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ANALYTICAL REPORT

Job Number: 280-159384-1

Job Description: Cornhusker (CHAAP)

For:
Brice Environmental Services, Corp
3800 Centerpoint Drive, Suite 520
Anchorage, AK 99503

Attention: Corey Schwabenlander



Approved for release.
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3/23/2022 7:05 PM

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The Lab Certification ID# is 4025.

Reporting limits are adjusted for sample size used, dilutions and moisture content if applicable.

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Qualifiers

GC VOA

Qualifier	Qualifier Description
U	Undetected at the Limit of Detection.

HPLC/IC

Qualifier	Qualifier Description
J	Estimated: The analyte was positively identified; the quantitation is an estimation
J1	Estimated: The quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria.
M	Manual integrated compound.
Q	One or more quality control criteria failed.
U	Undetected at the Limit of Detection.

General Chemistry

Qualifier	Qualifier Description
D	The reported value is from a dilution.
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.
U	Undetected at the Limit of Detection.

Glossary

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

CASE NARRATIVE

Client: Brice Environmental Services, Corp

Project: Cornhusker (CHAAP)

Report Number: 280-159384-1

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

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

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

RECEIPT
The samples were received on 3/4/2022 9:30 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 0.4º C and 1.3º C.
\

DISSOLVED GASES (GC)
Samples G0022-8 (280-159384-1), G0102-8 (280-159384-2), G0121-8 (280-159384-4), G0122-8 (280-159384-5) and G0123-8 (280-159384-6) were analyzed for Dissolved Gases (GC) in accordance with RSK_175. The samples were analyzed on 03/08/2022.

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

NITROAROMATICS AND NITRAMINES (HPLC)
Samples G0022-8 (280-159384-1), G0102-8 (280-159384-2), WATER-WC-Q8-MAR22 (280-159384-3), G0121-8 (280-159384-4), G0122-8 (280-159384-5) and G0123-8 (280-159384-6) were analyzed for Nitroaromatics and Nitramines (HPLC) in accordance with 8330A. The samples were prepared on 03/08/2022 and analyzed on 03/11/2022, 03/12/2022 and 03/15/2022.

The %RPD between the primary and confirmation column exceeded 40% for 2-Amino-4,6-dinitrotoluene, MNX and RDX for the following samples: G0022-8 (280-159384-1), WATER-WC-Q8-MAR22 (280-159384-3), G0121-8 (280-159384-4) and G0122-8 (280-159384-5) in preparation batch 280-567953 and analytical batch 280-568433. The results from both columns has been qualified and reported in accordance with the laboratory's QAS.

Surrogate recovery for the following sample in preparation batch 280-567953 and analytical batch 280-568433 was outside the upper control limits: WATER-WC-Q8-MAR22 (280-159384-3) and G0121-8 (280-159384-4). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed. Surrogate recovered within control limit in the confirmation instrument.

The following samples from preparation batch 280-567953 required filtration to reduce matrix interferences: G0102-8 (280-159384-2), WATER-WC-Q8-MAR22 (280-159384-3), G0121-8 (280-159384-4) and G0123-8 (280-159384-6).

The following sample from preparation batch 280-567953 : G0022-8 (280-159384-1), WATER-WC-Q8-MAR22 (280-159384-3) and G0122-8 (280-159384-5) were decanted prior to preparation.

The jar containing sample G0123-8 (280-159384-6) from preparation batch 280-567953 was broken so the contents were transfered in entirety to a new jar. As such, no solvent rinse was performed.

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

ALKALINITY
Samples G0022-8 (280-159384-1), G0102-8 (280-159384-2), G0121-8 (280-159384-4), G0122-8 (280-159384-5) and G0123-8 (280-159384-6) were analyzed for Alkalinity in accordance with SM20 2320B. The samples were analyzed on 03/08/2022.

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

AMMONIA
Samples G0022-8 (280-159384-1), G0102-8 (280-159384-2), G0121-8 (280-159384-4), G0122-8 (280-159384-5) and G0123-8 (280-159384-6) were analyzed for ammonia in accordance with EPA Method 350.1. The samples were analyzed on 03/19/2022 and 03/22/2022.

Samples G0102-8 (280-159384-2)[10X], G0121-8 (280-159384-4)[10X], G0122-8 (280-159384-5)[10X] and G0123-8 (280-159384-6)[2X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

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

TOTAL KJELDAHL NITROGEN

Samples G0022-8 (280-159384-1), G0102-8 (280-159384-2), G0121-8 (280-159384-4), G0122-8 (280-159384-5) and G0123-8 (280-159384-6) were analyzed for total kjeldahl nitrogen in accordance with EPA Method 351.2. The samples were prepared on 03/10/2022 and analyzed on 03/14/2022.

Nitrogen, Total Kjeldahl failed the recovery criteria low for the MS of sample G0022-8MS (280-159384-1) in batch 280-568623. Nitrogen, Total Kjeldahl failed the recovery criteria low for the MSD of sample G0022-8MSD (280-159384-1) in batch 280-568623.

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

NITRATE-NITRITE AS NITROGEN

Samples G0022-8 (280-159384-1), G0102-8 (280-159384-2), G0121-8 (280-159384-4), G0122-8 (280-159384-5) and G0123-8 (280-159384-6) were analyzed for nitrate-nitrite as nitrogen in accordance with EPA Method 353.2. The samples were analyzed on 03/20/2022.

Sample G0022-8 (280-159384-1)[2X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

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

SULFIDE

Samples G0022-8 (280-159384-1), G0102-8 (280-159384-2), G0121-8 (280-159384-4), G0122-8 (280-159384-5) and G0123-8 (280-159384-6) were analyzed for sulfide in accordance with EPA SW-846 Method 9034. The samples were prepared and analyzed on 03/09/2022.

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

ANIONS (28 DAYS)

Samples G0022-8 (280-159384-1), G0102-8 (280-159384-2), G0121-8 (280-159384-4), G0122-8 (280-159384-5) and G0123-8 (280-159384-6) were analyzed for anions (28 days) in accordance with 9056A (28 Days). The samples were analyzed on 03/17/2022.

Sulfate failed the recovery criteria high for the MS of sample G0022-8MS (280-159384-1) in batch 280-568923. Sulfate failed the recovery criteria high for the MSD of sample G0022-8MSD (280-159384-1) in batch 280-568923.

Samples G0102-8 (280-159384-2)[10X], G0121-8 (280-159384-4)[5X], G0122-8 (280-159384-5)[5X] and G0123-8 (280-159384-6)[2X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

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

DISSOLVED ORGANIC CARBON

Samples G0022-8 (280-159384-1), G0102-8 (280-159384-2), G0121-8 (280-159384-4), G0122-8 (280-159384-5) and G0123-8 (280-159384-6) were analyzed for dissolved organic carbon in accordance with EPA SW-846 Method 9060A. The samples were analyzed on 03/15/2022.

The following samples were improperly preserved in the field: G0022-8 (280-159384-1), G0102-8 (280-159384-2), G0121-8 (280-159384-4), G0122-8 (280-159384-5), G0123-8 (280-159384-6). The pH measured at the bench was >2, it was reduced to <2 using concentrated Sulfuric acid after filtration prior to analysis.

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

Detection Summary

Client: Brice Environmental Services, Corp
Project/Site: Cornhusker (CHAAP)

Job ID: 280-159384-1

Client Sample ID: G0022-8 — Lab Sample ID: 280-159384-1

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	Dil Fac	D	Method	Prep Type
Methane	5.1		0.0050	0.0013	0.00063	mg/L	1		RSK-175	Total/NA
2,4,6-Trinitrotoluene	0.081	J	0.12	0.11	0.048	ug/L	1		8330A	Total/NA
2-Amino-4,6-dinitrotoluene	0.33	J1	0.12	0.11	0.054	ug/L	1		8330A	Total/NA
2-Amino-4,6-dinitrotoluene	0.19	J1	0.12	0.11	0.054	ug/L	1		8330A	Total/NA
4-Amino-2,6-dinitrotoluene	0.51		0.16	0.13	0.061	ug/L	1		8330A	Total/NA
Ammonia	0.74		0.10	0.050	0.022	mg/L	1		350.1	Total/NA
Nitrate Nitrite as N	11		0.20	0.10	0.038	mg/L	2		353.2	Total/NA
Sulfide	1.6	J	4.0	1.9	0.79	mg/L	1		9034	Total/NA
Sulfate	110	J1	5.0	2.5	1.0	mg/L	1		9056A	Total/NA
Total Alkalinity as CaCO3	370		10	6.4	3.1	mg/L	1		SM 2320B	Total/NA
Dissolved Organic Carbon - Quad	3.7		1.0	0.80	0.35	mg/L	1		9060A	Dissolved

Client Sample ID: G0102-8 — Lab Sample ID: 280-159384-2

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	Dil Fac	D	Method	Prep Type
Methane	1.5		0.0050	0.0013	0.00063	mg/L	1		RSK-175	Total/NA
Ammonia	0.24	J	1.0	0.50	0.22	mg/L	10		350.1	Total/NA
Nitrogen, Total Kjeldahl	0.98	J	1.0	0.80	0.69	mg/L	1		351.2	Total/NA
Sulfide	12		4.0	1.9	0.79	mg/L	1		9034	Total/NA
Sulfate	1200	D	50	25	10	mg/L	10		9056A	Total/NA
Total Alkalinity as CaCO3	510		10	6.4	3.1	mg/L	1		SM 2320B	Total/NA
Dissolved Organic Carbon - Quad	5.6		1.0	0.80	0.35	mg/L	1		9060A	Dissolved

Client Sample ID: WATER-WC-Q8-MAR22 — Lab Sample ID: 280-159384-3

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	Dil Fac	D	Method	Prep Type
2-Amino-4,6-dinitrotoluene	2.3	Q J1	0.12	0.11	0.053	ug/L	1		8330A	Total/NA
2-Amino-4,6-dinitrotoluene	1.1	J1	0.12	0.11	0.053	ug/L	1		8330A	Total/NA
4-Amino-2,6-dinitrotoluene	1.4	Q	0.16	0.13	0.061	ug/L	1		8330A	Total/NA
MNX	7.4	M J1	2.1	0.42	0.16	ug/L	1		8330A	Total/NA
MNX	0.80	J J1	2.1	0.42	0.16	ug/L	1		8330A	Total/NA
RDX	0.58	M Q J1	0.22	0.21	0.054	ug/L	1		8330A	Total/NA
RDX	1.0	J1	0.22	0.21	0.054	ug/L	1		8330A	Total/NA

Client Sample ID: G0121-8 — Lab Sample ID: 280-159384-4

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	Dil Fac	D	Method	Prep Type
Methane	18		0.0050	0.0013	0.00063	mg/L	1		RSK-175	Total/NA
RDX	27	J1 M Q	0.21	0.20	0.052	ug/L	1		8330A	Total/NA
RDX	1.8	J1	0.21	0.20	0.052	ug/L	1		8330A	Total/NA
Ammonia	13		1.0	0.50	0.22	mg/L	10		350.1	Total/NA
Sulfide	2.8	J	4.0	1.9	0.79	mg/L	1		9034	Total/NA
Sulfate	220	D	25	13	5.2	mg/L	5		9056A	Total/NA
Total Alkalinity as CaCO3	710		10	6.4	3.1	mg/L	1		SM 2320B	Total/NA
Dissolved Organic Carbon - Quad	43		1.0	0.80	0.35	mg/L	1		9060A	Dissolved

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Brice Environmental Services, Corp
Project/Site: Cornhusker (CHAAP)

Job ID: 280-159384-1

Client Sample ID: G0122-8 — Lab Sample ID: 280-159384-5

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	Dil Fac	D	Method	Prep Type
Methane	15		0.0050	0.0013	0.00063	mg/L	1		RSK-175	Total/NA
MNX	27	M J1	2.1	0.42	0.16	ug/L	1		8330A	Total/NA
MNX	1.1	J M J1	2.1	0.42	0.16	ug/L	1		8330A	Total/NA
RDX	5.6	M	0.22	0.21	0.054	ug/L	1		8330A	Total/NA
Ammonia	8.2		1.0	0.50	0.22	mg/L	10		350.1	Total/NA
Nitrogen, Total Kjeldahl	2.9		2.5	2.0	1.7	mg/L	1		351.2	Total/NA
Nitrate Nitrite as N	0.061	J	0.10	0.050	0.019	mg/L	1		353.2	Total/NA
Sulfide	2.4	J	4.0	1.9	0.79	mg/L	1		9034	Total/NA
Sulfate	590	D	25	13	5.2	mg/L	5		9056A	Total/NA
Total Alkalinity as CaCO3	850		10	6.4	3.1	mg/L	1		SM 2320B	Total/NA
Dissolved Organic Carbon - Quad	18		1.0	0.80	0.35	mg/L	1		9060A	Dissolved

Client Sample ID: G0123-8 — Lab Sample ID: 280-159384-6

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	Dil Fac	D	Method	Prep Type
Methane	15		0.0050	0.0013	0.00063	mg/L	1		RSK-175	Total/NA
MNX	1.5	J M	1.9	0.39	0.15	ug/L	1		8330A	Total/NA
Ammonia	1.5		0.20	0.10	0.044	mg/L	2		350.1	Total/NA
Sulfide	0.80	J	4.0	1.9	0.79	mg/L	1		9034	Total/NA
Sulfate	340	D	10	5.0	2.1	mg/L	2		9056A	Total/NA
Total Alkalinity as CaCO3	670		10	6.4	3.1	mg/L	1		SM 2320B	Total/NA
Dissolved Organic Carbon - Quad	7.9		1.0	0.80	0.35	mg/L	1		9060A	Dissolved

This Detection Summary does not include radiochemical test results.

Client Sample ID: G0022-8
Lab Sample ID: 280-159384-1

Date Collected: 03/02/22 13:30
Matrix: Water
Date Received: 03/04/22 09:30

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Methane	**5.1**		0.0050	0.0013	0.00063	mg/L		03/08/22 18:40	1

Method: 8330A - Nitroaromatics and Nitramines (HPLC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.21	U	0.22	0.21	0.090	ug/L		03/11/22 23:12	1
1,3-Dinitrobenzene	0.11	U	0.12	0.11	0.039	ug/L		03/11/22 23:12	1
2,4,6-Trinitrotoluene	**0.081**	**J**	0.12	0.11	0.048	ug/L		03/11/22 23:12	1
2,4-Dinitrotoluene	0.085	U	0.11	0.085	0.029	ug/L		03/11/22 23:12	1
2,6-Dinitrotoluene	0.085	U	0.11	0.085	0.043	ug/L		03/11/22 23:12	1
2-Amino-4,6-dinitrotoluene	**0.33**	**J1**	0.12	0.11	0.054	ug/L		03/11/22 23:12	1
2-Amino-4,6-dinitrotoluene	**0.19**	**J1**	0.12	0.11	0.054	ug/L		03/15/22 21:38	1
2-Nitrotoluene	0.21	U	0.22	0.21	0.091	ug/L		03/11/22 23:12	1
3-Nitrotoluene	0.43	U	0.43	0.43	0.21	ug/L		03/11/22 23:12	1
4-Amino-2,6-dinitrotoluene	**0.51**		0.16	0.13	0.061	ug/L		03/11/22 23:12	1
4-Nitrotoluene	0.43	U	0.44	0.43	0.11	ug/L		03/15/22 21:38	1
HMX	0.21	U	0.22	0.21	0.093	ug/L		03/11/22 23:12	1
MNX	0.43	U	2.1	0.43	0.16	ug/L		03/11/22 23:12	1
Nitrobenzene	0.21	U M	0.22	0.21	0.097	ug/L		03/11/22 23:12	1
RDX	0.21	U	0.22	0.21	0.055	ug/L		03/11/22 23:12	1
Tetryl	0.11	U M	0.12	0.11	0.034	ug/L		03/11/22 23:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dinitrobenzene	*106*	*M*	*83 - 119*	*03/08/22 11:19*	*03/11/22 23:12*	*1*
1,2-Dinitrobenzene	*98*		*83 - 119*	*03/08/22 11:19*	*03/15/22 21:38*	*1*

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Ammonia	**0.74**		0.10	0.050	0.022	mg/L		03/19/22 11:27	1
Nitrogen, Total Kjeldahl	0.80	U J1	1.0	0.80	0.69	mg/L		03/14/22 17:03	1
Nitrate Nitrite as N	**11**		0.20	0.10	0.038	mg/L		03/20/22 17:28	2
Sulfide	**1.6**	**J**	4.0	1.9	0.79	mg/L		03/09/22 15:33	1
Sulfate	**110**	**J1**	5.0	2.5	1.0	mg/L		03/17/22 17:02	1
Total Alkalinity as CaCO3	**370**		10	6.4	3.1	mg/L		03/08/22 06:02	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon - Quad	**3.7**		1.0	0.80	0.35	mg/L		03/15/22 18:40	1

Client Sample ID: G0102-8
Lab Sample ID: 280-159384-2

Date Collected: 03/02/22 15:10
Matrix: Water
Date Received: 03/04/22 09:30

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Methane	**1.5**		0.0050	0.0013	0.00063	mg/L		03/08/22 18:53	1

Method: 8330A - Nitroaromatics and Nitramines (HPLC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.21	U	0.22	0.21	0.086	ug/L		03/11/22 23:35	1
1,3-Dinitrobenzene	0.10	U M	0.11	0.10	0.038	ug/L		03/11/22 23:35	1
2,4,6-Trinitrotoluene	0.10	U	0.11	0.10	0.046	ug/L		03/11/22 23:35	1

Client Sample ID: G0102-8
Lab Sample ID: 280-159384-2

Date Collected: 03/02/22 15:10
Matrix: Water
Date Received: 03/04/22 09:30

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

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
2,4-Dinitrotoluene	0.082	U	0.10	0.082	0.028	ug/L		03/11/22 23:35	1
2,6-Dinitrotoluene	0.082	U	0.10	0.082	0.041	ug/L		03/11/22 23:35	1
2-Amino-4,6-dinitrotoluene	0.10	U	0.11	0.10	0.052	ug/L		03/11/22 23:35	1
2-Nitrotoluene	0.21	U M	0.22	0.21	0.088	ug/L		03/11/22 23:35	1
3-Nitrotoluene	0.41	U	0.41	0.41	0.20	ug/L		03/11/22 23:35	1
4-Amino-2,6-dinitrotoluene	0.12	U	0.15	0.12	0.059	ug/L		03/11/22 23:35	1
4-Nitrotoluene	0.41	U M	0.42	0.41	0.10	ug/L		03/11/22 23:35	1
HMX	0.21	U	0.22	0.21	0.090	ug/L		03/11/22 23:35	1
MNX	0.41	U M	2.1	0.41	0.16	ug/L		03/11/22 23:35	1
Nitrobenzene	0.21	U	0.22	0.21	0.093	ug/L		03/11/22 23:35	1
RDX	0.21	U M	0.22	0.21	0.053	ug/L		03/11/22 23:35	1
Tetryl	0.10	U	0.11	0.10	0.033	ug/L		03/11/22 23:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dinitrobenzene	*104*	*M*	*83 - 119*	*03/08/22 11:19*	*03/11/22 23:35*	*1*

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Ammonia	**0.24**	**J**	1.0	0.50	0.22	mg/L		03/19/22 11:29	10
Nitrogen, Total Kjeldahl	**0.98**	**J**	1.0	0.80	0.69	mg/L		03/14/22 17:04	1
Nitrate Nitrite as N	0.050	U	0.10	0.050	0.019	mg/L		03/20/22 17:42	1
Sulfide	**12**		4.0	1.9	0.79	mg/L		03/09/22 15:33	1
Sulfate	**1200**	**D**	50	25	10	mg/L		03/17/22 18:07	10
Total Alkalinity as CaCO3	**510**		10	6.4	3.1	mg/L		03/08/22 15:22	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon - Quad	**5.6**		1.0	0.80	0.35	mg/L		03/15/22 18:56	1

Client Sample ID: WATER-WC-Q8-MAR22
Lab Sample ID: 280-159384-3

Date Collected: 03/02/22 17:45
Matrix: Water
Date Received: 03/04/22 09:30

Method: 8330A - Nitroaromatics and Nitramines (HPLC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.21	U Q	0.22	0.21	0.088	ug/L		03/11/22 23:57	1
1,3-Dinitrobenzene	0.11	U M Q	0.12	0.11	0.039	ug/L		03/11/22 23:57	1
2,4,6-Trinitrotoluene	0.11	U Q	0.12	0.11	0.047	ug/L		03/11/22 23:57	1
2,4-Dinitrotoluene	0.084	U M Q	0.11	0.084	0.029	ug/L		03/11/22 23:57	1
2,6-Dinitrotoluene	0.084	U Q	0.11	0.084	0.042	ug/L		03/11/22 23:57	1
2-Amino-4,6-dinitrotoluene	**2.3**	**Q J1**	0.12	0.11	0.053	ug/L		03/11/22 23:57	1
2-Amino-4,6-dinitrotoluene	**1.1**	**J1**	0.12	0.11	0.053	ug/L		03/15/22 22:13	1
2-Nitrotoluene	0.21	U Q	0.22	0.21	0.090	ug/L		03/11/22 23:57	1
3-Nitrotoluene	0.42	U M Q	0.42	0.42	0.20	ug/L		03/11/22 23:57	1
4-Amino-2,6-dinitrotoluene	**1.4**	**Q**	0.16	0.13	0.061	ug/L		03/11/22 23:57	1
4-Nitrotoluene	0.42	U M Q	0.43	0.42	0.11	ug/L		03/11/22 23:57	1
HMX	0.21	U Q	0.22	0.21	0.092	ug/L		03/11/22 23:57	1
MNX	**7.4**	**M J1**	2.1	0.42	0.16	ug/L		03/11/22 23:57	1
MNX	**0.80**	**J J1**	2.1	0.42	0.16	ug/L		03/15/22 22:13	1
Nitrobenzene	0.21	U M Q	0.22	0.21	0.096	ug/L		03/11/22 23:57	1
RDX	**0.58**	**M Q J1**	0.22	0.21	0.054	ug/L		03/11/22 23:57	1

Client Sample ID: WATER-WC-Q8-MAR22

Lab Sample ID: 280-159384-3

Date Collected: 03/02/22 17:45

Matrix: Water

Date Received: 03/04/22 09:30

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

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
RDX	**1.0**	**J1**	0.22	0.21	0.054	ug/L		03/15/22 22:13	1
Tetryl	0.11	U M Q	0.12	0.11	0.033	ug/L		03/11/22 23:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dinitrobenzene	*126*	*M Q*	*83 - 119*	*03/08/22 11:19*	*03/11/22 23:57*	*1*
1,2-Dinitrobenzene	*93*	*M*	*83 - 119*	*03/08/22 11:19*	*03/15/22 22:13*	*1*

Client Sample ID: G0121-8

Lab Sample ID: 280-159384-4

Date Collected: 03/02/22 15:10

Matrix: Water

Date Received: 03/04/22 09:30

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Methane	**18**		0.0050	0.0013	0.00063	mg/L		03/08/22 19:06	1

Method: 8330A - Nitroaromatics and Nitramines (HPLC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.20	U Q	0.21	0.20	0.086	ug/L		03/12/22 00:20	1
1,3-Dinitrobenzene	0.10	U Q	0.11	0.10	0.038	ug/L		03/12/22 00:20	1
2,4,6-Trinitrotoluene	0.10	U Q	0.11	0.10	0.046	ug/L		03/12/22 00:20	1
2,4-Dinitrotoluene	0.081	U	0.10	0.081	0.028	ug/L		03/15/22 22:48	1
2,6-Dinitrotoluene	0.081	U Q	0.10	0.081	0.041	ug/L		03/12/22 00:20	1
2-Amino-4,6-dinitrotoluene	0.10	U Q	0.11	0.10	0.052	ug/L		03/12/22 00:20	1
2-Nitrotoluene	0.20	U M	0.21	0.20	0.087	ug/L		03/15/22 22:48	1
3-Nitrotoluene	0.41	U	0.41	0.41	0.20	ug/L		03/15/22 22:48	1
4-Amino-2,6-dinitrotoluene	0.12	U Q	0.15	0.12	0.059	ug/L		03/12/22 00:20	1
4-Nitrotoluene	0.41	U	0.42	0.41	0.10	ug/L		03/15/22 22:48	1
HMX	0.20	U Q	0.21	0.20	0.089	ug/L		03/12/22 00:20	1
MNX	0.41	U	2.0	0.41	0.16	ug/L		03/15/22 22:48	1
Nitrobenzene	0.20	U	0.21	0.20	0.093	ug/L		03/15/22 22:48	1
RDX	**27**	**J1 M Q**	0.21	0.20	0.052	ug/L		03/12/22 00:20	1
RDX	**1.8**	**J1**	0.21	0.20	0.052	ug/L		03/15/22 22:48	1
Tetryl	0.10	U M	0.11	0.10	0.032	ug/L		03/15/22 22:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dinitrobenzene	*2845*	*M Q*	*83 - 119*	*03/08/22 11:19*	*03/12/22 00:20*	*1*
1,2-Dinitrobenzene	*94*		*83 - 119*	*03/08/22 11:19*	*03/15/22 22:48*	*1*

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Ammonia	**13**		1.0	0.50	0.22	mg/L		03/22/22 12:02	10
Nitrogen, Total Kjeldahl	4.0	U	5.0	4.0	3.4	mg/L		03/14/22 17:05	1
Nitrate Nitrite as N	0.050	U	0.10	0.050	0.019	mg/L		03/20/22 17:44	1
Sulfide	**2.8**	**J**	4.0	1.9	0.79	mg/L		03/09/22 15:33	1
Sulfate	**220**	**D**	25	13	5.2	mg/L		03/17/22 18:23	5
Total Alkalinity as CaCO3	**710**		10	6.4	3.1	mg/L		03/08/22 15:33	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon - Quad	**43**		1.0	0.80	0.35	mg/L		03/15/22 19:17	1

Client Sample ID: G0122-8
Lab Sample ID: 280-159384-5
Date Collected: 03/02/22 12:45
Matrix: Water
Date Received: 03/04/22 09:30

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Methane	**15**		0.0050	0.0013	0.00063	mg/L		03/08/22 19:19	1

Method: 8330A - Nitroaromatics and Nitramines (HPLC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.21	U M	0.22	0.21	0.089	ug/L		03/12/22 00:43	1
1,3-Dinitrobenzene	0.11	U M	0.12	0.11	0.039	ug/L		03/12/22 00:43	1
2,4,6-Trinitrotoluene	0.11	U	0.12	0.11	0.048	ug/L		03/12/22 00:43	1
2,4-Dinitrotoluene	0.085	U	0.11	0.085	0.029	ug/L		03/12/22 00:43	1
2,6-Dinitrotoluene	0.085	U	0.11	0.085	0.042	ug/L		03/12/22 00:43	1
2-Amino-4,6-dinitrotoluene	0.11	U	0.12	0.11	0.054	ug/L		03/12/22 00:43	1
2-Nitrotoluene	0.21	U M	0.22	0.21	0.090	ug/L		03/12/22 00:43	1
3-Nitrotoluene	0.42	U	0.42	0.42	0.21	ug/L		03/12/22 00:43	1
4-Amino-2,6-dinitrotoluene	0.13	U	0.16	0.13	0.061	ug/L		03/15/22 23:23	1
4-Nitrotoluene	0.42	U M	0.43	0.42	0.11	ug/L		03/12/22 00:43	1
HMX	0.21	U	0.22	0.21	0.093	ug/L		03/12/22 00:43	1
MNX	**27**	**M J1**	2.1	0.42	0.16	ug/L		03/12/22 00:43	1
MNX	**1.1**	**J M J1**	2.1	0.42	0.16	ug/L		03/15/22 23:23	1
Nitrobenzene	0.21	U M	0.22	0.21	0.096	ug/L		03/12/22 00:43	1
RDX	**5.6**	**M**	0.22	0.21	0.054	ug/L		03/12/22 00:43	1
Tetryl	0.11	U M	0.12	0.11	0.034	ug/L		03/12/22 00:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dinitrobenzene	*86*	*M*	*83 - 119*	*03/08/22 11:19*	*03/12/22 00:43*	*1*
1,2-Dinitrobenzene	*96*	*M*	*83 - 119*	*03/08/22 11:19*	*03/15/22 23:23*	*1*

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Ammonia	**8.2**		1.0	0.50	0.22	mg/L		03/22/22 12:04	10
Nitrogen, Total Kjeldahl	**2.9**		2.5	2.0	1.7	mg/L		03/14/22 17:05	1
Nitrate Nitrite as N	**0.061**	**J**	0.10	0.050	0.019	mg/L		03/20/22 17:46	1
Sulfide	**2.4**	**J**	4.0	1.9	0.79	mg/L		03/09/22 15:33	1
Sulfate	**590**	**D**	25	13	5.2	mg/L		03/17/22 18:39	5
Total Alkalinity as CaCO3	**850**		10	6.4	3.1	mg/L		03/08/22 15:45	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon - Quad	**18**		1.0	0.80	0.35	mg/L		03/15/22 20:03	1

Client Sample ID: G0123-8
Lab Sample ID: 280-159384-6
Date Collected: 03/02/22 16:35
Matrix: Water
Date Received: 03/04/22 09:30

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Methane	**15**		0.0050	0.0013	0.00063	mg/L		03/08/22 19:32	1

Method: 8330A - Nitroaromatics and Nitramines (HPLC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.19	U M	0.20	0.19	0.081	ug/L		03/12/22 01:06	1
1,3-Dinitrobenzene	0.097	U	0.11	0.097	0.036	ug/L		03/15/22 23:58	1
2,4,6-Trinitrotoluene	0.097	U	0.11	0.097	0.044	ug/L		03/12/22 01:06	1

Client Sample ID: G0123-8
Date Collected: 03/02/22 16:35
Date Received: 03/04/22 09:30

Lab Sample ID: 280-159384-6
Matrix: Water

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

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
2,4-Dinitrotoluene	0.078	U	0.097	0.078	0.027	ug/L		03/12/22 01:06	1
2,6-Dinitrotoluene	0.078	U	0.097	0.078	0.039	ug/L		03/12/22 01:06	1
2-Amino-4,6-dinitrotoluene	0.097	U M	0.11	0.097	0.049	ug/L		03/12/22 01:06	1
2-Nitrotoluene	0.19	U M	0.20	0.19	0.083	ug/L		03/12/22 01:06	1
3-Nitrotoluene	0.39	U	0.39	0.39	0.19	ug/L		03/12/22 01:06	1
4-Amino-2,6-dinitrotoluene	0.12	U	0.15	0.12	0.056	ug/L		03/12/22 01:06	1
4-Nitrotoluene	0.39	U	0.40	0.39	0.097	ug/L		03/15/22 23:58	1
HMX	0.19	U	0.20	0.19	0.085	ug/L		03/12/22 01:06	1
MNX	**1.5**	**J M**	1.9	0.39	0.15	ug/L		03/12/22 01:06	1
Nitrobenzene	0.19	U M	0.20	0.19	0.088	ug/L		03/12/22 01:06	1
RDX	0.19	U M	0.20	0.19	0.050	ug/L		03/15/22 23:58	1
Tetryl	0.097	U M	0.11	0.097	0.031	ug/L		03/12/22 01:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dinitrobenzene	*102*		*83 - 119*	*03/08/22 11:19*	*03/12/22 01:06*	*1*
1,2-Dinitrobenzene	*98*		*83 - 119*	*03/08/22 11:19*	*03/15/22 23:58*	*1*

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Ammonia	**1.5**		0.20	0.10	0.044	mg/L		03/22/22 12:06	2
Nitrogen, Total Kjeldahl	0.80	U	1.0	0.80	0.69	mg/L		03/14/22 17:06	1
Nitrate Nitrite as N	0.050	U	0.10	0.050	0.019	mg/L		03/20/22 17:48	1
Sulfide	**0.80**	**J**	4.0	1.9	0.79	mg/L		03/09/22 15:33	1
Sulfate	**340**	**D**	10	5.0	2.1	mg/L		03/17/22 18:56	2
Total Alkalinity as CaCO3	**670**		10	6.4	3.1	mg/L		03/08/22 15:55	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon - Quad	**7.9**		1.0	0.80	0.35	mg/L		03/15/22 20:20	1

Default Detection Limits

Client: Brice Environmental Services, Corp
Project/Site: Cornhusker (CHAAP)

Job ID: 280-159384-1

Method: RSK-175 - Dissolved Gases (GC)

Analyte	LOQ	DL	Units
Methane	0.0050	0.00063	mg/L

Method: 8330A - 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
MNX	2.0	0.15	ug/L
Nitrobenzene	0.21	0.091	ug/L
RDX	0.21	0.052	ug/L
Tetryl	0.11	0.032	ug/L

General Chemistry

Analyte	LOQ	DL	Units
Ammonia	0.10	0.022	mg/L
Nitrate Nitrite as N	0.10	0.019	mg/L
Sulfate	5.0	1.0	mg/L
Total Alkalinity as CaCO3	10	3.1	mg/L

General Chemistry

Prep: 351.2

Analyte	LOQ	DL	Units
Nitrogen, Total Kjeldahl	1.0	0.69	mg/L

General Chemistry

Prep: 9030B

Analyte	LOQ	DL	Units
Sulfide	4.0	0.79	mg/L

General Chemistry - Dissolved

Analyte	LOQ	DL	Units
Dissolved Organic Carbon - Quad	1.0	0.35	mg/L

Surrogate Summary

Client: Brice Environmental Services, Corp
Project/Site: Cornhusker (CHAAP)

Job ID: 280-159384-1

Method: 8330A - Nitroaromatics and Nitramines (HPLC)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)
Lab Sample ID	Client Sample ID	12DNB1 (83-119)
280-159384-1	G0022-8	106 M
280-159384-2	G0102-8	104 M
280-159384-3	WATER-WC-Q8-MAR22	126 M Q
280-159384-4	G0121-8	2845 M Q
280-159384-5	G0122-8	86 M
280-159384-6	G0123-8	102
LCS 280-567953/2-A	Lab Control Sample	95
LCS 280-567953/3-A	Lab Control Sample	102
MB 280-567953/1-A	Method Blank	101

Surrogate Legend

12DNB = 1,2-Dinitrobenzene

Method: 8330A - Nitroaromatics and Nitramines (HPLC)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)
Lab Sample ID	Client Sample ID	12DNB2 (83-119)
280-159384-1	G0022-8	98
280-159384-3	WATER-WC-Q8-MAR22	93 M
280-159384-4	G0121-8	94
280-159384-5	G0122-8	96 M
280-159384-6	G0123-8	98

Surrogate Legend

12DNB = 1,2-Dinitrobenzene

Method: RSK-175 - Dissolved Gases (GC)

Lab Sample ID: MB 280-567999/3
Matrix: Water
Analysis Batch: 567999

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

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Methane	0.0013	U	0.0050	0.0013	0.00063	mg/L		03/08/22 14:07	1

Lab Sample ID: LCS 280-567999/4
Matrix: Water
Analysis Batch: 567999

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Methane			0.0657	0.0648		mg/L		99	73 - 125		

Lab Sample ID: LCSD 280-567999/5
Matrix: Water
Analysis Batch: 567999

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Methane			0.0657	0.0649		mg/L		99	73 - 125	0	20

Method: 8330A - Nitroaromatics and Nitramines (HPLC)

Lab Sample ID: MB 280-567953/1-A
Matrix: Water
Analysis Batch: 568287

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 567953

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.20	U	0.21	0.20	0.084	ug/L		03/11/22 06:45	1
1,3-Dinitrobenzene	0.10	U	0.11	0.10	0.037	ug/L		03/11/22 06:45	1
2,4,6-Trinitrotoluene	0.10	U	0.11	0.10	0.045	ug/L		03/11/22 06:45	1
2,4-Dinitrotoluene	0.080	U	0.10	0.080	0.027	ug/L		03/11/22 06:45	1
2,6-Dinitrotoluene	0.080	U	0.10	0.080	0.040	ug/L		03/11/22 06:45	1
2-Amino-4,6-dinitrotoluene	0.10	U	0.11	0.10	0.051	ug/L		03/11/22 06:45	1
2-Nitrotoluene	0.20	U	0.21	0.20	0.086	ug/L		03/11/22 06:45	1
3-Nitrotoluene	0.40	U	0.40	0.40	0.20	ug/L		03/11/22 06:45	1
4-Amino-2,6-dinitrotoluene	0.12	U	0.15	0.12	0.058	ug/L		03/11/22 06:45	1
4-Nitrotoluene	0.40	U	0.41	0.40	0.10	ug/L		03/11/22 06:45	1
HMX	0.20	U	0.21	0.20	0.088	ug/L		03/11/22 06:45	1
MNX	0.40	U M	2.0	0.40	0.15	ug/L		03/11/22 06:45	1
Nitrobenzene	0.20	U	0.21	0.20	0.091	ug/L		03/11/22 06:45	1
RDX	0.20	U	0.21	0.20	0.052	ug/L		03/11/22 06:45	1
Tetryl	0.10	U	0.11	0.10	0.032	ug/L		03/11/22 06:45	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dinitrobenzene	*101*		*83 - 119*	*03/08/22 11:19*	*03/11/22 06:45*	*1*

Lab Sample ID: LCS 280-567953/2-A
Matrix: Water
Analysis Batch: 568287

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 567953

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,3,5-Trinitrobenzene			2.00	1.97		ug/L		99	73 - 125		
1,3-Dinitrobenzene			2.00	1.98		ug/L		99	78 - 120		

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

Lab Sample ID: LCS 280-567953/2-A
Matrix: Water
Analysis Batch: 568287

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 567953

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2,4,6-Trinitrotoluene	2.00	1.92		ug/L		96	71 - 123
2,4-Dinitrotoluene	2.00	1.85		ug/L		93	78 - 120
2,6-Dinitrotoluene	2.00	1.95		ug/L		98	77 - 127
2-Amino-4,6-dinitrotoluene	2.00	1.79		ug/L		89	79 - 120
2-Nitrotoluene	2.00	1.57		ug/L		79	70 - 127
3-Nitrotoluene	2.00	1.50		ug/L		75	73 - 125
4-Amino-2,6-dinitrotoluene	2.00	1.57		ug/L		79	76 - 125
4-Nitrotoluene	2.00	1.75		ug/L		87	71 - 127
HMX	2.00	1.84	M	ug/L		92	65 - 135
Nitrobenzene	2.00	1.76		ug/L		88	65 - 134
RDX	2.00	2.03		ug/L		102	68 - 130
Tetryl	2.00	1.92		ug/L		96	64 - 128

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

Lab Sample ID: LCS 280-567953/3-A
Matrix: Water
Analysis Batch: 568287

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 567953

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
MNX	2.33	2.29	M	ug/L		98	57 - 132

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

Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: MB 280-569404/20
Matrix: Water
Analysis Batch: 569404

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

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Ammonia	0.050	U	0.10	0.050	0.022	mg/L		03/22/22 11:54	1

Lab Sample ID: LCS 280-569404/18
Matrix: Water
Analysis Batch: 569404

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia	2.50	2.48		mg/L		99	90 - 110

Lab Sample ID: LCSD 280-569404/19
Matrix: Water
Analysis Batch: 569404

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ammonia	2.50	2.47		mg/L		99	90 - 110	0	10

Method: 351.2 - Nitrogen, Total Kjeldahl

Lab Sample ID: MB 280-568334/2-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 568623 — **Prep Batch: 568334**

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Nitrogen, Total Kjeldahl	0.80	U	1.0	0.80	0.69	mg/L		03/14/22 17:02	1

Lab Sample ID: LCS 280-568334/1-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 568623 — **Prep Batch: 568334**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrogen, Total Kjeldahl	6.00	5.85		mg/L		97	90 - 110

Lab Sample ID: 280-159384-1 MS — **Client Sample ID: G0022-8**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 568623 — **Prep Batch: 568334**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrogen, Total Kjeldahl	0.80	U J1	3.00	0.80	U J1	mg/L		0	90 - 110

Lab Sample ID: 280-159384-1 MSD — **Client Sample ID: G0022-8**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 568623 — **Prep Batch: 568334**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrogen, Total Kjeldahl	0.80	U J1	3.00	0.80	U J1	mg/L		0	90 - 110	NC	25

Method: 353.2 - Nitrogen, Nitrate-Nitrite

Lab Sample ID: MB 280-569157/60 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 569157

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Nitrate Nitrite as N	0.050	U	0.10	0.050	0.019	mg/L		03/20/22 17:20	1

Lab Sample ID: LCS 280-569157/59 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 569157

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate Nitrite as N	5.00	4.92		mg/L		98	90 - 110

Method: 9034 - Sulfide, Acid Soluble and Insoluble (Titrimetric)

Lab Sample ID: MB 280-568178/2-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 568182 — **Prep Batch: 568178**

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Sulfide	1.9	U	4.0	1.9	0.79	mg/L		03/09/22 15:33	1

Method: 9034 - Sulfide, Acid Soluble and Insoluble (Titrimetric) (Continued)

Lab Sample ID: LCS 280-568178/1-A
Matrix: Water
Analysis Batch: 568182

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 568178

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfide			21.1	16.8		mg/L		80	44 - 110		

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 280-568923/13
Matrix: Water
Analysis Batch: 568923

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

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Sulfate	2.5	U	5.0	2.5	1.0	mg/L		03/17/22 16:07	1

Lab Sample ID: LCS 280-568923/11
Matrix: Water
Analysis Batch: 568923

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate			100	95.8		mg/L		96	87 - 112		

Lab Sample ID: LCSD 280-568923/12
Matrix: Water
Analysis Batch: 568923

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate			100	95.8		mg/L		96	87 - 112	0	10

Lab Sample ID: MRL 280-568923/10
Matrix: Water
Analysis Batch: 568923

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

Analyte			Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate			5.00	4.18	J	mg/L		84	50 - 150		

Lab Sample ID: 280-159384-1 MS
Matrix: Water
Analysis Batch: 568923

Client Sample ID: G0022-8
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate	110	J1	50.0	174	J1	mg/L		123	87 - 112		

Lab Sample ID: 280-159384-1 MSD
Matrix: Water
Analysis Batch: 568923

Client Sample ID: G0022-8
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	110	J1	50.0	174	J1	mg/L		122	87 - 112	0	10

Method: 9056A - Anions, Ion Chromatography (Continued)

Lab Sample ID: 280-159384-1 DU
Matrix: Water
Analysis Batch: 568923

Client Sample ID: G0022-8
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Sulfate	110	J1		113		mg/L				0.1	10

Method: 9060A - Organic Carbon, Dissolved (DOC)

Lab Sample ID: MB 280-568667/49
Matrix: Water
Analysis Batch: 568667

Client Sample ID: Method Blank
Prep Type: Dissolved

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon - Quad	0.80	U	1.0	0.80	0.35	mg/L		03/15/22 16:27	1

Lab Sample ID: MB 280-568667/5
Matrix: Water
Analysis Batch: 568667

Client Sample ID: Method Blank
Prep Type: Dissolved

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon - Quad	0.80	U	1.0	0.80	0.35	mg/L		03/14/22 17:47	1

Lab Sample ID: MB 280-568705/2-A
Matrix: Water
Analysis Batch: 568667

Client Sample ID: Method Blank
Prep Type: Dissolved

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon - Quad	0.80	U	1.0	0.80	0.35	mg/L		03/15/22 17:12	1

Lab Sample ID: LCS 280-568667/48
Matrix: Water
Analysis Batch: 568667

Client Sample ID: Lab Control Sample
Prep Type: Dissolved

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Dissolved Organic Carbon - Quad			25.0	24.6		mg/L		98	88 - 112		

Lab Sample ID: LCS 280-568705/1-A
Matrix: Water
Analysis Batch: 568667

Client Sample ID: Lab Control Sample
Prep Type: Dissolved

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Dissolved Organic Carbon - Quad			25.0	24.9		mg/L		99	88 - 112		

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 280-567962/84
Matrix: Water
Analysis Batch: 567962

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

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3	6.4	U	10	6.4	3.1	mg/L		03/08/22 04:52	1

Method: SM 2320B - Alkalinity (Continued)

Lab Sample ID: LCS 280-567962/83
Matrix: Water
Analysis Batch: 567962

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Alkalinity as CaCO3			200	205		mg/L		102	89 - 109		

Lab Sample ID: MB 280-568099/6
Matrix: Water
Analysis Batch: 568099

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

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3	6.4	U	10	6.4	3.1	mg/L		03/08/22 15:03	1

Lab Sample ID: LCS 280-568099/4
Matrix: Water
Analysis Batch: 568099

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Alkalinity as CaCO3			200	198		mg/L		99	89 - 109		

Lab Sample ID: LCSD 280-568099/5
Matrix: Water
Analysis Batch: 568099

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Alkalinity as CaCO3			200	197		mg/L		99	89 - 109	0	10

GC VOA

Analysis Batch: 567999

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-159384-1	G0022-8	Total/NA	Water	RSK-175	
280-159384-2	G0102-8	Total/NA	Water	RSK-175	
280-159384-4	G0121-8	Total/NA	Water	RSK-175	
280-159384-5	G0122-8	Total/NA	Water	RSK-175	
280-159384-6	G0123-8	Total/NA	Water	RSK-175	
MB 280-567999/3	Method Blank	Total/NA	Water	RSK-175	
LCS 280-567999/4	Lab Control Sample	Total/NA	Water	RSK-175	
LCSD 280-567999/5	Lab Control Sample Dup	Total/NA	Water	RSK-175	

HPLC/IC

Prep Batch: 567953

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-159384-1	G0022-8	Total/NA	Water	3535	
280-159384-2	G0102-8	Total/NA	Water	3535	
280-159384-3	WATER-WC-Q8-MAR22	Total/NA	Water	3535	
280-159384-4	G0121-8	Total/NA	Water	3535	
280-159384-5	G0122-8	Total/NA	Water	3535	
280-159384-6	G0123-8	Total/NA	Water	3535	
MB 280-567953/1-A	Method Blank	Total/NA	Water	3535	
LCS 280-567953/2-A	Lab Control Sample	Total/NA	Water	3535	
LCS 280-567953/3-A	Lab Control Sample	Total/NA	Water	3535	

Analysis Batch: 568287

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 280-567953/1-A	Method Blank	Total/NA	Water	8330A	567953
LCS 280-567953/2-A	Lab Control Sample	Total/NA	Water	8330A	567953
LCS 280-567953/3-A	Lab Control Sample	Total/NA	Water	8330A	567953

Analysis Batch: 568433

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-159384-1	G0022-8	Total/NA	Water	8330A	567953
280-159384-2	G0102-8	Total/NA	Water	8330A	567953
280-159384-3	WATER-WC-Q8-MAR22	Total/NA	Water	8330A	567953
280-159384-4	G0121-8	Total/NA	Water	8330A	567953
280-159384-5	G0122-8	Total/NA	Water	8330A	567953
280-159384-6	G0123-8	Total/NA	Water	8330A	567953

Analysis Batch: 568709

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-159384-1	G0022-8	Total/NA	Water	8330A	567953
280-159384-3	WATER-WC-Q8-MAR22	Total/NA	Water	8330A	567953
280-159384-4	G0121-8	Total/NA	Water	8330A	567953
280-159384-5	G0122-8	Total/NA	Water	8330A	567953
280-159384-6	G0123-8	Total/NA	Water	8330A	567953

General Chemistry

Analysis Batch: 567962

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-159384-1	G0022-8	Total/NA	Water	SM 2320B	
MB 280-567962/84	Method Blank	Total/NA	Water	SM 2320B	

General Chemistry (Continued)

Analysis Batch: 567962 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 280-567962/83	Lab Control Sample	Total/NA	Water	SM 2320B	

Analysis Batch: 568099

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-159384-2	G0102-8	Total/NA	Water	SM 2320B	
280-159384-4	G0121-8	Total/NA	Water	SM 2320B	
280-159384-5	G0122-8	Total/NA	Water	SM 2320B	
280-159384-6	G0123-8	Total/NA	Water	SM 2320B	
MB 280-568099/6	Method Blank	Total/NA	Water	SM 2320B	
LCS 280-568099/4	Lab Control Sample	Total/NA	Water	SM 2320B	
LCSD 280-568099/5	Lab Control Sample Dup	Total/NA	Water	SM 2320B	

Prep Batch: 568178

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-159384-1	G0022-8	Total/NA	Water	9030B	
280-159384-2	G0102-8	Total/NA	Water	9030B	
280-159384-4	G0121-8	Total/NA	Water	9030B	
280-159384-5	G0122-8	Total/NA	Water	9030B	
280-159384-6	G0123-8	Total/NA	Water	9030B	
MB 280-568178/2-A	Method Blank	Total/NA	Water	9030B	
LCS 280-568178/1-A	Lab Control Sample	Total/NA	Water	9030B	

Analysis Batch: 568182

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-159384-1	G0022-8	Total/NA	Water	9034	568178
280-159384-2	G0102-8	Total/NA	Water	9034	568178
280-159384-4	G0121-8	Total/NA	Water	9034	568178
280-159384-5	G0122-8	Total/NA	Water	9034	568178
280-159384-6	G0123-8	Total/NA	Water	9034	568178
MB 280-568178/2-A	Method Blank	Total/NA	Water	9034	568178
LCS 280-568178/1-A	Lab Control Sample	Total/NA	Water	9034	568178

Prep Batch: 568334

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-159384-1	G0022-8	Total/NA	Water	351.2	
280-159384-2	G0102-8	Total/NA	Water	351.2	
280-159384-4	G0121-8	Total/NA	Water	351.2	
280-159384-5	G0122-8	Total/NA	Water	351.2	
280-159384-6	G0123-8	Total/NA	Water	351.2	
MB 280-568334/2-A	Method Blank	Total/NA	Water	351.2	
LCS 280-568334/1-A	Lab Control Sample	Total/NA	Water	351.2	
280-159384-1 MS	G0022-8	Total/NA	Water	351.2	
280-159384-1 MSD	G0022-8	Total/NA	Water	351.2	

Analysis Batch: 568623

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-159384-1	G0022-8	Total/NA	Water	351.2	568334
280-159384-2	G0102-8	Total/NA	Water	351.2	568334
280-159384-4	G0121-8	Total/NA	Water	351.2	568334
280-159384-5	G0122-8	Total/NA	Water	351.2	568334
280-159384-6	G0123-8	Total/NA	Water	351.2	568334

General Chemistry (Continued)

Analysis Batch: 568623 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 280-568334/2-A	Method Blank	Total/NA	Water	351.2	568334
LCS 280-568334/1-A	Lab Control Sample	Total/NA	Water	351.2	568334
280-159384-1 MS	G0022-8	Total/NA	Water	351.2	568334
280-159384-1 MSD	G0022-8	Total/NA	Water	351.2	568334

Analysis Batch: 568667

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-159384-1	G0022-8	Dissolved	Water	9060A	568705
280-159384-2	G0102-8	Dissolved	Water	9060A	568705
280-159384-4	G0121-8	Dissolved	Water	9060A	568705
280-159384-5	G0122-8	Dissolved	Water	9060A	568705
280-159384-6	G0123-8	Dissolved	Water	9060A	568705
MB 280-568667/49	Method Blank	Dissolved	Water	9060A	
MB 280-568667/5	Method Blank	Dissolved	Water	9060A	
MB 280-568705/2-A	Method Blank	Dissolved	Water	9060A	568705
LCS 280-568667/48	Lab Control Sample	Dissolved	Water	9060A	
LCS 280-568705/1-A	Lab Control Sample	Dissolved	Water	9060A	568705

Filtration Batch: 568705

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-159384-1	G0022-8	Dissolved	Water	FILTRATION	
280-159384-2	G0102-8	Dissolved	Water	FILTRATION	
280-159384-4	G0121-8	Dissolved	Water	FILTRATION	
280-159384-5	G0122-8	Dissolved	Water	FILTRATION	
280-159384-6	G0123-8	Dissolved	Water	FILTRATION	
MB 280-568705/2-A	Method Blank	Dissolved	Water	FILTRATION	
LCS 280-568705/1-A	Lab Control Sample	Dissolved	Water	FILTRATION	

Analysis Batch: 568923

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-159384-1	G0022-8	Total/NA	Water	9056A	
280-159384-2	G0102-8	Total/NA	Water	9056A	
280-159384-4	G0121-8	Total/NA	Water	9056A	
280-159384-5	G0122-8	Total/NA	Water	9056A	
280-159384-6	G0123-8	Total/NA	Water	9056A	
MB 280-568923/13	Method Blank	Total/NA	Water	9056A	
LCS 280-568923/11	Lab Control Sample	Total/NA	Water	9056A	
LCSD 280-568923/12	Lab Control Sample Dup	Total/NA	Water	9056A	
MRL 280-568923/10	Lab Control Sample	Total/NA	Water	9056A	
280-159384-1 MS	G0022-8	Total/NA	Water	9056A	
280-159384-1 MSD	G0022-8	Total/NA	Water	9056A	
280-159384-1 DU	G0022-8	Total/NA	Water	9056A	

Analysis Batch: 569144

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-159384-1	G0022-8	Total/NA	Water	350.1	
280-159384-2	G0102-8	Total/NA	Water	350.1	

Analysis Batch: 569157

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-159384-1	G0022-8	Total/NA	Water	353.2	

General Chemistry (Continued)

Analysis Batch: 569157 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-159384-2	G0102-8	Total/NA	Water	353.2	
280-159384-4	G0121-8	Total/NA	Water	353.2	
280-159384-5	G0122-8	Total/NA	Water	353.2	
280-159384-6	G0123-8	Total/NA	Water	353.2	
MB 280-569157/60	Method Blank	Total/NA	Water	353.2	
LCS 280-569157/59	Lab Control Sample	Total/NA	Water	353.2	

Analysis Batch: 569404

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-159384-4	G0121-8	Total/NA	Water	350.1	
280-159384-5	G0122-8	Total/NA	Water	350.1	
280-159384-6	G0123-8	Total/NA	Water	350.1	
MB 280-569404/20	Method Blank	Total/NA	Water	350.1	
LCS 280-569404/18	Lab Control Sample	Total/NA	Water	350.1	
LCSD 280-569404/19	Lab Control Sample Dup	Total/NA	Water	350.1	

Client Sample ID: G0022-8
Lab Sample ID: 280-159384-1

Date Collected: 03/02/22 13:30
Matrix: Water
Date Received: 03/04/22 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	RSK-175		1	20 mL	20 mL	567999	03/08/22 18:40	CAS	TAL DEN
Total/NA	Prep	3535			469.6 mL	5 mL	567953	03/08/22 11:19	ARC	TAL DEN
Total/NA	Analysis	8330A		1			568433	03/11/22 23:12	JZ	TAL DEN
Total/NA	Prep	3535			469.6 mL	5 mL	567953	03/08/22 11:19	ARC	TAL DEN
Total/NA	Analysis	8330A		1			568709	03/15/22 21:38	JZ	TAL DEN
Total/NA	Analysis	350.1		1	10 mL	10 mL	569144	03/19/22 11:27	JJM	TAL DEN
Total/NA	Prep	351.2			25 mL	25 mL	568334	03/10/22 16:03	SVC	TAL DEN
Total/NA	Analysis	351.2		1			568623	03/14/22 17:03	SVC	TAL DEN
Total/NA	Analysis	353.2		2	100 mL	100 mL	569157	03/20/22 17:28	SVC	TAL DEN
Total/NA	Prep	9030B			50 mL	50 mL	568178	03/09/22 15:33	MPG	TAL DEN
Total/NA	Analysis	9034		1			568182	03/09/22 15:33	MPG	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	568923	03/17/22 17:02	CJ	TAL DEN
Dissolved	Filtration	FILTRATION			1.0 mL	1.0 mL	568705	03/15/22 13:56	ABW	TAL DEN
Dissolved	Analysis	9060A		1	20 mL	20 mL	568667	03/15/22 18:40	ABW	TAL DEN
Total/NA	Analysis	SM 2320B		1			567962	03/08/22 06:02	KEG	TAL DEN

Client Sample ID: G0102-8
Lab Sample ID: 280-159384-2

Date Collected: 03/02/22 15:10
Matrix: Water
Date Received: 03/04/22 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	RSK-175		1	20 mL	20 mL	567999	03/08/22 18:53	CAS	TAL DEN
Total/NA	Prep	3535			487.7 mL	5 mL	567953	03/08/22 11:19	ARC	TAL DEN
Total/NA	Analysis	8330A		1			568433	03/11/22 23:35	JZ	TAL DEN
Total/NA	Analysis	350.1		10	10 mL	10 mL	569144	03/19/22 11:29	JJM	TAL DEN
Total/NA	Prep	351.2			25 mL	25 mL	568334	03/10/22 16:03	SVC	TAL DEN
Total/NA	Analysis	351.2		1			568623	03/14/22 17:04	SVC	TAL DEN
Total/NA	Analysis	353.2		1	100 mL	100 mL	569157	03/20/22 17:42	SVC	TAL DEN
Total/NA	Prep	9030B			50 mL	50 mL	568178	03/09/22 15:33	MPG	TAL DEN
Total/NA	Analysis	9034		1			568182	03/09/22 15:33	MPG	TAL DEN
Total/NA	Analysis	9056A		10	5 mL	5 mL	568923	03/17/22 18:07	CJ	TAL DEN
Dissolved	Filtration	FILTRATION			1.0 mL	1.0 mL	568705	03/15/22 13:56	ABW	TAL DEN
Dissolved	Analysis	9060A		1	20 mL	20 mL	568667	03/15/22 18:56	ABW	TAL DEN
Total/NA	Analysis	SM 2320B		1			568099	03/08/22 15:22	KEG	TAL DEN

Client Sample ID: WATER-WC-Q8-MAR22
Lab Sample ID: 280-159384-3

Date Collected: 03/02/22 17:45
Matrix: Water
Date Received: 03/04/22 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			475.9 mL	5 mL	567953	03/08/22 11:19	ARC	TAL DEN
Total/NA	Analysis	8330A		1			568433	03/11/22 23:57	JZ	TAL DEN
Total/NA	Prep	3535			475.9 mL	5 mL	567953	03/08/22 11:19	ARC	TAL DEN
Total/NA	Analysis	8330A		1			568709	03/15/22 22:13	JZ	TAL DEN

Client Sample ID: G0121-8
Lab Sample ID: 280-159384-4

Date Collected: 03/02/22 15:10
Matrix: Water
Date Received: 03/04/22 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	RSK-175		1	20 mL	20 mL	567999	03/08/22 19:06	CAS	TAL DEN
Total/NA	Prep	3535			491.4 mL	5 mL	567953	03/08/22 11:19	ARC	TAL DEN
Total/NA	Analysis	8330A		1			568433	03/12/22 00:20	JZ	TAL DEN
Total/NA	Prep	3535			491.4 mL	5 mL	567953	03/08/22 11:19	ARC	TAL DEN
Total/NA	Analysis	8330A		1			568709	03/15/22 22:48	JZ	TAL DEN
Total/NA	Analysis	350.1		10	10 mL	10 mL	569404	03/22/22 12:02	MMP	TAL DEN
Total/NA	Prep	351.2			5 mL	25 mL	568334	03/10/22 16:03	SVC	TAL DEN
Total/NA	Analysis	351.2		1			568623	03/14/22 17:05	SVC	TAL DEN
Total/NA	Analysis	353.2		1	100 mL	100 mL	569157	03/20/22 17:44	SVC	TAL DEN
Total/NA	Prep	9030B			50 mL	50 mL	568178	03/09/22 15:33	MPG	TAL DEN
Total/NA	Analysis	9034		1			568182	03/09/22 15:33	MPG	TAL DEN
Total/NA	Analysis	9056A		5	5 mL	5 mL	568923	03/17/22 18:23	CJ	TAL DEN
Dissolved	Filtration	FILTRATION			1.0 mL	1.0 mL	568705	03/15/22 13:56	ABW	TAL DEN
Dissolved	Analysis	9060A		1	20 mL	20 mL	568667	03/15/22 19:17	ABW	TAL DEN
Total/NA	Analysis	SM 2320B		1			568099	03/08/22 15:33	KEG	TAL DEN

Client Sample ID: G0122-8
Lab Sample ID: 280-159384-5

Date Collected: 03/02/22 12:45
Matrix: Water
Date Received: 03/04/22 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	RSK-175		1	20 mL	20 mL	567999	03/08/22 19:19	CAS	TAL DEN
Total/NA	Prep	3535			472.7 mL	5 mL	567953	03/08/22 11:19	ARC	TAL DEN
Total/NA	Analysis	8330A		1			568433	03/12/22 00:43	JZ	TAL DEN
Total/NA	Prep	3535			472.7 mL	5 mL	567953	03/08/22 11:19	ARC	TAL DEN
Total/NA	Analysis	8330A		1			568709	03/15/22 23:23	JZ	TAL DEN
Total/NA	Analysis	350.1		10	10 mL	10 mL	569404	03/22/22 12:04	MMP	TAL DEN
Total/NA	Prep	351.2			10 mL	25 mL	568334	03/10/22 16:03	SVC	TAL DEN
Total/NA	Analysis	351.2		1			568623	03/14/22 17:05	SVC	TAL DEN
Total/NA	Analysis	353.2		1	100 mL	100 mL	569157	03/20/22 17:46	SVC	TAL DEN
Total/NA	Prep	9030B			50 mL	50 mL	568178	03/09/22 15:33	MPG	TAL DEN
Total/NA	Analysis	9034		1			568182	03/09/22 15:33	MPG	TAL DEN
Total/NA	Analysis	9056A		5	5 mL	5 mL	568923	03/17/22 18:39	CJ	TAL DEN
Dissolved	Filtration	FILTRATION			1.0 mL	1.0 mL	568705	03/15/22 13:56	ABW	TAL DEN
Dissolved	Analysis	9060A		1	20 mL	20 mL	568667	03/15/22 20:03	ABW	TAL DEN
Total/NA	Analysis	SM 2320B		1			568099	03/08/22 15:45	KEG	TAL DEN

Client Sample ID: G0123-8
Lab Sample ID: 280-159384-6

Date Collected: 03/02/22 16:35
Matrix: Water
Date Received: 03/04/22 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	RSK-175		1	20 mL	20 mL	567999	03/08/22 19:32	CAS	TAL DEN

Client Sample ID: G0123-8
Date Collected: 03/02/22 16:35
Date Received: 03/04/22 09:30

Lab Sample ID: 280-159384-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			516 mL	5 mL	567953	03/08/22 11:19	ARC	TAL DEN
Total/NA	Analysis	8330A		1			568433	03/12/22 01:06	JZ	TAL DEN
Total/NA	Prep	3535			516 mL	5 mL	567953	03/08/22 11:19	ARC	TAL DEN
Total/NA	Analysis	8330A		1			568709	03/15/22 23:58	JZ	TAL DEN
Total/NA	Analysis	350.1		2	10 mL	10 mL	569404	03/22/22 12:06	MMP	TAL DEN
Total/NA	Prep	351.2			25 mL	25 mL	568334	03/10/22 16:03	SVC	TAL DEN
Total/NA	Analysis	351.2		1			568623	03/14/22 17:06	SVC	TAL DEN
Total/NA	Analysis	353.2		1	100 mL	100 mL	569157	03/20/22 17:48	SVC	TAL DEN
Total/NA	Prep	9030B			50 mL	50 mL	568178	03/09/22 15:33	MPG	TAL DEN
Total/NA	Analysis	9034		1			568182	03/09/22 15:33	MPG	TAL DEN
Total/NA	Analysis	9056A		2	5 mL	5 mL	568923	03/17/22 18:56	CJ	TAL DEN
Dissolved	Filtration	FILTRATION			1.0 mL	1.0 mL	568705	03/15/22 13:56	ABW	TAL DEN
Dissolved	Analysis	9060A		1	20 mL	20 mL	568667	03/15/22 20:20	ABW	TAL DEN
Total/NA	Analysis	SM 2320B		1			568099	03/08/22 15:55	KEG	TAL DEN

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

Accreditation/Certification Summary

Client: Brice Environmental Services, Corp
Job ID: 280-159384-1
Project/Site: Cornhusker (CHAAP)

Laboratory: Eurofins Denver

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

Authority	Program	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP	2907.01	10-31-23

Method Summary

Client: Brice Environmental Services, Corp
Project/Site: Cornhusker (CHAAP)

Job ID: 280-159384-1

Method	Method Description	Protocol	Laboratory
RSK-175	Dissolved Gases (GC)	RSK	TAL DEN
8330A	Nitroaromatics and Nitramines (HPLC)	EPA	TAL DEN
350.1	Nitrogen, Ammonia	MCAWW	TAL DEN
351.2	Nitrogen, Total Kjeldahl	MCAWW	TAL DEN
353.2	Nitrogen, Nitrate-Nitrite	MCAWW	TAL DEN
9034	Sulfide, Acid Soluble and Insoluble (Titrimetric)	SW846	TAL DEN
9056A	Anions, Ion Chromatography	SW846	TAL DEN
9060A	Organic Carbon, Dissolved (DOC)	SW846	TAL DEN
SM 2320B	Alkalinity	SM	TAL DEN
351.2	Nitrogen, Total Kjeldahl	MCAWW	TAL DEN
3535	Solid-Phase Extraction (SPE)	SW846	TAL DEN
9030B	Sulfide, Distillation (Acid Soluble and Insoluble)	SW846	TAL DEN
FILTRATION	Sample Filtration	None	TAL DEN

Protocol References:

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

None = None

RSK = Sample Prep And Calculations For Dissolved Gas Analysis In Water Samples Using A GC Headspace Equilibration Technique, RSKSOP-175, Rev. 0, 8/11/94, USEPA Research Lab

SM = "Standard Methods For The Examination Of Water And Wastewater"

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

Laboratory References:

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

Sample Summary

Client: Brice Environmental Services, Corp
Project/Site: Cornhusker (CHAAP)

Job ID: 280-159384-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
280-159384-1	G0022-8	Water	03/02/22 13:30	03/04/22 09:30
280-159384-2	G0102-8	Water	03/02/22 15:10	03/04/22 09:30
280-159384-3	WATER-WC-Q8-MAR22	Water	03/02/22 17:45	03/04/22 09:30
280-159384-4	G0121-8	Water	03/02/22 15:10	03/04/22 09:30
280-159384-5	G0122-8	Water	03/02/22 12:45	03/04/22 09:30
280-159384-6	G0123-8	Water	03/02/22 16:35	03/04/22 09:30

GC VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Instrument ID: VGC_J Analysis Batch Number: 550959

Lab Sample ID: IC 280-550959/2 Client Sample ID:

Date Analyzed: 09/24/21 13:28 Lab File ID: 004F0201.D GC Column: Rt-Alumina KC ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Methane	1.29	Peak assignment corrected	sciannac	09/24/21 13:54
Ethane	1.56	Peak assignment corrected	sciannac	09/24/21 13:54
Ethylene	1.86	Peak assignment corrected	sciannac	09/24/21 13:54
Acetylene	4.18	Peak assignment corrected	sciannac	09/24/21 13:55

Lab Sample ID: IC 280-550959/2 Client Sample ID:

Date Analyzed: 09/24/21 13:28 Lab File ID: 004F0201.D GC Column: HP-Plot Q ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Methane	1.69	Peak assignment corrected	sciannac	09/24/21 13:54
Ethylene	2.61	Peak assignment corrected	sciannac	09/24/21 13:54
Acetylene	2.76	Peak assignment corrected	sciannac	09/24/21 13:55
Ethane	3.03	Peak assignment corrected	sciannac	09/24/21 13:54

Lab Sample ID: IC 280-550959/4 Client Sample ID:

Date Analyzed: 09/24/21 13:54 Lab File ID: 006F0401.D GC Column: Rt-Alumina KC ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetylene	4.23	Peak assignment corrected	sciannac	09/24/21 15:50

Lab Sample ID: IC 280-550959/4 Client Sample ID:

Date Analyzed: 09/24/21 13:54 Lab File ID: 006F0401.D GC Column: HP-Plot Q ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetylene	2.75	Peak assignment corrected	sciannac	09/24/21 15:50

GC VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Instrument ID: VGC_J Analysis Batch Number: 550959

Lab Sample ID: IC 280-550959/5 Client Sample ID:

Date Analyzed: 09/24/21 14:07 Lab File ID: 007F0501.D GC Column: Rt-Alumina KC ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetylene	4.23	Split Peak	sciannac	09/24/21 15:50

Lab Sample ID: IC 280-550959/5 Client Sample ID:

Date Analyzed: 09/24/21 14:07 Lab File ID: 007F0501.D GC Column: HP-Plot Q ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetylene	2.75	Split Peak	sciannac	09/24/21 15:50
Ethane	3.03	Split Peak	sciannac	09/24/21 15:50

Lab Sample ID: IC 280-550959/6 Client Sample ID:

Date Analyzed: 09/24/21 14:20 Lab File ID: 008F0601.D GC Column: Rt-Alumina KC ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetylene	4.23	Peak assignment corrected	sciannac	09/24/21 15:44

