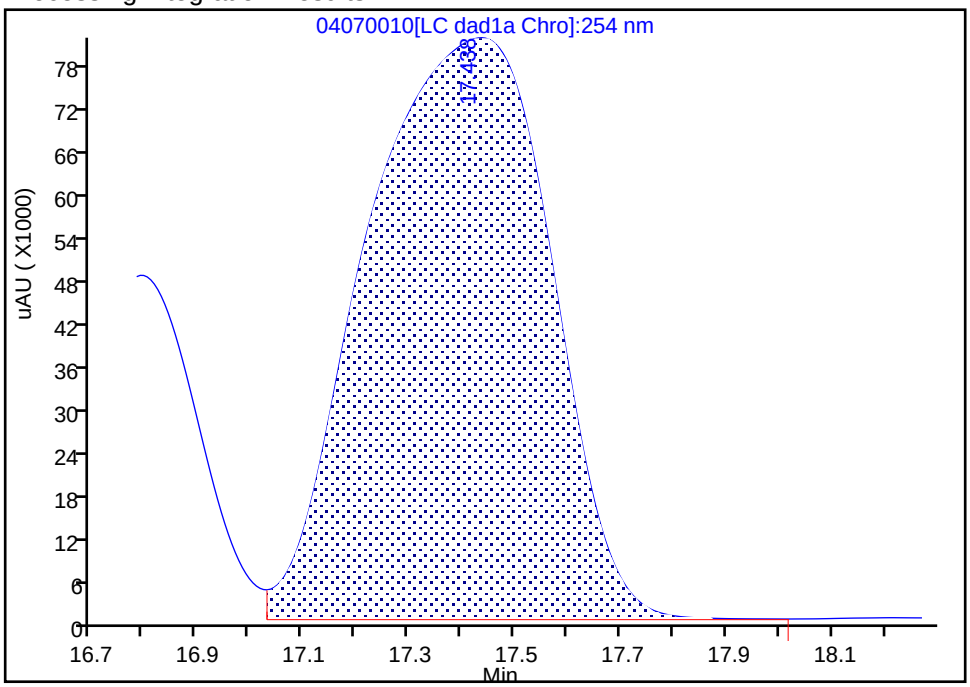
Data File: \\chromfs\denver\chromdata\g2_luna\20230407-120232.b\04070010.d
Injection Date: 07-Apr-2023 19:03:08 Instrument ID: CHHPLC_G2_LUNA
Lims ID: IC INT DMT 9
Client ID:
Operator ID: JZ ALS Bottle#: 10 Worklist Smp#: 10
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: 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

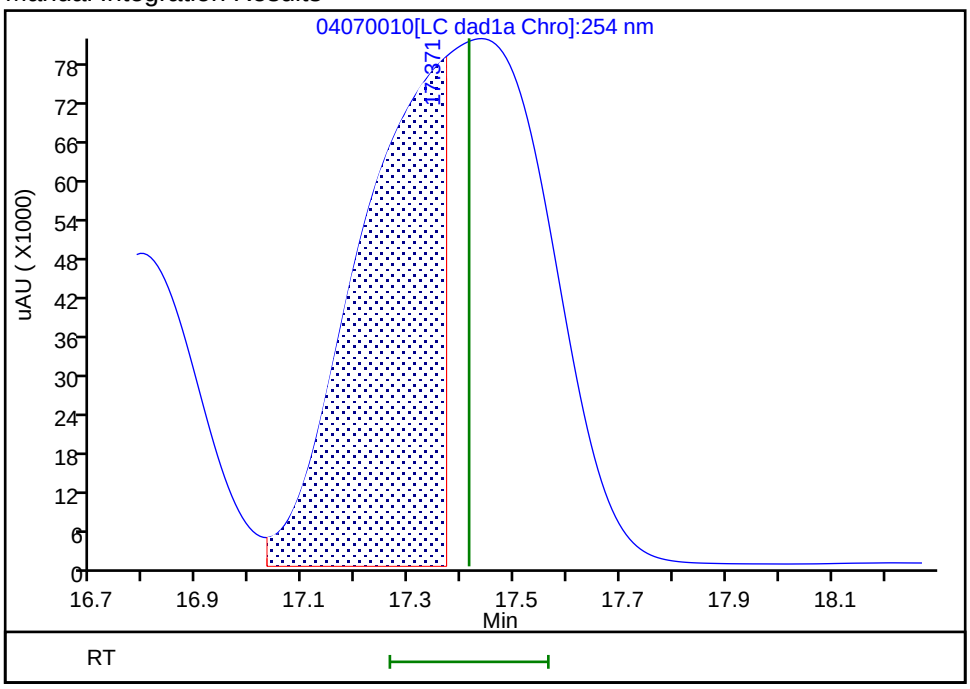
Processing Integration Results

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

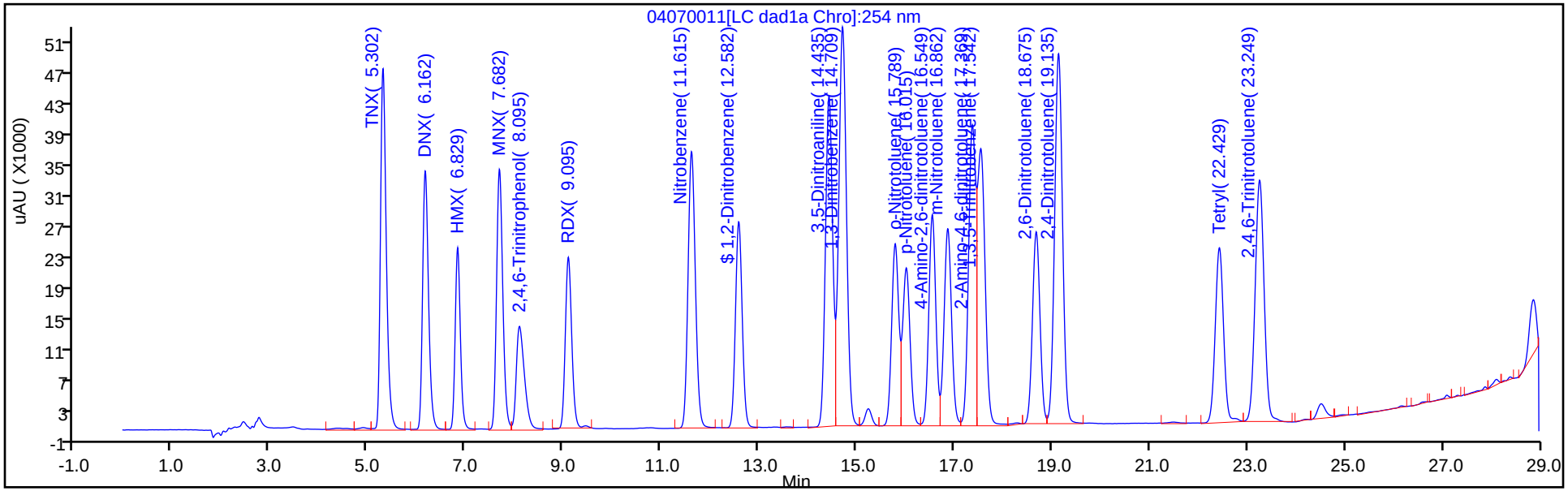
Report Date: 12-Apr-2023 15:55:24 Chrom Revision: 2.3 29-Mar-2023 18:39:10

Eurofins Denver

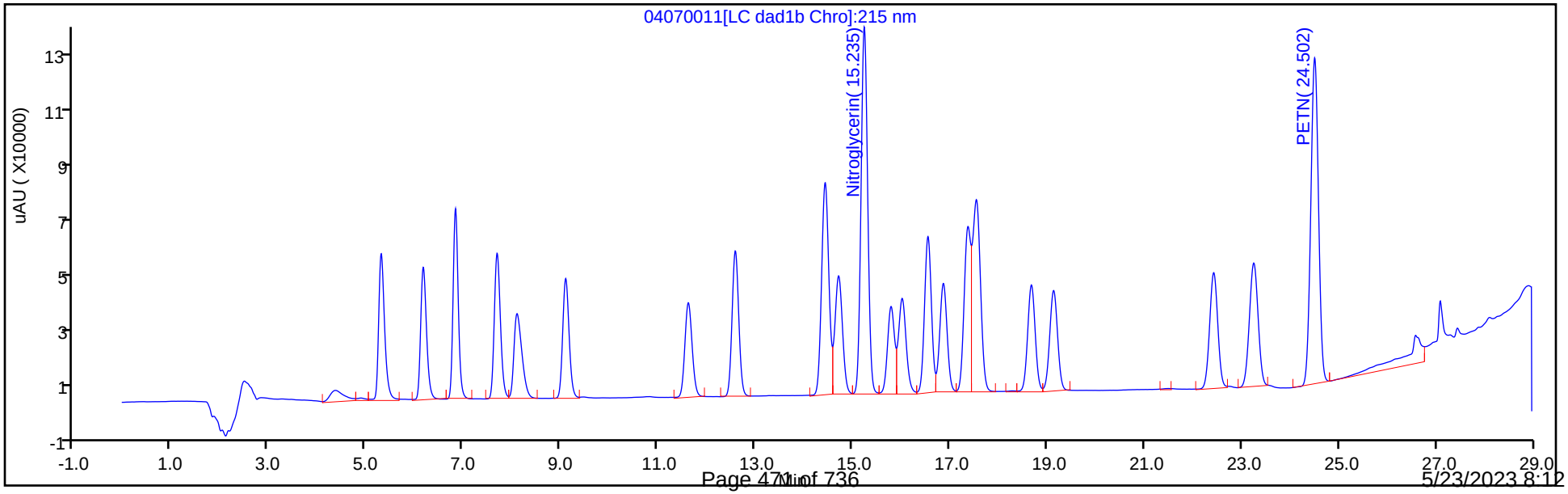
Data File: \\chromfs\denver\chromdata\g2_luna\20230407-120232.b\04070011.d

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



Manual Integration/User Assign Peak Report

Eurofins Denver

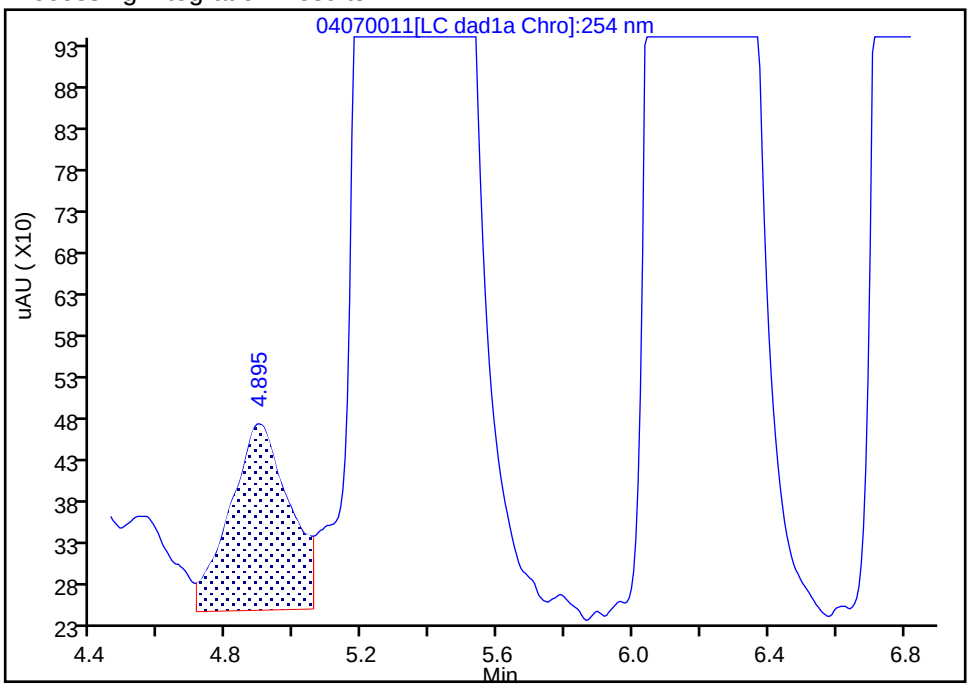
Data File:	\\chromfs\denver\chromdata\g2_luna\20230407-120232.b\04070011.d				
Injection Date:	07-Apr-2023 19:39:05	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT DMT 8				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	11	Worklist Smp#:	11
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

4 DNX, CAS: 80251-29-2

Signal: 1

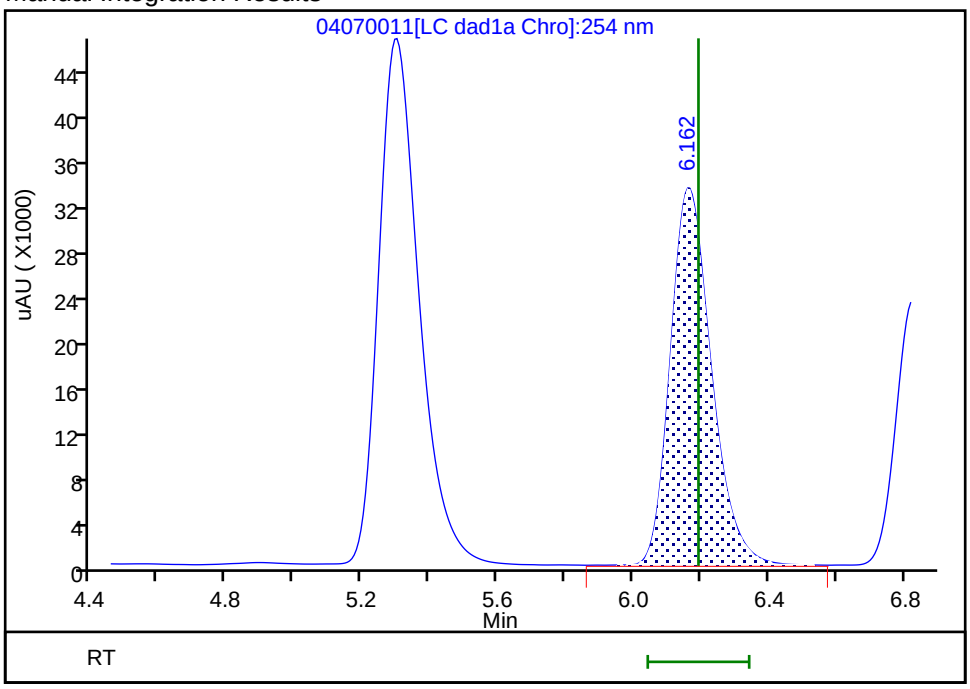
Processing Integration Results

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

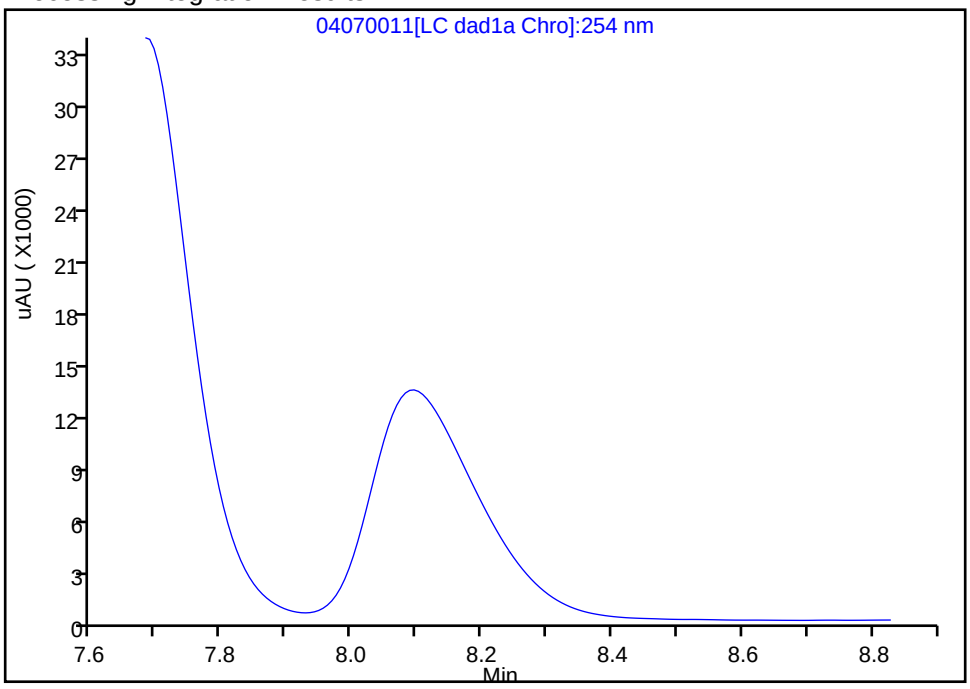
Data File:	\\chromfs\denver\chromdata\g2_luna\20230407-120232.b\04070011.d				
Injection Date:	07-Apr-2023 19:39:05	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT DMT 8				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	11	Worklist Smp#:	11
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	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

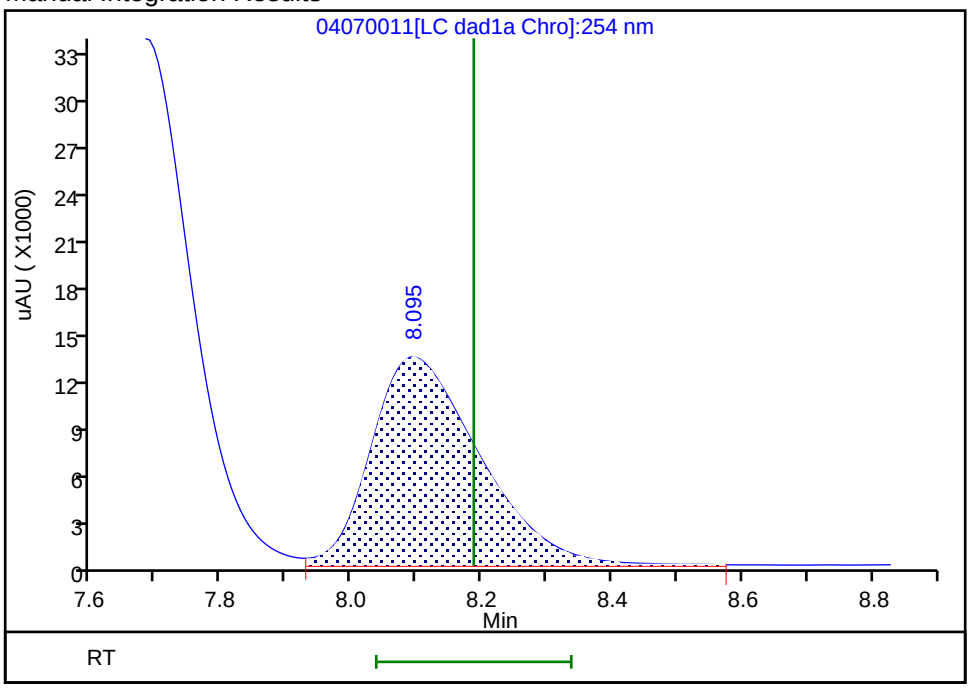
Not Detected
Expected RT: 8.19

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

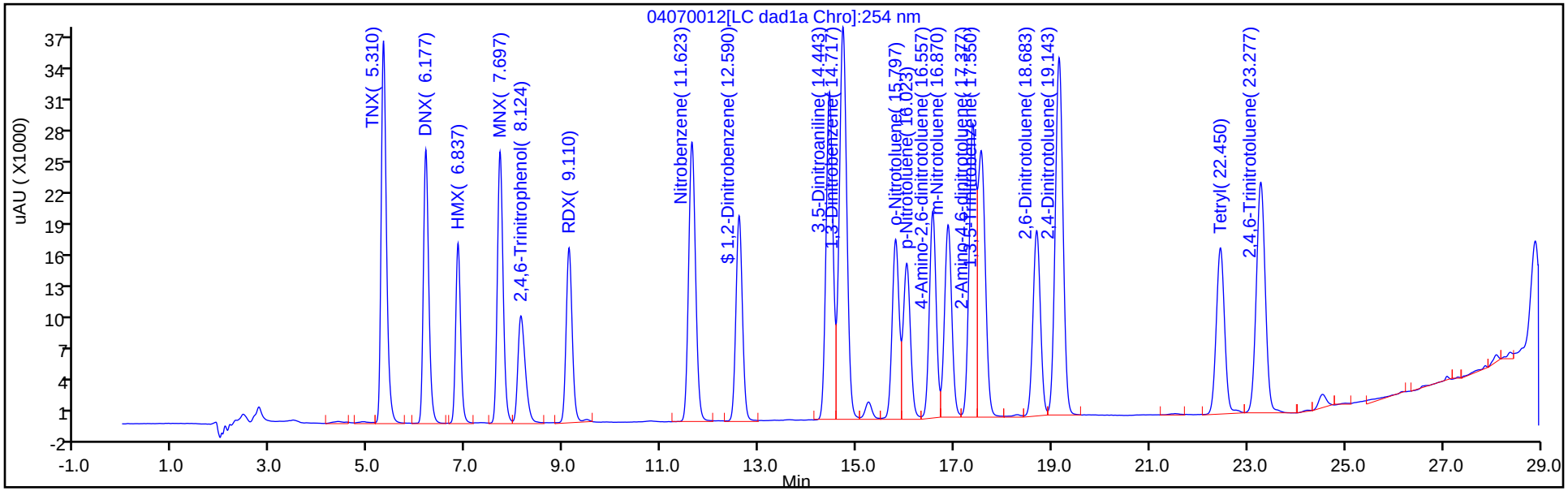
Report Date: 12-Apr-2023 15:55:25 Chrom Revision: 2.3 29-Mar-2023 18:39:10

Eurofins Denver

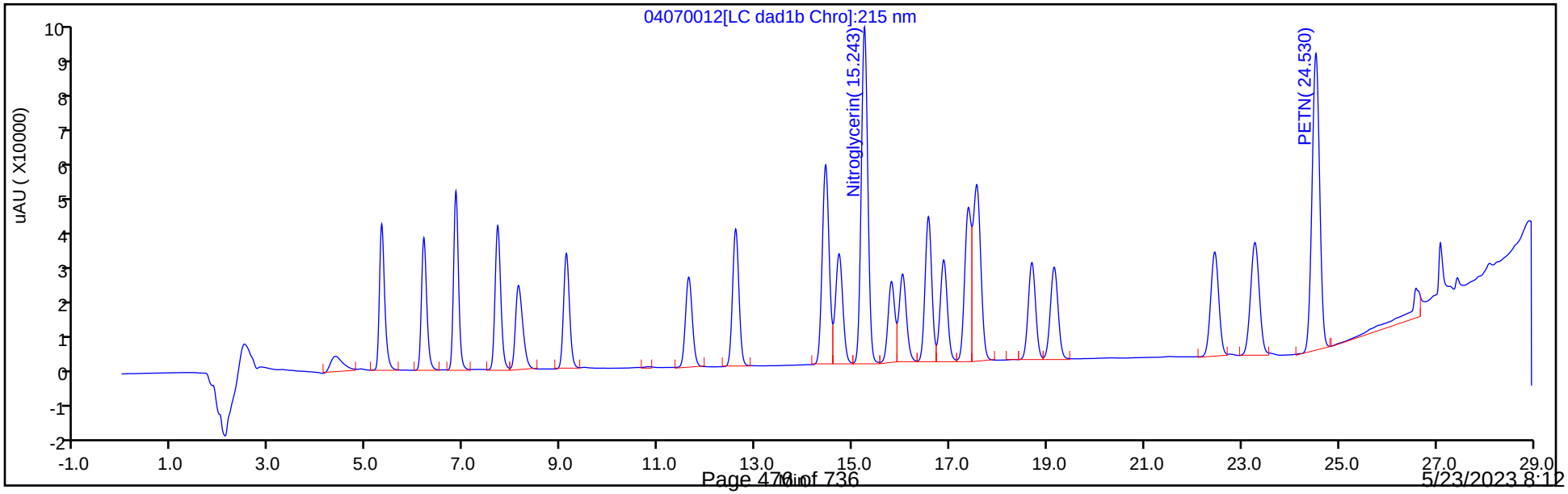
Data File: \\chromfs\denver\chromdata\g2_luna\20230407-120232.b\04070012.d

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



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

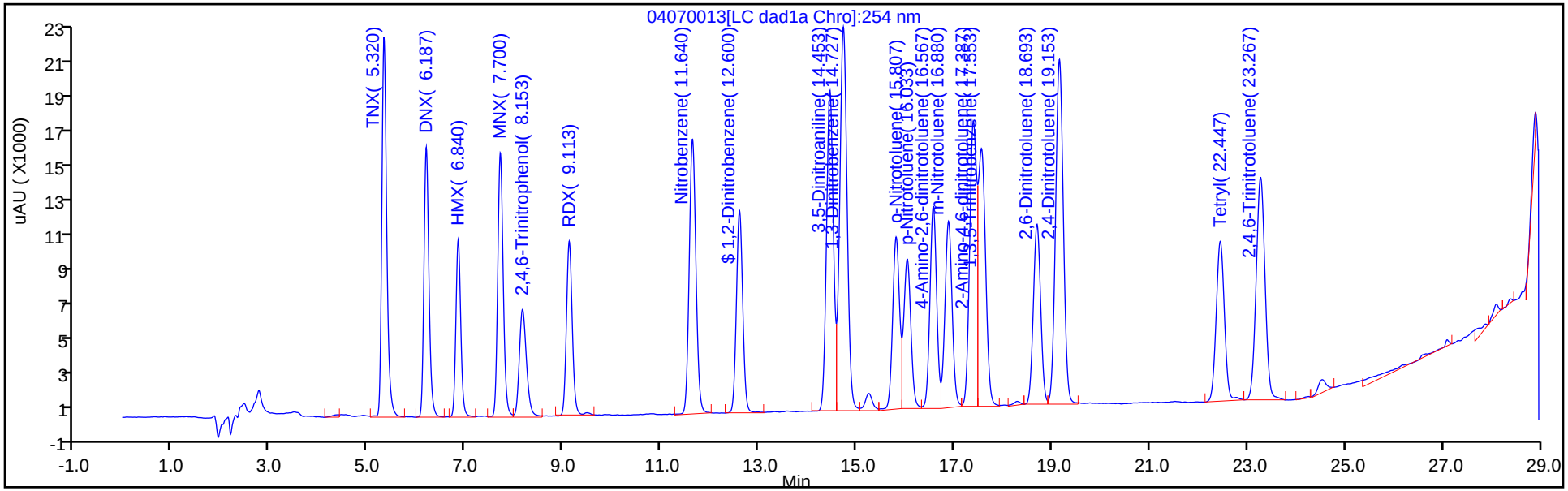
Report Date: 12-Apr-2023 15:55:26 Chrom Revision: 2.3 29-Mar-2023 18:39:10

Eurofins Denver

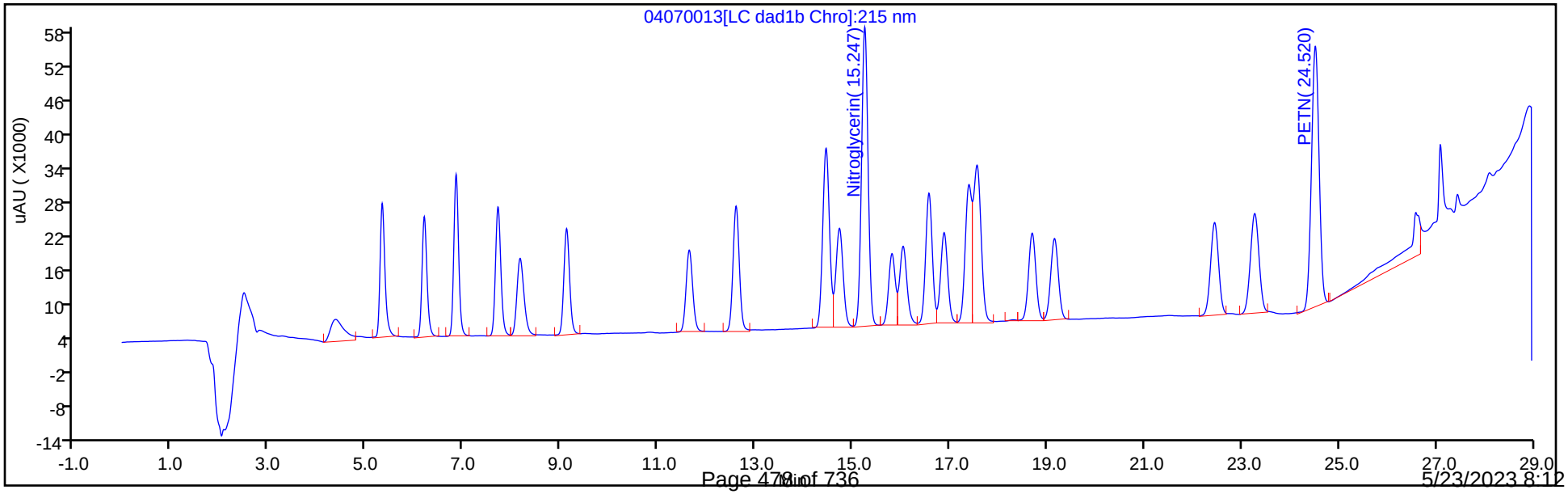
Data File: \\chromfs\denver\chromdata\g2_luna\20230407-120232.b\04070013.d

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



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

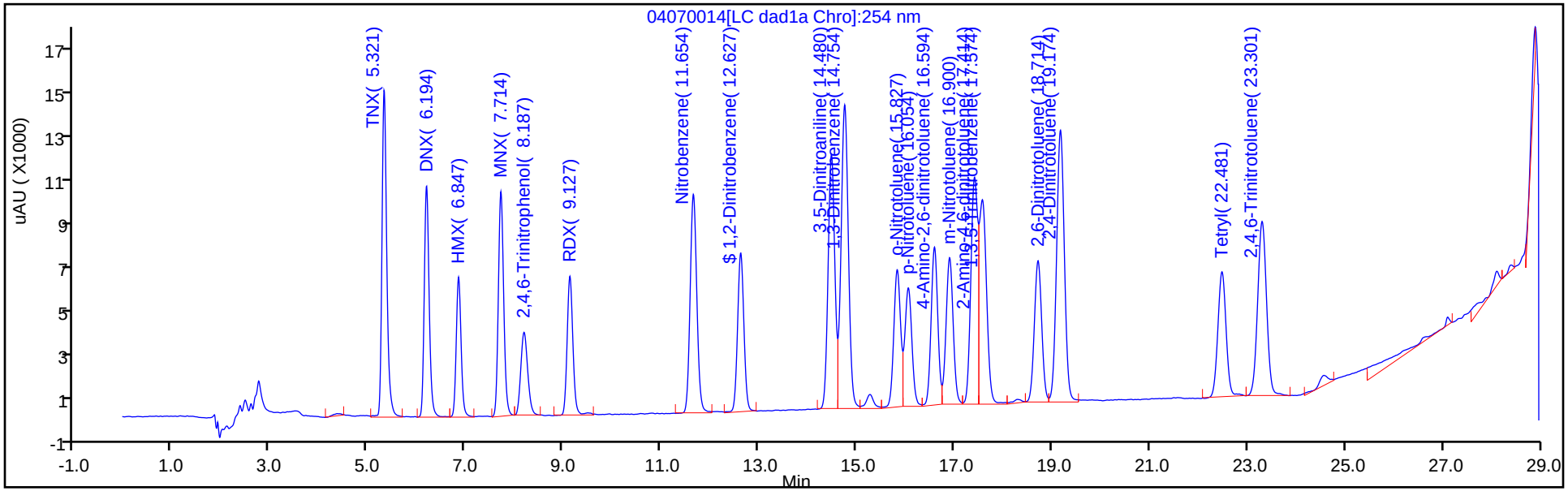
Report Date: 12-Apr-2023 15:55:26 Chrom Revision: 2.3 29-Mar-2023 18:39:10

Eurofins Denver

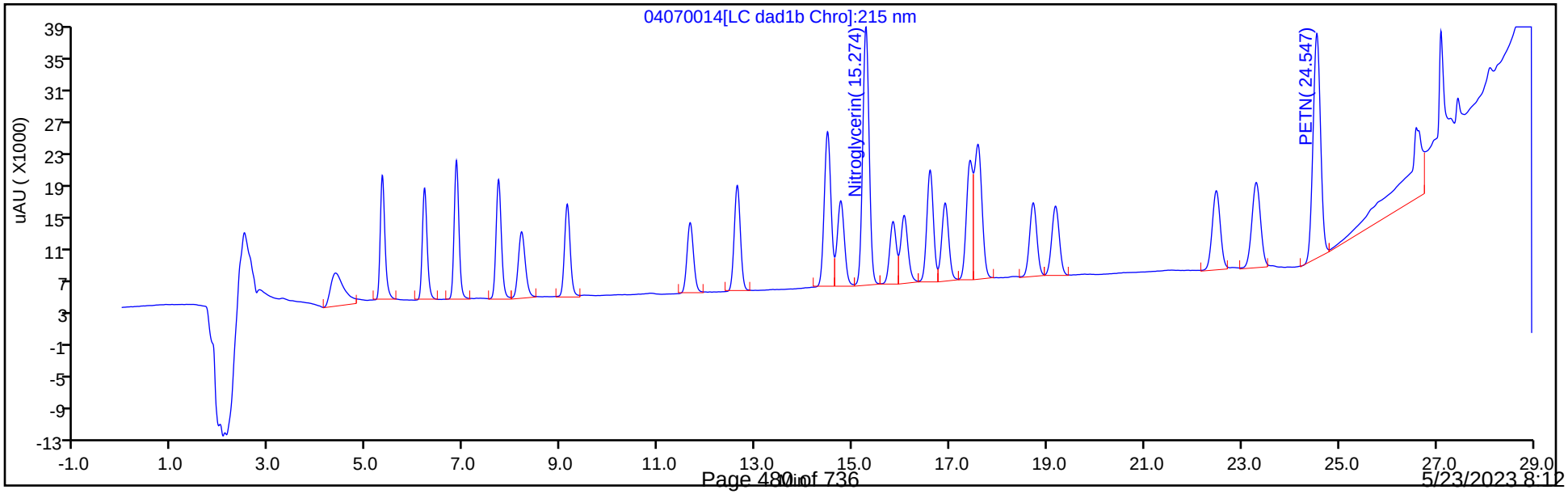
Data File: \\chromfs\denver\chromdata\g2_luna\20230407-120232.b\04070014.d

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



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

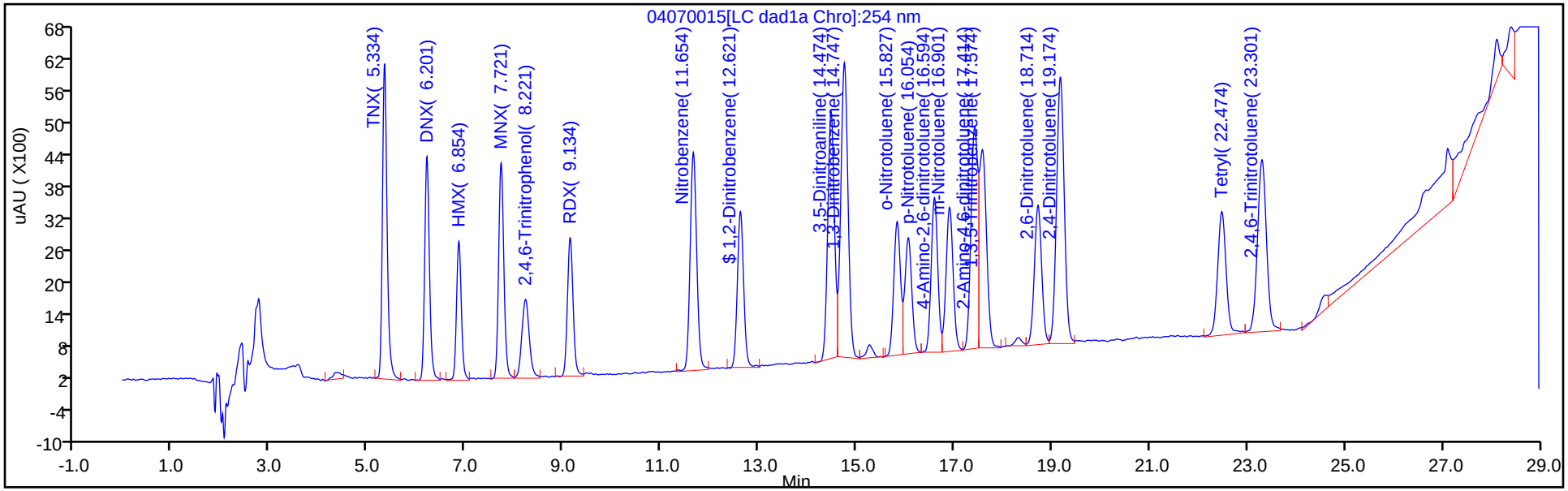
Report Date: 12-Apr-2023 15:55:27 Chrom Revision: 2.3 29-Mar-2023 18:39:10

Eurofins Denver

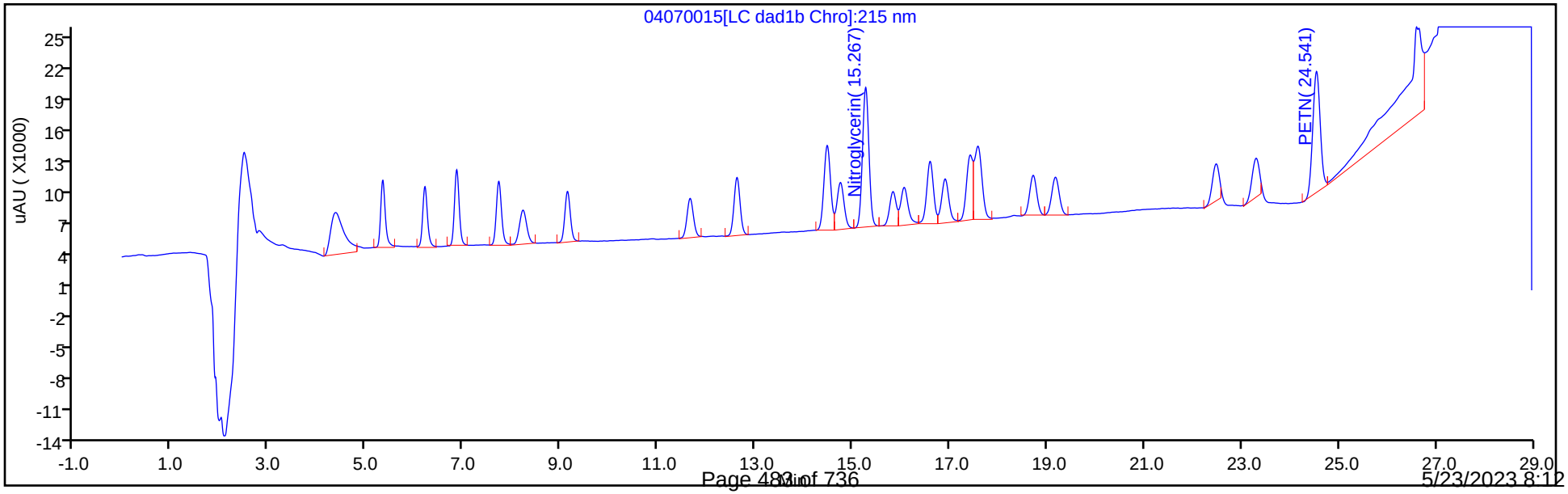
Data File: \\chromfs\denver\chromdata\g2_luna\20230407-120232.b\04070015.d

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



Manual Integration/User Assign Peak Report

Eurofins Denver

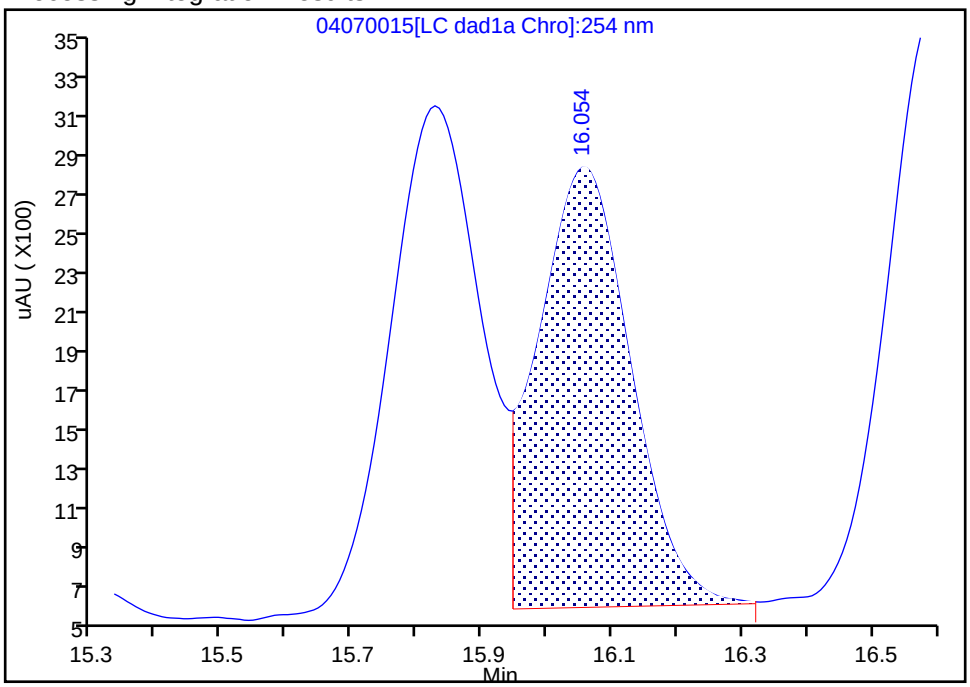
Data File:	\\chromfs\denver\chromdata\g2_luna\20230407-120232.b\04070015.d				
Injection Date:	07-Apr-2023 22:02:48	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT DMT 4				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	15	Worklist Smp#:	15
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	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

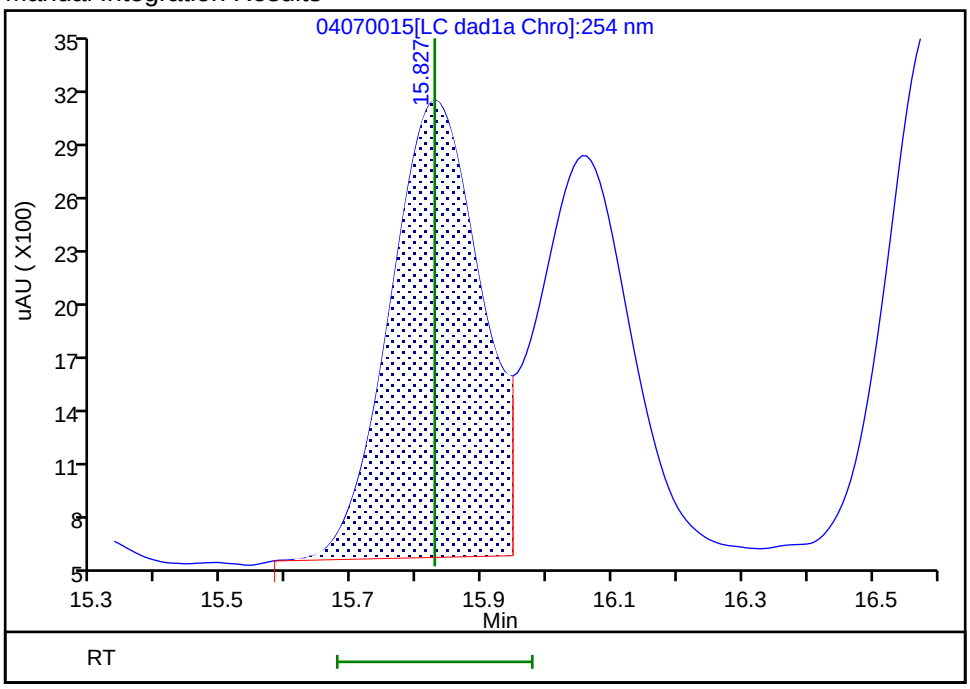
Processing Integration Results

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

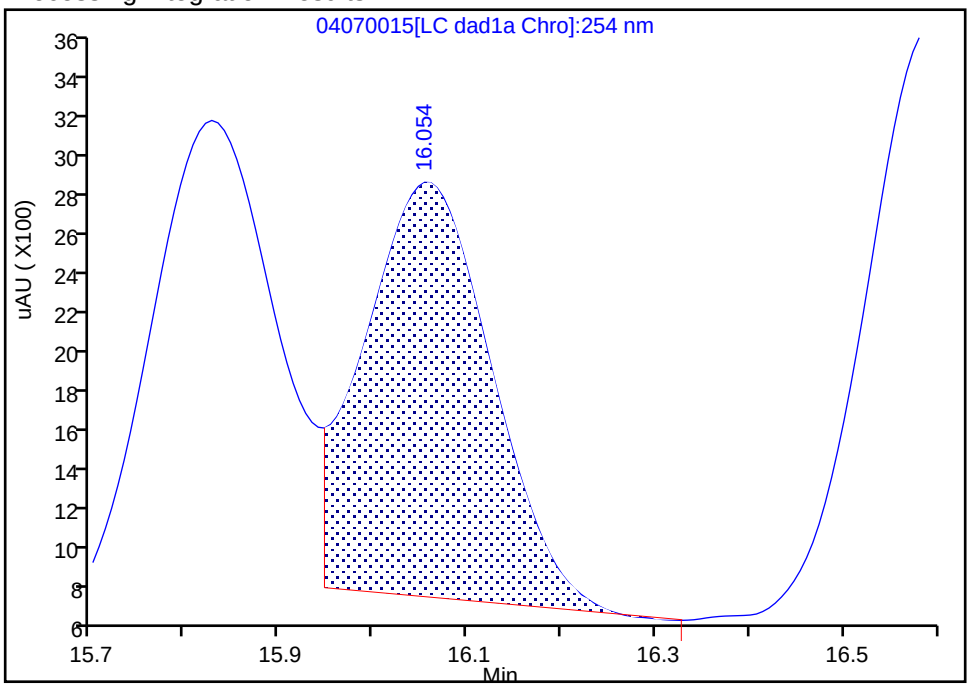
Data File: \\chromfs\denver\chromdata\g2_luna\20230407-120232.b\04070015.d
Injection Date: 07-Apr-2023 22:02:48 Instrument ID: CHHPLC_G2_LUNA
Lims ID: IC INT DMT 4
Client ID:
Operator ID: JZ ALS Bottle#: 15 Worklist Smp#: 15
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC DAD1A, 254 nm

15 p-Nitrotoluene, CAS: 99-99-0

Signal: 1

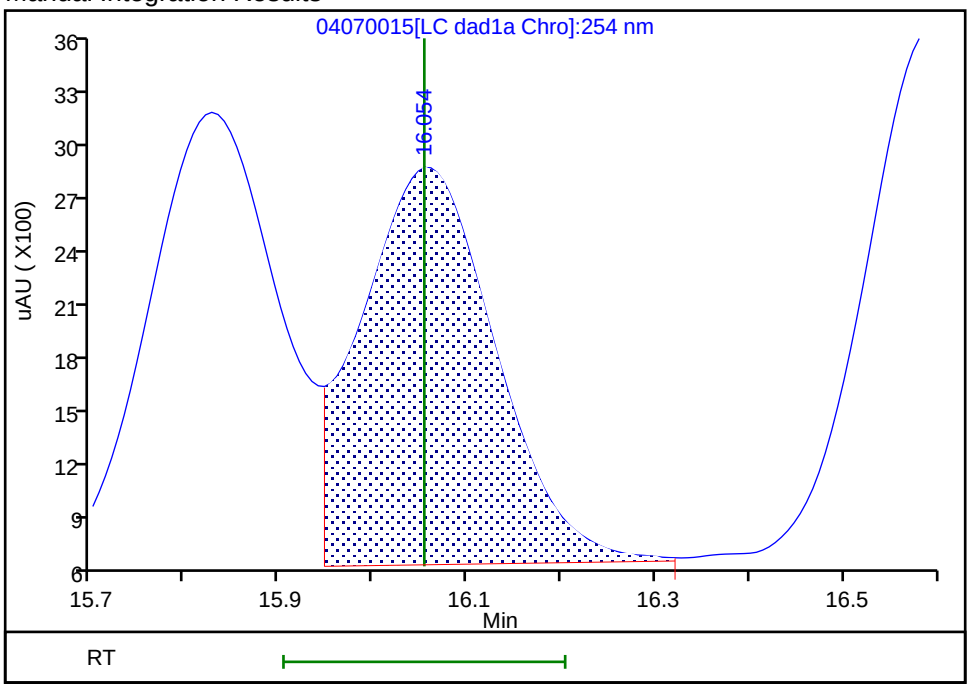
Processing Integration Results

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

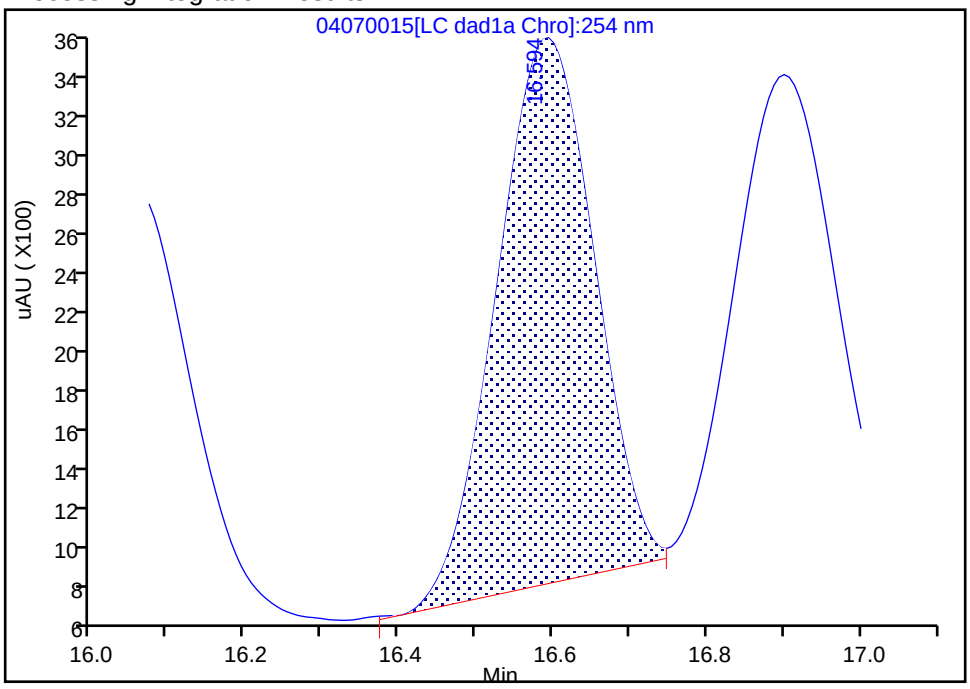
Data File:	\\chromfs\denver\chromdata\g2_luna\20230407-120232.b\04070015.d				
Injection Date:	07-Apr-2023 22:02:48	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT DMT 4				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	15	Worklist Smp#:	15
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	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

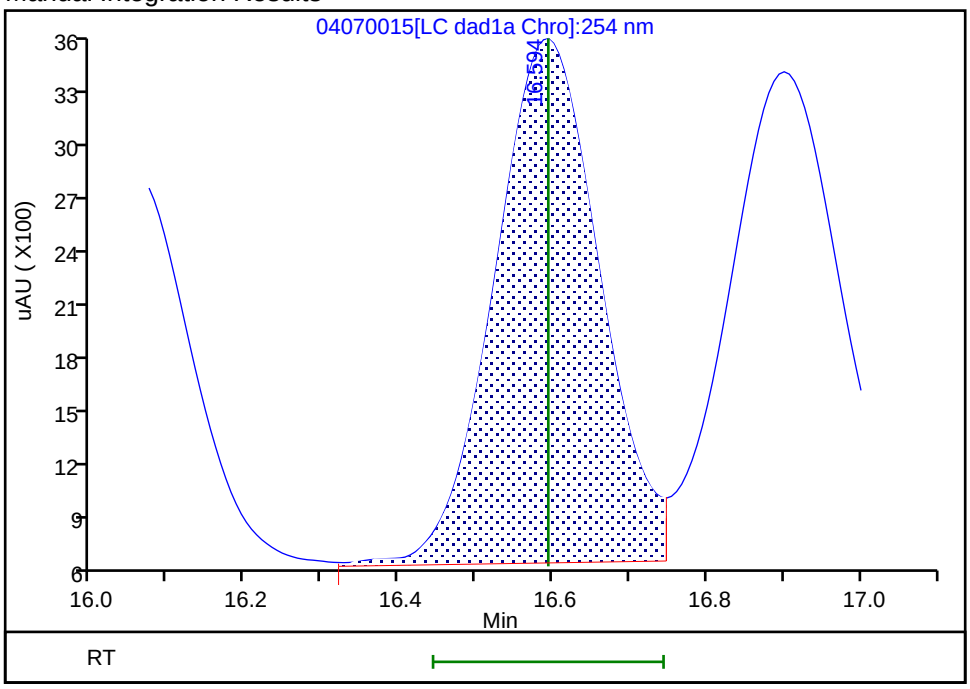
Processing Integration Results

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

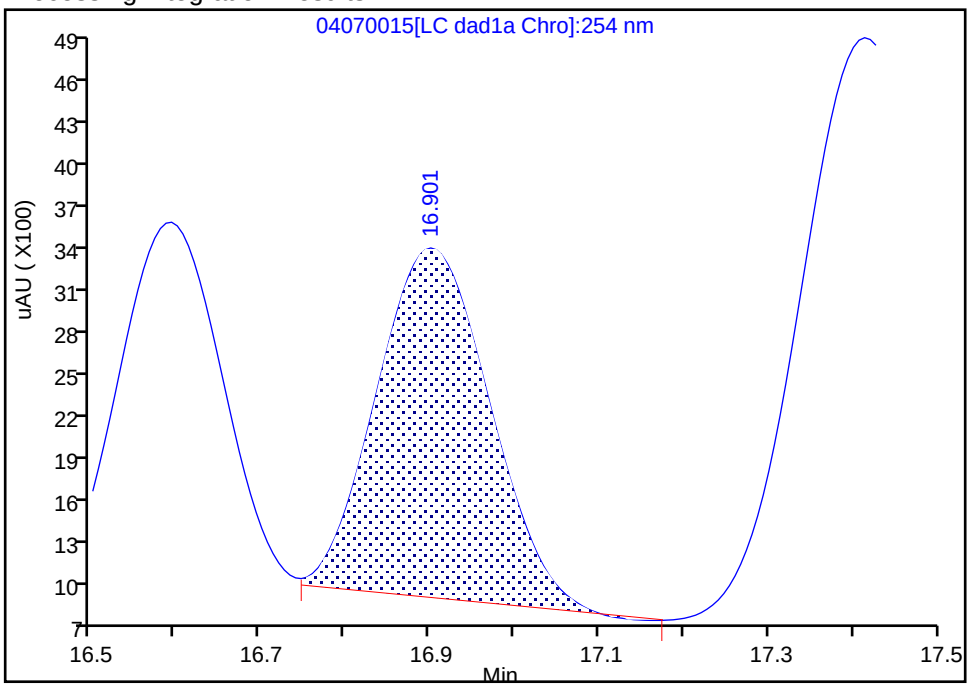
Data File: \\chromfs\denver\chromdata\g2_luna\20230407-120232.b\04070015.d
Injection Date: 07-Apr-2023 22:02:48 Instrument ID: CHHPLC_G2_LUNA
Lims ID: IC INT DMT 4
Client ID:
Operator ID: JZ ALS Bottle#: 15 Worklist Smp#: 15
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC DAD1A, 254 nm

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

Signal: 1

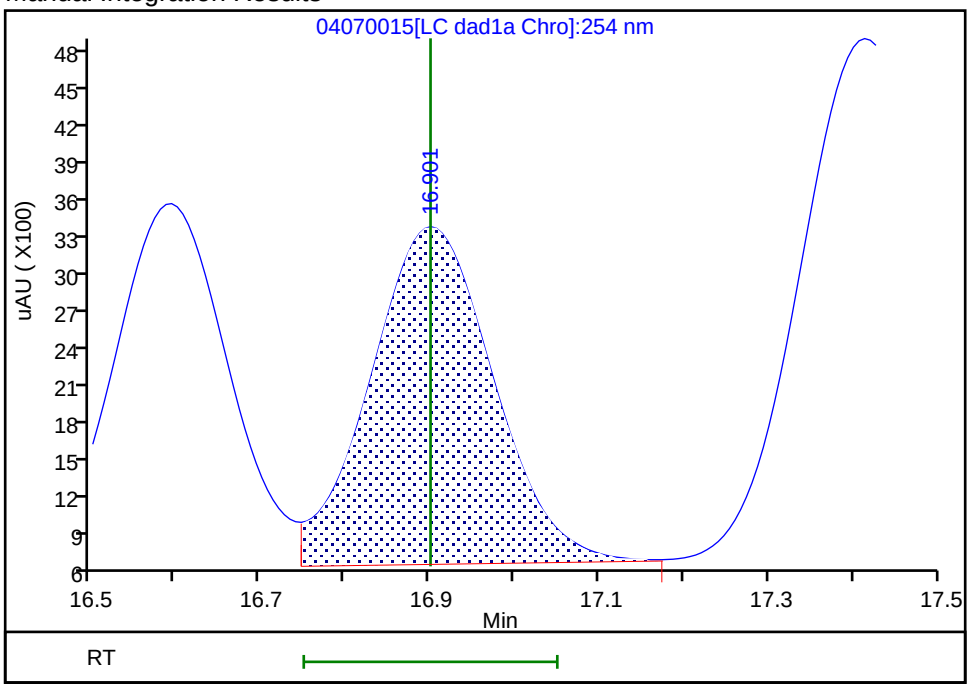
Processing Integration Results

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

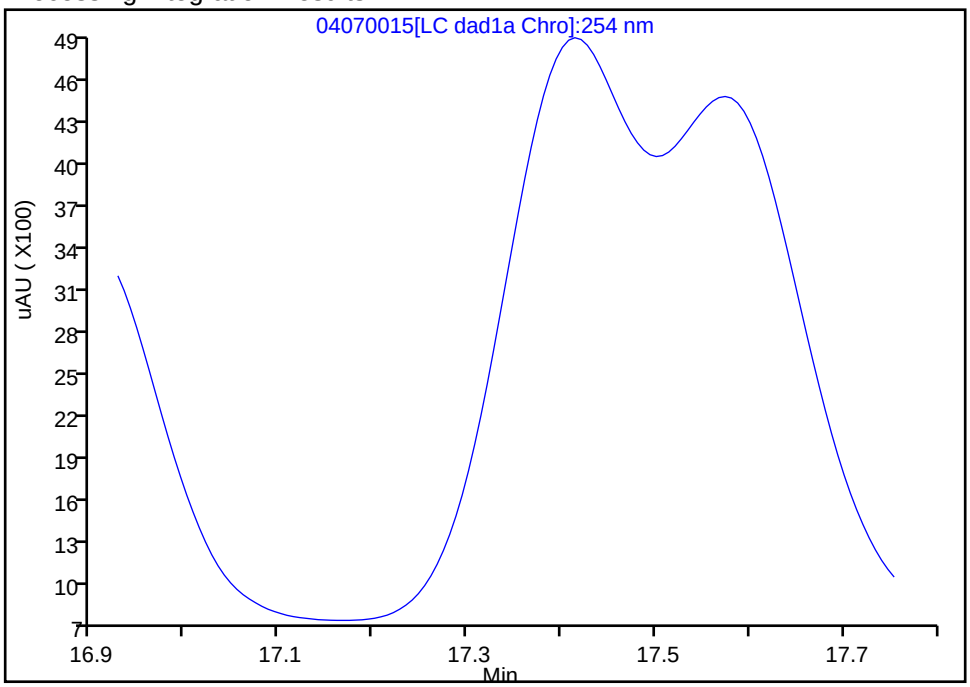
Data File:	\\chromfs\denver\chromdata\g2_luna\20230407-120232.b\04070015.d				
Injection Date:	07-Apr-2023 22:02:48	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT DMT 4				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	15	Worklist Smp#:	15
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	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

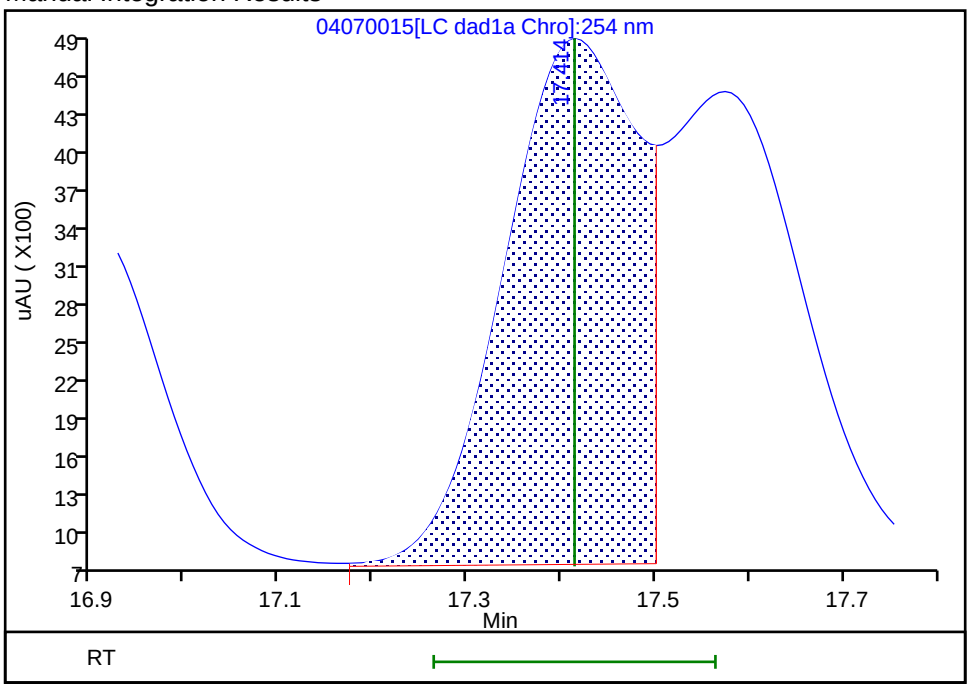
Not Detected
Expected RT: 17.41

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

Manual Integration/User Assign Peak Report

Eurofins Denver

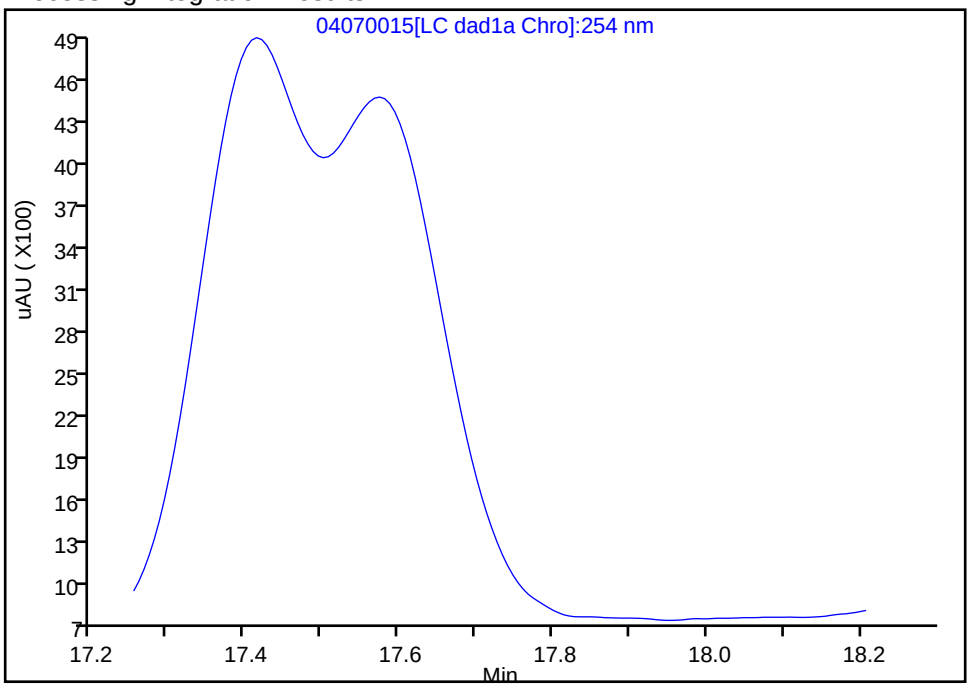
Data File:	\\chromfs\denver\chromdata\g2_luna\20230407-120232.b\04070015.d				
Injection Date:	07-Apr-2023 22:02:48	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT DMT 4				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	15	Worklist Smp#:	15
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

19 1,3,5-Trinitrobenzene, CAS: 99-35-4

Signal: 1

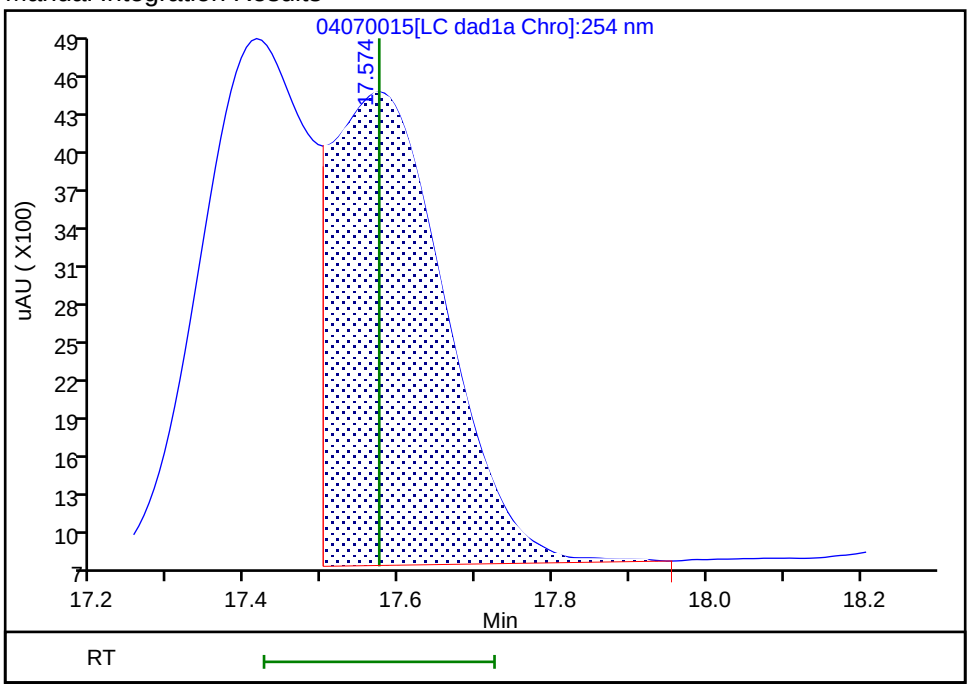
Not Detected
Expected RT: 17.57

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

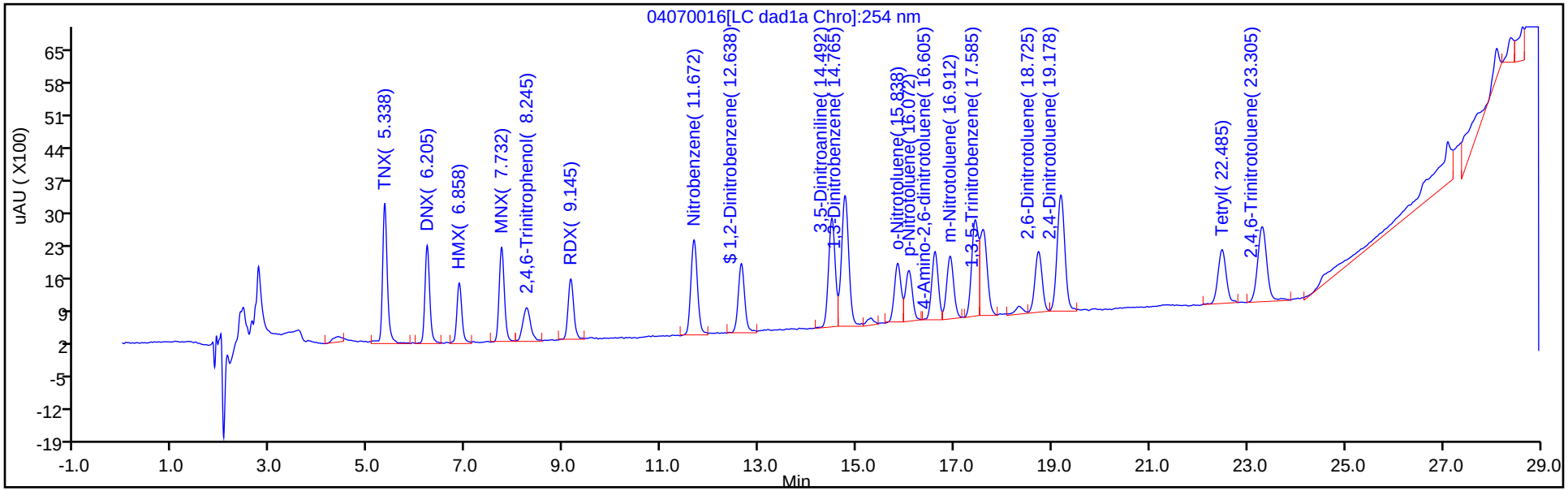
Report Date: 12-Apr-2023 15:55:28 Chrom Revision: 2.3 29-Mar-2023 18:39:10

Eurofins Denver

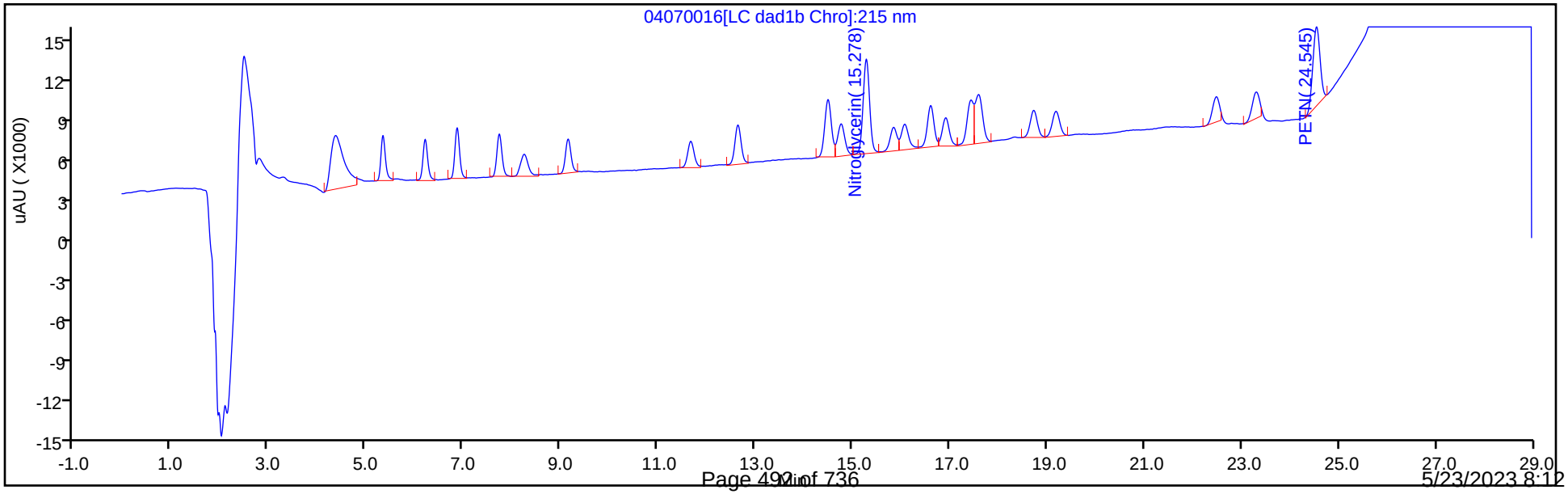
Data File: \\chromfs\denver\chromdata\g2_luna\20230407-120232.b\04070016.d

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



5/23/2023 8:12 PM

Manual Integration/User Assign Peak Report

Eurofins Denver

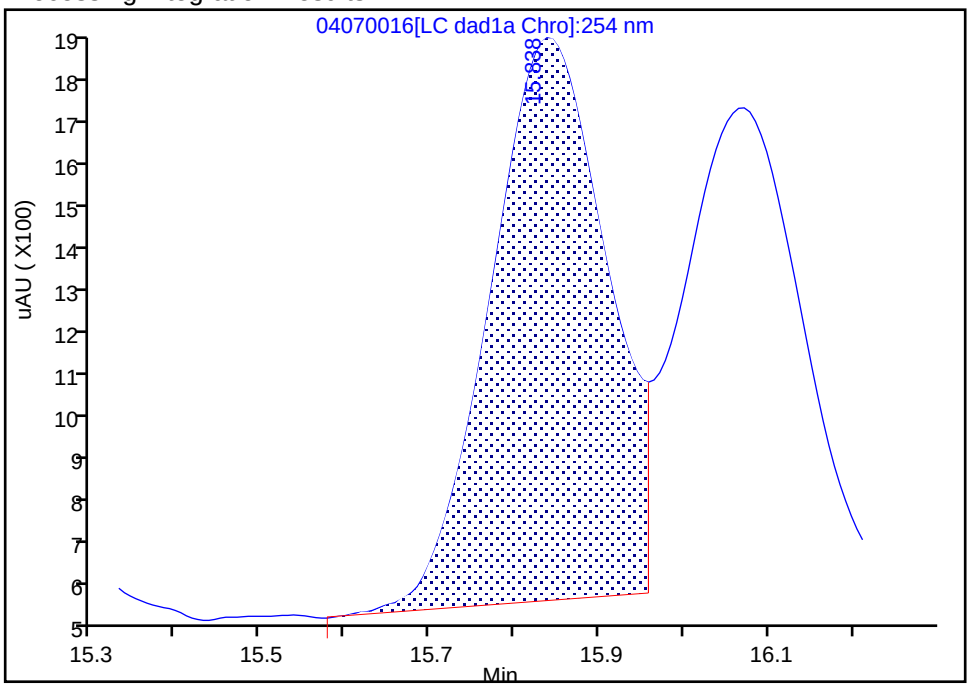
Data File:	\\chromfs\denver\chromdata\g2_luna\20230407-120232.b\04070016.d				
Injection Date:	07-Apr-2023 22:38:44	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT DMT 3				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	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

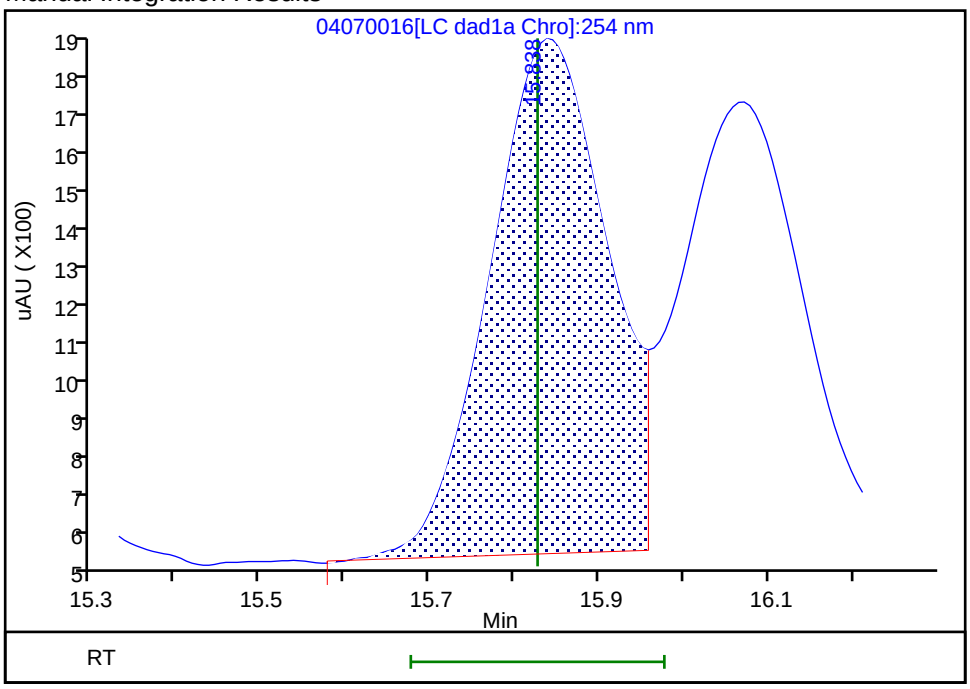
Processing Integration Results

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

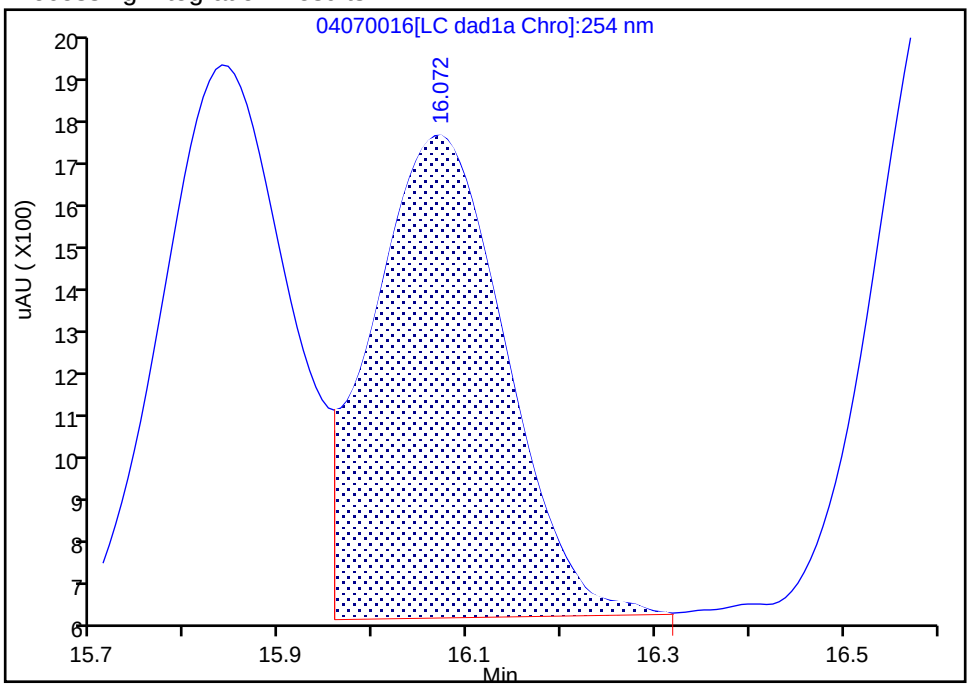
Data File: \\chromfs\denver\chromdata\g2_luna\20230407-120232.b\04070016.d
Injection Date: 07-Apr-2023 22:38:44 Instrument ID: CHHPLC_G2_LUNA
Lims ID: IC INT DMT 3
Client ID:
Operator ID: JZ ALS Bottle#: 16 Worklist Smp#: 16
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC DAD1A, 254 nm

15 p-Nitrotoluene, CAS: 99-99-0

Signal: 1

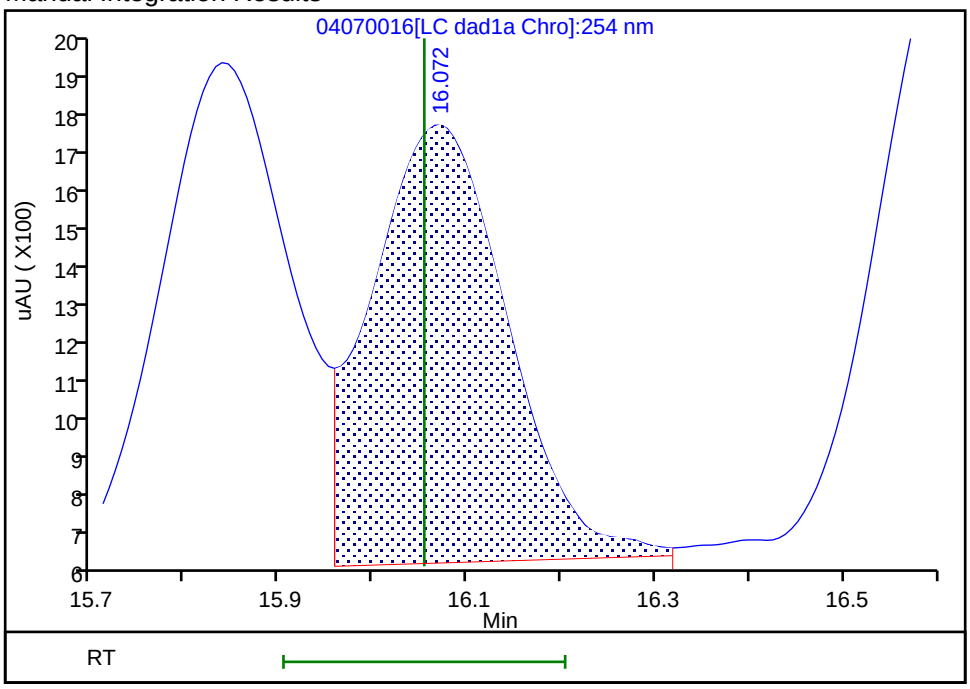
Processing Integration Results

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

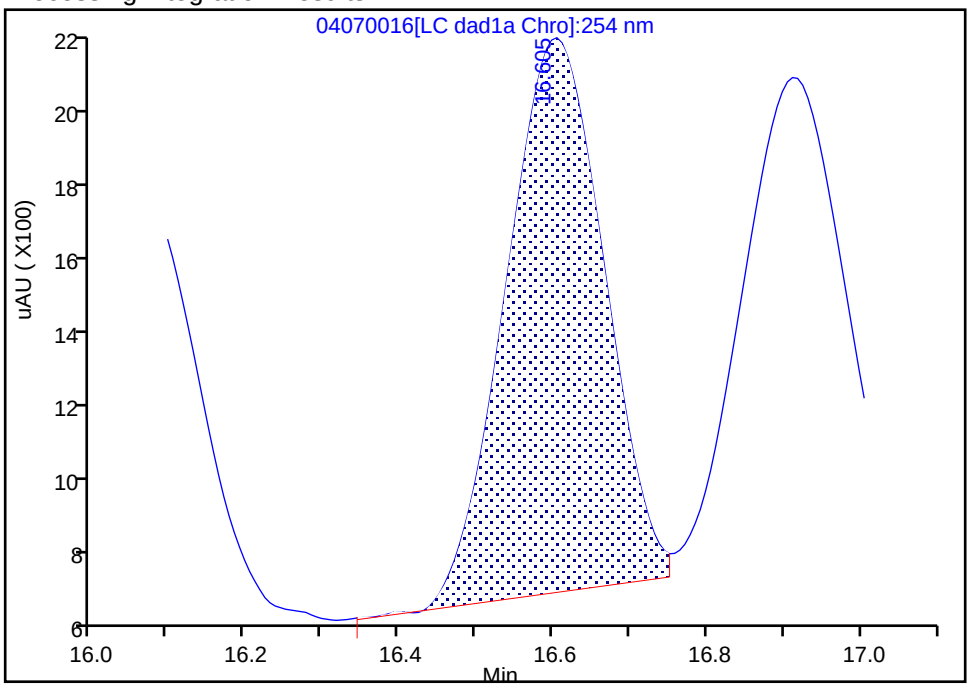
Data File:	\\chromfs\denver\chromdata\g2_luna\20230407-120232.b\04070016.d				
Injection Date:	07-Apr-2023 22:38:44	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT DMT 3				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	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

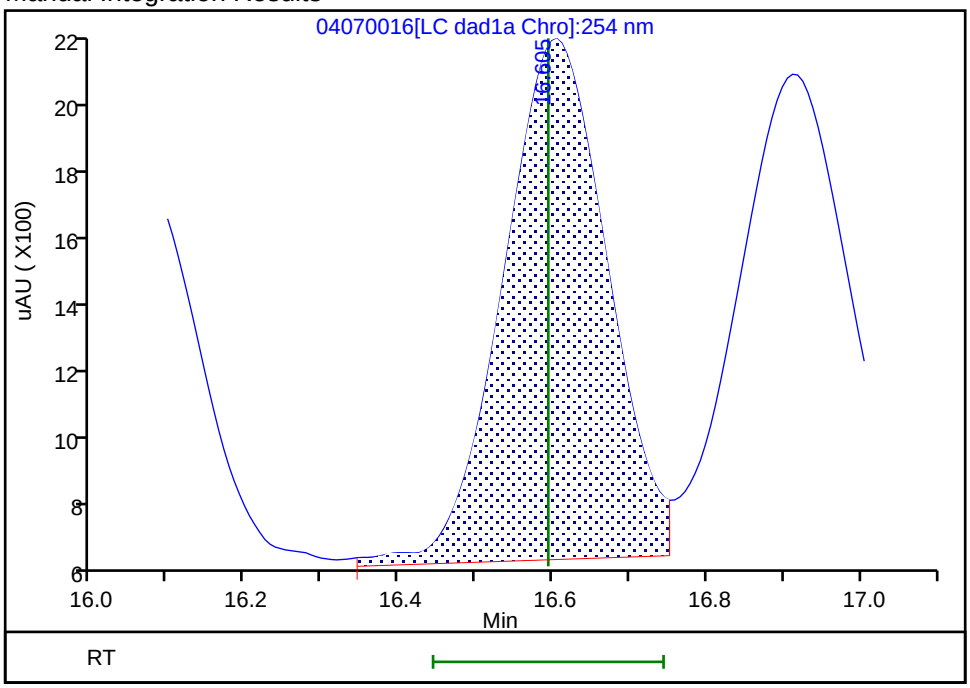
Processing Integration Results

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

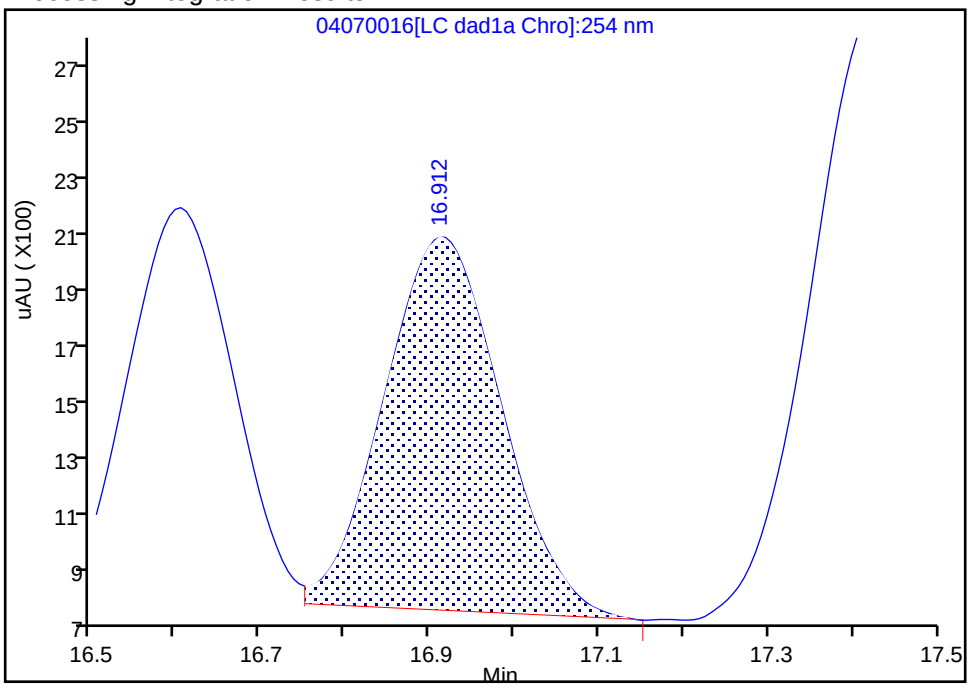
Data File:	\\chromfs\denver\chromdata\g2_luna\20230407-120232.b\04070016.d				
Injection Date:	07-Apr-2023 22:38:44	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT DMT 3				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	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

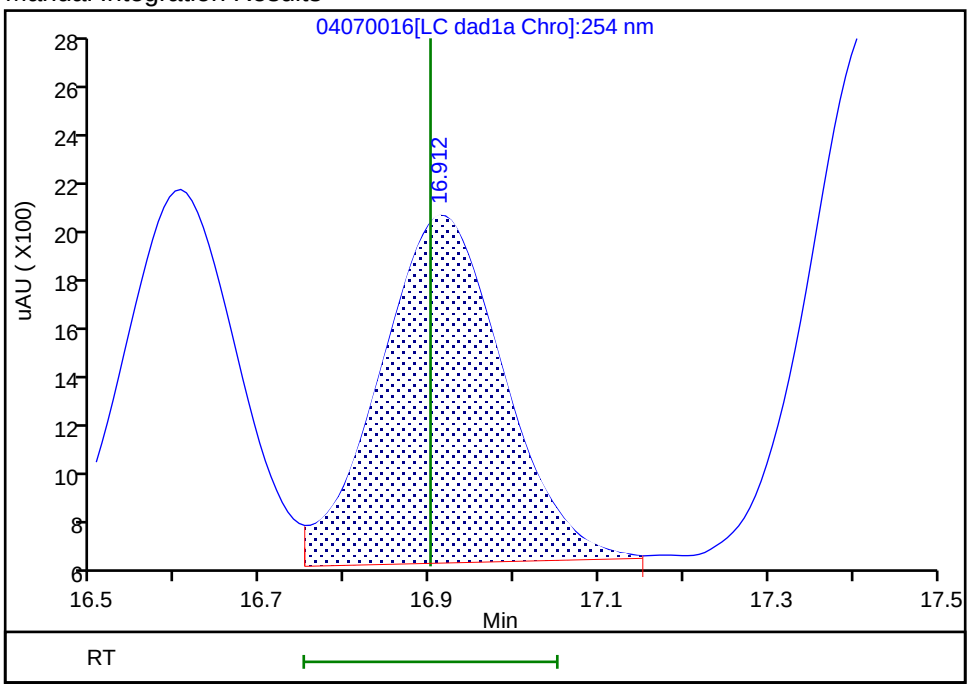
Processing Integration Results

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

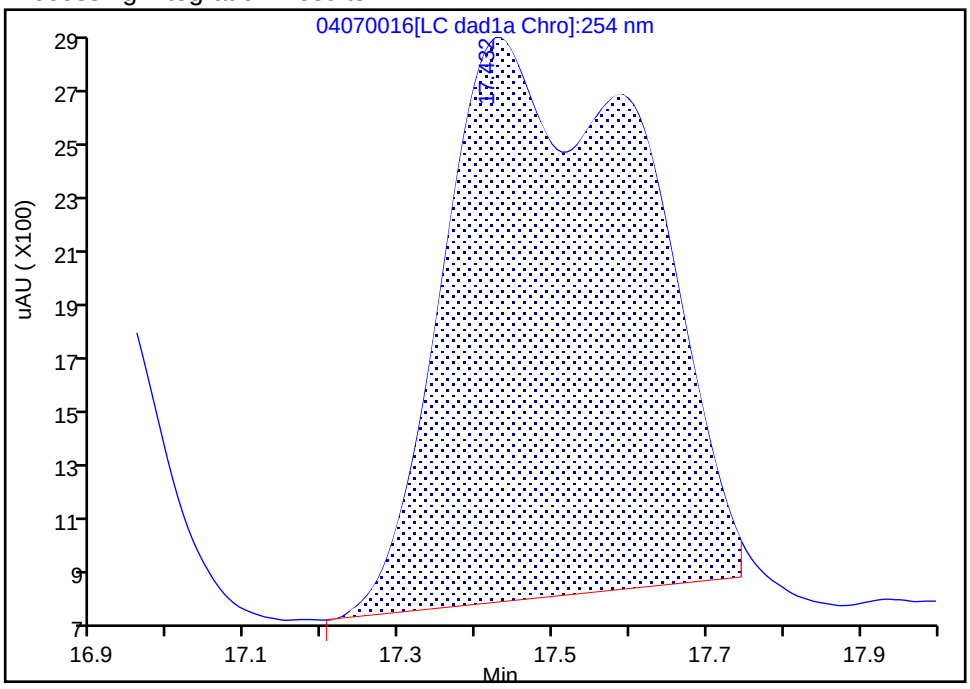
Data File: \\chromfs\denver\chromdata\g2_luna\20230407-120232.b\04070016.d
Injection Date: 07-Apr-2023 22:38:44 Instrument ID: CHHPLC_G2_LUNA
Lims ID: IC INT DMT 3
Client ID:
Operator ID: JZ ALS Bottle#: 16 Worklist Smp#: 16
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: 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

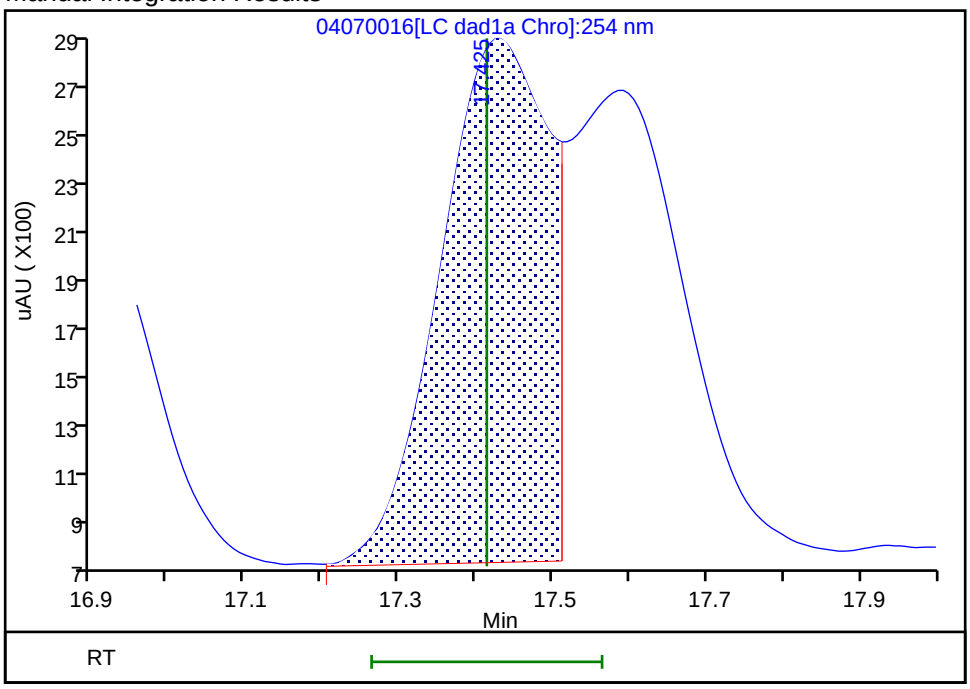
Processing Integration Results

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

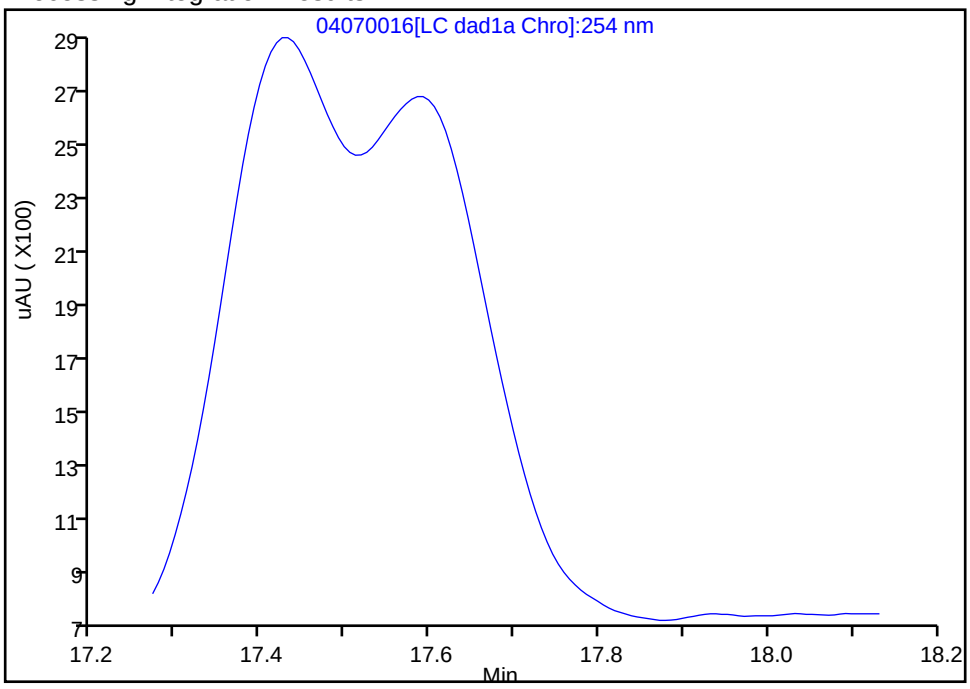
Data File: \\chromfs\denver\chromdata\g2_luna\20230407-120232.b\04070016.d
Injection Date: 07-Apr-2023 22:38:44 Instrument ID: CHHPLC_G2_LUNA
Lims ID: IC INT DMT 3
Client ID:
Operator ID: JZ ALS Bottle#: 16 Worklist Smp#: 16
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: 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

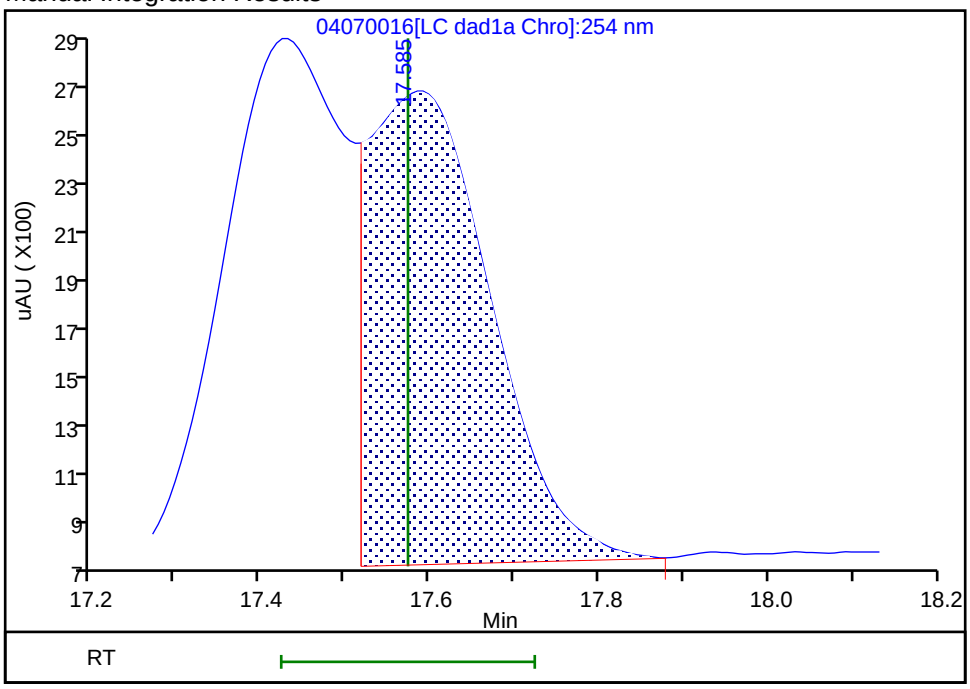
Not Detected
Expected RT: 17.57

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

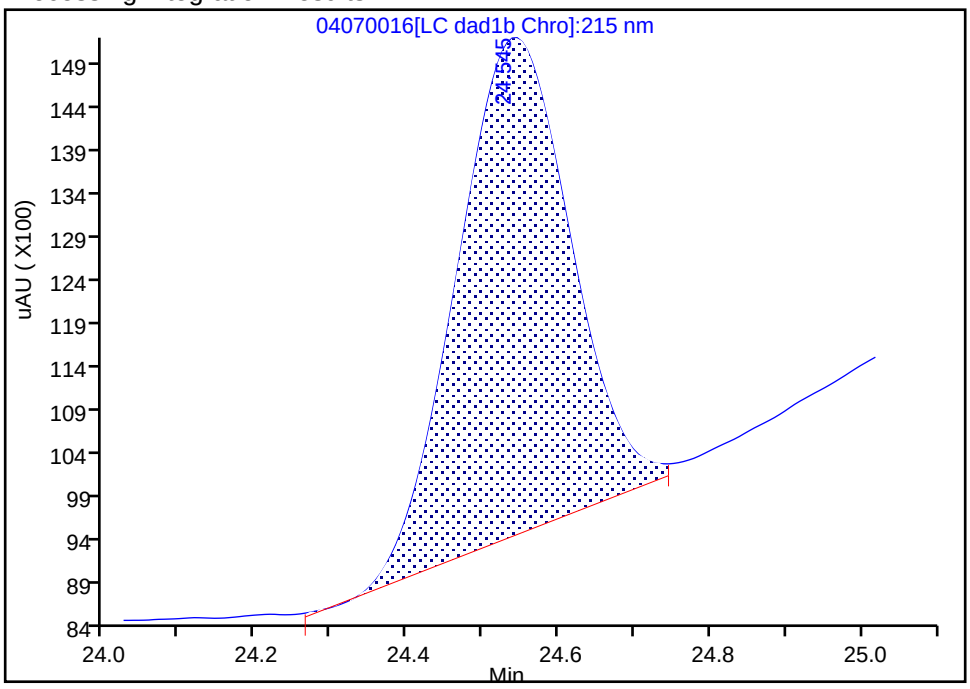
Data File:	\\chromfs\denver\chromdata\g2_luna\20230407-120232.b\04070016.d				
Injection Date:	07-Apr-2023 22:38:44	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT DMT 3				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1B, 215 nm		

