

 **ANALYTICAL REPORT****PREPARED FOR**

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**JOB DESCRIPTION**

RVAAP FWGW

**JOB NUMBER**

280-190882-1

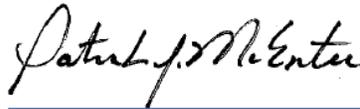
# Eurofins Denver

## Job Notes

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The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins TestAmerica Project Manager.

## Authorization



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# Definitions/Glossary

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

Job ID: 280-190882-1

## 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.
U	Undetected at the Limit of Detection.

## Glossary

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

**Job Narrative  
280-190882-1**

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

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

**Receipt**

The samples were received on 5/1/2024 9:00 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 0.3°C and 0.5°C.

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

**Method 8330B - Nitroaromatics and Nitramines (HPLC)**

Samples LL2mw-059-240401-GW (280-190882-1), LL3mw-237-240401-GW (280-190882-2), FWGmw-011-240401-GW (280-190882-3), LL3mw-241-240401-GW (280-190882-4), FWGmw-012-240401-GW (280-190882-5), LL1mw-089-240401-GW (280-190882-6), LL1mw-089-240402-GW (280-190882-7), FWGmw-004-240401-GW (280-190882-8), FWGmw-004-240401-GW (280-190882-8MS), FWGmw-004-240401-GW (280-190882-8MSD), FWGmw-004-240402-GW (280-190882-9) and FWGmw-007-240401-GW (280-190882-10) were analyzed for Nitroaromatics and Nitramines (HPLC). The samples were prepared on 5/3/2024 and analyzed on 5/8/2024 and 5/9/2024.

In preparation batch 280-652021, the following samples were decanted prior to preparation to prevent overflowing due to the addition of sodium chloride: FWGmw-011-240401-GW (280-190882-3), LL1mw-089-240402-GW (280-190882-7), FWGmw-004-240401-GW (280-190882-8) and FWGmw-007-240401-GW (280-190882-10). Method 3535/8330B\_DOD5.

In preparation batch 280-652021, the following samples required filtration to reduce matrix interferences: FWGmw-011-240401-GW (280-190882-3) and FWGmw-012-240401-GW (280-190882-5). Method 3535/8330B\_DOD5.

The %RPD between the primary and confirmation column exceeded 40% for 2,4-Dinitrotoluene, 2-Amino-4,6-dinitrotoluene and RDX for the following samples: LL2mw-059-240401-GW (280-190882-1), LL3mw-237-240401-GW (280-190882-2), FWGmw-011-240401-GW (280-190882-3) and LL3mw-241-240401-GW (280-190882-4) in preparation batch 280-652021 and analytical batch 280-652621. The results from both columns has been qualified and reported in accordance with the laboratory's QAS.

The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 280-652021 and analytical batch 280-652621 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits. FWGmw-004-240401-GW (280-190882-8[MS]) and FWGmw-004-240401-GW (280-190882-8[MSD])

# Detection Summary

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

Job ID: 280-190882-1

## Client Sample ID: LL2mw-059-240401-GW

## Lab Sample ID: 280-190882-1

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	Dil Fac	D	Method	Prep Type
1,3,5-Trinitrobenzene	1.4	M	0.23	0.22	0.091	ug/L	1		8330B	Total/NA
2,4-Dinitrotoluene	0.31	J1	0.11	0.087	0.030	ug/L	1		8330B	Total/NA
2,4-Dinitrotoluene	1.0	J1 M	0.11	0.087	0.030	ug/L	1		8330B	Total/NA
2-Amino-4,6-dinitrotoluene	0.58	J1	0.12	0.11	0.055	ug/L	1		8330B	Total/NA
2-Amino-4,6-dinitrotoluene	0.92	J1 M	0.12	0.11	0.055	ug/L	1		8330B	Total/NA
4-Amino-2,6-dinitrotoluene	0.57		0.16	0.13	0.062	ug/L	1		8330B	Total/NA

## Client Sample ID: LL3mw-237-240401-GW

## Lab Sample ID: 280-190882-2

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	Dil Fac	D	Method	Prep Type
2,4,6-Trinitrotoluene	0.15		0.12	0.11	0.048	ug/L	1		8330B	Total/NA
2-Amino-4,6-dinitrotoluene	1.6		0.12	0.11	0.055	ug/L	1		8330B	Total/NA
4-Amino-2,6-dinitrotoluene	4.2		0.16	0.13	0.062	ug/L	1		8330B	Total/NA
RDX	0.54	J1 M	0.23	0.22	0.055	ug/L	1		8330B	Total/NA
RDX	0.078	J J1 M	0.23	0.22	0.055	ug/L	1		8330B	Total/NA

## Client Sample ID: FWGmw-011-240401-GW

## Lab Sample ID: 280-190882-3

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	Dil Fac	D	Method	Prep Type
RDX	0.24	J1 M	0.22	0.21	0.054	ug/L	1		8330B	Total/NA
RDX	0.47	J1 M	0.22	0.21	0.054	ug/L	1		8330B	Total/NA

## Client Sample ID: LL3mw-241-240401-GW

## Lab Sample ID: 280-190882-4

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	Dil Fac	D	Method	Prep Type
1,3,5-Trinitrobenzene	6.1		0.22	0.21	0.087	ug/L	1		8330B	Total/NA
2,4,6-Trinitrotoluene	2.5		0.11	0.10	0.047	ug/L	1		8330B	Total/NA
2,4-Dinitrotoluene	0.094	J J1	0.10	0.083	0.028	ug/L	1		8330B	Total/NA
2,4-Dinitrotoluene	0.33	J1	0.10	0.083	0.028	ug/L	1		8330B	Total/NA
2-Amino-4,6-dinitrotoluene	2.0		0.11	0.10	0.052	ug/L	1		8330B	Total/NA
4-Amino-2,6-dinitrotoluene	2.3		0.16	0.12	0.060	ug/L	1		8330B	Total/NA
RDX	0.85		0.22	0.21	0.053	ug/L	1		8330B	Total/NA

## Client Sample ID: FWGmw-012-240401-GW

## Lab Sample ID: 280-190882-5

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	Dil Fac	D	Method	Prep Type
RDX	0.71		0.21	0.20	0.052	ug/L	1		8330B	Total/NA

## Client Sample ID: LL1mw-089-240401-GW

## Lab Sample ID: 280-190882-6

No Detections.

## Client Sample ID: LL1mw-089-240402-GW

## Lab Sample ID: 280-190882-7

No Detections.

## Client Sample ID: FWGmw-004-240401-GW

## Lab Sample ID: 280-190882-8

No Detections.

This Detection Summary does not include radiochemical test results.

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# Detection Summary

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

Job ID: 280-190882-1

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**Client Sample ID: FWGmw-004-240402-GW**

**Lab Sample ID: 280-190882-9**

No Detections.

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**Client Sample ID: FWGmw-007-240401-GW**

**Lab Sample ID: 280-190882-10**

No Detections.

This Detection Summary does not include radiochemical test results.

# Client Sample Results

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

Job ID: 280-190882-1

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

**Client Sample ID: LL2mw-059-240401-GW**  
**Date Collected: 04/30/24 09:45**  
**Date Received: 05/01/24 09:00**

**Lab Sample ID: 280-190882-1**  
**Matrix: Water**

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
<b>1,3,5-Trinitrobenzene</b>	<b>1.4</b>	<b>M</b>	0.23	0.22	0.091	ug/L		05/08/24 20:33	1
1,3-Dinitrobenzene	0.11	U	0.12	0.11	0.040	ug/L		05/08/24 20:33	1
2,4,6-Trinitrotoluene	0.11	U	0.12	0.11	0.049	ug/L		05/08/24 20:33	1
<b>2,4-Dinitrotoluene</b>	<b>0.31</b>	<b>J1</b>	0.11	0.087	0.030	ug/L		05/08/24 20:33	1
<b>2,4-Dinitrotoluene</b>	<b>1.0</b>	<b>J1 M</b>	0.11	0.087	0.030	ug/L		05/09/24 01:34	1
2,6-Dinitrotoluene	0.087	U	0.11	0.087	0.043	ug/L		05/08/24 20:33	1
<b>2-Amino-4,6-dinitrotoluene</b>	<b>0.58</b>	<b>J1</b>	0.12	0.11	0.055	ug/L		05/08/24 20:33	1
<b>2-Amino-4,6-dinitrotoluene</b>	<b>0.92</b>	<b>J1 M</b>	0.12	0.11	0.055	ug/L		05/09/24 01:34	1
2-Nitrotoluene	0.22	U M	0.23	0.22	0.092	ug/L		05/08/24 20:33	1
3-Nitrotoluene	0.38	U	0.43	0.38	0.21	ug/L		05/08/24 20:33	1
<b>4-Amino-2,6-dinitrotoluene</b>	<b>0.57</b>		0.16	0.13	0.062	ug/L		05/08/24 20:33	1
4-Nitrotoluene	0.43	U	0.44	0.43	0.11	ug/L		05/08/24 20:33	1
HMX	0.22	U	0.23	0.22	0.095	ug/L		05/08/24 20:33	1
Nitrobenzene	0.22	U M	0.23	0.22	0.098	ug/L		05/08/24 20:33	1
Nitroglycerin	2.2	U	2.3	2.2	1.0	ug/L		05/08/24 20:33	1
PETN	1.1	U	1.2	1.1	0.48	ug/L		05/08/24 20:33	1
RDX	0.22	U	0.23	0.22	0.056	ug/L		05/08/24 20:33	1
Tetryl	0.11	U M	0.12	0.11	0.034	ug/L		05/08/24 20:33	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dinitrobenzene	100	M	83 - 119	05/03/24 12:48	05/08/24 20:33	1
1,2-Dinitrobenzene	99		83 - 119	05/03/24 12:48	05/09/24 01:34	1

**Client Sample ID: LL3mw-237-240401-GW**  
**Date Collected: 04/30/24 10:45**  
**Date Received: 05/01/24 09:00**

**Lab Sample ID: 280-190882-2**  
**Matrix: Water**

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.22	U	0.23	0.22	0.091	ug/L		05/09/24 02:10	1
1,3-Dinitrobenzene	0.11	U M	0.12	0.11	0.040	ug/L		05/08/24 20:56	1
<b>2,4,6-Trinitrotoluene</b>	<b>0.15</b>		0.12	0.11	0.048	ug/L		05/08/24 20:56	1
2,4-Dinitrotoluene	0.086	U	0.11	0.086	0.030	ug/L		05/08/24 20:56	1
2,6-Dinitrotoluene	0.086	U	0.11	0.086	0.043	ug/L		05/08/24 20:56	1
<b>2-Amino-4,6-dinitrotoluene</b>	<b>1.6</b>		0.12	0.11	0.055	ug/L		05/08/24 20:56	1
2-Nitrotoluene	0.22	U M	0.23	0.22	0.092	ug/L		05/08/24 20:56	1
3-Nitrotoluene	0.38	U	0.43	0.38	0.21	ug/L		05/08/24 20:56	1
<b>4-Amino-2,6-dinitrotoluene</b>	<b>4.2</b>		0.16	0.13	0.062	ug/L		05/08/24 20:56	1
4-Nitrotoluene	0.43	U M	0.44	0.43	0.11	ug/L		05/08/24 20:56	1
HMX	0.22	U	0.23	0.22	0.094	ug/L		05/08/24 20:56	1
Nitrobenzene	0.22	U	0.23	0.22	0.098	ug/L		05/08/24 20:56	1
Nitroglycerin	2.2	U	2.3	2.2	0.99	ug/L		05/08/24 20:56	1
PETN	1.1	U	1.2	1.1	0.48	ug/L		05/08/24 20:56	1
<b>RDX</b>	<b>0.54</b>	<b>J1 M</b>	0.23	0.22	0.055	ug/L		05/08/24 20:56	1
<b>RDX</b>	<b>0.078</b>	<b>J J1 M</b>	0.23	0.22	0.055	ug/L		05/09/24 02:10	1
Tetryl	0.11	U M	0.12	0.11	0.034	ug/L		05/08/24 20:56	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dinitrobenzene	104	M	83 - 119	05/03/24 12:48	05/08/24 20:56	1
1,2-Dinitrobenzene	100		83 - 119	05/03/24 12:48	05/09/24 02:10	1

# Client Sample Results

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

Job ID: 280-190882-1

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

**Client Sample ID: FWGmw-011-240401-GW**

**Date Collected: 04/30/24 11:05**

**Date Received: 05/01/24 09:00**

**Lab Sample ID: 280-190882-3**

**Matrix: Water**

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.21	U M	0.22	0.21	0.088	ug/L		05/08/24 21:42	1
1,3-Dinitrobenzene	0.10	U M	0.11	0.10	0.038	ug/L		05/08/24 21:42	1
2,4,6-Trinitrotoluene	0.10	U	0.11	0.10	0.047	ug/L		05/08/24 21:42	1
2,4-Dinitrotoluene	0.083	U	0.10	0.083	0.029	ug/L		05/08/24 21:42	1
2,6-Dinitrotoluene	0.083	U	0.10	0.083	0.042	ug/L		05/08/24 21:42	1
2-Amino-4,6-dinitrotoluene	0.10	U	0.11	0.10	0.053	ug/L		05/08/24 21:42	1
2-Nitrotoluene	0.21	U	0.22	0.21	0.089	ug/L		05/08/24 21:42	1
3-Nitrotoluene	0.36	U	0.42	0.36	0.20	ug/L		05/08/24 21:42	1
4-Amino-2,6-dinitrotoluene	0.12	U	0.16	0.12	0.060	ug/L		05/08/24 21:42	1
4-Nitrotoluene	0.42	U M	0.43	0.42	0.10	ug/L		05/08/24 21:42	1
HMX	0.21	U M	0.22	0.21	0.091	ug/L		05/08/24 21:42	1
Nitrobenzene	0.21	U	0.22	0.21	0.095	ug/L		05/08/24 21:42	1
Nitroglycerin	2.1	U	2.2	2.1	0.96	ug/L		05/08/24 21:42	1
PETN	1.0	U	1.1	1.0	0.47	ug/L		05/08/24 21:42	1
<b>RDX</b>	<b>0.24</b>	<b>J1 M</b>	0.22	0.21	0.054	ug/L		05/08/24 21:42	1
<b>RDX</b>	<b>0.47</b>	<b>J1 M</b>	0.22	0.21	0.054	ug/L		05/09/24 03:22	1
Tetryl	0.10	U	0.11	0.10	0.033	ug/L		05/08/24 21:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dinitrobenzene	102	M	83 - 119	05/03/24 12:48	05/08/24 21:42	1
1,2-Dinitrobenzene	102		83 - 119	05/03/24 12:48	05/09/24 03:22	1

**Client Sample ID: LL3mw-241-240401-GW**

**Date Collected: 04/30/24 11:55**

**Date Received: 05/01/24 09:00**

**Lab Sample ID: 280-190882-4**

**Matrix: Water**

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
<b>1,3,5-Trinitrobenzene</b>	<b>6.1</b>		0.22	0.21	0.087	ug/L		05/08/24 22:05	1
1,3-Dinitrobenzene	0.10	U M	0.11	0.10	0.038	ug/L		05/08/24 22:05	1
<b>2,4,6-Trinitrotoluene</b>	<b>2.5</b>		0.11	0.10	0.047	ug/L		05/08/24 22:05	1
<b>2,4-Dinitrotoluene</b>	<b>0.094</b>	<b>J J1</b>	0.10	0.083	0.028	ug/L		05/08/24 22:05	1
<b>2,4-Dinitrotoluene</b>	<b>0.33</b>	<b>J1</b>	0.10	0.083	0.028	ug/L		05/09/24 03:58	1
2,6-Dinitrotoluene	0.083	U	0.10	0.083	0.041	ug/L		05/08/24 22:05	1
<b>2-Amino-4,6-dinitrotoluene</b>	<b>2.0</b>		0.11	0.10	0.052	ug/L		05/08/24 22:05	1
2-Nitrotoluene	0.21	U M	0.22	0.21	0.088	ug/L		05/08/24 22:05	1
3-Nitrotoluene	0.36	U	0.41	0.36	0.20	ug/L		05/08/24 22:05	1
<b>4-Amino-2,6-dinitrotoluene</b>	<b>2.3</b>		0.16	0.12	0.060	ug/L		05/08/24 22:05	1
4-Nitrotoluene	0.41	U	0.42	0.41	0.10	ug/L		05/09/24 03:58	1
HMX	0.21	U M	0.22	0.21	0.091	ug/L		05/09/24 03:58	1
Nitrobenzene	0.21	U	0.22	0.21	0.094	ug/L		05/09/24 03:58	1
Nitroglycerin	2.1	U	2.2	2.1	0.95	ug/L		05/08/24 22:05	1
PETN	1.0	U	1.1	1.0	0.46	ug/L		05/08/24 22:05	1
<b>RDX</b>	<b>0.85</b>		0.22	0.21	0.053	ug/L		05/08/24 22:05	1
Tetryl	0.10	U M	0.11	0.10	0.033	ug/L		05/08/24 22:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dinitrobenzene	100		83 - 119	05/03/24 12:48	05/08/24 22:05	1
1,2-Dinitrobenzene	104		83 - 119	05/03/24 12:48	05/09/24 03:58	1

Eurofins Denver

# Client Sample Results

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

Job ID: 280-190882-1

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

**Client Sample ID: FWGmw-012-240401-GW**

**Date Collected: 04/30/24 11:55**

**Date Received: 05/01/24 09:00**

**Lab Sample ID: 280-190882-5**

**Matrix: Water**

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.20	U M	0.21	0.20	0.086	ug/L		05/08/24 22:28	1
1,3-Dinitrobenzene	0.10	U M	0.11	0.10	0.038	ug/L		05/08/24 22:28	1
2,4,6-Trinitrotoluene	0.10	U	0.11	0.10	0.046	ug/L		05/08/24 22:28	1
2,4-Dinitrotoluene	0.081	U M	0.10	0.081	0.028	ug/L		05/08/24 22:28	1
2,6-Dinitrotoluene	0.081	U	0.10	0.081	0.041	ug/L		05/08/24 22:28	1
2-Amino-4,6-dinitrotoluene	0.10	U	0.11	0.10	0.052	ug/L		05/08/24 22:28	1
2-Nitrotoluene	0.20	U	0.21	0.20	0.087	ug/L		05/08/24 22:28	1
3-Nitrotoluene	0.36	U	0.41	0.36	0.20	ug/L		05/08/24 22:28	1
4-Amino-2,6-dinitrotoluene	0.12	U	0.15	0.12	0.059	ug/L		05/08/24 22:28	1
4-Nitrotoluene	0.41	U	0.42	0.41	0.10	ug/L		05/08/24 22:28	1
HMX	0.20	U M	0.21	0.20	0.089	ug/L		05/08/24 22:28	1
Nitrobenzene	0.20	U	0.21	0.20	0.093	ug/L		05/08/24 22:28	1
Nitroglycerin	2.0	U	2.1	2.0	0.94	ug/L		05/08/24 22:28	1
PETN	1.0	U	1.1	1.0	0.45	ug/L		05/08/24 22:28	1
<b>RDX</b>	<b>0.71</b>		0.21	0.20	0.052	ug/L		05/08/24 22:28	1
Tetryl	0.10	U M	0.11	0.10	0.032	ug/L		05/08/24 22:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dinitrobenzene	103	M	83 - 119	05/03/24 12:48	05/08/24 22:28	1
1,2-Dinitrobenzene	102		83 - 119	05/03/24 12:48	05/09/24 04:34	1

**Client Sample ID: LL1mw-089-240401-GW**

**Date Collected: 04/30/24 13:15**

**Date Received: 05/01/24 09:00**

**Lab Sample ID: 280-190882-6**

**Matrix: Water**

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.21	U	0.22	0.21	0.089	ug/L		05/08/24 22:51	1
1,3-Dinitrobenzene	0.11	U	0.12	0.11	0.039	ug/L		05/08/24 22:51	1
2,4,6-Trinitrotoluene	0.11	U	0.12	0.11	0.047	ug/L		05/08/24 22:51	1
2,4-Dinitrotoluene	0.084	U	0.11	0.084	0.029	ug/L		05/08/24 22:51	1
2,6-Dinitrotoluene	0.084	U	0.11	0.084	0.042	ug/L		05/08/24 22:51	1
2-Amino-4,6-dinitrotoluene	0.11	U	0.12	0.11	0.053	ug/L		05/08/24 22:51	1
2-Nitrotoluene	0.21	U	0.22	0.21	0.090	ug/L		05/08/24 22:51	1
3-Nitrotoluene	0.37	U	0.42	0.37	0.21	ug/L		05/08/24 22:51	1
4-Amino-2,6-dinitrotoluene	0.13	U	0.16	0.13	0.061	ug/L		05/08/24 22:51	1
4-Nitrotoluene	0.42	U	0.43	0.42	0.11	ug/L		05/08/24 22:51	1
HMX	0.21	U	0.22	0.21	0.092	ug/L		05/08/24 22:51	1
Nitrobenzene	0.21	U	0.22	0.21	0.096	ug/L		05/08/24 22:51	1
Nitroglycerin	2.1	U	2.2	2.1	0.97	ug/L		05/08/24 22:51	1
PETN	1.1	U	1.2	1.1	0.47	ug/L		05/08/24 22:51	1
RDX	0.21	U	0.22	0.21	0.054	ug/L		05/08/24 22:51	1
Tetryl	0.11	U	0.12	0.11	0.034	ug/L		05/08/24 22:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dinitrobenzene	92	M	83 - 119	05/03/24 12:48	05/08/24 22:51	1

**Client Sample ID: LL1mw-089-240402-GW**

**Date Collected: 04/30/24 13:15**

**Date Received: 05/01/24 09:00**

**Lab Sample ID: 280-190882-7**

**Matrix: Water**

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.21	U	0.22	0.21	0.088	ug/L		05/08/24 23:14	1

# Client Sample Results

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

Job ID: 280-190882-1

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

**Client Sample ID: LL1mw-089-240402-GW**  
**Date Collected: 04/30/24 13:15**  
**Date Received: 05/01/24 09:00**

**Lab Sample ID: 280-190882-7**  
**Matrix: Water**

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3-Dinitrobenzene	0.10	U	0.11	0.10	0.039	ug/L		05/08/24 23:14	1
2,4,6-Trinitrotoluene	0.10	U	0.11	0.10	0.047	ug/L		05/08/24 23:14	1
2,4-Dinitrotoluene	0.084	U	0.10	0.084	0.029	ug/L		05/08/24 23:14	1
2,6-Dinitrotoluene	0.084	U	0.10	0.084	0.042	ug/L		05/08/24 23:14	1
2-Amino-4,6-dinitrotoluene	0.10	U	0.11	0.10	0.053	ug/L		05/08/24 23:14	1
2-Nitrotoluene	0.21	U	0.22	0.21	0.089	ug/L		05/08/24 23:14	1
3-Nitrotoluene	0.37	U	0.42	0.37	0.20	ug/L		05/08/24 23:14	1
4-Amino-2,6-dinitrotoluene	0.13	U	0.16	0.13	0.060	ug/L		05/08/24 23:14	1
4-Nitrotoluene	0.42	U	0.43	0.42	0.10	ug/L		05/08/24 23:14	1
HMX	0.21	U	0.22	0.21	0.092	ug/L		05/08/24 23:14	1
Nitrobenzene	0.21	U	0.22	0.21	0.095	ug/L		05/08/24 23:14	1
Nitroglycerin	2.1	U	2.2	2.1	0.96	ug/L		05/08/24 23:14	1
PETN	1.0	U	1.1	1.0	0.47	ug/L		05/08/24 23:14	1
RDX	0.21	U M	0.22	0.21	0.054	ug/L		05/08/24 23:14	1
Tetryl	0.10	U	0.11	0.10	0.033	ug/L		05/08/24 23:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dinitrobenzene	101	M	83 - 119	05/03/24 12:48	05/08/24 23:14	1

**Client Sample ID: FWGmw-004-240401-GW**  
**Date Collected: 04/30/24 15:40**  
**Date Received: 05/01/24 09:00**

**Lab Sample ID: 280-190882-8**  
**Matrix: Water**

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.21	U	0.22	0.21	0.087	ug/L		05/08/24 23:37	1
1,3-Dinitrobenzene	0.10	U	0.11	0.10	0.038	ug/L		05/08/24 23:37	1
2,4,6-Trinitrotoluene	0.10	U	0.11	0.10	0.047	ug/L		05/08/24 23:37	1
2,4-Dinitrotoluene	0.083	U	0.10	0.083	0.028	ug/L		05/08/24 23:37	1
2,6-Dinitrotoluene	0.083	U	0.10	0.083	0.041	ug/L		05/08/24 23:37	1
2-Amino-4,6-dinitrotoluene	0.10	U	0.11	0.10	0.052	ug/L		05/08/24 23:37	1
2-Nitrotoluene	0.21	U J1	0.22	0.21	0.088	ug/L		05/08/24 23:37	1
3-Nitrotoluene	0.36	U J1	0.41	0.36	0.20	ug/L		05/08/24 23:37	1
4-Amino-2,6-dinitrotoluene	0.12	U	0.16	0.12	0.060	ug/L		05/08/24 23:37	1
4-Nitrotoluene	0.41	U J1	0.42	0.41	0.10	ug/L		05/08/24 23:37	1
HMX	0.21	U	0.22	0.21	0.091	ug/L		05/08/24 23:37	1
Nitrobenzene	0.21	U	0.22	0.21	0.094	ug/L		05/08/24 23:37	1
Nitroglycerin	2.1	U	2.2	2.1	0.95	ug/L		05/08/24 23:37	1
PETN	1.0	U	1.1	1.0	0.46	ug/L		05/08/24 23:37	1
RDX	0.21	U	0.22	0.21	0.053	ug/L		05/08/24 23:37	1
Tetryl	0.10	U	0.11	0.10	0.033	ug/L		05/08/24 23:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dinitrobenzene	92	M	83 - 119	05/03/24 12:48	05/08/24 23:37	1

**Client Sample ID: FWGmw-004-240402-GW**  
**Date Collected: 04/30/24 15:40**  
**Date Received: 05/01/24 09:00**

**Lab Sample ID: 280-190882-9**  
**Matrix: Water**

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.22	U	0.23	0.22	0.091	ug/L		05/09/24 00:46	1
1,3-Dinitrobenzene	0.11	U	0.12	0.11	0.040	ug/L		05/09/24 00:46	1
2,4,6-Trinitrotoluene	0.11	U	0.12	0.11	0.049	ug/L		05/09/24 00:46	1

# Client Sample Results

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

Job ID: 280-190882-1

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

**Client Sample ID: FWGmw-004-240402-GW**  
**Date Collected: 04/30/24 15:40**  
**Date Received: 05/01/24 09:00**

**Lab Sample ID: 280-190882-9**  
**Matrix: Water**

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
2,4-Dinitrotoluene	0.087	U	0.11	0.087	0.030	ug/L		05/09/24 00:46	1
2,6-Dinitrotoluene	0.087	U	0.11	0.087	0.043	ug/L		05/09/24 00:46	1
2-Amino-4,6-dinitrotoluene	0.11	U	0.12	0.11	0.055	ug/L		05/09/24 00:46	1
2-Nitrotoluene	0.22	U	0.23	0.22	0.093	ug/L		05/09/24 00:46	1
3-Nitrotoluene	0.38	U	0.43	0.38	0.21	ug/L		05/09/24 00:46	1
4-Amino-2,6-dinitrotoluene	0.13	U	0.16	0.13	0.063	ug/L		05/09/24 00:46	1
4-Nitrotoluene	0.43	U	0.44	0.43	0.11	ug/L		05/09/24 00:46	1
HMX	0.22	U	0.23	0.22	0.095	ug/L		05/09/24 00:46	1
Nitrobenzene	0.22	U	0.23	0.22	0.099	ug/L		05/09/24 00:46	1
Nitroglycerin	2.2	U	2.3	2.2	1.0	ug/L		05/09/24 00:46	1
PETN	1.1	U	1.2	1.1	0.48	ug/L		05/09/24 00:46	1
RDX	0.22	U	0.23	0.22	0.056	ug/L		05/09/24 00:46	1
Tetryl	0.11	U	0.12	0.11	0.034	ug/L		05/09/24 00:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dinitrobenzene	98	M	83 - 119	05/03/24 12:48	05/09/24 00:46	1

**Client Sample ID: FWGmw-007-240401-GW**  
**Date Collected: 04/30/24 16:15**  
**Date Received: 05/01/24 09:00**

**Lab Sample ID: 280-190882-10**  
**Matrix: Water**

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.21	U	0.22	0.21	0.088	ug/L		05/09/24 01:09	1
1,3-Dinitrobenzene	0.10	U	0.12	0.10	0.039	ug/L		05/09/24 01:09	1
2,4,6-Trinitrotoluene	0.10	U	0.12	0.10	0.047	ug/L		05/09/24 01:09	1
2,4-Dinitrotoluene	0.084	U	0.10	0.084	0.029	ug/L		05/09/24 01:09	1
2,6-Dinitrotoluene	0.084	U	0.10	0.084	0.042	ug/L		05/09/24 01:09	1
2-Amino-4,6-dinitrotoluene	0.10	U	0.12	0.10	0.053	ug/L		05/09/24 01:09	1
2-Nitrotoluene	0.21	U	0.22	0.21	0.089	ug/L		05/09/24 01:09	1
3-Nitrotoluene	0.37	U	0.42	0.37	0.20	ug/L		05/09/24 01:09	1
4-Amino-2,6-dinitrotoluene	0.13	U	0.16	0.13	0.060	ug/L		05/09/24 01:09	1
4-Nitrotoluene	0.42	U	0.43	0.42	0.10	ug/L		05/09/24 01:09	1
HMX	0.21	U	0.22	0.21	0.092	ug/L		05/09/24 01:09	1
Nitrobenzene	0.21	U	0.22	0.21	0.095	ug/L		05/09/24 01:09	1
Nitroglycerin	2.1	U	2.2	2.1	0.96	ug/L		05/09/24 01:09	1
PETN	1.0	U	1.2	1.0	0.47	ug/L		05/09/24 01:09	1
RDX	0.21	U	0.22	0.21	0.054	ug/L		05/09/24 01:09	1
Tetryl	0.10	U	0.12	0.10	0.033	ug/L		05/09/24 01:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dinitrobenzene	98	M	83 - 119	05/03/24 12:48	05/09/24 01:09	1

# Default Detection Limits

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

Job ID: 280-190882-1

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

Prep: 3535

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

# Surrogate Summary

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

Job ID: 280-190882-1

## 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)
280-190882-1	LL2mw-059-240401-GW	100 M
280-190882-2	LL3mw-237-240401-GW	104 M
280-190882-3	FWGmw-011-240401-GW	102 M
280-190882-4	LL3mw-241-240401-GW	100
280-190882-5	FWGmw-012-240401-GW	103 M
280-190882-6	LL1mw-089-240401-GW	92 M
280-190882-7	LL1mw-089-240402-GW	101 M
280-190882-8	FWGmw-004-240401-GW	92 M
280-190882-8 MS	FWGmw-004-240401-GW	96
280-190882-8 MSD	FWGmw-004-240401-GW	101
280-190882-9	FWGmw-004-240402-GW	98 M
280-190882-10	FWGmw-007-240401-GW	98 M
LCS 280-652021/2-A	Lab Control Sample	97
LCSD 280-652021/3-A	Lab Control Sample Dup	102
MB 280-652021/1-A	Method Blank	101 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)
280-190882-1	LL2mw-059-240401-GW	99
280-190882-2	LL3mw-237-240401-GW	100
280-190882-3	FWGmw-011-240401-GW	102
280-190882-4	LL3mw-241-240401-GW	104
280-190882-5	FWGmw-012-240401-GW	102

#### Surrogate Legend

12DNB = 1,2-Dinitrobenzene

# QC Sample Results

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

Job ID: 280-190882-1

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

**Lab Sample ID: MB 280-652021/1-A**  
**Matrix: Water**  
**Analysis Batch: 652621**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 652021**

Analyte	MB	MB	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
	Result	Qualifier							
1,3,5-Trinitrobenzene	0.20	U M	0.21	0.20	0.084	ug/L		05/08/24 17:30	1
1,3-Dinitrobenzene	0.10	U	0.11	0.10	0.037	ug/L		05/08/24 17:30	1
2,4,6-Trinitrotoluene	0.10	U	0.11	0.10	0.045	ug/L		05/08/24 17:30	1
2,4-Dinitrotoluene	0.080	U	0.10	0.080	0.027	ug/L		05/08/24 17:30	1
2,6-Dinitrotoluene	0.080	U	0.10	0.080	0.040	ug/L		05/08/24 17:30	1
2-Amino-4,6-dinitrotoluene	0.10	U	0.11	0.10	0.051	ug/L		05/08/24 17:30	1
2-Nitrotoluene	0.20	U	0.21	0.20	0.086	ug/L		05/08/24 17:30	1
3-Nitrotoluene	0.35	U	0.40	0.35	0.20	ug/L		05/08/24 17:30	1
4-Amino-2,6-dinitrotoluene	0.12	U	0.15	0.12	0.058	ug/L		05/08/24 17:30	1
4-Nitrotoluene	0.40	U	0.41	0.40	0.10	ug/L		05/08/24 17:30	1
HMX	0.20	U	0.21	0.20	0.088	ug/L		05/08/24 17:30	1
Nitrobenzene	0.20	U	0.21	0.20	0.091	ug/L		05/08/24 17:30	1
Nitroglycerin	2.0	U	2.1	2.0	0.92	ug/L		05/08/24 17:30	1
PETN	1.0	U	1.1	1.0	0.45	ug/L		05/08/24 17:30	1
RDX	0.20	U	0.21	0.20	0.052	ug/L		05/08/24 17:30	1
Tetryl	0.10	U	0.11	0.10	0.032	ug/L		05/08/24 17:30	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dinitrobenzene	101	M	83 - 119	05/03/24 12:48	05/08/24 17:30	1

**Lab Sample ID: LCS 280-652021/2-A**  
**Matrix: Water**  
**Analysis Batch: 652621**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 652021**

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec	Limits
		Result	Qualifier					
1,3,5-Trinitrobenzene	2.00	2.00		ug/L		100		73 - 125
1,3-Dinitrobenzene	2.00	1.92		ug/L		96		78 - 120
2,4,6-Trinitrotoluene	2.00	1.89		ug/L		95		71 - 123
2,4-Dinitrotoluene	2.00	1.81		ug/L		91		78 - 120
2,6-Dinitrotoluene	2.00	1.84		ug/L		92		77 - 127
2-Amino-4,6-dinitrotoluene	2.00	1.92		ug/L		96		79 - 120
2-Nitrotoluene	2.00	1.50		ug/L		75		70 - 127
3-Nitrotoluene	2.00	1.46		ug/L		73		73 - 125
4-Amino-2,6-dinitrotoluene	2.00	1.86		ug/L		93		76 - 125
4-Nitrotoluene	2.00	1.50		ug/L		75		71 - 127
HMX	2.00	1.69	M	ug/L		85		65 - 135
Nitrobenzene	2.00	1.76		ug/L		88		65 - 134
Nitroglycerin	20.0	21.1		ug/L		106		74 - 127
PETN	20.0	21.2		ug/L		106		73 - 127
RDX	2.00	1.87		ug/L		94		68 - 130
Tetryl	2.00	1.98		ug/L		99		64 - 128

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

# QC Sample Results

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

Job ID: 280-190882-1

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

Lab Sample ID: LCSD 280-652021/3-A

Matrix: Water

Analysis Batch: 652621

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 652021

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec		RPD	Limit
							Limits	RPD		
1,3,5-Trinitrobenzene	2.00	2.15		ug/L		107	73 - 125	7	20	
1,3-Dinitrobenzene	2.00	2.10		ug/L		105	78 - 120	9	20	
2,4,6-Trinitrotoluene	2.00	2.05		ug/L		102	71 - 123	8	20	
2,4-Dinitrotoluene	2.00	2.02		ug/L		101	78 - 120	11	20	
2,6-Dinitrotoluene	2.00	2.05		ug/L		103	77 - 127	11	20	
2-Amino-4,6-dinitrotoluene	2.00	2.13		ug/L		106	79 - 120	10	20	
2-Nitrotoluene	2.00	1.75		ug/L		87	70 - 127	15	20	
3-Nitrotoluene	2.00	1.72	M	ug/L		86	73 - 125	16	20	
4-Amino-2,6-dinitrotoluene	2.00	2.06		ug/L		103	76 - 125	10	20	
4-Nitrotoluene	2.00	1.76		ug/L		88	71 - 127	16	20	
HMX	2.00	1.75	M	ug/L		87	65 - 135	3	20	
Nitrobenzene	2.00	1.97		ug/L		99	65 - 134	11	20	
Nitroglycerin	20.0	22.0		ug/L		110	74 - 127	4	20	
PETN	20.0	22.2		ug/L		111	73 - 127	5	20	
RDX	2.00	1.95		ug/L		97	68 - 130	4	20	
Tetryl	2.00	2.07		ug/L		103	64 - 128	4	20	
<b>Surrogate</b>		<b>LCSD</b>	<b>LCSD</b>							
		<b>%Recovery</b>	<b>Qualifier</b>							<b>Limits</b>
1,2-Dinitrobenzene		102								83 - 119

Lab Sample ID: 280-190882-8 MS

Matrix: Water

Analysis Batch: 652621

Client Sample ID: FWGmw-004-240401-GW

Prep Type: Total/NA

Prep Batch: 652021

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec	
									Limits	RPD
1,3,5-Trinitrobenzene	0.21	U	2.11	2.16		ug/L		103	73 - 125	
1,3-Dinitrobenzene	0.10	U	2.11	2.07		ug/L		98	78 - 120	
2,4,6-Trinitrotoluene	0.10	U	2.11	1.97		ug/L		94	71 - 123	
2,4-Dinitrotoluene	0.083	U	2.11	1.82		ug/L		86	78 - 120	
2,6-Dinitrotoluene	0.083	U	2.11	1.85		ug/L		88	77 - 127	
2-Amino-4,6-dinitrotoluene	0.10	U	2.11	1.94		ug/L		92	79 - 120	
2-Nitrotoluene	0.21	U J1	2.11	1.42	J1	ug/L		67	70 - 127	
3-Nitrotoluene	0.36	U J1	2.11	1.29	J1	ug/L		61	73 - 125	
4-Amino-2,6-dinitrotoluene	0.12	U	2.11	1.89		ug/L		90	76 - 125	
4-Nitrotoluene	0.41	U J1	2.11	1.38	J1	ug/L		66	71 - 127	
HMX	0.21	U	2.11	1.76	M	ug/L		84	65 - 135	
Nitrobenzene	0.21	U	2.11	1.78		ug/L		84	65 - 134	
Nitroglycerin	2.1	U	21.1	22.3		ug/L		106	74 - 127	
PETN	1.0	U	21.1	22.2		ug/L		105	73 - 127	
RDX	0.21	U	2.11	1.96	M	ug/L		93	68 - 130	
Tetryl	0.10	U	2.11	2.08		ug/L		99	64 - 128	
<b>Surrogate</b>		<b>MS</b>	<b>MS</b>							
		<b>%Recovery</b>	<b>Qualifier</b>							<b>Limits</b>
1,2-Dinitrobenzene		96								83 - 119

# QC Sample Results

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

Job ID: 280-190882-1

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

**Lab Sample ID: 280-190882-8 MSD**

**Matrix: Water**

**Analysis Batch: 652621**

**Client Sample ID: FWGmw-004-240401-GW**

**Prep Type: Total/NA**

**Prep Batch: 652021**

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec	RPD	RPD
	Result	Qualifier	Added	Result	Qualifier				Limits		Limit
1,3,5-Trinitrobenzene	0.21	U	2.13	2.31		ug/L		108	73 - 125	6	20
1,3-Dinitrobenzene	0.10	U	2.13	2.22		ug/L		104	78 - 120	7	20
2,4,6-Trinitrotoluene	0.10	U	2.13	2.12		ug/L		100	71 - 123	7	20
2,4-Dinitrotoluene	0.083	U	2.13	2.10		ug/L		99	78 - 120	15	20
2,6-Dinitrotoluene	0.083	U	2.13	2.08		ug/L		98	77 - 127	12	20
2-Amino-4,6-dinitrotoluene	0.10	U	2.13	2.19		ug/L		103	79 - 120	12	20
2-Nitrotoluene	0.21	U J1	2.13	1.80	J1	ug/L		85	70 - 127	24	20
3-Nitrotoluene	0.36	U J1	2.13	1.72	J1	ug/L		81	73 - 125	28	20
4-Amino-2,6-dinitrotoluene	0.12	U	2.13	2.13		ug/L		100	76 - 125	12	20
4-Nitrotoluene	0.41	U J1	2.13	1.80	J1	ug/L		85	71 - 127	26	20
HMX	0.21	U	2.13	1.77	M	ug/L		83	65 - 135	0	20
Nitrobenzene	0.21	U	2.13	2.02		ug/L		95	65 - 134	13	20
Nitroglycerin	2.1	U	21.3	21.6		ug/L		102	74 - 127	3	20
PETN	1.0	U	21.3	23.1		ug/L		109	73 - 127	4	20
RDX	0.21	U	2.13	1.98	M	ug/L		93	68 - 130	1	20
Tetryl	0.10	U	2.13	2.08		ug/L		98	64 - 128	0	20
<b>MSD MSD</b>											
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>								
1,2-Dinitrobenzene	101		83 - 119								

# QC Association Summary

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

Job ID: 280-190882-1

## HPLC/IC

### Prep Batch: 652021

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-190882-1	LL2mw-059-240401-GW	Total/NA	Water	3535	
280-190882-2	LL3mw-237-240401-GW	Total/NA	Water	3535	
280-190882-3	FWGmw-011-240401-GW	Total/NA	Water	3535	
280-190882-4	LL3mw-241-240401-GW	Total/NA	Water	3535	
280-190882-5	FWGmw-012-240401-GW	Total/NA	Water	3535	
280-190882-6	LL1mw-089-240401-GW	Total/NA	Water	3535	
280-190882-7	LL1mw-089-240402-GW	Total/NA	Water	3535	
280-190882-8	FWGmw-004-240401-GW	Total/NA	Water	3535	
280-190882-9	FWGmw-004-240402-GW	Total/NA	Water	3535	
280-190882-10	FWGmw-007-240401-GW	Total/NA	Water	3535	
MB 280-652021/1-A	Method Blank	Total/NA	Water	3535	
LCS 280-652021/2-A	Lab Control Sample	Total/NA	Water	3535	
LCSD 280-652021/3-A	Lab Control Sample Dup	Total/NA	Water	3535	
280-190882-8 MS	FWGmw-004-240401-GW	Total/NA	Water	3535	
280-190882-8 MSD	FWGmw-004-240401-GW	Total/NA	Water	3535	

### Analysis Batch: 652621

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-190882-1	LL2mw-059-240401-GW	Total/NA	Water	8330B	652021
280-190882-2	LL3mw-237-240401-GW	Total/NA	Water	8330B	652021
280-190882-3	FWGmw-011-240401-GW	Total/NA	Water	8330B	652021
280-190882-4	LL3mw-241-240401-GW	Total/NA	Water	8330B	652021
280-190882-5	FWGmw-012-240401-GW	Total/NA	Water	8330B	652021
280-190882-6	LL1mw-089-240401-GW	Total/NA	Water	8330B	652021
280-190882-7	LL1mw-089-240402-GW	Total/NA	Water	8330B	652021
280-190882-8	FWGmw-004-240401-GW	Total/NA	Water	8330B	652021
280-190882-9	FWGmw-004-240402-GW	Total/NA	Water	8330B	652021
280-190882-10	FWGmw-007-240401-GW	Total/NA	Water	8330B	652021
MB 280-652021/1-A	Method Blank	Total/NA	Water	8330B	652021
LCS 280-652021/2-A	Lab Control Sample	Total/NA	Water	8330B	652021
LCSD 280-652021/3-A	Lab Control Sample Dup	Total/NA	Water	8330B	652021
280-190882-8 MS	FWGmw-004-240401-GW	Total/NA	Water	8330B	652021
280-190882-8 MSD	FWGmw-004-240401-GW	Total/NA	Water	8330B	652021

### Analysis Batch: 652628

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-190882-1	LL2mw-059-240401-GW	Total/NA	Water	8330B	652021
280-190882-2	LL3mw-237-240401-GW	Total/NA	Water	8330B	652021
280-190882-3	FWGmw-011-240401-GW	Total/NA	Water	8330B	652021
280-190882-4	LL3mw-241-240401-GW	Total/NA	Water	8330B	652021
280-190882-5	FWGmw-012-240401-GW	Total/NA	Water	8330B	652021

# Lab Chronicle

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

Job ID: 280-190882-1

**Client Sample ID: LL2mw-059-240401-GW**

**Lab Sample ID: 280-190882-1**

**Date Collected: 04/30/24 09:45**

**Matrix: Water**

**Date Received: 05/01/24 09:00**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			462.2 mL	5 mL	652021	05/03/24 12:48	MSJ	EET DEN
Total/NA	Analysis	8330B		1	1 mL	1 mL	652628	05/09/24 01:34	JZ	EET DEN
Total/NA	Prep	3535			462.2 mL	5 mL	652021	05/03/24 12:48	MSJ	EET DEN
Total/NA	Analysis	8330B		1	1 mL	1 mL	652621	05/08/24 20:33	JZ	EET DEN

**Client Sample ID: LL3mw-237-240401-GW**

**Lab Sample ID: 280-190882-2**

**Date Collected: 04/30/24 10:45**

**Matrix: Water**

**Date Received: 05/01/24 09:00**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			464.2 mL	5 mL	652021	05/03/24 12:48	MSJ	EET DEN
Total/NA	Analysis	8330B		1	1 mL	1 mL	652628	05/09/24 02:10	JZ	EET DEN
Total/NA	Prep	3535			464.2 mL	5 mL	652021	05/03/24 12:48	MSJ	EET DEN
Total/NA	Analysis	8330B		1	1 mL	1 mL	652621	05/08/24 20:56	JZ	EET DEN

**Client Sample ID: FWGmw-011-240401-GW**

**Lab Sample ID: 280-190882-3**

**Date Collected: 04/30/24 11:05**

**Matrix: Water**

**Date Received: 05/01/24 09:00**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			480.1 mL	5 mL	652021	05/03/24 12:48	MSJ	EET DEN
Total/NA	Analysis	8330B		1	1 mL	1 mL	652628	05/09/24 03:22	JZ	EET DEN
Total/NA	Prep	3535			480.1 mL	5 mL	652021	05/03/24 12:48	MSJ	EET DEN
Total/NA	Analysis	8330B		1	1 mL	1 mL	652621	05/08/24 21:42	JZ	EET DEN

**Client Sample ID: LL3mw-241-240401-GW**

**Lab Sample ID: 280-190882-4**

**Date Collected: 04/30/24 11:55**

**Matrix: Water**

**Date Received: 05/01/24 09:00**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			483.7 mL	5 mL	652021	05/03/24 12:48	MSJ	EET DEN
Total/NA	Analysis	8330B		1	1 mL	1 mL	652628	05/09/24 03:58	JZ	EET DEN
Total/NA	Prep	3535			483.7 mL	5 mL	652021	05/03/24 12:48	MSJ	EET DEN
Total/NA	Analysis	8330B		1	1 mL	1 mL	652621	05/08/24 22:05	JZ	EET DEN

**Client Sample ID: FWGmw-012-240401-GW**

**Lab Sample ID: 280-190882-5**

**Date Collected: 04/30/24 11:55**

**Matrix: Water**

**Date Received: 05/01/24 09:00**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			491.4 mL	5 mL	652021	05/03/24 12:48	MSJ	EET DEN
Total/NA	Analysis	8330B		1	1 mL	1 mL	652628	05/09/24 04:34	JZ	EET DEN
Total/NA	Prep	3535			491.4 mL	5 mL	652021	05/03/24 12:48	MSJ	EET DEN
Total/NA	Analysis	8330B		1	1 mL	1 mL	652621	05/08/24 22:28	JZ	EET DEN

# Lab Chronicle

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

Job ID: 280-190882-1

**Client Sample ID: LL1mw-089-240401-GW**

**Lab Sample ID: 280-190882-6**

Date Collected: 04/30/24 13:15

Matrix: Water

Date Received: 05/01/24 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			473.9 mL	5 mL	652021	05/03/24 12:48	MSJ	EET DEN
Total/NA	Analysis	8330B		1	1 mL	1 mL	652621	05/08/24 22:51	JZ	EET DEN

**Client Sample ID: LL1mw-089-240402-GW**

**Lab Sample ID: 280-190882-7**

Date Collected: 04/30/24 13:15

Matrix: Water

Date Received: 05/01/24 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			478.5 mL	5 mL	652021	05/03/24 12:48	MSJ	EET DEN
Total/NA	Analysis	8330B		1	1 mL	1 mL	652621	05/08/24 23:14	JZ	EET DEN

**Client Sample ID: FWGmw-004-240401-GW**

**Lab Sample ID: 280-190882-8**

Date Collected: 04/30/24 15:40

Matrix: Water

Date Received: 05/01/24 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			483.4 mL	5 mL	652021	05/03/24 12:48	MSJ	EET DEN
Total/NA	Analysis	8330B		1	1 mL	1 mL	652621	05/08/24 23:37	JZ	EET DEN

**Client Sample ID: FWGmw-004-240402-GW**

**Lab Sample ID: 280-190882-9**

Date Collected: 04/30/24 15:40

Matrix: Water

Date Received: 05/01/24 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			461.2 mL	5 mL	652021	05/03/24 12:48	MSJ	EET DEN
Total/NA	Analysis	8330B		1	1 mL	1 mL	652621	05/09/24 00:46	JZ	EET DEN

**Client Sample ID: FWGmw-007-240401-GW**

**Lab Sample ID: 280-190882-10**

Date Collected: 04/30/24 16:15

Matrix: Water

Date Received: 05/01/24 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			477.8 mL	5 mL	652021	05/03/24 12:48	MSJ	EET DEN
Total/NA	Analysis	8330B		1	1 mL	1 mL	652621	05/09/24 01:09	JZ	EET DEN

**Laboratory References:**

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

# Accreditation/Certification Summary

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

Job ID: 280-190882-1

## Laboratory: Eurofins Denver

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

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

# Method Summary

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

Job ID: 280-190882-1

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Method	Method Description	Protocol	Laboratory
8330B	Nitroaromatics and Nitramines (HPLC)	EPA	EET DEN
3535	Solid-Phase Extraction (SPE)	SW846	EET DEN

**Protocol References:**

EPA = US Environmental Protection Agency

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

**Laboratory References:**

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

# Sample Summary

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

Job ID: 280-190882-1

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<b>Lab Sample ID</b>	<b>Client Sample ID</b>	<b>Matrix</b>	<b>Collected</b>	<b>Received</b>
280-190882-1	LL2mw-059-240401-GW	Water	04/30/24 09:45	05/01/24 09:00
280-190882-2	LL3mw-237-240401-GW	Water	04/30/24 10:45	05/01/24 09:00
280-190882-3	FWGmw-011-240401-GW	Water	04/30/24 11:05	05/01/24 09:00
280-190882-4	LL3mw-241-240401-GW	Water	04/30/24 11:55	05/01/24 09:00
280-190882-5	FWGmw-012-240401-GW	Water	04/30/24 11:55	05/01/24 09:00
280-190882-6	LL1mw-089-240401-GW	Water	04/30/24 13:15	05/01/24 09:00
280-190882-7	LL1mw-089-240402-GW	Water	04/30/24 13:15	05/01/24 09:00
280-190882-8	FWGmw-004-240401-GW	Water	04/30/24 15:40	05/01/24 09:00
280-190882-9	FWGmw-004-240402-GW	Water	04/30/24 15:40	05/01/24 09:00
280-190882-10	FWGmw-007-240401-GW	Water	04/30/24 16:15	05/01/24 09:00

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-190882-1

SDG No.: \_\_\_\_\_

Instrument ID: CHHPLC\_G2\_LUNA Analysis Batch Number: 650851

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

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

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

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

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

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

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

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

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

## HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins DenverJob No.: 280-190882-1

SDG No.: \_\_\_\_\_

Instrument ID: CHHPLC\_G2\_LUNAAnalysis Batch Number: 650851Lab Sample ID: IC 280-650851/13

Client Sample ID: \_\_\_\_\_

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

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

## HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins DenverJob No.: 280-190882-1

SDG No.: \_\_\_\_\_

Instrument ID: CHHPLC\_G2\_LUNAAnalysis Batch Number: 650851Lab Sample ID: IC 280-650851/14

Client Sample ID: \_\_\_\_\_

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

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

## HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins DenverJob No.: 280-190882-1

SDG No.: \_\_\_\_\_

Instrument ID: CHHPLC\_G2\_LUNAAnalysis Batch Number: 650851Lab Sample ID: IC 280-650851/15

Client Sample ID: \_\_\_\_\_

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

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

## HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins DenverJob No.: 280-190882-1

SDG No.: \_\_\_\_\_

Instrument ID: CHHPLC\_G2\_LUNAAnalysis Batch Number: 650851Lab Sample ID: IC 280-650851/16

Client Sample ID: \_\_\_\_\_

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

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

## HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins DenverJob No.: 280-190882-1

SDG No.: \_\_\_\_\_

Instrument ID: CHHPLC\_G2\_LUNAAnalysis Batch Number: 650851Lab Sample ID: IC 280-650851/17

Client Sample ID: \_\_\_\_\_

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

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

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver

Job No.: 280-190882-1

SDG No.: \_\_\_\_\_

Instrument ID: CHHPLC\_G2\_LUNA

Analysis Batch Number: 650851

Lab Sample ID: IC 280-650851/18

Client Sample ID: \_\_\_\_\_

Date Analyzed: 04/25/24 02:15

Lab File ID: 04240018.D

GC Column: Luna-phenylh ID: 4.6(mm)

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

Lab Sample ID: ICV 280-650851/19

Client Sample ID: \_\_\_\_\_

Date Analyzed: 04/25/24 02:51

Lab File ID: 04240019.D

GC Column: Luna-phenylh ID: 4.6(mm)

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

## HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins DenverJob No.: 280-190882-1

SDG No.: \_\_\_\_\_

Instrument ID: CHHPLC\_G2\_LUNAAnalysis Batch Number: 652628Lab Sample ID: CCV 280-652628/7

Client Sample ID: \_\_\_\_\_

Date Analyzed: 05/08/24 20:10Lab File ID: 05080007.DGC Column: Luna-phenylh ID: 4.6 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Picric acid	8.72	Baseline Smoothing	LV5D	05/08/24 20:47
RDX	8.89	Baseline Smoothing	LV5D	05/08/24 20:47
Nitrobenzene	11.38	Baseline Smoothing	LV5D	05/08/24 20:47
1,2-Dinitrobenzene	12.29	Baseline Smoothing	LV5D	05/08/24 20:47
3,5-Dinitroaniline	14.10	Baseline Smoothing	LV5D	05/08/24 20:47
1,3-Dinitrobenzene	14.40	Baseline Smoothing	LV5D	05/08/24 20:47
Nitroglycerin	14.83	Baseline Smoothing	LV5D	05/08/24 20:47
2-Nitrotoluene	15.41	Baseline Smoothing	LV5D	05/08/24 20:47
4-Nitrotoluene	15.63	Baseline Smoothing	LV5D	05/08/24 20:47
4-Amino-2,6-dinitrotoluene	16.13	Baseline Smoothing	LV5D	05/08/24 20:47
3-Nitrotoluene	16.47	Baseline Smoothing	LV5D	05/08/24 20:47
2-Amino-4,6-dinitrotoluene	16.93	Baseline Smoothing	LV5D	05/08/24 20:47
1,3,5-Trinitrobenzene	17.17	Baseline Smoothing	LV5D	05/08/24 20:47
2,6-Dinitrotoluene	18.23	Baseline Smoothing	LV5D	05/08/24 20:47
2,4-Dinitrotoluene	18.68	Baseline Smoothing	LV5D	05/08/24 20:47
Tetryl	21.83	Baseline Smoothing	LV5D	05/08/24 20:47
2,4,6-Trinitrotoluene	22.69	Baseline Smoothing	LV5D	05/08/24 20:47

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-190882-1  
 SDG No.: \_\_\_\_\_  
 Instrument ID: CHHPLC\_G2\_LUNA Analysis Batch Number: 652628  
 Lab Sample ID: 280-190882-1 Client Sample ID: LL2mw-059-240401-GW  
 Date Analyzed: 05/09/24 01:34 Lab File ID: 05080018.D GC Column: Luna-phenylh ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2,4,6-Trinitrotoluene		Invalid Compound ID	LV5D	05/09/24 13:17
2-Nitrotoluene		Invalid Compound ID	LV5D	05/09/24 13:17
Nitroglycerin		Invalid Compound ID	LV5D	05/09/24 13:17
4-Amino-2,6-dinitrotoluene	16.15	Baseline	LV5D	05/09/24 13:17
3-Nitrotoluene	16.45	Baseline	LV5D	05/09/24 13:17
2-Amino-4,6-dinitrotoluene	16.95	Baseline	LV5D	05/09/24 13:17
1,3,5-Trinitrobenzene	17.19	Baseline	LV5D	05/09/24 13:17
2,6-Dinitrotoluene	18.37	Baseline	LV5D	05/09/24 13:17
2,4-Dinitrotoluene	18.70	Baseline	LV5D	05/09/24 13:17

Lab Sample ID: 280-190882-2 Client Sample ID: LL3mw-237-240401-GW  
 Date Analyzed: 05/09/24 02:10 Lab File ID: 05080019.D GC Column: Luna-phenylh ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
RDX	8.86	Baseline	LV5D	05/09/24 13:18
2,6-Dinitrotoluene		Invalid Compound ID	LV5D	05/09/24 13:18
2-Nitrotoluene		Invalid Compound ID	LV5D	05/09/24 13:18
Nitroglycerin		Invalid Compound ID	LV5D	05/09/24 13:18
4-Amino-2,6-dinitrotoluene	16.15	Baseline	LV5D	05/09/24 13:19
2-Amino-4,6-dinitrotoluene	16.95	Baseline	LV5D	05/09/24 13:19
2,4,6-Trinitrotoluene	22.70	Baseline	LV5D	05/09/24 13:18

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver

Job No.: 280-190882-1

SDG No.: \_\_\_\_\_

Instrument ID: CHHPLC\_G2\_LUNA

Analysis Batch Number: 652628

Lab Sample ID: CCV 280-652628/20

Client Sample ID: \_\_\_\_\_

Date Analyzed: 05/09/24 02:46

Lab File ID: 05080020.D

GC Column: Luna-phenylh ID: 4.6 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitrobenzene	11.38	Baseline	LV5D	05/09/24 13:19
1,2-Dinitrobenzene	12.29	Baseline	LV5D	05/09/24 13:19
3,5-Dinitroaniline	14.11	Baseline	LV5D	05/09/24 13:19
1,3-Dinitrobenzene	14.40	Baseline	LV5D	05/09/24 13:19
Nitroglycerin	14.84	Baseline	LV5D	05/09/24 13:19
2-Nitrotoluene	15.42	Baseline	LV5D	05/09/24 13:19
4-Nitrotoluene	15.65	Baseline	LV5D	05/09/24 13:19
4-Amino-2,6-dinitrotoluene	16.14	Baseline	LV5D	05/09/24 13:19
3-Nitrotoluene	16.48	Baseline	LV5D	05/09/24 13:19
2-Amino-4,6-dinitrotoluene	16.96	Baseline	LV5D	05/09/24 13:19
1,3,5-Trinitrobenzene	17.18	Baseline	LV5D	05/09/24 13:19
2,6-Dinitrotoluene	18.25	Baseline	LV5D	05/09/24 13:19
2,4-Dinitrotoluene	18.70	Baseline	LV5D	05/09/24 13:19
PETN	23.82	Baseline	LV5D	05/09/24 13:19

Lab Sample ID: 280-190882-3

Client Sample ID: FWGmw-011-240401-GW

Date Analyzed: 05/09/24 03:22

Lab File ID: 05080021.D

GC Column: Luna-phenylh ID: 4.6 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
RDX	8.93	Baseline	LV5D	05/09/24 13:19
2,6-Dinitrotoluene		Invalid Compound ID	LV5D	05/09/24 13:20
2-Amino-4,6-dinitrotoluene		Invalid Compound ID	LV5D	05/09/24 13:20
2-Nitrotoluene		Invalid Compound ID	LV5D	05/09/24 13:20
4-Amino-2,6-dinitrotoluene		Invalid Compound ID	LV5D	05/09/24 13:20
Nitroglycerin		Invalid Compound ID	LV5D	05/09/24 13:19

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-190882-1  
 SDG No.: \_\_\_\_\_  
 Instrument ID: CHHPLC\_G2\_LUNA Analysis Batch Number: 652628  
 Lab Sample ID: 280-190882-4 Client Sample ID: LL3mw-241-240401-GW  
 Date Analyzed: 05/09/24 03:58 Lab File ID: 05080022.D GC Column: Luna-phenylh ID: 4.6 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2,6-Dinitrotoluene		Baseline	LV5D	05/09/24 13:20
2-Nitrotoluene		Invalid Compound ID	LV5D	05/09/24 13:20
3-Nitrotoluene		Baseline	LV5D	05/09/24 13:20
HMX		Invalid Compound ID	LV5D	05/09/24 13:20
Nitroglycerin		Invalid Compound ID	LV5D	05/09/24 13:20
4-Amino-2,6-dinitrotoluene	16.12	Baseline	LV5D	05/09/24 13:20
2-Amino-4,6-dinitrotoluene	16.92	Baseline	LV5D	05/09/24 13:20
1,3,5-Trinitrobenzene	17.16	Baseline	LV5D	05/09/24 13:20

Lab Sample ID: 280-190882-5 Client Sample ID: FWGmw-012-240401-GW  
 Date Analyzed: 05/09/24 04:34 Lab File ID: 05080023.D GC Column: Luna-phenylh ID: 4.6 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2-Amino-4,6-dinitrotoluene		Baseline	LV5D	05/09/24 13:21
4-Amino-2,6-dinitrotoluene		Baseline	LV5D	05/09/24 13:21
Nitroglycerin		Invalid Compound ID	LV5D	05/09/24 13:21
2-Nitrotoluene	15.47	Baseline	LV5D	05/09/24 13:21

Lab Sample ID: CCV 280-652628/31 Client Sample ID: \_\_\_\_\_  
 Date Analyzed: 05/09/24 09:21 Lab File ID: 05080031.D GC Column: Luna-phenylh ID: 4.6 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitroglycerin	14.85	Baseline	LV5D	05/09/24 13:24

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-190882-1

SDG No.: \_\_\_\_\_

Instrument ID: CHHPLC\_X3 Analysis Batch Number: 649950

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

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

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

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

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

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

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

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

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

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

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

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

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-190882-1  
 SDG No.: \_\_\_\_\_  
 Instrument ID: CHHPLC\_X3 Analysis Batch Number: 649950  
 Lab Sample ID: IC 280-649950/15 Client Sample ID: \_\_\_\_\_  
 Date Analyzed: 04/17/24 22:09 Lab File ID: 04170015.D GC Column: UltraCarb5uO ID: 4.6(mm)

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

Lab Sample ID: IC 280-649950/16 Client Sample ID: \_\_\_\_\_  
 Date Analyzed: 04/17/24 22:32 Lab File ID: 04170016.D GC Column: UltraCarb5uO ID: 4.6(mm)

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

Lab Sample ID: IC 280-649950/17 Client Sample ID: \_\_\_\_\_  
 Date Analyzed: 04/17/24 22:55 Lab File ID: 04170017.D GC Column: UltraCarb5uO ID: 4.6(mm)

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

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver

Job No.: 280-190882-1

SDG No.: \_\_\_\_\_

Instrument ID: CHHPLC\_X3

Analysis Batch Number: 649950

Lab Sample ID: IC 280-649950/18

Client Sample ID: \_\_\_\_\_

Date Analyzed: 04/17/24 23:18

Lab File ID: 04170018.D

GC Column: UltraCarb5uO ID: 4.6 (mm)

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

Lab Sample ID: IC 280-649950/19

Client Sample ID: \_\_\_\_\_

Date Analyzed: 04/17/24 23:41

Lab File ID: 04170019.D

GC Column: UltraCarb5uO ID: 4.6 (mm)

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

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-190882-1  
 SDG No.: \_\_\_\_\_  
 Instrument ID: CHHPLC\_X3 Analysis Batch Number: 649950  
 Lab Sample ID: ICV 280-649950/20 Client Sample ID: \_\_\_\_\_  
 Date Analyzed: 04/18/24 00:04 Lab File ID: 04170020.D GC Column: UltraCarb5uO ID: 4.6 (mm)

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

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-190882-1

SDG No.: \_\_\_\_\_

Instrument ID: CHHPLC\_X3 Analysis Batch Number: 652621

Lab Sample ID: CCV 280-652621/7 Client Sample ID: \_\_\_\_\_

Date Analyzed: 05/08/24 17:07 Lab File ID: 05080007.D GC Column: UltraCarb5uO ID: 4.6 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.62	Baseline	LV5D	05/08/24 17:35

Lab Sample ID: MB 280-652021/1-A Client Sample ID: \_\_\_\_\_

Date Analyzed: 05/08/24 17:30 Lab File ID: 05080011.D GC Column: UltraCarb5uO ID: 4.6 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,2-Dinitrobenzene	8.55	Baseline	LV5D	05/08/24 18:27
1,3,5-Trinitrobenzene		Invalid Compound ID	LV5D	05/08/24 18:27

Lab Sample ID: LCS 280-652021/2-A Client Sample ID: \_\_\_\_\_

Date Analyzed: 05/08/24 17:53 Lab File ID: 05080012.D GC Column: UltraCarb5uO ID: 4.6 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.61	Baseline	LV5D	05/08/24 18:28

Lab Sample ID: LCSD 280-652021/3-A Client Sample ID: \_\_\_\_\_

Date Analyzed: 05/08/24 18:16 Lab File ID: 05080013.D GC Column: UltraCarb5uO ID: 4.6 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.62	Baseline	LV5D	05/08/24 18:39
3-Nitrotoluene	13.35	Baseline	LV5D	05/08/24 18:40

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-190882-1  
 SDG No.: \_\_\_\_\_  
 Instrument ID: CHHPLC\_X3 Analysis Batch Number: 652621  
 Lab Sample ID: 280-190882-1 Client Sample ID: LL2mw-059-240401-GW  
 Date Analyzed: 05/08/24 20:33 Lab File ID: 05080019.D GC Column: UltraCarb5uO ID: 4.6 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,2-Dinitrobenzene	8.56	Baseline	LV5D	05/09/24 11:53
1,3,5-Trinitrobenzene	8.70	Baseline	LV5D	05/09/24 11:53
2-Nitrotoluene		Invalid Compound ID	LV5D	05/09/24 11:52
Nitrobenzene		Invalid Compound ID	LV5D	05/09/24 11:52
Tetryl		Invalid Compound ID	LV5D	05/09/24 11:52

Lab Sample ID: 280-190882-2 Client Sample ID: LL3mw-237-240401-GW  
 Date Analyzed: 05/08/24 20:56 Lab File ID: 05080020.D GC Column: UltraCarb5uO ID: 4.6 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
RDX	7.60	Baseline	LV5D	05/09/24 11:53
1,2-Dinitrobenzene	8.56	Baseline	LV5D	05/09/24 11:53
1,3,5-Trinitrobenzene	8.70	Baseline	LV5D	05/09/24 11:53
1,3-Dinitrobenzene		Invalid Compound ID	LV5D	05/09/24 11:54
2-Nitrotoluene		Invalid Compound ID	LV5D	05/09/24 11:54
4-Nitrotoluene		Invalid Compound ID	LV5D	05/09/24 11:54
Tetryl		Invalid Compound ID	LV5D	05/09/24 11:54

Lab Sample ID: CCV 280-652621/21 Client Sample ID: \_\_\_\_\_  
 Date Analyzed: 05/08/24 21:19 Lab File ID: 05080021.D GC Column: UltraCarb5uO ID: 4.6 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.61	Baseline	LV5D	05/09/24 11:54

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-190882-1  
 SDG No.: \_\_\_\_\_  
 Instrument ID: CHHPLC\_X3 Analysis Batch Number: 652621  
 Lab Sample ID: 280-190882-3 Client Sample ID: FWGmw-011-240401-GW  
 Date Analyzed: 05/08/24 21:42 Lab File ID: 05080022.D GC Column: UltraCarb5uO ID: 4.6 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
RDX	7.65	Baseline	LV5D	05/09/24 12:00
1,2-Dinitrobenzene	8.55	Baseline	LV5D	05/09/24 12:00
1,3,5-Trinitrobenzene		Invalid Compound ID	LV5D	05/09/24 12:00
1,3-Dinitrobenzene		Invalid Compound ID	LV5D	05/09/24 12:00
4-Nitrotoluene		Invalid Compound ID	LV5D	05/09/24 12:00
HMX		Invalid Compound ID	LV5D	05/09/24 12:00

Lab Sample ID: 280-190882-4 Client Sample ID: LL3mw-241-240401-GW  
 Date Analyzed: 05/08/24 22:05 Lab File ID: 05080023.D GC Column: UltraCarb5uO ID: 4.6 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.60	Baseline	LV5D	05/09/24 12:01
1,3-Dinitrobenzene		Invalid Compound ID	LV5D	05/09/24 12:01
2-Nitrotoluene		Invalid Compound ID	LV5D	05/09/24 12:01
Tetryl		Invalid Compound ID	LV5D	05/09/24 12:01
4-Nitrotoluene	12.80	Baseline	LV5D	05/09/24 12:01

Lab Sample ID: 280-190882-5 Client Sample ID: FWGmw-012-240401-GW  
 Date Analyzed: 05/08/24 22:28 Lab File ID: 05080024.D GC Column: UltraCarb5uO ID: 4.6 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,2-Dinitrobenzene	8.56	Baseline	LV5D	05/09/24 12:06
1,3,5-Trinitrobenzene	8.71	Baseline	LV5D	05/09/24 12:07
1,3-Dinitrobenzene		Invalid Compound ID	LV5D	05/09/24 12:06
2,4-Dinitrotoluene		Invalid Compound ID	LV5D	05/09/24 12:06
HMX		Invalid Compound ID	LV5D	05/09/24 12:06
Tetryl		Invalid Compound ID	LV5D	05/09/24 12:06

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-190882-1

SDG No.: \_\_\_\_\_

Instrument ID: CHHPLC\_X3 Analysis Batch Number: 652621

Lab Sample ID: 280-190882-6 Client Sample ID: LL1mw-089-240401-GW

Date Analyzed: 05/08/24 22:51 Lab File ID: 05080025.D GC Column: UltraCarb5uO ID: 4.6 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,2-Dinitrobenzene	8.56	Baseline	LV5D	05/09/24 12:12

Lab Sample ID: 280-190882-7 Client Sample ID: LL1mw-089-240402-GW

Date Analyzed: 05/08/24 23:14 Lab File ID: 05080026.D GC Column: UltraCarb5uO ID: 4.6 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
RDX	7.65	Baseline	LV5D	05/09/24 12:12
1,2-Dinitrobenzene	8.56	Baseline	LV5D	05/09/24 12:12

Lab Sample ID: 280-190882-8 Client Sample ID: FWGmw-004-240401-GW

Date Analyzed: 05/08/24 23:37 Lab File ID: 05080027.D GC Column: UltraCarb5uO ID: 4.6 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,2-Dinitrobenzene	8.56	Baseline	LV5D	05/09/24 12:12

Lab Sample ID: 280-190882-8 MS Client Sample ID: FWGmw-004-240401-GW MS

Date Analyzed: 05/09/24 00:00 Lab File ID: 05080028.D GC Column: UltraCarb5uO ID: 4.6 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.61	Baseline	LV5D	05/09/24 12:12
RDX	7.63	Baseline	LV5D	05/09/24 12:15

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-190882-1

SDG No.: \_\_\_\_\_

Instrument ID: CHHPLC\_X3 Analysis Batch Number: 652621

Lab Sample ID: 280-190882-8 MSD Client Sample ID: FWGmw-004-240401-GW MSD

Date Analyzed: 05/09/24 00:23 Lab File ID: 05080029.D GC Column: UltraCarb5uO ID: 4.6 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.61	Baseline	LV5D	05/09/24 12:15
RDX	7.63	Baseline	LV5D	05/09/24 12:15

Lab Sample ID: 280-190882-9 Client Sample ID: FWGmw-004-240402-GW

Date Analyzed: 05/09/24 00:46 Lab File ID: 05080030.D GC Column: UltraCarb5uO ID: 4.6 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,2-Dinitrobenzene	8.55	Baseline	LV5D	05/09/24 12:17

Lab Sample ID: 280-190882-10 Client Sample ID: FWGmw-007-240401-GW

Date Analyzed: 05/09/24 01:09 Lab File ID: 05080031.D GC Column: UltraCarb5uO ID: 4.6 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,2-Dinitrobenzene	8.56	Baseline	LV5D	05/09/24 12:17

Lab Sample ID: CCV 280-652621/32 Client Sample ID: \_\_\_\_\_

Date Analyzed: 05/09/24 01:32 Lab File ID: 05080032.D GC Column: UltraCarb5uO ID: 4.6 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.61	Baseline	LV5D	05/09/24 12:17

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver

Job No.: 280-190882-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
8330 DMT_00016	06/30/24	01/24/24	Acetonitrile, Lot 233799	5 mL	MNX, TNX, DNX_00092	1 mL	DNX	20.04 ug/mL
							MNX	23.38 ug/mL
							TNX	20.08 ug/mL
.MNX, TNX, DNX_00092	06/30/24		Agilent, Lot 0006744504		(Purchased Reagent)		DNX	100.2 ug/mL
							MNX	116.9 ug/mL
							TNX	100.4 ug/mL
8330 LCS_00134	08/29/24	02/29/24	Acetonitrile, Lot Acetonitrile_00086	100 mL	3,5-DNA Stock_00051	1 mL	3,5-Dinitroaniline	10 ug/mL
					8330 LCSMix2_00113	1 mL	2,6-Dinitrotoluene	10 ug/mL
							2-Amino-4,6-dinitrotoluene	10 ug/mL
							2-Nitrotoluene	10 ug/mL
							3-Nitrotoluene	10 ug/mL
							4-Amino-2,6-dinitrotoluene	10 ug/mL
							4-Nitrotoluene	10 ug/mL
							Tetryl	10 ug/mL
					8330 NG Stk 00145	1 mL	Nitroglycerin	100 ug/mL
					8330 NG Stk 00147	1 mL	Nitroglycerin	100 ug/mL
					8330 PETN Stk 00152	1 mL	PETN	100 ug/mL
					8330 PETN Stk 00153	1 mL	PETN	100 ug/mL
					8330LCSMix1_00151	1 mL	1,3,5-Trinitrobenzene	10 ug/mL
							1,3-Dinitrobenzene	10 ug/mL
							2,4,6-Trinitrotoluene	10 ug/mL
2,4-Dinitrotoluene	10 ug/mL							
HMX	10 ug/mL							
		Nitrobenzene	10 ug/mL					
		RDX	10 ug/mL					
PicricARestek_00122	1 mL	2,4,6-Trinitrophenol	10 ug/mL					
		Ammonium Picrate	10.74 ug/mL					
.3,5-DNA Stock 00051	02/28/25		Restek, Lot A0193965		(Purchased Reagent)		3,5-Dinitroaniline	1000 ug/mL
.8330 LCSMix2_00113	02/28/25		Restek, Lot A199657		(Purchased Reagent)		2,6-Dinitrotoluene	1000 ug/mL
							2-Amino-4,6-dinitrotoluene	1000 ug/mL
							2-Nitrotoluene	1000 ug/mL
							3-Nitrotoluene	1000 ug/mL
							4-Amino-2,6-dinitrotoluene	1000 ug/mL
							4-Nitrotoluene	1000 ug/mL
		Tetryl	1000 ug/mL					
.8330 NG Stk 00145	02/28/25		Restek, Lot A0201048		(Purchased Reagent)		Nitroglycerin	5000 ug/mL
.8330 NG Stk 00147	02/28/25		Restek, Lot A0201048		(Purchased Reagent)		Nitroglycerin	5000 ug/mL
.8330 PETN Stk 00152	02/28/25		Restek, Lot A0198972		(Purchased Reagent)		PETN	5000 ug/mL
.8330 PETN Stk 00153	02/28/25		Restek, Lot A0198972		(Purchased Reagent)		PETN	5000 ug/mL
.8330LCSMix1_00151	02/28/25		Restek, Lot A196548		(Purchased Reagent)		1,3,5-Trinitrobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							2,4,6-Trinitrotoluene	1000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							HMX	1000 ug/mL
		Nitrobenzene	1000 ug/mL					

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver

Job No.: 280-190882-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.PicricARestek_00122	02/28/25		Restek, Lot A0195778			(Purchased Reagent)	RDX 2,4,6-Trinitrophenol Ammonium Picrate	1000 ug/mL 1000 ug/mL 1074 ug/mL
<b>8330IntermStk_00080</b>	05/14/24	04/17/24	Acetonitrile, Lot 223272	10 mL	8330_NG1000_00012	1 mL	Nitroglycerin	100 ug/mL
					8330_PETN1000_00016	1 mL	PETN	100 ug/mL
					833035DNASTk_00059	1 mL	3,5-Dinitroaniline	10 ug/mL
					8330ICALStock_00035	1 mL	1,3,5-Trinitrobenzene	10 ug/mL
							1,3-Dinitrobenzene	10 ug/mL
							2,4,6-Trinitrotoluene	10 ug/mL
							2,4-Dinitrotoluene	10 ug/mL
							2,6-Dinitrotoluene	10 ug/mL
							2-Amino-4,6-dinitrotoluene	10 ug/mL
							2-Nitrotoluene	10 ug/mL
							3-Nitrotoluene	10 ug/mL
							4-Amino-2,6-dinitrotoluene	10 ug/mL
							4-Nitrotoluene	10 ug/mL
							HMX	10 ug/mL
							Nitrobenzene	10 ug/mL
							RDX	10 ug/mL
							Tetryl	10 ug/mL
							1,2-Dinitrobenzene	10 ug/mL
					8330PASTkPS_00075	1 mL	2,4,6-Trinitrophenol	10 ug/mL
.8330_NG1000_00012	04/17/25		Restek, Lot A0197032			(Purchased Reagent)	Nitroglycerin	1000 ug/mL
.8330_PETN1000_00016	04/17/25		Restek, Lot A0198747			(Purchased Reagent)	PETN	1000 ug/mL
.833035DNASTk_00059	05/14/24		Accustandard, Lot 223041214			(Purchased Reagent)	3,5-Dinitroaniline	100 ug/mL
.8330ICALStock_00035	01/23/25	01/23/24	Acetonitrile, Lot 233799	10 mL	8330_Stock_TS_00024	1 mL	1,3,5-Trinitrobenzene	100 ug/mL
							1,3-Dinitrobenzene	100 ug/mL
							2,4,6-Trinitrotoluene	100 ug/mL
							2,4-Dinitrotoluene	100 ug/mL
							2,6-Dinitrotoluene	100 ug/mL
							2-Amino-4,6-dinitrotoluene	100 ug/mL
							2-Nitrotoluene	100 ug/mL
							3-Nitrotoluene	100 ug/mL
							4-Amino-2,6-dinitrotoluene	100 ug/mL
							4-Nitrotoluene	100 ug/mL
							HMX	100 ug/mL
							Nitrobenzene	100 ug/mL
							RDX	100 ug/mL
							Tetryl	100 ug/mL
					8330SurrStock_00173	1 mL	1,2-Dinitrobenzene	100 ug/mL
..8330_Stock_TS_00024	01/23/25		Agilent, Lot 0006684308			(Purchased Reagent)	1,3,5-Trinitrobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							2,4,6-Trinitrotoluene	1000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver

Job No.: 280-190882-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Amino-4,6-dinitrotoluene	1000 ug/mL
							2-Nitrotoluene	1000 ug/mL
							3-Nitrotoluene	1000 ug/mL
							4-Amino-2,6-dinitrotoluene	1000 ug/mL
							4-Nitrotoluene	1000 ug/mL
							HMX	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							RDX	1000 ug/mL
							Tetryl	1000 ug/mL
.8330SurrStock 00173	01/23/25		AccuStandard, Lot 219051500			(Purchased Reagent)	1,2-Dinitrobenzene	1000 ug/mL
.8330PASTkPS 00075	04/12/25		AccuStandard, Lot 223041157			(Purchased Reagent)	2,4,6-Trinitrophenol	100 ug/mL
<b>8330Surrogate_00154</b>	09/01/24	03/01/24	Acetonitrile, Lot Acetonitrile_00086	500 mL	8330SurrStkSS_00310	1 mL	1,2-Dinitrobenzene	10 ug/mL
					8330SurrStkSS_00311	1 mL	1,2-Dinitrobenzene	10 ug/mL
					8330SurrStkSS_00312	1 mL	1,2-Dinitrobenzene	10 ug/mL
					8330SurrStkSS_00314	1 mL	1,2-Dinitrobenzene	10 ug/mL
					8330SurrStkSS_00315	1 mL	1,2-Dinitrobenzene	10 ug/mL
.8330SurrStkSS 00310	03/01/25		Restek, Lot A0200577			(Purchased Reagent)	1,2-Dinitrobenzene	1000 ug/mL
.8330SurrStkSS 00311	03/01/25		Restek, Lot A0200577			(Purchased Reagent)	1,2-Dinitrobenzene	1000 ug/mL
.8330SurrStkSS 00312	03/01/25		Restek, Lot A0200577			(Purchased Reagent)	1,2-Dinitrobenzene	1000 ug/mL
.8330SurrStkSS 00314	03/01/25		Restek, Lot A0200577			(Purchased Reagent)	1,2-Dinitrobenzene	1000 ug/mL
.8330SurrStkSS 00315	03/01/25		Restek, Lot A0200577			(Purchased Reagent)	1,2-Dinitrobenzene	1000 ug/mL
<b>8330Surrogate_00155</b>	10/26/24	04/26/24	Acetonitrile, Lot Acetonitrile_00086	500 mL	8330SurrStkSS_00313	1 mL	1,2-Dinitrobenzene	10 ug/mL
							1,2-Dinitrobenzene (Surr)	10 ug/mL
					8330SurrStkSS_00316	1 mL	1,2-Dinitrobenzene	10 ug/mL
							1,2-Dinitrobenzene (Surr)	10 ug/mL
					8330SurrStkSS_00317	1 mL	1,2-Dinitrobenzene	10 ug/mL
							1,2-Dinitrobenzene (Surr)	10 ug/mL
					8330SurrStkSS_00318	1 mL	1,2-Dinitrobenzene	10 ug/mL
							1,2-Dinitrobenzene (Surr)	10 ug/mL
					8330SurrStkSS_00319	1 mL	1,2-Dinitrobenzene	10 ug/mL
							1,2-Dinitrobenzene (Surr)	10 ug/mL
.8330SurrStkSS_00313	04/26/25		Restek, Lot A0200577			(Purchased Reagent)	1,2-Dinitrobenzene	1000 ug/mL
							1,2-Dinitrobenzene (Surr)	1000 ug/mL
.8330SurrStkSS_00316	04/26/25		Restek, Lot A0200577			(Purchased Reagent)	1,2-Dinitrobenzene	1000 ug/mL
							1,2-Dinitrobenzene (Surr)	1000 ug/mL
.8330SurrStkSS_00317	04/26/25		Restek, Lot A0200577			(Purchased Reagent)	1,2-Dinitrobenzene	1000 ug/mL
							1,2-Dinitrobenzene (Surr)	1000 ug/mL
.8330SurrStkSS_00318	04/26/25		Restek, Lot A0205460			(Purchased Reagent)	1,2-Dinitrobenzene	1000 ug/mL
							1,2-Dinitrobenzene (Surr)	1000 ug/mL
.8330SurrStkSS_00319	04/26/25		Restek, Lot A0205460			(Purchased Reagent)	1,2-Dinitrobenzene	1000 ug/mL
							1,2-Dinitrobenzene (Surr)	1000 ug/mL

Reagent

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**3,5-DNA Stock\_00051**



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 Fax: 1-814-353-1309

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CERTIFIED REFERENCE MATERIAL

**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. :** 31661 **Lot No.:** A0193965  
**Description :** 3,5-Dinitroaniline Standard  
3, 5-Dinitroaniline Std 1000µg/mL, Acetonitrile, 1mL/ampul  
**Container Size :** 2 mL **Pkg Amt:** > 1 mL  
**Expiration Date :** August 31, 2027 **Storage:** 10°C or colder  
**Ship:** Ambient

CERTIFIED VALUES

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

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

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

## General Certified Reference Material Notes

### Expiration Notes:

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

### Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/ $\mu$ ECD, 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:

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

$k$  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

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**8330 LCS\_00134**

### Preliminary Report

Eurofins Denver

LCS, Lab Control Sample Report

Sample Path: \\chromfs\Denver\ChromData\CHHPLC\_X\20240301-130735.b\03010011.D  
 Lims ID: 8330 LCS\_00134 Inj. Date: 01-Mar-2024 12:30:35  
 Worklist ID: 280-0130735-011 Instrument: CHHPLC\_X3  
 Method: 8330\_X3

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

Samples for Limit Group: 1, Lims Prep Method: 8330B\_Sonc\_10g

280-188024-A-1-A                      280-188024-A-2-A                      280-188024-A-3-A  
 280-188024-A-4-A                      280-188024-A-5-A

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

410-161632-D-1-A                      410-161632-D-2-A                      410-161632-D-4-A  
 410-161632-D-6-A                      410-161632-A-7-A                      410-161632-A-8-A

Reagent

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**8330 LC*S*Mix2\_00113**



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

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis  
*chromatographic plus*



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

**Catalog No. :** 31451 **Lot No.:** A0199657  
**Description :** 8330 Calibration Mix #2  
8330 Calibration Std #2 1000µg/mL, Acetonitrile, 1mL/ampul  
**Container Size :** 2 mL **Pkg Amt:** > 1 mL  
**Expiration Date :** July 31, 2028 **Storage:** 10°C or colder  
**Ship:** Ambient

CERTIFIED VALUES

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

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

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

# Quality Confirmation Test

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

**Flow Rate:**  
1.0 ml/min.

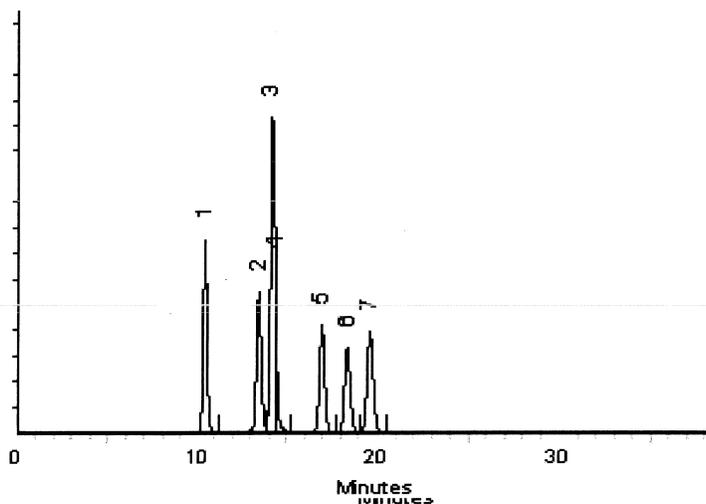
**Mobile Phase A:**  
water:methanol (44:56 V/V)

**Mobile Phase B:**

**Mobile Phase Composition:**  
100%A

**Det. Type:**  
Wavelength: 210nm & 254nm

**Inj. Vol**  
5µl



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

Alicia Leathers - Operation Technician I

Date Mixed: 07-Jul-2023

Balance Serial # B251644995

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 20-Jul-2023

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

## General Certified Reference Material Notes

### Expiration Notes:

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

### Purity Notes:

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

### Certified Uncertainty Value Notes:

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

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

$k$  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

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**8330 Stock\_TS\_00024**



ISO 17034

Reference Material Certificate  
Product Information Sheet

Product Name: Stock Standard

Lot Number: 0006684308

Product Number: NAIM-833E-1

Lot Issue Date: 01-Jun-2022

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

Expiration Date: 30-Jun-2025

Component Name	CERTIFIED VALUES			CAS#	Analyte Lot
	Concentration	Expanded Uncertainty			
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/NCSS 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

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**8330\_NG\_Stk\_00145**



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*



5/10/2024  
 5:37:16 AM

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

**Catalog No. :** 568871 **Lot No.:** A0201048  
**Description :** Custom Nitroglycerin Standard  
Custom Nitroglycerin Standard 5,000µg/mL, Acetonitrile, 1mL/ampul  
**Container Size :** 2 mL **Pkg Amt:** > 1 mL  
**Expiration Date :** August 31, 2026 **Storage:** 10°C or colder  
**Ship:** Ambient

CERTIFIED VALUES

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

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

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

Page 61 of 628

### Quality Confirmation Test

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

**Flow Rate:**  
1.0 ml/min.

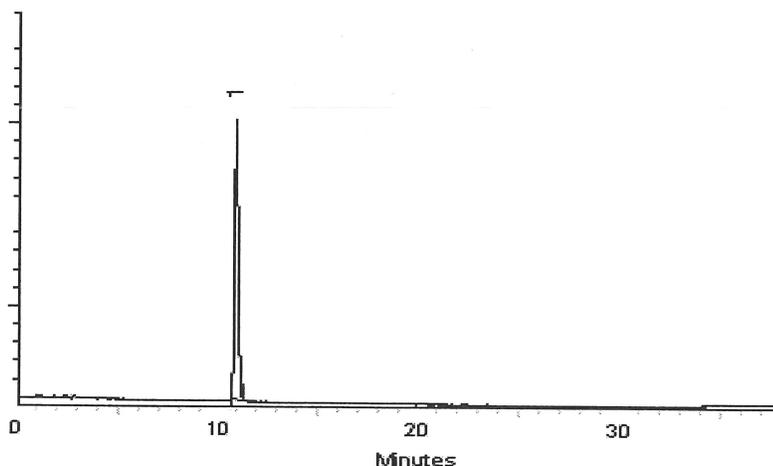
**Mobile Phase A:**  
water:methanol (44:56 V/V)

**Mobile Phase B:**

**Mobile Phase Composition:**  
100%A

**Det. Type:**  
Wavelength: 210nm & 254nm

**Inj. Vol**  
2.0µl



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

*Kyle Struble*  
Kylie Struble - Operations Technician I

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

*Jennifer Pollino*  
Jennifer Pollino - Operations Tech III - ARM QC

**Date Passed:** 25-Aug-2023     

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

## General Certified Reference Material Notes

### Expiration Notes:

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

### Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/ $\mu$ ECD, 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:

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

$k$  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

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**8330\_NG\_Stk\_00147**



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

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis  
*chromatographic*



5/10/2024  
 5:37:16 AM

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

**Catalog No. :** 568871 **Lot No.:** A0201048  
**Description :** Custom Nitroglycerin Standard  
Custom Nitroglycerin Standard 5,000µg/mL, Acetonitrile, 1mL/ampul  
**Container Size :** 2 mL **Pkg Amt:** > 1 mL  
**Expiration Date :** August 31, 2026 **Storage:** 10°C or colder  
**Ship:** Ambient

CERTIFIED VALUES

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

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

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

Page 66 of 628

### Quality Confirmation Test

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

**Flow Rate:**  
1.0 ml/min.

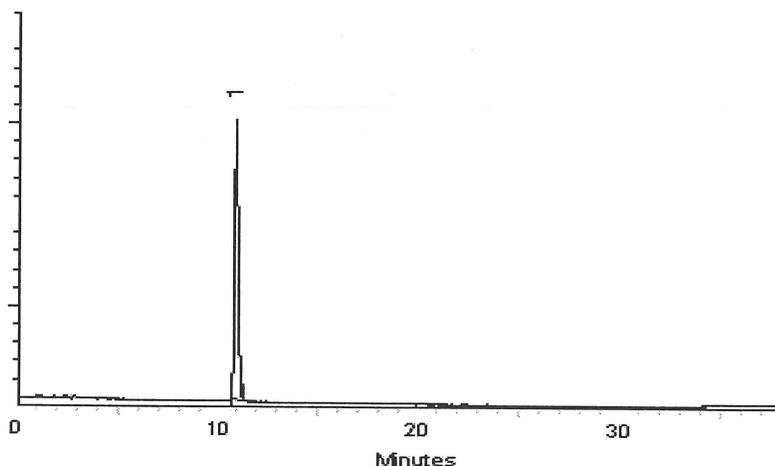
**Mobile Phase A:**  
water:methanol (44:56 V/V)

**Mobile Phase B:**

**Mobile Phase Composition:**  
100%A

**Det. Type:**  
Wavelength: 210nm & 254nm

**Inj. Vol**  
2.0µl



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

*Kyle Struble*  
Kylie Struble - Operations Technician I

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

*Jennifer Pollino*  
Jennifer Pollino - Operations Tech III - ARM QC

**Date Passed:** 25-Aug-2023     

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

## General Certified Reference Material Notes

### Expiration Notes:

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

### Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/ $\mu$ ECD, 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:

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

$k$  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

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**8330\_NG1000\_00012**



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  
*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. : 31498 Lot No.: A0197032  
 Description : Nitroglycerin Standard  
Nitroglycerin Standard 1,000µg/mL, Methanol, 1mL/ampul  
 Container Size : 2 mL Pkg Amt: > 1 mL  
 Expiration Date : April 30, 2028 Storage: 10°C or colder  
 Ship: Ambient

CERTIFIED VALUES

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

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

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

## General Certified Reference Material Notes

### Expiration Notes:

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

### Purity Notes:

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

### Certified Uncertainty Value Notes:

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

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

$k$  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.

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### Handling Notes:

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

Reagent

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**8330\_PETN\_Stk\_00152**



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

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis  
*chromatographic*



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

**Catalog No. :** 568872 **Lot No.:** A0198972  
**Description :** Custom PETN Standard  
Custom PETN Standard 5,000µg/mL, Acetonitrile, 1mL/ampul  
**Container Size :** 2 mL **Pkg Amt:** > 1 mL  
**Expiration Date :** June 30, 2026 **Storage:** 10°C or colder  
**Ship:** Ambient

CERTIFIED VALUES

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

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

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

# Quality Confirmation Test

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

**Flow Rate:**  
1.0 ml/min.

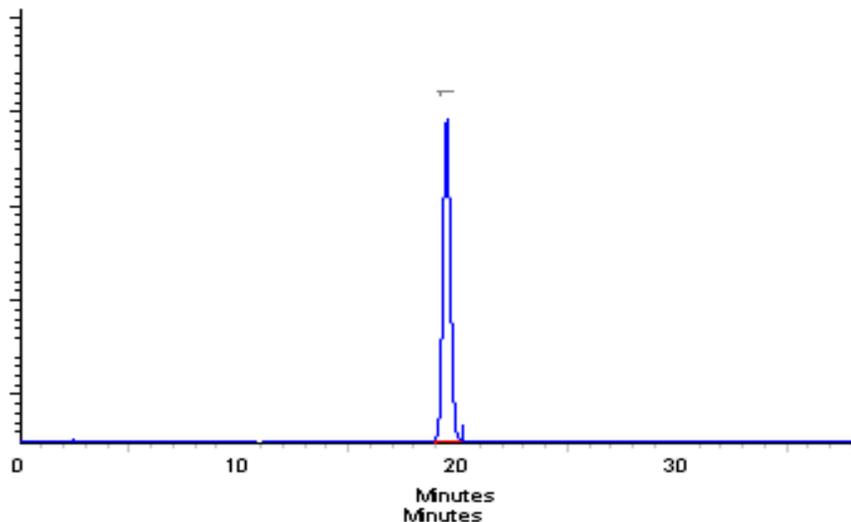
**Mobile Phase A:**  
water:methanol (44:56 V/V)

**Mobile Phase B:**

**Mobile Phase Composition:**  
100%A

**Det. Type:**  
Wavelength: 210nm & 254nm

**Inj. Vol**  
1µl



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

*Bryan Snyder*  
Bryan Snyder - Operations Tech I

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

*Jennifer J. Pollino*  
Jennifer Pollino - Operations Tech III - ARM QC

**Date Passed:** 16-Jun-2023

ARM-QC

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:

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

*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

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**8330\_PETN\_Stk\_00153**



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

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis  
*chromatographic*



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

**Catalog No. :** 568872 **Lot No.:** A0198972  
**Description :** Custom PETN Standard  
Custom PETN Standard 5,000µg/mL, Acetonitrile, 1mL/ampul  
**Container Size :** 2 mL **Pkg Amt:** > 1 mL  
**Expiration Date :** June 30, 2026 **Storage:** 10°C or colder  
**Ship:** Ambient

CERTIFIED VALUES

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

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

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

# Quality Confirmation Test

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

**Flow Rate:**  
1.0 ml/min.

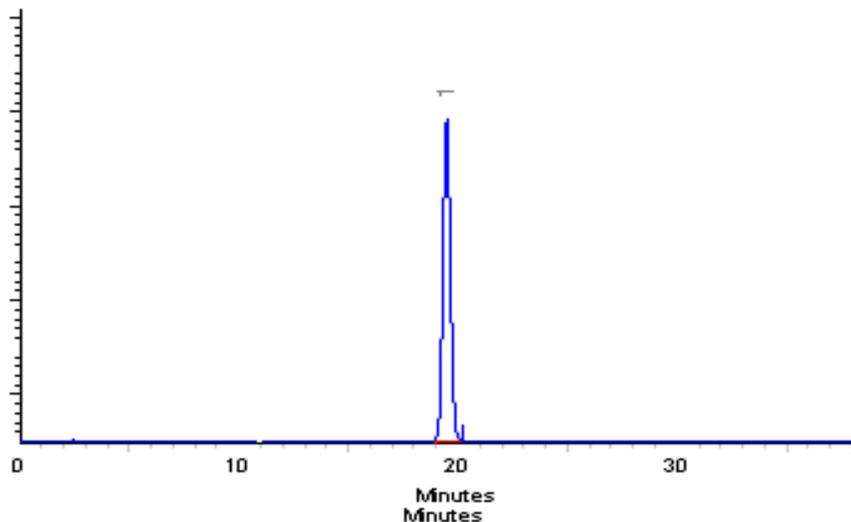
**Mobile Phase A:**  
water:methanol (44:56 V/V)

**Mobile Phase B:**

**Mobile Phase Composition:**  
100%A

**Det. Type:**  
Wavelength: 210nm & 254nm

**Inj. Vol**  
1µl



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

*Bryan Snyder*  
Bryan Snyder - Operations Tech I

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

*Jennifer J. Pollino*  
Jennifer Pollino - Operations Tech III - ARM QC

**Date Passed:** 16-Jun-2023

ARMQC

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:

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

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

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

### Manufacturing Notes:

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

### Handling Notes:

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

Reagent

---

**8330\_PETN1000\_00016**



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

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis  
*chromatographic plus*



5/10/2024  
 5:37:16 AM

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 31600 Lot No.: A0198747  
 Description : PETN Standard  
PETN Standard 1000µg/mL, Methanol, 1mL/ampul  
 Container Size : 2 mL Pkg Amt: > 1 mL  
 Expiration Date : June 30, 2028 Storage: 10°C or colder  
 Handling: Sonicate prior to use. Ship: Ambient

CERTIFIED VALUES

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

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

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

Page 82 of 628

## 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/ $\mu$ ECD, 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:

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

$k$  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

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**833035DNASTk\_00059**

# CERTIFICATE OF ANALYSIS

**Catalog No:** M-8330-ADD-4

**Description:** 3,5-Dinitroaniline

**Lot:** 223041214

**Solvent:** Methanol (50%)  
Acetonitrile (50%)

**Hazards:** Refer to SDS for complete safety information



Signal Word: Danger

**Date Certified:** Apr 14, 2023

**Expiration:** May 14, 2024

**Sample Size:** 1 mL

**Components:** 1

**Storage Condition:** Ambient (>5 °C)

**Certified Reference Material**



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

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

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

<sup>1</sup> 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.

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

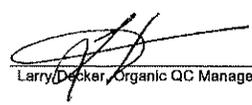
<sup>3</sup> Purity/Identity determined by one or more of the following methods: GC/MS, LC/MS, NMR, FTIR, Melting Point.

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

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

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

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

Certified By: 

Larry Decker, Organic QC Manager

Reagent

---

**8330LCSMix1\_00151**



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

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis  
*chromatographic plus*



**FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.**

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

**Catalog No. :** 31450 **Lot No.:** A0196548  
**Description :** 8330 Calibration Mix #1  
8330 Calibration Std #1 1000µg/mL, Acetonitrile, 1mL/ampul  
**Container Size :** 2 mL **Pkg Amt:** > 1 mL  
**Expiration Date :** April 30, 2028 **Storage:** 10°C or colder  
**Ship:** Ambient

CERTIFIED VALUES

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

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

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

# Quality Confirmation Test

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

**Flow Rate:**  
1.0 ml/min.

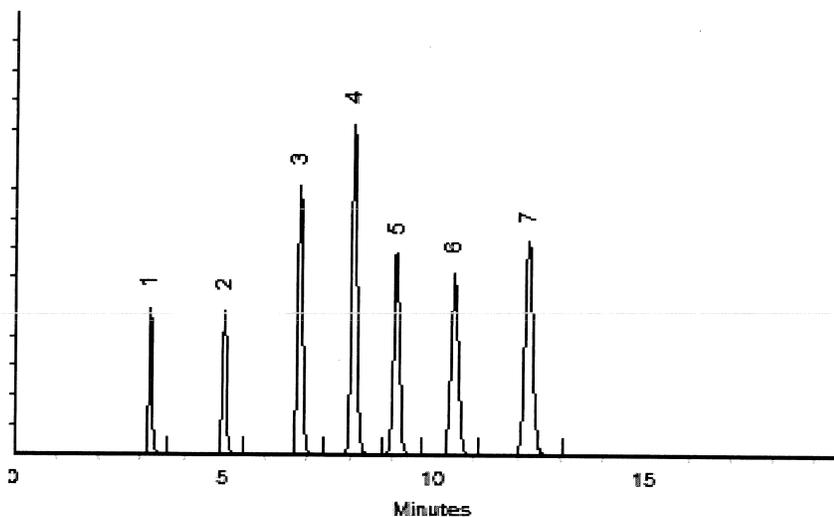
**Mobile Phase A:**  
water:methanol (44:56 V/V)

**Mobile Phase B:**

**Mobile Phase Composition:**  
100%A

**Det. Type:**  
Wavelength: 210nm & 254nm

**Inj. Vol**  
2µl



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

*Sam Moodler*  
Sam Moodler - Operations Tech I

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

*Jennifer J. Pollino*  
Jennifer Pollino - Operations Tech III - ARM QC

**Date Passed:** 05-Apr-2023

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

## General Certified Reference Material Notes

### Expiration Notes:

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

### Purity Notes:

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

### Certified Uncertainty Value Notes:

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

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

$k$  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

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**8330PASTkPS\_00075**

# CERTIFICATE OF ANALYSIS

**Catalog No:** M-8330-ADD-3

**Description:** Picric acid

**Lot:** 223041157

**Solvent:** Acetonitrile (50%)

Methanol (50%)

**Hazards:** Refer to SDS for complete safety information



Signal Word: Danger

**Date Certified:** Apr 12, 2023

**Expiration:** May 12, 2025

**Sample Size:** 1 mL

**Components:** 1

**Storage Condition:** Ambient (>5 °C)

**Certified Reference Material**



Component	CAS #	Purity <sup>3</sup> %	Prepared Concentration <sup>2</sup> (µg/mL)	Certified Analyte Concentration <sup>1</sup> (µg/mL)
Picric acid	88-89-1	99.1	100.3	99.4

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

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

<sup>1</sup> 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.

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

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

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

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

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

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

Certified By: 

Larry Decker, Organic QC Manager

Reagent

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**8330Surrogate\_00155**

### Preliminary Report

Eurofins Denver

LCS, Lab Control Sample Report

Sample Path: \\chromfs\Denver\ChromData\CHHPLC\_X\20240426-132709.b\8330SURR155.D  
 Lims ID: 8330Surr155 Inj. Date: 26-Apr-2024 15:49:11  
 Worklist ID: 280-0132709-056 Instrument: CHHPLC\_X3  
 Method: 8330\_X3

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

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

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

Reagent

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**8330SurrStkSS\_00310**



110 Benner Circle  
 Bellefonte, PA 16823-8812  
 Tel: 1-814-353-1300  
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CERTIFIED REFERENCE MATERIAL

**Certificate of Analysis**  
*chromatographic plus*



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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. :** 31453 **Lot No.:** A0200577  
**Description :** 8330 Surrogate Mix  
8330 Surrogate Mix 1000 µg/mL, Methanol, 1mL/ampul  
**Container Size :** 2 mL **Pkg Amt:** > 1 mL  
**Expiration Date :** August 31, 2028 **Storage:** 10°C or colder  
**Ship:** Ambient

CERTIFIED VALUES

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

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

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

Page 96 of 628

# Quality Confirmation Test

5/10/2024  
5:37:16 AM

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

**Flow Rate:**  
1.0 ml/min.

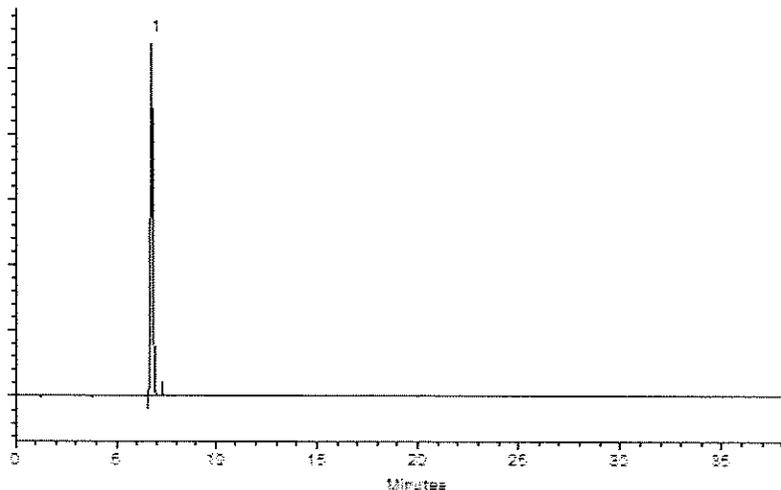
**Mobile Phase A:**  
water:methanol (44:56 V/V)

**Mobile Phase B:**

**Mobile Phase Composition:**  
100%A

**Det. Type:**  
Wavelength: 210nm & 254nm

**Inj. Vol**  
2.0µl



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

*[Signature]*  
Laith Clemente - Operations Technician I

Date Mixed: 03-Aug-2023      Balance Serial #      B707717271

*[Signature]*  
Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 21-Aug-2023

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

Page 97 of 628

## 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/ $\mu$ ECD, 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:

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

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

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

### Manufacturing Notes:

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

### Handling Notes:

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

Reagent

---

**8330SurrStkSS\_00311**



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*



5/10/2024  
 5:37:16 AM



**FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.**

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

**Catalog No. :** 31453 **Lot No.:** A0200577  
**Description :** 8330 Surrogate Mix  
8330 Surrogate Mix 1000 µg/mL, Methanol, 1mL/ampul  
**Container Size :** 2 mL **Pkg Amt:** > 1 mL  
**Expiration Date :** August 31, 2028 **Storage:** 10°C or colder  
**Ship:** Ambient

CERTIFIED VALUES

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

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

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

Page 100 of 628

# Quality Confirmation Test

5/10/2024  
5:37:16 AM

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

**Flow Rate:**  
1.0 ml/min.

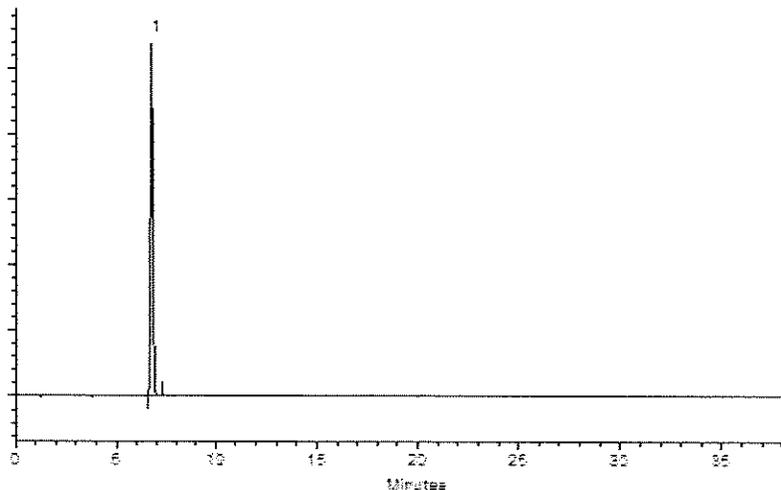
**Mobile Phase A:**  
water:methanol (44:56 V/V)

**Mobile Phase B:**

**Mobile Phase Composition:**  
100%A

**Det. Type:**  
Wavelength: 210nm & 254nm

**Inj. Vol**  
2.0µl



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

*[Signature]*  
Laith Clemente - Operations Technician I

Date Mixed: 03-Aug-2023      Balance Serial #      B707717271

*[Signature]*  
Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 21-Aug-2023

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

Page 101 of 628

## 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/ $\mu$ ECD, 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:

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

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

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

### Manufacturing Notes:

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

### Handling Notes:

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

Reagent

---

**8330SurrStkSS\_00312**



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

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CERTIFIED REFERENCE MATERIAL

**Certificate of Analysis**  
*chromatographic plus*



5/10/2024  
 5:37:16 AM



**FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.**

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

**Catalog No. :** 31453 **Lot No.:** A0200577  
**Description :** 8330 Surrogate Mix  
8330 Surrogate Mix 1000 µg/mL, Methanol, 1mL/ampul  
**Container Size :** 2 mL **Pkg Amt:** > 1 mL  
**Expiration Date :** August 31, 2028 **Storage:** 10°C or colder  
**Ship:** Ambient

CERTIFIED VALUES

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

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

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

Page 104 of 628

# Quality Confirmation Test

5/10/2024  
5:37:16 AM

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

**Flow Rate:**  
1.0 ml/min.

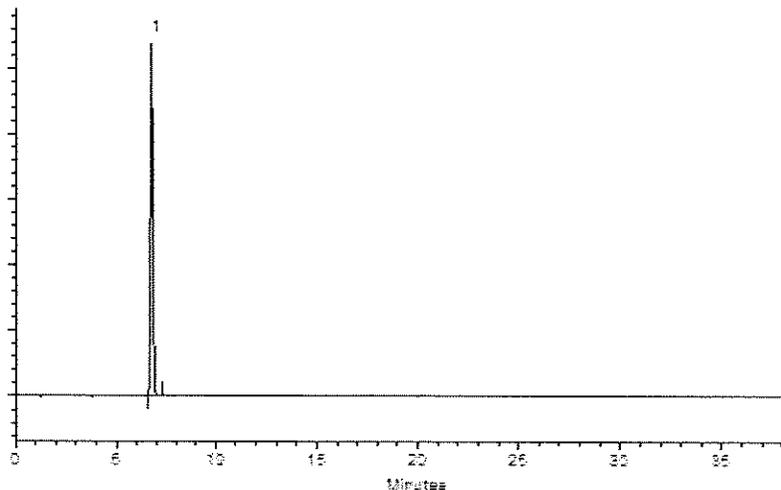
**Mobile Phase A:**  
water:methanol (44:56 V/V)

**Mobile Phase B:**

**Mobile Phase Composition:**  
100%A

**Det. Type:**  
Wavelength: 210nm & 254nm

**Inj. Vol**  
2.0µl



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

  
Laith Clemente - Operations Technician I

Date Mixed: 03-Aug-2023      Balance Serial #      B707717271

  
Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 21-Aug-2023

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

Page 105 of 628

## 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/ $\mu$ ECD, 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:

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

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

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

### Manufacturing Notes:

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

### Handling Notes:

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

Reagent

---

**8330SurrStkSS\_00313**



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

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CERTIFIED REFERENCE MATERIAL

**Certificate of Analysis**  
*chromatographic plus*



5/10/2024  
 5:37:16 AM



**FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.**

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

**Catalog No. :** 31453 **Lot No.:** A0200577  
**Description :** 8330 Surrogate Mix  
8330 Surrogate Mix 1000 µg/mL, Methanol, 1mL/ampul  
**Container Size :** 2 mL **Pkg Amt:** > 1 mL  
**Expiration Date :** August 31, 2028 **Storage:** 10°C or colder  
**Ship:** Ambient

CERTIFIED VALUES

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

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

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

Page 108 of 628

### Quality Confirmation Test

**Column:**

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

**Flow Rate:**

1.0 ml/min.

**Mobile Phase A:**

water:methanol (44:56 V/V)

**Mobile Phase B:**

**Mobile Phase Composition:**

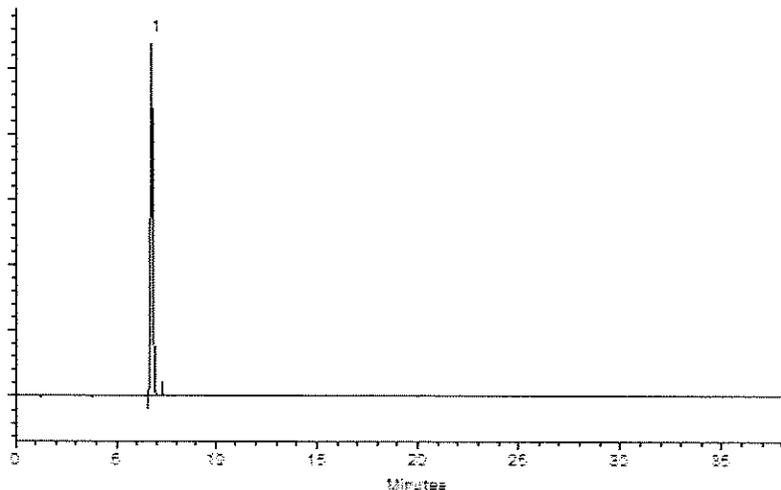
100%A

**Det. Type:**

Wavelength: 210nm & 254nm

**Inj. Vol**

2.0µl



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

*[Signature]*  
Laith Clemente - Operations Technician I

Date Mixed: 03-Aug-2023

Balance Serial # B707717271

*[Signature]*  
Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 21-Aug-2023

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

## General Certified Reference Material Notes

### Expiration Notes:

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

### Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/ $\mu$ ECD, 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:

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

$k$  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

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**8330SurrStkSS\_00314**



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

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CERTIFIED REFERENCE MATERIAL

**Certificate of Analysis**  
*chromatographic plus*



5/10/2024  
 5:37:16 AM



**FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.**

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

**Catalog No. :** 31453 **Lot No.:** A0200577  
**Description :** 8330 Surrogate Mix  
8330 Surrogate Mix 1000 µg/mL, Methanol, 1mL/ampul  
**Container Size :** 2 mL **Pkg Amt:** > 1 mL  
**Expiration Date :** August 31, 2028 **Storage:** 10°C or colder  
**Ship:** Ambient

CERTIFIED VALUES

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

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

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

Page 112 of 628

# Quality Confirmation Test

5/10/2024  
5:37:16 AM

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

**Flow Rate:**  
1.0 ml/min.

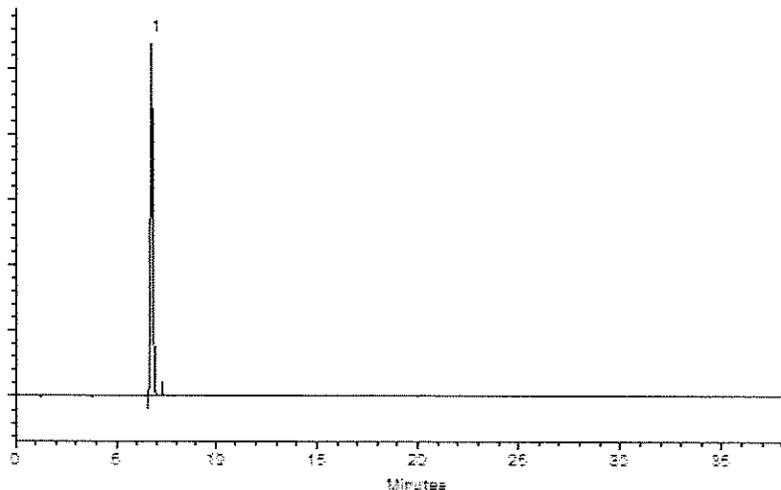
**Mobile Phase A:**  
water:methanol (44:56 V/V)

**Mobile Phase B:**

**Mobile Phase Composition:**  
100%A

**Det. Type:**  
Wavelength: 210nm & 254nm

**Inj. Vol**  
2.0µl



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

  
Laith Clemente - Operations Technician I

Date Mixed: 03-Aug-2023      Balance Serial #      B707717271

  
Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 21-Aug-2023

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

Page 113 of 628

## 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/ $\mu$ ECD, 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:

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

$k$  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

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**8330SurrStkSS\_00315**



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

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CERTIFIED REFERENCE MATERIAL

**Certificate of Analysis**  
*chromatographic plus*



5/10/2024  
 5:37:16 AM



**FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.**

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

**Catalog No. :** 31453 **Lot No.:** A0200577  
**Description :** 8330 Surrogate Mix  
8330 Surrogate Mix 1000 µg/mL, Methanol, 1mL/ampul  
**Container Size :** 2 mL **Pkg Amt:** > 1 mL  
**Expiration Date :** August 31, 2028 **Storage:** 10°C or colder  
**Ship:** Ambient

CERTIFIED VALUES

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

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

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

Page 116 of 628

# Quality Confirmation Test

5/10/2024  
5:37:16 AM

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

**Flow Rate:**  
1.0 ml/min.

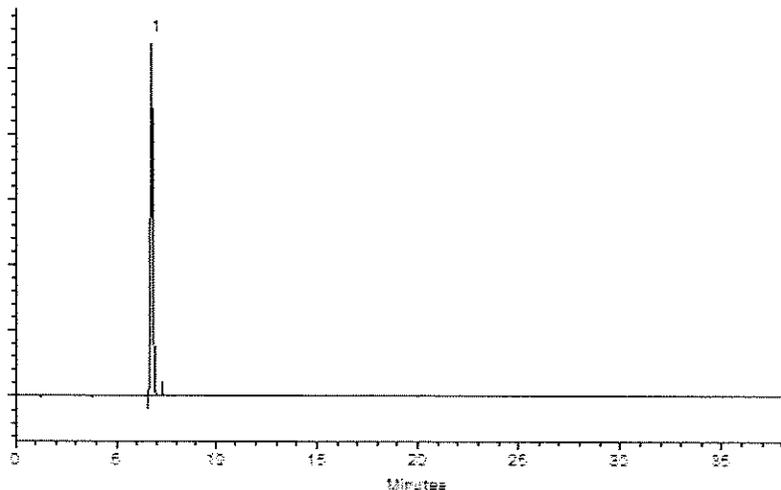
**Mobile Phase A:**  
water:methanol (44:56 V/V)

**Mobile Phase B:**

**Mobile Phase Composition:**  
100%A

**Det. Type:**  
Wavelength: 210nm & 254nm

**Inj. Vol**  
2.0µl



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

*[Signature]*  
Laith Clemente - Operations Technician I

Date Mixed: 03-Aug-2023      Balance Serial #      B707717271

*[Signature]*  
Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 21-Aug-2023

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

Page 117 of 628

## 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/ $\mu$ ECD, 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:

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

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

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

### Manufacturing Notes:

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

### Handling Notes:

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

Reagent

---

**8330SurrStkSS\_00316**



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

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CERTIFIED REFERENCE MATERIAL

**Certificate of Analysis**  
*chromatographic plus*



5/10/2024  
 5:37:16 AM



**FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.**

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

**Catalog No. :** 31453 **Lot No.:** A0200577  
**Description :** 8330 Surrogate Mix  
8330 Surrogate Mix 1000 µg/mL, Methanol, 1mL/ampul  
**Container Size :** 2 mL **Pkg Amt:** > 1 mL  
**Expiration Date :** August 31, 2028 **Storage:** 10°C or colder  
**Ship:** Ambient

CERTIFIED VALUES

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

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

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

Page 120 of 628

# Quality Confirmation Test

5/10/2024  
5:37:16 AM

**Column:**

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

**Flow Rate:**

1.0 ml/min.

**Mobile Phase A:**

water:methanol (44:56 V/V)

**Mobile Phase B:**

**Mobile Phase Composition:**

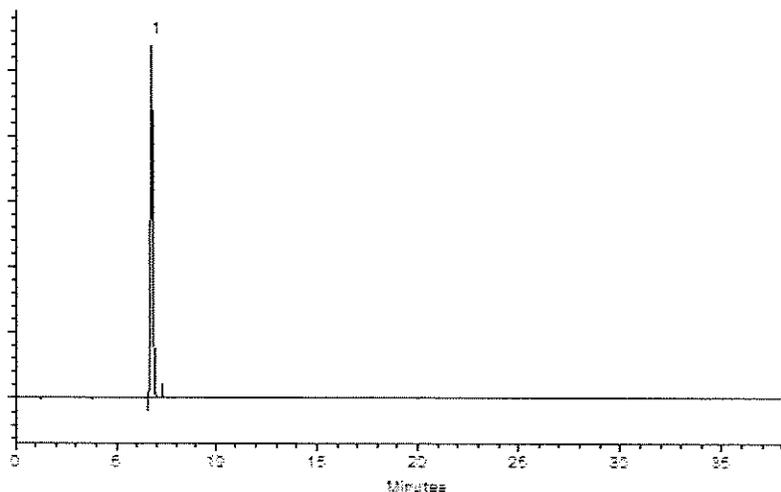
100%A

**Det. Type:**

Wavelength: 210nm & 254nm

**Inj. Vol**

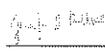
2.0µl



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

  
Laith Clemente - Operations Technician I

Date Mixed: 03-Aug-2023      Balance Serial #      B707717271

  
Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 21-Aug-2023

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

Page 121 of 628

## 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/ $\mu$ ECD, 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:

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

$k$  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

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**8330SurrStkSS\_00317**



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*



5/10/2024  
 5:37:16 AM



**FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.**

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

**Catalog No. :** 31453 **Lot No.:** A0200577  
**Description :** 8330 Surrogate Mix  
8330 Surrogate Mix 1000 µg/mL, Methanol, 1mL/ampul  
**Container Size :** 2 mL **Pkg Amt:** > 1 mL  
**Expiration Date :** August 31, 2028 **Storage:** 10°C or colder  
**Ship:** Ambient

CERTIFIED VALUES

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

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

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

Page 124 of 628

# Quality Confirmation Test

5/10/2024  
5:37:16 AM

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

**Flow Rate:**  
1.0 ml/min.

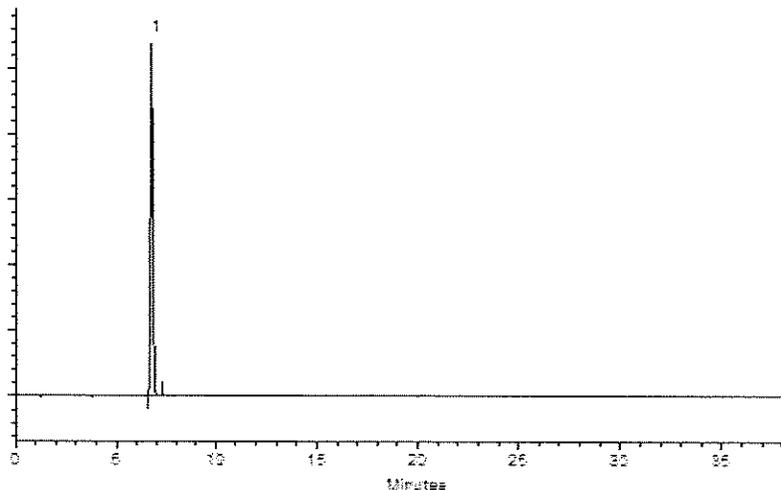
**Mobile Phase A:**  
water:methanol (44:56 V/V)

**Mobile Phase B:**

**Mobile Phase Composition:**  
100%A

**Det. Type:**  
Wavelength: 210nm & 254nm

**Inj. Vol**  
2.0µl



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

  
Laith Clemente - Operations Technician I

Date Mixed: 03-Aug-2023      Balance Serial #      B707717271

  
Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 21-Aug-2023

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

Page 125 of 628

## 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/ $\mu$ ECD, 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:

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

$k$  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

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**8330SurrStkSS\_00318**



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*



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

**Catalog No. :** 31453 \_\_\_\_\_ **Lot No.:** A0205460 \_\_\_\_\_  
**Description :** 8330 Surrogate Mix \_\_\_\_\_  
 8330 Surrogate Mix 1000 µg/mL, Methanol, 1mL/ampul  
**Container Size :** 2 mL \_\_\_\_\_ **Pkg Amt:** > 1 mL \_\_\_\_\_  
**Expiration Date :** December 31, 2028 \_\_\_\_\_ **Storage:** 10°C or colder \_\_\_\_\_  
**Ship:** Ambient \_\_\_\_\_

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1,2-Dinitrobenzene	528-29-0	RP231117RSR	99%	1,004.0 µg/mL	+/- 56.4136

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

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

# Quality Confirmation Test

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

**Flow Rate:**  
1.0 ml/min.

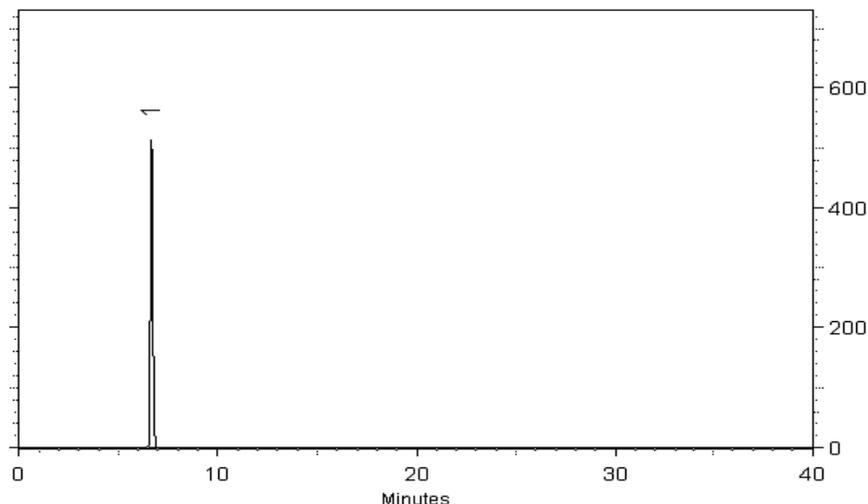
**Mobile Phase A:**  
water:methanol (44:56 V/V)

**Mobile Phase B:**

**Mobile Phase Composition:**  
100%A

**Det. Type:**  
Wavelength: 210nm & 254nm

**Inj. Vol**  
2.0µl



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

*Malina Homan*  
**Malina Homan - Operations Technician I**

**Date Mixed:** 13-Dec-2023      **Balance Serial #** B707717271

*Jennifer J Pollino*  
**Jennifer Pollino - Operations Tech III - ARM QC**

**Date Passed:** 19-Dec-2023

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

## General Certified Reference Material Notes

### Expiration Notes:

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

### Purity Notes:

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

### Certified Uncertainty Value Notes:

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

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

*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

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**8330SurrStkSS\_00319**



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*



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

**Catalog No. :** 31453 **Lot No.:** A0205460  
**Description :** 8330 Surrogate Mix  
8330 Surrogate Mix 1000 µg/mL, Methanol, 1mL/ampul  
**Container Size :** 2 mL **Pkg Amt:** > 1 mL  
**Expiration Date :** December 31, 2028 **Storage:** 10°C or colder  
**Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1,2-Dinitrobenzene	528-29-0	RP231117RSR	99%	1,004.0 µg/mL	+/- 56.4136

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

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

# Quality Confirmation Test

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

**Flow Rate:**  
1.0 ml/min.

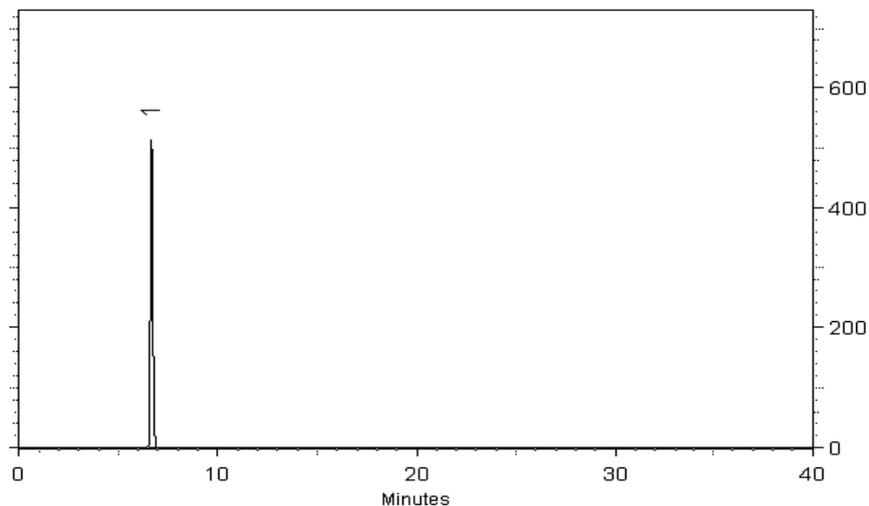
**Mobile Phase A:**  
water:methanol (44:56 V/V)

**Mobile Phase B:**

**Mobile Phase Composition:**  
100%A

**Det. Type:**  
Wavelength: 210nm & 254nm

**Inj. Vol**  
2.0µl



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

*Malina Homan*  
**Malina Homan - Operations Technician I**

**Date Mixed:** 13-Dec-2023      **Balance Serial #** B707717271

*Jennifer J. Pollino*  
**Jennifer Pollino - Operations Tech III - ARM QC**

**Date Passed:** 19-Dec-2023

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

## General Certified Reference Material Notes

### Expiration Notes:

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

### Purity Notes:

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

### Certified Uncertainty Value Notes:

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

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

### Manufacturing Notes:

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### Handling Notes:

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

Reagent

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**8330SurrStock\_00173**

# CERTIFICATE OF ANALYSIS

**Catalog No:** M-8330-SS

**Description:** 1,2-Dinitrobenzene

**Lot:** 219051500

**Solvent:** Methanol

**Hazards:** Refer to SDS for complete safety information

**Date Certified:** May 22, 2019

**Expiration:** May 22, 2029

**Sample Size:** 1 mL

**Components:** 1

**Storage Condition:** Ambient (>5 °C)



**Signal Word:** Danger

**Certified Reference Material**



Component	CAS #	Purity %	Prepared Concentration <sup>2</sup>	Certified Analyte Concentration <sup>1</sup>
		(GC/FID)	(µg/mL)	(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.

<sup>2</sup> All weights are traceable through NIST, Test No. 684/289871-17

<sup>1</sup> Certified Analyte Concentration = Purity x Prepared Concentration.

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

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

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

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

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

Certified By: 

Larry Decker, Organic QC Manager

Reagent

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**MNX , TNX , DNX \_ 00092**

**Reference Material Certificate**  
**Product Information Sheet**

**Product Name:** Custom Standard

**Lot Number:** 0006744504

**Product Number:** CUS-23984

**Lot Issue Date:** 17-May-2023

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

**Expiration Date:** 30-Jun-2024

Component Name	Concentration	Uncertainty	CAS#	Analyte Lot
1,3,5-trinitroso-1,3,5-triazacyclohexane (TNX)	100.4 ±	0.5 µg/mL	N/A	RM12426
1-nitro-3,5-dinitroso-1,3,5-triazacyclohexane (DNX)	100.2 ±	0.5 µg/mL	N/A	RM12428
1-nitroso-3,5-dinitro-1,3,5-triazacyclohexane (MNX)	116.9 ±	0.6 µg/mL	N/A	RM12428

**Matrix:** acetonitrile

**Description:**

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

**Traceability:**

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

**Homogeneity:**

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

**Instructions for Use:**

Sample aliquots for analysis should be withdrawn at 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](http://www.agilent.com) for information regarding this analytical reference material.

**Intended Use:**

This analytical reference standard is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods, and continuing calibration verification.

**Expiration of Certification:**

The certification of this analytical reference standard is valid until the expiration date specified above, provided the material is handled and stored in accordance with the instructions given in this certificate. This certification is nullified if the material is damaged, contaminated, or otherwise modified.

**Maintenance of Certification:**

If substantive changes are noted that affect the certification before the expiration of this certificate, Agilent will notify the purchaser.

---

**Sample lot approver:**



Monica Bourgeois  
QMS Representative

Reagent

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**PicricARestek\_00122**



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*



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

**Catalog No. :** 31499 \_\_\_\_\_ **Lot No.:** A0195778 \_\_\_\_\_  
**Description :** Picric Acid Standard \_\_\_\_\_  
 Picric Acid Standard 1000µg/mL, Methanol, 1mL/1000µg/mL \*PGI BOX  
 REQUIRED\* SHIP FED EX GROUND ONLY  
**Container Size :** 2 mL \_\_\_\_\_ **Pkg Amt:** > 1 mL \_\_\_\_\_  
**Expiration Date :** March 31, 2028 \_\_\_\_\_ **Storage:** 10°C or colder \_\_\_\_\_  
**Ship:** Ambient \_\_\_\_\_

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Picric Acid	88-89-1	06130CU	99%	1,002.0 µg/mL	+/- 46.7451

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

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

# Quality Confirmation Test

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

**Flow Rate:**  
1.0 ml/min.

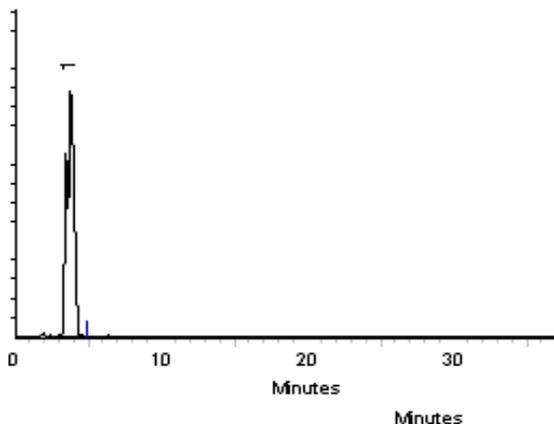
**Mobile Phase A:**  
water:methanol (44:56 V/V)

**Mobile Phase B:**

**Mobile Phase Composition:**  
100%A

**Det. Type:**  
Wavelength: 210nm & 254nm

**Inj. Vol**  
0.2µl



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

Alicia Leathers - Operation Technician I

**Date Mixed:** 12-Mar-2023

**Balance Serial #** 1127510105

Jennifer Pollino - Operations Tech III - ARM QC

**Date Passed:** 14-Mar-2023

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

## General Certified Reference Material Notes

### Expiration Notes:

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

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- Purity values are rounded to the nearest whole number.

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

# 8330B\_DOD5

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Nitroaromatics and Nitramines (HPLC)

FORM II  
HPLC/IC SURROGATE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-190882-1

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 #
LL2mw-059-240401-G W	280-190882-1		99
LL2mw-059-240401-G W	280-190882-1	100 M	
LL3mw-237-240401-G W	280-190882-2		100
LL3mw-237-240401-G W	280-190882-2	104 M	
FWGmw-011-240401-G W	280-190882-3		102
FWGmw-011-240401-G W	280-190882-3	102 M	
LL3mw-241-240401-G W	280-190882-4		104
LL3mw-241-240401-G W	280-190882-4	100	
FWGmw-012-240401-G W	280-190882-5		102
FWGmw-012-240401-G W	280-190882-5	103 M	
LL1mw-089-240401-G W	280-190882-6	92 M	
LL1mw-089-240402-G W	280-190882-7	101 M	
FWGmw-004-240401-G W	280-190882-8	92 M	
FWGmw-004-240402-G W	280-190882-9	98 M	
FWGmw-007-240401-G W	280-190882-10	98 M	
	MB 280-652021/1-A	101 M	
	LCS 280-652021/2-A	97	
	LCSD 280-652021/3-A	102	
FWGmw-004-240401-G W MS	280-190882-8 MS	96	
FWGmw-004-240401-G W MSD	280-190882-8 MSD	101	

12DNB = 1,2-Dinitrobenzene

QC LIMITS  
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.: 280-190882-1  
 SDG No.: \_\_\_\_\_  
 Matrix: Water Level: Low Lab File ID: 05080012.D  
 Lab ID: LCS 280-652021/2-A Client ID: \_\_\_\_\_

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,3,5-Trinitrobenzene	2.00	2.00	100	73-125	
1,3-Dinitrobenzene	2.00	1.92	96	78-120	
2,4,6-Trinitrotoluene	2.00	1.89	95	71-123	
2,4-Dinitrotoluene	2.00	1.81	91	78-120	
2,6-Dinitrotoluene	2.00	1.84	92	77-127	
2-Amino-4,6-dinitrotoluene	2.00	1.92	96	79-120	
2-Nitrotoluene	2.00	1.50	75	70-127	
3-Nitrotoluene	2.00	1.46	73	73-125	
4-Amino-2,6-dinitrotoluene	2.00	1.86	93	76-125	
4-Nitrotoluene	2.00	1.50	75	71-127	
HMX	2.00	1.69	85	65-135	M
Nitrobenzene	2.00	1.76	88	65-134	
Nitroglycerin	20.0	21.1	106	74-127	
PETN	20.0	21.2	106	73-127	
RDX	2.00	1.87	94	68-130	
Tetryl	2.00	1.98	99	64-128	

# Column to be used to flag recovery and RPD values

FORM III  
HPLC/IC LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-190882-1  
 SDG No.: \_\_\_\_\_  
 Matrix: Water Level: Low Lab File ID: 05080013.D  
 Lab ID: LCSD 280-652021/3-A Client ID: \_\_\_\_\_

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC	% RPD	QC LIMITS		#
					RPD	REC	
1,3,5-Trinitrobenzene	2.00	2.15	107	7	20	73-125	
1,3-Dinitrobenzene	2.00	2.10	105	9	20	78-120	
2,4,6-Trinitrotoluene	2.00	2.05	102	8	20	71-123	
2,4-Dinitrotoluene	2.00	2.02	101	11	20	78-120	
2,6-Dinitrotoluene	2.00	2.05	103	11	20	77-127	
2-Amino-4,6-dinitrotoluene	2.00	2.13	106	10	20	79-120	
2-Nitrotoluene	2.00	1.75	87	15	20	70-127	
3-Nitrotoluene	2.00	1.72	86	16	20	73-125	M
4-Amino-2,6-dinitrotoluene	2.00	2.06	103	10	20	76-125	
4-Nitrotoluene	2.00	1.76	88	16	20	71-127	
HMX	2.00	1.75	87	3	20	65-135	M
Nitrobenzene	2.00	1.97	99	11	20	65-134	
Nitroglycerin	20.0	22.0	110	4	20	74-127	
PETN	20.0	22.2	111	5	20	73-127	
RDX	2.00	1.95	97	4	20	68-130	
Tetryl	2.00	2.07	103	4	20	64-128	

# Column to be used to flag recovery and RPD values

FORM III  
HPLC/IC MATRIX SPIKE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-190882-1  
 SDG No.: \_\_\_\_\_  
 Matrix: Water Level: Low Lab File ID: 05080028.D  
 Lab ID: 280-190882-8 MS Client ID: FWGmw-004-240401-GW MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
1,3,5-Trinitrobenzene	2.11	0.21 U	2.16	103	73-125	
1,3-Dinitrobenzene	2.11	0.10 U	2.07	98	78-120	
2,4,6-Trinitrotoluene	2.11	0.10 U	1.97	94	71-123	
2,4-Dinitrotoluene	2.11	0.083 U	1.82	86	78-120	
2,6-Dinitrotoluene	2.11	0.083 U	1.85	88	77-127	
2-Amino-4,6-dinitrotoluene	2.11	0.10 U	1.94	92	79-120	
2-Nitrotoluene	2.11	0.21 U	1.42	67	70-127	J1
3-Nitrotoluene	2.11	0.36 U	1.29	61	73-125	J1
4-Amino-2,6-dinitrotoluene	2.11	0.12 U	1.89	90	76-125	
4-Nitrotoluene	2.11	0.41 U	1.38	66	71-127	J1
HMX	2.11	0.21 U	1.76	84	65-135	M
Nitrobenzene	2.11	0.21 U	1.78	84	65-134	
Nitroglycerin	21.1	2.1 U	22.3	106	74-127	
PETN	21.1	1.0 U	22.2	105	73-127	
RDX	2.11	0.21 U	1.96	93	68-130	M
Tetryl	2.11	0.10 U	2.08	99	64-128	

# Column to be used to flag recovery and RPD values

FORM III  
HPLC/IC MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-190882-1  
 SDG No.: \_\_\_\_\_  
 Matrix: Water Level: Low Lab File ID: 05080029.D  
 Lab ID: 280-190882-8 MSD Client ID: FWGmw-004-240401-GW MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS		#
					RPD	REC	
1,3,5-Trinitrobenzene	2.13	2.31	108	6	20	73-125	
1,3-Dinitrobenzene	2.13	2.22	104	7	20	78-120	
2,4,6-Trinitrotoluene	2.13	2.12	100	7	20	71-123	
2,4-Dinitrotoluene	2.13	2.10	99	15	20	78-120	
2,6-Dinitrotoluene	2.13	2.08	98	12	20	77-127	
2-Amino-4,6-dinitrotoluene	2.13	2.19	103	12	20	79-120	
2-Nitrotoluene	2.13	1.80	85	24	20	70-127	J1
3-Nitrotoluene	2.13	1.72	81	28	20	73-125	J1
4-Amino-2,6-dinitrotoluene	2.13	2.13	100	12	20	76-125	
4-Nitrotoluene	2.13	1.80	85	26	20	71-127	J1
HMX	2.13	1.77	83	0	20	65-135	M
Nitrobenzene	2.13	2.02	95	13	20	65-134	
Nitroglycerin	21.3	21.6	102	3	20	74-127	
PETN	21.3	23.1	109	4	20	73-127	
RDX	2.13	1.98	93	1	20	68-130	M
Tetryl	2.13	2.08	98	0	20	64-128	

# Column to be used to flag recovery and RPD values

FORM IV  
HPLC/IC METHOD BLANK SUMMARY

Lab Name: Eurofins Denver Job No.: 280-190882-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: MB 280-652021/1-A  
 Matrix: Water Date Extracted: 05/03/2024 12:48  
 Lab File ID: (1) 05080011.D Lab File ID: (2) \_\_\_\_\_  
 Date Analyzed: (1) 05/08/2024 17:30 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 280-652021/2-A	05/08/2024	17:53		
	LCSD 280-652021/3-A	05/08/2024	18:16		
LL2mw-059-240401-GW	280-190882-1	05/08/2024	20:33	05/09/2024	01:34
LL3mw-237-240401-GW	280-190882-2	05/08/2024	20:56	05/09/2024	02:10
FWGmw-011-240401-GW	280-190882-3	05/08/2024	21:42	05/09/2024	03:22
LL3mw-241-240401-GW	280-190882-4	05/08/2024	22:05	05/09/2024	03:58
FWGmw-012-240401-GW	280-190882-5	05/08/2024	22:28	05/09/2024	04:34
LL1mw-089-240401-GW	280-190882-6	05/08/2024	22:51		
LL1mw-089-240402-GW	280-190882-7	05/08/2024	23:14		
FWGmw-004-240401-GW	280-190882-8	05/08/2024	23:37		
FWGmw-004-240401-GW MS	280-190882-8 MS	05/09/2024	00:00		
FWGmw-004-240401-GW MSD	280-190882-8 MSD	05/09/2024	00:23		
FWGmw-004-240402-GW	280-190882-9	05/09/2024	00:46		
FWGmw-007-240401-GW	280-190882-10	05/09/2024	01:09		

FORM X  
IDENTIFICATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-190882-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: LL2mw-059-240401-GW Lab Sample ID: 280-190882-1  
 Instrument ID (1): CHHPLC\_X3 Instrument ID (2): CHHPLC\_G2\_LUNA  
 Date Analyzed (1): 05/08/2024 20:33 Date Analyzed (2): 05/09/2024 01:34  
 GC Column (1): UltraCarb5uODS ID: 4.6(mm) GC Column (2): Luna-phenylh ID: 4.6(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
1,3,5-Trinitrobenzene	1		8.70	8.55	8.85	1.4		8.2
	2		17.19	17.02	17.32	1.5		
4-Amino-2,6-dinitrotoluene	1		11.04	10.94	11.14	0.57		32.4
	2		16.15	15.98	16.28	0.79		
2-Amino-4,6-dinitrotoluene	1		11.30	11.20	11.40	0.58		44.5
	2		16.95	16.78	17.08	0.92		
2,4-Dinitrotoluene	1		11.62	11.52	11.72	0.31		107.0
	2		18.70	18.53	18.83	1.0		

FORM X  
IDENTIFICATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-190882-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: LL3mw-237-240401-GW Lab Sample ID: 280-190882-2  
 Instrument ID (1): CHHPLC\_X3 Instrument ID (2): CHHPLC\_G2\_LUNA  
 Date Analyzed (1): 05/08/2024 20:56 Date Analyzed (2): 05/09/2024 02:10  
 GC Column (1): UltraCarb5uODS ID: 4.6(mm) GC Column (2): Luna-phenylh ID: 4.6(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
RDX	1		7.60	7.47	7.77	0.54		149.4
	2		8.86	8.74	9.04	0.078		
2,4,6-Trinitrotoluene	1		10.87	10.77	10.97	0.15		4.0
	2		22.70	22.54	22.84	0.16		
4-Amino-2,6-dinitrotoluene	1		11.05	10.94	11.14	4.2		10.1
	2		16.15	15.98	16.28	4.7		
2-Amino-4,6-dinitrotoluene	1		11.30	11.20	11.40	1.6		16.6
	2		16.95	16.78	17.08	1.9		

FORM X  
IDENTIFICATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-190882-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: FWGmw-011-240401-GW Lab Sample ID: 280-190882-3  
 Instrument ID (1): CHHPLC\_X3 Instrument ID (2): CHHPLC\_G2\_LUNA  
 Date Analyzed (1): 05/08/2024 21:42 Date Analyzed (2): 05/09/2024 03:22  
 GC Column (1): UltraCarb5uODS ID: 4.6(mm) GC Column (2): Luna-phenylh ID: 4.6(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
RDX	1		7.65	7.47	7.77	0.24		66.6
	2		8.93	8.74	9.04	0.47		

FORM X  
IDENTIFICATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-190882-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: LL3mw-241-240401-GW Lab Sample ID: 280-190882-4  
 Instrument ID (1): CHHPLC\_X3 Instrument ID (2): CHHPLC\_G2\_LUNA  
 Date Analyzed (1): 05/08/2024 22:05 Date Analyzed (2): 05/09/2024 03:58  
 GC Column (1): UltraCarb5uODS ID: 4.6(mm) GC Column (2): Luna-phenylh ID: 4.6(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
RDX	1		7.62	7.47	7.77	0.85		24.2
	2		8.86	8.74	9.04	0.67		
1,3,5-Trinitrobenzene	1		8.70	8.55	8.85	6.1		1.9
	2		17.16	17.02	17.32	6.2		
2,4,6-Trinitrotoluene	1		10.87	10.77	10.97	2.5		5.2
	2		22.66	22.54	22.84	2.7		
4-Amino-2,6-dinitrotoluene	1		11.05	10.94	11.14	2.3		15.6
	2		16.12	15.98	16.28	2.6		
2-Amino-4,6-dinitrotoluene	1		11.31	11.20	11.40	2.0		3.5
	2		16.92	16.78	17.08	2.0		
2,4-Dinitrotoluene	1		11.60	11.52	11.72	0.094		112.2
	2		18.68	18.53	18.83	0.33		

FORM X  
IDENTIFICATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-190882-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: FWGmw-012-240401-GW Lab Sample ID: 280-190882-5  
 Instrument ID (1): CHHPLC\_X3 Instrument ID (2): CHHPLC\_G2\_LUNA  
 Date Analyzed (1): 05/08/2024 22:28 Date Analyzed (2): 05/09/2024 04:34  
 GC Column (1): UltraCarb5uODS ID: 4.6(mm) GC Column (2): Luna-phenylh ID: 4.6(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
RDX	1		7.65	7.47	7.77	0.71		29.5
	2		8.93	8.74	9.04	0.53		

FORM I  
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver Job No.: 280-190882-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: LL2mw-059-240401-GW Lab Sample ID: 280-190882-1  
 Matrix: Water Lab File ID: 05080019.D  
 Analysis Method: 8330B Date Collected: 04/30/2024 09:45  
 Extraction Method: 3535 Date Extracted: 05/03/2024 12:48  
 Sample wt/vol: 462.2(mL) Date Analyzed: 05/08/2024 20:33  
 Con. Extract Vol.: 5(mL) Dilution Factor: 1  
 Injection Volume: 100(uL) GC Column: UltraCarb5uODS ID: 4.6(mm)  
 % Moisture: \_\_\_\_\_ % Solids: \_\_\_\_\_ GPC Cleanup: (Y/N) N  
 Cleanup Factor: \_\_\_\_\_  
 Analysis Batch No.: 652621 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	1.4	M	0.23	0.22	0.091
99-65-0	1,3-Dinitrobenzene	0.11	U	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	0.31	J1	0.11	0.087	0.030
606-20-2	2,6-Dinitrotoluene	0.087	U	0.11	0.087	0.043
35572-78-2	2-Amino-4,6-dinitrotoluene	0.58	J1	0.12	0.11	0.055
88-72-2	2-Nitrotoluene	0.22	U M	0.23	0.22	0.092
99-08-1	3-Nitrotoluene	0.38	U	0.43	0.38	0.21
19406-51-0	4-Amino-2,6-dinitrotoluene	0.57		0.16	0.13	0.062
99-99-0	4-Nitrotoluene	0.43	U	0.44	0.43	0.11
2691-41-0	HMX	0.22	U	0.23	0.22	0.095
98-95-3	Nitrobenzene	0.22	U M	0.23	0.22	0.098
55-63-0	Nitroglycerin	2.2	U	2.3	2.2	1.0
78-11-5	PETN	1.1	U	1.2	1.1	0.48
121-82-4	RDX	0.22	U	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	100	M	83-119

Eurofins Denver  
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC\_X\20240508-133160.b\05080019.D  
 Lims ID: 280-190882-A-1-A  
 Client ID: LL2mw-059-240401-GW  
 Sample Type: Client  
 Inject. Date: 08-May-2024 20:33:47 ALS Bottle#: 19 Worklist Smp#: 19  
 Injection Vol: 100.0 ul Dil. Factor: 1.0000  
 Sample Info: 280-190882-A-1-A  
 Operator ID: JZ Instrument ID: CHHPLC\_X3  
 Method: \\chromfs\Denver\ChromData\CHHPLC\_X\20240508-133160.b\8330\_X3.m  
 Limit Group: GCSV - 8330  
 Last Update: 09-May-2024 13:10:41 Calib Date: 18-Apr-2024 03:08:00  
 Integrator: Falcon  
 Quant Method: External Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Denver\ChromData\CHHPLC\_X\20240417-132364.b\04170028.D  
 Column 1 : UltraCarb5uODS (20) ( 4.60 mm) Det: LC DAD1B, 254 nm  
 Process Host: CTX1670

First Level Reviewer: LV5D

Date: 09-May-2024 11:53:15

Compound	Det	RT (min.)	Exp RT (min.)	Diff RT (min.)	Response	OnCol Amt ug/mL	Flags
4 HMX	1		6.616			ND	
8 RDX	1		7.623			ND	
\$ 10 1,2-Dinitrobenzene	1	8.555	8.556	-0.001	26451	0.2002	M
11 1,3,5-Trinitrobenzene	1	8.695	8.696	-0.001	28262	0.1268	M
12 1,3-Dinitrobenzene	1		9.303			ND	7
13 Nitrobenzene	1		9.656			ND	U
15 Tetryl	1		9.963			ND	U
16 Nitroglycerin	2		10.436			ND	
17 2,4,6-Trinitrotoluene	1		10.869			ND	
18 4-Amino-2,6-dinitrotoluene	1	11.042	11.043	-0.001	7873	0.0525	
19 2-Amino-4,6-dinitrotoluene	1	11.302	11.303	-0.001	10751	0.0538	
20 2,6-Dinitrotoluene	1		11.436			ND	
21 2,4-Dinitrotoluene	1	11.615	11.616	-0.001	8258	0.0283	
22 o-Nitrotoluene	1		12.389			ND	U
23 p-Nitrotoluene	1		12.809			ND	
24 m-Nitrotoluene	1		13.356			ND	
25 PETN	2		14.389			ND	

## QC Flag Legend

## Processing Flags

7 - Failed Limit of Detection

## Review Flags

M - Manually Integrated

U - Marked Undetected

Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc\_x\20240508-133160.b\05080019.d

Injection Date: 08-May-2024 20:33:47

Instrument ID: CHHPLC\_X3

Operator ID: JZ

Lims ID: 280-190882-A-1-A

Lab Sample ID: 280-190882-1

Worklist Smp#: 19

Client ID: LL2mw-059-240401-GW

Injection Vol: 100.0 ul

Dil. Factor: 1.0000

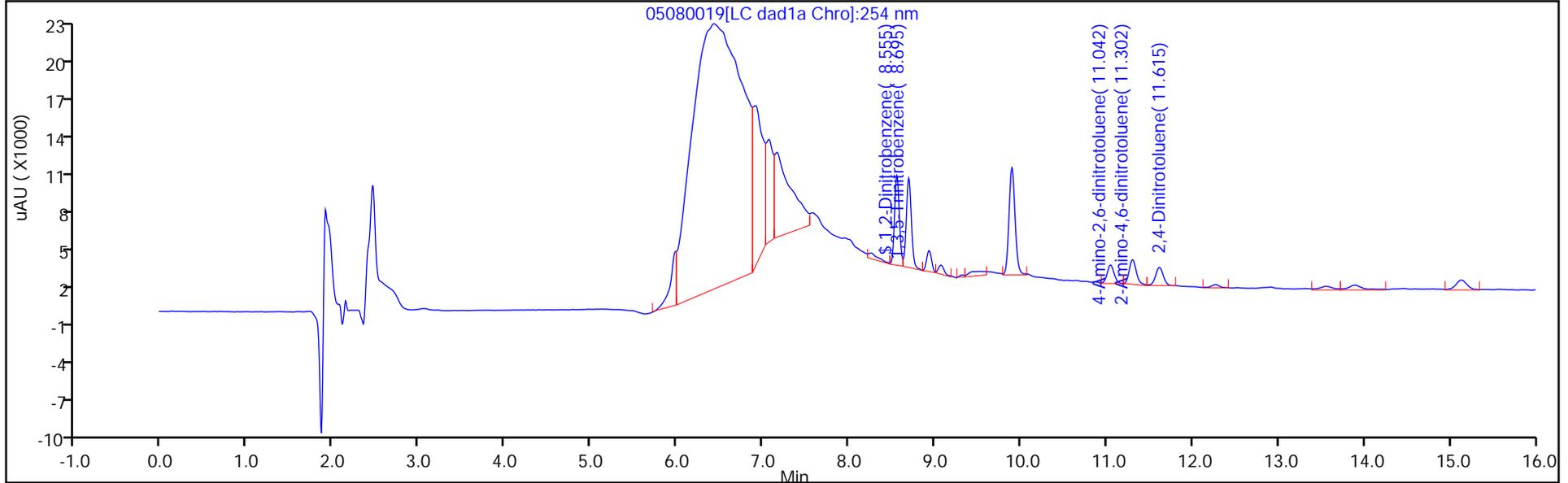
ALS Bottle#: 19

Method: 8330\_X3

Limit Group: GCSV - 8330

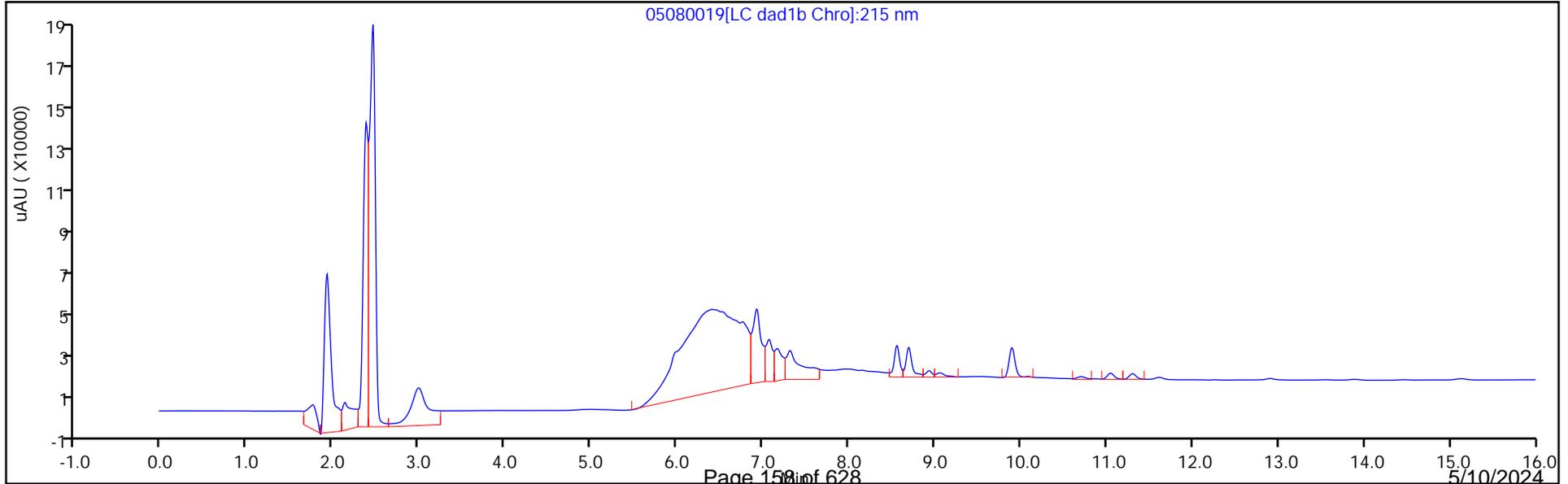
Column: UltraCarb5uODS (20) ( 4.60 mm)

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



Column: UltraCarb5uODS (20) ( 4.60 mm)

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



Eurofins Denver  
Recovery Report

Data File: \\chromfs\Denver\ChromData\CHHPLC\_X\20240508-133160.b\05080019.D  
 Lims ID: 280-190882-A-1-A  
 Client ID: LL2mw-059-240401-GW  
 Sample Type: Client  
 Inject. Date: 08-May-2024 20:33:47 ALS Bottle#: 19 Worklist Smp#: 19  
 Injection Vol: 100.0 ul Dil. Factor: 1.0000  
 Sample Info: 280-190882-A-1-A  
 Operator ID: JZ Instrument ID: CHHPLC\_X3  
 Method: \\chromfs\Denver\ChromData\CHHPLC\_X\20240508-133160.b\8330\_X3.m  
 Limit Group: GCSV - 8330  
 Last Update: 09-May-2024 13:10:41 Calib Date: 18-Apr-2024 03:08:00  
 Integrator: Falcon  
 Quant Method: External Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Denver\ChromData\CHHPLC\_X\20240417-132364.b\04170028.D  
 Column 1 : UltraCarb5uODS (20) ( 4.60 mm) Det: LC DAD1B, 254 nm  
 Process Host: CTX1670

First Level Reviewer: LV5D Date: 09-May-2024 11:53:15

Compound	Amount Added	Amount Recovered	% Rec.
\$ 10 1,2-Dinitrobenzene	0.2000	0.2002	100.12

Eurofins Denver

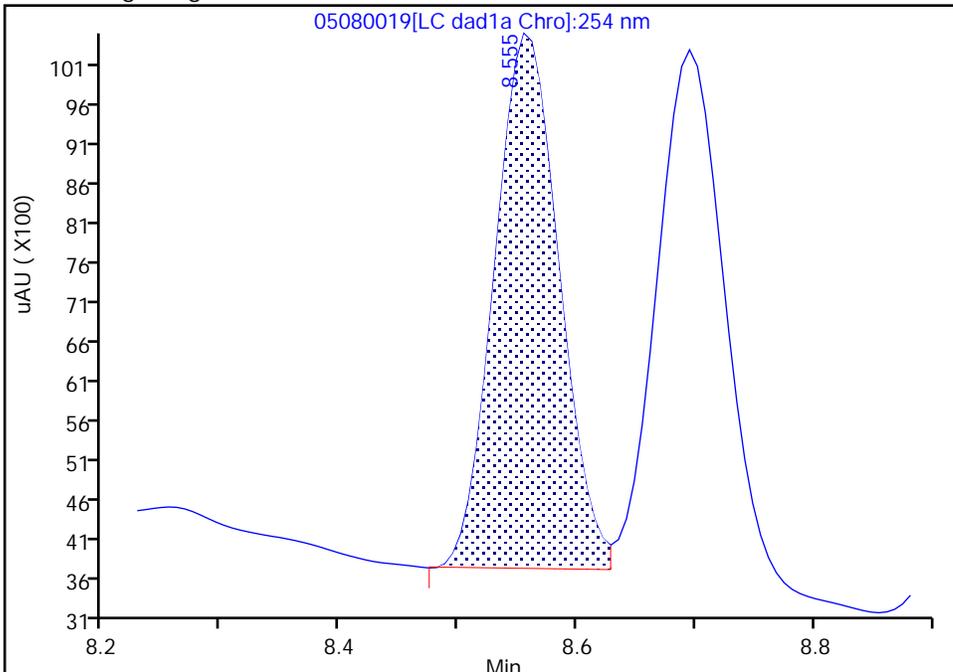
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Injection Date: 08-May-2024 20:33:47 Instrument ID: CHHPLC\_X3  
Lims ID: 280-190882-A-1-A Lab Sample ID: 280-190882-1  
Client ID: LL2mw-059-240401-GW  
Operator ID: JZ ALS Bottle#: 19 Worklist Smp#: 19  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: 8330\_X3 Limit Group: GCSV - 8330  
Column: UltraCarb5uODS (20) ( 4.60 mm) Detector: LC DAD1B, 254 nm

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

Signal: 1

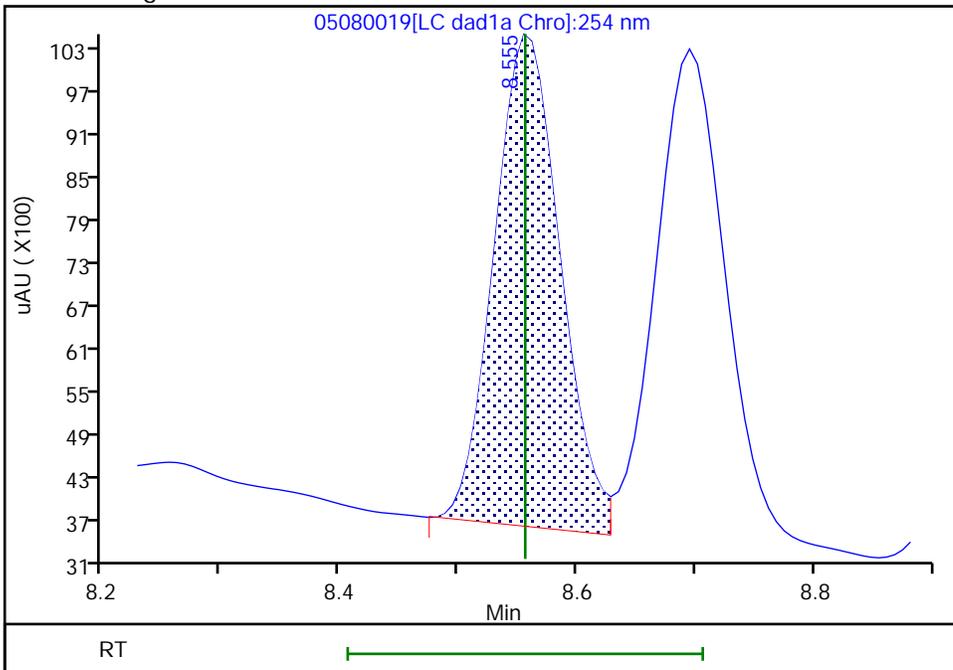
RT: 8.56  
Area: 25439  
Amount: 0.192548  
Amount Units: ug/mL

Processing Integration Results



RT: 8.56  
Area: 26451  
Amount: 0.200236  
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 09-May-2024 11:53:09 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

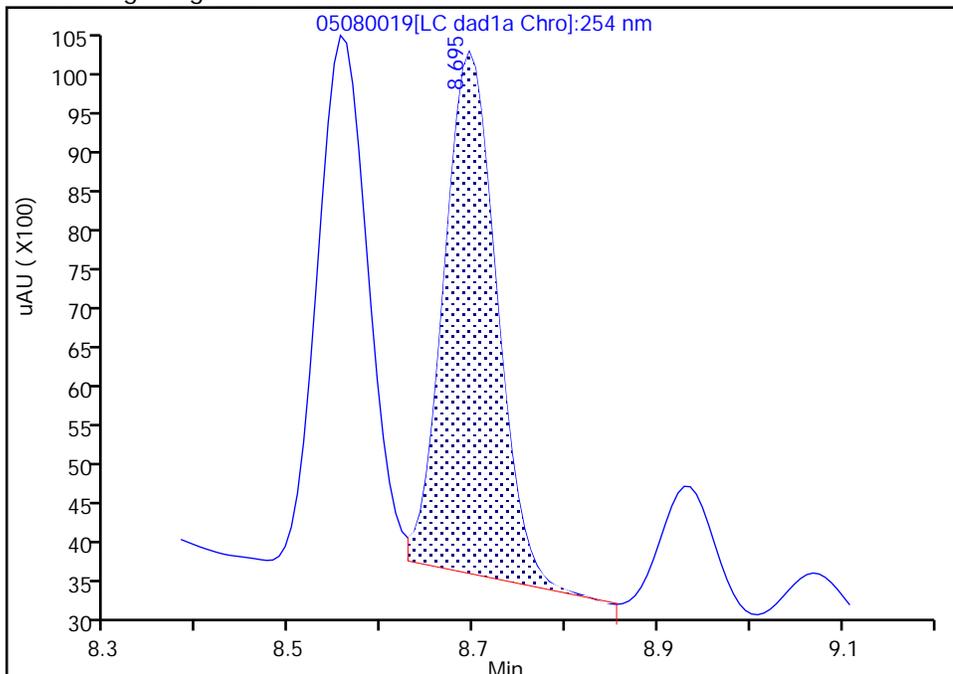
Data File: \\chromfs\denver\chromdata\chhplc\_x\20240508-133160.b\05080019.d  
Injection Date: 08-May-2024 20:33:47 Instrument ID: CHHPLC\_X3  
Lims ID: 280-190882-A-1-A Lab Sample ID: 280-190882-1  
Client ID: LL2mw-059-240401-GW  
Operator ID: JZ ALS Bottle#: 19 Worklist Smp#: 19  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: 8330\_X3 Limit Group: GCSV - 8330  
Column: UltraCarb5uODS (20) ( 4.60 mm) Detector: LC DAD1B, 254 nm

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

Signal: 1

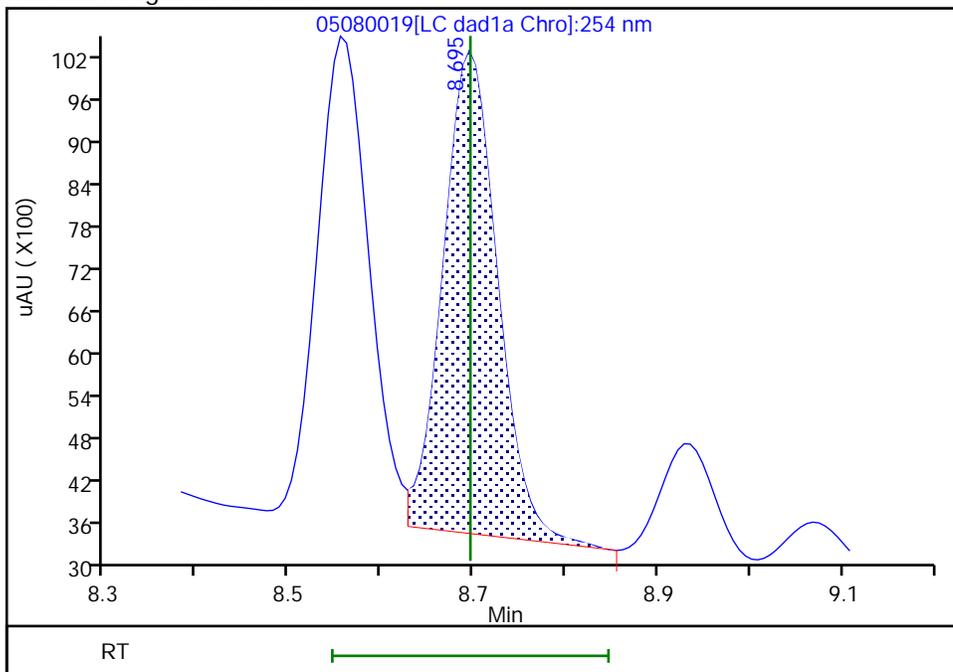
RT: 8.70  
Area: 26792  
Amount: 0.120223  
Amount Units: ug/mL

Processing Integration Results



RT: 8.70  
Area: 28262  
Amount: 0.126819  
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 09-May-2024 11:53:09 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

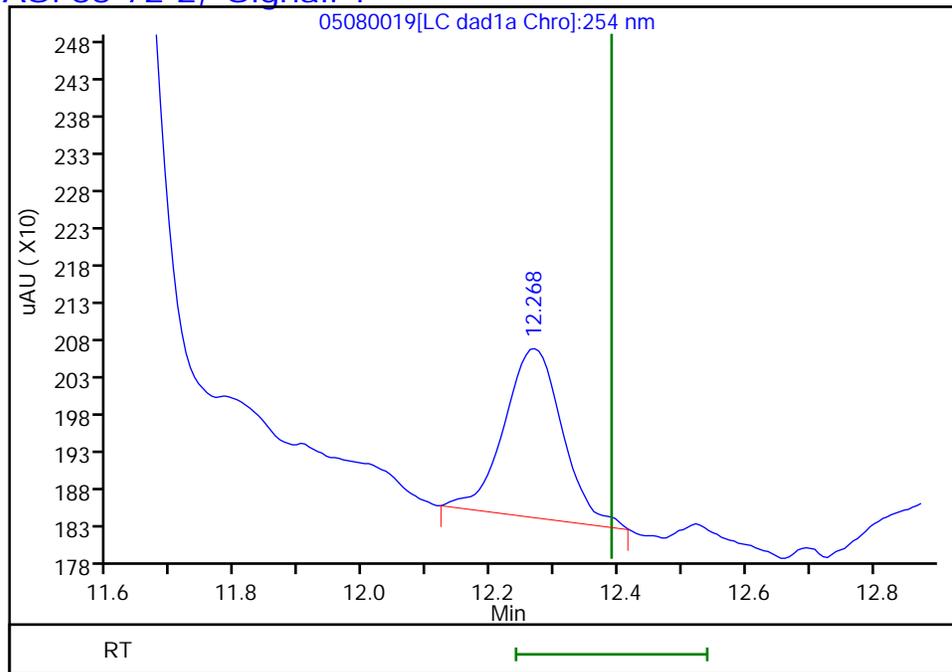
Audit Reason: Baseline

Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc\_x\20240508-133160.b\05080019.d  
Injection Date: 08-May-2024 20:33:47 Instrument ID: CHHPLC\_X3  
Lims ID: 280-190882-A-1-A Lab Sample ID: 280-190882-1  
Client ID: LL2mw-059-240401-GW  
Operator ID: JZ ALS Bottle#: 19 Worklist Smp#: 19  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: 8330\_X3 Limit Group: GCSV - 8330  
Column: UltraCarb5uODS (20) ( 4.60 mm) Detector LC DAD1B, 254 nm

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

RT: 12.27  
Response: 1425  
Amount: 0.011020



Reviewer: LV5D, 09-May-2024 11:53:15

Audit Action: Marked Compound Undetected

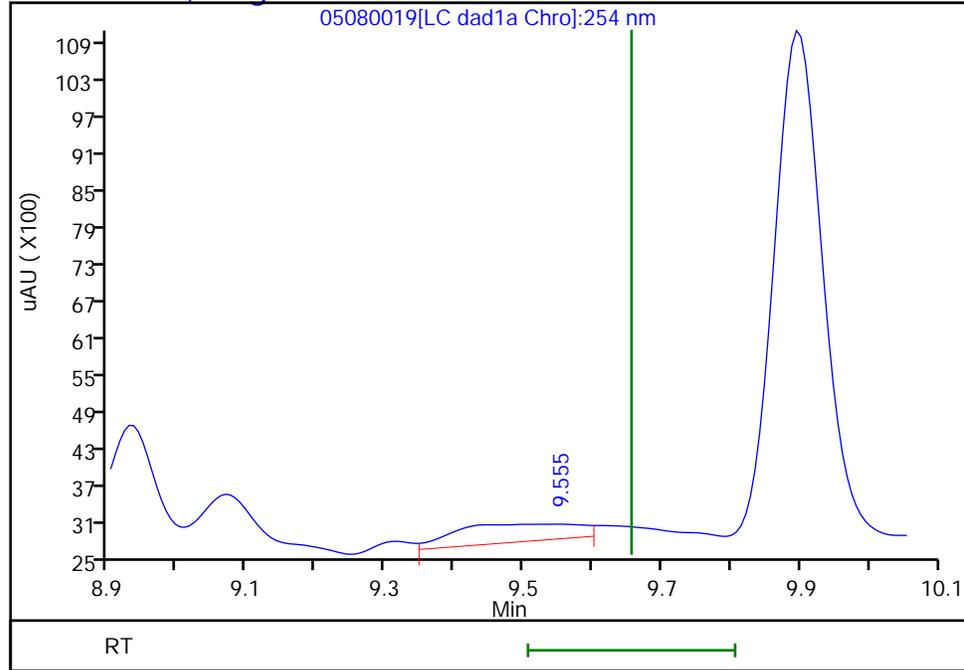
Audit Reason: Invalid Compound ID

Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc\_x\20240508-133160.b\05080019.d  
Injection Date: 08-May-2024 20:33:47 Instrument ID: CHHPLC\_X3  
Lims ID: 280-190882-A-1-A Lab Sample ID: 280-190882-1  
Client ID: LL2mw-059-240401-GW  
Operator ID: JZ ALS Bottle#: 19 Worklist Smp#: 19  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: 8330\_X3 Limit Group: GCSV - 8330  
Column: UltraCarb5uODS (20) ( 4.60 mm) Detector LC DAD1B, 254 nm

13 Nitrobenzene, CAS: 98-95-3, Signal: 1

RT: 9.55  
Response: 3707  
Amount: 0.018882



Reviewer: LV5D, 09-May-2024 11:53:15

Audit Action: Marked Compound Undetected

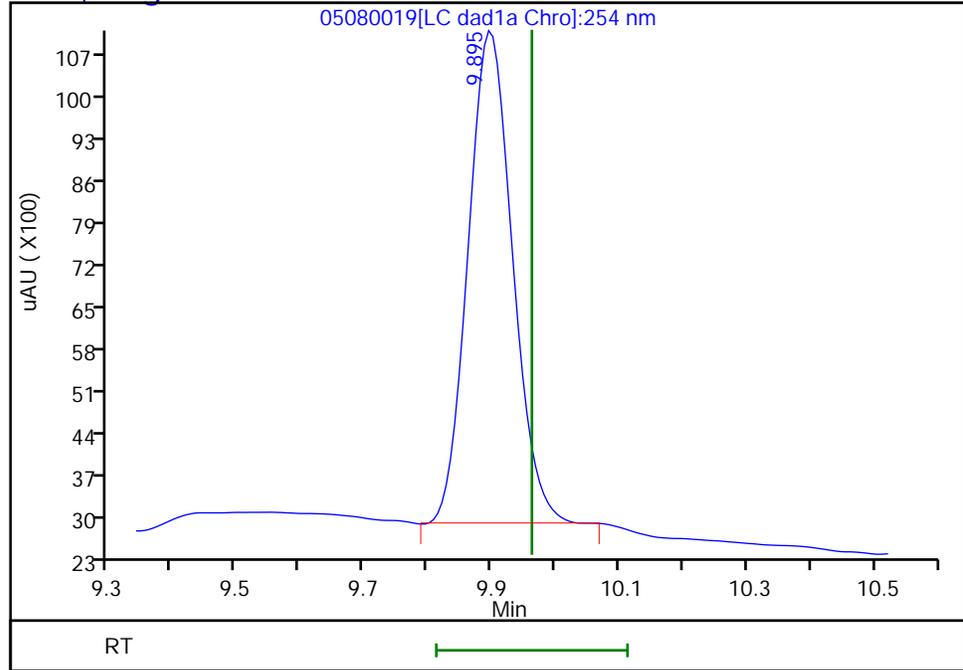
Audit Reason: Invalid Compound ID

Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc\_x\20240508-133160.b\05080019.d  
Injection Date: 08-May-2024 20:33:47 Instrument ID: CHHPLC\_X3  
Lims ID: 280-190882-A-1-A Lab Sample ID: 280-190882-1  
Client ID: LL2mw-059-240401-GW  
Operator ID: JZ ALS Bottle#: 19 Worklist Smp#: 19  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: 8330\_X3 Limit Group: GCSV - 8330  
Column: UltraCarb5uODS (20) ( 4.60 mm) Detector LC DAD1B, 254 nm

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

RT: 9.89  
Response: 39550  
Amount: 0.217801



Reviewer: LV5D, 09-May-2024 11:53:15

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

FORM I  
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver Job No.: 280-190882-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: LL2mw-059-240401-GW Lab Sample ID: 280-190882-1  
 Matrix: Water Lab File ID: 05080018.D  
 Analysis Method: 8330B Date Collected: 04/30/2024 09:45  
 Extraction Method: 3535 Date Extracted: 05/03/2024 12:48  
 Sample wt/vol: 462.2(mL) Date Analyzed: 05/09/2024 01:34  
 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.: 652628 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
<i>121-14-2</i>	<i>2,4-Dinitrotoluene</i>	<i>1.0</i>	<i>J1 M</i>	<i>0.11</i>	<i>0.087</i>	<i>0.030</i>
<i>35572-78-2</i>	<i>2-Amino-4,6-dinitrotoluene</i>	<i>0.92</i>	<i>J1 M</i>	<i>0.12</i>	<i>0.11</i>	<i>0.055</i>

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	99		83-119

Eurofins Denver  
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2\_LUNA\20240508-133164.b\05080018.D  
 Lims ID: 280-190882-A-1-A  
 Client ID: LL2mw-059-240401-GW  
 Sample Type: Client  
 Inject. Date: 09-May-2024 01:34:15 ALS Bottle#: 18 Worklist Smp#: 18  
 Injection Vol: 100.0 ul Dil. Factor: 1.0000  
 Sample Info: 280-190882-A-1-A  
 Operator ID: JZ Instrument ID: CHHPLC\_G2\_LUNA  
 Method: \\chromfs\Denver\ChromData\G2\_LUNA\20240508-133164.b\G2\_8330\_Luna.m  
 Limit Group: GCSV - 8330  
 Last Update: 09-May-2024 13:25:55 Calib Date: 25-Apr-2024 07:39:21  
 Integrator: Falcon  
 Quant Method: External Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Denver\ChromData\G2\_LUNA\20240424-132624.b\04240027.D  
 Column 1 : Luna-Phenyl hexyl ( 4.60 mm) Det: LC DAD1A, 254 nm  
 Process Host: CTX1670

First Level Reviewer: LV5D Date: 09-May-2024 13:18:06

Compound	Det	RT (min.)	Exp RT (min.)	Diff RT (min.)	Response	OnCol Amt ug/ml	Flags
6 HMX	1		6.672			ND	
8 RDX	1		8.885			ND	7
9 Nitrobenzene	1		11.378			ND	
\$ 10 1,2-Dinitrobenzene	1	12.272	12.285	-0.013	51288	0.1983	
12 1,3-Dinitrobenzene	1		14.398			ND	
13 Nitroglycerin	2		14.832			ND	U
14 o-Nitrotoluene	1		15.405			ND	U
15 p-Nitrotoluene	1		15.632			ND	
16 4-Amino-2,6-dinitrotoluene	1	16.152	16.125	0.027	20361	0.0728	M
17 m-Nitrotoluene	1	16.452	16.465	-0.013	9880	0.0323	M
18 2-Amino-4,6-dinitrotoluene	1	16.945	16.932	0.013	34327	0.0846	M
19 1,3,5-Trinitrobenzene	1	17.185	17.172	0.013	58289	0.1377	M
20 2,6-Dinitrotoluene	1	18.365	18.225	0.140	19846	0.0714	M
21 2,4-Dinitrotoluene	1	18.698	18.678	0.020	51808	0.0934	M
22 Tetryl	1		21.825			ND	
23 2,4,6-Trinitrotoluene	1		22.685			ND	U
24 PETN	2		23.805			ND	7

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

M - Manually Integrated

U - Marked Undetected

Eurofins Denver

Data File: \\chromfs\denver\chromdata\g2\_luna\20240508-133164.b\05080018.d

Injection Date: 09-May-2024 01:34:15

Instrument ID: CHHPLC\_G2\_LUNA

Operator ID: JZ

Lims ID: 280-190882-A-1-A

Lab Sample ID: 280-190882-1

Worklist Smp#: 18

Client ID: LL2mw-059-240401-GW

Injection Vol: 100.0 ul

Dil. Factor: 1.0000

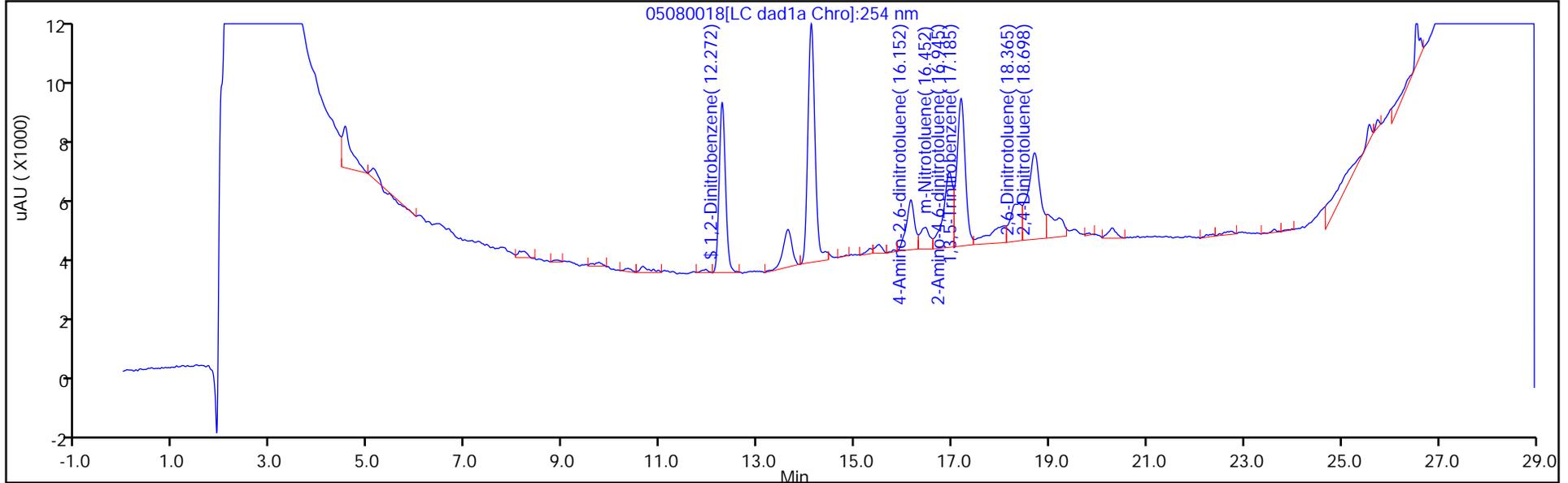
ALS Bottle#: 18

Method: G2\_8330\_Luna

Limit Group: GCSV - 8330

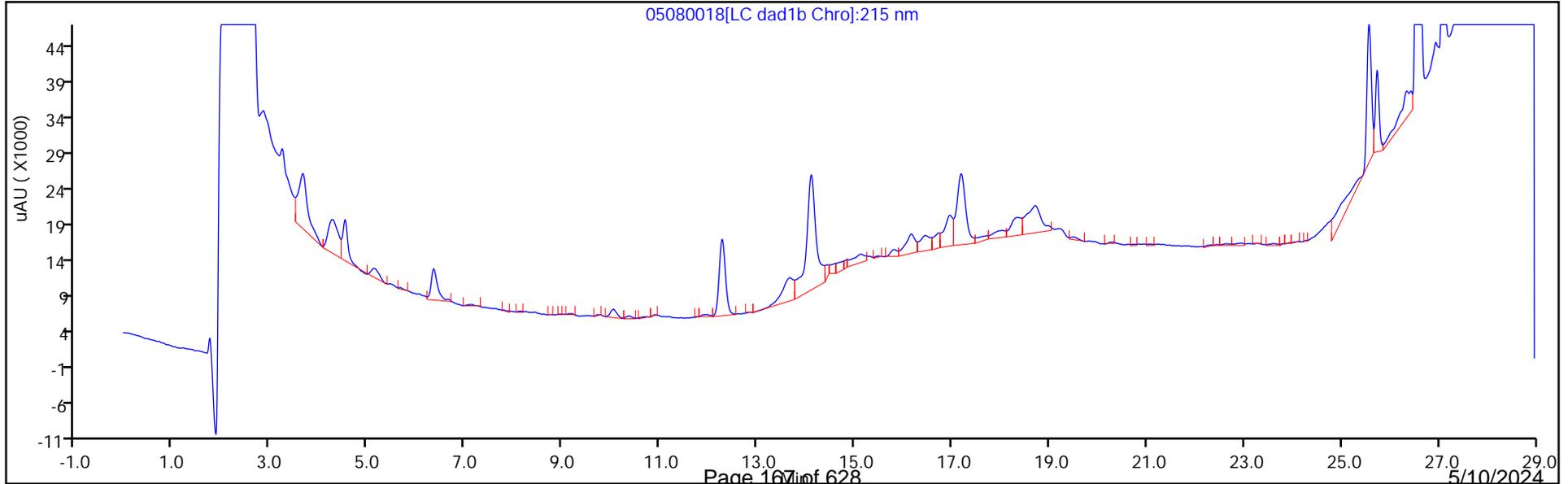
Column: Luna-Phenyl hexyl ( 4.60 mm)

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



Column: Luna-Phenyl hexyl ( 4.60 mm)

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



Eurofins Denver  
Recovery Report

Data File: \\chromfs\Denver\ChromData\G2\_LUNA\20240508-133164.b\05080018.D  
 Lims ID: 280-190882-A-1-A  
 Client ID: LL2mw-059-240401-GW  
 Sample Type: Client  
 Inject. Date: 09-May-2024 01:34:15 ALS Bottle#: 18 Worklist Smp#: 18  
 Injection Vol: 100.0 ul Dil. Factor: 1.0000  
 Sample Info: 280-190882-A-1-A  
 Operator ID: JZ Instrument ID: CHHPLC\_G2\_LUNA  
 Method: \\chromfs\Denver\ChromData\G2\_LUNA\20240508-133164.b\G2\_8330\_Luna.m  
 Limit Group: GCSV - 8330  
 Last Update: 09-May-2024 13:25:55 Calib Date: 25-Apr-2024 07:39:21  
 Integrator: Falcon  
 Quant Method: External Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Denver\ChromData\G2\_LUNA\20240424-132624.b\04240027.D  
 Column 1 : Luna-Phenyl hexyl ( 4.60 mm) Det: LC DAD1A, 254 nm  
 Process Host: CTX1670

First Level Reviewer: LV5D Date: 09-May-2024 13:18:06

Compound	Amount Added	Amount Recovered	% Rec.
\$ 10 1,2-Dinitrobenzene	0.2000	0.1983	99.13

Eurofins Denver

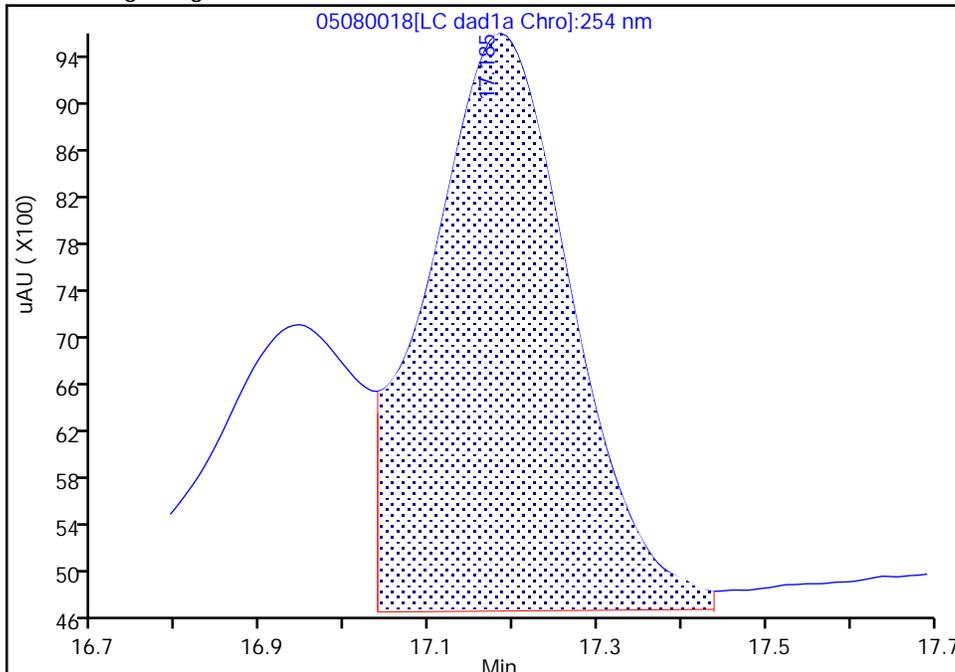
Data File: \\chromfs\denver\chromdata\g2\_luna\20240508-133164.b\05080018.d  
Injection Date: 09-May-2024 01:34:15 Instrument ID: CHHPLC\_G2\_LUNA  
Lims ID: 280-190882-A-1-A Lab Sample ID: 280-190882-1  
Client ID: LL2mw-059-240401-GW  
Operator ID: JZ ALS Bottle#: 18 Worklist Smp#: 18  
Injection Vol: 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

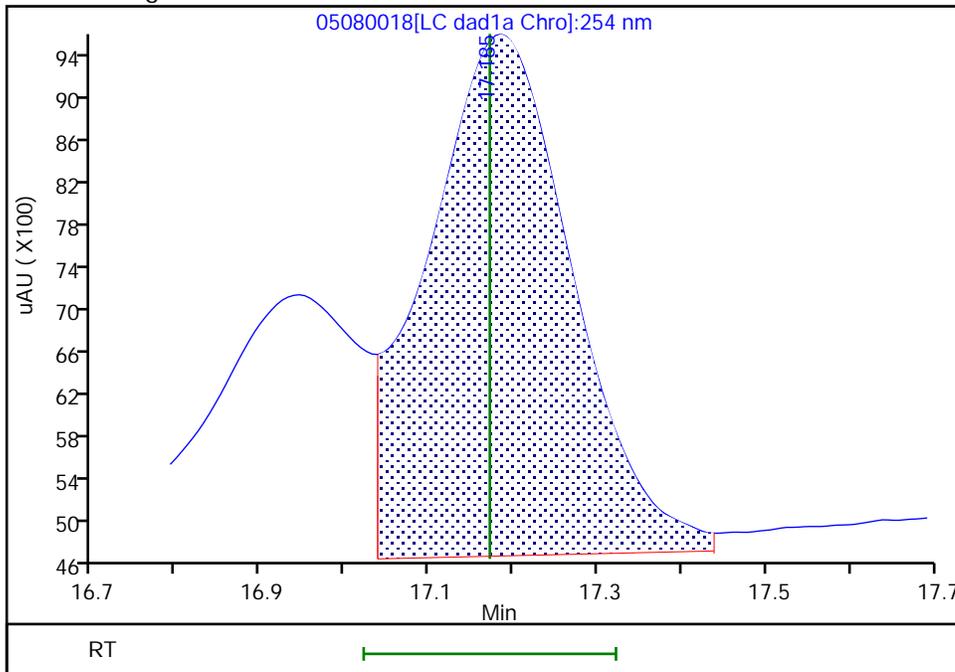
RT: 17.18  
Area: 57545  
Amount: 0.135894  
Amount Units: ug/ml

Processing Integration Results



RT: 17.18  
Area: 58289  
Amount: 0.137651  
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 09-May-2024 13:17:55 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

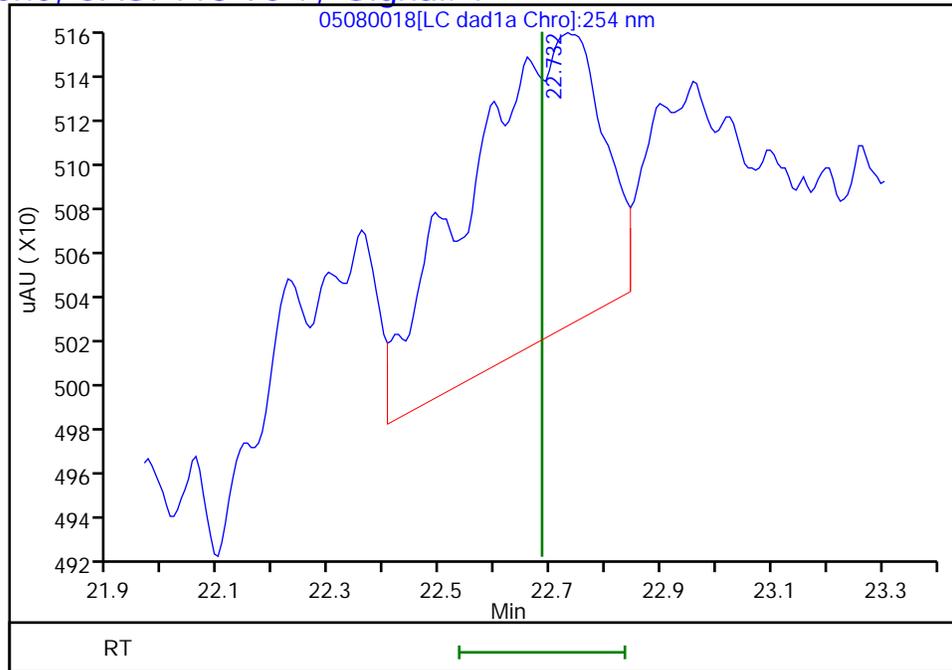
Audit Reason: Baseline

Eurofins Denver

Data File: \\chromfs\denver\chromdata\g2\_luna\20240508-133164.b\05080018.d  
Injection Date: 09-May-2024 01:34:15 Instrument ID: CHHPLC\_G2\_LUNA  
Lims ID: 280-190882-A-1-A Lab Sample ID: 280-190882-1  
Client ID: LL2mw-059-240401-GW  
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

**23 2,4,6-Trinitrotoluene, CAS: 118-96-7, Signal: 1**

RT: 22.73  
Response: 2353  
Amount: 0.005886



Reviewer: LV5D, 09-May-2024 13:18:06

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

Eurofins Denver

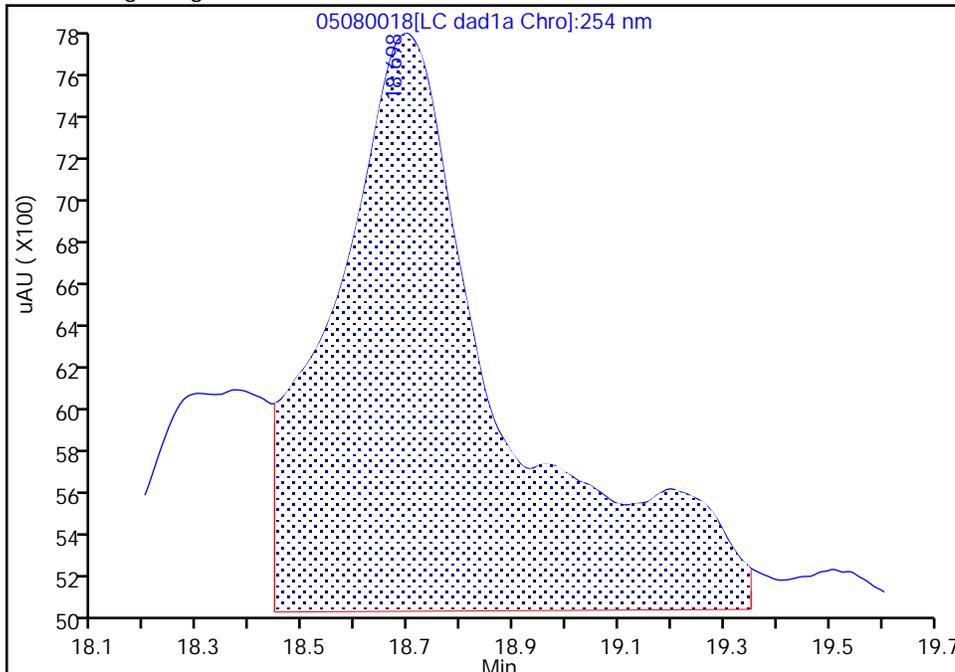
Data File: \\chromfs\denver\chromdata\g2\_luna\20240508-133164.b\05080018.d  
Injection Date: 09-May-2024 01:34:15 Instrument ID: CHHPLC\_G2\_LUNA  
Lims ID: 280-190882-A-1-A Lab Sample ID: 280-190882-1  
Client ID: LL2mw-059-240401-GW  
Operator ID: JZ ALS Bottle#: 18 Worklist Smp#: 18  
Injection Vol: 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

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

Signal: 1

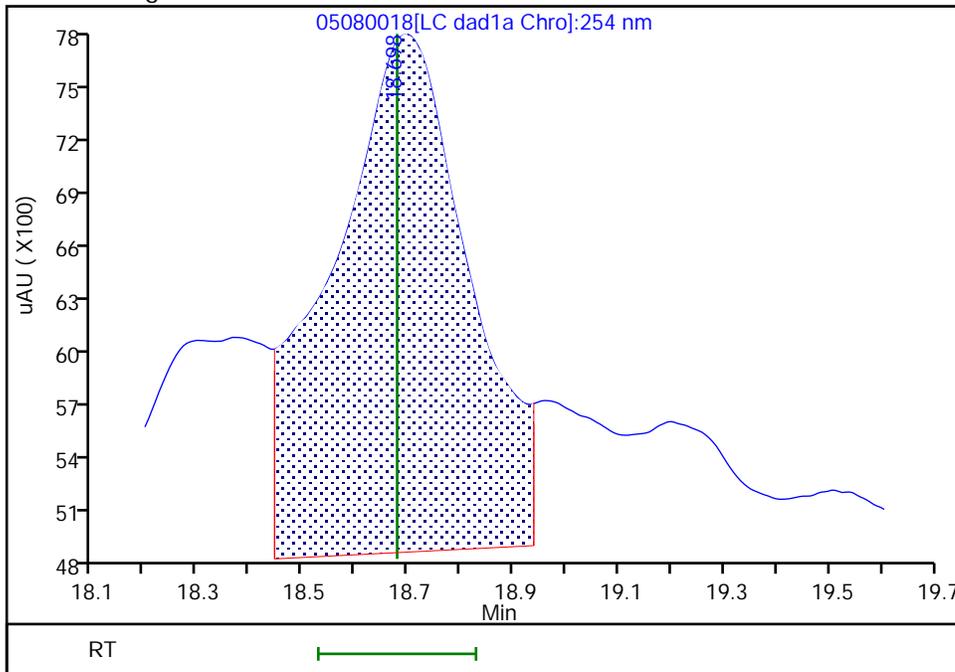
RT: 18.70  
Area: 60695  
Amount: 0.109446  
Amount Units: ug/ml

Processing Integration Results



RT: 18.70  
Area: 51808  
Amount: 0.093421  
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 09-May-2024 13:17:59 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Baseline

Eurofins Denver

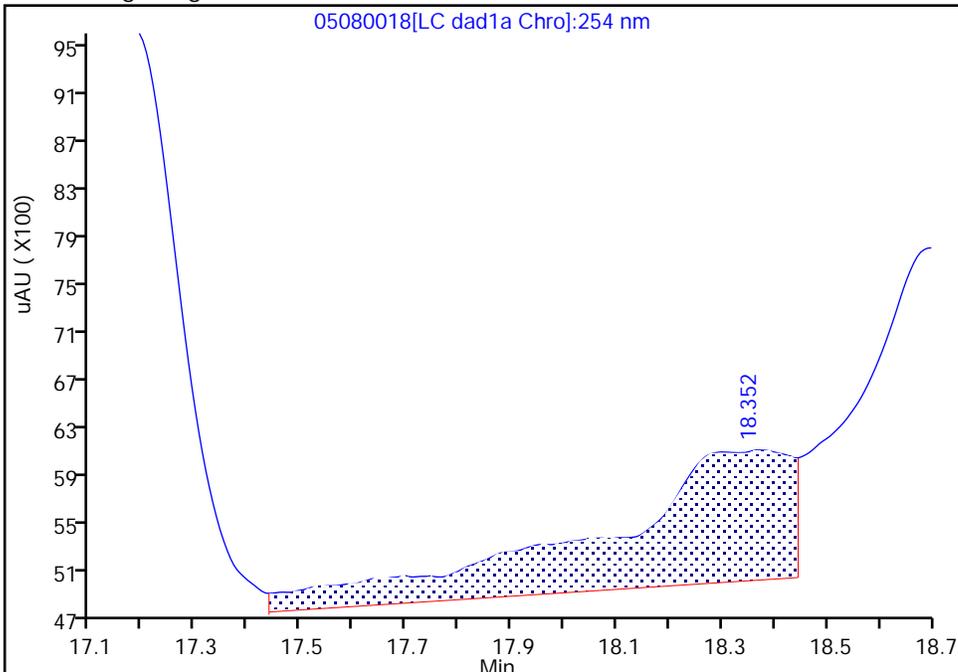
Data File: \\chromfs\denver\chromdata\g2\_luna\20240508-133164.b\05080018.d  
Injection Date: 09-May-2024 01:34:15 Instrument ID: CHHPLC\_G2\_LUNA  
Lims ID: 280-190882-A-1-A Lab Sample ID: 280-190882-1  
Client ID: LL2mw-059-240401-GW  
Operator ID: JZ ALS Bottle#: 18 Worklist Smp#: 18  
Injection Vol: 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

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

Signal: 1

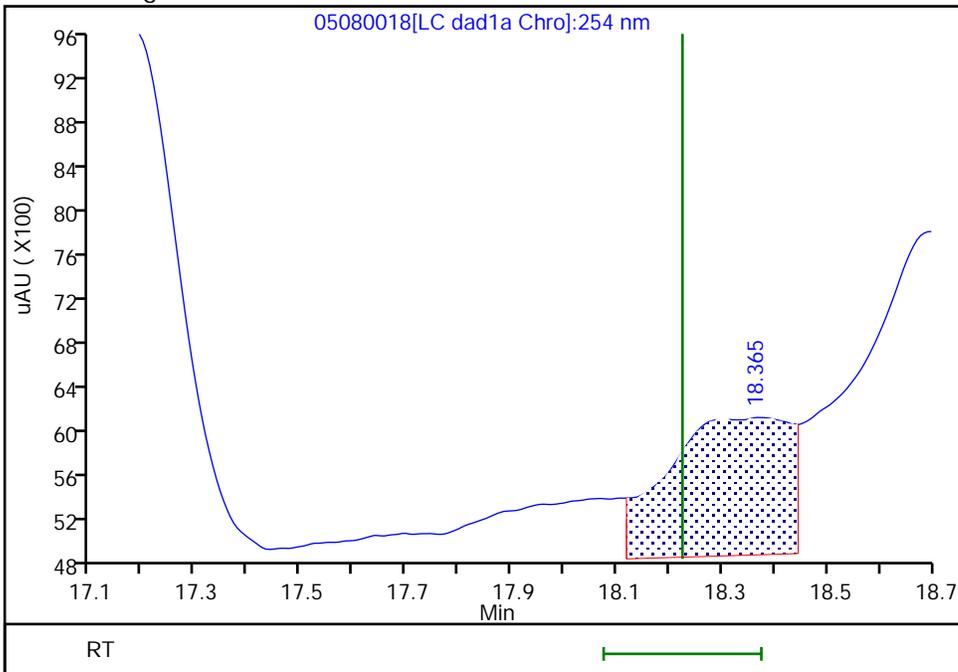
RT: 18.35  
Area: 28574  
Amount: 0.102795  
Amount Units: ug/ml

Processing Integration Results



RT: 18.36  
Area: 19846  
Amount: 0.071396  
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 09-May-2024 13:17:58 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Baseline

Eurofins Denver

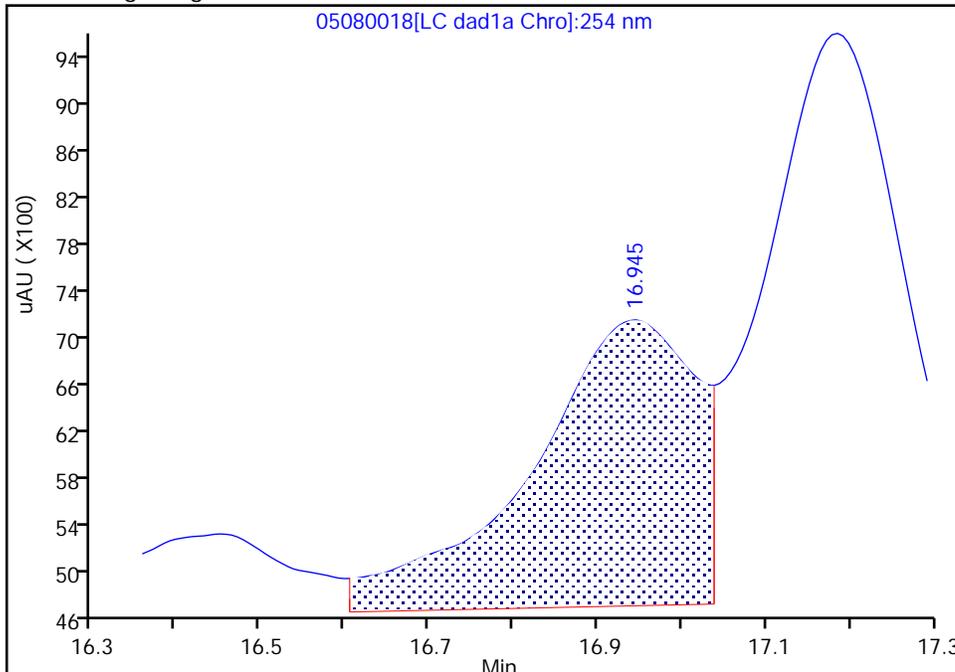
Data File: \\chromfs\denver\chromdata\g2\_luna\20240508-133164.b\05080018.d  
Injection Date: 09-May-2024 01:34:15 Instrument ID: CHHPLC\_G2\_LUNA  
Lims ID: 280-190882-A-1-A Lab Sample ID: 280-190882-1  
Client ID: LL2mw-059-240401-GW  
Operator ID: JZ ALS Bottle#: 18 Worklist Smp#: 18  
Injection Vol: 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

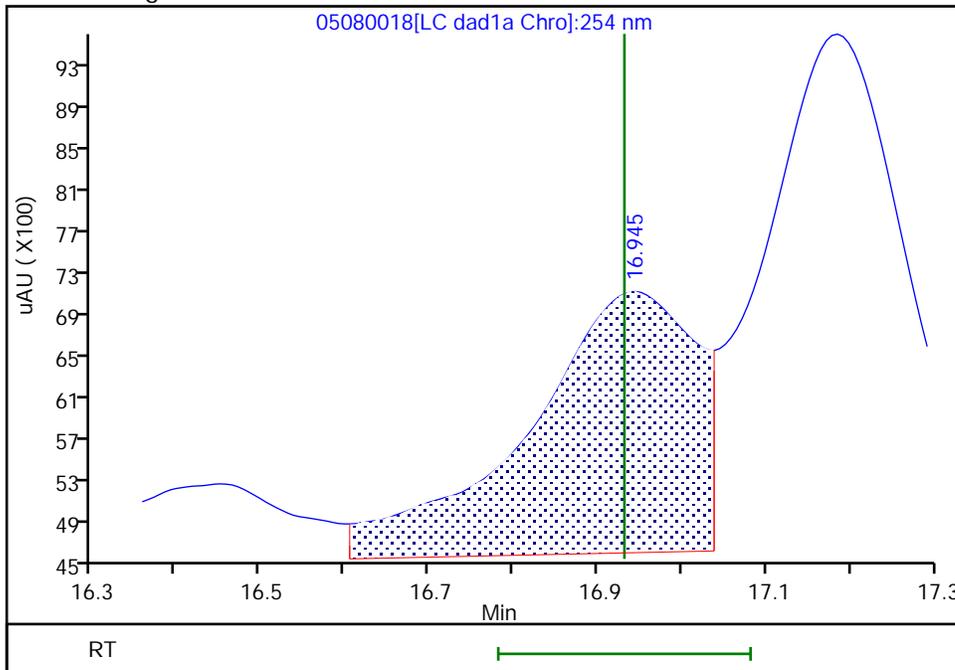
RT: 16.94  
Area: 33287  
Amount: 0.082076  
Amount Units: ug/ml

Processing Integration Results



RT: 16.94  
Area: 34327  
Amount: 0.084641  
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 09-May-2024 13:17:55 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

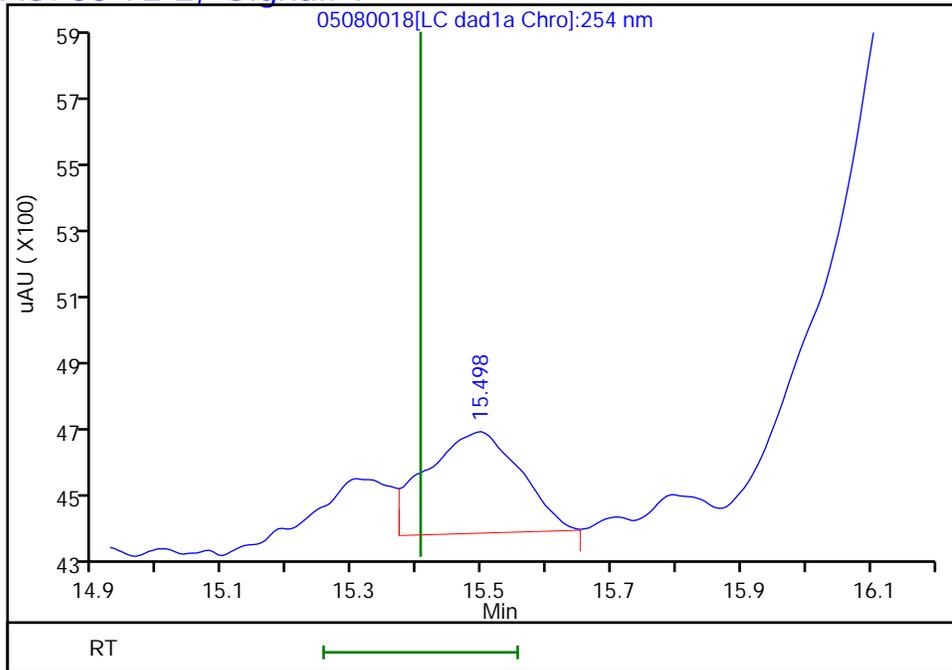
Audit Reason: Baseline

Eurofins Denver

Data File: \\chromfs\denver\chromdata\g2\_luna\20240508-133164.b\05080018.d  
Injection Date: 09-May-2024 01:34:15 Instrument ID: CHHPLC\_G2\_LUNA  
Lims ID: 280-190882-A-1-A Lab Sample ID: 280-190882-1  
Client ID: LL2mw-059-240401-GW  
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

RT: 15.50  
Response: 2888  
Amount: 0.011807



Reviewer: LV5D, 09-May-2024 13:18:06

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

Eurofins Denver

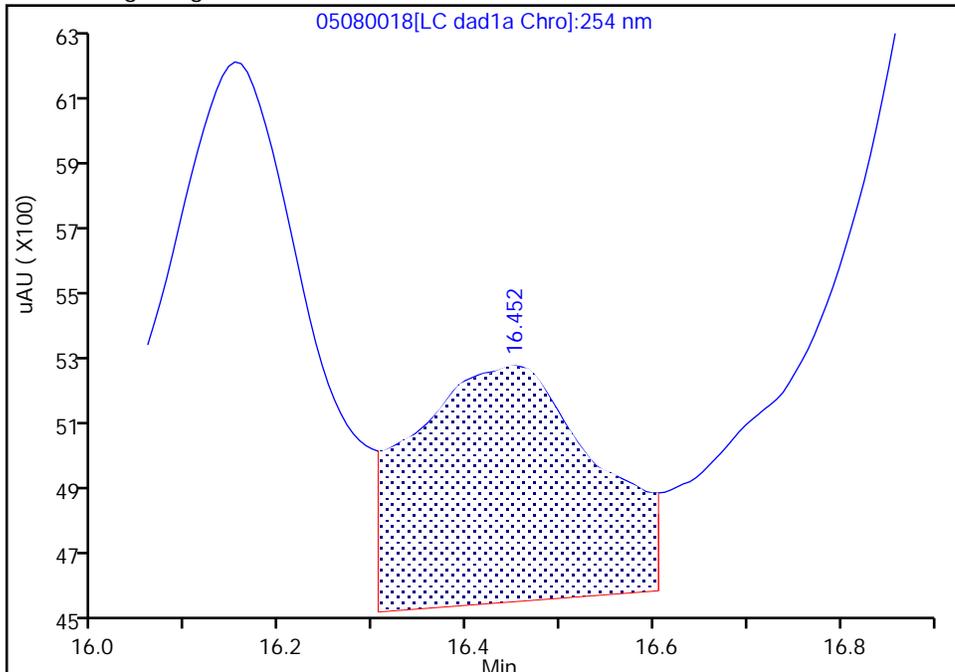
Data File: \\chromfs\denver\chromdata\g2\_luna\20240508-133164.b\05080018.d  
Injection Date: 09-May-2024 01:34:15 Instrument ID: CHHPLC\_G2\_LUNA  
Lims ID: 280-190882-A-1-A Lab Sample ID: 280-190882-1  
Client ID: LL2mw-059-240401-GW  
Operator ID: JZ ALS Bottle#: 18 Worklist Smp#: 18  
Injection Vol: 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

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

Signal: 1

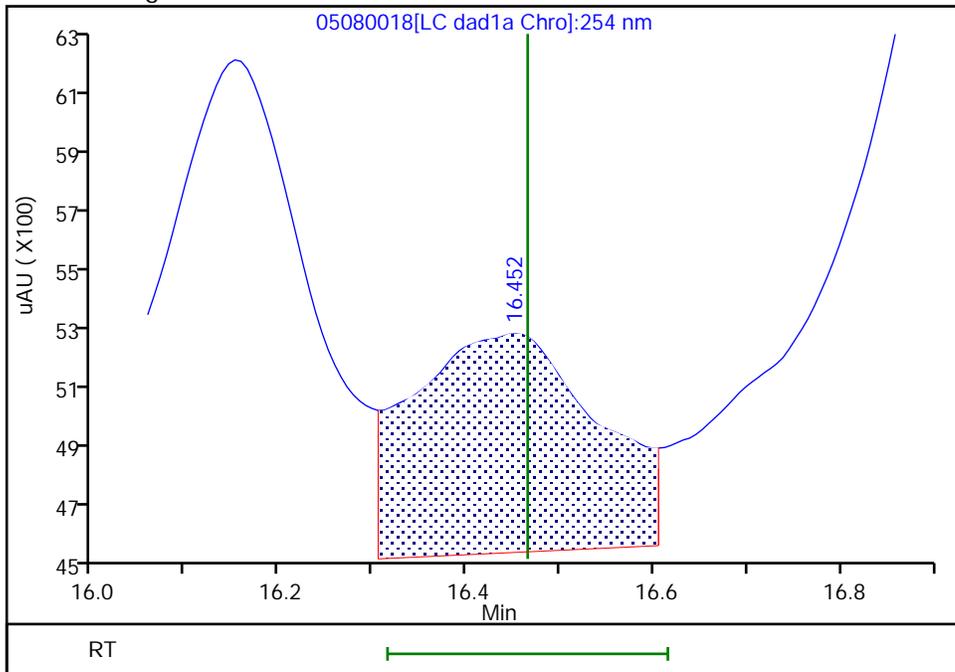
RT: 16.45  
Area: 9556  
Amount: 0.031159  
Amount Units: ug/ml

Processing Integration Results



RT: 16.45  
Area: 9880  
Amount: 0.032335  
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 09-May-2024 13:17:55 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

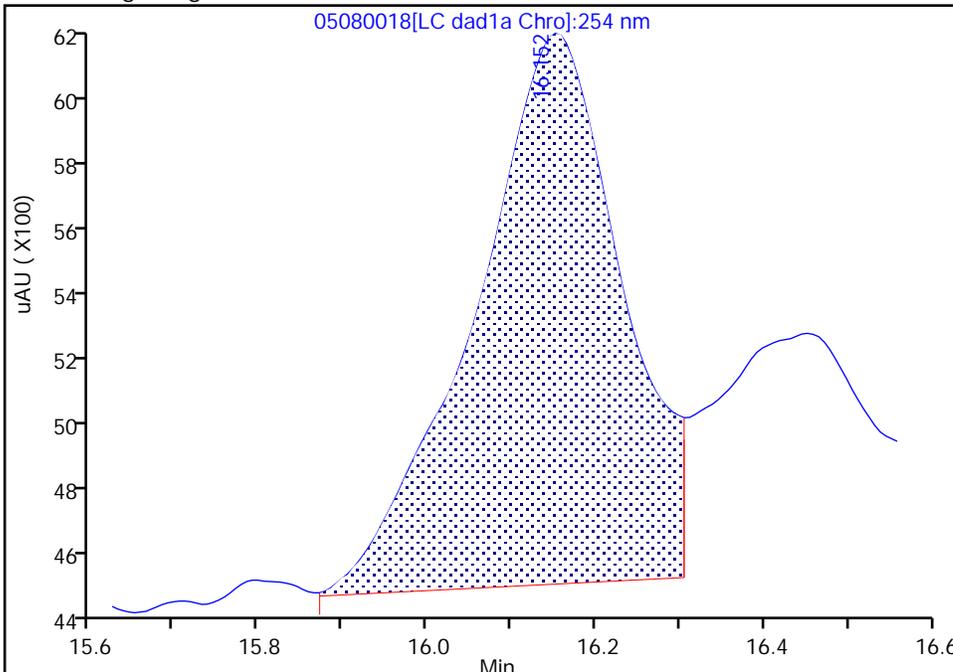
Data File: \\chromfs\denver\chromdata\g2\_luna\20240508-133164.b\05080018.d  
Injection Date: 09-May-2024 01:34:15 Instrument ID: CHHPLC\_G2\_LUNA  
Lims ID: 280-190882-A-1-A Lab Sample ID: 280-190882-1  
Client ID: LL2mw-059-240401-GW  
Operator ID: JZ ALS Bottle#: 18 Worklist Smp#: 18  
Injection Vol: 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

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

Signal: 1

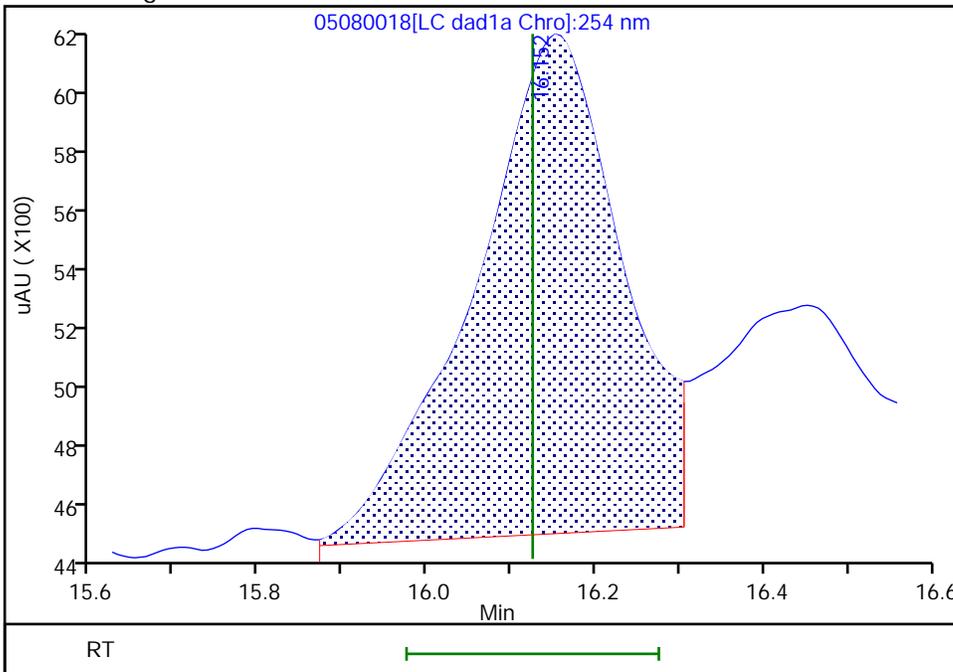
Processing Integration Results

RT: 16.15  
Area: 20101  
Amount: 0.071828  
Amount Units: ug/ml



Manual Integration Results

RT: 16.15  
Area: 20361  
Amount: 0.072793  
Amount Units: ug/ml



Reviewer: LV5D, 09-May-2024 13:17:55 -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.: 280-190882-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: LL3mw-237-240401-GW Lab Sample ID: 280-190882-2  
 Matrix: Water Lab File ID: 05080020.D  
 Analysis Method: 8330B Date Collected: 04/30/2024 10:45  
 Extraction Method: 3535 Date Extracted: 05/03/2024 12:48  
 Sample wt/vol: 464.2(mL) Date Analyzed: 05/08/2024 20:56  
 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.: 652621 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-65-0	1,3-Dinitrobenzene	0.11	U M	0.12	0.11	0.040
118-96-7	2,4,6-Trinitrotoluene	0.15		0.12	0.11	0.048
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	1.6		0.12	0.11	0.055
88-72-2	2-Nitrotoluene	0.22	U M	0.23	0.22	0.092
99-08-1	3-Nitrotoluene	0.38	U	0.43	0.38	0.21
19406-51-0	4-Amino-2,6-dinitrotoluene	4.2		0.16	0.13	0.062
99-99-0	4-Nitrotoluene	0.43	U M	0.44	0.43	0.11
2691-41-0	HMX	0.22	U	0.23	0.22	0.094
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	0.54	J1 M	0.23	0.22	0.055
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	104	M	83-119

Eurofins Denver  
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC\_X\20240508-133160.b\05080020.D  
 Lims ID: 280-190882-A-2-A  
 Client ID: LL3mw-237-240401-GW  
 Sample Type: Client  
 Inject. Date: 08-May-2024 20:56:46 ALS Bottle#: 20 Worklist Smp#: 20  
 Injection Vol: 100.0 ul Dil. Factor: 1.0000  
 Sample Info: 280-190882-A-2-A  
 Operator ID: JZ Instrument ID: CHHPLC\_X3  
 Method: \\chromfs\Denver\ChromData\CHHPLC\_X\20240508-133160.b\8330\_X3.m  
 Limit Group: GCSV - 8330  
 Last Update: 09-May-2024 13:10:41 Calib Date: 18-Apr-2024 03:08:00  
 Integrator: Falcon  
 Quant Method: External Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Denver\ChromData\CHHPLC\_X\20240417-132364.b\04170028.D  
 Column 1 : UltraCarb5uODS (20) ( 4.60 mm) Det: LC DAD1B, 254 nm  
 Process Host: CTX1670

First Level Reviewer: LV5D Date: 09-May-2024 11:54:47

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/mL	Flags
4 HMX	1		6.616			ND	
8 RDX	1	7.604	7.623	-0.019	5507	0.0497	M
\$ 10 1,2-Dinitrobenzene	1	8.557	8.556	0.001	27498	0.2082	M
11 1,3,5-Trinitrobenzene	1	8.697	8.696	0.001	2701	0.0121	M
12 1,3-Dinitrobenzene	1		9.303			ND	U
13 Nitrobenzene	1		9.656			ND	
15 Tetryl	1		9.963			ND	U
16 Nitroglycerin	2		10.436			ND	
17 2,4,6-Trinitrotoluene	1	10.870	10.869	0.001	3078	0.0143	
18 4-Amino-2,6-dinitrotoluene	1	11.050	11.043	0.007	58669	0.3913	
19 2-Amino-4,6-dinitrotoluene	1	11.304	11.303	0.001	29973	0.1500	
20 2,6-Dinitrotoluene	1		11.436			ND	
21 2,4-Dinitrotoluene	1		11.616			ND	7
22 o-Nitrotoluene	1		12.389			ND	U
23 p-Nitrotoluene	1		12.809			ND	U
24 m-Nitrotoluene	1		13.356			ND	
25 PETN	2		14.389			ND	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

M - Manually Integrated

U - Marked Undetected

Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc\_x\20240508-133160.b\05080020.d

Injection Date: 08-May-2024 20:56:46

Instrument ID: CHHPLC\_X3

Operator ID: JZ

Lims ID: 280-190882-A-2-A

Lab Sample ID: 280-190882-2

Worklist Smp#: 20

Client ID: LL3mw-237-240401-GW

Injection Vol: 100.0 ul

Dil. Factor: 1.0000

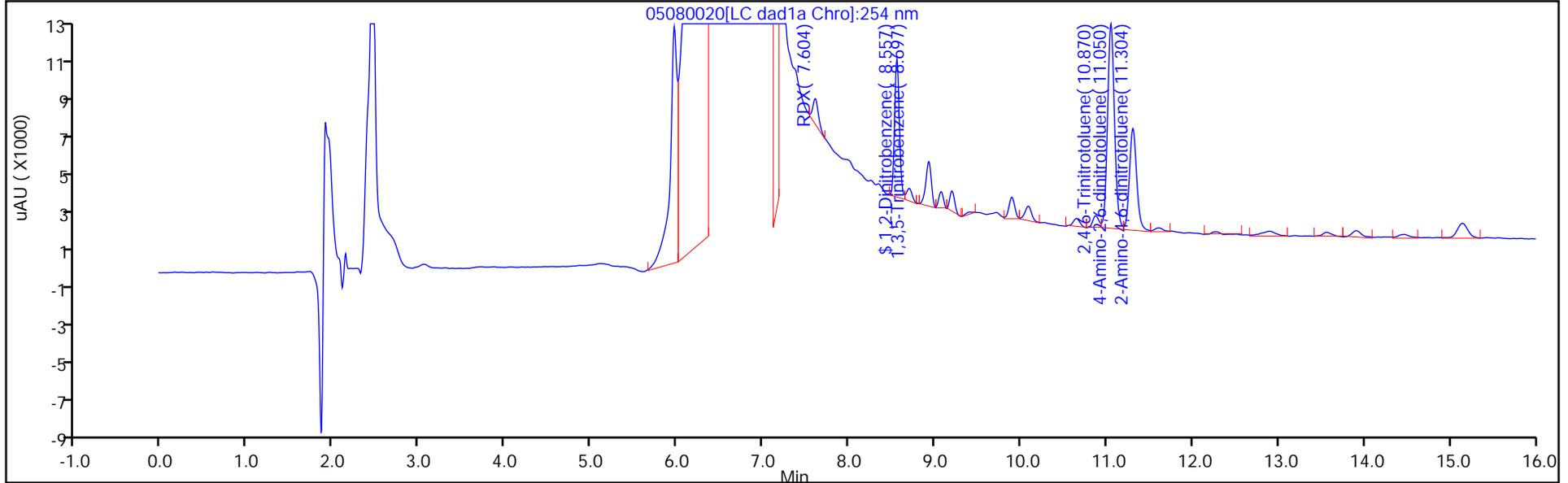
ALS Bottle#: 20

Method: 8330\_X3

Limit Group: GCSV - 8330

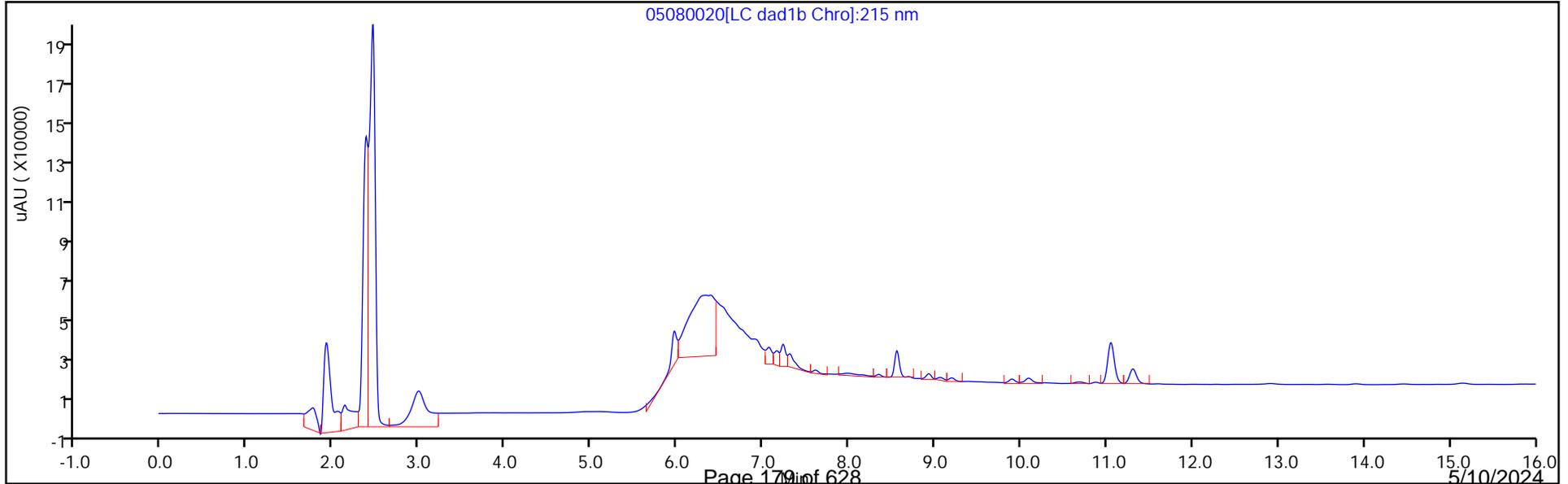
Column: UltraCarb5uODS (20) ( 4.60 mm)

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



Column: UltraCarb5uODS (20) ( 4.60 mm)

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



Eurofins Denver  
Recovery Report

Data File: \\chromfs\Denver\ChromData\CHHPLC\_X\20240508-133160.b\05080020.D  
 Lims ID: 280-190882-A-2-A  
 Client ID: LL3mw-237-240401-GW  
 Sample Type: Client  
 Inject. Date: 08-May-2024 20:56:46 ALS Bottle#: 20 Worklist Smp#: 20  
 Injection Vol: 100.0 ul Dil. Factor: 1.0000  
 Sample Info: 280-190882-A-2-A  
 Operator ID: JZ Instrument ID: CHHPLC\_X3  
 Method: \\chromfs\Denver\ChromData\CHHPLC\_X\20240508-133160.b\8330\_X3.m  
 Limit Group: GCSV - 8330  
 Last Update: 09-May-2024 13:10:41 Calib Date: 18-Apr-2024 03:08:00  
 Integrator: Falcon  
 Quant Method: External Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Denver\ChromData\CHHPLC\_X\20240417-132364.b\04170028.D  
 Column 1 : UltraCarb5uODS (20) ( 4.60 mm) Det: LC DAD1B, 254 nm  
 Process Host: CTX1670

First Level Reviewer: LV5D Date: 09-May-2024 11:54:47

Compound	Amount Added	Amount Recovered	% Rec.
\$ 10 1,2-Dinitrobenzene	0.2000	0.2082	104.10

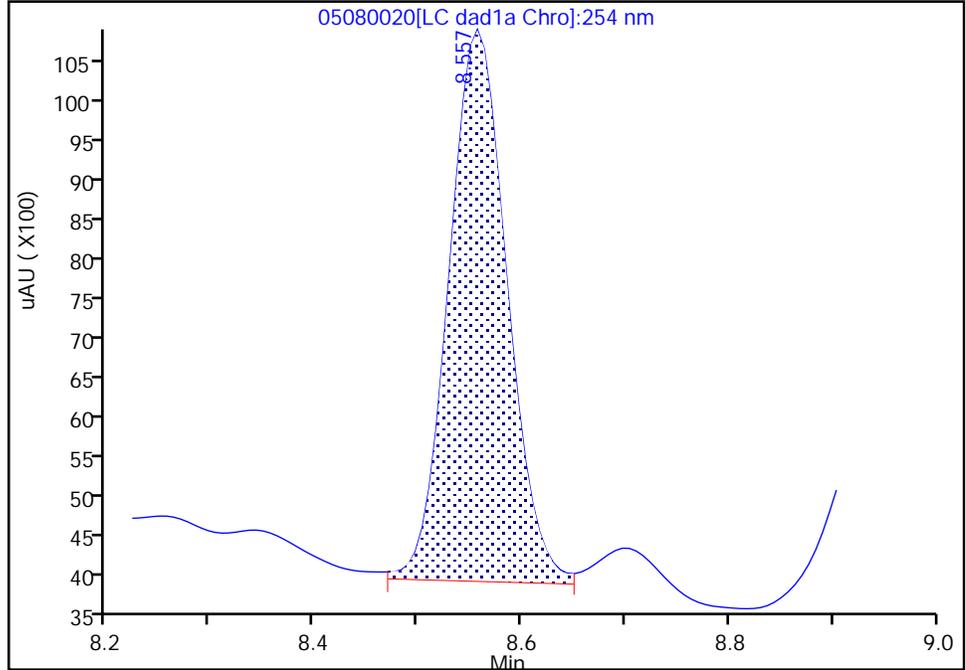
Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc\_x\20240508-133160.b\05080020.d  
Injection Date: 08-May-2024 20:56:46 Instrument ID: CHHPLC\_X3  
Lims ID: 280-190882-A-2-A Lab Sample ID: 280-190882-2  
Client ID: LL3mw-237-240401-GW  
Operator ID: JZ ALS Bottle#: 20 Worklist Smp#: 20  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: 8330\_X3 Limit Group: GCSV - 8330  
Column: UltraCarb5uODS (20) ( 4.60 mm) Detector: LC DAD1B, 254 nm

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

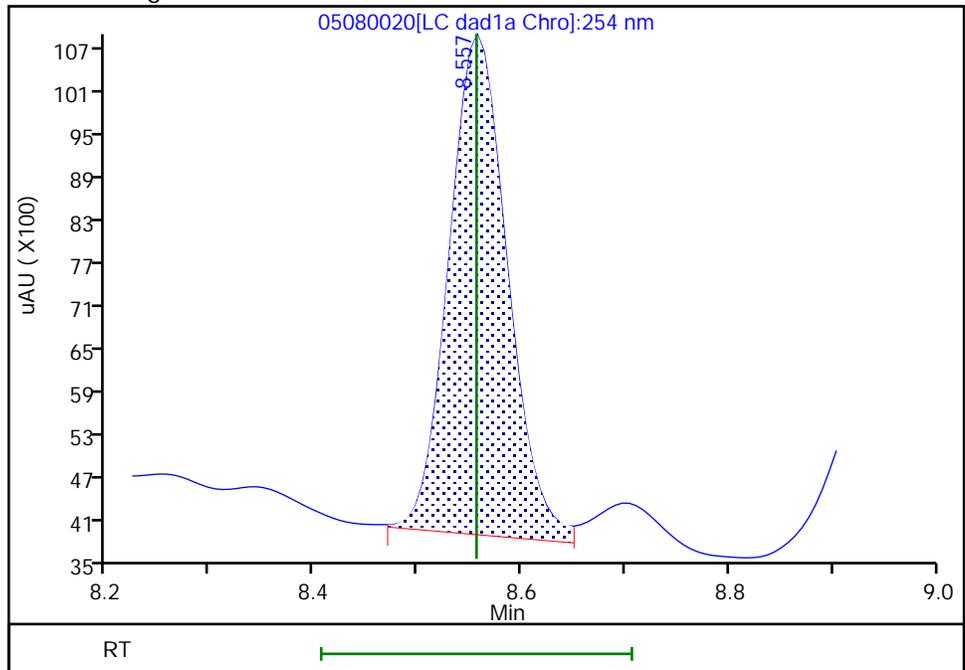
RT: 8.56  
Area: 27293  
Amount: 0.206633  
Amount Units: ug/mL

Processing Integration Results



RT: 8.56  
Area: 27498  
Amount: 0.208190  
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 09-May-2024 11:53:43 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

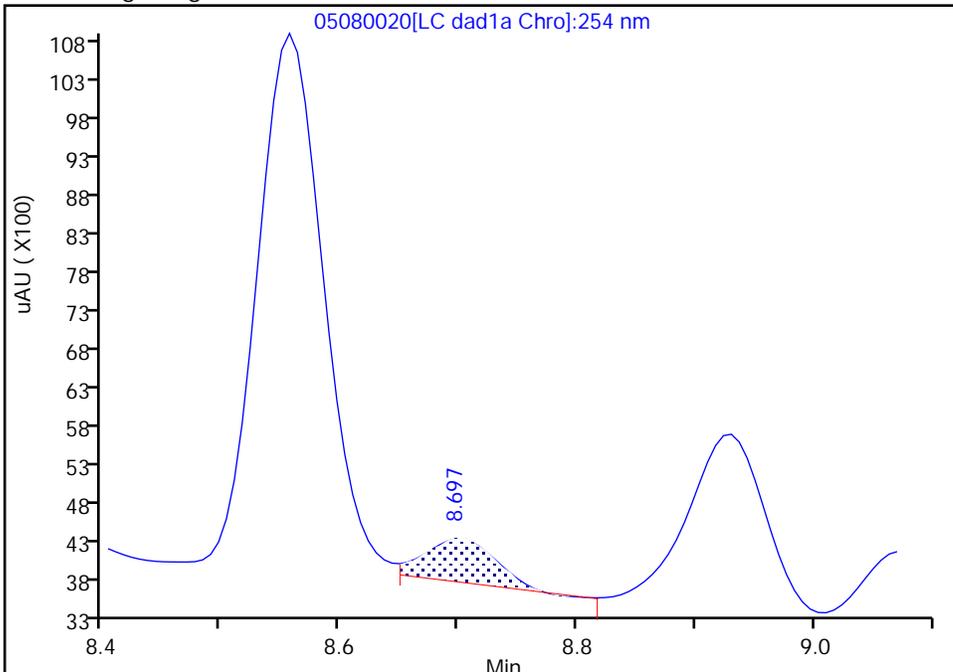
Data File: \\chromfs\denver\chromdata\chhplc\_x\20240508-133160.b\05080020.d  
Injection Date: 08-May-2024 20:56:46 Instrument ID: CHHPLC\_X3  
Lims ID: 280-190882-A-2-A Lab Sample ID: 280-190882-2  
Client ID: LL3mw-237-240401-GW  
Operator ID: JZ ALS Bottle#: 20 Worklist Smp#: 20  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: 8330\_X3 Limit Group: GCSV - 8330  
Column: UltraCarb5uODS (20) ( 4.60 mm) Detector: LC DAD1B, 254 nm

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

Signal: 1

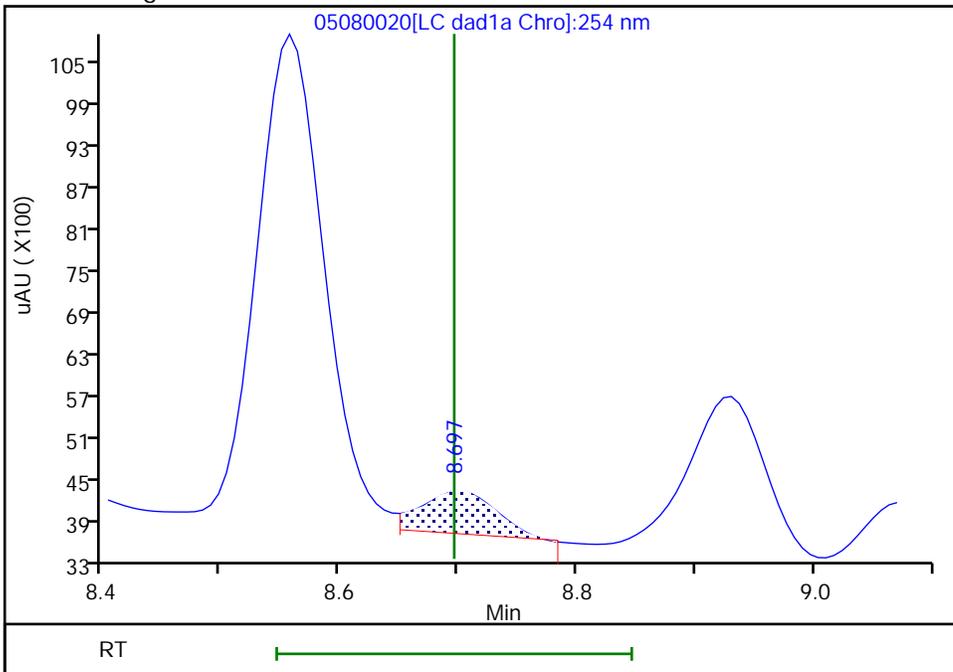
RT: 8.70  
Area: 2393  
Amount: 0.010738  
Amount Units: ug/mL

Processing Integration Results



RT: 8.70  
Area: 2701  
Amount: 0.012120  
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 09-May-2024 11:53:43 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

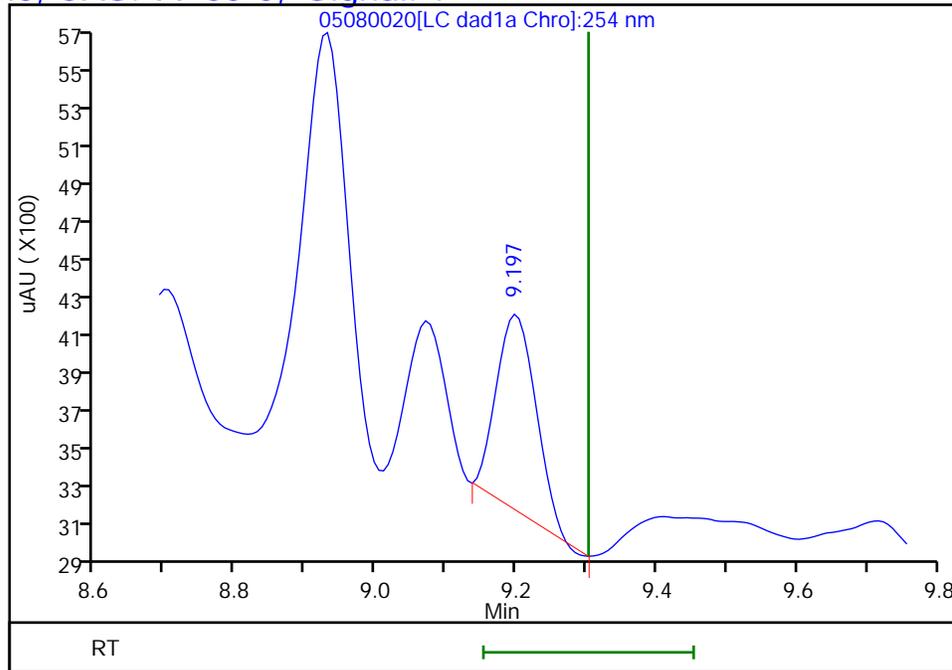
Audit Reason: Baseline

Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc\_x\20240508-133160.b\05080020.d  
Injection Date: 08-May-2024 20:56:46 Instrument ID: CHHPLC\_X3  
Lims ID: 280-190882-A-2-A Lab Sample ID: 280-190882-2  
Client ID: LL3mw-237-240401-GW  
Operator ID: JZ ALS Bottle#: 20 Worklist Smp#: 20  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: 8330\_X3 Limit Group: GCSV - 8330  
Column: UltraCarb5uODS (20) ( 4.60 mm) Detector LC DAD1B, 254 nm