Lab Sample ID: IC 280-550959/6 Client Sample ID:

Date Analyzed: 09/24/21 14:20 Lab File ID: 008F0601.D GC Column: HP-Plot Q ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Methane	1.68	Baseline Smoothing	sciannac	09/29/21 09:21
Acetylene	2.75	Peak assignment corrected	sciannac	09/24/21 15:44

Lab Sample ID: IC 280-550959/7 Client Sample ID:

Date Analyzed: 09/24/21 14:33 Lab File ID: 009F0701.D GC Column: Rt-Alumina KC ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetylene	4.23	Peak assignment corrected	sciannac	09/24/21 15:46

GC VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Instrument ID: VGC_J Analysis Batch Number: 550959

Lab Sample ID: IC 280-550959/7 Client Sample ID:

Date Analyzed: 09/24/21 14:33 Lab File ID: 009F0701.D GC Column: HP-Plot Q ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetylene	2.75	Peak assignment corrected	sciannac	09/24/21 15:46

GC VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Instrument ID: VGC_J Analysis Batch Number: 567999

Lab Sample ID: CCV 280-567999/29 Client Sample ID:

Date Analyzed: 03/08/22 19:45 Lab File ID: 031F2701.D GC Column: Rt-Alumina KC ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetylene	4.22	Incomplete Integration	sciannac	03/09/22 13:33

Lab Sample ID: CCV 280-567999/29 Client Sample ID:

Date Analyzed: 03/08/22 19:45 Lab File ID: 031F2701.D GC Column: HP-Plot Q ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetylene	2.73	Split Peak	sciannac	03/09/22 13:32

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 562503

Lab Sample ID: IC 280-562503/11 Client Sample ID:

Date Analyzed: 01/04/22 18:28 Lab File ID: 01040011.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.59	Baseline	zhangji	01/04/22 19:18

Lab Sample ID: IC 280-562503/12 Client Sample ID:

Date Analyzed: 01/04/22 18:51 Lab File ID: 01040012.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.60	Baseline	zhangji	01/04/22 19:18

Lab Sample ID: IC 280-562503/18 Client Sample ID:

Date Analyzed: 01/04/22 21:08 Lab File ID: 01040018.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
RDX	7.61	Baseline	zhangji	01/05/22 12:01
Picric acid	7.95	Baseline	zhangji	01/05/22 12:02
PETN	14.74	Baseline	zhangji	01/05/22 12:01

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 562503

Lab Sample ID: IC 280-562503/19 Client Sample ID:

Date Analyzed: 01/04/22 21:31 Lab File ID: 01040019.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.60	Baseline	zhangji	01/05/22 11:59
RDX	7.60	Baseline	zhangji	01/05/22 12:00
Picric acid	7.94	Baseline	zhangji	01/05/22 12:00
2,4,6-Trinitrotoluene	10.95	Baseline	zhangji	01/05/22 12:00
4-Amino-2,6-dinitrotoluene	11.15	Baseline	zhangji	01/05/22 12:00
2-Amino-4,6-dinitrotoluene	11.41	Baseline	zhangji	01/05/22 12:00
2,6-Dinitrotoluene	11.58	Baseline	zhangji	01/05/22 12:00
2,4-Dinitrotoluene	11.75	Baseline	zhangji	01/05/22 12:00
PETN	14.71	Baseline	zhangji	01/05/22 12:00

Lab Sample ID: ICV 280-562503/20 Client Sample ID:

Date Analyzed: 01/04/22 21:54 Lab File ID: 01040020.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
RDX	7.60	Baseline	zhangji	01/05/22 11:59
Picric acid	7.92	Baseline	zhangji	01/05/22 11:59

Lab Sample ID: IC 280-562503/30 Client Sample ID:

Date Analyzed: 01/05/22 01:43 Lab File ID: 01040030.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TNX	6.47	Baseline	zhangji	01/05/22 12:05
DNX	6.79	Baseline	zhangji	01/05/22 12:07
MNX	7.22	Baseline	zhangji	01/05/22 12:07

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 562503

Lab Sample ID: IC 280-562503/31 Client Sample ID:

Date Analyzed: 01/05/22 02:06 Lab File ID: 01040031.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TNX	6.48	Baseline	zhangji	01/05/22 12:07
DNX	6.80	Baseline	zhangji	01/05/22 12:07
MNX	7.22	Baseline	zhangji	01/05/22 12:07

Lab Sample ID: IC 280-562503/32 Client Sample ID:

Date Analyzed: 01/05/22 02:29 Lab File ID: 01040032.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TNX	6.48	Baseline	zhangji	01/05/22 12:07
DNX	6.80	Baseline	zhangji	01/05/22 12:07
MNX	7.22	Baseline	zhangji	01/05/22 12:08

Lab Sample ID: IC 280-562503/33 Client Sample ID:

Date Analyzed: 01/05/22 02:52 Lab File ID: 01040033.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TNX	6.48	Baseline	zhangji	01/05/22 12:07
DNX	6.80	Baseline	zhangji	01/05/22 12:07
MNX	7.22	Baseline	zhangji	01/05/22 12:08

Lab Sample ID: IC 280-562503/34 Client Sample ID:

Date Analyzed: 01/05/22 03:15 Lab File ID: 01040034.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TNX	6.48	Baseline	zhangji	01/05/22 12:08
DNX	6.80	Baseline	zhangji	01/05/22 12:08
MNX	7.22	Baseline	zhangji	01/05/22 12:08

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 562503

Lab Sample ID: IC 280-562503/35 Client Sample ID:

Date Analyzed: 01/05/22 03:38 Lab File ID: 01040035.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TNX	6.48	Baseline	zhangji	01/05/22 12:08
DNX	6.80	Baseline	zhangji	01/05/22 12:08
MNX	7.22	Baseline	zhangji	01/05/22 12:08

Lab Sample ID: IC 280-562503/36 Client Sample ID:

Date Analyzed: 01/05/22 04:01 Lab File ID: 01040036.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TNX	6.48	Baseline	zhangji	01/05/22 12:09
DNX	6.80	Baseline	zhangji	01/05/22 12:09
MNX	7.22	Baseline	zhangji	01/05/22 12:09

Lab Sample ID: IC 280-562503/37 Client Sample ID:

Date Analyzed: 01/05/22 04:24 Lab File ID: 01040037.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TNX	6.48	Baseline	zhangji	01/05/22 12:09
DNX	6.80	Baseline	zhangji	01/05/22 12:09
MNX	7.22	Baseline	zhangji	01/05/22 12:09

Lab Sample ID: ICV 280-562503/38 Client Sample ID:

Date Analyzed: 01/05/22 04:47 Lab File ID: 01040038.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TNX	6.48	Baseline	zhangji	01/05/22 12:09
DNX	6.80	Baseline	zhangji	01/05/22 12:09
MNX	7.22	Baseline	zhangji	01/05/22 12:09

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 568287

Lab Sample ID: CCV 280-568287/50 Client Sample ID:

Date Analyzed: 03/11/22 06:22 Lab File ID: 03100050.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TNX	6.48	Baseline	zhangji	03/11/22 12:32
DNX	6.79	Baseline	zhangji	03/11/22 12:32

Lab Sample ID: MB 280-567953/1-A Client Sample ID:

Date Analyzed: 03/11/22 06:45 Lab File ID: 03100051.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
MNX		Invalid Compound ID	zhangji	03/11/22 12:32

Lab Sample ID: LCS 280-567953/2-A Client Sample ID:

Date Analyzed: 03/11/22 07:08 Lab File ID: 03100052.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.60	Baseline	zhangji	03/11/22 13:41

Lab Sample ID: LCS 280-567953/3-A Client Sample ID:

Date Analyzed: 03/11/22 07:31 Lab File ID: 03100053.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
MNX	7.21	Baseline	zhangji	03/11/22 13:41

Lab Sample ID: CCV 280-568287/61 Client Sample ID:

Date Analyzed: 03/11/22 10:35 Lab File ID: 03100061.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.60	Baseline	zhangji	03/11/22 13:56

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 568287

Lab Sample ID: CCV 280-568287/62 Client Sample ID:

Date Analyzed: 03/11/22 10:58 Lab File ID: 03100062.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TNX	6.48	Baseline	zhangji	03/11/22 13:56
DNX	6.80	Baseline	zhangji	03/11/22 13:56
MNX	7.21	Baseline	zhangji	03/11/22 13:56

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 568433

Lab Sample ID: CCV 280-568433/26 Client Sample ID:

Date Analyzed: 03/11/22 20:54 Lab File ID: 03110026.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.60	Baseline	zhangji	03/12/22 09:45

Lab Sample ID: CCV 280-568433/27 Client Sample ID:

Date Analyzed: 03/11/22 21:17 Lab File ID: 03110027.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TNX	6.48	Baseline	zhangji	03/12/22 09:45
DNX	6.80	Baseline	zhangji	03/12/22 09:45
MNX	7.21	Baseline	zhangji	03/12/22 09:45

Lab Sample ID: 280-159384-1 Client Sample ID: G0022-8

Date Analyzed: 03/11/22 23:12 Lab File ID: 03110032.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,2-Dinitrobenzene	8.53	Baseline	zhangji	03/12/22 09:36
Nitrobenzene		Invalid Compound ID	zhangji	03/12/22 09:35
Tetryl		Invalid Compound ID	zhangji	03/12/22 09:35

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 568433

Lab Sample ID: 280-159384-2 Client Sample ID: G0102-8

Date Analyzed: 03/11/22 23:35 Lab File ID: 03110033.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,2-Dinitrobenzene	8.53	Baseline	zhangji	03/12/22 09:38
1,3-Dinitrobenzene		Invalid Compound ID	zhangji	03/12/22 09:38
2-Nitrotoluene		Invalid Compound ID	zhangji	03/12/22 09:38
4-Nitrotoluene		Invalid Compound ID	zhangji	03/12/22 09:38
MNX		Invalid Compound ID	zhangji	03/12/22 09:38
RDX		Invalid Compound ID	zhangji	03/12/22 09:38

Lab Sample ID: 280-159384-3 Client Sample ID: WATER-WC-Q8-MAR22

Date Analyzed: 03/11/22 23:57 Lab File ID: 03110034.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
MNX	7.25	Baseline	zhangji	03/12/22 09:39
RDX	7.57	Baseline	zhangji	03/12/22 09:39
1,2-Dinitrobenzene	8.53	Baseline	zhangji	03/12/22 09:39
1,3-Dinitrobenzene		Invalid Compound ID	zhangji	03/12/22 09:39
2,4-Dinitrotoluene		Invalid Compound ID	zhangji	03/12/22 09:39
3-Nitrotoluene		Invalid Compound ID	zhangji	03/12/22 09:39
4-Nitrotoluene		Invalid Compound ID	zhangji	03/12/22 09:39
Nitrobenzene		Invalid Compound ID	zhangji	03/12/22 09:39
Tetryl		Invalid Compound ID	zhangji	03/12/22 09:39

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 568433

Lab Sample ID: 280-159384-4 Client Sample ID: G0121-8

Date Analyzed: 03/12/22 00:20 Lab File ID: 03110035.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
MNX	7.25	Baseline	zhangji	03/12/22 09:39
RDX	7.56	Baseline	zhangji	03/12/22 09:39
1,2-Dinitrobenzene	8.60	Baseline	zhangji	03/12/22 09:40
Nitrobenzene	9.74	Baseline	zhangji	03/12/22 09:40
Tetryl	10.04	Baseline	zhangji	03/12/22 09:40
2,4-Dinitrotoluene	11.63	Baseline	zhangji	03/12/22 09:40
2-Nitrotoluene	12.40	Baseline	zhangji	03/12/22 09:40
4-Nitrotoluene	12.87	Baseline	zhangji	03/12/22 09:40
3-Nitrotoluene	13.55	Baseline	zhangji	03/12/22 09:40

Lab Sample ID: 280-159384-5 Client Sample ID: G0122-8

Date Analyzed: 03/12/22 00:43 Lab File ID: 03110036.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
MNX	7.25	Baseline	zhangji	03/12/22 09:41
RDX	7.59	Baseline	zhangji	03/12/22 09:41
1,2-Dinitrobenzene	8.53	Baseline	zhangji	03/12/22 09:42
1,3,5-Trinitrobenzene		Invalid Compound ID	zhangji	03/12/22 09:42
1,3-Dinitrobenzene		Invalid Compound ID	zhangji	03/12/22 09:42
2-Nitrotoluene		Invalid Compound ID	zhangji	03/12/22 09:42
4-Nitrotoluene		Invalid Compound ID	zhangji	03/12/22 09:42
Nitrobenzene		Invalid Compound ID	zhangji	03/12/22 09:42
Tetryl		Invalid Compound ID	zhangji	03/12/22 09:42
4-Amino-2,6-dinitrotoluene	11.07	Baseline	zhangji	03/12/22 09:42

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 568433

Lab Sample ID: 280-159384-6 Client Sample ID: G0123-8

Date Analyzed: 03/12/22 01:06 Lab File ID: 03110037.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
MNX	7.25	Baseline	zhangji	03/12/22 09:41
RDX	7.61	Baseline	zhangji	03/12/22 09:41
1,3,5-Trinitrobenzene		Invalid Compound ID	zhangji	03/12/22 09:41
2-Amino-4,6-dinitrotoluene		Invalid Compound ID	zhangji	03/12/22 09:41
2-Nitrotoluene		Invalid Compound ID	zhangji	03/12/22 09:41
Nitrobenzene		Invalid Compound ID	zhangji	03/12/22 09:41
Tetryl		Invalid Compound ID	zhangji	03/12/22 09:41

Lab Sample ID: CCV 280-568433/38 Client Sample ID:

Date Analyzed: 03/12/22 01:29 Lab File ID: 03110038.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TNX	6.48	Baseline	zhangji	03/12/22 10:31
DNX	6.80	Baseline	zhangji	03/12/22 10:31
MNX	7.21	Baseline	zhangji	03/12/22 10:31

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Instrument ID: CHHPLC_X5 Analysis Batch Number: 567560

Lab Sample ID: IC 280-567560/10 Client Sample ID:

Date Analyzed: 03/02/22 21:22 Lab File ID: 03020010.D GC Column: Luna-phenylhe ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2-Amino-4,6-dinitrotoluene	18.73	Unspecified		
1,3,5-Trinitrobenzene	18.85	Split Peak	zhangji	03/03/22 12:08

Lab Sample ID: IC 280-567560/15 Client Sample ID:

Date Analyzed: 03/03/22 00:17 Lab File ID: 03020015.D GC Column: Luna-phenylhe ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PETN	26.21	Baseline Smoothing	zhangji	03/03/22 12:12

Lab Sample ID: IC 280-567560/16 Client Sample ID:

Date Analyzed: 03/03/22 00:53 Lab File ID: 03020016.D GC Column: Luna-phenylhe ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitroglycerin	16.07	Baseline Smoothing	zhangji	03/03/22 12:12
PETN	26.22	Baseline Smoothing	zhangji	03/03/22 12:12

Lab Sample ID: IC 280-567560/17 Client Sample ID:

Date Analyzed: 03/03/22 01:28 Lab File ID: 03020017.D GC Column: Luna-phenylhe ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitroglycerin	16.06	Baseline Smoothing	zhangji	03/03/22 12:12
2-Amino-4,6-dinitrotoluene	18.76	Baseline Smoothing	zhangji	03/03/22 12:10
1,3,5-Trinitrobenzene	18.96	Baseline Smoothing	zhangji	03/03/22 12:10
PETN	26.22	Baseline Smoothing	zhangji	03/03/22 12:12

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Instrument ID: CHHPLC_X5 Analysis Batch Number: 567560

Lab Sample ID: IC 280-567560/18 Client Sample ID:

Date Analyzed: 03/03/22 02:03 Lab File ID: 03020018.D GC Column: Luna-phenylhe ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitroglycerin	16.05	Baseline Smoothing	zhangji	03/03/22 12:12
2-Amino-4,6-dinitrotoluene	18.75	Baseline Smoothing	zhangji	03/03/22 12:11
1,3,5-Trinitrobenzene	18.95	Baseline Smoothing	zhangji	03/03/22 12:11
PETN	26.22	Baseline Smoothing	zhangji	03/03/22 12:11

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Instrument ID: CHHPLC_X5 Analysis Batch Number: 568709

Lab Sample ID: CCV 280-568709/7 Client Sample ID:

Date Analyzed: 03/15/22 18:07 Lab File ID: 03150007.D GC Column: Luna-phenylhe ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitroglycerin	15.91	Baseline Smoothing	zhangji	03/15/22 18:53
PETN	26.07	Baseline Smoothing	zhangji	03/15/22 18:53

Lab Sample ID: CCV 280-568709/8 Client Sample ID:

Date Analyzed: 03/15/22 18:42 Lab File ID: 03150008.D GC Column: Luna-phenylhe ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TNX	5.16	Baseline Smoothing	zhangji	03/15/22 19:51
DNX	6.01	Baseline Smoothing	zhangji	03/15/22 19:51

Lab Sample ID: 280-159384-1 Client Sample ID: G0022-8

Date Analyzed: 03/15/22 21:38 Lab File ID: 03150014.D GC Column: Luna-phenylhe ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.82	Baseline Smoothing	zhangji	03/16/22 12:22
RDX	9.00	Baseline Smoothing	zhangji	03/16/22 12:22

Lab Sample ID: 280-159384-3 Client Sample ID: WATER-WC-Q8-MAR22

Date Analyzed: 03/15/22 22:13 Lab File ID: 03150015.D GC Column: Luna-phenylhe ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,3,5-Trinitrobenzene		Invalid Compound ID	zhangji	03/16/22 12:22
2-Nitrotoluene		Invalid Compound ID	zhangji	03/16/22 12:22
Tetryl		Invalid Compound ID	zhangji	03/16/22 12:22
1,2-Dinitrobenzene	13.12	Split Peak	zhangji	03/16/22 12:22
3-Nitrotoluene	17.83	Baseline Smoothing	zhangji	03/16/22 12:22

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Instrument ID: CHHPLC_X5 Analysis Batch Number: 568709

Lab Sample ID: 280-159384-4 Client Sample ID: G0121-8

Date Analyzed: 03/15/22 22:48 Lab File ID: 03150016.D GC Column: Luna-phenylhe ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,3,5-Trinitrobenzene		Invalid Compound ID	zhangji	03/16/22 12:23
2,6-Dinitrotoluene		Invalid Compound ID	zhangji	03/16/22 12:23
2-Nitrotoluene		Invalid Compound ID	zhangji	03/16/22 12:23
Tetryl		Invalid Compound ID	zhangji	03/16/22 12:23

Lab Sample ID: 280-159384-5 Client Sample ID: G0122-8

Date Analyzed: 03/15/22 23:23 Lab File ID: 03150017.D GC Column: Luna-phenylhe ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.83	Baseline Smoothing	zhangji	03/16/22 12:23
MNX	7.56	Baseline Smoothing	zhangji	03/16/22 12:23
RDX	9.03	Baseline Smoothing	zhangji	03/16/22 12:23
1,3,5-Trinitrobenzene		Invalid Compound ID	zhangji	03/16/22 12:23
1,2-Dinitrobenzene	13.16	Baseline Smoothing	zhangji	03/16/22 12:23
2-Nitrotoluene	16.59	Baseline Smoothing	zhangji	03/16/22 12:23

Lab Sample ID: 280-159384-6 Client Sample ID: G0123-8

Date Analyzed: 03/15/22 23:58 Lab File ID: 03150018.D GC Column: Luna-phenylhe ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.81	Baseline Smoothing	zhangji	03/16/22 12:24
MNX	7.57	Baseline Smoothing	zhangji	03/16/22 12:24
RDX		Invalid Compound ID	zhangji	03/16/22 12:24
2-Nitrotoluene	16.53	Baseline Smoothing	zhangji	03/16/22 12:24

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Instrument ID: CHHPLC_X5 Analysis Batch Number: 568709

Lab Sample ID: CCV 280-568709/19 Client Sample ID:

Date Analyzed: 03/16/22 00:33 Lab File ID: 03150019.D GC Column: Luna-phenylhe ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitroglycerin	15.88	Baseline Smoothing	zhangji	03/16/22 12:35
PETN	26.00	Baseline Smoothing	zhangji	03/16/22 12:35

GENERAL CHEMISTRY MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Batch Number: 568923

Lab Sample ID: STD 280-568923/2 IC Client Sample ID:

Date Analyzed: 03/17/22 13:06 Lab File ID: 0004.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Fluoride	2.54	Baseline Smoothing	jindaratc	03/17/22 15:09
Chloride	3.67	Baseline Smoothing	jindaratc	03/17/22 15:09

Lab Sample ID: STD 280-568923/3 IC Client Sample ID:

Date Analyzed: 03/17/22 13:23 Lab File ID: 0005.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Fluoride	2.53	Baseline Smoothing	jindaratc	03/17/22 15:10

Lab Sample ID: STD 280-568923/4 IC Client Sample ID:

Date Analyzed: 03/17/22 13:39 Lab File ID: 0006.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Fluoride	2.53	Baseline Smoothing	jindaratc	03/17/22 15:10

Lab Sample ID: STD 280-568923/5 IC Client Sample ID:

Date Analyzed: 03/17/22 13:56 Lab File ID: 0007.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Fluoride	2.53	Baseline Smoothing	jindaratc	03/17/22 15:10

Lab Sample ID: STD 280-568923/6 IC Client Sample ID:

Date Analyzed: 03/17/22 14:12 Lab File ID: 0008.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Fluoride	2.53	Peak assignment corrected	jindaratc	03/17/22 15:11

9056A

GENERAL CHEMISTRY MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Batch Number: 568923

Lab Sample ID: STD 280-568923/7 IC Client Sample ID:

Date Analyzed: 03/17/22 14:28 Lab File ID: 0009.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Fluoride	2.53	Baseline Smoothing	jindaratc	03/17/22 15:11

Lab Sample ID: ICV 280-568923/8 Client Sample ID:

Date Analyzed: 03/17/22 14:45 Lab File ID: 0010.d GC Column: Ion PAC AS 14 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Fluoride	2.53	Peak assignment corrected	jindaratc	03/17/22 15:08

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
350.1 cal_00525	03/24/22	03/17/22	Di Water, Lot na	100 mL	NH3 CAL STD_00034	10 mL	Ammonia	100 mg/L
.NH3 CAL STD_00034	04/30/23		Ricca, Lot 4008G09		(Purchased Reagent)		Ammonia	1000 mg/L
350.1 ICV_00509	03/24/22	03/17/22	na, Lot na	100 mL	NH3 ICV STD_00032	10 mL	Ammonia	100.2 mg/L
.NH3 ICV STD_00032	08/01/22		Inorganic Ventures, Lot N2-NH669544		(Purchased Reagent)		Ammonia	1002 mg/L
8330 DMT_00010	04/30/22	12/02/21	Acetonitrile, Lot 211161	5 mL	MNX,TNX,DNX_00057	1 mL	DNX	20.02 ug/mL
							MNX	23.34 ug/mL
							TNX	20.02 ug/mL
.MNX,TNX,DNX_00057	04/30/22		Agilent, Lot 0006594482		(Purchased Reagent)		DNX	100.1 ug/mL
							MNX	116.7 ug/mL
							TNX	100.1 ug/mL
8330 LCS_00111	05/12/22	11/12/21	Acetonitrile, Lot Acetonitrile_00059	100 mL	8330LCSMix1_00129	1 mL	1,3,5-Trinitrobenzene	10 ug/mL
							1,3-Dinitrobenzene	10 ug/mL
							2,4,6-Trinitrotoluene	10 ug/mL
							2,4-Dinitrotoluene	10 ug/mL
							HMX	10 ug/mL
							Nitrobenzene	10 ug/mL
							RDX	10 ug/mL
					8330LCSmix2_00028	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
.8330LCSMix1_00129	04/30/26		Restek, Lot A0163590		(Purchased Reagent)		1,3,5-Trinitrobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							2,4,6-Trinitrotoluene	1000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							HMX	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							RDX	1000 ug/mL
.8330LCSmix2_00028	04/30/26		Restek, Lot A0171368		(Purchased Reagent)		2,6-Dinitrotoluene	1000 ug/mL
							2-Amino-4,6-dinitrotoluene	1000 ug/mL
							2-Nitrotoluene	1000 ug/mL
							3-Nitrotoluene	1000 ug/mL
							4-Amino-2,6-dinitrotoluene	1000 ug/mL
							4-Nitrotoluene	1000 ug/mL
							Tetryl	1000 ug/mL
8330 LCS_00113	09/01/22	03/01/22	Acetonitrile, Lot Acetonitrile_00055	100 mL	8330 LCSMix2_00112	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

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4-Nitrotoluene	10 ug/mL
							Tetryl	10 ug/mL
					8330_NG_Stk_00096	1 mL	Nitroglycerin	100 ug/mL
					8330_NG_Stk_00098	1 mL	Nitroglycerin	100 ug/mL
					8330_PETN_Stk_00111	1.1 mL	PETN	100 ug/mL
					8330_PETN_Stk_00113	0.9 mL	PETN	100 ug/mL
					8330LCSMix1_00126	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_00102	1 mL	2,4,6-Trinitrophenol	10 ug/mL
.8330 LCSMix2_00112	03/01/23		Restek, Lot A0171386		(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_00096	03/01/23		Restek, Lot A0161480		(Purchased Reagent)		Nitroglycerin	5000 ug/mL
.8330_NG_Stk_00098	03/01/23		Restek, Lot A0161480		(Purchased Reagent)		Nitroglycerin	5000 ug/mL
.8330_PETN_Stk_00111	03/01/23		Restek, Lot A0172687		(Purchased Reagent)		PETN	5000 ug/mL
.8330_PETN_Stk_00113	03/01/23		Restek, Lot A0172687		(Purchased Reagent)		PETN	5000 ug/mL
.8330LCSMix1_00126	03/01/23		Restek, Lot A0171502		(Purchased Reagent)		1,3,5-Trinitrobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							2,4,6-Trinitrotoluene	1000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							HMX	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							RDX	1000 ug/mL
.PicricARestek_00102	03/01/23		Restek, Lot A0175186		(Purchased Reagent)		2,4,6-Trinitrophenol	1000 ug/mL
8330_OP_DMT_00012	04/30/22	09/23/21	Acetonitrile, Lot Acetonitrile 00056	10 mL	MNX,TNX,DNX_00063	1 mL	MNX	11.67 ug/mL
.MNX,TNX,DNX_00063	04/30/22		Agilent, Lot 0006599273		(Purchased Reagent)		MNX	116.7 ug/mL
8330_OP_DMT_00013	04/30/22	02/15/22	Acetonitrile, Lot Acetonitrile_00055	10 mL	MNX,TNX,DNX_00062	1 mL	DNX	10.01 ug/mL
							MNX	11.67 ug/mL
							TNX	10.01 ug/mL
.MNX,TNX,DNX_00062	04/30/22		Agilent, Lot 0006599273		(Purchased Reagent)		DNX	100.1 ug/mL
							MNX	116.7 ug/mL
							TNX	100.1 ug/mL
8330IntermStk_00070	03/31/22	01/04/22	Acetonitrile, Lot ACN_238	10 mL	8330_NG1000_00006	1 mL	Nitroglycerin	100 ug/mL
					8330_PETN1000_00006	1 mL	PETN	100 ug/mL
					8330ICALStock_00032	1 mL	1,3,5-Trinitrobenzene	10.02 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,3-Dinitrobenzene	10.02 ug/mL
							2,4,6-Trinitrotoluene	10.04 ug/mL
							2,4-Dinitrotoluene	10.04 ug/mL
							2,6-Dinitrotoluene	10.04 ug/mL
							2-Amino-4,6-dinitrotoluene	10.04 ug/mL
							2-Nitrotoluene	10 ug/mL
							3-Nitrotoluene	10.01 ug/mL
							4-Amino-2,6-dinitrotoluene	10.01 ug/mL
							4-Nitrotoluene	10.02 ug/mL
							HMX	10 ug/mL
							Nitrobenzene	10.04 ug/mL
							RDX	10 ug/mL
							Tetryl	10.02 ug/mL
							1,2-Dinitrobenzene	10 ug/mL
					8330PAStkPS_00067	1 mL	2,4,6-Trinitrophenol	10 ug/mL
.8330_NG1000_00006	01/04/23	Restek, Lot A0175997			(Purchased Reagent)		Nitroglycerin	1000 ug/mL
.8330_PETN1000_00006	01/04/23	Restek, Lot A0175907			(Purchased Reagent)		PETN	1000 ug/mL
.8330ICALStock_00032	03/31/22	01/04/22	Acetonitrile, Lot ACN_238	10 mL	8330 Stock_TS_00019	1 mL	1,3,5-Trinitrobenzene	100.2 ug/mL
							1,3-Dinitrobenzene	100.2 ug/mL
							2,4,6-Trinitrotoluene	100.4 ug/mL
							2,4-Dinitrotoluene	100.4 ug/mL
							2,6-Dinitrotoluene	100.4 ug/mL
							2-Amino-4,6-dinitrotoluene	100.4 ug/mL
							2-Nitrotoluene	100 ug/mL
							3-Nitrotoluene	100.1 ug/mL
							4-Amino-2,6-dinitrotoluene	100.1 ug/mL
							4-Nitrotoluene	100.2 ug/mL
							HMX	100 ug/mL
							Nitrobenzene	100.4 ug/mL
							RDX	100 ug/mL
							Tetryl	100.2 ug/mL
					8330SurrStock_00169	1 mL	1,2-Dinitrobenzene	100 ug/mL
..8330 Stock_TS_00019	03/31/22	Ultra Scientific, Lot CT-0801			(Purchased Reagent)		1,3,5-Trinitrobenzene	1002 ug/mL
							1,3-Dinitrobenzene	1002 ug/mL
							2,4,6-Trinitrotoluene	1004 ug/mL
							2,4-Dinitrotoluene	1004 ug/mL
							2,6-Dinitrotoluene	1004 ug/mL
							2-Amino-4,6-dinitrotoluene	1004 ug/mL
							2-Nitrotoluene	1000 ug/mL
							3-Nitrotoluene	1001 ug/mL
							4-Amino-2,6-dinitrotoluene	1001 ug/mL
							4-Nitrotoluene	1002 ug/mL
							HMX	1000 ug/mL
							Nitrobenzene	1004 ug/mL
							RDX	1000 ug/mL
							Tetryl	1002 ug/mL
..8330SurrStock_00169	01/04/23	AccuStandard, Lot 219051500			(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.8330PAStkPS_00067	07/08/22	AccuStandard, Lot 218031154-02			(Purchased Reagent)		2,4,6-Trinitrophenol	100 ug/mL
8330Surrogate_00127	05/16/22	11/16/21	Acetonitrile, Lot Acetonitrile_00059	500 mL	8330SurrStkSS_00203	1 mL	1,2-Dinitrobenzene	10 ug/mL
							1,2-Dinitrobenzene (Surr)	10 ug/mL
					8330SurrStkSS_00204	1 mL	1,2-Dinitrobenzene	10 ug/mL
							1,2-Dinitrobenzene (Surr)	10 ug/mL
					8330SurrStkSS_00207	1 mL	1,2-Dinitrobenzene	10 ug/mL
							1,2-Dinitrobenzene (Surr)	10 ug/mL
					8330SurrStkSS_00211	1 mL	1,2-Dinitrobenzene	10 ug/mL
							1,2-Dinitrobenzene (Surr)	10 ug/mL
					8330SurrStkSS_00212	1 mL	1,2-Dinitrobenzene	10 ug/mL
							1,2-Dinitrobenzene (Surr)	10 ug/mL
.8330SurrStkSS_00203	05/30/26	Restek, Lot A0172684			(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
							1,2-Dinitrobenzene (Surr)	1000 ug/mL
.8330SurrStkSS_00204	05/30/26	Restek, Lot A0172684			(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
							1,2-Dinitrobenzene (Surr)	1000 ug/mL
.8330SurrStkSS_00207	05/30/26	Restek, Lot A0172684			(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
							1,2-Dinitrobenzene (Surr)	1000 ug/mL
.8330SurrStkSS_00211	05/30/26	Restek, Lot A0172684			(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
							1,2-Dinitrobenzene (Surr)	1000 ug/mL
.8330SurrStkSS_00212	05/30/26	Restek, Lot A0172684			(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
							1,2-Dinitrobenzene (Surr)	1000 ug/mL
Alk daily lcs_01027	03/08/22	03/01/22	Di Water, Lot na	1000 mL	Alk stk std_00022	4 mL	Total Alkalinity as CaCO3	200 mg/L
.Alk stk std_00022	10/30/22	SPEX, Lot 2-85BT			(Purchased Reagent)		Total Alkalinity as CaCO3	50 g/L
Alk daily lcs_01028	03/15/22	03/08/22	Di Water, Lot na	1000 mL	Alk stk std_00022	4 mL	Total Alkalinity as CaCO3	200 mg/L
.Alk stk std_00022	10/30/22	SPEX, Lot 2-85BT			(Purchased Reagent)		Total Alkalinity as CaCO3	50 g/L
IC CAL cl/so4_00411	03/23/22	03/16/22	Di Water, Lot na	100 mL	IC CL cal_00071	25 mL	Chloride	250 mg/L
					IC SO4 Cal_00003	25 mL	Sulfate	250 mg/L
.IC CL cal_00071	11/30/22	SPEX CertiPrep, Lot 5-67CL-2x			(Purchased Reagent)		Chloride	1000 mg/L
.IC SO4 Cal_00003	11/30/22	SPEX CertiPrep, Lot 5-118SO49-2X			(Purchased Reagent)		Sulfate	1000 mg/L
IC Cal low_00627	03/23/22	03/16/22	Di Water, Lot NA	100 mL	IC BR ICV_00021	5 mL	Bromide	50 mg/L
					IC FL cal_00019	5 mL	Fluoride	50 mg/L
.IC BR ICV_00021	04/30/22	ricca, Lot 4010N41			(Purchased Reagent)		Bromide	1000 mg/L
.IC FL cal_00019	01/31/23	Ricca, Lot 4108A94			(Purchased Reagent)		Fluoride	1000 mg/L
IC LCS_01863	03/23/22	03/16/22	Di Water, Lot 27	200 mL	IC SO4 Cal_00003	20 mL	Sulfate	100 mg/L as N
.IC SO4 Cal_00003	11/30/22	SPEX CertiPrep, Lot 5-118SO49-2X			(Purchased Reagent)		Sulfate	1000 mg/L
IC SO4 ICV_00022	07/06/22	ERA, Lot 060720m			(Purchased Reagent)		Sulfate	1000 mg/L
ICMS/MSD WEEK_00748	03/23/22	03/16/22	Di Water, Lot NA	10 mL	IC SPK 6 ANIO_00025	5 mL	Sulfate	5000.51 mg/L
.IC SPK 6 ANIO_00025	10/12/22	10/12/21	Di Water, Lot NA	1000 mL	IC MS/MSD S04_00006	18.1408 g	Sulfate	10001 mg/L
..IC MS/MSD S04_00006	09/29/23	FISHER, Lot 147276			(Purchased Reagent)		Sulfate	0.5513 g/g
NXN CAL INT_00614	03/20/22	03/13/22	Di Water, Lot NA	100 mL	NOXT Cal STD_00025	10 mL	Nitrate Nitrite as N	100 mg/L
.NOXT Cal STD_00025	10/31/22	RICCA, Lot 2104e50			(Purchased Reagent)		Nitrate Nitrite as N	1000 mg/L
NXN ICV INT_00590	03/20/22	03/13/22	Di Water, Lot NA	100 mL	NOXT ICV STD_00028	10 mL	Nitrate Nitrite as N	100 mg/L
.NOXT ICV STD_00028	01/20/23	ERA, Lot 420121m			(Purchased Reagent)		Nitrate Nitrite as N	1000 mg/L

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
RSK175methane_00010	04/16/22	Supelco Analytical, Lot 160-401480003-1			(Purchased Reagent)		Methane	650500 ug/L
RSK7gasMathes_00031	03/09/22	Matheson, Lot DL0396162			(Purchased Reagent)		Acetylene	10667 ug/L
							Ethane	12317 ug/L
							Ethylene	11490 ug/L
							Methane	6570.3 ug/L
RSK7gasMathes_00034	03/22/23	Matheson, Lot 9301615705			(Purchased Reagent)		Methane	6570.3 ug/L
SFD ICV INT_02092	05/08/22	02/08/22	Di Water, Lot N/A	500 mL	50% NaOH_00022	2 mL	Sodium Hydroxide	2000 mg/L
					SFD ICV STK_00008	3.9477 g	Sulfide	1054.04 mg/L
.50% NaOH_00022	06/30/23	RICCA, Lot 1006F87			(Purchased Reagent)		Sodium Hydroxide	50 %
.SFD ICV STK_00008	04/03/24	Acros, Lot A0412804			(Purchased Reagent)		Sulfide	0.1335 g/g
TKN 25ppm_00829	03/24/22	02/21/22	Di Water, Lot 1	100 mL	TKN 100PPM_00142	25 mL	Nitrogen, Total Kjeldahl	25 mg/L
.TKN 100PPM_00142	03/24/22	02/21/22	Di Water, Lot 1	500 mL	TKN CAL STD_00019	50 mL	Nitrogen, Total Kjeldahl	100 mg/L
..TKN CAL STD_00019	08/31/24	nsi lab solutions, Lot 200817			(Purchased Reagent)		Nitrogen, Total Kjeldahl	1000 mg/L
TKN ICV 25_00115	03/24/22	02/21/22	DI water, Lot 1	100 mL	TKN ICV 100_00104	25 mL	Nitrogen, Total Kjeldahl	25 mg/L
.TKN ICV 100_00104	03/24/22	02/21/22	Di Water, Lot 1	500 mL	TKN ICV_00013	50 mL	Nitrogen, Total Kjeldahl	100 mg/L
..TKN ICV_00013	07/02/22	ERA, Lot 200220m			(Purchased Reagent)		Nitrogen, Total Kjeldahl	1000 mg/L
TOC ICV Std_00049	01/31/23	Ricca, Lot 1201B45			(Purchased Reagent)		Dissolved Organic Carbon - Quad	1000 ppm
							DOC Result 1	1000 ppm
							DOC Result 2	1000 ppm
							DOC Result 3	1000 ppm
							DOC Result 4	1000 ppm
TOC LCS Std_00053	12/31/23	Agilent, Lot 0006645841			(Purchased Reagent)		Dissolved Organic Carbon - Quad	1001 ppm
							DOC Result 1	1001 ppm
							DOC Result 2	1001 ppm
							DOC Result 3	1001 ppm
							DOC Result 4	1001 ppm

Reagent

50% NaOH_00022

RICCA CHEMICAL COMPANY®

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Arlington, TX 76012
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customerservice@riccachemical.com

Certificate of Analysis

Sodium Hydroxide, 50% (w/w) (760 g/L), Analytical Reagent Grade

Lot Number: 1006F87 **Product Number:** 7291

Manufacture Date: JUN 23, 2020
Expiration Date: JUN 2023

The specifications below are equivalent to the ACS Reagent Grade specifications for Sodium Hydroxide pellets, corrected for assay.
There is no ACS specification for 50% (w/w) Sodium Hydroxide solution.

Name	CAS#	Grade
Water	7732-18-5	Reagent
Sodium Hydroxide	1310-73-2	Reagent

Test	Specification	Result	NIST SRM#
Appearance	Colorless liquid	Passed	
Assay (vs. Sulfuric Acid/Phenolphthalein)	50-52 % (w/w)	50 % (w/w)	723
Chloride (Cl)	max 0.002 %	< 0.002 %	
Heavy Metals (as Ag)	max 0.001 %	< 0.001 %	
Iron (Fe)	max 5 ppm	0.2 ppm	3126
NH_4OH Precipitate	max 0.01 %	0.004 %	
Nickel (Ni)	max 5 ppm	0.04 ppm	3136
Nitrogen Compounds (as N)	max 5 ppm	< 5 ppm	
Phosphate (PO_4)	max 5 ppm	< 5 ppm	
Potassium (K)	max 0.01 %	0.001 %	3141
Sodium Carbonate (Na_2CO_3)	max 0.1 %	0.02 %	
Sulfate (SO_4)	max 0.001 %	< 0.001 %	

Specification	Reference
Sodium Hydroxide Solution, 50%	ASTM (D 2187 E)
Sodium Hydroxide Solution, 50%	ASTM (D 2187 F)
Sodium hydroxide stock solution, about 50%	TAPPI (T 235 cm-85)
Sodium Hydroxide Solution	ASTM (D 2187 G)
Sodium Hydroxide Solution, 50%	ASTM (D 4548)
Sodium Hydroxide Solution (50% w/w)	ASTM (D 2036 A)
Sodium Hydroxide Solution (50% w/w)	ASTM (D 2036 B)
Sodium Hydroxide Solution (50% w/w)	ASTM (D 2036 C)
Sodium Hydroxide Solution (50% w/w)	ASTM (D 2036 D)

Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
7291-16	500 mL natural poly	36 months
7291-5HP	20 L Ropak™	36 months

Recommended Storage: 15°C - 30°C (59°F - 86°F)



Israel Alamudun (06/23/2020)
Quality Control Supervisor
This Certificate of Analysis is designed to comply with ISO Guide 31 "Reference Materials -- Contents of Certificates and Labels."

This test report shall not be reproduced, except in full, without the written approval of Ricca Chemical Company.

Reagent

8330 LCS_00111

Preliminary Report

Eurofins TestAmerica, Denver

LCS, Lab Control Sample Report

Sample Path: \\chromfs\Denver\ChromData\CHHPLC_X\20211112-106450.b\LCS111.D

Lims ID: LCS111 Inj. Date: 12-Nov-2021 17:18:59

Worklist ID: 280-0106450-021 Instrument: CHHPLC_X3

Method: 8330_X3

Compound	Amount Added	Amount Recovered	%Rec	Limits 1 3535
4 HMX	0.5000	0.4991	99.8	65-135
8 RDX	0.5000	0.4595	91.9	68-130
9 2,4,6-Trinitrophenol	0.5000	0.4794	95.9	73-124
11 1,3,5-Trinitrobenzene	0.5000	0.4892	97.8	73-125
12 1,3-Dinitrobenzene	0.5000	0.4864	97.3	78-120
13 Nitrobenzene	0.5000	0.4870	97.4	65-134
15 Tetryl	0.5000	0.4805	96.1	64-128
16 Nitroglycerin	5.00	4.94	98.9	74-127
17 2,4,6-Trinitrotoluene	0.5000	0.4933	98.7	71-123
18 4AMD	0.5000	0.4752	95.0	76-125
19 2-Amino-4,6-dinitrotolu	0.5000	0.4783	95.7	79-120
20 2,6-Dinitrotoluene	0.5000	0.4939	98.8	77-127
21 2,4-Dinitrotoluene	0.5000	0.4820	96.4	78-120
22 o-Nitrotoluene	0.5000	0.4819	96.4	70-127
23 p-Nitrotoluene	0.5000	0.4905	98.1	71-127
24 m-Nitrotoluene	0.5000	0.4585	91.7	73-125
25 PETN	5.00	4.87	97.5	73-127

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

280-155295-A-3-A 280-155295-B-7-A

Reagent

8330 LCS_00113

Preliminary Report

Eurofins Denver

LCS, Lab Control Sample Report

Sample Path: \\chromfs\Denver\ChromData\CHHPLC_X\20220301-108907.b\071-0601.D

Lims ID: 8330LCS113 Inj. Date: 01-Mar-2022 16:06:37

Worklist ID: 280-0108907-067 Instrument: CHHPLC_X3

Method: 8330_X3

Compound	Amount Added	Amount Recovered	%Rec	Limits 1 3535	Limits 2 3535	Limits 3 3535
4 HMX	0.5000	0.4640	92.8	65-135	66-115	
8 RDX	0.5000	0.4736	94.7	68-130	69-122	
9 2,4,6-Trinitrophenol	0.5000	0.5129	102.6	73-124	80-120	63-135
11 1,3,5-Trinitrobenzene	0.5000	0.5000	100.0	73-125	62-127	
12 1,3-Dinitrobenzene	0.5000	0.5038	100.8	78-120	59-131	
13 Nitrobenzene	0.5000	0.5047	100.9	65-134	46-144	
15 Tetryl	0.5000	0.4990	99.8	64-128	56-131	
16 Nitroglycerin	5.00	5.05	101.0	74-127	70-125	
17 2,4,6-Trinitrotoluene	0.5000	0.4952	99.0	71-123	46-139	
18 4AMD	0.5000	0.4892	97.8	76-125	43-120	
19 2-Amino-4,6-dinitrotolu	0.5000	0.4885	97.7	79-120	46-124	
20 2,6-Dinitrotoluene	0.5000	0.5015	100.3	77-127	51-130	
21 2,4-Dinitrotoluene	0.5000	0.4744	94.9	78-120	53-127	
22 o-Nitrotoluene	0.5000	0.4879	97.6	70-127	37-138	
23 p-Nitrotoluene	0.5000	0.5210	104.2	71-127	41-137	
24 m-Nitrotoluene	0.5000	0.4604	92.1	73-125	31-140	
25 PETN	5.00	5.23	104.6	73-127	67-127	

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

280-159056-B-1-B	280-159056-B-2-B	280-159056-B-3-B
280-159056-B-4-B	280-159130-B-1-A	280-159130-A-2-A
280-159130-B-3-A	280-159130-B-4-A	280-159130-A-5-A
280-159130-A-6-A	280-159137-A-1-A	280-159137-B-2-A
280-159137-A-3-A	280-159137-A-4-A	280-159137-A-5-A

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

280-159005-C-1-B	280-159005-C-2-B	280-159005-C-3-B
280-159005-D-4-D	280-159005-D-5-B	280-159043-C-1-B
280-159043-D-2-B	280-159043-D-3-B	280-159043-D-4-B
280-159043-D-5-B	280-159088-D-1-C	280-159088-C-2-C
280-159088-D-3-C	280-159088-D-4-C	

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

860-21351-C-1-C	280-159025-A-1-C	280-159025-A-2-C

Reagent

8330 LCSMix2_00112

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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. : 31451 **Lot No.:** A0171368

Description : 8330 Calibration Mix #2

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

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

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

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Tetryl **CAS #** 479-45-8 **Purity** 99%	(Lot 091120JLM)	1,008.0 µg/mL	+/- 5.9872 µg/mL +/- 55.2213 µg/mL +/- 64.3934 µg/mL	Gravimetric Unstressed Stressed
2	4-Amino-2,6-dinitrotoluene **CAS #** 19406-51-0 **Purity** 99%	(Lot ER070908-01)	1,002.0 µg/mL	+/- 5.9516 µg/mL +/- 54.8926 µg/mL +/- 64.0101 µg/mL	Gravimetric Unstressed Stressed
3	2-Amino-4,6-dinitrotoluene **CAS #** 35572-78-2 **Purity** 99%	(Lot 29550-55)	1,006.0 µg/mL	+/- 5.9753 µg/mL +/- 55.1117 µg/mL +/- 64.2657 µg/mL	Gravimetric Unstressed Stressed
4	2,6-Dinitrotoluene **CAS #** 606-20-2 **Purity** 99%	(Lot 1437483V)	1,008.0 µg/mL	+/- 5.9872 µg/mL +/- 55.2213 µg/mL +/- 64.3934 µg/mL	Gravimetric Unstressed Stressed
5	2-Nitrotoluene **CAS #** 88-72-2 **Purity** 99%	(Lot BCBZ7826)	1,010.0 µg/mL	+/- 5.9991 µg/mL +/- 55.3308 µg/mL +/- 64.5212 µg/mL	Gravimetric Unstressed Stressed
6	4-Nitrotoluene **CAS #** 99-99-0 **Purity** 99%	(Lot FAU01)	1,010.0 µg/mL	+/- 5.9991 µg/mL +/- 55.3308 µg/mL +/- 64.5212 µg/mL	Gravimetric Unstressed Stressed
7	3-Nitrotoluene **CAS #** 99-08-1 **Purity** 99%	(Lot 07329LG)	1,000.0 µg/mL	+/- 5.9397 µg/mL +/- 54.7830 µg/mL +/- 63.8824 µg/mL	Gravimetric Unstressed Stressed

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

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

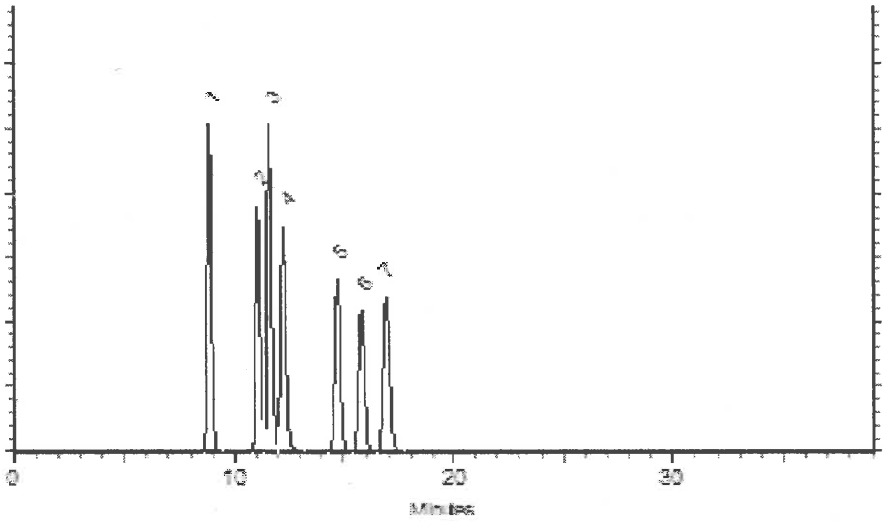
Flow Rate:
1.0 ml/min.

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

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm



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

Cory Meyer - Operations Tech I

Alexis Shelow - Operations Tech I

Date Mixed: 15-Apr-2021 **Balance:** 1128342314

Date Passed: 20-Apr-2021

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

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

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

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

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

Manufacturing Notes:

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

Handling Notes:

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

Reagent

8330 Stock_TS_00019

Agilent

Certificate of Analysis
ISO Guide 34

Stock Standard

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

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

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

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

Matrix: acetonitrile

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

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

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

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

ANAB ACCREDITED TESTING LABORATORY
ISO17025 Cert No. AT-1937

Certificate of Analysis
ISO Guide 34

Stock Standard

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

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

Analyte	CAS#	Analyte Lot	True Value

Monica Bourgeois
QMS Representative

ISO Guide 34 Cert No.
AR-1936

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

ISO17025 Cert No.
AT-1937

Reagent

8330_NG_Stk_00096

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Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 568871 **Lot No.:** A0161840

Description : Custom Nitroglycerin Standard

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

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

Expiration Date : June 30, 2023 **Storage:** 10°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Nitroglycerin	5,032.0 µg/mL	+/- 46.7949	µg/mL	Gravimetric
	CAS # 55-63-0 (Lot 200507JLM)		+/- 278.0096	µg/mL	Unstressed
	Purity 99%		+/- 323.4663	µg/mL	Stressed

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

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

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

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

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

Manufacturing Notes:

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

Handling Notes:

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

Reagent

8330_NG_Stk_00098

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Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 568871 **Lot No.:** A0161840

Description : Custom Nitroglycerin Standard

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

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

Expiration Date : June 30, 2023 **Storage:** 10°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Nitroglycerin	5,032.0 µg/mL	+/- 46.7949	µg/mL	Gravimetric
	CAS # 55-63-0 (Lot 200507JLM)		+/- 278.0096	µg/mL	Unstressed
	Purity 99%		+/- 323.4663	µg/mL	Stressed

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

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

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

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

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

Manufacturing Notes:

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

Handling Notes:

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

Reagent

8330_NG1000_00006

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Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 31498 **Lot No.:** A0175997

Description : Nitroglycerin Standard

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

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

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

Ship: Ambient

CERTIFIED VALUES

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

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

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

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

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

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

Manufacturing Notes:

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

Handling Notes:

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

Reagent

8330_OP_DMT_00012

Preliminary Report

Eurofins TestAmerica, Denver

LCS, Lab Control Sample Report

Sample Path: \\chromfs\Denver\ChromData\CHHPLC_X\20210923-104924.b\09230005.D

Lims ID: DMT LCS 12 Inj. Date: 23-Sep-2021 17:32:02

Worklist ID: 280-0104924-005 Instrument: CHHPLC_X3

Method: 8330_X3

Compound	Amount Added	Amount Recovered	%Rec	Limits 1 0B_Sonc_
2 TNX	0.5005	0.5409	108.1	50-150
5 DNX	0.5005	0.5315	106.2	50-150
6 MNX	0.5835	0.6076	104.1	50-150

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

410-54924-B-2-B 410-54924-B-4-B 410-54924-B-6-D

410-54924-B-8-D 410-54873-B-2-F 410-54873-B-4-B

410-54873-B-6-B

Reagent

8330_OP_DMT_00013

Preliminary Report

Eurofins Denver

LCS, Lab Control Sample Report

Sample Path: \\chromfs\Denver\ChromData\CHHPLC_X\20220216-108600.b\02160011.D

Lims ID: 8330_OP_DMT13 Inj. Date: 16-Feb-2022 15:39:01

Worklist ID: 280-0108600-011 Instrument: CHHPLC_X3

Method: 8330_X3

Compound	Amount Added	Amount Recovered	%Rec	Limits 1 3535	Limits 2 3535	Limits 3 3535
3 TNX	0.5005	0.5150	102.9	50-150		
6 DNX	0.5005	0.5095	101.8	50-150	66-119	
7 MNX	0.5835	0.6021	103.2	68-123	57-132	

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

280-158694-A-1-A 280-158695-B-1-A

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

280-158618-A-1-A 280-158618-A-2-A 280-158653-A-1-A
280-158653-B-2-A 280-158653-A-3-A 280-158653-A-4-A
280-158653-B-5-A 280-158653-A-6-A 280-158593-B-1-A
280-158593-B-2-A 280-158593-A-3-A 280-158593-B-4-A
280-158593-B-5-A 280-158593-B-6-A 280-158593-A-7-A

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

860-20476-C-1-A

Reagent

8330_PETN_Stk_00111

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Certificate #3222.01

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Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 568872 **Lot No.:** A0172687

Description : Custom PETN Standard

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

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

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

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	PETN	5,032.0 µg/mL	+/- 46.7949	µg/mL	Gravimetric
	CAS # 78-11-5 (Lot 051108JLM)		+/- 278.0096	µg/mL	Unstressed
	Purity 99%		+/- 323.4663	µg/mL	Stressed

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

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

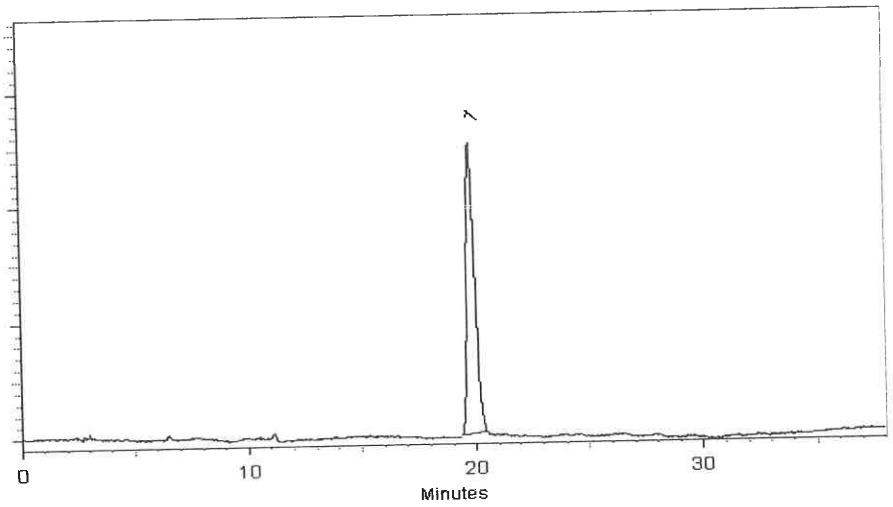
Flow Rate:
1.0 ml/min.

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

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm



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

Katelyn McGinni - Operations Tech I

Date Mixed: 24-May-2021 **Balance:** 1128353505

Marlina Cowan - Operations Tech I

Date Passed: 27-May-2021

REVIEWED
By Jennifer Polimo at 2:38 pm, May 27, 2021

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

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

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

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

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

Manufacturing Notes:

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

Handling Notes:

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

Reagent

8330_PETN_Stk_00113

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

Catalog No. : 568872 **Lot No.:** A0172687

Description : Custom PETN Standard

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

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

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

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	PETN	5,032.0 µg/mL	+/- 46.7949	µg/mL	Gravimetric
	CAS # 78-11-5 (Lot 051108JLM)		+/- 278.0096	µg/mL	Unstressed
	Purity 99%		+/- 323.4663	µg/mL	Stressed

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

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

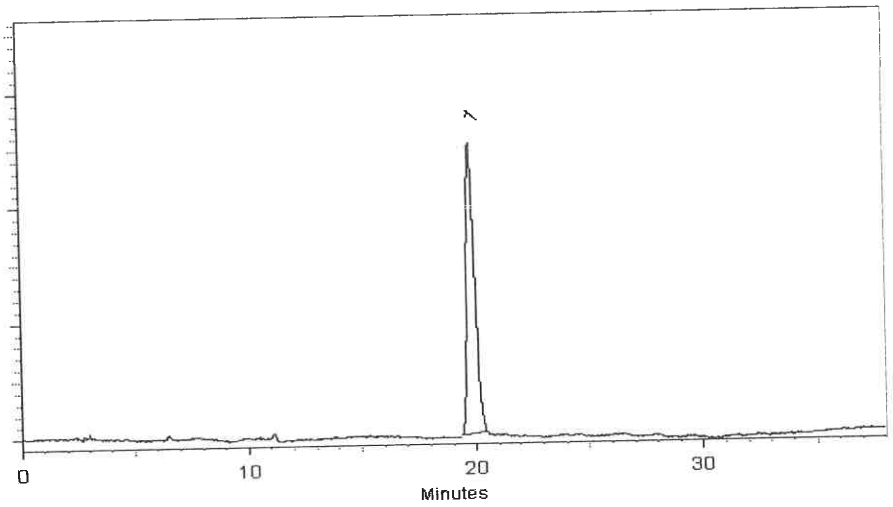
Flow Rate:
1.0 ml/min.

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

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm



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

Katelyn McGinni - Operations Tech I

Date Mixed: 24-May-2021 **Balance:** 1128353505

Marlina Cowan - Operations Tech I

Date Passed: 27-May-2021

REVIEWED
By Jennifer Polimo at 2:38 pm, May 27, 2021

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

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

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

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

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

Manufacturing Notes:

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

Handling Notes:

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

Reagent

8330_PETN1000_00006

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Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 31600 **Lot No.:** A0175907

Description : PETN Standard

PETN Standard 1000µg/mL, Methanol, 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		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	PETN		1,006.8 µg/mL	+/- 10.1422	µg/mL	Gravimetric
	CAS # 78-11-5	(Lot 051108JLM)		+/- 55.7605	µg/mL	Unstressed
	Purity 99%			+/- 64.8363	µg/mL	Stressed

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

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

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

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

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

Manufacturing Notes:

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

Handling Notes:

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

Reagent

8330LCSMix1_00126

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Certificate #3222.01

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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. : 31450 **Lot No.:** A0171502

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, 2026 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	HMX **CAS #** 2691-41-0 **Purity** 99%	(Lot 210324JLM)	1,002.0 µg/mL	+/- 5.9516 µg/mL +/- 54.8926 µg/mL +/- 64.0101 µg/mL		Gravimetric Unstressed Stressed
2	RDX **CAS #** 121-82-4 **Purity** 99%	(Lot 080220JLM)	1,003.0 µg/mL	+/- 5.9575 µg/mL +/- 54.9474 µg/mL +/- 64.0740 µg/mL		Gravimetric Unstressed Stressed
3	1,3,5-Trinitrobenzene **CAS #** 99-35-4 **Purity** 99%	(Lot A6TDK)	1,004.0 µg/mL	+/- 5.9635 µg/mL +/- 55.0021 µg/mL +/- 64.1379 µg/mL		Gravimetric Unstressed Stressed
4	1,3-Dinitrobenzene **CAS #** 99-65-0 **Purity** 99%	(Lot 1-DXX-24-1)	1,000.0 µg/mL	+/- 5.9397 µg/mL +/- 54.7830 µg/mL +/- 63.8824 µg/mL		Gravimetric Unstressed Stressed
5	Nitrobenzene **CAS #** 98-95-3 **Purity** 99%	(Lot MKCK4267)	1,010.0 µg/mL	+/- 5.9991 µg/mL +/- 55.3308 µg/mL +/- 64.5212 µg/mL		Gravimetric Unstressed Stressed
6	2,4,6-Trinitrotoluene **CAS #** 118-96-7 **Purity** 99%	(Lot D10587700)	1,000.0 µg/mL	+/- 5.9397 µg/mL +/- 54.7830 µg/mL +/- 63.8824 µg/mL		Gravimetric Unstressed Stressed
7	2,4-Dinitrotoluene **CAS #** 121-14-2 **Purity** 99%	(Lot MKAA0690)	1,004.0 µg/mL	+/- 5.9635 µg/mL +/- 55.0021 µg/mL +/- 64.1379 µg/mL		Gravimetric Unstressed Stressed

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

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

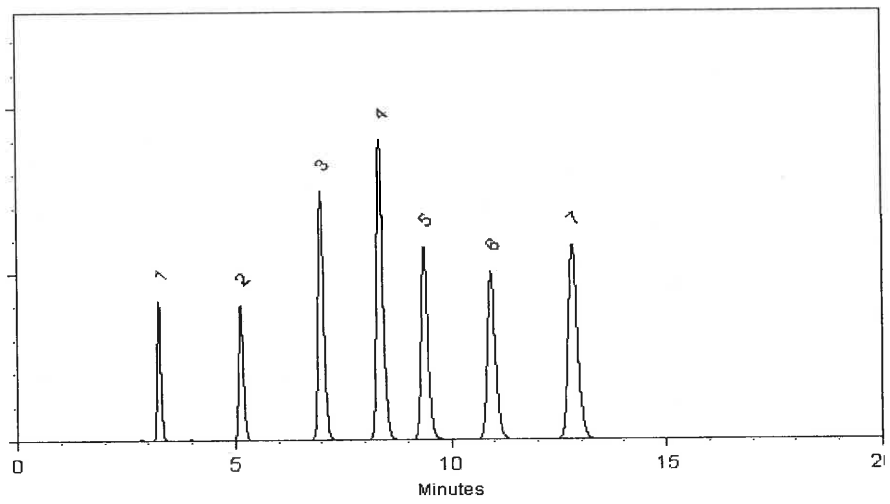
Flow Rate:
1.0 ml/min.

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

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm



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

Lane Kibe - Mix Technician

Date Mixed: 20-Apr-2021 **Balance:** 1127510105

Alexis Shelow - Operations Tech I

Date Passed: 23-Apr-2021

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

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
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- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

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

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Reagent

8330LCSMix1_00129

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Catalog No. : 31450 **Lot No.:** A0171502

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, 2026 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	HMX **CAS #** 2691-41-0 **Purity** 99%	(Lot 210324JLM)	1,002.0 µg/mL	+/- 5.9516 +/- 54.8926 +/- 64.0101	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
2	RDX **CAS #** 121-82-4 **Purity** 99%	(Lot 080220JLM)	1,003.0 µg/mL	+/- 5.9575 +/- 54.9474 +/- 64.0740	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
3	1,3,5-Trinitrobenzene **CAS #** 99-35-4 **Purity** 99%	(Lot A6TDK)	1,004.0 µg/mL	+/- 5.9635 +/- 55.0021 +/- 64.1379	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
4	1,3-Dinitrobenzene **CAS #** 99-65-0 **Purity** 99%	(Lot 1-DXX-24-1)	1,000.0 µg/mL	+/- 5.9397 +/- 54.7830 +/- 63.8824	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
5	Nitrobenzene **CAS #** 98-95-3 **Purity** 99%	(Lot MKCK4267)	1,010.0 µg/mL	+/- 5.9991 +/- 55.3308 +/- 64.5212	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
6	2,4,6-Trinitrotoluene **CAS #** 118-96-7 **Purity** 99%	(Lot D10587700)	1,000.0 µg/mL	+/- 5.9397 +/- 54.7830 +/- 63.8824	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
7	2,4-Dinitrotoluene **CAS #** 121-14-2 **Purity** 99%	(Lot MKAA0690)	1,004.0 µg/mL	+/- 5.9635 +/- 55.0021 +/- 64.1379	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

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

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

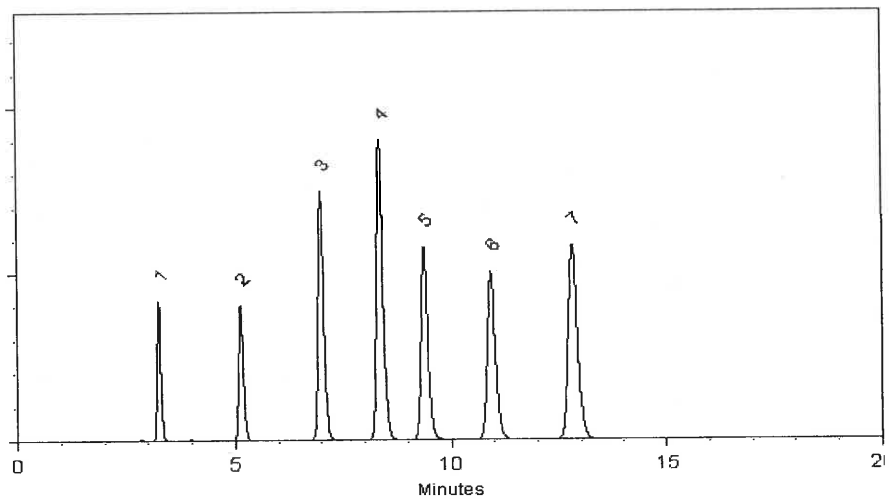
Flow Rate:
1.0 ml/min.

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

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm



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

Lane Kibe - Mix Technician

Date Mixed: 20-Apr-2021 **Balance:** 1127510105

Alexis Shelow - Operations Tech I

Date Passed: 23-Apr-2021

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

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

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

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

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

Manufacturing Notes:

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

Handling Notes:

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

Reagent

8330LCSmix2_00028

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ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 31451 **Lot No.:** A0171368

Description : 8330 Calibration Mix #2

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

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

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

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Tetryl **CAS #** 479-45-8 **Purity** 99%	(Lot 091120JLM)	1,008.0 µg/mL	+/- 5.9872 µg/mL +/- 55.2213 µg/mL +/- 64.3934 µg/mL	Gravimetric Unstressed Stressed
2	4-Amino-2,6-dinitrotoluene **CAS #** 19406-51-0 **Purity** 99%	(Lot ER070908-01)	1,002.0 µg/mL	+/- 5.9516 µg/mL +/- 54.8926 µg/mL +/- 64.0101 µg/mL	Gravimetric Unstressed Stressed
3	2-Amino-4,6-dinitrotoluene **CAS #** 35572-78-2 **Purity** 99%	(Lot 29550-55)	1,006.0 µg/mL	+/- 5.9753 µg/mL +/- 55.1117 µg/mL +/- 64.2657 µg/mL	Gravimetric Unstressed Stressed
4	2,6-Dinitrotoluene **CAS #** 606-20-2 **Purity** 99%	(Lot 1437483V)	1,008.0 µg/mL	+/- 5.9872 µg/mL +/- 55.2213 µg/mL +/- 64.3934 µg/mL	Gravimetric Unstressed Stressed
5	2-Nitrotoluene **CAS #** 88-72-2 **Purity** 99%	(Lot BCBZ7826)	1,010.0 µg/mL	+/- 5.9991 µg/mL +/- 55.3308 µg/mL +/- 64.5212 µg/mL	Gravimetric Unstressed Stressed
6	4-Nitrotoluene **CAS #** 99-99-0 **Purity** 99%	(Lot FAU01)	1,010.0 µg/mL	+/- 5.9991 µg/mL +/- 55.3308 µg/mL +/- 64.5212 µg/mL	Gravimetric Unstressed Stressed
7	3-Nitrotoluene **CAS #** 99-08-1 **Purity** 99%	(Lot 07329LG)	1,000.0 µg/mL	+/- 5.9397 µg/mL +/- 54.7830 µg/mL +/- 63.8824 µg/mL	Gravimetric Unstressed Stressed

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

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

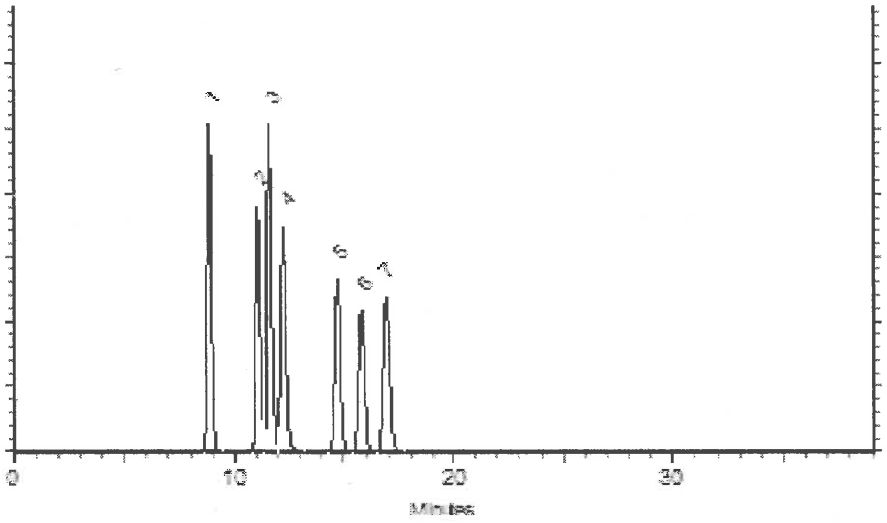
Flow Rate:
1.0 ml/min.