24 PETN, CAS: 78-11-5

Signal: 1

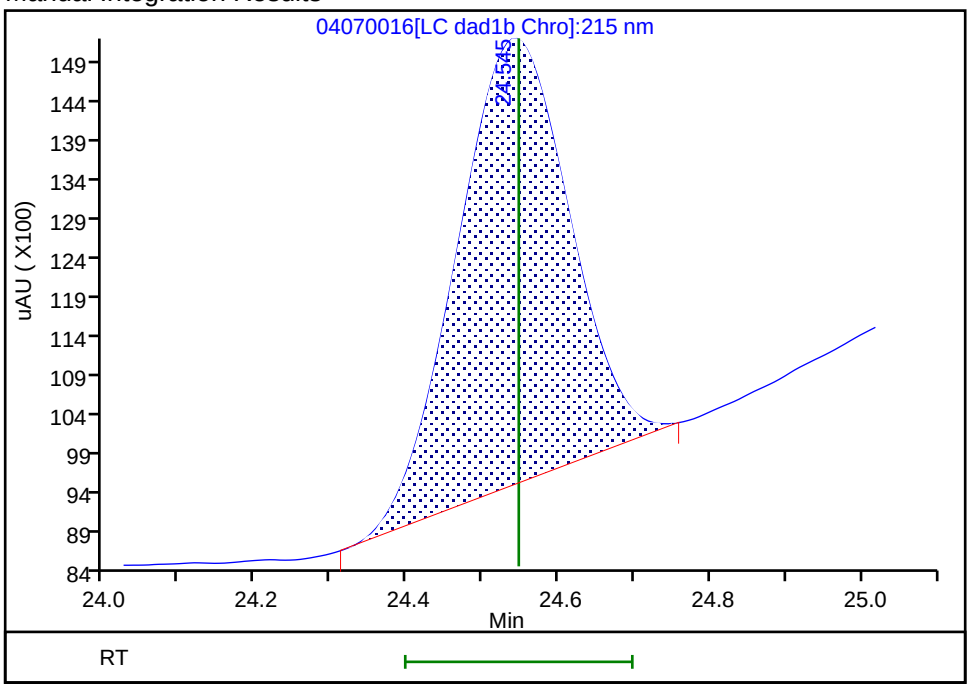
Processing Integration Results

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

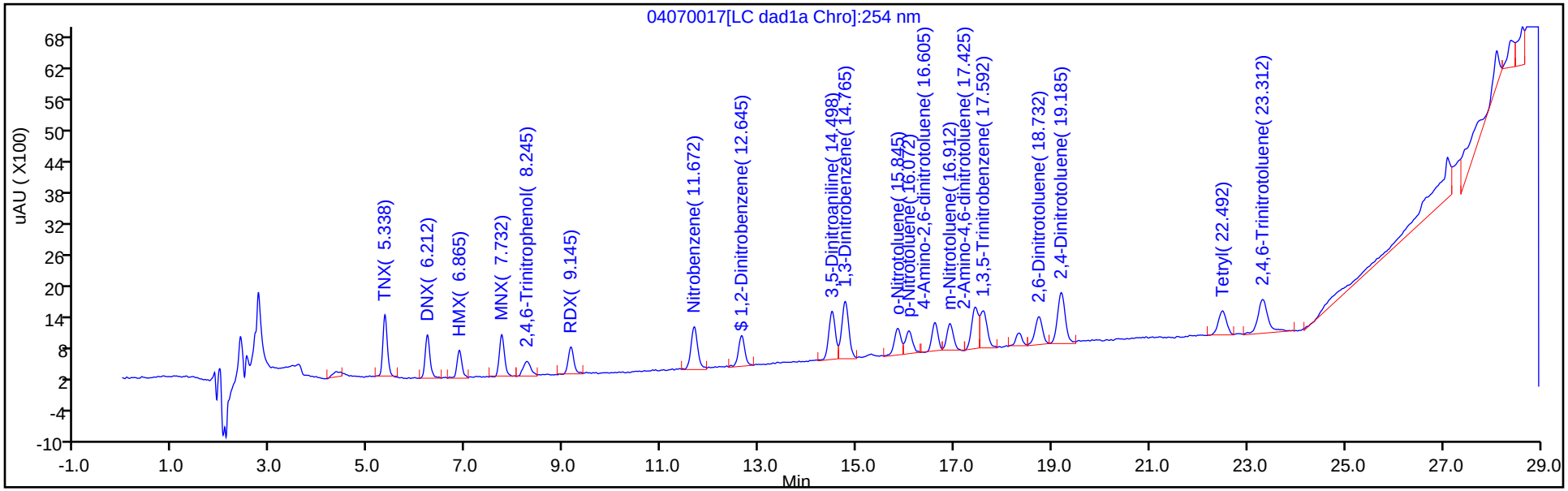
Report Date: 12-Apr-2023 15:55:29 Chrom Revision: 2.3 29-Mar-2023 18:39:10

Eurofins Denver

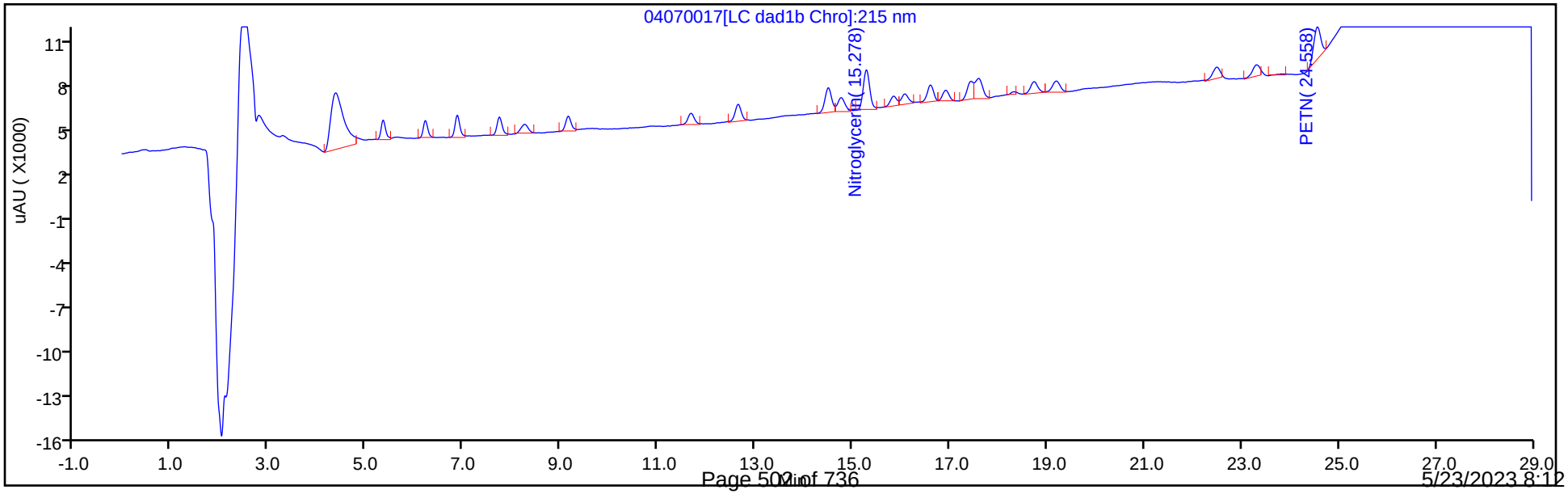
Data File: \\chromfs\denver\chromdata\g2_luna\20230407-120232.b\04070017.d

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



Manual Integration/User Assign Peak Report

Eurofins Denver

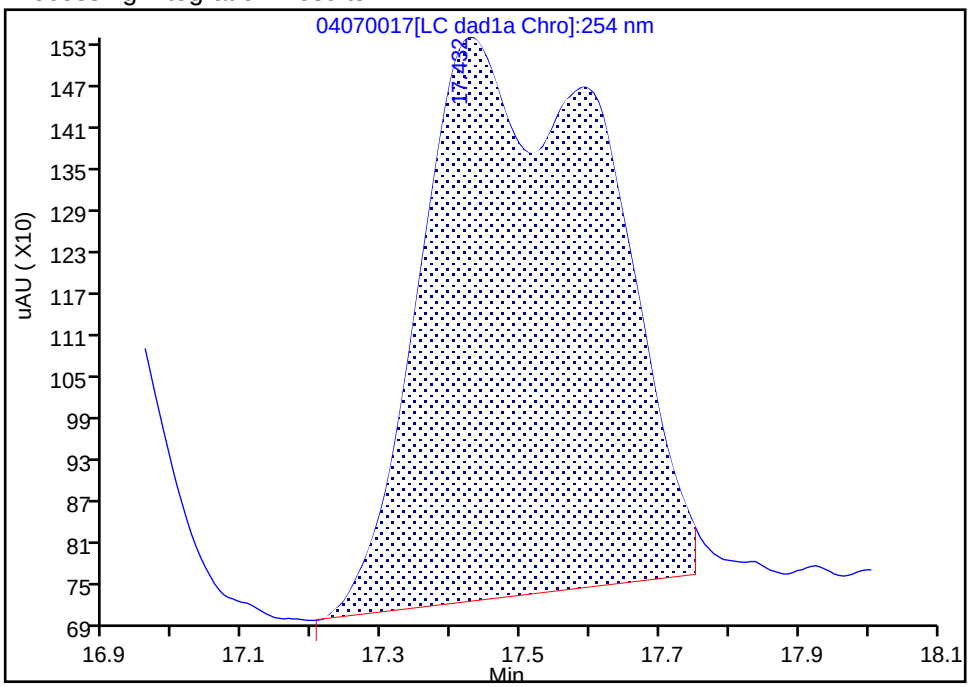
Data File:	\\chromfs\denver\chromdata\g2_luna\20230407-120232.b\04070017.d				
Injection Date:	07-Apr-2023 23:14:38	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT DMT 2				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	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

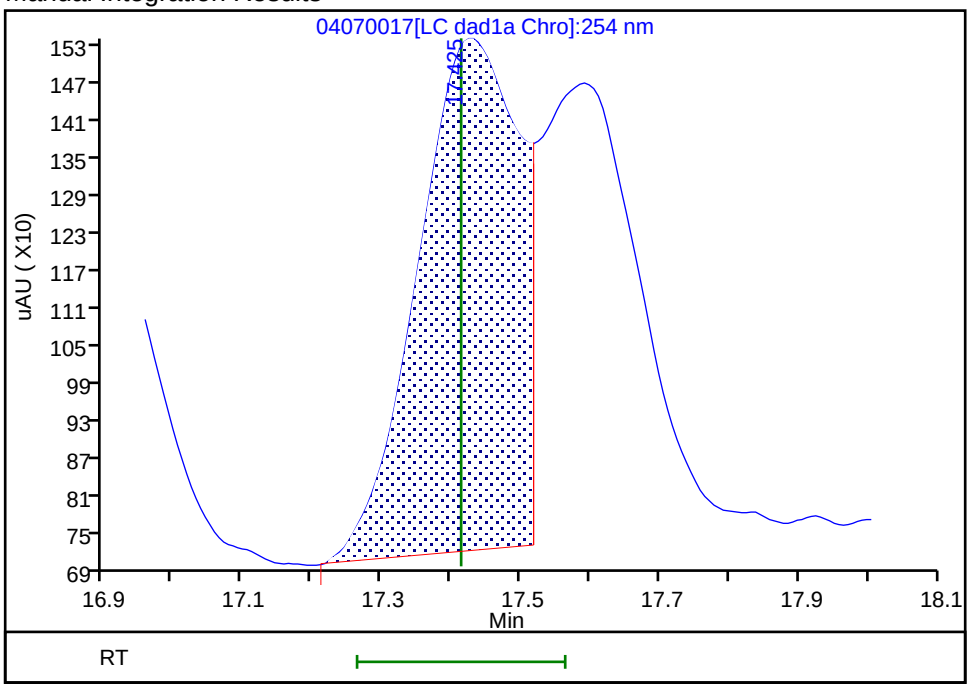
Processing Integration Results

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

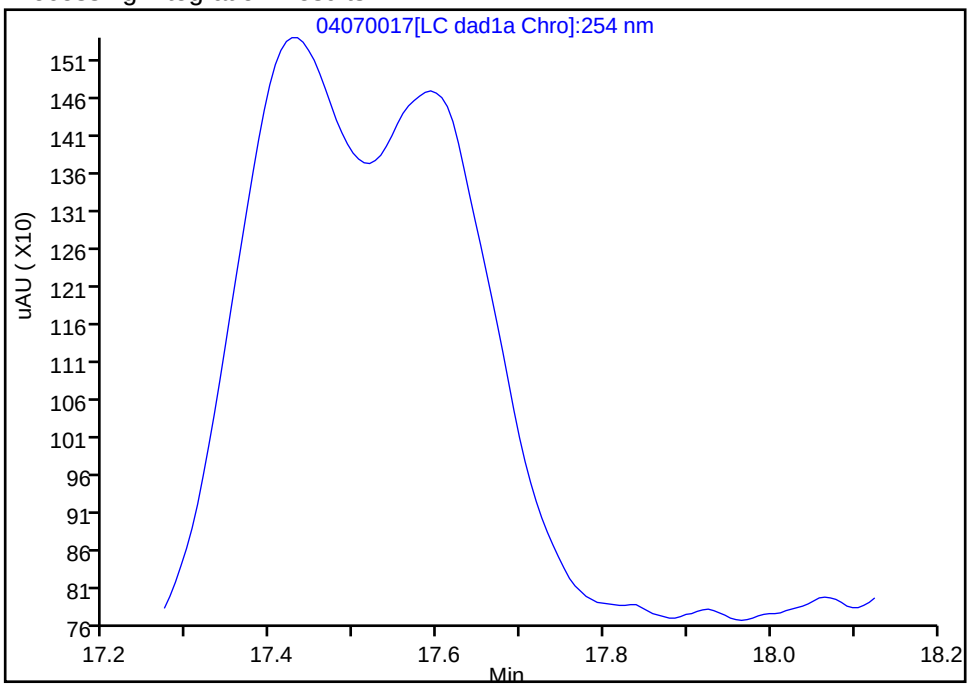
Data File:	\\chromfs\denver\chromdata\g2_luna\20230407-120232.b\04070017.d				
Injection Date:	07-Apr-2023 23:14:38	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT DMT 2				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	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

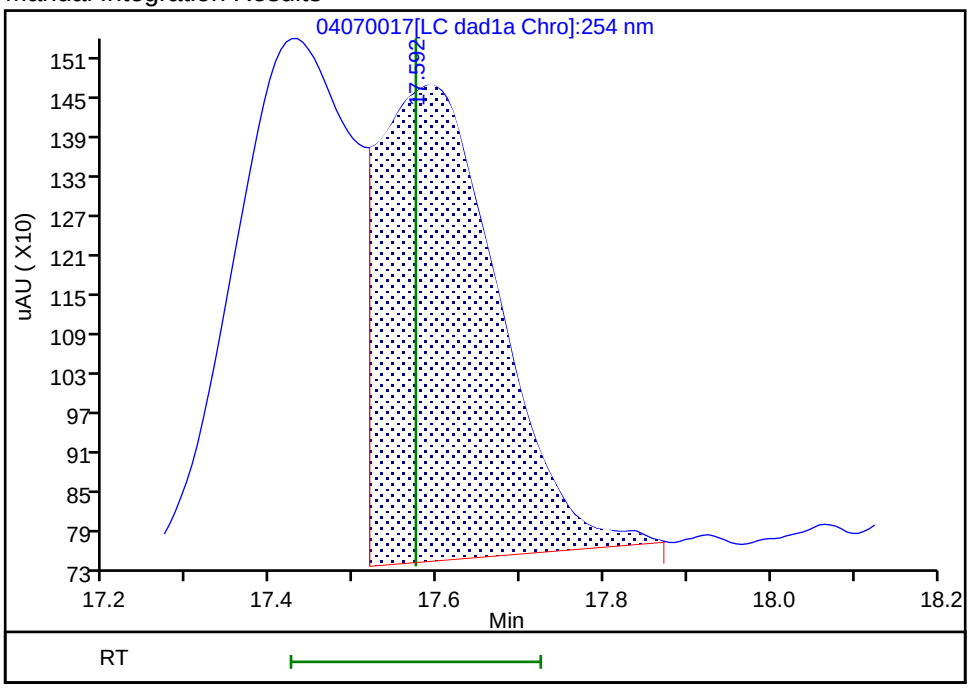
Not Detected
Expected RT: 17.57

Processing Integration Results



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

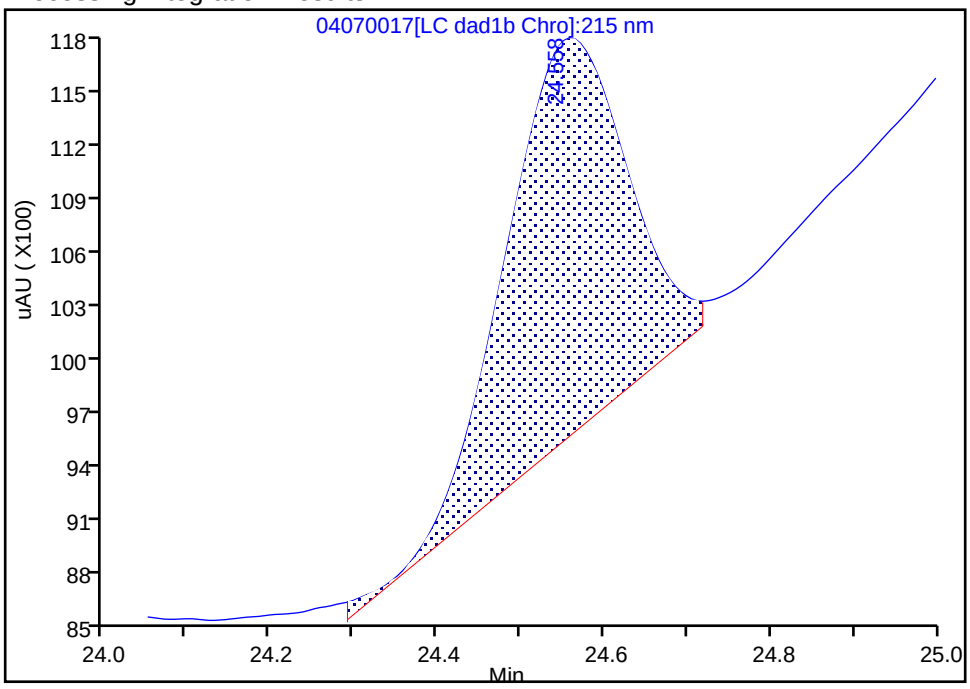
Data File:	\\chromfs\denver\chromdata\g2_luna\20230407-120232.b\04070017.d				
Injection Date:	07-Apr-2023 23:14:38	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT DMT 2				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1B, 215 nm		

24 PETN, CAS: 78-11-5

Signal: 1

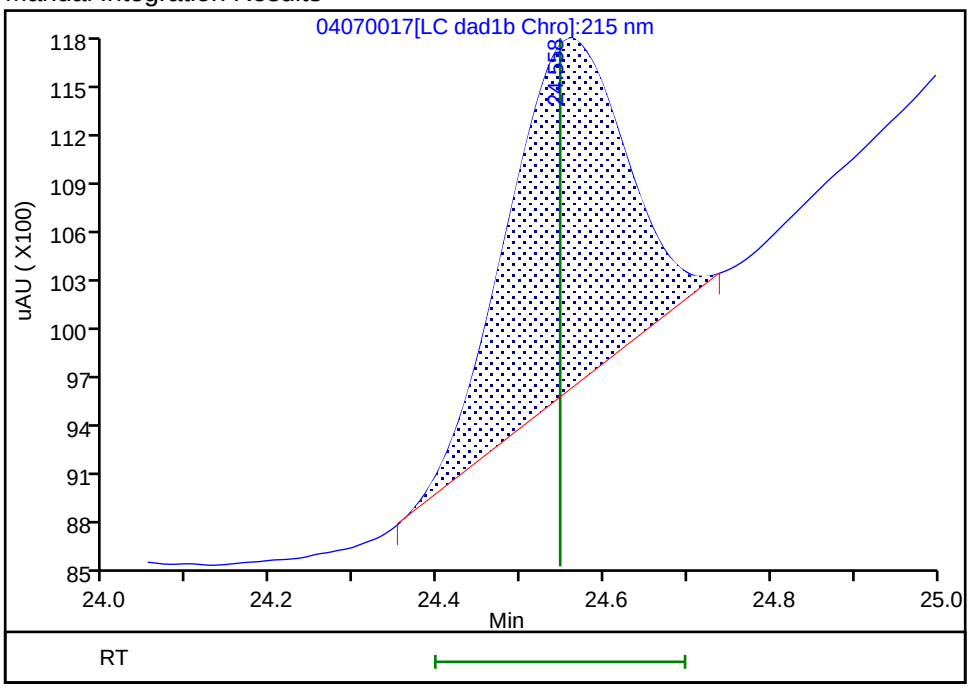
Processing Integration Results

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

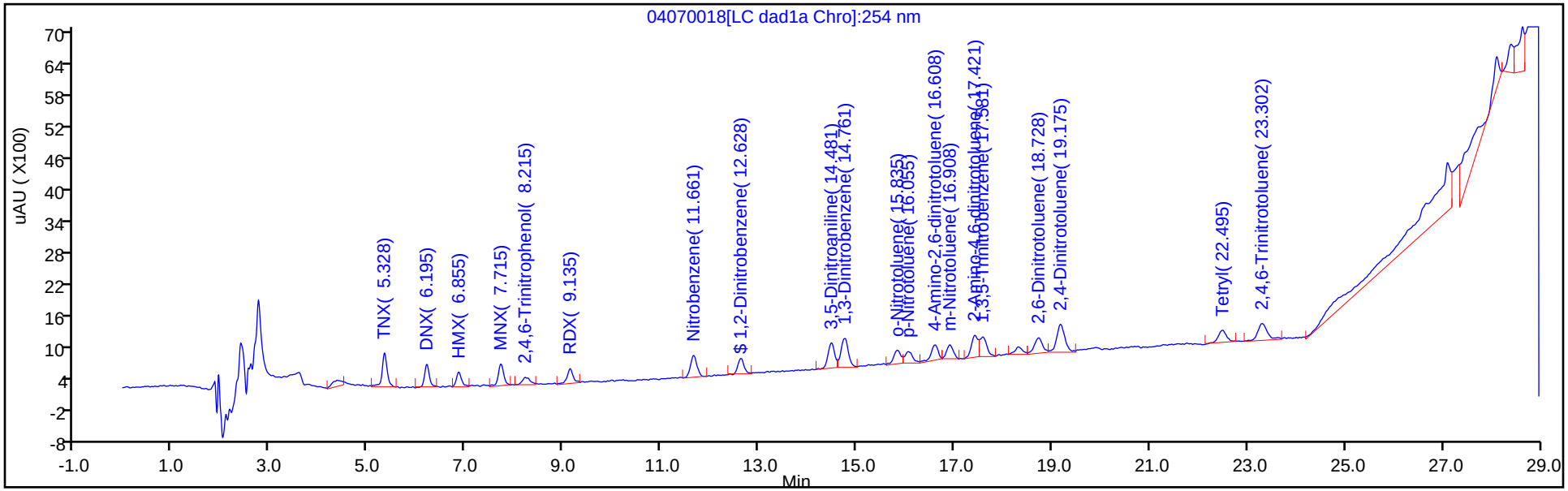
Report Date: 12-Apr-2023 15:55:29 Chrom Revision: 2.3 29-Mar-2023 18:39:10

Eurofins Denver

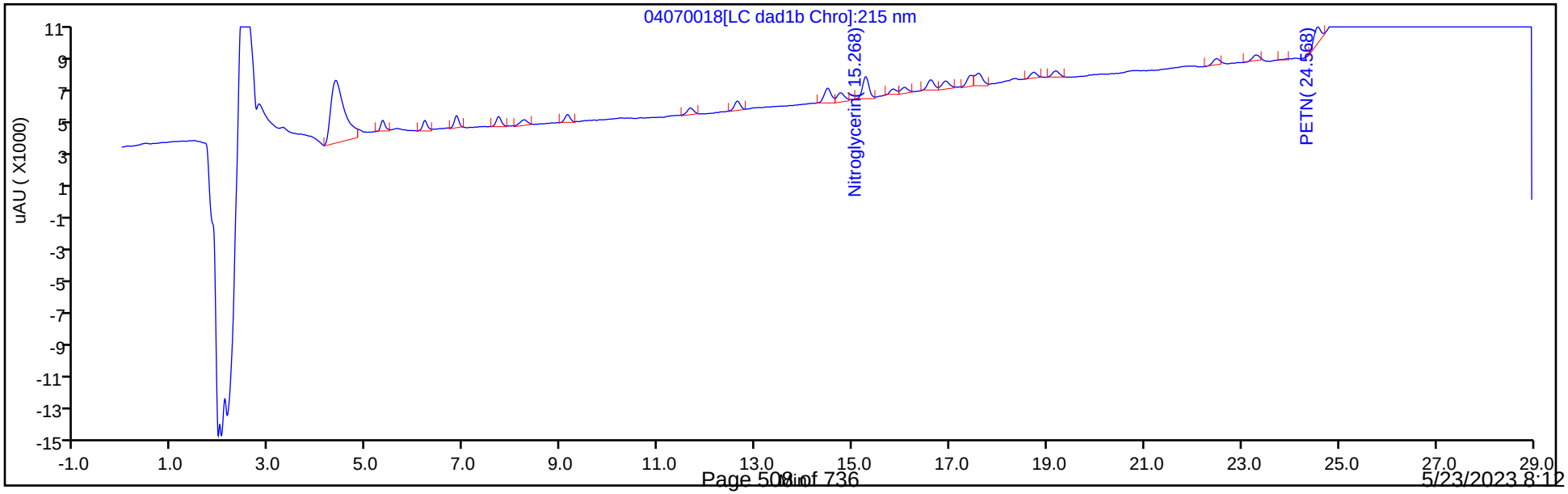
Data File: \\chromfs\denver\chromdata\g2_luna\20230407-120232.b\04070018.d

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



Manual Integration/User Assign Peak Report

Eurofins Denver

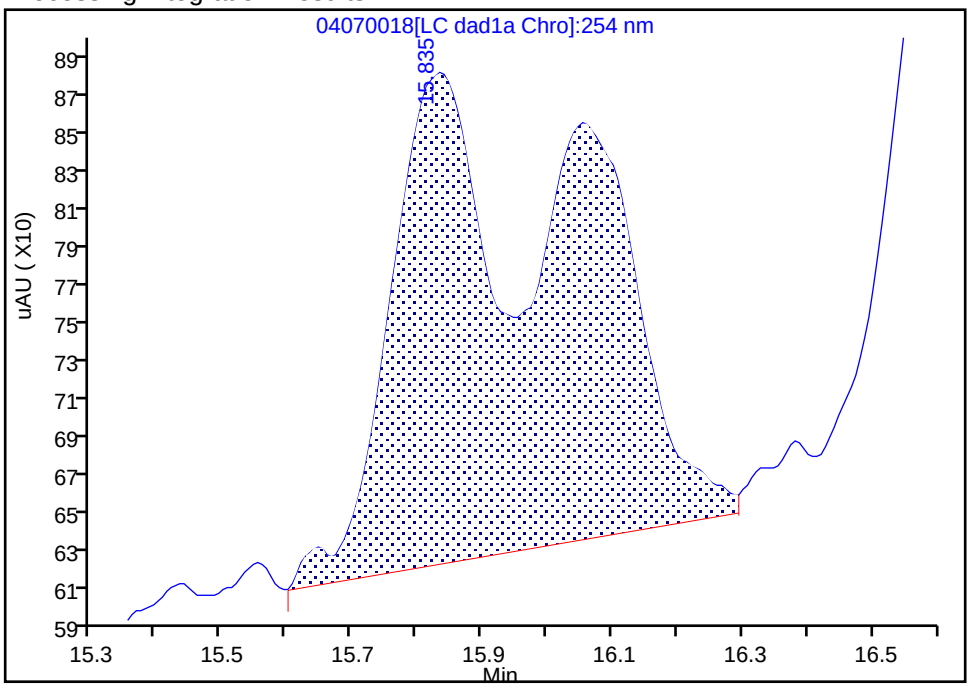
Data File: \\chromfs\denver\chromdata\g2_luna\20230407-120232.b\04070018.d
Injection Date: 07-Apr-2023 23:50:31 Instrument ID: CHHPLC_G2_LUNA
Lims ID: IC INT DMT 1
Client ID:
Operator ID: JZ ALS Bottle#: 18 Worklist Smp#: 18
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC DAD1A, 254 nm

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

Signal: 1

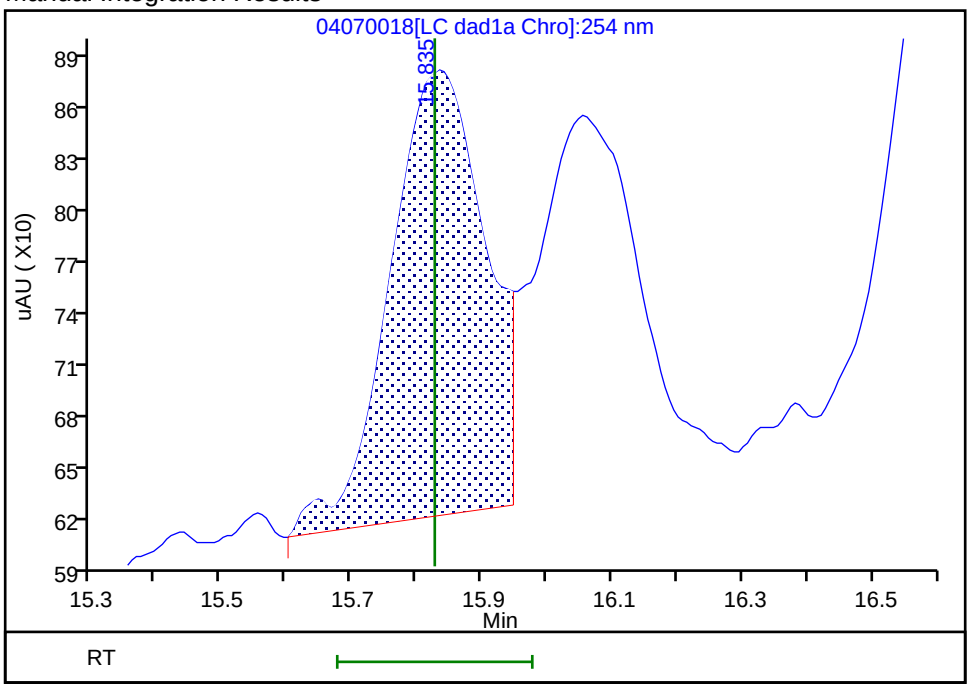
Processing Integration Results

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

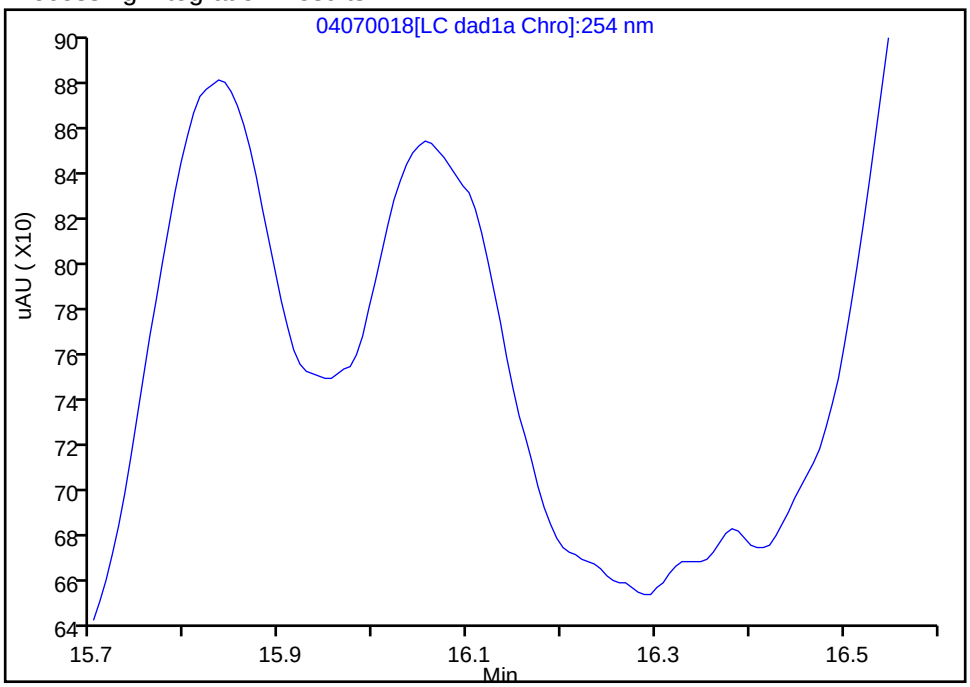
Data File:	\\chromfs\denver\chromdata\g2_luna\20230407-120232.b\04070018.d				
Injection Date:	07-Apr-2023 23:50:31	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT DMT 1				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	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

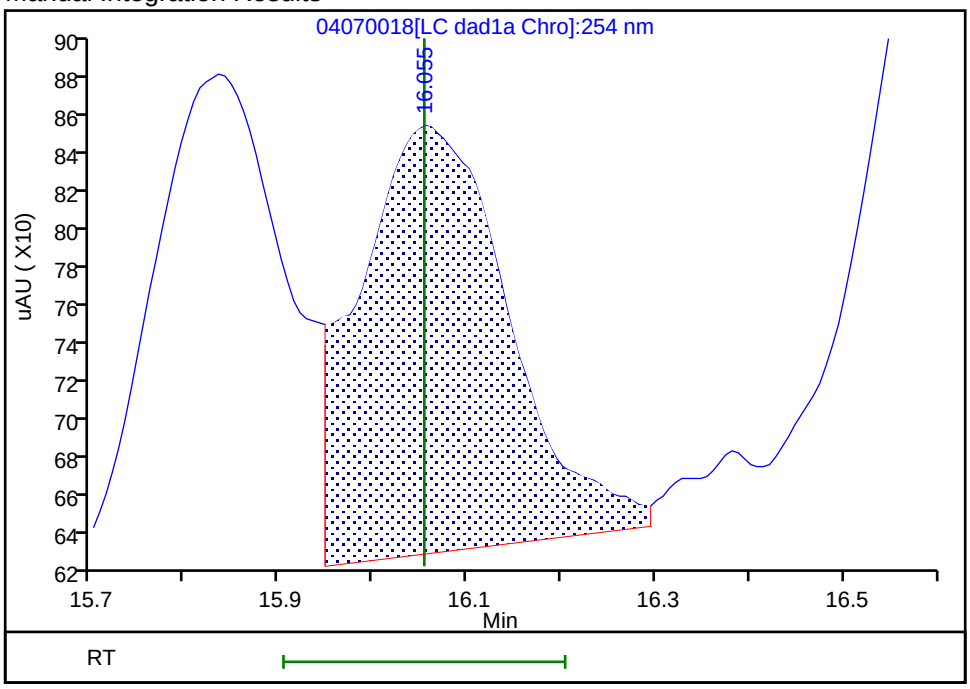
Not Detected
Expected RT: 16.05

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

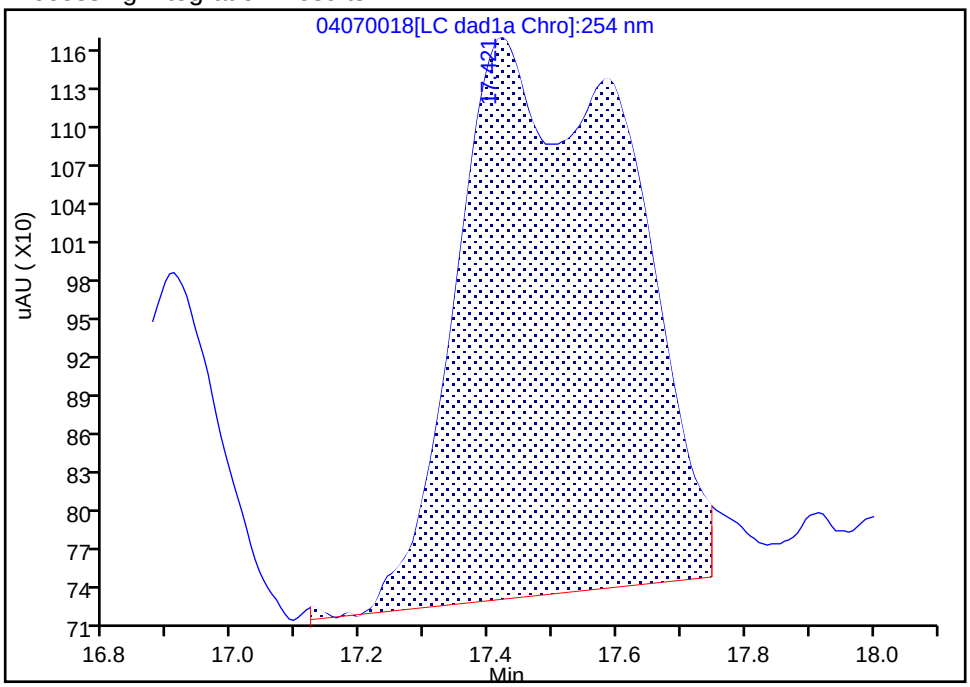
Data File: \\chromfs\denver\chromdata\g2_luna\20230407-120232.b\04070018.d
Injection Date: 07-Apr-2023 23:50:31 Instrument ID: CHHPLC_G2_LUNA
Lims ID: IC INT DMT 1
Client ID:
Operator ID: JZ ALS Bottle#: 18 Worklist Smp#: 18
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: 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

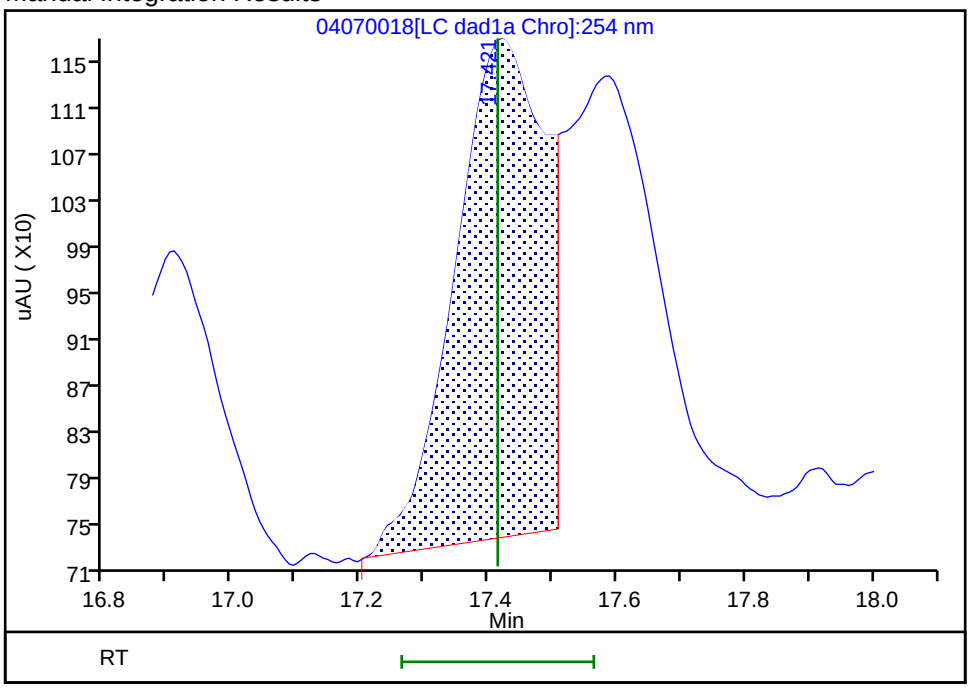
Processing Integration Results

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

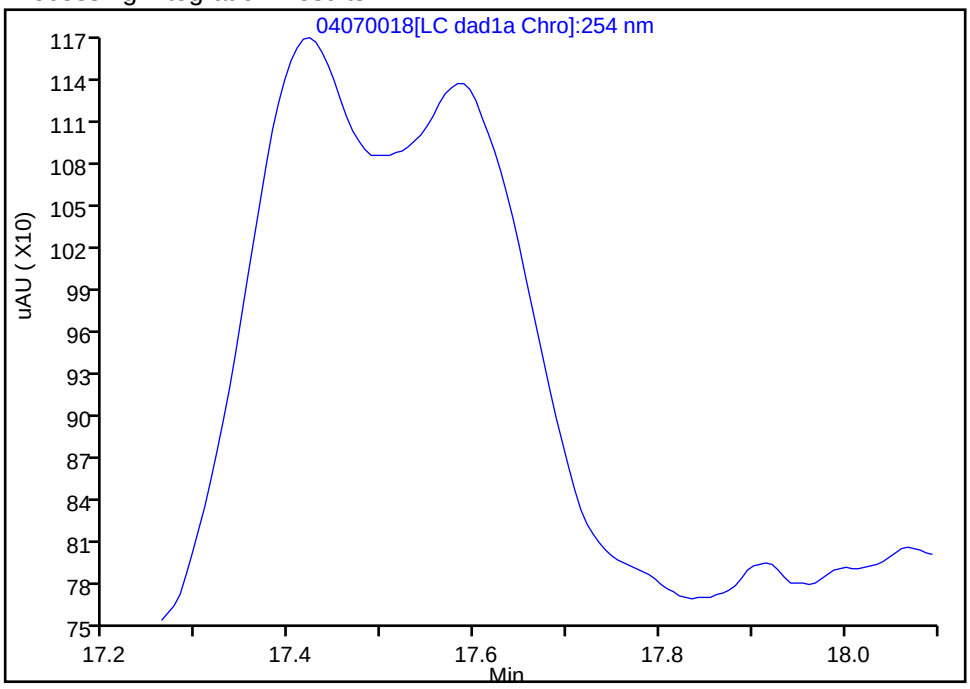
Data File:	\\chromfs\denver\chromdata\g2_luna\20230407-120232.b\04070018.d				
Injection Date:	07-Apr-2023 23:50:31	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC INT DMT 1				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	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

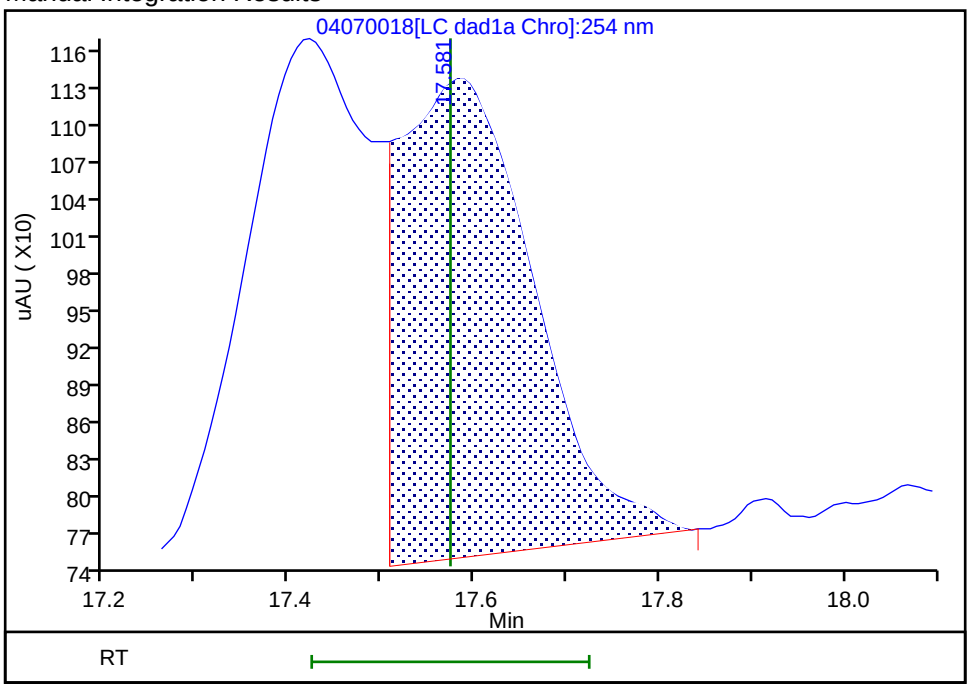
Not Detected
Expected RT: 17.57

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

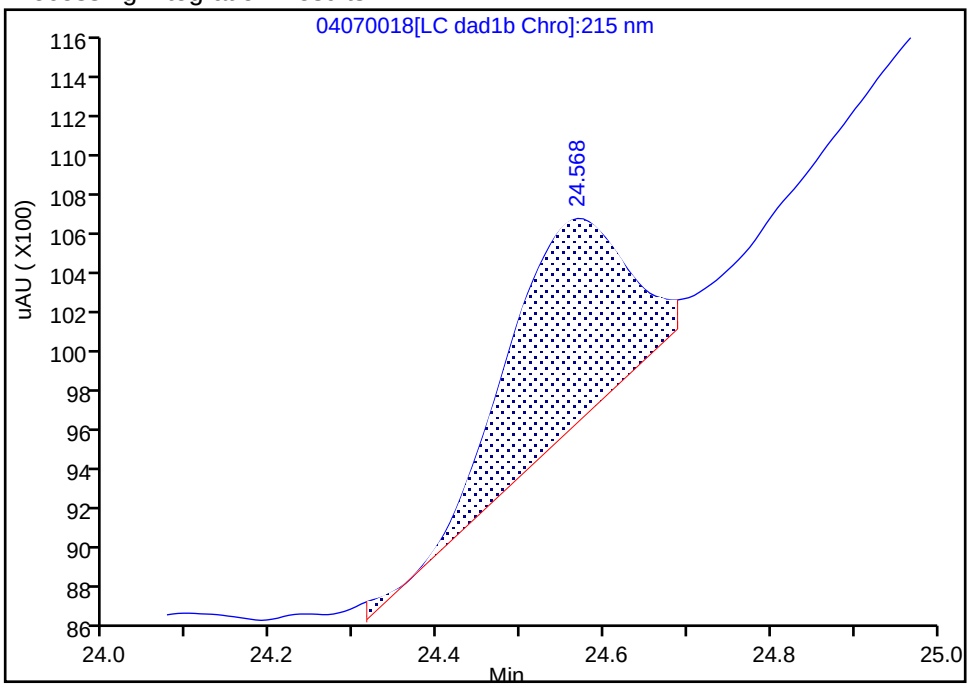
Data File: \\chromfs\denver\chromdata\g2_luna\20230407-120232.b\04070018.d
Injection Date: 07-Apr-2023 23:50:31 Instrument ID: CHHPLC_G2_LUNA
Lims ID: IC INT DMT 1
Client ID:
Operator ID: JZ ALS Bottle#: 18 Worklist Smp#: 18
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC DAD1B, 215 nm