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

RT: 9.20  
Response: 4188  
Amount: 0.013986



Reviewer: LV5D, 09-May-2024 11:54:47

Audit Action: Marked Compound Undetected

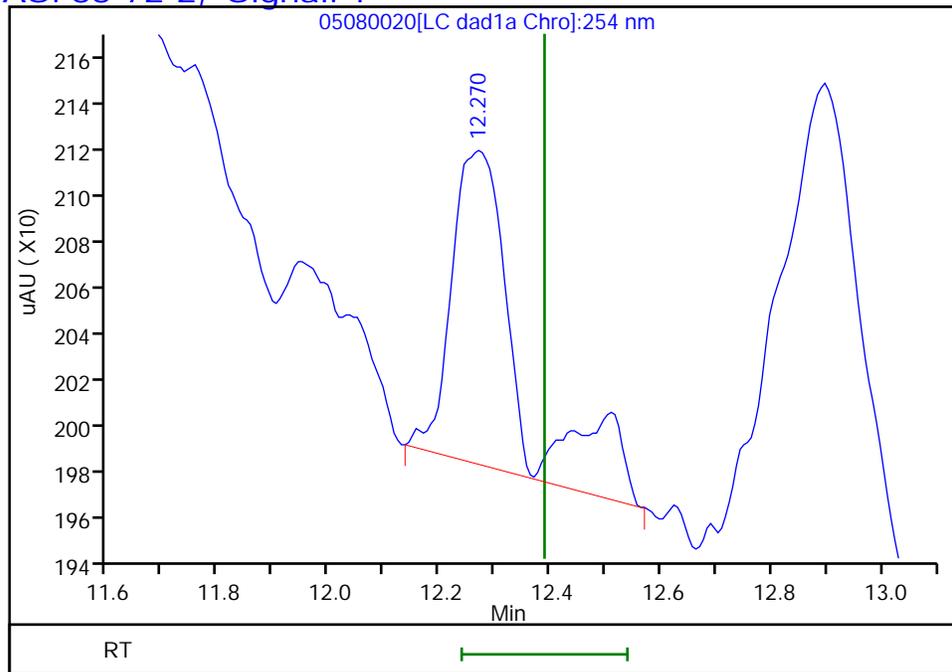
Audit Reason: Invalid Compound ID

Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc\_x\20240508-133160.b\05080020.d  
Injection Date: 08-May-2024 20:56:46 Instrument ID: CHHPLC\_X3  
Lims ID: 280-190882-A-2-A Lab Sample ID: 280-190882-2  
Client ID: LL3mw-237-240401-GW  
Operator ID: JZ ALS Bottle#: 20 Worklist Smp#: 20  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: 8330\_X3 Limit Group: GCSV - 8330  
Column: UltraCarb5uODS (20) ( 4.60 mm) Detector LC DAD1B, 254 nm

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

RT: 12.27  
Response: 1121  
Amount: 0.008669



Reviewer: LV5D, 09-May-2024 11:54:47

Audit Action: Marked Compound Undetected

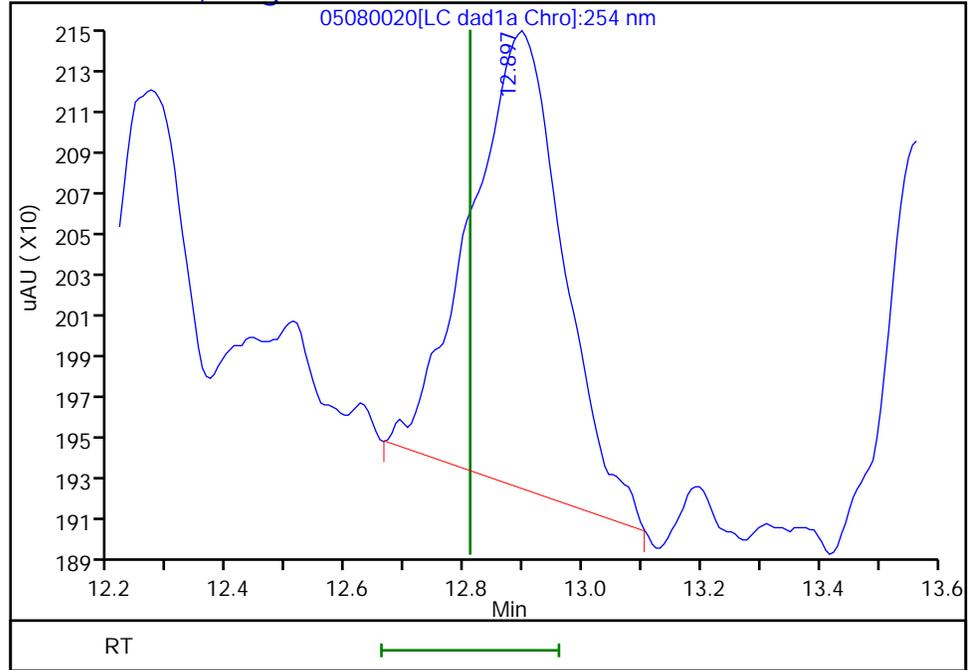
Audit Reason: Invalid Compound ID

Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc\_x\20240508-133160.b\05080020.d  
Injection Date: 08-May-2024 20:56:46 Instrument ID: CHHPLC\_X3  
Lims ID: 280-190882-A-2-A Lab Sample ID: 280-190882-2  
Client ID: LL3mw-237-240401-GW  
Operator ID: JZ ALS Bottle#: 20 Worklist Smp#: 20  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: 8330\_X3 Limit Group: GCSV - 8330  
Column: UltraCarb5uODS (20) ( 4.60 mm) Detector LC DAD1B, 254 nm

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

RT: 12.90  
Response: 2448  
Amount: 0.021702



Reviewer: LV5D, 09-May-2024 11:54:47

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

Eurofins Denver

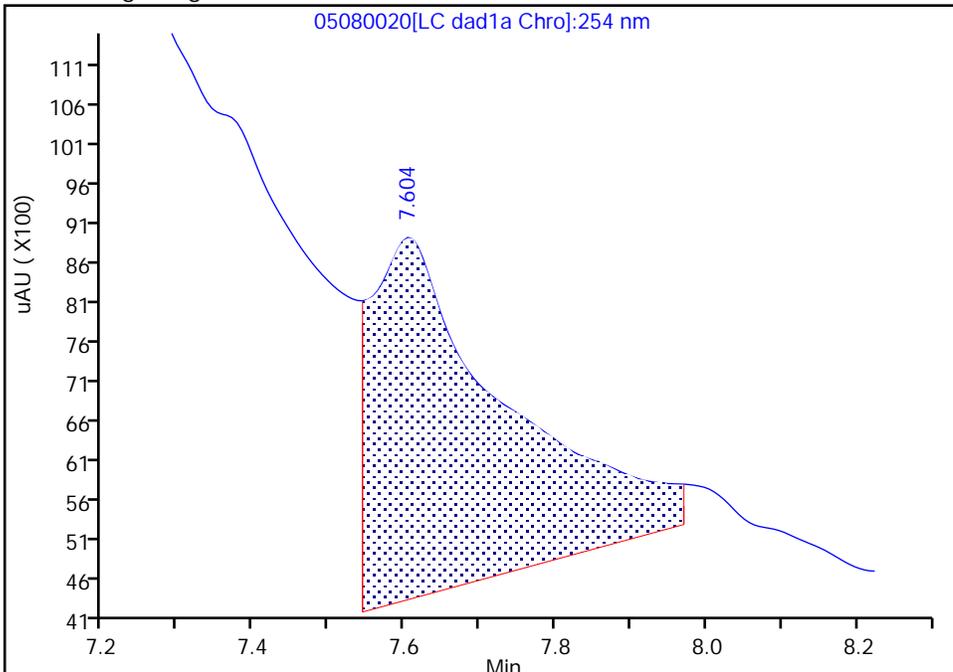
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Injection Date: 08-May-2024 20:56:46 Instrument ID: CHHPLC\_X3  
Lims ID: 280-190882-A-2-A Lab Sample ID: 280-190882-2  
Client ID: LL3mw-237-240401-GW  
Operator ID: JZ ALS Bottle#: 20 Worklist Smp#: 20  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: 8330\_X3 Limit Group: GCSV - 8330  
Column: UltraCarb5uODS (20) ( 4.60 mm) Detector: LC DAD1B, 254 nm

8 RDX, CAS: 121-82-4

Signal: 1

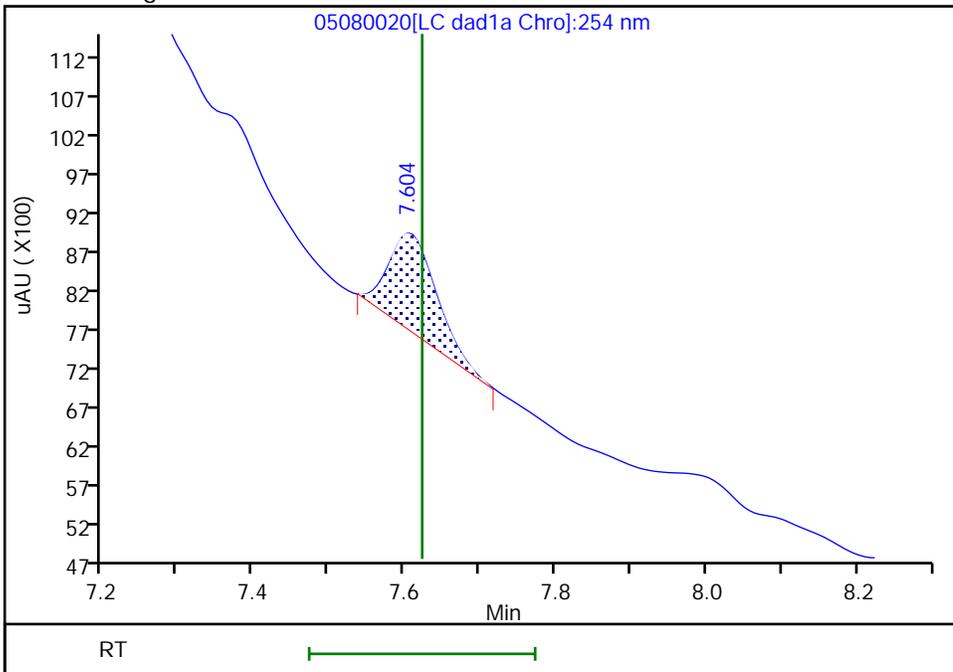
RT: 7.60  
Area: 56277  
Amount: 0.508066  
Amount Units: ug/mL

Processing Integration Results



RT: 7.60  
Area: 5507  
Amount: 0.049717  
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 09-May-2024 11:53:59 -06:00:00 (UTC)

Audit Action: Manually Integrated

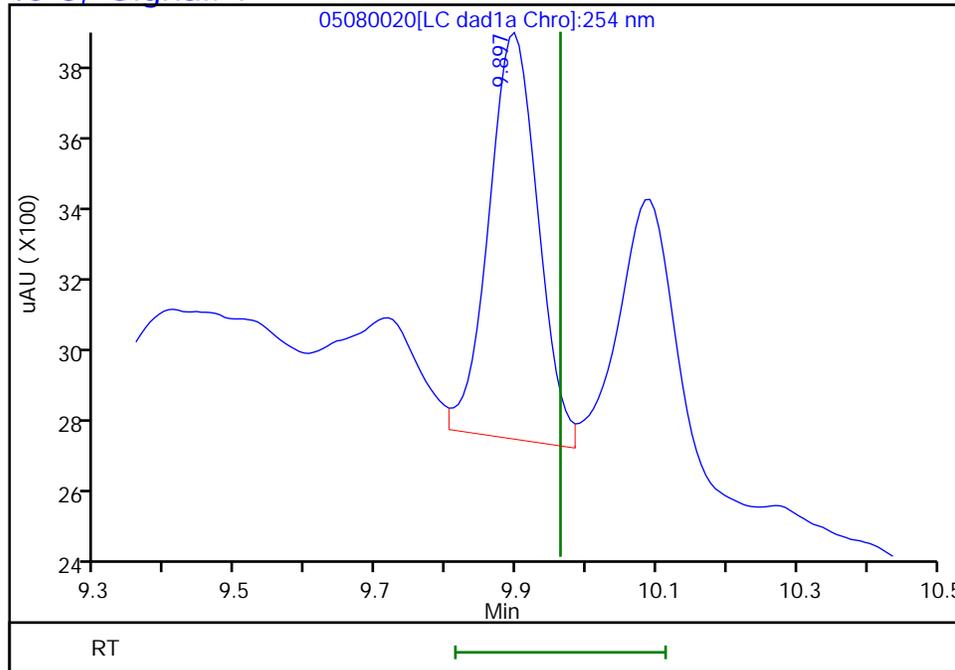
Audit Reason: Baseline

Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc\_x\20240508-133160.b\05080020.d  
Injection Date: 08-May-2024 20:56:46 Instrument ID: CHHPLC\_X3  
Lims ID: 280-190882-A-2-A Lab Sample ID: 280-190882-2  
Client ID: LL3mw-237-240401-GW  
Operator ID: JZ ALS Bottle#: 20 Worklist Smp#: 20  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: 8330\_X3 Limit Group: GCSV - 8330  
Column: UltraCarb5uODS (20) ( 4.60 mm) Detector LC DAD1B, 254 nm

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

RT: 9.90  
Response: 5394  
Amount: 0.029705



Reviewer: LV5D, 09-May-2024 11:54:47

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

FORM I  
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver Job No.: 280-190882-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: LL3mw-237-240401-GW Lab Sample ID: 280-190882-2  
 Matrix: Water Lab File ID: 05080019.D  
 Analysis Method: 8330B Date Collected: 04/30/2024 10:45  
 Extraction Method: 3535 Date Extracted: 05/03/2024 12:48  
 Sample wt/vol: 464.2(mL) Date Analyzed: 05/09/2024 02:10  
 Con. Extract Vol.: 5(mL) Dilution Factor: 1  
 Injection Volume: 100(uL) GC Column: Luna-phenylhex ID: 4.6(mm)  
 % Moisture: \_\_\_\_\_ % Solids: \_\_\_\_\_ GPC Cleanup: (Y/N) N  
 Cleanup Factor: \_\_\_\_\_  
 Analysis Batch No.: 652628 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
121-82-4	RDX	0.078	J J1 M	0.23	0.22	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\20240508-133164.b\05080019.D  
 Lims ID: 280-190882-A-2-A  
 Client ID: LL3mw-237-240401-GW  
 Sample Type: Client  
 Inject. Date: 09-May-2024 02:10:14 ALS Bottle#: 19 Worklist Smp#: 19  
 Injection Vol: 100.0 ul Dil. Factor: 1.0000  
 Sample Info: 280-190882-A-2-A  
 Operator ID: JZ Instrument ID: CHHPLC\_G2\_LUNA  
 Method: \\chromfs\Denver\ChromData\G2\_LUNA\20240508-133164.b\G2\_8330\_Luna.m  
 Limit Group: GCSV - 8330  
 Last Update: 09-May-2024 13:25:55 Calib Date: 25-Apr-2024 07:39:21  
 Integrator: Falcon  
 Quant Method: External Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Denver\ChromData\G2\_LUNA\20240424-132624.b\04240027.D  
 Column 1 : Luna-Phenyl hexyl ( 4.60 mm) Det: LC DAD1A, 254 nm  
 Process Host: CTX1670

First Level Reviewer: LV5D Date: 09-May-2024 13:19:09

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
6 HMX	1		6.672			ND	
8 RDX	1	8.861	8.885	-0.024	2019	0.007196	M
9 Nitrobenzene	1		11.378			ND	
\$ 10 1,2-Dinitrobenzene	1	12.274	12.285	-0.011	51489	0.1990	
12 1,3-Dinitrobenzene	1		14.398			ND	
13 Nitroglycerin	2		14.832			ND	U
14 o-Nitrotoluene	1		15.405			ND	U
15 p-Nitrotoluene	1		15.632			ND	
16 4-Amino-2,6-dinitrotoluene	1	16.148	16.125	0.023	117458	0.4331	M
17 m-Nitrotoluene	1		16.465			ND	
18 2-Amino-4,6-dinitrotoluene	1	16.948	16.932	0.016	71827	0.1771	M
19 1,3,5-Trinitrobenzene	1		17.172			ND	
20 2,6-Dinitrotoluene	1		18.225			ND	U
21 2,4-Dinitrotoluene	1	18.714	18.678	0.036	17062	0.0308	
22 Tetryl	1		21.825			ND	
23 2,4,6-Trinitrotoluene	1	22.701	22.685	0.016	5949	0.0149	M
24 PETN	2		23.805			ND	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

U - Marked Undetected

Eurofins Denver

Data File: \\chromfs\denver\chromdata\g2\_luna\20240508-133164.b\05080019.d

Injection Date: 09-May-2024 02:10:14

Instrument ID: CHHPLC\_G2\_LUNA

Operator ID: JZ

Lims ID: 280-190882-A-2-A

Lab Sample ID: 280-190882-2

Worklist Smp#: 19

Client ID: LL3mw-237-240401-GW

Injection Vol: 100.0 ul

Dil. Factor: 1.0000

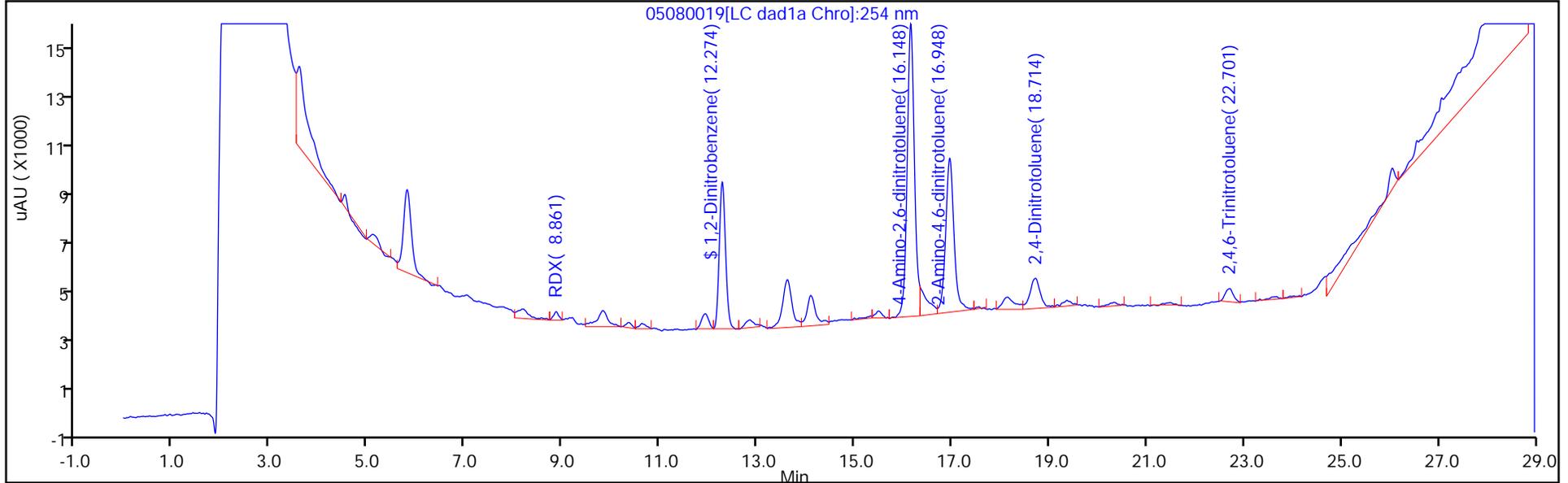
ALS Bottle#: 19

Method: G2\_8330\_Luna

Limit Group: GCSV - 8330

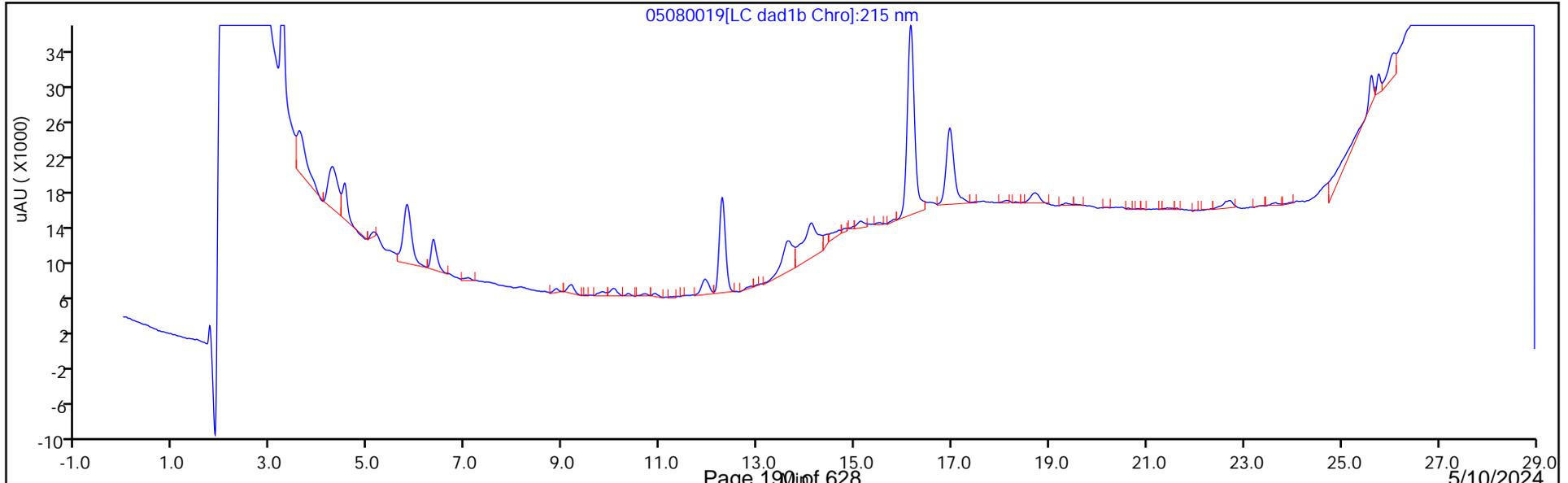
Column: Luna-Phenyl hexyl ( 4.60 mm)

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\20240508-133164.b\05080019.D  
 Lims ID: 280-190882-A-2-A  
 Client ID: LL3mw-237-240401-GW  
 Sample Type: Client  
 Inject. Date: 09-May-2024 02:10:14 ALS Bottle#: 19 Worklist Smp#: 19  
 Injection Vol: 100.0 ul Dil. Factor: 1.0000  
 Sample Info: 280-190882-A-2-A  
 Operator ID: JZ Instrument ID: CHHPLC\_G2\_LUNA  
 Method: \\chromfs\Denver\ChromData\G2\_LUNA\20240508-133164.b\G2\_8330\_Luna.m  
 Limit Group: GCSV - 8330  
 Last Update: 09-May-2024 13:25:55 Calib Date: 25-Apr-2024 07:39:21  
 Integrator: Falcon  
 Quant Method: External Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Denver\ChromData\G2\_LUNA\20240424-132624.b\04240027.D  
 Column 1 : Luna-Phenyl hexyl ( 4.60 mm) Det: LC DAD1A, 254 nm  
 Process Host: CTX1670

First Level Reviewer: LV5D Date: 09-May-2024 13:19:09

Compound	Amount Added	Amount Recovered	% Rec.
\$ 10 1,2-Dinitrobenzene	0.2000	0.1990	99.52

Eurofins Denver

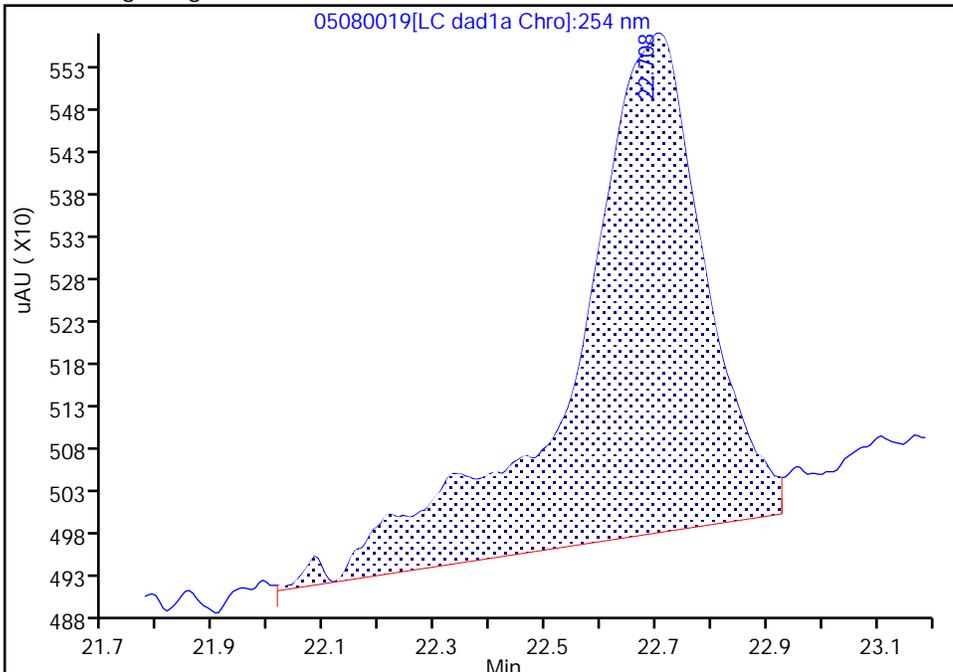
Data File: \\chromfs\denver\chromdata\g2\_luna\20240508-133164.b\05080019.d  
Injection Date: 09-May-2024 02:10:14 Instrument ID: CHHPLC\_G2\_LUNA  
Lims ID: 280-190882-A-2-A Lab Sample ID: 280-190882-2  
Client ID: LL3mw-237-240401-GW  
Operator ID: JZ ALS Bottle#: 19 Worklist Smp#: 19  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: G2\_8330\_Luna Limit Group: GCSV - 8330  
Column: Luna-Phenyl hexyl ( 4.60 mm) Detector: LC DAD1A, 254 nm

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

Signal: 1

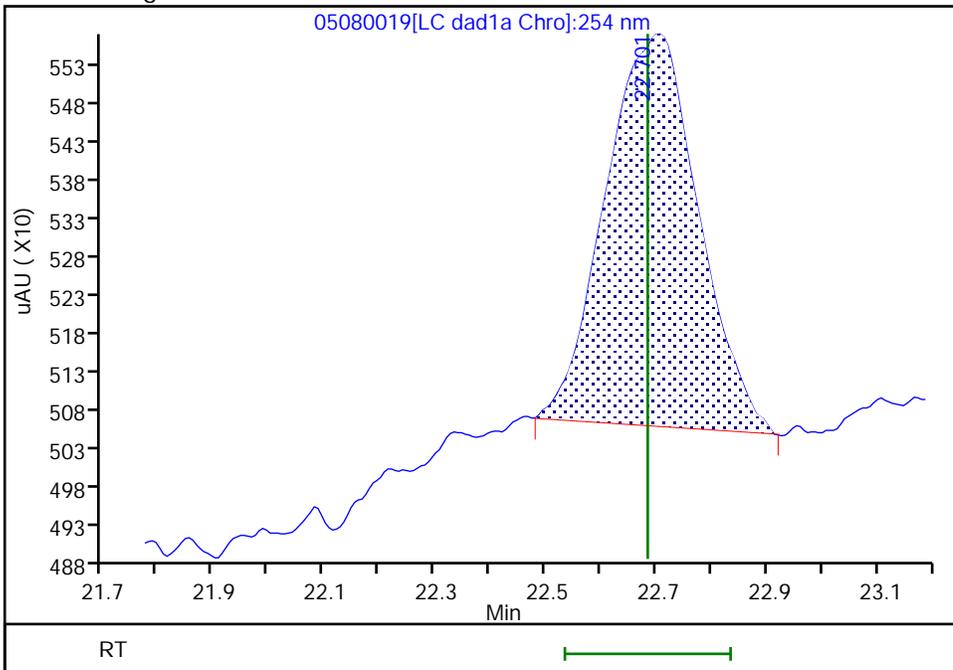
Processing Integration Results

RT: 22.71  
Area: 9655  
Amount: 0.024152  
Amount Units: ug/ml



Manual Integration Results

RT: 22.70  
Area: 5949  
Amount: 0.014881  
Amount Units: ug/ml



Reviewer: LV5D, 09-May-2024 13:18:37 -06:00:00 (UTC)

Audit Action: Manually Integrated

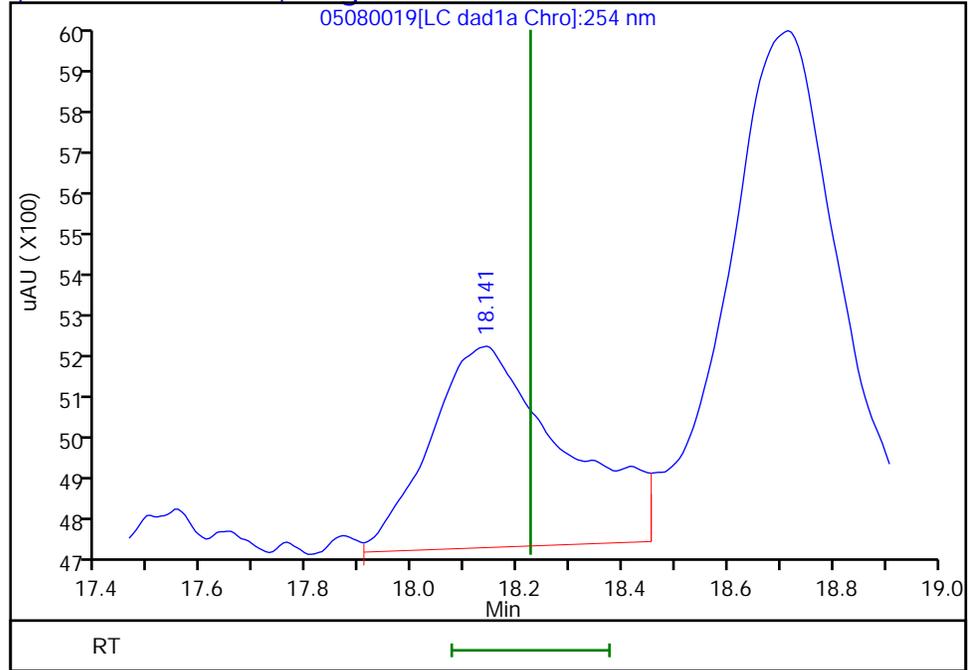
Audit Reason: Baseline

Eurofins Denver

Data File: \\chromfs\denver\chromdata\g2\_luna\20240508-133164.b\05080019.d  
Injection Date: 09-May-2024 02:10:14 Instrument ID: CHHPLC\_G2\_LUNA  
Lims ID: 280-190882-A-2-A Lab Sample ID: 280-190882-2  
Client ID: LL3mw-237-240401-GW  
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 DAD1A, 254 nm

20 2,6-Dinitrotoluene, CAS: 606-20-2, Signal: 1

RT: 18.14  
Response: 8241  
Amount: 0.029647



Reviewer: LV5D, 09-May-2024 13:19:09

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

Eurofins Denver

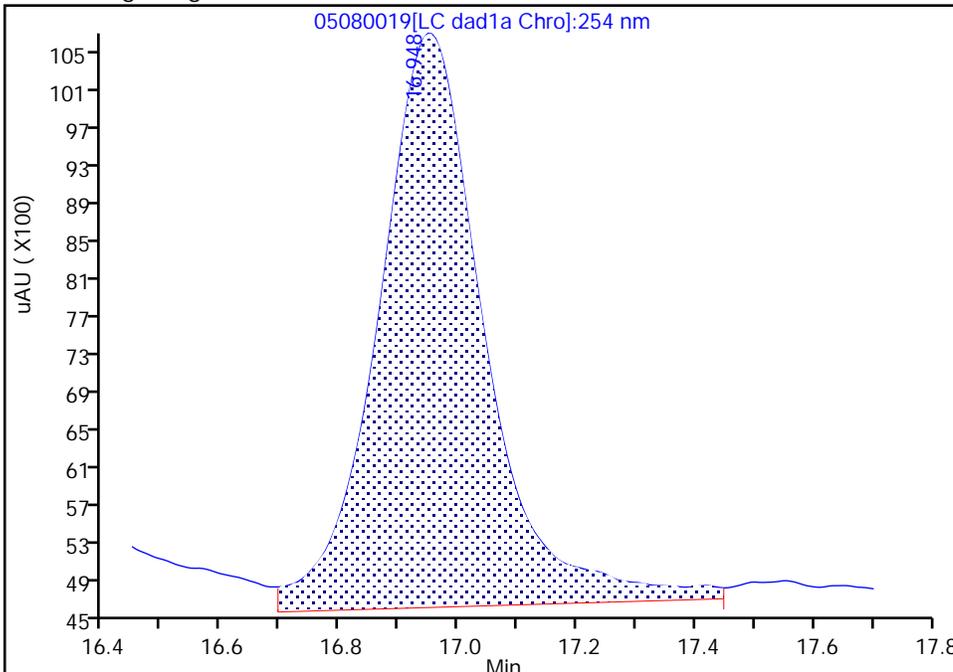
Data File: \\chromfs\denver\chromdata\g2\_luna\20240508-133164.b\05080019.d  
Injection Date: 09-May-2024 02:10:14 Instrument ID: CHHPLC\_G2\_LUNA  
Lims ID: 280-190882-A-2-A Lab Sample ID: 280-190882-2  
Client ID: LL3mw-237-240401-GW  
Operator ID: JZ ALS Bottle#: 19 Worklist Smp#: 19  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: G2\_8330\_Luna Limit Group: GCSV - 8330  
Column: Luna-Phenyl hexyl ( 4.60 mm) Detector: LC DAD1A, 254 nm

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

Signal: 1

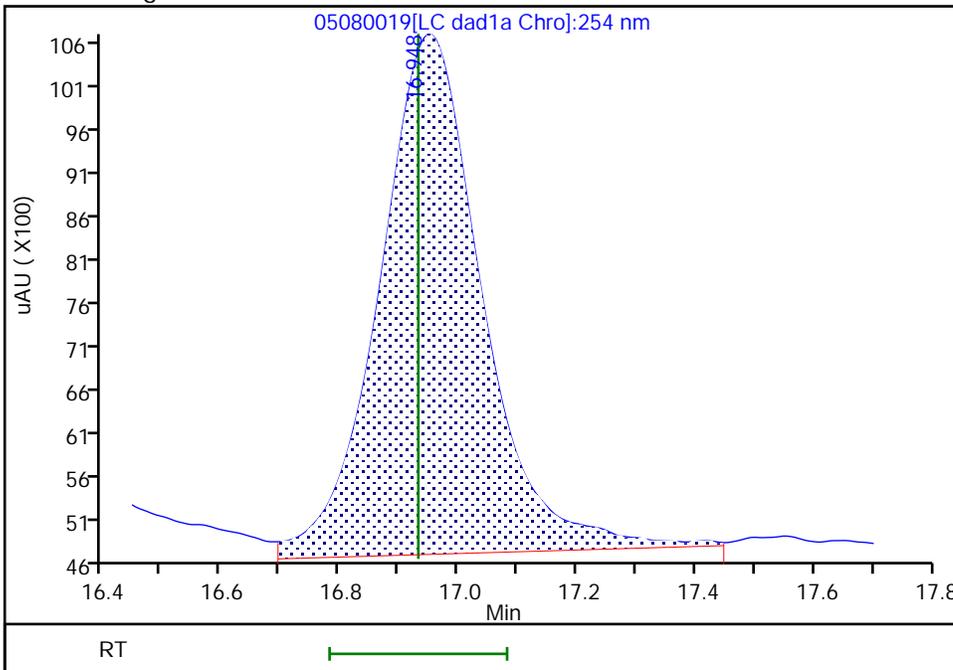
RT: 16.95  
Area: 75646  
Amount: 0.186521  
Amount Units: ug/ml

Processing Integration Results



RT: 16.95  
Area: 71827  
Amount: 0.177105  
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 09-May-2024 13:19:02 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

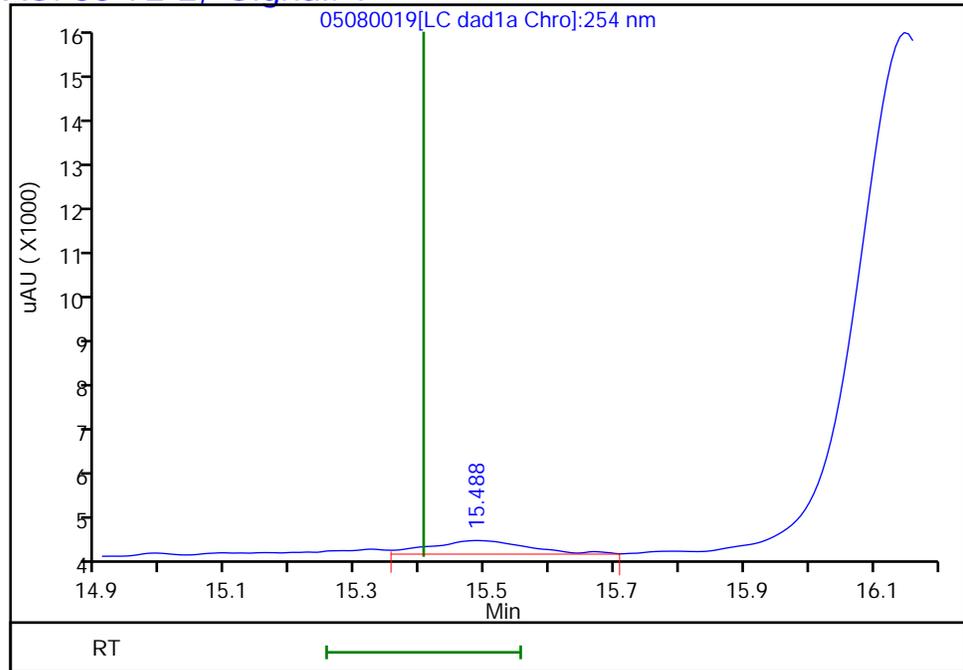
Audit Reason: Baseline

Eurofins Denver

Data File: \\chromfs\denver\chromdata\g2\_luna\20240508-133164.b\05080019.d  
Injection Date: 09-May-2024 02:10:14 Instrument ID: CHHPLC\_G2\_LUNA  
Lims ID: 280-190882-A-2-A Lab Sample ID: 280-190882-2  
Client ID: LL3mw-237-240401-GW  
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 DAD1A, 254 nm

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

RT: 15.49  
Response: 2870  
Amount: 0.011734



Reviewer: LV5D, 09-May-2024 13:19:09

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

Eurofins Denver

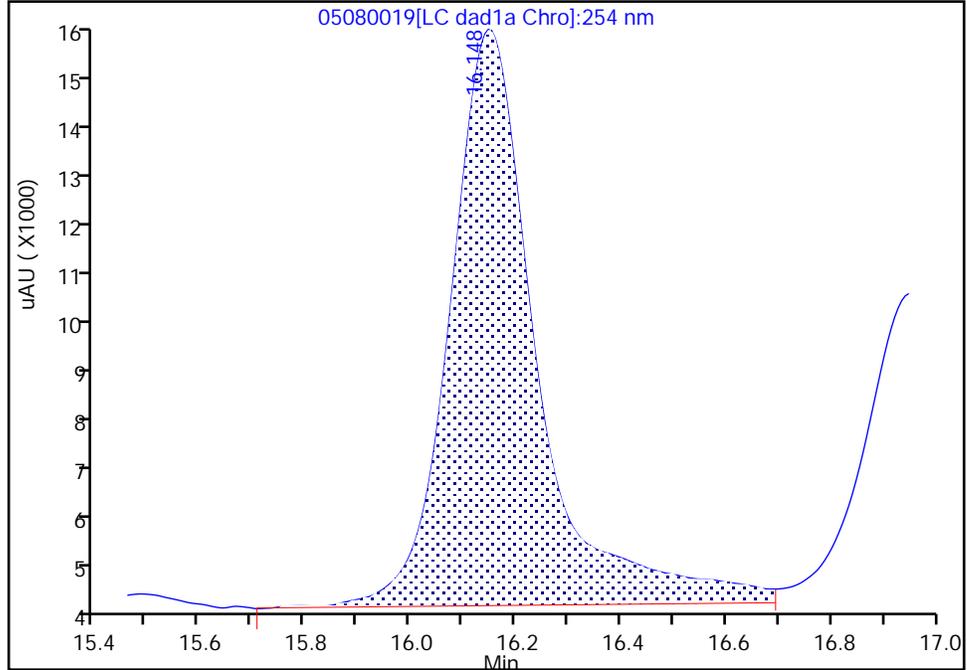
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Injection Date: 09-May-2024 02:10:14 Instrument ID: CHHPLC\_G2\_LUNA  
Lims ID: 280-190882-A-2-A Lab Sample ID: 280-190882-2  
Client ID: LL3mw-237-240401-GW  
Operator ID: JZ ALS Bottle#: 19 Worklist Smp#: 19  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: G2\_8330\_Luna Limit Group: GCSV - 8330  
Column: Luna-Phenyl hexyl ( 4.60 mm) Detector: LC DAD1A, 254 nm

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

Signal: 1

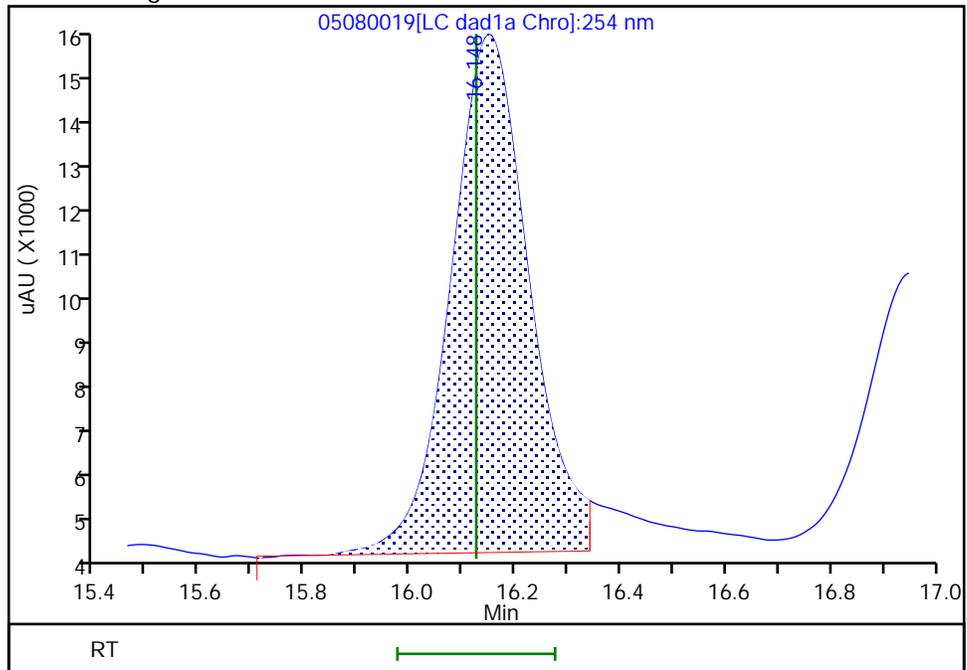
Processing Integration Results

RT: 16.15  
Area: 131653  
Amount: 0.485733  
Amount Units: ug/ml



Manual Integration Results

RT: 16.15  
Area: 117458  
Amount: 0.433064  
Amount Units: ug/ml



Reviewer: LV5D, 09-May-2024 13:19:07 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Baseline

Eurofins Denver

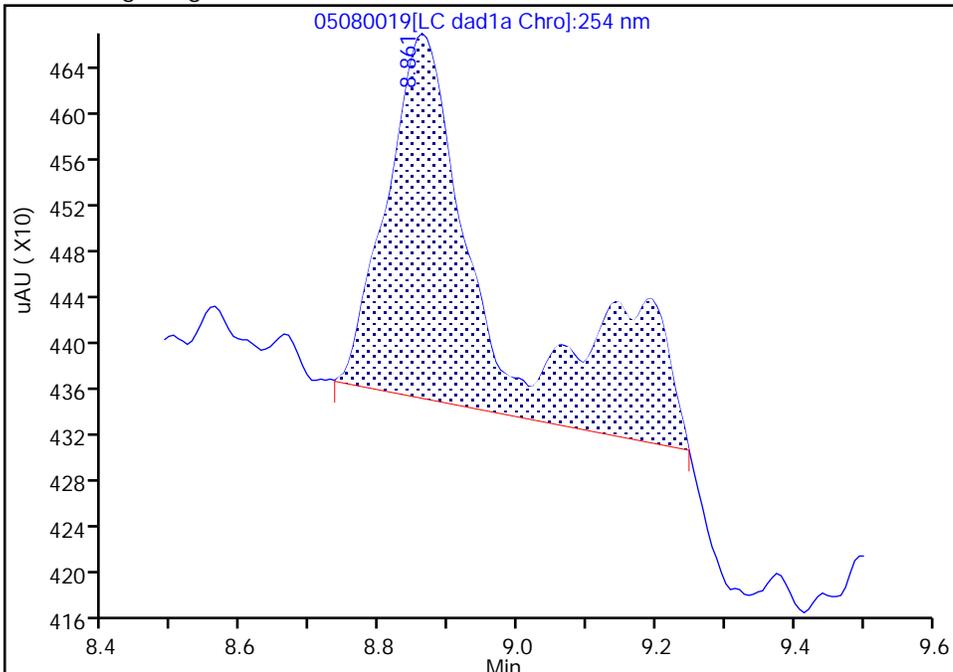
Data File: \\chromfs\denver\chromdata\g2\_luna\20240508-133164.b\05080019.d  
Injection Date: 09-May-2024 02:10:14 Instrument ID: CHHPLC\_G2\_LUNA  
Lims ID: 280-190882-A-2-A Lab Sample ID: 280-190882-2  
Client ID: LL3mw-237-240401-GW  
Operator ID: JZ ALS Bottle#: 19 Worklist Smp#: 19  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: G2\_8330\_Luna Limit Group: GCSV - 8330  
Column: Luna-Phenyl hexyl ( 4.60 mm) Detector: LC DAD1A, 254 nm

8 RDX, CAS: 121-82-4

Signal: 1

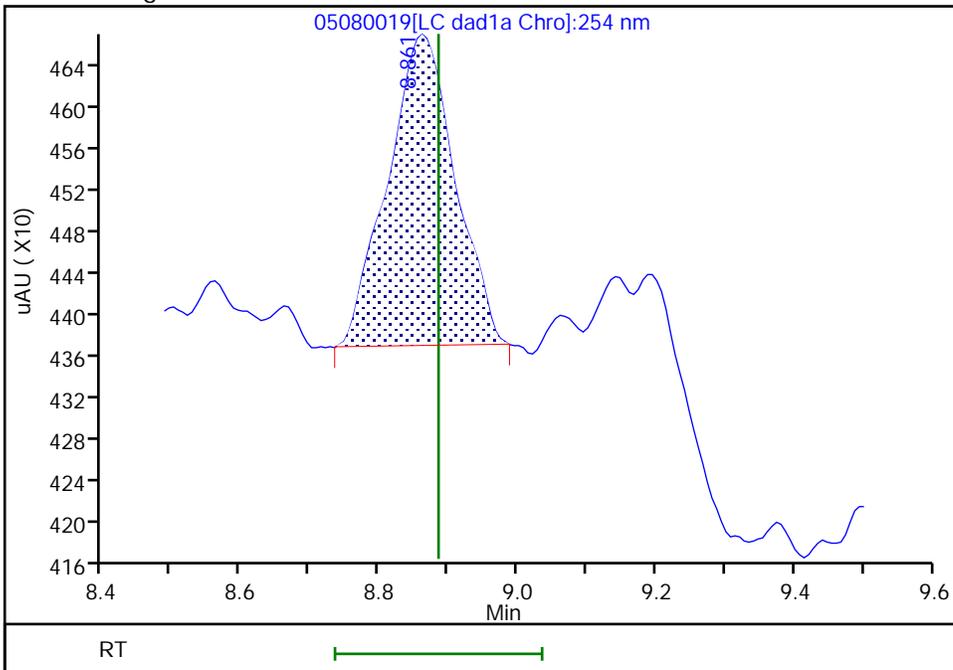
RT: 8.86  
Area: 3401  
Amount: 0.013917  
Amount Units: ug/ml

Processing Integration Results



RT: 8.86  
Area: 2019  
Amount: 0.007196  
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 09-May-2024 13:18:16 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

FORM I  
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver Job No.: 280-190882-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: FWGmw-011-240401-GW Lab Sample ID: 280-190882-3  
 Matrix: Water Lab File ID: 05080022.D  
 Analysis Method: 8330B Date Collected: 04/30/2024 11:05  
 Extraction Method: 3535 Date Extracted: 05/03/2024 12:48  
 Sample wt/vol: 480.1(mL) Date Analyzed: 05/08/2024 21:42  
 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.: 652621 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	0.21	U M	0.22	0.21	0.088
99-65-0	1,3-Dinitrobenzene	0.10	U M	0.11	0.10	0.038
118-96-7	2,4,6-Trinitrotoluene	0.10	U	0.11	0.10	0.047
121-14-2	2,4-Dinitrotoluene	0.083	U	0.10	0.083	0.029
606-20-2	2,6-Dinitrotoluene	0.083	U	0.10	0.083	0.042
35572-78-2	2-Amino-4,6-dinitrotoluene	0.10	U	0.11	0.10	0.053
88-72-2	2-Nitrotoluene	0.21	U	0.22	0.21	0.089
99-08-1	3-Nitrotoluene	0.36	U	0.42	0.36	0.20
19406-51-0	4-Amino-2,6-dinitrotoluene	0.12	U	0.16	0.12	0.060
99-99-0	4-Nitrotoluene	0.42	U M	0.43	0.42	0.10
2691-41-0	HMX	0.21	U M	0.22	0.21	0.091
98-95-3	Nitrobenzene	0.21	U	0.22	0.21	0.095
55-63-0	Nitroglycerin	2.1	U	2.2	2.1	0.96
78-11-5	PETN	1.0	U	1.1	1.0	0.47
121-82-4	RDX	0.24	J1 M	0.22	0.21	0.054
479-45-8	Tetryl	0.10	U	0.11	0.10	0.033

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

Eurofins Denver  
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC\_X\20240508-133160.b\05080022.D  
 Lims ID: 280-190882-A-3-A  
 Client ID: FWGmw-011-240401-GW  
 Sample Type: Client  
 Inject. Date: 08-May-2024 21:42:40 ALS Bottle#: 22 Worklist Smp#: 22  
 Injection Vol: 100.0 ul Dil. Factor: 1.0000  
 Sample Info: 280-190882-A-3-A  
 Operator ID: JZ Instrument ID: CHHPLC\_X3  
 Method: \\chromfs\Denver\ChromData\CHHPLC\_X\20240508-133160.b\8330\_X3.m  
 Limit Group: GCSV - 8330  
 Last Update: 09-May-2024 13:10:49 Calib Date: 18-Apr-2024 03:08:00  
 Integrator: Falcon  
 Quant Method: External Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Denver\ChromData\CHHPLC\_X\20240417-132364.b\04170028.D  
 Column 1 : UltraCarb5uODS (20) ( 4.60 mm) Det: LC DAD1B, 254 nm  
 Process Host: CTX1670

First Level Reviewer: LV5D

Date: 09-May-2024 12:00:57

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/mL	Flags
4 HMX	1		6.616			ND	U
8 RDX	1	7.648	7.623	0.025	2506	0.0226	M
\$ 10 1,2-Dinitrobenzene	1	8.554	8.556	-0.002	26941	0.2040	M
11 1,3,5-Trinitrobenzene	1		8.696			ND	U
12 1,3-Dinitrobenzene	1		9.303			ND	U
13 Nitrobenzene	1		9.656			ND	
15 Tetryl	1		9.963			ND	7
16 Nitroglycerin	2		10.436			ND	
17 2,4,6-Trinitrotoluene	1		10.869			ND	
18 4-Amino-2,6-dinitrotoluene	1		11.043			ND	
19 2-Amino-4,6-dinitrotoluene	1		11.303			ND	
20 2,6-Dinitrotoluene	1		11.436			ND	
21 2,4-Dinitrotoluene	1		11.616			ND	7
22 o-Nitrotoluene	1		12.389			ND	
23 p-Nitrotoluene	1		12.809			ND	U
24 m-Nitrotoluene	1		13.356			ND	
25 PETN	2		14.389			ND	

## QC Flag Legend

## Processing Flags

7 - Failed Limit of Detection

## Review Flags

M - Manually Integrated

U - Marked Undetected

Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc\_x\20240508-133160.b\05080022.d

Injection Date: 08-May-2024 21:42:40

Instrument ID: CHHPLC\_X3

Operator ID: JZ

Lims ID: 280-190882-A-3-A

Lab Sample ID: 280-190882-3

Worklist Smp#: 22

Client ID: FWGmw-011-240401-GW

Injection Vol: 100.0 ul

Dil. Factor: 1.0000

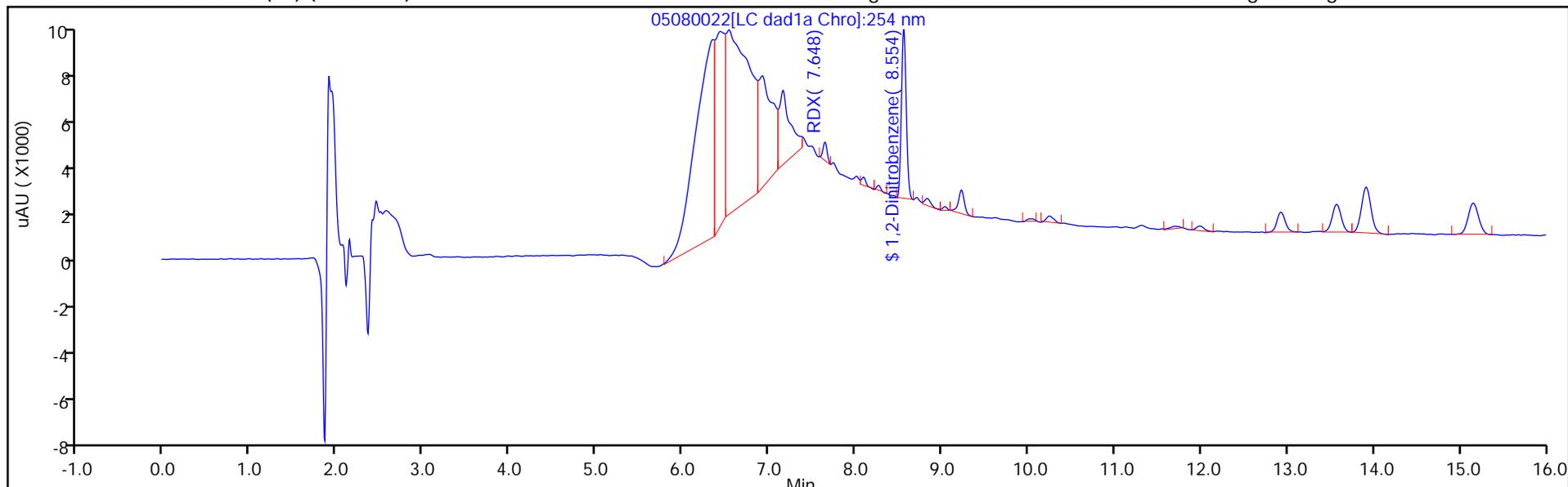
ALS Bottle#: 22

Method: 8330\_X3

Limit Group: GCSV - 8330

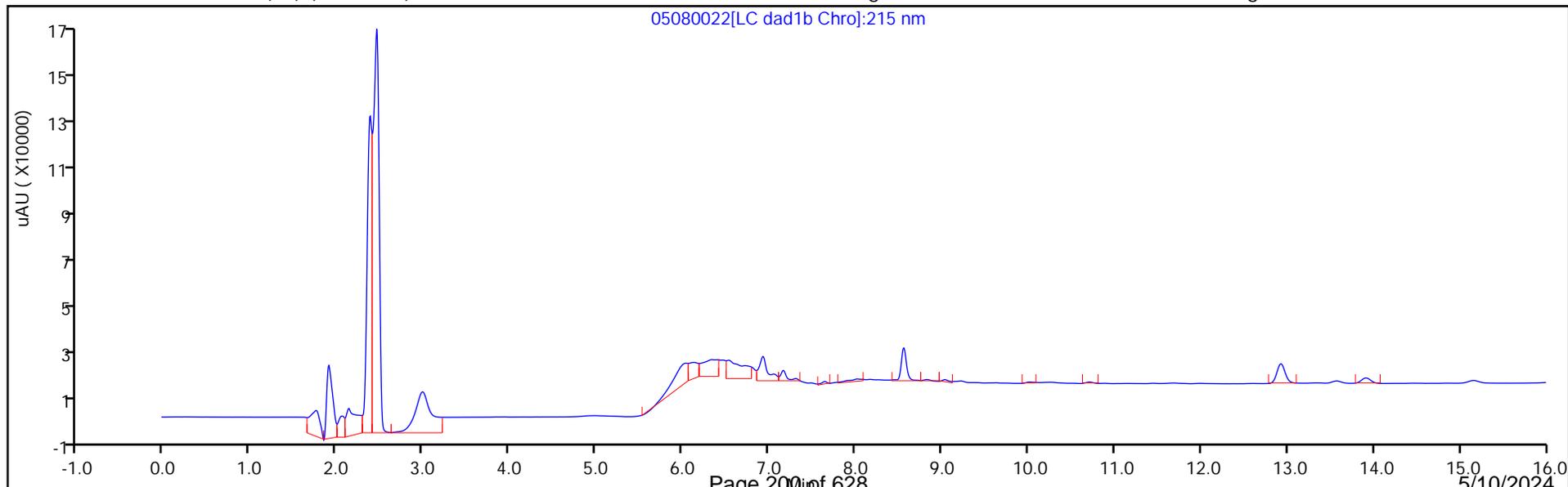
Column: UltraCarb5uODS (20) ( 4.60 mm)

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



Column: UltraCarb5uODS (20) ( 4.60 mm)

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



Eurofins Denver  
Recovery Report

Data File: \\chromfs\Denver\ChromData\CHHPLC\_X\20240508-133160.b\05080022.D  
 Lims ID: 280-190882-A-3-A  
 Client ID: FWGmw-011-240401-GW  
 Sample Type: Client  
 Inject. Date: 08-May-2024 21:42:40 ALS Bottle#: 22 Worklist Smp#: 22  
 Injection Vol: 100.0 ul Dil. Factor: 1.0000  
 Sample Info: 280-190882-A-3-A  
 Operator ID: JZ Instrument ID: CHHPLC\_X3  
 Method: \\chromfs\Denver\ChromData\CHHPLC\_X\20240508-133160.b\8330\_X3.m  
 Limit Group: GCSV - 8330  
 Last Update: 09-May-2024 13:10:49 Calib Date: 18-Apr-2024 03:08:00  
 Integrator: Falcon  
 Quant Method: External Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Denver\ChromData\CHHPLC\_X\20240417-132364.b\04170028.D  
 Column 1 : UltraCarb5uODS (20) ( 4.60 mm) Det: LC DAD1B, 254 nm  
 Process Host: CTX1670

First Level Reviewer: LV5D Date: 09-May-2024 12:00:57

Compound	Amount Added	Amount Recovered	% Rec.
\$ 10 1,2-Dinitrobenzene	0.2000	0.2040	101.98

Eurofins Denver

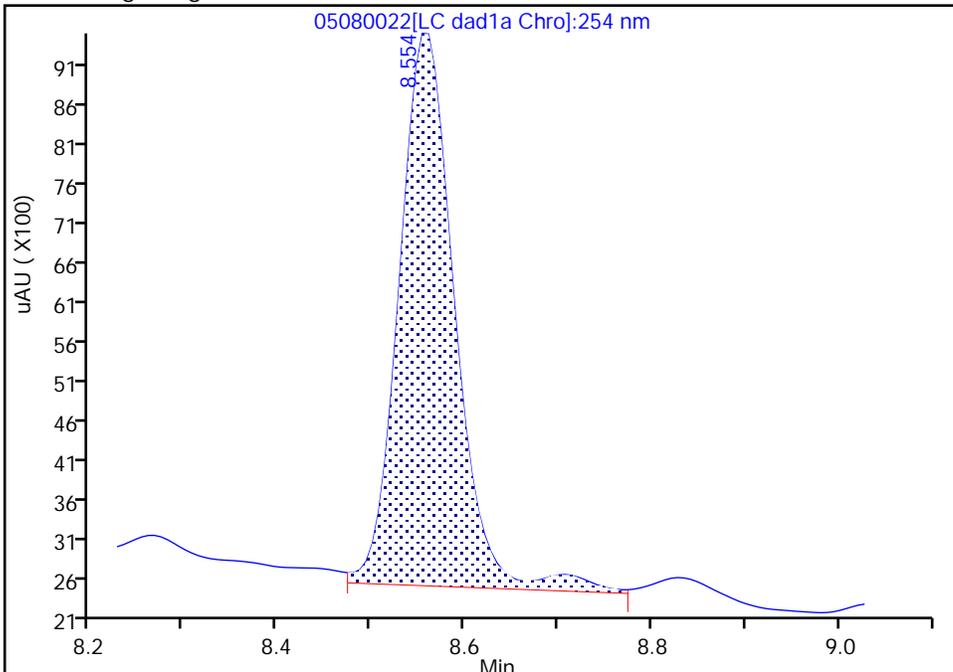
Data File: \\chromfs\denver\chromdata\chhplc\_x\20240508-133160.b\05080022.d  
Injection Date: 08-May-2024 21:42:40 Instrument ID: CHHPLC\_X3  
Lims ID: 280-190882-A-3-A Lab Sample ID: 280-190882-3  
Client ID: FWGmw-011-240401-GW  
Operator ID: JZ ALS Bottle#: 22 Worklist Smp#: 22  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: 8330\_X3 Limit Group: GCSV - 8330  
Column: UltraCarb5uODS (20) ( 4.60 mm) Detector: LC DAD1B, 254 nm

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

Signal: 1

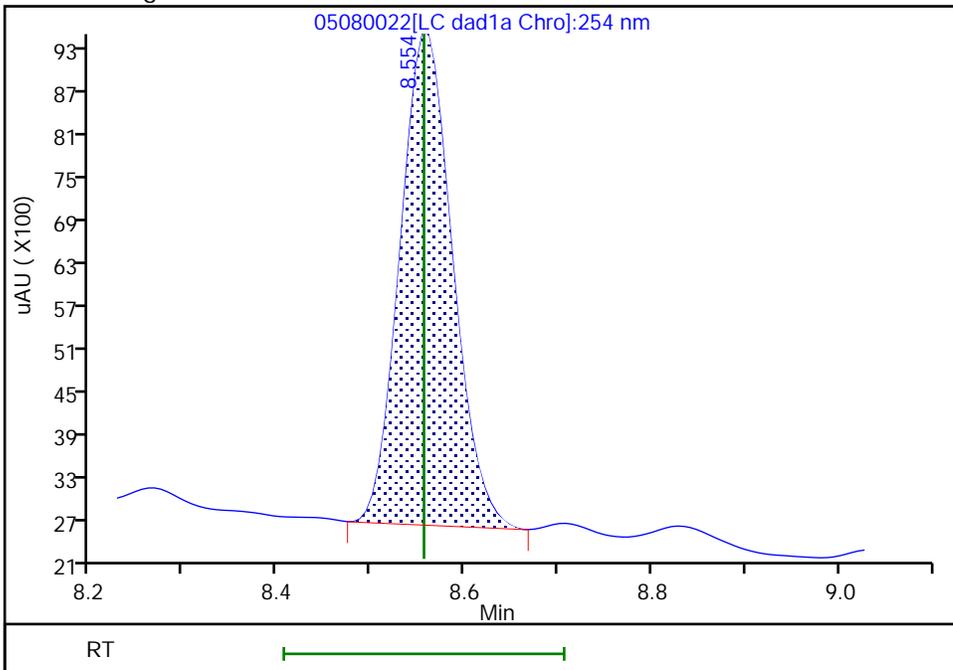
RT: 8.55  
Area: 29243  
Amount: 0.221447  
Amount Units: ug/mL

Processing Integration Results



RT: 8.55  
Area: 26941  
Amount: 0.203959  
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 09-May-2024 12:00:56 -06:00:00 (UTC)

Audit Action: Manually Integrated

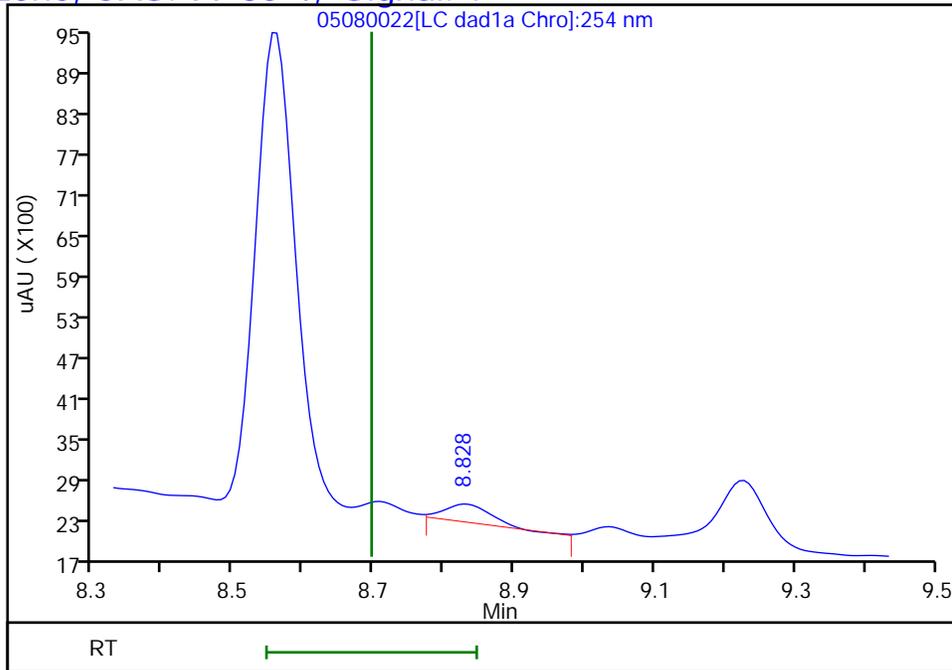
Audit Reason: Baseline

Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc\_x\20240508-133160.b\05080022.d  
Injection Date: 08-May-2024 21:42:40 Instrument ID: CHHPLC\_X3  
Lims ID: 280-190882-A-3-A Lab Sample ID: 280-190882-3  
Client ID: FWGmw-011-240401-GW  
Operator ID: JZ ALS Bottle#: 22 Worklist Smp#: 22  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: 8330\_X3 Limit Group: GCSV - 8330  
Column: UltraCarb5uODS (20) ( 4.60 mm) Detector LC DAD1B, 254 nm

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

RT: 8.83  
Response: 1327  
Amount: 0.005955



Reviewer: LV5D, 09-May-2024 12:00:57

Audit Action: Marked Compound Undetected

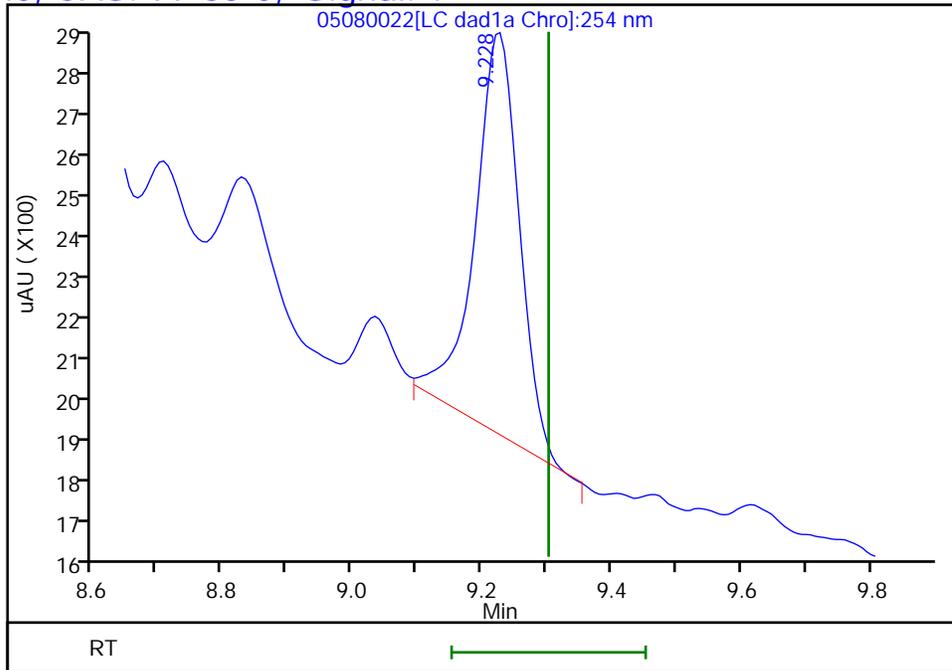
Audit Reason: Invalid Compound ID

Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc\_x\20240508-133160.b\05080022.d  
Injection Date: 08-May-2024 21:42:40 Instrument ID: CHHPLC\_X3  
Lims ID: 280-190882-A-3-A Lab Sample ID: 280-190882-3  
Client ID: FWGmw-011-240401-GW  
Operator ID: JZ ALS Bottle#: 22 Worklist Smp#: 22  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: 8330\_X3 Limit Group: GCSV - 8330  
Column: UltraCarb5uODS (20) ( 4.60 mm) Detector LC DAD1B, 254 nm

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

RT: 9.23  
Response: 4601  
Amount: 0.015366



Reviewer: LV5D, 09-May-2024 12:00:57

Audit Action: Marked Compound Undetected

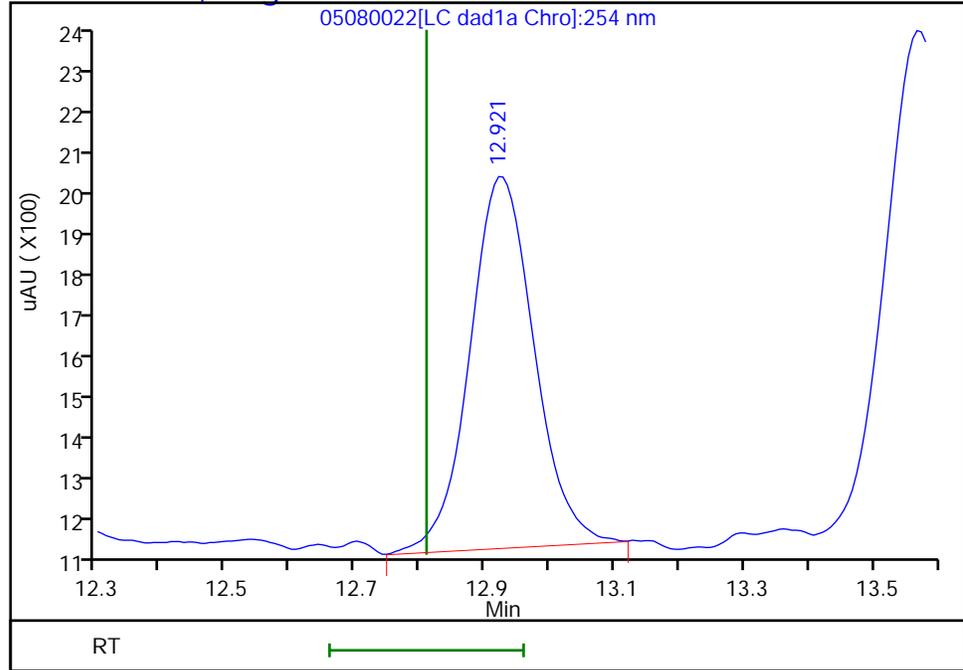
Audit Reason: Invalid Compound ID

Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc\_x\20240508-133160.b\05080022.d  
Injection Date: 08-May-2024 21:42:40 Instrument ID: CHHPLC\_X3  
Lims ID: 280-190882-A-3-A Lab Sample ID: 280-190882-3  
Client ID: FWGmw-011-240401-GW  
Operator ID: JZ ALS Bottle#: 22 Worklist Smp#: 22  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: 8330\_X3 Limit Group: GCSV - 8330  
Column: UltraCarb5uODS (20) ( 4.60 mm) Detector LC DAD1B, 254 nm

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

RT: 12.92  
Response: 5662  
Amount: 0.050195



Reviewer: LV5D, 09-May-2024 12:00:57

Audit Action: Marked Compound Undetected

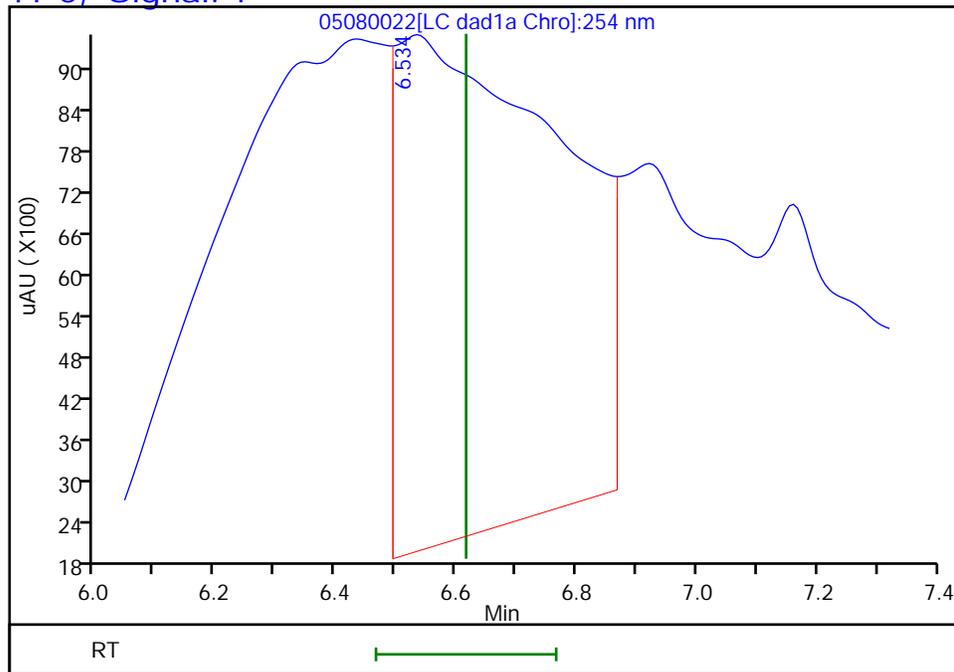
Audit Reason: Invalid Compound ID

Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc\_x\20240508-133160.b\05080022.d  
Injection Date: 08-May-2024 21:42:40 Instrument ID: CHHPLC\_X3  
Lims ID: 280-190882-A-3-A Lab Sample ID: 280-190882-3  
Client ID: FWGmw-011-240401-GW  
Operator ID: JZ ALS Bottle#: 22 Worklist Smp#: 22  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: 8330\_X3 Limit Group: GCSV - 8330  
Column: UltraCarb5uODS (20) ( 4.60 mm) Detector LC DAD1B, 254 nm

4 HMX, CAS: 2691-41-0, Signal: 1

RT: 6.53  
Response: 137881  
Amount: 1.443120



Reviewer: LV5D, 09-May-2024 12:00:57

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

Eurofins Denver

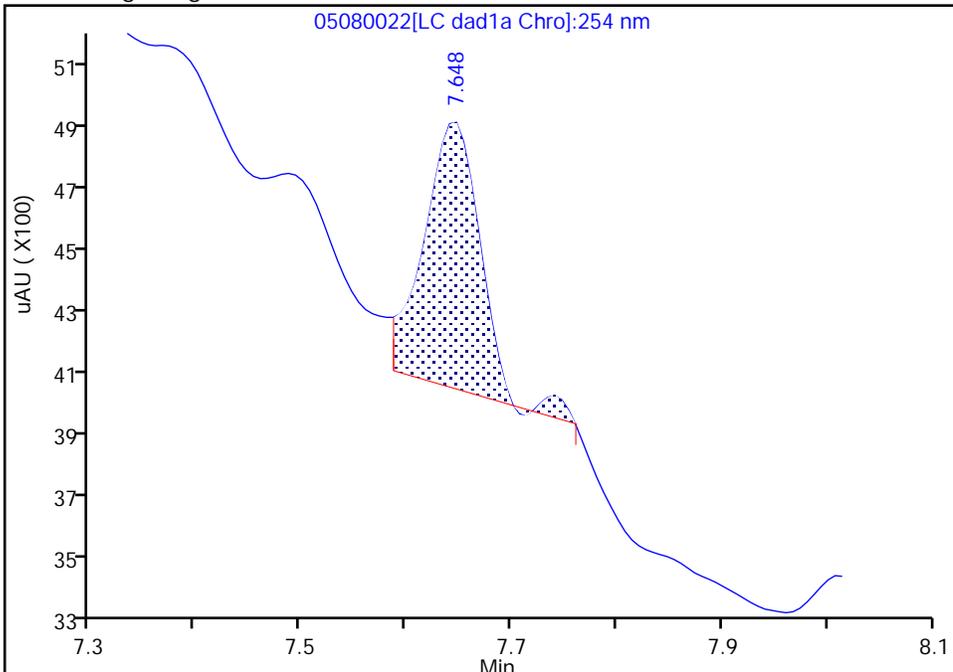
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Injection Date: 08-May-2024 21:42:40 Instrument ID: CHHPLC\_X3  
Lims ID: 280-190882-A-3-A Lab Sample ID: 280-190882-3  
Client ID: FWGmw-011-240401-GW  
Operator ID: JZ ALS Bottle#: 22 Worklist Smp#: 22  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: 8330\_X3 Limit Group: GCSV - 8330  
Column: UltraCarb5uODS (20) ( 4.60 mm) Detector: LC DAD1B, 254 nm

8 RDX, CAS: 121-82-4

Signal: 1

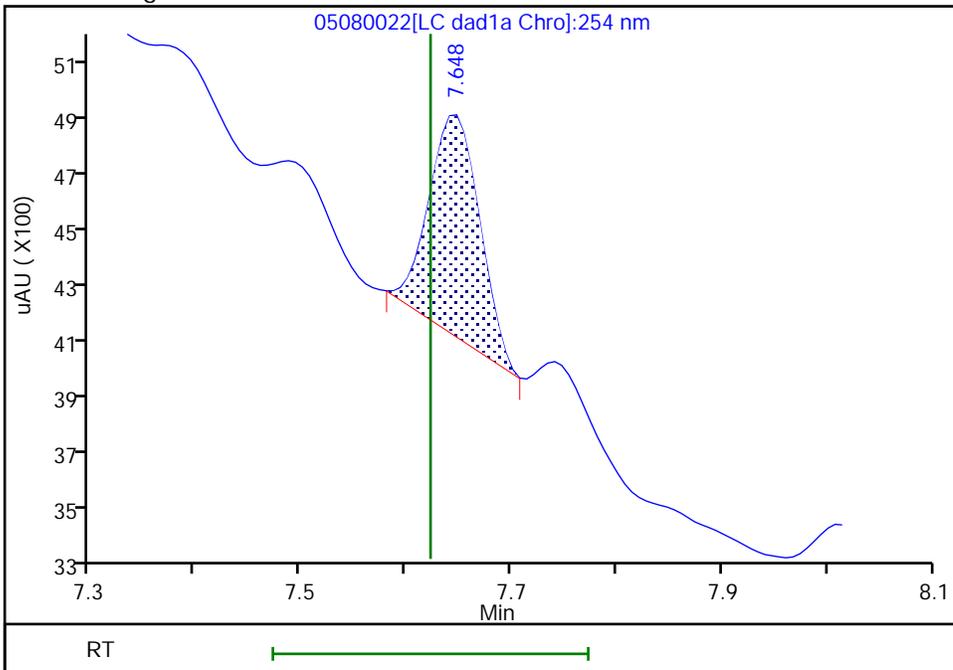
RT: 7.65  
Area: 3116  
Amount: 0.028131  
Amount Units: ug/mL

Processing Integration Results



RT: 7.65  
Area: 2506  
Amount: 0.022624  
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 09-May-2024 12:00:52 -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.: 280-190882-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: FWGmw-011-240401-GW Lab Sample ID: 280-190882-3  
 Matrix: Water Lab File ID: 05080021.D  
 Analysis Method: 8330B Date Collected: 04/30/2024 11:05  
 Extraction Method: 3535 Date Extracted: 05/03/2024 12:48  
 Sample wt/vol: 480.1(mL) Date Analyzed: 05/09/2024 03:22  
 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.: 652628 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
<i>121-82-4</i>	<i>RDX</i>	<i>0.47</i>	<i>J1 M</i>	<i>0.22</i>	<i>0.21</i>	<i>0.054</i>

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\20240508-133164.b\05080021.D  
 Lims ID: 280-190882-A-3-A  
 Client ID: FWGmw-011-240401-GW  
 Sample Type: Client  
 Inject. Date: 09-May-2024 03:22:11 ALS Bottle#: 21 Worklist Smp#: 21  
 Injection Vol: 100.0 ul Dil. Factor: 1.0000  
 Sample Info: 280-190882-A-3-A  
 Operator ID: JZ Instrument ID: CHHPLC\_G2\_LUNA  
 Method: \\chromfs\Denver\ChromData\G2\_LUNA\20240508-133164.b\G2\_8330\_Luna.m  
 Limit Group: GCSV - 8330  
 Last Update: 09-May-2024 13:25:55 Calib Date: 25-Apr-2024 07:39:21  
 Integrator: Falcon  
 Quant Method: External Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Denver\ChromData\G2\_LUNA\20240424-132624.b\04240027.D  
 Column 1 : Luna-Phenyl hexyl ( 4.60 mm) Det: LC DAD1A, 254 nm  
 Process Host: CTX1670

First Level Reviewer: LV5D Date: 09-May-2024 13:20:07

Compound	Det	RT (min.)	Exp RT (min.)	Diff RT (min.)	Response	OnCol Amt ug/ml	Flags
6 HMX	1		6.672			ND	
8 RDX	1	8.930	8.885	0.045	9835	0.0452	M
9 Nitrobenzene	1		11.378			ND	7
\$ 10 1,2-Dinitrobenzene	1	12.257	12.285	-0.028	52904	0.2045	
12 1,3-Dinitrobenzene	1		14.398			ND	
13 Nitroglycerin	2		14.832			ND	U
14 o-Nitrotoluene	1		15.405			ND	U
15 p-Nitrotoluene	1		15.632			ND	
16 4-Amino-2,6-dinitrotoluene	1		16.125			ND	U
17 m-Nitrotoluene	1		16.465			ND	
18 2-Amino-4,6-dinitrotoluene	1		16.932			ND	U
19 1,3,5-Trinitrobenzene	1		17.172			ND	
20 2,6-Dinitrotoluene	1		18.225			ND	U
21 2,4-Dinitrotoluene	1		18.678			ND	
22 Tetryl	1		21.825			ND	7
23 2,4,6-Trinitrotoluene	1		22.685			ND	
24 PETN	2		23.805			ND	7

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

M - Manually Integrated

U - Marked Undetected

Report Date: 09-May-2024 13:25:59

Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

Data File: \\chromfs\denver\chromdata\g2\_luna\20240508-133164.b\05080021.d

Injection Date: 09-May-2024 03:22:11

Instrument ID: CHHPLC\_G2\_LUNA

Operator ID: JZ

Lims ID: 280-190882-A-3-A

Lab Sample ID: 280-190882-3

Worklist Smp#: 21

Client ID: FWGmw-011-240401-GW

Injection Vol: 100.0 ul

Dil. Factor: 1.0000

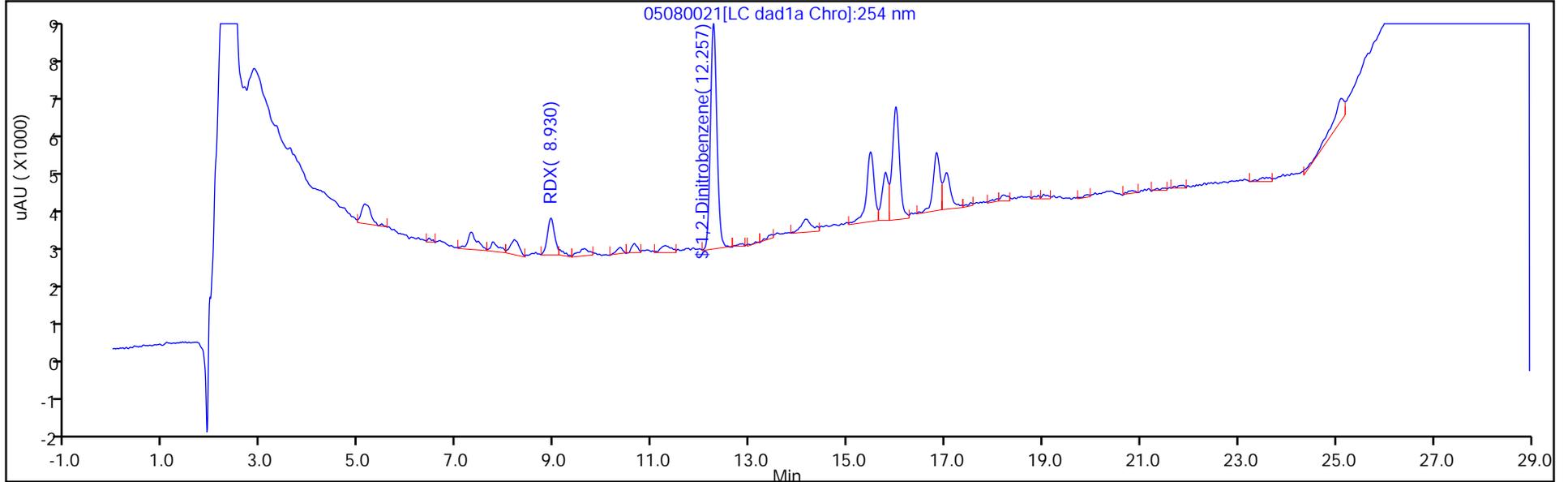
ALS Bottle#: 21

Method: G2\_8330\_Luna

Limit Group: GCSV - 8330

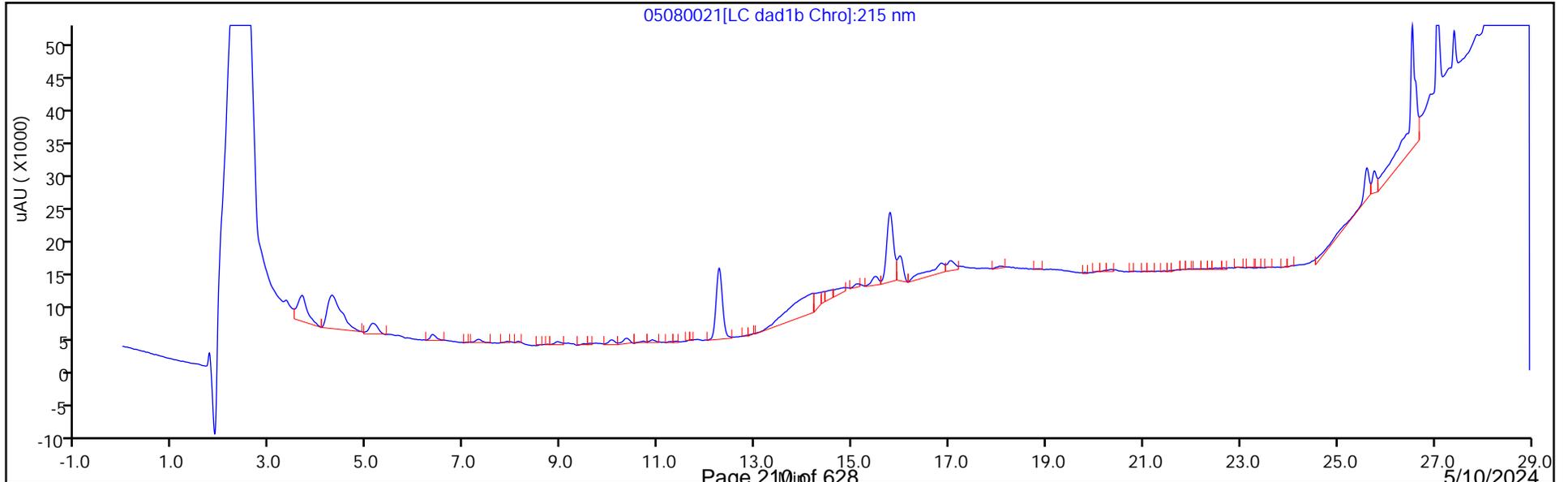
Column: Luna-Phenyl hexyl ( 4.60 mm)

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\20240508-133164.b\05080021.D  
 Lims ID: 280-190882-A-3-A  
 Client ID: FWGmw-011-240401-GW  
 Sample Type: Client  
 Inject. Date: 09-May-2024 03:22:11 ALS Bottle#: 21 Worklist Smp#: 21  
 Injection Vol: 100.0 ul Dil. Factor: 1.0000  
 Sample Info: 280-190882-A-3-A  
 Operator ID: JZ Instrument ID: CHHPLC\_G2\_LUNA  
 Method: \\chromfs\Denver\ChromData\G2\_LUNA\20240508-133164.b\G2\_8330\_Luna.m  
 Limit Group: GCSV - 8330  
 Last Update: 09-May-2024 13:25:55 Calib Date: 25-Apr-2024 07:39:21  
 Integrator: Falcon  
 Quant Method: External Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Denver\ChromData\G2\_LUNA\20240424-132624.b\04240027.D  
 Column 1 : Luna-Phenyl hexyl ( 4.60 mm) Det: LC DAD1A, 254 nm  
 Process Host: CTX1670

First Level Reviewer: LV5D Date: 09-May-2024 13:20:07

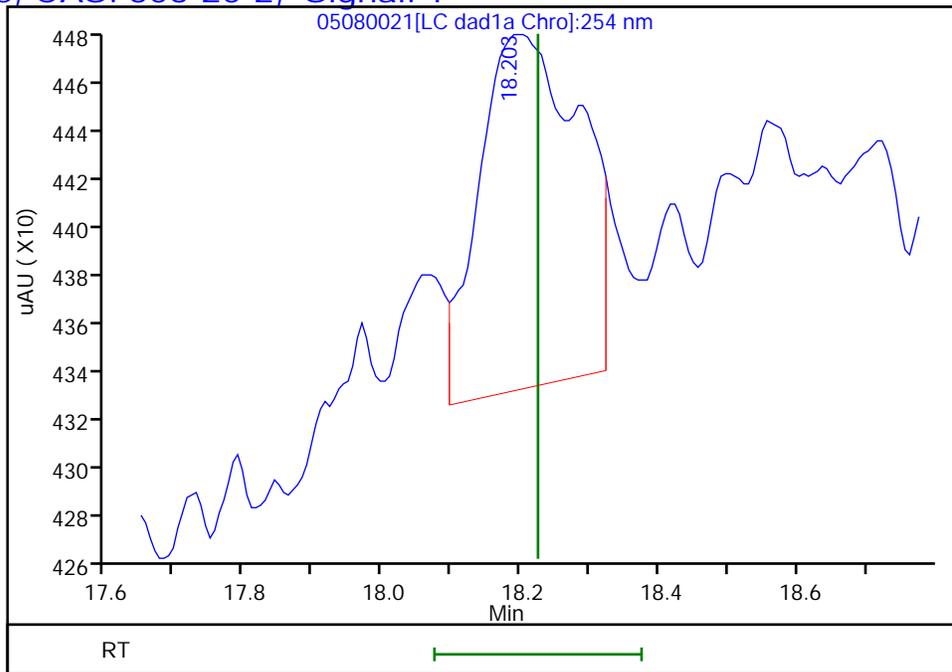
Compound	Amount Added	Amount Recovered	% Rec.
\$ 10 1,2-Dinitrobenzene	0.2000	0.2045	102.25

Eurofins Denver

Data File: \\chromfs\denver\chromdata\g2\_luna\20240508-133164.b\05080021.d  
Injection Date: 09-May-2024 03:22:11 Instrument ID: CHHPLC\_G2\_LUNA  
Lims ID: 280-190882-A-3-A Lab Sample ID: 280-190882-3  
Client ID: FWGmw-011-240401-GW  
Operator ID: JZ 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

**20 2,6-Dinitrotoluene, CAS: 606-20-2, Signal: 1**

RT: 18.20  
Response: 1414  
Amount: 0.005087



Reviewer: LV5D, 09-May-2024 13:20:07

Audit Action: Marked Compound Undetected

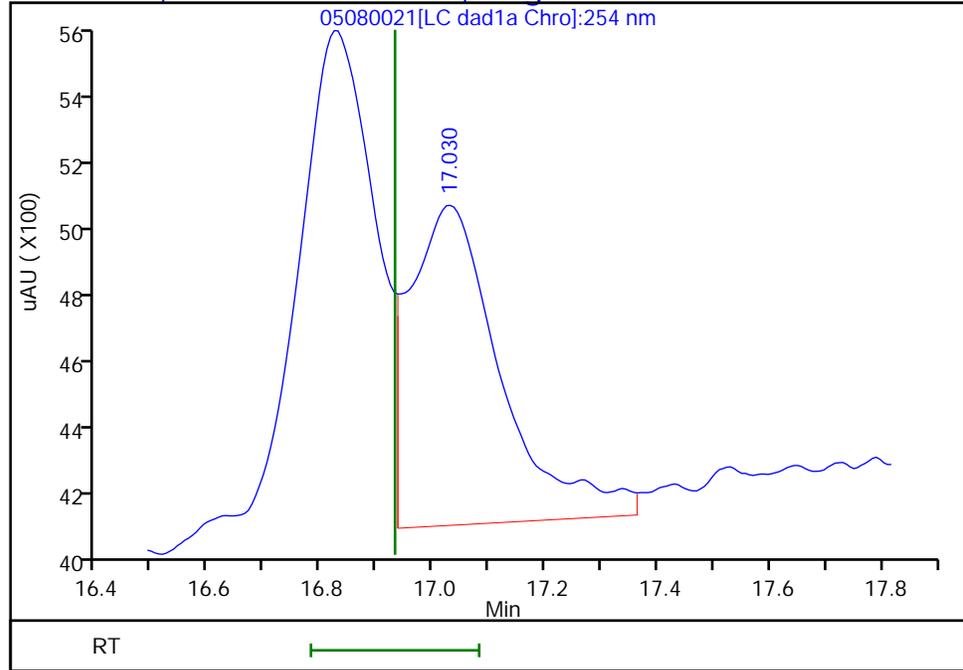
Audit Reason: Invalid Compound ID

Eurofins Denver

Data File: \\chromfs\denver\chromdata\g2\_luna\20240508-133164.b\05080021.d  
Injection Date: 09-May-2024 03:22:11 Instrument ID: CHHPLC\_G2\_LUNA  
Lims ID: 280-190882-A-3-A Lab Sample ID: 280-190882-3  
Client ID: FWGmw-011-240401-GW  
Operator ID: JZ 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**

RT: 17.03  
Response: 10496  
Amount: 0.025880



Reviewer: LV5D, 09-May-2024 13:20:07

Audit Action: Marked Compound Undetected

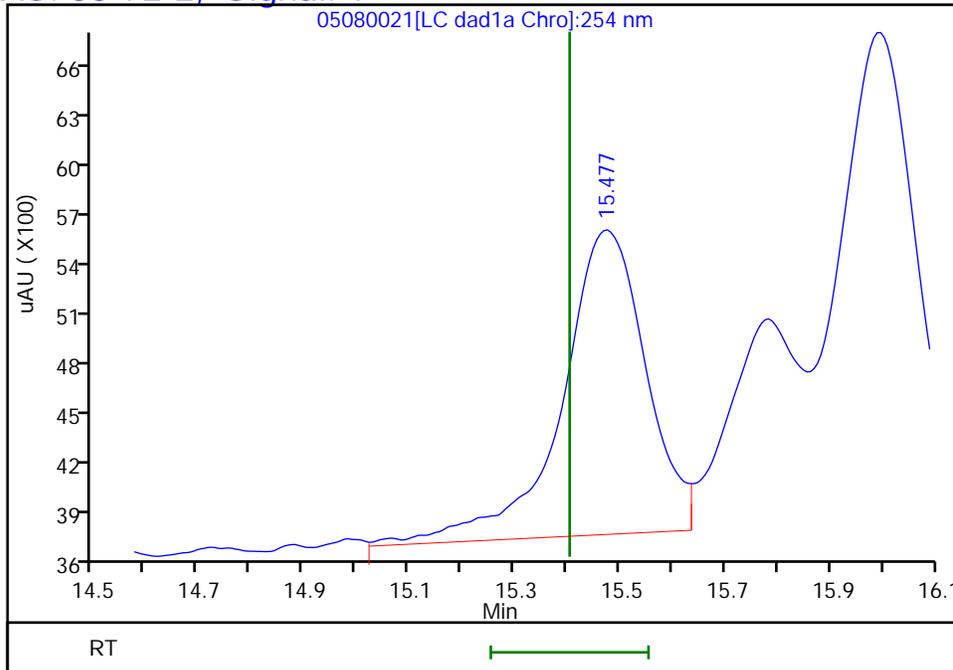
Audit Reason: Invalid Compound ID

Eurofins Denver

Data File: \\chromfs\denver\chromdata\g2\_luna\20240508-133164.b\05080021.d  
Injection Date: 09-May-2024 03:22:11 Instrument ID: CHHPLC\_G2\_LUNA  
Lims ID: 280-190882-A-3-A Lab Sample ID: 280-190882-3  
Client ID: FWGmw-011-240401-GW  
Operator ID: JZ 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

RT: 15.48  
Response: 19807  
Amount: 0.080979



Reviewer: LV5D, 09-May-2024 13:20:07

Audit Action: Marked Compound Undetected

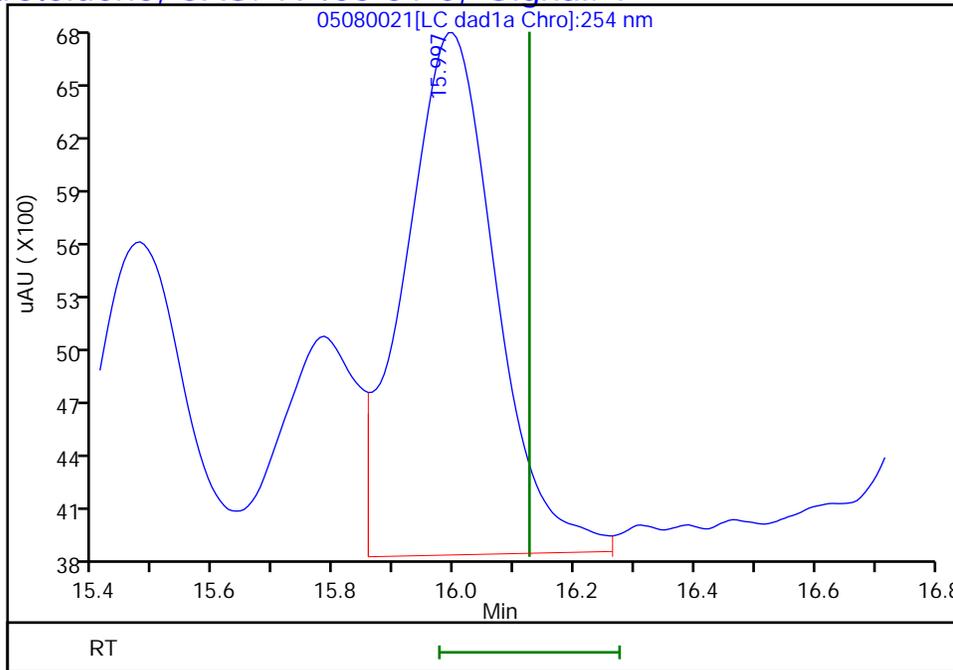
Audit Reason: Invalid Compound ID

Eurofins Denver

Data File: \\chromfs\denver\chromdata\g2\_luna\20240508-133164.b\05080021.d  
Injection Date: 09-May-2024 03:22:11 Instrument ID: CHHPLC\_G2\_LUNA  
Lims ID: 280-190882-A-3-A Lab Sample ID: 280-190882-3  
Client ID: FWGmw-011-240401-GW  
Operator ID: JZ 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

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

RT: 16.00  
Response: 29965  
Amount: 0.108428



Reviewer: LV5D, 09-May-2024 13:20:07

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

Eurofins Denver

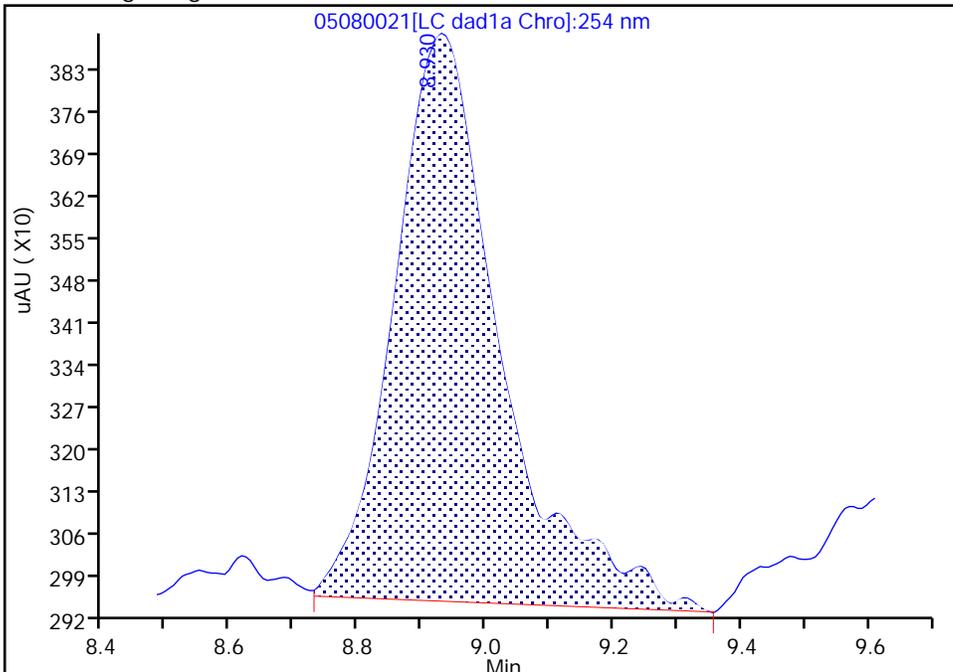
Data File: \\chromfs\denver\chromdata\g2\_luna\20240508-133164.b\05080021.d  
Injection Date: 09-May-2024 03:22:11 Instrument ID: CHHPLC\_G2\_LUNA  
Lims ID: 280-190882-A-3-A Lab Sample ID: 280-190882-3  
Client ID: FWGmw-011-240401-GW  
Operator ID: JZ ALS Bottle#: 21 Worklist Smp#: 21  
Injection Vol: 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

8 RDX, CAS: 121-82-4

Signal: 1

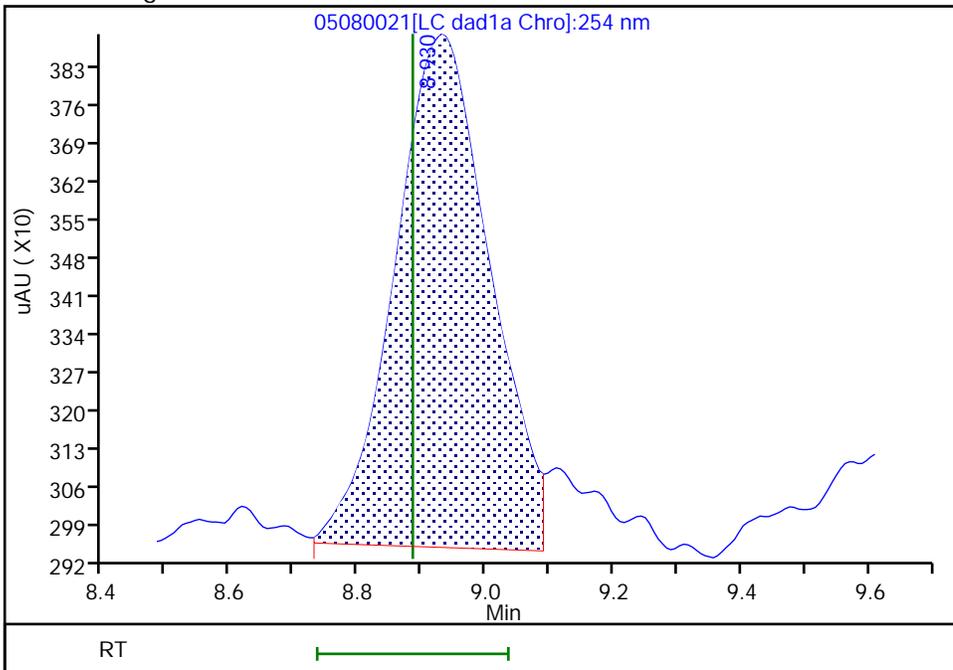
RT: 8.93  
Area: 10990  
Amount: 0.050819  
Amount Units: ug/ml

Processing Integration Results



RT: 8.93  
Area: 9835  
Amount: 0.045202  
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 09-May-2024 13:19:57 -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.: 280-190882-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: LL3mw-241-240401-GW Lab Sample ID: 280-190882-4  
 Matrix: Water Lab File ID: 05080023.D  
 Analysis Method: 8330B Date Collected: 04/30/2024 11:55  
 Extraction Method: 3535 Date Extracted: 05/03/2024 12:48  
 Sample wt/vol: 483.7(mL) Date Analyzed: 05/08/2024 22:05  
 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.: 652621 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	6.1		0.22	0.21	0.087
99-65-0	1,3-Dinitrobenzene	0.10	U M	0.11	0.10	0.038
118-96-7	2,4,6-Trinitrotoluene	2.5		0.11	0.10	0.047
121-14-2	2,4-Dinitrotoluene	0.094	J J1	0.10	0.083	0.028
606-20-2	2,6-Dinitrotoluene	0.083	U	0.10	0.083	0.041
35572-78-2	2-Amino-4,6-dinitrotoluene	2.0		0.11	0.10	0.052
88-72-2	2-Nitrotoluene	0.21	U M	0.22	0.21	0.088
99-08-1	3-Nitrotoluene	0.36	U	0.41	0.36	0.20
19406-51-0	4-Amino-2,6-dinitrotoluene	2.3		0.16	0.12	0.060
55-63-0	Nitroglycerin	2.1	U	2.2	2.1	0.95
78-11-5	PETN	1.0	U	1.1	1.0	0.46
121-82-4	RDX	0.85		0.22	0.21	0.053
479-45-8	Tetryl	0.10	U M	0.11	0.10	0.033

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\20240508-133160.b\05080023.D  
 Lims ID: 280-190882-A-4-A  
 Client ID: LL3mw-241-240401-GW  
 Sample Type: Client  
 Inject. Date: 08-May-2024 22:05:37 ALS Bottle#: 23 Worklist Smp#: 23  
 Injection Vol: 100.0 ul Dil. Factor: 1.0000  
 Sample Info: 280-190882-A-4-A  
 Operator ID: JZ Instrument ID: CHHPLC\_X3  
 Method: \\chromfs\Denver\ChromData\CHHPLC\_X\20240508-133160.b\8330\_X3.m  
 Limit Group: GCSV - 8330  
 Last Update: 09-May-2024 13:10:49 Calib Date: 18-Apr-2024 03:08:00  
 Integrator: Falcon  
 Quant Method: External Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Denver\ChromData\CHHPLC\_X\20240417-132364.b\04170028.D  
 Column 1 : UltraCarb5uODS (20) ( 4.60 mm) Det: LC DAD1B, 254 nm  
 Process Host: CTX1670

First Level Reviewer: LV5D Date: 09-May-2024 12:01:50

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/mL	Flags
4 HMX	1	6.603	6.616	-0.013	1008	0.0106	M
8 RDX	1	7.623	7.623	0.000	9093	0.0821	
\$ 10 1,2-Dinitrobenzene	1	8.563	8.556	0.007	26512	0.2007	
11 1,3,5-Trinitrobenzene	1	8.696	8.696	0.000	130438	0.5853	
12 1,3-Dinitrobenzene	1		9.303			ND	U
13 Nitrobenzene	1	9.642	9.656	-0.014	3455	0.0176	
15 Tetryl	1		9.963			ND	U
16 Nitroglycerin	2		10.436			ND	
17 2,4,6-Trinitrotoluene	1	10.869	10.869	0.000	52826	0.2455	
18 4-Amino-2,6-dinitrotoluene	1	11.049	11.043	0.006	32821	0.2189	
19 2-Amino-4,6-dinitrotoluene	1	11.309	11.303	0.006	39449	0.1974	
20 2,6-Dinitrotoluene	1		11.436			ND	
21 2,4-Dinitrotoluene	1	11.596	11.616	-0.020	2649	0.009077	
22 o-Nitrotoluene	1		12.389			ND	U
23 p-Nitrotoluene	1	12.802	12.809	-0.007	1494	0.0132	M
24 m-Nitrotoluene	1		13.356			ND	
25 PETN	2		14.389			ND	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

U - Marked Undetected

Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc\_x\20240508-133160.b\05080023.d

Injection Date: 08-May-2024 22:05:37

Instrument ID: CHHPLC\_X3

Operator ID: JZ

Lims ID: 280-190882-A-4-A

Lab Sample ID: 280-190882-4

Worklist Smp#: 23

Client ID: LL3mw-241-240401-GW

Injection Vol: 100.0 ul

Dil. Factor: 1.0000

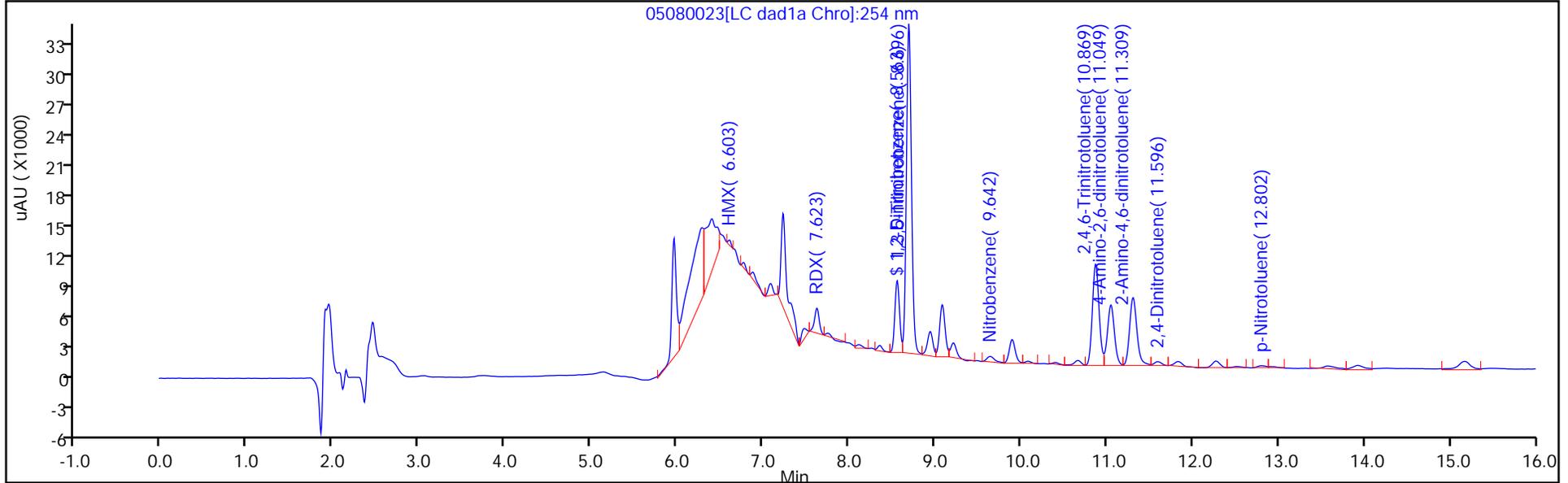
ALS Bottle#: 23

Method: 8330\_X3

Limit Group: GCSV - 8330

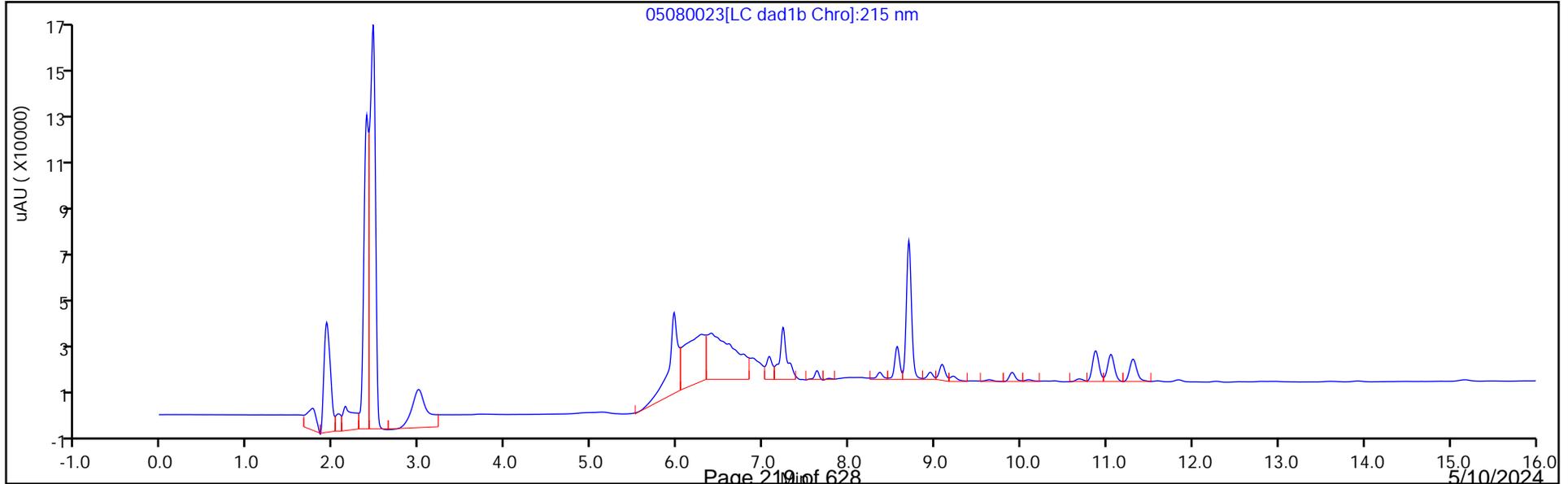
Column: UltraCarb5uODS (20) ( 4.60 mm)

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



Column: UltraCarb5uODS (20) ( 4.60 mm)

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



Eurofins Denver  
Recovery Report

Data File: \\chromfs\Denver\ChromData\CHHPLC\_X\20240508-133160.b\05080023.D  
 Lims ID: 280-190882-A-4-A  
 Client ID: LL3mw-241-240401-GW  
 Sample Type: Client  
 Inject. Date: 08-May-2024 22:05:37 ALS Bottle#: 23 Worklist Smp#: 23  
 Injection Vol: 100.0 ul Dil. Factor: 1.0000  
 Sample Info: 280-190882-A-4-A  
 Operator ID: JZ Instrument ID: CHHPLC\_X3  
 Method: \\chromfs\Denver\ChromData\CHHPLC\_X\20240508-133160.b\8330\_X3.m  
 Limit Group: GCSV - 8330  
 Last Update: 09-May-2024 13:10:49 Calib Date: 18-Apr-2024 03:08:00  
 Integrator: Falcon  
 Quant Method: External Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Denver\ChromData\CHHPLC\_X\20240417-132364.b\04170028.D  
 Column 1 : UltraCarb5uODS (20) ( 4.60 mm) Det: LC DAD1B, 254 nm  
 Process Host: CTX1670

First Level Reviewer: LV5D Date: 09-May-2024 12:01:50

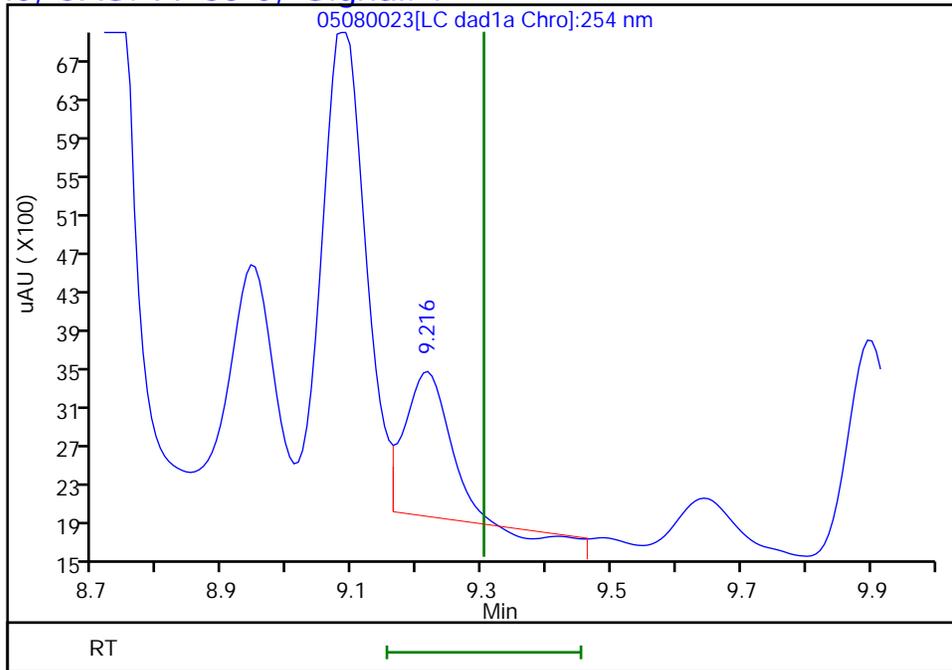
Compound	Amount Added	Amount Recovered	% Rec.
\$ 10 1,2-Dinitrobenzene	0.2000	0.2007	100.35

Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc\_x\20240508-133160.b\05080023.d  
Injection Date: 08-May-2024 22:05:37 Instrument ID: CHHPLC\_X3  
Lims ID: 280-190882-A-4-A Lab Sample ID: 280-190882-4  
Client ID: LL3mw-241-240401-GW  
Operator ID: JZ ALS Bottle#: 23 Worklist Smp#: 23  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: 8330\_X3 Limit Group: GCSV - 8330  
Column: UltraCarb5uODS (20) ( 4.60 mm) Detector LC DAD1B, 254 nm

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

RT: 9.22  
Response: 7588  
Amount: 0.025341



Reviewer: LV5D, 09-May-2024 12:01:50

Audit Action: Marked Compound Undetected

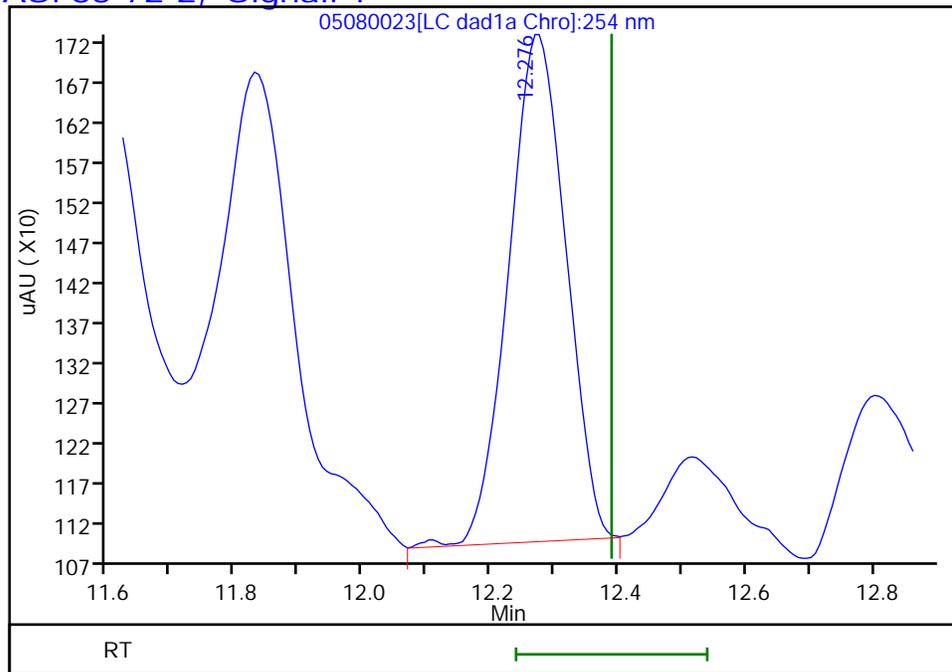
Audit Reason: Invalid Compound ID

Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc\_x\20240508-133160.b\05080023.d  
Injection Date: 08-May-2024 22:05:37 Instrument ID: CHHPLC\_X3  
Lims ID: 280-190882-A-4-A Lab Sample ID: 280-190882-4  
Client ID: LL3mw-241-240401-GW  
Operator ID: JZ ALS Bottle#: 23 Worklist Smp#: 23  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: 8330\_X3 Limit Group: GCSV - 8330  
Column: UltraCarb5uODS (20) ( 4.60 mm) Detector LC DAD1B, 254 nm

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

RT: 12.28  
Response: 3953  
Amount: 0.030571



Reviewer: LV5D, 09-May-2024 12:01:50

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

Eurofins Denver

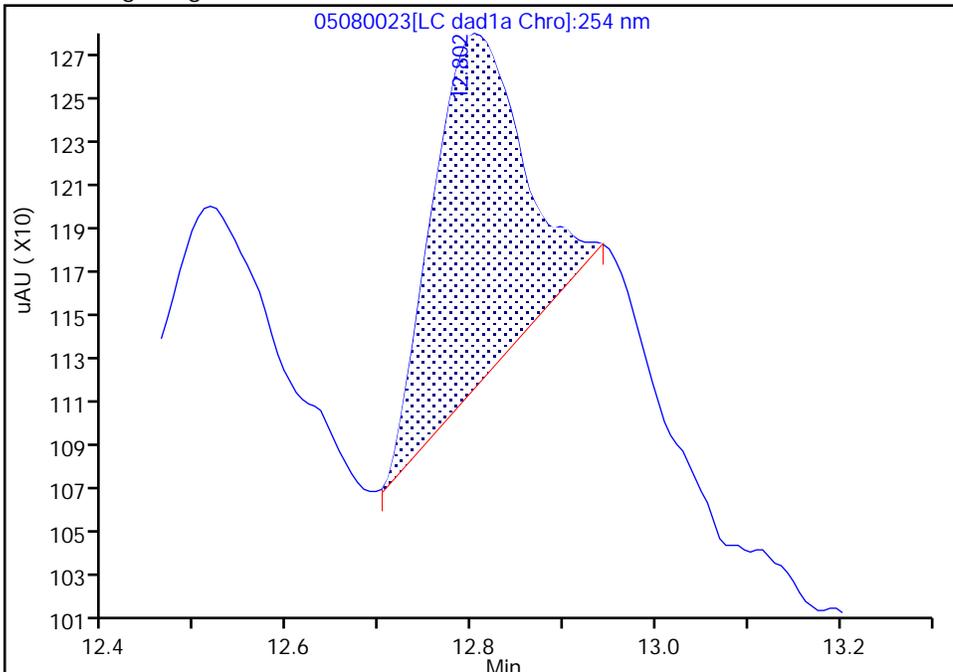
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Injection Date: 08-May-2024 22:05:37 Instrument ID: CHHPLC\_X3  
Lims ID: 280-190882-A-4-A Lab Sample ID: 280-190882-4  
Client ID: LL3mw-241-240401-GW  
Operator ID: JZ ALS Bottle#: 23 Worklist Smp#: 23  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: 8330\_X3 Limit Group: GCSV - 8330  
Column: UltraCarb5uODS (20) ( 4.60 mm) Detector: LC DAD1B, 254 nm

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

Signal: 1

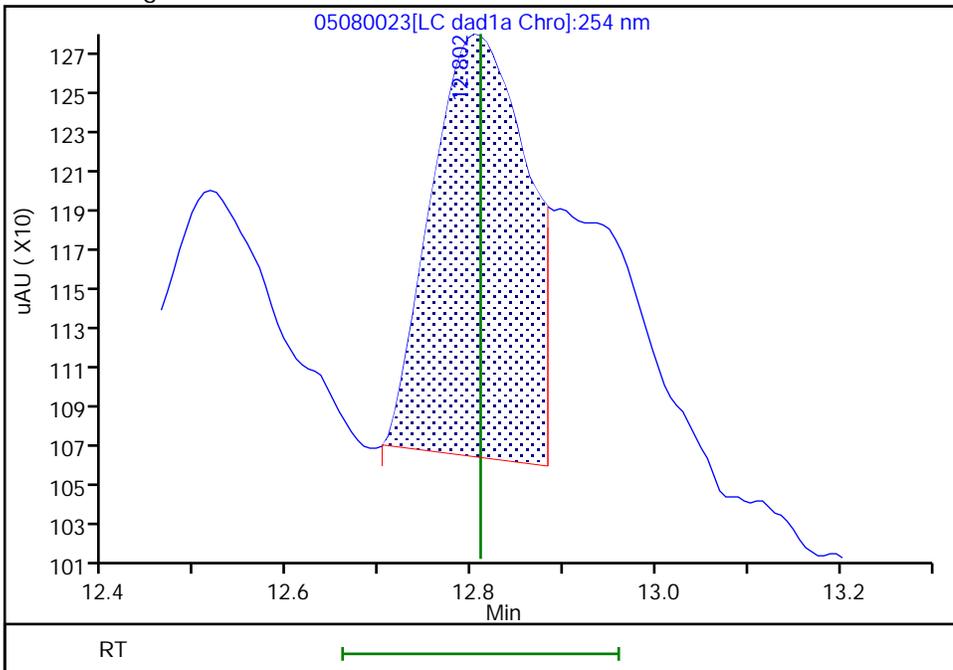
RT: 12.80  
Area: 1069  
Amount: 0.009477  
Amount Units: ug/mL

Processing Integration Results



RT: 12.80  
Area: 1494  
Amount: 0.013245  
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 09-May-2024 12:01:49 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Baseline

Eurofins Denver

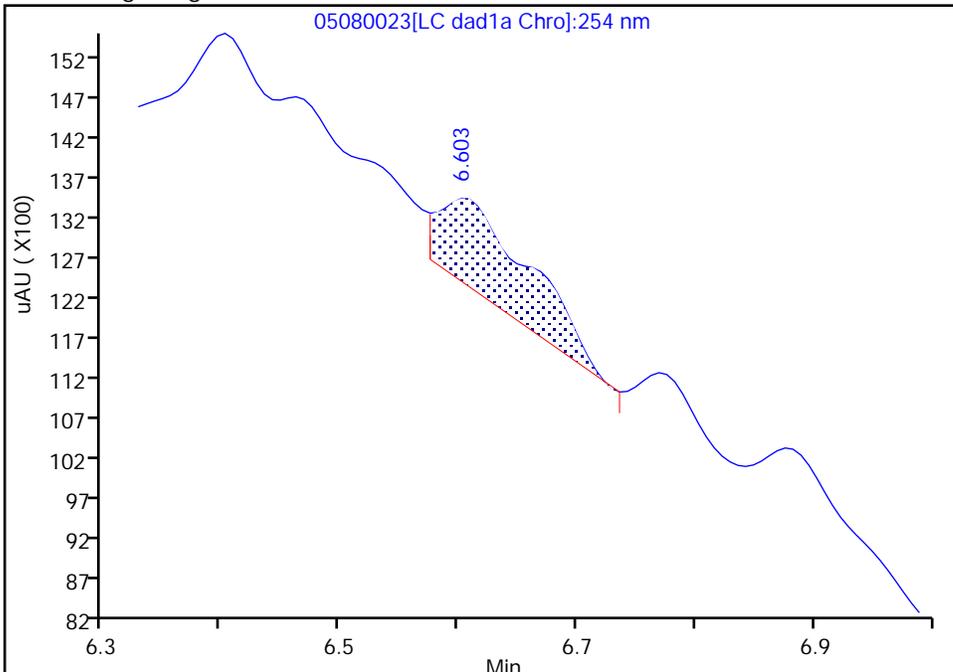
Data File: \\chromfs\denver\chromdata\chhplc\_x\20240508-133160.b\05080023.d  
Injection Date: 08-May-2024 22:05:37 Instrument ID: CHHPLC\_X3  
Lims ID: 280-190882-A-4-A Lab Sample ID: 280-190882-4  
Client ID: LL3mw-241-240401-GW  
Operator ID: JZ ALS Bottle#: 23 Worklist Smp#: 23  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: 8330\_X3 Limit Group: GCSV - 8330  
Column: UltraCarb5uODS (20) ( 4.60 mm) Detector: LC DAD1B, 254 nm

4 HMX, CAS: 2691-41-0

Signal: 1

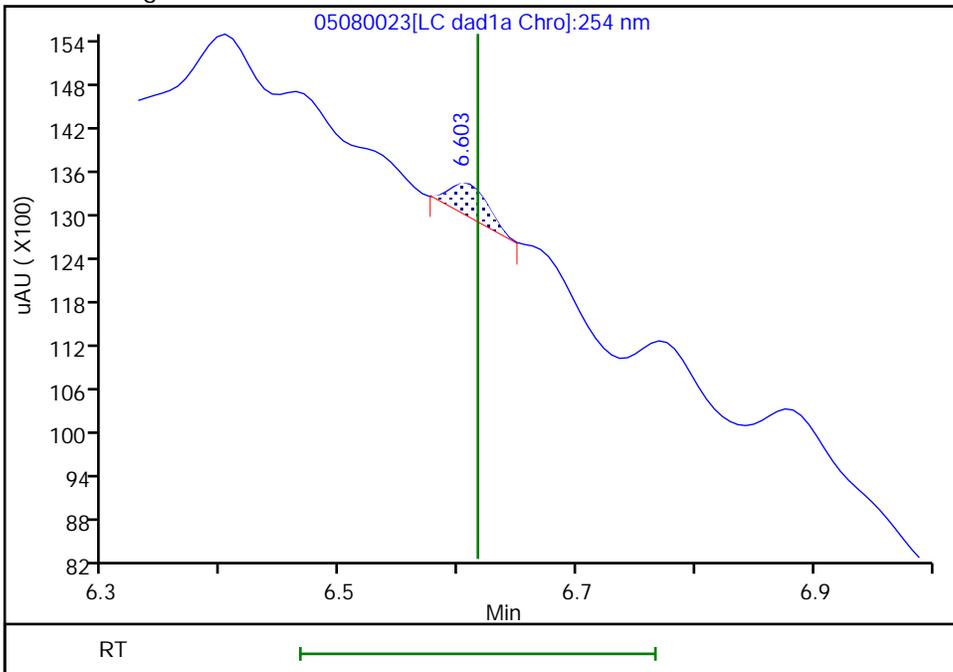
RT: 6.60  
Area: 6337  
Amount: 0.066326  
Amount Units: ug/mL

Processing Integration Results



RT: 6.60  
Area: 1008  
Amount: 0.010550  
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 09-May-2024 12:01:07 -06:00:00 (UTC)

Audit Action: Manually Integrated

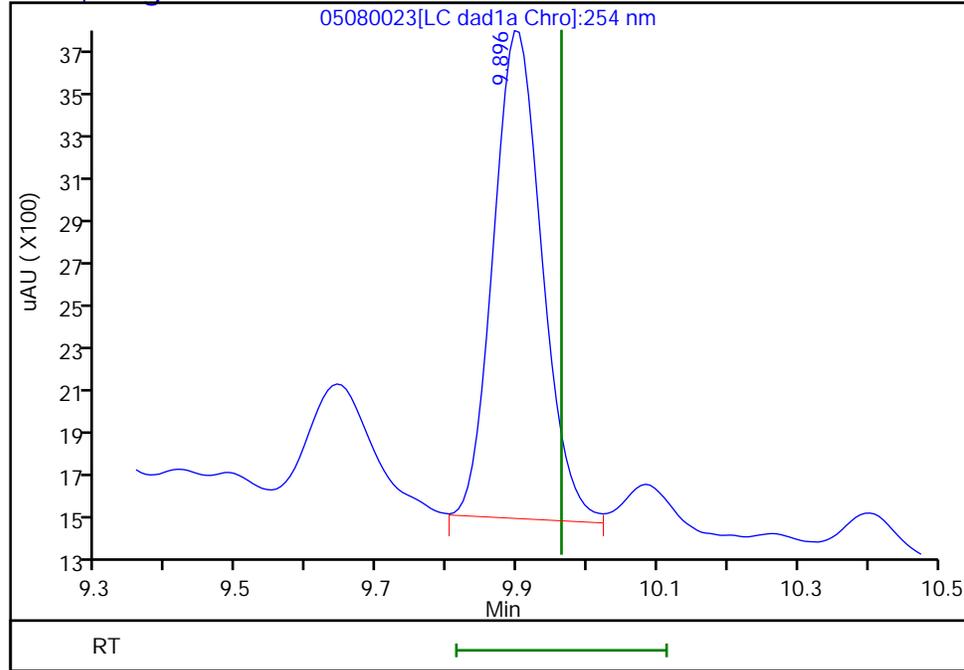
Audit Reason: Baseline

Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc\_x\20240508-133160.b\05080023.d  
Injection Date: 08-May-2024 22:05:37 Instrument ID: CHHPLC\_X3  
Lims ID: 280-190882-A-4-A Lab Sample ID: 280-190882-4  
Client ID: LL3mw-241-240401-GW  
Operator ID: JZ ALS Bottle#: 23 Worklist Smp#: 23  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: 8330\_X3 Limit Group: GCSV - 8330  
Column: UltraCarb5uODS (20) ( 4.60 mm) Detector LC DAD1B, 254 nm

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

RT: 9.90  
Response: 10802  
Amount: 0.059486



Reviewer: LV5D, 09-May-2024 12:01:50

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

FORM I  
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver Job No.: 280-190882-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: LL3mw-241-240401-GW Lab Sample ID: 280-190882-4  
 Matrix: Water Lab File ID: 05080022.D  
 Analysis Method: 8330B Date Collected: 04/30/2024 11:55  
 Extraction Method: 3535 Date Extracted: 05/03/2024 12:48  
 Sample wt/vol: 483.7(mL) Date Analyzed: 05/09/2024 03:58  
 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.: 652628 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
121-14-2	2,4-Dinitrotoluene	0.33	J1	0.10	0.083	0.028
99-99-0	4-Nitrotoluene	0.41	U	0.42	0.41	0.10
2691-41-0	HMX	0.21	U M	0.22	0.21	0.091
98-95-3	Nitrobenzene	0.21	U	0.22	0.21	0.094

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\20240508-133164.b\05080022.D  
 Lims ID: 280-190882-A-4-A  
 Client ID: LL3mw-241-240401-GW  
 Sample Type: Client  
 Inject. Date: 09-May-2024 03:58:06 ALS Bottle#: 22 Worklist Smp#: 22  
 Injection Vol: 100.0 ul Dil. Factor: 1.0000  
 Sample Info: 280-190882-A-4-A  
 Operator ID: JZ Instrument ID: CHHPLC\_G2\_LUNA  
 Method: \\chromfs\Denver\ChromData\G2\_LUNA\20240508-133164.b\G2\_8330\_Luna.m  
 Limit Group: GCSV - 8330  
 Last Update: 09-May-2024 13:25:55 Calib Date: 25-Apr-2024 07:39:21  
 Integrator: Falcon  
 Quant Method: External Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Denver\ChromData\G2\_LUNA\20240424-132624.b\04240027.D  
 Column 1 : Luna-Phenyl hexyl ( 4.60 mm) Det: LC DAD1A, 254 nm  
 Process Host: CTX1670

First Level Reviewer: LV5D Date: 09-May-2024 13:21:14

Compound	Det	RT (min.)	Exp RT (min.)	Diff RT (min.)	Response	OnCol Amt ug/ml	Flags
6 HMX	1		6.672			ND	U
8 RDX	1	8.861	8.885	-0.024	13776	0.0644	
9 Nitrobenzene	1		11.378			ND	
\$ 10 1,2-Dinitrobenzene	1	12.260	12.285	-0.025	53829	0.2081	
12 1,3-Dinitrobenzene	1		14.398			ND	
13 Nitroglycerin	2		14.832			ND	U
14 o-Nitrotoluene	1		15.405			ND	U
15 p-Nitrotoluene	1		15.632			ND	
16 4-Amino-2,6-dinitrotoluene	1	16.120	16.125	-0.005	69687	0.2558	M
17 m-Nitrotoluene	1		16.465			ND	MU
18 2-Amino-4,6-dinitrotoluene	1	16.920	16.932	-0.012	77289	0.1906	M
19 1,3,5-Trinitrobenzene	1	17.160	17.172	-0.012	252622	0.5966	M
20 2,6-Dinitrotoluene	1		18.225			ND	MU
21 2,4-Dinitrotoluene	1	18.680	18.678	0.002	17905	0.0323	
22 Tetryl	1		21.825			ND	
23 2,4,6-Trinitrotoluene	1	22.661	22.685	-0.024	103343	0.2585	
24 PETN	2		23.805			ND	7

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

M - Manually Integrated

U - Marked Undetected

Report Date: 09-May-2024 13:26:02

Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

Data File: \\chromfs\denver\chromdata\g2\_luna\20240508-133164.b\05080022.d

Injection Date: 09-May-2024 03:58:06

Instrument ID: CHHPLC\_G2\_LUNA

Operator ID: JZ

Lims ID: 280-190882-A-4-A

Lab Sample ID: 280-190882-4

Worklist Smp#: 22

Client ID: LL3mw-241-240401-GW

Injection Vol: 100.0 ul

Dil. Factor: 1.0000

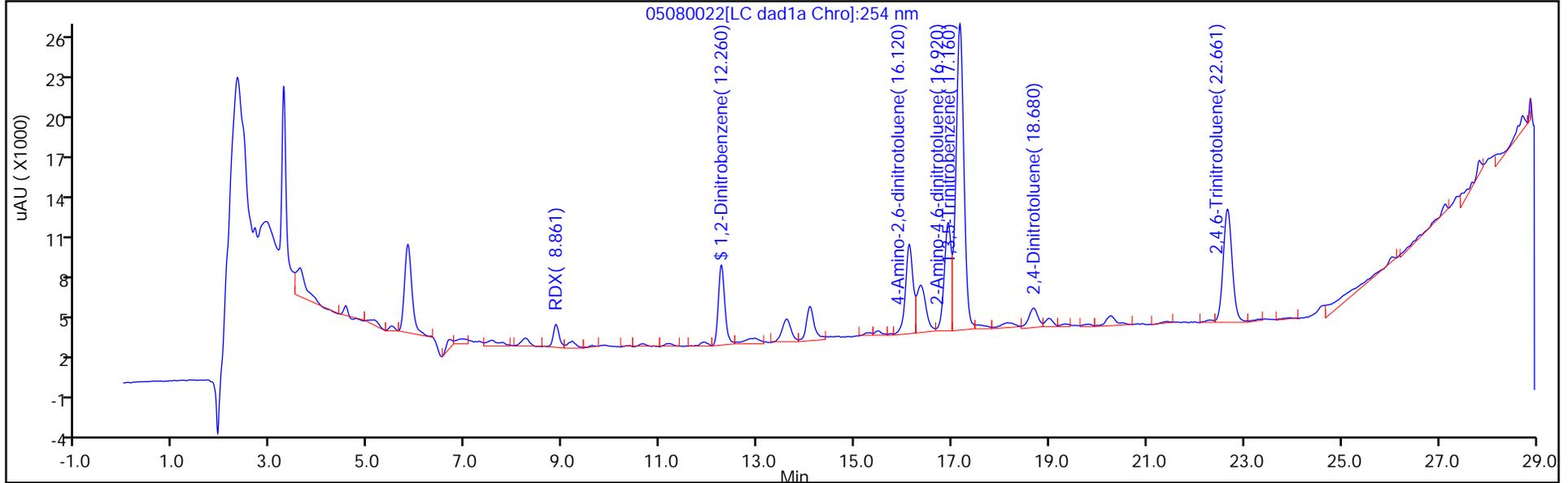
ALS Bottle#: 22

Method: G2\_8330\_Luna

Limit Group: GCSV - 8330

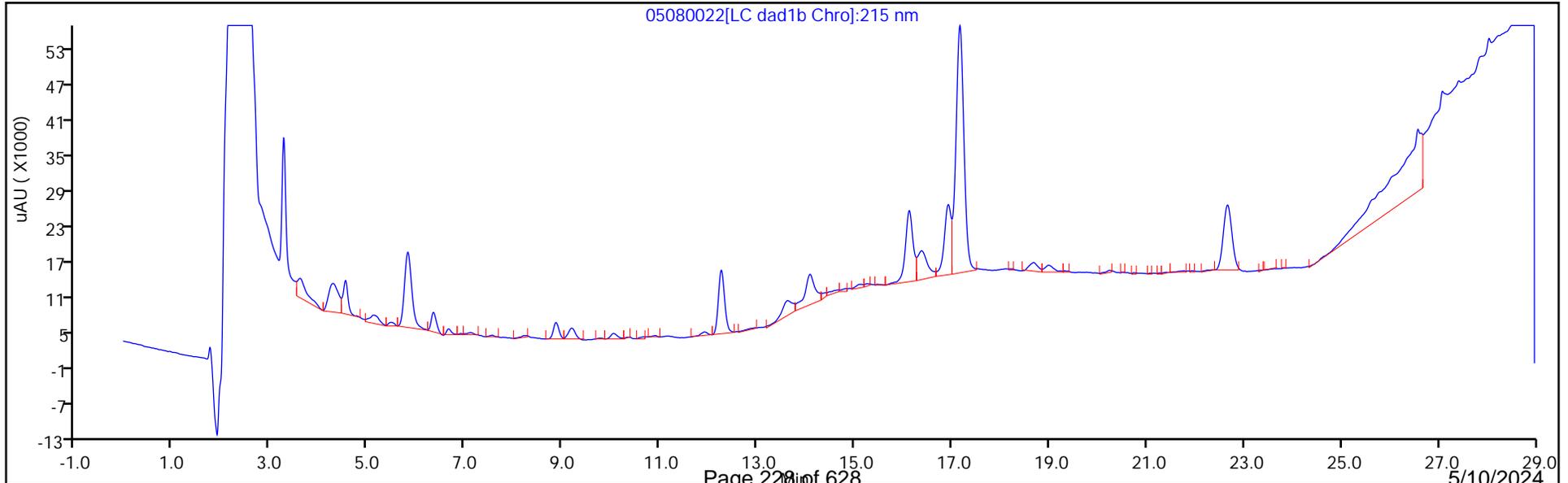
Column: Luna-Phenyl hexyl ( 4.60 mm)

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\20240508-133164.b\05080022.D  
 Lims ID: 280-190882-A-4-A  
 Client ID: LL3mw-241-240401-GW  
 Sample Type: Client  
 Inject. Date: 09-May-2024 03:58:06 ALS Bottle#: 22 Worklist Smp#: 22  
 Injection Vol: 100.0 ul Dil. Factor: 1.0000  
 Sample Info: 280-190882-A-4-A  
 Operator ID: JZ Instrument ID: CHHPLC\_G2\_LUNA  
 Method: \\chromfs\Denver\ChromData\G2\_LUNA\20240508-133164.b\G2\_8330\_Luna.m  
 Limit Group: GCSV - 8330  
 Last Update: 09-May-2024 13:25:55 Calib Date: 25-Apr-2024 07:39:21  
 Integrator: Falcon  
 Quant Method: External Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Denver\ChromData\G2\_LUNA\20240424-132624.b\04240027.D  
 Column 1 : Luna-Phenyl hexyl ( 4.60 mm) Det: LC DAD1A, 254 nm  
 Process Host: CTX1670

First Level Reviewer: LV5D Date: 09-May-2024 13:21:14

Compound	Amount Added	Amount Recovered	% Rec.
\$ 10 1,2-Dinitrobenzene	0.2000	0.2081	104.04

Eurofins Denver

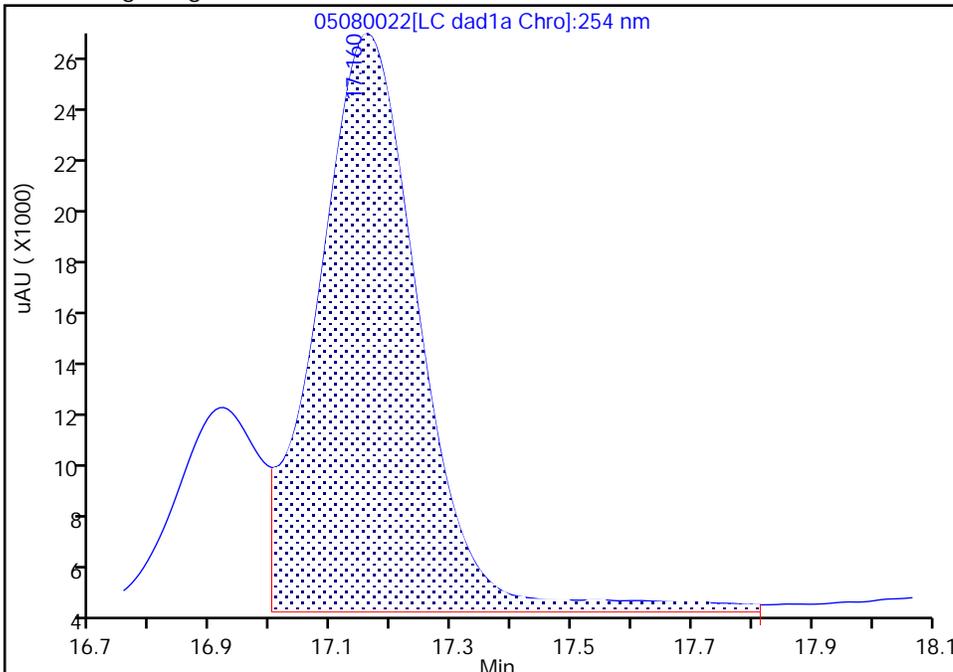
Data File: \\chromfs\denver\chromdata\g2\_luna\20240508-133164.b\05080022.d  
Injection Date: 09-May-2024 03:58:06 Instrument ID: CHHPLC\_G2\_LUNA  
Lims ID: 280-190882-A-4-A Lab Sample ID: 280-190882-4  
Client ID: LL3mw-241-240401-GW  
Operator ID: JZ ALS Bottle#: 22 Worklist Smp#: 22  
Injection Vol: 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

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

Signal: 1

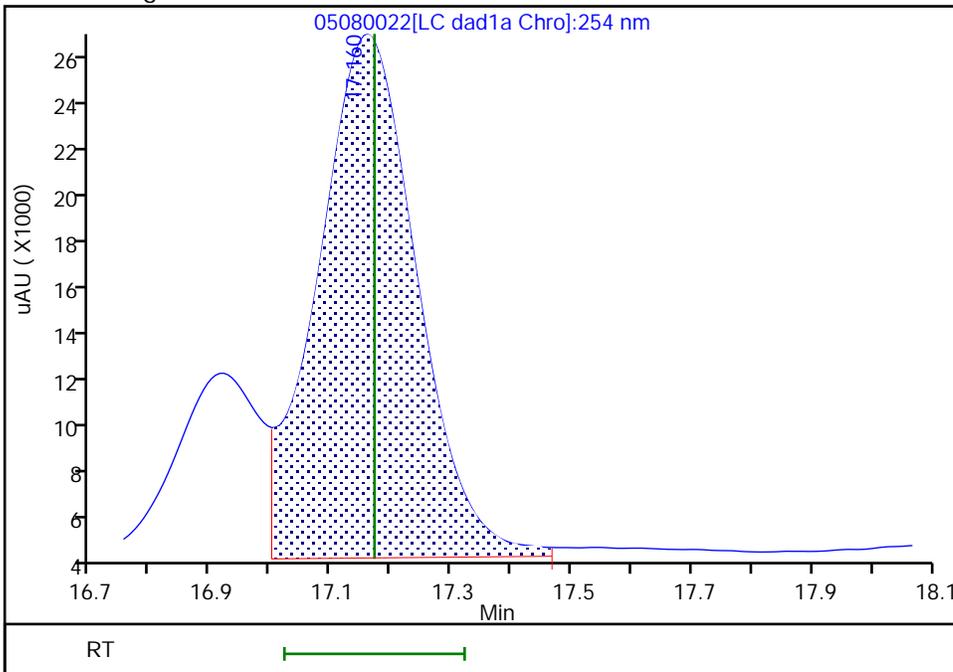
RT: 17.16  
Area: 263530  
Amount: 0.622334  
Amount Units: ug/ml

Processing Integration Results



RT: 17.16  
Area: 252622  
Amount: 0.596574  
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 09-May-2024 13:20:45 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak

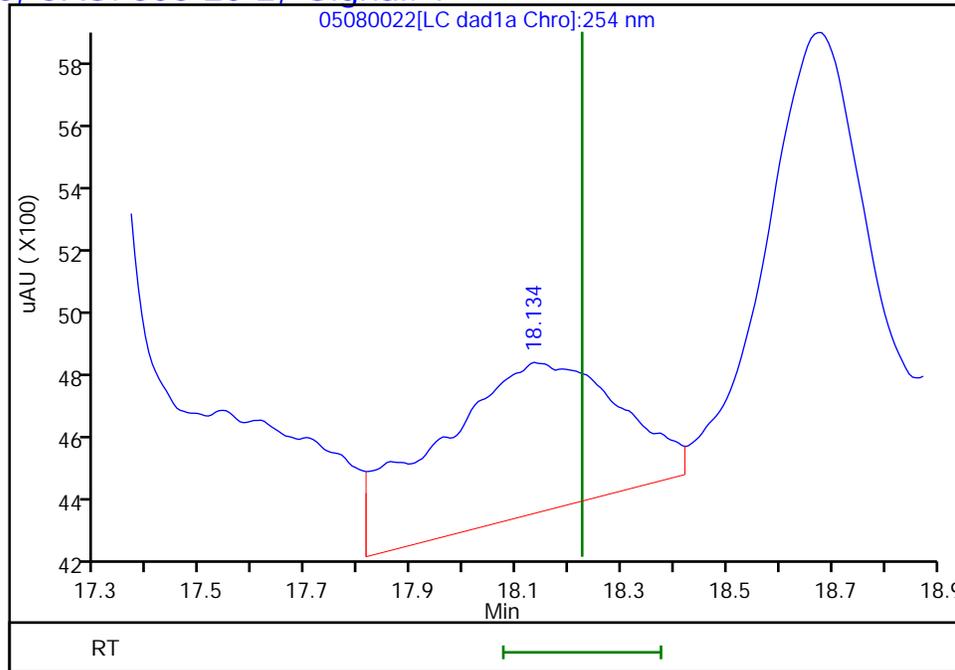
Audit Reason: Baseline

Eurofins Denver

Data File: \\chromfs\denver\chromdata\g2\_luna\20240508-133164.b\05080022.d  
Injection Date: 09-May-2024 03:58:06 Instrument ID: CHHPLC\_G2\_LUNA  
Lims ID: 280-190882-A-4-A Lab Sample ID: 280-190882-4  
Client ID: LL3mw-241-240401-GW  
Operator ID: JZ 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

20 2,6-Dinitrotoluene, CAS: 606-20-2, Signal: 1

RT: 18.13  
Response: 11701  
Amount: 0.042094



Reviewer: LV5D, 09-May-2024 13:21:14  
Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

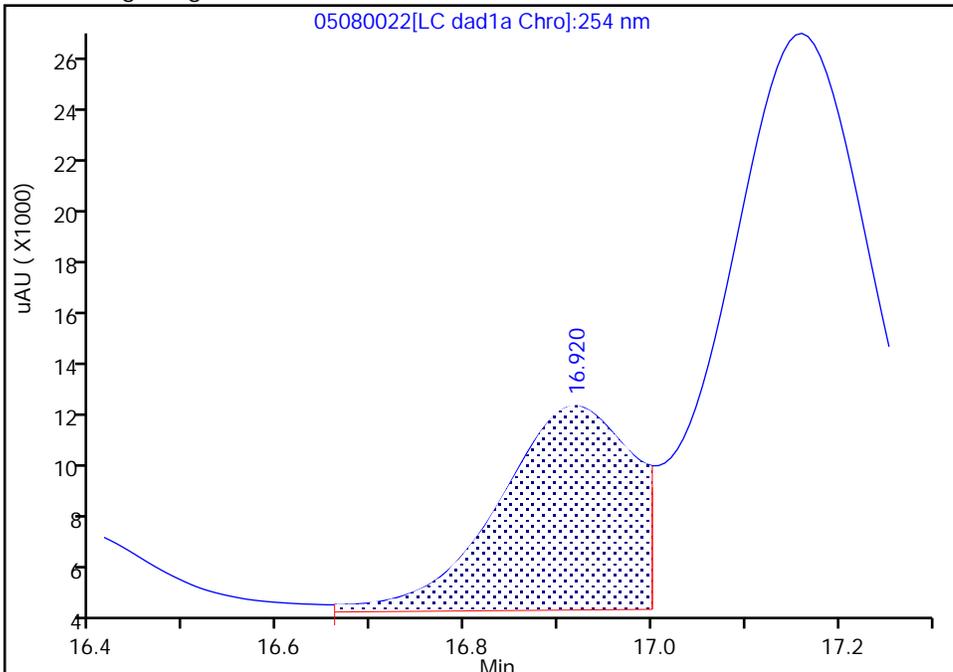
Data File: \\chromfs\denver\chromdata\g2\_luna\20240508-133164.b\05080022.d  
Injection Date: 09-May-2024 03:58:06 Instrument ID: CHHPLC\_G2\_LUNA  
Lims ID: 280-190882-A-4-A Lab Sample ID: 280-190882-4  
Client ID: LL3mw-241-240401-GW  
Operator ID: JZ ALS Bottle#: 22 Worklist Smp#: 22  
Injection Vol: 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

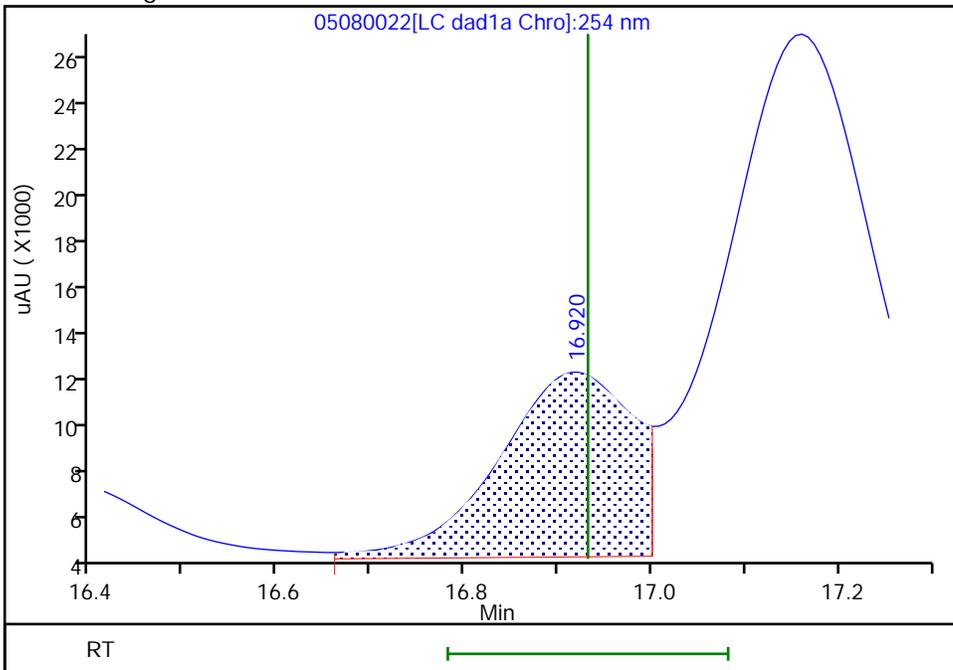
RT: 16.92  
Area: 78677  
Amount: 0.193995  
Amount Units: ug/ml

Processing Integration Results



RT: 16.92  
Area: 77289  
Amount: 0.190573  
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 09-May-2024 13:20:39 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

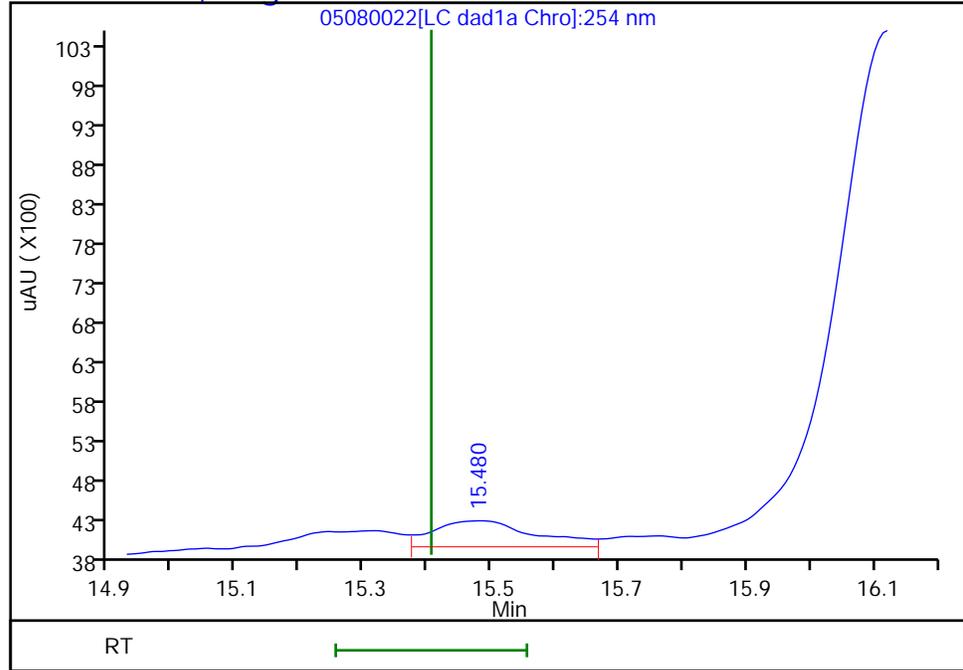
Audit Reason: Baseline

Eurofins Denver

Data File: \\chromfs\denver\chromdata\g2\_luna\20240508-133164.b\05080022.d  
Injection Date: 09-May-2024 03:58:06 Instrument ID: CHHPLC\_G2\_LUNA  
Lims ID: 280-190882-A-4-A Lab Sample ID: 280-190882-4  
Client ID: LL3mw-241-240401-GW  
Operator ID: JZ 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: 15.48  
Response: 3607  
Amount: 0.014747



Reviewer: LV5D, 09-May-2024 13:21:14

Audit Action: Marked Compound Undetected

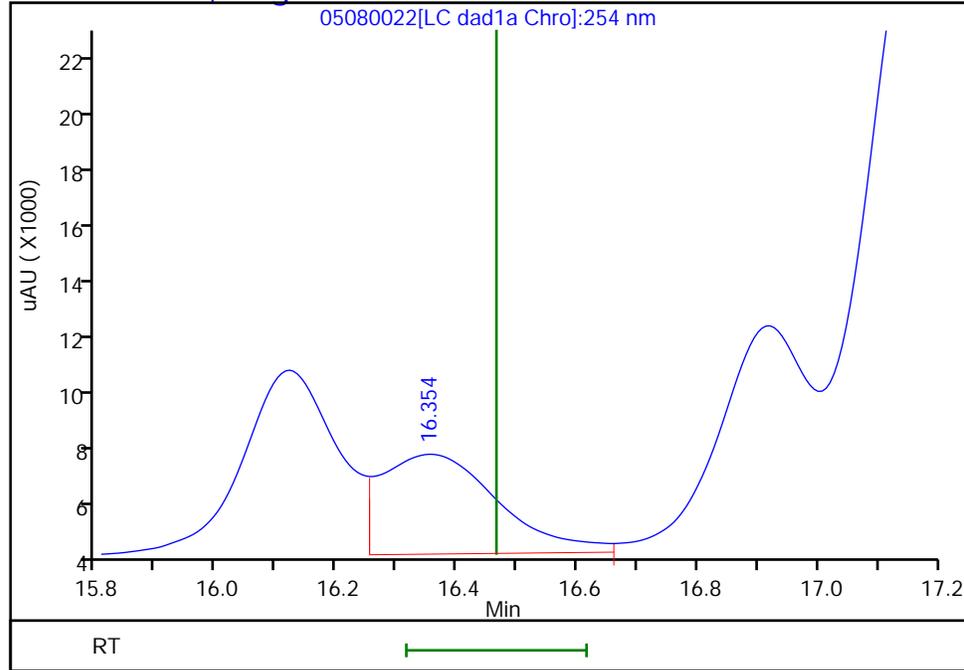
Audit Reason: Invalid Compound ID

Eurofins Denver

Data File: \\chromfs\denver\chromdata\g2\_luna\20240508-133164.b\05080022.d  
Injection Date: 09-May-2024 03:58:06 Instrument ID: CHHPLC\_G2\_LUNA  
Lims ID: 280-190882-A-4-A Lab Sample ID: 280-190882-4  
Client ID: LL3mw-241-240401-GW  
Operator ID: JZ 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

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

RT: 16.35  
Response: 46326  
Amount: 0.164583



Reviewer: LV5D, 09-May-2024 13:21:14  
Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

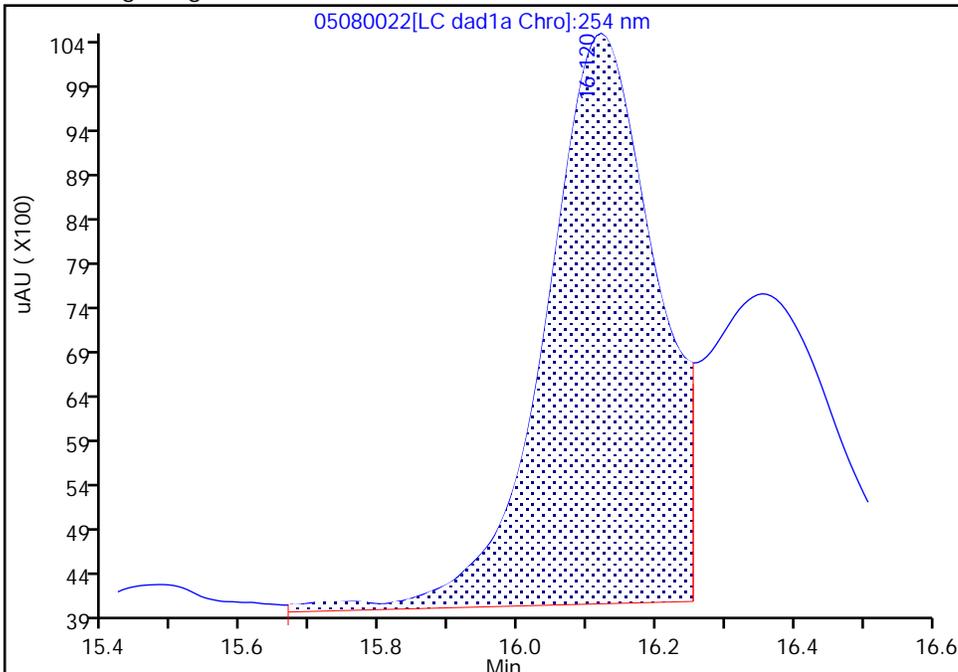
Data File: \\chromfs\denver\chromdata\g2\_luna\20240508-133164.b\05080022.d  
Injection Date: 09-May-2024 03:58:06 Instrument ID: CHHPLC\_G2\_LUNA  
Lims ID: 280-190882-A-4-A Lab Sample ID: 280-190882-4  
Client ID: LL3mw-241-240401-GW  
Operator ID: JZ ALS Bottle#: 22 Worklist Smp#: 22  
Injection Vol: 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

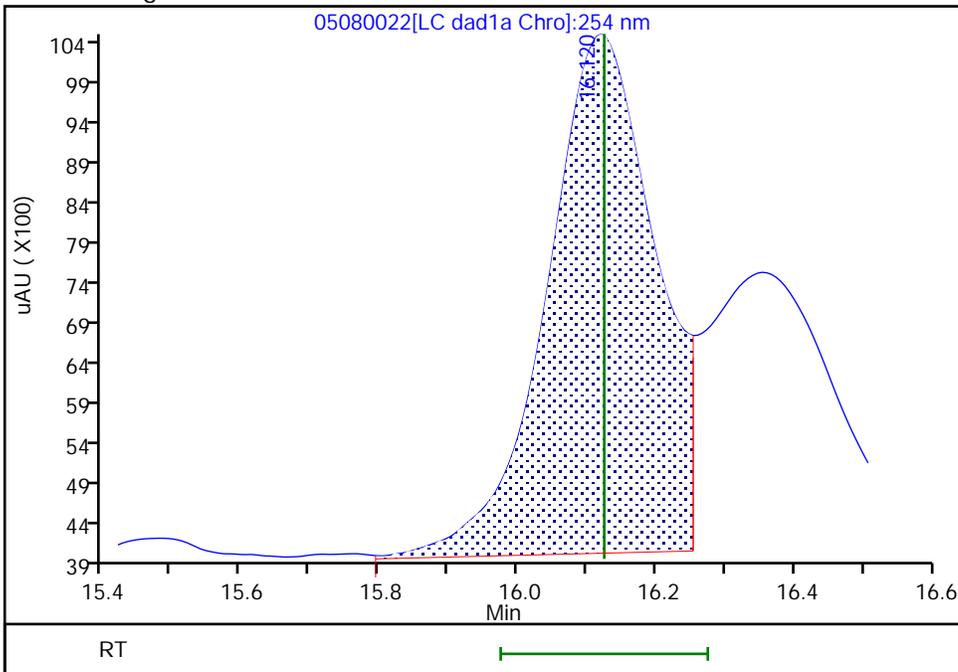
Processing Integration Results

RT: 16.12  
Area: 71844  
Amount: 0.263817  
Amount Units: ug/ml



Manual Integration Results

RT: 16.12  
Area: 69687  
Amount: 0.255813  
Amount Units: ug/ml



Reviewer: LV5D, 09-May-2024 13:20:42 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak

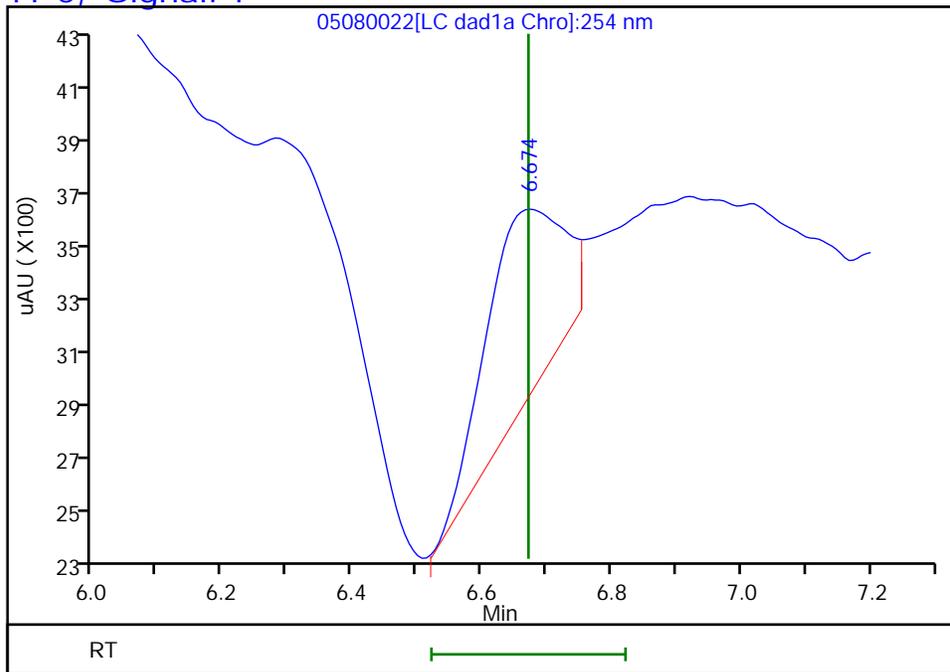
Audit Reason: Baseline

Eurofins Denver

Data File: \\chromfs\denver\chromdata\g2\_luna\20240508-133164.b\05080022.d  
Injection Date: 09-May-2024 03:58:06 Instrument ID: CHHPLC\_G2\_LUNA  
Lims ID: 280-190882-A-4-A Lab Sample ID: 280-190882-4  
Client ID: LL3mw-241-240401-GW  
Operator ID: JZ 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

6 HMX, CAS: 2691-41-0, Signal: 1

RT: 6.67  
Response: 5585  
Amount: 0.032084



Reviewer: LV5D, 09-May-2024 13:21:14

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

FORM I  
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver Job No.: 280-190882-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: FWGmw-012-240401-GW Lab Sample ID: 280-190882-5  
 Matrix: Water Lab File ID: 05080024.D  
 Analysis Method: 8330B Date Collected: 04/30/2024 11:55  
 Extraction Method: 3535 Date Extracted: 05/03/2024 12:48  
 Sample wt/vol: 491.4 (mL) Date Analyzed: 05/08/2024 22:28  
 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.: 652621 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	0.086
99-65-0	1,3-Dinitrobenzene	0.10	U M	0.11	0.10	0.038
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 M	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	0.052
88-72-2	2-Nitrotoluene	0.20	U	0.21	0.20	0.087
99-08-1	3-Nitrotoluene	0.36	U	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
2691-41-0	HMX	0.20	U M	0.21	0.20	0.089
98-95-3	Nitrobenzene	0.20	U	0.21	0.20	0.093
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	0.71		0.21	0.20	0.052
479-45-8	Tetryl	0.10	U M	0.11	0.10	0.032

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	103	M	83-119

Eurofins Denver  
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC\_X\20240508-133160.b\05080024.D  
 Lims ID: 280-190882-A-5-A  
 Client ID: FWGmw-012-240401-GW  
 Sample Type: Client  
 Inject. Date: 08-May-2024 22:28:35 ALS Bottle#: 24 Worklist Smp#: 24  
 Injection Vol: 100.0 ul Dil. Factor: 1.0000  
 Sample Info: 280-190882-A-5-A  
 Operator ID: JZ Instrument ID: CHHPLC\_X3  
 Method: \\chromfs\Denver\ChromData\CHHPLC\_X\20240508-133160.b\8330\_X3.m  
 Limit Group: GCSV - 8330  
 Last Update: 09-May-2024 13:10:49 Calib Date: 18-Apr-2024 03:08:00  
 Integrator: Falcon  
 Quant Method: External Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Denver\ChromData\CHHPLC\_X\20240417-132364.b\04170028.D  
 Column 1 : UltraCarb5uODS (20) ( 4.60 mm) Det: LC DAD1B, 254 nm  
 Process Host: CTX1670

First Level Reviewer: LV5D

Date: 09-May-2024 12:07:12

Compound	Det	RT (min.)	Exp RT (min.)	Diff RT (min.)	Response	OnCol Amt ug/mL	Flags
4 HMX	1		6.616			ND	U
8 RDX	1	7.646	7.623	0.023	7761	0.0701	
\$ 10 1,2-Dinitrobenzene	1	8.559	8.556	0.003	27224	0.2061	M
11 1,3,5-Trinitrobenzene	1	8.713	8.696	0.017	1632	0.007323	M
12 1,3-Dinitrobenzene	1		9.303			ND	U
13 Nitrobenzene	1		9.656			ND	
15 Tetryl	1		9.963			ND	U
16 Nitroglycerin	2		10.436			ND	
17 2,4,6-Trinitrotoluene	1		10.869			ND	
18 4-Amino-2,6-dinitrotoluene	1		11.043			ND	
19 2-Amino-4,6-dinitrotoluene	1		11.303			ND	7
20 2,6-Dinitrotoluene	1		11.436			ND	
21 2,4-Dinitrotoluene	1		11.616			ND	U
22 o-Nitrotoluene	1		12.389			ND	
23 p-Nitrotoluene	1		12.809			ND	
24 m-Nitrotoluene	1		13.356			ND	
25 PETN	2		14.389			ND	

## QC Flag Legend

## Processing Flags

7 - Failed Limit of Detection

## Review Flags

M - Manually Integrated

U - Marked Undetected

Report Date: 09-May-2024 13:10:52

Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc\_x\20240508-133160.b\05080024.d

Injection Date: 08-May-2024 22:28:35

Instrument ID: CHHPLC\_X3

Operator ID: JZ

Lims ID: 280-190882-A-5-A

Lab Sample ID: 280-190882-5

Worklist Smp#: 24

Client ID: FWGmw-012-240401-GW

Injection Vol: 100.0 ul

Dil. Factor: 1.0000

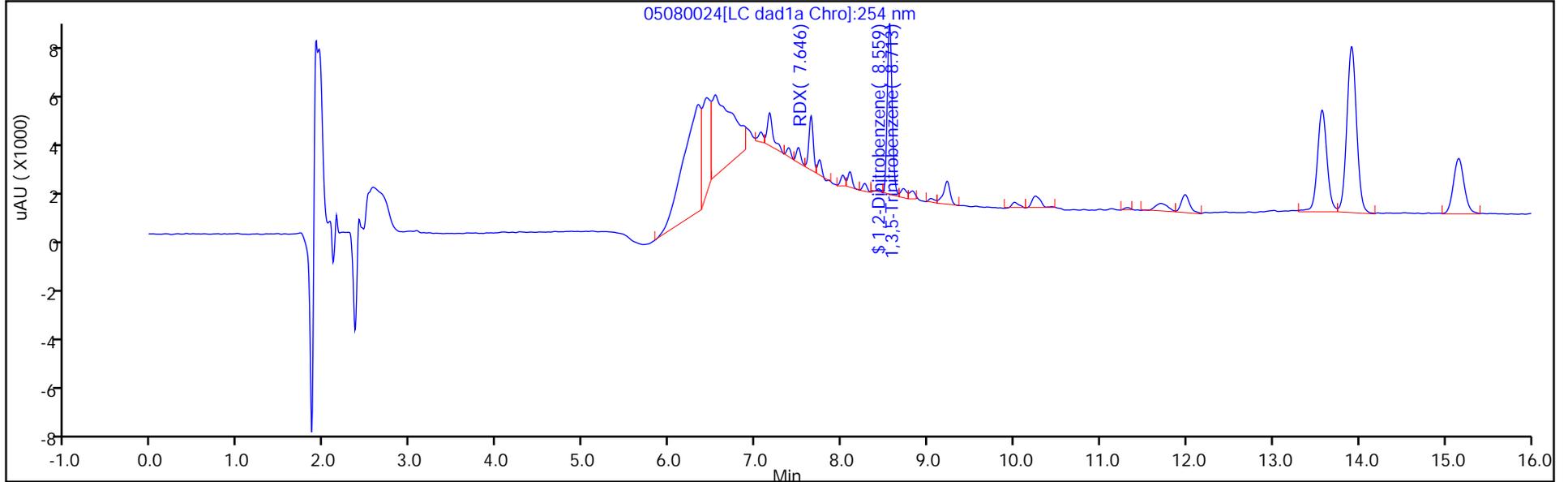
ALS Bottle#: 24

Method: 8330\_X3

Limit Group: GCSV - 8330

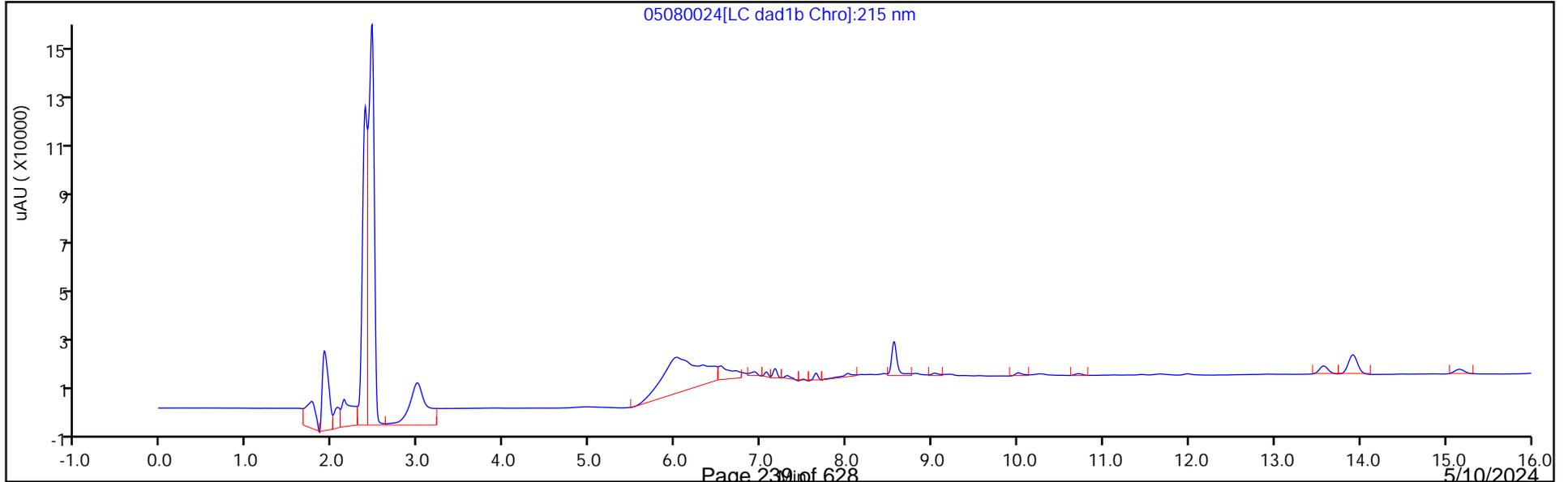
Column: UltraCarb5uODS (20) ( 4.60 mm)

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\20240508-133160.b\05080024.D  
 Lims ID: 280-190882-A-5-A  
 Client ID: FWGmw-012-240401-GW  
 Sample Type: Client  
 Inject. Date: 08-May-2024 22:28:35 ALS Bottle#: 24 Worklist Smp#: 24  
 Injection Vol: 100.0 ul Dil. Factor: 1.0000  
 Sample Info: 280-190882-A-5-A  
 Operator ID: JZ Instrument ID: CHHPLC\_X3  
 Method: \\chromfs\Denver\ChromData\CHHPLC\_X\20240508-133160.b\8330\_X3.m  
 Limit Group: GCSV - 8330  
 Last Update: 09-May-2024 13:10:49 Calib Date: 18-Apr-2024 03:08:00  
 Integrator: Falcon  
 Quant Method: External Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Denver\ChromData\CHHPLC\_X\20240417-132364.b\04170028.D  
 Column 1 : UltraCarb5uODS (20) ( 4.60 mm) Det: LC DAD1B, 254 nm  
 Process Host: CTX1670

First Level Reviewer: LV5D Date: 09-May-2024 12:07:12

Compound	Amount Added	Amount Recovered	% Rec.
\$ 10 1,2-Dinitrobenzene	0.2000	0.2061	103.05

Eurofins Denver

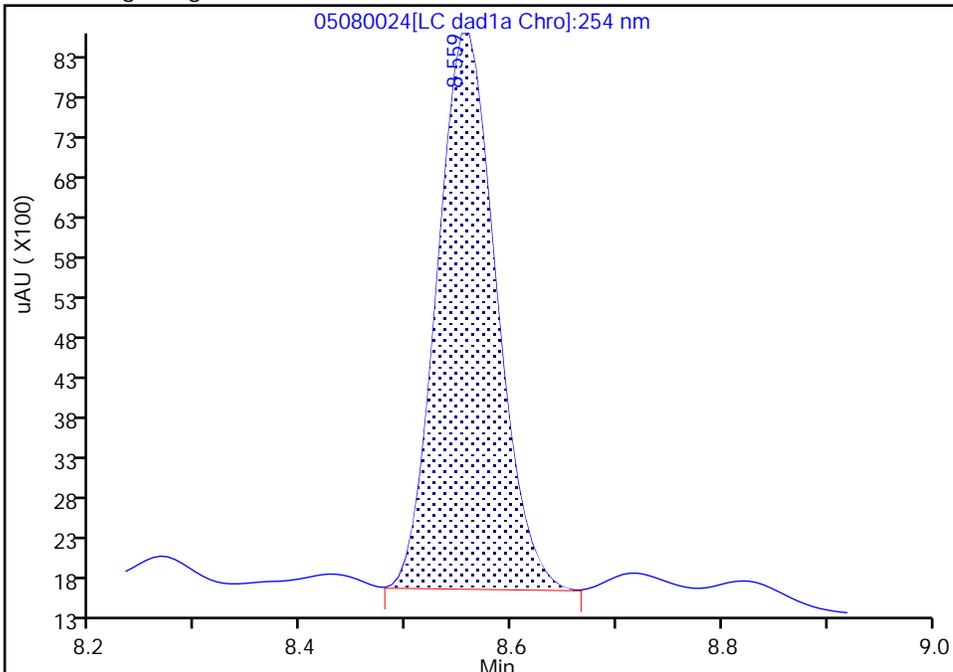
Data File: \\chromfs\denver\chromdata\chhplc\_x\20240508-133160.b\05080024.d  
Injection Date: 08-May-2024 22:28:35 Instrument ID: CHHPLC\_X3  
Lims ID: 280-190882-A-5-A Lab Sample ID: 280-190882-5  
Client ID: FWGmw-012-240401-GW  
Operator ID: JZ ALS Bottle#: 24 Worklist Smp#: 24  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: 8330\_X3 Limit Group: GCSV - 8330  
Column: UltraCarb5uODS (20) ( 4.60 mm) Detector: LC DAD1B, 254 nm

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

Signal: 1

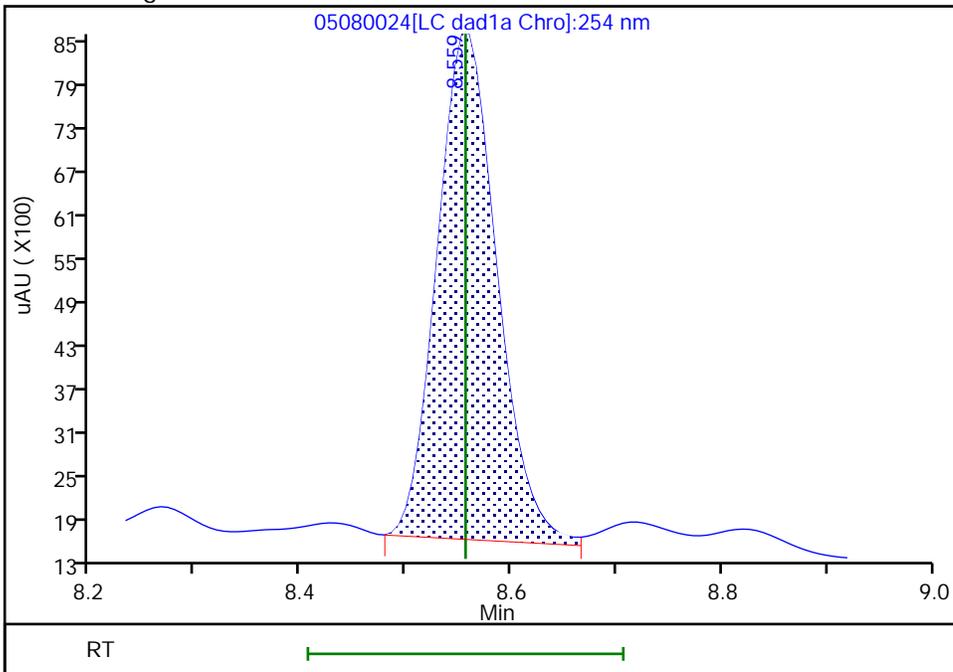
RT: 8.56  
Area: 26641  
Amount: 0.201679  
Amount Units: ug/mL

Processing Integration Results



RT: 8.56  
Area: 27224  
Amount: 0.206109  
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 09-May-2024 12:06:58 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

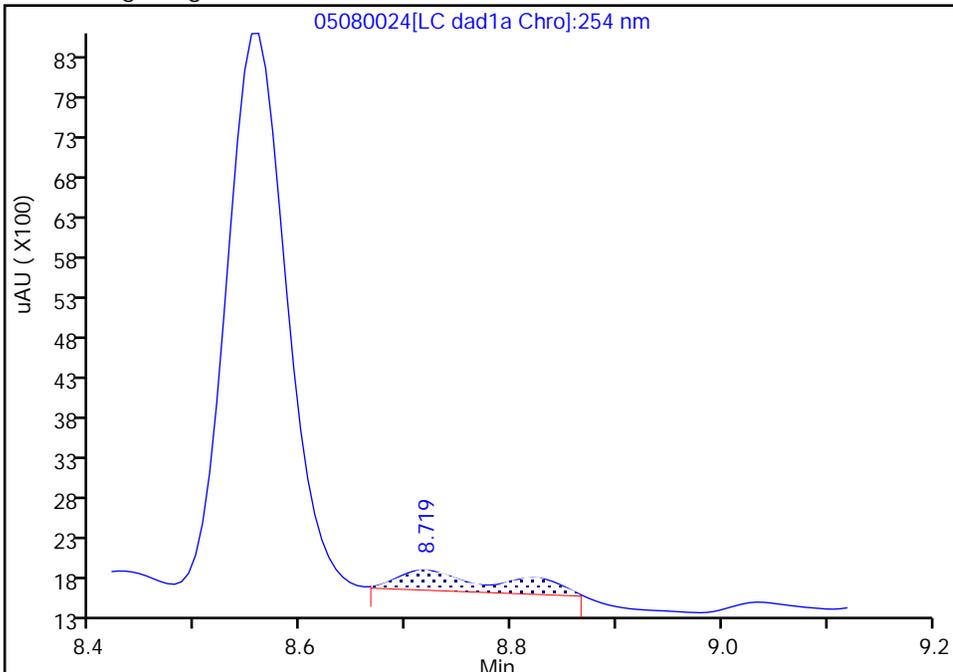
Data File: \\chromfs\denver\chromdata\chhplc\_x\20240508-133160.b\05080024.d  
Injection Date: 08-May-2024 22:28:35 Instrument ID: CHHPLC\_X3  
Lims ID: 280-190882-A-5-A Lab Sample ID: 280-190882-5  
Client ID: FWGmw-012-240401-GW  
Operator ID: JZ ALS Bottle#: 24 Worklist Smp#: 24  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: 8330\_X3 Limit Group: GCSV - 8330  
Column: UltraCarb5uODS (20) ( 4.60 mm) Detector: LC DAD1B, 254 nm

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

Signal: 1

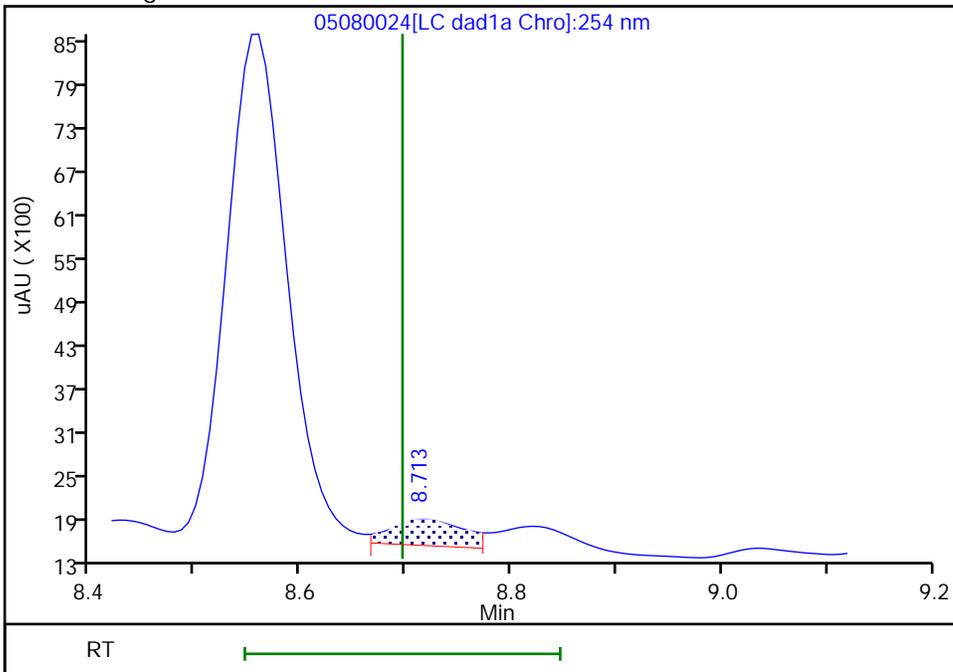
RT: 8.72  
Area: 1593  
Amount: 0.007148  
Amount Units: ug/mL

Processing Integration Results



RT: 8.71  
Area: 1632  
Amount: 0.007323  
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 09-May-2024 12:07:02 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak

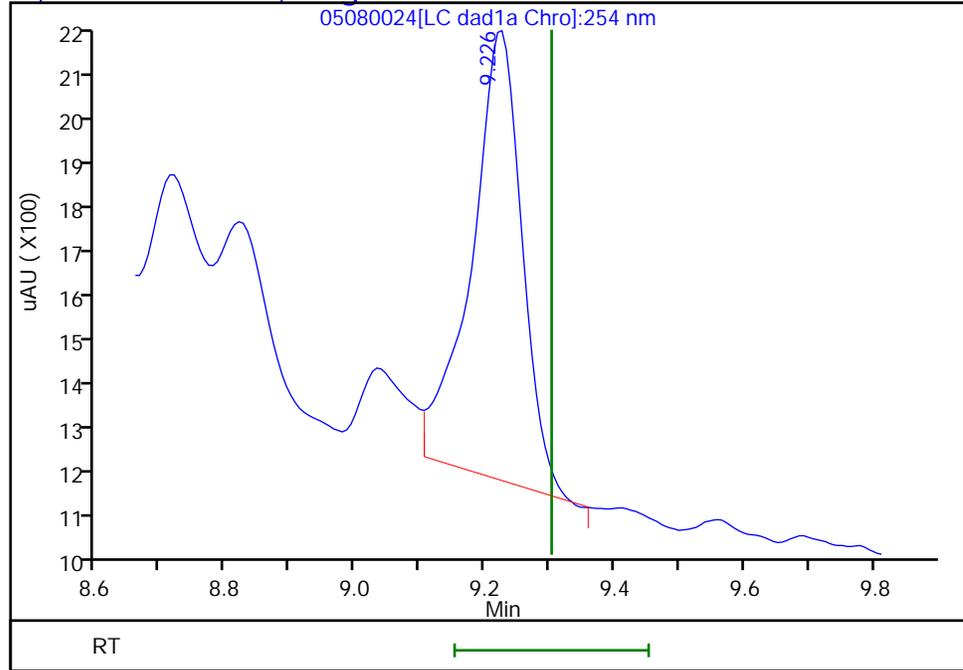
Audit Reason: Baseline

Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc\_x\20240508-133160.b\05080024.d  
Injection Date: 08-May-2024 22:28:35 Instrument ID: CHHPLC\_X3  
Lims ID: 280-190882-A-5-A Lab Sample ID: 280-190882-5  
Client ID: FWGmw-012-240401-GW  
Operator ID: JZ ALS Bottle#: 24 Worklist Smp#: 24  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: 8330\_X3 Limit Group: GCSV - 8330  
Column: UltraCarb5uODS (20) ( 4.60 mm) Detector LC DAD1B, 254 nm

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

RT: 9.23  
Response: 5069  
Amount: 0.016929



Reviewer: LV5D, 09-May-2024 12:07:12

Audit Action: Marked Compound Undetected

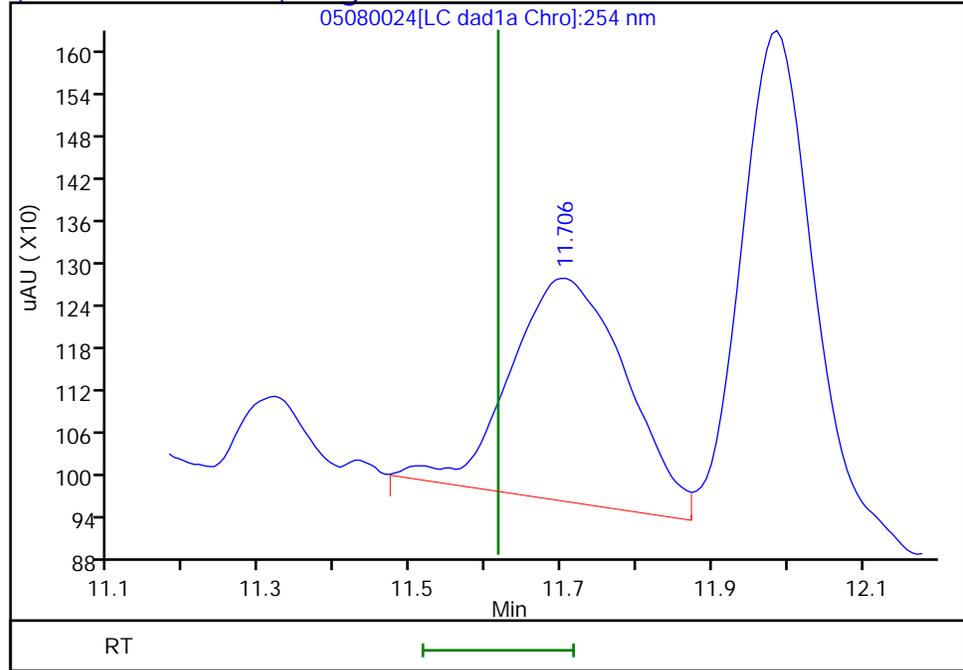
Audit Reason: Invalid Compound ID

Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc\_x\20240508-133160.b\05080024.d  
Injection Date: 08-May-2024 22:28:35 Instrument ID: CHHPLC\_X3  
Lims ID: 280-190882-A-5-A Lab Sample ID: 280-190882-5  
Client ID: FWGmw-012-240401-GW  
Operator ID: JZ ALS Bottle#: 24 Worklist Smp#: 24  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: 8330\_X3 Limit Group: GCSV - 8330  
Column: UltraCarb5uODS (20) ( 4.60 mm) Detector LC DAD1B, 254 nm

21 2,4-Dinitrotoluene, CAS: 121-14-2, Signal: 1

RT: 11.71  
Response: 3419  
Amount: 0.011715



Reviewer: LV5D, 09-May-2024 12:07:12

Audit Action: Marked Compound Undetected

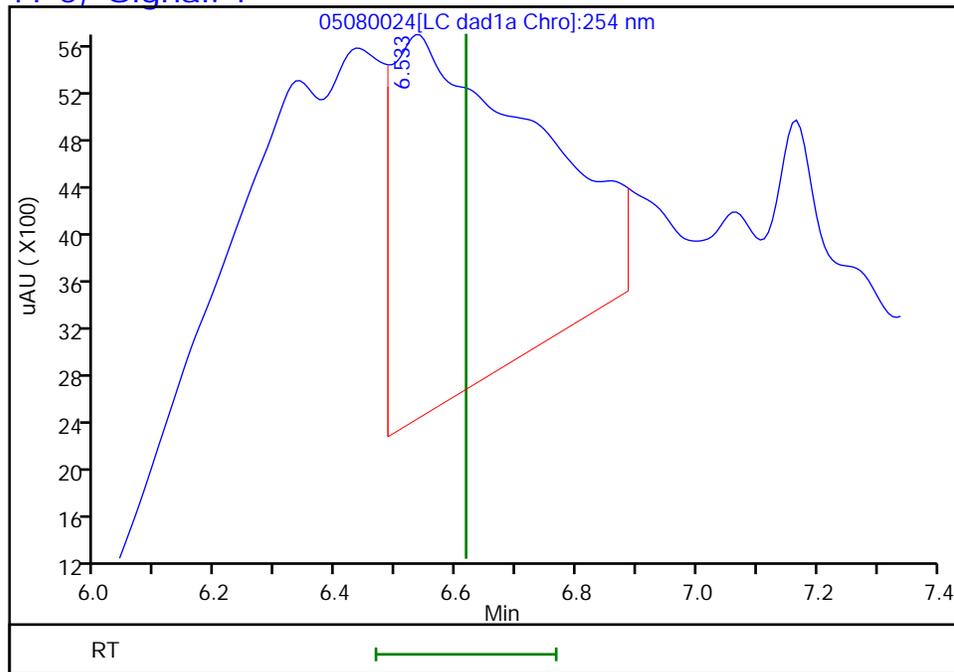
Audit Reason: Invalid Compound ID

Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc\_x\20240508-133160.b\05080024.d  
Injection Date: 08-May-2024 22:28:35 Instrument ID: CHHPLC\_X3  
Lims ID: 280-190882-A-5-A Lab Sample ID: 280-190882-5  
Client ID: FWGmw-012-240401-GW  
Operator ID: JZ ALS Bottle#: 24 Worklist Smp#: 24  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: 8330\_X3 Limit Group: GCSV - 8330  
Column: UltraCarb5uODS (20) ( 4.60 mm) Detector LC DAD1B, 254 nm

4 HMX, CAS: 2691-41-0, Signal: 1

RT: 6.53  
Response: 50327  
Amount: 0.526743



Reviewer: LV5D, 09-May-2024 12:07:12

Audit Action: Marked Compound Undetected

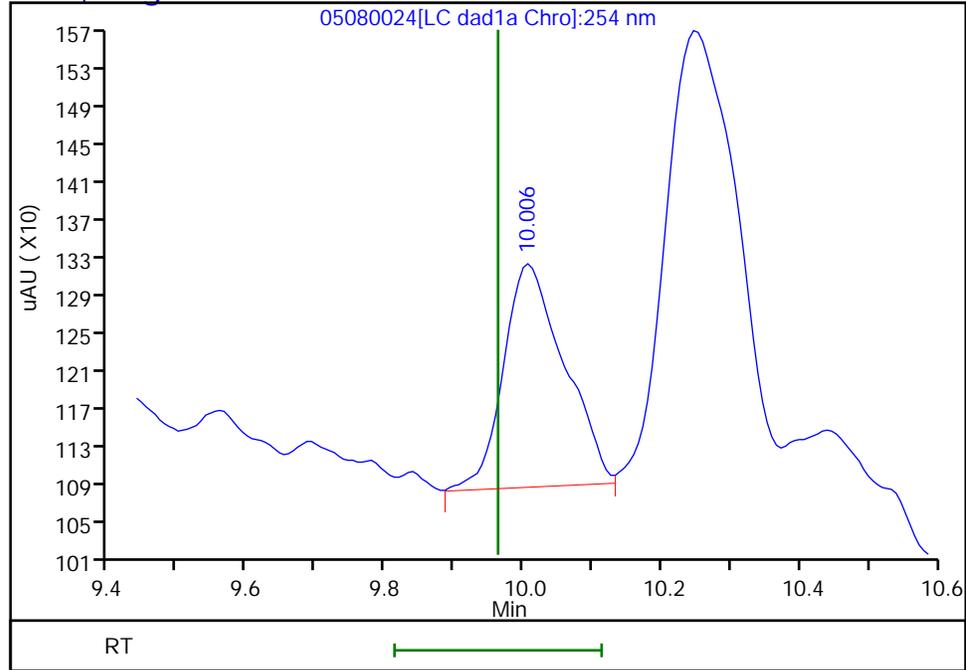
Audit Reason: Invalid Compound ID

Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc\_x\20240508-133160.b\05080024.d  
Injection Date: 08-May-2024 22:28:35 Instrument ID: CHHPLC\_X3  
Lims ID: 280-190882-A-5-A Lab Sample ID: 280-190882-5  
Client ID: FWGmw-012-240401-GW  
Operator ID: JZ ALS Bottle#: 24 Worklist Smp#: 24  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: 8330\_X3 Limit Group: GCSV - 8330  
Column: UltraCarb5uODS (20) ( 4.60 mm) Detector LC DAD1B, 254 nm

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

RT: 10.01  
Response: 1442  
Amount: 0.007941



Reviewer: LV5D, 09-May-2024 12:07:12

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

FORM I  
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver Job No.: 280-190882-1  
SDG No.: \_\_\_\_\_  
Client Sample ID: FWGmw-012-240401-GW Lab Sample ID: 280-190882-5  
Matrix: Water Lab File ID: 05080023.D  
Analysis Method: 8330B Date Collected: 04/30/2024 11:55  
Extraction Method: 3535 Date Extracted: 05/03/2024 12:48  
Sample wt/vol: 491.4 (mL) Date Analyzed: 05/09/2024 04:34  
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.: 652628 Units: ug/L

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\20240508-133164.b\05080023.D  
 Lims ID: 280-190882-A-5-A  
 Client ID: FWGmw-012-240401-GW  
 Sample Type: Client  
 Inject. Date: 09-May-2024 04:34:03 ALS Bottle#: 23 Worklist Smp#: 23  
 Injection Vol: 100.0 ul Dil. Factor: 1.0000  
 Sample Info: 280-190882-A-5-A  
 Operator ID: JZ Instrument ID: CHHPLC\_G2\_LUNA  
 Method: \\chromfs\Denver\ChromData\G2\_LUNA\20240508-133164.b\G2\_8330\_Luna.m  
 Limit Group: GCSV - 8330  
 Last Update: 09-May-2024 13:25:55 Calib Date: 25-Apr-2024 07:39:21  
 Integrator: Falcon  
 Quant Method: External Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Denver\ChromData\G2\_LUNA\20240424-132624.b\04240027.D  
 Column 1 : Luna-Phenyl hexyl ( 4.60 mm) Det: LC DAD1A, 254 nm  
 Process Host: CTX1670

First Level Reviewer: LV5D Date: 09-May-2024 13:24:20

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
6 HMX	1		6.672			ND	
8 RDX	1	8.930	8.885	0.045	11245	0.0521	
9 Nitrobenzene	1	11.329	11.378	-0.049	4325	0.0113	
\$ 10 1,2-Dinitrobenzene	1	12.269	12.285	-0.016	52711	0.2038	
12 1,3-Dinitrobenzene	1		14.398			ND	
13 Nitroglycerin	2		14.832			ND	U
14 o-Nitrotoluene	1	15.469	15.405	0.064	58960	0.2411	M
15 p-Nitrotoluene	1		15.632			ND	
16 4-Amino-2,6-dinitrotoluene	1		16.125			ND	MU
17 m-Nitrotoluene	1		16.465			ND	
18 2-Amino-4,6-dinitrotoluene	1		16.932			ND	MU
19 1,3,5-Trinitrobenzene	1		17.172			ND	
20 2,6-Dinitrotoluene	1	18.256	18.225	0.031	2551	0.009177	
21 2,4-Dinitrotoluene	1		18.678			ND	
22 Tetryl	1		21.825			ND	
23 2,4,6-Trinitrotoluene	1		22.685			ND	
24 PETN	2		23.805			ND	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

U - Marked Undetected

Report Date: 09-May-2024 13:26:03

Chrom Revision: 2.3 01-May-2024 15:52:26

Eurofins Denver

Data File: \\chromfs\denver\chromdata\g2\_luna\20240508-133164.b\05080023.d

Injection Date: 09-May-2024 04:34:03

Instrument ID: CHHPLC\_G2\_LUNA

Operator ID: JZ

Lims ID: 280-190882-A-5-A

Lab Sample ID: 280-190882-5

Worklist Smp#: 23

Client ID: FWGmw-012-240401-GW

Injection Vol: 100.0 ul

Dil. Factor: 1.0000

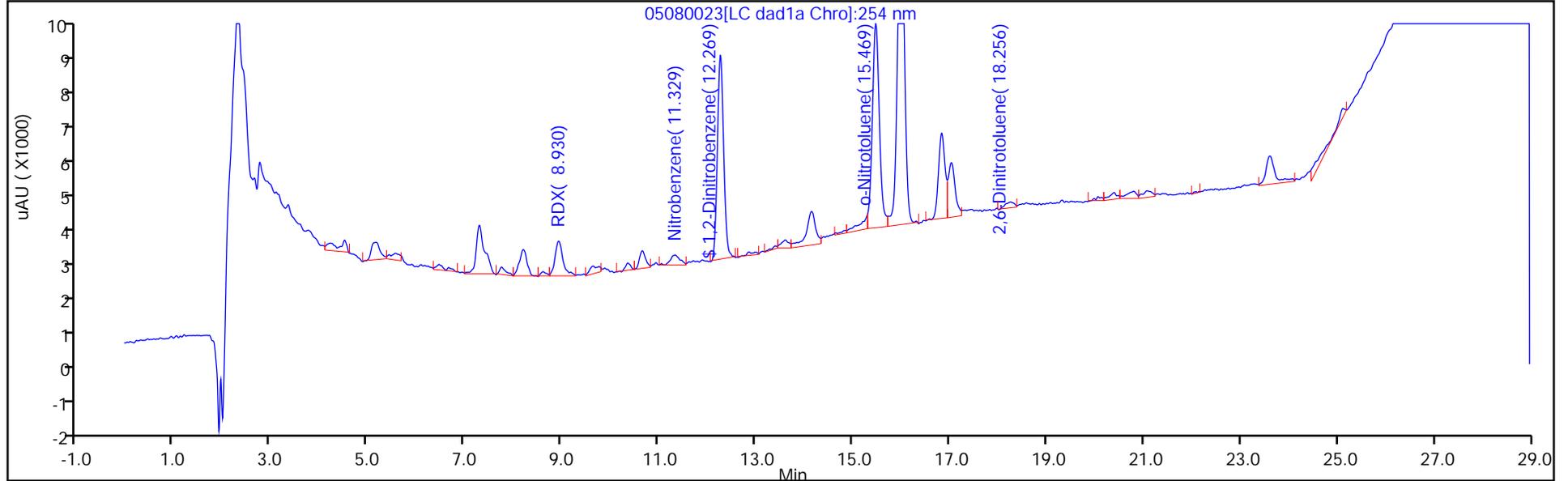
ALS Bottle#: 23

Method: G2\_8330\_Luna

Limit Group: GCSV - 8330

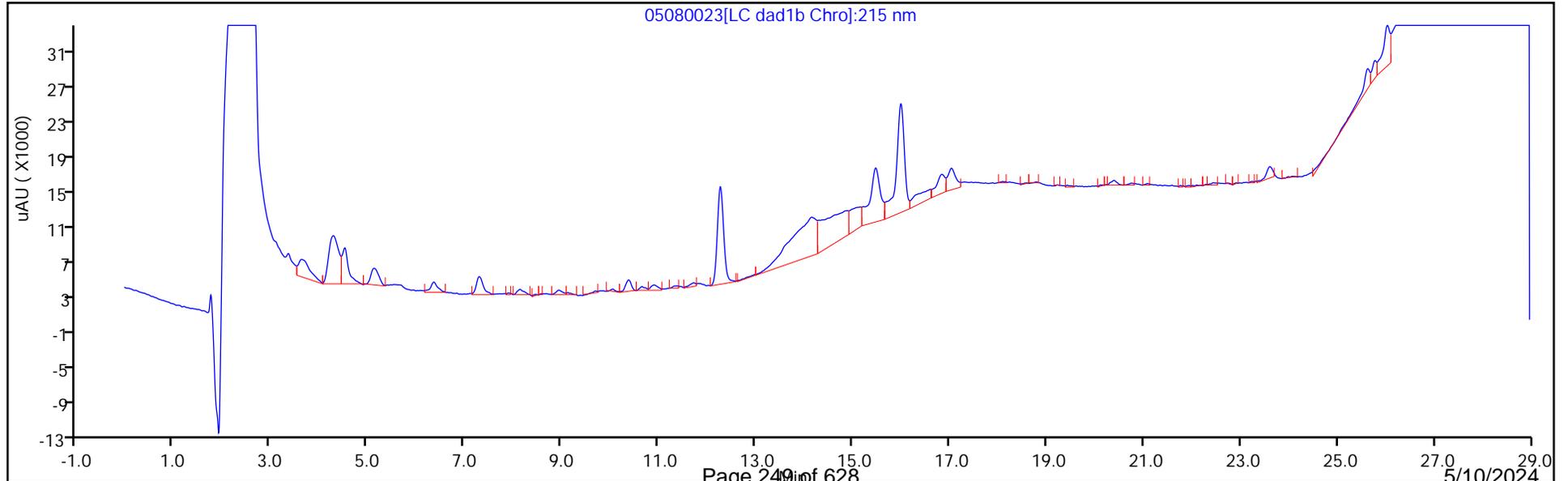
Column: Luna-Phenyl hexyl ( 4.60 mm)

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\20240508-133164.b\05080023.D  
 Lims ID: 280-190882-A-5-A  
 Client ID: FWGmw-012-240401-GW  
 Sample Type: Client  
 Inject. Date: 09-May-2024 04:34:03 ALS Bottle#: 23 Worklist Smp#: 23  
 Injection Vol: 100.0 ul Dil. Factor: 1.0000  
 Sample Info: 280-190882-A-5-A  
 Operator ID: JZ Instrument ID: CHHPLC\_G2\_LUNA  
 Method: \\chromfs\Denver\ChromData\G2\_LUNA\20240508-133164.b\G2\_8330\_Luna.m  
 Limit Group: GCSV - 8330  
 Last Update: 09-May-2024 13:25:55 Calib Date: 25-Apr-2024 07:39:21  
 Integrator: Falcon  
 Quant Method: External Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Denver\ChromData\G2\_LUNA\20240424-132624.b\04240027.D  
 Column 1 : Luna-Phenyl hexyl ( 4.60 mm) Det: LC DAD1A, 254 nm  
 Process Host: CTX1670

First Level Reviewer: LV5D Date: 09-May-2024 13:24:20

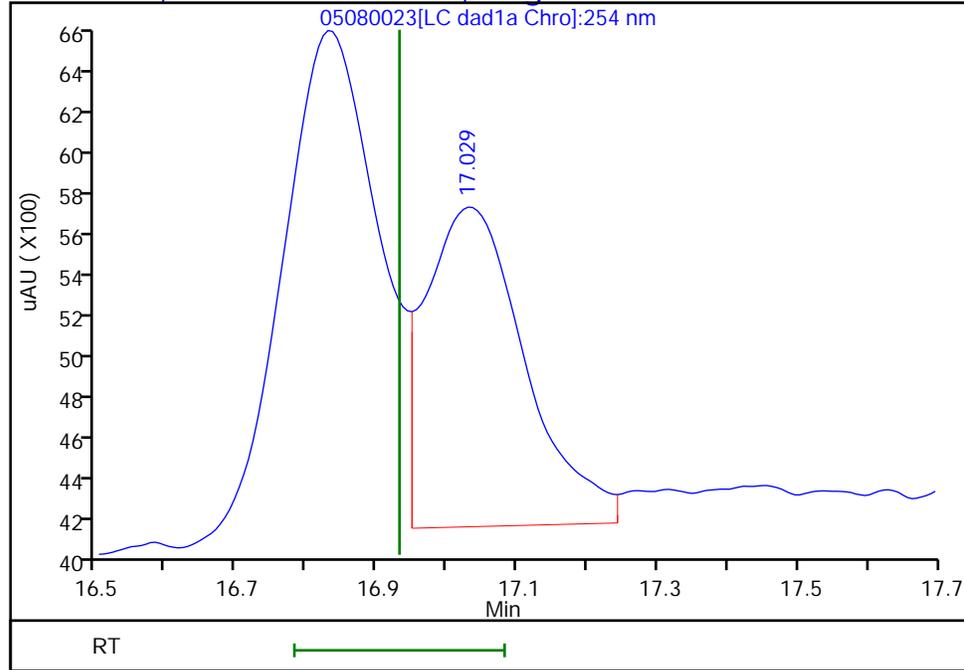
Compound	Amount Added	Amount Recovered	% Rec.
\$ 10 1,2-Dinitrobenzene	0.2000	0.2038	101.88

Eurofins Denver

Data File: \\chromfs\denver\chromdata\g2\_luna\20240508-133164.b\05080023.d  
Injection Date: 09-May-2024 04:34:03 Instrument ID: CHHPLC\_G2\_LUNA  
Lims ID: 280-190882-A-5-A Lab Sample ID: 280-190882-5  
Client ID: FWGmw-012-240401-GW  
Operator ID: JZ 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: 17.03  
Response: 14778  
Amount: 0.036438



Reviewer: LV5D, 09-May-2024 13:24:20  
Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

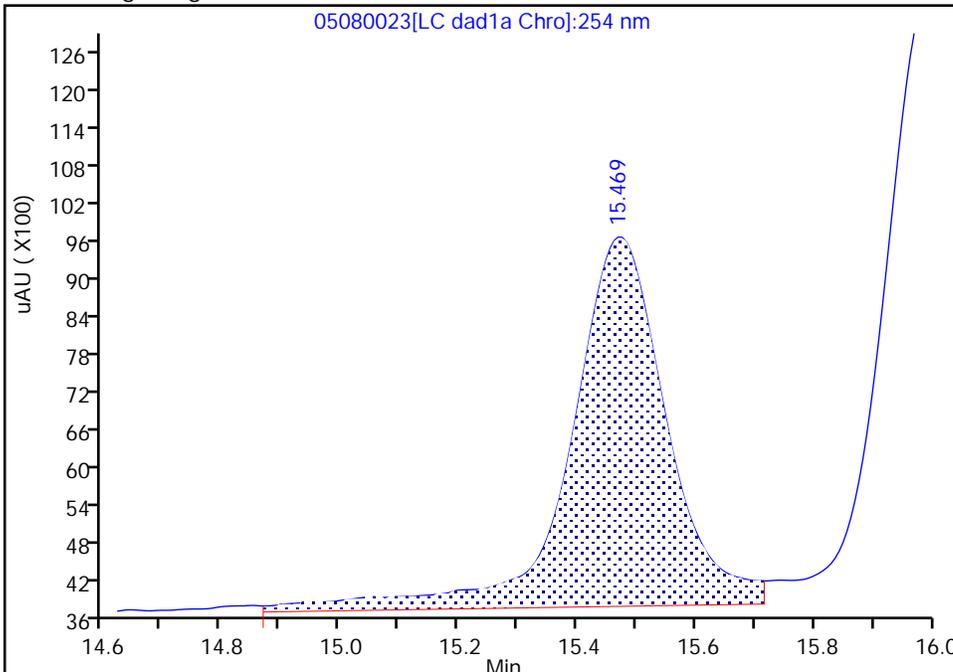
Data File: \\chromfs\denver\chromdata\g2\_luna\20240508-133164.b\05080023.d  
Injection Date: 09-May-2024 04:34:03 Instrument ID: CHHPLC\_G2\_LUNA  
Lims ID: 280-190882-A-5-A Lab Sample ID: 280-190882-5  
Client ID: FWGmw-012-240401-GW  
Operator ID: JZ ALS Bottle#: 23 Worklist Smp#: 23  
Injection Vol: 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

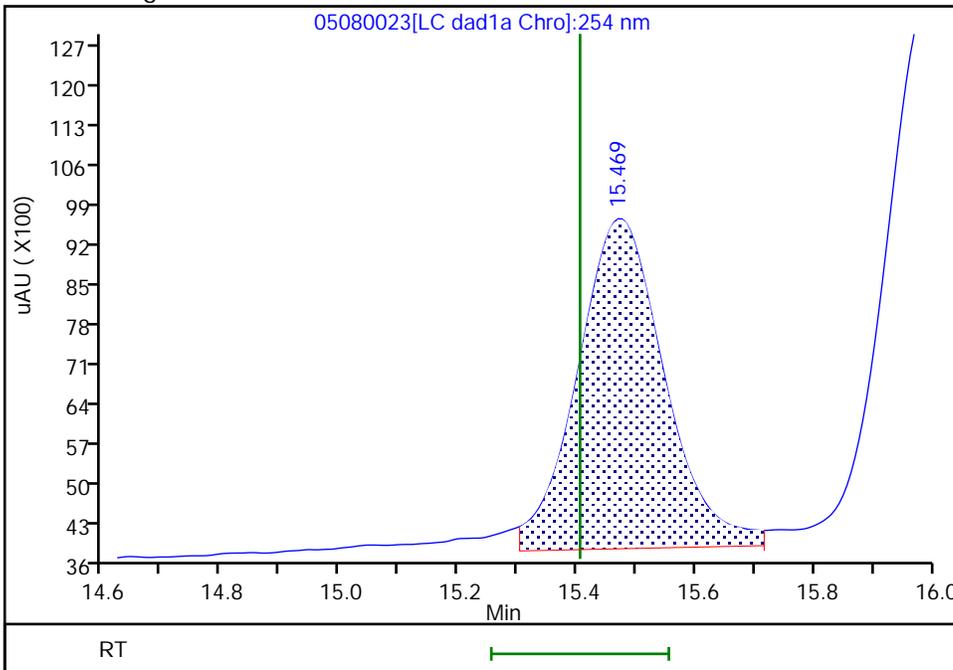
RT: 15.47  
Area: 67200  
Amount: 0.274741  
Amount Units: ug/ml

Processing Integration Results



RT: 15.47  
Area: 58960  
Amount: 0.241052  
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 09-May-2024 13:21:50 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

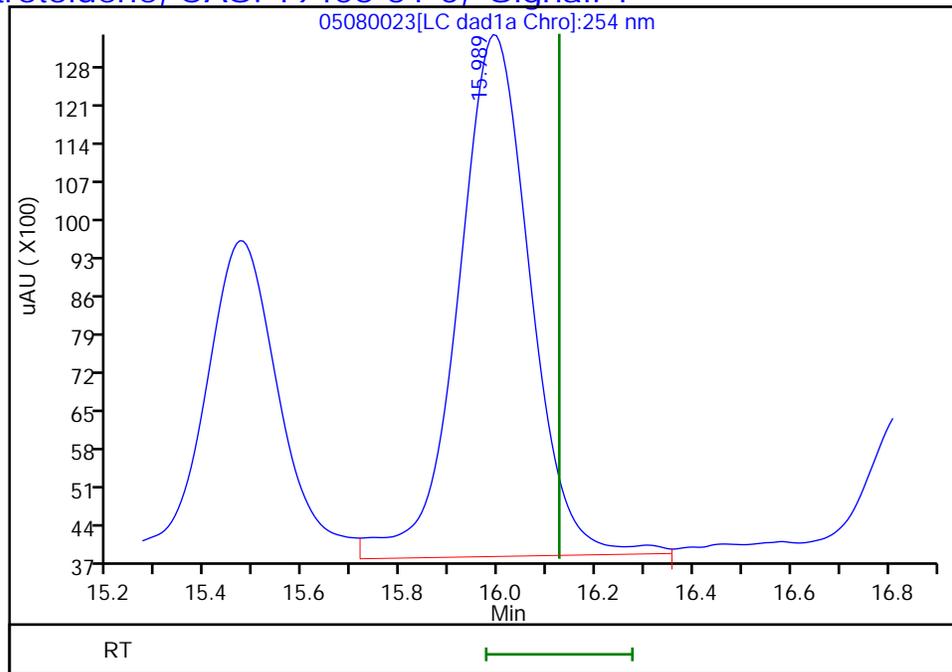
Audit Reason: Baseline

Eurofins Denver

Data File: \\chromfs\denver\chromdata\g2\_luna\20240508-133164.b\05080023.d  
Injection Date: 09-May-2024 04:34:03 Instrument ID: CHHPLC\_G2\_LUNA  
Lims ID: 280-190882-A-5-A Lab Sample ID: 280-190882-5  
Client ID: FWGmw-012-240401-GW  
Operator ID: JZ 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: 15.99  
Response: 98373  
Amount: 0.362251



Reviewer: LV5D, 09-May-2024 13:24:20  
Audit Action: Assigned New Baseline

Audit Reason: Baseline

FORM I  
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver Job No.: 280-190882-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: LL1mw-089-240401-GW Lab Sample ID: 280-190882-6  
 Matrix: Water Lab File ID: 05080025.D  
 Analysis Method: 8330B Date Collected: 04/30/2024 13:15  
 Extraction Method: 3535 Date Extracted: 05/03/2024 12:48  
 Sample wt/vol: 473.9(mL) Date Analyzed: 05/08/2024 22:51  
 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.: 652621 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	0.047
121-14-2	2,4-Dinitrotoluene	0.084	U	0.11	0.084	0.029
606-20-2	2,6-Dinitrotoluene	0.084	U	0.11	0.084	0.042
35572-78-2	2-Amino-4,6-dinitrotoluene	0.11	U	0.12	0.11	0.053
88-72-2	2-Nitrotoluene	0.21	U	0.22	0.21	0.090
99-08-1	3-Nitrotoluene	0.37	U	0.42	0.37	0.21
19406-51-0	4-Amino-2,6-dinitrotoluene	0.13	U	0.16	0.13	0.061
99-99-0	4-Nitrotoluene	0.42	U	0.43	0.42	0.11
2691-41-0	HMX	0.21	U	0.22	0.21	0.092
98-95-3	Nitrobenzene	0.21	U	0.22	0.21	0.096
55-63-0	Nitroglycerin	2.1	U	2.2	2.1	0.97
78-11-5	PETN	1.1	U	1.2	1.1	0.47
121-82-4	RDX	0.21	U	0.22	0.21	0.054
479-45-8	Tetryl	0.11	U	0.12	0.11	0.034

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	92	M	83-119

Eurofins Denver  
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC\_X\20240508-133160.b\05080025.D  
 Lims ID: 280-190882-A-6-A  
 Client ID: LL1mw-089-240401-GW  
 Sample Type: Client  
 Inject. Date: 08-May-2024 22:51:28 ALS Bottle#: 25 Worklist Smp#: 25  
 Injection Vol: 100.0 ul Dil. Factor: 1.0000  
 Sample Info: 280-190882-A-6-A  
 Operator ID: JZ Instrument ID: CHHPLC\_X3  
 Method: \\chromfs\Denver\ChromData\CHHPLC\_X\20240508-133160.b\8330\_X3.m  
 Limit Group: GCSV - 8330  
 Last Update: 09-May-2024 13:10:49 Calib Date: 18-Apr-2024 03:08:00  
 Integrator: Falcon  
 Quant Method: External Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Denver\ChromData\CHHPLC\_X\20240417-132364.b\04170028.D  
 Column 1 : UltraCarb5uODS (20) ( 4.60 mm) Det: LC DAD1B, 254 nm  
 Process Host: CTX1670

First Level Reviewer: LV5D

Date: 09-May-2024 12:12:21

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/mL	Flags
4 HMX	1		6.616			ND	
8 RDX	1		7.623			ND	
\$ 10 1,2-Dinitrobenzene	1	8.555	8.556	-0.001	24432	0.1849	M
11 1,3,5-Trinitrobenzene	1		8.696			ND	
12 1,3-Dinitrobenzene	1		9.303			ND	
13 Nitrobenzene	1		9.656			ND	
15 Tetryl	1		9.963			ND	
16 Nitroglycerin	2		10.436			ND	
17 2,4,6-Trinitrotoluene	1		10.869			ND	
18 4-Amino-2,6-dinitrotoluene	1		11.043			ND	
19 2-Amino-4,6-dinitrotoluene	1		11.303			ND	
20 2,6-Dinitrotoluene	1		11.436			ND	
21 2,4-Dinitrotoluene	1		11.616			ND	
22 o-Nitrotoluene	1		12.389			ND	
23 p-Nitrotoluene	1		12.809			ND	
24 m-Nitrotoluene	1		13.356			ND	
25 PETN	2		14.389			ND	

**QC Flag Legend**

Processing Flags

Review Flags

M - Manually Integrated

Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc\_x\20240508-133160.b\05080025.d

Injection Date: 08-May-2024 22:51:28

Instrument ID: CHHPLC\_X3

Operator ID: JZ

Lims ID: 280-190882-A-6-A

Lab Sample ID: 280-190882-6

Worklist Smp#: 25

Client ID: LL1mw-089-240401-GW

Injection Vol: 100.0 ul

Dil. Factor: 1.0000

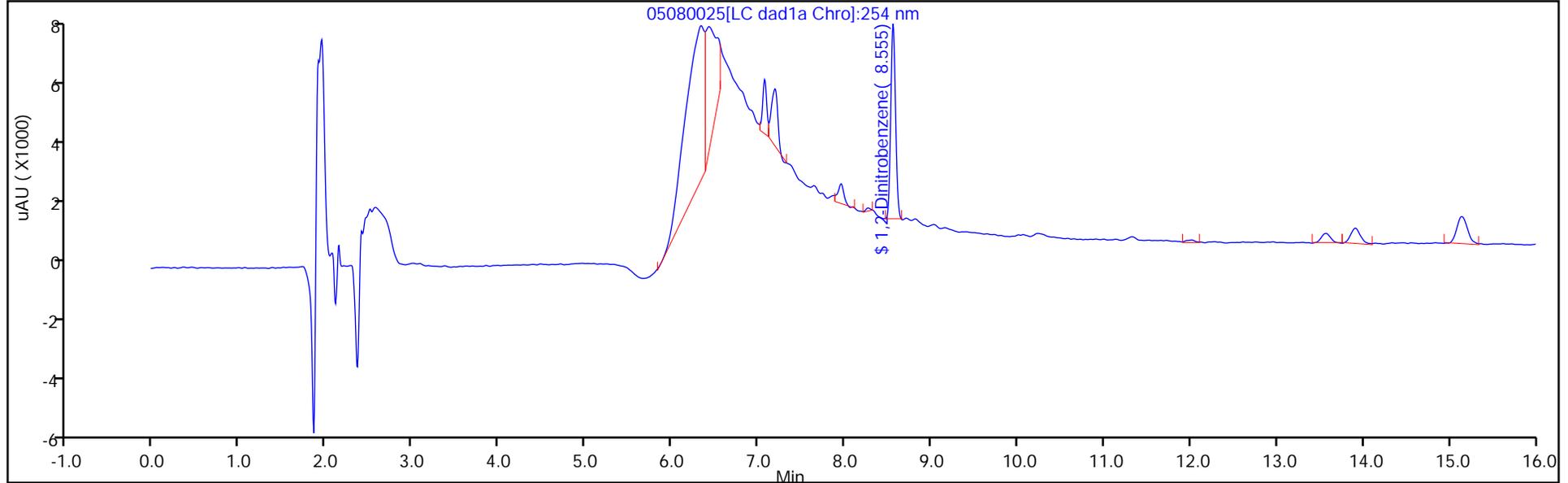
ALS Bottle#: 25

Method: 8330\_X3

Limit Group: GCSV - 8330

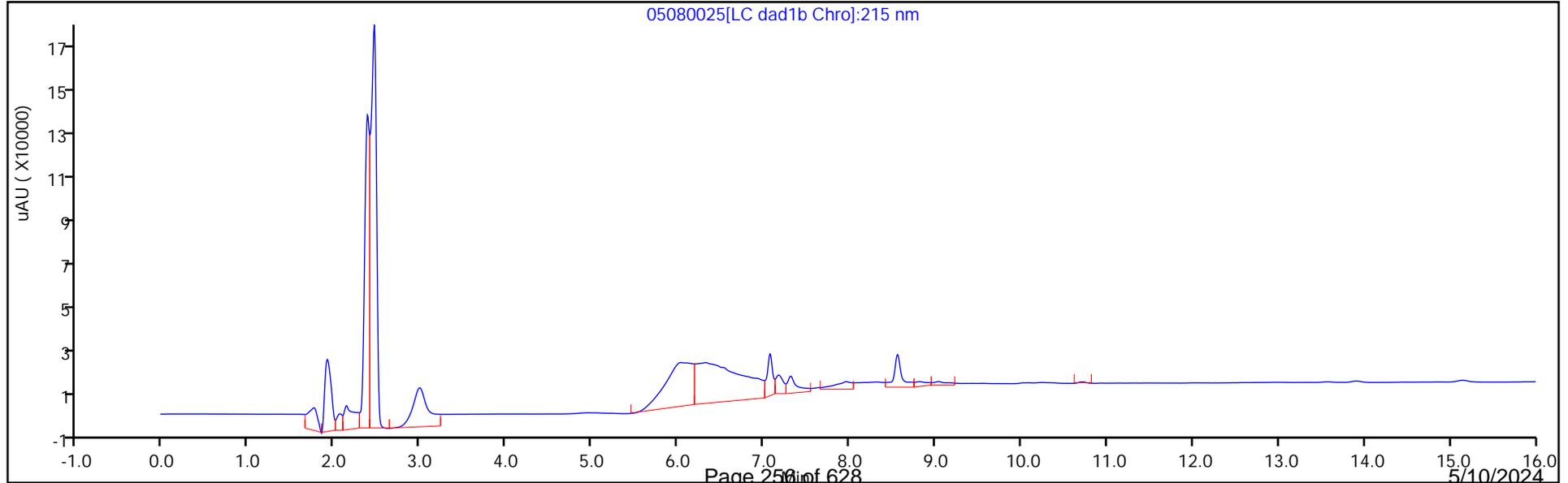
Column: UltraCarb5uODS (20) ( 4.60 mm)

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\20240508-133160.b\05080025.D  
 Lims ID: 280-190882-A-6-A  
 Client ID: LL1mw-089-240401-GW  
 Sample Type: Client  
 Inject. Date: 08-May-2024 22:51:28 ALS Bottle#: 25 Worklist Smp#: 25  
 Injection Vol: 100.0 ul Dil. Factor: 1.0000  
 Sample Info: 280-190882-A-6-A  
 Operator ID: JZ Instrument ID: CHHPLC\_X3  
 Method: \\chromfs\Denver\ChromData\CHHPLC\_X\20240508-133160.b\8330\_X3.m  
 Limit Group: GCSV - 8330  
 Last Update: 09-May-2024 13:10:49 Calib Date: 18-Apr-2024 03:08:00  
 Integrator: Falcon  
 Quant Method: External Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Denver\ChromData\CHHPLC\_X\20240417-132364.b\04170028.D  
 Column 1 : UltraCarb5uODS (20) ( 4.60 mm) Det: LC DAD1B, 254 nm  
 Process Host: CTX1670

First Level Reviewer: LV5D Date: 09-May-2024 12:12:21

Compound	Amount Added	Amount Recovered	% Rec.
\$ 10 1,2-Dinitrobenzene	0.2000	0.1849	92.45

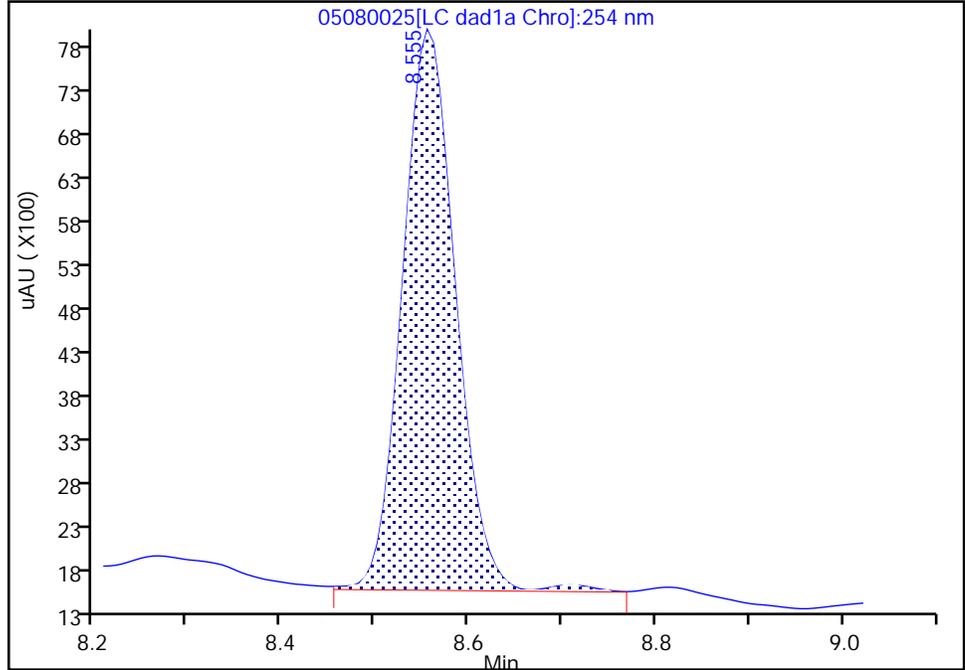
Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc\_x\20240508-133160.b\05080025.d  
Injection Date: 08-May-2024 22:51:28 Instrument ID: CHHPLC\_X3  
Lims ID: 280-190882-A-6-A Lab Sample ID: 280-190882-6  
Client ID: LL1mw-089-240401-GW  
Operator ID: JZ ALS Bottle#: 25 Worklist Smp#: 25  
Injection Vol: 100.0 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

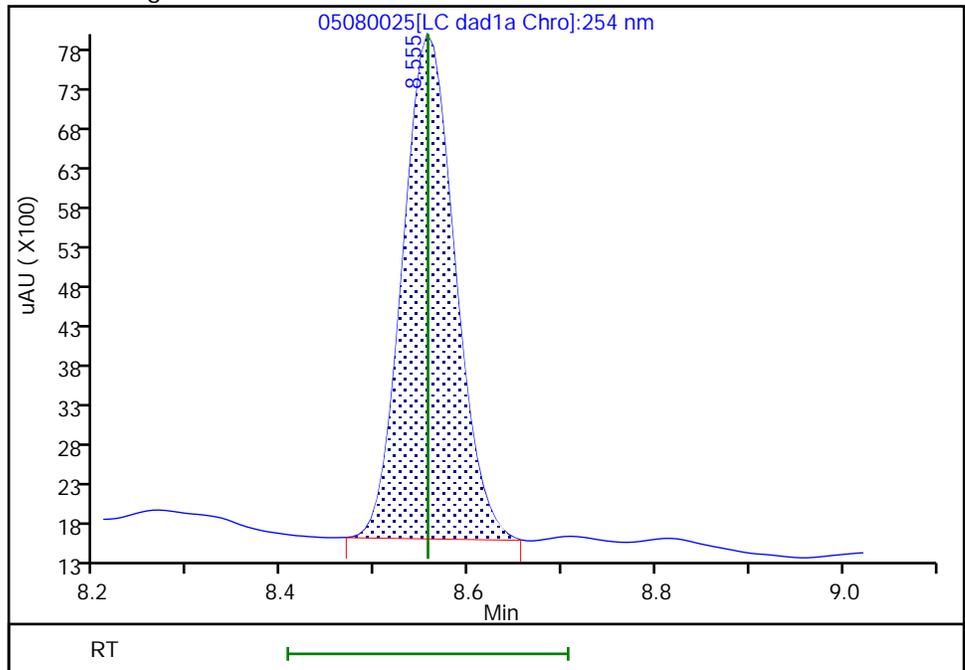
RT: 8.56  
Area: 25000  
Amount: 0.189213  
Amount Units: ug/mL

Processing Integration Results



RT: 8.56  
Area: 24432  
Amount: 0.184898  
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 09-May-2024 12:12:20 -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.: 280-190882-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: LL1mw-089-240402-GW Lab Sample ID: 280-190882-7  
 Matrix: Water Lab File ID: 05080026.D  
 Analysis Method: 8330B Date Collected: 04/30/2024 13:15  
 Extraction Method: 3535 Date Extracted: 05/03/2024 12:48  
 Sample wt/vol: 478.5(mL) Date Analyzed: 05/08/2024 23:14  
 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.: 652621 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	0.21	U	0.22	0.21	0.088
99-65-0	1,3-Dinitrobenzene	0.10	U	0.11	0.10	0.039
118-96-7	2,4,6-Trinitrotoluene	0.10	U	0.11	0.10	0.047
121-14-2	2,4-Dinitrotoluene	0.084	U	0.10	0.084	0.029
606-20-2	2,6-Dinitrotoluene	0.084	U	0.10	0.084	0.042
35572-78-2	2-Amino-4,6-dinitrotoluene	0.10	U	0.11	0.10	0.053
88-72-2	2-Nitrotoluene	0.21	U	0.22	0.21	0.089
99-08-1	3-Nitrotoluene	0.37	U	0.42	0.37	0.20
19406-51-0	4-Amino-2,6-dinitrotoluene	0.13	U	0.16	0.13	0.060
99-99-0	4-Nitrotoluene	0.42	U	0.43	0.42	0.10
2691-41-0	HMX	0.21	U	0.22	0.21	0.092
98-95-3	Nitrobenzene	0.21	U	0.22	0.21	0.095
55-63-0	Nitroglycerin	2.1	U	2.2	2.1	0.96
78-11-5	PETN	1.0	U	1.1	1.0	0.47
121-82-4	RDX	0.21	U M	0.22	0.21	0.054
479-45-8	Tetryl	0.10	U	0.11	0.10	0.033

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\20240508-133160.b\05080026.D  
 Lims ID: 280-190882-A-7-A  
 Client ID: LL1mw-089-240402-GW  
 Sample Type: Client  
 Inject. Date: 08-May-2024 23:14:24 ALS Bottle#: 26 Worklist Smp#: 26  
 Injection Vol: 100.0 ul Dil. Factor: 1.0000  
 Sample Info: 280-190882-A-7-A  
 Operator ID: JZ Instrument ID: CHHPLC\_X3  
 Method: \\chromfs\Denver\ChromData\CHHPLC\_X\20240508-133160.b\8330\_X3.m  
 Limit Group: GCSV - 8330  
 Last Update: 09-May-2024 13:10:49 Calib Date: 18-Apr-2024 03:08:00  
 Integrator: Falcon  
 Quant Method: External Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Denver\ChromData\CHHPLC\_X\20240417-132364.b\04170028.D  
 Column 1 : UltraCarb5uODS (20) ( 4.60 mm) Det: LC DAD1B, 254 nm  
 Process Host: CTX1670

First Level Reviewer: LV5D Date: 09-May-2024 12:12:32

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/mL	Flags
4 HMX	1		6.616			ND	
8 RDX	1	7.645	7.623	0.022	563	0.005083	7M
\$ 10 1,2-Dinitrobenzene	1	8.558	8.556	0.002	26728	0.2023	M
11 1,3,5-Trinitrobenzene	1		8.696			ND	
12 1,3-Dinitrobenzene	1		9.303			ND	
13 Nitrobenzene	1		9.656			ND	
15 Tetryl	1		9.963			ND	
16 Nitroglycerin	2		10.436			ND	
17 2,4,6-Trinitrotoluene	1		10.869			ND	
18 4-Amino-2,6-dinitrotoluene	1		11.043			ND	
19 2-Amino-4,6-dinitrotoluene	1		11.303			ND	7
20 2,6-Dinitrotoluene	1		11.436			ND	
21 2,4-Dinitrotoluene	1		11.616			ND	
22 o-Nitrotoluene	1		12.389			ND	
23 p-Nitrotoluene	1		12.809			ND	
24 m-Nitrotoluene	1		13.356			ND	
25 PETN	2		14.389			ND	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

M - Manually Integrated

Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc\_x\20240508-133160.b\05080026.d

Injection Date: 08-May-2024 23:14:24

Instrument ID: CHHPLC\_X3

Operator ID: JZ

Lims ID: 280-190882-A-7-A

Lab Sample ID: 280-190882-7

Worklist Smp#: 26

Client ID: LL1mw-089-240402-GW

Injection Vol: 100.0 ul

Dil. Factor: 1.0000

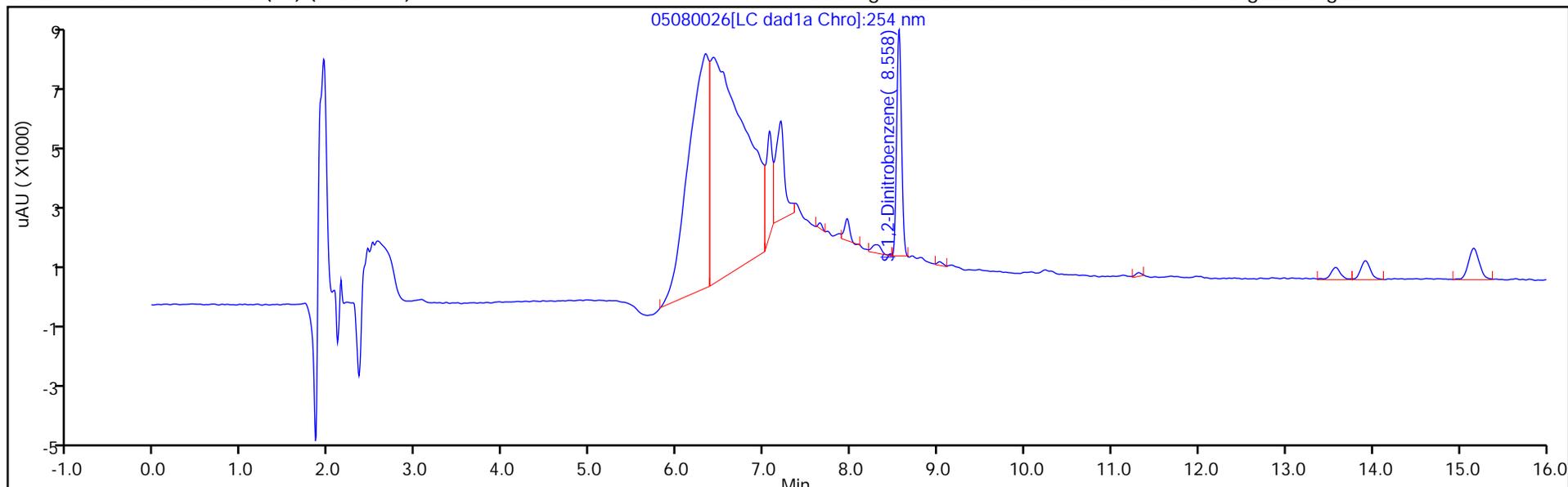
ALS Bottle#: 26

Method: 8330\_X3

Limit Group: GCSV - 8330

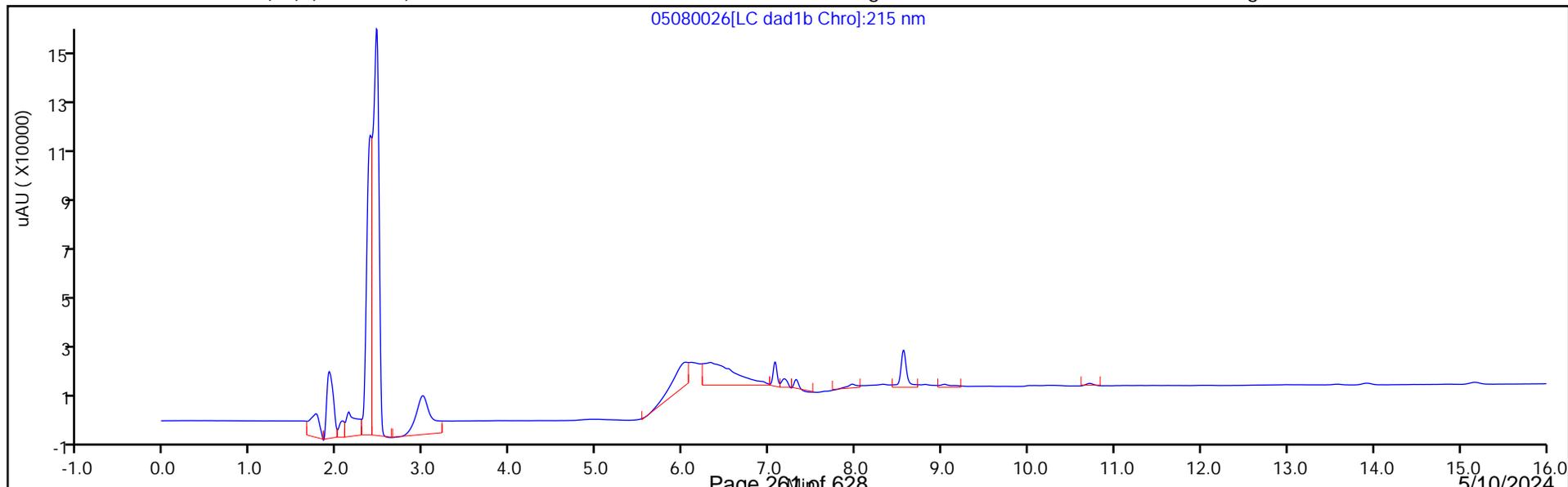
Column: UltraCarb5uODS (20) ( 4.60 mm)

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\20240508-133160.b\05080026.D  
 Lims ID: 280-190882-A-7-A  
 Client ID: LL1mw-089-240402-GW  
 Sample Type: Client  
 Inject. Date: 08-May-2024 23:14:24 ALS Bottle#: 26 Worklist Smp#: 26  
 Injection Vol: 100.0 ul Dil. Factor: 1.0000  
 Sample Info: 280-190882-A-7-A  
 Operator ID: JZ Instrument ID: CHHPLC\_X3  
 Method: \\chromfs\Denver\ChromData\CHHPLC\_X\20240508-133160.b\8330\_X3.m  
 Limit Group: GCSV - 8330  
 Last Update: 09-May-2024 13:10:49 Calib Date: 18-Apr-2024 03:08:00  
 Integrator: Falcon  
 Quant Method: External Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Denver\ChromData\CHHPLC\_X\20240417-132364.b\04170028.D  
 Column 1 : UltraCarb5uODS (20) ( 4.60 mm) Det: LC DAD1B, 254 nm  
 Process Host: CTX1670

First Level Reviewer: LV5D Date: 09-May-2024 12:12:32

Compound	Amount Added	Amount Recovered	% Rec.
\$ 10 1,2-Dinitrobenzene	0.2000	0.2023	101.17