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

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm



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

Cory Meyer - Operations Tech I

Date Mixed: 15-Apr-2021 **Balance:** 1128342314

Alexis Shelow - Operations Tech I

Date Passed: 20-Apr-2021

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

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

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
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25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

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

Manufacturing Notes:

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

Handling Notes:

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

Reagent

8330PAStkPS_00067

125 Market Street
New Haven, CT 06513
USA

AccuStandard®

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

CERTIFICATE OF ANALYSIS

Catalog No: M-8330-ADD-3
Description: Picric acid
Lot: 218031154-02
Solvent: Acetonitrile (50%)
Methanol (50%)
Hazards: *Refer to SDS for complete safety information*



Signal Word: Danger

Date Certified: Jun 8, 2020
Expiration: Jul 8, 2022
Sample Size: 1 mL
Components: 1
Storage Condition: Ambient (>5 °C)

Certified Reference Material

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

Component	CAS #	Purity % (HPLC)	Prepared Concentration[2] (µg/mL)	Certified Analyte Concentration[1] (µg/mL)
Picric acid	88-89-1	99.1	100.1	99.2

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

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

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

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

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

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

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

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

Certified By: Larry Decker, Organic QC Manager

For use in routine laboratory analysis.

AccuStandard is accredited to ISO 17034, ISO/IEC 17025 and certified to ISO 9001:2015

QR-ORG/INO-001
Rev. 7/20

Reagent

8330Surrogate_00127

Preliminary Report

Eurofins TestAmerica, Denver

LCS, Lab Control Sample Report

Sample Path: \\chromfs\Denver\ChromData\CHHPLC_X\20211116-106552.b\071-0801.D

Lims ID: Surr127 Inj. Date: 16-Nov-2021 17:37:51

Worklist ID: 280-0106552-072 Instrument: CHHPLC_X3

Method: 8330_X3

Compound	Amount Added	Amount Recovered	%Rec	Limits 1 3535
$ 10 1,2-Dinitrobenzene	0.5000	0.5055	101.1	83-119

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

280-155547-B-1-A

Reagent

8330SurrStkSS_00203

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Certificate of Analysis

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Reference Material Producer
Certificate #3222.01

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Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 31453 **Lot No.:** A0172684

Description : 8330 Surrogate Mix

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

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

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

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	1,2-Dinitrobenzene	1,002.0 µg/mL	+/- 5.9516 µg/mL	Gravimetric
	CAS # 528-29-0 (Lot MKCH6067)		+/- 56.1943 µg/mL	Unstressed
	Purity 99%		+/- 57.5086 µg/mL	Stressed

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

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

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

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

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

Manufacturing Notes:

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

Handling Notes:

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

Reagent

8330SurrStkSS_00204

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CERTIFIED REFERENCE MATERIAL

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Certificate #3222.01

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ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

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.:** A0172684

Description : 8330 Surrogate Mix

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

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

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

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	1,2-Dinitrobenzene	1,002.0 µg/mL	+/- 5.9516	µg/mL	Gravimetric
	CAS # 528-29-0 (Lot MKCH6067)		+/- 56.1943	µg/mL	Unstressed
	Purity 99%		+/- 57.5086	µg/mL	Stressed

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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Manufacturing Notes:

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Handling Notes:

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Reagent

8330SurrStkSS_00207

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CERTIFIED REFERENCE MATERIAL

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Certificate #3222.01

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ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

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.:** A0172684

Description : 8330 Surrogate Mix

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

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

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

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	1,2-Dinitrobenzene	1,002.0 µg/mL	+/- 5.9516 µg/mL	Gravimetric
	CAS # 528-29-0 (Lot MKCH6067)		+/- 56.1943 µg/mL	Unstressed
	Purity 99%		+/- 57.5086 µg/mL	Stressed

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

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
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0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

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Reagent

8330SurrStkSS_00211

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Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 31453 **Lot No.:** A0172684

Description : 8330 Surrogate Mix

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

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

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

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	1,2-Dinitrobenzene	1,002.0 µg/mL	+/- 5.9516 µg/mL	Gravimetric
	CAS # 528-29-0 (Lot MKCH6067)		+/- 56.1943 µg/mL	Unstressed
	Purity 99%		+/- 57.5086 µg/mL	Stressed

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

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

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

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

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

Manufacturing Notes:

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

Handling Notes:

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

Reagent

8330SurrStkSS_00212

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ilac-MRA

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ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 31453 **Lot No.:** A0172684

Description : 8330 Surrogate Mix

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

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

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

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	1,2-Dinitrobenzene	1,002.0 µg/mL	+/- 5.9516 µg/mL	Gravimetric
	CAS # 528-29-0 (Lot MKCH6067)		+/- 56.1943 µg/mL	Unstressed
	Purity 99%		+/- 57.5086 µg/mL	Stressed

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

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

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

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

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

Manufacturing Notes:

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

Handling Notes:

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

Reagent

8330SurrStock_00169

125 Market Street
New Haven, CT 06513
USA

AccuStandard®

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

CERTIFICATE OF ANALYSIS

Catalog No: M-8330-SS
Description: 1,2-Dinitrobenzene
Lot: 219051500
Solvent: Methanol
Hazards: *Refer to SDS for complete safety information*



Signal Word: Danger

Date Certified: May 22, 2019
Expiration: May 22, 2029
Sample Size: 1 mL
Components: 1
Storage Condition: Ambient (>5 °C)

Certified Reference Material

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

Component	CAS #	Purity % (GC/FID)	Prepared Concentration[2] (µg/mL)	Certified Analyte Concentration[1] (µg/mL)
1,2-Dinitrobenzene	528-29-0	100.0	1002	1002

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

[2] All weights are traceable through NIST, Test No. 684/289871-17

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

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

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

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

Certified By: Larry Decker, Organic QC Manager

For use in routine laboratory analysis.

AccuStandard is accredited to ISO 17034, ISO/IEC 17025 and certified to ISO 9001:2015

QR-ORG/INO-001
Rev. 5/18

Reagent

Alk stk std_00022

spex certiprep

ACCREDITED
Reference Materials Producer
Cert# 2495.01

SPEXertificate®
Certificate of Reference Material

ilac-MRA ACCREDITED
Chemical Testing
Cert# 2495.02

Catalog Number: VTACO-3 **Lot No.:** 2-85BT

Description: Custom Standard

Matrix: H_2O

This Certified Reference Material, CRM, is intended primarily for use as a calibration standard or quality control standard for conductance meters and conductivity cells used in water purity measurements. It can be employed in USEPA, ASTM and other methods relevant to the certified properties listed below.

The CRM is prepared gravimetrically using high purity sodium carbonate (Na_2CO_3) Lot# H04155 and ASTM Type I water, using Class A laboratory ware to give precise concentration.

Certified Value:

Analyte:	Na_2CO_3
Alkalinity:	50,000 µg/mL as $CaCO_3$
Uncertainty:	±500 µg/mL
Traceable to:	Standard made from NIST SRM # 351a

Balances are calibrated regularly with weight sets traceable to NIST#s 32856, 32867. This CRM is guaranteed stable to ±1% of the certified concentration inclusive of uncertainty of measurements and other components such as homogeneity, long and short-term stability for a period of one year from the date of certification. This guarantee is valid only when the material is kept tightly capped and stored under ambient laboratory conditions.

Date of Certification: OCT - - 2021

Certifying Officer: Katherine Cullinan

Katherine Cullinan, QC Manager

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Report of Certification

This Certified Reference Material (CRM) has been prepared and certified under an ISO 9001 (certified by DQS), ISO/IEC 17025 (accredited by A2LA) and ISO 17034 (accredited by A2LA) quality system consistent with the following guides:

- ISO 9001: Quality management systems – Requirements
- ISO/IEC 17025: General requirements for the competence of testing and calibration laboratories
- ISO 17034: General requirements for the competence of reference material producers
- ISO Guide 30: Reference Materials – Selected terms and definitions
- ISO Guide 31: Reference Materials – Contents of certificates, labels, and accompanying documentation
- ISO Guide 35: Reference Materials – Guidance for characterization and assessment of homogeneity and stability
- Guide to the Expression of Uncertainty in Measurement, 2008
- EURACHEM/CITAC Guide: Qualifying Uncertainty in Analytical Measurement – Third Edition
- NIST Technical Note 1297

Material Source:
All analytes and matrix materials are obtained and verified by Spex CertiPrep from pre-qualified vendors as per ISO 9001, ISO/IEC 17025 and ISO 17034 guidelines. Vendor identifications are proprietary; however, sources of all materials used in the preparation and testing of Spex CertiPrep CRMs are tracked and documented. For further assistance, please contact Sales Support at CRMSales@spex.com.

Instructions for Use:
Primary usage of this CRM is in neat form or diluted serially with matrix of a purity at or greater than the purity of the original matrix solution. If dilution is required, the diluent must be compatible with all certified analytes and contain stabilizers appropriate for the period of intended use. The CRM can also be used as a spike or with a spike, again with appropriate compatibility considerations. All solutions should be thoroughly mixed, by shaking, prior to use and never pipetted directly from the bottle. Do not return excess solution to the bottle. All surfaces that come in contact with the solution must be thoroughly cleaned and leached prior to use. Dilutions should be performed only with Class A volumetric glassware. See SDS for health and safety information.

Method of Preparation:
Clean laboratory procedures and techniques have been used throughout the preparation. All materials, equipment, analytical instrumentation and personnel have been qualified prior to use. The highest purity acids applicable, 18 megohm, double deionized water, acid-leached triple-rinsed bottles (where appropriate), and Class A/calibrated volumetrics have been used in all preparations.

Homogeneity:
The homogeneity of the CRM has been confirmed by procedures consistent with ISO/IEC 17025, ISO 17034, and ASTM D6362-98 Appendix X2. Random, replicate samples of the final, packaged material have been analyzed to prove homogeneity in accordance with our internal procedure 4600-HOMOGEN-1A. Since the product is highly homogeneous, any sample size taken for analysis would be within the uncertainty budget. This is consistent with the intended use of the CRM.

Statistical Estimator and Confidence Limits:
The certified value 'X' listed on the reverse of this document is at the 95% level of confidence and can be expressed as:

- $X = x \pm U$ where X = certified value, U = expanded uncertainty, x = property value
- $U = ku_c$ where k = 2 is the coverage factor at the 95% confidence level
- u_c = combined standard uncertainty obtained by combining the individual element standard uncertainty components u_i and $u_c = \sqrt{\Sigma u_i^2}$

Certification Report:
All certified values reported were derived from the Certification Report, Spex CertiPrep's traceability documentation, identified by the lot number of this CRM. During the stated period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution. For further assistance, please contact Sales Support at CRMSales@spex.com.

Legal Notice:
Spex CertiPrep reference materials are not for any cosmetic, drug or household application and are to be used only by qualified individuals who are trained in appropriate procedures. No claims against Spex CertiPrep, LLC. of any kind whatsoever, whether based on breach of warranty, alleged negligence, or otherwise, with respect to this Reference Material shall be greater than the purchase price. In no event shall Spex CertiPrep, LLC. be liable for any loss of profits or any incidental, special, or consequential damages.

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www.spexcertiprep.com • Email: CRMSales@spex.com
Phone: 1.800.LAB.SPEX • 1.732.549.7144 Fax: 732.603.9647

Reagent

IC BR ICV_00021

RICCA CHEMICAL COMPANY®

1490 Lammers Pike
Batesville, IN 47006
http://www.riccachemical.com
1-888-GO-RICCA
customerservice@riccachemical.com

Certificate of Analysis

Bromide Standard, 1000 ppm Br^-

Lot Number: 4010N41 **Product Number:** 1180

Manufacture Date: OCT 26, 2020
Expiration Date: APR 2022

The certified value reported is the prepared value based upon the method of preparation of the material. The uncertainty in the prepared value is based upon the volumetric method of preparation.

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Sodium Bromide	7647-15-6	High Purity

Test	Specification	Result
Appearance	Colorless liquid	Passed
Bromide (Br)	995-1005 ppm	1000 ppm

Specification	Reference
Bromide Solution, Standard (1 mL = 1 mg Br^-)	ASTM (D 3869 D)
Standard Bromide Solution, 1000 mg/L	APHA (4110 B)
Bromide Stock Solution (1.00 mL = 1.00 mg Br^-)	EPA (SW-846) (9056)
Sodium Bromide Standard Solution, 1000 mg/L	ASTM (D 1246)
Bromide Stock Solution (1.00 mL = 1.00 mg Br?)	ASTM (D 4327)

Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
1180-16	500 mL natural poly	18 months
1180-4	120 mL natural poly	18 months

Recommended Storage: 15°C - 30°C (59°F - 86°F)



Chris Collins (10/26/2020)
Quality Control Supervisor

This Certificate of Analysis is designed to comply with ISO Guide 31 "Reference Materials -- Contents of Certificates and Labels."

This test report shall not be reproduced, except in full, without the written approval of Ricca Chemical Company.

Reagent

IC CL cal_00071

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Reference Materials Producer
Cert #2495.01

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Certificate of Reference Material

ACCREDITED
Chemical Testing
Cert #2495.02

Catalog Number: AS-CL9-2X **Lot No.** 5-67CL-2X

Description: 1000 µg/mL Chloride

Matrix: H_2O

This **Ion Chromatography** Certified Reference Material, CRM, is intended primarily for use as a calibration standard or quality control standard for ion chromatography instrumentation. It can be employed in USEPA, ASTM and other methods relevant to the certified properties listed below.

Certified Value: 998 µg/mL ±5 µg/mL

Certified Value is Traceable to: 3182*

* - indicates NIST SRM † - indicates SPEX CertiPrep CRM (when NIST SRM is not available) ‡ - prepared gravimetrically

The CRM is prepared gravimetrically using high purity Sodium Chloride, Lot# 09141H. The certified value listed is the average of values obtained by classical wet assay and ion chromatography analysis.

Refer to side 2 for details of measurement uncertainties.

Classical Wet Assay: 998 µg/mL

Method: Precipitation using Silver Nitrate. Filter, dry and weigh as AgCl.

Instrumental Analysis by Ion Chromatography: 997 µg/mL

Uncertified Properties

Trace Ionic Impurities in the Actual Solution via IC Analysis:

Element	µg/mL	Element	µg/mL
Br^-	<0.01	NO_3^-	<0.06
F^-	<0.05	$PO4^{-3}$	<0.03
NO_2^-	<0.05	$SO4^{-2}$	<0.08

Balances are calibrated regularly with weight sets traceable to NIST #32856, #32867 and others. This CRM is guaranteed stable and accurate to +/- 0.5% of the certified value. This includes uncertainty components due to preparation, homogeneity by the most precise method, and short-term and long-term stability. This guarantee is valid for a period of one year from the date of certification only when the material is kept tightly capped and stored under ambient laboratory conditions.

Date of Certification: NOV - - 2021 Certifying Officer: Katherine Cullinan

Katherine Cullinan, QC Manager

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Reagent

IC FL cal_00019

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Batesville, IN 47006
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customerservice@riccachemical.com

Certificate of Analysis

Fluoride Standard, 1000 ppm F^-

Lot Number: 4108A94 **Product Number:** 3173

Manufacture Date: AUG 04, 2021

Expiration Date: JAN 2023

The certified value reported is the prepared value based upon the method of preparation of the material. The uncertainty in the prepared value is based upon the volumetric method of preparation.
The concentration is confirmed by Fluoride ISE and is certified traceable to NIST SRM 2203.

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Sodium Fluoride	7681-49-4	High Purity

Test	Specification	Result
Appearance	Colorless liquid	Passed
Fluoride (F)	995-1005 ppm	1005 ppm

Specification	Reference
Fluoride Solution, Stock (1.00 mL = 1.00 mg F)	ASTM (D 5542)
Fluoride Stock Solution (1.00 mL = 1.00 mg F-)	EPA (SW-846) (9056)
Fluoride Calibration Stock Solution (1,000 mg/L F-)	EPA (SW-846) (9214)
Stock Solution, 1.0 mL = 1.0 mg F	EPA (340.3)
Fluoride Solution, Stock (1.00 mL = 1.00 mg F)	ASTM (D 5996)
Fluoride Stock Solution (1.00 mL = 1.00 mg F?)	ASTM (D 4327)
Fluoride Stock Standard Solution (1 mg of F in 1 mL)	ACS (N/A)

Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
3173-16	500 mL natural poly	18 months
3173-32	1 L natural poly	18 months

Recommended Storage: 15°C - 30°C (59°F - 86°F)

Karen Bodewes (08/04/2021)

Quality Control

This Certificate of Analysis is designed to comply with ISO Guide 31 "Reference Materials -- Contents of Certificates and Labels."

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Reagent

IC MS/MSD S04_00006

Fisher Scientific

1 Reagent Lane
Fair Lawn, NJ 07410
201.796.7100 tel
201.796.1329 fax

Certificate of Analysis

Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2008 standard by SAI Global Certificate Number CERT - 0064970

This is to certify that units of the lot number below were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. Fisher Scientific expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Certain products (USP/FCC/NF/EP/BP/JP grades) are sold for use in food, drug, or medical device manufacturing. Fisher does not claim regulatory coverage under 21 CFR nor maintain DMF's with the FDA. The following are the actual analytical results obtained:

Catalog Number	**P304**	**Quality Test / Release Date 3/2/2015**	
Lot Number	**147276**		
Description	**POTASSIUM SULFATE, CRYSTAL, CERTIFIED, A.C.S.**		
Country of Origin	**India**	*** Suggested Retest Date**	**Feb-2020**
Chemical Origin	**Inorganic-non animal**		
BSE/TSE Comment	This product is not manufactured from, or with, any type of animal product, nor any derivative of an animal product. As such, this product should not be considered a vector for BSE or TSE.		

Result name	Units	Specifications	Test Value
APPEARANCE		REPORT	FINE WHITE CRYSTALS
ASSAY	%	>= 99	99.4
CALCIUM	%	<= 0.01	<0.010
CHLORIDE	%	<= 0.001	<0.0010
HEAVY METALS (as Pb)	ppm	<= 5	<5.0
IDENTIFICATION	PASS/FAIL	= PASS TEST	PASS TEST
INSOLUBLE MATTER	%	<= 0.01	<0.010
IRON (Fe)	ppm	<= 5	<5.0
MAGNESIUM	%	<= 0.005	<0.0050
NITROGEN COMPOUNDS	ppm	<= 5	<5
PH 5% SOLUTION @ 25 DEG C		Inclusive Between 5.5 - 8.5	5.5
SODIUM (Na)	%	<= 0.02	<0.020



Lab Manager Fair Lawn

Note: The data listed is valid for all package sizes of this lot of this product, expressed as a extension of this catalog number listed above. If there are any questions with this certificate, please call Chemical Services at (800) 227-6701.
*Based on suggested storage condition.

Reagent

IC SO4 Cal_00003

Reference Materials Producer
Cert #2495.01

SPEXertificate®

Certificate of Reference Material

Chemical Testing
Cert #2495.02

Catalog Number: AS-SO49-2X **Lot No.** 5-118SO49-2X

Description: 1000 µg/mL Sulfate

Matrix: H_2O

This **Ion Chromatography** Certified Reference Material, CRM, is intended primarily for use as a calibration standard or quality control standard for ion chromatography instrumentation. It can be employed in USEPA, ASTM and other methods relevant to the certified properties listed below.

Certified Value: 999 µg/mL ±5 µg/mL

Certified Value is Traceable to: 3181*

* - indicates NIST SRM † - indicates SPEX CertiPrep CRM (when NIST SRM is not available) ‡ - prepared gravimetrically

The CRM is prepared gravimetrically using high purity Potassium Sulfate, Lot# AN07201A. The certified value listed is the average of values obtained by classical wet assay and ion chromatography analysis.

Refer to side 2 for details of measurement uncertainties.

Classical Wet Assay: 998 µg/mL

Method: Precipitation using Barium Chloride. Filter, ignite, and weigh as BaSO4.

Instrumental Analysis by Ion Chromatography: 999 µg/mL

Uncertified Properties

Trace Ionic Impurities in the Actual Solution via IC Analysis:

Element	µg/mL	Element	µg/mL
Br^-	<0.01	NO_2^-	<0.01
Cl^-	<0.03	NO_3^-	<0.02
F^-	<0.003	$PO4^{-3}$	<0.08

Balances are calibrated regularly with weight sets traceable to NIST #32856, #32867 and others. This CRM is guaranteed stable and accurate to +/- 0.5% of the certified value. This includes uncertainty components due to preparation, homogeneity by the most precise method, and short-term and long-term stability. This guarantee is valid for a period of one year from the date of certification only when the material is kept tightly capped and stored under ambient laboratory conditions.

Date of Certification: NOV - - 2021 Certifying Officer: Katherine Cullinan

Katherine Cullinan, QC Manager

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Reagent

IC SO4 ICV_00022

ERA
A Waters Company

Certified Reference Material

▪ Certificate of Analysis ▪

Product:	1000 mg/L Sulfate
Catalog Number:	062-125mL, 995-500mL
Lot No.	060720m
Starting Material:	Potassium Sulfate (K_2SO_4)
Matrix:	18 megohm deionized water
Density:	1.0001 ± 0.0010 mg/L at 21.2 °C and 755 mm Hg
Verification Method:	Ion Chromatography
Certificate Issue Date:	July 13, 2020
Expiration Date:	July 6, 2022
Revision Number:	Original

CERTIFICATION

Parameter	Certified Value[1]	Uncertainty[2]	NIST Traceability	
	mg/L	%	SRM Number[3]	Recovery %
Sulfate	1000	0.984	3181	97.7

16341 Table Mountain Pkwy ▪ Golden, CO 80403 ▪ 800.372.0122 ▪ 303.431.8454 ▪ fax 303.421.0159 ▪ www.eraqc.com

Reagent

MNX,TNX,DNX_00057

Agilent

Certificate of Analysis

Product Name: Custom Standard

Product Number: CUS-23984 **Lot Issue Date:** 10-Mar-2021

Lot Number: 0006594482 **Expiration Date:** 30-Apr-2022

Description:
This analytical reference material (RM) 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 below.

Analyte	CAS#	Analyte Lot	Concentration ± Uncertainty
1,3,5-trinitroso-1,3,5-triazacyclohexane (TNX)	N/A	RM12426	99.7 ± 0.5 µg/mL
1-nitro-3,5-dinitroso-1,3,5-triazacyclohexane (DNX)	N/A	RM12428	100.1 ± 0.5 µg/mL
1-nitroso-3,5-dinitro-1,3,5-triazacyclohexane (MNX)	N/A	RM12428	116.7 ± 0.6 µg/mL

Matrix: acetonitrile

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

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

Intended Use:
This RM 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.

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.

Hazards:
Refer to the Safety Data Sheet on www.agilent.com for information regarding this RM.

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER
ISO 17034 Cert No. AR-1936

RM was produced in accordance with the LRQA registered ISO 9001:2015 Quality Management System. Cert # 10303760

www.agilent.com/quality/
CSD-QA-015.1

ANAB ACCREDITED TESTING LABORATORY
ISO 17025 Cert No. AT-1937

250 Smith Street North Kingstown, Rhode Island 02852 www.agilent.com/quality

Certificate of Analysis

Product Number: CUS-23984 **Lot Number:** 0006594482

Expiration of Certification:
The certification of this RM is valid until the expiration date specified above, provided the RM is handled and stored in accordance with the instructions given in this certificate. This certification is nullified if the RM 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

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER
ISO 17034 Cert
No. AR-1936

RM was produced in accordance with the LRQA registered ISO 9001:2015 Quality Management System. Cert # 10303760
Page: 2 of 2
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CSD-QA-015.1

ANAB ACCREDITED TESTING LABORATORY
ISO 17025 Cert
No. AT-1937

Reagent

MNX,TNX,DNX_00062

Agilent

Certificate of Analysis

Product Name: Custom Standard

Product Number: CUS-23984

Lot Number: 0006599273

Lot Issue Date: 02-Apr-2021

Expiration Date: 30-Apr-2022

Description:
This analytical reference material (RM) 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 below.

Analyte	CAS#	Analyte Lot	Concentration ± Uncertainty
1,3,5-trinitroso-1,3,5-triazacyclohexane (TNX)	N/A	RM12426	100.4 ± 0.5 µg/mL
1-nitro-3,5-dinitroso-1,3,5-triazacyclohexane (DNX)	N/A	RM12428	100.1 ± 0.5 µg/mL
1-nitroso-3,5-dinitro-1,3,5-triazacyclohexane (MNX)	N/A	RM12428	116.7 ± 0.6 µg/mL

Matrix: acetonitrile

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

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

Intended Use:
This RM 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.

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.

Hazards:
Refer to the Safety Data Sheet on www.agilent.com for information regarding this RM.

ACCREDITED REFERENCE MATERIAL PRODUCER
ISO 17034 Cert No. AR-1936

RM was produced in accordance with the LRQA registered ISO 9001:2015 Quality Management System. Cert # 10303760

www.agilent.com/quality/
CSD-QA-015.1

ACCREDITED TESTING LABORATORY
ISO 17025 Cert No. AT-1937

250 Smith Street North Kingstown, Rhode Island 02852 www.agilent.com/quality

Certificate of Analysis

Product Number: CUS-23984 **Lot Number:** 0006599273

Expiration of Certification:
The certification of this RM is valid until the expiration date specified above, provided the RM is handled and stored in accordance with the instructions given in this certificate. This certification is nullified if the RM 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

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER
ISO 17034 Cert
No. AR-1936

RM was produced in accordance with the LRQA registered ISO 9001:2015 Quality Management System. Cert # 10303760
Page: 2 of 2
www.agilent.com/quality/
CSD-QA-015.1

ANAB ACCREDITED ISO/IEC 17025 TESTING LABORATORY
ISO 17025 Cert
No. AT-1937

Reagent

MNX,TNX,DNX_00063

Agilent

Certificate of Analysis

Product Name: Custom Standard

Product Number: CUS-23984

Lot Number: 0006599273

Lot Issue Date: 02-Apr-2021

Expiration Date: 30-Apr-2022

Description:
This analytical reference material (RM) 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 below.

Analyte	CAS#	Analyte Lot	Concentration ± Uncertainty
1,3,5-trinitroso-1,3,5-triazacyclohexane (TNX)	N/A	RM12426	100.4 ± 0.5 µg/mL
1-nitro-3,5-dinitroso-1,3,5-triazacyclohexane (DNX)	N/A	RM12428	100.1 ± 0.5 µg/mL
1-nitroso-3,5-dinitro-1,3,5-triazacyclohexane (MNX)	N/A	RM12428	116.7 ± 0.6 µg/mL

Matrix: acetonitrile

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

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

Intended Use:
This RM 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.

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.

Hazards:
Refer to the Safety Data Sheet on www.agilent.com for information regarding this RM.

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER
ISO 17034 Cert No. AR-1936

RM was produced in accordance with the LRQA registered ISO 9001:2015 Quality Management System. Cert # 10303760

www.agilent.com/quality/
CSD-QA-015.1

ANAB ACCREDITED TESTING LABORATORY
ISO 17025 Cert No. AT-1937

250 Smith Street North Kingstown, Rhode Island 02852 www.agilent.com/quality

Certificate of Analysis

Product Number: CUS-23984 **Lot Number:** 0006599273

Expiration of Certification:
The certification of this RM is valid until the expiration date specified above, provided the RM is handled and stored in accordance with the instructions given in this certificate. This certification is nullified if the RM 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

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER
ISO 17034 Cert
No. AR-1936

RM was produced in accordance with the LRQA registered ISO 9001:2015 Quality Management System. Cert # 10303760
Page: 2 of 2
www.agilent.com/quality/
CSD-QA-015.1

ANAB ACCREDITED ISO/IEC 17025 TESTING LABORATORY
ISO 17025 Cert
No. AT-1937

Reagent

NH3 ICV STD_00032

INORGANIC VENTURES
300 Technology Drive
Christiansburg, VA 24073 · USA
inorganicventures.com

CERTIFICATE OF ANALYSIS

tel: 800.669.6799 · 540.585.3030
fax: 540.585.3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO Guide 34, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Ion Chromatography Solution
Catalog Number:	ICNNH41
Lot Number:	N2-NH669544
Matrix:	H2O
Value / Analyte(s):	1 000 µg/mL ea: Ammonium as N
Starting Material:	Ammonium chloride
Starting Material Lot#:	1736
Starting Material Purity:	99.0000%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 1002 ± 3 µg/mL

Density: 0.999 g/mL (measured at 20 ± 4 ºC)

Assay Information:

Assay Method #1 **1005 ± 3 µg/mL**
IC Assay NIST SRM 194a Lot Number: 194a

Assay Method #2 **997 ± 3 µg/mL**
Fajans NIST SRM 999c Lot Number: 999c

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two Methods

Certified Value, $X_{CRM/RM}$, where two methods of characterization are used is the weighted mean of the two results:

$X_{CRM/RM} = [(w_a)(X_a) + (w_b)(X_b)]$

X_a = mean of Assay Method A with standard uncertainty $u_{char\ a}$

X_b = mean of Assay Method B with standard uncertainty $u_{char\ b}$

w_a and w_b = the weighting factors for each method calculated using the inverse square of the variance:

$w_a = (1/u_{char\ a})^2 / ((1/u_{char\ a})^2 + (1/u_{char\ b})^2))$

$w_b = (1/u_{char\ b})^2 / ((1/u_{char\ a})^2 + (1/u_{char\ b})^2))$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a\&b} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2 in all cases at Inorganic Ventures

$u_{char\ a\&b} = [(w_a)^2 (u_{char\ a})^2 + (w_b)^2 (u_{char\ b})^2]^{½}$ where $u_{char\ a}$ and $u_{char\ b}$ are the square root of the sum of the squares of errors from characterization which include instrument measurement, density, NIST SRM uncertainty, weighing, and volume

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM}$ = mean of Assay Method A with standard uncertainty $u_{char\ a}$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2 in all cases at Inorganic Ventures

$u_{char\ a}$ = square root of the sum of the squares of the errors from characterization which include instrumental measurement, density, NIST SRM uncertainty, weighing, and volume

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

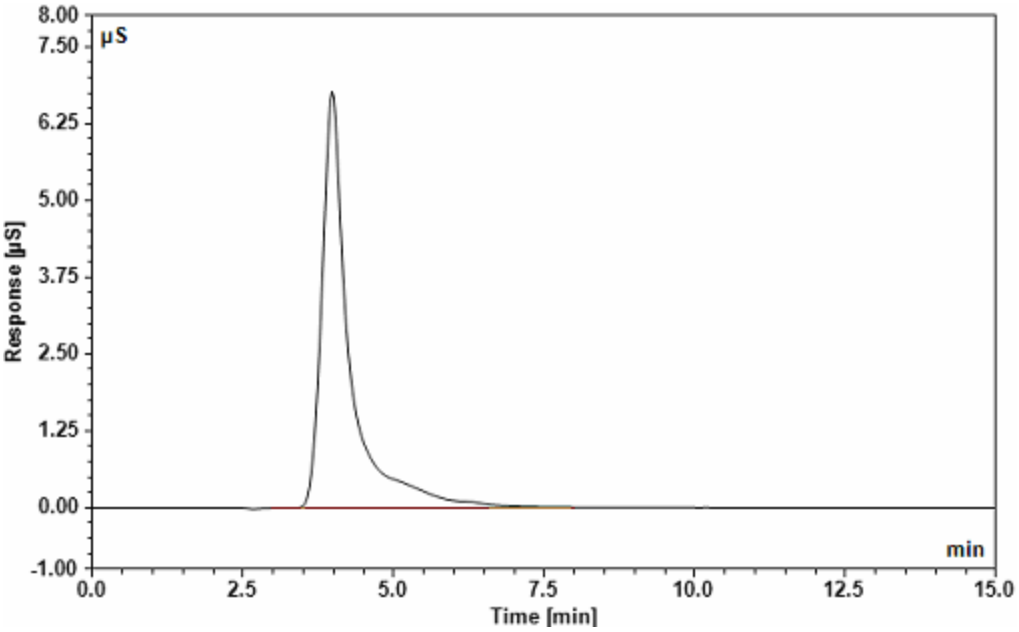
4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 CHROMATOGRAM



Dionex ICS-2000 Ion Chromatograph

Analytical Column:	IonPac CS18 2 x 250 mm	**Eluent:**	10 mM MSA
Guard Column:	IonPac CG18 2 x 50 mm	**Eluent Flow Rate:**	0.25 mL/min
Anion Self Regen Suppressor/ Chemical Suppression:	N/A	**Column Temp:**	35 °C
		Cell Temp:	35 °C
Cation Self Regen Suppressor/ Chemical Suppression:	CERS 500 2mm	**Scale X-Axis:**	minutes
		Scale Y-Axis:	8 µS/cm
		Concentration:	10 µg/g
Suppressor Current/ Chemical Suppressant:	8 mA		

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO Guide 34 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

August 01, 2018

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **August 01, 2022**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

James King Jr
Chemist, Technical Manager



Certificate Approved By:

Michael Booth
Supervisor, Quality Control



Certifying Officer:

Paul Gaines
CEO, Senior Technical Director



Reagent

NOXT Cal STD_00025

RICCA CHEMICAL COMPANY®

1841 Broad Street
Pocomoke City, MD 21851
http://www.riccachemical.com
1-888-GO-RICCA
customerservice@riccachemical.com

Certificate of Analysis

Nitrate Nitrogen Standard, 1000 ppm N (4427 ppm NO_3)

Lot Number: 2104E50 **Product Number:** 5459

Manufacture Date: APR 19, 2021
Expiration Date: OCT 2022

The certified value reported is the prepared value based upon the method of preparation of the material. The uncertainty in the prepared value is based upon the volumetric method of preparation.

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Potassium Nitrate	7757-79-1	High Purity
Chloroform	67-66-3	

Test	Specification	Result
Appearance	Colorless liquid	Passed
Nitrogen (N)	995-1005 ppm	1000 ppm

Specification	Reference
Nitrate Solution, Stock (1.0 mL = 1.0 mg NO3-N)	ASTM (D 3867 A)
Nitrate Solution, Stock (1.0 mL = 1.0 mg NO3-N)	ASTM (D 3867 B)
Stock Nitrate Solution: 1 mL = 1.0 mg NO3-N	EPA (353.2)
Stock Nitrate Solution: 1.0 mL = 1.00 mg NO3-N	EPA (353.3)

Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
5459-16	500 mL natural poly	18 months
5459-4	120 mL natural poly	18 months

Recommended Storage: 15°C - 30°C (59°F - 86°F)

Kerry Kingsbury (04/19/2021)
Quality Control Supervisor
This Certificate of Analysis is designed to comply with ISO Guide 31 "Reference Materials -- Contents of Certificates and Labels."

This test report shall not be reproduced, except in full, without the written approval of Ricca Chemical Company.

Reagent

PicricARestek_00102

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 31499 **Lot No.:** A0175186

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

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Picric Acid	1,006.0 µg/mL	+/- 5.9753	µg/mL	Gravimetric
	CAS # 88-89-1 (Lot 06130CU)		+/- 55.1117	µg/mL	Unstressed
	Purity 99%		+/- 64.2657	µg/mL	Stressed

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

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

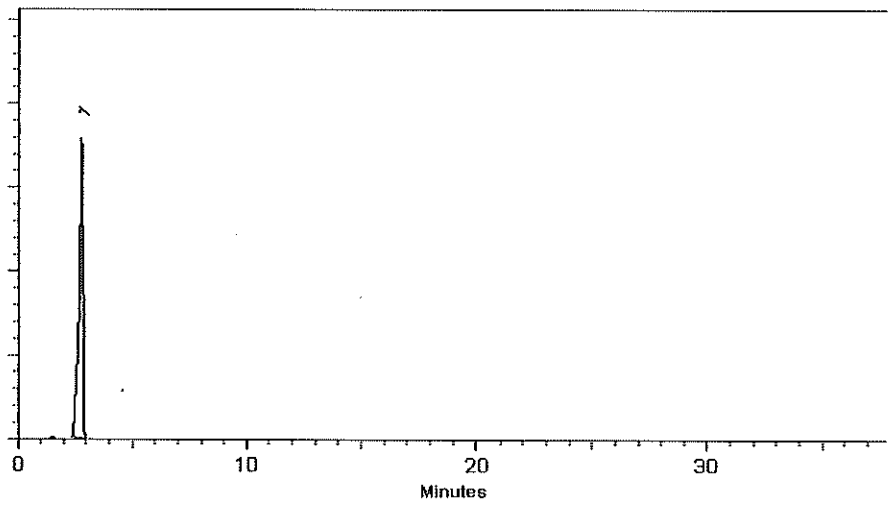
Flow Rate:
1.0 ml/min.

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

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm



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

Lane Kibe - Mix Technician

Date Mixed: 06-Aug-2021 **Balance:** B345965662

Alexis Shelow - Operations Tech I

Date Passed: 10-Aug-2021

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

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

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

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

Manufacturing Notes:

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

Handling Notes:

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

Reagent

RSK175methane_00010

Airgas
an Air Liquide company

Airgas Specialty Gases
Airgas USA, LLC
6141 Easton Road
Bldg 1
Plumsteadville, PA 18949
Airgas.com

CERTIFICATE OF BATCH ANALYSIS

Grade of Product: CP

Customer:	SIGMA-ALDRICH		
Part Number:	ME CPP14C514	Reference Number:	160-401480003-1
Cylinder Analyzed:	ST0000198540	Cylinder Volume:	14.0 LG
Laboratory:	124 - Plumsteadville - PA	Cylinder Pressure:	240 PSIG
Analysis Date:	Apr 16, 2019	Valve Outlet:	160
Lot Number:	160-401480003-1		

Expiration Date: Apr 16, 2022

ANALYTICAL RESULTS

Component	Requested Purity	Certified Concentration
METHANE	> 99.0 %	> 99.0 %

Cylinders in Batch:

ST0000198540, ST0000198541, ST0000198542, ST0000198543

Notes:MANUFACTURE DATE 4-16-2019
PO# P481562
P/N 22562

Impurities verified against analytical standards traceable to NIST by weight and/or analysis.

Approved for Release

Reagent

RSK7gasMathes_00031

MATHESON
ask. . .The Gas Professionals™

Analysis Report

To: MATHESON LINWELD
4705 NOME ST
P O BOX 39126
DENVER, CO 80239

MTG Customer No: 504445

Manufacturing Location
1700 SCEPTER ROAD
WAVERLY, TN 37185

Product: Multi-Component Mixture
Grade: CERTIFIED
MTG Part No: G2682238

Cylinder Size: 4
Valve: CGA 350 SS
Contents:
Net: 7.57 ft³; 0.21 m³

Pressure: 1400 psia @ 70°F; 9653 kPa @ 21°C

CYLINDER NUMBER(S)
*DL039162

	Requested Concentration	Certified Concentration	Units -	Blend Tolerance	Certified Accuracy
Butane	1.00	1.00	%	±10%	±2%
Acetylene	1.00	1.00	%	±10%	±2%
Isobutylene	1.00	1.01	%	±10%	±2%
Propane	1.00	1.00	%	±10%	±2%
Ethane	1.00	1.01	%	±10%	±2%
Ethylene	1.00	1.00	%	±10%	±2%
Methane	1.00	1.00	%	±10%	±2%
Nitrogen	Balance	Balance			

TRACEABILITY

COMMENTS

* Indicates the actual cylinder(s) analyzed.

Lot No: 9300606746
Fill Date: 02/23/2020
Expiration Date: 03/09/2022
Analysis Date: 03/09/2020

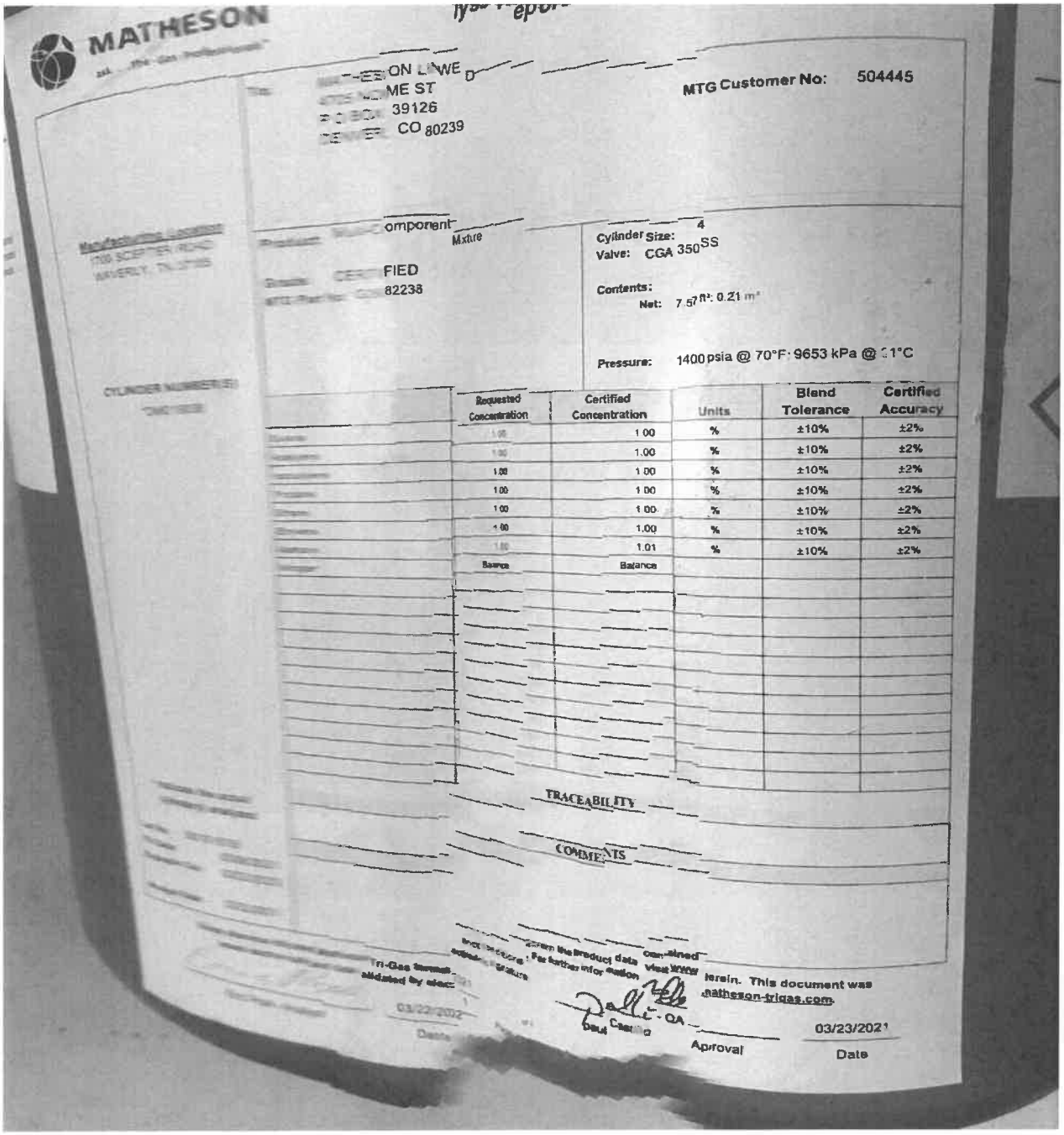
Unless otherwise indicated, Matheson Tri-Gas terms and conditions govern the product data contained herein. This document was issued electronically and data validated by electronic signature. For further information visit www.matheson-trigas.com.

Eric Popa - Analyst — 03/09/2020 Date

Meriah Boyett - QA Approval — 03/09/2020 Date

Reagent

RSK7gasMathes_00034


MATHESON
MTG Customer No: 504445
CO 80239
Component
Mixture
Cylinder Size: 4
Valve: CGA 350 SS
Contents:
Net: 7.57 ft³: 0.21 m³
Pressure: 1400 psia @ 70°F: 9653 kPa @ 21°C
Requested Concentration
Certified Concentration
Units
Blend Tolerance
Certified Accuracy
1.00 % ±10% ±2%
1.00 % ±10% ±2%
1.00 % ±10% ±2%
1.00 % ±10% ±2%
1.00 % ±10% ±2%
1.00 % ±10% ±2%
1.01 % ±10% ±2%
Balance Balance
TRACEABILITY
COMMENTS
03/22/2022
03/23/2021
Approval
Date

MTG Part No: [illegible]

Net: [illegible]

Pressure: 1400 psia @ 70°F; 9653 kPa @ 21°C

CYLINDER NUMBER(S)

*DM019038

	Requested Concentration	Certified Concentration	Units	Blend Tolerance	Certified Accuracy
Butane	1.00	1.00	%	±10%	±2%
Acetylene	1.00	1.00	%	±10%	±2%
Isobutylene	1.00	1.00	%	±10%	±2%
Propane	1.00	1.00	%	±10%	±2%
Ethane	1.00	1.00	%	±10%	±2%
Ethylene	1.00	1.00	%	±10%	±2%
Methane	1.00	1.01	%	±10%	±2%
Nitrogen	Balance	Balance			

TRACEABILITY

COMMENTS

*** indicates the actual cylinder(s) analyzed.**

Lot No: 9301615705
Fill Date: 03/08/2021
Expiration Date: 03/22/2023

Analysis Date: 03/22/2021

Unless otherwise indicated, Matheson Tri-Gas terms and conditions govern the product data contained herein. This document was issued electronically and data validated by electronic signature. For further information visit www.matheson-trigas.com.

Eric Popa - Analyst — 03/22/2021 (Date)

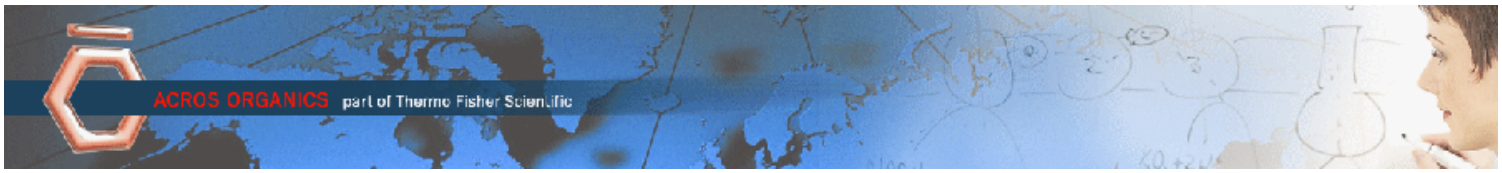
Paul Castillo - QA Approval — 03/23/2021 (Date)

Page 1 of 1

[redacted]

Reagent

SFD ICV STK_00008



Version	1
Molecular weight	240.18
Molecular formula	Na2 S . 9 H2 O
CAS No	1313-84-4
Linear formula	Na2S.9H2O
Flash point (°C)	

Certificate of Analysis

This is to certify that units of the lot number below were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. Acros Organics expressly disclaims all warranties,expressed or implied, including the implied

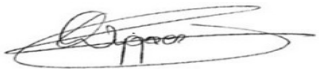
warranties of merchantability and fitness for a particular purpose. Products are for research use or further manufacturing. Not for direct administration to human or animals. It is the responsiblity of the purchaser, formulator or those performing further manufacturing to determine suitability based upon the intended use of the end product. Products are tested to meet the analytical requirements of the noted grade. The following information is the actual analytical results obtained.

Catalog Number	38706	**Quality Test / Release Date**	22 April 2021
Lot Number	A0412804	**Suggested Retest Date**	April 2024
Description	Sodium sulfide nonahydrate,98+%,extra pure		
Country of Origin	INDIA		
Declaration of Origin	synthetic		

Origin Comment	

Result Name	Specifications	Test Value
Appearance (Color)	Colorless to light yellow	Light yellow
Appearance (Form)	Adhering crystals and/or chunks	Adhering crystals
Titration Iodimetric	32.0 to 38.0 % (Na2S)	32.3 % (Na2S)
Total nitrogen (as N)	=<0.005 %	=<0.005 %
Sulfite (as SO2)	=<2000 ppm	=<1000 ppm
Thiosulphate (S2O3)	=<5000 ppm	=<1000 ppm





C. Wygaerts, QA Manager Issued: 27 April 2021

Acros Organics
ENA23, zone 1, nr 1350, Janssen Pharmaceuticalaan 3a, B-2440 Geel, Belgium
Tel +32 14/57.52.11 - Fax +32 14/59.34.34 Internet: http://www.acros.com
1 Reagent Lane, Fair Lawn, NJ 07410,USA Fax 201-796-1329

Reagent

TKN CAL STD_00019

nsi lab solutions
protect more. test more.
7212 ACC Blvd. | Raleigh, NC 27617 | 800.234.7837

Certificate of Analysis

TKN Calibration Standard - 1000 mg/L

Catalog Number: IS-009, IS-009-500
Lot Number: 200817
Manufacture Date: 08/17/20
Certified Date: 08/17/20

Expiration: 08/31/2024
Matrix: Water
Hazards: Irritant
(See MSDS)

Bulk Number	Analyte	CAS #	Purity	Certified Concentration (mg/L TKN)
W-1477-30	TKN from Glycine	56-40-6	99.8%	1000 ± 4.60

Packaging, Storage, Instructions For Use

Store at room temperature (15-30°C). After opening, this solution should be stored tightly capped at 2-8°C.

This certified reference material (CRM) is packaged in low density polyethylene. Allow to equilibrate to room temperature before use. Small aliquots should be poured out of the bottle rather than directly pipetted out of bottle in order to prevent contamination or premature degradation. A 1 mL sample size is recommended. Smaller sample volumes may negatively affect estimated uncertainty.

Traceability Information

Analyte Source Materials: The highest purity analyte source materials are used in the manufacture of this CRM. The actual purity is referenced above. Analyte source material purity and associated uncertainty has been analytically verified against appropriate NIST SRMs, if available.

Method: Certified concentration confirmed by HPLC analysis against an independent reference standard with n=3.

Balance: All analytical balances are calibrated on a semiannual basis by an ISO 17025 accredited calibration laboratory and are traceable to NIST. Traceable Calibration Certificate available upon request.

All balances are checked daily by an in-house standard operating procedure. The weights used for this daily verification are calibrated annually by an ISO 17025 accredited calibration laboratory and are certified traceable to NIST. Certificate of Calibration and Traceability available upon request.

Thermometer: All thermometers are NIST traceable through thermometers that are calibrated annually by an ISO 17025 accredited calibration laboratory.

Glassware: All glassware used in the manufacture of our CRMs is Class A. An in-house standard operating procedure is used to verify all glassware prior to it being placed into service. Volumetric pipetors are calibrated every four months by an ISO 17025 accredited calibration laboratory.

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Catalog Number: IS-009, IS-009-500
Lot Number: 200817

Intended Uses

- Calibration of analytical instruments
- Validation of analytical methods
- Preparation of working level reference materials, i.e. "check standards"
- Detection limit studies

Uncertainty

The ± uncertainty associated with the certified concentration is the expanded uncertainty at 95% confidence interval (CI) with K=2. This expanded uncertainty incorporates contributions from manufacturing, homogeneity, and stability.

Homogeneity

This CRM was thoroughly mixed in production. Batch homogeneity was established through analysis of samples chosen at random. A minimum 1 mL sample size is recommended.

Stability/Expiration

The stability of this CRM is based on short-term and long-term monitoring of the certified concentration. The expiration date is guaranteed to be valid from the manufacture date and is based on results of long-term monitoring.

Ewart Morris

Ewart Morris, Inorganics Technical Manager

Mark Hammersla

Mark Hammersla, President

Reagent

TKN ICV_00013

ERA

A Waters Company

Certificate of Analysis

PRODUCT:	1000 mg/L Total Kjeldahl Nitrogen (TKN)
CATALOG NUMBER:	043 -125 mL; 996 - 500 mL
LOT NUMBER:	200220m
ISSUE DATE:	March 20, 2020
REVISION DATE:	Original
STARTING MATERIAL:	Glycine (NH_2CH_2COOH)
CERTIFIED CONCENTRATION[1]:	1000 mg/L
UNCERTAINTY[2]:	6.1%
MATRIX:	18 megohm deionized water and 1% (v/v) HCl
DENSITY:	0.9966 ± 0.0020 g/mL at 19.4°C and 753 mm Hg
TRACEABILITY[3]:	98.3%
NIST/SRM:	194a Ammonium Dihydrogen Phosphate
VERIFICATION METHOD:	Ion Selective Electrode (ISE)
STORAGE:	Store at 20-25°C

1. The **Certified Concentration** is the actual made-to concentration confirmed by ERA analytical verification.

2. The stated **Uncertainty** is the total propagated uncertainty at the 95% confidence interval. The uncertainty is based on the preparation of the product and includes uncertainty related to the starting material used and the volumetric and gravimetric measurements made. The method of calculating uncertainty is taken from the ISO Guide to the Expression of Uncertainty in Measurement (current version). The uncertainty applies to the product as supplied and does not take into account any required or optional dilutions and/or preparations the laboratory may perform while using this product.

3. Traceability ((% Recovery Certified Standard)/(% Recovery NIST SRM))* 100.

   The traceability data shown were compiled by analyzing the ERA standards or their associated stock solutions against the applicable NIST SRMs. Where a NIST SRM is not available, the product is metrologically traceable through an unbroken chain of calibrations to NIST weights, each having stated uncertainties and utilizing measurement standards that are appropriate for the physical and/or chemical property being measured.

This standard **expires 02/07/2022.** The certified values are monitored and purchasers will be notified of any significant changes resulting in recertification or withdrawal of this certified reference material during the period of validity of this certificate.

This product is intended to be used as either a calibration standard or a quality control check of the entire analytical process for the analytes/matrix included in the standard.

If you have any questions or need technical assistance, please call ERA technical assistance at 1-800-372-0122 or email to info@eraqc.com

Certifying Officer: Brian Miller - Product Line Manager

ISO/IEC GUIDE 34:2009

ACCREDITED

REFERENCE MATERIAL PRODUCER
CERTIFICATE NO. 1539.03

ISO/IEC 17025:2005

ACCREDITED

CHEMICAL TESTING LABORATORY
CERTIFICATE NO. 1539.02

16341 Table Mtn Pkwy, Golden, CO 80403 800-372-0122 fax: 303-421-0159 www.eraqc.com

Reagent

TOC ICV Std_00049

RICCA CHEMICAL COMPANY®

448 West Fork Dr
Arlington, TX 76012
http://www.riccachemical.com
1-888-GO-RICCA
customerservice@riccachemical.com

Certificate of Analysis

Organic Carbon Standard, 1000 ppm C

Lot Number: 1201B45 **Product Number:** 1847

Manufacture Date: JAN 24, 2022
Expiration Date: JAN 2023

The certified value reported is the prepared value based upon the method of preparation of the material. The uncertainty in the prepared value is based upon the volumetric method of preparation.

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Phosphoric Acid	7664-38-2	ACS
Potassium Acid Phthalate	877-24-7	ACS Acidimetric

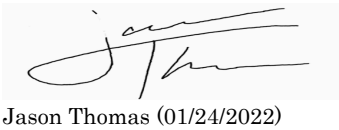
Test	Specification	Result
Appearance	Colorless liquid	Passed
Carbon (C)	995-1005 ppm	1000 ppm

Specification	Reference
Organic Carbon Stock Solution	APHA (5310 B)
Potassium Hydrogen Phthalate, Stock Solution	EPA (SW-846) (9060)
Potassium Hydrogen Phthalate, Stock Solution, 1000 mg Carbon/liter	EPA (415.1)
Organic Carbon Solution, Standard (1 mL = 1 mg C)	ASTM (D 2579)

Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
1847-16	500 mL amber glass	12 months
1847-4	120 mL amber glass	12 months

Recommended Storage: 15°C - 30°C (59°F - 86°F)



Jason Thomas (01/24/2022)

Operations Manager

This Certificate of Analysis is designed to comply with ISO Guide 31 "Reference Materials -- Contents of Certificates and Labels."

This test report shall not be reproduced, except in full, without the written approval of Ricca Chemical Company.

Reagent

TOC LCS Std_00053

ISO 17034

Agilent
Trusted Answers

Reference Material Certificate

Product Name: Total Organic Carbon (TOC) Standard
Product Number: IQC-106
Storage Conditions: Store at Room Temperature (15° to 30°C).

Lot Number: 0006645841
Lot Issue Date: 12-Nov-2021
Expiration Date: 31-Dec-2023

Component Name	CERTIFIED VALUES Concentration	Expanded Uncertainty	CAS#	Analyte Lot
potassium hydrogen phthalate (KHP) (as TOC)	1002	± 5 mg/L	000877-24-7	RM19275

Matrix: water (low TOC, < 50 ppb)

Description:
This document is prepared in accordance with ISO 17034 and Guide 31. This analytical reference material (RM) was manufactured and verified in accordance with an ISO 9001 registered quality system. The analyte concentration(s) were prepared and verified by an ISO 17034 / ISO 17025 accredited laboratory and compared to calibration standards independently prepared using NIST SRM(s) when available. The certified value and uncertainty value at the 95% confidence level for each analyte is determined gravimetrically.

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 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

RSK_175_DOD5

Dissolved Gases (GC)

FORM III
GC VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 002F0201.D

Lab ID: LCS 280-567999/4 Client ID:

COMPOUND	SPIKE ADDED (mg/L)	LCS CONCENTRATION (mg/L)	LCS % REC	QC LIMITS REC	#
Methane	0.0657	0.0648	99	73-125	

Column to be used to flag recovery and RPD values

FORM III RSK-175

FORM III
GC VOA LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 003F0301.D

Lab ID: LCSD 280-567999/5 Client ID:

COMPOUND	SPIKE ADDED (mg/L)	LCSD CONCENTRATION (mg/L)	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Methane	0.0657	0.0649	99	0	20	73-125	

Column to be used to flag recovery and RPD values

FORM III RSK-175

FORM IV
GC VOA METHOD BLANK SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Lab Sample ID: MB 280-567999/3

Matrix: Water Date Extracted:

Lab File ID:(1) 001F0101.D Lab File ID:(2) 001F0101.D

Date Analyzed:(1) 03/08/2022 14:07 Date Analyzed:(2) 03/08/2022 14:07

Instrument ID:(1) VGC_J Instrument ID:(2) VGC_J

GC Column:(1) HP-Plot Q ID: 0.53(mm) GC Column:(2) Rt-Alumina K ID: 0.53(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 280-567999/4	03/08/2022 14:20	03/08/2022 14:20
	LCSD 280-567999/5	03/08/2022 14:32	03/08/2022 14:32
G0022-8	280-159384-1	03/08/2022 18:40	03/08/2022 18:40
G0102-8	280-159384-2	03/08/2022 18:53	03/08/2022 18:53
G0121-8	280-159384-4	03/08/2022 19:06	03/08/2022 19:06
G0122-8	280-159384-5	03/08/2022 19:19	03/08/2022 19:19
G0123-8	280-159384-6	03/08/2022 19:32	03/08/2022 19:32

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Client Sample ID: G0022-8 Lab Sample ID: 280-159384-1

Instrument ID (1): VGC_J Instrument ID (2): VGC_J

Date Analyzed (1): 03/08/2022 18:40 Date Analyzed (2): 03/08/2022 18:40

GC Column (1): HP-Plot Q ID: 0.53(mm) GC Column (2): Rt-Alumina KC ID: 0.53(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
Methane	1		1.66	1.62	1.70	5.1		9.4
	2		1.25	1.22	1.30	5.6		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Client Sample ID: G0102-8 Lab Sample ID: 280-159384-2

Instrument ID (1): VGC_J Instrument ID (2): VGC_J

Date Analyzed (1): 03/08/2022 18:53 Date Analyzed (2): 03/08/2022 18:53

GC Column (1): HP-Plot Q ID: 0.53(mm) GC Column (2): Rt-Alumina KC ID: 0.53(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
Methane	1		1.66	1.62	1.70	1.5		11.8
	2		1.25	1.22	1.30	1.7		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Client Sample ID: G0121-8 Lab Sample ID: 280-159384-4

Instrument ID (1): VGC_J Instrument ID (2): VGC_J

Date Analyzed (1): 03/08/2022 19:06 Date Analyzed (2): 03/08/2022 19:06

GC Column (1): HP-Plot Q ID: 0.53(mm) GC Column (2): Rt-Alumina KC ID: 0.53(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
Methane	1		1.66	1.62	1.70	18		10.1
	2		1.26	1.22	1.30	20		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Client Sample ID: G0122-8 Lab Sample ID: 280-159384-5

Instrument ID (1): VGC_J Instrument ID (2): VGC_J

Date Analyzed (1): 03/08/2022 19:19 Date Analyzed (2): 03/08/2022 19:19

GC Column (1): HP-Plot Q ID: 0.53(mm) GC Column (2): Rt-Alumina KC ID: 0.53(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
Methane	1		1.65	1.62	1.70	15		10.4
	2		1.26	1.22	1.30	17		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Client Sample ID: G0123-8 Lab Sample ID: 280-159384-6

Instrument ID (1): VGC_J Instrument ID (2): VGC_J

Date Analyzed (1): 03/08/2022 19:32 Date Analyzed (2): 03/08/2022 19:32

GC Column (1): HP-Plot Q ID: 0.53(mm) GC Column (2): Rt-Alumina KC ID: 0.53(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
Methane	1		1.65	1.62	1.70	15		10.2
	2		1.26	1.22	1.30	17		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 280-567999/4

Instrument ID (1): VGC_J Instrument ID (2): VGC_J

Date Analyzed (1): 03/08/2022 14:20 Date Analyzed (2): 03/08/2022 14:20

GC Column (1): HP-Plot Q ID: 0.53(mm) GC Column (2): Rt-Alumina KC ID: 0.53(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
Methane	1		1.66	1.62	1.70	0.0648		3.6
	2		1.26	1.22	1.30	0.0671		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Client Sample ID: Lab Sample ID: LCSD 280-567999/5

Instrument ID (1): VGC_J Instrument ID (2): VGC_J

Date Analyzed (1): 03/08/2022 14:32 Date Analyzed (2): 03/08/2022 14:32

GC Column (1): HP-Plot Q ID: 0.53(mm) GC Column (2): Rt-Alumina KC ID: 0.53(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
Methane	1		1.66	1.62	1.70	0.0649		3.7
	2		1.25	1.22	1.30	0.0674		

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-159384-1

SDG No.:

Client Sample ID: G0022-8 | Lab Sample ID: 280-159384-1

Matrix: Water | Lab File ID: 026F2201.D

Analysis Method: RSK-175 | Date Collected: 03/02/2022 13:30

Sample wt/vol: 20(mL) | Date Analyzed: 03/08/2022 18:40

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: HP-Plot Q ID: 0.53(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 567999 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
74-82-8	Methane	5.1		0.0050	0.0013	0.00063

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20220308-109074.b\026F2201.D
Lims ID: 280-159384-H-1
Client ID: G0022-8
Sample Type: Client
Inject. Date: 08-Mar-2022 18:40:05 ALS Bottle#: 26 Worklist Smp#: 24
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: 280-159384-H-1
Operator ID: sciannac Instrument ID: VGC_J

Method: \\chromfs\Denver\ChromData\VGC_J\20220308-109074.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 09-Mar-2022 13:49:27 Calib Date: 24-Sep-2021 15:12:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D

Column 1 : Rt-Alumina BOND/KCl (0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q (0.53 mm) Det: GC FID2B
Process Host: CTX1645

First Level Reviewer: sciannac Date: 09-Mar-2022 13:31:51

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/l	Flags
$ 1 1,1,1-Trifluoroethane						
1		4.362			ND	
2		5.458				
2 Methane						
1	1.253	1.258	-0.005	196139976	5574.9	
2	1.655	1.663	-0.008	183234652	5073.6	
					RPD = 9.42	
3 Ethane						
1		1.523			ND	
2		3.018				
4 Ethylene						
1		1.818			ND	
2		2.598				
5 Propane						
1		2.611			ND	
2		4.926				
6 Acetylene						
1		4.175			ND	
2		2.745				
7 Butane						
1		4.491			ND	
2		6.426				
8 isobutylene						
1		5.391			ND	
2		6.268				

QC Flag Legend

Processing Flags

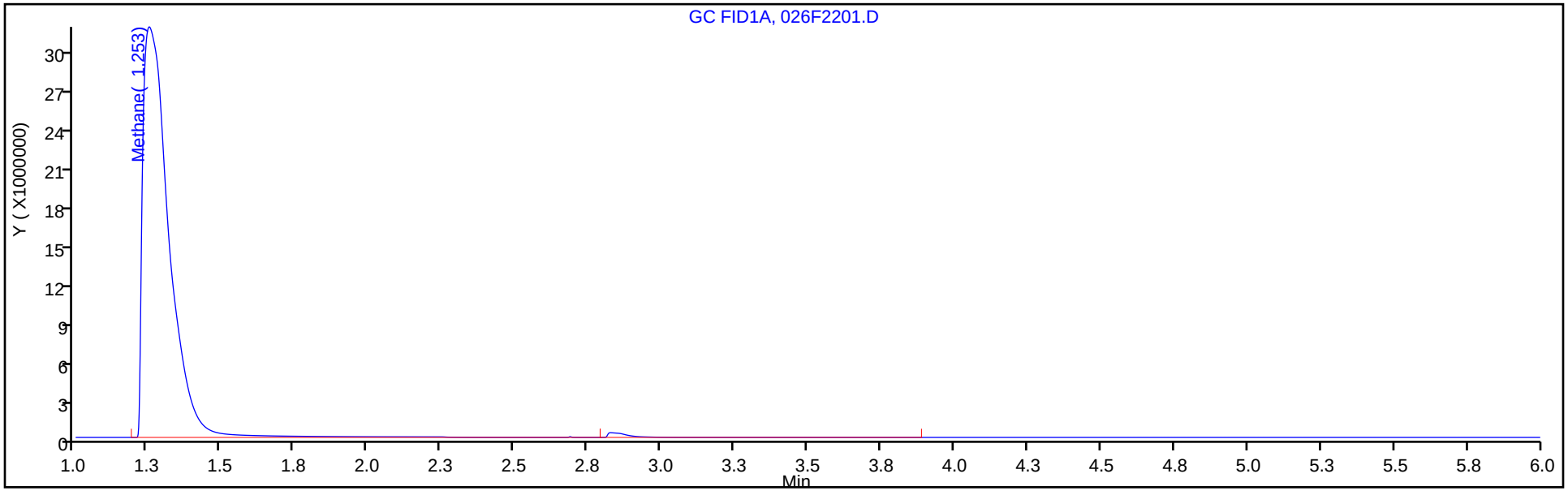
Report Date: 09-Mar-2022 13:49:44 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Denver

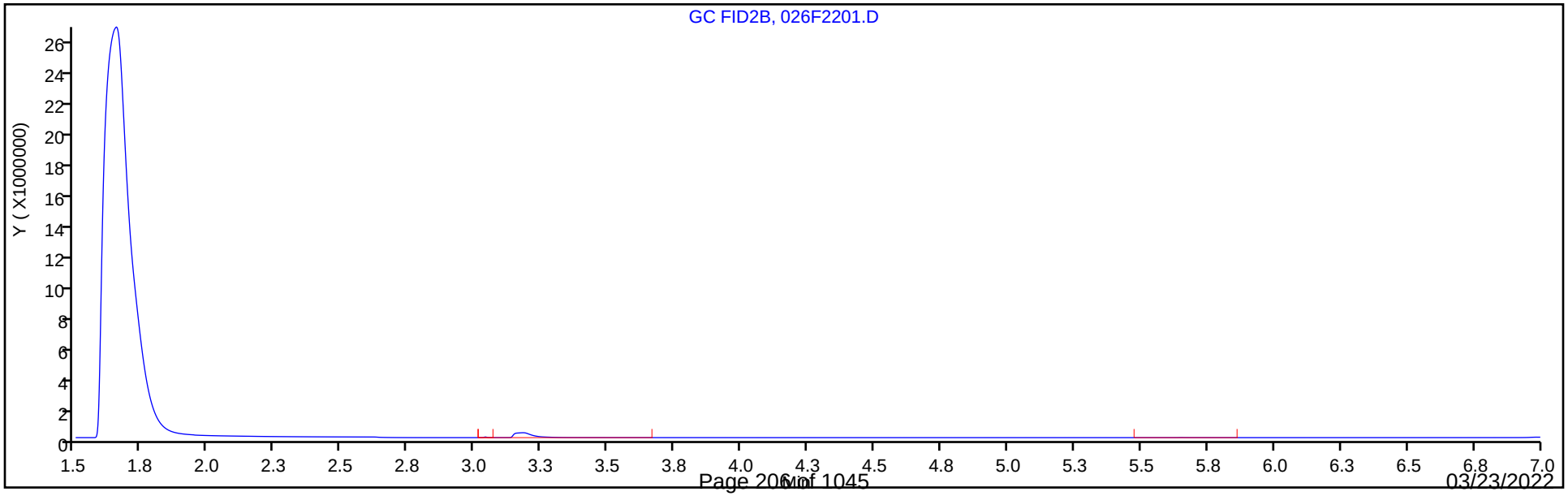
Data File: \\chromfs\Denver\ChromData\VGC_J\20220308-109074.b\026F2201.D