24 PETN, CAS: 78-11-5

Signal: 1

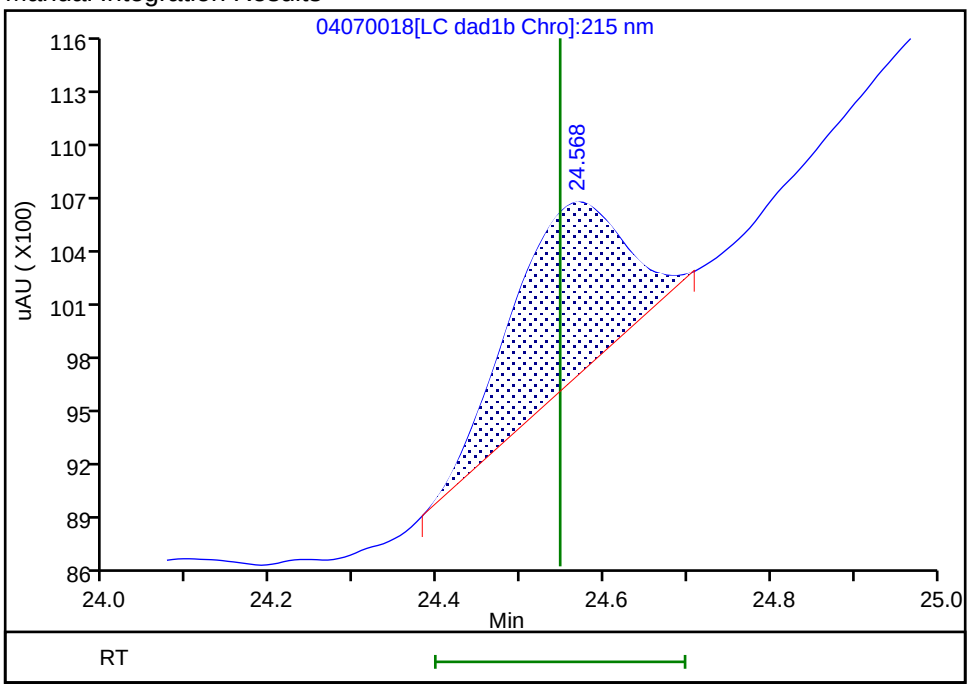
Processing Integration Results

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

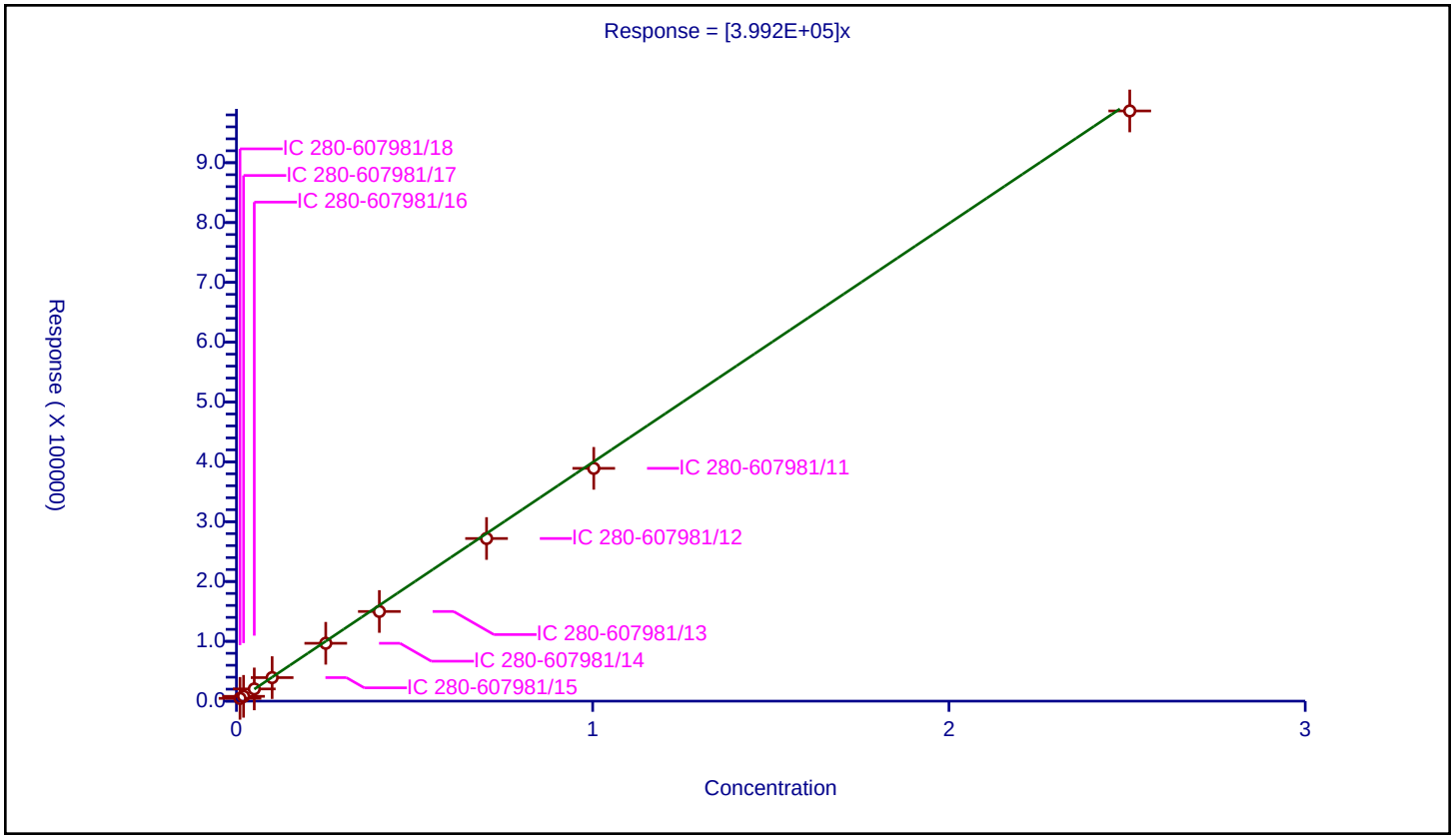
Curve Coefficients

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

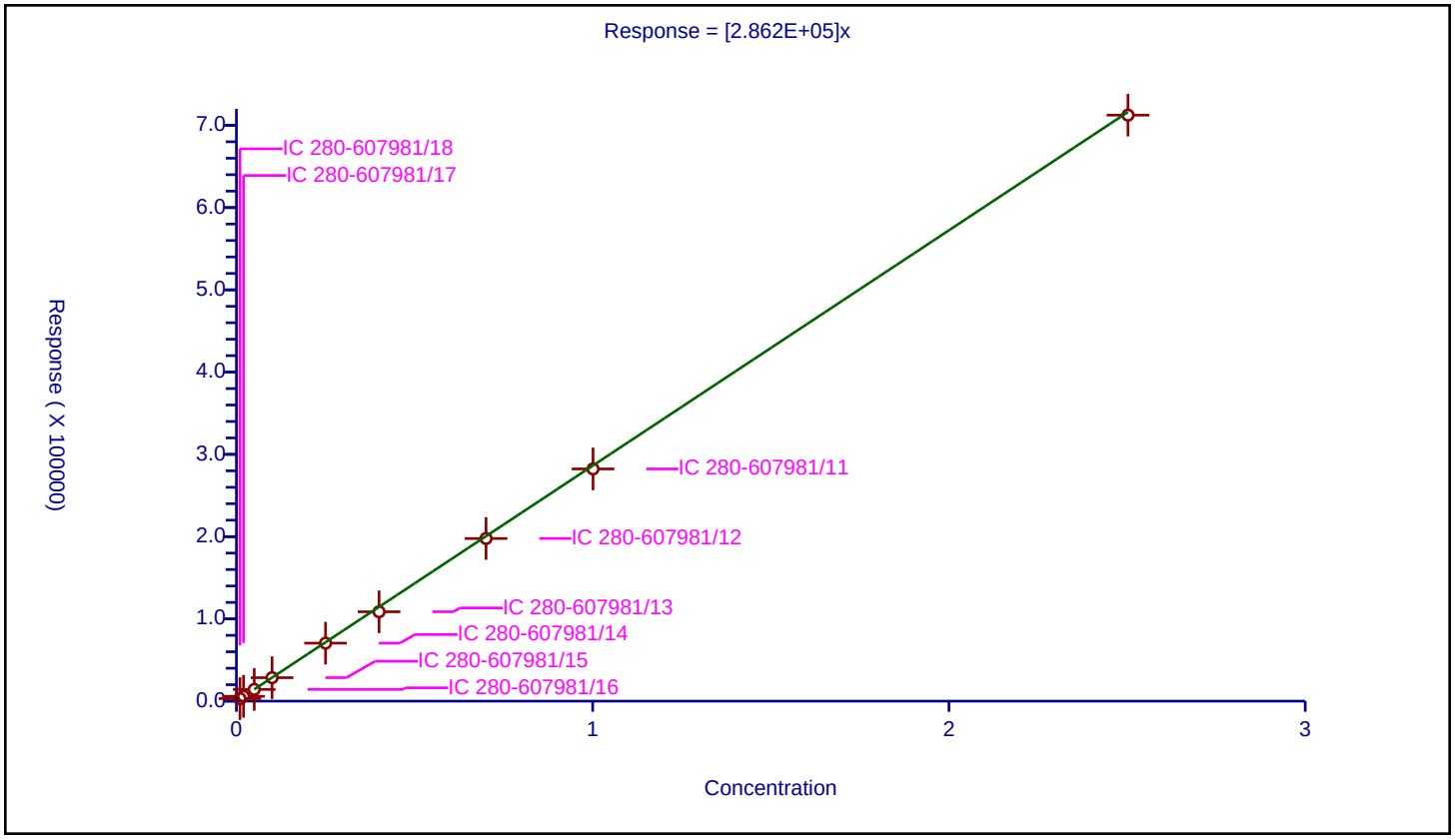
Curve Coefficients

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

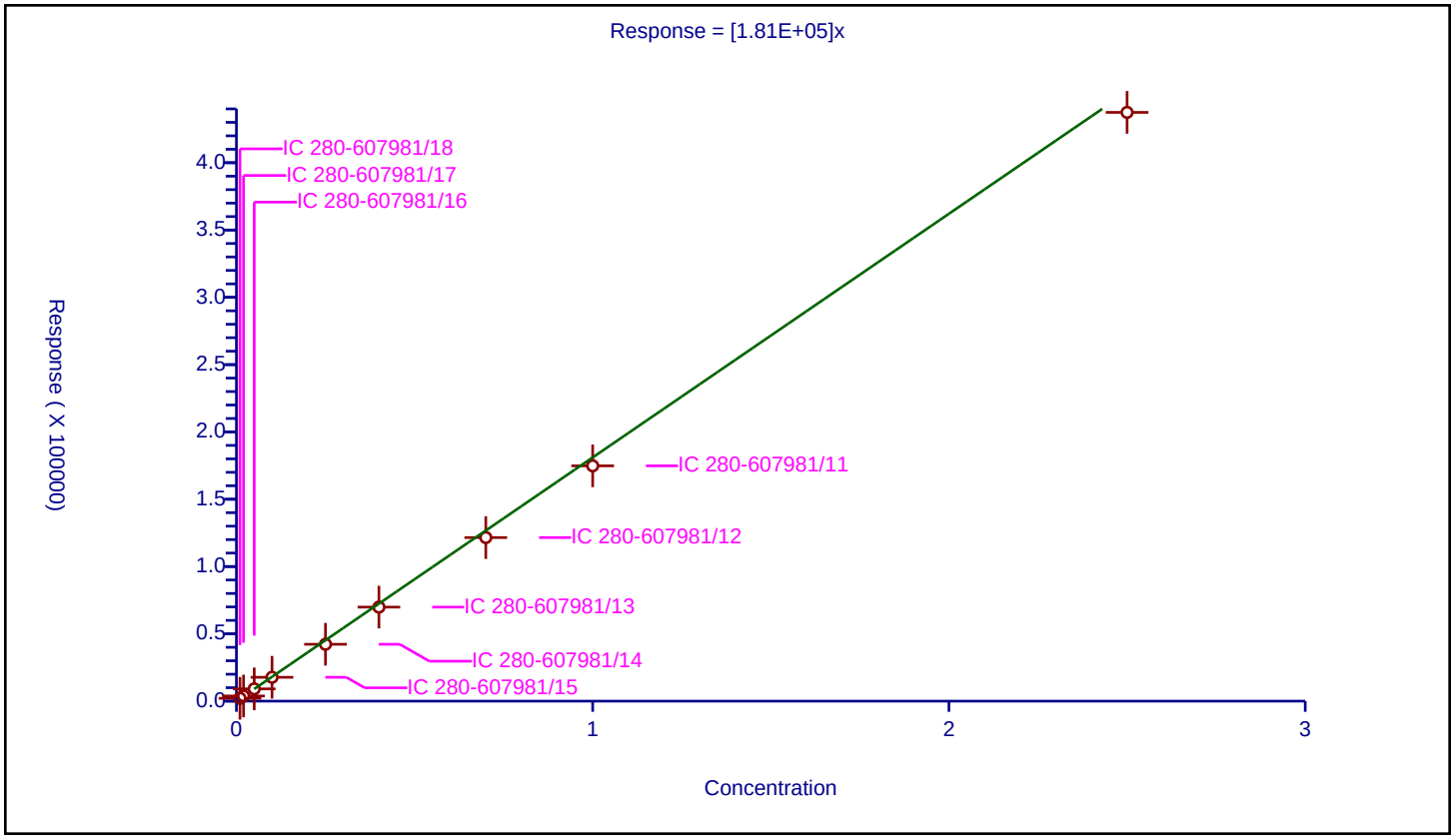
Curve Coefficients

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

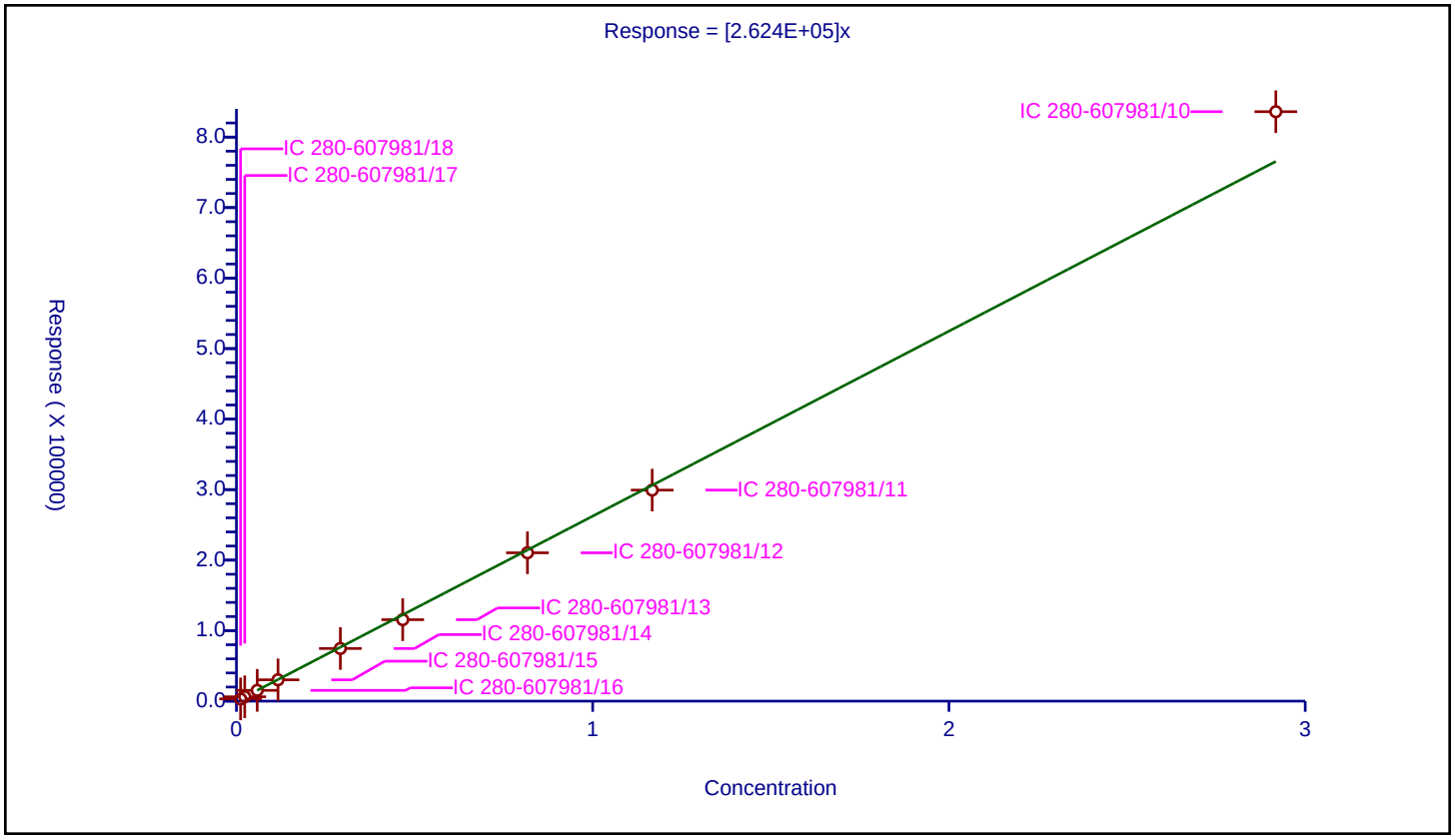
Curve Coefficients

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



Calibration / 2,4,6-Trinitrophenol

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

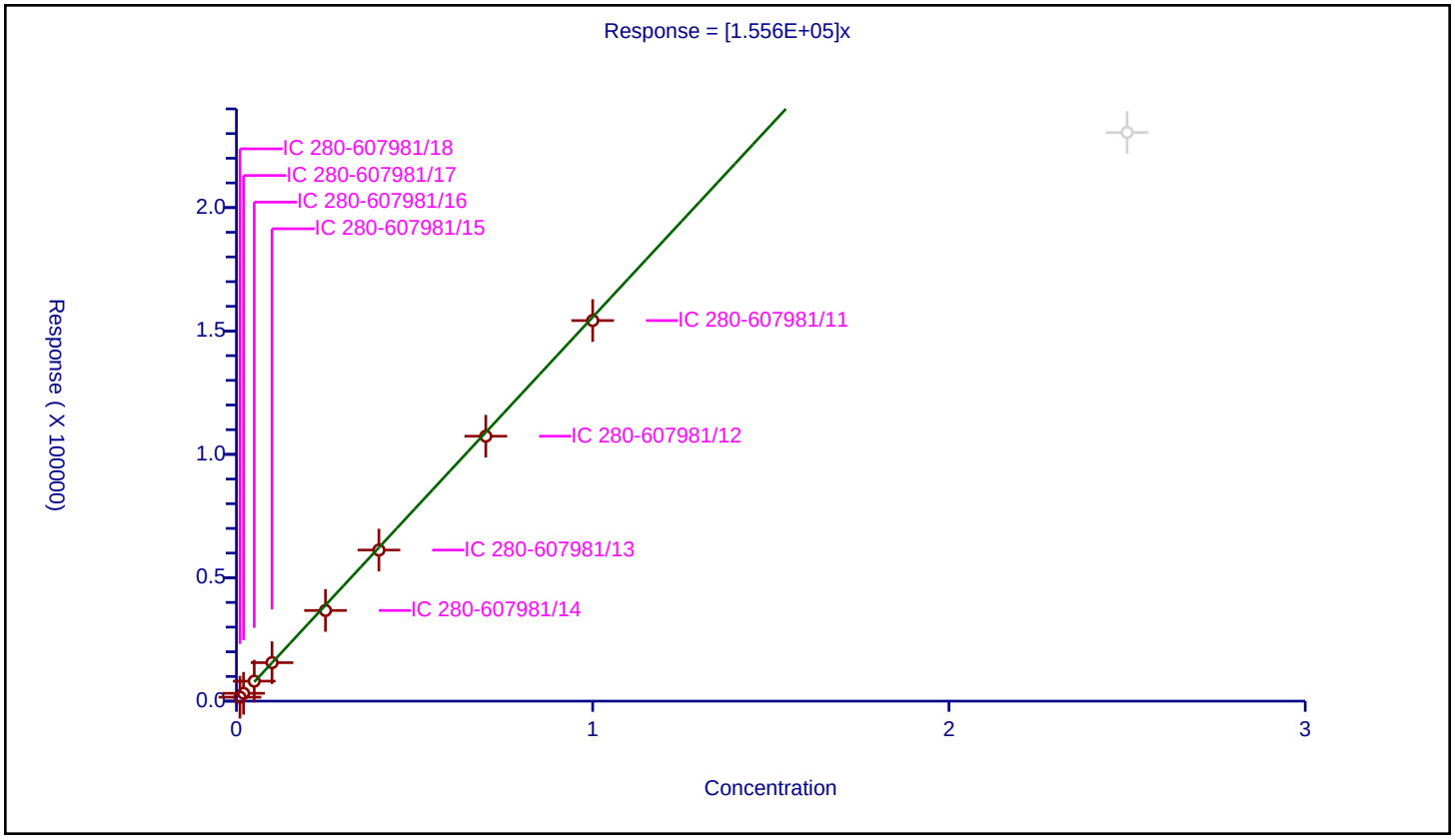
Curve Coefficients

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



Calibration / RDX

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

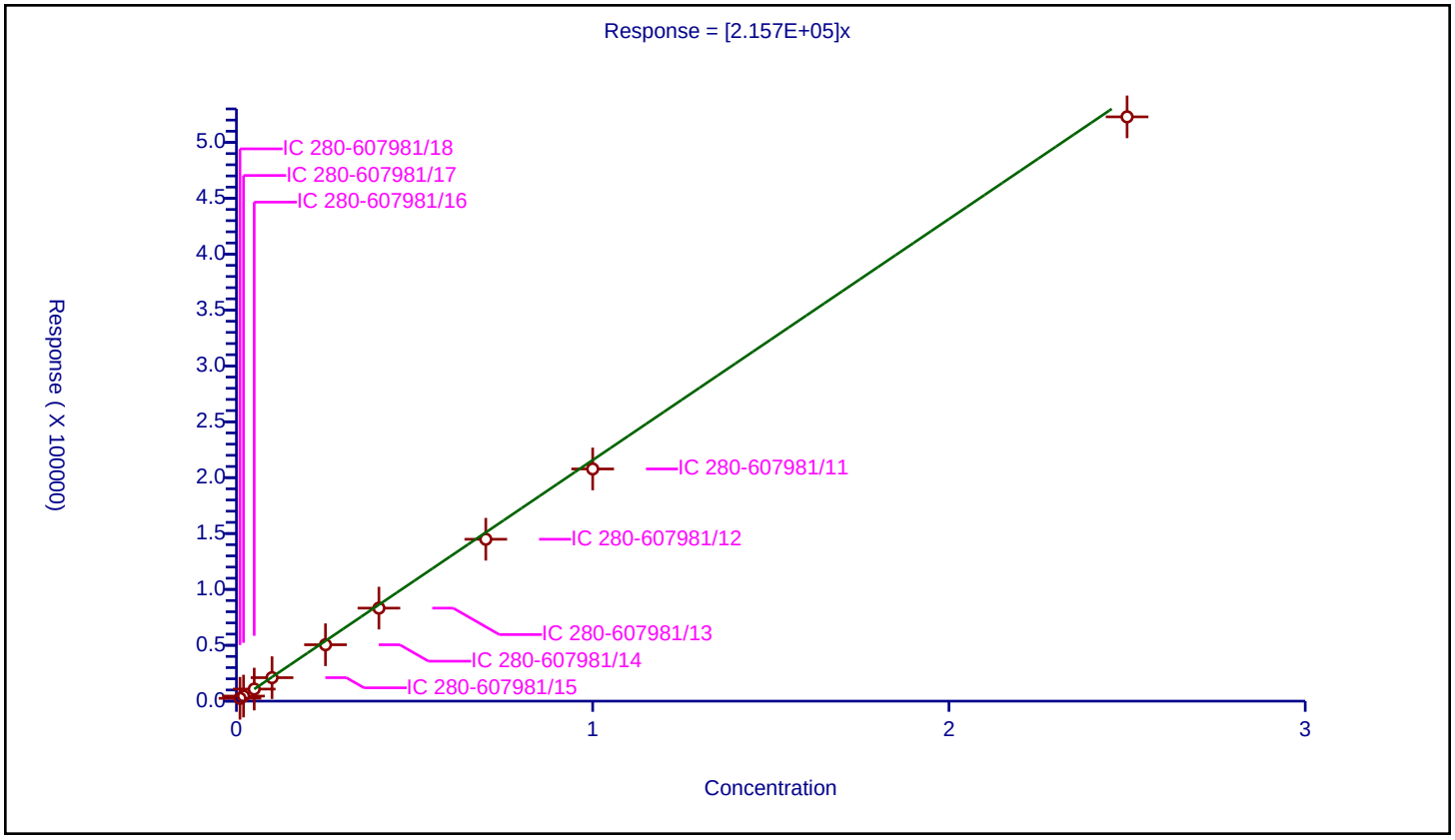
Curve Coefficients

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

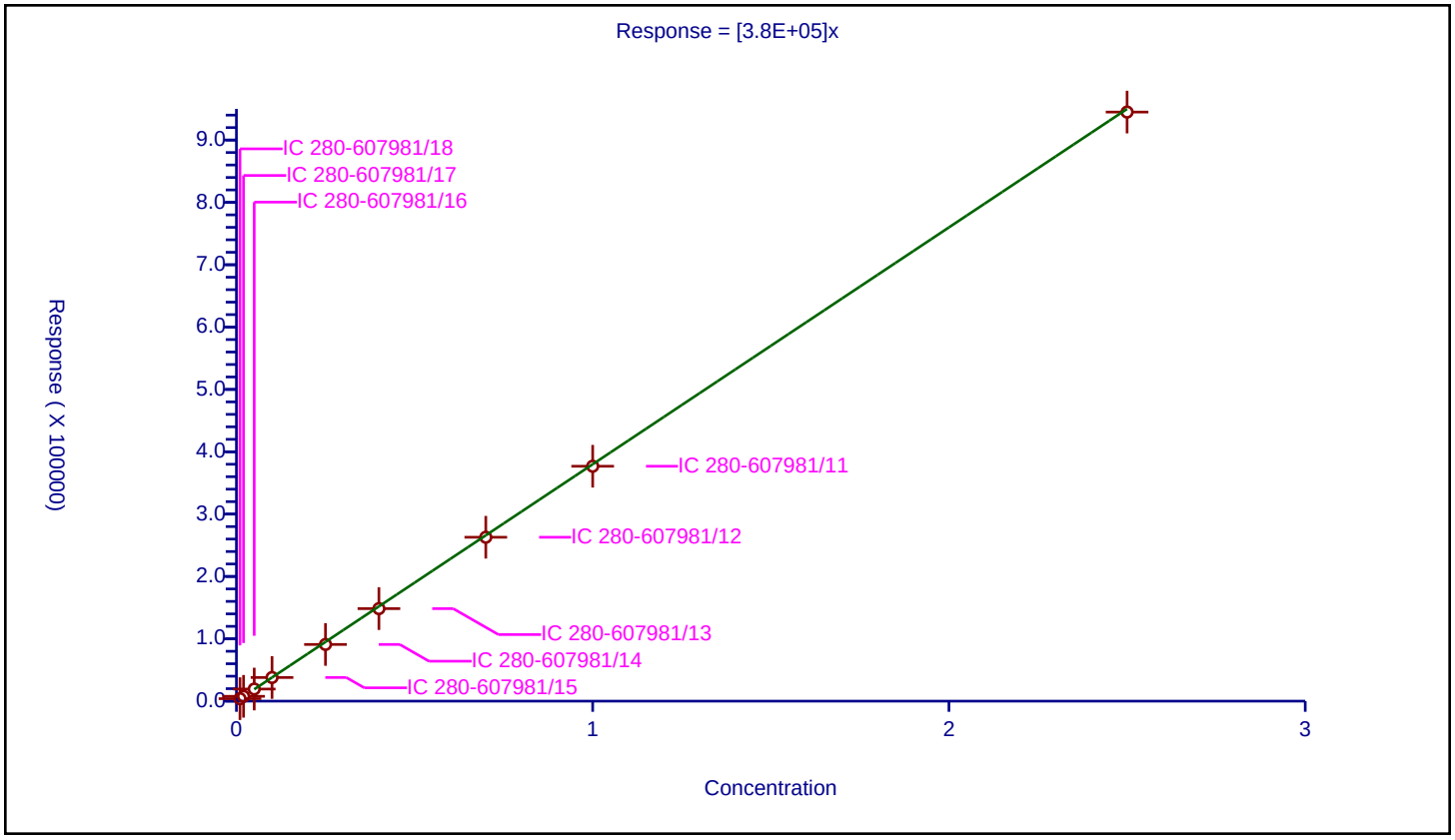
Curve Coefficients

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

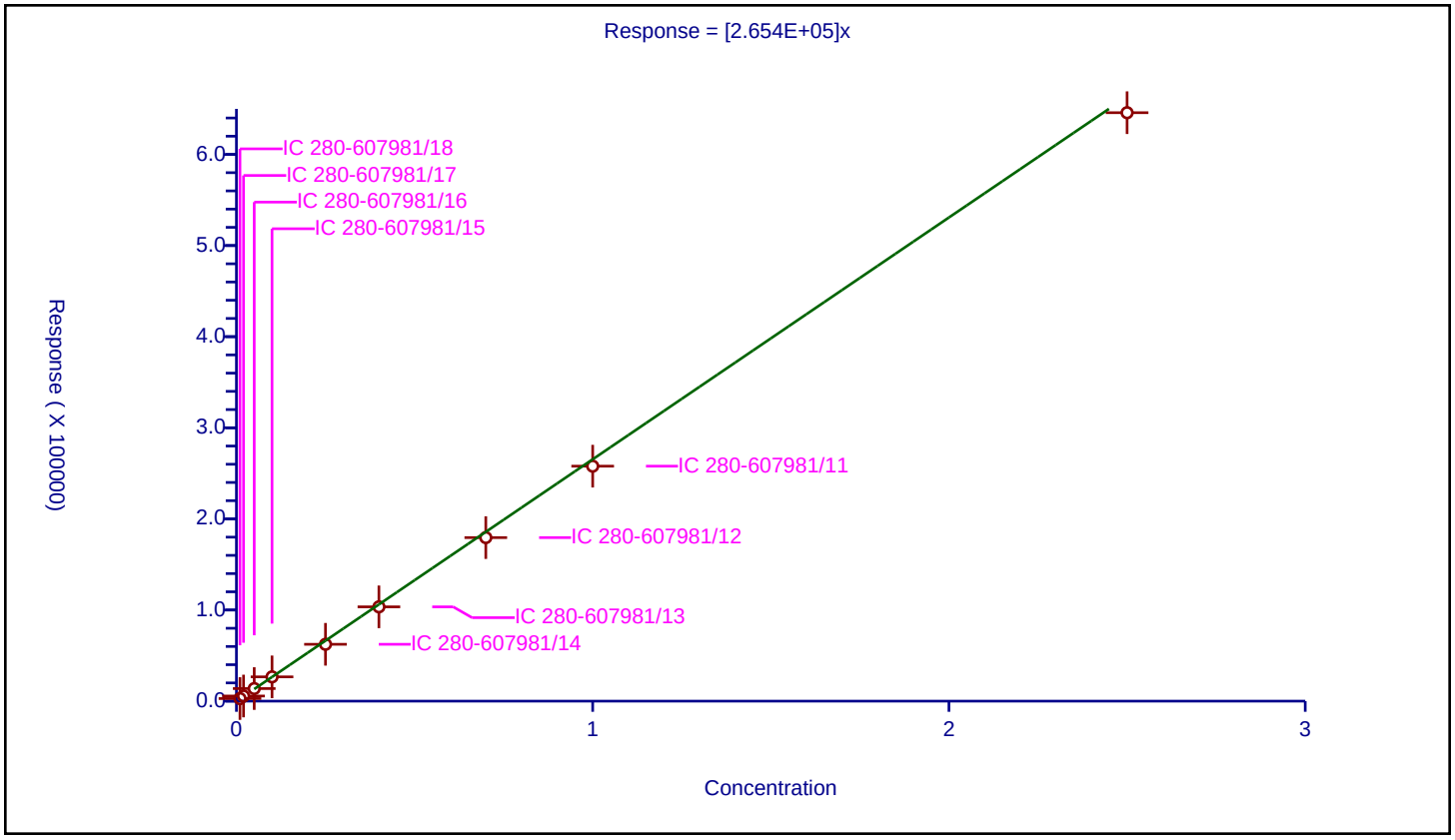
Curve Coefficients

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

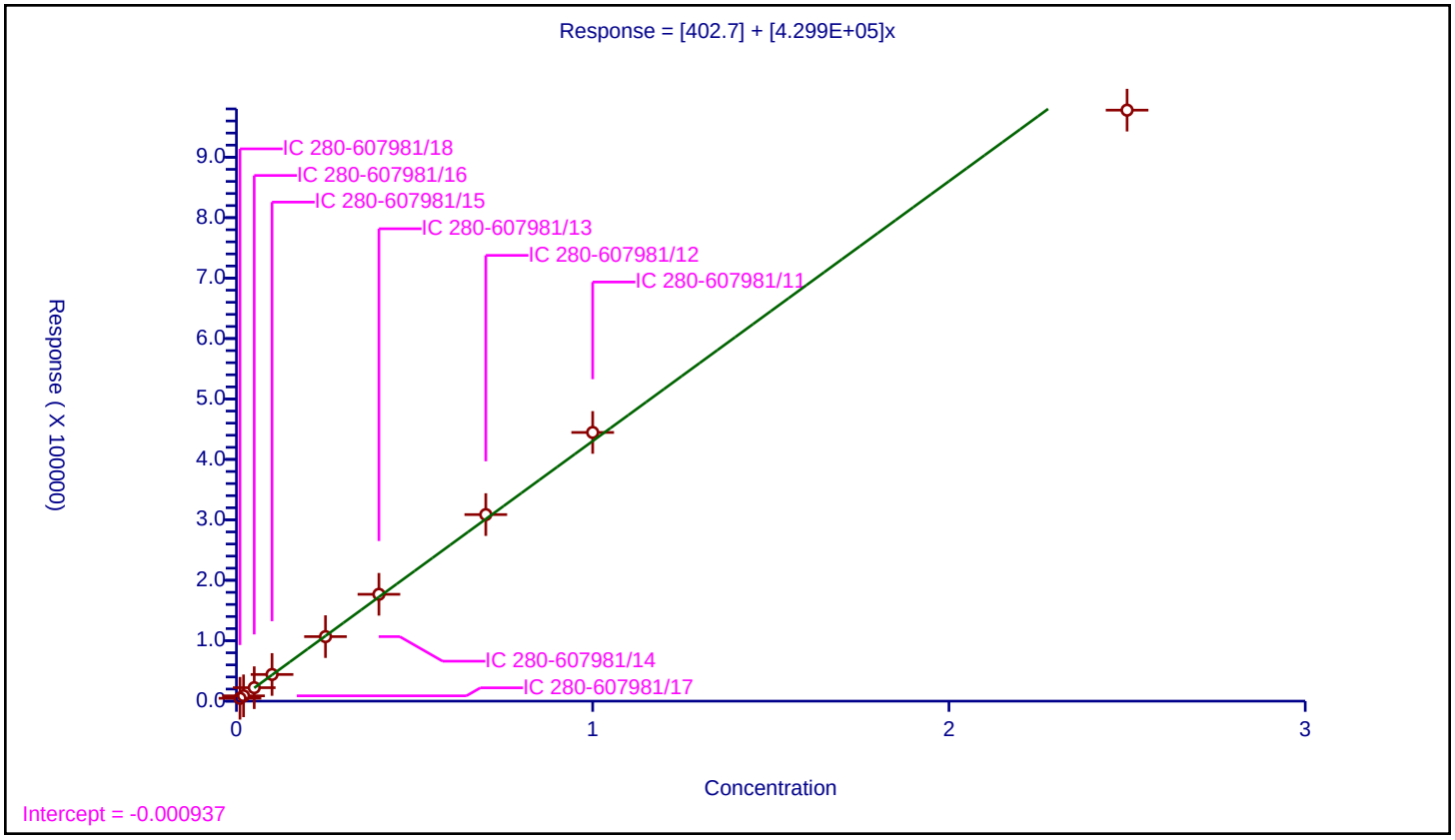
Curve Coefficients

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



Calibration / 1,3-Dinitrobenzene

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

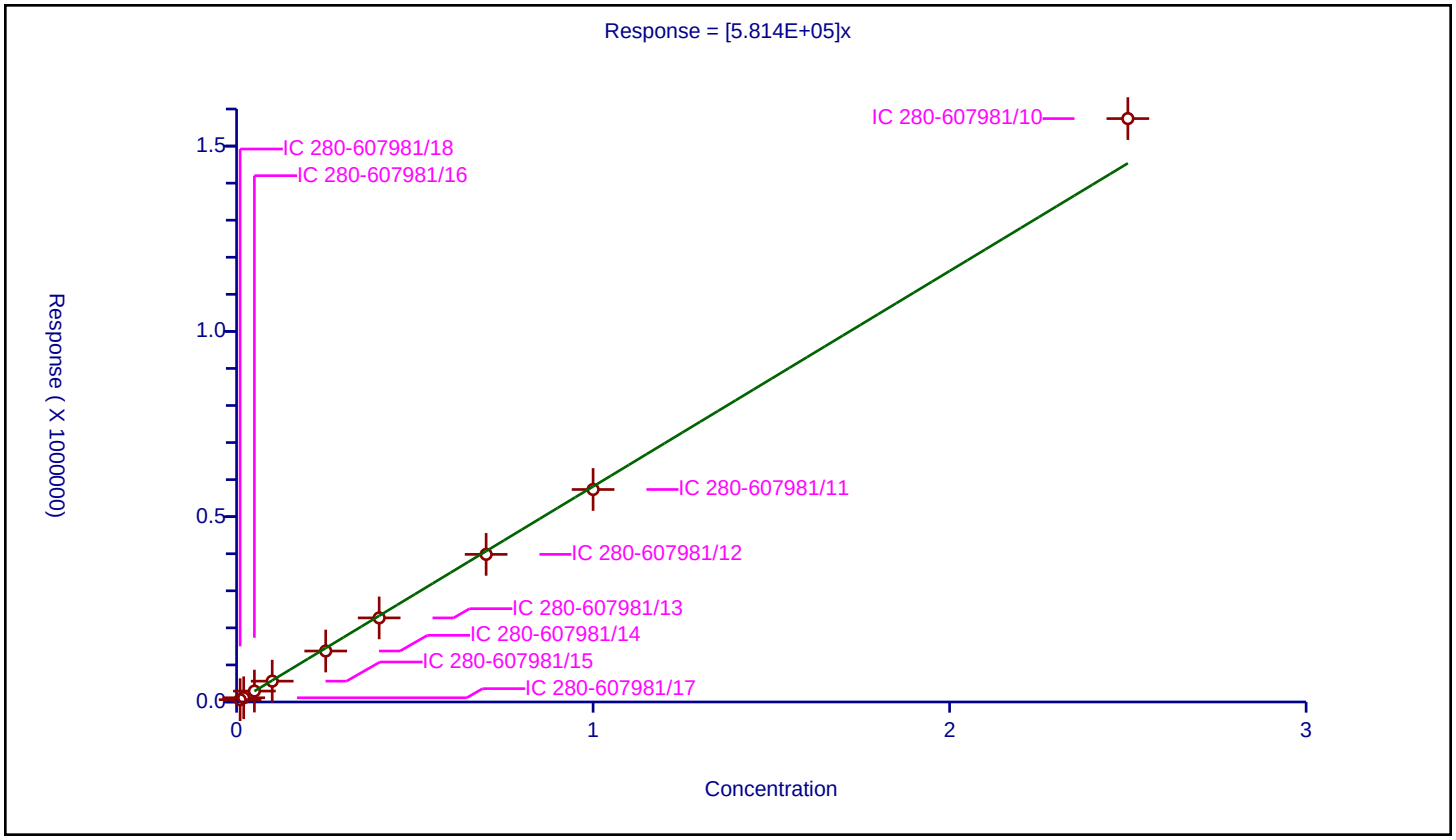
Curve Coefficients

Intercept:	0
Slope:	5.814E+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



Calibration / Nitroglycerin

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

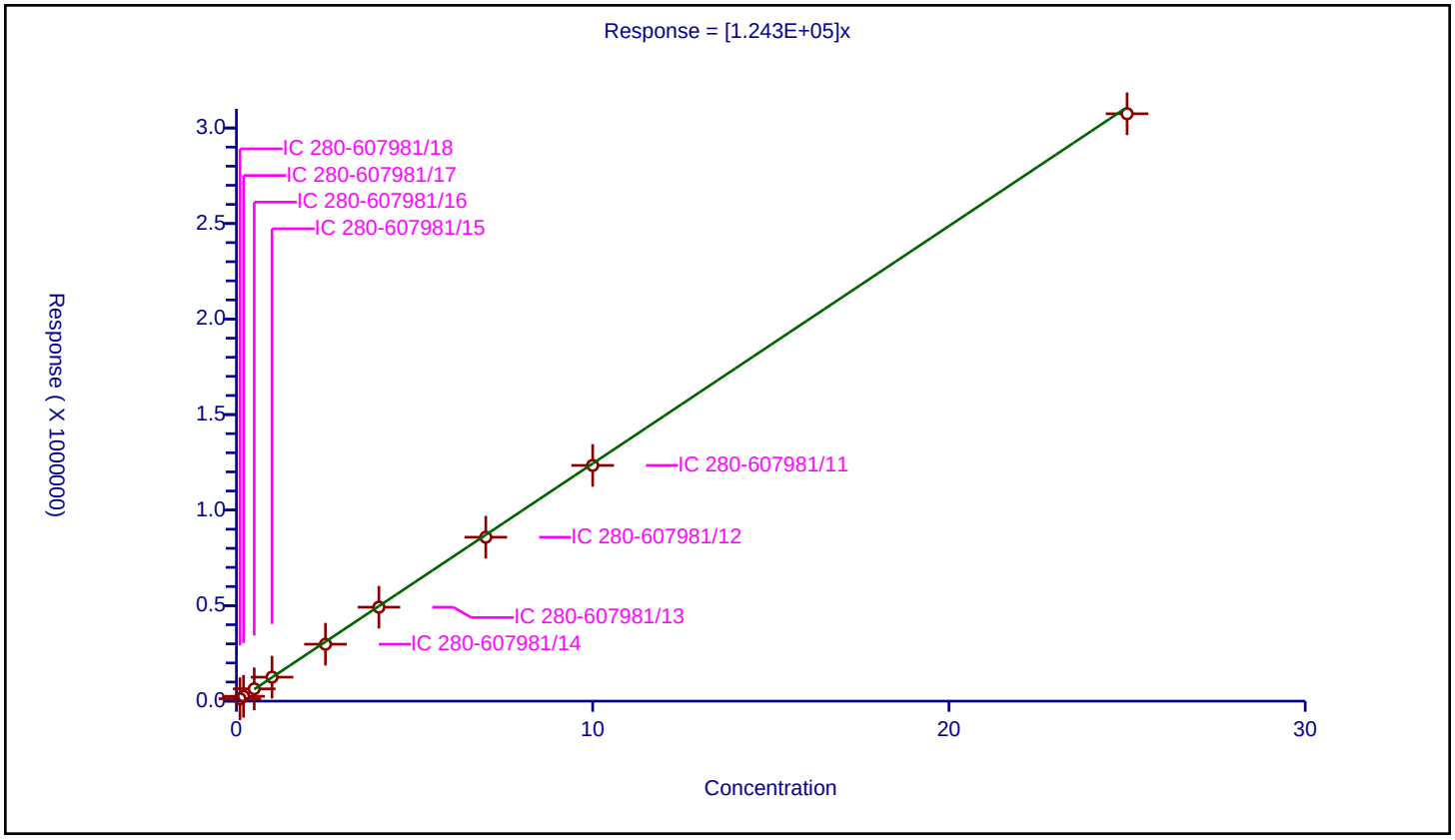
Curve Coefficients

Intercept:	0
Slope:	1.243E+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

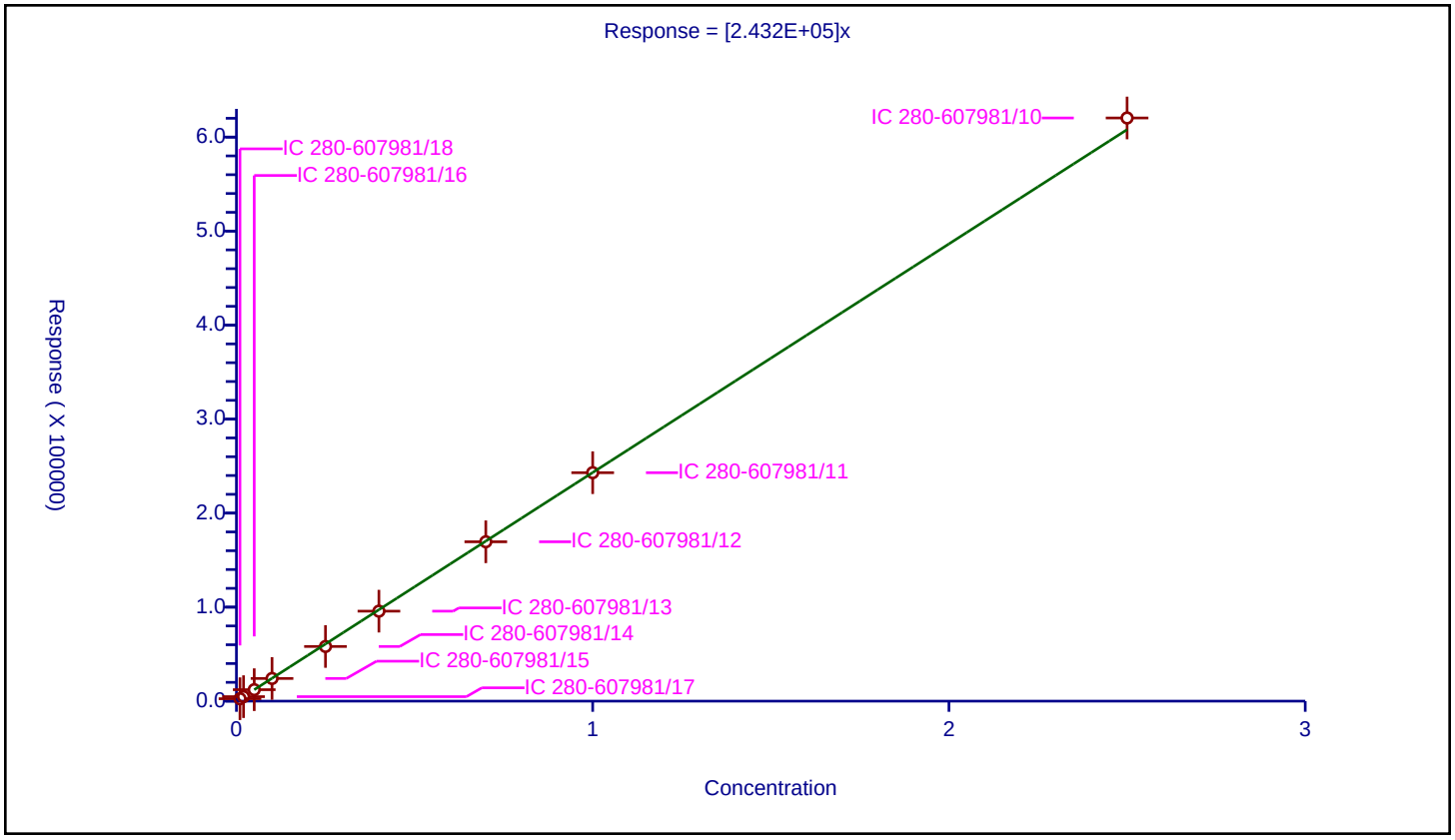
Curve Coefficients

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



Calibration / p-Nitrotoluene

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

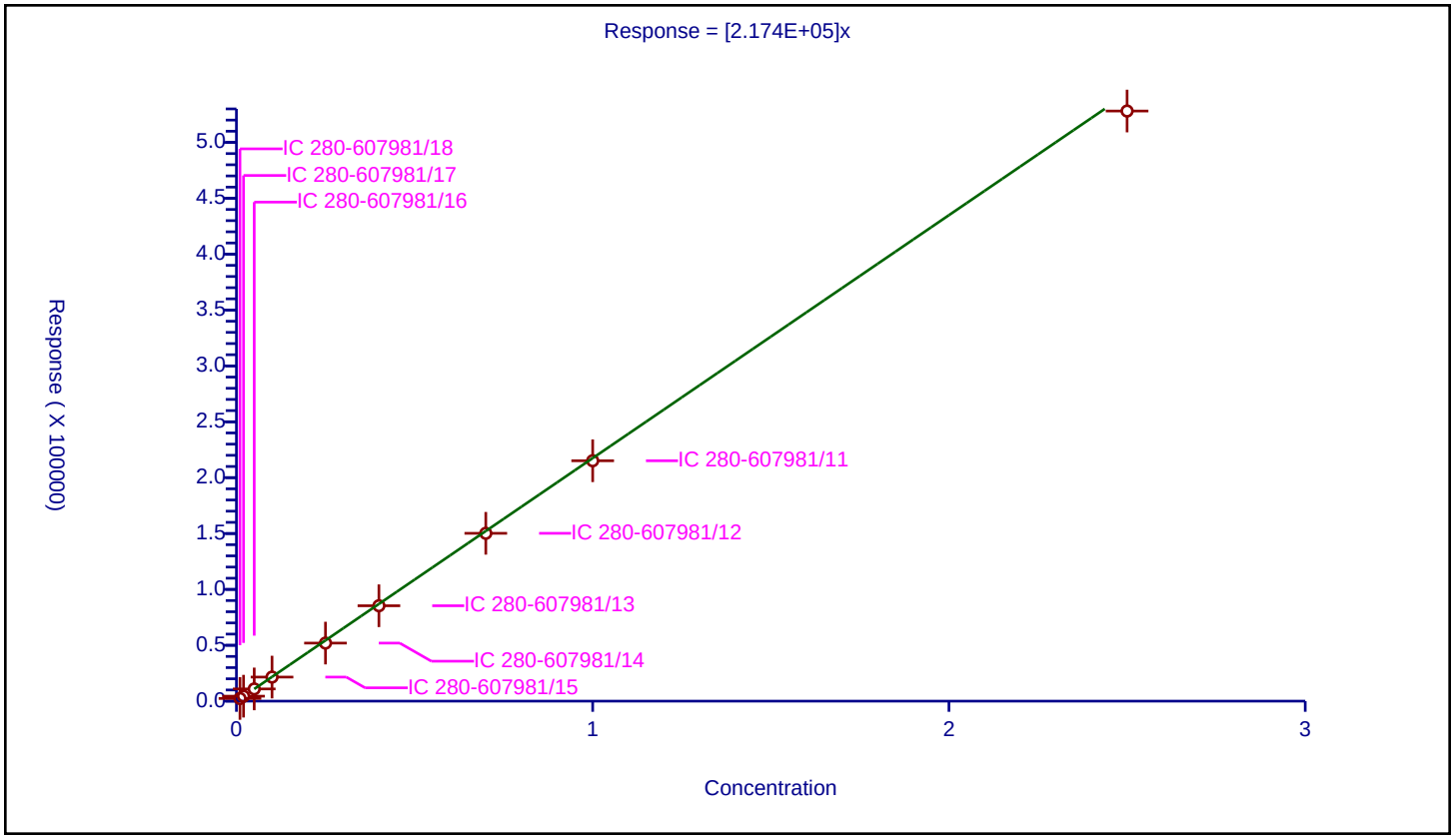
Curve Coefficients

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

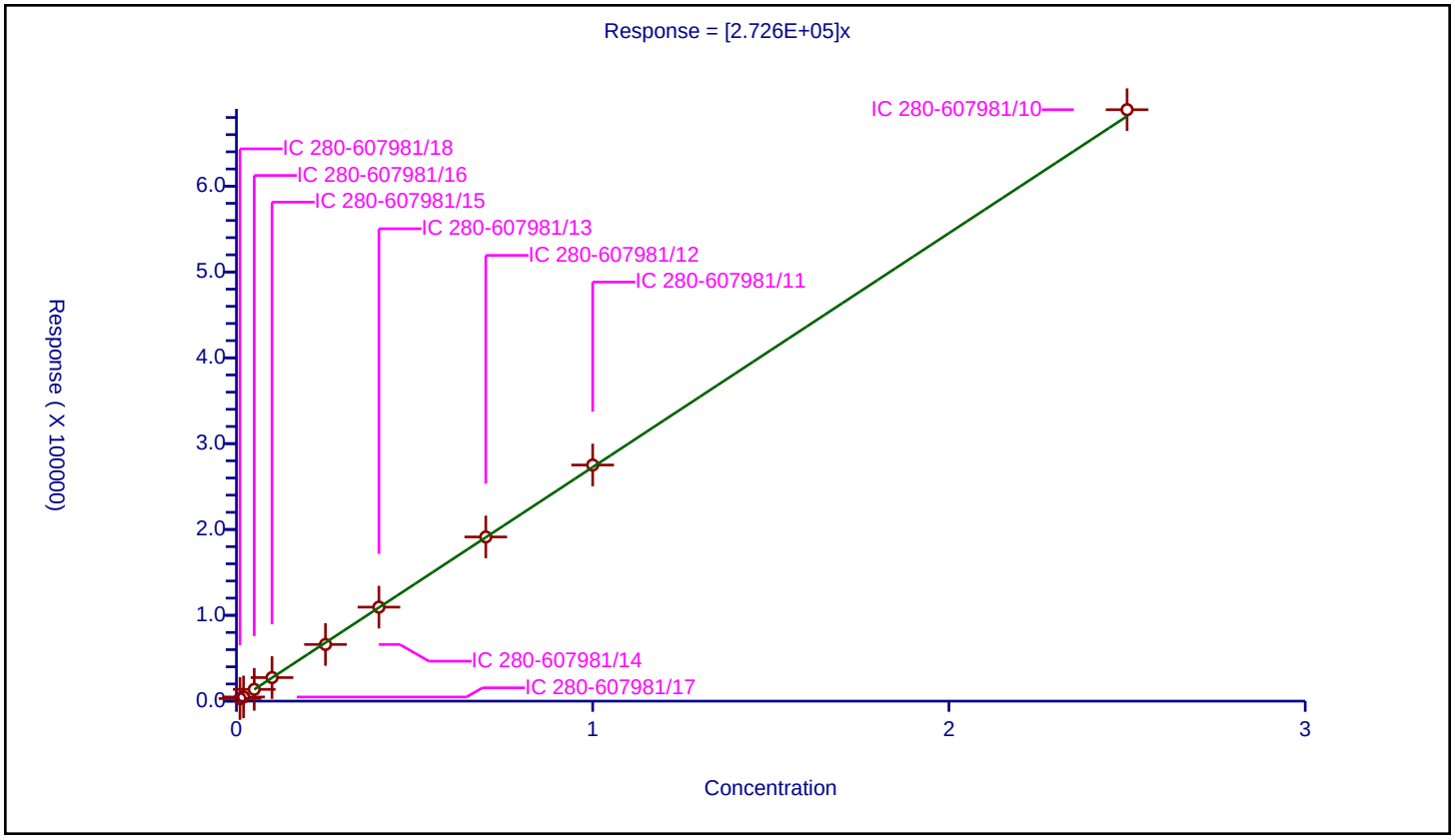
Curve Coefficients

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



Calibration / m-Nitrotoluene

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

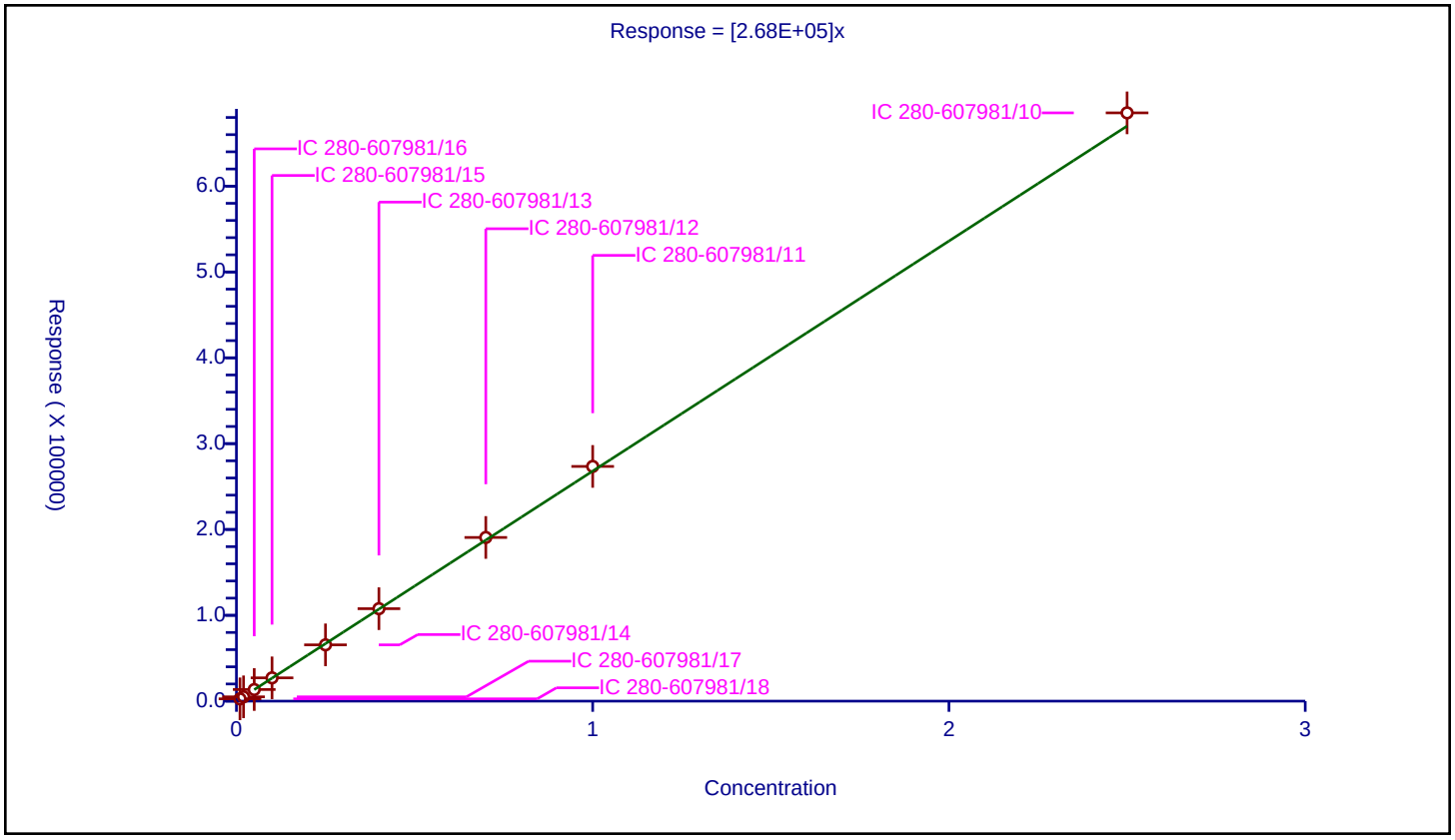
Curve Coefficients

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



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

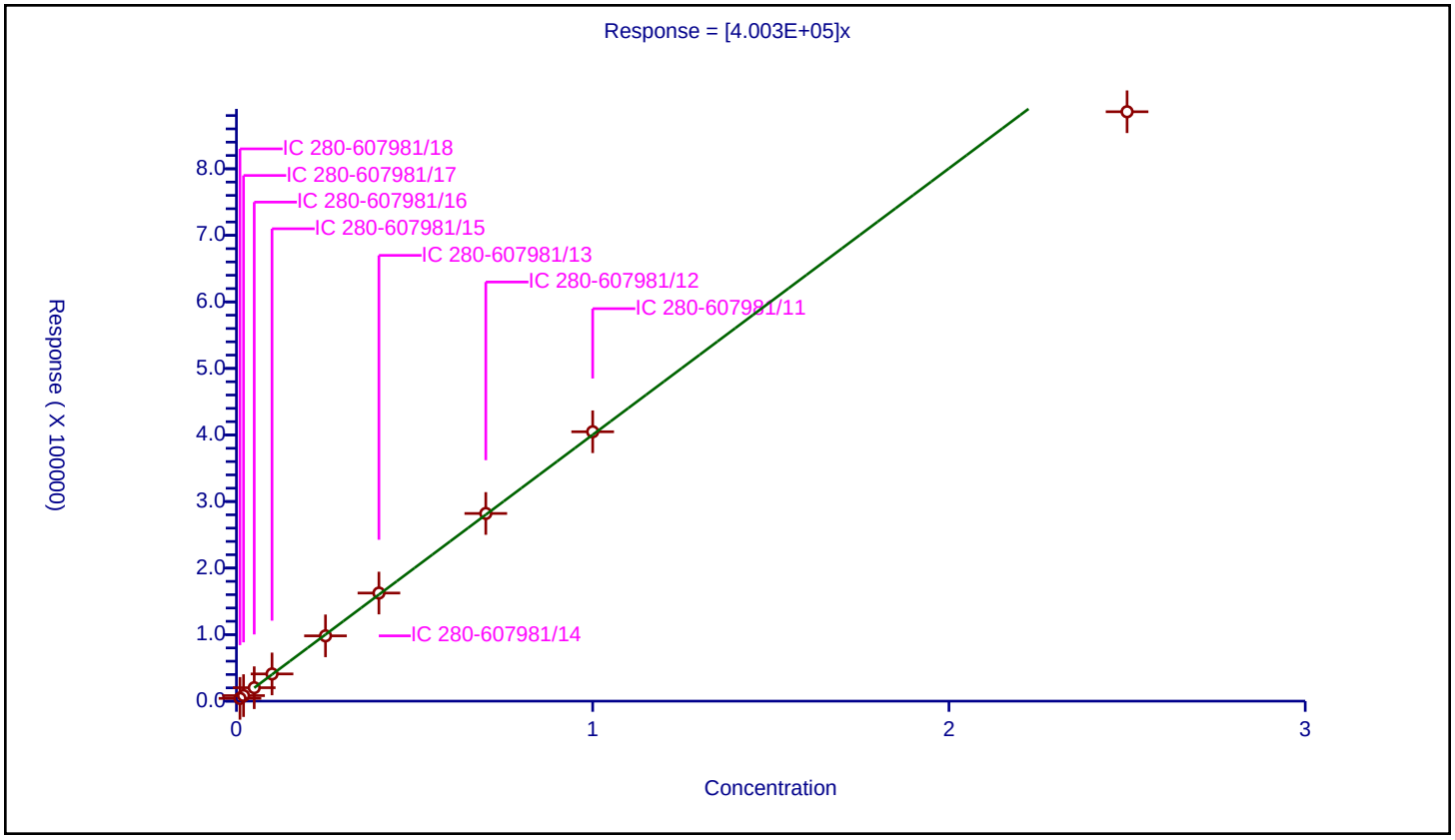
Curve Coefficients

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



Calibration / 1,3,5-Trinitrobenzene

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

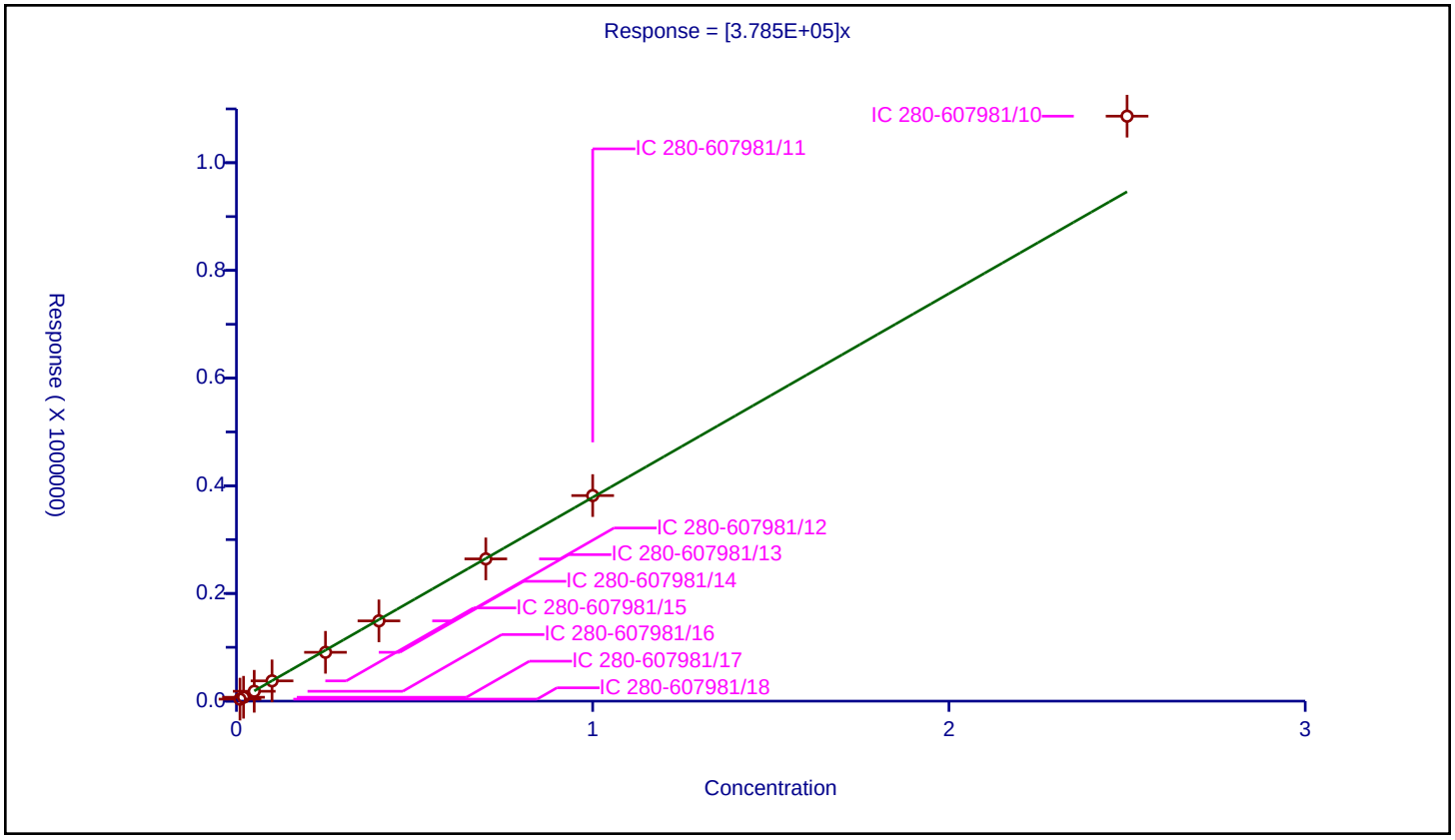
Curve Coefficients

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

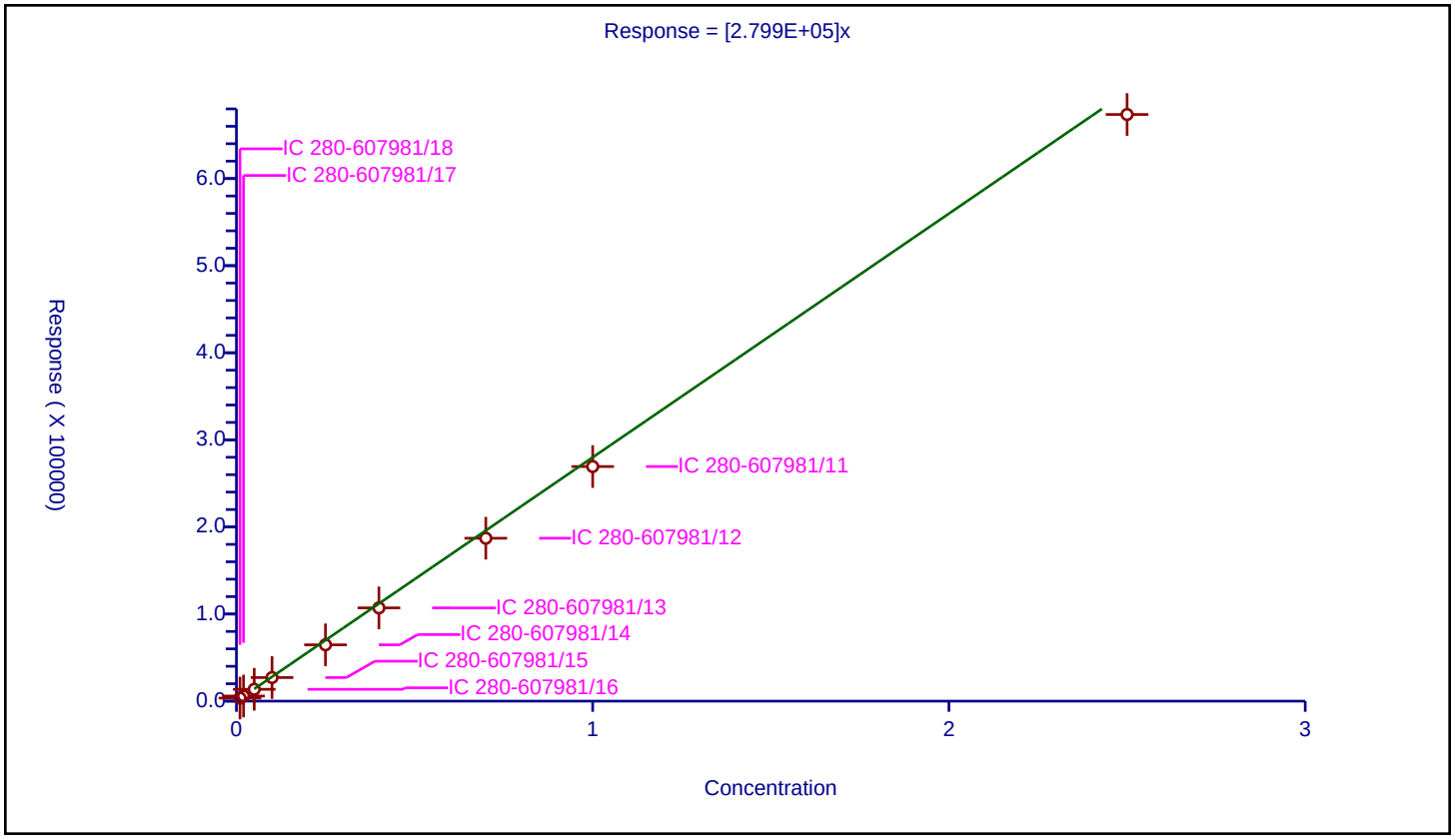
Curve Coefficients

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



Calibration / 2,4-Dinitrotoluene

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

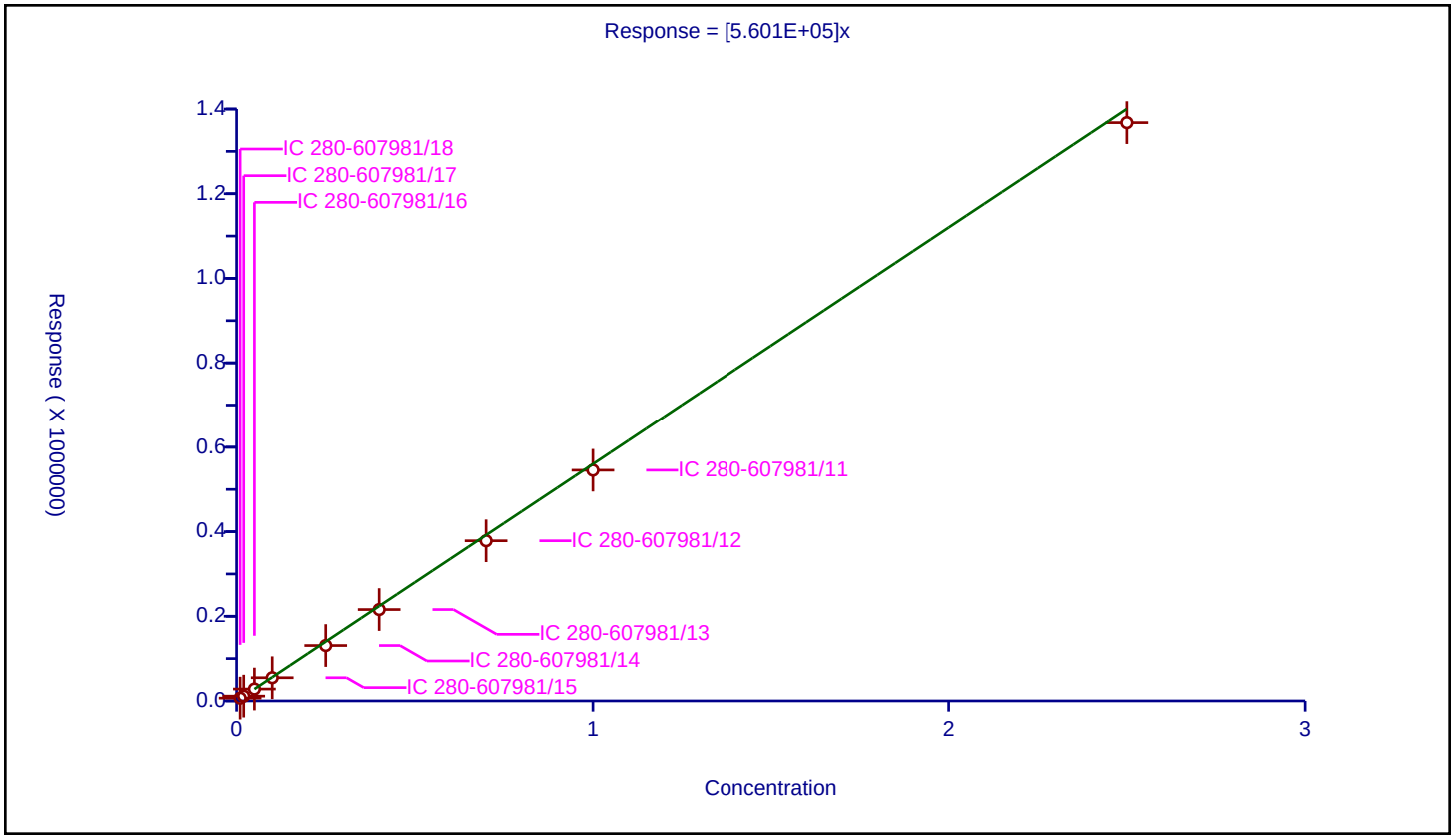
Curve Coefficients

Intercept:	0
Slope:	5.601E+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

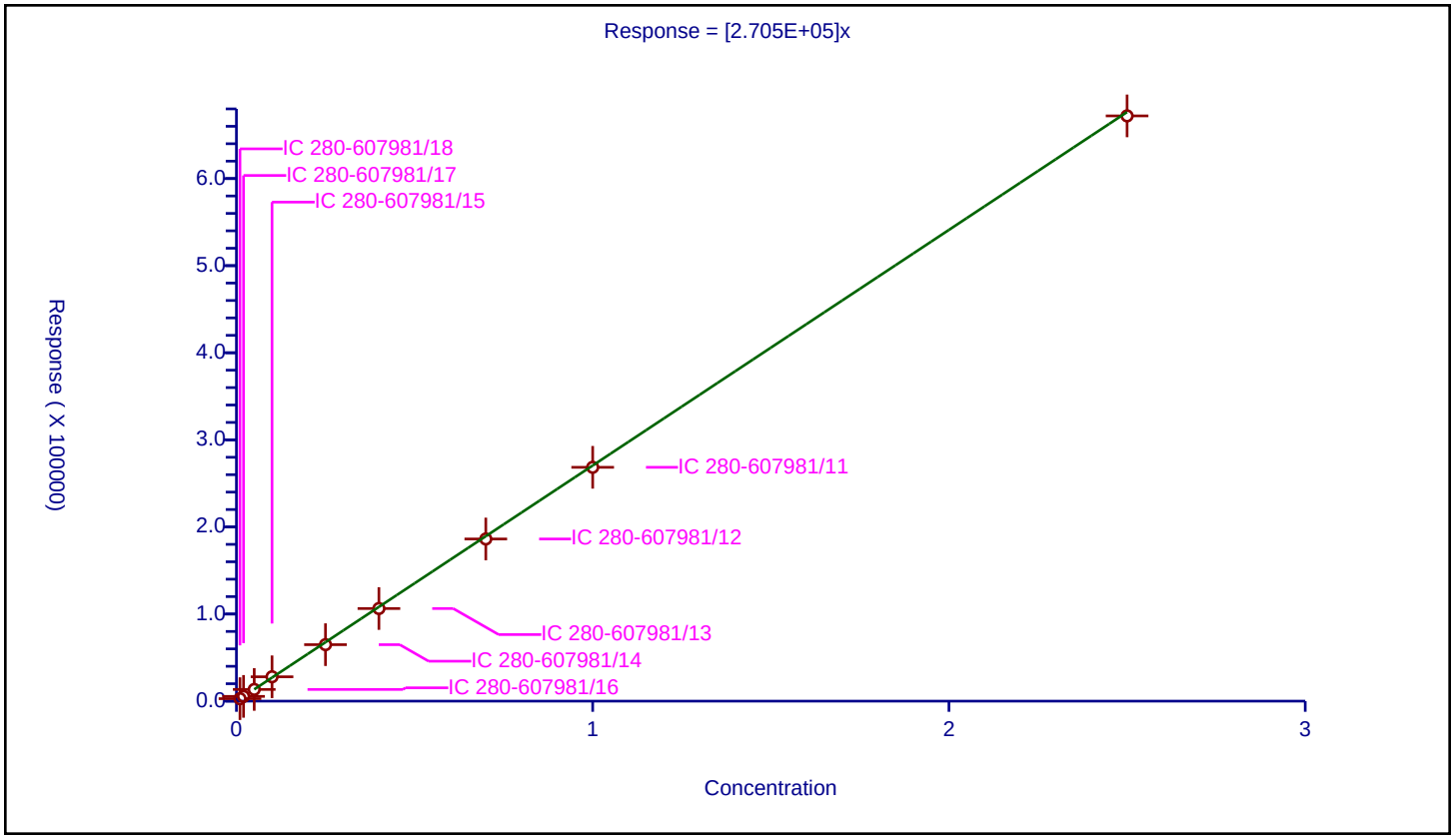
Curve Coefficients

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



Calibration / 2,4,6-Trinitrotoluene

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

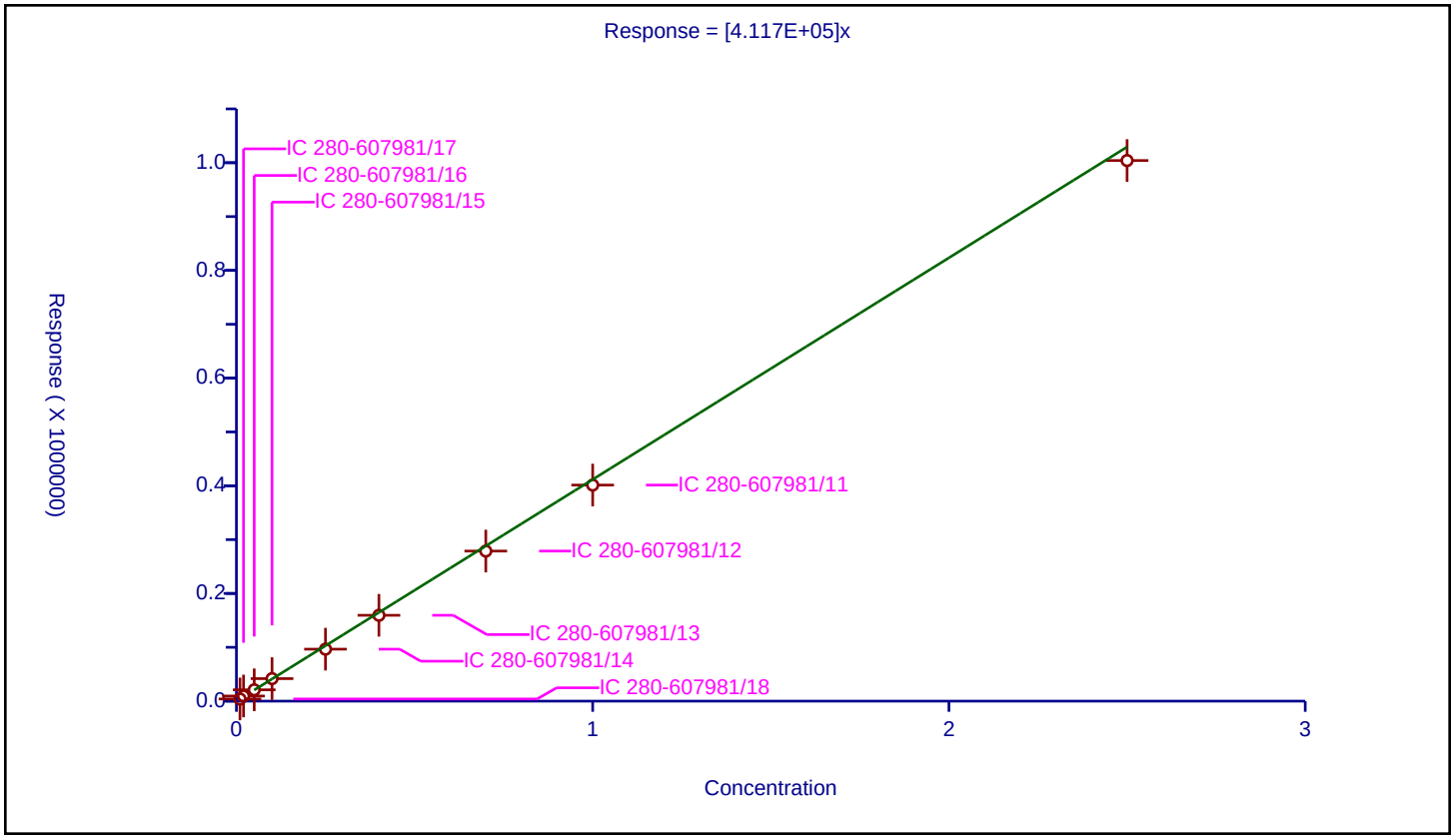
Curve Coefficients

Intercept:	0
Slope:	4.117E+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

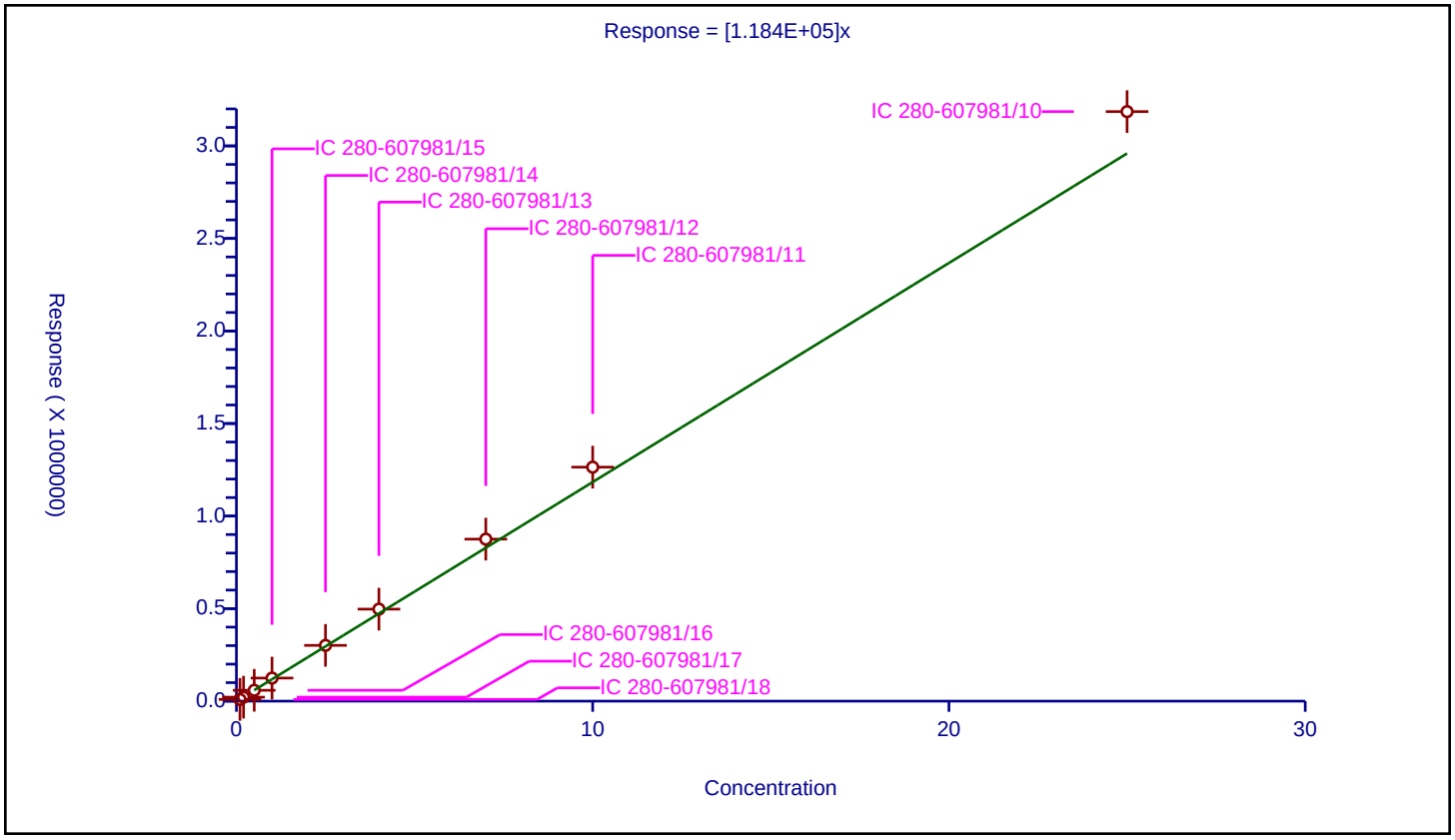
Curve Coefficients

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.: 280-176609-1 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.: 280-176609-1 | 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.: 280-176609-1 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.: 280-176609-1 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	1961	4648	9387	23490	0.0100	0.0200	0.0500	0.100	0.250
		36852	63922	91529	229343		0.400	0.700	1.00	2.50	
RDX	Ave	1203	2196	5236	10112	25542	0.0100	0.0200	0.0500	0.100	0.250
		41299	71812	106983	266228		0.400	0.700	1.00	2.50	
Picric acid	Ave	673	1492	3768	7640	19359	0.0100	0.0200	0.0500	0.100	0.250
		30993	54237	77676	196834		0.400	0.700	1.00	2.50	
1,3,5-Trinitrobenzene	Ave	2196	4313	10679	21399	54382	0.0100	0.0200	0.0500	0.100	0.250
		87378	153058	219038	544595		0.400	0.700	1.00	2.50	
1,3-Dinitrobenzene	Ave	2902	5849	14664	29249	74049	0.0100	0.0200	0.0500	0.100	0.250
		118511	206375	296615	743106		0.400	0.700	1.00	2.50	
Nitrobenzene	Ave	1905	3816	9605	19019	47590	0.0100	0.0200	0.0500	0.100	0.250
		77064	132989	191651	482389		0.400	0.700	1.00	2.50	
3,5-Dinitroaniline	Lin2	2147	4377	11426	22723	57053	0.0100	0.0200	0.0500	0.100	0.250
		90999	159712	229927	576276		0.400	0.700	1.00	2.50	
Tetryl	Ave	1611	3073	8153	16438	41420	0.0100	0.0200	0.0500	0.100	0.250
		68663	115964	165416	416200		0.400	0.700	1.00	2.50	
Nitroglycerin	Ave	6159	11879	31649	63170	162463	0.100	0.200	0.500	1.00	2.50
		265593	462332	659032	1646056		4.00	7.00	10.0	25.0	
2,4,6-Trinitrotoluene	Ave	2167	4262	10708	20787	52619	0.0100	0.0200	0.0500	0.100	0.250
		83334	146272	210110	524120		0.400	0.700	1.00	2.50	
4-Amino-2,6-dinitrotoluene	Ave	1670	3106	7875	15407	38221	0.0100	0.0200	0.0500	0.100	0.250
		61147	105641	150980	382195		0.400	0.700	1.00	2.50	
2-Amino-4,6-dinitrotoluene	Ave	2214	4021	10072	19765	49514	0.0100	0.0200	0.0500	0.100	0.250
		79585	137602	197356	500512		0.400	0.700	1.00	2.50	
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.: 280-176609-1 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

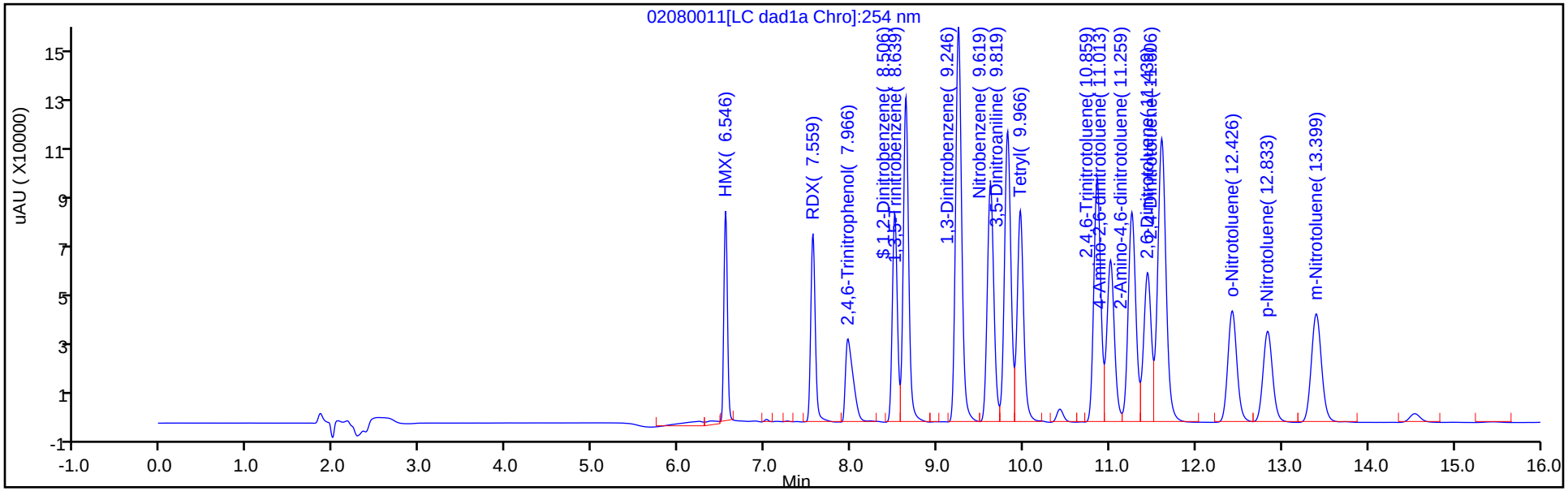
Report Date: 09-Feb-2023 12:48:02 Chrom Revision: 2.3 01-Feb-2023 13:23:06

Eurofins Denver

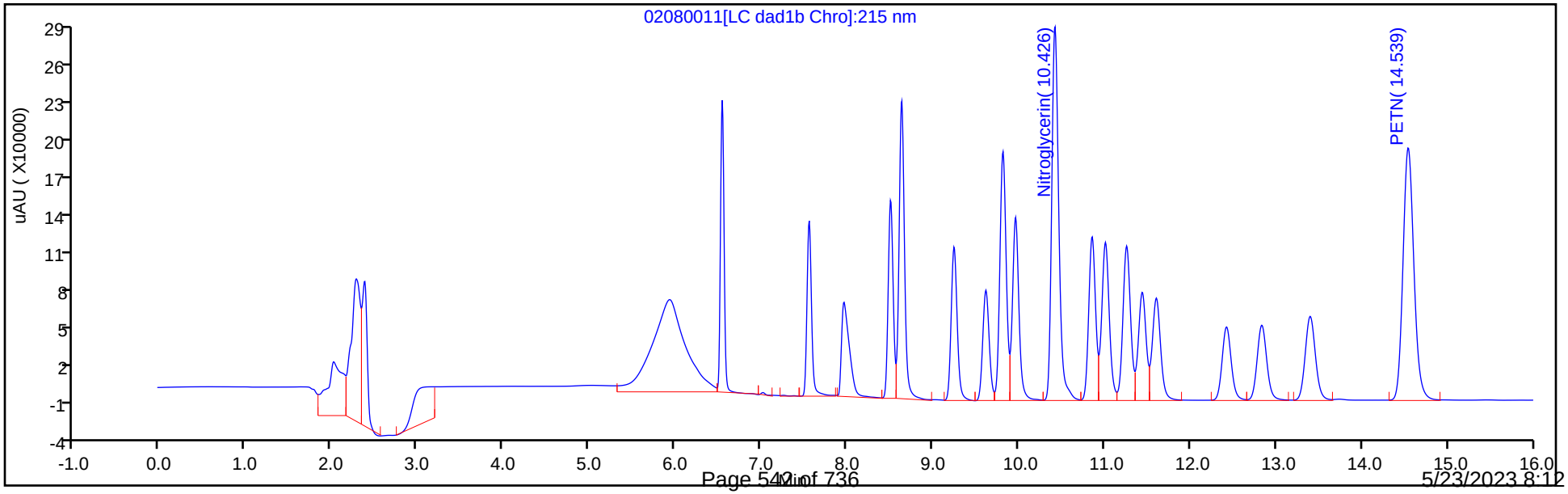
Data File: \\chromfs\denver\chromdata\chhplc_x\20230208-118465.b\02080011.d

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



Manual Integration/User Assign Peak Report

Eurofins Denver

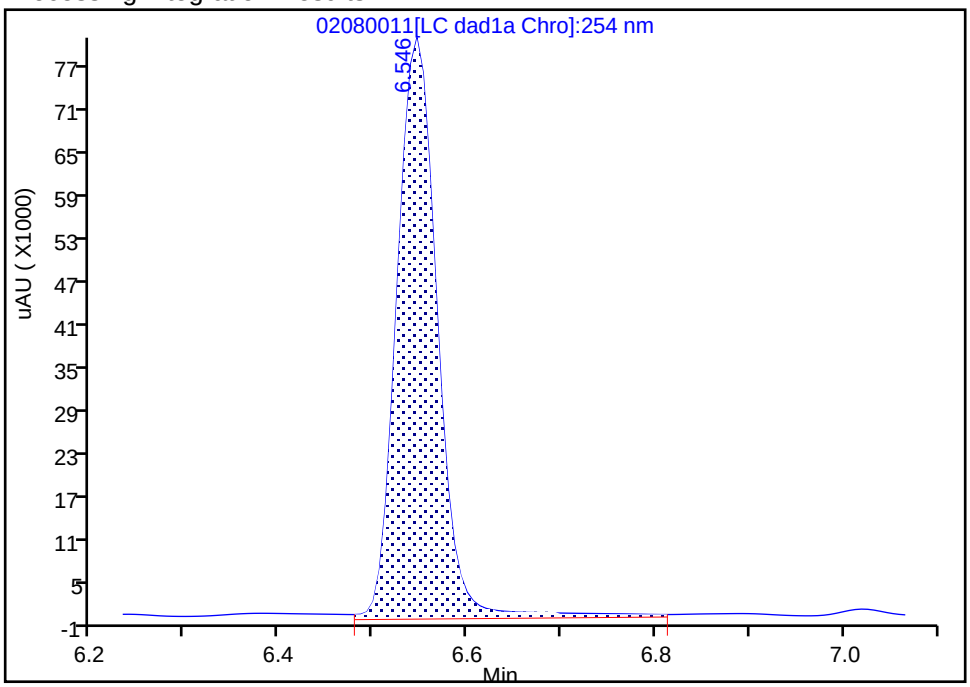
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230208-118465.b\02080011.d				
Injection Date:	08-Feb-2023 15:38:53	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT 9				
Client ID:					
Operator ID:	JZ/MAR	ALS Bottle#:	11	Worklist Smp#:	11
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

4 HMX, CAS: 2691-41-0

Signal: 1

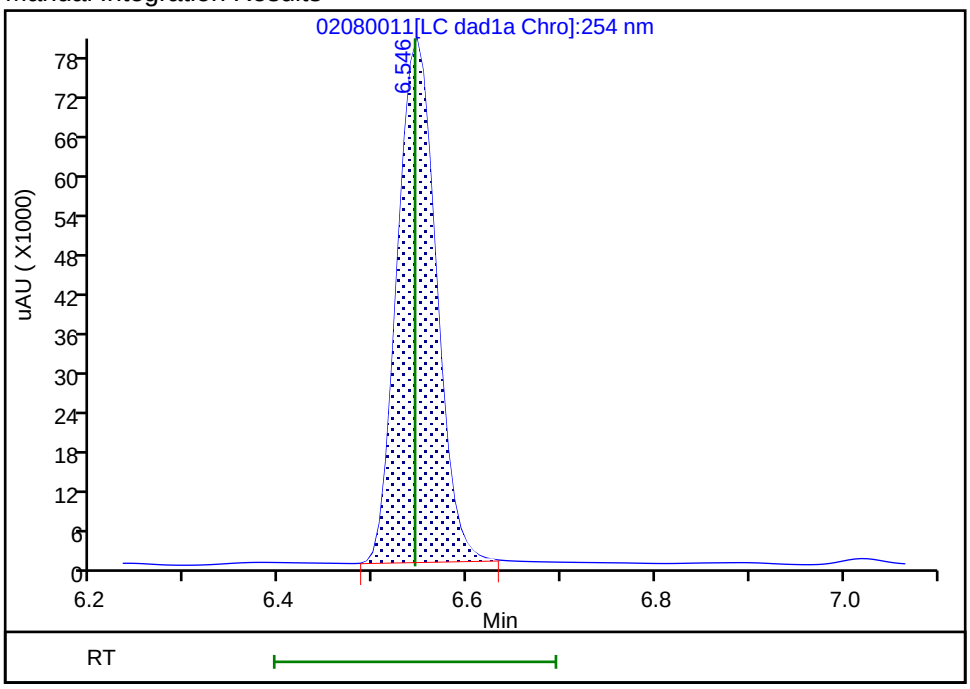
Processing Integration Results

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

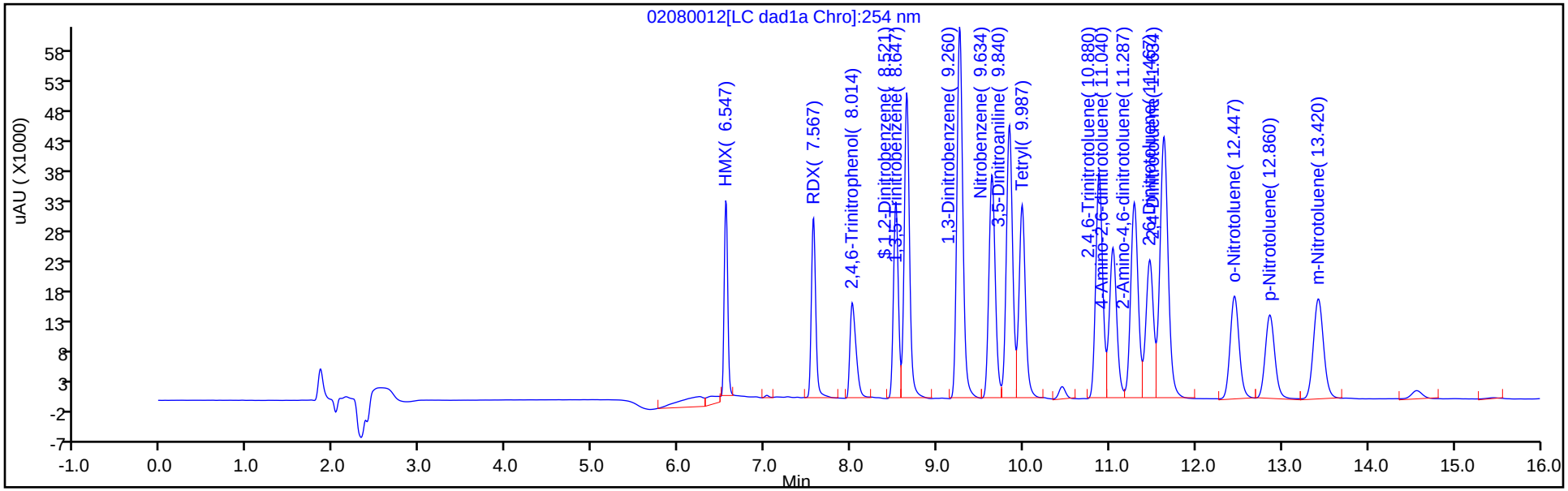
Report Date: 09-Feb-2023 12:48:03 Chrom Revision: 2.3 01-Feb-2023 13:23:06

Eurofins Denver

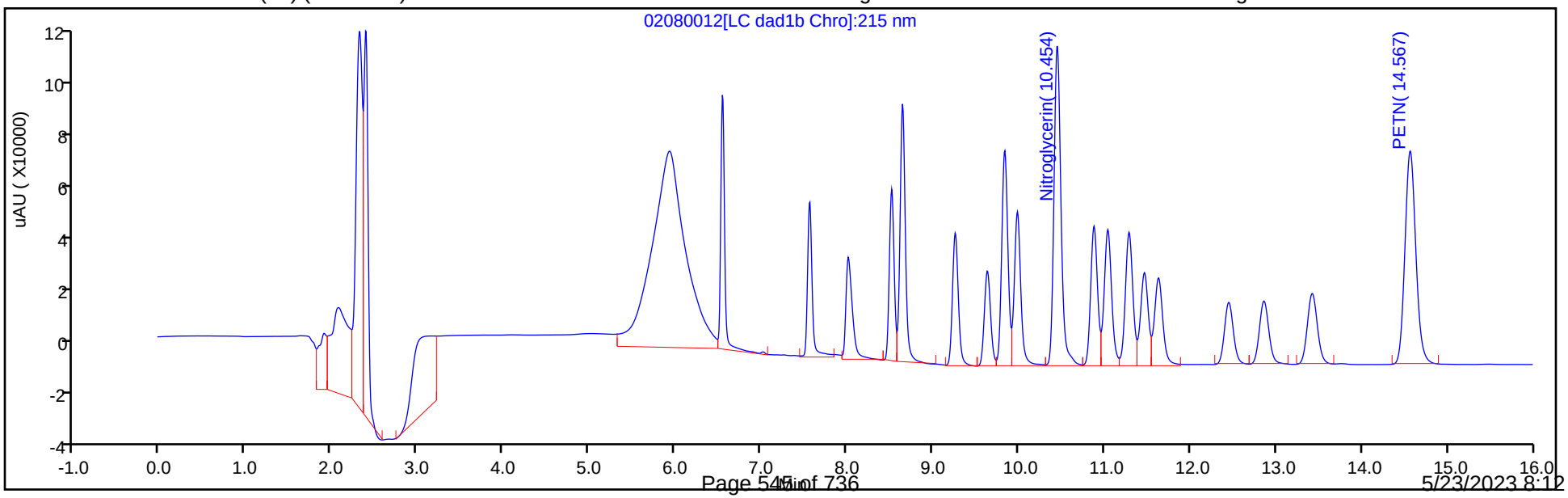
Data File: \\chromfs\denver\chromdata\chhplc_x\20230208-118465.b\02080012.d

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



5/23/2023 8:12 PM

Manual Integration/User Assign Peak Report

Eurofins Denver

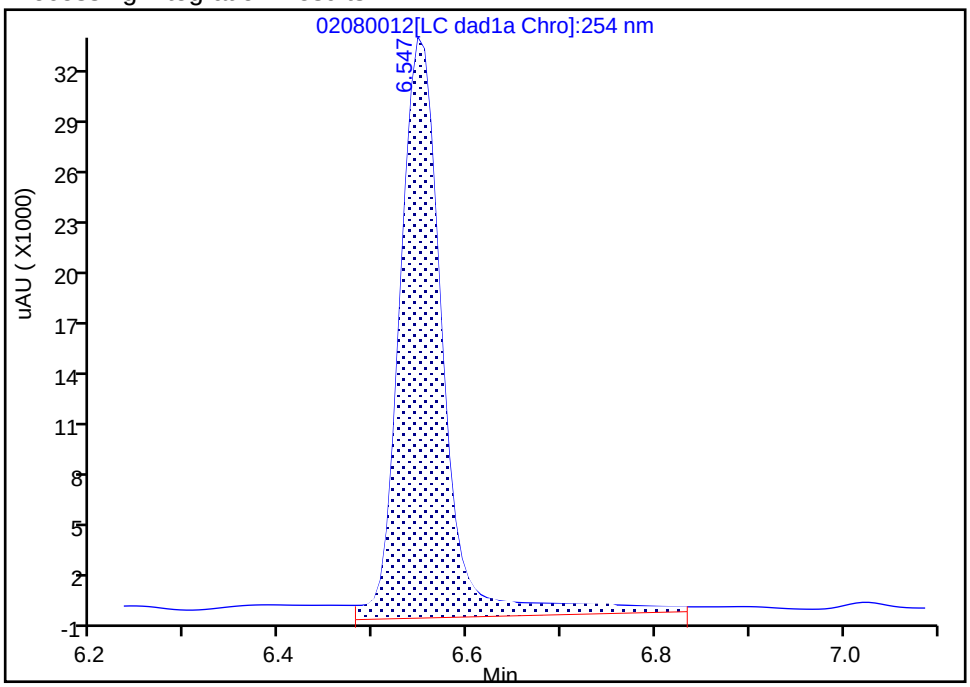
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230208-118465.b\02080012.d				
Injection Date:	08-Feb-2023 16:01:51	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT 8				
Client ID:					
Operator ID:	JZ/MAR	ALS Bottle#:	12	Worklist Smp#:	12
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

4 HMX, CAS: 2691-41-0

Signal: 1

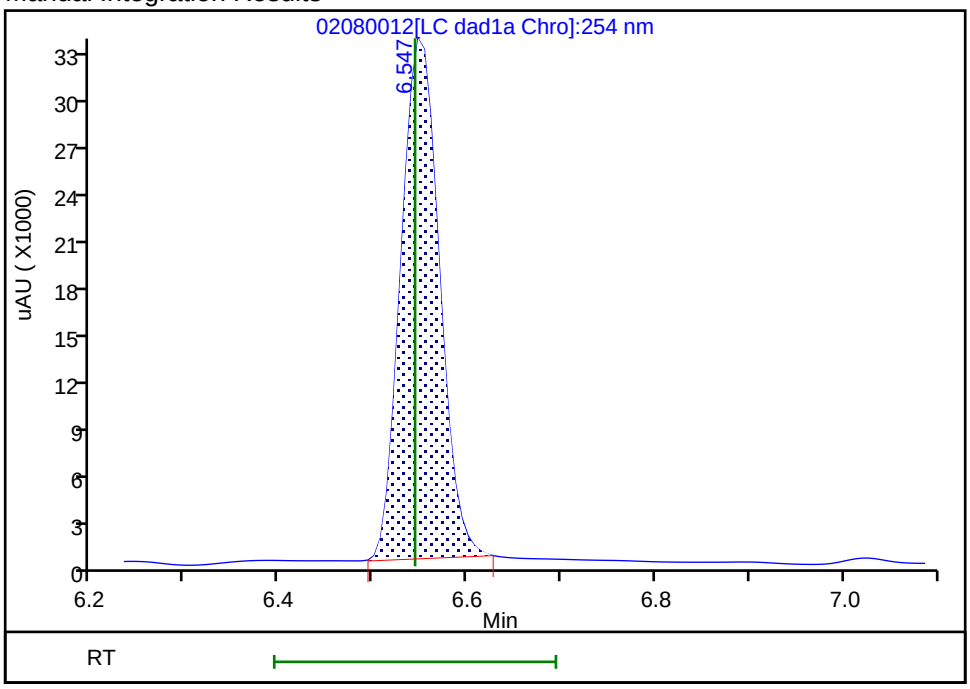
Processing Integration Results

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

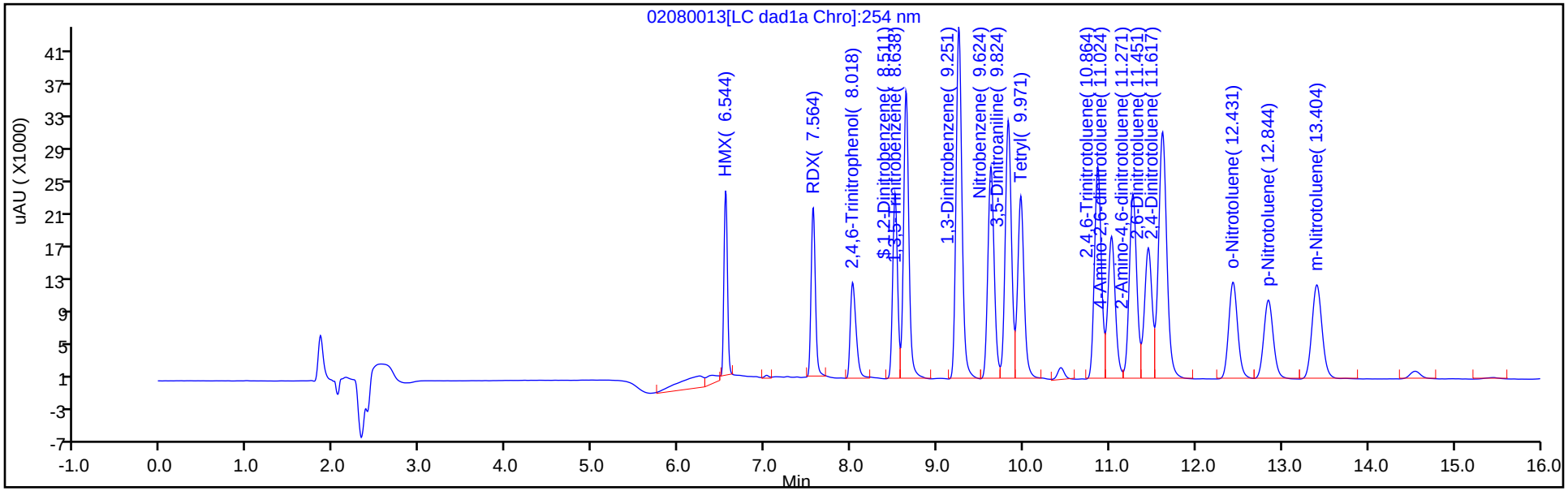
Report Date: 09-Feb-2023 12:48:04 Chrom Revision: 2.3 01-Feb-2023 13:23:06

Eurofins Denver

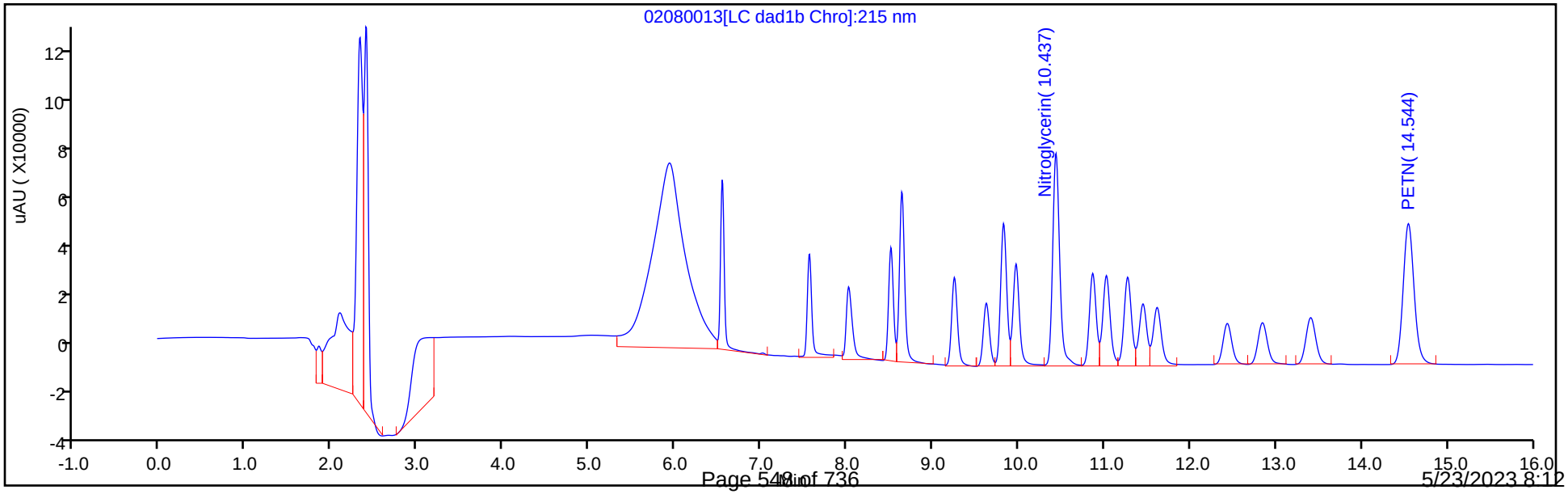
Data File: \\chromfs\denver\chromdata\chhplc_x\20230208-118465.b\02080013.d

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



Manual Integration/User Assign Peak Report

Eurofins Denver

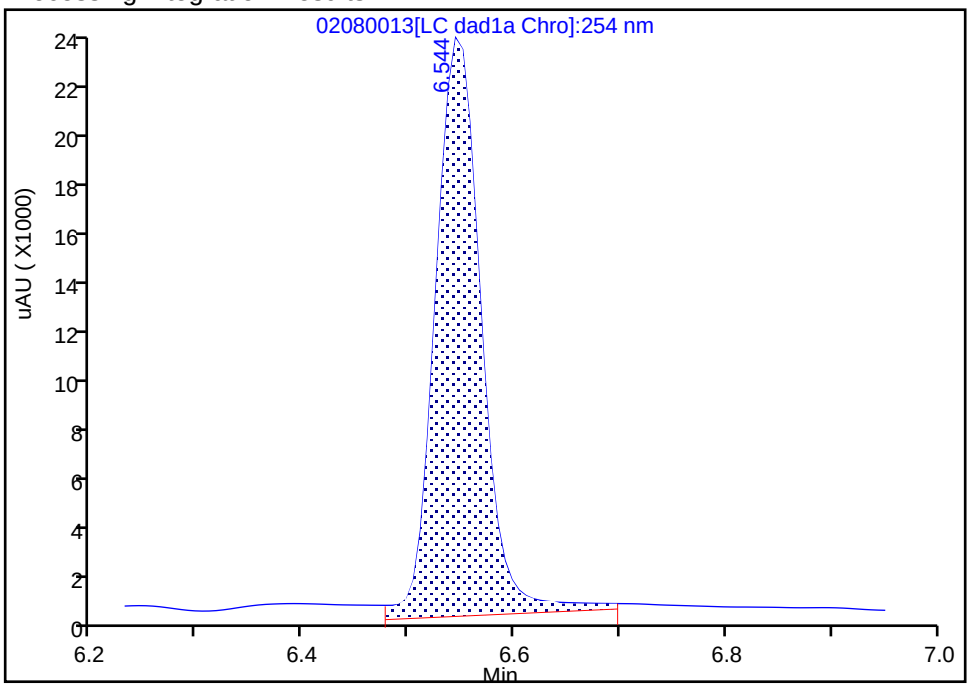
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230208-118465.b\02080013.d				
Injection Date:	08-Feb-2023 16:24:45	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT 7				
Client ID:					
Operator ID:	JZ/MAR	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

4 HMX, CAS: 2691-41-0

Signal: 1

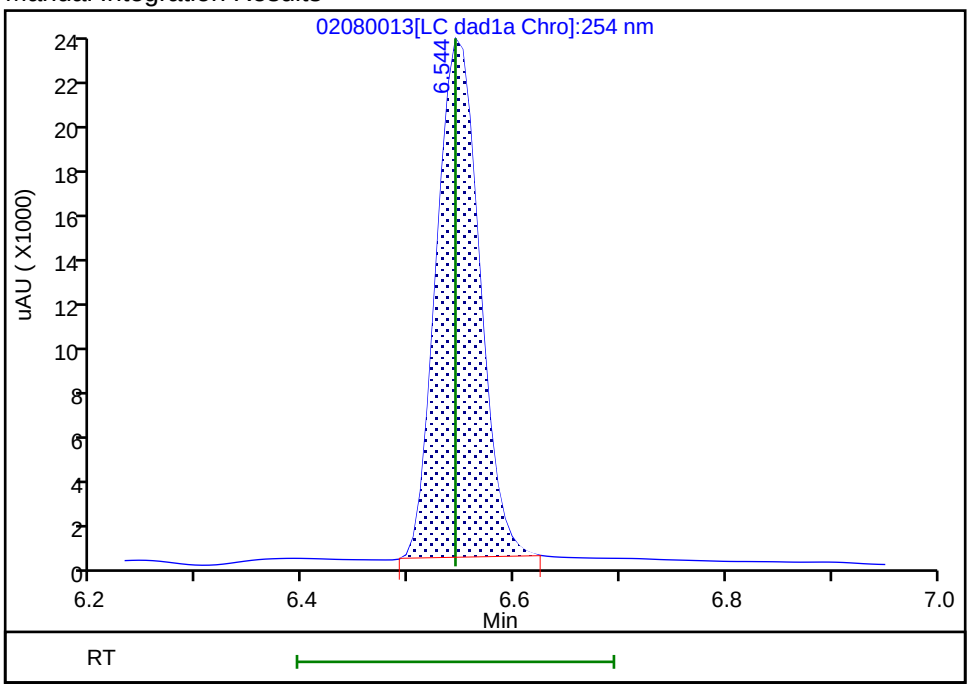
Processing Integration Results

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

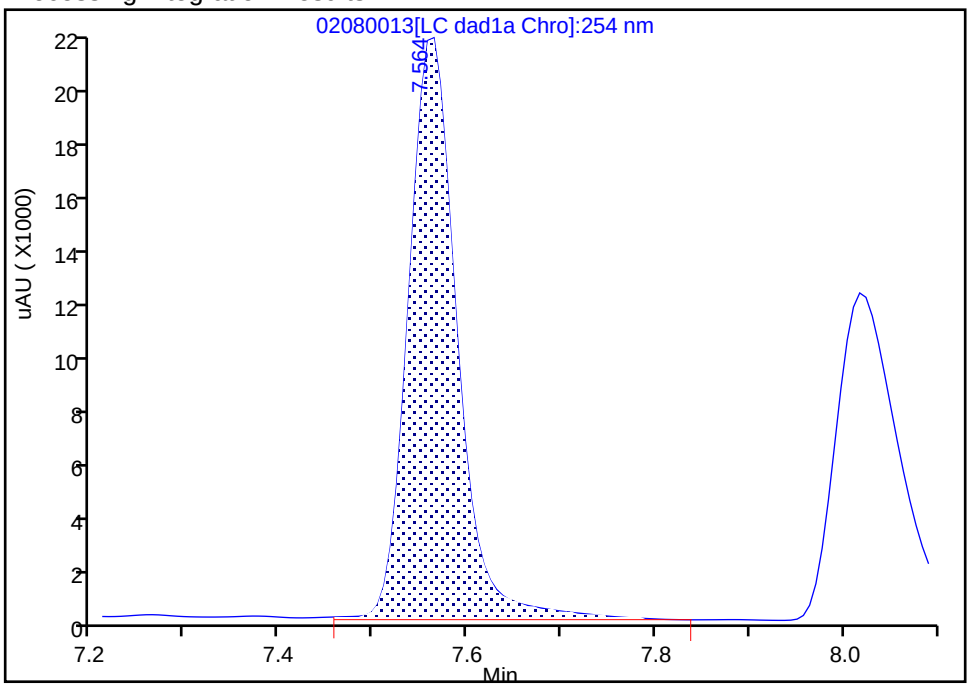
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230208-118465.b\02080013.d				
Injection Date:	08-Feb-2023 16:24:45	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT 7				
Client ID:					
Operator ID:	JZ/MAR	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

8 RDX, CAS: 121-82-4

Signal: 1

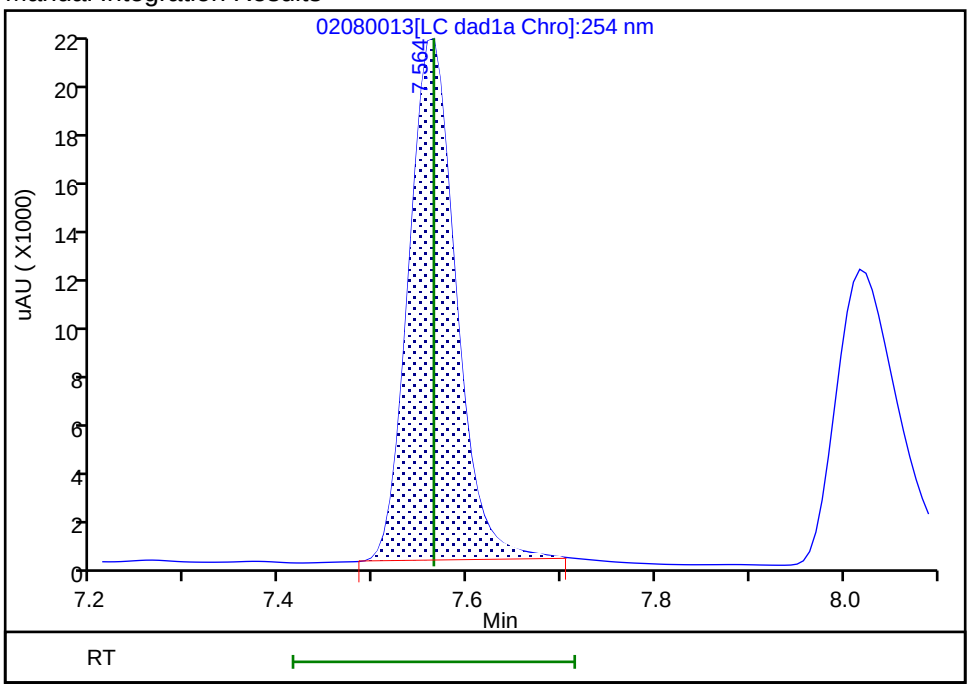
Processing Integration Results

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

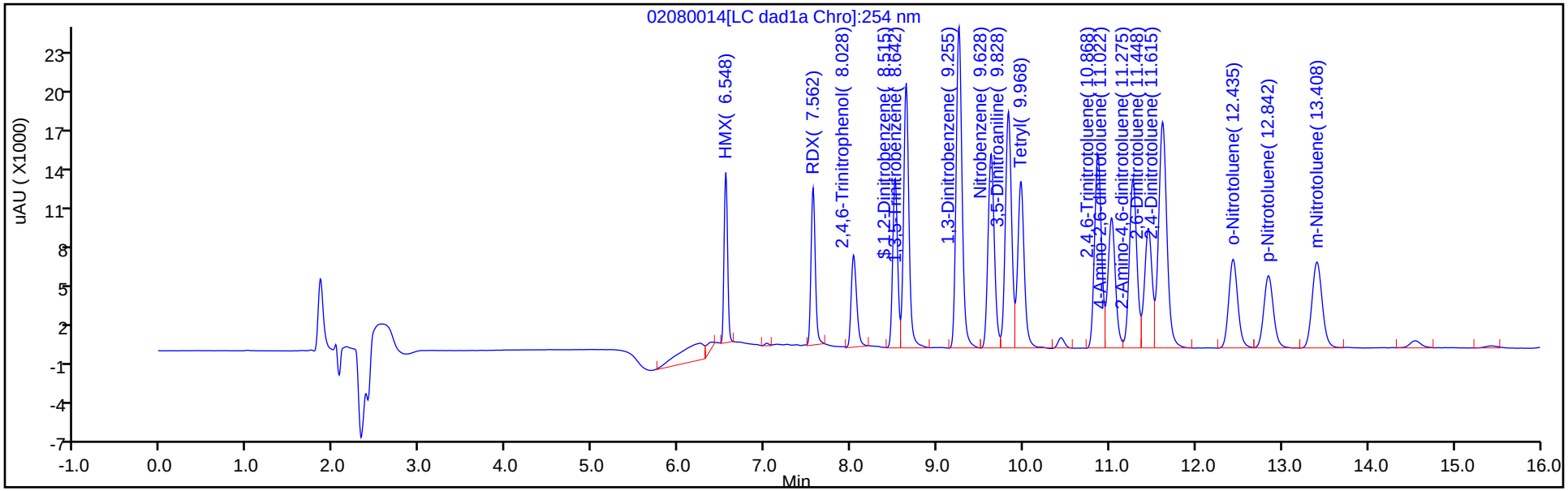
Report Date: 09-Feb-2023 12:48:05 Chrom Revision: 2.3 01-Feb-2023 13:23:06

Eurofins Denver

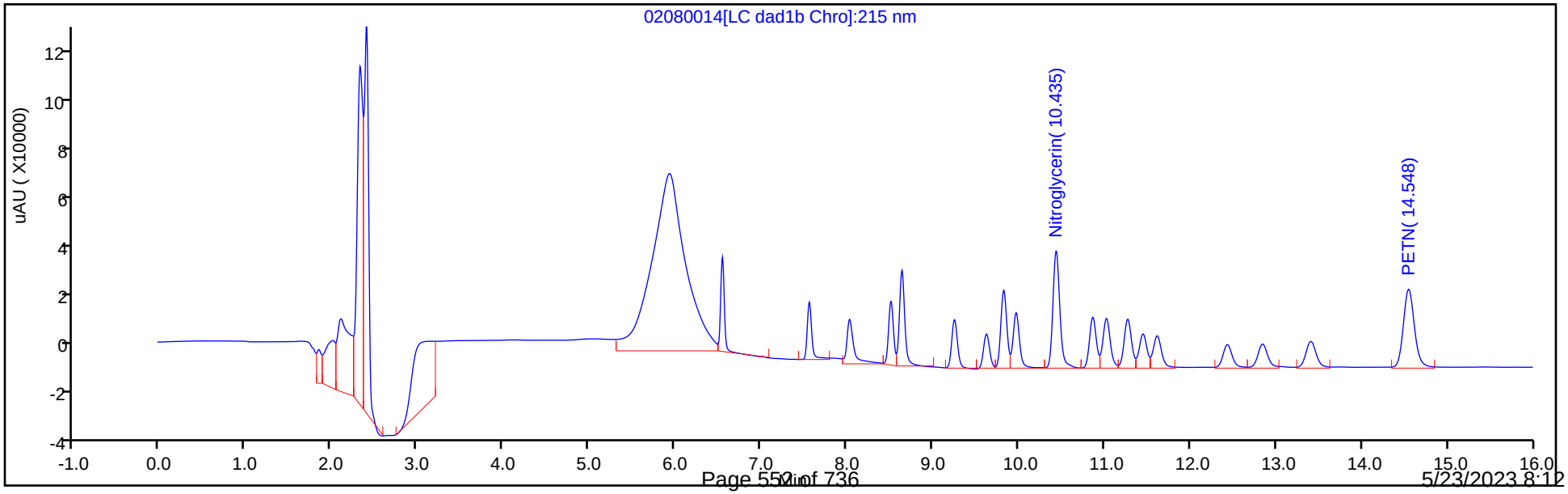
Data File: \\chromfs\denver\chromdata\chhplc_x\20230208-118465.b\02080014.d

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



Manual Integration/User Assign Peak Report

Eurofins Denver

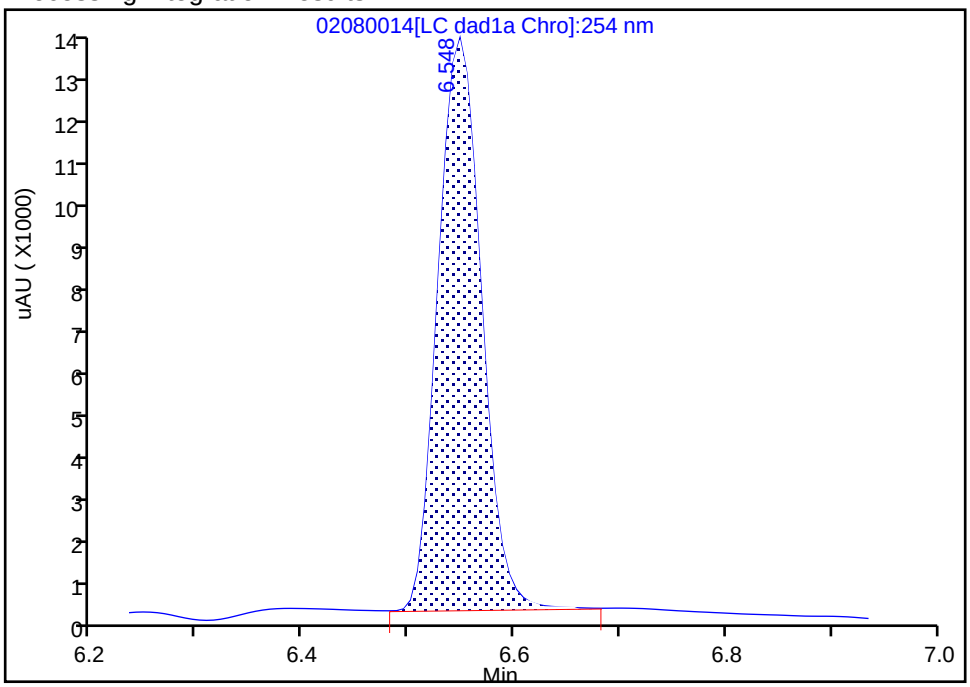
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230208-118465.b\02080014.d				
Injection Date:	08-Feb-2023 16:47:39	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT 6				
Client ID:					
Operator ID:	JZ/MAR	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

4 HMX, CAS: 2691-41-0

Signal: 1

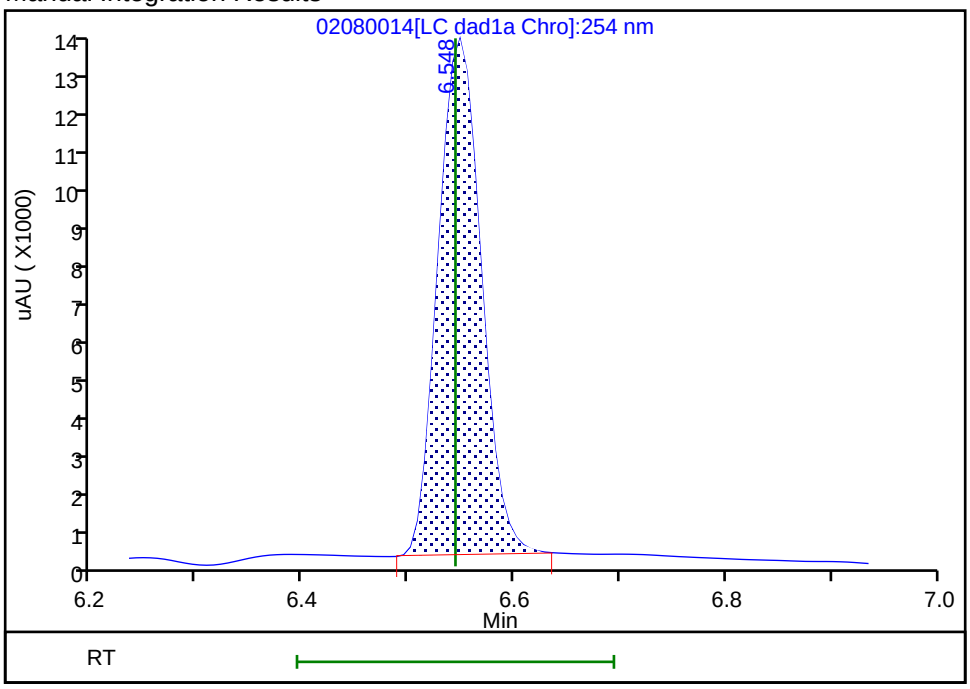
Processing Integration Results

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

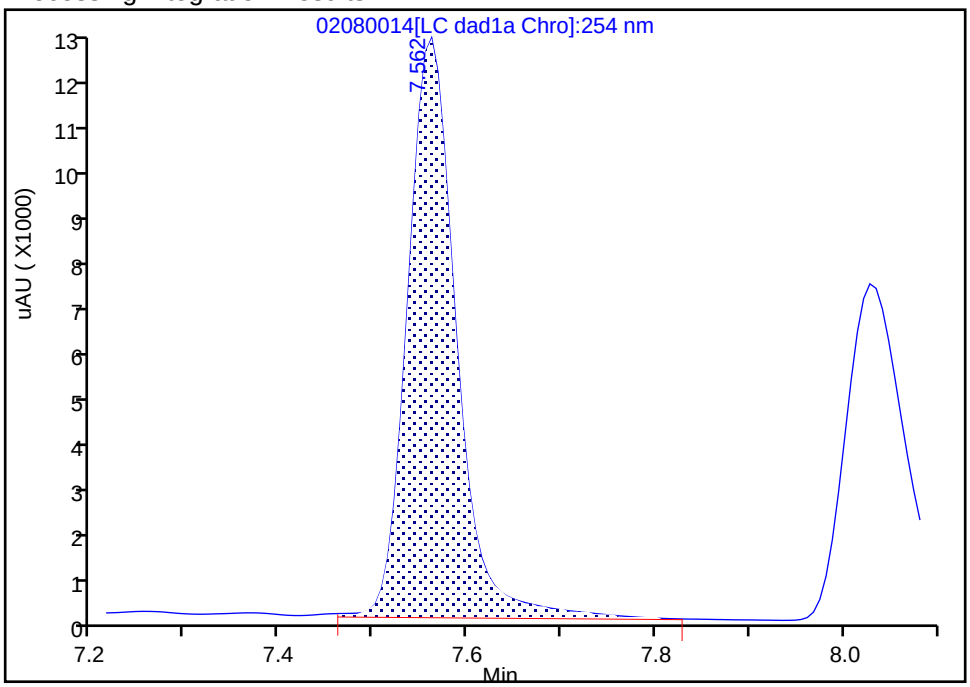
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230208-118465.b\02080014.d				
Injection Date:	08-Feb-2023 16:47:39	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT 6				
Client ID:					
Operator ID:	JZ/MAR	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

8 RDX, CAS: 121-82-4

Signal: 1

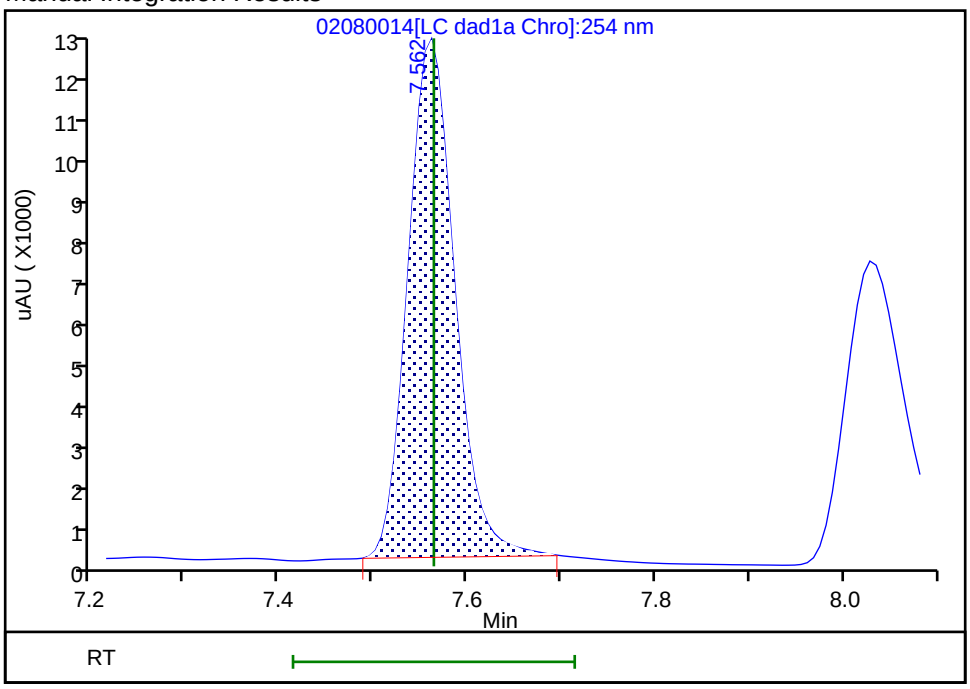
Processing Integration Results

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

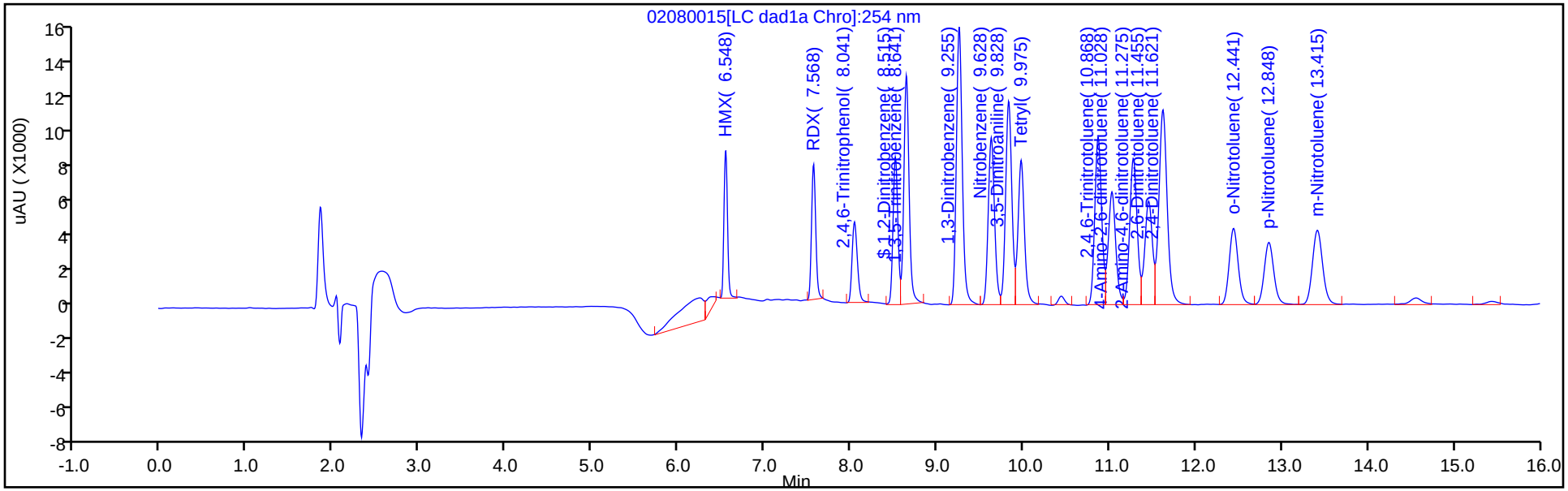
Report Date: 09-Feb-2023 12:48:06 Chrom Revision: 2.3 01-Feb-2023 13:23:06

Eurofins Denver

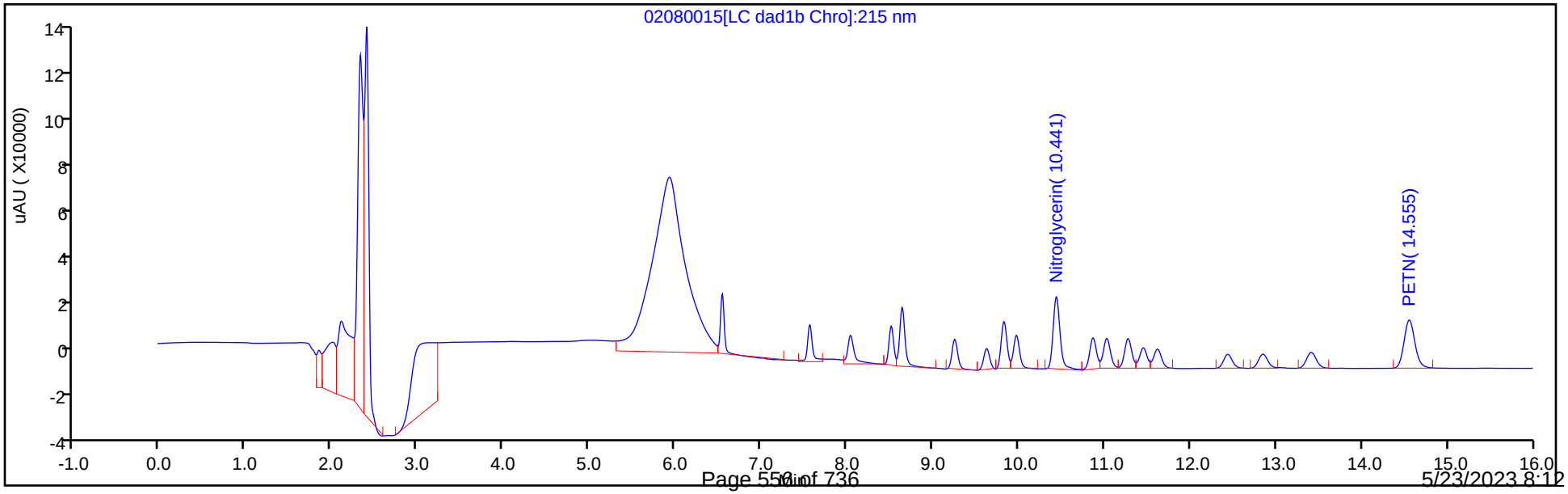
Data File: \\chromfs\denver\chromdata\chhplc_x\20230208-118465.b\02080015.d

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



Manual Integration/User Assign Peak Report

Eurofins Denver

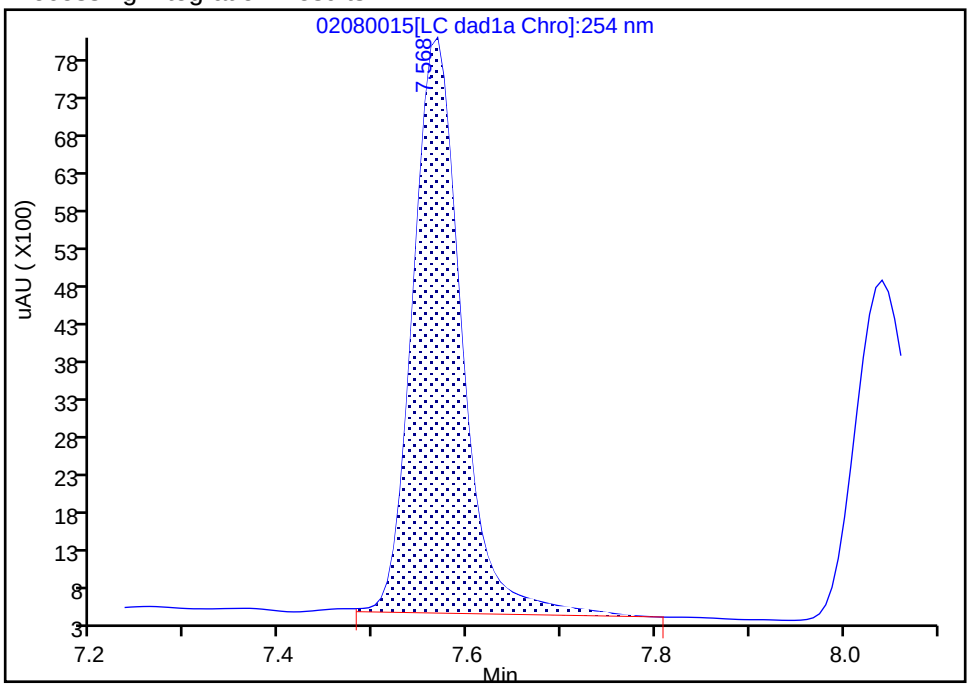
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230208-118465.b\02080015.d				
Injection Date:	08-Feb-2023 17:10:30	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT 5				
Client ID:					
Operator ID:	JZ/MAR	ALS Bottle#:	15	Worklist Smp#:	15
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

8 RDX, CAS: 121-82-4

Signal: 1

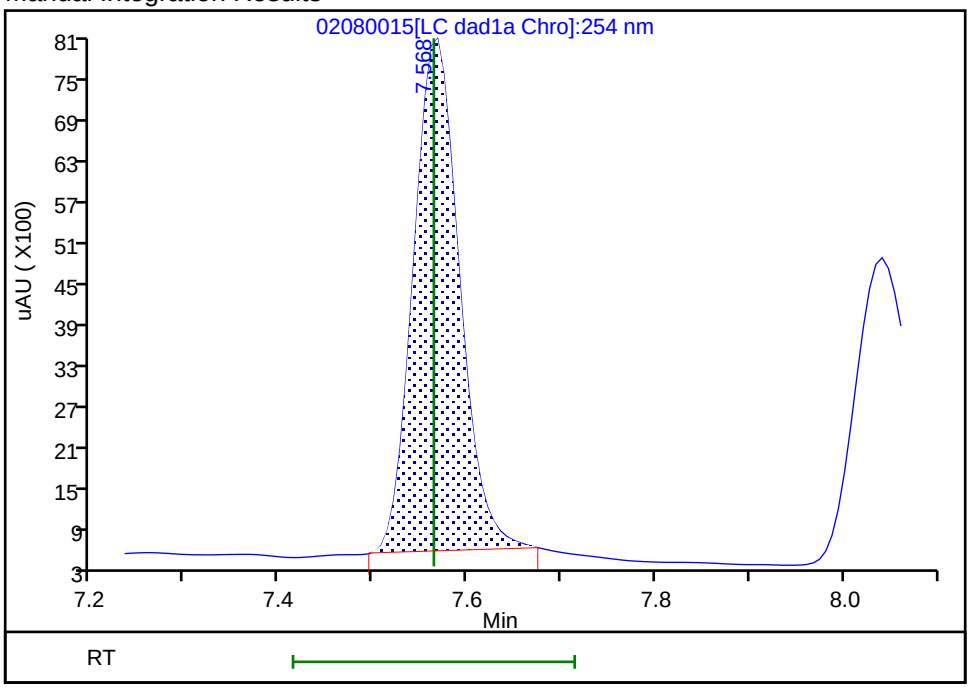
Processing Integration Results

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

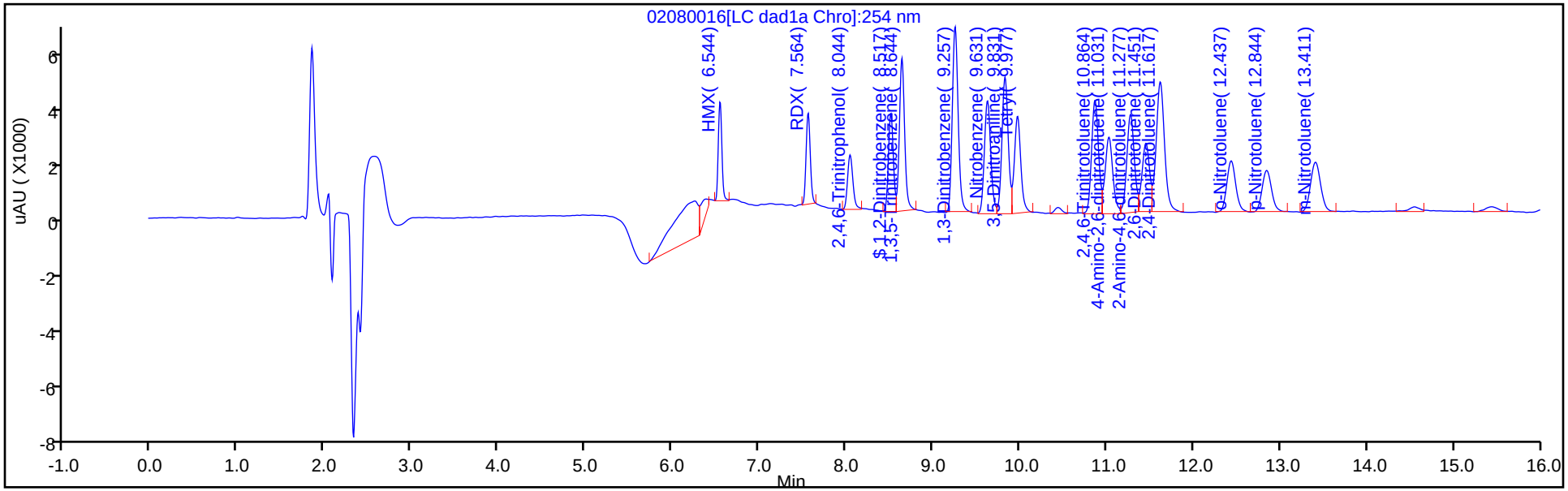
Report Date: 09-Feb-2023 12:48:06 Chrom Revision: 2.3 01-Feb-2023 13:23:06

Eurofins Denver

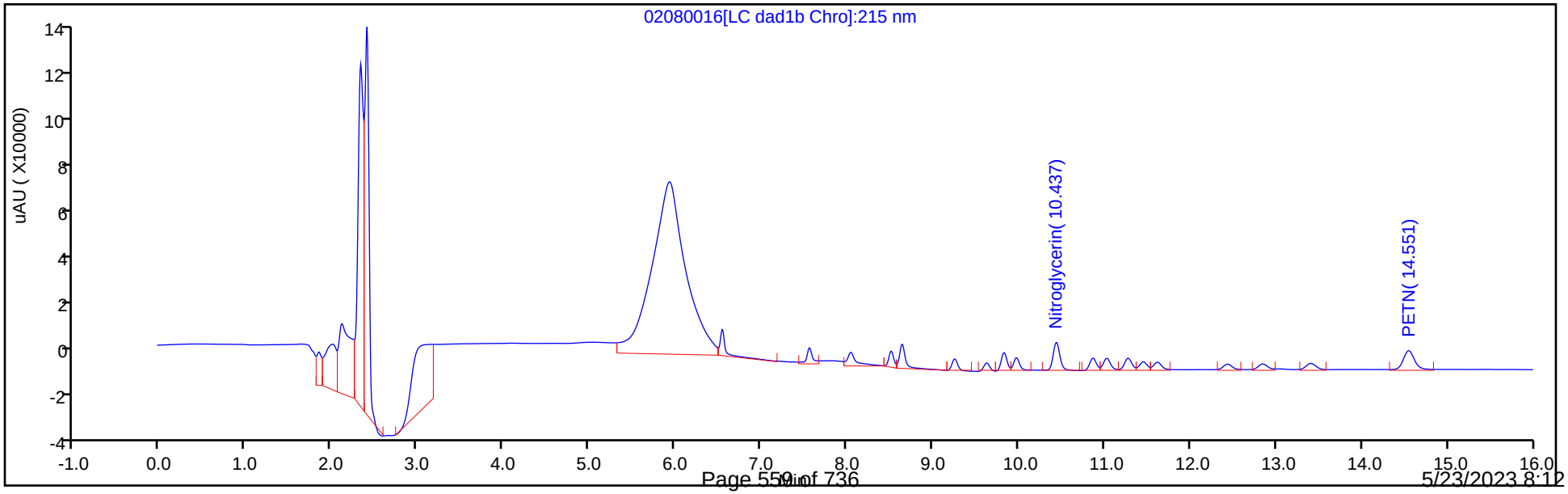
Data File: \\chromfs\denver\chromdata\chhplc_x\20230208-118465.b\02080016.d

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



5/23/2023 8:12 PM

Manual Integration/User Assign Peak Report

Eurofins Denver

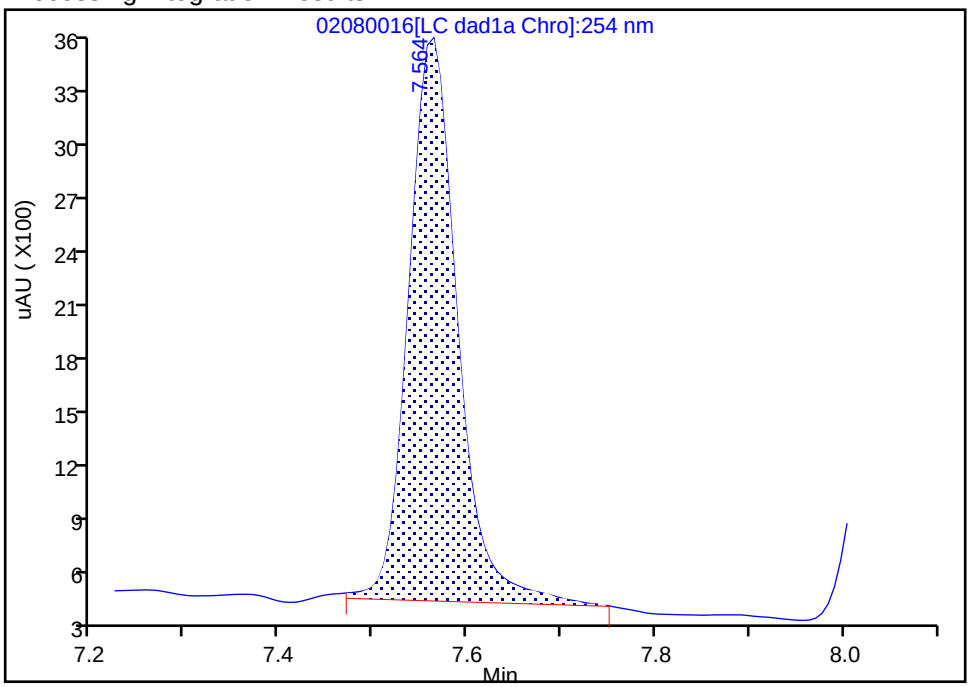
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230208-118465.b\02080016.d				
Injection Date:	08-Feb-2023 17:33:25	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT 4				
Client ID:					
Operator ID:	JZ/MAR	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

8 RDX, CAS: 121-82-4

Signal: 1

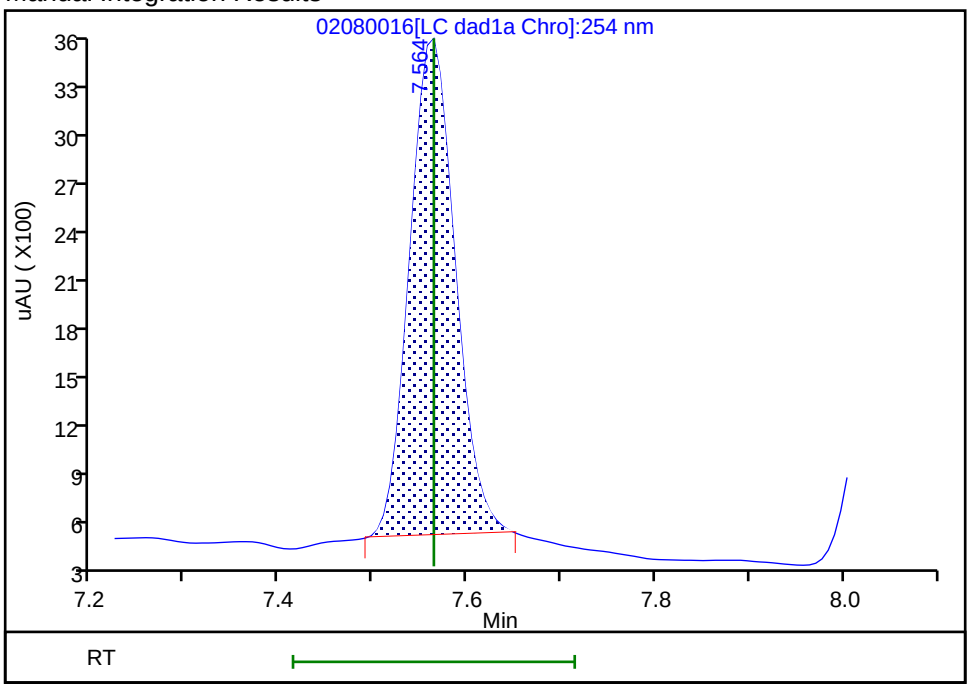
Processing Integration Results

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

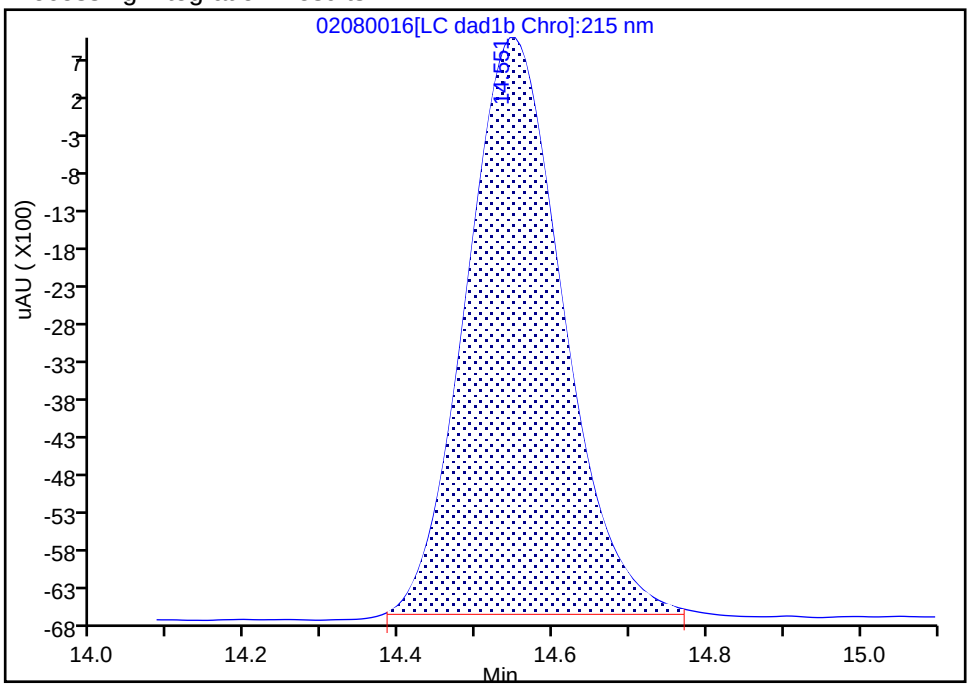
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230208-118465.b\02080016.d				
Injection Date:	08-Feb-2023 17:33:25	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT 4				
Client ID:					
Operator ID:	JZ/MAR	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1C, 215 nm		