Eurofins Denver

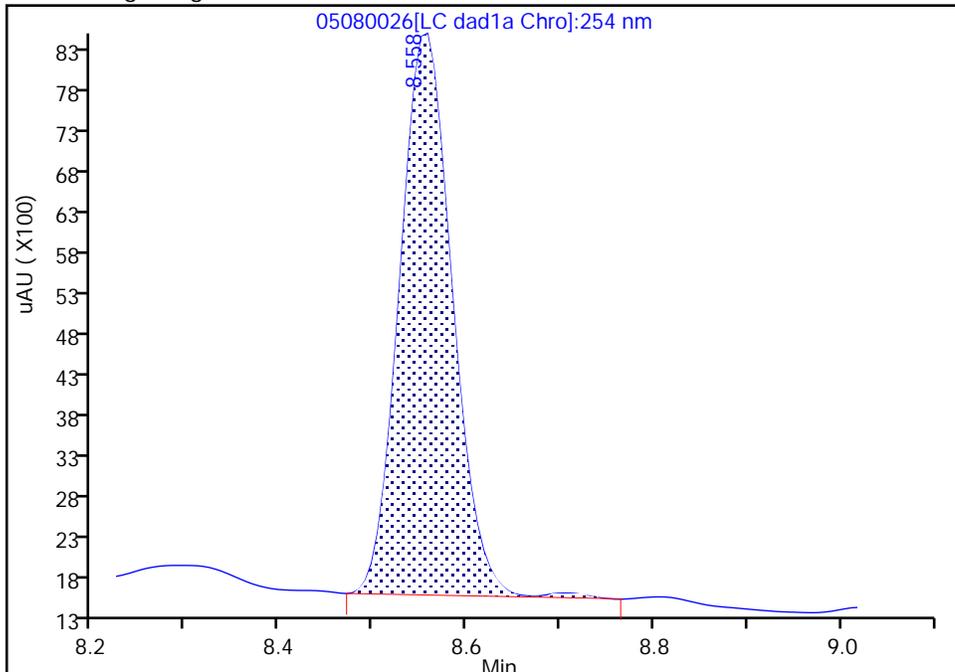
Data File: \\chromfs\denver\chromdata\chhplc\_x\20240508-133160.b\05080026.d  
Injection Date: 08-May-2024 23:14:24 Instrument ID: CHHPLC\_X3  
Lims ID: 280-190882-A-7-A Lab Sample ID: 280-190882-7  
Client ID: LL1mw-089-240402-GW  
Operator ID: JZ ALS Bottle#: 26 Worklist Smp#: 26  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: 8330\_X3 Limit Group: GCSV - 8330  
Column: UltraCarb5uODS (20) ( 4.60 mm) Detector: LC DAD1B, 254 nm

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

Signal: 1

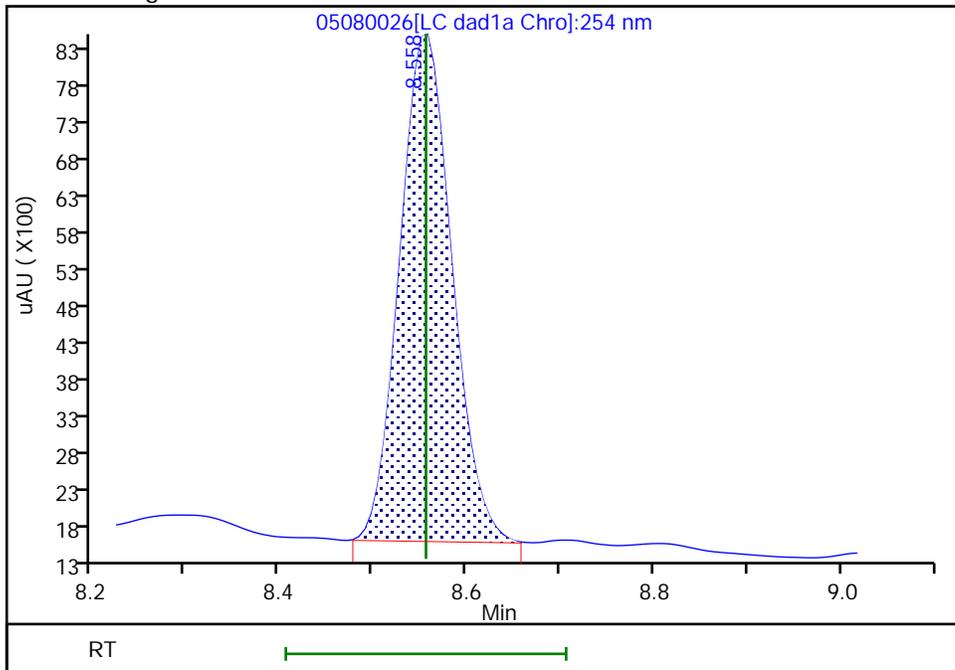
RT: 8.56  
Area: 27129  
Amount: 0.205387  
Amount Units: ug/mL

Processing Integration Results



RT: 8.56  
Area: 26728  
Amount: 0.202340  
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 09-May-2024 12:12:31 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins Denver

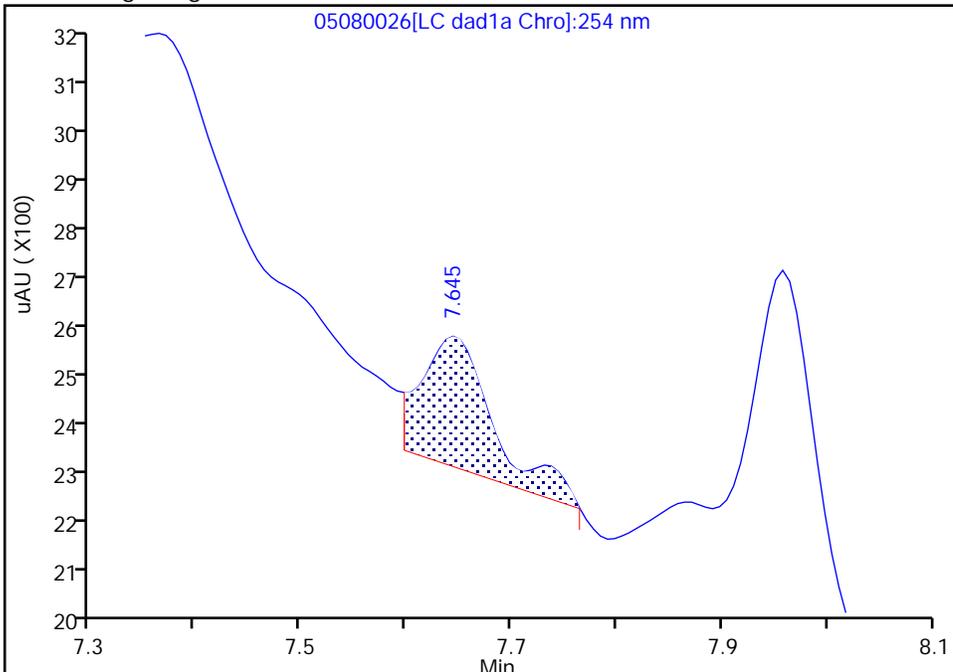
Data File: \\chromfs\denver\chromdata\chhplc\_x\20240508-133160.b\05080026.d  
Injection Date: 08-May-2024 23:14:24 Instrument ID: CHHPLC\_X3  
Lims ID: 280-190882-A-7-A Lab Sample ID: 280-190882-7  
Client ID: LL1mw-089-240402-GW  
Operator ID: JZ ALS Bottle#: 26 Worklist Smp#: 26  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: 8330\_X3 Limit Group: GCSV - 8330  
Column: UltraCarb5uODS (20) ( 4.60 mm) Detector: LC DAD1B, 254 nm

8 RDX, CAS: 121-82-4

Signal: 1

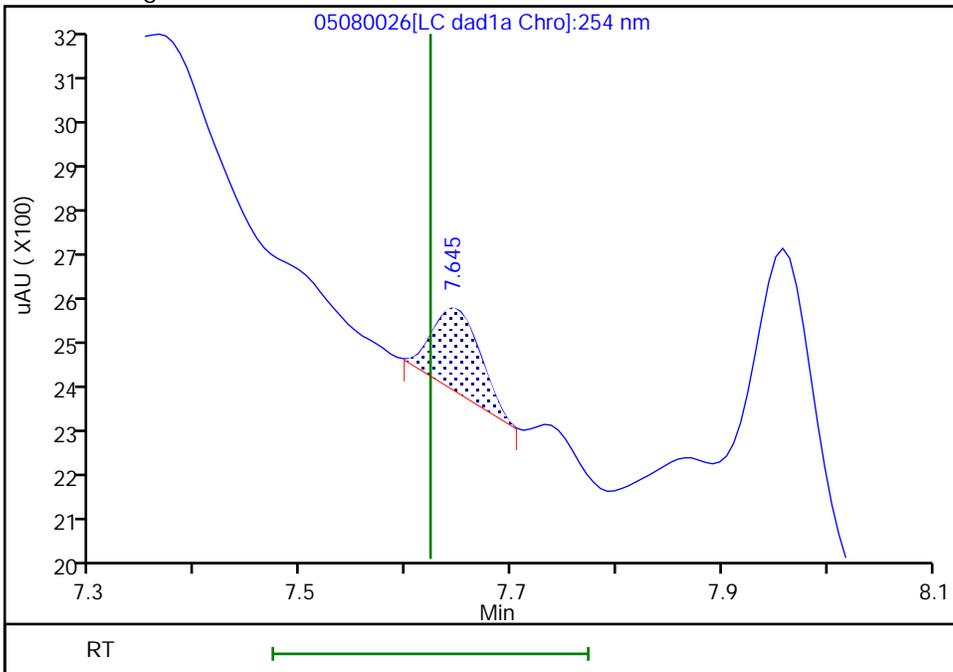
RT: 7.64  
Area: 1198  
Amount: 0.010815  
Amount Units: ug/mL

Processing Integration Results



RT: 7.64  
Area: 563  
Amount: 0.005083  
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 09-May-2024 12:12:28 -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.: 280-190882-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: FWGmw-004-240401-GW Lab Sample ID: 280-190882-8  
 Matrix: Water Lab File ID: 05080027.D  
 Analysis Method: 8330B Date Collected: 04/30/2024 15:40  
 Extraction Method: 3535 Date Extracted: 05/03/2024 12:48  
 Sample wt/vol: 483.4 (mL) Date Analyzed: 05/08/2024 23:37  
 Con. Extract Vol.: 5 (mL) Dilution Factor: 1  
 Injection Volume: 100 (uL) GC Column: UltraCarb5uODS ID: 4.6 (mm)  
 % Moisture: \_\_\_\_\_ % Solids: \_\_\_\_\_ GPC Cleanup: (Y/N) N  
 Cleanup Factor: \_\_\_\_\_  
 Analysis Batch No.: 652621 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	0.087
99-65-0	1,3-Dinitrobenzene	0.10	U	0.11	0.10	0.038
118-96-7	2,4,6-Trinitrotoluene	0.10	U	0.11	0.10	0.047
121-14-2	2,4-Dinitrotoluene	0.083	U	0.10	0.083	0.028
606-20-2	2,6-Dinitrotoluene	0.083	U	0.10	0.083	0.041
35572-78-2	2-Amino-4,6-dinitrotoluene	0.10	U	0.11	0.10	0.052
88-72-2	2-Nitrotoluene	0.21	U J1	0.22	0.21	0.088
99-08-1	3-Nitrotoluene	0.36	U J1	0.41	0.36	0.20
19406-51-0	4-Amino-2,6-dinitrotoluene	0.12	U	0.16	0.12	0.060
99-99-0	4-Nitrotoluene	0.41	U J1	0.42	0.41	0.10
2691-41-0	HMX	0.21	U	0.22	0.21	0.091
98-95-3	Nitrobenzene	0.21	U	0.22	0.21	0.094
55-63-0	Nitroglycerin	2.1	U	2.2	2.1	0.95
78-11-5	PETN	1.0	U	1.1	1.0	0.46
121-82-4	RDX	0.21	U	0.22	0.21	0.053
479-45-8	Tetryl	0.10	U	0.11	0.10	0.033

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\20240508-133160.b\05080027.D  
 Lims ID: 280-190882-A-8-A  
 Client ID: FWGmw-004-240401-GW  
 Sample Type: Client  
 Inject. Date: 08-May-2024 23:37:19 ALS Bottle#: 27 Worklist Smp#: 27  
 Injection Vol: 100.0 ul Dil. Factor: 1.0000  
 Sample Info: 280-190882-A-8-A  
 Operator ID: JZ Instrument ID: CHHPLC\_X3  
 Method: \\chromfs\Denver\ChromData\CHHPLC\_X\20240508-133160.b\8330\_X3.m  
 Limit Group: GCSV - 8330  
 Last Update: 09-May-2024 13:10:49 Calib Date: 18-Apr-2024 03:08:00  
 Integrator: Falcon  
 Quant Method: External Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Denver\ChromData\CHHPLC\_X\20240417-132364.b\04170028.D  
 Column 1 : UltraCarb5uODS (20) ( 4.60 mm) Det: LC DAD1B, 254 nm  
 Process Host: CTX1670

First Level Reviewer: LV5D Date: 09-May-2024 12:12:40

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/mL	Flags
1 Triamine Trinitrobenzene	1		2.444			ND	
2 2,6-diamino-4-nitrotoluene	1		6.460			ND	U
3 TNX	1		6.506			ND	
4 HMX	1		6.616			ND	
5 2,4-diamino-6-nitrotoluene	1		6.633			ND	
6 DNX	1		6.892			ND	
7 MNX	1		7.258			ND	
8 RDX	1		7.623			ND	
9 2,4,6-Trinitrophenol	1		7.830			ND	
\$ 10 1,2-Dinitrobenzene	1	8.556	8.556	0.000	24353	0.1843	M
11 1,3,5-Trinitrobenzene	1		8.696			ND	
12 1,3-Dinitrobenzene	1		9.303			ND	
13 Nitrobenzene	1		9.656			ND	
14 3,5-Dinitroaniline	1		9.896			ND	
15 Tetryl	1		9.963			ND	
16 Nitroglycerin	2		10.436			ND	
17 2,4,6-Trinitrotoluene	1		10.869			ND	
18 4-Amino-2,6-dinitrotoluene	1		11.043			ND	
19 2-Amino-4,6-dinitrotoluene	1		11.303			ND	
20 2,6-Dinitrotoluene	1		11.436			ND	
21 2,4-Dinitrotoluene	1		11.616			ND	
22 o-Nitrotoluene	1		12.389			ND	
23 p-Nitrotoluene	1		12.809			ND	
24 m-Nitrotoluene	1		13.356			ND	
25 PETN	2		14.389			ND	
26 Ammonium Picrate	1		0.000			ND	

QC Flag Legend  
Processing Flags

Review Flags

M - Manually Integrated

U - Marked Undetected

Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc\_x\20240508-133160.b\05080027.d

Injection Date: 08-May-2024 23:37:19

Instrument ID: CHHPLC\_X3

Operator ID: JZ

Lims ID: 280-190882-A-8-A

Lab Sample ID: 280-190882-8

Worklist Smp#: 27

Client ID: FWGmw-004-240401-GW

Injection Vol: 100.0 ul

Dil. Factor: 1.0000

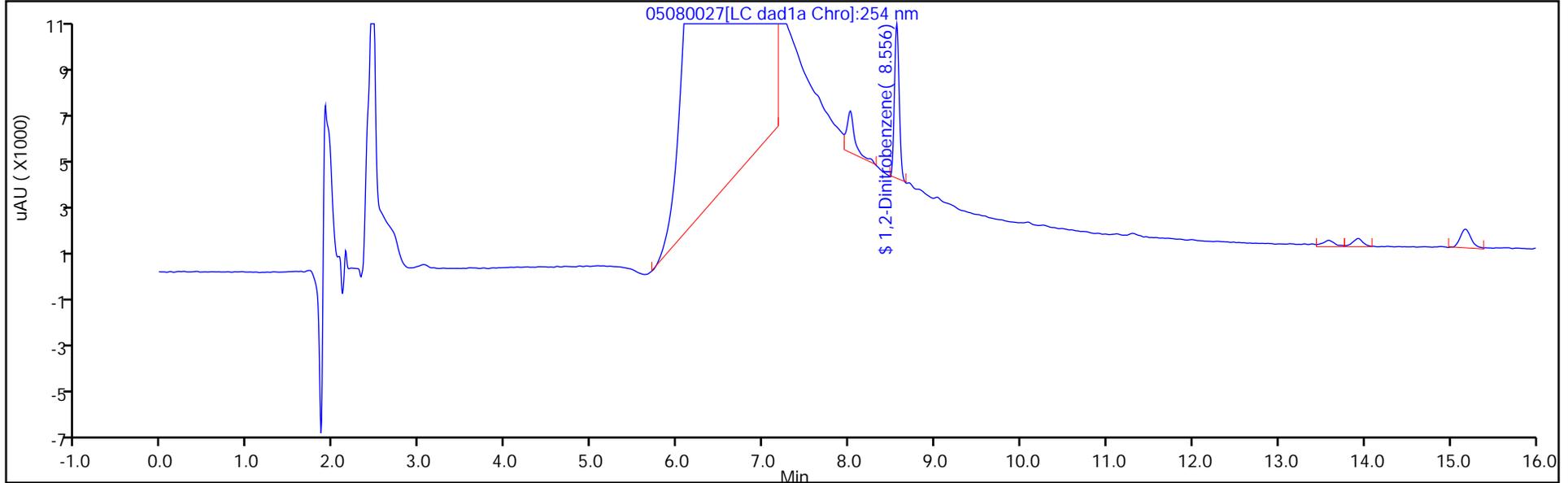
ALS Bottle#: 27

Method: 8330\_X3

Limit Group: GCSV - 8330

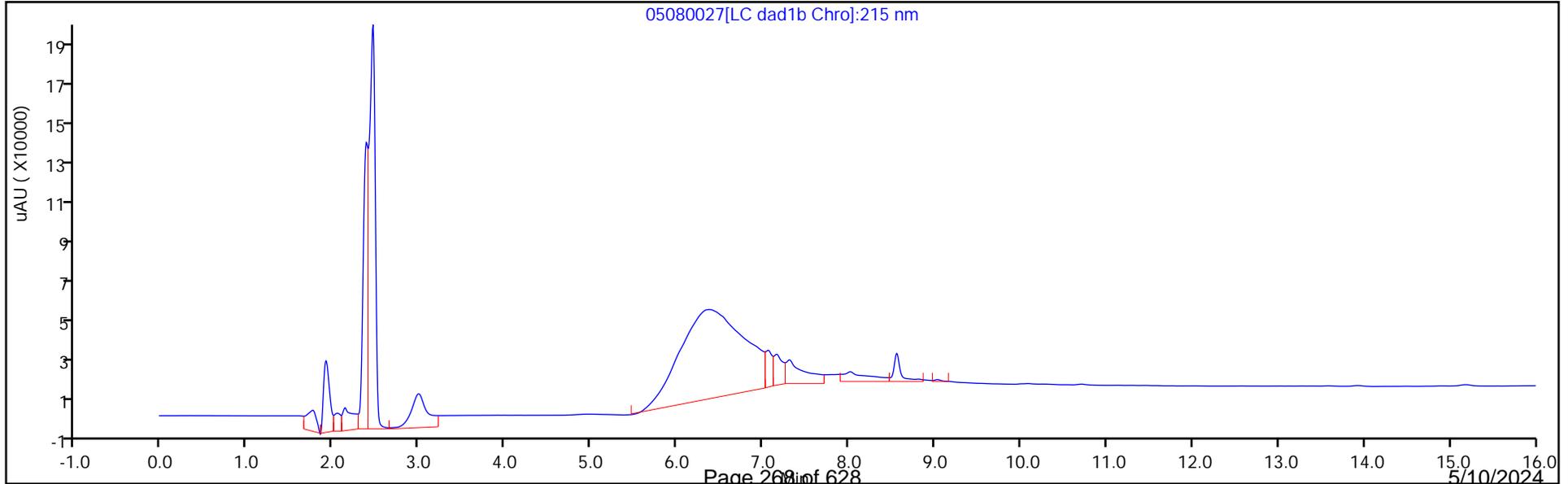
Column: UltraCarb5uODS (20) ( 4.60 mm)

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



Column: UltraCarb5uODS (20) ( 4.60 mm)

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



Eurofins Denver  
Recovery Report

Data File: \\chromfs\Denver\ChromData\CHHPLC\_X\20240508-133160.b\05080027.D  
 Lims ID: 280-190882-A-8-A  
 Client ID: FWGmw-004-240401-GW  
 Sample Type: Client  
 Inject. Date: 08-May-2024 23:37:19 ALS Bottle#: 27 Worklist Smp#: 27  
 Injection Vol: 100.0 ul Dil. Factor: 1.0000  
 Sample Info: 280-190882-A-8-A  
 Operator ID: JZ Instrument ID: CHHPLC\_X3  
 Method: \\chromfs\Denver\ChromData\CHHPLC\_X\20240508-133160.b\8330\_X3.m  
 Limit Group: GCSV - 8330  
 Last Update: 09-May-2024 13:10:49 Calib Date: 18-Apr-2024 03:08:00  
 Integrator: Falcon  
 Quant Method: External Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Denver\ChromData\CHHPLC\_X\20240417-132364.b\04170028.D  
 Column 1 : UltraCarb5uODS (20) ( 4.60 mm) Det: LC DAD1B, 254 nm  
 Process Host: CTX1670

First Level Reviewer: LV5D Date: 09-May-2024 12:12:40

Compound	Amount Added	Amount Recovered	% Rec.
\$ 10 1,2-Dinitrobenzene	0.2000	0.1843	92.15

Eurofins Denver

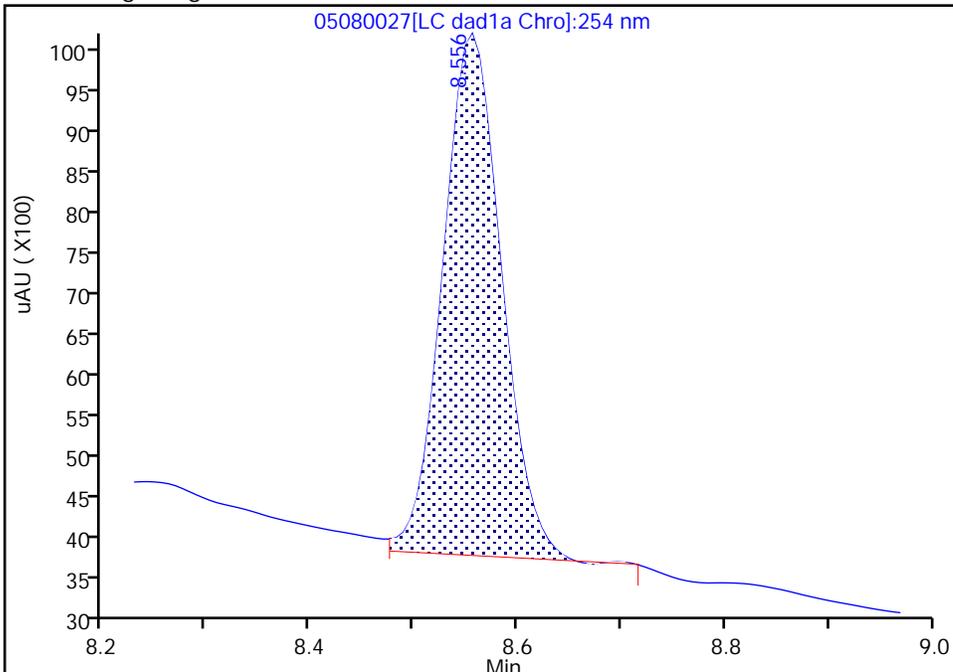
Data File: \\chromfs\denver\chromdata\chhplc\_x\20240508-133160.b\05080027.d  
Injection Date: 08-May-2024 23:37:19 Instrument ID: CHHPLC\_X3  
Lims ID: 280-190882-A-8-A Lab Sample ID: 280-190882-8  
Client ID: FWGmw-004-240401-GW  
Operator ID: JZ ALS Bottle#: 27 Worklist Smp#: 27  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: 8330\_X3 Limit Group: GCSV - 8330  
Column: UltraCarb5uODS (20) ( 4.60 mm) Detector: LC DAD1B, 254 nm

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

Signal: 1

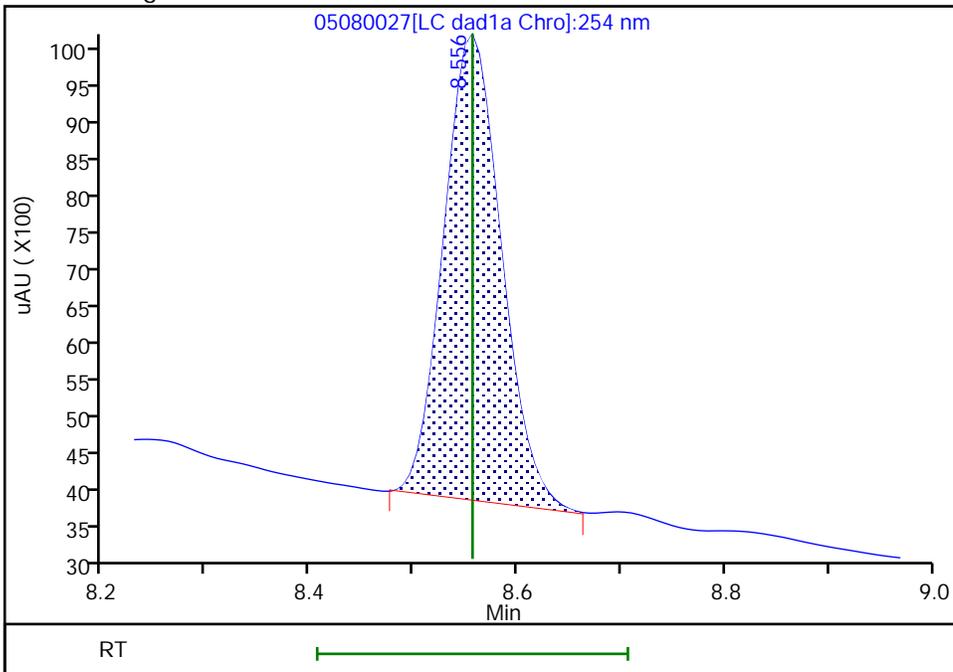
RT: 8.56  
Area: 25289  
Amount: 0.191408  
Amount Units: ug/mL

Processing Integration Results



RT: 8.56  
Area: 24353  
Amount: 0.184297  
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 09-May-2024 12:12:37 -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.: 280-190882-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: FWGmw-004-240402-GW Lab Sample ID: 280-190882-9  
 Matrix: Water Lab File ID: 05080030.D  
 Analysis Method: 8330B Date Collected: 04/30/2024 15:40  
 Extraction Method: 3535 Date Extracted: 05/03/2024 12:48  
 Sample wt/vol: 461.2(mL) Date Analyzed: 05/09/2024 00:46  
 Con. Extract Vol.: 5(mL) Dilution Factor: 1  
 Injection Volume: 100(uL) GC Column: UltraCarb5uODS ID: 4.6(mm)  
 % Moisture: \_\_\_\_\_ % Solids: \_\_\_\_\_ GPC Cleanup: (Y/N) N  
 Cleanup Factor: \_\_\_\_\_  
 Analysis Batch No.: 652621 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	0.12	0.11	0.040
118-96-7	2,4,6-Trinitrotoluene	0.11	U	0.12	0.11	0.049
121-14-2	2,4-Dinitrotoluene	0.087	U	0.11	0.087	0.030
606-20-2	2,6-Dinitrotoluene	0.087	U	0.11	0.087	0.043
35572-78-2	2-Amino-4,6-dinitrotoluene	0.11	U	0.12	0.11	0.055
88-72-2	2-Nitrotoluene	0.22	U	0.23	0.22	0.093
99-08-1	3-Nitrotoluene	0.38	U	0.43	0.38	0.21
19406-51-0	4-Amino-2,6-dinitrotoluene	0.13	U	0.16	0.13	0.063
99-99-0	4-Nitrotoluene	0.43	U	0.44	0.43	0.11
2691-41-0	HMX	0.22	U	0.23	0.22	0.095
98-95-3	Nitrobenzene	0.22	U	0.23	0.22	0.099
55-63-0	Nitroglycerin	2.2	U	2.3	2.2	1.0
78-11-5	PETN	1.1	U	1.2	1.1	0.48
121-82-4	RDX	0.22	U	0.23	0.22	0.056
479-45-8	Tetryl	0.11	U	0.12	0.11	0.034

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\20240508-133160.b\05080030.D  
 Lims ID: 280-190882-A-9-A  
 Client ID: FWGmw-004-240402-GW  
 Sample Type: Client  
 Inject. Date: 09-May-2024 00:46:07 ALS Bottle#: 30 Worklist Smp#: 30  
 Injection Vol: 100.0 ul Dil. Factor: 1.0000  
 Sample Info: 280-190882-A-9-A  
 Operator ID: JZ Instrument ID: CHHPLC\_X3  
 Method: \\chromfs\Denver\ChromData\CHHPLC\_X\20240508-133160.b\8330\_X3.m  
 Limit Group: GCSV - 8330  
 Last Update: 09-May-2024 13:10:49 Calib Date: 18-Apr-2024 03:08:00  
 Integrator: Falcon  
 Quant Method: External Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Denver\ChromData\CHHPLC\_X\20240417-132364.b\04170028.D  
 Column 1 : UltraCarb5uODS (20) ( 4.60 mm) Det: LC DAD1B, 254 nm  
 Process Host: CTX1670

First Level Reviewer: LV5D

Date: 09-May-2024 12:17:31

Compound	Det	RT (min.)	Exp RT (min.)	Diff RT (min.)	Response	OnCol Amt ug/mL	Flags
4 HMX	1		6.616			ND	
8 RDX	1		7.623			ND	
\$ 10 1,2-Dinitrobenzene	1	8.553	8.556	-0.003	26001	0.1968	M
11 1,3,5-Trinitrobenzene	1		8.696			ND	
12 1,3-Dinitrobenzene	1		9.303			ND	
13 Nitrobenzene	1		9.656			ND	
15 Tetryl	1		9.963			ND	
16 Nitroglycerin	2		10.436			ND	
17 2,4,6-Trinitrotoluene	1		10.869			ND	
18 4-Amino-2,6-dinitrotoluene	1		11.043			ND	
19 2-Amino-4,6-dinitrotoluene	1		11.303			ND	
20 2,6-Dinitrotoluene	1		11.436			ND	
21 2,4-Dinitrotoluene	1		11.616			ND	
22 o-Nitrotoluene	1		12.389			ND	
23 p-Nitrotoluene	1		12.809			ND	
24 m-Nitrotoluene	1		13.356			ND	
25 PETN	2		14.389			ND	

## QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc\_x\20240508-133160.b\05080030.d

Injection Date: 09-May-2024 00:46:07

Instrument ID: CHHPLC\_X3

Operator ID: JZ

Lims ID: 280-190882-A-9-A

Lab Sample ID: 280-190882-9

Worklist Smp#: 30

Client ID: FWGmw-004-240402-GW

Injection Vol: 100.0 ul

Dil. Factor: 1.0000

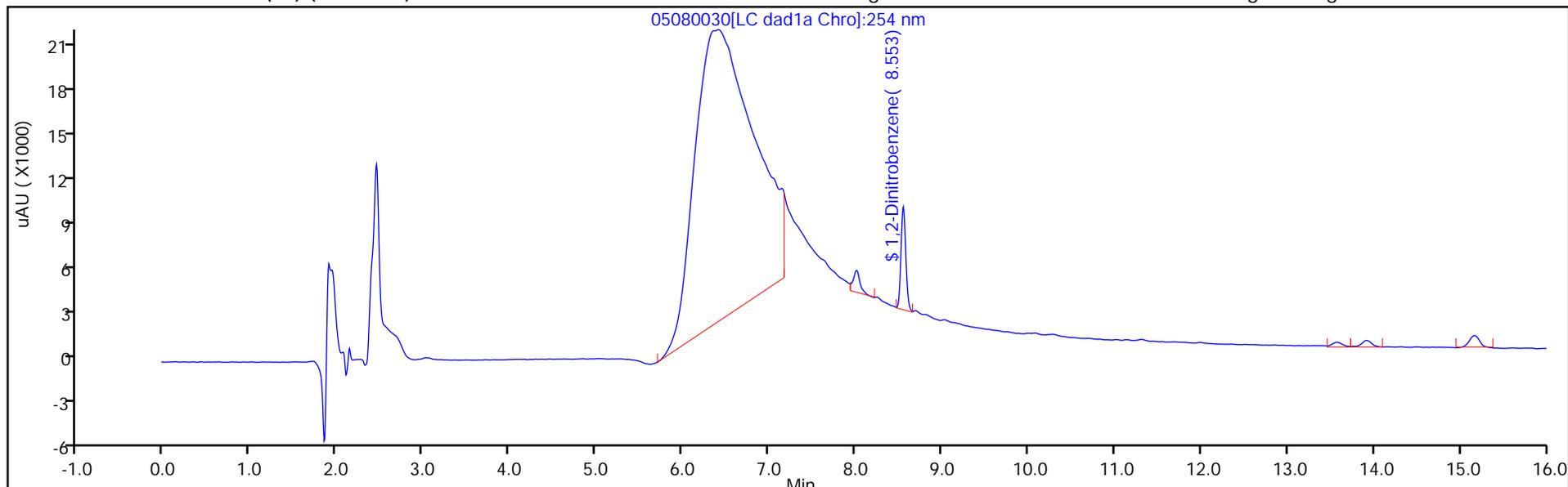
ALS Bottle#: 30

Method: 8330\_X3

Limit Group: GCSV - 8330

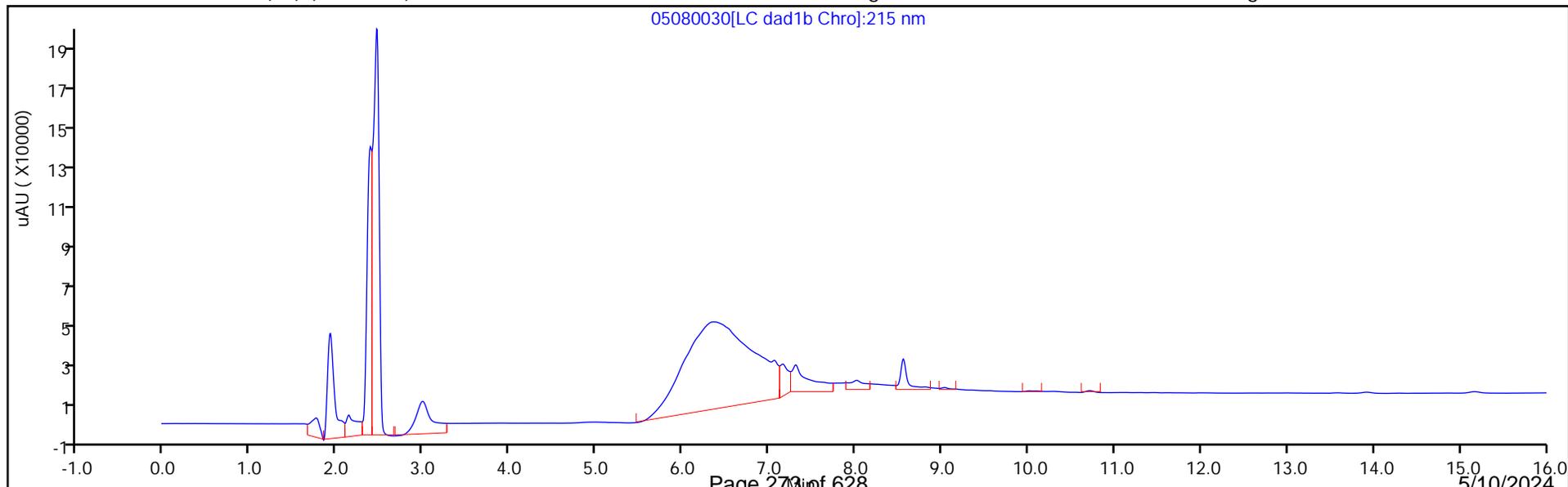
Column: UltraCarb5uODS (20) ( 4.60 mm)

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



Column: UltraCarb5uODS (20) ( 4.60 mm)

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



Eurofins Denver  
Recovery Report

Data File: \\chromfs\Denver\ChromData\CHHPLC\_X\20240508-133160.b\05080030.D  
 Lims ID: 280-190882-A-9-A  
 Client ID: FWGmw-004-240402-GW  
 Sample Type: Client  
 Inject. Date: 09-May-2024 00:46:07 ALS Bottle#: 30 Worklist Smp#: 30  
 Injection Vol: 100.0 ul Dil. Factor: 1.0000  
 Sample Info: 280-190882-A-9-A  
 Operator ID: JZ Instrument ID: CHHPLC\_X3  
 Method: \\chromfs\Denver\ChromData\CHHPLC\_X\20240508-133160.b\8330\_X3.m  
 Limit Group: GCSV - 8330  
 Last Update: 09-May-2024 13:10:49 Calib Date: 18-Apr-2024 03:08:00  
 Integrator: Falcon  
 Quant Method: External Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Denver\ChromData\CHHPLC\_X\20240417-132364.b\04170028.D  
 Column 1 : UltraCarb5uODS (20) ( 4.60 mm) Det: LC DAD1B, 254 nm  
 Process Host: CTX1670

First Level Reviewer: LV5D Date: 09-May-2024 12:17:31

Compound	Amount Added	Amount Recovered	% Rec.
\$ 10 1,2-Dinitrobenzene	0.2000	0.1968	98.41

Eurofins Denver

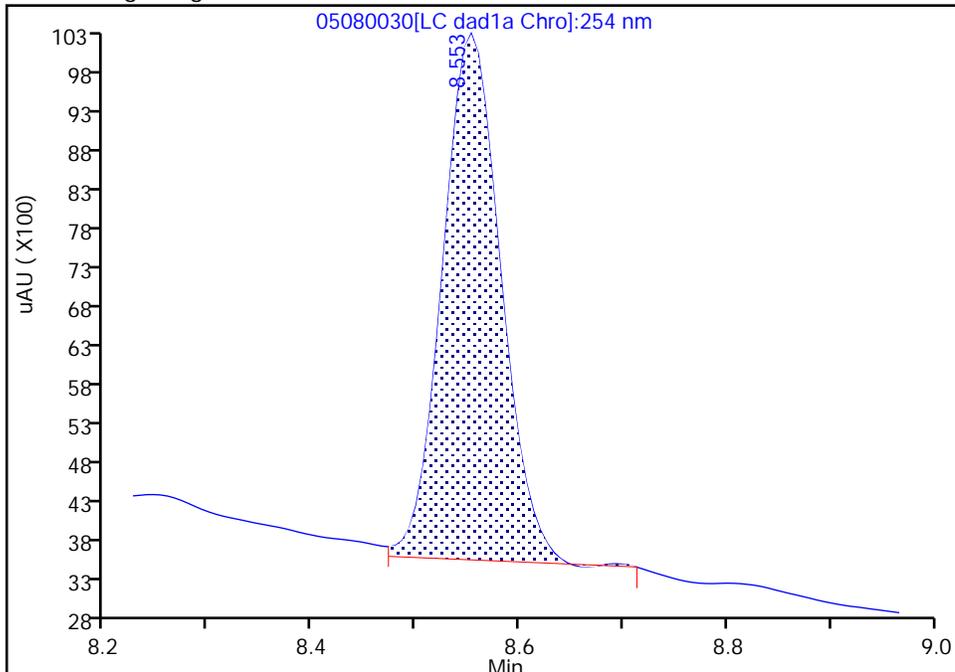
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Injection Date: 09-May-2024 00:46:07 Instrument ID: CHHPLC\_X3  
Lims ID: 280-190882-A-9-A Lab Sample ID: 280-190882-9  
Client ID: FWGmw-004-240402-GW  
Operator ID: JZ ALS Bottle#: 30 Worklist Smp#: 30  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: 8330\_X3 Limit Group: GCSV - 8330  
Column: UltraCarb5uODS (20) ( 4.60 mm) Detector: LC DAD1B, 254 nm

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

Signal: 1

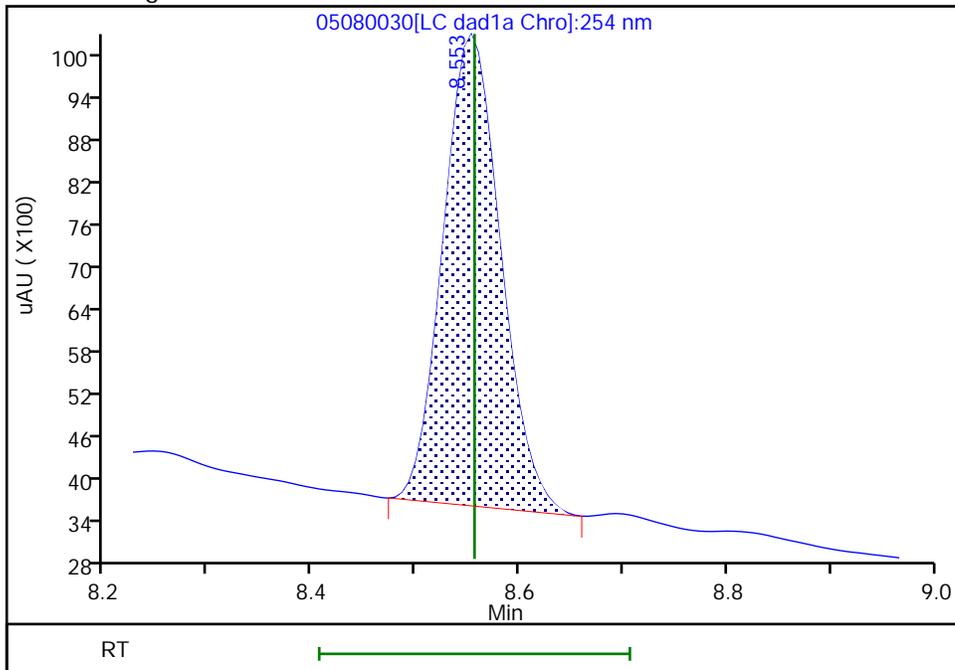
RT: 8.55  
Area: 26756  
Amount: 0.202553  
Amount Units: ug/mL

Processing Integration Results



RT: 8.55  
Area: 26001  
Amount: 0.196817  
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 09-May-2024 12:17:30 -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.: 280-190882-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: FWGmw-007-240401-GW Lab Sample ID: 280-190882-10  
 Matrix: Water Lab File ID: 05080031.D  
 Analysis Method: 8330B Date Collected: 04/30/2024 16:15  
 Extraction Method: 3535 Date Extracted: 05/03/2024 12:48  
 Sample wt/vol: 477.8 (mL) Date Analyzed: 05/09/2024 01:09  
 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.: 652621 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	0.21	U	0.22	0.21	0.088
99-65-0	1,3-Dinitrobenzene	0.10	U	0.12	0.10	0.039
118-96-7	2,4,6-Trinitrotoluene	0.10	U	0.12	0.10	0.047
121-14-2	2,4-Dinitrotoluene	0.084	U	0.10	0.084	0.029
606-20-2	2,6-Dinitrotoluene	0.084	U	0.10	0.084	0.042
35572-78-2	2-Amino-4,6-dinitrotoluene	0.10	U	0.12	0.10	0.053
88-72-2	2-Nitrotoluene	0.21	U	0.22	0.21	0.089
99-08-1	3-Nitrotoluene	0.37	U	0.42	0.37	0.20
19406-51-0	4-Amino-2,6-dinitrotoluene	0.13	U	0.16	0.13	0.060
99-99-0	4-Nitrotoluene	0.42	U	0.43	0.42	0.10
2691-41-0	HMX	0.21	U	0.22	0.21	0.092
98-95-3	Nitrobenzene	0.21	U	0.22	0.21	0.095
55-63-0	Nitroglycerin	2.1	U	2.2	2.1	0.96
78-11-5	PETN	1.0	U	1.2	1.0	0.47
121-82-4	RDX	0.21	U	0.22	0.21	0.054
479-45-8	Tetryl	0.10	U	0.12	0.10	0.033

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	98	M	83-119

Eurofins Denver  
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC\_X\20240508-133160.b\05080031.D  
 Lims ID: 280-190882-A-10-A  
 Client ID: FWGmw-007-240401-GW  
 Sample Type: Client  
 Inject. Date: 09-May-2024 01:09:04 ALS Bottle#: 31 Worklist Smp#: 31  
 Injection Vol: 100.0 ul Dil. Factor: 1.0000  
 Sample Info: 280-190882-A-10-A  
 Operator ID: JZ Instrument ID: CHHPLC\_X3  
 Method: \\chromfs\Denver\ChromData\CHHPLC\_X\20240508-133160.b\8330\_X3.m  
 Limit Group: GCSV - 8330  
 Last Update: 09-May-2024 13:10:49 Calib Date: 18-Apr-2024 03:08:00  
 Integrator: Falcon  
 Quant Method: External Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Denver\ChromData\CHHPLC\_X\20240417-132364.b\04170028.D  
 Column 1 : UltraCarb5uODS (20) ( 4.60 mm) Det: LC DAD1B, 254 nm  
 Process Host: CTX1670

First Level Reviewer: LV5D Date: 09-May-2024 12:17:36

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/mL	Flags
4 HMX	1		6.616			ND	
8 RDX	1		7.623			ND	
\$ 10 1,2-Dinitrobenzene	1	8.559	8.556	0.003	26016	0.1969	M
11 1,3,5-Trinitrobenzene	1		8.696			ND	
12 1,3-Dinitrobenzene	1		9.303			ND	
13 Nitrobenzene	1		9.656			ND	
15 Tetryl	1		9.963			ND	
16 Nitroglycerin	2		10.436			ND	
17 2,4,6-Trinitrotoluene	1		10.869			ND	
18 4-Amino-2,6-dinitrotoluene	1		11.043			ND	
19 2-Amino-4,6-dinitrotoluene	1		11.303			ND	7
20 2,6-Dinitrotoluene	1		11.436			ND	
21 2,4-Dinitrotoluene	1		11.616			ND	
22 o-Nitrotoluene	1		12.389			ND	
23 p-Nitrotoluene	1		12.809			ND	
24 m-Nitrotoluene	1		13.356			ND	
25 PETN	2		14.389			ND	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

M - Manually Integrated

Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc\_x\20240508-133160.b\05080031.d

Injection Date: 09-May-2024 01:09:04

Instrument ID: CHHPLC\_X3

Operator ID: JZ

Lims ID: 280-190882-A-10-A

Lab Sample ID: 280-190882-10

Worklist Smp#: 31

Client ID: FWGmw-007-240401-GW

Injection Vol: 100.0 ul

Dil. Factor: 1.0000

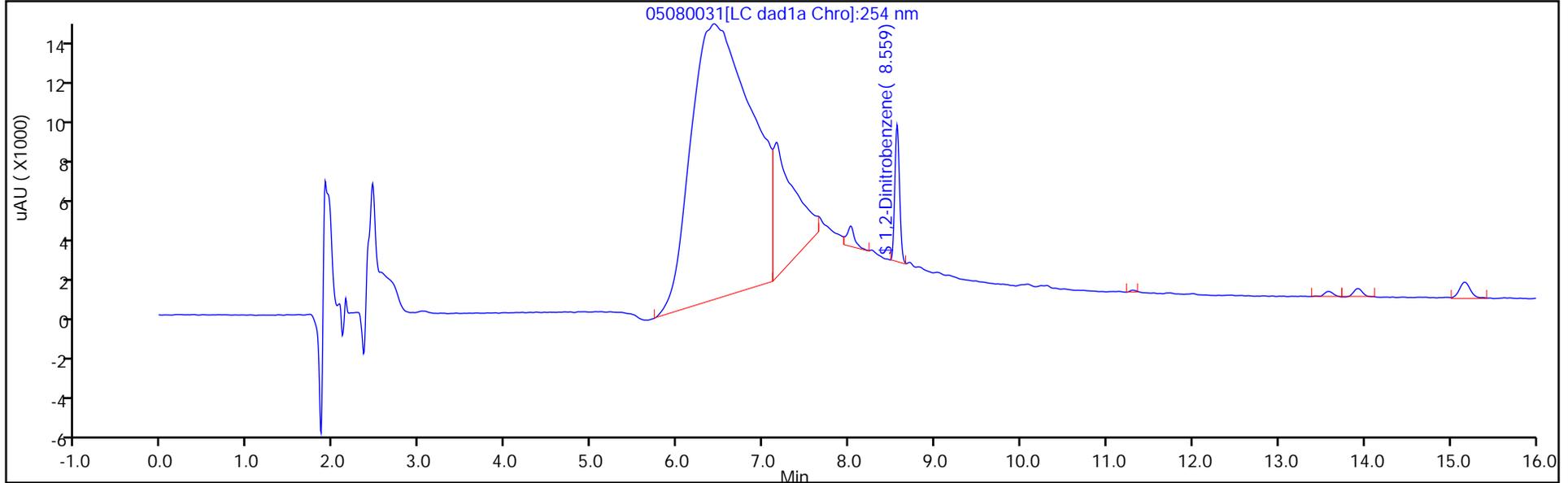
ALS Bottle#: 31

Method: 8330\_X3

Limit Group: GCSV - 8330

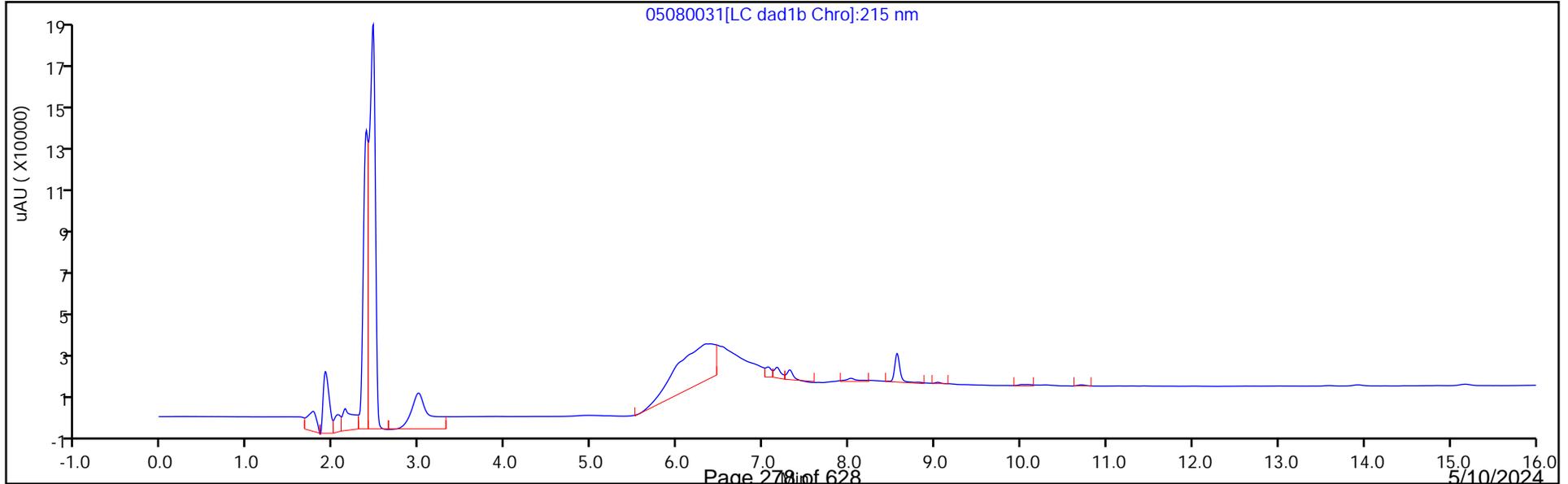
Column: UltraCarb5uODS (20) ( 4.60 mm)

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



Column: UltraCarb5uODS (20) ( 4.60 mm)

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



Eurofins Denver  
Recovery Report

Data File: \\chromfs\Denver\ChromData\CHHPLC\_X\20240508-133160.b\05080031.D  
 Lims ID: 280-190882-A-10-A  
 Client ID: FWGmw-007-240401-GW  
 Sample Type: Client  
 Inject. Date: 09-May-2024 01:09:04 ALS Bottle#: 31 Worklist Smp#: 31  
 Injection Vol: 100.0 ul Dil. Factor: 1.0000  
 Sample Info: 280-190882-A-10-A  
 Operator ID: JZ Instrument ID: CHHPLC\_X3  
 Method: \\chromfs\Denver\ChromData\CHHPLC\_X\20240508-133160.b\8330\_X3.m  
 Limit Group: GCSV - 8330  
 Last Update: 09-May-2024 13:10:49 Calib Date: 18-Apr-2024 03:08:00  
 Integrator: Falcon  
 Quant Method: External Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Denver\ChromData\CHHPLC\_X\20240417-132364.b\04170028.D  
 Column 1 : UltraCarb5uODS (20) ( 4.60 mm) Det: LC DAD1B, 254 nm  
 Process Host: CTX1670

First Level Reviewer: LV5D Date: 09-May-2024 12:17:36

Compound	Amount Added	Amount Recovered	% Rec.
\$ 10 1,2-Dinitrobenzene	0.2000	0.1969	98.47

Eurofins Denver

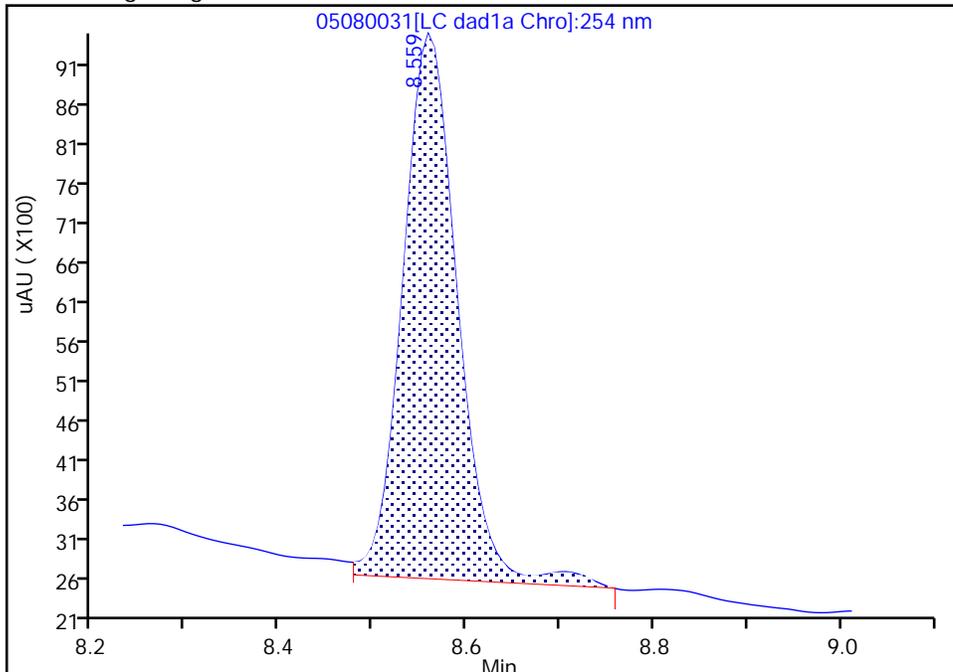
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240508-133160.b\05080031.d		
Injection Date:	09-May-2024 01:09:04	Instrument ID:	CHHPLC_X3
Lims ID:	280-190882-A-10-A	Lab Sample ID:	280-190882-10
Client ID:	FWGmw-007-240401-GW		
Operator ID:	JZ	ALS Bottle#:	31
Injection Vol:	100.0 ul	Dil. Factor:	1.0000
Method:	8330_X3	Limit Group:	GCSV - 8330
Column:	UltraCarb5uODS (20) ( 4.60 mm)	Detector:	LC DAD1B, 254 nm
		Worklist Smp#:	31

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

Signal: 1

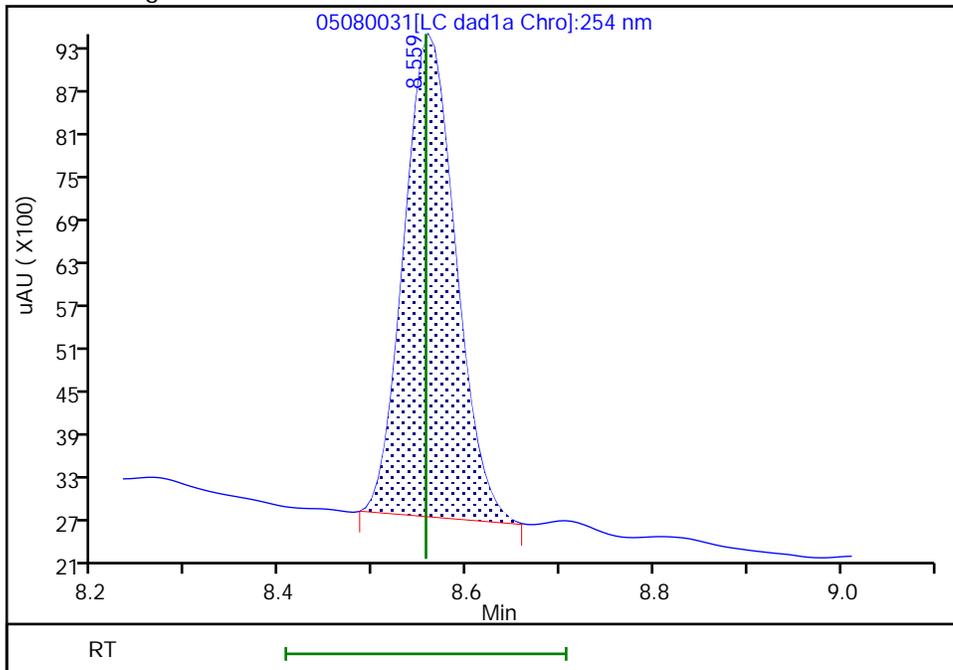
RT: 8.56  
 Area: 28327  
 Amount: 0.214488  
 Amount Units: ug/mL

Processing Integration Results



RT: 8.56  
 Area: 26016  
 Amount: 0.196931  
 Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 09-May-2024 12:17:35 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

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

Lab Name: Eurofins Denver Job No.: 280-190882-1 Analy Batch No.: 650851  
 SDG No.: \_\_\_\_\_  
 Instrument ID: CHHPLC\_G2\_LUNA GC Column: Luna-phenyl ID: 4.6(mm) Heated Purge: (Y/N) N  
 Calibration Start Date: 04/24/2024 21:28 Calibration End Date: 04/25/2024 02:15 Calibration ID: 92631

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-650851/18	04240018.D
Level 2	IC 280-650851/17	04240017.D
Level 3	IC 280-650851/16	04240016.D
Level 4	IC 280-650851/15	04240015.D
Level 5	IC 280-650851/14	04240014.D
Level 6	IC 280-650851/13	04240013.D
Level 7	IC 280-650851/12	04240012.D
Level 8	IC 280-650851/11	04240011.D
Level 9	IC 280-650851/10	04240010.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	LVL 7	LVL 8	LVL 9		RT WINDOW	AVG RT
HMX	6.713	6.712	6.709	6.706	6.705	6.700	6.693	6.703	6.661		6.555 - 6.855	6.700
Picric acid	8.700	8.726	8.663	8.659	8.612	8.587	8.553	8.523	8.381		8.462 - 8.762	8.600
RDX	8.953	8.952	8.943	8.946	8.938	8.927	8.927	8.923	8.874		8.788 - 9.088	8.931
Nitrobenzene	11.426	11.459	11.436	11.452	11.425	11.420	11.426	11.416	11.374		11.275 - 11.575	11.426
3,5-Dinitroaniline	14.200	14.232	14.203	14.205	14.185	14.180	14.186	14.169	14.127		14.035 - 14.335	14.187
1,3-Dinitrobenzene	14.493	14.519	14.496	14.492	14.478	14.473	14.480	14.469	14.427		14.328 - 14.628	14.481
Nitroglycerin	14.940	14.979	14.943	14.945	14.918	14.920	14.940	14.916	14.880		14.768 - 15.068	14.931
2-Nitrotoluene	++++	15.559	15.523	15.532	15.505	15.507	15.526	15.502	15.467		15.355 - 15.655	15.515
4-Nitrotoluene	++++	15.772	15.743	15.759	15.738	15.740	15.753	15.729	15.694		15.588 - 15.888	15.741
4-Amino-2,6-dinitrotoluene	16.260	16.286	16.249	16.265	16.245	16.240	16.253	16.229	16.194		16.095 - 16.395	16.247
3-Nitrotoluene	16.586	16.619	16.583	16.599	16.578	16.573	16.586	16.569	16.527		16.428 - 16.728	16.580
2-Amino-4,6-dinitrotoluene	17.086	17.099	17.063	17.079	17.058	17.053	17.066	17.042	17.000		16.908 - 17.208	17.061
1,3,5-Trinitrobenzene	17.286	17.306	17.283	17.285	17.272	17.267	17.280	17.262	17.227		17.122 - 17.422	17.274
2,6-Dinitrotoluene	18.380	18.386	18.369	18.379	18.365	18.353	18.373	18.349	18.314		18.215 - 18.515	18.363
2,4-Dinitrotoluene	18.833	18.846	18.823	18.839	18.818	18.807	18.826	18.802	18.767		18.668 - 18.968	18.818
Tetryl	22.027	22.072	22.023	22.052	22.025	22.007	22.020	22.003	21.987		21.875 - 22.175	22.024
2,4,6-Trinitrotoluene	22.900	22.926	22.876	22.912	22.878	22.874	22.873	22.863	22.841		22.728 - 23.028	22.883
PETN	24.033	24.046	24.016	24.046	24.032	24.014	24.013	24.009	23.987		23.882 - 24.182	24.022
1,2-Dinitrobenzene	12.360	12.392	12.356	12.372	12.345	12.340	12.346	12.336	12.294		12.195 - 12.495	12.349

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

Lab Name: Eurofins Denver Job No.: 280-190882-1 Analy Batch No.: 650851  
 SDG No.: \_\_\_\_\_  
 Instrument ID: CHHPLC\_G2\_LUNA GC Column: Luna-phenyl ID: 4.6(mm) Heated Purge: (Y/N) N  
 Calibration Start Date: 04/24/2024 21:28 Calibration End Date: 04/25/2024 02:15 Calibration ID: 92631

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-650851/18	04240018.D
Level 2	IC 280-650851/17	04240017.D
Level 3	IC 280-650851/16	04240016.D
Level 4	IC 280-650851/15	04240015.D
Level 5	IC 280-650851/14	04240014.D
Level 6	IC 280-650851/13	04240013.D
Level 7	IC 280-650851/12	04240012.D
Level 8	IC 280-650851/11	04240011.D
Level 9	IC 280-650851/10	04240010.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD /RSE	#	MAX %RSD /RSE	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5 LVL 9	LVL 2 LVL 6	LVL 3 LVL 7	LVL 4 LVL 8		B	M1	M2								
HMX	167700 173948 174202	178900 175808	170180 173424	179770 172751	Ave		174075.82 1			2.2		20.0				
Picric acid	154900 148172 153137	165100 151088	140280 150487	148590 150820	Ave		151397.09 4			4.3		20.0				
RDX	256200 210828 204073	239550 207963	213080 202951	216090 202193	Lin2	539.02311 2	205652.80 6						0.9990		0.9900	
Nitrobenzene	381800 372900 381987	405050 384143	363860 378609	394890 375845	Ave		382120.31 9			3.2		20.0				
3,5-Dinitroaniline	524500 432092 431274	473150 439350	449620 432267	436700 431522	Lin2	918.68701 4	430726.78 3						1.0000		0.9900	
1,3-Dinitrobenzene	633200 572076 577399	615900 578140	611920 570583	575920 569625	Ave		589418.11 7			4.1		20.0				
Nitroglycerin	104310 123840 119273	119385 124108	118260 120549	126558 119260	Ave		119504.76 5			5.3		20.0				
2-Nitrotoluene	++++ 235764 241788	251200 242098	264940 241561	237990 241414	Ave		244594.36 6			3.8		20.0				

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

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

Lab Name: Eurofins Denver Job No.: 280-190882-1 Analy Batch No.: 650851  
 SDG No.: \_\_\_\_\_  
 Instrument ID: CHHPLC\_G2\_LUNA GC Column: Luna-phenyl ID: 4.6(mm) Heated Purge: (Y/N) N  
 Calibration Start Date: 04/24/2024 21:28 Calibration End Date: 04/25/2024 02:15 Calibration ID: 92631

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD /RSE	#	MAX %RSD /RSE	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5 LVL 9	LVL 2 LVL 6	LVL 3 LVL 7	LVL 4 LVL 8		B	M1	M2								
4-Nitrotoluene	++++ 216520 219653	263900 223335	236500 221201	225490 217154	Lin2	917.73671 7	217721.69 0						1.0000		0.9900	
4-Amino-2,6-dinitrotoluene	336600 268460 268565	323700 274928	279100 270943	274490 269382	Lin2	742.45275 7	269511.07 1						0.9990		0.9900	
3-Nitrotoluene	367200 274236 277226	334250 280190	298820 277211	281030 273569	Lin2	968.90684 0	275587.80 9						1.0000		0.9900	
2-Amino-4,6-dinitrotoluene	502200 380328 379416	436650 390780	394700 386620	398530 380835	Ave		405562.15 6			9.9		20.0				
1,3,5-Trinitrobenzene	521000 404268 412363	458350 407038	387160 405177	411770 403965	Ave		423454.49 4			9.8		20.0				
2,6-Dinitrotoluene	301600 266156 268633	305650 268168	283940 267447	274870 265267	Ave		277970.04 9			5.6		20.0				
2,4-Dinitrotoluene	576400 534316 545101	600250 542238	571780 541644	542940 536407	Ave		554563.99 8			4.1		20.0				
Tetryl	367500 316916 314923	313400 314733	312600 312921	329200 310388	Lin2	448.10874 4	311971.21 6						0.9990		0.9900	
2,4,6-Trinitrotoluene	370300 401348 408571	398450 400180	402620 398954	418610 398830	Ave		399762.61 0			3.2		20.0				
PETN	105310 121971 123890	112970 123201	121232 123587	121831 122809	Lin2	-1863.260 5	123564.21 1						1.0000		0.9900	
1,2-Dinitrobenzene	223700 257724 258500	273700 261405	266480 257347	273700 255644	Ave		258688.94 9			5.7		20.0				

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

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

Lab Name: Eurofins Denver Job No.: 280-190882-1 Analy Batch No.: 650851

SDG No.: \_\_\_\_\_

Instrument ID: CHHPLC\_G2\_LUNA GC Column: Luna-pheny ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/24/2024 21:28 Calibration End Date: 04/25/2024 02:15 Calibration ID: 92631

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-650851/18	04240018.D
Level 2	IC 280-650851/17	04240017.D
Level 3	IC 280-650851/16	04240016.D
Level 4	IC 280-650851/15	04240015.D
Level 5	IC 280-650851/14	04240014.D
Level 6	IC 280-650851/13	04240013.D
Level 7	IC 280-650851/12	04240012.D
Level 8	IC 280-650851/11	04240011.D
Level 9	IC 280-650851/10	04240010.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
		LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5
		LVL 6	LVL 7	LVL 8	LVL 9		LVL 6	LVL 7	LVL 8	LVL 9	
HMX	Ave	1677	3578	8509	17977	43487	0.0100	0.0200	0.0500	0.100	0.250
		70323	121397	172751	435504		0.400	0.700	1.00	2.50	
Picric acid	Ave	1549	3302	7014	14859	37043	0.0100	0.0200	0.0500	0.100	0.250
		60435	105341	150820	382843		0.400	0.700	1.00	2.50	
RDX	Lin2	2562	4791	10654	21609	52707	0.0100	0.0200	0.0500	0.100	0.250
		83185	142066	202193	510182		0.400	0.700	1.00	2.50	
Nitrobenzene	Ave	3818	8101	18193	39489	93225	0.0100	0.0200	0.0500	0.100	0.250
		153657	265026	375845	954967		0.400	0.700	1.00	2.50	
3,5-Dinitroaniline	Lin2	5245	9463	22481	43670	108023	0.0100	0.0200	0.0500	0.100	0.250
		175740	302587	431522	1078184		0.400	0.700	1.00	2.50	
1,3-Dinitrobenzene	Ave	6332	12318	30596	57592	143019	0.0100	0.0200	0.0500	0.100	0.250
		231256	399408	569625	1443498		0.400	0.700	1.00	2.50	
Nitroglycerin	Ave	10431	23877	59130	126558	309600	0.100	0.200	0.500	1.00	2.50
		496432	843844	1192597	2981826		4.00	7.00	10.0	25.0	
2-Nitrotoluene	Ave	++++	5024	13247	23799	58941	++++	0.0200	0.0500	0.100	0.250
		96839	169093	241414	604470		0.400	0.700	1.00	2.50	
4-Nitrotoluene	Lin2	++++	5278	11825	22549	54130	++++	0.0200	0.0500	0.100	0.250
		89334	154841	217154	549133		0.400	0.700	1.00	2.50	
4-Amino-2,6-dinitrotoluene	Lin2	3366	6474	13955	27449	67115	0.0100	0.0200	0.0500	0.100	0.250
		109971	189660	269382	671412		0.400	0.700	1.00	2.50	
3-Nitrotoluene	Lin2	3672	6685	14941	28103	68559	0.0100	0.0200	0.0500	0.100	0.250
		112076	194048	273569	693064		0.400	0.700	1.00	2.50	
2-Amino-4,6-dinitrotoluene	Ave	5022	8733	19735	39853	95082	0.0100	0.0200	0.0500	0.100	0.250
		156312	270634	380835	948541		0.400	0.700	1.00	2.50	
1,3,5-Trinitrobenzene	Ave	5210	9167	19358	41177	101067	0.0100	0.0200	0.0500	0.100	0.250
		162815	283624	403965	1030907		0.400	0.700	1.00	2.50	
2,6-Dinitrotoluene	Ave	3016	6113	14197	27487	66539	0.0100	0.0200	0.0500	0.100	0.250
		107267	187213	265267	671582		0.400	0.700	1.00	2.50	
2,4-Dinitrotoluene	Ave	5764	12005	28589	54294	133579	0.0100	0.0200	0.0500	0.100	0.250

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

Lab Name: Eurofins Denver Job No.: 280-190882-1 Analy Batch No.: 650851

SDG No.: \_\_\_\_\_

Instrument ID: CHHPLC\_G2\_LUNA GC Column: Luna-pheny ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/24/2024 21:28 Calibration End Date: 04/25/2024 02:15 Calibration ID: 92631

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
		LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
		216895	379151	536407	1362753		0.400	0.700	1.00	2.50	
Tetryl	Lin2	3675 125893	6268 219045	15630 310388	32920 787307	79229	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
2,4,6-Trinitrotoluene	Ave	3703 160072	7969 279268	20131 398830	41861 1021428	100337	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
PETN	Lin2	10531 492803	22594 865110	60616 1228090	121831 3097249	304928	0.100 4.00	0.200 7.00	0.500 10.0	1.00 25.0	2.50
1,2-Dinitrobenzene	Ave	2237 104562	5474 180143	13324 255644	27370 646251	64431	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250

Curve Type Legend:

Ave = Average
Lin2 = Linear 1/conc^2

Eurofins Denver  
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2\_LUNA\20240424-132624.b\04240010.D  
 Lims ID: IC INT 9  
 Client ID:  
 Sample Type: IC Calib Level: 9  
 Inject. Date: 24-Apr-2024 21:28:13 ALS Bottle#: 10 Worklist Smp#: 10  
 Injection Vol: 100.0 ul Dil. Factor: 1.0000  
 Sample Info: IC INT 9  
 Operator ID: JZ/JG Instrument ID: CHHPLC\_G2\_LUNA  
 Sublist: chrom-G2\_8330\_Luna\*sub16  
 Method: \\chromfs\Denver\ChromData\G2\_LUNA\20240424-132624.b\G2\_8330\_Luna.m  
 Limit Group: GCSV - 8330  
 Last Update: 25-Apr-2024 14:30:09 Calib Date: 25-Apr-2024 07:39:21  
 Integrator: Falcon  
 Quant Method: External Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Denver\ChromData\G2\_LUNA\20240424-132624.b\04240027.D  
 Column 1 : Luna-Phenyl hexyl ( 4.60 mm) Det: LC DAD1A, 254 nm  
 Process Host: CTX1684

First Level Reviewer: LV5D Date: 25-Apr-2024 13:10:30

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
6 HMX	1	6.661	6.705	-0.044	435504	2.50	2.50	
5 2,4,6-Trinitrophenol	1	8.381	8.612	-0.231	382843	2.50	2.53	a
8 RDX	1	8.874	8.938	-0.064	510182	2.50	2.48	
9 Nitrobenzene	1	11.374	11.425	-0.051	954967	2.50	2.50	
\$ 10 1,2-Dinitrobenzene	1	12.294	12.345	-0.051	646251	2.50	2.50	
11 3,5-Dinitroaniline	1	14.127	14.185	-0.058	1078184	2.50	2.50	
12 1,3-Dinitrobenzene	1	14.427	14.478	-0.051	1443498	2.50	2.45	
13 Nitroglycerin	2	14.880	14.918	-0.038	2981826	25.0	25.0	M
14 o-Nitrotoluene	1	15.467	15.505	-0.038	604470	2.50	2.47	
15 p-Nitrotoluene	1	15.694	15.738	-0.044	549133	2.50	2.52	
16 4-Amino-2,6-dinitrotoluene	1	16.194	16.245	-0.051	671412	2.50	2.49	
17 m-Nitrotoluene	1	16.527	16.578	-0.051	693064	2.50	2.51	
18 2-Amino-4,6-dinitrotoluene	1	17.000	17.058	-0.058	948541	2.50	2.34	
19 1,3,5-Trinitrobenzene	1	17.227	17.272	-0.045	1030907	2.50	2.43	
20 2,6-Dinitrotoluene	1	18.314	18.365	-0.051	671582	2.50	2.42	
21 2,4-Dinitrotoluene	1	18.767	18.818	-0.051	1362753	2.50	2.46	
22 Tetryl	1	21.987	22.025	-0.038	787307	2.50	2.52	
23 2,4,6-Trinitrotoluene	1	22.841	22.878	-0.037	1021428	2.50	2.56	
24 PETN	2	23.987	24.032	-0.045	3097249	25.0	25.1	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

8330IntermStk\_00080

Amount Added: 250.00

Units: uL

Eurofins Denver

Data File: \\chromfs\denver\chromdata\g2\_luna\20240424-132624.b\04240010.d

Injection Date: 24-Apr-2024 21:28:13

Instrument ID: CHHPLC\_G2\_LUNA

Operator ID: JZ/JG

Lims ID: IC INT 9

Worklist Smp#: 10

Client ID:

Injection Vol: 100.0 ul

Dil. Factor: 1.0000

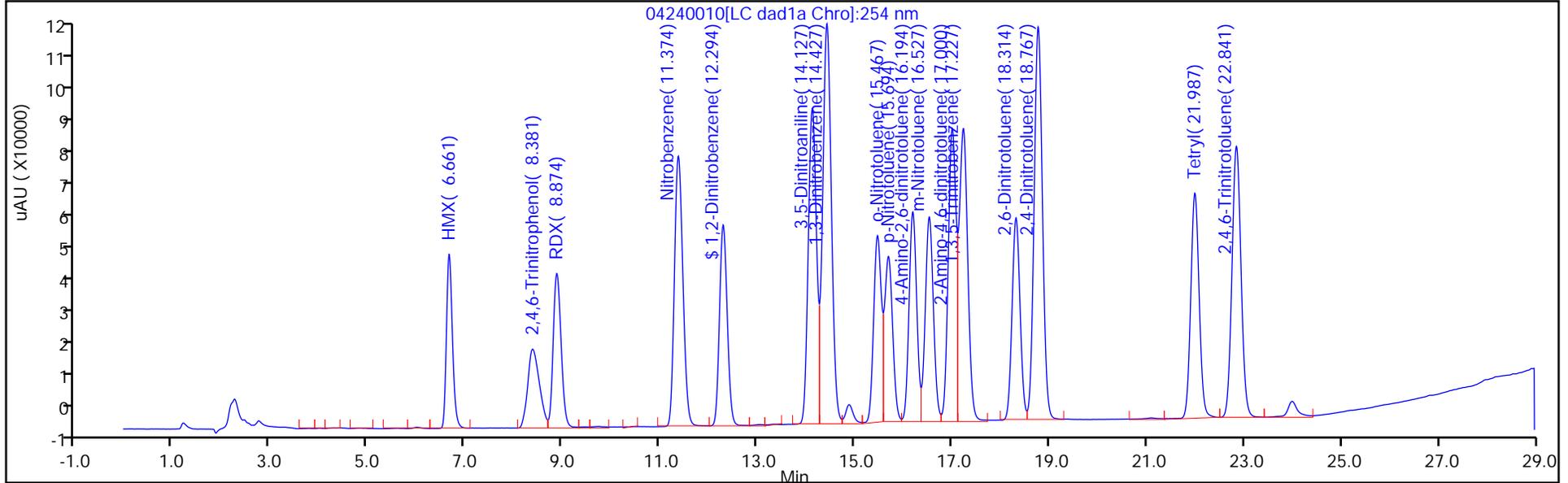
ALS Bottle#: 10

Method: G2\_8330\_Luna

Limit Group: GCSV - 8330

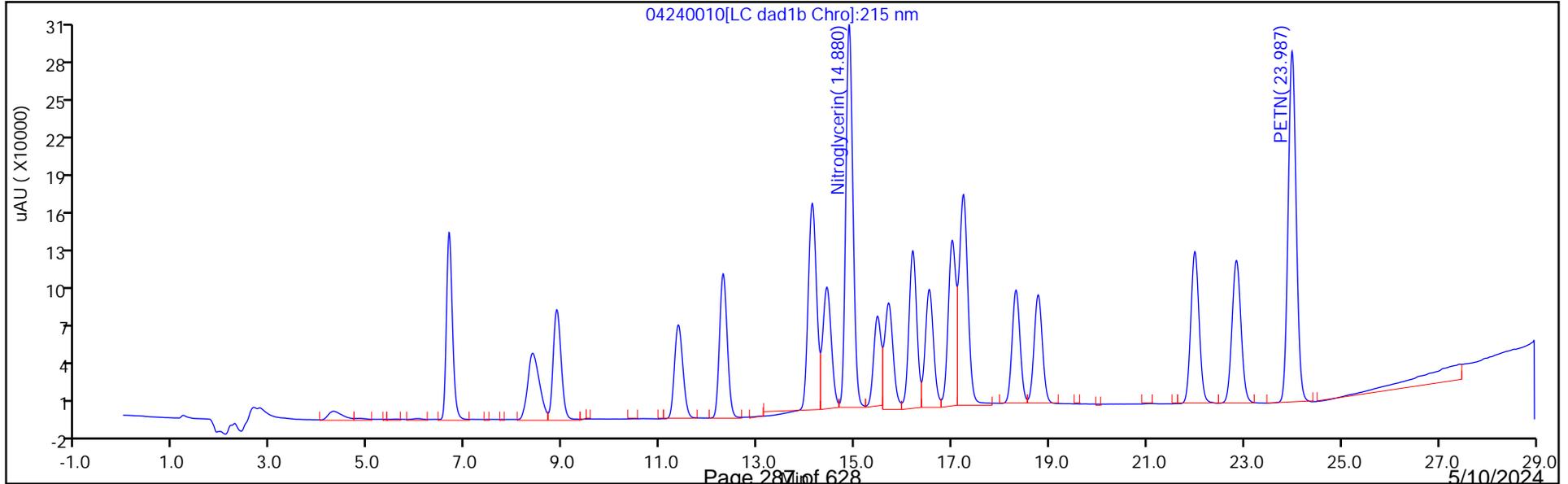
Column: Luna-Phenyl hexyl ( 4.60 mm)

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



Column: Luna-Phenyl hexyl ( 4.60 mm)

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



Eurofins Denver

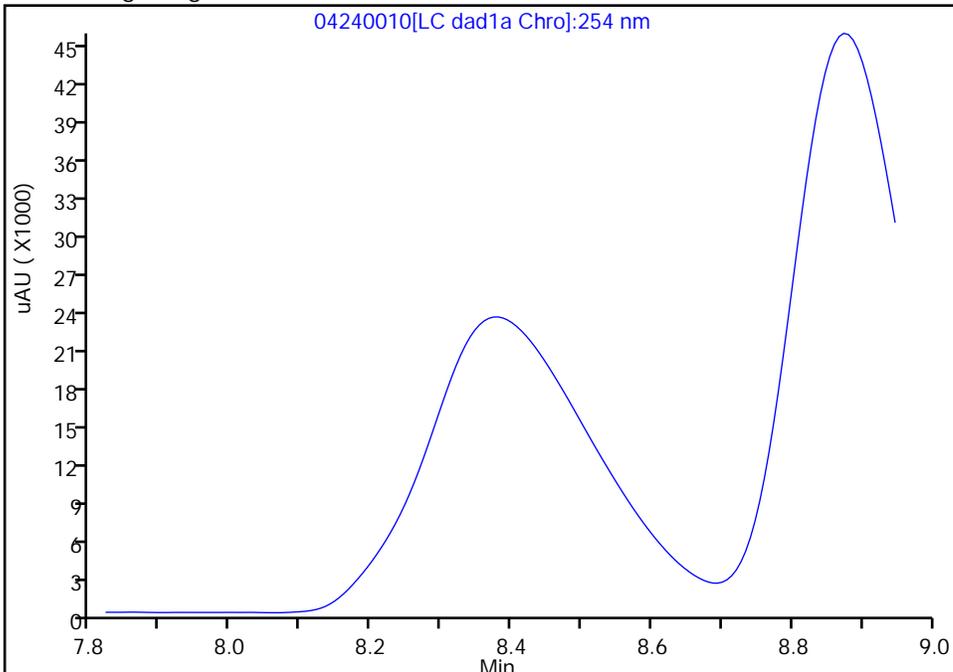
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Injection Date: 24-Apr-2024 21:28:13 Instrument ID: CHHPLC\_G2\_LUNA  
Lims ID: IC INT 9  
Client ID:  
Operator ID: JZ/JG ALS Bottle#: 10 Worklist Smp#: 10  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: G2\_8330\_Luna Limit Group: GCSV - 8330  
Column: Luna-Phenyl hexyl ( 4.60 mm) Detector: LC DAD1A, 254 nm

5 2,4,6-Trinitrophenol, CAS: 88-89-1

Signal: 1

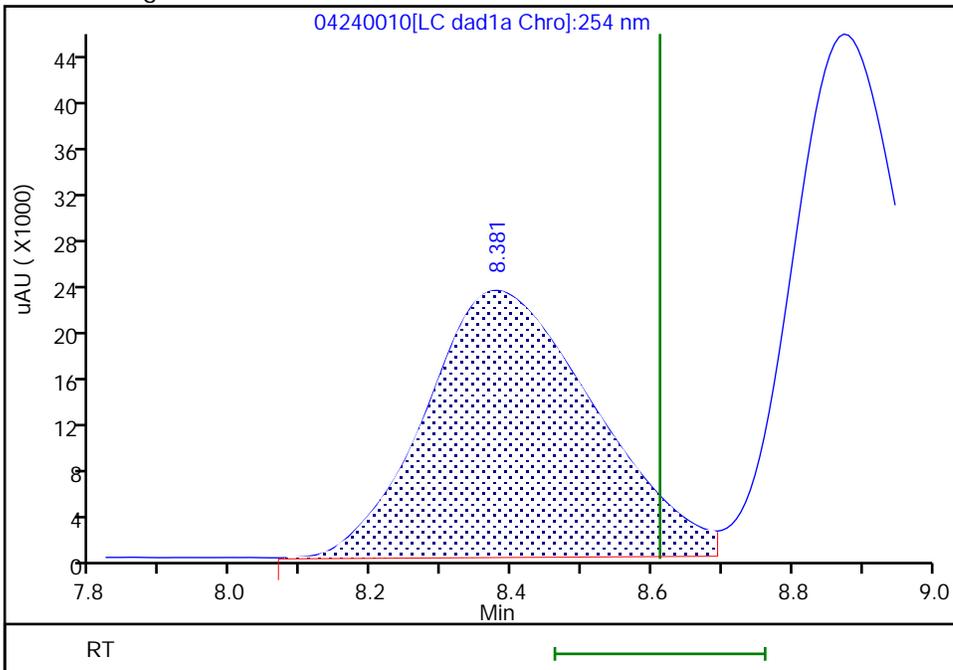
Not Detected  
Expected RT: 8.61

Processing Integration Results



RT: 8.38  
Area: 382843  
Amount: 2.528734  
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:10:11 -06:00:00 (UTC)

Audit Action: Assigned Compound ID

Audit Reason: Peak assignment corrected

Eurofins Denver

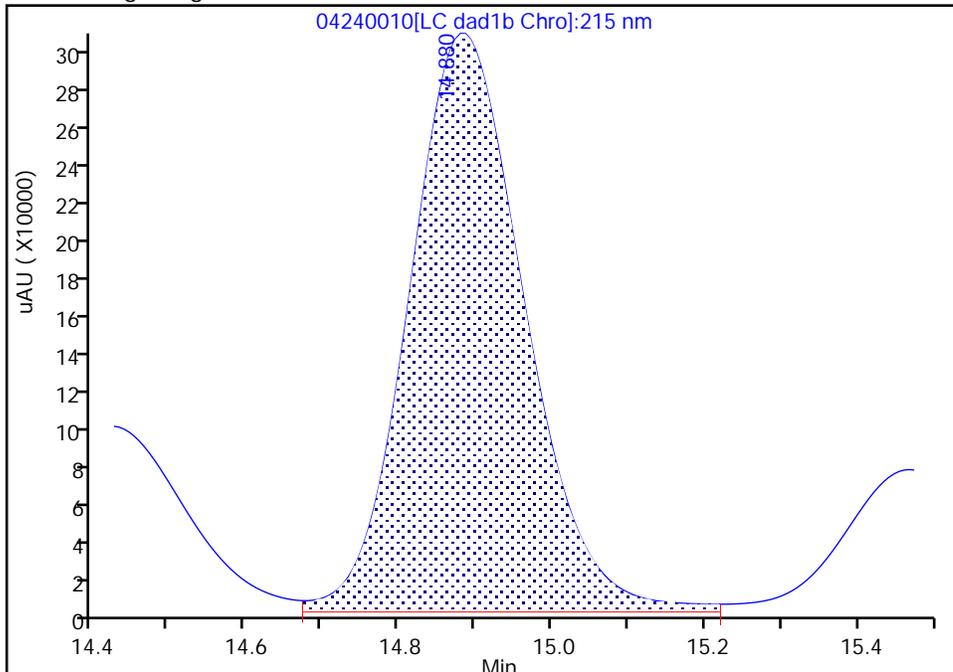
Data File: \\chromfs\denver\chromdata\g2\_luna\20240424-132624.b\04240010.d  
Injection Date: 24-Apr-2024 21:28:13 Instrument ID: CHHPLC\_G2\_LUNA  
Lims ID: IC INT 9  
Client ID:  
Operator ID: JZ/JG ALS Bottle#: 10 Worklist Smp#: 10  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: G2\_8330\_Luna Limit Group: GCSV - 8330  
Column: Luna-Phenyl hexyl ( 4.60 mm) Detector: LC DAD1B, 215 nm

13 Nitroglycerin, CAS: 55-63-0

Signal: 1

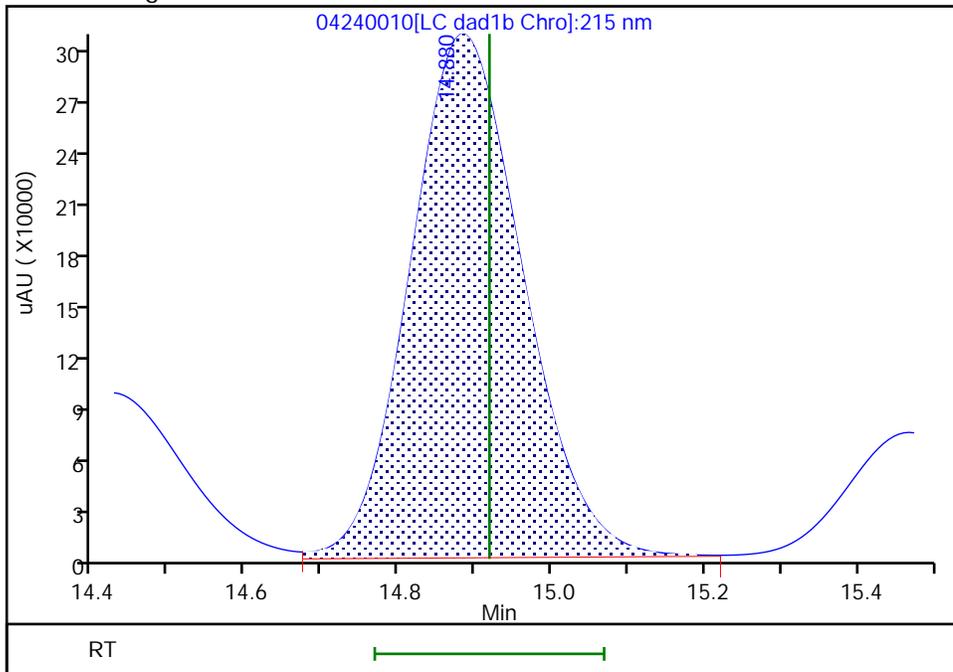
RT: 14.88  
Area: 3082817  
Amount: 11.814701  
Amount Units: ug/ml

Processing Integration Results



RT: 14.88  
Area: 2981826  
Amount: 24.951524  
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:10:26 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver  
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2\_LUNA\20240424-132624.b\04240011.D  
 Lims ID: IC INT 8  
 Client ID:  
 Sample Type: IC Calib Level: 8  
 Inject. Date: 24-Apr-2024 22:04:12 ALS Bottle#: 11 Worklist Smp#: 11  
 Injection Vol: 100.0 ul Dil. Factor: 1.0000  
 Sample Info: IC INT 8  
 Operator ID: JZ/JG Instrument ID: CHHPLC\_G2\_LUNA  
 Sublist: chrom-G2\_8330\_Luna\*sub16  
 Method: \\chromfs\Denver\ChromData\G2\_LUNA\20240424-132624.b\G2\_8330\_Luna.m  
 Limit Group: GCSV - 8330  
 Last Update: 25-Apr-2024 14:30:10 Calib Date: 25-Apr-2024 07:39:21  
 Integrator: Falcon  
 Quant Method: External Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Denver\ChromData\G2\_LUNA\20240424-132624.b\04240027.D  
 Column 1 : Luna-Phenyl hexyl ( 4.60 mm) Det: LC DAD1A, 254 nm  
 Process Host: CTX1684

First Level Reviewer: LV5D Date: 25-Apr-2024 13:18:58

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
6 HMX	1	6.703	6.705	-0.002	172751	1.00	0.99	
5 2,4,6-Trinitrophenol	1	8.523	8.612	-0.089	150820	1.00	1.00	
8 RDX	1	8.923	8.938	-0.015	202193	1.00	0.9806	
9 Nitrobenzene	1	11.416	11.425	-0.009	375845	1.00	0.9836	
\$ 10 1,2-Dinitrobenzene	1	12.336	12.345	-0.009	255644	1.00	0.9882	
11 3,5-Dinitroaniline	1	14.169	14.185	-0.016	431522	1.00	1.00	
12 1,3-Dinitrobenzene	1	14.469	14.478	-0.009	569625	1.00	0.9664	
13 Nitroglycerin	2	14.916	14.918	-0.002	1192597	10.0	9.98	M
14 o-Nitrotoluene	1	15.502	15.505	-0.003	241414	1.00	0.9870	
15 p-Nitrotoluene	1	15.729	15.738	-0.009	217154	1.00	0.99	
16 4-Amino-2,6-dinitrotoluene	1	16.229	16.245	-0.016	269382	1.00	1.00	
17 m-Nitrotoluene	1	16.569	16.578	-0.009	273569	1.00	0.9892	
18 2-Amino-4,6-dinitrotoluene	1	17.042	17.058	-0.016	380835	1.00	0.9390	
19 1,3,5-Trinitrobenzene	1	17.262	17.272	-0.010	403965	1.00	0.9540	
20 2,6-Dinitrotoluene	1	18.349	18.365	-0.016	265267	1.00	0.9543	
21 2,4-Dinitrotoluene	1	18.802	18.818	-0.016	536407	1.00	0.9673	
22 Tetryl	1	22.003	22.025	-0.022	310388	1.00	0.99	
23 2,4,6-Trinitrotoluene	1	22.863	22.878	-0.015	398830	1.00	1.00	M
24 PETN	2	24.009	24.032	-0.023	1228090	10.0	9.95	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

8330IntermStk\_00080

Amount Added: 100.00

Units: uL

Eurofins Denver

Data File: \\chromfs\denver\chromdata\g2\_luna\20240424-132624.b\04240011.d

Injection Date: 24-Apr-2024 22:04:12

Instrument ID: CHHPLC\_G2\_LUNA

Operator ID: JZ/JG

Lims ID: IC INT 8

Worklist Smp#: 11

Client ID:

Injection Vol: 100.0 ul

Dil. Factor: 1.0000

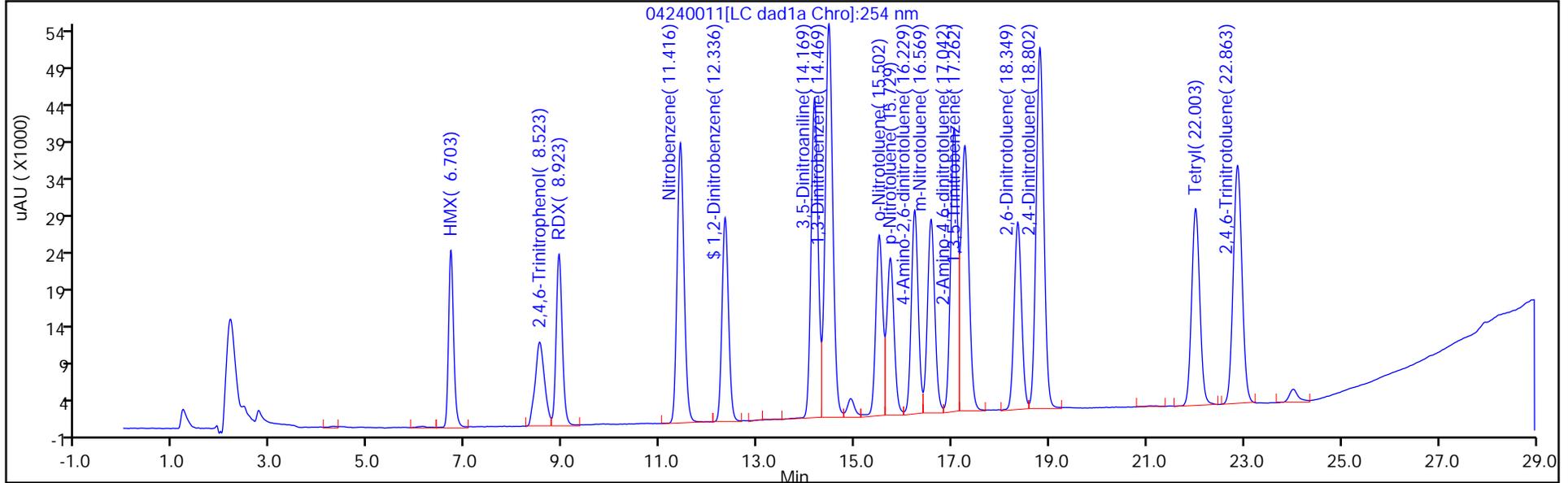
ALS Bottle#: 11

Method: G2\_8330\_Luna

Limit Group: GCSV - 8330

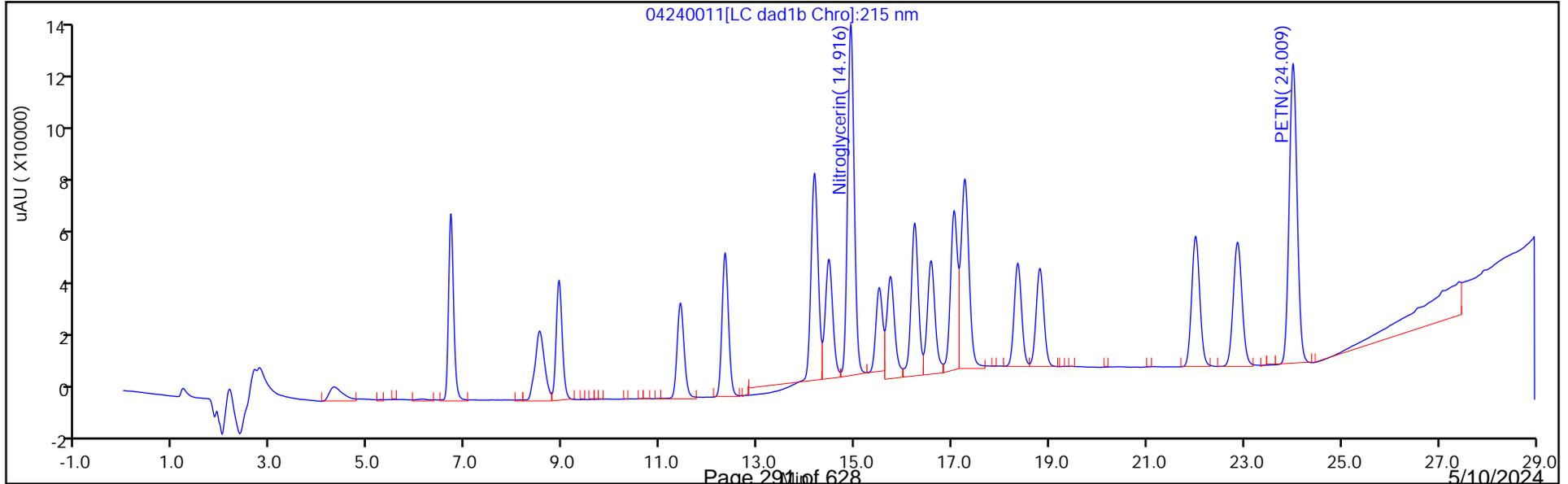
Column: Luna-Phenyl hexyl ( 4.60 mm)

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



Column: Luna-Phenyl hexyl ( 4.60 mm)

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



Eurofins Denver

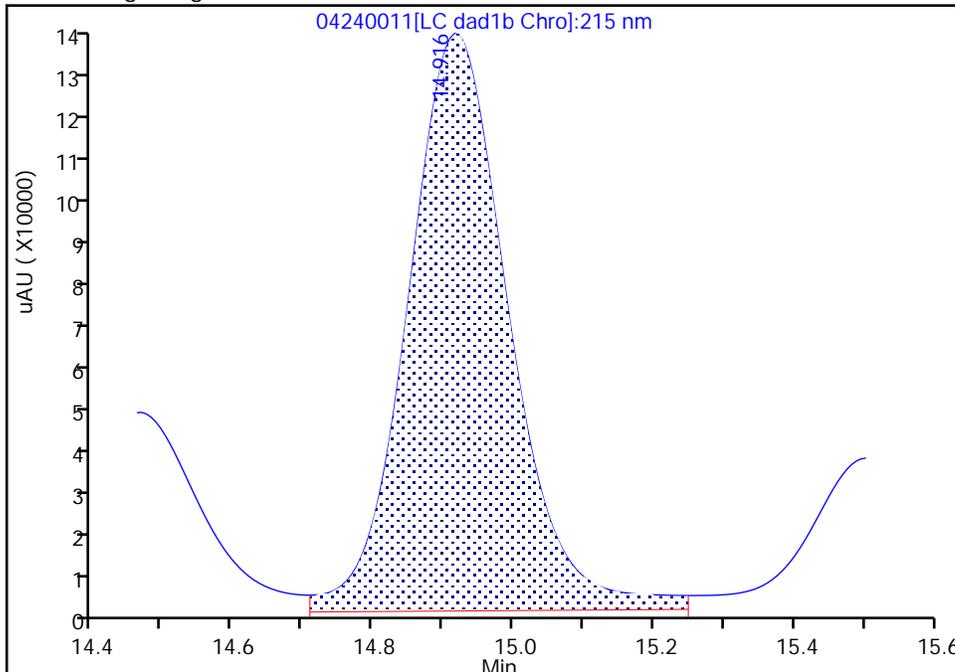
Data File: \\chromfs\denver\chromdata\g2\_luna\20240424-132624.b\04240011.d  
Injection Date: 24-Apr-2024 22:04:12 Instrument ID: CHHPLC\_G2\_LUNA  
Lims ID: IC INT 8  
Client ID:  
Operator ID: JZ/JG ALS Bottle#: 11 Worklist Smp#: 11  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: G2\_8330\_Luna Limit Group: GCSV - 8330  
Column: Luna-Phenyl hexyl ( 4.60 mm) Detector: LC DAD1B, 215 nm

13 Nitroglycerin, CAS: 55-63-0

Signal: 1

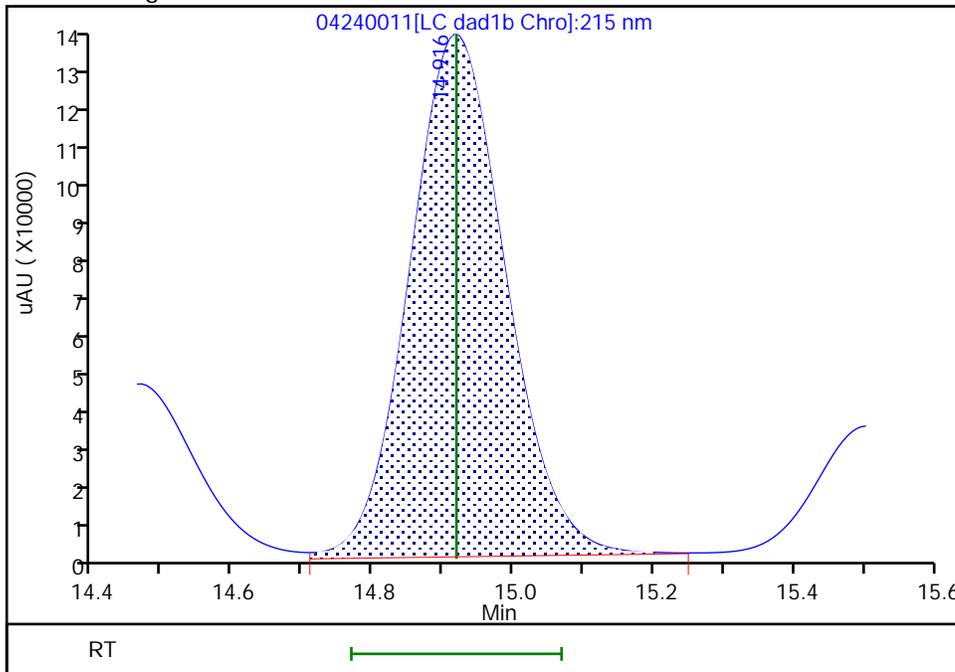
RT: 14.92  
Area: 1281389  
Amount: 4.919304  
Amount Units: ug/ml

Processing Integration Results



RT: 14.92  
Area: 1192597  
Amount: 9.979493  
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:11:13 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

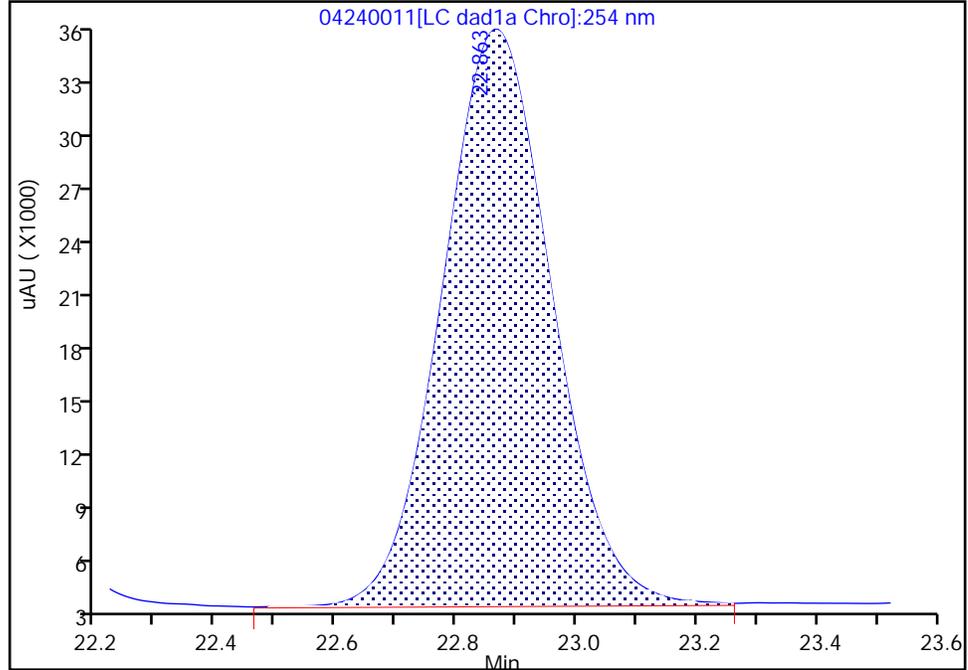
Data File: \\chromfs\denver\chromdata\g2\_luna\20240424-132624.b\04240011.d  
Injection Date: 24-Apr-2024 22:04:12 Instrument ID: CHHPLC\_G2\_LUNA  
Lims ID: IC INT 8  
Client ID:  
Operator ID: JZ/JG ALS Bottle#: 11 Worklist Smp#: 11  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: G2\_8330\_Luna Limit Group: GCSV - 8330  
Column: Luna-Phenyl hexyl ( 4.60 mm) Detector: LC DAD1A, 254 nm

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

Signal: 1

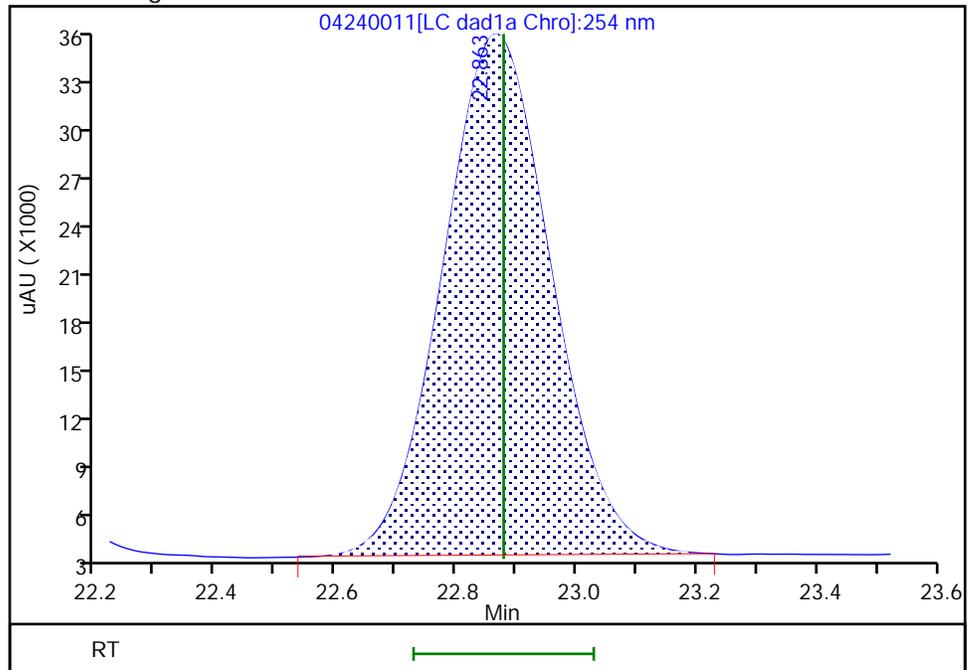
RT: 22.86  
Area: 406074  
Amount: 1.007347  
Amount Units: ug/ml

Processing Integration Results



RT: 22.86  
Area: 398830  
Amount: 0.997667  
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:37:30 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins Denver  
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2\_LUNA\20240424-132624.b\04240012.D  
 Lims ID: IC INT 7  
 Client ID:  
 Sample Type: IC Calib Level: 7  
 Inject. Date: 24-Apr-2024 22:40:07 ALS Bottle#: 12 Worklist Smp#: 12  
 Injection Vol: 100.0 ul Dil. Factor: 1.0000  
 Sample Info: IC INT 7  
 Operator ID: JZ/JG Instrument ID: CHHPLC\_G2\_LUNA  
 Sublist: chrom-G2\_8330\_Luna\*sub16  
 Method: \\chromfs\Denver\ChromData\G2\_LUNA\20240424-132624.b\G2\_8330\_Luna.m  
 Limit Group: GCSV - 8330  
 Last Update: 25-Apr-2024 14:30:11 Calib Date: 25-Apr-2024 07:39:21  
 Integrator: Falcon  
 Quant Method: External Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Denver\ChromData\G2\_LUNA\20240424-132624.b\04240027.D  
 Column 1 : Luna-Phenyl hexyl ( 4.60 mm) Det: LC DAD1A, 254 nm  
 Process Host: CTX1684

First Level Reviewer: LV5D Date: 25-Apr-2024 13:19:19

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
6 HMX	1	6.693	6.705	-0.012	121397	0.7000	0.6974	
5 2,4,6-Trinitrophenol	1	8.553	8.612	-0.059	105341	0.7000	0.6958	
8 RDX	1	8.927	8.938	-0.011	142066	0.7000	0.6882	
9 Nitrobenzene	1	11.426	11.425	0.001	265026	0.7000	0.6936	
\$ 10 1,2-Dinitrobenzene	1	12.346	12.345	0.001	180143	0.7000	0.6964	
11 3,5-Dinitroaniline	1	14.186	14.185	0.001	302587	0.7000	0.7004	
12 1,3-Dinitrobenzene	1	14.480	14.478	0.002	399408	0.7000	0.6776	
13 Nitroglycerin	2	14.940	14.918	0.022	843844	7.00	7.06	M
14 o-Nitrotoluene	1	15.526	15.505	0.021	169093	0.7000	0.6913	
15 p-Nitrotoluene	1	15.753	15.738	0.015	154841	0.7000	0.7070	
16 4-Amino-2,6-dinitrotoluene	1	16.253	16.245	0.008	189660	0.7000	0.7010	
17 m-Nitrotoluene	1	16.586	16.578	0.008	194048	0.7000	0.7006	
18 2-Amino-4,6-dinitrotoluene	1	17.066	17.058	0.008	270634	0.7000	0.6673	
19 1,3,5-Trinitrobenzene	1	17.280	17.272	0.008	283624	0.7000	0.6698	
20 2,6-Dinitrotoluene	1	18.373	18.365	0.008	187213	0.7000	0.6735	
21 2,4-Dinitrotoluene	1	18.826	18.818	0.008	379151	0.7000	0.6837	
22 Tetryl	1	22.020	22.025	-0.005	219045	0.7000	0.7007	
23 2,4,6-Trinitrotoluene	1	22.873	22.878	-0.005	279268	0.7000	0.6986	M
24 PETN	2	24.013	24.032	-0.019	865110	7.00	7.02	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

8330IntermStk\_00080

Amount Added: 70.00

Units: uL

Eurofins Denver

Data File: \\chromfs\denver\chromdata\g2\_luna\20240424-132624.b\04240012.d

Injection Date: 24-Apr-2024 22:40:07

Instrument ID: CHHPLC\_G2\_LUNA

Operator ID: JZ/JG

Lims ID: IC INT 7

Worklist Smp#: 12

Client ID:

Injection Vol: 100.0 ul

Dil. Factor: 1.0000

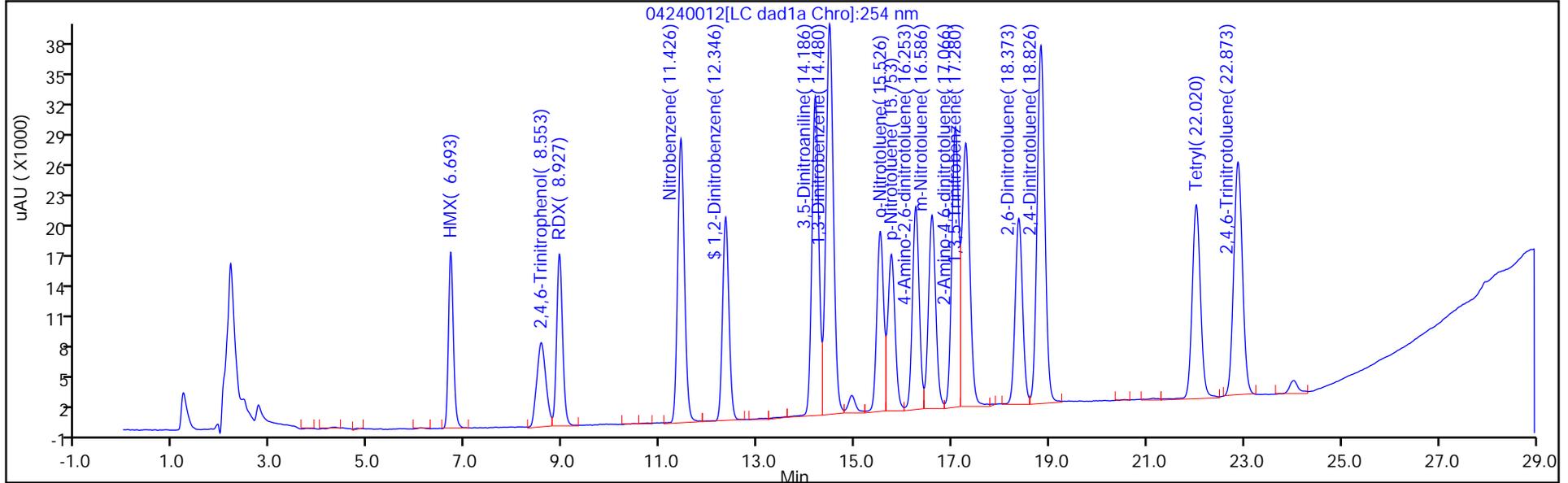
ALS Bottle#: 12

Method: G2\_8330\_Luna

Limit Group: GCSV - 8330

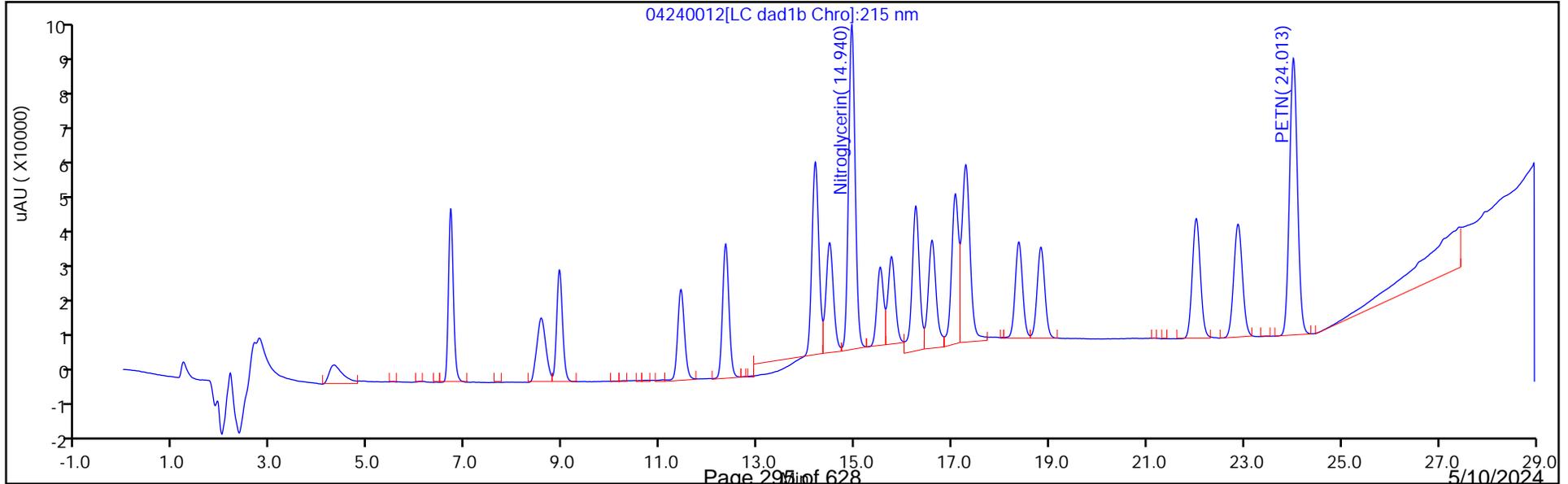
Column: Luna-Phenyl hexyl ( 4.60 mm)

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



Column: Luna-Phenyl hexyl ( 4.60 mm)

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



Eurofins Denver

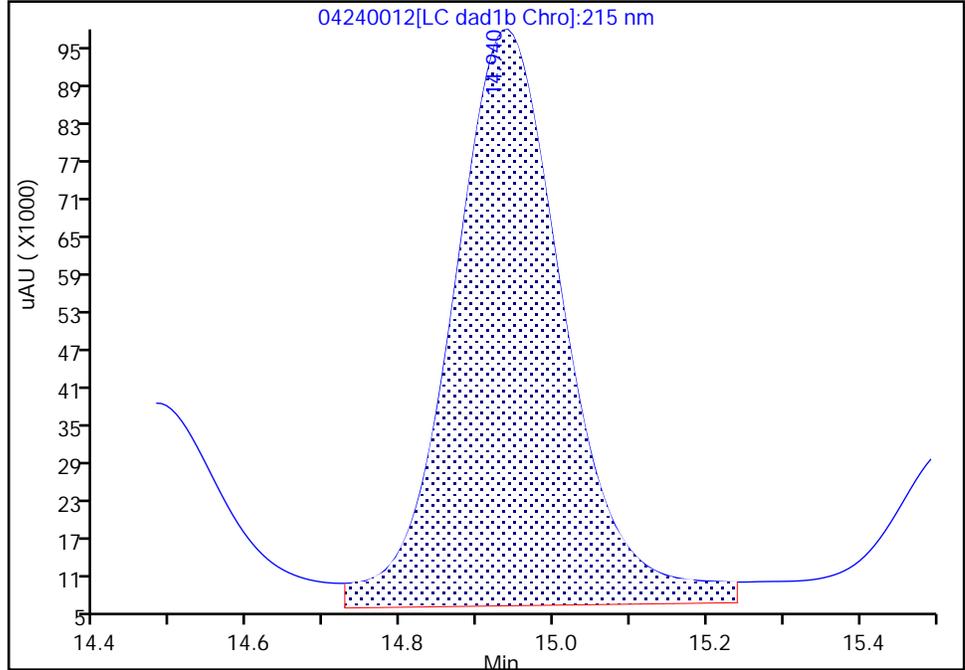
Data File: \\chromfs\denver\chromdata\g2\_luna\20240424-132624.b\04240012.d  
Injection Date: 24-Apr-2024 22:40:07 Instrument ID: CHHPLC\_G2\_LUNA  
Lims ID: IC INT 7  
Client ID:  
Operator ID: JZ/JG ALS Bottle#: 12 Worklist Smp#: 12  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: G2\_8330\_Luna Limit Group: GCSV - 8330  
Column: Luna-Phenyl hexyl ( 4.60 mm) Detector: LC DAD1B, 215 nm

13 Nitroglycerin, CAS: 55-63-0

Signal: 1

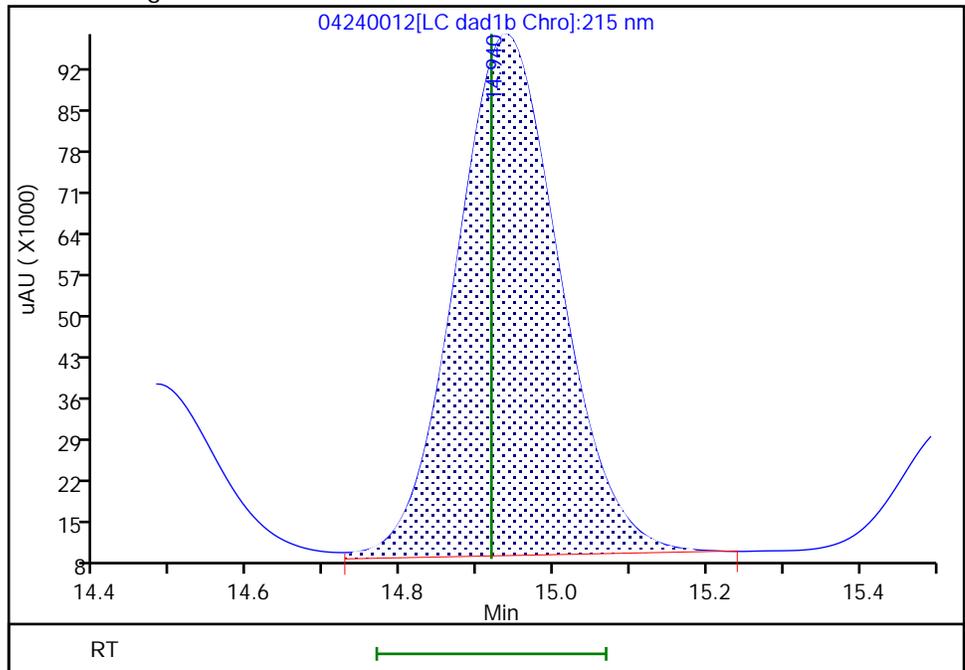
RT: 14.94  
Area: 942019  
Amount: 3.630198  
Amount Units: ug/ml

Processing Integration Results



RT: 14.94  
Area: 843844  
Amount: 7.061175  
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:19:17 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

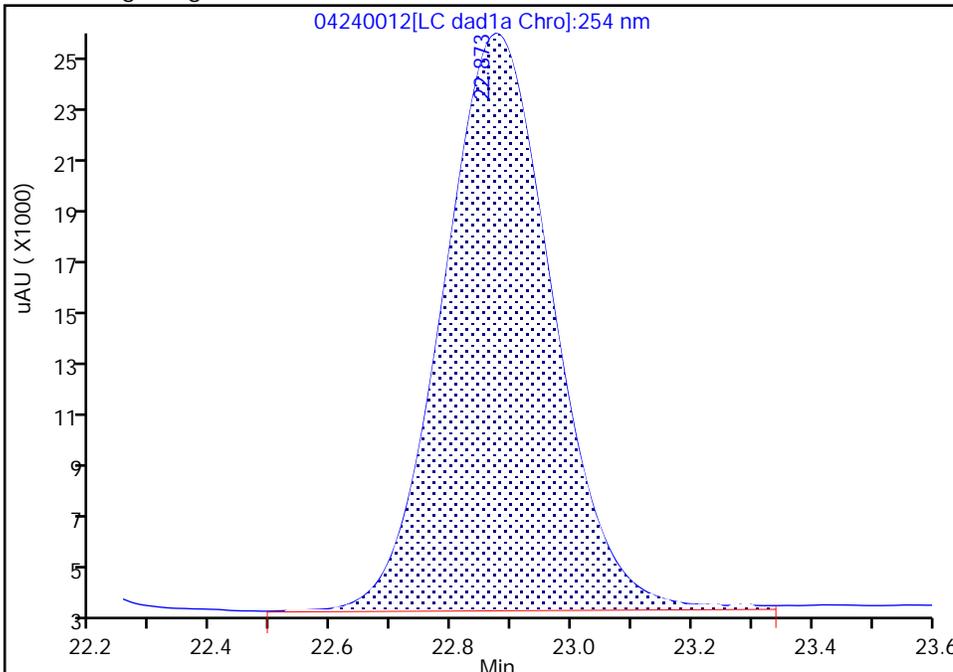
Data File: \\chromfs\denver\chromdata\g2\_luna\20240424-132624.b\04240012.d  
Injection Date: 24-Apr-2024 22:40:07 Instrument ID: CHHPLC\_G2\_LUNA  
Lims ID: IC INT 7  
Client ID:  
Operator ID: JZ/JG ALS Bottle#: 12 Worklist Smp#: 12  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: G2\_8330\_Luna Limit Group: GCSV - 8330  
Column: Luna-Phenyl hexyl ( 4.60 mm) Detector: LC DAD1A, 254 nm

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

Signal: 1

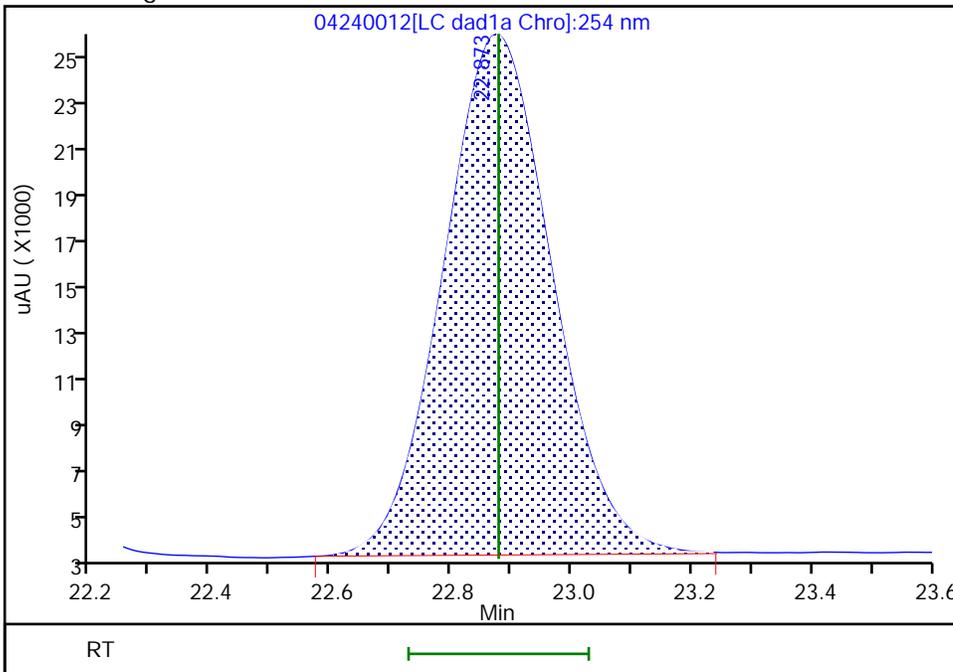
Processing Integration Results

RT: 22.87  
Area: 285759  
Amount: 0.707074  
Amount Units: ug/ml



Manual Integration Results

RT: 22.87  
Area: 279268  
Amount: 0.698585  
Amount Units: ug/ml



Reviewer: LV5D, 25-Apr-2024 13:37:19 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins Denver  
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2\_LUNA\20240424-132624.b\04240013.D  
 Lims ID: IC INT 6  
 Client ID:  
 Sample Type: IC Calib Level: 6  
 Inject. Date: 24-Apr-2024 23:16:01 ALS Bottle#: 13 Worklist Smp#: 13  
 Injection Vol: 100.0 ul Dil. Factor: 1.0000  
 Sample Info: IC INT 6  
 Operator ID: JZ/JG Instrument ID: CHHPLC\_G2\_LUNA  
 Sublist: chrom-G2\_8330\_Luna\*sub16  
 Method: \\chromfs\Denver\ChromData\G2\_LUNA\20240424-132624.b\G2\_8330\_Luna.m  
 Limit Group: GCSV - 8330  
 Last Update: 25-Apr-2024 14:30:12 Calib Date: 25-Apr-2024 07:39:21  
 Integrator: Falcon  
 Quant Method: External Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Denver\ChromData\G2\_LUNA\20240424-132624.b\04240027.D  
 Column 1 : Luna-Phenyl hexyl ( 4.60 mm) Det: LC DAD1A, 254 nm  
 Process Host: CTX1684

First Level Reviewer: LV5D Date: 25-Apr-2024 13:19:49

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
6 HMX	1	6.700	6.705	-0.005	70323	0.4000	0.4040	
5 2,4,6-Trinitrophenol	1	8.587	8.612	-0.025	60435	0.4000	0.3992	
8 RDX	1	8.927	8.938	-0.011	83185	0.4000	0.4019	
9 Nitrobenzene	1	11.420	11.425	-0.005	153657	0.4000	0.4021	
\$ 10 1,2-Dinitrobenzene	1	12.340	12.345	-0.005	104562	0.4000	0.4042	
11 3,5-Dinitroaniline	1	14.180	14.185	-0.005	175740	0.4000	0.4059	M
12 1,3-Dinitrobenzene	1	14.473	14.478	-0.005	231256	0.4000	0.3923	M
13 Nitroglycerin	2	14.920	14.918	0.002	496432	4.00	4.15	M
14 o-Nitrotoluene	1	15.507	15.505	0.002	96839	0.4000	0.3959	M
15 p-Nitrotoluene	1	15.740	15.738	0.002	89334	0.4000	0.4061	M
16 4-Amino-2,6-dinitrotoluene	1	16.240	16.245	-0.005	109971	0.4000	0.4053	M
17 m-Nitrotoluene	1	16.573	16.578	-0.005	112076	0.4000	0.4032	M
18 2-Amino-4,6-dinitrotoluene	1	17.053	17.058	-0.005	156312	0.4000	0.3854	M
19 1,3,5-Trinitrobenzene	1	17.267	17.272	-0.005	162815	0.4000	0.3845	M
20 2,6-Dinitrotoluene	1	18.353	18.365	-0.012	107267	0.4000	0.3859	M
21 2,4-Dinitrotoluene	1	18.807	18.818	-0.011	216895	0.4000	0.3911	M
22 Tetryl	1	22.007	22.025	-0.018	125893	0.4000	0.4021	
23 2,4,6-Trinitrotoluene	1	22.874	22.878	-0.004	160072	0.4000	0.4004	M
24 PETN	2	24.014	24.032	-0.018	492803	4.00	4.00	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

8330IntermStk\_00080

Amount Added: 40.00

Units: uL

Eurofins Denver

Data File: \\chromfs\denver\chromdata\g2\_luna\20240424-132624.b\04240013.d

Injection Date: 24-Apr-2024 23:16:01

Instrument ID: CHHPLC\_G2\_LUNA

Operator ID: JZ/JG

Lims ID: IC INT 6

Worklist Smp#: 13

Client ID:

Injection Vol: 100.0 ul

Dil. Factor: 1.0000

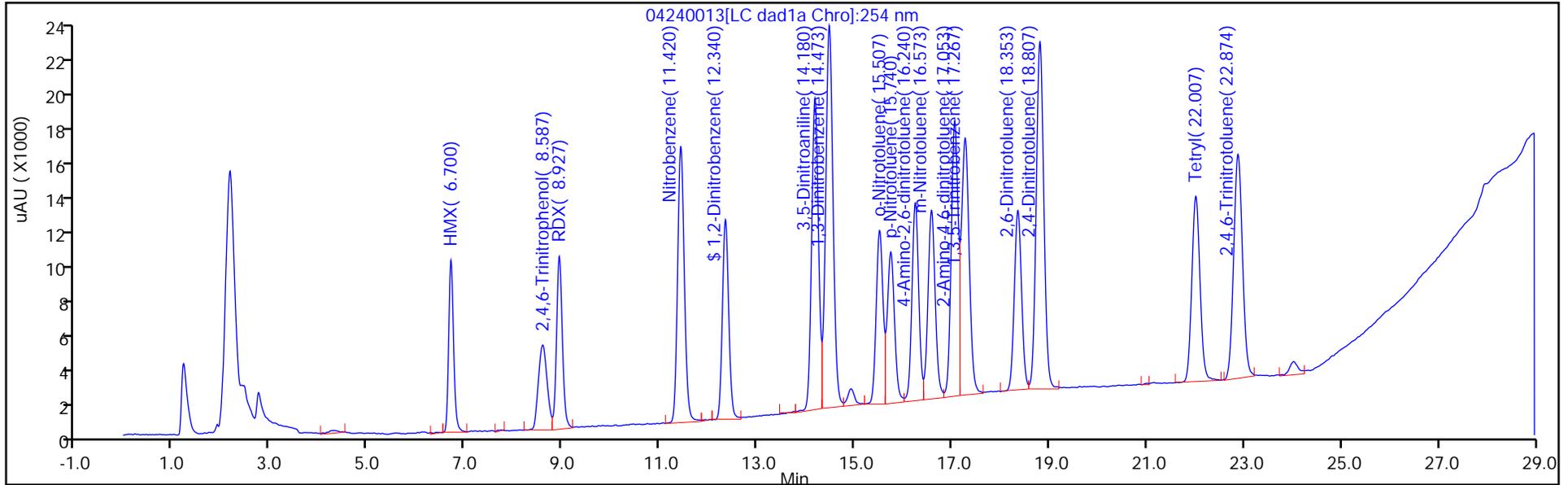
ALS Bottle#: 13

Method: G2\_8330\_Luna

Limit Group: GCSV - 8330

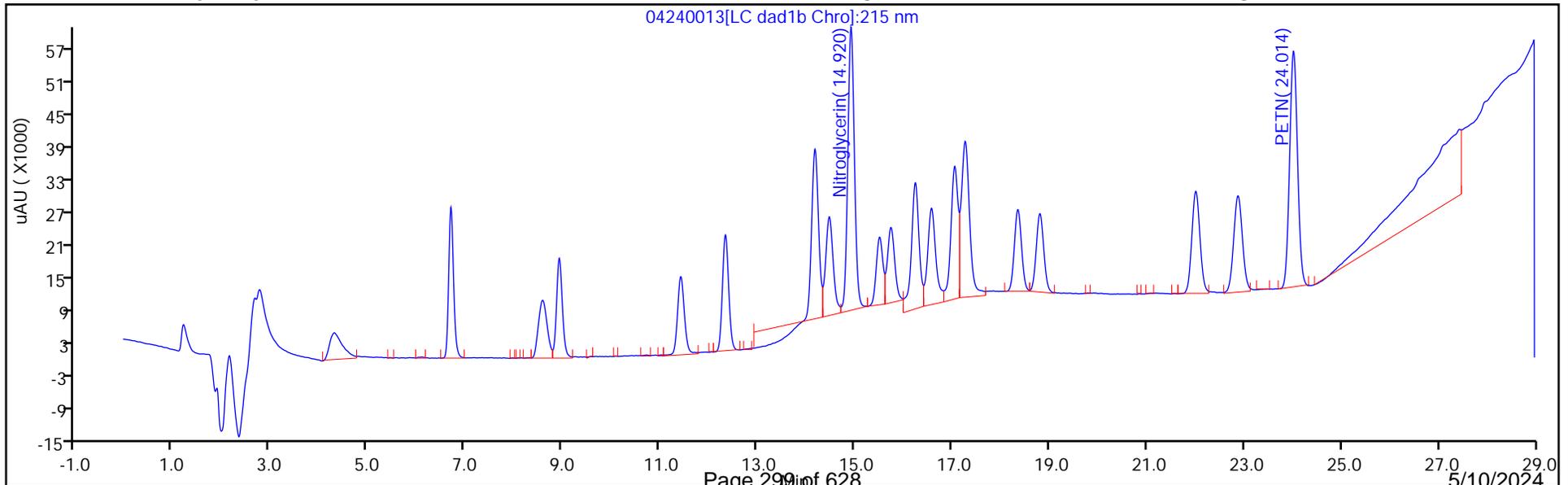
Column: Luna-Phenyl hexyl ( 4.60 mm)

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



Column: Luna-Phenyl hexyl ( 4.60 mm)

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



Eurofins Denver

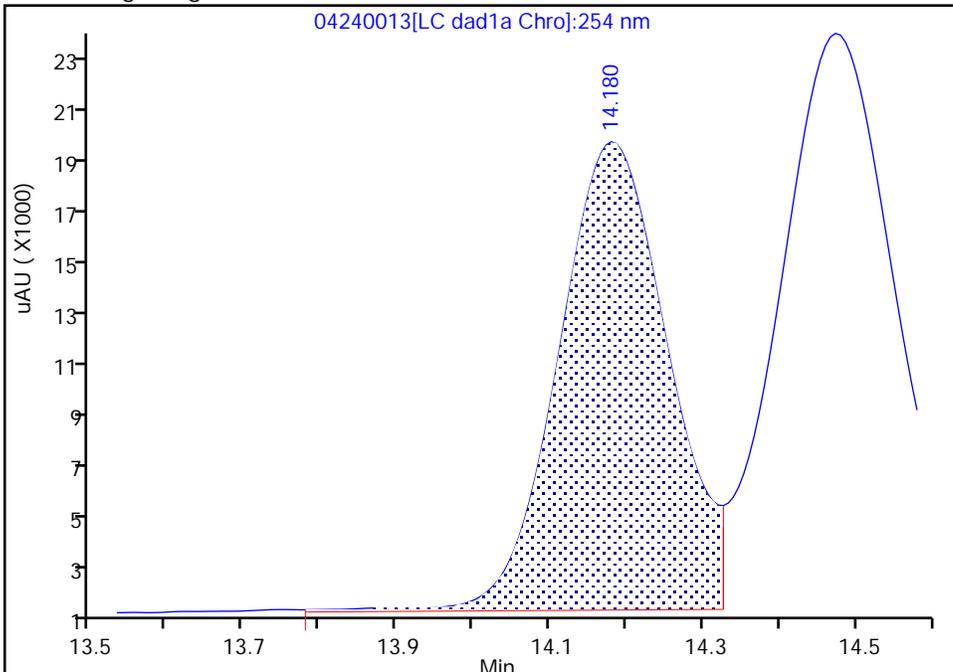
Data File: \\chromfs\denver\chromdata\g2\_luna\20240424-132624.b\04240013.d  
 Injection Date: 24-Apr-2024 23:16:01 Instrument ID: CHHPLC\_G2\_LUNA  
 Lims ID: IC INT 6  
 Client ID:  
 Operator ID: JZ/JG ALS Bottle#: 13 Worklist Smp#: 13  
 Injection Vol: 100.0 ul Dil. Factor: 1.0000  
 Method: G2\_8330\_Luna Limit Group: GCSV - 8330  
 Column: Luna-Phenyl hexyl ( 4.60 mm) Detector: LC DAD1A, 254 nm

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

Signal: 1

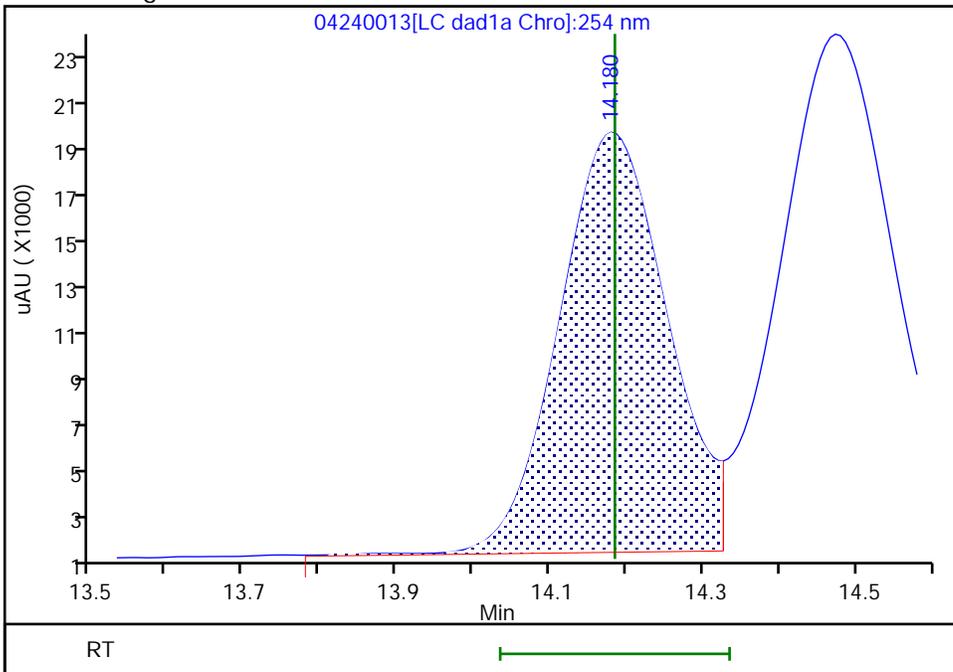
RT: 14.18  
 Area: 177544  
 Amount: 0.403629  
 Amount Units: ug/ml

Processing Integration Results



RT: 14.18  
 Area: 175740  
 Amount: 0.405875  
 Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:21:18 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

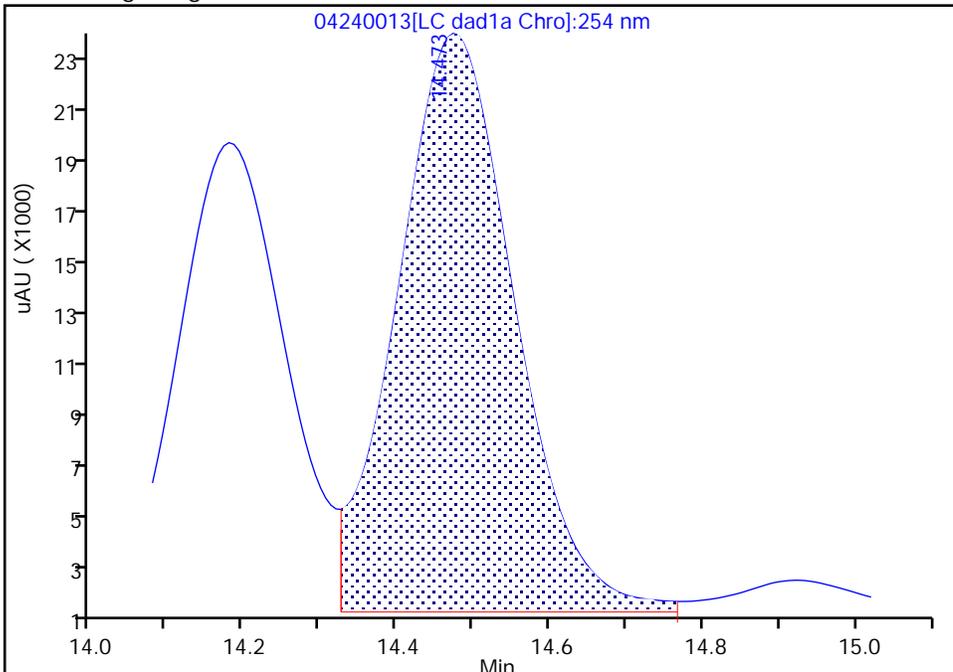
Data File: \\chromfs\denver\chromdata\g2\_luna\20240424-132624.b\04240013.d  
Injection Date: 24-Apr-2024 23:16:01 Instrument ID: CHHPLC\_G2\_LUNA  
Lims ID: IC INT 6  
Client ID:  
Operator ID: JZ/JG ALS Bottle#: 13 Worklist Smp#: 13  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: G2\_8330\_Luna Limit Group: GCSV - 8330  
Column: Luna-Phenyl hexyl ( 4.60 mm) Detector: LC DAD1A, 254 nm

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

Signal: 1

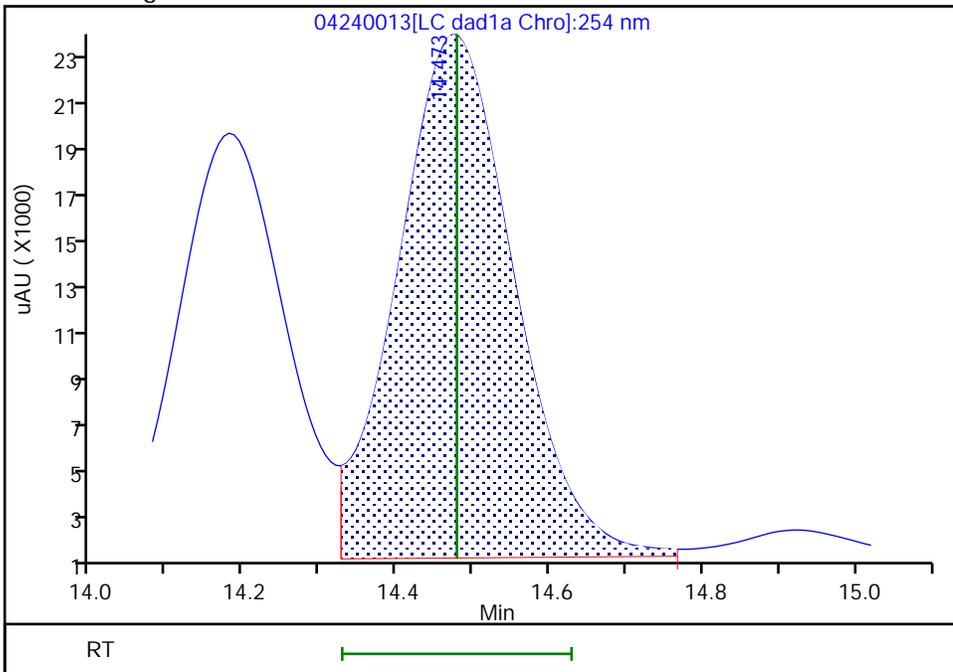
RT: 14.47  
Area: 233896  
Amount: 0.368762  
Amount Units: ug/ml

Processing Integration Results



RT: 14.47  
Area: 231256  
Amount: 0.392346  
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:21:18 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

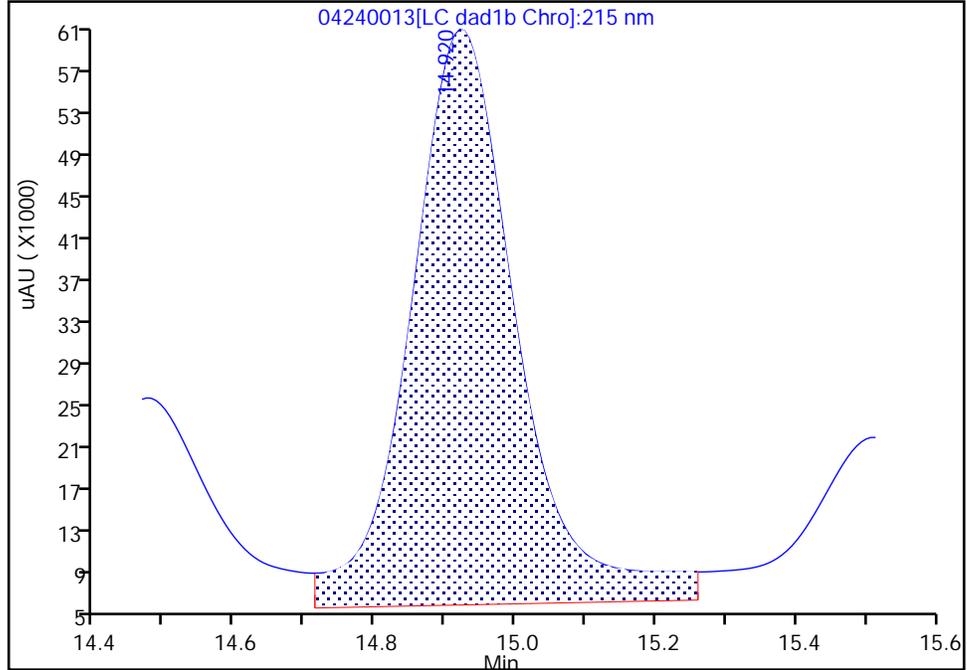
Data File: \\chromfs\denver\chromdata\g2\_luna\20240424-132624.b\04240013.d  
Injection Date: 24-Apr-2024 23:16:01 Instrument ID: CHHPLC\_G2\_LUNA  
Lims ID: IC INT 6  
Client ID:  
Operator ID: JZ/JG ALS Bottle#: 13 Worklist Smp#: 13  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: G2\_8330\_Luna Limit Group: GCSV - 8330  
Column: Luna-Phenyl hexyl ( 4.60 mm) Detector: LC DAD1B, 215 nm

13 Nitroglycerin, CAS: 55-63-0

Signal: 1

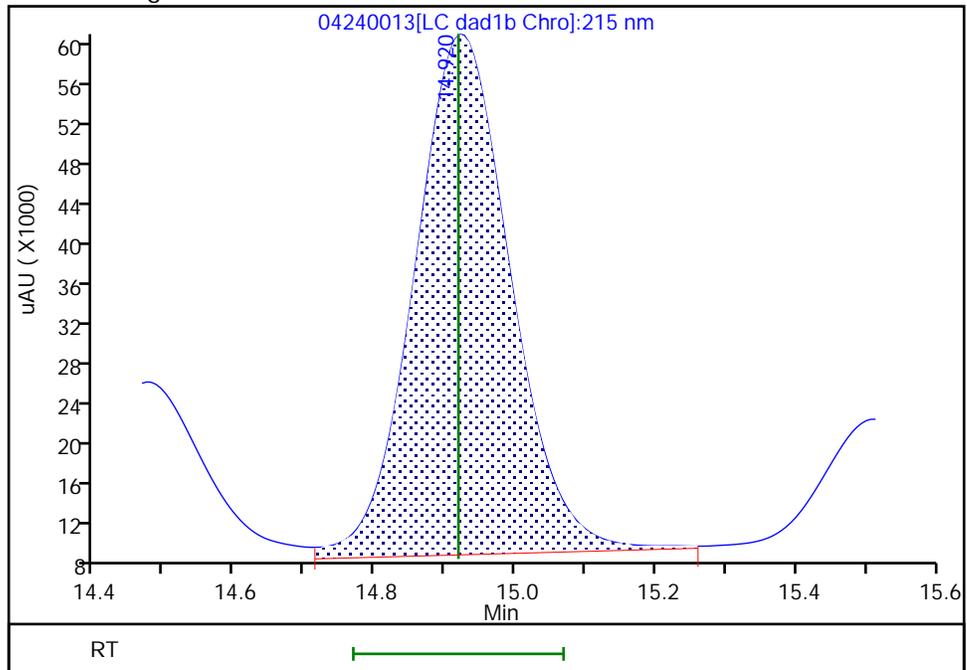
RT: 14.92  
Area: 575135  
Amount: 2.229751  
Amount Units: ug/ml

Processing Integration Results



RT: 14.92  
Area: 496432  
Amount: 4.154077  
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:19:46 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

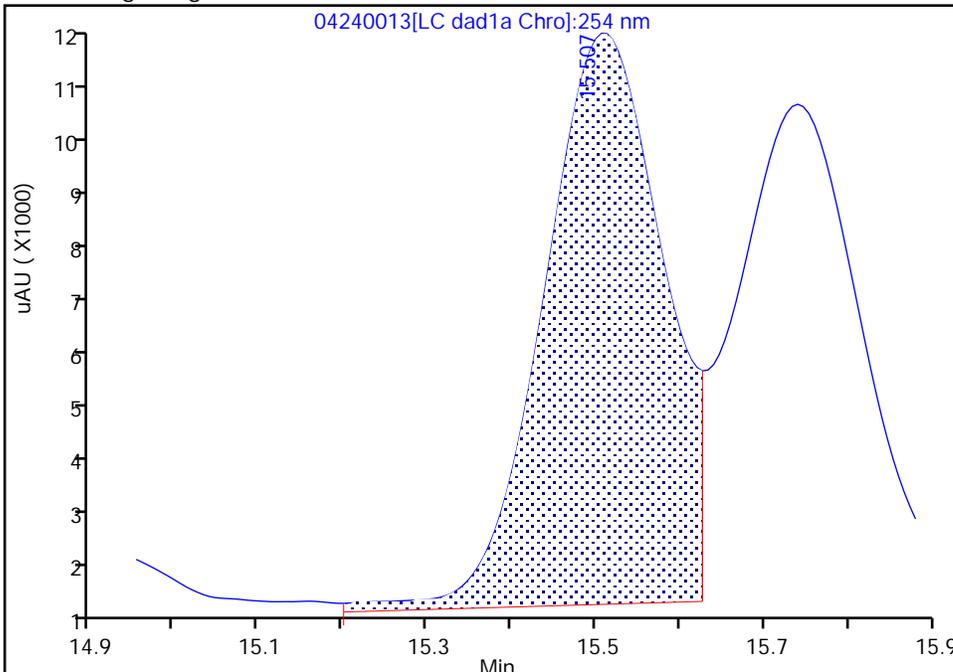
Data File: \\chromfs\denver\chromdata\g2\_luna\20240424-132624.b\04240013.d  
Injection Date: 24-Apr-2024 23:16:01 Instrument ID: CHHPLC\_G2\_LUNA  
Lims ID: IC INT 6  
Client ID:  
Operator ID: JZ/JG ALS Bottle#: 13 Worklist Smp#: 13  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: G2\_8330\_Luna Limit Group: GCSV - 8330  
Column: Luna-Phenyl hexyl ( 4.60 mm) Detector: LC DAD1A, 254 nm

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

Signal: 1

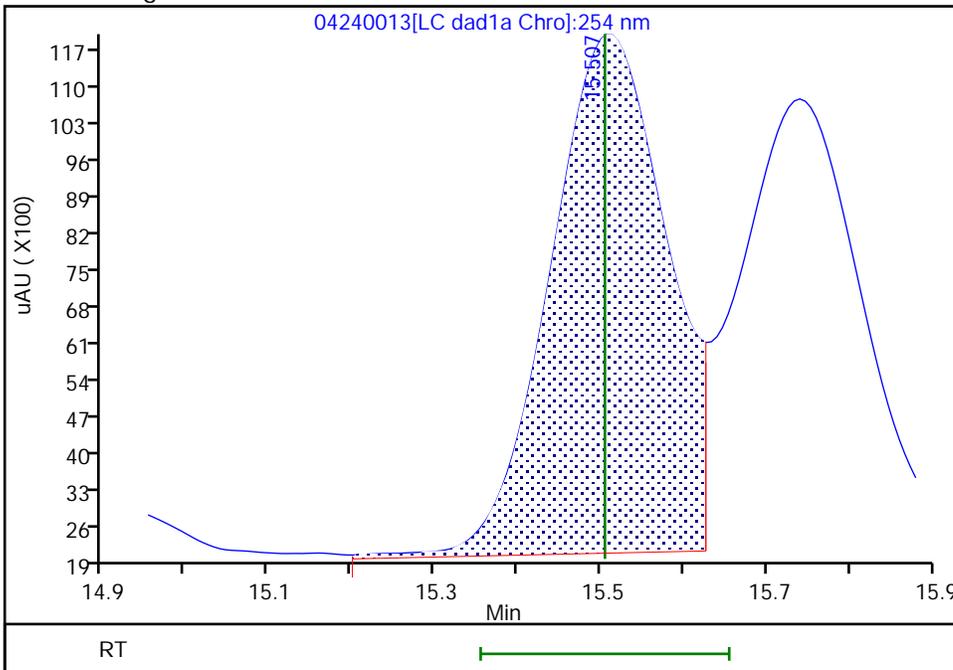
RT: 15.51  
Area: 98708  
Amount: 0.357016  
Amount Units: ug/ml

Processing Integration Results



RT: 15.51  
Area: 96839  
Amount: 0.395917  
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:21:18 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

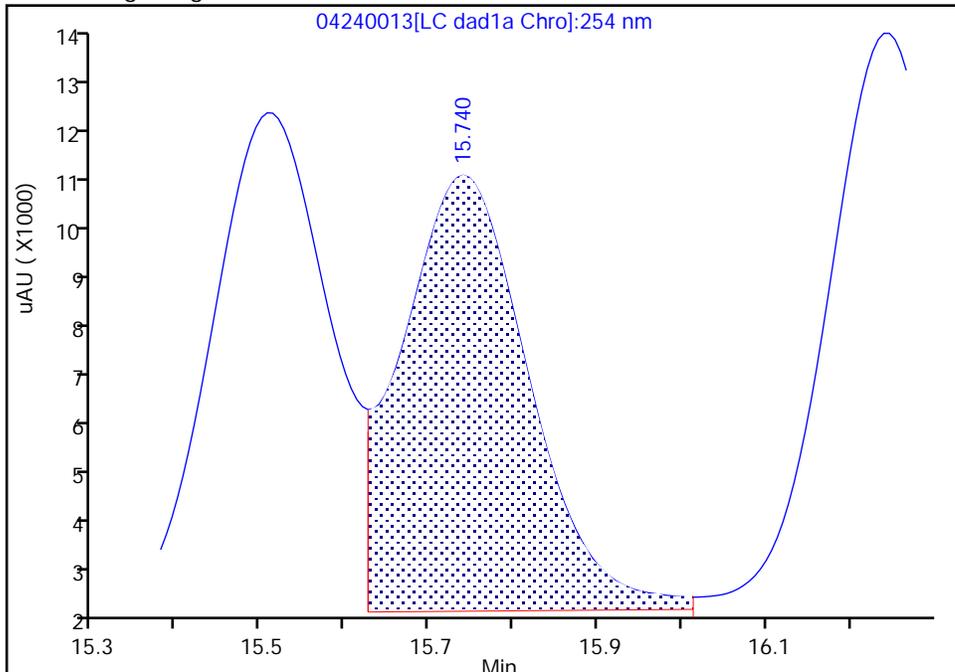
Data File: \\chromfs\denver\chromdata\g2\_luna\20240424-132624.b\04240013.d  
Injection Date: 24-Apr-2024 23:16:01 Instrument ID: CHHPLC\_G2\_LUNA  
Lims ID: IC INT 6  
Client ID:  
Operator ID: JZ/JG ALS Bottle#: 13 Worklist Smp#: 13  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: G2\_8330\_Luna Limit Group: GCSV - 8330  
Column: Luna-Phenyl hexyl ( 4.60 mm) Detector: LC DAD1A, 254 nm

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

Signal: 1

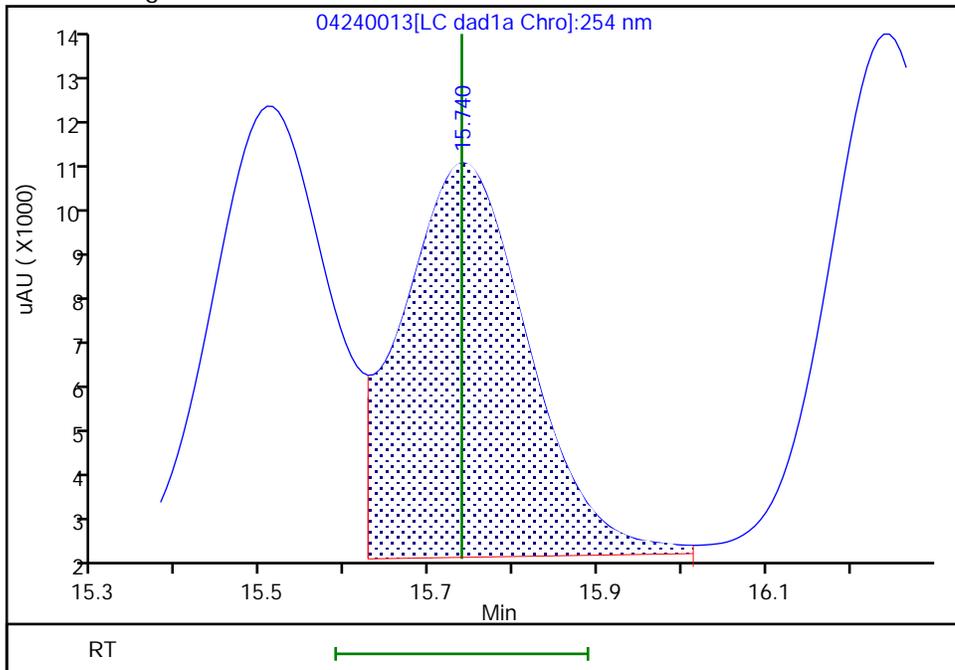
RT: 15.74  
Area: 90760  
Amount: 0.406111  
Amount Units: ug/ml

Processing Integration Results



RT: 15.74  
Area: 89334  
Amount: 0.406098  
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:21:18 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

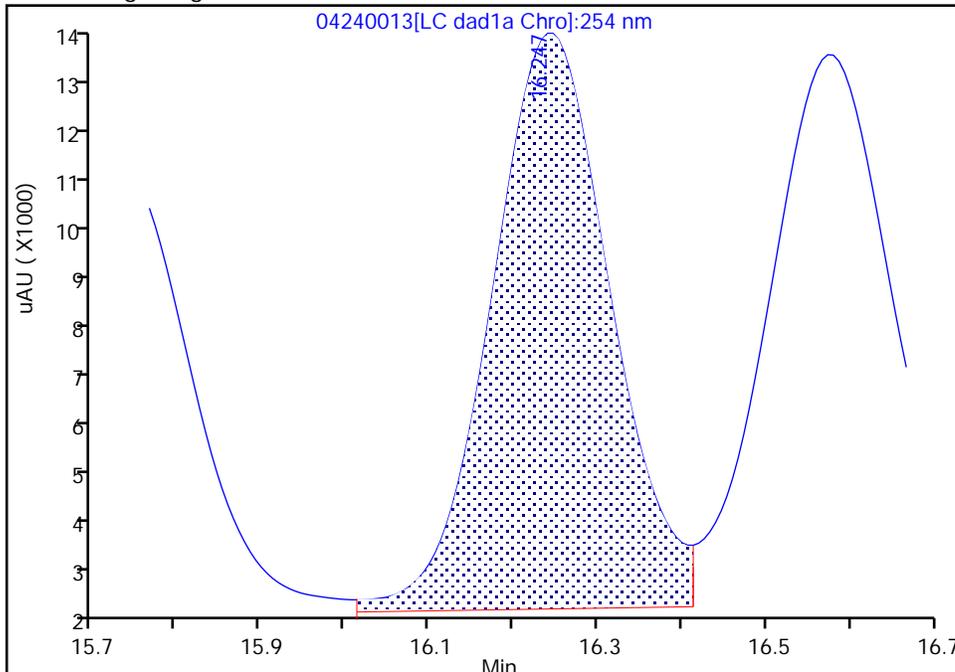
Data File: \\chromfs\denver\chromdata\g2\_luna\20240424-132624.b\04240013.d  
Injection Date: 24-Apr-2024 23:16:01 Instrument ID: CHHPLC\_G2\_LUNA  
Lims ID: IC INT 6  
Client ID:  
Operator ID: JZ/JG ALS Bottle#: 13 Worklist Smp#: 13  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: G2\_8330\_Luna Limit Group: GCSV - 8330  
Column: Luna-Phenyl hexyl ( 4.60 mm) Detector: LC DAD1A, 254 nm

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

Signal: 1

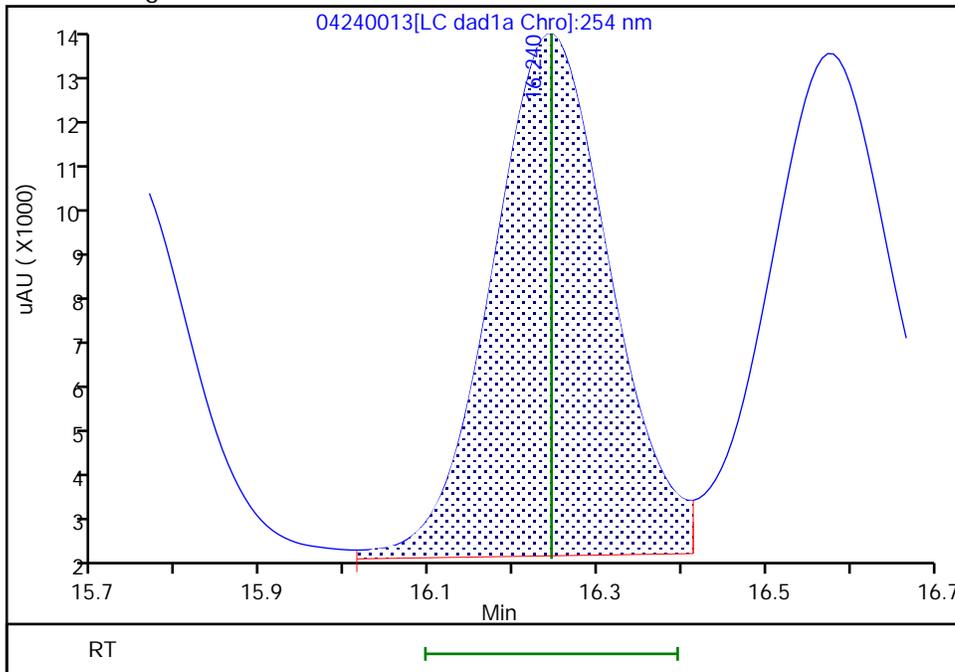
RT: 16.25  
Area: 111651  
Amount: 0.405375  
Amount Units: ug/ml

Processing Integration Results



RT: 16.24  
Area: 109971  
Amount: 0.405284  
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:21:18 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

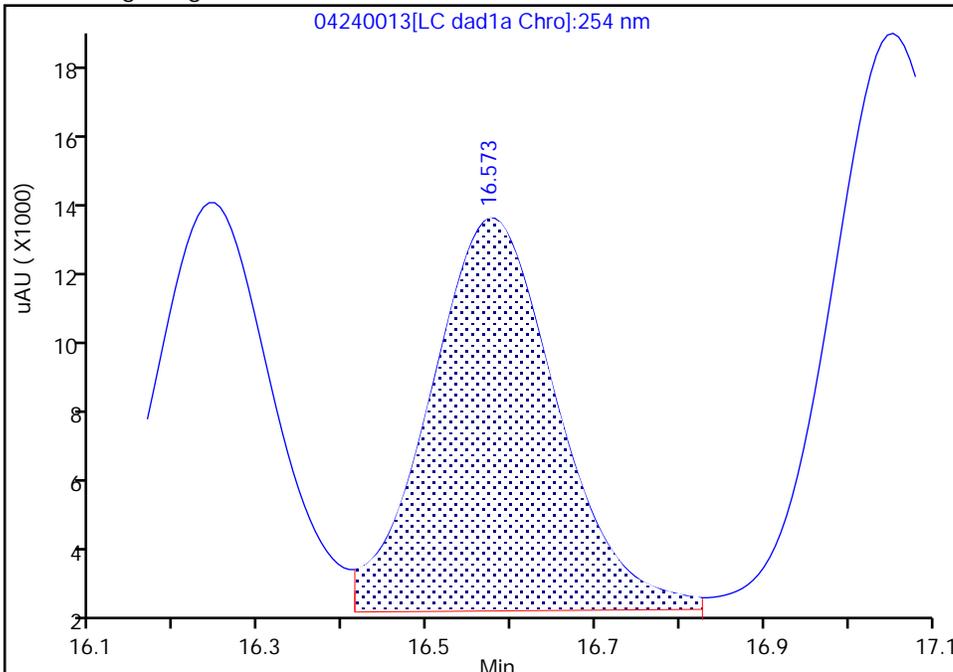
Data File: \\chromfs\denver\chromdata\g2\_luna\20240424-132624.b\04240013.d  
Injection Date: 24-Apr-2024 23:16:01 Instrument ID: CHHPLC\_G2\_LUNA  
Lims ID: IC INT 6  
Client ID:  
Operator ID: JZ/JG ALS Bottle#: 13 Worklist Smp#: 13  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: G2\_8330\_Luna Limit Group: GCSV - 8330  
Column: Luna-Phenyl hexyl ( 4.60 mm) Detector: LC DAD1A, 254 nm

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

Signal: 1

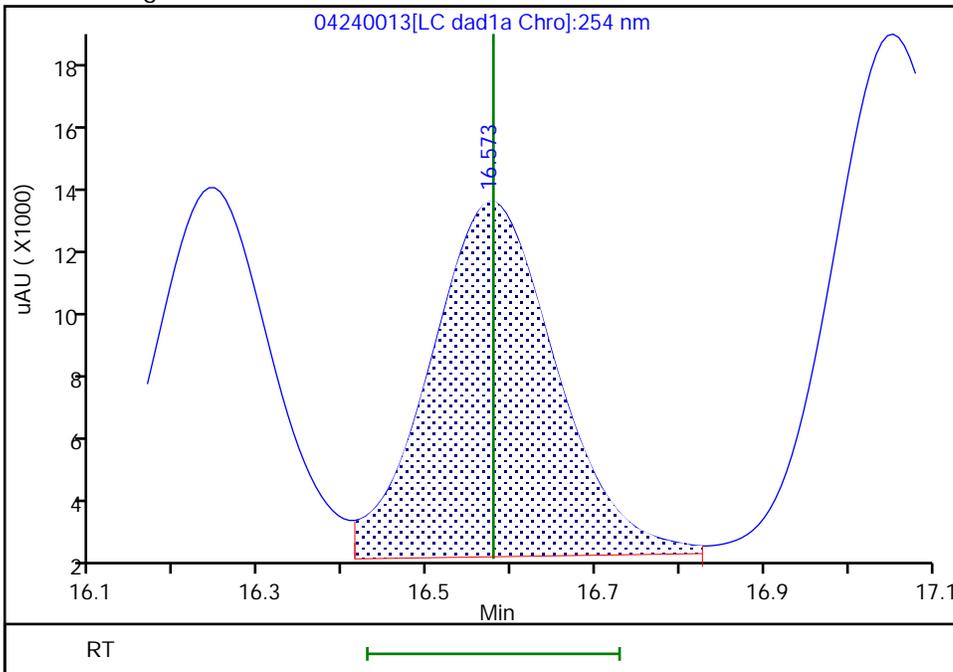
RT: 16.57  
Area: 113378  
Amount: 0.394279  
Amount Units: ug/ml

Processing Integration Results



RT: 16.57  
Area: 112076  
Amount: 0.403164  
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:21:18 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

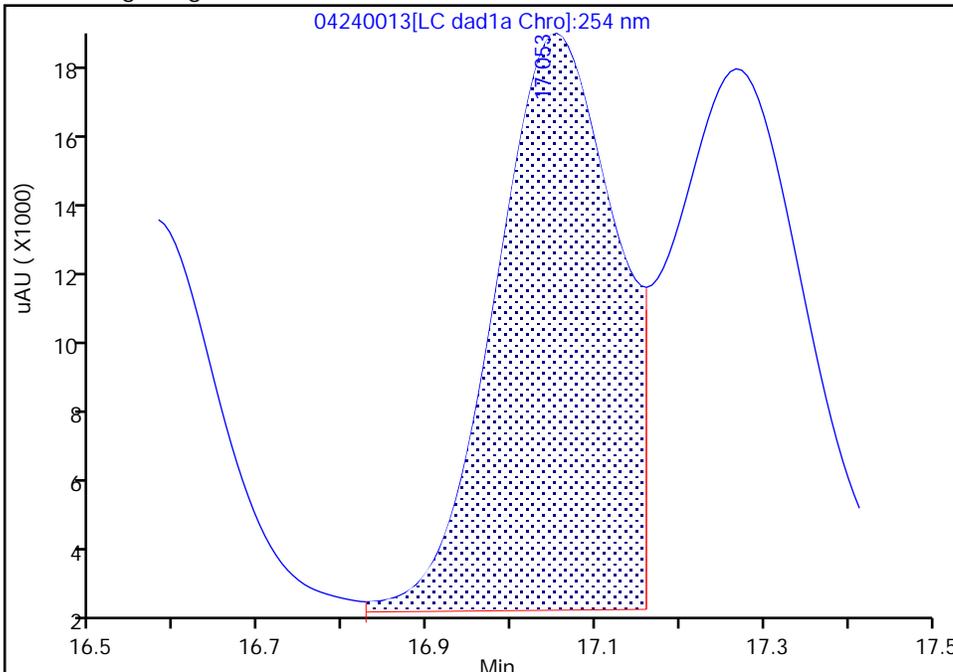
Data File: \\chromfs\denver\chromdata\g2\_luna\20240424-132624.b\04240013.d  
Injection Date: 24-Apr-2024 23:16:01 Instrument ID: CHHPLC\_G2\_LUNA  
Lims ID: IC INT 6  
Client ID:  
Operator ID: JZ/JG ALS Bottle#: 13 Worklist Smp#: 13  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: G2\_8330\_Luna Limit Group: GCSV - 8330  
Column: Luna-Phenyl hexyl ( 4.60 mm) Detector: LC DAD1A, 254 nm

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

Signal: 1

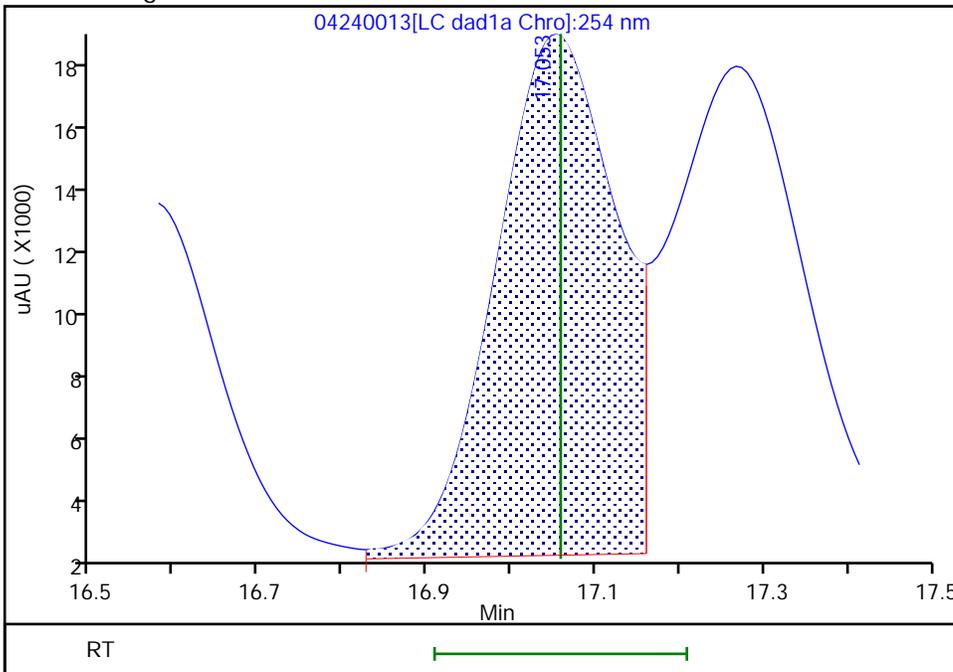
Processing Integration Results

RT: 17.05  
Area: 157172  
Amount: 0.405879  
Amount Units: ug/ml



Manual Integration Results

RT: 17.05  
Area: 156312  
Amount: 0.385421  
Amount Units: ug/ml



Reviewer: LV5D, 25-Apr-2024 13:21:18 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

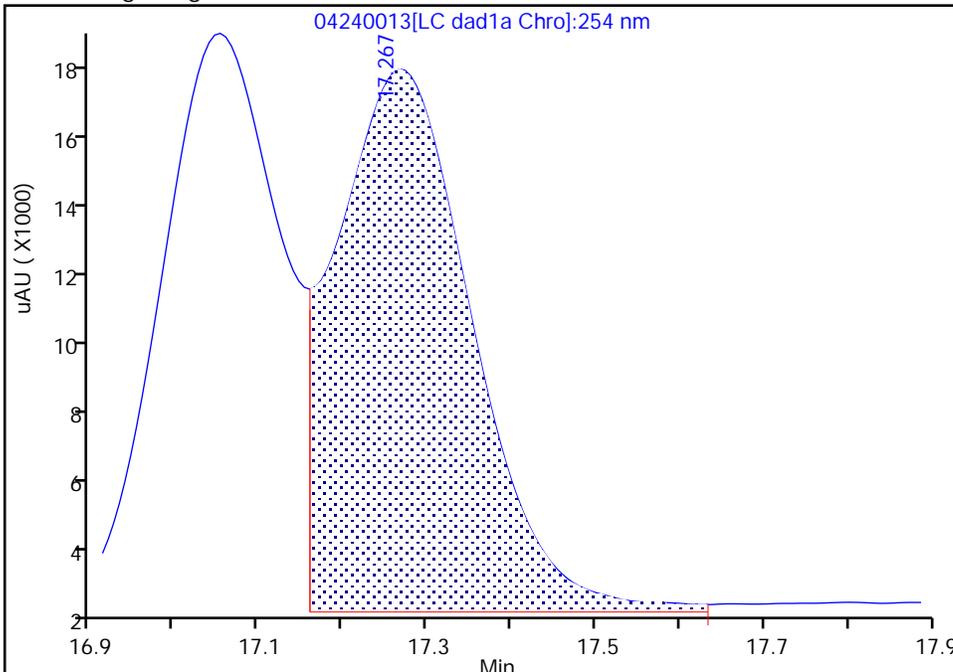
Data File: \\chromfs\denver\chromdata\g2\_luna\20240424-132624.b\04240013.d  
Injection Date: 24-Apr-2024 23:16:01 Instrument ID: CHHPLC\_G2\_LUNA  
Lims ID: IC INT 6  
Client ID:  
Operator ID: JZ/JG ALS Bottle#: 13 Worklist Smp#: 13  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: G2\_8330\_Luna Limit Group: GCSV - 8330  
Column: Luna-Phenyl hexyl ( 4.60 mm) Detector: LC DAD1A, 254 nm

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

Signal: 1

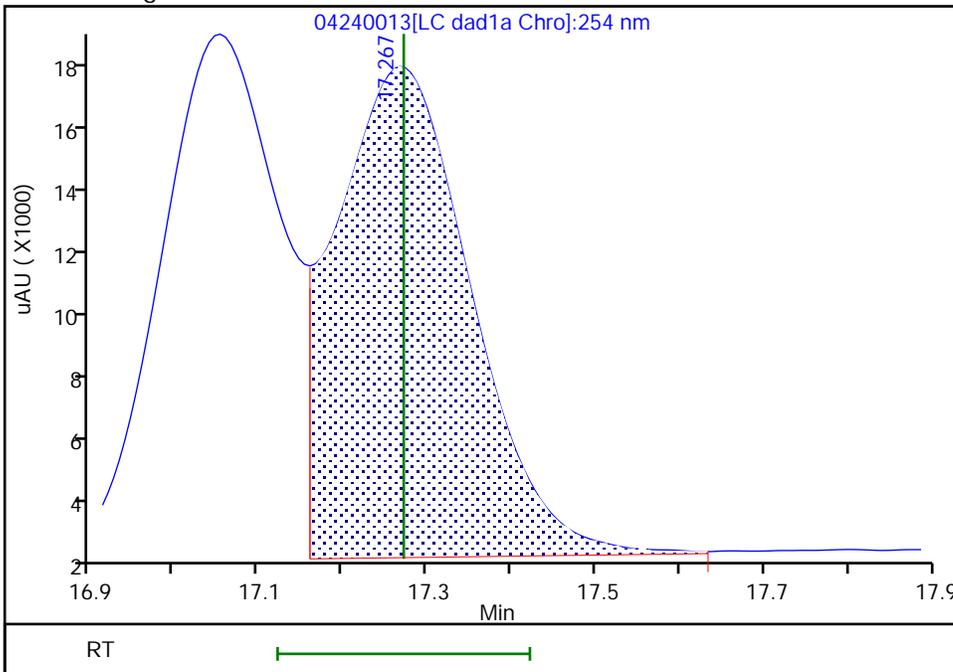
RT: 17.27  
Area: 165257  
Amount: 0.352733  
Amount Units: ug/ml

Processing Integration Results



RT: 17.27  
Area: 162815  
Amount: 0.384492  
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:21:18 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

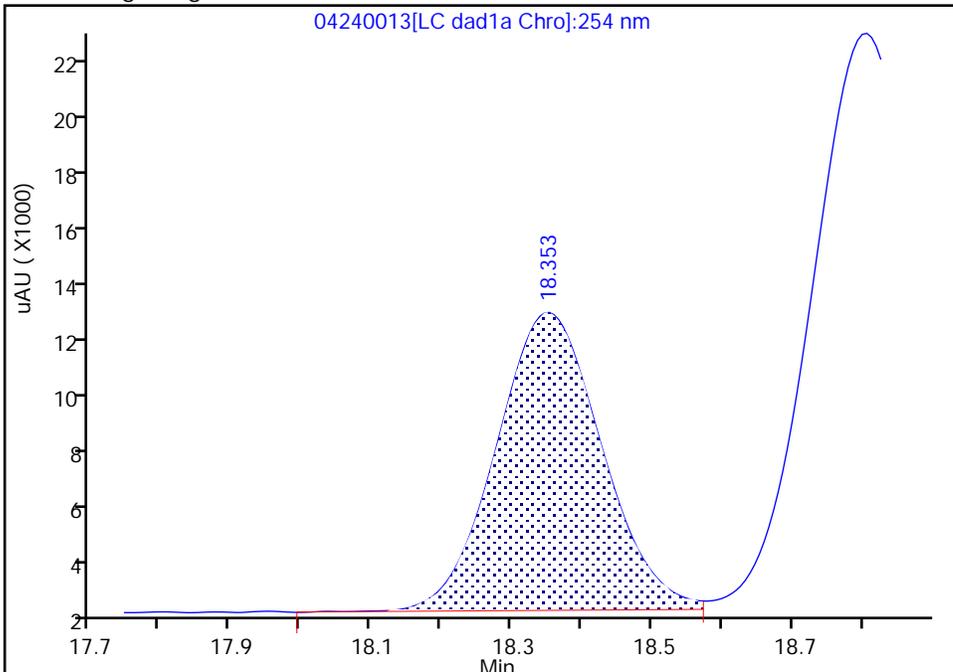
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Injection Date: 24-Apr-2024 23:16:01 Instrument ID: CHHPLC\_G2\_LUNA  
Lims ID: IC INT 6  
Client ID:  
Operator ID: JZ/JG ALS Bottle#: 13 Worklist Smp#: 13  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: G2\_8330\_Luna Limit Group: GCSV - 8330  
Column: Luna-Phenyl hexyl ( 4.60 mm) Detector: LC DAD1A, 254 nm

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

Signal: 1

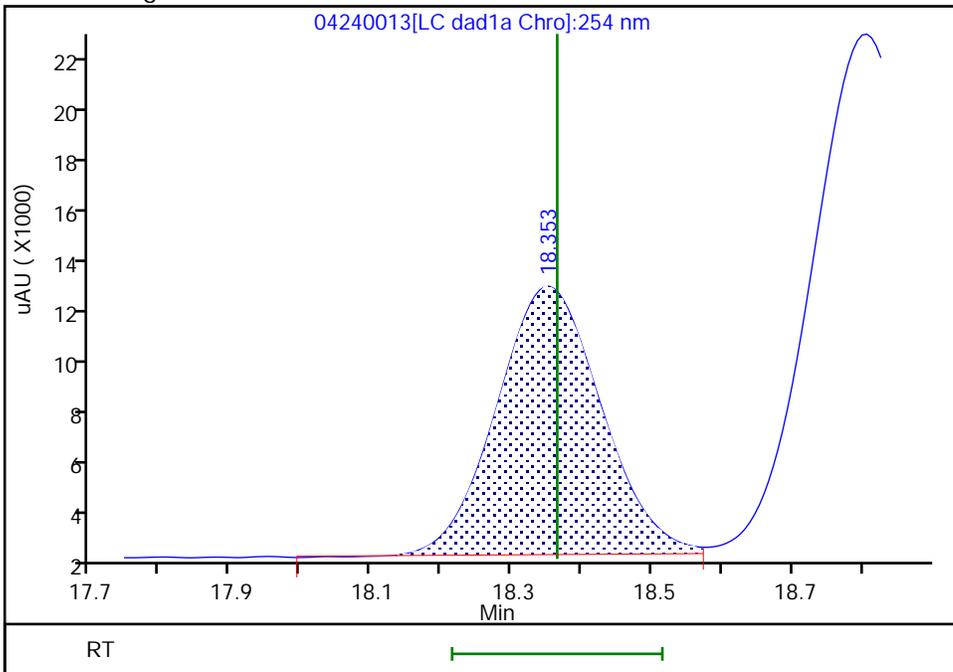
RT: 18.35  
Area: 107632  
Amount: 0.396872  
Amount Units: ug/ml

Processing Integration Results



RT: 18.35  
Area: 107267  
Amount: 0.385894  
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:21:20 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

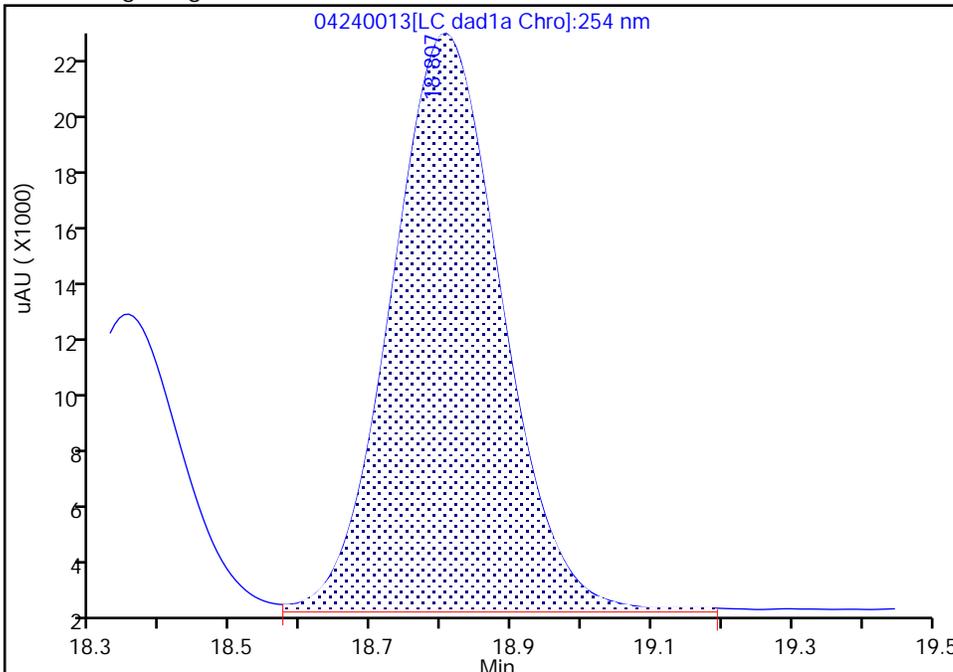
Data File: \\chromfs\denver\chromdata\g2\_luna\20240424-132624.b\04240013.d  
Injection Date: 24-Apr-2024 23:16:01 Instrument ID: CHHPLC\_G2\_LUNA  
Lims ID: IC INT 6  
Client ID:  
Operator ID: JZ/JG ALS Bottle#: 13 Worklist Smp#: 13  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: G2\_8330\_Luna Limit Group: GCSV - 8330  
Column: Luna-Phenyl hexyl ( 4.60 mm) Detector: LC DAD1A, 254 nm

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

Signal: 1

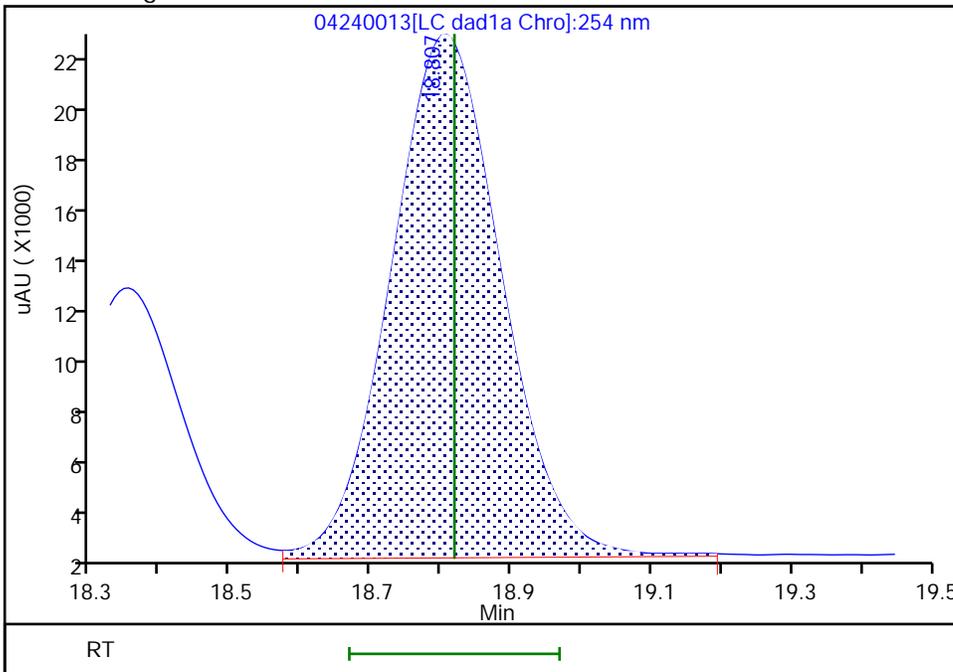
RT: 18.81  
Area: 218104  
Amount: 0.366137  
Amount Units: ug/ml

Processing Integration Results



RT: 18.81  
Area: 216895  
Amount: 0.391109  
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:21:20 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

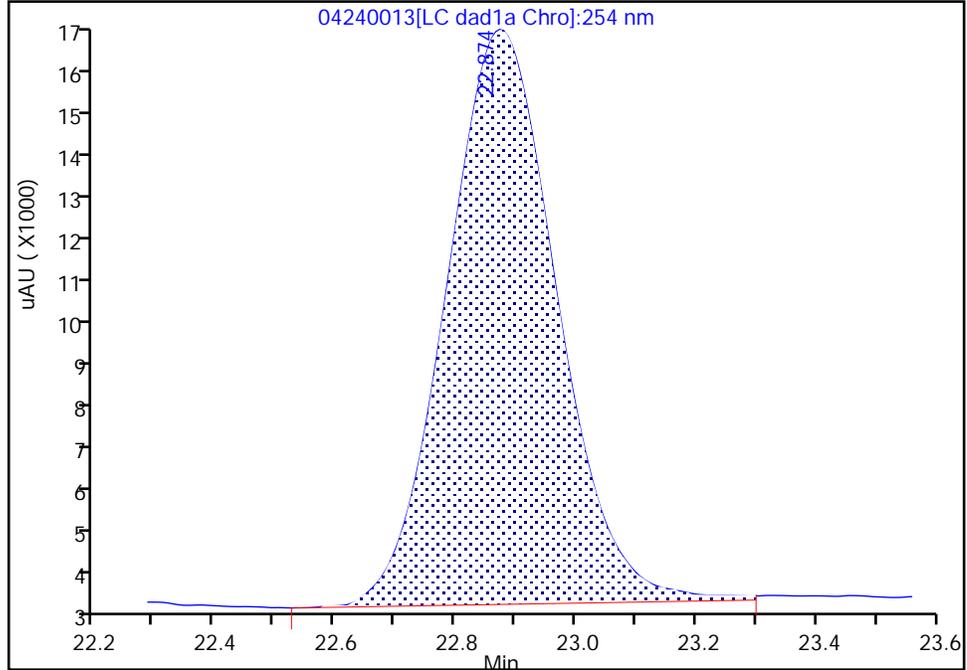
Data File: \\chromfs\denver\chromdata\g2\_luna\20240424-132624.b\04240013.d  
Injection Date: 24-Apr-2024 23:16:01 Instrument ID: CHHPLC\_G2\_LUNA  
Lims ID: IC INT 6  
Client ID:  
Operator ID: JZ/JG ALS Bottle#: 13 Worklist Smp#: 13  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: G2\_8330\_Luna Limit Group: GCSV - 8330  
Column: Luna-Phenyl hexyl ( 4.60 mm) Detector: LC DAD1A, 254 nm

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

Signal: 1

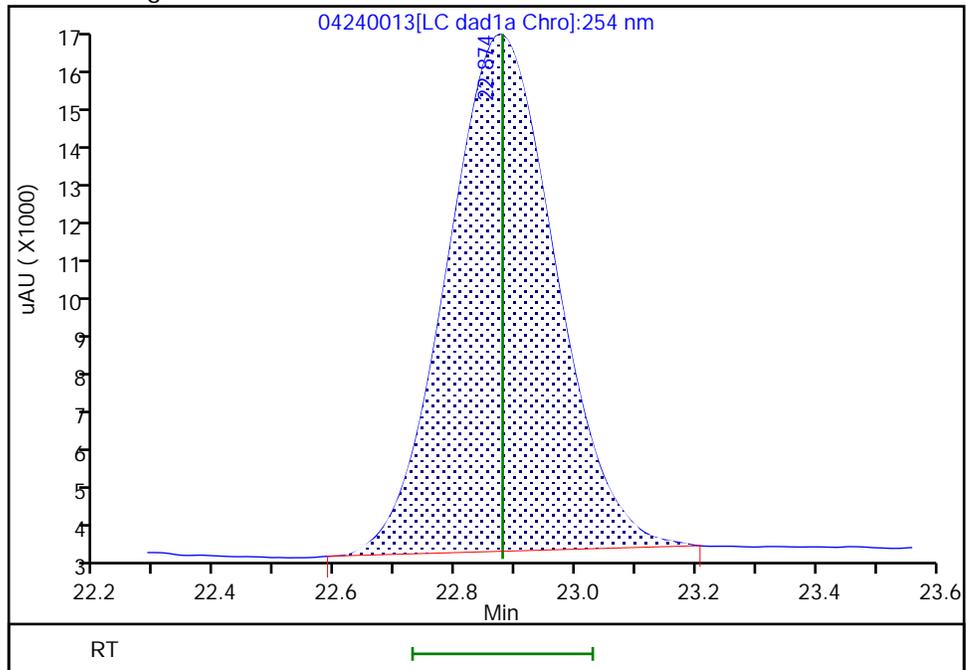
Processing Integration Results

RT: 22.87  
Area: 164610  
Amount: 0.409165  
Amount Units: ug/ml



Manual Integration Results

RT: 22.87  
Area: 160072  
Amount: 0.400418  
Amount Units: ug/ml



Reviewer: LV5D, 25-Apr-2024 13:37:39 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins Denver  
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2\_LUNA\20240424-132624.b\04240014.D  
 Lims ID: IC INT 5  
 Client ID:  
 Sample Type: IC Calib Level: 5  
 Inject. Date: 24-Apr-2024 23:51:59 ALS Bottle#: 14 Worklist Smp#: 14  
 Injection Vol: 100.0 ul Dil. Factor: 1.0000  
 Sample Info: IC INT 5  
 Operator ID: JZ/JG Instrument ID: CHHPLC\_G2\_LUNA  
 Sublist: chrom-G2\_8330\_Luna\*sub16  
 Method: \\chromfs\Denver\ChromData\G2\_LUNA\20240424-132624.b\G2\_8330\_Luna.m  
 Limit Group: GCSV - 8330  
 Last Update: 25-Apr-2024 14:30:13 Calib Date: 25-Apr-2024 07:39:21  
 Integrator: Falcon  
 Quant Method: External Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Denver\ChromData\G2\_LUNA\20240424-132624.b\04240027.D  
 Column 1 : Luna-Phenyl hexyl ( 4.60 mm) Det: LC DAD1A, 254 nm  
 Process Host: CTX1684

First Level Reviewer: LV5D Date: 25-Apr-2024 13:19:57

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
6 HMX	1	6.705	6.705	0.000	43487	0.2500	0.2498	
5 2,4,6-Trinitrophenol	1	8.612	8.612	0.000	37043	0.2500	0.2447	
8 RDX	1	8.938	8.938	0.000	52707	0.2500	0.2537	
9 Nitrobenzene	1	11.425	11.425	0.000	93225	0.2500	0.2440	
\$ 10 1,2-Dinitrobenzene	1	12.345	12.345	0.000	64431	0.2500	0.2491	
11 3,5-Dinitroaniline	1	14.185	14.185	0.000	108023	0.2500	0.2487	M
12 1,3-Dinitrobenzene	1	14.478	14.478	0.000	143019	0.2500	0.2426	M
13 Nitroglycerin	2	14.918	14.918	0.000	309600	2.50	2.59	M
14 o-Nitrotoluene	1	15.505	15.505	0.000	58941	0.2500	0.2410	M
15 p-Nitrotoluene	1	15.738	15.738	0.000	54130	0.2500	0.2444	M
16 4-Amino-2,6-dinitrotoluene	1	16.245	16.245	0.000	67115	0.2500	0.2463	M
17 m-Nitrotoluene	1	16.578	16.578	0.000	68559	0.2500	0.2453	M
18 2-Amino-4,6-dinitrotoluene	1	17.058	17.058	0.000	95082	0.2500	0.2344	M
19 1,3,5-Trinitrobenzene	1	17.272	17.272	0.000	101067	0.2500	0.2387	M
20 2,6-Dinitrotoluene	1	18.365	18.365	0.000	66539	0.2500	0.2394	M
21 2,4-Dinitrotoluene	1	18.818	18.818	0.000	133579	0.2500	0.2409	M
22 Tetryl	1	22.025	22.025	0.000	79229	0.2500	0.2525	
23 2,4,6-Trinitrotoluene	1	22.878	22.878	0.000	100337	0.2500	0.2510	M
24 PETN	2	24.032	24.032	0.000	304928	2.50	2.48	M

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

8330IntermStk\_00080

Amount Added: 25.00

Units: uL

Eurofins Denver

Data File: \\chromfs\denver\chromdata\g2\_luna\20240424-132624.b\04240014.d

Injection Date: 24-Apr-2024 23:51:59

Instrument ID: CHHPLC\_G2\_LUNA

Operator ID: JZ/JG

Lims ID: IC INT 5

Worklist Smp#: 14

Client ID:

Injection Vol: 100.0 ul

Dil. Factor: 1.0000

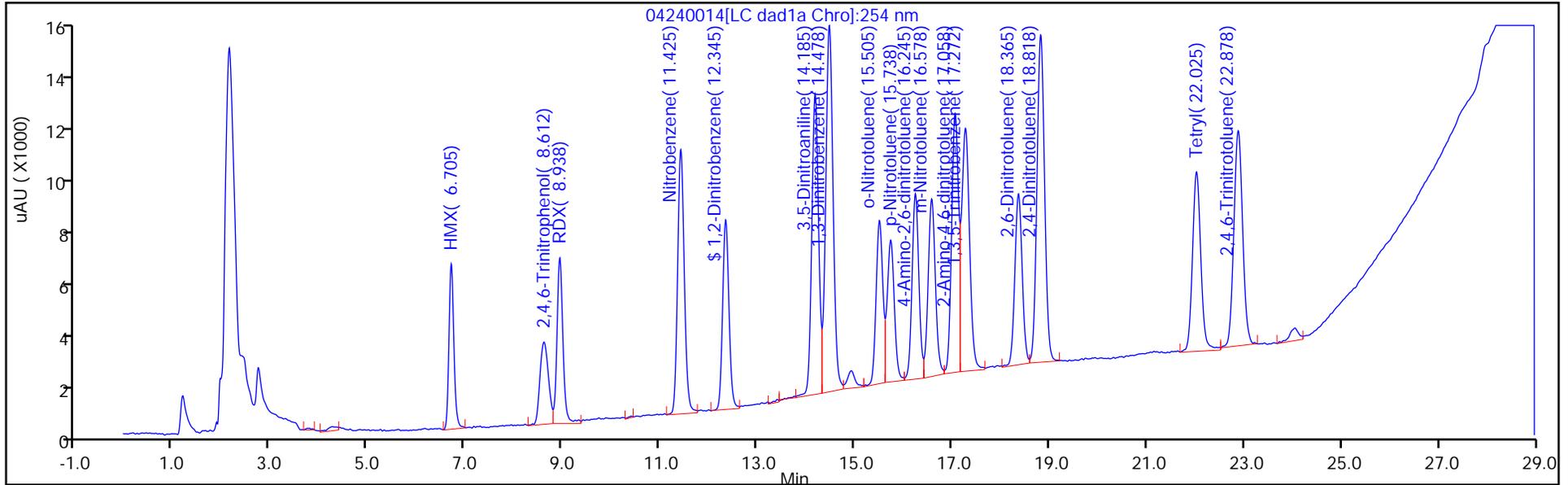
ALS Bottle#: 14

Method: G2\_8330\_Luna

Limit Group: GCSV - 8330

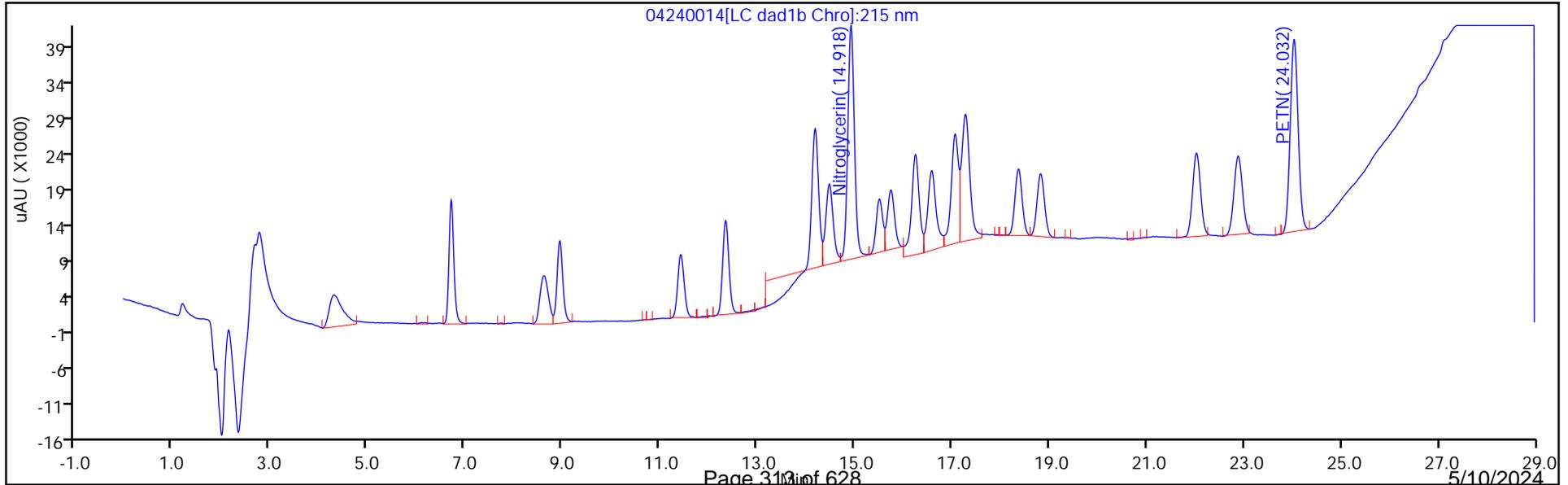
Column: Luna-Phenyl hexyl ( 4.60 mm)

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



Column: Luna-Phenyl hexyl ( 4.60 mm)

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



Eurofins Denver

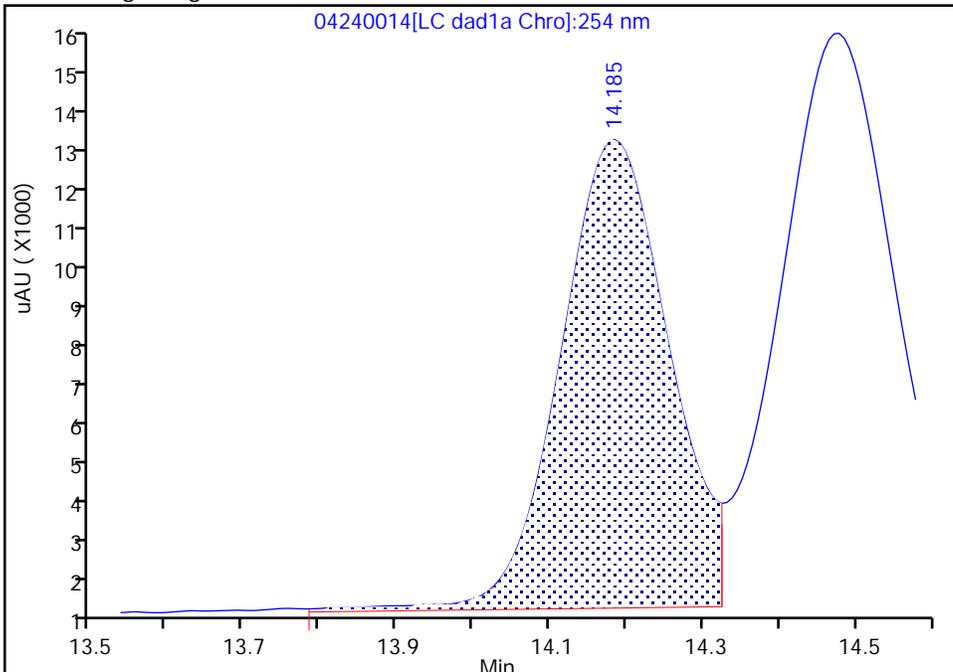
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Injection Date: 24-Apr-2024 23:51:59 Instrument ID: CHHPLC\_G2\_LUNA  
Lims ID: IC INT 5  
Client ID:  
Operator ID: JZ/JG ALS Bottle#: 14 Worklist Smp#: 14  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: G2\_8330\_Luna Limit Group: GCSV - 8330  
Column: Luna-Phenyl hexyl ( 4.60 mm) Detector: LC DAD1A, 254 nm

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

Signal: 1

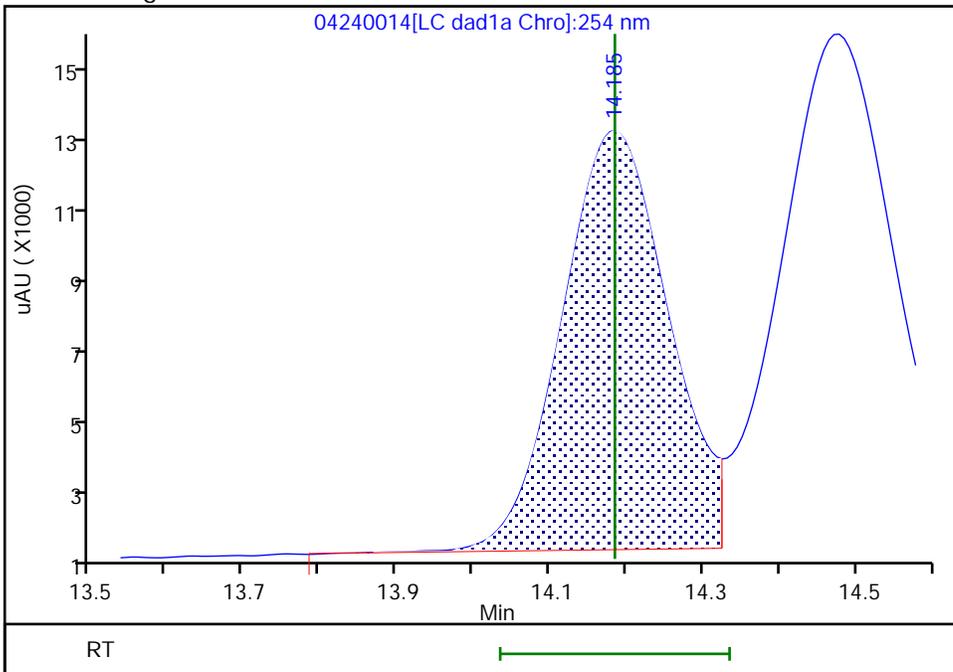
RT: 14.18  
Area: 111068  
Amount: 0.250808  
Amount Units: ug/ml

Processing Integration Results



RT: 14.18  
Area: 108023  
Amount: 0.248660  
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:21:34 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

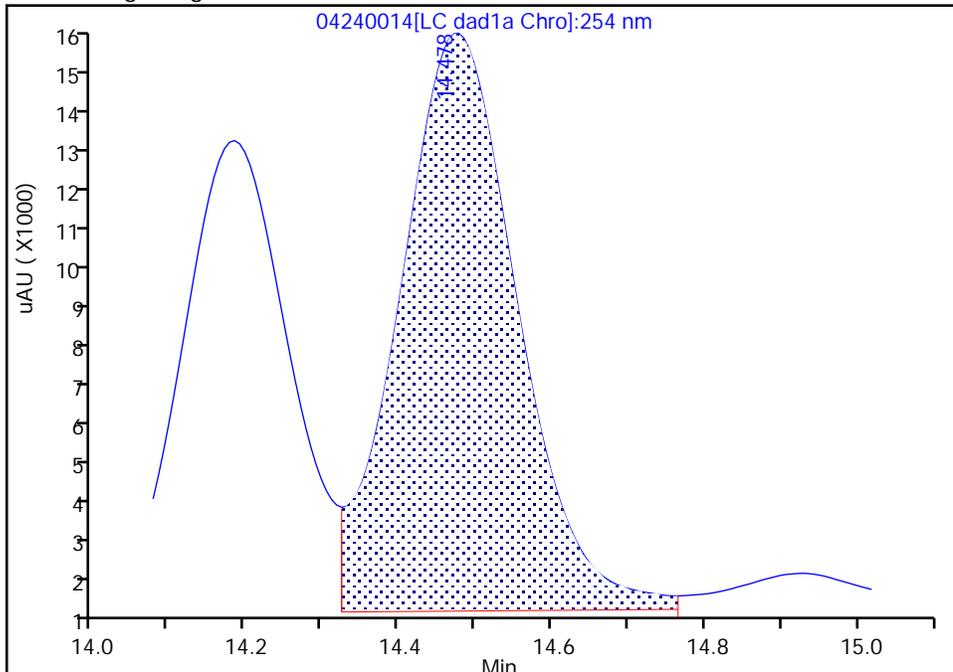
Data File: \\chromfs\denver\chromdata\g2\_luna\20240424-132624.b\04240014.d  
Injection Date: 24-Apr-2024 23:51:59 Instrument ID: CHHPLC\_G2\_LUNA  
Lims ID: IC INT 5  
Client ID:  
Operator ID: JZ/JG ALS Bottle#: 14 Worklist Smp#: 14  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: G2\_8330\_Luna Limit Group: GCSV - 8330  
Column: Luna-Phenyl hexyl ( 4.60 mm) Detector: LC DAD1A, 254 nm

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

Signal: 1

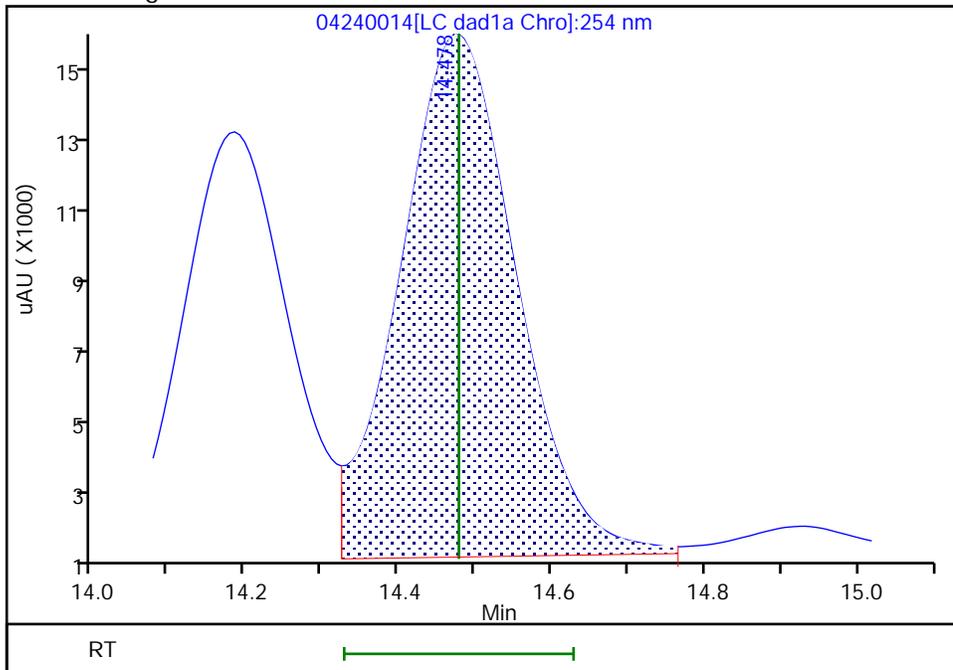
RT: 14.48  
Area: 146583  
Amount: 0.231371  
Amount Units: ug/ml

Processing Integration Results



RT: 14.48  
Area: 143019  
Amount: 0.242644  
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:21:34 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

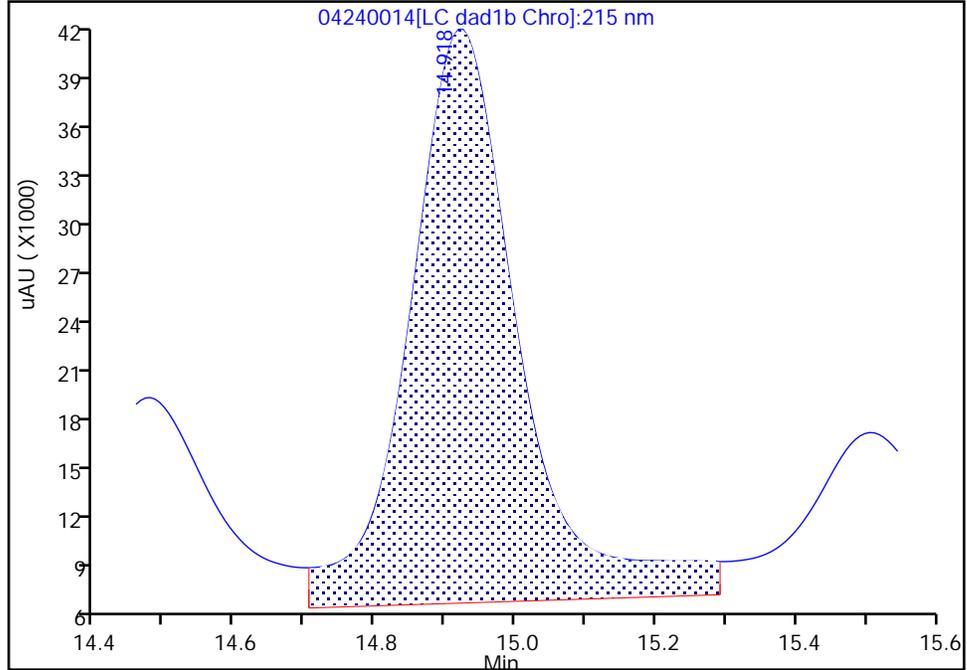
Data File: \\chromfs\denver\chromdata\g2\_luna\20240424-132624.b\04240014.d  
Injection Date: 24-Apr-2024 23:51:59 Instrument ID: CHHPLC\_G2\_LUNA  
Lims ID: IC INT 5  
Client ID:  
Operator ID: JZ/JG ALS Bottle#: 14 Worklist Smp#: 14  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: G2\_8330\_Luna Limit Group: GCSV - 8330  
Column: Luna-Phenyl hexyl ( 4.60 mm) Detector: LC DAD1B, 215 nm

13 Nitroglycerin, CAS: 55-63-0

Signal: 1

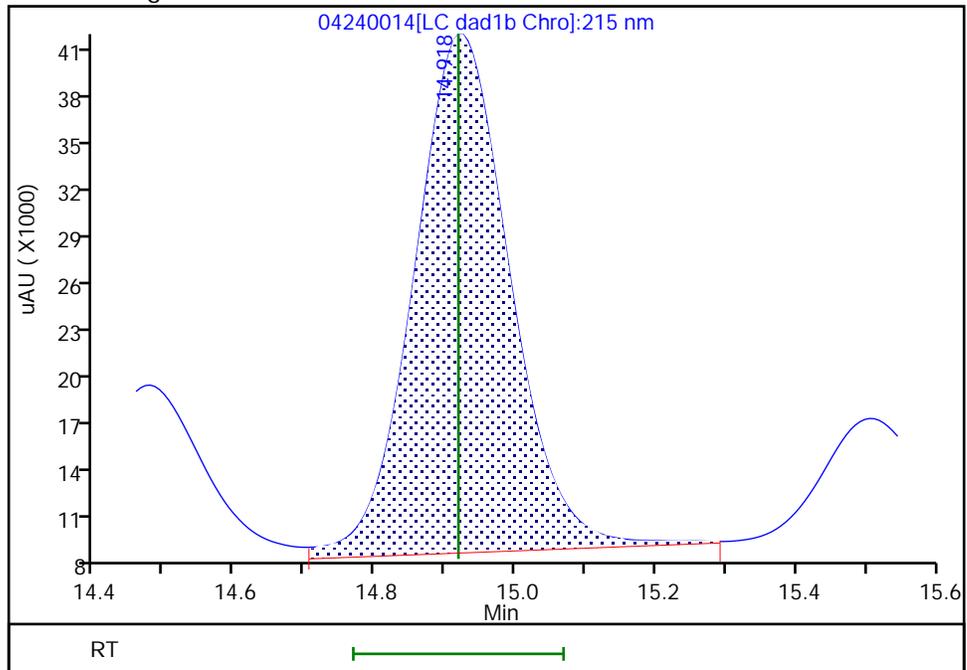
RT: 14.92  
Area: 374650  
Amount: 1.464903  
Amount Units: ug/ml

Processing Integration Results



RT: 14.92  
Area: 309600  
Amount: 2.590692  
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:19:56 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

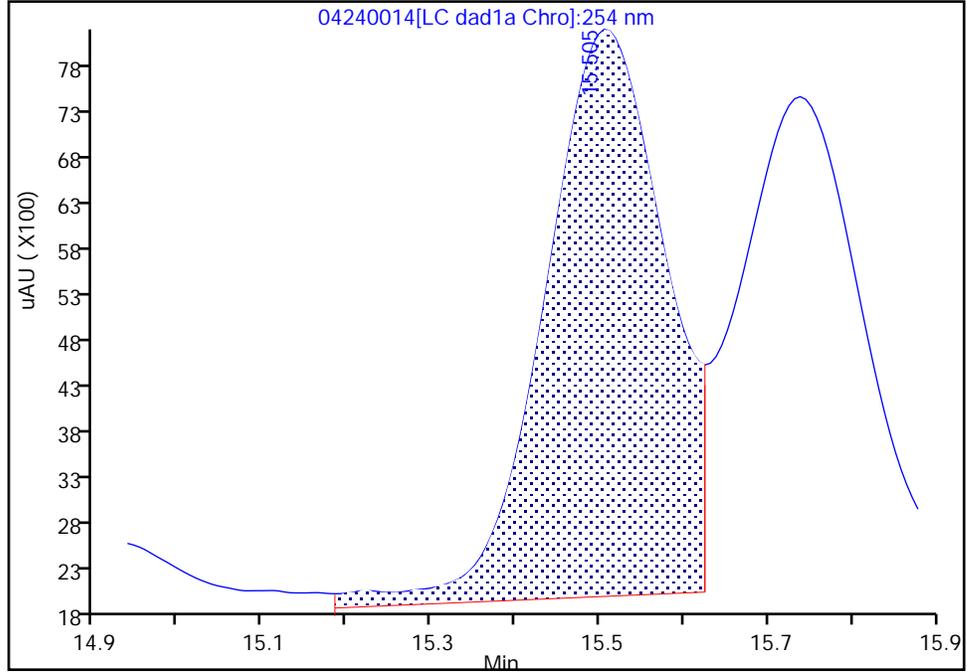
Data File: \\chromfs\denver\chromdata\g2\_luna\20240424-132624.b\04240014.d  
Injection Date: 24-Apr-2024 23:51:59 Instrument ID: CHHPLC\_G2\_LUNA  
Lims ID: IC INT 5  
Client ID:  
Operator ID: JZ/JG ALS Bottle#: 14 Worklist Smp#: 14  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: G2\_8330\_Luna Limit Group: GCSV - 8330  
Column: Luna-Phenyl hexyl ( 4.60 mm) Detector: LC DAD1A, 254 nm

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

Signal: 1

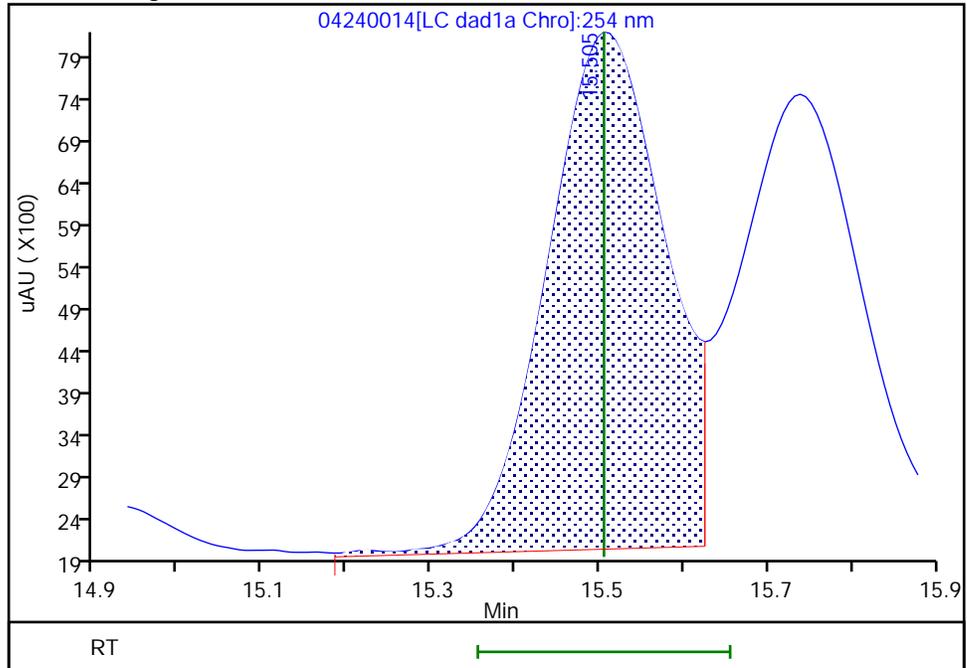
RT: 15.50  
Area: 61475  
Amount: 0.222767  
Amount Units: ug/ml

Processing Integration Results



RT: 15.50  
Area: 58941  
Amount: 0.240974  
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:21:34 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

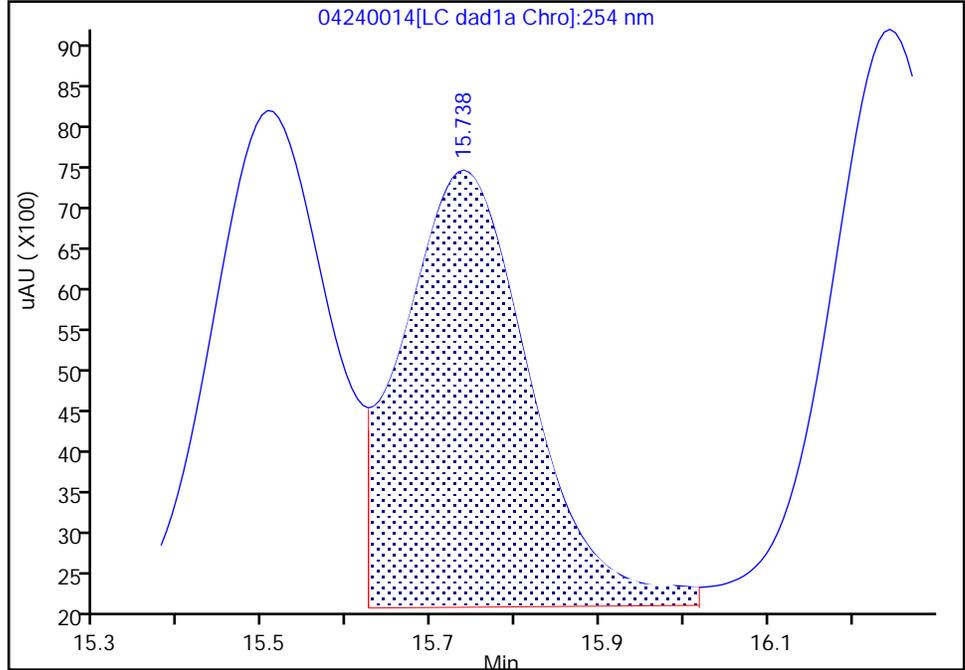
Data File: \\chromfs\denver\chromdata\g2\_luna\20240424-132624.b\04240014.d  
Injection Date: 24-Apr-2024 23:51:59 Instrument ID: CHHPLC\_G2\_LUNA  
Lims ID: IC INT 5  
Client ID:  
Operator ID: JZ/JG ALS Bottle#: 14 Worklist Smp#: 14  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: G2\_8330\_Luna Limit Group: GCSV - 8330  
Column: Luna-Phenyl hexyl ( 4.60 mm) Detector: LC DAD1A, 254 nm

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

Signal: 1

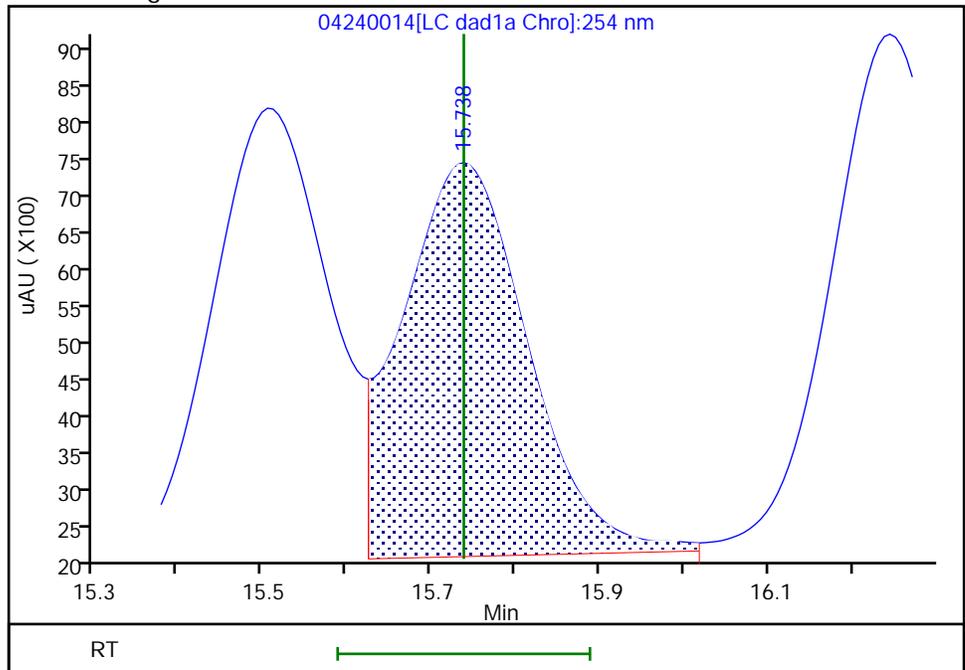
RT: 15.74  
Area: 56218  
Amount: 0.248629  
Amount Units: ug/ml

Processing Integration Results



RT: 15.74  
Area: 54130  
Amount: 0.244405  
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:21:34 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

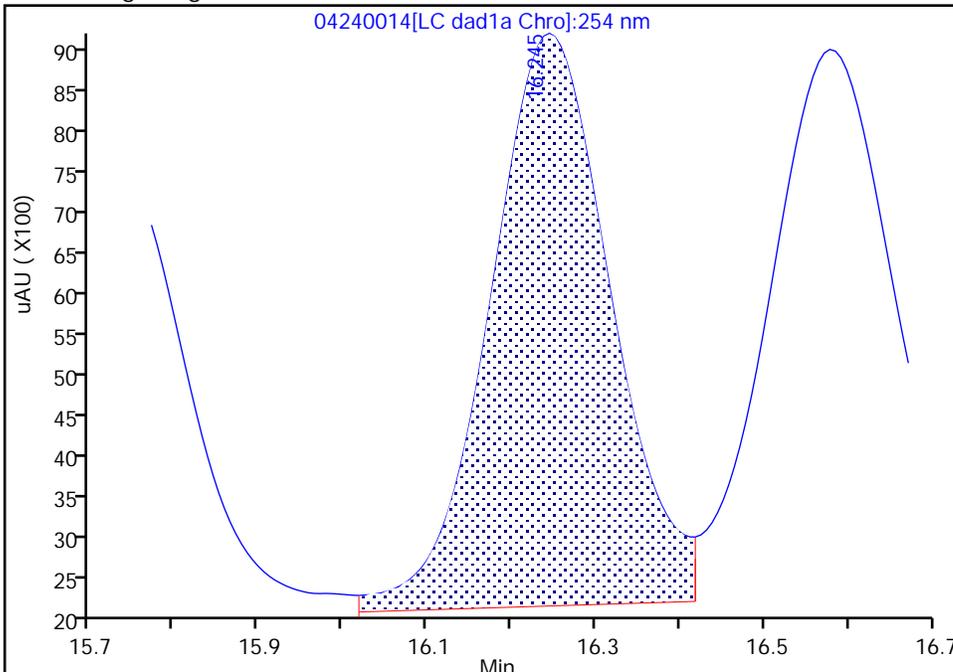
Data File: \\chromfs\denver\chromdata\g2\_luna\20240424-132624.b\04240014.d  
Injection Date: 24-Apr-2024 23:51:59 Instrument ID: CHHPLC\_G2\_LUNA  
Lims ID: IC INT 5  
Client ID:  
Operator ID: JZ/JG ALS Bottle#: 14 Worklist Smp#: 14  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: G2\_8330\_Luna Limit Group: GCSV - 8330  
Column: Luna-Phenyl hexyl ( 4.60 mm) Detector: LC DAD1A, 254 nm

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

Signal: 1

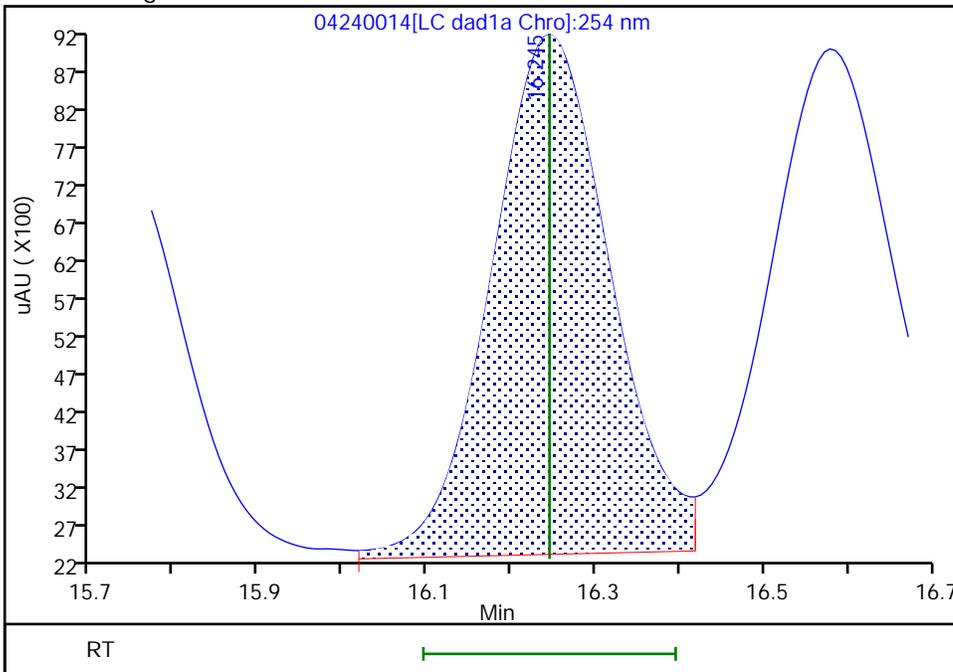
RT: 16.24  
Area: 69455  
Amount: 0.247954  
Amount Units: ug/ml

Processing Integration Results



RT: 16.24  
Area: 67115  
Amount: 0.246270  
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:21:34 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

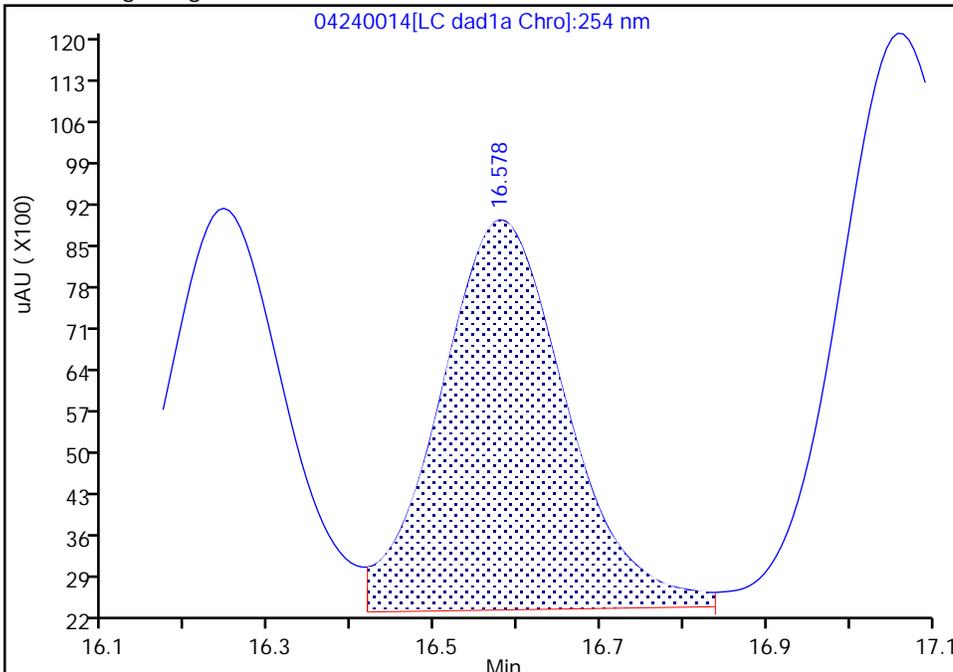
Data File: \\chromfs\denver\chromdata\g2\_luna\20240424-132624.b\04240014.d  
Injection Date: 24-Apr-2024 23:51:59 Instrument ID: CHHPLC\_G2\_LUNA  
Lims ID: IC INT 5  
Client ID:  
Operator ID: JZ/JG ALS Bottle#: 14 Worklist Smp#: 14  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: G2\_8330\_Luna Limit Group: GCSV - 8330  
Column: Luna-Phenyl hexyl ( 4.60 mm) Detector: LC DAD1A, 254 nm

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

Signal: 1

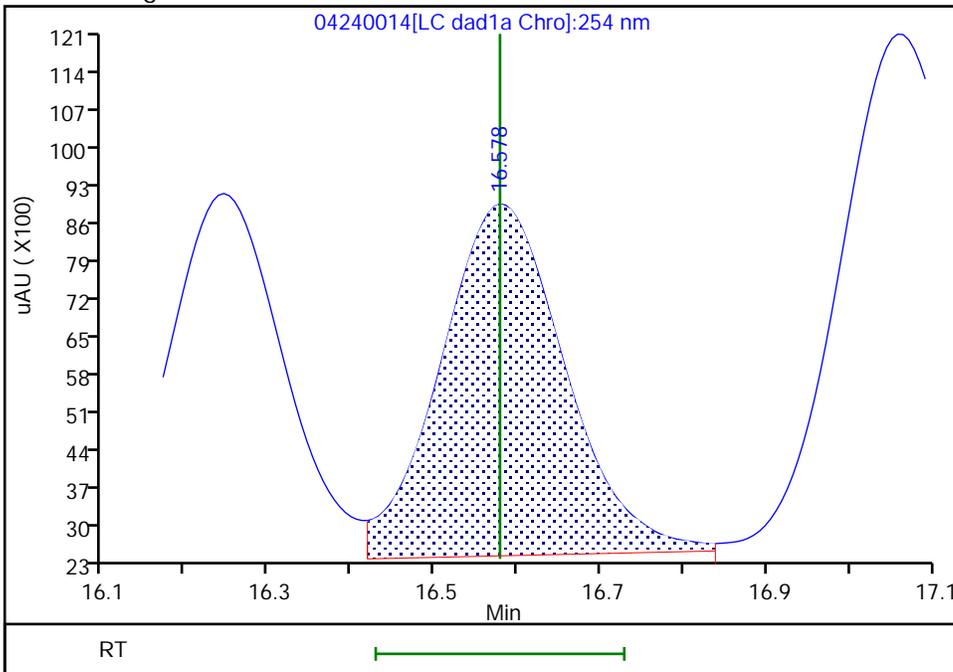
RT: 16.58  
Area: 70537  
Amount: 0.242628  
Amount Units: ug/ml

Processing Integration Results



RT: 16.58  
Area: 68559  
Amount: 0.245258  
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:21:34 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

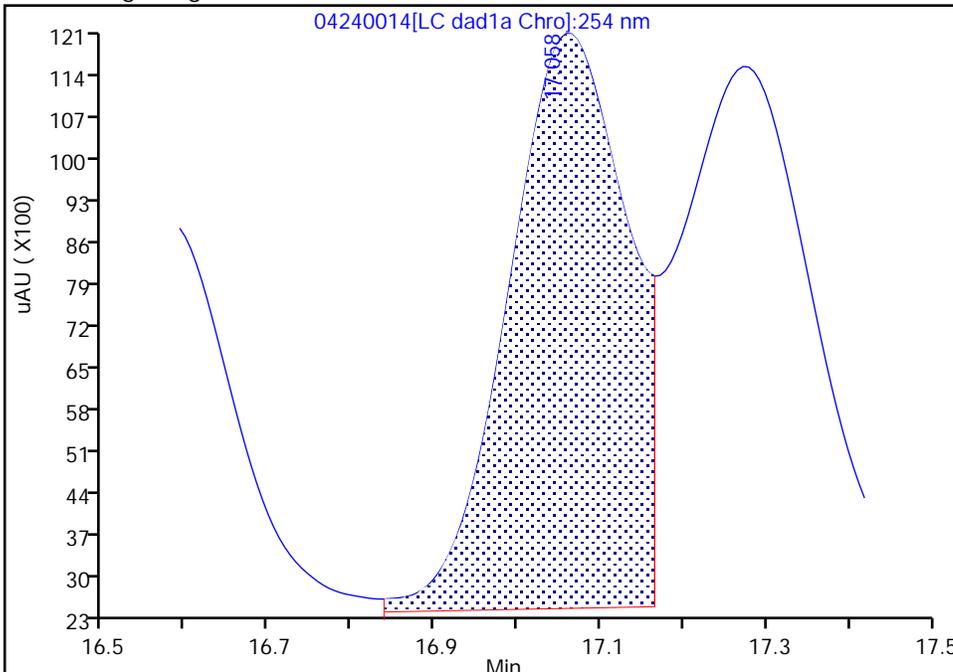
Data File: \\chromfs\denver\chromdata\g2\_luna\20240424-132624.b\04240014.d  
Injection Date: 24-Apr-2024 23:51:59 Instrument ID: CHHPLC\_G2\_LUNA  
Lims ID: IC INT 5  
Client ID:  
Operator ID: JZ/JG ALS Bottle#: 14 Worklist Smp#: 14  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: G2\_8330\_Luna Limit Group: GCSV - 8330  
Column: Luna-Phenyl hexyl ( 4.60 mm) Detector: LC DAD1A, 254 nm

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

Signal: 1

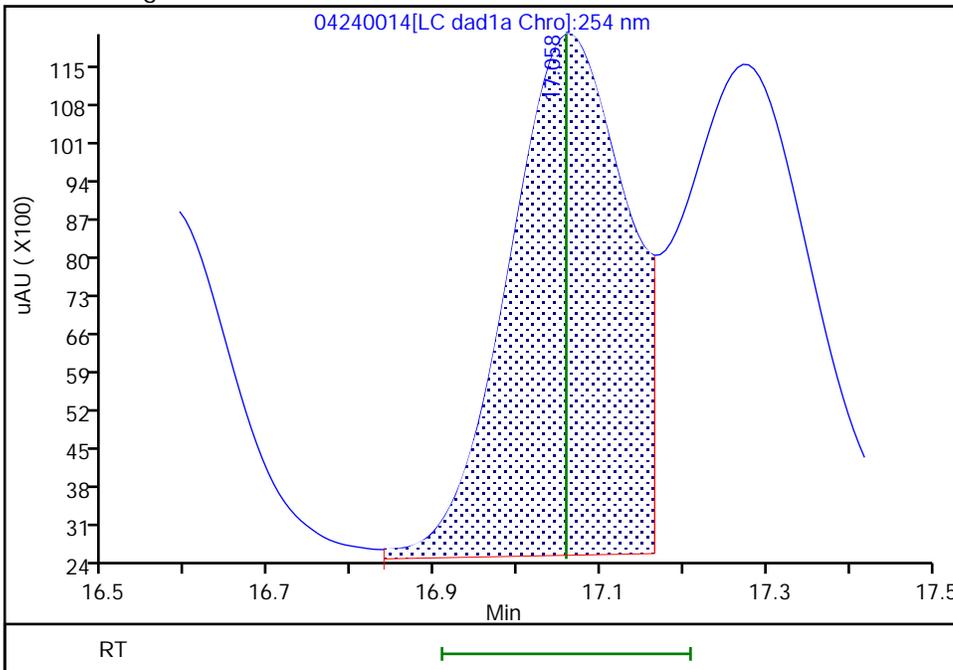
Processing Integration Results

RT: 17.06  
Area: 96415  
Amount: 0.246197  
Amount Units: ug/ml



Manual Integration Results

RT: 17.06  
Area: 95082  
Amount: 0.234445  
Amount Units: ug/ml



Reviewer: LV5D, 25-Apr-2024 13:21:34 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

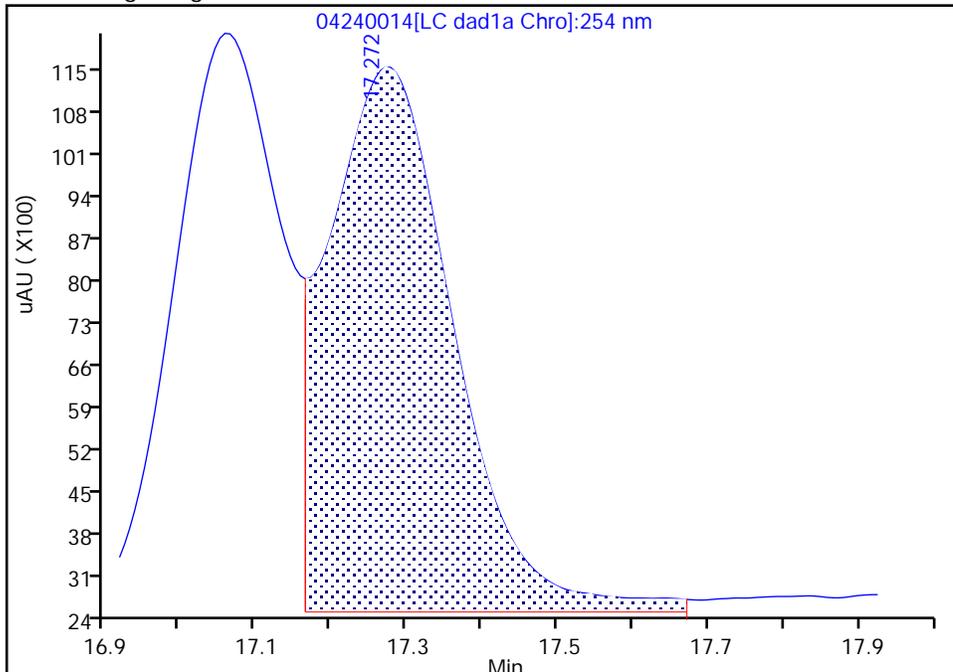
Data File: \\chromfs\denver\chromdata\g2\_luna\20240424-132624.b\04240014.d  
 Injection Date: 24-Apr-2024 23:51:59 Instrument ID: CHHPLC\_G2\_LUNA  
 Lims ID: IC INT 5  
 Client ID:  
 Operator ID: JZ/JG ALS Bottle#: 14 Worklist Smp#: 14  
 Injection Vol: 100.0 ul Dil. Factor: 1.0000  
 Method: G2\_8330\_Luna Limit Group: GCSV - 8330  
 Column: Luna-Phenyl hexyl ( 4.60 mm) Detector: LC DAD1A, 254 nm

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

Signal: 1

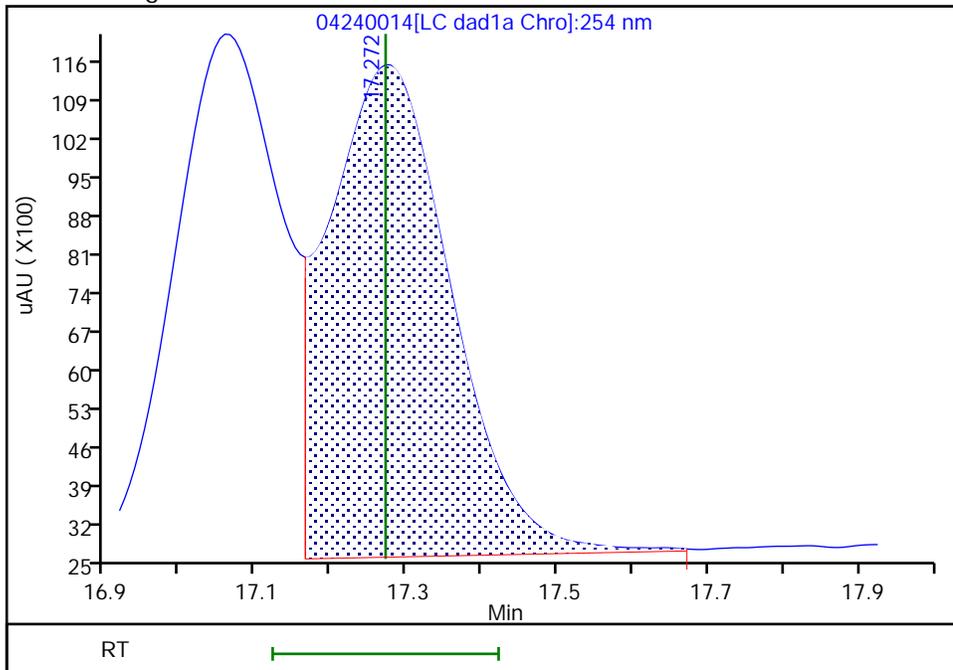
RT: 17.27  
 Area: 104518  
 Amount: 0.223412  
 Amount Units: ug/ml