Injection Date:	08-Mar-2022 18:40:05	Instrument ID:	VGC_J	Operator ID:	sciannac
Lims ID:	280-159384-H-1	Lab Sample ID:	280-159384-1	Worklist Smp#:	24
Client ID:	G0022-8				
Purge Vol:	18.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	26
Method:	RSK_J	Limit Group:	GCV - RSK 175		

Column: Rt-Alumina BOND/KCl (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: HP-PLOT/Q (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-159384-1

SDG No.:

Client Sample ID: G0102-8 | Lab Sample ID: 280-159384-2

Matrix: Water | Lab File ID: 027F2301.D

Analysis Method: RSK-175 | Date Collected: 03/02/2022 15:10

Sample wt/vol: 20(mL) | Date Analyzed: 03/08/2022 18:53

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: HP-Plot Q ID: 0.53(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 567999 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
74-82-8	Methane	1.5		0.0050	0.0013	0.00063

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20220308-109074.b\027F2301.D
Lims ID: 280-159384-H-2
Client ID: G0102-8
Sample Type: Client
Inject. Date: 08-Mar-2022 18:53:05 ALS Bottle#: 27 Worklist Smp#: 25
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: 280-159384-H-2
Operator ID: sciannac Instrument ID: VGC_J

Method: \\chromfs\Denver\ChromData\VGC_J\20220308-109074.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 09-Mar-2022 13:35:14 Calib Date: 24-Sep-2021 15:12:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D

Column 1 : Rt-Alumina BOND/KCl (0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q (0.53 mm) Det: GC FID2B
Process Host: CTX1645

First Level Reviewer: sciannac Date: 09-Mar-2022 13:31:56

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/l	Flags
$ 1 1,1,1-Trifluoroethane						
1		4.362			ND	
2		5.458				
2 Methane						
1	1.254	1.258	-0.004	58233507	1653.9	
2	1.656	1.663	-0.007	53135110	1470.0	
					RPD = 11.77	
3 Ethane						
1		1.523			ND	
2		3.018				
4 Ethylene						
1		1.818			ND	
2		2.598				
5 Propane						
1		2.611			ND	
2		4.926				
6 Acetylene						
1		4.175			ND	
2		2.745				
7 Butane						
1		4.491			ND	
2		6.426				
8 isobutylene						
1		5.391			ND	
2		6.268				

QC Flag Legend

Processing Flags

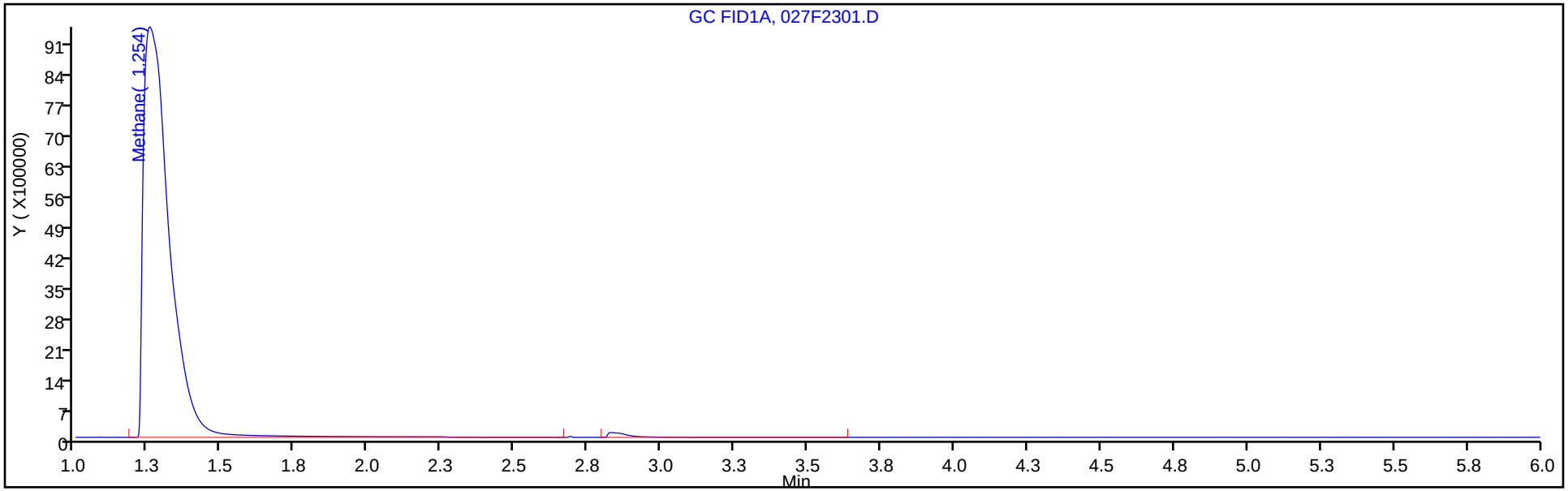
Report Date: 09-Mar-2022 13:35:20 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Denver

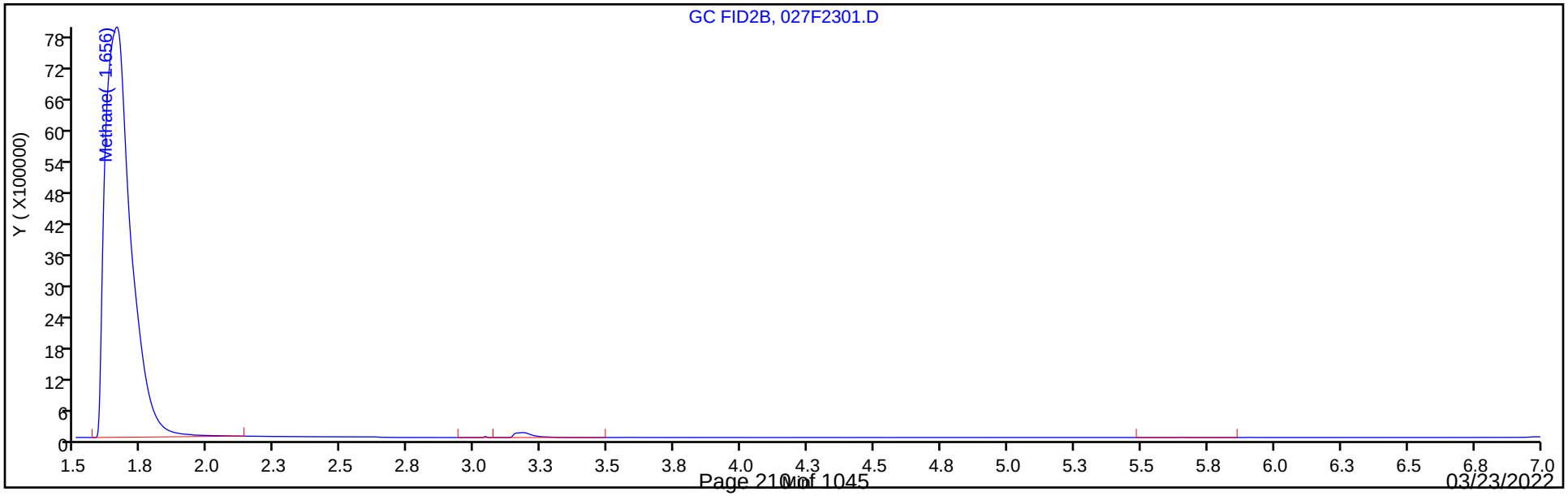
Data File: \\chromfs\Denver\ChromData\VGC_J\20220308-109074.b\027F2301.D

Injection Date:	08-Mar-2022 18:53:05	Instrument ID:	VGC_J	Operator ID:	sciannac
Lims ID:	280-159384-H-2	Lab Sample ID:	280-159384-2	Worklist Smp#:	25
Client ID:	G0102-8				
Purge Vol:	18.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	27
Method:	RSK_J	Limit Group:	GCV - RSK 175		

Column: Rt-Alumina BOND/KCl (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: HP-PLOT/Q (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-159384-1

SDG No.:

Client Sample ID: G0121-8 | Lab Sample ID: 280-159384-4

Matrix: Water | Lab File ID: 028F2401.D

Analysis Method: RSK-175 | Date Collected: 03/02/2022 15:10

Sample wt/vol: 20(mL) | Date Analyzed: 03/08/2022 19:06

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: HP-Plot Q ID: 0.53(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 567999 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
74-82-8	Methane	18		0.0050	0.0013	0.00063

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20220308-109074.b\028F2401.D
Lims ID: 280-159384-H-4
Client ID: G0121-8
Sample Type: Client
Inject. Date: 08-Mar-2022 19:06:05 ALS Bottle#: 28 Worklist Smp#: 26
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: 280-159384-H-4
Operator ID: sciannac Instrument ID: VGC_J

Method: \\chromfs\Denver\ChromData\VGC_J\20220308-109074.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 09-Mar-2022 13:35:14 Calib Date: 24-Sep-2021 15:12:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D

Column 1 : Rt-Alumina BOND/KCl (0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q (0.53 mm) Det: GC FID2B
Process Host: CTX1645

First Level Reviewer: sciannac Date: 09-Mar-2022 13:32:08

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/l	Flags
$ 1 1,1,1-Trifluoroethane						
1		4.362			ND	
2		5.458				
2 Methane						E
1	1.256	1.258	-0.002	689061978	19590	E
2	1.655	1.663	-0.008	639171765	17702	
					RPD = 10.12	
3 Ethane						
1		1.523			ND	
2		3.018				
4 Ethylene						
1		1.818			ND	
2		2.598				
5 Propane						
1		2.611			ND	
2		4.926				
6 Acetylene						
1		4.175			ND	
2		2.745				
7 Butane						
1		4.491			ND	
2		6.426				
8 isobutylene						
1		5.391			ND	
2		6.268				

QC Flag Legend

Processing Flags

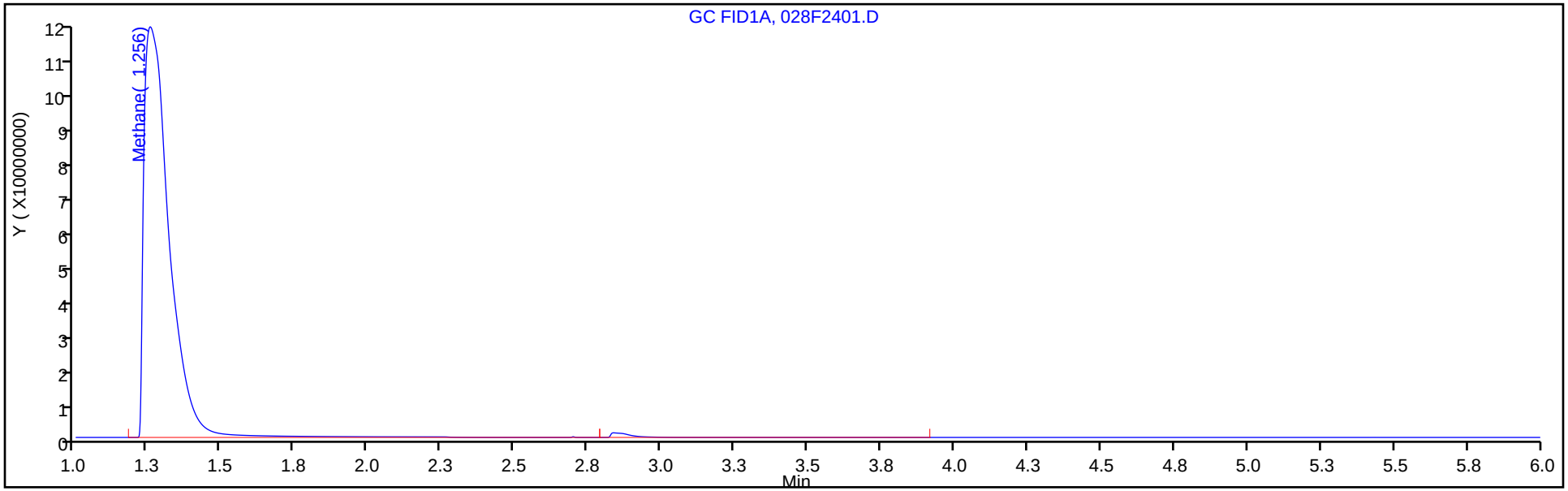
E - Exceeded Maximum Amount

Report Date: 09-Mar-2022 13:35:20 Chrom Revision: 2.3 16-Feb-2022 17:52:00

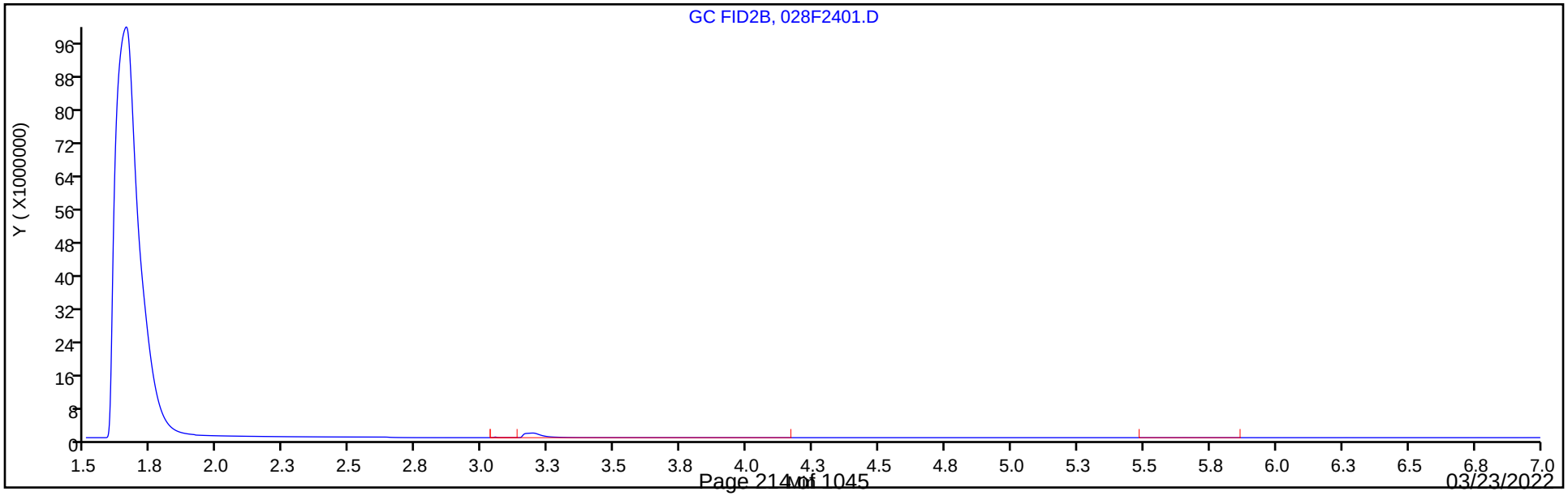
Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\VGC_J\20220308-109074.b\028F2401.D				
Injection Date:	08-Mar-2022 19:06:05	Instrument ID:	VGC_J	Operator ID:	sciannac
Lims ID:	280-159384-H-4	Lab Sample ID:	280-159384-4	Worklist Smp#:	26
Client ID:	G0121-8				
Purge Vol:	18.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	28
Method:	RSK_J	Limit Group:	GCV - RSK 175		

Column: Rt-Alumina BOND/KCl (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: HP-PLOT/Q (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-159384-1

SDG No.:

Client Sample ID: G0122-8 | Lab Sample ID: 280-159384-5

Matrix: Water | Lab File ID: 029F2501.D

Analysis Method: RSK-175 | Date Collected: 03/02/2022 12:45

Sample wt/vol: 20(mL) | Date Analyzed: 03/08/2022 19:19

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: HP-Plot Q ID: 0.53(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 567999 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
74-82-8	Methane	15		0.0050	0.0013	0.00063

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20220308-109074.b\029F2501.D
Lims ID: 280-159384-I-5
Client ID: G0122-8
Sample Type: Client
Inject. Date: 08-Mar-2022 19:19:02 ALS Bottle#: 29 Worklist Smp#: 27
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: 280-159384-I-5
Operator ID: sciannac Instrument ID: VGC_J

Method: \\chromfs\Denver\ChromData\VGC_J\20220308-109074.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 09-Mar-2022 13:35:14 Calib Date: 24-Sep-2021 15:12:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D

Column 1 : Rt-Alumina BOND/KCl (0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q (0.53 mm) Det: GC FID2B
Process Host: CTX1645

First Level Reviewer: sciannac Date: 09-Mar-2022 13:32:14

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/l	Flags
$ 1 1,1,1-Trifluoroethane						
1		4.362			ND	
2		5.458				
2 Methane						
1	1.255	1.258	-0.003	602421599	17127	
2	1.653	1.663	-0.010	557535008	15441	
					RPD = 10.35	
3 Ethane						
1		1.523			ND	
2		3.018				
4 Ethylene						
1		1.818			ND	
2		2.598				
5 Propane						
1		2.611			ND	
2		4.926				
6 Acetylene						
1		4.175			ND	
2		2.745				
7 Butane						
1		4.491			ND	
2		6.426				
8 isobutylene						
1		5.391			ND	
2		6.268				

QC Flag Legend

Processing Flags

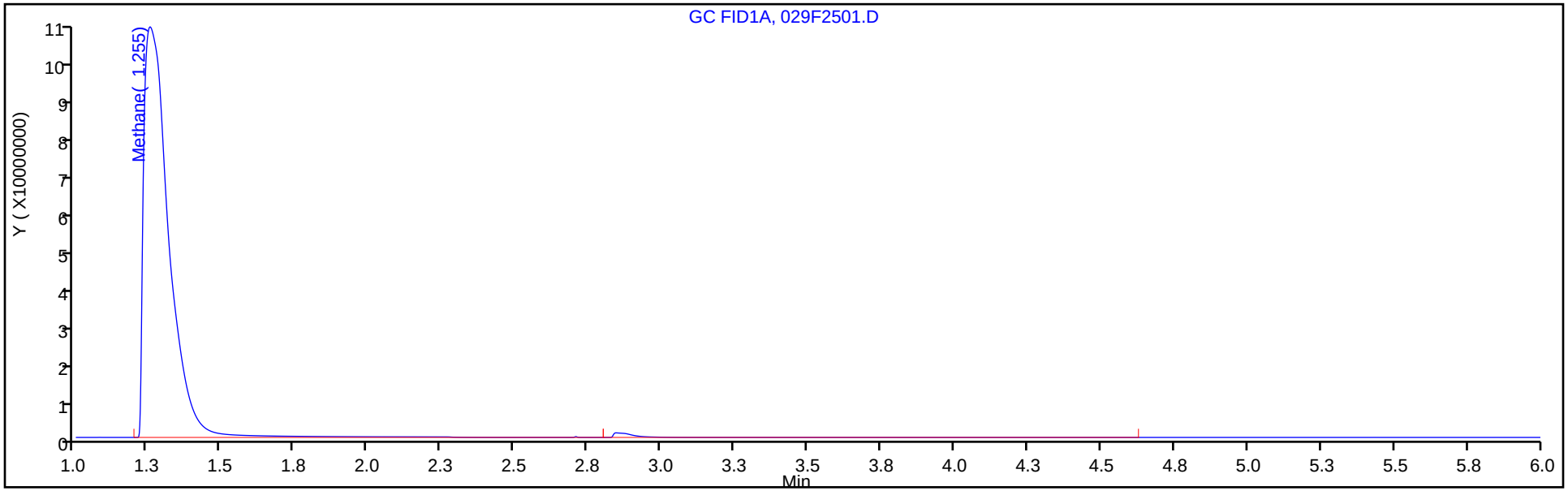
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Eurofins Denver

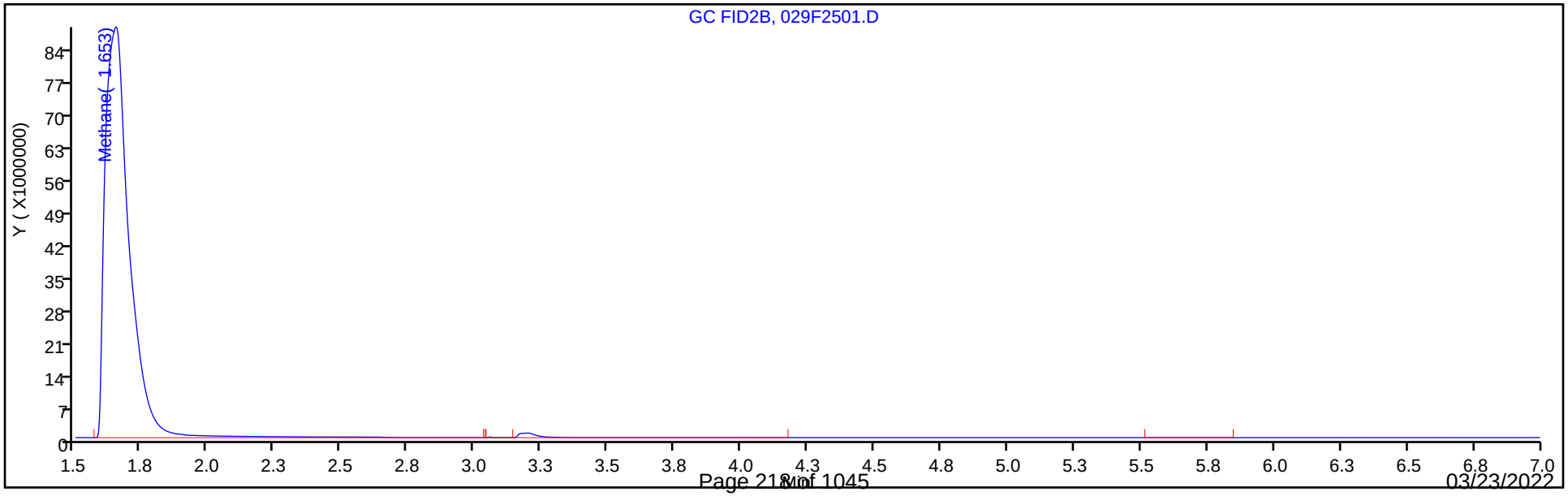
Data File: \\chromfs\Denver\ChromData\VGC_J\20220308-109074.b\029F2501.D

Injection Date:	08-Mar-2022 19:19:02	Instrument ID:	VGC_J	Operator ID:	sciannac
Lims ID:	280-159384-I-5	Lab Sample ID:	280-159384-5	Worklist Smp#:	27
Client ID:	G0122-8				
Purge Vol:	18.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	29
Method:	RSK_J	Limit Group:	GCV - RSK 175		

Column: Rt-Alumina BOND/KCl (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: HP-PLOT/Q (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-159384-1

SDG No.:

Client Sample ID: G0123-8 | Lab Sample ID: 280-159384-6

Matrix: Water | Lab File ID: 030F2601.D

Analysis Method: RSK-175 | Date Collected: 03/02/2022 16:35

Sample wt/vol: 20(mL) | Date Analyzed: 03/08/2022 19:32

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: HP-Plot Q ID: 0.53(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 567999 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
74-82-8	Methane	15		0.0050	0.0013	0.00063

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20220308-109074.b\030F2601.D
Lims ID: 280-159384-G-6
Client ID: G0123-8
Sample Type: Client
Inject. Date: 08-Mar-2022 19:32:00 ALS Bottle#: 30 Worklist Smp#: 28
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: 280-159384-G-6
Operator ID: sciannac Instrument ID: VGC_J

Method: \\chromfs\Denver\ChromData\VGC_J\20220308-109074.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 09-Mar-2022 13:35:14 Calib Date: 24-Sep-2021 15:12:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D

Column 1 : Rt-Alumina BOND/KCl (0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q (0.53 mm) Det: GC FID2B
Process Host: CTX1645

First Level Reviewer: sciannac Date: 09-Mar-2022 13:32:20

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/l	Flags
$ 1 1,1,1-Trifluoroethane						
1		4.362			ND	
2		5.458				
2 Methane						
1	1.255	1.258	-0.003	592531856	16845	
2	1.654	1.663	-0.009	549021916	15205	
					RPD = 10.23	
3 Ethane						
1		1.523			ND	
2		3.018				
4 Ethylene						
1		1.818			ND	
2		2.598				
5 Propane						
1		2.611			ND	
2		4.926				
6 Acetylene						
1		4.175			ND	
2		2.745				
7 Butane						
1		4.491			ND	
2		6.426				
8 isobutylene						
1		5.391			ND	
2		6.268				

QC Flag Legend

Processing Flags

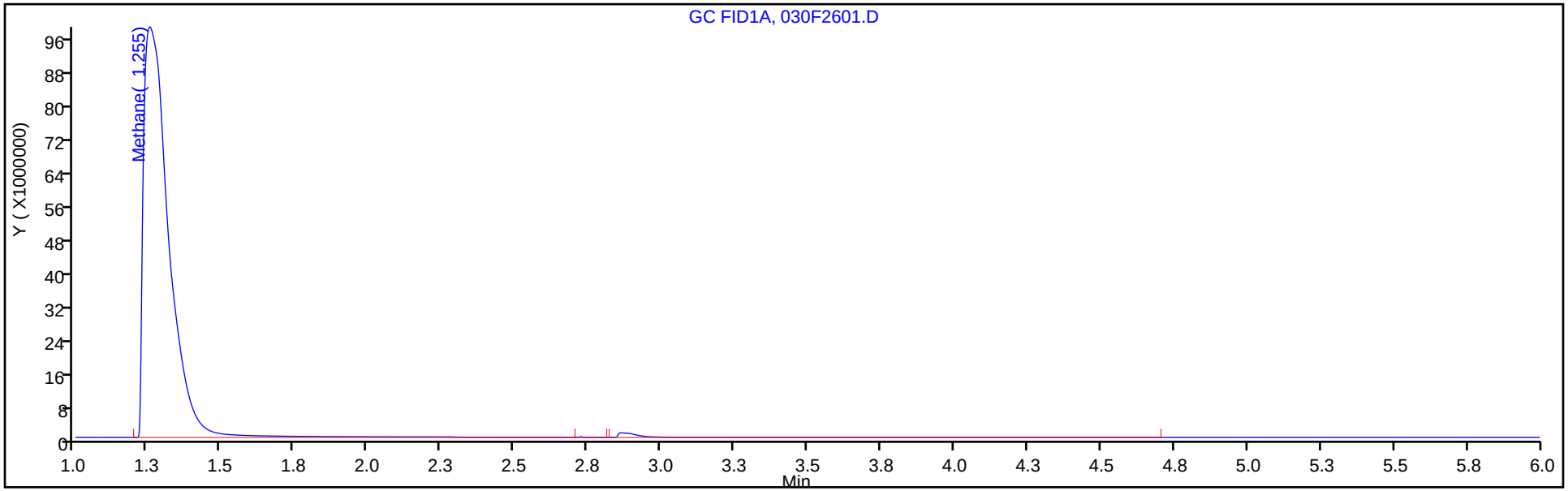
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Eurofins Denver

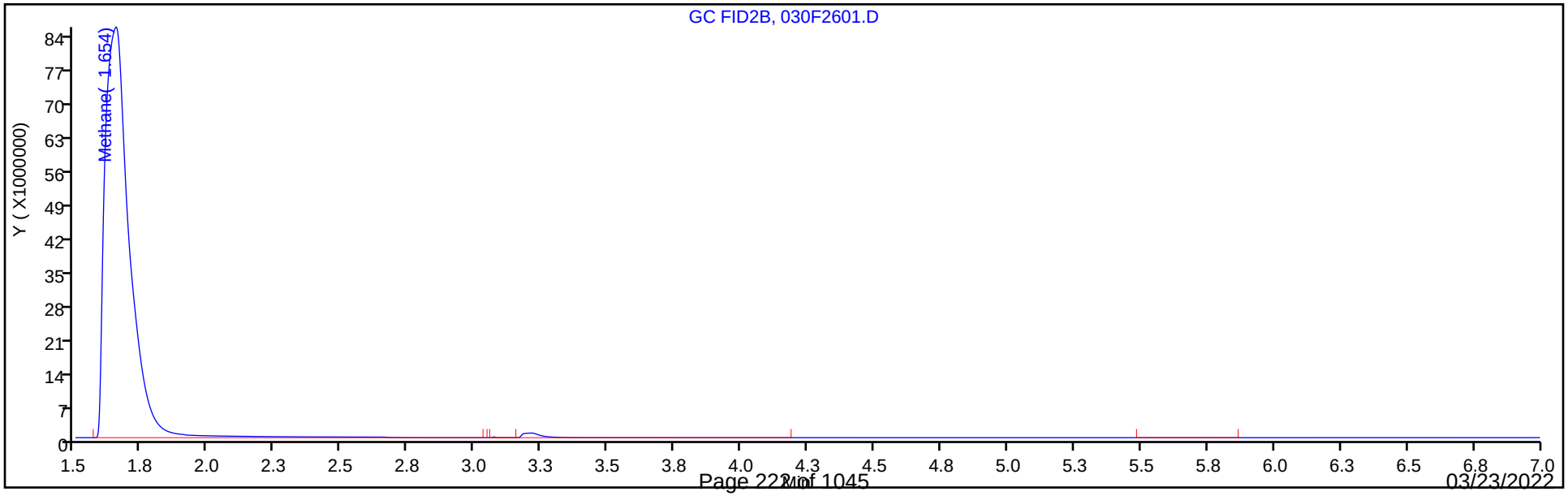
Data File: \\chromfs\Denver\ChromData\VGC_J\20220308-109074.b\030F2601.D

Injection Date:	08-Mar-2022 19:32:00	Instrument ID:	VGC_J	Operator ID:	sciannac
Lims ID:	280-159384-G-6	Lab Sample ID:	280-159384-6	Worklist Smp#:	28
Client ID:	G0123-8				
Purge Vol:	18.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	30
Method:	RSK_J	Limit Group:	GCV - RSK 175		

Column: Rt-Alumina BOND/KCl (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: HP-PLOT/Q (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



FORM VI
GC VOA BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159384-1 Analy Batch No.: 550959

SDG No.:

Instrument ID: VGC_J GC Column: Rt-Alumina ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/24/2021 13:28 Calibration End Date: 09/24/2021 15:12 Calibration ID: 58237

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-550959/2	004F0201.D
Level 2	IC 280-550959/3	005F0301.D
Level 3	IC 280-550959/4	006F0401.D
Level 4	IC 280-550959/5	007F0501.D
Level 5	IC 280-550959/6	008F0601.D
Level 6	IC 280-550959/7	009F0701.D
Level 7	IC 280-550959/9	010F0801.D
Level 8	IC 280-550959/10	011F0901.D
Level 9	IC 280-550959/11	012F1001.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	LVL 7	LVL 8	LVL 9		RT WINDOW	AVG RT
Methane	1.292	1.293	1.293	1.295	1.295	1.294	1.293	1.292	1.288		1.259 - 1.339	1.293
Ethane	1.559	1.562	1.561	1.561	1.560	1.561					1.506 - 1.606	1.561
Ethylene	1.859	1.867	1.870	1.870	1.873	1.873					1.794 - 1.894	1.869
Acetylene	4.184	4.213	4.226	4.230	4.230	4.228					4.150 - 4.310	4.219

FORM VI
GC VOA BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Denver Job No.: 280-159384-1 Analy Batch No.: 550959

SDG No.:

Instrument ID: VGC_J GC Column: Rt-Alumina ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/24/2021 13:28 Calibration End Date: 09/24/2021 15:12 Calibration ID: 58237

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-550959/2	004F0201.D
Level 2	IC 280-550959/3	005F0301.D
Level 3	IC 280-550959/4	006F0401.D
Level 4	IC 280-550959/5	007F0501.D
Level 5	IC 280-550959/6	008F0601.D
Level 6	IC 280-550959/7	009F0701.D
Level 7	IC 280-550959/9	010F0801.D
Level 8	IC 280-550959/10	011F0901.D
Level 9	IC 280-550959/11	012F1001.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	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								
Methane	113753 36593 34286	77207 30893	37613 37193	37343 37763	Lin2	65341.4749	35170.8362							0.9950		0.9900
Ethane	30155 35527	35278 30441	32231	35816	Ave		33241.2722				7.9		20.0			
Ethylene	33189 37346	37318 31937	33977	37589	Ave		35225.9675				7.1		20.0			
Acetylene	26445 29412	29909 25729	27524	29815	Ave		28139.0195				6.5		20.0			

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
GC VOA BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Denver Job No.: 280-159384-1 Analy Batch No.: 550959

SDG No.:

Instrument ID: VGC_J GC Column: Rt-Alumina ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/24/2021 13:28 Calibration End Date: 09/24/2021 15:12 Calibration ID: 58237

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-550959/2	004F0201.D
Level 2	IC 280-550959/3	005F0301.D
Level 3	IC 280-550959/4	006F0401.D
Level 4	IC 280-550959/5	007F0501.D
Level 5	IC 280-550959/6	008F0601.D
Level 6	IC 280-550959/7	009F0701.D
Level 7	IC 280-550959/9	010F0801.D
Level 8	IC 280-550959/10	011F0901.D
Level 9	IC 280-550959/11	012F1001.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
		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
Methane	Lin2	93424 8118988	126818 60484705	494257 245647963	2453548 669092603	4808571	0.821 263	1.64 1626	13.1 6505	65.7 19515	131
Ethane	Ave	46427 14997572	108631	793971	4411499	8751636	1.54 493	3.08	24.6	123	246
Ethylene	Ave	47667 14678124	107197	780792	4318968	8582166	1.44 460	2.87	23.0	115	230
Acetylene	Ave	35261 10977943	79761	587204	3180347	6274725	1.33 427	2.67	21.3	107	213

Curve Type Legend

Ave = Average
Lin2 = Linear 1/conc^2

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\004F0201.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 24-Sep-2021 13:28:57 ALS Bottle#: 4 Worklist Smp#: 2
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: ic
Operator ID: sciannac Instrument ID: VGC_J
Sublist: chrom-RSK_J*sub5

Method: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 29-Sep-2021 10:55:12 Calib Date: 24-Sep-2021 15:12:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D

Column 1 : Rt-Alumina BOND/KCl (0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q (0.53 mm) Det: GC FID2B
Process Host: CTX1655

First Level Reviewer: sciannac Date: 24-Sep-2021 13:57:02

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Methane							a
1	1.292	1.299	-0.007	93424	0.8213	0.7985	a
2	1.689	1.686	0.003	91227	0.8213	0.7920	a
						RPD = 0.81	
3 Ethane							a
1	1.559	1.556	0.003	46427	1.54	1.40	a
2	3.032	3.028	0.004	46984	1.54	1.41	a
						RPD = 0.77	
4 Ethylene							a
1	1.859	1.844	0.015	47667	1.44	1.35	a
2	2.612	2.609	0.003	41226	1.44	1.33	a
						RPD = 1.67	
5 Propane							a
1	2.682	2.721	-0.039	76526	2.26	2.13	a
2	4.937	4.929	0.008	73050	2.26	2.09	a
						RPD = 1.83	
6 Acetylene							a
1	4.184	4.230	-0.046	35261	1.33	1.25	a
2	2.759	2.746	0.013	41503	1.33	1.21	a
						RPD = 3.15	
7 Butane							Ma
1	4.555	4.528	0.027	101912	2.98	2.80	a
2	6.435	6.426	0.009	95155	2.98	2.71	M
						RPD = 3.27	
8 isobutylene							Ma
1	5.437	5.403	0.034	92868	2.87	2.57	M
2	6.277	6.274	0.003	91569	2.87	2.76	a
						RPD = 7.02	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

RSK7gasMathes_00031 Amount Added: 2.50 Units: uL

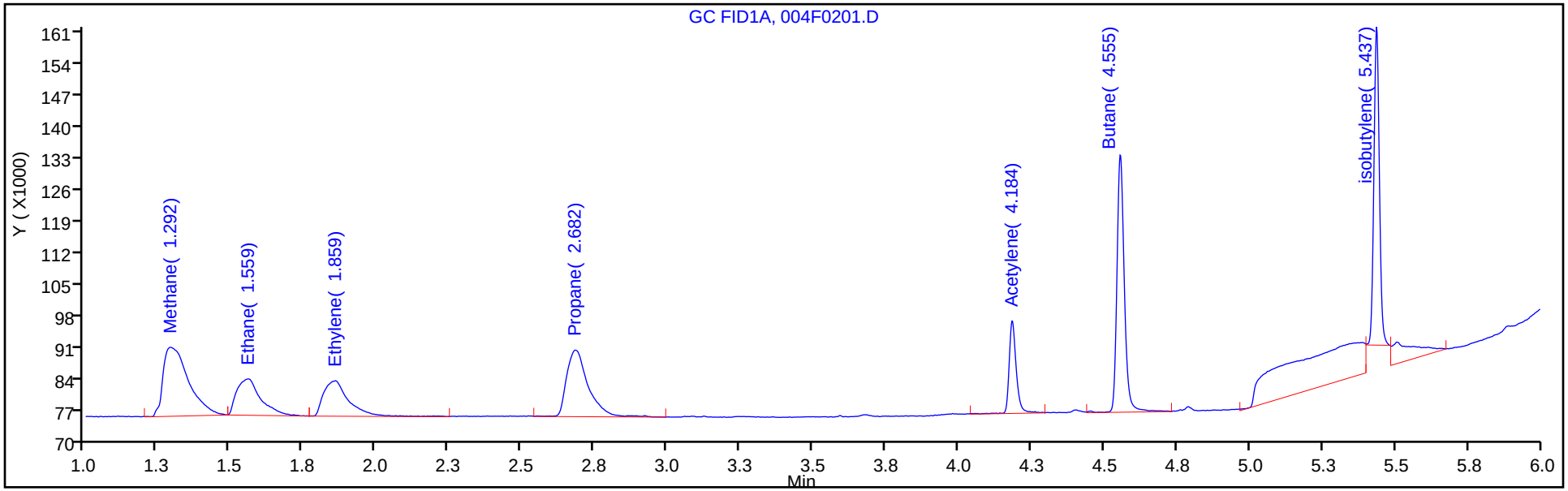
Report Date: 29-Sep-2021 10:55:12 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Denver

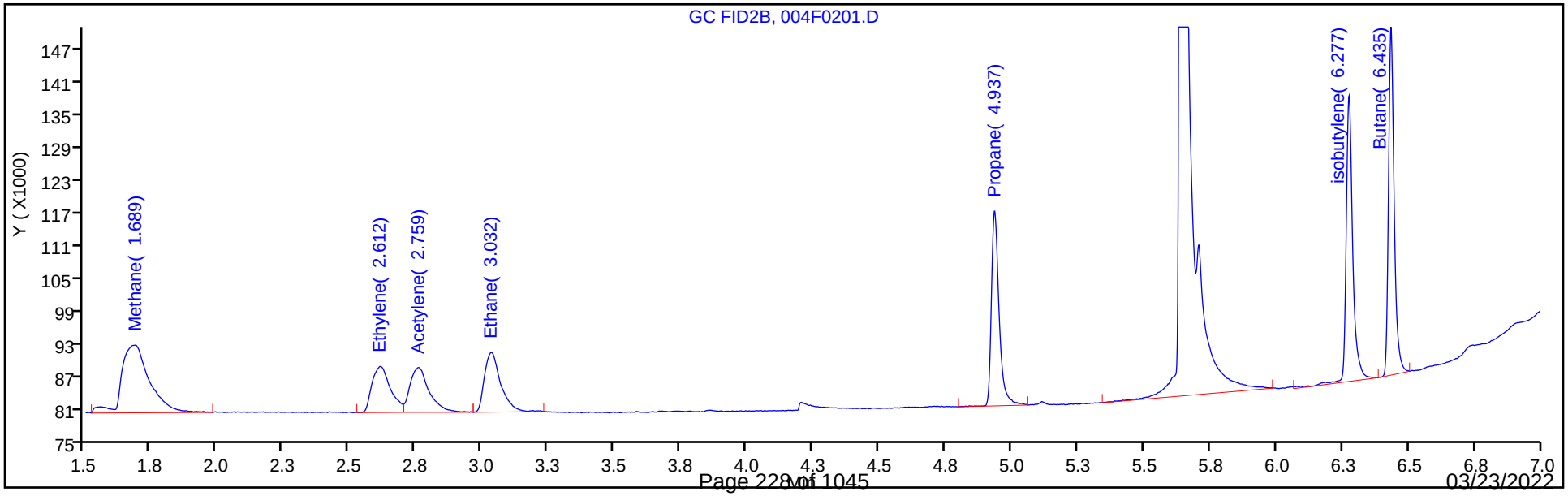
Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\004F0201.D

Injection Date:	24-Sep-2021 13:28:57	Instrument ID:	VGC_J	Operator ID:	sciannac
Lims ID:	ic			Worklist Smp#:	2
Client ID:					
Purge Vol:	18.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	4
Method:	RSK_J	Limit Group:	GCV - RSK 175		

Column: Rt-Alumina BOND/KCl (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: HP-PLOT/Q (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

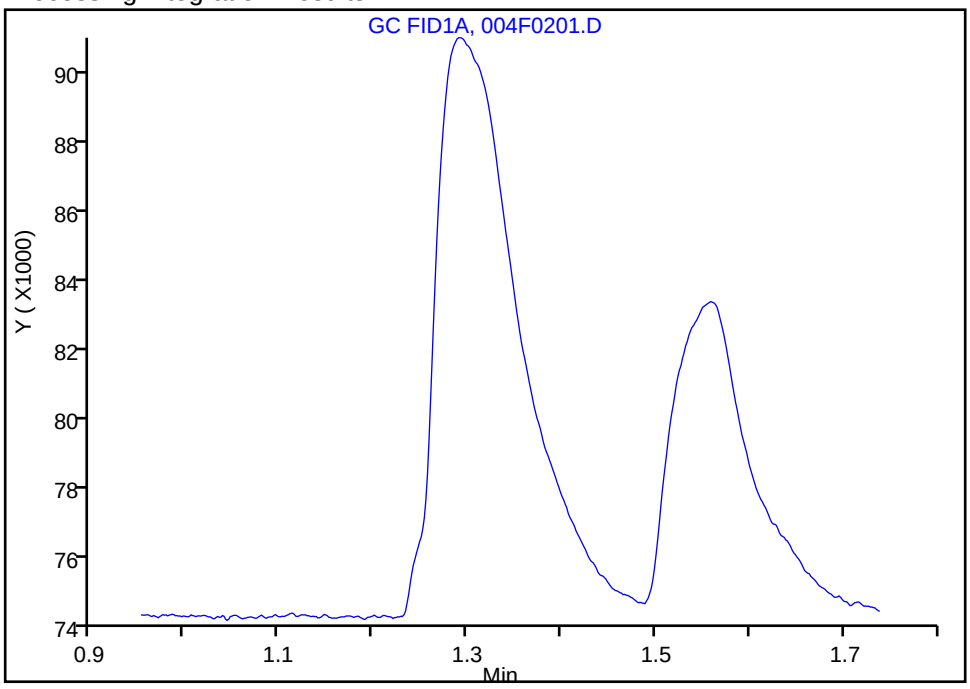
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Injection Date:	24-Sep-2021 13:28:57	Instrument ID:	VGC_J		
Lims ID:	ic				
Client ID:					
Operator ID:	sciannac	ALS Bottle#:	4	Worklist Smp#:	2
Purge Vol:	18.000 mL	Dil. Factor:	1.0000		
Method:	RSK_J	Limit Group:	GCV - RSK 175		
Column:	Rt-Alumina BOND/KCl (0.53 mm)	Detector	GC FID1A		

2 Methane, CAS: 74-82-8

Signal: 1

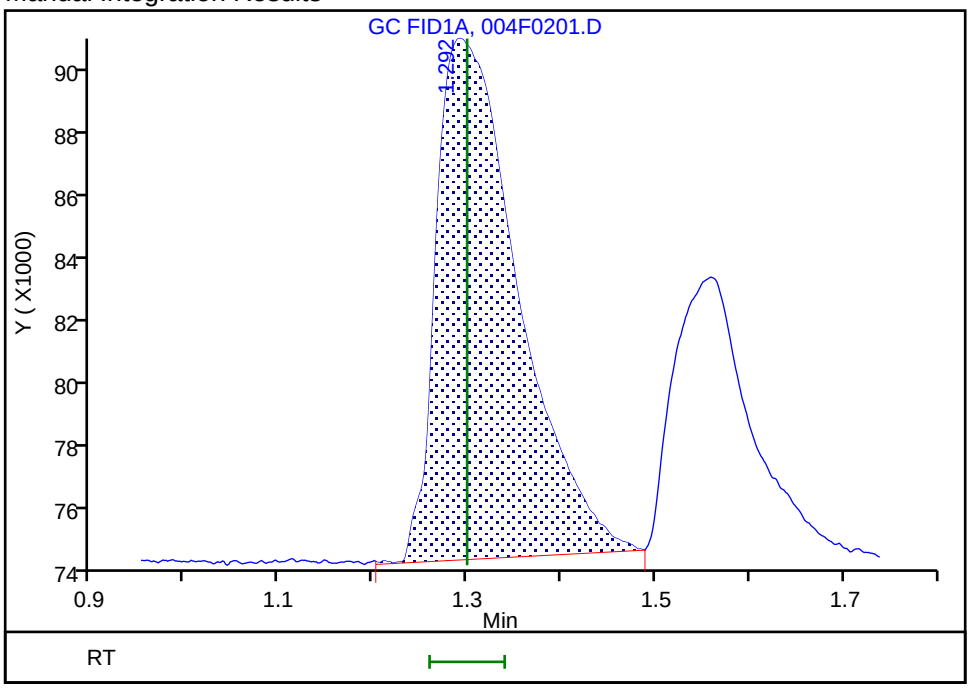
Not Detected
Expected RT: 1.30

Processing Integration Results



Manual Integration Results

RT: 1.29
Area: 93424
Amount: 0.798461
Amount Units: ug/l



Reviewer: sciannac, 24-Sep-2021 13:54:22
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

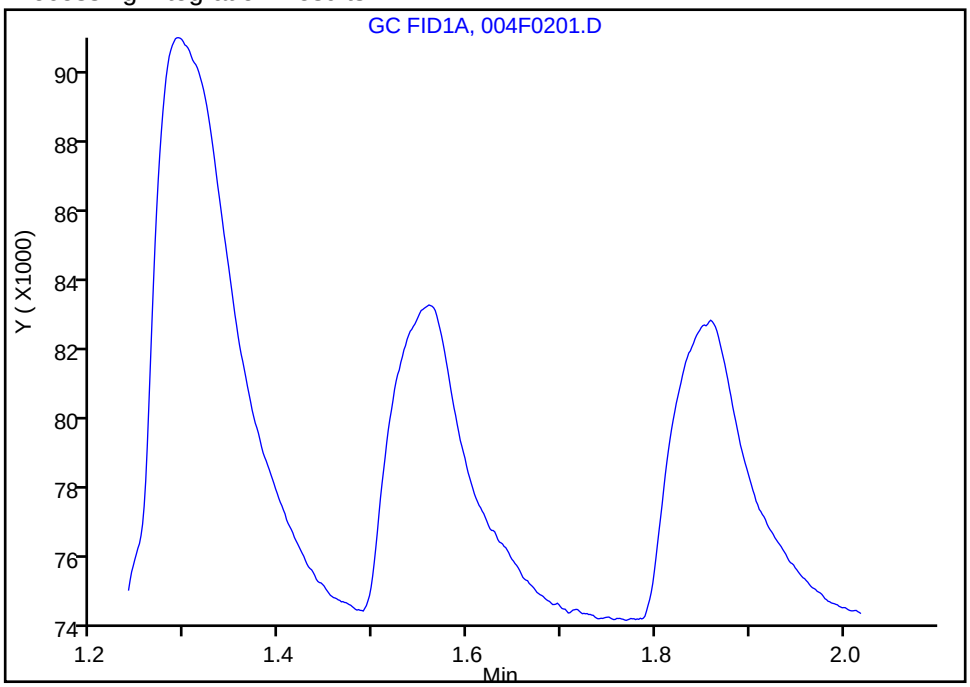
Data File:	\\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\004F0201.D				
Injection Date:	24-Sep-2021 13:28:57	Instrument ID:	VGC_J		
Lims ID:	ic				
Client ID:					
Operator ID:	sciannac	ALS Bottle#:	4	Worklist Smp#:	2
Purge Vol:	18.000 mL	Dil. Factor:	1.0000		
Method:	RSK_J	Limit Group:	GCV - RSK 175		
Column:	Rt-Alumina BOND/KCl (0.53 mm)	Detector	GC FID1A		

3 Ethane, CAS: 74-84-0

Signal: 1

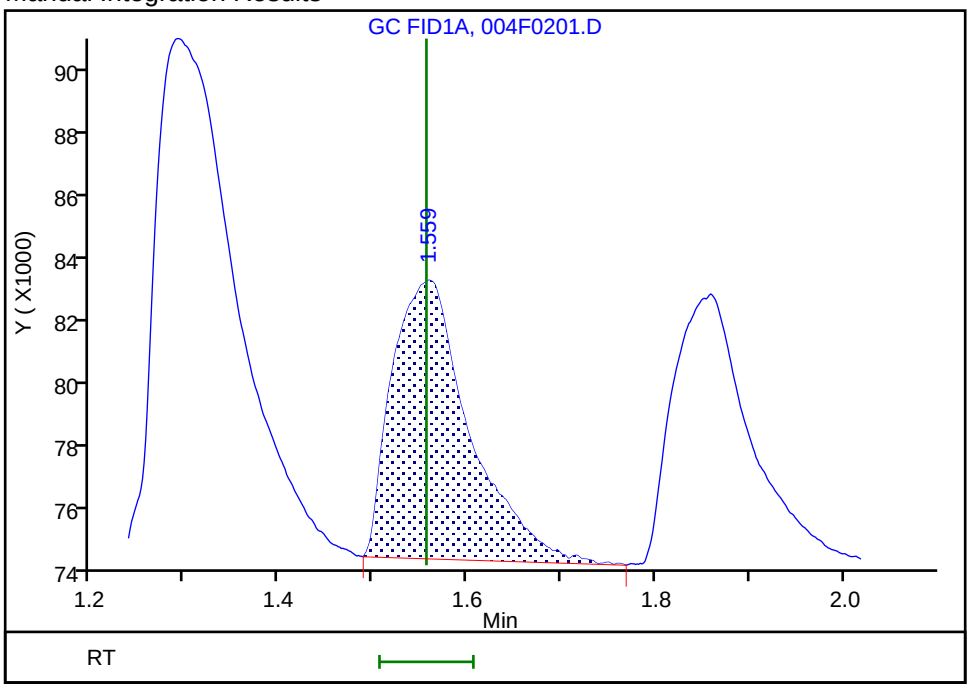
Not Detected
Expected RT: 1.56

Processing Integration Results



Manual Integration Results

RT: 1.56
Area: 46427
Amount: 1.396667
Amount Units: ug/l



Reviewer: sciannac, 24-Sep-2021 13:54:28
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

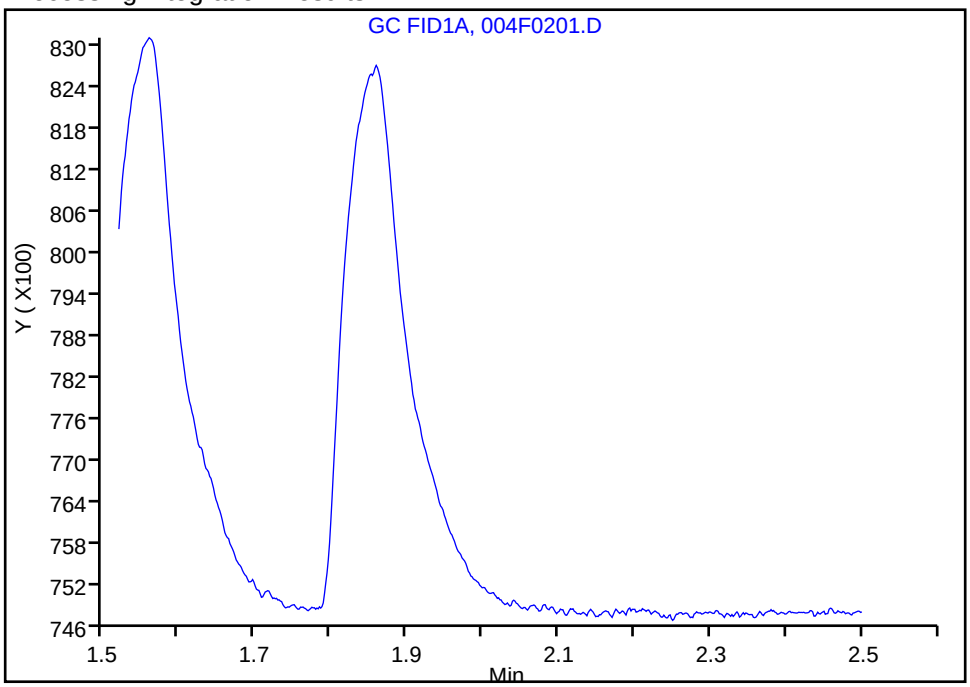
Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\004F0201.D
Injection Date: 24-Sep-2021 13:28:57 Instrument ID: VGC_J
Lims ID: ic
Client ID:
Operator ID: sciannac ALS Bottle#: 4 Worklist Smp#: 2
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Method: RSK_J Limit Group: GCV - RSK 175
Column: Rt-Alumina BOND/KCl (0.53 mm) Detector GC FID1A

4 Ethylene, CAS: 74-85-1

Signal: 1

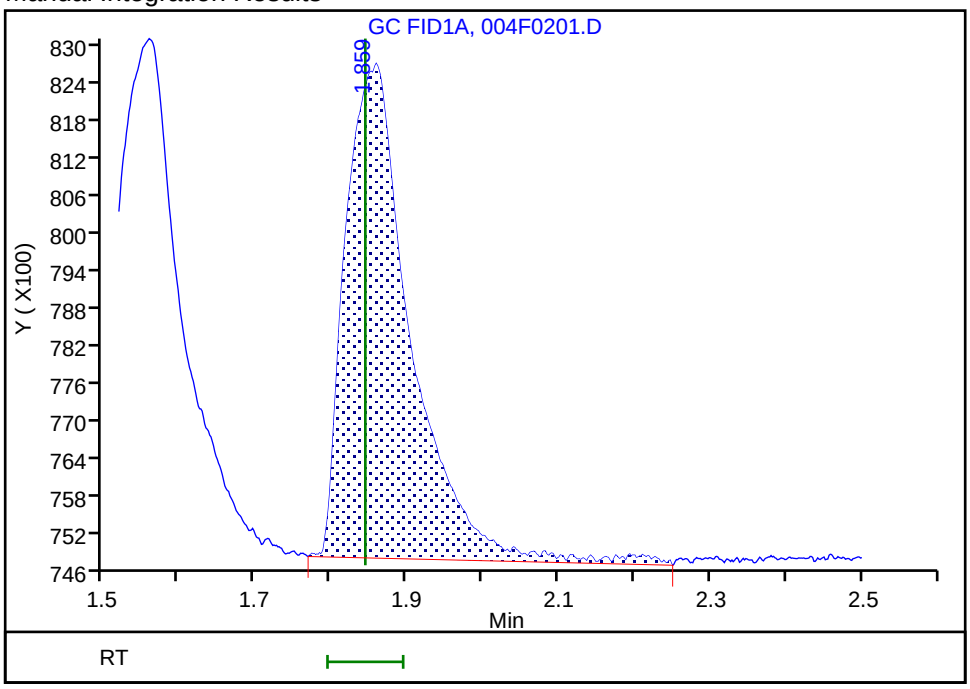
Not Detected
Expected RT: 1.84

Processing Integration Results



Manual Integration Results

RT: 1.86
Area: 47667
Amount: 1.353178
Amount Units: ug/l



Reviewer: sciannac, 24-Sep-2021 13:54:47
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

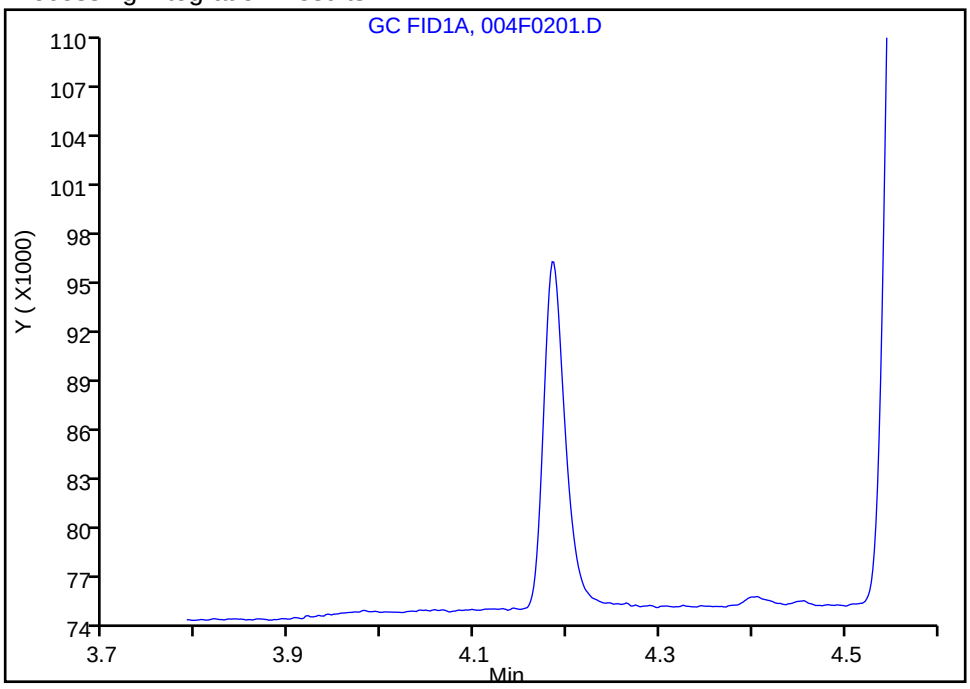
Data File:	\\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\004F0201.D				
Injection Date:	24-Sep-2021 13:28:57	Instrument ID:	VGC_J		
Lims ID:	ic				
Client ID:					
Operator ID:	sciannac	ALS Bottle#:	4	Worklist Smp#:	2
Purge Vol:	18.000 mL	Dil. Factor:	1.0000		
Method:	RSK_J	Limit Group:	GCV - RSK 175		
Column:	Rt-Alumina BOND/KCl (0.53 mm)	Detector	GC FID1A		

6 Acetylene, CAS: 74-86-2

Signal: 1

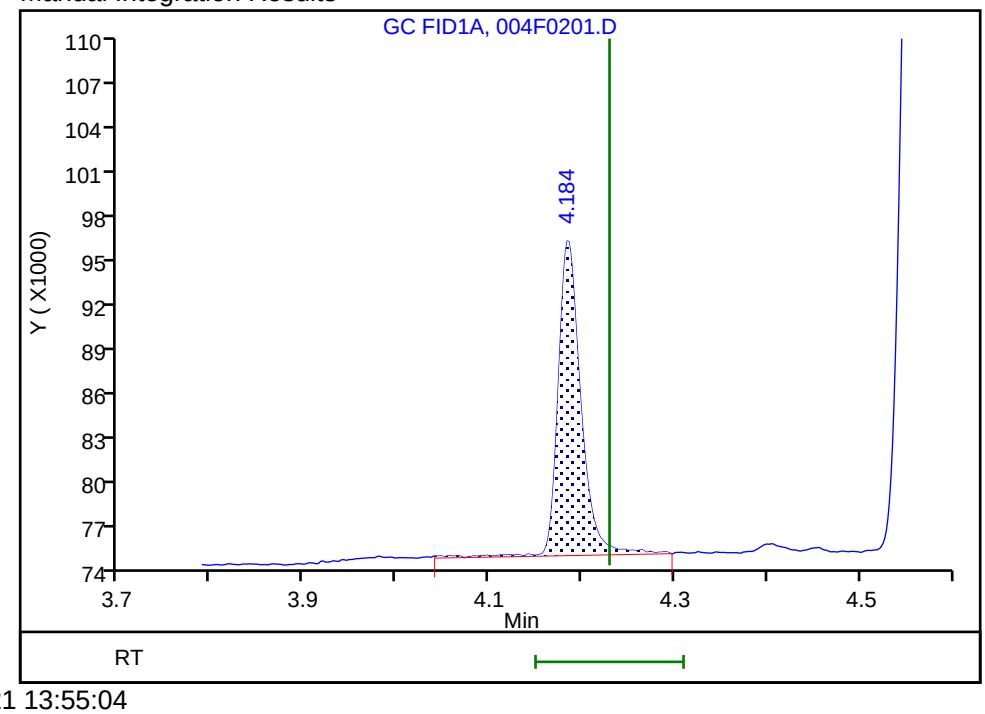
Not Detected
Expected RT: 4.23

Processing Integration Results



Manual Integration Results

RT: 4.18
Area: 35261
Amount: 1.253100
Amount Units: ug/l



Reviewer: sciannac, 24-Sep-2021 13:55:04
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\005F0301.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 24-Sep-2021 13:41:52 ALS Bottle#: 5 Worklist Smp#: 3
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: ic
Operator ID: sciannac Instrument ID: VGC_J
Sublist: chrom-RSK_J*sub5

Method: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 29-Sep-2021 10:55:13 Calib Date: 24-Sep-2021 15:12:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D

Column 1 : Rt-Alumina BOND/KCl (0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q (0.53 mm) Det: GC FID2B
Process Host: CTX1655

First Level Reviewer: sciannac Date: 24-Sep-2021 13:58:34

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Methane							
1	1.293	1.299	-0.006	126818	1.64	1.75	
2	1.686	1.686	0.000	126529	1.64	1.77	
						RPD = 1.24	
3 Ethane							
1	1.562	1.556	0.006	108631	3.08	3.27	
2	3.031	3.028	0.003	107446	3.08	3.22	
						RPD = 1.52	
4 Ethylene							
1	1.867	1.844	0.023	107197	2.87	3.04	
2	2.613	2.609	0.004	95159	2.87	3.07	
						RPD = 0.93	
5 Propane							
1	2.700	2.721	-0.021	174390	4.52	4.84	
2	4.935	4.929	0.006	170185	4.52	4.86	
						RPD = 0.37	
6 Acetylene							
1	4.213	4.230	-0.017	79761	2.67	2.83	
2	2.756	2.746	0.010	94797	2.67	2.77	
						RPD = 2.17	
7 Butane							Ma
1	4.575	4.528	0.047	232737	5.95	6.39	a
2	6.435	6.426	0.009	221865	5.95	6.31	M
						RPD = 1.20	
8 isobutylene							Ma
1	5.457	5.403	0.054	232885	5.75	6.45	
2	6.276	6.274	0.002	200266	5.75	6.03	M
						RPD = 6.65	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

RSK7gasMathes_00031 Amount Added: 5.00 Units: uL

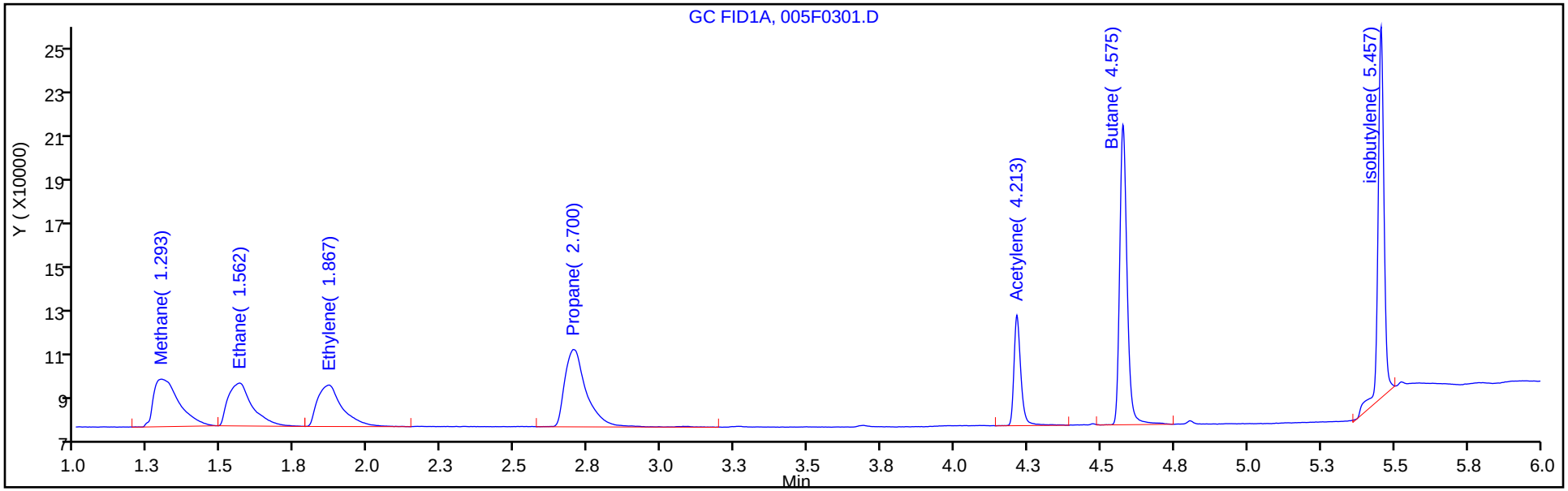
Report Date: 29-Sep-2021 10:55:13 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Denver

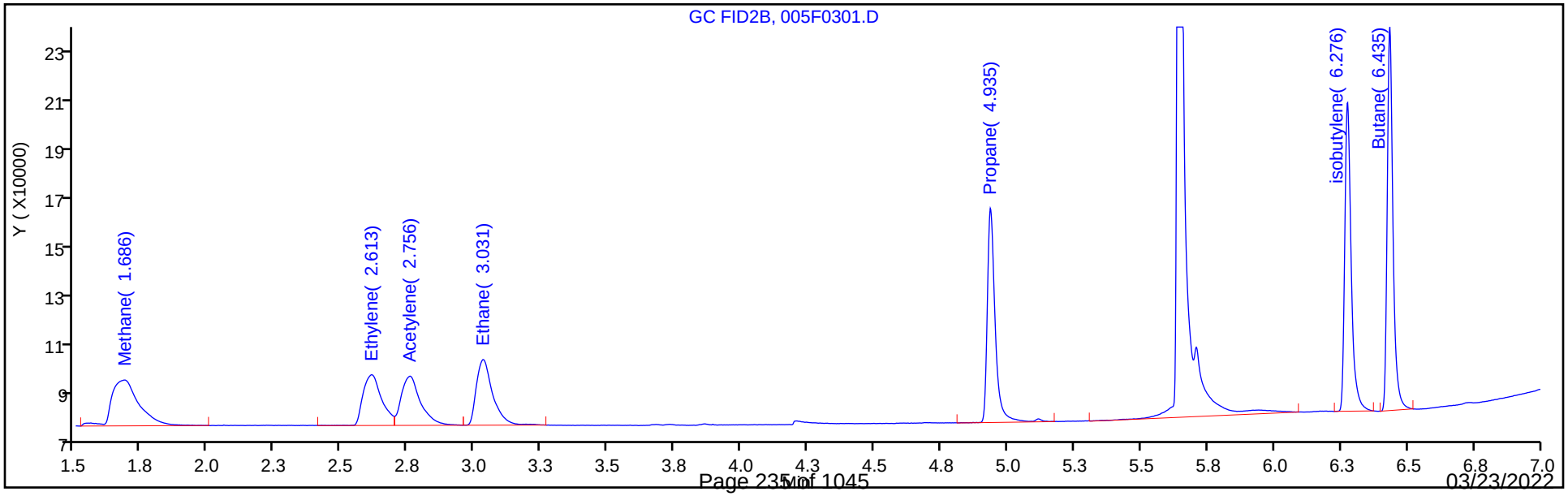
Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\005F0301.D