25 PETN, CAS: 78-11-5

Signal: 1

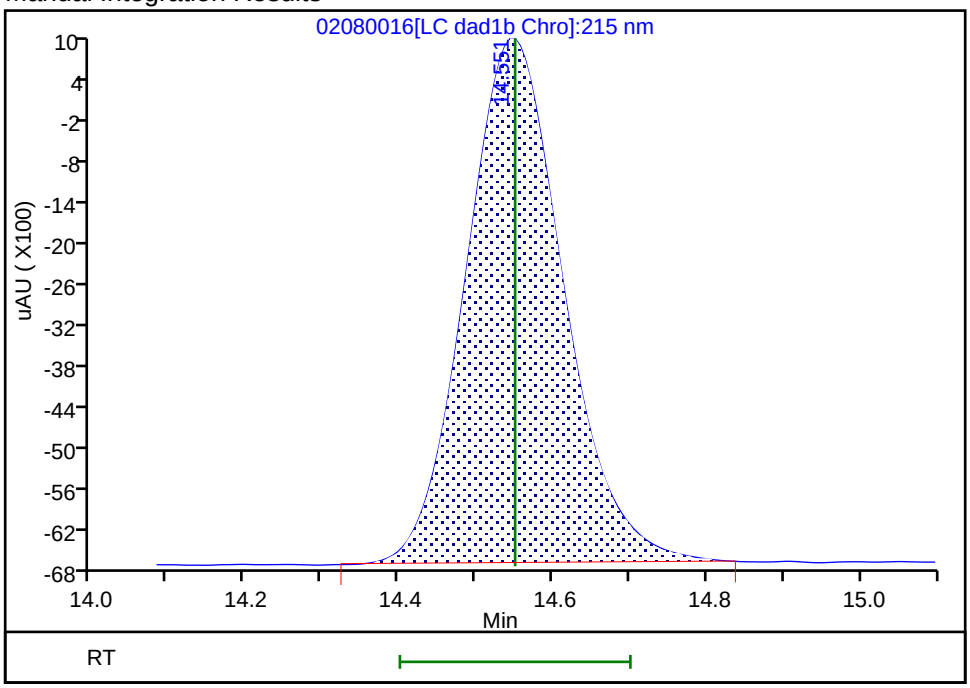
Processing Integration Results

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

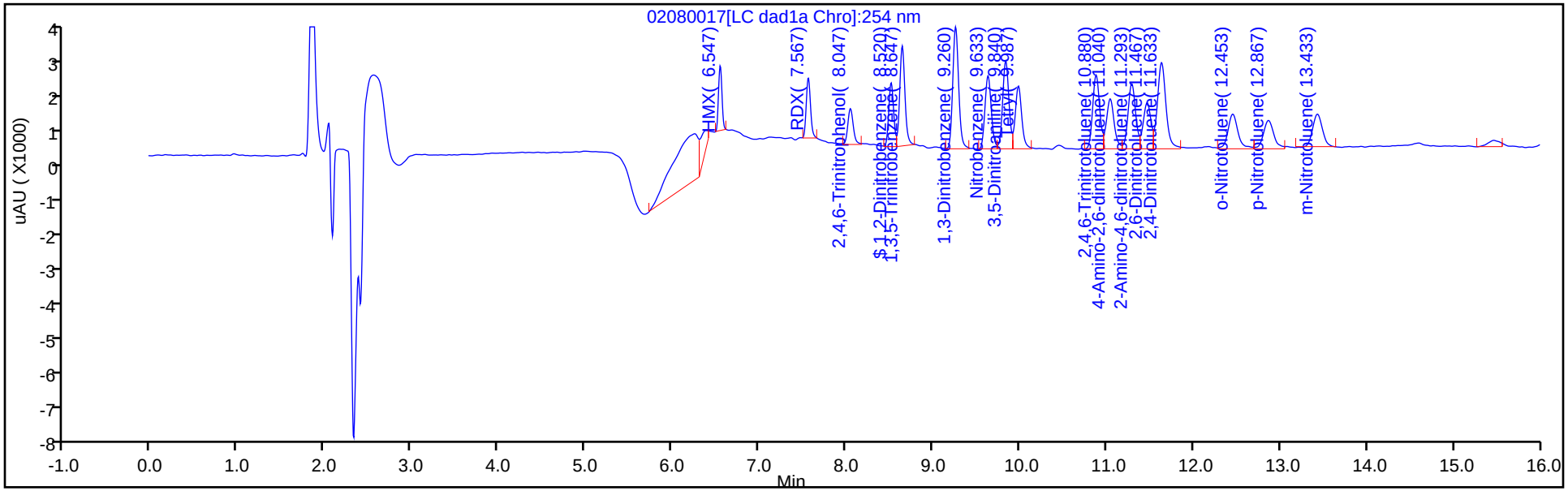
Report Date: 09-Feb-2023 12:48:07 Chrom Revision: 2.3 01-Feb-2023 13:23:06

Eurofins Denver

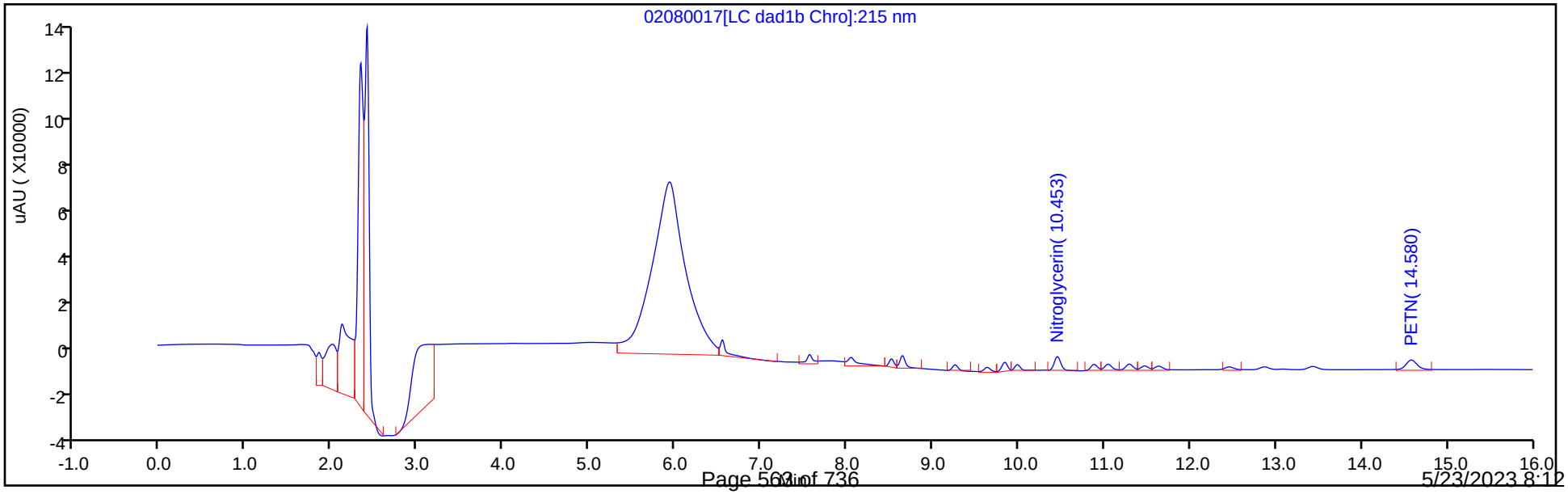
Data File: \\chromfs\denver\chromdata\chhplc_x\20230208-118465.b\02080017.d

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



Manual Integration/User Assign Peak Report

Eurofins Denver

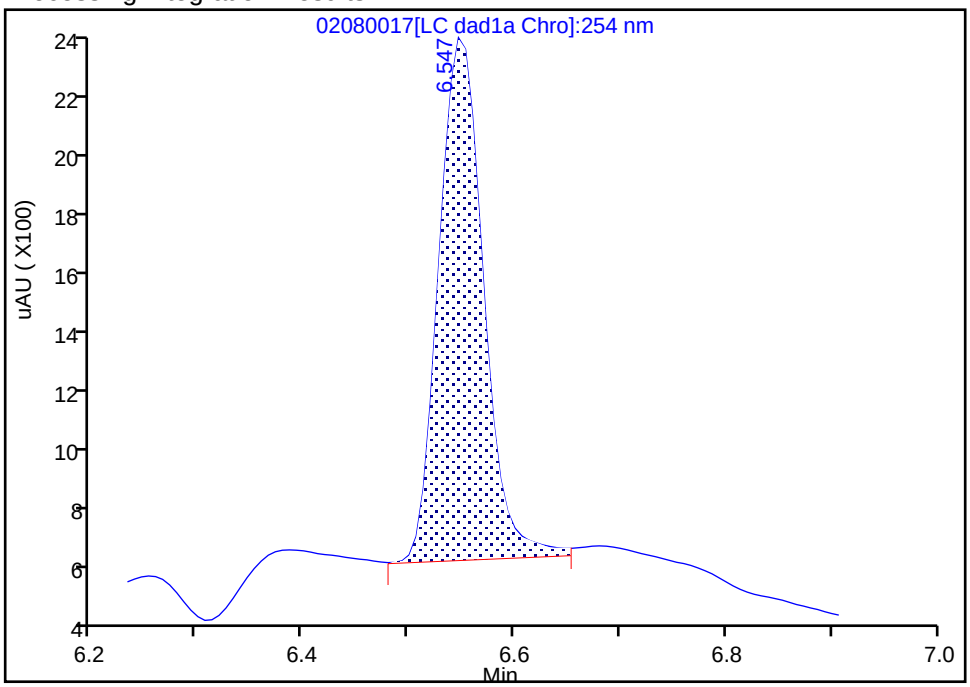
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230208-118465.b\02080017.d				
Injection Date:	08-Feb-2023 17:56:21	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT 3				
Client ID:					
Operator ID:	JZ/MAR	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

4 HMX, CAS: 2691-41-0

Signal: 1

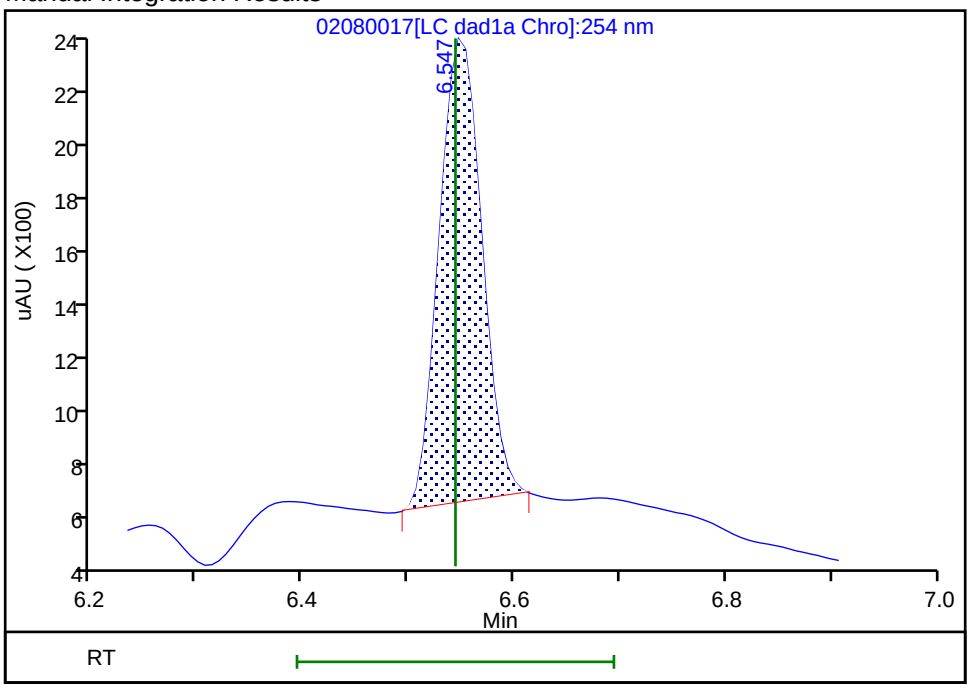
Processing Integration Results

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

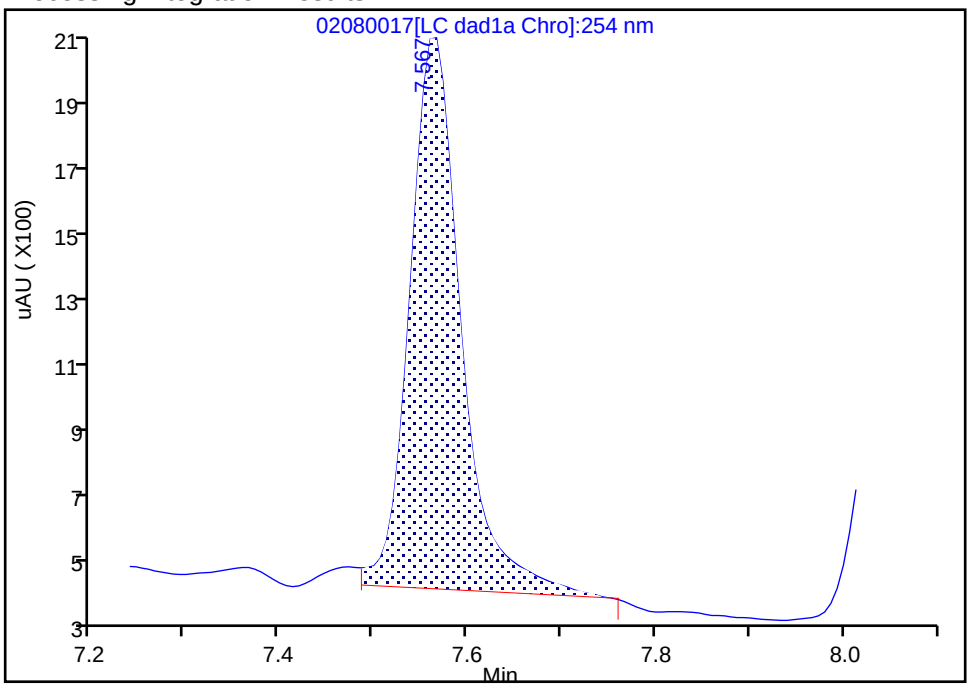
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230208-118465.b\02080017.d				
Injection Date:	08-Feb-2023 17:56:21	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT 3				
Client ID:					
Operator ID:	JZ/MAR	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

8 RDX, CAS: 121-82-4

Signal: 1

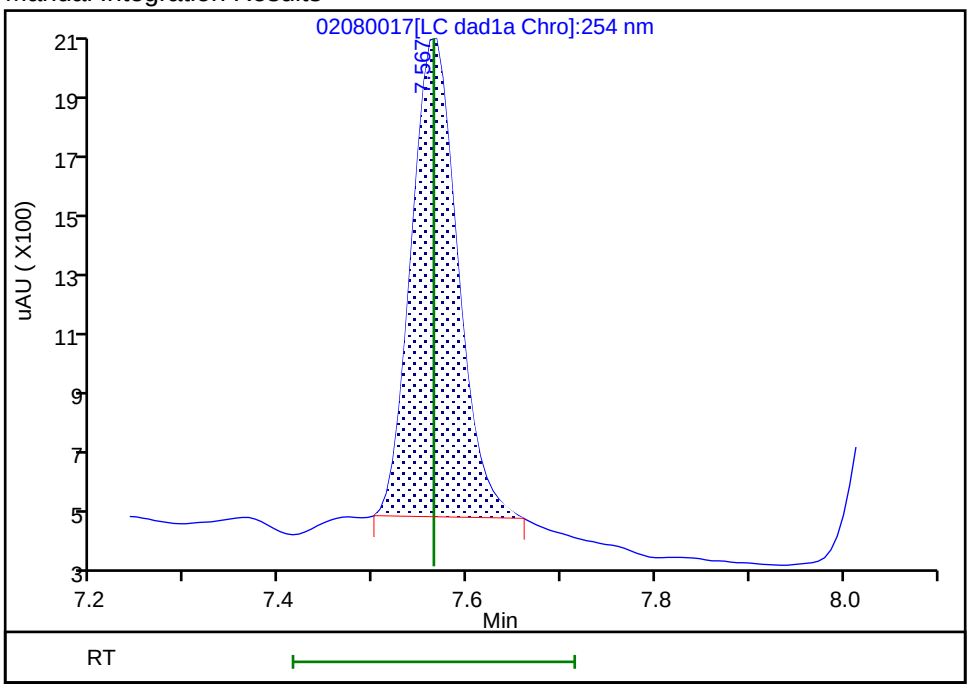
Processing Integration Results

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

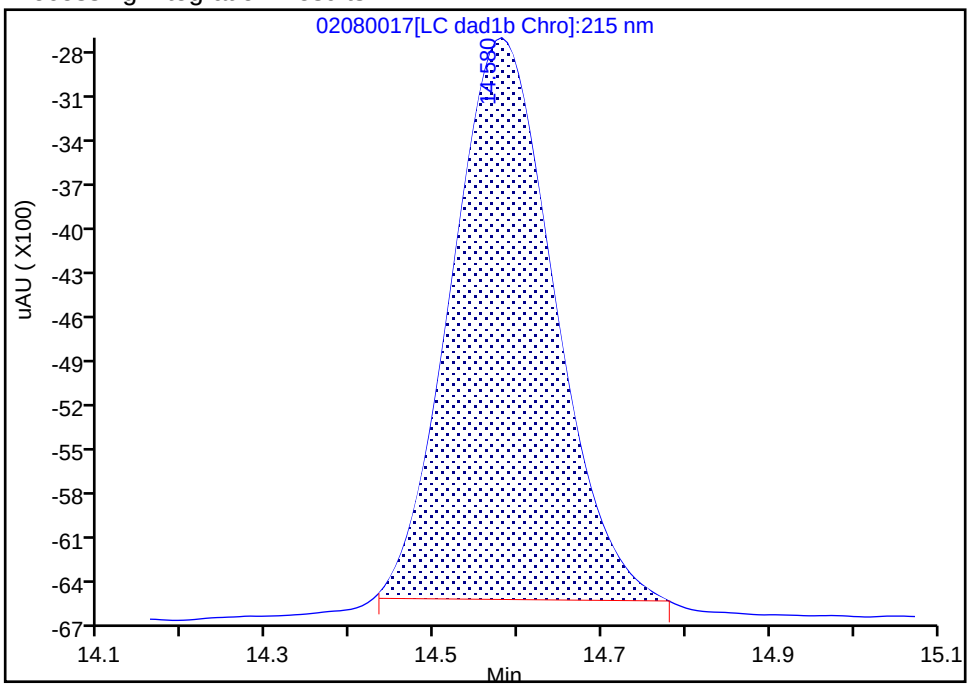
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230208-118465.b\02080017.d				
Injection Date:	08-Feb-2023 17:56:21	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT 3				
Client ID:					
Operator ID:	JZ/MAR	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1C, 215 nm		

25 PETN, CAS: 78-11-5

Signal: 1

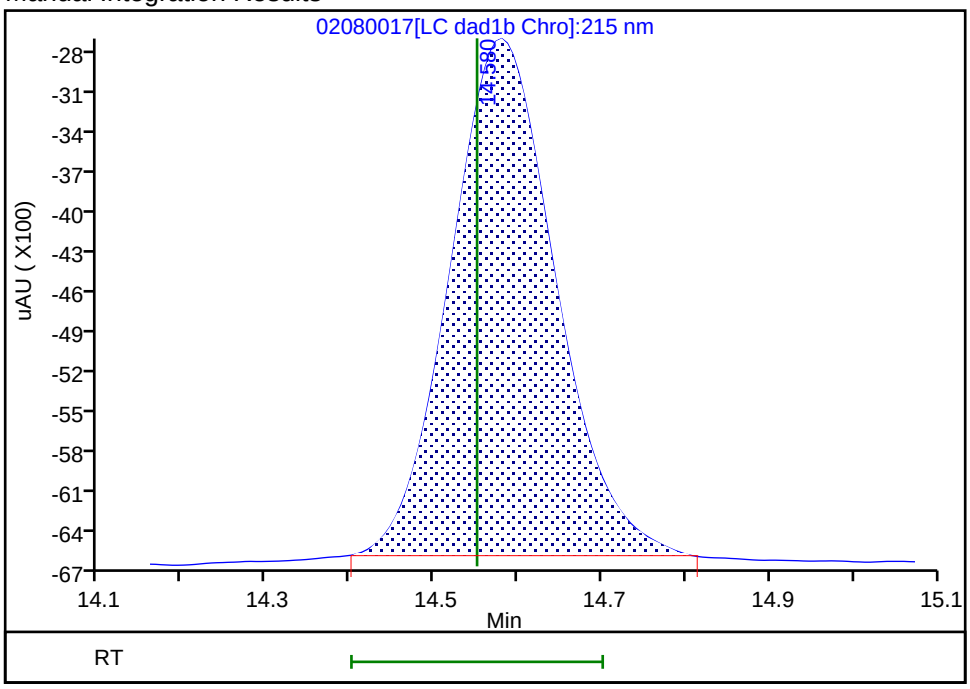
Processing Integration Results

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

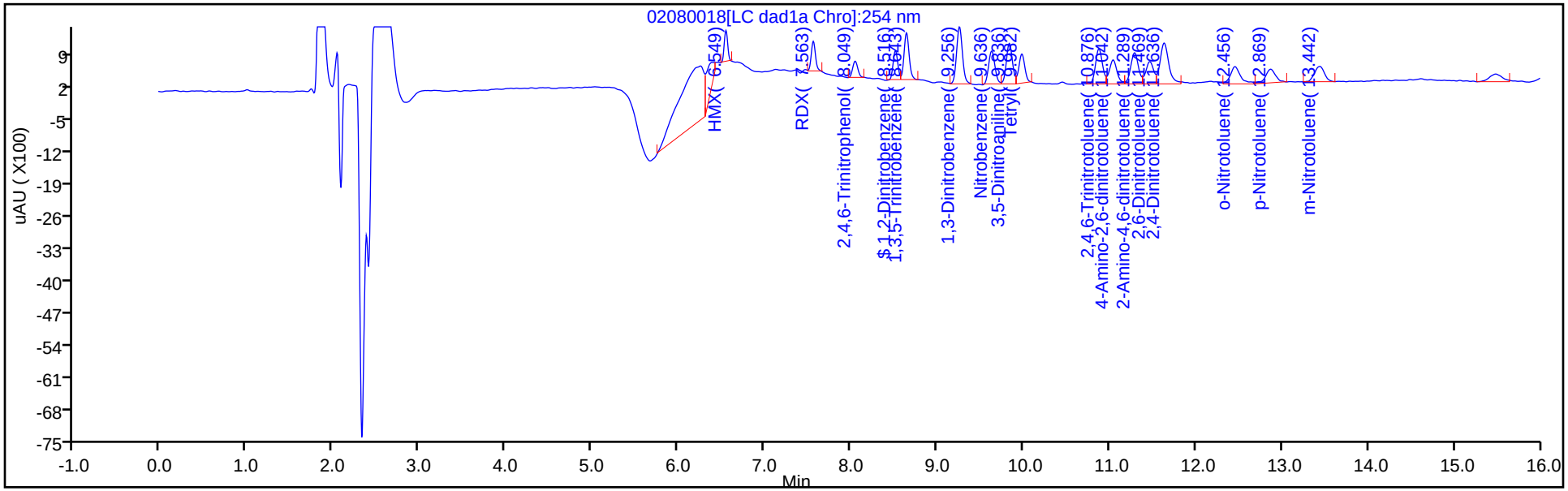
Report Date: 09-Feb-2023 12:48:08 Chrom Revision: 2.3 01-Feb-2023 13:23:06

Eurofins Denver

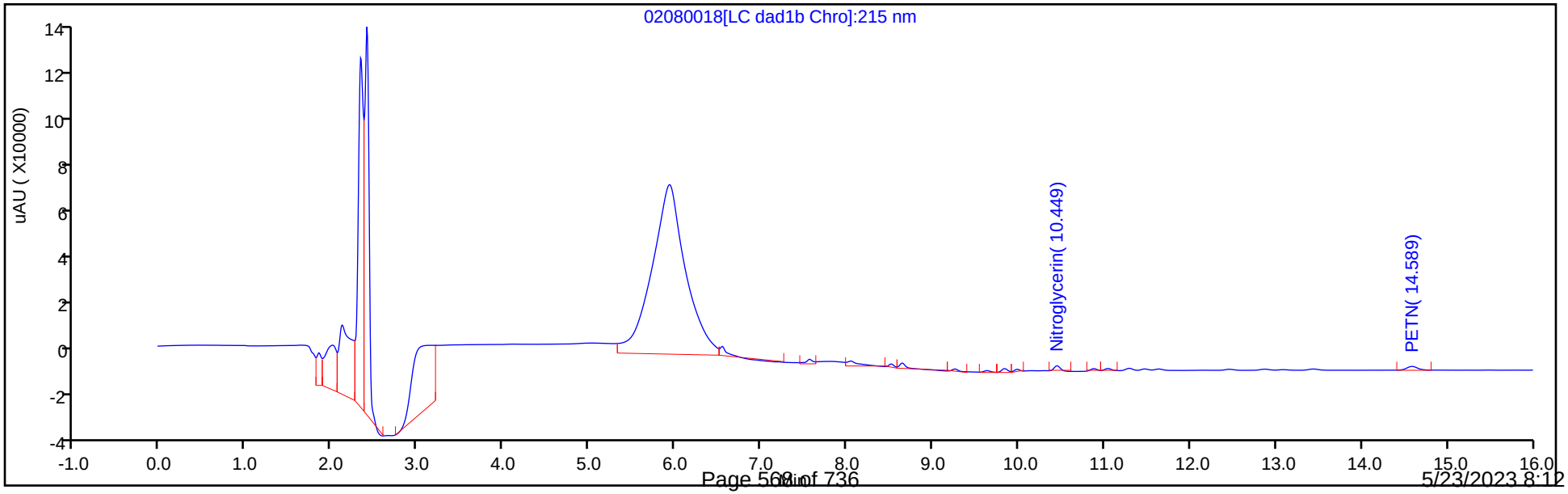
Data File: \\chromfs\denver\chromdata\chhplc_x\20230208-118465.b\02080018.d

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



Manual Integration/User Assign Peak Report

Eurofins Denver

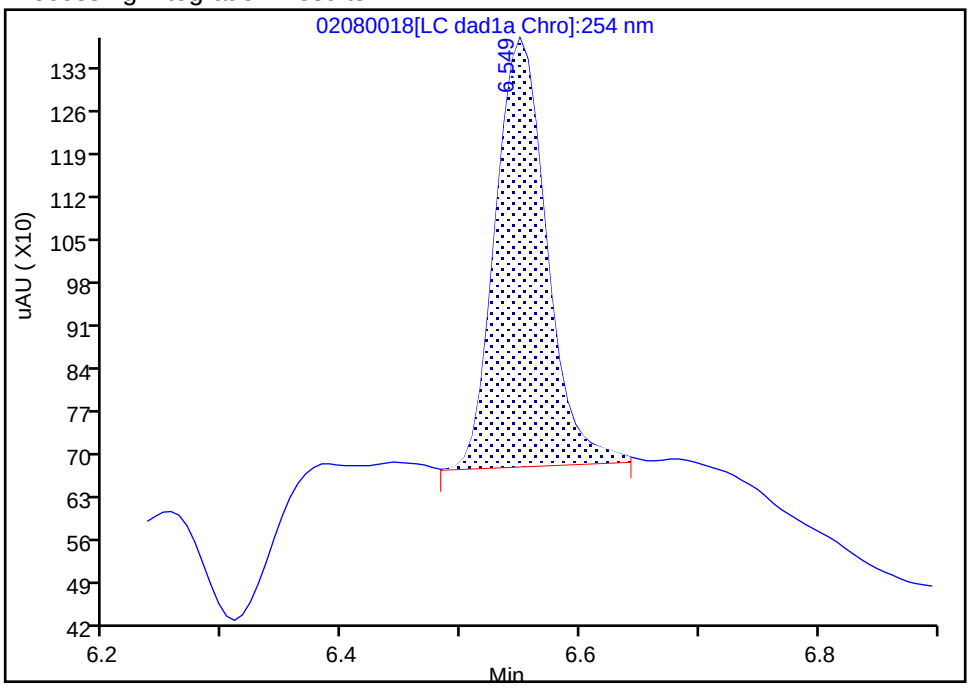
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230208-118465.b\02080018.d				
Injection Date:	08-Feb-2023 18:19:14	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT 2				
Client ID:					
Operator ID:	JZ/MAR	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

4 HMX, CAS: 2691-41-0

Signal: 1

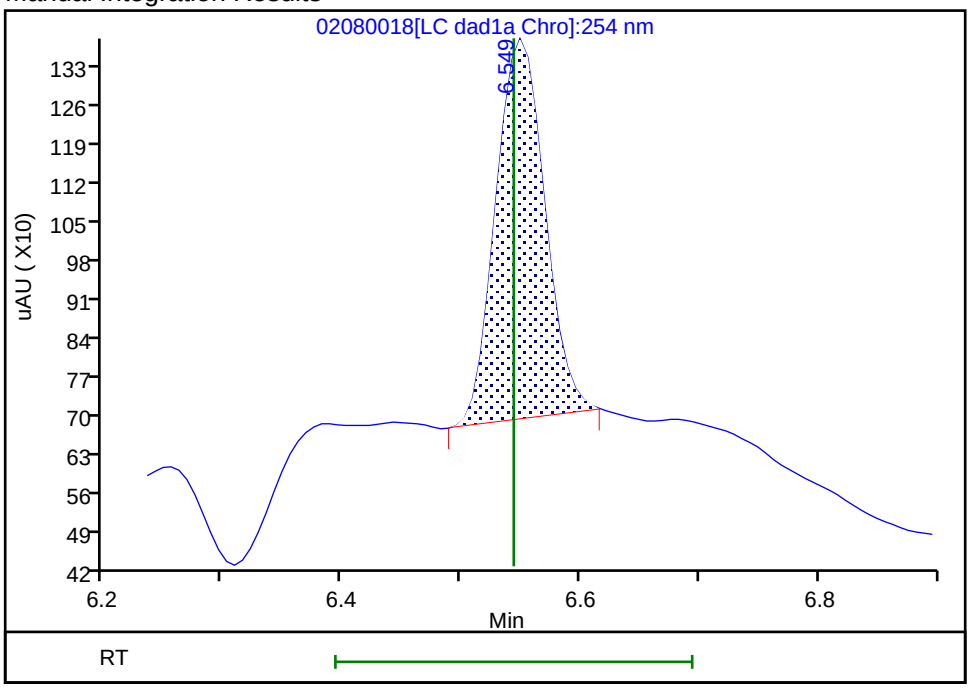
Processing Integration Results

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

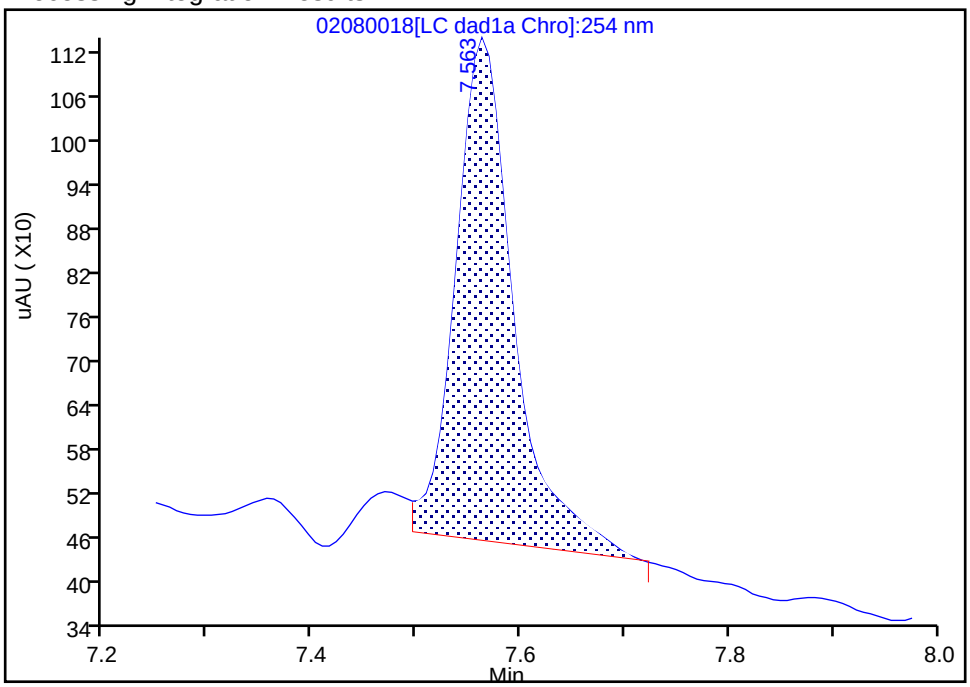
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230208-118465.b\02080018.d				
Injection Date:	08-Feb-2023 18:19:14	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT 2				
Client ID:					
Operator ID:	JZ/MAR	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

8 RDX, CAS: 121-82-4

Signal: 1

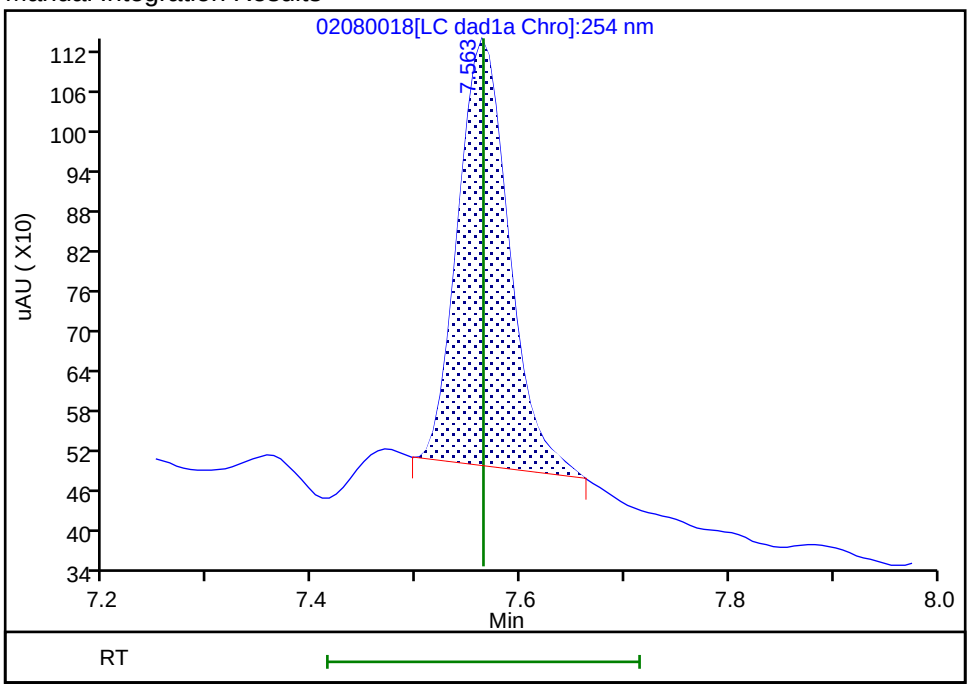
Processing Integration Results

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

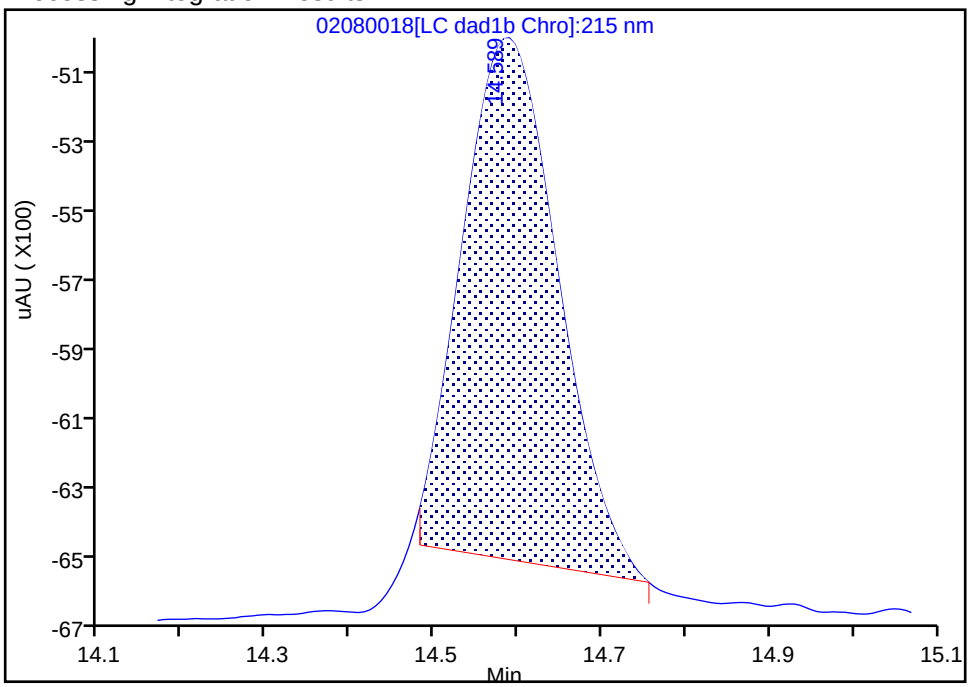
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230208-118465.b\02080018.d				
Injection Date:	08-Feb-2023 18:19:14	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT 2				
Client ID:					
Operator ID:	JZ/MAR	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1C, 215 nm		

25 PETN, CAS: 78-11-5

Signal: 1

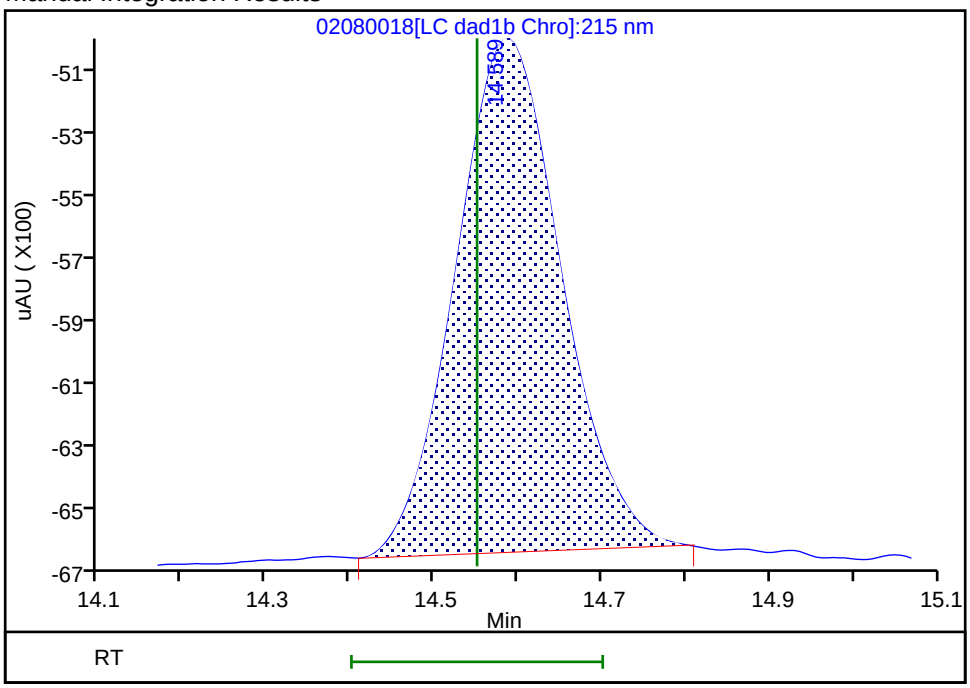
Processing Integration Results

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

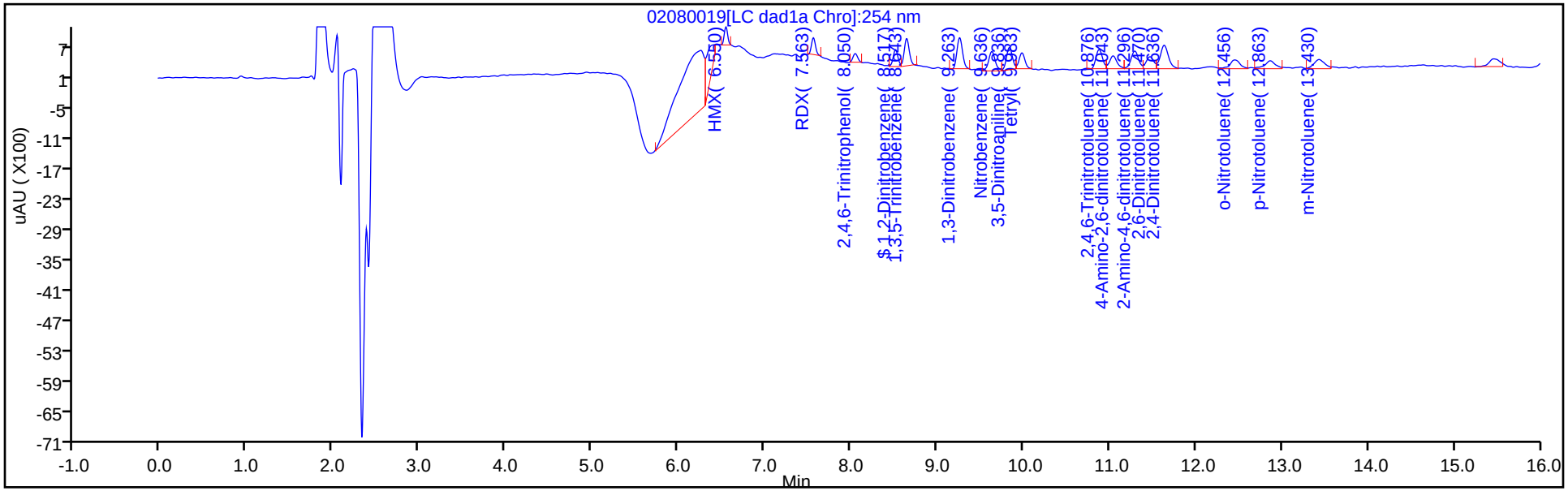
Report Date: 09-Feb-2023 12:48:08 Chrom Revision: 2.3 01-Feb-2023 13:23:06

Eurofins Denver

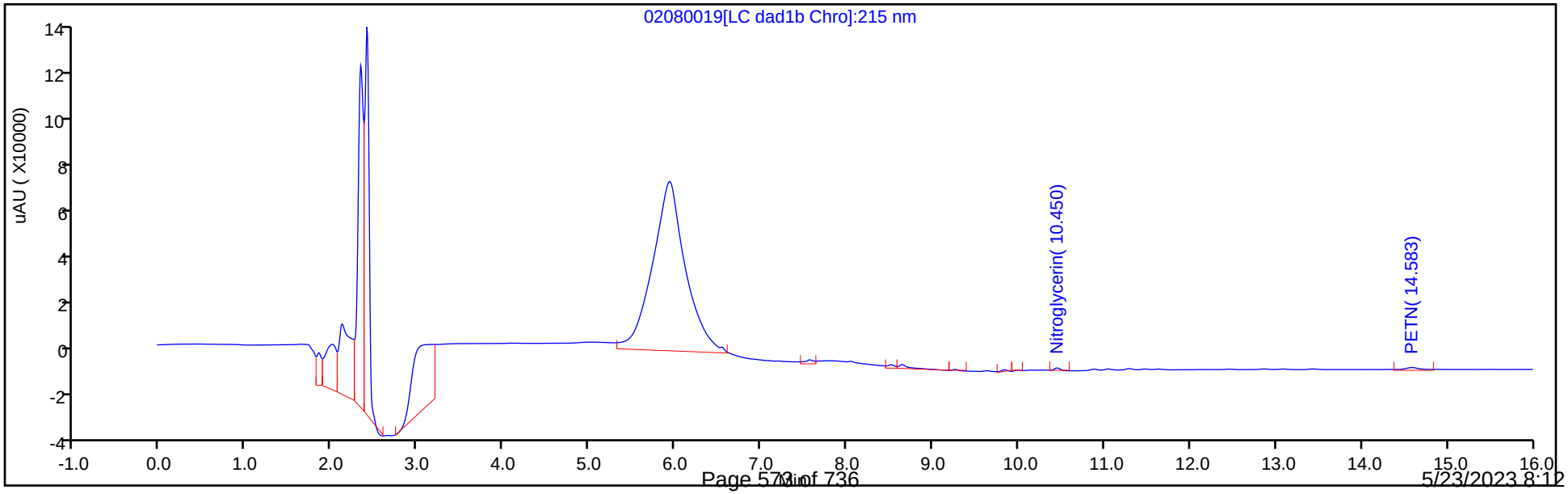
Data File: \\chromfs\denver\chromdata\chhplc_x\20230208-118465.b\02080019.d

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



5/23/2023 8:12 PM

Manual Integration/User Assign Peak Report

Eurofins Denver

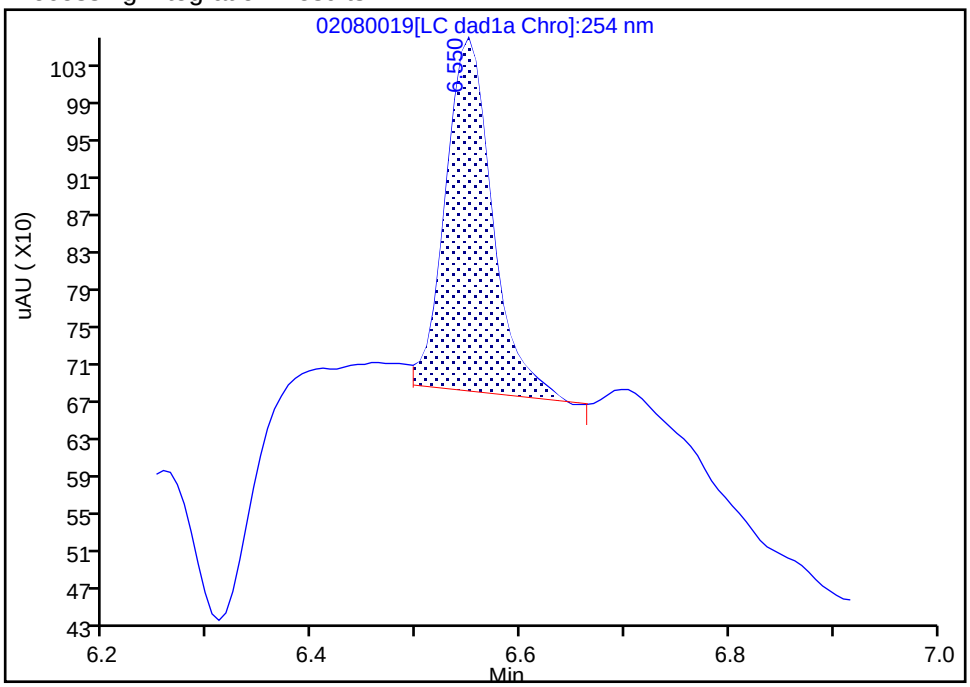
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230208-118465.b\02080019.d				
Injection Date:	08-Feb-2023 18:42:13	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT 1				
Client ID:					
Operator ID:	JZ/MAR	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

4 HMX, CAS: 2691-41-0

Signal: 1

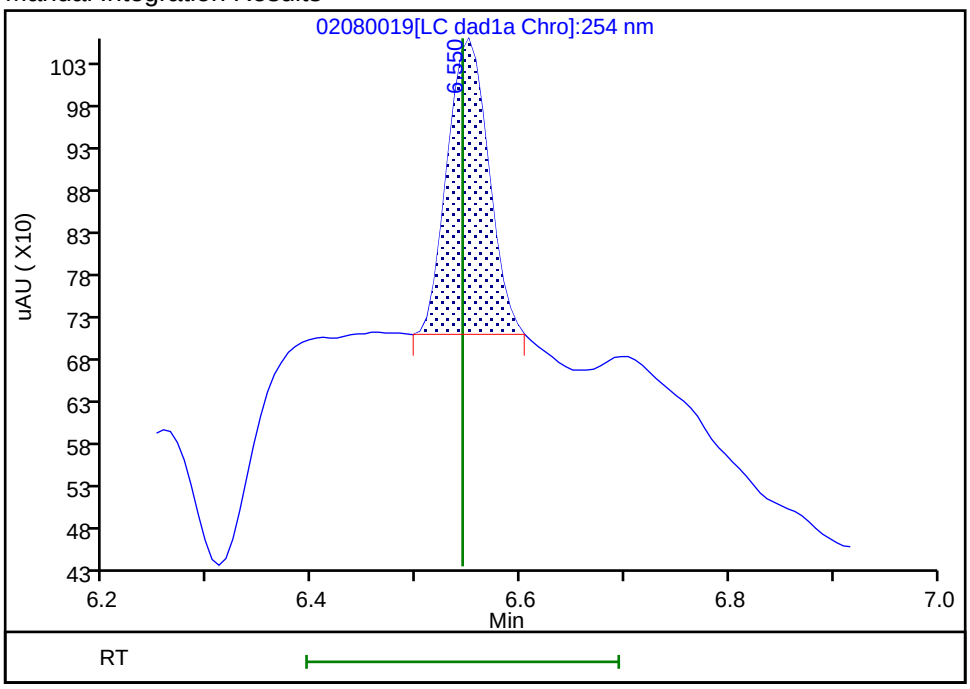
Processing Integration Results

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

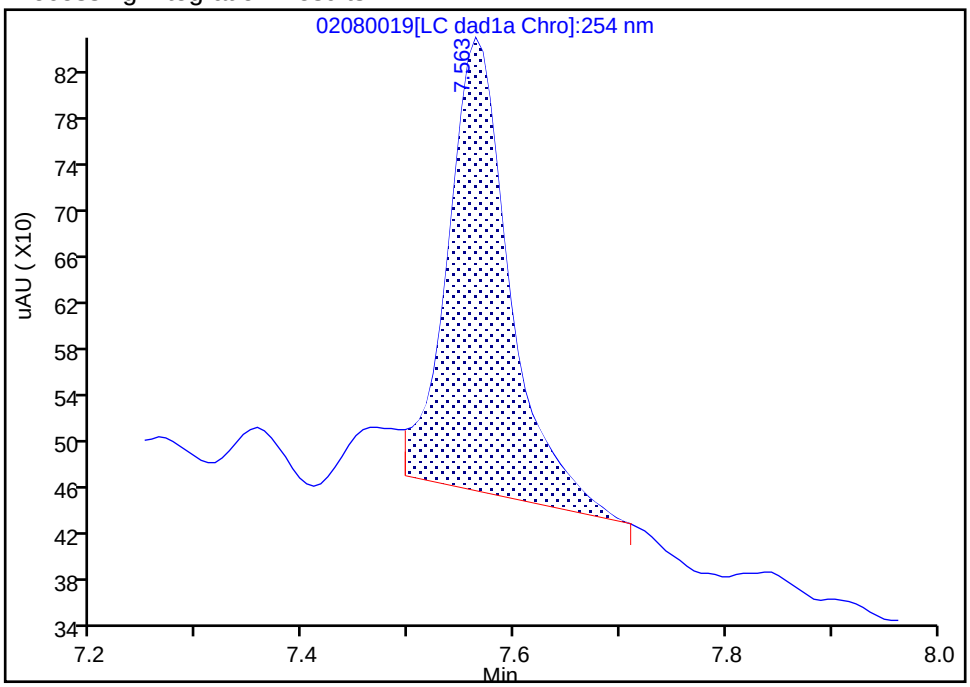
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230208-118465.b\02080019.d				
Injection Date:	08-Feb-2023 18:42:13	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT 1				
Client ID:					
Operator ID:	JZ/MAR	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

8 RDX, CAS: 121-82-4

Signal: 1

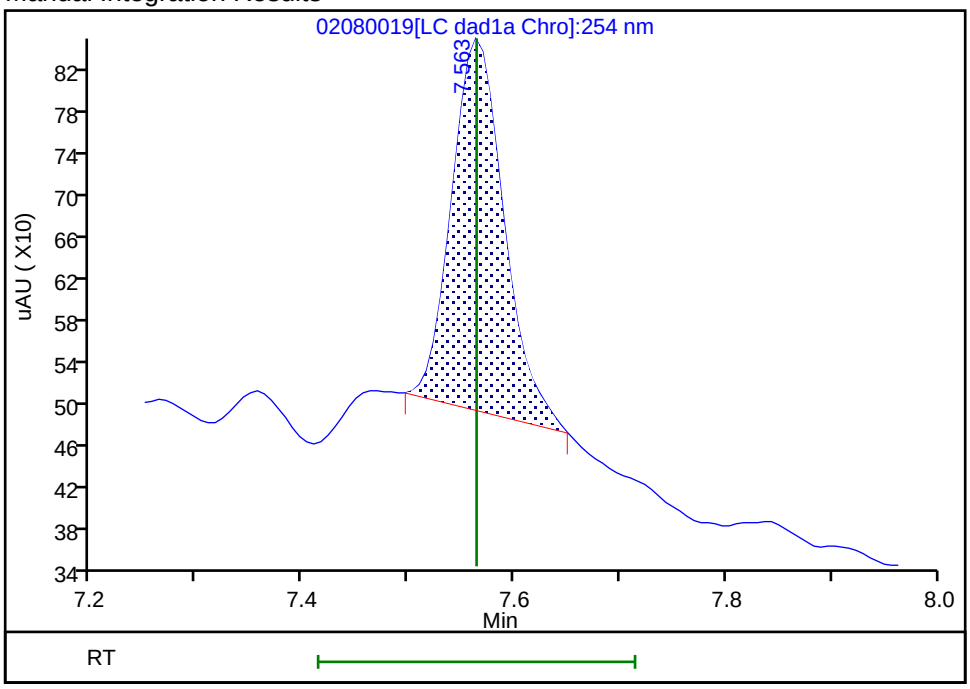
Processing Integration Results

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 VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver | Job No.: 280-176609-1

SDG No.:

Lab Sample ID: ICV 280-494886/16 | Calibration Date: 05/14/2020 21:31

Instrument ID: CHHPLC_G2_LUNA | Calib Start Date: 05/14/2020 16:16

GC Column: Luna-phenylhex ID: 4.60(mm) | Calib End Date: 05/14/2020 20:56

Lab File ID: 05140016.D | Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2,6-diamino-4-nitrotoluene	Ave	429316	448268		418	400	4.4	20.0
2,4-diamino-6-nitrotoluene	Lin1		244308		388	400	-3.1	20.0
Picric acid	Ave	193810	184585		381	400	-4.8	20.0
HMX	Lin2		178815		374	400	-6.5	20.0
RDX	Ave	244360	211628		346	400	-13.4	20.0
Nitrobenzene	Ave	439227	438053		399	400	-0.3	20.0
3,5-Dinitroaniline	Lin2		463695		377	400	-5.8	20.0
1,3-Dinitrobenzene	Ave	674189	636963		378	400	-5.5	20.0
Nitroglycerin	Ave	126803	122258		3860	4000	-3.6	20.0
o-Nitrotoluene	Ave	272965	263495		386	400	-3.5	20.0
p-Nitrotoluene	Ave	240881	229805		382	400	-4.6	20.0
4-Amino-2,6-dinitrotoluene	Ave	345235	318460		369	400	-7.8	20.0
m-Nitrotoluene	Ave	298327	286883		385	400	-3.8	20.0
2-Amino-4,6-dinitrotoluene	Ave	465211	446188		384	400	-4.1	20.0
1,3,5-Trinitrobenzene	Ave	472451	495920		420	400	5.0	20.0
2,6-Dinitrotoluene	Lin2		302720		403	400	0.8	20.0
2,4-Dinitrotoluene	Ave	640113	590383		369	400	-7.8	20.0
Tetryl	Ave	368678	347680		377	400	-5.7	20.0
2,4,6-Trinitrotoluene	Lin1		390228		381	400	-4.8	20.0
PETN	Lin1		124707		3650	4000	-8.8	20.0
1,2-Dinitrobenzene	Lin1		250760		355	400	-11.2	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-176609-1

SDG No.:

Lab Sample ID: ICV 280-494886/16 Calibration Date: 05/14/2020 21:31

Instrument ID: CHHPLC_G2_LUNA Calib Start Date: 05/14/2020 16:16

GC Column: Luna-phenylhex ID: 4.60(mm) Calib End Date: 05/14/2020 20:56

Lab File ID: 05140016.D

Analyte	RT	RT WINDOW	
		FROM	TO
2,6-diamino-4-nitrotoluene	4.31	4.22	4.52
2,4-diamino-6-nitrotoluene	4.84	4.73	5.03
Picric acid	6.23	6.15	6.45
HMX	6.95	6.84	7.14
RDX	9.12	9.02	9.32
Nitrobenzene	12.05	11.96	12.26
3,5-Dinitroaniline	14.83	14.74	15.04
1,3-Dinitrobenzene	15.50	15.40	15.70
Nitroglycerin	15.81	15.70	16.00
o-Nitrotoluene	16.49	16.38	16.68
p-Nitrotoluene	16.77	16.67	16.97
4-Amino-2,6-dinitrotoluene	17.10	17.00	17.30
m-Nitrotoluene	17.69	17.60	17.90
2-Amino-4,6-dinitrotoluene	17.99	17.90	18.20
1,3,5-Trinitrobenzene	18.83	18.74	19.04
2,6-Dinitrotoluene	19.75	19.66	19.96
2,4-Dinitrotoluene	20.24	20.14	20.44
Tetryl	23.51	23.40	23.70
2,4,6-Trinitrotoluene	24.61	24.50	24.80
PETN	25.25	25.13	25.43
1,2-Dinitrobenzene	12.99	12.89	13.19

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140016.D
Lims ID: ICV FULL
Client ID:
Sample Type: ICV
Inject. Date: 14-May-2020 21:31:26 ALS Bottle#: 16 Worklist Smp#: 16
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: ICV FULL
Misc. Info.: 280-0091518-016
Operator ID: CB Instrument ID: CHHPLC_G2_LUNA
Sublist:

Method: \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\G2_8330_Luna.m
Limit Group: GCSV - 8330
Last Update: 15-May-2020 12:00:59 Calib Date: 14-May-2020 20:56:30
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140015.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC DAD1A, 254 nm
Process Host: CTX0318

First Level Reviewer: zhangji Date: 15-May-2020 11:55:09

	Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1	2,6-diamino-4-nitrotoluene	1	4.307	4.366	-0.059	179307	0.4000	0.4177	M
2	2,4-diamino-6-nitrotoluene	1	4.840	4.880	-0.040	97723	0.4000	0.3877	M
5	2,4,6-Trinitrophenol	1	6.234	6.300	-0.066	73834	0.4000	0.3810	a
6	HMX	1	6.954	6.986	-0.032	71526	0.4000	0.3740	
8	RDX	1	9.120	9.173	-0.053	84651	0.4000	0.3464	
9	Nitrobenzene	1	12.053	12.106	-0.053	175221	0.4000	0.3989	
$ 10	1,2-Dinitrobenzene	1	12.987	13.040	-0.053	100304	0.4000	0.3552	
11	3,5-Dinitroaniline	1	14.827	14.886	-0.059	185478	0.4000	0.3767	
12	1,3-Dinitrobenzene	1	15.500	15.553	-0.053	254785	0.4000	0.3779	
13	Nitroglycerin	2	15.807	15.853	-0.046	489033	4.00	3.86	
14	o-Nitrotoluene	1	16.493	16.533	-0.040	105398	0.4000	0.3861	M
15	p-Nitrotoluene	1	16.767	16.820	-0.053	91922	0.4000	0.3816	M
16	4-Amino-2,6-dinitrotoluene	1	17.100	17.146	-0.046	127384	0.4000	0.3690	M
17	m-Nitrotoluene	1	17.693	17.753	-0.060	114753	0.4000	0.3847	M
18	2-Amino-4,6-dinitrotoluene	1	17.987	18.046	-0.059	178475	0.4000	0.3836	M
19	1,3,5-Trinitrobenzene	1	18.833	18.886	-0.053	198368	0.4000	0.4199	M
20	2,6-Dinitrotoluene	1	19.753	19.806	-0.053	121088	0.4000	0.4033	M
21	2,4-Dinitrotoluene	1	20.240	20.293	-0.053	236153	0.4000	0.3689	M
22	Tetryl	1	23.507	23.553	-0.046	139072	0.4000	0.3772	
23	2,4,6-Trinitrotoluene	1	24.607	24.653	-0.046	156091	0.4000	0.3808	
24	PETN	2	25.254	25.280	-0.026	498829	4.00	3.65	

QC Flag Legend

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

8330Surrogate_00114	Amount Added:	40.00	Units: uL
3,5-DNA LCS_00036	Amount Added:	40.00	Units: uL
8330 LCS_00098	Amount Added:	40.00	Units: uL
8330DiaminLCS_00038	Amount Added:	40.00	Units: uL

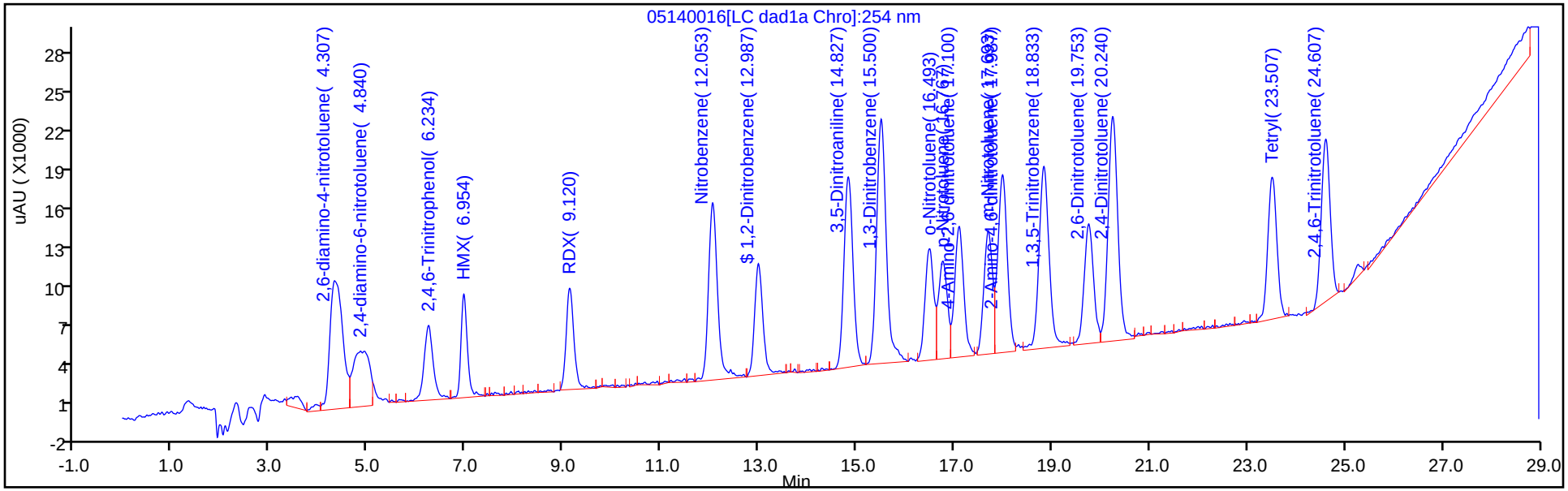
Report Date: 15-May-2020 12:01:01 Chrom Revision: 2.3 05-May-2020 17:48:18

Eurofins TestAmerica, Denver

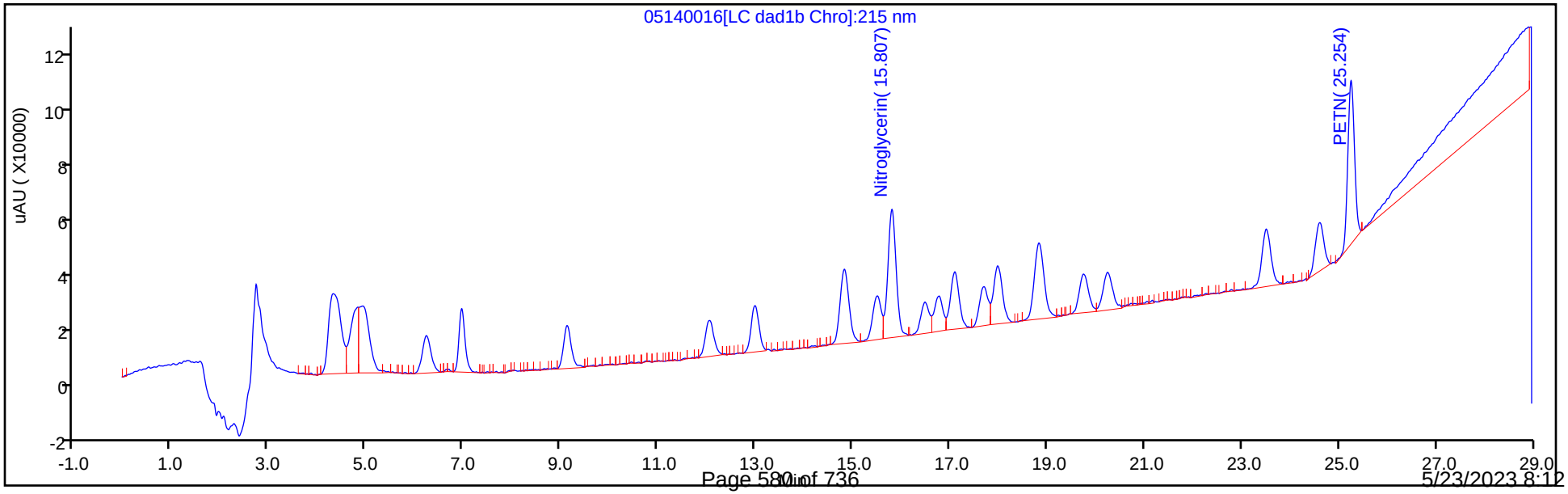
Data File: \\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140016.d

Injection Date:	14-May-2020 21:31:26	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	CB
Lims ID:	ICV FULL			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



Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

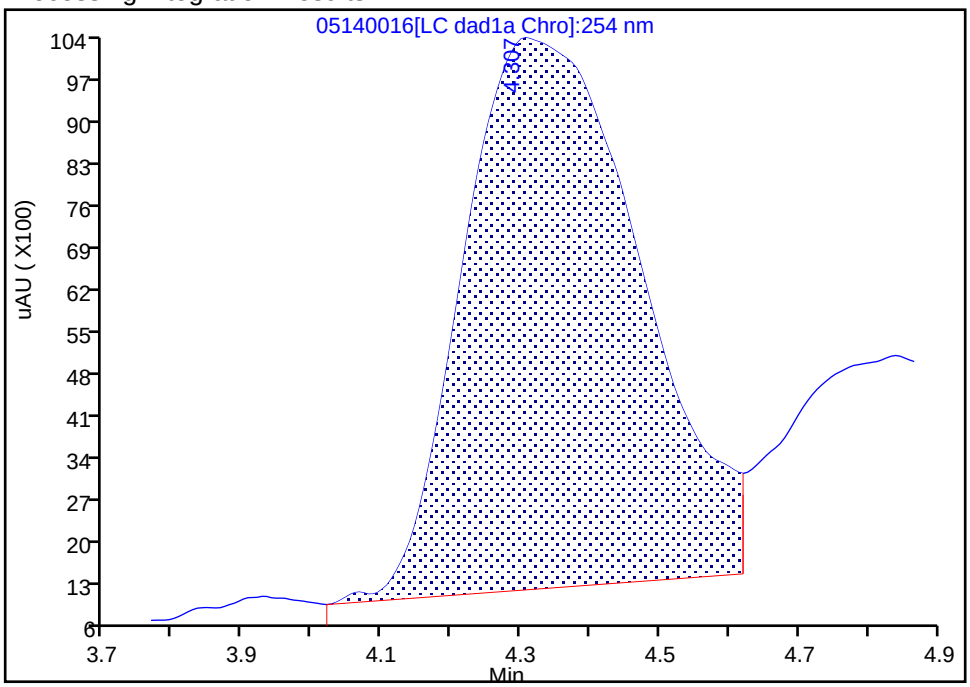
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140016.d				
Injection Date:	14-May-2020 21:31:26	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	ICV FULL				
Client ID:					
Operator ID:	CB	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

1 2,6-diamino-4-nitrotoluene, CAS: 59229-75-3

Signal: 1

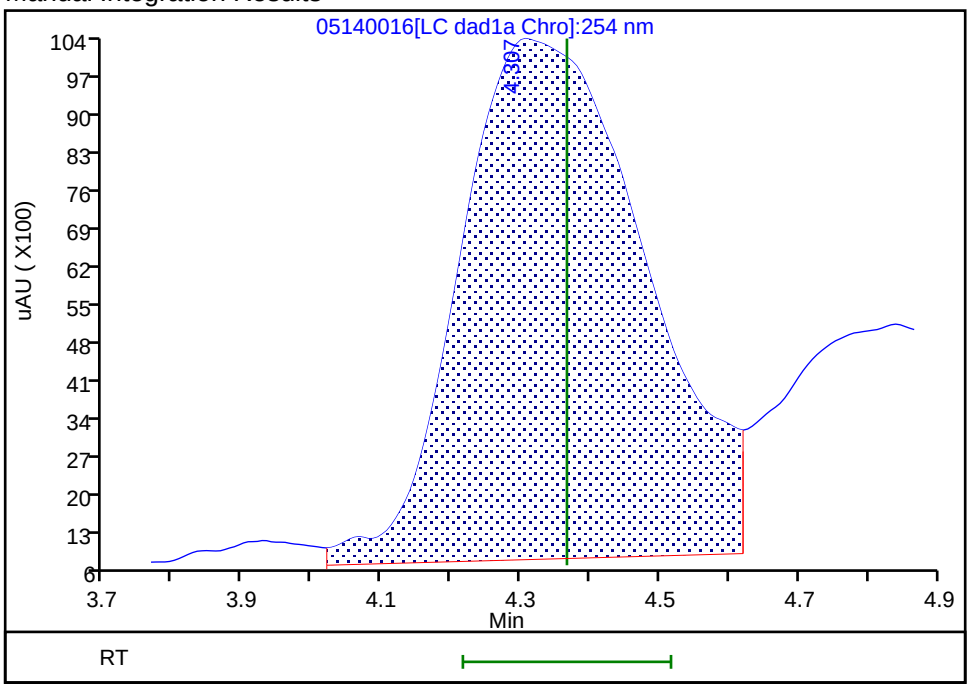
Processing Integration Results

RT: 4.31
Area: 162477
Amount: 0.378456
Amount Units: ug/ml



Manual Integration Results

RT: 4.31
Area: 179307
Amount: 0.417658
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:33:14
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

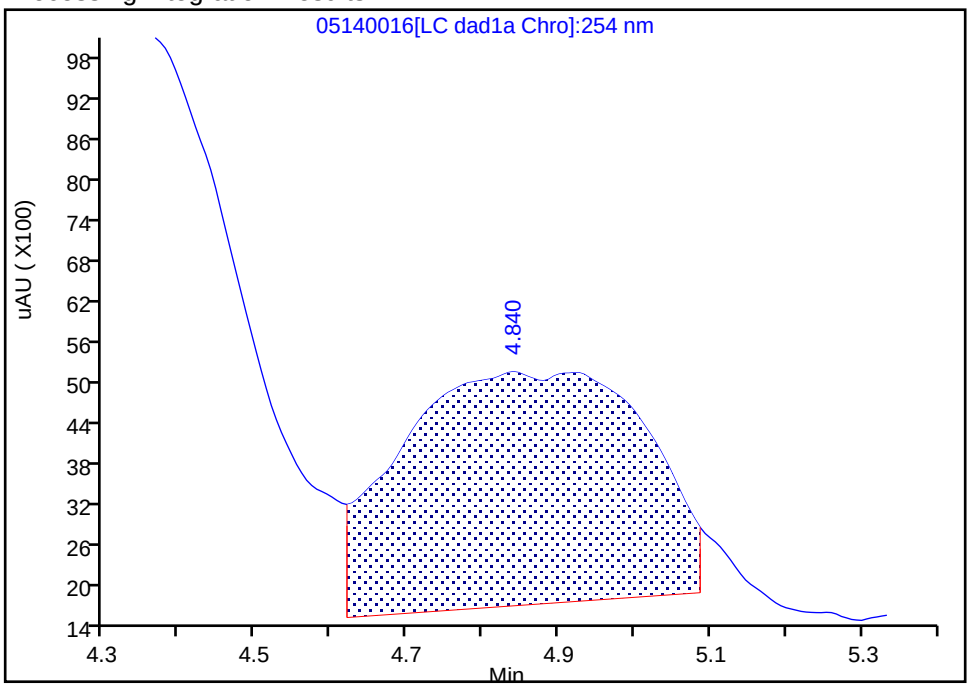
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140016.d				
Injection Date:	14-May-2020 21:31:26	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	ICV FULL				
Client ID:					
Operator ID:	CB	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

2 2,4-diamino-6-nitrotoluene, CAS: 6629-29-4

Signal: 1

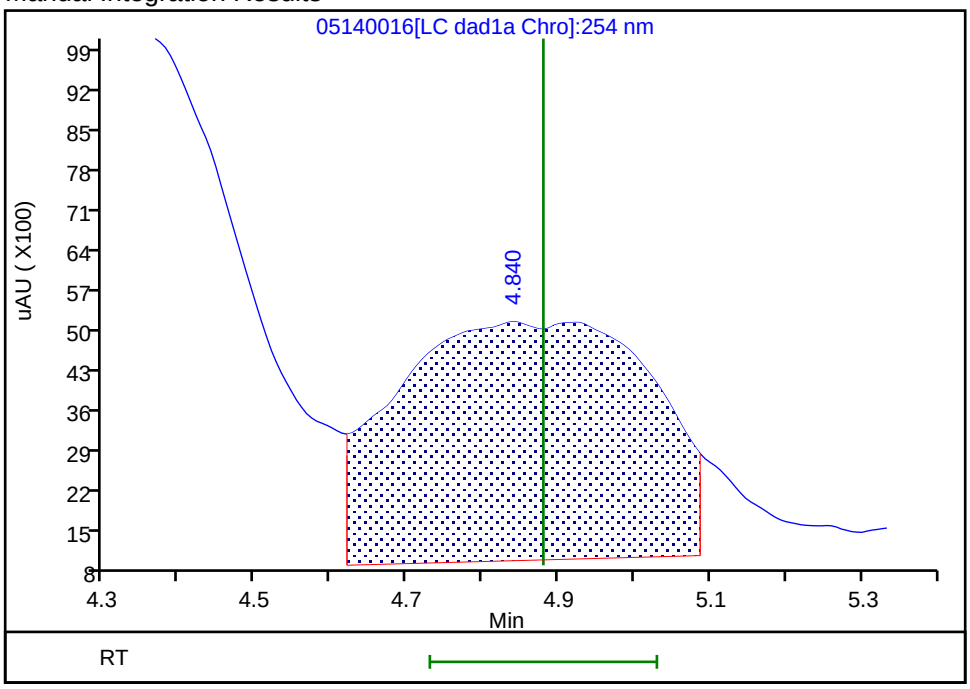
Processing Integration Results

RT: 4.84
Area: 77717
Amount: 0.303580
Amount Units: ug/ml



Manual Integration Results

RT: 4.84
Area: 97723
Amount: 0.387721
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:33:14
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

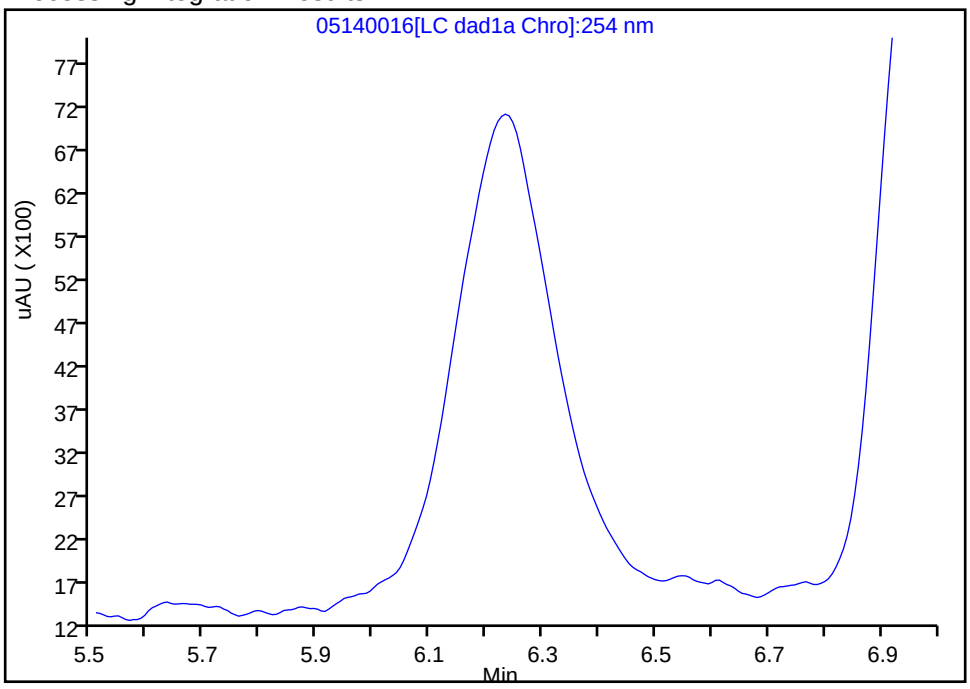
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140016.d				
Injection Date:	14-May-2020 21:31:26	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	ICV FULL				
Client ID:					
Operator ID:	CB	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

5 2,4,6-Trinitrophenol, CAS: 88-89-1

Signal: 1

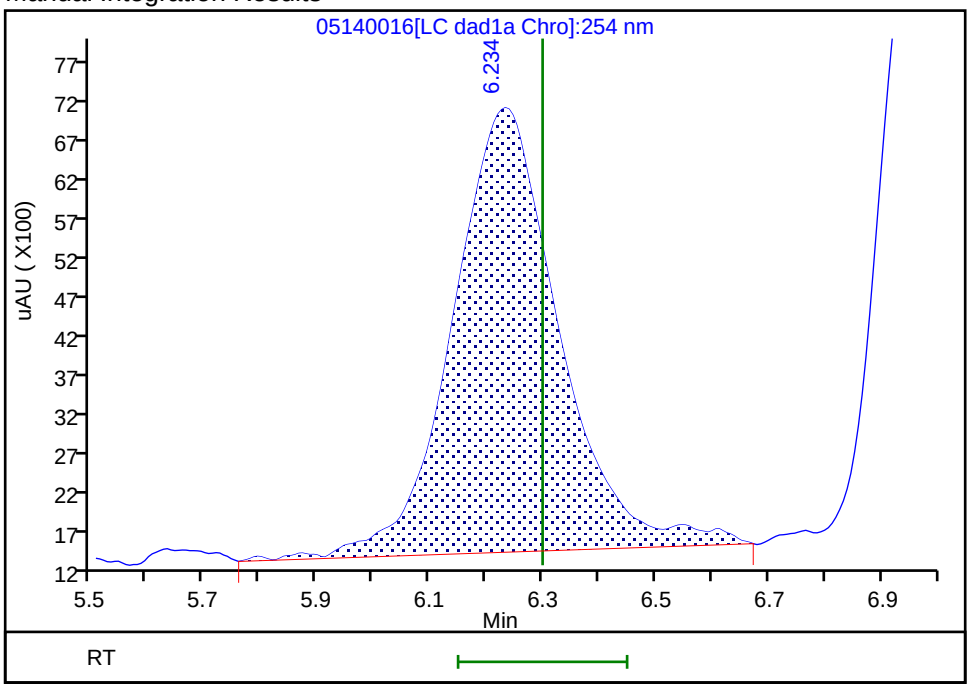
Not Detected
Expected RT: 6.30

Processing Integration Results



Manual Integration Results

RT: 6.23
Area: 73834
Amount: 0.380960
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:14:55
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

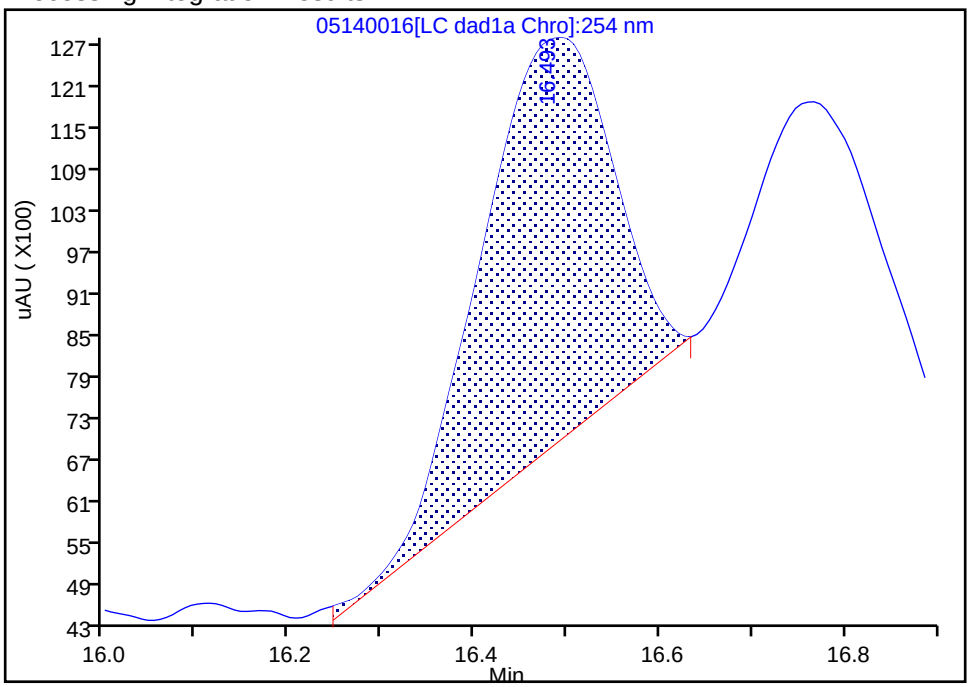
Data File: \\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140016.d
Injection Date: 14-May-2020 21:31:26 Instrument ID: CHHPLC_G2_LUNA
Lims ID: ICV FULL
Client ID:
Operator ID: CB ALS Bottle#: 16 Worklist Smp#: 16
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC DAD1A, 254 nm

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

Signal: 1

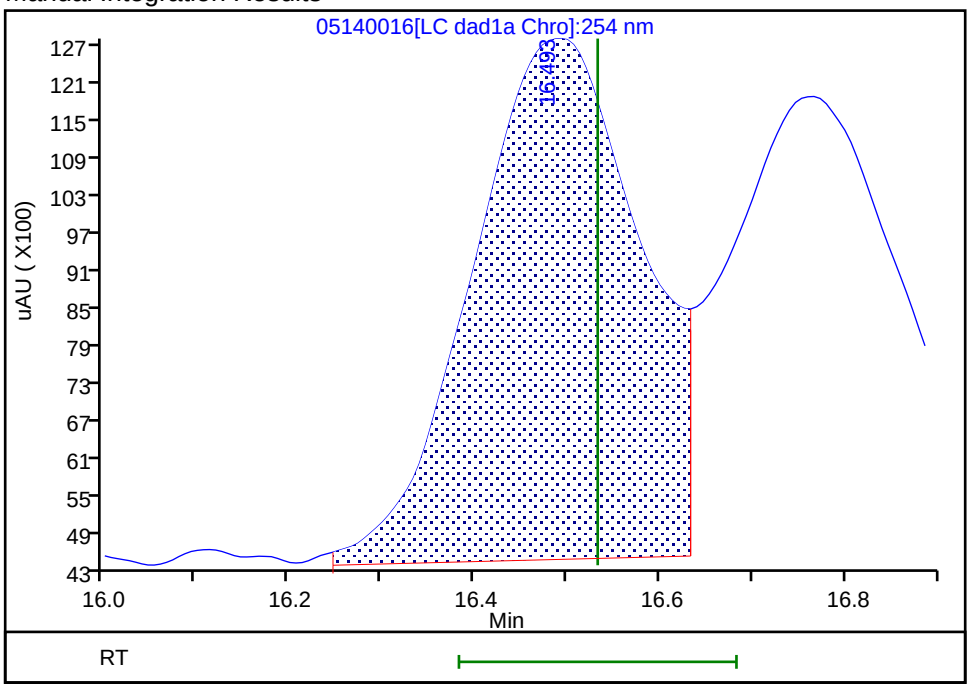
Processing Integration Results

RT: 16.49
Area: 59335
Amount: 0.217373
Amount Units: ug/ml



Manual Integration Results

RT: 16.49
Area: 105398
Amount: 0.386123
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:33:24
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

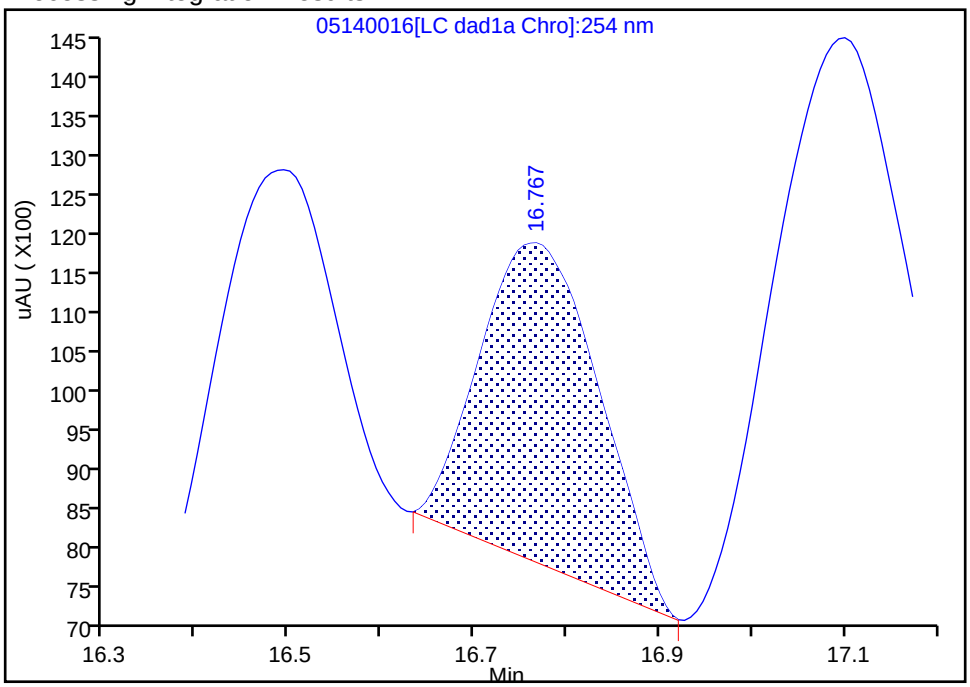
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140016.d				
Injection Date:	14-May-2020 21:31:26	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	ICV FULL				
Client ID:					
Operator ID:	CB	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	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

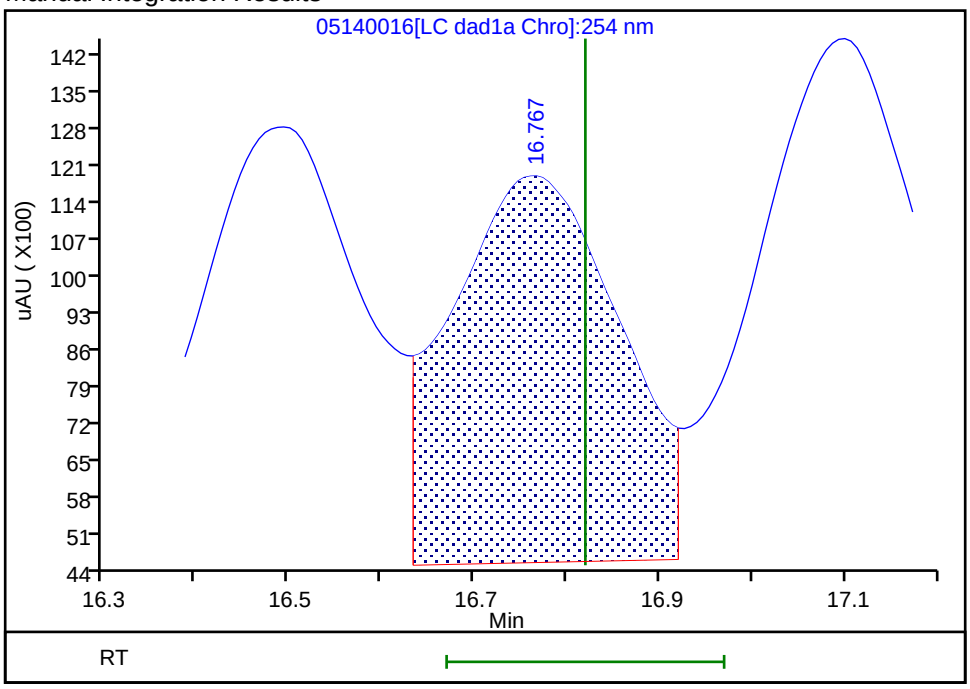
Processing Integration Results

RT: 16.77
Area: 36452
Amount: 0.151328
Amount Units: ug/ml



Manual Integration Results

RT: 16.77
Area: 91922
Amount: 0.381607
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:33:24
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

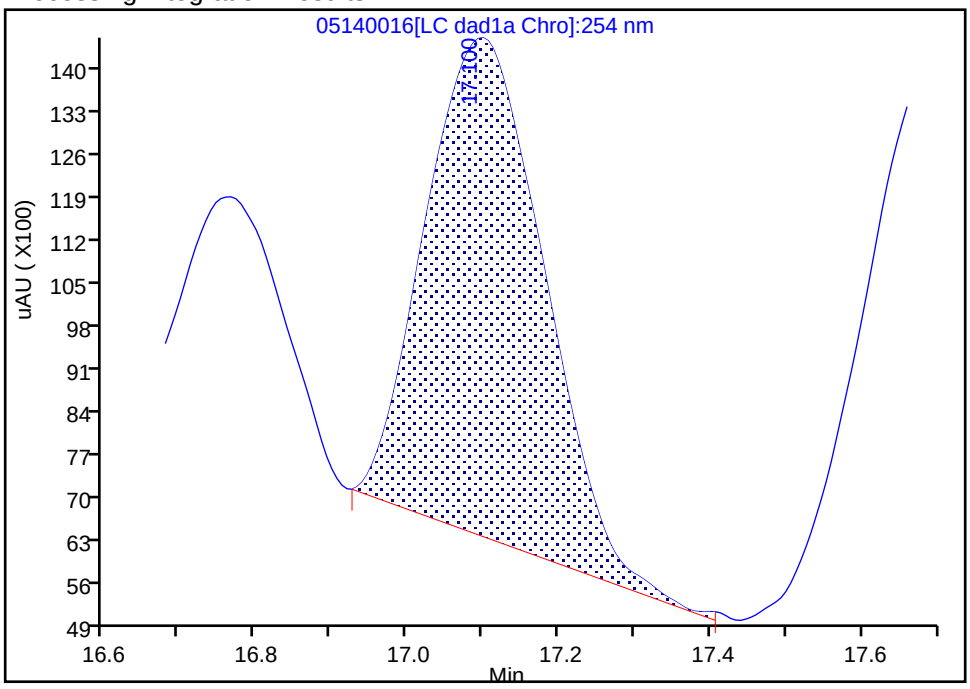
Data File: \\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140016.d
Injection Date: 14-May-2020 21:31:26 Instrument ID: CHHPLC_G2_LUNA
Lims ID: ICV FULL
Client ID:
Operator ID: CB ALS Bottle#: 16 Worklist Smp#: 16
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 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

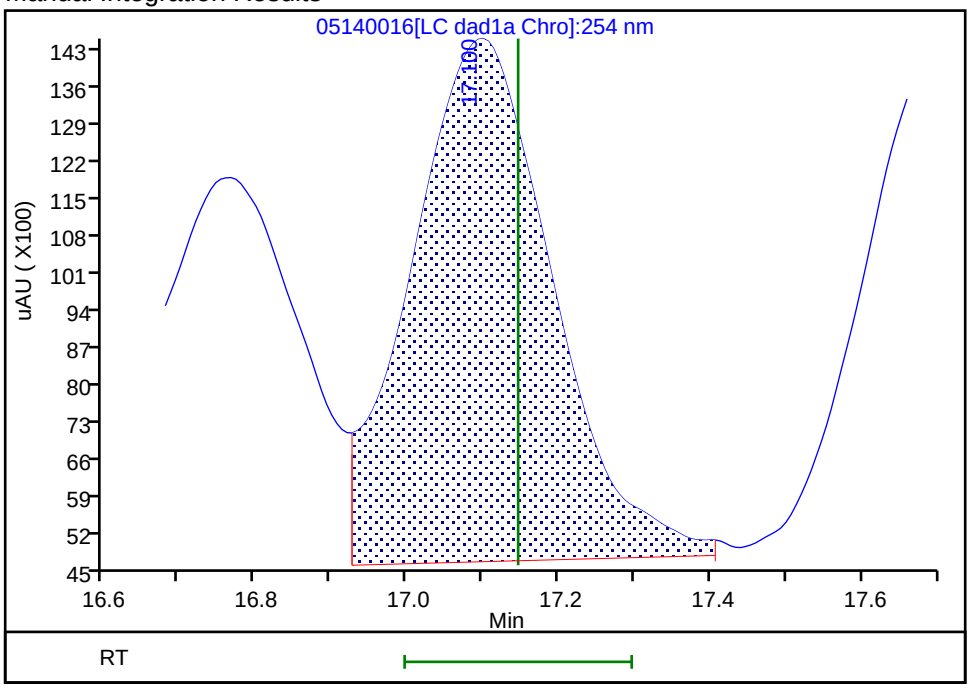
Processing Integration Results

RT: 17.10
Area: 89570
Amount: 0.259447
Amount Units: ug/ml



Manual Integration Results

RT: 17.10
Area: 127384
Amount: 0.368978
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:33:24
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

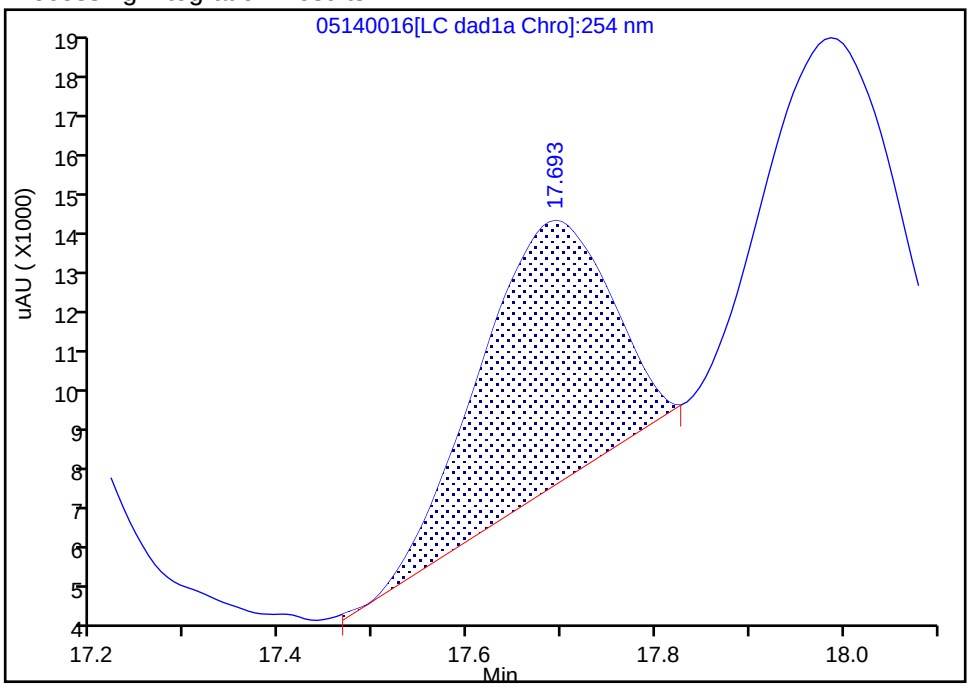
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140016.d				
Injection Date:	14-May-2020 21:31:26	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	ICV FULL				
Client ID:					
Operator ID:	CB	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	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

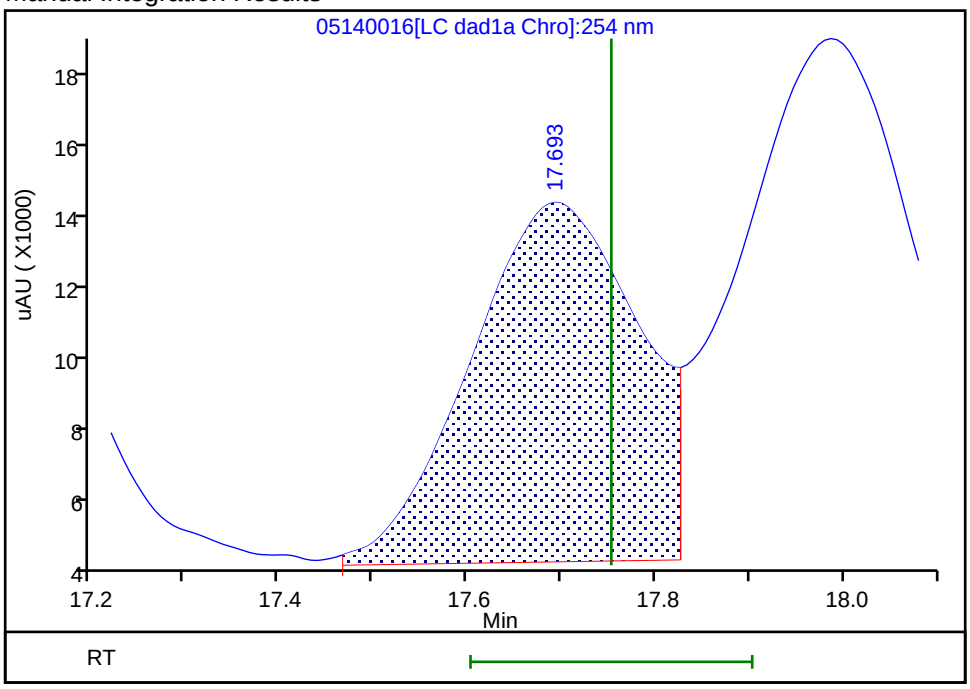
Processing Integration Results

RT: 17.69
Area: 60008
Amount: 0.201149
Amount Units: ug/ml



Manual Integration Results

RT: 17.69
Area: 114753
Amount: 0.384655
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:33:24
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

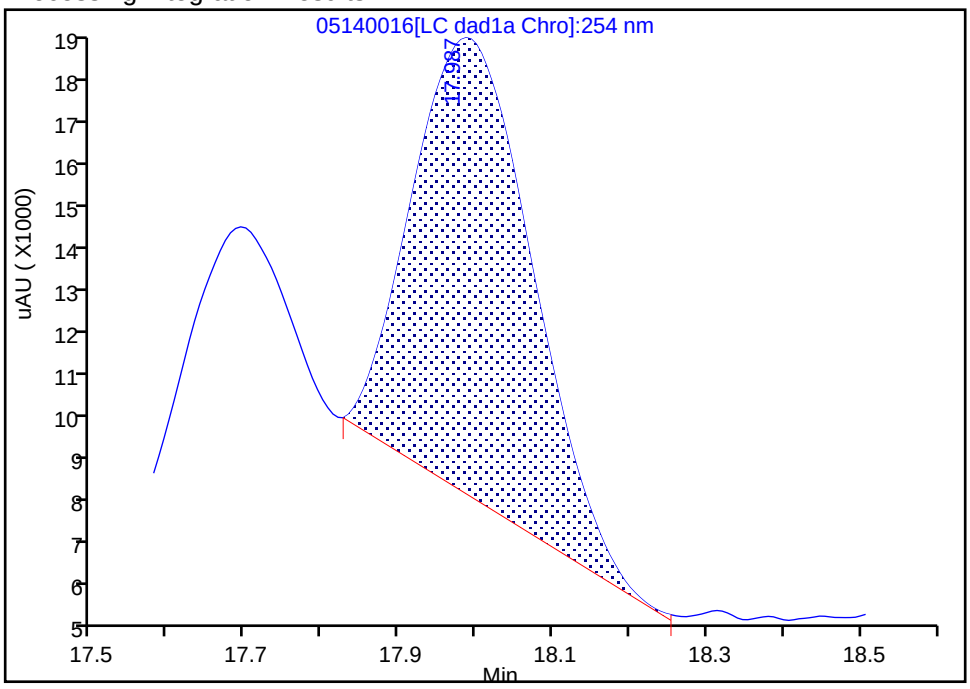
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140016.d				
Injection Date:	14-May-2020 21:31:26	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	ICV FULL				
Client ID:					
Operator ID:	CB	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	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