Processing Integration Results



RT: 17.27  
 Area: 101067  
 Amount: 0.238673  
 Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:21:34 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

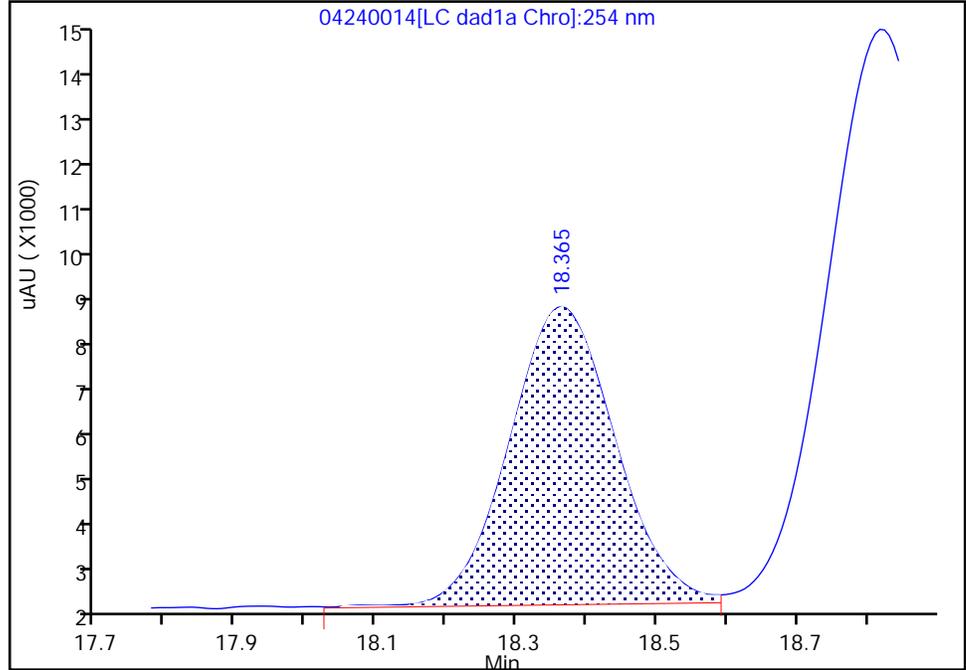
Data File: \\chromfs\denver\chromdata\g2\_luna\20240424-132624.b\04240014.d  
 Injection Date: 24-Apr-2024 23:51:59 Instrument ID: CHHPLC\_G2\_LUNA  
 Lims ID: IC INT 5  
 Client ID:  
 Operator ID: JZ/JG ALS Bottle#: 14 Worklist Smp#: 14  
 Injection Vol: 100.0 ul Dil. Factor: 1.0000  
 Method: G2\_8330\_Luna Limit Group: GCSV - 8330  
 Column: Luna-Phenyl hexyl ( 4.60 mm) Detector: LC DAD1A, 254 nm

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

Signal: 1

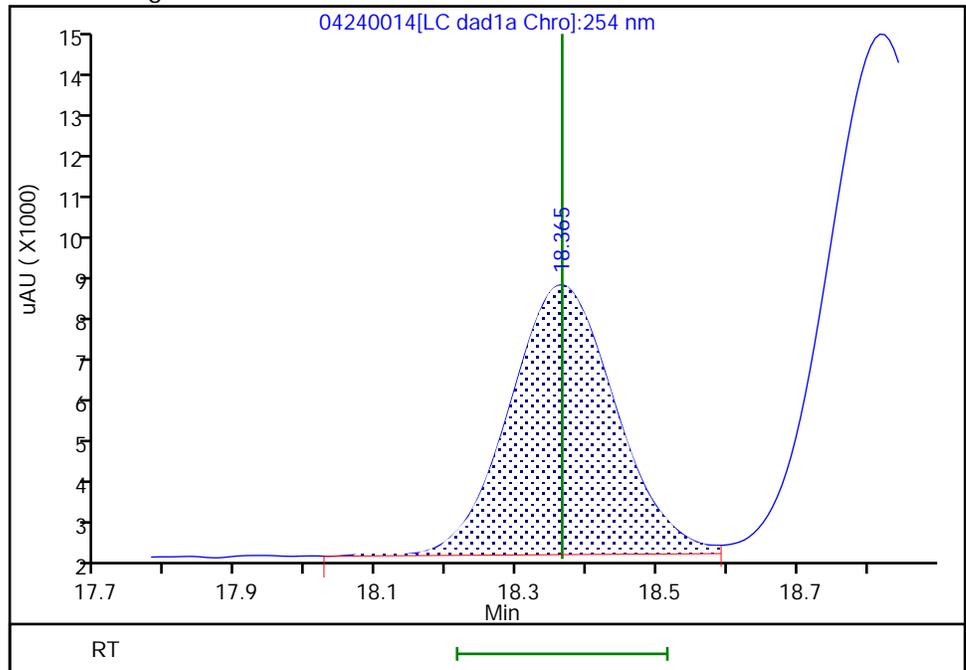
RT: 18.36  
 Area: 66386  
 Amount: 0.242219  
 Amount Units: ug/ml

Processing Integration Results



RT: 18.36  
 Area: 66539  
 Amount: 0.239375  
 Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:21:38 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

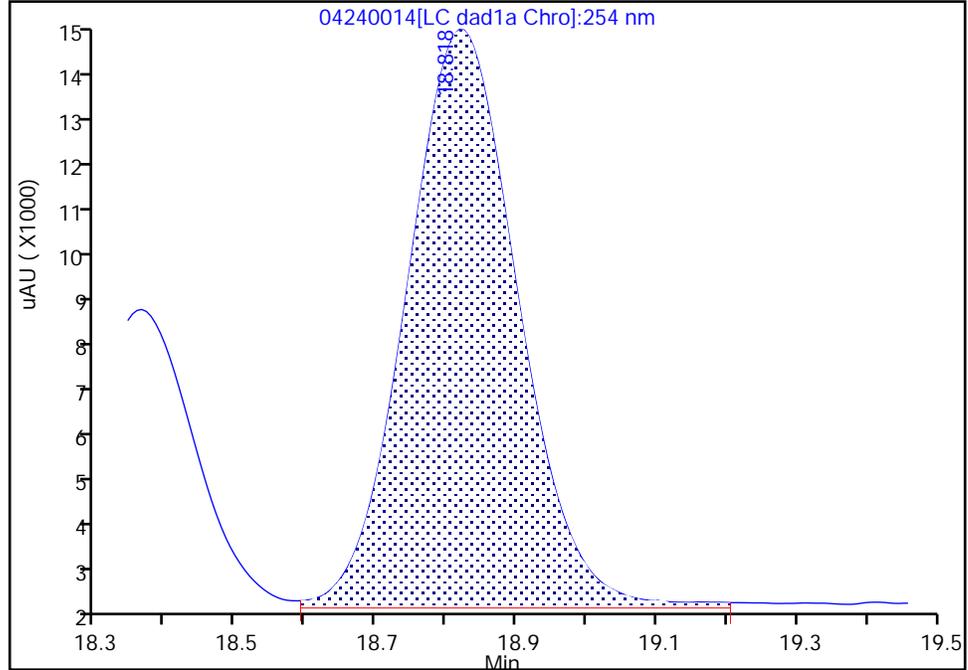
Data File: \\chromfs\denver\chromdata\g2\_luna\20240424-132624.b\04240014.d  
Injection Date: 24-Apr-2024 23:51:59 Instrument ID: CHHPLC\_G2\_LUNA  
Lims ID: IC INT 5  
Client ID:  
Operator ID: JZ/JG ALS Bottle#: 14 Worklist Smp#: 14  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: G2\_8330\_Luna Limit Group: GCSV - 8330  
Column: Luna-Phenyl hexyl ( 4.60 mm) Detector: LC DAD1A, 254 nm

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

Signal: 1

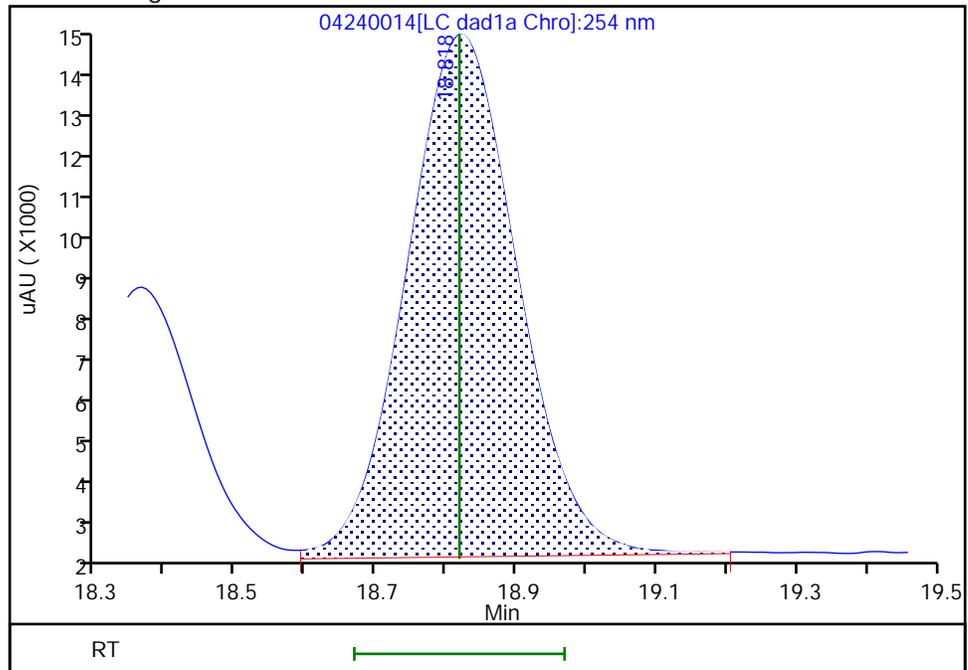
RT: 18.82  
Area: 134462  
Amount: 0.225853  
Amount Units: ug/ml

Processing Integration Results



RT: 18.82  
Area: 133579  
Amount: 0.240872  
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:21:38 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

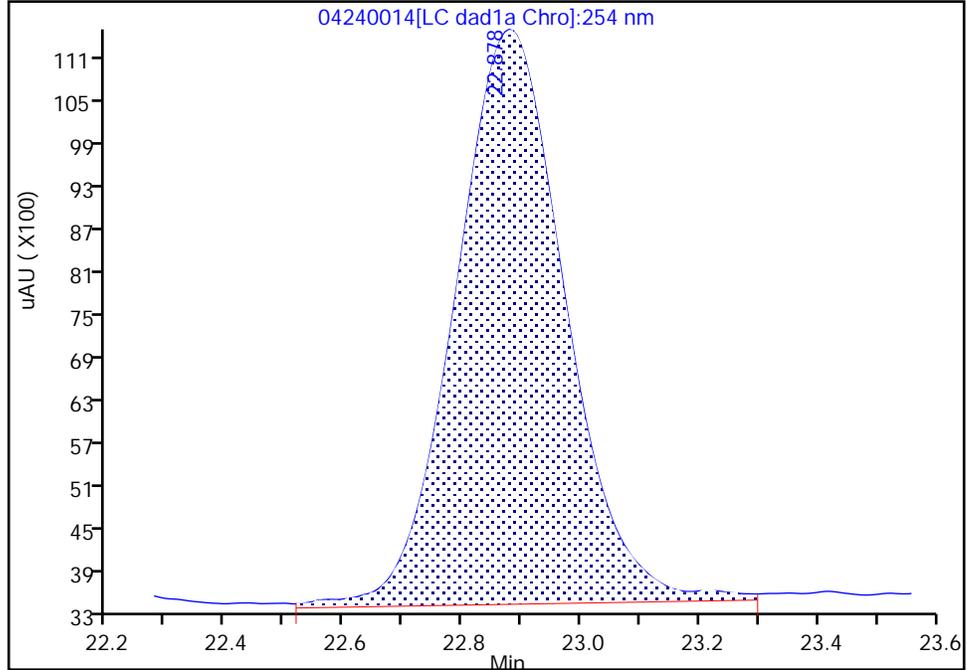
Data File: \\chromfs\denver\chromdata\g2\_luna\20240424-132624.b\04240014.d  
Injection Date: 24-Apr-2024 23:51:59 Instrument ID: CHHPLC\_G2\_LUNA  
Lims ID: IC INT 5  
Client ID:  
Operator ID: JZ/JG ALS Bottle#: 14 Worklist Smp#: 14  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: G2\_8330\_Luna Limit Group: GCSV - 8330  
Column: Luna-Phenyl hexyl ( 4.60 mm) Detector: LC DAD1A, 254 nm

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

Signal: 1

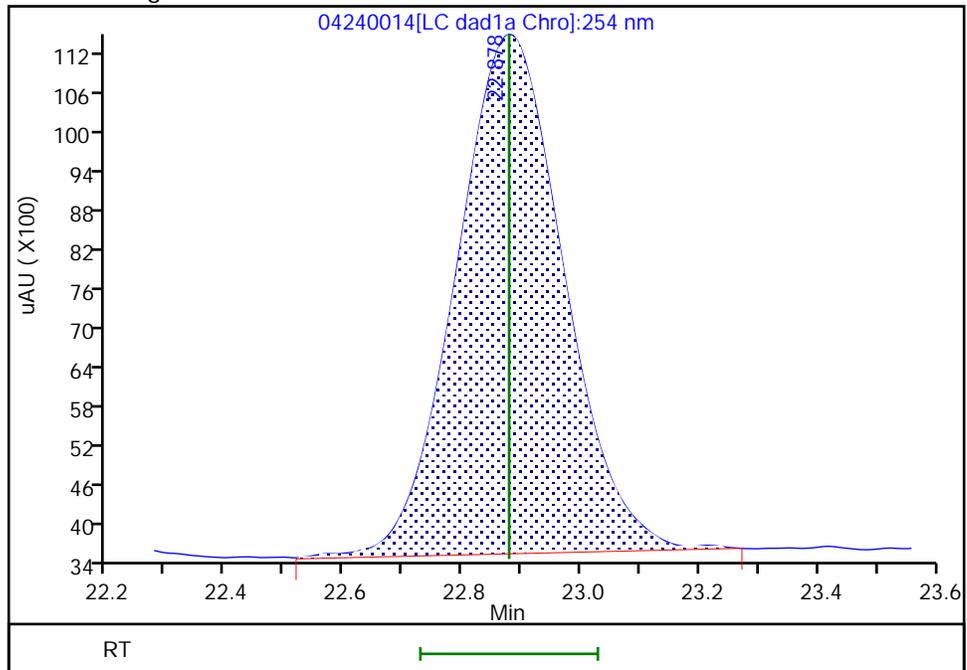
Processing Integration Results

RT: 22.88  
Area: 104402  
Amount: 0.260324  
Amount Units: ug/ml



Manual Integration Results

RT: 22.88  
Area: 100337  
Amount: 0.250991  
Amount Units: ug/ml



Reviewer: LV5D, 25-Apr-2024 13:37:49 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins Denver

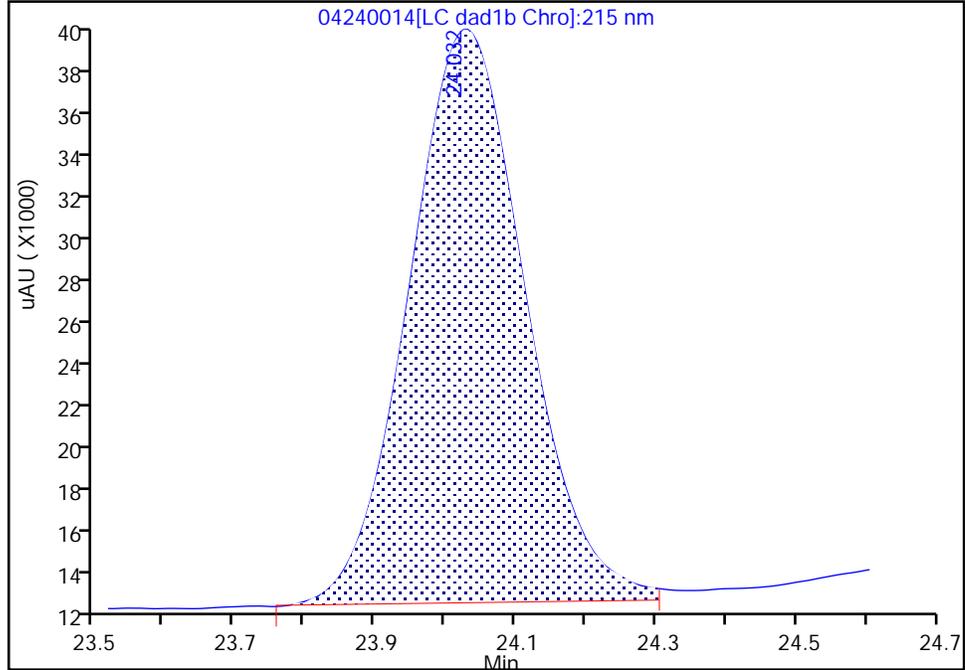
Data File: \\chromfs\denver\chromdata\g2\_luna\20240424-132624.b\04240014.d  
 Injection Date: 24-Apr-2024 23:51:59 Instrument ID: CHHPLC\_G2\_LUNA  
 Lims ID: IC INT 5  
 Client ID:  
 Operator ID: JZ/JG ALS Bottle#: 14 Worklist Smp#: 14  
 Injection Vol: 100.0 ul Dil. Factor: 1.0000  
 Method: G2\_8330\_Luna Limit Group: GCSV - 8330  
 Column: Luna-Phenyl hexyl ( 4.60 mm) Detector: LC DAD1B, 215 nm

24 PETN, CAS: 78-11-5

Signal: 1

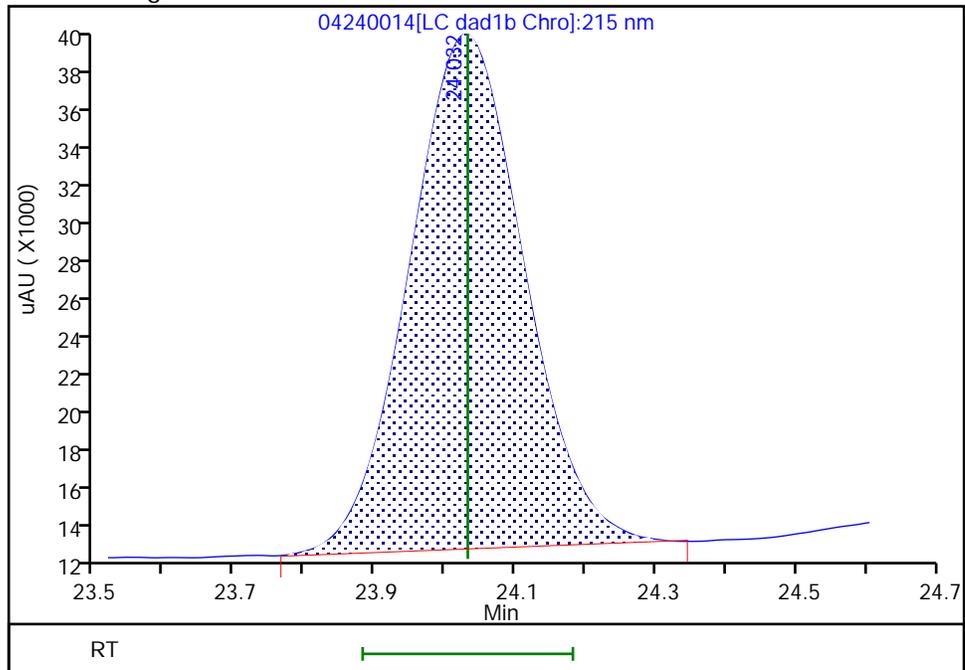
RT: 24.03  
 Area: 310832  
 Amount: 2.589148  
 Amount Units: ug/ml

Processing Integration Results



RT: 24.03  
 Area: 304928  
 Amount: 2.482849  
 Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:39:03 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins Denver  
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2\_LUNA\20240424-132624.b\04240015.D  
 Lims ID: IC INT 4  
 Client ID:  
 Sample Type: IC Calib Level: 4  
 Inject. Date: 25-Apr-2024 00:27:59 ALS Bottle#: 15 Worklist Smp#: 15  
 Injection Vol: 100.0 ul Dil. Factor: 1.0000  
 Sample Info: IC INT 4  
 Operator ID: JZ/JG Instrument ID: CHHPLC\_G2\_LUNA  
 Sublist: chrom-G2\_8330\_Luna\*sub16  
 Method: \\chromfs\Denver\ChromData\G2\_LUNA\20240424-132624.b\G2\_8330\_Luna.m  
 Limit Group: GCSV - 8330  
 Last Update: 25-Apr-2024 14:30:14 Calib Date: 25-Apr-2024 07:39:21  
 Integrator: Falcon  
 Quant Method: External Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Denver\ChromData\G2\_LUNA\20240424-132624.b\04240027.D  
 Column 1 : Luna-Phenyl hexyl ( 4.60 mm) Det: LC DAD1A, 254 nm  
 Process Host: CTX1684

First Level Reviewer: LV5D Date: 25-Apr-2024 13:20:06

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
6 HMX	1	6.706	6.705	0.001	17977	0.1000	0.1033	
5 2,4,6-Trinitrophenol	1	8.659	8.612	0.047	14859	0.1000	0.0981	
8 RDX	1	8.946	8.938	0.008	21609	0.1000	0.1025	
9 Nitrobenzene	1	11.452	11.425	0.027	39489	0.1000	0.1033	
\$ 10 1,2-Dinitrobenzene	1	12.372	12.345	0.027	27370	0.1000	0.1058	
11 3,5-Dinitroaniline	1	14.205	14.185	0.020	43670	0.1000	0.0993	M
12 1,3-Dinitrobenzene	1	14.492	14.478	0.014	57592	0.1000	0.0977	M
13 Nitroglycerin	2	14.945	14.918	0.027	126558	1.00	1.06	M
14 o-Nitrotoluene	1	15.532	15.505	0.027	23799	0.1000	0.0973	M
15 p-Nitrotoluene	1	15.759	15.738	0.021	22549	0.1000	0.0994	M
16 4-Amino-2,6-dinitrotoluene	1	16.265	16.245	0.020	27449	0.1000	0.0991	M
17 m-Nitrotoluene	1	16.599	16.578	0.021	28103	0.1000	0.0985	M
18 2-Amino-4,6-dinitrotoluene	1	17.079	17.058	0.021	39853	0.1000	0.0983	M
19 1,3,5-Trinitrobenzene	1	17.285	17.272	0.013	41177	0.1000	0.0972	M
20 2,6-Dinitrotoluene	1	18.379	18.365	0.014	27487	0.1000	0.0989	M
21 2,4-Dinitrotoluene	1	18.839	18.818	0.021	54294	0.1000	0.0979	M
22 Tetryl	1	22.052	22.025	0.027	32920	0.1000	0.1041	
23 2,4,6-Trinitrotoluene	1	22.912	22.878	0.034	41861	0.1000	0.1047	M
24 PETN	2	24.046	24.032	0.014	121831	1.00	1.00	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

8330IntermStk\_00080

Amount Added: 10.00

Units: uL

Eurofins Denver

Data File: \\chromfs\denver\chromdata\g2\_luna\20240424-132624.b\04240015.d

Injection Date: 25-Apr-2024 00:27:59

Instrument ID: CHHPLC\_G2\_LUNA

Operator ID: JZ/JG

Lims ID: IC INT 4

Worklist Smp#: 15

Client ID:

Injection Vol: 100.0 ul

Dil. Factor: 1.0000

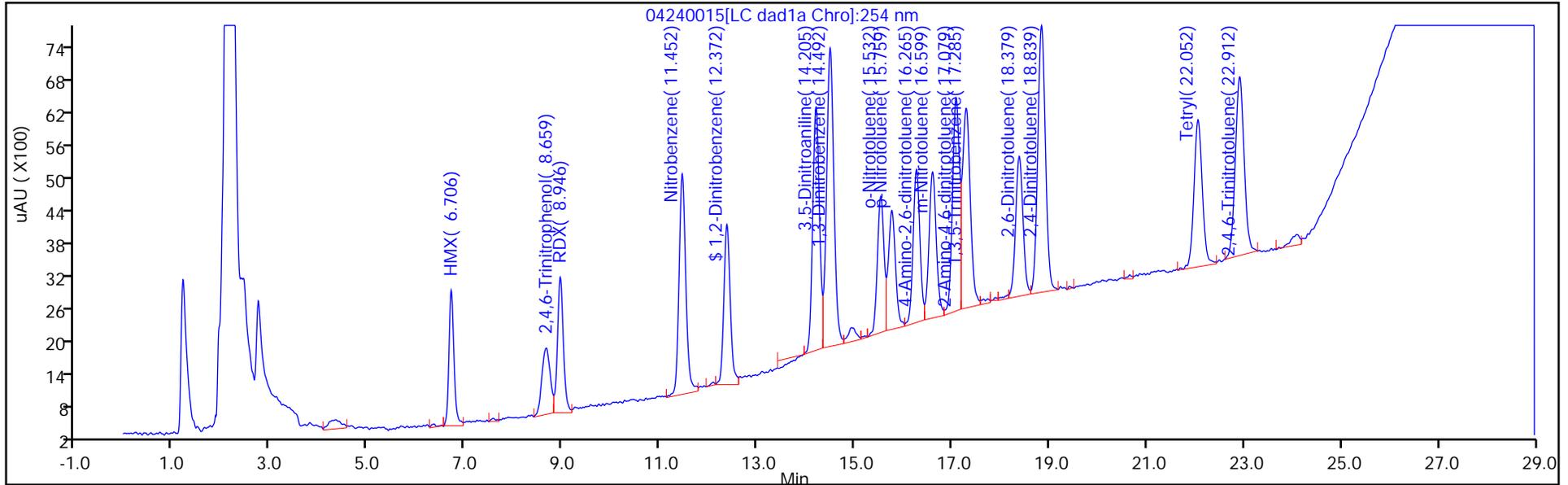
ALS Bottle#: 15

Method: G2\_8330\_Luna

Limit Group: GCSV - 8330

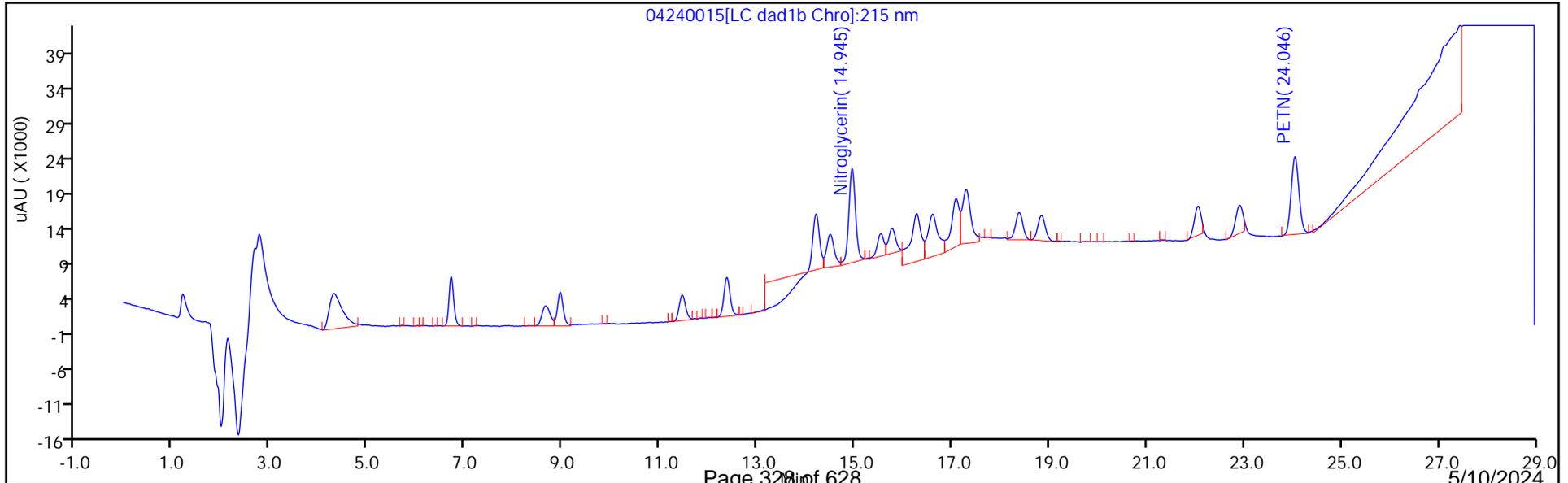
Column: Luna-Phenyl hexyl ( 4.60 mm)

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



Column: Luna-Phenyl hexyl ( 4.60 mm)

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



Eurofins Denver

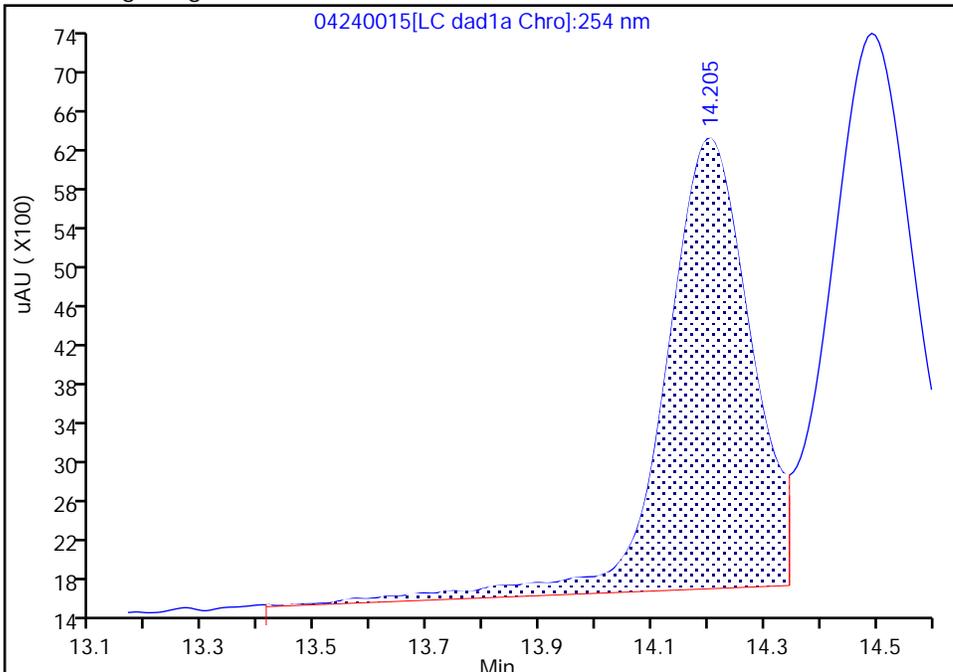
Data File: \\chromfs\denver\chromdata\g2\_luna\20240424-132624.b\04240015.d  
Injection Date: 25-Apr-2024 00:27:59 Instrument ID: CHHPLC\_G2\_LUNA  
Lims ID: IC INT 4  
Client ID:  
Operator ID: JZ/JG ALS Bottle#: 15 Worklist Smp#: 15  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: G2\_8330\_Luna Limit Group: GCSV - 8330  
Column: Luna-Phenyl hexyl ( 4.60 mm) Detector: LC DAD1A, 254 nm

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

Signal: 1

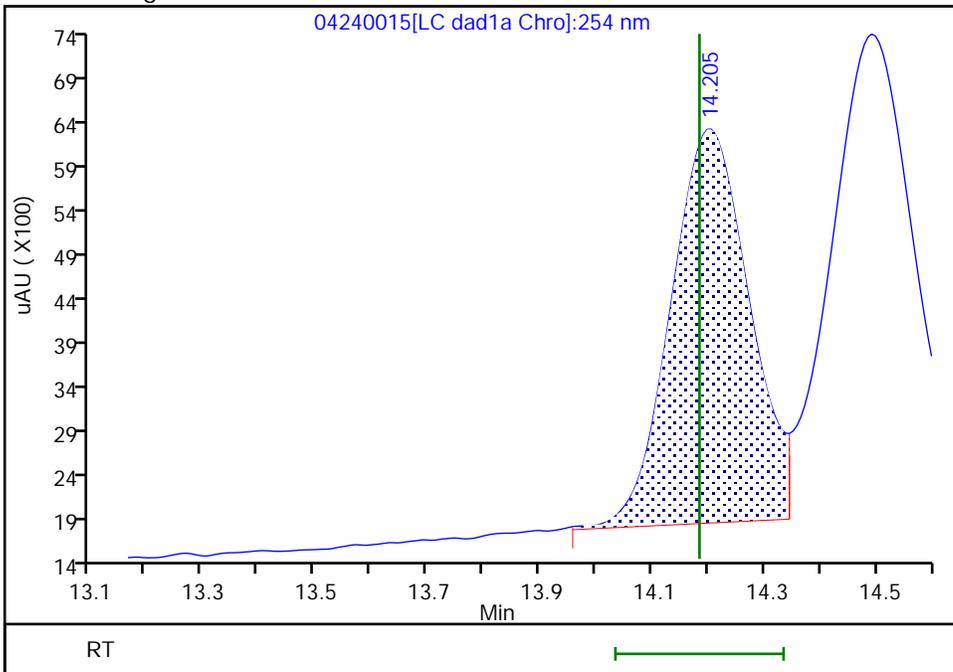
RT: 14.21  
Area: 48990  
Amount: 0.107916  
Amount Units: ug/ml

Processing Integration Results



RT: 14.21  
Area: 43670  
Amount: 0.099254  
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:24:42 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Baseline

Eurofins Denver

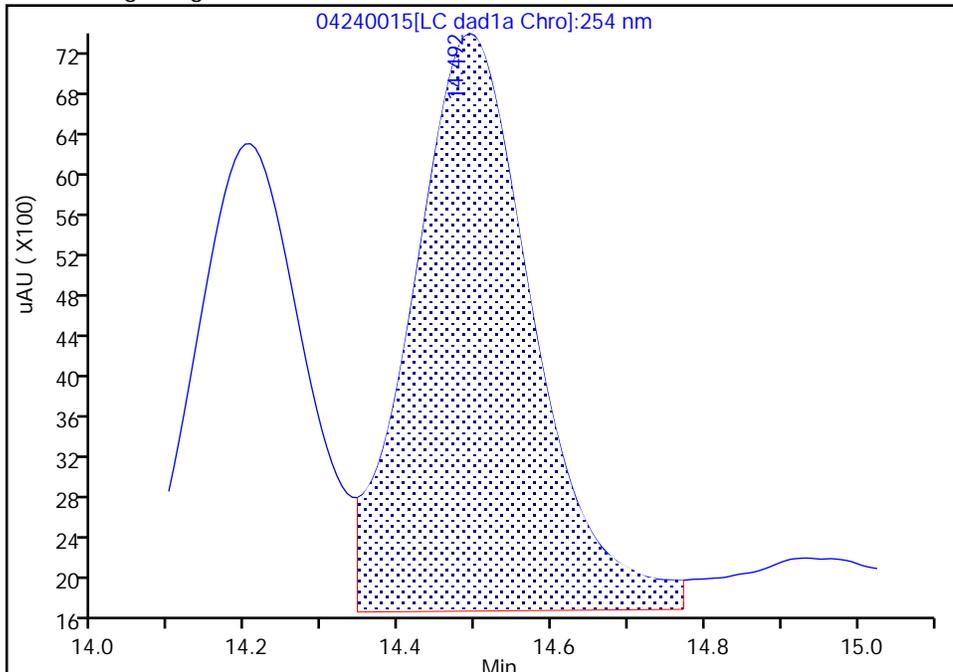
Data File: \\chromfs\denver\chromdata\g2\_luna\20240424-132624.b\04240015.d  
Injection Date: 25-Apr-2024 00:27:59 Instrument ID: CHHPLC\_G2\_LUNA  
Lims ID: IC INT 4  
Client ID:  
Operator ID: JZ/JG ALS Bottle#: 15 Worklist Smp#: 15  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: G2\_8330\_Luna Limit Group: GCSV - 8330  
Column: Luna-Phenyl hexyl ( 4.60 mm) Detector: LC DAD1A, 254 nm

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

Signal: 1

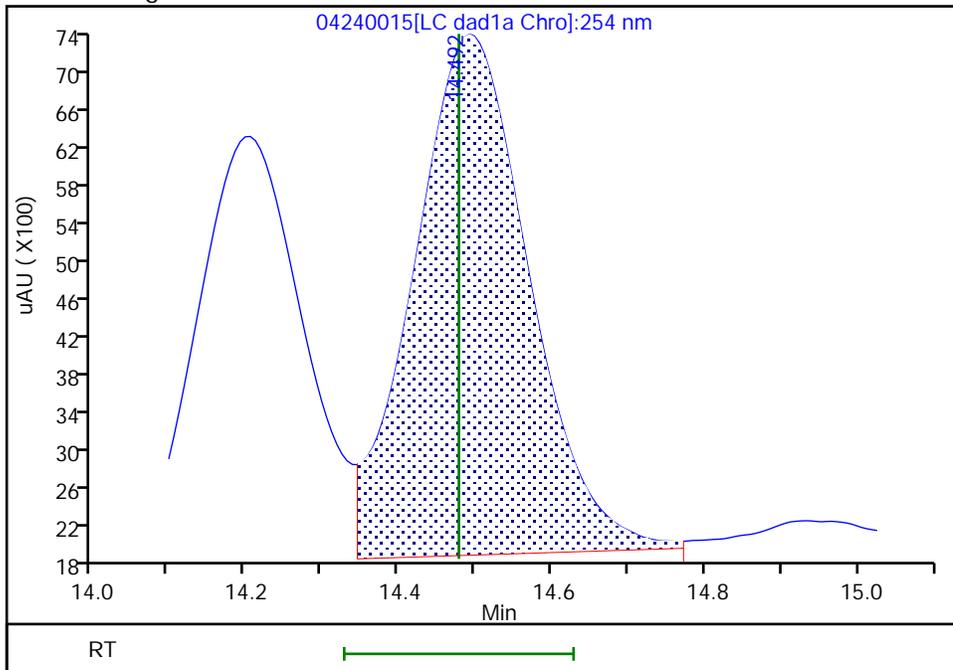
RT: 14.49  
Area: 62136  
Amount: 0.098323  
Amount Units: ug/ml

Processing Integration Results



RT: 14.49  
Area: 57592  
Amount: 0.097710  
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:21:52 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

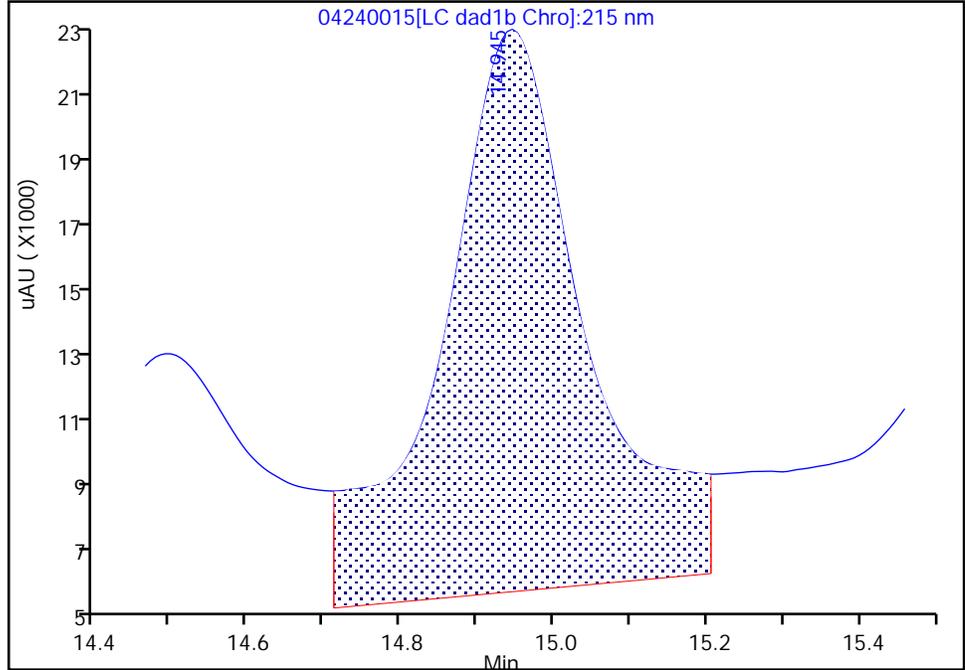
Data File: \\chromfs\denver\chromdata\g2\_luna\20240424-132624.b\04240015.d  
Injection Date: 25-Apr-2024 00:27:59 Instrument ID: CHHPLC\_G2\_LUNA  
Lims ID: IC INT 4  
Client ID:  
Operator ID: JZ/JG ALS Bottle#: 15 Worklist Smp#: 15  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: G2\_8330\_Luna Limit Group: GCSV - 8330  
Column: Luna-Phenyl hexyl ( 4.60 mm) Detector: LC DAD1B, 215 nm

13 Nitroglycerin, CAS: 55-63-0

Signal: 1

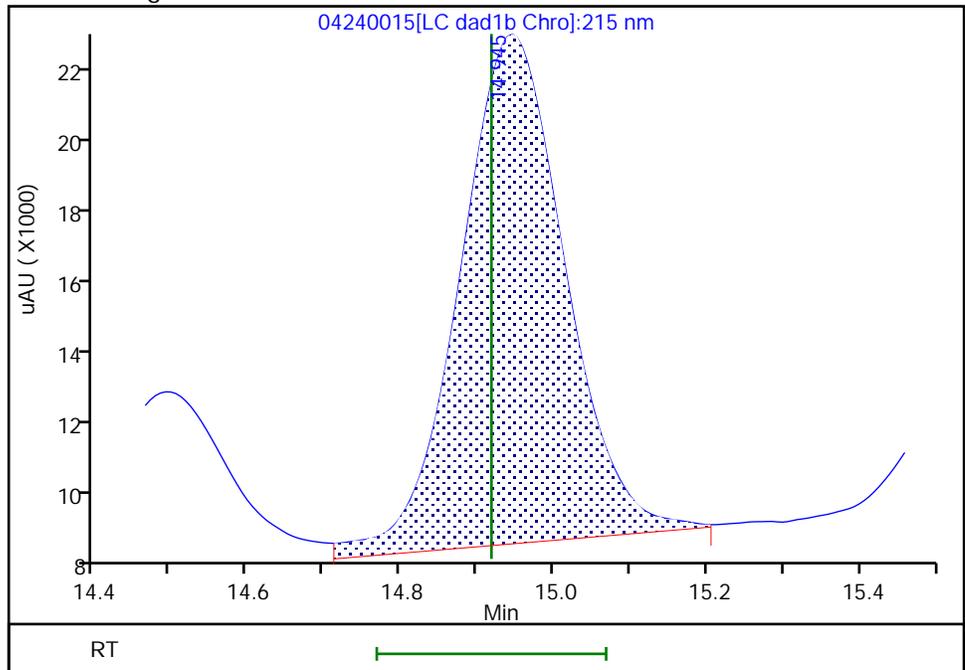
RT: 14.95  
Area: 211924  
Amount: 0.838110  
Amount Units: ug/ml

Processing Integration Results



RT: 14.95  
Area: 126558  
Amount: 1.059021  
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:20:05 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

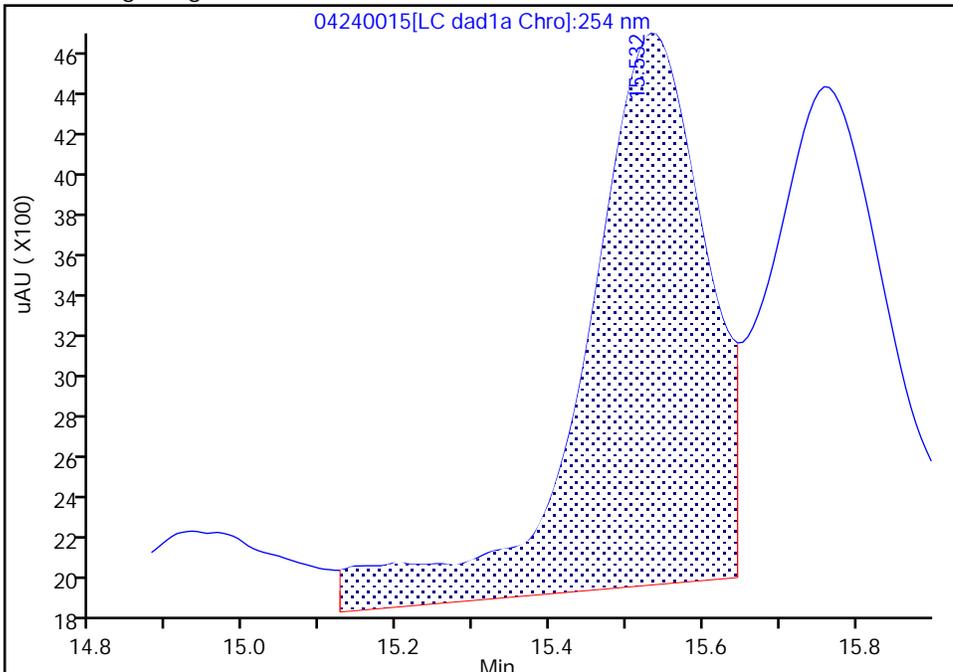
Data File: \\chromfs\denver\chromdata\g2\_luna\20240424-132624.b\04240015.d  
Injection Date: 25-Apr-2024 00:27:59 Instrument ID: CHHPLC\_G2\_LUNA  
Lims ID: IC INT 4  
Client ID:  
Operator ID: JZ/JG ALS Bottle#: 15 Worklist Smp#: 15  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: G2\_8330\_Luna Limit Group: GCSV - 8330  
Column: Luna-Phenyl hexyl ( 4.60 mm) Detector: LC DAD1A, 254 nm

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

Signal: 1

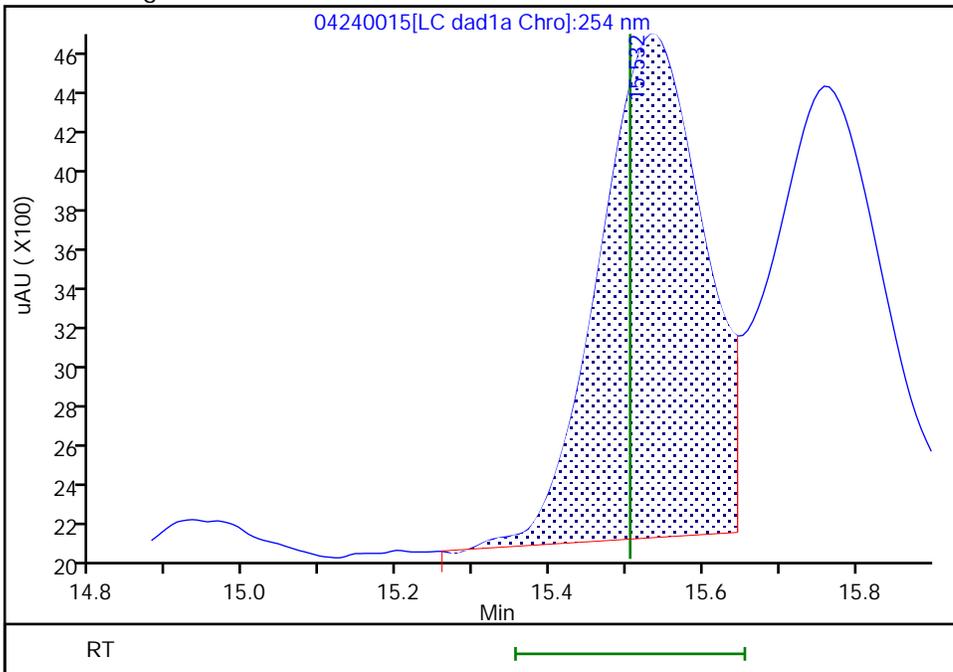
RT: 15.53  
Area: 29559  
Amount: 0.107552  
Amount Units: ug/ml

Processing Integration Results



RT: 15.53  
Area: 23799  
Amount: 0.097300  
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:24:52 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Baseline

Eurofins Denver

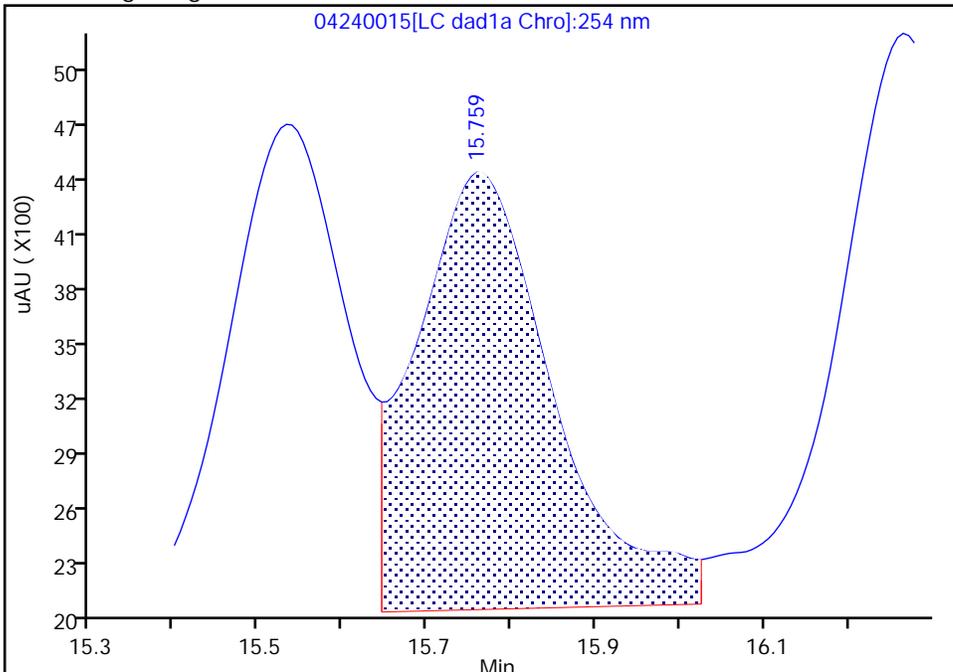
Data File: \\chromfs\denver\chromdata\g2\_luna\20240424-132624.b\04240015.d  
 Injection Date: 25-Apr-2024 00:27:59 Instrument ID: CHHPLC\_G2\_LUNA  
 Lims ID: IC INT 4  
 Client ID:  
 Operator ID: JZ/JG ALS Bottle#: 15 Worklist Smp#: 15  
 Injection Vol: 100.0 ul Dil. Factor: 1.0000  
 Method: G2\_8330\_Luna Limit Group: GCSV - 8330  
 Column: Luna-Phenyl hexyl ( 4.60 mm) Detector: LC DAD1A, 254 nm

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

Signal: 1

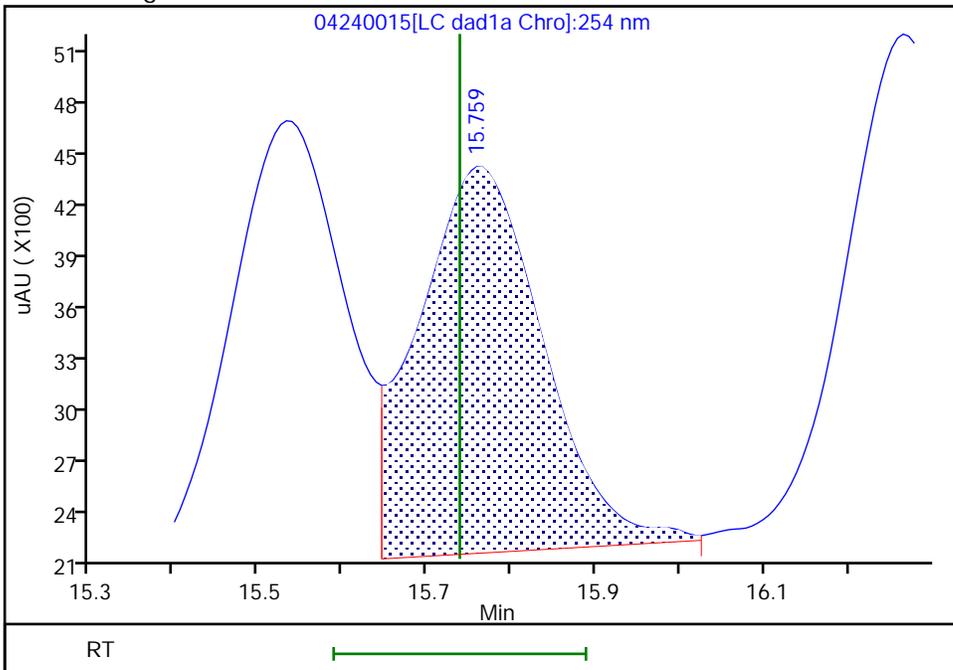
RT: 15.76  
 Area: 26801  
 Amount: 0.114371  
 Amount Units: ug/ml

Processing Integration Results



RT: 15.76  
 Area: 22549  
 Amount: 0.099353  
 Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:21:52 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

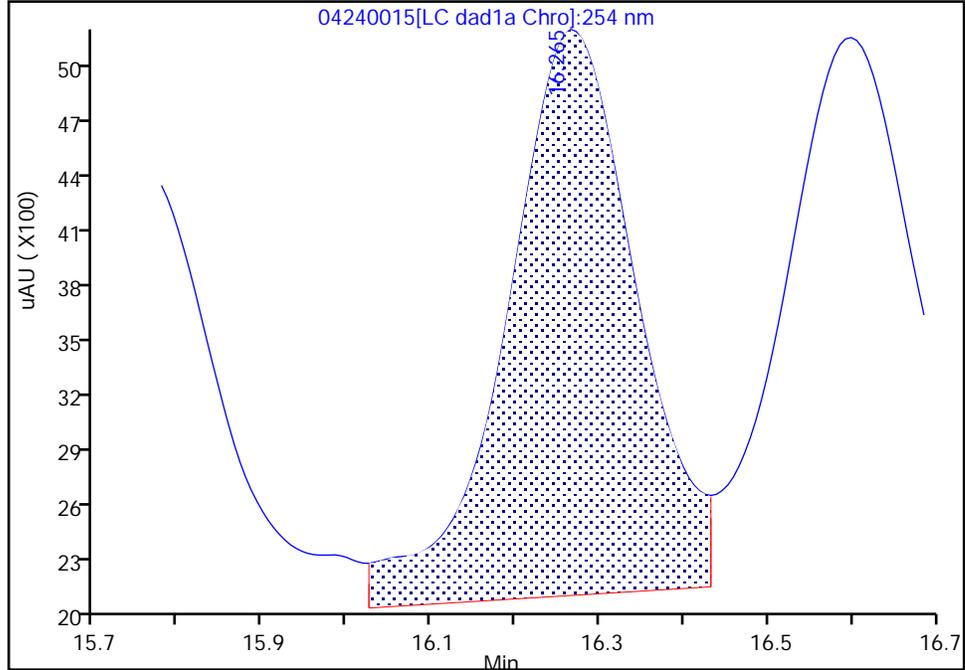
Data File: \\chromfs\denver\chromdata\g2\_luna\20240424-132624.b\04240015.d  
Injection Date: 25-Apr-2024 00:27:59 Instrument ID: CHHPLC\_G2\_LUNA  
Lims ID: IC INT 4  
Client ID:  
Operator ID: JZ/JG ALS Bottle#: 15 Worklist Smp#: 15  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: G2\_8330\_Luna Limit Group: GCSV - 8330  
Column: Luna-Phenyl hexyl ( 4.60 mm) Detector: LC DAD1A, 254 nm

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

Signal: 1

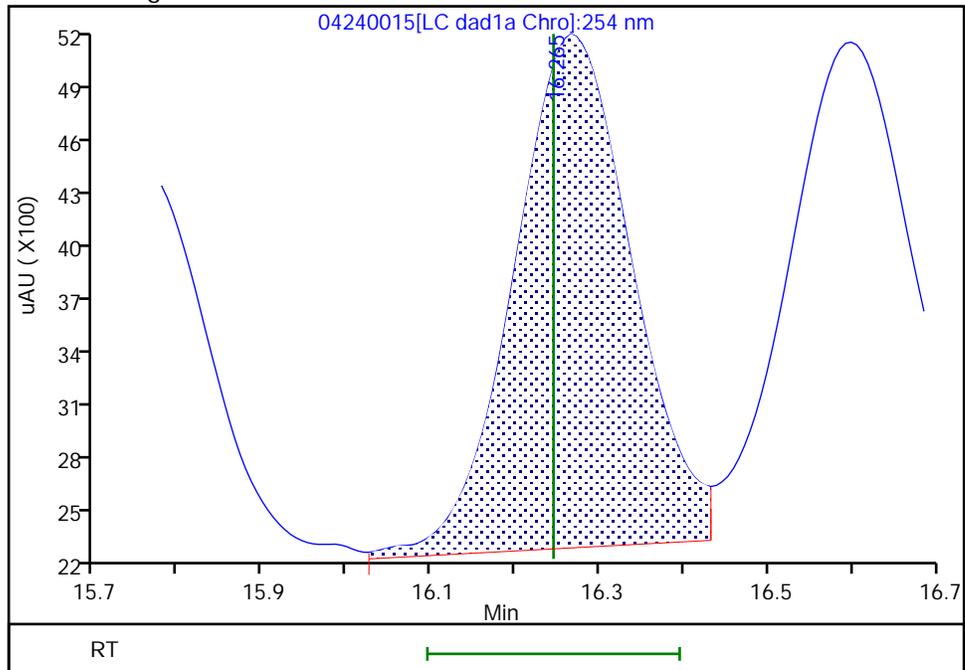
RT: 16.27  
Area: 32402  
Amount: 0.109550  
Amount Units: ug/ml

Processing Integration Results



RT: 16.27  
Area: 27449  
Amount: 0.099093  
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:21:52 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

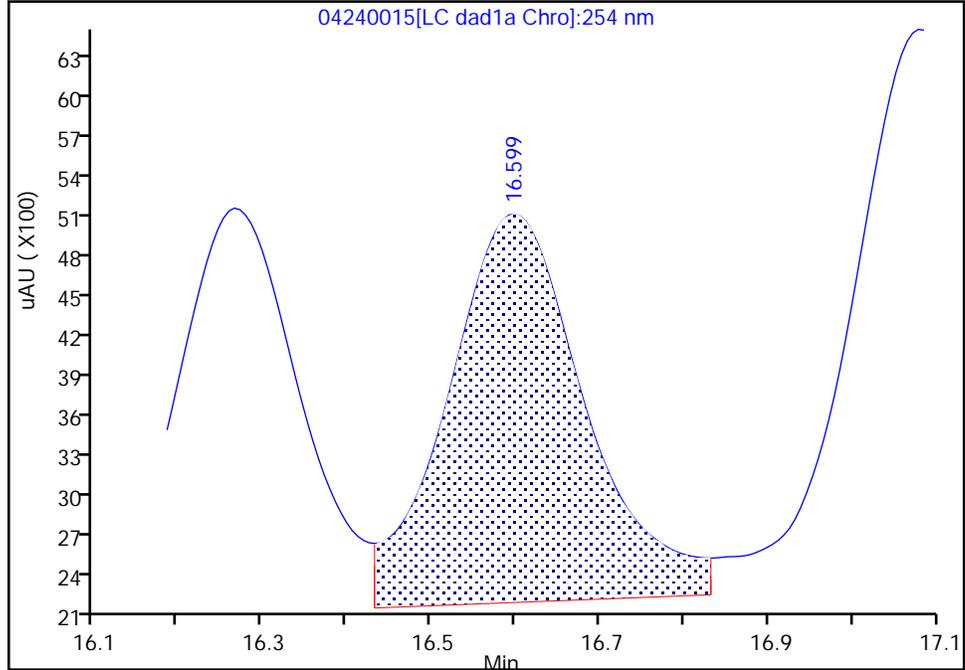
Data File: \\chromfs\denver\chromdata\g2\_luna\20240424-132624.b\04240015.d  
Injection Date: 25-Apr-2024 00:27:59 Instrument ID: CHHPLC\_G2\_LUNA  
Lims ID: IC INT 4  
Client ID:  
Operator ID: JZ/JG ALS Bottle#: 15 Worklist Smp#: 15  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: G2\_8330\_Luna Limit Group: GCSV - 8330  
Column: Luna-Phenyl hexyl ( 4.60 mm) Detector: LC DAD1A, 254 nm

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

Signal: 1

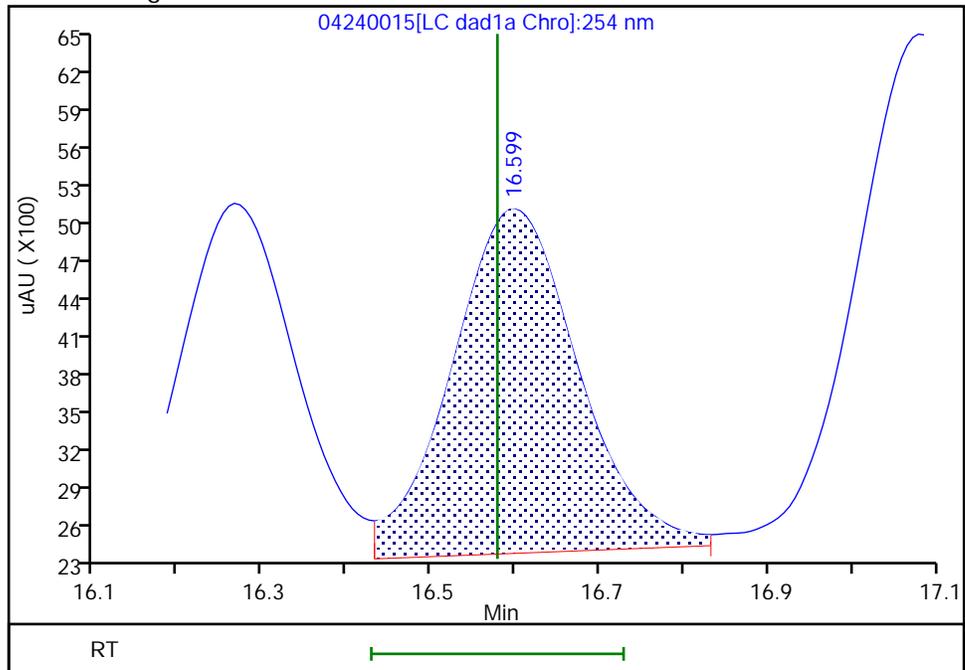
RT: 16.60  
Area: 32735  
Amount: 0.108622  
Amount Units: ug/ml

Processing Integration Results



RT: 16.60  
Area: 28103  
Amount: 0.098459  
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:21:52 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

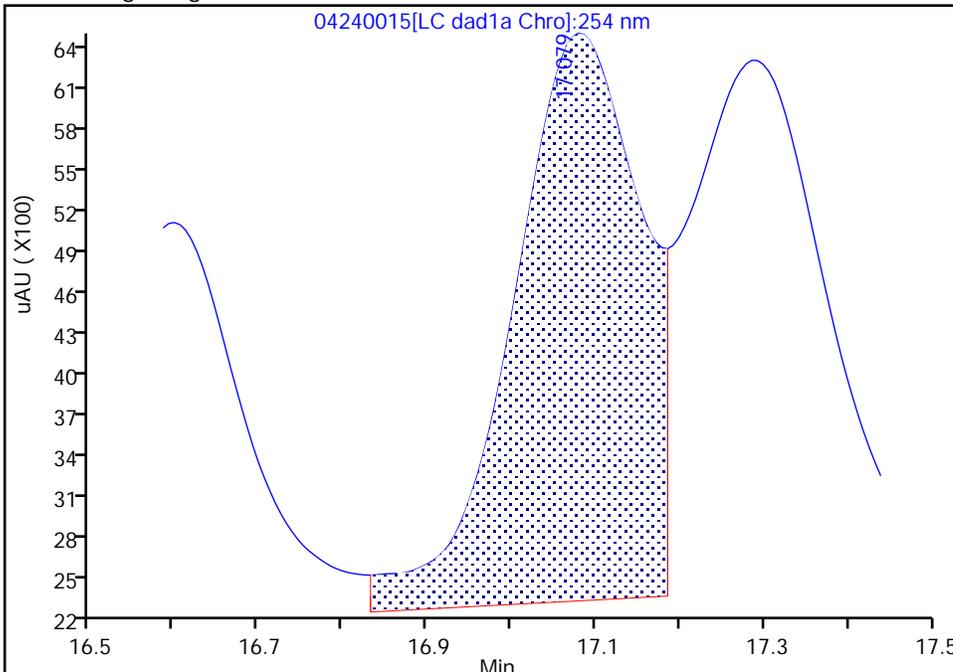
Data File: \\chromfs\denver\chromdata\g2\_luna\20240424-132624.b\04240015.d  
Injection Date: 25-Apr-2024 00:27:59 Instrument ID: CHHPLC\_G2\_LUNA  
Lims ID: IC INT 4  
Client ID:  
Operator ID: JZ/JG ALS Bottle#: 15 Worklist Smp#: 15  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: G2\_8330\_Luna Limit Group: GCSV - 8330  
Column: Luna-Phenyl hexyl ( 4.60 mm) Detector: LC DAD1A, 254 nm

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

Signal: 1

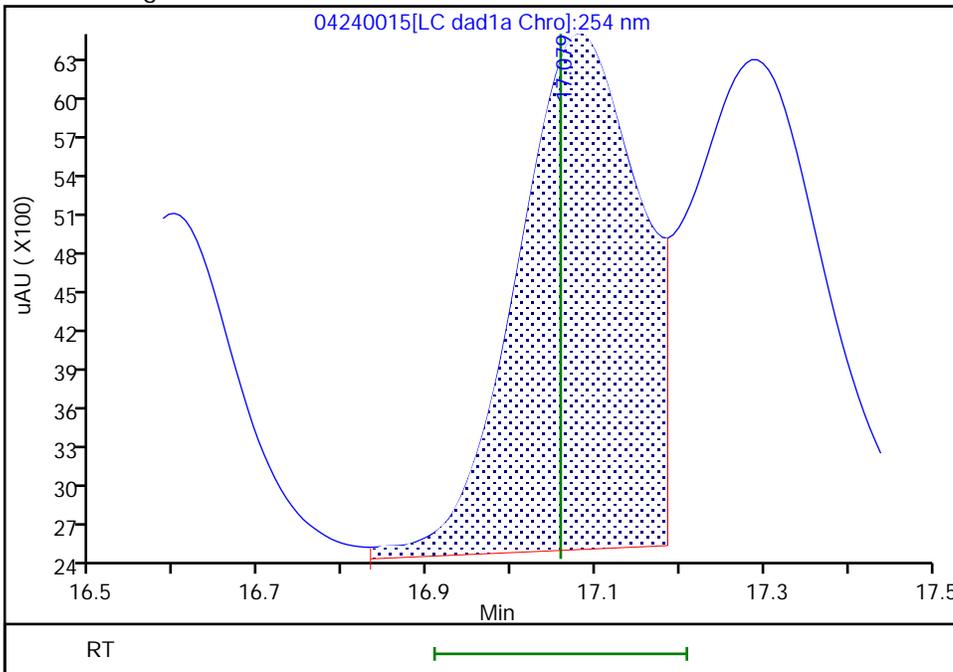
RT: 17.08  
Area: 43679  
Amount: 0.107499  
Amount Units: ug/ml

Processing Integration Results



RT: 17.08  
Area: 39853  
Amount: 0.098266  
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:21:52 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

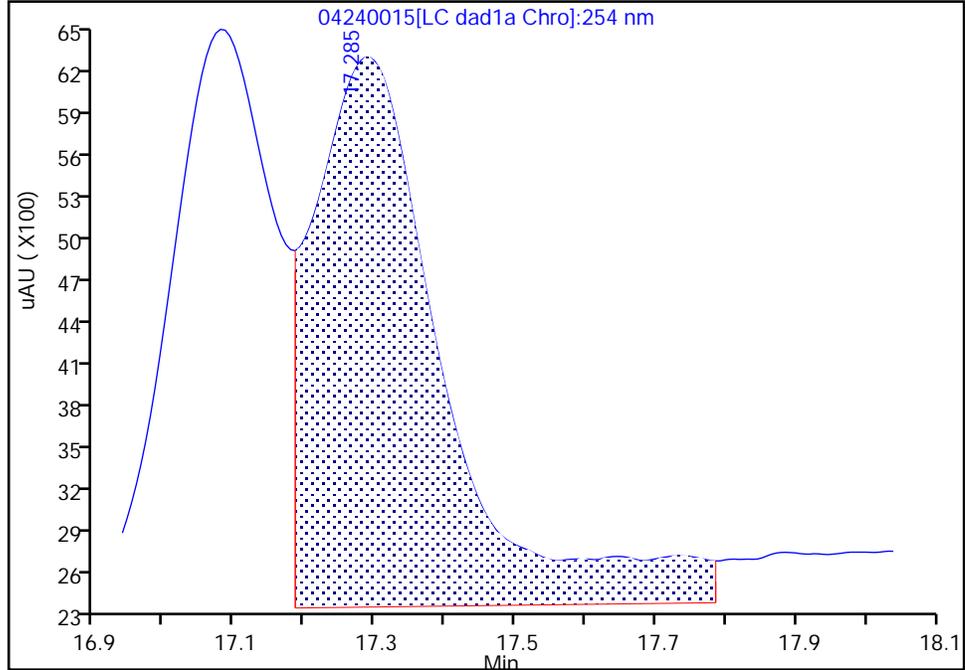
Data File: \\chromfs\denver\chromdata\g2\_luna\20240424-132624.b\04240015.d  
Injection Date: 25-Apr-2024 00:27:59 Instrument ID: CHHPLC\_G2\_LUNA  
Lims ID: IC INT 4  
Client ID:  
Operator ID: JZ/JG ALS Bottle#: 15 Worklist Smp#: 15  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: G2\_8330\_Luna Limit Group: GCSV - 8330  
Column: Luna-Phenyl hexyl ( 4.60 mm) Detector: LC DAD1A, 254 nm

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

Signal: 1

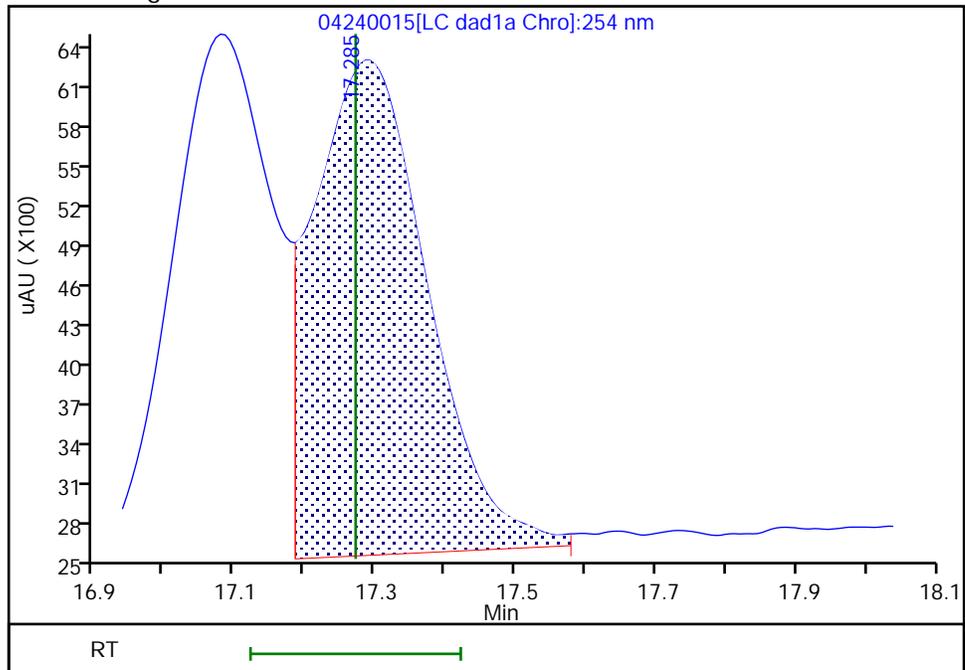
RT: 17.29  
Area: 49937  
Amount: 0.107094  
Amount Units: ug/ml

Processing Integration Results



RT: 17.29  
Area: 41177  
Amount: 0.097241  
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:24:54 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Baseline

Eurofins Denver

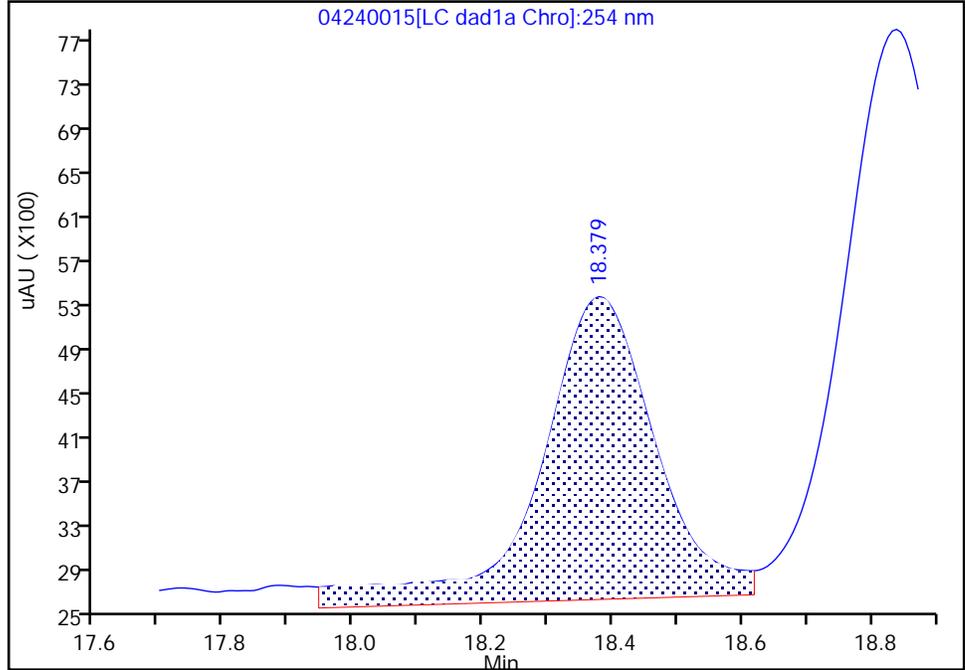
Data File: \\chromfs\denver\chromdata\g2\_luna\20240424-132624.b\04240015.d  
Injection Date: 25-Apr-2024 00:27:59 Instrument ID: CHHPLC\_G2\_LUNA  
Lims ID: IC INT 4  
Client ID:  
Operator ID: JZ/JG ALS Bottle#: 15 Worklist Smp#: 15  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: G2\_8330\_Luna Limit Group: GCSV - 8330  
Column: Luna-Phenyl hexyl ( 4.60 mm) Detector: LC DAD1A, 254 nm

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

Signal: 1

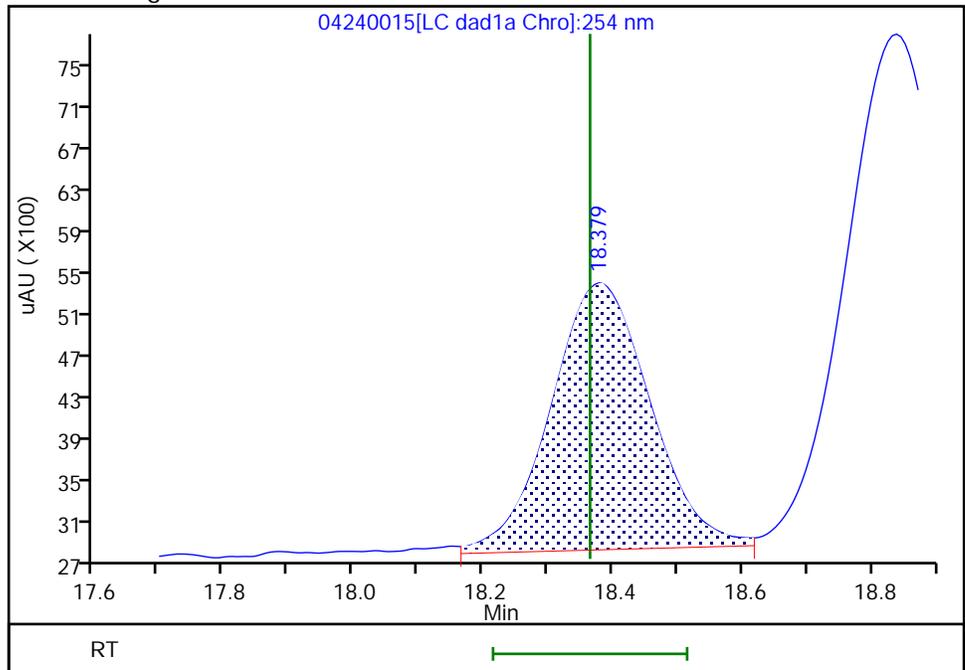
RT: 18.38  
Area: 34293  
Amount: 0.121780  
Amount Units: ug/ml

Processing Integration Results



RT: 18.38  
Area: 27487  
Amount: 0.098885  
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:24:55 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Baseline

Eurofins Denver

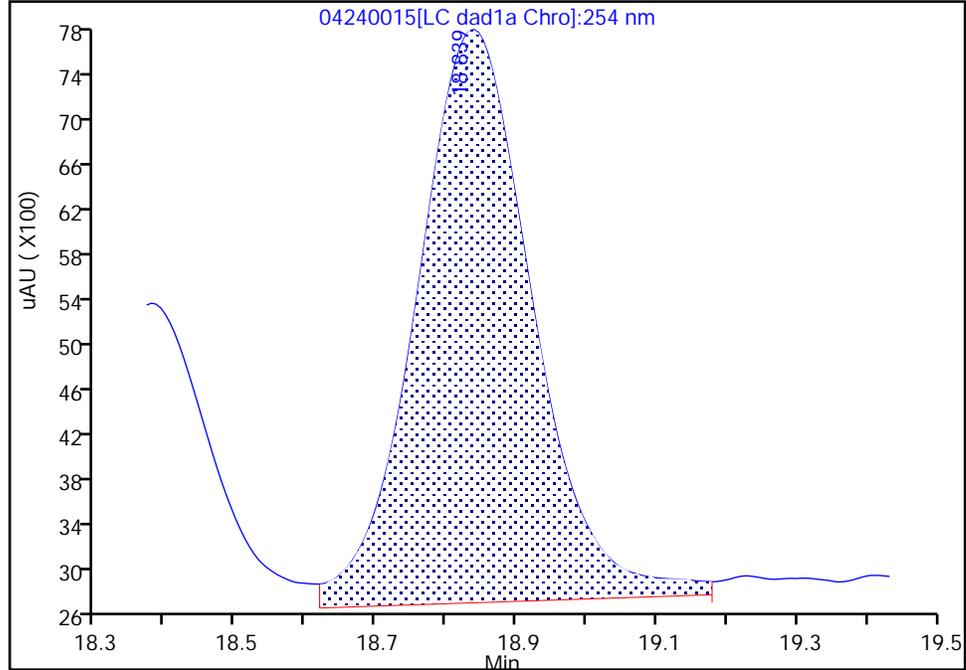
Data File: \\chromfs\denver\chromdata\g2\_luna\20240424-132624.b\04240015.d  
Injection Date: 25-Apr-2024 00:27:59 Instrument ID: CHHPLC\_G2\_LUNA  
Lims ID: IC INT 4  
Client ID:  
Operator ID: JZ/JG ALS Bottle#: 15 Worklist Smp#: 15  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: G2\_8330\_Luna Limit Group: GCSV - 8330  
Column: Luna-Phenyl hexyl ( 4.60 mm) Detector: LC DAD1A, 254 nm

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

Signal: 1

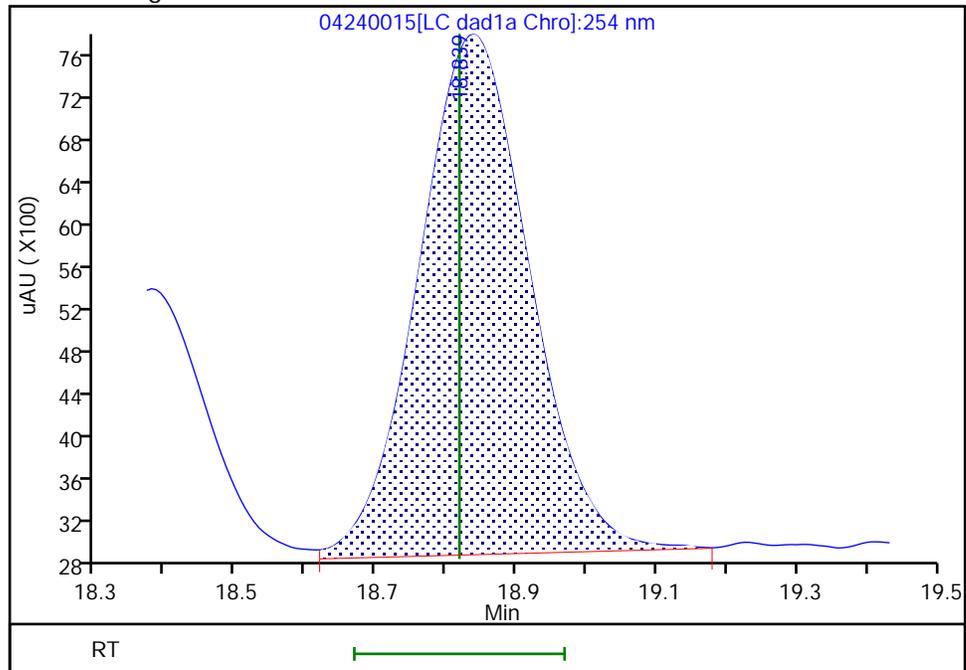
RT: 18.84  
Area: 58511  
Amount: 0.098344  
Amount Units: ug/ml

Processing Integration Results



RT: 18.84  
Area: 54294  
Amount: 0.097904  
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:21:54 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

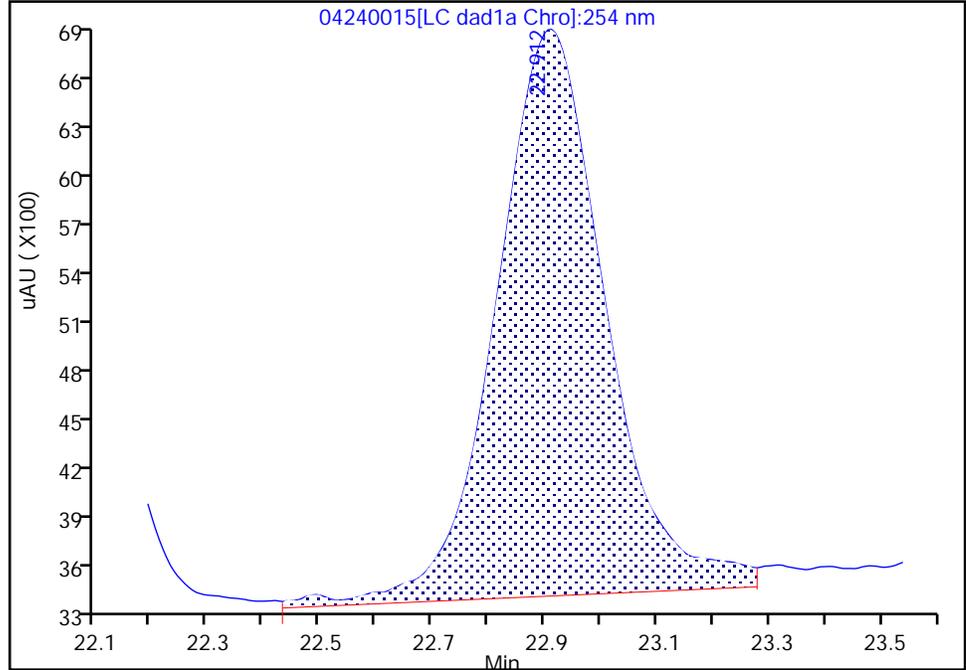
Data File: \\chromfs\denver\chromdata\g2\_luna\20240424-132624.b\04240015.d  
Injection Date: 25-Apr-2024 00:27:59 Instrument ID: CHHPLC\_G2\_LUNA  
Lims ID: IC INT 4  
Client ID:  
Operator ID: JZ/JG ALS Bottle#: 15 Worklist Smp#: 15  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: G2\_8330\_Luna Limit Group: GCSV - 8330  
Column: Luna-Phenyl hexyl ( 4.60 mm) Detector: LC DAD1A, 254 nm

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

Signal: 1

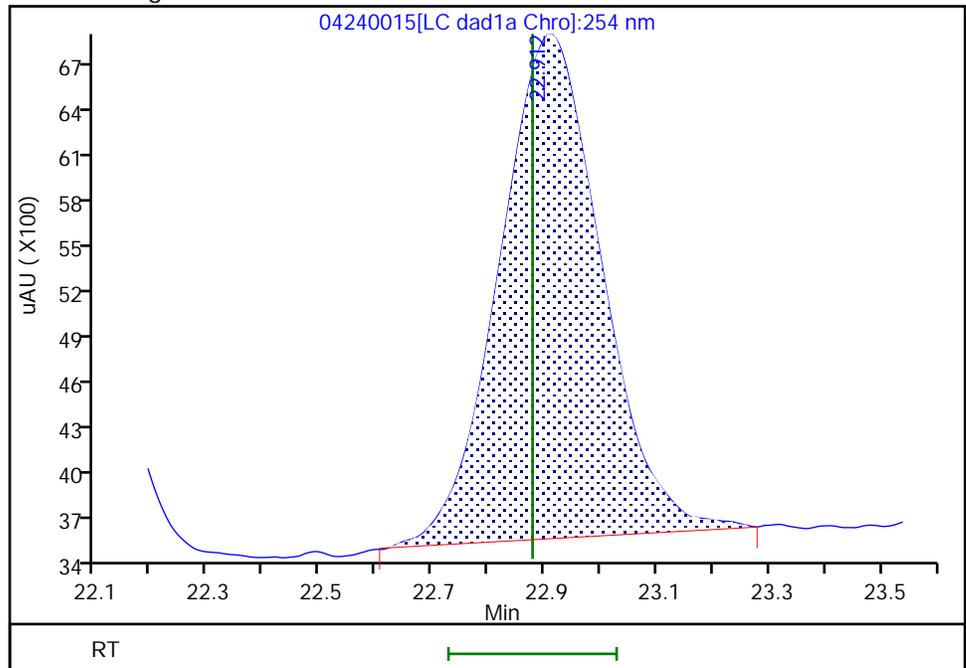
RT: 22.91  
Area: 46193  
Amount: 0.112953  
Amount Units: ug/ml

Processing Integration Results



RT: 22.91  
Area: 41861  
Amount: 0.104715  
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:36:56 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins Denver  
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2\_LUNA\20240424-132624.b\04240016.D  
 Lims ID: IC INT 3  
 Client ID:  
 Sample Type: IC Calib Level: 3  
 Inject. Date: 25-Apr-2024 01:03:56 ALS Bottle#: 16 Worklist Smp#: 16  
 Injection Vol: 100.0 ul Dil. Factor: 1.0000  
 Sample Info: IC INT 3  
 Operator ID: JZ/JG Instrument ID: CHHPLC\_G2\_LUNA  
 Sublist: chrom-G2\_8330\_Luna\*sub16  
 Method: \\chromfs\Denver\ChromData\G2\_LUNA\20240424-132624.b\G2\_8330\_Luna.m  
 Limit Group: GCSV - 8330  
 Last Update: 25-Apr-2024 14:30:16 Calib Date: 25-Apr-2024 07:39:21  
 Integrator: Falcon  
 Quant Method: External Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Denver\ChromData\G2\_LUNA\20240424-132624.b\04240027.D  
 Column 1 : Luna-Phenyl hexyl ( 4.60 mm) Det: LC DAD1A, 254 nm  
 Process Host: CTX1684

First Level Reviewer: LV5D Date: 25-Apr-2024 13:20:15

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
6 HMX	1	6.709	6.705	0.004	8509	0.0500	0.0489	M
5 2,4,6-Trinitrophenol	1	8.663	8.612	0.051	7014	0.0500	0.0463	
8 RDX	1	8.943	8.938	0.005	10654	0.0500	0.0492	
9 Nitrobenzene	1	11.436	11.425	0.011	18193	0.0500	0.0476	
\$ 10 1,2-Dinitrobenzene	1	12.356	12.345	0.011	13324	0.0500	0.0515	
11 3,5-Dinitroaniline	1	14.203	14.185	0.018	22481	0.0500	0.0501	M
12 1,3-Dinitrobenzene	1	14.496	14.478	0.018	30596	0.0500	0.0519	M
13 Nitroglycerin	2	14.943	14.918	0.025	59130	0.5000	0.4948	M
14 o-Nitrotoluene	1	15.523	15.505	0.018	13247	0.0500	0.0542	M
15 p-Nitrotoluene	1	15.743	15.738	0.005	11825	0.0500	0.0501	M
16 4-Amino-2,6-dinitrotoluene	1	16.249	16.245	0.004	13955	0.0500	0.0490	M
17 m-Nitrotoluene	1	16.583	16.578	0.005	14941	0.0500	0.0507	M
18 2-Amino-4,6-dinitrotoluene	1	17.063	17.058	0.005	19735	0.0500	0.0487	M
19 1,3,5-Trinitrobenzene	1	17.283	17.272	0.011	19358	0.0500	0.0457	M
20 2,6-Dinitrotoluene	1	18.369	18.365	0.004	14197	0.0500	0.0511	
21 2,4-Dinitrotoluene	1	18.823	18.818	0.005	28589	0.0500	0.0516	
22 Tetryl	1	22.023	22.025	-0.002	15630	0.0500	0.0487	M
23 2,4,6-Trinitrotoluene	1	22.876	22.878	-0.002	20131	0.0500	0.0504	M
24 PETN	2	24.016	24.032	-0.016	60616	0.5000	0.5056	M

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

8330IntermStk\_00080

Amount Added: 5.00

Units: uL

Eurofins Denver

Data File: \\chromfs\denver\chromdata\g2\_luna\20240424-132624.b\04240016.d

Injection Date: 25-Apr-2024 01:03:56

Instrument ID: CHHPLC\_G2\_LUNA

Operator ID: JZ/JG

Lims ID: IC INT 3

Worklist Smp#: 16

Client ID:

Injection Vol: 100.0 ul

Dil. Factor: 1.0000

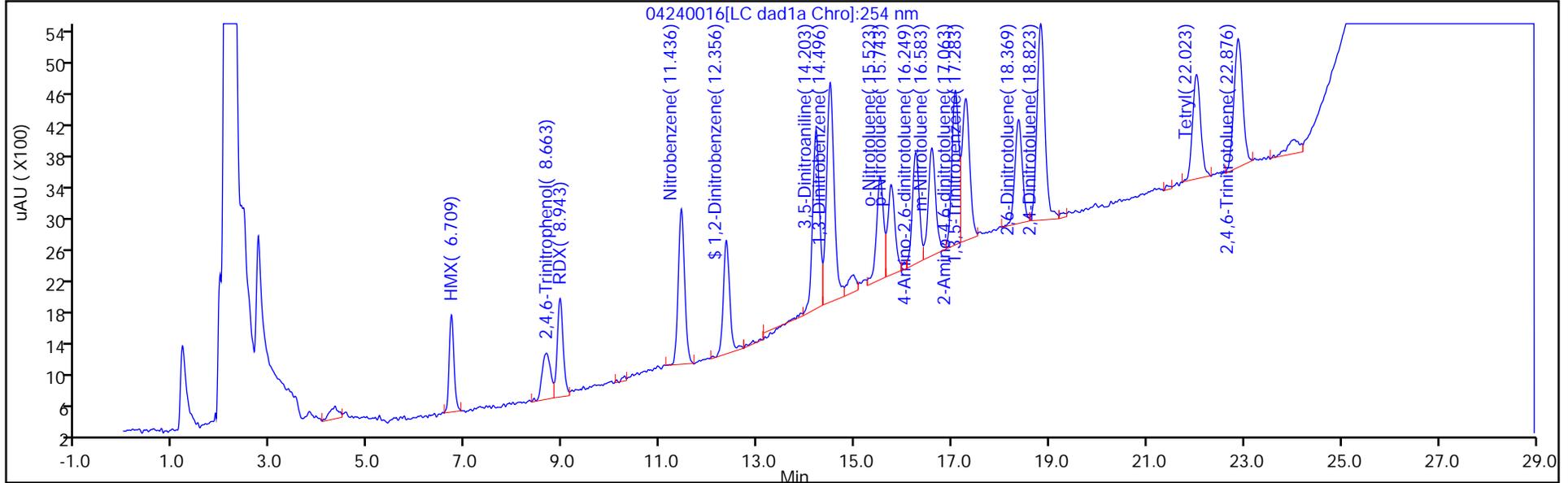
ALS Bottle#: 16

Method: G2\_8330\_Luna

Limit Group: GCSV - 8330

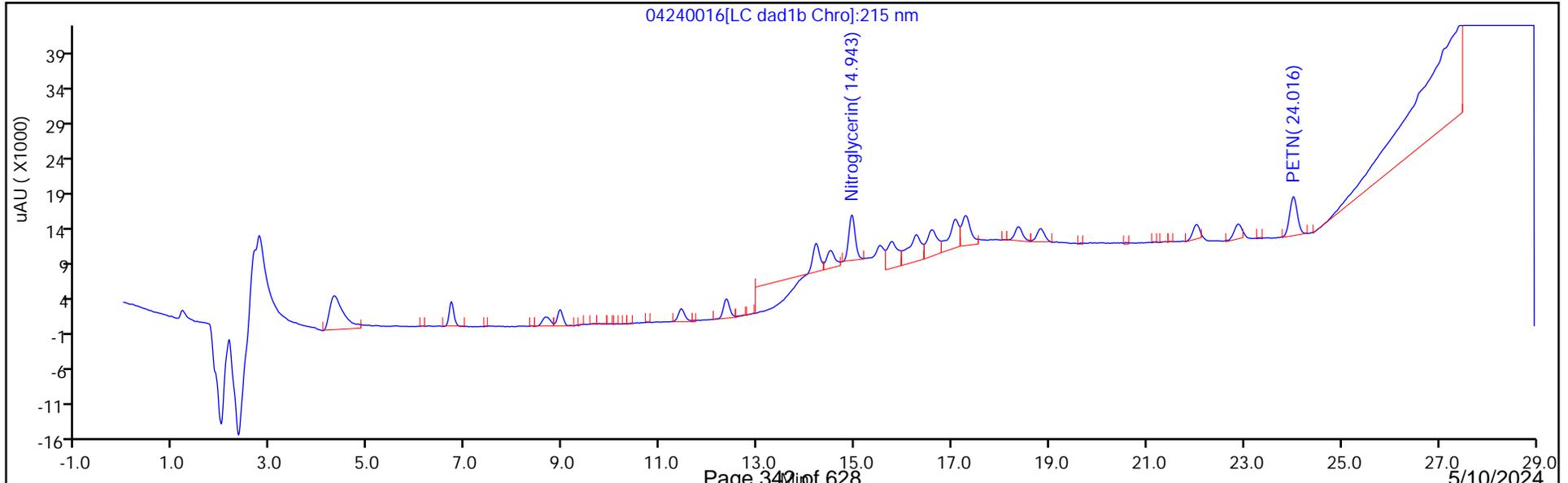
Column: Luna-Phenyl hexyl ( 4.60 mm)

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



Column: Luna-Phenyl hexyl ( 4.60 mm)

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



Eurofins Denver

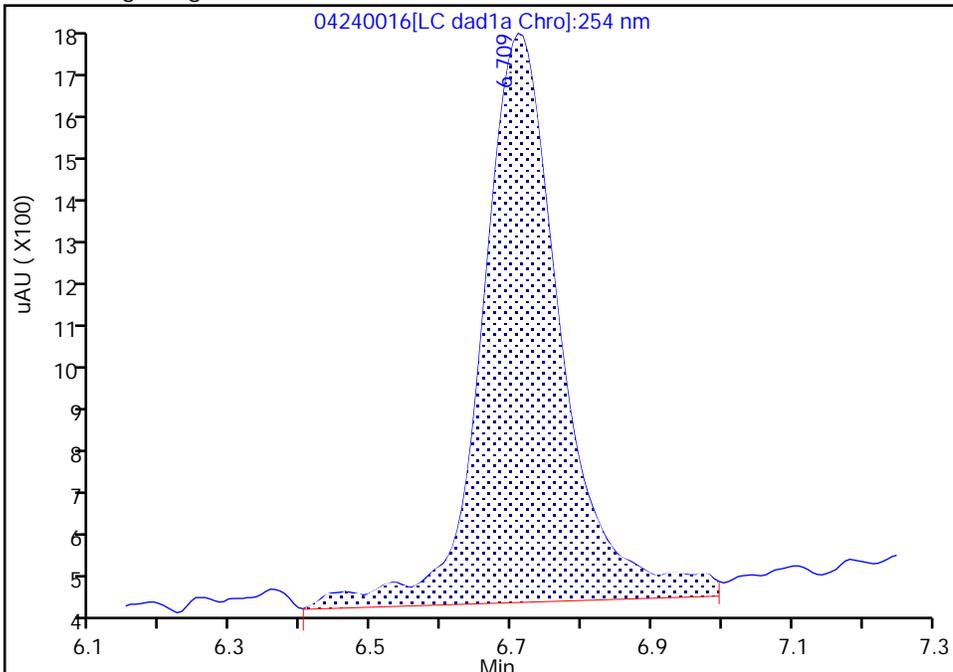
Data File: \\chromfs\denver\chromdata\g2\_luna\20240424-132624.b\04240016.d  
Injection Date: 25-Apr-2024 01:03:56 Instrument ID: CHHPLC\_G2\_LUNA  
Lims ID: IC INT 3  
Client ID:  
Operator ID: JZ/JG ALS Bottle#: 16 Worklist Smp#: 16  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: G2\_8330\_Luna Limit Group: GCSV - 8330  
Column: Luna-Phenyl hexyl ( 4.60 mm) Detector: LC DAD1A, 254 nm

6 HMX, CAS: 2691-41-0

Signal: 1

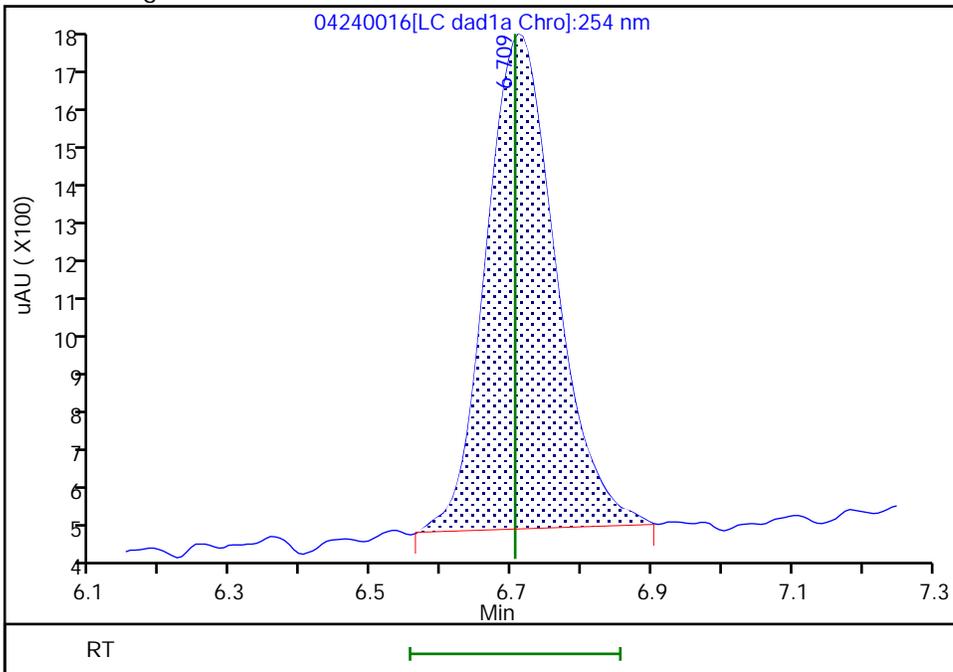
RT: 6.71  
Area: 10052  
Amount: 0.056576  
Amount Units: ug/ml

Processing Integration Results



RT: 6.71  
Area: 8509  
Amount: 0.048881  
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:32:05 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins Denver

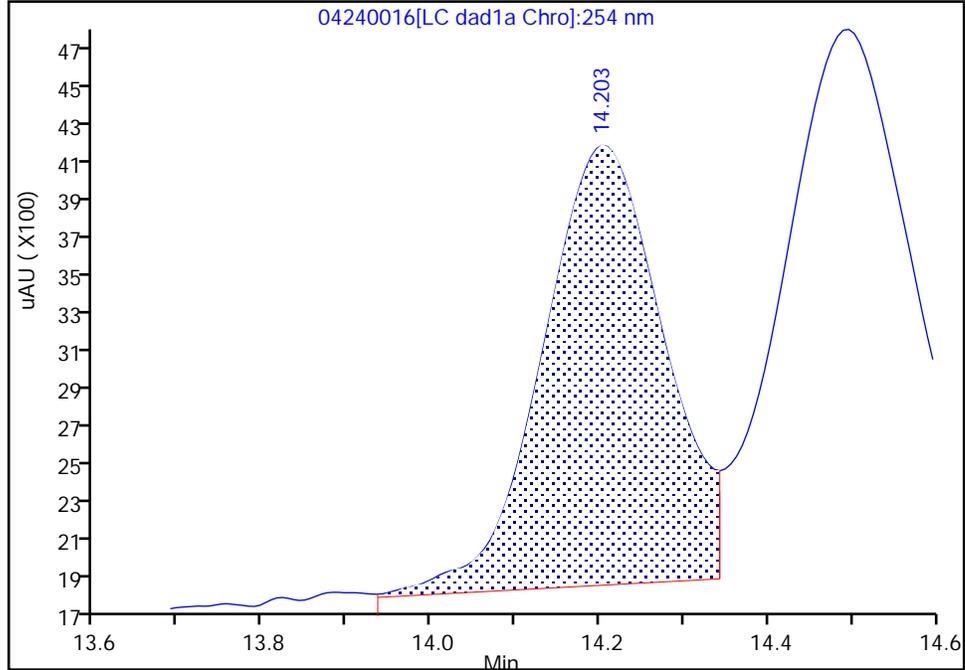
Data File: \\chromfs\denver\chromdata\g2\_luna\20240424-132624.b\04240016.d  
Injection Date: 25-Apr-2024 01:03:56 Instrument ID: CHHPLC\_G2\_LUNA  
Lims ID: IC INT 3  
Client ID:  
Operator ID: JZ/JG ALS Bottle#: 16 Worklist Smp#: 16  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: G2\_8330\_Luna Limit Group: GCSV - 8330  
Column: Luna-Phenyl hexyl ( 4.60 mm) Detector: LC DAD1A, 254 nm

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

Signal: 1

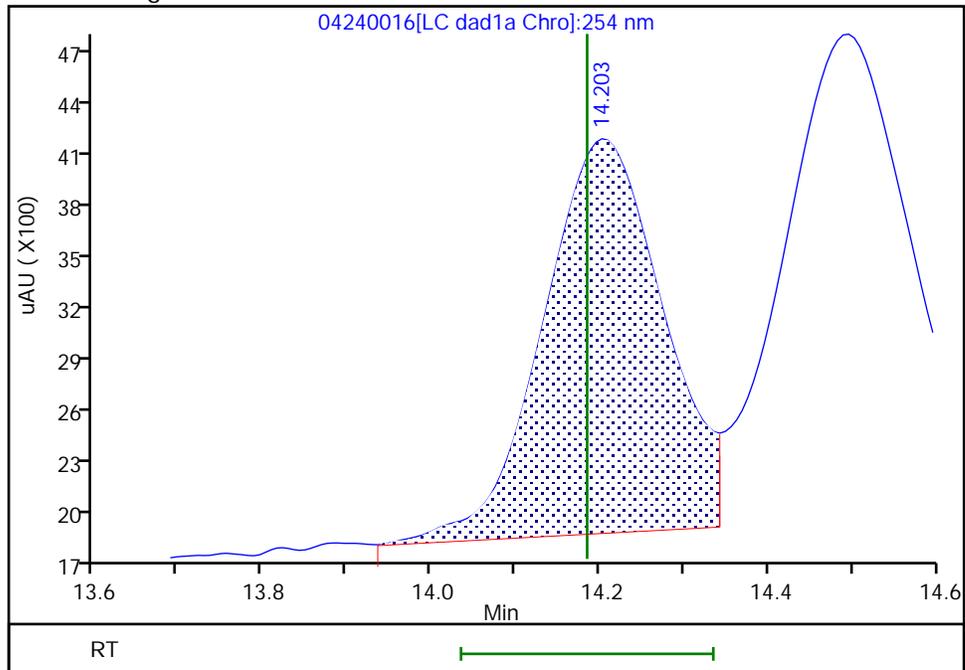
RT: 14.20  
Area: 22811  
Amount: 0.047887  
Amount Units: ug/ml

Processing Integration Results



RT: 14.20  
Area: 22481  
Amount: 0.050060  
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:25:16 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

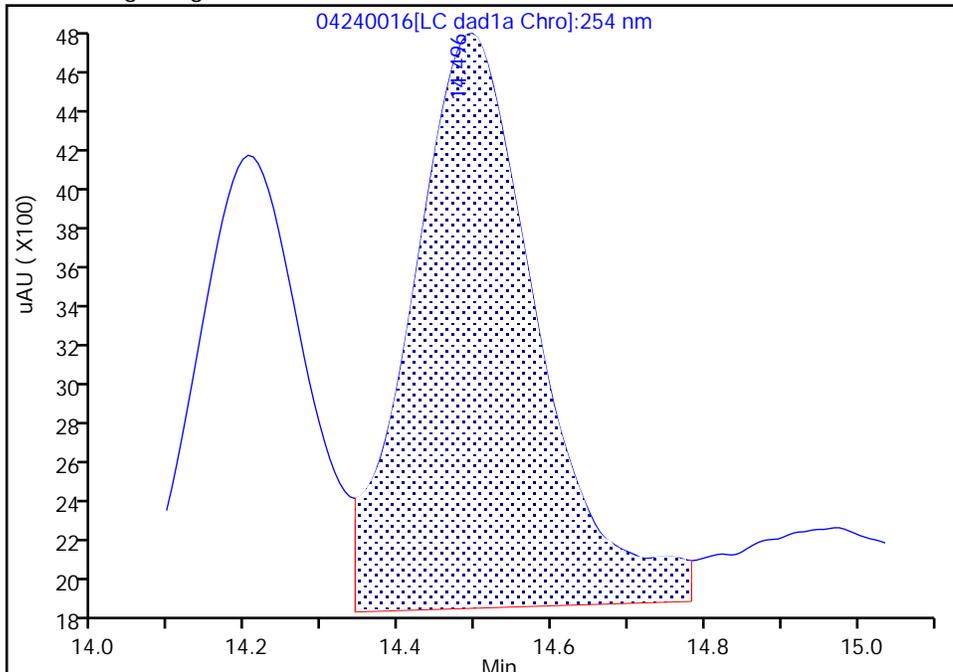
Data File: \\chromfs\denver\chromdata\g2\_luna\20240424-132624.b\04240016.d  
Injection Date: 25-Apr-2024 01:03:56 Instrument ID: CHHPLC\_G2\_LUNA  
Lims ID: IC INT 3  
Client ID:  
Operator ID: JZ/JG ALS Bottle#: 16 Worklist Smp#: 16  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: G2\_8330\_Luna Limit Group: GCSV - 8330  
Column: Luna-Phenyl hexyl ( 4.60 mm) Detector: LC DAD1A, 254 nm

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

Signal: 1

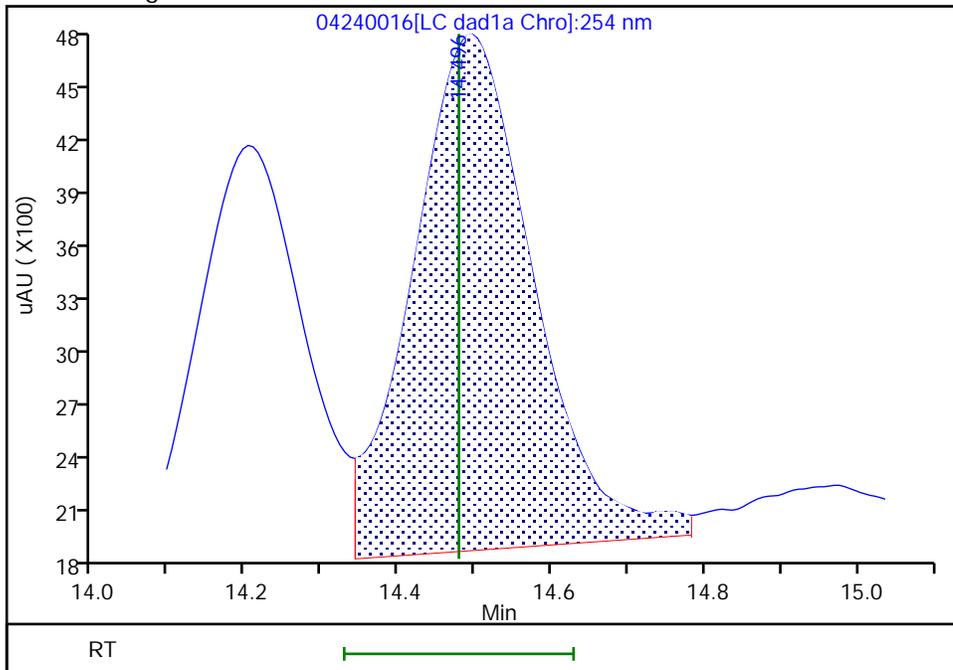
RT: 14.50  
Area: 32206  
Amount: 0.051373  
Amount Units: ug/ml

Processing Integration Results



RT: 14.50  
Area: 30596  
Amount: 0.051909  
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:25:16 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

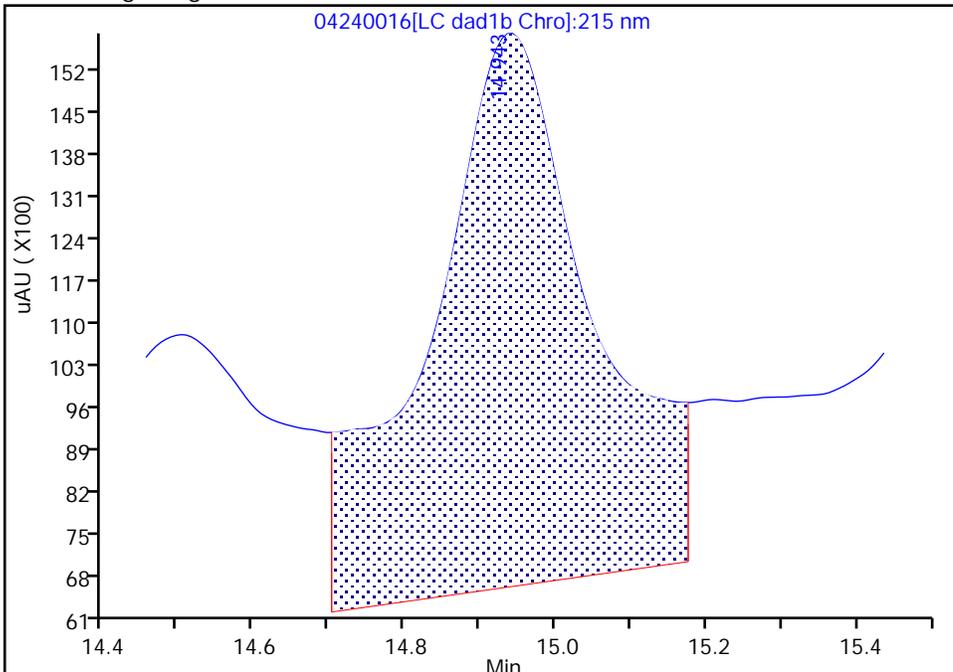
Data File: \\chromfs\denver\chromdata\g2\_luna\20240424-132624.b\04240016.d  
Injection Date: 25-Apr-2024 01:03:56 Instrument ID: CHHPLC\_G2\_LUNA  
Lims ID: IC INT 3  
Client ID:  
Operator ID: JZ/JG ALS Bottle#: 16 Worklist Smp#: 16  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: G2\_8330\_Luna Limit Group: GCSV - 8330  
Column: Luna-Phenyl hexyl ( 4.60 mm) Detector: LC DAD1B, 215 nm

13 Nitroglycerin, CAS: 55-63-0

Signal: 1

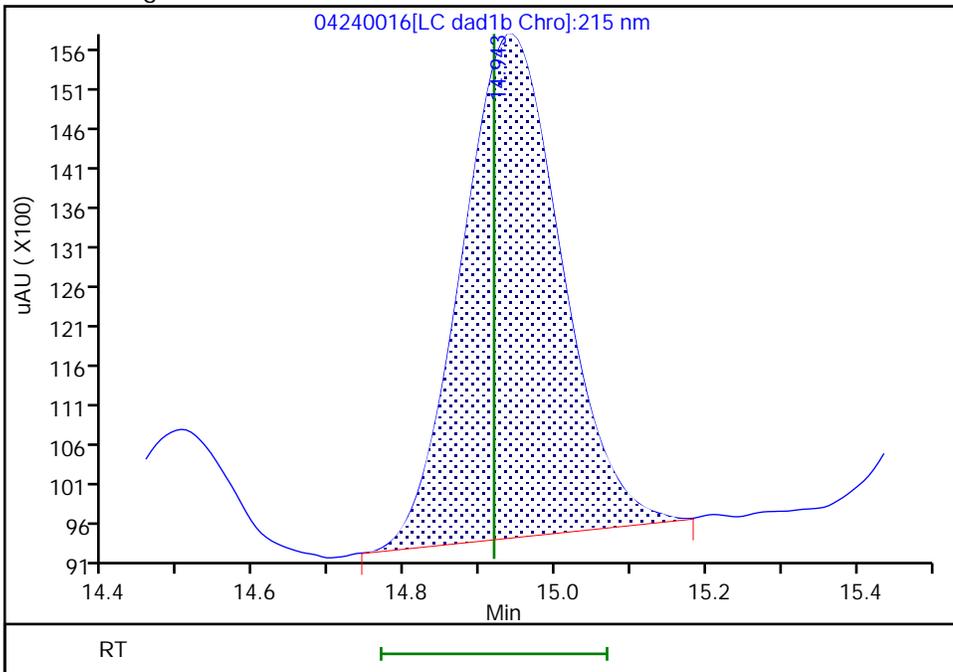
RT: 14.94  
Area: 139941  
Amount: 0.575003  
Amount Units: ug/ml

Processing Integration Results



RT: 14.94  
Area: 59130  
Amount: 0.494792  
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:20:51 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins Denver

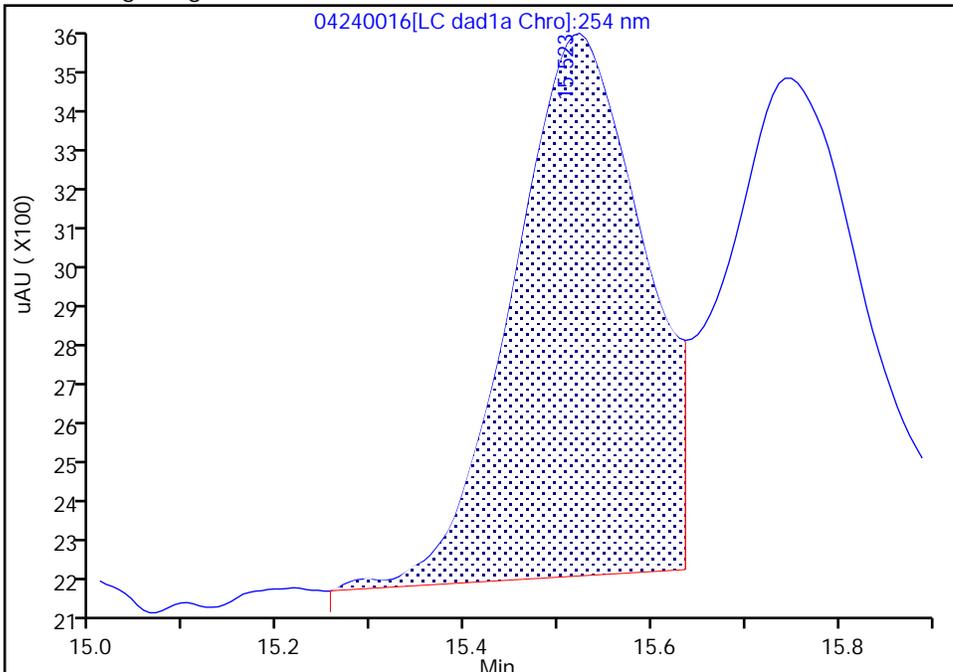
Data File: \\chromfs\denver\chromdata\g2\_luna\20240424-132624.b\04240016.d  
Injection Date: 25-Apr-2024 01:03:56 Instrument ID: CHHPLC\_G2\_LUNA  
Lims ID: IC INT 3  
Client ID:  
Operator ID: JZ/JG ALS Bottle#: 16 Worklist Smp#: 16  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: G2\_8330\_Luna Limit Group: GCSV - 8330  
Column: Luna-Phenyl hexyl ( 4.60 mm) Detector: LC DAD1A, 254 nm

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

Signal: 1

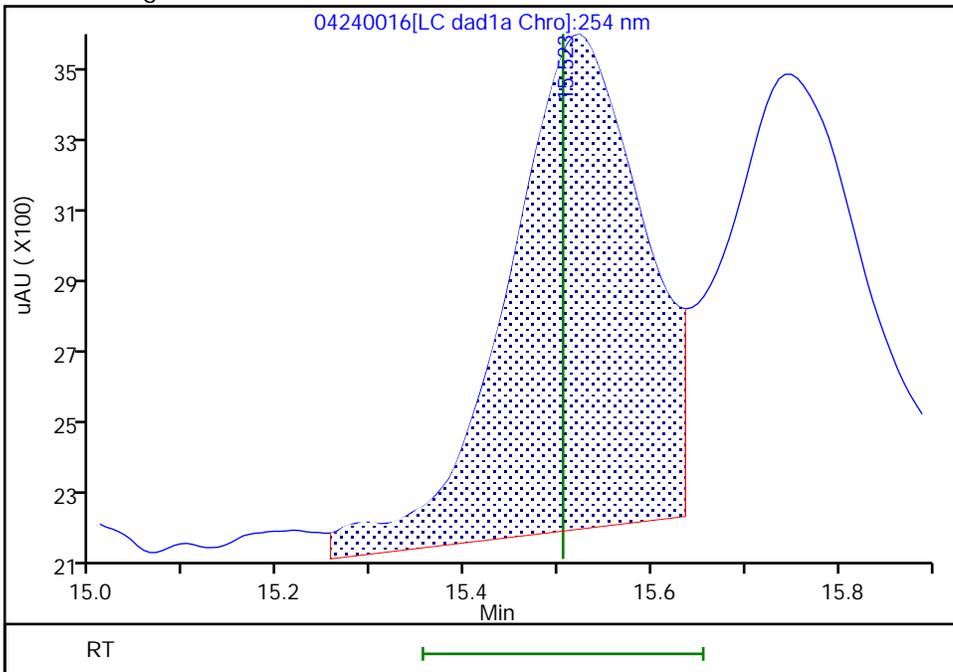
RT: 15.52  
Area: 12415  
Amount: 0.046079  
Amount Units: ug/ml

Processing Integration Results



RT: 15.52  
Area: 13247  
Amount: 0.054159  
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:25:16 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

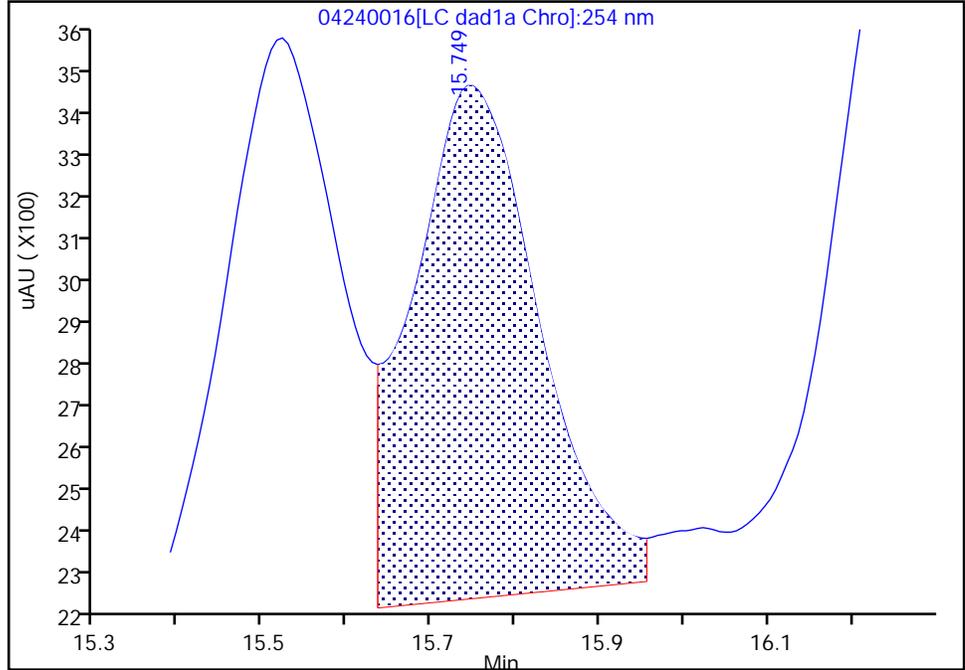
Data File: \\chromfs\denver\chromdata\g2\_luna\20240424-132624.b\04240016.d  
Injection Date: 25-Apr-2024 01:03:56 Instrument ID: CHHPLC\_G2\_LUNA  
Lims ID: IC INT 3  
Client ID:  
Operator ID: JZ/JG ALS Bottle#: 16 Worklist Smp#: 16  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: G2\_8330\_Luna Limit Group: GCSV - 8330  
Column: Luna-Phenyl hexyl ( 4.60 mm) Detector: LC DAD1A, 254 nm

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

Signal: 1

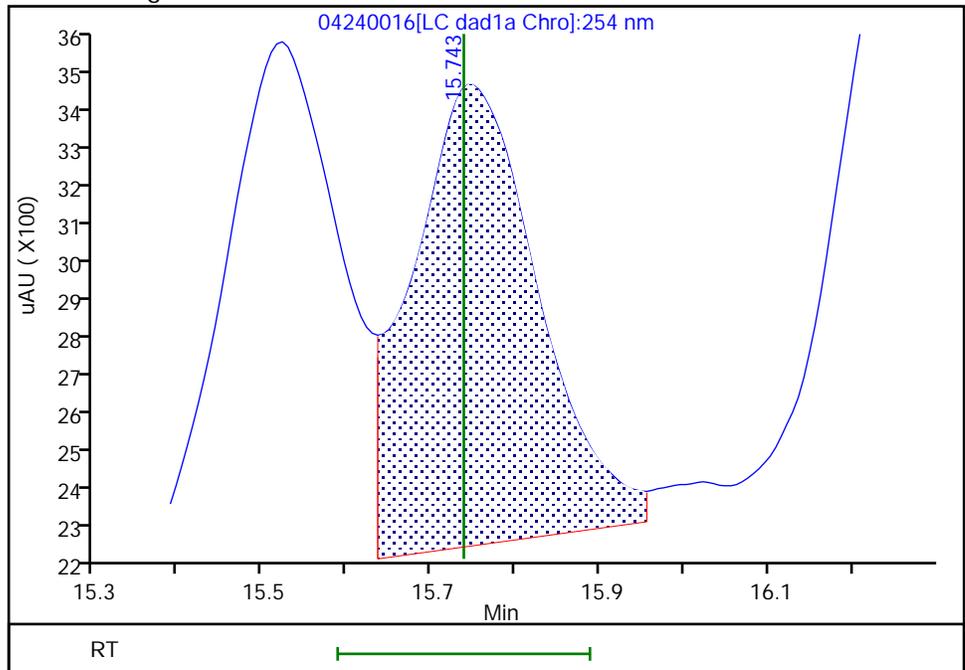
RT: 15.75  
Area: 11979  
Amount: 0.047481  
Amount Units: ug/ml

Processing Integration Results



RT: 15.74  
Area: 11825  
Amount: 0.050097  
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:25:16 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

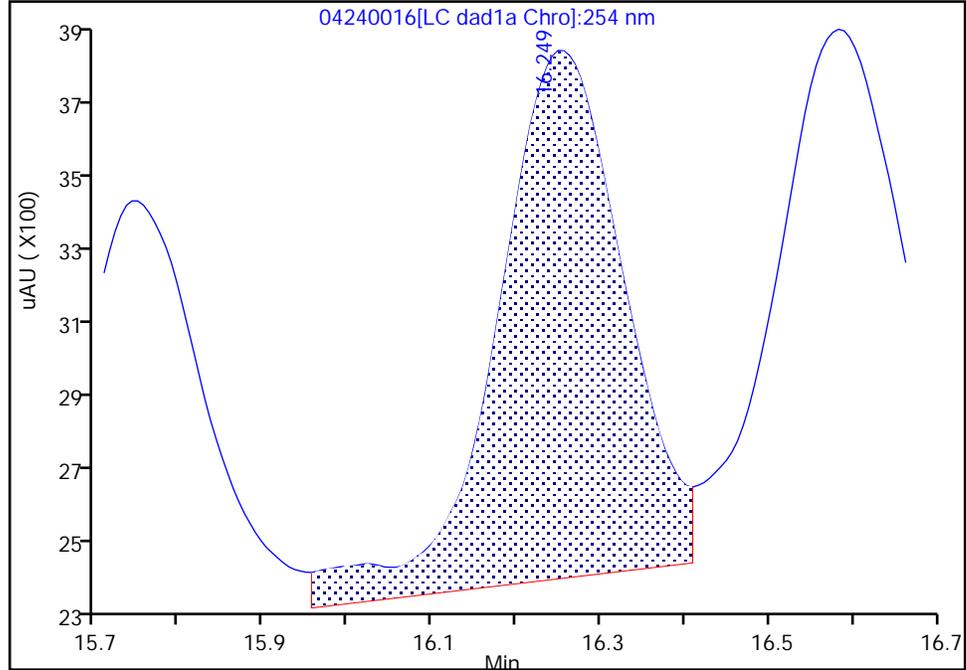
Data File: \\chromfs\denver\chromdata\g2\_luna\20240424-132624.b\04240016.d  
Injection Date: 25-Apr-2024 01:03:56 Instrument ID: CHHPLC\_G2\_LUNA  
Lims ID: IC INT 3  
Client ID:  
Operator ID: JZ/JG ALS Bottle#: 16 Worklist Smp#: 16  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: G2\_8330\_Luna Limit Group: GCSV - 8330  
Column: Luna-Phenyl hexyl ( 4.60 mm) Detector: LC DAD1A, 254 nm

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

Signal: 1

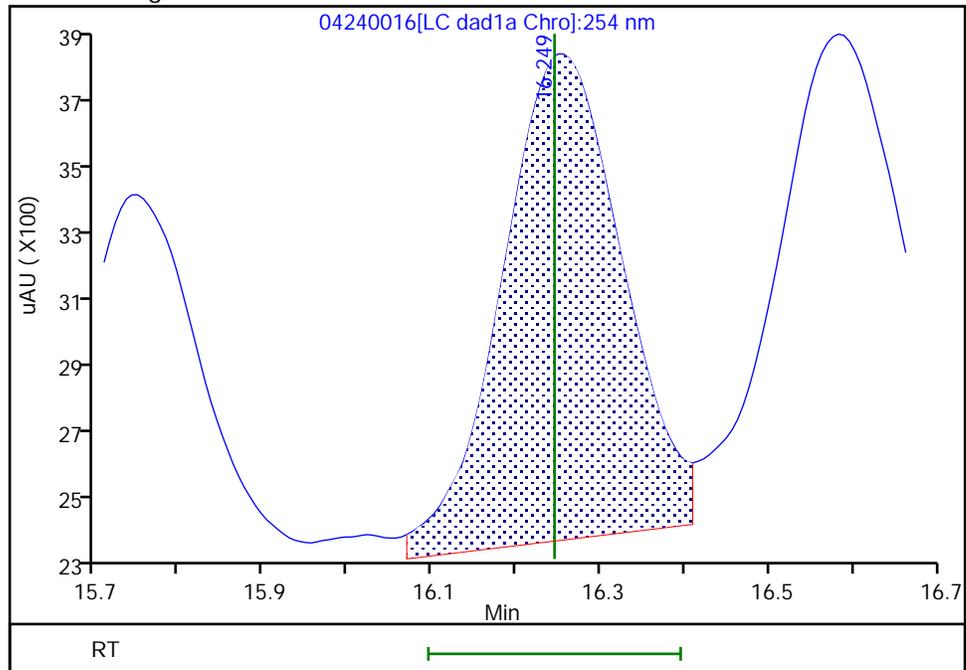
RT: 16.25  
Area: 15163  
Amount: 0.045904  
Amount Units: ug/ml

Processing Integration Results



RT: 16.25  
Area: 13955  
Amount: 0.049024  
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:35:16 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Baseline

Eurofins Denver

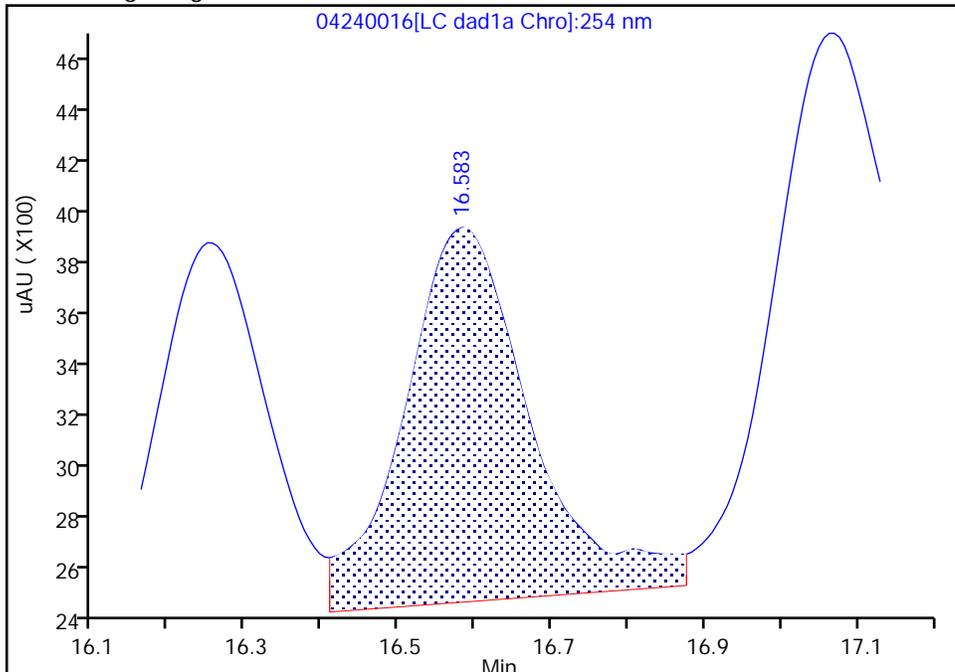
Data File: \\chromfs\denver\chromdata\g2\_luna\20240424-132624.b\04240016.d  
Injection Date: 25-Apr-2024 01:03:56 Instrument ID: CHHPLC\_G2\_LUNA  
Lims ID: IC INT 3  
Client ID:  
Operator ID: JZ/JG ALS Bottle#: 16 Worklist Smp#: 16  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: G2\_8330\_Luna Limit Group: GCSV - 8330  
Column: Luna-Phenyl hexyl ( 4.60 mm) Detector: LC DAD1A, 254 nm

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

Signal: 1

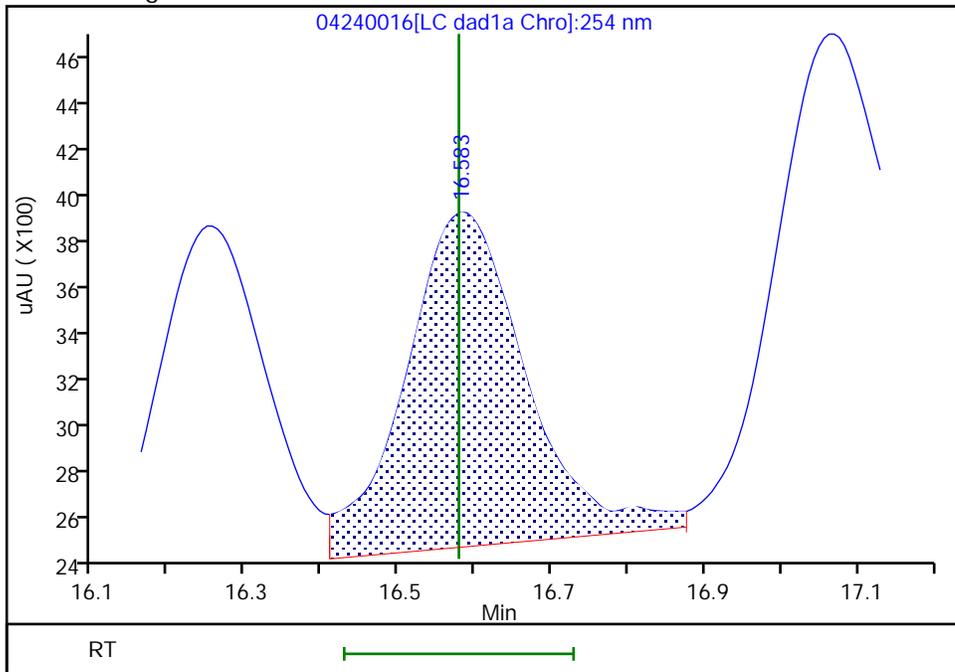
RT: 16.58  
Area: 16173  
Amount: 0.050420  
Amount Units: ug/ml

Processing Integration Results



RT: 16.58  
Area: 14941  
Amount: 0.050699  
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:25:16 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

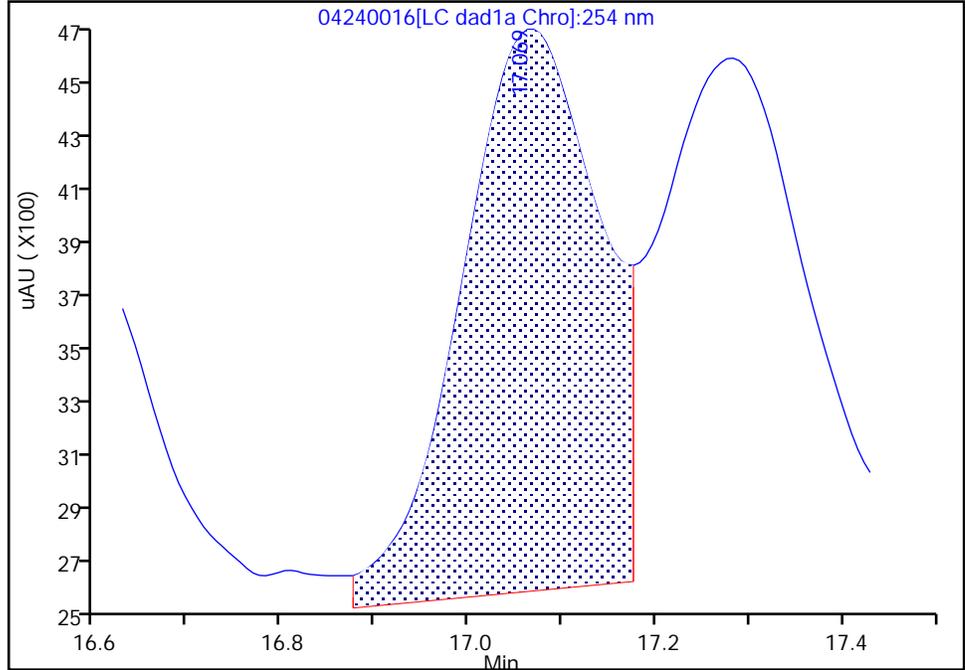
Data File: \\chromfs\denver\chromdata\g2\_luna\20240424-132624.b\04240016.d  
Injection Date: 25-Apr-2024 01:03:56 Instrument ID: CHHPLC\_G2\_LUNA  
Lims ID: IC INT 3  
Client ID:  
Operator ID: JZ/JG ALS Bottle#: 16 Worklist Smp#: 16  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: G2\_8330\_Luna Limit Group: GCSV - 8330  
Column: Luna-Phenyl hexyl ( 4.60 mm) Detector: LC DAD1A, 254 nm

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

Signal: 1

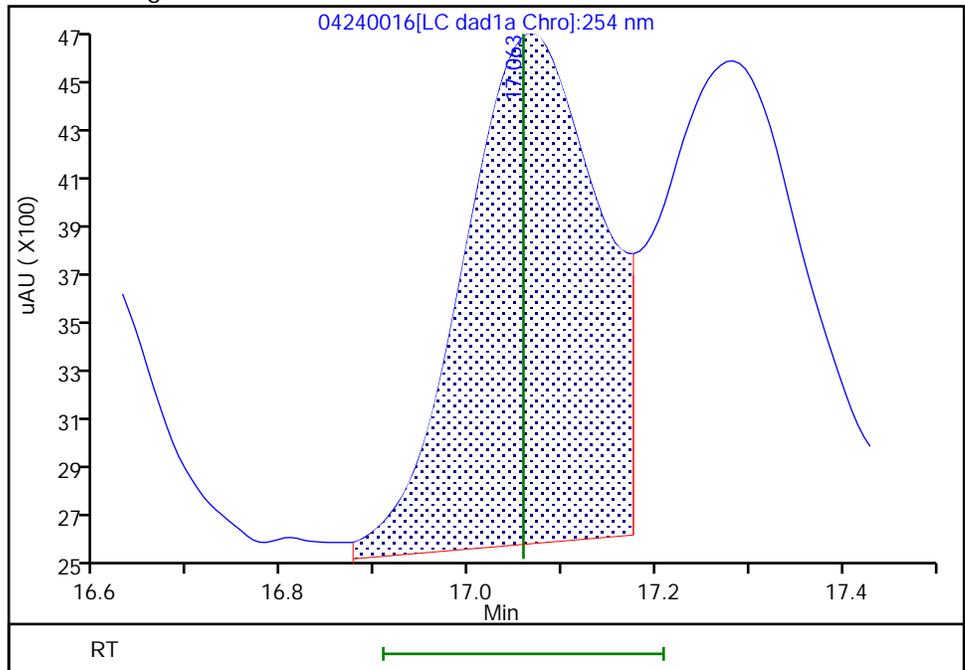
RT: 17.07  
Area: 20716  
Amount: 0.047421  
Amount Units: ug/ml

Processing Integration Results



RT: 17.06  
Area: 19735  
Amount: 0.048661  
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:25:16 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

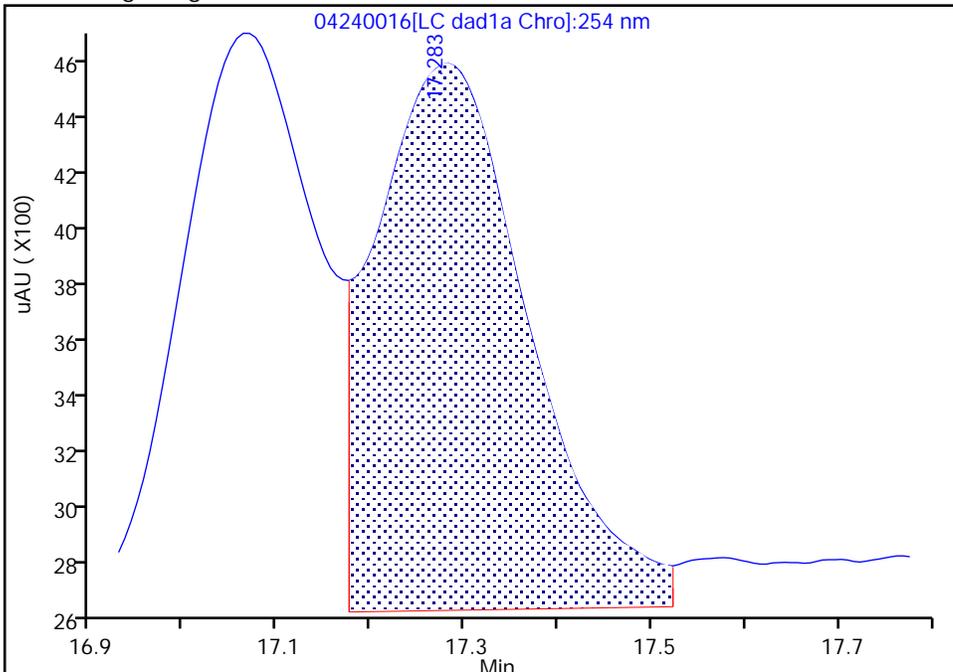
Data File: \\chromfs\denver\chromdata\g2\_luna\20240424-132624.b\04240016.d  
Injection Date: 25-Apr-2024 01:03:56 Instrument ID: CHHPLC\_G2\_LUNA  
Lims ID: IC INT 3  
Client ID:  
Operator ID: JZ/JG ALS Bottle#: 16 Worklist Smp#: 16  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: G2\_8330\_Luna Limit Group: GCSV - 8330  
Column: Luna-Phenyl hexyl ( 4.60 mm) Detector: LC DAD1A, 254 nm

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

Signal: 1

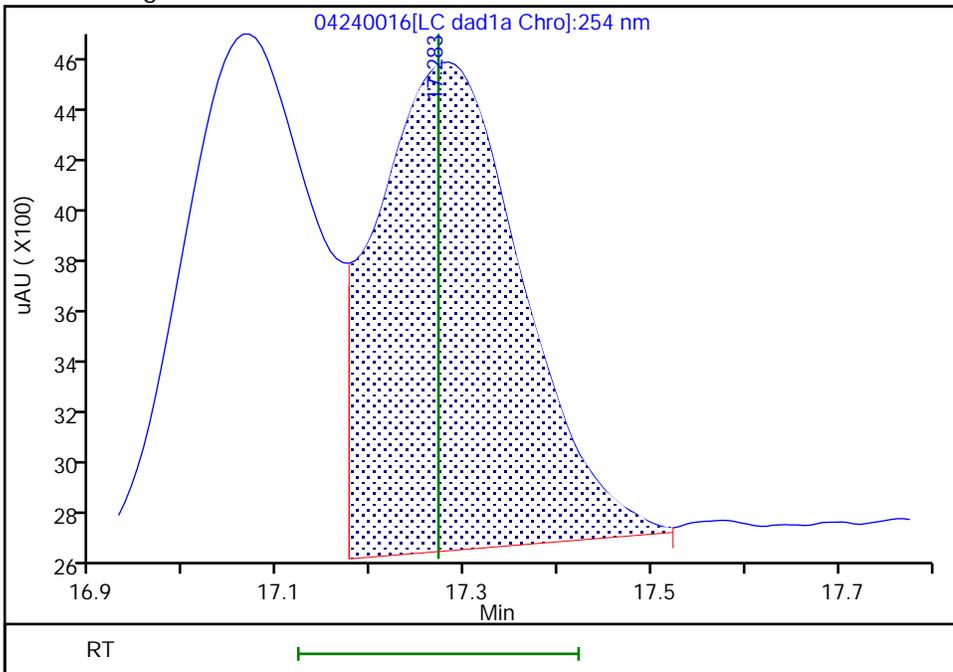
RT: 17.28  
Area: 21240  
Amount: 0.046378  
Amount Units: ug/ml

Processing Integration Results



RT: 17.28  
Area: 19358  
Amount: 0.045714  
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:25:16 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

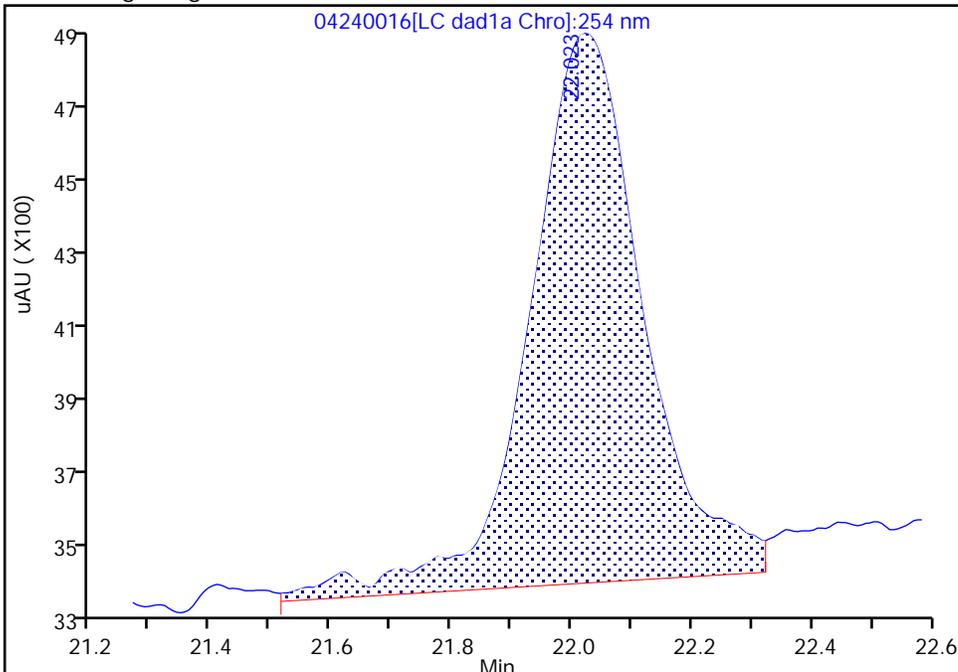
Data File: \\chromfs\denver\chromdata\g2\_luna\20240424-132624.b\04240016.d  
Injection Date: 25-Apr-2024 01:03:56 Instrument ID: CHHPLC\_G2\_LUNA  
Lims ID: IC INT 3  
Client ID:  
Operator ID: JZ/JG ALS Bottle#: 16 Worklist Smp#: 16  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: G2\_8330\_Luna Limit Group: GCSV - 8330  
Column: Luna-Phenyl hexyl ( 4.60 mm) Detector: LC DAD1A, 254 nm

22 Tetryl, CAS: 479-45-8

Signal: 1

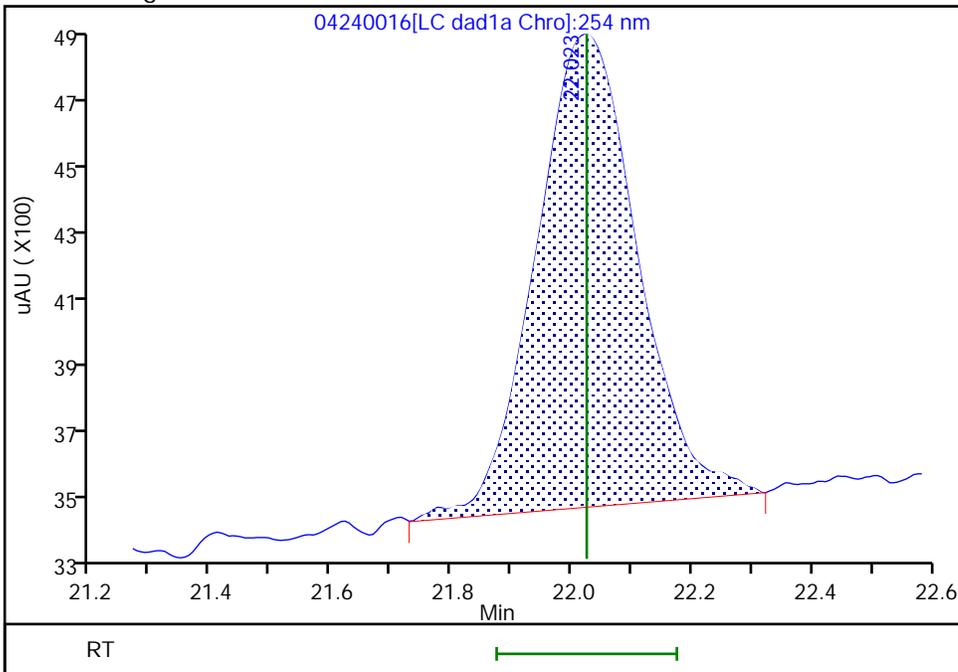
RT: 22.02  
Area: 18537  
Amount: 0.055520  
Amount Units: ug/ml

Processing Integration Results



RT: 22.02  
Area: 15630  
Amount: 0.048664  
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:25:28 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins Denver

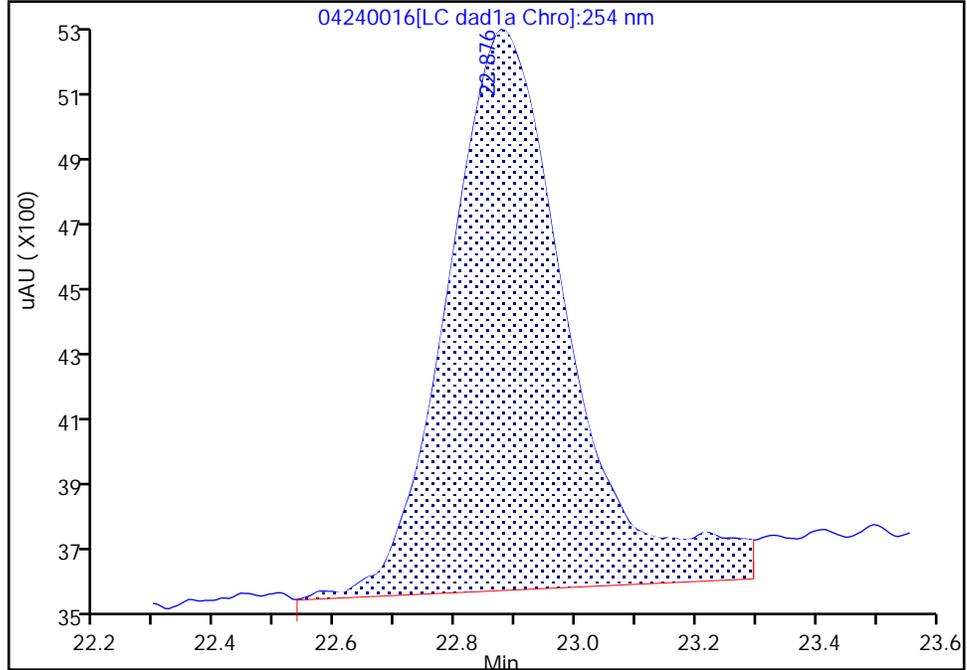
Data File: \\chromfs\denver\chromdata\g2\_luna\20240424-132624.b\04240016.d  
Injection Date: 25-Apr-2024 01:03:56 Instrument ID: CHHPLC\_G2\_LUNA  
Lims ID: IC INT 3  
Client ID:  
Operator ID: JZ/JG ALS Bottle#: 16 Worklist Smp#: 16  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: G2\_8330\_Luna Limit Group: GCSV - 8330  
Column: Luna-Phenyl hexyl ( 4.60 mm) Detector: LC DAD1A, 254 nm

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

Signal: 1

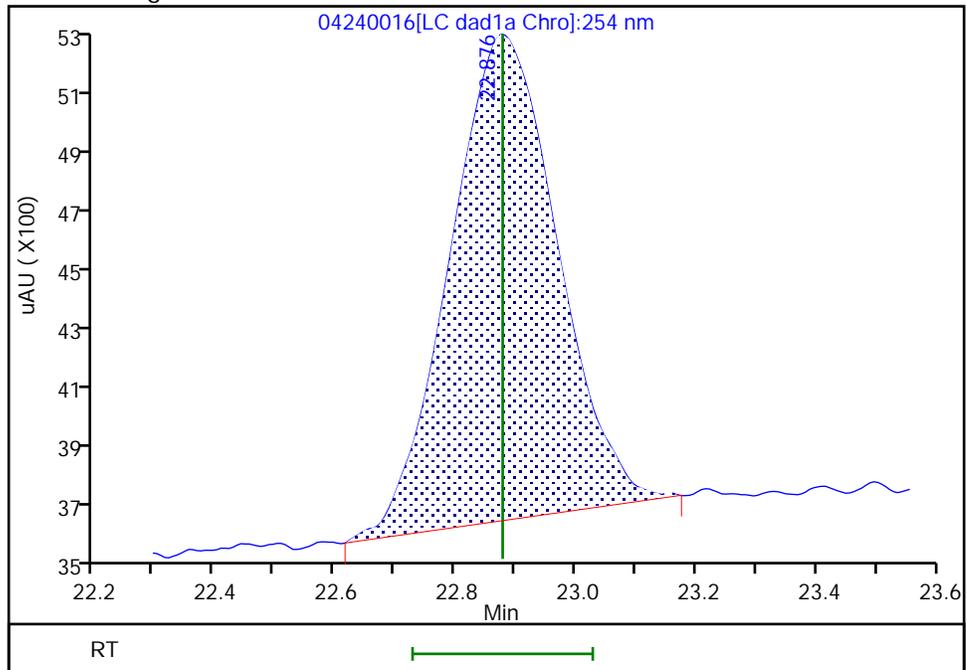
RT: 22.88  
Area: 23576  
Amount: 0.051829  
Amount Units: ug/ml

Processing Integration Results



RT: 22.88  
Area: 20131  
Amount: 0.050357  
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:25:31 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins Denver

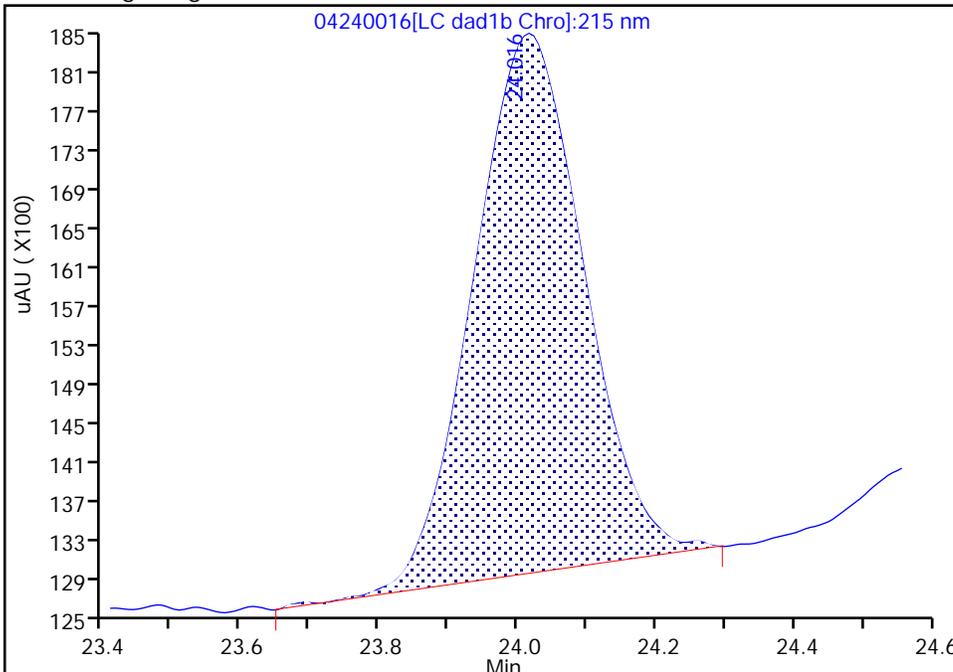
Data File: \\chromfs\denver\chromdata\g2\_luna\20240424-132624.b\04240016.d  
Injection Date: 25-Apr-2024 01:03:56 Instrument ID: CHHPLC\_G2\_LUNA  
Lims ID: IC INT 3  
Client ID:  
Operator ID: JZ/JG ALS Bottle#: 16 Worklist Smp#: 16  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: G2\_8330\_Luna Limit Group: GCSV - 8330  
Column: Luna-Phenyl hexyl ( 4.60 mm) Detector: LC DAD1B, 215 nm

24 PETN, CAS: 78-11-5

Signal: 1

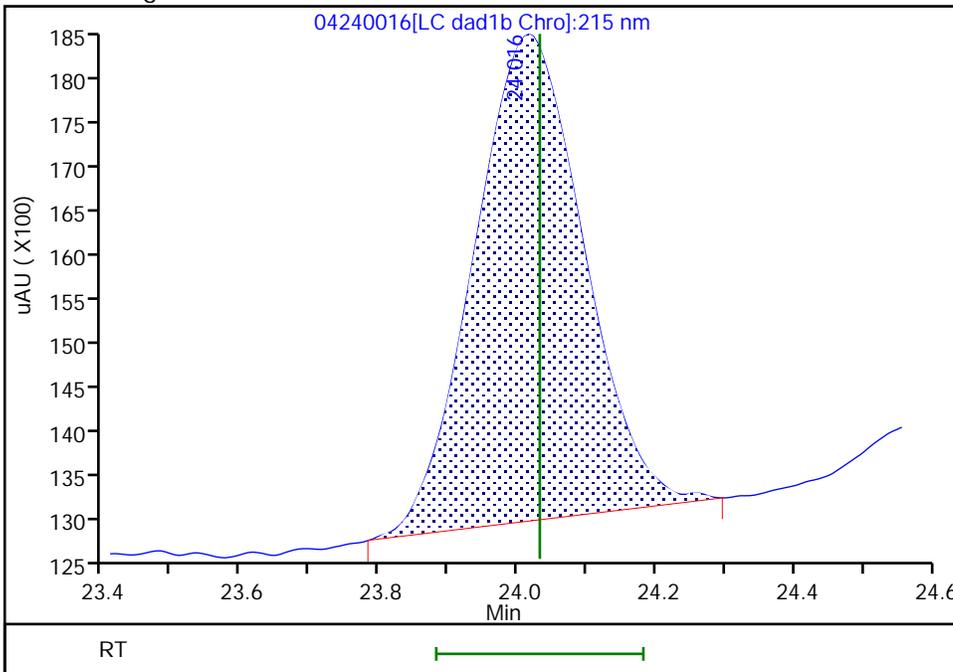
RT: 24.02  
Area: 61268  
Amount: 0.511464  
Amount Units: ug/ml

Processing Integration Results



RT: 24.02  
Area: 60616  
Amount: 0.505642  
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:39:12 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins Denver  
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2\_LUNA\20240424-132624.b\04240017.D  
 Lims ID: IC INT 2  
 Client ID:  
 Sample Type: IC Calib Level: 2  
 Inject. Date: 25-Apr-2024 01:39:50 ALS Bottle#: 17 Worklist Smp#: 17  
 Injection Vol: 100.0 ul Dil. Factor: 1.0000  
 Sample Info: IC INT 2  
 Operator ID: JZ/JG Instrument ID: CHHPLC\_G2\_LUNA  
 Sublist: chrom-G2\_8330\_Luna\*sub16  
 Method: \\chromfs\Denver\ChromData\G2\_LUNA\20240424-132624.b\G2\_8330\_Luna.m  
 Limit Group: GCSV - 8330  
 Last Update: 25-Apr-2024 14:30:17 Calib Date: 25-Apr-2024 07:39:21  
 Integrator: Falcon  
 Quant Method: External Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Denver\ChromData\G2\_LUNA\20240424-132624.b\04240027.D  
 Column 1 : Luna-Phenyl hexyl ( 4.60 mm) Det: LC DAD1A, 254 nm  
 Process Host: CTX1684

First Level Reviewer: LV5D Date: 25-Apr-2024 13:20:24

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
6 HMX	1	6.712	6.705	0.007	3578	0.0200	0.0206	M
5 2,4,6-Trinitrophenol	1	8.726	8.612	0.114	3302	0.0200	0.0218	M
8 RDX	1	8.952	8.938	0.014	4791	0.0200	0.0207	M
9 Nitrobenzene	1	11.459	11.425	0.034	8101	0.0200	0.0212	M
\$ 10 1,2-Dinitrobenzene	1	12.392	12.345	0.047	5474	0.0200	0.0212	M
11 3,5-Dinitroaniline	1	14.232	14.185	0.047	9463	0.0200	0.0198	M
12 1,3-Dinitrobenzene	1	14.519	14.478	0.041	12318	0.0200	0.0209	M
13 Nitroglycerin	2	14.979	14.918	0.061	23877	0.2000	0.1998	M
14 o-Nitrotoluene	1	15.559	15.505	0.054	5024	0.0200	0.0205	M
15 p-Nitrotoluene	1	15.772	15.738	0.034	5278	0.0200	0.0200	M
16 4-Amino-2,6-dinitrotoluene	1	16.286	16.245	0.041	6474	0.0200	0.0213	M
17 m-Nitrotoluene	1	16.619	16.578	0.041	6685	0.0200	0.0207	M
18 2-Amino-4,6-dinitrotoluene	1	17.099	17.058	0.041	8733	0.0200	0.0215	M
19 1,3,5-Trinitrobenzene	1	17.306	17.272	0.034	9167	0.0200	0.0216	M
20 2,6-Dinitrotoluene	1	18.386	18.365	0.021	6113	0.0200	0.0220	M
21 2,4-Dinitrotoluene	1	18.846	18.818	0.028	12005	0.0200	0.0216	M
22 Tetryl	1	22.072	22.025	0.047	6268	0.0200	0.0187	M
23 2,4,6-Trinitrotoluene	1	22.926	22.878	0.048	7969	0.0200	0.0199	M
24 PETN	2	24.046	24.032	0.014	22594	0.2000	0.1979	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

8330IntermStk\_00080

Amount Added: 2.00

Units: uL

Eurofins Denver

Data File: \\chromfs\denver\chromdata\g2\_luna\20240424-132624.b\04240017.d

Injection Date: 25-Apr-2024 01:39:50

Instrument ID: CHHPLC\_G2\_LUNA

Operator ID: JZ/JG

Lims ID: IC INT 2

Worklist Smp#: 17

Client ID:

Injection Vol: 100.0 ul

Dil. Factor: 1.0000

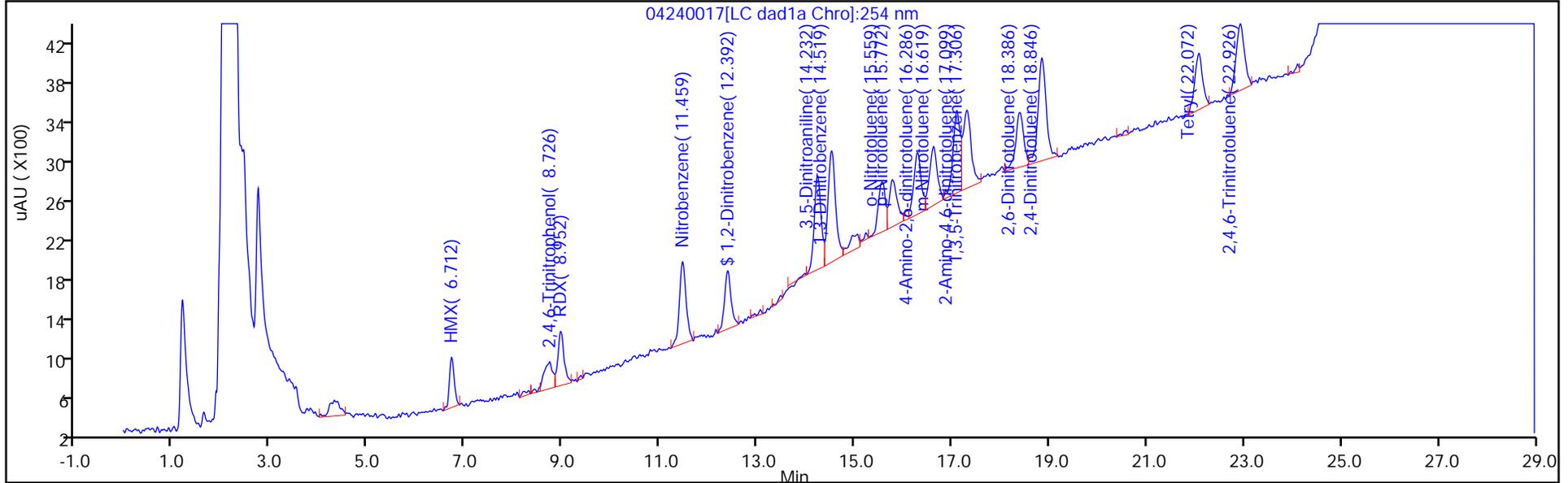
ALS Bottle#: 17

Method: G2\_8330\_Luna

Limit Group: GCSV - 8330

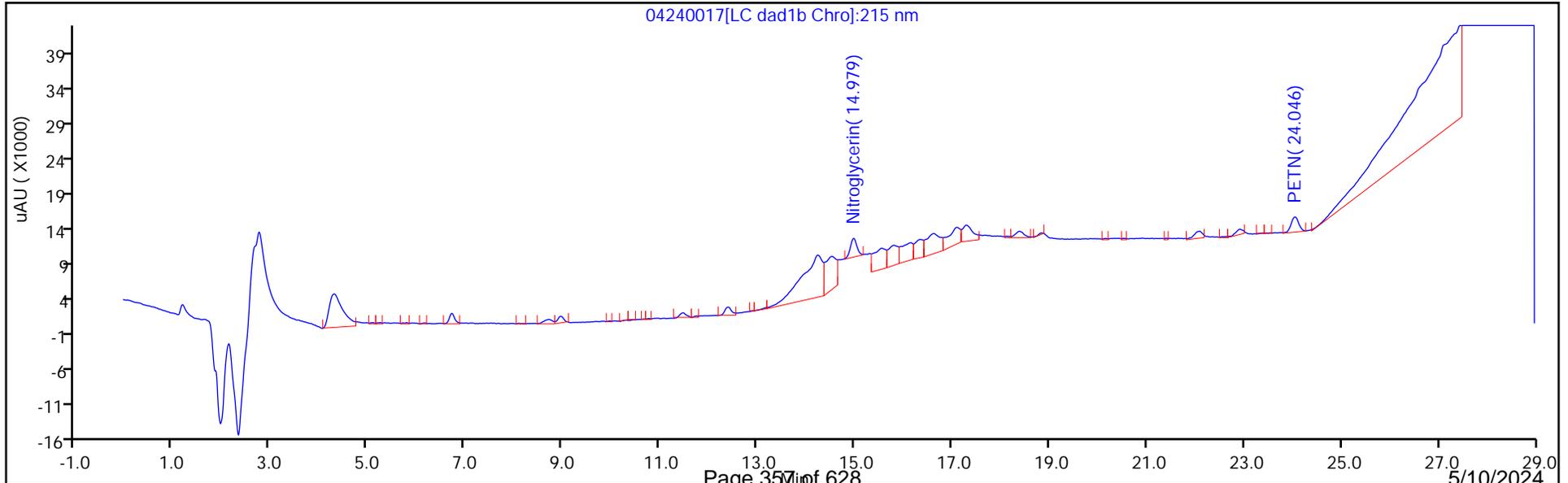
Column: Luna-Phenyl hexyl ( 4.60 mm)

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



Column: Luna-Phenyl hexyl ( 4.60 mm)

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



Eurofins Denver

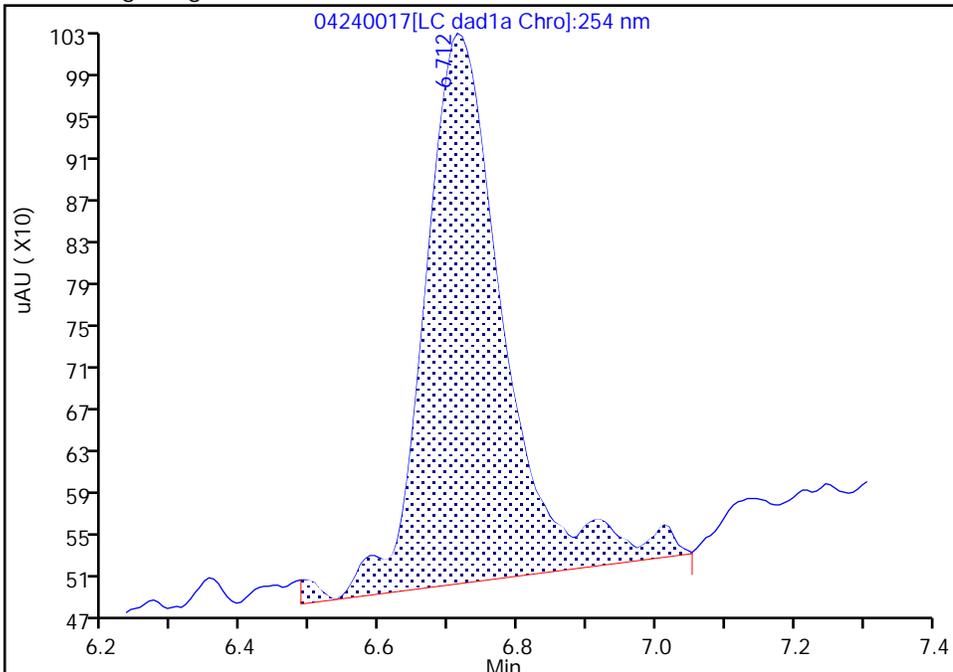
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Injection Date: 25-Apr-2024 01:39:50 Instrument ID: CHHPLC\_G2\_LUNA  
Lims ID: IC INT 2  
Client ID:  
Operator ID: JZ/JG ALS Bottle#: 17 Worklist Smp#: 17  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: G2\_8330\_Luna Limit Group: GCSV - 8330  
Column: Luna-Phenyl hexyl ( 4.60 mm) Detector: LC DAD1A, 254 nm

6 HMX, CAS: 2691-41-0

Signal: 1

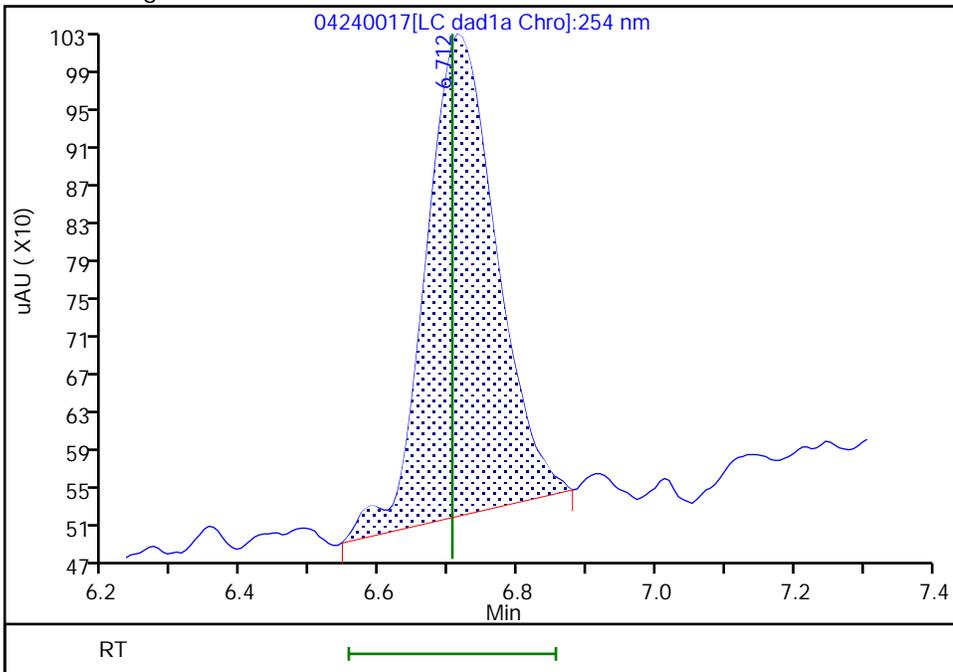
RT: 6.71  
Area: 4168  
Amount: 0.022927  
Amount Units: ug/ml

Processing Integration Results



RT: 6.71  
Area: 3578  
Amount: 0.020554  
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:31:57 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins Denver

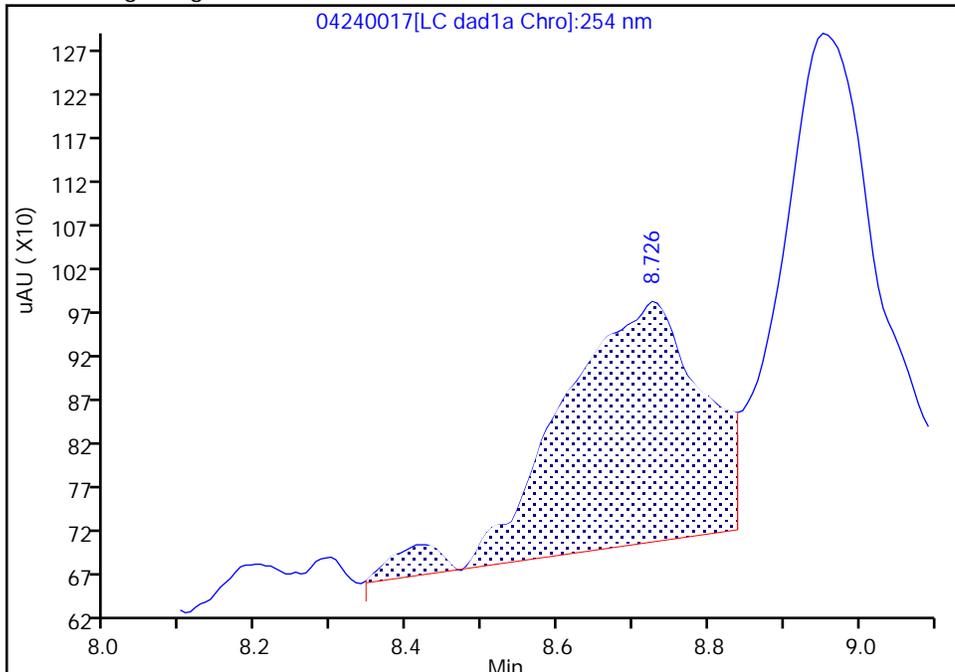
Data File: \\chromfs\denver\chromdata\g2\_luna\20240424-132624.b\04240017.d  
Injection Date: 25-Apr-2024 01:39:50 Instrument ID: CHHPLC\_G2\_LUNA  
Lims ID: IC INT 2  
Client ID:  
Operator ID: JZ/JG ALS Bottle#: 17 Worklist Smp#: 17  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: G2\_8330\_Luna Limit Group: GCSV - 8330  
Column: Luna-Phenyl hexyl ( 4.60 mm) Detector: LC DAD1A, 254 nm

5 2,4,6-Trinitrophenol, CAS: 88-89-1

Signal: 1

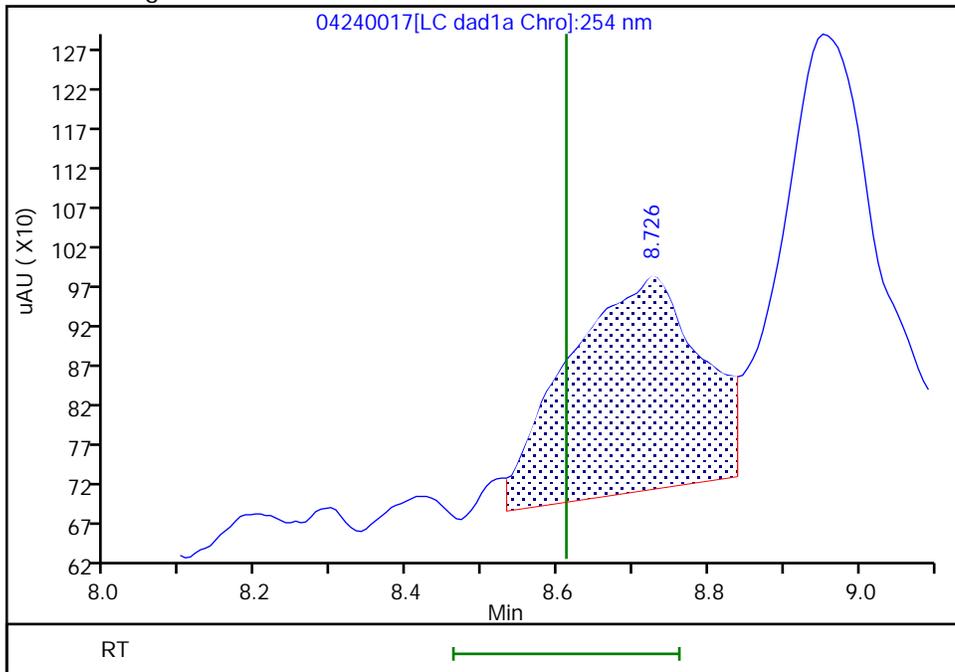
RT: 8.73  
Area: 3653  
Amount: 0.023822  
Amount Units: ug/ml

Processing Integration Results



RT: 8.73  
Area: 3302  
Amount: 0.021810  
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:32:48 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Baseline

Eurofins Denver

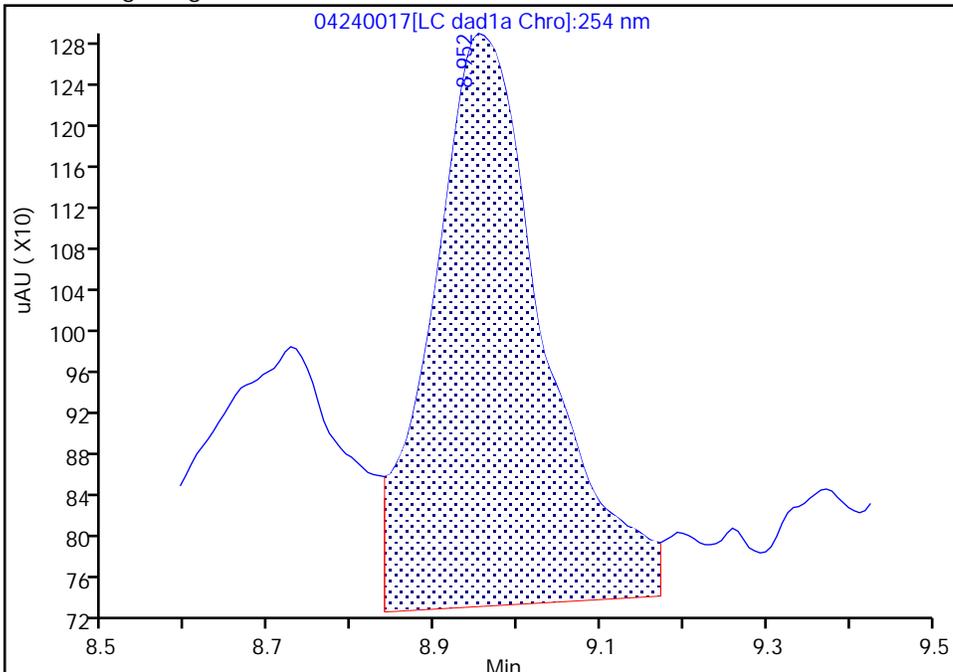
Data File: \\chromfs\denver\chromdata\g2\_luna\20240424-132624.b\04240017.d  
 Injection Date: 25-Apr-2024 01:39:50 Instrument ID: CHHPLC\_G2\_LUNA  
 Lims ID: IC INT 2  
 Client ID:  
 Operator ID: JZ/JG ALS Bottle#: 17 Worklist Smp#: 17  
 Injection Vol: 100.0 ul Dil. Factor: 1.0000  
 Method: G2\_8330\_Luna Limit Group: GCSV - 8330  
 Column: Luna-Phenyl hexyl ( 4.60 mm) Detector: LC DAD1A, 254 nm

8 RDX, CAS: 121-82-4

Signal: 1

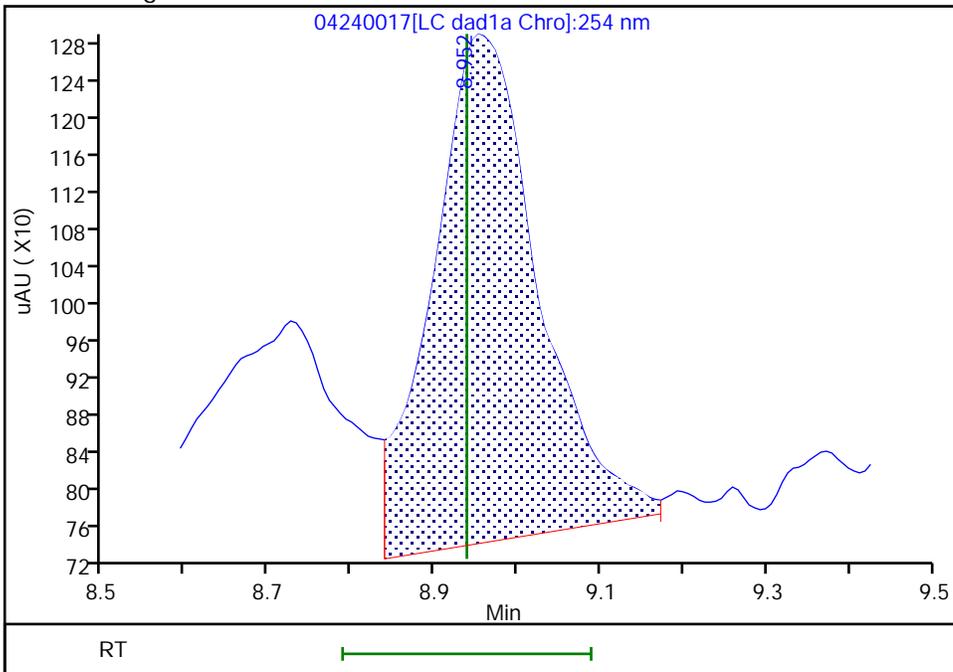
RT: 8.95  
 Area: 5221  
 Amount: 0.023799  
 Amount Units: ug/ml

Processing Integration Results



RT: 8.95  
 Area: 4791  
 Amount: 0.020676  
 Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:32:43 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

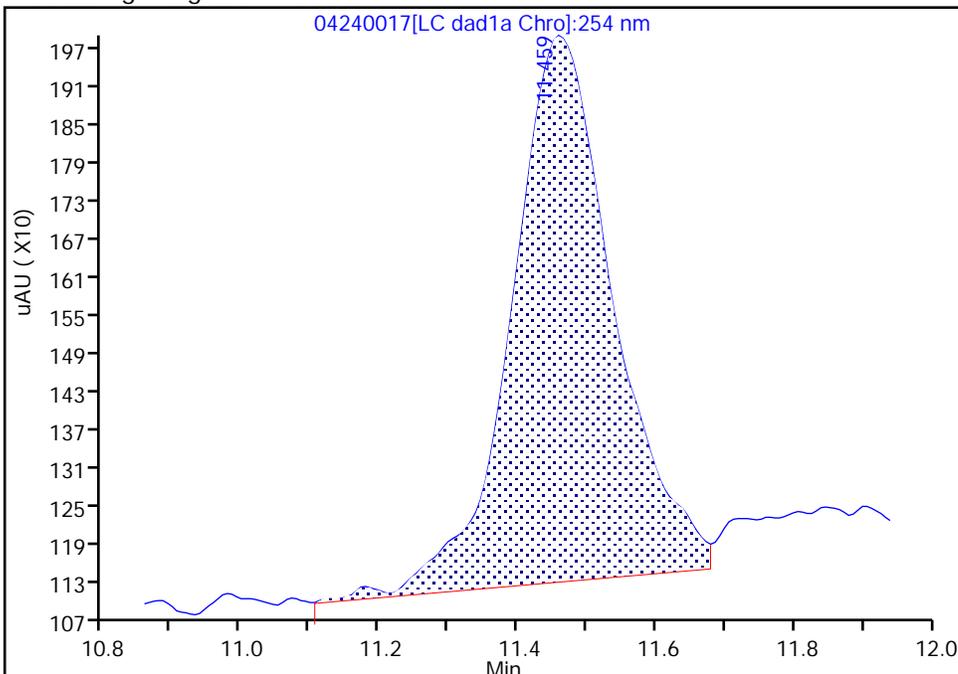
Data File: \\chromfs\denver\chromdata\g2\_luna\20240424-132624.b\04240017.d  
Injection Date: 25-Apr-2024 01:39:50 Instrument ID: CHHPLC\_G2\_LUNA  
Lims ID: IC INT 2  
Client ID:  
Operator ID: JZ/JG ALS Bottle#: 17 Worklist Smp#: 17  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: G2\_8330\_Luna Limit Group: GCSV - 8330  
Column: Luna-Phenyl hexyl ( 4.60 mm) Detector: LC DAD1A, 254 nm

9 Nitrobenzene, CAS: 98-95-3

Signal: 1

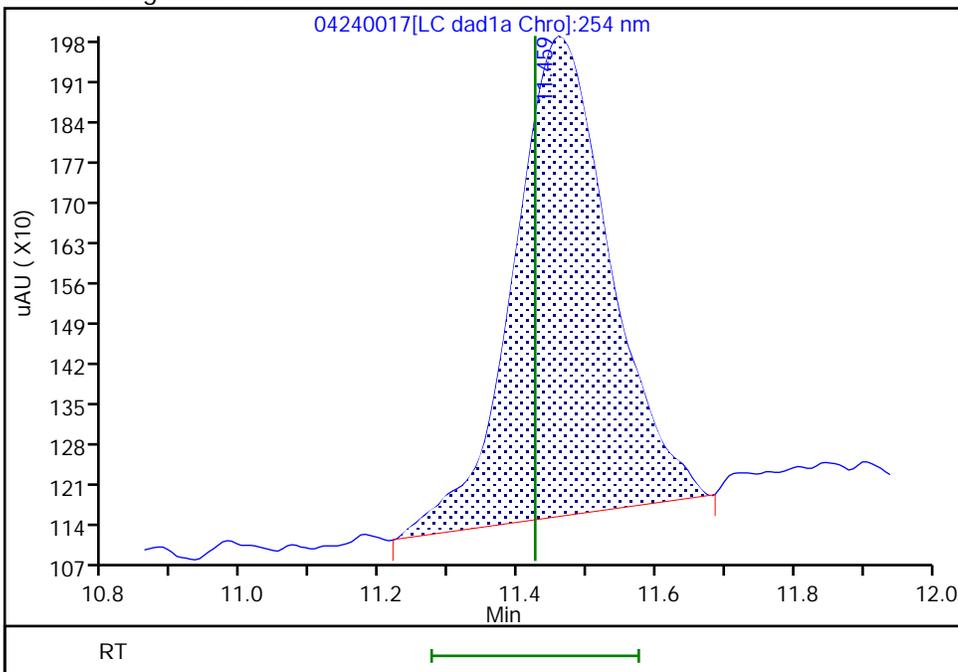
RT: 11.46  
Area: 8748  
Amount: 0.022033  
Amount Units: ug/ml

Processing Integration Results



RT: 11.46  
Area: 8101  
Amount: 0.021200  
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:26:13 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins Denver

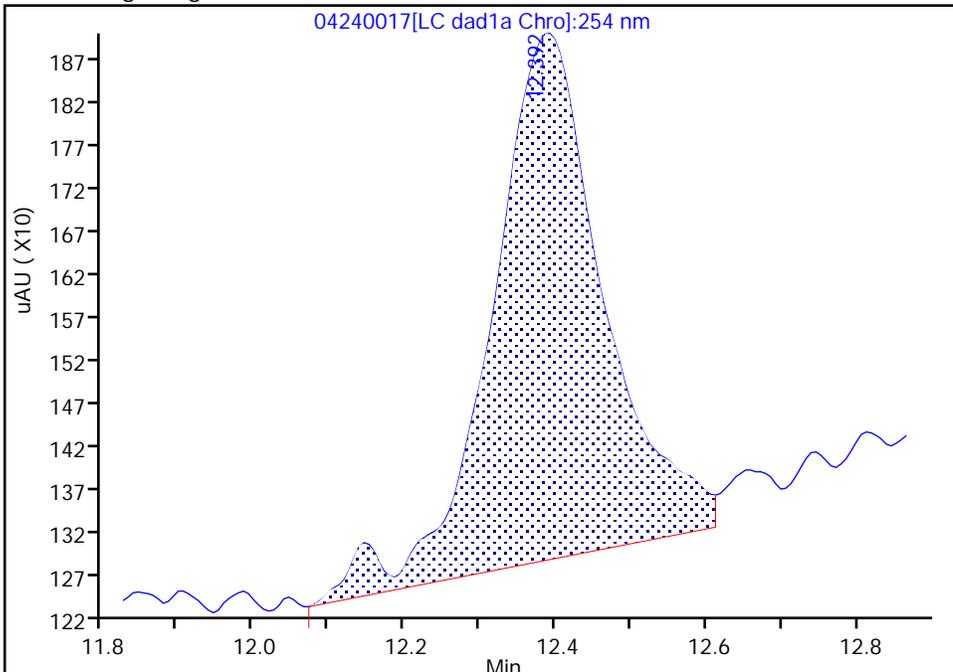
Data File: \\chromfs\denver\chromdata\g2\_luna\20240424-132624.b\04240017.d  
Injection Date: 25-Apr-2024 01:39:50 Instrument ID: CHHPLC\_G2\_LUNA  
Lims ID: IC INT 2  
Client ID:  
Operator ID: JZ/JG ALS Bottle#: 17 Worklist Smp#: 17  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: G2\_8330\_Luna Limit Group: GCSV - 8330  
Column: Luna-Phenyl hexyl ( 4.60 mm) Detector: LC DAD1A, 254 nm

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

Signal: 1

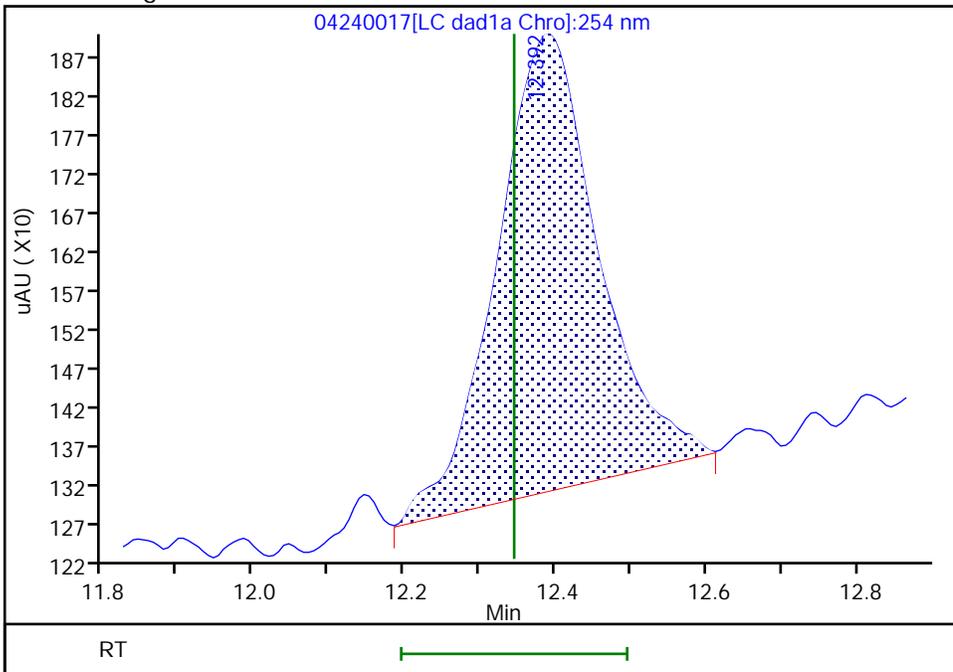
RT: 12.39  
Area: 6341  
Amount: 0.022761  
Amount Units: ug/ml

Processing Integration Results



RT: 12.39  
Area: 5474  
Amount: 0.021161  
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:26:19 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins Denver

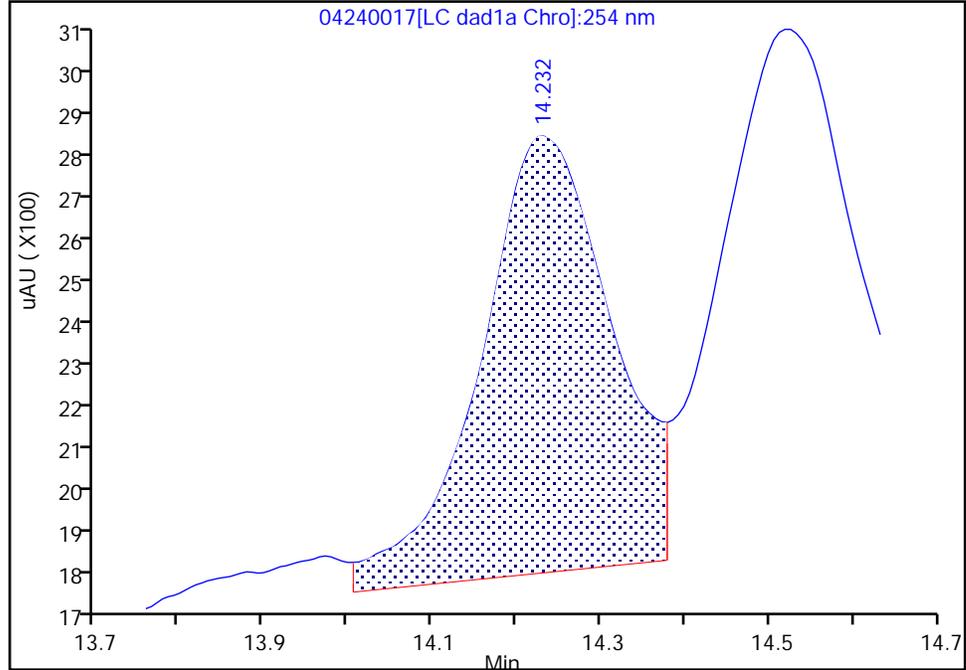
Data File: \\chromfs\denver\chromdata\g2\_luna\20240424-132624.b\04240017.d  
Injection Date: 25-Apr-2024 01:39:50 Instrument ID: CHHPLC\_G2\_LUNA  
Lims ID: IC INT 2  
Client ID:  
Operator ID: JZ/JG ALS Bottle#: 17 Worklist Smp#: 17  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: G2\_8330\_Luna Limit Group: GCSV - 8330  
Column: Luna-Phenyl hexyl ( 4.60 mm) Detector: LC DAD1A, 254 nm

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

Signal: 1

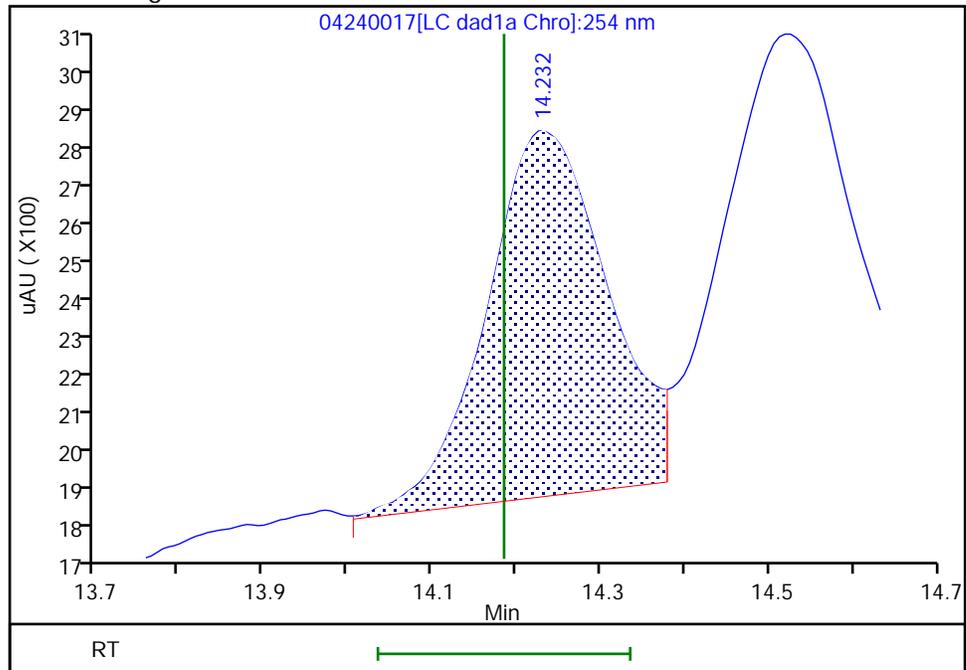
RT: 14.23  
Area: 11110  
Amount: 0.020331  
Amount Units: ug/ml

Processing Integration Results



RT: 14.23  
Area: 9463  
Amount: 0.019837  
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:26:29 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

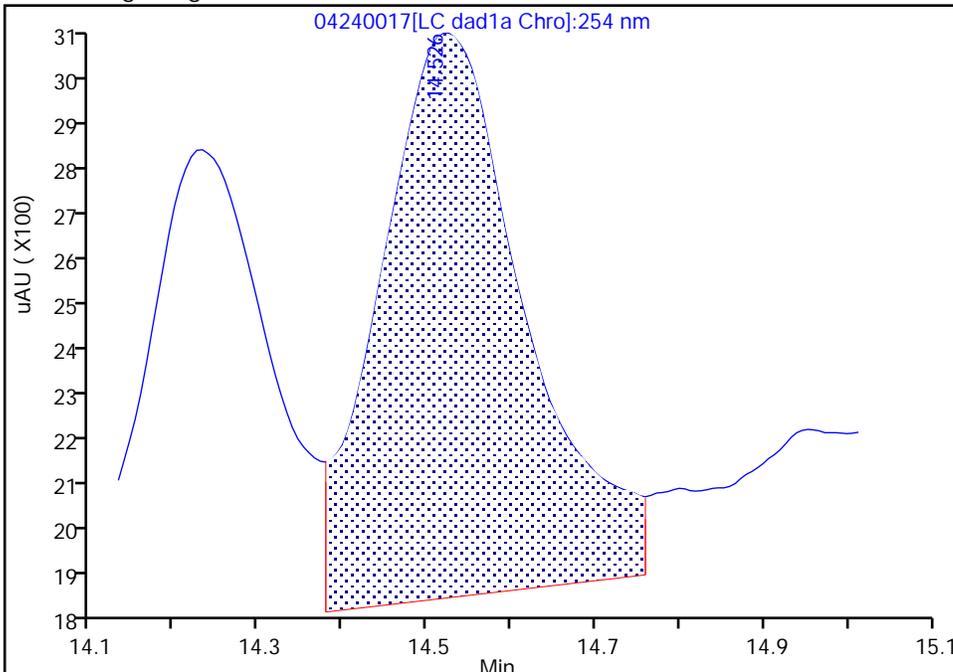
Data File: \\chromfs\denver\chromdata\g2\_luna\20240424-132624.b\04240017.d  
Injection Date: 25-Apr-2024 01:39:50 Instrument ID: CHHPLC\_G2\_LUNA  
Lims ID: IC INT 2  
Client ID:  
Operator ID: JZ/JG ALS Bottle#: 17 Worklist Smp#: 17  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: G2\_8330\_Luna Limit Group: GCSV - 8330  
Column: Luna-Phenyl hexyl ( 4.60 mm) Detector: LC DAD1A, 254 nm

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

Signal: 1

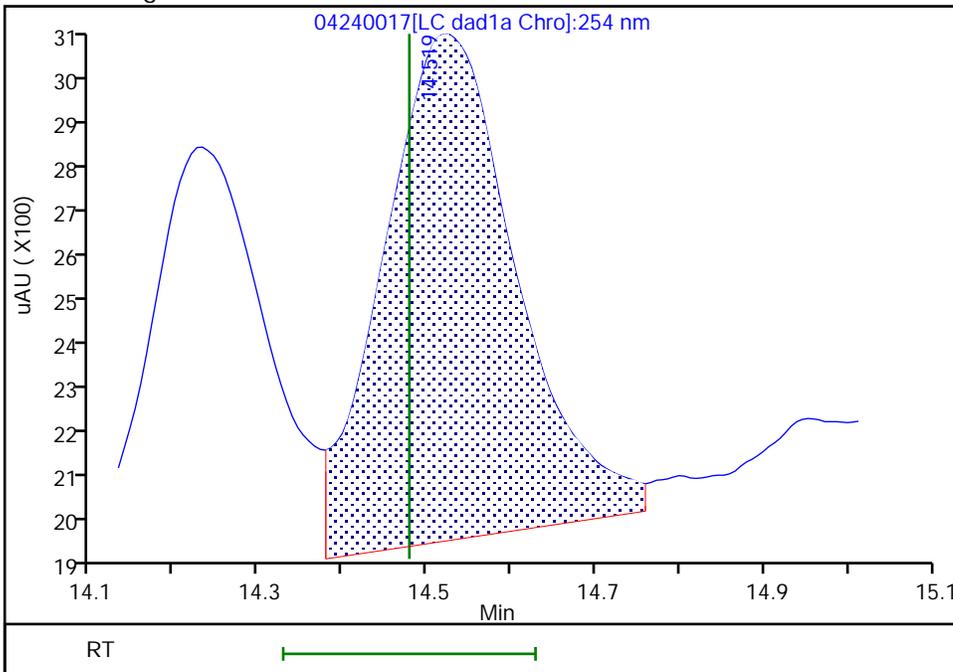
RT: 14.53  
Area: 14484  
Amount: 0.023237  
Amount Units: ug/ml

Processing Integration Results



RT: 14.52  
Area: 12318  
Amount: 0.020899  
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:26:29 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

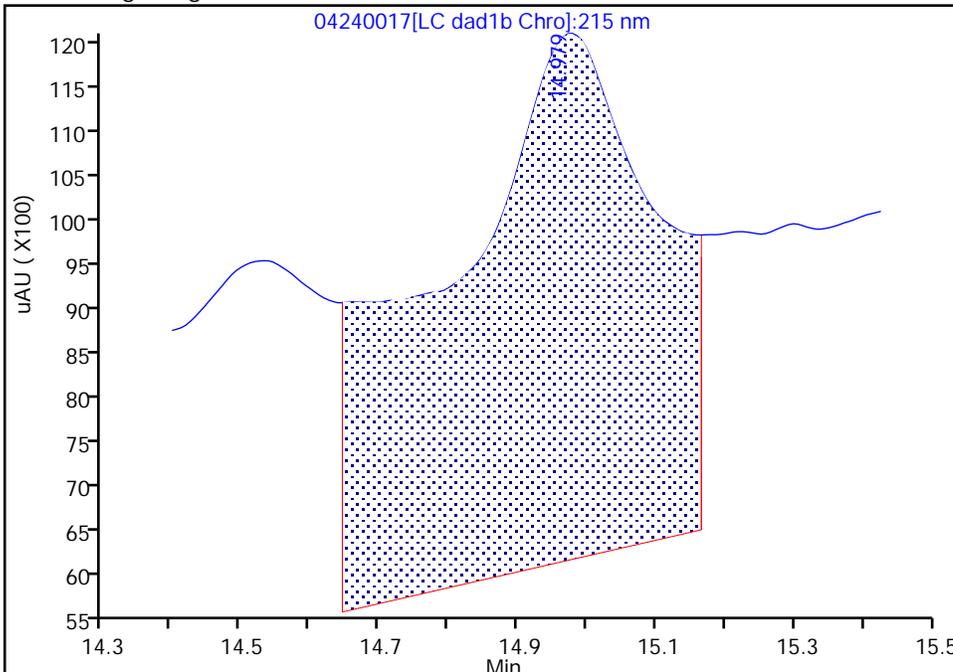
Data File: \\chromfs\denver\chromdata\g2\_luna\20240424-132624.b\04240017.d  
Injection Date: 25-Apr-2024 01:39:50 Instrument ID: CHHPLC\_G2\_LUNA  
Lims ID: IC INT 2  
Client ID:  
Operator ID: JZ/JG ALS Bottle#: 17 Worklist Smp#: 17  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: G2\_8330\_Luna Limit Group: GCSV - 8330  
Column: Luna-Phenyl hexyl ( 4.60 mm) Detector: LC DAD1B, 215 nm

13 Nitroglycerin, CAS: 55-63-0

Signal: 1

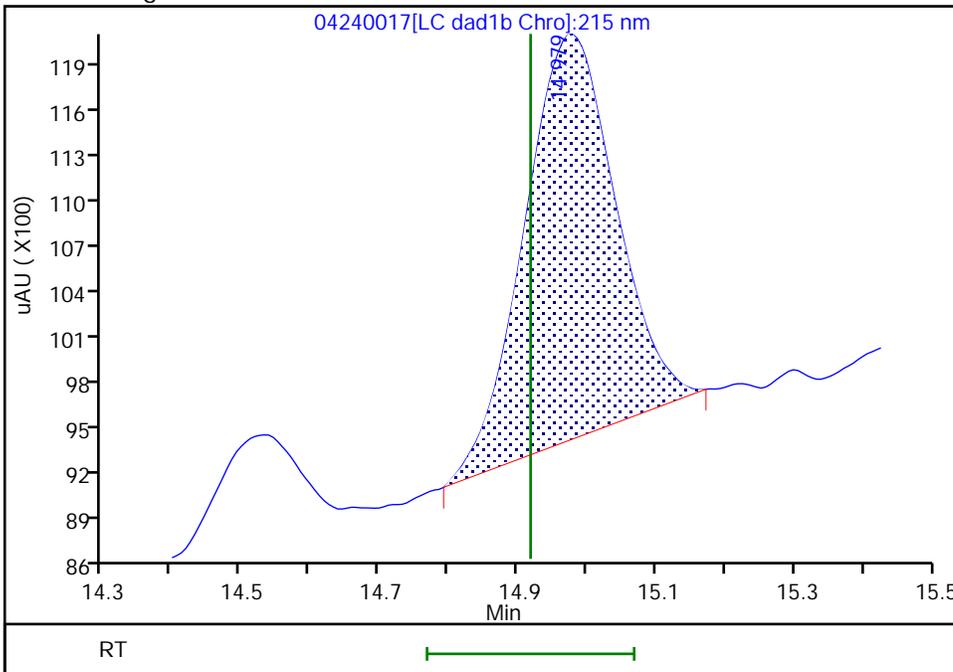
RT: 14.98  
Area: 128754  
Amount: 0.566536  
Amount Units: ug/ml

Processing Integration Results



RT: 14.98  
Area: 23877  
Amount: 0.199800  
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:20:23 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins Denver

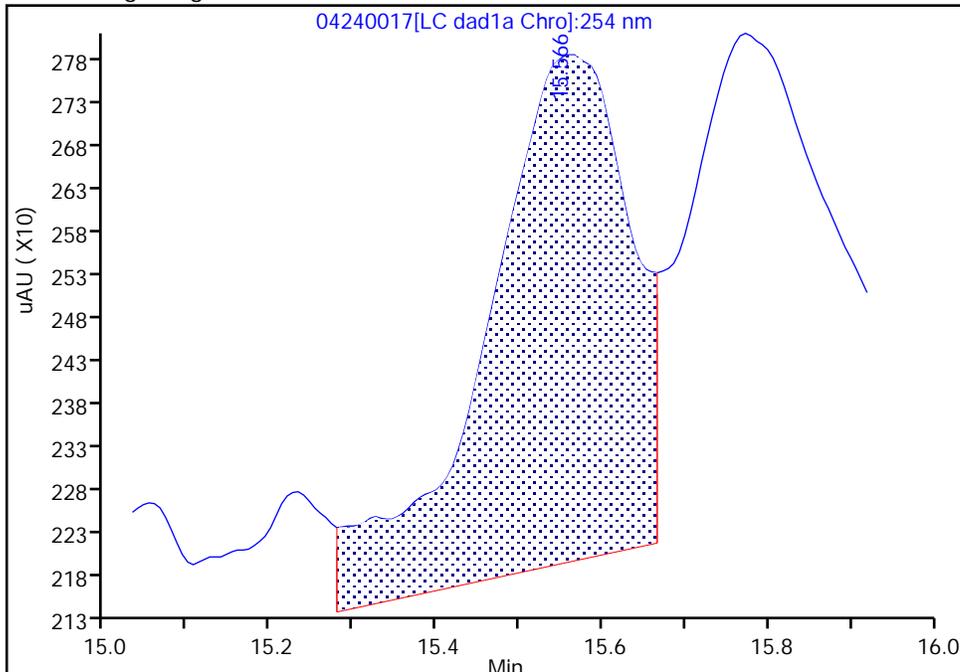
Data File: \\chromfs\denver\chromdata\g2\_luna\20240424-132624.b\04240017.d  
Injection Date: 25-Apr-2024 01:39:50 Instrument ID: CHHPLC\_G2\_LUNA  
Lims ID: IC INT 2  
Client ID:  
Operator ID: JZ/JG ALS Bottle#: 17 Worklist Smp#: 17  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: G2\_8330\_Luna Limit Group: GCSV - 8330  
Column: Luna-Phenyl hexyl ( 4.60 mm) Detector: LC DAD1A, 254 nm

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

Signal: 1

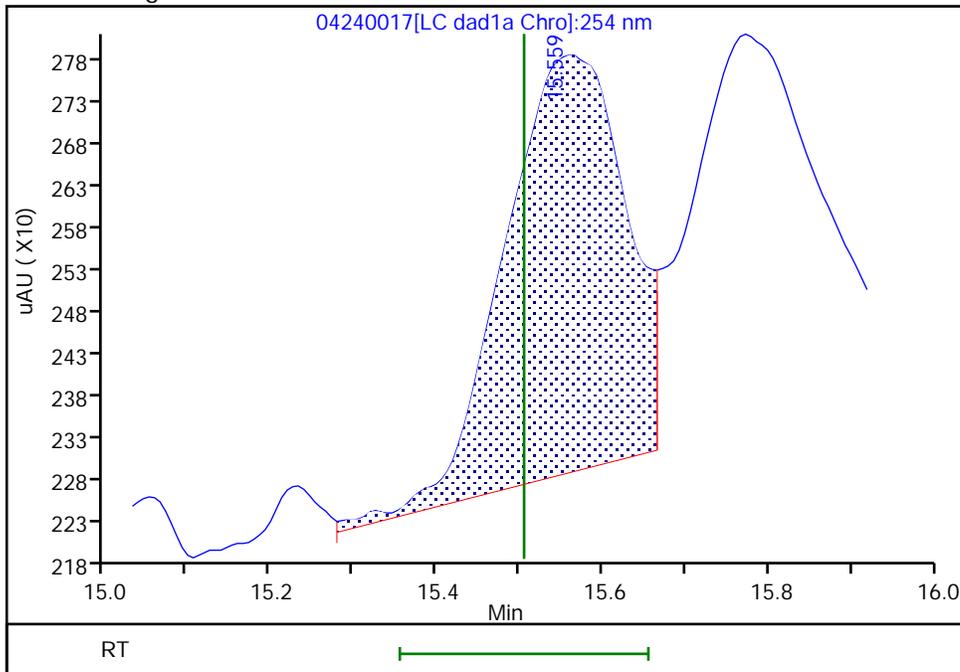
RT: 15.57  
Area: 7194  
Amount: 0.026616  
Amount Units: ug/ml

Processing Integration Results



RT: 15.56  
Area: 5024  
Amount: 0.020540  
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:35:41 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

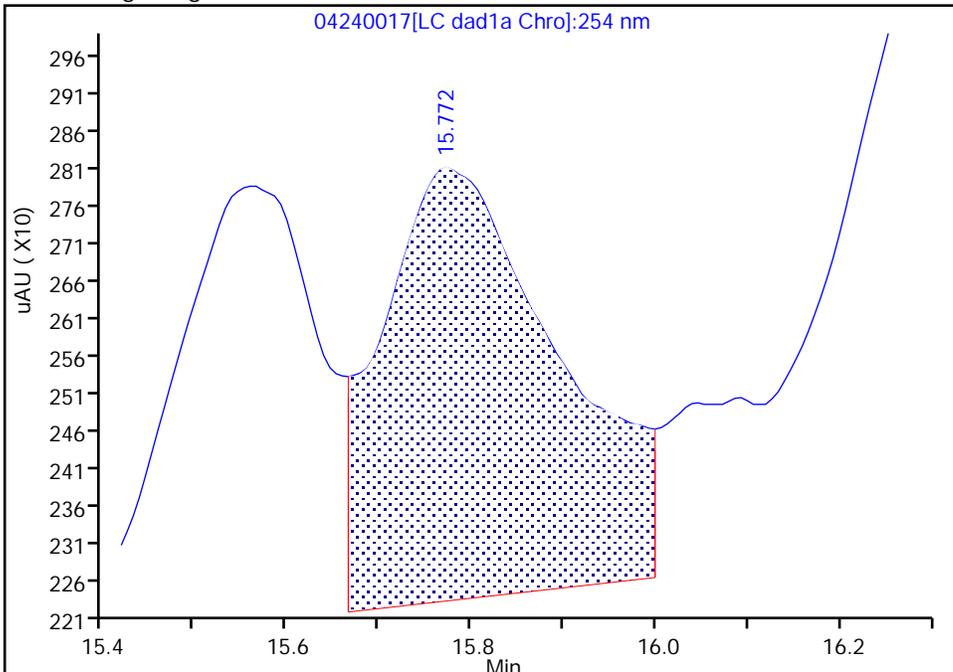
Data File: \\chromfs\denver\chromdata\g2\_luna\20240424-132624.b\04240017.d  
 Injection Date: 25-Apr-2024 01:39:50 Instrument ID: CHHPLC\_G2\_LUNA  
 Lims ID: IC INT 2  
 Client ID:  
 Operator ID: JZ/JG ALS Bottle#: 17 Worklist Smp#: 17  
 Injection Vol: 100.0 ul Dil. Factor: 1.0000  
 Method: G2\_8330\_Luna Limit Group: GCSV - 8330  
 Column: Luna-Phenyl hexyl ( 4.60 mm) Detector: LC DAD1A, 254 nm

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

Signal: 1

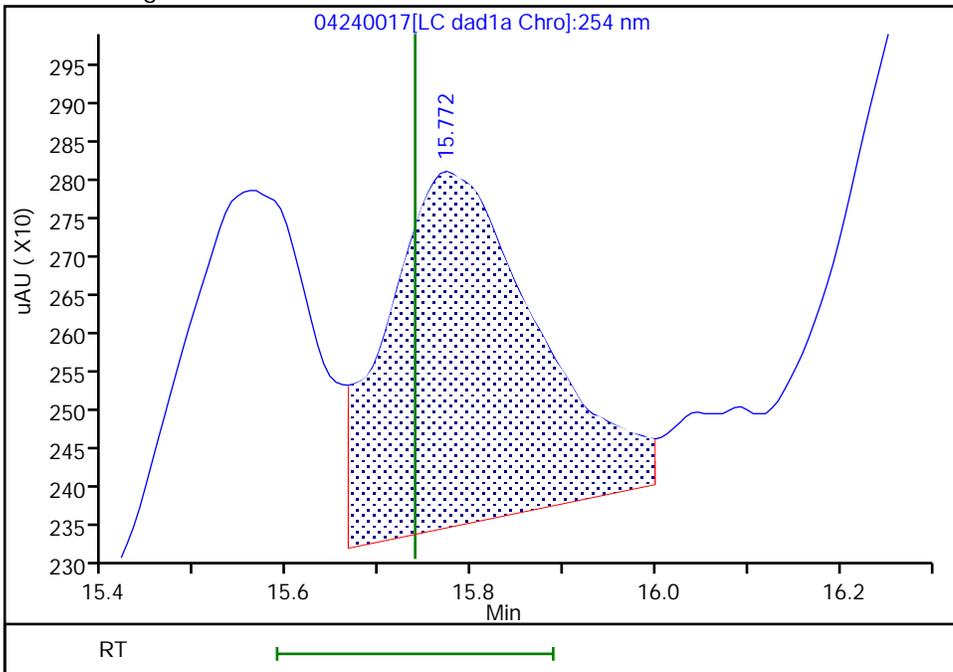
RT: 15.77  
 Area: 7658  
 Amount: 0.027712  
 Amount Units: ug/ml

Processing Integration Results



RT: 15.77  
 Area: 5278  
 Amount: 0.020027  
 Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:35:41 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

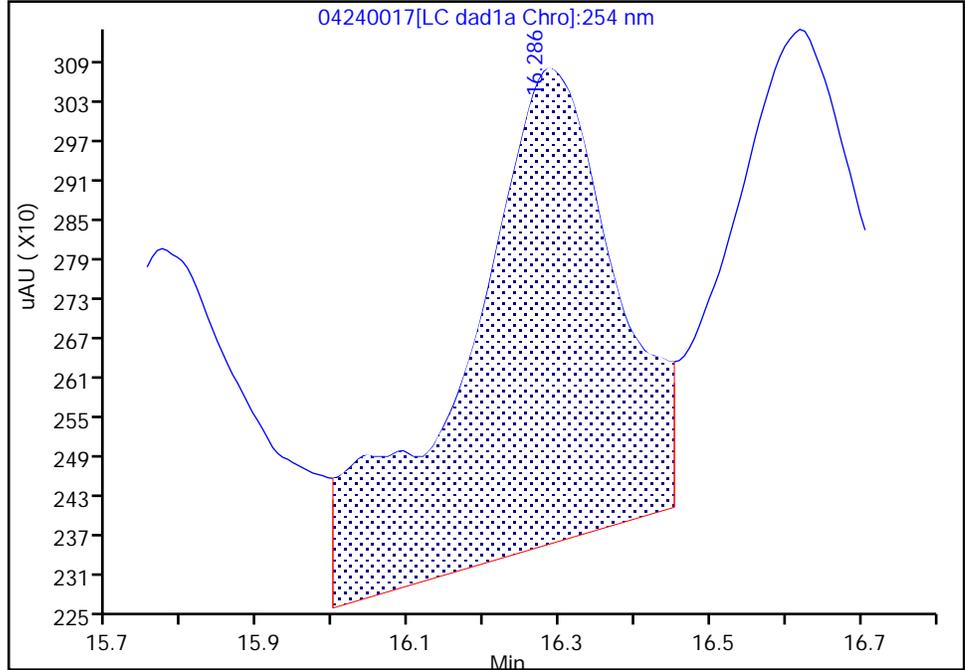
Data File: \\chromfs\denver\chromdata\g2\_luna\20240424-132624.b\04240017.d  
Injection Date: 25-Apr-2024 01:39:50 Instrument ID: CHHPLC\_G2\_LUNA  
Lims ID: IC INT 2  
Client ID:  
Operator ID: JZ/JG ALS Bottle#: 17 Worklist Smp#: 17  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: G2\_8330\_Luna Limit Group: GCSV - 8330  
Column: Luna-Phenyl hexyl ( 4.60 mm) Detector: LC DAD1A, 254 nm

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

Signal: 1

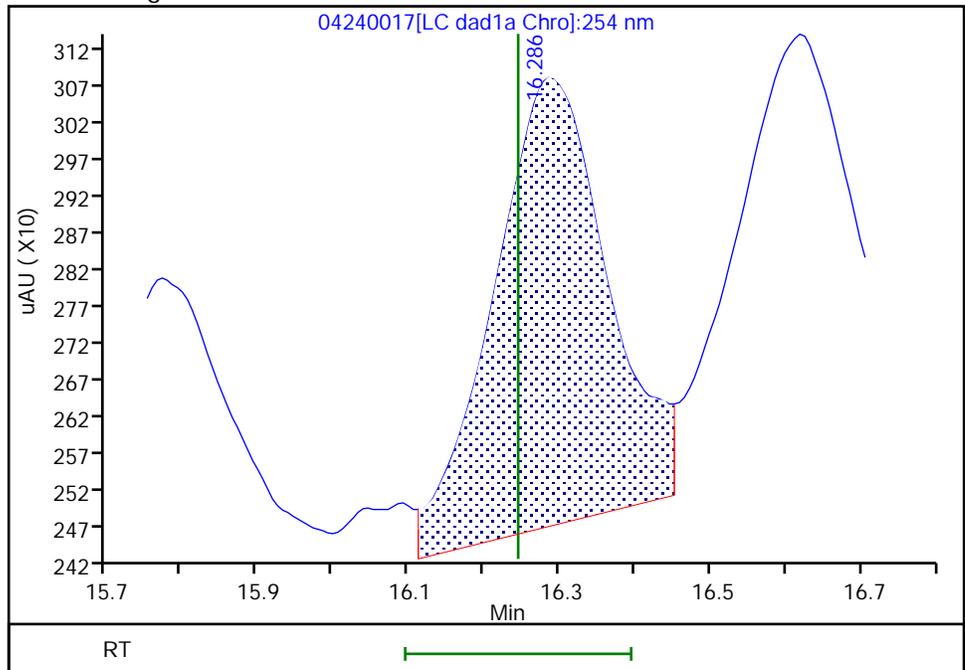
RT: 16.29  
Area: 10165  
Amount: 0.027414  
Amount Units: ug/ml

Processing Integration Results



RT: 16.29  
Area: 6474  
Amount: 0.021266  
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:35:41 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

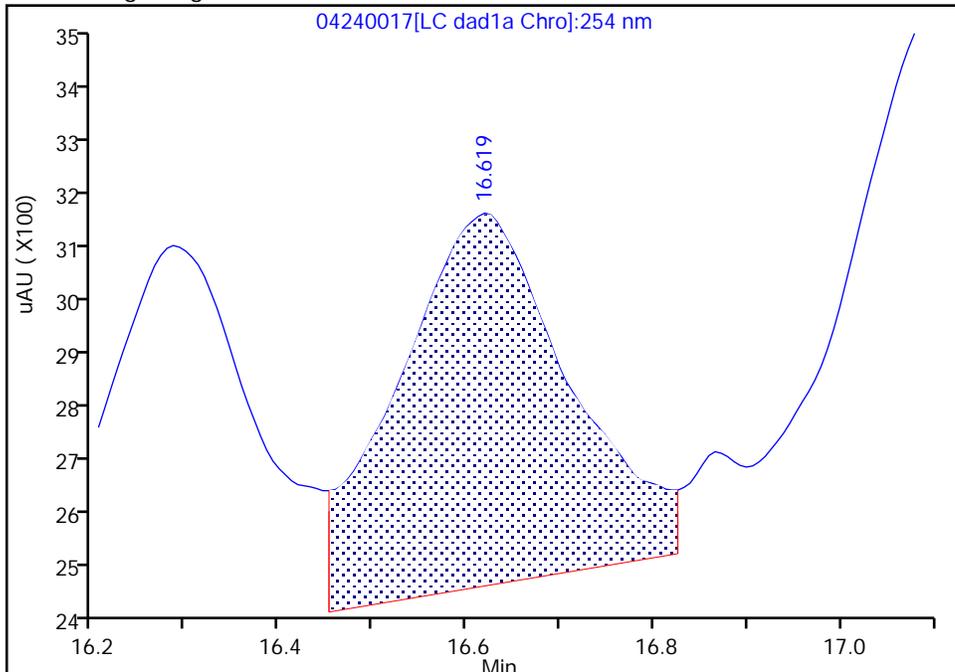
Data File: \\chromfs\denver\chromdata\g2\_luna\20240424-132624.b\04240017.d  
Injection Date: 25-Apr-2024 01:39:50 Instrument ID: CHHPLC\_G2\_LUNA  
Lims ID: IC INT 2  
Client ID:  
Operator ID: JZ/JG ALS Bottle#: 17 Worklist Smp#: 17  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: G2\_8330\_Luna Limit Group: GCSV - 8330  
Column: Luna-Phenyl hexyl ( 4.60 mm) Detector: LC DAD1A, 254 nm

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

Signal: 1

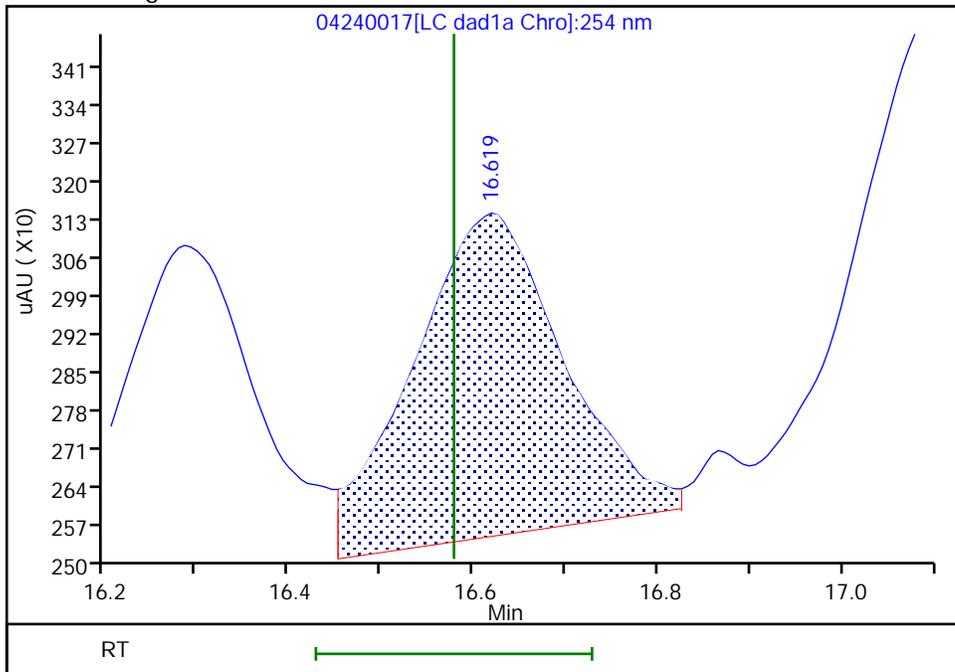
RT: 16.62  
Area: 8679  
Amount: 0.023268  
Amount Units: ug/ml

Processing Integration Results



RT: 16.62  
Area: 6685  
Amount: 0.020741  
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:35:41 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

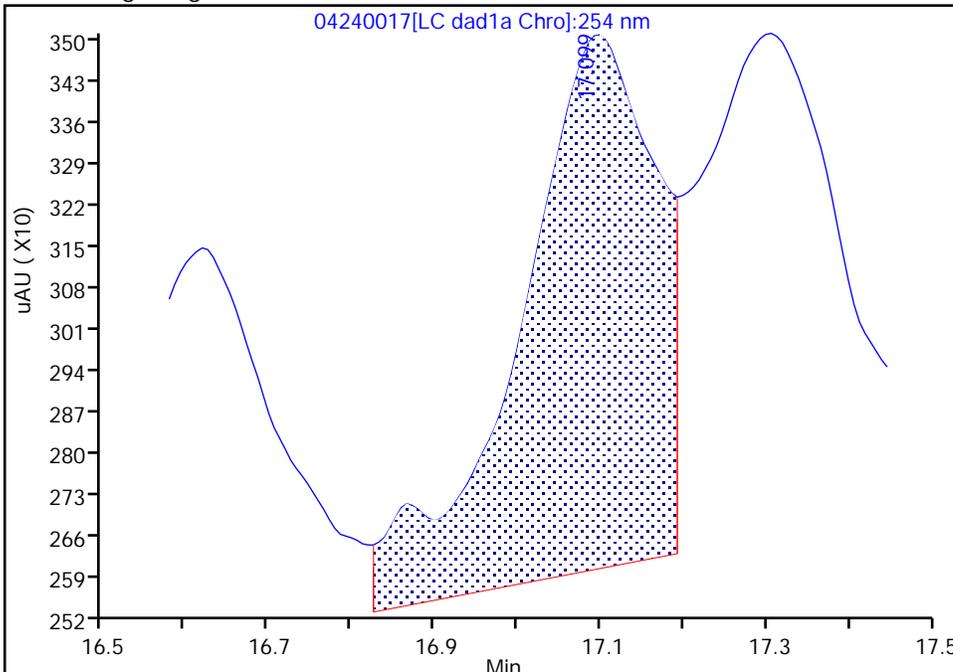
Data File: \\chromfs\denver\chromdata\g2\_luna\20240424-132624.b\04240017.d  
Injection Date: 25-Apr-2024 01:39:50 Instrument ID: CHHPLC\_G2\_LUNA  
Lims ID: IC INT 2  
Client ID:  
Operator ID: JZ/JG ALS Bottle#: 17 Worklist Smp#: 17  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: G2\_8330\_Luna Limit Group: GCSV - 8330  
Column: Luna-Phenyl hexyl ( 4.60 mm) Detector: LC DAD1A, 254 nm

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

Signal: 1

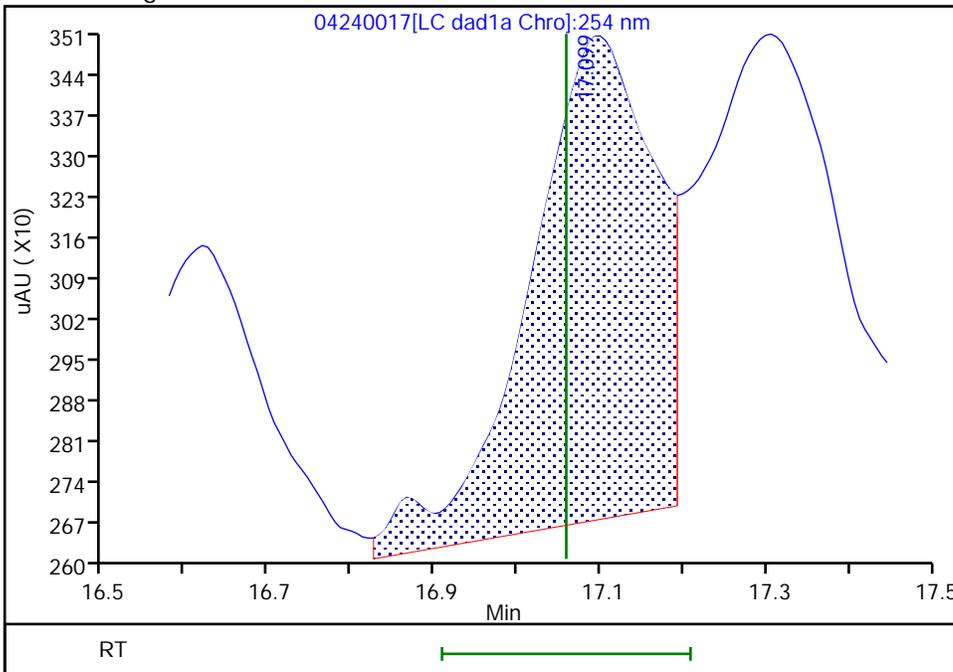
RT: 17.10  
Area: 10405  
Amount: 0.019938  
Amount Units: ug/ml

Processing Integration Results



RT: 17.10  
Area: 8733  
Amount: 0.021533  
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:35:41 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

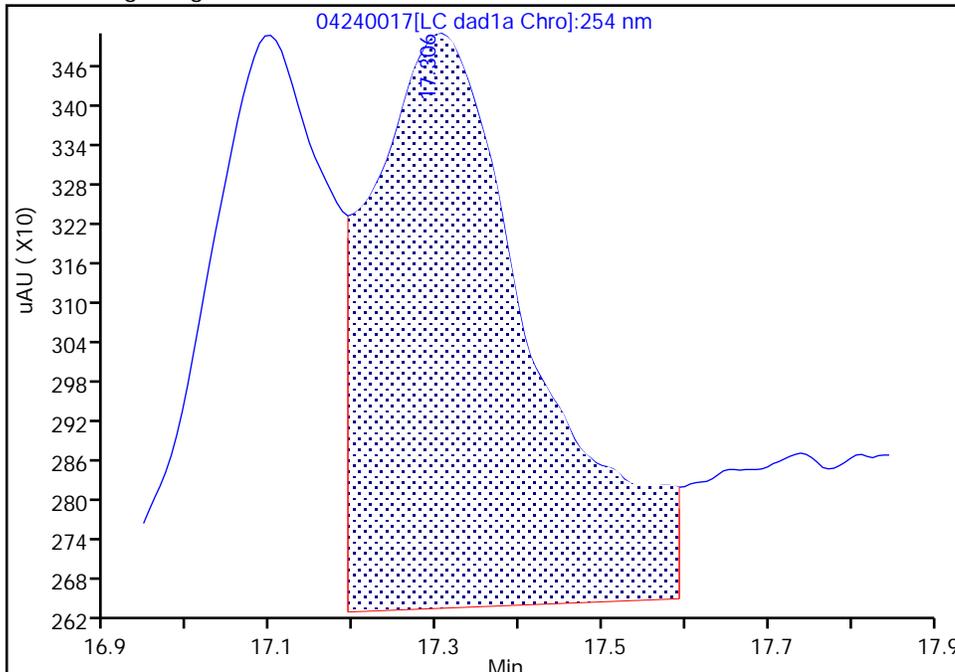
Data File: \\chromfs\denver\chromdata\g2\_luna\20240424-132624.b\04240017.d  
Injection Date: 25-Apr-2024 01:39:50 Instrument ID: CHHPLC\_G2\_LUNA  
Lims ID: IC INT 2  
Client ID:  
Operator ID: JZ/JG ALS Bottle#: 17 Worklist Smp#: 17  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: G2\_8330\_Luna Limit Group: GCSV - 8330  
Column: Luna-Phenyl hexyl ( 4.60 mm) Detector: LC DAD1A, 254 nm

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

Signal: 1

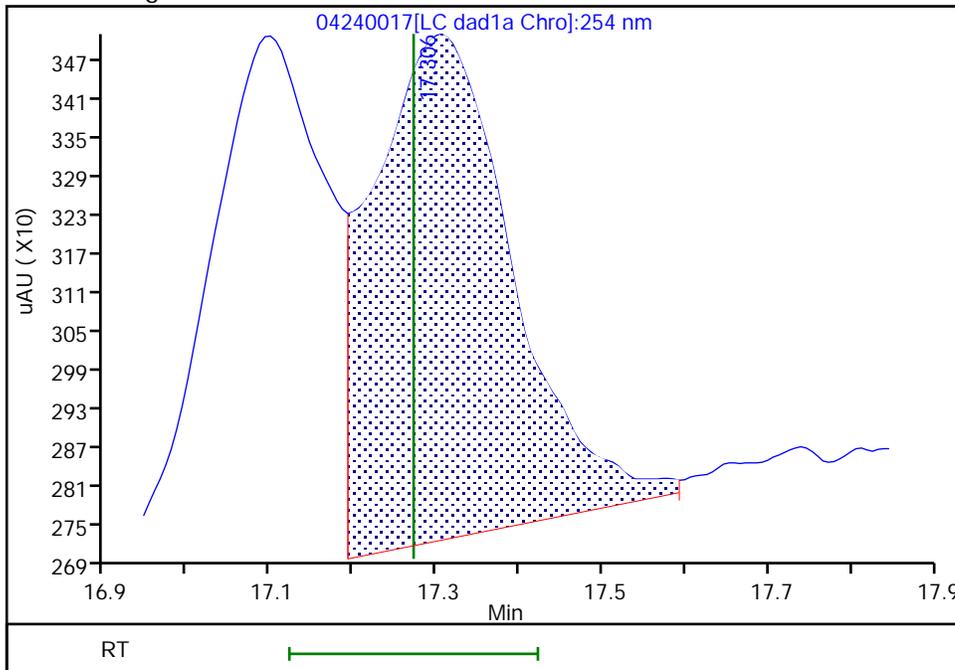
RT: 17.31  
Area: 11807  
Amount: 0.023018  
Amount Units: ug/ml

Processing Integration Results



RT: 17.31  
Area: 9167  
Amount: 0.021648  
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:35:41 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

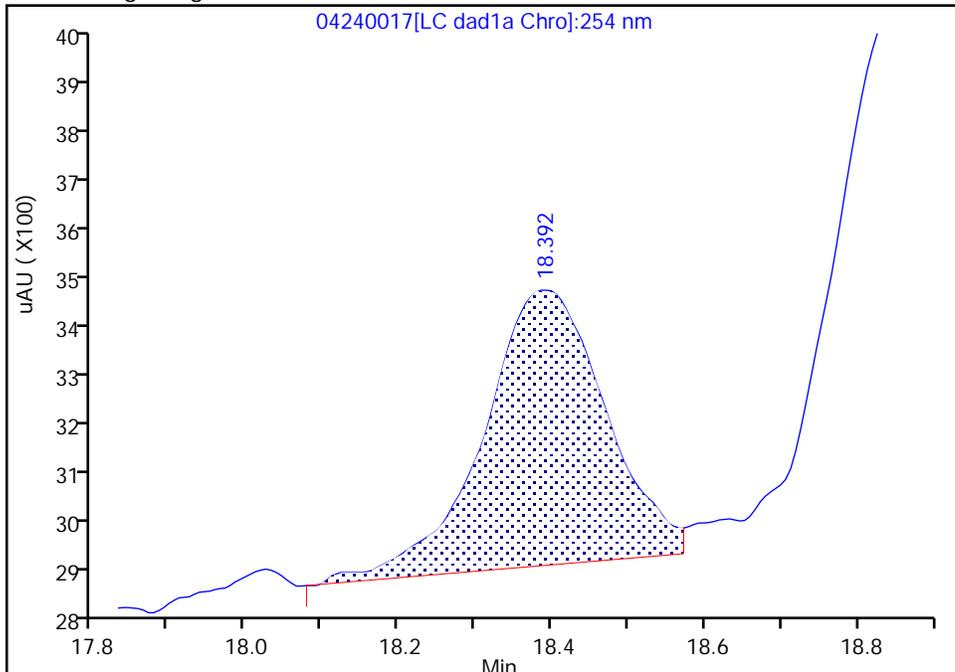
Data File: \\chromfs\denver\chromdata\g2\_luna\20240424-132624.b\04240017.d  
Injection Date: 25-Apr-2024 01:39:50 Instrument ID: CHHPLC\_G2\_LUNA  
Lims ID: IC INT 2  
Client ID:  
Operator ID: JZ/JG ALS Bottle#: 17 Worklist Smp#: 17  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: G2\_8330\_Luna Limit Group: GCSV - 8330  
Column: Luna-Phenyl hexyl ( 4.60 mm) Detector: LC DAD1A, 254 nm

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

Signal: 1

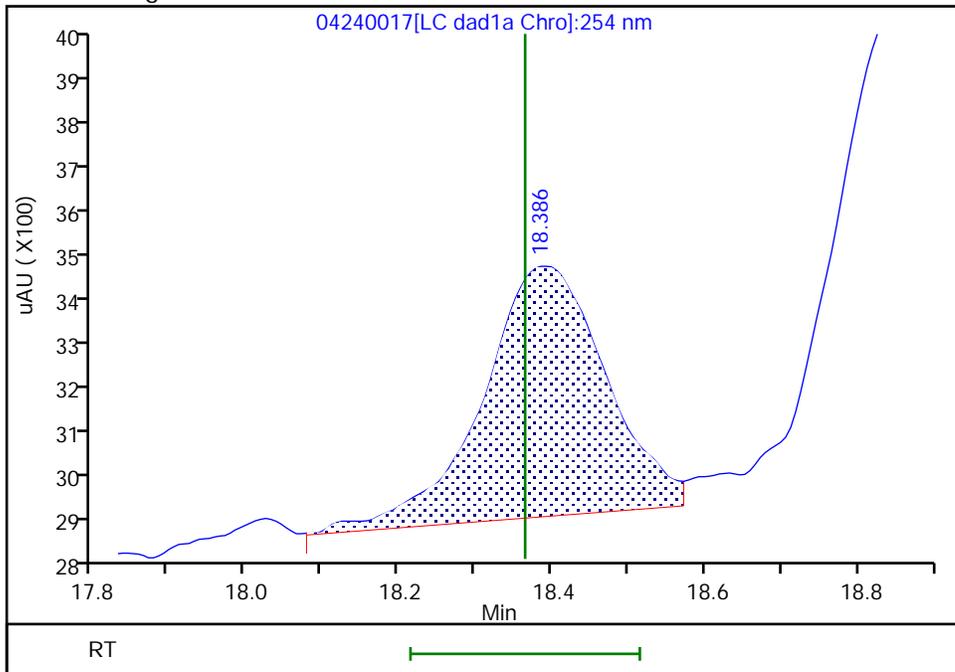
RT: 18.39  
Area: 5995  
Amount: 0.016870  
Amount Units: ug/ml

Processing Integration Results



RT: 18.39  
Area: 6113  
Amount: 0.021992  
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:26:34 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

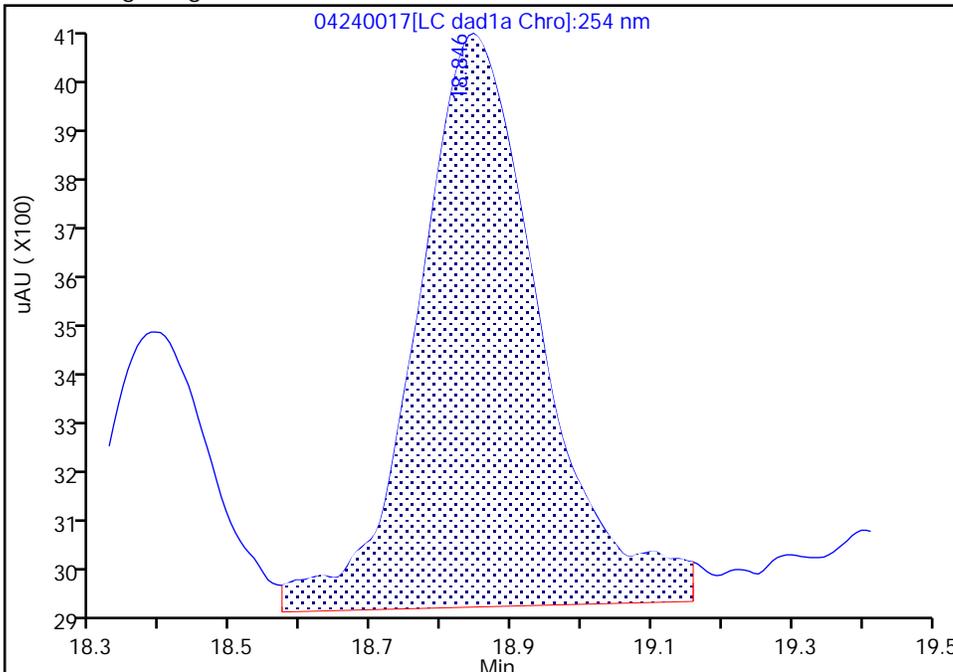
Data File: \\chromfs\denver\chromdata\g2\_luna\20240424-132624.b\04240017.d  
Injection Date: 25-Apr-2024 01:39:50 Instrument ID: CHHPLC\_G2\_LUNA  
Lims ID: IC INT 2  
Client ID:  
Operator ID: JZ/JG ALS Bottle#: 17 Worklist Smp#: 17  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: G2\_8330\_Luna Limit Group: GCSV - 8330  
Column: Luna-Phenyl hexyl ( 4.60 mm) Detector: LC DAD1A, 254 nm

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

Signal: 1

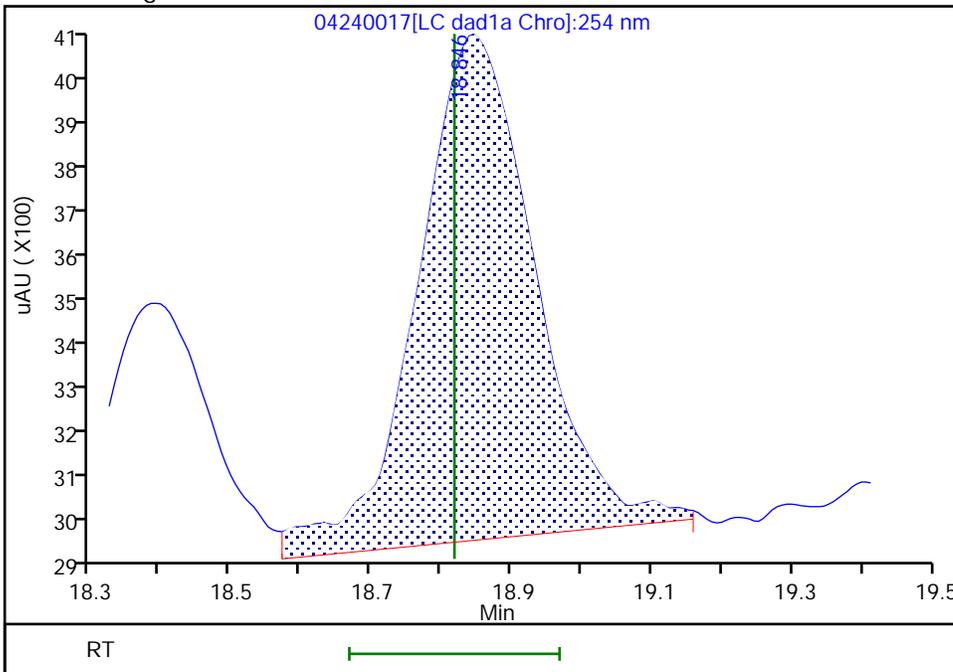
RT: 18.85  
Area: 12885  
Amount: 0.021829  
Amount Units: ug/ml

Processing Integration Results



RT: 18.85  
Area: 12005  
Amount: 0.021648  
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:26:34 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