Injection Date:	24-Sep-2021 13:41:52	Instrument ID:	VGC_J	Operator ID:	sciannac
Lims ID:	ic			Worklist Smp#:	3
Client ID:					
Purge Vol:	18.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	5
Method:	RSK_J	Limit Group:	GCV - RSK 175		

Column: Rt-Alumina BOND/KCl (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: HP-PLOT/Q (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\006F0401.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 24-Sep-2021 13:54:46 ALS Bottle#: 6 Worklist Smp#: 4
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: ic
Operator ID: sciannac Instrument ID: VGC_J
Sublist: chrom-RSK_J*sub5

Method: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 29-Sep-2021 10:55:14 Calib Date: 24-Sep-2021 15:12:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D

Column 1 : Rt-Alumina BOND/KCl (0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q (0.53 mm) Det: GC FID2B
Process Host: CTX1655

First Level Reviewer: sciannac Date: 24-Sep-2021 15:51:08

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Methane							
1	1.293	1.299	-0.006	494257	13.1	12.2	
2	1.684	1.686	-0.002	509129	13.1	12.4	
						RPD = 1.40	
3 Ethane							
1	1.561	1.556	0.005	793971	24.6	23.9	
2	3.029	3.028	0.001	803791	24.6	24.1	
						RPD = 0.81	
4 Ethylene							
1	1.870	1.844	0.026	780792	23.0	22.2	
2	2.609	2.609	0.000	687818	23.0	22.2	
						RPD = 0.16	
5 Propane							
1	2.711	2.721	-0.010	1259121	36.1	35.0	
2	4.934	4.929	0.005	1221976	36.1	34.9	
						RPD = 0.18	
6 Acetylene							a
1	4.226	4.230	-0.004	587204	21.3	20.9	a
2	2.753	2.746	0.007	713476	21.3	20.9	a
						RPD = 0.03	
7 Butane							Ma
1	4.586	4.528	0.058	1686797	47.6	46.3	a
2	6.433	6.426	0.007	1612366	47.6	45.9	M
						RPD = 0.93	
8 isobutylene							Ma
1	5.465	5.403	0.062	1589725	46.0	44.0	
2	6.274	6.274	0.000	1464027	46.0	44.1	M
						RPD = 0.20	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

RSK7gasMathes_00031 Amount Added: 40.00 Units: uL

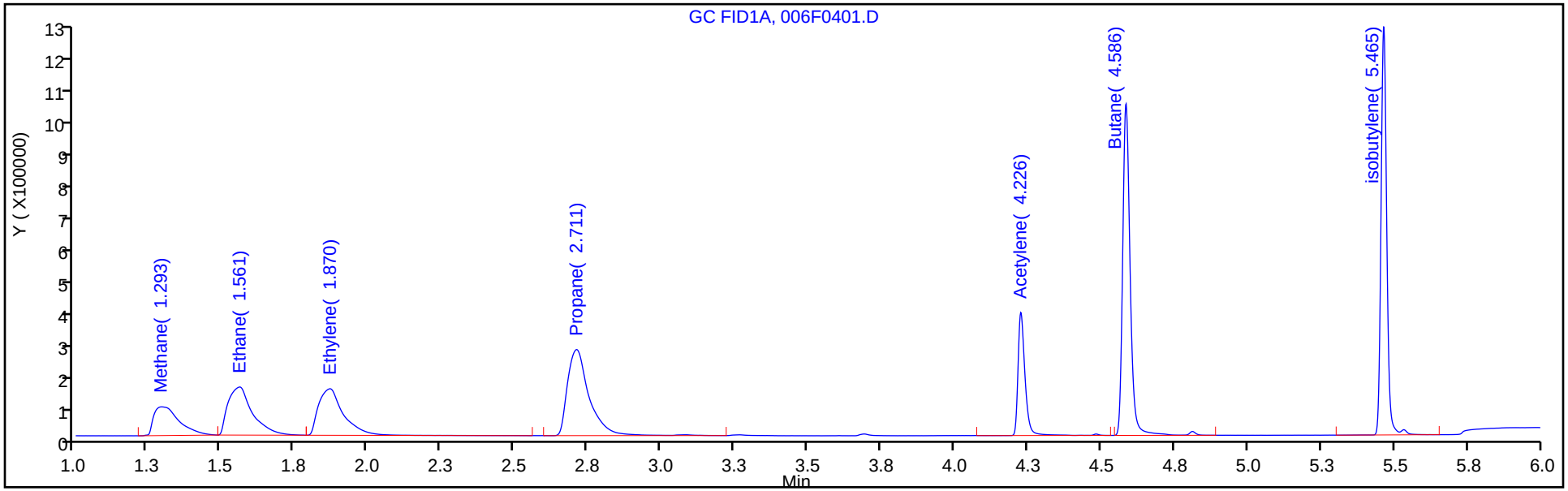
Report Date: 29-Sep-2021 10:55:14 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Denver

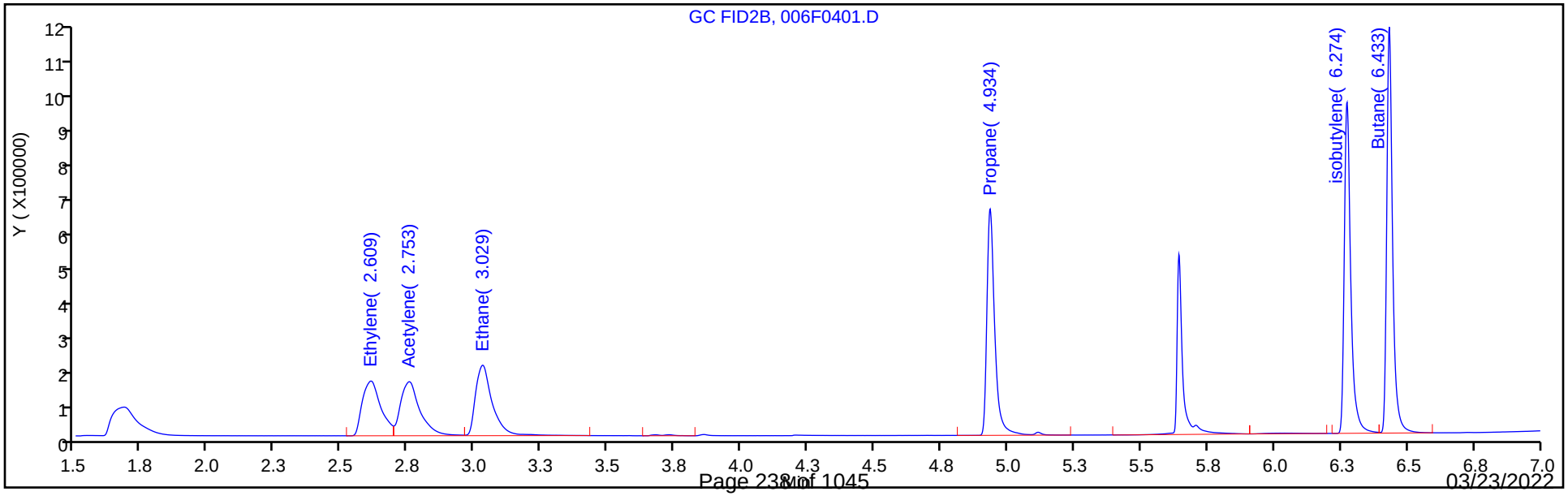
Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\006F0401.D

Injection Date:	24-Sep-2021 13:54:46	Instrument ID:	VGC_J	Operator ID:	sciannac
Lims ID:	ic			Worklist Smp#:	4
Client ID:					
Purge Vol:	18.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	RSK_J	Limit Group:	GCV - RSK 175		

Column: Rt-Alumina BOND/KCl (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: HP-PLOT/Q (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

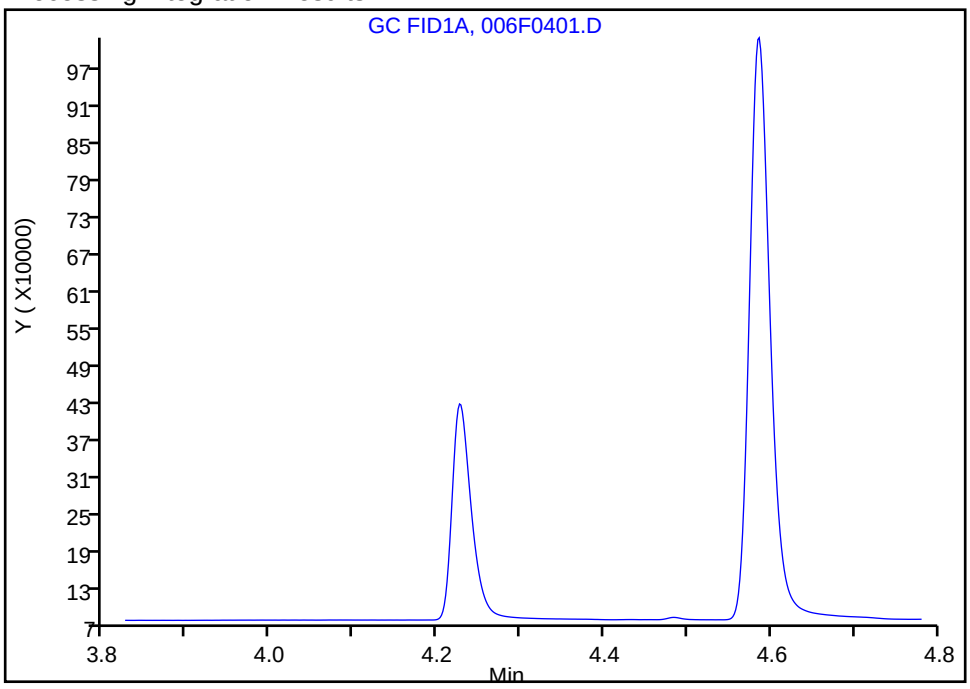
Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\006F0401.D
Injection Date: 24-Sep-2021 13:54:46 Instrument ID: VGC_J
Lims ID: ic
Client ID:
Operator ID: sciannac ALS Bottle#: 6 Worklist Smp#: 4
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Method: RSK_J Limit Group: GCV - RSK 175
Column: Rt-Alumina BOND/KCl (0.53 mm) Detector GC FID1A

6 Acetylene, CAS: 74-86-2

Signal: 1

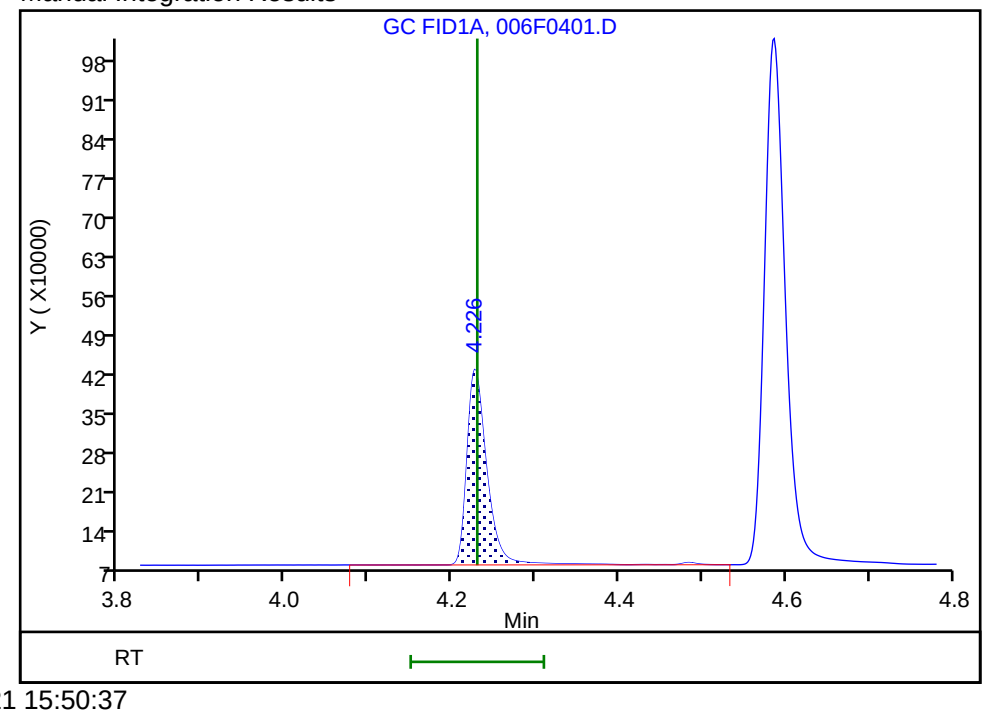
Not Detected
Expected RT: 4.23

Processing Integration Results



Manual Integration Results

RT: 4.23
Area: 587204
Amount: 20.867962
Amount Units: ug/l



Reviewer: sciannac, 24-Sep-2021 15:50:37
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\007F0501.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 24-Sep-2021 14:07:45 ALS Bottle#: 7 Worklist Smp#: 5
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: ic
Operator ID: sciannac Instrument ID: VGC_J
Sublist: chrom-RSK_J*sub5

Method: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 29-Sep-2021 10:55:14 Calib Date: 24-Sep-2021 15:12:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D

Column 1 : Rt-Alumina BOND/KCl (0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q (0.53 mm) Det: GC FID2B
Process Host: CTX1655

First Level Reviewer: sciannac Date: 24-Sep-2021 15:50:30

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Methane							
1	1.295	1.295	0.000	2453548	65.7	67.9	
2	1.681	1.681	0.000	2553566	65.7	69.0	
						RPD = 1.60	
3 Ethane							Ma
1	1.561	1.561	0.000	4411499	123.2	132.7	
2	3.026	3.026	0.000	4450065	123.2	133.3	M
						RPD = 0.45	
4 Ethylene							
1	1.870	1.870	0.000	4318968	114.9	122.6	
2	2.608	2.608	0.000	3812973	114.9	123.1	
						RPD = 0.38	
5 Propane							
1	2.716	2.716	0.000	6962772	180.6	193.4	
2	4.933	4.933	0.000	6754582	180.6	192.9	
						RPD = 0.22	
6 Acetylene							a
1	4.230	4.230	0.000	3180347	106.7	113.0	a
2	2.751	2.751	0.000	3899802	106.7	114.1	a
						RPD = 0.95	
7 Butane							
1	4.590	4.590	0.000	9255328	238.1	254.1	
2	6.430	6.430	0.000	8939530	238.1	254.4	
						RPD = 0.11	
8 isobutylene							
1	5.468	5.468	0.000	8777969	229.8	243.0	
2	6.271	6.271	0.000	8052089	229.8	242.5	
						RPD = 0.20	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

RSK7gasMathes_00031 Amount Added: 200.00 Units: uL

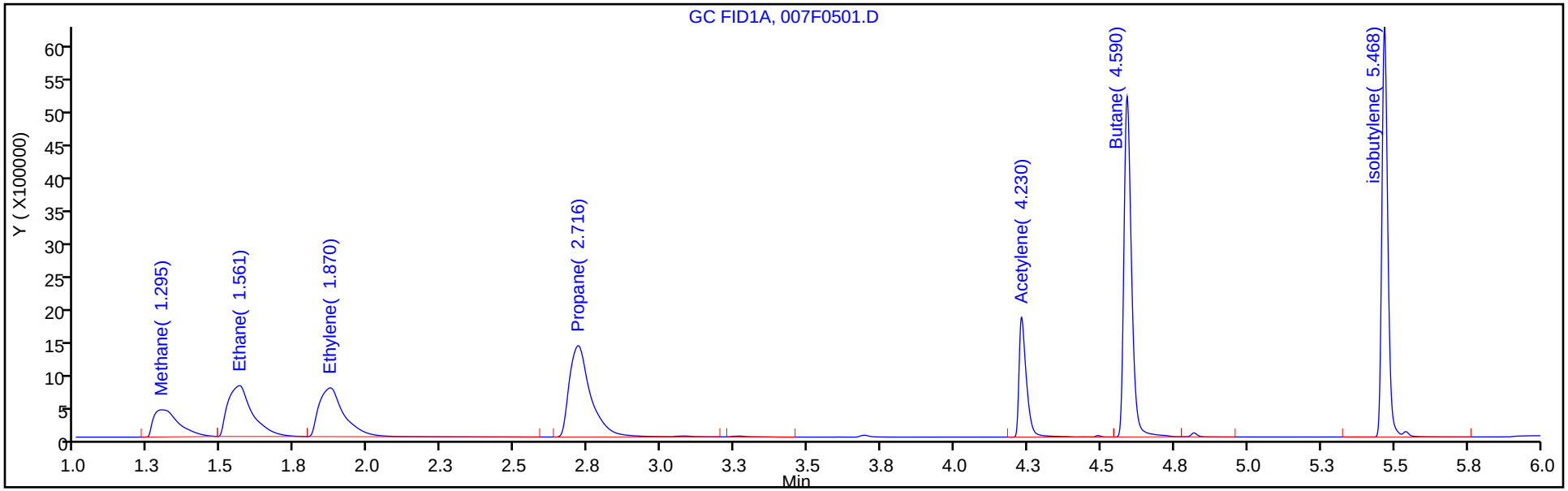
Report Date: 29-Sep-2021 10:55:14 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Denver

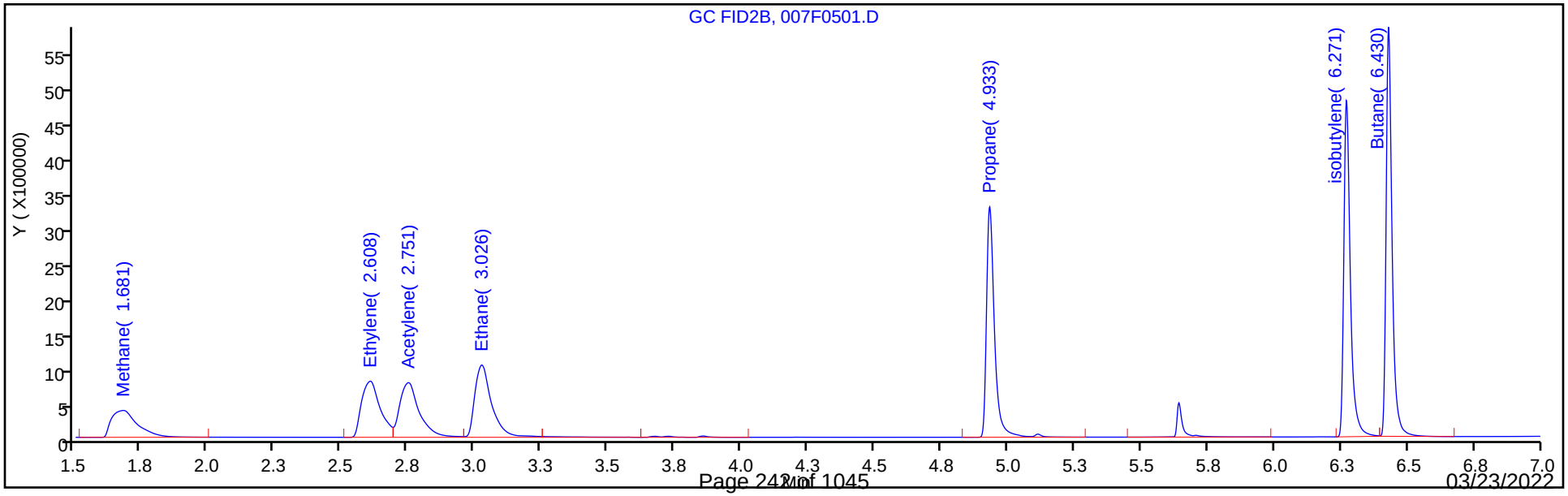
Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\007F0501.D

Injection Date:	24-Sep-2021 14:07:45	Instrument ID:	VGC_J	Operator ID:	sciannac
Lims ID:	ic			Worklist Smp#:	5
Client ID:					
Purge Vol:	18.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	RSK_J	Limit Group:	GCV - RSK 175		

Column: Rt-Alumina BOND/KCl (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: HP-PLOT/Q (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

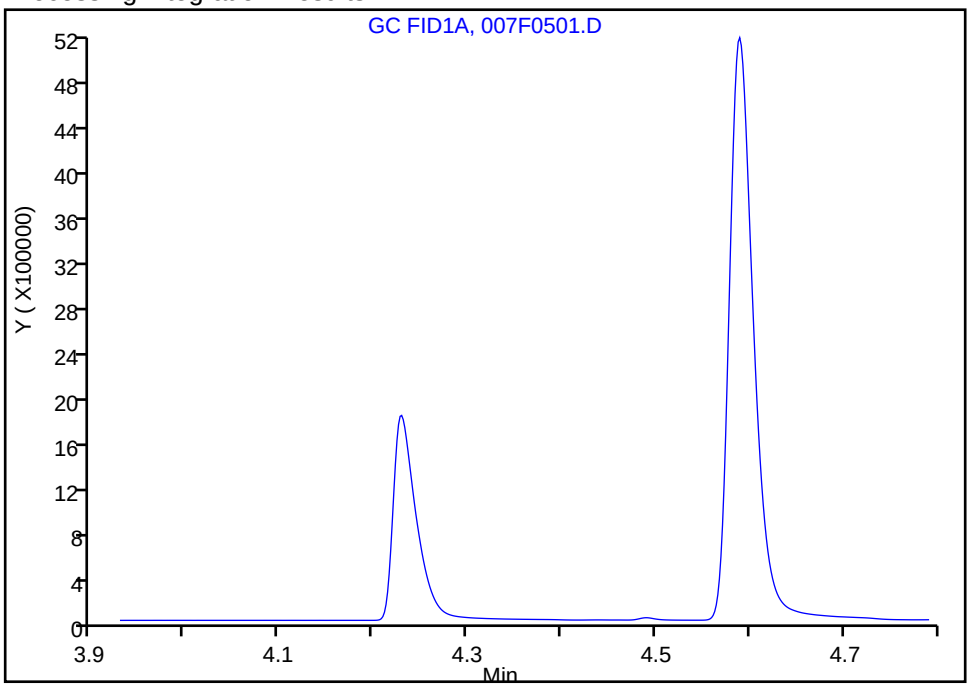
Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\007F0501.D
Injection Date: 24-Sep-2021 14:07:45 Instrument ID: VGC_J
Lims ID: ic
Client ID:
Operator ID: sciannac ALS Bottle#: 7 Worklist Smp#: 5
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Method: RSK_J Limit Group: GCV - RSK 175
Column: Rt-Alumina BOND/KCl (0.53 mm) Detector GC FID1A

6 Acetylene, CAS: 74-86-2

Signal: 1

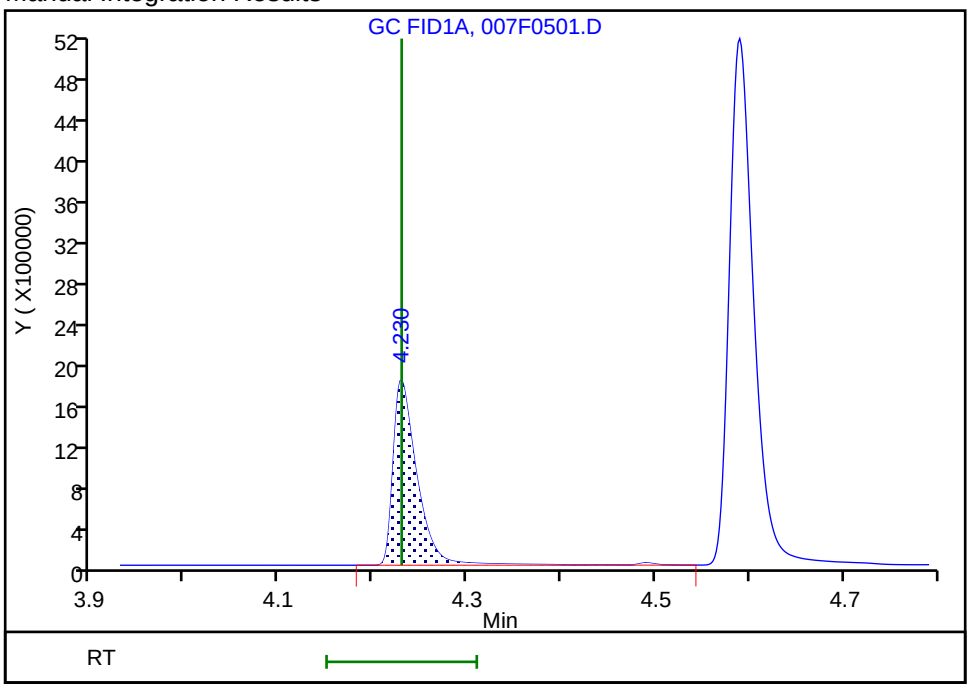
Not Detected
Expected RT: 4.23

Processing Integration Results



Manual Integration Results

RT: 4.23
Area: 3180347
Amount: 113.0227
Amount Units: ug/l



Reviewer: sciannac, 24-Sep-2021 15:50:17
Audit Action: Assigned Compound ID Audit Reason: Split Peak

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\008F0601.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 24-Sep-2021 14:20:44 ALS Bottle#: 8 Worklist Smp#: 6
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: ic
Operator ID: sciannac Instrument ID: VGC_J
Sublist: chrom-RSK_J*sub5

Method: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 29-Sep-2021 10:55:15 Calib Date: 24-Sep-2021 15:12:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D

Column 1 : Rt-Alumina BOND/KCl (0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q (0.53 mm) Det: GC FID2B
Process Host: CTX1655

First Level Reviewer: sciannac Date: 24-Sep-2021 15:46:14

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Methane							M
1	1.295	1.295	0.000	4808571	131.4	134.9	
2	1.678	1.678	0.000	5065048	131.4	138.6	M
						RPD = 2.70	
3 Ethane							
1	1.560	1.560	0.000	8751636	246.3	263.3	
2	3.023	3.023	0.000	8976911	246.3	268.9	
						RPD = 2.12	
4 Ethylene							
1	1.873	1.873	0.000	8582166	229.8	243.6	
2	2.603	2.603	0.000	7548044	229.8	243.6	
						RPD = 0.00	
5 Propane							M
1	2.721	2.721	0.000	13578180	361.3	377.1	M
2	4.929	4.929	0.000	13344347	361.3	381.1	
						RPD = 1.08	
6 Acetylene							a
1	4.230	4.230	0.000	6274725	213.3	223.0	a
2	2.746	2.746	0.000	7865310	213.3	230.1	a
						RPD = 3.15	
7 Butane							Ma
1	4.591	4.591	0.000	18468578	476.1	507.1	a
2	6.426	6.426	0.000	17766895	476.1	505.6	M
						RPD = 0.29	
8 isobutylene							Ma
1	5.468	5.468	0.000	17314841	459.7	479.3	
2	6.269	6.269	0.000	15966351	459.7	480.9	M
						RPD = 0.33	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

RSK7gasMathes_00031 Amount Added: 400.00 Units: uL

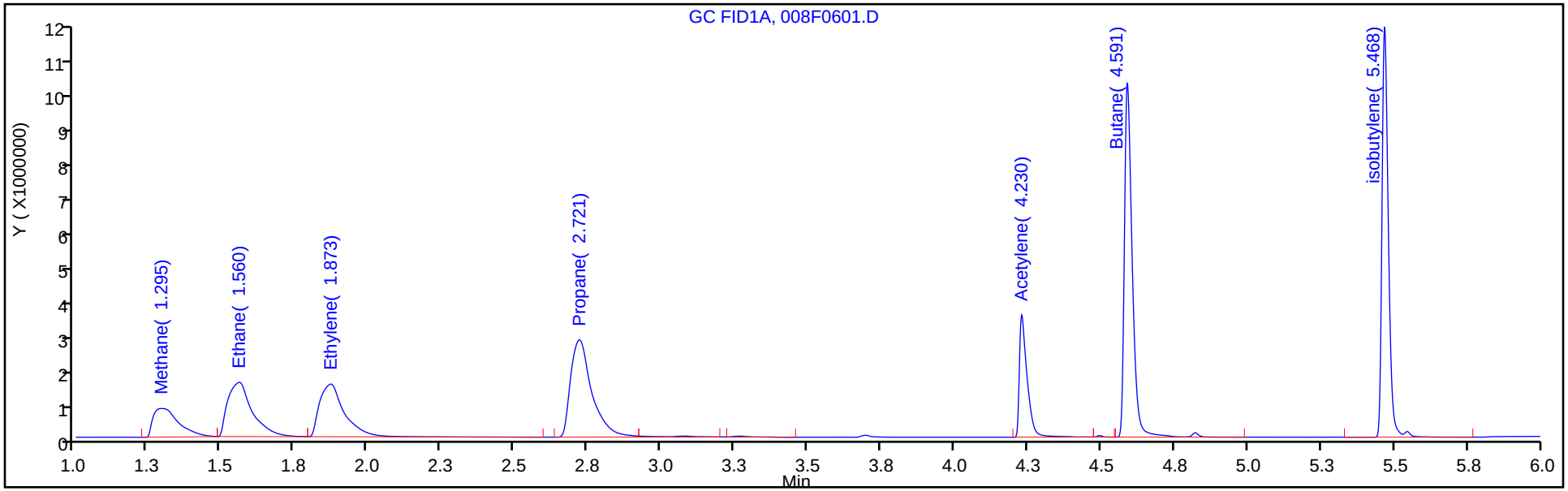
Report Date: 29-Sep-2021 10:55:15 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Denver

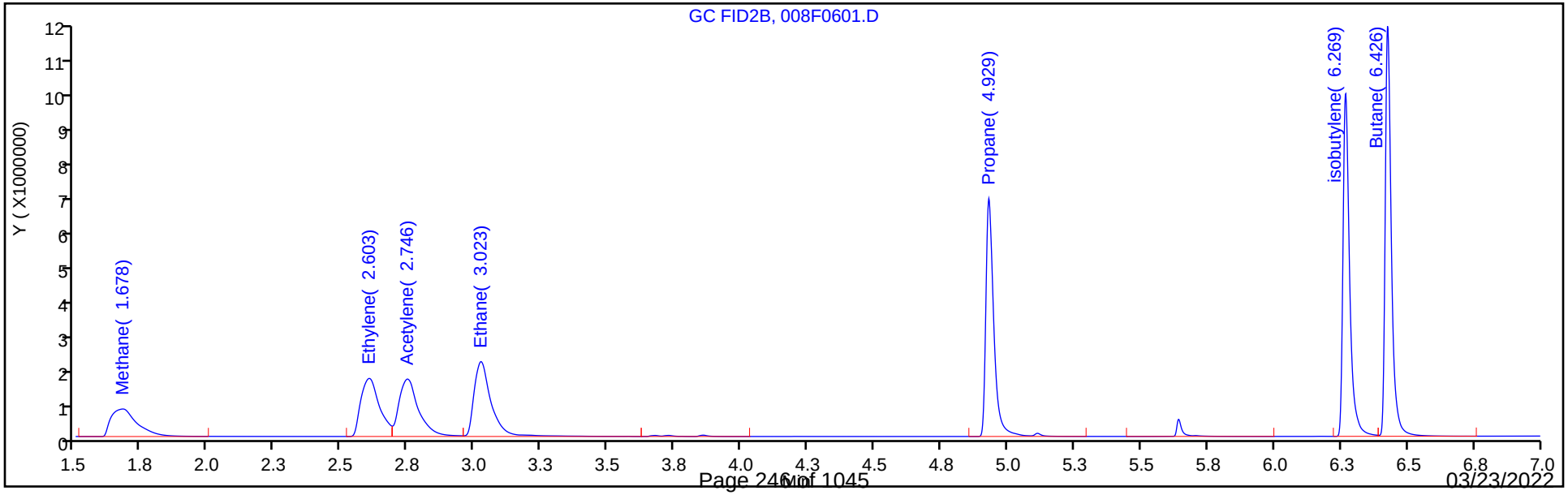
Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\008F0601.D

Injection Date:	24-Sep-2021 14:20:44	Instrument ID:	VGC_J	Operator ID:	sciannac
Lims ID:	ic			Worklist Smp#:	6
Client ID:					
Purge Vol:	18.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	8
Method:	RSK_J	Limit Group:	GCV - RSK 175		

Column: Rt-Alumina BOND/KCl (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: HP-PLOT/Q (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

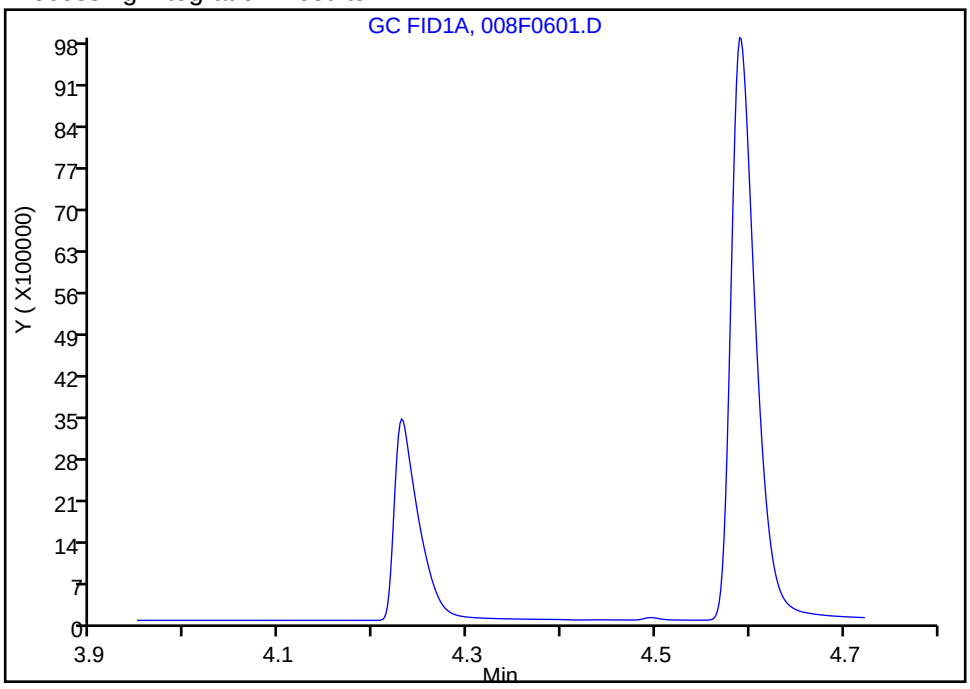
Data File:	\\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\008F0601.D				
Injection Date:	24-Sep-2021 14:20:44	Instrument ID:	VGC_J		
Lims ID:	ic				
Client ID:					
Operator ID:	sciannac	ALS Bottle#:	8	Worklist Smp#:	6
Purge Vol:	18.000 mL	Dil. Factor:	1.0000		
Method:	RSK_J	Limit Group:	GCV - RSK 175		
Column:	Rt-Alumina BOND/KCl (0.53 mm)	Detector	GC FID1A		

6 Acetylene, CAS: 74-86-2

Signal: 1

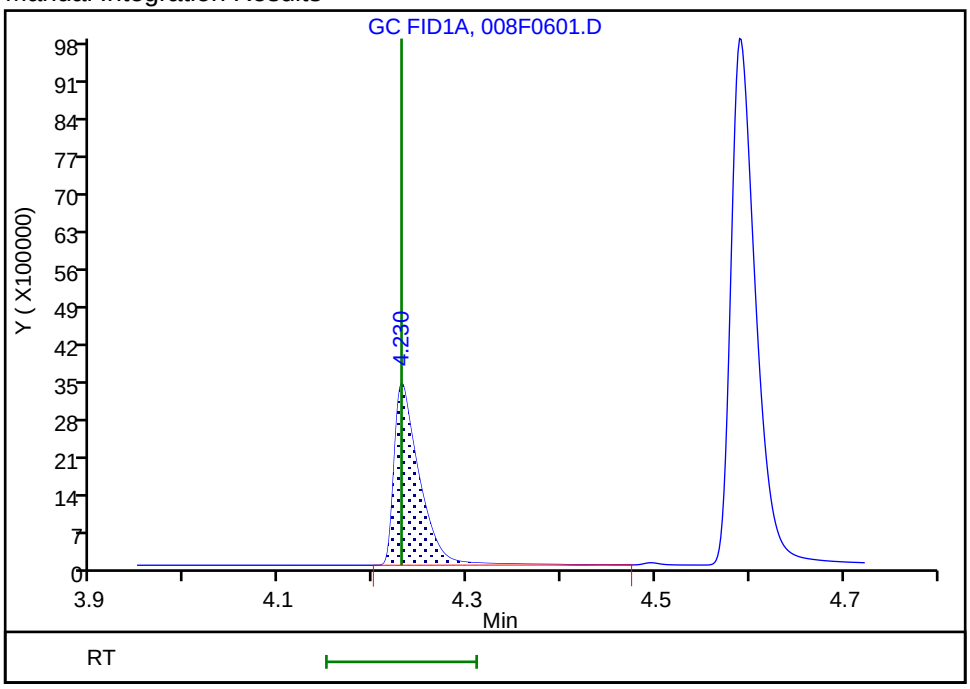
Not Detected
Expected RT: 4.23

Processing Integration Results



Manual Integration Results

RT: 4.23
Area: 6274725
Amount: 222.9902
Amount Units: ug/l



Reviewer: sciannac, 24-Sep-2021 15:44:55
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\009F0701.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 24-Sep-2021 14:33:44 ALS Bottle#: 9 Worklist Smp#: 7
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: ic
Operator ID: sciannac Instrument ID: VGC_J
Sublist: chrom-RSK_J*sub5

Method: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 29-Sep-2021 10:55:16 Calib Date: 24-Sep-2021 15:12:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D

Column 1 : Rt-Alumina BOND/KCl (0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q (0.53 mm) Det: GC FID2B
Process Host: CTX1655

First Level Reviewer: sciannac Date: 24-Sep-2021 15:47:03

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Methane							
1	1.294	1.295	-0.001	8118988	262.8	229.0	
2	1.678	1.678	0.000	8455607	262.8	232.5	
						RPD = 1.51	
3 Ethane							
1	1.561	1.560	0.001	14997572	492.7	451.2	
2	3.021	3.023	-0.002	14625440	492.7	438.1	
						RPD = 2.94	
4 Ethylene							
1	1.873	1.873	0.000	14678124	459.6	416.7	
2	2.602	2.603	-0.001	12909086	459.6	416.7	
						RPD = 0.00	
5 Propane							
1	2.723	2.721	0.002	23539538	722.6	653.7	
2	4.926	4.929	-0.003	23034734	722.6	657.9	
						RPD = 0.65	
6 Acetylene							a
1	4.228	4.230	-0.002	10977943	426.7	390.1	a
2	2.746	2.746	0.000	13452620	426.7	393.6	a
						RPD = 0.88	
7 Butane							Ma
1	4.588	4.591	-0.003	30555104	952.3	838.9	a
2	6.423	6.426	-0.003	31281741	952.3	890.2	M
						RPD = 5.93	
8 isobutylene							Ma
1	5.466	5.468	-0.002	30754275	919.4	851.3	
2	6.266	6.269	-0.003	28385241	919.4	854.9	M
						RPD = 0.42	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

RSK7gasMathes_00031 Amount Added: 800.00 Units: uL

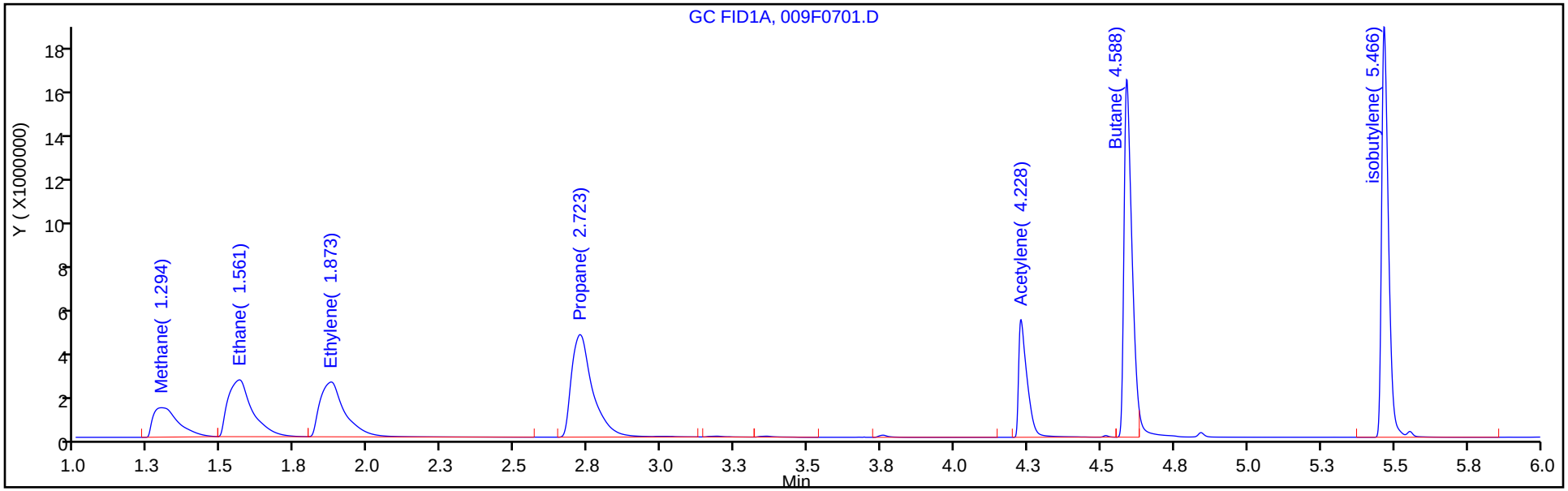
Report Date: 29-Sep-2021 10:55:16 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Denver

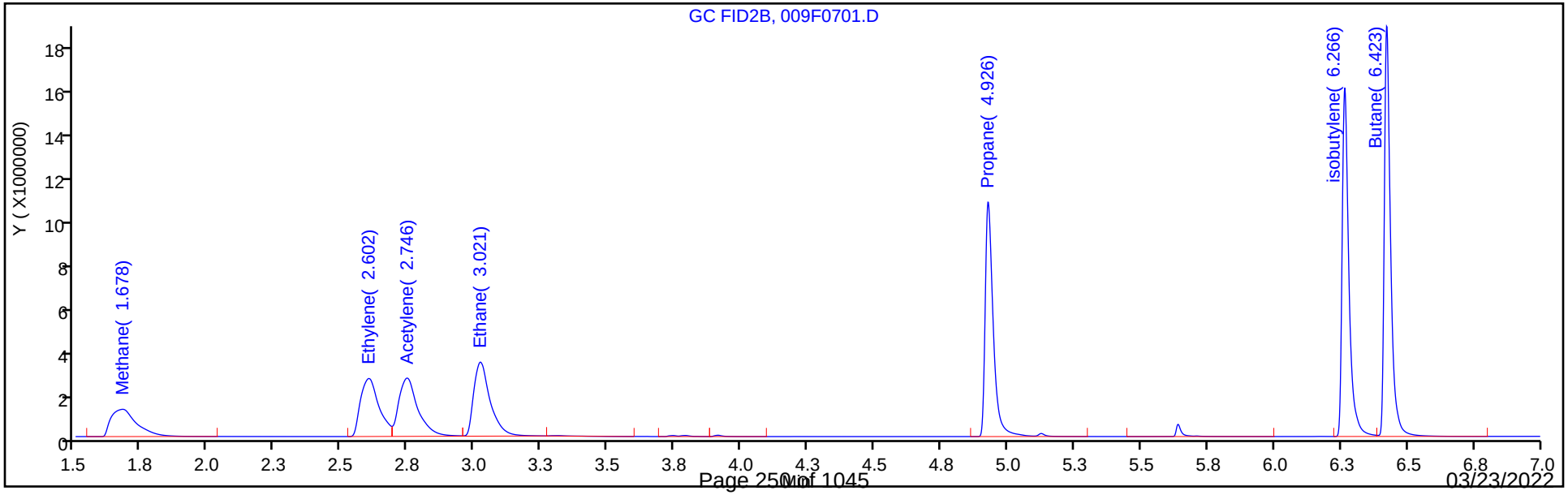
Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\009F0701.D

Injection Date:	24-Sep-2021 14:33:44	Instrument ID:	VGC_J	Operator ID:	sciannac
Lims ID:	ic			Worklist Smp#:	7
Client ID:					
Purge Vol:	18.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	9
Method:	RSK_J	Limit Group:	GCV - RSK 175		

Column: Rt-Alumina BOND/KCl (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: HP-PLOT/Q (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

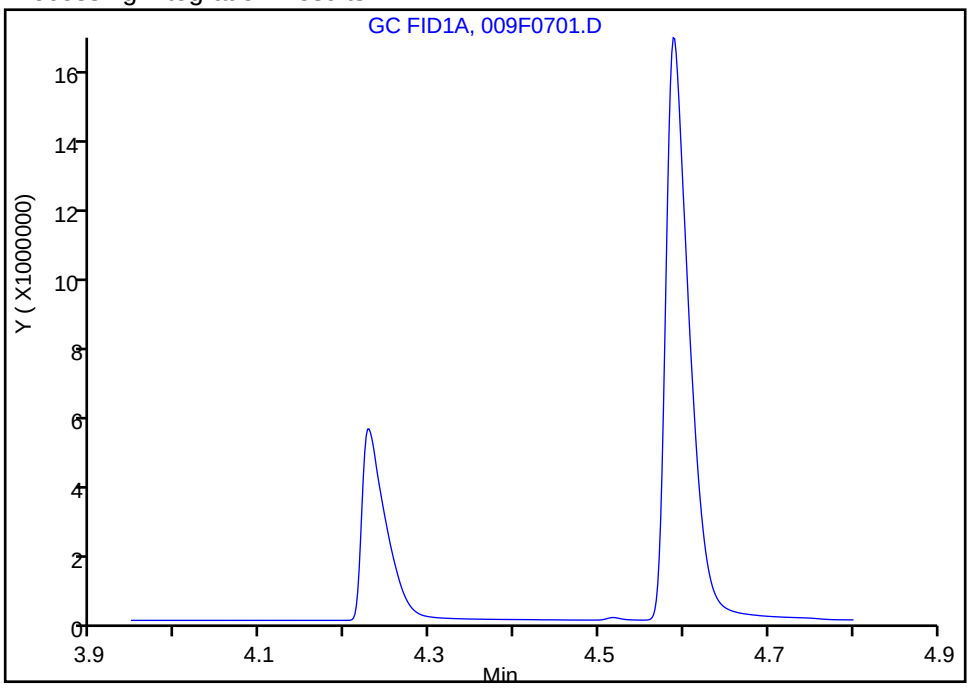
Data File:	\\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\009F0701.D				
Injection Date:	24-Sep-2021 14:33:44	Instrument ID:	VGC_J		
Lims ID:	ic				
Client ID:					
Operator ID:	sciannac	ALS Bottle#:	9	Worklist Smp#:	7
Purge Vol:	18.000 mL	Dil. Factor:	1.0000		
Method:	RSK_J	Limit Group:	GCV - RSK 175		
Column:	Rt-Alumina BOND/KCl (0.53 mm)	Detector	GC FID1A		

6 Acetylene, CAS: 74-86-2

Signal: 1

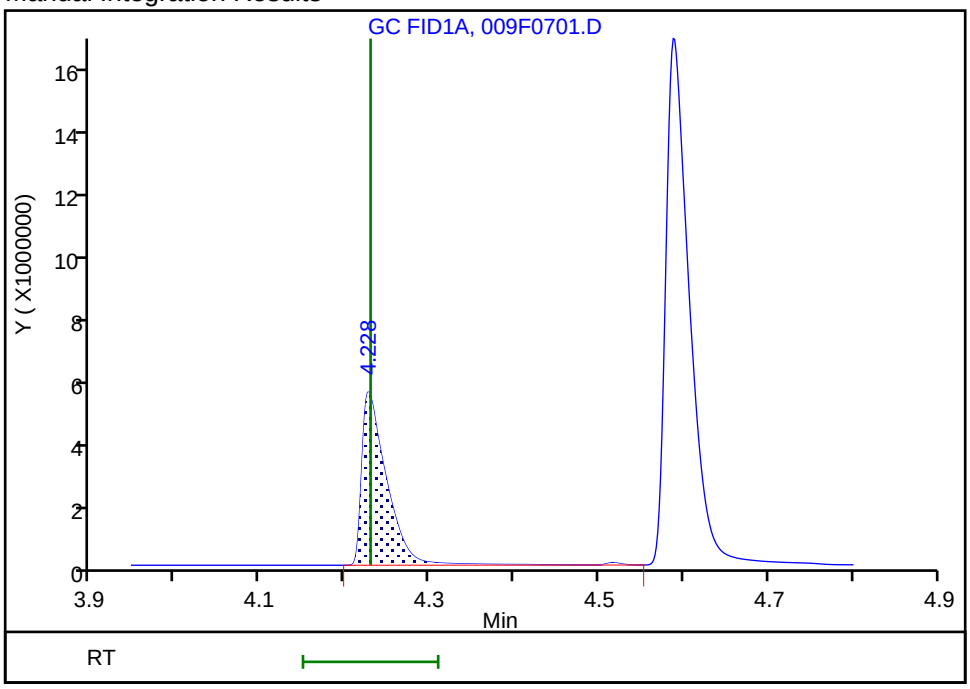
Not Detected
Expected RT: 4.23

Processing Integration Results



Manual Integration Results

RT: 4.23
Area: 10977943
Amount: 390.1324
Amount Units: ug/l



Reviewer: sciannac, 24-Sep-2021 15:46:29
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\010F0801.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 24-Sep-2021 14:46:48 ALS Bottle#: 10 Worklist Smp#: 9
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: ic
Operator ID: sciannac Instrument ID: VGC_J
Sublist: chrom-RSK_J*sub5

Method: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 29-Sep-2021 10:55:17 Calib Date: 24-Sep-2021 15:12:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D

Column 1 : Rt-Alumina BOND/KCl (0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q (0.53 mm) Det: GC FID2B
Process Host: CTX1655

First Level Reviewer: sciannac Date: 24-Sep-2021 15:48:04

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Methane							
1	1.293	1.295	-0.002	60484705	1626.3	1717.9	
2	1.676	1.678	-0.002	59798125	1626.3	1654.6	
						RPD = 3.75	

QC Flag Legend
Processing Flags

Reagents:
RSK175methane_00010 Amount Added: 50.00 Units: uL

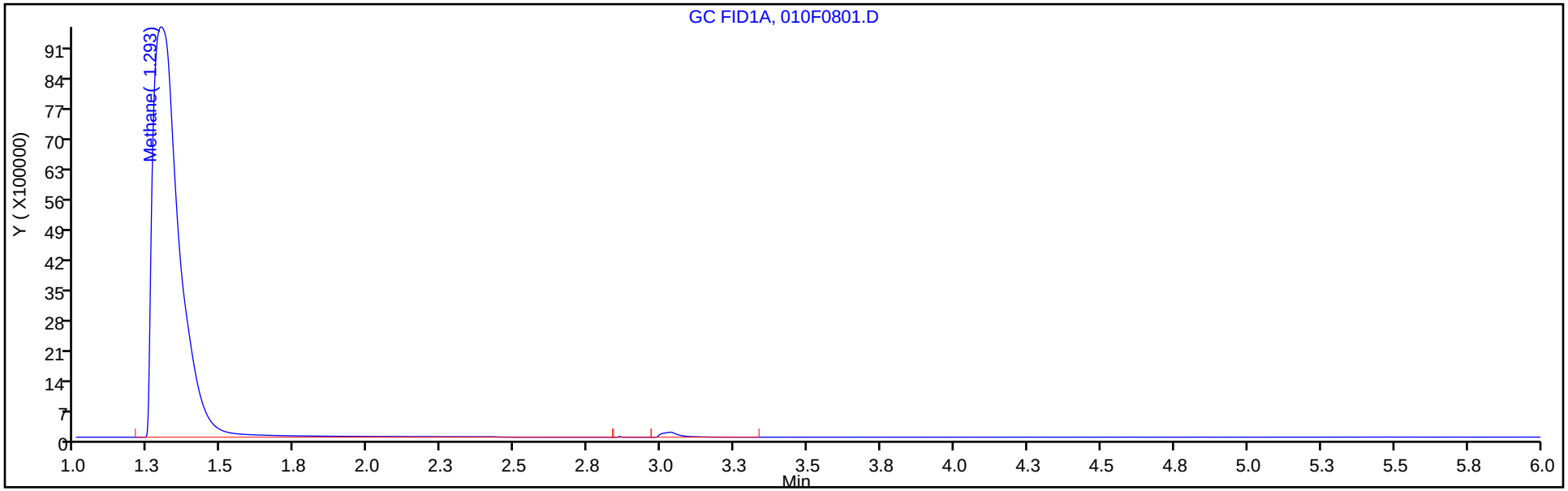
Report Date: 29-Sep-2021 10:55:17 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Denver

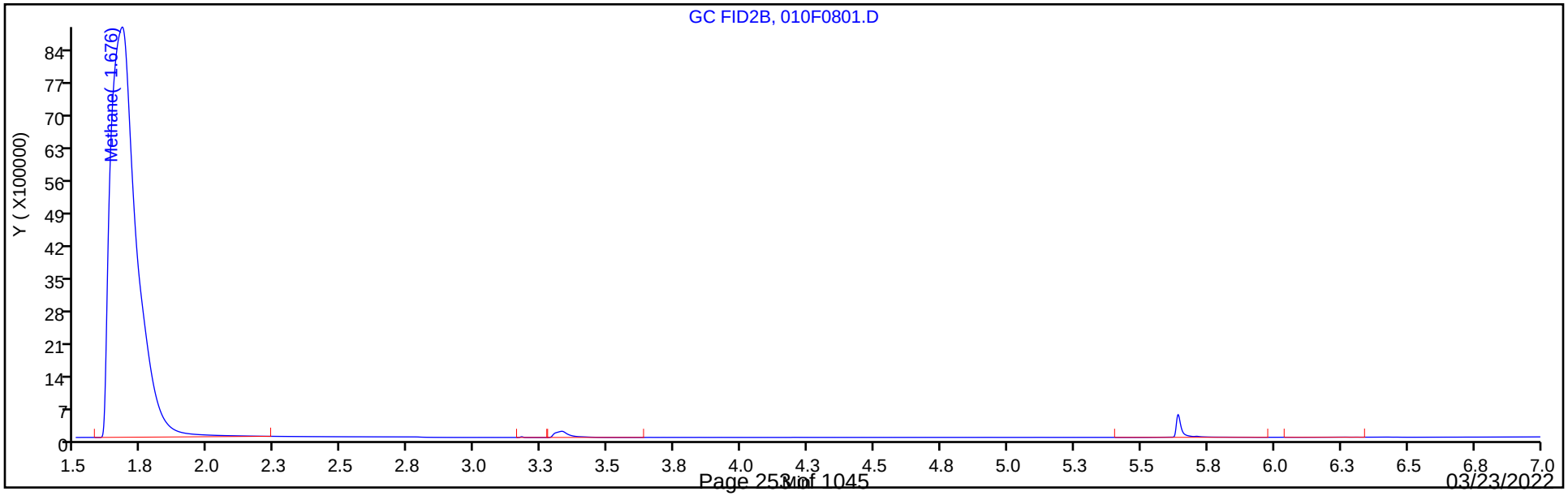
Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\010F0801.D

Injection Date:	24-Sep-2021 14:46:48	Instrument ID:	VGC_J	Operator ID:	sciannac
Lims ID:	ic			Worklist Smp#:	9
Client ID:					
Purge Vol:	18.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	10
Method:	RSK_J	Limit Group:	GCV - RSK 175		

Column: Rt-Alumina BOND/KCl (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: HP-PLOT/Q (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\011F0901.D				
Lims ID:	ic				
Client ID:					
Sample Type:	IC	Calib Level:	9		
Inject. Date:	24-Sep-2021 14:59:53	ALS Bottle#:	11	Worklist Smp#:	10
Purge Vol:	18.000 mL	Dil. Factor:	1.0000		
Sample Info:	ic				
Operator ID:	sciannac	Instrument ID:	VGC_J		
Sublist:	chrom-RSK_J*sub5				
Method:	\\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\RSK_J.m				
Limit Group:	GCV - RSK 175				
Method Label:	DV-GC-0025: Dissolved Gases in Water by RSK-175				
Last Update:	29-Sep-2021 10:55:17	Calib Date:	24-Sep-2021 15:12:55		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D				
Column 1 :	Rt-Alumina BOND/KCl (0.53 mm)		Det: GC FID1A		
Column 2 :	HP-PLOT/Q (0.53 mm)		Det: GC FID2B		
Process Host:	CTX1655				

First Level Reviewer: sciannac Date: 24-Sep-2021 15:48:14

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Methane							
1	1.292	1.295	-0.003	245647963	6505.0	6982.6	
2	1.673	1.678	-0.005	247051774	6505.0	6841.2	
						RPD = 2.04	

QC Flag Legend

Processing Flags

Reagents:

RSK175methane_00010 Amount Added: 200.00 Units: uL

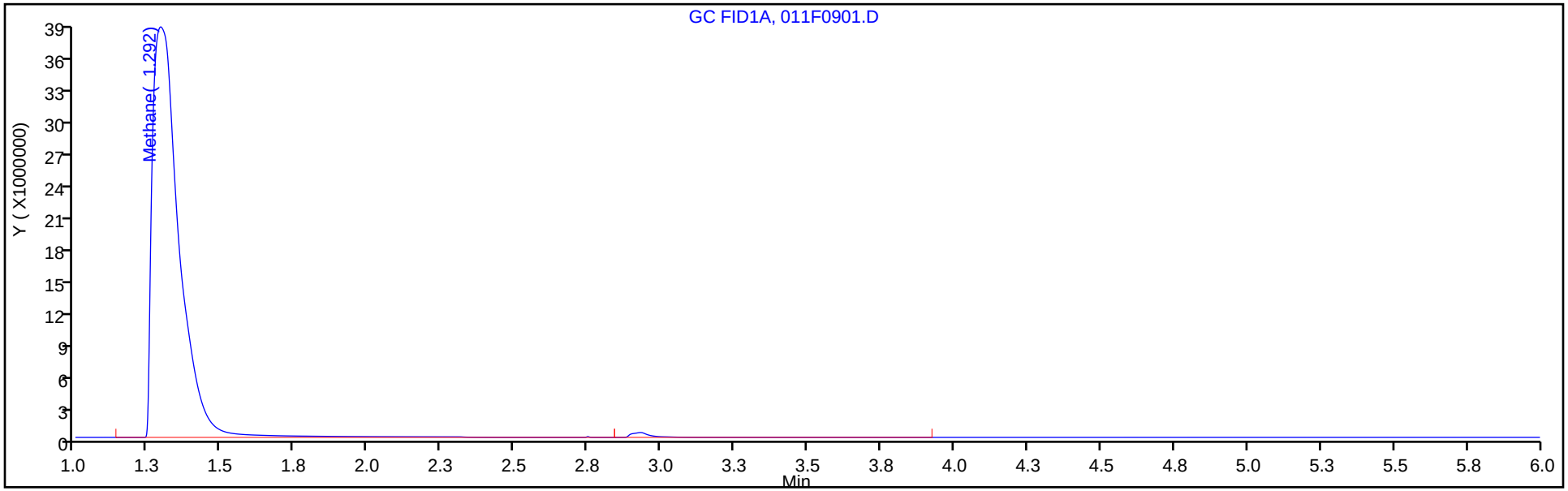
Report Date: 29-Sep-2021 10:55:17 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Denver

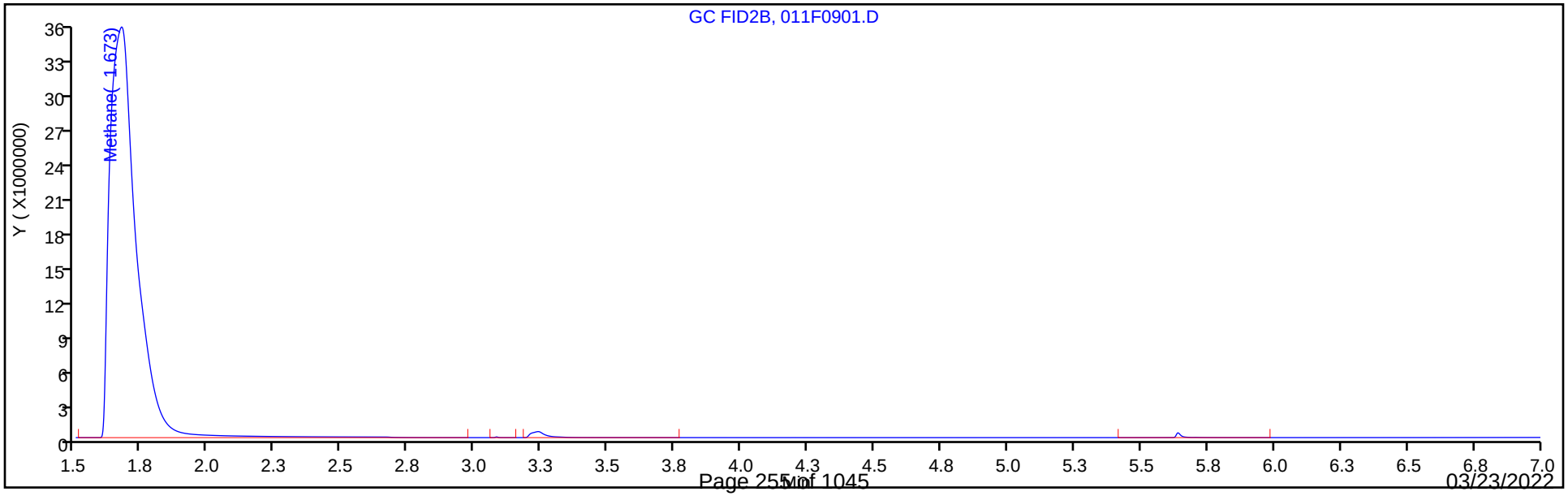
Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\011F0901.D

Injection Date:	24-Sep-2021 14:59:53	Instrument ID:	VGC_J	Operator ID:	sciannac
Lims ID:	ic			Worklist Smp#:	10
Client ID:					
Purge Vol:	18.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	11
Method:	RSK_J	Limit Group:	GCV - RSK 175		

Column: Rt-Alumina BOND/KCl (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: HP-PLOT/Q (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 10
Inject. Date: 24-Sep-2021 15:12:55 ALS Bottle#: 12 Worklist Smp#: 11
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: ic
Operator ID: sciannac Instrument ID: VGC_J
Sublist: chrom-RSK_J*sub5

Method: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 29-Sep-2021 10:55:18 Calib Date: 24-Sep-2021 15:12:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D

Column 1 : Rt-Alumina BOND/KCl (0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q (0.53 mm) Det: GC FID2B
Process Host: CTX1655

First Level Reviewer: sciannac Date: 24-Sep-2021 15:48:27

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Methane							
1	1.288	1.295	-0.007	669092603	19515	19022	
2	1.669	1.678	-0.009	675608539	19515	18712	
						RPD = 1.65	

QC Flag Legend
Processing Flags

Reagents:
RSK175methane_00010 Amount Added: 600.00 Units: uL

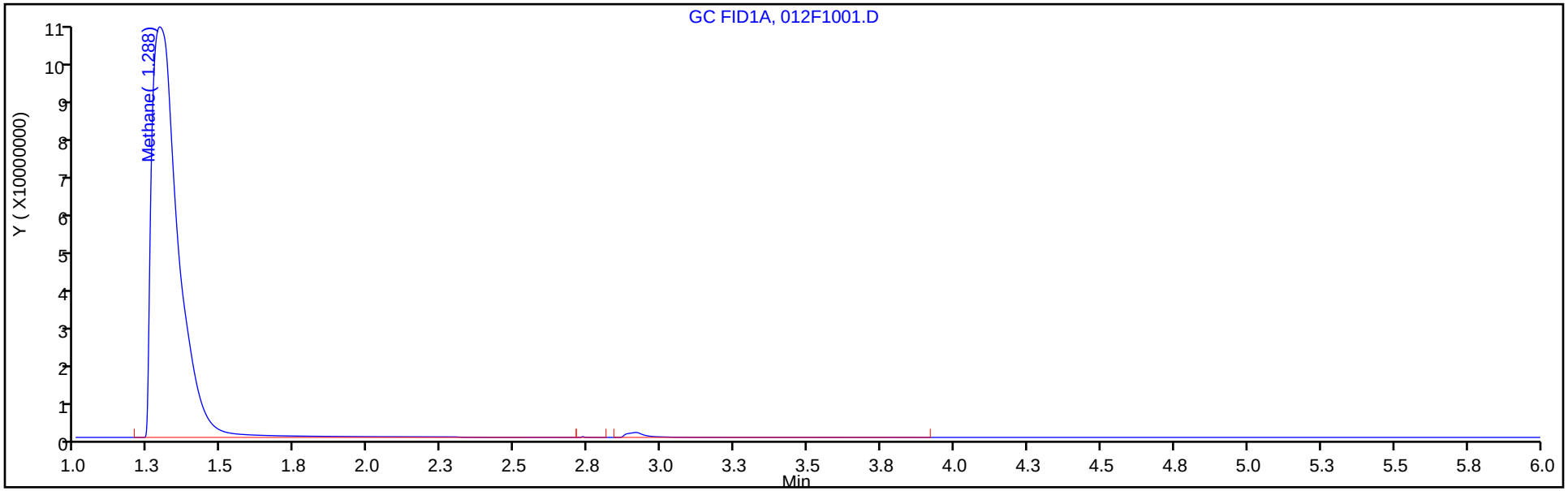
Report Date: 29-Sep-2021 10:55:18 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Denver

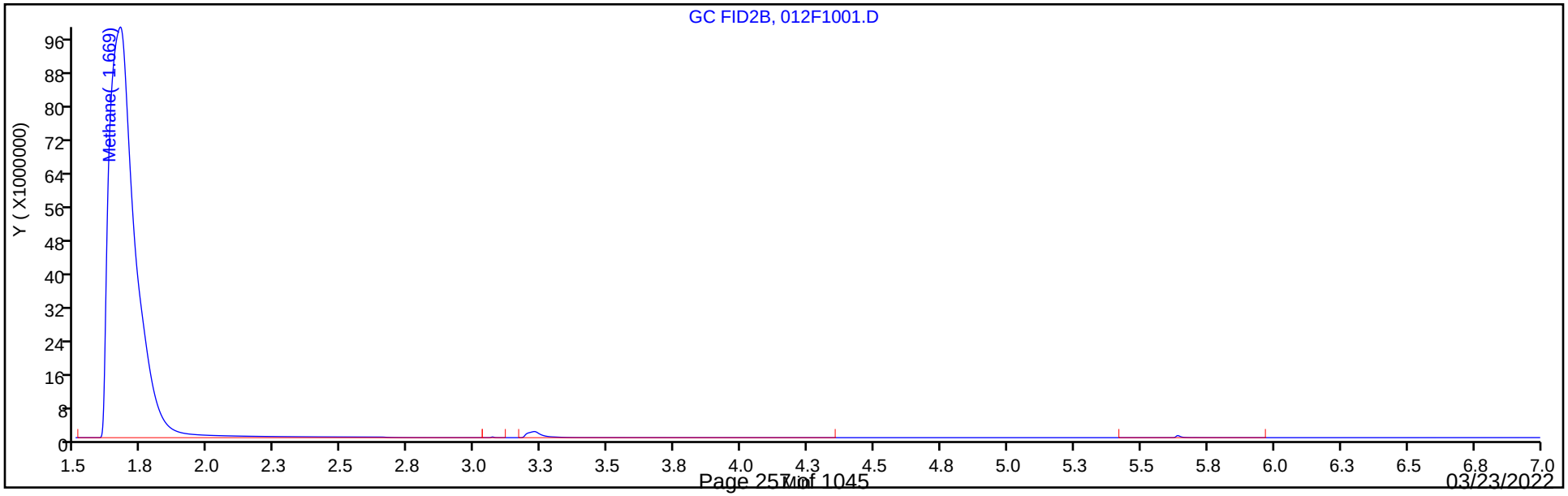
Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D

Injection Date:	24-Sep-2021 15:12:55	Instrument ID:	VGC_J	Operator ID:	sciannac
Lims ID:	ic			Worklist Smp#:	11
Client ID:					
Purge Vol:	18.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	12
Method:	RSK_J	Limit Group:	GCV - RSK 175		

Column: Rt-Alumina BOND/KCl (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: HP-PLOT/Q (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Calibration / Methane