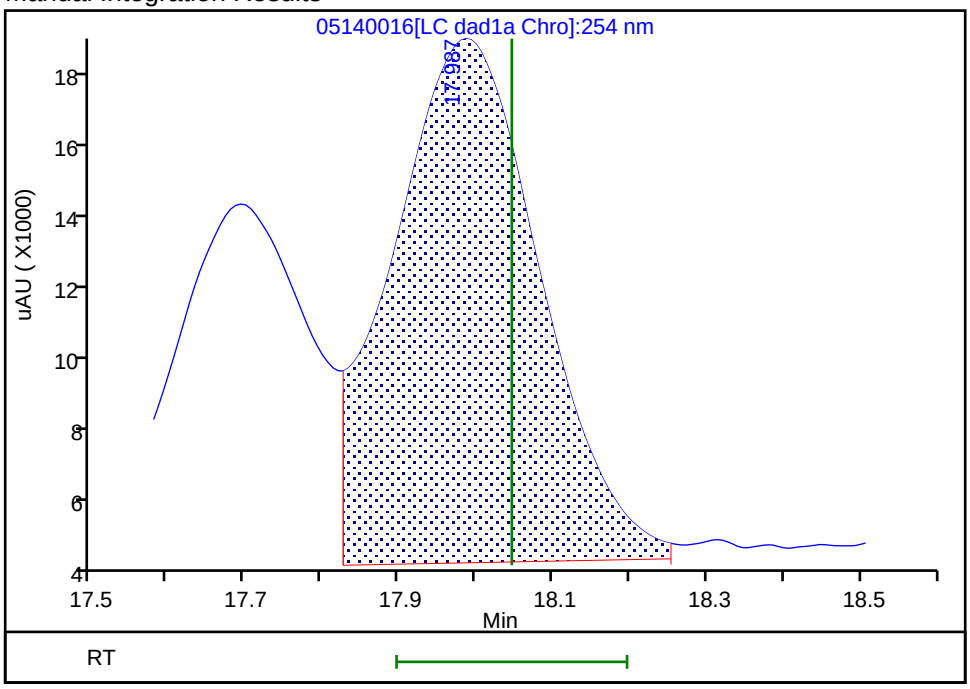
Processing Integration Results

RT: 17.99
Area: 111749
Amount: 0.240211
Amount Units: ug/ml



Manual Integration Results

RT: 17.99
Area: 178475
Amount: 0.383643
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:33:24
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

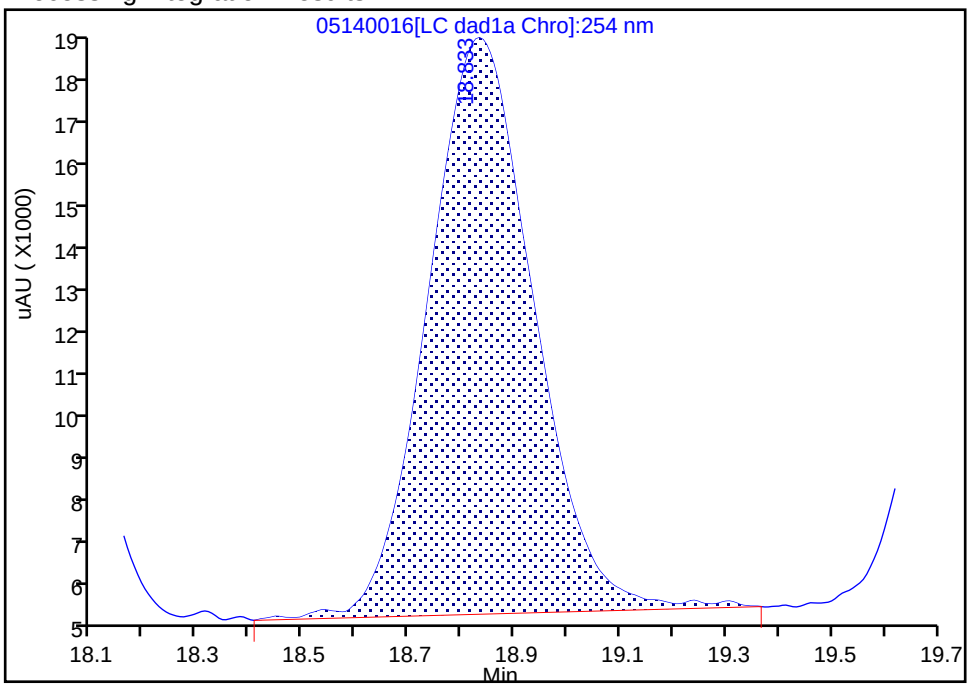
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140016.d				
Injection Date:	14-May-2020 21:31:26	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	ICV FULL				
Client ID:					
Operator ID:	CB	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

19 1,3,5-Trinitrobenzene, CAS: 99-35-4

Signal: 1

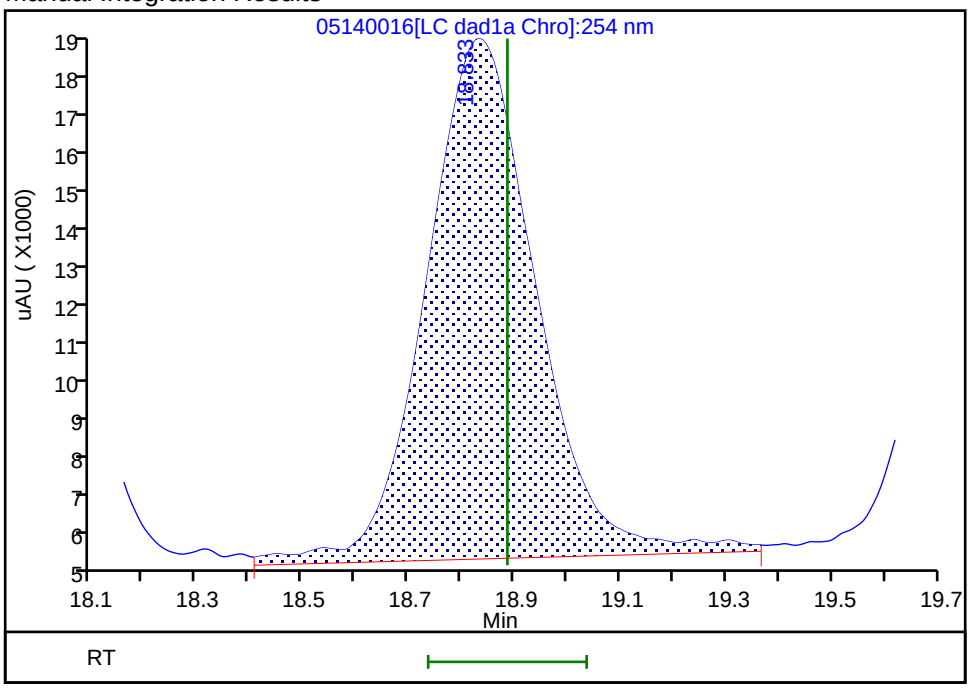
Processing Integration Results

RT: 18.83
Area: 187655
Amount: 0.397195
Amount Units: ug/ml



Manual Integration Results

RT: 18.83
Area: 198368
Amount: 0.419870
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:33:24

Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

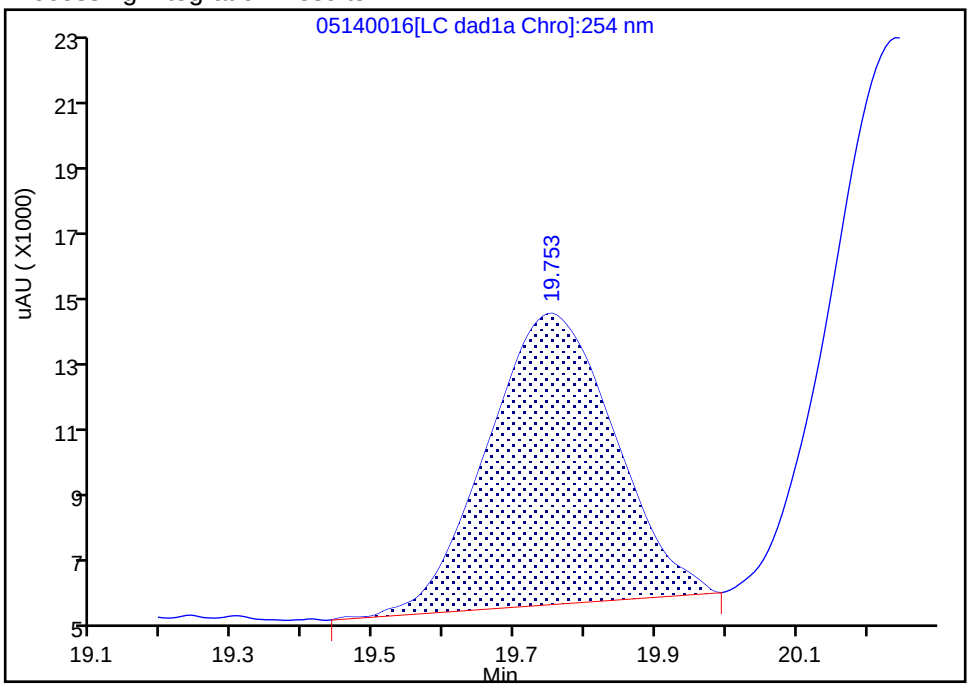
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140016.d				
Injection Date:	14-May-2020 21:31:26	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	ICV FULL				
Client ID:					
Operator ID:	CB	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

20 2,6-Dinitrotoluene, CAS: 606-20-2

Signal: 1

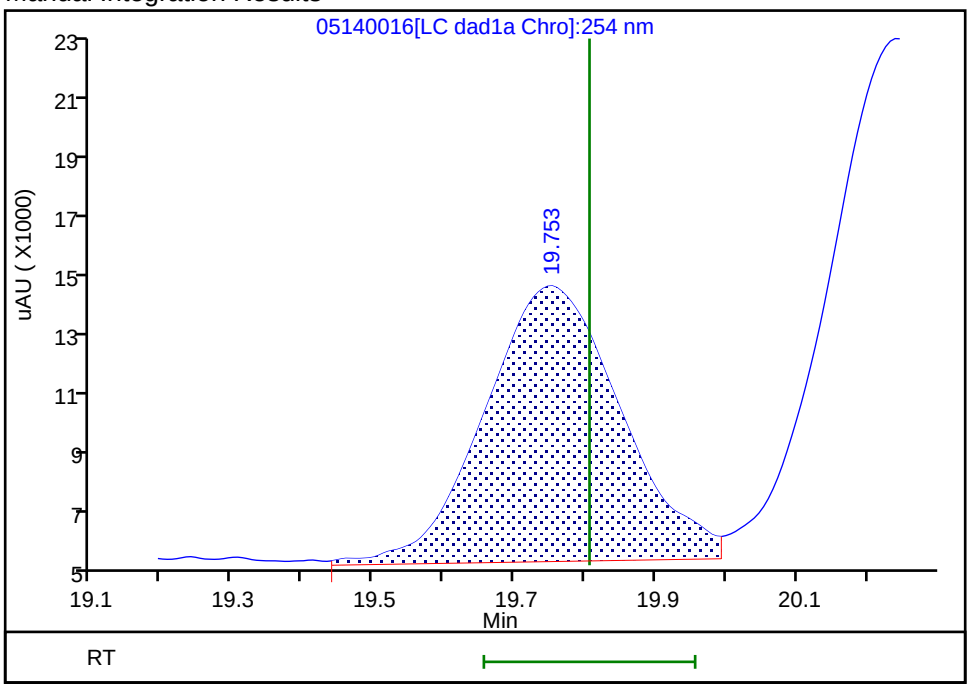
Processing Integration Results

RT: 19.75
Area: 106845
Amount: 0.315968
Amount Units: ug/ml



Manual Integration Results

RT: 19.75
Area: 121088
Amount: 0.403336
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:33:24
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

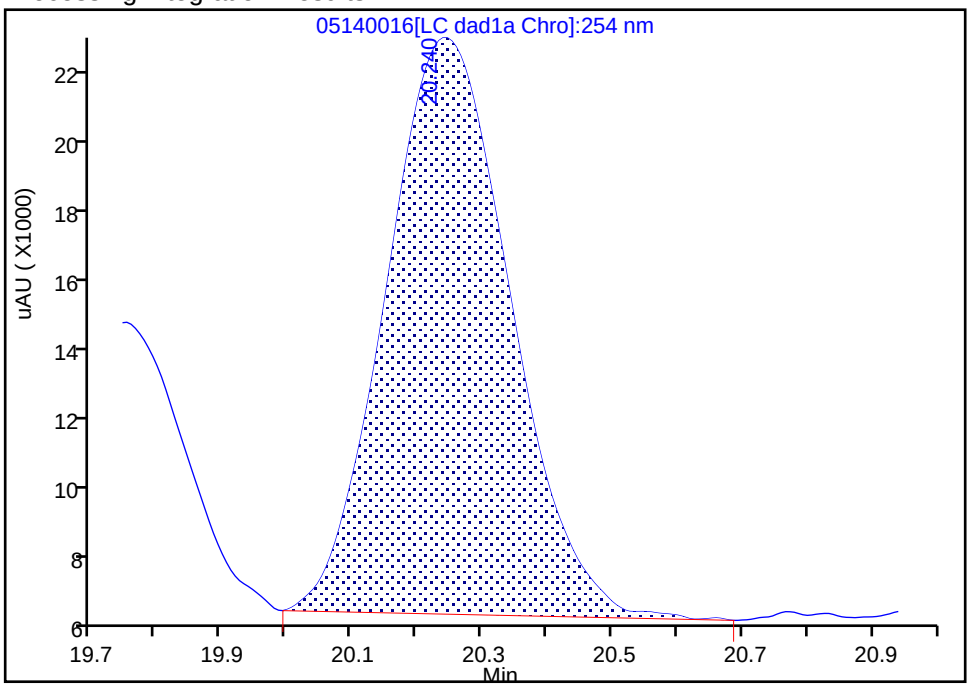
Data File: \\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140016.d
Injection Date: 14-May-2020 21:31:26 Instrument ID: CHHPLC_G2_LUNA
Lims ID: ICV FULL
Client ID:
Operator ID: CB ALS Bottle#: 16 Worklist Smp#: 16
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: G2_8330_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC DAD1A, 254 nm

21 2,4-Dinitrotoluene, CAS: 121-14-2

Signal: 1

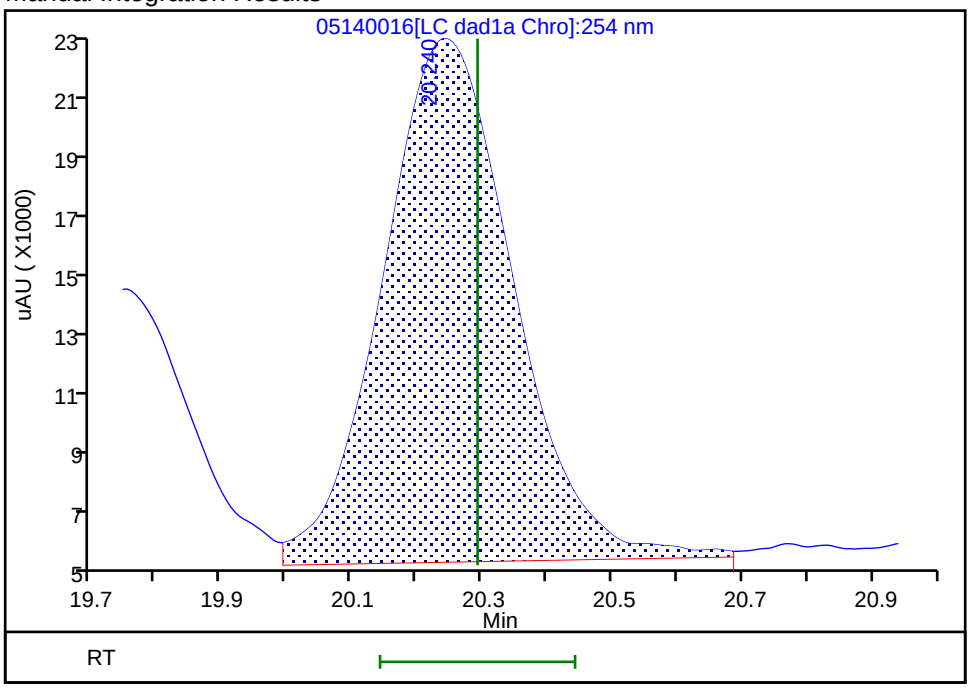
Processing Integration Results

RT: 20.24
Area: 217350
Amount: 0.339549
Amount Units: ug/ml



Manual Integration Results

RT: 20.24
Area: 236153
Amount: 0.368924
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:33:24
Audit Action: Assigned New Baseline Audit Reason: Baseline

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver | Job No.: 280-176609-1

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.: 280-176609-1

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

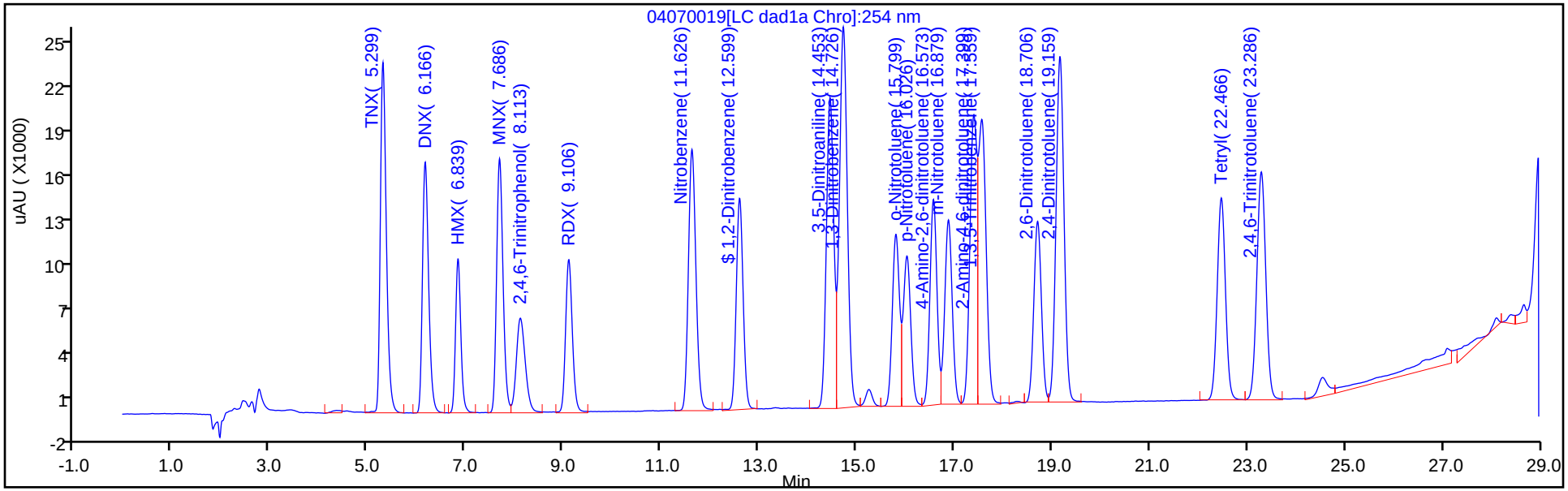
Report Date: 12-Apr-2023 15:59:45 Chrom Revision: 2.3 29-Mar-2023 18:39:10

Eurofins Denver

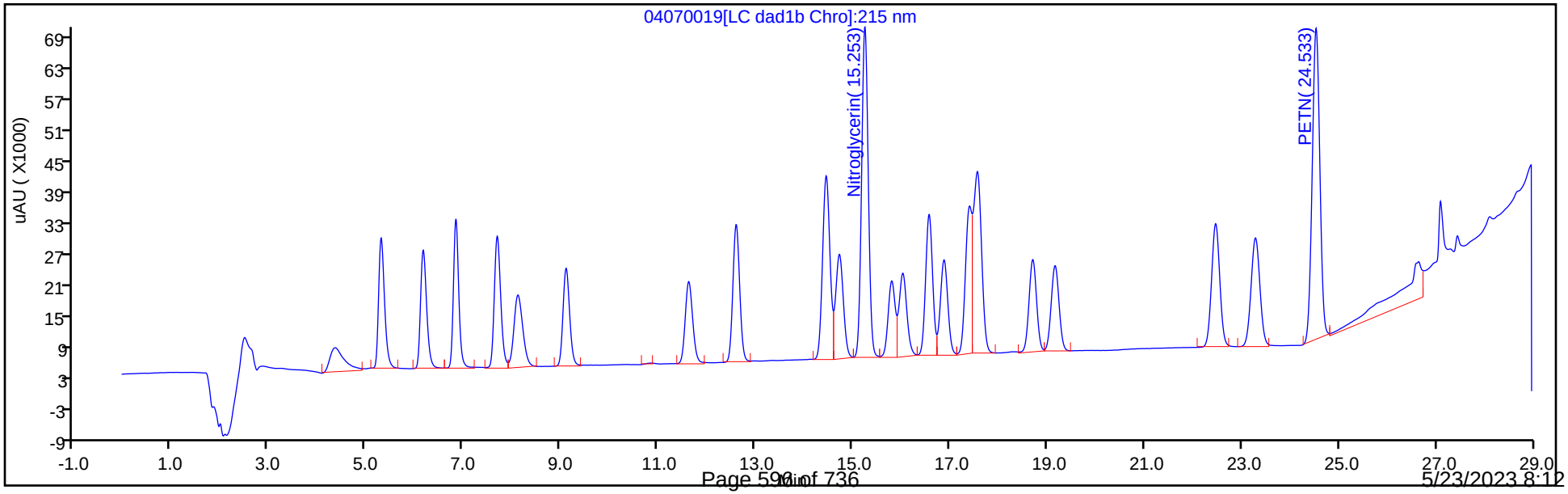
Data File: \\chromfs\denver\chromdata\g2_luna\20230407-120232.b\04070019.d

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



5/23/2023 8:12 PM

Manual Integration/User Assign Peak Report

Eurofins Denver

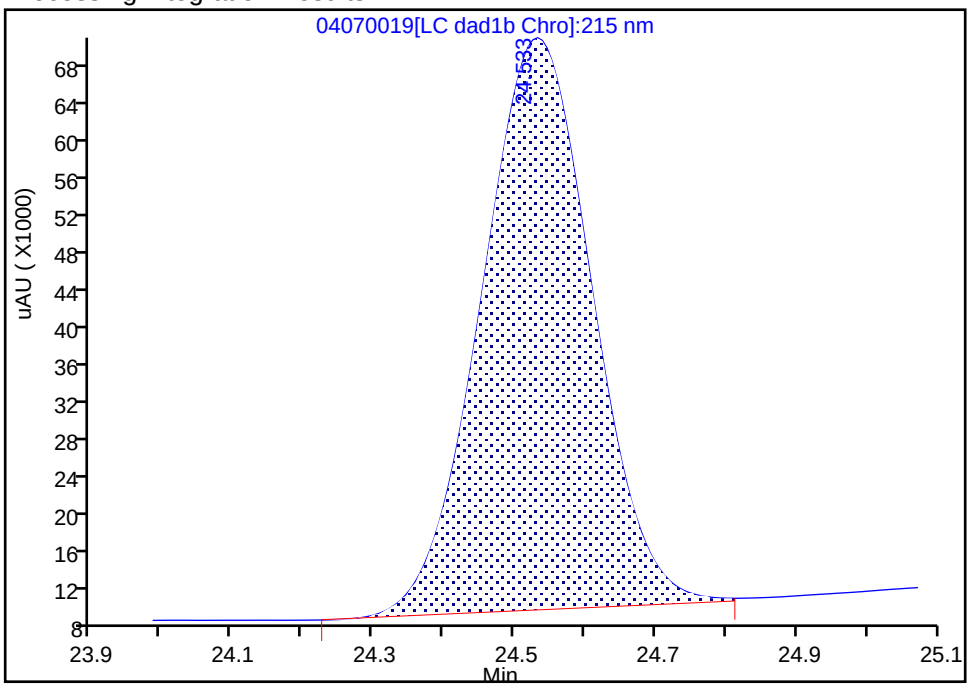
Data File:	\\chromfs\denver\chromdata\g2_luna\20230407-120232.b\04070019.d				
Injection Date:	08-Apr-2023 00:26:27	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	ICV INT DMT				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1B, 215 nm		

24 PETN, CAS: 78-11-5

Signal: 1

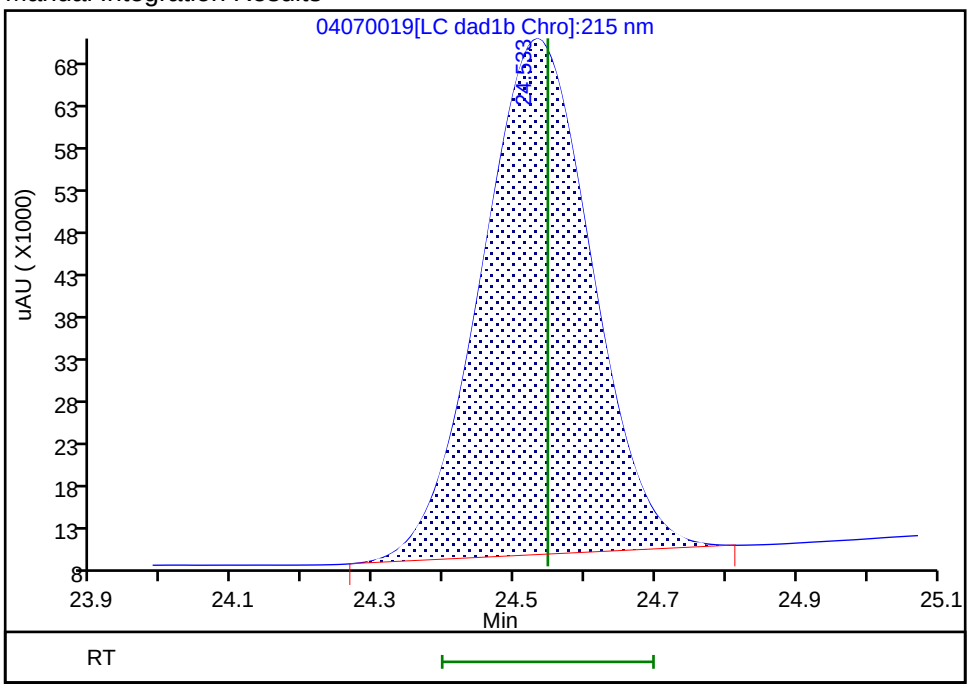
Processing Integration Results

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.: 280-176609-1

SDG No.:

Lab Sample ID: CCV 280-613169/18 | Calibration Date: 05/19/2023 20:54

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: 05190018.D | Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
TNX	Ave	399214	399418		251	251	0.0	20.0
DNX	Ave	286200	288543		252	250	0.8	20.0
HMX	Ave	181045	187540		259	250	3.6	20.0
MNX	Ave	262380	265121		295	292	1.0	20.0
Picric acid	Ave	155611	168136		270	250	8.0	20.0
RDX	Ave	215713	224300		260	250	4.0	20.0
Nitrobenzene	Ave	379960	391728		258	250	3.1	20.0
3,5-Dinitroaniline	Lin2		470748		273	250	9.1	20.0
1,3-Dinitrobenzene	Ave	581449	612060		263	250	5.3	20.0
Nitroglycerin	Ave	124345	132941		2670	2500	6.9	20.0
2-Nitrotoluene	Ave	243188	250152		257	250	2.9	20.0
4-Nitrotoluene	Ave	217449	223744		257	250	2.9	20.0
4-Amino-2,6-dinitrotoluene	Ave	272611	291236		267	250	6.8	20.0
3-Nitrotoluene	Ave	268012	286432		267	250	6.9	20.0
2-Amino-4,6-dinitrotoluene	Ave	400284	438692		274	250	9.6	20.0
1,3,5-Trinitrobenzene	Ave	378488	390640		258	250	3.2	20.0
2,6-Dinitrotoluene	Ave	279896	283268		253	250	1.2	20.0
2,4-Dinitrotoluene	Ave	560125	579808		259	250	3.5	20.0
Tetryl	Ave	270539	273064		252	250	0.9	20.0
2,4,6-Trinitrotoluene	Ave	411719	424592		258	250	3.1	20.0
PETN	Ave	118367	132174		2790	2500	11.7	20.0
1,2-Dinitrobenzene	Ave	265405	276192		260	250	4.1	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-176609-1

SDG No.:

Lab Sample ID: CCV 280-613169/18 Calibration Date: 05/19/2023 20:54

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: 05190018.D

Analyte	RT	RT WINDOW	
		FROM	TO
TNX	5.32	5.17	5.47
DNX	6.18	6.03	6.33
HMX	6.83	6.69	6.99
MNX	7.68	7.55	7.85
Picric acid	8.55	8.41	8.71
RDX	9.08	8.95	9.25
Nitrobenzene	11.61	11.47	11.77
3,5-Dinitroaniline	14.44	14.28	14.58
1,3-Dinitrobenzene	14.70	14.55	14.85
Nitroglycerin	15.20	15.02	15.32
2-Nitrotoluene	15.77	15.60	15.90
4-Nitrotoluene	16.00	15.82	16.12
4-Amino-2,6-dinitrotoluene	16.54	16.36	16.66
3-Nitrotoluene	16.84	16.66	16.96
2-Amino-4,6-dinitrotoluene	17.36	17.18	17.48
1,3,5-Trinitrobenzene	17.52	17.35	17.65
2,6-Dinitrotoluene	18.65	18.47	18.77
2,4-Dinitrotoluene	19.10	18.93	19.23
Tetryl	22.39	22.21	22.51
2,4,6-Trinitrotoluene	23.21	23.03	23.33
PETN	24.41	24.23	24.53
1,2-Dinitrobenzene	12.58	12.43	12.73

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2_LUNA\20230519-121648.b\05190018.D
Lims ID: CCV DMT
Client ID:
Sample Type: CCV
Inject. Date: 19-May-2023 20:54:44 ALS Bottle#: 7 Worklist Smp#: 18
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\20230519-121648.b\G2_8330_Luna.m
Limit Group: GCSV - 8330
Last Update: 20-May-2023 11:50:53 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: CTX1663

First Level Reviewer: LV5D Date: 20-May-2023 11:48:46

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
3 TNX	1	5.317	5.315	0.002	100154	0.2508	0.2509	
4 DNX	1	6.177	6.175	0.002	72208	0.2503	0.2523	
6 HMX	1	6.830	6.835	-0.005	46885	0.2500	0.2590	
7 MNX	1	7.683	7.695	-0.012	77349	0.2918	0.2948	
5 2,4,6-Trinitrophenol	1	8.550	8.562	-0.012	42034	0.2500	0.2701	
8 RDX	1	9.083	9.102	-0.019	56075	0.2500	0.2600	
9 Nitrobenzene	1	11.610	11.622	-0.012	97932	0.2500	0.2577	
$ 10 1,2-Dinitrobenzene	1	12.577	12.582	-0.005	69048	0.2500	0.2602	
11 3,5-Dinitroaniline	1	14.437	14.429	0.008	117687	0.2500	0.2728	M
12 1,3-Dinitrobenzene	1	14.703	14.695	0.008	153015	0.2500	0.2632	M
13 Nitroglycerin	2	15.197	15.169	0.028	332353	2.50	2.67	
14 o-Nitrotoluene	1	15.770	15.749	0.021	62538	0.2500	0.2572	M
15 p-Nitrotoluene	1	15.997	15.969	0.028	55936	0.2500	0.2572	M
16 4-Amino-2,6-dinitrotoluene	1	16.537	16.509	0.028	72809	0.2500	0.2671	M
17 m-Nitrotoluene	1	16.837	16.809	0.028	71608	0.2500	0.2672	M
18 2-Amino-4,6-dinitrotoluene	1	17.357	17.329	0.028	109673	0.2500	0.2740	M
19 1,3,5-Trinitrobenzene	1	17.517	17.502	0.015	97660	0.2500	0.2580	M
20 2,6-Dinitrotoluene	1	18.650	18.622	0.028	70817	0.2500	0.2530	
21 2,4-Dinitrotoluene	1	19.103	19.082	0.021	144952	0.2500	0.2588	
22 Tetryl	1	22.390	22.355	0.035	68266	0.2500	0.2523	
23 2,4,6-Trinitrotoluene	1	23.210	23.182	0.028	106148	0.2500	0.2578	
24 PETN	2	24.410	24.382	0.028	330436	2.50	2.79	

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

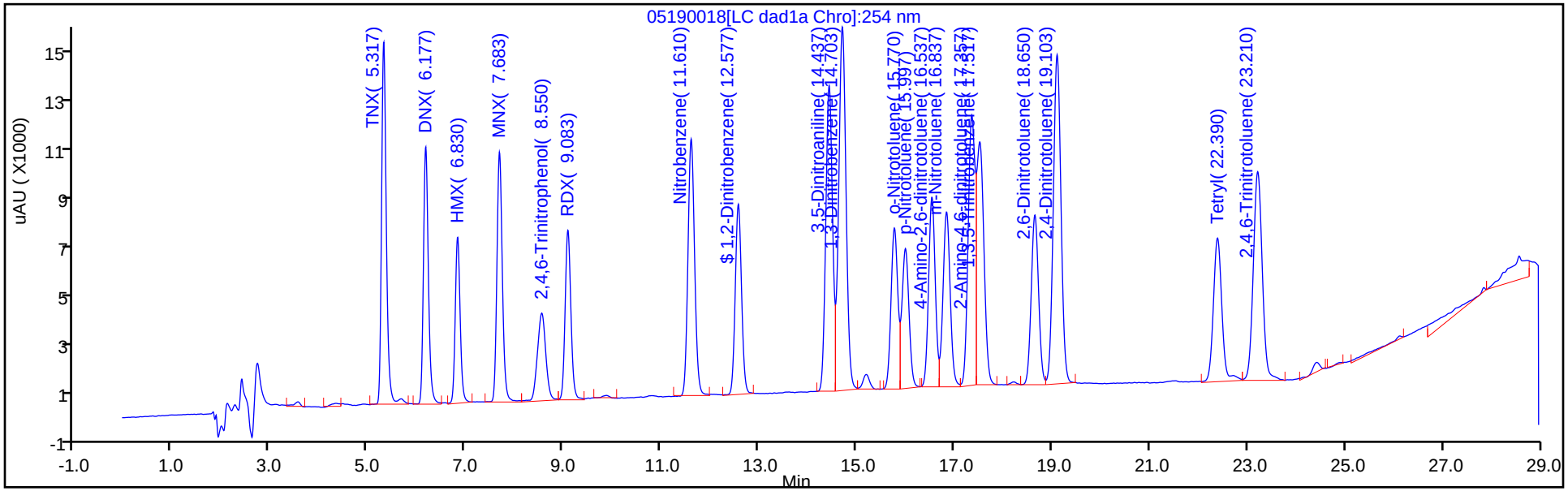
Report Date: 20-May-2023 11:50:53 Chrom Revision: 2.3 16-May-2023 16:37:30

Eurofins Denver

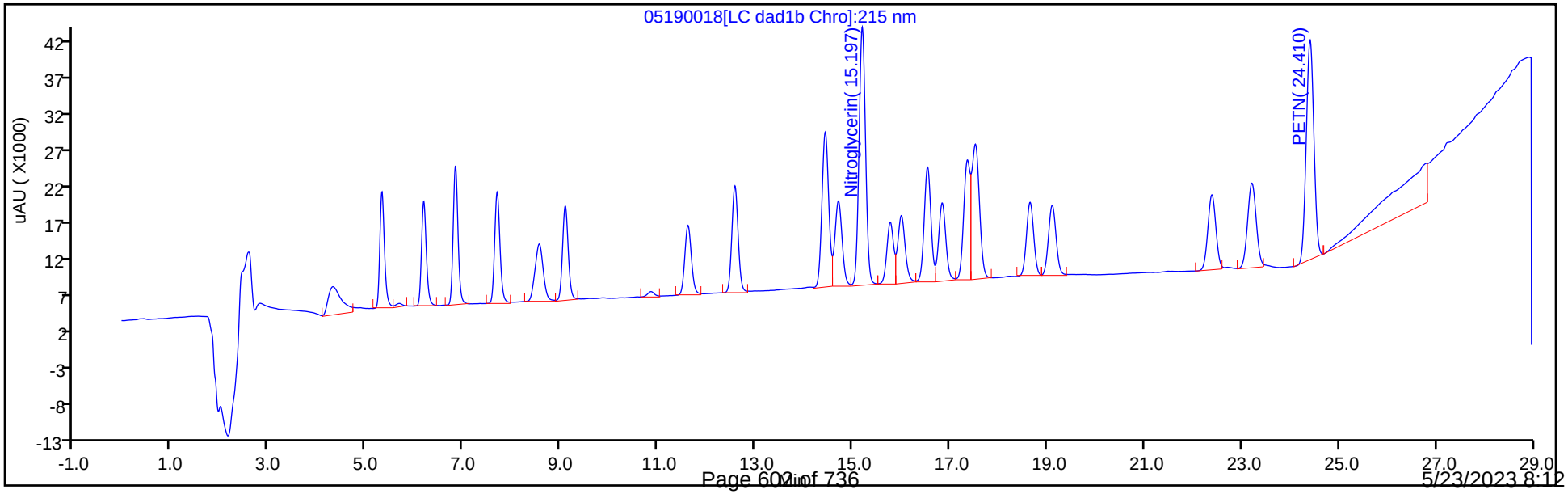
Data File: \\chromfs\denver\chromdata\g2_luna\20230519-121648.b\05190018.d

Injection Date:	19-May-2023 20:54:44	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	JZ/JG
Lims ID:	CCV DMT			Worklist Smp#:	18
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		

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



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



Manual Integration/User Assign Peak Report

Eurofins Denver

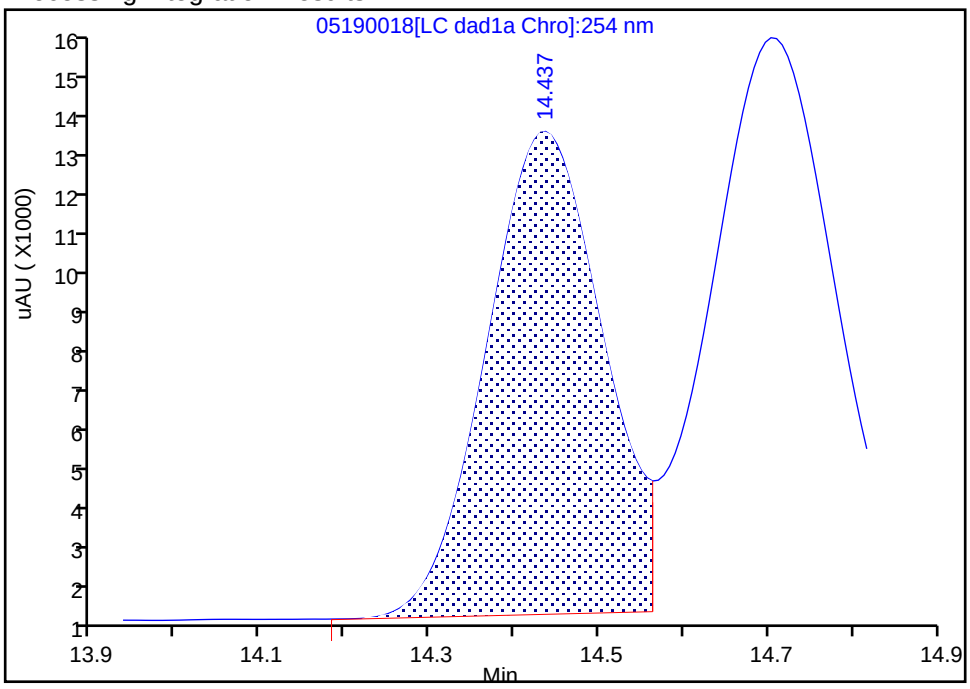
Data File:	\\chromfs\denver\chromdata\g2_luna\20230519-121648.b\05190018.d				
Injection Date:	19-May-2023 20:54:44	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	CCV DMT				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	7	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

11 3,5-Dinitroaniline, CAS: 618-87-1

Signal: 1

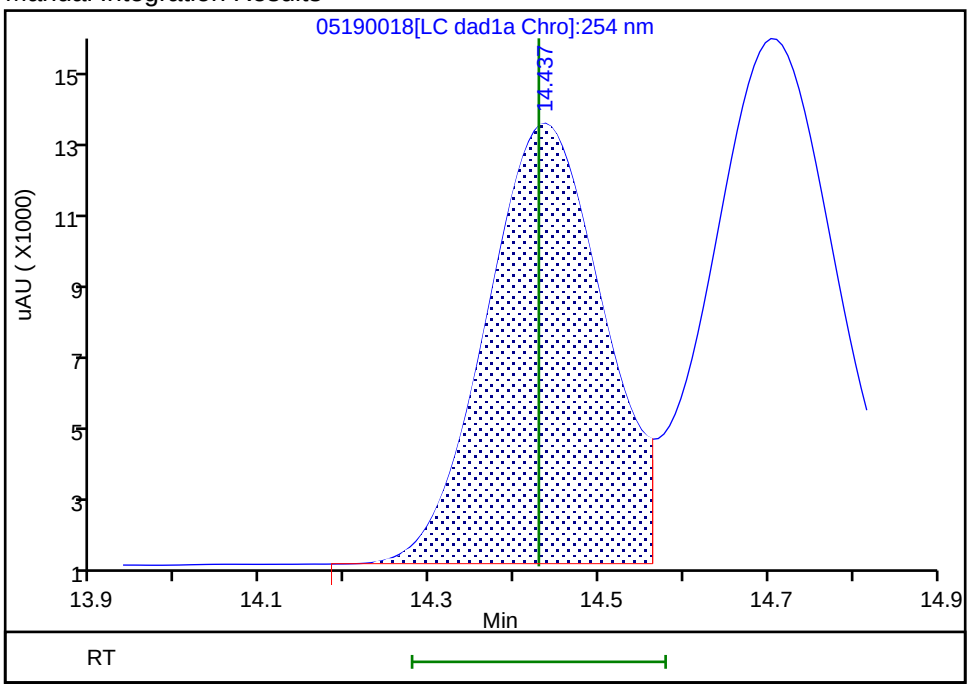
Processing Integration Results

RT: 14.44
Area: 115681
Amount: 0.268131
Amount Units: ug/ml



Manual Integration Results

RT: 14.44
Area: 117687
Amount: 0.272796
Amount Units: ug/ml



Reviewer: LV5D, 20-May-2023 11:48:45 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

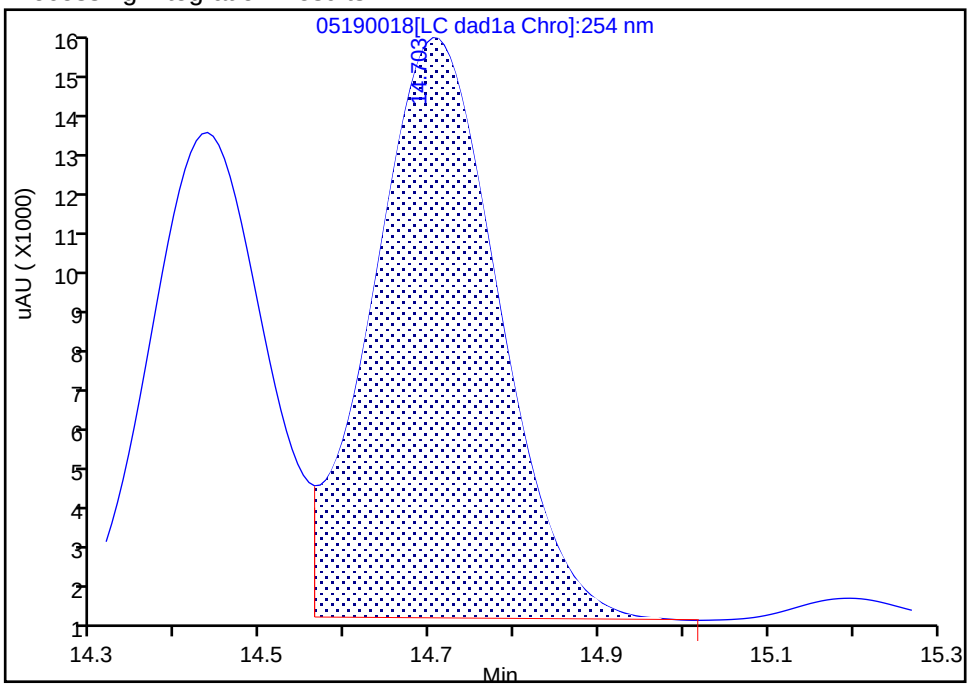
Data File:	\\chromfs\denver\chromdata\g2_luna\20230519-121648.b\05190018.d				
Injection Date:	19-May-2023 20:54:44	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	CCV DMT				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	7	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

12 1,3-Dinitrobenzene, CAS: 99-65-0

Signal: 1

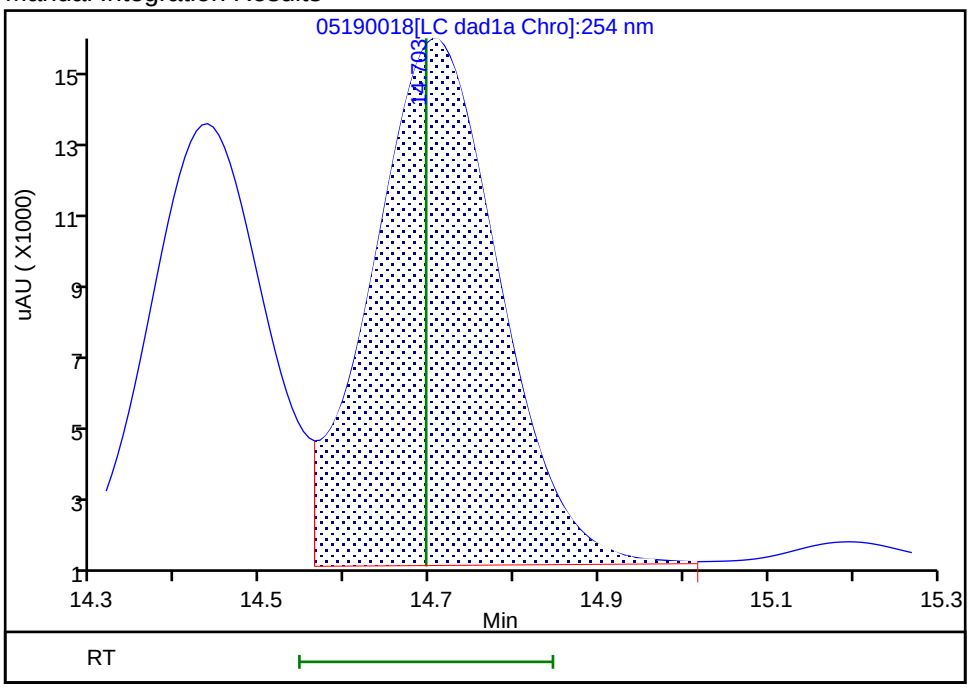
Processing Integration Results

RT: 14.70
Area: 149642
Amount: 0.257360
Amount Units: ug/ml



Manual Integration Results

RT: 14.70
Area: 153015
Amount: 0.263161
Amount Units: ug/ml



Reviewer: LV5D, 20-May-2023 11:48:45 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

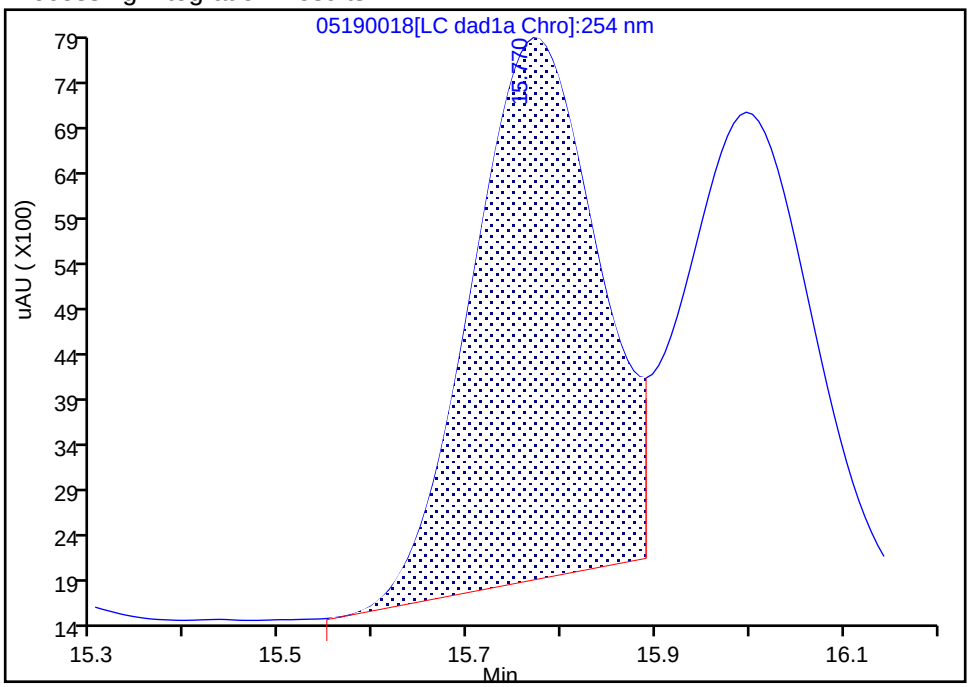
Data File:	\\chromfs\denver\chromdata\g2_luna\20230519-121648.b\05190018.d				
Injection Date:	19-May-2023 20:54:44	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	CCV DMT				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	7	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	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

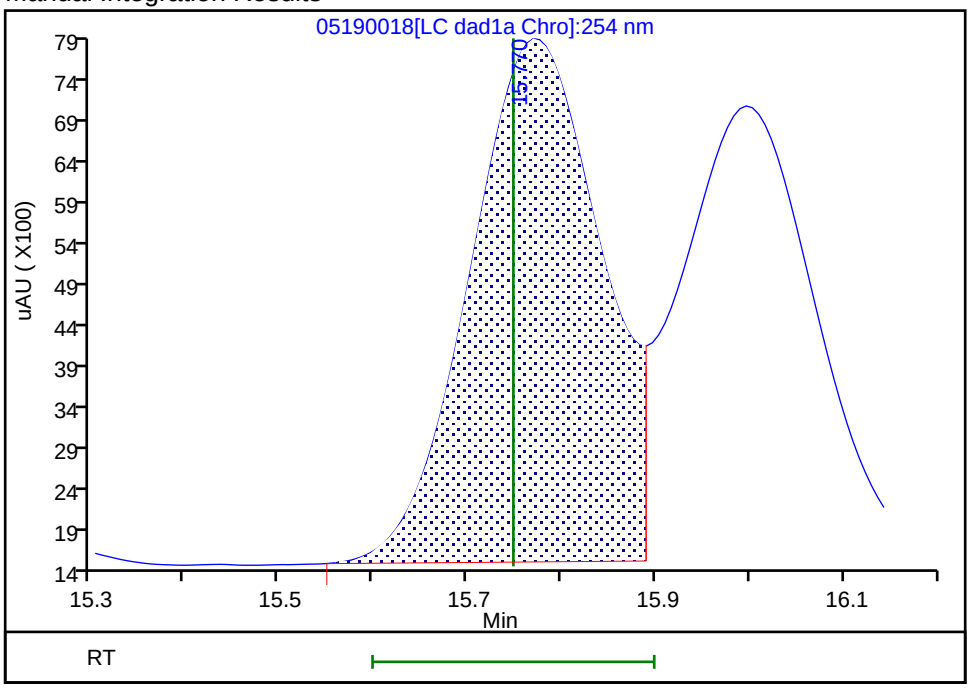
Processing Integration Results

RT: 15.77
Area: 56041
Amount: 0.230443
Amount Units: ug/ml



Manual Integration Results

RT: 15.77
Area: 62538
Amount: 0.257159
Amount Units: ug/ml



Reviewer: LV5D, 20-May-2023 11:48:45 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

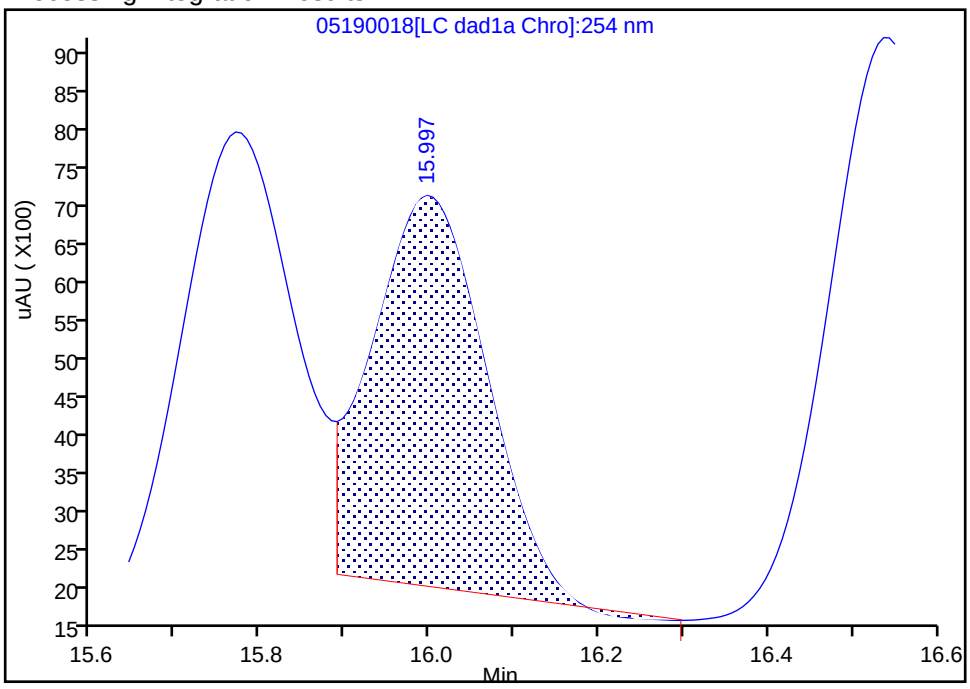
Data File:	\\chromfs\denver\chromdata\g2_luna\20230519-121648.b\05190018.d				
Injection Date:	19-May-2023 20:54:44	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	CCV DMT				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	7	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

15 p-Nitrotoluene, CAS: 99-99-0

Signal: 1

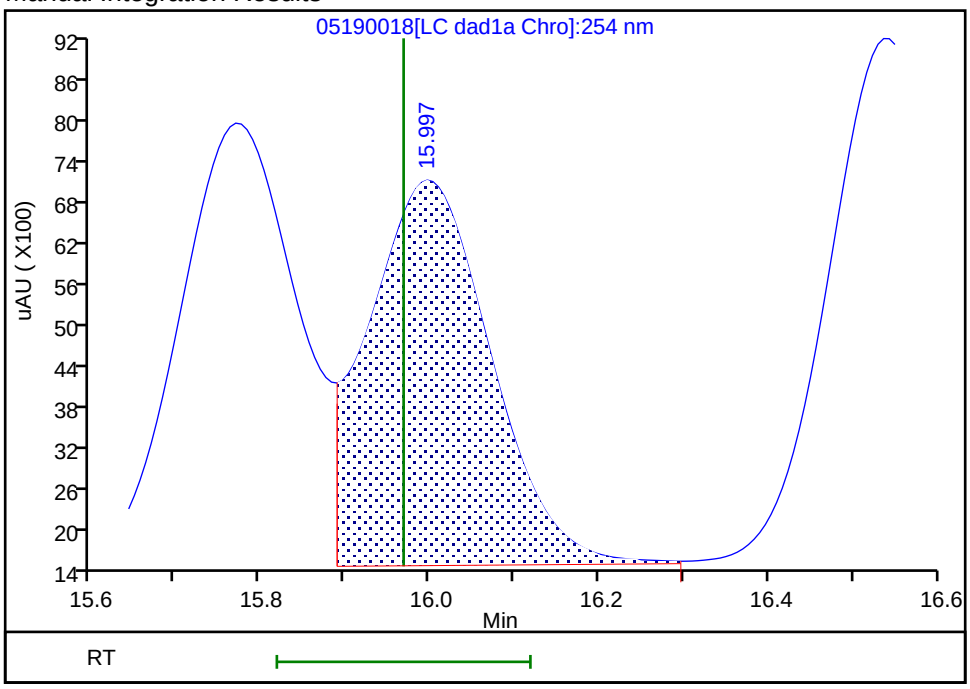
Processing Integration Results

RT: 16.00
Area: 48436
Amount: 0.222747
Amount Units: ug/ml



Manual Integration Results

RT: 16.00
Area: 55936
Amount: 0.257237
Amount Units: ug/ml



Reviewer: LV5D, 20-May-2023 11:48:45 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

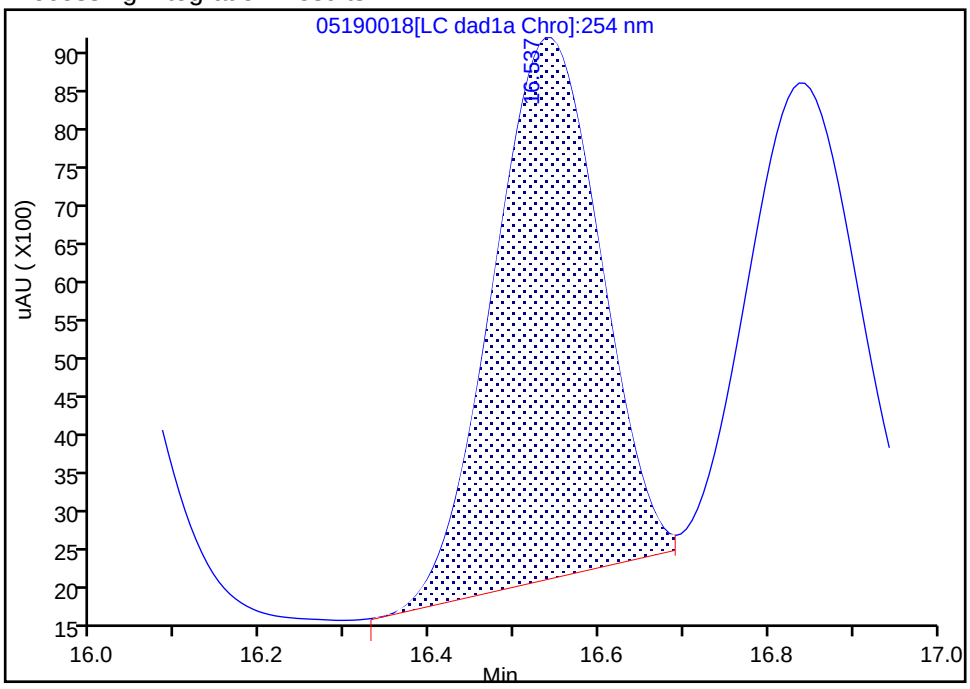
Data File:	\\chromfs\denver\chromdata\g2_luna\20230519-121648.b\05190018.d				
Injection Date:	19-May-2023 20:54:44	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	CCV DMT				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	7	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

16 4-Amino-2,6-dinitrotoluene, CAS: 19406-51-0

Signal: 1

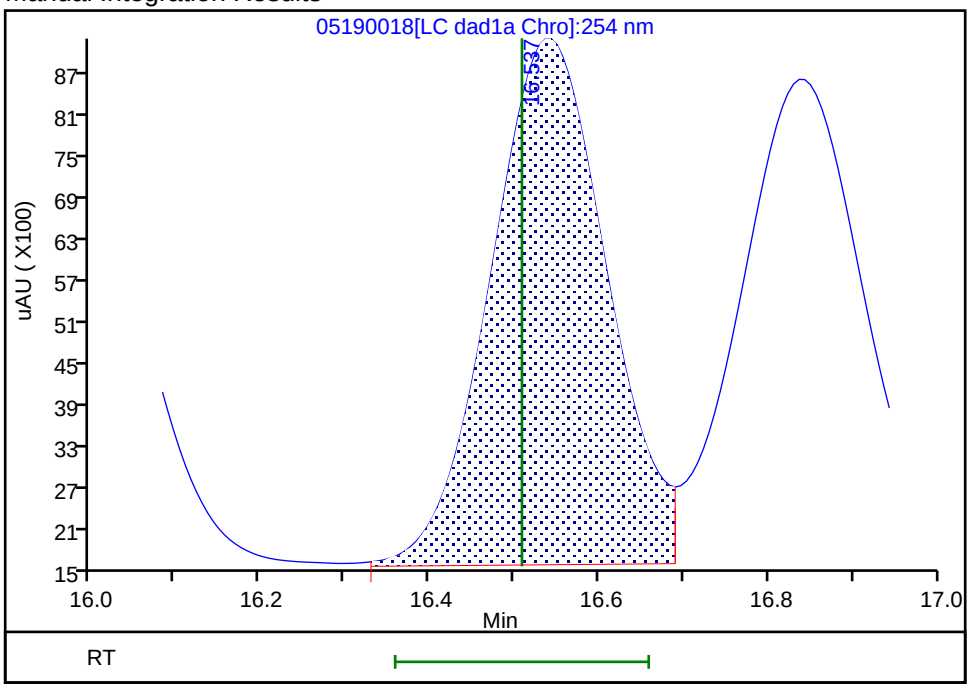
Processing Integration Results

RT: 16.54
Area: 62539
Amount: 0.229408
Amount Units: ug/ml



Manual Integration Results

RT: 16.54
Area: 72809
Amount: 0.267081
Amount Units: ug/ml



Reviewer: LV5D, 20-May-2023 11:48:45 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

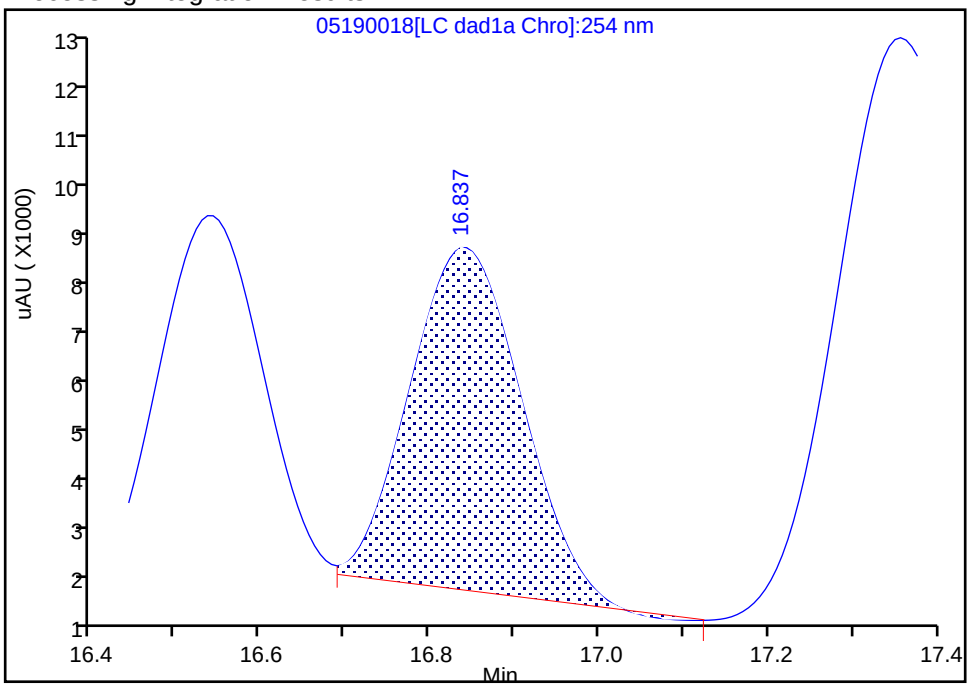
Data File:	\\chromfs\denver\chromdata\g2_luna\20230519-121648.b\05190018.d				
Injection Date:	19-May-2023 20:54:44	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	CCV DMT				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	7	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

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

Signal: 1

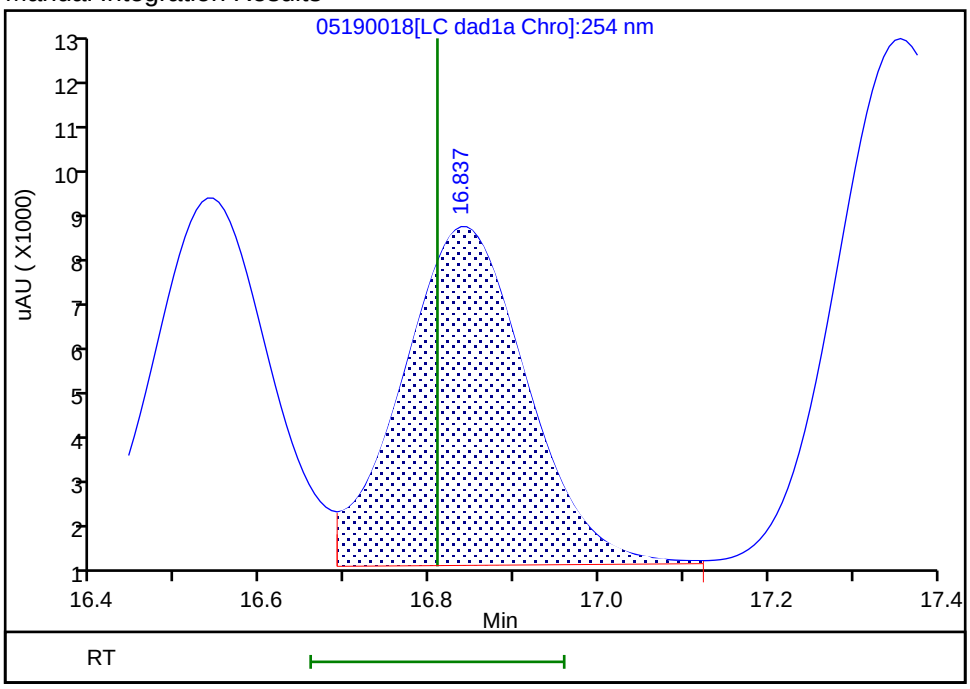
Processing Integration Results

RT: 16.84
Area: 59600
Amount: 0.222379
Amount Units: ug/ml



Manual Integration Results

RT: 16.84
Area: 71608
Amount: 0.267183
Amount Units: ug/ml



Reviewer: LV5D, 20-May-2023 11:48:45 -06:00:00 (UTC)
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

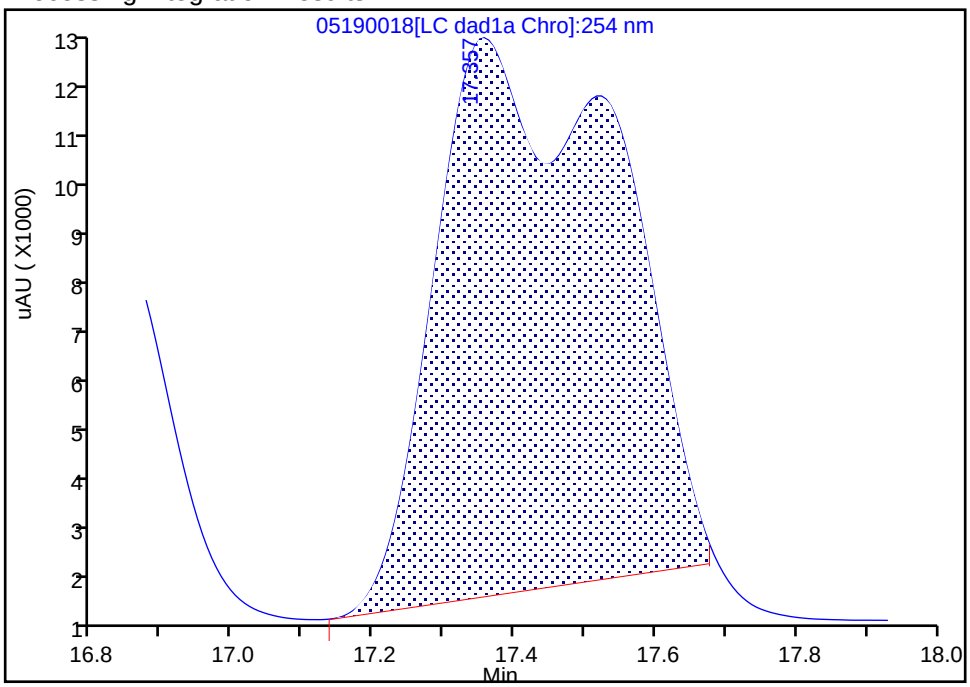
Data File:	\\chromfs\denver\chromdata\g2_luna\20230519-121648.b\05190018.d				
Injection Date:	19-May-2023 20:54:44	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	CCV DMT				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	7	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	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

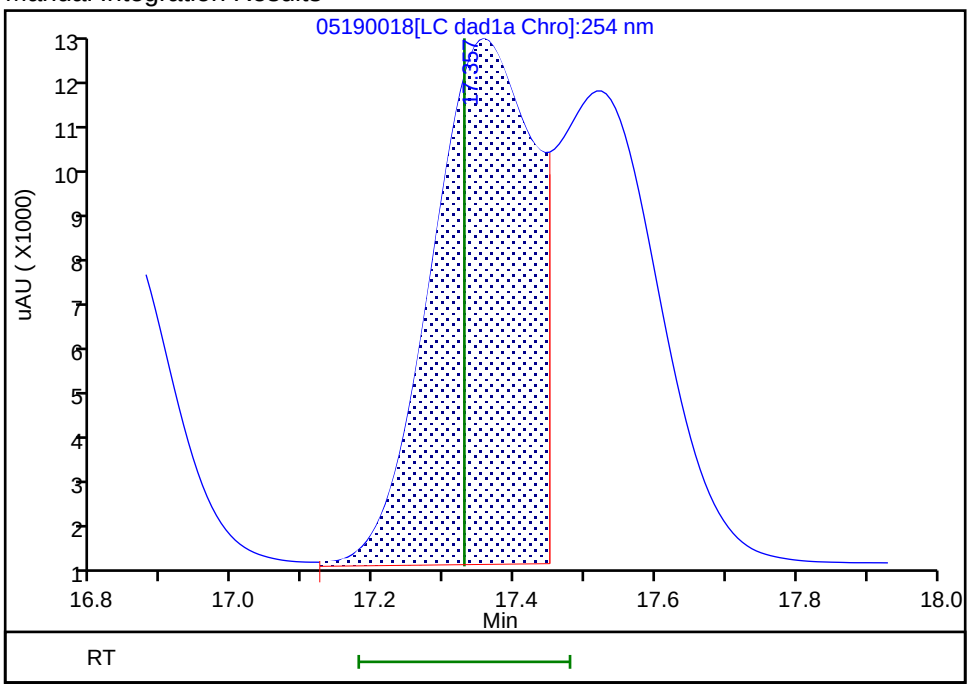
Processing Integration Results

RT: 17.36
Area: 186193
Amount: 0.465153
Amount Units: ug/ml



Manual Integration Results

RT: 17.36
Area: 109673
Amount: 0.273988
Amount Units: ug/ml



Reviewer: LV5D, 20-May-2023 11:48:45 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

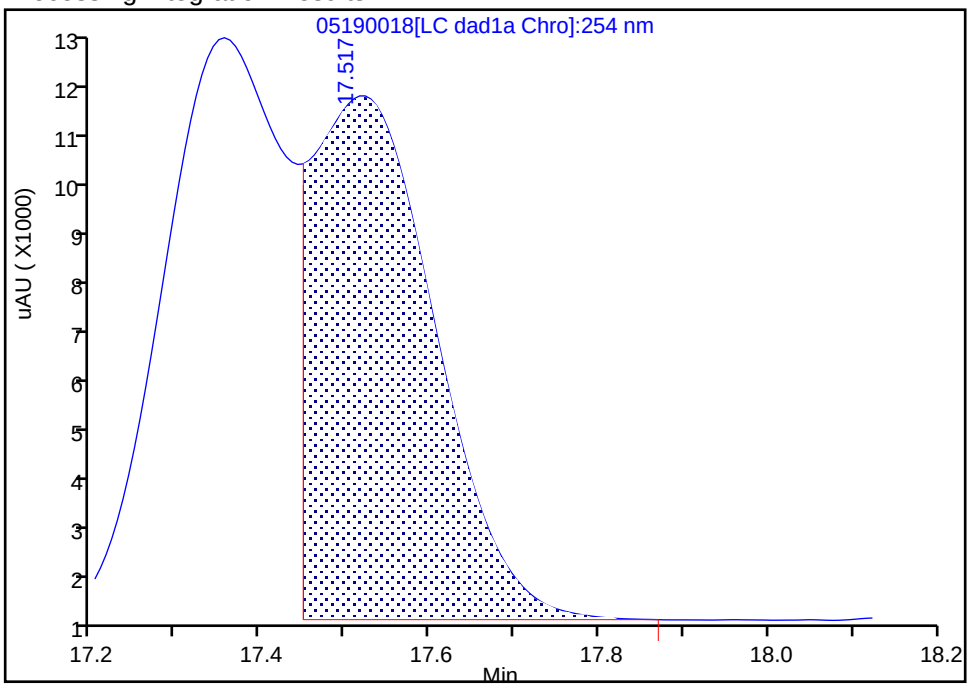
Data File:	\\chromfs\denver\chromdata\g2_luna\20230519-121648.b\05190018.d				
Injection Date:	19-May-2023 20:54:44	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	CCV DMT				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	7	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

19 1,3,5-Trinitrobenzene, CAS: 99-35-4

Signal: 1

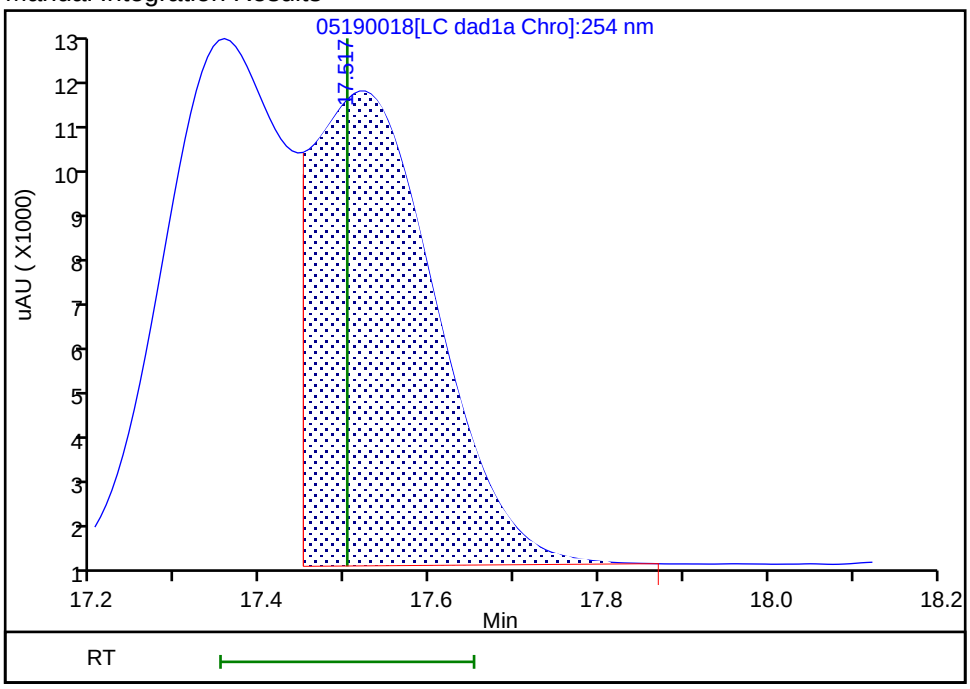
Processing Integration Results

RT: 17.52
Area: 97219
Amount: 0.256861
Amount Units: ug/ml



Manual Integration Results

RT: 17.52
Area: 97660
Amount: 0.258027
Amount Units: ug/ml



Reviewer: LV5D, 20-May-2023 11:48:45 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver | Job No.: 280-176609-1

SDG No.:

Lab Sample ID: CCV 280-613169/25 | Calibration Date: 05/20/2023 01:06

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: 05190025.D | Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
TNX	Ave	399214	397703		250	251	-0.4	20.0
DNX	Ave	286200	289646		253	250	1.2	20.0
HMX	Ave	181045	188088		260	250	3.9	20.0
MNX	Ave	262380	265354		295	292	1.1	20.0
Picric acid	Ave	155611	165320		266	250	6.2	20.0
RDX	Ave	215713	224156		260	250	3.9	20.0
Nitrobenzene	Ave	379960	389352		256	250	2.5	20.0
3,5-Dinitroaniline	Lin2		475516		276	250	10.2	20.0
1,3-Dinitrobenzene	Ave	581449	617140		265	250	6.1	20.0
Nitroglycerin	Ave	124345	133122		2680	2500	7.1	20.0
2-Nitrotoluene	Ave	243188	251024		258	250	3.2	20.0
4-Nitrotoluene	Ave	217449	226424		260	250	4.1	20.0
4-Amino-2,6-dinitrotoluene	Ave	272611	296104		272	250	8.6	20.0
3-Nitrotoluene	Ave	268012	290500		271	250	8.4	20.0
2-Amino-4,6-dinitrotoluene	Ave	400284	441120		276	250	10.2	20.0
1,3,5-Trinitrobenzene	Ave	378488	408936		270	250	8.0	20.0
2,6-Dinitrotoluene	Ave	279896	288468		258	250	3.1	20.0
2,4-Dinitrotoluene	Ave	560125	584892		261	250	4.4	20.0
Tetryl	Ave	270539	281060		260	250	3.9	20.0
2,4,6-Trinitrotoluene	Ave	411719	433528		263	250	5.3	20.0
PETN	Ave	118367	137264		2900	2500	16.0	20.0
1,2-Dinitrobenzene	Ave	265405	278208		262	250	4.8	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-176609-1

SDG No.:

Lab Sample ID: CCV 280-613169/25 Calibration Date: 05/20/2023 01:06

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: 05190025.D

Analyte	RT	RT WINDOW	
		FROM	TO
TNX	5.31	5.17	5.47
DNX	6.18	6.03	6.33
HMX	6.83	6.69	6.99
MNX	7.69	7.55	7.85
Picric acid	8.57	8.41	8.71
RDX	9.10	8.95	9.25
Nitrobenzene	11.64	11.47	11.77
3,5-Dinitroaniline	14.46	14.28	14.58
1,3-Dinitrobenzene	14.72	14.55	14.85
Nitroglycerin	15.20	15.02	15.32
2-Nitrotoluene	15.78	15.60	15.90
4-Nitrotoluene	16.01	15.82	16.12
4-Amino-2,6-dinitrotoluene	16.56	16.36	16.66
3-Nitrotoluene	16.85	16.66	16.96
2-Amino-4,6-dinitrotoluene	17.38	17.18	17.48
1,3,5-Trinitrobenzene	17.53	17.35	17.65
2,6-Dinitrotoluene	18.66	18.47	18.77
2,4-Dinitrotoluene	19.11	18.93	19.23
Tetryl	22.38	22.21	22.51
2,4,6-Trinitrotoluene	23.20	23.03	23.33
PETN	24.38	24.23	24.53
1,2-Dinitrobenzene	12.61	12.43	12.73

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2_LUNA\20230519-121648.b\05190025.D
Lims ID: CCV DMT
Client ID:
Sample Type: CCV
Inject. Date: 20-May-2023 01:06:25 ALS Bottle#: 7 Worklist Smp#: 25
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\20230519-121648.b\G2_8330_Luna.m
Limit Group: GCSV - 8330
Last Update: 20-May-2023 11:50:56 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: CTX1663

	Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
	3 TNX	1	5.311	5.315	-0.004	99724	0.2508	0.2498	
	4 DNX	1	6.177	6.175	0.002	72484	0.2503	0.2533	
	6 HMX	1	6.831	6.835	-0.004	47022	0.2500	0.2597	
	7 MNX	1	7.691	7.695	-0.004	77417	0.2918	0.2951	
	5 2,4,6-Trinitrophenol	1	8.571	8.562	0.009	41330	0.2500	0.2656	
	8 RDX	1	9.104	9.102	0.002	56039	0.2500	0.2598	
	9 Nitrobenzene	1	11.637	11.622	0.015	97338	0.2500	0.2562	
$	10 1,2-Dinitrobenzene	1	12.611	12.582	0.029	69552	0.2500	0.2621	
	11 3,5-Dinitroaniline	1	14.457	14.429	0.028	118879	0.2500	0.2756	
	12 1,3-Dinitrobenzene	1	14.724	14.695	0.029	154285	0.2500	0.2653	
	13 Nitroglycerin	2	15.204	15.169	0.035	332806	2.50	2.68	
	14 o-Nitrotoluene	1	15.784	15.749	0.035	62756	0.2500	0.2581	
	15 p-Nitrotoluene	1	16.011	15.969	0.042	56606	0.2500	0.2603	
	16 4-Amino-2,6-dinitrotoluene	1	16.557	16.509	0.048	74026	0.2500	0.2715	
	17 m-Nitrotoluene	1	16.851	16.809	0.042	72625	0.2500	0.2710	
	18 2-Amino-4,6-dinitrotoluene	1	17.377	17.329	0.048	110280	0.2500	0.2755	
	19 1,3,5-Trinitrobenzene	1	17.531	17.502	0.029	102234	0.2500	0.2701	
	20 2,6-Dinitrotoluene	1	18.657	18.622	0.035	72117	0.2500	0.2577	
	21 2,4-Dinitrotoluene	1	19.111	19.082	0.029	146223	0.2500	0.2611	
	22 Tetryl	1	22.377	22.355	0.022	70265	0.2500	0.2597	
	23 2,4,6-Trinitrotoluene	1	23.197	23.182	0.015	108382	0.2500	0.2632	
	24 PETN	2	24.384	24.382	0.002	343160	2.50	2.90	

Reagents:

8330IntermStk_00076 Amount Added: 25.00 Units: uL
8330 DMT_00013 Amount Added: 12.50 Units: uL

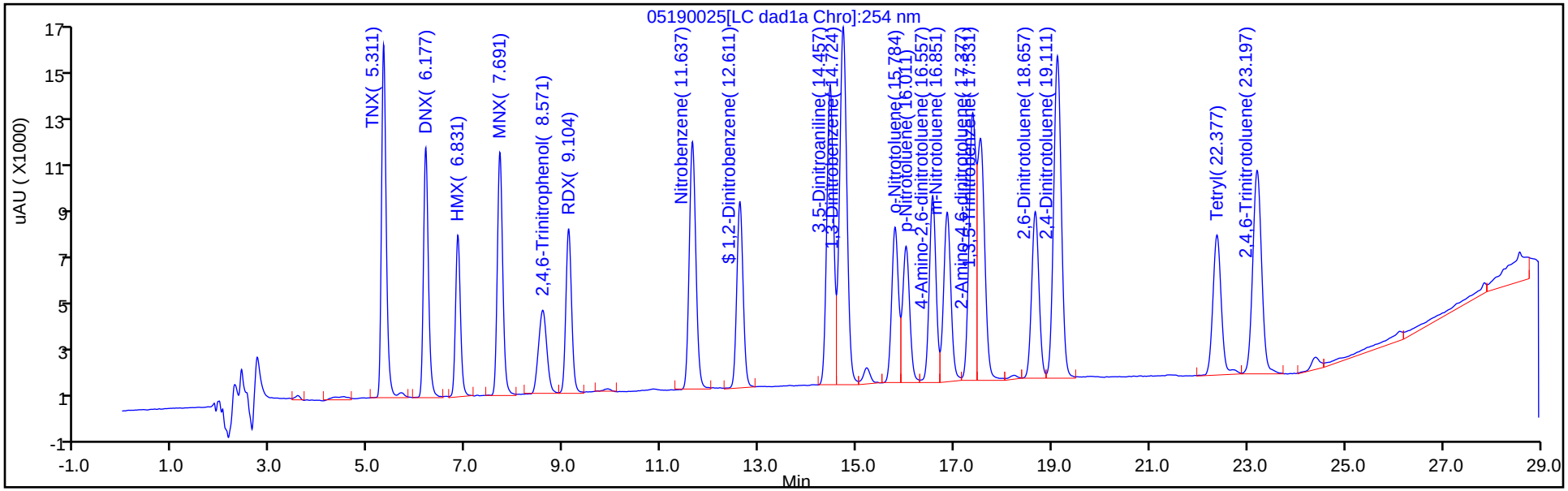
Report Date: 20-May-2023 11:50:56 Chrom Revision: 2.3 16-May-2023 16:37:30

Eurofins Denver

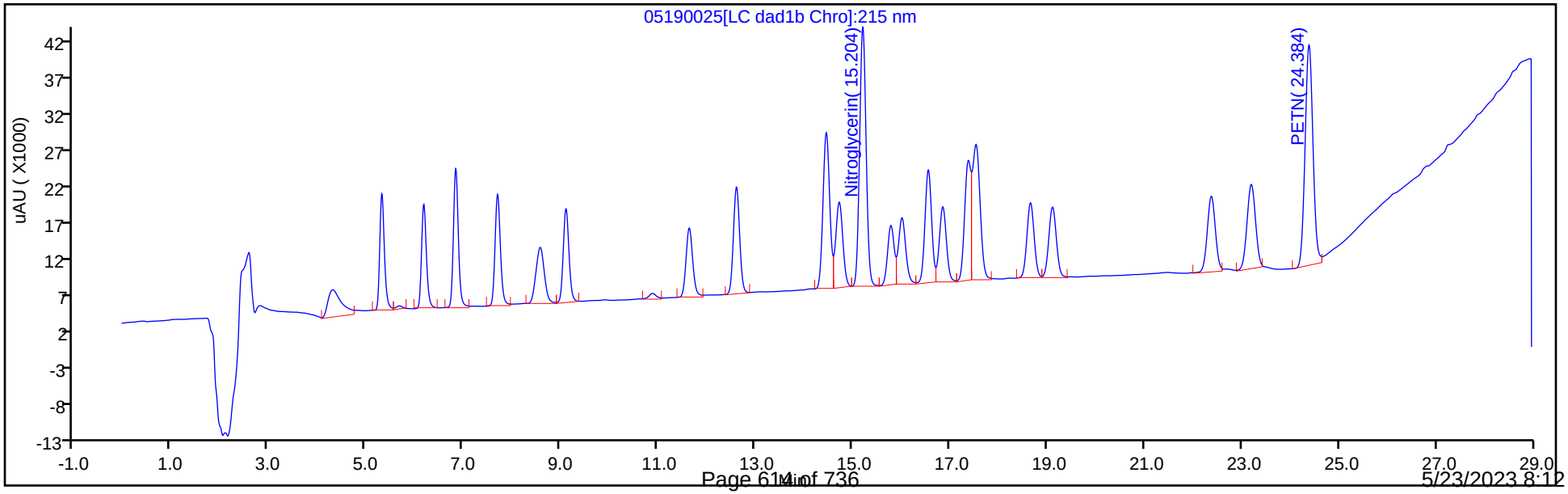
Data File: \\chromfs\denver\chromdata\g2_luna\20230519-121648.b\05190025.d

Injection Date:	20-May-2023 01:06:25	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	JZ/JG
Lims ID:	CCV DMT			Worklist Smp#:	25
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.: 280-176609-1

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.: 280-176609-1

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

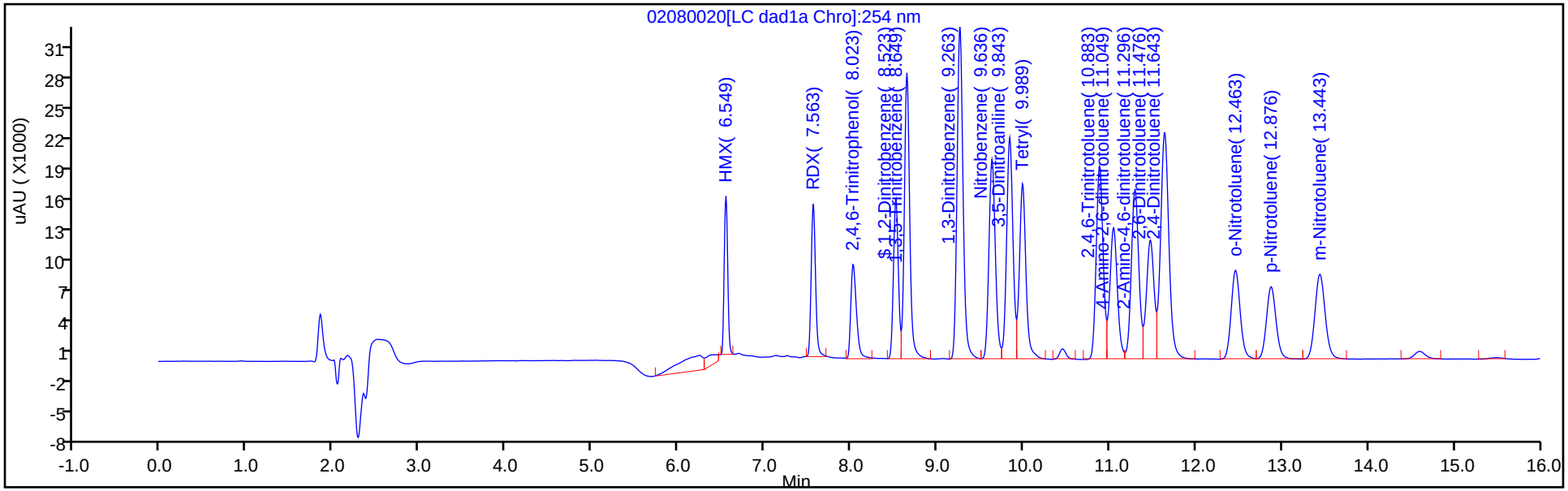
Report Date: 09-Feb-2023 13:04:01 Chrom Revision: 2.3 01-Feb-2023 13:23:06

Eurofins Denver

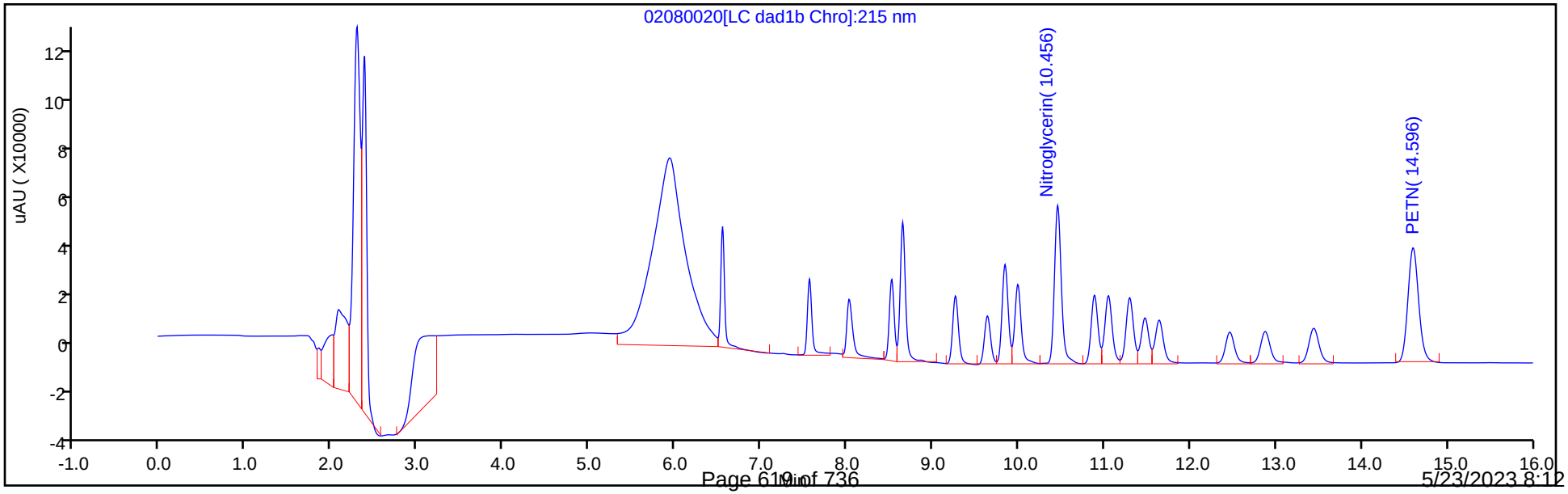
Data File: \\chromfs\denver\chromdata\chhplc_x\20230208-118465.b\02080020.d

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



5/23/2023 8:12 PM

Manual Integration/User Assign Peak Report

Eurofins Denver

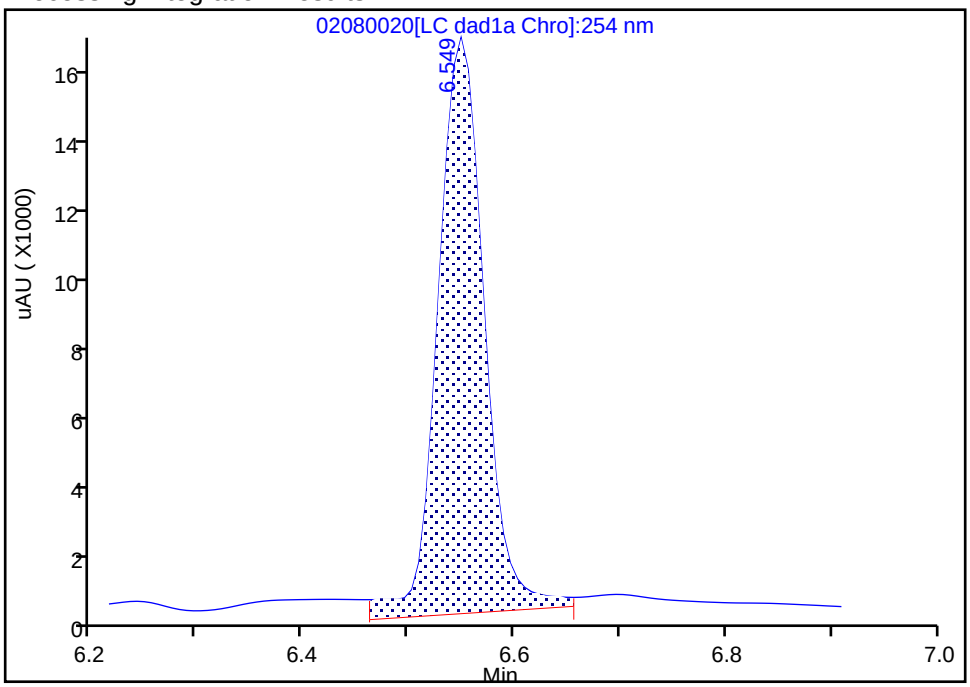
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230208-118465.b\02080020.d				
Injection Date:	08-Feb-2023 19:05:10	Instrument ID:	CHHPLC_X3		
Lims ID:	ICV INT				
Client ID:					
Operator ID:	JZ/MAR	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

4 HMX, CAS: 2691-41-0

Signal: 1

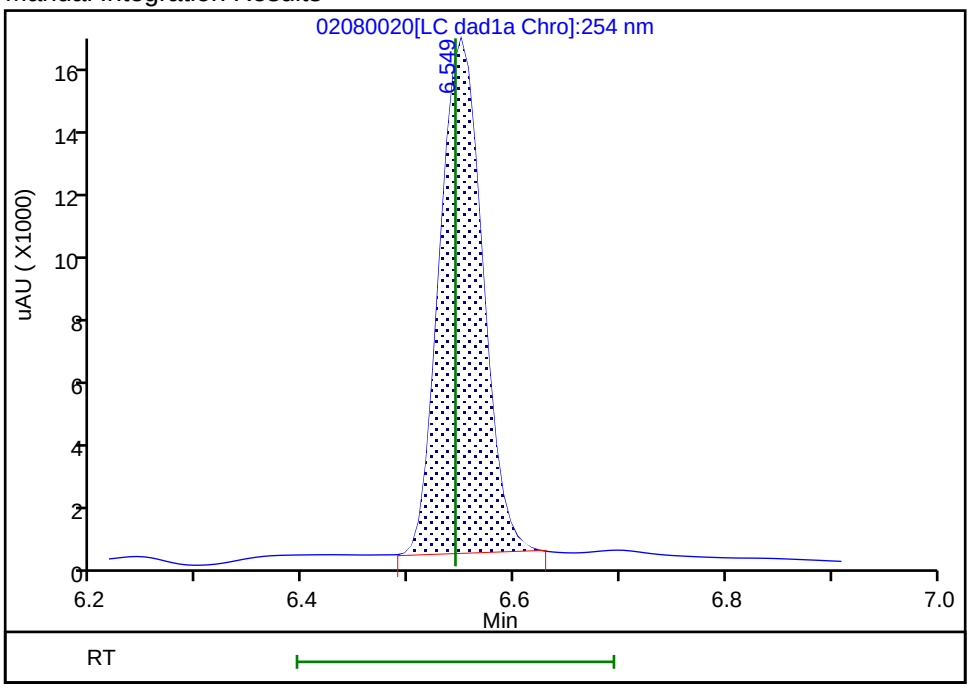
Processing Integration Results

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

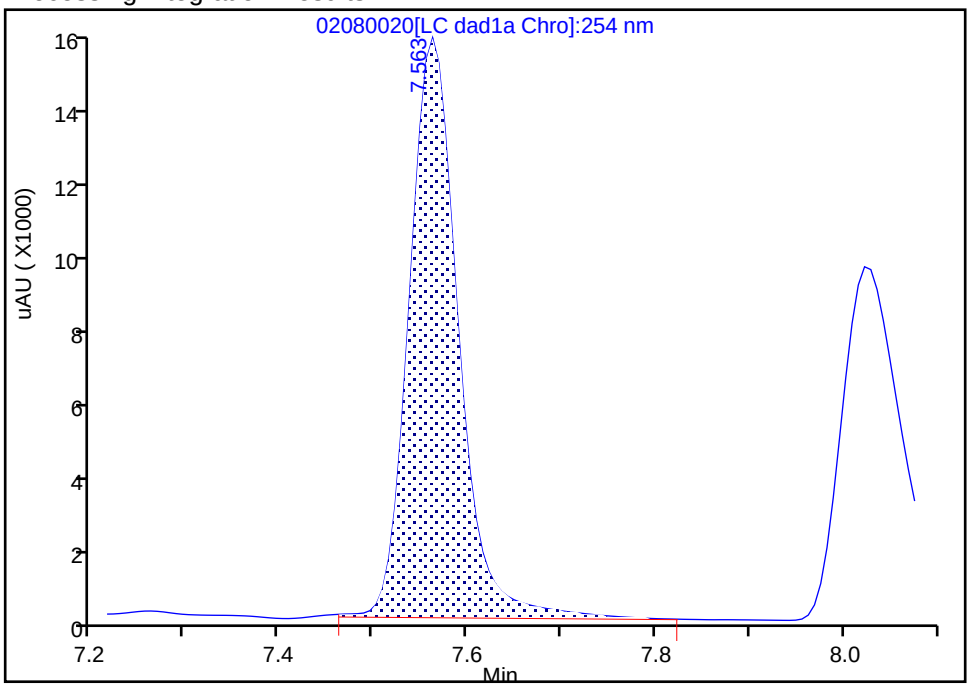
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230208-118465.b\02080020.d				
Injection Date:	08-Feb-2023 19:05:10	Instrument ID:	CHHPLC_X3		
Lims ID:	ICV INT				
Client ID:					
Operator ID:	JZ/MAR	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

8 RDX, CAS: 121-82-4

Signal: 1

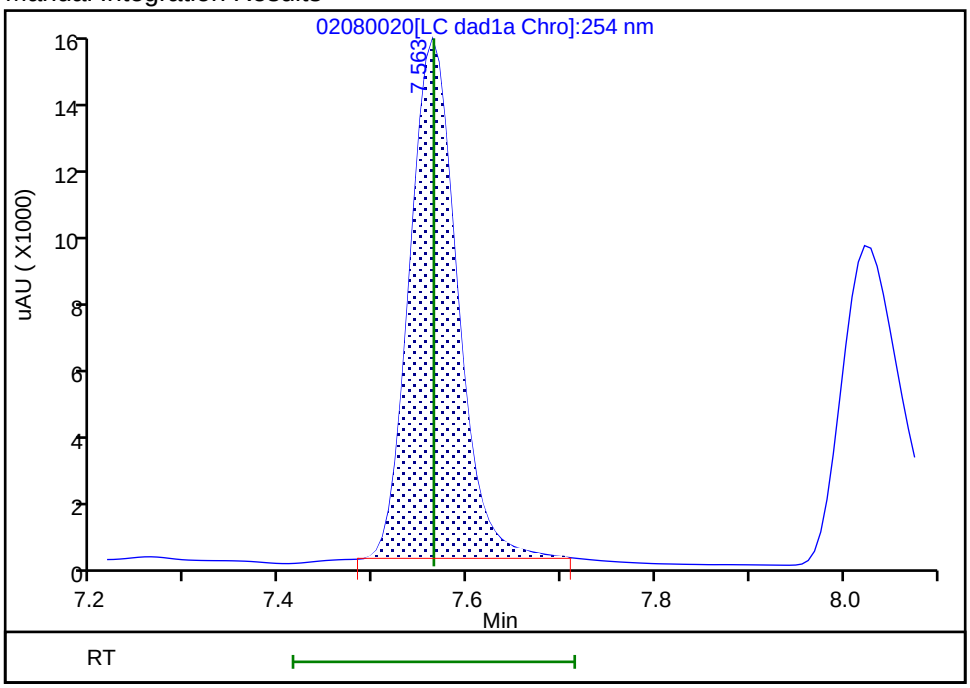
Processing Integration Results

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.: 280-176609-1

SDG No.:

Lab Sample ID: CCV 280-613045/8 | Calibration Date: 05/18/2023 21:23

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: 05180008.D | Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
HMX	Ave	93528	104296		279	250	11.5	20.0
RDX	Ave	106380	108908		256	250	2.4	20.0
Picric acid	Ave	75830	79732		263	250	5.1	20.0
1,3,5-Trinitrobenzene	Ave	217147	218532		252	250	0.6	20.0
1,3-Dinitrobenzene	Ave	294397	296852		252	250	0.8	20.0
Nitrobenzene	Ave	191245	189840		248	250	-0.7	20.0
3,5-Dinitroaniline	Lin2		224776		246	250	-1.7	20.0
Tetryl	Ave	164121	144508		220	250	-12.0	20.0
Nitroglycerin	Ave	64070	64633		2520	2500	0.9	20.0
2,4,6-Trinitrotoluene	Ave	211040	205464		243	250	-2.6	20.0
4-Amino-2,6-dinitrotoluene	Ave	154933	152228		246	250	-1.7	20.0
2-Amino-4,6-dinitrotoluene	Ave	201410	194704		242	250	-3.3	20.0
2,6-Dinitrotoluene	Ave	142745	146700		257	250	2.8	20.0
2,4-Dinitrotoluene	Ave	296667	298040		251	250	0.5	20.0
2-Nitrotoluene	Ave	127896	124004		242	250	-3.0	20.0
4-Nitrotoluene	Ave	111880	104848		234	250	-6.3	20.0
3-Nitrotoluene	Ave	140492	134644		240	250	-4.2	20.0
PETN	Ave	68845	70588		2560	2500	2.5	20.0
1,2-Dinitrobenzene	Ave	126309	133520		264	250	5.7	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-176609-1

SDG No.:

Lab Sample ID: CCV 280-613045/8 Calibration Date: 05/18/2023 21:23

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: 05180008.D

Analyte	RT	RT WINDOW	
		FROM	TO
HMX	6.55	6.40	6.70
RDX	7.56	7.41	7.71
Picric acid	7.96	7.81	8.11
1,3,5-Trinitrobenzene	8.64	8.49	8.79
1,3-Dinitrobenzene	9.25	9.10	9.40
Nitrobenzene	9.63	9.48	9.78
3,5-Dinitroaniline	9.86	9.71	10.01
Tetryl	9.99	9.84	10.14
Nitroglycerin	10.44	10.29	10.59
2,4,6-Trinitrotoluene	10.87	10.77	10.97
4-Amino-2,6-dinitrotoluene	11.07	10.97	11.17
2-Amino-4,6-dinitrotoluene	11.32	11.22	11.42
2,6-Dinitrotoluene	11.47	11.37	11.57
2,4-Dinitrotoluene	11.64	11.54	11.74
2-Nitrotoluene	12.46	12.31	12.61
4-Nitrotoluene	12.87	12.72	13.02
3-Nitrotoluene	13.45	13.30	13.60
PETN	14.60	14.45	14.75
1,2-Dinitrobenzene	8.51	8.36	8.66

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20230518-121611.b\05180008.D
Lims ID: CCV DMT
Client ID:
Sample Type: CCV
Inject. Date: 18-May-2023 21:23:23 ALS Bottle#: 7 Worklist Smp#: 8
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\20230518-121611.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 19-May-2023 12:21:49 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: 19-May-2023 11:37:16

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 TNX	1	6.426	6.426	0.000	47634	0.2508	0.2410	
4 HMX	1	6.546	6.546	0.000	26074	0.2500	0.2788	
6 DNX	1	6.753	6.753	0.000	35401	0.2503	0.2451	
7 MNX	1	7.180	7.180	0.000	35470	0.2918	0.2704	
8 RDX	1	7.560	7.560	0.000	27227	0.2500	0.2559	
9 2,4,6-Trinitrophenol	1	7.960	7.960	0.000	19933	0.2500	0.2629	
$ 10 1,2-Dinitrobenzene	1	8.513	8.513	0.000	33380	0.2500	0.2643	
11 1,3,5-Trinitrobenzene	1	8.640	8.640	0.000	54633	0.2500	0.2516	
12 1,3-Dinitrobenzene	1	9.253	9.253	0.000	74213	0.2500	0.2521	
13 Nitrobenzene	1	9.626	9.626	0.000	47460	0.2500	0.2482	
14 3,5-Dinitroaniline	1	9.859	9.859	0.000	56194	0.2500	0.2458	
15 Tetryl	1	9.986	9.986	0.000	36127	0.2500	0.2201	
16 Nitroglycerin	2	10.439	10.439	0.000	161583	2.50	2.52	
17 2,4,6-Trinitrotoluene	1	10.873	10.873	0.000	51366	0.2500	0.2434	
18 4-Amino-2,6-dinitrotoluene	1	11.066	11.066	0.000	38057	0.2500	0.2456	
19 2-Amino-4,6-dinitrotoluene	1	11.319	11.319	0.000	48676	0.2500	0.2417	
20 2,6-Dinitrotoluene	1	11.473	11.473	0.000	36675	0.2500	0.2569	
21 2,4-Dinitrotoluene	1	11.639	11.639	0.000	74510	0.2500	0.2512	
22 o-Nitrotoluene	1	12.459	12.459	0.000	31001	0.2500	0.2424	
23 p-Nitrotoluene	1	12.873	12.873	0.000	26212	0.2500	0.2343	
24 m-Nitrotoluene	1	13.446	13.446	0.000	33661	0.2500	0.2396	
25 PETN	2	14.599	14.599	0.000	176471	2.50	2.56	

QC Flag Legend
Processing Flags

Reagents:

8330 DMT_00013	Amount Added:	12.50	Units: uL
8330IntermStk_00075	Amount Added:	25.00	Units: uL

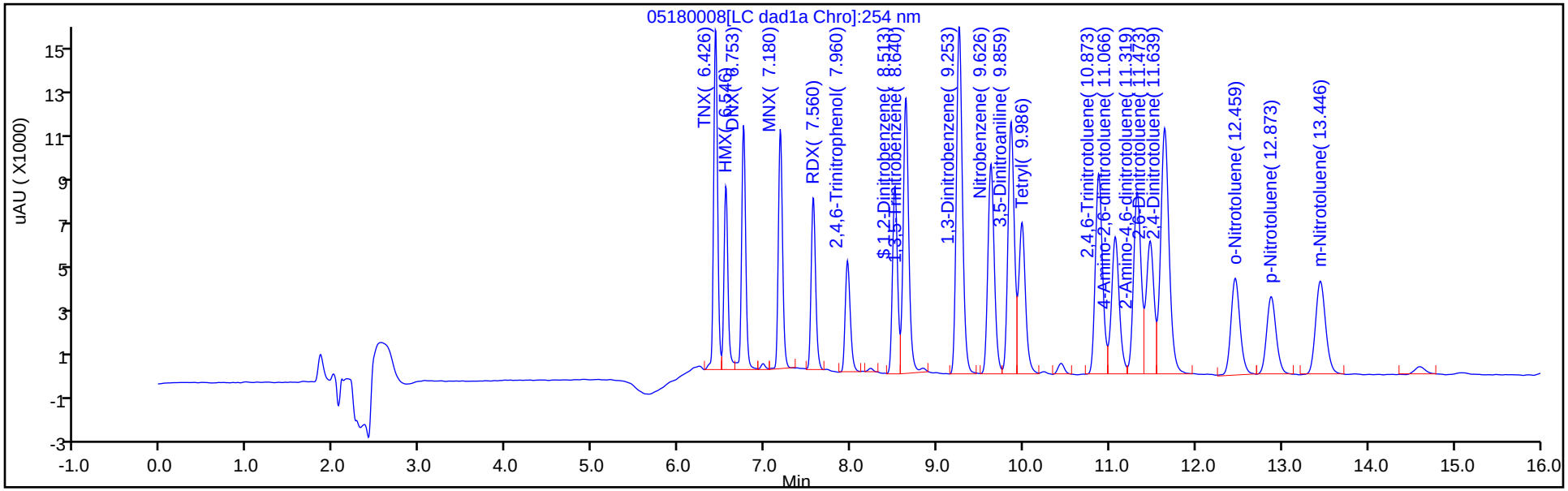
Report Date: 19-May-2023 12:21:49 Chrom Revision: 2.3 16-May-2023 16:37:30

Eurofins Denver

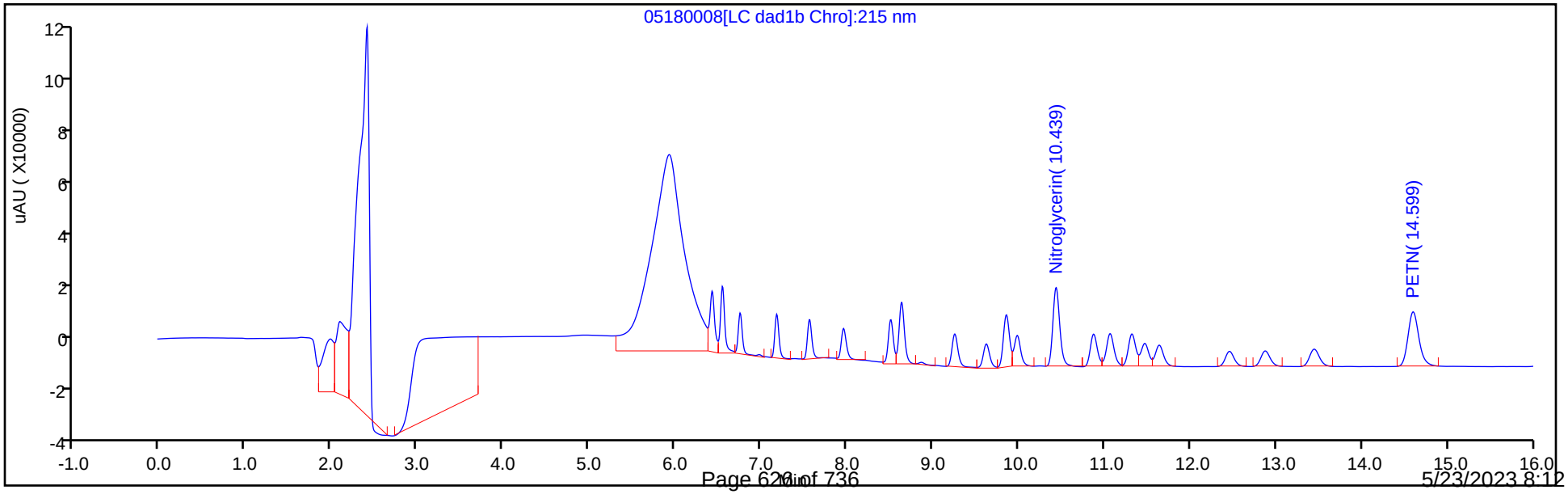
Data File: \\chromfs\denver\chromdata\chhplc_x\20230518-121611.b\05180008.d

Injection Date:	18-May-2023 21:23:23	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	CCV DMT			Worklist Smp#:	8
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-176609-1

SDG No.:

Lab Sample ID: CCV 280-613045/8 Calibration Date: 05/18/2023 21:23

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: 05180008.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
TNX	Ave	197687	189966		241	251	-3.9	20.0
DNX	Ave	144462	141463		245	250	-2.1	20.0
MNX	Ave	131172	121577		270	292	-7.3	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-176609-1

SDG No.:

Lab Sample ID: CCV 280-613045/8 Calibration Date: 05/18/2023 21:23

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: 05180008.D

Analyte	RT	RT WINDOW	
		FROM	TO
TNX	6.43	6.33	6.53
DNX	6.75	6.65	6.85
MNX	7.18	7.03	7.33

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20230518-121611.b\05180008.D
Lims ID: CCV DMT
Client ID:
Sample Type: CCV
Inject. Date: 18-May-2023 21:23:23 ALS Bottle#: 7 Worklist Smp#: 8
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\20230518-121611.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 19-May-2023 12:21:49 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: 19-May-2023 11:37:16

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 TNX	1	6.426	6.426	0.000	47634	0.2508	0.2410	
4 HMX	1	6.546	6.546	0.000	26074	0.2500	0.2788	
6 DNX	1	6.753	6.753	0.000	35401	0.2503	0.2451	
7 MNX	1	7.180	7.180	0.000	35470	0.2918	0.2704	
8 RDX	1	7.560	7.560	0.000	27227	0.2500	0.2559	
9 2,4,6-Trinitrophenol	1	7.960	7.960	0.000	19933	0.2500	0.2629	
$ 10 1,2-Dinitrobenzene	1	8.513	8.513	0.000	33380	0.2500	0.2643	
11 1,3,5-Trinitrobenzene	1	8.640	8.640	0.000	54633	0.2500	0.2516	
12 1,3-Dinitrobenzene	1	9.253	9.253	0.000	74213	0.2500	0.2521	
13 Nitrobenzene	1	9.626	9.626	0.000	47460	0.2500	0.2482	
14 3,5-Dinitroaniline	1	9.859	9.859	0.000	56194	0.2500	0.2458	
15 Tetryl	1	9.986	9.986	0.000	36127	0.2500	0.2201	
16 Nitroglycerin	2	10.439	10.439	0.000	161583	2.50	2.52	
17 2,4,6-Trinitrotoluene	1	10.873	10.873	0.000	51366	0.2500	0.2434	
18 4-Amino-2,6-dinitrotoluene	1	11.066	11.066	0.000	38057	0.2500	0.2456	
19 2-Amino-4,6-dinitrotoluene	1	11.319	11.319	0.000	48676	0.2500	0.2417	
20 2,6-Dinitrotoluene	1	11.473	11.473	0.000	36675	0.2500	0.2569	
21 2,4-Dinitrotoluene	1	11.639	11.639	0.000	74510	0.2500	0.2512	
22 o-Nitrotoluene	1	12.459	12.459	0.000	31001	0.2500	0.2424	
23 p-Nitrotoluene	1	12.873	12.873	0.000	26212	0.2500	0.2343	
24 m-Nitrotoluene	1	13.446	13.446	0.000	33661	0.2500	0.2396	
25 PETN	2	14.599	14.599	0.000	176471	2.50	2.56	

QC Flag Legend
Processing Flags

Reagents:

8330 DMT_00013	Amount Added:	12.50	Units: uL
8330IntermStk_00075	Amount Added:	25.00	Units: uL

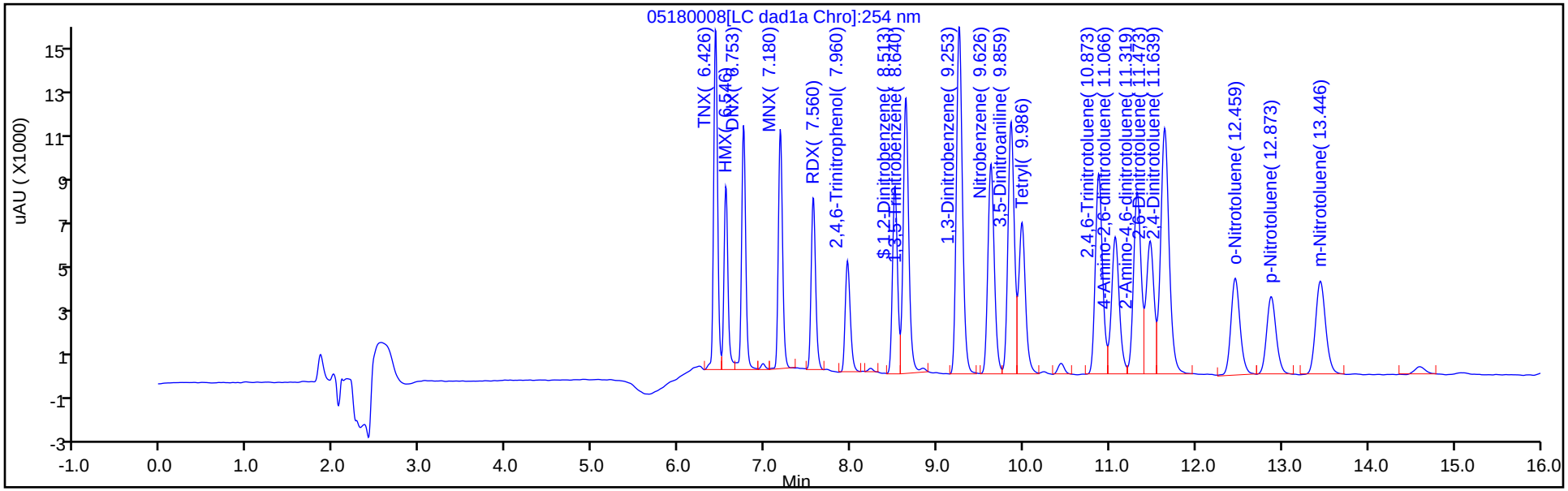
Report Date: 19-May-2023 12:21:49 Chrom Revision: 2.3 16-May-2023 16:37:30

Eurofins Denver

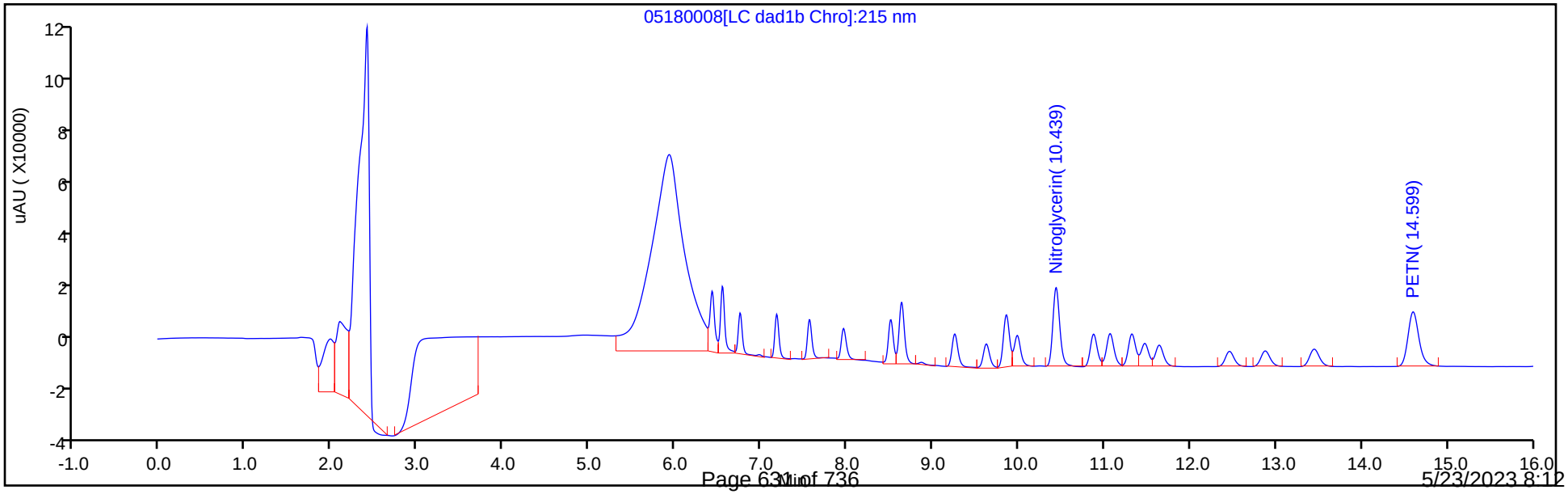
Data File: \\chromfs\denver\chromdata\chhplc_x\20230518-121611.b\05180008.d

Injection Date:	18-May-2023 21:23:23	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	CCV DMT			Worklist Smp#:	8
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver | Job No.: 280-176609-1

SDG No.:

Lab Sample ID: CCV 280-613045/21 | Calibration Date: 05/19/2023 01:58

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: 05180021.D | Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
HMX	Ave	93528	92860		248	250	-0.7	20.0
RDX	Ave	106380	109604		258	250	3.0	20.0
Picric acid	Ave	75830	80856		267	250	6.6	20.0
1,3,5-Trinitrobenzene	Ave	217147	220432		254	250	1.5	20.0
1,3-Dinitrobenzene	Ave	294397	299652		254	250	1.8	20.0
Nitrobenzene	Ave	191245	188016		246	250	-1.7	20.0
3,5-Dinitroaniline	Lin2		225852		247	250	-1.2	20.0
Tetryl	Ave	164121	145120		221	250	-11.6	20.0
Nitroglycerin	Ave	64070	65152		2540	2500	1.7	20.0
2,4,6-Trinitrotoluene	Ave	211040	206512		245	250	-2.1	20.0
4-Amino-2,6-dinitrotoluene	Ave	154933	153404		248	250	-1.0	20.0
2-Amino-4,6-dinitrotoluene	Ave	201410	194876		242	250	-3.2	20.0
2,6-Dinitrotoluene	Ave	142745	147520		258	250	3.3	20.0
2,4-Dinitrotoluene	Ave	296667	299320		252	250	0.9	20.0
2-Nitrotoluene	Ave	127896	122224		239	250	-4.4	20.0
4-Nitrotoluene	Ave	111880	104200		233	250	-6.9	20.0
3-Nitrotoluene	Ave	140492	132824		236	250	-5.5	20.0
PETN	Ave	68845	70660		2570	2500	2.6	20.0
1,2-Dinitrobenzene	Ave	126309	132704		263	250	5.1	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-176609-1

SDG No.:

Lab Sample ID: CCV 280-613045/21 Calibration Date: 05/19/2023 01:58

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: 05180021.D

Analyte	RT	RT WINDOW	
		FROM	TO
HMX	6.55	6.40	6.70
RDX	7.57	7.41	7.71
Picric acid	7.97	7.81	8.11
1,3,5-Trinitrobenzene	8.64	8.49	8.79
1,3-Dinitrobenzene	9.26	9.10	9.40
Nitrobenzene	9.63	9.48	9.78
3,5-Dinitroaniline	9.87	9.71	10.01
Tetryl	10.00	9.84	10.14
Nitroglycerin	10.45	10.29	10.59
2,4,6-Trinitrotoluene	10.88	10.77	10.97
4-Amino-2,6-dinitrotoluene	11.08	10.97	11.17
2-Amino-4,6-dinitrotoluene	11.33	11.22	11.42
2,6-Dinitrotoluene	11.48	11.37	11.57
2,4-Dinitrotoluene	11.65	11.54	11.74
2-Nitrotoluene	12.47	12.31	12.61
4-Nitrotoluene	12.89	12.72	13.02
3-Nitrotoluene	13.46	13.30	13.60
PETN	14.62	14.45	14.75
1,2-Dinitrobenzene	8.52	8.36	8.66

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20230518-121611.b\05180021.D
Lims ID: CCV DMT
Client ID:
Sample Type: CCV
Inject. Date: 19-May-2023 01:58:46 ALS Bottle#: 7 Worklist Smp#: 21
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\20230518-121611.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 19-May-2023 12:21:57 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: 19-May-2023 11:36:59

	Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
	3 TNX	1	6.429	6.426	0.003	44280	0.2508	0.2240	M
	4 HMX	1	6.549	6.546	0.003	23215	0.2500	0.2482	M
	6 DNX	1	6.756	6.753	0.003	32391	0.2503	0.2242	M
	7 MNX	1	7.183	7.180	0.003	35336	0.2918	0.2694	
	8 RDX	1	7.569	7.560	0.009	27401	0.2500	0.2576	
	9 2,4,6-Trinitrophenol	1	7.969	7.960	0.009	20214	0.2500	0.2666	
$	10 1,2-Dinitrobenzene	1	8.516	8.513	0.003	33176	0.2500	0.2627	
	11 1,3,5-Trinitrobenzene	1	8.643	8.640	0.003	55108	0.2500	0.2538	
	12 1,3-Dinitrobenzene	1	9.262	9.253	0.009	74913	0.2500	0.2545	
	13 Nitrobenzene	1	9.629	9.626	0.003	47004	0.2500	0.2458	
	14 3,5-Dinitroaniline	1	9.869	9.859	0.010	56463	0.2500	0.2470	
	15 Tetryl	1	9.996	9.986	0.010	36280	0.2500	0.2211	
	16 Nitroglycerin	2	10.449	10.439	0.010	162879	2.50	2.54	
	17 2,4,6-Trinitrotoluene	1	10.882	10.873	0.009	51628	0.2500	0.2446	
	18 4-Amino-2,6-dinitrotoluene	1	11.076	11.066	0.010	38351	0.2500	0.2475	
	19 2-Amino-4,6-dinitrotoluene	1	11.329	11.319	0.010	48719	0.2500	0.2419	
	20 2,6-Dinitrotoluene	1	11.482	11.473	0.009	36880	0.2500	0.2584	
	21 2,4-Dinitrotoluene	1	11.649	11.639	0.010	74830	0.2500	0.2522	
	22 o-Nitrotoluene	1	12.469	12.459	0.010	30556	0.2500	0.2389	
	23 p-Nitrotoluene	1	12.889	12.873	0.016	26050	0.2500	0.2328	
	24 m-Nitrotoluene	1	13.456	13.446	0.010	33206	0.2500	0.2364	
	25 PETN	2	14.616	14.599	0.017	176650	2.50	2.57	

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

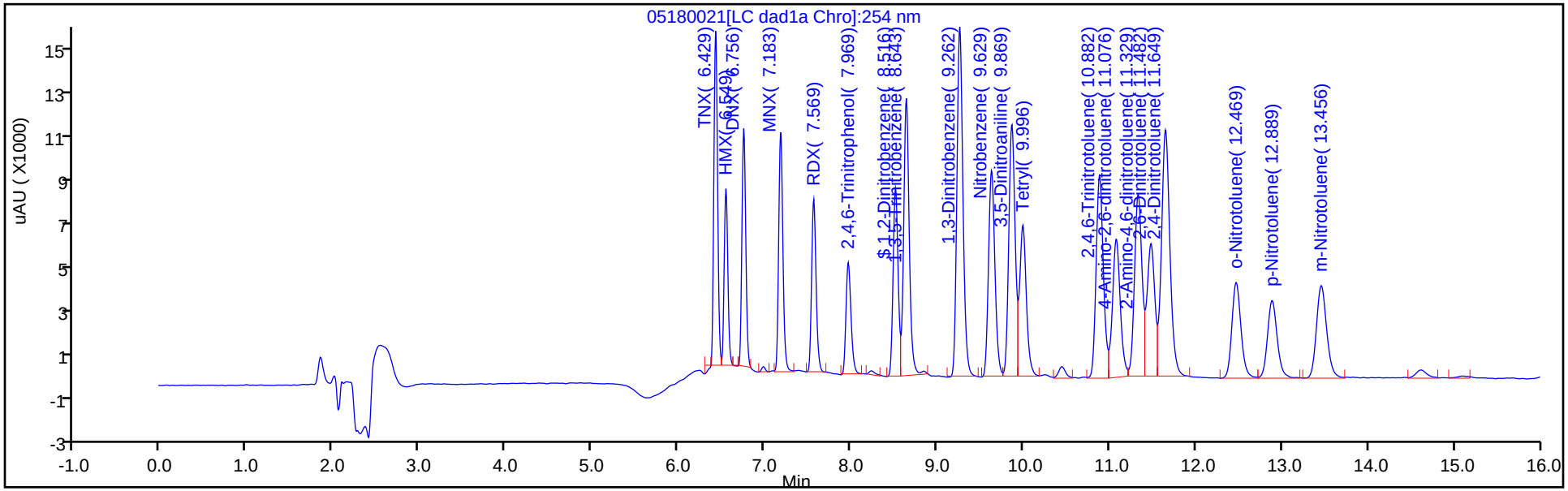
Report Date: 19-May-2023 12:21:57 Chrom Revision: 2.3 16-May-2023 16:37:30

Eurofins Denver

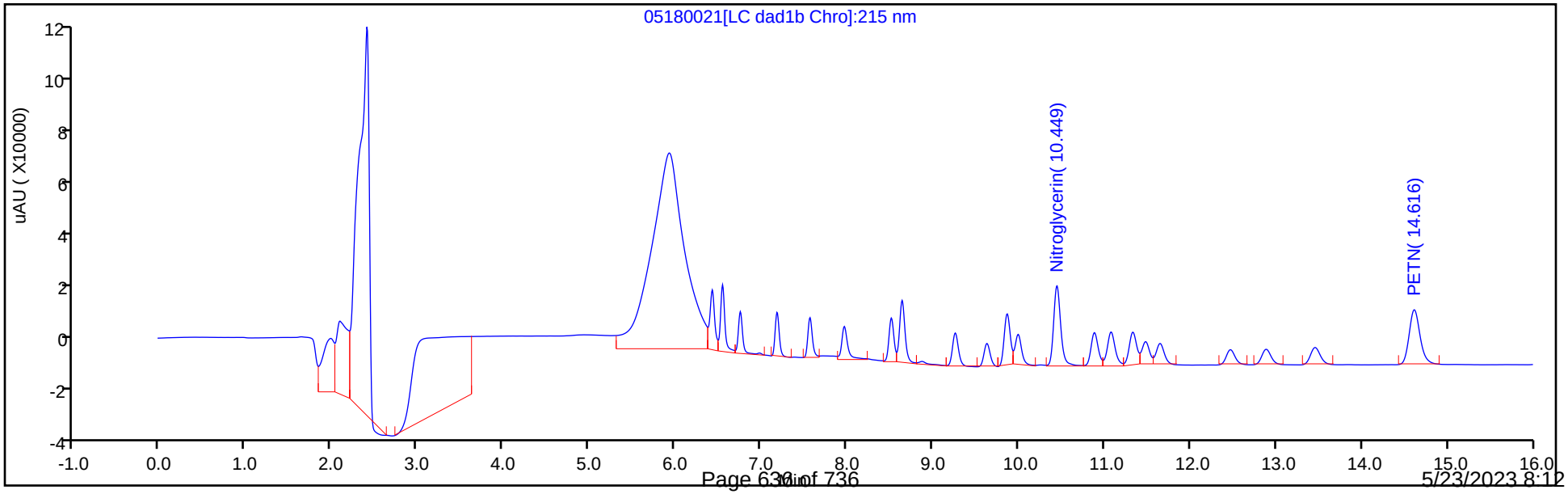
Data File: \\chromfs\denver\chromdata\chhplc_x\20230518-121611.b\05180021.d

Injection Date:	19-May-2023 01:58:46	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	CCV DMT			Worklist Smp#:	21
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



5/23/2023 8:12 PM

Manual Integration/User Assign Peak Report

Eurofins Denver

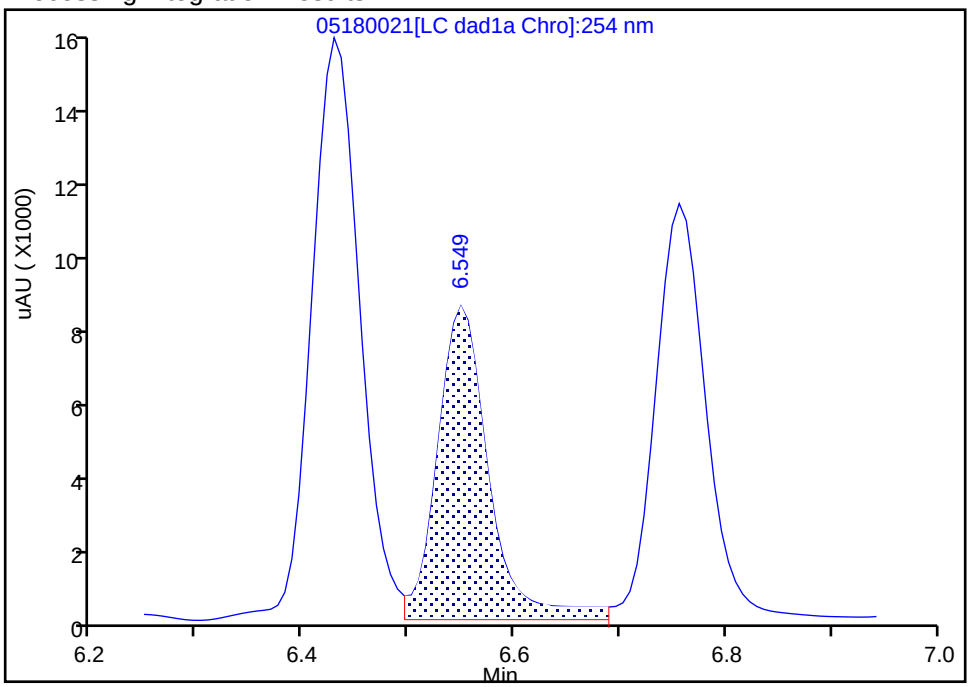
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230518-121611.b\05180021.d				
Injection Date:	19-May-2023 01:58:46	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV DMT				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	7	Worklist Smp#:	21
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

4 HMX, CAS: 2691-41-0

Signal: 1

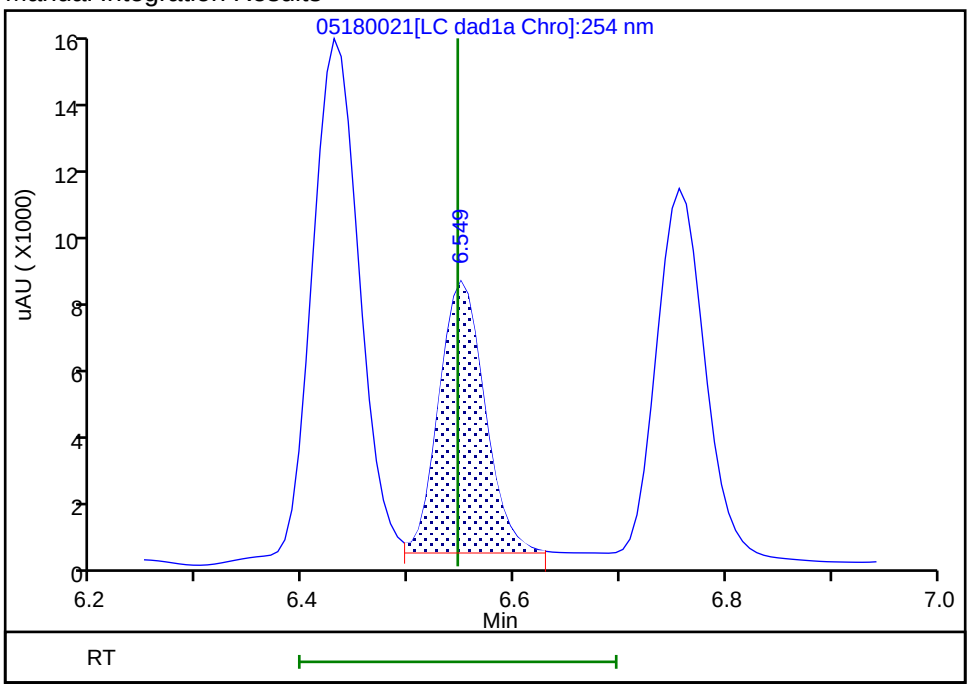
Processing Integration Results

RT: 6.55
Area: 27136
Amount: 0.290137
Amount Units: ug/mL



Manual Integration Results

RT: 6.55
Area: 23215
Amount: 0.248214
Amount Units: ug/mL



Reviewer: LV5D, 19-May-2023 11:36:53 -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.: 280-176609-1

SDG No.:

Lab Sample ID: CCV 280-613045/21 | Calibration Date: 05/19/2023 01:58

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: 05180021.D | Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
TNX	Ave	197687	176590		224	251	-10.7	20.0
DNX	Ave	144462	129435		224	250	-10.4	20.0
MNX	Ave	131172	121117		269	292	-7.7	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-176609-1

SDG No.:

Lab Sample ID: CCV 280-613045/21 Calibration Date: 05/19/2023 01:58

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: 05180021.D

Analyte	RT	RT WINDOW	
		FROM	TO
TNX	6.43	6.33	6.53
DNX	6.76	6.65	6.85
MNX	7.18	7.03	7.33

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20230518-121611.b\05180021.D
Lims ID: CCV DMT
Client ID:
Sample Type: CCV
Inject. Date: 19-May-2023 01:58:46 ALS Bottle#: 7 Worklist Smp#: 21
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\20230518-121611.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 19-May-2023 12:21:57 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: 19-May-2023 11:36:59

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 TNX	1	6.429	6.426	0.003	44280	0.2508	0.2240	M
4 HMX	1	6.549	6.546	0.003	23215	0.2500	0.2482	M
6 DNX	1	6.756	6.753	0.003	32391	0.2503	0.2242	M
7 MNX	1	7.183	7.180	0.003	35336	0.2918	0.2694	
8 RDX	1	7.569	7.560	0.009	27401	0.2500	0.2576	
9 2,4,6-Trinitrophenol	1	7.969	7.960	0.009	20214	0.2500	0.2666	
$ 10 1,2-Dinitrobenzene	1	8.516	8.513	0.003	33176	0.2500	0.2627	
11 1,3,5-Trinitrobenzene	1	8.643	8.640	0.003	55108	0.2500	0.2538	
12 1,3-Dinitrobenzene	1	9.262	9.253	0.009	74913	0.2500	0.2545	
13 Nitrobenzene	1	9.629	9.626	0.003	47004	0.2500	0.2458	
14 3,5-Dinitroaniline	1	9.869	9.859	0.010	56463	0.2500	0.2470	
15 Tetryl	1	9.996	9.986	0.010	36280	0.2500	0.2211	
16 Nitroglycerin	2	10.449	10.439	0.010	162879	2.50	2.54	
17 2,4,6-Trinitrotoluene	1	10.882	10.873	0.009	51628	0.2500	0.2446	
18 4-Amino-2,6-dinitrotoluene	1	11.076	11.066	0.010	38351	0.2500	0.2475	
19 2-Amino-4,6-dinitrotoluene	1	11.329	11.319	0.010	48719	0.2500	0.2419	
20 2,6-Dinitrotoluene	1	11.482	11.473	0.009	36880	0.2500	0.2584	
21 2,4-Dinitrotoluene	1	11.649	11.639	0.010	74830	0.2500	0.2522	
22 o-Nitrotoluene	1	12.469	12.459	0.010	30556	0.2500	0.2389	
23 p-Nitrotoluene	1	12.889	12.873	0.016	26050	0.2500	0.2328	
24 m-Nitrotoluene	1	13.456	13.446	0.010	33206	0.2500	0.2364	
25 PETN	2	14.616	14.599	0.017	176650	2.50	2.57	

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

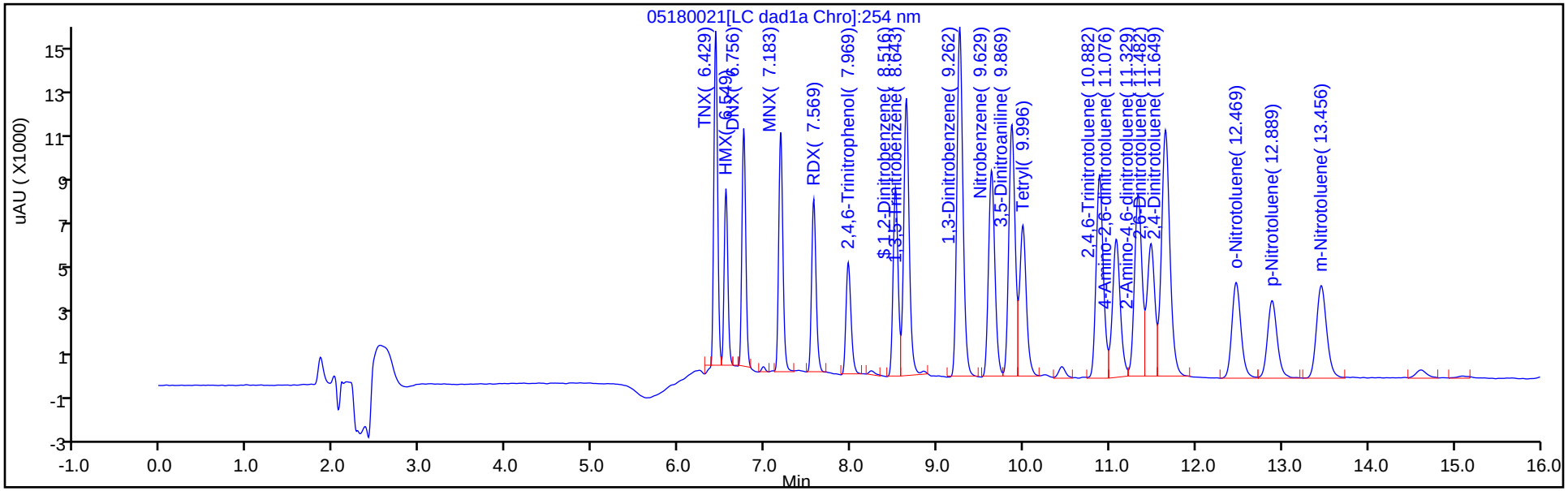
Report Date: 19-May-2023 12:21:57 Chrom Revision: 2.3 16-May-2023 16:37:30

Eurofins Denver

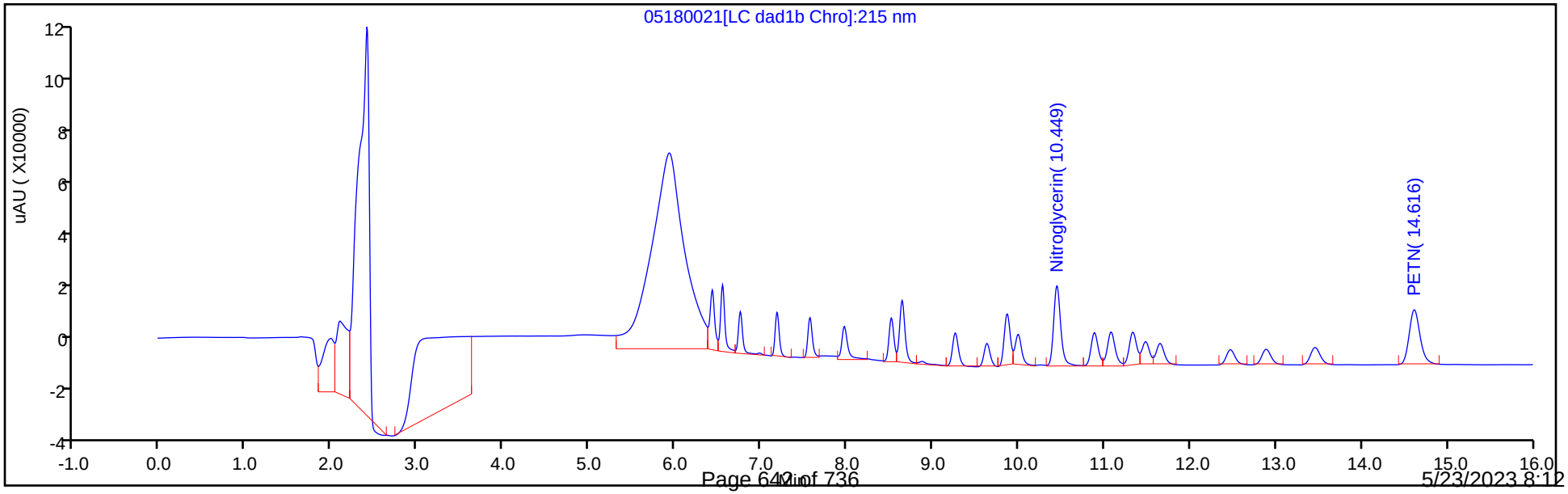
Data File: \\chromfs\denver\chromdata\chhplc_x\20230518-121611.b\05180021.d

Injection Date:	19-May-2023 01:58:46	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	CCV DMT			Worklist Smp#:	21
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

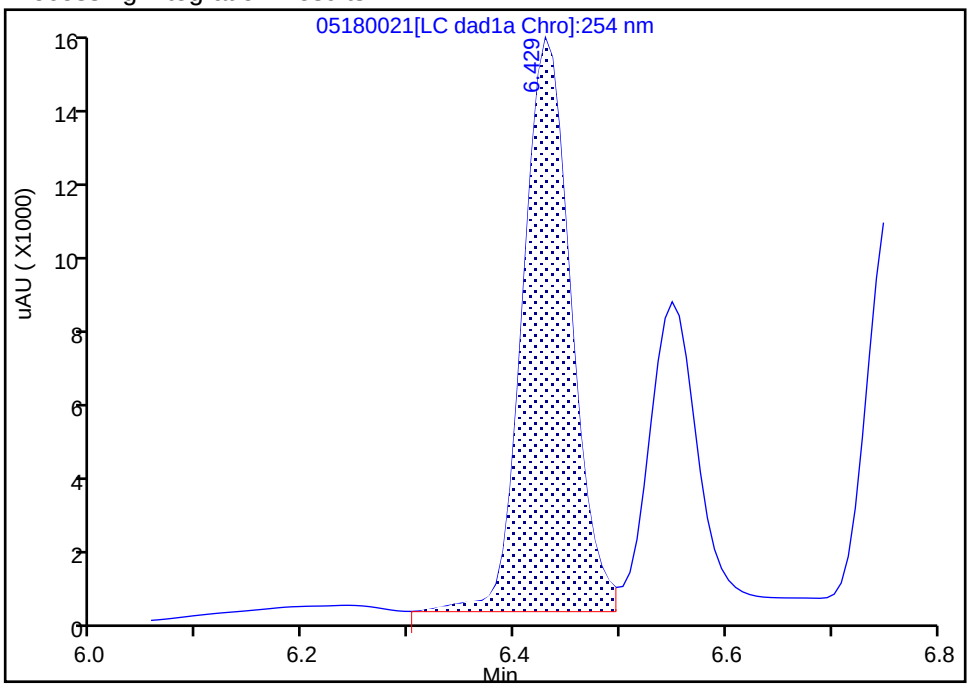
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230518-121611.b\05180021.d				
Injection Date:	19-May-2023 01:58:46	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV DMT				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	7	Worklist Smp#:	21
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

3 TNX, CAS: 13980-04-6

Signal: 1

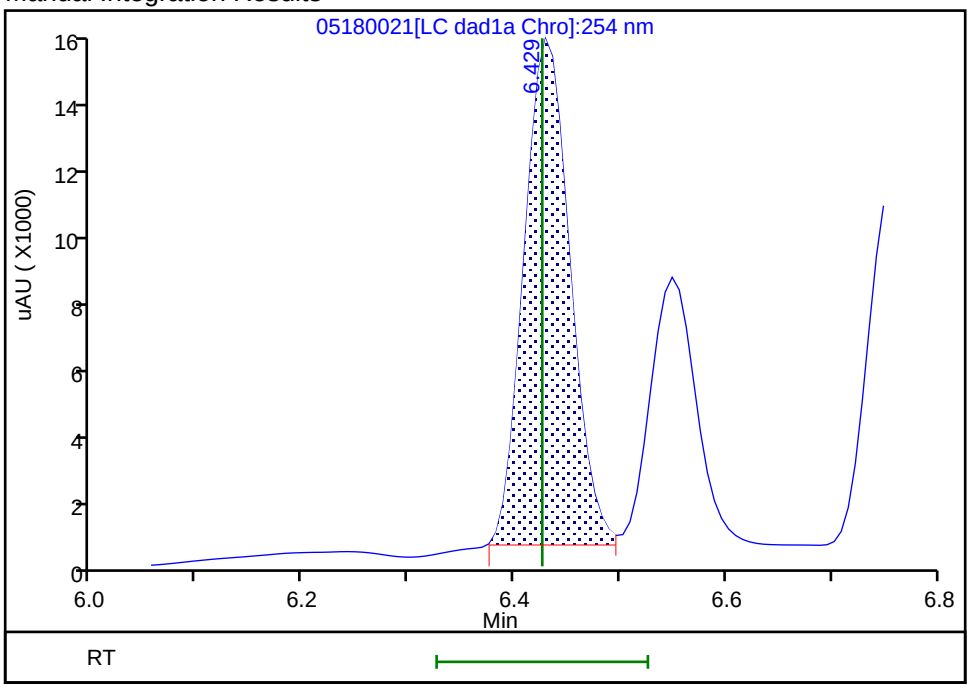
Processing Integration Results

RT: 6.43
Area: 47526
Amount: 0.240410
Amount Units: ug/mL



Manual Integration Results

RT: 6.43
Area: 44280
Amount: 0.223990
Amount Units: ug/mL



Reviewer: LV5D, 19-May-2023 11:36:51 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline

Eurofins Denver

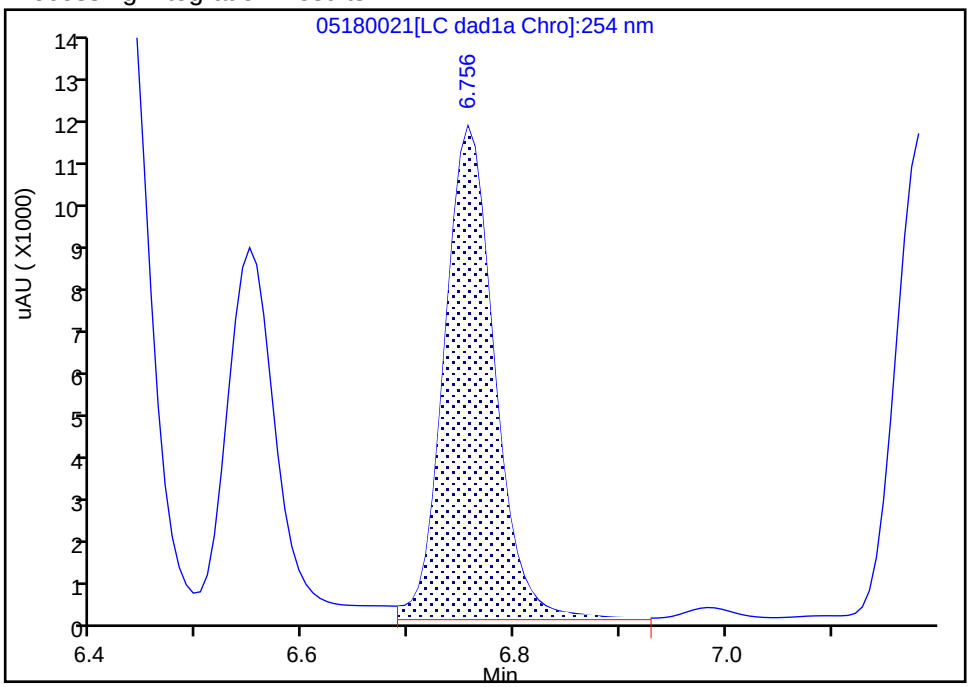
Data File: \\chromfs\denver\chromdata\chhplc_x\20230518-121611.b\05180021.d
Injection Date: 19-May-2023 01:58:46 Instrument ID: CHHPLC_X3
Lims ID: CCV DMT
Client ID:
Operator ID: JZ/JG ALS Bottle#: 7 Worklist Smp#: 21
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

6 DNX, CAS: 80251-29-2

Signal: 1

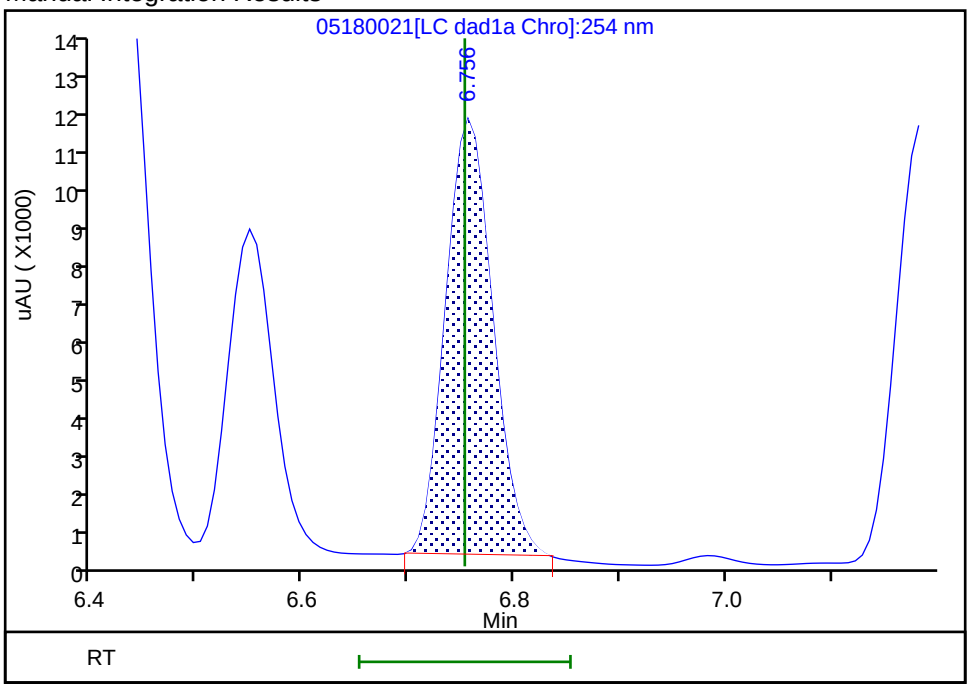
Processing Integration Results

RT: 6.76
Area: 35313
Amount: 0.244444
Amount Units: ug/mL



Manual Integration Results

RT: 6.76
Area: 32391
Amount: 0.224217
Amount Units: ug/mL



Reviewer: LV5D, 19-May-2023 11:36:56 -06:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Baseline

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-176609-1

SDG No.:

Lab Sample ID: CCV 280-613045/33 Calibration Date: 05/19/2023 06:34

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: 05180033.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
HMX	Ave	93528	93068		249	250	-0.5	20.0
RDX	Ave	106380	110104		259	250	3.5	20.0
Picric acid	Ave	75830	79812		263	250	5.3	20.0
1,3,5-Trinitrobenzene	Ave	217147	219072		252	250	0.9	20.0
1,3-Dinitrobenzene	Ave	294397	298916		254	250	1.5	20.0
Nitrobenzene	Ave	191245	184160		241	250	-3.7	20.0
3,5-Dinitroaniline	Lin2		226064		247	250	-1.1	20.0
Tetryl	Ave	164121	140144		213	250	-14.6	20.0
Nitroglycerin	Ave	64070	65049		2540	2500	1.5	20.0
2,4,6-Trinitrotoluene	Ave	211040	207484		246	250	-1.7	20.0
4-Amino-2,6-dinitrotoluene	Ave	154933	153456		248	250	-1.0	20.0
2-Amino-4,6-dinitrotoluene	Ave	201410	198656		247	250	-1.4	20.0
2,6-Dinitrotoluene	Ave	142745	143420		251	250	0.5	20.0
2,4-Dinitrotoluene	Ave	296667	301392		254	250	1.6	20.0
2-Nitrotoluene	Ave	127896	119520		234	250	-6.5	20.0
4-Nitrotoluene	Ave	111880	102288		229	250	-8.6	20.0
3-Nitrotoluene	Ave	140492	131248		234	250	-6.6	20.0
PETN	Ave	68845	70852		2570	2500	2.9	20.0
1,2-Dinitrobenzene	Ave	126309	133804		265	250	5.9	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-176609-1

SDG No.:

Lab Sample ID: CCV 280-613045/33 Calibration Date: 05/19/2023 06:34

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: 05180033.D

Analyte	RT	RT WINDOW	
		FROM	TO
HMX	6.55	6.40	6.70
RDX	7.58	7.41	7.71
Picric acid	7.98	7.81	8.11
1,3,5-Trinitrobenzene	8.65	8.49	8.79
1,3-Dinitrobenzene	9.28	9.10	9.40
Nitrobenzene	9.65	9.48	9.78
3,5-Dinitroaniline	9.89	9.71	10.01
Tetryl	10.03	9.84	10.14
Nitroglycerin	10.48	10.29	10.59
2,4,6-Trinitrotoluene	10.92	10.77	10.97
4-Amino-2,6-dinitrotoluene	11.12	10.97	11.17
2-Amino-4,6-dinitrotoluene	11.37	11.22	11.42
2,6-Dinitrotoluene	11.52	11.37	11.57
2,4-Dinitrotoluene	11.69	11.54	11.74
2-Nitrotoluene	12.51	12.31	12.61
4-Nitrotoluene	12.93	12.72	13.02
3-Nitrotoluene	13.51	13.30	13.60
PETN	14.69	14.45	14.75
1,2-Dinitrobenzene	8.53	8.36	8.66

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20230518-121611.b\05180033.D
Lims ID: CCV DMT
Client ID:
Sample Type: CCV
Inject. Date: 19-May-2023 06:34:09 ALS Bottle#: 7 Worklist Smp#: 33
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\20230518-121611.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 19-May-2023 12:22:05 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: 19-May-2023 12:10:23

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 TNX	1	6.433	6.426	0.007	44476	0.2508	0.2250	M
4 HMX	1	6.553	6.546	0.007	23267	0.2500	0.2488	M
6 DNX	1	6.760	6.753	0.007	32684	0.2503	0.2262	M
7 MNX	1	7.193	7.180	0.013	35734	0.2918	0.2724	
8 RDX	1	7.580	7.560	0.020	27526	0.2500	0.2588	
9 2,4,6-Trinitrophenol	1	7.980	7.960	0.020	19953	0.2500	0.2631	
$ 10 1,2-Dinitrobenzene	1	8.533	8.513	0.020	33451	0.2500	0.2648	
11 1,3,5-Trinitrobenzene	1	8.653	8.640	0.013	54768	0.2500	0.2522	
12 1,3-Dinitrobenzene	1	9.280	9.253	0.027	74729	0.2500	0.2538	
13 Nitrobenzene	1	9.653	9.626	0.027	46040	0.2500	0.2407	
14 3,5-Dinitroaniline	1	9.893	9.859	0.034	56516	0.2500	0.2473	
15 Tetryl	1	10.026	9.986	0.040	35036	0.2500	0.2135	
16 Nitroglycerin	2	10.480	10.439	0.041	162622	2.50	2.54	
17 2,4,6-Trinitrotoluene	1	10.920	10.873	0.047	51871	0.2500	0.2458	
18 4-Amino-2,6-dinitrotoluene	1	11.120	11.066	0.054	38364	0.2500	0.2476	
19 2-Amino-4,6-dinitrotoluene	1	11.373	11.319	0.054	49664	0.2500	0.2466	
20 2,6-Dinitrotoluene	1	11.520	11.473	0.047	35855	0.2500	0.2512	
21 2,4-Dinitrotoluene	1	11.686	11.639	0.047	75348	0.2500	0.2540	
22 o-Nitrotoluene	1	12.513	12.459	0.054	29880	0.2500	0.2336	
23 p-Nitrotoluene	1	12.933	12.873	0.060	25572	0.2500	0.2286	
24 m-Nitrotoluene	1	13.513	13.446	0.067	32812	0.2500	0.2336	
25 PETN	2	14.686	14.599	0.087	177130	2.50	2.57	

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

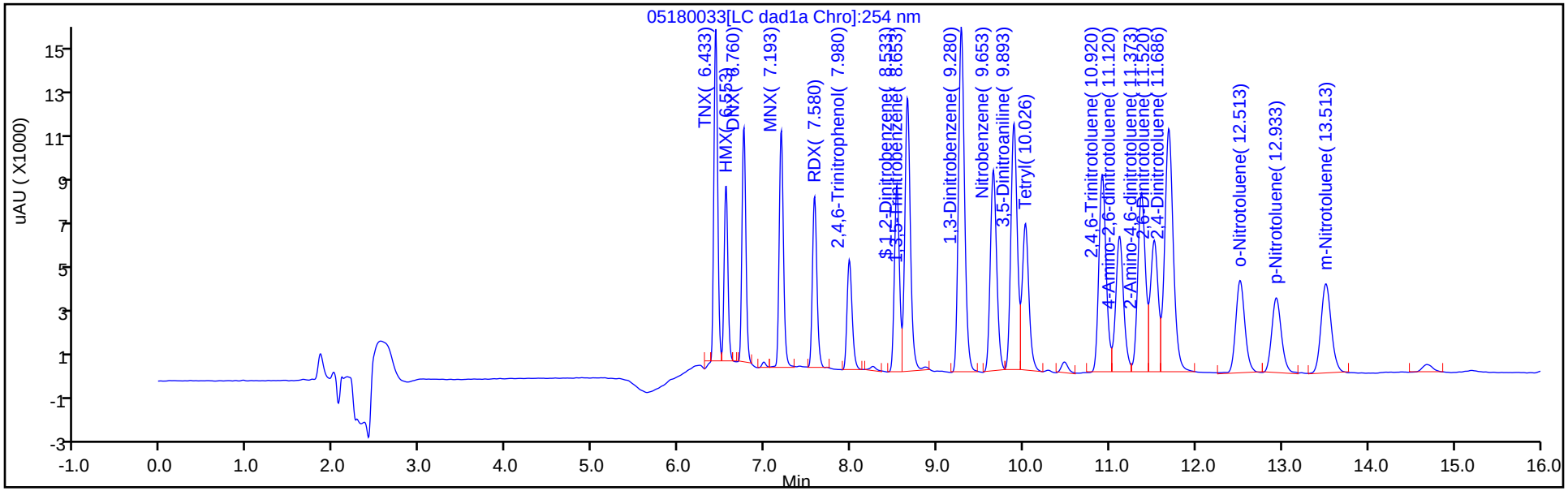
Report Date: 19-May-2023 12:22:05 Chrom Revision: 2.3 16-May-2023 16:37:30

Eurofins Denver

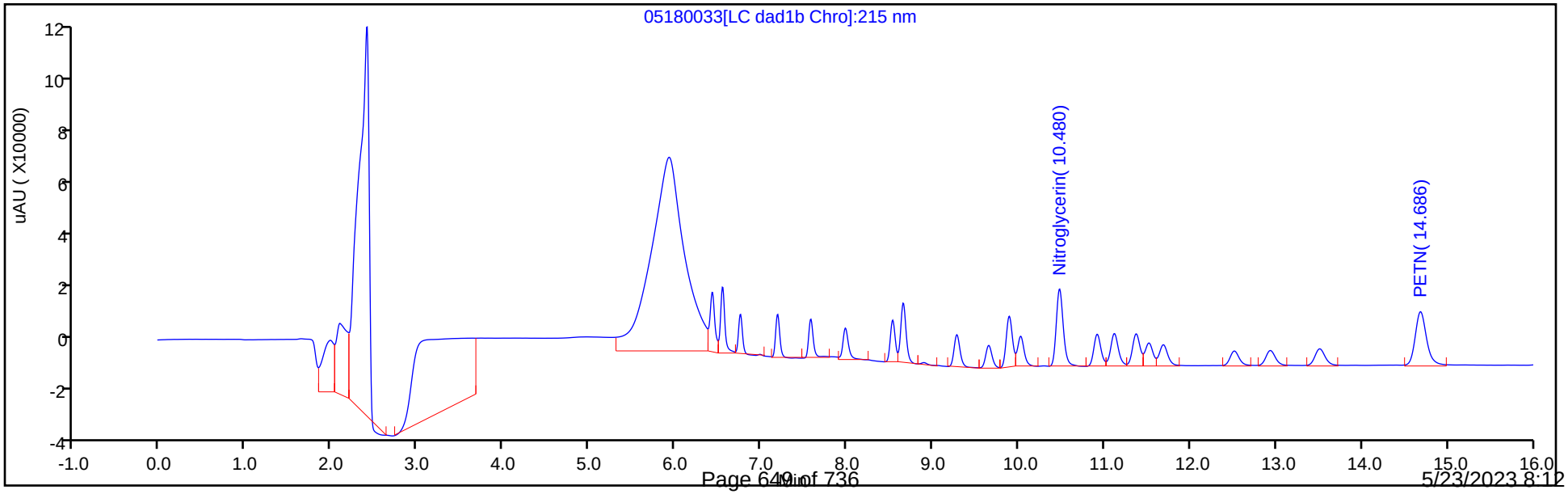
Data File: \\chromfs\denver\chromdata\chhplc_x\20230518-121611.b\05180033.d

Injection Date:	19-May-2023 06:34:09	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	CCV DMT			Worklist Smp#:	33
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

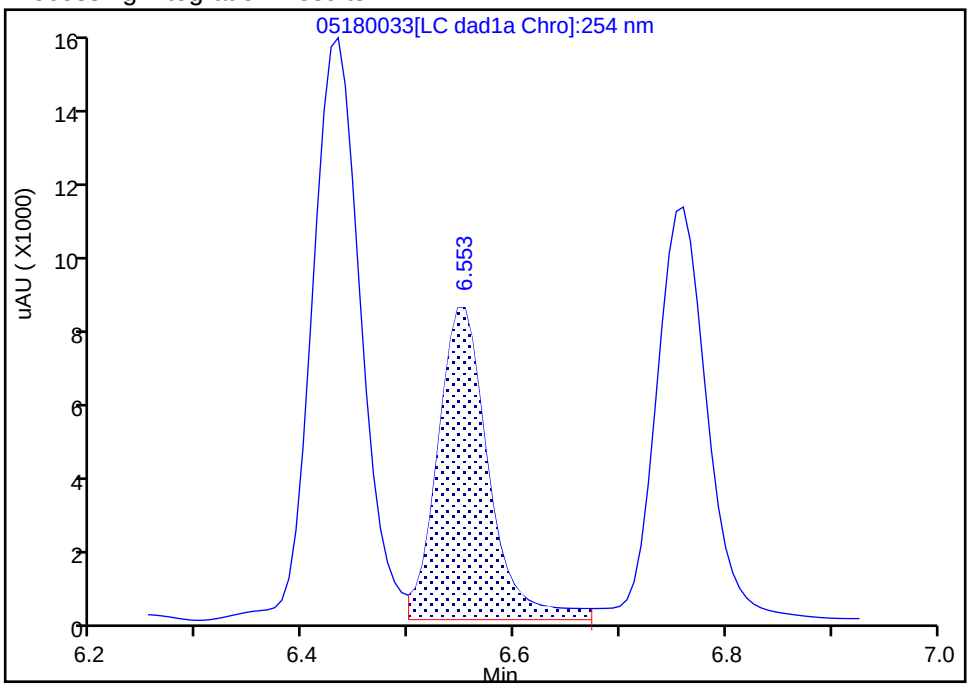
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230518-121611.b\05180033.d				
Injection Date:	19-May-2023 06:34:09	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV DMT				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	7	Worklist Smp#:	33
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

4 HMX, CAS: 2691-41-0

Signal: 1

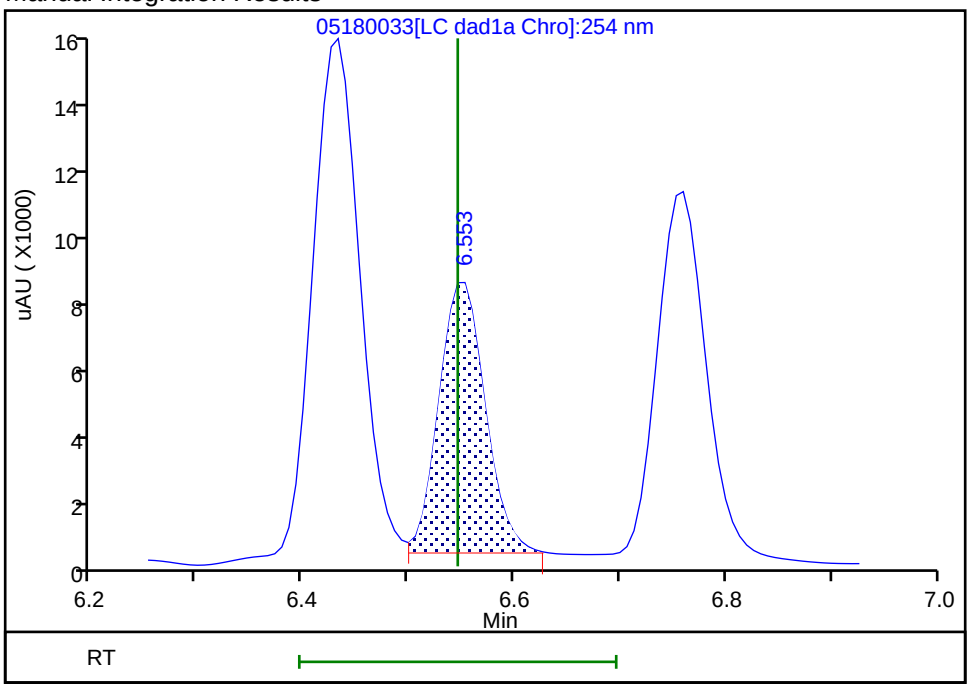
Processing Integration Results

RT: 6.55
Area: 26723
Amount: 0.285721
Amount Units: ug/mL



Manual Integration Results

RT: 6.55
Area: 23267
Amount: 0.248770
Amount Units: ug/mL



Reviewer: LV5D, 19-May-2023 12:10:14 -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.: 280-176609-1

SDG No.:

Lab Sample ID: CCV 280-613045/33 Calibration Date: 05/19/2023 06:34

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: 05180033.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
TNX	Ave	197687	177372		225	251	-10.3	20.0
DNX	Ave	144462	130605		226	250	-9.6	20.0
MNX	Ave	131172	122482		272	292	-6.6	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-176609-1

SDG No.:

Lab Sample ID: CCV 280-613045/33 Calibration Date: 05/19/2023 06:34

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: 05180033.D

Analyte	RT	RT WINDOW	
		FROM	TO
TNX	6.43	6.33	6.53
DNX	6.76	6.65	6.85
MNX	7.19	7.03	7.33

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20230518-121611.b\05180033.D
Lims ID: CCV DMT
Client ID:
Sample Type: CCV
Inject. Date: 19-May-2023 06:34:09 ALS Bottle#: 7 Worklist Smp#: 33
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\20230518-121611.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 19-May-2023 12:22:05 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: 19-May-2023 12:10:23

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 TNX	1	6.433	6.426	0.007	44476	0.2508	0.2250	M
4 HMX	1	6.553	6.546	0.007	23267	0.2500	0.2488	M
6 DNX	1	6.760	6.753	0.007	32684	0.2503	0.2262	M
7 MNX	1	7.193	7.180	0.013	35734	0.2918	0.2724	
8 RDX	1	7.580	7.560	0.020	27526	0.2500	0.2588	
9 2,4,6-Trinitrophenol	1	7.980	7.960	0.020	19953	0.2500	0.2631	
$ 10 1,2-Dinitrobenzene	1	8.533	8.513	0.020	33451	0.2500	0.2648	
11 1,3,5-Trinitrobenzene	1	8.653	8.640	0.013	54768	0.2500	0.2522	
12 1,3-Dinitrobenzene	1	9.280	9.253	0.027	74729	0.2500	0.2538	
13 Nitrobenzene	1	9.653	9.626	0.027	46040	0.2500	0.2407	
14 3,5-Dinitroaniline	1	9.893	9.859	0.034	56516	0.2500	0.2473	
15 Tetryl	1	10.026	9.986	0.040	35036	0.2500	0.2135	
16 Nitroglycerin	2	10.480	10.439	0.041	162622	2.50	2.54	
17 2,4,6-Trinitrotoluene	1	10.920	10.873	0.047	51871	0.2500	0.2458	
18 4-Amino-2,6-dinitrotoluene	1	11.120	11.066	0.054	38364	0.2500	0.2476	
19 2-Amino-4,6-dinitrotoluene	1	11.373	11.319	0.054	49664	0.2500	0.2466	
20 2,6-Dinitrotoluene	1	11.520	11.473	0.047	35855	0.2500	0.2512	
21 2,4-Dinitrotoluene	1	11.686	11.639	0.047	75348	0.2500	0.2540	
22 o-Nitrotoluene	1	12.513	12.459	0.054	29880	0.2500	0.2336	
23 p-Nitrotoluene	1	12.933	12.873	0.060	25572	0.2500	0.2286	
24 m-Nitrotoluene	1	13.513	13.446	0.067	32812	0.2500	0.2336	
25 PETN	2	14.686	14.599	0.087	177130	2.50	2.57	

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

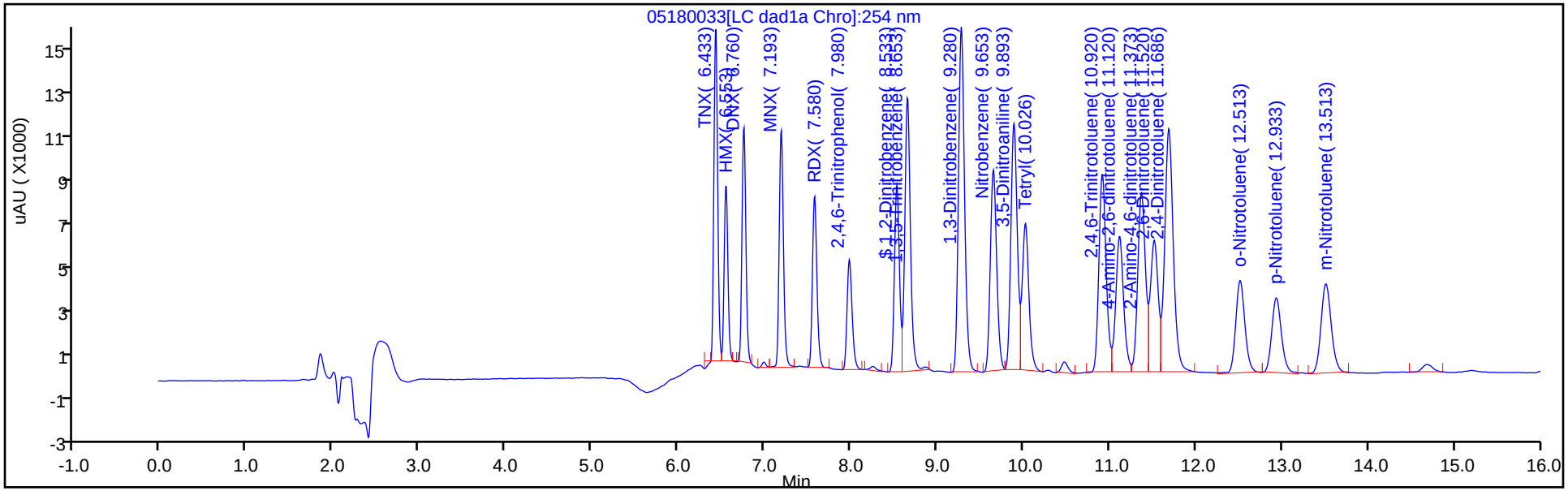
Report Date: 19-May-2023 12:22:05 Chrom Revision: 2.3 16-May-2023 16:37:30

Eurofins Denver

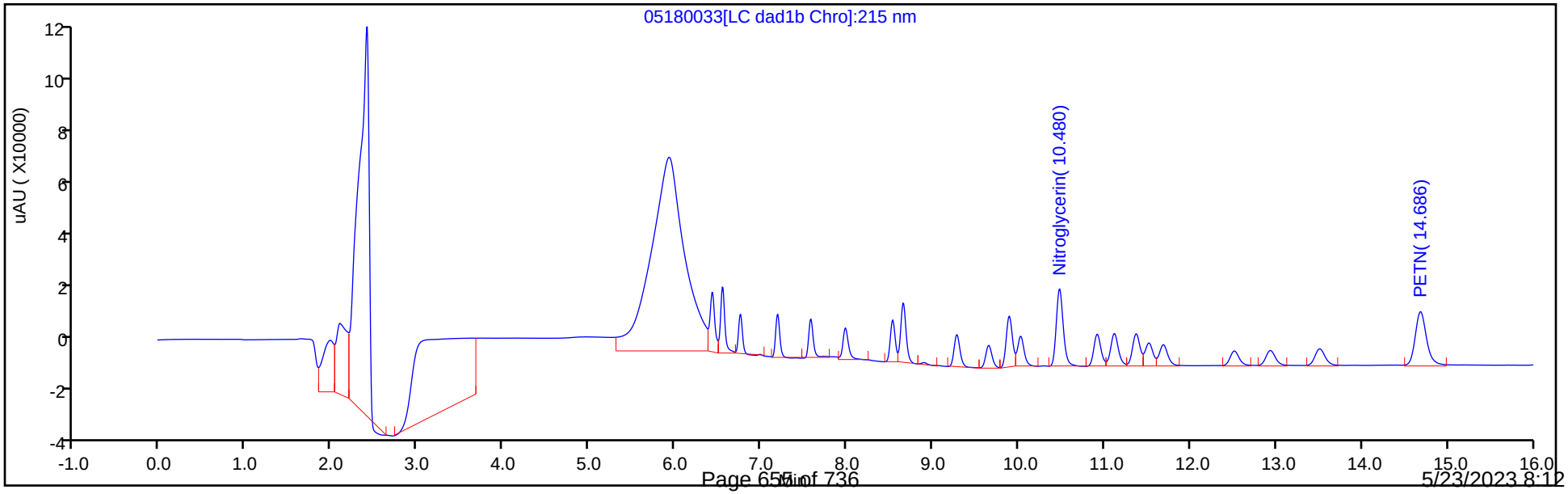
Data File: \\chromfs\denver\chromdata\chhplc_x\20230518-121611.b\05180033.d

Injection Date:	19-May-2023 06:34:09	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	CCV DMT			Worklist Smp#:	33
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

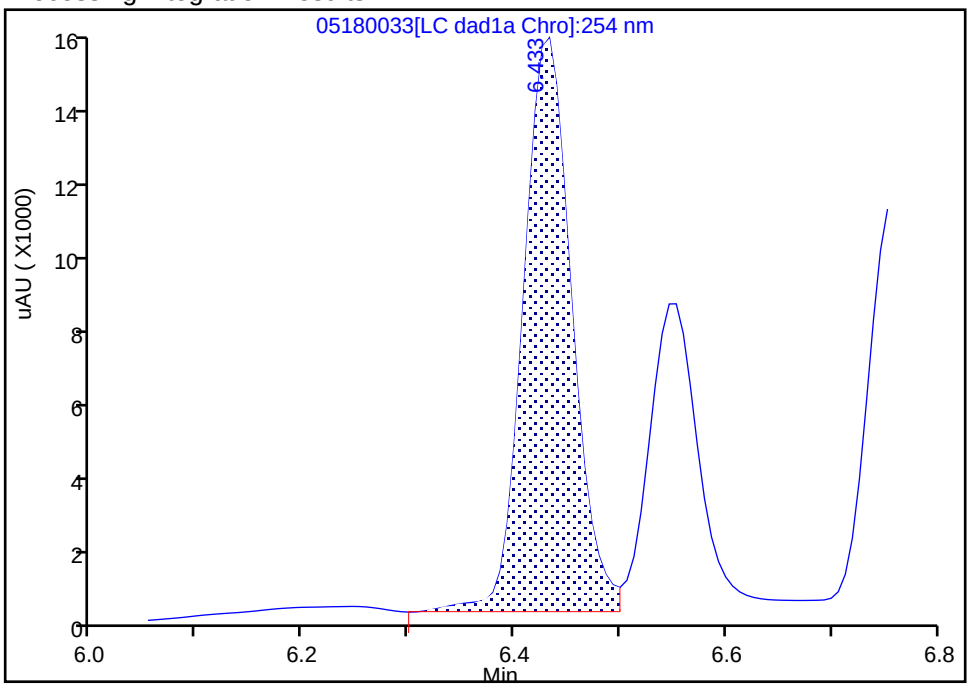
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230518-121611.b\05180033.d				
Injection Date:	19-May-2023 06:34:09	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV DMT				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	7	Worklist Smp#:	33
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

3 TNX, CAS: 13980-04-6

Signal: 1

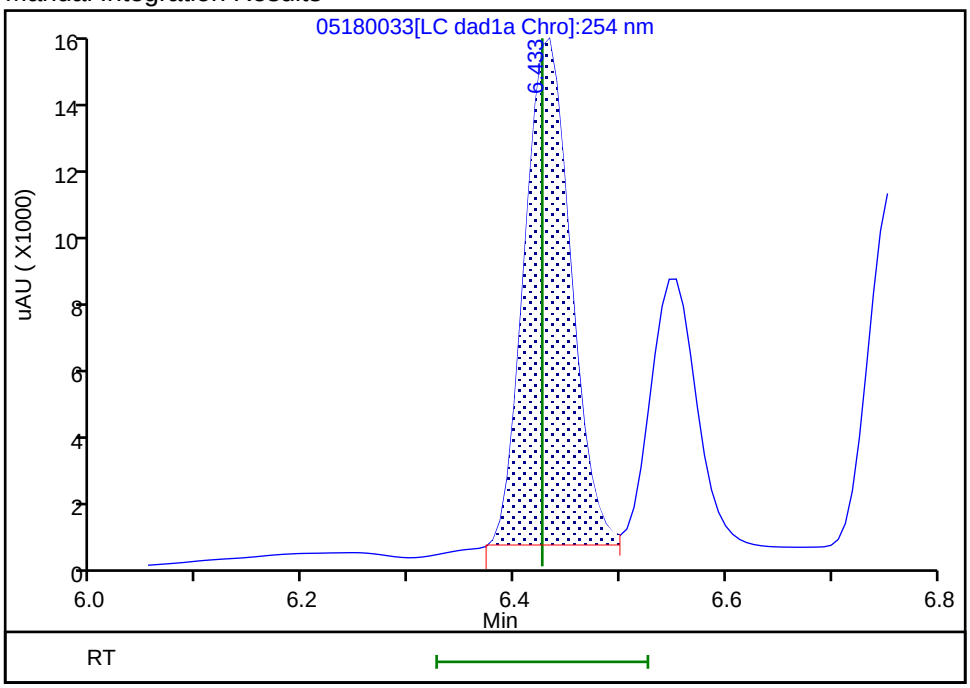
Processing Integration Results

RT: 6.43
Area: 47804
Amount: 0.241816
Amount Units: ug/mL



Manual Integration Results

RT: 6.43
Area: 44476
Amount: 0.224982
Amount Units: ug/mL



Reviewer: LV5D, 19-May-2023 12:10:13 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

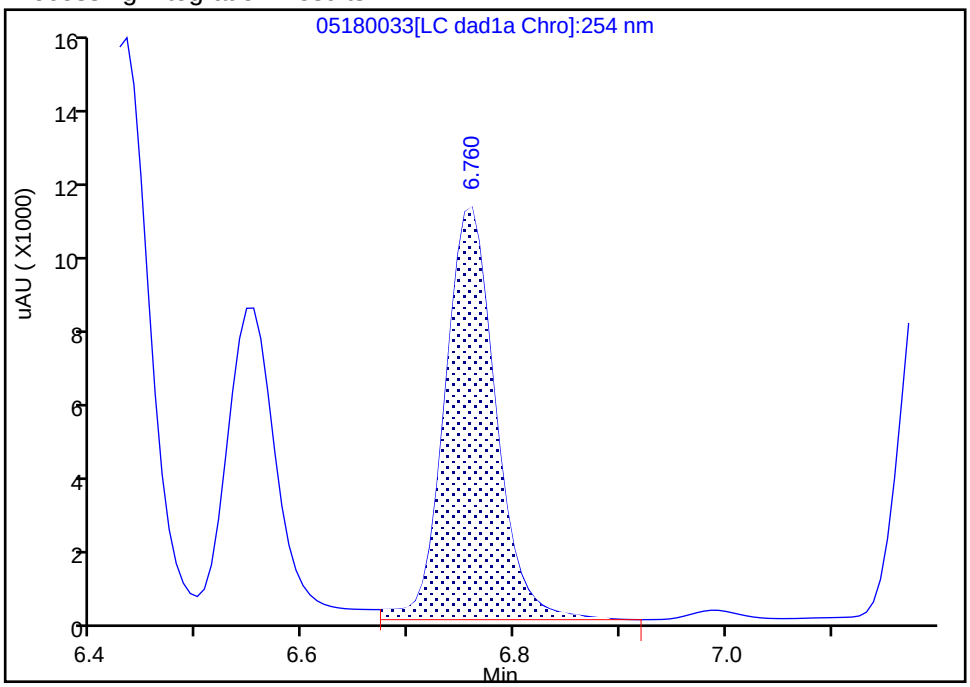
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230518-121611.b\05180033.d				
Injection Date:	19-May-2023 06:34:09	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV DMT				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	7	Worklist Smp#:	33
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

6 DNX, CAS: 80251-29-2

Signal: 1

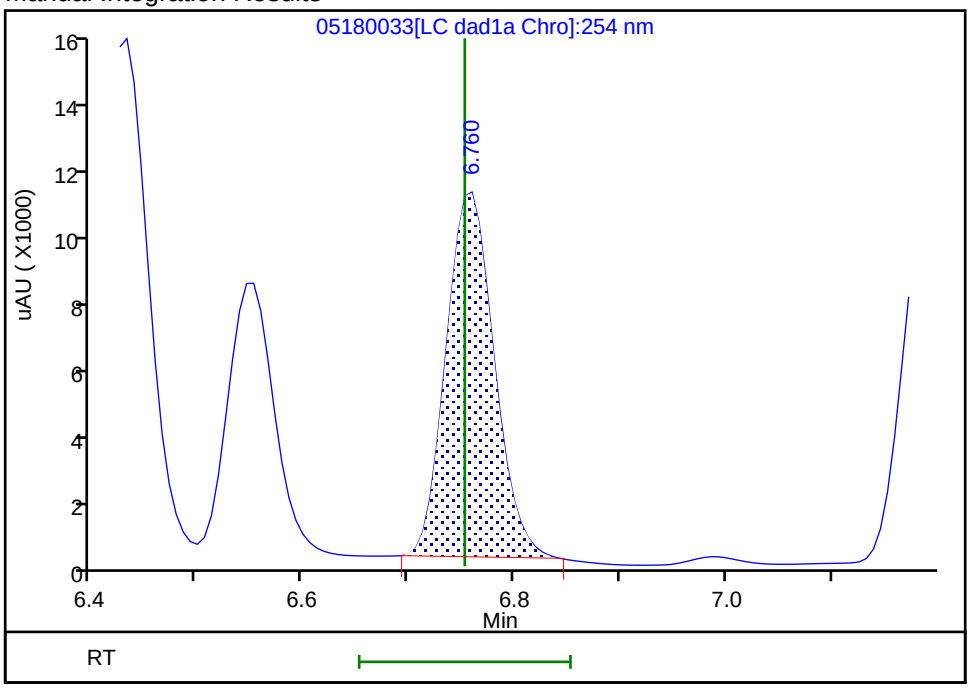
Processing Integration Results

RT: 6.76
Area: 35438
Amount: 0.245309
Amount Units: ug/mL



Manual Integration Results

RT: 6.76
Area: 32684
Amount: 0.226246
Amount Units: ug/mL



Reviewer: LV5D, 19-May-2023 12:10:19 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-176609-1

SDG No.:

Lab Sample ID: CCV 280-613045/41 Calibration Date: 05/19/2023 09:37

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: 05180041.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
HMX	Ave	93528	91156		244	250	-2.5	20.0
RDX	Ave	106380	110052		259	250	3.5	20.0
Picric acid	Ave	75830	80580		266	250	6.3	20.0
1,3,5-Trinitrobenzene	Ave	217147	218648		252	250	0.7	20.0
1,3-Dinitrobenzene	Ave	294397	298484		253	250	1.4	20.0
Nitrobenzene	Ave	191245	184896		242	250	-3.3	20.0
3,5-Dinitroaniline	Lin2		226312		248	250	-1.0	20.0
Tetryl	Ave	164121	144832		221	250	-11.8	20.0
Nitroglycerin	Ave	64070	65008		2540	2500	1.5	20.0
2,4,6-Trinitrotoluene	Ave	211040	206120		244	250	-2.3	20.0
4-Amino-2,6-dinitrotoluene	Ave	154933	152740		246	250	-1.4	20.0
2-Amino-4,6-dinitrotoluene	Ave	201410	197552		245	250	-1.9	20.0
2,6-Dinitrotoluene	Ave	142745	142432		249	250	-0.2	20.0
2,4-Dinitrotoluene	Ave	296667	298396		251	250	0.6	20.0
2-Nitrotoluene	Ave	127896	120736		236	250	-5.6	20.0
4-Nitrotoluene	Ave	111880	104376		233	250	-6.7	20.0
3-Nitrotoluene	Ave	140492	131652		234	250	-6.3	20.0
PETN	Ave	68845	70936		2580	2500	3.0	20.0
1,2-Dinitrobenzene	Ave	126309	131592		260	250	4.2	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-176609-1

SDG No.:

Lab Sample ID: CCV 280-613045/41 Calibration Date: 05/19/2023 09:37

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: 05180041.D

Analyte	RT	RT WINDOW	
		FROM	TO
HMX	6.55	6.40	6.70
RDX	7.57	7.41	7.71
Picric acid	7.98	7.81	8.11
1,3,5-Trinitrobenzene	8.65	8.49	8.79
1,3-Dinitrobenzene	9.27	9.10	9.40
Nitrobenzene	9.64	9.48	9.78
3,5-Dinitroaniline	9.87	9.71	10.01
Tetryl	10.01	9.84	10.14
Nitroglycerin	10.46	10.29	10.59
2,4,6-Trinitrotoluene	10.89	10.77	10.97
4-Amino-2,6-dinitrotoluene	11.09	10.97	11.17
2-Amino-4,6-dinitrotoluene	11.35	11.22	11.42
2,6-Dinitrotoluene	11.49	11.37	11.57
2,4-Dinitrotoluene	11.66	11.54	11.74
2-Nitrotoluene	12.48	12.31	12.61
4-Nitrotoluene	12.90	12.72	13.02
3-Nitrotoluene	13.47	13.30	13.60
PETN	14.63	14.45	14.75
1,2-Dinitrobenzene	8.52	8.36	8.66

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20230518-121611.b\05180041.D
Lims ID: CCV DMT
Client ID:
Sample Type: CCV
Inject. Date: 19-May-2023 09:37:42 ALS Bottle#: 7 Worklist Smp#: 41
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\20230518-121611.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 19-May-2023 12:22:11 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: LV5D Date: 19-May-2023 12:21:31

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 TNX	1	6.428	6.426	0.002	43604	0.2508	0.2206	M
4 HMX	1	6.548	6.546	0.002	22789	0.2500	0.2437	M
6 DNX	1	6.755	6.753	0.002	32558	0.2503	0.2254	M
7 MNX	1	7.188	7.180	0.008	35467	0.2918	0.2704	
8 RDX	1	7.568	7.560	0.008	27513	0.2500	0.2586	
9 2,4,6-Trinitrophenol	1	7.975	7.960	0.015	20145	0.2500	0.2657	
$ 10 1,2-Dinitrobenzene	1	8.521	8.513	0.008	32898	0.2500	0.2605	
11 1,3,5-Trinitrobenzene	1	8.648	8.640	0.008	54662	0.2500	0.2517	
12 1,3-Dinitrobenzene	1	9.268	9.253	0.015	74621	0.2500	0.2535	
13 Nitrobenzene	1	9.641	9.626	0.015	46224	0.2500	0.2417	
14 3,5-Dinitroaniline	1	9.874	9.859	0.015	56578	0.2500	0.2475	
15 Tetryl	1	10.008	9.986	0.022	36208	0.2500	0.2206	
16 Nitroglycerin	2	10.461	10.439	0.022	162520	2.50	2.54	
17 2,4,6-Trinitrotoluene	1	10.894	10.873	0.021	51530	0.2500	0.2442	
18 4-Amino-2,6-dinitrotoluene	1	11.094	11.066	0.028	38185	0.2500	0.2465	
19 2-Amino-4,6-dinitrotoluene	1	11.348	11.319	0.029	49388	0.2500	0.2452	
20 2,6-Dinitrotoluene	1	11.494	11.473	0.021	35608	0.2500	0.2495	
21 2,4-Dinitrotoluene	1	11.661	11.639	0.022	74599	0.2500	0.2515	
22 o-Nitrotoluene	1	12.481	12.459	0.022	30184	0.2500	0.2360	
23 p-Nitrotoluene	1	12.901	12.873	0.028	26094	0.2500	0.2332	
24 m-Nitrotoluene	1	13.468	13.446	0.022	32913	0.2500	0.2343	
25 PETN	2	14.628	14.599	0.029	177341	2.50	2.58	

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

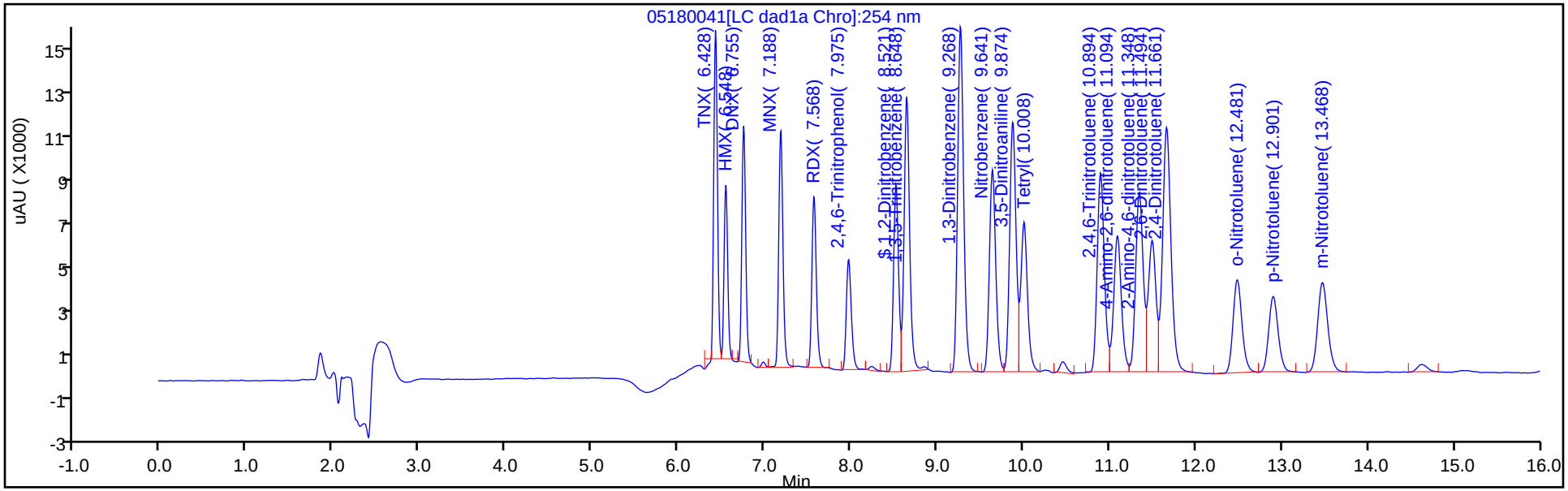
Report Date: 19-May-2023 12:22:11 Chrom Revision: 2.3 16-May-2023 16:37:30

Eurofins Denver

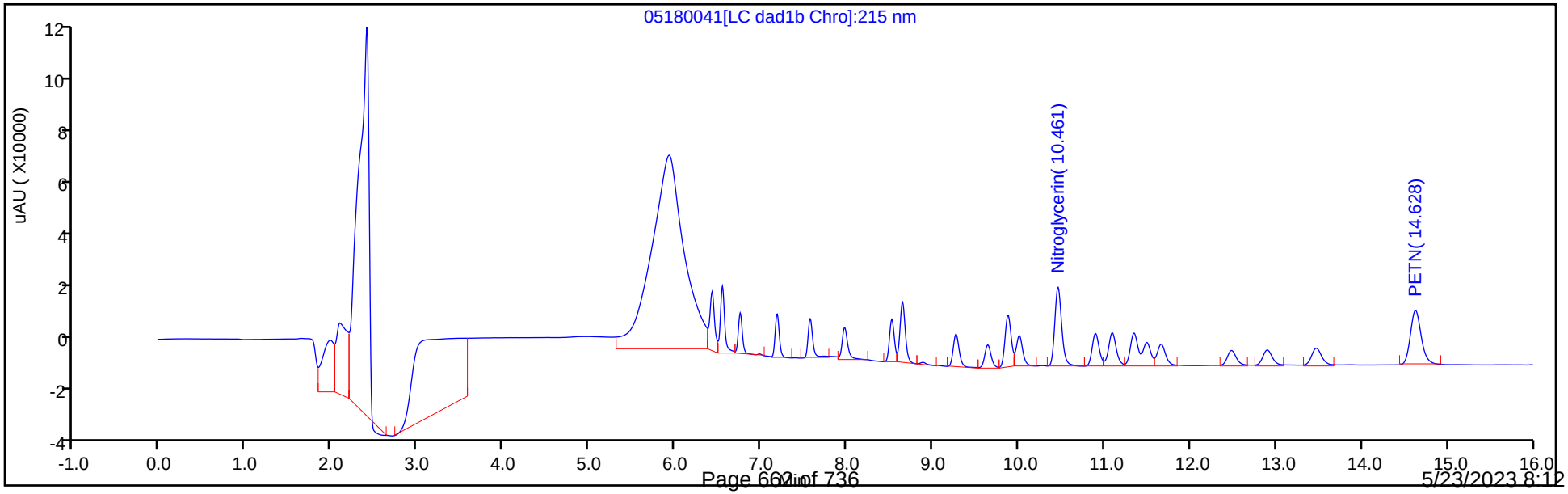
Data File: \\chromfs\denver\chromdata\chhplc_x\20230518-121611.b\05180041.d

Injection Date:	19-May-2023 09:37:42	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	CCV DMT			Worklist Smp#:	41
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

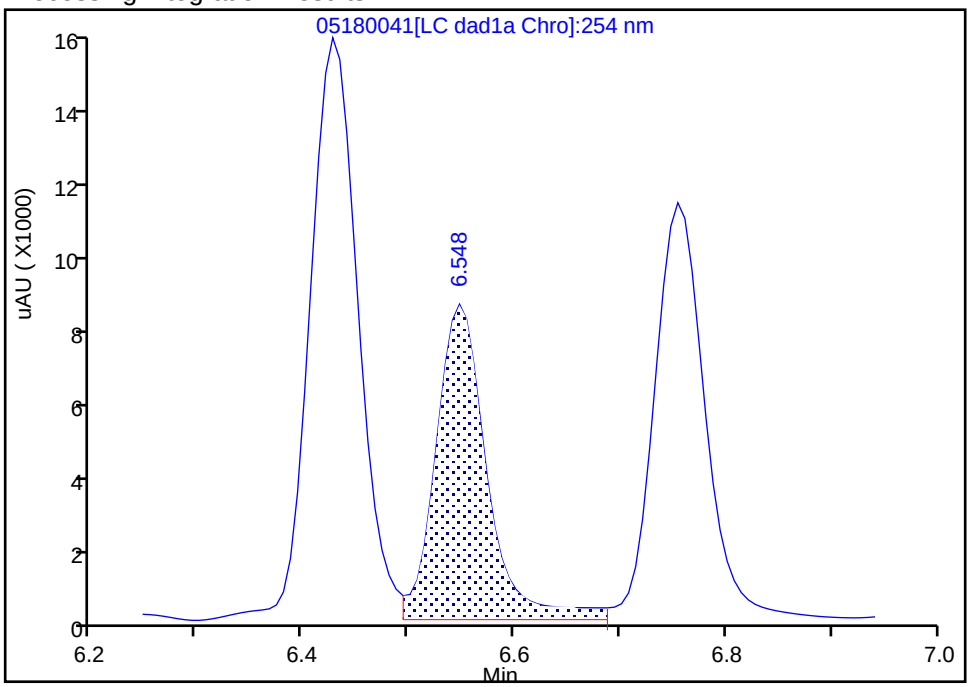
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230518-121611.b\05180041.d				
Injection Date:	19-May-2023 09:37:42	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV DMT				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	7	Worklist Smp#:	41
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

4 HMX, CAS: 2691-41-0

Signal: 1

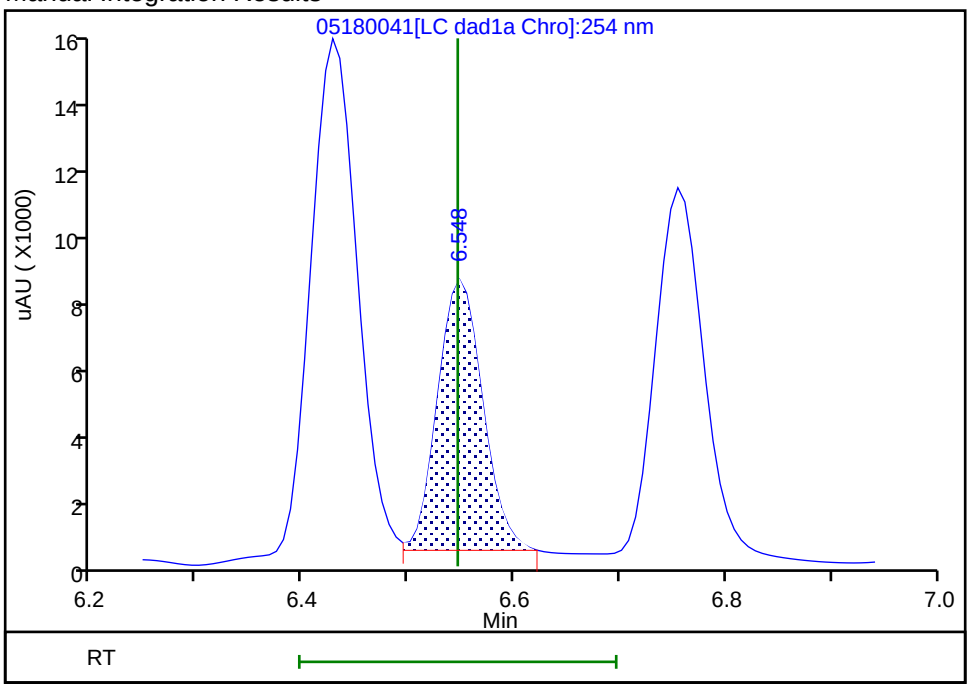
Processing Integration Results

RT: 6.55
Area: 27128
Amount: 0.290052
Amount Units: ug/mL



Manual Integration Results

RT: 6.55
Area: 22789
Amount: 0.243659
Amount Units: ug/mL



Reviewer: LV5D, 19-May-2023 12:21:25 -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.: 280-176609-1

SDG No.:

Lab Sample ID: CCV 280-613045/41 Calibration Date: 05/19/2023 09:37

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: 05180041.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
TNX	Ave	197687	173894		221	251	-12.0	20.0
DNX	Ave	144462	130102		225	250	-9.9	20.0
MNX	Ave	131172	121566		270	292	-7.3	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-176609-1

SDG No.:

Lab Sample ID: CCV 280-613045/41 Calibration Date: 05/19/2023 09:37

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: 05180041.D

Analyte	RT	RT WINDOW	
		FROM	TO
TNX	6.43	6.33	6.53
DNX	6.76	6.65	6.85
MNX	7.19	7.03	7.33

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20230518-121611.b\05180041.D
Lims ID: CCV DMT
Client ID:
Sample Type: CCV
Inject. Date: 19-May-2023 09:37:42 ALS Bottle#: 7 Worklist Smp#: 41
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\20230518-121611.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 19-May-2023 12:22:11 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: LV5D Date: 19-May-2023 12:21:31

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 TNX	1	6.428	6.426	0.002	43604	0.2508	0.2206	M
4 HMX	1	6.548	6.546	0.002	22789	0.2500	0.2437	M
6 DNX	1	6.755	6.753	0.002	32558	0.2503	0.2254	M
7 MNX	1	7.188	7.180	0.008	35467	0.2918	0.2704	
8 RDX	1	7.568	7.560	0.008	27513	0.2500	0.2586	
9 2,4,6-Trinitrophenol	1	7.975	7.960	0.015	20145	0.2500	0.2657	
$ 10 1,2-Dinitrobenzene	1	8.521	8.513	0.008	32898	0.2500	0.2605	
11 1,3,5-Trinitrobenzene	1	8.648	8.640	0.008	54662	0.2500	0.2517	
12 1,3-Dinitrobenzene	1	9.268	9.253	0.015	74621	0.2500	0.2535	
13 Nitrobenzene	1	9.641	9.626	0.015	46224	0.2500	0.2417	
14 3,5-Dinitroaniline	1	9.874	9.859	0.015	56578	0.2500	0.2475	
15 Tetryl	1	10.008	9.986	0.022	36208	0.2500	0.2206	
16 Nitroglycerin	2	10.461	10.439	0.022	162520	2.50	2.54	
17 2,4,6-Trinitrotoluene	1	10.894	10.873	0.021	51530	0.2500	0.2442	
18 4-Amino-2,6-dinitrotoluene	1	11.094	11.066	0.028	38185	0.2500	0.2465	
19 2-Amino-4,6-dinitrotoluene	1	11.348	11.319	0.029	49388	0.2500	0.2452	
20 2,6-Dinitrotoluene	1	11.494	11.473	0.021	35608	0.2500	0.2495	
21 2,4-Dinitrotoluene	1	11.661	11.639	0.022	74599	0.2500	0.2515	
22 o-Nitrotoluene	1	12.481	12.459	0.022	30184	0.2500	0.2360	
23 p-Nitrotoluene	1	12.901	12.873	0.028	26094	0.2500	0.2332	
24 m-Nitrotoluene	1	13.468	13.446	0.022	32913	0.2500	0.2343	
25 PETN	2	14.628	14.599	0.029	177341	2.50	2.58	

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

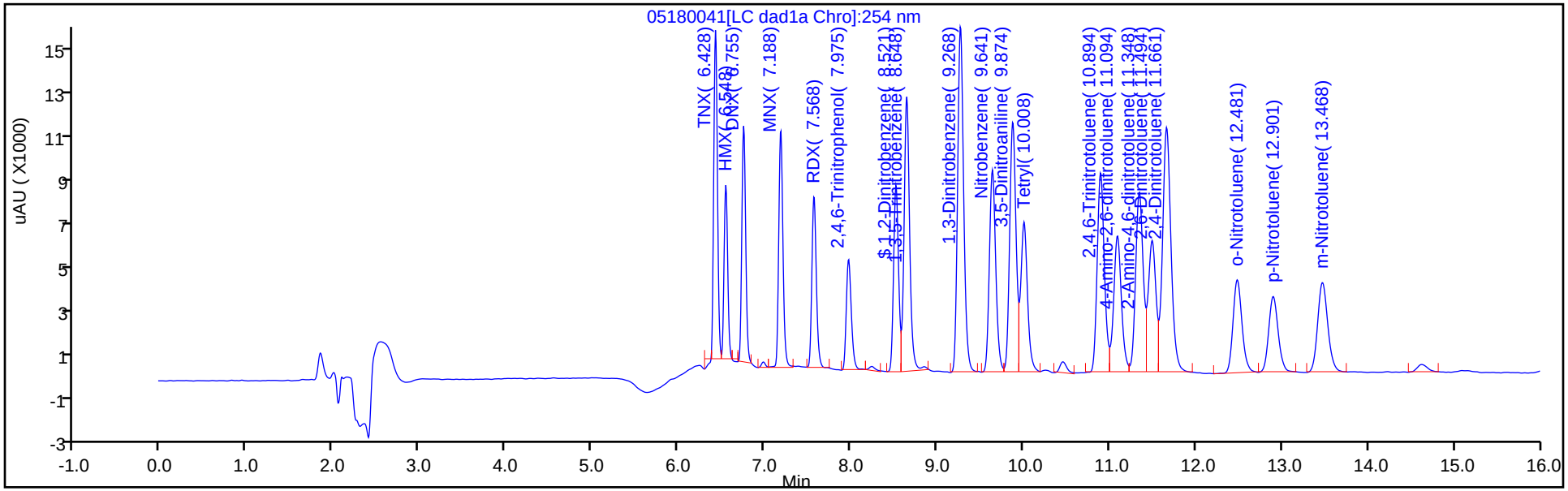
Report Date: 19-May-2023 12:22:11 Chrom Revision: 2.3 16-May-2023 16:37:30

Eurofins Denver

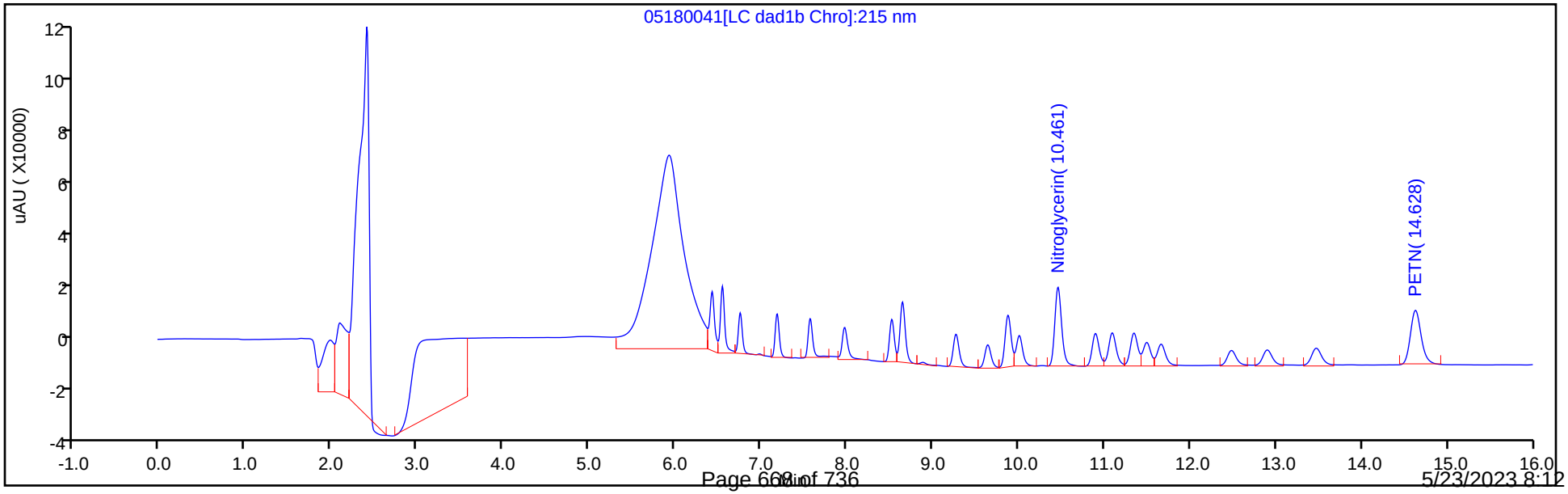
Data File: \\chromfs\denver\chromdata\chhplc_x\20230518-121611.b\05180041.d

Injection Date:	19-May-2023 09:37:42	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	CCV DMT			Worklist Smp#:	41
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



5/23/2023 8:12 PM

Manual Integration/User Assign Peak Report

Eurofins Denver

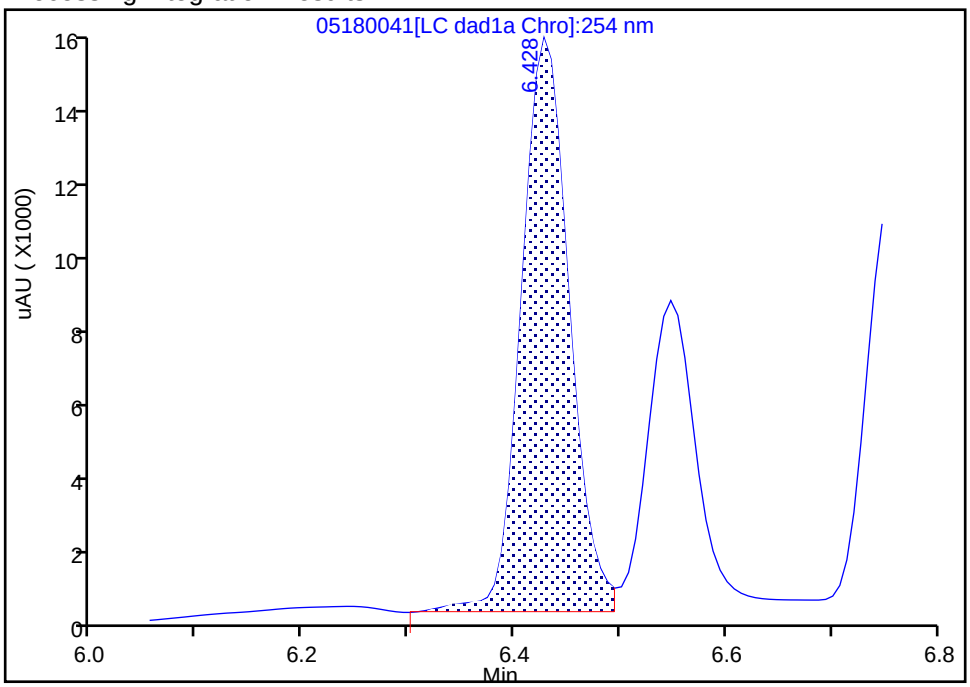
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230518-121611.b\05180041.d				
Injection Date:	19-May-2023 09:37:42	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV DMT				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	7	Worklist Smp#:	41
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

3 TNX, CAS: 13980-04-6

Signal: 1

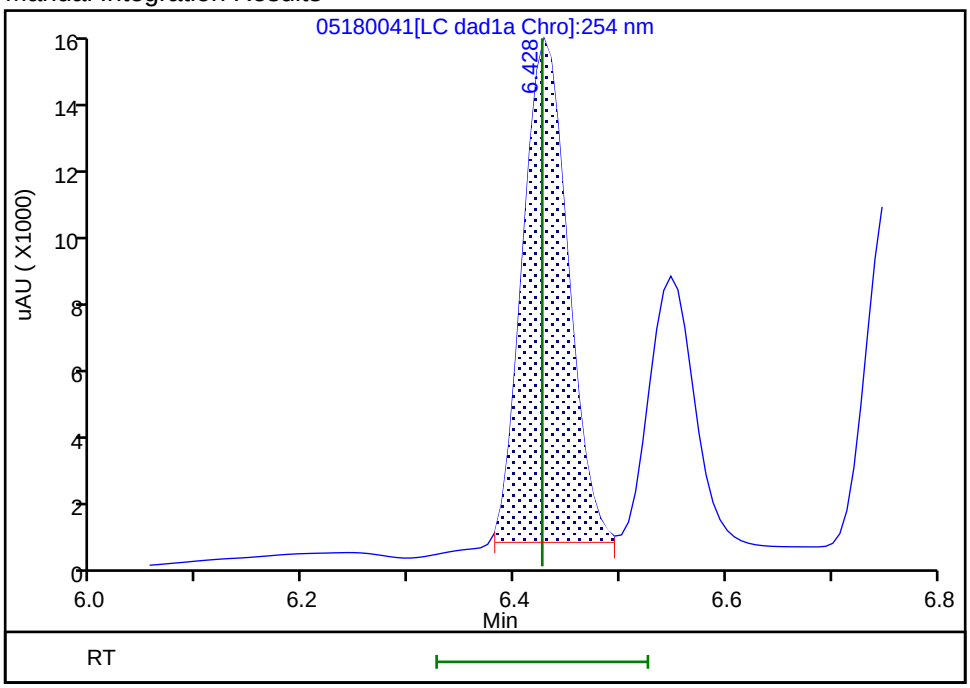
Processing Integration Results

RT: 6.43
Area: 47401
Amount: 0.239778
Amount Units: ug/mL



Manual Integration Results

RT: 6.43
Area: 43604
Amount: 0.220571
Amount Units: ug/mL



Reviewer: LV5D, 19-May-2023 12:21:24 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

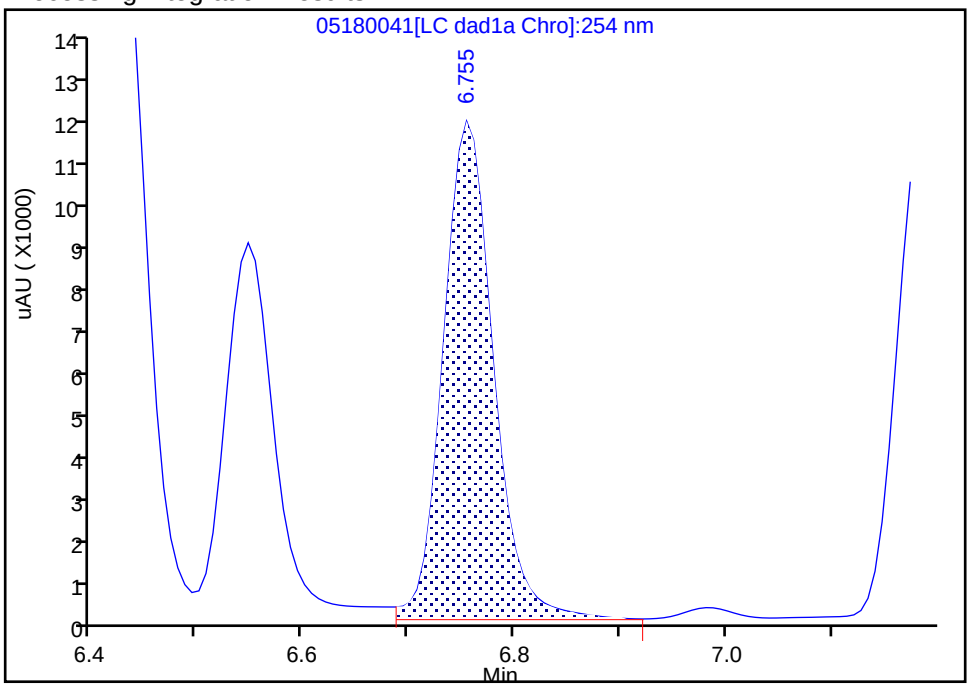
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230518-121611.b\05180041.d				
Injection Date:	19-May-2023 09:37:42	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV DMT				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	7	Worklist Smp#:	41
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

6 DNX, CAS: 80251-29-2

Signal: 1

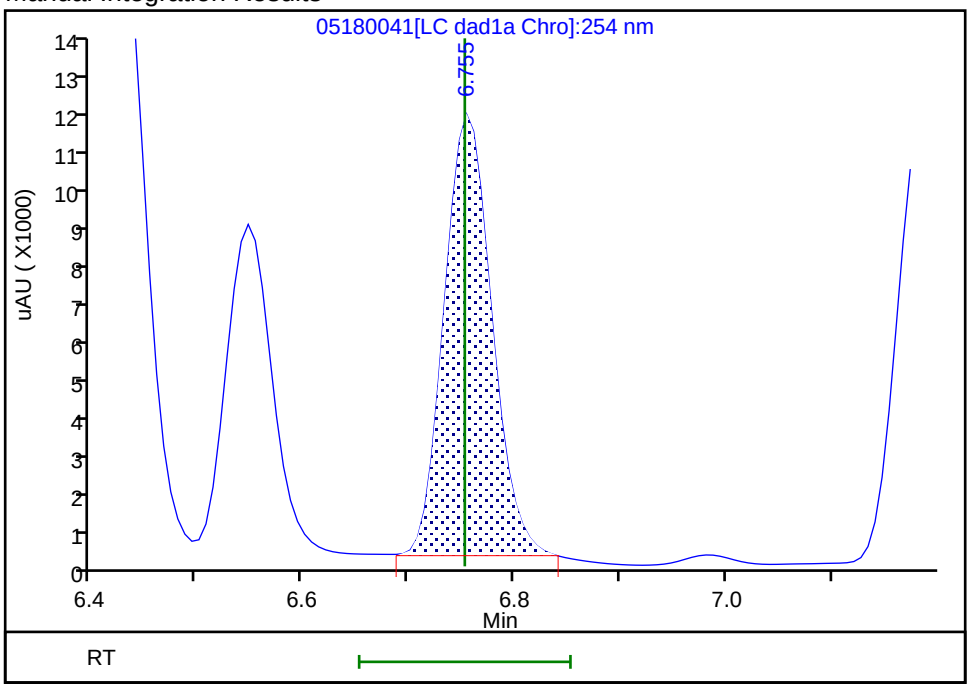
Processing Integration Results

RT: 6.75
Area: 35344
Amount: 0.244659
Amount Units: ug/mL



Manual Integration Results

RT: 6.75
Area: 32558
Amount: 0.225373
Amount Units: ug/mL



Reviewer: LV5D, 19-May-2023 12:21:29 -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.: 280-176609-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 280-612937/1-A

Matrix: Water | Lab File ID: 05180011.D

Analysis Method: 8330B | Date Collected:

Extraction Method: 3535 | Date Extracted: 05/18/2023 13:20

Sample wt/vol: 500(mL) | Date Analyzed: 05/18/2023 22:09

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.: 613045 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	0.20	U	0.21	0.20	0.084
99-65-0	1,3-Dinitrobenzene	0.10	U	0.11	0.10	0.037
118-96-7	2,4,6-Trinitrotoluene	0.10	U	0.11	0.10	0.045
121-14-2	2,4-Dinitrotoluene	0.080	U	0.10	0.080	0.027
606-20-2	2,6-Dinitrotoluene	0.080	U	0.10	0.080	0.040
35572-78-2	2-Amino-4,6-dinitrotoluene	0.10	U	0.11	0.10	0.051
88-72-2	2-Nitrotoluene	0.20	U	0.21	0.20	0.086
99-08-1	3-Nitrotoluene	0.35	U	0.40	0.35	0.20
19406-51-0	4-Amino-2,6-dinitrotoluene	0.12	U	0.15	0.12	0.058
99-99-0	4-Nitrotoluene	0.40	U	0.41	0.40	0.10
2691-41-0	HMX	0.20	U	0.21	0.20	0.088
98-95-3	Nitrobenzene	0.20	U	0.21	0.20	0.091
55-63-0	Nitroglycerin	2.0	U	2.1	2.0	0.92
78-11-5	PETN	1.0	U	1.1	1.0	0.45
121-82-4	RDX	0.20	U	0.21	0.20	0.052
479-45-8	Tetryl	0.10	U	0.11	0.10	0.032

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

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20230518-121611.b\05180011.D
Lims ID: MB 280-612937/1-A
Client ID:
Sample Type: MB
Inject. Date: 18-May-2023 22:09:15 ALS Bottle#: 11 Worklist Smp#: 11
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: MB 280-612937/1-A
Operator ID: JZ/JG Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20230518-121611.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 19-May-2023 12:21:50 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: 19-May-2023 11:37:38

	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		6.426				ND	
	2 2,6-diamino-4-nitrotoluene	1		6.431				ND	7
	4 HMX	1		6.546				ND	
	5 2,4-diamino-6-nitrotoluene	1		6.618				ND	
	6 DNX	1		6.753				ND	
	7 MNX	1		7.180				ND	
	8 RDX	1		7.560				ND	
	9 2,4,6-Trinitrophenol	1		7.960				ND	
$	10 1,2-Dinitrobenzene	1	8.520	8.513	0.007	26819	0.2000	0.2123	M
	11 1,3,5-Trinitrobenzene	1		8.640				ND	M
	12 1,3-Dinitrobenzene	1		9.253				ND	
	13 Nitrobenzene	1		9.626				ND	
	14 3,5-Dinitroaniline	1		9.859				ND	
	15 Tetryl	1		9.986				ND	
	16 Nitroglycerin	2		10.439				ND	
	17 2,4,6-Trinitrotoluene	1		10.873				ND	
	18 4-Amino-2,6-dinitrotoluene	1		11.066				ND	
	19 2-Amino-4,6-dinitrotoluene	1		11.319				ND	
	20 2,6-Dinitrotoluene	1		11.473				ND	
	21 2,4-Dinitrotoluene	1		11.639				ND	
	22 o-Nitrotoluene	1		12.459				ND	
	23 p-Nitrotoluene	1		12.873				ND	
	24 m-Nitrotoluene	1		13.446				ND	
	25 PETN	2		14.599				ND	
	26 Ammonium Picrate	1		0.000				ND	

QC Flag Legend

Processing Flags
7 - Failed Limit of Detection

Review Flags
M - Manually Integrated

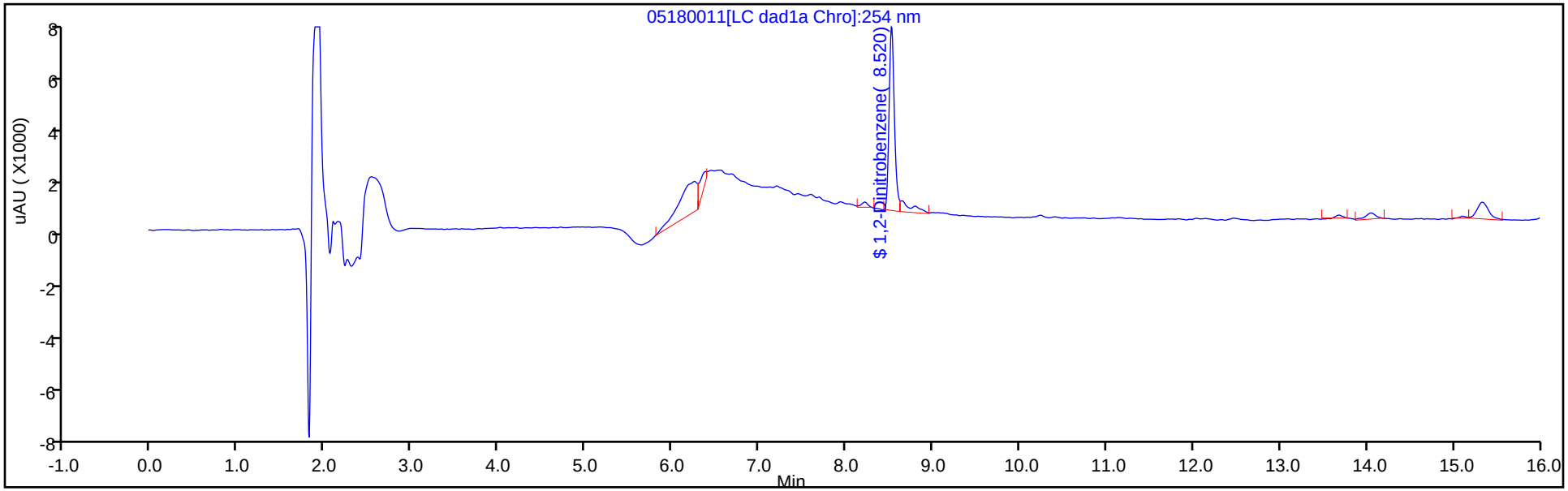
Report Date: 19-May-2023 12:21:51 Chrom Revision: 2.3 16-May-2023 16:37:30

Eurofins Denver

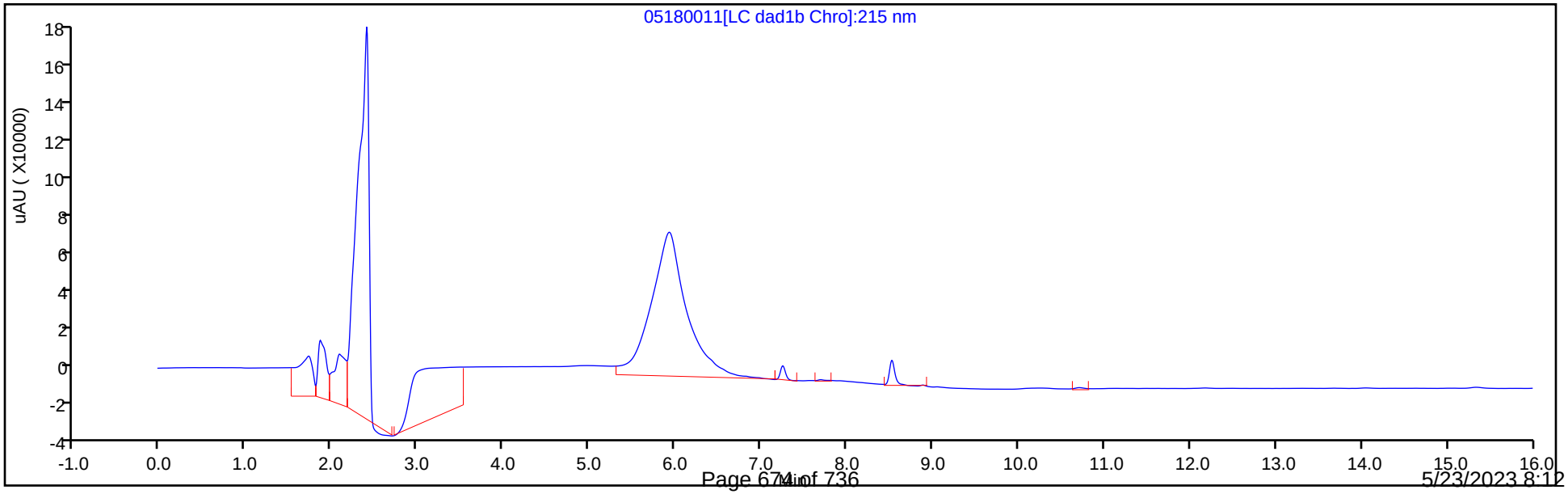
Data File: \\chromfs\denver\chromdata\chhplc_x\20230518-121611.b\05180011.d

Injection Date:	18-May-2023 22:09:15	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	MB 280-612937/1-A			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



Eurofins Denver
Recovery Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20230518-121611.b\05180011.D
Lims ID: MB 280-612937/1-A
Client ID:
Sample Type: MB
Inject. Date: 18-May-2023 22:09:15 ALS Bottle#: 11 Worklist Smp#: 11
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: MB 280-612937/1-A
Operator ID: JZ/JG Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20230518-121611.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 19-May-2023 12:21:50 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: 19-May-2023 11:37:38

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.2123	106.16

Manual Integration/User Assign Peak Report

Eurofins Denver

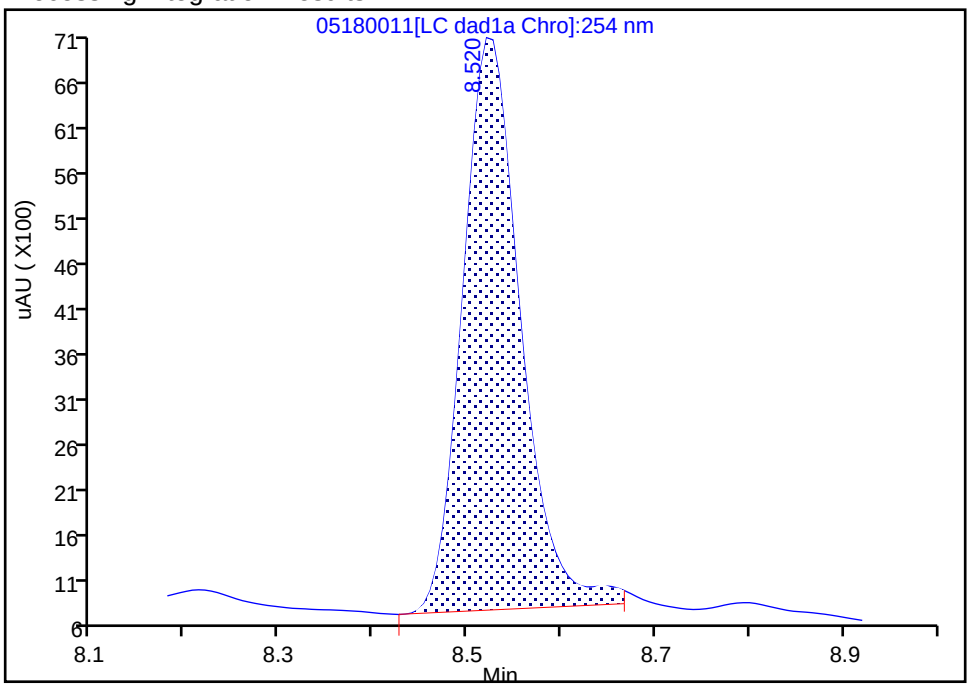
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230518-121611.b\05180011.d				
Injection Date:	18-May-2023 22:09:15	Instrument ID:	CHHPLC_X3		
Lims ID:	MB 280-612937/1-A				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	11	Worklist Smp#:	11
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

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

Signal: 1

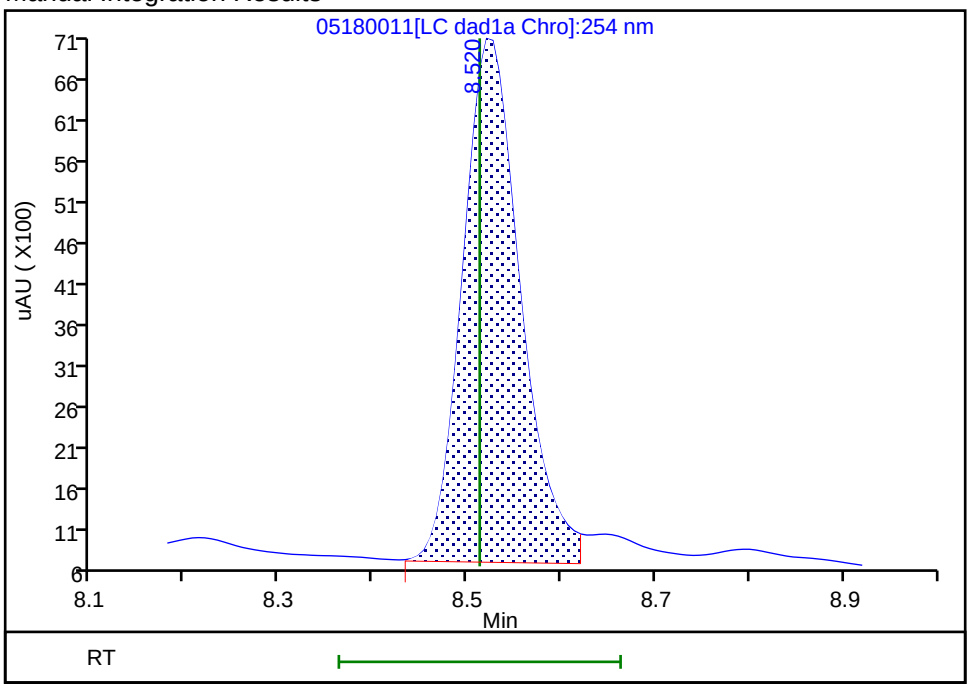
Processing Integration Results

RT: 8.52
Area: 26557
Amount: 0.210255
Amount Units: ug/mL



Manual Integration Results

RT: 8.52
Area: 26819
Amount: 0.212329
Amount Units: ug/mL



Reviewer: LV5D, 19-May-2023 11:37:36 -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.: 280-176609-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 280-612937/2-A

Matrix: Water | Lab File ID: 05180012.D

Analysis Method: 8330B | Date Collected:

Extraction Method: 3535 | Date Extracted: 05/18/2023 13:20

Sample wt/vol: 500(mL) | Date Analyzed: 05/18/2023 22:32

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.: 613045 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	2.05		0.21	0.20	0.084
99-65-0	1,3-Dinitrobenzene	1.94		0.11	0.10	0.037
118-96-7	2,4,6-Trinitrotoluene	1.86		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	1.85		0.10	0.080	0.040
35572-78-2	2-Amino-4,6-dinitrotoluene	1.82		0.11	0.10	0.051
88-72-2	2-Nitrotoluene	1.51		0.21	0.20	0.086
99-08-1	3-Nitrotoluene	1.45	Q	0.40	0.35	0.20
19406-51-0	4-Amino-2,6-dinitrotoluene	1.76		0.15	0.12	0.058
99-99-0	4-Nitrotoluene	1.50		0.41	0.40	0.10
2691-41-0	HMX	1.81	M	0.21	0.20	0.088
98-95-3	Nitrobenzene	1.71		0.21	0.20	0.091
55-63-0	Nitroglycerin	19.9		2.1	2.0	0.92
78-11-5	PETN	21.0		1.1	1.0	0.45
121-82-4	RDX	1.92	M	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	104		83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20230518-121611.b\05180012.D
Lims ID: LCS 280-612937/2-A
Client ID:
Sample Type: LCS
Inject. Date: 18-May-2023 22:32:09 ALS Bottle#: 12 Worklist Smp#: 12
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: LCS 280-612937/2-A
Operator ID: JZ/JG Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20230518-121611.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 19-May-2023 12:21:50 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: 19-May-2023 11:29:34

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 TNX	1	6.433	6.426	0.007	39902	0.2006	0.2018	M
4 HMX	1	6.553	6.546	0.007	16895	0.2000	0.1806	M
6 DNX	1	6.760	6.753	0.007	28839	0.2002	0.1996	M
7 MNX	1	7.187	7.180	0.007	31641	0.2334	0.2412	M
8 RDX	1	7.573	7.560	0.013	20415	0.2000	0.1919	M
9 2,4,6-Trinitrophenol	1	7.967	7.960	0.007	16615	0.2000	0.2191	
$ 10 1,2-Dinitrobenzene	1	8.527	8.513	0.014	26235	0.2000	0.2077	
11 1,3,5-Trinitrobenzene	1	8.647	8.640	0.007	44544	0.2000	0.2051	
12 1,3-Dinitrobenzene	1	9.273	9.253	0.020	57195	0.2000	0.1943	
13 Nitrobenzene	1	9.640	9.626	0.014	32789	0.2000	0.1715	
14 3,5-Dinitroaniline	1	9.873	9.859	0.014	40375	0.2000	0.1768	
15 Tetryl	1	10.007	9.986	0.021	33422	0.2000	0.2036	
16 Nitroglycerin	2	10.460	10.439	0.021	127457	2.00	1.99	
17 2,4,6-Trinitrotoluene	1	10.893	10.873	0.020	39234	0.2000	0.1859	
18 4-Amino-2,6-dinitrotoluene	1	11.087	11.066	0.021	27331	0.2000	0.1764	
19 2-Amino-4,6-dinitrotoluene	1	11.340	11.319	0.021	36570	0.2000	0.1816	
20 2,6-Dinitrotoluene	1	11.493	11.473	0.020	26381	0.2000	0.1848	
21 2,4-Dinitrotoluene	1	11.660	11.639	0.021	54544	0.2000	0.1839	
22 o-Nitrotoluene	1	12.480	12.459	0.021	19353	0.2000	0.1513	
23 p-Nitrotoluene	1	12.900	12.873	0.027	16751	0.2000	0.1497	
24 m-Nitrotoluene	1	13.473	13.446	0.027	20325	0.2000	0.1447	
25 PETN	2	14.627	14.599	0.028	144482	2.00	2.10	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

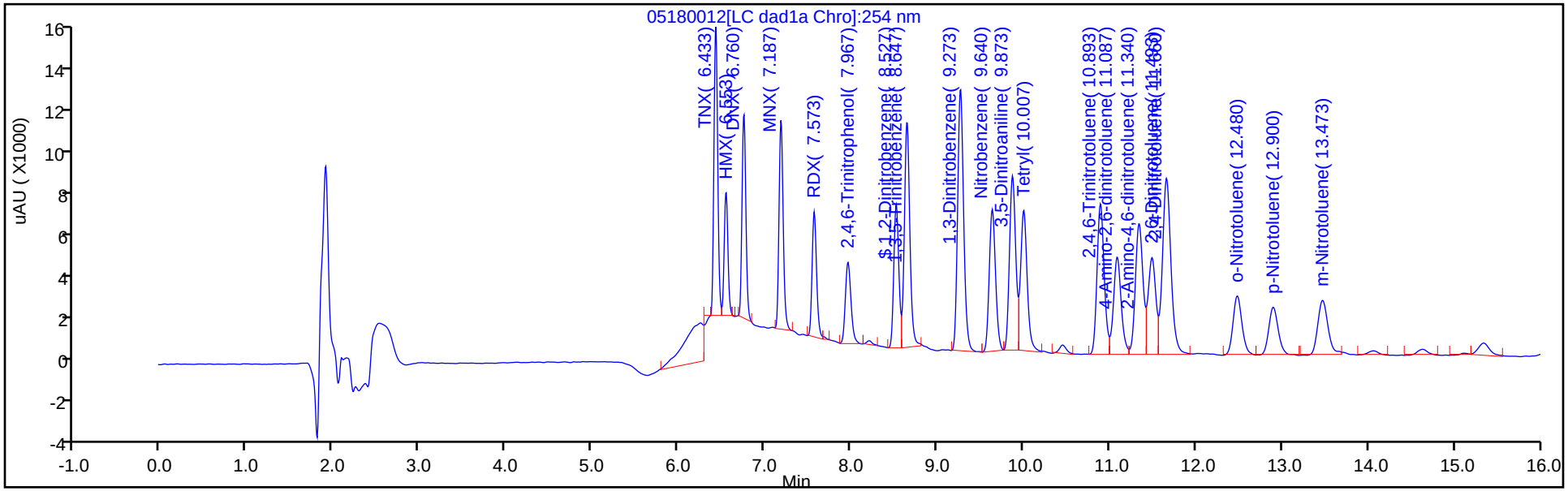
Report Date: 19-May-2023 12:21:51 Chrom Revision: 2.3 16-May-2023 16:37:30

Eurofins Denver

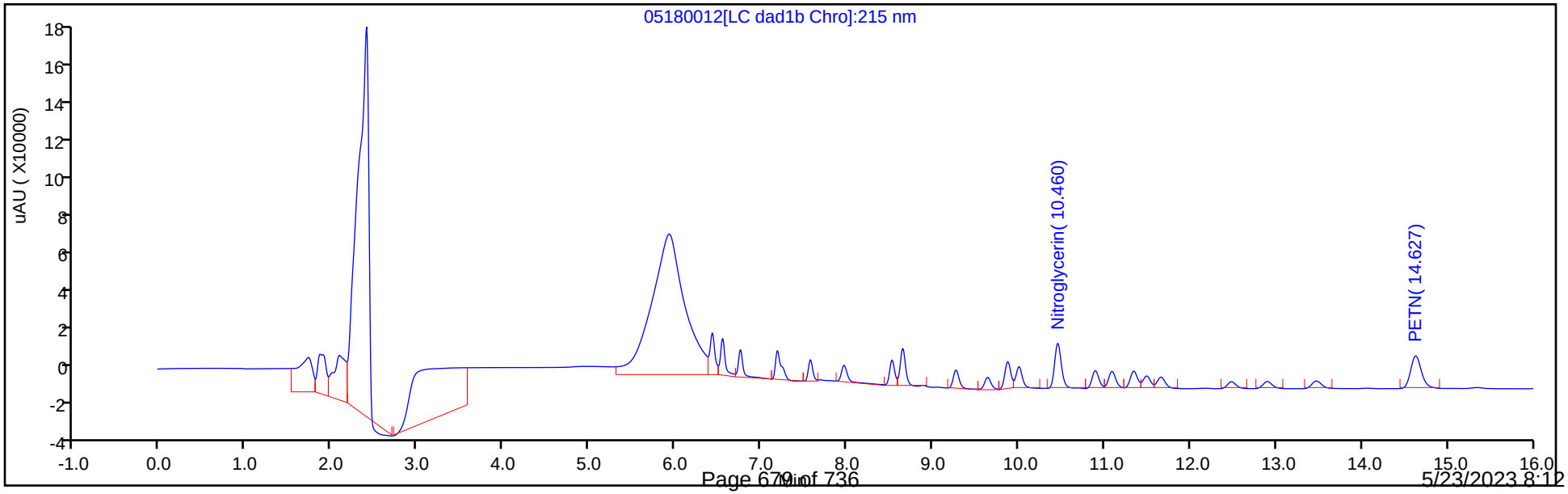
Data File: \\chromfs\denver\chromdata\chhplc_x\20230518-121611.b\05180012.d

Injection Date:	18-May-2023 22:32:09	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	LCS 280-612937/2-A			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



5/23/2023 8:12 PM

Eurofins Denver
Recovery Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20230518-121611.b\05180012.D
Lims ID: LCS 280-612937/2-A
Client ID:
Sample Type: LCS
Inject. Date: 18-May-2023 22:32:09 ALS Bottle#: 12 Worklist Smp#: 12
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: LCS 280-612937/2-A
Operator ID: JZ/JG Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20230518-121611.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 19-May-2023 12:21:50 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: 19-May-2023 11:29:34

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.2077	103.85

Manual Integration/User Assign Peak Report

Eurofins Denver

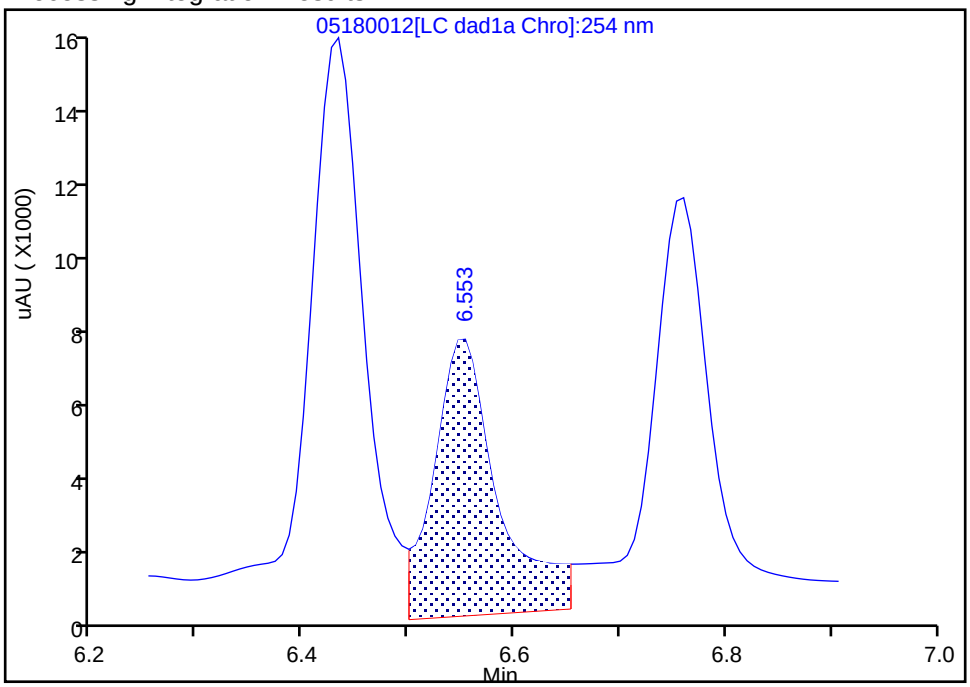
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230518-121611.b\05180012.d				
Injection Date:	18-May-2023 22:32:09	Instrument ID:	CHHPLC_X3		
Lims ID:	LCS 280-612937/2-A				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	12	Worklist Smp#:	12
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

4 HMX, CAS: 2691-41-0

Signal: 1

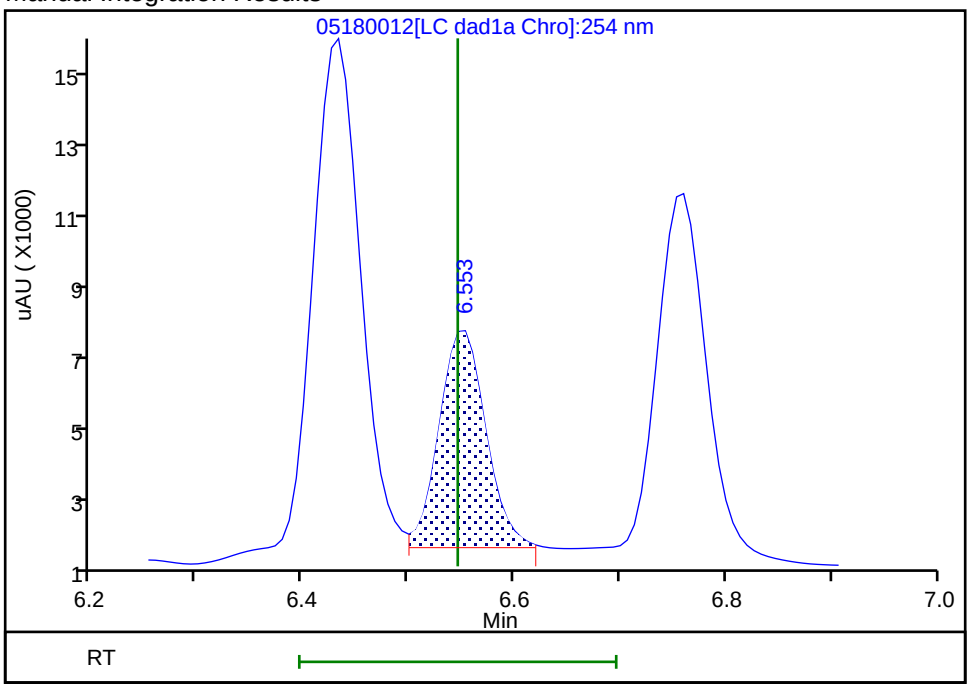
Processing Integration Results

RT: 6.55
Area: 28657
Amount: 0.306400
Amount Units: ug/mL



Manual Integration Results

RT: 6.55
Area: 16895
Amount: 0.180641
Amount Units: ug/mL



Reviewer: LV5D, 19-May-2023 11:28:34 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

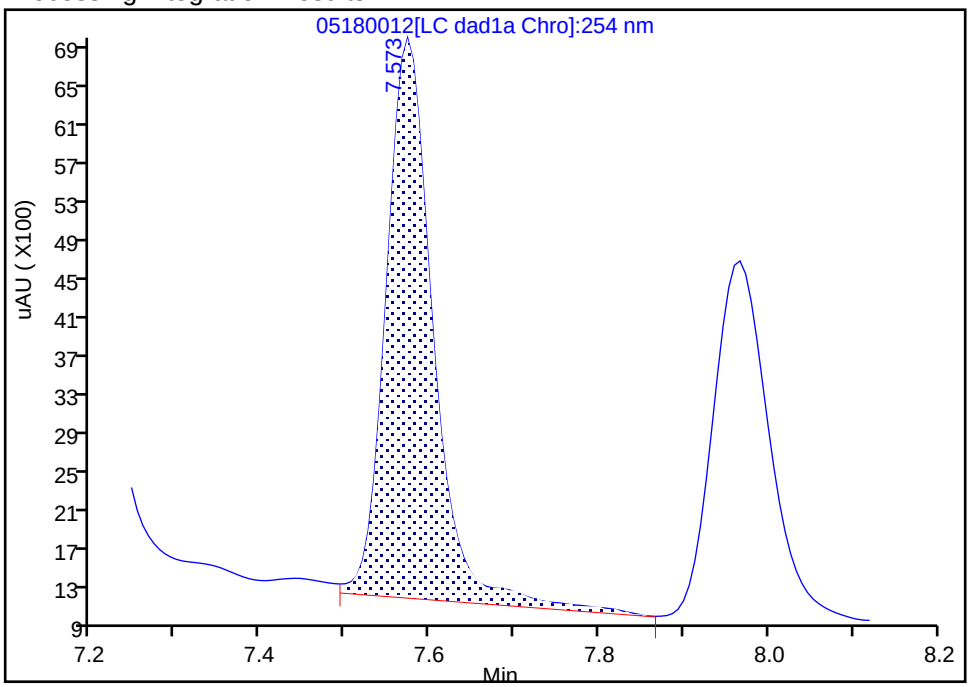
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230518-121611.b\05180012.d				
Injection Date:	18-May-2023 22:32:09	Instrument ID:	CHHPLC_X3		
Lims ID:	LCS 280-612937/2-A				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	12	Worklist Smp#:	12
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

8 RDX, CAS: 121-82-4

Signal: 1

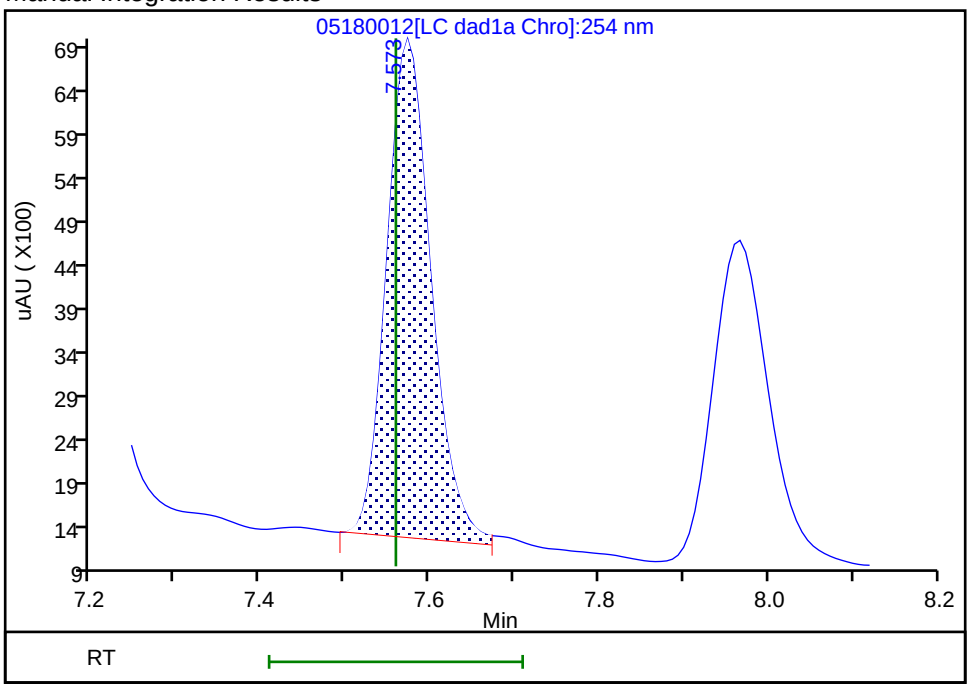
Processing Integration Results

RT: 7.57
Area: 22252
Amount: 0.209175
Amount Units: ug/mL



Manual Integration Results

RT: 7.57
Area: 20415
Amount: 0.191907
Amount Units: ug/mL



Reviewer: LV5D, 19-May-2023 11:28:52 -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.: 280-176609-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCSD 280-612937/3-A

Matrix: Water | Lab File ID: 05180013.D

Analysis Method: 8330B | Date Collected:

Extraction Method: 3535 | Date Extracted: 05/18/2023 13:20

Sample wt/vol: 500(mL) | Date Analyzed: 05/18/2023 22:55

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.: 613045 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	2.05		0.21	0.20	0.084
99-65-0	1,3-Dinitrobenzene	1.94		0.11	0.10	0.037
118-96-7	2,4,6-Trinitrotoluene	1.87		0.11	0.10	0.045
121-14-2	2,4-Dinitrotoluene	1.83		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	1.79		0.11	0.10	0.051
88-72-2	2-Nitrotoluene	1.54		0.21	0.20	0.086
99-08-1	3-Nitrotoluene	1.46		0.40	0.35	0.20
19406-51-0	4-Amino-2,6-dinitrotoluene	1.81		0.15	0.12	0.058
99-99-0	4-Nitrotoluene	1.50		0.41	0.40	0.10
2691-41-0	HMX	1.88	M	0.21	0.20	0.088
98-95-3	Nitrobenzene	1.72		0.21	0.20	0.091
55-63-0	Nitroglycerin	19.9		2.1	2.0	0.92
78-11-5	PETN	20.9		1.1	1.0	0.45
121-82-4	RDX	1.88	M	0.21	0.20	0.052
479-45-8	Tetryl	2.07		0.11	0.10	0.032

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	102		83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20230518-121611.b\05180013.D
Lims ID: LCSD 280-612937/3-A
Client ID:
Sample Type: LCSD
Inject. Date: 18-May-2023 22:55:11 ALS Bottle#: 13 Worklist Smp#: 13
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: LCSD 280-612937/3-A
Operator ID: JZ/JG Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20230518-121611.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 19-May-2023 12:21:50 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: 19-May-2023 11:30:00

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 TNX	1	6.432	6.426	0.006	40691	0.2006	0.2058	M
4 HMX	1	6.552	6.546	0.006	17549	0.2000	0.1876	M
6 DNX	1	6.759	6.753	0.006	28636	0.2002	0.1982	M
7 MNX	1	7.186	7.180	0.006	31679	0.2334	0.2415	M
8 RDX	1	7.572	7.560	0.012	20052	0.2000	0.1885	M
9 2,4,6-Trinitrophenol	1	7.959	7.960	-0.001	16679	0.2000	0.2200	
$ 10 1,2-Dinitrobenzene	1	8.519	8.513	0.006	25843	0.2000	0.2046	
11 1,3,5-Trinitrobenzene	1	8.646	8.640	0.006	44476	0.2000	0.2048	
12 1,3-Dinitrobenzene	1	9.266	9.253	0.013	57044	0.2000	0.1938	
13 Nitrobenzene	1	9.632	9.626	0.006	32957	0.2000	0.1723	
14 3,5-Dinitroaniline	1	9.872	9.859	0.013	39782	0.2000	0.1742	
15 Tetryl	1	9.999	9.986	0.013	34037	0.2000	0.2074	
16 Nitroglycerin	2	10.452	10.439	0.013	127804	2.00	1.99	
17 2,4,6-Trinitrotoluene	1	10.892	10.873	0.019	39424	0.2000	0.1868	
18 4-Amino-2,6-dinitrotoluene	1	11.086	11.066	0.020	28007	0.2000	0.1808	
19 2-Amino-4,6-dinitrotoluene	1	11.339	11.319	0.020	36120	0.2000	0.1793	
20 2,6-Dinitrotoluene	1	11.492	11.473	0.019	27212	0.2000	0.1906	
21 2,4-Dinitrotoluene	1	11.659	11.639	0.020	54308	0.2000	0.1831	
22 o-Nitrotoluene	1	12.479	12.459	0.020	19710	0.2000	0.1541	
23 p-Nitrotoluene	1	12.899	12.873	0.026	16804	0.2000	0.1502	
24 m-Nitrotoluene	1	13.472	13.446	0.026	20537	0.2000	0.1462	
25 PETN	2	14.632	14.599	0.033	143716	2.00	2.09	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

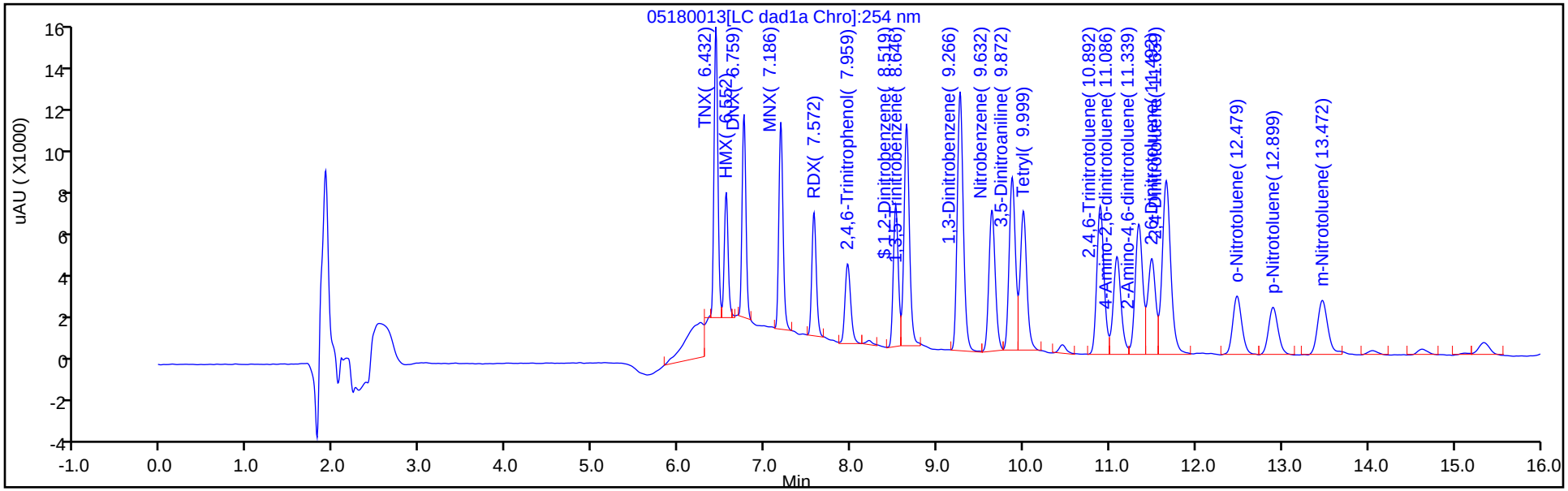
Report Date: 19-May-2023 12:21:52 Chrom Revision: 2.3 16-May-2023 16:37:30

Eurofins Denver

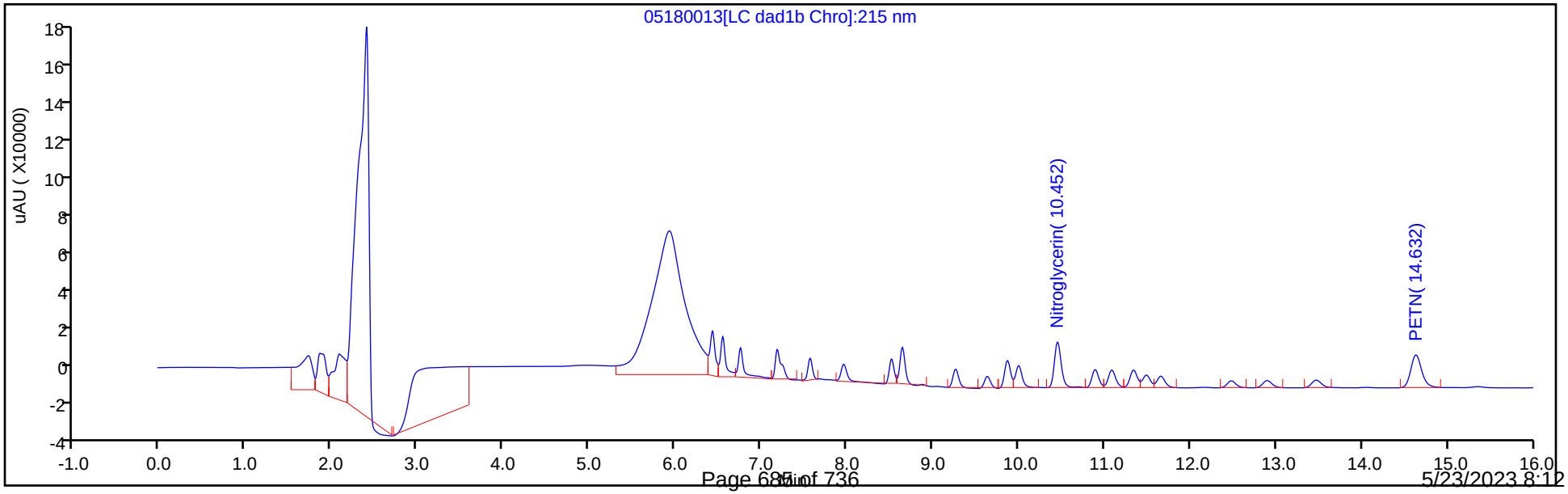
Data File: \\chromfs\denver\chromdata\chhplc_x\20230518-121611.b\05180013.d

Injection Date:	18-May-2023 22:55:11	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	LCSD 280-612937/3-A			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



Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20230518-121611.b\05180013.D				
Lims ID:	LCSD 280-612937/3-A				
Client ID:					
Sample Type:	LCSD				
Inject. Date:	18-May-2023 22:55:11	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	LCSD 280-612937/3-A				
Operator ID:	JZ/JG	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20230518-121611.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	19-May-2023 12:21:50	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: 19-May-2023 11:30:00

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.2046	102.30

Manual Integration/User Assign Peak Report

Eurofins Denver

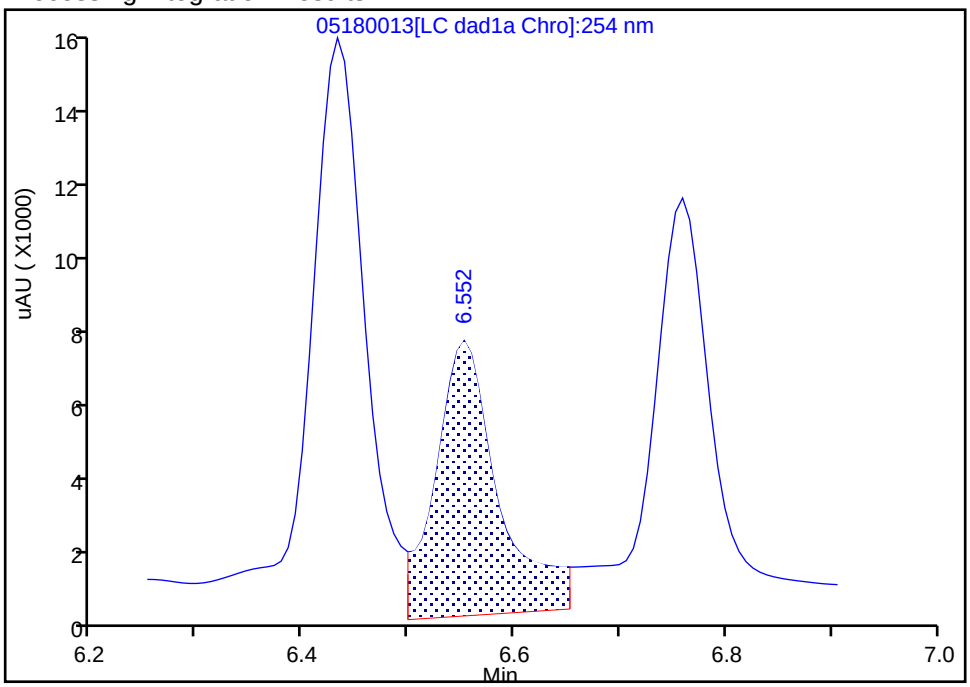
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230518-121611.b\05180013.d				
Injection Date:	18-May-2023 22:55:11	Instrument ID:	CHHPLC_X3		
Lims ID:	LCSD 280-612937/3-A				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

4 HMX, CAS: 2691-41-0

Signal: 1

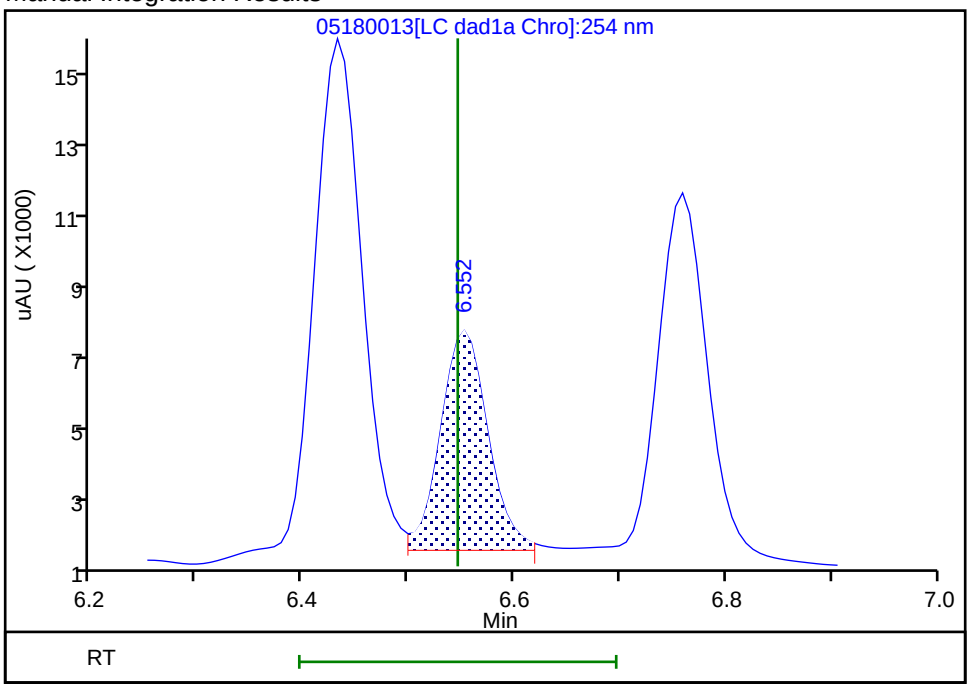
Processing Integration Results

RT: 6.55
Area: 27985
Amount: 0.299215
Amount Units: ug/mL



Manual Integration Results

RT: 6.55
Area: 17549
Amount: 0.187633
Amount Units: ug/mL



Reviewer: LV5D, 19-May-2023 11:29:47 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

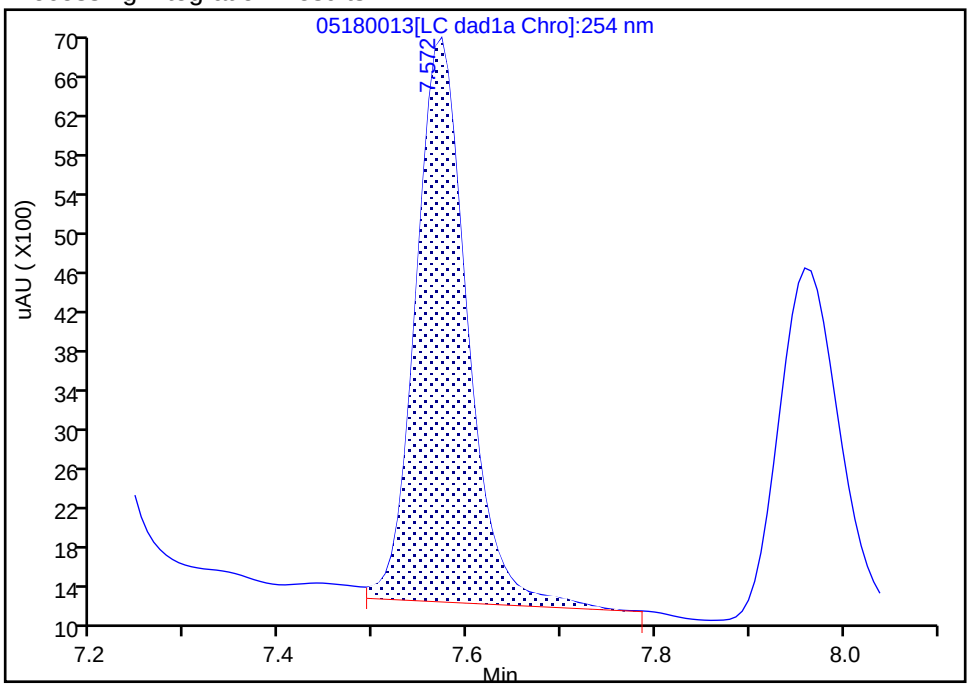
Data File: \\chromfs\denver\chromdata\chhplc_x\20230518-121611.b\05180013.d
Injection Date: 18-May-2023 22:55:11 Instrument ID: CHHPLC_X3
Lims ID: LCSD 280-612937/3-A
Client ID:
Operator ID: JZ/JG ALS Bottle#: 13 Worklist Smp#: 13
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

8 RDX, CAS: 121-82-4

Signal: 1

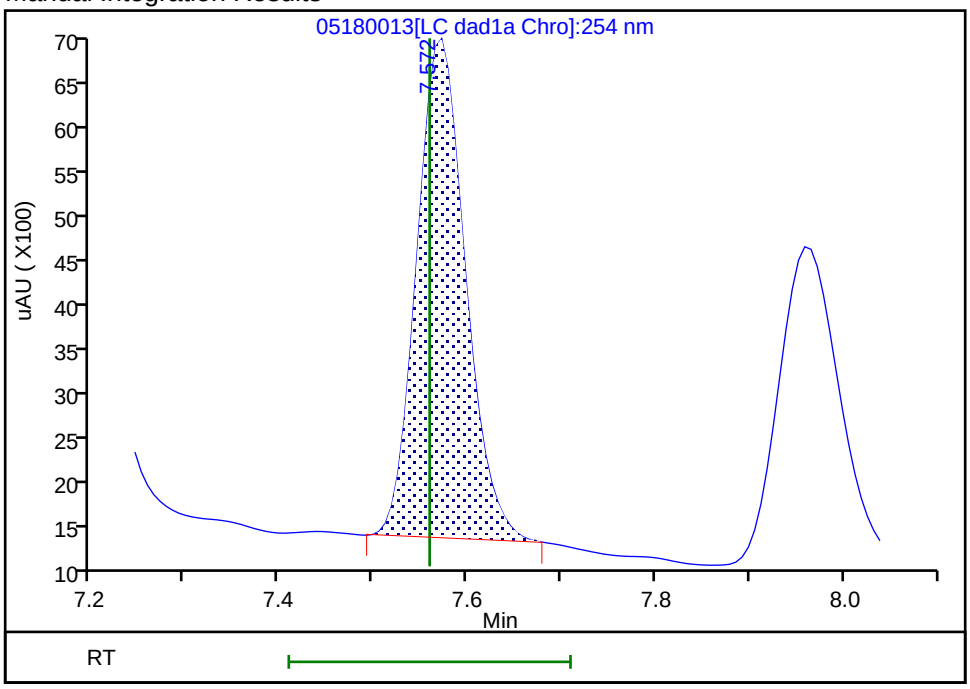
Processing Integration Results

RT: 7.57
Area: 21692
Amount: 0.203911
Amount Units: ug/mL



Manual Integration Results

RT: 7.57
Area: 20052
Amount: 0.188494
Amount Units: ug/mL



Reviewer: LV5D, 19-May-2023 11:29:58 -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.: 280-176609-1

SDG No.:

Client Sample ID: FBQmw-178-230301-GW MS | Lab Sample ID: 280-176609-1 MS

Matrix: Water | Lab File ID: 05180036.D

Analysis Method: 8330B | Date Collected: 05/16/2023 13:37

Extraction Method: 3535 | Date Extracted: 05/18/2023 13:20

Sample wt/vol: 472.2(mL) | Date Analyzed: 05/19/2023 07:42

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.: 613045 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	2.25	M	0.22	0.21	0.089
99-65-0	1,3-Dinitrobenzene	2.10		0.12	0.11	0.039
118-96-7	2,4,6-Trinitrotoluene	1.97		0.12	0.11	0.048
121-14-2	2,4-Dinitrotoluene	2.32		0.11	0.085	0.029
606-20-2	2,6-Dinitrotoluene	2.09		0.11	0.085	0.042
35572-78-2	2-Amino-4,6-dinitrotoluene	1.95		0.12	0.11	0.054
99-08-1	3-Nitrotoluene	2.00	M	0.42	0.37	0.21
19406-51-0	4-Amino-2,6-dinitrotoluene	1.88		0.16	0.13	0.061
99-99-0	4-Nitrotoluene	1.73	M	0.43	0.42	0.11
98-95-3	Nitrobenzene	1.88		0.22	0.21	0.096
55-63-0	Nitroglycerin	20.3		2.2	2.1	0.98
78-11-5	PETN	21.6		1.2	1.1	0.47
121-82-4	RDX	4.75	M	0.22	0.21	0.055
479-45-8	Tetryl	2.23		0.12	0.11	0.034

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\20230518-121611.b\05180036.D
Lims ID: 280-176609-A-1-A MS
Client ID: FBQmw-178-230301-GW
Sample Type: MS
Inject. Date: 19-May-2023 07:42:53 ALS Bottle#: 36 Worklist Smp#: 36
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-176609-A-1-A MS
Operator ID: JZ/JG Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20230518-121611.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 19-May-2023 12:22:06 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: 19-May-2023 12:16:25

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	6.426	0.005	37828	0.2006	0.1914	M
4 HMX	1	6.551	6.546	0.005	19345	0.2000	0.2068	M
6 DNX	1	6.751	6.753	-0.002	28379	0.2002	0.1964	M
7 MNX	1	7.178	7.180	-0.002	34336	0.2334	0.2618	M
8 RDX	1	7.578	7.560	0.018	47752	0.2000	0.4489	M
9 2,4,6-Trinitrophenol	1	7.958	7.960	-0.002	21021	0.2000	0.2772	M
$ 10 1,2-Dinitrobenzene	1	8.518	8.513	0.005	25274	0.2000	0.2001	
11 1,3,5-Trinitrobenzene	1	8.644	8.640	0.004	46043	0.2000	0.2120	M
12 1,3-Dinitrobenzene	1	9.264	9.253	0.011	58463	0.2000	0.1986	
13 Nitrobenzene	1	9.631	9.626	0.005	33954	0.2000	0.1775	
14 3,5-Dinitroaniline	1	9.871	9.859	0.012	40012	0.2000	0.1752	
15 Tetryl	1	9.998	9.986	0.012	34584	0.2000	0.2107	
16 Nitroglycerin	2	10.451	10.439	0.012	122735	2.00	1.92	
17 2,4,6-Trinitrotoluene	1	10.891	10.873	0.018	39198	0.2000	0.1857	
18 4-Amino-2,6-dinitrotoluene	1	11.084	11.066	0.018	27490	0.2000	0.1774	
19 2-Amino-4,6-dinitrotoluene	1	11.344	11.319	0.025	37084	0.2000	0.1841	
20 2,6-Dinitrotoluene	1	11.491	11.473	0.018	28217	0.2000	0.1977	
21 2,4-Dinitrotoluene	1	11.664	11.639	0.025	64980	0.2000	0.2190	
22 o-Nitrotoluene	1	12.484	12.459	0.025	27174	0.2000	0.2125	
23 p-Nitrotoluene	1	12.904	12.873	0.031	18268	0.2000	0.1633	M
24 m-Nitrotoluene	1	13.478	13.446	0.032	26478	0.2000	0.1885	M
25 PETN	2	14.644	14.599	0.045	140719	2.00	2.04	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

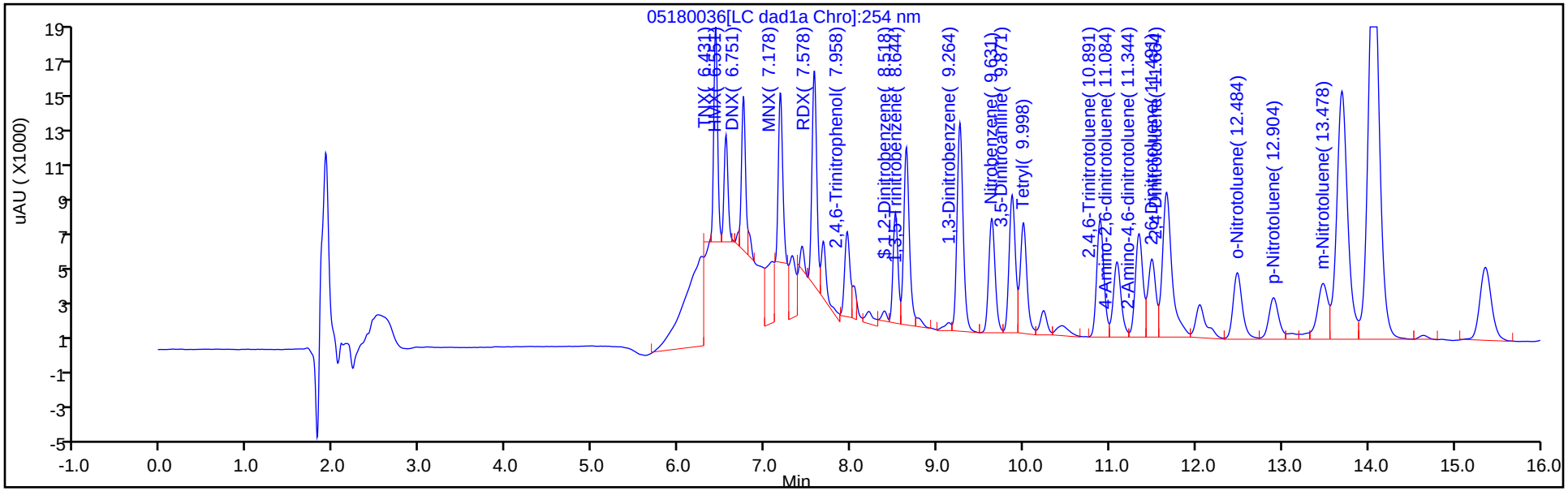
Report Date: 19-May-2023 12:22:07 Chrom Revision: 2.3 16-May-2023 16:37:30

Eurofins Denver

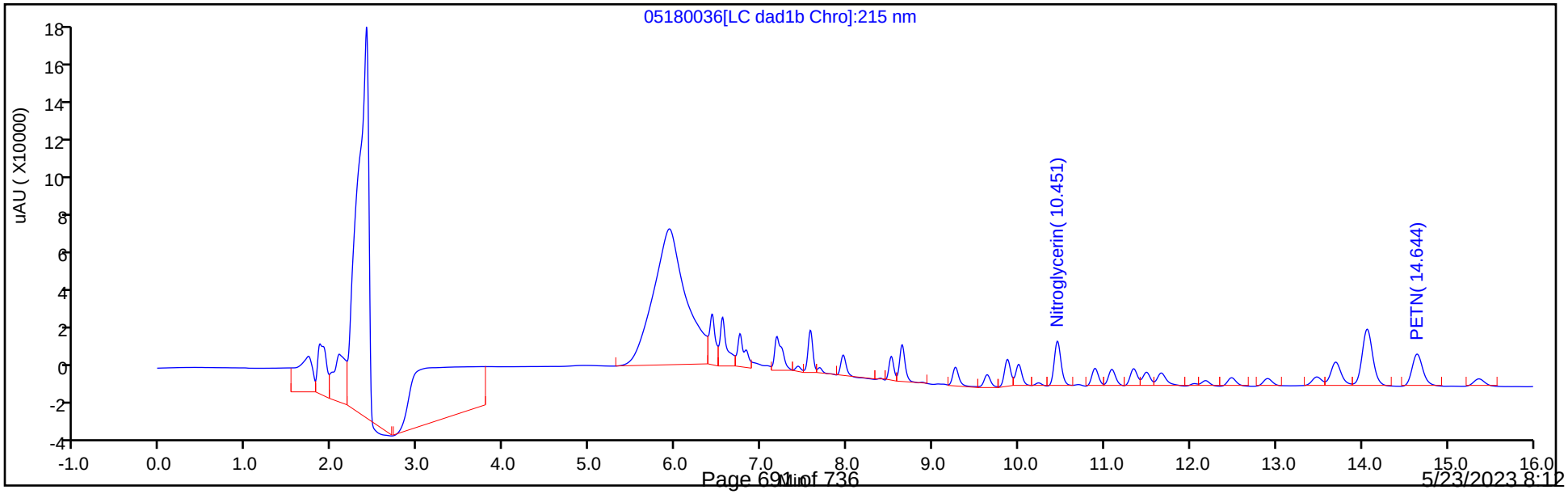
Data File: \\chromfs\denver\chromdata\chhplc_x\20230518-121611.b\05180036.d

Injection Date:	19-May-2023 07:42:53	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	280-176609-A-1-A MS			Worklist Smp#:	36
Client ID:	FBQmw-178-230301-GW				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	36
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20230518-121611.b\05180036.D				
Lims ID:	280-176609-A-1-A MS				
Client ID:	FBQmw-178-230301-GW				
Sample Type:	MS				
Inject. Date:	19-May-2023 07:42:53	ALS Bottle#:	36	Worklist Smp#:	36
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-176609-A-1-A MS				
Operator ID:	JZ/JG	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20230518-121611.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	19-May-2023 12:22:06	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: 19-May-2023 12:16:25

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.2001	100.05

Manual Integration/User Assign Peak Report

Eurofins Denver

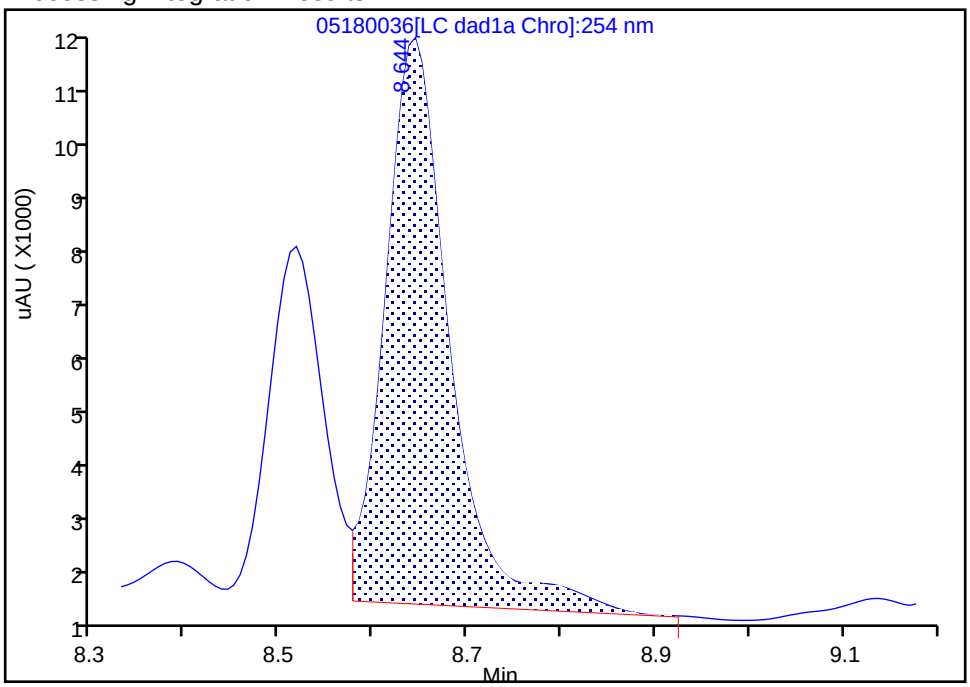
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230518-121611.b\05180036.d				
Injection Date:	19-May-2023 07:42:53	Instrument ID:	CHHPLC_X3		
Lims ID:	280-176609-A-1-A MS				
Client ID:	FBQmw-178-230301-GW				
Operator ID:	JZ/JG	ALS Bottle#:	36	Worklist Smp#:	36
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

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

Signal: 1

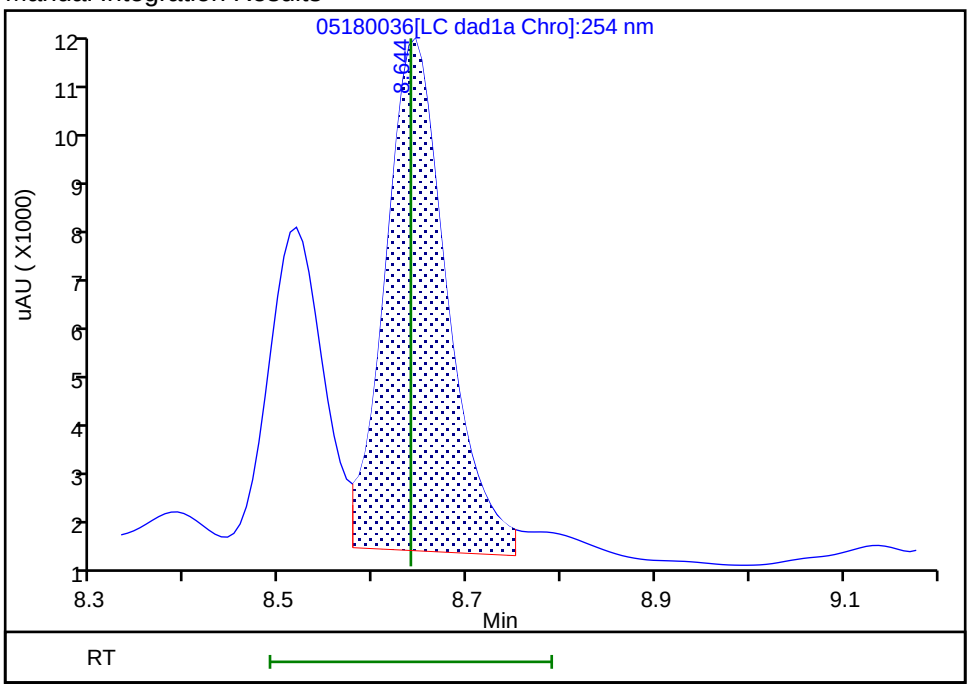
Processing Integration Results

RT: 8.64
Area: 48458
Amount: 0.223158
Amount Units: ug/mL



Manual Integration Results

RT: 8.64
Area: 46043
Amount: 0.212036
Amount Units: ug/mL



Reviewer: LV5D, 19-May-2023 12:16:18 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

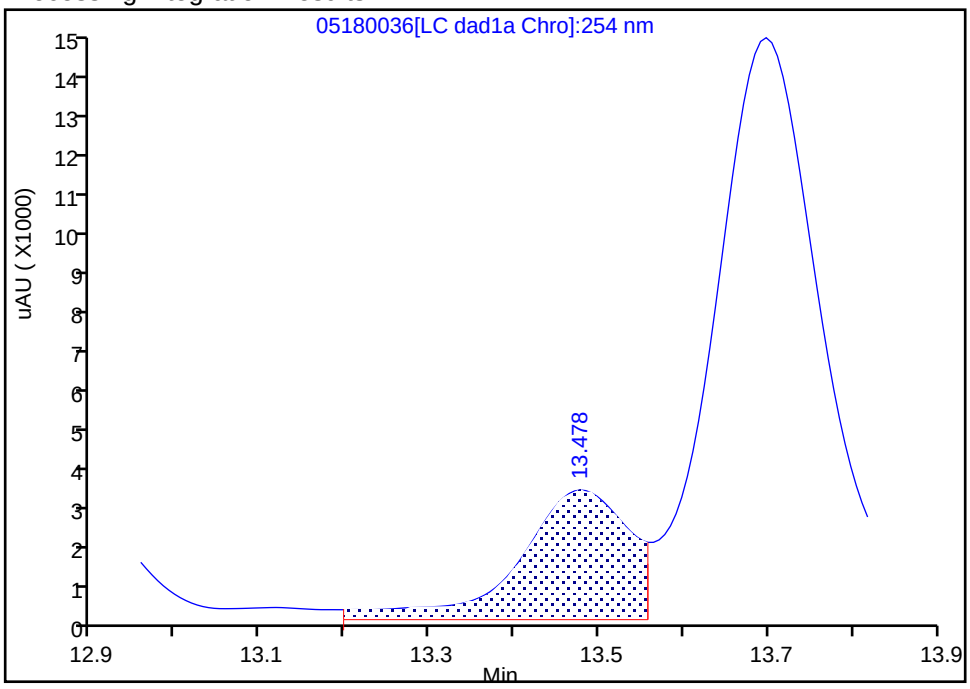
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230518-121611.b\05180036.d				
Injection Date:	19-May-2023 07:42:53	Instrument ID:	CHHPLC_X3		
Lims ID:	280-176609-A-1-A MS				
Client ID:	FBQmw-178-230301-GW				
Operator ID:	JZ/JG	ALS Bottle#:	36	Worklist Smp#:	36
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

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

Signal: 1

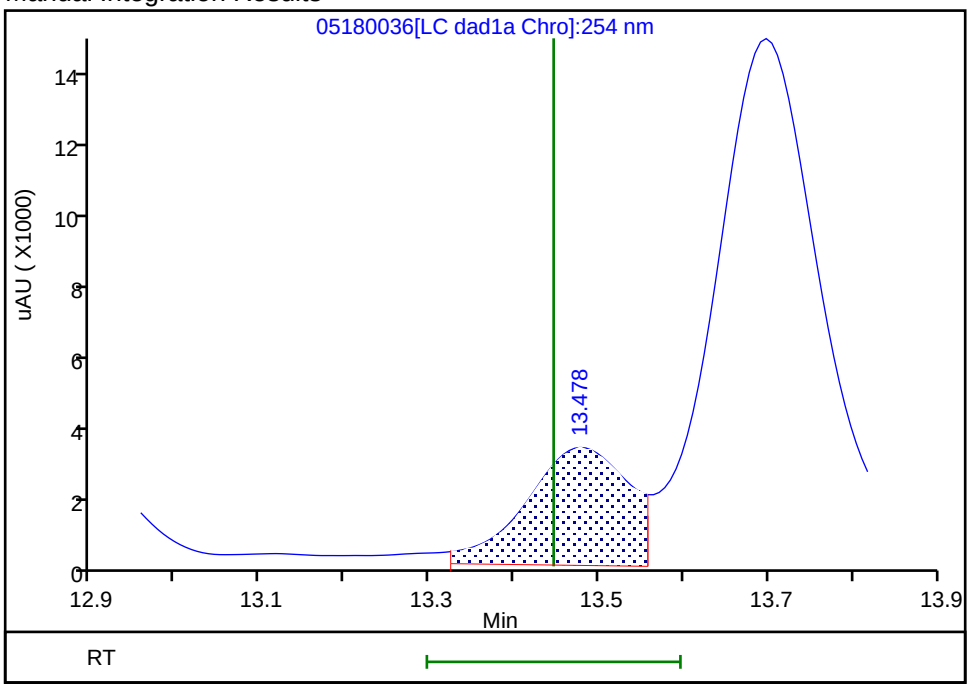
Processing Integration Results

RT: 13.48
Area: 28625
Amount: 0.203748
Amount Units: ug/mL



Manual Integration Results

RT: 13.48
Area: 26478
Amount: 0.188466
Amount Units: ug/mL



Reviewer: LV5D, 19-May-2023 12:17:42 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

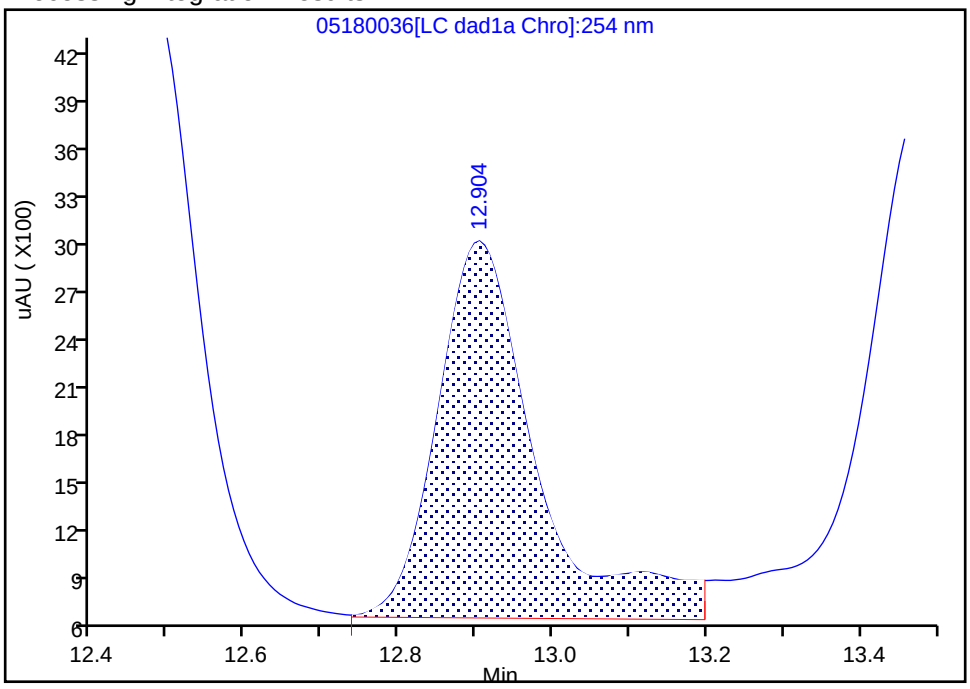
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230518-121611.b\05180036.d				
Injection Date:	19-May-2023 07:42:53	Instrument ID:	CHHPLC_X3		
Lims ID:	280-176609-A-1-A MS				
Client ID:	FBQmw-178-230301-GW				
Operator ID:	JZ/JG	ALS Bottle#:	36	Worklist Smp#:	36
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

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

Signal: 1

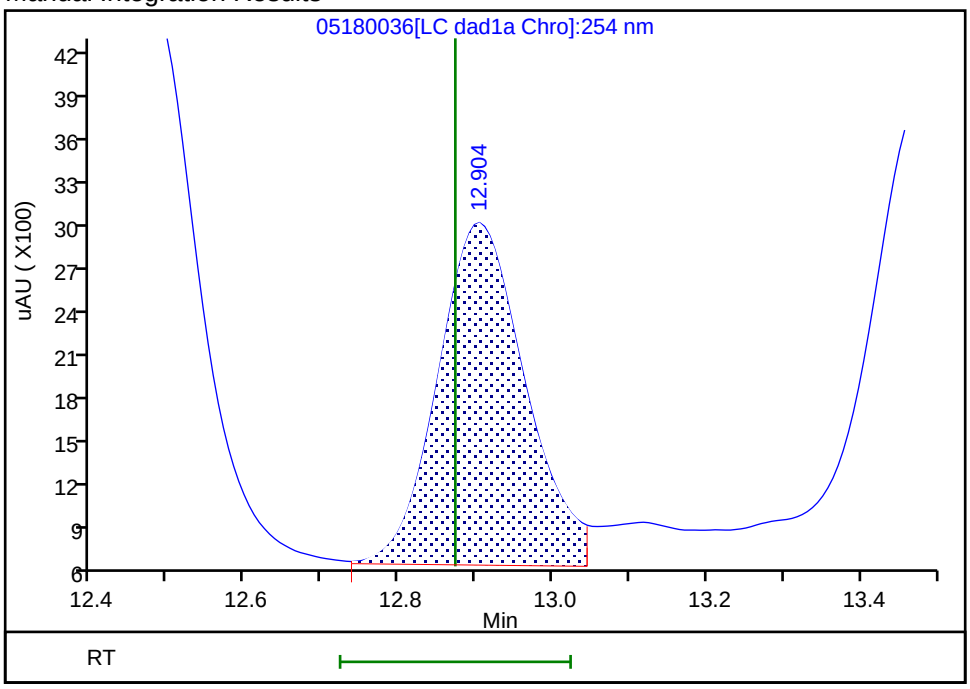
Processing Integration Results

RT: 12.90
Area: 20744
Amount: 0.185413
Amount Units: ug/mL



Manual Integration Results

RT: 12.90
Area: 18268
Amount: 0.163282
Amount Units: ug/mL



Reviewer: LV5D, 19-May-2023 12:17:41 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

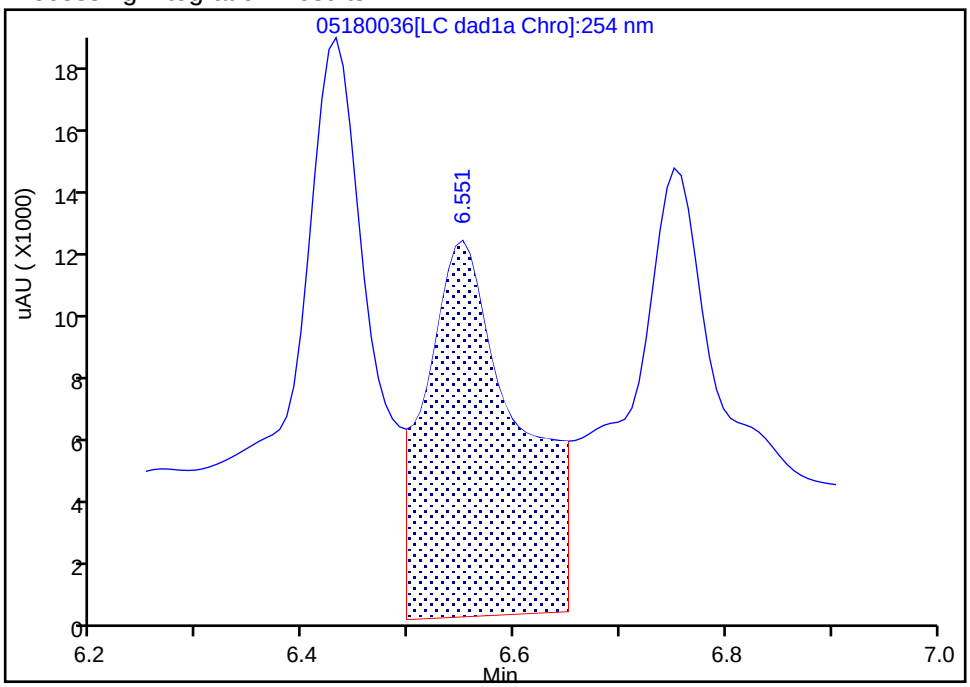
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230518-121611.b\05180036.d				
Injection Date:	19-May-2023 07:42:53	Instrument ID:	CHHPLC_X3		
Lims ID:	280-176609-A-1-A MS				
Client ID:	FBQmw-178-230301-GW				
Operator ID:	JZ/JG	ALS Bottle#:	36	Worklist Smp#:	36
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

4 HMX, CAS: 2691-41-0

Signal: 1

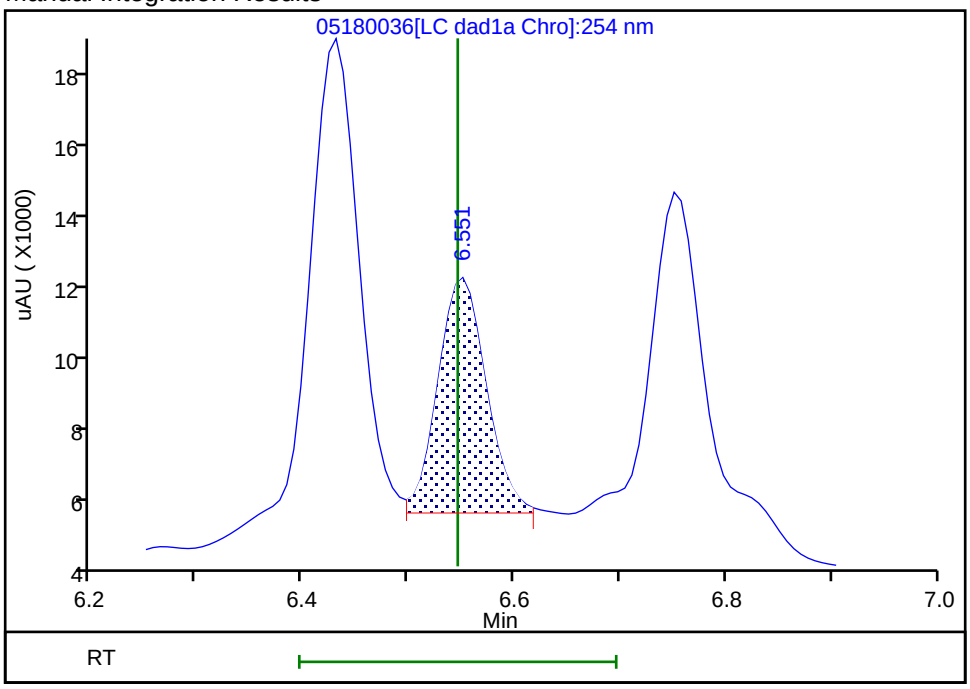
Processing Integration Results

RT: 6.55
Area: 68343
Amount: 0.730721
Amount Units: ug/mL



Manual Integration Results

RT: 6.55
Area: 19345
Amount: 0.206836
Amount Units: ug/mL



Reviewer: LV5D, 19-May-2023 12:15:33 -06:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

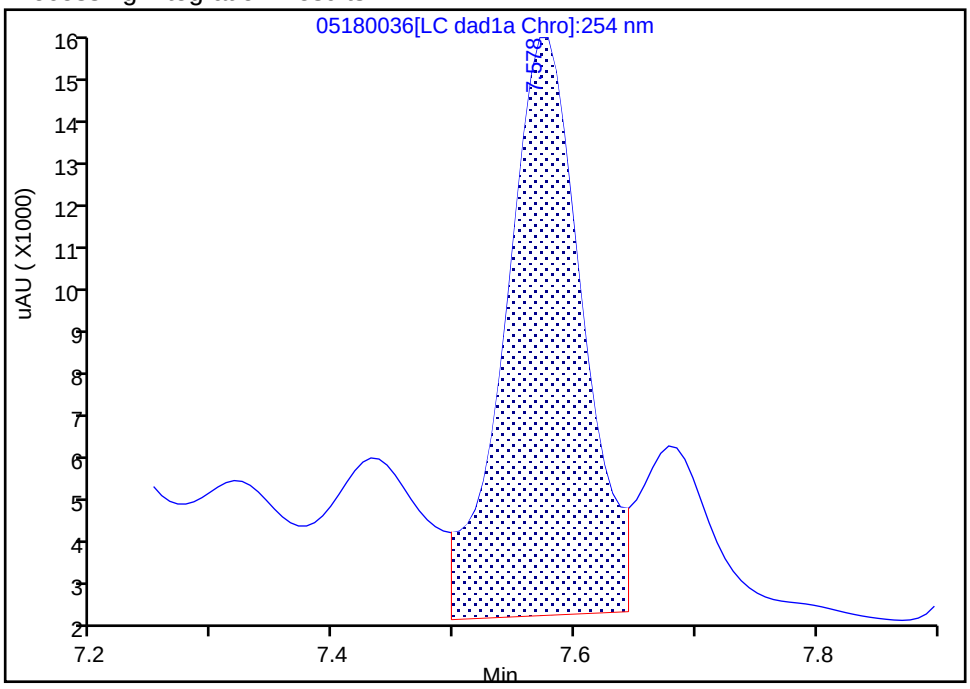
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230518-121611.b\05180036.d				
Injection Date:	19-May-2023 07:42:53	Instrument ID:	CHHPLC_X3		
Lims ID:	280-176609-A-1-A MS				
Client ID:	FBQmw-178-230301-GW				
Operator ID:	JZ/JG	ALS Bottle#:	36	Worklist Smp#:	36
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