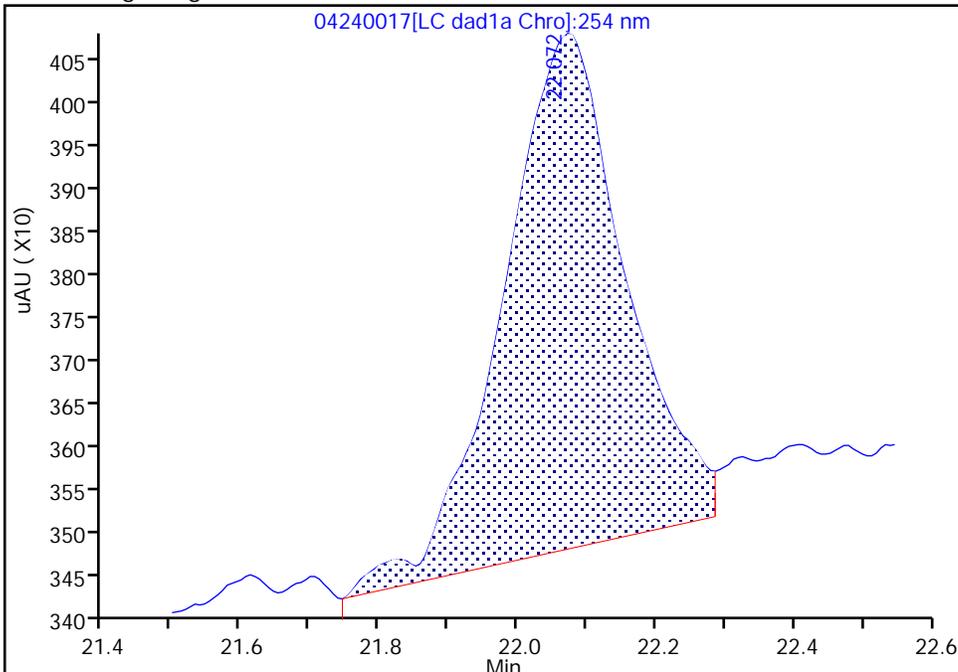
Data File: \\chromfs\denver\chromdata\g2\_luna\20240424-132624.b\04240017.d  
Injection Date: 25-Apr-2024 01:39:50 Instrument ID: CHHPLC\_G2\_LUNA  
Lims ID: IC INT 2  
Client ID:  
Operator ID: JZ/JG ALS Bottle#: 17 Worklist Smp#: 17  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: G2\_8330\_Luna Limit Group: GCSV - 8330  
Column: Luna-Phenyl hexyl ( 4.60 mm) Detector: LC DAD1A, 254 nm

22 Tetryl, CAS: 479-45-8

Signal: 1

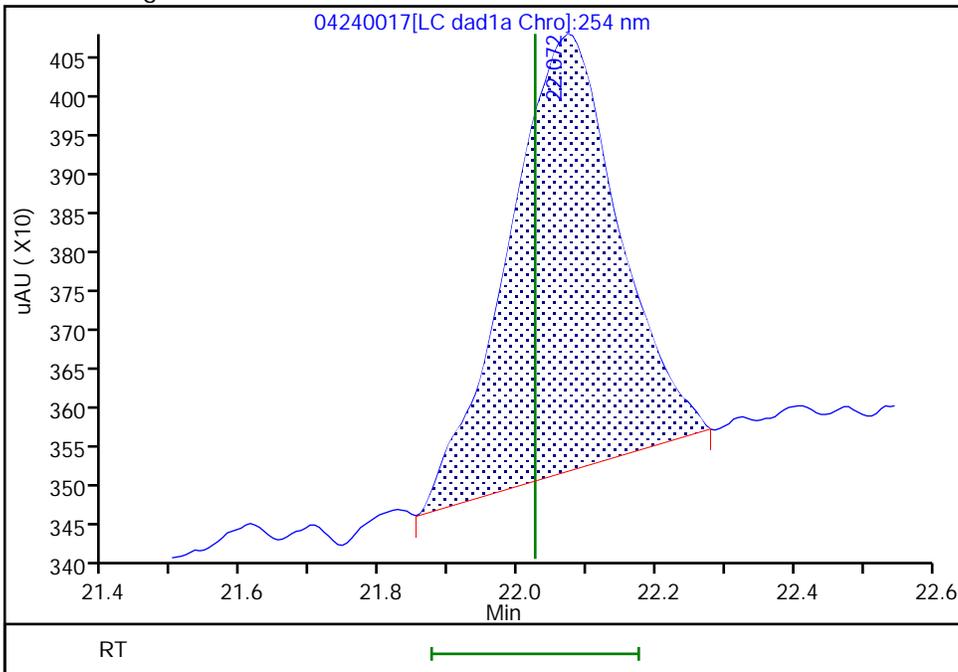
RT: 22.07  
Area: 7352  
Amount: 0.022454  
Amount Units: ug/ml

Processing Integration Results



RT: 22.07  
Area: 6268  
Amount: 0.018655  
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:26:47 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins Denver

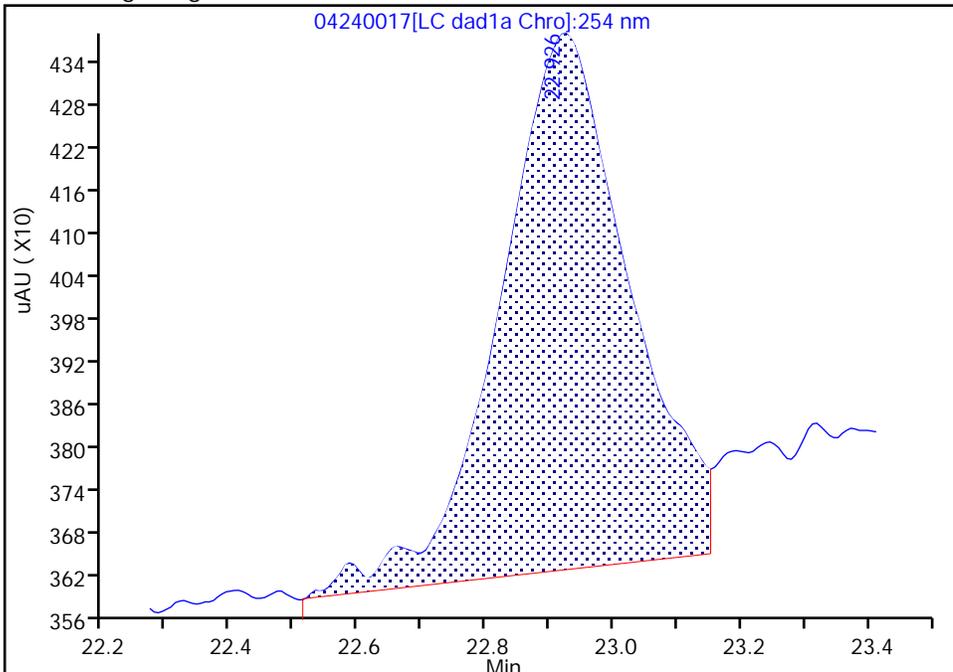
Data File: \\chromfs\denver\chromdata\g2\_luna\20240424-132624.b\04240017.d  
Injection Date: 25-Apr-2024 01:39:50 Instrument ID: CHHPLC\_G2\_LUNA  
Lims ID: IC INT 2  
Client ID:  
Operator ID: JZ/JG ALS Bottle#: 17 Worklist Smp#: 17  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: G2\_8330\_Luna Limit Group: GCSV - 8330  
Column: Luna-Phenyl hexyl ( 4.60 mm) Detector: LC DAD1A, 254 nm

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

Signal: 1

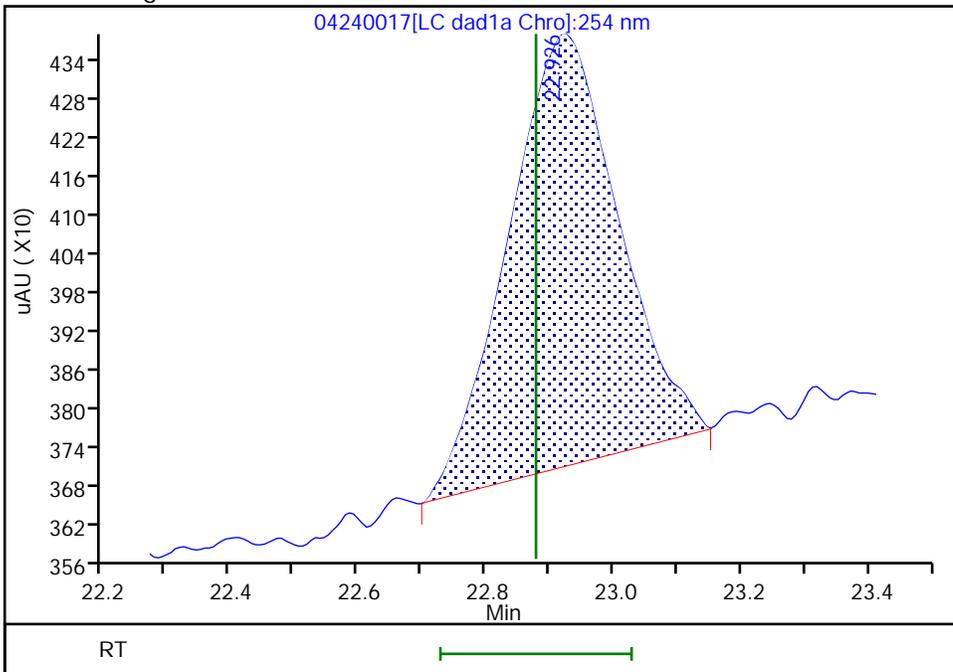
RT: 22.93  
Area: 10572  
Amount: 0.023639  
Amount Units: ug/ml

Processing Integration Results



RT: 22.93  
Area: 7969  
Amount: 0.019934  
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:27:02 -06:00:00 (UTC)  
Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins Denver  
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2\_LUNA\20240424-132624.b\04240018.D  
 Lims ID: IC INT 1  
 Client ID:  
 Sample Type: IC Calib Level: 1  
 Inject. Date: 25-Apr-2024 02:15:46 ALS Bottle#: 18 Worklist Smp#: 18  
 Injection Vol: 100.0 ul Dil. Factor: 1.0000  
 Sample Info: IC INT 1  
 Operator ID: JZ/JG Instrument ID: CHHPLC\_G2\_LUNA  
 Sublist: chrom-G2\_8330\_Luna\*sub16  
 Method: \\chromfs\Denver\ChromData\G2\_LUNA\20240424-132624.b\G2\_8330\_Luna.m  
 Limit Group: GCSV - 8330  
 Last Update: 25-Apr-2024 14:30:19 Calib Date: 25-Apr-2024 07:39:21  
 Integrator: Falcon  
 Quant Method: External Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Denver\ChromData\G2\_LUNA\20240424-132624.b\04240027.D  
 Column 1 : Luna-Phenyl hexyl ( 4.60 mm) Det: LC DAD1A, 254 nm  
 Process Host: CTX1684

First Level Reviewer: LV5D Date: 25-Apr-2024 13:20:39

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
6 HMX	1	6.713	6.705	0.008	1677	0.0100	0.009634	M
5 2,4,6-Trinitrophenol	1	8.700	8.612	0.088	1549	0.0100	0.0102	
8 RDX	1	8.953	8.938	0.015	2562	0.0100	0.009837	
9 Nitrobenzene	1	11.426	11.425	0.001	3818	0.0100	0.0100	M
\$ 10 1,2-Dinitrobenzene	1	12.360	12.345	0.015	2237	0.0100	0.008647	M
11 3,5-Dinitroaniline	1	14.200	14.185	0.015	5245	0.0100	0.0100	M
12 1,3-Dinitrobenzene	1	14.493	14.478	0.015	6332	0.0100	0.0107	M
13 Nitroglycerin	2	14.940	14.918	0.022	10431	0.1000	0.0873	M
14 o-Nitrotoluene	1	15.533	15.505	0.028	3289	0.0100	0.0134	M
15 p-Nitrotoluene	1	15.746	15.738	0.008	2223	0.0100	0.005995	M
16 4-Amino-2,6-dinitrotoluene	1	16.260	16.245	0.015	3366	0.0100	0.009734	M
17 m-Nitrotoluene	1	16.586	16.578	0.008	3672	0.0100	0.009808	M
18 2-Amino-4,6-dinitrotoluene	1	17.086	17.058	0.028	5022	0.0100	0.0124	M
19 1,3,5-Trinitrobenzene	1	17.286	17.272	0.014	5210	0.0100	0.0123	M
20 2,6-Dinitrotoluene	1	18.380	18.365	0.015	3016	0.0100	0.0109	M
21 2,4-Dinitrotoluene	1	18.833	18.818	0.015	5764	0.0100	0.0104	M
22 Tetryl	1	22.027	22.025	0.002	3675	0.0100	0.0103	
23 2,4,6-Trinitrotoluene	1	22.900	22.878	0.022	3703	0.0100	0.009263	M
24 PETN	2	24.033	24.032	0.001	10531	0.1000	0.1003	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

8330IntermStk\_00080

Amount Added: 1.00

Units: uL

Eurofins Denver

Data File: \\chromfs\denver\chromdata\g2\_luna\20240424-132624.b\04240018.d

Injection Date: 25-Apr-2024 02:15:46

Instrument ID: CHHPLC\_G2\_LUNA

Operator ID: JZ/JG

Lims ID: IC INT 1

Worklist Smp#: 18

Client ID:

Injection Vol: 100.0 ul

Dil. Factor: 1.0000

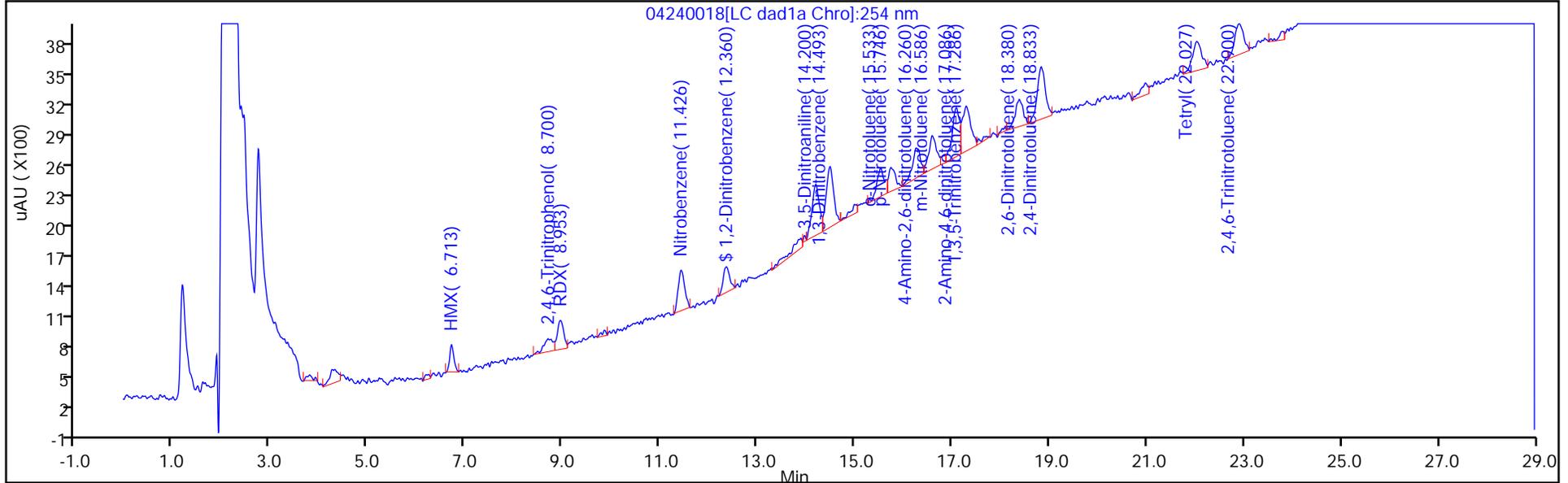
ALS Bottle#: 18

Method: G2\_8330\_Luna

Limit Group: GCSV - 8330

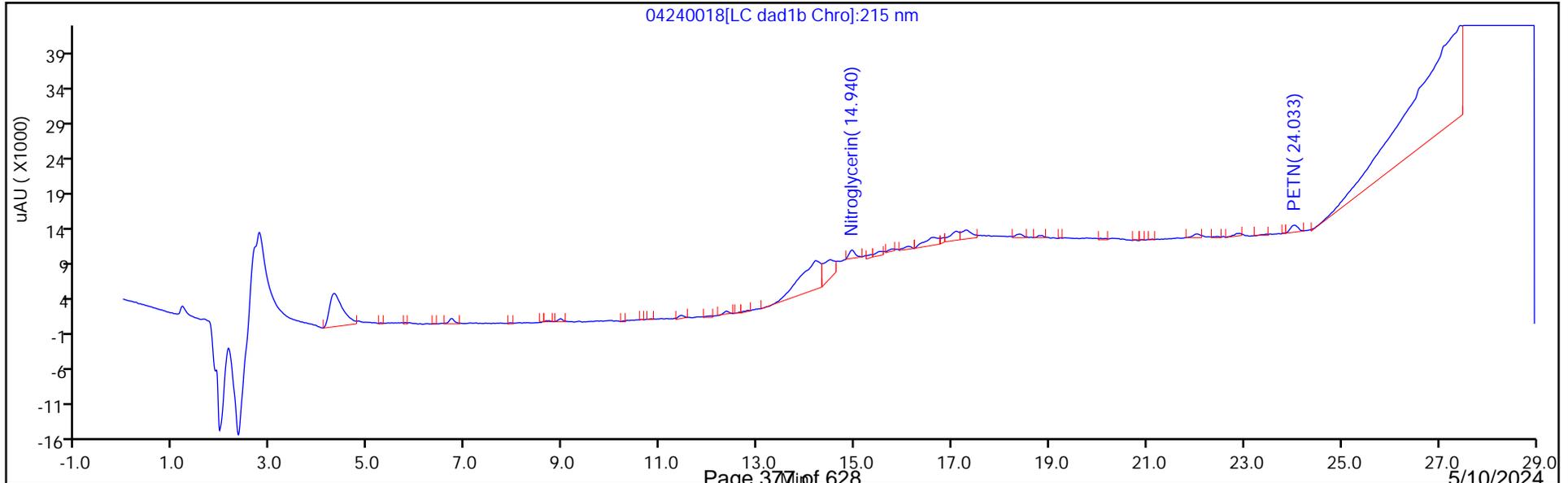
Column: Luna-Phenyl hexyl ( 4.60 mm)

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



Column: Luna-Phenyl hexyl ( 4.60 mm)

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



Eurofins Denver

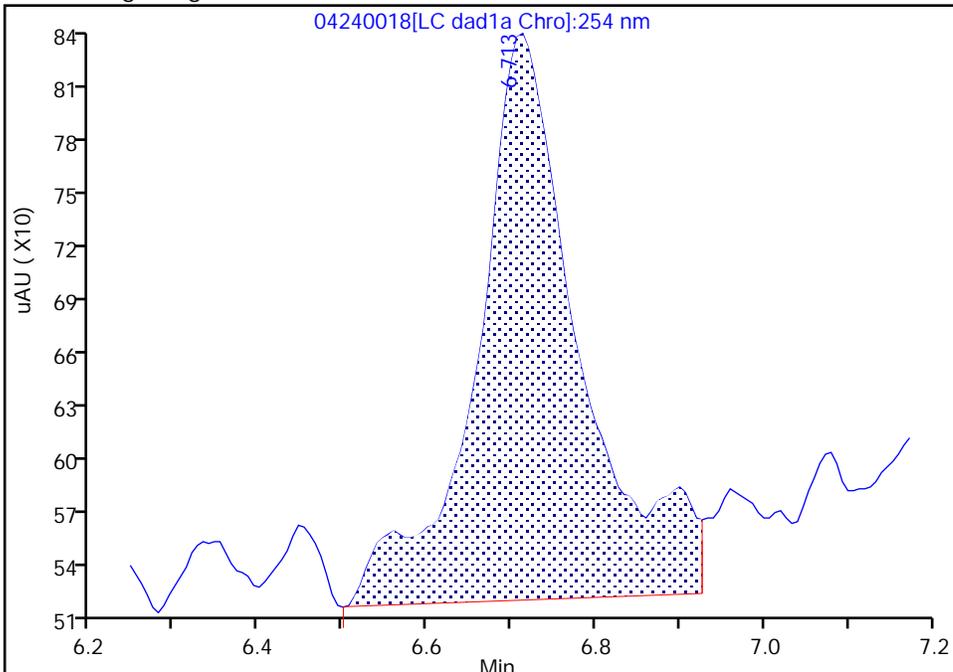
Data File: \\chromfs\denver\chromdata\g2\_luna\20240424-132624.b\04240018.d  
Injection Date: 25-Apr-2024 02:15:46 Instrument ID: CHHPLC\_G2\_LUNA  
Lims ID: IC INT 1  
Client ID:  
Operator ID: JZ/JG ALS Bottle#: 18 Worklist Smp#: 18  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: G2\_8330\_Luna Limit Group: GCSV - 8330  
Column: Luna-Phenyl hexyl ( 4.60 mm) Detector: LC DAD1A, 254 nm

6 HMX, CAS: 2691-41-0

Signal: 1

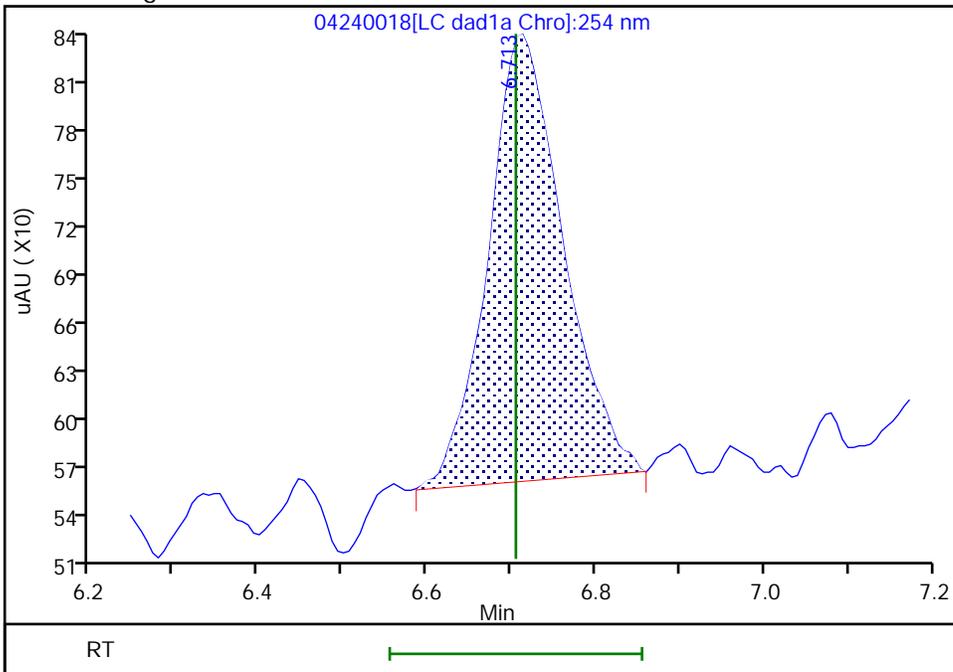
RT: 6.71  
Area: 2684  
Amount: 0.010199  
Amount Units: ug/ml

Processing Integration Results



RT: 6.71  
Area: 1677  
Amount: 0.009634  
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:31:03 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins Denver

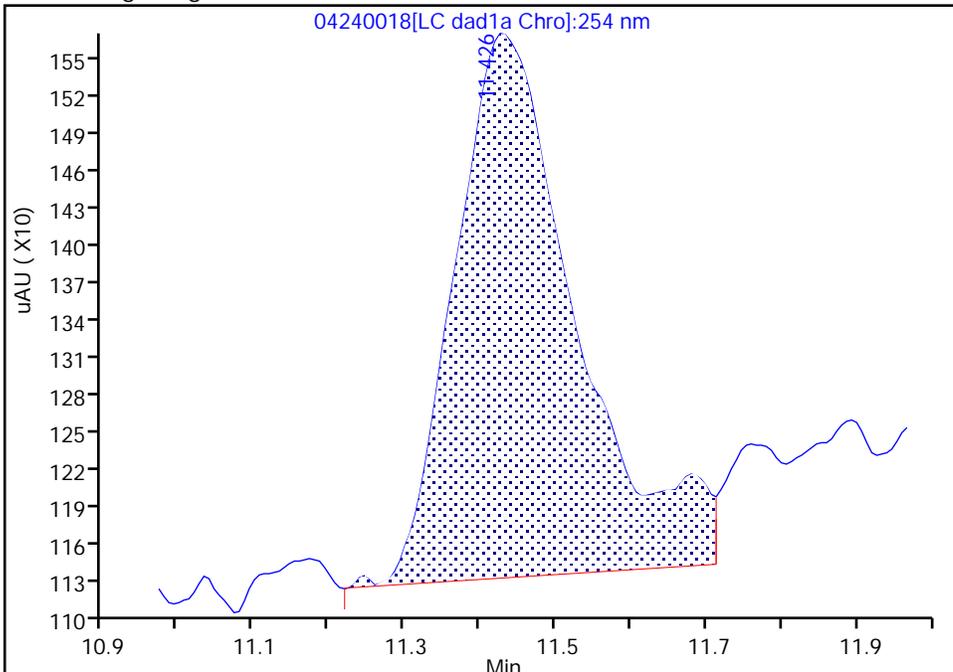
Data File: \\chromfs\denver\chromdata\g2\_luna\20240424-132624.b\04240018.d  
Injection Date: 25-Apr-2024 02:15:46 Instrument ID: CHHPLC\_G2\_LUNA  
Lims ID: IC INT 1  
Client ID:  
Operator ID: JZ/JG ALS Bottle#: 18 Worklist Smp#: 18  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: G2\_8330\_Luna Limit Group: GCSV - 8330  
Column: Luna-Phenyl hexyl ( 4.60 mm) Detector: LC DAD1A, 254 nm

9 Nitrobenzene, CAS: 98-95-3

Signal: 1

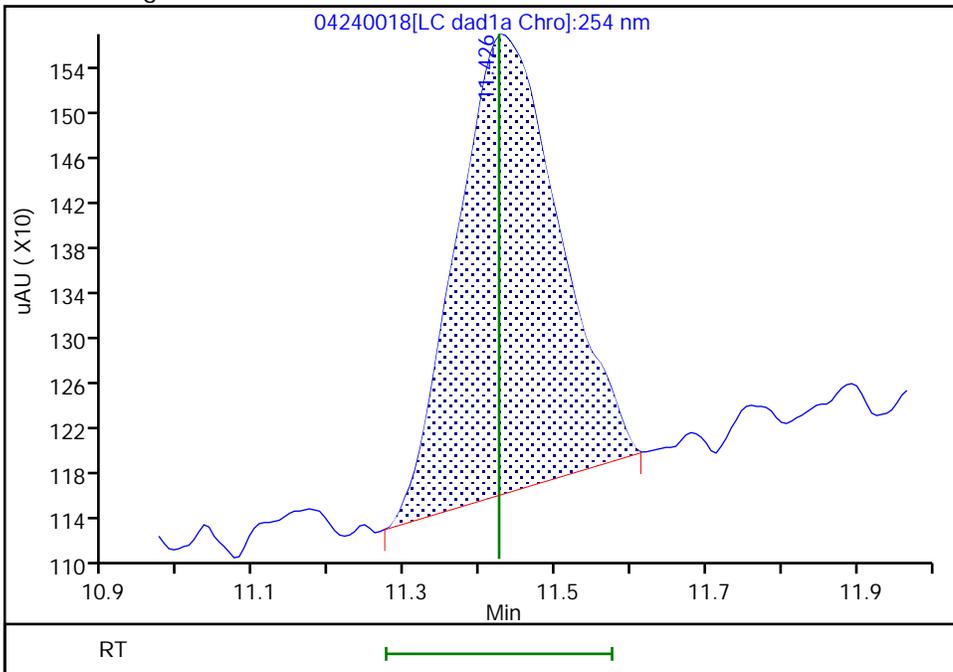
RT: 11.43  
Area: 4838  
Amount: 0.012296  
Amount Units: ug/ml

Processing Integration Results



RT: 11.43  
Area: 3818  
Amount: 0.009992  
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:27:50 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins Denver

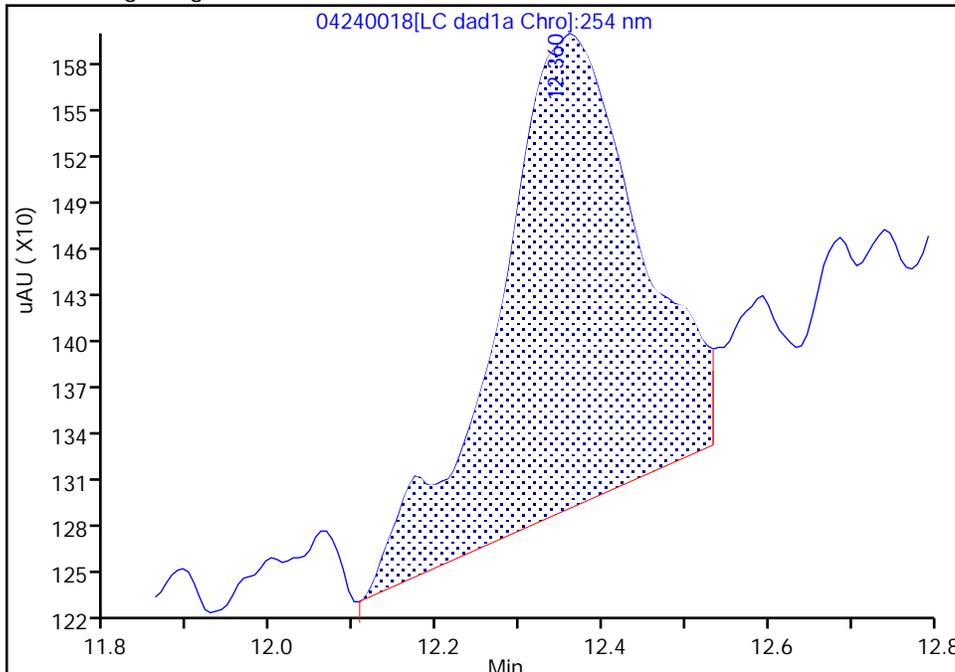
Data File: \\chromfs\denver\chromdata\g2\_luna\20240424-132624.b\04240018.d  
Injection Date: 25-Apr-2024 02:15:46 Instrument ID: CHHPLC\_G2\_LUNA  
Lims ID: IC INT 1  
Client ID:  
Operator ID: JZ/JG ALS Bottle#: 18 Worklist Smp#: 18  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: G2\_8330\_Luna Limit Group: GCSV - 8330  
Column: Luna-Phenyl hexyl ( 4.60 mm) Detector: LC DAD1A, 254 nm

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

Signal: 1

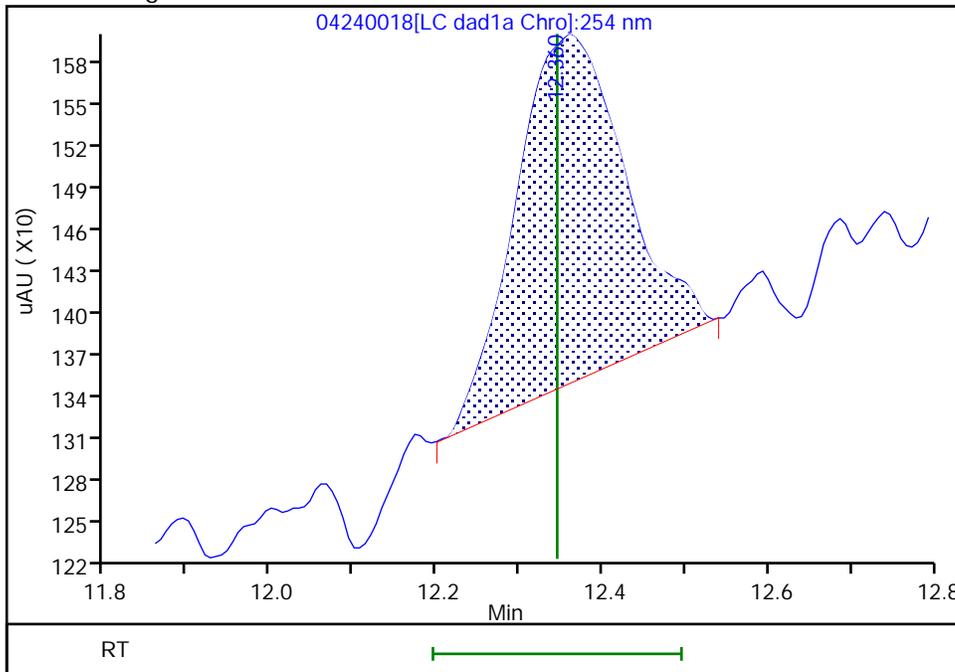
RT: 12.36  
Area: 3595  
Amount: 0.013131  
Amount Units: ug/ml

Processing Integration Results



RT: 12.36  
Area: 2237  
Amount: 0.008647  
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:28:45 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins Denver

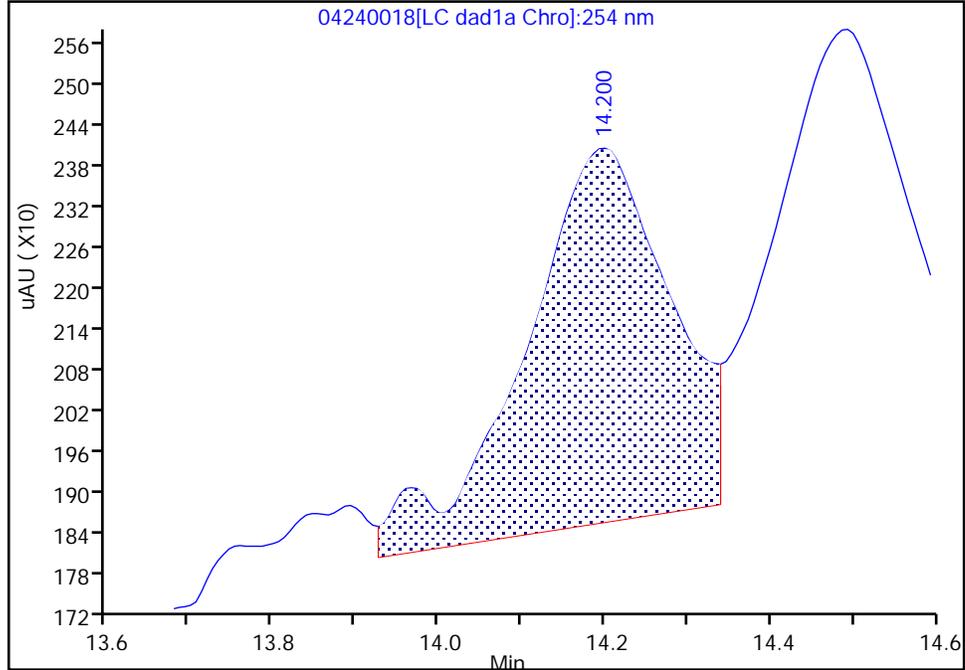
Data File: \\chromfs\denver\chromdata\g2\_luna\20240424-132624.b\04240018.d  
Injection Date: 25-Apr-2024 02:15:46 Instrument ID: CHHPLC\_G2\_LUNA  
Lims ID: IC INT 1  
Client ID:  
Operator ID: JZ/JG ALS Bottle#: 18 Worklist Smp#: 18  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: G2\_8330\_Luna Limit Group: GCSV - 8330  
Column: Luna-Phenyl hexyl ( 4.60 mm) Detector: LC DAD1A, 254 nm

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

Signal: 1

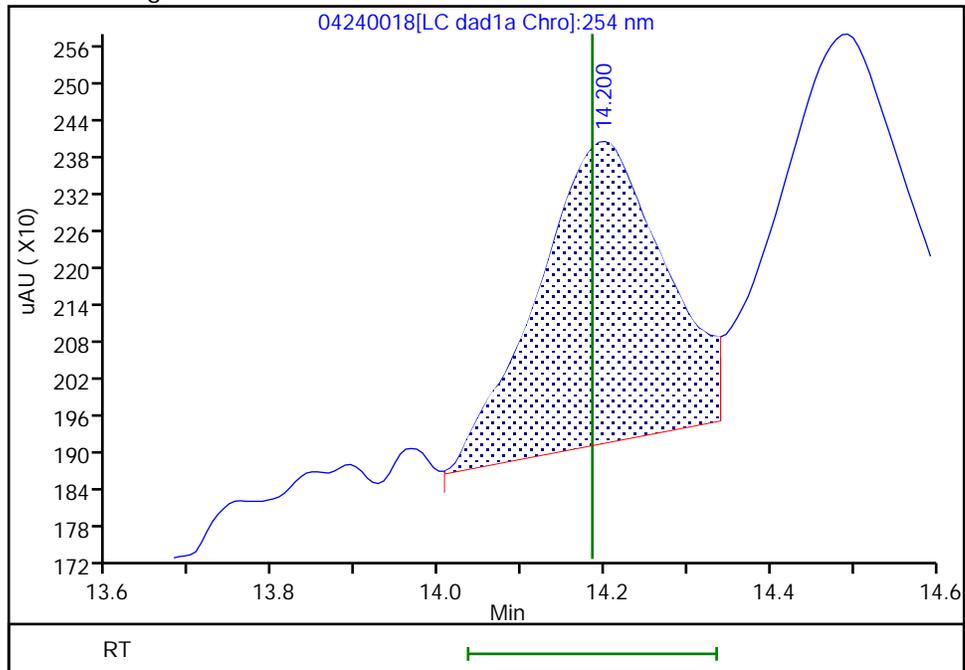
RT: 14.20  
Area: 6757  
Amount: 0.010763  
Amount Units: ug/ml

Processing Integration Results



RT: 14.20  
Area: 5245  
Amount: 0.010044  
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:29:01 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Baseline

Eurofins Denver

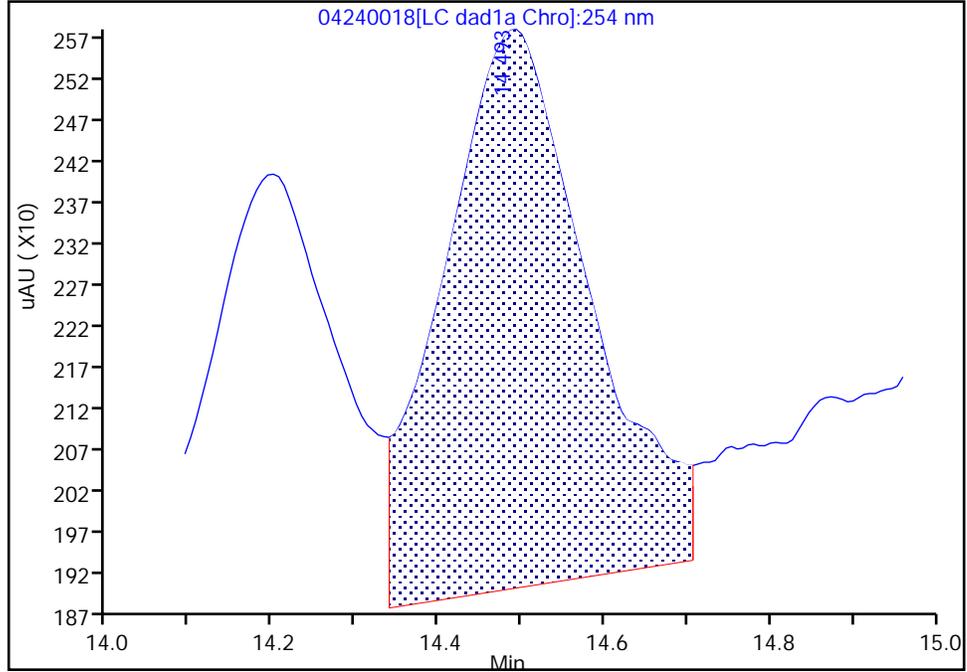
Data File: \\chromfs\denver\chromdata\g2\_luna\20240424-132624.b\04240018.d  
Injection Date: 25-Apr-2024 02:15:46 Instrument ID: CHHPLC\_G2\_LUNA  
Lims ID: IC INT 1  
Client ID:  
Operator ID: JZ/JG ALS Bottle#: 18 Worklist Smp#: 18  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: G2\_8330\_Luna Limit Group: GCSV - 8330  
Column: Luna-Phenyl hexyl ( 4.60 mm) Detector: LC DAD1A, 254 nm

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

Signal: 1

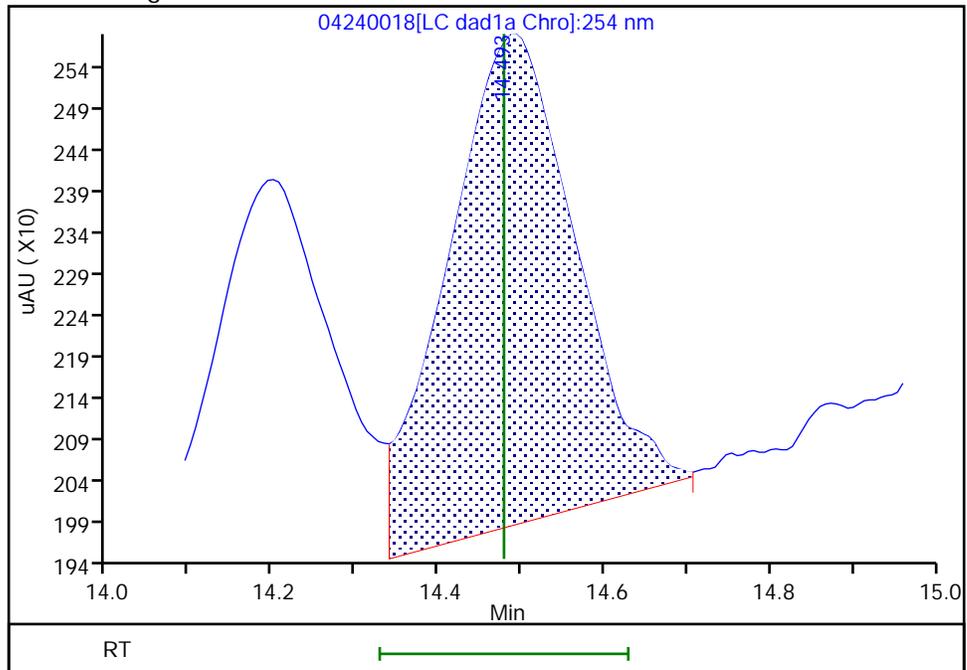
RT: 14.49  
Area: 8301  
Amount: 0.013579  
Amount Units: ug/ml

Processing Integration Results



RT: 14.49  
Area: 6332  
Amount: 0.010743  
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:28:58 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

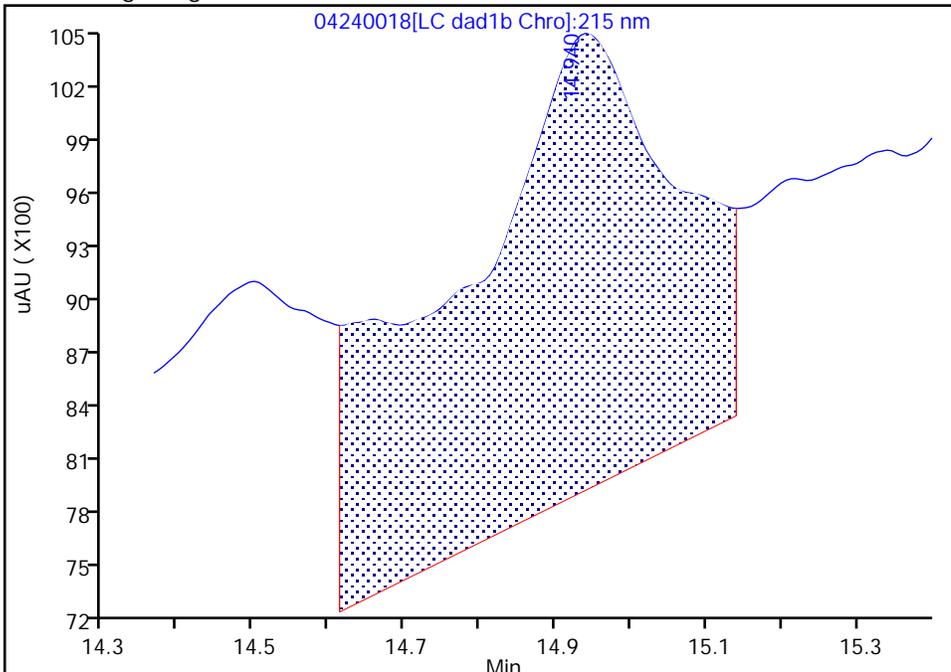
Data File:	\\chromfs\denver\chromdata\g2_luna\20240424-132624.b\04240018.d		
Injection Date:	25-Apr-2024 02:15:46	Instrument ID:	CHHPLC_G2_LUNA
Lims ID:	IC INT 1		
Client ID:			
Operator ID:	JZ/JG	ALS Bottle#:	18 Worklist Smp#: 18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330
Column:	Luna-Phenyl hexyl ( 4.60 mm)	Detector:	LC DAD1B, 215 nm

13 Nitroglycerin, CAS: 55-63-0

Signal: 1

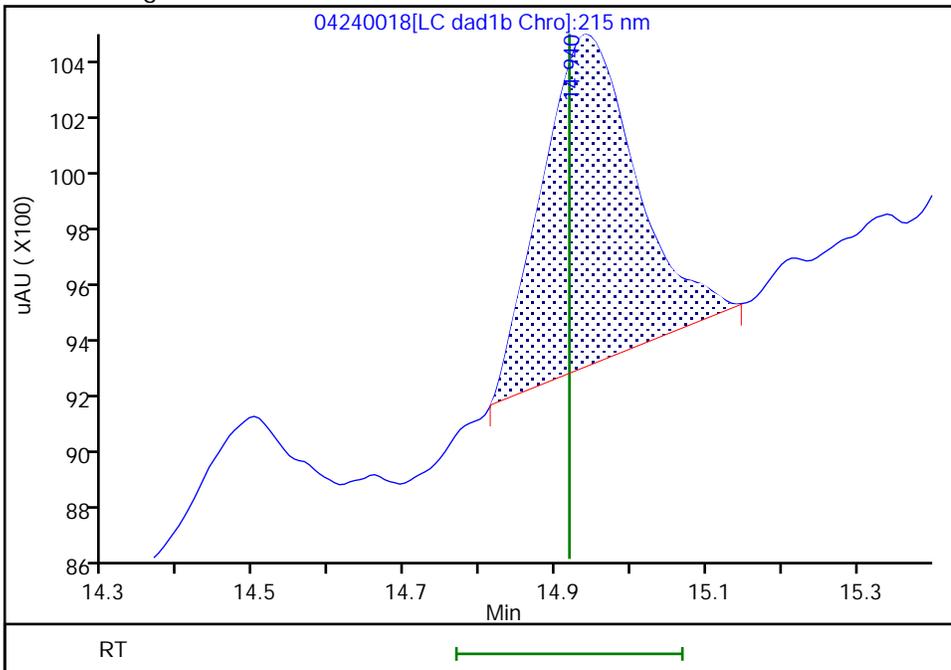
RT: 14.94  
 Area: 53313  
 Amount: 0.315461  
 Amount Units: ug/ml

Processing Integration Results



RT: 14.94  
 Area: 10431  
 Amount: 0.087285  
 Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:20:31 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins Denver

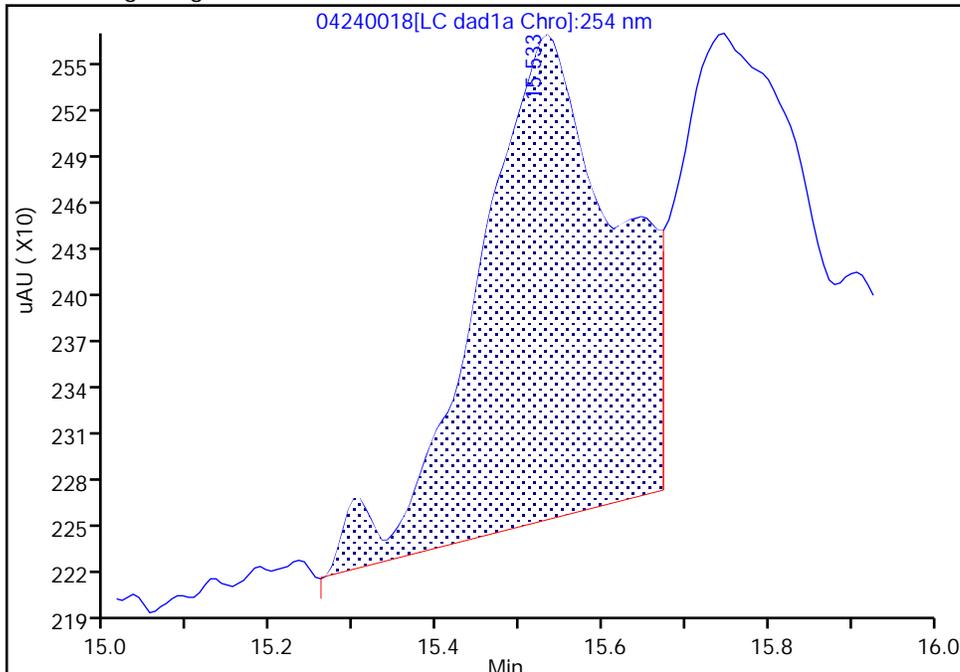
Data File: \\chromfs\denver\chromdata\g2\_luna\20240424-132624.b\04240018.d  
Injection Date: 25-Apr-2024 02:15:46 Instrument ID: CHHPLC\_G2\_LUNA  
Lims ID: IC INT 1  
Client ID:  
Operator ID: JZ/JG ALS Bottle#: 18 Worklist Smp#: 18  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: G2\_8330\_Luna Limit Group: GCSV - 8330  
Column: Luna-Phenyl hexyl ( 4.60 mm) Detector: LC DAD1A, 254 nm

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

Signal: 1

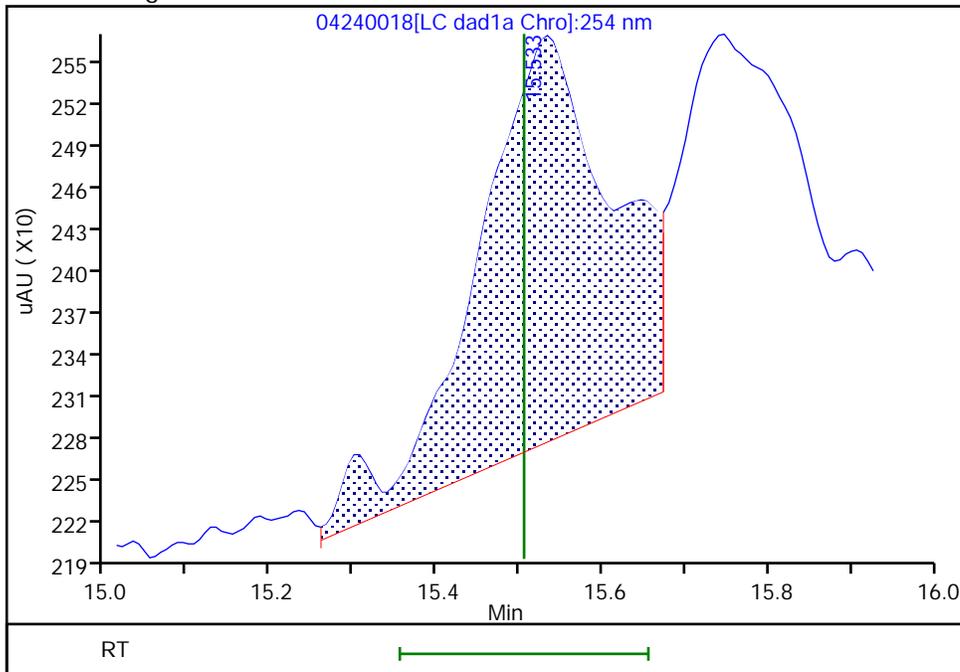
RT: 15.53  
Area: 3673  
Amount: 0.013997  
Amount Units: ug/ml

Processing Integration Results



RT: 15.53  
Area: 3289  
Amount: 0.013447  
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:29:10 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

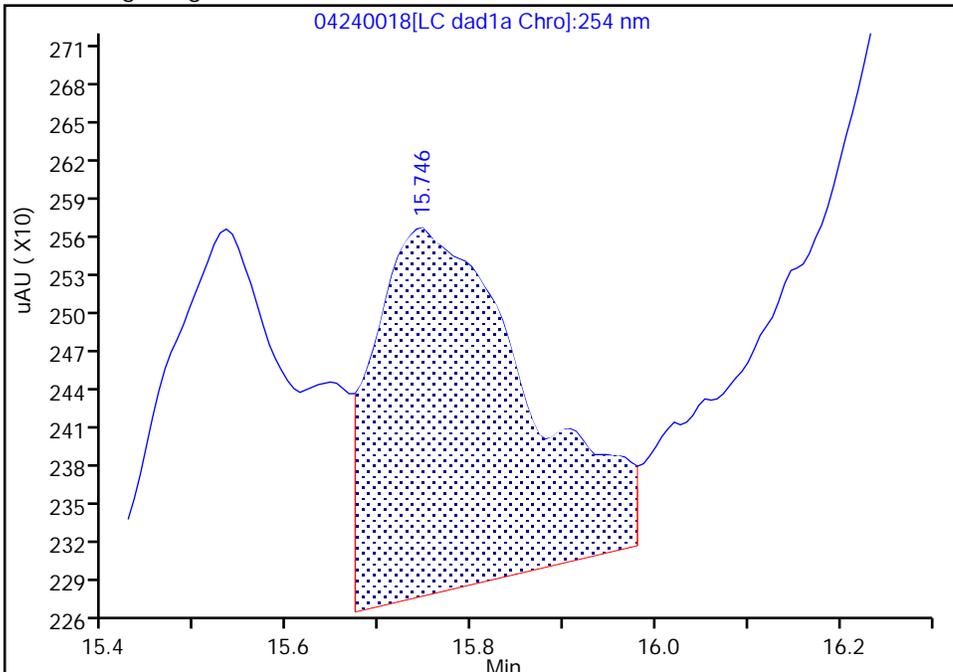
Data File: \\chromfs\denver\chromdata\g2\_luna\20240424-132624.b\04240018.d  
 Injection Date: 25-Apr-2024 02:15:46 Instrument ID: CHHPLC\_G2\_LUNA  
 Lims ID: IC INT 1  
 Client ID:  
 Operator ID: JZ/JG ALS Bottle#: 18 Worklist Smp#: 18  
 Injection Vol: 100.0 ul Dil. Factor: 1.0000  
 Method: G2\_8330\_Luna Limit Group: GCSV - 8330  
 Column: Luna-Phenyl hexyl ( 4.60 mm) Detector: LC DAD1A, 254 nm

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

Signal: 1

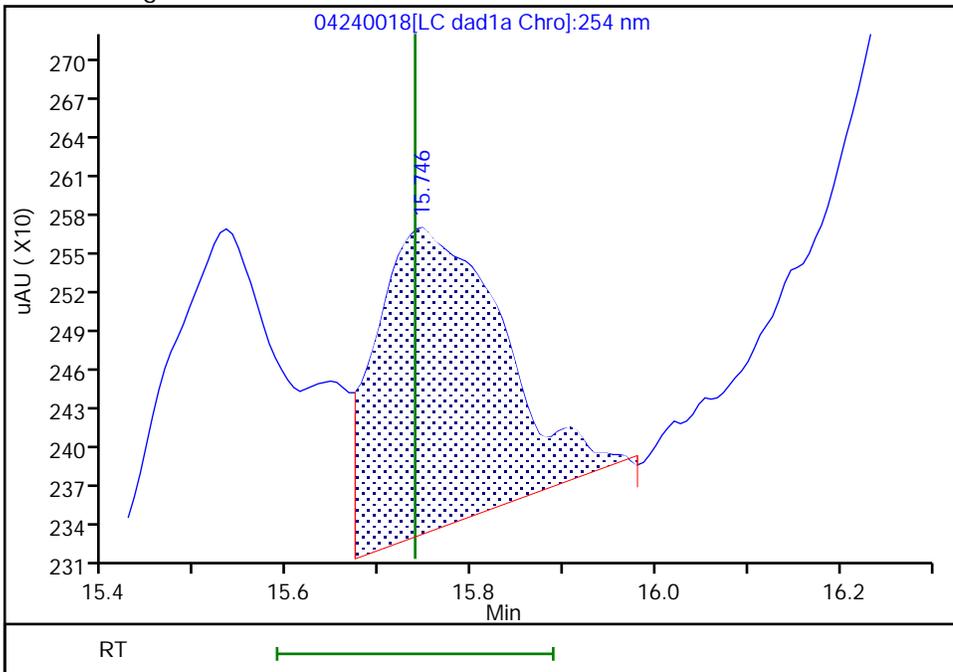
RT: 15.75  
 Area: 3244  
 Amount: 0.013429  
 Amount Units: ug/ml

Processing Integration Results



RT: 15.75  
 Area: 2223  
 Amount: 0.005995  
 Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:29:10 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

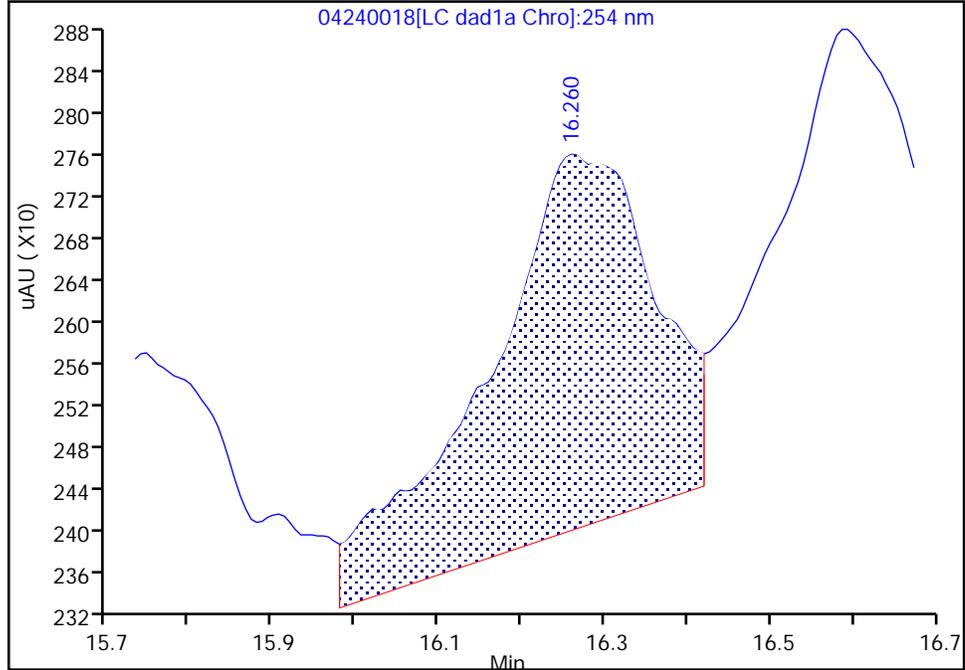
Data File: \\chromfs\denver\chromdata\g2\_luna\20240424-132624.b\04240018.d  
Injection Date: 25-Apr-2024 02:15:46 Instrument ID: CHHPLC\_G2\_LUNA  
Lims ID: IC INT 1  
Client ID:  
Operator ID: JZ/JG ALS Bottle#: 18 Worklist Smp#: 18  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: G2\_8330\_Luna Limit Group: GCSV - 8330  
Column: Luna-Phenyl hexyl ( 4.60 mm) Detector: LC DAD1A, 254 nm

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

Signal: 1

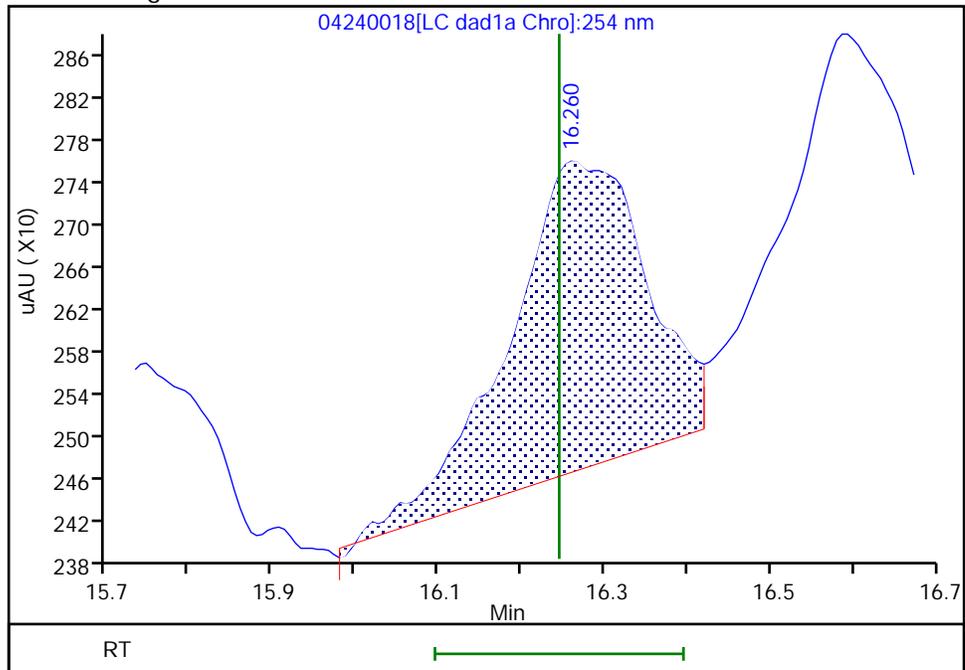
RT: 16.26  
Area: 5148  
Amount: 0.010335  
Amount Units: ug/ml

Processing Integration Results



RT: 16.26  
Area: 3366  
Amount: 0.009734  
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:29:10 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

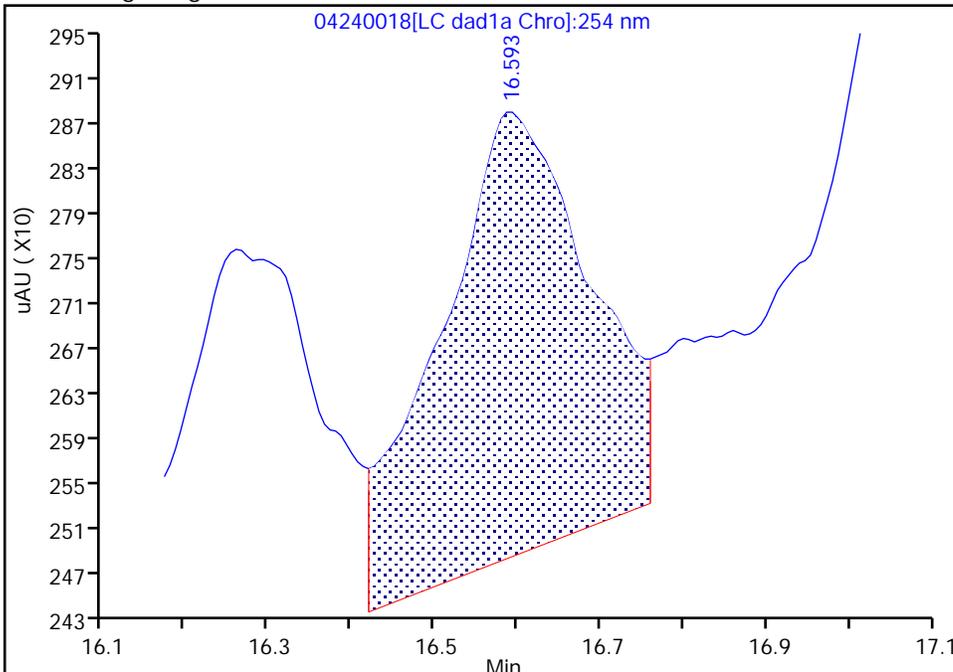
Data File: \\chromfs\denver\chromdata\g2\_luna\20240424-132624.b\04240018.d  
Injection Date: 25-Apr-2024 02:15:46 Instrument ID: CHHPLC\_G2\_LUNA  
Lims ID: IC INT 1  
Client ID:  
Operator ID: JZ/JG ALS Bottle#: 18 Worklist Smp#: 18  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: G2\_8330\_Luna Limit Group: GCSV - 8330  
Column: Luna-Phenyl hexyl ( 4.60 mm) Detector: LC DAD1A, 254 nm

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

Signal: 1

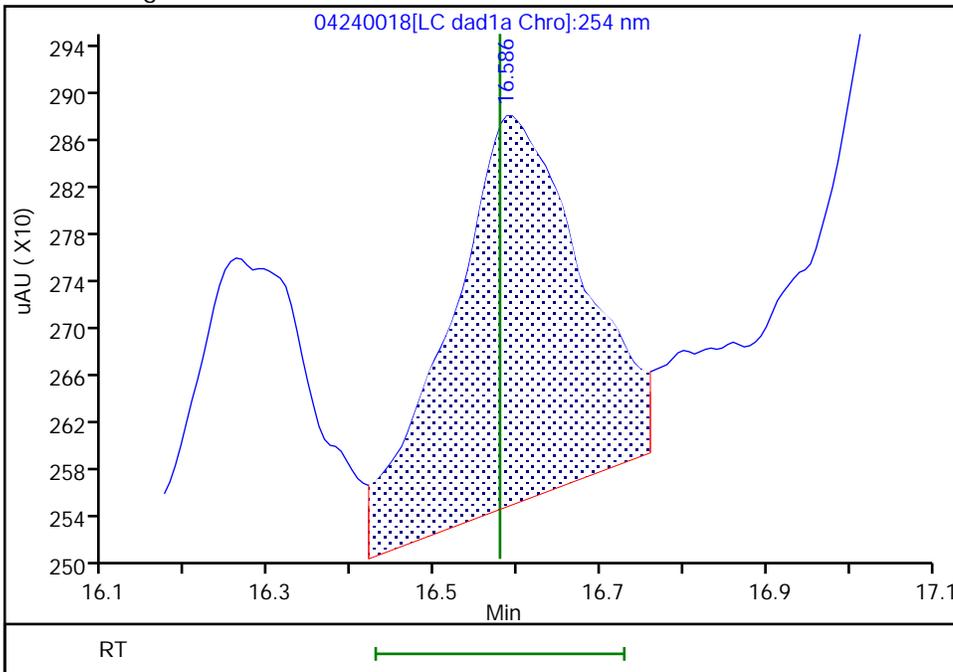
RT: 16.59  
Area: 4917  
Amount: 0.010564  
Amount Units: ug/ml

Processing Integration Results



RT: 16.59  
Area: 3672  
Amount: 0.009808  
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:29:10 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

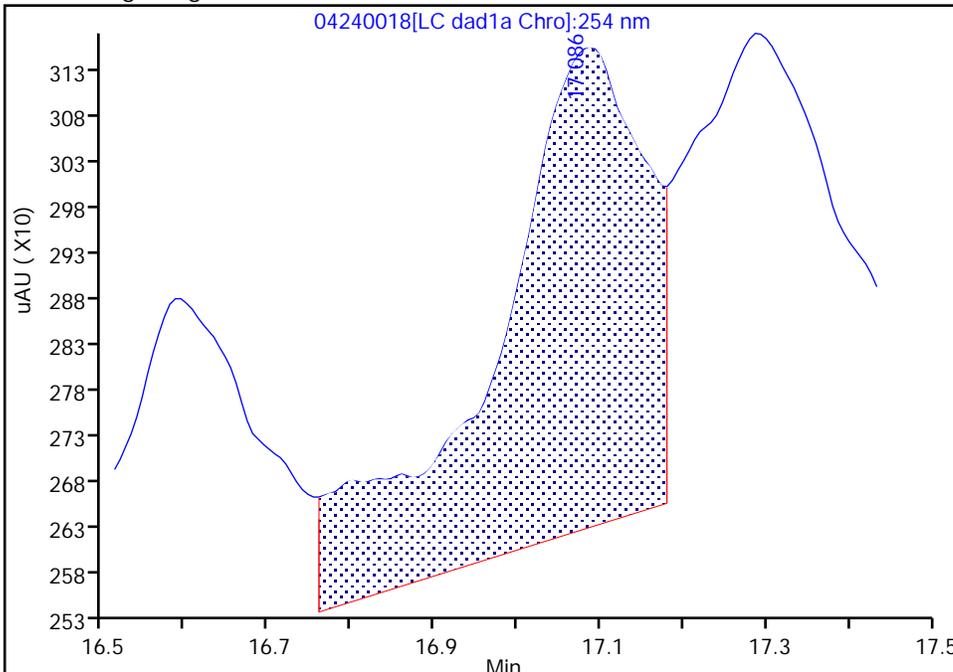
Data File: \\chromfs\denver\chromdata\g2\_luna\20240424-132624.b\04240018.d  
Injection Date: 25-Apr-2024 02:15:46 Instrument ID: CHHPLC\_G2\_LUNA  
Lims ID: IC INT 1  
Client ID:  
Operator ID: JZ/JG ALS Bottle#: 18 Worklist Smp#: 18  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: G2\_8330\_Luna Limit Group: GCSV - 8330  
Column: Luna-Phenyl hexyl ( 4.60 mm) Detector: LC DAD1A, 254 nm

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

Signal: 1

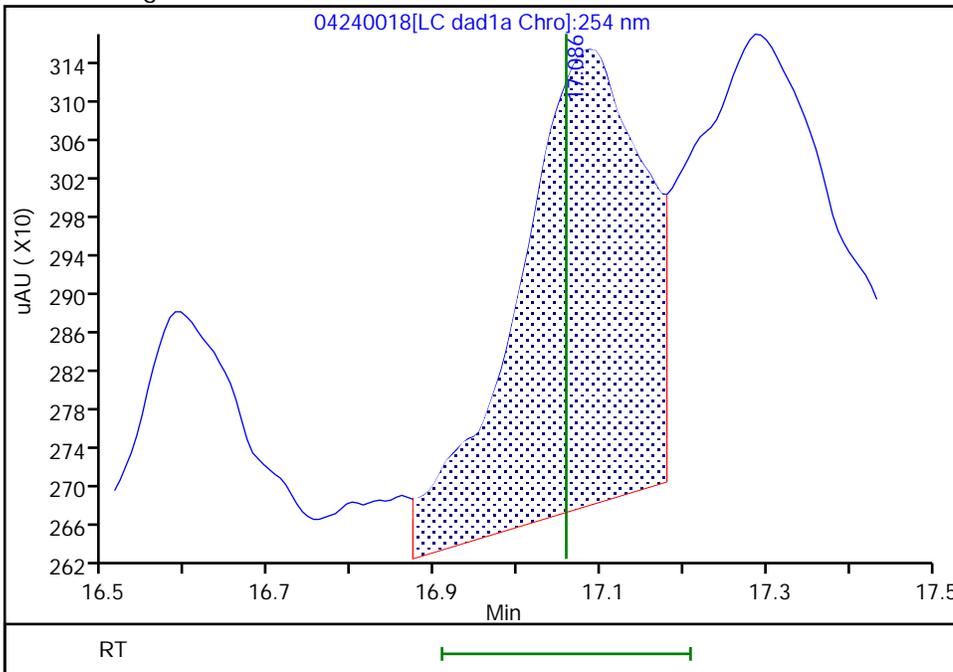
RT: 17.09  
Area: 6792  
Amount: 0.011001  
Amount Units: ug/ml

Processing Integration Results



RT: 17.09  
Area: 5022  
Amount: 0.012383  
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:29:26 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Baseline

Eurofins Denver

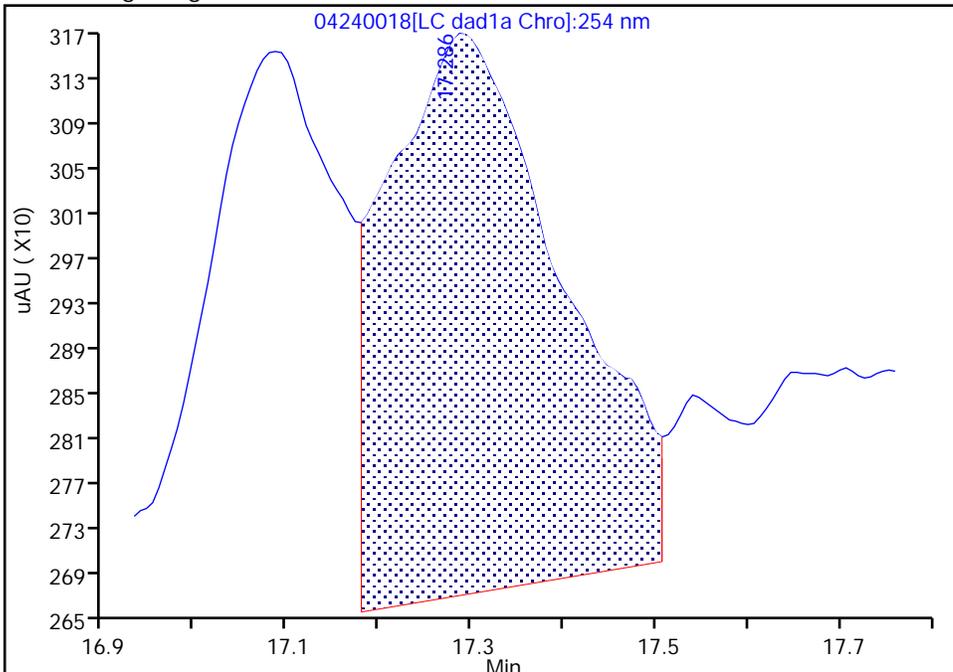
Data File: \\chromfs\denver\chromdata\g2\_luna\20240424-132624.b\04240018.d  
Injection Date: 25-Apr-2024 02:15:46 Instrument ID: CHHPLC\_G2\_LUNA  
Lims ID: IC INT 1  
Client ID:  
Operator ID: JZ/JG ALS Bottle#: 18 Worklist Smp#: 18  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: G2\_8330\_Luna Limit Group: GCSV - 8330  
Column: Luna-Phenyl hexyl ( 4.60 mm) Detector: LC DAD1A, 254 nm

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

Signal: 1

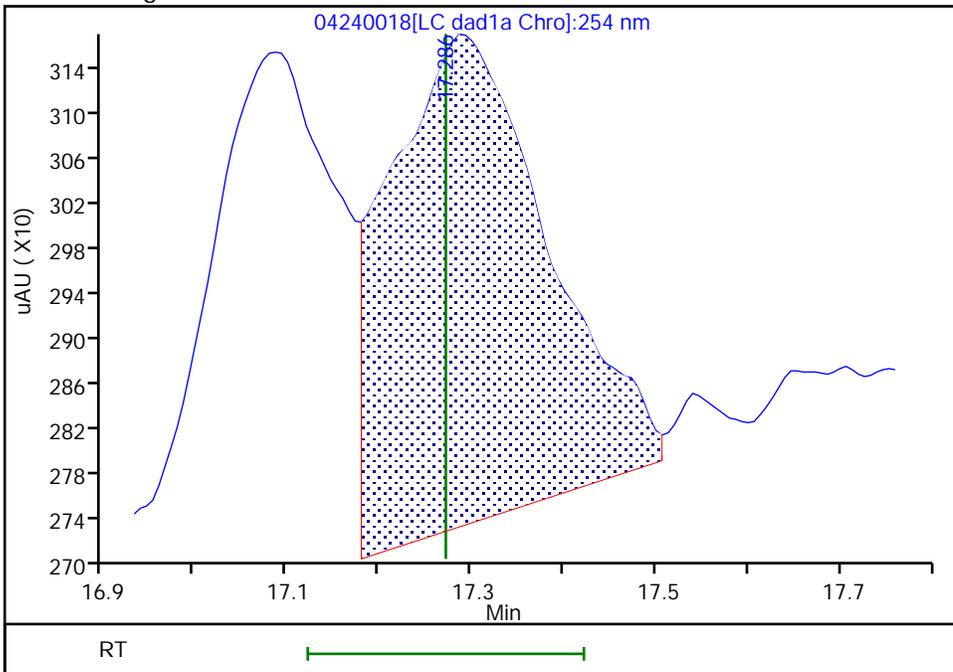
RT: 17.29  
Area: 6493  
Amount: 0.014850  
Amount Units: ug/ml

Processing Integration Results



RT: 17.29  
Area: 5210  
Amount: 0.012304  
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:29:10 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

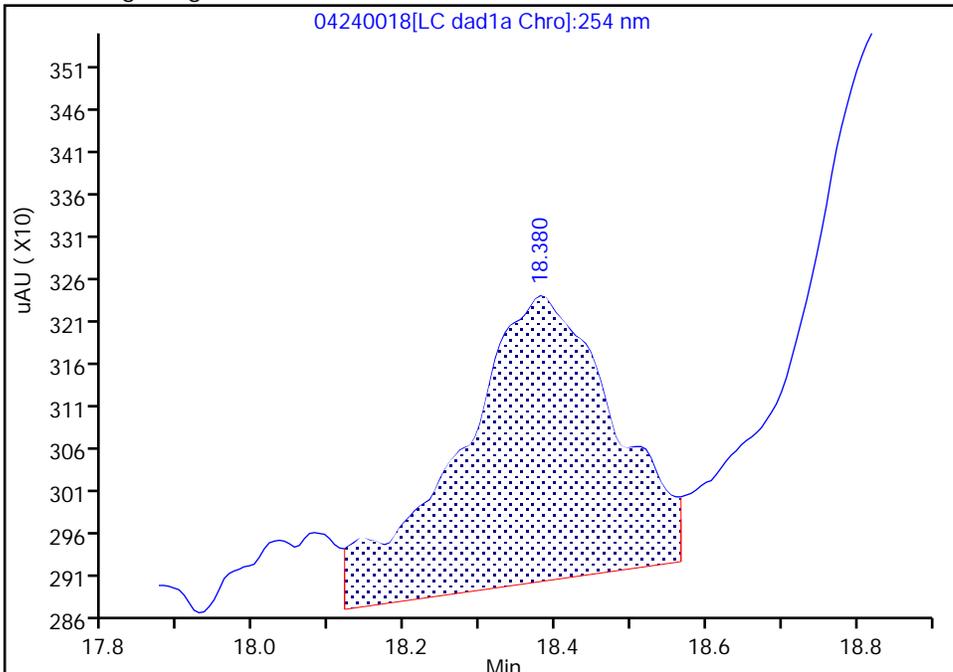
Data File: \\chromfs\denver\chromdata\g2\_luna\20240424-132624.b\04240018.d  
Injection Date: 25-Apr-2024 02:15:46 Instrument ID: CHHPLC\_G2\_LUNA  
Lims ID: IC INT 1  
Client ID:  
Operator ID: JZ/JG ALS Bottle#: 18 Worklist Smp#: 18  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: G2\_8330\_Luna Limit Group: GCSV - 8330  
Column: Luna-Phenyl hexyl ( 4.60 mm) Detector: LC DAD1A, 254 nm

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

Signal: 1

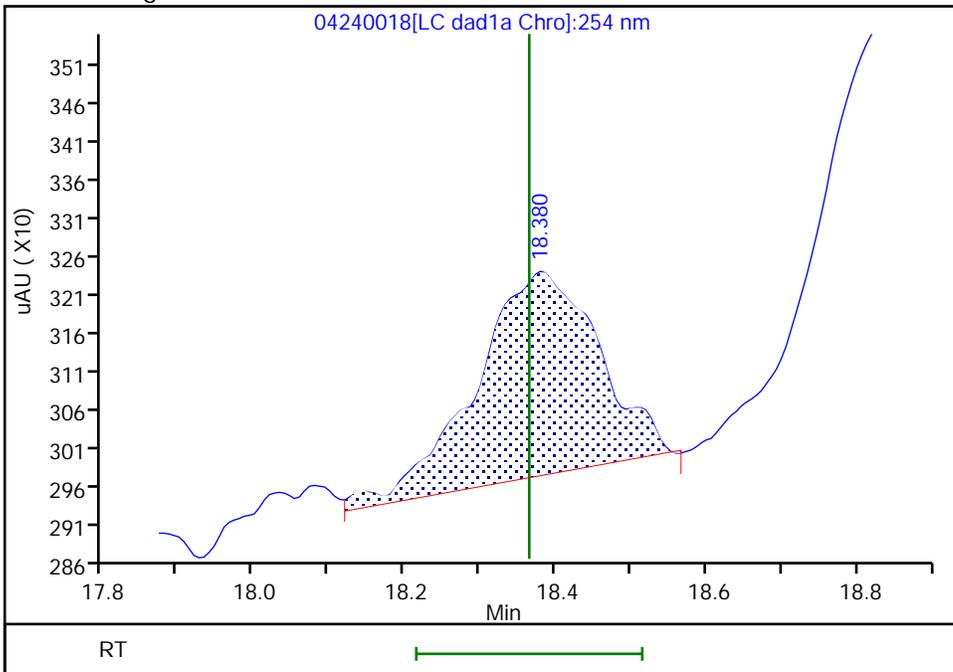
RT: 18.38  
Area: 4838  
Amount: 0.011069  
Amount Units: ug/ml

Processing Integration Results



RT: 18.38  
Area: 3016  
Amount: 0.010850  
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:29:14 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

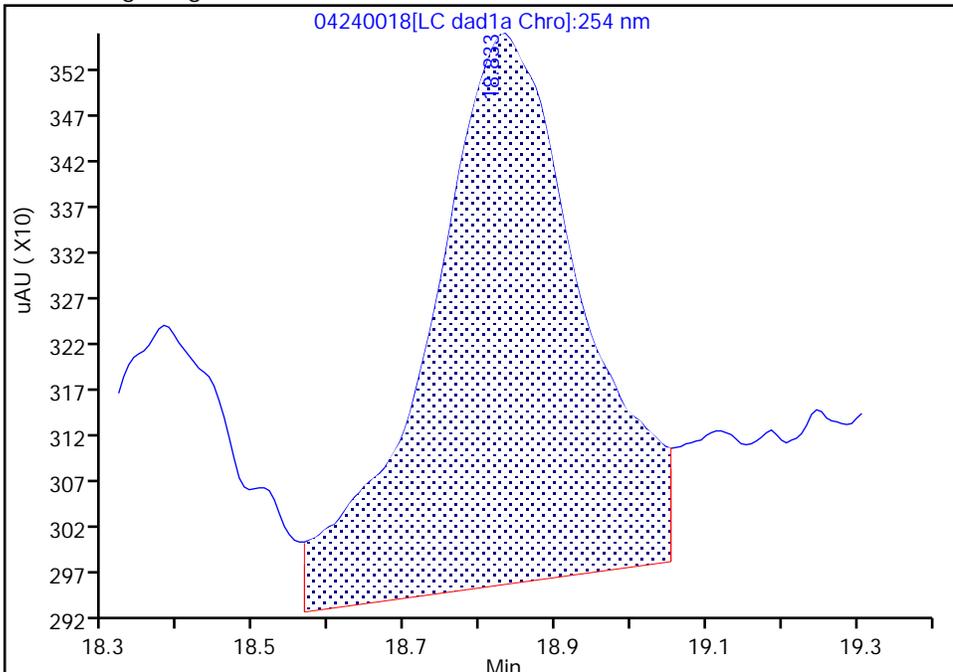
Data File: \\chromfs\denver\chromdata\g2\_luna\20240424-132624.b\04240018.d  
Injection Date: 25-Apr-2024 02:15:46 Instrument ID: CHHPLC\_G2\_LUNA  
Lims ID: IC INT 1  
Client ID:  
Operator ID: JZ/JG ALS Bottle#: 18 Worklist Smp#: 18  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: G2\_8330\_Luna Limit Group: GCSV - 8330  
Column: Luna-Phenyl hexyl ( 4.60 mm) Detector: LC DAD1A, 254 nm

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

Signal: 1

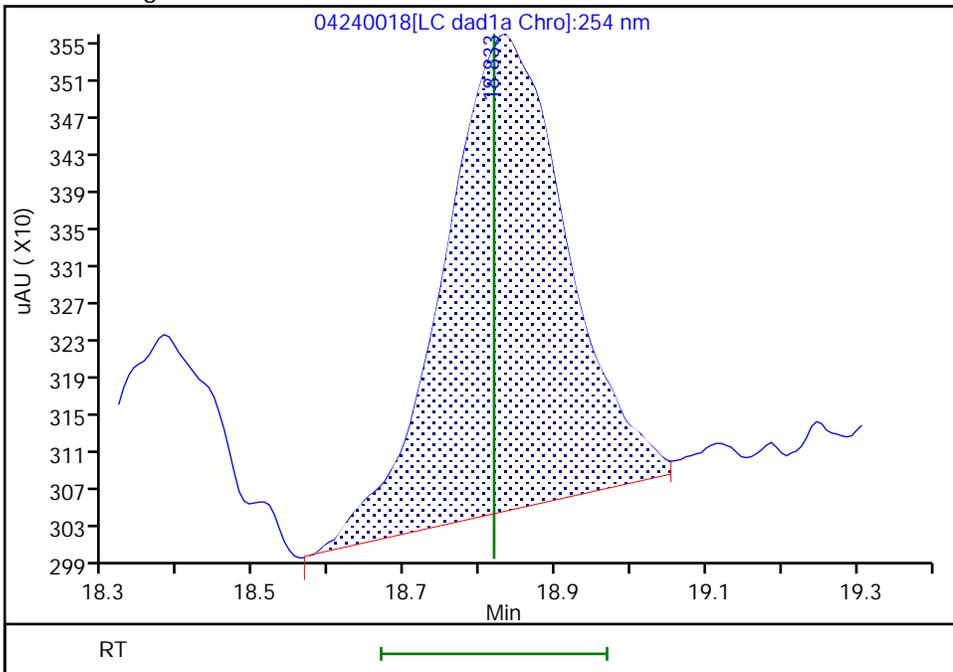
RT: 18.83  
Area: 8538  
Amount: 0.014585  
Amount Units: ug/ml

Processing Integration Results



RT: 18.83  
Area: 5764  
Amount: 0.010394  
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:29:14 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

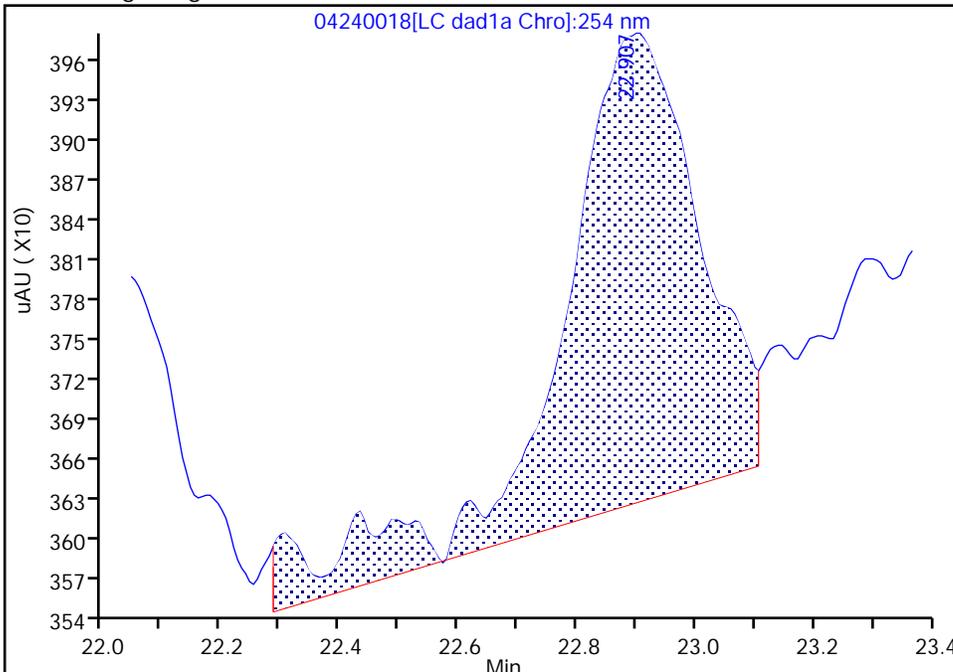
Data File: \\chromfs\denver\chromdata\g2\_luna\20240424-132624.b\04240018.d  
Injection Date: 25-Apr-2024 02:15:46 Instrument ID: CHHPLC\_G2\_LUNA  
Lims ID: IC INT 1  
Client ID:  
Operator ID: JZ/JG ALS Bottle#: 18 Worklist Smp#: 18  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: G2\_8330\_Luna Limit Group: GCSV - 8330  
Column: Luna-Phenyl hexyl ( 4.60 mm) Detector: LC DAD1A, 254 nm

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

Signal: 1

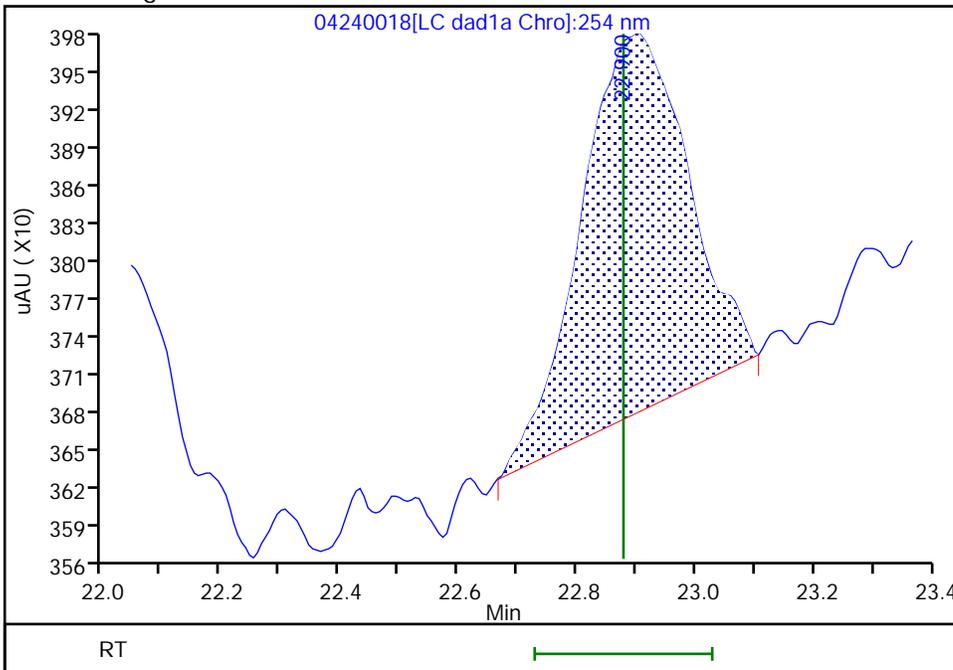
RT: 22.91  
Area: 5799  
Amount: 0.013400  
Amount Units: ug/ml

Processing Integration Results



RT: 22.90  
Area: 3703  
Amount: 0.009263  
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:38:04 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

**Calibration**

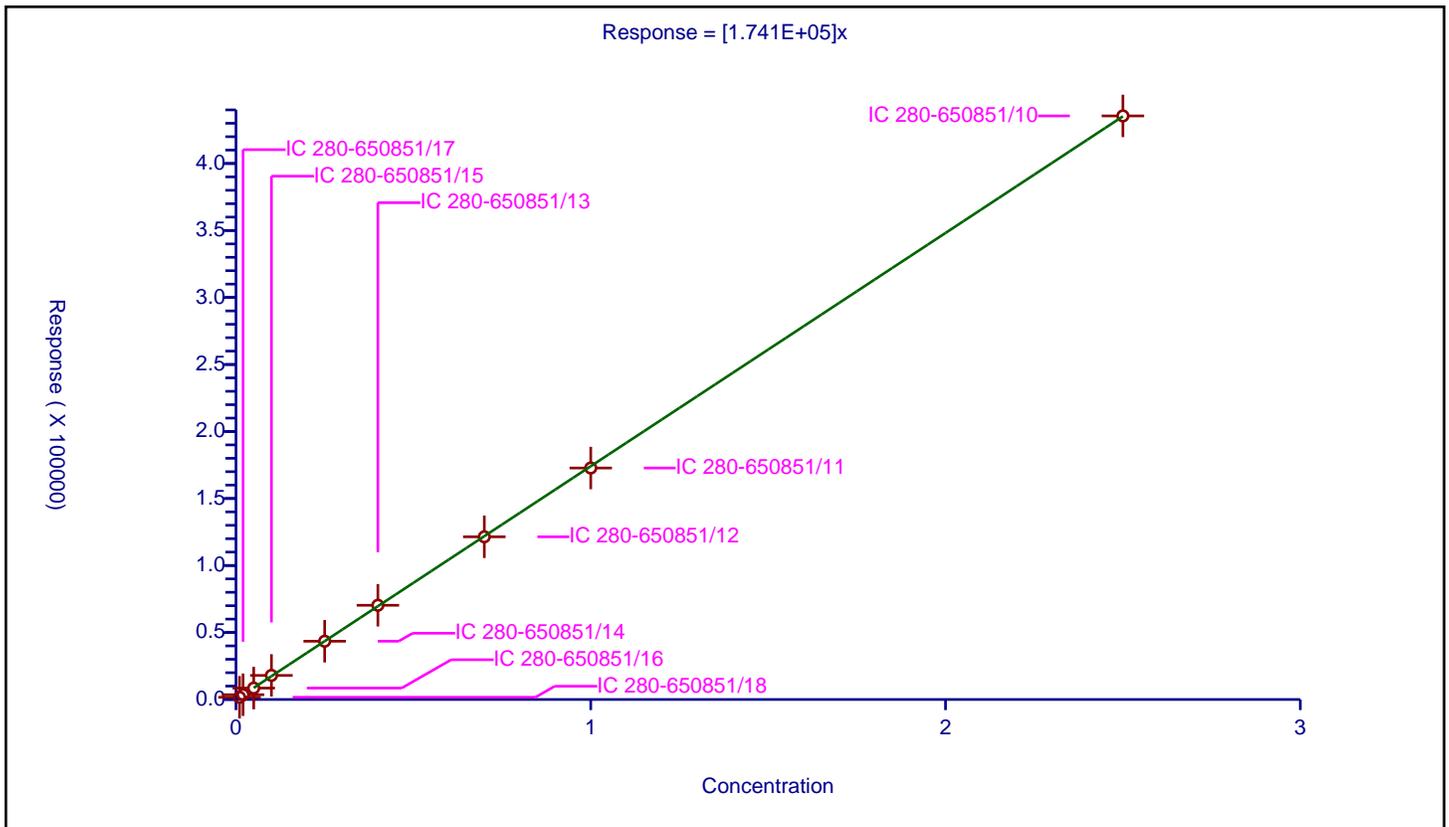
/ HMX

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

Curve Coefficients	
Intercept:	0
Slope:	1.741E+05

Error Coefficients	
Relative Standard Deviation:	2.2

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-650851/18	0.01	1677.0			167700.0	Y
2	IC 280-650851/17	0.02	3578.0			178900.0	Y
3	IC 280-650851/16	0.05	8509.0			170180.0	Y
4	IC 280-650851/15	0.1	17977.0			179770.0	Y
5	IC 280-650851/14	0.25	43487.0			173948.0	Y
6	IC 280-650851/13	0.4	70323.0			175807.5	Y
7	IC 280-650851/12	0.7	121397.0			173424.285714	Y
8	IC 280-650851/11	1.0	172751.0			172751.0	Y
9	IC 280-650851/10	2.5	435504.0			174201.6	Y



**Calibration**

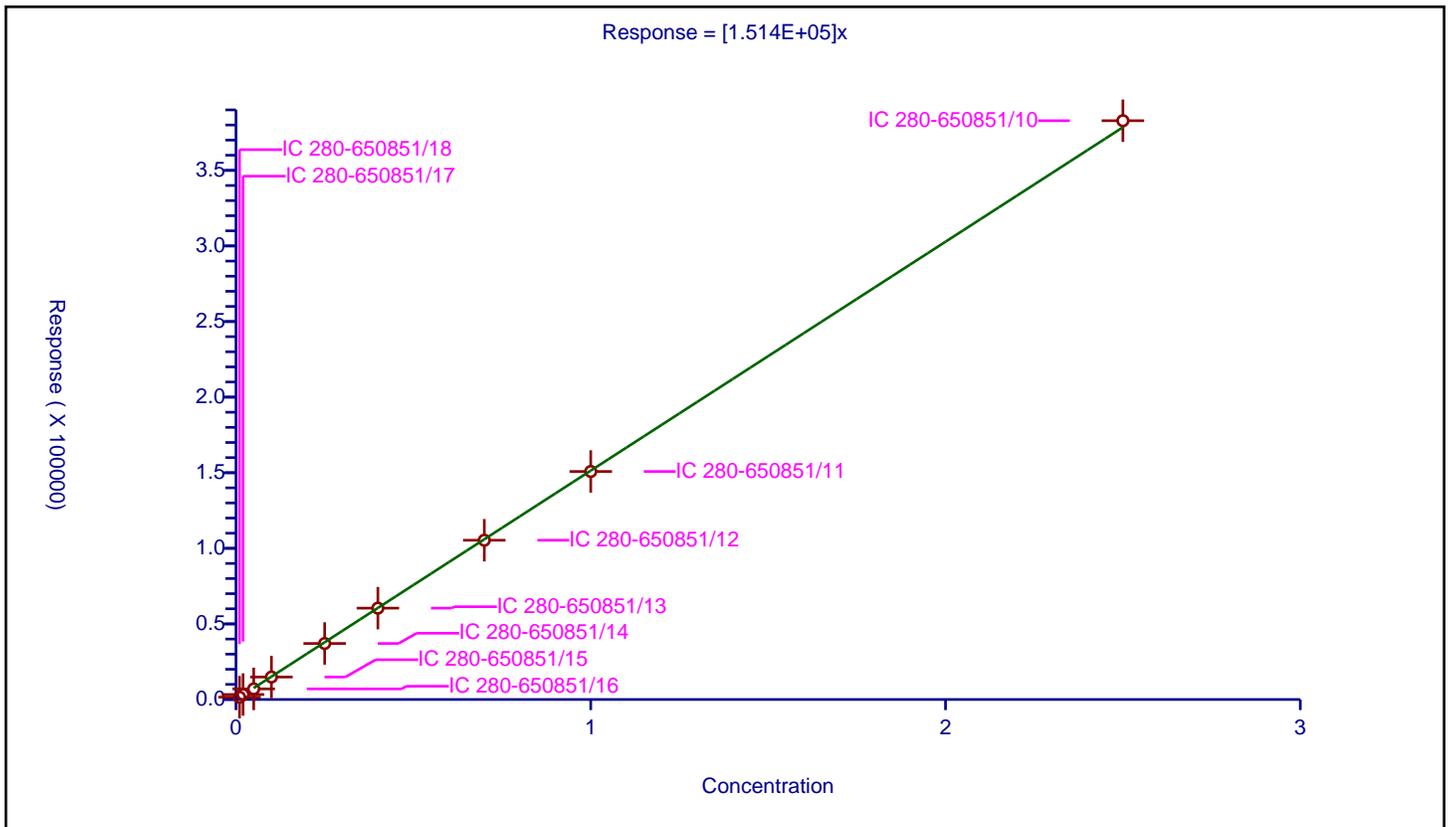
**/ 2,4,6-Trinitrophenol**

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

Curve Coefficients	
Intercept:	0
Slope:	1.514E+05

Error Coefficients	
Relative Standard Deviation:	4.3

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-650851/18	0.01	1549.0			154900.0	Y
2	IC 280-650851/17	0.02	3302.0			165100.0	Y
3	IC 280-650851/16	0.05	7014.0			140280.0	Y
4	IC 280-650851/15	0.1	14859.0			148590.0	Y
5	IC 280-650851/14	0.25	37043.0			148172.0	Y
6	IC 280-650851/13	0.4	60435.0			151087.5	Y
7	IC 280-650851/12	0.7	105341.0			150487.142857	Y
8	IC 280-650851/11	1.0	150820.0			150820.0	Y
9	IC 280-650851/10	2.5	382843.0			153137.2	Y



Calibration

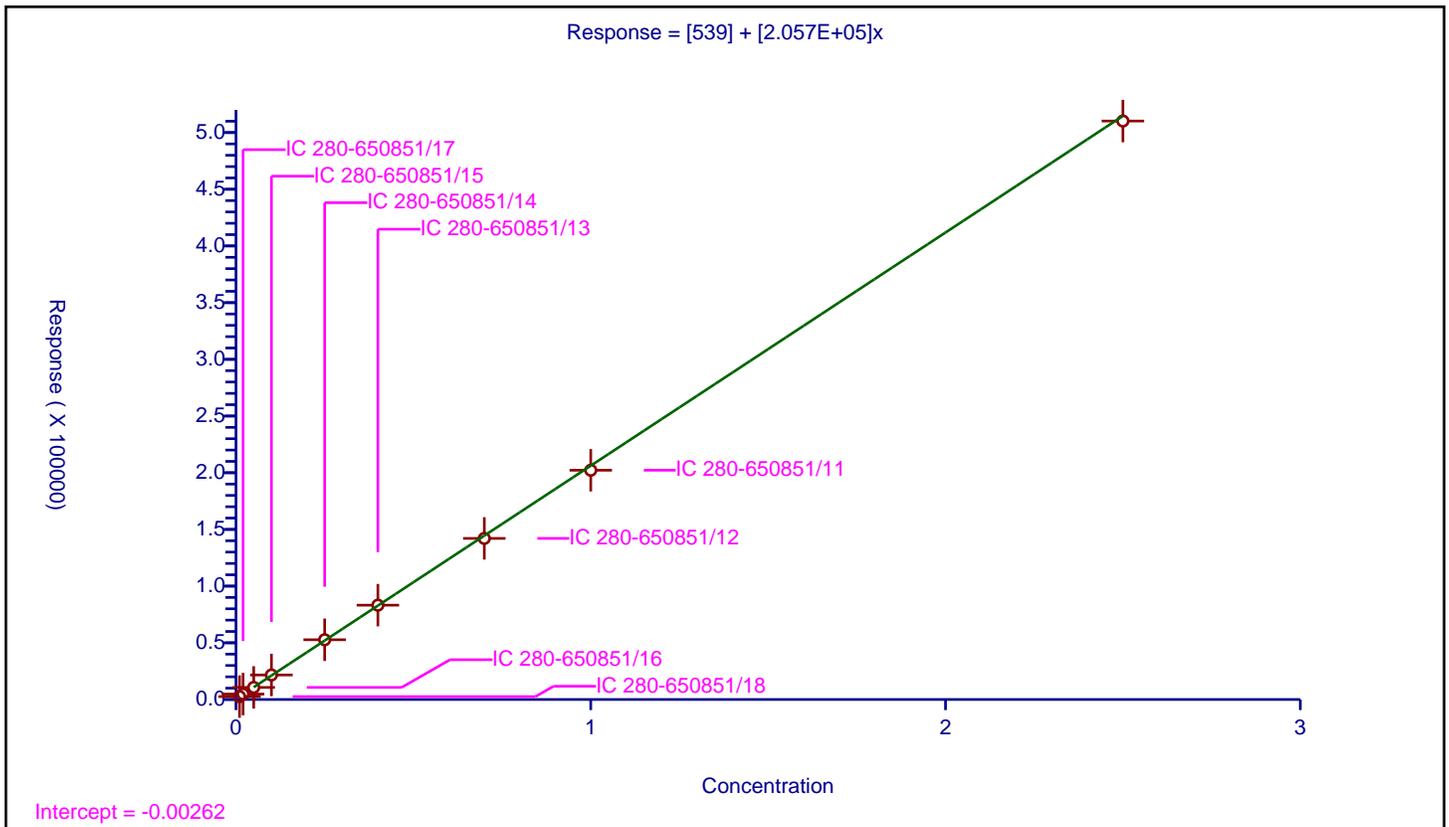
/ RDX

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

Curve Coefficients	
Intercept:	539
Slope:	2.057E+05

Error Coefficients	
Relative Standard Deviation:	2.2

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-650851/18	0.01	2562.0			256200.0	Y
2	IC 280-650851/17	0.02	4791.0			239550.0	Y
3	IC 280-650851/16	0.05	10654.0			213080.0	Y
4	IC 280-650851/15	0.1	21609.0			216090.0	Y
5	IC 280-650851/14	0.25	52707.0			210828.0	Y
6	IC 280-650851/13	0.4	83185.0			207962.5	Y
7	IC 280-650851/12	0.7	142066.0			202951.428571	Y
8	IC 280-650851/11	1.0	202193.0			202193.0	Y
9	IC 280-650851/10	2.5	510182.0			204072.8	Y



**Calibration**

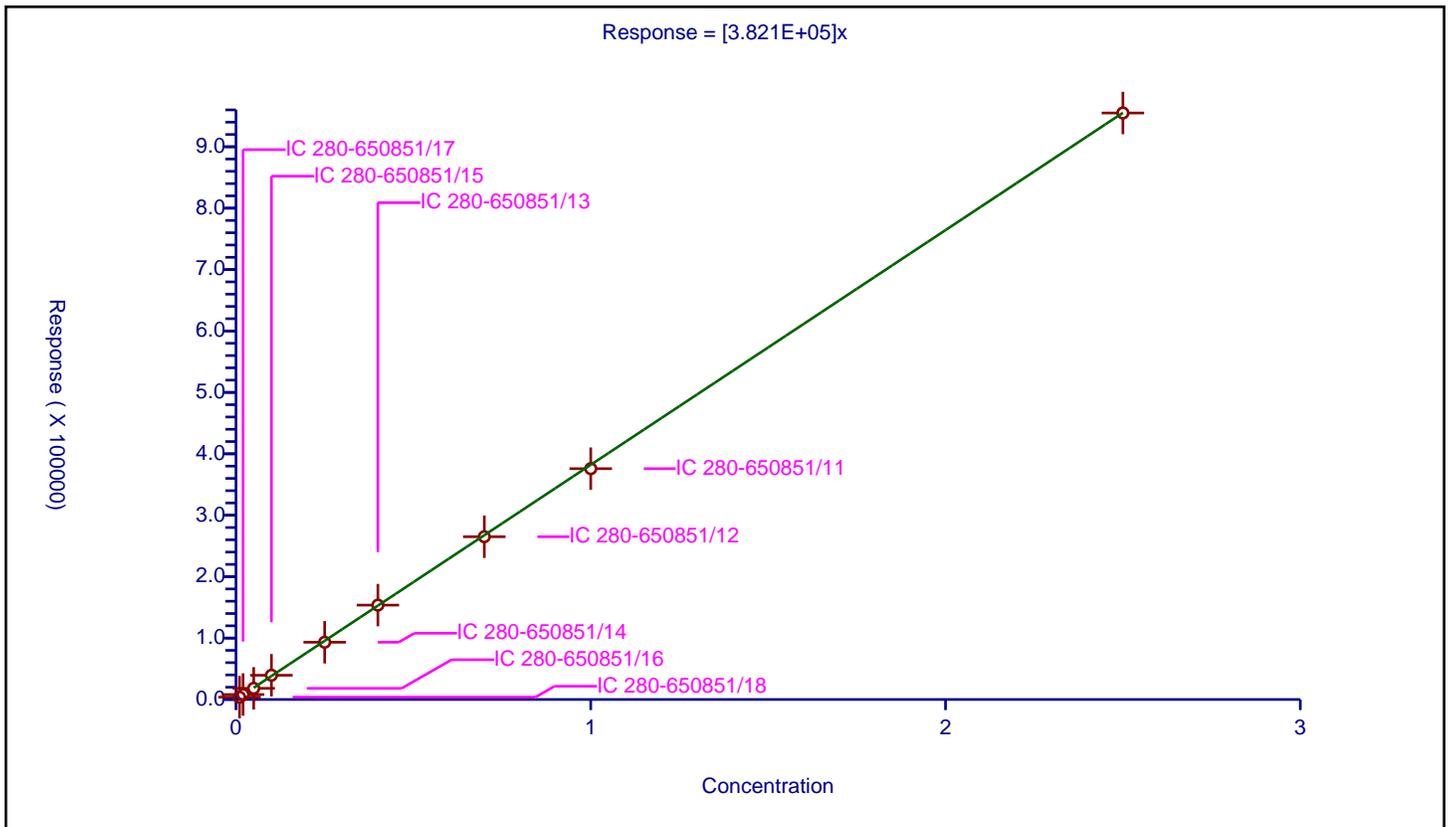
**/ Nitrobenzene**

**Curve Type:** Average  
**Weighting:** Conc\_Sq  
**Origin:** Force  
**Dependency:** Response  
**Calib Mode:** ESTD  
**Response Base:** AREA  
**RF Rounding:** 0

Curve Coefficients	
Intercept:	0
Slope:	3.821E+05

**Error Coefficients**  
**Relative Standard Deviation:** 3.2

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-650851/18	0.01	3818.0			381800.0	Y
2	IC 280-650851/17	0.02	8101.0			405050.0	Y
3	IC 280-650851/16	0.05	18193.0			363860.0	Y
4	IC 280-650851/15	0.1	39489.0			394890.0	Y
5	IC 280-650851/14	0.25	93225.0			372900.0	Y
6	IC 280-650851/13	0.4	153657.0			384142.5	Y
7	IC 280-650851/12	0.7	265026.0			378608.571429	Y
8	IC 280-650851/11	1.0	375845.0			375845.0	Y
9	IC 280-650851/10	2.5	954967.0			381986.8	Y



**Calibration**

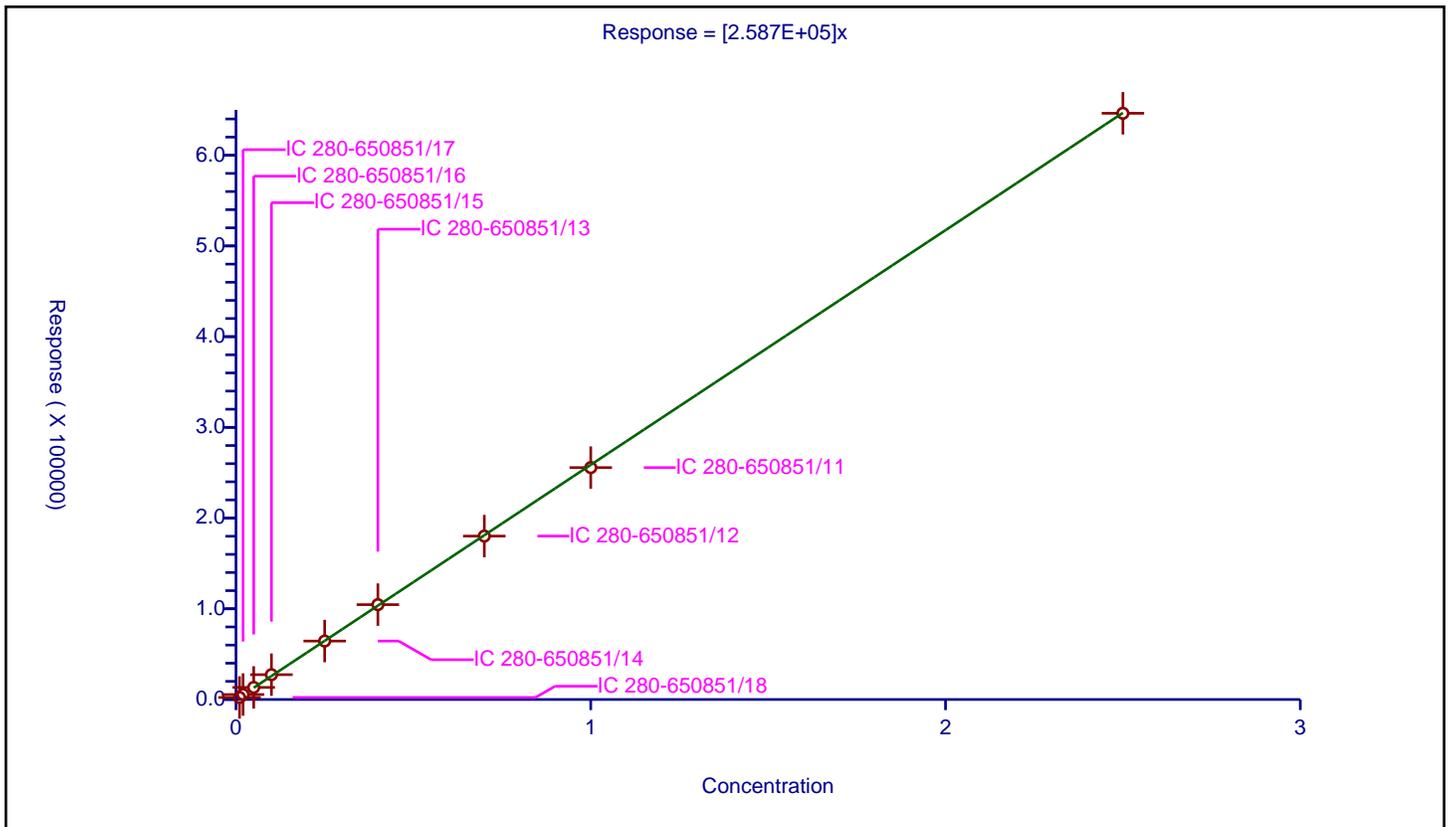
/ 1,2-Dinitrobenzene

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

Curve Coefficients	
Intercept:	0
Slope:	2.587E+05

Error Coefficients	
Relative Standard Deviation:	5.7

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-650851/18	0.01	2237.0			223700.0	Y
2	IC 280-650851/17	0.02	5474.0			273700.0	Y
3	IC 280-650851/16	0.05	13324.0			266480.0	Y
4	IC 280-650851/15	0.1	27370.0			273700.0	Y
5	IC 280-650851/14	0.25	64431.0			257724.0	Y
6	IC 280-650851/13	0.4	104562.0			261405.0	Y
7	IC 280-650851/12	0.7	180143.0			257347.142857	Y
8	IC 280-650851/11	1.0	255644.0			255644.0	Y
9	IC 280-650851/10	2.5	646251.0			258500.4	Y



Calibration

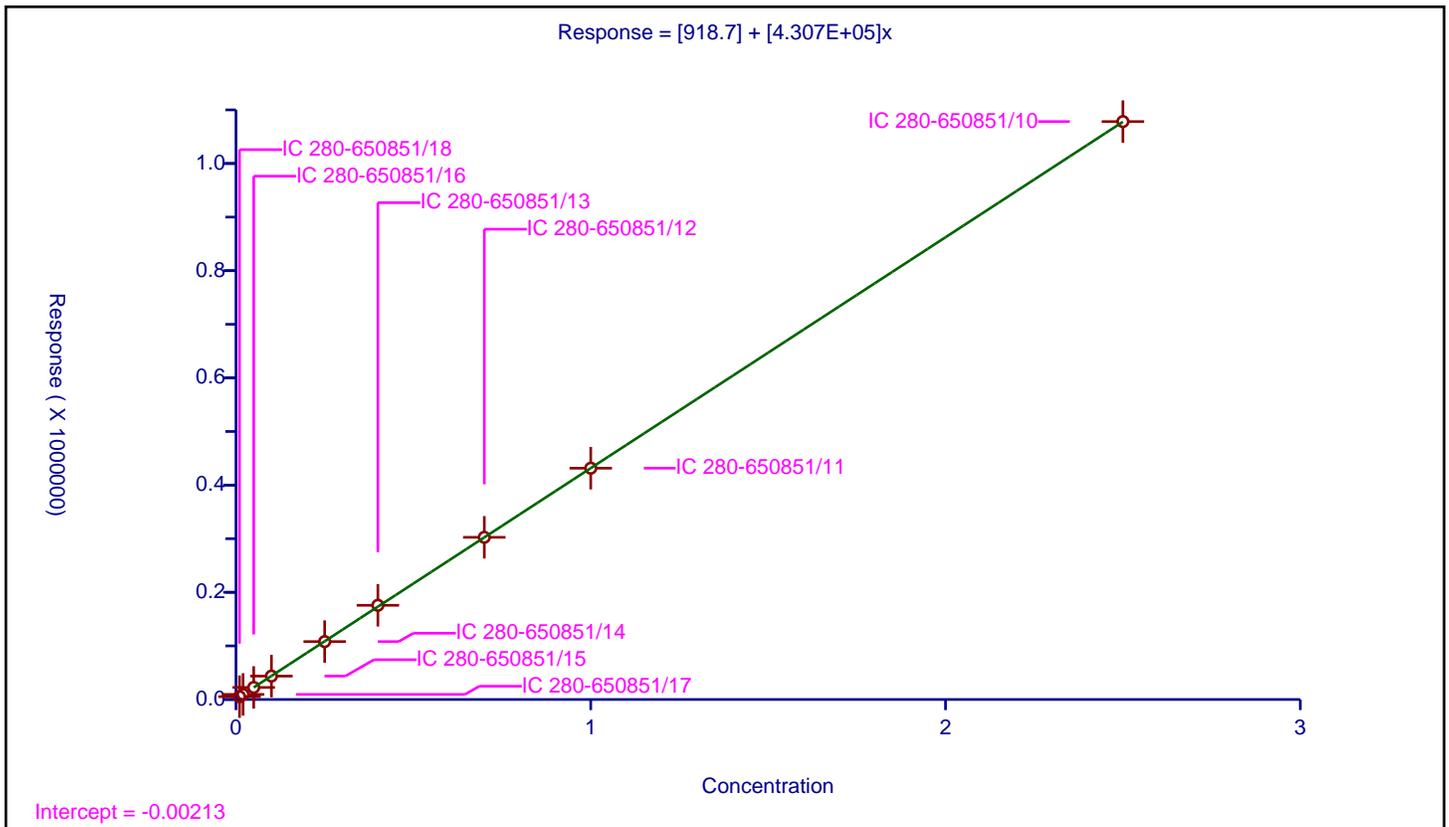
/ 3,5-Dinitroaniline

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

Curve Coefficients	
Intercept:	918.7
Slope:	4.307E+05

Error Coefficients	
Relative Standard Deviation:	0.7

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-650851/18	0.01	5245.0			524500.0	Y
2	IC 280-650851/17	0.02	9463.0			473150.0	Y
3	IC 280-650851/16	0.05	22481.0			449620.0	Y
4	IC 280-650851/15	0.1	43670.0			436700.0	Y
5	IC 280-650851/14	0.25	108023.0			432092.0	Y
6	IC 280-650851/13	0.4	175740.0			439350.0	Y
7	IC 280-650851/12	0.7	302587.0			432267.142857	Y
8	IC 280-650851/11	1.0	431522.0			431522.0	Y
9	IC 280-650851/10	2.5	1078184.0			431273.6	Y



Calibration

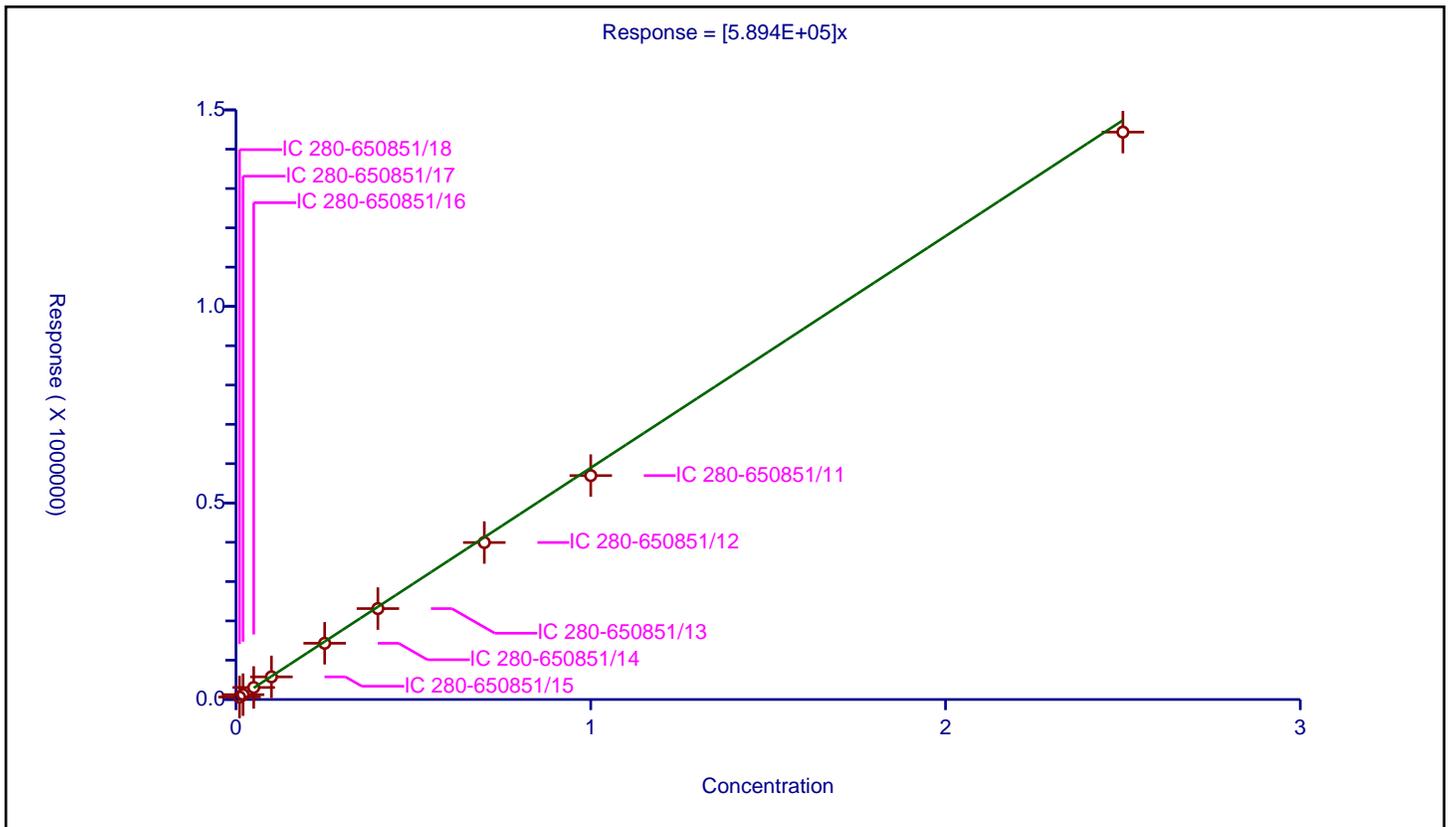
/ 1,3-Dinitrobenzene

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

Curve Coefficients	
Intercept:	0
Slope:	5.894E+05

Error Coefficients	
Relative Standard Deviation:	4.1

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-650851/18	0.01	6332.0			633200.0	Y
2	IC 280-650851/17	0.02	12318.0			615900.0	Y
3	IC 280-650851/16	0.05	30596.0			611920.0	Y
4	IC 280-650851/15	0.1	57592.0			575920.0	Y
5	IC 280-650851/14	0.25	143019.0			572076.0	Y
6	IC 280-650851/13	0.4	231256.0			578140.0	Y
7	IC 280-650851/12	0.7	399408.0			570582.857143	Y
8	IC 280-650851/11	1.0	569625.0			569625.0	Y
9	IC 280-650851/10	2.5	1443498.0			577399.2	Y



**Calibration**

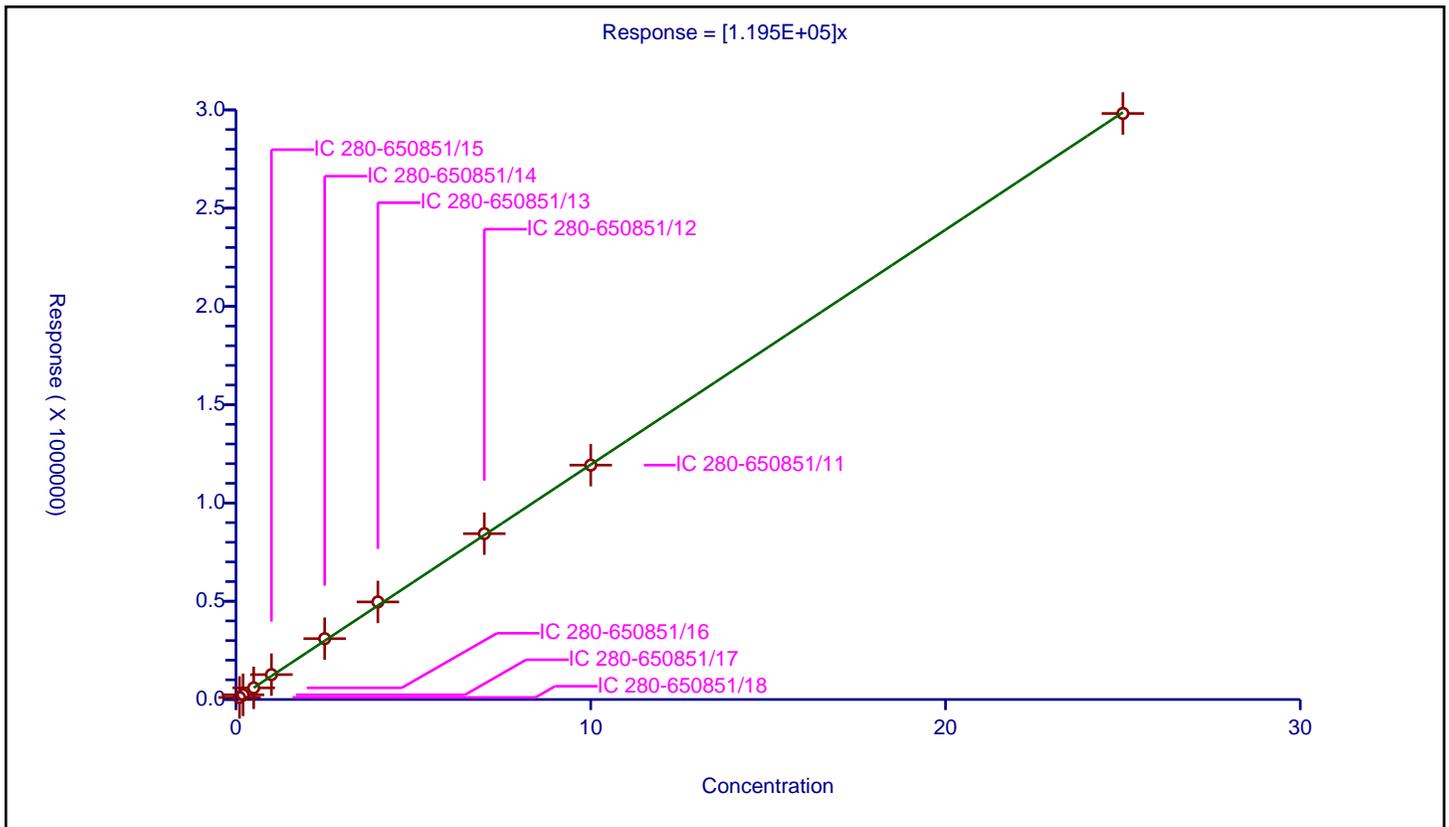
/ Nitroglycerin

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

Curve Coefficients	
Intercept:	0
Slope:	1.195E+05

Error Coefficients	
Relative Standard Deviation:	5.3

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-650851/18	0.1	10431.0			104310.0	Y
2	IC 280-650851/17	0.2	23877.0			119385.0	Y
3	IC 280-650851/16	0.5	59130.0			118260.0	Y
4	IC 280-650851/15	1.0	126558.0			126558.0	Y
5	IC 280-650851/14	2.5	309600.0			123840.0	Y
6	IC 280-650851/13	4.0	496432.0			124108.0	Y
7	IC 280-650851/12	7.0	843844.0			120549.142857	Y
8	IC 280-650851/11	10.0	1192597.0			119259.7	Y
9	IC 280-650851/10	25.0	2981826.0			119273.04	Y



**Calibration**

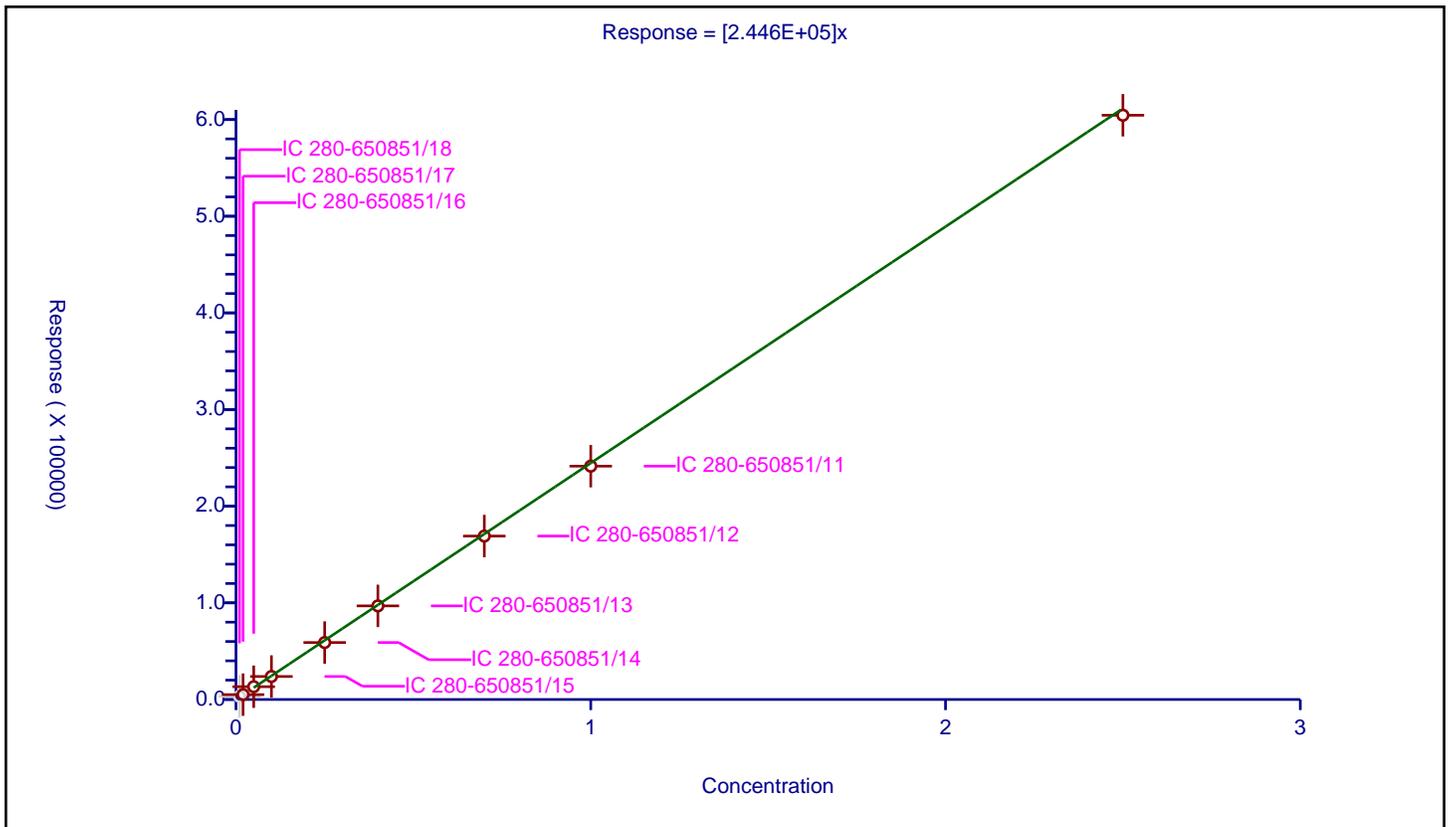
**/ o-Nitrotoluene**

**Curve Type:** Average  
**Weighting:** Conc\_Sq  
**Origin:** Force  
**Dependency:** Response  
**Calib Mode:** ESTD  
**Response Base:** AREA  
**RF Rounding:** 0

Curve Coefficients	
Intercept:	0
Slope:	2.446E+05

Error Coefficients	
Relative Standard Deviation:	3.8

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-650851/18	0.01	3289.0			328900.0	N
2	IC 280-650851/17	0.02	5024.0			251200.0	Y
3	IC 280-650851/16	0.05	13247.0			264940.0	Y
4	IC 280-650851/15	0.1	23799.0			237990.0	Y
5	IC 280-650851/14	0.25	58941.0			235764.0	Y
6	IC 280-650851/13	0.4	96839.0			242097.5	Y
7	IC 280-650851/12	0.7	169093.0			241561.428571	Y
8	IC 280-650851/11	1.0	241414.0			241414.0	Y
9	IC 280-650851/10	2.5	604470.0			241788.0	Y



**Calibration**

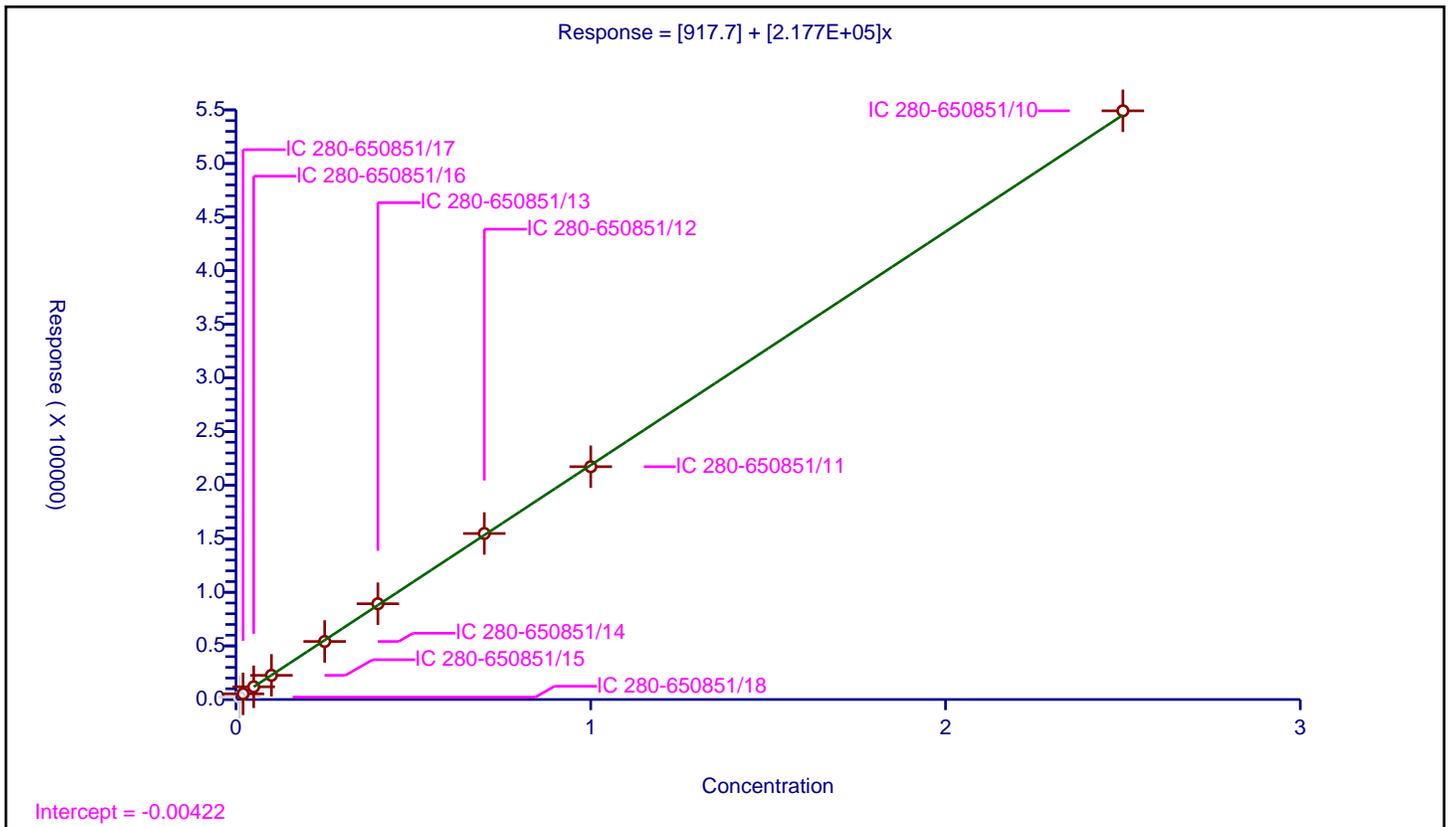
/ p-Nitrotoluene

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

Curve Coefficients	
Intercept:	917.7
Slope:	2.177E+05

Error Coefficients	
Relative Standard Deviation:	1.3

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-650851/18	0.01	2223.0			222300.0	N
2	IC 280-650851/17	0.02	5278.0			263900.0	Y
3	IC 280-650851/16	0.05	11825.0			236500.0	Y
4	IC 280-650851/15	0.1	22549.0			225490.0	Y
5	IC 280-650851/14	0.25	54130.0			216520.0	Y
6	IC 280-650851/13	0.4	89334.0			223335.0	Y
7	IC 280-650851/12	0.7	154841.0			221201.428571	Y
8	IC 280-650851/11	1.0	217154.0			217154.0	Y
9	IC 280-650851/10	2.5	549133.0			219653.2	Y



Calibration

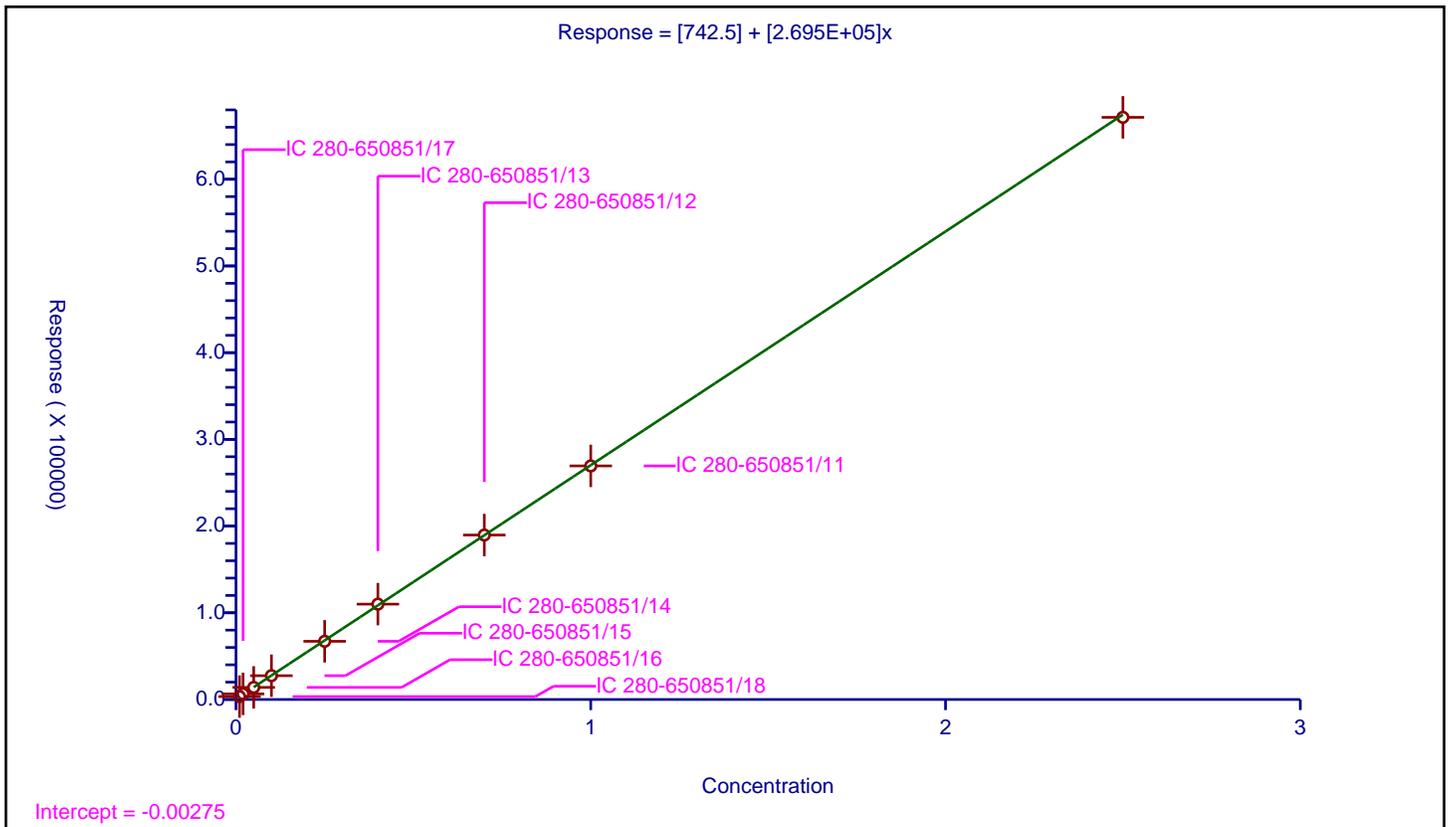
/ 4-Amino-2,6-dinitrotoluene

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

Curve Coefficients	
Intercept:	742.5
Slope:	2.695E+05

Error Coefficients	
Relative Standard Deviation:	2.8

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-650851/18	0.01	3366.0			336600.0	Y
2	IC 280-650851/17	0.02	6474.0			323700.0	Y
3	IC 280-650851/16	0.05	13955.0			279100.0	Y
4	IC 280-650851/15	0.1	27449.0			274490.0	Y
5	IC 280-650851/14	0.25	67115.0			268460.0	Y
6	IC 280-650851/13	0.4	109971.0			274927.5	Y
7	IC 280-650851/12	0.7	189660.0			270942.857143	Y
8	IC 280-650851/11	1.0	269382.0			269382.0	Y
9	IC 280-650851/10	2.5	671412.0			268564.8	Y



**Calibration**

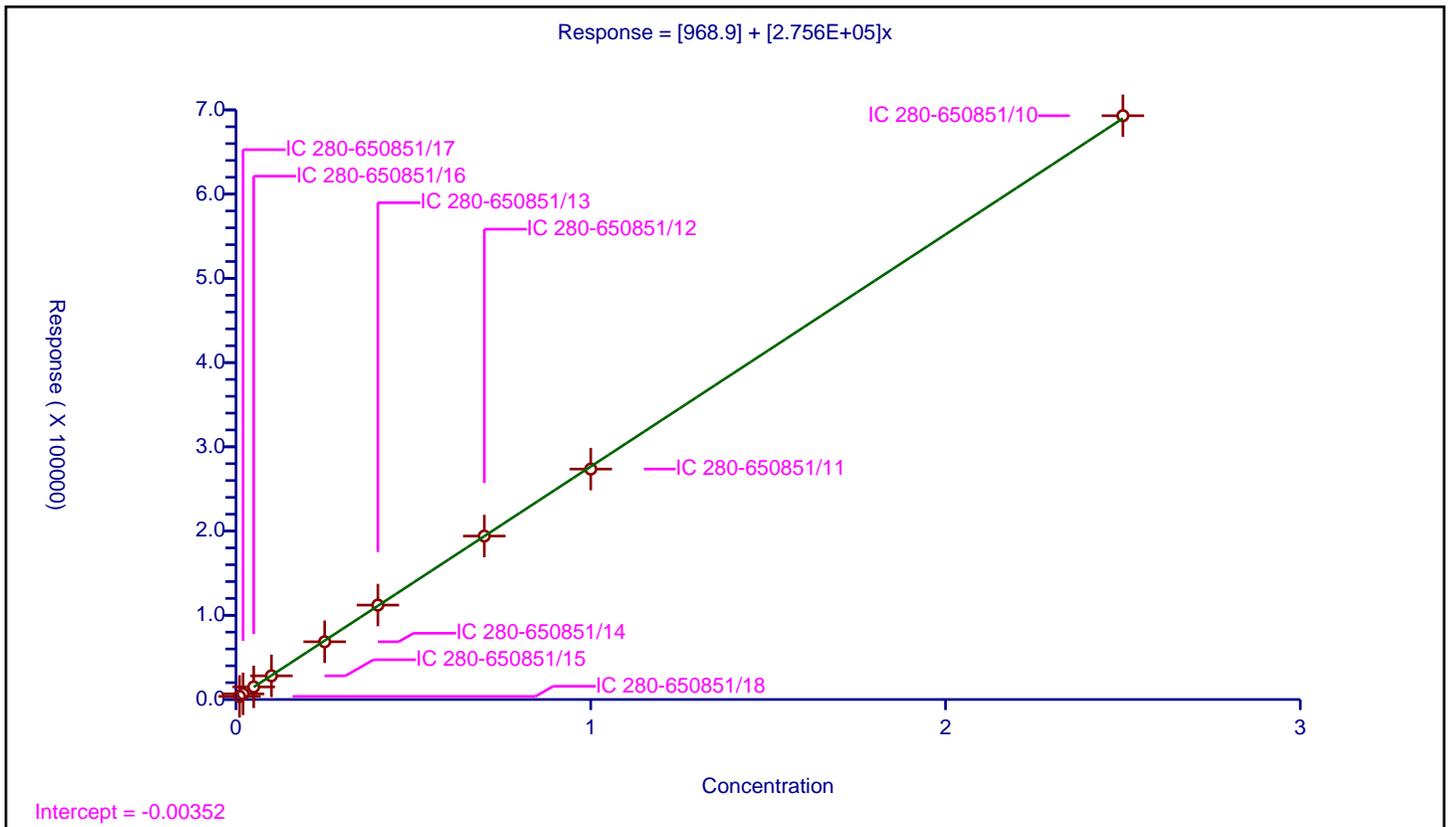
/ m-Nitrotoluene

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

Curve Coefficients	
Intercept:	968.9
Slope:	2.756E+05

Error Coefficients	
Relative Standard Deviation:	2.0

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-650851/18	0.01	3672.0			367200.0	Y
2	IC 280-650851/17	0.02	6685.0			334250.0	Y
3	IC 280-650851/16	0.05	14941.0			298820.0	Y
4	IC 280-650851/15	0.1	28103.0			281030.0	Y
5	IC 280-650851/14	0.25	68559.0			274236.0	Y
6	IC 280-650851/13	0.4	112076.0			280190.0	Y
7	IC 280-650851/12	0.7	194048.0			277211.428571	Y
8	IC 280-650851/11	1.0	273569.0			273569.0	Y
9	IC 280-650851/10	2.5	693064.0			277225.6	Y



**Calibration**

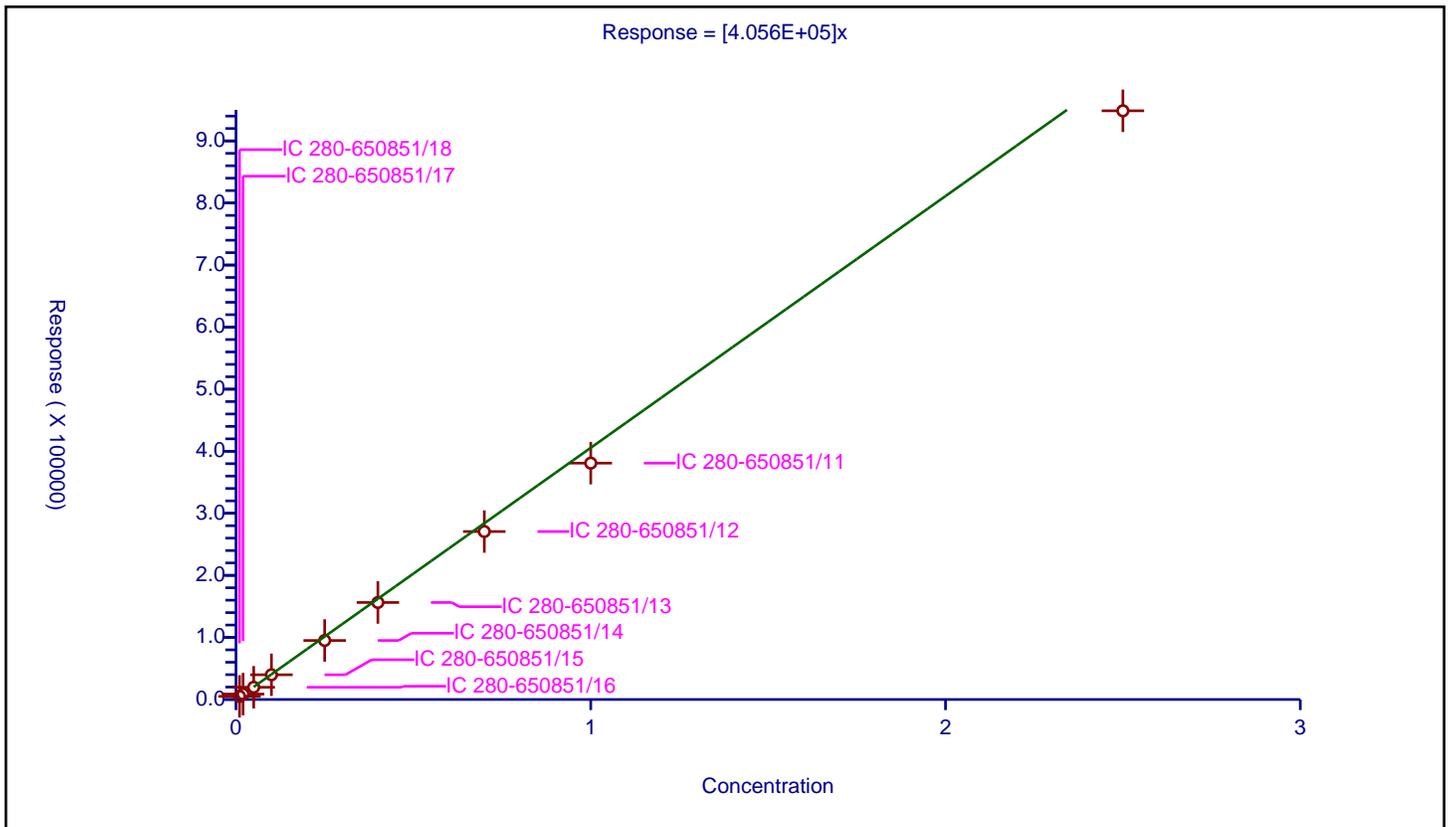
/ 2-Amino-4,6-dinitrotoluene

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

Curve Coefficients	
Intercept:	0
Slope:	4.056E+05

Error Coefficients	
Relative Standard Deviation:	9.9

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-650851/18	0.01	5022.0			502200.0	Y
2	IC 280-650851/17	0.02	8733.0			436650.0	Y
3	IC 280-650851/16	0.05	19735.0			394700.0	Y
4	IC 280-650851/15	0.1	39853.0			398530.0	Y
5	IC 280-650851/14	0.25	95082.0			380328.0	Y
6	IC 280-650851/13	0.4	156312.0			390780.0	Y
7	IC 280-650851/12	0.7	270634.0			386620.0	Y
8	IC 280-650851/11	1.0	380835.0			380835.0	Y
9	IC 280-650851/10	2.5	948541.0			379416.4	Y



**Calibration**

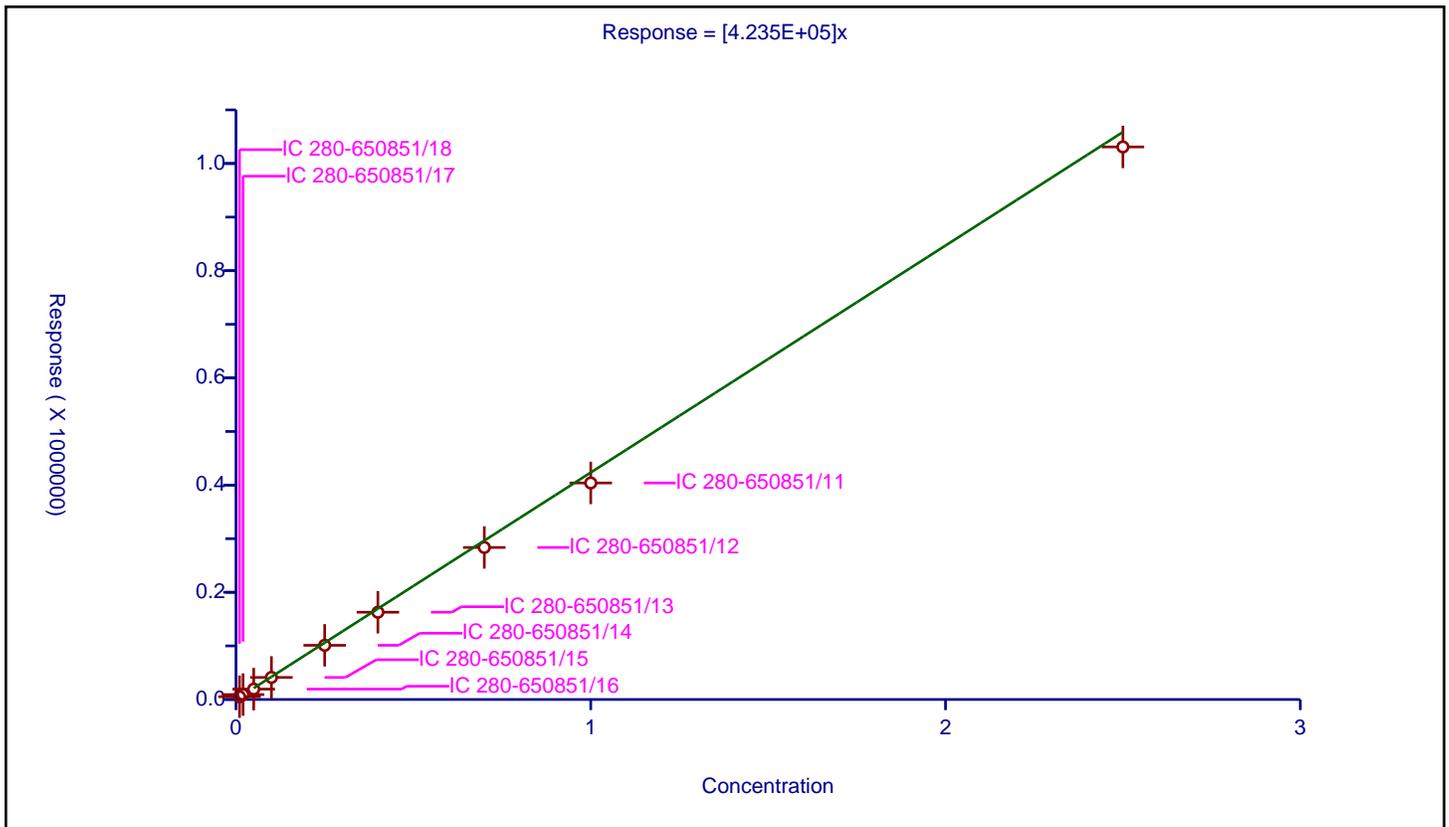
/ 1,3,5-Trinitrobenzene

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

Curve Coefficients	
Intercept:	0
Slope:	4.235E+05

Error Coefficients	
Relative Standard Deviation:	9.8

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-650851/18	0.01	5210.0			521000.0	Y
2	IC 280-650851/17	0.02	9167.0			458350.0	Y
3	IC 280-650851/16	0.05	19358.0			387160.0	Y
4	IC 280-650851/15	0.1	41177.0			411770.0	Y
5	IC 280-650851/14	0.25	101067.0			404268.0	Y
6	IC 280-650851/13	0.4	162815.0			407037.5	Y
7	IC 280-650851/12	0.7	283624.0			405177.142857	Y
8	IC 280-650851/11	1.0	403965.0			403965.0	Y
9	IC 280-650851/10	2.5	1030907.0			412362.8	Y



Calibration

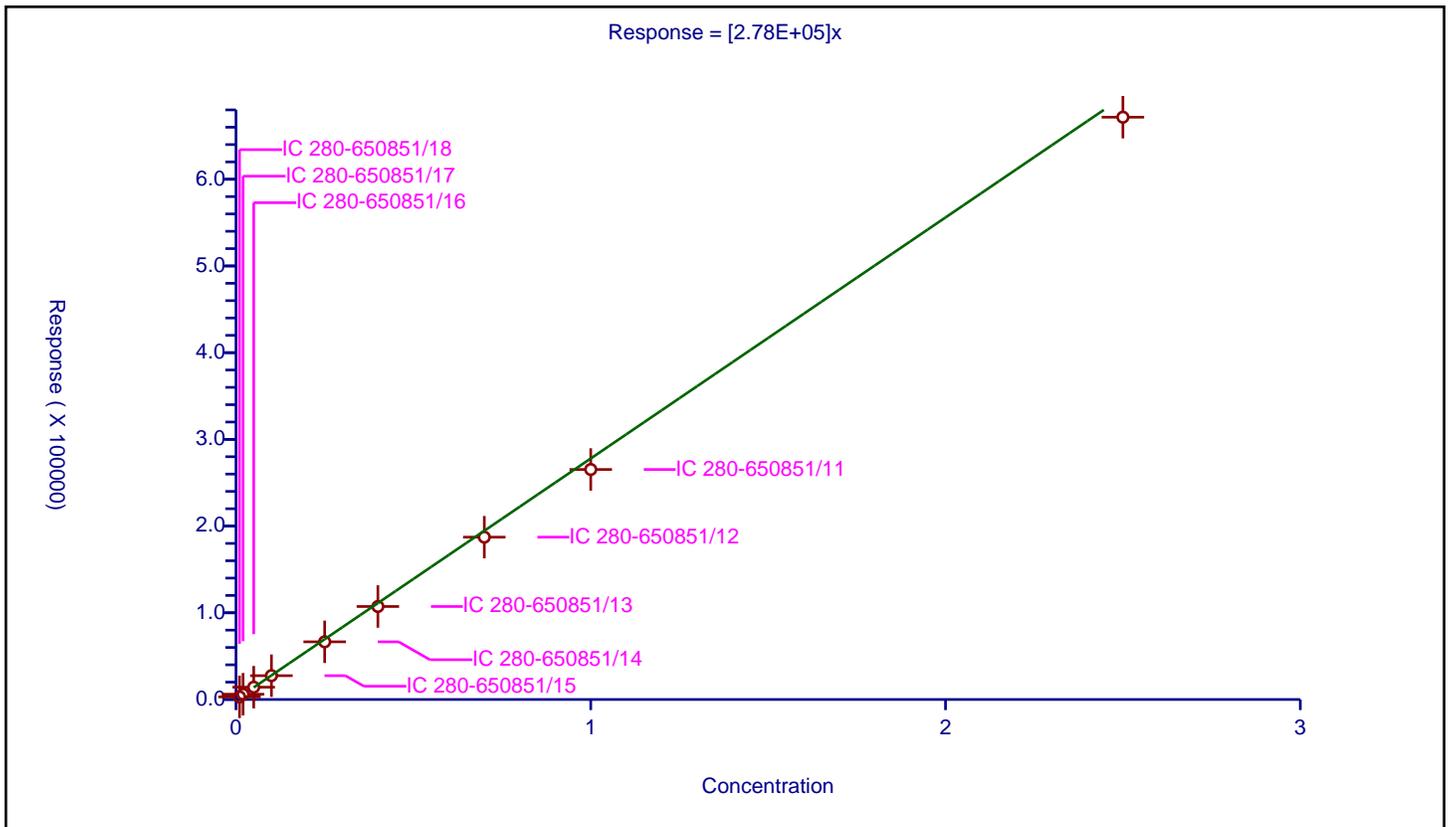
/ 2,6-Dinitrotoluene

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

Curve Coefficients	
Intercept:	0
Slope:	2.78E+05

Error Coefficients	
Relative Standard Deviation:	5.6

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-650851/18	0.01	3016.0			301600.0	Y
2	IC 280-650851/17	0.02	6113.0			305650.0	Y
3	IC 280-650851/16	0.05	14197.0			283940.0	Y
4	IC 280-650851/15	0.1	27487.0			274870.0	Y
5	IC 280-650851/14	0.25	66539.0			266156.0	Y
6	IC 280-650851/13	0.4	107267.0			268167.5	Y
7	IC 280-650851/12	0.7	187213.0			267447.142857	Y
8	IC 280-650851/11	1.0	265267.0			265267.0	Y
9	IC 280-650851/10	2.5	671582.0			268632.8	Y



Calibration

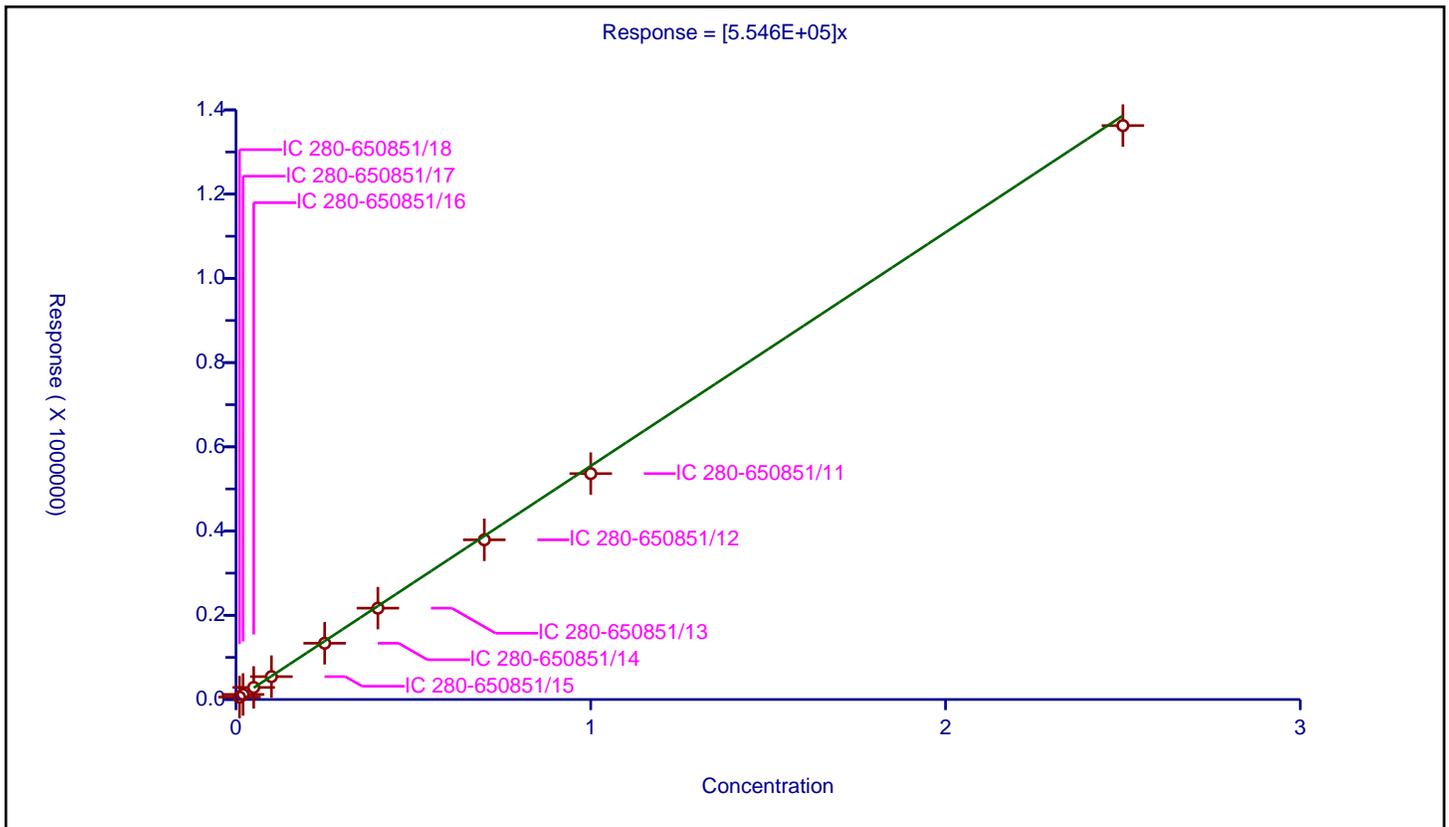
/ 2,4-Dinitrotoluene

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

Curve Coefficients	
Intercept:	0
Slope:	5.546E+05

Error Coefficients	
Relative Standard Deviation:	4.1

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-650851/18	0.01	5764.0			576400.0	Y
2	IC 280-650851/17	0.02	12005.0			600250.0	Y
3	IC 280-650851/16	0.05	28589.0			571780.0	Y
4	IC 280-650851/15	0.1	54294.0			542940.0	Y
5	IC 280-650851/14	0.25	133579.0			534316.0	Y
6	IC 280-650851/13	0.4	216895.0			542237.5	Y
7	IC 280-650851/12	0.7	379151.0			541644.285714	Y
8	IC 280-650851/11	1.0	536407.0			536407.0	Y
9	IC 280-650851/10	2.5	1362753.0			545101.2	Y



Calibration

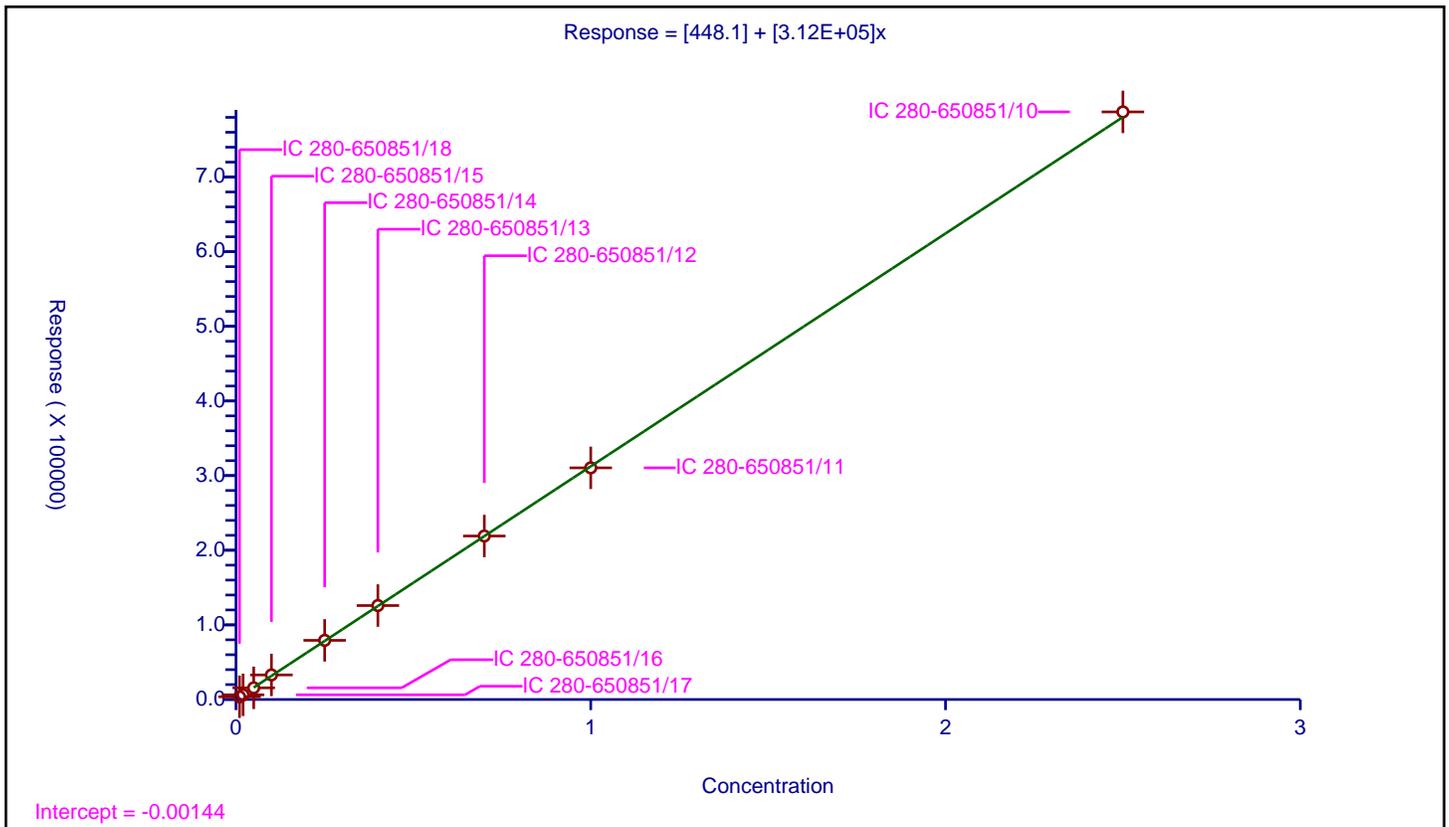
/ Tetryl

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

Curve Coefficients	
Intercept:	448.1
Slope:	3.12E+05

Error Coefficients	
Relative Standard Deviation:	3.5

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-650851/18	0.01	3675.0			367500.0	Y
2	IC 280-650851/17	0.02	6268.0			313400.0	Y
3	IC 280-650851/16	0.05	15630.0			312600.0	Y
4	IC 280-650851/15	0.1	32920.0			329200.0	Y
5	IC 280-650851/14	0.25	79229.0			316916.0	Y
6	IC 280-650851/13	0.4	125893.0			314732.5	Y
7	IC 280-650851/12	0.7	219045.0			312921.428571	Y
8	IC 280-650851/11	1.0	310388.0			310388.0	Y
9	IC 280-650851/10	2.5	787307.0			314922.8	Y



**Calibration**

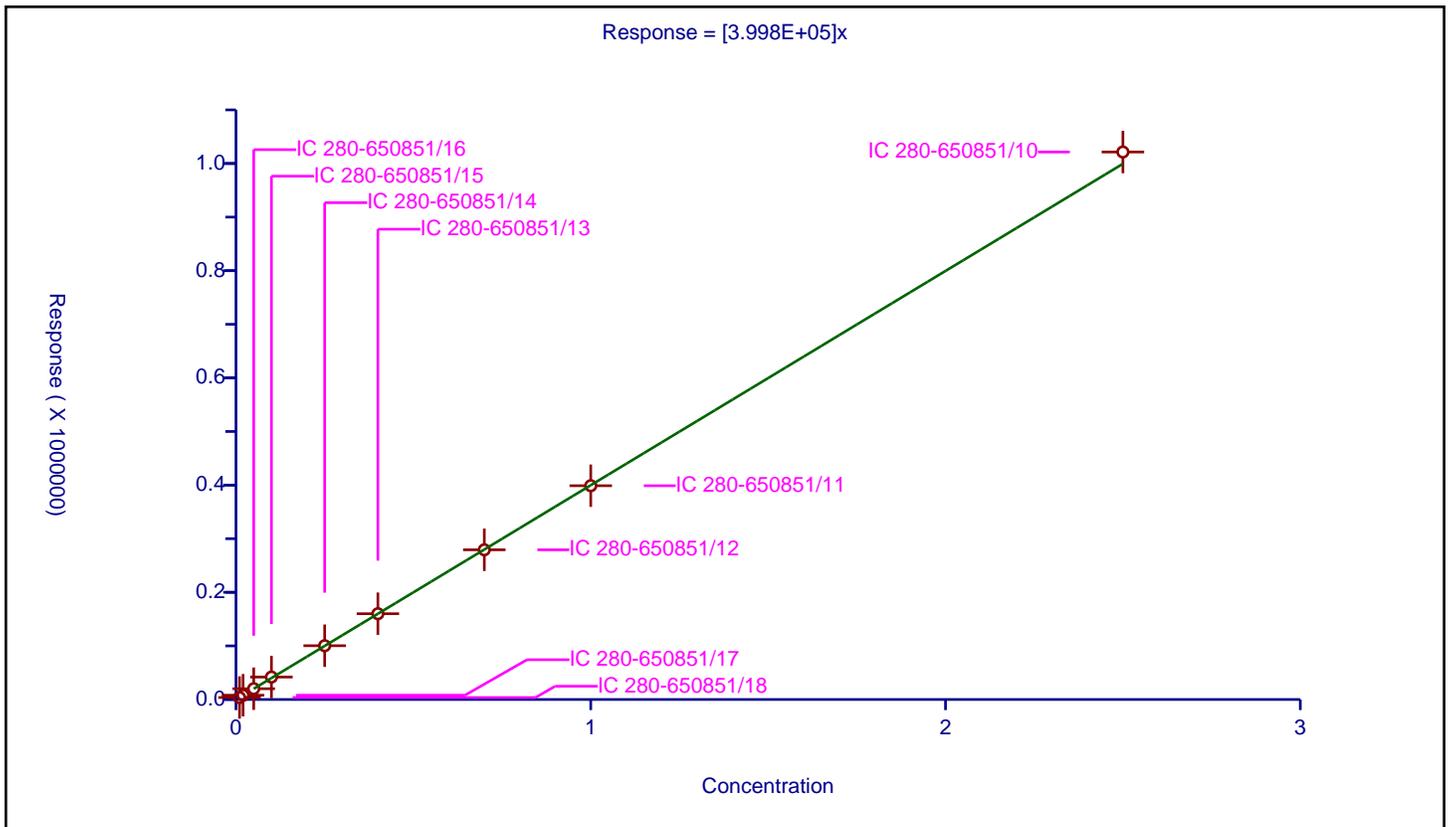
**/ 2,4,6-Trinitrotoluene**

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

Curve Coefficients	
Intercept:	0
Slope:	3.998E+05

Error Coefficients	
Relative Standard Deviation:	3.2

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-650851/18	0.01	3703.0			370300.0	Y
2	IC 280-650851/17	0.02	7969.0			398450.0	Y
3	IC 280-650851/16	0.05	20131.0			402620.0	Y
4	IC 280-650851/15	0.1	41861.0			418610.0	Y
5	IC 280-650851/14	0.25	100337.0			401348.0	Y
6	IC 280-650851/13	0.4	160072.0			400180.0	Y
7	IC 280-650851/12	0.7	279268.0			398954.285714	Y
8	IC 280-650851/11	1.0	398830.0			398830.0	Y
9	IC 280-650851/10	2.5	1021428.0			408571.2	Y



**Calibration**

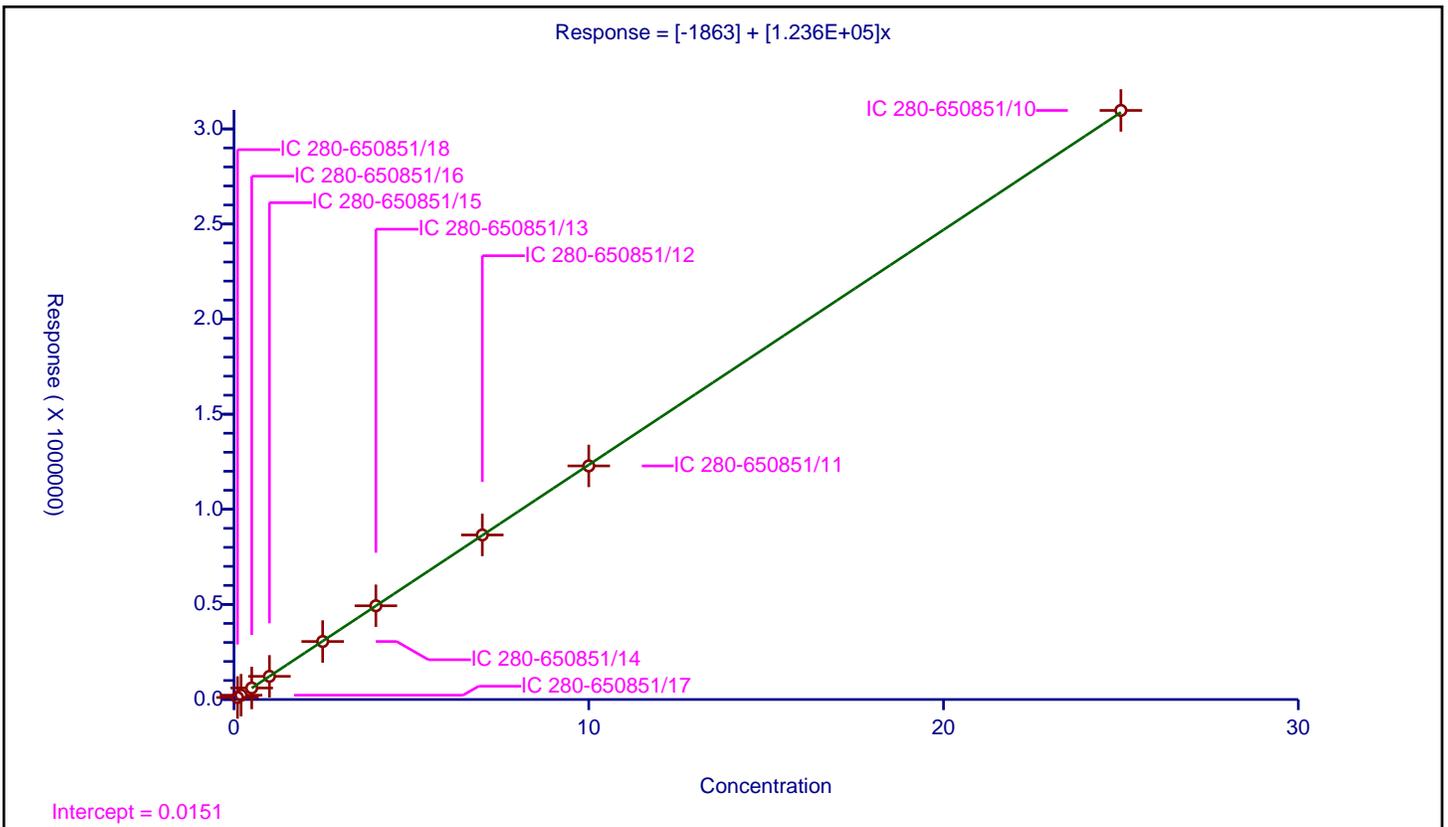
/ PETN

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

Curve Coefficients	
Intercept:	-1863
Slope:	1.236E+05

Error Coefficients	
Relative Standard Deviation:	0.7

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-650851/18	0.1	10531.0			105310.0	Y
2	IC 280-650851/17	0.2	22594.0			112970.0	Y
3	IC 280-650851/16	0.5	60616.0			121232.0	Y
4	IC 280-650851/15	1.0	121831.0			121831.0	Y
5	IC 280-650851/14	2.5	304928.0			121971.2	Y
6	IC 280-650851/13	4.0	492803.0			123200.75	Y
7	IC 280-650851/12	7.0	865110.0			123587.142857	Y
8	IC 280-650851/11	10.0	1228090.0			122809.0	Y
9	IC 280-650851/10	25.0	3097249.0			123889.96	Y



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

Lab Name: Eurofins Denver Job No.: 280-190882-1 Analy Batch No.: 649950  
 SDG No.: \_\_\_\_\_  
 Instrument ID: CHHPLC\_X3 GC Column: UltraCarb5u ID: 4.6(mm) Heated Purge: (Y/N) N  
 Calibration Start Date: 04/17/2024 20:37 Calibration End Date: 04/17/2024 23:41 Calibration ID: 92320

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-649950/19	04170019.D
Level 2	IC 280-649950/18	04170018.D
Level 3	IC 280-649950/17	04170017.D
Level 4	IC 280-649950/16	04170016.D
Level 5	IC 280-649950/15	04170015.D
Level 6	IC 280-649950/14	04170014.D
Level 7	IC 280-649950/13	04170013.D
Level 8	IC 280-649950/12	04170012.D
Level 9	IC 280-649950/11	04170011.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	LVL 7	LVL 8	LVL 9		RT WINDOW	AVG RT
TNX	6.480	6.475	6.478	6.476	6.476	6.479	6.476	6.474	6.469		6.376 - 6.576	6.476
HMX	6.580	6.582	6.578	6.583	6.582	6.586	6.582	6.581	6.575		6.433 - 6.733	6.581
DNX	6.786	6.788	6.784	6.789	6.789	6.786	6.789	6.788	6.782		6.689 - 6.889	6.787
MNX	7.206	7.202	7.204	7.203	7.209	7.206	7.202	7.208	7.195		7.053 - 7.353	7.204
RDX	7.580	7.582	7.584	7.583	7.582	7.586	7.582	7.581	7.575		7.433 - 7.733	7.582
Picric acid	7.820	7.822	7.818	7.816	7.809	7.806	7.789	7.781	7.742		7.666 - 7.966	7.800
1,3,5-Trinitrobenzene	8.660	8.655	8.658	8.656	8.656	8.659	8.656	8.654	8.649		8.506 - 8.806	8.656
1,3-Dinitrobenzene	9.273	9.275	9.277	9.276	9.276	9.279	9.276	9.274	9.262		9.126 - 9.426	9.274
Nitrobenzene	9.633	9.635	9.631	9.636	9.636	9.639	9.629	9.634	9.622		9.486 - 9.786	9.633
3,5-Dinitroaniline	9.873	9.868	9.871	9.876	9.876	9.872	9.869	9.868	9.855		9.726 - 10.026	9.870
Tetryl	9.953	9.955	9.957	9.963	9.962	9.959	9.956	9.954	9.948		9.813 - 10.113	9.956
Nitroglycerin	10.426	10.422	10.424	10.429	10.429	10.432	10.422	10.421	10.415		10.279 - 10.579	10.424
2,4,6-Trinitrotoluene	10.866	10.862	10.864	10.869	10.869	10.872	10.862	10.868	10.862		10.769 - 10.969	10.866
4-Amino-2,6-dinitrotoluene	11.046	11.042	11.044	11.049	11.049	11.052	11.042	11.041	11.035		10.949 - 11.149	11.044
2-Amino-4,6-dinitrotoluene	11.306	11.302	11.304	11.309	11.309	11.306	11.302	11.301	11.288		11.209 - 11.409	11.303
2,6-Dinitrotoluene	11.453	11.448	11.451	11.449	11.456	11.452	11.449	11.448	11.442		11.349 - 11.549	11.450
2,4-Dinitrotoluene	11.626	11.622	11.624	11.629	11.629	11.632	11.622	11.621	11.615		11.529 - 11.729	11.624
2-Nitrotoluene	12.419	12.415	12.424	12.423	12.422	12.426	12.416	12.421	12.408		12.273 - 12.573	12.419
4-Nitrotoluene	12.853	12.842	12.844	12.843	12.842	12.846	12.842	12.841	12.835		12.693 - 12.993	12.843
3-Nitrotoluene	13.399	13.395	13.404	13.403	13.402	13.406	13.396	13.394	13.388		13.253 - 13.553	13.399
PETN	14.486	14.482	14.491	14.483	14.489	14.492	14.482	14.481	14.482		14.333 - 14.633	14.485
1,2-Dinitrobenzene	8.520	8.522	8.518	8.516	8.522	8.519	8.516	8.521	8.509		8.366 - 8.666	8.518

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

Lab Name: Eurofins Denver Job No.: 280-190882-1 Analy Batch No.: 649950

SDG No.: \_\_\_\_\_

Instrument ID: CHHPLC\_X3 GC Column: UltraCarb5u ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/17/2024 20:37 Calibration End Date: 04/17/2024 23:41 Calibration ID: 92320

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-649950/19	04170019.D
Level 2	IC 280-649950/18	04170018.D
Level 3	IC 280-649950/17	04170017.D
Level 4	IC 280-649950/16	04170016.D
Level 5	IC 280-649950/15	04170015.D
Level 6	IC 280-649950/14	04170014.D
Level 7	IC 280-649950/13	04170013.D
Level 8	IC 280-649950/12	04170012.D
Level 9	IC 280-649950/11	04170011.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD /RSE	#	MAX %RSD /RSE	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5 LVL 9	LVL 2 LVL 6	LVL 3 LVL 7	LVL 4 LVL 8		B	M1	M2								
TNX	204283 196151 203061	200349 196188	191793 201100	199263 198742	Ave		198992.09 7			1.9		20.0				
HMX	91900 94332 96305	100850 95253	90720 96297	96450 97787	Ave		95543.715 9			3.2		20.0				
DNX	151297 147194 150909	141866 146460	144870 148038	148044 146659	Ave		147259.61 3			2.0		20.0				
MNX	141061 136630 140394	127930 137960	134936 138920	135218 137235	Ave		136698.12 2			2.9		20.0				
RDX	118700 107376 107690	116700 106868	112240 106959	111620 108752	Ave		110767.07 5			4.0		20.0				
Picric acid	78700 78992 82062	76200 79110	76940 79906	80160 81861	Ave		79325.679 4			2.5		20.0				
1,3,5-Trinitrobenzene	254900 216292 219181	217450 215905	225160 215779	221290 219723	Ave		222853.26 3			5.6		20.0				
1,3-Dinitrobenzene	308600 296760 301472	283900 297843	300460 298746	303590 303550	Ave		299435.57 9			2.3		20.0				

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

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

Lab Name: Eurofins Denver Job No.: 280-190882-1 Analy Batch No.: 649950

SDG No.: \_\_\_\_\_

Instrument ID: CHHPLC\_X3 GC Column: UltraCarb5u ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/17/2024 20:37 Calibration End Date: 04/17/2024 23:41 Calibration ID: 92320

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD /RSE	#	MAX %RSD /RSE	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5 LVL 9	LVL 2 LVL 6	LVL 3 LVL 7	LVL 4 LVL 8		B	M1	M2								
Nitrobenzene	198500 190564 198214	196600 193678	195180 195570	200350 198305	Ave		196328.94 4			1.5		20.0				
3,5-Dinitroaniline	197100 219364 223150	208550 215118	215620 219330	226510 219396	Lin2	-237.2782 3	221006.73 9						1.0000		0.9900	
Tetryl	183500 180328 183105	168700 185315	180200 181964	182380 188801	Ave		181588.16 5			3.0		20.0				
Nitroglycerin	60480 66994 66784	59815 66731	71314 66745	71367 67945	Ave		66463.888 6			6.1		20.0				
2,4,6-Trinitrotoluene	208100 214372 215788	220000 213738	213380 214716	219120 217516	Ave		215192.17 9			1.7		20.0				
4-Amino-2,6-dinitrotoluene	140600 147324 149438	163050 147888	150660 147166	153440 149965	Ave		149947.84 6			4.0		20.0				
2-Amino-4,6-dinitrotoluene	195100 199804 204593	199850 197140	198460 200077	200330 202927	Ave		199809.03 8			1.4		20.0				
2,6-Dinitrotoluene	155700 143756 144234	144000 147368	145340 143629	152180 146021	Ave		146914.11 9			2.9		20.0				
2,4-Dinitrotoluene	299300 289256 292258	289650 288388	288500 289931	294520 294790	Ave		291843.61 4			1.3		20.0				
2-Nitrotoluene	134000 124092 127714	138850 125230	130520 125813	129770 127758	Ave		129305.25 1			3.6		20.0				
4-Nitrotoluene	124900 107484 109658	120650 107433	112620 108510	113600 110337	Ave		112799.05 6			5.4		20.0				
3-Nitrotoluene	171300 135808 139988	153300 136093	141480 137194	142070 139336	Ave		144063.24 3			8.0		20.0				

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

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

Lab Name: Eurofins Denver Job No.: 280-190882-1 Analy Batch No.: 649950

SDG No.: \_\_\_\_\_

Instrument ID: CHHPLC\_X3 GC Column: UltraCarb5u ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/17/2024 20:37 Calibration End Date: 04/17/2024 23:41 Calibration ID: 92320

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD /RSE	#	MAX %RSD /RSE	R <sup>2</sup> OR COD	#	MIN R <sup>2</sup> OR COD
	LVL 1 LVL 5 LVL 9	LVL 2 LVL 6	LVL 3 LVL 7	LVL 4 LVL 8		B	M1	M2								
PETN	78070 70756 71221	70870 70722	70432 70837	72600 71924	Ave		71936.969 0			3.3		20.0				
1,2-Dinitrobenzene	144500 131148 132647	130150 132498	130420 132159	134500 134411	Lin2	93.780984 2	131630.76 1						0.9990		0.9900	

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

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

Lab Name: Eurofins Denver Job No.: 280-190882-1 Analy Batch No.: 649950

SDG No.: \_\_\_\_\_

Instrument ID: CHHPLC\_X3 GC Column: UltraCarb5 ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/17/2024 20:37 Calibration End Date: 04/17/2024 23:41 Calibration ID: 92320

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-649950/19	04170019.D
Level 2	IC 280-649950/18	04170018.D
Level 3	IC 280-649950/17	04170017.D
Level 4	IC 280-649950/16	04170016.D
Level 5	IC 280-649950/15	04170015.D
Level 6	IC 280-649950/14	04170014.D
Level 7	IC 280-649950/13	04170013.D
Level 8	IC 280-649950/12	04170012.D
Level 9	IC 280-649950/11	04170011.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
		LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5
		LVL 6	LVL 7	LVL 8	LVL 9		LVL 6	LVL 7	LVL 8	LVL 9	
TNX	Ave	2051 78789	4023 141333	9628 199537	20006 509682	49234	0.0100 0.402	0.0201 0.703	0.0502 1.00	0.100 2.51	0.251
HMX	Ave	919 38101	2017 67408	4536 97787	9645 240762	23583	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
DNX	Ave	1516 58701	2843 103834	7258 146952	14834 378026	36872	0.0100 0.401	0.0200 0.701	0.0501 1.00	0.100 2.51	0.251
MNX	Ave	1649 64510	2991 113678	7887 160428	15807 410302	39930	0.0117 0.468	0.0234 0.818	0.0585 1.17	0.117 2.92	0.292
RDX	Ave	1187 42747	2334 74871	5612 108752	11162 269224	26844	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
Picric acid	Ave	787 31644	1524 55934	3847 81861	8016 205156	19748	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
1,3,5-Trinitrobenzene	Ave	2549 86362	4349 151045	11258 219723	22129 547952	54073	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
1,3-Dinitrobenzene	Ave	3086 119137	5678 209122	15023 303550	30359 753680	74190	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
Nitrobenzene	Ave	1985 77471	3932 136899	9759 198305	20035 495535	47641	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
3,5-Dinitroaniline	Lin2	1971 86047	4171 153531	10781 219396	22651 557874	54841	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
Tetryl	Ave	1835 74126	3374 127375	9010 188801	18238 457763	45082	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
Nitroglycerin	Ave	6048 266924	11963 467214	35657 679445	71367 1669606	167486	0.100 4.00	0.200 7.00	0.500 10.0	1.00 25.0	2.50
2,4,6-Trinitrotoluene	Ave	2081 85495	4400 150301	10669 217516	21912 539471	53593	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
4-Amino-2,6-dinitrotoluene	Ave	1406 59155	3261 103016	7533 149965	15344 373596	36831	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
2-Amino-4,6-dinitrotoluene	Ave	1951	3997	9923	20033	49951	0.0100	0.0200	0.0500	0.100	0.250

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

Lab Name: Eurofins Denver Job No.: 280-190882-1 Analy Batch No.: 649950

SDG No.: \_\_\_\_\_

Instrument ID: CHHPLC\_X3 GC Column: UltraCarb5 ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/17/2024 20:37 Calibration End Date: 04/17/2024 23:41 Calibration ID: 92320

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
		LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
		78856	140054	202927	511483		0.400	0.700	1.00	2.50	
2,6-Dinitrotoluene	Ave	1557	2880	7267	15218	35939	0.0100	0.0200	0.0500	0.100	0.250
		58947	100540	146021	360585		0.400	0.700	1.00	2.50	
2,4-Dinitrotoluene	Ave	2993	5793	14425	29452	72314	0.0100	0.0200	0.0500	0.100	0.250
		115355	202952	294790	730644		0.400	0.700	1.00	2.50	
2-Nitrotoluene	Ave	1340	2777	6526	12977	31023	0.0100	0.0200	0.0500	0.100	0.250
		50092	88069	127758	319286		0.400	0.700	1.00	2.50	
4-Nitrotoluene	Ave	1249	2413	5631	11360	26871	0.0100	0.0200	0.0500	0.100	0.250
		42973	75957	110337	274145		0.400	0.700	1.00	2.50	
3-Nitrotoluene	Ave	1713	3066	7074	14207	33952	0.0100	0.0200	0.0500	0.100	0.250
		54437	96036	139336	349971		0.400	0.700	1.00	2.50	
PETN	Ave	7807	14174	35216	72600	176891	0.100	0.200	0.500	1.00	2.50
		282889	495856	719241	1780535		4.00	7.00	10.0	25.0	
1,2-Dinitrobenzene	Lin2	1445	2603	6521	13450	32787	0.0100	0.0200	0.0500	0.100	0.250
		52999	92511	134411	331618		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\20240417-132364.b\04170011.D  
 Lims ID: IC INT/DMT 9  
 Client ID:  
 Sample Type: IC Calib Level: 9  
 Inject. Date: 17-Apr-2024 20:37:59 ALS Bottle#: 11 Worklist Smp#: 11  
 Injection Vol: 100.0 ul Dil. Factor: 1.0000  
 Sample Info: IC INT/DMT 9  
 Operator ID: JZ/JG Instrument ID: CHHPLC\_X3  
 Sublist: chrom-8330\_X3\*sub27  
 Method: \\chromfs\Denver\ChromData\CHHPLC\_X\20240417-132364.b\8330\_X3.m  
 Limit Group: GCSV - 8330  
 Last Update: 18-Apr-2024 11:59:21 Calib Date: 18-Apr-2024 03:08:00  
 Integrator: Falcon  
 Quant Method: External Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Denver\ChromData\CHHPLC\_X\20240417-132364.b\04170028.D  
 Column 1 : UltraCarb5uODS (20) ( 4.60 mm) Det: LC DAD1B, 254 nm  
 Process Host: CTX1675

First Level Reviewer: LV5D Date: 18-Apr-2024 11:12:45

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 TNX	1	6.469	6.476	-0.007	509682	2.51	2.56	M
4 HMX	1	6.575	6.583	-0.008	240762	2.50	2.52	M
6 DNX	1	6.782	6.789	-0.007	378026	2.51	2.57	M
7 MNX	1	7.195	7.203	-0.008	410302	2.92	3.00	
8 RDX	1	7.575	7.583	-0.008	269224	2.50	2.43	
9 2,4,6-Trinitrophenol	1	7.742	7.816	-0.074	205156	2.50	2.59	
\$ 10 1,2-Dinitrobenzene	1	8.509	8.516	-0.007	331618	2.50	2.52	
11 1,3,5-Trinitrobenzene	1	8.649	8.656	-0.007	547952	2.50	2.46	
12 1,3-Dinitrobenzene	1	9.262	9.276	-0.014	753680	2.50	2.52	
13 Nitrobenzene	1	9.622	9.636	-0.014	495535	2.50	2.52	
14 3,5-Dinitroaniline	1	9.855	9.876	-0.021	557874	2.50	2.53	
15 Tetryl	1	9.948	9.963	-0.015	457763	2.50	2.52	
16 Nitroglycerin	2	10.415	10.429	-0.014	1669606	25.0	25.1	
17 2,4,6-Trinitrotoluene	1	10.862	10.869	-0.007	539471	2.50	2.51	
18 4-Amino-2,6-dinitrotoluene	1	11.035	11.049	-0.014	373596	2.50	2.49	
19 2-Amino-4,6-dinitrotoluene	1	11.288	11.309	-0.021	511483	2.50	2.56	
20 2,6-Dinitrotoluene	1	11.442	11.449	-0.007	360585	2.50	2.45	
21 2,4-Dinitrotoluene	1	11.615	11.629	-0.014	730644	2.50	2.50	
22 o-Nitrotoluene	1	12.408	12.423	-0.015	319286	2.50	2.47	
23 p-Nitrotoluene	1	12.835	12.843	-0.008	274145	2.50	2.43	
24 m-Nitrotoluene	1	13.388	13.403	-0.015	349971	2.50	2.43	
25 PETN	2	14.482	14.483	-0.001	1780535	25.0	24.8	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

8330IntermStk\_00080

Amount Added: 250.00

Units: uL

8330 DMT\_00016

Amount Added: 125.00

Units: uL

Eurofins Denver

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

Injection Date: 17-Apr-2024 20:37:59

Instrument ID: CHHPLC\_X3

Operator ID: JZ/JG

Lims ID: IC INT/DMT 9

Worklist Smp#: 11

Client ID:

Injection Vol: 100.0 ul

Dil. Factor: 1.0000

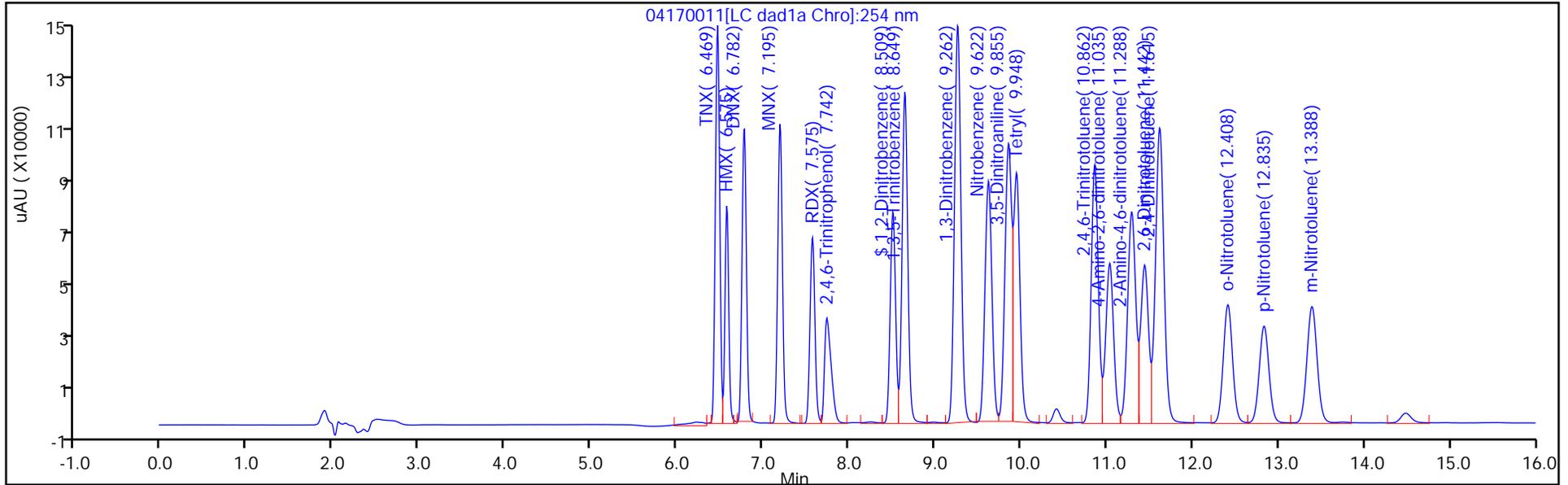
ALS Bottle#: 11

Method: 8330\_X3

Limit Group: GCSV - 8330

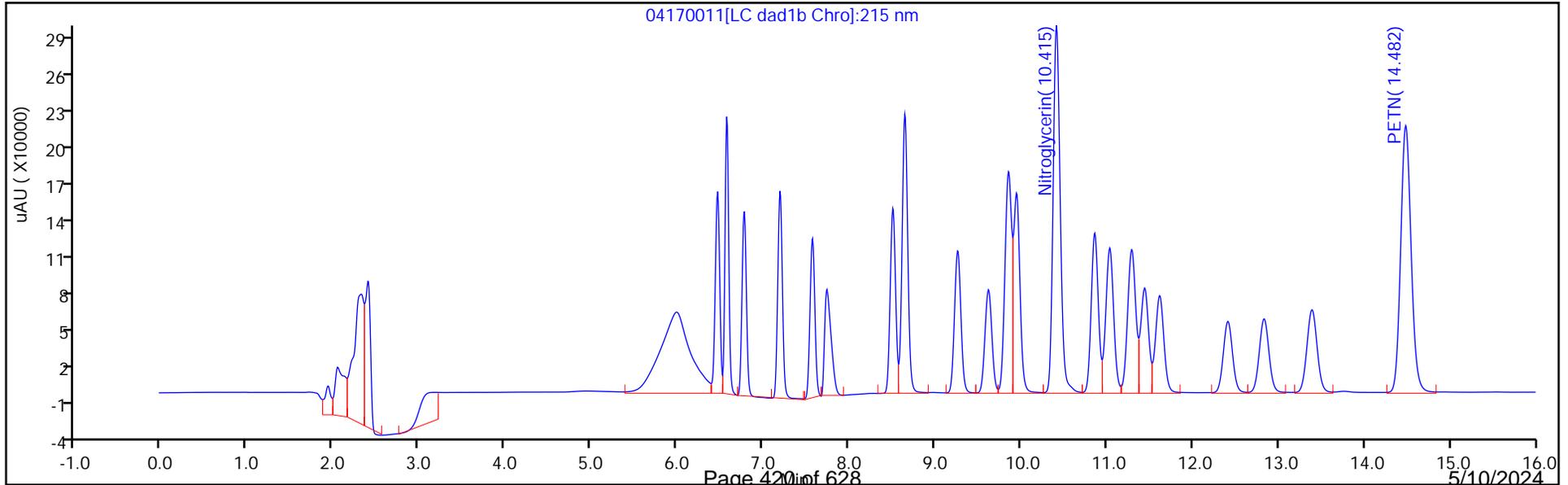
Column: UltraCarb5uODS (20) ( 4.60 mm)

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



Column: UltraCarb5uODS (20) ( 4.60 mm)

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



Eurofins Denver

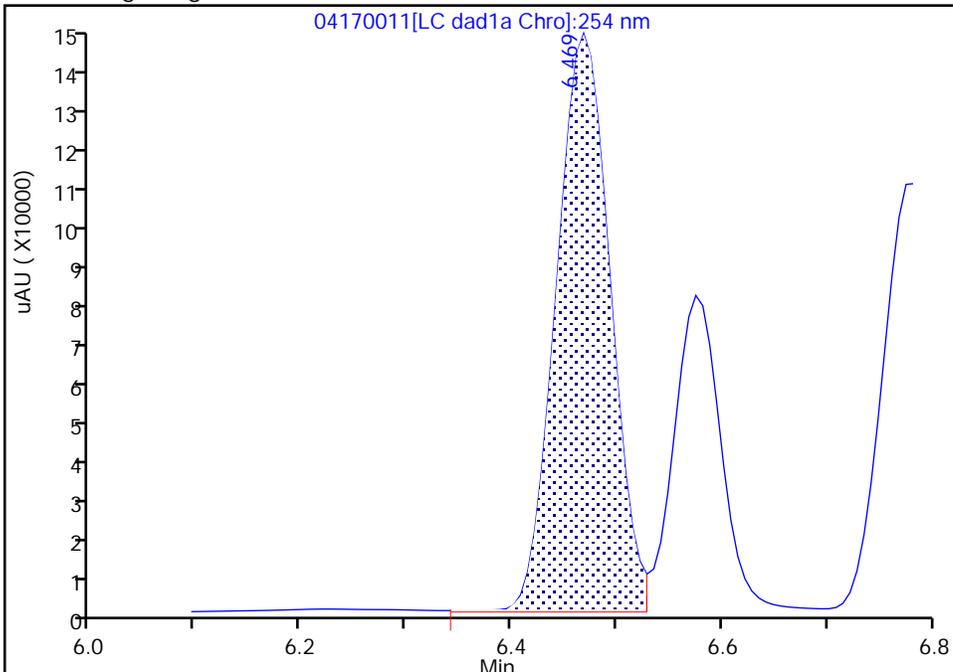
Data File: \\chromfs\denver\chromdata\chhplc\_x\20240417-132364.b\04170011.d  
Injection Date: 17-Apr-2024 20:37:59 Instrument ID: CHHPLC\_X3  
Lims ID: IC INT/DMT 9  
Client ID:  
Operator ID: JZ/JG ALS Bottle#: 11 Worklist Smp#: 11  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: 8330\_X3 Limit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

3 TNX, CAS: 13980-04-6

Signal: 1

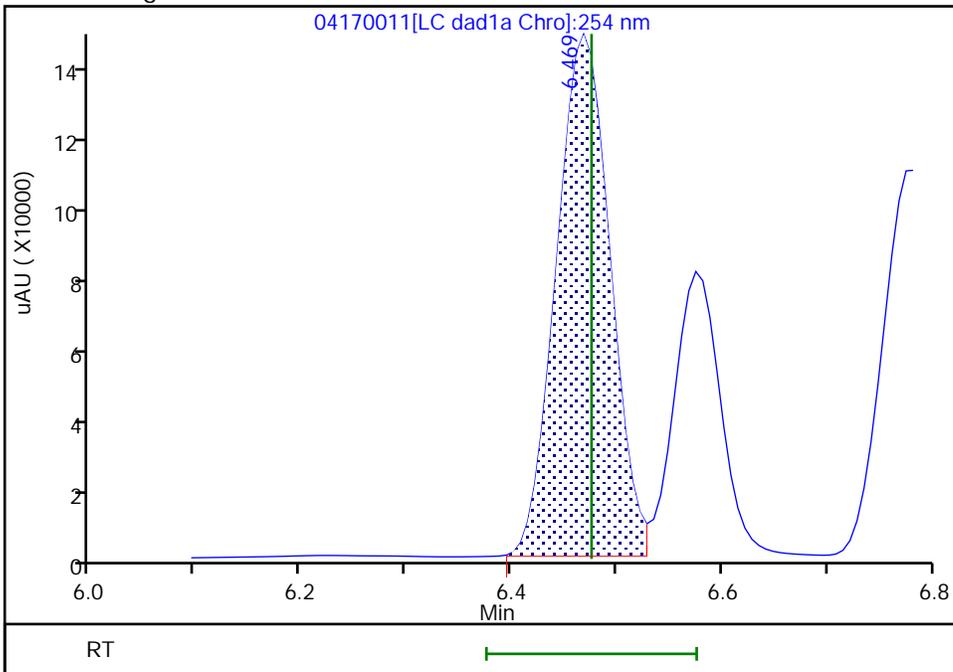
RT: 6.47  
Area: 515297  
Amount: 2.475720  
Amount Units: ug/mL

Processing Integration Results



RT: 6.47  
Area: 509682  
Amount: 2.561318  
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 18-Apr-2024 11:13:26 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Baseline

Eurofins Denver

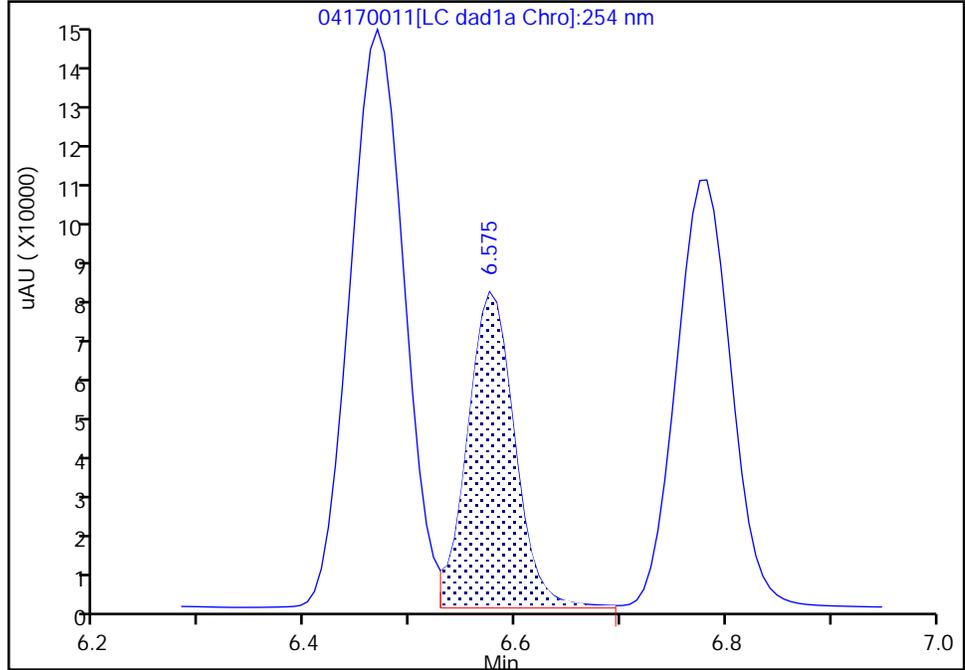
Data File: \\chromfs\denver\chromdata\chhplc\_x\20240417-132364.b\04170011.d  
 Injection Date: 17-Apr-2024 20:37:59 Instrument ID: CHHPLC\_X3  
 Lims ID: IC INT/DMT 9  
 Client ID:  
 Operator ID: JZ/JG ALS Bottle#: 11 Worklist Smp#: 11  
 Injection Vol: 100.0 ul Dil. Factor: 1.0000  
 Method: 8330\_X3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

4 HMX, CAS: 2691-41-0

Signal: 1

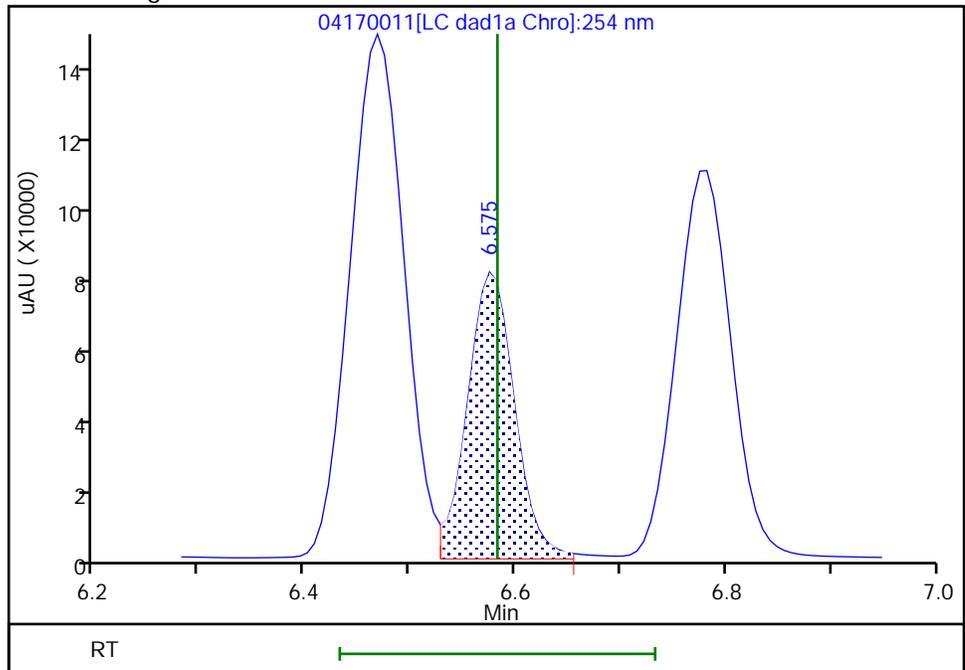
RT: 6.58  
 Area: 245562  
 Amount: 2.343167  
 Amount Units: ug/mL

Processing Integration Results



RT: 6.58  
 Area: 240762  
 Amount: 2.519915  
 Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 18-Apr-2024 11:13:28 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Baseline

Eurofins Denver

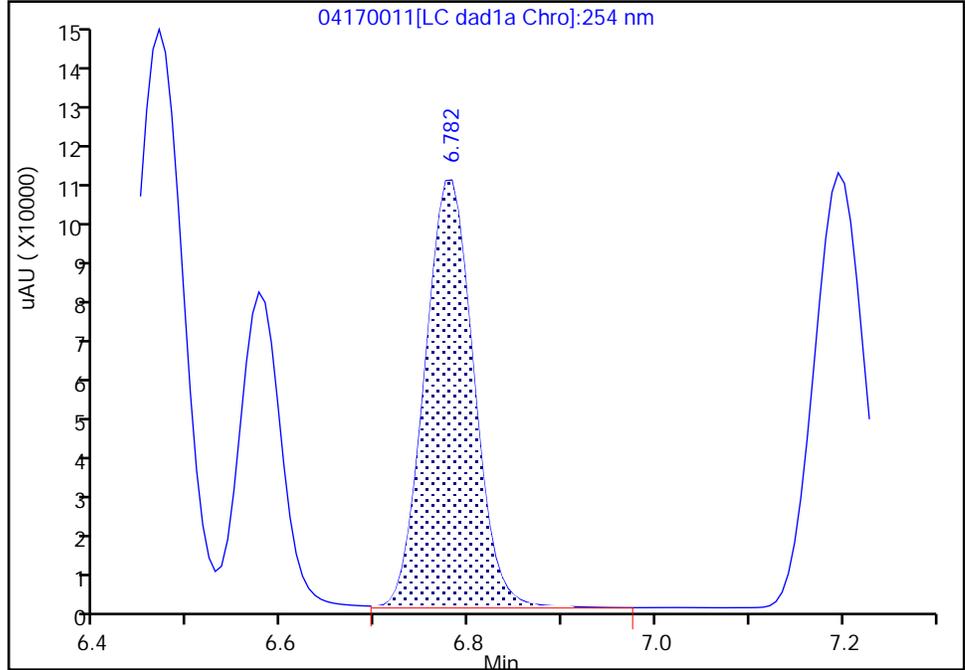
Data File: \\chromfs\denver\chromdata\chhplc\_x\20240417-132364.b\04170011.d  
Injection Date: 17-Apr-2024 20:37:59 Instrument ID: CHHPLC\_X3  
Lims ID: IC INT/DMT 9  
Client ID:  
Operator ID: JZ/JG ALS Bottle#: 11 Worklist Smp#: 11  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: 8330\_X3 Limit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

6 DNX, CAS: 80251-29-2

Signal: 1

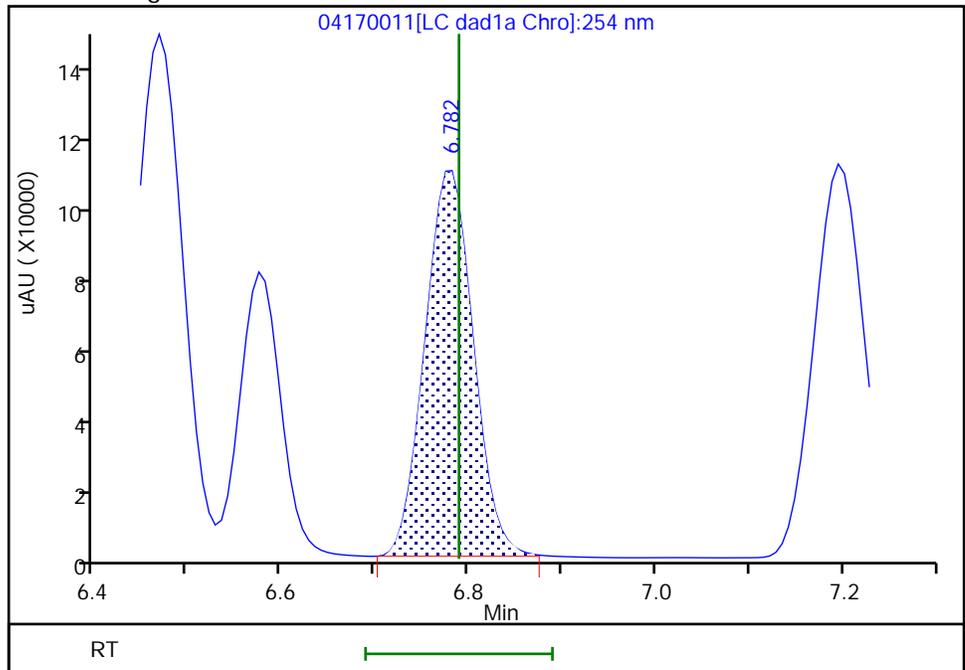
RT: 6.78  
Area: 388355  
Amount: 2.530843  
Amount Units: ug/mL

Processing Integration Results



RT: 6.78  
Area: 378026  
Amount: 2.567072  
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 18-Apr-2024 11:13:31 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins Denver  
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC\_X\20240417-132364.b\04170012.D  
 Lims ID: IC INT/DMT 8  
 Client ID:  
 Sample Type: IC Calib Level: 8  
 Inject. Date: 17-Apr-2024 21:00:56 ALS Bottle#: 12 Worklist Smp#: 12  
 Injection Vol: 100.0 ul Dil. Factor: 1.0000  
 Sample Info: IC INT/DMT 8  
 Operator ID: JZ/JG Instrument ID: CHHPLC\_X3  
 Sublist: chrom-8330\_X3\*sub27  
 Method: \\chromfs\Denver\ChromData\CHHPLC\_X\20240417-132364.b\8330\_X3.m  
 Limit Group: GCSV - 8330  
 Last Update: 18-Apr-2024 11:59:23 Calib Date: 18-Apr-2024 03:08:00  
 Integrator: Falcon  
 Quant Method: External Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Denver\ChromData\CHHPLC\_X\20240417-132364.b\04170028.D  
 Column 1 : UltraCarb5uODS (20) ( 4.60 mm) Det: LC DAD1B, 254 nm  
 Process Host: CTX1675

First Level Reviewer: LV5D Date: 18-Apr-2024 11:13:14

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 TNX	1	6.474	6.476	-0.002	199537	1.00	1.00	M
4 HMX	1	6.581	6.583	-0.002	97787	1.00	1.02	M
6 DNx	1	6.788	6.789	-0.001	146952	1.00	1.00	M
7 MNX	1	7.208	7.203	0.005	160428	1.17	1.17	
8 RDX	1	7.581	7.583	-0.002	108752	1.00	0.9818	
9 2,4,6-Trinitrophenol	1	7.781	7.816	-0.035	81861	1.00	1.03	
\$ 10 1,2-Dinitrobenzene	1	8.521	8.516	0.005	134411	1.00	1.02	
11 1,3,5-Trinitrobenzene	1	8.654	8.656	-0.002	219723	1.00	0.9860	
12 1,3-Dinitrobenzene	1	9.274	9.276	-0.002	303550	1.00	1.01	
13 Nitrobenzene	1	9.634	9.636	-0.002	198305	1.00	1.01	
14 3,5-Dinitroaniline	1	9.868	9.876	-0.008	219396	1.00	0.99	
15 Tetryl	1	9.954	9.963	-0.009	188801	1.00	1.04	
16 Nitroglycerin	2	10.421	10.429	-0.008	679445	10.0	10.2	
17 2,4,6-Trinitrotoluene	1	10.868	10.869	-0.001	217516	1.00	1.01	
18 4-Amino-2,6-dinitrotoluene	1	11.041	11.049	-0.008	149965	1.00	1.00	
19 2-Amino-4,6-dinitrotoluene	1	11.301	11.309	-0.008	202927	1.00	1.02	
20 2,6-Dinitrotoluene	1	11.448	11.449	-0.001	146021	1.00	0.99	
21 2,4-Dinitrotoluene	1	11.621	11.629	-0.008	294790	1.00	1.01	
22 o-Nitrotoluene	1	12.421	12.423	-0.002	127758	1.00	0.9880	
23 p-Nitrotoluene	1	12.841	12.843	-0.002	110337	1.00	0.9782	
24 m-Nitrotoluene	1	13.394	13.403	-0.009	139336	1.00	0.9672	
25 PETN	2	14.481	14.483	-0.002	719241	10.0	10.0	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

8330 DMT\_00016

Amount Added: 50.00

Units: uL

8330IntermStk\_00080

Amount Added: 100.00

Units: uL

Eurofins Denver

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

Injection Date: 17-Apr-2024 21:00:56

Instrument ID: CHHPLC\_X3

Operator ID: JZ/JG

Lims ID: IC INT/DMT 8

Worklist Smp#: 12

Client ID:

Injection Vol: 100.0 ul

Dil. Factor: 1.0000

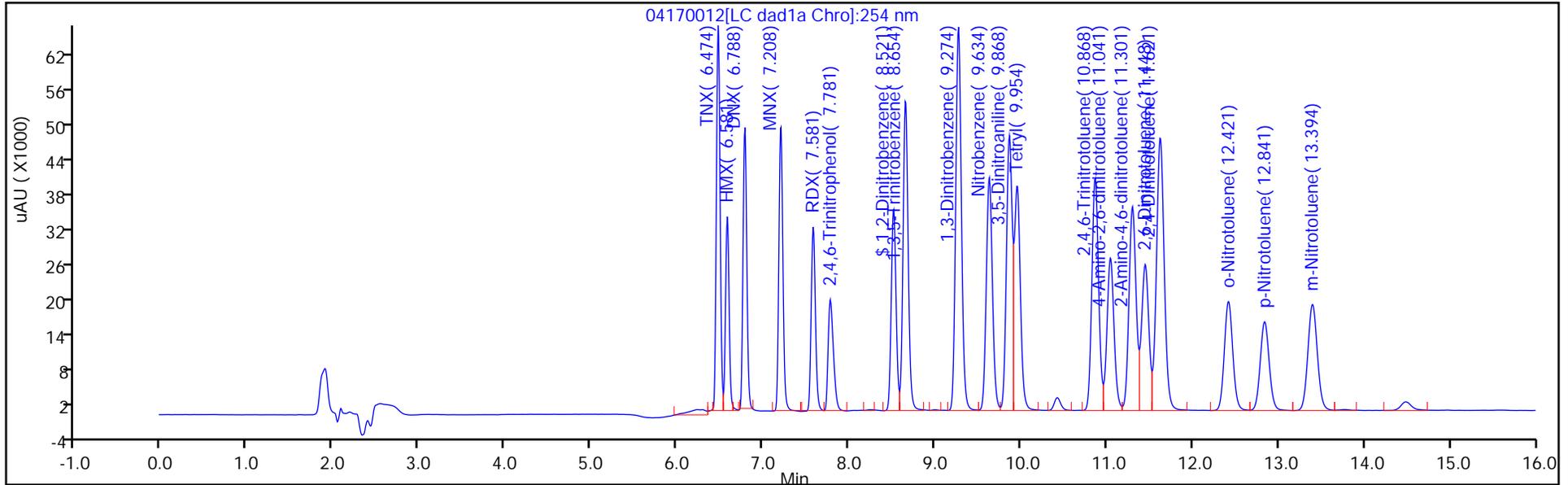
ALS Bottle#: 12

Method: 8330\_X3

Limit Group: GCSV - 8330

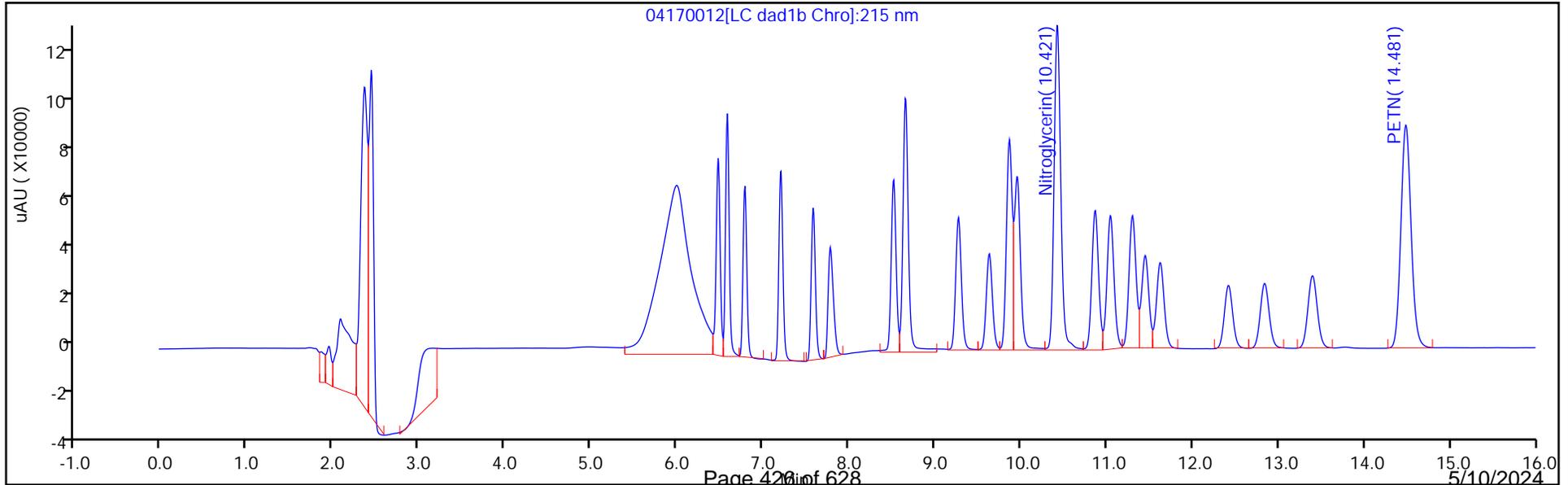
Column: UltraCarb5uODS (20) ( 4.60 mm)

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



Column: UltraCarb5uODS (20) ( 4.60 mm)

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



Eurofins Denver

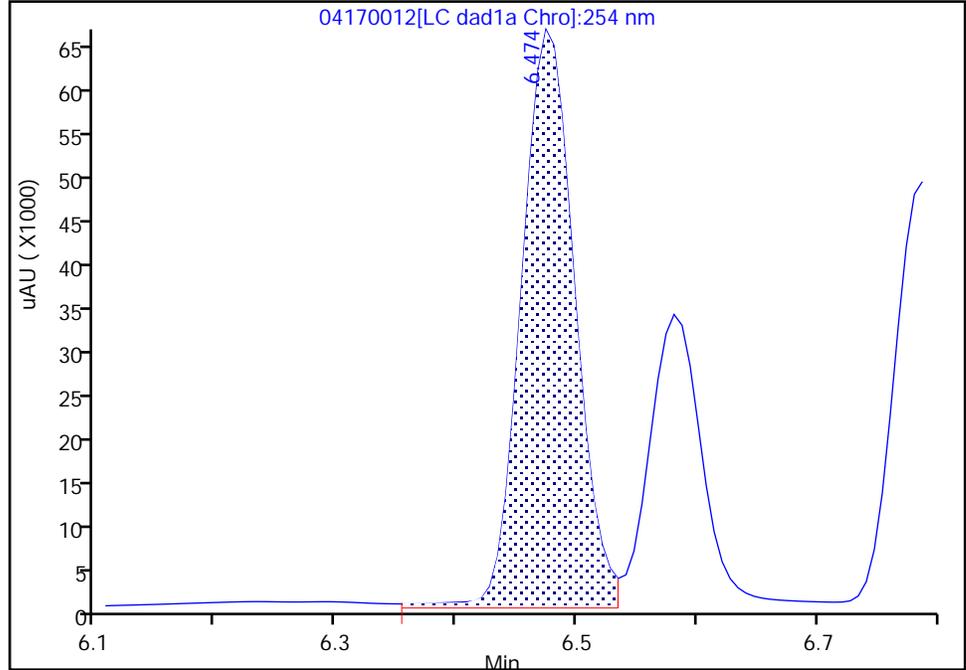
Data File: \\chromfs\denver\chromdata\chhplc\_x\20240417-132364.b\04170012.d  
Injection Date: 17-Apr-2024 21:00:56 Instrument ID: CHHPLC\_X3  
Lims ID: IC INT/DMT 8  
Client ID:  
Operator ID: JZ/JG ALS Bottle#: 12 Worklist Smp#: 12  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: 8330\_X3 Limit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

3 TNX, CAS: 13980-04-6

Signal: 1

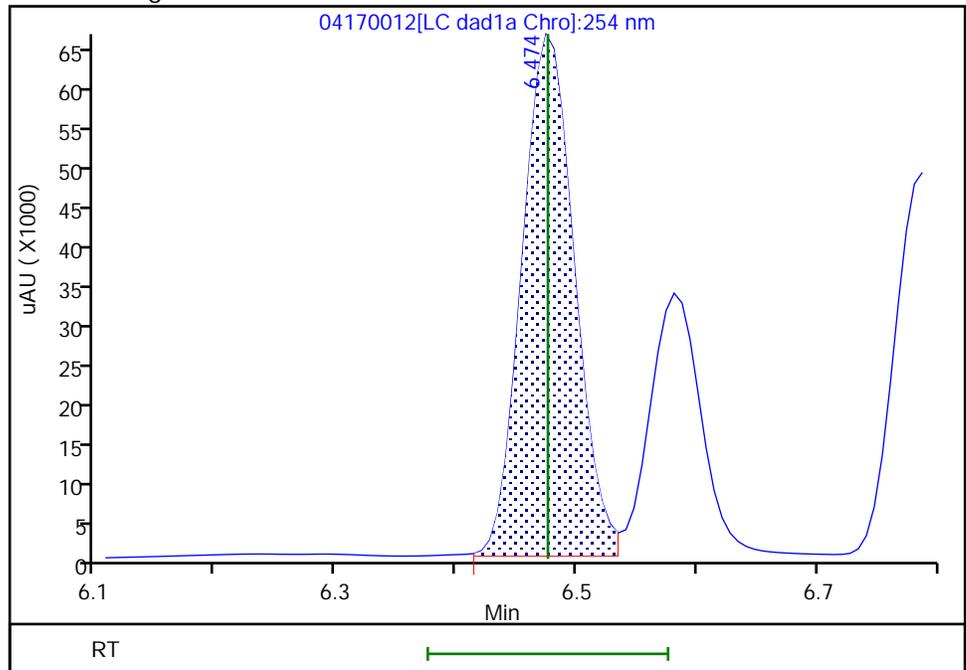
RT: 6.47  
Area: 204461  
Amount: 0.979758  
Amount Units: ug/mL

Processing Integration Results



RT: 6.47  
Area: 199537  
Amount: 1.002738  
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 18-Apr-2024 11:13:07 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Baseline

Eurofins Denver

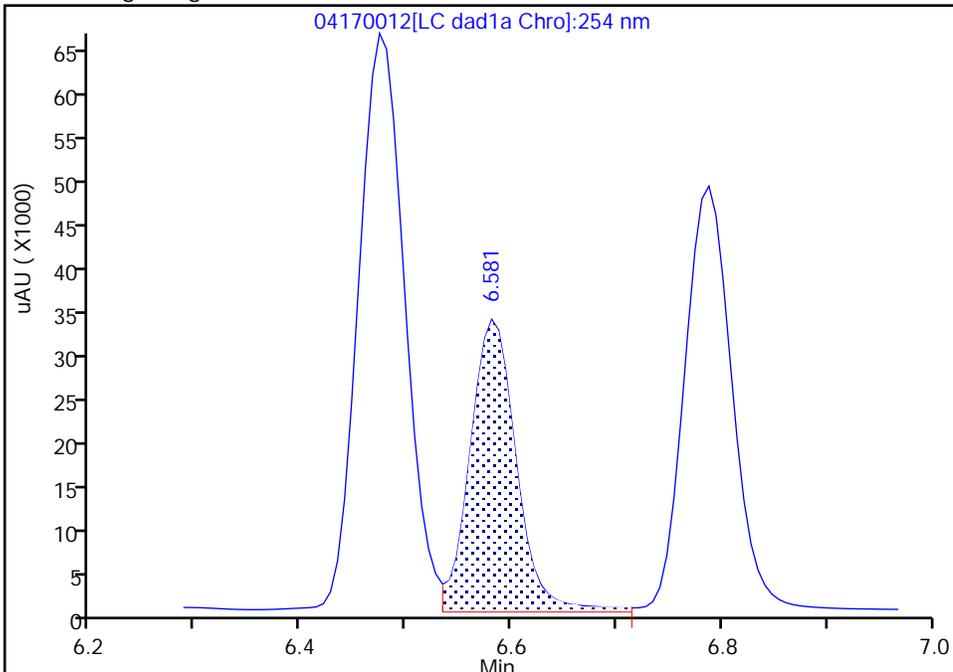
Data File: \\chromfs\denver\chromdata\chhplc\_x\20240417-132364.b\04170012.d  
Injection Date: 17-Apr-2024 21:00:56 Instrument ID: CHHPLC\_X3  
Lims ID: IC INT/DMT 8  
Client ID:  
Operator ID: JZ/JG ALS Bottle#: 12 Worklist Smp#: 12  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: 8330\_X3 Limit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

4 HMX, CAS: 2691-41-0

Signal: 1

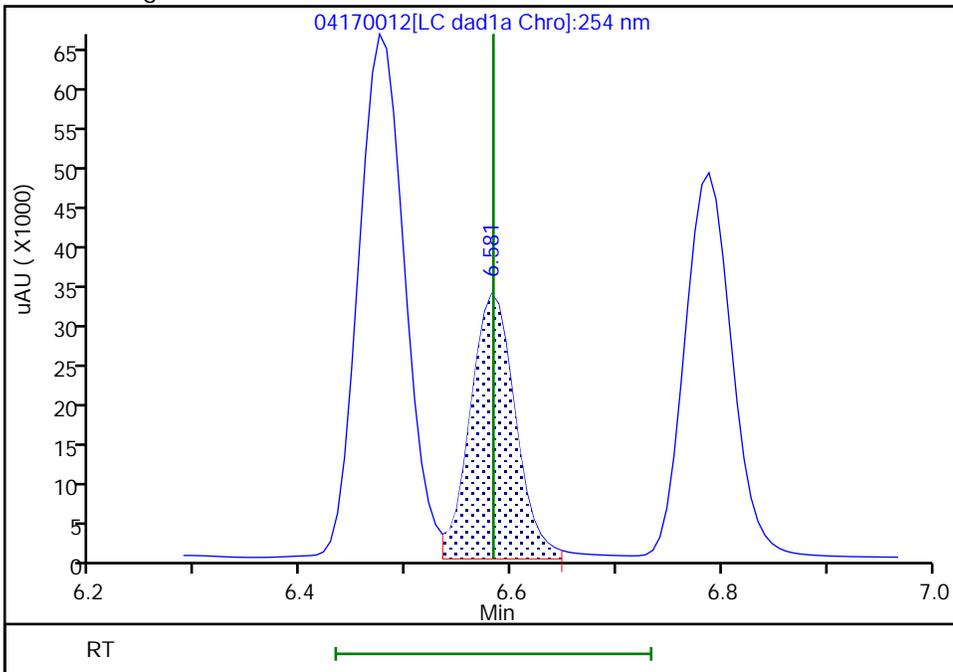
RT: 6.58  
Area: 102131  
Amount: 0.970072  
Amount Units: ug/mL

Processing Integration Results



RT: 6.58  
Area: 97787  
Amount: 1.023479  
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 18-Apr-2024 11:13:09 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Baseline

Eurofins Denver

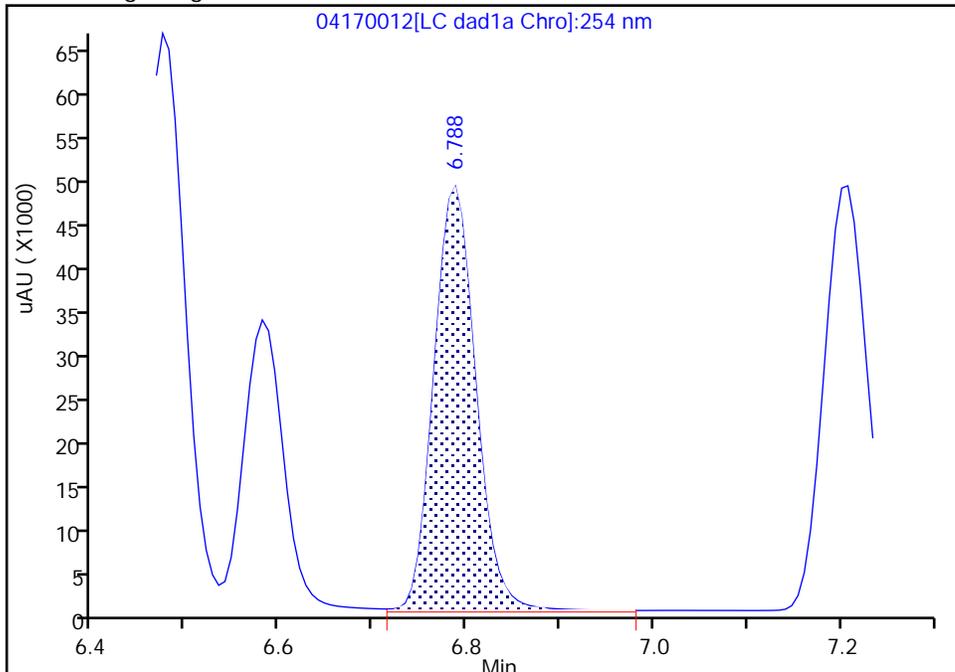
Data File: \\chromfs\denver\chromdata\chhplc\_x\20240417-132364.b\04170012.d  
Injection Date: 17-Apr-2024 21:00:56 Instrument ID: CHHPLC\_X3  
Lims ID: IC INT/DMT 8  
Client ID:  
Operator ID: JZ/JG ALS Bottle#: 12 Worklist Smp#: 12  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: 8330\_X3 Limit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

6 DNX, CAS: 80251-29-2

Signal: 1

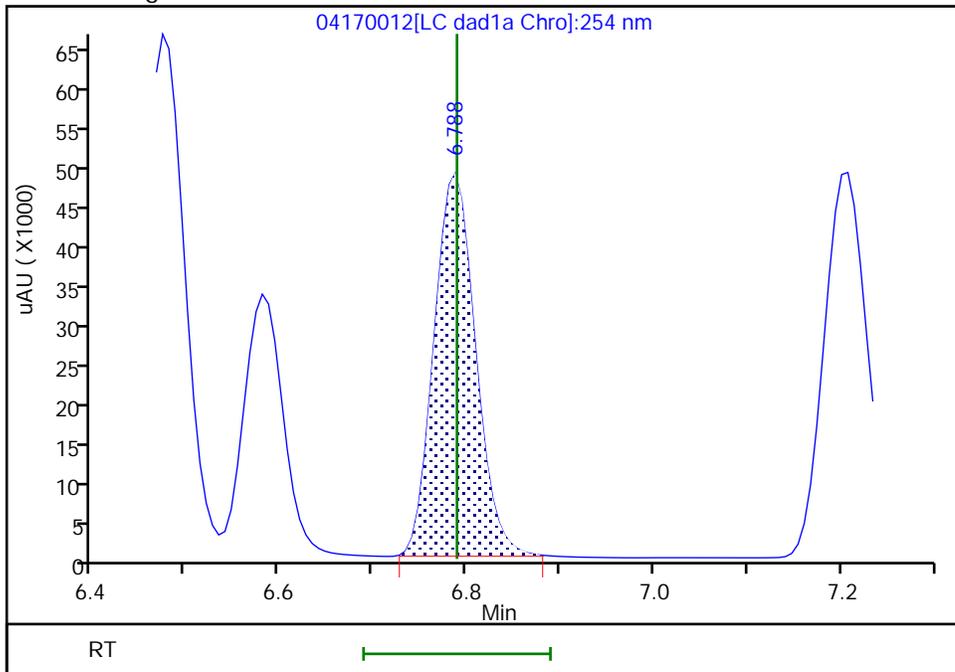
RT: 6.79  
Area: 153377  
Amount: 0.990791  
Amount Units: ug/mL

Processing Integration Results



RT: 6.79  
Area: 146952  
Amount: 0.997911  
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 18-Apr-2024 11:13:11 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins Denver  
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC\_X\20240417-132364.b\04170013.D  
 Lims ID: IC INT/DMT 7  
 Client ID:  
 Sample Type: IC Calib Level: 7  
 Inject. Date: 17-Apr-2024 21:23:54 ALS Bottle#: 13 Worklist Smp#: 13  
 Injection Vol: 100.0 ul Dil. Factor: 1.0000  
 Sample Info: IC INT/DMT 7  
 Operator ID: JZ/JG Instrument ID: CHHPLC\_X3  
 Sublist: chrom-8330\_X3\*sub27  
 Method: \\chromfs\Denver\ChromData\CHHPLC\_X\20240417-132364.b\8330\_X3.m  
 Limit Group: GCSV - 8330  
 Last Update: 18-Apr-2024 11:59:24 Calib Date: 18-Apr-2024 03:08:00  
 Integrator: Falcon  
 Quant Method: External Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Denver\ChromData\CHHPLC\_X\20240417-132364.b\04170028.D  
 Column 1 : UltraCarb5uODS (20) ( 4.60 mm) Det: LC DAD1B, 254 nm  
 Process Host: CTX1675

First Level Reviewer: LV5D Date: 18-Apr-2024 11:14:37

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 TNX	1	6.476	6.476	0.000	141333	0.7028	0.7102	M
4 HMX	1	6.582	6.583	-0.001	67408	0.7000	0.7055	M
6 DNX	1	6.789	6.789	0.000	103834	0.7014	0.7051	M
7 MNX	1	7.202	7.203	-0.001	113678	0.8183	0.8316	
8 RDX	1	7.582	7.583	-0.001	74871	0.7000	0.6759	
9 2,4,6-Trinitrophenol	1	7.789	7.816	-0.027	55934	0.7000	0.7051	
\$ 10 1,2-Dinitrobenzene	1	8.516	8.516	0.000	92511	0.7000	0.7021	
11 1,3,5-Trinitrobenzene	1	8.656	8.656	0.000	151045	0.7000	0.6778	
12 1,3-Dinitrobenzene	1	9.276	9.276	0.000	209122	0.7000	0.6984	
13 Nitrobenzene	1	9.629	9.636	-0.007	136899	0.7000	0.6973	
14 3,5-Dinitroaniline	1	9.869	9.876	-0.007	153531	0.7000	0.6958	
15 Tetryl	1	9.956	9.963	-0.007	127375	0.7000	0.7014	
16 Nitroglycerin	2	10.422	10.429	-0.007	467214	7.00	7.03	
17 2,4,6-Trinitrotoluene	1	10.862	10.869	-0.007	150301	0.7000	0.6985	
18 4-Amino-2,6-dinitrotoluene	1	11.042	11.049	-0.007	103016	0.7000	0.6870	
19 2-Amino-4,6-dinitrotoluene	1	11.302	11.309	-0.007	140054	0.7000	0.7009	
20 2,6-Dinitrotoluene	1	11.449	11.449	0.000	100540	0.7000	0.6843	
21 2,4-Dinitrotoluene	1	11.622	11.629	-0.007	202952	0.7000	0.6954	
22 o-Nitrotoluene	1	12.416	12.423	-0.007	88069	0.7000	0.6811	
23 p-Nitrotoluene	1	12.842	12.843	-0.001	75957	0.7000	0.6734	
24 m-Nitrotoluene	1	13.396	13.403	-0.007	96036	0.7000	0.6666	
25 PETN	2	14.482	14.483	-0.001	495856	7.00	6.89	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

8330 DMT\_00016

Amount Added: 35.00

Units: uL

8330IntermStk\_00080

Amount Added: 70.00

Units: uL

Eurofins Denver

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

Injection Date: 17-Apr-2024 21:23:54

Instrument ID: CHHPLC\_X3

Operator ID: JZ/JG

Lims ID: IC INT/DMT 7

Worklist Smp#: 13

Client ID:

Injection Vol: 100.0 ul

Dil. Factor: 1.0000

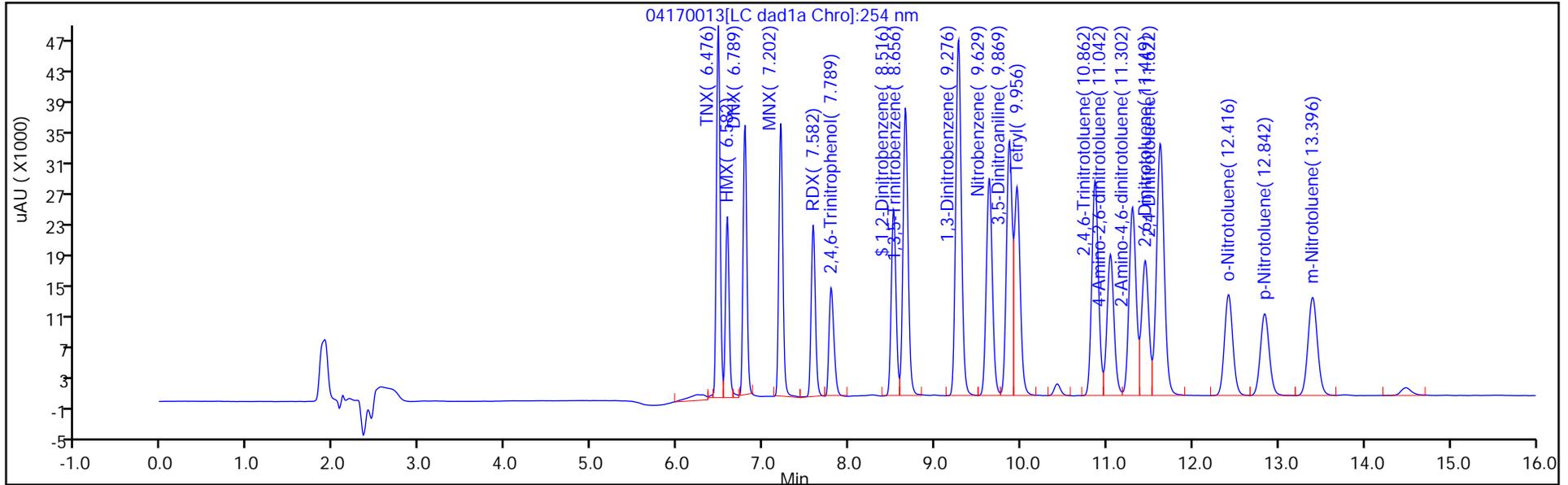
ALS Bottle#: 13

Method: 8330\_X3

Limit Group: GCSV - 8330

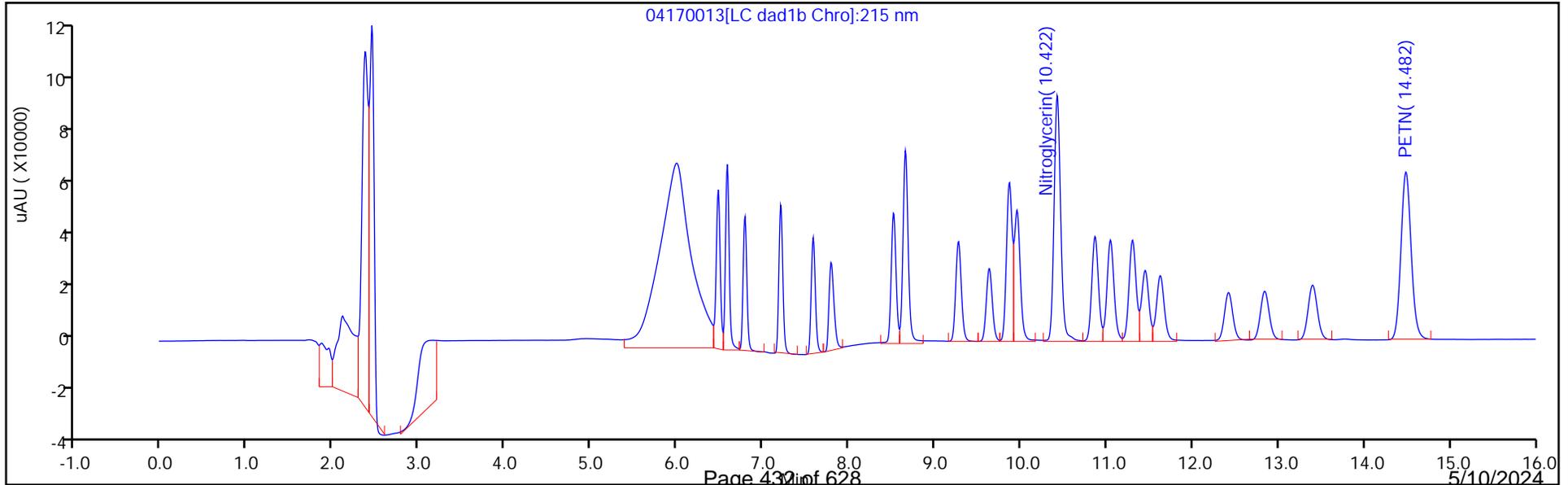
Column: UltraCarb5uODS (20) ( 4.60 mm)