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

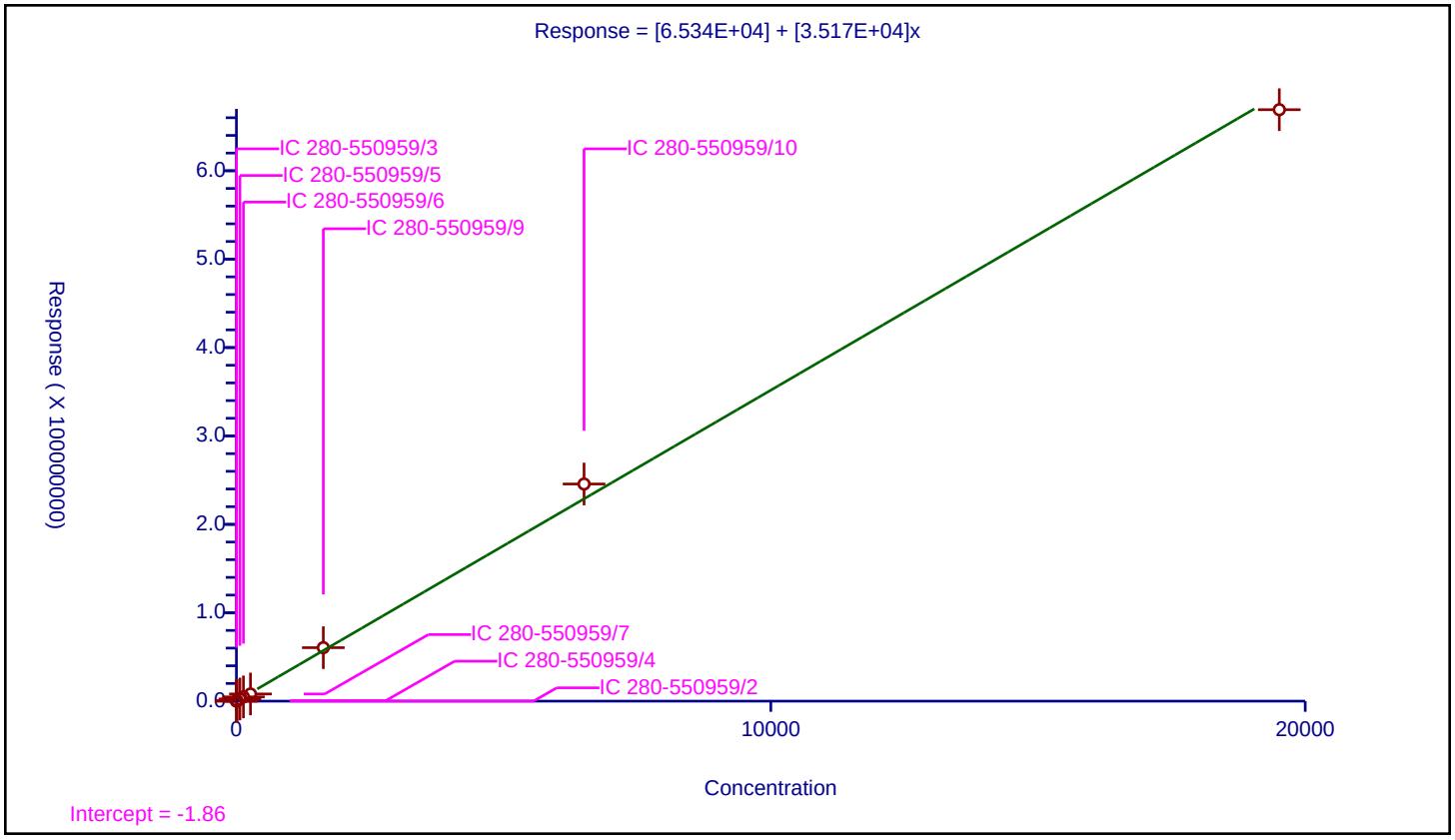
Curve Coefficients

Intercept:	6.534E+04
Slope:	3.517E+04

Error Coefficients

Standard Error:	9210000
Relative Standard Error:	7.3
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.995

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-550959/2	0.821288	93424.0			113753.101076	Y
2	IC 280-550959/3	1.642575	126818.0			77206.82465	Y
3	IC 280-550959/4	13.1406	494257.0			37612.970488	Y
4	IC 280-550959/5	65.703	2453548.0			37343.013257	Y
5	IC 280-550959/6	131.406	4808571.0			36593.237752	Y
6	IC 280-550959/7	262.812	8118988.0			30892.759844	Y
7	IC 280-550959/9	1626.25	60484705.0			37192.747118	Y
8	IC 280-550959/10	6505.0	245647963.0			37762.945888	Y
9	IC 280-550959/11	19515.0	669092603.0			34286.067282	Y



Calibration / Ethane

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

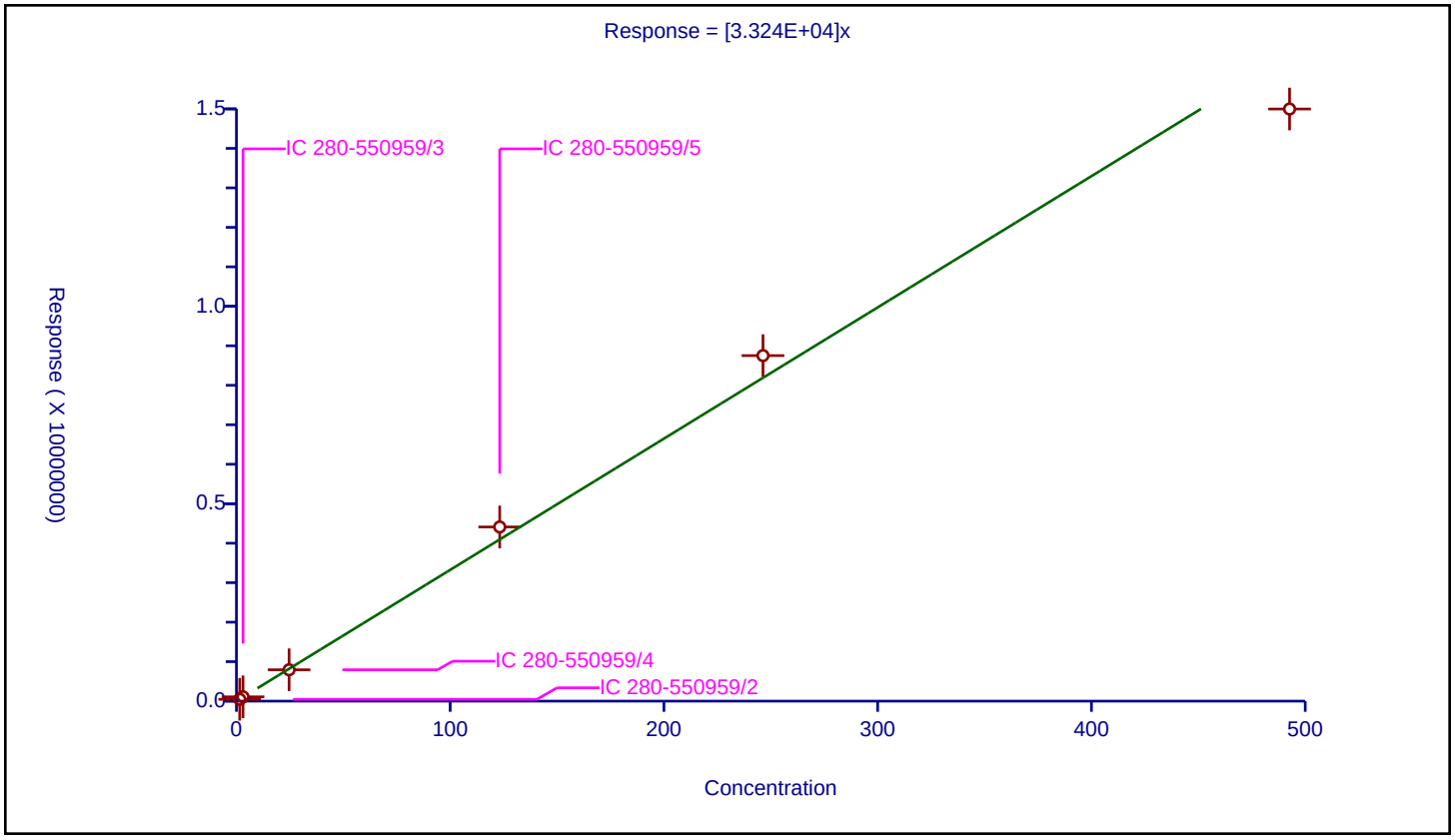
Curve Coefficients

Intercept:	0
Slope:	3.324E+04

Error Coefficients

Standard Error:	681000
Relative Standard Error:	7.9
Correlation Coefficient:	0.993
Coefficient of Determination (Adjusted):	0.993

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-550959/2	1.539625	46427.0			30154.745474	Y
2	IC 280-550959/3	3.07925	108631.0			35278.395713	Y
3	IC 280-550959/4	24.634	793971.0			32230.69741	Y
4	IC 280-550959/5	123.17	4411499.0			35816.343265	Y
5	IC 280-550959/6	246.34	8751636.0			35526.654218	Y
6	IC 280-550959/7	492.68	14997572.0			30440.797272	Y



Calibration / Ethylene

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

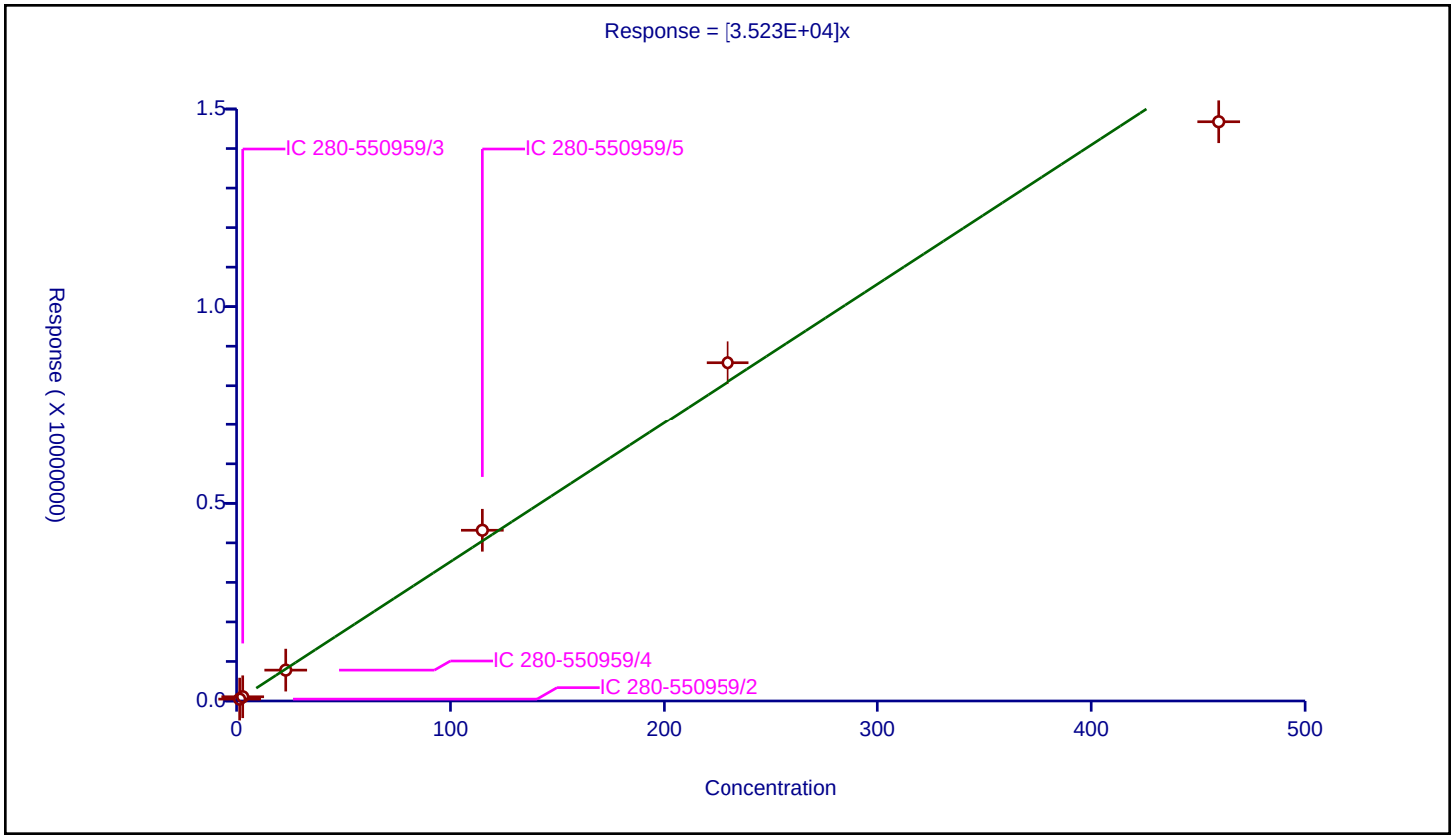
Curve Coefficients

Intercept:	0
Slope:	3.523E+04

Error Coefficients

Standard Error:	721000
Relative Standard Error:	7.1
Correlation Coefficient:	0.993
Coefficient of Determination (Adjusted):	0.994

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-550959/2	1.43625	47667.0			33188.511749	Y
2	IC 280-550959/3	2.8725	107197.0			37318.363795	Y
3	IC 280-550959/4	22.98	780792.0			33977.023499	Y
4	IC 280-550959/5	114.9	4318968.0			37588.929504	Y
5	IC 280-550959/6	229.8	8582166.0			37346.240209	Y
6	IC 280-550959/7	459.6	14678124.0			31936.736292	Y



Calibration / Acetylene

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

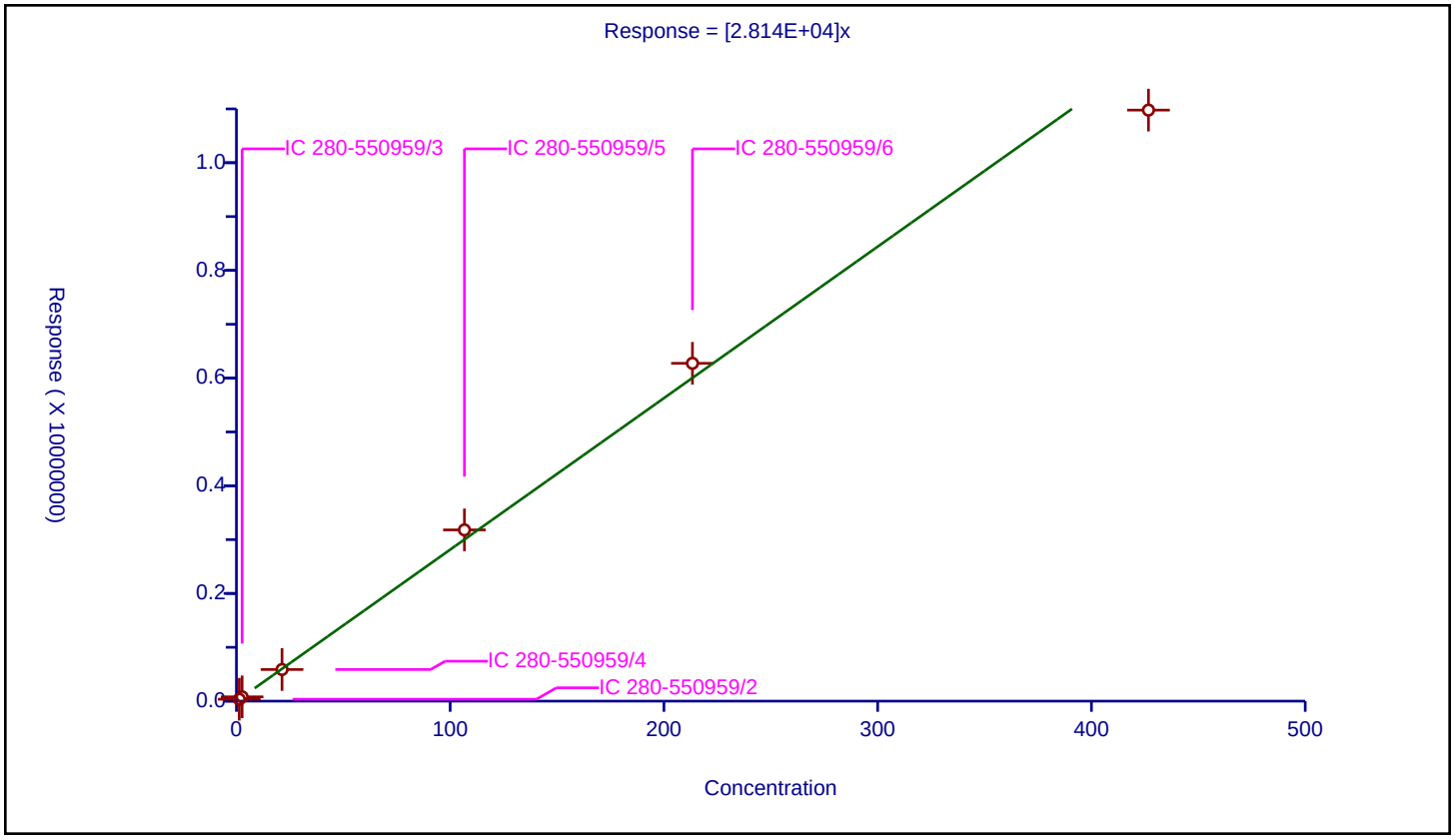
Curve Coefficients

Intercept:	0
Slope:	2.814E+04

Error Coefficients

Standard Error:	482000
Relative Standard Error:	6.5
Correlation Coefficient:	0.995
Coefficient of Determination (Adjusted):	0.995

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-550959/2	1.333375	35261.0			26444.923596	Y
2	IC 280-550959/3	2.66675	79761.0			29909.44033	Y
3	IC 280-550959/4	21.334	587204.0			27524.327365	Y
4	IC 280-550959/5	106.67	3180347.0			29814.821412	Y
5	IC 280-550959/6	213.34	6274725.0			29411.854317	Y
6	IC 280-550959/7	426.68	10977943.0			25728.749883	Y



FORM VI
GC VOA BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159384-1 Analy Batch No.: 550959

SDG No.:

Instrument ID: VGC_J GC Column: HP-Plot Q ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/24/2021 13:28 Calibration End Date: 09/24/2021 15:12 Calibration ID: 58238

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-550959/2	004F0201.D
Level 2	IC 280-550959/3	005F0301.D
Level 3	IC 280-550959/4	006F0401.D
Level 4	IC 280-550959/5	007F0501.D
Level 5	IC 280-550959/6	008F0601.D
Level 6	IC 280-550959/7	009F0701.D
Level 7	IC 280-550959/9	010F0801.D
Level 8	IC 280-550959/10	011F0901.D
Level 9	IC 280-550959/11	012F1001.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	LVL 7	LVL 8	LVL 9		RT WINDOW	AVG RT
Methane	1.689	1.686	1.684	1.681	1.678	1.678	1.676	1.673	1.669		1.646 - 1.726	1.679
Ethylene	2.612	2.613	2.609	2.608	2.603	2.602					2.559 - 2.659	2.608
Acetylene	2.759	2.756	2.753	2.751	2.746	2.746					2.666 - 2.826	2.752
Ethane	3.032	3.031	3.029	3.026	3.023	3.021					2.978 - 3.078	3.027

FORM VI
GC VOA BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Denver Job No.: 280-159384-1 Analy Batch No.: 550959

SDG No.:

Instrument ID: VGC_J GC Column: HP-Plot Q ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/24/2021 13:28 Calibration End Date: 09/24/2021 15:12 Calibration ID: 58238

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-550959/2	004F0201.D
Level 2	IC 280-550959/3	005F0301.D
Level 3	IC 280-550959/4	006F0401.D
Level 4	IC 280-550959/5	007F0501.D
Level 5	IC 280-550959/6	008F0601.D
Level 6	IC 280-550959/7	009F0701.D
Level 7	IC 280-550959/9	010F0801.D
Level 8	IC 280-550959/10	011F0901.D
Level 9	IC 280-550959/11	012F1001.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	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								
Methane	111078 38545 34620	77031 32174	38745 36771	38865 37979	Lin2	62633.7795	36102.9355							0.9950		0.9900
Ethylene	28704 32846	33128 28088	29931	33185	Ave		30980.2676				7.6		20.0			
Acetylene	31126 36867	35548 31529	33443	36560	Ave		34178.7944				7.4		20.0			
Ethane	30517 36441	34894 29685	32629	36129	Ave		33382.5817				8.6		20.0			

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
GC VOA BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Denver Job No.: 280-159384-1 Analy Batch No.: 550959

SDG No.:

Instrument ID: VGC_J GC Column: HP-Plot Q ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/24/2021 13:28 Calibration End Date: 09/24/2021 15:12 Calibration ID: 58238

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-550959/2	004F0201.D
Level 2	IC 280-550959/3	005F0301.D
Level 3	IC 280-550959/4	006F0401.D
Level 4	IC 280-550959/5	007F0501.D
Level 5	IC 280-550959/6	008F0601.D
Level 6	IC 280-550959/7	009F0701.D
Level 7	IC 280-550959/9	010F0801.D
Level 8	IC 280-550959/10	011F0901.D
Level 9	IC 280-550959/11	012F1001.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
		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
Methane	Lin2	91227 8455607	126529 59798125	509129 247051774	2553566 675608539	5065048	0.821 263	1.64 1626	13.1 6505	65.7 19515	131
Ethylene	Ave	41226 12909086	95159	687818	3812973	7548044	1.44 460	2.87	23.0	115	230
Acetylene	Ave	41503 13452620	94797	713476	3899802	7865310	1.33 427	2.67	21.3	107	213
Ethane	Ave	46984 14625440	107446	803791	4450065	8976911	1.54 493	3.08	24.6	123	246

Curve Type Legend

Ave = Average
Lin2 = Linear 1/conc^2

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\004F0201.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 24-Sep-2021 13:28:57 ALS Bottle#: 4 Worklist Smp#: 2
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: ic
Operator ID: sciannac Instrument ID: VGC_J
Sublist: chrom-RSK_J*sub5

Method: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 29-Sep-2021 10:55:12 Calib Date: 24-Sep-2021 15:12:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D

Column 1 : Rt-Alumina BOND/KCl (0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q (0.53 mm) Det: GC FID2B
Process Host: CTX1655

First Level Reviewer: sciannac Date: 24-Sep-2021 13:57:02

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Methane							a
1	1.292	1.299	-0.007	93424	0.8213	0.7985	a
2	1.689	1.686	0.003	91227	0.8213	0.7920	a
						RPD = 0.81	
3 Ethane							a
1	1.559	1.556	0.003	46427	1.54	1.40	a
2	3.032	3.028	0.004	46984	1.54	1.41	a
						RPD = 0.77	
4 Ethylene							a
1	1.859	1.844	0.015	47667	1.44	1.35	a
2	2.612	2.609	0.003	41226	1.44	1.33	a
						RPD = 1.67	
5 Propane							a
1	2.682	2.721	-0.039	76526	2.26	2.13	a
2	4.937	4.929	0.008	73050	2.26	2.09	a
						RPD = 1.83	
6 Acetylene							a
1	4.184	4.230	-0.046	35261	1.33	1.25	a
2	2.759	2.746	0.013	41503	1.33	1.21	a
						RPD = 3.15	
7 Butane							Ma
1	4.555	4.528	0.027	101912	2.98	2.80	a
2	6.435	6.426	0.009	95155	2.98	2.71	M
						RPD = 3.27	
8 isobutylene							Ma
1	5.437	5.403	0.034	92868	2.87	2.57	M
2	6.277	6.274	0.003	91569	2.87	2.76	a
						RPD = 7.02	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

RSK7gasMathes_00031 Amount Added: 2.50 Units: uL

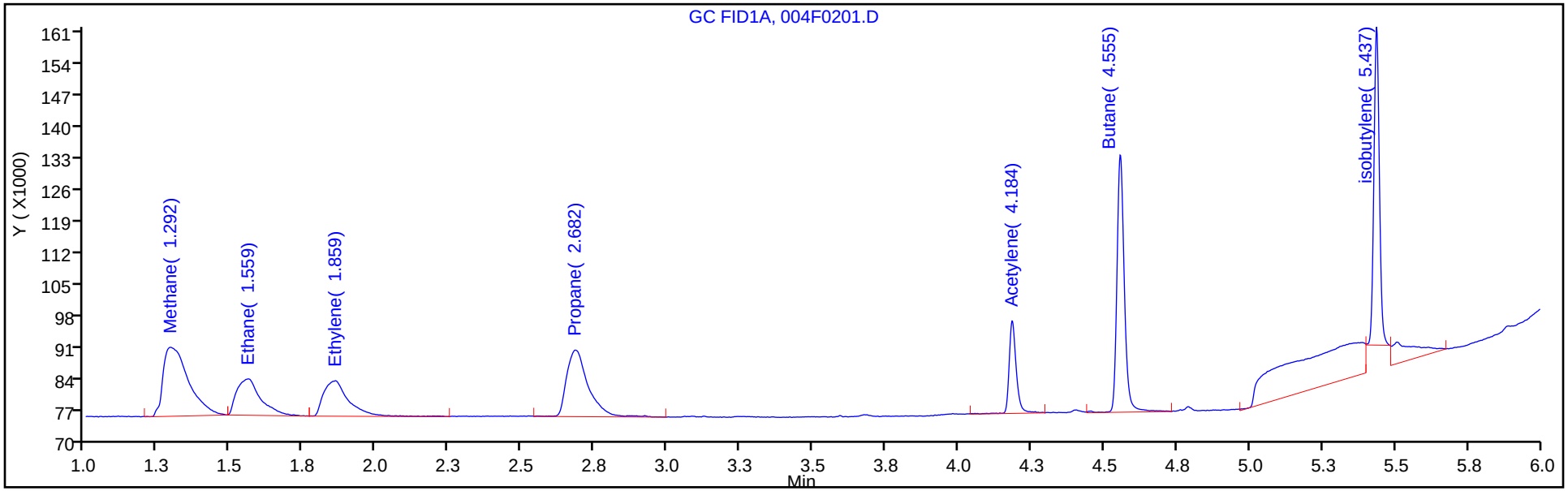
Report Date: 29-Sep-2021 10:55:12 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Denver

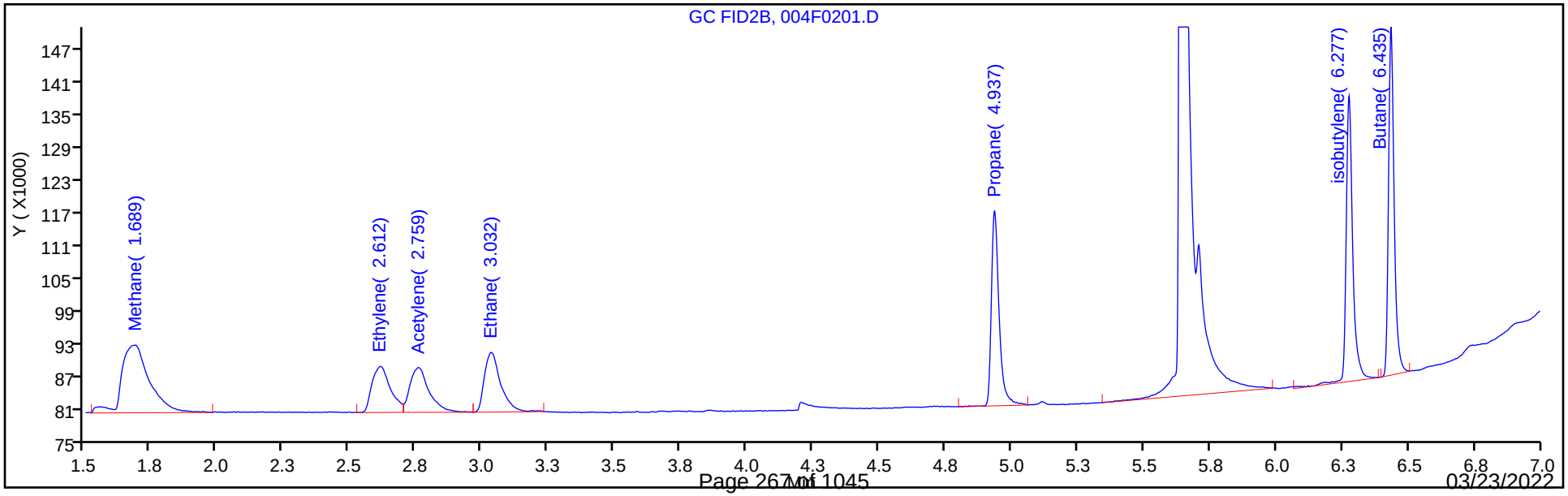
Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\004F0201.D

Injection Date:	24-Sep-2021 13:28:57	Instrument ID:	VGC_J	Operator ID:	sciannac
Lims ID:	ic			Worklist Smp#:	2
Client ID:					
Purge Vol:	18.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	4
Method:	RSK_J	Limit Group:	GCV - RSK 175		

Column: Rt-Alumina BOND/KCl (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: HP-PLOT/Q (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

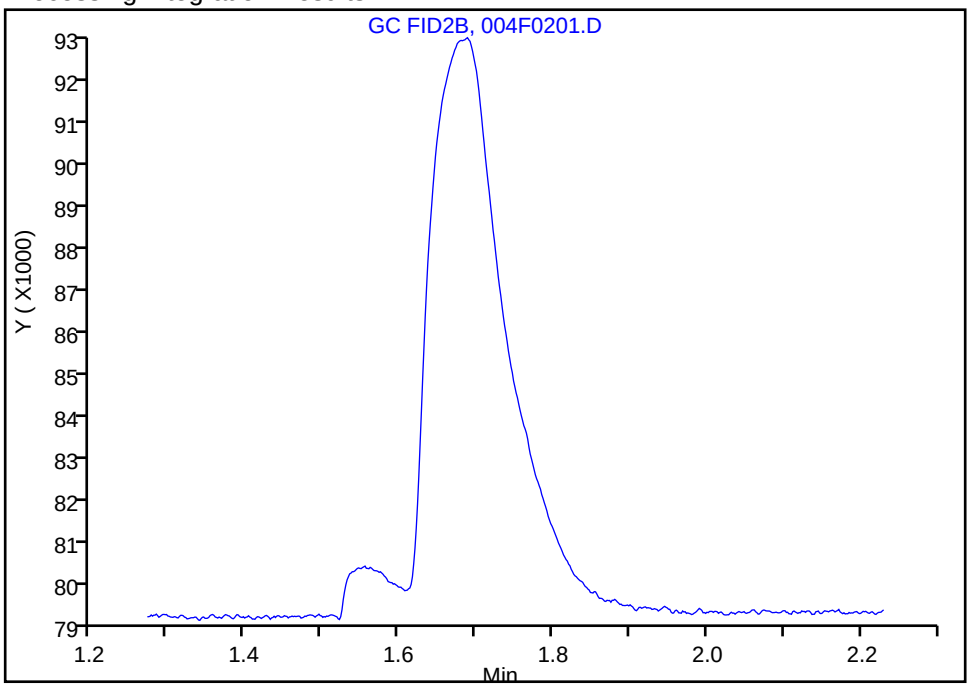
Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\004F0201.D
Injection Date: 24-Sep-2021 13:28:57 Instrument ID: VGC_J
Lims ID: ic
Client ID:
Operator ID: sciannac ALS Bottle#: 4 Worklist Smp#: 2
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Method: RSK_J Limit Group: GCV - RSK 175
Column: HP-PLOT/Q (0.53 mm) Detector GC FID2B

2 Methane, CAS: 74-82-8

Signal: 2

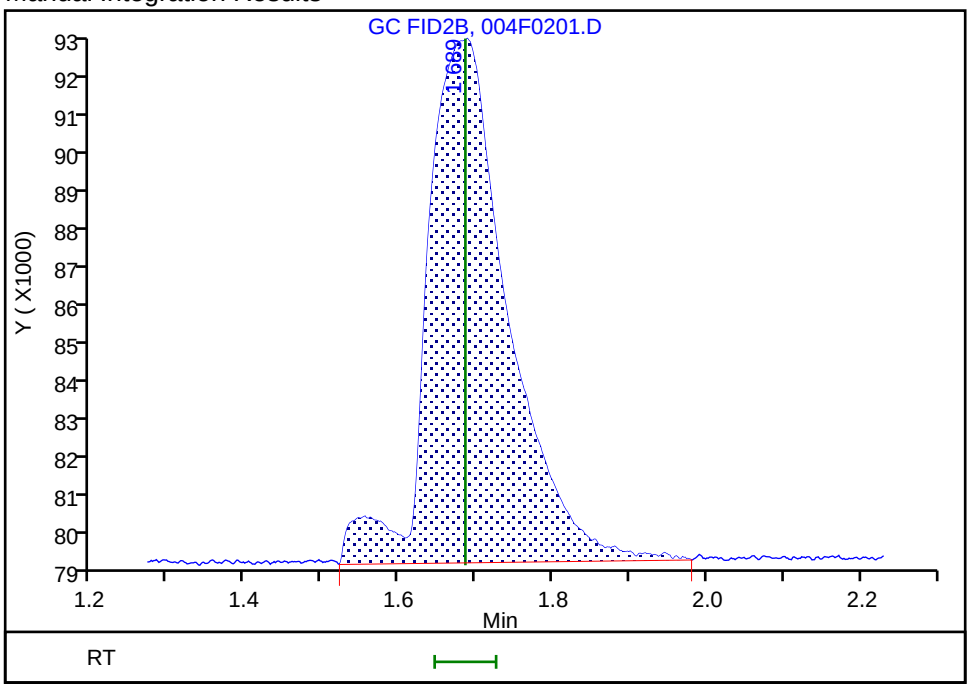
Not Detected
Expected RT: 1.69

Processing Integration Results



Manual Integration Results

RT: 1.69
Area: 91227
Amount: 0.791992
Amount Units: ug/l



Reviewer: sciannac, 24-Sep-2021 13:54:25
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

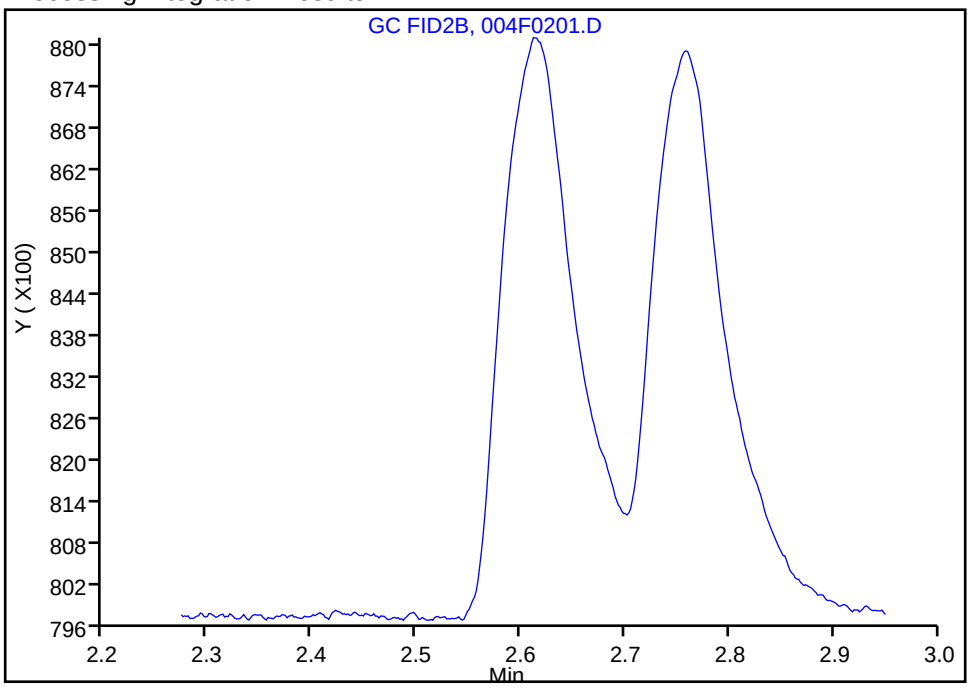
Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\004F0201.D
Injection Date: 24-Sep-2021 13:28:57 Instrument ID: VGC_J
Lims ID: ic
Client ID:
Operator ID: sciannac ALS Bottle#: 4 Worklist Smp#: 2
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Method: RSK_J Limit Group: GCV - RSK 175
Column: HP-PLOT/Q (0.53 mm) Detector GC FID2B

4 Ethylene, CAS: 74-85-1

Signal: 2

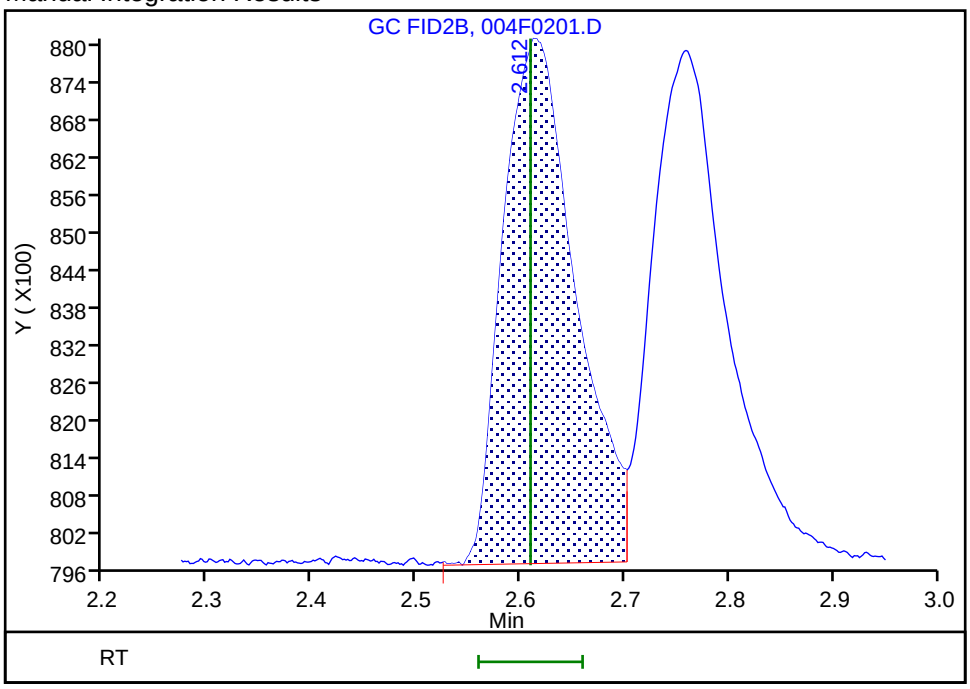
Not Detected
Expected RT: 2.61

Processing Integration Results



Manual Integration Results

RT: 2.61
Area: 41226
Amount: 1.330718
Amount Units: ug/l



Reviewer: sciannac, 24-Sep-2021 13:54:49
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

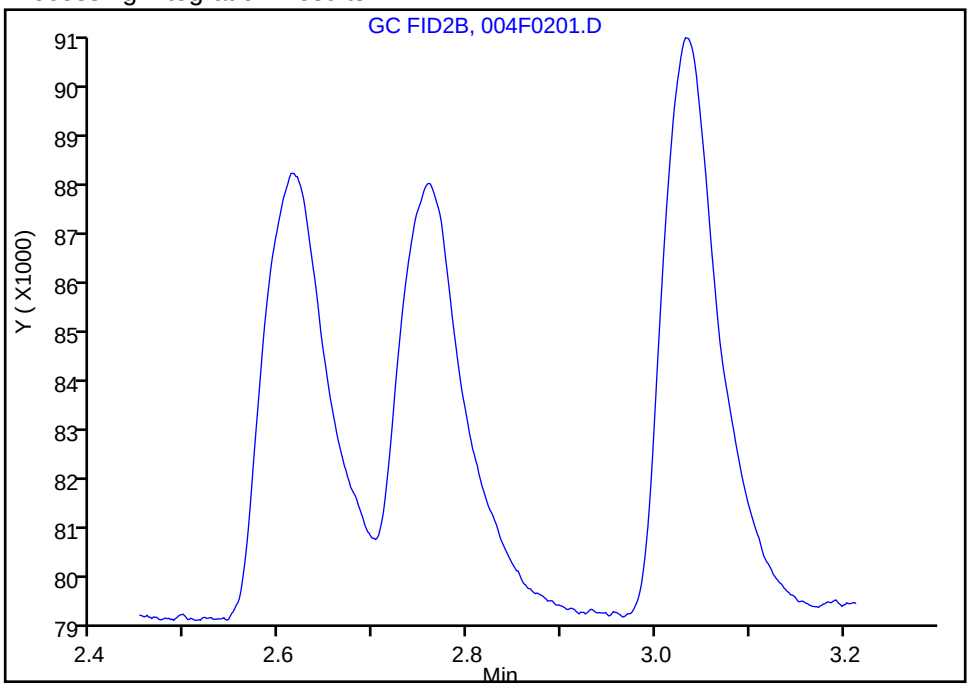
Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\004F0201.D
Injection Date: 24-Sep-2021 13:28:57 Instrument ID: VGC_J
Lims ID: ic
Client ID:
Operator ID: sciannac ALS Bottle#: 4 Worklist Smp#: 2
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Method: RSK_J Limit Group: GCV - RSK 175
Column: HP-PLOT/Q (0.53 mm) Detector GC FID2B

6 Acetylene, CAS: 74-86-2

Signal: 2

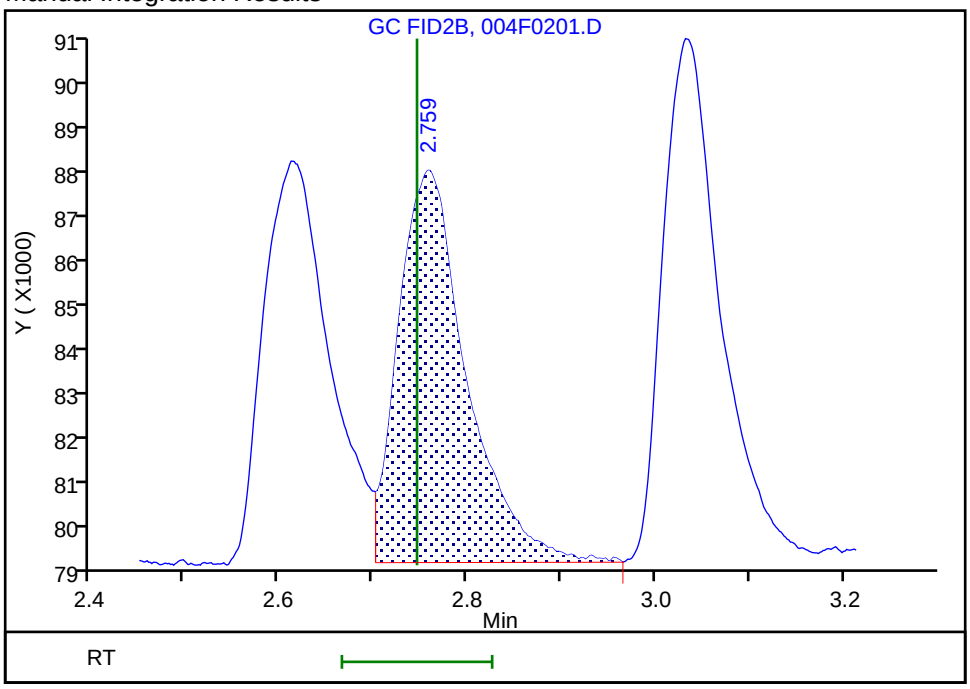
Not Detected
Expected RT: 2.75

Processing Integration Results



Manual Integration Results

RT: 2.76
Area: 41503
Amount: 1.214291
Amount Units: ug/l



Reviewer: sciannac, 24-Sep-2021 13:55:02
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

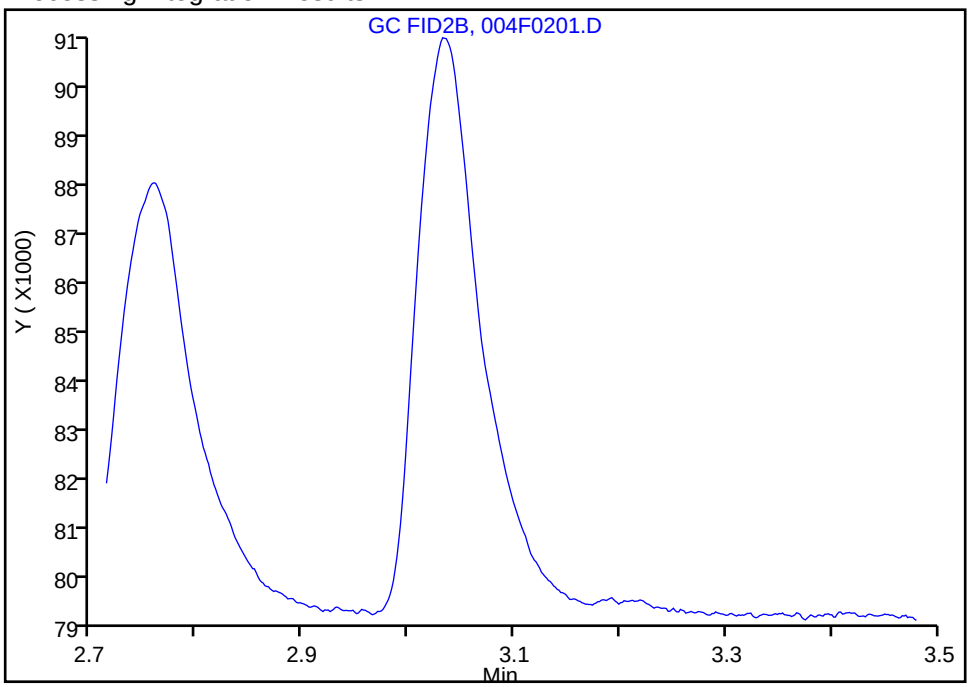
Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\004F0201.D
Injection Date: 24-Sep-2021 13:28:57 Instrument ID: VGC_J
Lims ID: ic
Client ID:
Operator ID: sciannac ALS Bottle#: 4 Worklist Smp#: 2
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Method: RSK_J Limit Group: GCV - RSK 175
Column: HP-PLOT/Q (0.53 mm) Detector GC FID2B

3 Ethane, CAS: 74-84-0

Signal: 2

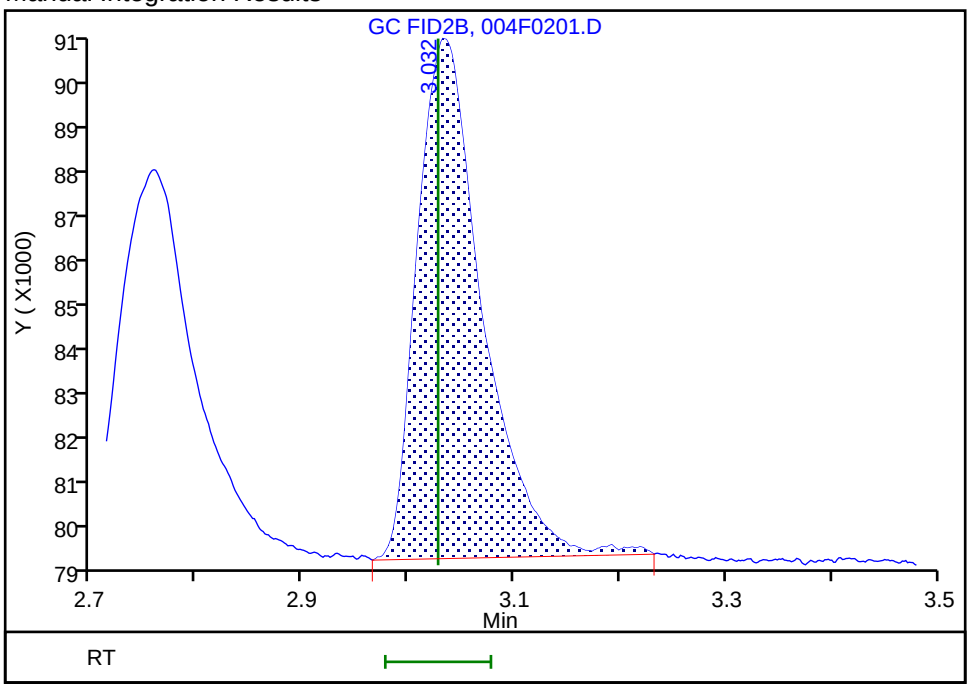
Not Detected
Expected RT: 3.03

Processing Integration Results



Manual Integration Results

RT: 3.03
Area: 46984
Amount: 1.407441
Amount Units: ug/l



Reviewer: sciannac, 24-Sep-2021 13:54:34
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\005F0301.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 24-Sep-2021 13:41:52 ALS Bottle#: 5 Worklist Smp#: 3
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: ic
Operator ID: sciannac Instrument ID: VGC_J
Sublist: chrom-RSK_J*sub5

Method: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 29-Sep-2021 10:55:13 Calib Date: 24-Sep-2021 15:12:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D

Column 1 : Rt-Alumina BOND/KCl (0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q (0.53 mm) Det: GC FID2B
Process Host: CTX1655

First Level Reviewer: sciannac Date: 24-Sep-2021 13:58:34

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Methane							
1	1.293	1.299	-0.006	126818	1.64	1.75	
2	1.686	1.686	0.000	126529	1.64	1.77	
						RPD = 1.24	
3 Ethane							
1	1.562	1.556	0.006	108631	3.08	3.27	
2	3.031	3.028	0.003	107446	3.08	3.22	
						RPD = 1.52	
4 Ethylene							
1	1.867	1.844	0.023	107197	2.87	3.04	
2	2.613	2.609	0.004	95159	2.87	3.07	
						RPD = 0.93	
5 Propane							
1	2.700	2.721	-0.021	174390	4.52	4.84	
2	4.935	4.929	0.006	170185	4.52	4.86	
						RPD = 0.37	
6 Acetylene							
1	4.213	4.230	-0.017	79761	2.67	2.83	
2	2.756	2.746	0.010	94797	2.67	2.77	
						RPD = 2.17	
7 Butane							Ma
1	4.575	4.528	0.047	232737	5.95	6.39	a
2	6.435	6.426	0.009	221865	5.95	6.31	M
						RPD = 1.20	
8 isobutylene							Ma
1	5.457	5.403	0.054	232885	5.75	6.45	
2	6.276	6.274	0.002	200266	5.75	6.03	M
						RPD = 6.65	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

RSK7gasMathes_00031 Amount Added: 5.00 Units: uL

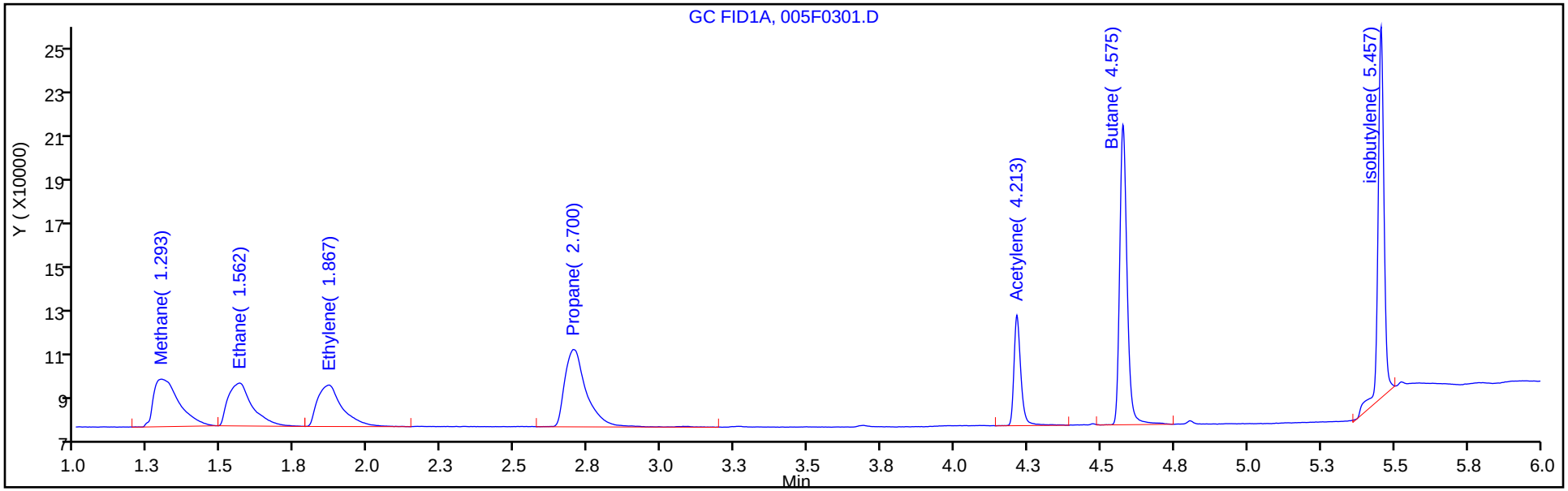
Report Date: 29-Sep-2021 10:55:13 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Denver

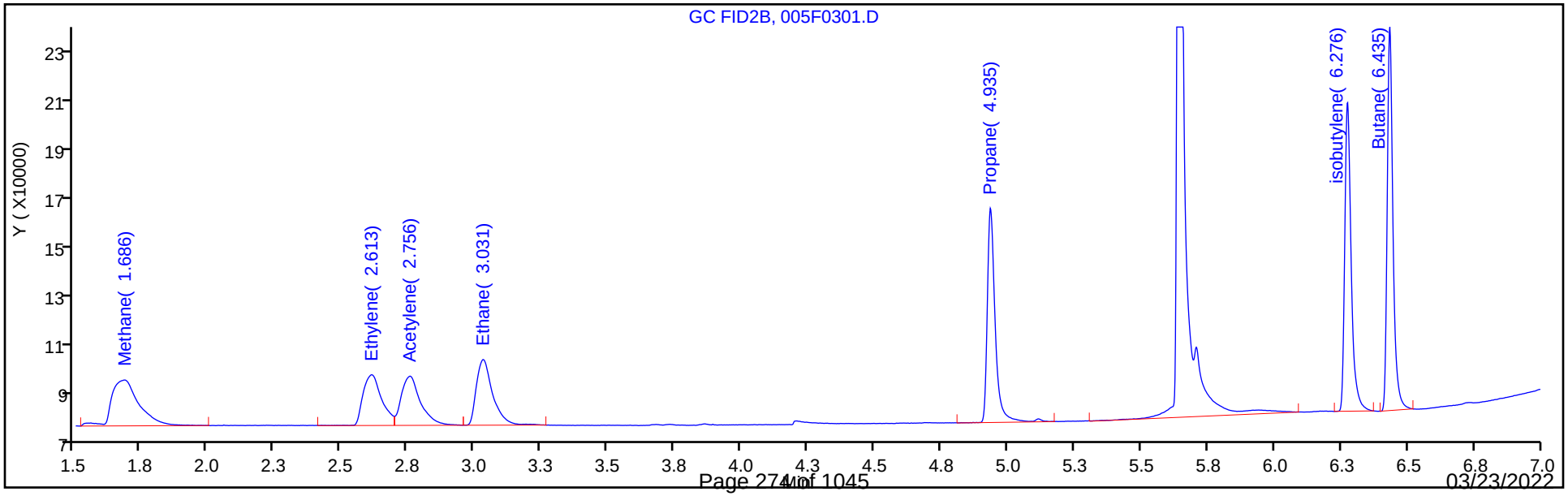
Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\005F0301.D

Injection Date:	24-Sep-2021 13:41:52	Instrument ID:	VGC_J	Operator ID:	sciannac
Lims ID:	ic			Worklist Smp#:	3
Client ID:					
Purge Vol:	18.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	5
Method:	RSK_J	Limit Group:	GCV - RSK 175		

Column: Rt-Alumina BOND/KCl (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: HP-PLOT/Q (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\006F0401.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 24-Sep-2021 13:54:46 ALS Bottle#: 6 Worklist Smp#: 4
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: ic
Operator ID: sciannac Instrument ID: VGC_J
Sublist: chrom-RSK_J*sub5

Method: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 29-Sep-2021 10:55:14 Calib Date: 24-Sep-2021 15:12:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D

Column 1 : Rt-Alumina BOND/KCl (0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q (0.53 mm) Det: GC FID2B
Process Host: CTX1655

First Level Reviewer: sciannac Date: 24-Sep-2021 15:51:08

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Methane							
1	1.293	1.299	-0.006	494257	13.1	12.2	
2	1.684	1.686	-0.002	509129	13.1	12.4	
						RPD = 1.40	
3 Ethane							
1	1.561	1.556	0.005	793971	24.6	23.9	
2	3.029	3.028	0.001	803791	24.6	24.1	
						RPD = 0.81	
4 Ethylene							
1	1.870	1.844	0.026	780792	23.0	22.2	
2	2.609	2.609	0.000	687818	23.0	22.2	
						RPD = 0.16	
5 Propane							
1	2.711	2.721	-0.010	1259121	36.1	35.0	
2	4.934	4.929	0.005	1221976	36.1	34.9	
						RPD = 0.18	
6 Acetylene							a
1	4.226	4.230	-0.004	587204	21.3	20.9	a
2	2.753	2.746	0.007	713476	21.3	20.9	a
						RPD = 0.03	
7 Butane							Ma
1	4.586	4.528	0.058	1686797	47.6	46.3	a
2	6.433	6.426	0.007	1612366	47.6	45.9	M
						RPD = 0.93	
8 isobutylene							Ma
1	5.465	5.403	0.062	1589725	46.0	44.0	
2	6.274	6.274	0.000	1464027	46.0	44.1	M
						RPD = 0.20	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

RSK7gasMathes_00031 Amount Added: 40.00 Units: uL

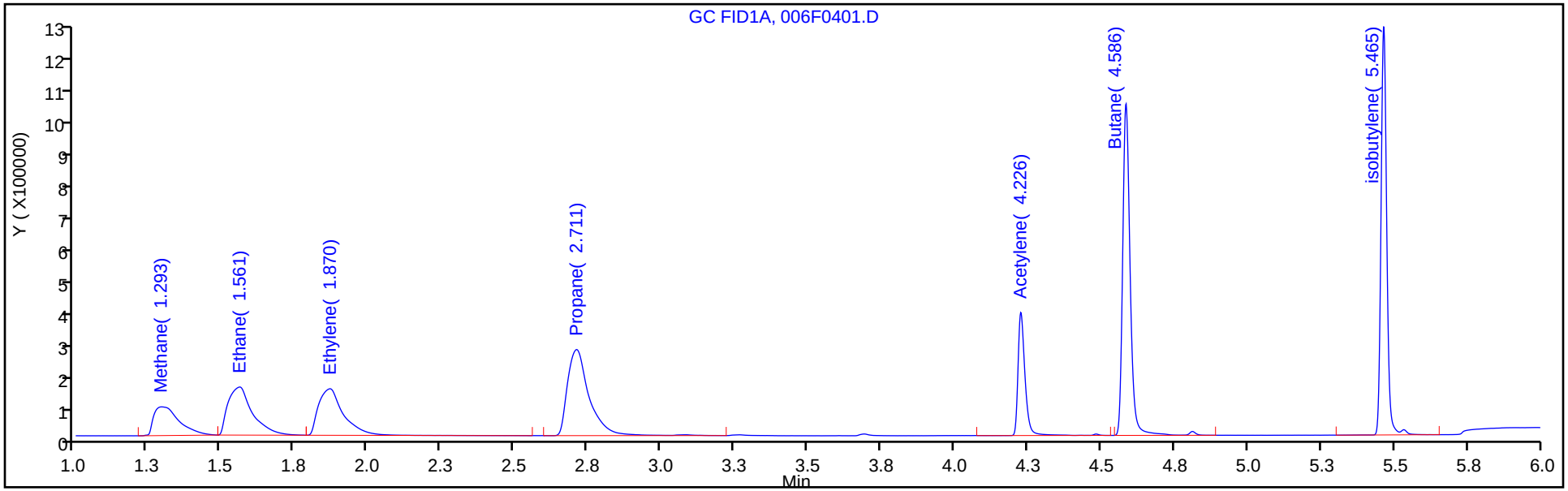
Report Date: 29-Sep-2021 10:55:14 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Denver

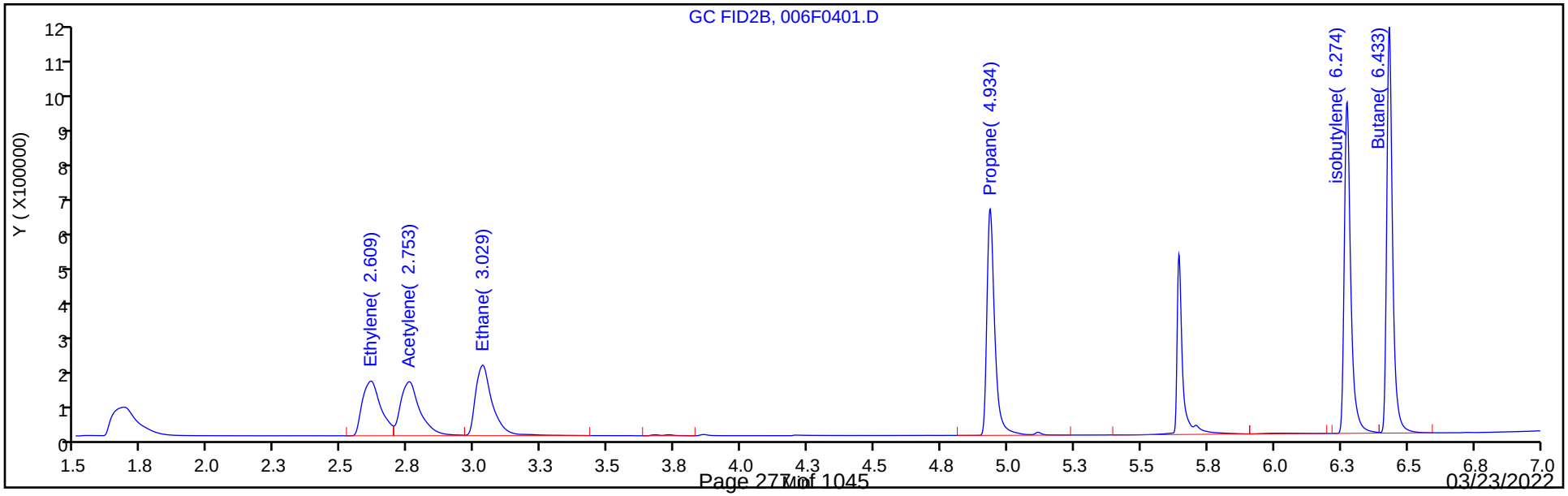
Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\006F0401.D

Injection Date:	24-Sep-2021 13:54:46	Instrument ID:	VGC_J	Operator ID:	sciannac
Lims ID:	ic			Worklist Smp#:	4
Client ID:					
Purge Vol:	18.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	RSK_J	Limit Group:	GCV - RSK 175		

Column: Rt-Alumina BOND/KCl (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: HP-PLOT/Q (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

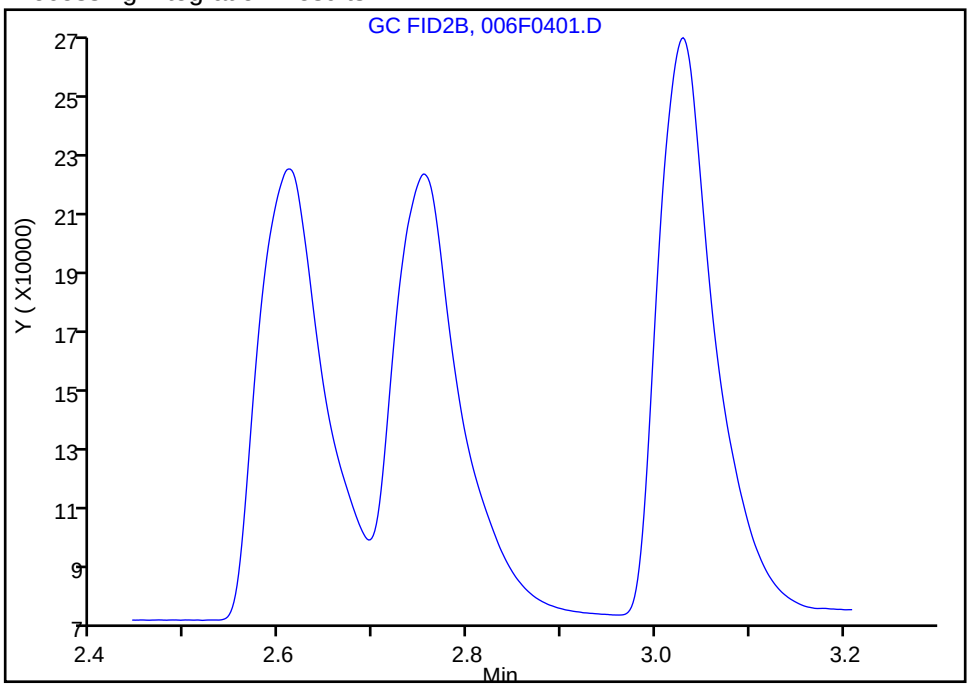
Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\006F0401.D
Injection Date: 24-Sep-2021 13:54:46 Instrument ID: VGC_J
Lims ID: ic
Client ID:
Operator ID: sciannac ALS Bottle#: 6 Worklist Smp#: 4
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Method: RSK_J Limit Group: GCV - RSK 175
Column: HP-PLOT/Q (0.53 mm) Detector GC FID2B

6 Acetylene, CAS: 74-86-2

Signal: 2

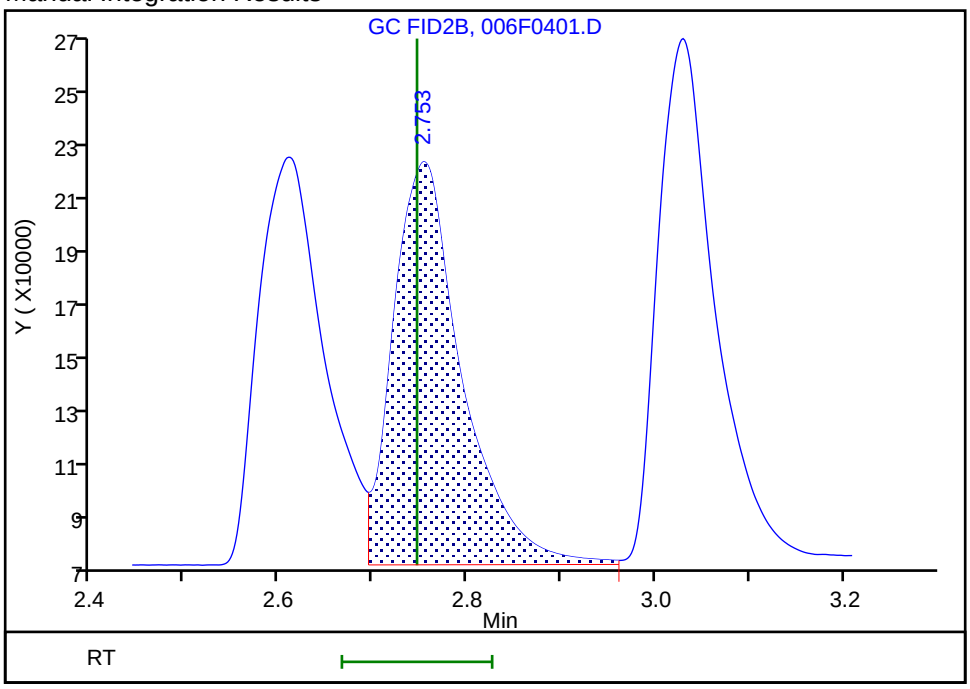
Not Detected
Expected RT: 2.75

Processing Integration Results



Manual Integration Results

RT: 2.75
Area: 713476
Amount: 20.874815
Amount Units: ug/l



Reviewer: sciannac, 24-Sep-2021 15:50:39
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\007F0501.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 24-Sep-2021 14:07:45 ALS Bottle#: 7 Worklist Smp#: 5
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: ic
Operator ID: sciannac Instrument ID: VGC_J
Sublist: chrom-RSK_J*sub5

Method: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 29-Sep-2021 10:55:14 Calib Date: 24-Sep-2021 15:12:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D

Column 1 : Rt-Alumina BOND/KCl (0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q (0.53 mm) Det: GC FID2B
Process Host: CTX1655

First Level Reviewer: sciannac Date: 24-Sep-2021 15:50:30

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Methane							
1	1.295	1.295	0.000	2453548	65.7	67.9	
2	1.681	1.681	0.000	2553566	65.7	69.0	
						RPD = 1.60	
3 Ethane							Ma
1	1.561	1.561	0.000	4411499	123.2	132.7	
2	3.026	3.026	0.000	4450065	123.2	133.3	M
						RPD = 0.45	
4 Ethylene							
1	1.870	1.870	0.000	4318968	114.9	122.6	
2	2.608	2.608	0.000	3812973	114.9	123.1	
						RPD = 0.38	
5 Propane							
1	2.716	2.716	0.000	6962772	180.6	193.4	
2	4.933	4.933	0.000	6754582	180.6	192.9	
						RPD = 0.22	
6 Acetylene							a
1	4.230	4.230	0.000	3180347	106.7	113.0	a
2	2.751	2.751	0.000	3899802	106.7	114.1	a
						RPD = 0.95	
7 Butane							
1	4.590	4.590	0.000	9255328	238.1	254.1	
2	6.430	6.430	0.000	8939530	238.1	254.4	
						RPD = 0.11	
8 isobutylene							
1	5.468	5.468	0.000	8777969	229.8	243.0	
2	6.271	6.271	0.000	8052089	229.8	242.5	
						RPD = 0.20	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