8 RDX, CAS: 121-82-4

Signal: 1

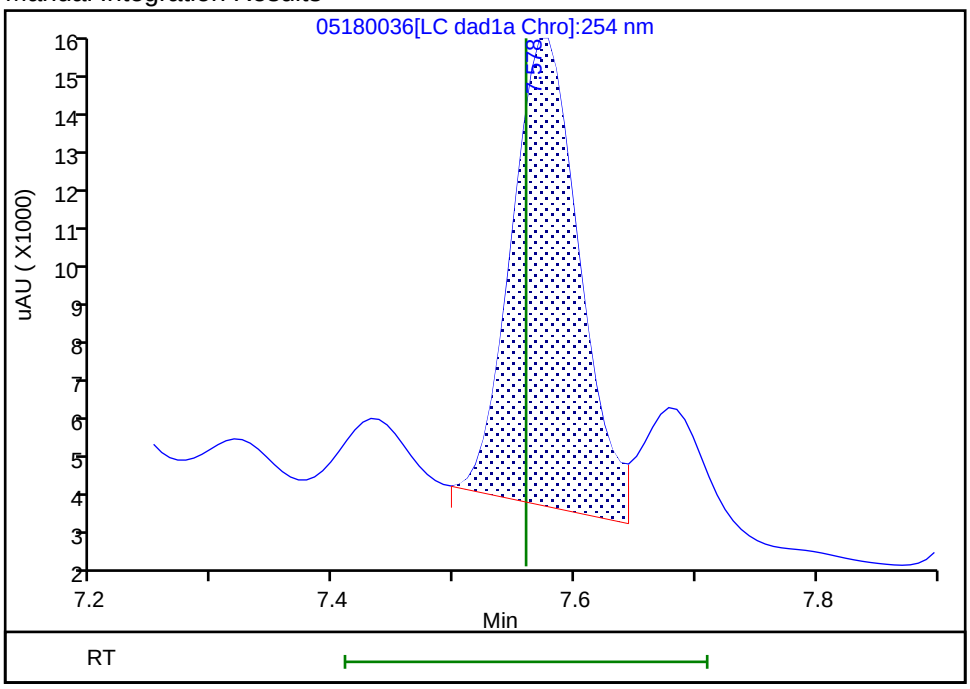
Processing Integration Results

RT: 7.58
Area: 60767
Amount: 0.571227
Amount Units: ug/mL



Manual Integration Results

RT: 7.58
Area: 47752
Amount: 0.448882
Amount Units: ug/mL



Reviewer: LV5D, 19-May-2023 12:16:02 -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.: 280-176609-1

SDG No.:

Client Sample ID: FBQmw-178-230301-GW MS | Lab Sample ID: 280-176609-1 MS

Matrix: Water | Lab File ID: 05190020.D

Analysis Method: 8330B | Date Collected: 05/16/2023 13:37

Extraction Method: 3535 | Date Extracted: 05/18/2023 13:20

Sample wt/vol: 472.2(mL) | Date Analyzed: 05/19/2023 22:06

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.: 613169 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
88-72-2	2-Nitrotoluene	12.7	M J1	0.22	0.21	0.091
2691-41-0	HMX	1.84		0.22	0.21	0.093
121-82-4	*RDX*	*2.07*		*0.22*	0.21	*0.055*

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	105		83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2_LUNA\20230519-121648.b\05190020.D
Lims ID: 280-176609-A-1-A MS
Client ID: FBQmw-178-230301-GW
Sample Type: MS
Inject. Date: 19-May-2023 22:06:38 ALS Bottle#: 20 Worklist Smp#: 20
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-176609-A-1-A MS
Operator ID: JZ/JG Instrument ID: CHHPLC_G2_LUNA

Method: \\chromfs\Denver\ChromData\G2_LUNA\20230519-121648.b\G2_8330_Luna.m
Limit Group: GCSV - 8330
Last Update: 20-May-2023 11:50:53 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: CTX1663

First Level Reviewer: LV5D Date: 20-May-2023 11:49:37

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
3 TNX	1	5.306	5.315	-0.009	74774	0.2006	0.1873	
4 DNX	1	6.159	6.175	-0.016	54834	0.2002	0.1916	
6 HMX	1	6.826	6.835	-0.009	31468	0.2000	0.1738	
7 MNX	1	7.679	7.695	-0.016	79903	0.2334	0.3045	
5 2,4,6-Trinitrophenol	1	8.633	8.562	0.071	29223	0.2000	0.1878	
8 RDX	1	9.099	9.102	-0.003	42254	0.2000	0.1959	
9 Nitrobenzene	1	11.626	11.622	0.004	77401	0.2000	0.2037	
$ 10 1,2-Dinitrobenzene	1	12.599	12.582	0.017	55654	0.2000	0.2097	
11 3,5-Dinitroaniline	1	14.466	14.429	0.037	104457	0.2000	0.2420	
12 1,3-Dinitrobenzene	1	14.726	14.695	0.031	115334	0.2000	0.1984	
13 Nitroglycerin	2	15.226	15.169	0.057	267537	2.00	2.15	
14 o-Nitrotoluene	1	15.846	15.749	0.097	291607	0.2000	1.20	M
15 p-Nitrotoluene	1	15.999	15.969	0.030	35603	0.2000	0.1637	M
16 4-Amino-2,6-dinitrotoluene	1	16.379	16.509	-0.130	426641	0.2000	1.57	
17 m-Nitrotoluene	1	16.866	16.809	0.057	42243	0.2000	0.1576	
18 2-Amino-4,6-dinitrotoluene	1	17.413	17.329	0.084	117887	0.2000	0.2945	M
19 1,3,5-Trinitrobenzene	1	17.499	17.502	-0.003	76897	0.2000	0.2032	M
20 2,6-Dinitrotoluene	1	18.679	18.622	0.057	52639	0.2000	0.1881	
21 2,4-Dinitrotoluene	1	19.133	19.082	0.051	103579	0.2000	0.1849	
22 Tetryl	1	22.399	22.355	0.044	64040	0.2000	0.2367	
23 2,4,6-Trinitrotoluene	1	23.219	23.182	0.037	76677	0.2000	0.1862	
24 PETN	2	24.426	24.382	0.044	254058	2.00	2.15	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

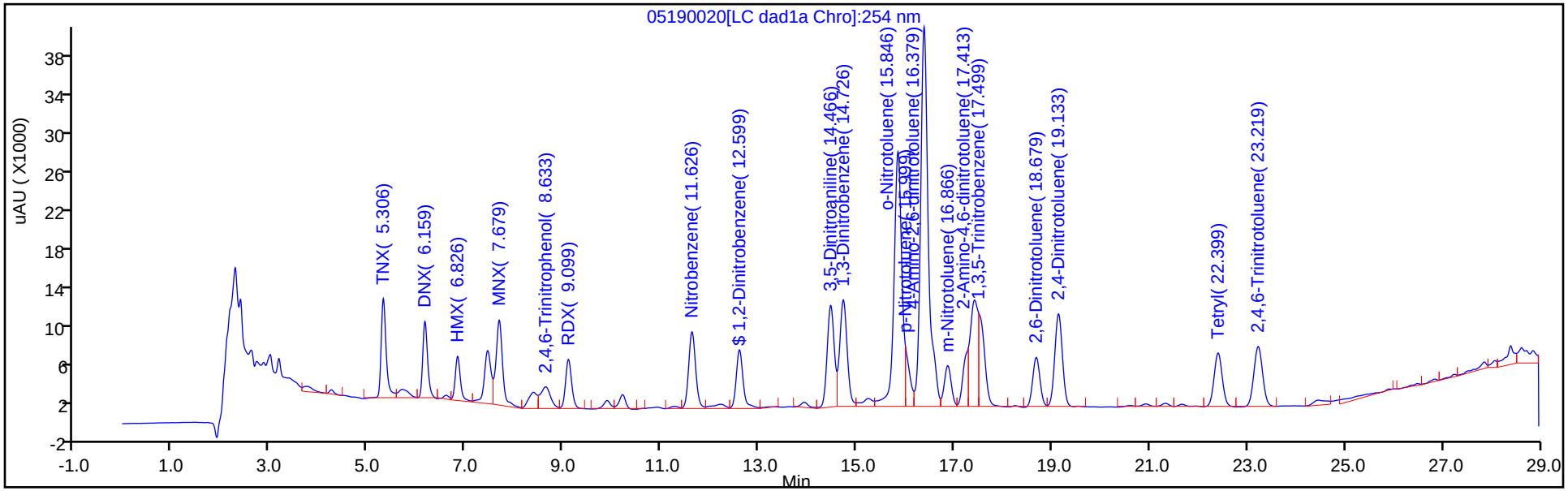
Report Date: 20-May-2023 11:50:54 Chrom Revision: 2.3 16-May-2023 16:37:30

Eurofins Denver

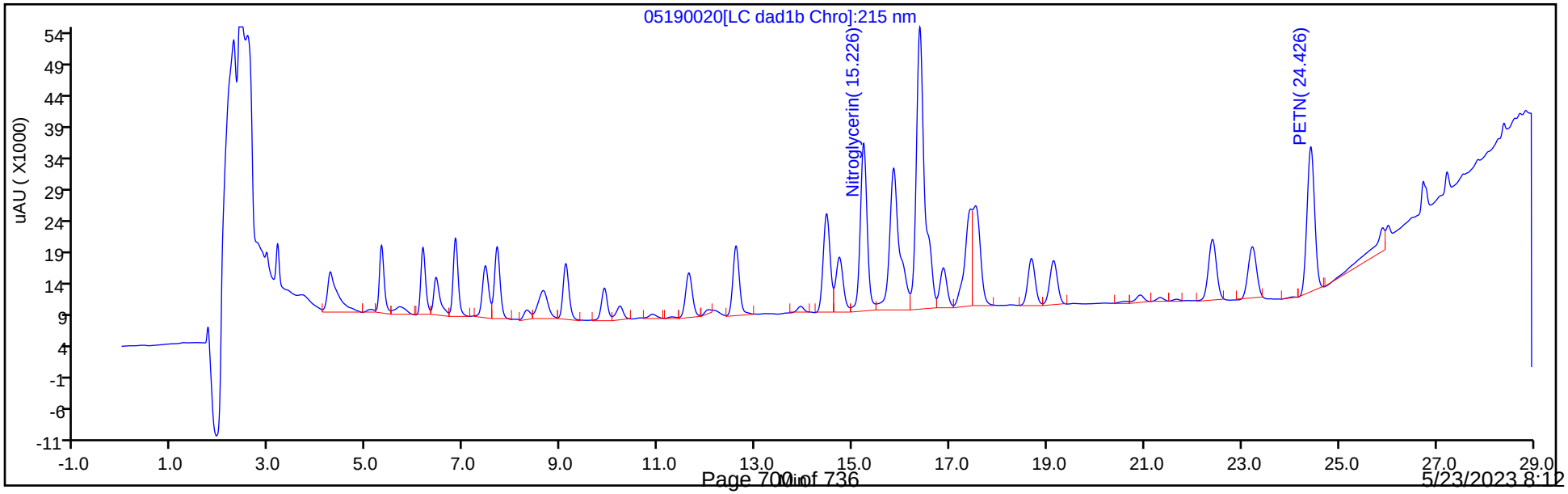
Data File: \\chromfs\denver\chromdata\g2_luna\20230519-121648.b\05190020.d

Injection Date:	19-May-2023 22:06:38	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	JZ/JG
Lims ID:	280-176609-A-1-A MS			Worklist Smp#:	20
Client ID:	FBQmw-178-230301-GW				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	20
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\20230519-121648.b\05190020.D				
Lims ID:	280-176609-A-1-A MS				
Client ID:	FBQmw-178-230301-GW				
Sample Type:	MS				
Inject. Date:	19-May-2023 22:06:38	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-176609-A-1-A MS				
Operator ID:	JZ/JG	Instrument ID:	CHHPLC_G2_LUNA		
Method:	\\chromfs\Denver\ChromData\G2_LUNA\20230519-121648.b\G2_8330_Luna.m				
Limit Group:	GCSV - 8330				
Last Update:	20-May-2023 11:50:53	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:	CTX1663				

First Level Reviewer: LV5D Date: 20-May-2023 11:49:37

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.2097	104.85

Manual Integration/User Assign Peak Report

Eurofins Denver

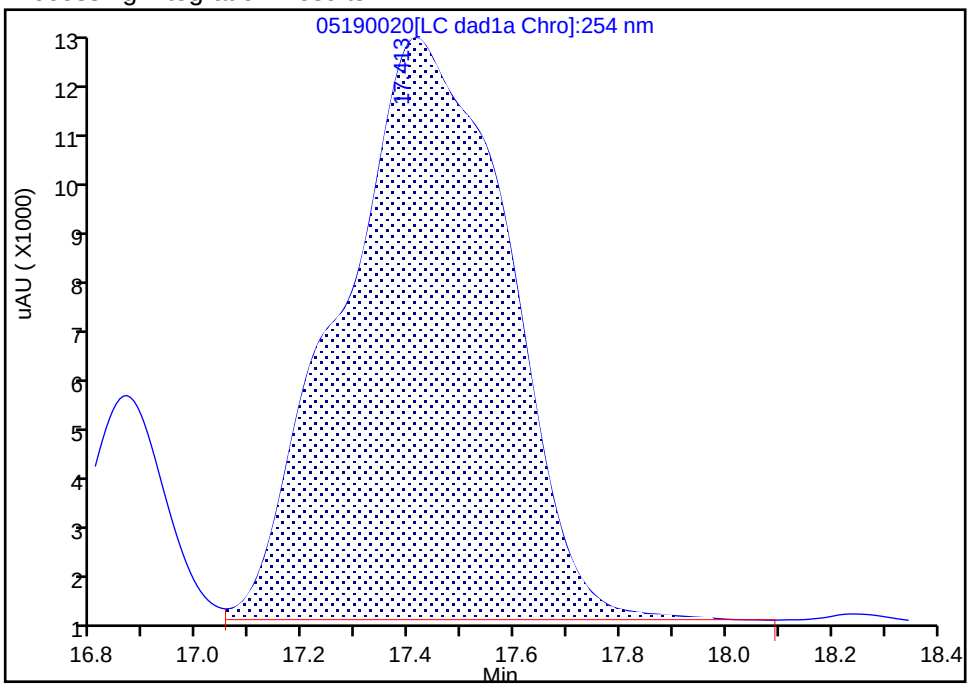
Data File:	\\chromfs\denver\chromdata\g2_luna\20230519-121648.b\05190020.d				
Injection Date:	19-May-2023 22:06:38	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	280-176609-A-1-A MS				
Client ID:	FBQmw-178-230301-GW				
Operator ID:	JZ/JG	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

18 2-Amino-4,6-dinitrotoluene, CAS: 35572-78-2

Signal: 1

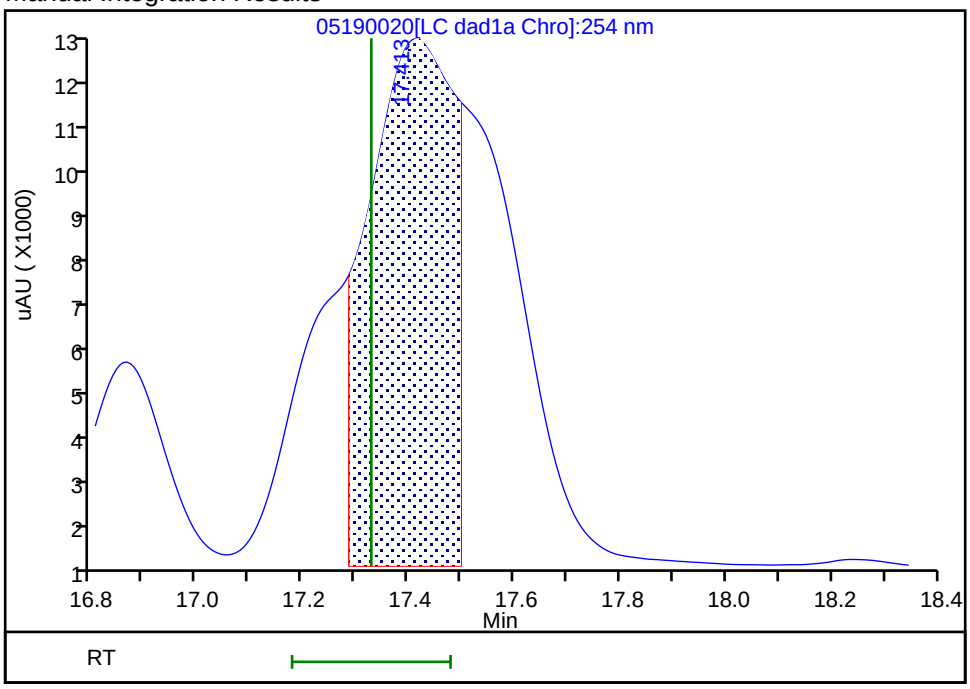
Processing Integration Results

RT: 17.41
Area: 235906
Amount: 0.589347
Amount Units: ug/ml



Manual Integration Results

RT: 17.41
Area: 117887
Amount: 0.294509
Amount Units: ug/ml



Reviewer: LV5D, 20-May-2023 11:49:36 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

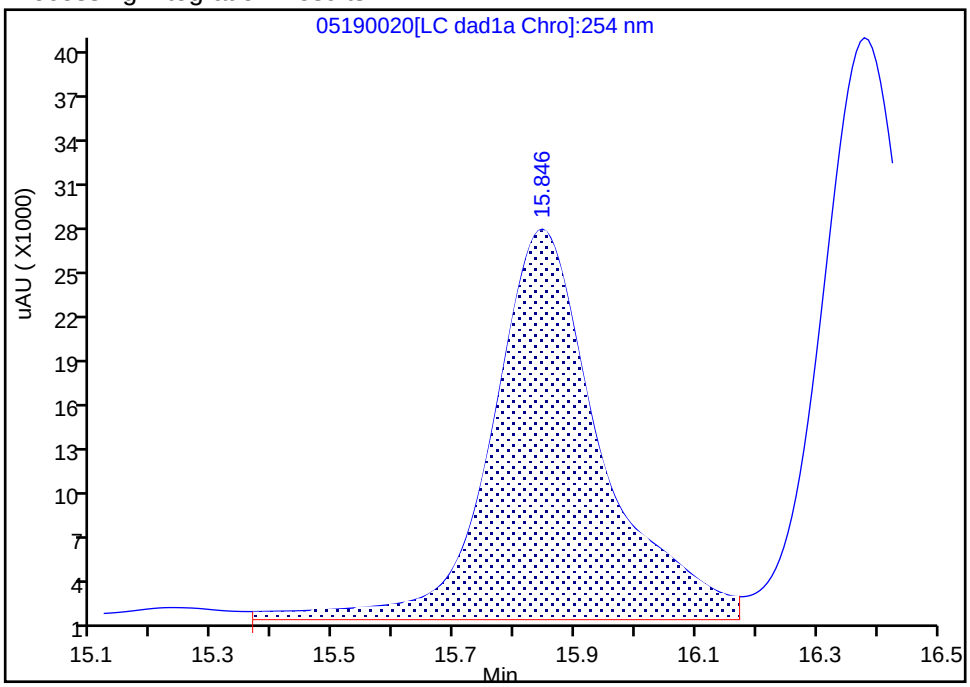
Data File:	\\chromfs\denver\chromdata\g2_luna\20230519-121648.b\05190020.d				
Injection Date:	19-May-2023 22:06:38	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	280-176609-A-1-A MS				
Client ID:	FBQmw-178-230301-GW				
Operator ID:	JZ/JG	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

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

Signal: 1

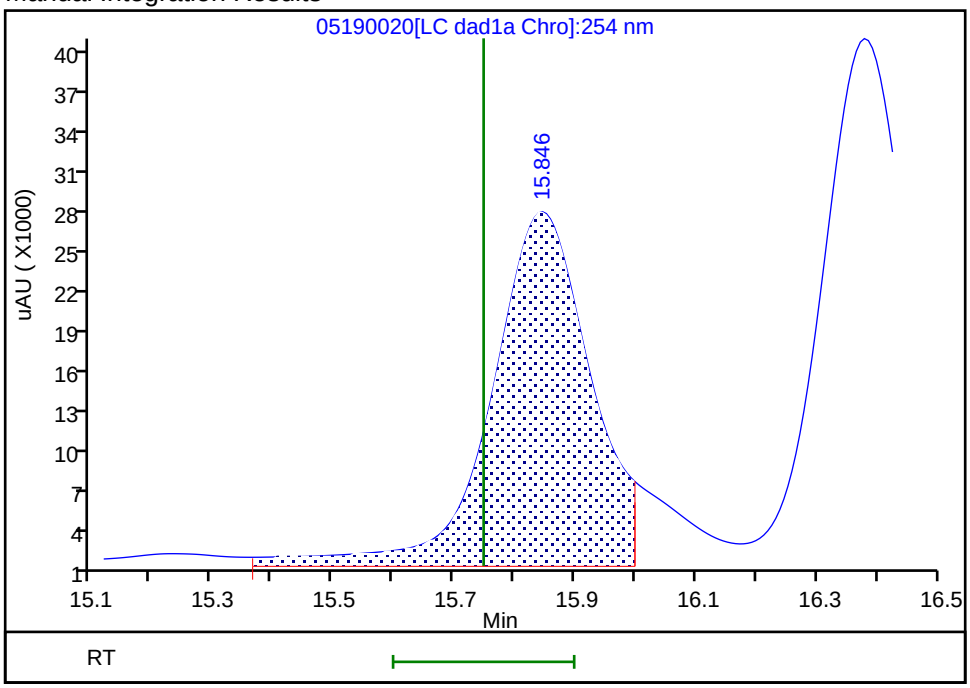
Processing Integration Results

RT: 15.85
Area: 327202
Amount: 1.345468
Amount Units: ug/ml



Manual Integration Results

RT: 15.85
Area: 291607
Amount: 1.199100
Amount Units: ug/ml



Reviewer: LV5D, 20-May-2023 11:49:18 -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.: 280-176609-1

SDG No.:

Client Sample ID: FBQmw-178-230301-GW MSD | Lab Sample ID: 280-176609-1 MSD

Matrix: Water | Lab File ID: 05180037.D

Analysis Method: 8330B | Date Collected: 05/16/2023 13:37

Extraction Method: 3535 | Date Extracted: 05/18/2023 13:20

Sample wt/vol: 473.9(mL) | Date Analyzed: 05/19/2023 08:05

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.: 613045 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	2.30	M	0.22	0.21	0.089
99-65-0	1,3-Dinitrobenzene	2.13		0.12	0.11	0.039
118-96-7	2,4,6-Trinitrotoluene	2.00		0.12	0.11	0.047
121-14-2	2,4-Dinitrotoluene	2.34		0.11	0.084	0.029
606-20-2	2,6-Dinitrotoluene	2.11		0.11	0.084	0.042
35572-78-2	2-Amino-4,6-dinitrotoluene	1.94		0.12	0.11	0.053
99-08-1	3-Nitrotoluene	2.00	M	0.42	0.37	0.21
19406-51-0	4-Amino-2,6-dinitrotoluene	1.80		0.16	0.13	0.061
99-99-0	4-Nitrotoluene	1.73	M	0.43	0.42	0.11
98-95-3	Nitrobenzene	1.89		0.22	0.21	0.096
55-63-0	Nitroglycerin	20.7		2.2	2.1	0.97
78-11-5	PETN	22.2		1.2	1.1	0.47
121-82-4	RDX	5.08	M	0.22	0.21	0.054
479-45-8	Tetryl	2.23		0.12	0.11	0.034

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

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20230518-121611.b\05180037.D
Lims ID: 280-176609-A-1-B MSD
Client ID: FBQmw-178-230301-GW
Sample Type: MSD
Inject. Date: 19-May-2023 08:05:50 ALS Bottle#: 37 Worklist Smp#: 37
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-176609-A-1-B MSD
Operator ID: JZ/JG Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20230518-121611.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 19-May-2023 12:22:06 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: 19-May-2023 12:17:36

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 TNX	1	6.426	6.426	0.000	37222	0.2006	0.1883	M
4 HMX	1	6.546	6.546	0.000	18461	0.2000	0.1974	M
6 DNX	1	6.752	6.753	-0.001	29268	0.2002	0.2026	M
7 MNX	1	7.186	7.180	0.006	39915	0.2334	0.3043	M
8 RDX	1	7.579	7.560	0.019	51182	0.2000	0.4811	M
9 2,4,6-Trinitrophenol	1	7.959	7.960	-0.001	20989	0.2000	0.2768	M
$ 10 1,2-Dinitrobenzene	1	8.519	8.513	0.006	25445	0.2000	0.2015	
11 1,3,5-Trinitrobenzene	1	8.646	8.640	0.006	47402	0.2000	0.2183	M
12 1,3-Dinitrobenzene	1	9.266	9.253	0.013	59321	0.2000	0.2015	
13 Nitrobenzene	1	9.632	9.626	0.006	34268	0.2000	0.1792	
14 3,5-Dinitroaniline	1	9.872	9.859	0.013	40115	0.2000	0.1757	
15 Tetryl	1	9.999	9.986	0.013	34715	0.2000	0.2115	
16 Nitroglycerin	2	10.452	10.439	0.013	125949	2.00	1.97	
17 2,4,6-Trinitrotoluene	1	10.886	10.873	0.013	39990	0.2000	0.1895	
18 4-Amino-2,6-dinitrotoluene	1	11.086	11.066	0.020	26479	0.2000	0.1709	
19 2-Amino-4,6-dinitrotoluene	1	11.339	11.319	0.020	37061	0.2000	0.1840	
20 2,6-Dinitrotoluene	1	11.486	11.473	0.013	28614	0.2000	0.2005	
21 2,4-Dinitrotoluene	1	11.659	11.639	0.020	65877	0.2000	0.2221	
22 o-Nitrotoluene	1	12.472	12.459	0.013	27126	0.2000	0.2121	
23 p-Nitrotoluene	1	12.892	12.873	0.019	18380	0.2000	0.1643	M
24 m-Nitrotoluene	1	13.466	13.446	0.020	26662	0.2000	0.1898	M
25 PETN	2	14.626	14.599	0.027	144911	2.00	2.10	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

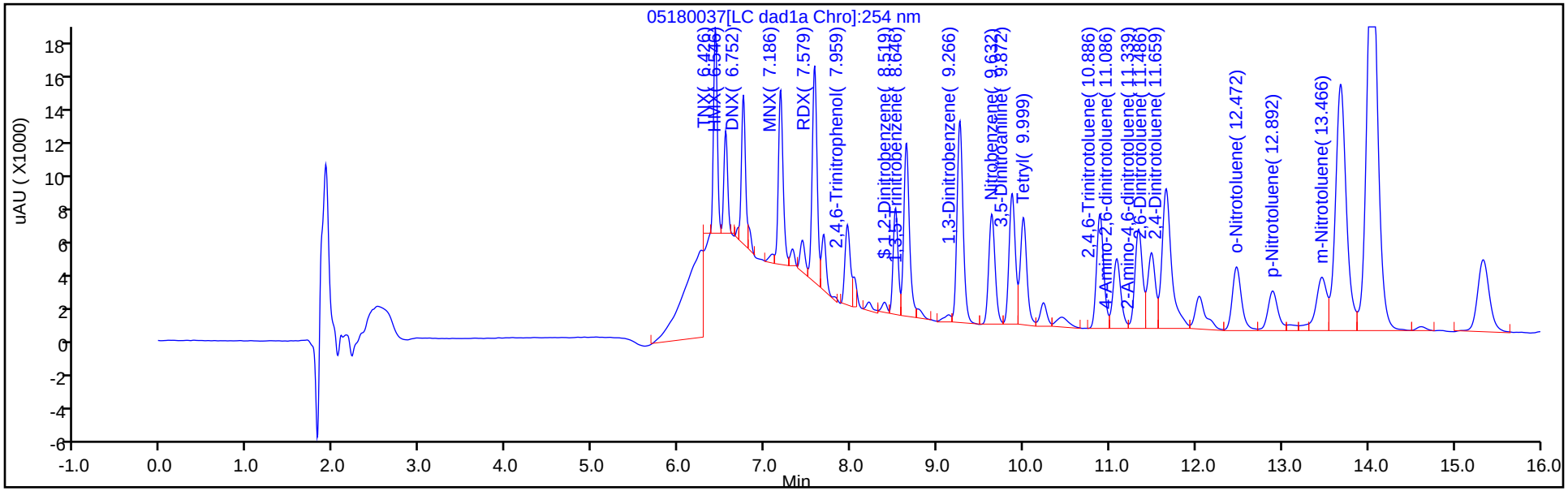
Report Date: 19-May-2023 12:22:08 Chrom Revision: 2.3 16-May-2023 16:37:30

Eurofins Denver

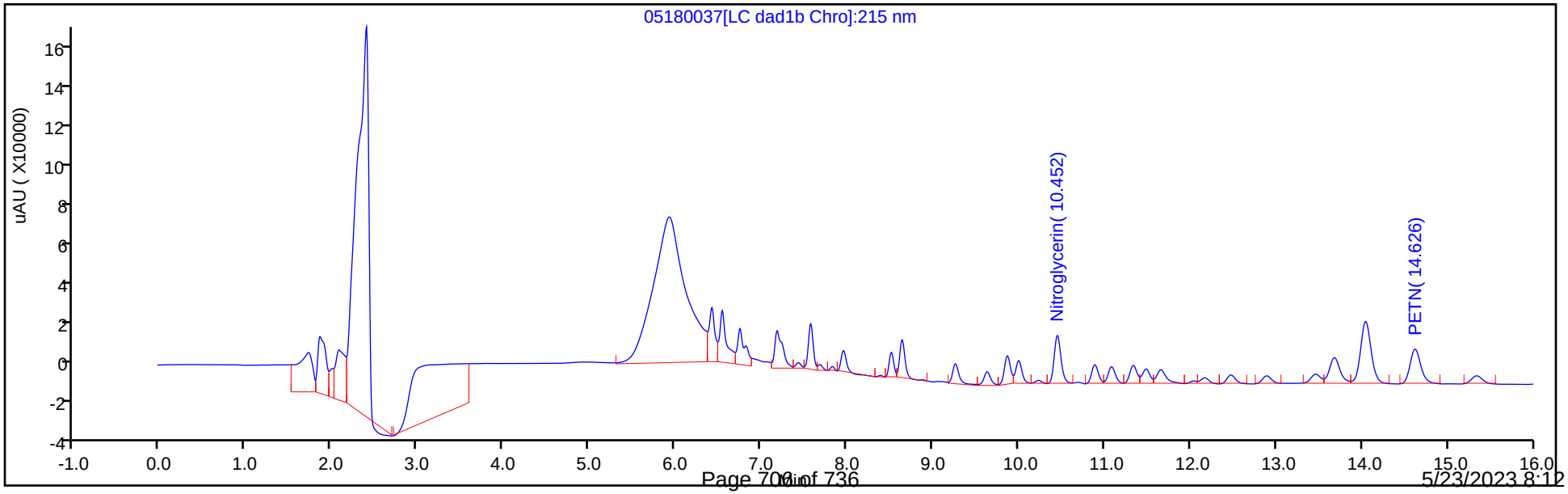
Data File: \\chromfs\denver\chromdata\chhplc_x\20230518-121611.b\05180037.d

Injection Date:	19-May-2023 08:05:50	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	280-176609-A-1-B MSD			Worklist Smp#:	37
Client ID:	FBQmw-178-230301-GW				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	37
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20230518-121611.b\05180037.D				
Lims ID:	280-176609-A-1-B MSD				
Client ID:	FBQmw-178-230301-GW				
Sample Type:	MSD				
Inject. Date:	19-May-2023 08:05:50	ALS Bottle#:	37	Worklist Smp#:	37
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-176609-A-1-B MSD				
Operator ID:	JZ/JG	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20230518-121611.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	19-May-2023 12:22:06	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: 19-May-2023 12:17:36

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.2015	100.73

Manual Integration/User Assign Peak Report

Eurofins Denver

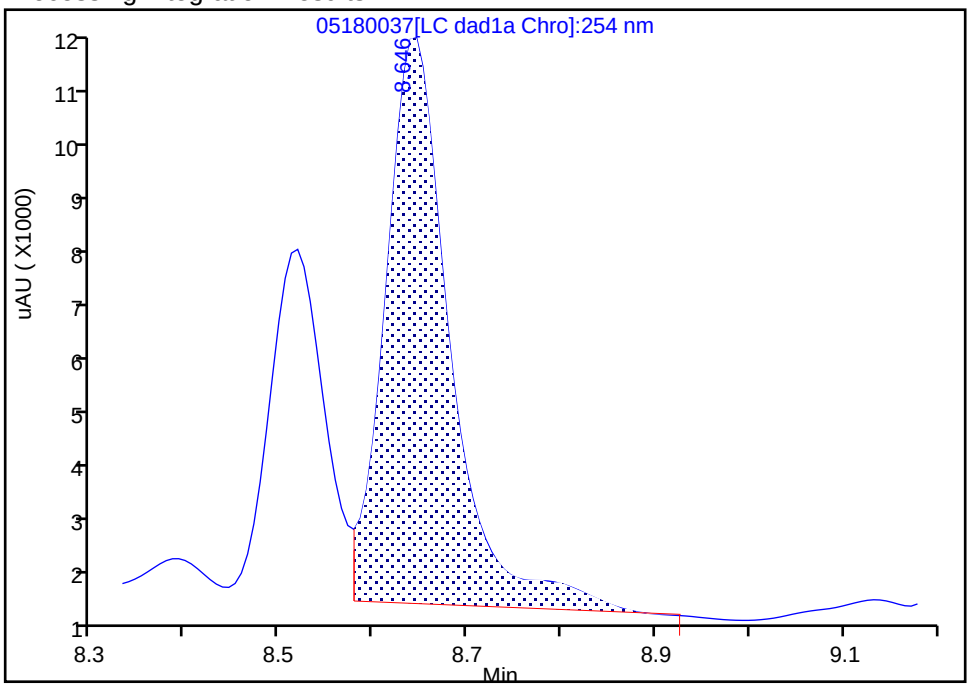
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230518-121611.b\05180037.d				
Injection Date:	19-May-2023 08:05:50	Instrument ID:	CHHPLC_X3		
Lims ID:	280-176609-A-1-B MSD				
Client ID:	FBQmw-178-230301-GW				
Operator ID:	JZ/JG	ALS Bottle#:	37	Worklist Smp#:	37
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

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

Signal: 1

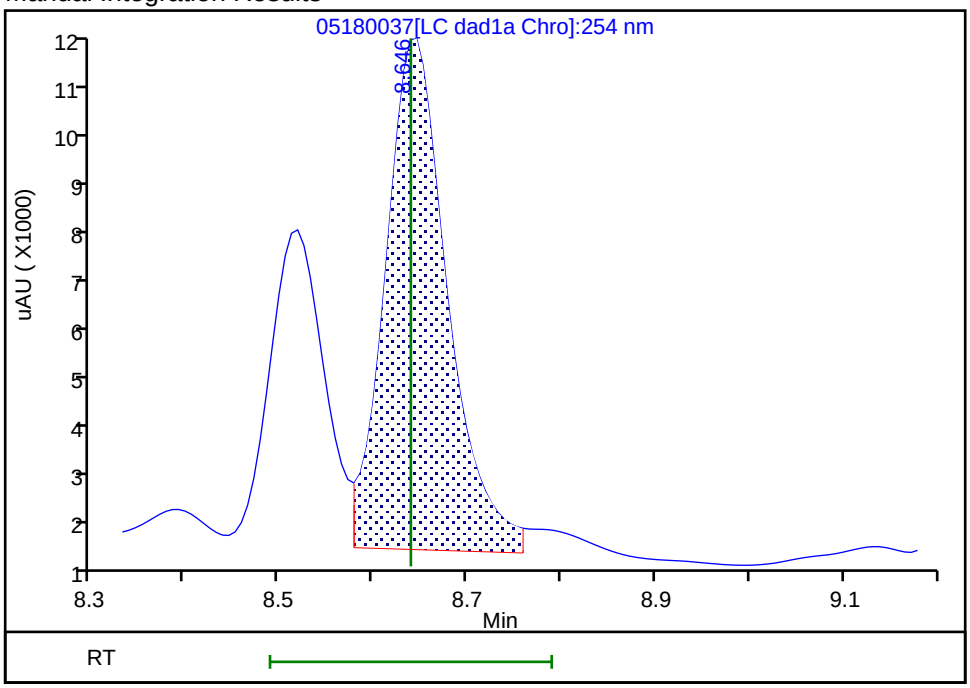
Processing Integration Results

RT: 8.65
Area: 49786
Amount: 0.229273
Amount Units: ug/mL



Manual Integration Results

RT: 8.65
Area: 47402
Amount: 0.218294
Amount Units: ug/mL



Reviewer: LV5D, 19-May-2023 12:17:28 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

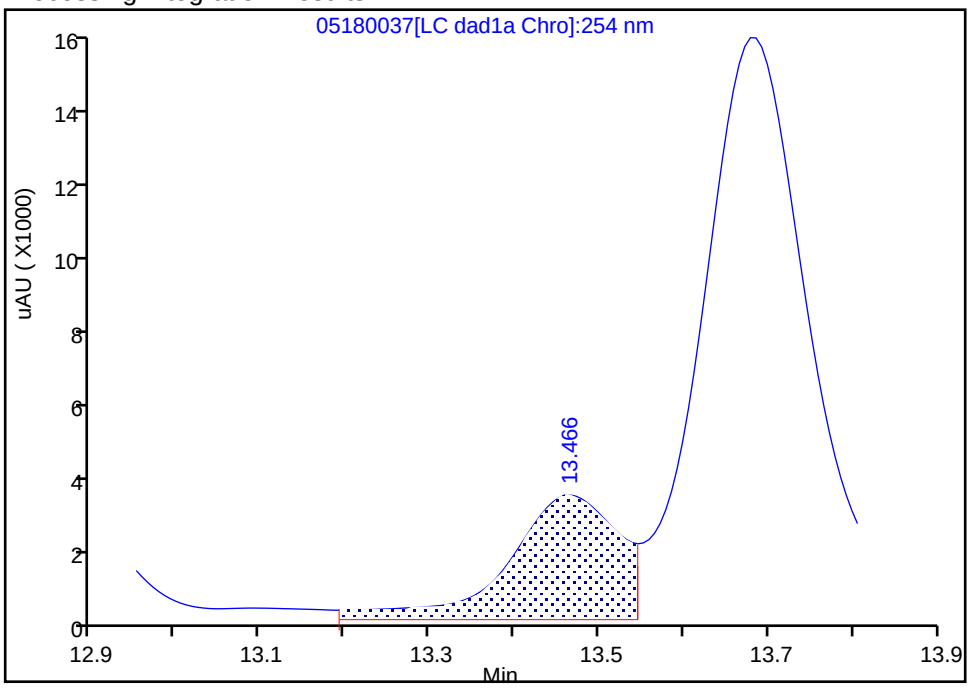
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230518-121611.b\05180037.d				
Injection Date:	19-May-2023 08:05:50	Instrument ID:	CHHPLC_X3		
Lims ID:	280-176609-A-1-B MSD				
Client ID:	FBQmw-178-230301-GW				
Operator ID:	JZ/JG	ALS Bottle#:	37	Worklist Smp#:	37
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

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

Signal: 1

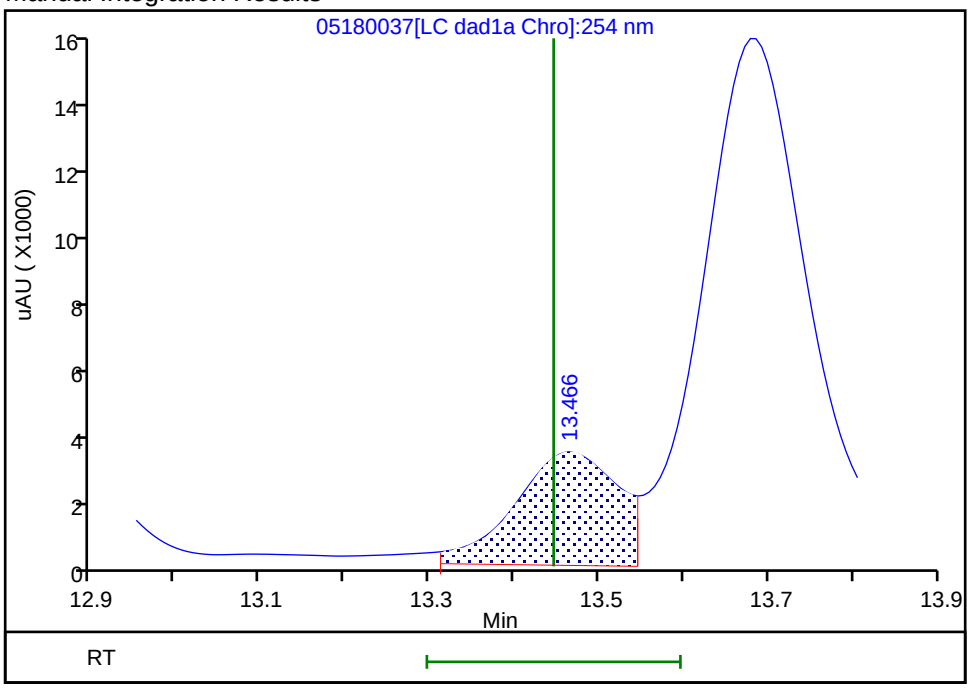
Processing Integration Results

RT: 13.47
Area: 28737
Amount: 0.204545
Amount Units: ug/mL



Manual Integration Results

RT: 13.47
Area: 26662
Amount: 0.189776
Amount Units: ug/mL



Reviewer: LV5D, 19-May-2023 12:17:35 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

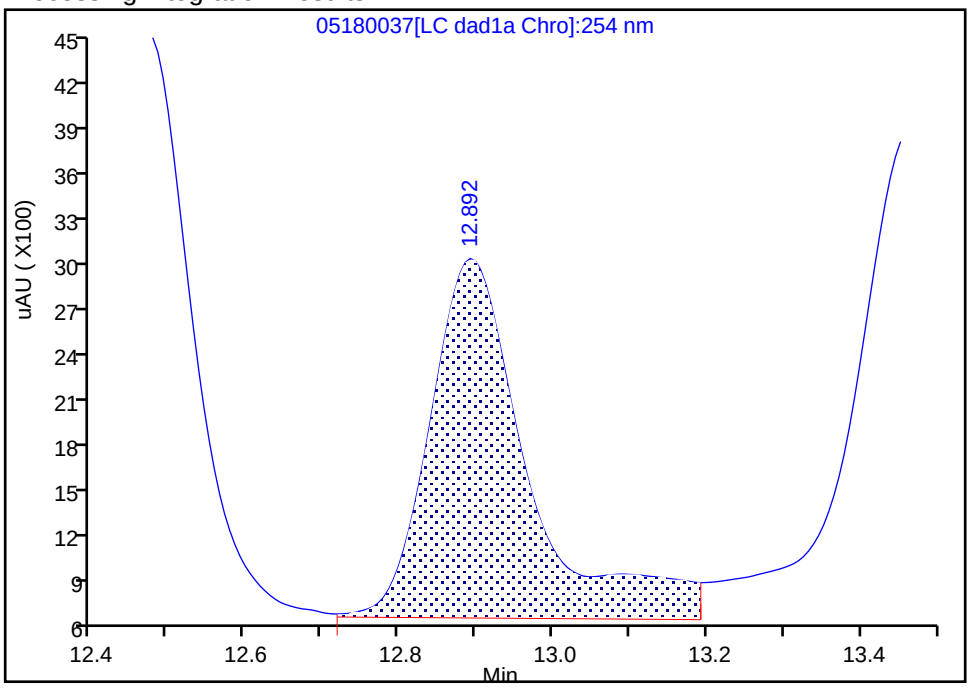
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230518-121611.b\05180037.d				
Injection Date:	19-May-2023 08:05:50	Instrument ID:	CHHPLC_X3		
Lims ID:	280-176609-A-1-B MSD				
Client ID:	FBQmw-178-230301-GW				
Operator ID:	JZ/JG	ALS Bottle#:	37	Worklist Smp#:	37
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

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

Signal: 1

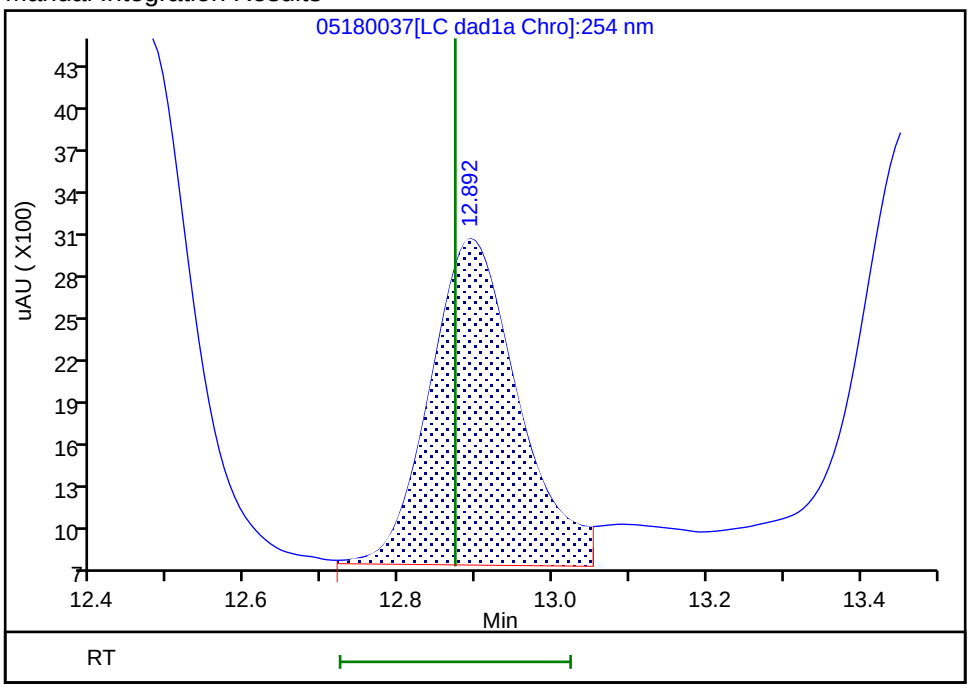
Processing Integration Results

RT: 12.89
Area: 20696
Amount: 0.184984
Amount Units: ug/mL



Manual Integration Results

RT: 12.89
Area: 18380
Amount: 0.164283
Amount Units: ug/mL



Reviewer: LV5D, 19-May-2023 12:17:33 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

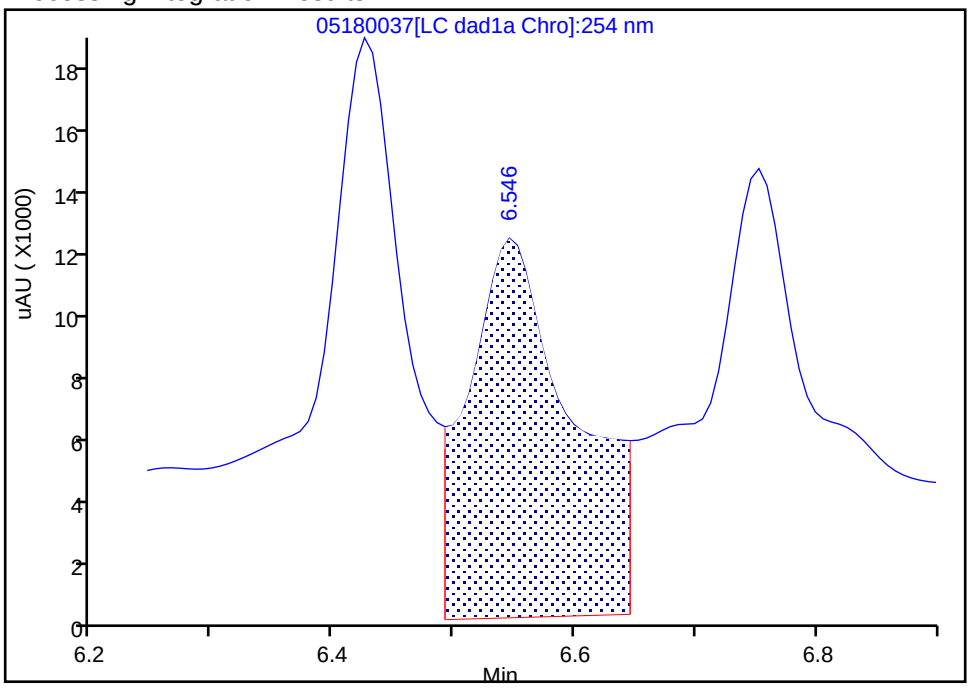
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230518-121611.b\05180037.d				
Injection Date:	19-May-2023 08:05:50	Instrument ID:	CHHPLC_X3		
Lims ID:	280-176609-A-1-B MSD				
Client ID:	FBQmw-178-230301-GW				
Operator ID:	JZ/JG	ALS Bottle#:	37	Worklist Smp#:	37
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

4 HMX, CAS: 2691-41-0

Signal: 1

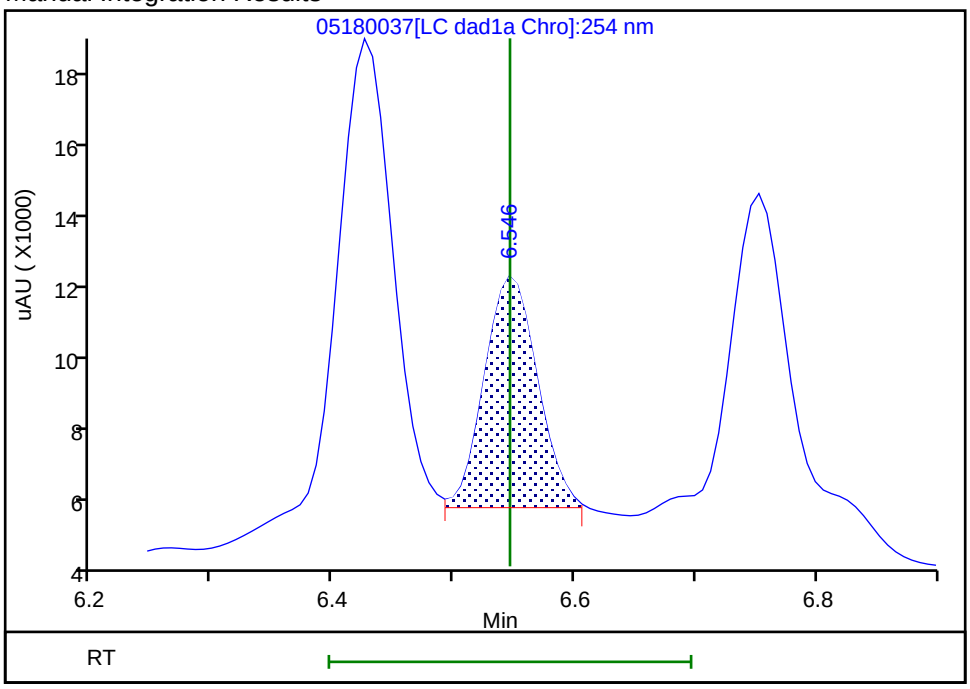
Processing Integration Results

RT: 6.55
Area: 70492
Amount: 0.753698
Amount Units: ug/mL



Manual Integration Results

RT: 6.55
Area: 18461
Amount: 0.197384
Amount Units: ug/mL



Reviewer: LV5D, 19-May-2023 12:16:48 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

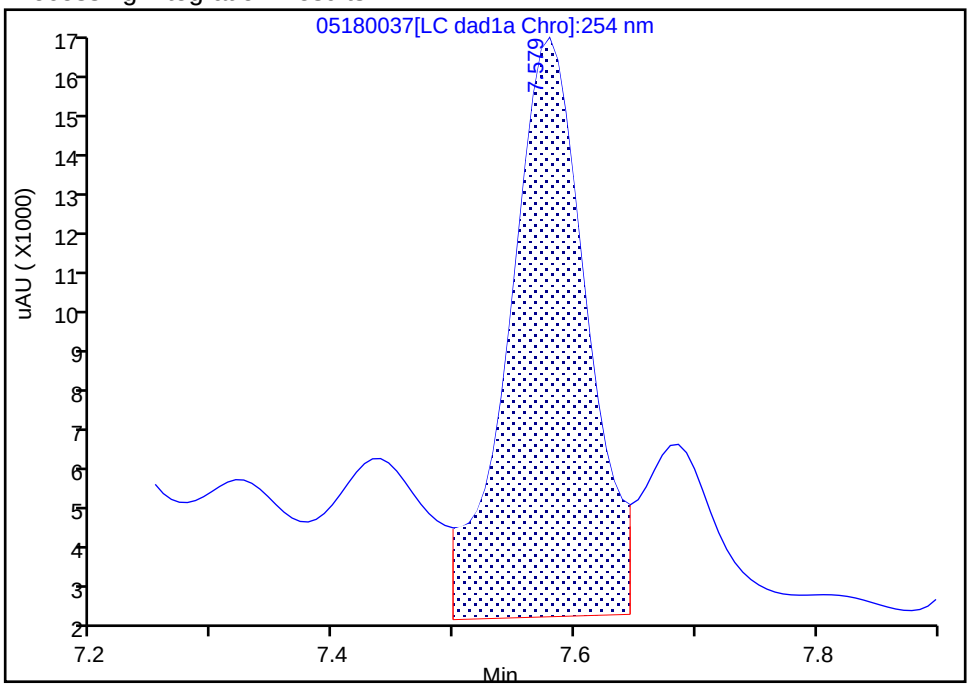
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230518-121611.b\05180037.d				
Injection Date:	19-May-2023 08:05:50	Instrument ID:	CHHPLC_X3		
Lims ID:	280-176609-A-1-B MSD				
Client ID:	FBQmw-178-230301-GW				
Operator ID:	JZ/JG	ALS Bottle#:	37	Worklist Smp#:	37
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

8 RDX, CAS: 121-82-4

Signal: 1

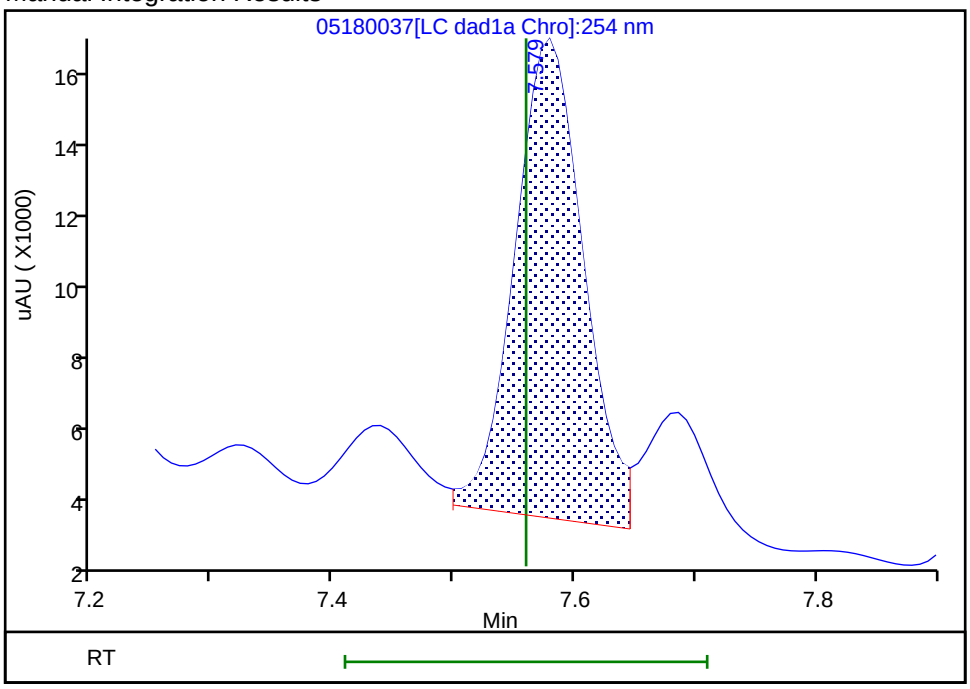
Processing Integration Results

RT: 7.58
Area: 64087
Amount: 0.602436
Amount Units: ug/mL



Manual Integration Results

RT: 7.58
Area: 51182
Amount: 0.481125
Amount Units: ug/mL



Reviewer: LV5D, 19-May-2023 12:17:15 -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.: 280-176609-1

SDG No.:

Client Sample ID: FBQmw-178-230301-GW MSD | Lab Sample ID: 280-176609-1 MSD

Matrix: Water | Lab File ID: 05190021.D

Analysis Method: 8330B | Date Collected: 05/16/2023 13:37

Extraction Method: 3535 | Date Extracted: 05/18/2023 13:20

Sample wt/vol: 473.9(mL) | Date Analyzed: 05/19/2023 22:42

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.: 613169 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
88-72-2	2-Nitrotoluene	13.0	M J1	0.22	0.21	0.090
2691-41-0	HMX	1.82		0.22	0.21	0.092
121-82-4	*RDX*	*2.10*		*0.22*	0.21	*0.054*

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	108		83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2_LUNA\20230519-121648.b\05190021.D
Lims ID: 280-176609-A-1-B MSD
Client ID: FBQmw-178-230301-GW
Sample Type: MSD
Inject. Date: 19-May-2023 22:42:39 ALS Bottle#: 21 Worklist Smp#: 21
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-176609-A-1-B MSD
Operator ID: JZ/JG Instrument ID: CHHPLC_G2_LUNA

Method: \\chromfs\Denver\ChromData\G2_LUNA\20230519-121648.b\G2_8330_Luna.m
Limit Group: GCSV - 8330
Last Update: 20-May-2023 11:50:53 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: CTX1663

First Level Reviewer: LV5D Date: 20-May-2023 11:49:56

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
3 TNX	1	5.303	5.315	-0.012	73597	0.2006	0.1844	
4 DNX	1	6.156	6.175	-0.019	55435	0.2002	0.1937	
6 HMX	1	6.823	6.835	-0.012	31292	0.2000	0.1728	
7 MNX	1	7.676	7.695	-0.019	81881	0.2334	0.3121	
5 2,4,6-Trinitrophenol	1	8.623	8.562	0.061	30232	0.2000	0.1943	
8 RDX	1	9.096	9.102	-0.006	42934	0.2000	0.1990	
9 Nitrobenzene	1	11.616	11.622	-0.006	79962	0.2000	0.2104	
$ 10 1,2-Dinitrobenzene	1	12.596	12.582	0.014	57219	0.2000	0.2156	
11 3,5-Dinitroaniline	1	14.469	14.429	0.040	103782	0.2000	0.2405	
12 1,3-Dinitrobenzene	1	14.729	14.695	0.034	120130	0.2000	0.2066	
13 Nitroglycerin	2	15.229	15.169	0.060	273597	2.00	2.20	
14 o-Nitrotoluene	1	15.849	15.749	0.100	298687	0.2000	1.23	M
15 p-Nitrotoluene	1	15.996	15.969	0.027	39515	0.2000	0.1817	M
16 4-Amino-2,6-dinitrotoluene	1	16.389	16.509	-0.120	441287	0.2000	1.62	
17 m-Nitrotoluene	1	16.876	16.809	0.067	42005	0.2000	0.1567	
18 2-Amino-4,6-dinitrotoluene	1	17.436	17.329	0.107	113165	0.2000	0.2827	Ma
19 1,3,5-Trinitrobenzene	1	17.509	17.502	0.007	80441	0.2000	0.2125	Ma
20 2,6-Dinitrotoluene	1	18.689	18.622	0.067	52953	0.2000	0.1892	
21 2,4-Dinitrotoluene	1	19.143	19.082	0.061	102661	0.2000	0.1833	
22 Tetryl	1	22.423	22.355	0.068	64658	0.2000	0.2390	
23 2,4,6-Trinitrotoluene	1	23.243	23.182	0.061	77772	0.2000	0.1889	
24 PETN	2	24.443	24.382	0.061	258765	2.00	2.19	

QC Flag Legend

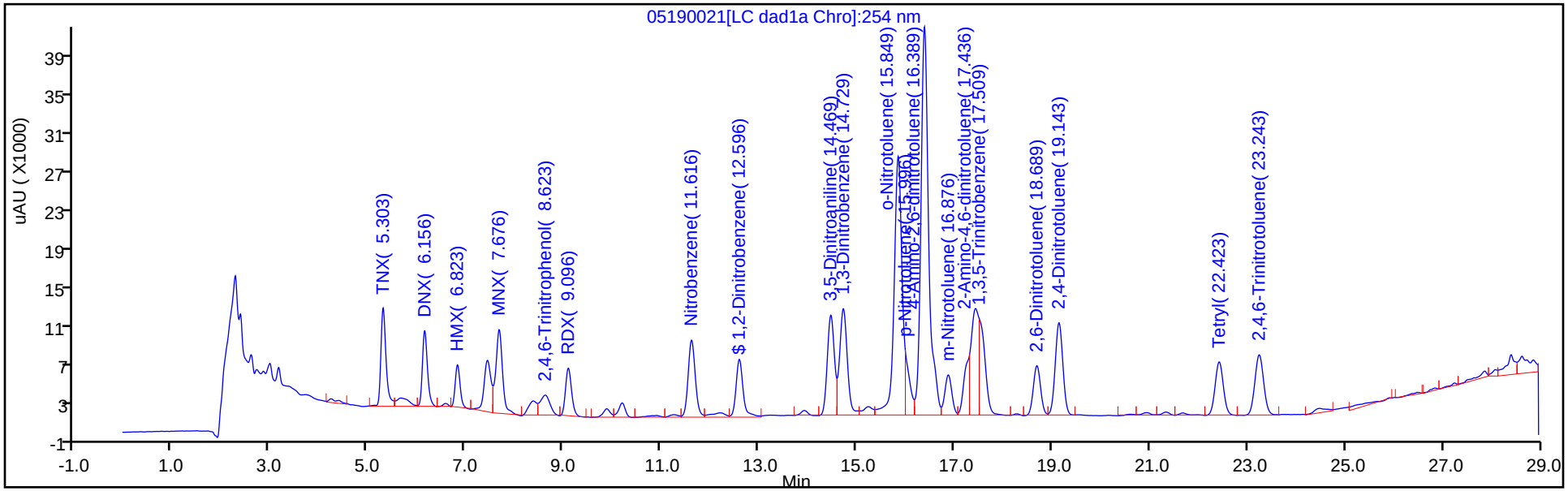
Processing Flags
Review Flags
M - Manually Integrated
a - User Assigned ID

Report Date: 20-May-2023 11:50:54 Chrom Revision: 2.3 16-May-2023 16:37:30

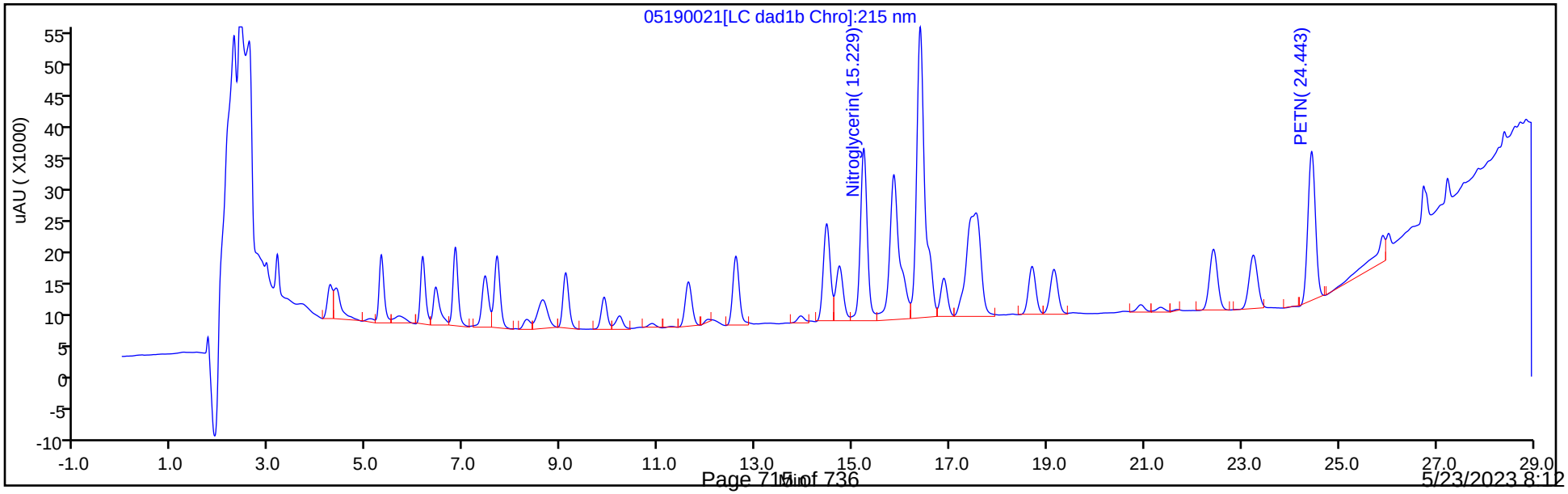
Eurofins Denver

Data File:	\\chromfs\denver\chromdata\g2_luna\20230519-121648.b\05190021.d				
Injection Date:	19-May-2023 22:42:39	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	JZ/JG
Lims ID:	280-176609-A-1-B MSD			Worklist Smp#:	21
Client ID:	FBQmw-178-230301-GW				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	21
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\20230519-121648.b\05190021.D				
Lims ID:	280-176609-A-1-B MSD				
Client ID:	FBQmw-178-230301-GW				
Sample Type:	MSD				
Inject. Date:	19-May-2023 22:42:39	ALS Bottle#:	21	Worklist Smp#:	21
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-176609-A-1-B MSD				
Operator ID:	JZ/JG	Instrument ID:	CHHPLC_G2_LUNA		
Method:	\\chromfs\Denver\ChromData\G2_LUNA\20230519-121648.b\G2_8330_Luna.m				
Limit Group:	GCSV - 8330				
Last Update:	20-May-2023 11:50:53	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:	CTX1663				
First Level Reviewer: LV5D		Date:	20-May-2023 11:49:56		

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.2156	107.80

Manual Integration/User Assign Peak Report

Eurofins Denver

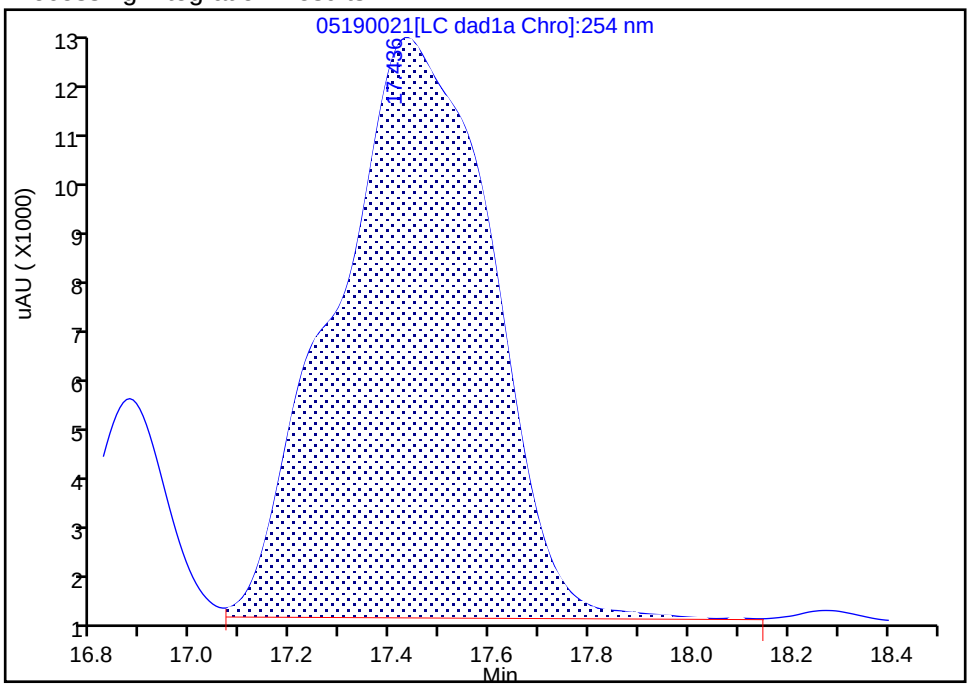
Data File:	\\chromfs\denver\chromdata\g2_luna\20230519-121648.b\05190021.d				
Injection Date:	19-May-2023 22:42:39	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	280-176609-A-1-B MSD				
Client ID:	FBQmw-178-230301-GW				
Operator ID:	JZ/JG	ALS Bottle#:	21	Worklist Smp#:	21
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

19 1,3,5-Trinitrobenzene, CAS: 99-35-4

Signal: 1

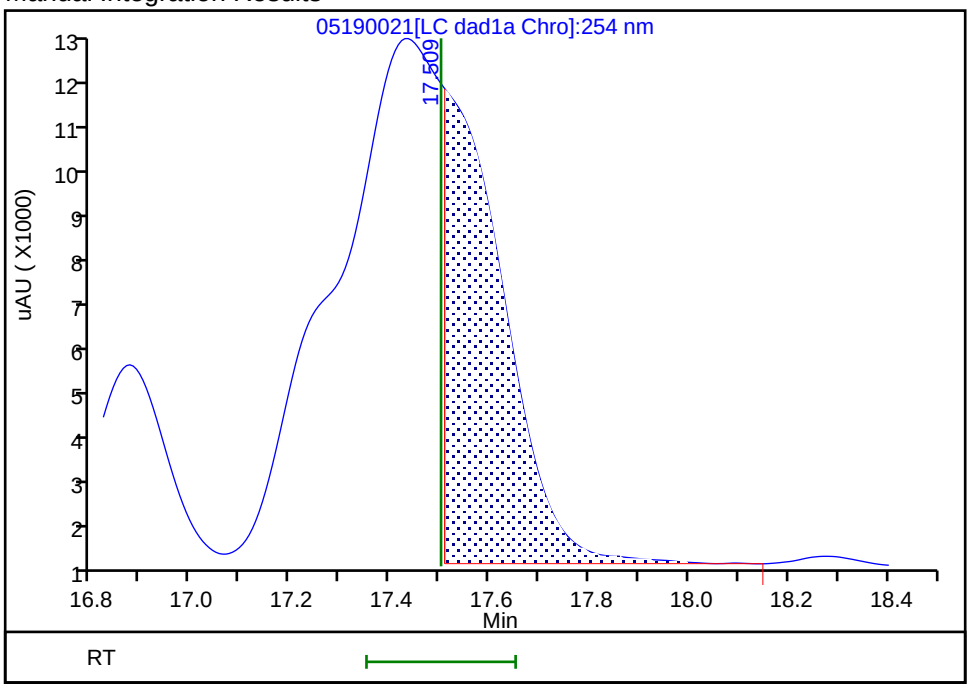
Processing Integration Results

RT: 17.44
Area: 238150
Amount: 0.629214
Amount Units: ug/ml



Manual Integration Results

RT: 17.51
Area: 80441
Amount: 0.212532
Amount Units: ug/ml



Reviewer: LV5D, 20-May-2023 11:49:46 -06:00:00 (UTC)

Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

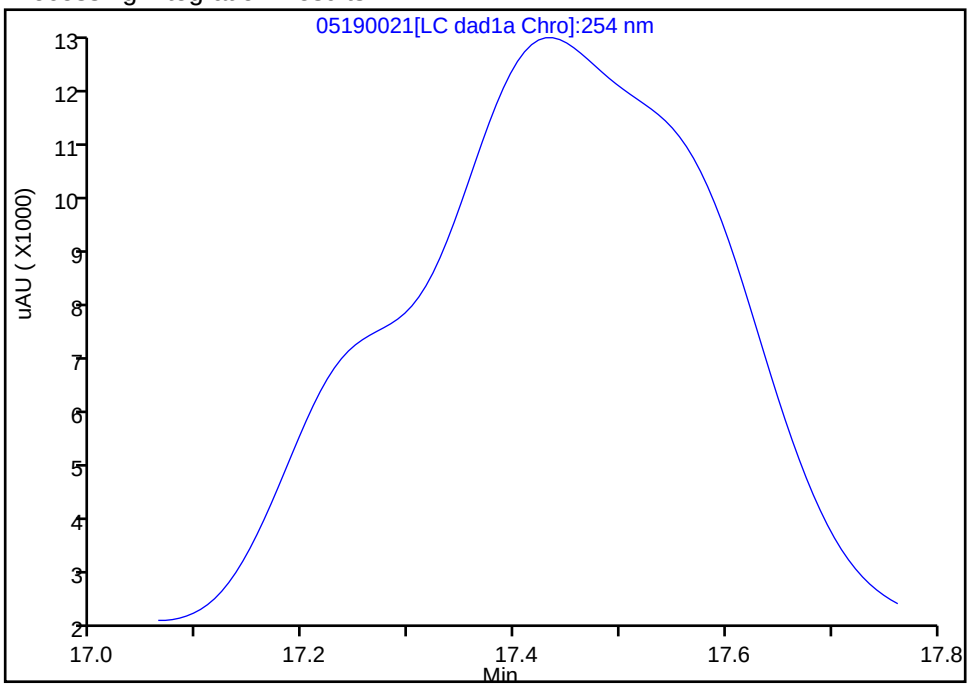
Data File:	\\chromfs\denver\chromdata\g2_luna\20230519-121648.b\05190021.d				
Injection Date:	19-May-2023 22:42:39	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	280-176609-A-1-B MSD				
Client ID:	FBQmw-178-230301-GW				
Operator ID:	JZ/JG	ALS Bottle#:	21	Worklist Smp#:	21
Injection Vol:	100.0 ul	Dil. Factor:	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

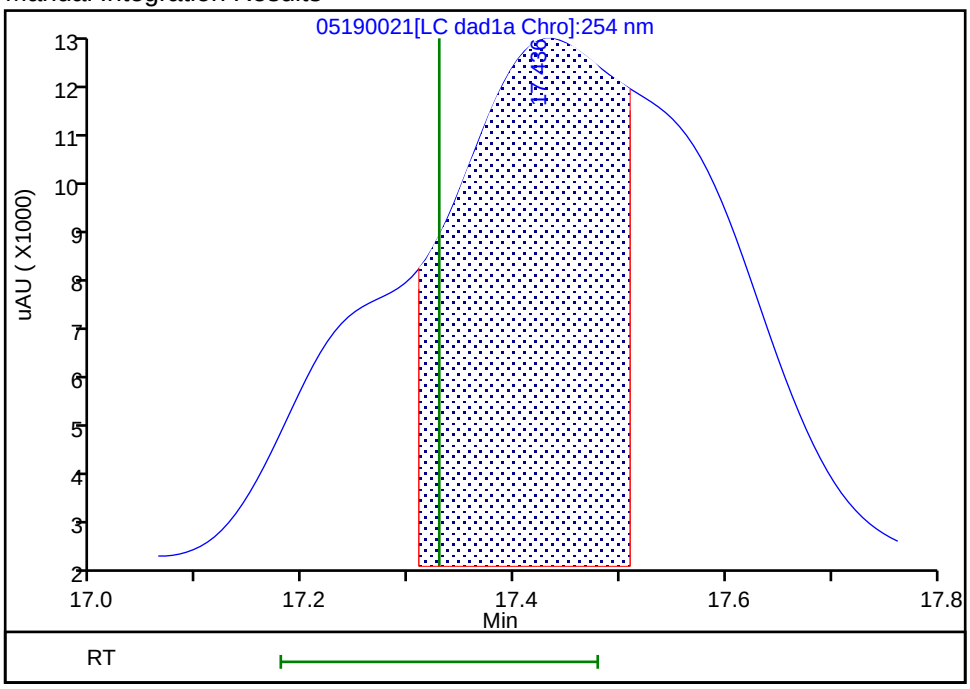
Not Detected
Expected RT: 17.33

Processing Integration Results



Manual Integration Results

RT: 17.44
Area: 113165
Amount: 0.282712
Amount Units: ug/ml



Reviewer: LV5D, 20-May-2023 11:49:45 -06:00:00 (UTC)
Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

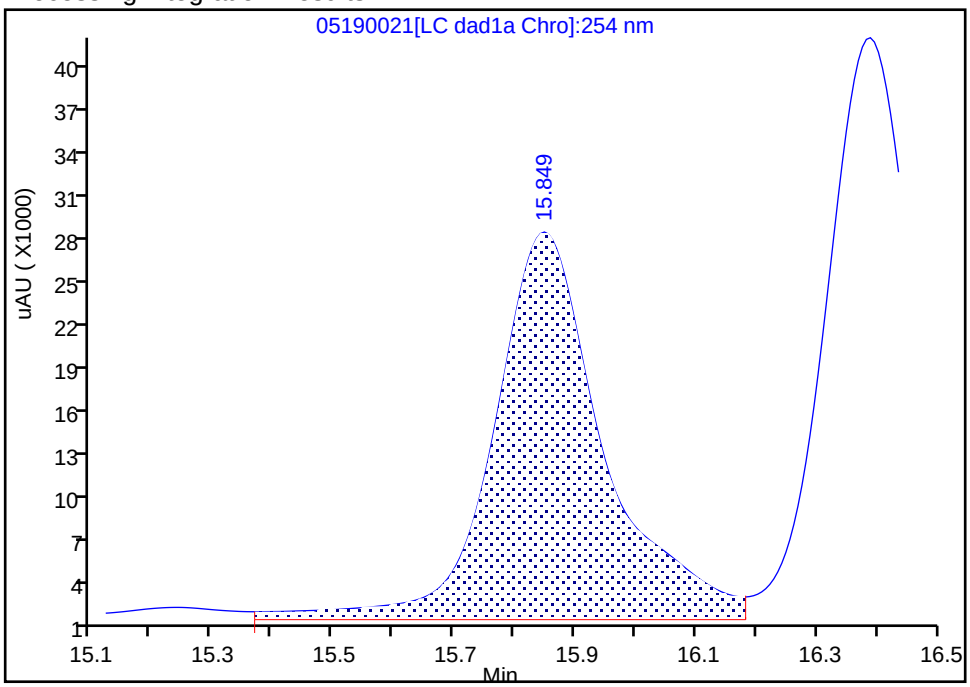
Data File:	\\chromfs\denver\chromdata\g2_luna\20230519-121648.b\05190021.d				
Injection Date:	19-May-2023 22:42:39	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	280-176609-A-1-B MSD				
Client ID:	FBQmw-178-230301-GW				
Operator ID:	JZ/JG	ALS Bottle#:	21	Worklist Smp#:	21
Injection Vol:	100.0 ul	Dil. Factor:	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

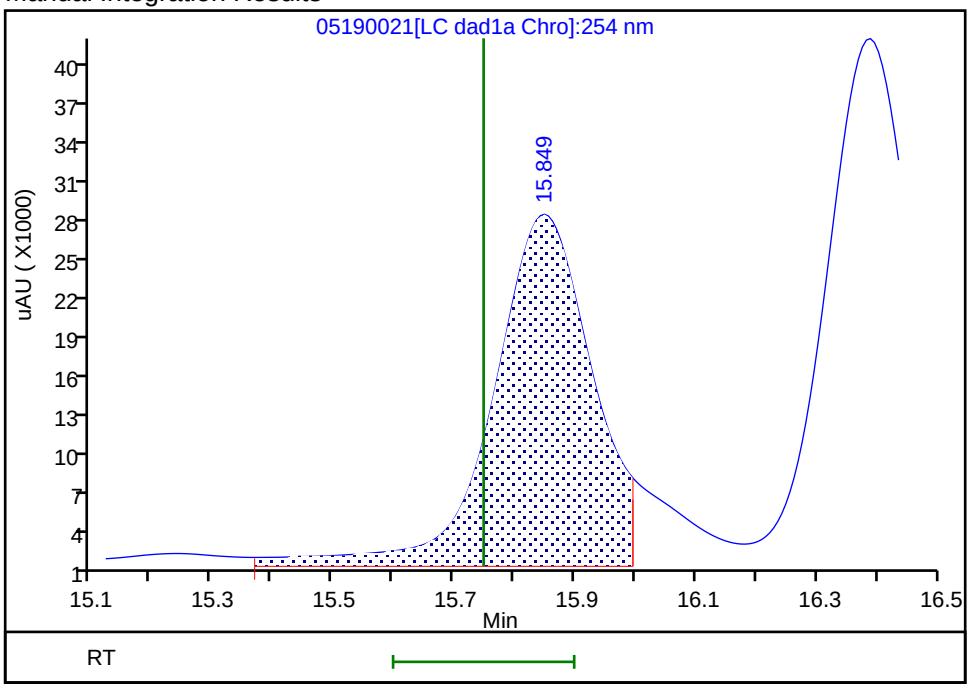
Processing Integration Results

RT: 15.85
Area: 338182
Amount: 1.390618
Amount Units: ug/ml



Manual Integration Results

RT: 15.85
Area: 298687
Amount: 1.228213
Amount Units: ug/ml



Reviewer: LV5D, 20-May-2023 11:49:52 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline

HPLC/IC ANALYSIS RUN LOG

Lab Name: Eurofins Denver Job No.: 280-176609-1

SDG No.:

Instrument ID: CHHPLC_G2_LUNA Start Date: 05/14/2020 16:16

Analysis Batch Number: 494886 End Date: 05/15/2020 20:15

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
IC 280-494886/7		05/14/2020 16:16	1	05140007.D	Luna-phenylhex 4.6(mm)
IC 280-494886/8		05/14/2020 16:51	1	05140008.D	Luna-phenylhex 4.6(mm)
IC 280-494886/9		05/14/2020 17:26	1	05140009.D	Luna-phenylhex 4.6(mm)
IC 280-494886/10		05/14/2020 18:01	1	05140010.D	Luna-phenylhex 4.6(mm)
IC 280-494886/11		05/14/2020 18:36	1	05140011.D	Luna-phenylhex 4.6(mm)
IC 280-494886/12		05/14/2020 19:11	1	05140012.D	Luna-phenylhex 4.6(mm)
IC 280-494886/13		05/14/2020 19:46	1	05140013.D	Luna-phenylhex 4.6(mm)
IC 280-494886/14		05/14/2020 20:21	1	05140014.D	Luna-phenylhex 4.6(mm)
IC 280-494886/15		05/14/2020 20:56	1	05140015.D	Luna-phenylhex 4.6(mm)
ICV 280-494886/16		05/14/2020 21:31	1	05140016.D	Luna-phenylhex 4.6(mm)
IC 280-494886/17		05/14/2020 22:06	1		Luna-phenylhex 4.6(mm)
IC 280-494886/18		05/14/2020 22:41	1		Luna-phenylhex 4.6(mm)
IC 280-494886/19		05/14/2020 23:16	1		Luna-phenylhex 4.6(mm)
IC 280-494886/20		05/14/2020 23:51	1		Luna-phenylhex 4.6(mm)
IC 280-494886/21		05/15/2020 00:26	1		Luna-phenylhex 4.6(mm)
IC 280-494886/22		05/15/2020 01:01	1		Luna-phenylhex 4.6(mm)
IC 280-494886/23		05/15/2020 01:36	1		Luna-phenylhex 4.6(mm)
IC 280-494886/24		05/15/2020 02:11	1		Luna-phenylhex 4.6(mm)
IC 280-494886/25		05/15/2020 02:46	1		Luna-phenylhex 4.6(mm)
ICV 280-494886/26		05/15/2020 03:21	1		Luna-phenylhex 4.6(mm)
ZZZZZ		05/15/2020 03:56	50		Luna-phenylhex 4.6(mm)
ZZZZZ		05/15/2020 04:31	1		Luna-phenylhex 4.6(mm)
ZZZZZ		05/15/2020 05:06	1		Luna-phenylhex 4.6(mm)
CCV 280-494886/30		05/15/2020 05:41	1		Luna-phenylhex 4.6(mm)
CCV 280-494886/31		05/15/2020 06:16	1		Luna-phenylhex 4.6(mm)
ZZZZZ		05/15/2020 06:51	1		Luna-phenylhex 4.6(mm)
ZZZZZ		05/15/2020 07:26	1		Luna-phenylhex 4.6(mm)
ZZZZZ		05/15/2020 08:01	1		Luna-phenylhex 4.6(mm)
ZZZZZ		05/15/2020 08:36	1		Luna-phenylhex 4.6(mm)
ZZZZZ		05/15/2020 09:11	1		Luna-phenylhex 4.6(mm)
ZZZZZ		05/15/2020 09:46	1		Luna-phenylhex 4.6(mm)
ZZZZZ		05/15/2020 10:21	1		Luna-phenylhex 4.6(mm)
ZZZZZ		05/15/2020 10:56	1		Luna-phenylhex 4.6(mm)
ZZZZZ		05/15/2020 11:31	1		Luna-phenylhex 4.6(mm)
ZZZZZ		05/15/2020 12:06	1		Luna-phenylhex 4.6(mm)
CCV 280-494886/42		05/15/2020 12:40	1		Luna-phenylhex 4.6(mm)
CCV 280-494886/43		05/15/2020 13:15	1		Luna-phenylhex 4.6(mm)
ZZZZZ		05/15/2020 13:50	1		Luna-phenylhex 4.6(mm)
ZZZZZ		05/15/2020 14:25	1		Luna-phenylhex 4.6(mm)
ZZZZZ		05/15/2020 15:00	1		Luna-phenylhex 4.6(mm)
ZZZZZ		05/15/2020 15:35	1		Luna-phenylhex 4.6(mm)
ZZZZZ		05/15/2020 16:10	1		Luna-phenylhex 4.6(mm)
ZZZZZ		05/15/2020 16:45	1		Luna-phenylhex 4.6(mm)
ZZZZZ		05/15/2020 17:20	1		Luna-phenylhex 4.6(mm)
ZZZZZ		05/15/2020 17:55	1		Luna-phenylhex 4.6(mm)

HPLC/IC ANALYSIS RUN LOG

Lab Name: Eurofins Denver Job No.: 280-176609-1

SDG No.:

Instrument ID: CHHPLC_G2_LUNA Start Date: 05/14/2020 16:16

Analysis Batch Number: 494886 End Date: 05/15/2020 20:15

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		05/15/2020 18:30	1		Luna-phenylhex 4.6(mm)
ZZZZZ		05/15/2020 19:05	1		Luna-phenylhex 4.6(mm)
CCV 280-494886/54		05/15/2020 19:40	1		Luna-phenylhex 4.6(mm)
CCV 280-494886/55		05/15/2020 20:15	1		Luna-phenylhex 4.6(mm)

HPLC/IC ANALYSIS RUN LOG

Lab Name: Eurofins Denver Job No.: 280-176609-1

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.: 280-176609-1

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.: 280-176609-1

SDG No.:

Instrument ID: CHHPLC_X3 Start Date: 05/18/2023 21:23

Analysis Batch Number: 613045 End Date: 05/19/2023 10:00

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCV 280-613045/8		05/18/2023 21:23	1	05180008.D	UltraCarb5uODS 4.6(mm)
CCV 280-613045/9		05/18/2023 21:46	1		UltraCarb5uODS 4.6(mm)
MB 280-612937/1-A		05/18/2023 22:09	1	05180011.D	UltraCarb5uODS 4.6(mm)
LCS 280-612937/2-A		05/18/2023 22:32	1	05180012.D	UltraCarb5uODS 4.6(mm)
LCSD 280-612937/3-A		05/18/2023 22:55	1	05180013.D	UltraCarb5uODS 4.6(mm)
ZZZZZ		05/18/2023 23:18	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		05/18/2023 23:41	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		05/19/2023 00:04	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		05/19/2023 00:27	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		05/19/2023 00:49	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		05/19/2023 01:12	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		05/19/2023 01:35	1		UltraCarb5uODS 4.6(mm)
CCV 280-613045/21		05/19/2023 01:58	1	05180021.D	UltraCarb5uODS 4.6(mm)
CCV 280-613045/22		05/19/2023 02:21	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		05/19/2023 02:44	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		05/19/2023 03:07	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		05/19/2023 03:30	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		05/19/2023 03:53	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		05/19/2023 04:16	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		05/19/2023 04:39	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		05/19/2023 05:02	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		05/19/2023 05:25	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		05/19/2023 05:48	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		05/19/2023 06:11	1		UltraCarb5uODS 4.6(mm)
CCV 280-613045/33		05/19/2023 06:34	1	05180033.D	UltraCarb5uODS 4.6(mm)
CCV 280-613045/34		05/19/2023 06:57	1		UltraCarb5uODS 4.6(mm)
280-176609-1	FBQmw-178-230301-GW	05/19/2023 07:19	1	05180035.D	UltraCarb5uODS 4.6(mm)
280-176609-1 MS	FBQmw-178-230301-GW MS	05/19/2023 07:42	1	05180036.D	UltraCarb5uODS 4.6(mm)
280-176609-1 MSD	FBQmw-178-230301-GW MSD	05/19/2023 08:05	1	05180037.D	UltraCarb5uODS 4.6(mm)
280-176609-2	FBQmw-178-230302-GW	05/19/2023 08:28	1	05180038.D	UltraCarb5uODS 4.6(mm)
280-176609-3	LL1mw-092-230301-GW	05/19/2023 08:51	1	05180039.D	UltraCarb5uODS 4.6(mm)
280-176609-4	LL1mw-093-230301-GW	05/19/2023 09:14	1	05180040.D	UltraCarb5uODS 4.6(mm)
CCV 280-613045/41		05/19/2023 09:37	1	05180041.D	UltraCarb5uODS 4.6(mm)
CCV 280-613045/42		05/19/2023 10:00	1		UltraCarb5uODS 4.6(mm)

HPLC/IC ANALYSIS RUN LOG

Lab Name: Eurofins Denver Job No.: 280-176609-1

SDG No.:

Instrument ID: CHHPLC_G2_LUNA Start Date: 05/19/2023 15:31

Analysis Batch Number: 613169 End Date: 05/20/2023 01:06

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCV 280-613169/8		05/19/2023 15:31	1		Luna-phenylhex 4.6(mm)
ZZZZZ		05/19/2023 16:07	1		Luna-phenylhex 4.6(mm)
ZZZZZ		05/19/2023 16:43	1		Luna-phenylhex 4.6(mm)
ZZZZZ		05/19/2023 17:19	1		Luna-phenylhex 4.6(mm)
ZZZZZ		05/19/2023 17:55	1		Luna-phenylhex 4.6(mm)
ZZZZZ		05/19/2023 18:31	1		Luna-phenylhex 4.6(mm)
ZZZZZ		05/19/2023 19:06	1		Luna-phenylhex 4.6(mm)
ZZZZZ		05/19/2023 19:42	1		Luna-phenylhex 4.6(mm)
ZZZZZ		05/19/2023 20:18	1		Luna-phenylhex 4.6(mm)
CCV 280-613169/18		05/19/2023 20:54	1	05190018.D	Luna-phenylhex 4.6(mm)
280-176609-1	FBQmw-178-230301-GW	05/19/2023 21:30	1	05190019.D	Luna-phenylhex 4.6(mm)
280-176609-1 MS	FBQmw-178-230301-GW MS	05/19/2023 22:06	1	05190020.D	Luna-phenylhex 4.6(mm)
280-176609-1 MSD	FBQmw-178-230301-GW MSD	05/19/2023 22:42	1	05190021.D	Luna-phenylhex 4.6(mm)
280-176609-2	FBQmw-178-230302-GW	05/19/2023 23:18	1	05190022.D	Luna-phenylhex 4.6(mm)
280-176609-3	LL1mw-092-230301-GW	05/19/2023 23:54	1	05190023.D	Luna-phenylhex 4.6(mm)
280-176609-4	LL1mw-093-230301-GW	05/20/2023 00:30	1	05190024.D	Luna-phenylhex 4.6(mm)
CCV 280-613169/25		05/20/2023 01:06	1	05190025.D	Luna-phenylhex 4.6(mm)

HPLC/IC BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-176609-1

SDG No.:

Batch Number: 494886 Batch Start Date: 05/14/20 16:16 Batch Analyst: Zhang, Jian

Batch Method: 8330B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	FinalAmount	3,5-DNA LCS 00036	8330 LCS 00098	8330_ADDs 00026	8330DiaminLCS 00038	8330IntermStk 00064
IC 280-494886/7		8330B		1.0 mL			125 uL		250 uL
IC 280-494886/8		8330B		1.0 mL			50 uL		100 uL
IC 280-494886/9		8330B		1.0 mL			35 uL		70 uL
IC 280-494886/10		8330B		1.0 mL			20 uL		40 uL
IC 280-494886/11		8330B		1.0 mL			12.5 uL		25 uL
IC 280-494886/12		8330B		1.0 mL			5 uL		10 uL
IC 280-494886/13		8330B		1.0 mL			2.5 uL		5 uL
IC 280-494886/14		8330B		1.0 mL			1 uL		2.5 uL
IC 280-494886/15		8330B		1.0 mL			0.5 uL		1.25 uL
ICV 280-494886/16		8330B		1.0 mL	40 uL	40 uL		40 uL	

Lab Sample ID	Client Sample ID	Method Chain	Basis	8330Surrogate 00114					
IC 280-494886/7		8330B							
IC 280-494886/8		8330B							
IC 280-494886/9		8330B							
IC 280-494886/10		8330B							
IC 280-494886/11		8330B							
IC 280-494886/12		8330B							
IC 280-494886/13		8330B							
IC 280-494886/14		8330B							
IC 280-494886/15		8330B							
ICV 280-494886/16		8330B		40 uL					

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.: 280-176609-1

SDG No.:

Batch Number: 494886 Batch Start Date: 05/14/20 16:16 Batch Analyst: Zhang, Jian

Batch Method: 8330B Batch End Date:

Batch Notes	
Methanol ID	246945
Batch Comment	JZ(Trained by HF)

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.: 280-176609-1

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.: 280-176609-1

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.: 280-176609-1

SDG No.:

Batch Number: 612937 Batch Start Date: 05/18/23 13:20 Batch Analyst: Hermanova, Eva

Batch Method: 3535 Batch End Date: 05/18/23 16:53

Lab Sample ID	Client Sample ID	Method Chain	Basis	GrossWeight	TareWeight	InitialAmount	FinalAmount	8330 LCS 00126	8330_OP_DMT 00020
MB 280-612937/1		3535, 8330B				500 mL	5 mL		
LCS 280-612937/2		3535, 8330B				500 mL	5 mL	0.1 mL	0.1 mL
LCSD 280-612937/3		3535, 8330B				500 mL	5 mL	0.1 mL	0.1 mL
280-176609-B-1	FBQmw-178-230301-GW	3535, 8330B	T	754.0 g	283.7 g	470.3 mL	5 mL		
280-176609-A-1 MS	FBQmw-178-230301-GW	3535, 8330B	T	759.9 g	287.7 g	472.2 mL	5 mL	0.1 mL	0.1 mL
280-176609-A-1 MSD	FBQmw-178-230301-GW	3535, 8330B	T	757.9 g	284.0 g	473.9 mL	5 mL	0.1 mL	0.1 mL
280-176609-B-2	FBQmw-178-230302-GW	3535, 8330B	T	776.4 g	283.9 g	492.5 mL	5 mL		
280-176609-A-3	LL1mw-092-230301-GW	3535, 8330B	T	759.2 g	287.2 g	472 mL	5 mL		
280-176609-A-4	LL1mw-093-230301-GW	3535, 8330B	T	750.3 g	287.4 g	462.9 mL	5 mL		

Lab Sample ID	Client Sample ID	Method Chain	Basis	8330Surrogate 00143					
MB 280-612937/1		3535, 8330B		0.1 mL					
LCS 280-612937/2		3535, 8330B		0.1 mL					
LCSD 280-612937/3		3535, 8330B		0.1 mL					
280-176609-B-1	FBQmw-178-230301-GW	3535, 8330B	T	0.1 mL					
280-176609-A-1 MS	FBQmw-178-230301-GW	3535, 8330B	T	0.1 mL					
280-176609-A-1 MSD	FBQmw-178-230301-GW	3535, 8330B	T	0.1 mL					
280-176609-B-2	FBQmw-178-230302-GW	3535, 8330B	T	0.1 mL					
280-176609-A-3	LL1mw-092-230301-GW	3535, 8330B	T	0.1 mL					
280-176609-A-4	LL1mw-093-230301-GW	3535, 8330B	T	0.1 mL					

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

HPLC/IC BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-176609-1

SDG No.:

Batch Number: 612937 Batch Start Date: 05/18/23 13:20 Batch Analyst: Hermanova, Eva

Batch Method: 3535 Batch End Date: 05/18/23 16:53

Batch Notes	
First Start time	05/18/2023 13:36
First End time	05/18/2023 16:07
SPE Cartridge Type	Sep-Pak Porapak Rdx
SPE Cartridge Lot ID	005332286A
Balance ID	24350888
Manifold ID	Manifold: A, B
QC Bottle Lot ID	02024011
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); Trainer: DL
Analyst ID - Spike Witness Analyst	Reviewer: NC
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-327-TA

Page 1 of 1

Date: 5/16/2023

Name Leidos
Address: 8866 Commons Blvd. Suite 201, Twinsburg, OH 44087
Phone Number: (330) 405-5802
Project Manager: Jed Thomas
Project: RVAAP FWGW Sampling Event Spring 2023
Job/P.O. No.: P010216426

Laboratory Name: Test America - Canton
Address: 4955 Yarrow St
Arvada , CO 80002
Phone: (303) 736-0100
Fax:

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-178-230301-GW	N/A	5/16/23	1337	W						2					2	
	FBQmw-178-230301-GWMSD	N/A	5/16/23	1337	W						4					4	EXTRA VOLUME FOR MS/MSD
	FBQmw-178-230302-GW	N/A	5/16/23	~~1355~~ 1337	W						2					2	

SK 5/16/23

Relinquished by	Date	Received by	Date
Signature: Ryan Thomas	5/16/2023	Signature	5-17-23
Printed Name: Leidos	Time: 1700	Printed Name	Time: 0920
Company		Company	
Relinquished by	Date	Received by	Date
Signature		Signature	
Printed Name	Time	Printed Name	Time
Company		Company	

Notes: Total Number of Containers: 8

A. Cool, 4C
B. HCl, pH<2, Cool, 4C
C. HNO3, pH<2, Cool, 4C
D. H2SO4, pH<2, Cool 4C

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:

Tracking Numbers:

8177 4704 1850

Temperature upon receipt

Leidos
8866 Commons Drive
Twinsburg, OH 44087
(330) 405-5802

0.4 cf 01 IR14

280-176609 Chain of Custody

Chain of Custody Record

leidos

COC No.: RVAAP-528-TA

Page 1 of 1 Date: 5/16/2023

Name Leidos
Address: 8866 Commons Blvd. Suite 201, Twinsburg, OH 44087
Phone Number: (330) 405-5802
Project Manager: Jed Thomas
Project: RVAAP FWGW Sampling Event Spring 2023
Job/P.O. No.: P010216426

Laboratory Name: Test America - Canton
Address: 4955 Yarrow St
Arvada , CO 80002
Phone: (303) 736-0100
Fax:

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
	LL1mw-092-230301-GW		N/A	5/16/2023	1040	W						2					2	
	LL1mw-093-230301-GW		N/A	5/16/2023	0918	W						2					2	

Requested Parameters

SK 5/16/23

Relinquished by	Date	Received by	Date	Notes:	Total Number of Containers:	4	Shipment Method:
Signature	5/16/23	Signature	5-17-23	A. Cool, 4C			
Ryan Thomas	Time	Printed Name	Time	B. HCl, pH<2, Cool, 4C			Tracking Numbers:
Printed Name	1700		0920	C. HNO3, pH<2, Cool, 4C			8177 4704 1850
Leidos				D. H2SO4, pH<2, Cool 4C			
Company		Company		1. SW 8260C	3 x 40 ml-VOA		
Relinquished by	Date	Received by	Date	2. SW 8270E	2 x 125 ml-amber		
Signature		Signature		3. SW 8270E SIM	2 x 250 ml-amber		
	Time		Time	4. Modified 8015 (GRO)	3 x 40 ml-VOA		
Printed Name		Printed Name		5. Modified 8015 (DRO)	2 x 1-L amber		
Company		Company		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		

Temperature upon receipt

Leidos
8866 Commons Drive
Twinsburg, OH 44087
(330) 405-5802

0.4 of 0.1 IR19

ORIGIN ID:SKYA (330) 998-4246
TESTAMERICA DENVER LAB
4955 YARROW ST

ARVADA, CO 80002
UNITED STATES US

SHIP DATE: 16MAY23
ACTWGT: 54.90 LB
CAD: 6995873/SSF02420
DIMS: 26x13x14 IN
BILL THIRD PARTY

TO
TESTAM...
4955 YA...
ARVADA
(330) 998-4246
INV:
PO:
REF:
DEPT:

QEC
Quality Environmental Containers
800-255-3950 • www.qecusa.com

5/16/23

FedEx
Express

E

J282023040501uv

Part # 156297-435 RRDS2 EXP 05/23

WED - 17 MAY 10:30A
PRIORITY OVERNIGHT

TRK# 0215 8177 4704 1830

AHS
80002
CO-US DEN

NX LAAA

280-176609 Waybill

Login Sample Receipt Checklist

Client: Leidos, Inc.

Job Number: 280-176609-1

Login Number: 176609
List Number: 1
Creator: Cannon, Charles D

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?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	