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



Column: UltraCarb5uODS (20) ( 4.60 mm)

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



Eurofins Denver

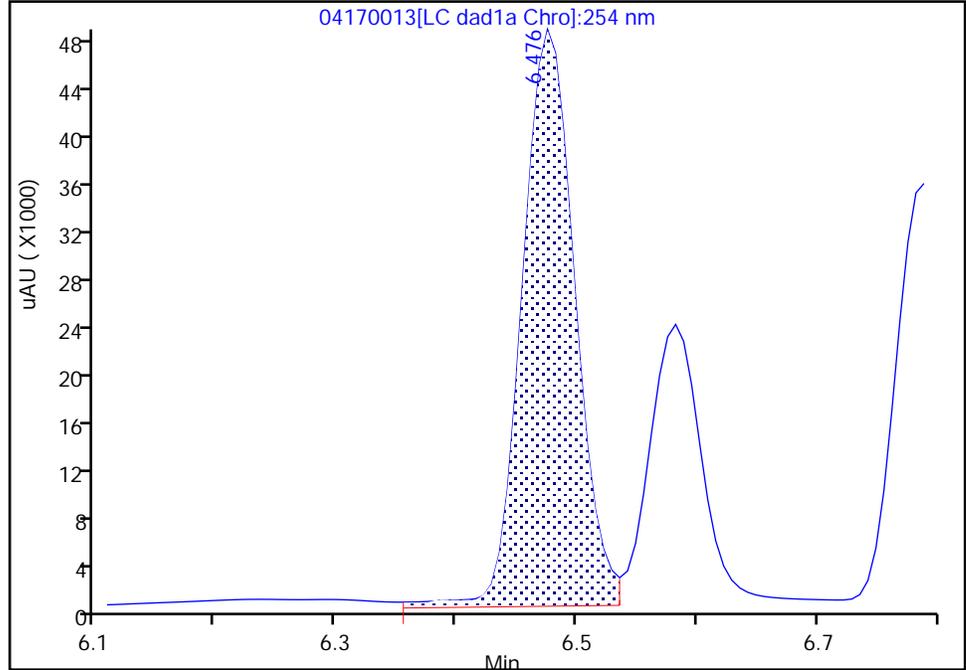
Data File: \\chromfs\denver\chromdata\chhplc\_x\20240417-132364.b\04170013.d  
Injection Date: 17-Apr-2024 21:23:54 Instrument ID: CHHPLC\_X3  
Lims ID: IC INT/DMT 7  
Client ID:  
Operator ID: JZ/JG ALS Bottle#: 13 Worklist Smp#: 13  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: 8330\_X3 Limit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

3 TNX, CAS: 13980-04-6

Signal: 1

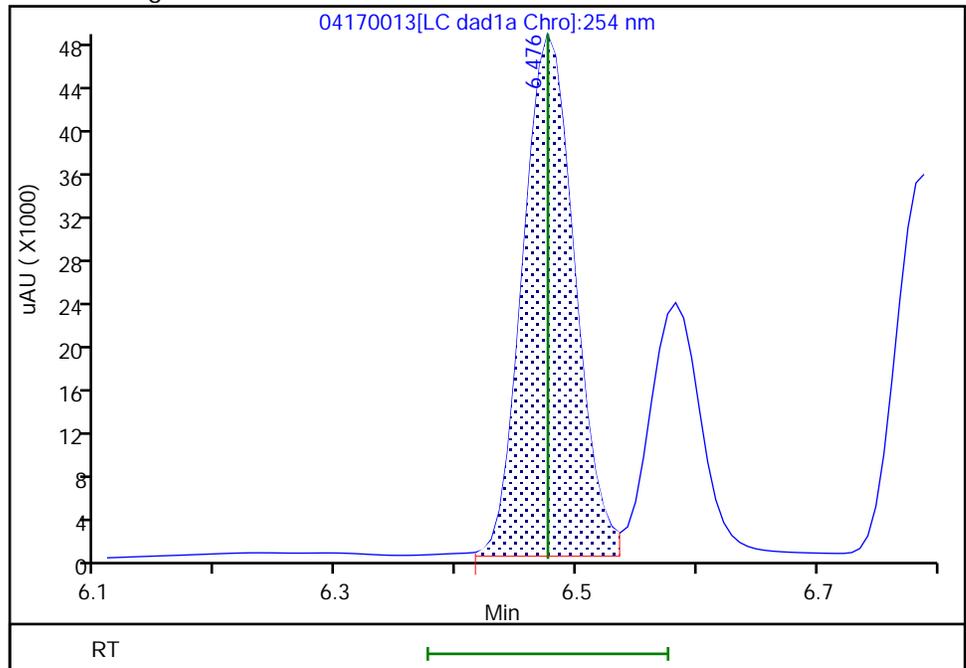
RT: 6.48  
Area: 146464  
Amount: 0.704521  
Amount Units: ug/mL

Processing Integration Results



RT: 6.48  
Area: 141333  
Amount: 0.710244  
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 18-Apr-2024 11:13:45 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Baseline

Eurofins Denver

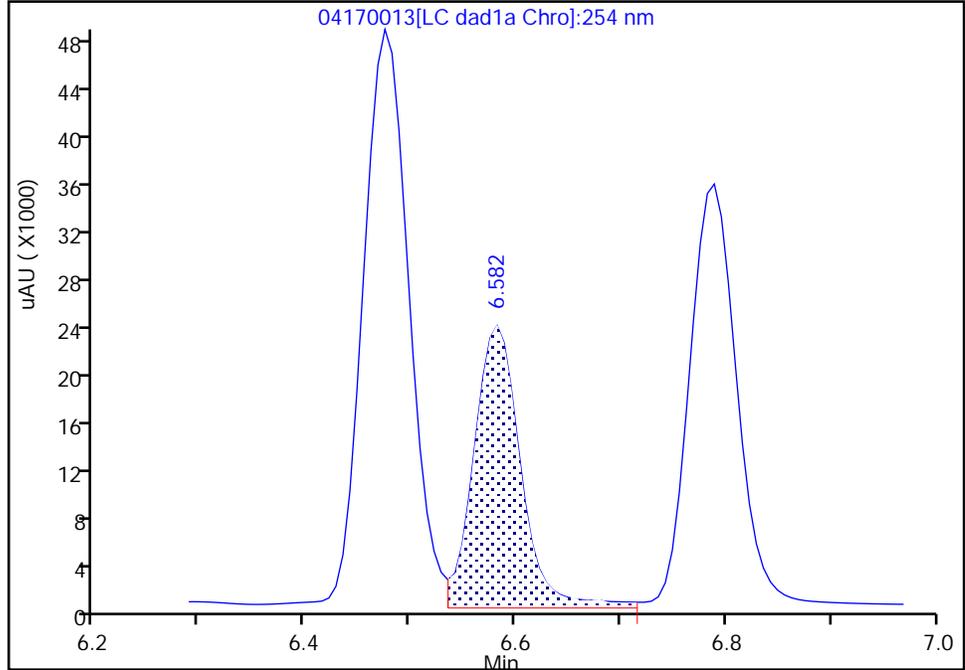
Data File: \\chromfs\denver\chromdata\chhplc\_x\20240417-132364.b\04170013.d  
Injection Date: 17-Apr-2024 21:23:54 Instrument ID: CHHPLC\_X3  
Lims ID: IC INT/DMT 7  
Client ID:  
Operator ID: JZ/JG ALS Bottle#: 13 Worklist Smp#: 13  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: 8330\_X3 Limit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

4 HMX, CAS: 2691-41-0

Signal: 1

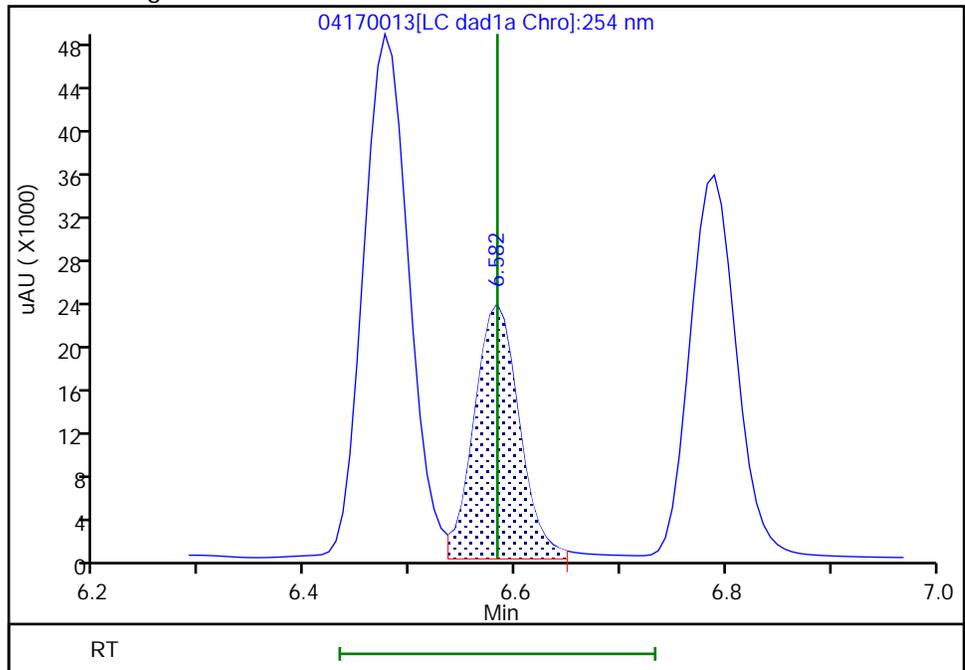
RT: 6.58  
Area: 71695  
Amount: 0.685513  
Amount Units: ug/mL

Processing Integration Results



RT: 6.58  
Area: 67408  
Amount: 0.705520  
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 18-Apr-2024 11:13:46 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Baseline

Eurofins Denver

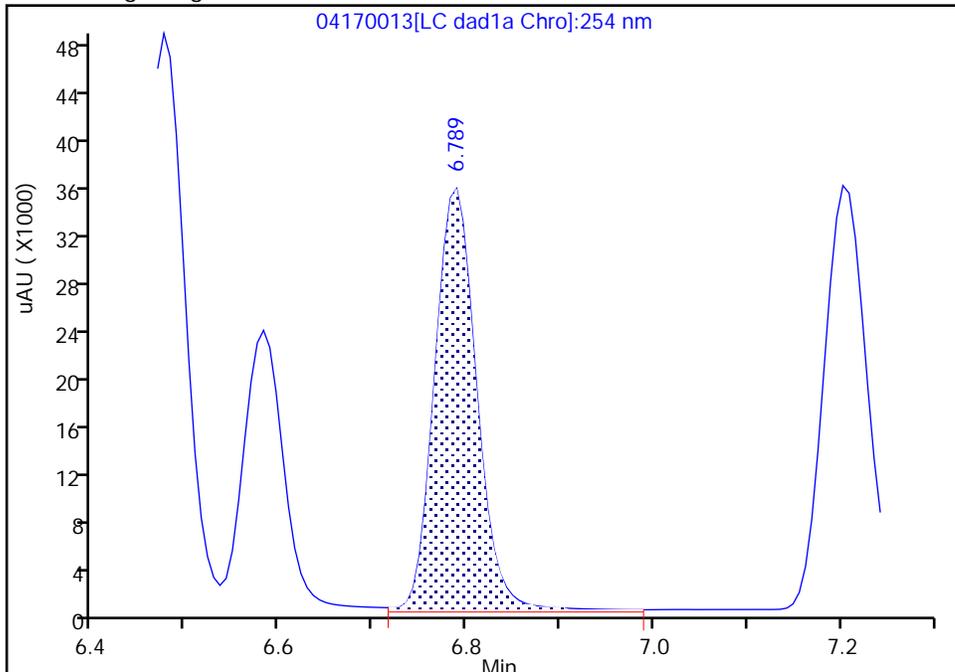
Data File: \\chromfs\denver\chromdata\chhplc\_x\20240417-132364.b\04170013.d  
Injection Date: 17-Apr-2024 21:23:54 Instrument ID: CHHPLC\_X3  
Lims ID: IC INT/DMT 7  
Client ID:  
Operator ID: JZ/JG ALS Bottle#: 13 Worklist Smp#: 13  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: 8330\_X3 Limit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

6 DNX, CAS: 80251-29-2

Signal: 1

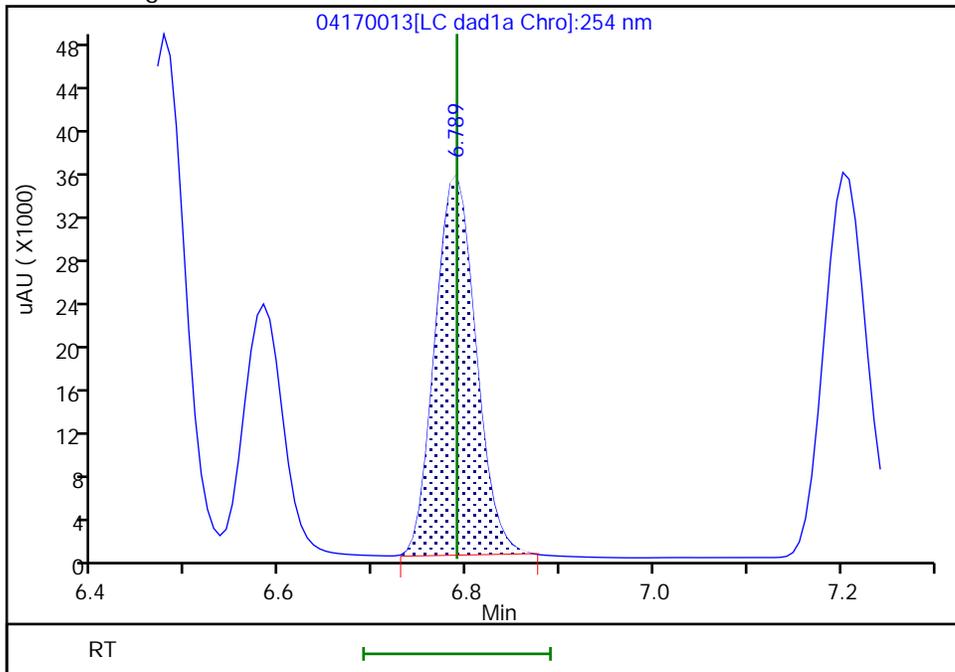
RT: 6.79  
Area: 109725  
Amount: 0.724468  
Amount Units: ug/mL

Processing Integration Results



RT: 6.79  
Area: 103834  
Amount: 0.705108  
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 18-Apr-2024 11:13:50 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins Denver  
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC\_X\20240417-132364.b\04170014.D  
 Lims ID: IC INT/DMT 6  
 Client ID:  
 Sample Type: IC Calib Level: 6  
 Inject. Date: 17-Apr-2024 21:46:50 ALS Bottle#: 14 Worklist Smp#: 14  
 Injection Vol: 100.0 ul Dil. Factor: 1.0000  
 Sample Info: IC INT/DMT 6  
 Operator ID: JZ/JG Instrument ID: CHHPLC\_X3  
 Sublist: chrom-8330\_X3\*sub27  
 Method: \\chromfs\Denver\ChromData\CHHPLC\_X\20240417-132364.b\8330\_X3.m  
 Limit Group: GCSV - 8330  
 Last Update: 18-Apr-2024 11:59:25 Calib Date: 18-Apr-2024 03:08:00  
 Integrator: Falcon  
 Quant Method: External Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Denver\ChromData\CHHPLC\_X\20240417-132364.b\04170028.D  
 Column 1 : UltraCarb5uODS (20) ( 4.60 mm) Det: LC DAD1B, 254 nm  
 Process Host: CTX1675

First Level Reviewer: LV5D Date: 18-Apr-2024 11:15:01

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 TNX	1	6.479	6.476	0.003	78789	0.4016	0.3959	M
4 HMX	1	6.586	6.583	0.003	38101	0.4000	0.3988	M
6 DNx	1	6.786	6.789	-0.003	58701	0.4008	0.3986	M
7 MNx	1	7.206	7.203	0.003	64510	0.4676	0.4719	
8 RDX	1	7.586	7.583	0.003	42747	0.4000	0.3859	
9 2,4,6-Trinitrophenol	1	7.806	7.816	-0.010	31644	0.4000	0.3989	
\$ 10 1,2-Dinitrobenzene	1	8.519	8.516	0.003	52999	0.4000	0.4019	
11 1,3,5-Trinitrobenzene	1	8.659	8.656	0.003	86362	0.4000	0.3875	
12 1,3-Dinitrobenzene	1	9.279	9.276	0.003	119137	0.4000	0.3979	
13 Nitrobenzene	1	9.639	9.636	0.003	77471	0.4000	0.3946	
14 3,5-Dinitroaniline	1	9.872	9.876	-0.004	86047	0.4000	0.3904	
15 Tetryl	1	9.959	9.963	-0.004	74126	0.4000	0.4082	
16 Nitroglycerin	2	10.432	10.429	0.003	266924	4.00	4.02	
17 2,4,6-Trinitrotoluene	1	10.872	10.869	0.003	85495	0.4000	0.3973	
18 4-Amino-2,6-dinitrotoluene	1	11.052	11.049	0.003	59155	0.4000	0.3945	
19 2-Amino-4,6-dinitrotoluene	1	11.306	11.309	-0.003	78856	0.4000	0.3947	
20 2,6-Dinitrotoluene	1	11.452	11.449	0.003	58947	0.4000	0.4012	
21 2,4-Dinitrotoluene	1	11.632	11.629	0.003	115355	0.4000	0.3953	
22 o-Nitrotoluene	1	12.426	12.423	0.003	50092	0.4000	0.3874	
23 p-Nitrotoluene	1	12.846	12.843	0.003	42973	0.4000	0.3810	
24 m-Nitrotoluene	1	13.406	13.403	0.003	54437	0.4000	0.3779	
25 PETN	2	14.492	14.483	0.009	282889	4.00	3.93	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

8330IntermStk\_00080

Amount Added: 40.00

Units: uL

8330 DMT\_00016

Amount Added: 20.00

Units: uL

Eurofins Denver

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

Injection Date: 17-Apr-2024 21:46:50

Instrument ID: CHHPLC\_X3

Operator ID: JZ/JG

Lims ID: IC INT/DMT 6

Worklist Smp#: 14

Client ID:

Injection Vol: 100.0 ul

Dil. Factor: 1.0000

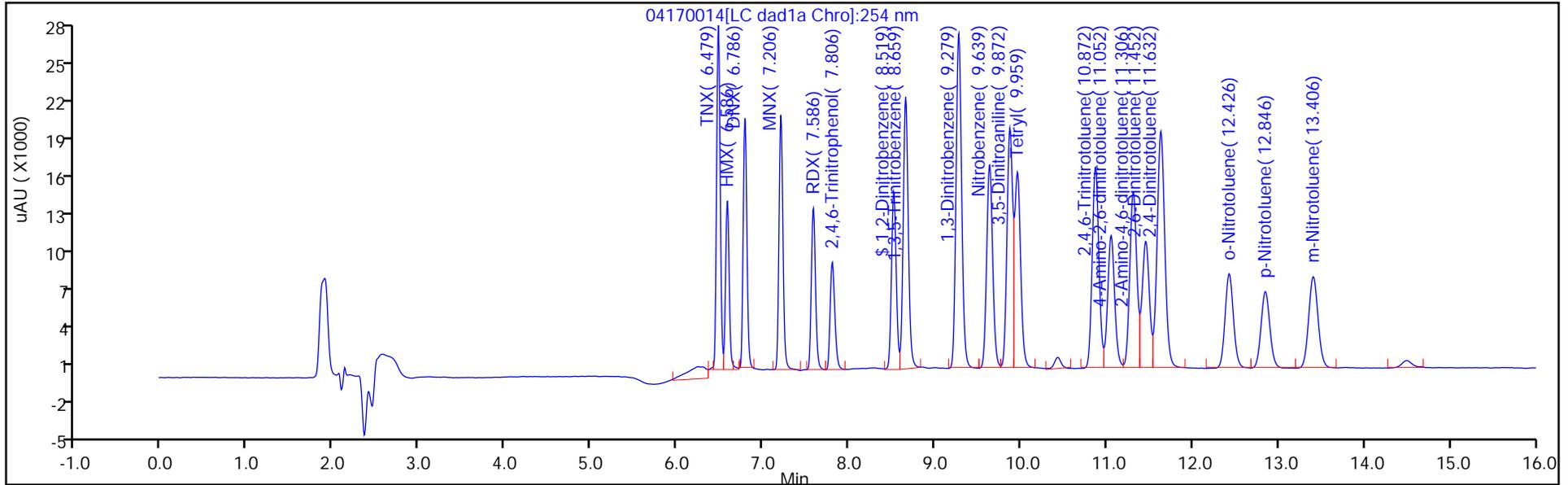
ALS Bottle#: 14

Method: 8330\_X3

Limit Group: GCSV - 8330

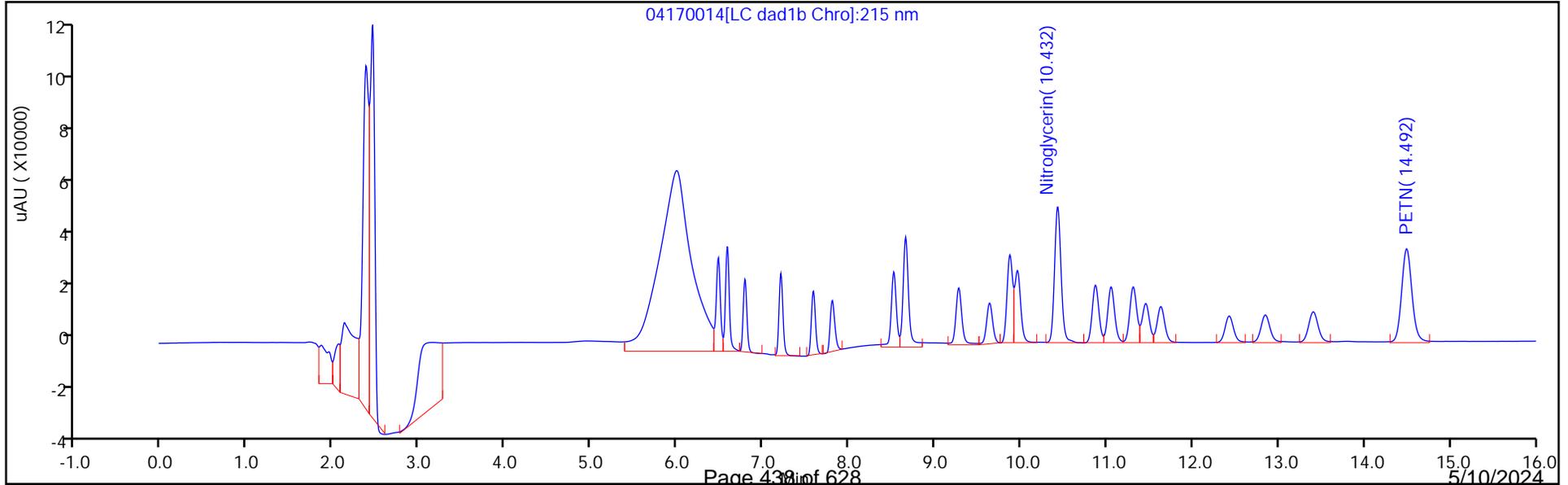
Column: UltraCarb5uODS (20) ( 4.60 mm)

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



Column: UltraCarb5uODS (20) ( 4.60 mm)

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



Eurofins Denver

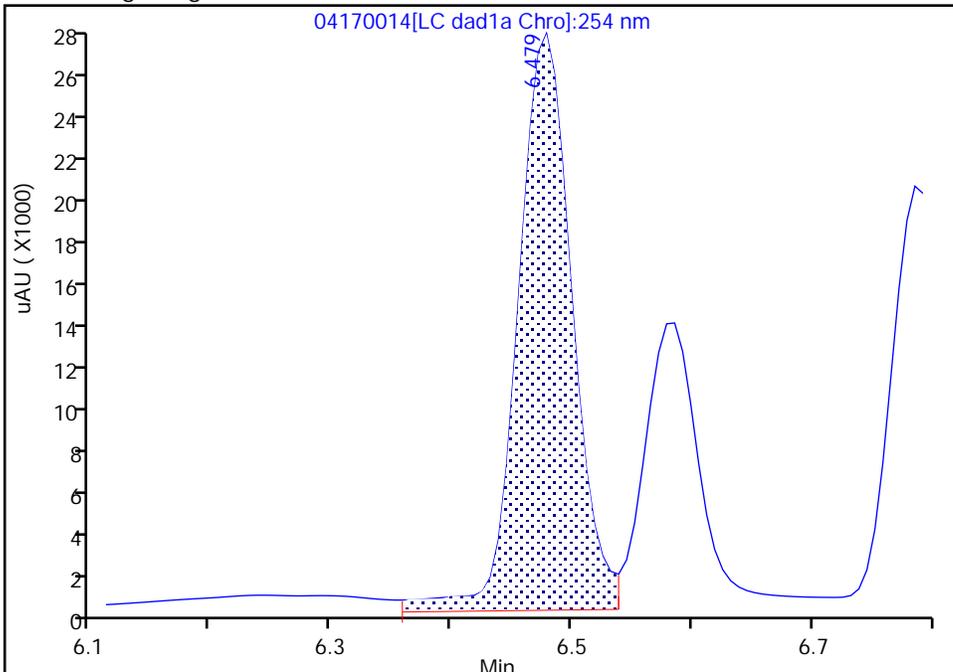
Data File: \\chromfs\denver\chromdata\chhplc\_x\20240417-132364.b\04170014.d  
Injection Date: 17-Apr-2024 21:46:50 Instrument ID: CHHPLC\_X3  
Lims ID: IC INT/DMT 6  
Client ID:  
Operator ID: JZ/JG ALS Bottle#: 14 Worklist Smp#: 14  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: 8330\_X3 Limit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

3 TNX, CAS: 13980-04-6

Signal: 1

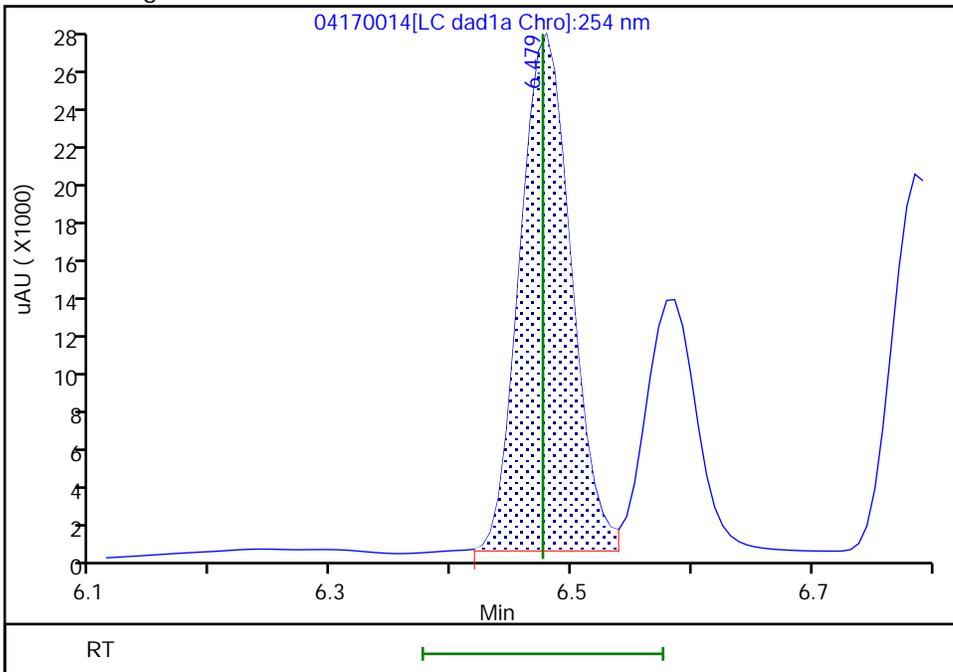
RT: 6.48  
Area: 85027  
Amount: 0.410599  
Amount Units: ug/mL

Processing Integration Results



RT: 6.48  
Area: 78789  
Amount: 0.395940  
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 18-Apr-2024 11:14:54 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Baseline

Eurofins Denver

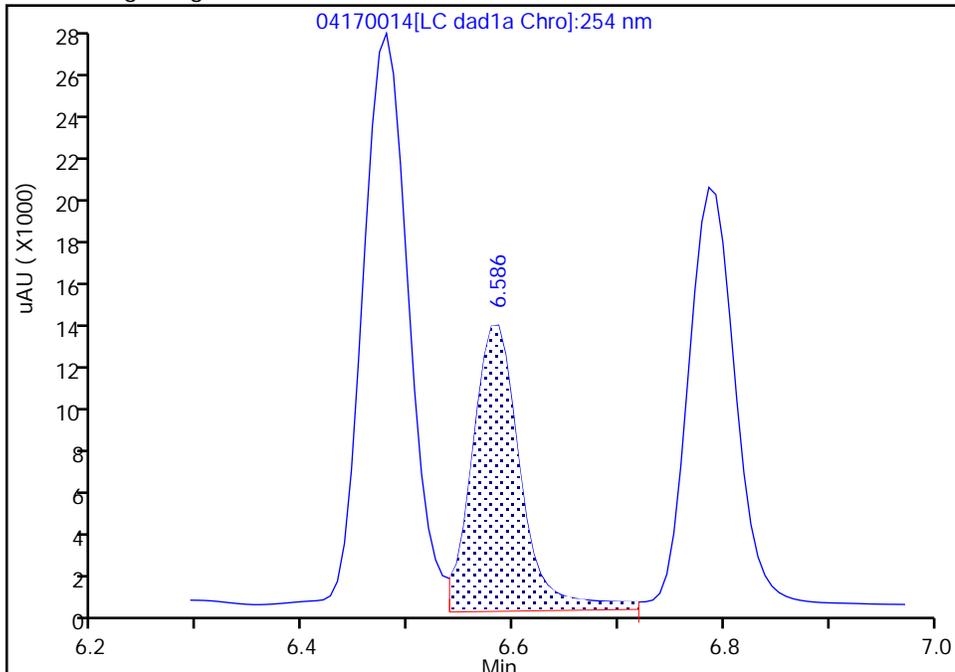
Data File: \\chromfs\denver\chromdata\chhplc\_x\20240417-132364.b\04170014.d  
Injection Date: 17-Apr-2024 21:46:50 Instrument ID: CHHPLC\_X3  
Lims ID: IC INT/DMT 6  
Client ID:  
Operator ID: JZ/JG ALS Bottle#: 14 Worklist Smp#: 14  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: 8330\_X3 Limit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

4 HMX, CAS: 2691-41-0

Signal: 1

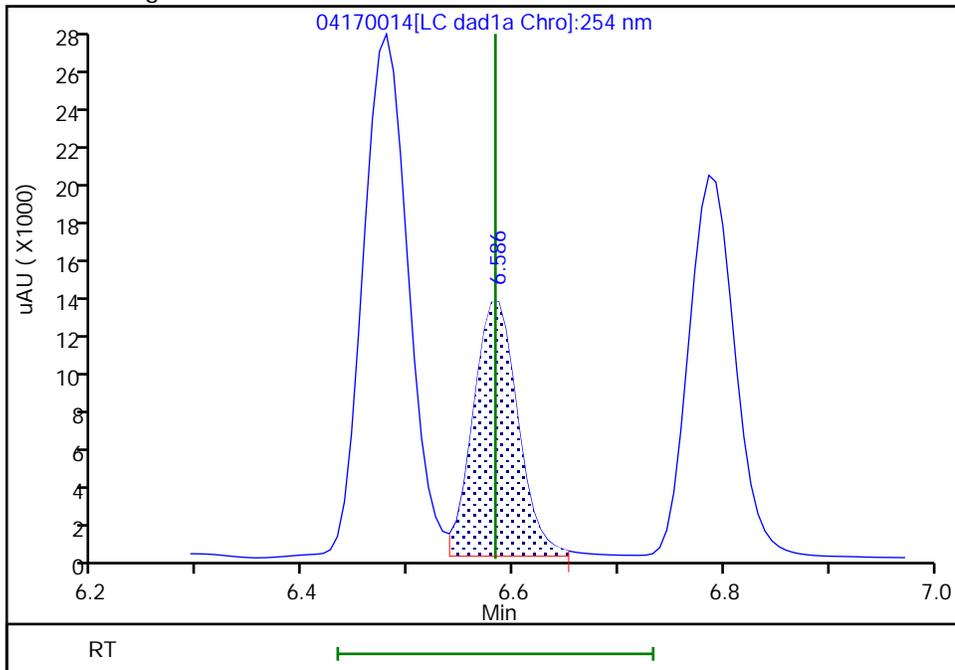
RT: 6.59  
Area: 42787  
Amount: 0.411788  
Amount Units: ug/mL

Processing Integration Results



RT: 6.59  
Area: 38101  
Amount: 0.398781  
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 18-Apr-2024 11:14:55 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Baseline

Eurofins Denver

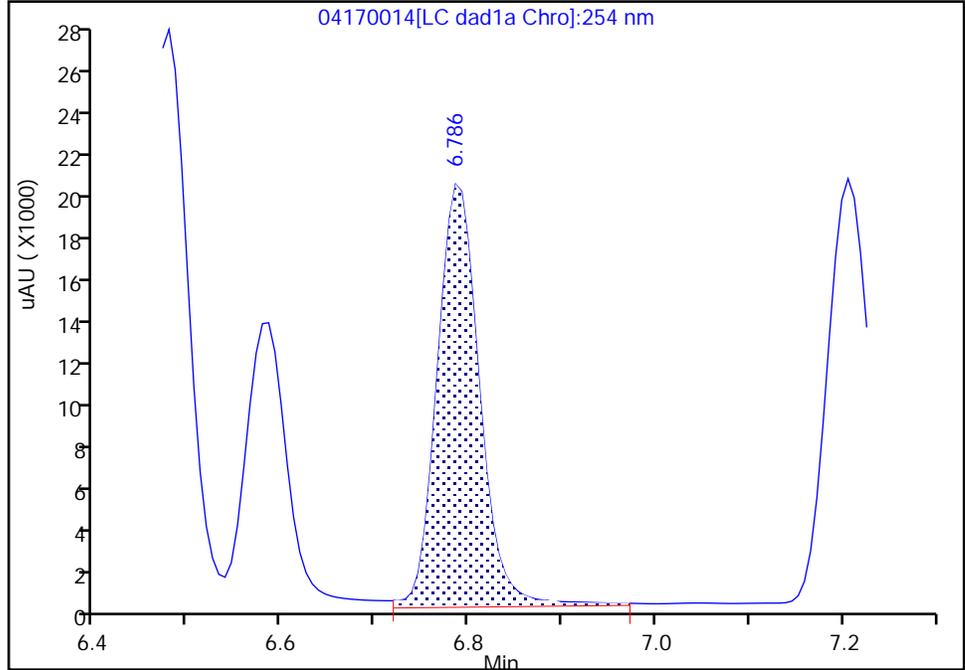
Data File: \\chromfs\denver\chromdata\chhplc\_x\20240417-132364.b\04170014.d  
Injection Date: 17-Apr-2024 21:46:50 Instrument ID: CHHPLC\_X3  
Lims ID: IC INT/DMT 6  
Client ID:  
Operator ID: JZ/JG ALS Bottle#: 14 Worklist Smp#: 14  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: 8330\_X3 Limit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

6 DNX, CAS: 80251-29-2

Signal: 1

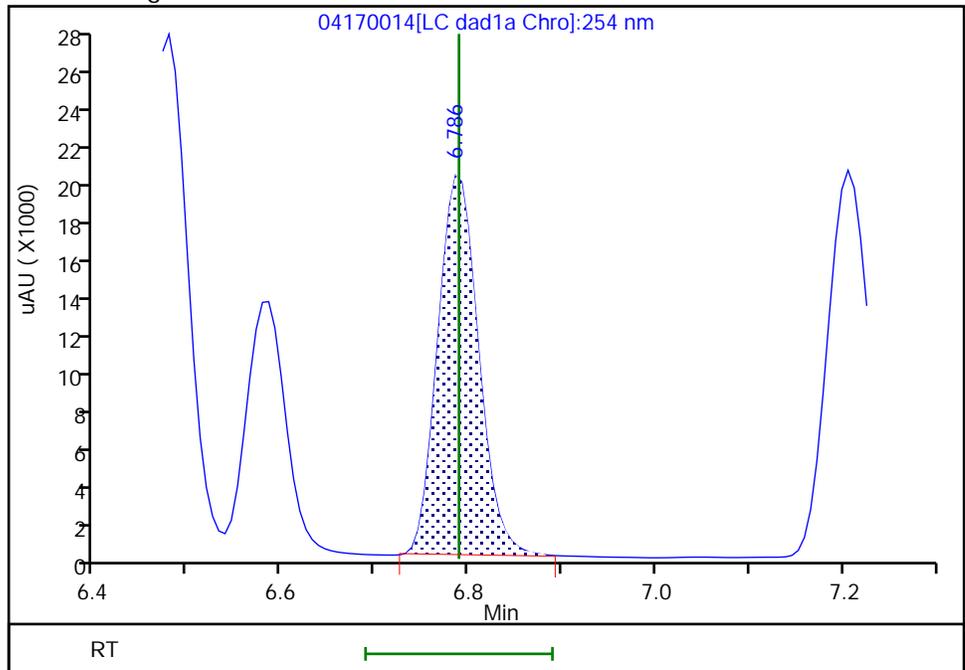
RT: 6.79  
Area: 62648  
Amount: 0.406964  
Amount Units: ug/mL

Processing Integration Results



RT: 6.79  
Area: 58701  
Amount: 0.398623  
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 18-Apr-2024 11:14:58 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins Denver  
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC\_X\20240417-132364.b\04170015.D  
 Lims ID: IC INT/DMT 5  
 Client ID:  
 Sample Type: IC Calib Level: 5  
 Inject. Date: 17-Apr-2024 22:09:45 ALS Bottle#: 15 Worklist Smp#: 15  
 Injection Vol: 100.0 ul Dil. Factor: 1.0000  
 Sample Info: IC INT/DMT 5  
 Operator ID: JZ/JG Instrument ID: CHHPLC\_X3  
 Sublist: chrom-8330\_X3\*sub27  
 Method: \\chromfs\Denver\ChromData\CHHPLC\_X\20240417-132364.b\8330\_X3.m  
 Limit Group: GCSV - 8330  
 Last Update: 18-Apr-2024 11:59:26 Calib Date: 18-Apr-2024 03:08:00  
 Integrator: Falcon  
 Quant Method: External Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Denver\ChromData\CHHPLC\_X\20240417-132364.b\04170028.D  
 Column 1 : UltraCarb5uODS (20) ( 4.60 mm) Det: LC DAD1B, 254 nm  
 Process Host: CTX1675

First Level Reviewer: LV5D Date: 18-Apr-2024 11:15:36

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 TNX	1	6.476	6.476	0.000	49234	0.2510	0.2474	M
4 HMX	1	6.582	6.583	-0.001	23583	0.2500	0.2468	M
6 DNx	1	6.789	6.789	0.000	36872	0.2505	0.2504	M
7 MNx	1	7.209	7.203	0.006	39930	0.2923	0.2921	
8 RDX	1	7.582	7.583	-0.001	26844	0.2500	0.2423	
9 2,4,6-Trinitrophenol	1	7.809	7.816	-0.007	19748	0.2500	0.2489	
\$ 10 1,2-Dinitrobenzene	1	8.522	8.516	0.006	32787	0.2500	0.2484	
11 1,3,5-Trinitrobenzene	1	8.656	8.656	0.000	54073	0.2500	0.2426	
12 1,3-Dinitrobenzene	1	9.276	9.276	0.000	74190	0.2500	0.2478	
13 Nitrobenzene	1	9.636	9.636	0.000	47641	0.2500	0.2427	
14 3,5-Dinitroaniline	1	9.876	9.876	0.000	54841	0.2500	0.2492	
15 Tetryl	1	9.962	9.963	-0.001	45082	0.2500	0.2483	
16 Nitroglycerin	2	10.429	10.429	0.000	167486	2.50	2.52	
17 2,4,6-Trinitrotoluene	1	10.869	10.869	0.000	53593	0.2500	0.2490	
18 4-Amino-2,6-dinitrotoluene	1	11.049	11.049	0.000	36831	0.2500	0.2456	
19 2-Amino-4,6-dinitrotoluene	1	11.309	11.309	0.000	49951	0.2500	0.2500	
20 2,6-Dinitrotoluene	1	11.456	11.449	0.007	35939	0.2500	0.2446	
21 2,4-Dinitrotoluene	1	11.629	11.629	0.000	72314	0.2500	0.2478	
22 o-Nitrotoluene	1	12.422	12.423	-0.001	31023	0.2500	0.2399	
23 p-Nitrotoluene	1	12.842	12.843	-0.001	26871	0.2500	0.2382	
24 m-Nitrotoluene	1	13.402	13.403	-0.001	33952	0.2500	0.2357	M
25 PETN	2	14.489	14.483	0.006	176891	2.50	2.46	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

8330IntermStk\_00080

Amount Added: 25.00

Units: uL

8330 DMT\_00016

Amount Added: 12.50

Units: uL

Eurofins Denver

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

Injection Date: 17-Apr-2024 22:09:45

Instrument ID: CHHPLC\_X3

Operator ID: JZ/JG

Lims ID: IC INT/DMT 5

Worklist Smp#: 15

Client ID:

Injection Vol: 100.0 ul

Dil. Factor: 1.0000

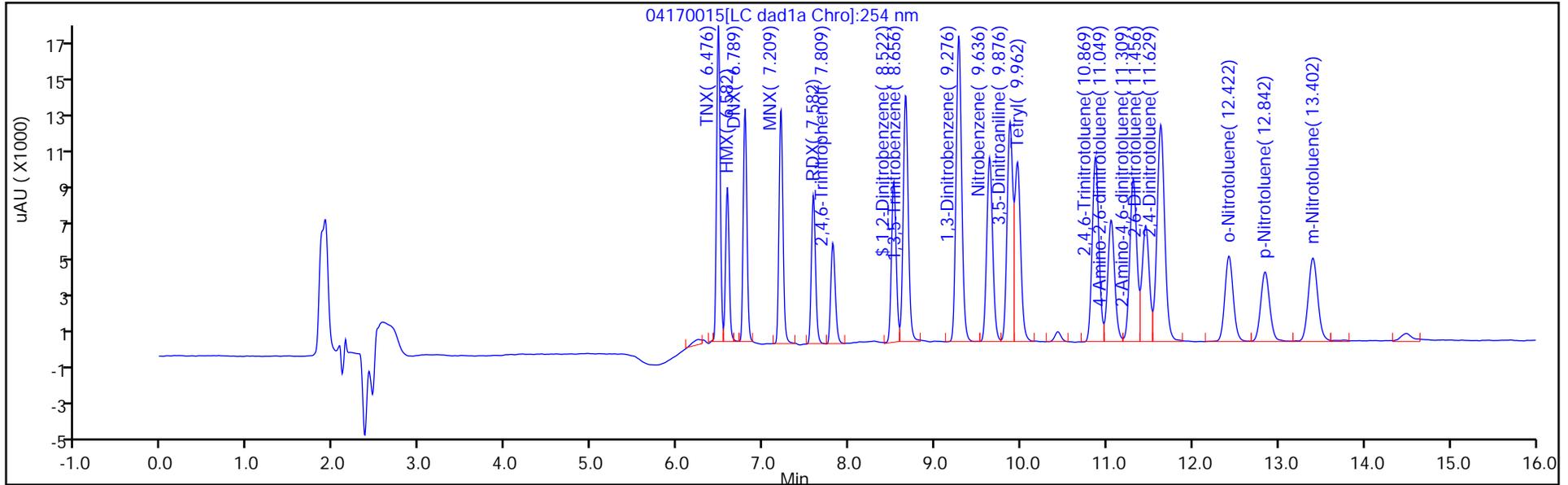
ALS Bottle#: 15

Method: 8330\_X3

Limit Group: GCSV - 8330

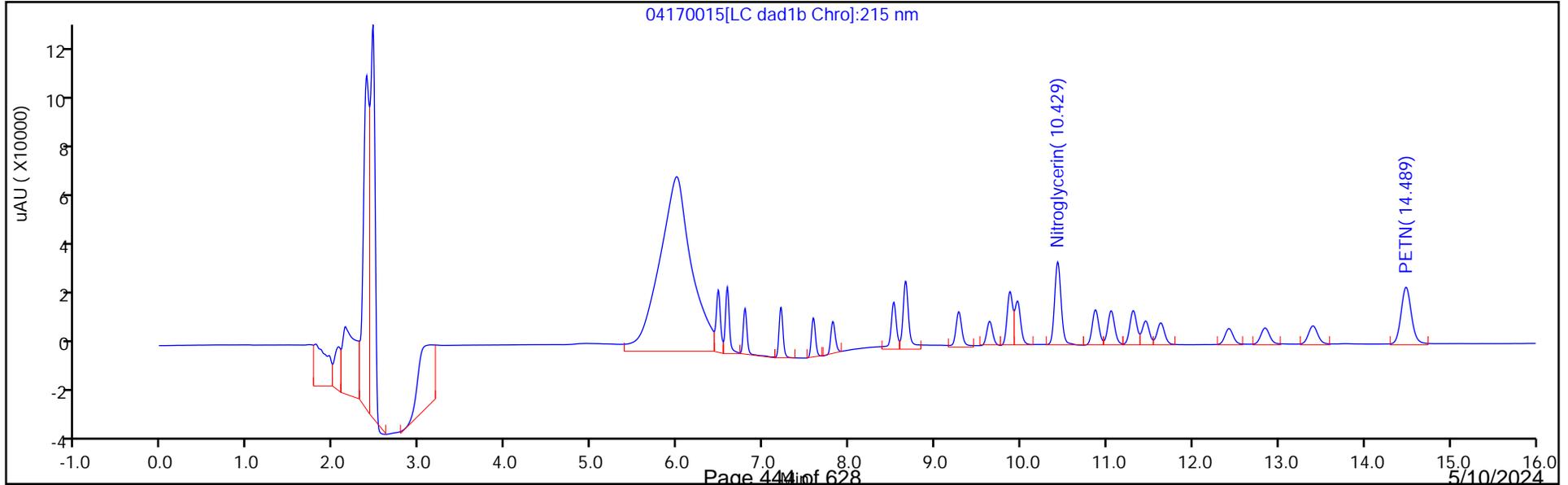
Column: UltraCarb5uODS (20) ( 4.60 mm)

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



Column: UltraCarb5uODS (20) ( 4.60 mm)

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



Eurofins Denver

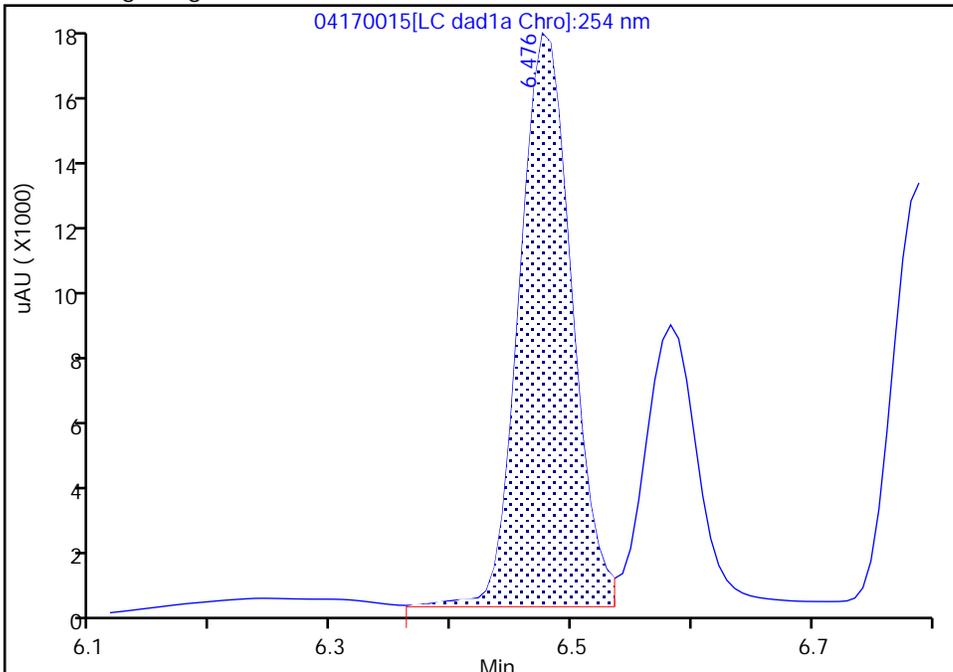
Data File: \\chromfs\denver\chromdata\chhplc\_x\20240417-132364.b\04170015.d  
Injection Date: 17-Apr-2024 22:09:45 Instrument ID: CHHPLC\_X3  
Lims ID: IC INT/DMT 5  
Client ID:  
Operator ID: JZ/JG ALS Bottle#: 15 Worklist Smp#: 15  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: 8330\_X3 Limit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

3 TNX, CAS: 13980-04-6

Signal: 1

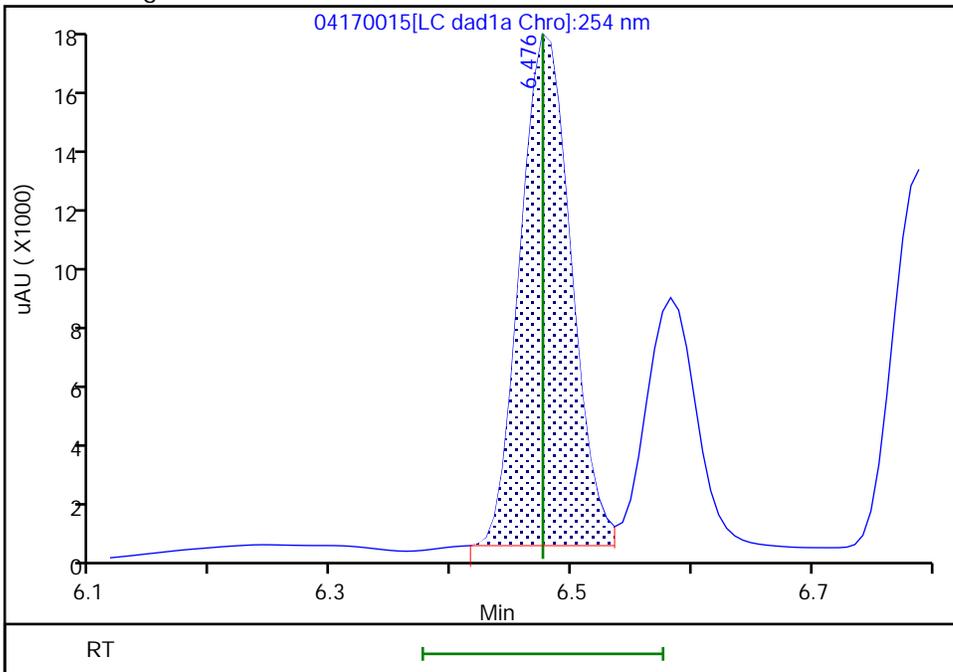
RT: 6.48  
Area: 50637  
Amount: 0.246583  
Amount Units: ug/mL

Processing Integration Results



RT: 6.48  
Area: 49234  
Amount: 0.247417  
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 18-Apr-2024 11:15:14 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Baseline

Eurofins Denver

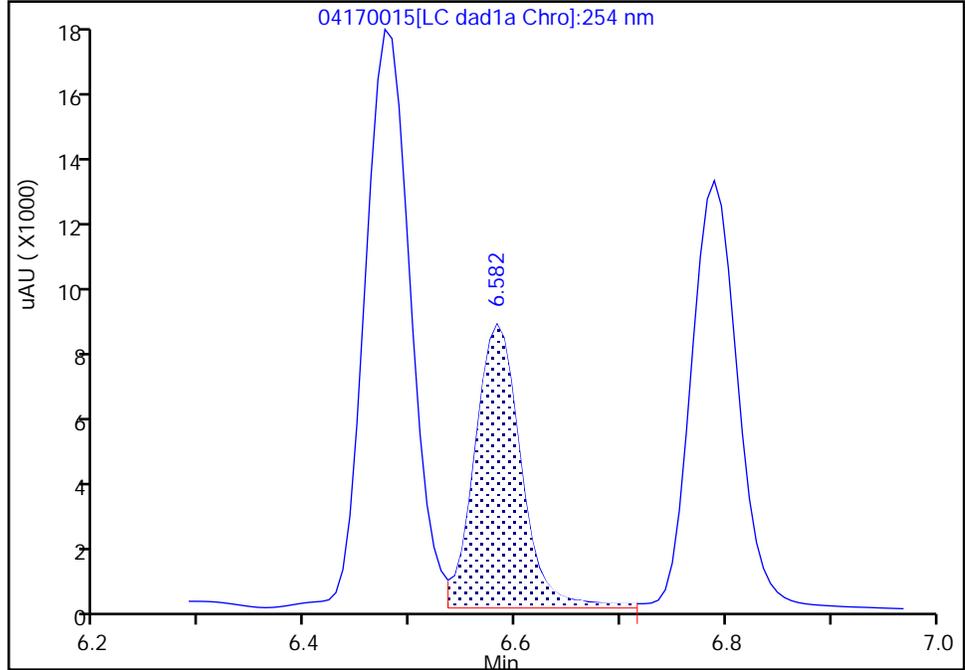
Data File: \\chromfs\denver\chromdata\chhplc\_x\20240417-132364.b\04170015.d  
Injection Date: 17-Apr-2024 22:09:45 Instrument ID: CHHPLC\_X3  
Lims ID: IC INT/DMT 5  
Client ID:  
Operator ID: JZ/JG ALS Bottle#: 15 Worklist Smp#: 15  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: 8330\_X3 Limit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

4 HMX, CAS: 2691-41-0

Signal: 1

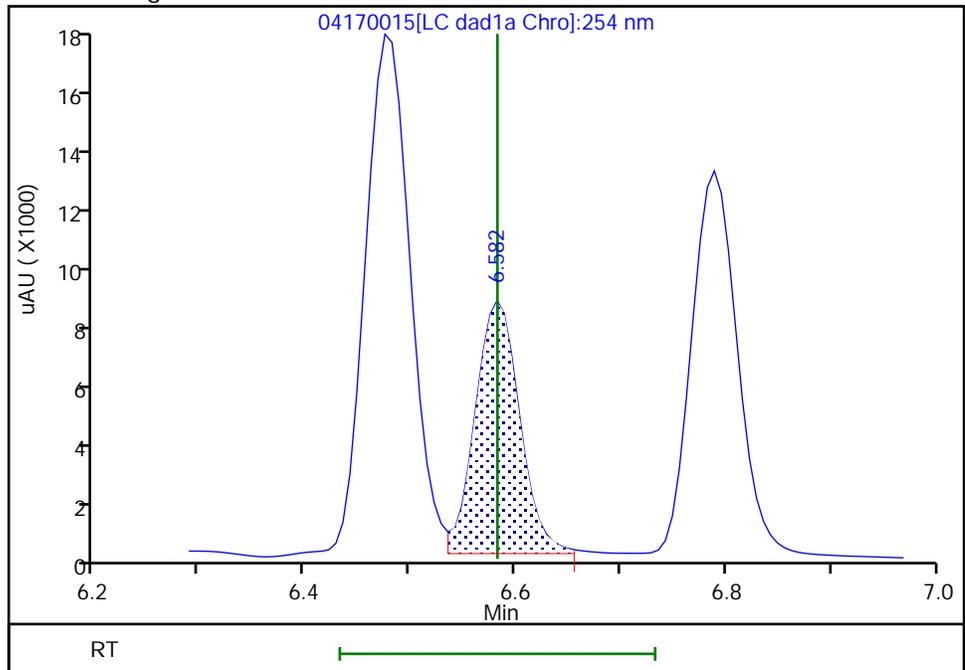
RT: 6.58  
Area: 25313  
Amount: 0.246706  
Amount Units: ug/mL

Processing Integration Results



RT: 6.58  
Area: 23583  
Amount: 0.246829  
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 18-Apr-2024 11:15:15 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Baseline

Eurofins Denver

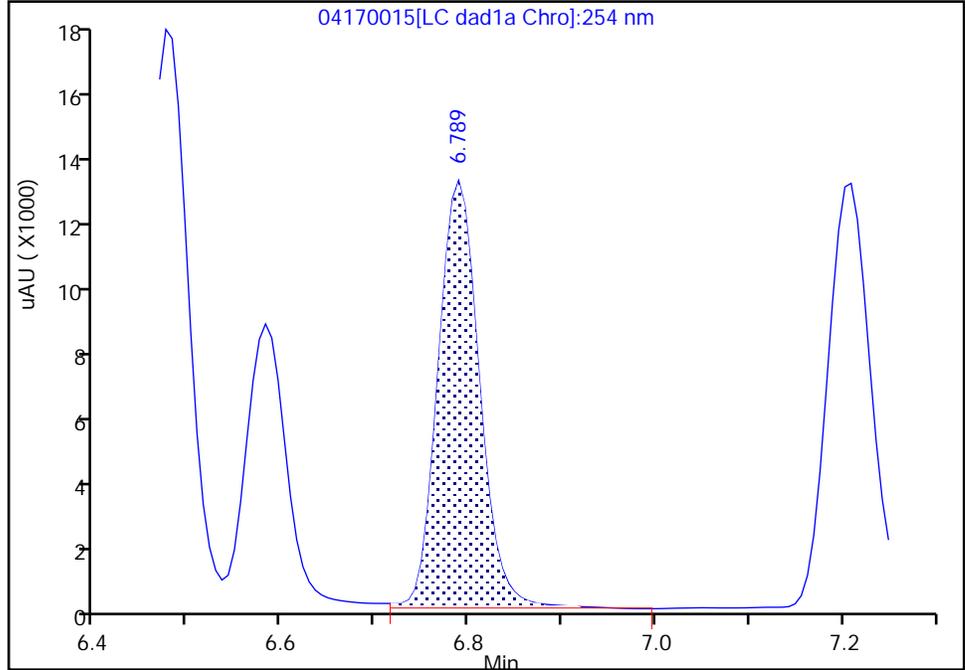
Data File: \\chromfs\denver\chromdata\chhplc\_x\20240417-132364.b\04170015.d  
Injection Date: 17-Apr-2024 22:09:45 Instrument ID: CHHPLC\_X3  
Lims ID: IC INT/DMT 5  
Client ID:  
Operator ID: JZ/JG ALS Bottle#: 15 Worklist Smp#: 15  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: 8330\_X3 Limit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

6 DNX, CAS: 80251-29-2

Signal: 1

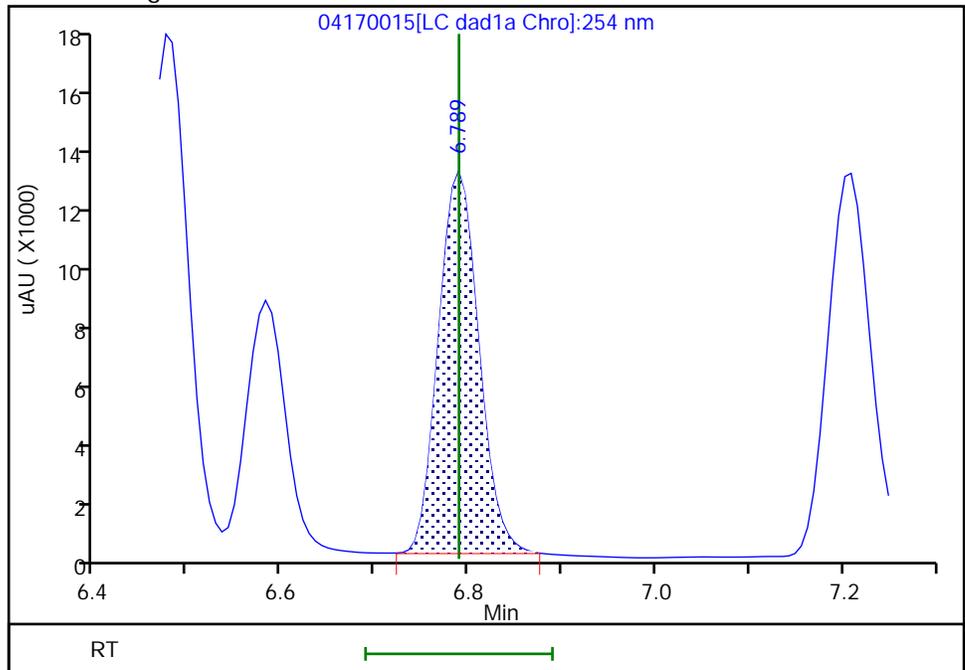
RT: 6.79  
Area: 38558  
Amount: 0.252268  
Amount Units: ug/mL

Processing Integration Results



RT: 6.79  
Area: 36872  
Amount: 0.250388  
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 18-Apr-2024 11:15:17 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins Denver

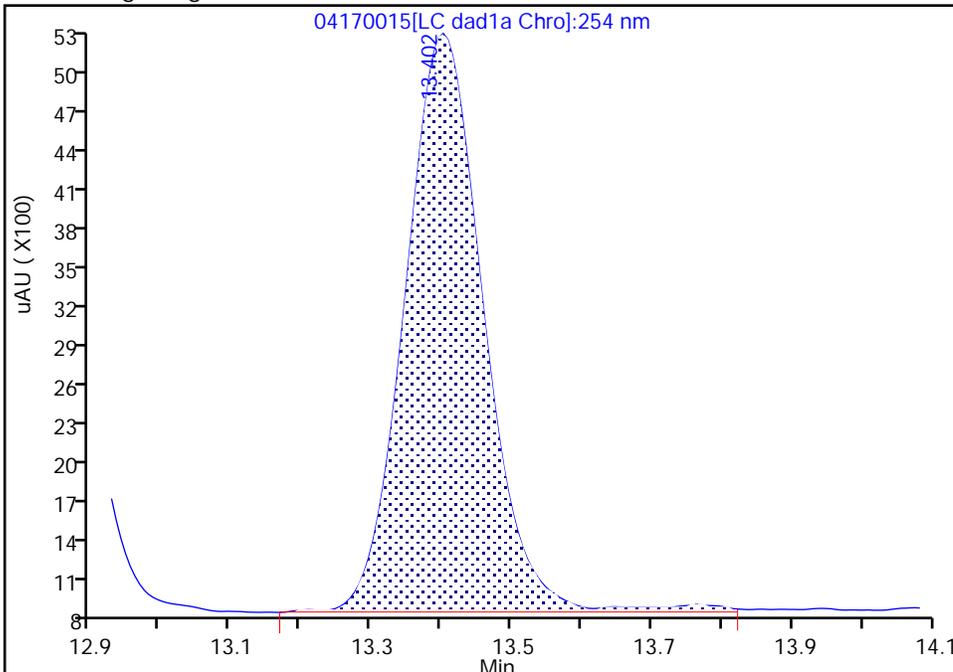
Data File: \\chromfs\denver\chromdata\chhplc\_x\20240417-132364.b\04170015.d  
Injection Date: 17-Apr-2024 22:09:45 Instrument ID: CHHPLC\_X3  
Lims ID: IC INT/DMT 5  
Client ID:  
Operator ID: JZ/JG ALS Bottle#: 15 Worklist Smp#: 15  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: 8330\_X3 Limit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

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

Signal: 1

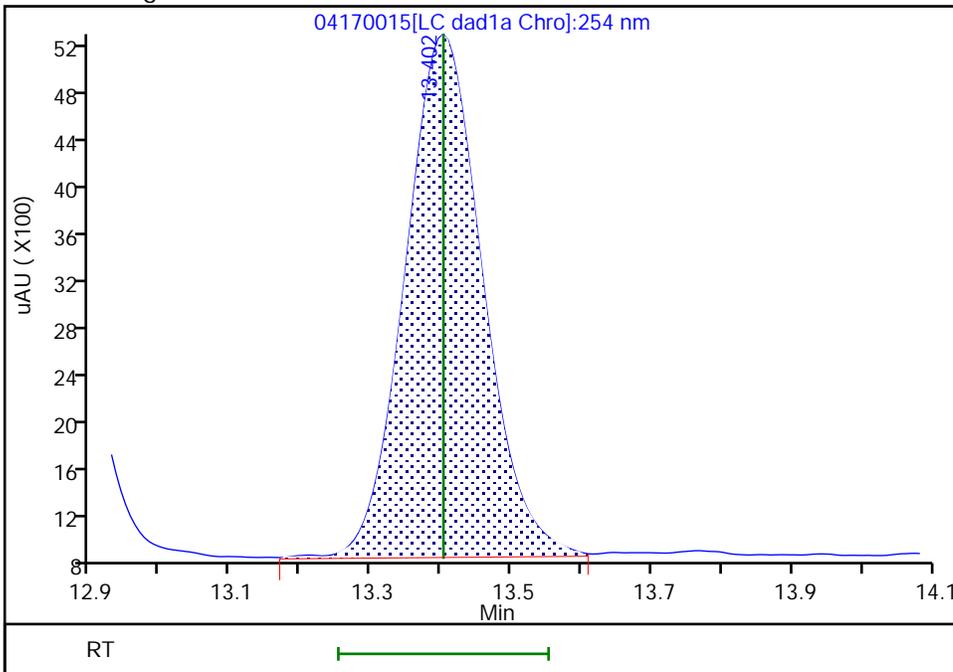
RT: 13.40  
Area: 34432  
Amount: 0.238653  
Amount Units: ug/mL

Processing Integration Results



RT: 13.40  
Area: 33952  
Amount: 0.235674  
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 18-Apr-2024 11:15:33 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Baseline

Eurofins Denver  
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC\_X\20240417-132364.b\04170016.D  
 Lims ID: IC INT/DMT 4  
 Client ID:  
 Sample Type: IC Calib Level: 4  
 Inject. Date: 17-Apr-2024 22:32:42 ALS Bottle#: 16 Worklist Smp#: 16  
 Injection Vol: 100.0 ul Dil. Factor: 1.0000  
 Sample Info: IC INT/DMT 4  
 Operator ID: JZ/JG Instrument ID: CHHPLC\_X3  
 Sublist: chrom-8330\_X3\*sub27  
 Method: \\chromfs\Denver\ChromData\CHHPLC\_X\20240417-132364.b\8330\_X3.m  
 Limit Group: GCSV - 8330  
 Last Update: 18-Apr-2024 11:59:27 Calib Date: 18-Apr-2024 03:08:00  
 Integrator: Falcon  
 Quant Method: External Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Denver\ChromData\CHHPLC\_X\20240417-132364.b\04170028.D  
 Column 1 : UltraCarb5uODS (20) ( 4.60 mm) Det: LC DAD1B, 254 nm  
 Process Host: CTX1675

First Level Reviewer: LV5D Date: 18-Apr-2024 11:16:09

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 TNX	1	6.476	6.476	0.000	20006	0.1004	0.1005	M
4 HMX	1	6.583	6.583	0.000	9645	0.1000	0.1009	M
6 DNX	1	6.789	6.789	0.000	14834	0.1002	0.1007	M
7 MNX	1	7.203	7.203	0.000	15807	0.1169	0.1156	
8 RDX	1	7.583	7.583	0.000	11162	0.1000	0.1008	
9 2,4,6-Trinitrophenol	1	7.816	7.816	0.000	8016	0.1000	0.1011	
\$ 10 1,2-Dinitrobenzene	1	8.516	8.516	0.000	13450	0.1000	0.1015	
11 1,3,5-Trinitrobenzene	1	8.656	8.656	0.000	22129	0.1000	0.0993	
12 1,3-Dinitrobenzene	1	9.276	9.276	0.000	30359	0.1000	0.1014	
13 Nitrobenzene	1	9.636	9.636	0.000	20035	0.1000	0.1020	
14 3,5-Dinitroaniline	1	9.876	9.876	0.000	22651	0.1000	0.1036	
15 Tetryl	1	9.963	9.963	0.000	18238	0.1000	0.1004	
16 Nitroglycerin	2	10.429	10.429	0.000	71367	1.00	1.07	
17 2,4,6-Trinitrotoluene	1	10.869	10.869	0.000	21912	0.1000	0.1018	
18 4-Amino-2,6-dinitrotoluene	1	11.049	11.049	0.000	15344	0.1000	0.1023	
19 2-Amino-4,6-dinitrotoluene	1	11.309	11.309	0.000	20033	0.1000	0.1003	
20 2,6-Dinitrotoluene	1	11.449	11.449	0.000	15218	0.1000	0.1036	
21 2,4-Dinitrotoluene	1	11.629	11.629	0.000	29452	0.1000	0.1009	
22 o-Nitrotoluene	1	12.423	12.423	0.000	12977	0.1000	0.1004	
23 p-Nitrotoluene	1	12.843	12.843	0.000	11360	0.1000	0.1007	
24 m-Nitrotoluene	1	13.403	13.403	0.000	14207	0.1000	0.0986	
25 PETN	2	14.483	14.483	0.000	72600	1.00	1.01	M

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

8330IntermStk\_00080

Amount Added: 10.00

Units: uL

8330 DMT\_00016

Amount Added: 5.00

Units: uL

Eurofins Denver

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

Injection Date: 17-Apr-2024 22:32:42

Instrument ID: CHHPLC\_X3

Operator ID: JZ/JG

Lims ID: IC INT/DMT 4

Worklist Smp#: 16

Client ID:

Injection Vol: 100.0 ul

Dil. Factor: 1.0000

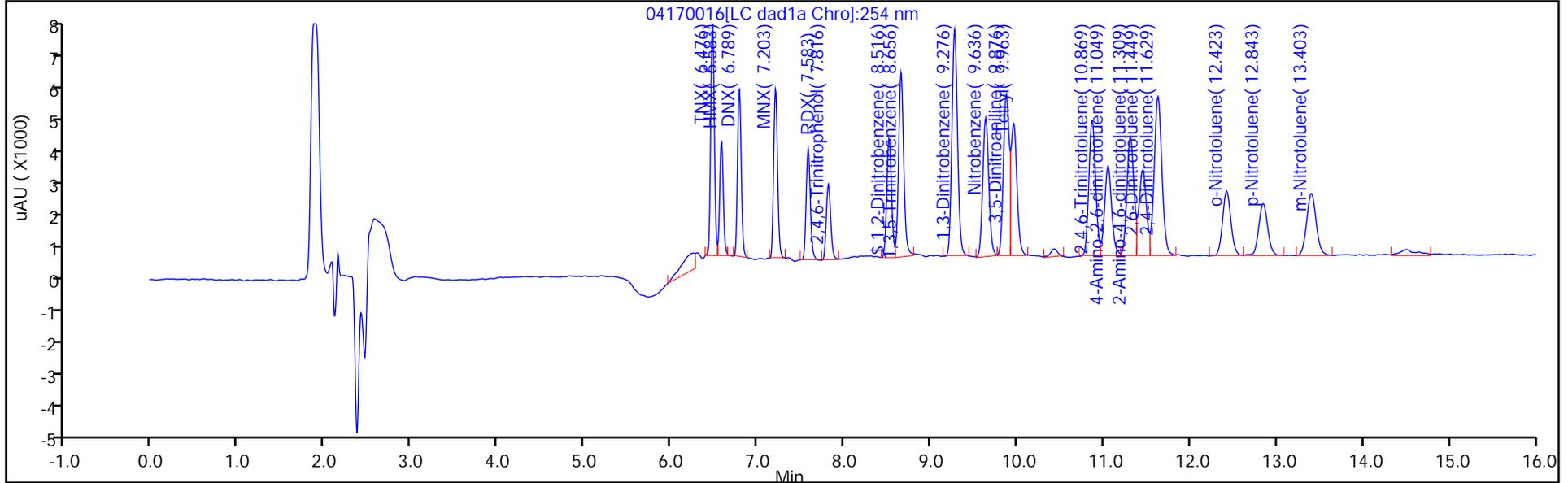
ALS Bottle#: 16

Method: 8330\_X3

Limit Group: GCSV - 8330

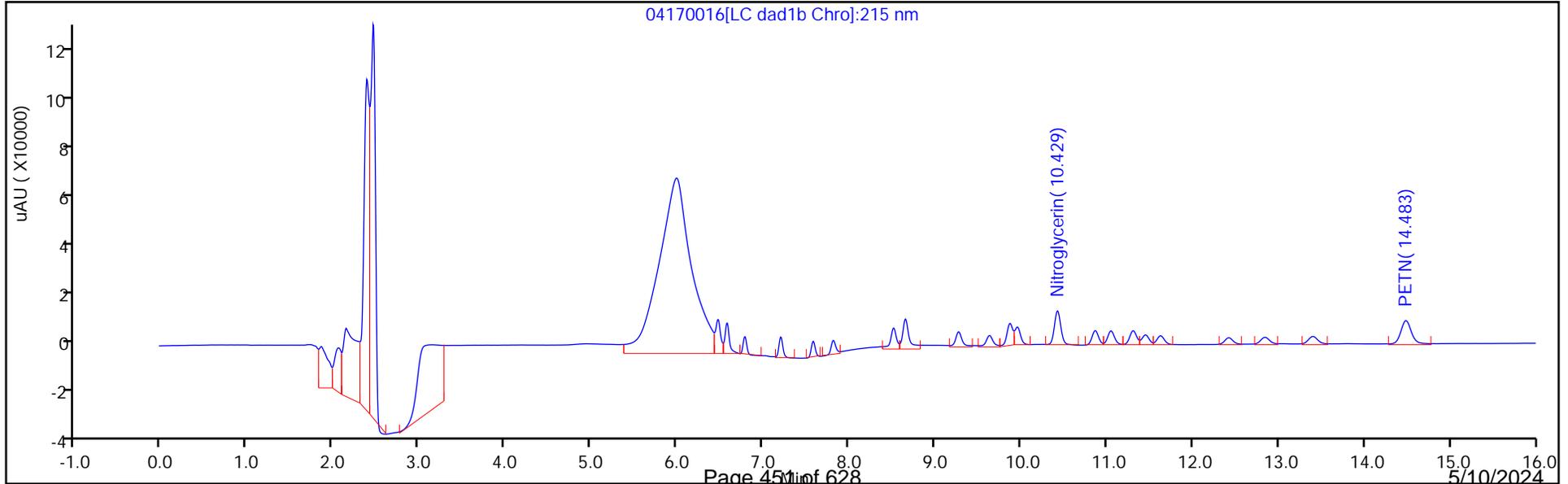
Column: UltraCarb5uODS (20) ( 4.60 mm)

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



Column: UltraCarb5uODS (20) ( 4.60 mm)

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



Eurofins Denver

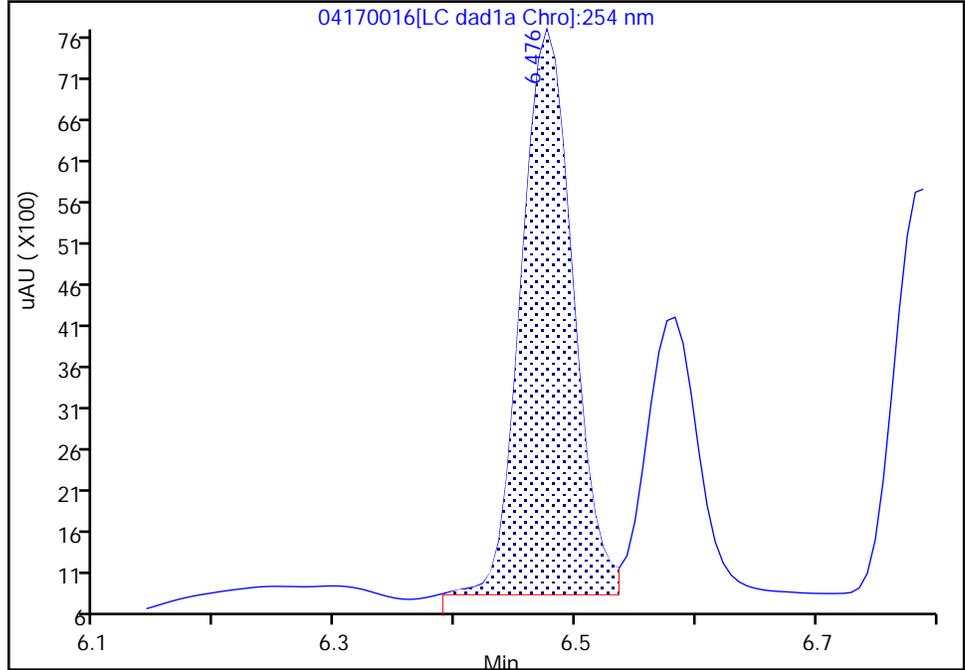
Data File: \\chromfs\denver\chromdata\chhplc\_x\20240417-132364.b\04170016.d  
Injection Date: 17-Apr-2024 22:32:42 Instrument ID: CHHPLC\_X3  
Lims ID: IC INT/DMT 4  
Client ID:  
Operator ID: JZ/JG ALS Bottle#: 16 Worklist Smp#: 16  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: 8330\_X3 Limit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

3 TNX, CAS: 13980-04-6

Signal: 1

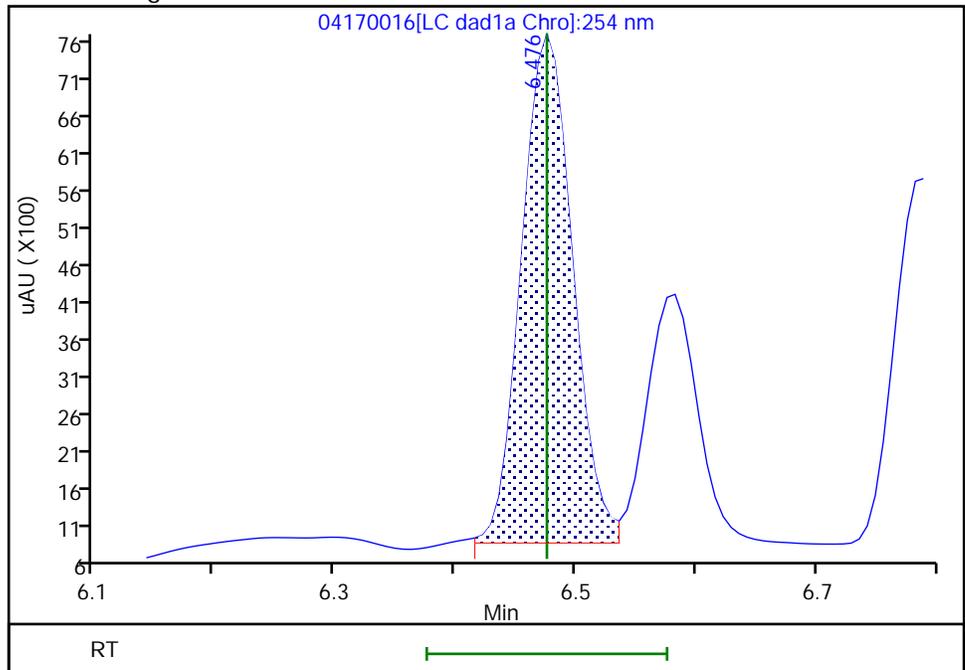
RT: 6.48  
Area: 20438  
Amount: 0.099827  
Amount Units: ug/mL

Processing Integration Results



RT: 6.48  
Area: 20006  
Amount: 0.100537  
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 18-Apr-2024 11:16:01 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Baseline

Eurofins Denver

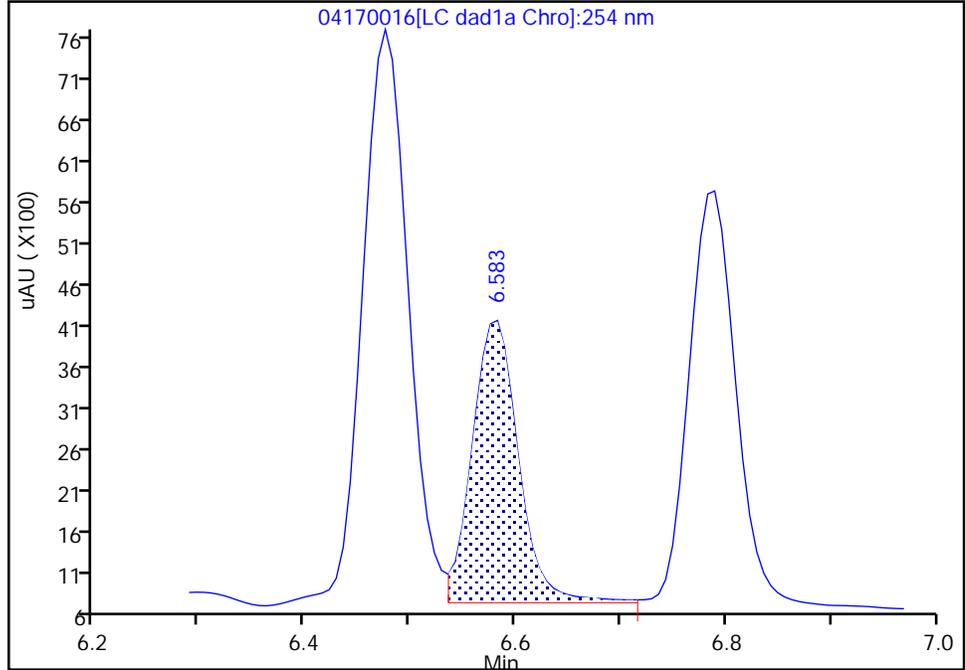
Data File: \\chromfs\denver\chromdata\chhplc\_x\20240417-132364.b\04170016.d  
 Injection Date: 17-Apr-2024 22:32:42 Instrument ID: CHHPLC\_X3  
 Lims ID: IC INT/DMT 4  
 Client ID:  
 Operator ID: JZ/JG ALS Bottle#: 16 Worklist Smp#: 16  
 Injection Vol: 100.0 ul Dil. Factor: 1.0000  
 Method: 8330\_X3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

4 HMX, CAS: 2691-41-0

Signal: 1

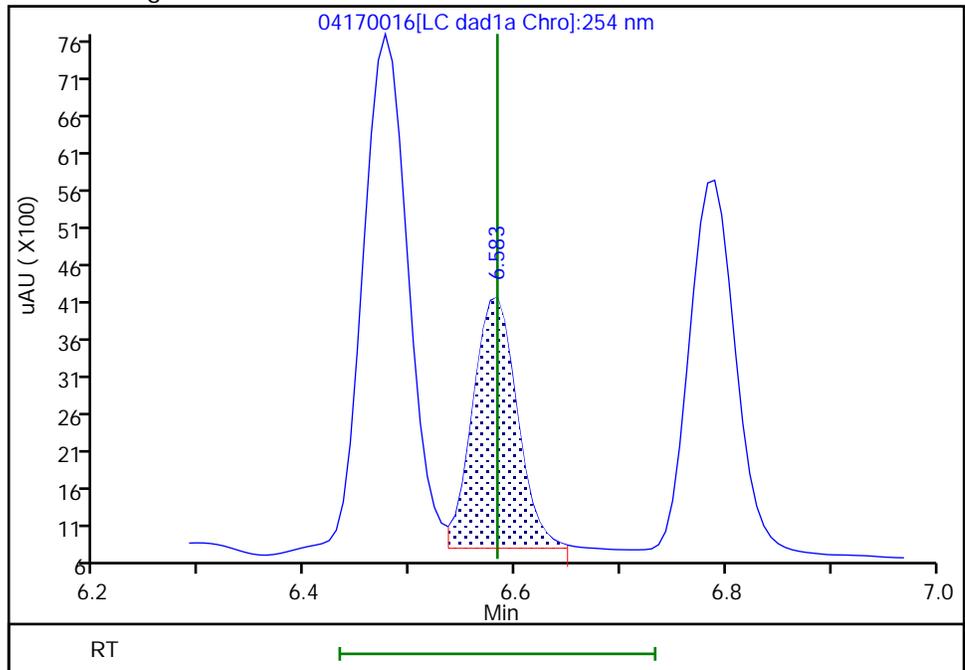
RT: 6.58  
 Area: 10277  
 Amount: 0.100918  
 Amount Units: ug/mL

Processing Integration Results



RT: 6.58  
 Area: 9645  
 Amount: 0.100949  
 Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 18-Apr-2024 11:16:02 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Baseline

Eurofins Denver

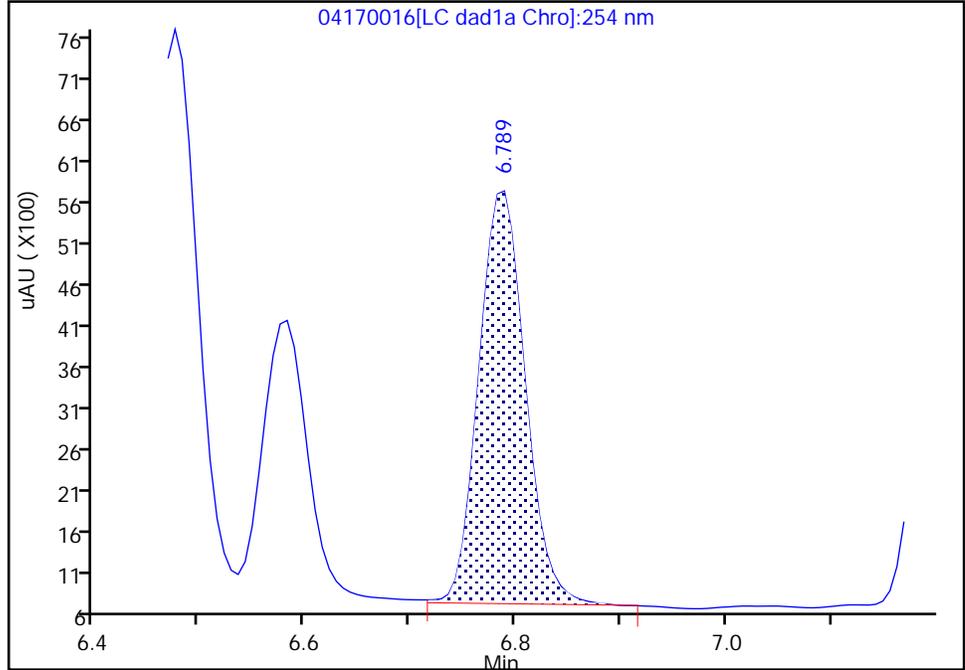
Data File: \\chromfs\denver\chromdata\chhplc\_x\20240417-132364.b\04170016.d  
Injection Date: 17-Apr-2024 22:32:42 Instrument ID: CHHPLC\_X3  
Lims ID: IC INT/DMT 4  
Client ID:  
Operator ID: JZ/JG ALS Bottle#: 16 Worklist Smp#: 16  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: 8330\_X3 Limit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

6 DNX, CAS: 80251-29-2

Signal: 1

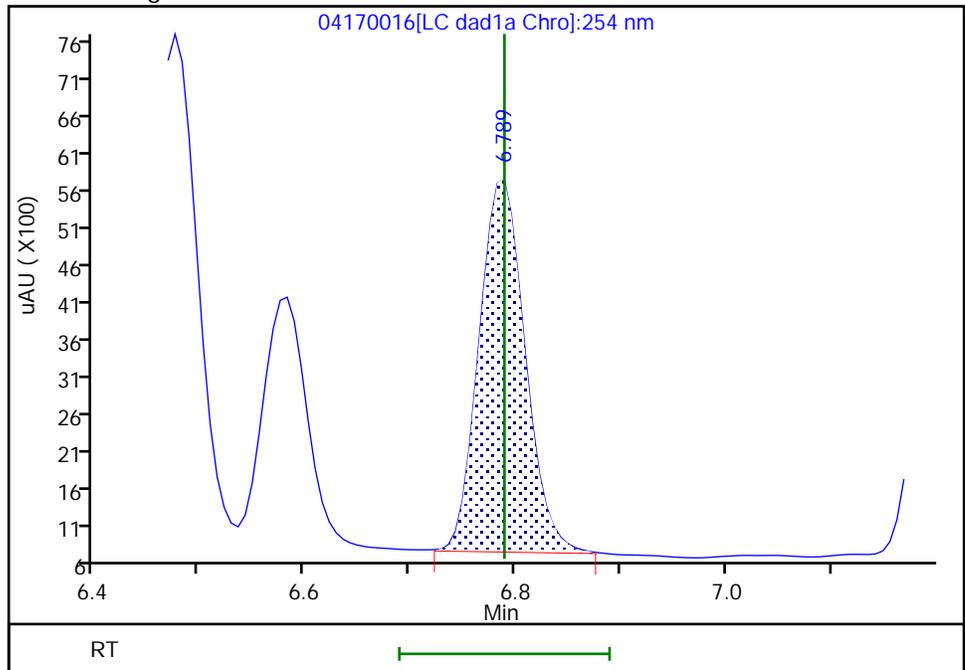
RT: 6.79  
Area: 15232  
Amount: 0.100146  
Amount Units: ug/mL

Processing Integration Results



RT: 6.79  
Area: 14834  
Amount: 0.100734  
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 18-Apr-2024 11:16:06 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins Denver

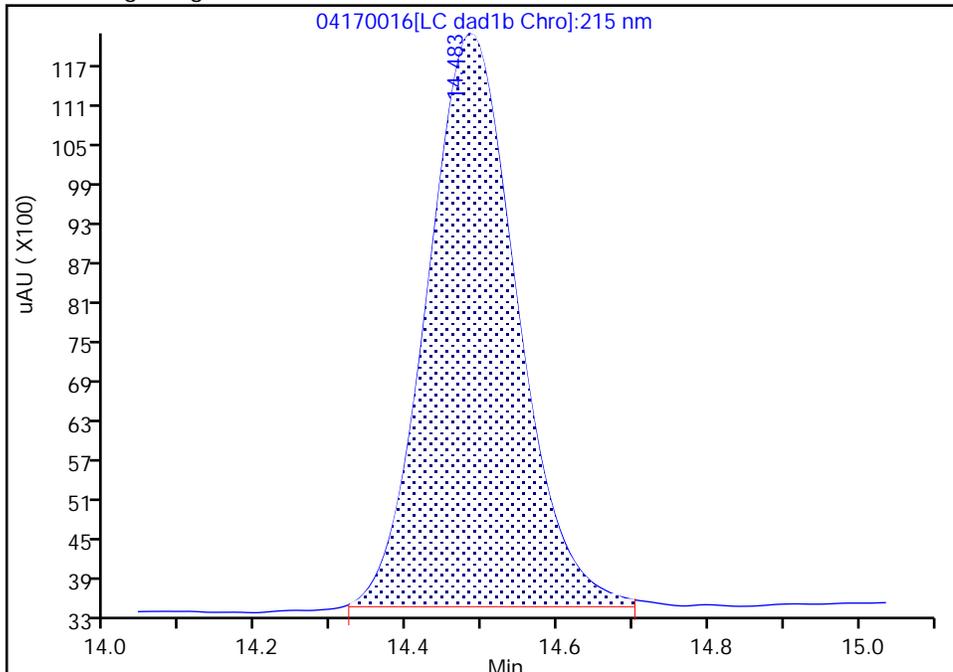
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170016.d		
Injection Date:	17-Apr-2024 22:32:42	Instrument ID:	CHHPLC_X3
Lims ID:	IC INT/DMT 4		
Client ID:			
Operator ID:	JZ/JG	ALS Bottle#:	16 Worklist Smp#: 16
Injection Vol:	100.0 ul	Dil. Factor:	1.0000
Method:	8330_X3	Limit Group: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

25 PETN, CAS: 78-11-5

Signal: 1

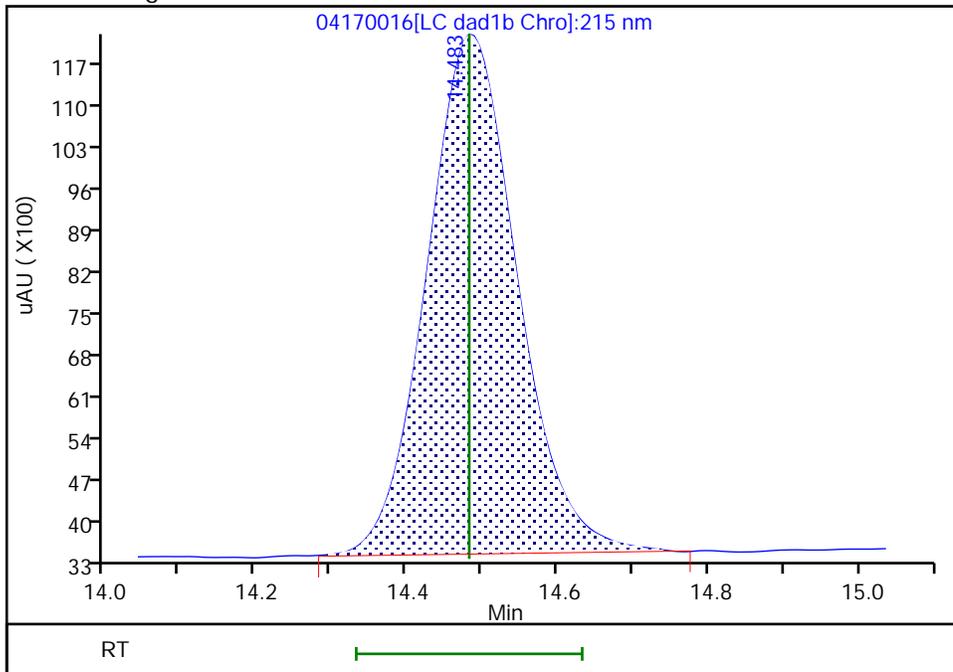
RT: 14.48  
 Area: 72203  
 Amount: 1.039474  
 Amount Units: ug/mL

Processing Integration Results



RT: 14.48  
 Area: 72600  
 Amount: 1.009217  
 Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 18-Apr-2024 11:15:43 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins Denver  
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC\_X\20240417-132364.b\04170017.D  
 Lims ID: IC INT/DMT 3  
 Client ID:  
 Sample Type: IC Calib Level: 3  
 Inject. Date: 17-Apr-2024 22:55:38 ALS Bottle#: 17 Worklist Smp#: 17  
 Injection Vol: 100.0 ul Dil. Factor: 1.0000  
 Sample Info: IC INT/DMT 3  
 Operator ID: JZ/JG Instrument ID: CHHPLC\_X3  
 Sublist: chrom-8330\_X3\*sub27  
 Method: \\chromfs\Denver\ChromData\CHHPLC\_X\20240417-132364.b\8330\_X3.m  
 Limit Group: GCSV - 8330  
 Last Update: 18-Apr-2024 11:59:28 Calib Date: 18-Apr-2024 03:08:00  
 Integrator: Falcon  
 Quant Method: External Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Denver\ChromData\CHHPLC\_X\20240417-132364.b\04170028.D  
 Column 1 : UltraCarb5uODS (20) ( 4.60 mm) Det: LC DAD1B, 254 nm  
 Process Host: CTX1675

First Level Reviewer: LV5D Date: 18-Apr-2024 11:16:33

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 TNX	1	6.478	6.476	0.002	9628	0.0502	0.0484	M
4 HMX	1	6.578	6.583	-0.005	4536	0.0500	0.0475	M
6 DNX	1	6.784	6.789	-0.005	7258	0.0501	0.0493	M
7 MNX	1	7.204	7.203	0.001	7887	0.0585	0.0577	
8 RDX	1	7.584	7.583	0.001	5612	0.0500	0.0507	
9 2,4,6-Trinitrophenol	1	7.818	7.816	0.002	3847	0.0500	0.0485	
\$ 10 1,2-Dinitrobenzene	1	8.518	8.516	0.002	6521	0.0500	0.0488	
11 1,3,5-Trinitrobenzene	1	8.658	8.656	0.002	11258	0.0500	0.0505	
12 1,3-Dinitrobenzene	1	9.277	9.276	0.001	15023	0.0500	0.0502	
13 Nitrobenzene	1	9.631	9.636	-0.005	9759	0.0500	0.0497	
14 3,5-Dinitroaniline	1	9.871	9.876	-0.005	10781	0.0500	0.0499	
15 Tetryl	1	9.957	9.963	-0.006	9010	0.0500	0.0496	
16 Nitroglycerin	2	10.424	10.429	-0.005	35657	0.5000	0.5365	
17 2,4,6-Trinitrotoluene	1	10.864	10.869	-0.005	10669	0.0500	0.0496	
18 4-Amino-2,6-dinitrotoluene	1	11.044	11.049	-0.005	7533	0.0500	0.0502	
19 2-Amino-4,6-dinitrotoluene	1	11.304	11.309	-0.005	9923	0.0500	0.0497	
20 2,6-Dinitrotoluene	1	11.451	11.449	0.002	7267	0.0500	0.0495	
21 2,4-Dinitrotoluene	1	11.624	11.629	-0.005	14425	0.0500	0.0494	
22 o-Nitrotoluene	1	12.424	12.423	0.001	6526	0.0500	0.0505	
23 p-Nitrotoluene	1	12.844	12.843	0.001	5631	0.0500	0.0499	
24 m-Nitrotoluene	1	13.404	13.403	0.001	7074	0.0500	0.0491	
25 PETN	2	14.491	14.483	0.008	35216	0.5000	0.4895	M

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

8330IntermStk\_00080

Amount Added: 5.00

Units: uL

8330 DMT\_00016

Amount Added: 2.50

Units: uL

Eurofins Denver

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

Injection Date: 17-Apr-2024 22:55:38

Instrument ID: CHHPLC\_X3

Operator ID: JZ/JG

Lims ID: IC INT/DMT 3

Worklist Smp#: 17

Client ID:

Injection Vol: 100.0 ul

Dil. Factor: 1.0000

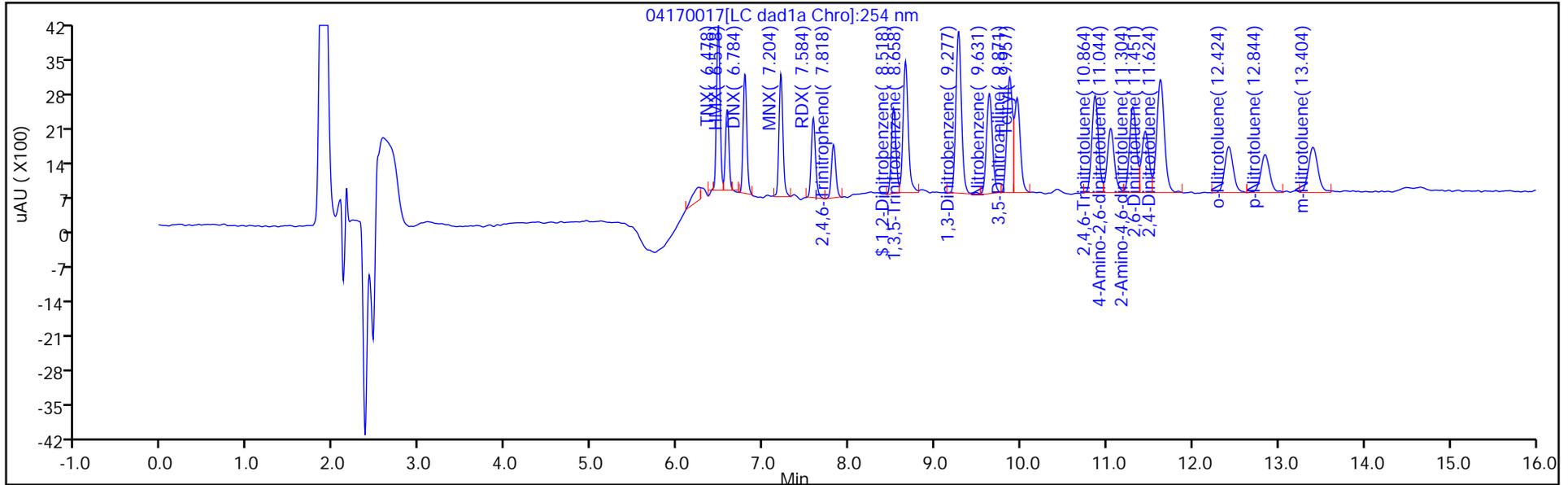
ALS Bottle#: 17

Method: 8330\_X3

Limit Group: GCSV - 8330

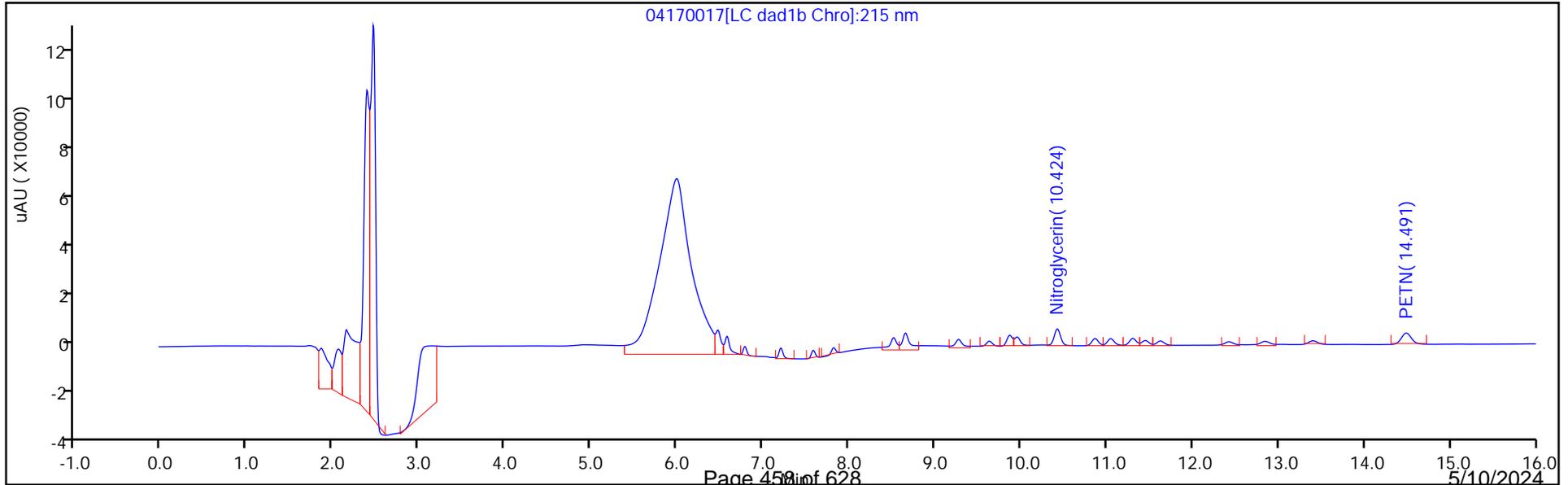
Column: UltraCarb5uODS (20) ( 4.60 mm)

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



Column: UltraCarb5uODS (20) ( 4.60 mm)

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



Eurofins Denver

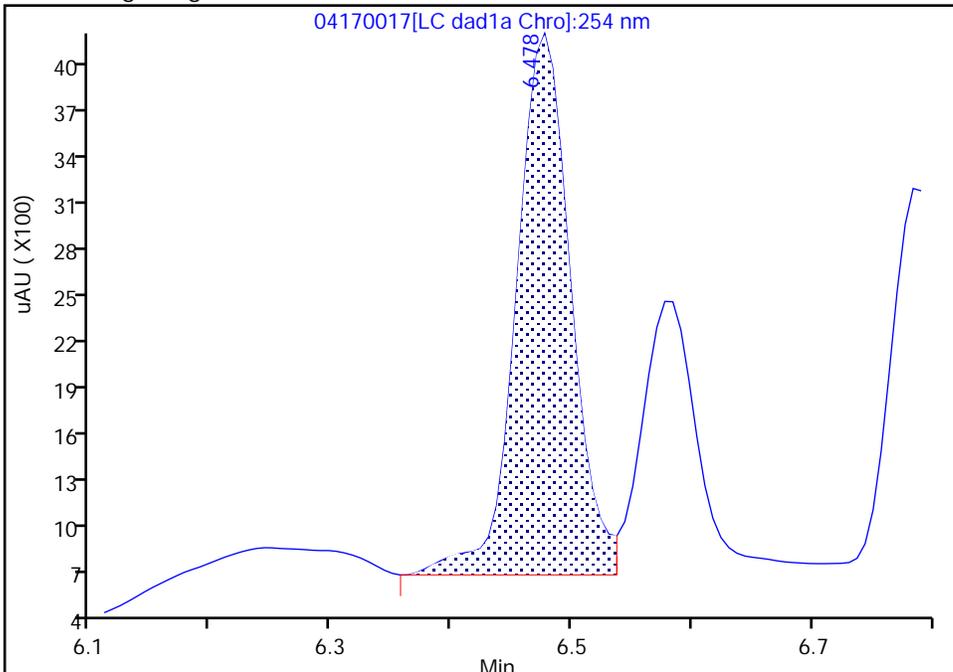
Data File: \\chromfs\denver\chromdata\chhplc\_x\20240417-132364.b\04170017.d  
 Injection Date: 17-Apr-2024 22:55:38 Instrument ID: CHHPLC\_X3  
 Lims ID: IC INT/DMT 3  
 Client ID:  
 Operator ID: JZ/JG ALS Bottle#: 17 Worklist Smp#: 17  
 Injection Vol: 100.0 ul Dil. Factor: 1.0000  
 Method: 8330\_X3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

3 TNX, CAS: 13980-04-6

Signal: 1

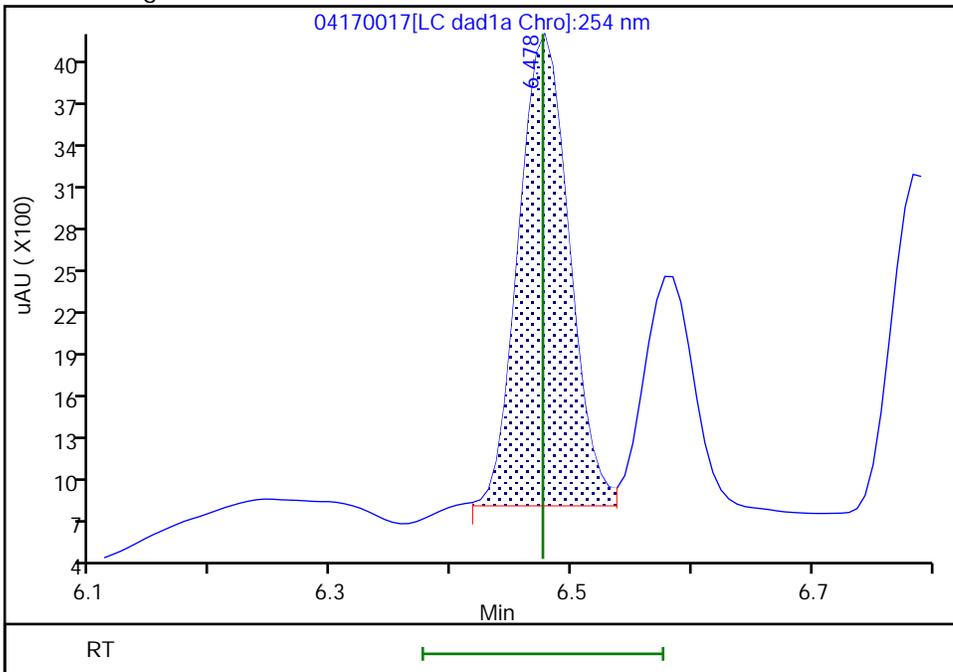
RT: 6.48  
 Area: 10871  
 Amount: 0.053223  
 Amount Units: ug/mL

Processing Integration Results



RT: 6.48  
 Area: 9628  
 Amount: 0.048384  
 Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 18-Apr-2024 11:16:21 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Baseline

Eurofins Denver

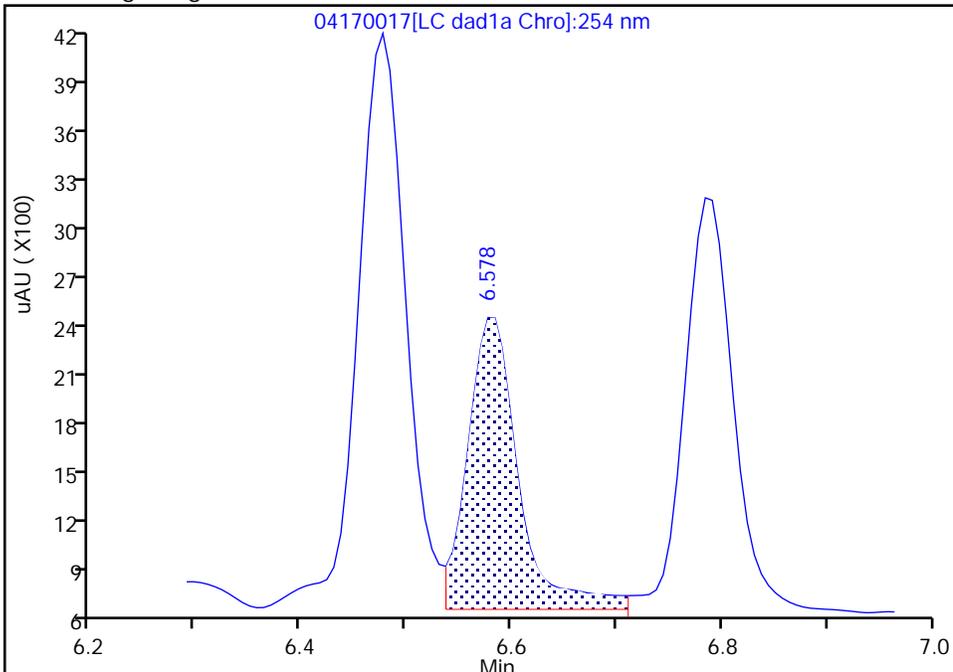
Data File: \\chromfs\denver\chromdata\chhplc\_x\20240417-132364.b\04170017.d  
Injection Date: 17-Apr-2024 22:55:38 Instrument ID: CHHPLC\_X3  
Lims ID: IC INT/DMT 3  
Client ID:  
Operator ID: JZ/JG ALS Bottle#: 17 Worklist Smp#: 17  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: 8330\_X3 Limit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

4 HMX, CAS: 2691-41-0

Signal: 1

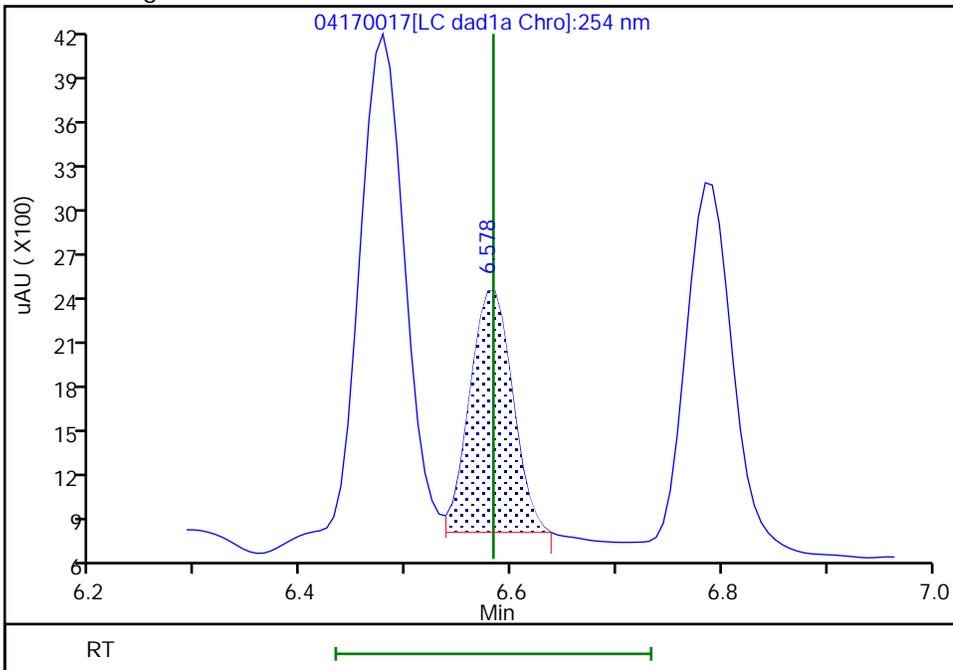
RT: 6.58  
Area: 5791  
Amount: 0.057261  
Amount Units: ug/mL

Processing Integration Results



RT: 6.58  
Area: 4536  
Amount: 0.047476  
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 18-Apr-2024 11:16:22 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Baseline

Eurofins Denver

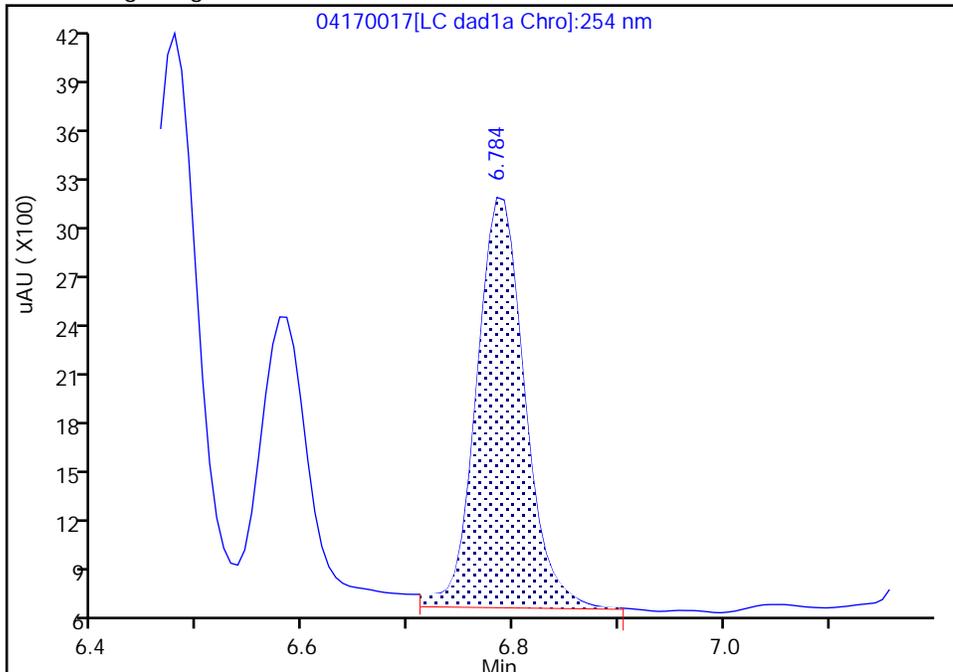
Data File: \\chromfs\denver\chromdata\chhplc\_x\20240417-132364.b\04170017.d  
Injection Date: 17-Apr-2024 22:55:38 Instrument ID: CHHPLC\_X3  
Lims ID: IC INT/DMT 3  
Client ID:  
Operator ID: JZ/JG ALS Bottle#: 17 Worklist Smp#: 17  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: 8330\_X3 Limit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

6 DNX, CAS: 80251-29-2

Signal: 1

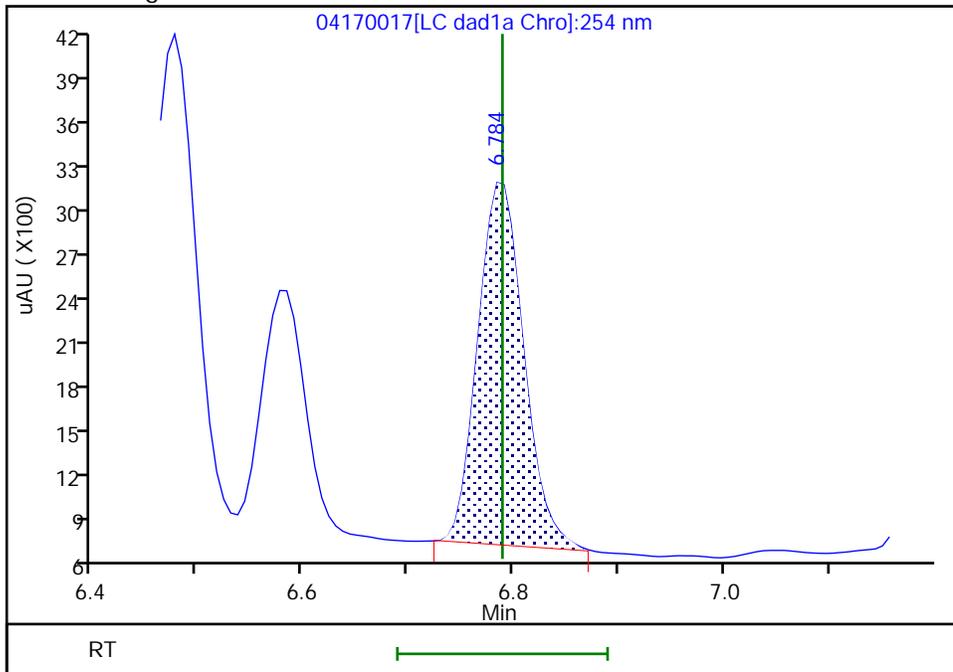
RT: 6.78  
Area: 7818  
Amount: 0.051551  
Amount Units: ug/mL

Processing Integration Results



RT: 6.78  
Area: 7258  
Amount: 0.049287  
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 18-Apr-2024 11:16:26 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins Denver

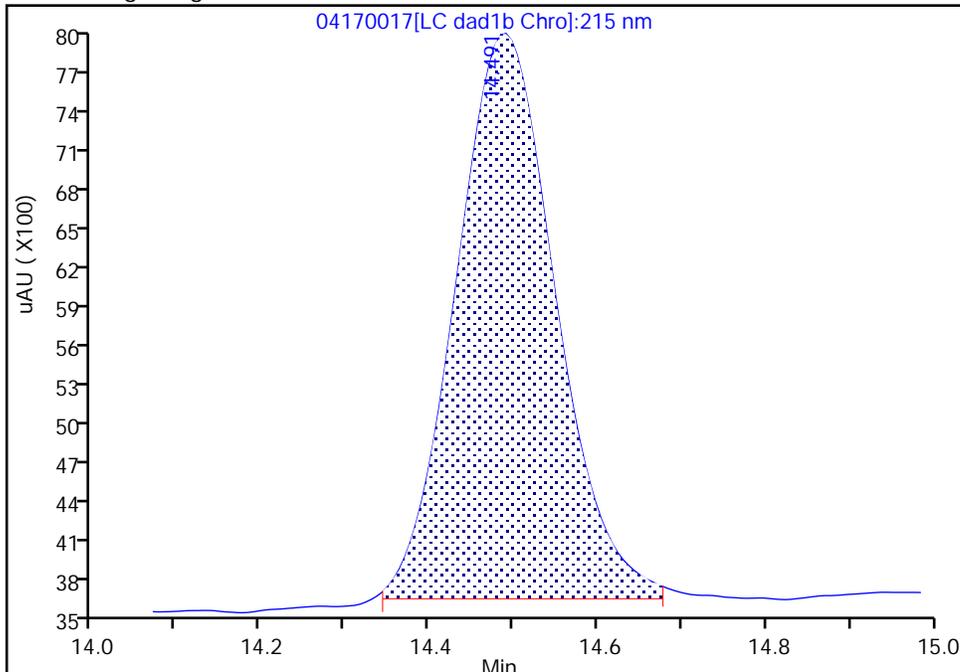
Data File: \\chromfs\denver\chromdata\chhplc\_x\20240417-132364.b\04170017.d  
 Injection Date: 17-Apr-2024 22:55:38 Instrument ID: CHHPLC\_X3  
 Lims ID: IC INT/DMT 3  
 Client ID:  
 Operator ID: JZ/JG ALS Bottle#: 17 Worklist Smp#: 17  
 Injection Vol: 100.0 ul Dil. Factor: 1.0000  
 Method: 8330\_X3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

25 PETN, CAS: 78-11-5

Signal: 1

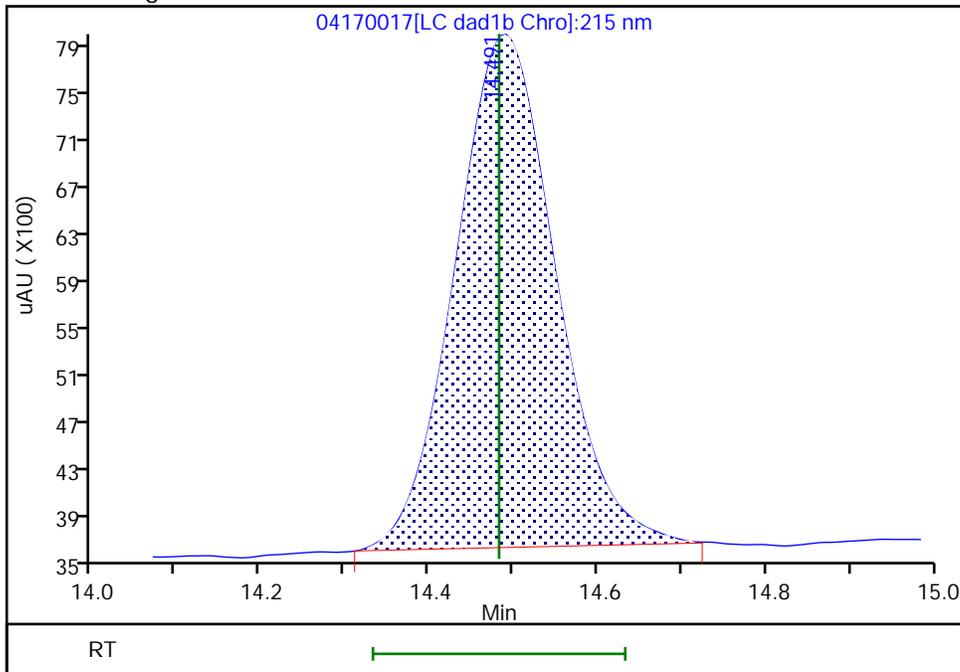
RT: 14.49  
 Area: 34790  
 Amount: 0.500498  
 Amount Units: ug/mL

Processing Integration Results



RT: 14.49  
 Area: 35216  
 Amount: 0.489540  
 Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 18-Apr-2024 11:16:31 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins Denver  
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC\_X\20240417-132364.b\04170018.D  
 Lims ID: IC INT/DMT 2  
 Client ID:  
 Sample Type: IC Calib Level: 2  
 Inject. Date: 17-Apr-2024 23:18:32 ALS Bottle#: 18 Worklist Smp#: 18  
 Injection Vol: 100.0 ul Dil. Factor: 1.0000  
 Sample Info: IC INT/DMT 2  
 Operator ID: JZ/JG Instrument ID: CHHPLC\_X3  
 Sublist: chrom-8330\_X3\*sub27  
 Method: \\chromfs\Denver\ChromData\CHHPLC\_X\20240417-132364.b\8330\_X3.m  
 Limit Group: GCSV - 8330  
 Last Update: 18-Apr-2024 11:59:29 Calib Date: 18-Apr-2024 03:08:00  
 Integrator: Falcon  
 Quant Method: External Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Denver\ChromData\CHHPLC\_X\20240417-132364.b\04170028.D  
 Column 1 : UltraCarb5uODS (20) ( 4.60 mm) Det: LC DAD1B, 254 nm  
 Process Host: CTX1675

First Level Reviewer: LV5D Date: 18-Apr-2024 11:17:35

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 TNX	1	6.475	6.476	-0.001	4023	0.0201	0.0202	
4 HMX	1	6.582	6.583	-0.001	2017	0.0200	0.0211	
6 DNX	1	6.788	6.789	-0.001	2843	0.0200	0.0193	M
7 MNX	1	7.202	7.203	-0.001	2991	0.0234	0.0219	
8 RDX	1	7.582	7.583	-0.001	2334	0.0200	0.0211	
9 2,4,6-Trinitrophenol	1	7.822	7.816	0.006	1524	0.0200	0.0192	
\$ 10 1,2-Dinitrobenzene	1	8.522	8.516	0.006	2603	0.0200	0.0191	M
11 1,3,5-Trinitrobenzene	1	8.655	8.656	-0.001	4349	0.0200	0.0195	M
12 1,3-Dinitrobenzene	1	9.275	9.276	-0.001	5678	0.0200	0.0190	
13 Nitrobenzene	1	9.635	9.636	-0.001	3932	0.0200	0.0200	
14 3,5-Dinitroaniline	1	9.868	9.876	-0.008	4171	0.0200	0.0199	M
15 Tetryl	1	9.955	9.963	-0.008	3374	0.0200	0.0186	Ma
16 Nitroglycerin	2	10.422	10.429	-0.007	11963	0.2000	0.1800	M
17 2,4,6-Trinitrotoluene	1	10.862	10.869	-0.007	4400	0.0200	0.0204	
18 4-Amino-2,6-dinitrotoluene	1	11.042	11.049	-0.007	3261	0.0200	0.0217	
19 2-Amino-4,6-dinitrotoluene	1	11.302	11.309	-0.007	3997	0.0200	0.0200	
20 2,6-Dinitrotoluene	1	11.448	11.449	-0.001	2880	0.0200	0.0196	
21 2,4-Dinitrotoluene	1	11.622	11.629	-0.007	5793	0.0200	0.0198	
22 o-Nitrotoluene	1	12.415	12.423	-0.008	2777	0.0200	0.0215	
23 p-Nitrotoluene	1	12.842	12.843	-0.001	2413	0.0200	0.0214	
24 m-Nitrotoluene	1	13.395	13.403	-0.008	3066	0.0200	0.0213	
25 PETN	2	14.482	14.483	-0.001	14174	0.2000	0.1970	M

QC Flag Legend  
Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

8330IntermStk\_00080

Amount Added: 2.00

Units: uL

8330 DMT\_00016

Amount Added: 1.00

Units: uL

Eurofins Denver

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

Injection Date: 17-Apr-2024 23:18:32

Instrument ID: CHHPLC\_X3

Operator ID: JZ/JG

Lims ID: IC INT/DMT 2

Worklist Smp#: 18

Client ID:

Injection Vol: 100.0 ul

Dil. Factor: 1.0000

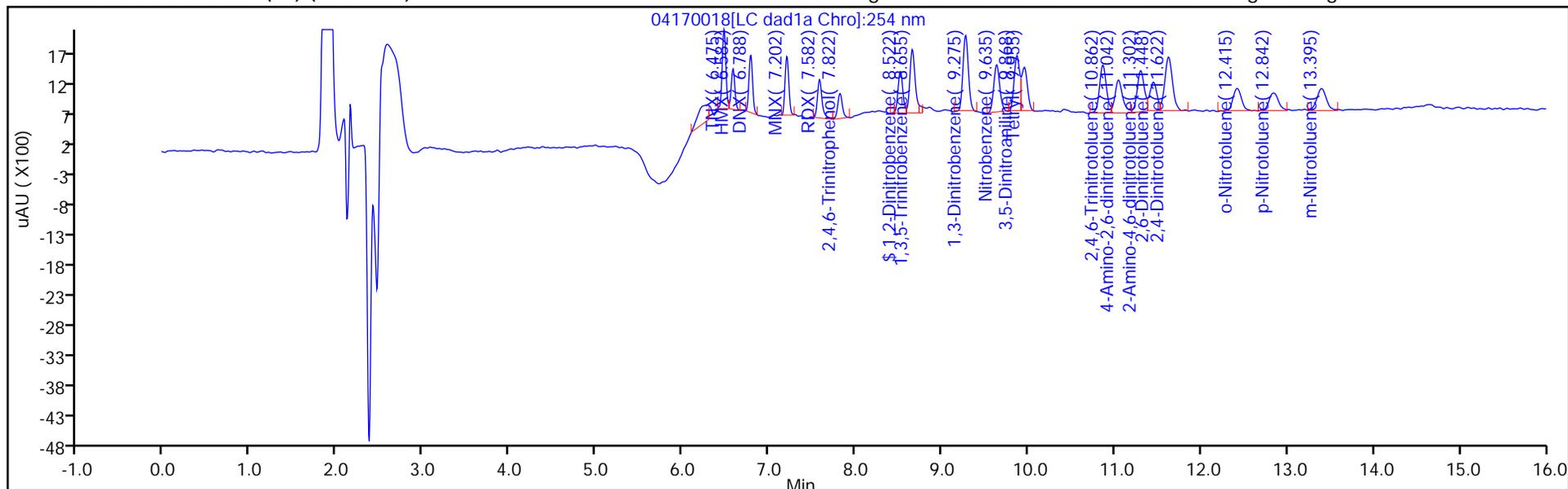
ALS Bottle#: 18

Method: 8330\_X3

Limit Group: GCSV - 8330

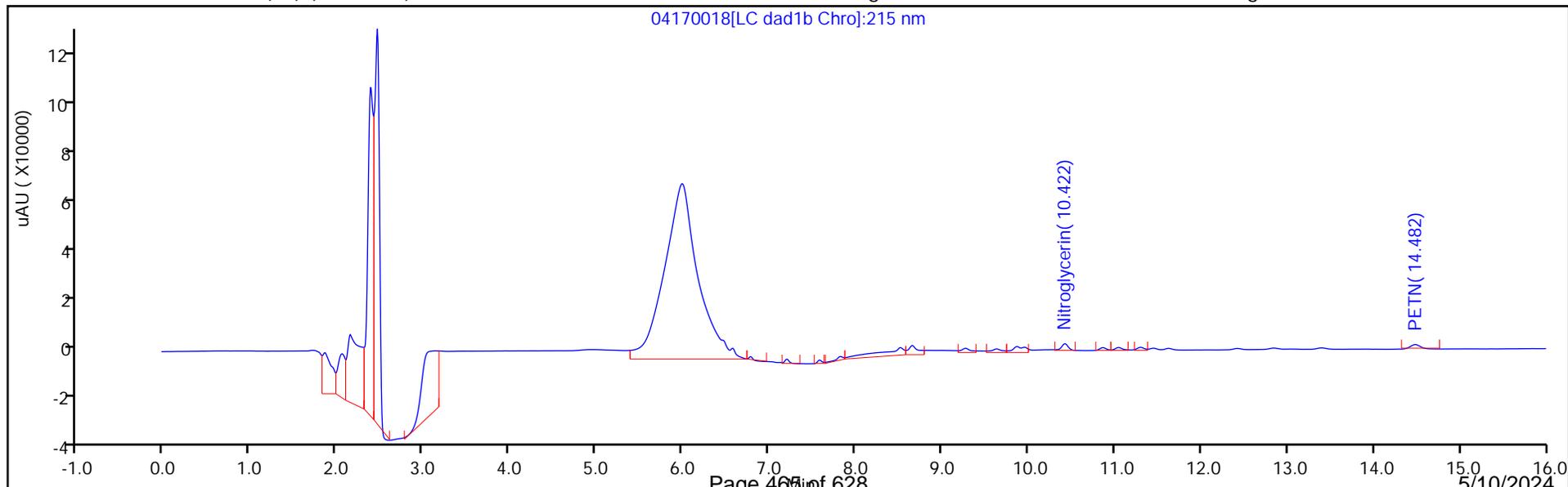
Column: UltraCarb5uODS (20) ( 4.60 mm)

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



Column: UltraCarb5uODS (20) ( 4.60 mm)

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



Eurofins Denver

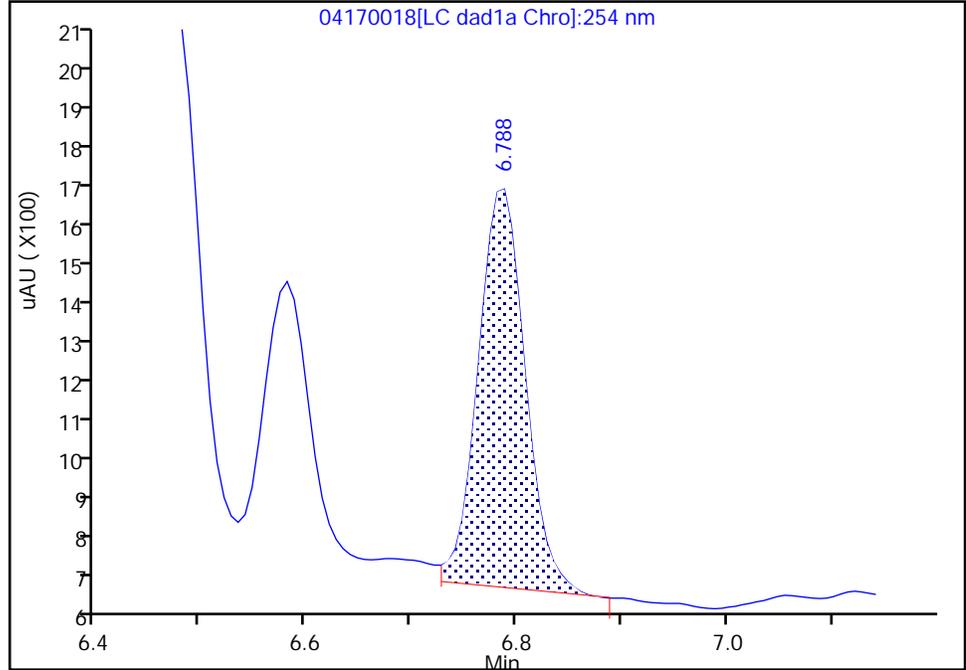
Data File: \\chromfs\denver\chromdata\chhplc\_x\20240417-132364.b\04170018.d  
Injection Date: 17-Apr-2024 23:18:32 Instrument ID: CHHPLC\_X3  
Lims ID: IC INT/DMT 2  
Client ID:  
Operator ID: JZ/JG ALS Bottle#: 18 Worklist Smp#: 18  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: 8330\_X3 Limit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

6 DNX, CAS: 80251-29-2

Signal: 1

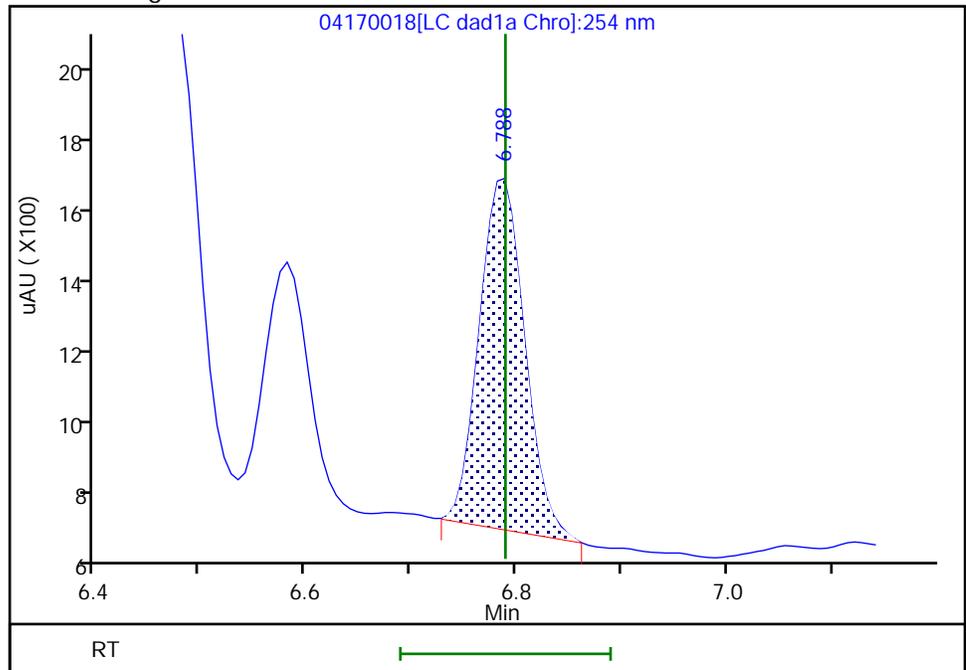
RT: 6.79  
Area: 3044  
Amount: 0.020237  
Amount Units: ug/mL

Processing Integration Results



RT: 6.79  
Area: 2843  
Amount: 0.019306  
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 18-Apr-2024 11:17:01 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

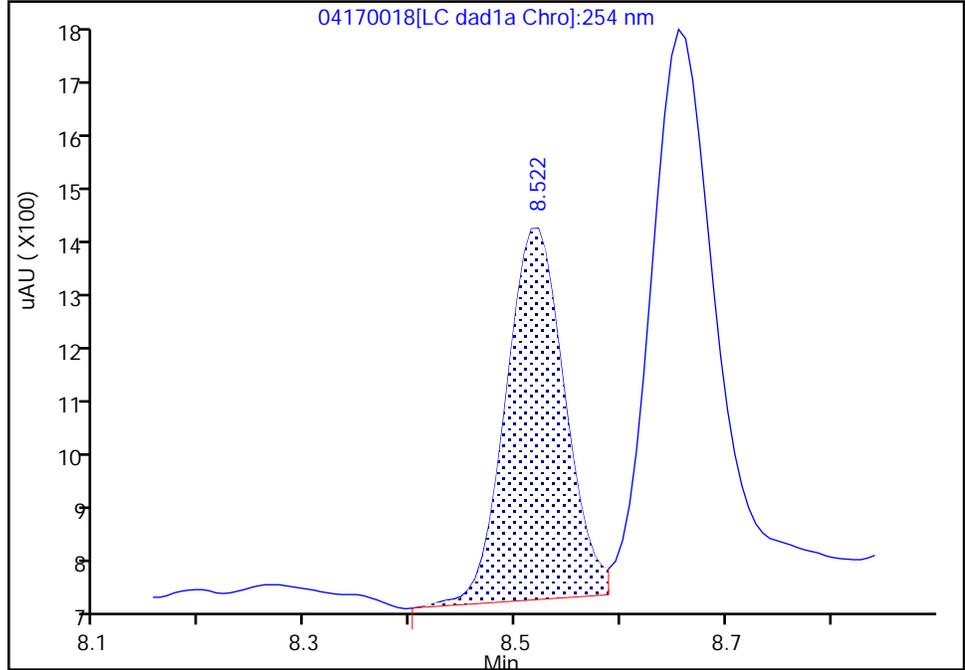
Eurofins Denver

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

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

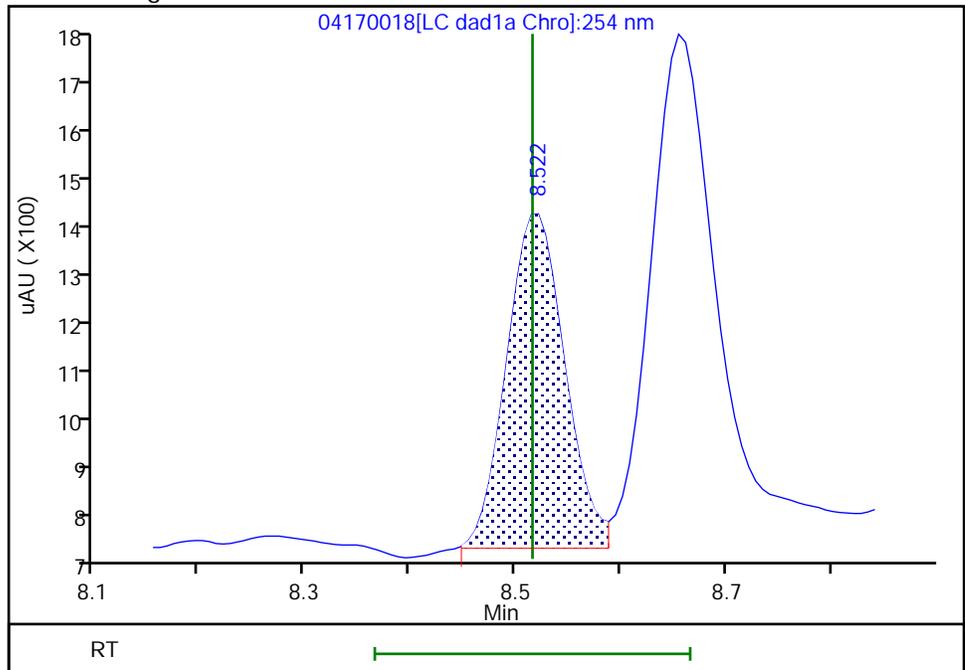
RT: 8.52  
Area: 2640  
Amount: 0.019730  
Amount Units: ug/mL

Processing Integration Results



RT: 8.52  
Area: 2603  
Amount: 0.019063  
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 18-Apr-2024 11:19:58 -06:00:00 (UTC)  
Audit Action: Split an Integrated Peak

Audit Reason: Baseline

Eurofins Denver

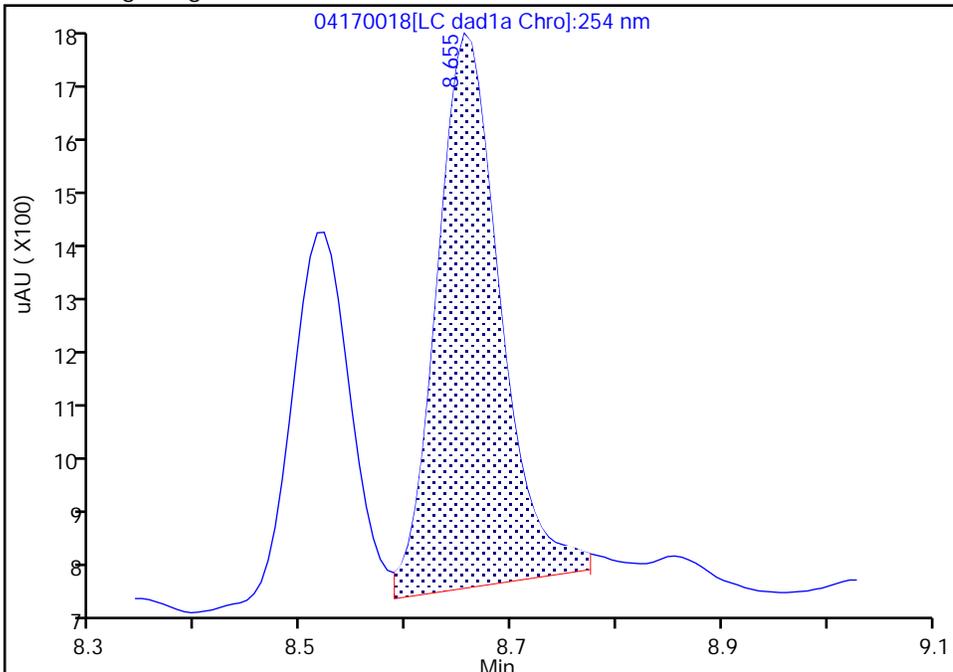
Data File: \\chromfs\denver\chromdata\chhplc\_x\20240417-132364.b\04170018.d  
Injection Date: 17-Apr-2024 23:18:32 Instrument ID: CHHPLC\_X3  
Lims ID: IC INT/DMT 2  
Client ID:  
Operator ID: JZ/JG ALS Bottle#: 18 Worklist Smp#: 18  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: 8330\_X3 Limit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

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

Signal: 1

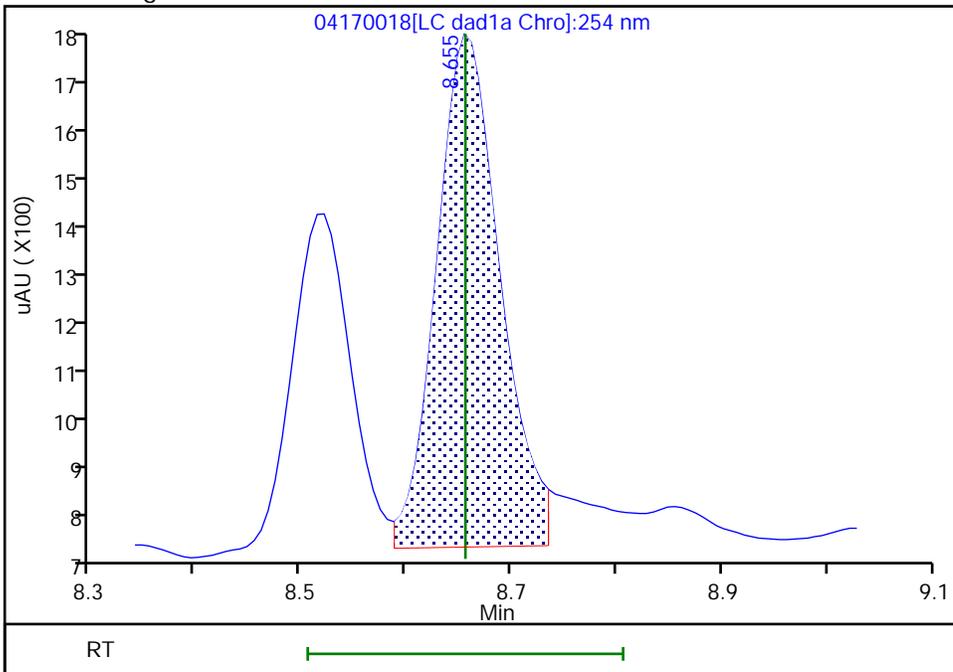
RT: 8.66  
Area: 4251  
Amount: 0.019122  
Amount Units: ug/mL

Processing Integration Results



RT: 8.66  
Area: 4349  
Amount: 0.019515  
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 18-Apr-2024 11:19:57 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Baseline

Eurofins Denver

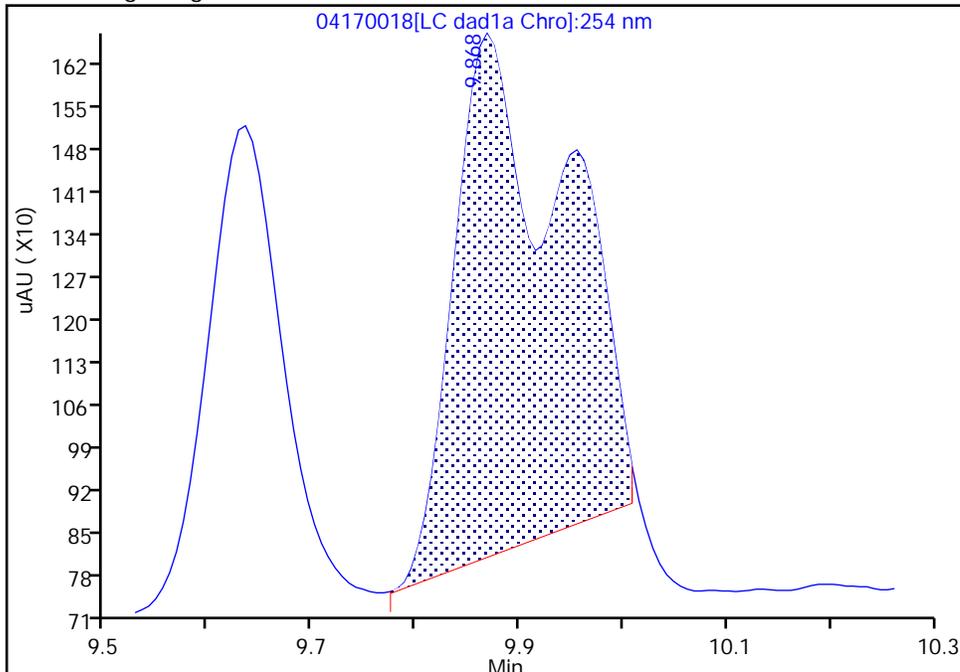
Data File: \\chromfs\denver\chromdata\chhplc\_x\20240417-132364.b\04170018.d  
Injection Date: 17-Apr-2024 23:18:32 Instrument ID: CHHPLC\_X3  
Lims ID: IC INT/DMT 2  
Client ID:  
Operator ID: JZ/JG ALS Bottle#: 18 Worklist Smp#: 18  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: 8330\_X3 Limit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

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

Signal: 1

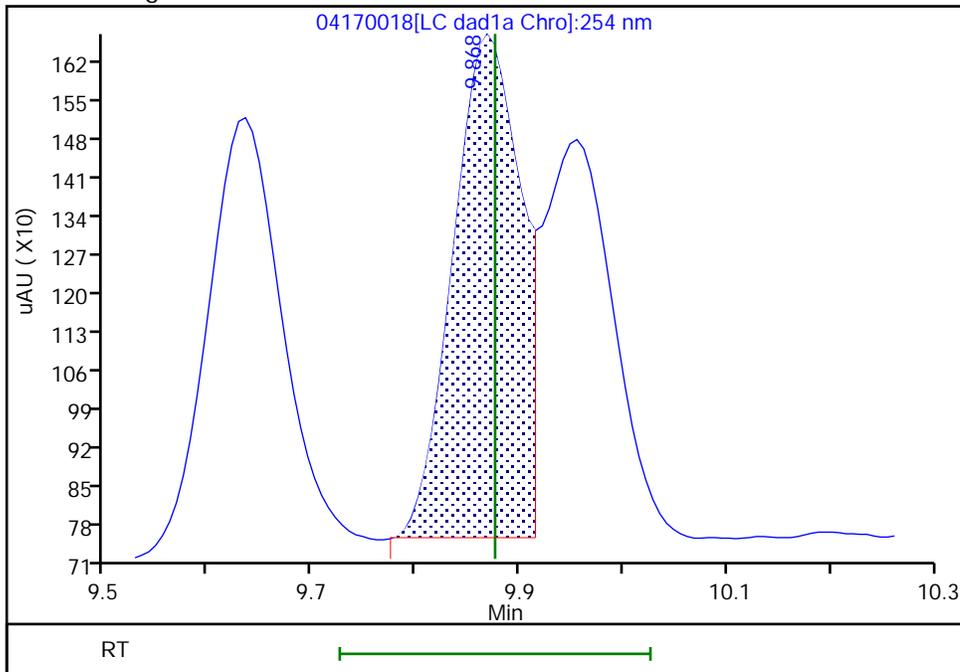
RT: 9.87  
Area: 6350  
Amount: 0.025070  
Amount Units: ug/mL

Processing Integration Results



RT: 9.87  
Area: 4171  
Amount: 0.019946  
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 18-Apr-2024 11:17:15 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Baseline

Euofins Denver

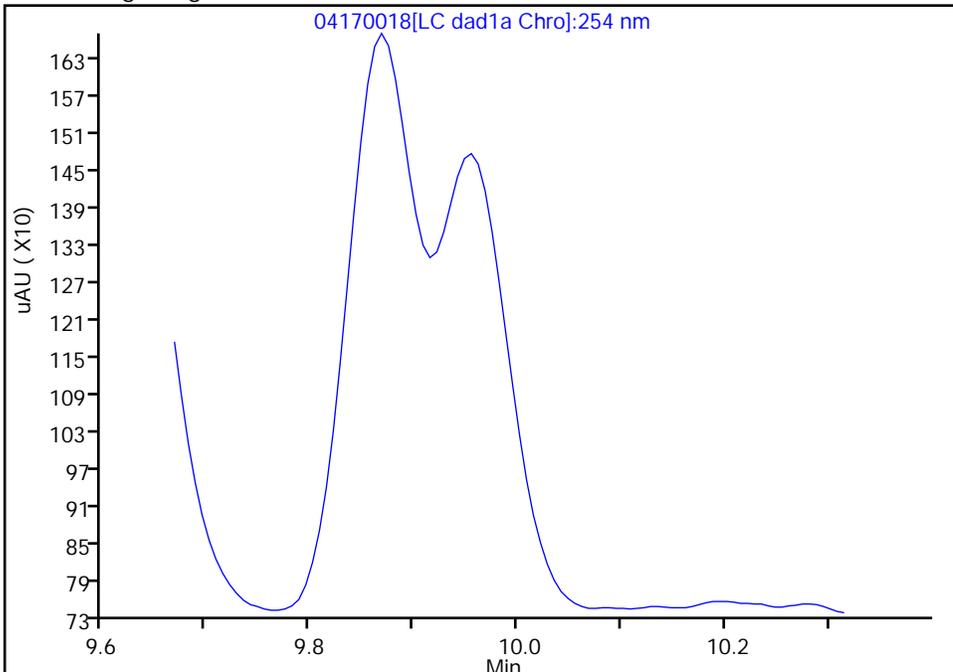
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170018.d		
Injection Date:	17-Apr-2024 23:18:32	Instrument ID:	CHHPLC_X3
Lims ID:	IC INT/DMT 2		
Client ID:			
Operator ID:	JZ/JG	ALS Bottle#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000
Method:	8330_X3	Limit Group:	GCSV - 8330
Column: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

15 Tetryl, CAS: 479-45-8

Signal: 1

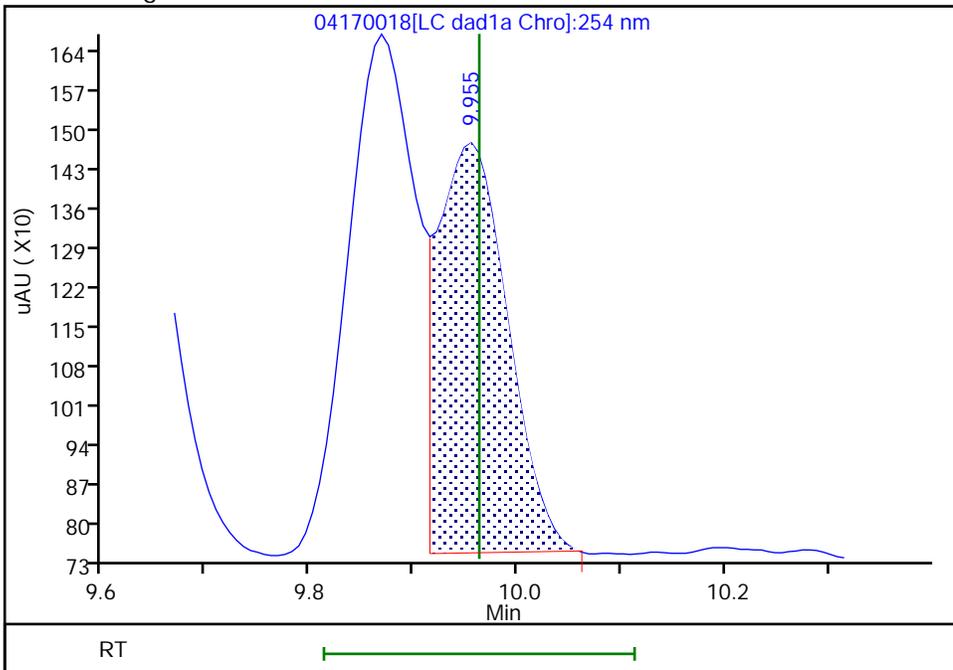
Not Detected  
Expected RT: 9.96

Processing Integration Results



Manual Integration Results

RT: 9.95  
 Area: 3374  
 Amount: 0.018581  
 Amount Units: ug/mL



Reviewer: LV5D, 18-Apr-2024 11:17:18 -06:00:00 (UTC)

Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Baseline

Eurofins Denver

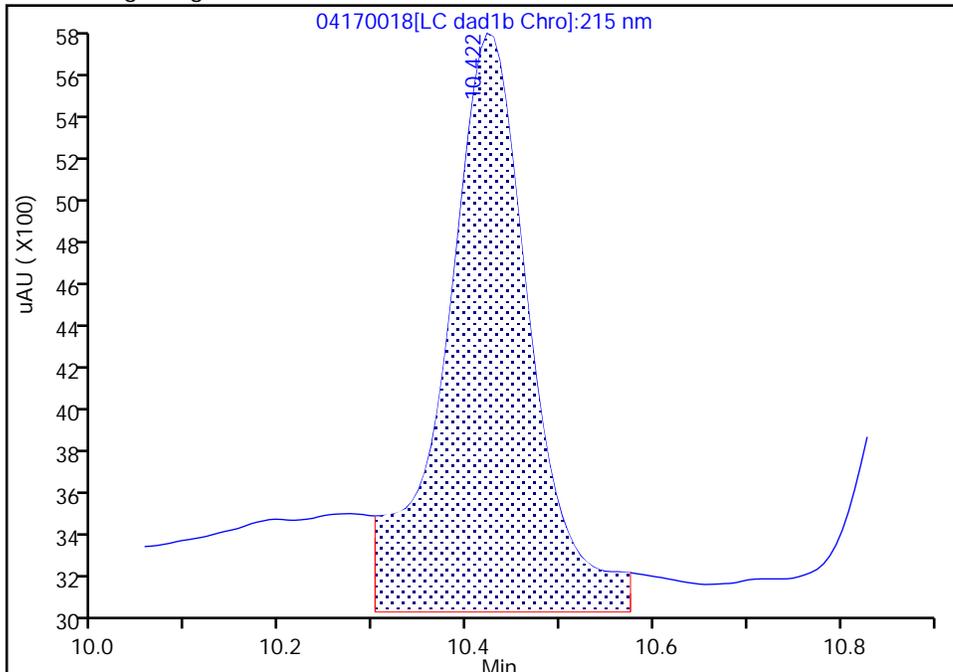
Data File: \\chromfs\denver\chromdata\chhplc\_x\20240417-132364.b\04170018.d  
Injection Date: 17-Apr-2024 23:18:32 Instrument ID: CHHPLC\_X3  
Lims ID: IC INT/DMT 2  
Client ID:  
Operator ID: JZ/JG ALS Bottle#: 18 Worklist Smp#: 18  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: 8330\_X3 Limit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

16 Nitroglycerin, CAS: 55-63-0

Signal: 1

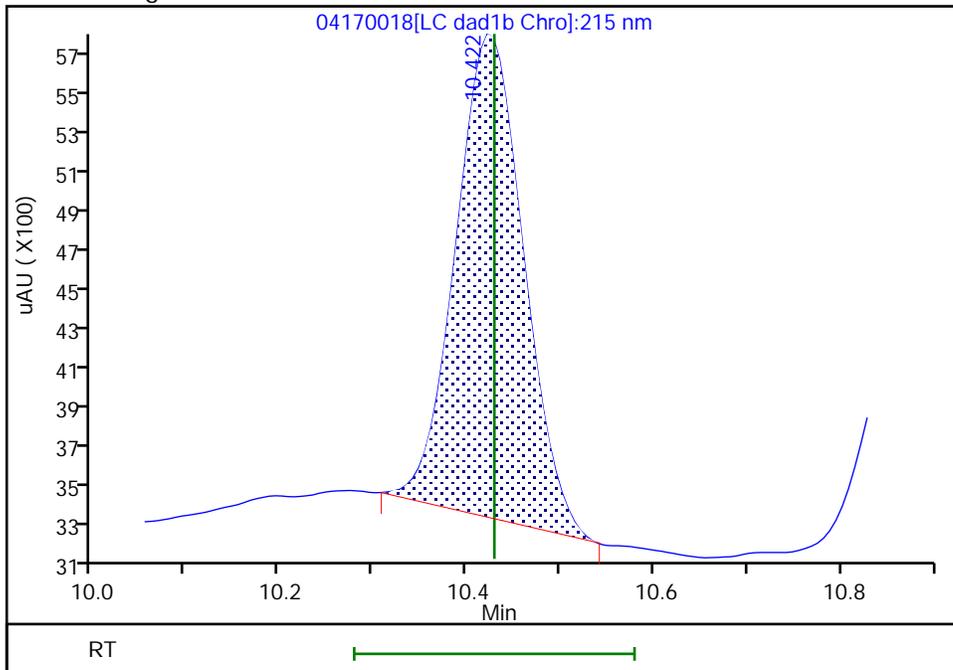
RT: 10.42  
Area: 17067  
Amount: 0.169937  
Amount Units: ug/mL

Processing Integration Results



RT: 10.42  
Area: 11963  
Amount: 0.179992  
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 18-Apr-2024 11:17:33 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins Denver

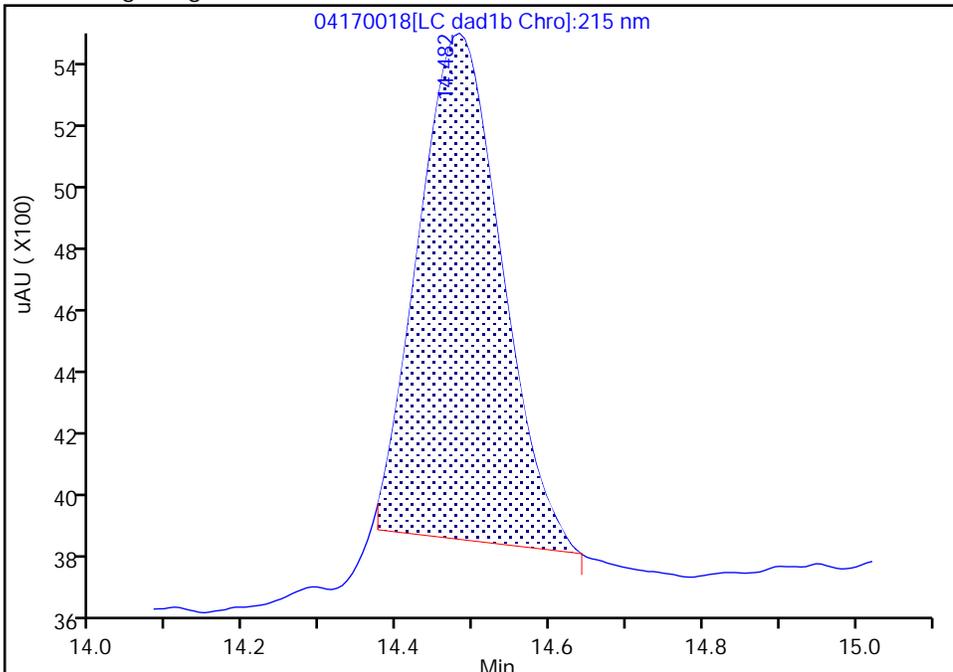
Data File: \\chromfs\denver\chromdata\chhplc\_x\20240417-132364.b\04170018.d  
Injection Date: 17-Apr-2024 23:18:32 Instrument ID: CHHPLC\_X3  
Lims ID: IC INT/DMT 2  
Client ID:  
Operator ID: JZ/JG ALS Bottle#: 18 Worklist Smp#: 18  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: 8330\_X3 Limit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

25 PETN, CAS: 78-11-5

Signal: 1

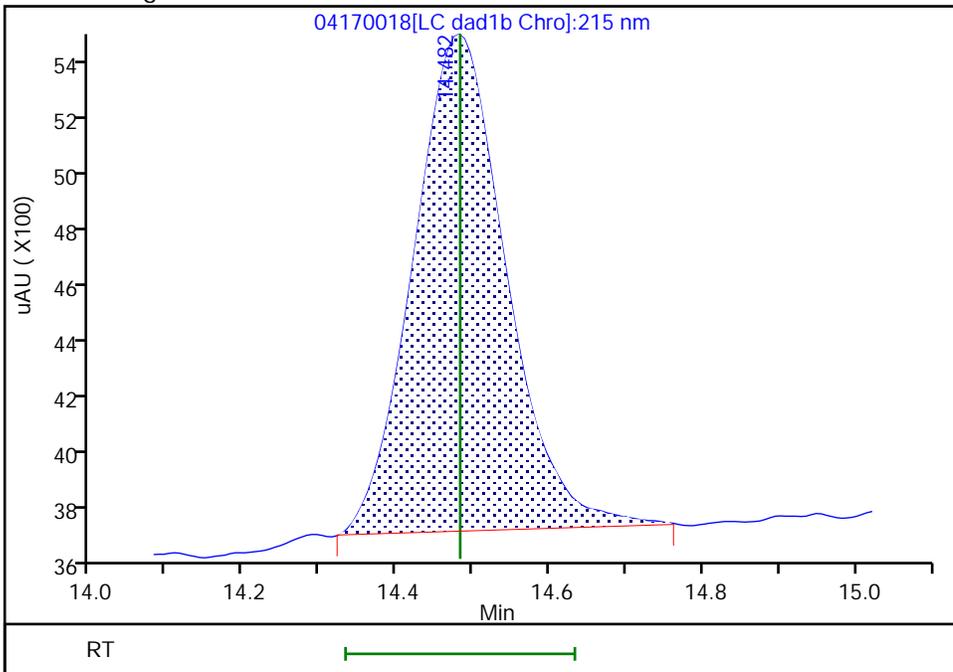
RT: 14.48  
Area: 11689  
Amount: 0.167904  
Amount Units: ug/mL

Processing Integration Results



RT: 14.48  
Area: 14174  
Amount: 0.197034  
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 18-Apr-2024 11:17:28 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins Denver  
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC\_X\20240417-132364.b\04170019.D  
 Lims ID: IC INT/DMT 1  
 Client ID:  
 Sample Type: IC Calib Level: 1  
 Inject. Date: 17-Apr-2024 23:41:30 ALS Bottle#: 19 Worklist Smp#: 19  
 Injection Vol: 100.0 ul Dil. Factor: 1.0000  
 Sample Info: IC INT/DMT 1  
 Operator ID: JZ/JG Instrument ID: CHHPLC\_X3  
 Sublist: chrom-8330\_X3\*sub27  
 Method: \\chromfs\Denver\ChromData\CHHPLC\_X\20240417-132364.b\8330\_X3.m  
 Limit Group: GCSV - 8330  
 Last Update: 18-Apr-2024 11:59:31 Calib Date: 18-Apr-2024 03:08:00  
 Integrator: Falcon  
 Quant Method: External Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Denver\ChromData\CHHPLC\_X\20240417-132364.b\04170028.D  
 Column 1 : UltraCarb5uODS (20) ( 4.60 mm) Det: LC DAD1B, 254 nm  
 Process Host: CTX1675

First Level Reviewer: LV5D Date: 18-Apr-2024 11:19:45

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 TNX	1	6.480	6.476	0.004	2051	0.0100	0.0103	M
4 HMX	1	6.580	6.583	-0.003	919	0.0100	0.009619	M
6 DNX	1	6.786	6.789	-0.003	1516	0.0100	0.0103	M
7 MNX	1	7.206	7.203	0.003	1649	0.0117	0.0121	
8 RDX	1	7.580	7.583	-0.003	1187	0.0100	0.0107	M
9 2,4,6-Trinitrophenol	1	7.820	7.816	0.004	787	0.0100	0.0099	
\$ 10 1,2-Dinitrobenzene	1	8.520	8.516	0.004	1445	0.0100	0.0103	M
11 1,3,5-Trinitrobenzene	1	8.660	8.656	0.004	2549	0.0100	0.0114	M
12 1,3-Dinitrobenzene	1	9.273	9.276	-0.003	3086	0.0100	0.0103	
13 Nitrobenzene	1	9.633	9.636	-0.003	1985	0.0100	0.0101	
14 3,5-Dinitroaniline	1	9.873	9.876	-0.003	1971	0.0100	0.0100	M
15 Tetryl	1	9.953	9.963	-0.010	1835	0.0100	0.0101	Ma
16 Nitroglycerin	2	10.426	10.429	-0.003	6048	0.1000	0.0910	M
17 2,4,6-Trinitrotoluene	1	10.866	10.869	-0.003	2081	0.0100	0.009670	
18 4-Amino-2,6-dinitrotoluene	1	11.046	11.049	-0.003	1406	0.0100	0.009377	
19 2-Amino-4,6-dinitrotoluene	1	11.306	11.309	-0.003	1951	0.0100	0.009764	
20 2,6-Dinitrotoluene	1	11.453	11.449	0.004	1557	0.0100	0.0106	
21 2,4-Dinitrotoluene	1	11.626	11.629	-0.003	2993	0.0100	0.0103	
22 o-Nitrotoluene	1	12.419	12.423	-0.004	1340	0.0100	0.0104	
23 p-Nitrotoluene	1	12.853	12.843	0.010	1249	0.0100	0.0111	
24 m-Nitrotoluene	1	13.399	13.403	-0.004	1713	0.0100	0.0119	
25 PETN	2	14.486	14.483	0.003	7807	0.1000	0.1085	Ma

QC Flag Legend  
Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

8330IntermStk\_00080

Amount Added: 1.00

Units: uL

8330 DMT\_00016

Amount Added: 0.50

Units: uL

Eurofins Denver

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

Injection Date: 17-Apr-2024 23:41:30

Instrument ID: CHHPLC\_X3

Operator ID: JZ/JG

Lims ID: IC INT/DMT 1

Worklist Smp#: 19

Client ID:

Injection Vol: 100.0 ul

Dil. Factor: 1.0000

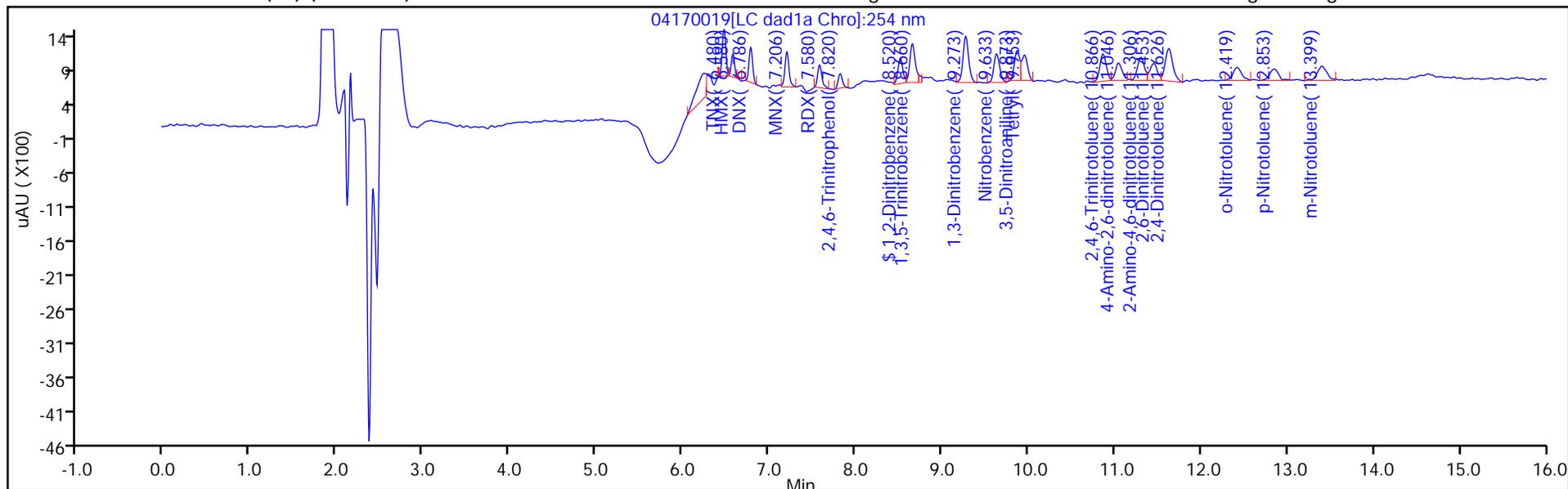
ALS Bottle#: 19

Method: 8330\_X3

Limit Group: GCSV - 8330

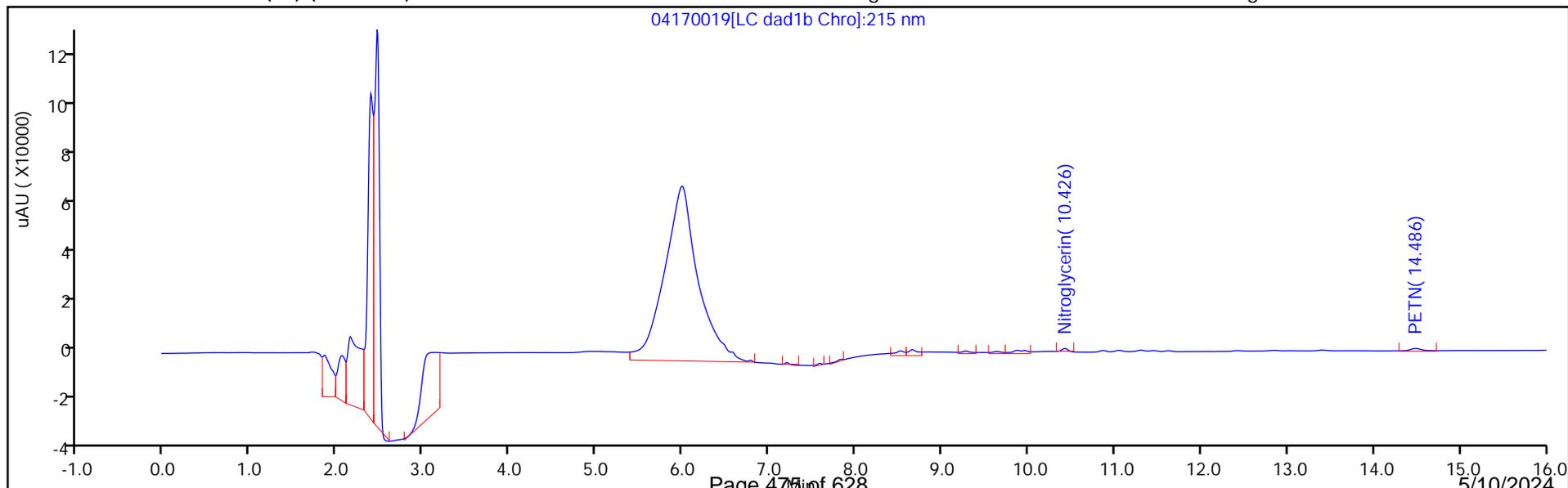
Column: UltraCarb5uODS (20) ( 4.60 mm)

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



Column: UltraCarb5uODS (20) ( 4.60 mm)

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



Eurofins Denver

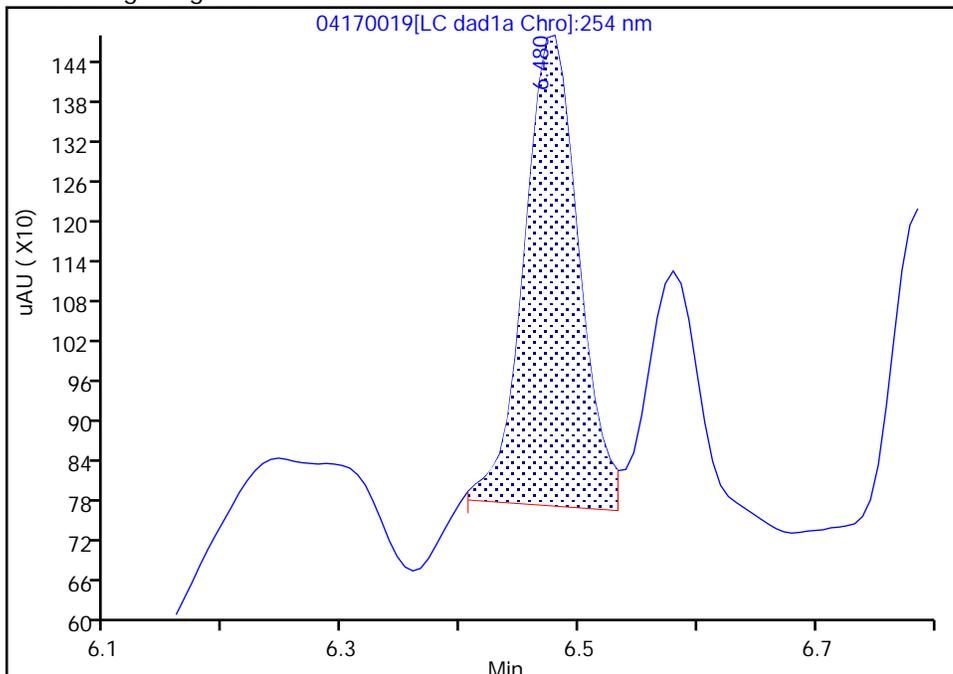
Data File: \\chromfs\denver\chromdata\chhplc\_x\20240417-132364.b\04170019.d  
Injection Date: 17-Apr-2024 23:41:30 Instrument ID: CHHPLC\_X3  
Lims ID: IC INT/DMT 1  
Client ID:  
Operator ID: JZ/JG ALS Bottle#: 19 Worklist Smp#: 19  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: 8330\_X3 Limit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

3 TNX, CAS: 13980-04-6

Signal: 1

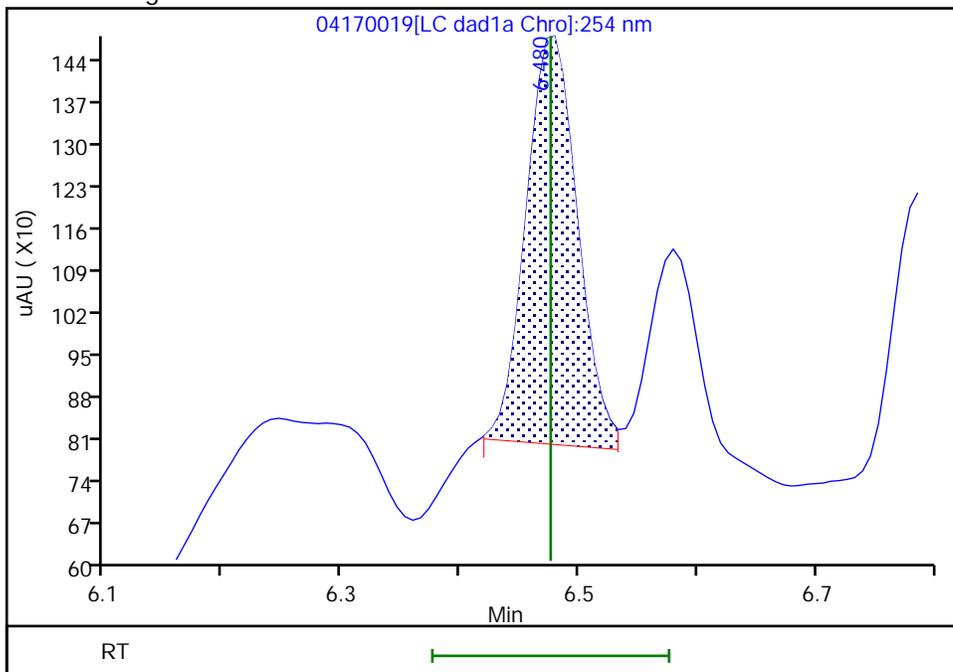
RT: 6.48  
Area: 2278  
Amount: 0.011305  
Amount Units: ug/mL

Processing Integration Results



RT: 6.48  
Area: 2051  
Amount: 0.010307  
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 18-Apr-2024 11:18:24 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Baseline

Eurofins Denver

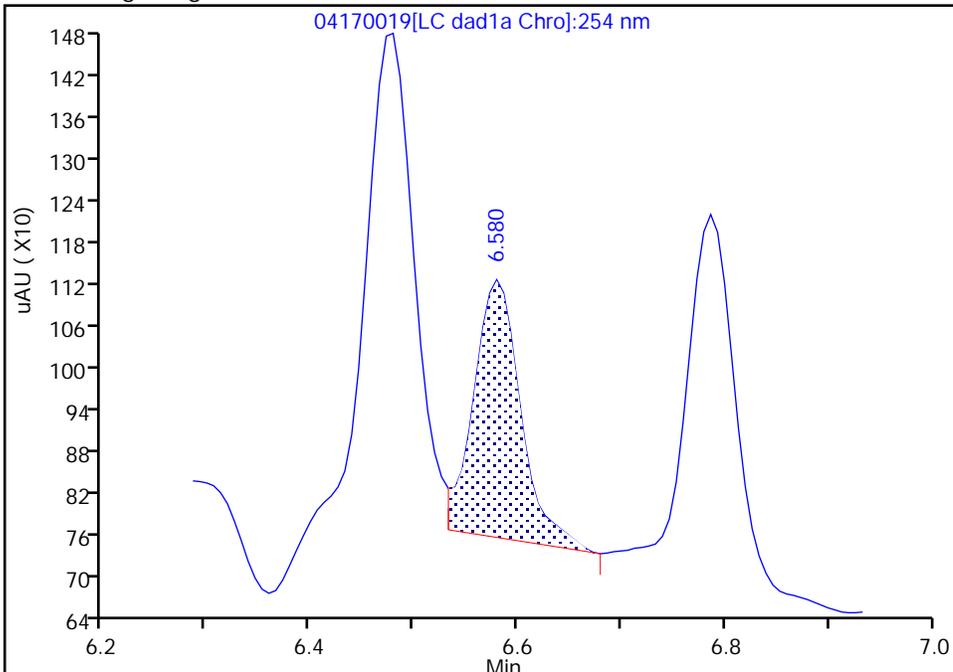
Data File: \\chromfs\denver\chromdata\chhplc\_x\20240417-132364.b\04170019.d  
Injection Date: 17-Apr-2024 23:41:30 Instrument ID: CHHPLC\_X3  
Lims ID: IC INT/DMT 1  
Client ID:  
Operator ID: JZ/JG ALS Bottle#: 19 Worklist Smp#: 19  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: 8330\_X3 Limit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

4 HMX, CAS: 2691-41-0

Signal: 1

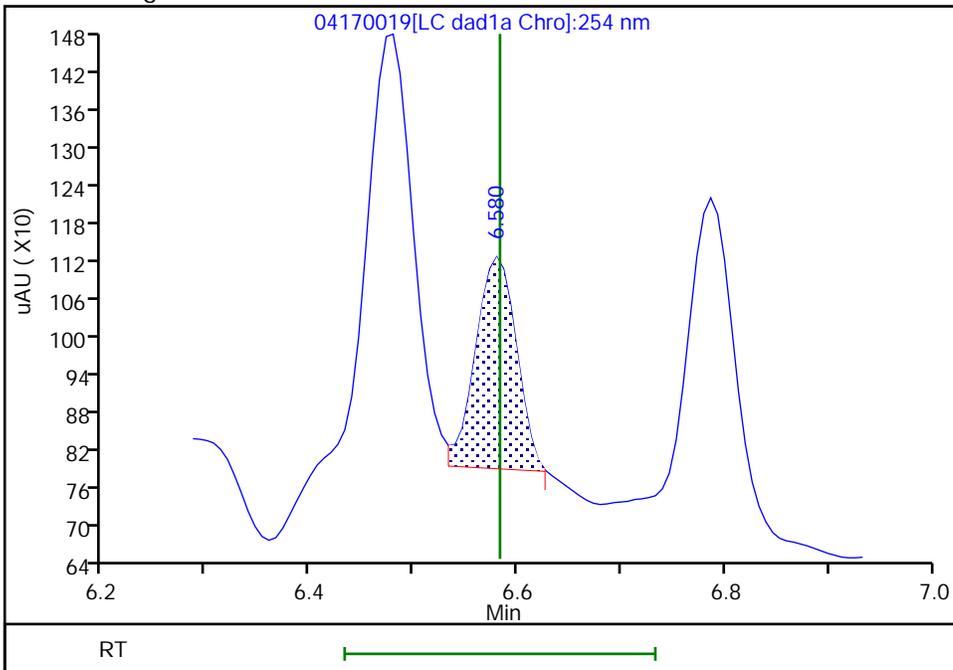
RT: 6.58  
Area: 1171  
Amount: 0.011907  
Amount Units: ug/mL

Processing Integration Results



RT: 6.58  
Area: 919  
Amount: 0.009619  
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 18-Apr-2024 11:18:25 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Baseline

Eurofins Denver

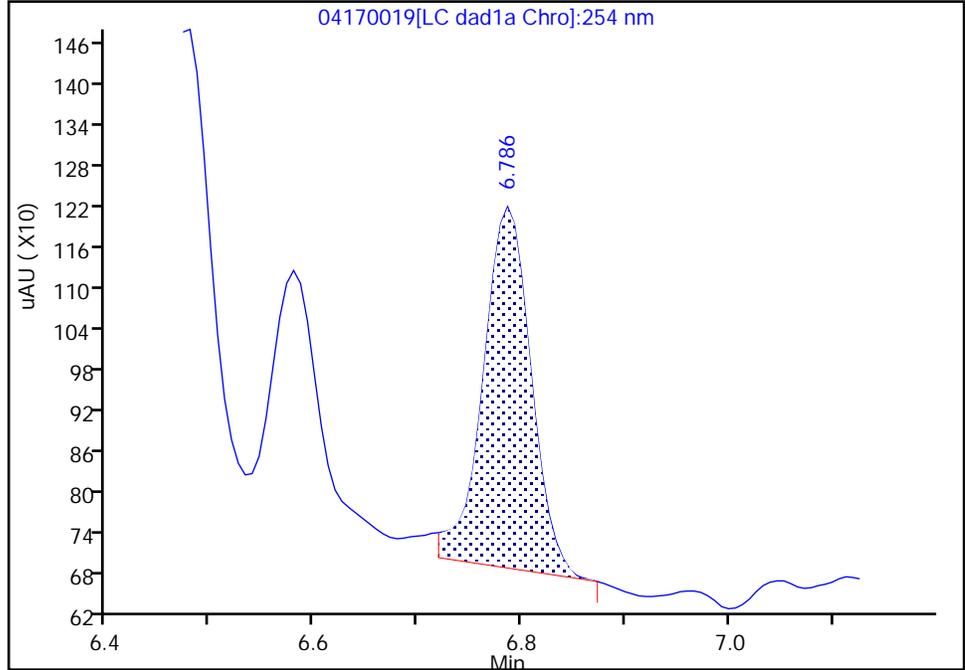
Data File: \\chromfs\denver\chromdata\chhplc\_x\20240417-132364.b\04170019.d  
Injection Date: 17-Apr-2024 23:41:30 Instrument ID: CHHPLC\_X3  
Lims ID: IC INT/DMT 1  
Client ID:  
Operator ID: JZ/JG ALS Bottle#: 19 Worklist Smp#: 19  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: 8330\_X3 Limit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

6 DNX, CAS: 80251-29-2

Signal: 1

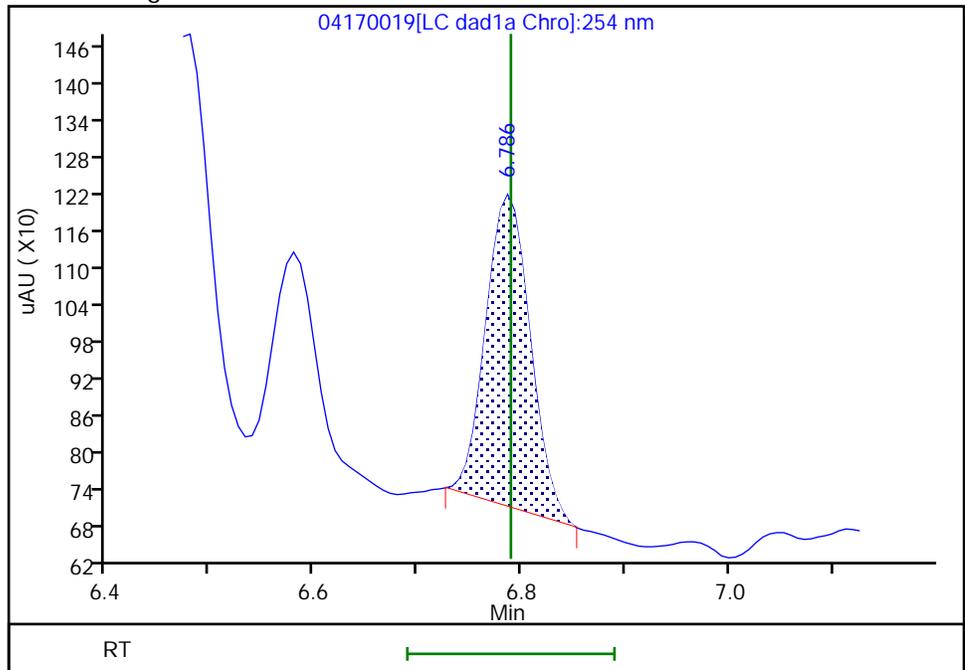
RT: 6.79  
Area: 1700  
Amount: 0.011386  
Amount Units: ug/mL

Processing Integration Results



RT: 6.79  
Area: 1516  
Amount: 0.010295  
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 18-Apr-2024 11:18:35 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins Denver

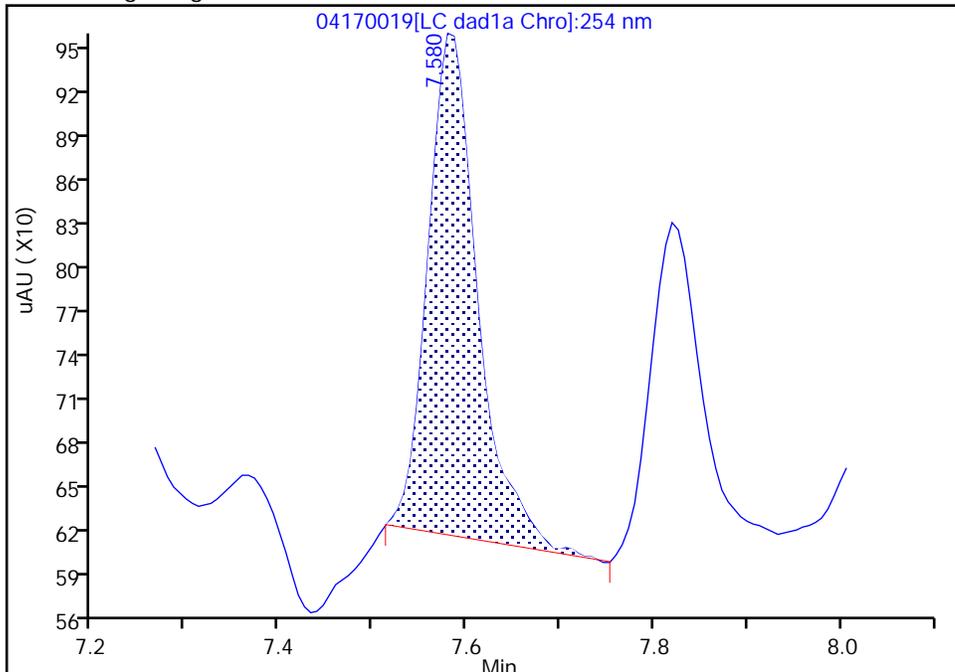
Data File: \\chromfs\denver\chromdata\chhplc\_x\20240417-132364.b\04170019.d  
Injection Date: 17-Apr-2024 23:41:30 Instrument ID: CHHPLC\_X3  
Lims ID: IC INT/DMT 1  
Client ID:  
Operator ID: JZ/JG ALS Bottle#: 19 Worklist Smp#: 19  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: 8330\_X3 Limit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

8 RDX, CAS: 121-82-4

Signal: 1

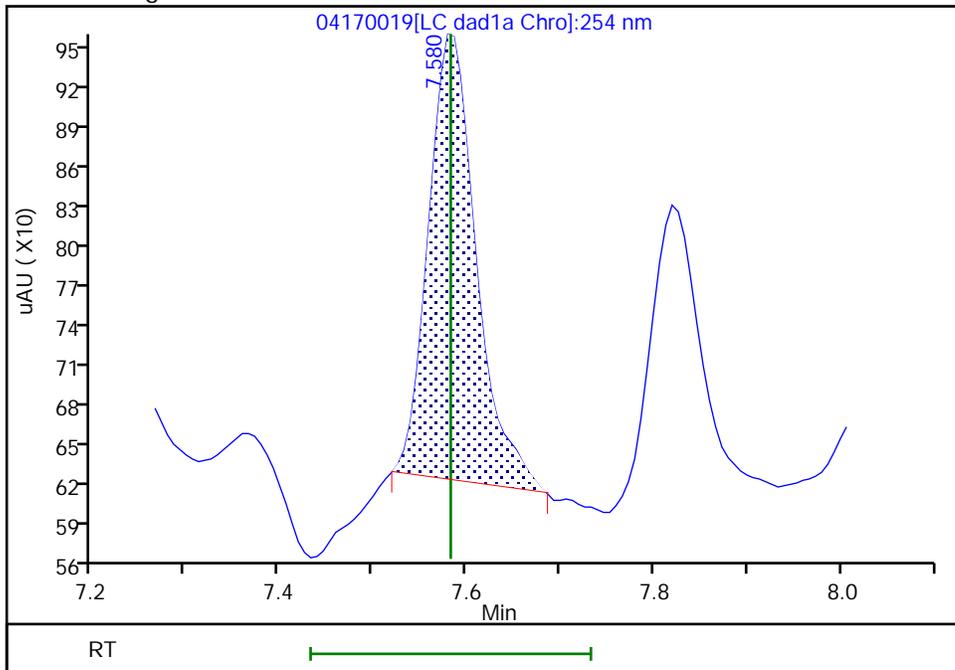
RT: 7.58  
Area: 1262  
Amount: 0.011308  
Amount Units: ug/mL

Processing Integration Results



RT: 7.58  
Area: 1187  
Amount: 0.010716  
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 18-Apr-2024 11:18:45 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins Denver

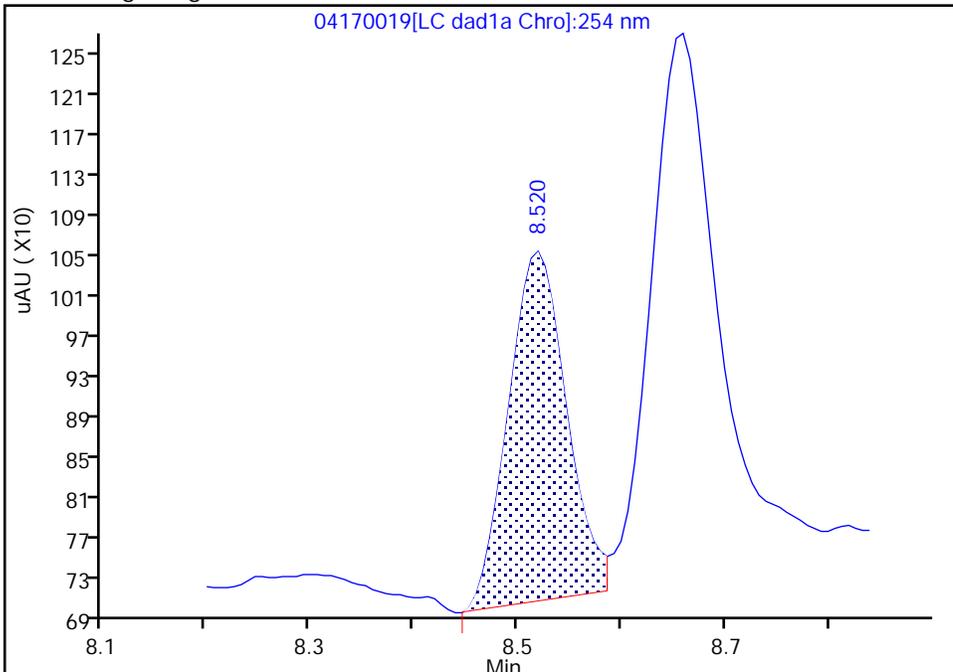
Data File: \\chromfs\denver\chromdata\chhplc\_x\20240417-132364.b\04170019.d  
Injection Date: 17-Apr-2024 23:41:30 Instrument ID: CHHPLC\_X3  
Lims ID: IC INT/DMT 1  
Client ID:  
Operator ID: JZ/JG ALS Bottle#: 19 Worklist Smp#: 19  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: 8330\_X3 Limit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

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

Signal: 1

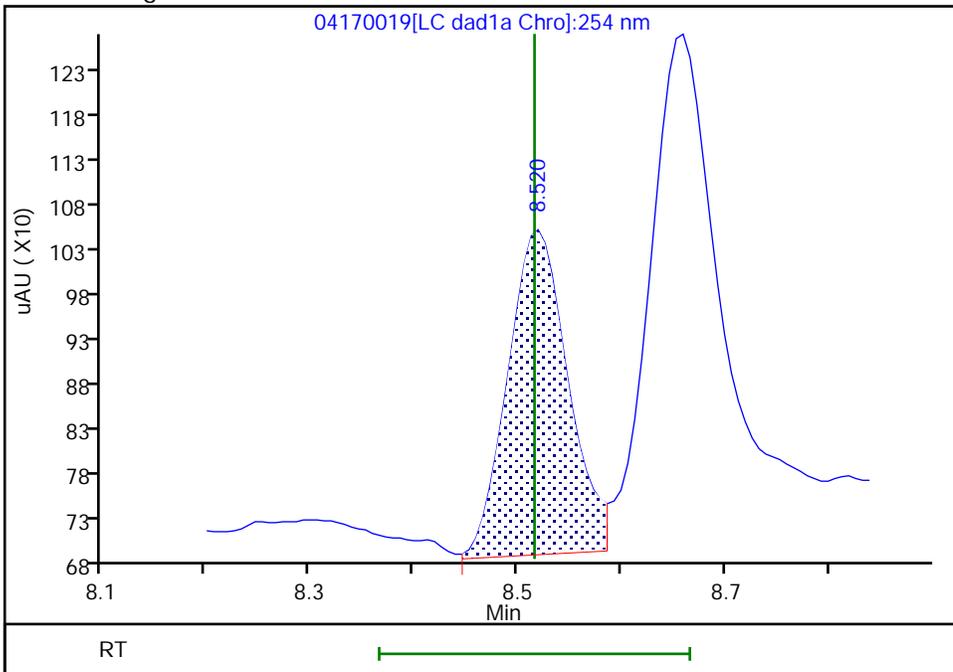
RT: 8.52  
Area: 1357  
Amount: 0.010216  
Amount Units: ug/mL

Processing Integration Results



RT: 8.52  
Area: 1445  
Amount: 0.010265  
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 18-Apr-2024 11:19:23 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Euofins Denver

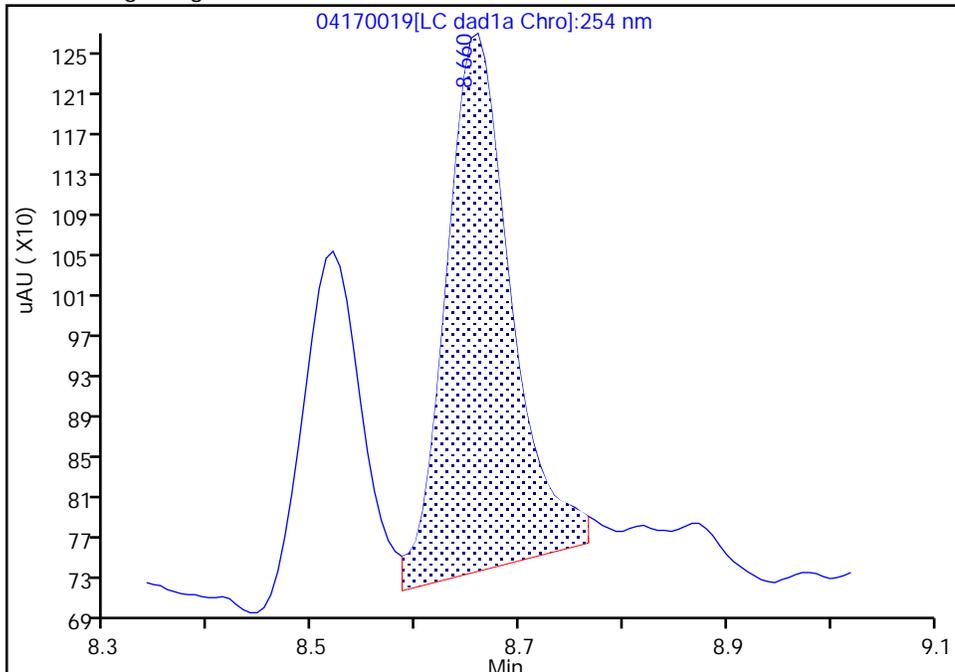
Data File: \\chromfs\denver\chromdata\chhplc\_x\20240417-132364.b\04170019.d  
Injection Date: 17-Apr-2024 23:41:30 Instrument ID: CHHPLC\_X3  
Lims ID: IC INT/DMT 1  
Client ID:  
Operator ID: JZ/JG ALS Bottle#: 19 Worklist Smp#: 19  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: 8330\_X3 Limit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

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

Signal: 1

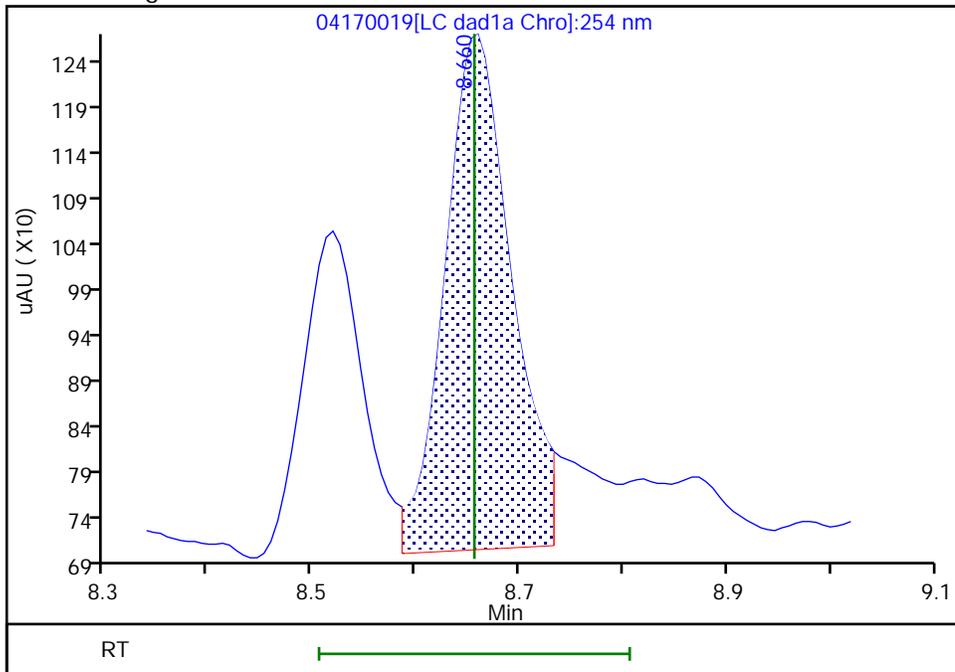
RT: 8.66  
Area: 2346  
Amount: 0.010661  
Amount Units: ug/mL

Processing Integration Results



RT: 8.66  
Area: 2549  
Amount: 0.011438  
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 18-Apr-2024 11:19:28 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Baseline

Euofins Denver

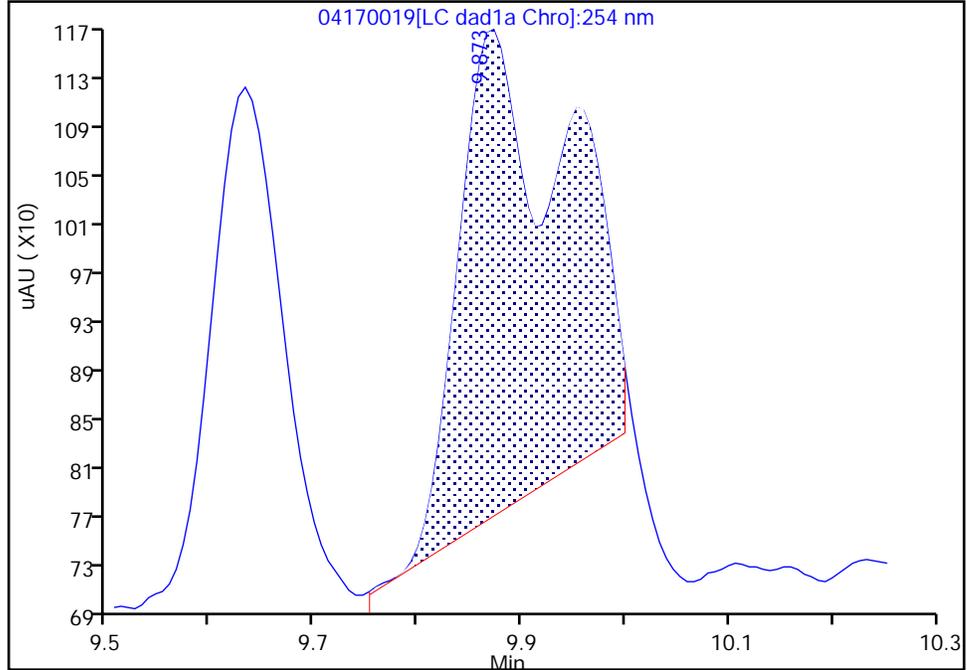
Data File: \\chromfs\denver\chromdata\chhplc\_x\20240417-132364.b\04170019.d  
Injection Date: 17-Apr-2024 23:41:30 Instrument ID: CHHPLC\_X3  
Lims ID: IC INT/DMT 1  
Client ID:  
Operator ID: JZ/JG ALS Bottle#: 19 Worklist Smp#: 19  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: 8330\_X3 Limit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

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

Signal: 1

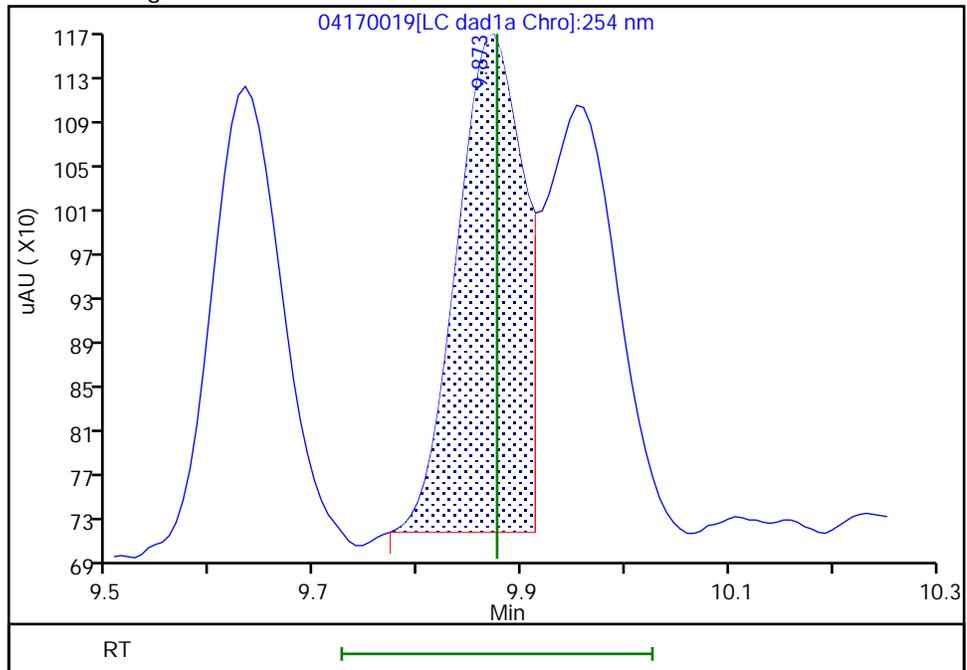
RT: 9.87  
Area: 2822  
Amount: 0.010781  
Amount Units: ug/mL

Processing Integration Results



RT: 9.87  
Area: 1971  
Amount: 0.009992  
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 18-Apr-2024 11:18:02 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Baseline

Eurofins Denver

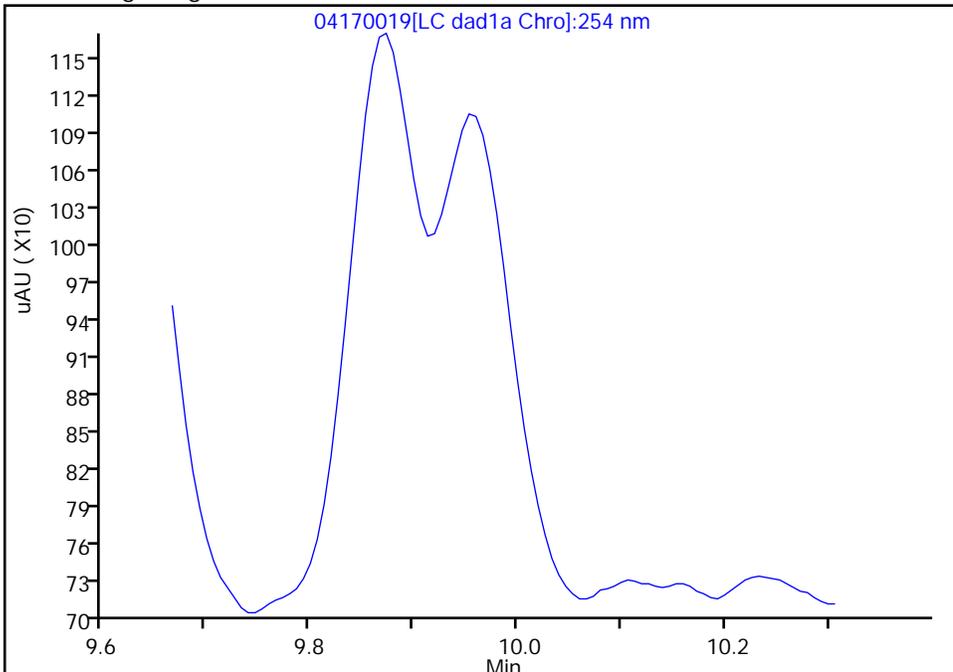
Data File: \\chromfs\denver\chromdata\chhplc\_x\20240417-132364.b\04170019.d  
Injection Date: 17-Apr-2024 23:41:30 Instrument ID: CHHPLC\_X3  
Lims ID: IC INT/DMT 1  
Client ID:  
Operator ID: JZ/JG ALS Bottle#: 19 Worklist Smp#: 19  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: 8330\_X3 Limit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

15 Tetryl, CAS: 479-45-8

Signal: 1

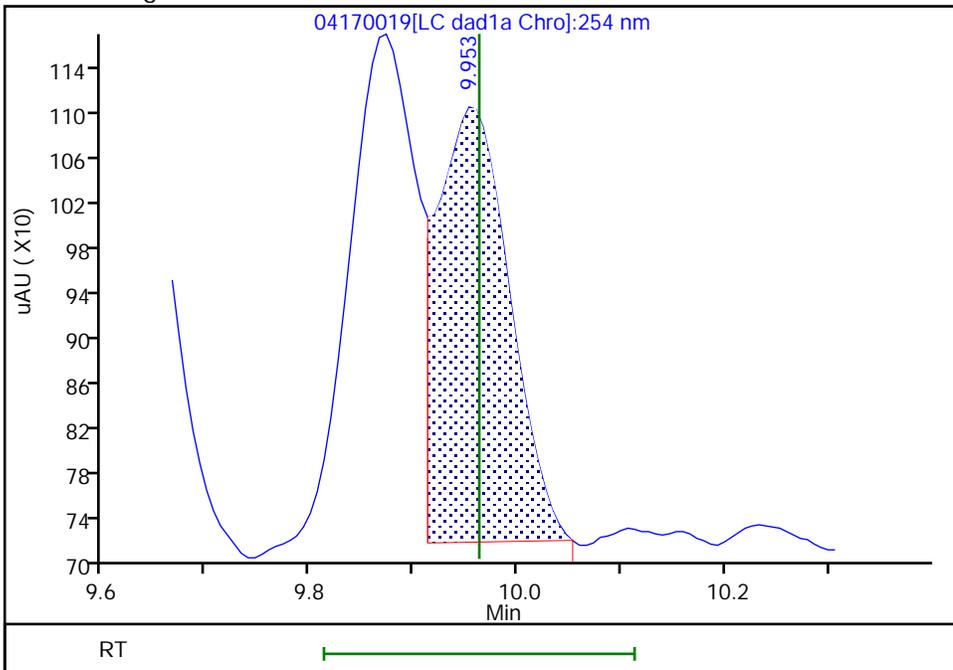
Not Detected  
Expected RT: 9.96

Processing Integration Results



RT: 9.95  
Area: 1835  
Amount: 0.010105  
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 18-Apr-2024 11:18:04 -06:00:00 (UTC)  
Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Baseline

Eurofins Denver

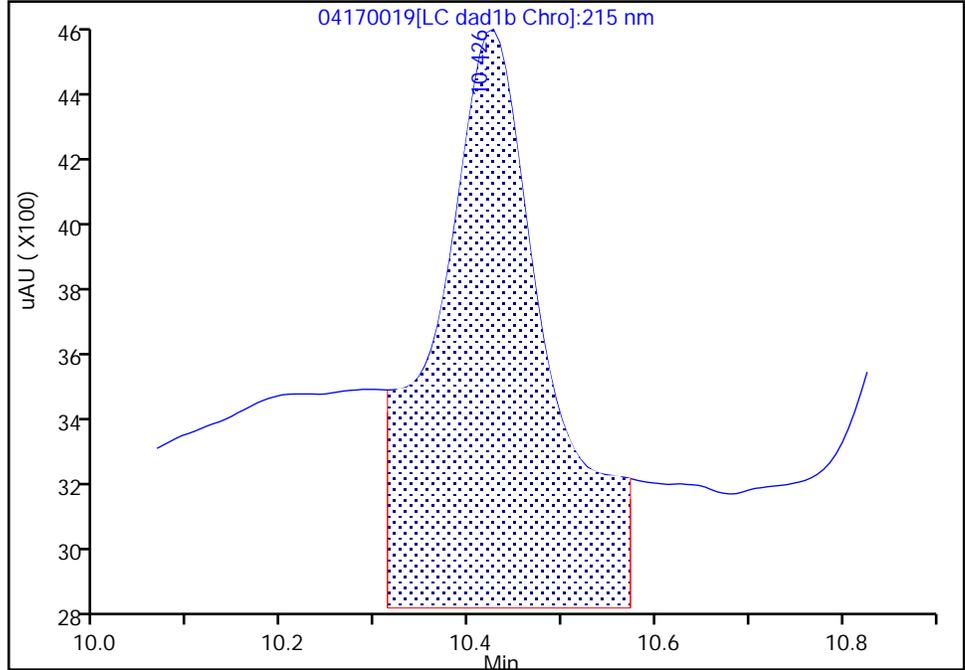
Data File: \\chromfs\denver\chromdata\chhplc\_x\20240417-132364.b\04170019.d  
Injection Date: 17-Apr-2024 23:41:30 Instrument ID: CHHPLC\_X3  
Lims ID: IC INT/DMT 1  
Client ID:  
Operator ID: JZ/JG ALS Bottle#: 19 Worklist Smp#: 19  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: 8330\_X3 Limit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

16 Nitroglycerin, CAS: 55-63-0

Signal: 1

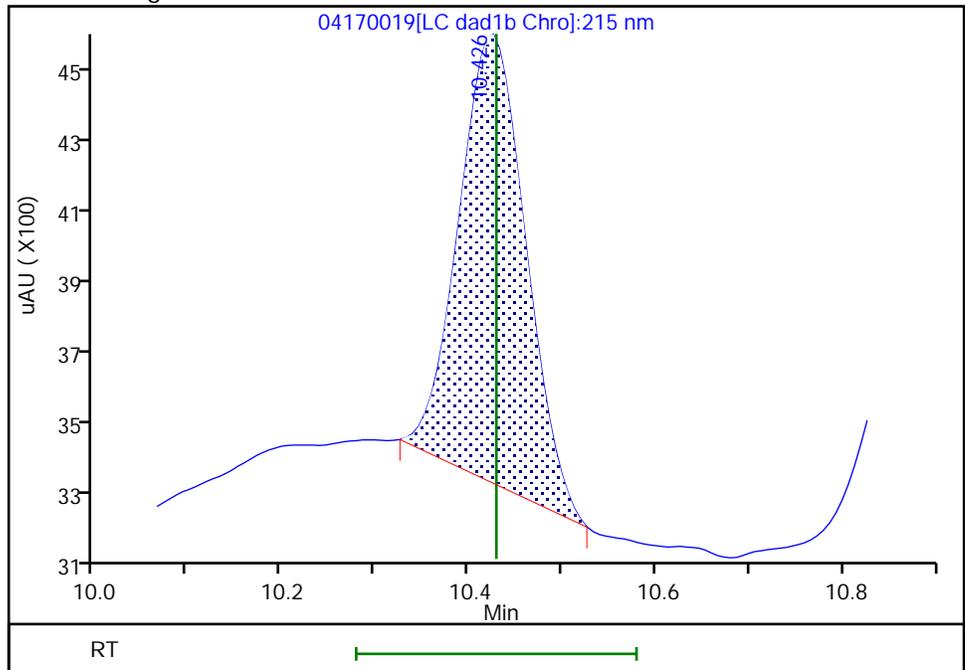
RT: 10.43  
Area: 14354  
Amount: 0.189635  
Amount Units: ug/mL

Processing Integration Results



RT: 10.43  
Area: 6048  
Amount: 0.090997  
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 18-Apr-2024 11:17:39 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins Denver

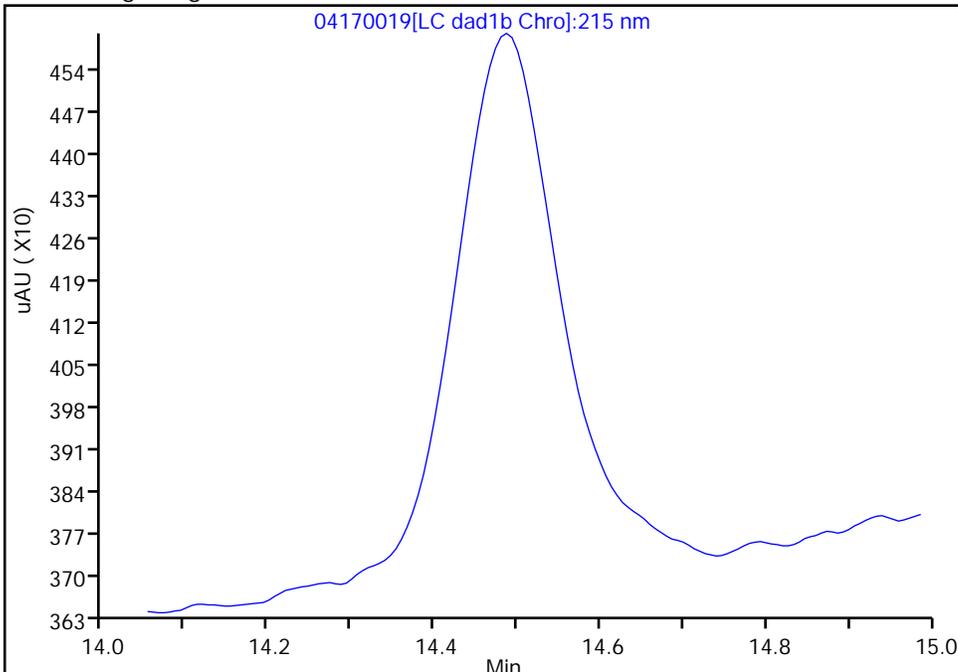
Data File: \\chromfs\denver\chromdata\chhplc\_x\20240417-132364.b\04170019.d  
Injection Date: 17-Apr-2024 23:41:30 Instrument ID: CHHPLC\_X3  
Lims ID: IC INT/DMT 1  
Client ID:  
Operator ID: JZ/JG ALS Bottle#: 19 Worklist Smp#: 19  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: 8330\_X3 Limit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

25 PETN, CAS: 78-11-5

Signal: 1

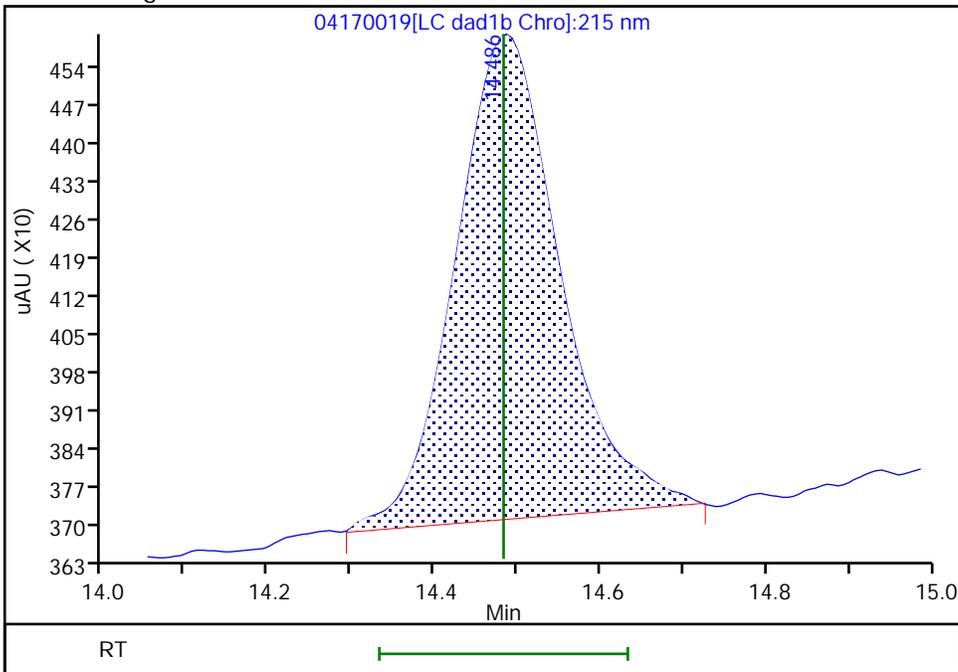
Not Detected  
Expected RT: 14.48

Processing Integration Results



Manual Integration Results

RT: 14.49  
Area: 7807  
Amount: 0.108526  
Amount Units: ug/mL



Reviewer: LV5D, 18-Apr-2024 11:17:47 -06:00:00 (UTC)

Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Baseline

**Calibration**

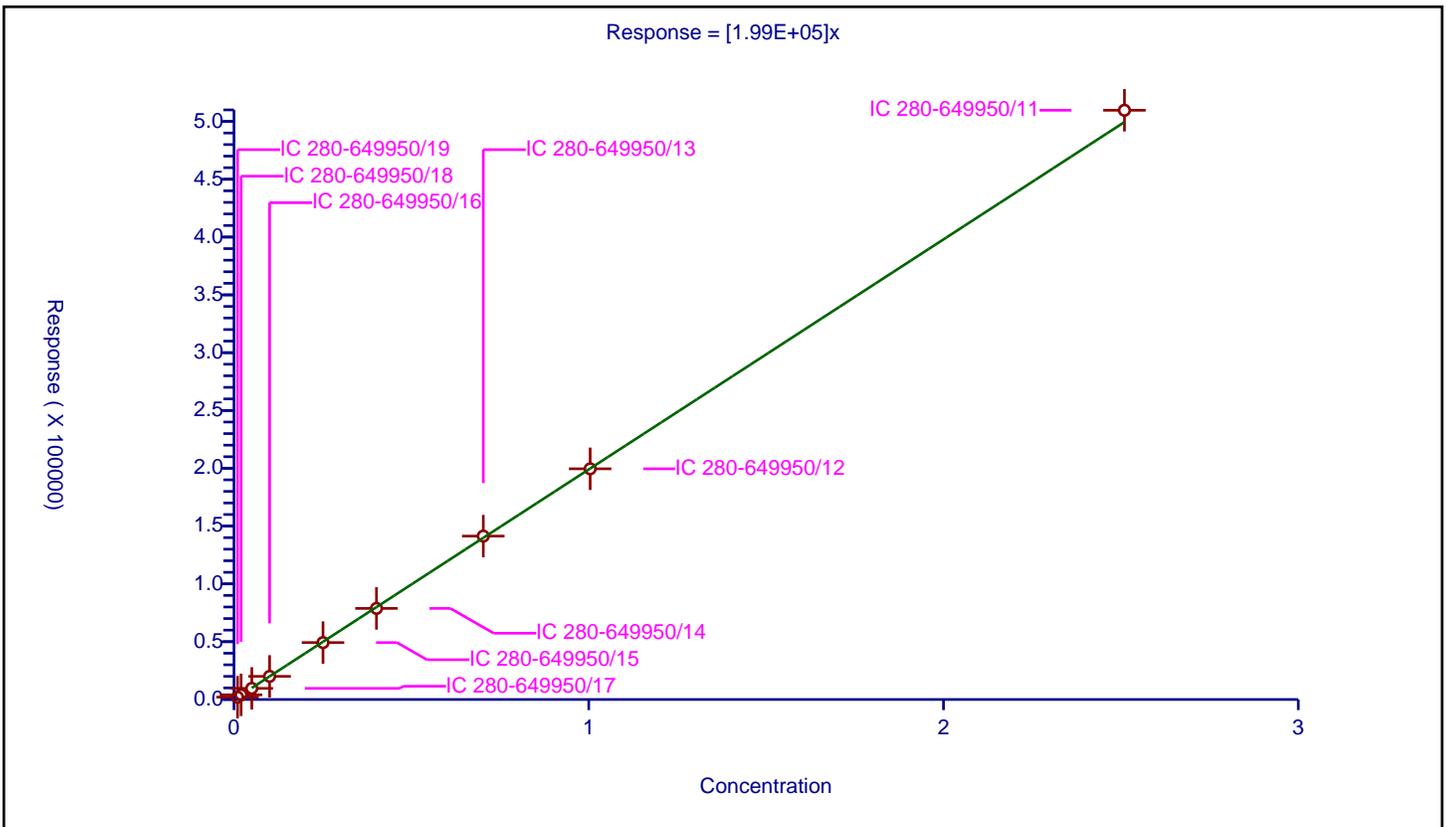
/ TNX

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

Curve Coefficients	
Intercept:	0
Slope:	1.99E+05

Error Coefficients	
Relative Standard Deviation:	1.9

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-649950/19	0.01004	2051.0			204282.868526	Y
2	IC 280-649950/18	0.02008	4023.0			200348.605578	Y
3	IC 280-649950/17	0.0502	9628.0			191792.828685	Y
4	IC 280-649950/16	0.1004	20006.0			199262.948207	Y
5	IC 280-649950/15	0.251	49234.0			196151.394422	Y
6	IC 280-649950/14	0.4016	78789.0			196187.749004	Y
7	IC 280-649950/13	0.7028	141333.0			201099.88617	Y
8	IC 280-649950/12	1.004	199537.0			198742.031873	Y
9	IC 280-649950/11	2.51	509682.0			203060.557769	Y



**Calibration**

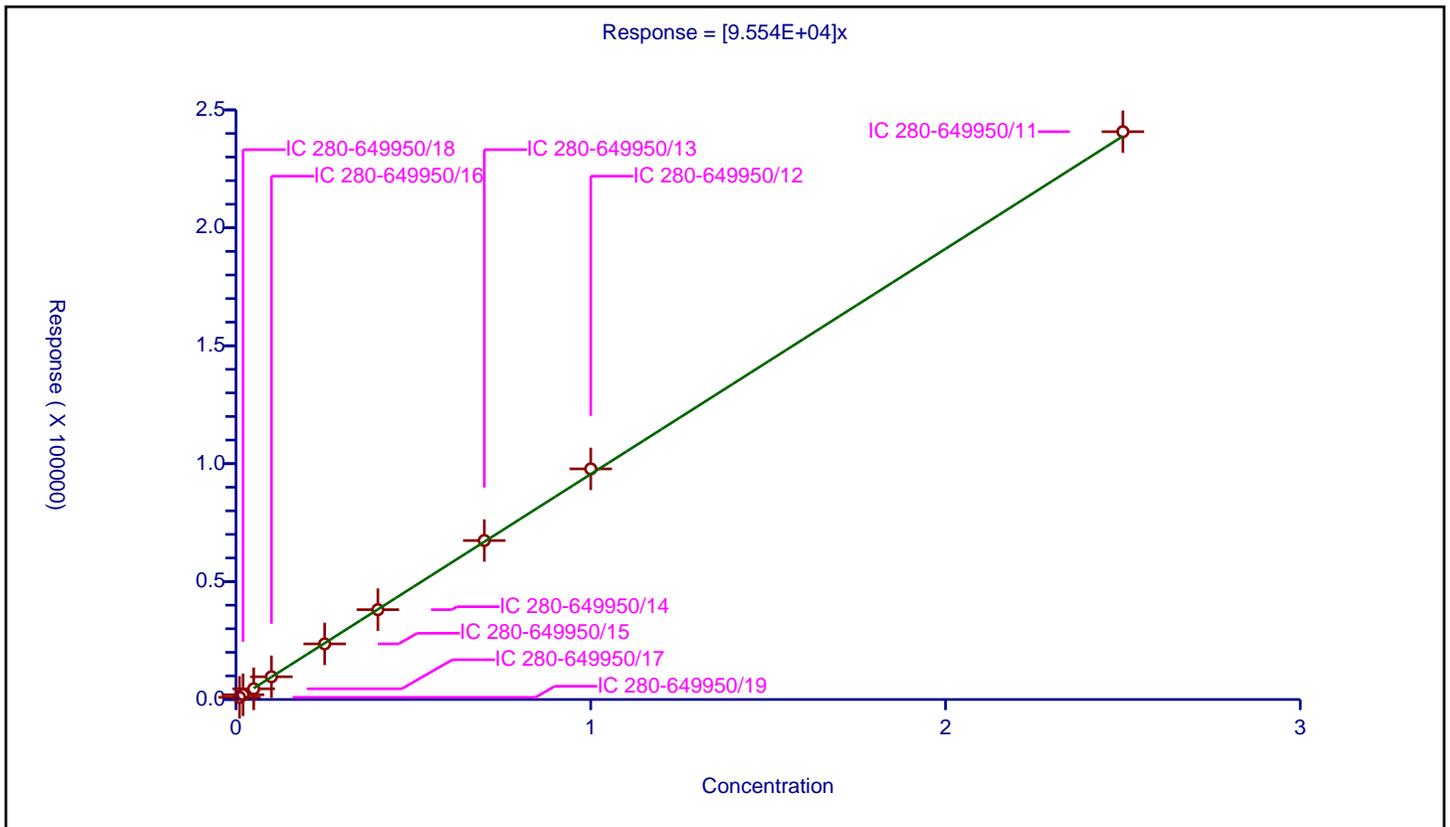
/ HMX

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

Curve Coefficients	
Intercept:	0
Slope:	9.554E+04

Error Coefficients	
Relative Standard Deviation:	3.2

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-649950/19	0.01	919.0			91900.0	Y
2	IC 280-649950/18	0.02	2017.0			100850.0	Y
3	IC 280-649950/17	0.05	4536.0			90720.0	Y
4	IC 280-649950/16	0.1	9645.0			96450.0	Y
5	IC 280-649950/15	0.25	23583.0			94332.0	Y
6	IC 280-649950/14	0.4	38101.0			95252.5	Y
7	IC 280-649950/13	0.7	67408.0			96297.142857	Y
8	IC 280-649950/12	1.0	97787.0			97787.0	Y </td
9	IC 280-649950/11	2.5	240762.0			96304.8	Y



Calibration

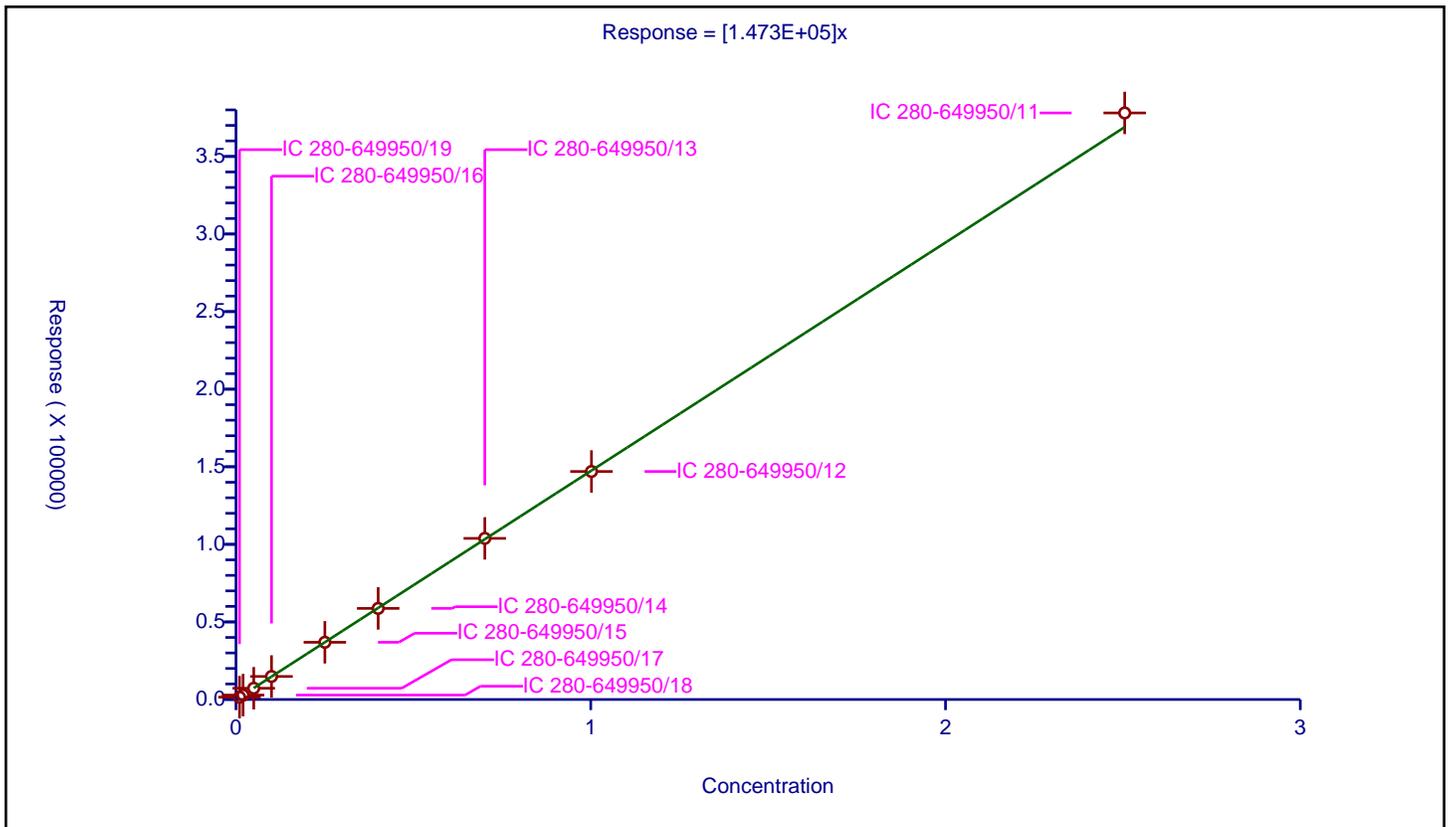
/ DNX

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

Curve Coefficients	
Intercept:	0
Slope:	1.473E+05

Error Coefficients	
Relative Standard Deviation:	2.0

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-649950/19	0.01002	1516.0			151297.40519	Y
2	IC 280-649950/18	0.02004	2843.0			141866.267465	Y
3	IC 280-649950/17	0.0501	7258.0			144870.259481	Y
4	IC 280-649950/16	0.1002	14834.0			148043.912176	Y
5	IC 280-649950/15	0.2505	36872.0			147193.612774	Y
6	IC 280-649950/14	0.4008	58701.0			146459.580838	Y
7	IC 280-649950/13	0.7014	103834.0			148038.209296	Y
8	IC 280-649950/12	1.002	146952.0			146658.682635	Y
9	IC 280-649950/11	2.505	378026.0			150908.582834	Y



Calibration

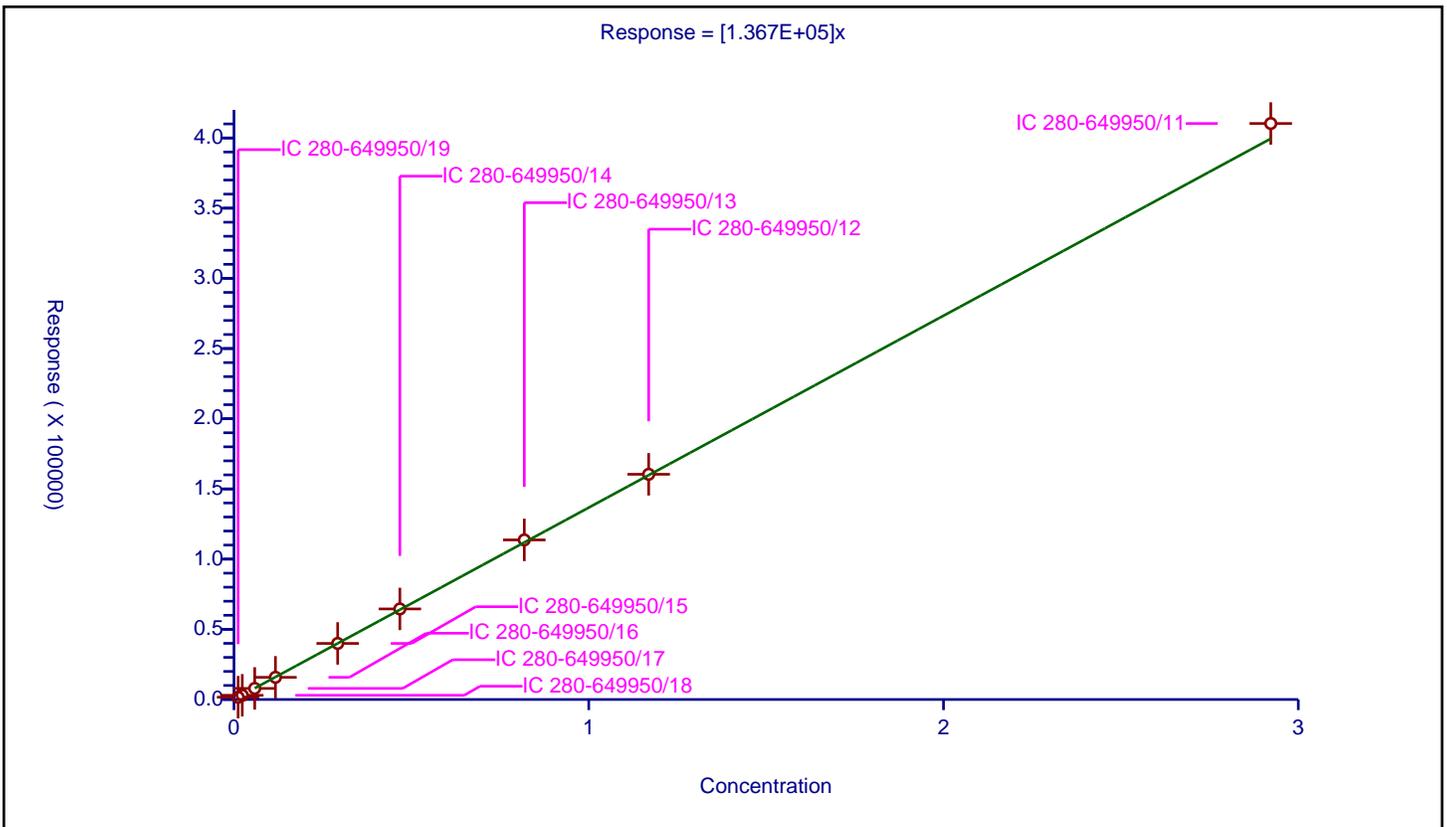
/ MNX

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

Curve Coefficients	
Intercept:	0
Slope:	1.367E+05

Error Coefficients	
Relative Standard Deviation:	2.9

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-649950/19	0.01169	1649.0			141060.735672	Y
2	IC 280-649950/18	0.02338	2991.0			127929.854577	Y
3	IC 280-649950/17	0.05845	7887.0			134935.842601	Y
4	IC 280-649950/16	0.1169	15807.0			135218.135158	Y
5	IC 280-649950/15	0.29225	39930.0			136629.597947	Y
6	IC 280-649950/14	0.4676	64510.0			137959.794696	Y
7	IC 280-649950/13	0.8183	113678.0			138919.711597	Y
8	IC 280-649950/12	1.169	160428.0			137235.243798	Y
9	IC 280-649950/11	2.9225	410302.0			140394.183062	Y



Calibration

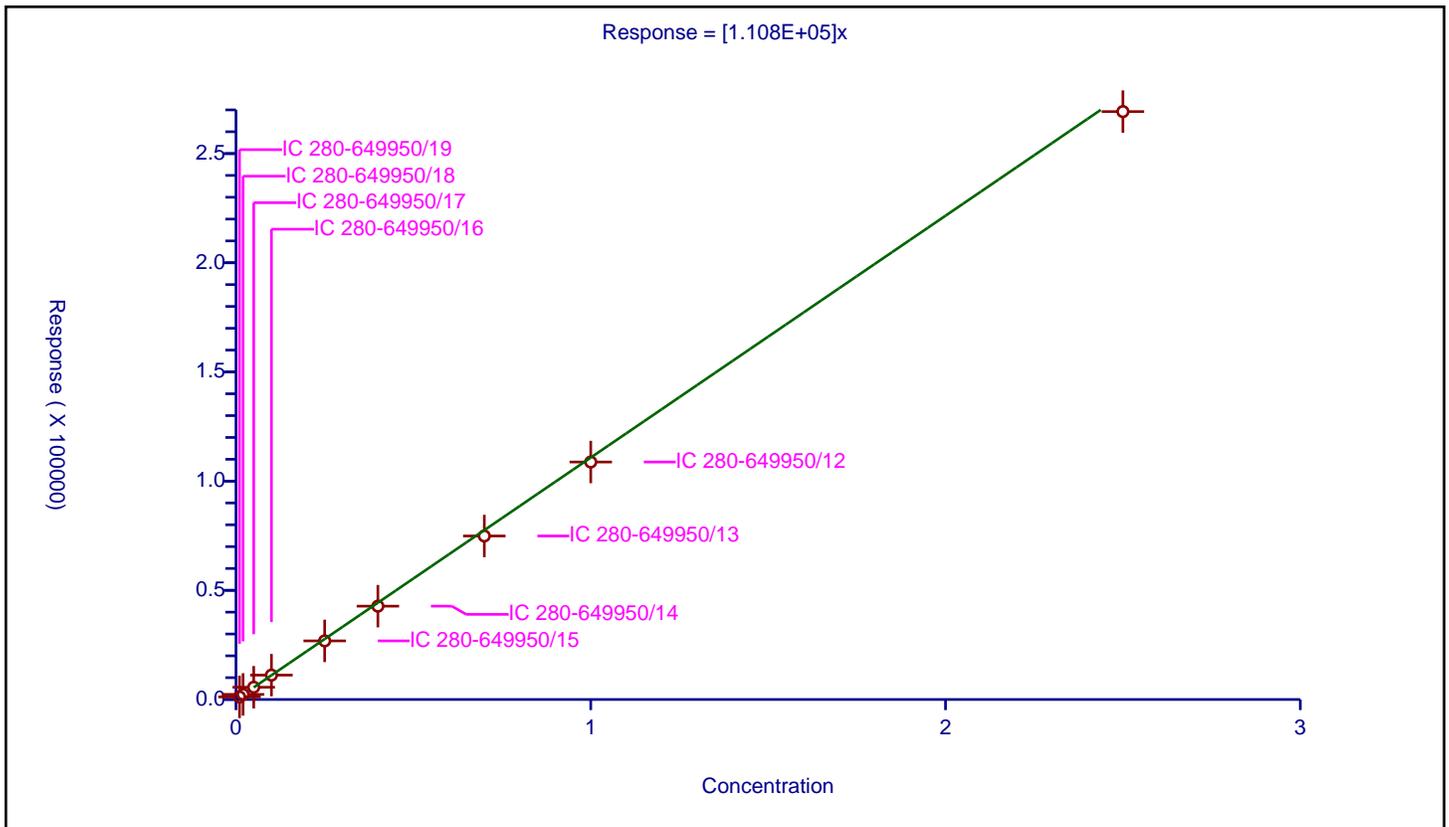
/ RDX

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

Curve Coefficients	
Intercept:	0
Slope:	1.108E+05

Error Coefficients	
Relative Standard Deviation:	4.0

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-649950/19	0.01	1187.0			118700.0	Y
2	IC 280-649950/18	0.02	2334.0			116700.0	Y
3	IC 280-649950/17	0.05	5612.0			112240.0	Y
4	IC 280-649950/16	0.1	11162.0			111620.0	Y
5	IC 280-649950/15	0.25	26844.0			107376.0	Y
6	IC 280-649950/14	0.4	42747.0			106867.5	Y
7	IC 280-649950/13	0.7	74871.0			106958.571429	Y
8	IC 280-649950/12	1.0	108752.0			108752.0	Y
9	IC 280-649950/11	2.5	269224.0			107689.6	Y