RSK7gasMathes_00031 Amount Added: 200.00 Units: uL

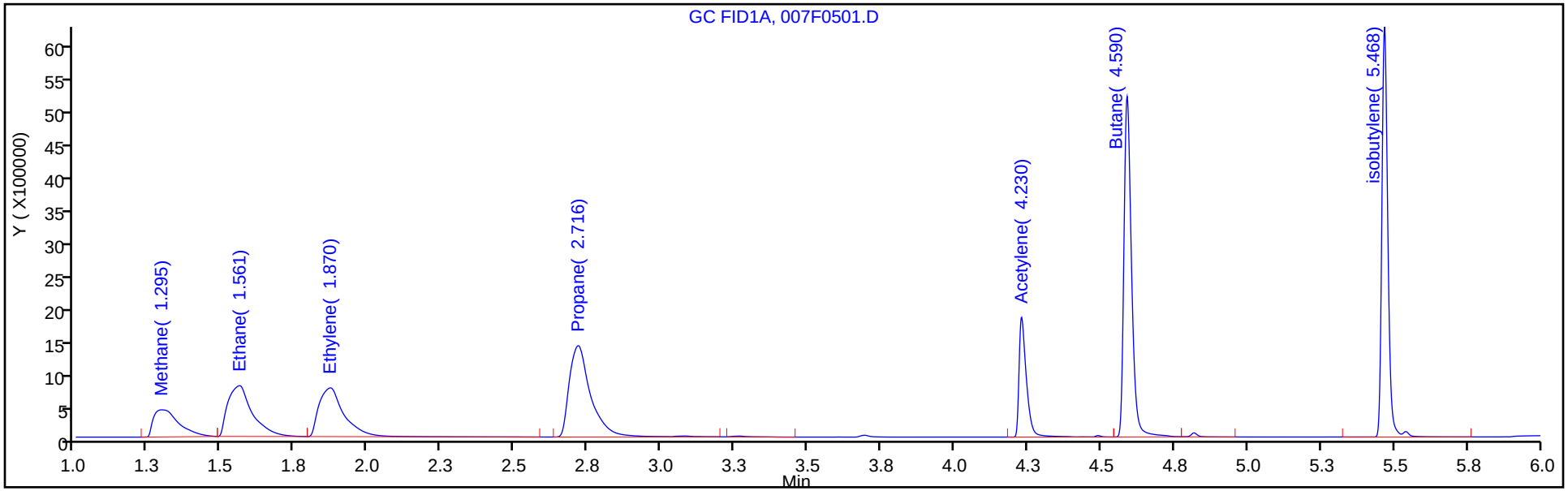
Report Date: 29-Sep-2021 10:55:15 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Denver

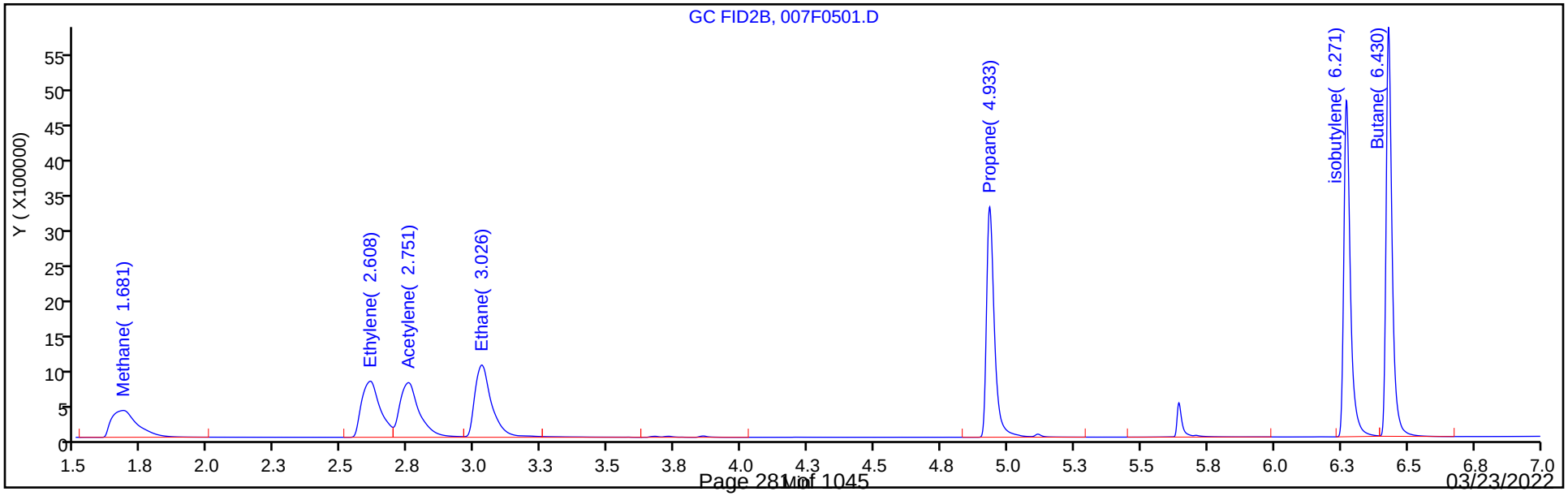
Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\007F0501.D

Injection Date:	24-Sep-2021 14:07:45	Instrument ID:	VGC_J	Operator ID:	sciannac
Lims ID:	ic			Worklist Smp#:	5
Client ID:					
Purge Vol:	18.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	RSK_J	Limit Group:	GCV - RSK 175		

Column: Rt-Alumina BOND/KCl (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: HP-PLOT/Q (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

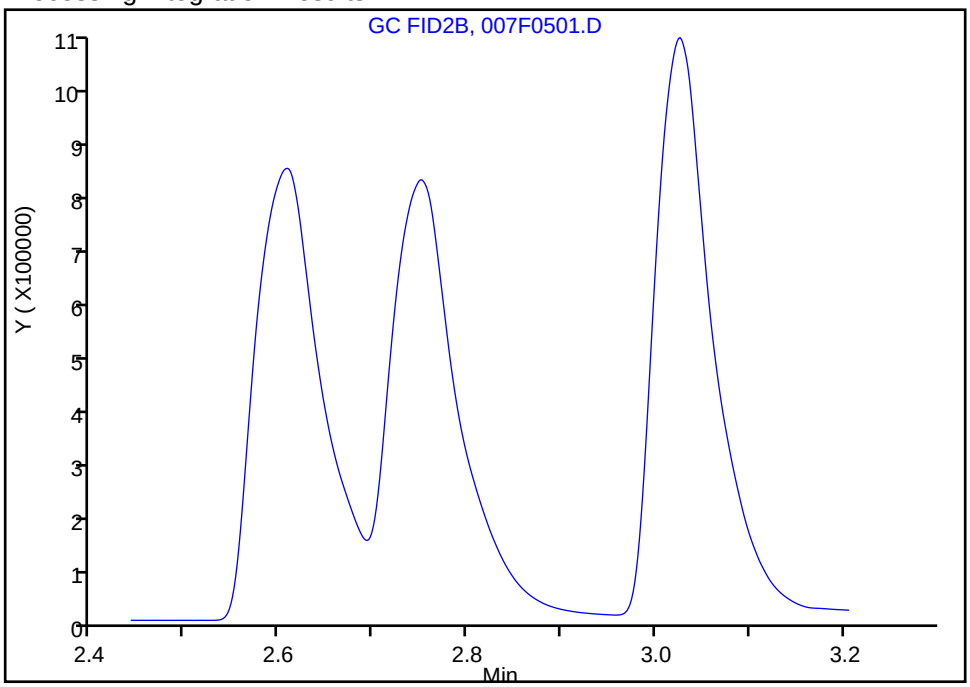
Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\007F0501.D
Injection Date: 24-Sep-2021 14:07:45 Instrument ID: VGC_J
Lims ID: ic
Client ID:
Operator ID: sciannac ALS Bottle#: 7 Worklist Smp#: 5
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Method: RSK_J Limit Group: GCV - RSK 175
Column: HP-PLOT/Q (0.53 mm) Detector GC FID2B

6 Acetylene, CAS: 74-86-2

Signal: 2

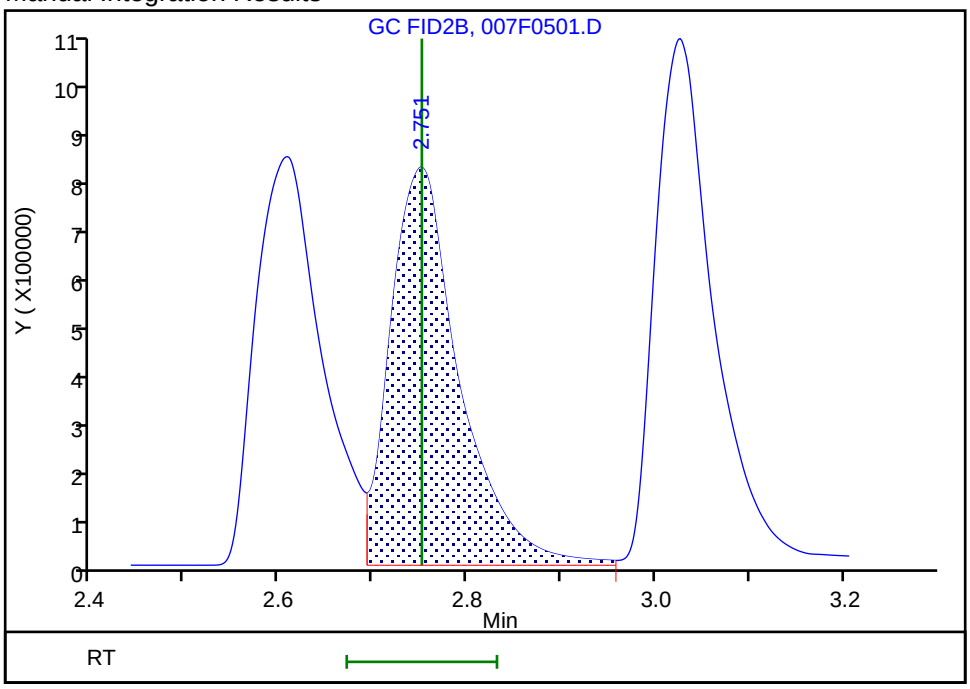
Not Detected
Expected RT: 2.75

Processing Integration Results



Manual Integration Results

RT: 2.75
Area: 3899802
Amount: 114.1000
Amount Units: ug/l



Reviewer: sciannac, 24-Sep-2021 15:50:19
Audit Action: Assigned Compound ID Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

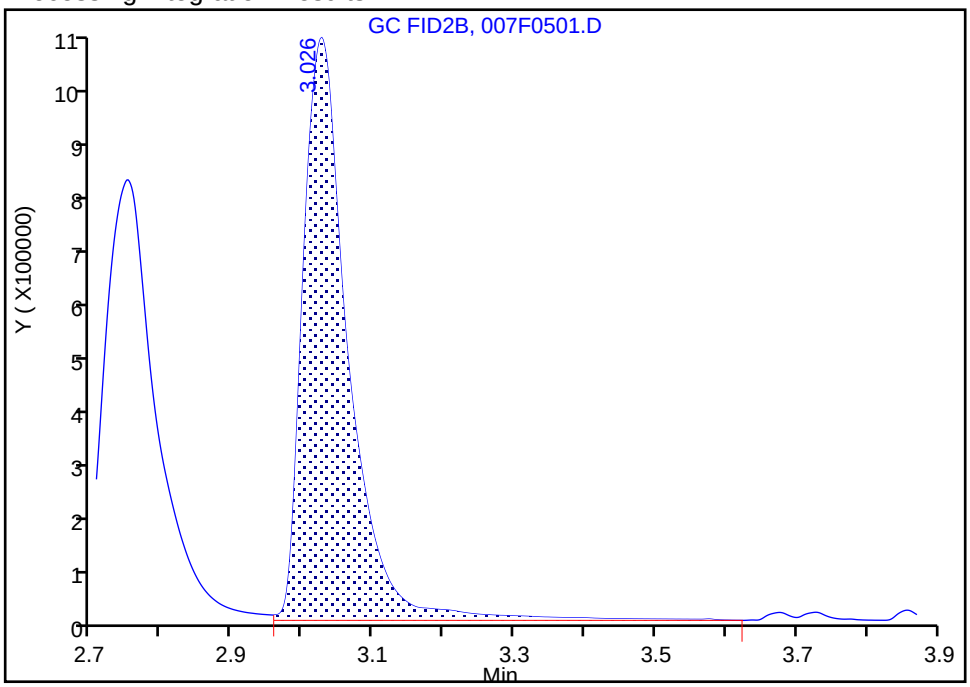
Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\007F0501.D
Injection Date: 24-Sep-2021 14:07:45 Instrument ID: VGC_J
Lims ID: ic
Client ID:
Operator ID: sciannac ALS Bottle#: 7 Worklist Smp#: 5
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Method: RSK_J Limit Group: GCV - RSK 175
Column: HP-PLOT/Q (0.53 mm) Detector GC FID2B

3 Ethane, CAS: 74-84-0

Signal: 2

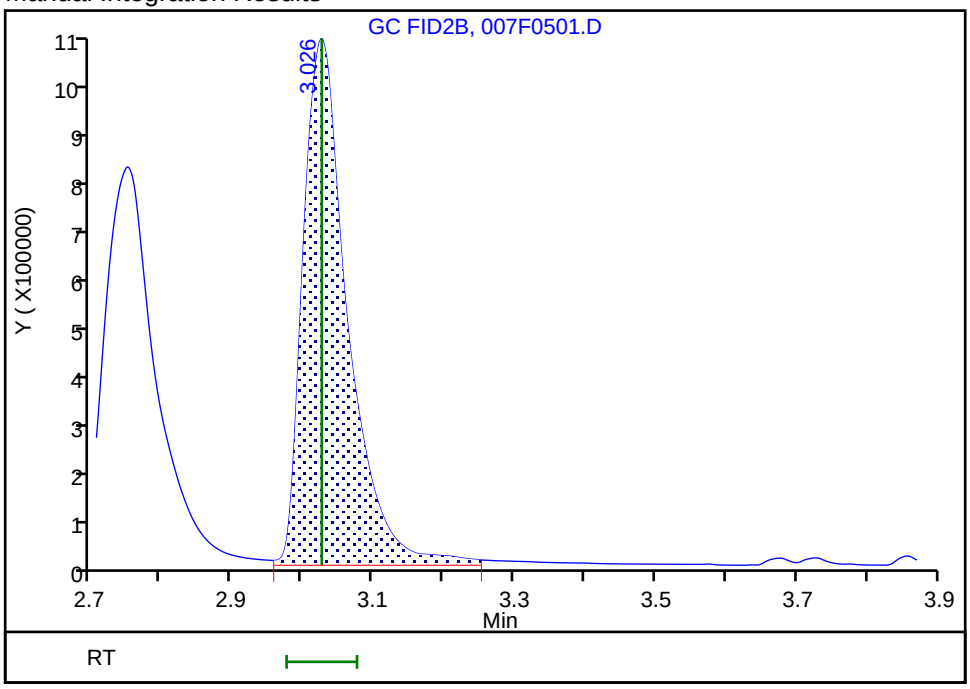
Processing Integration Results

RT: 3.03
Area: 4534073
Amount: 134.6635
Amount Units: ug/l



Manual Integration Results

RT: 3.03
Area: 4450065
Amount: 133.3050
Amount Units: ug/l



Reviewer: sciannac, 24-Sep-2021 15:50:09
Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Split Peak

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\008F0601.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 24-Sep-2021 14:20:44 ALS Bottle#: 8 Worklist Smp#: 6
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: ic
Operator ID: sciannac Instrument ID: VGC_J
Sublist: chrom-RSK_J*sub5

Method: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 29-Sep-2021 10:55:15 Calib Date: 24-Sep-2021 15:12:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D

Column 1 : Rt-Alumina BOND/KCl (0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q (0.53 mm) Det: GC FID2B
Process Host: CTX1655

First Level Reviewer: sciannac Date: 24-Sep-2021 15:46:14

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Methane							M
1	1.295	1.295	0.000	4808571	131.4	134.9	
2	1.678	1.678	0.000	5065048	131.4	138.6	M
						RPD = 2.70	
3 Ethane							
1	1.560	1.560	0.000	8751636	246.3	263.3	
2	3.023	3.023	0.000	8976911	246.3	268.9	
						RPD = 2.12	
4 Ethylene							
1	1.873	1.873	0.000	8582166	229.8	243.6	
2	2.603	2.603	0.000	7548044	229.8	243.6	
						RPD = 0.00	
5 Propane							M
1	2.721	2.721	0.000	13578180	361.3	377.1	M
2	4.929	4.929	0.000	13344347	361.3	381.1	
						RPD = 1.08	
6 Acetylene							a
1	4.230	4.230	0.000	6274725	213.3	223.0	a
2	2.746	2.746	0.000	7865310	213.3	230.1	a
						RPD = 3.15	
7 Butane							Ma
1	4.591	4.591	0.000	18468578	476.1	507.1	a
2	6.426	6.426	0.000	17766895	476.1	505.6	M
						RPD = 0.29	
8 isobutylene							Ma
1	5.468	5.468	0.000	17314841	459.7	479.3	
2	6.269	6.269	0.000	15966351	459.7	480.9	M
						RPD = 0.33	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

RSK7gasMathes_00031 Amount Added: 400.00 Units: uL

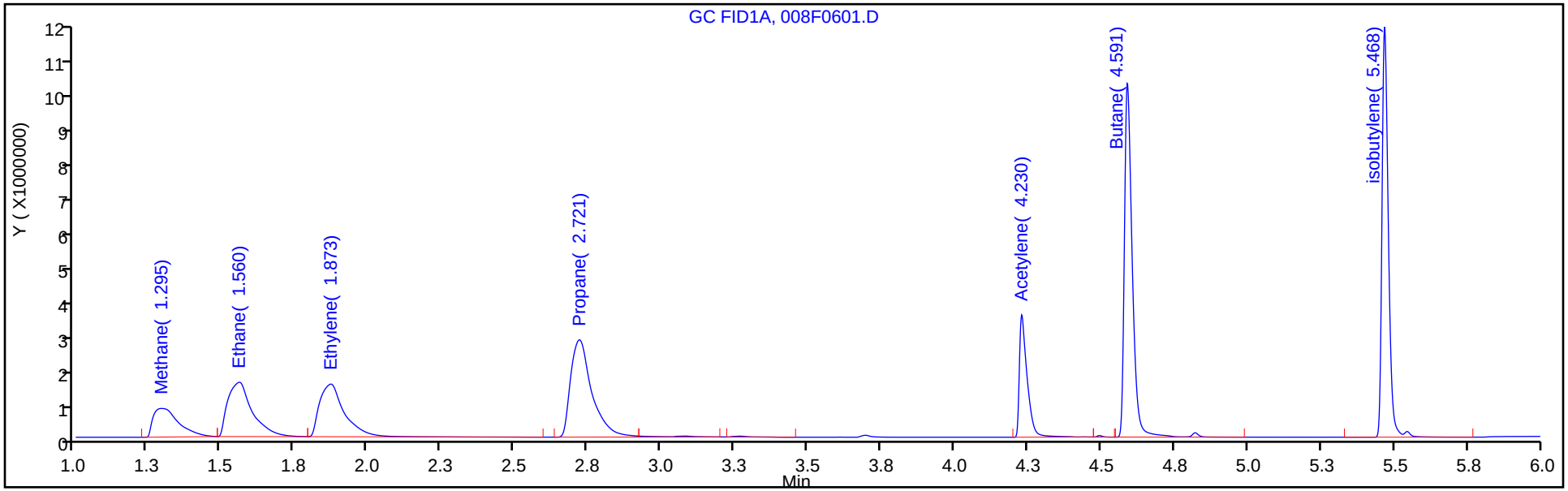
Report Date: 29-Sep-2021 10:55:15 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Denver

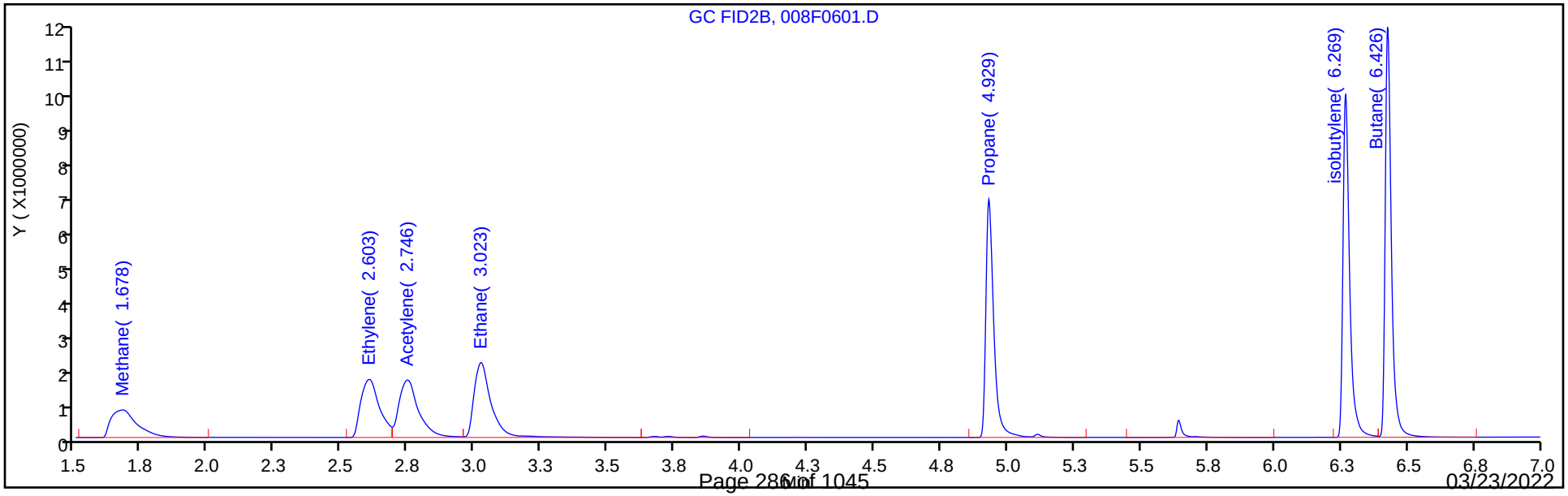
Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\008F0601.D

Injection Date:	24-Sep-2021 14:20:44	Instrument ID:	VGC_J	Operator ID:	sciannac
Lims ID:	ic			Worklist Smp#:	6
Client ID:					
Purge Vol:	18.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	8
Method:	RSK_J	Limit Group:	GCV - RSK 175		

Column: Rt-Alumina BOND/KCl (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: HP-PLOT/Q (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

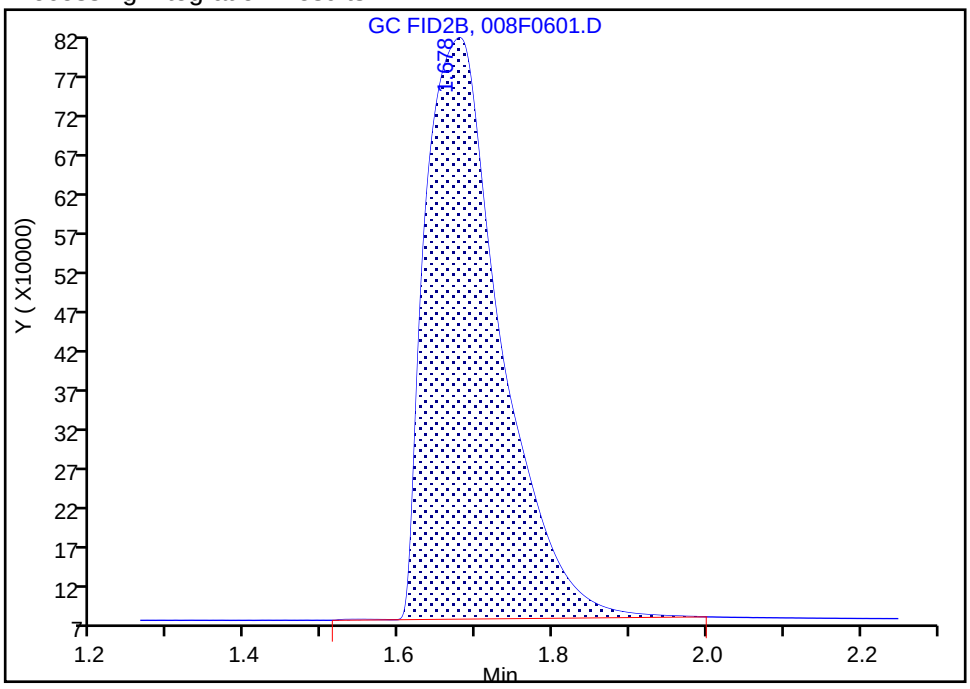
Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\008F0601.D
Injection Date: 24-Sep-2021 14:20:44 Instrument ID: VGC_J
Lims ID: ic
Client ID:
Operator ID: sciannac ALS Bottle#: 8 Worklist Smp#: 6
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Method: RSK_J Limit Group: GCV - RSK 175
Column: HP-PLOT/Q (0.53 mm) Detector GC FID2B

2 Methane, CAS: 74-82-8

Signal: 2

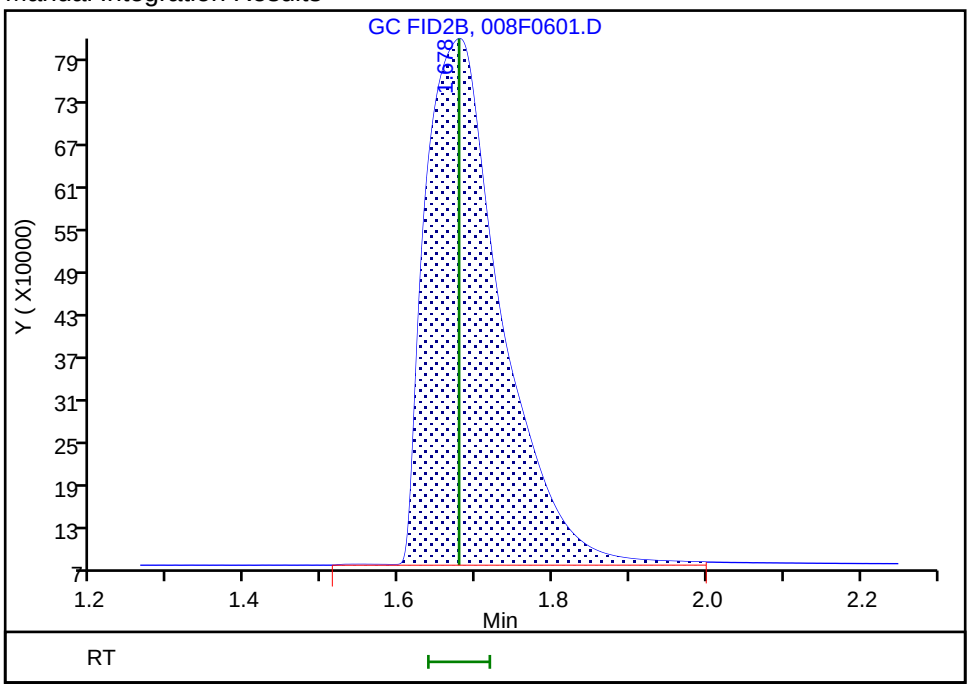
Processing Integration Results

RT: 1.68
Area: 5002633
Amount: 137.0848
Amount Units: ug/l



Manual Integration Results

RT: 1.68
Area: 5065048
Amount: 138.5598
Amount Units: ug/l



Reviewer: sciannac, 29-Sep-2021 09:21:50
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

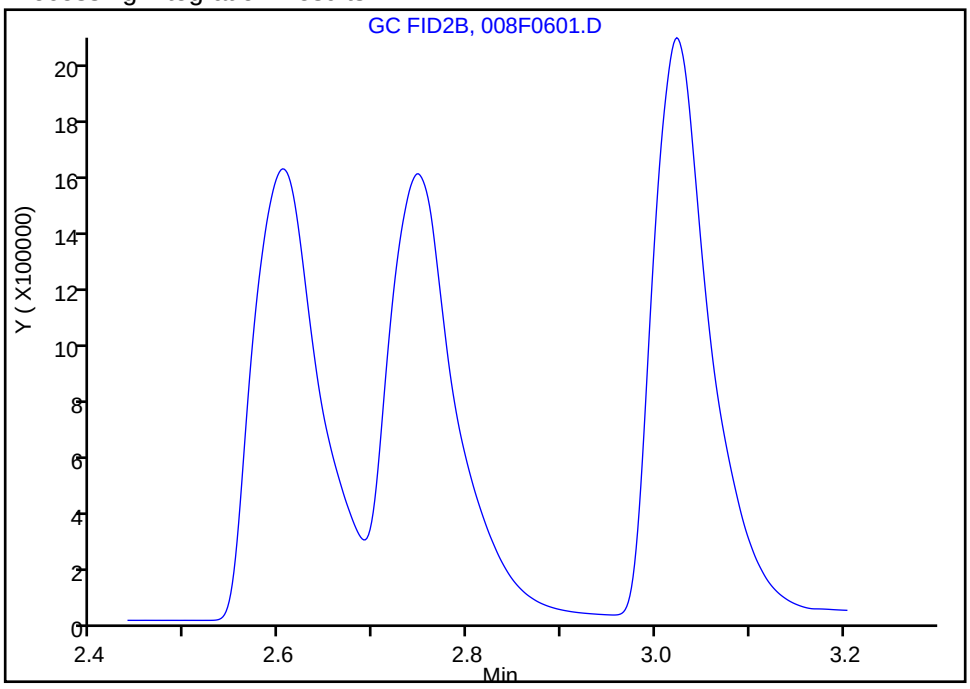
Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\008F0601.D
Injection Date: 24-Sep-2021 14:20:44 Instrument ID: VGC_J
Lims ID: ic
Client ID:
Operator ID: sciannac ALS Bottle#: 8 Worklist Smp#: 6
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Method: RSK_J Limit Group: GCV - RSK 175
Column: HP-PLOT/Q (0.53 mm) Detector GC FID2B

6 Acetylene, CAS: 74-86-2

Signal: 2

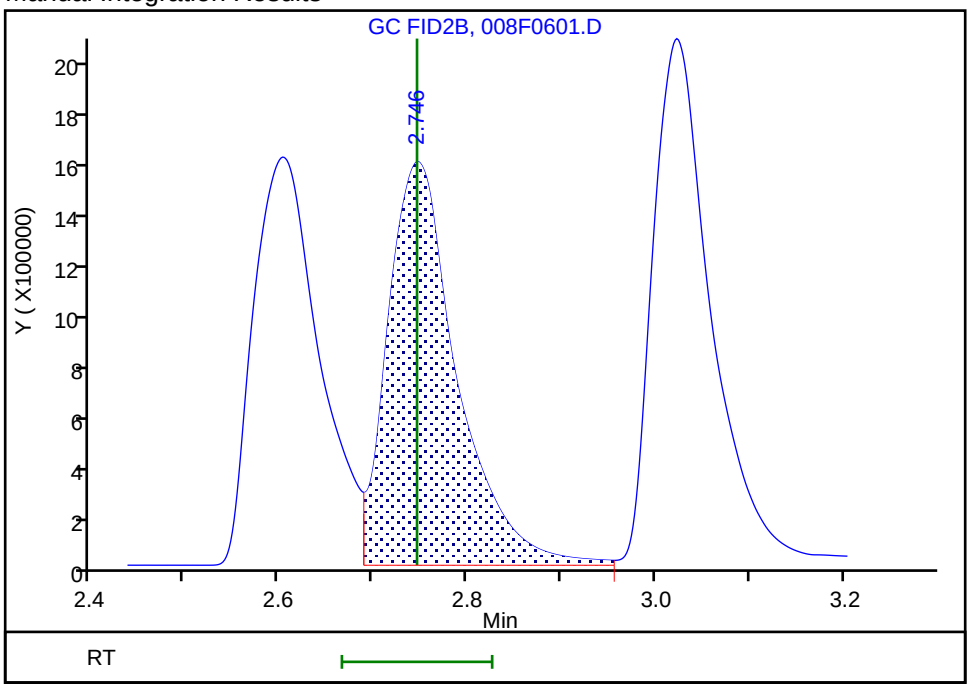
Not Detected
Expected RT: 2.75

Processing Integration Results



Manual Integration Results

RT: 2.75
Area: 7865310
Amount: 230.1225
Amount Units: ug/l



Reviewer: sciannac, 24-Sep-2021 15:44:53
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\009F0701.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 24-Sep-2021 14:33:44 ALS Bottle#: 9 Worklist Smp#: 7
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: ic
Operator ID: sciannac Instrument ID: VGC_J
Sublist: chrom-RSK_J*sub5

Method: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 29-Sep-2021 10:55:16 Calib Date: 24-Sep-2021 15:12:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D

Column 1 : Rt-Alumina BOND/KCl (0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q (0.53 mm) Det: GC FID2B
Process Host: CTX1655

First Level Reviewer: sciannac Date: 24-Sep-2021 15:47:03

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Methane							
1	1.294	1.295	-0.001	8118988	262.8	229.0	
2	1.678	1.678	0.000	8455607	262.8	232.5	
						RPD = 1.51	
3 Ethane							
1	1.561	1.560	0.001	14997572	492.7	451.2	
2	3.021	3.023	-0.002	14625440	492.7	438.1	
						RPD = 2.94	
4 Ethylene							
1	1.873	1.873	0.000	14678124	459.6	416.7	
2	2.602	2.603	-0.001	12909086	459.6	416.7	
						RPD = 0.00	
5 Propane							
1	2.723	2.721	0.002	23539538	722.6	653.7	
2	4.926	4.929	-0.003	23034734	722.6	657.9	
						RPD = 0.65	
6 Acetylene							a
1	4.228	4.230	-0.002	10977943	426.7	390.1	a
2	2.746	2.746	0.000	13452620	426.7	393.6	a
						RPD = 0.88	
7 Butane							Ma
1	4.588	4.591	-0.003	30555104	952.3	838.9	a
2	6.423	6.426	-0.003	31281741	952.3	890.2	M
						RPD = 5.93	
8 isobutylene							Ma
1	5.466	5.468	-0.002	30754275	919.4	851.3	
2	6.266	6.269	-0.003	28385241	919.4	854.9	M
						RPD = 0.42	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

RSK7gasMathes_00031 Amount Added: 800.00 Units: uL

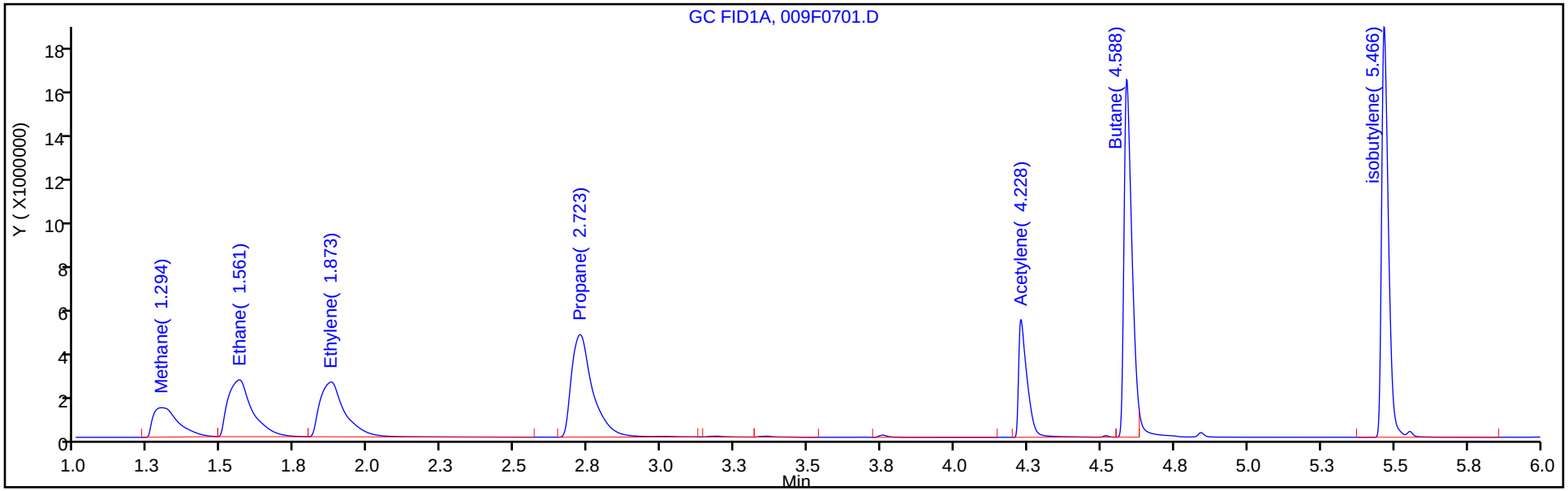
Report Date: 29-Sep-2021 10:55:16 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Denver

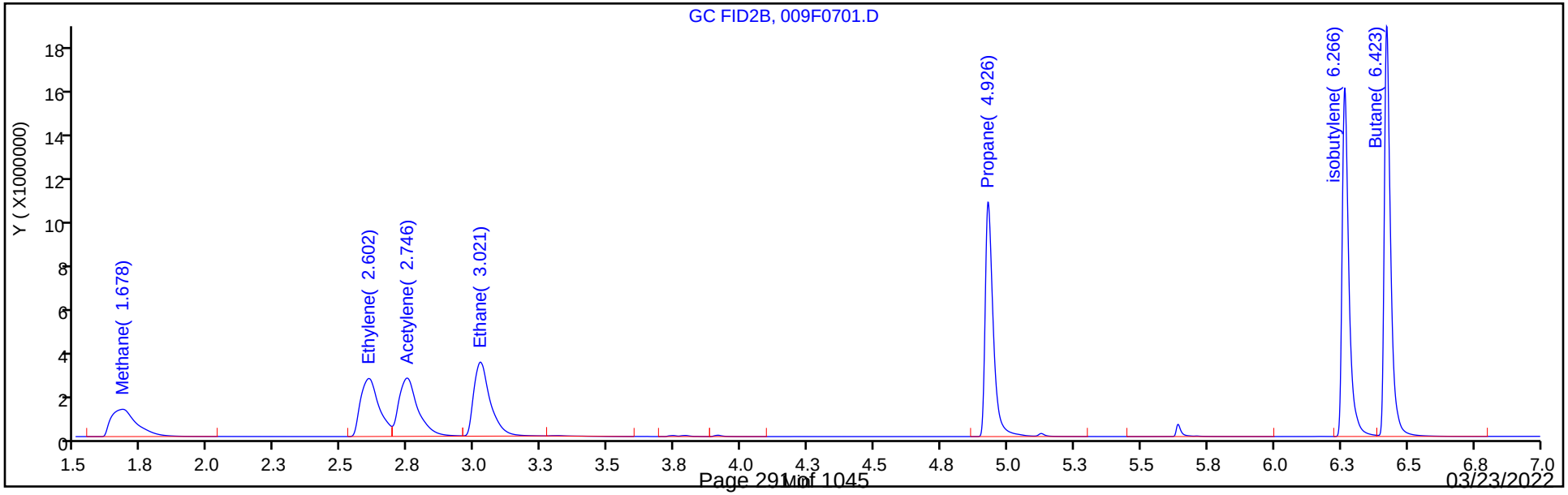
Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\009F0701.D

Injection Date:	24-Sep-2021 14:33:44	Instrument ID:	VGC_J	Operator ID:	sciannac
Lims ID:	ic			Worklist Smp#:	7
Client ID:					
Purge Vol:	18.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	9
Method:	RSK_J	Limit Group:	GCV - RSK 175		

Column: Rt-Alumina BOND/KCl (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: HP-PLOT/Q (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

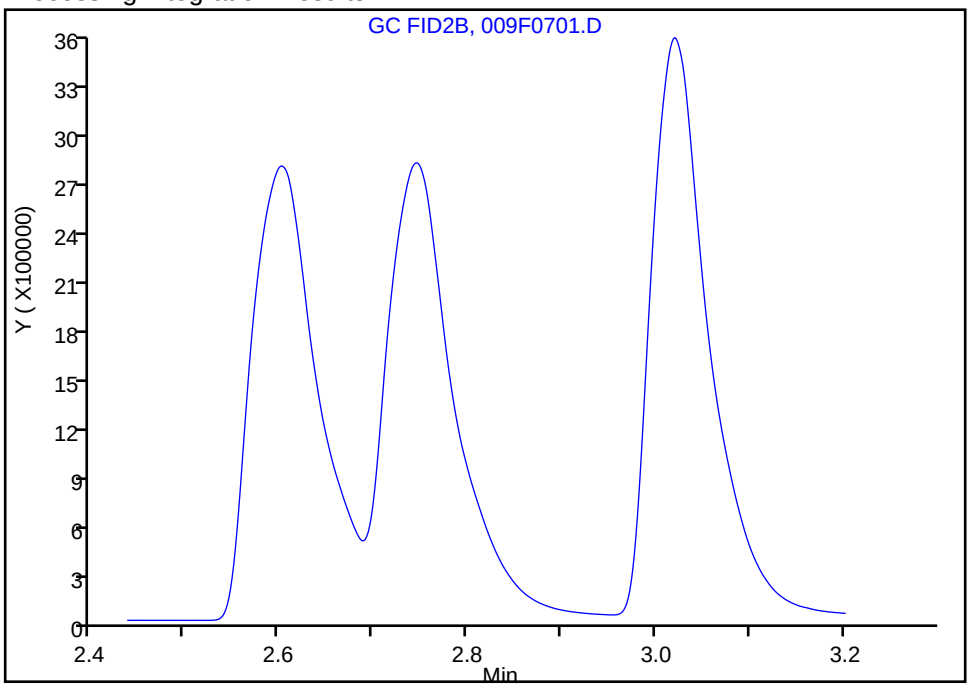
Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\009F0701.D
Injection Date: 24-Sep-2021 14:33:44 Instrument ID: VGC_J
Lims ID: ic
Client ID:
Operator ID: sciannac ALS Bottle#: 9 Worklist Smp#: 7
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Method: RSK_J Limit Group: GCV - RSK 175
Column: HP-PLOT/Q (0.53 mm) Detector GC FID2B

6 Acetylene, CAS: 74-86-2

Signal: 2

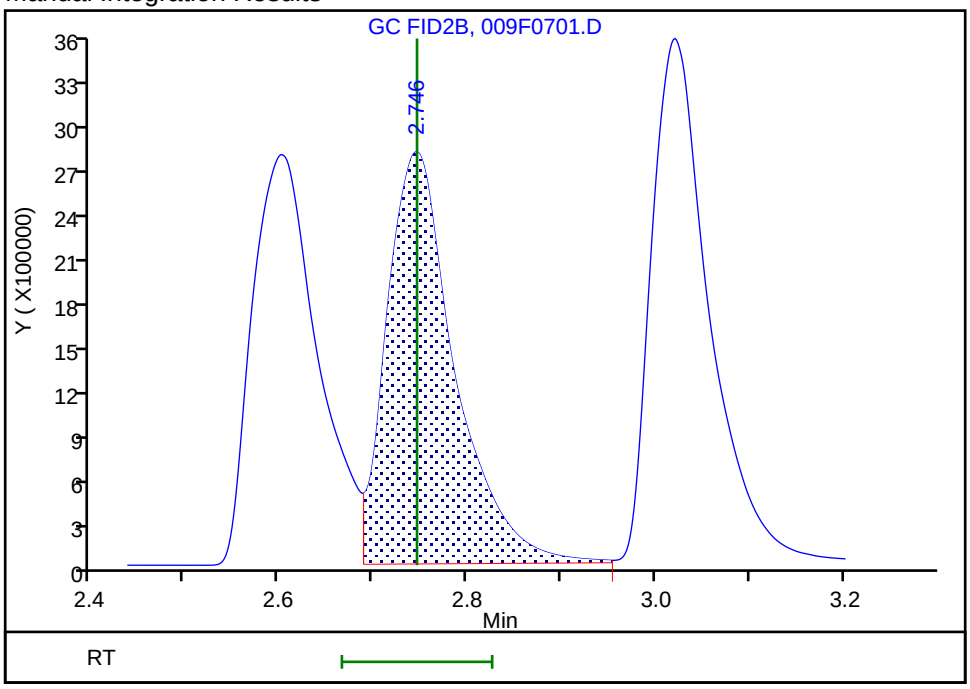
Not Detected
Expected RT: 2.75

Processing Integration Results



Manual Integration Results

RT: 2.75
Area: 13452620
Amount: 393.5955
Amount Units: ug/l



Reviewer: sciannac, 24-Sep-2021 15:46:30
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\010F0801.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 24-Sep-2021 14:46:48 ALS Bottle#: 10 Worklist Smp#: 9
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: ic
Operator ID: sciannac Instrument ID: VGC_J
Sublist: chrom-RSK_J*sub5

Method: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 29-Sep-2021 10:55:17 Calib Date: 24-Sep-2021 15:12:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D

Column 1 : Rt-Alumina BOND/KCl (0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q (0.53 mm) Det: GC FID2B
Process Host: CTX1655

First Level Reviewer: sciannac Date: 24-Sep-2021 15:48:04

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Methane							
1	1.293	1.295	-0.002	60484705	1626.3	1717.9	
2	1.676	1.678	-0.002	59798125	1626.3	1654.6	
						RPD = 3.75	

QC Flag Legend
Processing Flags

Reagents:
RSK175methane_00010 Amount Added: 50.00 Units: uL

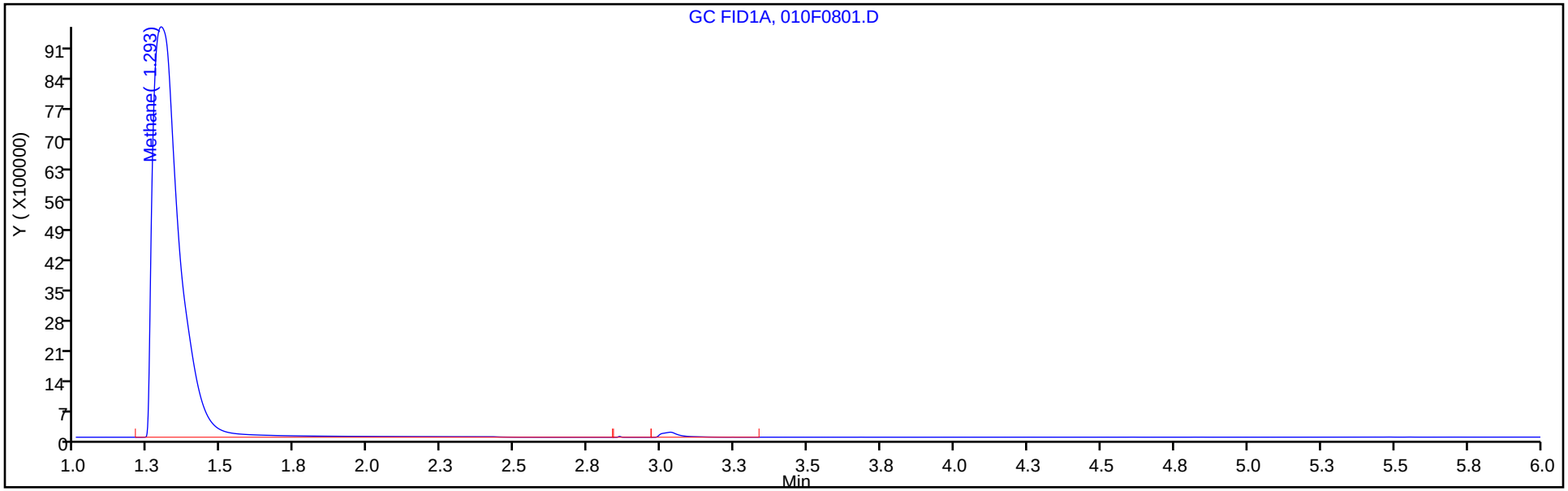
Report Date: 29-Sep-2021 10:55:17 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Denver

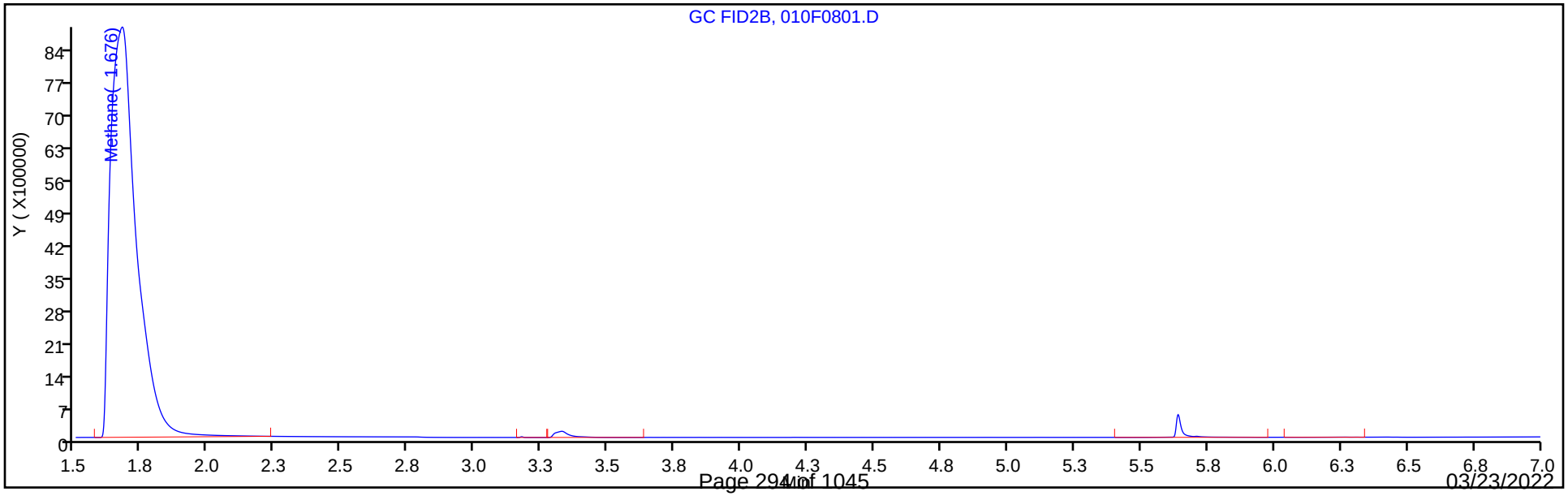
Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\010F0801.D

Injection Date:	24-Sep-2021 14:46:48	Instrument ID:	VGC_J	Operator ID:	sciannac
Lims ID:	ic			Worklist Smp#:	9
Client ID:					
Purge Vol:	18.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	10
Method:	RSK_J	Limit Group:	GCV - RSK 175		

Column: Rt-Alumina BOND/KCl (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: HP-PLOT/Q (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\011F0901.D				
Lims ID:	ic				
Client ID:					
Sample Type:	IC	Calib Level:	9		
Inject. Date:	24-Sep-2021 14:59:53	ALS Bottle#:	11	Worklist Smp#:	10
Purge Vol:	18.000 mL	Dil. Factor:	1.0000		
Sample Info:	ic				
Operator ID:	sciannac	Instrument ID:	VGC_J		
Sublist:	chrom-RSK_J*sub5				
Method:	\\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\RSK_J.m				
Limit Group:	GCV - RSK 175				
Method Label:	DV-GC-0025: Dissolved Gases in Water by RSK-175				
Last Update:	29-Sep-2021 10:55:17	Calib Date:	24-Sep-2021 15:12:55		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D				
Column 1 :	Rt-Alumina BOND/KCl (0.53 mm)		Det: GC FID1A		
Column 2 :	HP-PLOT/Q (0.53 mm)		Det: GC FID2B		
Process Host:	CTX1655				

First Level Reviewer: sciannac Date: 24-Sep-2021 15:48:14

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Methane							
1	1.292	1.295	-0.003	245647963	6505.0	6982.6	
2	1.673	1.678	-0.005	247051774	6505.0	6841.2	
						RPD = 2.04	

QC Flag Legend

Processing Flags

Reagents:

RSK175methane_00010 Amount Added: 200.00 Units: uL

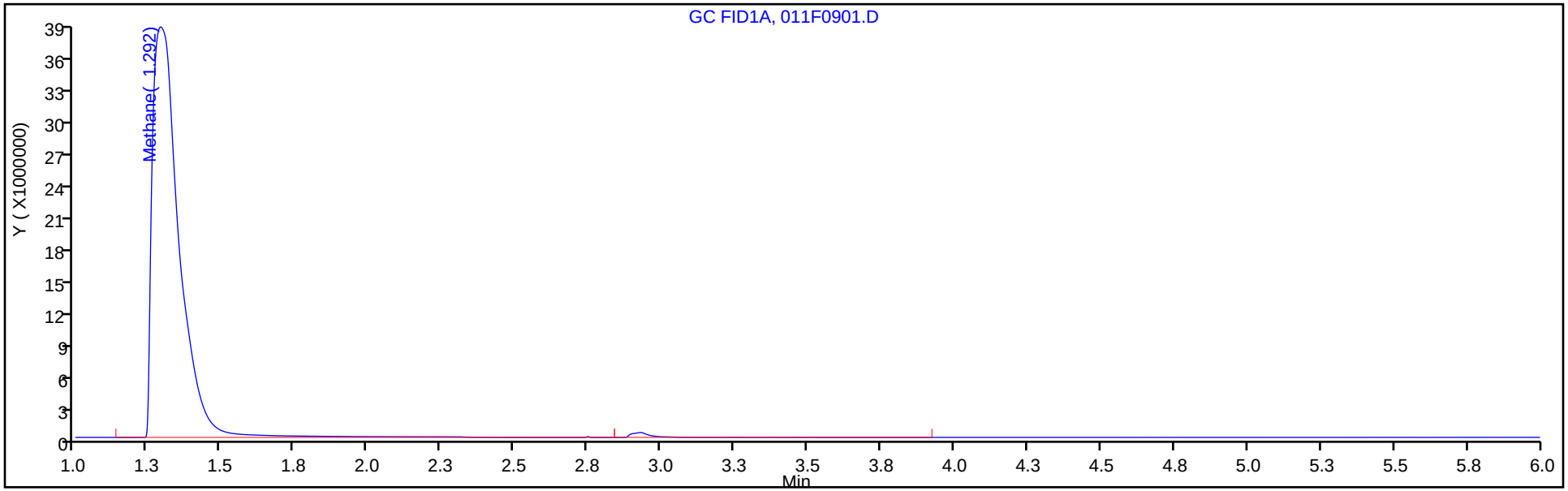
Report Date: 29-Sep-2021 10:55:17 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Denver

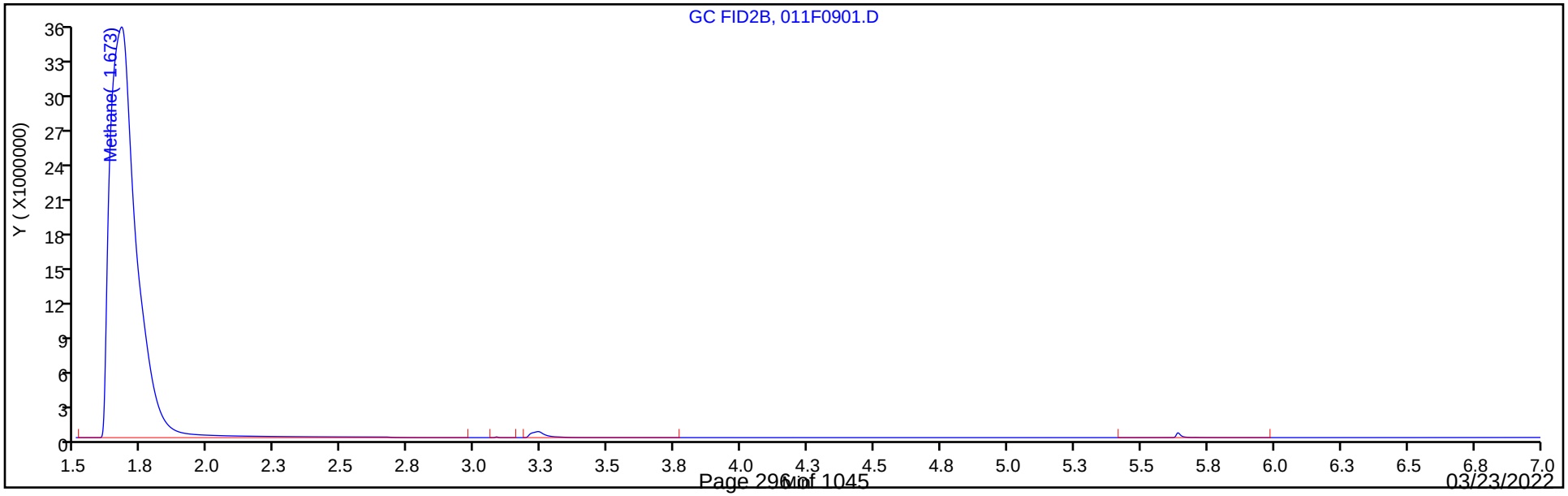
Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\011F0901.D

Injection Date:	24-Sep-2021 14:59:53	Instrument ID:	VGC_J	Operator ID:	sciannac
Lims ID:	ic			Worklist Smp#:	10
Client ID:					
Purge Vol:	18.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	11
Method:	RSK_J	Limit Group:	GCV - RSK 175		

Column: Rt-Alumina BOND/KCl (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: HP-PLOT/Q (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 10
Inject. Date: 24-Sep-2021 15:12:55 ALS Bottle#: 12 Worklist Smp#: 11
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: ic
Operator ID: sciannac Instrument ID: VGC_J
Sublist: chrom-RSK_J*sub5

Method: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 29-Sep-2021 10:55:18 Calib Date: 24-Sep-2021 15:12:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D

Column 1 : Rt-Alumina BOND/KCl (0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q (0.53 mm) Det: GC FID2B
Process Host: CTX1655

First Level Reviewer: sciannac Date: 24-Sep-2021 15:48:27

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Methane							
1	1.288	1.295	-0.007	669092603	19515	19022	
2	1.669	1.678	-0.009	675608539	19515	18712	
						RPD = 1.65	

QC Flag Legend

Processing Flags

Reagents:

RSK175methane_00010 Amount Added: 600.00 Units: uL

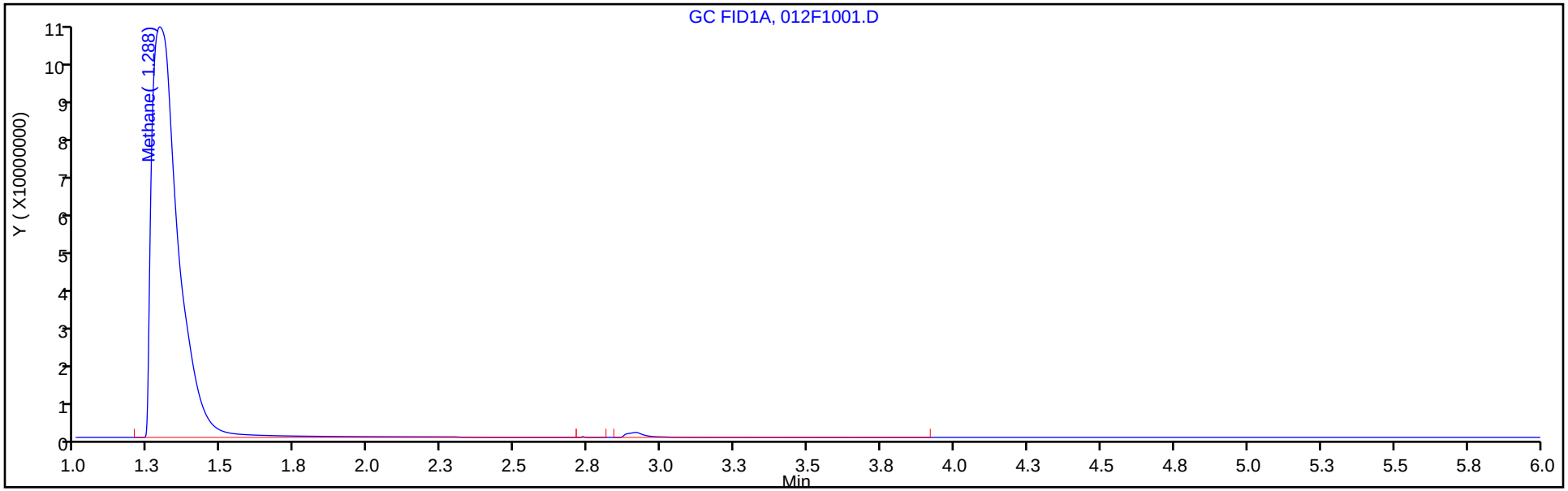
Report Date: 29-Sep-2021 10:55:18 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins TestAmerica, Denver

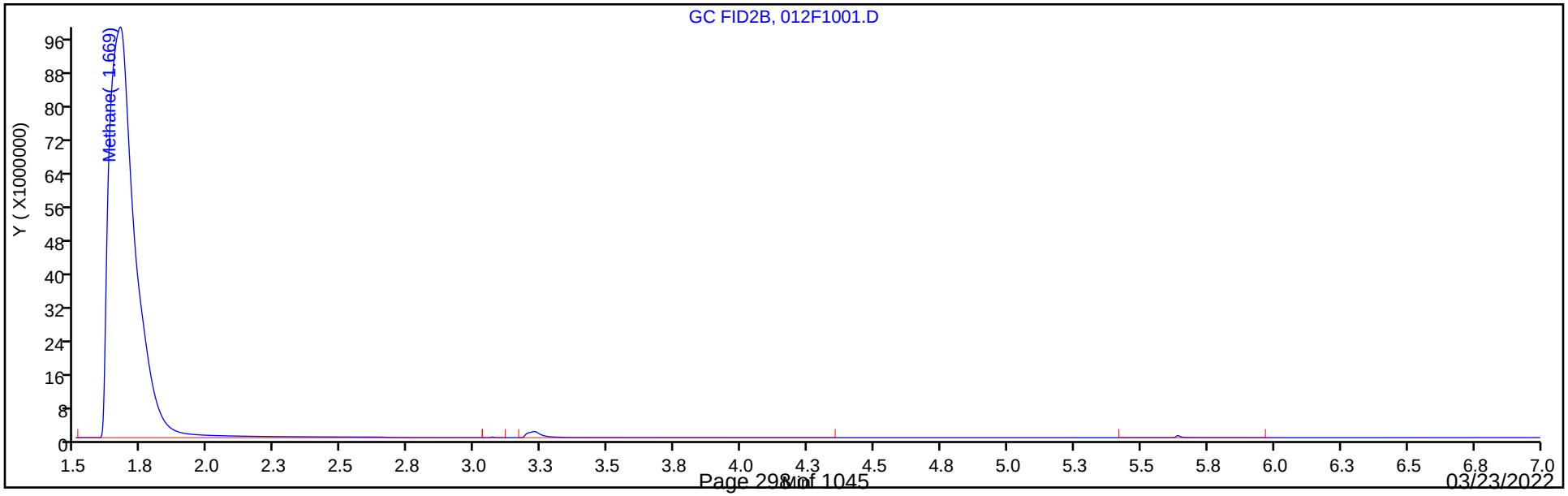
Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D

Injection Date:	24-Sep-2021 15:12:55	Instrument ID:	VGC_J	Operator ID:	sciannac
Lims ID:	ic			Worklist Smp#:	11
Client ID:					
Purge Vol:	18.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	12
Method:	RSK_J	Limit Group:	GCV - RSK 175		

Column: Rt-Alumina BOND/KCl (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: HP-PLOT/Q (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Calibration / Methane

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

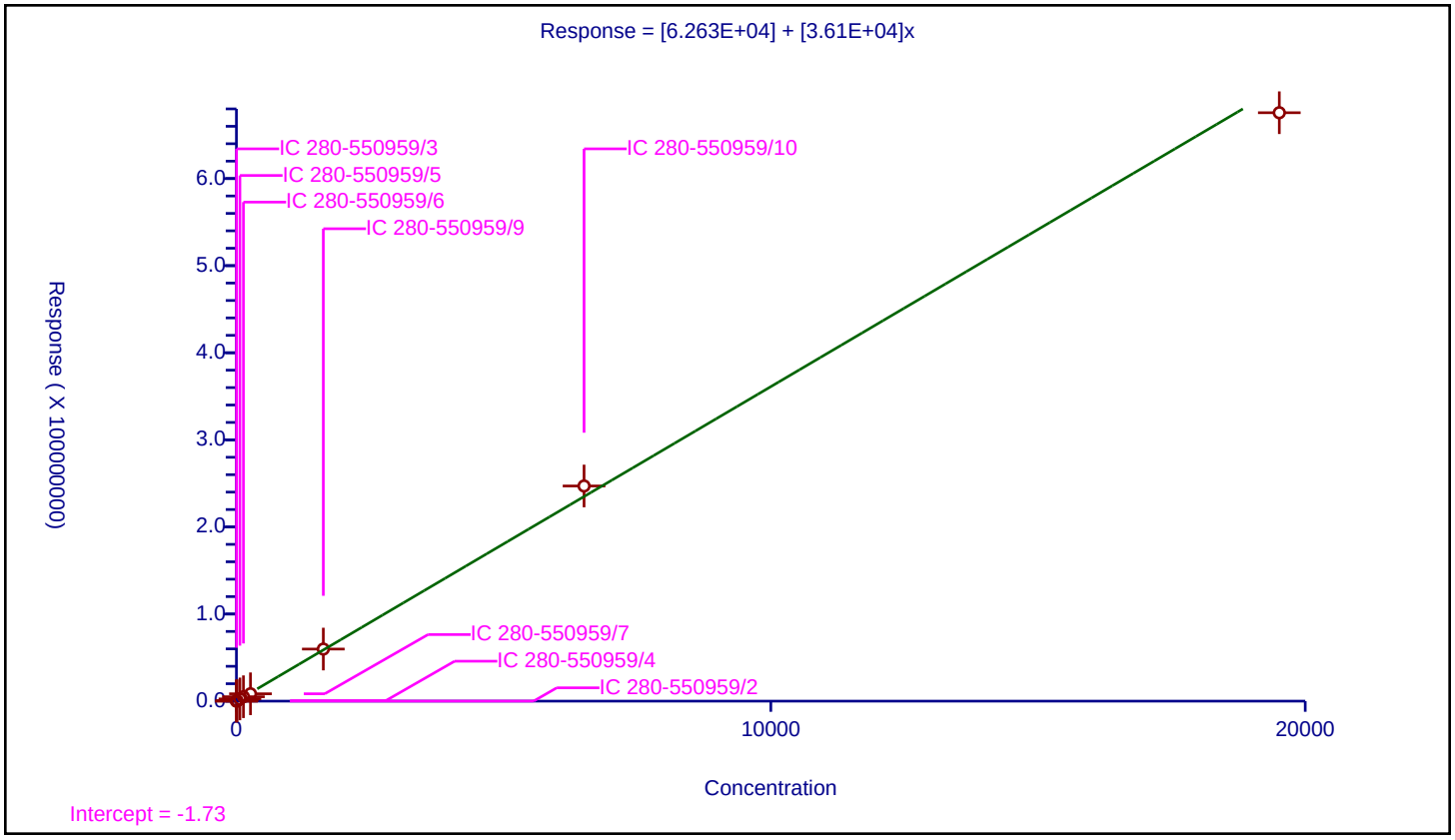
Curve Coefficients

Intercept:	6.263E+04
Slope:	3.61E+04

Error Coefficients

Standard Error:	11900000
Relative Standard Error:	7.0
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.995

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-550959/2	0.821288	91227.0			111078.032967	Y
2	IC 280-550959/3	1.642575	126529.0			77030.88139	Y
3	IC 280-550959/4	13.1406	509129.0			38744.730073	Y
4	IC 280-550959/5	65.703	2553566.0			38865.287734	Y
5	IC 280-550959/6	131.406	5065048.0			38545.028385	Y
6	IC 280-550959/7	262.812	8455607.0			32173.595574	Y
7	IC 280-550959/9	1626.25	59798125.0			36770.561107	Y
8	IC 280-550959/10	6505.0	247051774.0			37978.750807	Y
9	IC 280-550959/11	19515.0	675608539.0			34619.961004	Y