**Calibration**

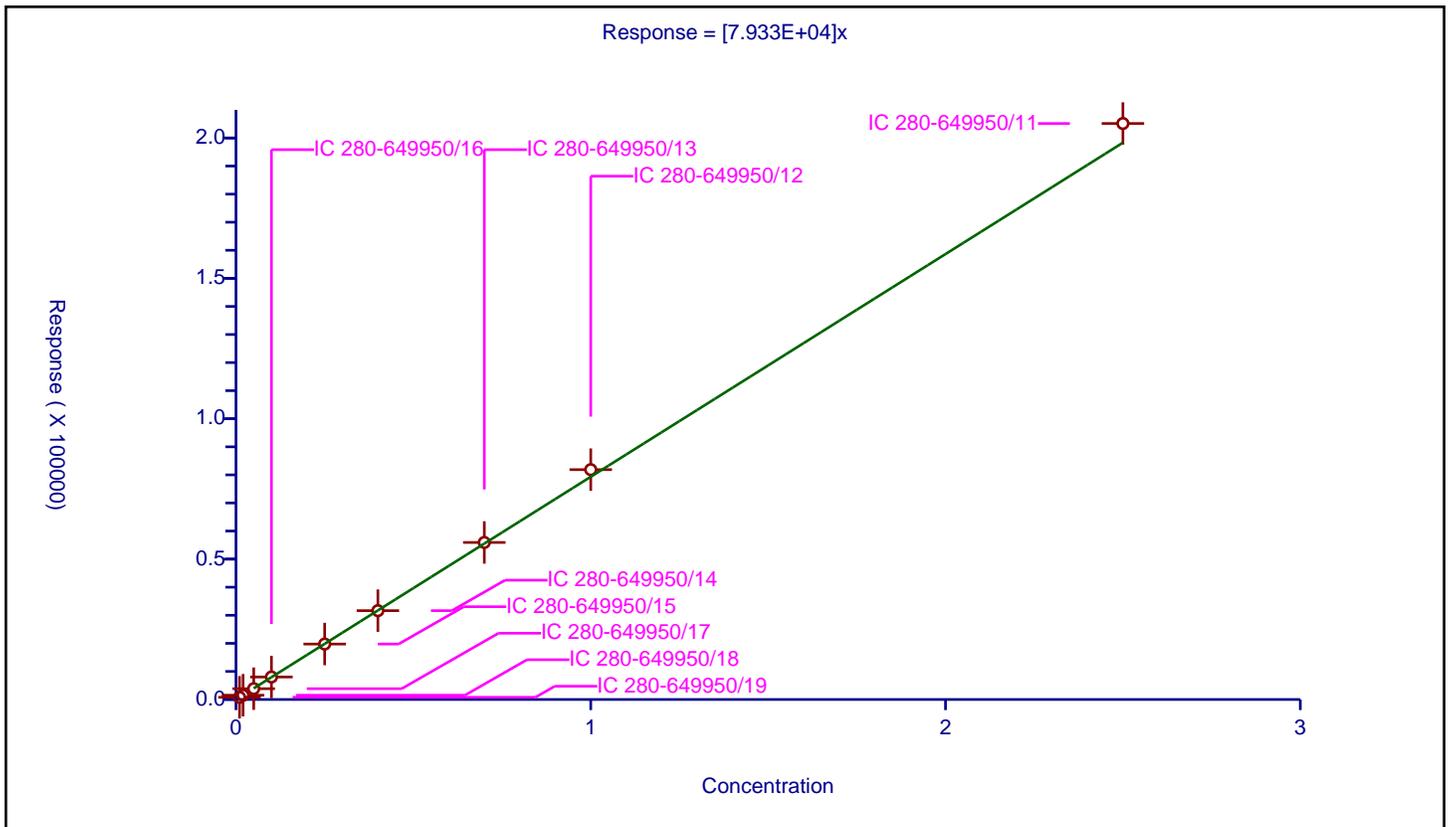
**/ 2,4,6-Trinitrophenol**

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

Curve Coefficients	
Intercept:	0
Slope:	7.933E+04

Error Coefficients	
Relative Standard Deviation:	2.5

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-649950/19	0.01	787.0			78700.0	Y
2	IC 280-649950/18	0.02	1524.0			76200.0	Y
3	IC 280-649950/17	0.05	3847.0			76940.0	Y
4	IC 280-649950/16	0.1	8016.0			80160.0	Y
5	IC 280-649950/15	0.25	19748.0			78992.0	Y
6	IC 280-649950/14	0.4	31644.0			79110.0	Y
7	IC 280-649950/13	0.7	55934.0			79905.714286	Y
8	IC 280-649950/12	1.0	81861.0			81861.0	Y
9	IC 280-649950/11	2.5	205156.0			82062.4	Y



**Calibration**

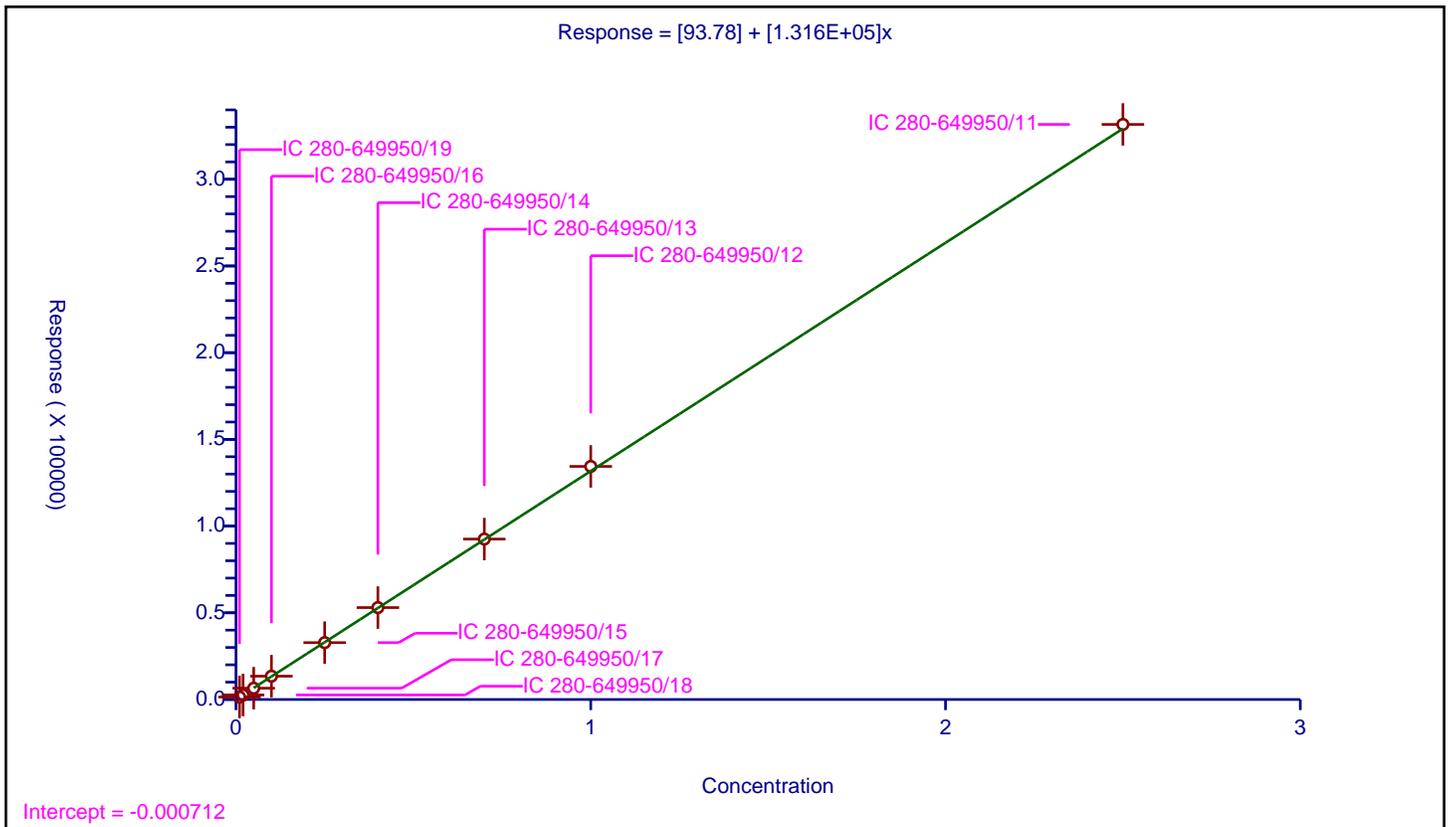
/ 1,2-Dinitrobenzene

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

Curve Coefficients	
Intercept:	93.78
Slope:	1.316E+05

Error Coefficients	
Relative Standard Deviation:	2.5

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-649950/19	0.01	1445.0			144500.0	Y
2	IC 280-649950/18	0.02	2603.0			130150.0	Y
3	IC 280-649950/17	0.05	6521.0			130420.0	Y
4	IC 280-649950/16	0.1	13450.0			134500.0	Y
5	IC 280-649950/15	0.25	32787.0			131148.0	Y
6	IC 280-649950/14	0.4	52999.0			132497.5	Y
7	IC 280-649950/13	0.7	92511.0			132158.571429	Y
8	IC 280-649950/12	1.0	134411.0			134411.0	Y
9	IC 280-649950/11	2.5	331618.0			132647.2	Y



**Calibration**

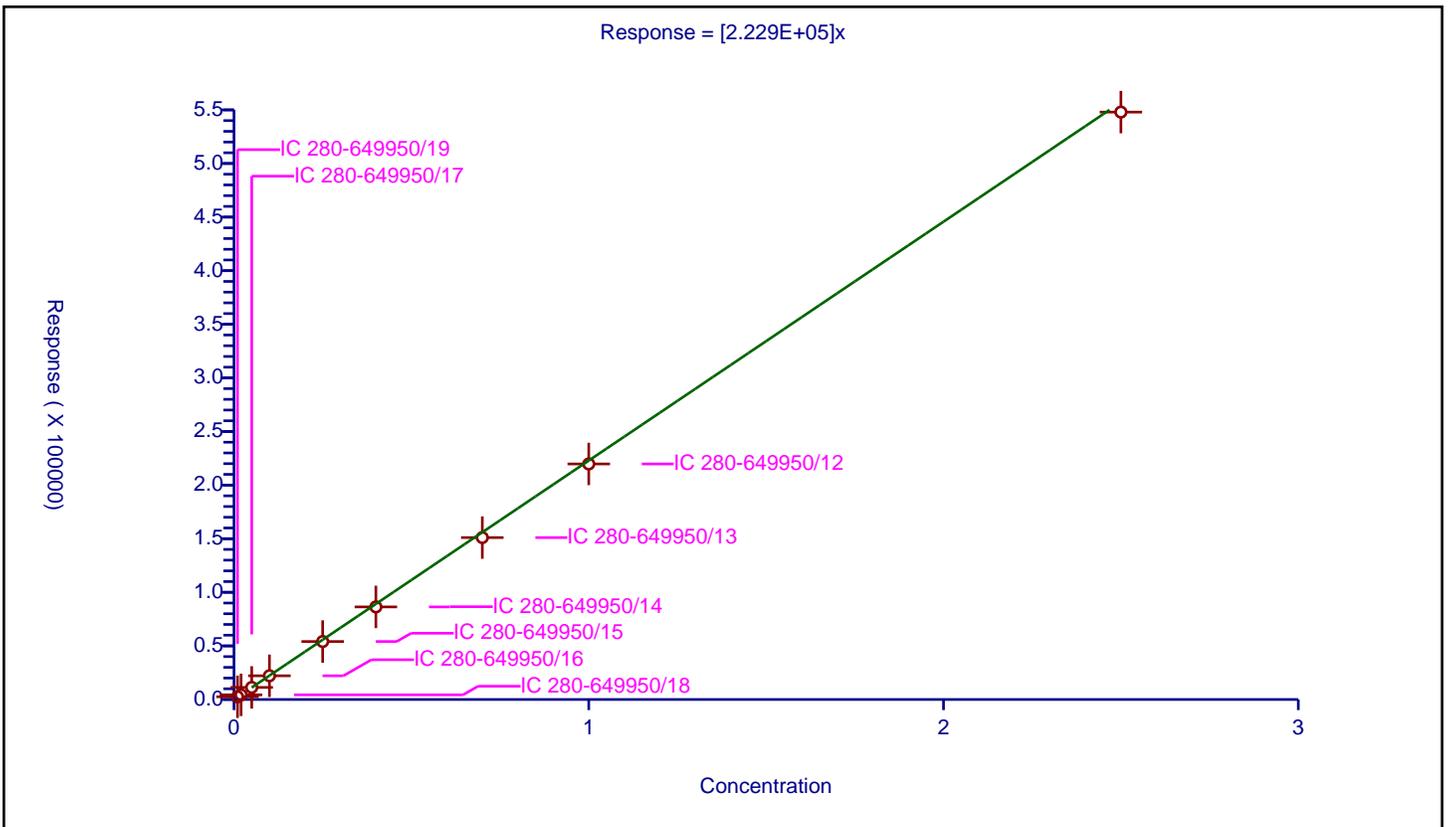
**/ 1,3,5-Trinitrobenzene**

**Curve Type:** Average  
**Weighting:** Conc\_Sq  
**Origin:** Force  
**Dependency:** Response  
**Calib Mode:** ESTD  
**Response Base:** AREA  
**RF Rounding:** 0

Curve Coefficients	
Intercept:	0
Slope:	2.229E+05

Error Coefficients	
Relative Standard Deviation:	5.6

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-649950/19	0.01	2549.0			254900.0	Y
2	IC 280-649950/18	0.02	4349.0			217450.0	Y
3	IC 280-649950/17	0.05	11258.0			225160.0	Y
4	IC 280-649950/16	0.1	22129.0			221290.0	Y
5	IC 280-649950/15	0.25	54073.0			216292.0	Y
6	IC 280-649950/14	0.4	86362.0			215905.0	Y
7	IC 280-649950/13	0.7	151045.0			215778.571429	Y
8	IC 280-649950/12	1.0	219723.0			219723.0	Y
9	IC 280-649950/11	2.5	547952.0			219180.8	Y



**Calibration**

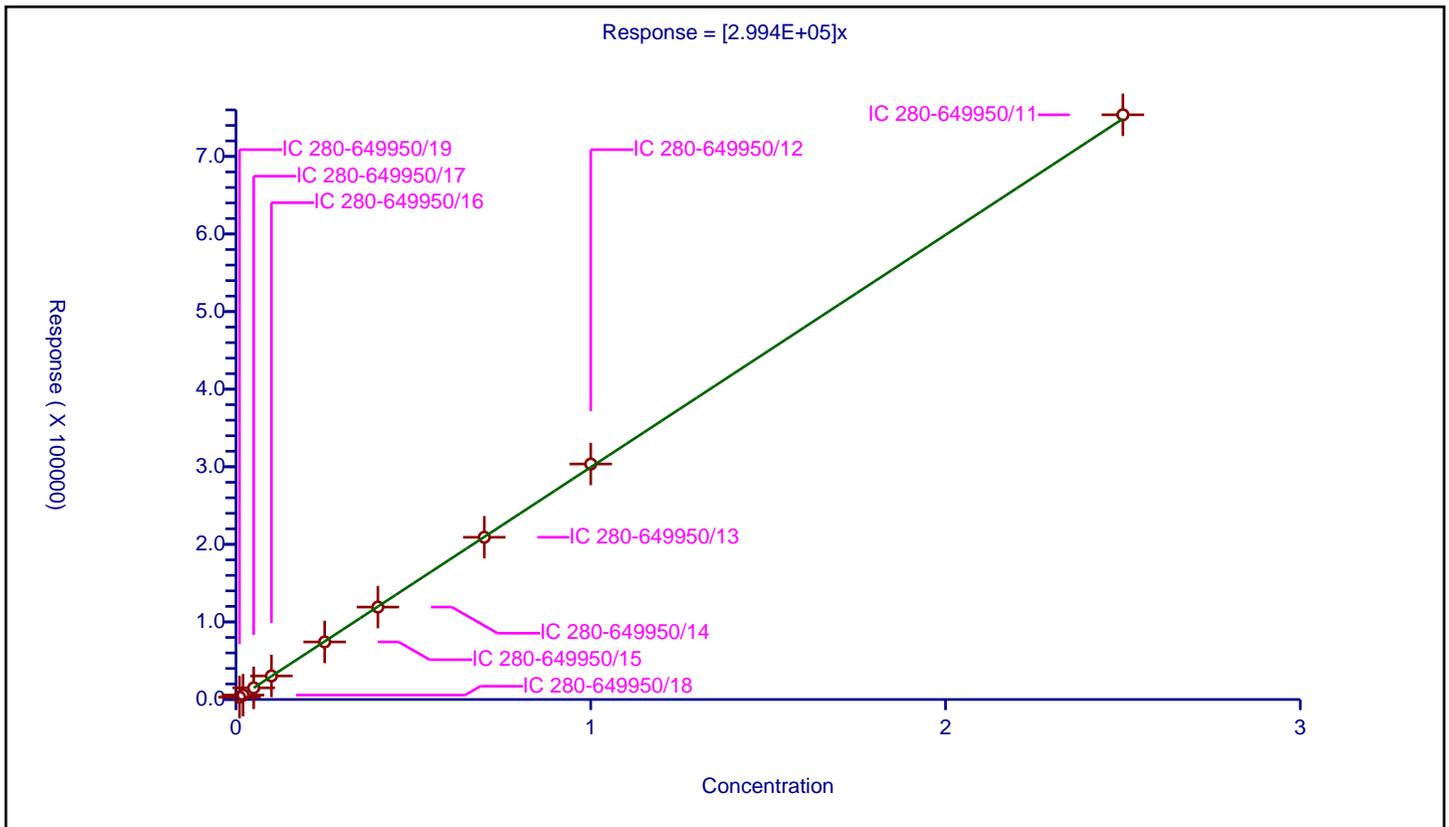
/ 1,3-Dinitrobenzene

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

Curve Coefficients	
Intercept:	0
Slope:	2.994E+05

Error Coefficients	
Relative Standard Deviation:	2.3

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-649950/19	0.01	3086.0			308600.0	Y
2	IC 280-649950/18	0.02	5678.0			283900.0	Y
3	IC 280-649950/17	0.05	15023.0			300460.0	Y
4	IC 280-649950/16	0.1	30359.0			303590.0	Y
5	IC 280-649950/15	0.25	74190.0			296760.0	Y
6	IC 280-649950/14	0.4	119137.0			297842.5	Y
7	IC 280-649950/13	0.7	209122.0			298745.714286	Y
8	IC 280-649950/12	1.0	303550.0			303550.0	Y
9	IC 280-649950/11	2.5	753680.0			301472.0	Y



**Calibration**

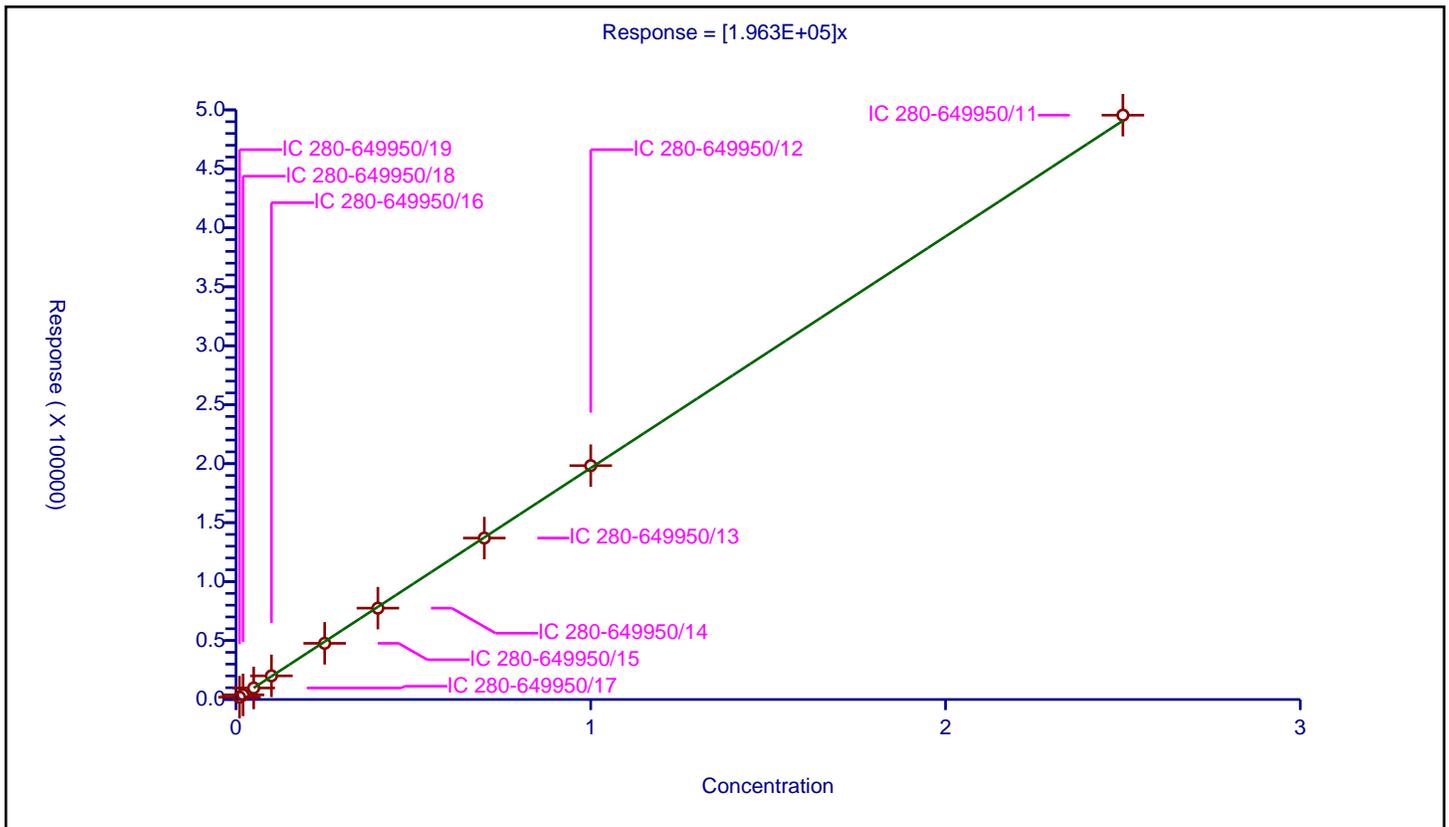
**/ Nitrobenzene**

**Curve Type:** Average  
**Weighting:** Conc\_Sq  
**Origin:** Force  
**Dependency:** Response  
**Calib Mode:** ESTD  
**Response Base:** AREA  
**RF Rounding:** 0

Curve Coefficients	
Intercept:	0
Slope:	1.963E+05

Error Coefficients	
Relative Standard Deviation:	1.5

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-649950/19	0.01	1985.0			198500.0	Y
2	IC 280-649950/18	0.02	3932.0			196600.0	Y
3	IC 280-649950/17	0.05	9759.0			195180.0	Y
4	IC 280-649950/16	0.1	20035.0			200350.0	Y
5	IC 280-649950/15	0.25	47641.0			190564.0	Y
6	IC 280-649950/14	0.4	77471.0			193677.5	Y
7	IC 280-649950/13	0.7	136899.0			195570.0	Y
8	IC 280-649950/12	1.0	198305.0			198305.0	Y
9	IC 280-649950/11	2.5	495535.0			198214.0	Y



**Calibration**

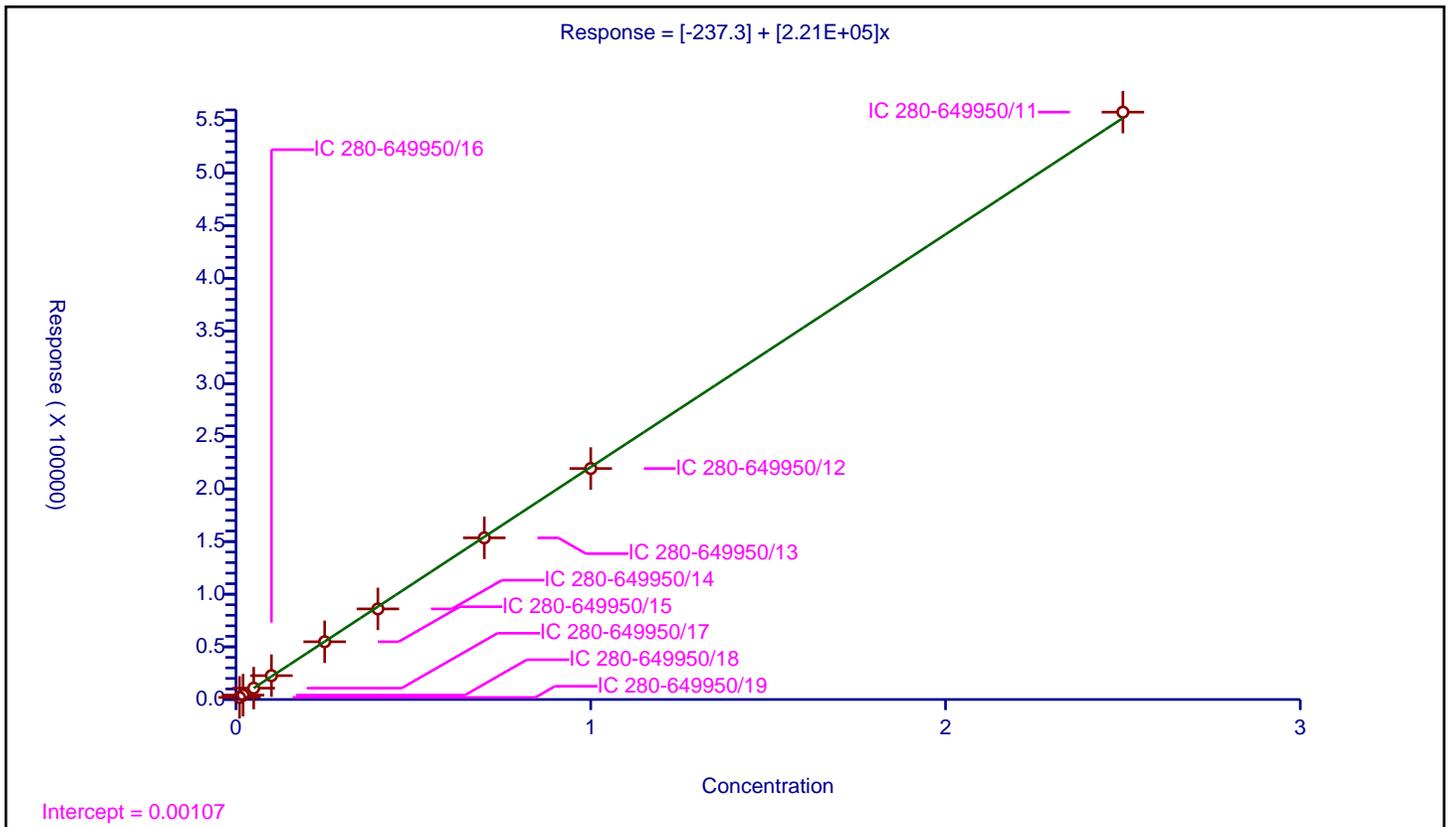
**/ 3,5-Dinitroaniline**

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

Curve Coefficients	
Intercept:	-237.3
Slope:	2.21E+05

Error Coefficients	
Relative Standard Deviation:	1.7

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-649950/19	0.01	1971.0			197100.0	Y
2	IC 280-649950/18	0.02	4171.0			208550.0	Y
3	IC 280-649950/17	0.05	10781.0			215620.0	Y
4	IC 280-649950/16	0.1	22651.0			226510.0	Y
5	IC 280-649950/15	0.25	54841.0			219364.0	Y
6	IC 280-649950/14	0.4	86047.0			215117.5	Y
7	IC 280-649950/13	0.7	153531.0			219330.0	Y
8	IC 280-649950/12	1.0	219396.0			219396.0	Y
9	IC 280-649950/11	2.5	557874.0			223149.6	Y



Calibration

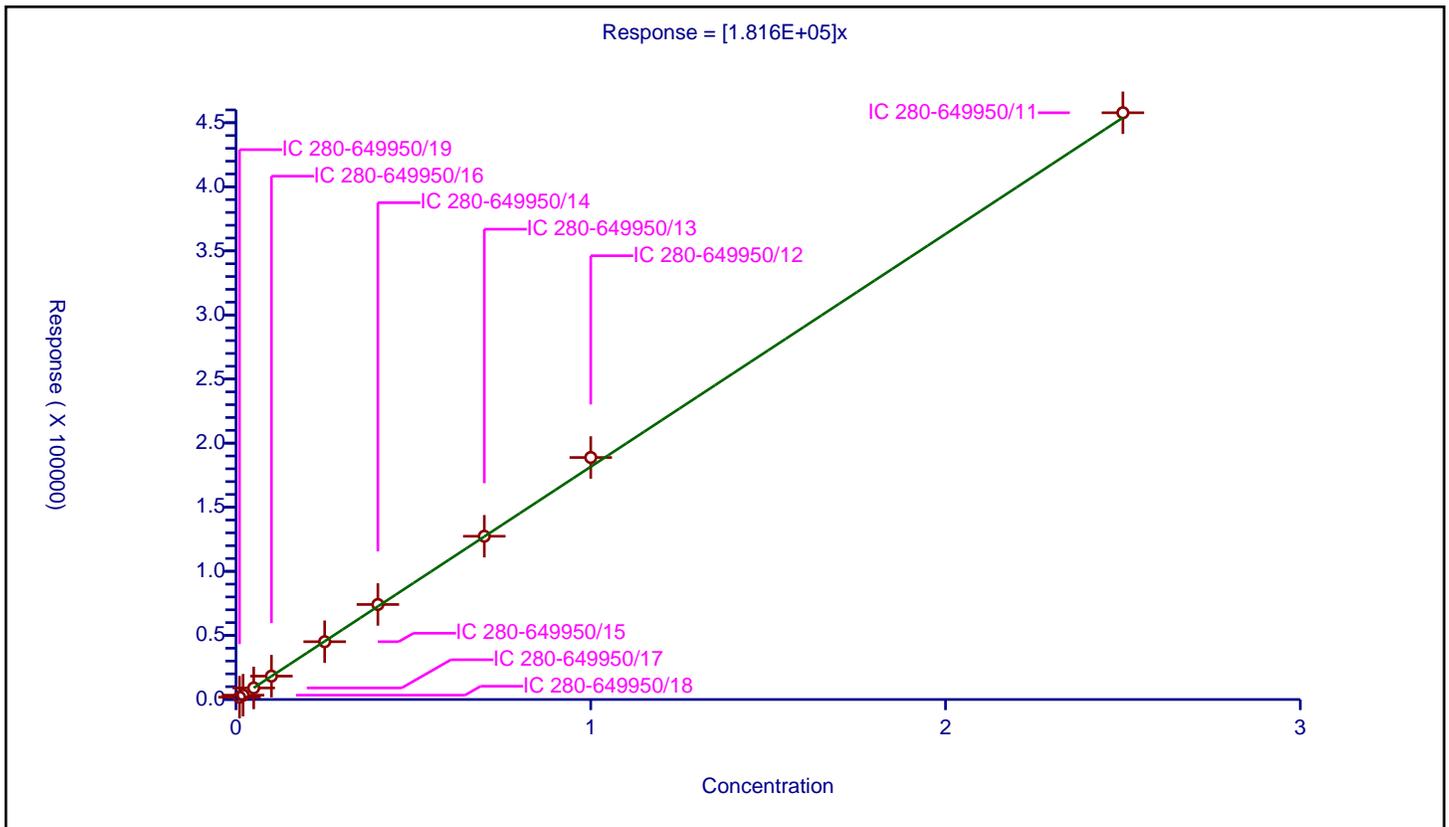
/ Tetryl

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

Curve Coefficients	
Intercept:	0
Slope:	1.816E+05

Error Coefficients	
Relative Standard Deviation:	3.0

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-649950/19	0.01	1835.0			183500.0	Y
2	IC 280-649950/18	0.02	3374.0			168700.0	Y
3	IC 280-649950/17	0.05	9010.0			180200.0	Y
4	IC 280-649950/16	0.1	18238.0			182380.0	Y
5	IC 280-649950/15	0.25	45082.0			180328.0	Y
6	IC 280-649950/14	0.4	74126.0			185315.0	Y
7	IC 280-649950/13	0.7	127375.0			181964.285714	Y
8	IC 280-649950/12	1.0	188801.0			188801.0	Y
9	IC 280-649950/11	2.5	457763.0			183105.2	Y



**Calibration**

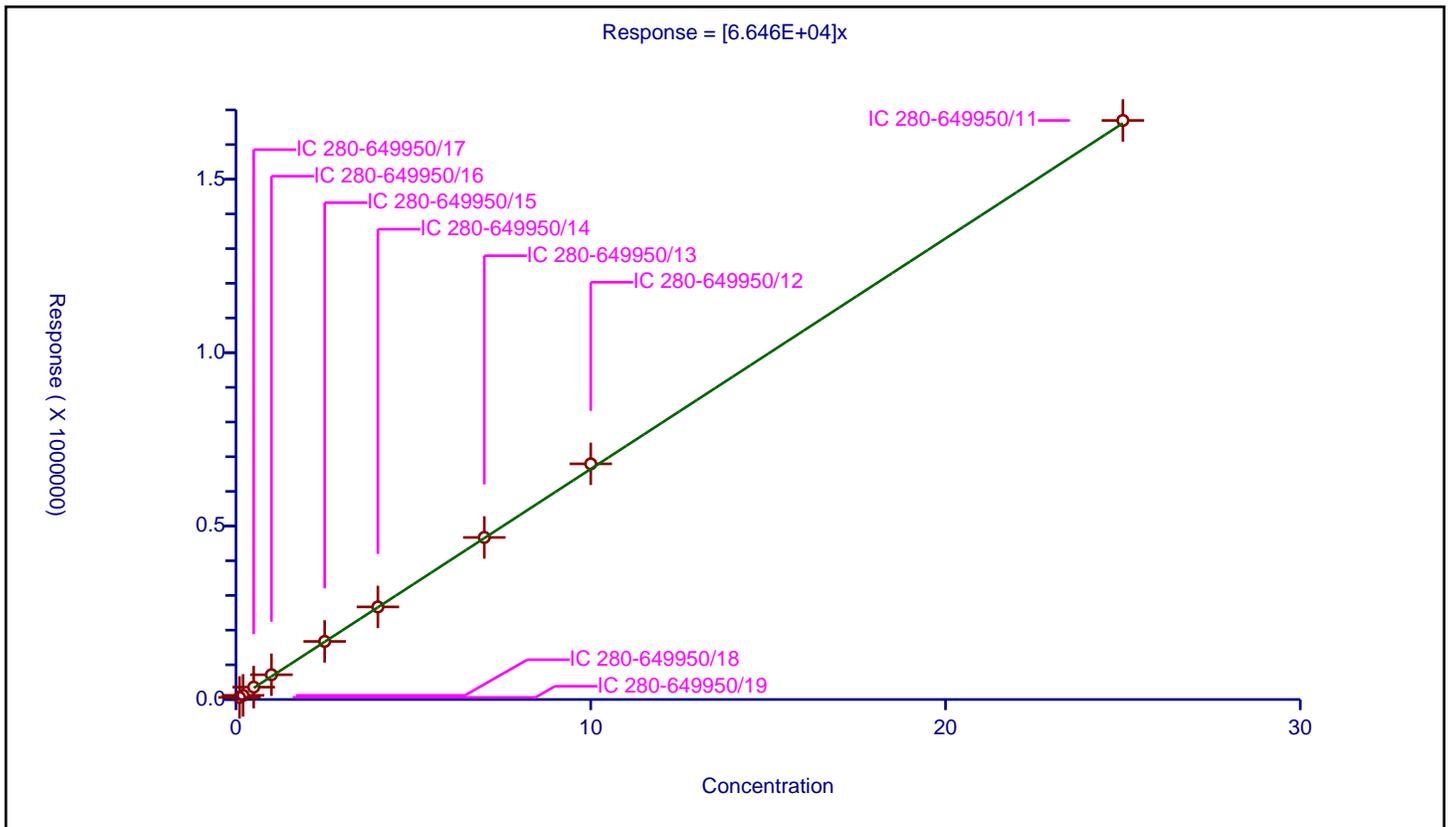
/ Nitroglycerin

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

Curve Coefficients	
Intercept:	0
Slope:	6.646E+04

Error Coefficients	
Relative Standard Deviation:	6.1

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-649950/19	0.1	6048.0			60480.0	Y
2	IC 280-649950/18	0.2	11963.0			59815.0	Y
3	IC 280-649950/17	0.5	35657.0			71314.0	Y
4	IC 280-649950/16	1.0	71367.0			71367.0	Y
5	IC 280-649950/15	2.5	167486.0			66994.4	Y
6	IC 280-649950/14	4.0	266924.0			66731.0	Y
7	IC 280-649950/13	7.0	467214.0			66744.857143	Y
8	IC 280-649950/12	10.0	679445.0			67944.5	Y
9	IC 280-649950/11	25.0	1669606.0			66784.24	Y



Calibration

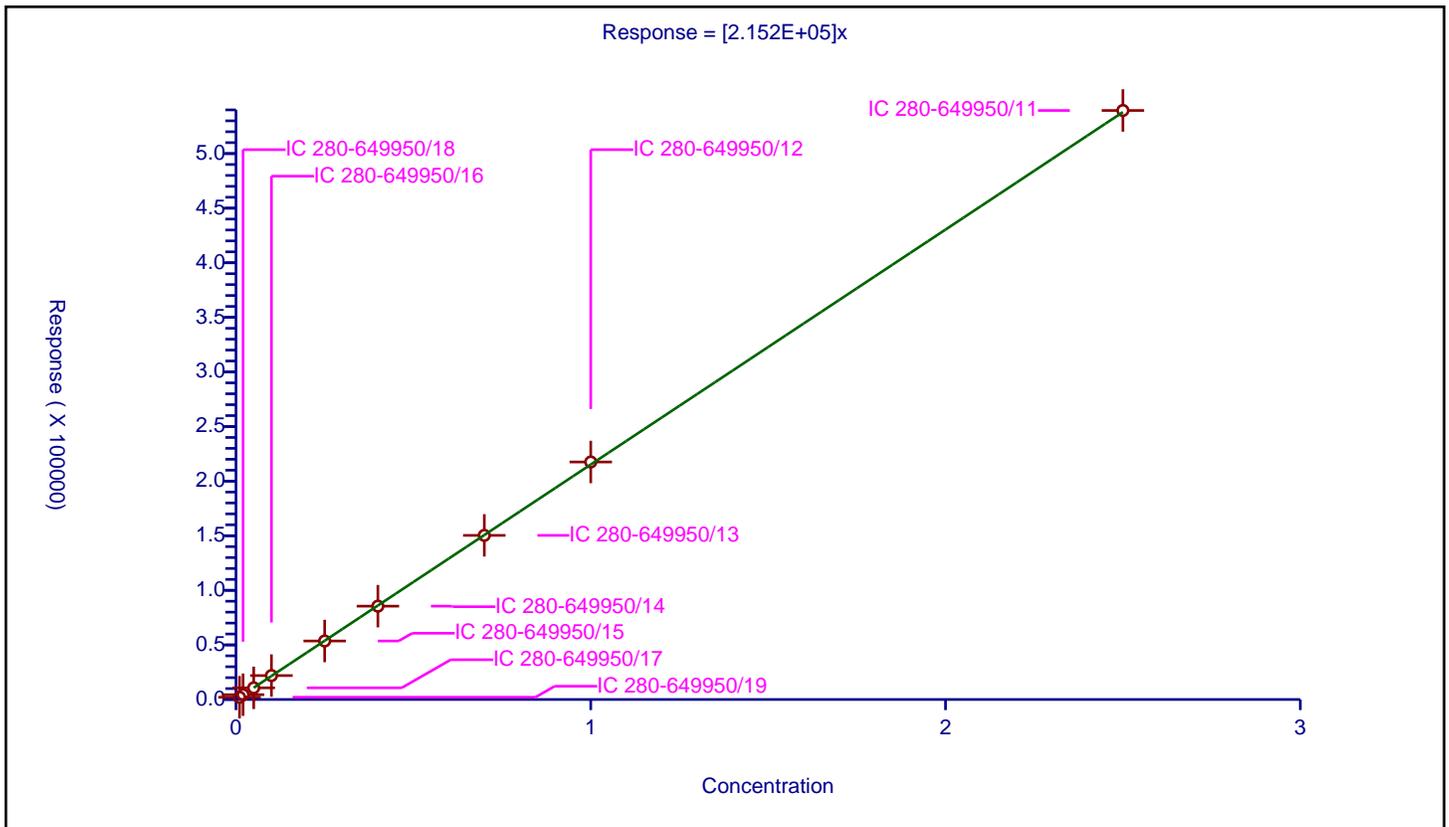
/ 2,4,6-Trinitrotoluene

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

Curve Coefficients	
Intercept:	0
Slope:	2.152E+05

Error Coefficients	
Relative Standard Deviation:	1.7

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-649950/19	0.01	2081.0			208100.0	Y
2	IC 280-649950/18	0.02	4400.0			220000.0	Y
3	IC 280-649950/17	0.05	10669.0			213380.0	Y
4	IC 280-649950/16	0.1	21912.0			219120.0	Y
5	IC 280-649950/15	0.25	53593.0			214372.0	Y
6	IC 280-649950/14	0.4	85495.0			213737.5	Y
7	IC 280-649950/13	0.7	150301.0			214715.714286	Y
8	IC 280-649950/12	1.0	217516.0			217516.0	Y
9	IC 280-649950/11	2.5	539471.0			215788.4	Y



Calibration

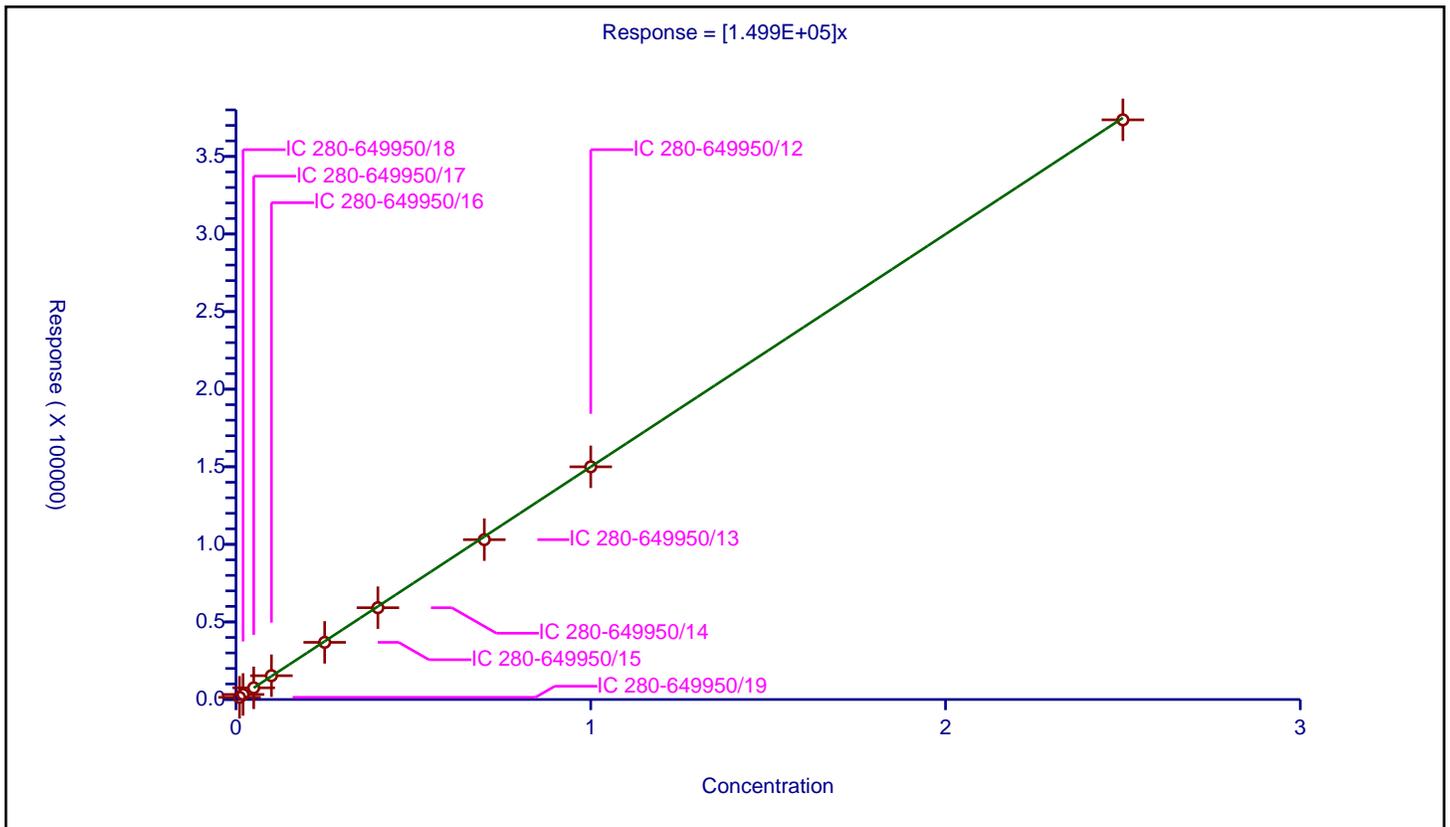
/ 4-Amino-2,6-dinitrotoluene

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

Curve Coefficients	
Intercept:	0
Slope:	1.499E+05

Error Coefficients	
Relative Standard Deviation:	4.0

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-649950/19	0.01	1406.0			140600.0	Y
2	IC 280-649950/18	0.02	3261.0			163050.0	Y
3	IC 280-649950/17	0.05	7533.0			150660.0	Y
4	IC 280-649950/16	0.1	15344.0			153440.0	Y
5	IC 280-649950/15	0.25	36831.0			147324.0	Y
6	IC 280-649950/14	0.4	59155.0			147887.5	Y
7	IC 280-649950/13	0.7	103016.0			147165.714286	Y
8	IC 280-649950/12	1.0	149965.0			149965.0	Y
9	IC 280-649950/11	2.5	373596.0			149438.4	Y



**Calibration**

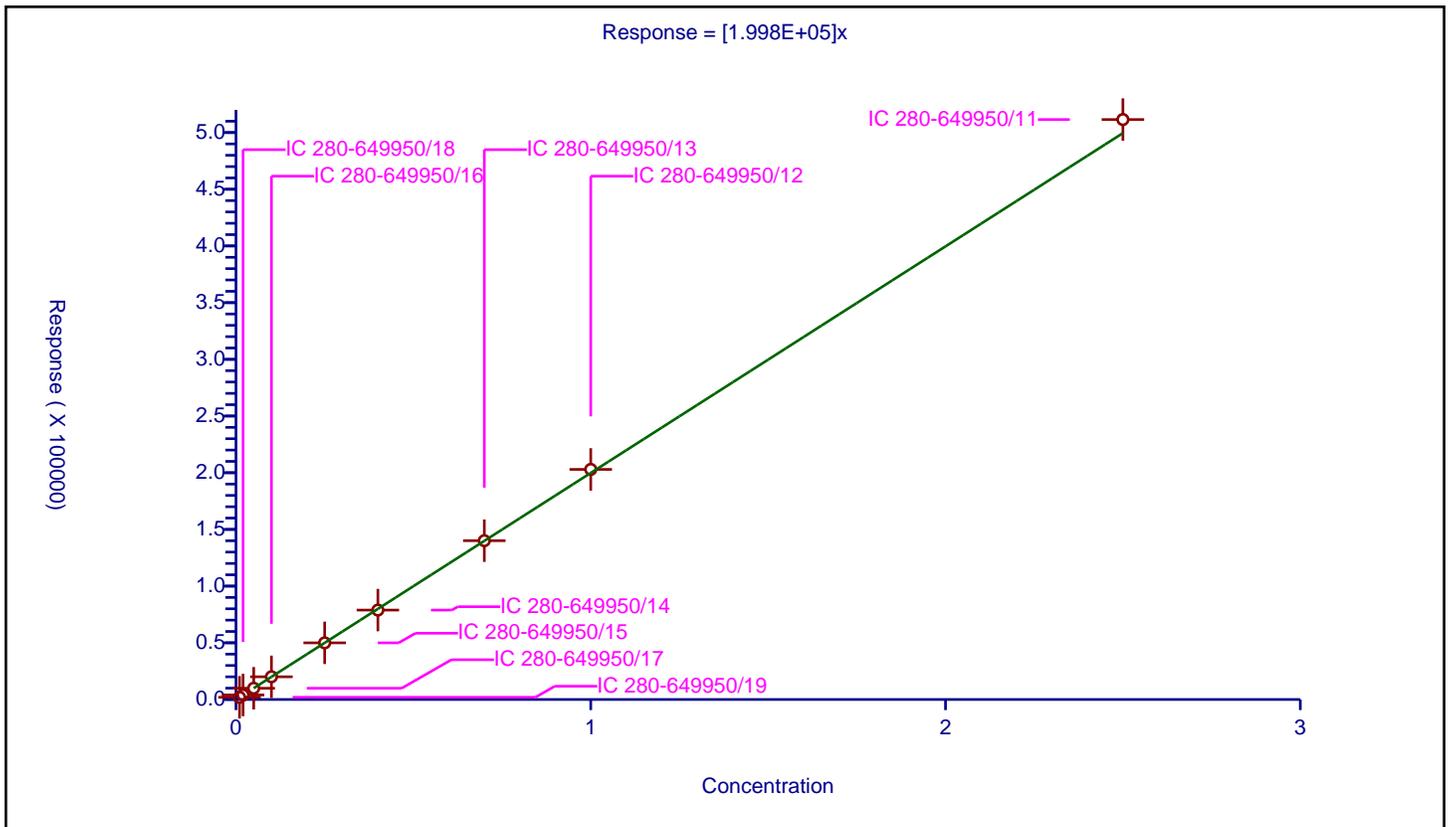
/ 2-Amino-4,6-dinitrotoluene

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

Curve Coefficients	
Intercept:	0
Slope:	1.998E+05

Error Coefficients	
Relative Standard Deviation:	1.4

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-649950/19	0.01	1951.0			195100.0	Y
2	IC 280-649950/18	0.02	3997.0			199850.0	Y
3	IC 280-649950/17	0.05	9923.0			198460.0	Y
4	IC 280-649950/16	0.1	20033.0			200330.0	Y
5	IC 280-649950/15	0.25	49951.0			199804.0	Y
6	IC 280-649950/14	0.4	78856.0			197140.0	Y
7	IC 280-649950/13	0.7	140054.0			200077.142857	Y
8	IC 280-649950/12	1.0	202927.0			202927.0	Y
9	IC 280-649950/11	2.5	511483.0			204593.2	Y



**Calibration**

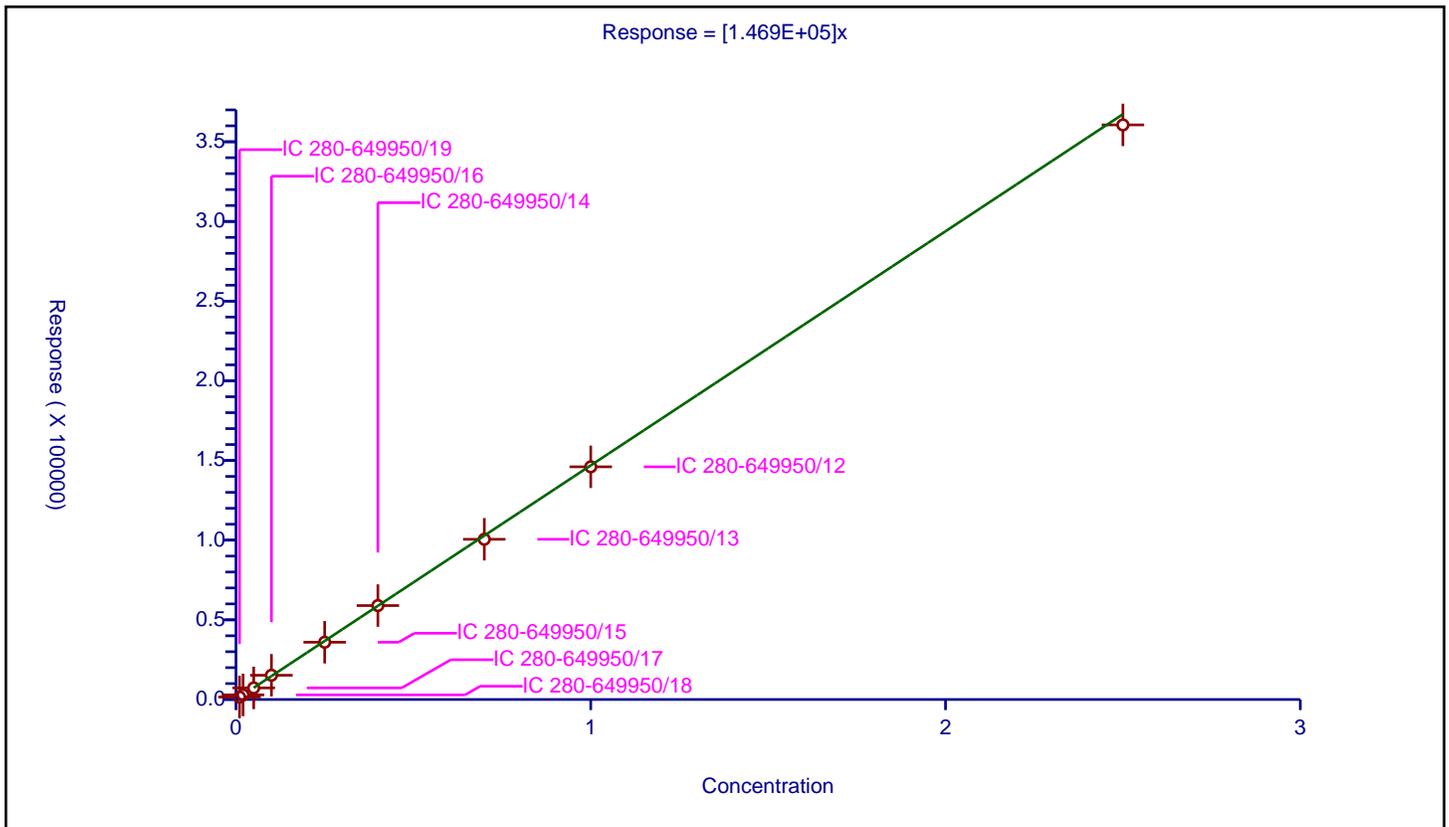
/ 2,6-Dinitrotoluene

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

Curve Coefficients	
Intercept:	0
Slope:	1.469E+05

Error Coefficients	
Relative Standard Deviation:	2.9

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-649950/19	0.01	1557.0			155700.0	Y
2	IC 280-649950/18	0.02	2880.0			144000.0	Y
3	IC 280-649950/17	0.05	7267.0			145340.0	Y
4	IC 280-649950/16	0.1	15218.0			152180.0	Y
5	IC 280-649950/15	0.25	35939.0			143756.0	Y
6	IC 280-649950/14	0.4	58947.0			147367.5	Y
7	IC 280-649950/13	0.7	100540.0			143628.571429	Y
8	IC 280-649950/12	1.0	146021.0			146021.0	Y
9	IC 280-649950/11	2.5	360585.0			144234.0	Y



Calibration

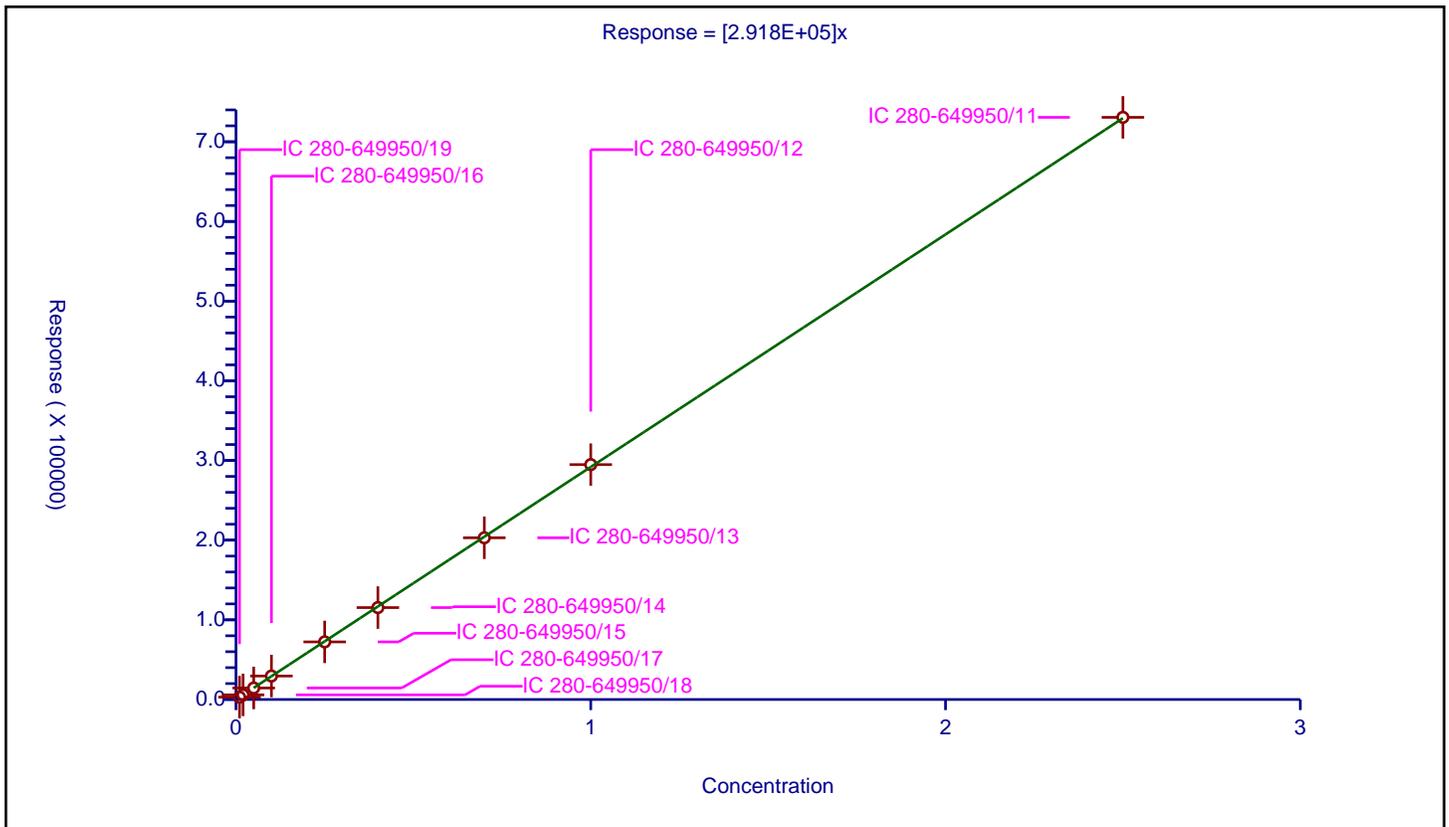
/ 2,4-Dinitrotoluene

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

Curve Coefficients	
Intercept:	0
Slope:	2.918E+05

Error Coefficients	
Relative Standard Deviation:	1.3

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-649950/19	0.01	2993.0			299300.0	Y
2	IC 280-649950/18	0.02	5793.0			289650.0	Y
3	IC 280-649950/17	0.05	14425.0			288500.0	Y
4	IC 280-649950/16	0.1	29452.0			294520.0	Y
5	IC 280-649950/15	0.25	72314.0			289256.0	Y
6	IC 280-649950/14	0.4	115355.0			288387.5	Y
7	IC 280-649950/13	0.7	202952.0			289931.428571	Y
8	IC 280-649950/12	1.0	294790.0			294790.0	Y
9	IC 280-649950/11	2.5	730644.0			292257.6	Y



**Calibration**

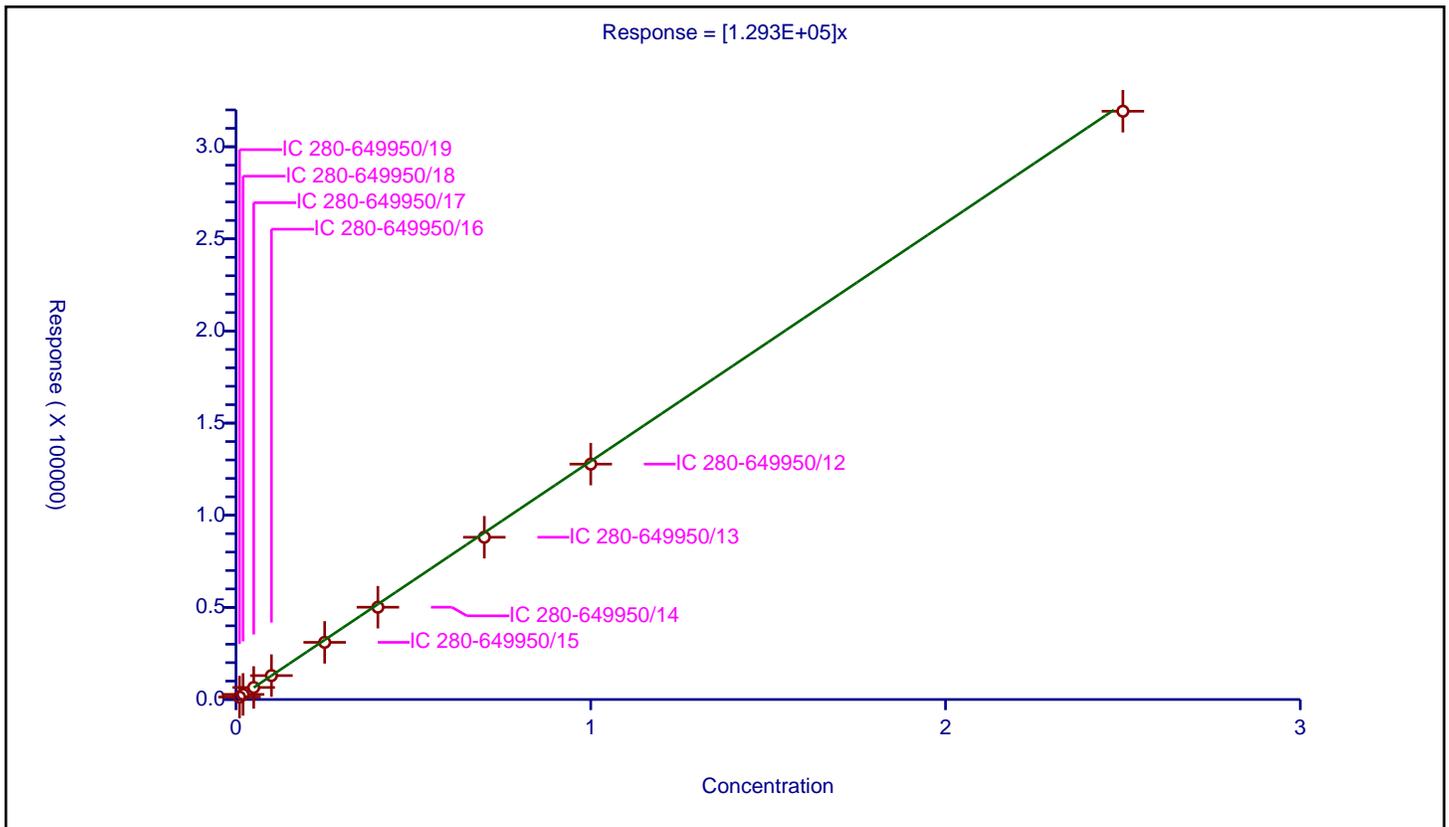
**/ o-Nitrotoluene**

**Curve Type:** Average  
**Weighting:** Conc\_Sq  
**Origin:** Force  
**Dependency:** Response  
**Calib Mode:** ESTD  
**Response Base:** AREA  
**RF Rounding:** 0

Curve Coefficients	
Intercept:	0
Slope:	1.293E+05

Error Coefficients	
Relative Standard Deviation:	3.6

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-649950/19	0.01	1340.0			134000.0	Y
2	IC 280-649950/18	0.02	2777.0			138850.0	Y
3	IC 280-649950/17	0.05	6526.0			130520.0	Y
4	IC 280-649950/16	0.1	12977.0			129770.0	Y
5	IC 280-649950/15	0.25	31023.0			124092.0	Y
6	IC 280-649950/14	0.4	50092.0			125230.0	Y
7	IC 280-649950/13	0.7	88069.0			125812.857143	Y
8	IC 280-649950/12	1.0	127758.0			127758.0	Y
9	IC 280-649950/11	2.5	319286.0			127714.4	Y



**Calibration**

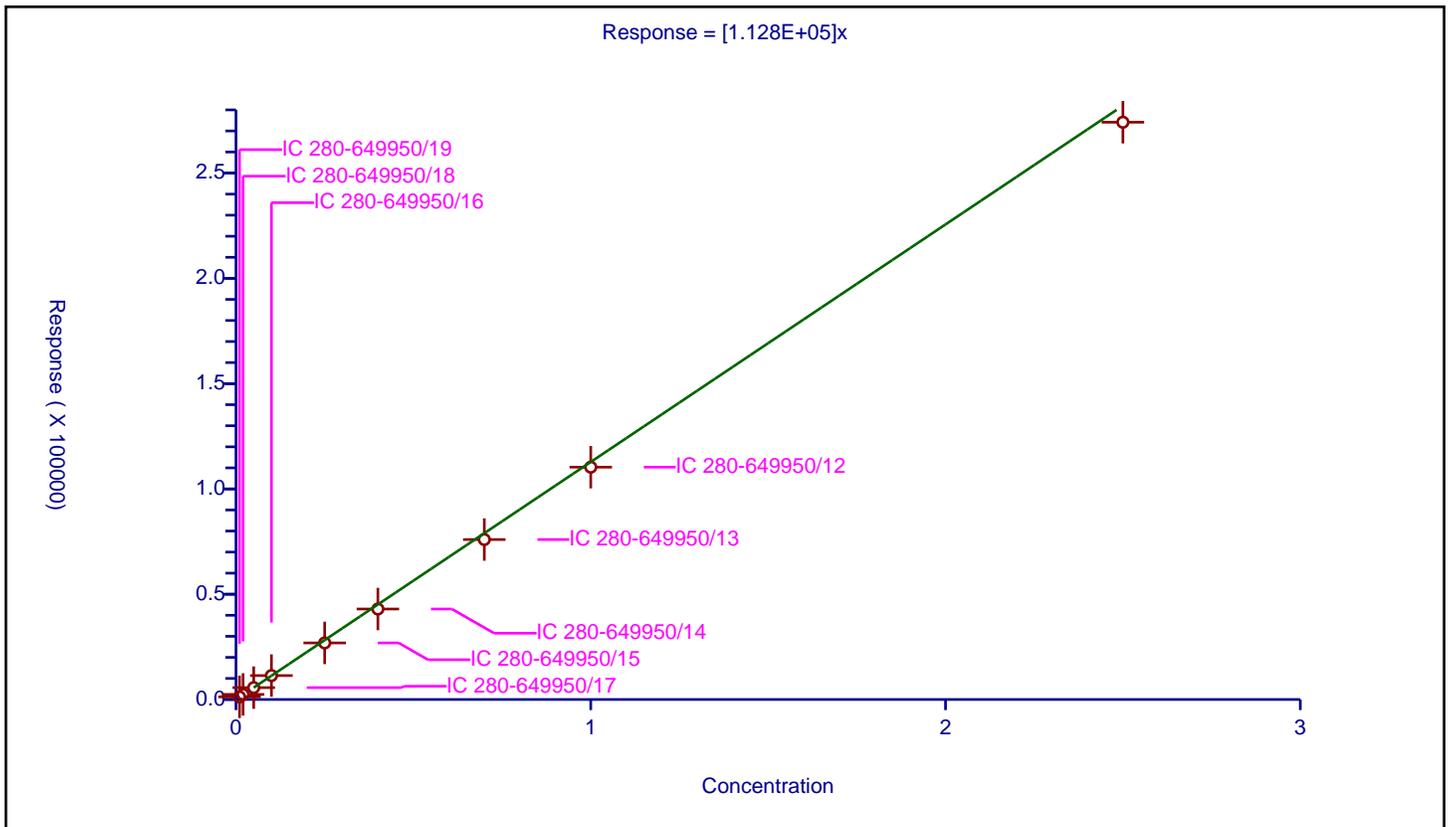
/ p-Nitrotoluene

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

Curve Coefficients	
Intercept:	0
Slope:	1.128E+05

Error Coefficients	
Relative Standard Deviation:	5.4

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-649950/19	0.01	1249.0			124900.0	Y
2	IC 280-649950/18	0.02	2413.0			120650.0	Y
3	IC 280-649950/17	0.05	5631.0			112620.0	Y
4	IC 280-649950/16	0.1	11360.0			113600.0	Y
5	IC 280-649950/15	0.25	26871.0			107484.0	Y
6	IC 280-649950/14	0.4	42973.0			107432.5	Y
7	IC 280-649950/13	0.7	75957.0			108510.0	Y
8	IC 280-649950/12	1.0	110337.0			110337.0	Y
9	IC 280-649950/11	2.5	274145.0			109658.0	Y



**Calibration**

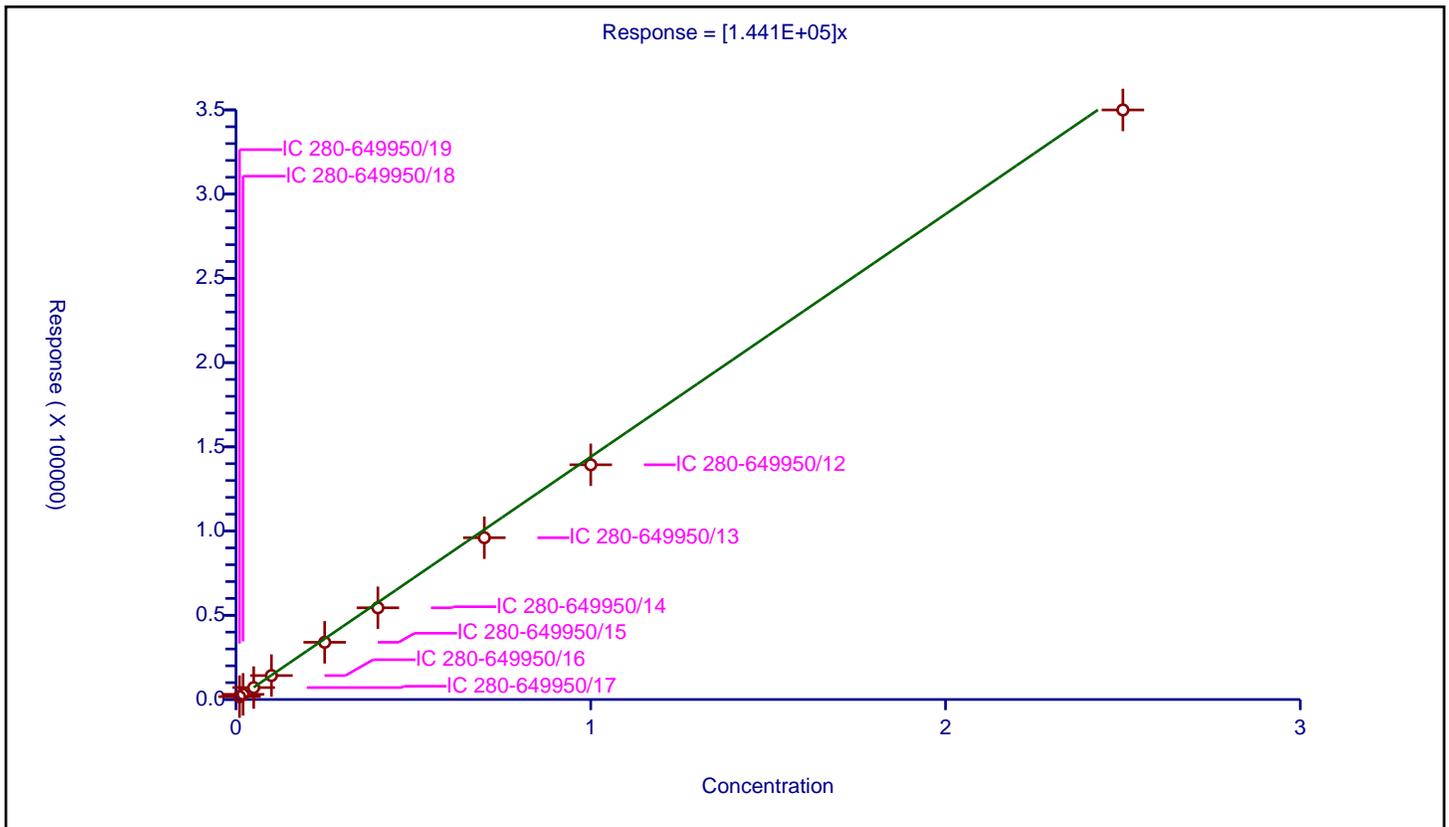
/ m-Nitrotoluene

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

Curve Coefficients	
Intercept:	0
Slope:	1.441E+05

Error Coefficients	
Relative Standard Deviation:	8.0

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-649950/19	0.01	1713.0			171300.0	Y
2	IC 280-649950/18	0.02	3066.0			153300.0	Y
3	IC 280-649950/17	0.05	7074.0			141480.0	Y
4	IC 280-649950/16	0.1	14207.0			142070.0	Y
5	IC 280-649950/15	0.25	33952.0			135808.0	Y
6	IC 280-649950/14	0.4	54437.0			136092.5	Y
7	IC 280-649950/13	0.7	96036.0			137194.285714	Y
8	IC 280-649950/12	1.0	139336.0			139336.0	Y
9	IC 280-649950/11	2.5	349971.0			139988.4	Y



Calibration

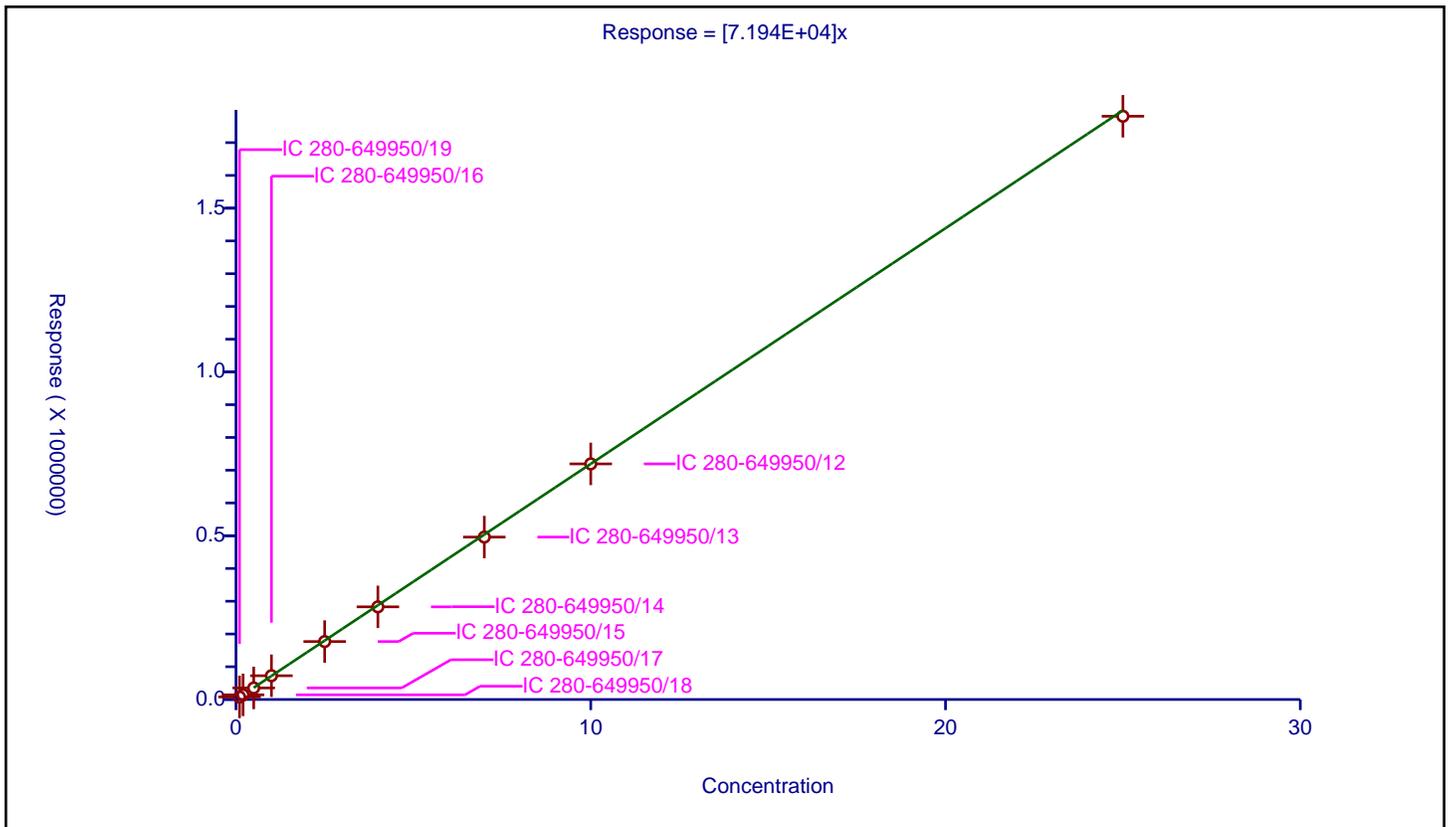
/ PETN

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

Curve Coefficients	
Intercept:	0
Slope:	7.194E+04

Error Coefficients	
Relative Standard Deviation:	3.3

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-649950/19	0.1	7807.0			78070.0	Y
2	IC 280-649950/18	0.2	14174.0			70870.0	Y
3	IC 280-649950/17	0.5	35216.0			70432.0	Y
4	IC 280-649950/16	1.0	72600.0			72600.0	Y
5	IC 280-649950/15	2.5	176891.0			70756.4	Y
6	IC 280-649950/14	4.0	282889.0			70722.25	Y
7	IC 280-649950/13	7.0	495856.0			70836.571429	Y
8	IC 280-649950/12	10.0	719241.0			71924.1	Y
9	IC 280-649950/11	25.0	1780535.0			71221.4	Y



FORM VII  
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-190882-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: ICV 280-650851/19 Calibration Date: 04/25/2024 02:51  
 Instrument ID: CHHPLC\_G2\_LUNA Calib Start Date: 04/24/2024 21:28  
 GC Column: Luna-phenylhex ID: 4.60 (mm) Calib End Date: 04/25/2024 02:15  
 Lab File ID: 04240019.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
HMX	Ave	174076	166804		479	500	-4.2	20.0
Picric acid	Ave	151397	162096		535	500	7.1	20.0
RDX	Lin2		212688		514	500	2.9	20.0
Nitrobenzene	Ave	382120	410196		537	500	7.3	20.0
3,5-Dinitroaniline	Lin2		467084		540	500	8.0	20.0
1,3-Dinitrobenzene	Ave	589418	622818		528	500	5.7	20.0
Nitroglycerin	Ave	119505	129045		5400	5000	8.0	20.0
2-Nitrotoluene	Ave	244594	255606		523	500	4.5	20.0
4-Nitrotoluene	Lin2		237762		542	500	8.4	20.0
4-Amino-2,6-dinitrotoluene	Lin2		298664		551	500	10.3	20.0
3-Nitrotoluene	Lin2		294022		530	500	6.0	20.0
2-Amino-4,6-dinitrotoluene	Ave	405562	411548		507	500	1.5	20.0
1,3,5-Trinitrobenzene	Ave	423454	463460		547	500	9.4	20.0
2,6-Dinitrotoluene	Ave	277970	282262		508	500	1.5	20.0
2,4-Dinitrotoluene	Ave	554564	571064		515	500	3.0	20.0
Tetryl	Lin2		340546		544	500	8.9	20.0
2,4,6-Trinitrotoluene	Ave	399763	421604		527	500	5.5	20.0
PETN	Lin2		139356		5650	5000	13.1	20.0
1,2-Dinitrobenzene	Ave	258689	258086		499	500	-0.2	20.0

FORM VII  
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-190882-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: ICV 280-650851/19 Calibration Date: 04/25/2024 02:51  
 Instrument ID: CHHPLC\_G2\_LUNA Calib Start Date: 04/24/2024 21:28  
 GC Column: Luna-phenylhex ID: 4.60 (mm) Calib End Date: 04/25/2024 02:15  
 Lab File ID: 04240019.D

Analyte	RT	RT WINDOW	
		FROM	TO
HMX	6.69	6.56	6.86
Picric acid	8.58	8.46	8.76
RDX	8.92	8.79	9.09
Nitrobenzene	11.42	11.28	11.58
3,5-Dinitroaniline	14.19	14.04	14.34
1,3-Dinitrobenzene	14.48	14.33	14.63
Nitroglycerin	14.93	14.77	15.07
2-Nitrotoluene	15.51	15.36	15.66
4-Nitrotoluene	15.74	15.59	15.89
4-Amino-2,6-dinitrotoluene	16.24	16.10	16.40
3-Nitrotoluene	16.57	16.43	16.73
2-Amino-4,6-dinitrotoluene	17.05	16.91	17.21
1,3,5-Trinitrobenzene	17.26	17.12	17.42
2,6-Dinitrotoluene	18.36	18.22	18.52
2,4-Dinitrotoluene	18.81	18.67	18.97
Tetryl	22.03	21.88	22.18
2,4,6-Trinitrotoluene	22.88	22.73	23.03
PETN	24.03	23.88	24.18
1,2-Dinitrobenzene	12.35	12.20	12.50

Eurofins Denver  
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2\_LUNA\20240424-132624.b\04240019.D  
 Lims ID: ICV INT  
 Client ID:  
 Sample Type: ICV  
 Inject. Date: 25-Apr-2024 02:51:47 ALS Bottle#: 19 Worklist Smp#: 19  
 Injection Vol: 100.0 ul Dil. Factor: 1.0000  
 Sample Info: ICV INT  
 Operator ID: JZ/JG Instrument ID: CHHPLC\_G2\_LUNA  
 Sublist:

Method: \\chromfs\Denver\ChromData\G2\_LUNA\20240424-132624.b\G2\_8330\_Luna.m  
 Limit Group: GCSV - 8330  
 Last Update: 25-Apr-2024 14:35:18 Calib Date: 25-Apr-2024 02:15:46  
 Integrator: Falcon  
 Quant Method: External Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Denver\ChromData\G2\_LUNA\20240424-132624.b\04240018.D  
 Column 1 : Luna-Phenyl hexyl ( 4.60 mm) Det: LC DAD1A, 254 nm  
 Process Host: CTX1684

First Level Reviewer: LV5D Date: 25-Apr-2024 13:30:09

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
6 HMX	1	6.690	6.705	-0.015	83402	0.5000	0.4791	
5 2,4,6-Trinitrophenol	1	8.583	8.612	-0.029	81048	0.5000	0.5353	
8 RDX	1	8.923	8.938	-0.015	106344	0.5000	0.5145	
9 Nitrobenzene	1	11.423	11.425	-0.002	205098	0.5000	0.5367	
\$ 10 1,2-Dinitrobenzene	1	12.350	12.345	0.005	129043	0.5000	0.4988	
11 3,5-Dinitroaniline	1	14.190	14.185	0.005	233542	0.5000	0.5401	
12 1,3-Dinitrobenzene	1	14.477	14.478	-0.001	311409	0.5000	0.5283	
13 Nitroglycerin	2	14.930	14.918	0.012	645227	5.00	5.40	M
14 o-Nitrotoluene	1	15.510	15.505	0.005	127803	0.5000	0.5225	
15 p-Nitrotoluene	1	15.737	15.738	-0.001	118881	0.5000	0.5418	
16 4-Amino-2,6-dinitrotoluene	1	16.243	16.245	-0.002	149332	0.5000	0.5513	
17 m-Nitrotoluene	1	16.570	16.578	-0.008	147011	0.5000	0.5299	
18 2-Amino-4,6-dinitrotoluene	1	17.050	17.058	-0.008	205774	0.5000	0.5074	
19 1,3,5-Trinitrobenzene	1	17.263	17.272	-0.009	231730	0.5000	0.5472	
20 2,6-Dinitrotoluene	1	18.357	18.365	-0.008	141131	0.5000	0.5077	
21 2,4-Dinitrotoluene	1	18.810	18.818	-0.008	285532	0.5000	0.5149	
22 Tetryl	1	22.030	22.025	0.005	170273	0.5000	0.5444	
23 2,4,6-Trinitrotoluene	1	22.883	22.878	0.005	210802	0.5000	0.5273	
24 PETN	2	24.030	24.032	-0.002	696781	5.00	5.65	
25 Ammonium Picrate	1		0.000			ND	ND	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

8330Surrogate\_00154

Amount Added: 50.00

Units: uL

8330 LCS\_00134

Amount Added: 50.00

Units: uL

Eurofins Denver

Data File: \\chromfs\denver\chromdata\g2\_luna\20240424-132624.b\04240019.d

Injection Date: 25-Apr-2024 02:51:47

Instrument ID: CHHPLC\_G2\_LUNA

Operator ID: JZ/JG

Lims ID: ICV INT

Worklist Smp#: 19

Client ID:

Injection Vol: 100.0 ul

Dil. Factor: 1.0000

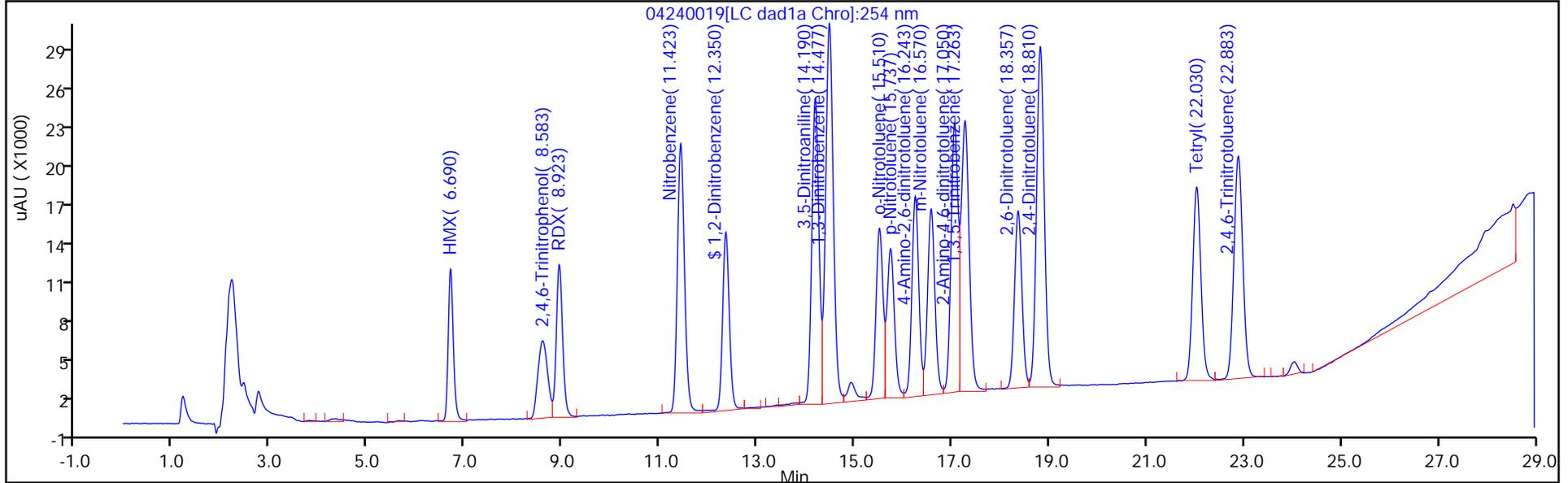
ALS Bottle#: 19

Method: G2\_8330\_Luna

Limit Group: GCSV - 8330

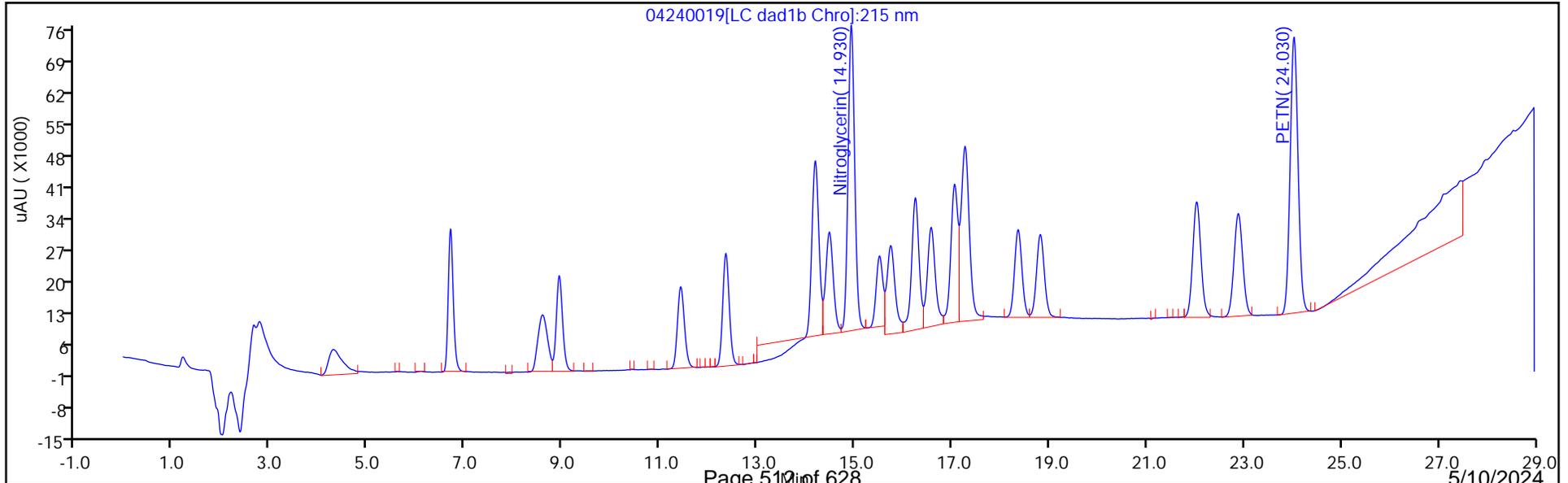
Column: Luna-Phenyl hexyl ( 4.60 mm)

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



Column: Luna-Phenyl hexyl ( 4.60 mm)

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



Eurofins Denver

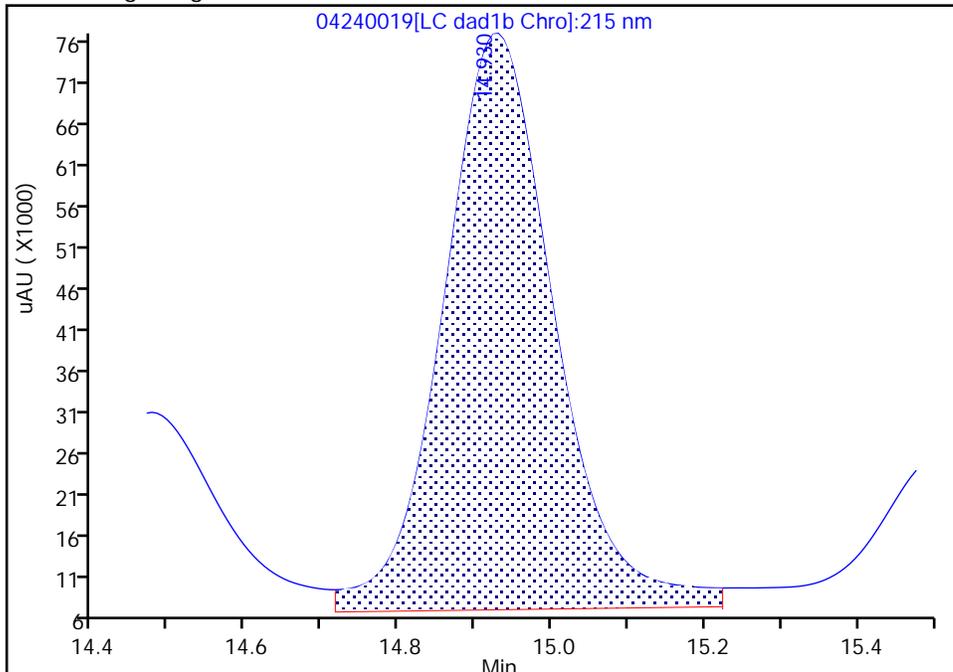
Data File: \\chromfs\denver\chromdata\g2\_luna\20240424-132624.b\04240019.d  
Injection Date: 25-Apr-2024 02:51:47 Instrument ID: CHHPLC\_G2\_LUNA  
Lims ID: ICV INT  
Client ID:  
Operator ID: JZ/JG ALS Bottle#: 19 Worklist Smp#: 19  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: G2\_8330\_Luna Limit Group: GCSV - 8330  
Column: Luna-Phenyl hexyl ( 4.60 mm) Detector: LC DAD1B, 215 nm

13 Nitroglycerin, CAS: 55-63-0

Signal: 1

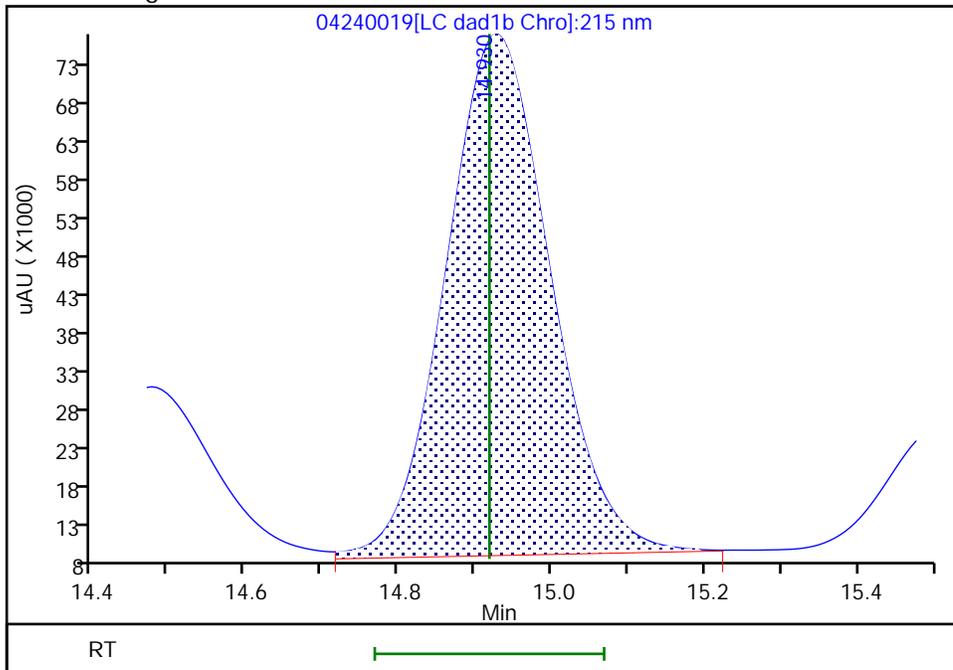
RT: 14.93  
Area: 708140  
Amount: 5.925621  
Amount Units: ug/ml

Processing Integration Results



RT: 14.93  
Area: 645227  
Amount: 5.399174  
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 25-Apr-2024 13:30:07 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

FORM VII  
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-190882-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCV 280-652628/7 Calibration Date: 05/08/2024 20:10  
 Instrument ID: CHHPLC\_G2\_LUNA Calib Start Date: 04/24/2024 21:28  
 GC Column: Luna-phenylhex ID: 4.60 (mm) Calib End Date: 04/25/2024 02:15  
 Lab File ID: 05080007.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
HMX	Ave	174076	179144		257	250	2.9	20.0
Picric acid	Ave	151397	120308		199	250	-20.5*	20.0
RDX	Lin2		243676		294	250	17.4	20.0
Nitrobenzene	Ave	382120	393336		257	250	2.9	20.0
3,5-Dinitroaniline	Lin2		447872		258	250	3.1	20.0
1,3-Dinitrobenzene	Ave	589418	595208		252	250	1.0	20.0
Nitroglycerin	Ave	119505	126042		2640	2500	5.5	20.0
2-Nitrotoluene	Ave	244594	251904		257	250	3.0	20.0
4-Nitrotoluene	Lin2		226752		256	250	2.5	20.0
4-Amino-2,6-dinitrotoluene	Lin2		282512		259	250	3.7	20.0
3-Nitrotoluene	Lin2		287684		257	250	3.0	20.0
2-Amino-4,6-dinitrotoluene	Ave	405562	399828		246	250	-1.4	20.0
1,3,5-Trinitrobenzene	Ave	423454	420748		248	250	-0.6	20.0
2,6-Dinitrotoluene	Ave	277970	283764		255	250	2.1	20.0
2,4-Dinitrotoluene	Ave	554564	558976		252	250	0.8	20.0
Tetryl	Lin2		316816		252	250	1.0	20.0
2,4,6-Trinitrotoluene	Ave	399763	409952		256	250	2.5	20.0
PETN	Lin2		126381		2570	2500	2.9	20.0
1,2-Dinitrobenzene	Ave	258689	263916		255	250	2.0	20.0

FORM VII  
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-190882-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCV 280-652628/7 Calibration Date: 05/08/2024 20:10  
 Instrument ID: CHHPLC\_G2\_LUNA Calib Start Date: 04/24/2024 21:28  
 GC Column: Luna-phenylhex ID: 4.60 (mm) Calib End Date: 04/25/2024 02:15  
 Lab File ID: 05080007.D

Analyte	RT	RT WINDOW	
		FROM	TO
HMX	6.67	6.52	6.82
Picric acid	8.72	8.57	8.87
RDX	8.89	8.74	9.04
Nitrobenzene	11.38	11.23	11.53
3,5-Dinitroaniline	14.10	13.95	14.25
1,3-Dinitrobenzene	14.40	14.25	14.55
Nitroglycerin	14.83	14.68	14.98
2-Nitrotoluene	15.41	15.26	15.56
4-Nitrotoluene	15.63	15.48	15.78
4-Amino-2,6-dinitrotoluene	16.13	15.98	16.28
3-Nitrotoluene	16.47	16.32	16.62
2-Amino-4,6-dinitrotoluene	16.93	16.78	17.08
1,3,5-Trinitrobenzene	17.17	17.02	17.32
2,6-Dinitrotoluene	18.23	18.08	18.38
2,4-Dinitrotoluene	18.68	18.53	18.83
Tetryl	21.83	21.68	21.98
2,4,6-Trinitrotoluene	22.69	22.54	22.84
PETN	23.81	23.66	23.96
1,2-Dinitrobenzene	12.29	12.14	12.44

Eurofins Denver  
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2\_LUNA\20240508-133164.b\05080007.D  
 Lims ID: CCV  
 Client ID:  
 Sample Type: CCV  
 Inject. Date: 08-May-2024 20:10:58 ALS Bottle#: 7 Worklist Smp#: 7  
 Injection Vol: 100.0 ul Dil. Factor: 1.0000  
 Sample Info: CCV  
 Operator ID: JZ Instrument ID: CHHPLC\_G2\_LUNA  
 Sublist: chrom-G2\_8330\_Luna\*sub16  
 Method: \\chromfs\Denver\ChromData\G2\_LUNA\20240508-133164.b\G2\_8330\_Luna.m  
 Limit Group: GCSV - 8330  
 Last Update: 09-May-2024 13:26:10 Calib Date: 25-Apr-2024 07:39:21  
 Integrator: Falcon  
 Quant Method: External Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Denver\ChromData\G2\_LUNA\20240424-132624.b\04240027.D  
 Column 1 : Luna-Phenyl hexyl ( 4.60 mm) Det: LC DAD1A, 254 nm  
 Process Host: CTX1670

First Level Reviewer: LV5D Date: 08-May-2024 20:47:44

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
6 HMX	1	6.672	6.672	0.000	44786	0.2500	0.2573	
5 2,4,6-Trinitrophenol	1	8.718	8.718	0.000	30077	0.2500	0.1987	M
8 RDX	1	8.885	8.885	0.000	60919	0.2500	0.2936	M
9 Nitrobenzene	1	11.378	11.378	0.000	98334	0.2500	0.2573	M
\$ 10 1,2-Dinitrobenzene	1	12.285	12.285	0.000	65979	0.2500	0.2551	M
11 3,5-Dinitroaniline	1	14.098	14.098	0.000	111968	0.2500	0.2578	M
12 1,3-Dinitrobenzene	1	14.398	14.398	0.000	148802	0.2500	0.2525	M
13 Nitroglycerin	2	14.832	14.832	0.000	315106	2.50	2.64	M
14 o-Nitrotoluene	1	15.405	15.405	0.000	62976	0.2500	0.2575	M
15 p-Nitrotoluene	1	15.632	15.632	0.000	56688	0.2500	0.2562	M
16 4-Amino-2,6-dinitrotoluene	1	16.125	16.125	0.000	70628	0.2500	0.2593	M
17 m-Nitrotoluene	1	16.465	16.465	0.000	71921	0.2500	0.2575	M
18 2-Amino-4,6-dinitrotoluene	1	16.932	16.932	0.000	99957	0.2500	0.2465	M
19 1,3,5-Trinitrobenzene	1	17.172	17.172	0.000	105187	0.2500	0.2484	M
20 2,6-Dinitrotoluene	1	18.225	18.225	0.000	70941	0.2500	0.2552	M
21 2,4-Dinitrotoluene	1	18.678	18.678	0.000	139744	0.2500	0.2520	M
22 Tetryl	1	21.825	21.825	0.000	79204	0.2500	0.2524	M
23 2,4,6-Trinitrotoluene	1	22.685	22.685	0.000	102488	0.2500	0.2564	M
24 PETN	2	23.805	23.805	0.000	315952	2.50	2.57	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

8330IntermStk\_00080

Amount Added: 25.00

Units: uL

Eurofins Denver

Data File: \\chromfs\denver\chromdata\g2\_luna\20240508-133164.b\05080007.d

Injection Date: 08-May-2024 20:10:58

Instrument ID: CHHPLC\_G2\_LUNA

Operator ID: JZ

Lims ID: CCV

Worklist Smp#: 7

Client ID:

Injection Vol: 100.0 ul

Dil. Factor: 1.0000

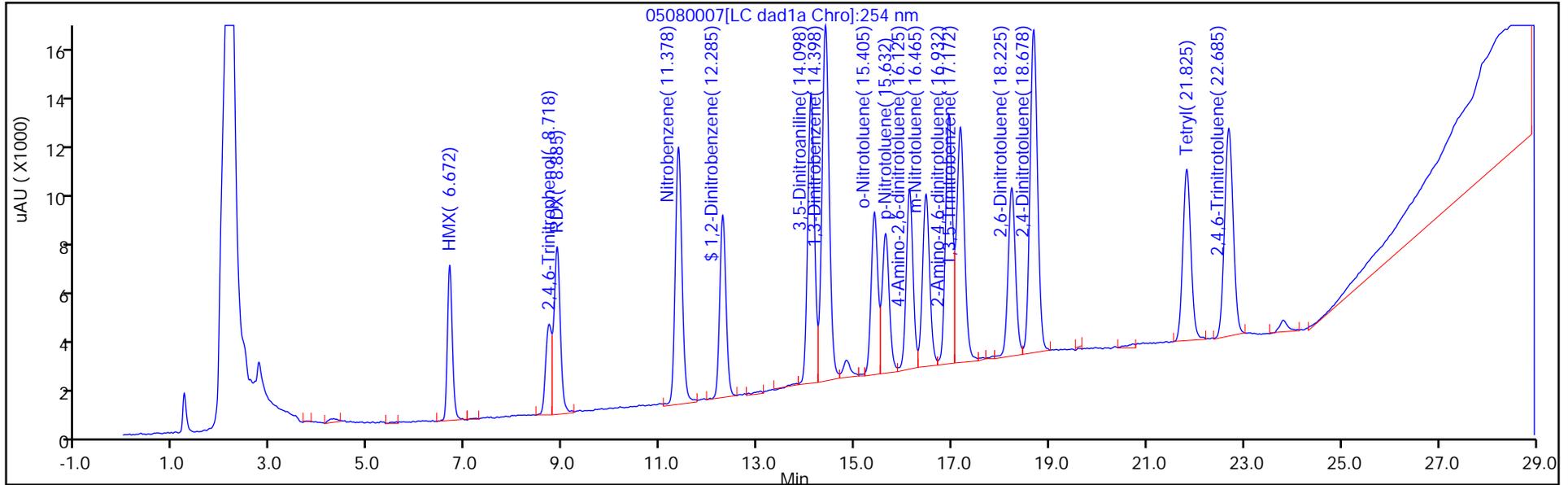
ALS Bottle#: 7

Method: G2\_8330\_Luna

Limit Group: GCSV - 8330

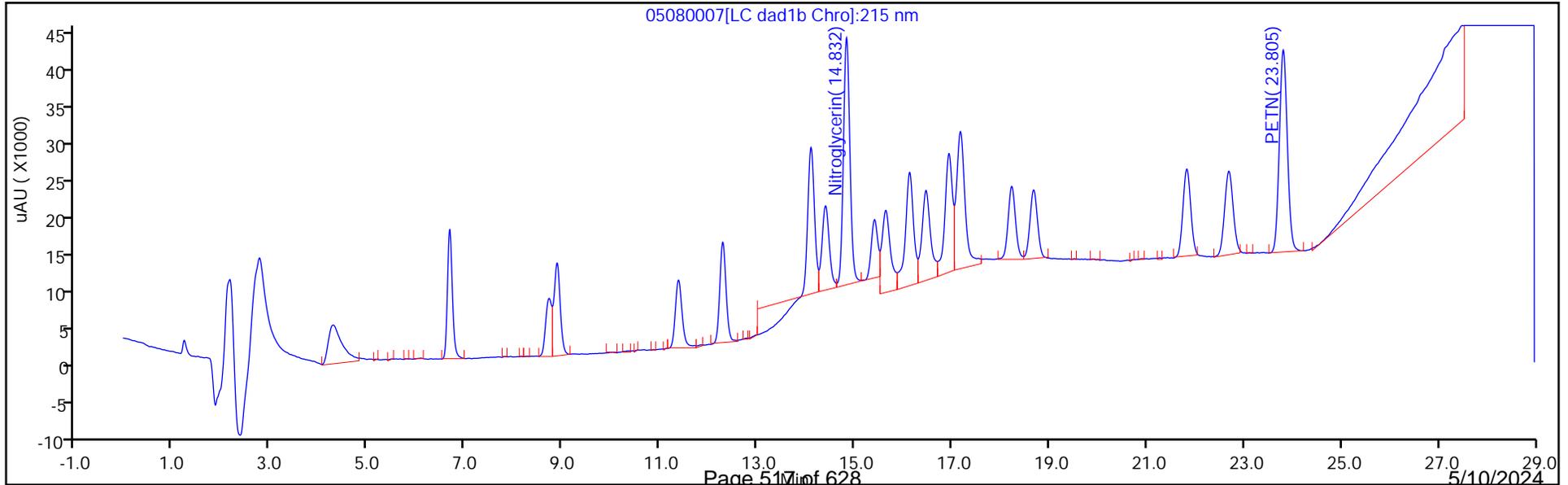
Column: Luna-Phenyl hexyl ( 4.60 mm)

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



Column: Luna-Phenyl hexyl ( 4.60 mm)

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



Eurofins Denver

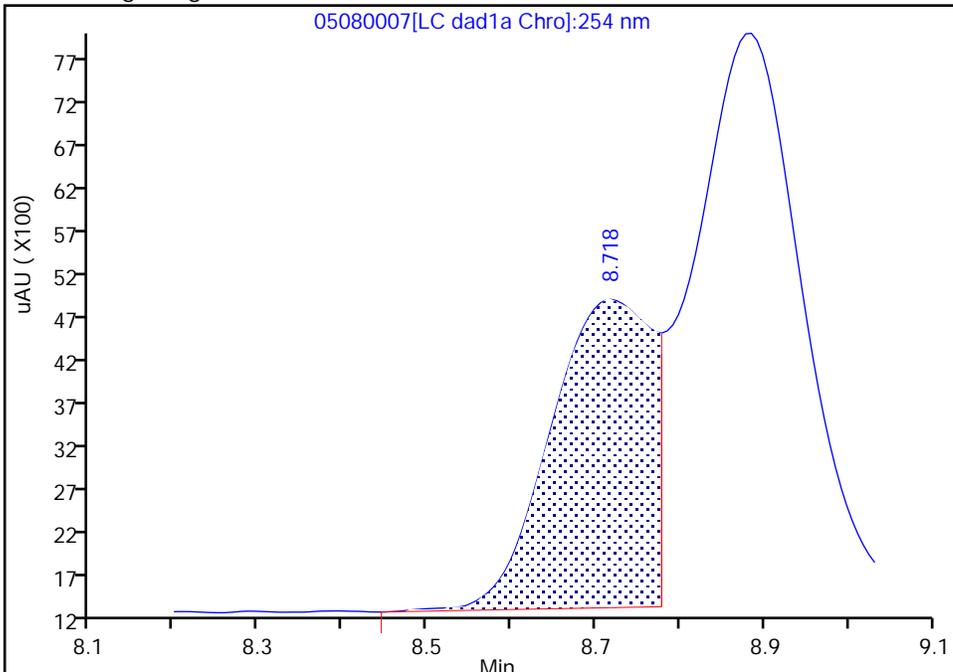
Data File: \\chromfs\denver\chromdata\g2\_luna\20240508-133164.b\05080007.d  
Injection Date: 08-May-2024 20:10:58 Instrument ID: CHHPLC\_G2\_LUNA  
Lims ID: CCV  
Client ID:  
Operator ID: JZ ALS Bottle#: 7 Worklist Smp#: 7  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: G2\_8330\_Luna Limit Group: GCSV - 8330  
Column: Luna-Phenyl hexyl ( 4.60 mm) Detector: LC DAD1A, 254 nm

5 2,4,6-Trinitrophenol, CAS: 88-89-1

Signal: 1

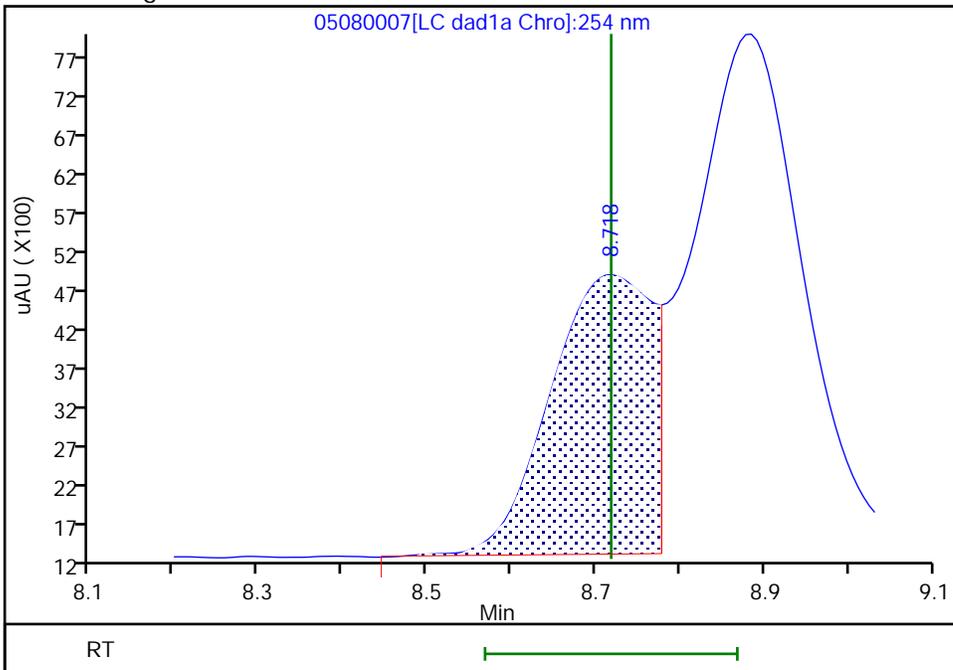
RT: 8.72  
Area: 30107  
Amount: 0.198861  
Amount Units: ug/ml

Processing Integration Results



RT: 8.72  
Area: 30077  
Amount: 0.198663  
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 08-May-2024 20:47:40 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline Smoothing

Eurofins Denver

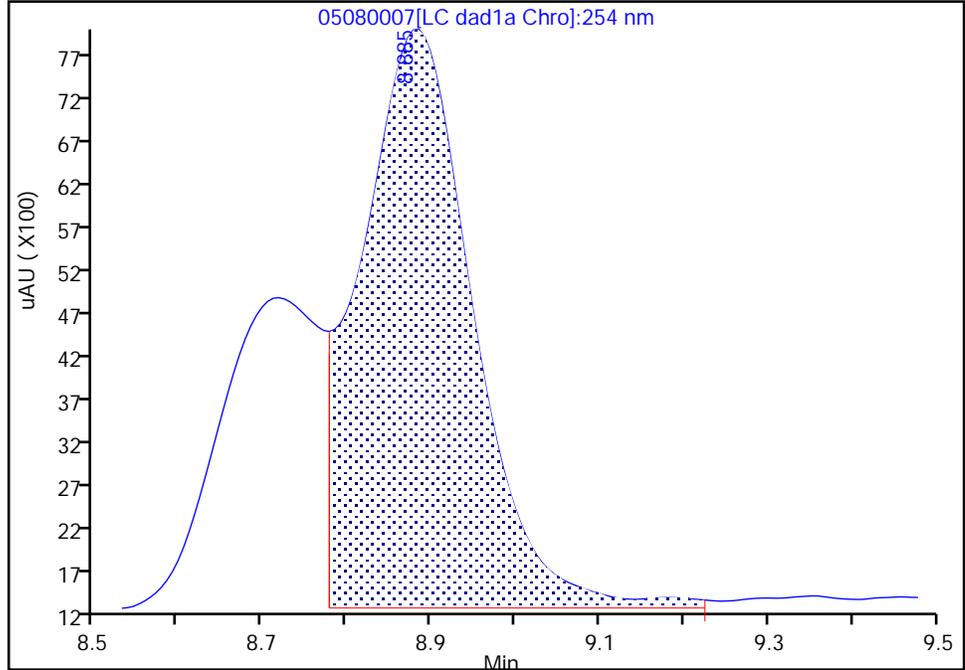
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Injection Date: 08-May-2024 20:10:58 Instrument ID: CHHPLC\_G2\_LUNA  
Lims ID: CCV  
Client ID:  
Operator ID: JZ ALS Bottle#: 7 Worklist Smp#: 7  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: G2\_8330\_Luna Limit Group: GCSV - 8330  
Column: Luna-Phenyl hexyl ( 4.60 mm) Detector: LC DAD1A, 254 nm

8 RDX, CAS: 121-82-4

Signal: 1

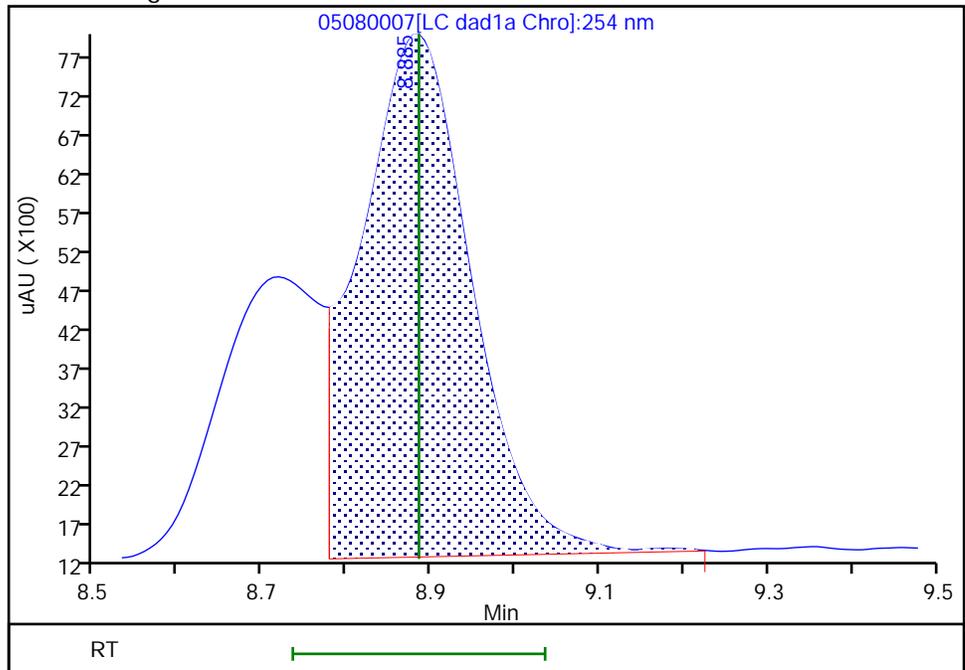
RT: 8.89  
Area: 61870  
Amount: 0.298226  
Amount Units: ug/ml

Processing Integration Results



RT: 8.89  
Area: 60919  
Amount: 0.293602  
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 08-May-2024 20:47:40 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline Smoothing

Eurofins Denver

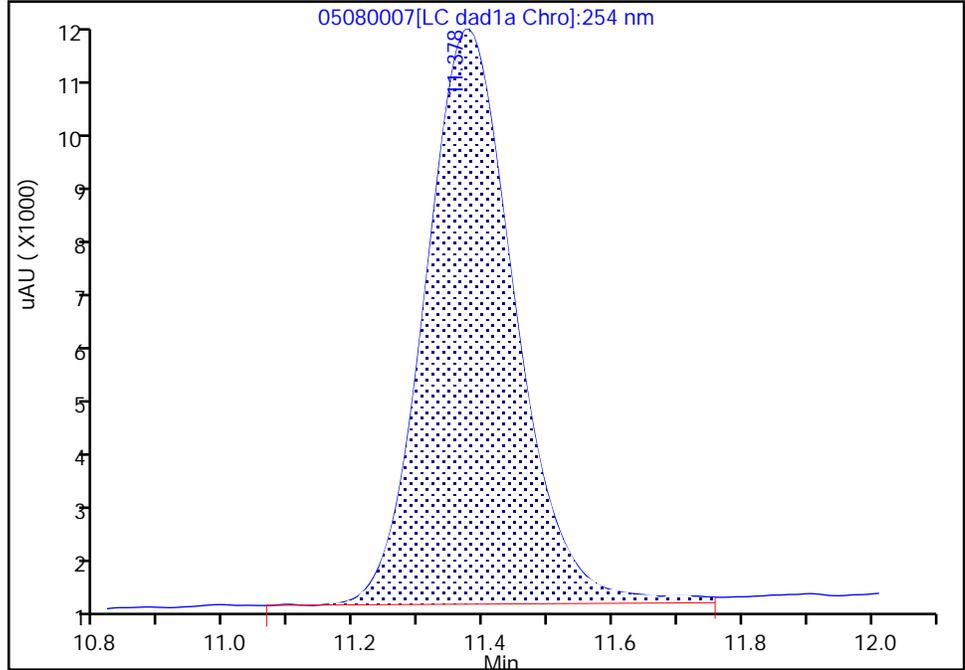
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Lims ID: CCV  
Client ID:  
Operator ID: JZ ALS Bottle#: 7 Worklist Smp#: 7  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: G2\_8330\_Luna Limit Group: GCSV - 8330  
Column: Luna-Phenyl hexyl ( 4.60 mm) Detector: LC DAD1A, 254 nm

9 Nitrobenzene, CAS: 98-95-3

Signal: 1

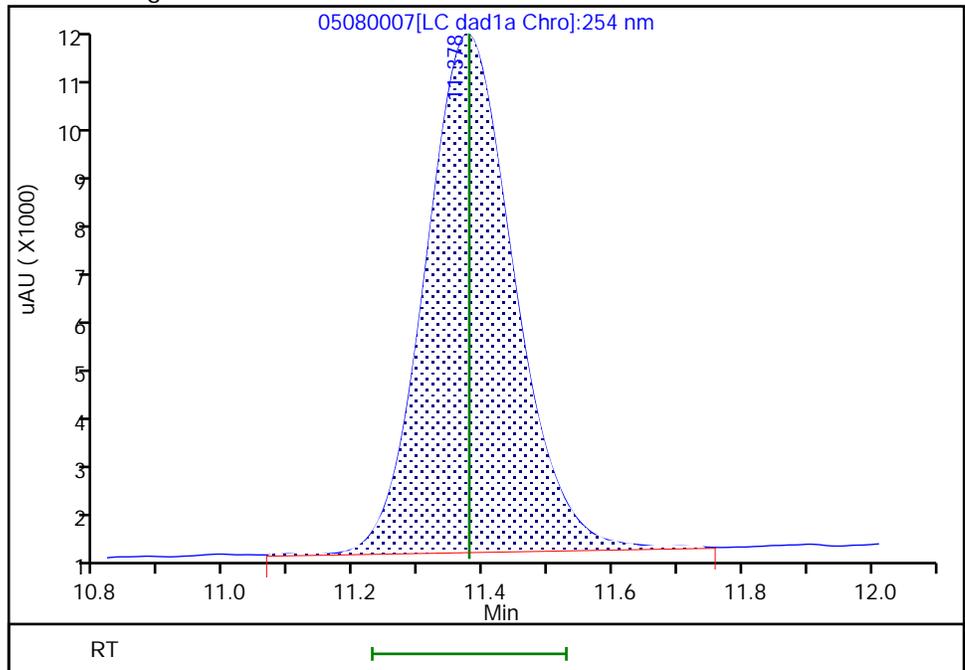
RT: 11.38  
Area: 99124  
Amount: 0.259405  
Amount Units: ug/ml

Processing Integration Results



RT: 11.38  
Area: 98334  
Amount: 0.257338  
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 08-May-2024 20:47:37 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline Smoothing

Eurofins Denver

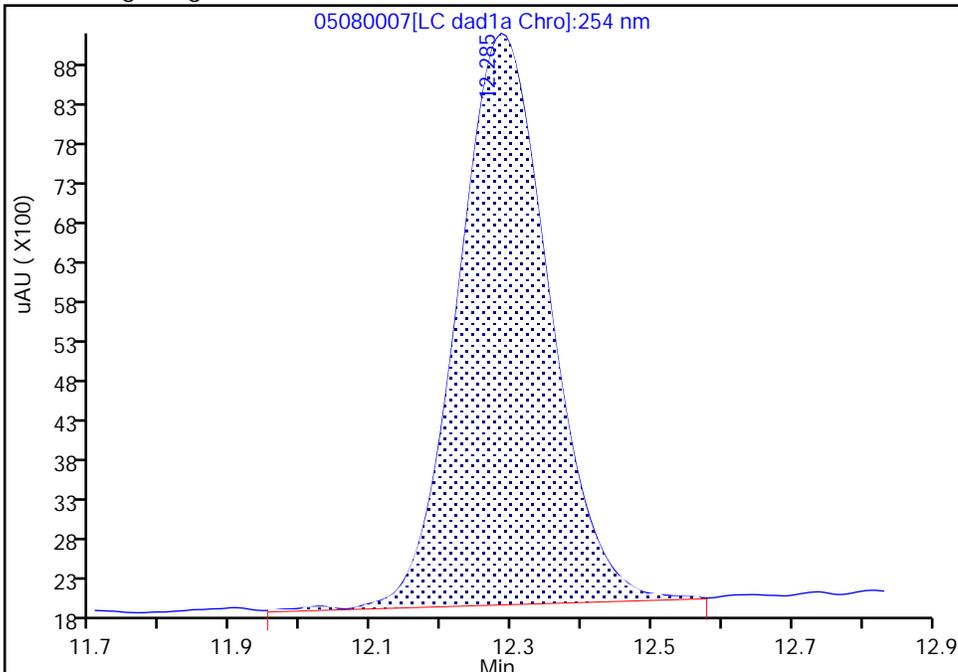
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Lims ID: CCV  
Client ID:  
Operator ID: JZ ALS Bottle#: 7 Worklist Smp#: 7  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: G2\_8330\_Luna Limit Group: GCSV - 8330  
Column: Luna-Phenyl hexyl ( 4.60 mm) Detector: LC DAD1A, 254 nm

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

Signal: 1

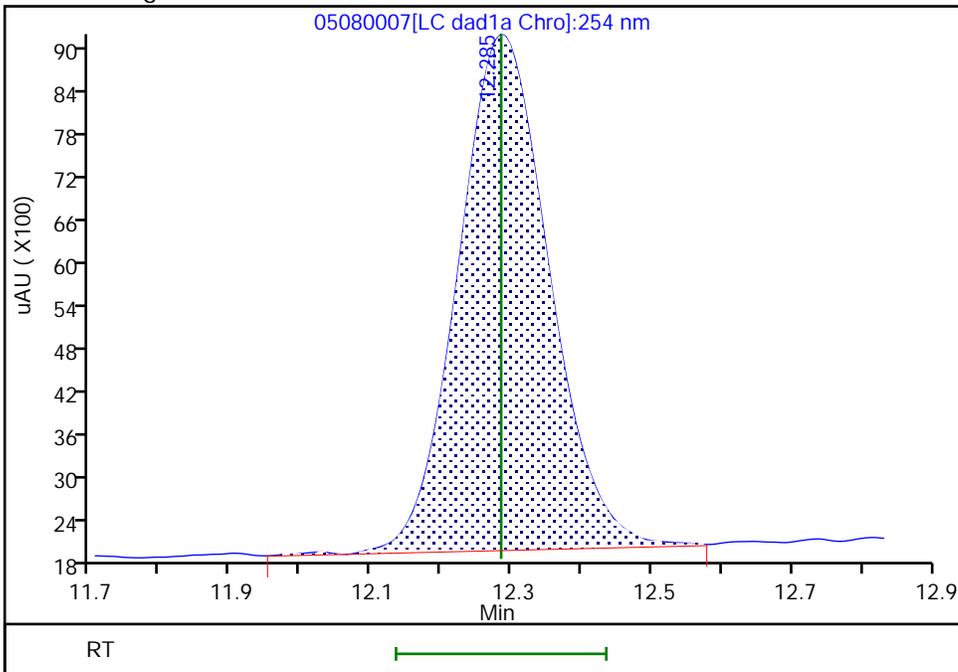
RT: 12.28  
Area: 66863  
Amount: 0.258469  
Amount Units: ug/ml

Processing Integration Results



RT: 12.28  
Area: 65979  
Amount: 0.255051  
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 08-May-2024 20:47:37 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline Smoothing

Eurofins Denver

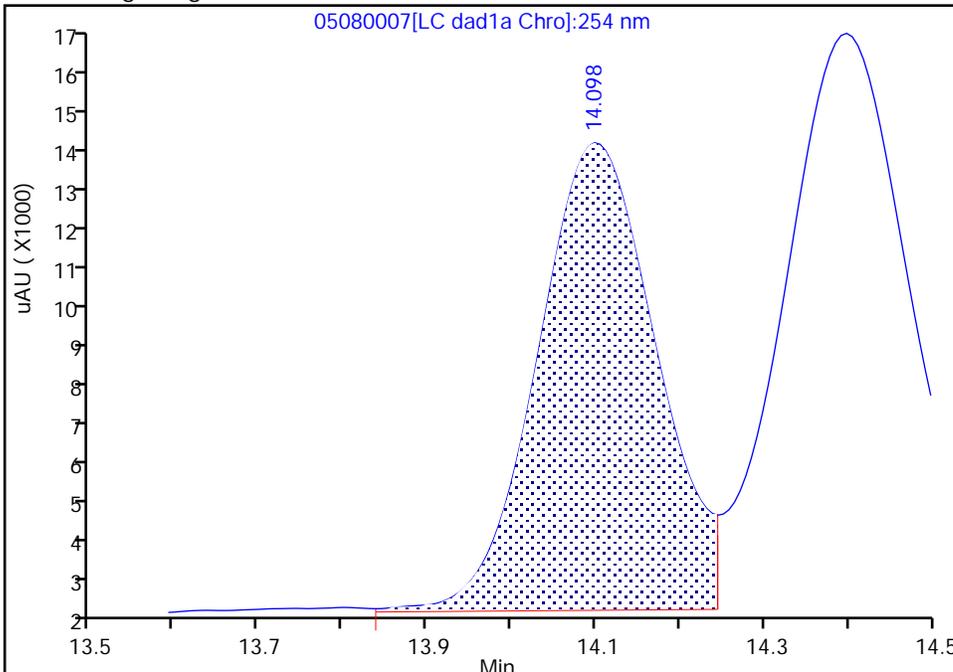
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Injection Date: 08-May-2024 20:10:58 Instrument ID: CHHPLC\_G2\_LUNA  
Lims ID: CCV  
Client ID:  
Operator ID: JZ ALS Bottle#: 7 Worklist Smp#: 7  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: G2\_8330\_Luna Limit Group: GCSV - 8330  
Column: Luna-Phenyl hexyl ( 4.60 mm) Detector: LC DAD1A, 254 nm

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

Signal: 1

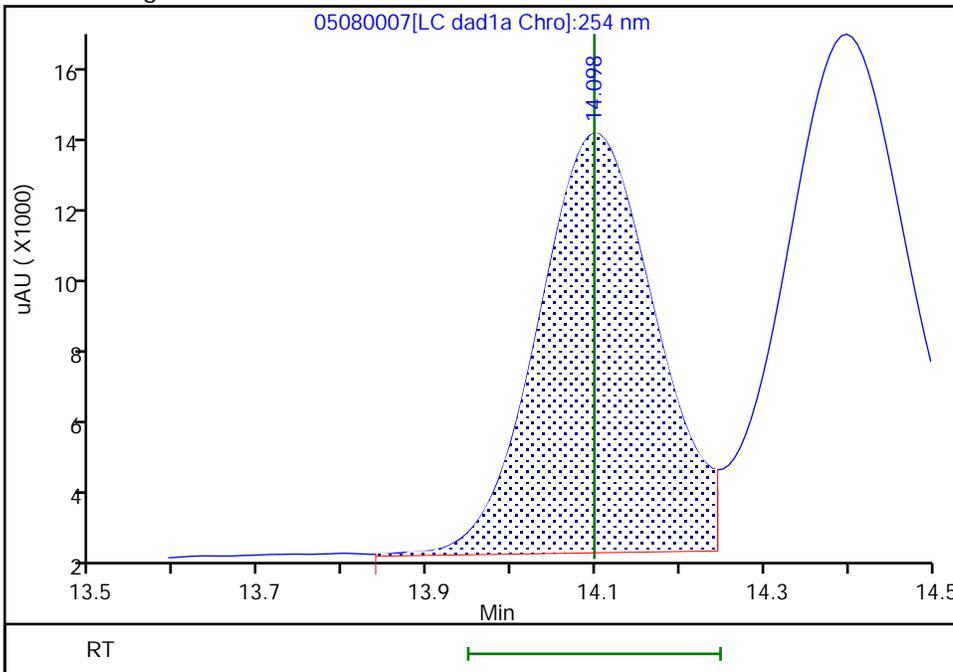
RT: 14.10  
Area: 114128  
Amount: 0.262833  
Amount Units: ug/ml

Processing Integration Results



RT: 14.10  
Area: 111968  
Amount: 0.257818  
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 08-May-2024 20:47:09 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline Smoothing

Eurofins Denver

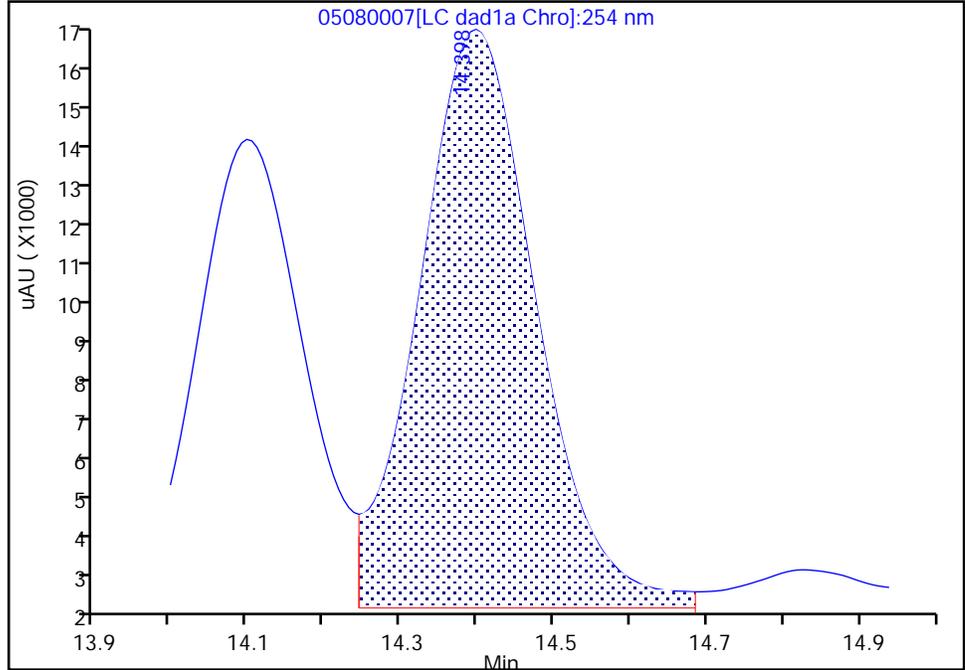
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Lims ID: CCV  
Client ID:  
Operator ID: JZ ALS Bottle#: 7 Worklist Smp#: 7  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: G2\_8330\_Luna Limit Group: GCSV - 8330  
Column: Luna-Phenyl hexyl ( 4.60 mm) Detector: LC DAD1A, 254 nm

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

Signal: 1

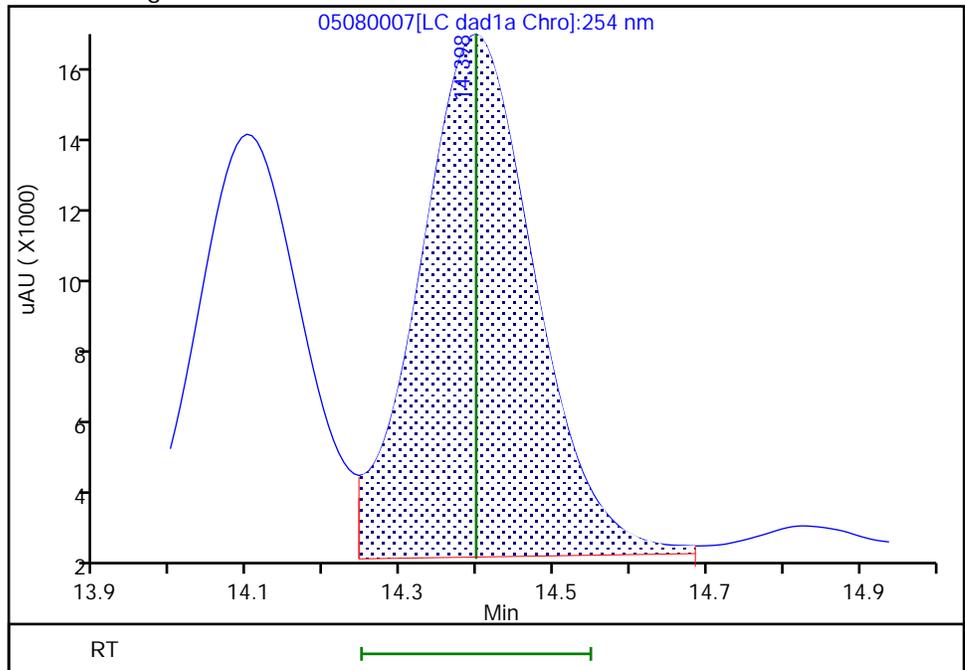
RT: 14.40  
Area: 152208  
Amount: 0.258234  
Amount Units: ug/ml

Processing Integration Results



RT: 14.40  
Area: 148802  
Amount: 0.252456  
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 08-May-2024 20:47:09 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline Smoothing

Eurofins Denver

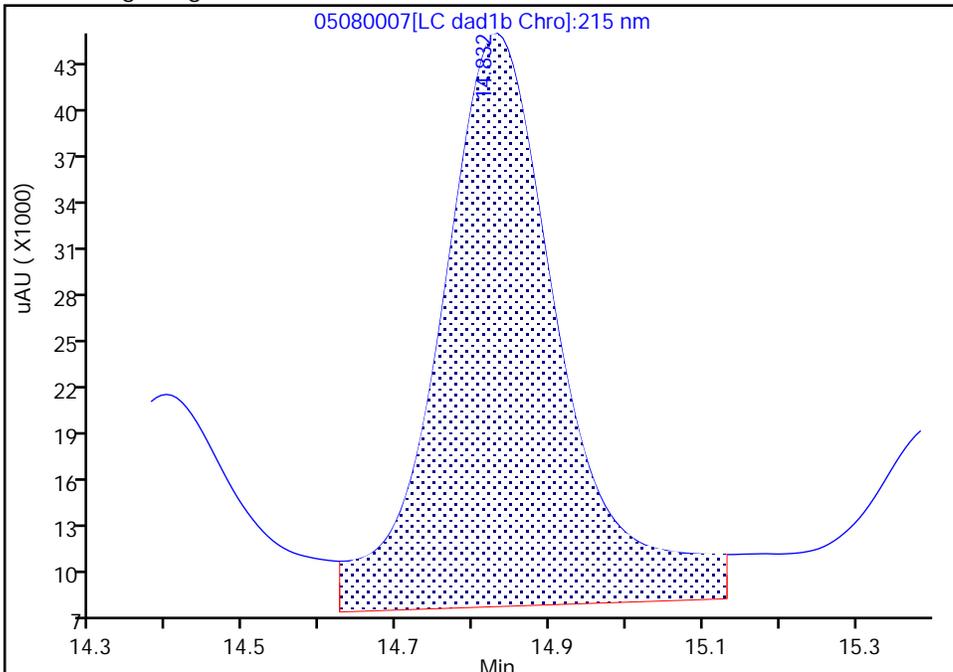
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Lims ID: CCV  
Client ID:  
Operator ID: JZ ALS Bottle#: 7 Worklist Smp#: 7  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: G2\_8330\_Luna Limit Group: GCSV - 8330  
Column: Luna-Phenyl hexyl ( 4.60 mm) Detector: LC DAD1B, 215 nm

13 Nitroglycerin, CAS: 55-63-0

Signal: 1

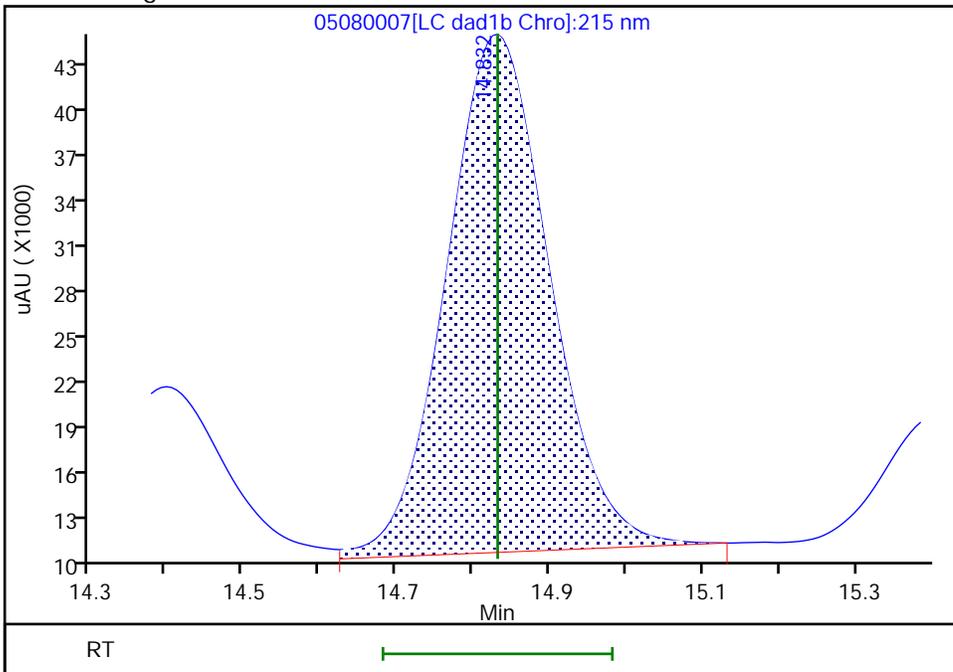
RT: 14.83  
Area: 397901  
Amount: 3.329583  
Amount Units: ug/ml

Processing Integration Results



RT: 14.83  
Area: 315106  
Amount: 2.636765  
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 08-May-2024 20:47:04 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline Smoothing

Eurofins Denver

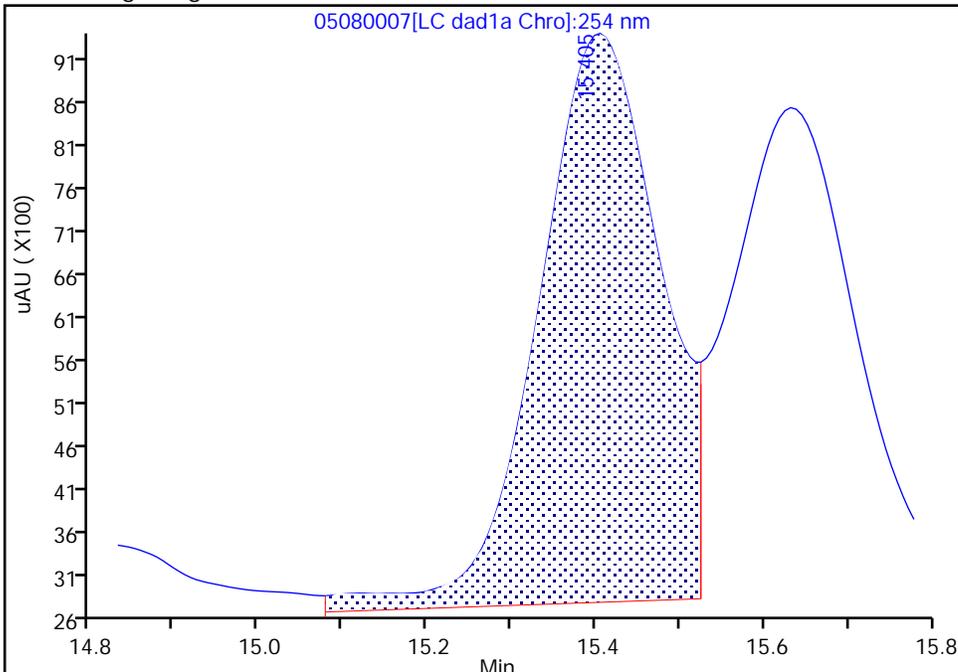
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Injection Date: 08-May-2024 20:10:58 Instrument ID: CHHPLC\_G2\_LUNA  
Lims ID: CCV  
Client ID:  
Operator ID: JZ ALS Bottle#: 7 Worklist Smp#: 7  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: G2\_8330\_Luna Limit Group: GCSV - 8330  
Column: Luna-Phenyl hexyl ( 4.60 mm) Detector: LC DAD1A, 254 nm

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

Signal: 1

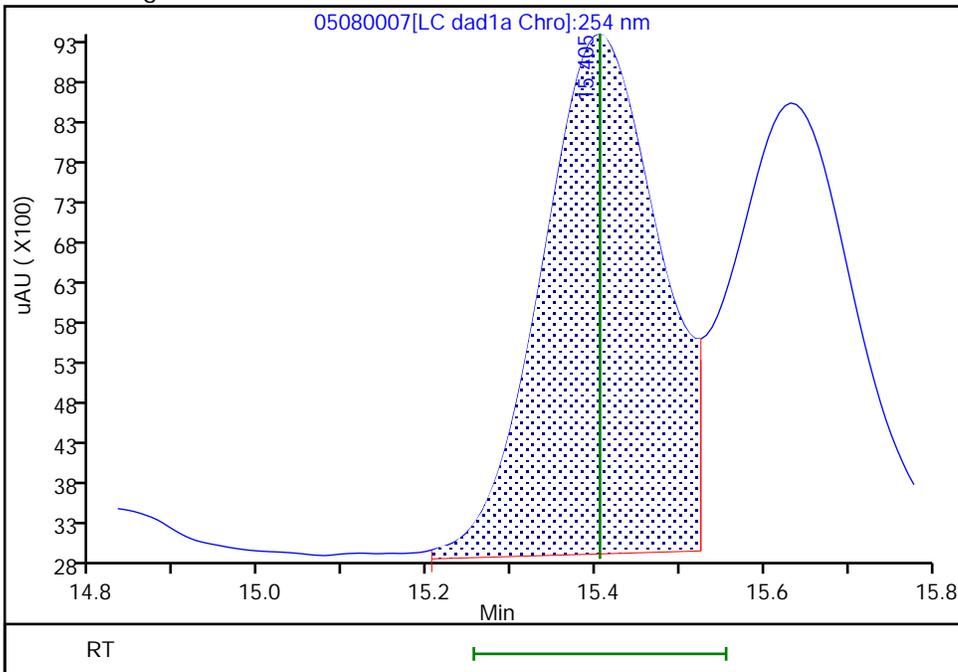
RT: 15.40  
Area: 66357  
Amount: 0.271294  
Amount Units: ug/ml

Processing Integration Results



RT: 15.40  
Area: 62976  
Amount: 0.257471  
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 08-May-2024 20:47:13 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Baseline Smoothing

Eurofins Denver

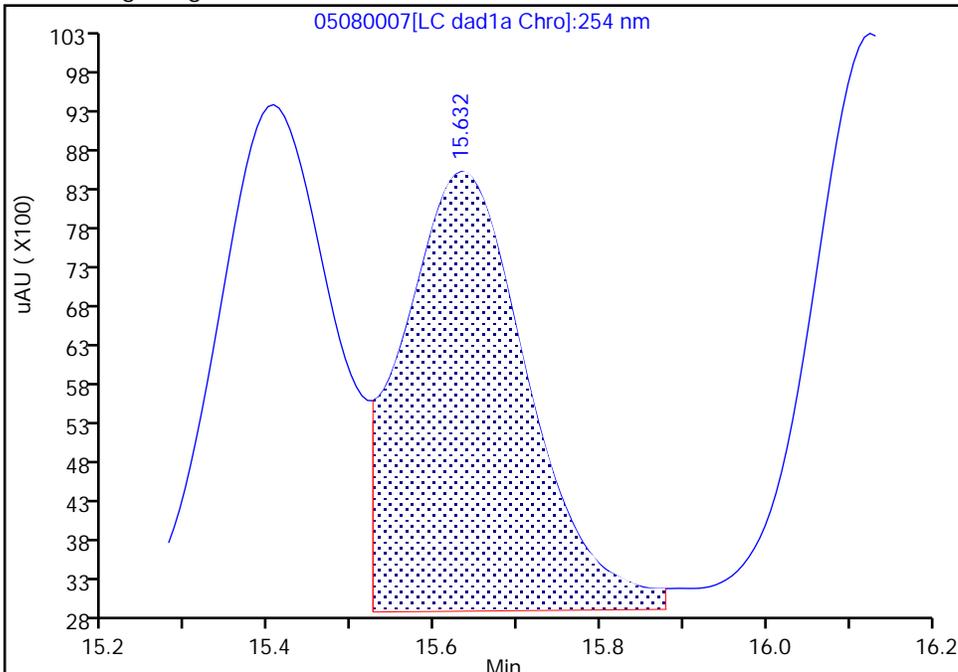
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Injection Date: 08-May-2024 20:10:58 Instrument ID: CHHPLC\_G2\_LUNA  
Lims ID: CCV  
Client ID:  
Operator ID: JZ ALS Bottle#: 7 Worklist Smp#: 7  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: G2\_8330\_Luna Limit Group: GCSV - 8330  
Column: Luna-Phenyl hexyl ( 4.60 mm) Detector: LC DAD1A, 254 nm

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

Signal: 1

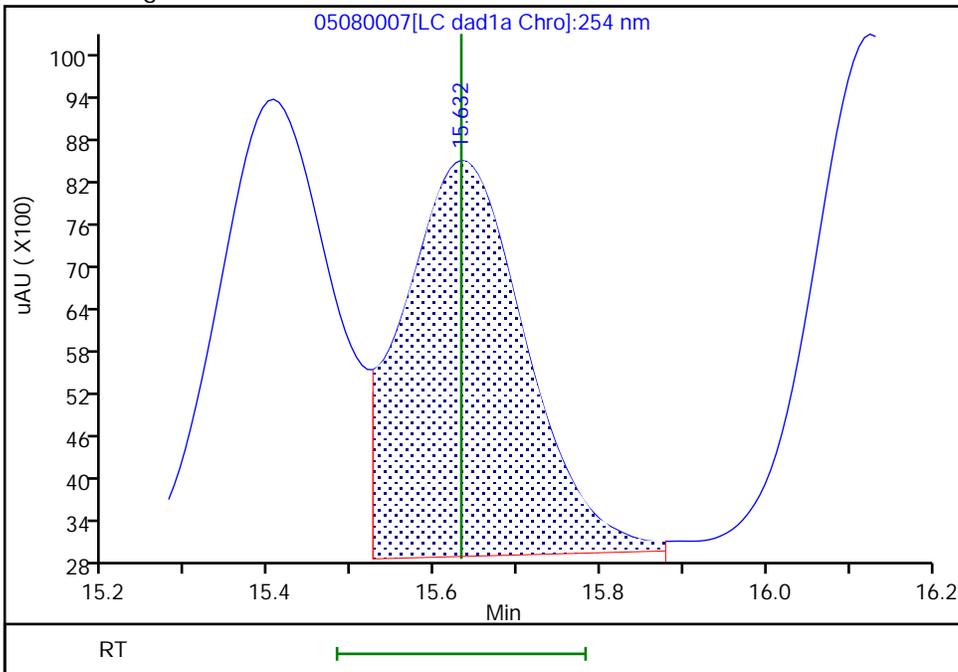
RT: 15.63  
Area: 58829  
Amount: 0.265988  
Amount Units: ug/ml

Processing Integration Results



RT: 15.63  
Area: 56688  
Amount: 0.256154  
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 08-May-2024 20:47:09 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline Smoothing

Eurofins Denver

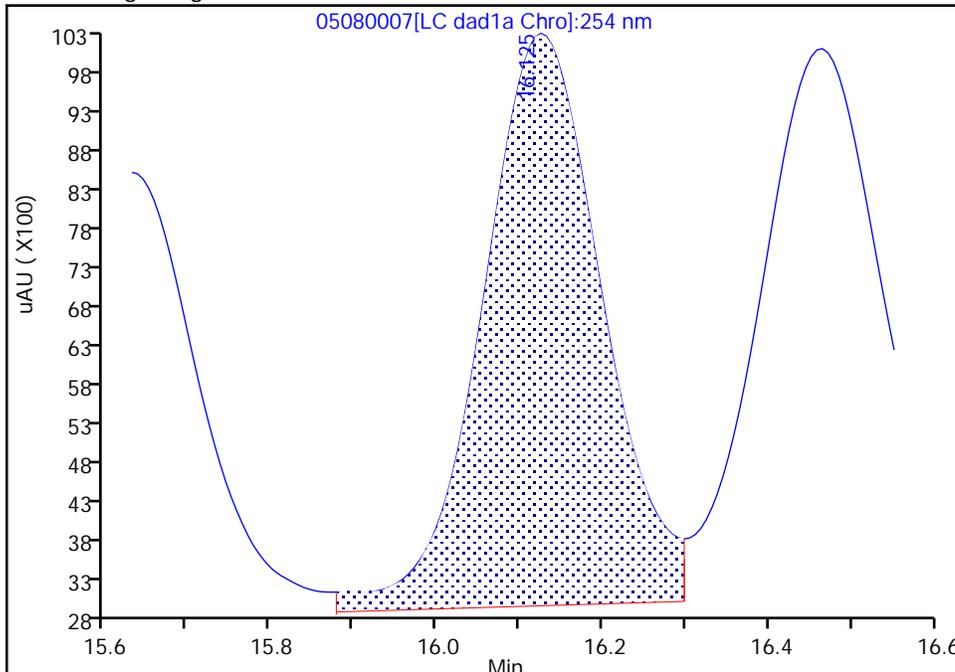
Data File: \\chromfs\denver\chromdata\g2\_luna\20240508-133164.b\05080007.d  
Injection Date: 08-May-2024 20:10:58 Instrument ID: CHHPLC\_G2\_LUNA  
Lims ID: CCV  
Client ID:  
Operator ID: JZ ALS Bottle#: 7 Worklist Smp#: 7  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: G2\_8330\_Luna Limit Group: GCSV - 8330  
Column: Luna-Phenyl hexyl ( 4.60 mm) Detector: LC DAD1A, 254 nm

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

Signal: 1

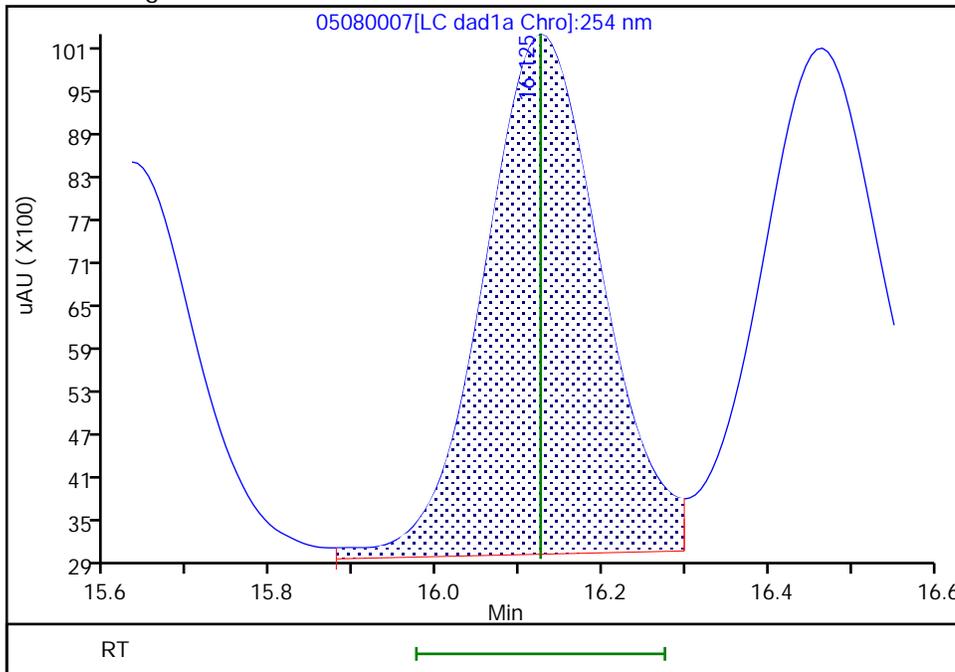
RT: 16.12  
Area: 73501  
Amount: 0.269965  
Amount Units: ug/ml

Processing Integration Results



RT: 16.12  
Area: 70628  
Amount: 0.259305  
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 08-May-2024 20:47:09 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline Smoothing

Eurofins Denver

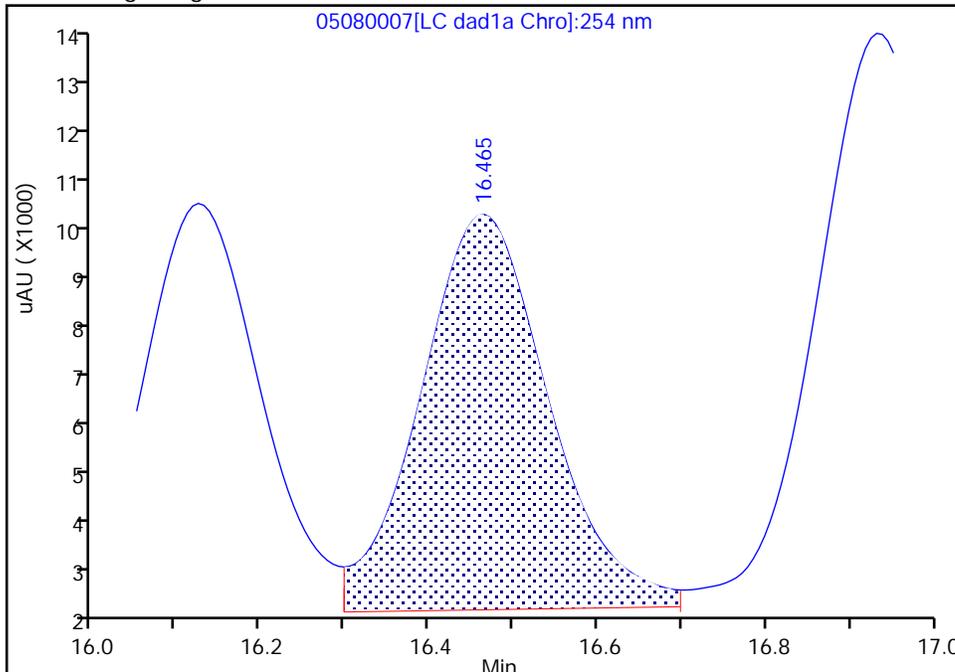
Data File: \\chromfs\denver\chromdata\g2\_luna\20240508-133164.b\05080007.d  
Injection Date: 08-May-2024 20:10:58 Instrument ID: CHHPLC\_G2\_LUNA  
Lims ID: CCV  
Client ID:  
Operator ID: JZ ALS Bottle#: 7 Worklist Smp#: 7  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: G2\_8330\_Luna Limit Group: GCSV - 8330  
Column: Luna-Phenyl hexyl ( 4.60 mm) Detector: LC DAD1A, 254 nm

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

Signal: 1

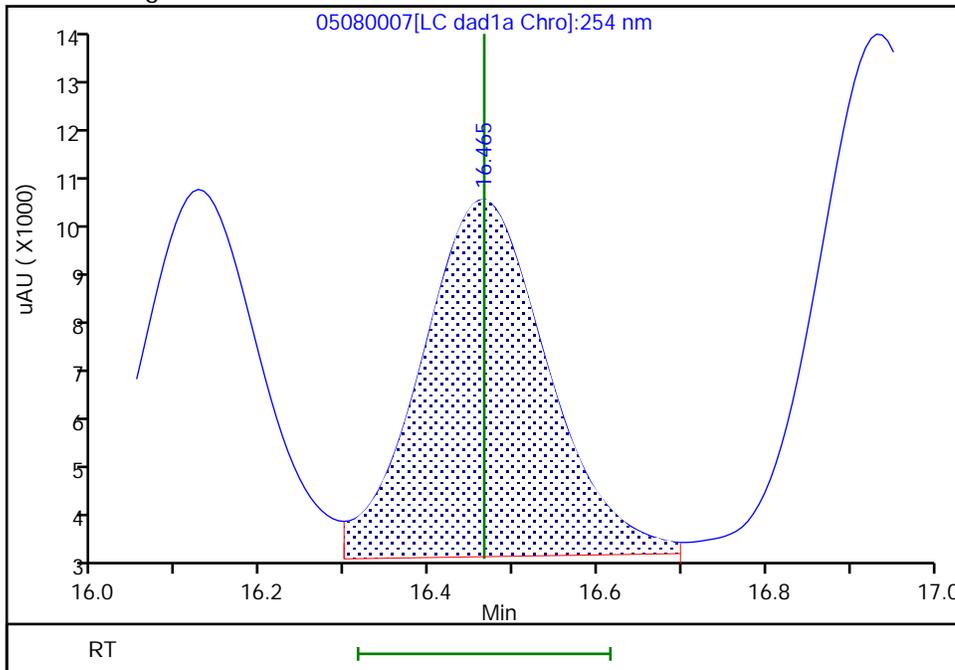
RT: 16.46  
Area: 74333  
Amount: 0.266210  
Amount Units: ug/ml

Processing Integration Results



RT: 16.46  
Area: 71921  
Amount: 0.257457  
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 08-May-2024 20:47:09 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline Smoothing

Eurofins Denver

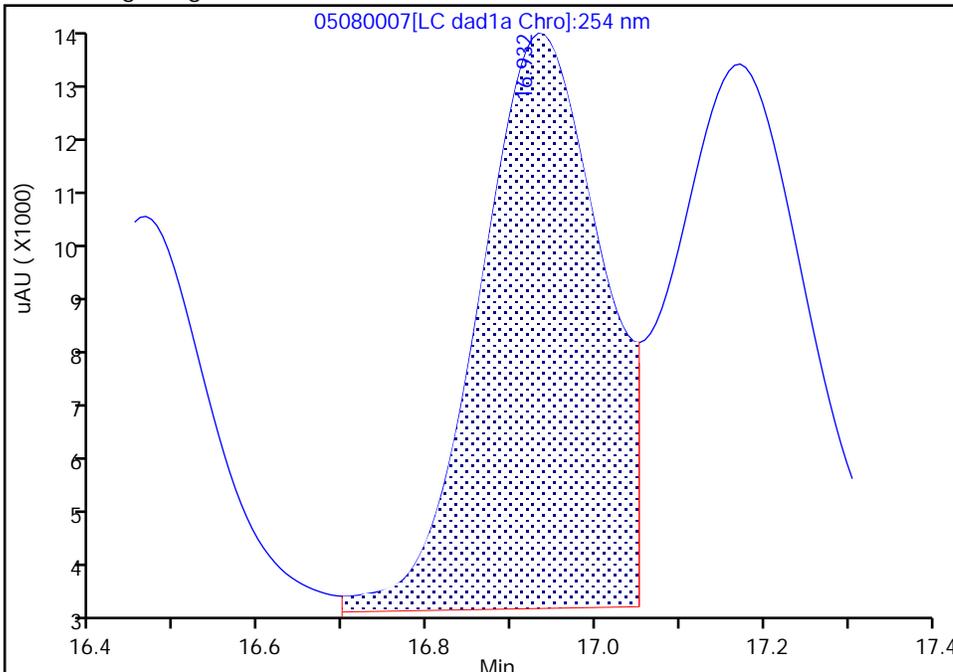
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Injection Date: 08-May-2024 20:10:58 Instrument ID: CHHPLC\_G2\_LUNA  
Lims ID: CCV  
Client ID:  
Operator ID: JZ ALS Bottle#: 7 Worklist Smp#: 7  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: G2\_8330\_Luna Limit Group: GCSV - 8330  
Column: Luna-Phenyl hexyl ( 4.60 mm) Detector: LC DAD1A, 254 nm

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

Signal: 1

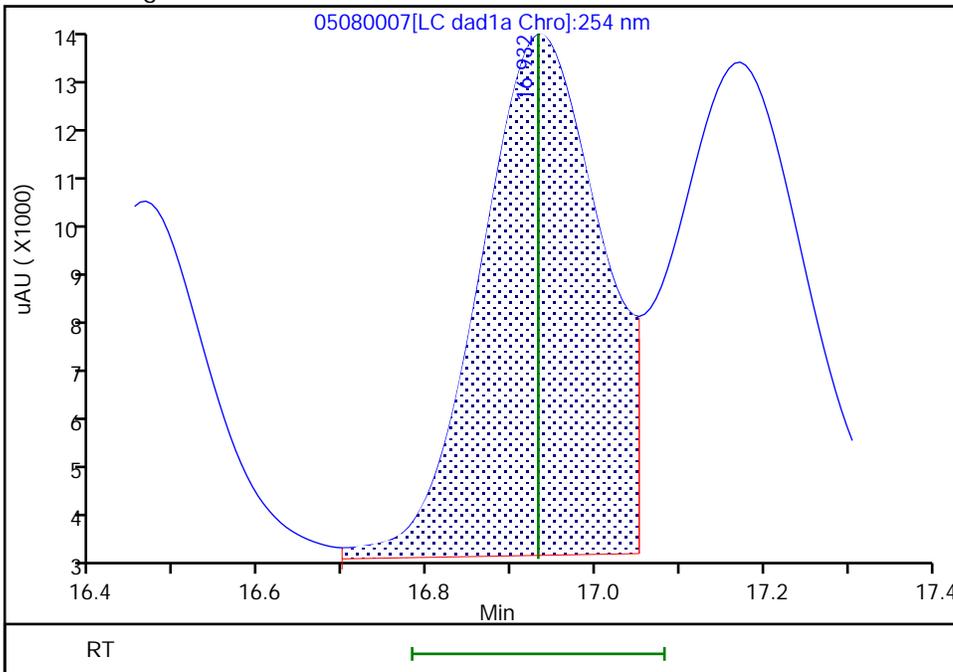
RT: 16.93  
Area: 101790  
Amount: 0.250985  
Amount Units: ug/ml

Processing Integration Results



RT: 16.93  
Area: 99957  
Amount: 0.246465  
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 08-May-2024 20:47:09 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline Smoothing

Eurofins Denver

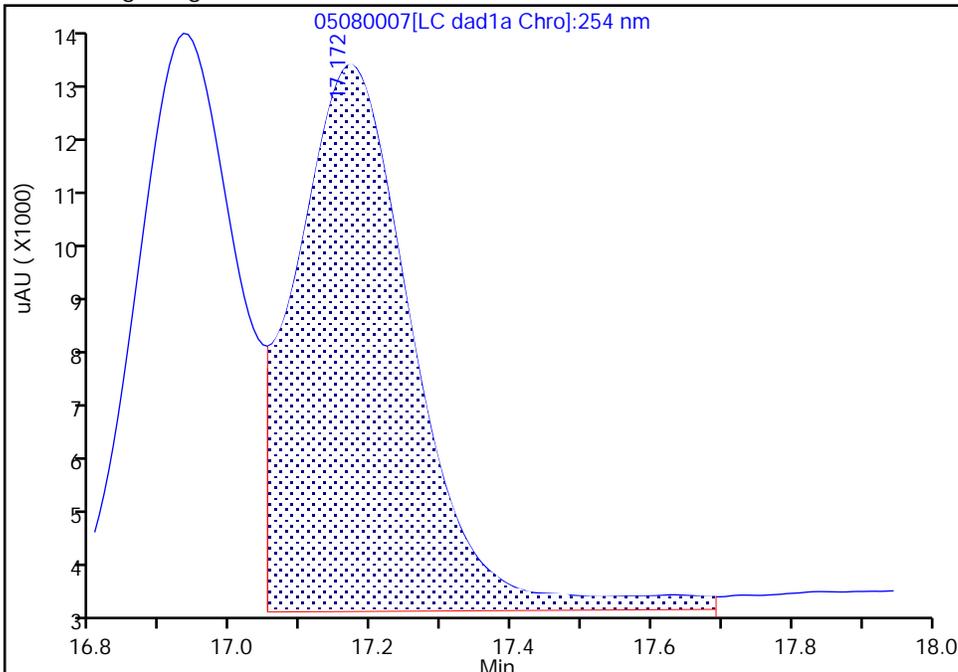
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Injection Date: 08-May-2024 20:10:58 Instrument ID: CHHPLC\_G2\_LUNA  
Lims ID: CCV  
Client ID:  
Operator ID: JZ ALS Bottle#: 7 Worklist Smp#: 7  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: G2\_8330\_Luna Limit Group: GCSV - 8330  
Column: Luna-Phenyl hexyl ( 4.60 mm) Detector: LC DAD1A, 254 nm

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

Signal: 1

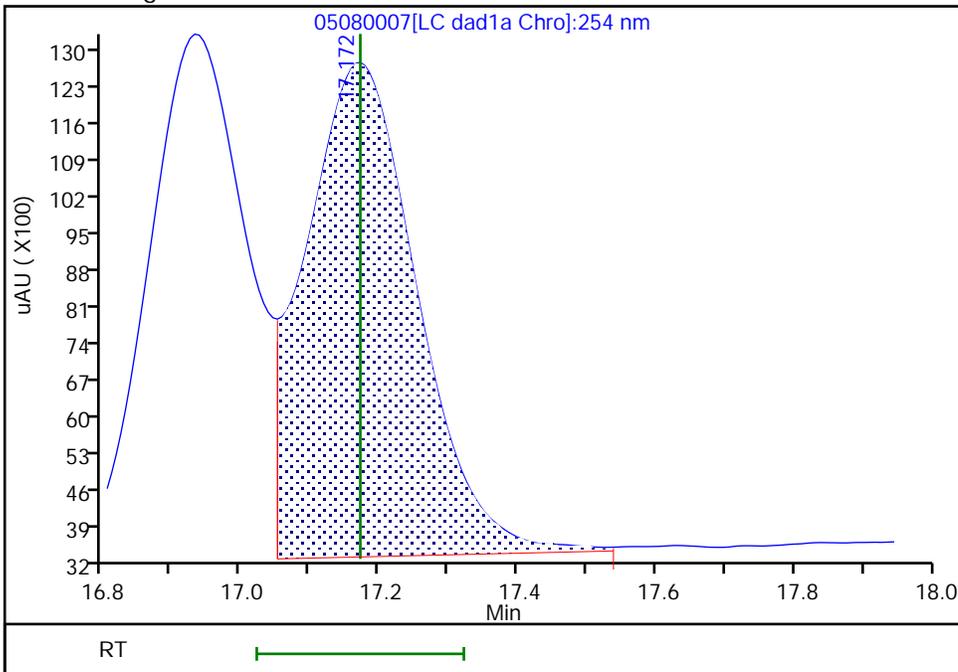
RT: 17.17  
Area: 110828  
Amount: 0.261724  
Amount Units: ug/ml

Processing Integration Results



RT: 17.17  
Area: 105187  
Amount: 0.248402  
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 08-May-2024 20:47:15 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Baseline Smoothing

Eurofins Denver

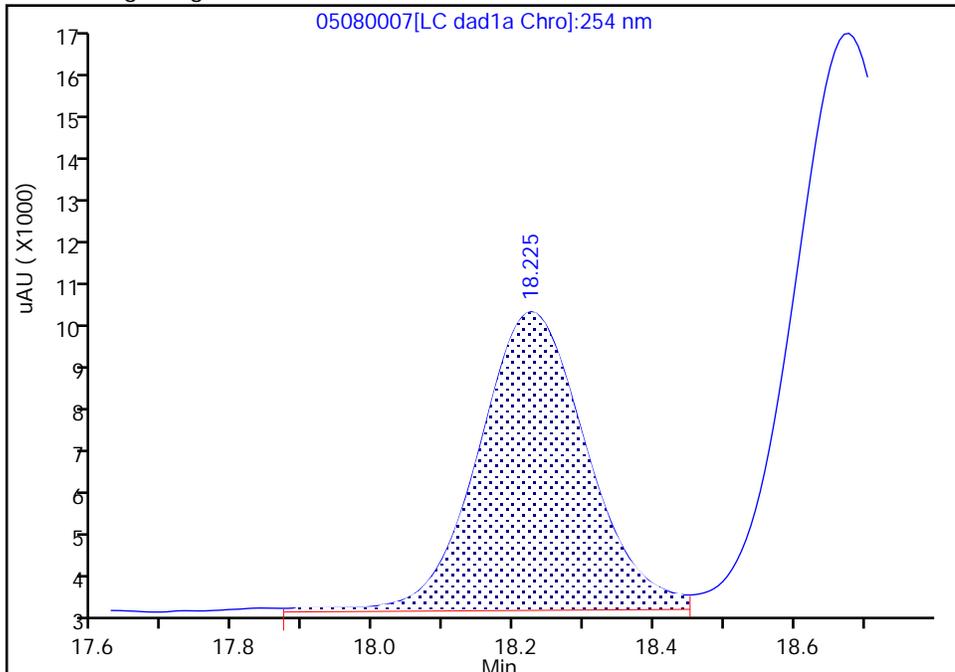
Data File: \\chromfs\denver\chromdata\g2\_luna\20240508-133164.b\05080007.d  
Injection Date: 08-May-2024 20:10:58 Instrument ID: CHHPLC\_G2\_LUNA  
Lims ID: CCV  
Client ID:  
Operator ID: JZ ALS Bottle#: 7 Worklist Smp#: 7  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: G2\_8330\_Luna Limit Group: GCSV - 8330  
Column: Luna-Phenyl hexyl ( 4.60 mm) Detector: LC DAD1A, 254 nm

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

Signal: 1

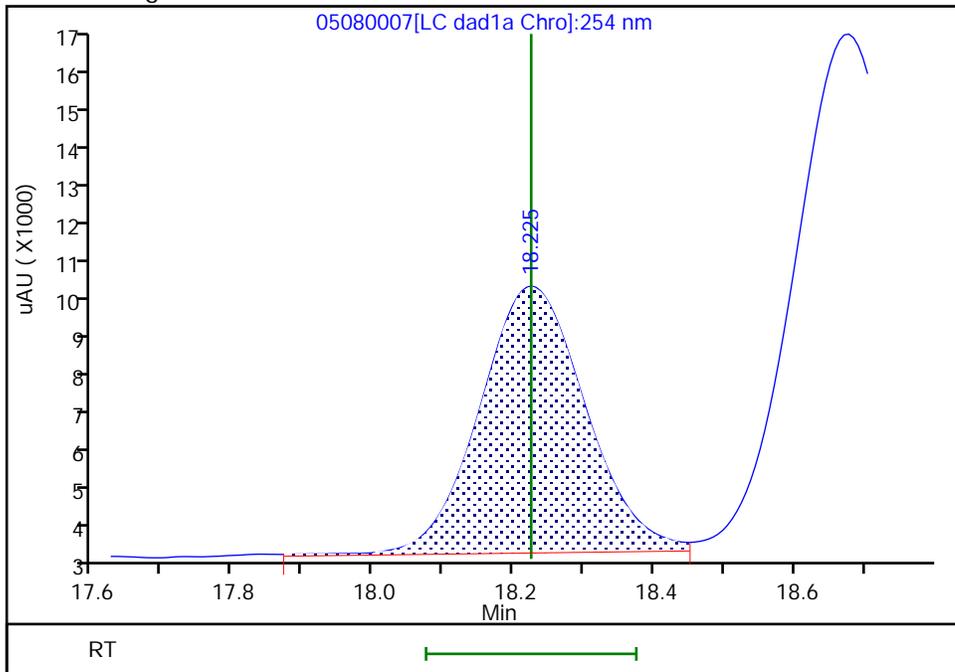
RT: 18.22  
Area: 73185  
Amount: 0.263284  
Amount Units: ug/ml

Processing Integration Results



RT: 18.22  
Area: 70941  
Amount: 0.255211  
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 08-May-2024 20:47:09 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline Smoothing

Eurofins Denver

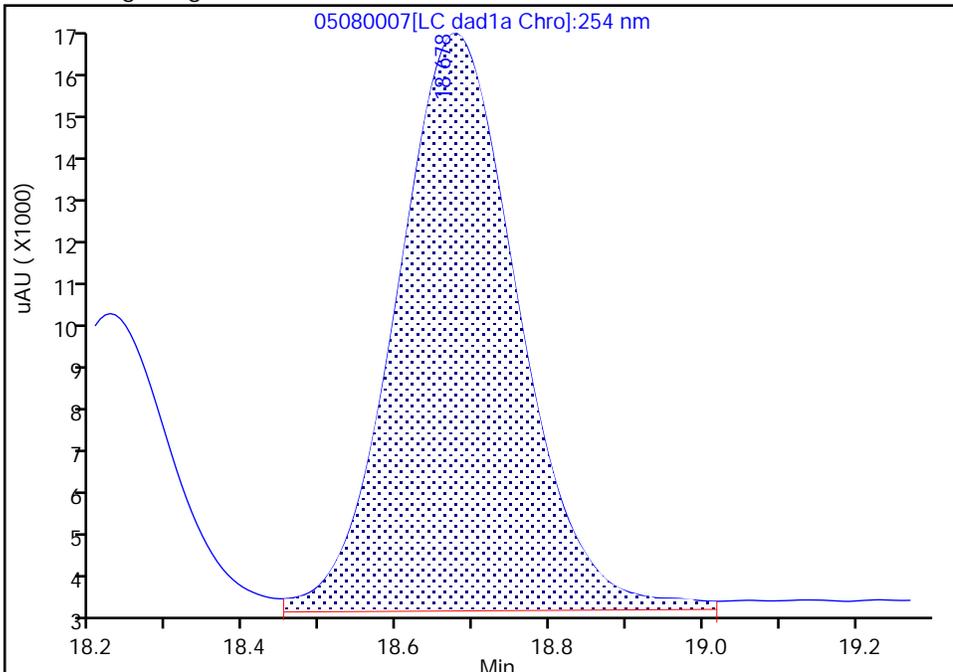
Data File: \\chromfs\denver\chromdata\g2\_luna\20240508-133164.b\05080007.d  
Injection Date: 08-May-2024 20:10:58 Instrument ID: CHHPLC\_G2\_LUNA  
Lims ID: CCV  
Client ID:  
Operator ID: JZ ALS Bottle#: 7 Worklist Smp#: 7  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: G2\_8330\_Luna Limit Group: GCSV - 8330  
Column: Luna-Phenyl hexyl ( 4.60 mm) Detector: LC DAD1A, 254 nm

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

Signal: 1

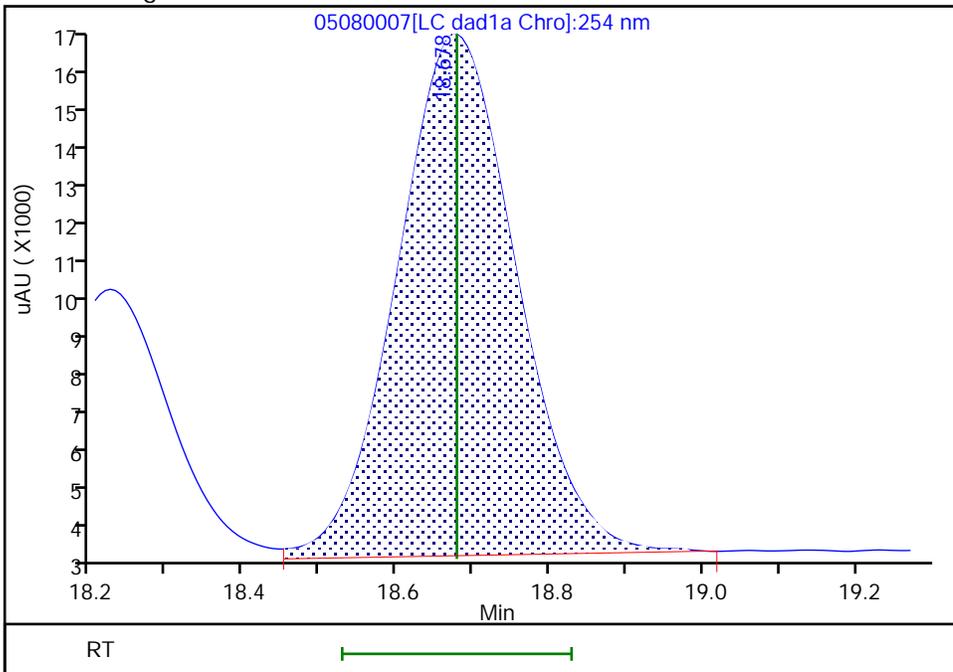
RT: 18.68  
Area: 144198  
Amount: 0.260020  
Amount Units: ug/ml

Processing Integration Results



RT: 18.68  
Area: 139744  
Amount: 0.251989  
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 08-May-2024 20:47:09 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline Smoothing

Eurofins Denver

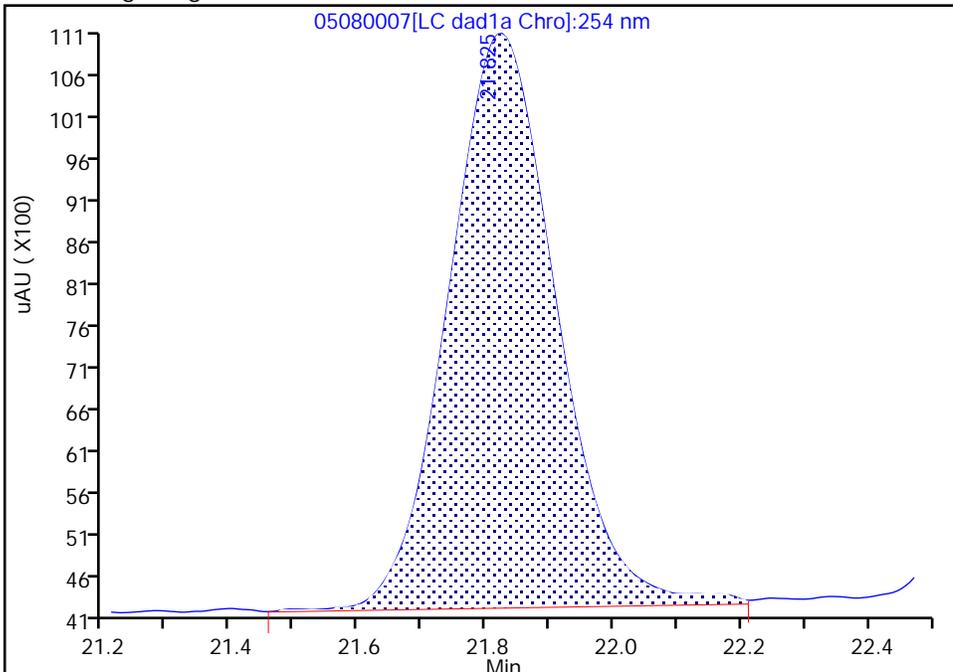
Data File: \\chromfs\denver\chromdata\g2\_luna\20240508-133164.b\05080007.d  
Injection Date: 08-May-2024 20:10:58 Instrument ID: CHHPLC\_G2\_LUNA  
Lims ID: CCV  
Client ID:  
Operator ID: JZ ALS Bottle#: 7 Worklist Smp#: 7  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: G2\_8330\_Luna Limit Group: GCSV - 8330  
Column: Luna-Phenyl hexyl ( 4.60 mm) Detector: LC DAD1A, 254 nm

22 Tetryl, CAS: 479-45-8

Signal: 1

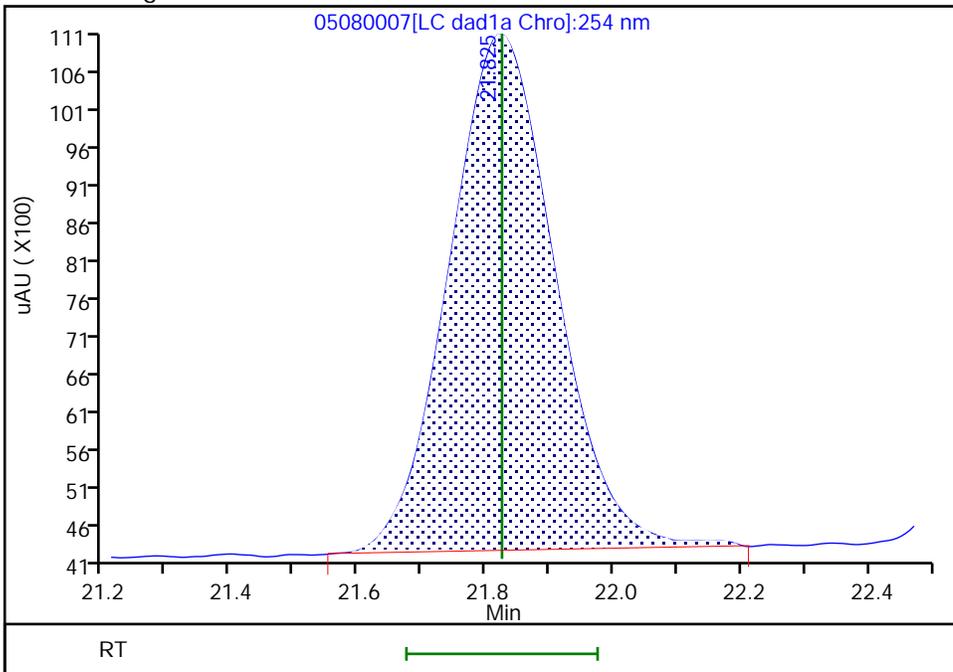
Processing Integration Results

RT: 21.83  
Area: 80731  
Amount: 0.257341  
Amount Units: ug/ml



Manual Integration Results

RT: 21.83  
Area: 79204  
Amount: 0.252446  
Amount Units: ug/ml



Reviewer: LV5D, 08-May-2024 20:47:27 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline Smoothing

Eurofins Denver

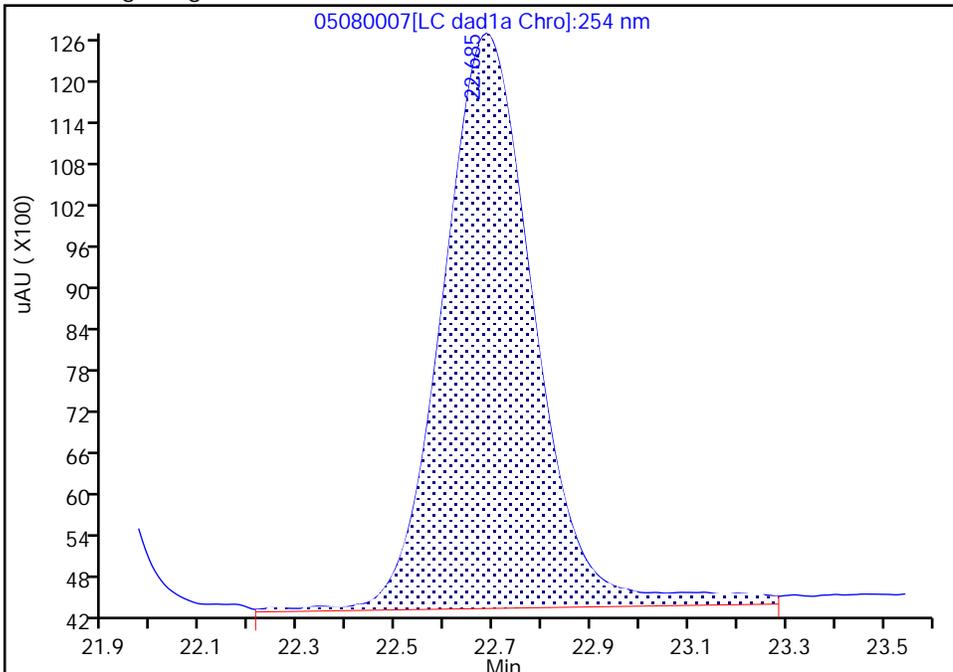
Data File: \\chromfs\denver\chromdata\g2\_luna\20240508-133164.b\05080007.d  
Injection Date: 08-May-2024 20:10:58 Instrument ID: CHHPLC\_G2\_LUNA  
Lims ID: CCV  
Client ID:  
Operator ID: JZ ALS Bottle#: 7 Worklist Smp#: 7  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: G2\_8330\_Luna Limit Group: GCSV - 8330  
Column: Luna-Phenyl hexyl ( 4.60 mm) Detector: LC DAD1A, 254 nm

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

Signal: 1

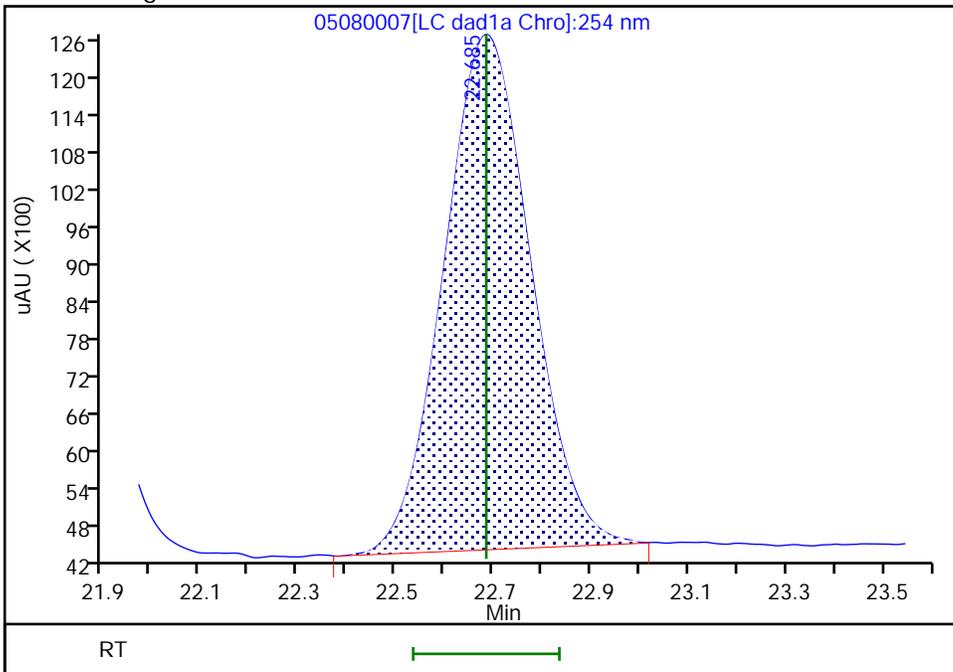
Processing Integration Results

RT: 22.69  
Area: 111000  
Amount: 0.277665  
Amount Units: ug/ml



Manual Integration Results

RT: 22.69  
Area: 102488  
Amount: 0.256372  
Amount Units: ug/ml



Reviewer: LV5D, 08-May-2024 20:47:21 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline Smoothing

FORM VII  
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-190882-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCV 280-652628/20 Calibration Date: 05/09/2024 02:46  
 Instrument ID: CHHPLC\_G2\_LUNA Calib Start Date: 04/24/2024 21:28  
 GC Column: Luna-phenylhex ID: 4.60 (mm) Calib End Date: 04/25/2024 02:15  
 Lab File ID: 05080020.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
HMX	Ave	174076	183880		264	250	5.6	20.0
Picric acid	Ave	151397	145572		240	250	-3.8	20.0
RDX	Lin2		219948		265	250	5.9	20.0
Nitrobenzene	Ave	382120	382700		250	250	0.2	20.0
3,5-Dinitroaniline	Lin2		454812		262	250	4.7	20.0
1,3-Dinitrobenzene	Ave	589418	601860		255	250	2.1	20.0
Nitroglycerin	Ave	119505	123996		2590	2500	3.8	20.0
2-Nitrotoluene	Ave	244594	250508		256	250	2.4	20.0
4-Nitrotoluene	Lin2		221736		250	250	0.2	20.0
4-Amino-2,6-dinitrotoluene	Lin2		277716		255	250	1.9	20.0
3-Nitrotoluene	Lin2		284120		254	250	1.7	20.0
2-Amino-4,6-dinitrotoluene	Ave	405562	399156		246	250	-1.6	20.0
1,3,5-Trinitrobenzene	Ave	423454	419120		247	250	-1.0	20.0
2,6-Dinitrotoluene	Ave	277970	281048		253	250	1.1	20.0
2,4-Dinitrotoluene	Ave	554564	560476		253	250	1.1	20.0
Tetryl	Lin2		333200		266	250	6.2	20.0
2,4,6-Trinitrotoluene	Ave	399763	431056		270	250	7.8	20.0
PETN	Lin2		124929		2540	2500	1.7	20.0
1,2-Dinitrobenzene	Ave	258689	261608		253	250	1.1	20.0

FORM VII  
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-190882-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCV 280-652628/20 Calibration Date: 05/09/2024 02:46  
 Instrument ID: CHHPLC\_G2\_LUNA Calib Start Date: 04/24/2024 21:28  
 GC Column: Luna-phenylhex ID: 4.60 (mm) Calib End Date: 04/25/2024 02:15  
 Lab File ID: 05080020.D

Analyte	RT	RT WINDOW	
		FROM	TO
HMX	6.66	6.52	6.82
Picric acid	8.66	8.57	8.87
RDX	8.88	8.74	9.04
Nitrobenzene	11.38	11.23	11.53
3,5-Dinitroaniline	14.11	13.95	14.25
1,3-Dinitrobenzene	14.40	14.25	14.55
Nitroglycerin	14.84	14.68	14.98
2-Nitrotoluene	15.42	15.26	15.56
4-Nitrotoluene	15.65	15.48	15.78
4-Amino-2,6-dinitrotoluene	16.14	15.98	16.28
3-Nitrotoluene	16.48	16.32	16.62
2-Amino-4,6-dinitrotoluene	16.96	16.78	17.08
1,3,5-Trinitrobenzene	17.18	17.02	17.32
2,6-Dinitrotoluene	18.25	18.08	18.38
2,4-Dinitrotoluene	18.70	18.53	18.83
Tetryl	21.83	21.68	21.98
2,4,6-Trinitrotoluene	22.69	22.54	22.84
PETN	23.82	23.66	23.96
1,2-Dinitrobenzene	12.29	12.14	12.44

Eurofins Denver  
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2\_LUNA\20240508-133164.b\05080020.D  
 Lims ID: CCV  
 Client ID:  
 Sample Type: CCV  
 Inject. Date: 09-May-2024 02:46:13 ALS Bottle#: 7 Worklist Smp#: 20  
 Injection Vol: 100.0 ul Dil. Factor: 1.0000  
 Sample Info: CCV  
 Operator ID: JZ Instrument ID: CHHPLC\_G2\_LUNA  
 Sublist: chrom-G2\_8330\_Luna\*sub16  
 Method: \\chromfs\Denver\ChromData\G2\_LUNA\20240508-133164.b\G2\_8330\_Luna.m  
 Limit Group: GCSV - 8330  
 Last Update: 09-May-2024 13:26:07 Calib Date: 25-Apr-2024 07:39:21  
 Integrator: Falcon  
 Quant Method: External Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Denver\ChromData\G2\_LUNA\20240424-132624.b\04240027.D  
 Column 1 : Luna-Phenyl hexyl ( 4.60 mm) Det: LC DAD1A, 254 nm  
 Process Host: CTX1670

First Level Reviewer: LV5D Date: 09-May-2024 13:19:46

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
6 HMX	1	6.664	6.672	-0.008	45970	0.2500	0.2641	
5 2,4,6-Trinitrophenol	1	8.657	8.718	-0.061	36393	0.2500	0.2404	
8 RDX	1	8.884	8.885	-0.001	54987	0.2500	0.2648	
9 Nitrobenzene	1	11.384	11.378	0.006	95675	0.2500	0.2504	M
\$ 10 1,2-Dinitrobenzene	1	12.290	12.285	0.005	65402	0.2500	0.2528	M
11 3,5-Dinitroaniline	1	14.110	14.098	0.012	113703	0.2500	0.2618	M
12 1,3-Dinitrobenzene	1	14.404	14.398	0.006	150465	0.2500	0.2553	M
13 Nitroglycerin	2	14.844	14.832	0.012	309989	2.50	2.59	M
14 o-Nitrotoluene	1	15.424	15.405	0.019	62627	0.2500	0.2560	M
15 p-Nitrotoluene	1	15.650	15.632	0.018	55434	0.2500	0.2504	M
16 4-Amino-2,6-dinitrotoluene	1	16.144	16.125	0.019	69429	0.2500	0.2549	M
17 m-Nitrotoluene	1	16.484	16.465	0.019	71030	0.2500	0.2542	M
18 2-Amino-4,6-dinitrotoluene	1	16.957	16.932	0.025	99789	0.2500	0.2461	M
19 1,3,5-Trinitrobenzene	1	17.184	17.172	0.012	104780	0.2500	0.2474	M
20 2,6-Dinitrotoluene	1	18.250	18.225	0.025	70262	0.2500	0.2528	M
21 2,4-Dinitrotoluene	1	18.704	18.678	0.026	140119	0.2500	0.2527	M
22 Tetryl	1	21.830	21.825	0.005	83300	0.2500	0.2656	
23 2,4,6-Trinitrotoluene	1	22.690	22.685	0.005	107764	0.2500	0.2696	
24 PETN	2	23.817	23.805	0.012	312322	2.50	2.54	M

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

8330IntermStk\_00080

Amount Added: 25.00

Units: uL

Eurofins Denver

Data File: \\chromfs\denver\chromdata\g2\_luna\20240508-133164.b\05080020.d

Injection Date: 09-May-2024 02:46:13

Instrument ID: CHHPLC\_G2\_LUNA

Operator ID: JZ

Lims ID: CCV

Worklist Smp#: 20

Client ID:

Injection Vol: 100.0 ul

Dil. Factor: 1.0000

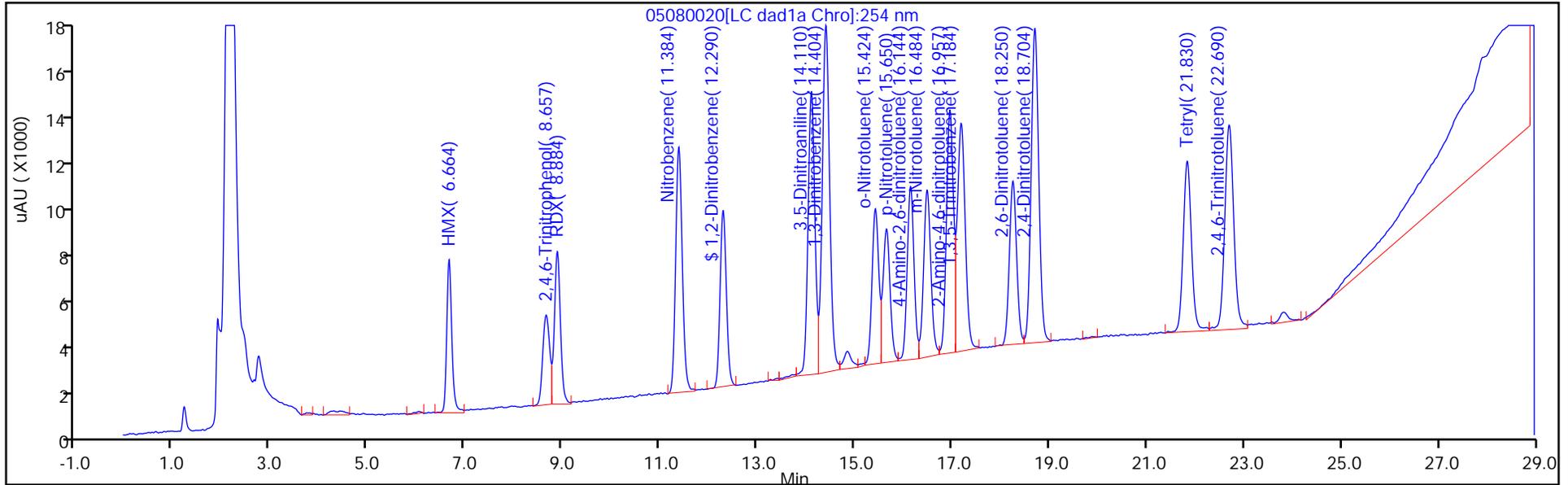
ALS Bottle#: 7

Method: G2\_8330\_Luna

Limit Group: GCSV - 8330

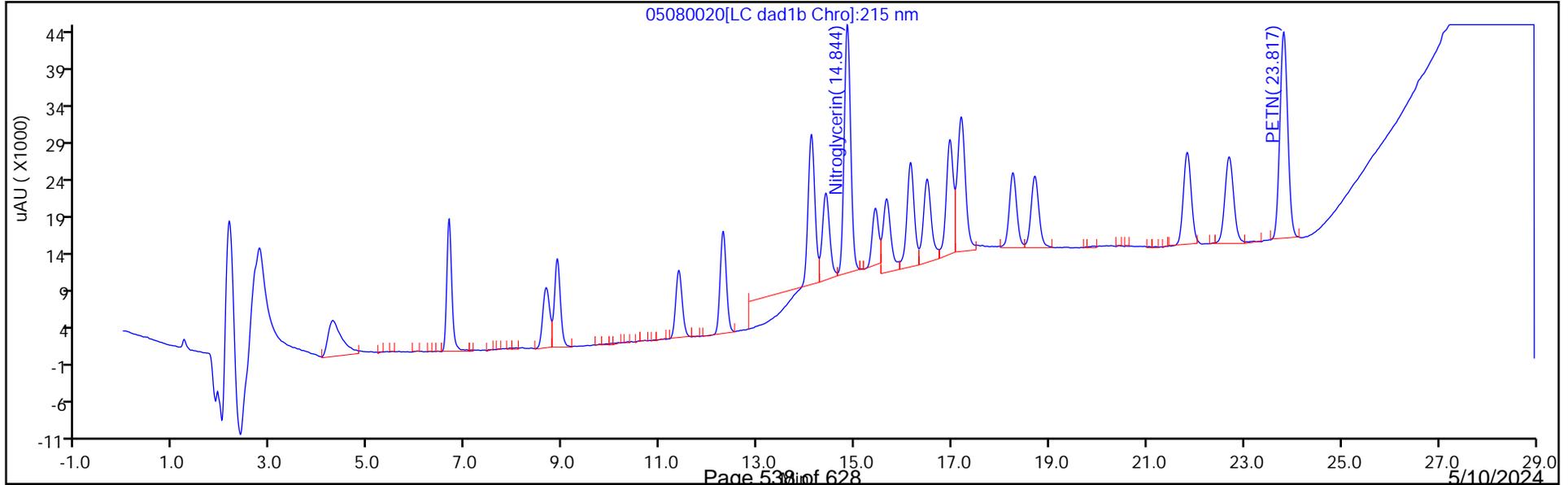
Column: Luna-Phenyl hexyl ( 4.60 mm)

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



Column: Luna-Phenyl hexyl ( 4.60 mm)

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



Eurofins Denver

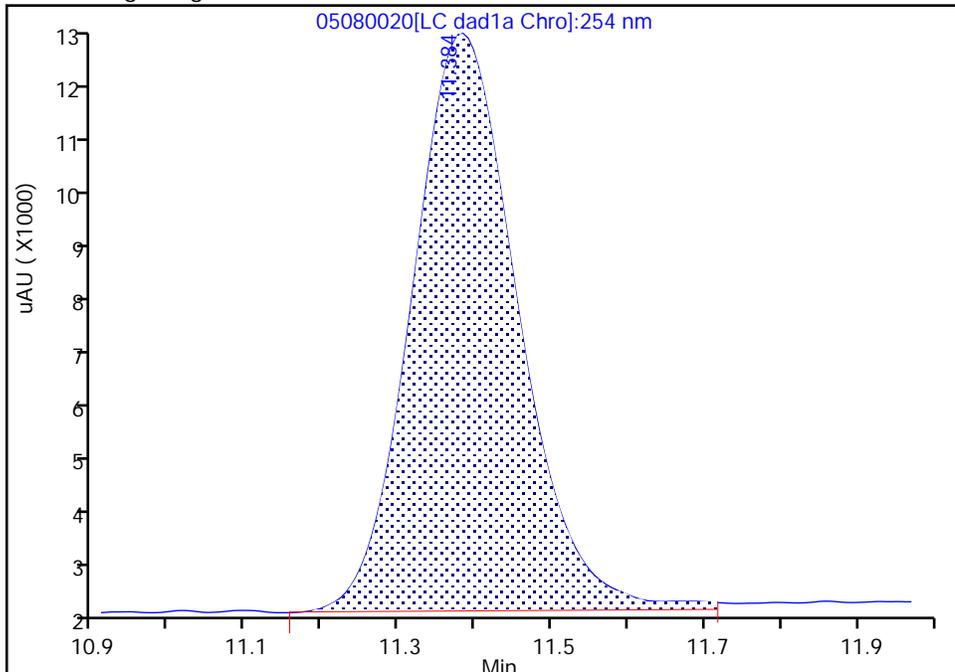
Data File: \\chromfs\denver\chromdata\g2\_luna\20240508-133164.b\05080020.d  
Injection Date: 09-May-2024 02:46:13 Instrument ID: CHHPLC\_G2\_LUNA  
Lims ID: CCV  
Client ID:  
Operator ID: JZ ALS Bottle#: 7 Worklist Smp#: 20  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: G2\_8330\_Luna Limit Group: GCSV - 8330  
Column: Luna-Phenyl hexyl ( 4.60 mm) Detector: LC DAD1A, 254 nm

9 Nitrobenzene, CAS: 98-95-3

Signal: 1

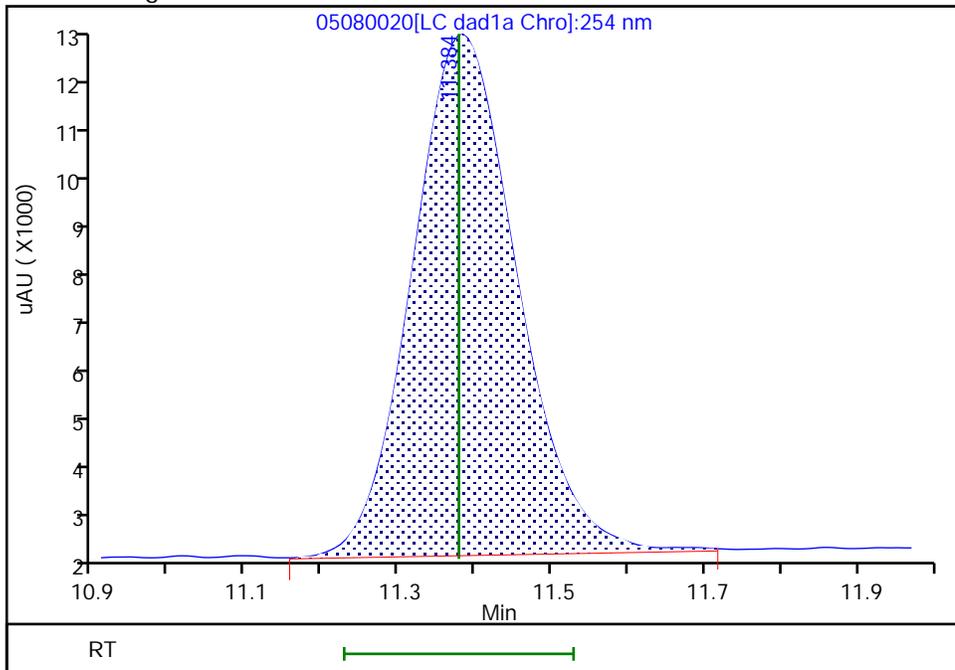
RT: 11.38  
Area: 96800  
Amount: 0.253323  
Amount Units: ug/ml

Processing Integration Results



RT: 11.38  
Area: 95675  
Amount: 0.250379  
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 09-May-2024 13:19:34 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

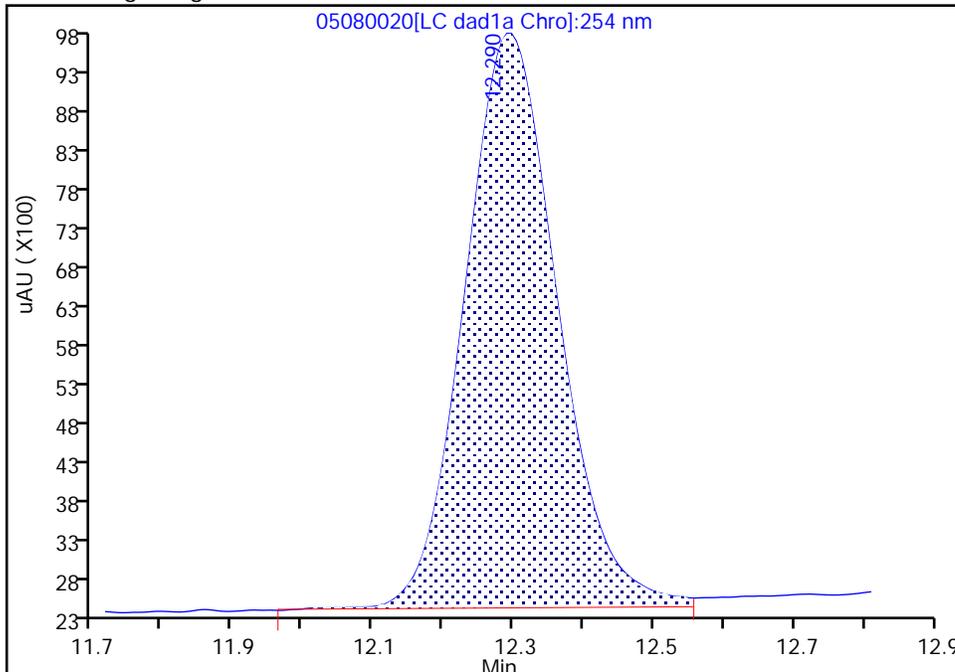
Data File: \\chromfs\denver\chromdata\g2\_luna\20240508-133164.b\05080020.d  
Injection Date: 09-May-2024 02:46:13 Instrument ID: CHHPLC\_G2\_LUNA  
Lims ID: CCV  
Client ID:  
Operator ID: JZ ALS Bottle#: 7 Worklist Smp#: 20  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: G2\_8330\_Luna Limit Group: GCSV - 8330  
Column: Luna-Phenyl hexyl ( 4.60 mm) Detector: LC DAD1A, 254 nm

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

Signal: 1

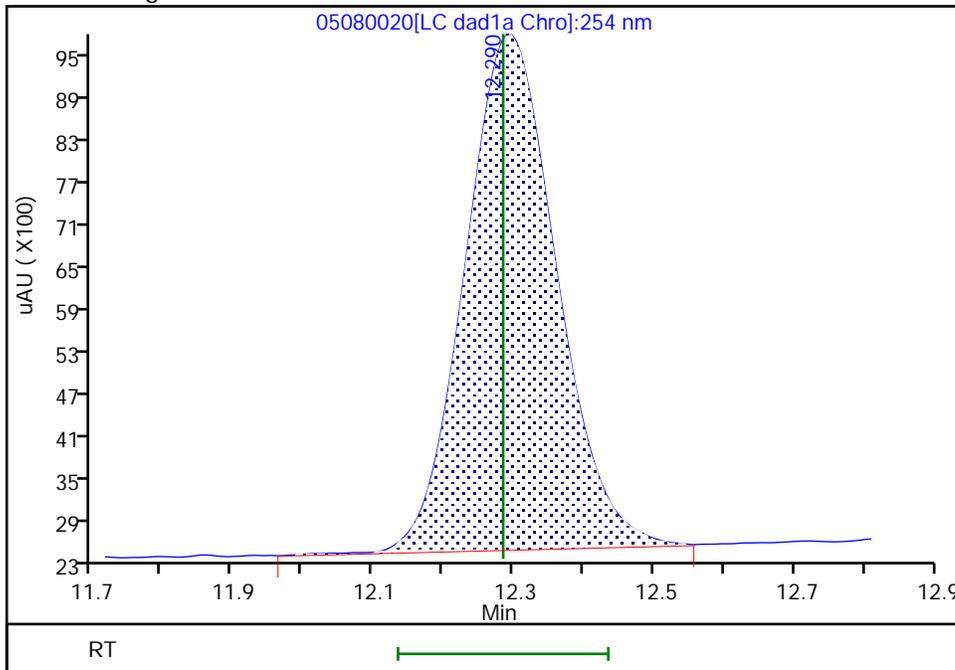
RT: 12.29  
Area: 67146  
Amount: 0.259563  
Amount Units: ug/ml

Processing Integration Results



RT: 12.29  
Area: 65402  
Amount: 0.252821  
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 09-May-2024 13:19:34 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

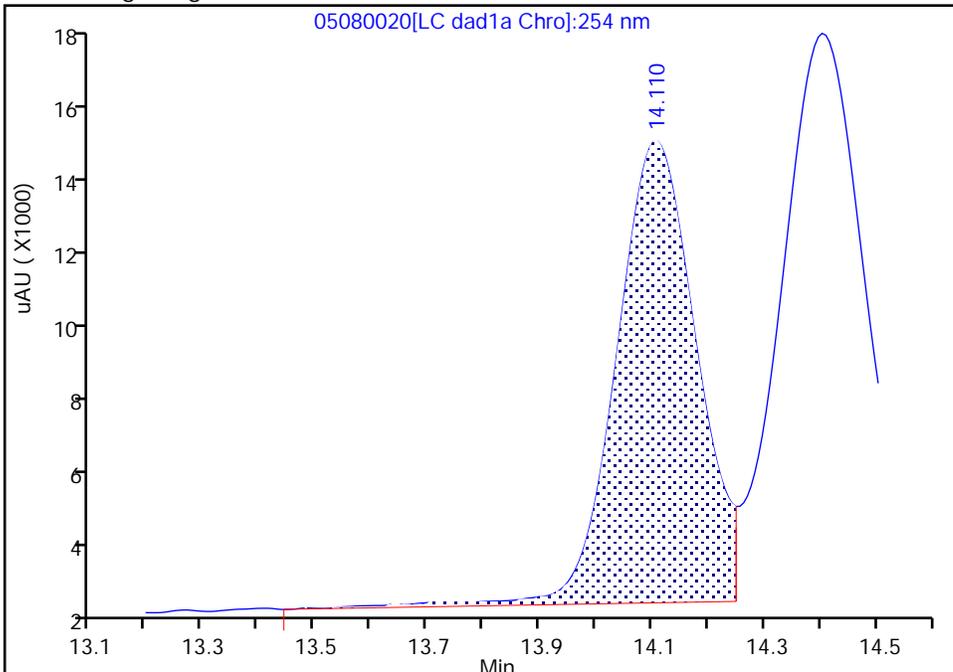
Data File: \\chromfs\denver\chromdata\g2\_luna\20240508-133164.b\05080020.d  
 Injection Date: 09-May-2024 02:46:13 Instrument ID: CHHPLC\_G2\_LUNA  
 Lims ID: CCV  
 Client ID:  
 Operator ID: JZ ALS Bottle#: 7 Worklist Smp#: 20  
 Injection Vol: 100.0 ul Dil. Factor: 1.0000  
 Method: G2\_8330\_Luna Limit Group: GCSV - 8330  
 Column: Luna-Phenyl hexyl ( 4.60 mm) Detector: LC DAD1A, 254 nm

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

Signal: 1

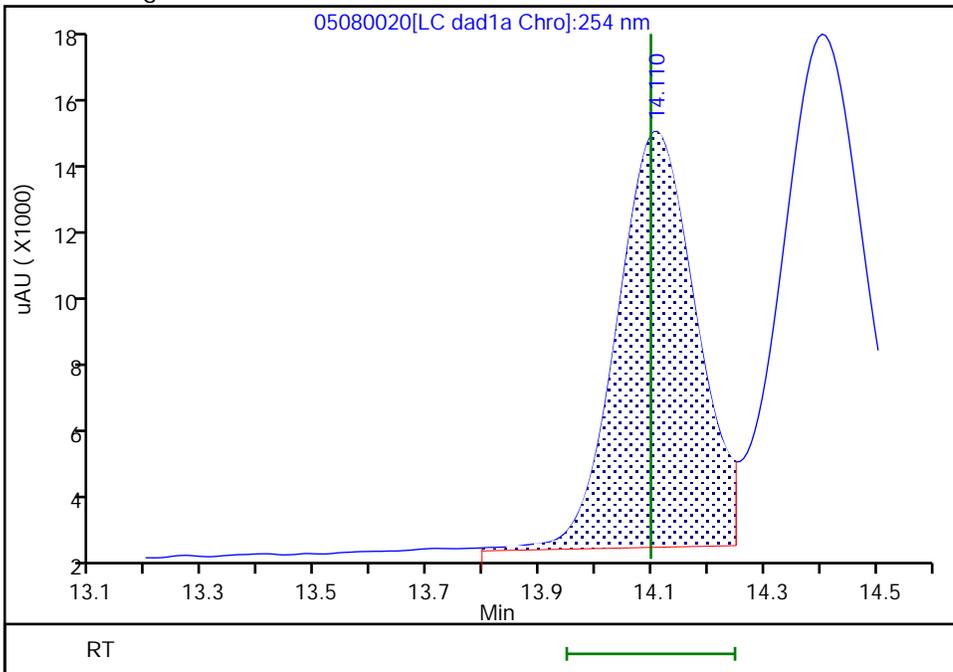
Processing Integration Results

RT: 14.11  
 Area: 115831  
 Amount: 0.266787  
 Amount Units: ug/ml



Manual Integration Results

RT: 14.11  
 Area: 113703  
 Amount: 0.261847  
 Amount Units: ug/ml



Reviewer: LV5D, 09-May-2024 13:19:43 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Baseline

Eurofins Denver

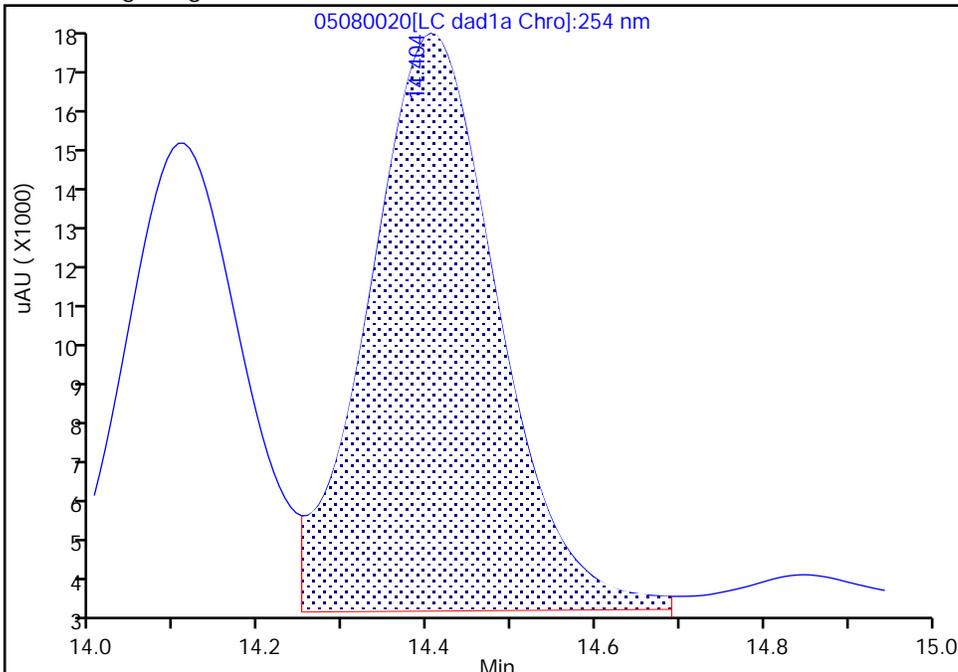
Data File: \\chromfs\denver\chromdata\g2\_luna\20240508-133164.b\05080020.d  
Injection Date: 09-May-2024 02:46:13 Instrument ID: CHHPLC\_G2\_LUNA  
Lims ID: CCV  
Client ID:  
Operator ID: JZ ALS Bottle#: 7 Worklist Smp#: 20  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: G2\_8330\_Luna Limit Group: GCSV - 8330  
Column: Luna-Phenyl hexyl ( 4.60 mm) Detector: LC DAD1A, 254 nm

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

Signal: 1

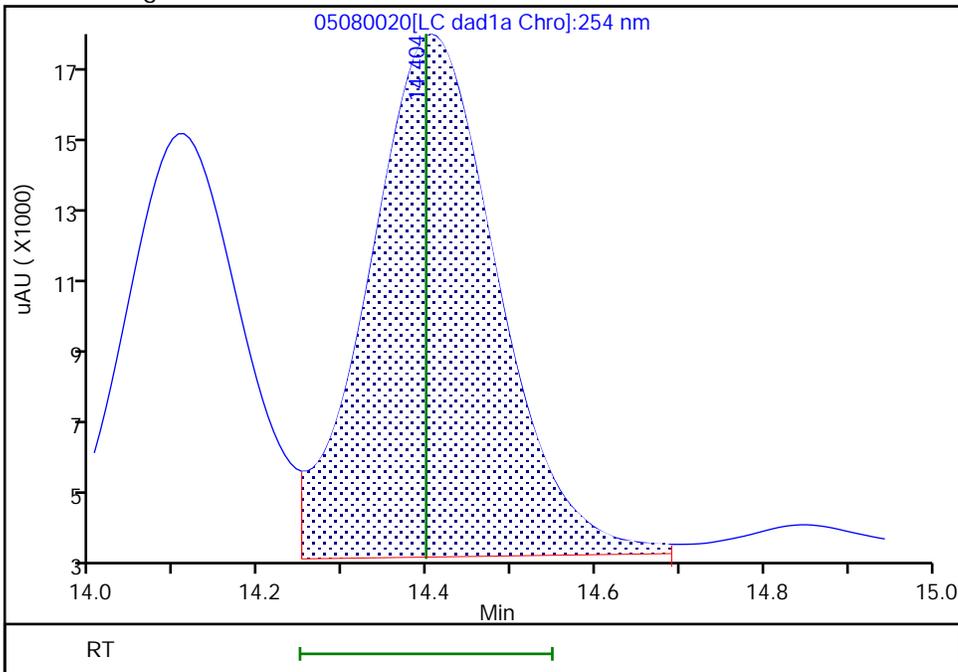
RT: 14.40  
Area: 152154  
Amount: 0.258143  
Amount Units: ug/ml

Processing Integration Results



RT: 14.40  
Area: 150465  
Amount: 0.255277  
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 09-May-2024 13:19:39 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

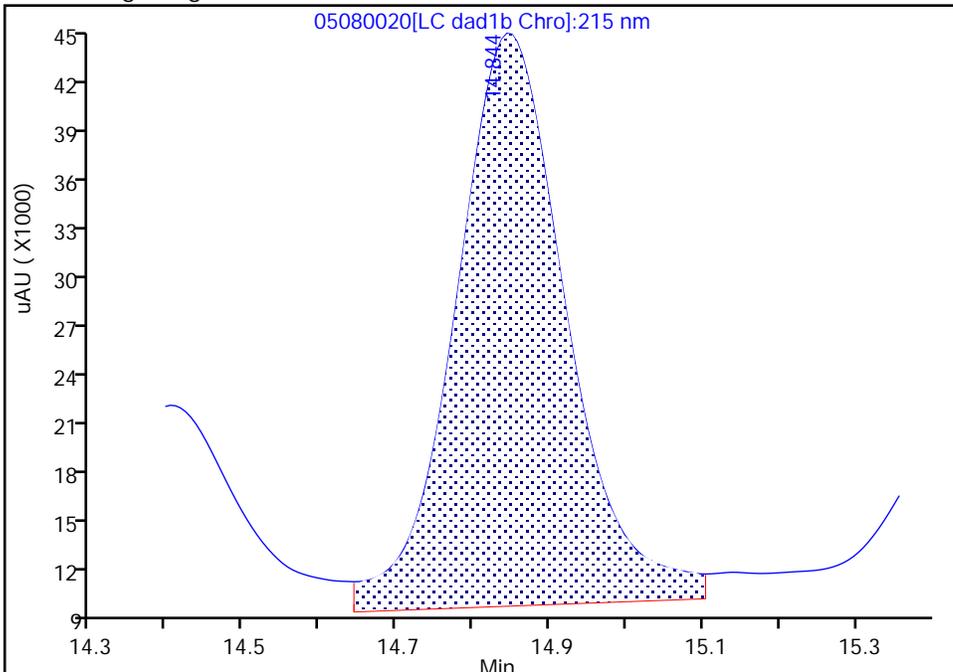
Data File: \\chromfs\denver\chromdata\g2\_luna\20240508-133164.b\05080020.d  
Injection Date: 09-May-2024 02:46:13 Instrument ID: CHHPLC\_G2\_LUNA  
Lims ID: CCV  
Client ID:  
Operator ID: JZ ALS Bottle#: 7 Worklist Smp#: 20  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: G2\_8330\_Luna Limit Group: GCSV - 8330  
Column: Luna-Phenyl hexyl ( 4.60 mm) Detector: LC DAD1B, 215 nm

13 Nitroglycerin, CAS: 55-63-0

Signal: 1

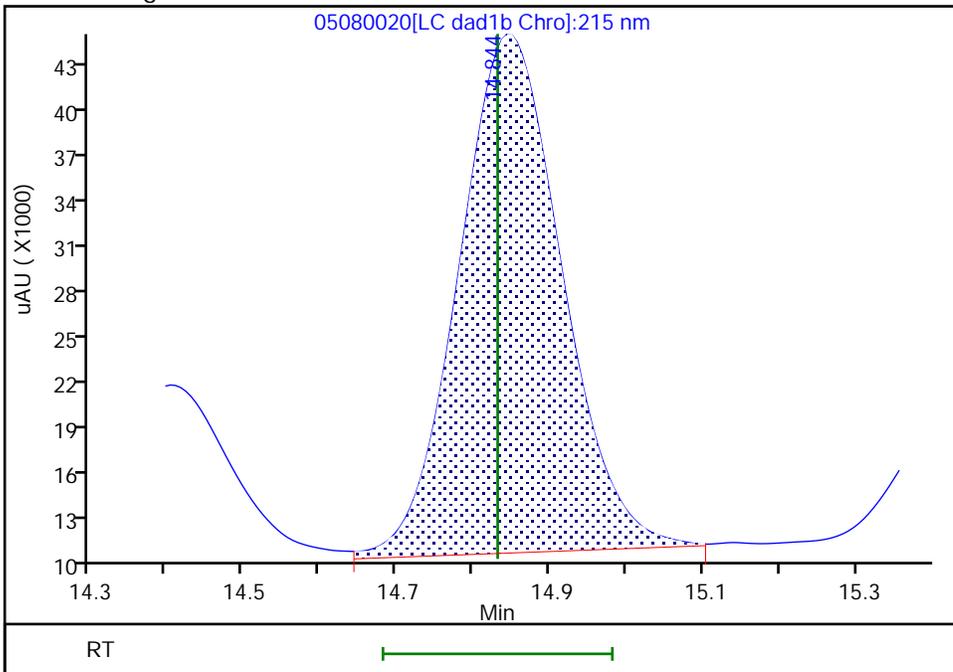
RT: 14.84  
Area: 351472  
Amount: 2.941071  
Amount Units: ug/ml

Processing Integration Results



RT: 14.84  
Area: 309989  
Amount: 2.593947  
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 09-May-2024 13:19:20 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

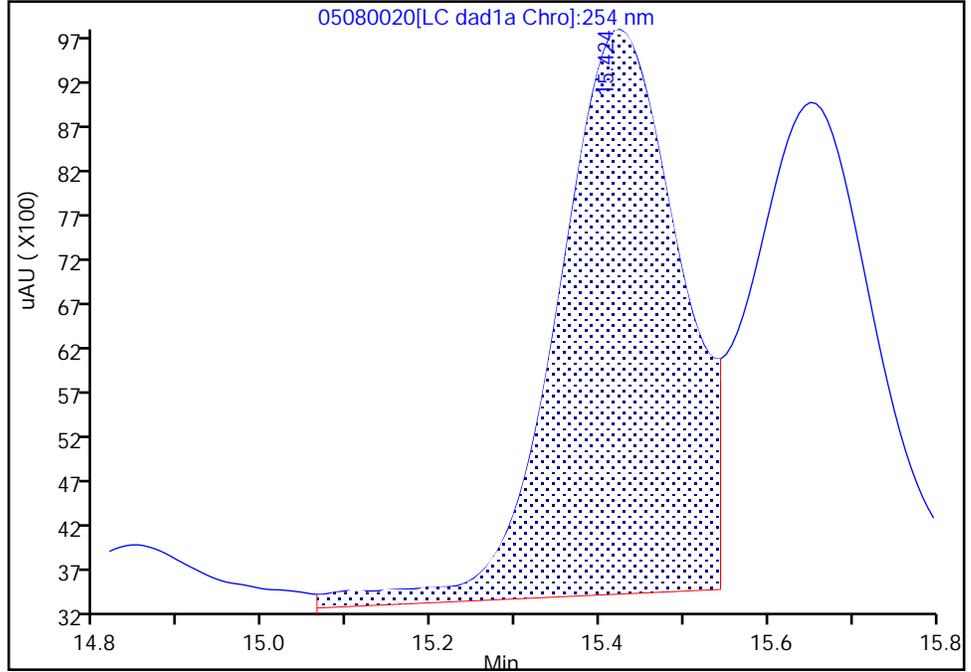
Data File: \\chromfs\denver\chromdata\g2\_luna\20240508-133164.b\05080020.d  
Injection Date: 09-May-2024 02:46:13 Instrument ID: CHHPLC\_G2\_LUNA  
Lims ID: CCV  
Client ID:  
Operator ID: JZ ALS Bottle#: 7 Worklist Smp#: 20  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: G2\_8330\_Luna Limit Group: GCSV - 8330  
Column: Luna-Phenyl hexyl ( 4.60 mm) Detector: LC DAD1A, 254 nm

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

Signal: 1

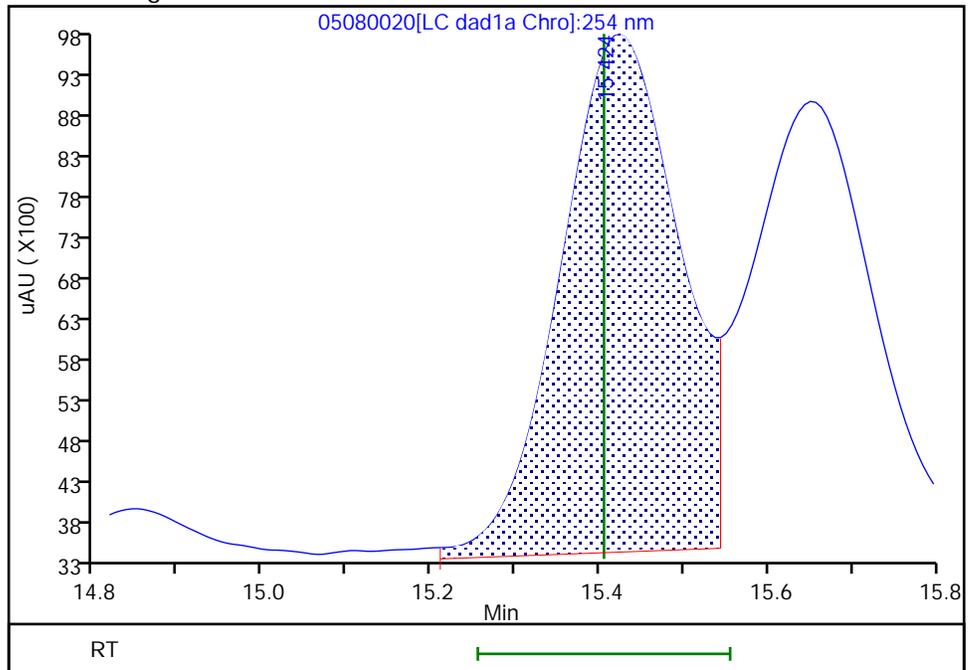
RT: 15.42  
Area: 64930  
Amount: 0.265460  
Amount Units: ug/ml

Processing Integration Results



RT: 15.42  
Area: 62627  
Amount: 0.256044  
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 09-May-2024 13:19:44 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Baseline

Eurofins Denver

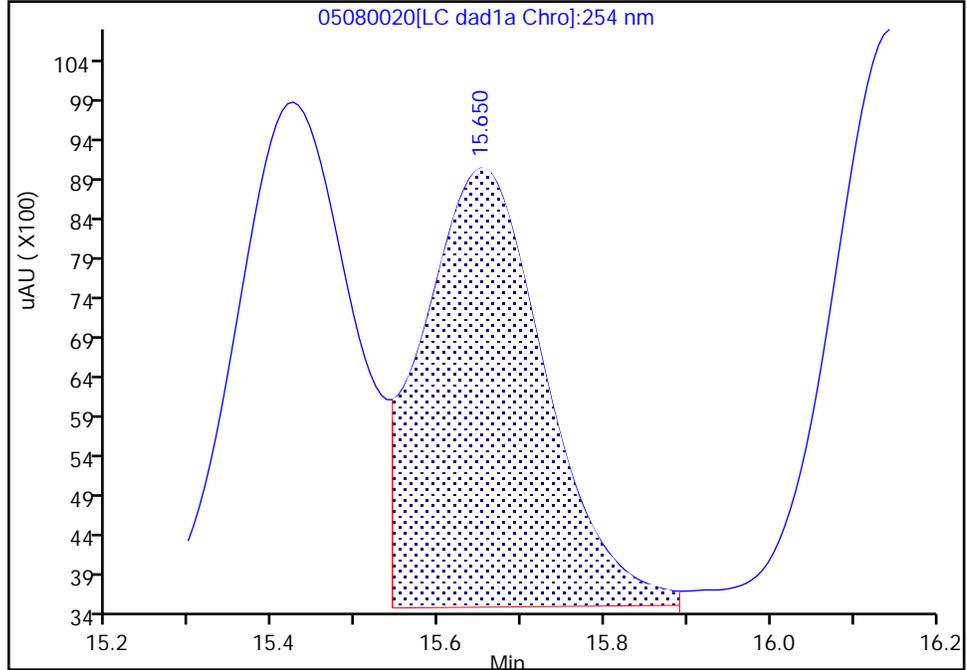
Data File: \\chromfs\denver\chromdata\g2\_luna\20240508-133164.b\05080020.d  
Injection Date: 09-May-2024 02:46:13 Instrument ID: CHHPLC\_G2\_LUNA  
Lims ID: CCV  
Client ID:  
Operator ID: JZ ALS Bottle#: 7 Worklist Smp#: 20  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: G2\_8330\_Luna Limit Group: GCSV - 8330  
Column: Luna-Phenyl hexyl ( 4.60 mm) Detector: LC DAD1A, 254 nm

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

Signal: 1

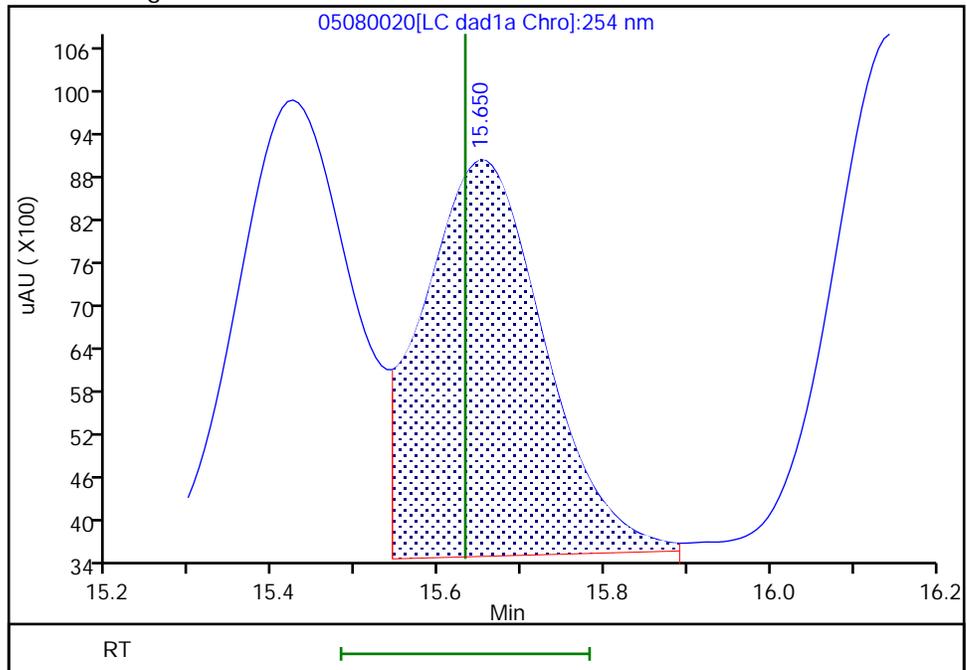
RT: 15.65  
Area: 56318  
Amount: 0.254454  
Amount Units: ug/ml

Processing Integration Results



RT: 15.65  
Area: 55434  
Amount: 0.250394  
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 09-May-2024 13:19:39 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

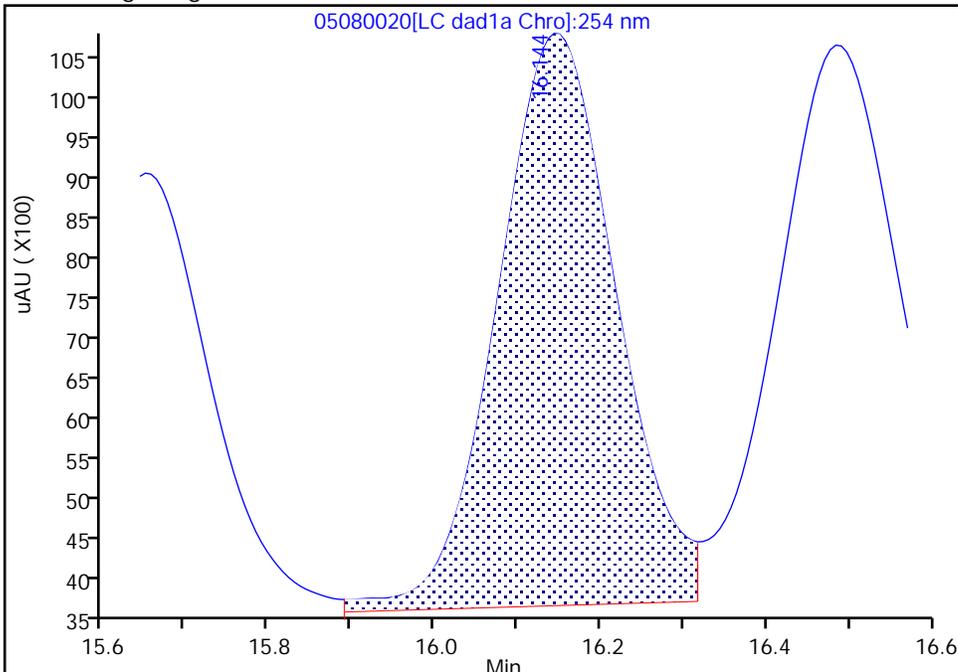
Data File: \\chromfs\denver\chromdata\g2\_luna\20240508-133164.b\05080020.d  
Injection Date: 09-May-2024 02:46:13 Instrument ID: CHHPLC\_G2\_LUNA  
Lims ID: CCV  
Client ID:  
Operator ID: JZ ALS Bottle#: 7 Worklist Smp#: 20  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: G2\_8330\_Luna Limit Group: GCSV - 8330  
Column: Luna-Phenyl hexyl ( 4.60 mm) Detector: LC DAD1A, 254 nm

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

Signal: 1

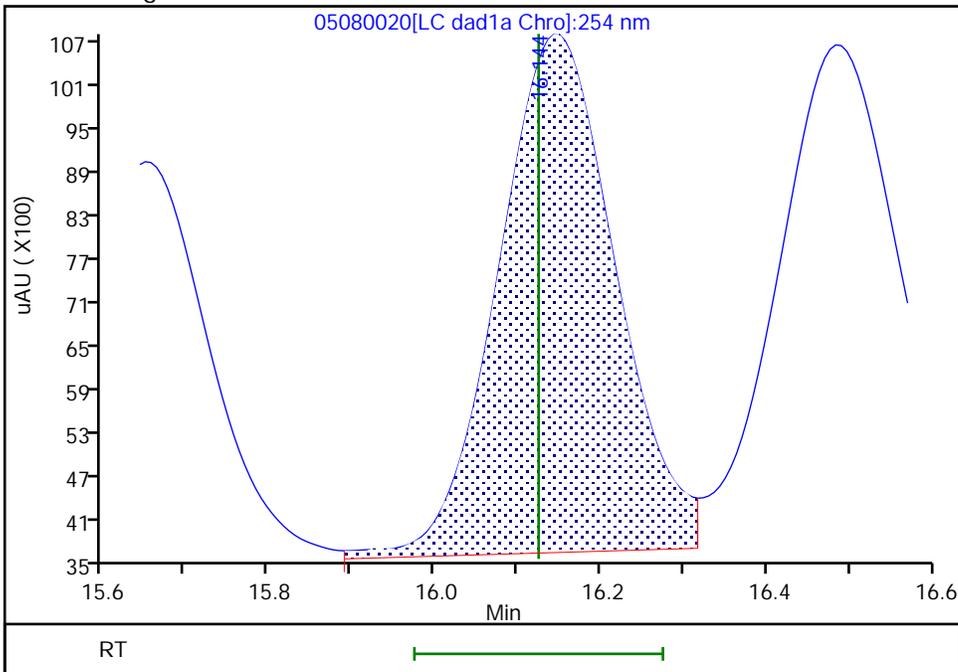
RT: 16.14  
Area: 70913  
Amount: 0.260362  
Amount Units: ug/ml

Processing Integration Results



RT: 16.14  
Area: 69429  
Amount: 0.254856  
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 09-May-2024 13:19:39 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

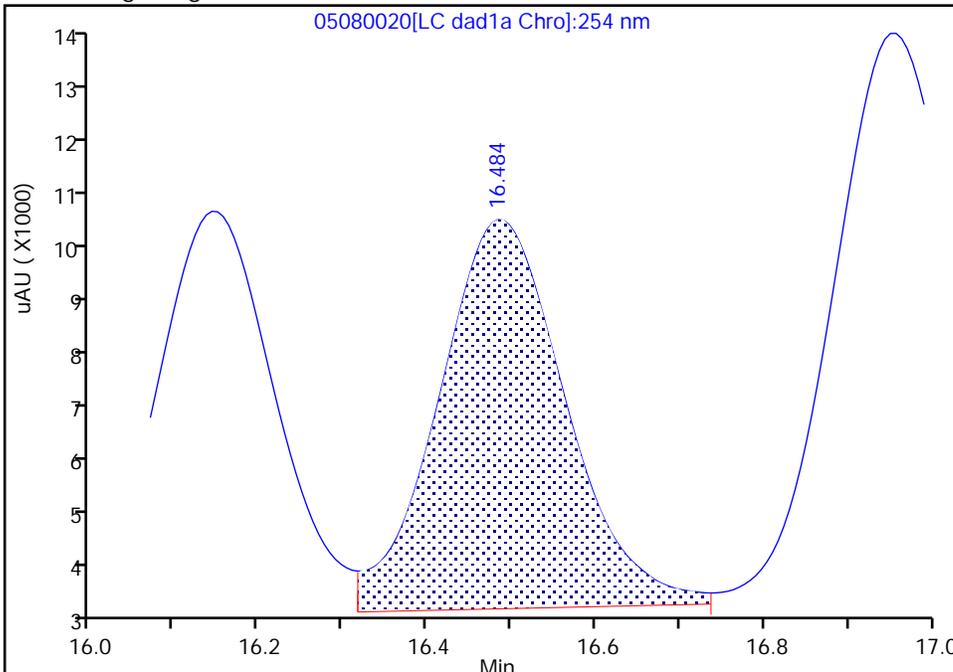
Data File: \\chromfs\denver\chromdata\g2\_luna\20240508-133164.b\05080020.d  
Injection Date: 09-May-2024 02:46:13 Instrument ID: CHHPLC\_G2\_LUNA  
Lims ID: CCV  
Client ID:  
Operator ID: JZ ALS Bottle#: 7 Worklist Smp#: 20  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: G2\_8330\_Luna Limit Group: GCSV - 8330  
Column: Luna-Phenyl hexyl ( 4.60 mm) Detector: LC DAD1A, 254 nm

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

Signal: 1

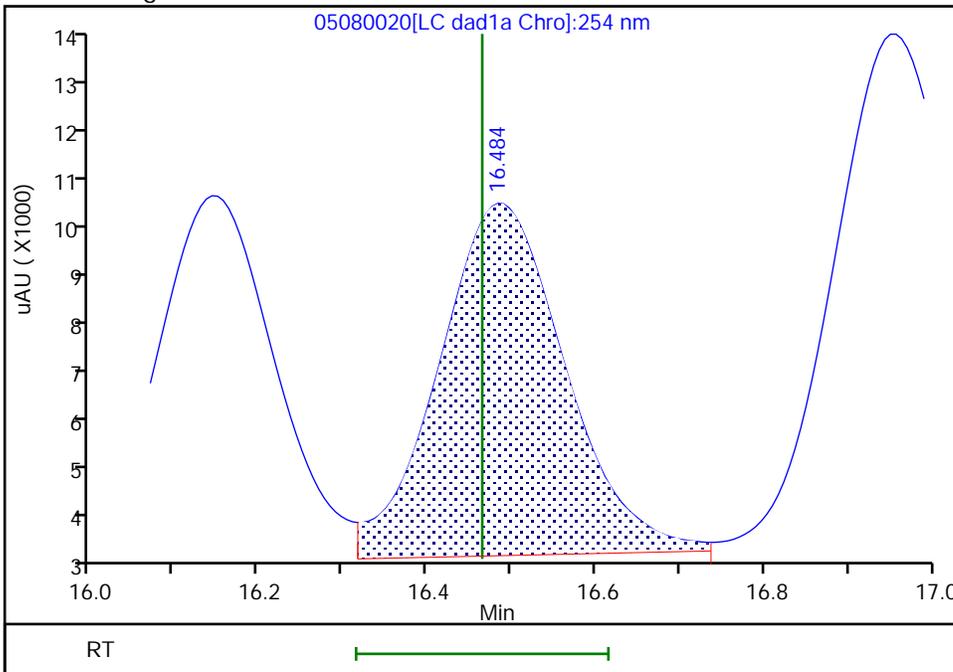
RT: 16.48  
Area: 72227  
Amount: 0.258568  
Amount Units: ug/ml

Processing Integration Results



RT: 16.48  
Area: 71030  
Amount: 0.254224  
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 09-May-2024 13:19:39 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

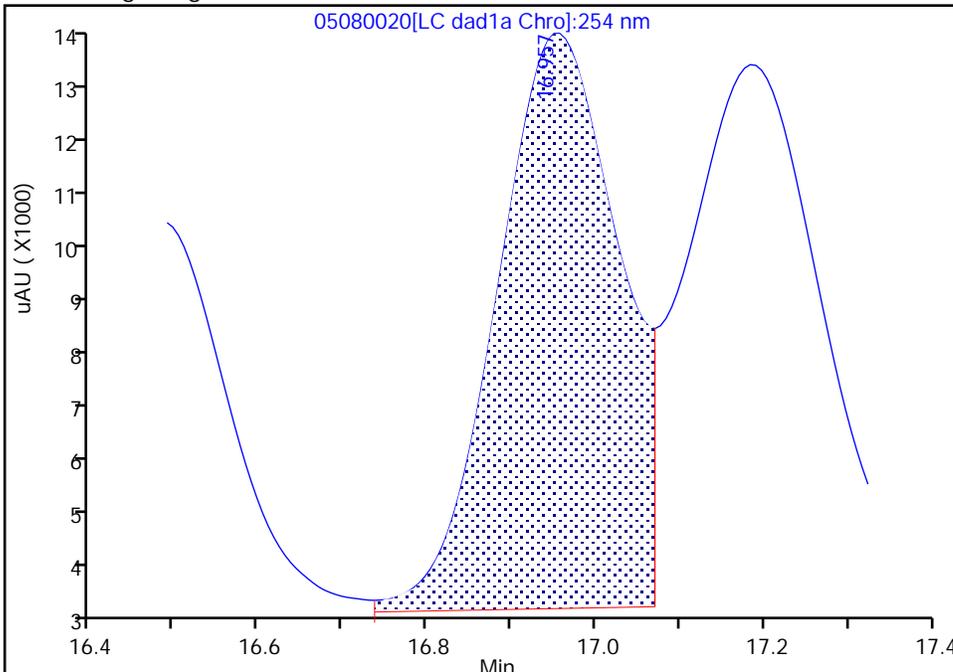
Data File: \\chromfs\denver\chromdata\g2\_luna\20240508-133164.b\05080020.d  
Injection Date: 09-May-2024 02:46:13 Instrument ID: CHHPLC\_G2\_LUNA  
Lims ID: CCV  
Client ID:  
Operator ID: JZ ALS Bottle#: 7 Worklist Smp#: 20  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: G2\_8330\_Luna Limit Group: GCSV - 8330  
Column: Luna-Phenyl hexyl ( 4.60 mm) Detector: LC DAD1A, 254 nm

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

Signal: 1

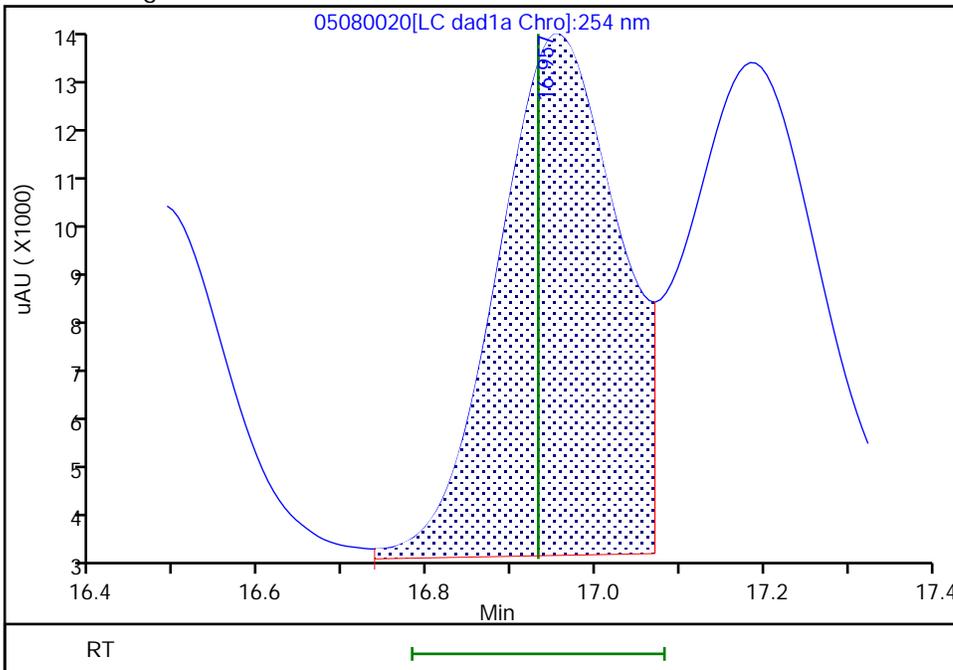
RT: 16.96  
Area: 100579  
Amount: 0.247999  
Amount Units: ug/ml

Processing Integration Results



RT: 16.96  
Area: 99789  
Amount: 0.246051  
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 09-May-2024 13:19:39 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

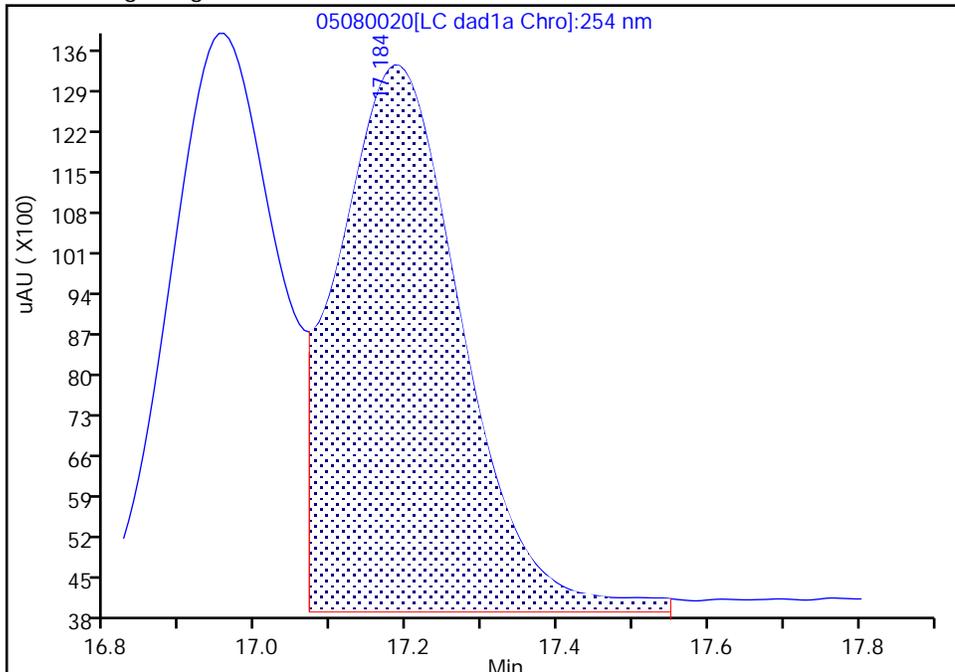
Data File: \\chromfs\denver\chromdata\g2\_luna\20240508-133164.b\05080020.d  
Injection Date: 09-May-2024 02:46:13 Instrument ID: CHHPLC\_G2\_LUNA  
Lims ID: CCV  
Client ID:  
Operator ID: JZ ALS Bottle#: 7 Worklist Smp#: 20  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: G2\_8330\_Luna Limit Group: GCSV - 8330  
Column: Luna-Phenyl hexyl ( 4.60 mm) Detector: LC DAD1A, 254 nm

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

Signal: 1

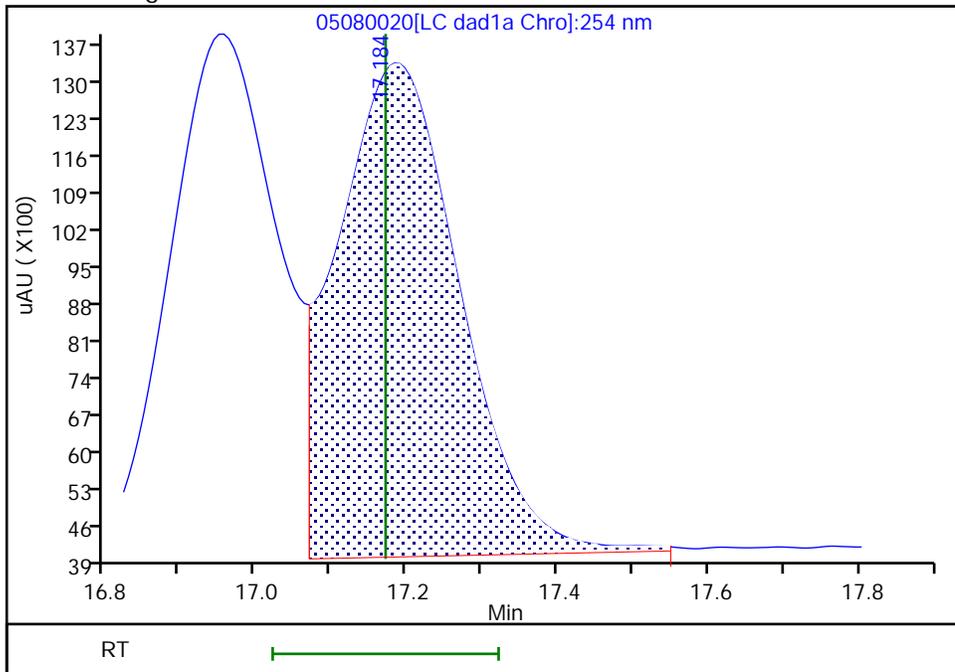
RT: 17.18  
Area: 107387  
Amount: 0.253597  
Amount Units: ug/ml

Processing Integration Results



RT: 17.18  
Area: 104780  
Amount: 0.247441  
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 09-May-2024 13:19:39 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

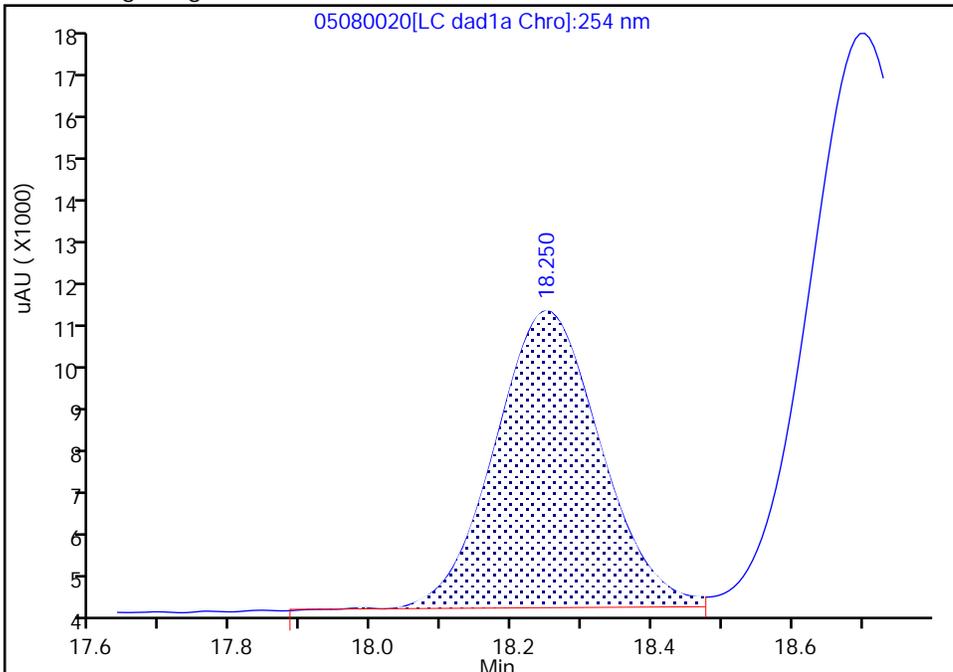
Data File: \\chromfs\denver\chromdata\g2\_luna\20240508-133164.b\05080020.d  
 Injection Date: 09-May-2024 02:46:13 Instrument ID: CHHPLC\_G2\_LUNA  
 Lims ID: CCV  
 Client ID:  
 Operator ID: JZ ALS Bottle#: 7 Worklist Smp#: 20  
 Injection Vol: 100.0 ul Dil. Factor: 1.0000  
 Method: G2\_8330\_Luna Limit Group: GCSV - 8330  
 Column: Luna-Phenyl hexyl ( 4.60 mm) Detector: LC DAD1A, 254 nm

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

Signal: 1

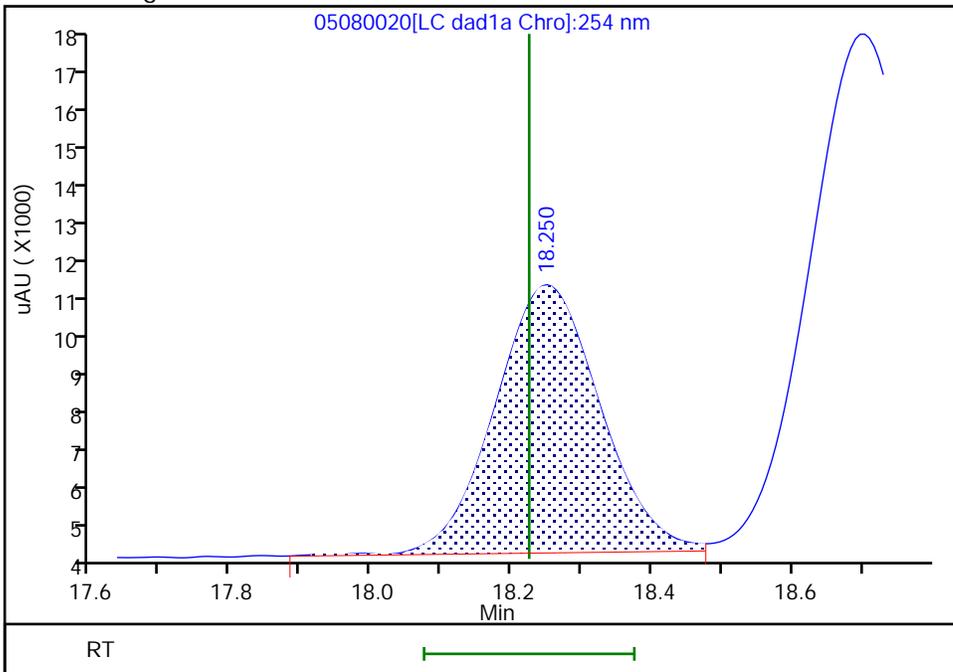
RT: 18.25  
 Area: 70244  
 Amount: 0.252703  
 Amount Units: ug/ml

Processing Integration Results



RT: 18.25  
 Area: 70262  
 Amount: 0.252768  
 Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 09-May-2024 13:19:40 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

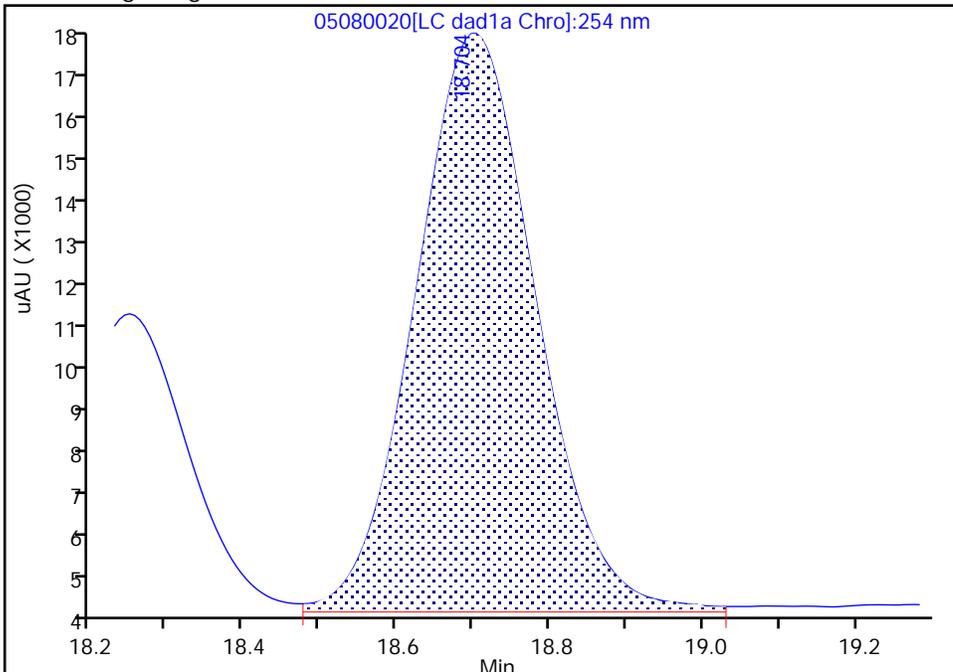
Data File: \\chromfs\denver\chromdata\g2\_luna\20240508-133164.b\05080020.d  
Injection Date: 09-May-2024 02:46:13 Instrument ID: CHHPLC\_G2\_LUNA  
Lims ID: CCV  
Client ID:  
Operator ID: JZ ALS Bottle#: 7 Worklist Smp#: 20  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: G2\_8330\_Luna Limit Group: GCSV - 8330  
Column: Luna-Phenyl hexyl ( 4.60 mm) Detector: LC DAD1A, 254 nm

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

Signal: 1

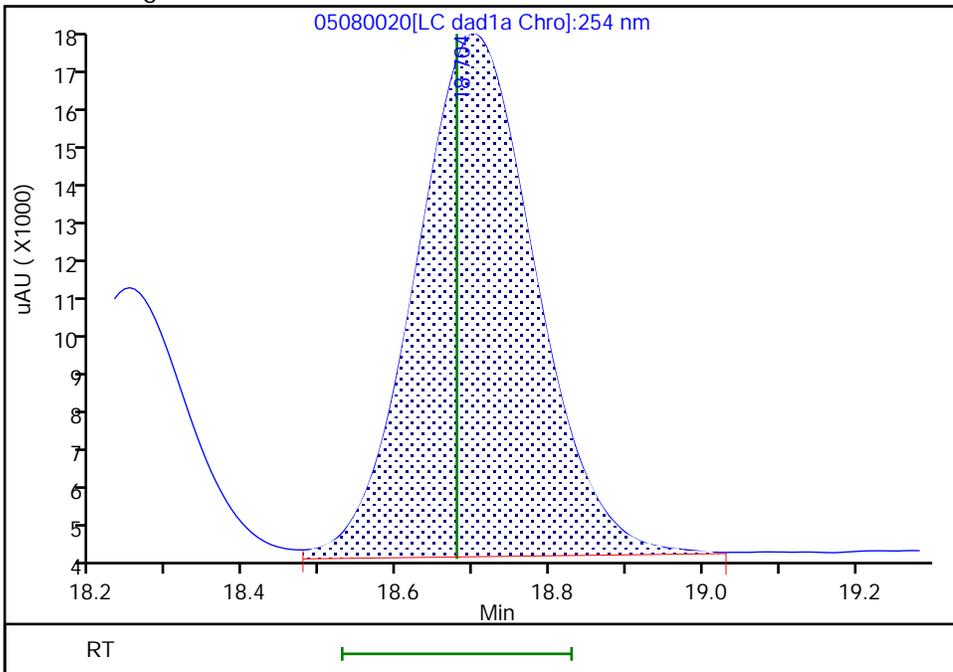
RT: 18.70  
Area: 141497  
Amount: 0.255150  
Amount Units: ug/ml

Processing Integration Results



RT: 18.70  
Area: 140119  
Amount: 0.252665  
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 09-May-2024 13:19:40 -06:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Denver

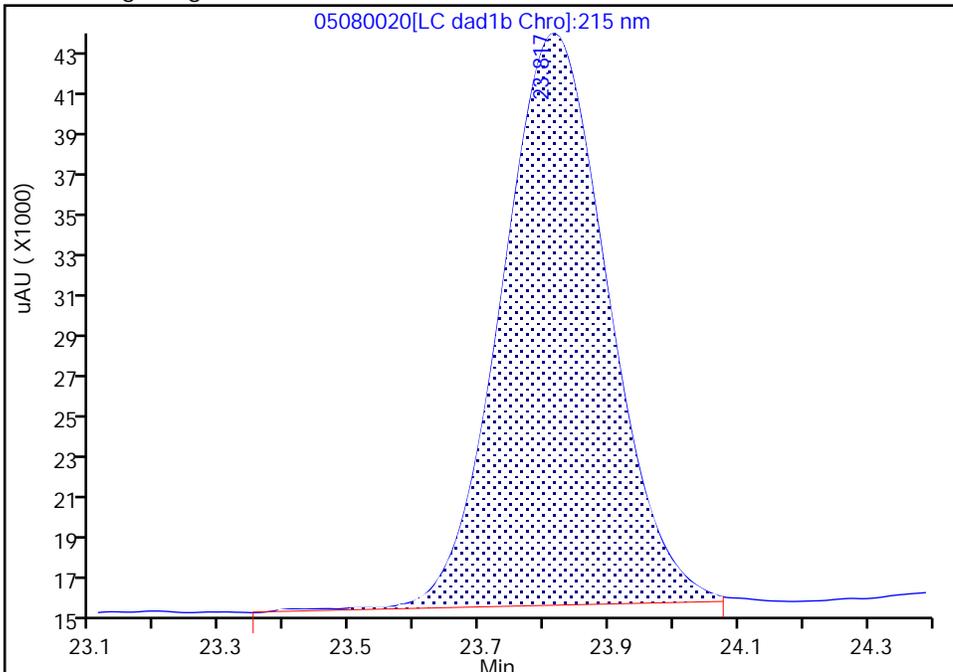
Data File: \\chromfs\denver\chromdata\g2\_luna\20240508-133164.b\05080020.d  
Injection Date: 09-May-2024 02:46:13 Instrument ID: CHHPLC\_G2\_LUNA  
Lims ID: CCV  
Client ID:  
Operator ID: JZ ALS Bottle#: 7 Worklist Smp#: 20  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: G2\_8330\_Luna Limit Group: GCSV - 8330  
Column: Luna-Phenyl hexyl ( 4.60 mm) Detector: LC DAD1B, 215 nm

24 PETN, CAS: 78-11-5

Signal: 1

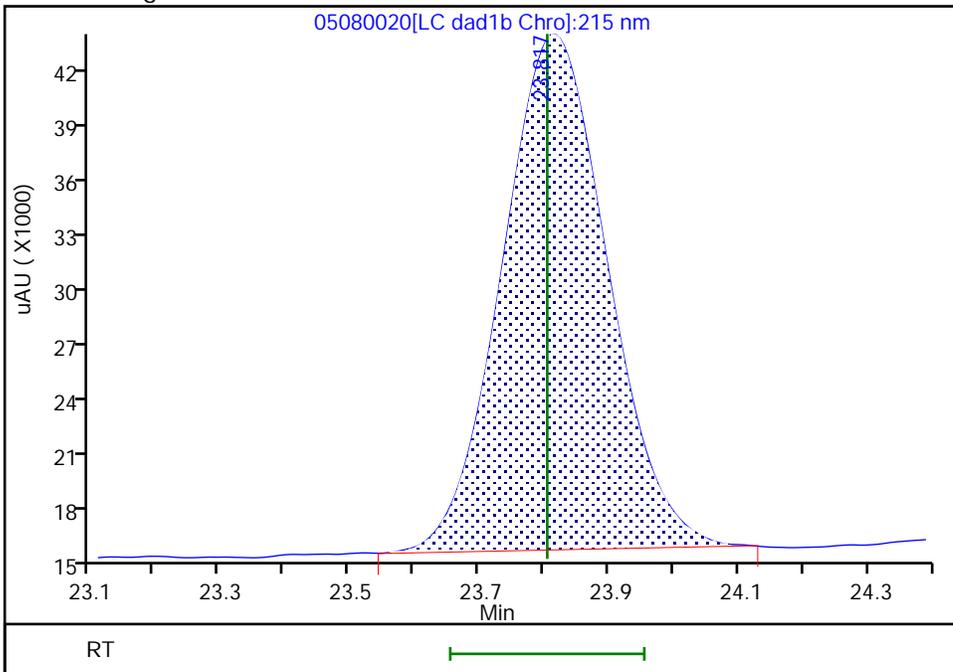
RT: 23.82  
Area: 315216  
Amount: 2.566109  
Amount Units: ug/ml

Processing Integration Results



RT: 23.82  
Area: 312322  
Amount: 2.542688  
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 09-May-2024 13:19:27 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

FORM VII  
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-190882-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCV 280-652628/31 Calibration Date: 05/09/2024 09:21  
 Instrument ID: CHHPLC\_G2\_LUNA Calib Start Date: 04/24/2024 21:28  
 GC Column: Luna-phenylhex ID: 4.60 (mm) Calib End Date: 04/25/2024 02:15  
 Lab File ID: 05080031.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
HMX	Ave	174076	180088		259	250	3.5	20.0
Picric acid	Ave	151397	158012		261	250	4.4	20.0
RDX	Lin2		216700		261	250	4.3	20.0
Nitrobenzene	Ave	382120	377048		247	250	-1.3	20.0
3,5-Dinitroaniline	Lin2		458260		264	250	5.5	20.0
1,3-Dinitrobenzene	Ave	589418	602056		255	250	2.1	20.0
Nitroglycerin	Ave	119505	124732		2610	2500	4.4	20.0
2-Nitrotoluene	Ave	244594	255068		261	250	4.3	20.0
4-Nitrotoluene	Lin2		227896		257	250	3.0	20.0
4-Amino-2,6-dinitrotoluene	Lin2		292300		268	250	7.4	20.0
3-Nitrotoluene	Lin2		286768		257	250	2.7	20.0
2-Amino-4,6-dinitrotoluene	Ave	405562	408076		252	250	0.6	20.0
1,3,5-Trinitrobenzene	Ave	423454	438572		259	250	3.6	20.0
2,6-Dinitrotoluene	Ave	277970	286444		258	250	3.0	20.0
2,4-Dinitrotoluene	Ave	554564	573644		259	250	3.4	20.0
Tetryl	Lin2		318412		254	250	1.5	20.0
2,4,6-Trinitrotoluene	Ave	399763	420372		263	250	5.2	20.0
PETN	Lin2		126502		2570	2500	3.0	20.0
1,2-Dinitrobenzene	Ave	258689	269916		261	250	4.3	20.0

FORM VII  
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-190882-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCV 280-652628/31 Calibration Date: 05/09/2024 09:21  
 Instrument ID: CHHPLC\_G2\_LUNA Calib Start Date: 04/24/2024 21:28  
 GC Column: Luna-phenylhex ID: 4.60 (mm) Calib End Date: 04/25/2024 02:15  
 Lab File ID: 05080031.D

Analyte	RT	RT WINDOW	
		FROM	TO
HMX	6.65	6.52	6.82
Picric acid	8.57	8.57	8.87
RDX	8.85	8.74	9.04
Nitrobenzene	11.35	11.23	11.53
3,5-Dinitroaniline	14.09	13.95	14.25
1,3-Dinitrobenzene	14.40	14.25	14.55
Nitroglycerin	14.85	14.68	14.98
2-Nitrotoluene	15.43	15.26	15.56
4-Nitrotoluene	15.65	15.48	15.78
4-Amino-2,6-dinitrotoluene	16.13	15.98	16.28
3-Nitrotoluene	16.48	16.32	16.62
2-Amino-4,6-dinitrotoluene	16.93	16.78	17.08
1,3,5-Trinitrobenzene	17.17	17.02	17.32
2,6-Dinitrotoluene	18.24	18.08	18.38
2,4-Dinitrotoluene	18.70	18.53	18.83
Tetryl	21.83	21.68	21.98
2,4,6-Trinitrotoluene	22.69	22.54	22.84
PETN	23.85	23.66	23.96
1,2-Dinitrobenzene	12.26	12.14	12.44

Eurofins Denver  
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2\_LUNA\20240508-133164.b\05080031.D  
 Lims ID: CCV  
 Client ID:  
 Sample Type: CCV  
 Inject. Date: 09-May-2024 09:21:32 ALS Bottle#: 7 Worklist Smp#: 31  
 Injection Vol: 100.0 ul Dil. Factor: 1.0000  
 Sample Info: CCV  
 Operator ID: JZ Instrument ID: CHHPLC\_G2\_LUNA  
 Sublist: chrom-G2\_8330\_Luna\*sub16  
 Method: \\chromfs\Denver\ChromData\G2\_LUNA\20240508-133164.b\G2\_8330\_Luna.m  
 Limit Group: GCSV - 8330  
 Last Update: 09-May-2024 13:25:55 Calib Date: 25-Apr-2024 07:39:21  
 Integrator: Falcon  
 Quant Method: External Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Denver\ChromData\G2\_LUNA\20240424-132624.b\04240027.D  
 Column 1 : Luna-Phenyl hexyl ( 4.60 mm) Det: LC DAD1A, 254 nm  
 Process Host: CTX1670

First Level Reviewer: LV5D

Date: 09-May-2024 13:24:33

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
6 HMX	1	6.648	6.672	-0.024	45022	0.2500	0.2586	
5 2,4,6-Trinitrophenol	1	8.568	8.718	-0.150	39503	0.2500	0.2609	
8 RDX	1	8.848	8.885	-0.037	54175	0.2500	0.2608	
9 Nitrobenzene	1	11.347	11.378	-0.031	94262	0.2500	0.2467	
\$ 10 1,2-Dinitrobenzene	1	12.261	12.285	-0.024	67479	0.2500	0.2608	
11 3,5-Dinitroaniline	1	14.087	14.098	-0.011	114565	0.2500	0.2638	
12 1,3-Dinitrobenzene	1	14.401	14.398	0.003	150514	0.2500	0.2554	
13 Nitroglycerin	2	14.854	14.832	0.022	311830	2.50	2.61	M
14 o-Nitrotoluene	1	15.427	15.405	0.022	63767	0.2500	0.2607	
15 p-Nitrotoluene	1	15.654	15.632	0.022	56974	0.2500	0.2575	
16 4-Amino-2,6-dinitrotoluene	1	16.134	16.125	0.009	73075	0.2500	0.2684	
17 m-Nitrotoluene	1	16.481	16.465	0.016	71692	0.2500	0.2566	
18 2-Amino-4,6-dinitrotoluene	1	16.934	16.932	0.002	102019	0.2500	0.2515	
19 1,3,5-Trinitrobenzene	1	17.174	17.172	0.002	109643	0.2500	0.2589	
20 2,6-Dinitrotoluene	1	18.241	18.225	0.016	71611	0.2500	0.2576	
21 2,4-Dinitrotoluene	1	18.701	18.678	0.023	143411	0.2500	0.2586	
22 Tetryl	1	21.828	21.825	0.003	79603	0.2500	0.2537	
23 2,4,6-Trinitrotoluene	1	22.694	22.685	0.009	105093	0.2500	0.2629	
24 PETN	2	23.854	23.805	0.049	316256	2.50	2.57	

## QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

## Reagents:

8330IntermStk\_00080

Amount Added: 25.00

Units: uL

Eurofins Denver

Data File: \\chromfs\denver\chromdata\g2\_luna\20240508-133164.b\05080031.d

Injection Date: 09-May-2024 09:21:32

Instrument ID: CHHPLC\_G2\_LUNA

Operator ID: JZ

Lims ID: CCV

Worklist Smp#: 31

Client ID:

Injection Vol: 100.0 ul

Dil. Factor: 1.0000

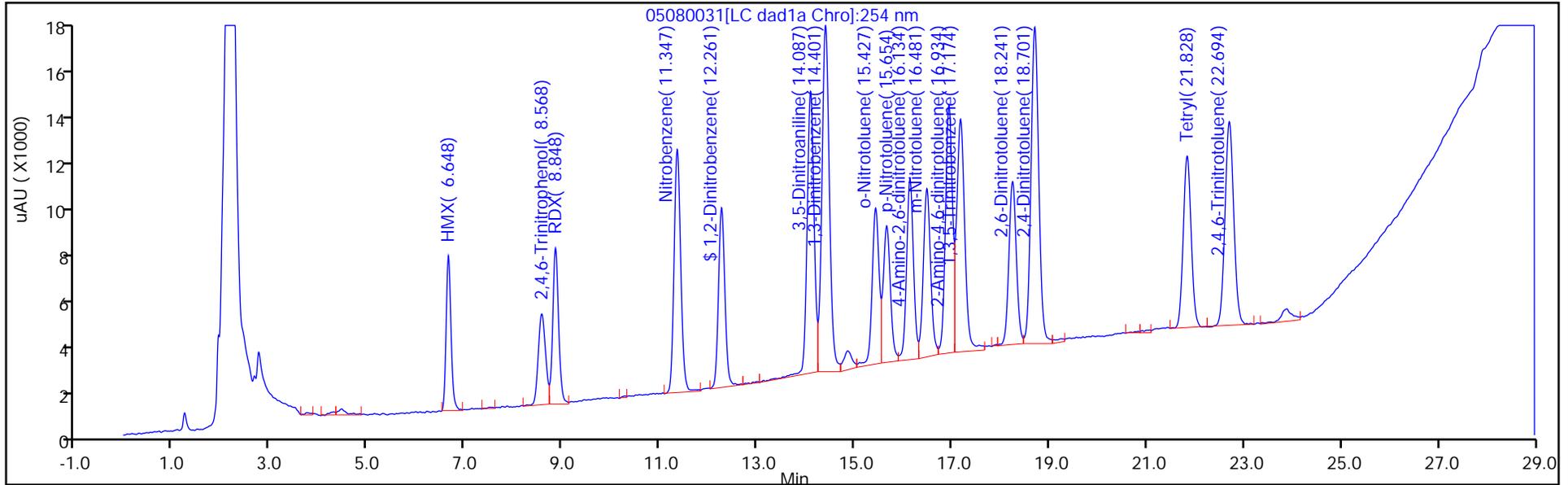
ALS Bottle#: 7

Method: G2\_8330\_Luna

Limit Group: GCSV - 8330

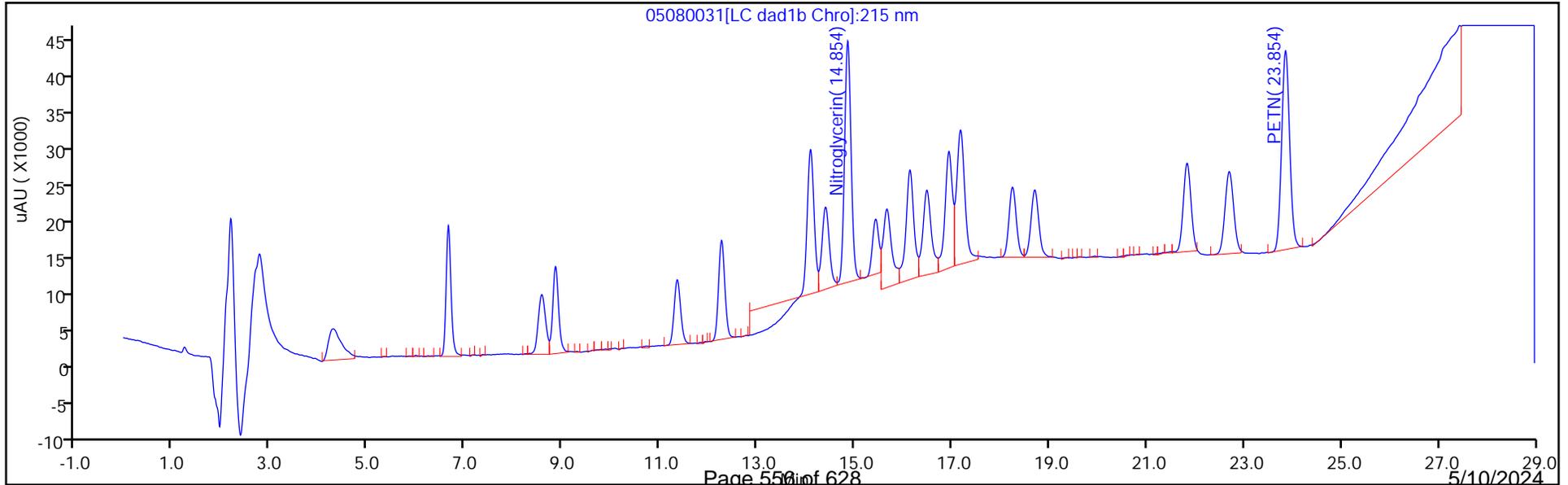
Column: Luna-Phenyl hexyl ( 4.60 mm)

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



Column: Luna-Phenyl hexyl ( 4.60 mm)

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



Eurofins Denver

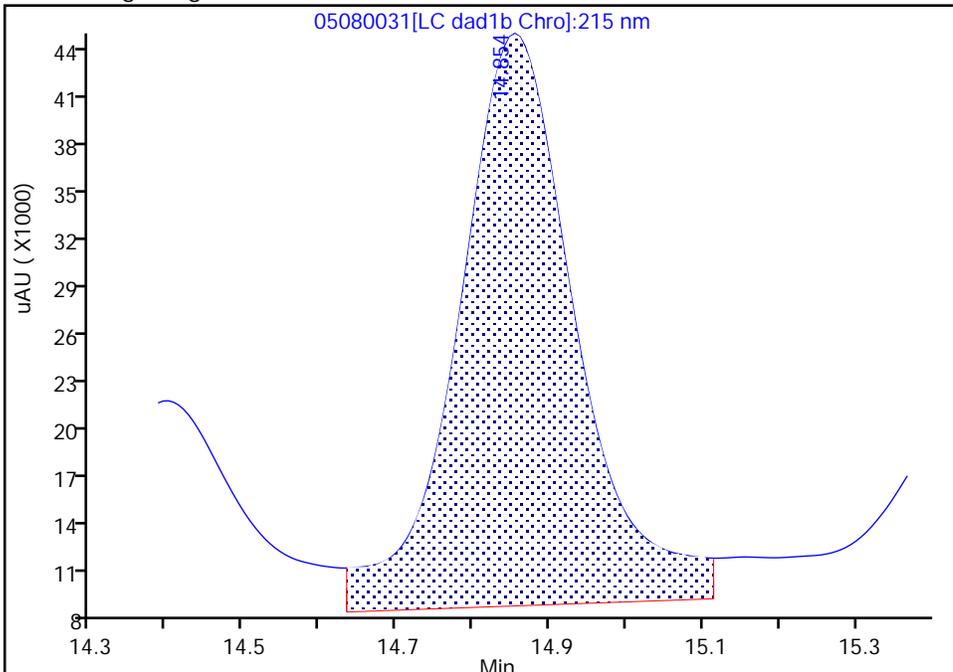
Data File: \\chromfs\denver\chromdata\g2\_luna\20240508-133164.b\05080031.d  
Injection Date: 09-May-2024 09:21:32 Instrument ID: CHHPLC\_G2\_LUNA  
Lims ID: CCV  
Client ID:  
Operator ID: JZ ALS Bottle#: 7 Worklist Smp#: 31  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: G2\_8330\_Luna Limit Group: GCSV - 8330  
Column: Luna-Phenyl hexyl ( 4.60 mm) Detector: LC DAD1B, 215 nm

13 Nitroglycerin, CAS: 55-63-0

Signal: 1

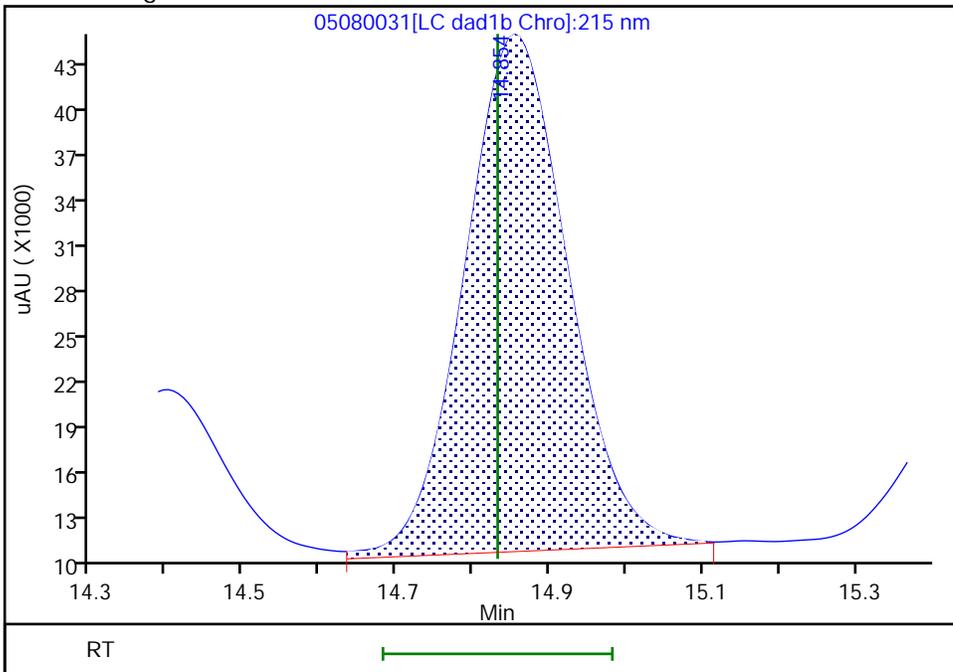
RT: 14.85  
Area: 381022  
Amount: 3.188341  
Amount Units: ug/ml

Processing Integration Results



RT: 14.85  
Area: 311830  
Amount: 2.609352  
Amount Units: ug/ml

Manual Integration Results



Reviewer: LV5D, 09-May-2024 13:24:29 -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.: 280-190882-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: ICV 280-649950/20 Calibration Date: 04/18/2024 00:04  
 Instrument ID: CHHPLC\_X3 Calib Start Date: 04/17/2024 20:37  
 GC Column: UltraCarb5uODS ID: 4.60 (mm) Calib End Date: 04/17/2024 23:41  
 Lab File ID: 04170020.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
TNX	Ave	198992	204787		517	502	2.9	20.0
HMX	Ave	95544	88884		465	500	-7.0	20.0
DNX	Ave	147260	152248		518	501	3.4	20.0
MNX	Ave	136698	141932		607	585	3.8	20.0
RDX	Ave	110767	107360		485	500	-3.1	20.0
Picric acid	Ave	79326	85128		537	500	7.3	20.0
1,3,5-Trinitrobenzene	Ave	222853	238232		535	500	6.9	20.0
1,3-Dinitrobenzene	Ave	299436	315400		527	500	5.3	20.0
Nitrobenzene	Ave	196329	207206		528	500	5.5	20.0
3,5-Dinitroaniline	Lin2		227972		517	500	3.4	20.0
Tetryl	Ave	181588	191842		528	500	5.6	20.0
Nitroglycerin	Ave	66464	70364		5290	5000	5.9	20.0
2,4,6-Trinitrotoluene	Ave	215192	218358		507	500	1.5	20.0
4-Amino-2,6-dinitrotoluene	Ave	149948	155448		518	500	3.7	20.0
2-Amino-4,6-dinitrotoluene	Ave	199809	208532		522	500	4.4	20.0
2,6-Dinitrotoluene	Ave	146914	147890		503	500	0.7	20.0
2,4-Dinitrotoluene	Ave	291844	298646		512	500	2.3	20.0
2-Nitrotoluene	Ave	129305	129160		499	500	-0.1	20.0
4-Nitrotoluene	Ave	112799	111300		493	500	-1.3	20.0
3-Nitrotoluene	Ave	144063	142054		493	500	-1.4	20.0
PETN	Ave	71937	78341		5450	5000	8.9	20.0
1,2-Dinitrobenzene	Lin2		127242		483	500	-3.5	20.0

FORM VII  
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-190882-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: ICV 280-649950/20 Calibration Date: 04/18/2024 00:04  
 Instrument ID: CHHPLC\_X3 Calib Start Date: 04/17/2024 20:37  
 GC Column: UltraCarb5uODS ID: 4.60 (mm) Calib End Date: 04/17/2024 23:41  
 Lab File ID: 04170020.D

Analyte	RT	RT WINDOW	
		FROM	TO
TNX	6.48	6.38	6.58
HMX	6.58	6.43	6.73
DNX	6.79	6.69	6.89
MNX	7.20	7.05	7.35
RDX	7.58	7.43	7.73
Picric acid	7.80	7.67	7.97
1,3,5-Trinitrobenzene	8.66	8.51	8.81
1,3-Dinitrobenzene	9.27	9.13	9.43
Nitrobenzene	9.63	9.49	9.79
3,5-Dinitroaniline	9.87	9.73	10.03
Tetryl	9.95	9.81	10.11
Nitroglycerin	10.43	10.28	10.58
2,4,6-Trinitrotoluene	10.86	10.77	10.97
4-Amino-2,6-dinitrotoluene	11.04	10.95	11.15
2-Amino-4,6-dinitrotoluene	11.30	11.21	11.41
2,6-Dinitrotoluene	11.45	11.35	11.55
2,4-Dinitrotoluene	11.62	11.53	11.73
2-Nitrotoluene	12.41	12.27	12.57
4-Nitrotoluene	12.84	12.69	12.99
3-Nitrotoluene	13.39	13.25	13.55
PETN	14.48	14.33	14.63
1,2-Dinitrobenzene	8.52	8.37	8.67

Eurofins Denver  
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC\_X\20240417-132364.b\04170020.D  
 Lims ID: ICV INT/DMT  
 Client ID:  
 Sample Type: ICV  
 Inject. Date: 18-Apr-2024 00:04:28 ALS Bottle#: 20 Worklist Smp#: 20  
 Injection Vol: 100.0 ul Dil. Factor: 1.0000  
 Sample Info: ICV INT/DMT  
 Operator ID: JZ/JG Instrument ID: CHHPLC\_X3  
 Sublist:  
 Method: \\chromfs\Denver\ChromData\CHHPLC\_X\20240417-132364.b\8330\_X3.m  
 Limit Group: GCSV - 8330  
 Last Update: 18-Apr-2024 12:06:14 Calib Date: 17-Apr-2024 23:41:30  
 Integrator: Falcon  
 Quant Method: External Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Denver\ChromData\CHHPLC\_X\20240417-132364.b\04170019.D  
 Column 1 : UltraCarb5uODS (20) ( 4.60 mm) Det: LC DAD1B, 254 nm  
 Process Host: CTX1675

First Level Reviewer: LV5D Date: 18-Apr-2024 11:20:39

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 TNX	1	6.475	6.476	-0.001	102803	0.5020	0.5166	M
4 HMX	1	6.581	6.583	-0.002	44442	0.5000	0.4651	M
6 DNx	1	6.788	6.789	-0.001	76276	0.5010	0.5180	M
7 MNx	1	7.201	7.203	-0.002	82959	0.5845	0.6069	
8 RDX	1	7.581	7.583	-0.002	53680	0.5000	0.4846	
9 2,4,6-Trinitrophenol	1	7.795	7.816	-0.021	42564	0.5000	0.5366	
\$ 10 1,2-Dinitrobenzene	1	8.515	8.516	-0.001	63621	0.5000	0.4826	
11 1,3,5-Trinitrobenzene	1	8.655	8.656	-0.001	119116	0.5000	0.5345	
12 1,3-Dinitrobenzene	1	9.274	9.276	-0.002	157700	0.5000	0.5267	
13 Nitrobenzene	1	9.628	9.636	-0.008	103603	0.5000	0.5277	
14 3,5-Dinitroaniline	1	9.868	9.876	-0.008	113986	0.5000	0.5168	
15 Tetryl	1	9.954	9.963	-0.009	95921	0.5000	0.5282	
16 Nitroglycerin	2	10.428	10.429	-0.001	351818	5.00	5.29	
17 2,4,6-Trinitrotoluene	1	10.861	10.869	-0.008	109179	0.5000	0.5074	
18 4-Amino-2,6-dinitrotoluene	1	11.041	11.049	-0.008	77724	0.5000	0.5183	
19 2-Amino-4,6-dinitrotoluene	1	11.301	11.309	-0.008	104266	0.5000	0.5218	
20 2,6-Dinitrotoluene	1	11.448	11.449	-0.001	73945	0.5000	0.5033	
21 2,4-Dinitrotoluene	1	11.621	11.629	-0.008	149323	0.5000	0.5117	
22 o-Nitrotoluene	1	12.414	12.423	-0.009	64580	0.5000	0.4994	
23 p-Nitrotoluene	1	12.841	12.843	-0.002	55650	0.5000	0.4934	
24 m-Nitrotoluene	1	13.394	13.403	-0.009	71027	0.5000	0.4930	
25 PETN	2	14.481	14.483	-0.002	391703	5.00	5.45	
26 Ammonium Picrate	1		0.000			ND	ND	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

**Reagents:**

8330Surrogate_00154	Amount Added: 50.00	Units: uL
8330 LCS_00134	Amount Added: 50.00	Units: uL
8330_OP_DMT_00026	Amount Added: 50.00	Units: uL

Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc\_x\20240417-132364.b\04170020.d

Injection Date: 18-Apr-2024 00:04:28

Instrument ID: CHHPLC\_X3

Operator ID: JZ/JG

Lims ID: ICV INT/DMT

Worklist Smp#: 20

Client ID:

Injection Vol: 100.0 ul

Dil. Factor: 1.0000

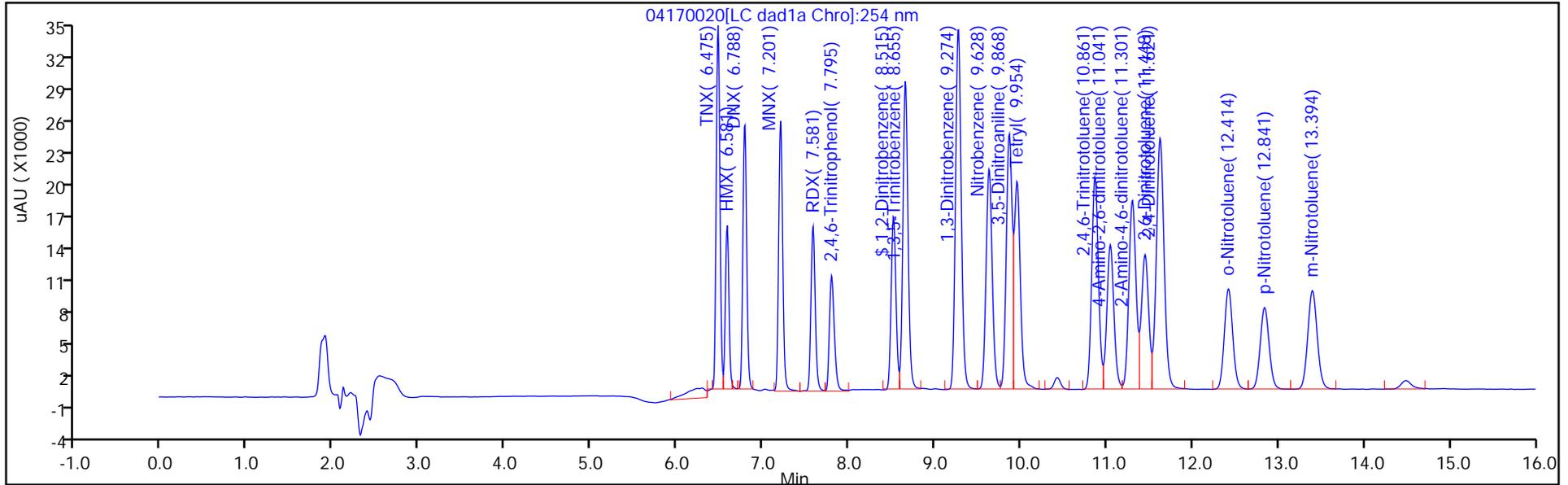
ALS Bottle#: 20

Method: 8330\_X3

Limit Group: GCSV - 8330

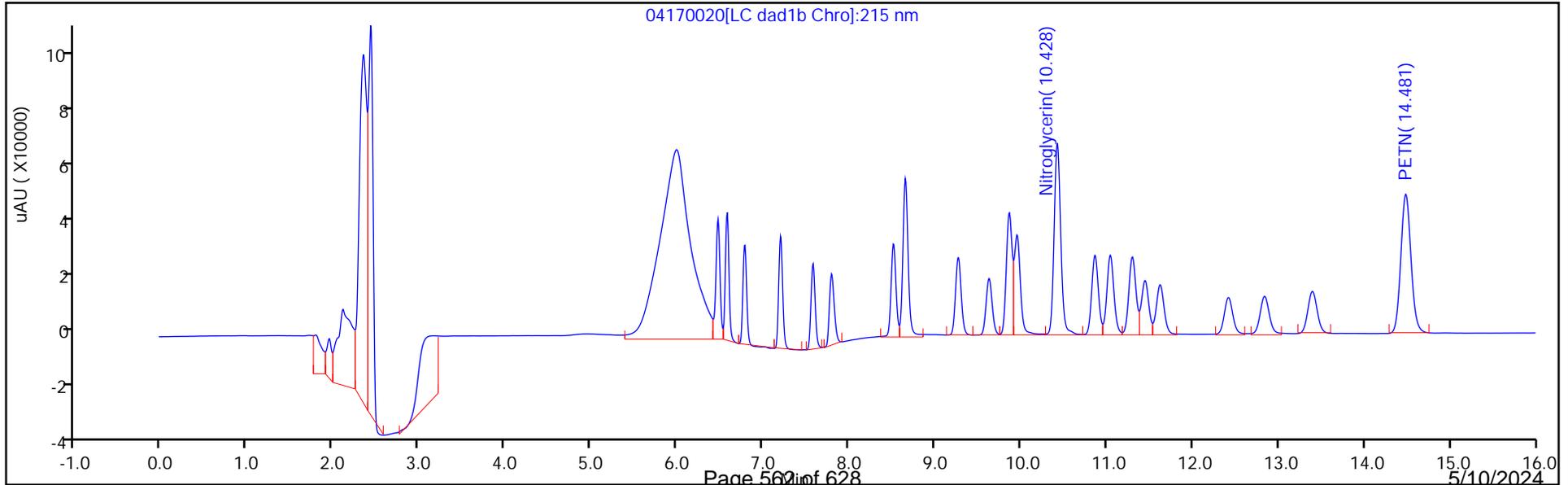
Column: UltraCarb5uODS (20) ( 4.60 mm)

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



Column: UltraCarb5uODS (20) ( 4.60 mm)

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



Eurofins Denver

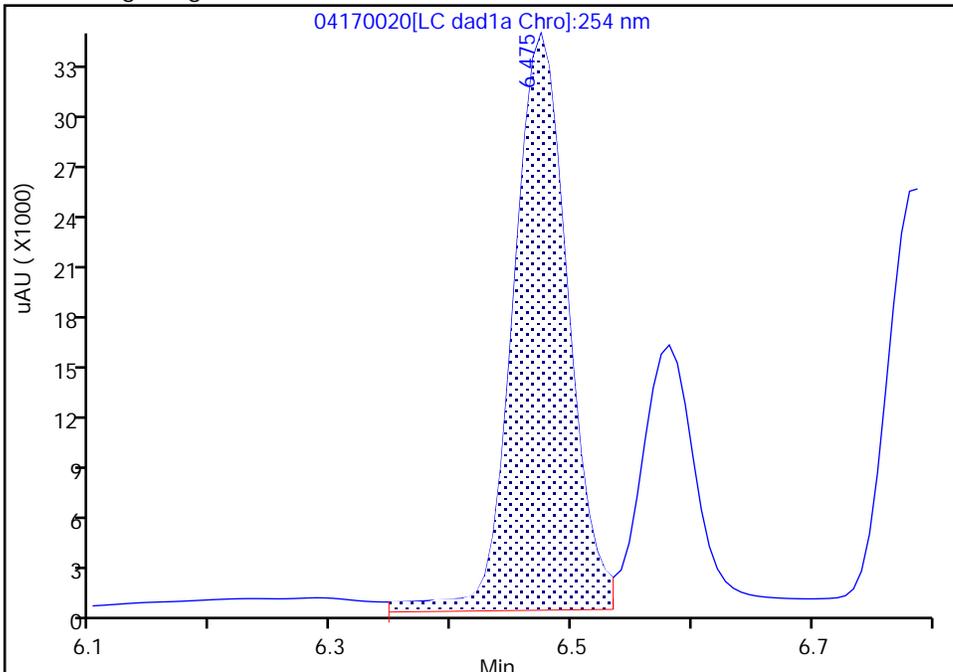
Data File: \\chromfs\denver\chromdata\chhplc\_x\20240417-132364.b\04170020.d  
Injection Date: 18-Apr-2024 00:04:28 Instrument ID: CHHPLC\_X3  
Lims ID: ICV INT/DMT  
Client ID:  
Operator ID: JZ/JG ALS Bottle#: 20 Worklist Smp#: 20  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: 8330\_X3 Limit Group: GCSV - 8330  
Column: UltraCarb5uODS (20) ( 4.60 mm) Detector: LC DAD1B, 254 nm

3 TNX, CAS: 13980-04-6

Signal: 1

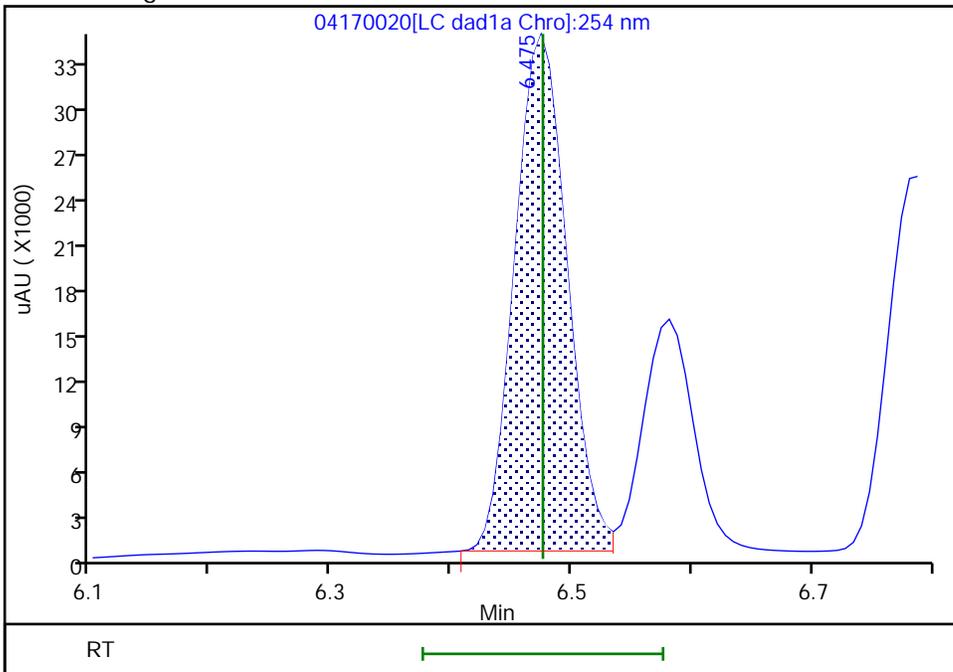
RT: 6.47  
Area: 110168  
Amount: 0.553630  
Amount Units: ug/mL

Processing Integration Results



RT: 6.47  
Area: 102803  
Amount: 0.516619  
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 18-Apr-2024 11:20:20 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Baseline

Eurofins Denver

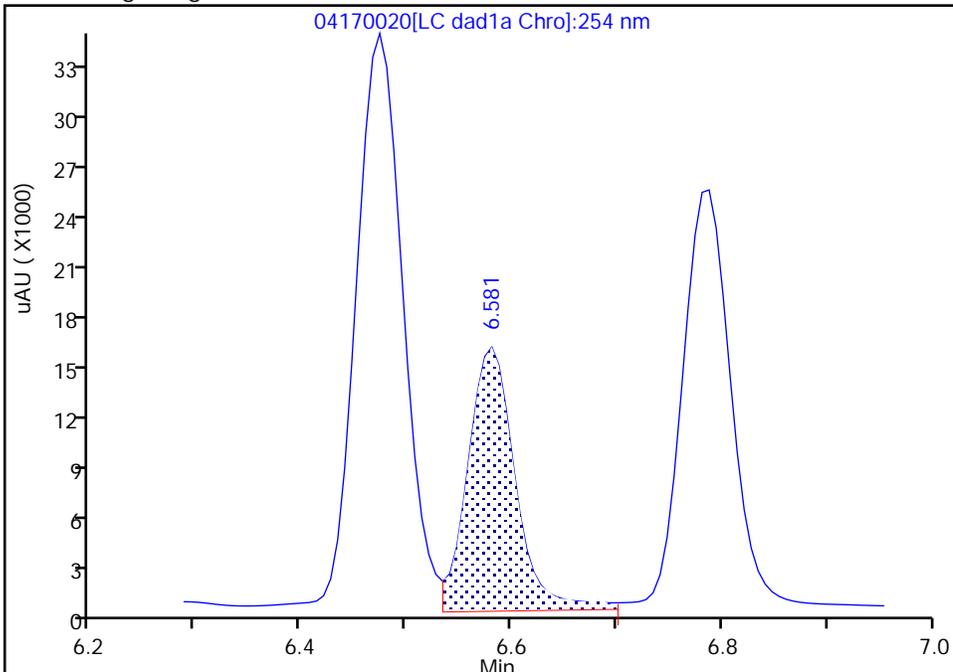
Data File:	\\chromfs\denver\chromdata\chhplc_x\20240417-132364.b\04170020.d		
Injection Date:	18-Apr-2024 00:04:28	Instrument ID:	CHHPLC_X3
Lims ID:	ICV INT/DMT		
Client ID:			
Operator ID:	JZ/JG	ALS Bottle#:	20 Worklist Smp#: 20
Injection Vol:	100.0 ul	Dil. Factor:	1.0000
Method:	8330_X3	Limit Group:	GCSV - 8330
Column:	UltraCarb5uODS (20) ( 4.60 mm)	Detector:	LC DAD1B, 254 nm

4 HMX, CAS: 2691-41-0

Signal: 1

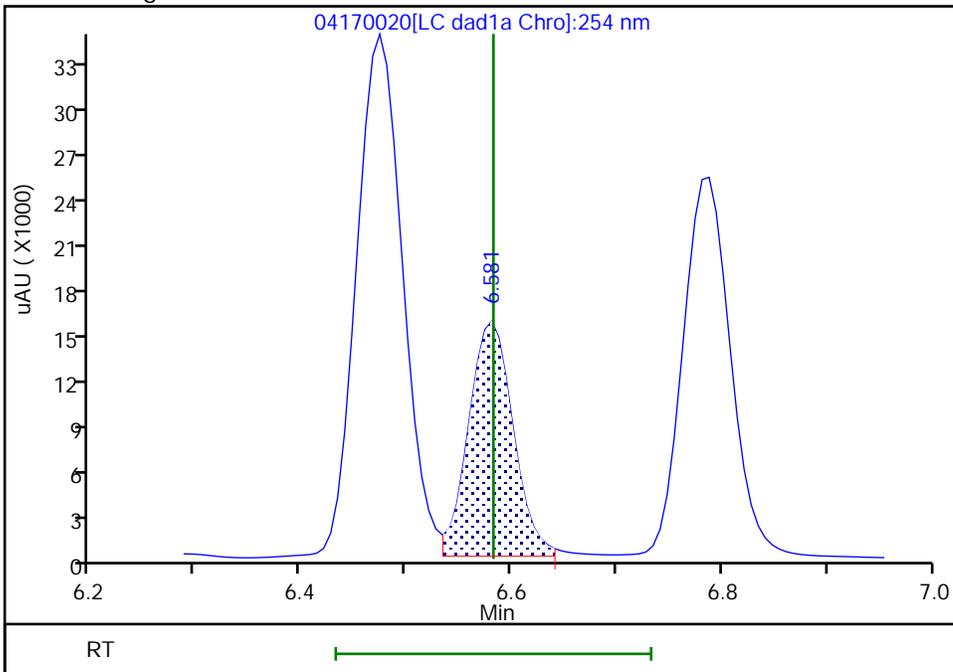
RT: 6.58  
 Area: 49818  
 Amount: 0.521416  
 Amount Units: ug/mL

Processing Integration Results



RT: 6.58  
 Area: 44442  
 Amount: 0.465148  
 Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 18-Apr-2024 11:20:21 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Baseline

Eurofins Denver

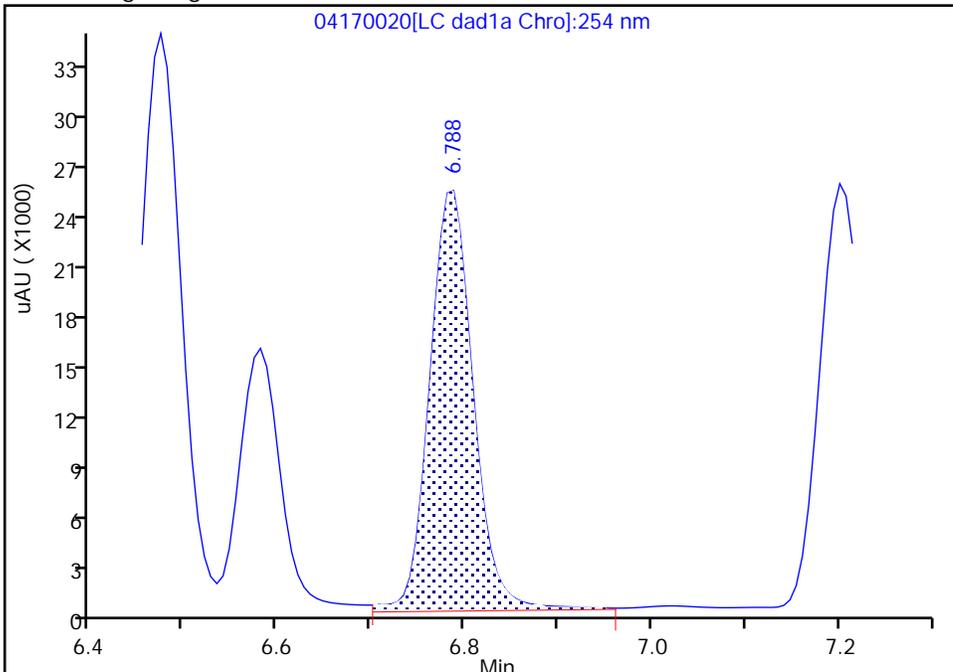
Data File: \\chromfs\denver\chromdata\chhplc\_x\20240417-132364.b\04170020.d  
Injection Date: 18-Apr-2024 00:04:28 Instrument ID: CHHPLC\_X3  
Lims ID: ICV INT/DMT  
Client ID:  
Operator ID: JZ/JG ALS Bottle#: 20 Worklist Smp#: 20  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: 8330\_X3 Limit Group: GCSV - 8330  
Column: UltraCarb5uODS (20) ( 4.60 mm) Detector: LC DAD1B, 254 nm

6 DNX, CAS: 80251-29-2

Signal: 1

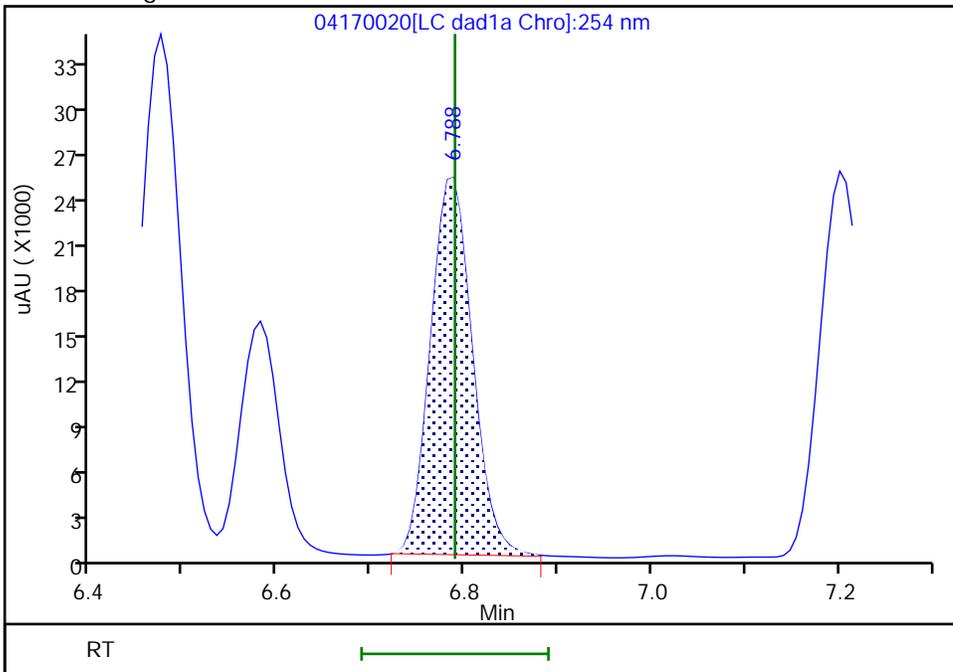
RT: 6.79  
Area: 81732  
Amount: 0.555020  
Amount Units: ug/mL

Processing Integration Results



RT: 6.79  
Area: 76276  
Amount: 0.517970  
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 18-Apr-2024 11:20:24 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

FORM VII  
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-190882-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCV 280-652621/7 Calibration Date: 05/08/2024 17:07  
 Instrument ID: CHHPLC\_X3 Calib Start Date: 04/17/2024 20:37  
 GC Column: UltraCarb5uODS ID: 4.60 (mm) Calib End Date: 04/17/2024 23:41  
 Lab File ID: 05080007.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
HMX	Ave	95544	95144		249	250	-0.4	20.0
RDX	Ave	110767	108948		246	250	-1.6	20.0
Picric acid	Ave	79326	82968		261	250	4.6	20.0
1,3,5-Trinitrobenzene	Ave	222853	222076		249	250	-0.3	20.0
1,3-Dinitrobenzene	Ave	299436	306508		256	250	2.4	20.0
Nitrobenzene	Ave	196329	200932		256	250	2.3	20.0
3,5-Dinitroaniline	Lin2		224556		255	250	2.0	20.0
Tetryl	Ave	181588	182168		251	250	0.3	20.0
Nitroglycerin	Ave	66464	68164		2560	2500	2.6	20.0
2,4,6-Trinitrotoluene	Ave	215192	219792		255	250	2.1	20.0
4-Amino-2,6-dinitrotoluene	Ave	149948	151176		252	250	0.8	20.0
2-Amino-4,6-dinitrotoluene	Ave	199809	208684		261	250	4.4	20.0
2,6-Dinitrotoluene	Ave	146914	149824		255	250	2.0	20.0
2,4-Dinitrotoluene	Ave	291844	296804		254	250	1.7	20.0
2-Nitrotoluene	Ave	129305	131008		253	250	1.3	20.0
4-Nitrotoluene	Ave	112799	112592		250	250	-0.2	20.0
3-Nitrotoluene	Ave	144063	143964		250	250	-0.0	20.0
PETN	Ave	71937	73033		2540	2500	1.5	20.0
1,2-Dinitrobenzene	Lin2		137220		260	250	4.0	20.0

FORM VII  
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-190882-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCV 280-652621/7 Calibration Date: 05/08/2024 17:07  
 Instrument ID: CHHPLC\_X3 Calib Start Date: 04/17/2024 20:37  
 GC Column: UltraCarb5uODS ID: 4.60 (mm) Calib End Date: 04/17/2024 23:41  
 Lab File ID: 05080007.D

Analyte	RT	RT WINDOW	
		FROM	TO
HMX	6.62	6.47	6.77
RDX	7.62	7.47	7.77
Picric acid	7.83	7.68	7.98
1,3,5-Trinitrobenzene	8.70	8.55	8.85
1,3-Dinitrobenzene	9.30	9.15	9.45
Nitrobenzene	9.66	9.51	9.81
3,5-Dinitroaniline	9.90	9.75	10.05
Tetryl	9.96	9.81	10.11
Nitroglycerin	10.44	10.29	10.59
2,4,6-Trinitrotoluene	10.87	10.77	10.97
4-Amino-2,6-dinitrotoluene	11.04	10.94	11.14
2-Amino-4,6-dinitrotoluene	11.30	11.20	11.40
2,6-Dinitrotoluene	11.44	11.34	11.54
2,4-Dinitrotoluene	11.62	11.52	11.72
2-Nitrotoluene	12.39	12.24	12.54
4-Nitrotoluene	12.81	12.66	12.96
3-Nitrotoluene	13.36	13.21	13.51
PETN	14.39	14.24	14.54
1,2-Dinitrobenzene	8.56	8.41	8.71

Eurofins Denver  
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC\_X\20240508-133160.b\05080007.D  
 Lims ID: CCV INT  
 Client ID:  
 Sample Type: CCV  
 Inject. Date: 08-May-2024 17:07:21 ALS Bottle#: 7 Worklist Smp#: 7  
 Injection Vol: 100.0 ul Dil. Factor: 1.0000  
 Sample Info: CCV INT  
 Operator ID: JZ Instrument ID: CHHPLC\_X3  
 Sublist: chrom-8330\_X3\*sub26  
 Method: \\chromfs\Denver\ChromData\CHHPLC\_X\20240508-133160.b\8330\_X3.m  
 Limit Group: GCSV - 8330  
 Last Update: 09-May-2024 13:10:41 Calib Date: 18-Apr-2024 03:08:00  
 Integrator: Falcon  
 Quant Method: External Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Denver\ChromData\CHHPLC\_X\20240417-132364.b\04170028.D  
 Column 1 : UltraCarb5uODS (20) ( 4.60 mm) Det: LC DAD1B, 254 nm  
 Process Host: CTX1670

First Level Reviewer: LV5D Date: 08-May-2024 17:35:26

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
4 HMX	1	6.616	6.616	0.000	23786	0.2500	0.2490	M
8 RDX	1	7.623	7.623	0.000	27237	0.2500	0.2459	
9 2,4,6-Trinitrophenol	1	7.830	7.830	0.000	20742	0.2500	0.2615	
\$ 10 1,2-Dinitrobenzene	1	8.556	8.556	0.000	34305	0.2500	0.2599	
11 1,3,5-Trinitrobenzene	1	8.696	8.696	0.000	55519	0.2500	0.2491	
12 1,3-Dinitrobenzene	1	9.303	9.303	0.000	76627	0.2500	0.2559	
13 Nitrobenzene	1	9.656	9.656	0.000	50233	0.2500	0.2559	
14 3,5-Dinitroaniline	1	9.896	9.896	0.000	56139	0.2500	0.2551	
15 Tetryl	1	9.963	9.963	0.000	45542	0.2500	0.2508	
16 Nitroglycerin	2	10.436	10.436	0.000	170411	2.50	2.56	
17 2,4,6-Trinitrotoluene	1	10.869	10.869	0.000	54948	0.2500	0.2553	
18 4-Amino-2,6-dinitrotoluene	1	11.043	11.043	0.000	37794	0.2500	0.2520	
19 2-Amino-4,6-dinitrotoluene	1	11.303	11.303	0.000	52171	0.2500	0.2611	
20 2,6-Dinitrotoluene	1	11.436	11.436	0.000	37456	0.2500	0.2550	
21 2,4-Dinitrotoluene	1	11.616	11.616	0.000	74201	0.2500	0.2542	
22 o-Nitrotoluene	1	12.389	12.389	0.000	32752	0.2500	0.2533	
23 p-Nitrotoluene	1	12.809	12.809	0.000	28148	0.2500	0.2495	
24 m-Nitrotoluene	1	13.356	13.356	0.000	35991	0.2500	0.2498	
25 PETN	2	14.389	14.389	0.000	182582	2.50	2.54	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

8330IntermStk\_00080

Amount Added: 25.00

Units: uL

Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc\_x\20240508-133160.b\05080007.d

Injection Date: 08-May-2024 17:07:21

Instrument ID: CHHPLC\_X3

Operator ID: JZ

Lims ID: CCV INT

Worklist Smp#: 7

Client ID:

Injection Vol: 100.0 ul

Dil. Factor: 1.0000

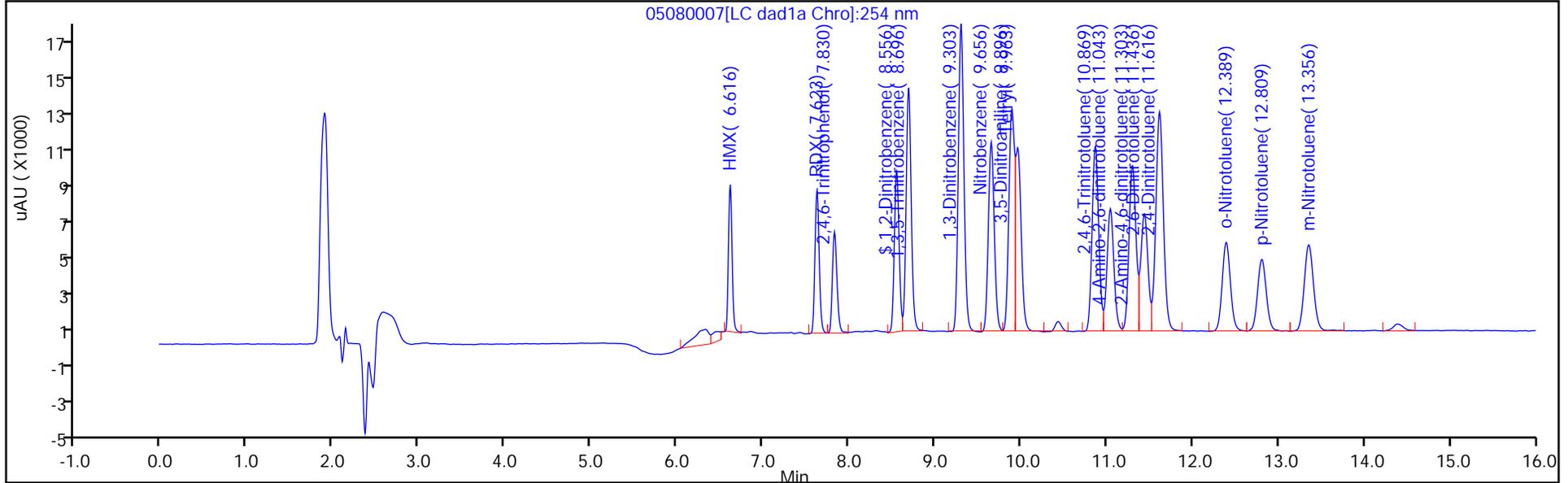
ALS Bottle#: 7

Method: 8330\_X3

Limit Group: GCSV - 8330

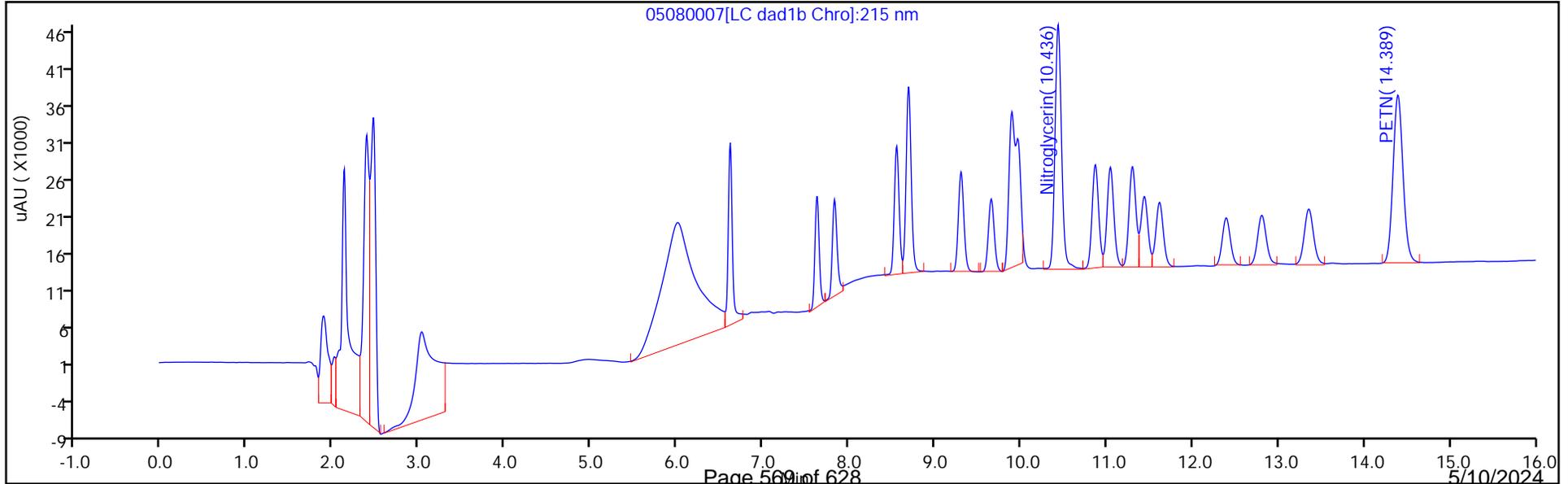
Column: UltraCarb5uODS (20) ( 4.60 mm)

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



Eurofins Denver

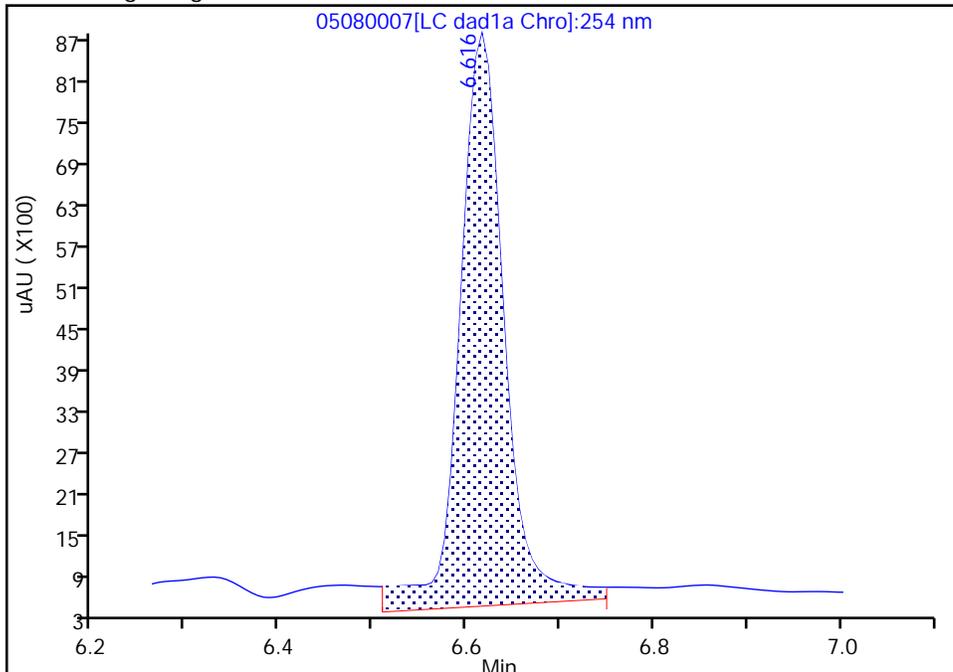
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Injection Date: 08-May-2024 17:07:21 Instrument ID: CHHPLC\_X3  
Lims ID: CCV INT  
Client ID:  
Operator ID: JZ ALS Bottle#: 7 Worklist Smp#: 7  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: 8330\_X3 Limit Group: GCSV - 8330  
Column: UltraCarb5uODS (20) ( 4.60 mm) Detector: LC DAD1B, 254 nm

4 HMX, CAS: 2691-41-0

Signal: 1

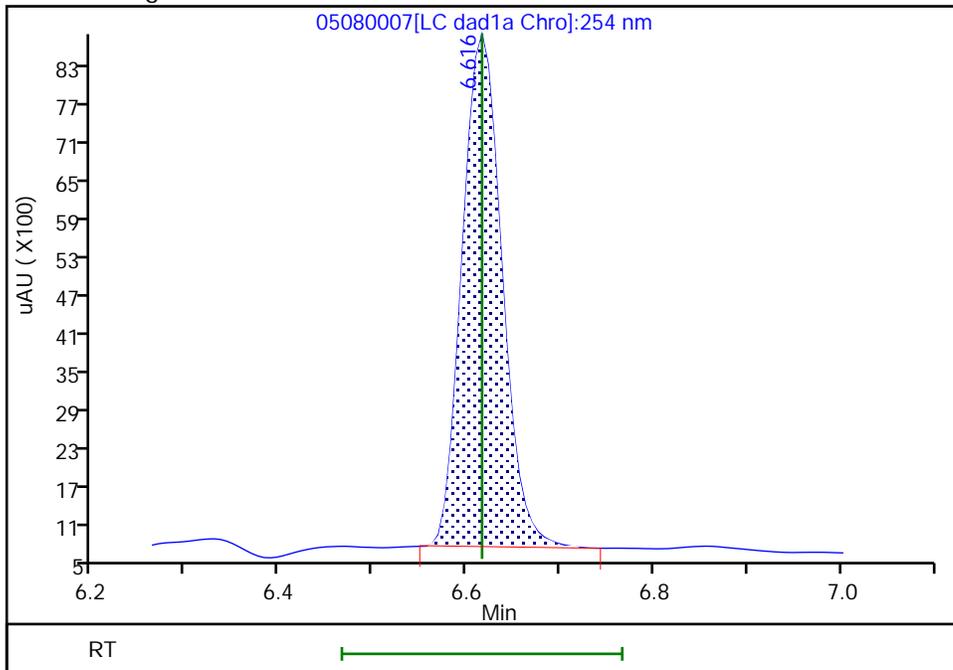
RT: 6.62  
Area: 27757  
Amount: 0.290516  
Amount Units: ug/mL

Processing Integration Results



RT: 6.62  
Area: 23786  
Amount: 0.248954  
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 08-May-2024 17:35:24 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

FORM VII  
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-190882-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCV 280-652621/21 Calibration Date: 05/08/2024 21:19  
 Instrument ID: CHHPLC\_X3 Calib Start Date: 04/17/2024 20:37  
 GC Column: UltraCarb5uODS ID: 4.60 (mm) Calib End Date: 04/17/2024 23:41  
 Lab File ID: 05080021.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
HMX	Ave	95544	94204		246	250	-1.4	20.0
RDX	Ave	110767	109764		248	250	-0.9	20.0
Picric acid	Ave	79326	83364		263	250	5.1	20.0
1,3,5-Trinitrobenzene	Ave	222853	221484		248	250	-0.6	20.0
1,3-Dinitrobenzene	Ave	299436	305272		255	250	1.9	20.0
Nitrobenzene	Ave	196329	201808		257	250	2.8	20.0
3,5-Dinitroaniline	Lin2		227372		258	250	3.3	20.0
Tetryl	Ave	181588	178864		246	250	-1.5	20.0
Nitroglycerin	Ave	66464	68162		2560	2500	2.6	20.0
2,4,6-Trinitrotoluene	Ave	215192	219524		255	250	2.0	20.0
4-Amino-2,6-dinitrotoluene	Ave	149948	150612		251	250	0.4	20.0
2-Amino-4,6-dinitrotoluene	Ave	199809	206032		258	250	3.1	20.0
2,6-Dinitrotoluene	Ave	146914	150020		255	250	2.1	20.0
2,4-Dinitrotoluene	Ave	291844	300280		257	250	2.9	20.0
2-Nitrotoluene	Ave	129305	133196		258	250	3.0	20.0
4-Nitrotoluene	Ave	112799	118960		264	250	5.5	20.0
3-Nitrotoluene	Ave	144063	153576		267	250	6.6	20.0
PETN	Ave	71937	73328		2550	2500	1.9	20.0
1,2-Dinitrobenzene	Lin2		136080		258	250	3.1	20.0

FORM VII  
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-190882-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCV 280-652621/21 Calibration Date: 05/08/2024 21:19  
 Instrument ID: CHHPLC\_X3 Calib Start Date: 04/17/2024 20:37  
 GC Column: UltraCarb5uODS ID: 4.60 (mm) Calib End Date: 04/17/2024 23:41  
 Lab File ID: 05080021.D

Analyte	RT	RT WINDOW	
		FROM	TO
HMX	6.61	6.47	6.77
RDX	7.63	7.47	7.77
Picric acid	7.83	7.68	7.98
1,3,5-Trinitrobenzene	8.70	8.55	8.85
1,3-Dinitrobenzene	9.31	9.15	9.45
Nitrobenzene	9.67	9.51	9.81
3,5-Dinitroaniline	9.90	9.75	10.05
Tetryl	9.98	9.81	10.11
Nitroglycerin	10.44	10.29	10.59
2,4,6-Trinitrotoluene	10.88	10.77	10.97
4-Amino-2,6-dinitrotoluene	11.05	10.94	11.14
2-Amino-4,6-dinitrotoluene	11.31	11.20	11.40
2,6-Dinitrotoluene	11.45	11.34	11.54
2,4-Dinitrotoluene	11.63	11.52	11.72
2-Nitrotoluene	12.41	12.24	12.54
4-Nitrotoluene	12.82	12.66	12.96
3-Nitrotoluene	13.37	13.21	13.51
PETN	14.41	14.24	14.54
1,2-Dinitrobenzene	8.56	8.41	8.71

Eurofins Denver  
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC\_X\20240508-133160.b\05080021.D  
 Lims ID: CCV INT  
 Client ID:  
 Sample Type: CCV  
 Inject. Date: 08-May-2024 21:19:43 ALS Bottle#: 7 Worklist Smp#: 21  
 Injection Vol: 100.0 ul Dil. Factor: 1.0000  
 Sample Info: CCV INT  
 Operator ID: JZ Instrument ID: CHHPLC\_X3  
 Sublist: chrom-8330\_X3\*sub26  
 Method: \\chromfs\Denver\ChromData\CHHPLC\_X\20240508-133160.b\8330\_X3.m  
 Limit Group: GCSV - 8330  
 Last Update: 09-May-2024 13:10:49 Calib Date: 18-Apr-2024 03:08:00  
 Integrator: Falcon  
 Quant Method: External Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Denver\ChromData\CHHPLC\_X\20240417-132364.b\04170028.D  
 Column 1 : UltraCarb5uODS (20) ( 4.60 mm) Det: LC DAD1B, 254 nm  
 Process Host: CTX1670

First Level Reviewer: LV5D Date: 09-May-2024 11:54:56

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
4 HMX	1	6.606	6.616	-0.010	23551	0.2500	0.2465	M
8 RDX	1	7.626	7.623	0.003	27441	0.2500	0.2477	
9 2,4,6-Trinitrophenol	1	7.832	7.830	0.002	20841	0.2500	0.2627	
\$ 10 1,2-Dinitrobenzene	1	8.559	8.556	0.003	34020	0.2500	0.2577	
11 1,3,5-Trinitrobenzene	1	8.699	8.696	0.003	55371	0.2500	0.2485	
12 1,3-Dinitrobenzene	1	9.312	9.303	0.009	76318	0.2500	0.2549	
13 Nitrobenzene	1	9.666	9.656	0.010	50452	0.2500	0.2570	
14 3,5-Dinitroaniline	1	9.899	9.896	0.003	56843	0.2500	0.2583	
15 Tetryl	1	9.979	9.963	0.016	44716	0.2500	0.2462	
16 Nitroglycerin	2	10.439	10.436	0.003	170406	2.50	2.56	
17 2,4,6-Trinitrotoluene	1	10.879	10.869	0.010	54881	0.2500	0.2550	
18 4-Amino-2,6-dinitrotoluene	1	11.052	11.043	0.009	37653	0.2500	0.2511	
19 2-Amino-4,6-dinitrotoluene	1	11.312	11.303	0.009	51508	0.2500	0.2578	
20 2,6-Dinitrotoluene	1	11.452	11.436	0.016	37505	0.2500	0.2553	
21 2,4-Dinitrotoluene	1	11.626	11.616	0.010	75070	0.2500	0.2572	
22 o-Nitrotoluene	1	12.406	12.389	0.017	33299	0.2500	0.2575	
23 p-Nitrotoluene	1	12.819	12.809	0.010	29740	0.2500	0.2637	
24 m-Nitrotoluene	1	13.366	13.356	0.010	38394	0.2500	0.2665	
25 PETN	2	14.412	14.389	0.023	183321	2.50	2.55	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

8330IntermStk\_00080

Amount Added: 25.00

Units: uL

Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc\_x\20240508-133160.b\05080021.d

Injection Date: 08-May-2024 21:19:43

Instrument ID: CHHPLC\_X3

Operator ID: JZ

Lims ID: CCV INT

Worklist Smp#: 21

Client ID:

Injection Vol: 100.0 ul

Dil. Factor: 1.0000

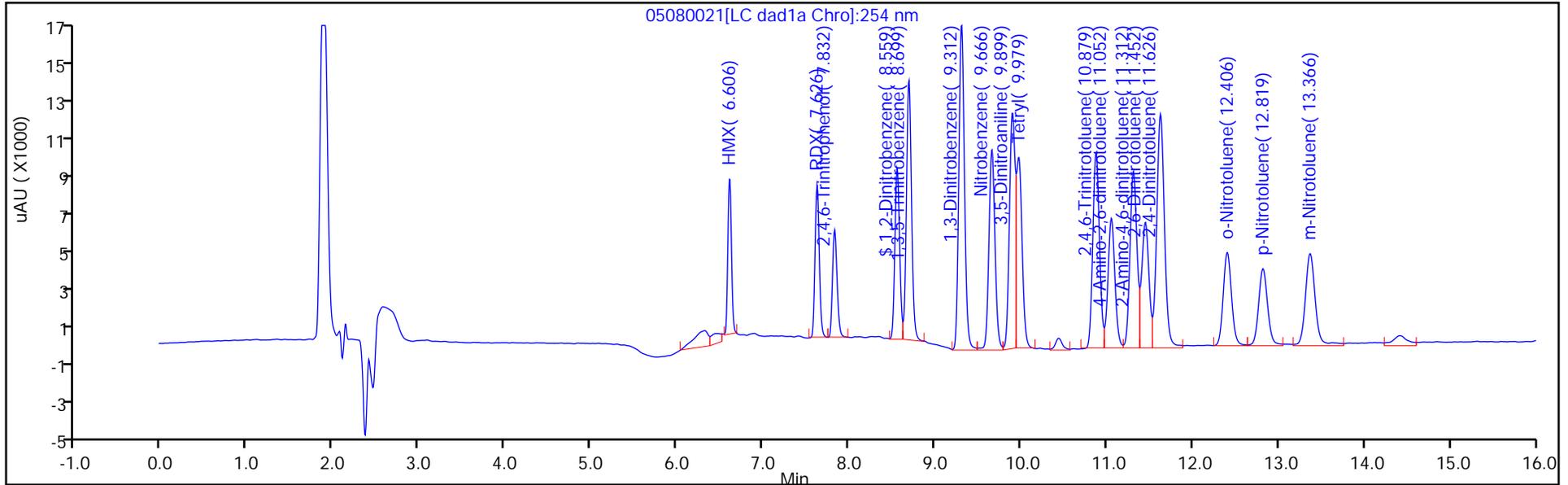
ALS Bottle#: 7

Method: 8330\_X3

Limit Group: GCSV - 8330

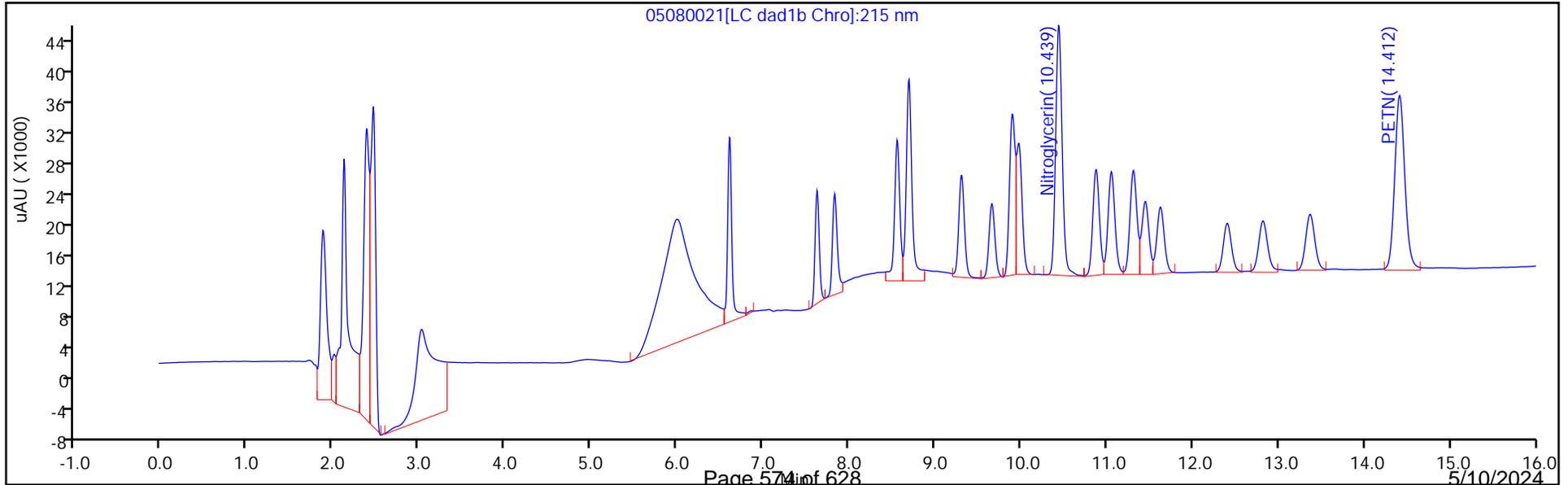
Column: UltraCarb5uODS (20) ( 4.60 mm)

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



Eurofins Denver

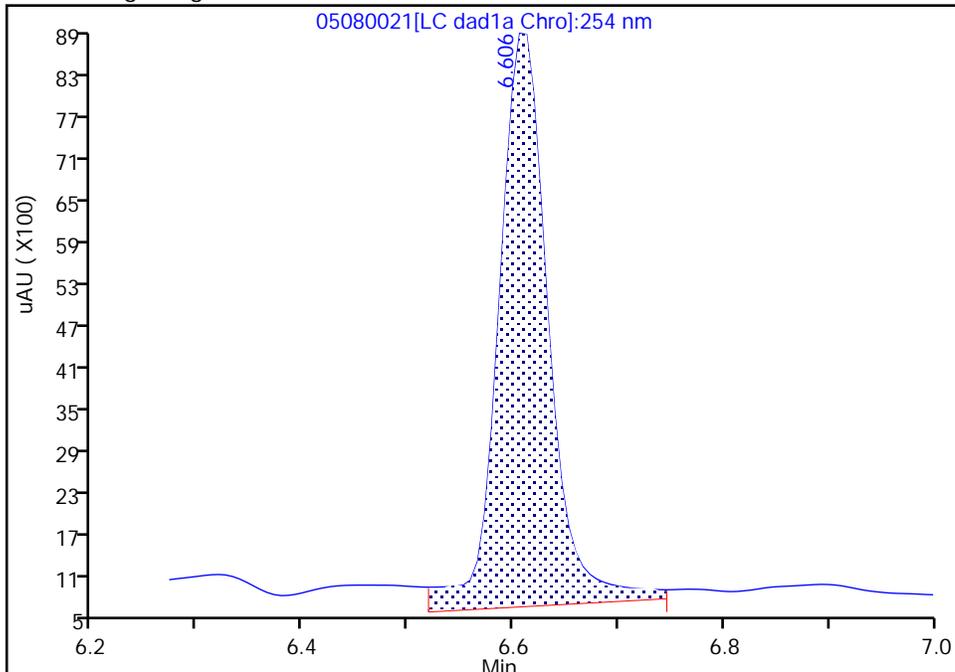
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Injection Date: 08-May-2024 21:19:43 Instrument ID: CHHPLC\_X3  
Lims ID: CCV INT  
Client ID:  
Operator ID: JZ ALS Bottle#: 7 Worklist Smp#: 21  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: 8330\_X3 Limit Group: GCSV - 8330  
Column: UltraCarb5uODS (20) ( 4.60 mm) Detector: LC DAD1B, 254 nm

4 HMX, CAS: 2691-41-0

Signal: 1

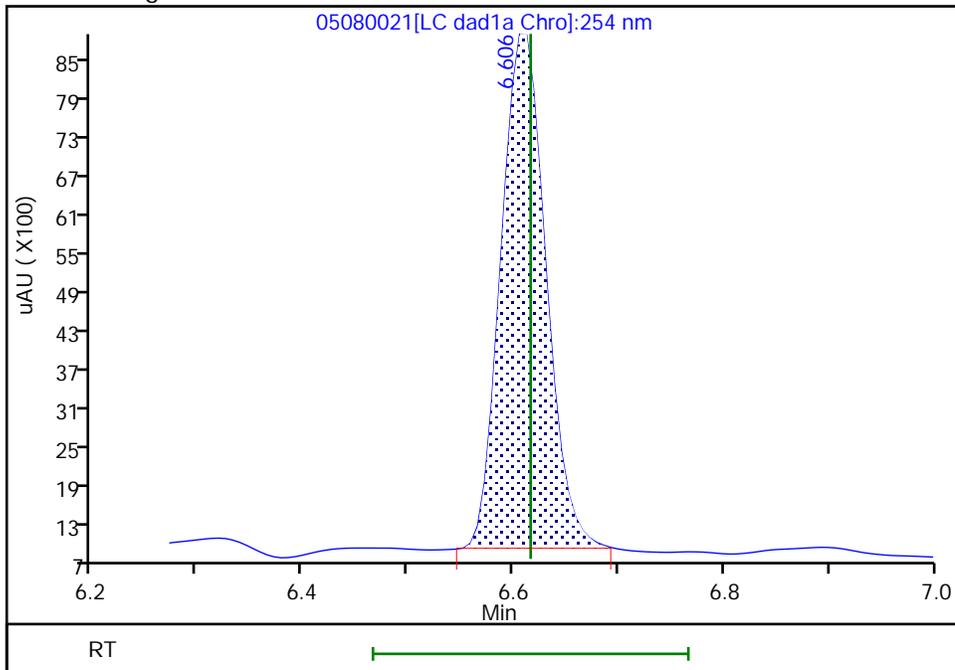
RT: 6.61  
Area: 27356  
Amount: 0.286319  
Amount Units: ug/mL

Processing Integration Results



RT: 6.61  
Area: 23551  
Amount: 0.246494  
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 09-May-2024 11:54:54 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

FORM VII  
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-190882-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCV 280-652621/32 Calibration Date: 05/09/2024 01:32  
 Instrument ID: CHHPLC\_X3 Calib Start Date: 04/17/2024 20:37  
 GC Column: UltraCarb5uODS ID: 4.60 (mm) Calib End Date: 04/17/2024 23:41  
 Lab File ID: 05080032.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
HMX	Ave	95544	93992		246	250	-1.6	20.0
RDX	Ave	110767	109408		247	250	-1.2	20.0
Picric acid	Ave	79326	83048		262	250	4.7	20.0
1,3,5-Trinitrobenzene	Ave	222853	221700		249	250	-0.5	20.0
1,3-Dinitrobenzene	Ave	299436	306940		256	250	2.5	20.0
Nitrobenzene	Ave	196329	196356		250	250	0.0	20.0
3,5-Dinitroaniline	Lin2		222560		253	250	1.1	20.0
Tetryl	Ave	181588	182396		251	250	0.4	20.0
Nitroglycerin	Ave	66464	69667		2620	2500	4.8	20.0
2,4,6-Trinitrotoluene	Ave	215192	219072		255	250	1.8	20.0
4-Amino-2,6-dinitrotoluene	Ave	149948	151720		253	250	1.2	20.0
2-Amino-4,6-dinitrotoluene	Ave	199809	206816		259	250	3.5	20.0
2,6-Dinitrotoluene	Ave	146914	150228		256	250	2.3	20.0
2,4-Dinitrotoluene	Ave	291844	297592		255	250	2.0	20.0
2-Nitrotoluene	Ave	129305	127872		247	250	-1.1	20.0
4-Nitrotoluene	Ave	112799	110588		245	250	-2.0	20.0
3-Nitrotoluene	Ave	144063	140024		243	250	-2.8	20.0
PETN	Ave	71937	73204		2540	2500	1.8	20.0
1,2-Dinitrobenzene	Lin2		136092		258	250	3.1	20.0

FORM VII  
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-190882-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCV 280-652621/32 Calibration Date: 05/09/2024 01:32  
 Instrument ID: CHHPLC\_X3 Calib Start Date: 04/17/2024 20:37  
 GC Column: UltraCarb5uODS ID: 4.60 (mm) Calib End Date: 04/17/2024 23:41  
 Lab File ID: 05080032.D

Analyte	RT	RT WINDOW	
		FROM	TO
HMX	6.61	6.47	6.77
RDX	7.62	7.47	7.77
Picric acid	7.83	7.68	7.98
1,3,5-Trinitrobenzene	8.69	8.55	8.85
1,3-Dinitrobenzene	9.31	9.15	9.45
Nitrobenzene	9.66	9.51	9.81
3,5-Dinitroaniline	9.91	9.75	10.05
Tetryl	9.98	9.81	10.11
Nitroglycerin	10.45	10.29	10.59
2,4,6-Trinitrotoluene	10.88	10.77	10.97
4-Amino-2,6-dinitrotoluene	11.06	10.94	11.14
2-Amino-4,6-dinitrotoluene	11.32	11.20	11.40
2,6-Dinitrotoluene	11.46	11.34	11.54
2,4-Dinitrotoluene	11.64	11.52	11.72
2-Nitrotoluene	12.42	12.24	12.54
4-Nitrotoluene	12.83	12.66	12.96
3-Nitrotoluene	13.38	13.21	13.51
PETN	14.44	14.24	14.54
1,2-Dinitrobenzene	8.56	8.41	8.71

Eurofins Denver  
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC\_X\20240508-133160.b\05080032.D  
 Lims ID: CCV INT  
 Client ID:  
 Sample Type: CCV  
 Inject. Date: 09-May-2024 01:32:01 ALS Bottle#: 7 Worklist Smp#: 32  
 Injection Vol: 100.0 ul Dil. Factor: 1.0000  
 Sample Info: CCV INT  
 Operator ID: JZ Instrument ID: CHHPLC\_X3  
 Sublist: chrom-8330\_X3\*sub26  
 Method: \\chromfs\Denver\ChromData\CHHPLC\_X\20240508-133160.b\8330\_X3.m  
 Limit Group: GCSV - 8330  
 Last Update: 09-May-2024 13:10:58 Calib Date: 18-Apr-2024 03:08:00  
 Integrator: Falcon  
 Quant Method: External Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Denver\ChromData\CHHPLC\_X\20240417-132364.b\04170028.D  
 Column 1 : UltraCarb5uODS (20) ( 4.60 mm) Det: LC DAD1B, 254 nm  
 Process Host: CTX1670

First Level Reviewer: LV5D Date: 09-May-2024 12:17:43

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
4 HMX	1	6.610	6.616	-0.006	23498	0.2500	0.2459	M
8 RDX	1	7.624	7.623	0.001	27352	0.2500	0.2469	
9 2,4,6-Trinitrophenol	1	7.830	7.830	0.000	20762	0.2500	0.2617	
\$ 10 1,2-Dinitrobenzene	1	8.557	8.556	0.001	34023	0.2500	0.2578	
11 1,3,5-Trinitrobenzene	1	8.690	8.696	-0.006	55425	0.2500	0.2487	
12 1,3-Dinitrobenzene	1	9.310	9.303	0.007	76735	0.2500	0.2563	
13 Nitrobenzene	1	9.663	9.656	0.007	49089	0.2500	0.2500	
14 3,5-Dinitroaniline	1	9.910	9.896	0.014	55640	0.2500	0.2528	
15 Tetryl	1	9.983	9.963	0.020	45599	0.2500	0.2511	
16 Nitroglycerin	2	10.450	10.436	0.014	174168	2.50	2.62	
17 2,4,6-Trinitrotoluene	1	10.883	10.869	0.014	54768	0.2500	0.2545	
18 4-Amino-2,6-dinitrotoluene	1	11.063	11.043	0.020	37930	0.2500	0.2530	
19 2-Amino-4,6-dinitrotoluene	1	11.323	11.303	0.020	51704	0.2500	0.2588	
20 2,6-Dinitrotoluene	1	11.457	11.436	0.021	37557	0.2500	0.2556	
21 2,4-Dinitrotoluene	1	11.637	11.616	0.021	74398	0.2500	0.2549	
22 o-Nitrotoluene	1	12.417	12.389	0.028	31968	0.2500	0.2472	
23 p-Nitrotoluene	1	12.830	12.809	0.021	27647	0.2500	0.2451	
24 m-Nitrotoluene	1	13.383	13.356	0.027	35006	0.2500	0.2430	
25 PETN	2	14.437	14.389	0.048	183011	2.50	2.54	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

8330IntermStk\_00080

Amount Added: 25.00

Units: uL

Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc\_x\20240508-133160.b\05080032.d

Injection Date: 09-May-2024 01:32:01

Instrument ID: CHHPLC\_X3

Operator ID: JZ

Lims ID: CCV INT

Worklist Smp#: 32

Client ID:

Injection Vol: 100.0 ul

Dil. Factor: 1.0000

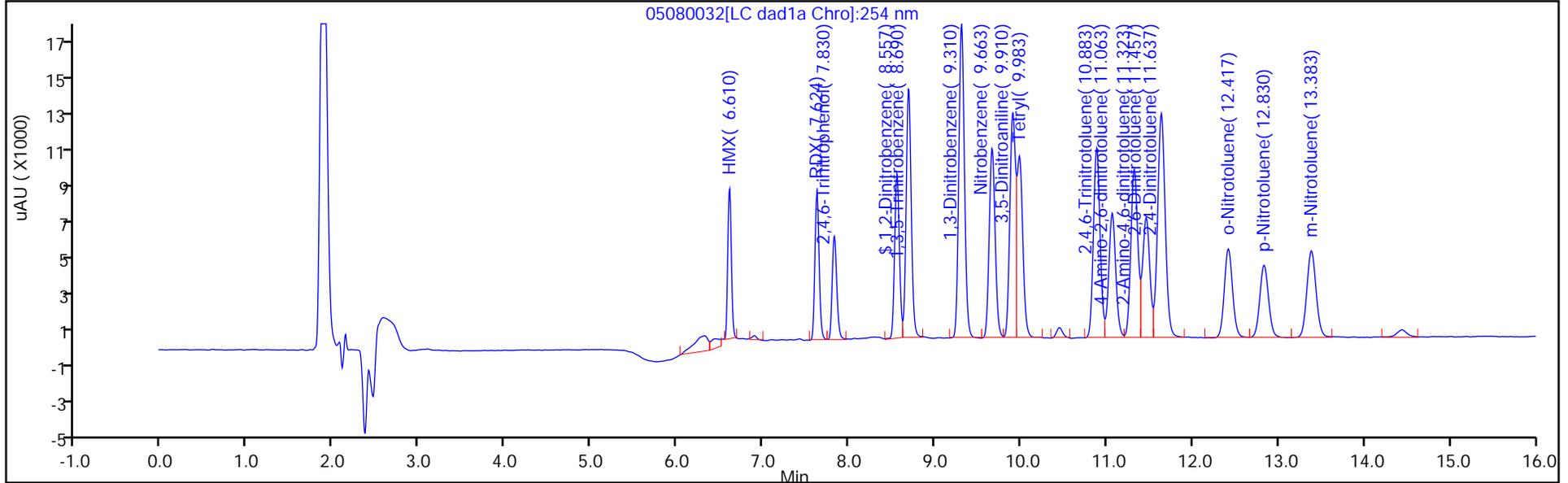
ALS Bottle#: 7

Method: 8330\_X3

Limit Group: GCSV - 8330

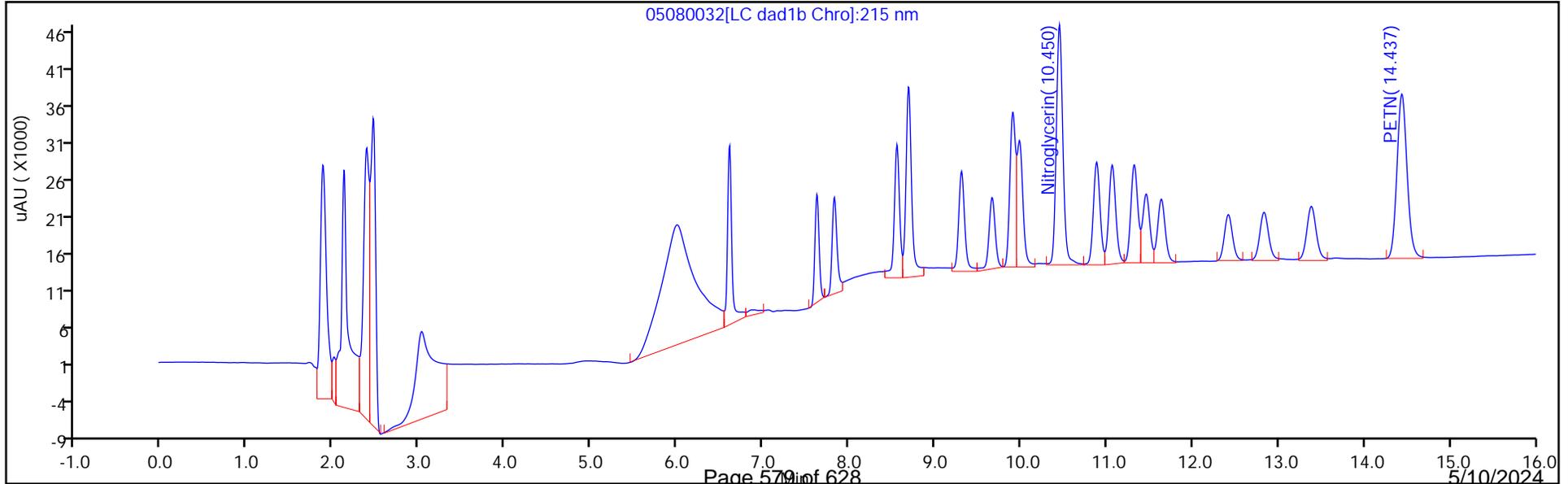
Column: UltraCarb5uODS (20) ( 4.60 mm)

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



Eurofins Denver

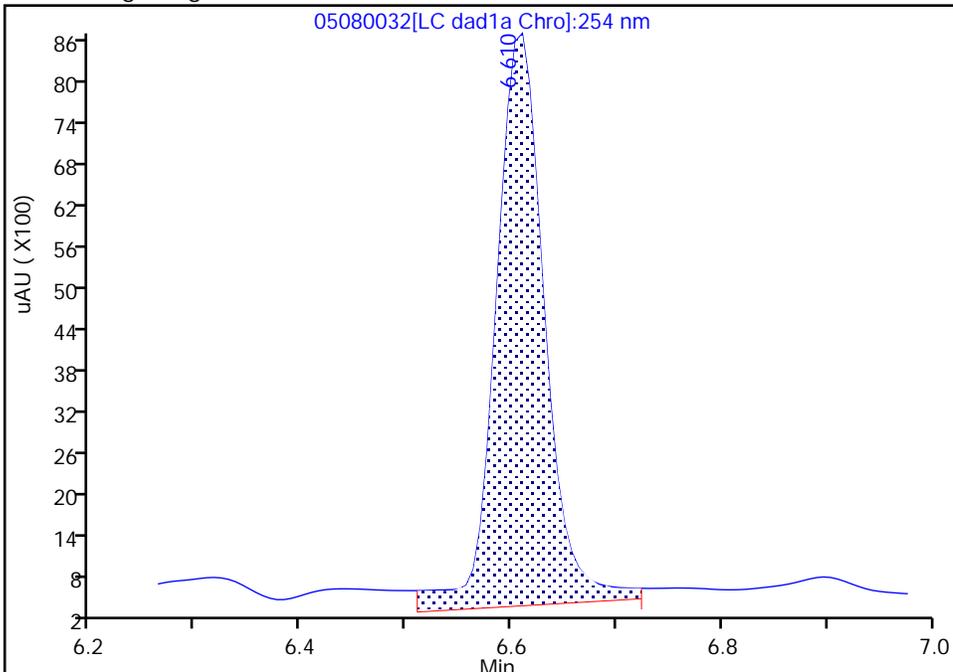
Data File: \\chromfs\denver\chromdata\chhplc\_x\20240508-133160.b\05080032.d  
Injection Date: 09-May-2024 01:32:01 Instrument ID: CHHPLC\_X3  
Lims ID: CCV INT  
Client ID:  
Operator ID: JZ ALS Bottle#: 7 Worklist Smp#: 32  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: 8330\_X3 Limit Group: GCSV - 8330  
Column: UltraCarb5uODS (20) ( 4.60 mm) Detector: LC DAD1B, 254 nm

4 HMX, CAS: 2691-41-0

Signal: 1

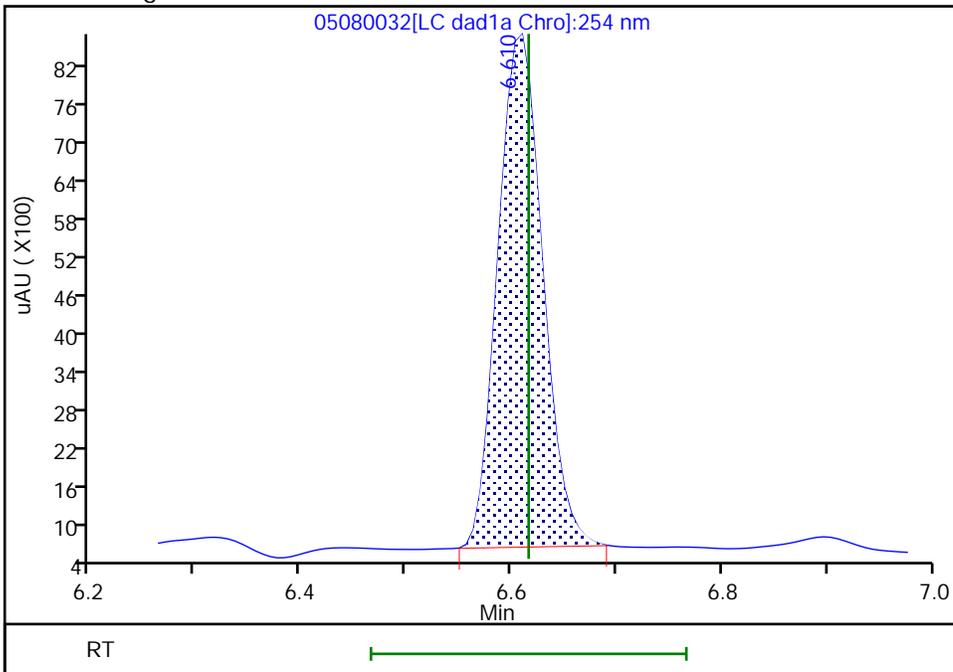
RT: 6.61  
Area: 26654  
Amount: 0.278972  
Amount Units: ug/mL

Processing Integration Results



RT: 6.61  
Area: 23498  
Amount: 0.245940  
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 09-May-2024 12:17:42 -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.: 280-190882-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: \_\_\_\_\_ Lab Sample ID: MB 280-652021/1-A  
 Matrix: Water Lab File ID: 05080011.D  
 Analysis Method: 8330B Date Collected: \_\_\_\_\_  
 Extraction Method: 3535 Date Extracted: 05/03/2024 12:48  
 Sample wt/vol: 500(mL) Date Analyzed: 05/08/2024 17:30  
 Con. Extract Vol.: 5(mL) Dilution Factor: 1  
 Injection Volume: 100(uL) GC Column: UltraCarb5uODS ID: 4.6(mm)  
 % Moisture: \_\_\_\_\_ % Solids: \_\_\_\_\_ GPC Cleanup: (Y/N) N  
 Cleanup Factor: \_\_\_\_\_  
 Analysis Batch No.: 652621 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	0.20	U M	0.21	0.20	0.084
99-65-0	1,3-Dinitrobenzene	0.10	U	0.11	0.10	0.037
118-96-7	2,4,6-Trinitrotoluene	0.10	U	0.11	0.10	0.045
121-14-2	2,4-Dinitrotoluene	0.080	U	0.10	0.080	0.027
606-20-2	2,6-Dinitrotoluene	0.080	U	0.10	0.080	0.040
35572-78-2	2-Amino-4,6-dinitrotoluene	0.10	U	0.11	0.10	0.051
88-72-2	2-Nitrotoluene	0.20	U	0.21	0.20	0.086
99-08-1	3-Nitrotoluene	0.35	U	0.40	0.35	0.20
19406-51-0	4-Amino-2,6-dinitrotoluene	0.12	U	0.15	0.12	0.058
99-99-0	4-Nitrotoluene	0.40	U	0.41	0.40	0.10
2691-41-0	HMX	0.20	U	0.21	0.20	0.088
98-95-3	Nitrobenzene	0.20	U	0.21	0.20	0.091
55-63-0	Nitroglycerin	2.0	U	2.1	2.0	0.92
78-11-5	PETN	1.0	U	1.1	1.0	0.45
121-82-4	RDX	0.20	U	0.21	0.20	0.052
479-45-8	Tetryl	0.10	U	0.11	0.10	0.032

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

Eurofins Denver  
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC\_X\20240508-133160.b\05080011.D  
 Lims ID: MB 280-652021/1-A  
 Client ID:  
 Sample Type: MB  
 Inject. Date: 08-May-2024 17:30:19 ALS Bottle#: 11 Worklist Smp#: 11  
 Injection Vol: 100.0 ul Dil. Factor: 1.0000  
 Sample Info: MB 280-652021/1-A  
 Operator ID: JZ Instrument ID: CHHPLC\_X3  
 Method: \\chromfs\Denver\ChromData\CHHPLC\_X\20240508-133160.b\8330\_X3.m  
 Limit Group: GCSV - 8330  
 Last Update: 09-May-2024 13:10:41 Calib Date: 18-Apr-2024 03:08:00  
 Integrator: Falcon  
 Quant Method: External Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Denver\ChromData\CHHPLC\_X\20240417-132364.b\04170028.D  
 Column 1 : UltraCarb5uODS (20) ( 4.60 mm) Det: LC DAD1B, 254 nm  
 Process Host: CTX1670

First Level Reviewer: LV5D Date: 08-May-2024 18:27:54

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
1 Triamine Trinitrobenzene	1		2.444				ND	
2 2,6-diamino-4-nitrotoluene	1		6.460				ND	7
3 TNX	1		6.506				ND	U
4 HMX	1		6.616				ND	
5 2,4-diamino-6-nitrotoluene	1		6.633				ND	
6 DNX	1		6.892				ND	
7 MNX	1		7.258				ND	U
8 RDX	1		7.623				ND	7
9 2,4,6-Trinitrophenol	1		7.830				ND	
\$ 10 1,2-Dinitrobenzene	1	8.549	8.556	-0.007	26554	0.2000	0.2010	M
11 1,3,5-Trinitrobenzene	1		8.696				ND	U
12 1,3-Dinitrobenzene	1		9.303				ND	
13 Nitrobenzene	1		9.656				ND	
14 3,5-Dinitroaniline	1		9.896				ND	
15 Tetryl	1		9.963				ND	
16 Nitroglycerin	2		10.436				ND	
17 2,4,6-Trinitrotoluene	1		10.869				ND	
18 4-Amino-2,6-dinitrotoluene	1		11.043				ND	
19 2-Amino-4,6-dinitrotoluene	1		11.303				ND	7
20 2,6-Dinitrotoluene	1		11.436				ND	
21 2,4-Dinitrotoluene	1		11.616				ND	
22 o-Nitrotoluene	1		12.389				ND	
23 p-Nitrotoluene	1		12.809				ND	
24 m-Nitrotoluene	1		13.356				ND	
25 PETN	2		14.389				ND	
26 Ammonium Picrate	1		0.000				ND	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

M - Manually Integrated

U - Marked Undetected

Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc\_x\20240508-133160.b\05080011.d

Injection Date: 08-May-2024 17:30:19

Instrument ID: CHHPLC\_X3

Operator ID: JZ

Lims ID: MB 280-652021/1-A

Worklist Smp#: 11

Client ID:

Injection Vol: 100.0 ul

Dil. Factor: 1.0000

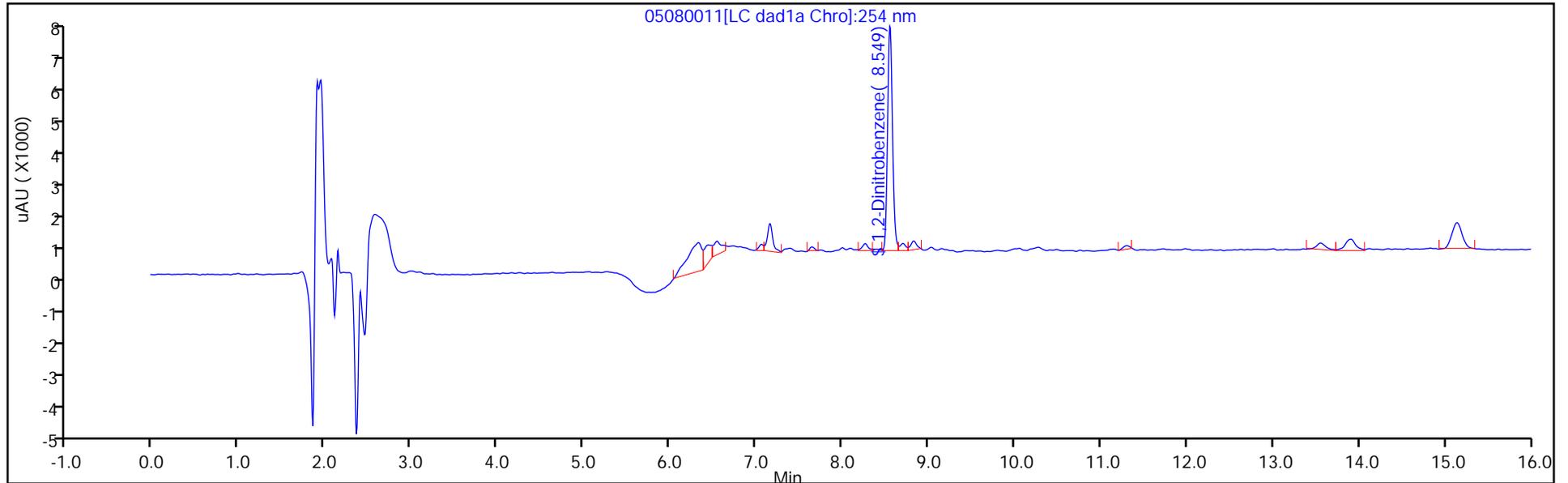
ALS Bottle#: 11

Method: 8330\_X3

Limit Group: GCSV - 8330

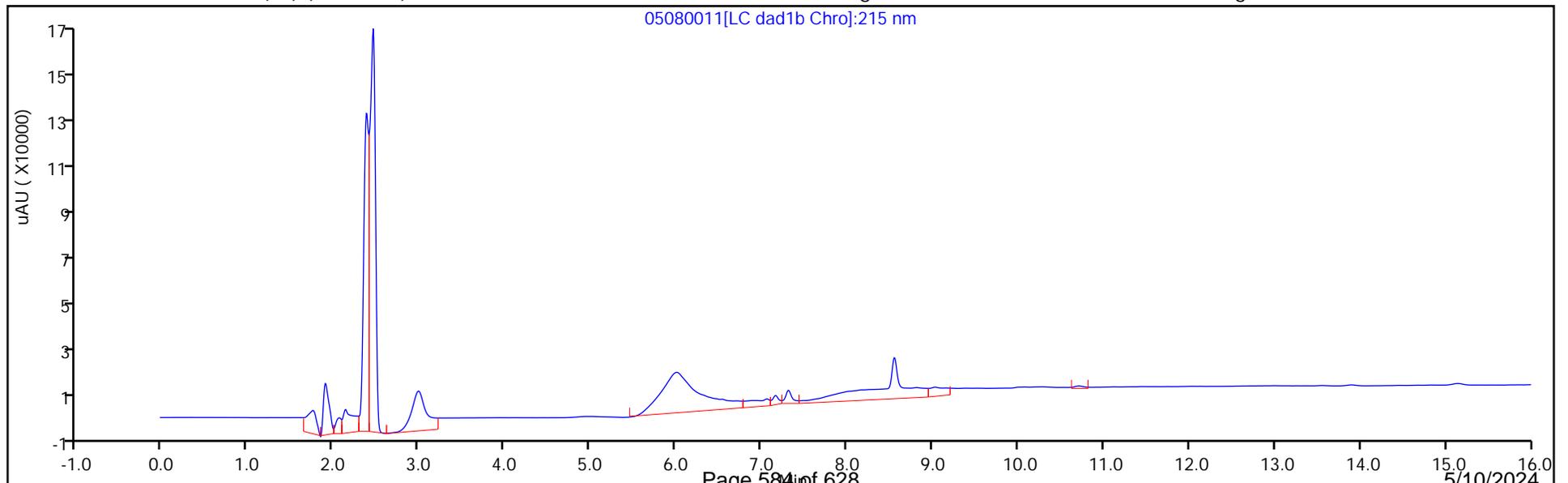
Column: UltraCarb5uODS (20) ( 4.60 mm)

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\20240508-133160.b\05080011.D  
 Lims ID: MB 280-652021/1-A  
 Client ID:  
 Sample Type: MB  
 Inject. Date: 08-May-2024 17:30:19 ALS Bottle#: 11 Worklist Smp#: 11  
 Injection Vol: 100.0 ul Dil. Factor: 1.0000  
 Sample Info: MB 280-652021/1-A  
 Operator ID: JZ Instrument ID: CHHPLC\_X3  
 Method: \\chromfs\Denver\ChromData\CHHPLC\_X\20240508-133160.b\8330\_X3.m  
 Limit Group: GCSV - 8330  
 Last Update: 09-May-2024 13:10:41 Calib Date: 18-Apr-2024 03:08:00  
 Integrator: Falcon  
 Quant Method: External Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Denver\ChromData\CHHPLC\_X\20240417-132364.b\04170028.D  
 Column 1 : UltraCarb5uODS (20) ( 4.60 mm) Det: LC DAD1B, 254 nm  
 Process Host: CTX1670

First Level Reviewer: LV5D Date: 08-May-2024 18:27:54

Compound	Amount Added	Amount Recovered	% Rec.
\$ 10 1,2-Dinitrobenzene	0.2000	0.2010	100.51

Eurofins Denver

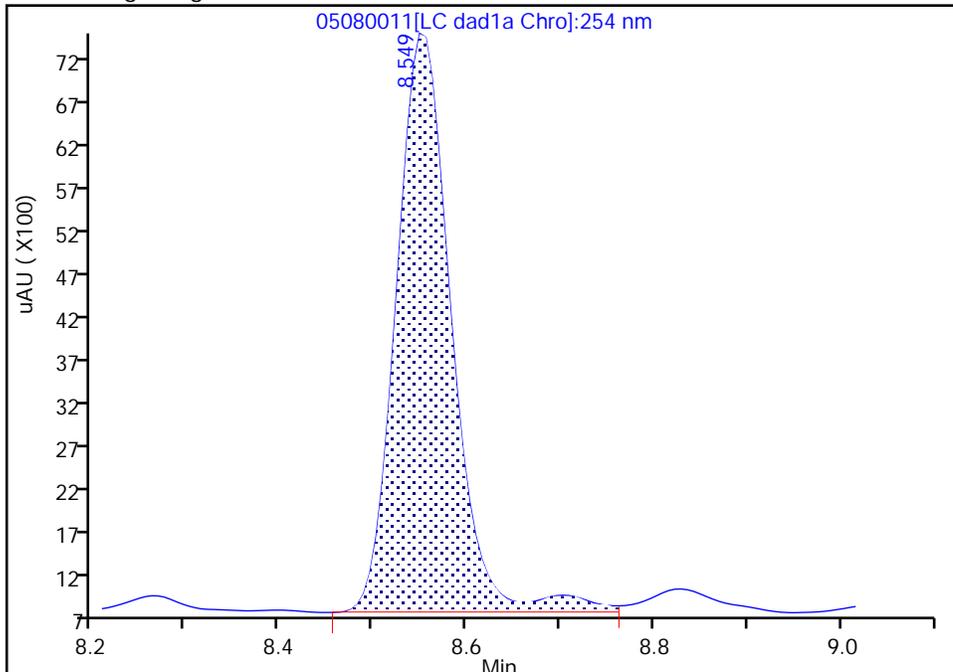
Data File: \\chromfs\denver\chromdata\chhplc\_x\20240508-133160.b\05080011.d  
Injection Date: 08-May-2024 17:30:19 Instrument ID: CHHPLC\_X3  
Lims ID: MB 280-652021/1-A  
Client ID:  
Operator ID: JZ ALS Bottle#: 11 Worklist Smp#: 11  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: 8330\_X3 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

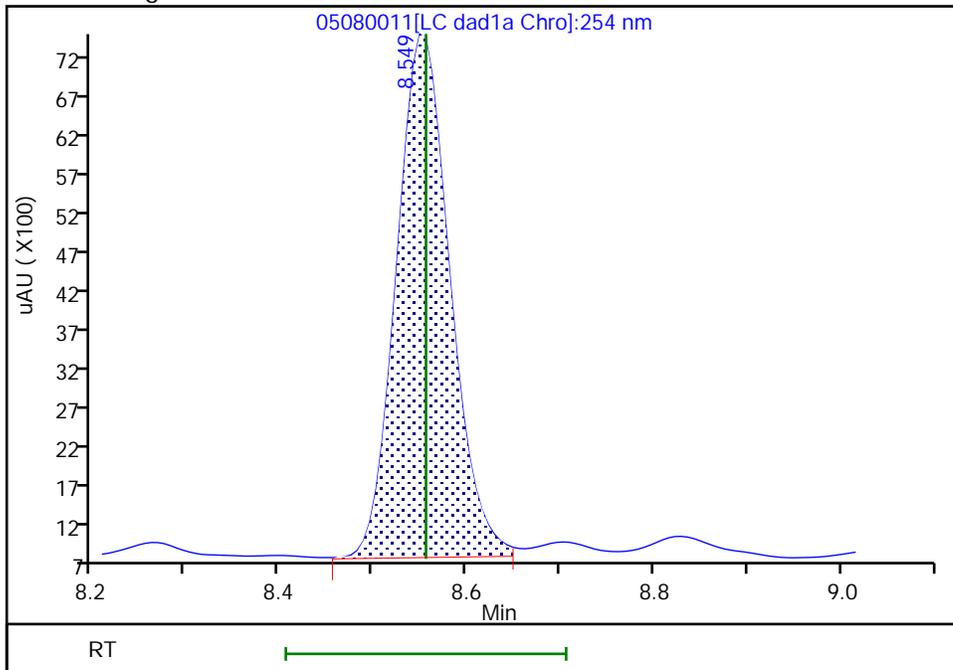
RT: 8.55  
Area: 27431  
Amount: 0.207681  
Amount Units: ug/mL

Processing Integration Results



RT: 8.55  
Area: 26554  
Amount: 0.201019  
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 08-May-2024 18:27:53 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak

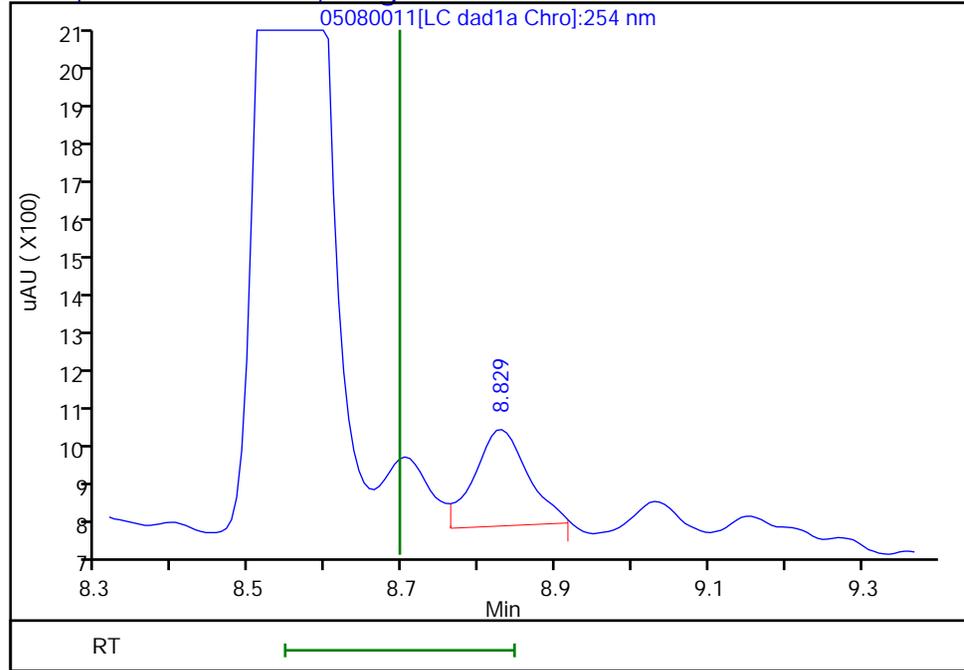
Audit Reason: Baseline

Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc\_x\20240508-133160.b\05080011.d  
Injection Date: 08-May-2024 17:30:19 Instrument ID: CHHPLC\_X3  
Lims ID: MB 280-652021/1-A  
Client ID:  
Operator ID: JZ 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

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

RT: 8.83  
Response: 1216  
Amount: 0.005457



Reviewer: LV5D, 08-May-2024 18:27:54

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

FORM I  
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver Job No.: 280-190882-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: \_\_\_\_\_ Lab Sample ID: LCS 280-652021/2-A  
 Matrix: Water Lab File ID: 05080012.D  
 Analysis Method: 8330B Date Collected: \_\_\_\_\_  
 Extraction Method: 3535 Date Extracted: 05/03/2024 12:48  
 Sample wt/vol: 500(mL) Date Analyzed: 05/08/2024 17:53  
 Con. Extract Vol.: 5(mL) Dilution Factor: 1  
 Injection Volume: 100(uL) GC Column: UltraCarb5uODS ID: 4.6(mm)  
 % Moisture: \_\_\_\_\_ % Solids: \_\_\_\_\_ GPC Cleanup: (Y/N) N  
 Cleanup Factor: \_\_\_\_\_  
 Analysis Batch No.: 652621 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	2.00		0.21	0.20	0.084
99-65-0	1,3-Dinitrobenzene	1.92		0.11	0.10	0.037
118-96-7	2,4,6-Trinitrotoluene	1.89		0.11	0.10	0.045
121-14-2	2,4-Dinitrotoluene	1.81		0.10	0.080	0.027
606-20-2	2,6-Dinitrotoluene	1.84		0.10	0.080	0.040
35572-78-2	2-Amino-4,6-dinitrotoluene	1.92		0.11	0.10	0.051
88-72-2	2-Nitrotoluene	1.50		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	1.86		0.15	0.12	0.058
99-99-0	4-Nitrotoluene	1.50		0.41	0.40	0.10
2691-41-0	HMX	1.69	M	0.21	0.20	0.088
98-95-3	Nitrobenzene	1.76		0.21	0.20	0.091
55-63-0	Nitroglycerin	21.1		2.1	2.0	0.92
78-11-5	PETN	21.2		1.1	1.0	0.45
121-82-4	RDX	1.87		0.21	0.20	0.052
479-45-8	Tetryl	1.98		0.11	0.10	0.032

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

Eurofins Denver  
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC\_X\20240508-133160.b\05080012.D  
 Lims ID: LCS 280-652021/2-A  
 Client ID:  
 Sample Type: LCS  
 Inject. Date: 08-May-2024 17:53:14 ALS Bottle#: 12 Worklist Smp#: 12  
 Injection Vol: 100.0 ul Dil. Factor: 1.0000  
 Sample Info: LCS 280-652021/2-A  
 Operator ID: JZ Instrument ID: CHHPLC\_X3  
 Method: \\chromfs\Denver\ChromData\CHHPLC\_X\20240508-133160.b\8330\_X3.m  
 Limit Group: GCSV - 8330  
 Last Update: 09-May-2024 13:10:41 Calib Date: 18-Apr-2024 03:08:00  
 Integrator: Falcon  
 Quant Method: External Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Denver\ChromData\CHHPLC\_X\20240417-132364.b\04170028.D  
 Column 1 : UltraCarb5uODS (20) ( 4.60 mm) Det: LC DAD1B, 254 nm  
 Process Host: CTX1670

First Level Reviewer: LV5D Date: 08-May-2024 18:28:02

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
4 HMX	1	6.614	6.616	-0.002	16182	0.2000	0.1694	M
8 RDX	1	7.627	7.623	0.004	20754	0.2000	0.1874	
9 2,4,6-Trinitrophenol	1	7.827	7.830	-0.003	16526	0.2000	0.2083	
\$ 10 1,2-Dinitrobenzene	1	8.554	8.556	-0.002	25601	0.2000	0.1938	
11 1,3,5-Trinitrobenzene	1	8.694	8.696	-0.002	44554	0.2000	0.1999	
12 1,3-Dinitrobenzene	1	9.307	9.303	0.004	57602	0.2000	0.1924	
13 Nitrobenzene	1	9.661	9.656	0.005	34643	0.2000	0.1765	
14 3,5-Dinitroaniline	1	9.901	9.896	0.005	40398	0.2000	0.1839	
15 Tetryl	1	9.974	9.963	0.011	36008	0.2000	0.1983	
16 Nitroglycerin	2	10.441	10.436	0.005	140459	2.00	2.11	
17 2,4,6-Trinitrotoluene	1	10.874	10.869	0.005	40752	0.2000	0.1894	
18 4-Amino-2,6-dinitrotoluene	1	11.047	11.043	0.004	27905	0.2000	0.1861	
19 2-Amino-4,6-dinitrotoluene	1	11.301	11.303	-0.002	38354	0.2000	0.1920	
20 2,6-Dinitrotoluene	1	11.441	11.436	0.005	27101	0.2000	0.1845	
21 2,4-Dinitrotoluene	1	11.621	11.616	0.005	52936	0.2000	0.1814	
22 o-Nitrotoluene	1	12.394	12.389	0.005	19379	0.2000	0.1499	
23 p-Nitrotoluene	1	12.807	12.809	-0.002	16866	0.2000	0.1495	
24 m-Nitrotoluene	1	13.354	13.356	-0.002	21104	0.2000	0.1465	
25 PETN	2	14.394	14.389	0.005	152207	2.00	2.12	
26 Ammonium Picrate	1		0.000			ND	ND	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc\_x\20240508-133160.b\05080012.d

Injection Date: 08-May-2024 17:53:14

Instrument ID: CHHPLC\_X3

Operator ID: JZ

Lims ID: LCS 280-652021/2-A

Worklist Smp#: 12

Client ID:

Injection Vol: 100.0 ul

Dil. Factor: 1.0000

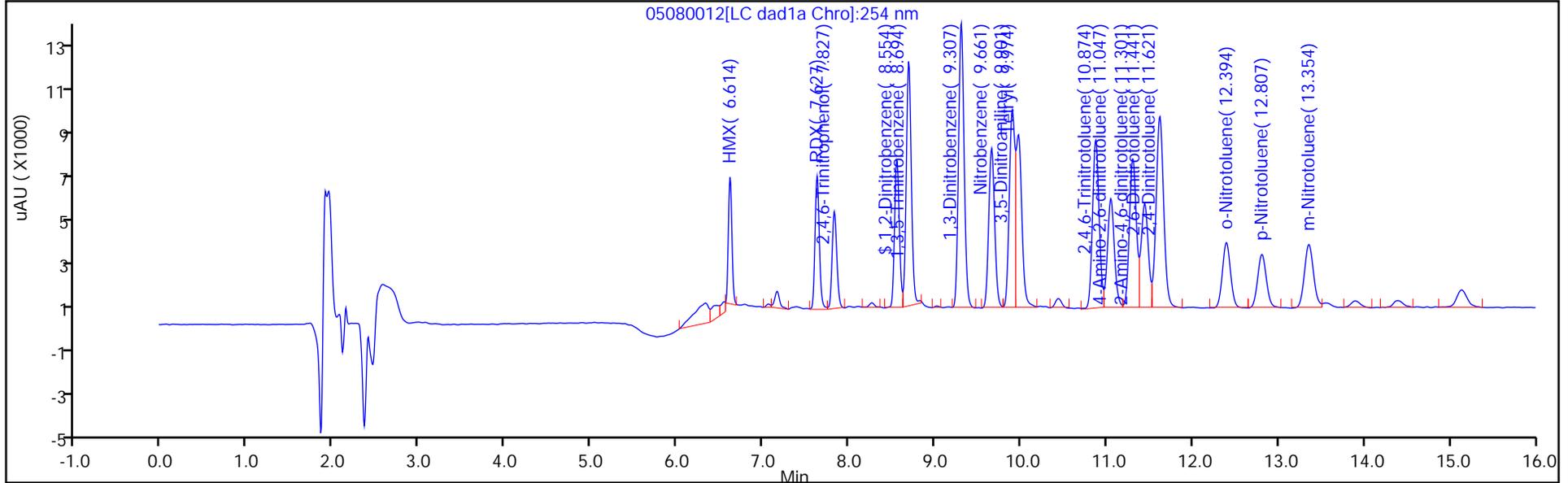
ALS Bottle#: 12

Method: 8330\_X3

Limit Group: GCSV - 8330

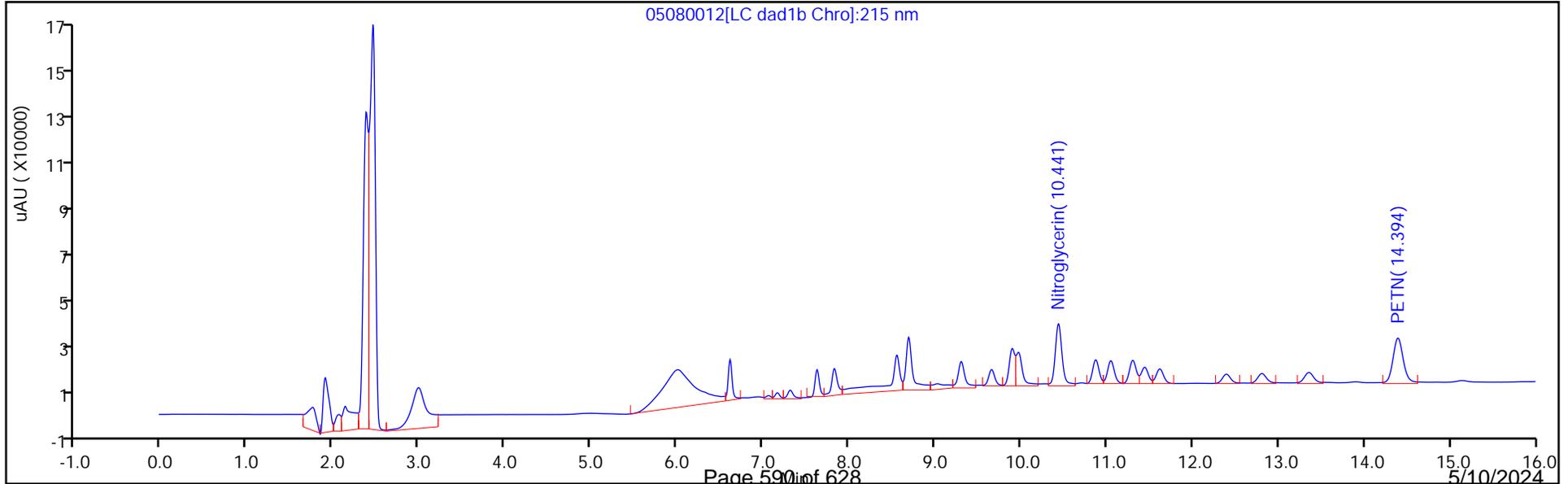
Column: UltraCarb5uODS (20) ( 4.60 mm)

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



Eurofins Denver  
Recovery Report

Data File: \\chromfs\Denver\ChromData\CHHPLC\_X\20240508-133160.b\05080012.D  
 Lims ID: LCS 280-652021/2-A  
 Client ID:  
 Sample Type: LCS  
 Inject. Date: 08-May-2024 17:53:14 ALS Bottle#: 12 Worklist Smp#: 12  
 Injection Vol: 100.0 ul Dil. Factor: 1.0000  
 Sample Info: LCS 280-652021/2-A  
 Operator ID: JZ Instrument ID: CHHPLC\_X3  
 Method: \\chromfs\Denver\ChromData\CHHPLC\_X\20240508-133160.b\8330\_X3.m  
 Limit Group: GCSV - 8330  
 Last Update: 09-May-2024 13:10:41 Calib Date: 18-Apr-2024 03:08:00  
 Integrator: Falcon  
 Quant Method: External Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Denver\ChromData\CHHPLC\_X\20240417-132364.b\04170028.D  
 Column 1 : UltraCarb5uODS (20) ( 4.60 mm) Det: LC DAD1B, 254 nm  
 Process Host: CTX1670

First Level Reviewer: LV5D Date: 08-May-2024 18:28:02

Compound	Amount Added	Amount Recovered	% Rec.
\$ 10 1,2-Dinitrobenzene	0.2000	0.1938	96.89

Eurofins Denver

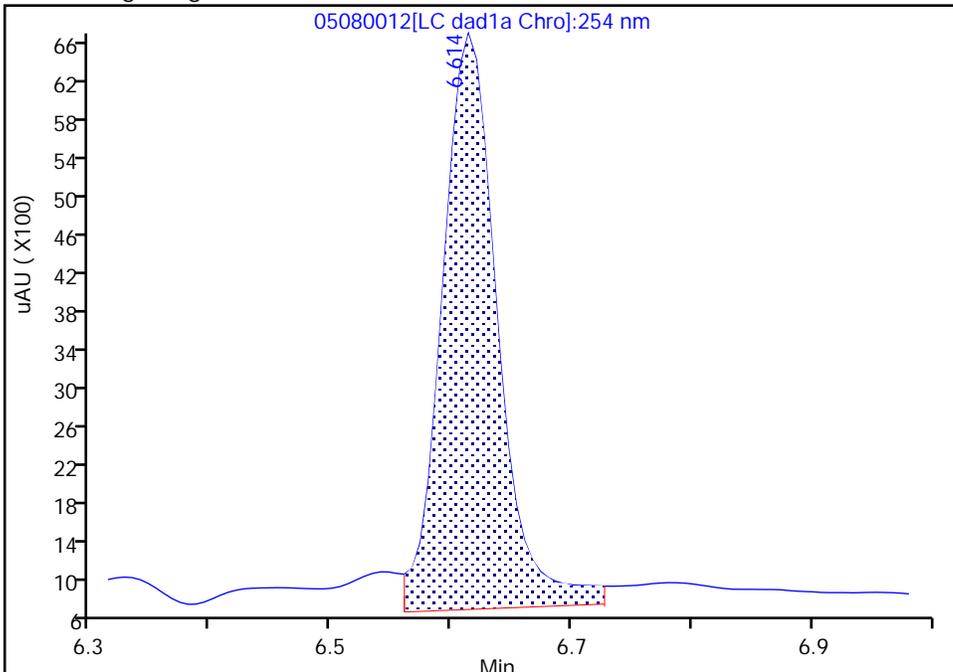
Data File: \\chromfs\denver\chromdata\chhplc\_x\20240508-133160.b\05080012.d  
Injection Date: 08-May-2024 17:53:14 Instrument ID: CHHPLC\_X3  
Lims ID: LCS 280-652021/2-A  
Client ID:  
Operator ID: JZ ALS Bottle#: 12 Worklist Smp#: 12  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: 8330\_X3 Limit Group: GCSV - 8330  
Column: UltraCarb5uODS (20) ( 4.60 mm) Detector: LC DAD1B, 254 nm

4 HMX, CAS: 2691-41-0

Signal: 1

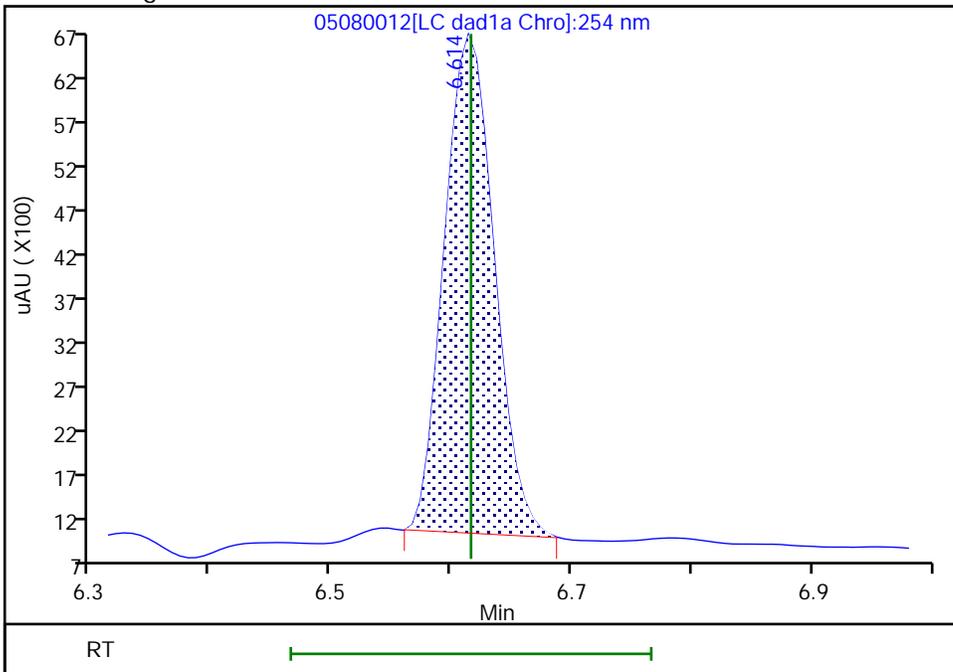
RT: 6.61  
Area: 19149  
Amount: 0.200421  
Amount Units: ug/mL

Processing Integration Results



RT: 6.61  
Area: 16182  
Amount: 0.169367  
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 08-May-2024 18:28:01 -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.: 280-190882-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: \_\_\_\_\_ Lab Sample ID: LCSD 280-652021/3-A  
 Matrix: Water Lab File ID: 05080013.D  
 Analysis Method: 8330B Date Collected: \_\_\_\_\_  
 Extraction Method: 3535 Date Extracted: 05/03/2024 12:48  
 Sample wt/vol: 500(mL) Date Analyzed: 05/08/2024 18:16  
 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.: 652621 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	2.15		0.21	0.20	0.084
99-65-0	1,3-Dinitrobenzene	2.10		0.11	0.10	0.037
118-96-7	2,4,6-Trinitrotoluene	2.05		0.11	0.10	0.045
121-14-2	2,4-Dinitrotoluene	2.02		0.10	0.080	0.027
606-20-2	2,6-Dinitrotoluene	2.05		0.10	0.080	0.040
35572-78-2	2-Amino-4,6-dinitrotoluene	2.13		0.11	0.10	0.051
88-72-2	2-Nitrotoluene	1.75		0.21	0.20	0.086
99-08-1	3-Nitrotoluene	1.72	M	0.40	0.35	0.20
19406-51-0	4-Amino-2,6-dinitrotoluene	2.06		0.15	0.12	0.058
99-99-0	4-Nitrotoluene	1.76		0.41	0.40	0.10
2691-41-0	HMX	1.75	M	0.21	0.20	0.088
98-95-3	Nitrobenzene	1.97		0.21	0.20	0.091
55-63-0	Nitroglycerin	22.0		2.1	2.0	0.92
78-11-5	PETN	22.2		1.1	1.0	0.45
121-82-4	RDX	1.95		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\20240508-133160.b\05080013.D  
 Lims ID: LCSD 280-652021/3-A  
 Client ID:  
 Sample Type: LCSD  
 Inject. Date: 08-May-2024 18:16:10 ALS Bottle#: 13 Worklist Smp#: 13  
 Injection Vol: 100.0 ul Dil. Factor: 1.0000  
 Sample Info: LCSD 280-652021/3-A  
 Operator ID: JZ Instrument ID: CHHPLC\_X3  
 Method: \\chromfs\Denver\ChromData\CHHPLC\_X\20240508-133160.b\8330\_X3.m  
 Limit Group: GCSV - 8330  
 Last Update: 09-May-2024 13:10:41 Calib Date: 18-Apr-2024 03:08:00  
 Integrator: Falcon  
 Quant Method: External Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Denver\ChromData\CHHPLC\_X\20240417-132364.b\04170028.D  
 Column 1 : UltraCarb5uODS (20) ( 4.60 mm) Det: LC DAD1B, 254 nm  
 Process Host: CTX1670

First Level Reviewer: LV5D Date: 08-May-2024 18:39:19

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
4 HMX	1	6.619	6.616	0.003	16674	0.2000	0.1745	M
8 RDX	1	7.625	7.623	0.002	21590	0.2000	0.1949	
9 2,4,6-Trinitrophenol	1	7.825	7.830	-0.005	17329	0.2000	0.2185	
\$ 10 1,2-Dinitrobenzene	1	8.552	8.556	-0.004	27045	0.2000	0.2047	
11 1,3,5-Trinitrobenzene	1	8.692	8.696	-0.004	47851	0.2000	0.2147	
12 1,3-Dinitrobenzene	1	9.299	9.303	-0.004	62883	0.2000	0.2100	
13 Nitrobenzene	1	9.652	9.656	-0.004	38762	0.2000	0.1974	
14 3,5-Dinitroaniline	1	9.892	9.896	-0.004	44717	0.2000	0.2034	
15 Tetryl	1	9.959	9.963	-0.004	37565	0.2000	0.2069	
16 Nitroglycerin	2	10.425	10.436	-0.011	146260	2.00	2.20	
17 2,4,6-Trinitrotoluene	1	10.859	10.869	-0.010	44106	0.2000	0.2050	
18 4-Amino-2,6-dinitrotoluene	1	11.039	11.043	-0.004	30818	0.2000	0.2055	
19 2-Amino-4,6-dinitrotoluene	1	11.292	11.303	-0.011	42536	0.2000	0.2129	
20 2,6-Dinitrotoluene	1	11.432	11.436	-0.004	30174	0.2000	0.2054	
21 2,4-Dinitrotoluene	1	11.612	11.616	-0.004	58972	0.2000	0.2021	
22 o-Nitrotoluene	1	12.385	12.389	-0.004	22587	0.2000	0.1747	
23 p-Nitrotoluene	1	12.799	12.809	-0.010	19894	0.2000	0.1764	
24 m-Nitrotoluene	1	13.345	13.356	-0.011	24797	0.2000	0.1721	M
25 PETN	2	14.385	14.389	-0.004	159956	2.00	2.22	
26 Ammonium Picrate	1		0.000			ND	ND	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc\_x\20240508-133160.b\05080013.d

Injection Date: 08-May-2024 18:16:10

Instrument ID: CHHPLC\_X3

Operator ID: JZ

Lims ID: LCSD 280-652021/3-A

Worklist Smp#: 13

Client ID:

Injection Vol: 100.0 ul

Dil. Factor: 1.0000

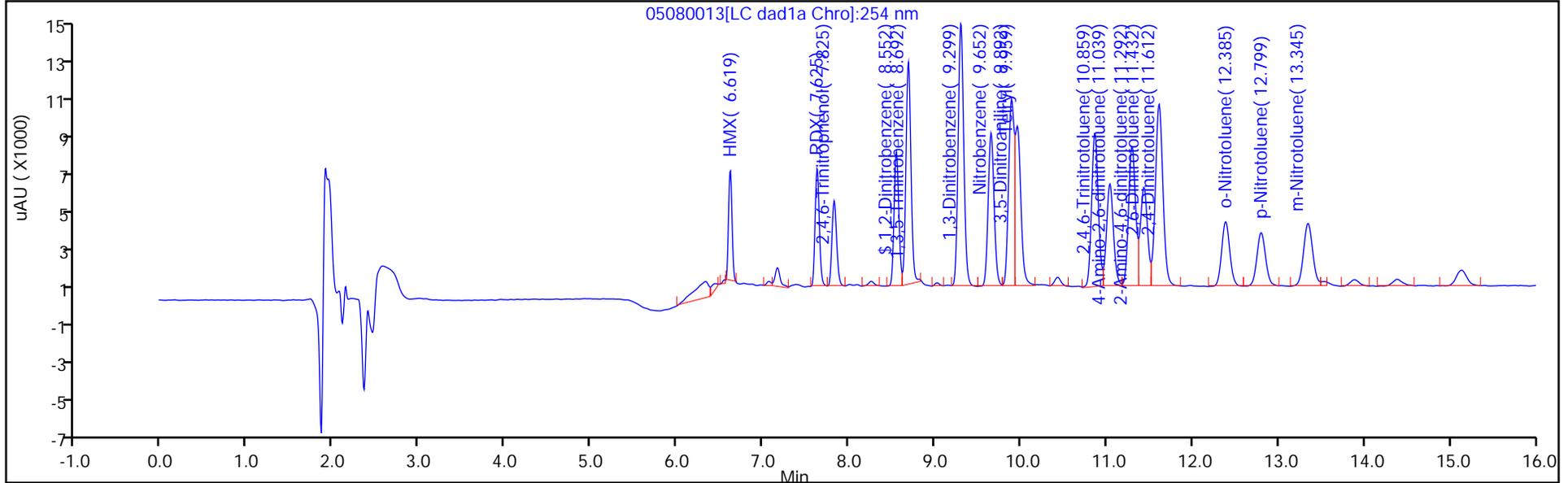
ALS Bottle#: 13

Method: 8330\_X3

Limit Group: GCSV - 8330

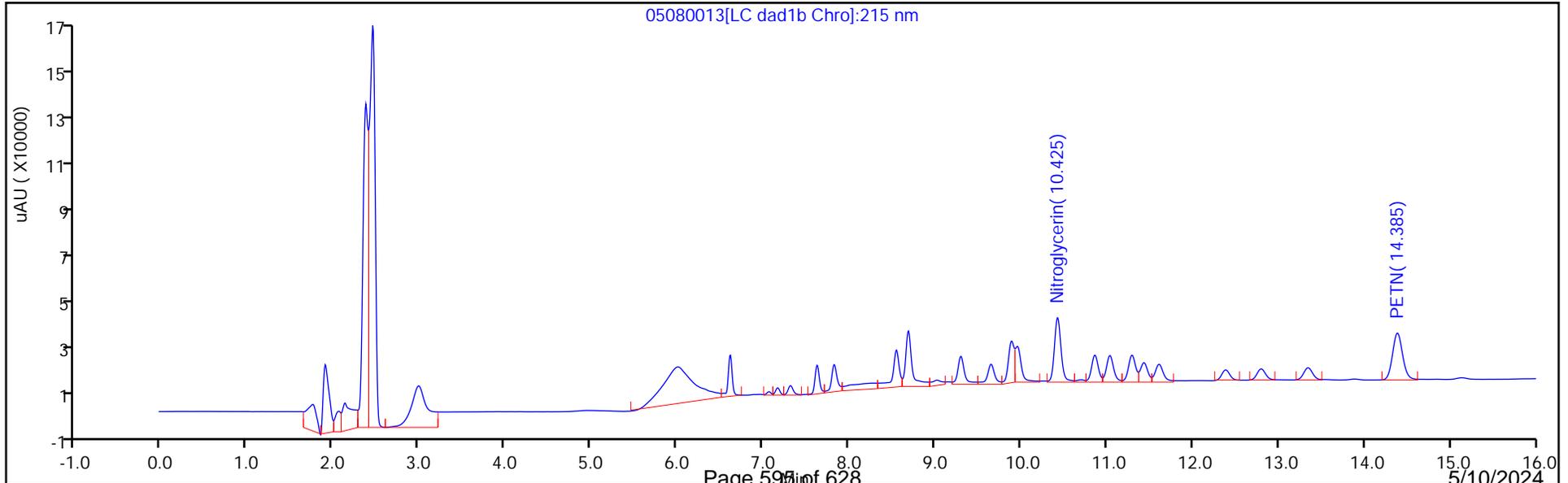
Column: UltraCarb5uODS (20) ( 4.60 mm)

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\20240508-133160.b\05080013.D  
 Lims ID: LCSD 280-652021/3-A  
 Client ID:  
 Sample Type: LCSD  
 Inject. Date: 08-May-2024 18:16:10 ALS Bottle#: 13 Worklist Smp#: 13  
 Injection Vol: 100.0 ul Dil. Factor: 1.0000  
 Sample Info: LCSD 280-652021/3-A  
 Operator ID: JZ Instrument ID: CHHPLC\_X3  
 Method: \\chromfs\Denver\ChromData\CHHPLC\_X\20240508-133160.b\8330\_X3.m  
 Limit Group: GCSV - 8330  
 Last Update: 09-May-2024 13:10:41 Calib Date: 18-Apr-2024 03:08:00  
 Integrator: Falcon  
 Quant Method: External Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Denver\ChromData\CHHPLC\_X\20240417-132364.b\04170028.D  
 Column 1 : UltraCarb5uODS (20) ( 4.60 mm) Det: LC DAD1B, 254 nm  
 Process Host: CTX1670

First Level Reviewer: LV5D Date: 08-May-2024 18:39:19

Compound	Amount Added	Amount Recovered	% Rec.
\$ 10 1,2-Dinitrobenzene	0.2000	0.2047	102.37

Eurofins Denver

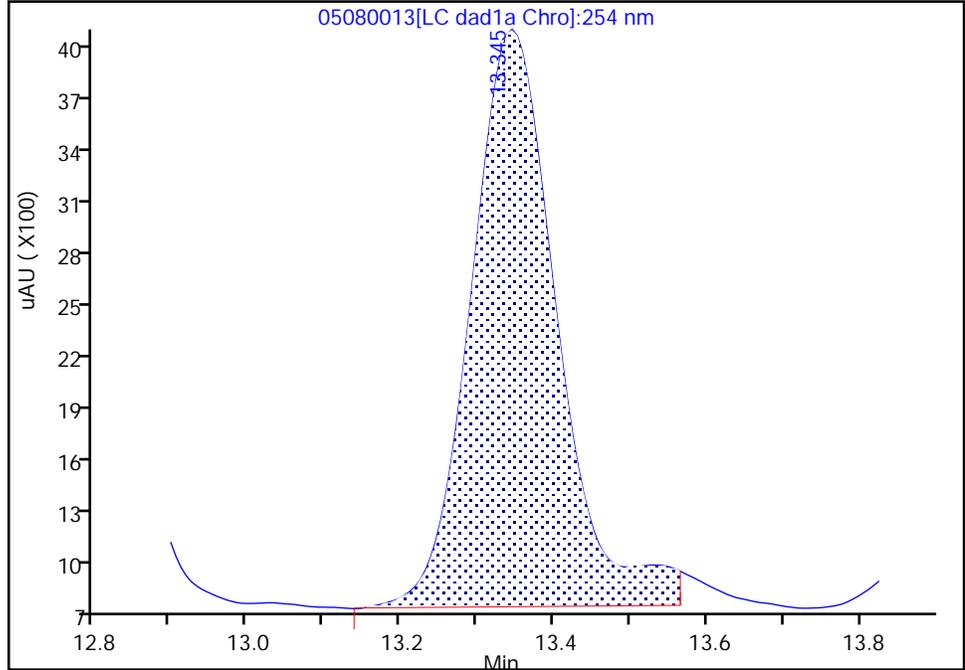
Data File: \\chromfs\denver\chromdata\chhplc\_x\20240508-133160.b\05080013.d  
Injection Date: 08-May-2024 18:16:10 Instrument ID: CHHPLC\_X3  
Lims ID: LCSD 280-652021/3-A  
Client ID:  
Operator ID: JZ ALS Bottle#: 13 Worklist Smp#: 13  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: 8330\_X3 Limit Group: GCSV - 8330  
Column: UltraCarb5uODS (20) ( 4.60 mm) Detector: LC DAD1B, 254 nm

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

Signal: 1

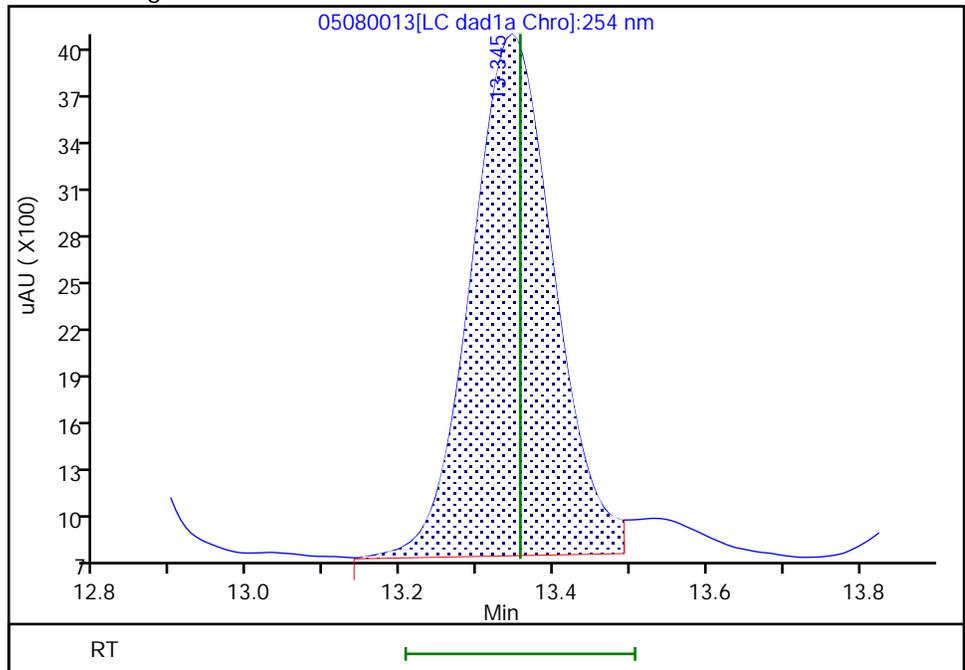
RT: 13.35  
Area: 25762  
Amount: 0.178824  
Amount Units: ug/mL

Processing Integration Results



RT: 13.35  
Area: 24797  
Amount: 0.172126  
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 08-May-2024 18:40:33 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Baseline

Eurofins Denver

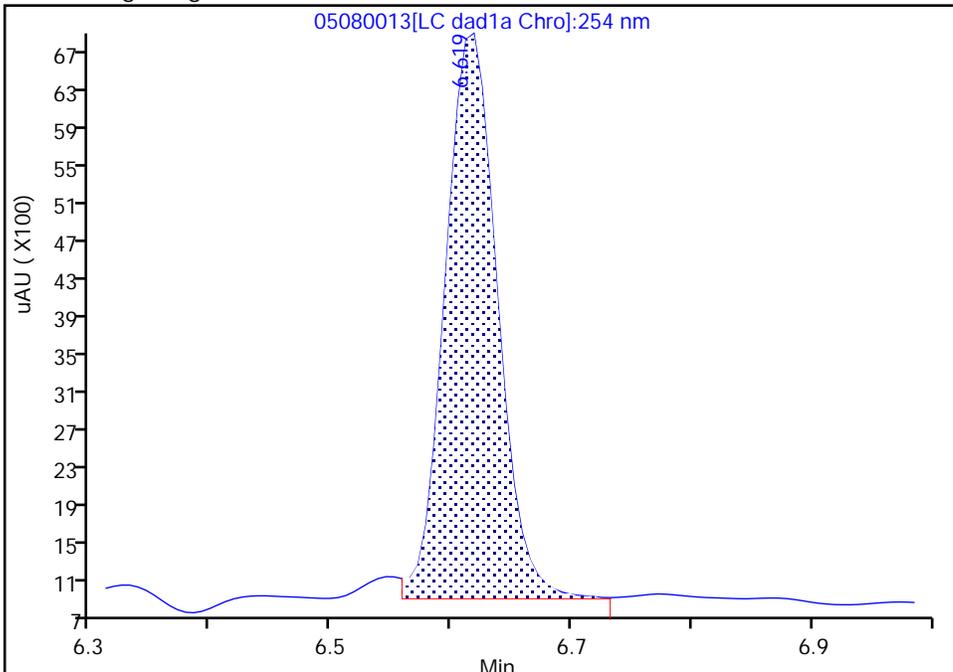
Data File: \\chromfs\denver\chromdata\chhplc\_x\20240508-133160.b\05080013.d  
Injection Date: 08-May-2024 18:16:10 Instrument ID: CHHPLC\_X3  
Lims ID: LCSD 280-652021/3-A  
Client ID:  
Operator ID: JZ ALS Bottle#: 13 Worklist Smp#: 13  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: 8330\_X3 Limit Group: GCSV - 8330  
Column: UltraCarb5uODS (20) ( 4.60 mm) Detector: LC DAD1B, 254 nm

4 HMX, CAS: 2691-41-0

Signal: 1

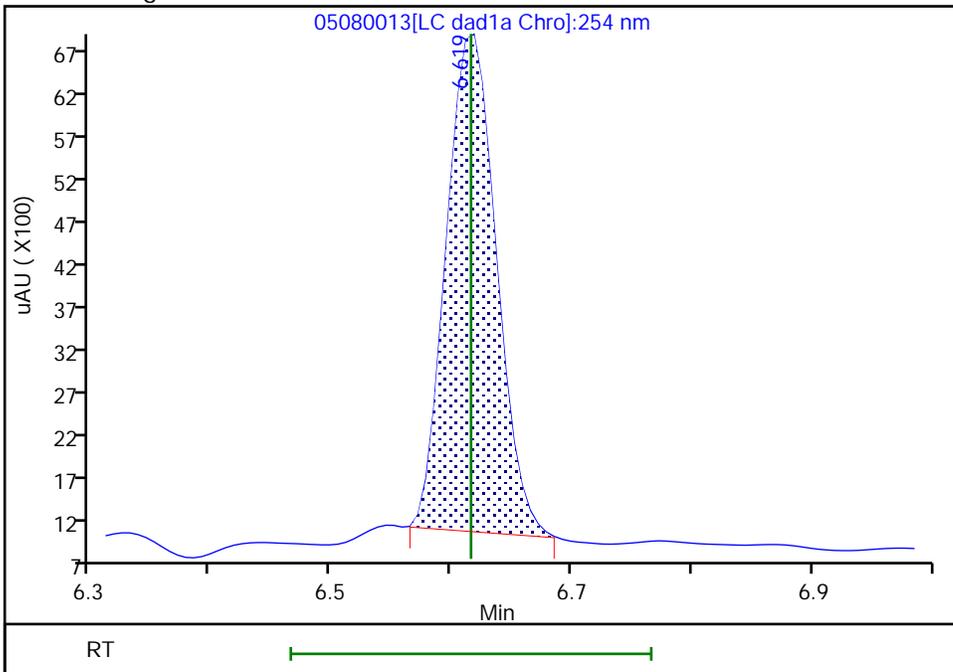
RT: 6.62  
Area: 17962  
Amount: 0.187998  
Amount Units: ug/mL

Processing Integration Results



RT: 6.62  
Area: 16674  
Amount: 0.174517  
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 08-May-2024 18:39:18 -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.: 280-190882-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: FWGmw-004-240401-GW MS Lab Sample ID: 280-190882-8 MS  
 Matrix: Water Lab File ID: 05080028.D  
 Analysis Method: 8330B Date Collected: 04/30/2024 15:40  
 Extraction Method: 3535 Date Extracted: 05/03/2024 12:48  
 Sample wt/vol: 474.9(mL) Date Analyzed: 05/09/2024 00:00  
 Con. Extract Vol.: 5(mL) Dilution Factor: 1  
 Injection Volume: 100(uL) GC Column: UltraCarb5uODS ID: 4.6(mm)  
 % Moisture: \_\_\_\_\_ % Solids: \_\_\_\_\_ GPC Cleanup: (Y/N) N  
 Cleanup Factor: \_\_\_\_\_  
 Analysis Batch No.: 652621 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	2.16		0.22	0.21	0.089
99-65-0	1,3-Dinitrobenzene	2.07		0.12	0.11	0.039
118-96-7	2,4,6-Trinitrotoluene	1.97		0.12	0.11	0.047
121-14-2	2,4-Dinitrotoluene	1.82		0.11	0.084	0.029
606-20-2	2,6-Dinitrotoluene	1.85		0.11	0.084	0.042
35572-78-2	2-Amino-4,6-dinitrotoluene	1.94		0.12	0.11	0.053
88-72-2	2-Nitrotoluene	1.42	J1	0.22	0.21	0.090
99-08-1	3-Nitrotoluene	1.29	J1	0.42	0.37	0.21
19406-51-0	4-Amino-2,6-dinitrotoluene	1.89		0.16	0.13	0.061
99-99-0	4-Nitrotoluene	1.38	J1	0.43	0.42	0.11
2691-41-0	HMX	1.76	M	0.22	0.21	0.092
98-95-3	Nitrobenzene	1.78		0.22	0.21	0.096
55-63-0	Nitroglycerin	22.3		2.2	2.1	0.97
78-11-5	PETN	22.2		1.2	1.1	0.47
121-82-4	RDX	1.96	M	0.22	0.21	0.054
479-45-8	Tetryl	2.08		0.12	0.11	0.033

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

Eurofins Denver  
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC\_X\20240508-133160.b\05080028.D  
 Lims ID: 280-190882-A-8-B MS  
 Client ID: FWGmw-004-240401-GW  
 Sample Type: MS  
 Inject. Date: 09-May-2024 00:00:13 ALS Bottle#: 28 Worklist Smp#: 28  
 Injection Vol: 100.0 ul Dil. Factor: 1.0000  
 Sample Info: 280-190882-A-8-B MS  
 Operator ID: JZ Instrument ID: CHHPLC\_X3  
 Method: \\chromfs\Denver\ChromData\CHHPLC\_X\20240508-133160.b\8330\_X3.m  
 Limit Group: GCSV - 8330  
 Last Update: 09-May-2024 13:10:49 Calib Date: 18-Apr-2024 03:08:00  
 Integrator: Falcon  
 Quant Method: External Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Denver\ChromData\CHHPLC\_X\20240417-132364.b\04170028.D  
 Column 1 : UltraCarb5uODS (20) ( 4.60 mm) Det: LC DAD1B, 254 nm  
 Process Host: CTX1670

First Level Reviewer: LV5D Date: 09-May-2024 12:12:46

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
4 HMX	1	6.606	6.616	-0.010	15970	0.2000	0.1671	M
8 RDX	1	7.626	7.623	0.003	20646	0.2000	0.1864	M
9 2,4,6-Trinitrophenol	1	7.806	7.830	-0.024	16429	0.2000	0.2071	
\$ 10 1,2-Dinitrobenzene	1	8.553	8.556	-0.003	25342	0.2000	0.1918	
11 1,3,5-Trinitrobenzene	1	8.693	8.696	-0.003	45806	0.2000	0.2055	
12 1,3-Dinitrobenzene	1	9.306	9.303	0.003	58795	0.2000	0.1964	
13 Nitrobenzene	1	9.659	9.656	0.003	33145	0.2000	0.1688	
14 3,5-Dinitroaniline	1	9.906	9.896	0.010	40018	0.2000	0.1821	
15 Tetryl	1	9.979	9.963	0.016	35791	0.2000	0.1971	
16 Nitroglycerin	2	10.446	10.436	0.010	141085	2.00	2.12	
17 2,4,6-Trinitrotoluene	1	10.879	10.869	0.010	40357	0.2000	0.1875	
18 4-Amino-2,6-dinitrotoluene	1	11.059	11.043	0.016	26909	0.2000	0.1795	
19 2-Amino-4,6-dinitrotoluene	1	11.319	11.303	0.016	36909	0.2000	0.1847	
20 2,6-Dinitrotoluene	1	11.452	11.436	0.016	25835	0.2000	0.1759	
21 2,4-Dinitrotoluene	1	11.632	11.616	0.016	50314	0.2000	0.1724	
22 o-Nitrotoluene	1	12.412	12.389	0.023	17404	0.2000	0.1346	
23 p-Nitrotoluene	1	12.826	12.809	0.017	14824	0.2000	0.1314	
24 m-Nitrotoluene	1	13.379	13.356	0.023	17694	0.2000	0.1228	
25 PETN	2	14.419	14.389	0.030	151678	2.00	2.11	
26 Ammonium Picrate	1		0.000			ND	ND	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc\_x\20240508-133160.b\05080028.d

Injection Date: 09-May-2024 00:00:13

Instrument ID: CHHPLC\_X3

Operator ID: JZ

Lims ID: 280-190882-A-8-B MS

Worklist Smp#: 28

Client ID: FWGmw-004-240401-GW

Injection Vol: 100.0 ul

Dil. Factor: 1.0000

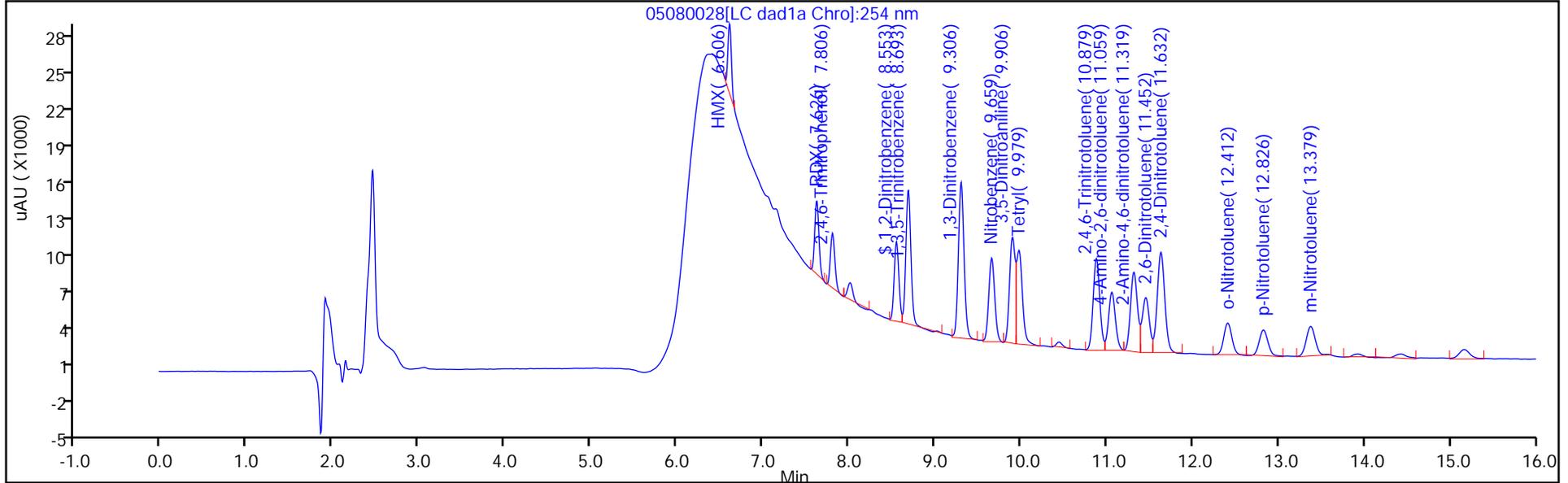
ALS Bottle#: 28

Method: 8330\_X3

Limit Group: GCSV - 8330

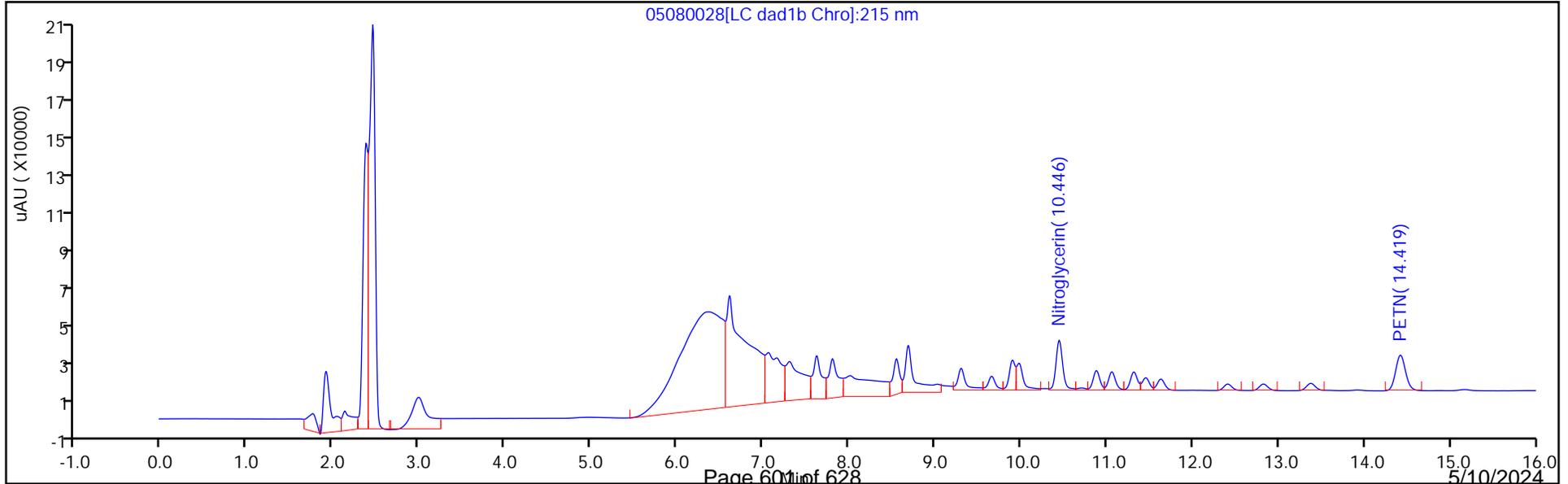
Column: UltraCarb5uODS (20) ( 4.60 mm)

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



Column: UltraCarb5uODS (20) ( 4.60 mm)

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



Eurofins Denver  
Recovery Report

Data File: \\chromfs\Denver\ChromData\CHHPLC\_X\20240508-133160.b\05080028.D  
 Lims ID: 280-190882-A-8-B MS  
 Client ID: FWGmw-004-240401-GW  
 Sample Type: MS  
 Inject. Date: 09-May-2024 00:00:13 ALS Bottle#: 28 Worklist Smp#: 28  
 Injection Vol: 100.0 ul Dil. Factor: 1.0000  
 Sample Info: 280-190882-A-8-B MS  
 Operator ID: JZ Instrument ID: CHHPLC\_X3  
 Method: \\chromfs\Denver\ChromData\CHHPLC\_X\20240508-133160.b\8330\_X3.m  
 Limit Group: GCSV - 8330  
 Last Update: 09-May-2024 13:10:49 Calib Date: 18-Apr-2024 03:08:00  
 Integrator: Falcon  
 Quant Method: External Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Denver\ChromData\CHHPLC\_X\20240417-132364.b\04170028.D  
 Column 1 : UltraCarb5uODS (20) ( 4.60 mm) Det: LC DAD1B, 254 nm  
 Process Host: CTX1670

First Level Reviewer: LV5D Date: 09-May-2024 12:12:46

Compound	Amount Added	Amount Recovered	% Rec.
\$ 10 1,2-Dinitrobenzene	0.2000	0.1918	95.91

Eurofins Denver

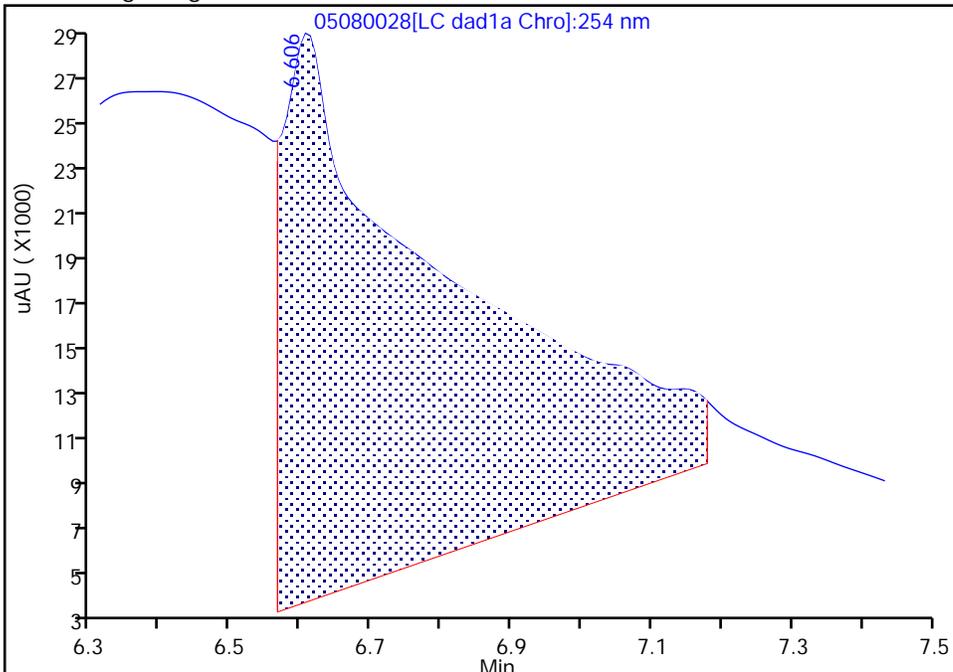
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Injection Date: 09-May-2024 00:00:13 Instrument ID: CHHPLC\_X3  
Lims ID: 280-190882-A-8-B MS  
Client ID: FWGmw-004-240401-GW  
Operator ID: JZ ALS Bottle#: 28 Worklist Smp#: 28  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: 8330\_X3 Limit Group: GCSV - 8330  
Column: UltraCarb5uODS (20) ( 4.60 mm) Detector: LC DAD1B, 254 nm

4 HMX, CAS: 2691-41-0

Signal: 1

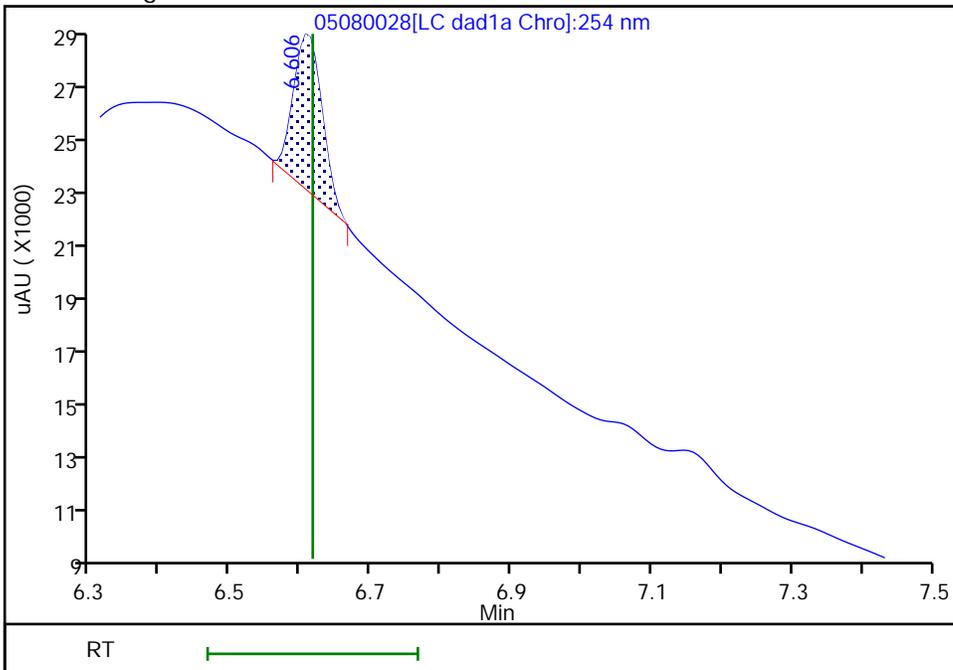
RT: 6.61  
Area: 394393  
Amount: 4.127880  
Amount Units: ug/mL

Processing Integration Results



RT: 6.61  
Area: 15970  
Amount: 0.167149  
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 09-May-2024 12:12:45 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins Denver

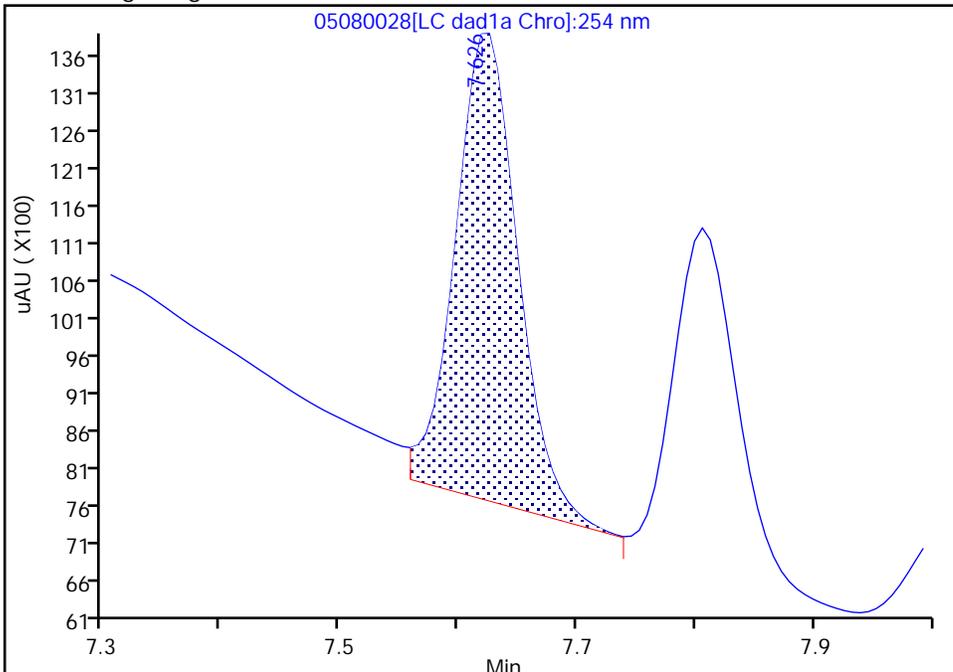
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Injection Date: 09-May-2024 00:00:13 Instrument ID: CHHPLC\_X3  
Lims ID: 280-190882-A-8-B MS  
Client ID: FWGmw-004-240401-GW  
Operator ID: JZ ALS Bottle#: 28 Worklist Smp#: 28  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: 8330\_X3 Limit Group: GCSV - 8330  
Column: UltraCarb5uODS (20) ( 4.60 mm) Detector: LC DAD1B, 254 nm

8 RDX, CAS: 121-82-4

Signal: 1

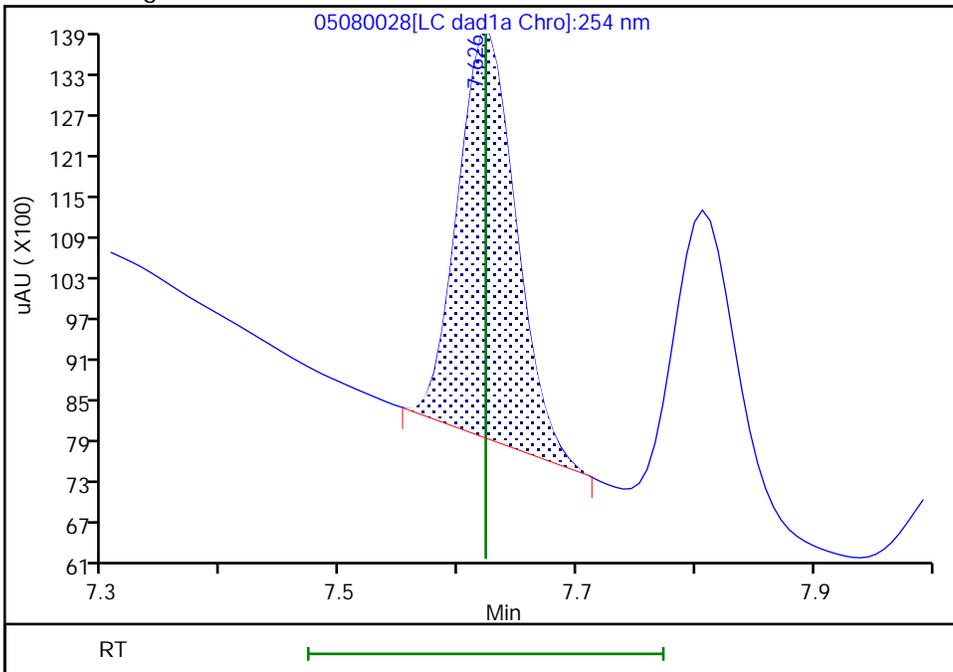
RT: 7.63  
Area: 22852  
Amount: 0.206307  
Amount Units: ug/mL

Processing Integration Results



RT: 7.63  
Area: 20646  
Amount: 0.186391  
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 09-May-2024 12:15:09 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

FORM I  
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver Job No.: 280-190882-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: FWGmw-004-240401-GW MSD Lab Sample ID: 280-190882-8 MSD  
 Matrix: Water Lab File ID: 05080029.D  
 Analysis Method: 8330B Date Collected: 04/30/2024 15:40  
 Extraction Method: 3535 Date Extracted: 05/03/2024 12:48  
 Sample wt/vol: 470.1(mL) Date Analyzed: 05/09/2024 00:23  
 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.: 652621 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	2.31		0.22	0.21	0.089
99-65-0	1,3-Dinitrobenzene	2.22		0.12	0.11	0.039
118-96-7	2,4,6-Trinitrotoluene	2.12		0.12	0.11	0.048
121-14-2	2,4-Dinitrotoluene	2.10		0.11	0.085	0.029
606-20-2	2,6-Dinitrotoluene	2.08		0.11	0.085	0.043
35572-78-2	2-Amino-4,6-dinitrotoluene	2.19		0.12	0.11	0.054
88-72-2	2-Nitrotoluene	1.80	J1	0.22	0.21	0.091
99-08-1	3-Nitrotoluene	1.72	J1	0.43	0.37	0.21
19406-51-0	4-Amino-2,6-dinitrotoluene	2.13		0.16	0.13	0.061
99-99-0	4-Nitrotoluene	1.80	J1	0.44	0.43	0.11
2691-41-0	HMX	1.77	M	0.22	0.21	0.093
98-95-3	Nitrobenzene	2.02		0.22	0.21	0.097
55-63-0	Nitroglycerin	21.6		2.2	2.1	0.98
78-11-5	PETN	23.1		1.2	1.1	0.48
121-82-4	RDX	1.98	M	0.22	0.21	0.055
479-45-8	Tetryl	2.08		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\20240508-133160.b\05080029.D  
 Lims ID: 280-190882-A-8-C MSD  
 Client ID: FWGmw-004-240401-GW  
 Sample Type: MSD  
 Inject. Date: 09-May-2024 00:23:10 ALS Bottle#: 29 Worklist Smp#: 29  
 Injection Vol: 100.0 ul Dil. Factor: 1.0000  
 Sample Info: 280-190882-A-8-C MSD  
 Operator ID: JZ Instrument ID: CHHPLC\_X3  
 Method: \\chromfs\Denver\ChromData\CHHPLC\_X\20240508-133160.b\8330\_X3.m  
 Limit Group: GCSV - 8330  
 Last Update: 09-May-2024 13:10:49 Calib Date: 18-Apr-2024 03:08:00  
 Integrator: Falcon  
 Quant Method: External Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Denver\ChromData\CHHPLC\_X\20240417-132364.b\04170028.D  
 Column 1 : UltraCarb5uODS (20) ( 4.60 mm) Det: LC DAD1B, 254 nm  
 Process Host: CTX1670

First Level Reviewer: LV5D

Date: 09-May-2024 12:15:32

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
4 HMX	1	6.612	6.616	-0.004	15881	0.2000	0.1662	M
8 RDX	1	7.625	7.623	0.002	20574	0.2000	0.1857	M
9 2,4,6-Trinitrophenol	1	7.812	7.830	-0.018	16405	0.2000	0.2068	M
\$ 10 1,2-Dinitrobenzene	1	8.558	8.556	0.002	26765	0.2000	0.2026	
11 1,3,5-Trinitrobenzene	1	8.698	8.696	0.002	48342	0.2000	0.2169	
12 1,3-Dinitrobenzene	1	9.312	9.303	0.009	62562	0.2000	0.2089	
13 Nitrobenzene	1	9.665	9.656	0.009	37379	0.2000	0.1904	
14 3,5-Dinitroaniline	1	9.905	9.896	0.009	45282	0.2000	0.2060	
15 Tetryl	1	9.978	9.963	0.015	35523	0.2000	0.1956	
16 Nitroglycerin	2	10.445	10.436	0.009	134982	2.00	2.03	
17 2,4,6-Trinitrotoluene	1	10.878	10.869	0.009	42831	0.2000	0.1990	
18 4-Amino-2,6-dinitrotoluene	1	11.058	11.043	0.015	30079	0.2000	0.2006	
19 2-Amino-4,6-dinitrotoluene	1	11.312	11.303	0.009	41176	0.2000	0.2061	
20 2,6-Dinitrotoluene	1	11.452	11.436	0.016	28770	0.2000	0.1958	
21 2,4-Dinitrotoluene	1	11.632	11.616	0.016	57756	0.2000	0.1979	
22 o-Nitrotoluene	1	12.405	12.389	0.016	21907	0.2000	0.1694	
23 p-Nitrotoluene	1	12.825	12.809	0.016	19128	0.2000	0.1696	
24 m-Nitrotoluene	1	13.378	13.356	0.022	23237	0.2000	0.1613	
25 PETN	2	14.425	14.389	0.036	156144	2.00	2.17	
26 Ammonium Picrate	1		0.000			ND	ND	

## QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc\_x\20240508-133160.b\05080029.d

Injection Date: 09-May-2024 00:23:10

Instrument ID: CHHPLC\_X3

Operator ID: JZ

Lims ID: 280-190882-A-8-C MSD

Worklist Smp#: 29

Client ID: FWGmw-004-240401-GW

Injection Vol: 100.0 ul

Dil. Factor: 1.0000

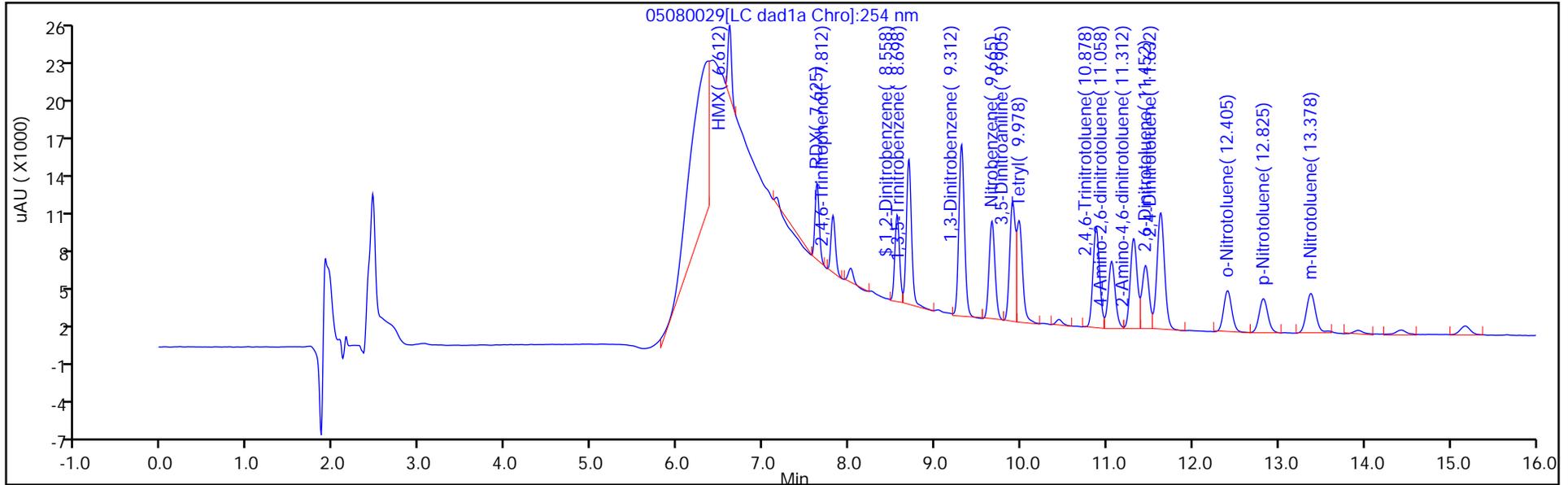
ALS Bottle#: 29

Method: 8330\_X3

Limit Group: GCSV - 8330

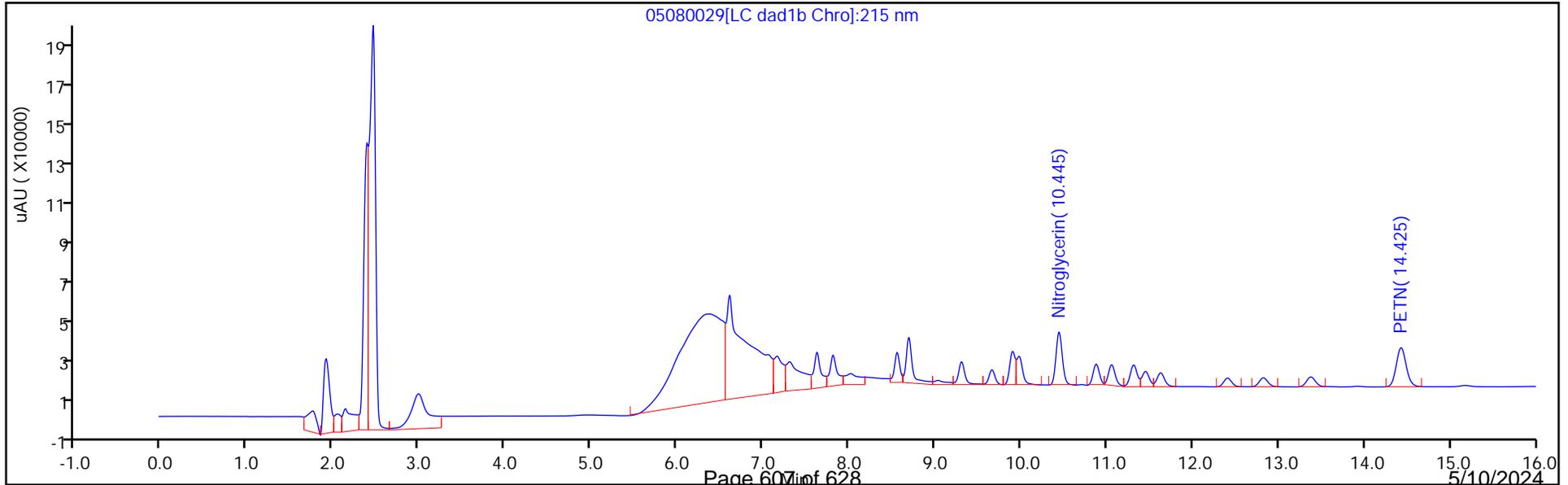
Column: UltraCarb5uODS (20) ( 4.60 mm)

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



Column: UltraCarb5uODS (20) ( 4.60 mm)

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



Eurofins Denver  
Recovery Report

Data File: \\chromfs\Denver\ChromData\CHHPLC\_X\20240508-133160.b\05080029.D  
 Lims ID: 280-190882-A-8-C MSD  
 Client ID: FWGmw-004-240401-GW  
 Sample Type: MSD  
 Inject. Date: 09-May-2024 00:23:10 ALS Bottle#: 29 Worklist Smp#: 29  
 Injection Vol: 100.0 ul Dil. Factor: 1.0000  
 Sample Info: 280-190882-A-8-C MSD  
 Operator ID: JZ Instrument ID: CHHPLC\_X3  
 Method: \\chromfs\Denver\ChromData\CHHPLC\_X\20240508-133160.b\8330\_X3.m  
 Limit Group: GCSV - 8330  
 Last Update: 09-May-2024 13:10:49 Calib Date: 18-Apr-2024 03:08:00  
 Integrator: Falcon  
 Quant Method: External Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Denver\ChromData\CHHPLC\_X\20240417-132364.b\04170028.D  
 Column 1 : UltraCarb5uODS (20) ( 4.60 mm) Det: LC DAD1B, 254 nm  
 Process Host: CTX1670

First Level Reviewer: LV5D Date: 09-May-2024 12:15:32

Compound	Amount Added	Amount Recovered	% Rec.
\$ 10 1,2-Dinitrobenzene	0.2000	0.2026	101.31

Eurofins Denver

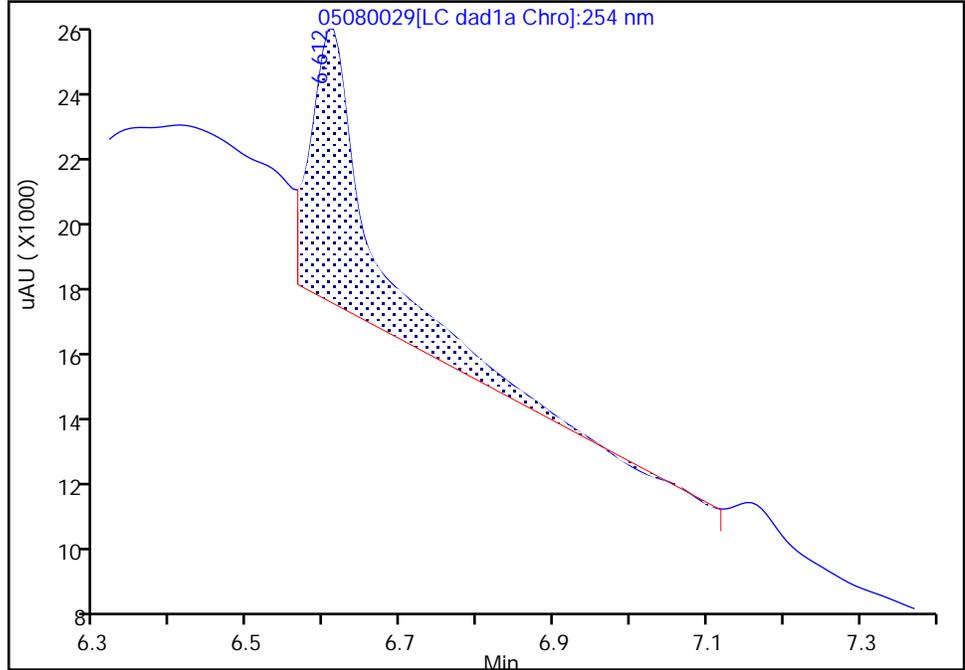
Data File: \\chromfs\denver\chromdata\chhplc\_x\20240508-133160.b\05080029.d  
Injection Date: 09-May-2024 00:23:10 Instrument ID: CHHPLC\_X3  
Lims ID: 280-190882-A-8-C MSD  
Client ID: FWGmw-004-240401-GW  
Operator ID: JZ ALS Bottle#: 29 Worklist Smp#: 29  
Injection Vol: 100.0 ul Dil. Factor: 1.0000  
Method: 8330\_X3 Limit Group: GCSV - 8330  
Column: UltraCarb5uODS (20) ( 4.60 mm) Detector: LC DAD1B, 254 nm

4 HMX, CAS: 2691-41-0

Signal: 1

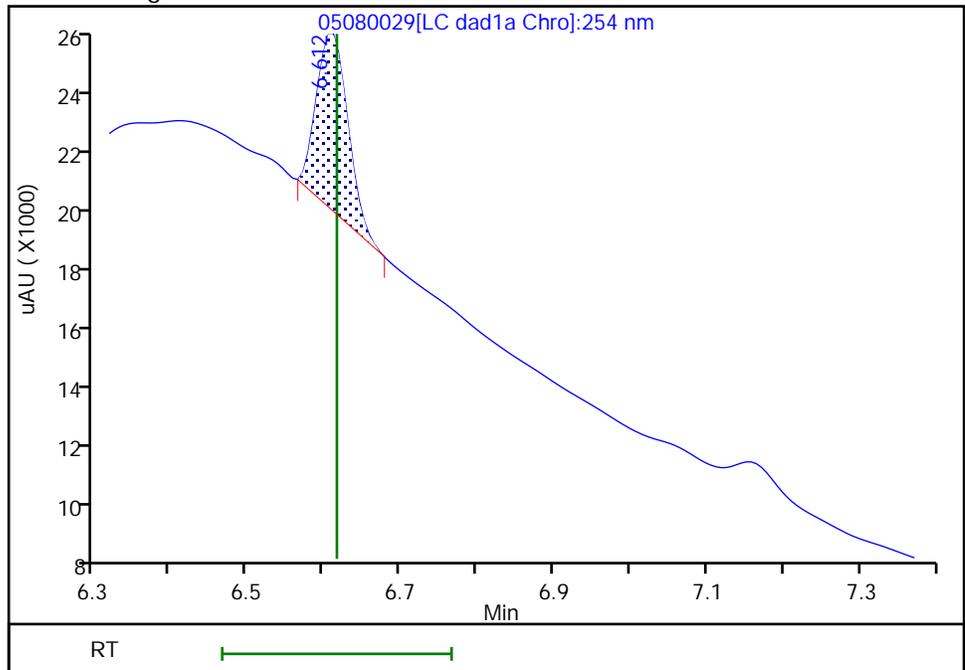
RT: 6.61  
Area: 44517  
Amount: 0.465933  
Amount Units: ug/mL

Processing Integration Results



RT: 6.61  
Area: 15881  
Amount: 0.166217  
Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 09-May-2024 12:15:20 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins Denver

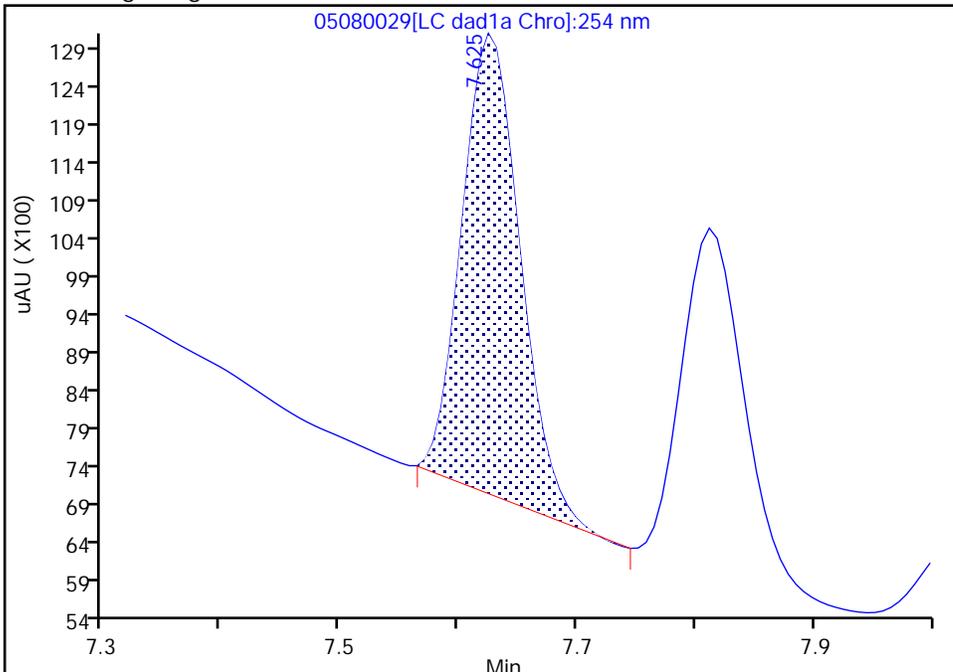
Data File: \\chromfs\denver\chromdata\chhplc\_x\20240508-133160.b\05080029.d  
 Injection Date: 09-May-2024 00:23:10 Instrument ID: CHHPLC\_X3  
 Lims ID: 280-190882-A-8-C MSD  
 Client ID: FWGmw-004-240401-GW  
 Operator ID: JZ ALS Bottle#: 29 Worklist Smp#: 29  
 Injection Vol: 100.0 ul Dil. Factor: 1.0000  
 Method: 8330\_X3 Limit Group: GCSV - 8330  
 Column: UltraCarb5uODS (20) ( 4.60 mm) Detector: LC DAD1B, 254 nm

8 RDX, CAS: 121-82-4

Signal: 1

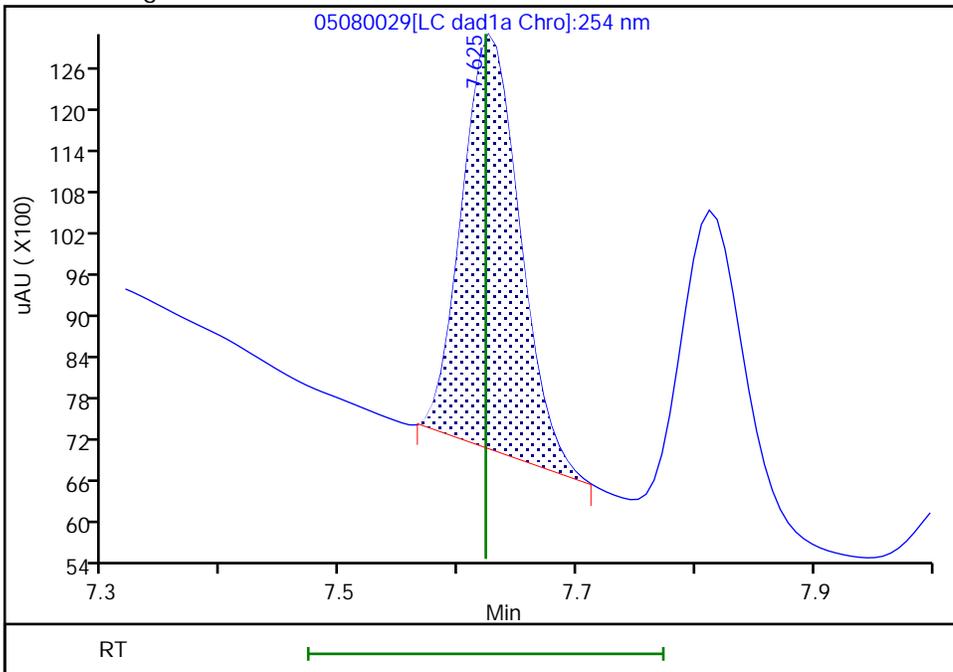
RT: 7.63  
 Area: 20908  
 Amount: 0.188756  
 Amount Units: ug/mL

Processing Integration Results



RT: 7.63  
 Area: 20574  
 Amount: 0.185741  
 Amount Units: ug/mL

Manual Integration Results



Reviewer: LV5D, 09-May-2024 12:15:29 -06:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

HPLC/IC ANALYSIS RUN LOG

Lab Name: Eurofins Denver Job No.: 280-190882-1

SDG No.: \_\_\_\_\_

Instrument ID: CHHPLC\_X3 Start Date: 04/17/2024 20:37

Analysis Batch Number: 649950 End Date: 04/18/2024 03:30

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
IC 280-649950/11		04/17/2024 20:37	1	04170011.D	UltraCarb5uODS 4.6 (mm)
IC 280-649950/12		04/17/2024 21:00	1	04170012.D	UltraCarb5uODS 4.6 (mm)
IC 280-649950/13		04/17/2024 21:23	1	04170013.D	UltraCarb5uODS 4.6 (mm)
IC 280-649950/14		04/17/2024 21:46	1	04170014.D	UltraCarb5uODS 4.6 (mm)
IC 280-649950/15		04/17/2024 22:09	1	04170015.D	UltraCarb5uODS 4.6 (mm)
IC 280-649950/16		04/17/2024 22:32	1	04170016.D	UltraCarb5uODS 4.6 (mm)
IC 280-649950/17		04/17/2024 22:55	1	04170017.D	UltraCarb5uODS 4.6 (mm)
IC 280-649950/18		04/17/2024 23:18	1	04170018.D	UltraCarb5uODS 4.6 (mm)
IC 280-649950/19		04/17/2024 23:41	1	04170019.D	UltraCarb5uODS 4.6 (mm)
ICV 280-649950/20		04/18/2024 00:04	1	04170020.D	UltraCarb5uODS 4.6 (mm)
IC 280-649950/21		04/18/2024 00:27	1		UltraCarb5uODS 4.6 (mm)
IC 280-649950/22		04/18/2024 00:50	1		UltraCarb5uODS 4.6 (mm)
IC 280-649950/23		04/18/2024 01:13	1		UltraCarb5uODS 4.6 (mm)
IC 280-649950/24		04/18/2024 01:36	1		UltraCarb5uODS 4.6 (mm)
IC 280-649950/25		04/18/2024 01:59	1		UltraCarb5uODS 4.6 (mm)
IC 280-649950/26		04/18/2024 02:22	1		UltraCarb5uODS 4.6 (mm)
IC 280-649950/27		04/18/2024 02:45	1		UltraCarb5uODS 4.6 (mm)
IC 280-649950/28		04/18/2024 03:08	1		UltraCarb5uODS 4.6 (mm)
ICV 280-649950/29		04/18/2024 03:30	1		UltraCarb5uODS 4.6 (mm)

HPLC/IC ANALYSIS RUN LOG

Lab Name: Eurofins Denver Job No.: 280-190882-1

SDG No.: \_\_\_\_\_

Instrument ID: CHHPLC\_G2\_LUNA Start Date: 04/24/2024 21:28

Analysis Batch Number: 650851 End Date: 04/25/2024 08:15

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
IC 280-650851/10		04/24/2024 21:28	1	04240010.D	Luna-phenylhex 4.6 (mm)
IC 280-650851/11		04/24/2024 22:04	1	04240011.D	Luna-phenylhex 4.6 (mm)
IC 280-650851/12		04/24/2024 22:40	1	04240012.D	Luna-phenylhex 4.6 (mm)
IC 280-650851/13		04/24/2024 23:16	1	04240013.D	Luna-phenylhex 4.6 (mm)
IC 280-650851/14		04/24/2024 23:51	1	04240014.D	Luna-phenylhex 4.6 (mm)
IC 280-650851/15		04/25/2024 00:27	1	04240015.D	Luna-phenylhex 4.6 (mm)
IC 280-650851/16		04/25/2024 01:03	1	04240016.D	Luna-phenylhex 4.6 (mm)
IC 280-650851/17		04/25/2024 01:39	1	04240017.D	Luna-phenylhex 4.6 (mm)
IC 280-650851/18		04/25/2024 02:15	1	04240018.D	Luna-phenylhex 4.6 (mm)
ICV 280-650851/19		04/25/2024 02:51	1	04240019.D	Luna-phenylhex 4.6 (mm)
IC 280-650851/20		04/25/2024 03:27	1		Luna-phenylhex 4.6 (mm)
IC 280-650851/21		04/25/2024 04:03	1		Luna-phenylhex 4.6 (mm)
IC 280-650851/22		04/25/2024 04:39	1		Luna-phenylhex 4.6 (mm)
IC 280-650851/23		04/25/2024 05:15	1		Luna-phenylhex 4.6 (mm)
IC 280-650851/24		04/25/2024 05:51	1		Luna-phenylhex 4.6 (mm)
IC 280-650851/25		04/25/2024 06:27	1		Luna-phenylhex 4.6 (mm)
IC 280-650851/26		04/25/2024 07:03	1		Luna-phenylhex 4.6 (mm)
IC 280-650851/27		04/25/2024 07:39	1		Luna-phenylhex 4.6 (mm)
ICV 280-650851/28		04/25/2024 08:15	1		Luna-phenylhex 4.6 (mm)

HPLC/IC ANALYSIS RUN LOG

Lab Name: Eurofins Denver

Job No.: 280-190882-1

SDG No.:

Instrument ID: CHHPLC\_X3

Start Date: 05/08/2024 17:07

Analysis Batch Number: 652621

End Date: 05/09/2024 03:49

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCV 280-652621/7		05/08/2024 17:07	1	05080007.D	UltraCarb5uODS 4.6 (mm)
MB 280-652021/1-A		05/08/2024 17:30	1	05080011.D	UltraCarb5uODS 4.6 (mm)
LCS 280-652021/2-A		05/08/2024 17:53	1	05080012.D	UltraCarb5uODS 4.6 (mm)
LCSD 280-652021/3-A		05/08/2024 18:16	1	05080013.D	UltraCarb5uODS 4.6 (mm)
ZZZZZ		05/08/2024 18:39	1		UltraCarb5uODS 4.6 (mm)
ZZZZZ		05/08/2024 19:02	1		UltraCarb5uODS 4.6 (mm)
ZZZZZ		05/08/2024 19:24	1		UltraCarb5uODS 4.6 (mm)
ZZZZZ		05/08/2024 19:47	1		UltraCarb5uODS 4.6 (mm)
ZZZZZ		05/08/2024 20:10	1		UltraCarb5uODS 4.6 (mm)
280-190882-1	LL2mw-059-240401-GW	05/08/2024 20:33	1	05080019.D	UltraCarb5uODS 4.6 (mm)
280-190882-2	LL3mw-237-240401-GW	05/08/2024 20:56	1	05080020.D	UltraCarb5uODS 4.6 (mm)
CCV 280-652621/21		05/08/2024 21:19	1	05080021.D	UltraCarb5uODS 4.6 (mm)
280-190882-3	FWGmw-011-240401-GW	05/08/2024 21:42	1	05080022.D	UltraCarb5uODS 4.6 (mm)
280-190882-4	LL3mw-241-240401-GW	05/08/2024 22:05	1	05080023.D	UltraCarb5uODS 4.6 (mm)
280-190882-5	FWGmw-012-240401-GW	05/08/2024 22:28	1	05080024.D	UltraCarb5uODS 4.6 (mm)
280-190882-6	LL1mw-089-240401-GW	05/08/2024 22:51	1	05080025.D	UltraCarb5uODS 4.6 (mm)
280-190882-7	LL1mw-089-240402-GW	05/08/2024 23:14	1	05080026.D	UltraCarb5uODS 4.6 (mm)
280-190882-8	FWGmw-004-240401-GW	05/08/2024 23:37	1	05080027.D	UltraCarb5uODS 4.6 (mm)
280-190882-8 MS	FWGmw-004-240401-GW MS	05/09/2024 00:00	1	05080028.D	UltraCarb5uODS 4.6 (mm)
280-190882-8 MSD	FWGmw-004-240401-GW MSD	05/09/2024 00:23	1	05080029.D	UltraCarb5uODS 4.6 (mm)
280-190882-9	FWGmw-004-240402-GW	05/09/2024 00:46	1	05080030.D	UltraCarb5uODS 4.6 (mm)
280-190882-10	FWGmw-007-240401-GW	05/09/2024 01:09	1	05080031.D	UltraCarb5uODS 4.6 (mm)
CCV 280-652621/32		05/09/2024 01:32	1	05080032.D	UltraCarb5uODS 4.6 (mm)
ZZZZZ		05/09/2024 01:55	1		UltraCarb5uODS 4.6 (mm)
ZZZZZ		05/09/2024 02:17	1		UltraCarb5uODS 4.6 (mm)
ZZZZZ		05/09/2024 02:40	1		UltraCarb5uODS 4.6 (mm)
ZZZZZ		05/09/2024 03:03	1		UltraCarb5uODS 4.6 (mm)
ZZZZZ		05/09/2024 03:26	1		UltraCarb5uODS 4.6 (mm)
CCV 280-652621/38		05/09/2024 03:49	1		UltraCarb5uODS 4.6 (mm)

HPLC/IC ANALYSIS RUN LOG

Lab Name: Eurofins Denver Job No.: 280-190882-1

SDG No.: \_\_\_\_\_

Instrument ID: CHHPLC\_G2\_LUNA Start Date: 05/08/2024 20:10

Analysis Batch Number: 652628 End Date: 05/09/2024 12:57

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCV 280-652628/7		05/08/2024 20:10	1	05080007.D	Luna-phenylhex 4.6(mm)
ZZZZZ		05/08/2024 20:46	1		Luna-phenylhex 4.6(mm)
ZZZZZ		05/08/2024 21:22	1		Luna-phenylhex 4.6(mm)
ZZZZZ		05/08/2024 21:58	1		Luna-phenylhex 4.6(mm)
ZZZZZ		05/09/2024 00:58	1		Luna-phenylhex 4.6(mm)
280-190882-1	LL2mw-059-240401-GW	05/09/2024 01:34	1	05080018.D	Luna-phenylhex 4.6(mm)
280-190882-2	LL3mw-237-240401-GW	05/09/2024 02:10	1	05080019.D	Luna-phenylhex 4.6(mm)
CCV 280-652628/20		05/09/2024 02:46	1	05080020.D	Luna-phenylhex 4.6(mm)
280-190882-3	FWGmw-011-240401-GW	05/09/2024 03:22	1	05080021.D	Luna-phenylhex 4.6(mm)
280-190882-4	LL3mw-241-240401-GW	05/09/2024 03:58	1	05080022.D	Luna-phenylhex 4.6(mm)
280-190882-5	FWGmw-012-240401-GW	05/09/2024 04:34	1	05080023.D	Luna-phenylhex 4.6(mm)
CCV 280-652628/31		05/09/2024 09:21	1	05080031.D	Luna-phenylhex 4.6(mm)
ZZZZZ		05/09/2024 09:57	1		Luna-phenylhex 4.6(mm)
ZZZZZ		05/09/2024 10:33	1		Luna-phenylhex 4.6(mm)
CCV 280-652628/37		05/09/2024 12:57	1		Luna-phenylhex 4.6(mm)

HPLC/IC BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-190882-1

SDG No.: \_\_\_\_\_

Batch Number: 649950 Batch Start Date: 04/17/24 20:37 Batch Analyst: Zhang, Jian

Batch Method: 8330B Batch End Date: \_\_\_\_\_

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	FinalAmount	8330 DMT 00016	8330 LCS 00134	8330 OP DMT 00026	8330IntermStk 00080	8330Surrogate 00154
IC 280-649950/11		8330B			1 mL	125 uL			250 uL	
IC 280-649950/12		8330B			1 mL	50 uL			100 uL	
IC 280-649950/13		8330B			1 mL	35 uL			70 uL	
IC 280-649950/14		8330B			1 mL	20 uL			40 uL	
IC 280-649950/15		8330B			1 mL	12.5 uL			25 uL	
IC 280-649950/16		8330B			1 mL	5 uL			10 uL	
IC 280-649950/17		8330B			1 mL	2.5 uL			5 uL	
IC 280-649950/18		8330B			1 mL	1 uL			2 uL	
IC 280-649950/19		8330B			1 mL	0.5 uL			1 uL	
ICV 280-649950/20		8330B			1 mL		50 uL	50 uL		50 uL

Batch Notes	
Methanol ID	233990

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

HPLC/IC BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-190882-1

SDG No.: \_\_\_\_\_

Batch Number: 650851 Batch Start Date: 04/24/24 21:28 Batch Analyst: Zhang, Jian

Batch Method: 8330B Batch End Date: \_\_\_\_\_

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	FinalAmount	8330 LCS 00134	8330IntermStk 00080	8330Surrogate 00154		
IC 280-650851/10		8330B			1 mL		250 uL			
IC 280-650851/11		8330B			1 mL		100 uL			
IC 280-650851/12		8330B			1 mL		70 uL			
IC 280-650851/13		8330B			1 mL		40 uL			
IC 280-650851/14		8330B			1 mL		25 uL			
IC 280-650851/15		8330B			1 mL		10 uL			
IC 280-650851/16		8330B			1 mL		5 uL			
IC 280-650851/17		8330B			1 mL		2 uL			
IC 280-650851/18		8330B			1 mL		1 uL			
ICV 280-650851/19		8330B			1 mL	50 uL		50 uL		

Batch Notes	
Methanol ID	233990

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

HPLC/IC BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-190882-1

SDG No.: \_\_\_\_\_

Batch Number: 652021 Batch Start Date: 05/03/24 12:48 Batch Analyst: Johnston, Malcolm S

Batch Method: 3535 Batch End Date: 05/03/24 15:31

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	GrossWeight	TareWeight	InitialAmount	FinalAmount	8330 LCS 00134	8330Surrogate 00155
MB 280-652021/1		3535, 8330B					500 mL	5 mL		0.1 mL
LCS 280-652021/2		3535, 8330B					500 mL	5 mL	0.1 mL	0.1 mL
LCS 280-652021/3		3535, 8330B					500 mL	5 mL	0.1 mL	0.1 mL
280-190882-A-1	LL2mw-059-24040 1-GW	3535, 8330B	Water	T	743.9 g	281.7 g	462.2 mL	5 mL		0.1 mL
280-190882-A-2	LL3mw-237-24040 1-GW	3535, 8330B	Water	T	746.0 g	281.8 g	464.2 mL	5 mL		0.1 mL
280-190882-A-3	FWGmw-011-24040 1-GW	3535, 8330B	Water	T	761.6 g	281.5 g	480.1 mL	5 mL		0.1 mL
280-190882-A-4	LL3mw-241-24040 1-GW	3535, 8330B	Water	T	767.4 g	283.7 g	483.7 mL	5 mL		0.1 mL
280-190882-A-5	FWGmw-012-24040 1-GW	3535, 8330B	Water	T	777.7 g	286.3 g	491.4 mL	5 mL		0.1 mL
280-190882-A-6	LL1mw-089-24040 1-GW	3535, 8330B	Water	T	757.0 g	283.1 g	473.9 mL	5 mL		0.1 mL
280-190882-A-7	LL1mw-089-24040 2-GW	3535, 8330B	Water	T	760.9 g	282.4 g	478.5 mL	5 mL		0.1 mL
280-190882-A-8	FWGmw-004-24040 1-GW	3535, 8330B	Water	T	763.2 g	279.8 g	483.4 mL	5 mL		0.1 mL
280-190882-A-8 MS	FWGmw-004-24040 1-GW	3535, 8330B	Water	T	753.7 g	278.8 g	474.9 mL	5 mL	0.1 mL	0.1 mL
280-190882-A-8 MSD	FWGmw-004-24040 1-GW	3535, 8330B	Water	T	753.6 g	283.5 g	470.1 mL	5 mL	0.1 mL	0.1 mL
280-190882-A-9	FWGmw-004-24040 2-GW	3535, 8330B	Water	T	738.1 g	276.9 g	461.2 mL	5 mL		0.1 mL
280-190882-A-10	FWGmw-007-24040 1-GW	3535, 8330B	Water	T	760.5 g	282.7 g	477.8 mL	5 mL		0.1 mL

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

HPLC/IC BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-190882-1

SDG No.: \_\_\_\_\_

Batch Number: 652021 Batch Start Date: 05/03/24 12:48

Batch Analyst: Johnston, Malcolm S

Batch Method: 3535 Batch End Date: 05/03/24 15:31

Batch Notes	
First Start time	05/03/2024 12:58
First End time	05/03/2024 15:18
SPE Cartridge Type	Sep-Pak Porapak Rdx
SPE Cartridge Lot ID	005434002A
Balance ID	24350888
Balance is Level? (Y/N)	yes
Manifold ID	Manifold: B, C
QC Bottle Lot ID	0202401I
Pipette/Syringe/Dispenser ID	Dobby/ DOD/ Pugsley
Solvent Name	CaCl2
Solvent Lot #	CaCl2_Sol_00092
Rinse Solvent Name	Acetonitrile
Rinse Solvent Lot	Acetonitrile_00087
Acid Name	0.2% AAinACN
Acid ID	0.2% AAinACN_00004
Analyst ID - Spike Analyst	MJ
Analyst ID - Spike Witness Analyst	Reviewer: EH
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



280-190882 Chain of Custody

COC No.: **RVAAP-**  
Date: **4/30/24**

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# Chain of Custody Record



Name Leidos  
 Address: 8866 Commons Blvd, Suite 201, Twinsburg, OH 44087  
 Phone Number: (330) 405-5802  
 Project Manager: Jed Thomas  
 Project: RVAAP FWGW Sampling Event Spring 2024  
 Job/P.O. No.: P010216426  
 Sampler (Signature) *lee* (Printed Name) **KATIE LEE**

Laboratory No	Sample ID	Site Type	Depth	Date	Time	Matrix	Requested Parameters				Explosives (6)(A)	Sulfide (9)(F)	Nitrate/Nitrite/Sulfate (10)(A)	Alkalinity (14)(A)	TOC (13)(E)	Temperature Blank	Total Number of Containers	OBSERVATIONS, COMMENTS SPECIAL INSTRUCTIONS
	LL2mw-059-240401-GW			4/30/24	0945	W				2								
<i>CS 4/30/24</i>																		

Laboratory Name: **TA-Denver**  
 Address: 4955 Yarrow Street  
 Arvada, CO 80002  
 Phone: 303-736-0107  
 Contact: Patrick McEntee

Relinquished by <i>Charles Spur</i> Signature <b>Charles Spur</b> Printed Name Leidos Company	Date <b>4/30/24</b> Time <b>1800</b>	Received by <i>Matthew Little</i> Signature <b>Matthew Little</b> Printed Name <b>EET DEN</b> Company	Date <b>4/30/24</b> Time <b>0900</b>	Notes: A. Cool, 4C B. HCl, pH<2, Cool, 4C C. HNO3, pH<2, Cool, 4C D. NaOH, pH>12, Cool 4C	Notes: 1. SW 8260B 2. SW 8270D 3. SW 8270D SIM 4. SW 8082A 5. SW 8081B 6. SW 8330 7. SW 6010/6020/7470 8. SW 9012B 9. SW 9034 10. SW 9056/9056A 11. SW 6860 12. EPA 353.2 13. SW 7196 14. SM2320B	Total Number of Containers: <b>2</b>	Shipment Method: <b>Fed Ex</b> <b>8108 8165 1495</b> <b>8108 8165 1500</b> <b>T: 010.3</b> <b>CF: T. 2, R. N. N. N. N.</b>
Relinquished by Signature Printed Name Company	Date Time	Received by Signature Printed Name Company	Date Time	Notes	Notes	Total Number of Containers:	Shipment Method:

Temperature Blank  
 Lab:  
**Leidos**  
 8866 Commons Drive  
 Twinsburg, OH 44087  
 (330) 405-5802

White Laboratory  
 Pink Project Manager  
 Yellow Project QAO  
 Goldenrod Field Project Manager





Chain of Custody Record

COC No.: RVAAP-421-TA  
Date: 4/30/24

Page 3 of 8

Name Leidos  
Address: 8866 Commons Blvd, Suite 201, Twinsburg, OH 44087  
Phone Number: (330) 405-5802  
Project Manager: Jed Thomas  
Project: RVAAP FWGW Sampling Event Spring 2024  
Job/P.O. No.: P010216426  
Sampler (Signature) *Matt Reinhard* (Printed Name) Matt Reinhard

Laboratory Name: FA-Denver  
Address: 4955 Yarrow Street  
Arvada, CO 80002  
Phone: 303-736-0107  
Contact: Patrick McEntee

Requested Parameters: *4/30/24*

Laboratory No.	Sample ID	Site Type	Depth	Date	Time	Matrix	Explosives (g)(A)	Temperature Blank	Total Number of Containers	OBSERVATIONS, COMMENTS SPECIAL INSTRUCTIONS
	FWGmw-011-240401-GW			4/30/24	1105	W	2		2	
<i>[The rest of the table is crossed out with a diagonal line.]</i>										

Relinquished by: *Charles Spurr*  
Signature: *Charles Spurr*  
Printed Name: Charles Spurr  
Leidos  
Company

Date: 4/30/24  
Time: 1800

Received by: *[Signature]*  
Signature: *[Signature]*  
Printed Name: *[Signature]*  
Company: *[Signature]*

Date: 4/30/24  
Time: 0700

Notes:  
A. Cool, 4C  
B. HCl, pH<2, Cool, 4C  
C. HNO3, pH<2, Cool, 4C  
D. NaOH, pH>12, Cool 4C  
1. SW 8260B  
2. SW 8270D  
3. SW 8270D SIM  
4. SW 8082A  
5. SW 8081B  
6. SW 8330  
7. SW 6010/6020/7470  
8. SW 9012B  
9. SW 9034  
10. SW 9056/9056A  
11. SW 6860  
12. EPA 353.2  
13. SW 7196  
14. SM2320B

Shipment Method: *[Blank]*

Temperature Blank  
Lab: Leidos  
8866 Commons Drive  
Twinsburg, OH 44087  
(330) 405-5802

White Laboratory  
Pink Project Manager  
Yellow Project QAO  
Goldenrod Field Project Manager



# Chain of Custody Record

COC No.: **RVAAP-422-TA**  
Date: **4/30/24**

Page **4** of **8**

Name Leidos Address: 8866 Commons Blvd, Suite 201, Twinsburg, OH 44087 Phone Number: (330) 405-5802 Project Manager: Jed Thomas Project: RVAAP FWGW Sampling Event Spring 2024 Job/P.O. No.: P010216426 Sampler (Signature) <i>Clee</i> (Printed Name) <b>KATIE LEE</b>		Laboratory Name: TA-Denver Address: 4955 Yarrow Street Arvada, CO 80002 Phone: 303-736-0107 Contact: Patrick McEntee	
Requested Parameters	Explosives (g)(A)	Total Number of Containers	OBSERVATIONS, COMMENTS SPECIAL INSTRUCTIONS
Sample ID	Site Type	Depth	Matrix
LL3mw-241-240401-GW	-	-	W
Date	Time	Date	Time
4/30/24	1155	4/30/24	1155
Reinquired by	Signature	Date	Time
<i>Charles Spurr</i>	<i>Charles Spurr</i>	4/30/24	1800
Reinquired by	Signature	Date	Time
<i>Charles Spurr</i>	<i>Charles Spurr</i>	4/30/24	1800
Notes:	A. Cool, 4C B. HCl, pH<2, Cool, 4C C. HNO3, pH<2, Cool, 4C D. NaOH, pH>12, Cool 4C 1. SW 8260B 2. SW 8270D 3. SW 8270D SIM 4. SW 8082A 5. SW 8081B 6. SW 8330 7. SW 6010/6020/7470 8. SW 9012B 9. SW 9034 10. SW 9056/9056A 11. SW 6860 12. EPA 353.2 13. SW 7196 14. SM2320B		
Notes:	1. SW 8260B 2. SW 8270D 3. SW 8270D SIM 4. SW 8082A 5. SW 8081B 6. SW 8330 7. SW 6010/6020/7470 8. SW 9012B 9. SW 9034 10. SW 9056/9056A 11. SW 6860 12. EPA 353.2 13. SW 7196 14. SM2320B		
Shipment Method:	Temperature Blank		
Lab:	Leidos		
Company:	8866 Commons Drive Twinsburg, OH 44087 (330) 405-5802		

White Laboratory Pink Project Manager Yellow Project OAO Goldenrod Field Project Manager





Chain of Custody Record

COC No.: RVAAP-124-TA  
Date: 4/30/24

Page 6 of 8

Name Leidos Address: 8866 Commons Blvd, Suite 201, Twinsburg, OH 44087 Phone Number: (330) 405-5802 Project Manager: Jed Thomas Project: RVAAP FWGW Sampling Event Spring 2024 Job/P.O. No.: P010216426 Sampler (Signature) <i>[Signature]</i> (Printed Name) <b>Matthew Reilly</b>		Laboratory Name: TA-Denver Address: 4955 Yarrow Street Arvada, CO 80002 Phone: 303-736-0107 Contact: Patrick McEntee							
Requested Parameters		OBSERVATIONS, COMMENTS SPECIAL INSTRUCTIONS							
Laboratory No	Sample ID	Site Type	Depth	Date	Time	Matrix	Explosives (6)(A)	Temperature Blank	Total Number of Containers
	LL1mw-089-240401-GW	--	--	4/30/24	1315	W	2		2
	LL1mw-089-240402-GW	--	--	4/30/24	1315	W	2		2
<i>ES 4/30/24</i>									
Relinquished by		Date		Received by		Date		Notes: Total Number of Containers:	
Signature <i>[Signature]</i>		4/30/24		Signature <i>[Signature]</i>		05/01/24		4	
Printed Name Charles Spur		Time 1800		Printed Name <i>[Signature]</i>		Time 0750		A. Cool, 4C	
Leidos				Signature <i>[Signature]</i>				B. HCl, pH<2, Cool, 4C	
Company				Printed Name <i>[Signature]</i>				C. HNO3, pH<2, Cool, 4C	
Relinquished by		Date		Received by		Date		D. NaOH, pH>12, Cool 4C	
Signature				Signature				Notes:	
Printed Name		Time		Printed Name		Time		1. SW 8260B	
Leidos		1800		Signature <i>[Signature]</i>		0750		2. SW 8270D	
Company				Printed Name				3. SW 8270D SIM	
Relinquished by		Date		Received by		Date		4. SW 8082A	
Signature				Signature				5. SW 8081B	
Printed Name		Time		Printed Name		Time		6. SW 8330	
Leidos		1800		Signature				7. SW 6010/6020/7470	
Company				Printed Name				8. SW 9012B	
Relinquished by		Date		Received by		Date		9. SW 9034	
Signature				Signature				10. SW 9056/9056A	
Printed Name		Time		Printed Name		Time		11. SW 6860	
Leidos		1800		Signature				12. EPA 353.2	
Company				Printed Name				13. SW 7196	
Relinquished by		Date		Received by		Date		14. SM2320B	
Signature				Signature				Temperature Blank	
Printed Name		Time		Printed Name		Time		Lab:	
Leidos		1800		Signature				Leidos	
Company				Printed Name				8866 Commons Drive	
Relinquished by		Date		Received by		Date		Twinsburg, OH 44087	
Signature				Signature				(330) 405-5802	
Printed Name		Time		Printed Name		Time		Shipment Method:	
Leidos		1800		Signature				COURIER	
Company				Printed Name					

White Laboratory Pink Project Manager Yellow Project QAO Goldenrod Field Project Manager





# Login Sample Receipt Checklist

Client: Leidos, Inc.

Job Number: 280-190882-1

**Login Number: 190882**  
**List Number: 1**  
**Creator: Little, Matthew L**

**List Source: Eurofins Denver**

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	