Calibration / Ethylene

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

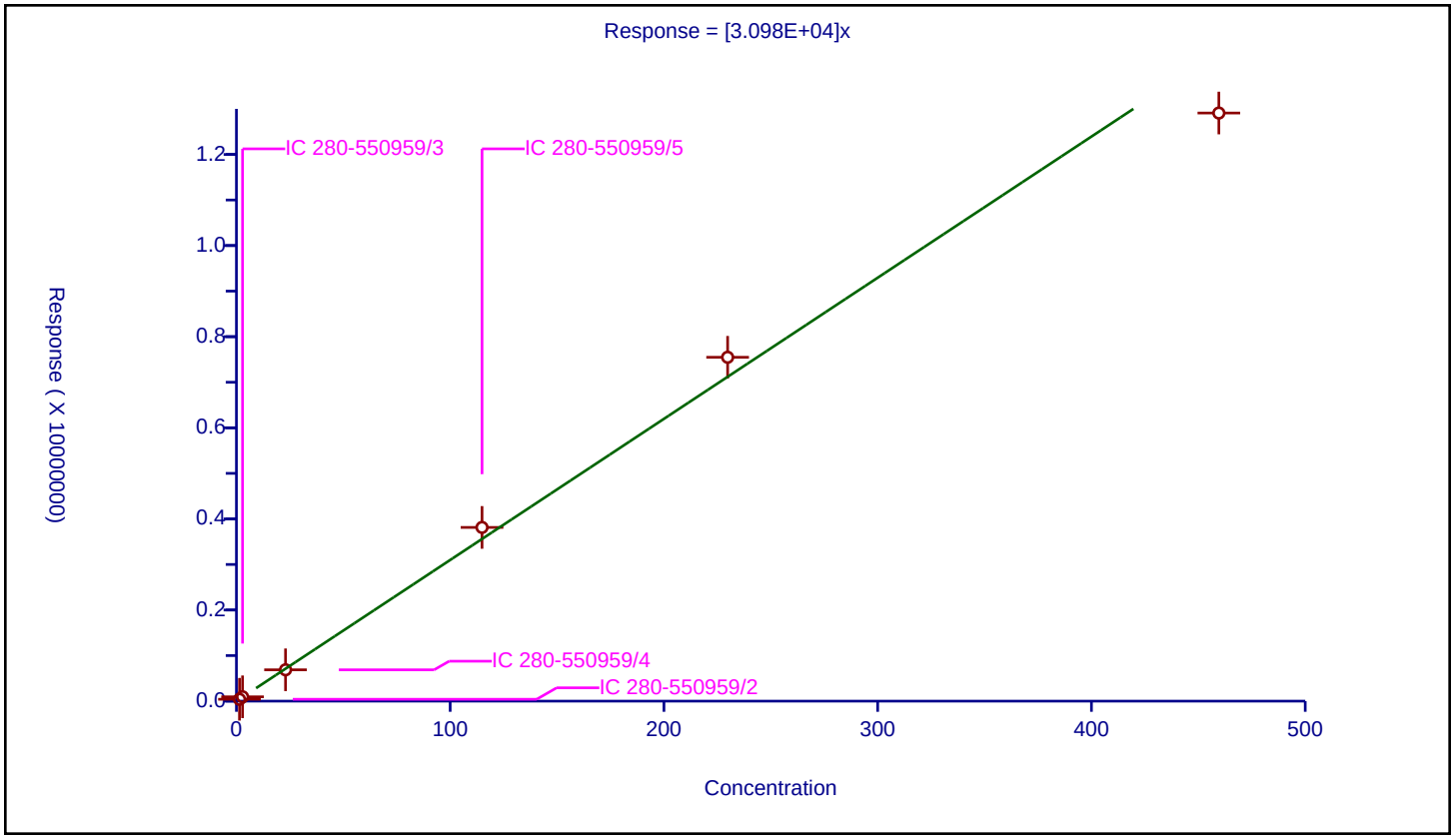
Curve Coefficients

Intercept:	0
Slope:	3.098E+04

Error Coefficients

Standard Error:	635000
Relative Standard Error:	7.6
Correlation Coefficient:	0.993
Coefficient of Determination (Adjusted):	0.993

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-550959/2	1.43625	41226.0			28703.916449	Y
2	IC 280-550959/3	2.8725	95159.0			33127.589208	Y
3	IC 280-550959/4	22.98	687818.0			29931.157528	Y
4	IC 280-550959/5	114.9	3812973.0			33185.143603	Y
5	IC 280-550959/6	229.8	7548044.0			32846.144473	Y
6	IC 280-550959/7	459.6	12909086.0			28087.654482	Y



Calibration / Acetylene

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

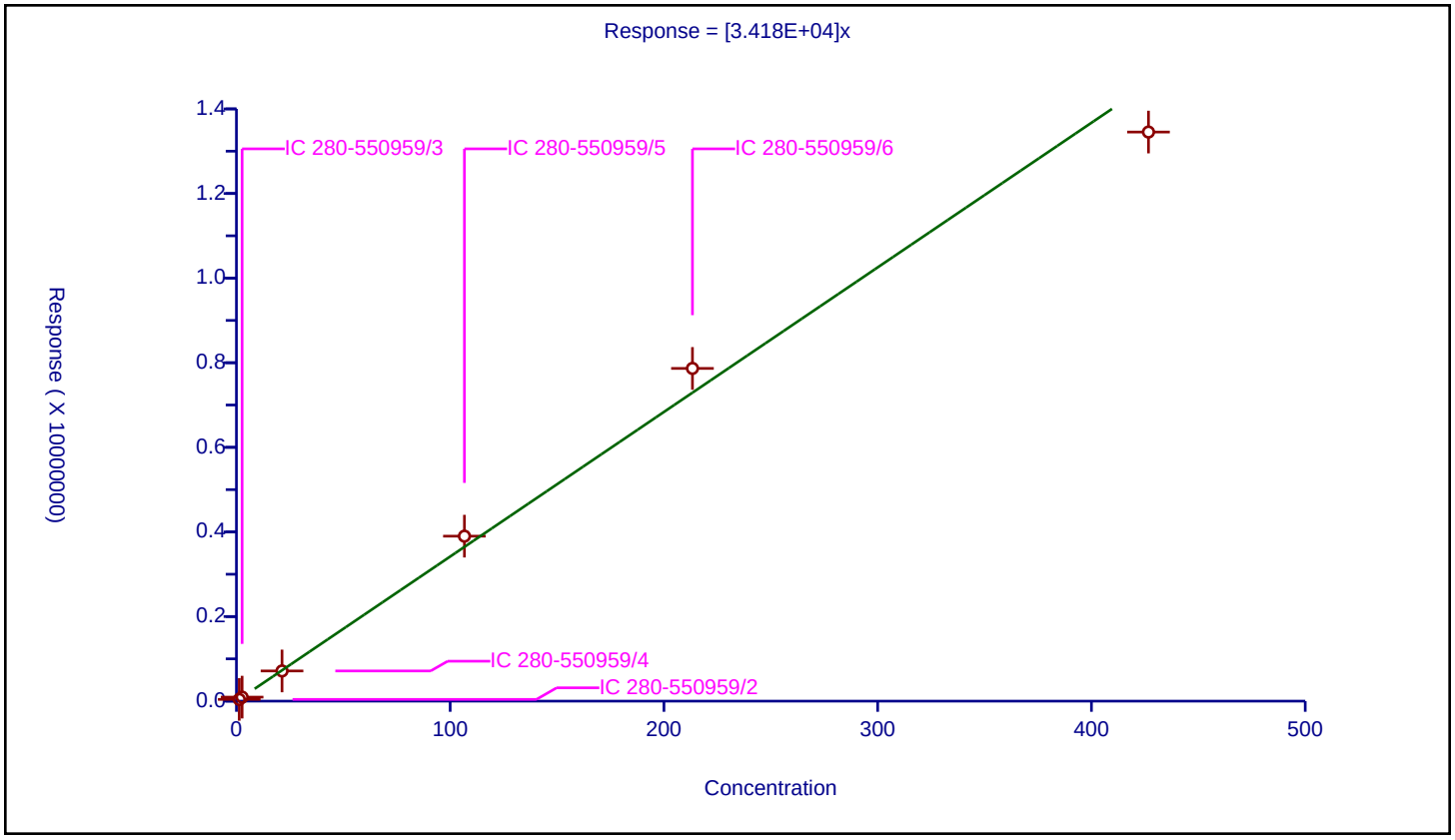
Curve Coefficients

Intercept:	0
Slope:	3.418E+04

Error Coefficients

Standard Error:	578000
Relative Standard Error:	7.4
Correlation Coefficient:	0.993
Coefficient of Determination (Adjusted):	0.994

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-550959/2	1.333375	41503.0			31126.277304	Y
2	IC 280-550959/3	2.66675	94797.0			35547.764132	Y
3	IC 280-550959/4	21.334	713476.0			33443.142402	Y
4	IC 280-550959/5	106.67	3899802.0			36559.501266	Y
5	IC 280-550959/6	213.34	7865310.0			36867.488516	Y
6	IC 280-550959/7	426.68	13452620.0			31528.592856	Y



Calibration / Ethane

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

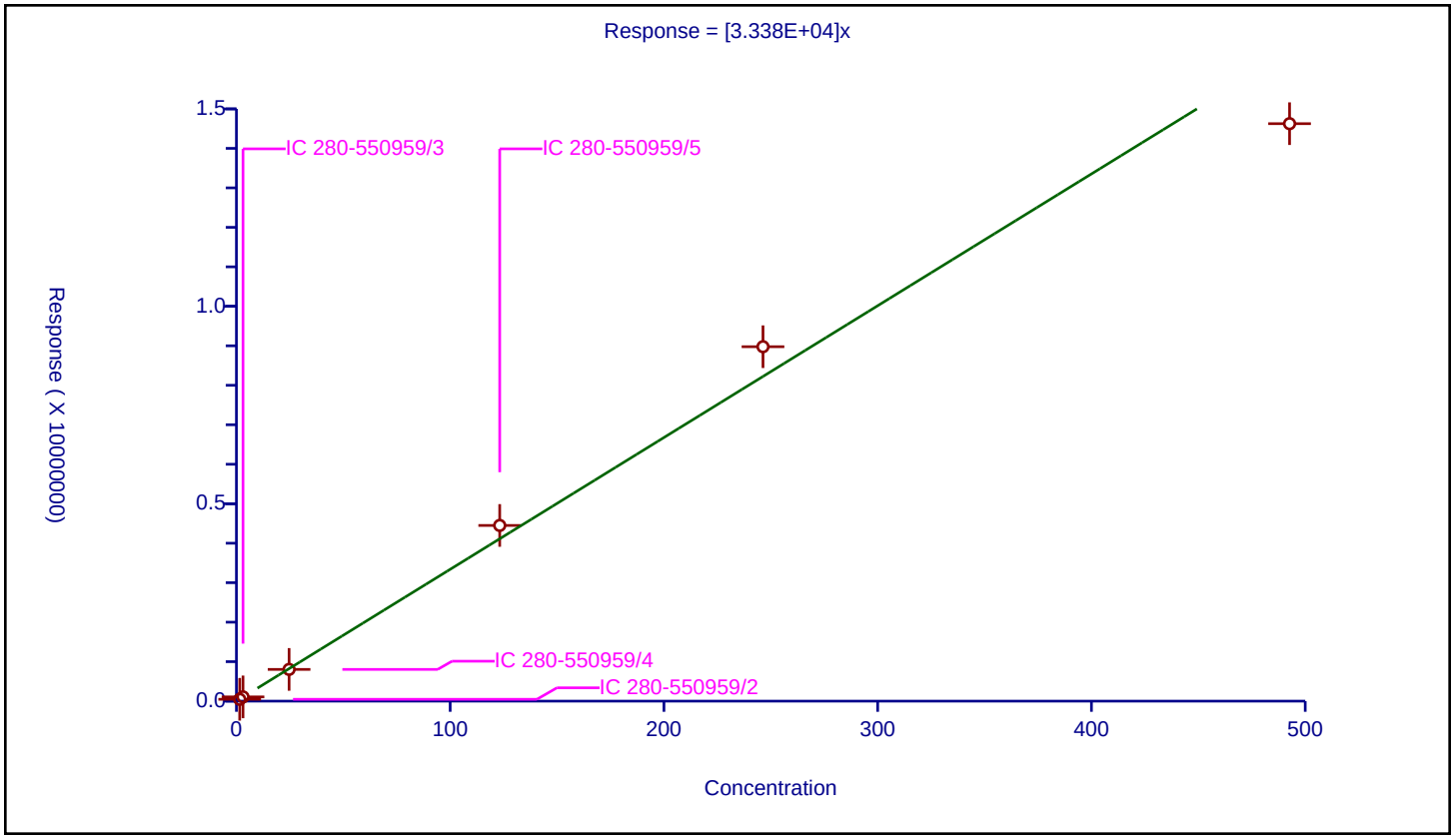
Curve Coefficients

Intercept:	0
Slope:	3.338E+04

Error Coefficients

Standard Error:	894000
Relative Standard Error:	8.6
Correlation Coefficient:	0.987
Coefficient of Determination (Adjusted):	0.991

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-550959/2	1.539625	46984.0			30516.52188	Y
2	IC 280-550959/3	3.07925	107446.0			34893.561744	Y
3	IC 280-550959/4	24.634	803791.0			32629.333442	Y
4	IC 280-550959/5	123.17	4450065.0			36129.455224	Y
5	IC 280-550959/6	246.34	8976911.0			36441.142324	Y
6	IC 280-550959/7	492.68	14625440.0			29685.475359	Y



FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Lab Sample ID: ICV 280-550959/13 Calibration Date: 09/24/2021 15:38

Instrument ID: VGC_J Calib Start Date: 09/24/2021 13:28

GC Column: Rt-Alumina KCl ID: 0.53(mm) Calib End Date: 09/24/2021 15:12

Lab File ID: 014F1201.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methane	Lin2		37179		67.6	65.7	2.9	20.0
Ethane	Ave	33241	36496		135	123	9.8	20.0
Ethylene	Ave	35226	37757		123	115	7.2	20.0
Acetylene	Ave	28139	30719		116	107	9.2	20.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Lab Sample ID: ICV 280-550959/13 Calibration Date: 09/24/2021 15:38

Instrument ID: VGC_J Calib Start Date: 09/24/2021 13:28

GC Column: Rt-Alumina KCl ID: 0.53(mm) Calib End Date: 09/24/2021 15:12

Lab File ID: 014F1201.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Methane	1.29	1.26	1.34
Ethane	1.56	1.51	1.61
Ethylene	1.87	1.79	1.89
Acetylene	4.24	4.15	4.31

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\014F1201.D
Lims ID: ICV
Client ID:
Sample Type: ICV
Inject. Date: 24-Sep-2021 15:38:59 ALS Bottle#: 14 Worklist Smp#: 13
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: icv
Operator ID: sciannac Instrument ID: VGC_J
Sublist:

Method: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 29-Sep-2021 10:58:12 Calib Date: 24-Sep-2021 15:12:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D

Column 1 : Rt-Alumina BOND/KCl (0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q (0.53 mm) Det: GC FID2B
Process Host: CTX1655

First Level Reviewer: sciannac Date: 24-Sep-2021 15:54:40

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Methane							
1	1.289	1.299	-0.010	2442793	65.7	67.6	
2	1.676	1.686	-0.010	2535074	65.7	68.5	
						RPD = 1.30	
3 Ethane							
1	1.559	1.556	0.003	4495267	123.2	135.2	
2	3.018	3.028	-0.010	4535642	123.2	135.9	
						RPD = 0.47	
4 Ethylene							
1	1.874	1.844	0.030	4338329	114.9	123.2	
2	2.598	2.609	-0.011	3828020	114.9	123.6	
						RPD = 0.33	
5 Propane							
1	2.726	2.721	0.005	7114360	180.6	197.6	
2	4.928	4.929	-0.001	6799509	180.6	194.2	
						RPD = 1.71	
6 Acetylene							
1	4.243	4.230	0.013	3276773	106.7	116.4	
2	2.741	2.746	-0.005	4007122	106.7	117.2	
						RPD = 0.68	
7 Butane							Ma
1	4.599	4.528	0.071	9349199	238.1	256.7	a
2	6.426	6.426	0.000	8946550	238.1	254.6	M
						RPD = 0.82	
8 isobutylene							Ma
1	5.479	5.403	0.076	8850386	229.8	245.0	
2	6.268	6.274	-0.006	8132396	229.8	244.9	M
						RPD = 0.03	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

RSK7gasMathes_00034 Amount Added: 200.00 Units: uL

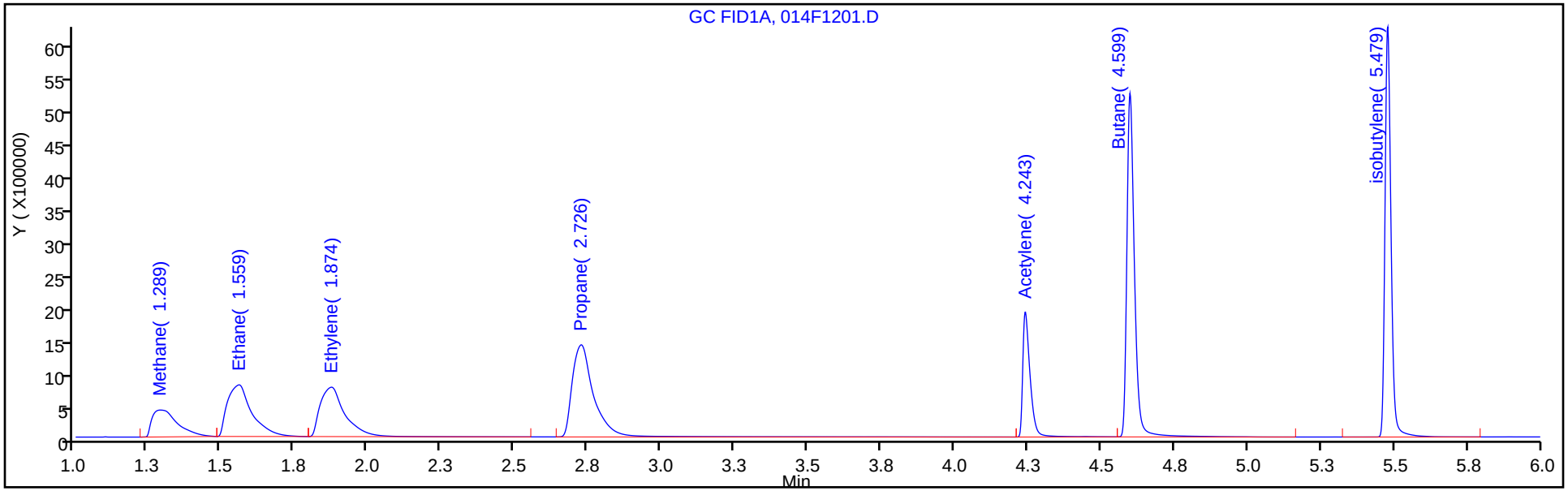
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Eurofins TestAmerica, Denver

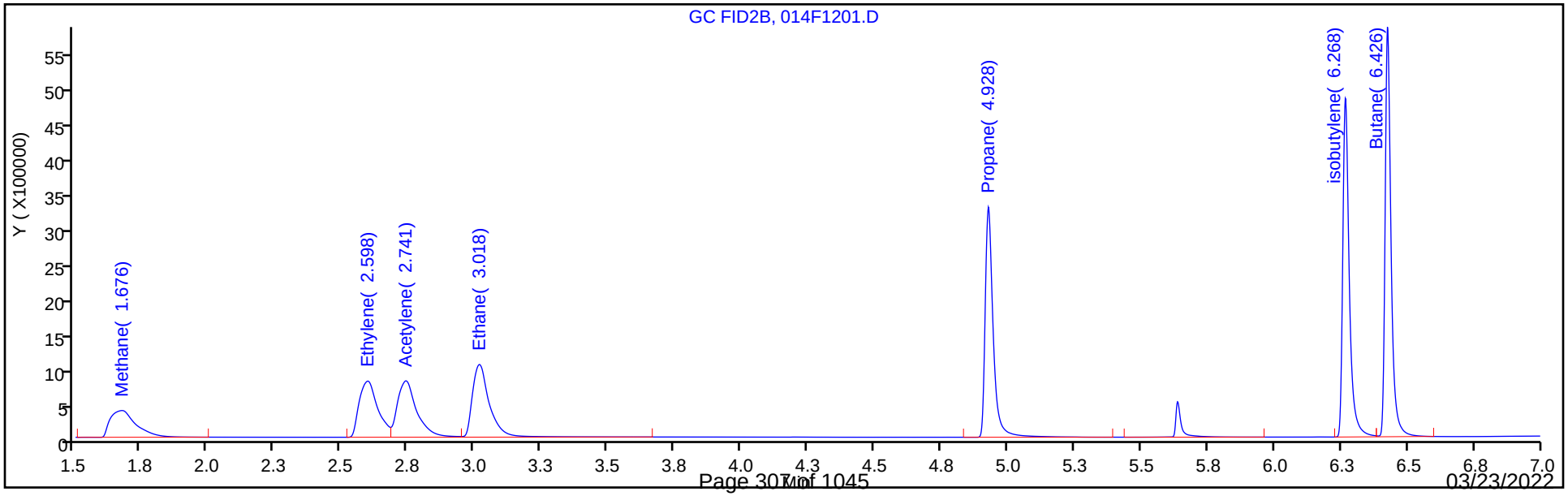
Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\014F1201.D

Injection Date:	24-Sep-2021 15:38:59	Instrument ID:	VGC_J	Operator ID:	sciannac
Lims ID:	ICV			Worklist Smp#:	13
Client ID:					
Purge Vol:	18.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	14
Method:	RSK_J	Limit Group:	GCV - RSK 175		

Column: Rt-Alumina BOND/KCl (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: HP-PLOT/Q (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Lab Sample ID: ICV 280-550959/13 Calibration Date: 09/24/2021 15:38

Instrument ID: VGC_J Calib Start Date: 09/24/2021 13:28

GC Column: HP-Plot Q ID: 0.53(mm) Calib End Date: 09/24/2021 15:12

Lab File ID: 014F1201.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methane	Lin2		38584		68.5	65.7	4.2	20.0
Ethylene	Ave	30980	33316		124	115	7.5	20.0
Acetylene	Ave	34179	37566		117	107	9.9	20.0
Ethane	Ave	33383	36824		136	123	10.3	20.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Lab Sample ID: ICV 280-550959/13 Calibration Date: 09/24/2021 15:38

Instrument ID: VGC_J Calib Start Date: 09/24/2021 13:28

GC Column: HP-Plot Q ID: 0.53(mm) Calib End Date: 09/24/2021 15:12

Lab File ID: 014F1201.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Methane	1.68	1.65	1.73
Ethylene	2.60	2.56	2.66
Acetylene	2.74	2.67	2.83
Ethane	3.02	2.98	3.08

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\014F1201.D
Lims ID: ICV
Client ID:
Sample Type: ICV
Inject. Date: 24-Sep-2021 15:38:59 ALS Bottle#: 14 Worklist Smp#: 13
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: icv
Operator ID: sciannac Instrument ID: VGC_J
Sublist:

Method: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 29-Sep-2021 10:58:12 Calib Date: 24-Sep-2021 15:12:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D

Column 1 : Rt-Alumina BOND/KCl (0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q (0.53 mm) Det: GC FID2B
Process Host: CTX1655

First Level Reviewer: sciannac Date: 24-Sep-2021 15:54:40

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Methane							
1	1.289	1.299	-0.010	2442793	65.7	67.6	
2	1.676	1.686	-0.010	2535074	65.7	68.5	
						RPD = 1.30	
3 Ethane							
1	1.559	1.556	0.003	4495267	123.2	135.2	
2	3.018	3.028	-0.010	4535642	123.2	135.9	
						RPD = 0.47	
4 Ethylene							
1	1.874	1.844	0.030	4338329	114.9	123.2	
2	2.598	2.609	-0.011	3828020	114.9	123.6	
						RPD = 0.33	
5 Propane							
1	2.726	2.721	0.005	7114360	180.6	197.6	
2	4.928	4.929	-0.001	6799509	180.6	194.2	
						RPD = 1.71	
6 Acetylene							
1	4.243	4.230	0.013	3276773	106.7	116.4	
2	2.741	2.746	-0.005	4007122	106.7	117.2	
						RPD = 0.68	
7 Butane							Ma
1	4.599	4.528	0.071	9349199	238.1	256.7	a
2	6.426	6.426	0.000	8946550	238.1	254.6	M
						RPD = 0.82	
8 isobutylene							Ma
1	5.479	5.403	0.076	8850386	229.8	245.0	
2	6.268	6.274	-0.006	8132396	229.8	244.9	M
						RPD = 0.03	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

RSK7gasMathes_00034 Amount Added: 200.00 Units: uL

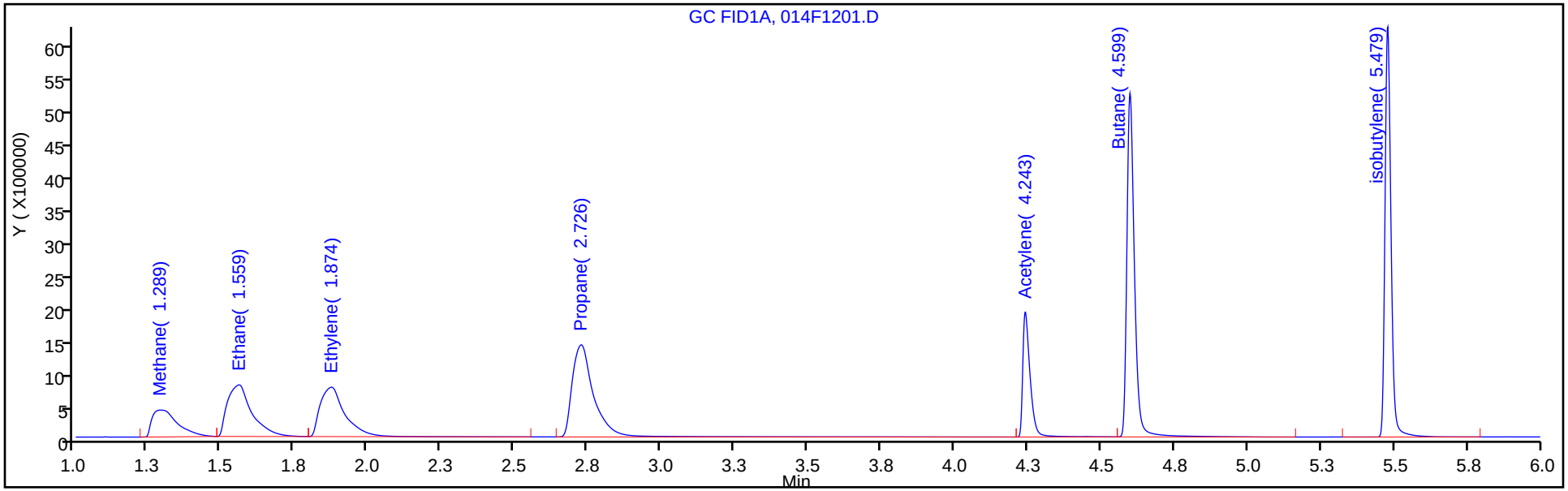
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Eurofins TestAmerica, Denver

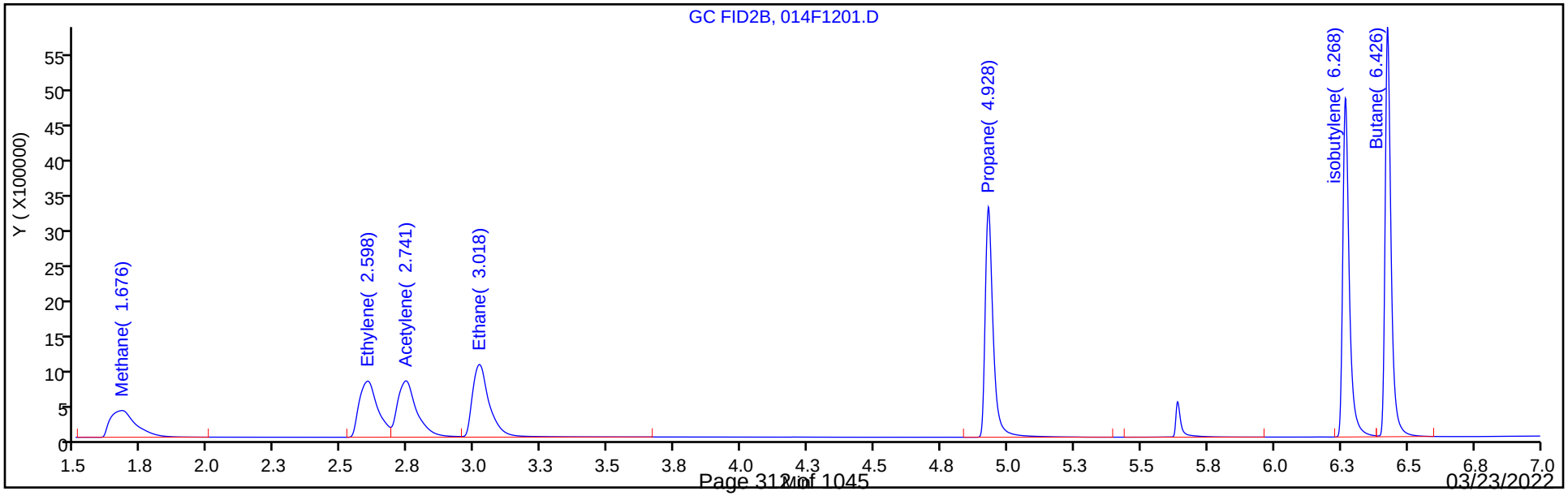
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Injection Date:	24-Sep-2021 15:38:59	Instrument ID:	VGC_J	Operator ID:	sciannac
Lims ID:	ICV			Worklist Smp#:	13
Client ID:					
Purge Vol:	18.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	14
Method:	RSK_J	Limit Group:	GCV - RSK 175		

Column: Rt-Alumina BOND/KCl (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: HP-PLOT/Q (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Lab Sample ID: CCVRT 280-567999/2 Calibration Date: 03/08/2022 13:54

Instrument ID: VGC_J Calib Start Date: 09/24/2021 13:28

GC Column: Rt-Alumina KCl ID: 0.53(mm) Calib End Date: 09/24/2021 15:12

Lab File ID: 030822f01.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methane	Lin2		36565		66.4	65.7	1.1	20.0
Ethane	Ave	33241	33683		125	123	1.3	20.0
Ethylene	Ave	35226	36028		118	115	2.3	20.0
Acetylene	Ave	28139	30661		116	107	9.0	20.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Lab Sample ID: CCVRT 280-567999/2 Calibration Date: 03/08/2022 13:54

Instrument ID: VGC_J Calib Start Date: 09/24/2021 13:28

GC Column: Rt-Alumina KCl ID: 0.53(mm) Calib End Date: 09/24/2021 15:12

Lab File ID: 030822f01.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Methane	1.26	1.22	1.30
Ethane	1.52	1.47	1.57
Ethylene	1.82	1.77	1.87
Acetylene	4.18	4.10	4.26

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20220308-109074.b\030822f01.D
Lims ID: ccvrt
Client ID:
Sample Type: CCVRT
Inject. Date: 08-Mar-2022 13:54:13 ALS Bottle#: 1 Worklist Smp#: 2
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: ccvrt
Operator ID: sciannac Instrument ID: VGC_J
Sublist: chrom-RSK_J*sub5

Method: \\chromfs\Denver\ChromData\VGC_J\20220308-109074.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 09-Mar-2022 13:35:04 Calib Date: 24-Sep-2021 15:12:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D

Column 1 : Rt-Alumina BOND/KCl (0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q (0.53 mm) Det: GC FID2B
Process Host: CTX1645

First Level Reviewer: sciannac Date: 08-Mar-2022 15:27:04

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Methane							
1	1.258	1.258	0.000	2402425	65.7	66.4	
2	1.663	1.663	0.000	2382769	65.7	64.3	
						RPD = 3.34	
3 Ethane							
1	1.523	1.523	0.000	4148680	123.2	124.8	
2	3.018	3.018	0.000	4227340	123.2	126.6	
						RPD = 1.45	
4 Ethylene							
1	1.818	1.818	0.000	4139628	114.9	117.5	
2	2.598	2.598	0.000	3603410	114.9	116.3	
						RPD = 1.03	
5 Propane							
1	2.611	2.611	0.000	6541399	180.6	181.7	
2	4.926	4.926	0.000	6251791	180.6	178.6	
						RPD = 1.71	
6 Acetylene							
1	4.175	4.175	0.000	3270605	106.7	116.2	
2	2.745	2.745	0.000	4011693	106.7	117.4	
						RPD = 0.98	
7 Butane							
1	4.491	4.491	0.000	8903447	238.1	244.5	
2	6.426	6.426	0.000	8310198	238.1	236.5	
						RPD = 3.31	
8 isobutylene							
1	5.391	5.391	0.000	8492113	229.8	235.1	
2	6.268	6.268	0.000	7613338	229.8	229.3	
						RPD = 2.49	

QC Flag Legend

Processing Flags

Reagents:

RSK7gasMathes_00034 Amount Added: 200.00 Units: uL

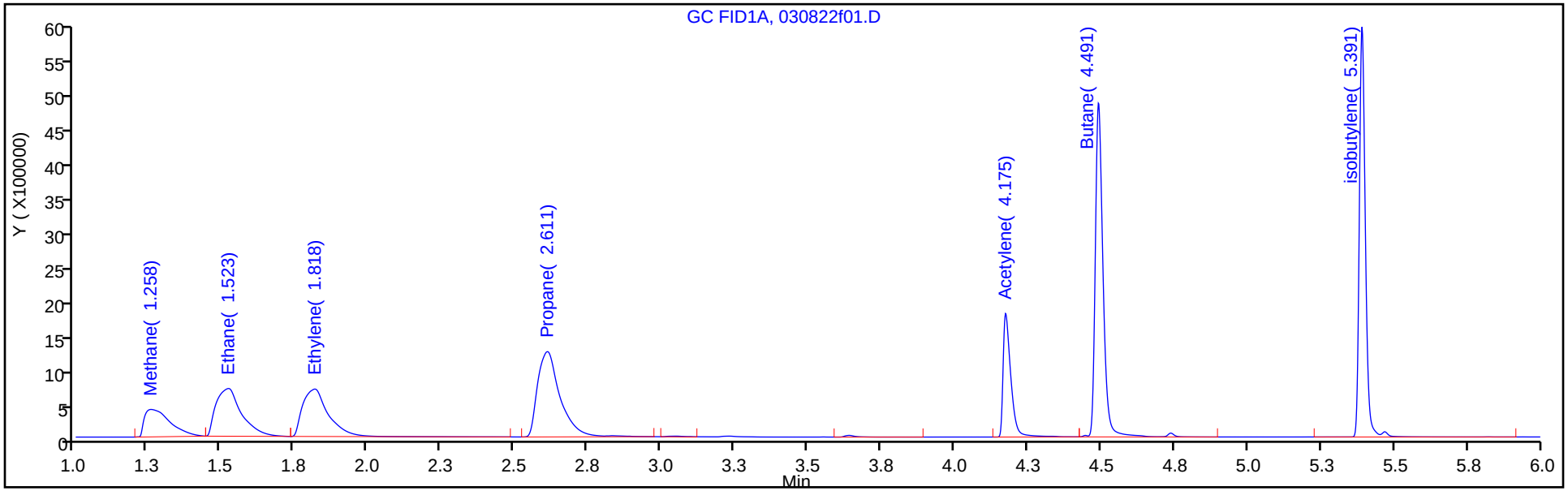
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Eurofins Denver

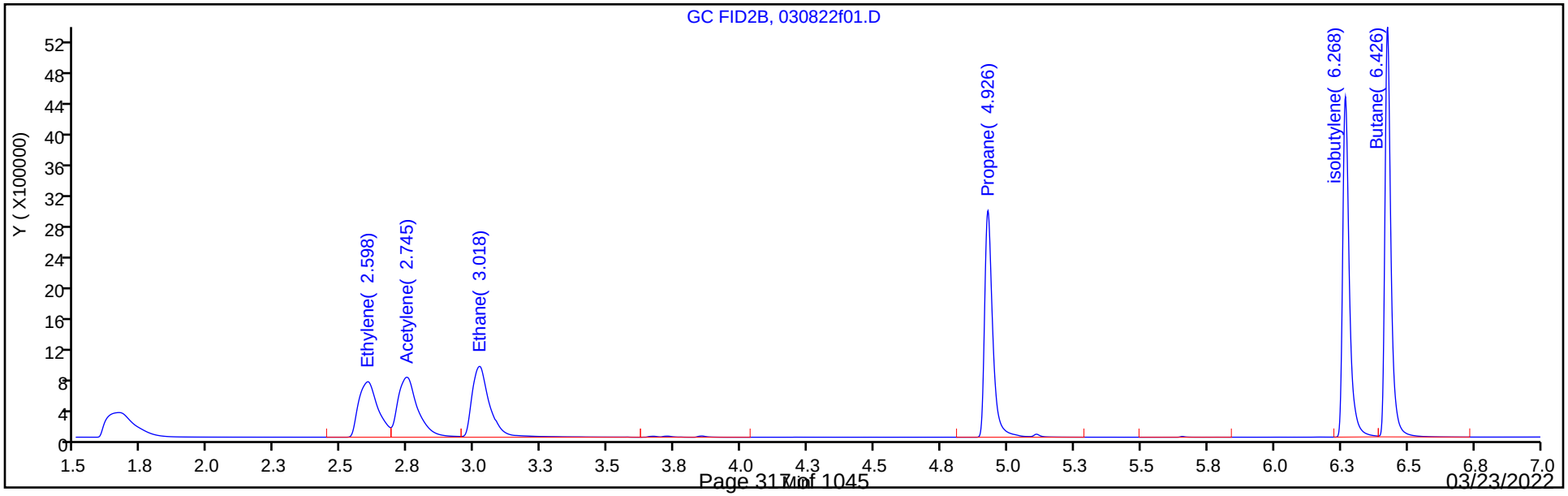
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Injection Date:	08-Mar-2022 13:54:13	Instrument ID:	VGC_J	Operator ID:	sciannac
Lims ID:	ccvrt			Worklist Smp#:	2
Client ID:					
Purge Vol:	18.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	RSK_J	Limit Group:	GCV - RSK 175		

Column: Rt-Alumina BOND/KCl (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: HP-PLOT/Q (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Lab Sample ID: CCVRT 280-567999/2 Calibration Date: 03/08/2022 13:54

Instrument ID: VGC_J Calib Start Date: 09/24/2021 13:28

GC Column: HP-Plot Q ID: 0.53(mm) Calib End Date: 09/24/2021 15:12

Lab File ID: 030822f01.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methane	Lin2		36266		64.3	65.7	-2.2	20.0
Ethylene	Ave	30980	31361		116	115	1.2	20.0
Acetylene	Ave	34179	37608		117	107	10.0	20.0
Ethane	Ave	33383	34321		127	123	2.8	20.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Lab Sample ID: CCVRT 280-567999/2 Calibration Date: 03/08/2022 13:54

Instrument ID: VGC_J Calib Start Date: 09/24/2021 13:28

GC Column: HP-Plot Q ID: 0.53(mm) Calib End Date: 09/24/2021 15:12

Lab File ID: 030822f01.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Methane	1.66	1.62	1.70
Ethylene	2.60	2.55	2.65
Acetylene	2.75	2.67	2.83
Ethane	3.02	2.97	3.07

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20220308-109074.b\030822f01.D
Lims ID: ccvrt
Client ID:
Sample Type: CCVRT
Inject. Date: 08-Mar-2022 13:54:13 ALS Bottle#: 1 Worklist Smp#: 2
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: ccvrt
Operator ID: sciannac Instrument ID: VGC_J
Sublist: chrom-RSK_J*sub5

Method: \\chromfs\Denver\ChromData\VGC_J\20220308-109074.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 09-Mar-2022 13:35:04 Calib Date: 24-Sep-2021 15:12:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D

Column 1 : Rt-Alumina BOND/KCl (0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q (0.53 mm) Det: GC FID2B
Process Host: CTX1645

First Level Reviewer: sciannac Date: 08-Mar-2022 15:27:04

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Methane							
1	1.258	1.258	0.000	2402425	65.7	66.4	
2	1.663	1.663	0.000	2382769	65.7	64.3	
						RPD = 3.34	
3 Ethane							
1	1.523	1.523	0.000	4148680	123.2	124.8	
2	3.018	3.018	0.000	4227340	123.2	126.6	
						RPD = 1.45	
4 Ethylene							
1	1.818	1.818	0.000	4139628	114.9	117.5	
2	2.598	2.598	0.000	3603410	114.9	116.3	
						RPD = 1.03	
5 Propane							
1	2.611	2.611	0.000	6541399	180.6	181.7	
2	4.926	4.926	0.000	6251791	180.6	178.6	
						RPD = 1.71	
6 Acetylene							
1	4.175	4.175	0.000	3270605	106.7	116.2	
2	2.745	2.745	0.000	4011693	106.7	117.4	
						RPD = 0.98	
7 Butane							
1	4.491	4.491	0.000	8903447	238.1	244.5	
2	6.426	6.426	0.000	8310198	238.1	236.5	
						RPD = 3.31	
8 isobutylene							
1	5.391	5.391	0.000	8492113	229.8	235.1	
2	6.268	6.268	0.000	7613338	229.8	229.3	
						RPD = 2.49	

QC Flag Legend

Processing Flags

Reagents:

RSK7gasMathes_00034 Amount Added: 200.00 Units: uL

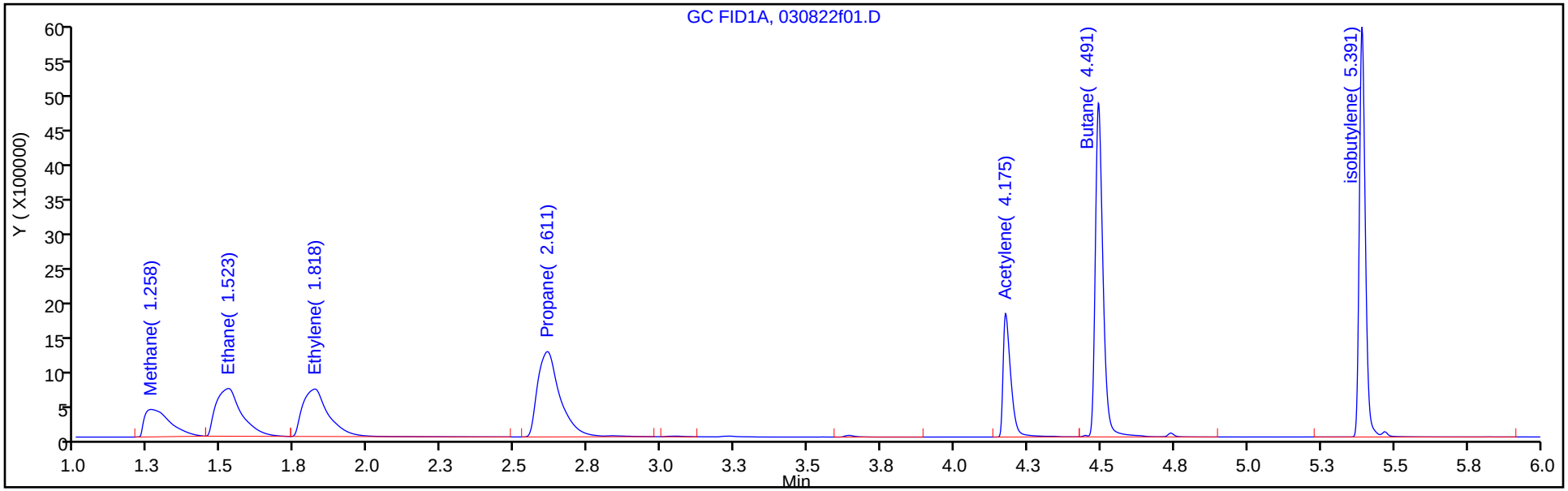
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Eurofins Denver

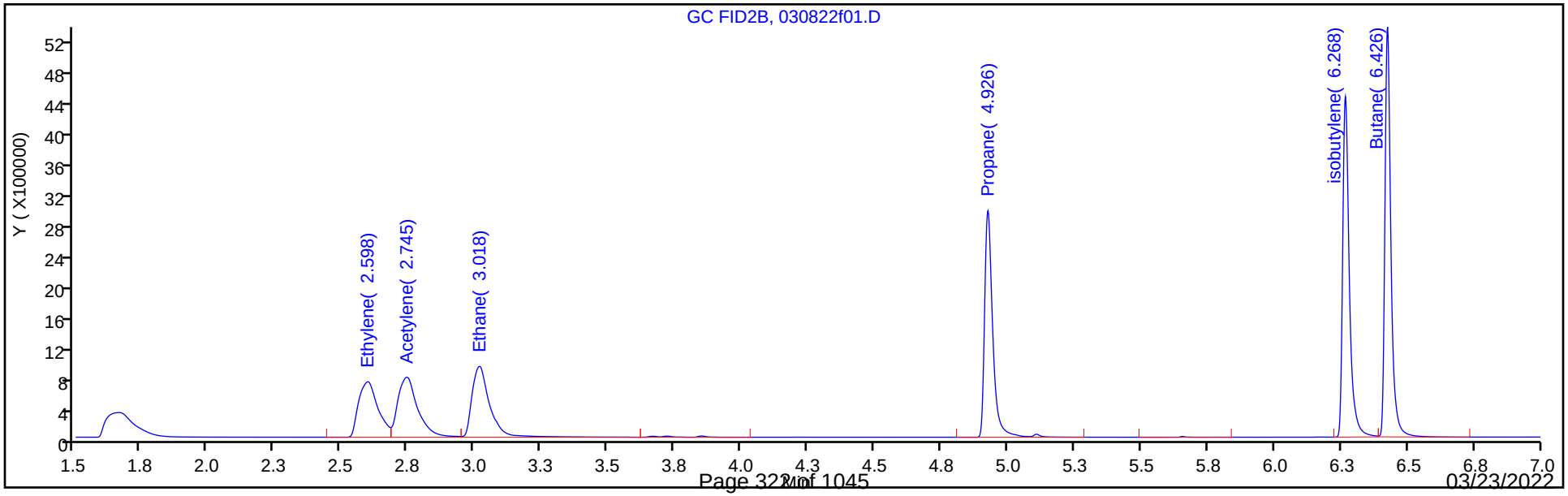
Data File: \\chromfs\Denver\ChromData\VGC_J\20220308-109074.b\030822f01.D

Injection Date:	08-Mar-2022 13:54:13	Instrument ID:	VGC_J	Operator ID:	sciannac
Lims ID:	ccvrt			Worklist Smp#:	2
Client ID:					
Purge Vol:	18.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	RSK_J	Limit Group:	GCV - RSK 175		

Column: Rt-Alumina BOND/KCl (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: HP-PLOT/Q (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Lab Sample ID: CCV 280-567999/17 Calibration Date: 03/08/2022 17:09

Instrument ID: VGC_J Calib Start Date: 09/24/2021 13:28

GC Column: Rt-Alumina KCl ID: 0.53(mm) Calib End Date: 09/24/2021 15:12

Lab File ID: 019F1501.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methane	Lin2		37036		67.3	65.7	2.5	20.0
Ethane	Ave	33241	33527		124	123	0.9	20.0
Ethylene	Ave	35226	35724		117	115	1.4	20.0
Acetylene	Ave	28139	28657		109	107	1.8	20.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Lab Sample ID: CCV 280-567999/17 Calibration Date: 03/08/2022 17:09

Instrument ID: VGC_J Calib Start Date: 09/24/2021 13:28

GC Column: Rt-Alumina KCl ID: 0.53(mm) Calib End Date: 09/24/2021 15:12

Lab File ID: 019F1501.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Methane	1.25	1.22	1.30
Ethane	1.52	1.47	1.57
Ethylene	1.83	1.77	1.87
Acetylene	4.22	4.10	4.26

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20220308-109074.b\019F1501.D
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 08-Mar-2022 17:09:18 ALS Bottle#: 19 Worklist Smp#: 17
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: ccv
Operator ID: sciannac Instrument ID: VGC_J
Sublist: chrom-RSK_J*sub5

Method: \\chromfs\Denver\ChromData\VGC_J\20220308-109074.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 09-Mar-2022 13:49:27 Calib Date: 24-Sep-2021 15:12:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D

Column 1 : Rt-Alumina BOND/KCl (0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q (0.53 mm) Det: GC FID2B
Process Host: CTX1645

First Level Reviewer: sciannac Date: 09-Mar-2022 12:33:57

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Methane							
1	1.252	1.258	-0.006	2433386	65.7	67.3	
2	1.654	1.663	-0.009	2396656	65.7	64.6	
						RPD = 4.06	
3 Ethane							
1	1.522	1.523	-0.001	4129561	123.2	124.2	
2	3.004	3.018	-0.014	4137368	123.2	123.9	
						RPD = 0.24	
4 Ethylene							
1	1.830	1.818	0.012	4104713	114.9	116.5	
2	2.584	2.598	-0.014	3547871	114.9	114.5	
						RPD = 1.74	
5 Propane							
1	2.644	2.611	0.033	6451107	180.6	179.1	
2	4.921	4.926	-0.005	6076538	180.6	173.6	
						RPD = 3.17	
6 Acetylene							
1	4.217	4.175	0.042	3056871	106.7	108.6	
2	2.732	2.745	-0.013	3771648	106.7	110.4	
						RPD = 1.57	
7 Butane							Ma
1	4.525	4.491	0.034	8255239	238.1	226.7	a
2	6.421	6.426	-0.005	7824885	238.1	222.7	M
						RPD = 1.77	
8 isobutylene							Ma
1	5.424	5.391	0.033	7918984	229.8	219.2	
2	6.262	6.268	-0.006	7096475	229.8	213.7	M
						RPD = 2.53	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

RSK7gasMathes_00034 Amount Added: 200.00 Units: uL

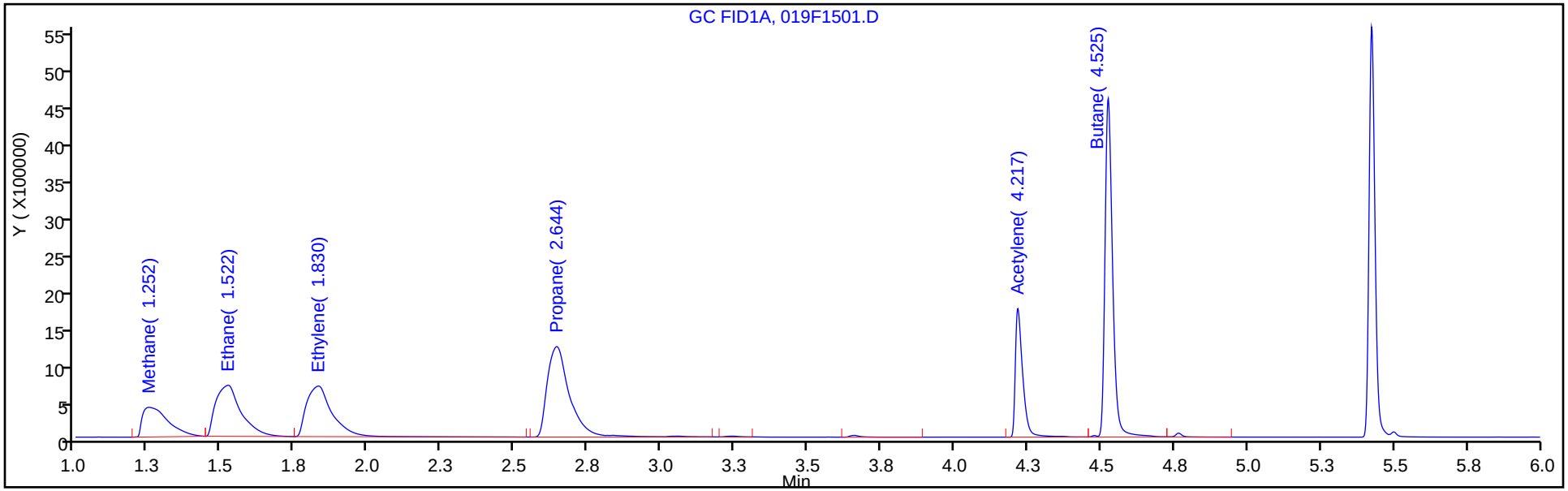
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Eurofins Denver

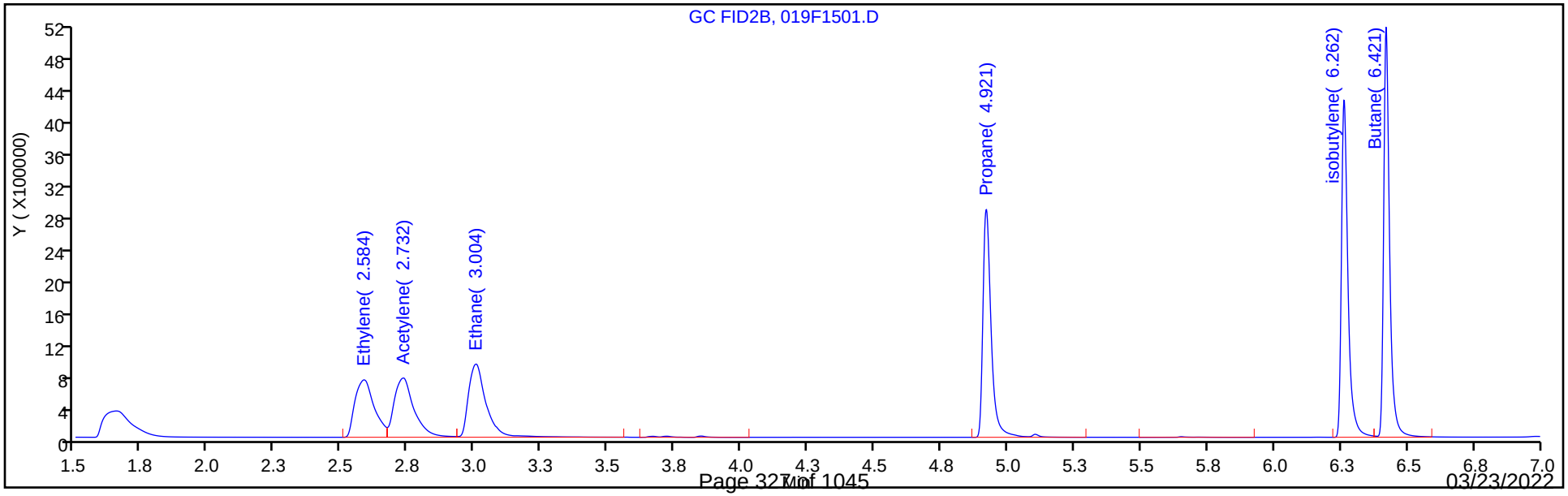
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Injection Date:	08-Mar-2022 17:09:18	Instrument ID:	VGC_J	Operator ID:	sciannac
Lims ID:	ccv			Worklist Smp#:	17
Client ID:					
Purge Vol:	18.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	19
Method:	RSK_J	Limit Group:	GCV - RSK 175		

Column: Rt-Alumina BOND/KCl (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: HP-PLOT/Q (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Lab Sample ID: CCV 280-567999/17 Calibration Date: 03/08/2022 17:09

Instrument ID: VGC_J Calib Start Date: 09/24/2021 13:28

GC Column: HP-Plot Q ID: 0.53(mm) Calib End Date: 09/24/2021 15:12

Lab File ID: 019F1501.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methane	Lin2		36477		64.6	65.7	-1.6	20.0
Ethylene	Ave	30980	30878		115	115	-0.3	20.0
Acetylene	Ave	34179	35358		110	107	3.5	20.0
Ethane	Ave	33383	33591		124	123	0.6	20.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Lab Sample ID: CCV 280-567999/17 Calibration Date: 03/08/2022 17:09

Instrument ID: VGC_J Calib Start Date: 09/24/2021 13:28

GC Column: HP-Plot Q ID: 0.53(mm) Calib End Date: 09/24/2021 15:12

Lab File ID: 019F1501.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Methane	1.65	1.62	1.70
Ethylene	2.58	2.55	2.65
Acetylene	2.73	2.67	2.83
Ethane	3.00	2.97	3.07

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20220308-109074.b\019F1501.D
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 08-Mar-2022 17:09:18 ALS Bottle#: 19 Worklist Smp#: 17
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: ccv
Operator ID: sciannac Instrument ID: VGC_J
Sublist: chrom-RSK_J*sub5

Method: \\chromfs\Denver\ChromData\VGC_J\20220308-109074.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 09-Mar-2022 13:49:27 Calib Date: 24-Sep-2021 15:12:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D

Column 1 : Rt-Alumina BOND/KCl (0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q (0.53 mm) Det: GC FID2B
Process Host: CTX1645

First Level Reviewer: sciannac Date: 09-Mar-2022 12:33:57

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Methane							
1	1.252	1.258	-0.006	2433386	65.7	67.3	
2	1.654	1.663	-0.009	2396656	65.7	64.6	
						RPD = 4.06	
3 Ethane							
1	1.522	1.523	-0.001	4129561	123.2	124.2	
2	3.004	3.018	-0.014	4137368	123.2	123.9	
						RPD = 0.24	
4 Ethylene							
1	1.830	1.818	0.012	4104713	114.9	116.5	
2	2.584	2.598	-0.014	3547871	114.9	114.5	
						RPD = 1.74	
5 Propane							
1	2.644	2.611	0.033	6451107	180.6	179.1	
2	4.921	4.926	-0.005	6076538	180.6	173.6	
						RPD = 3.17	
6 Acetylene							
1	4.217	4.175	0.042	3056871	106.7	108.6	
2	2.732	2.745	-0.013	3771648	106.7	110.4	
						RPD = 1.57	
7 Butane							Ma
1	4.525	4.491	0.034	8255239	238.1	226.7	a
2	6.421	6.426	-0.005	7824885	238.1	222.7	M
						RPD = 1.77	
8 isobutylene							Ma
1	5.424	5.391	0.033	7918984	229.8	219.2	
2	6.262	6.268	-0.006	7096475	229.8	213.7	M
						RPD = 2.53	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

RSK7gasMathes_00034 Amount Added: 200.00 Units: uL

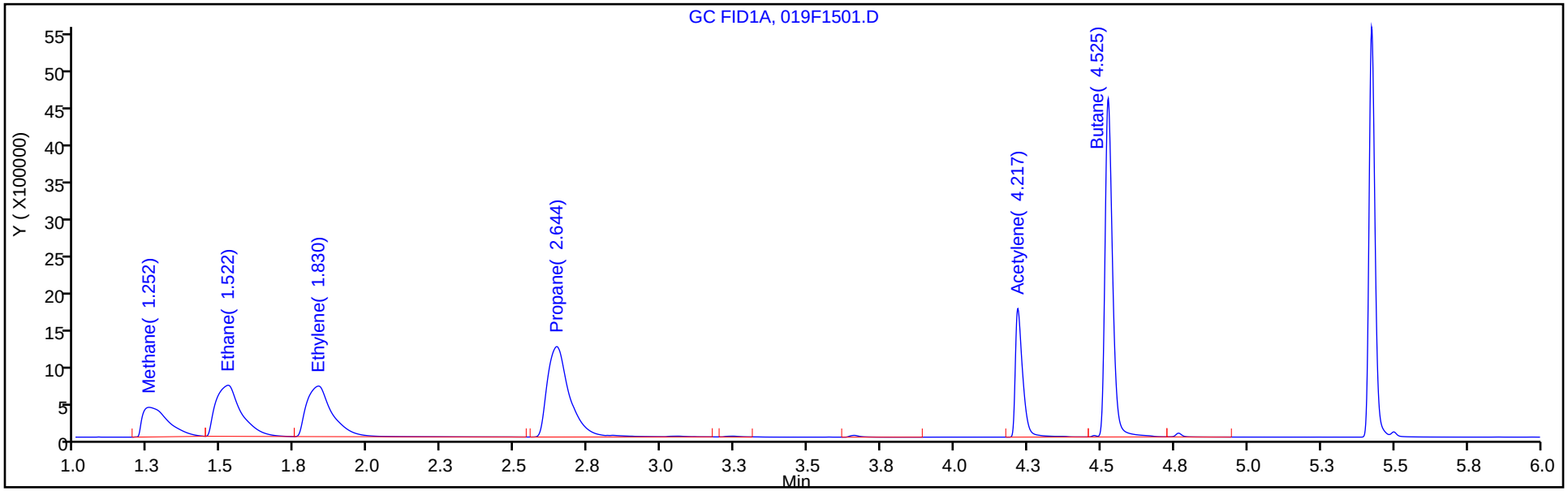
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Eurofins Denver

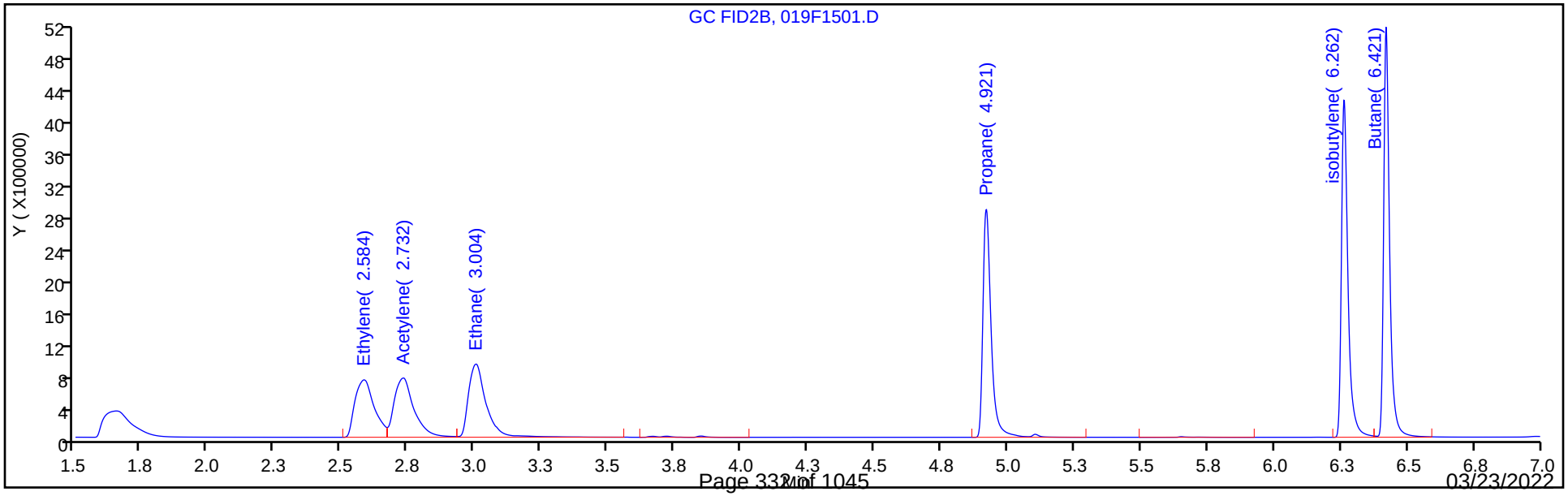
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Injection Date:	08-Mar-2022 17:09:18	Instrument ID:	VGC_J	Operator ID:	sciannac
Lims ID:	ccv			Worklist Smp#:	17
Client ID:					
Purge Vol:	18.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	19
Method:	RSK_J	Limit Group:	GCV - RSK 175		

Column: Rt-Alumina BOND/KCl (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: HP-PLOT/Q (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Lab Sample ID: CCV 280-567999/29 Calibration Date: 03/08/2022 19:45

Instrument ID: VGC_J Calib Start Date: 09/24/2021 13:28

GC Column: Rt-Alumina KCl ID: 0.53(mm) Calib End Date: 09/24/2021 15:12

Lab File ID: 031F2701.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methane	Lin2		37592		68.4	65.7	4.1	20.0
Ethane	Ave	33241	34102		126	123	2.6	20.0
Ethylene	Ave	35226	35678		116	115	1.3	20.0
Acetylene	Ave	28139	25510		96.7	107	-9.3	20.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Lab Sample ID: CCV 280-567999/29 Calibration Date: 03/08/2022 19:45

Instrument ID: VGC_J Calib Start Date: 09/24/2021 13:28

GC Column: Rt-Alumina KCl ID: 0.53(mm) Calib End Date: 09/24/2021 15:12

Lab File ID: 031F2701.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Methane	1.25	1.22	1.30
Ethane	1.52	1.47	1.57
Ethylene	1.83	1.77	1.87
Acetylene	4.22	4.10	4.26

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20220308-109074.b\031F2701.D
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 08-Mar-2022 19:45:00 ALS Bottle#: 31 Worklist Smp#: 29
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: ccv
Operator ID: sciannac Instrument ID: VGC_J
Sublist: chrom-RSK_J*sub5

Method: \\chromfs\Denver\ChromData\VGC_J\20220308-109074.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 09-Mar-2022 13:35:22 Calib Date: 24-Sep-2021 15:12:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D

Column 1 : Rt-Alumina BOND/KCl (0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q (0.53 mm) Det: GC FID2B
Process Host: CTX1645

First Level Reviewer: sciannac Date: 09-Mar-2022 13:33:28

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Methane							
1	1.250	1.258	-0.008	2469925	65.7	68.4	
2	1.657	1.663	-0.006	2422450	65.7	65.4	
						RPD = 4.49	
3 Ethane							
1	1.522	1.523	-0.001	4200343	123.2	126.4	
2	3.005	3.018	-0.013	4150742	123.2	124.3	
						RPD = 1.61	
4 Ethylene							
1	1.832	1.818	0.014	4099398	114.9	116.4	
2	2.585	2.598	-0.013	3548523	114.9	114.5	
						RPD = 1.59	
5 Propane							
1	2.647	2.611	0.036	6721000	180.6	186.6	
2	4.920	4.926	-0.006	6269027	180.6	179.1	
						RPD = 4.15	
6 Acetylene							Ma
1	4.220	4.175	0.045	2721121	106.7	96.7	M
2	2.734	2.745	-0.011	3469253	106.7	101.5	a
						RPD = 4.84	
7 Butane							Ma
1	4.529	4.491	0.038	8715736	238.1	239.3	a
2	6.422	6.426	-0.004	8183837	238.1	232.9	M
						RPD = 2.71	
8 isobutylene							Ma
1	5.427	5.391	0.036	8093574	229.8	224.0	a
2	6.264	6.268	-0.004	7247662	229.8	218.3	M
						RPD = 2.60	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

RSK7gasMathes_00034 Amount Added: 200.00 Units: uL

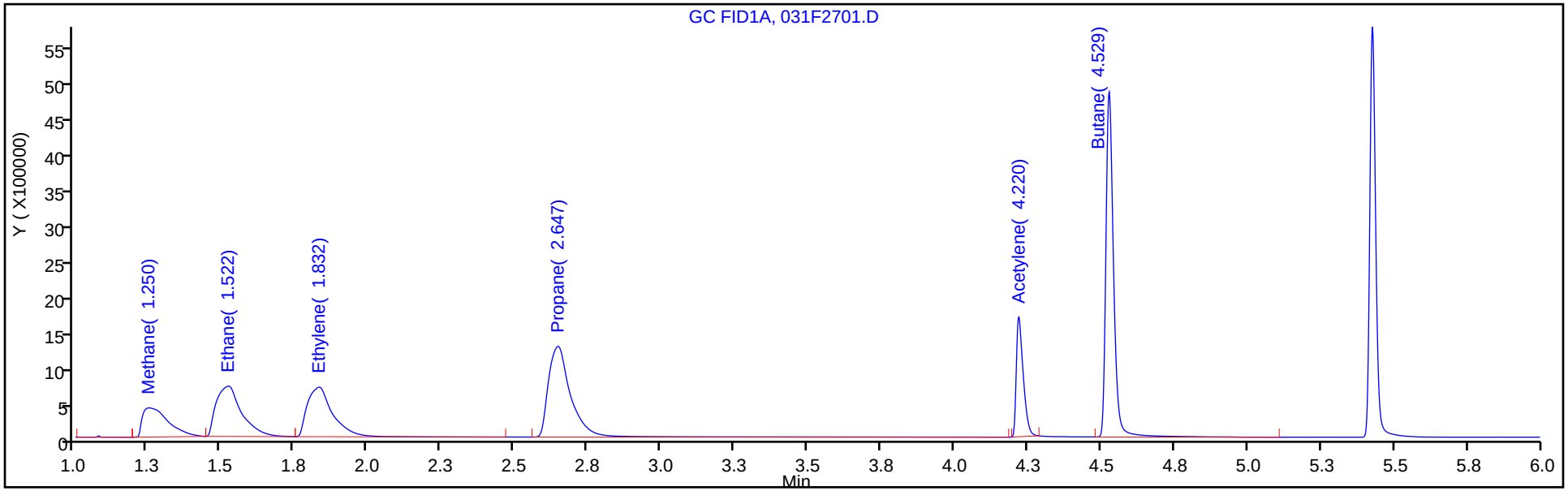
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Eurofins Denver

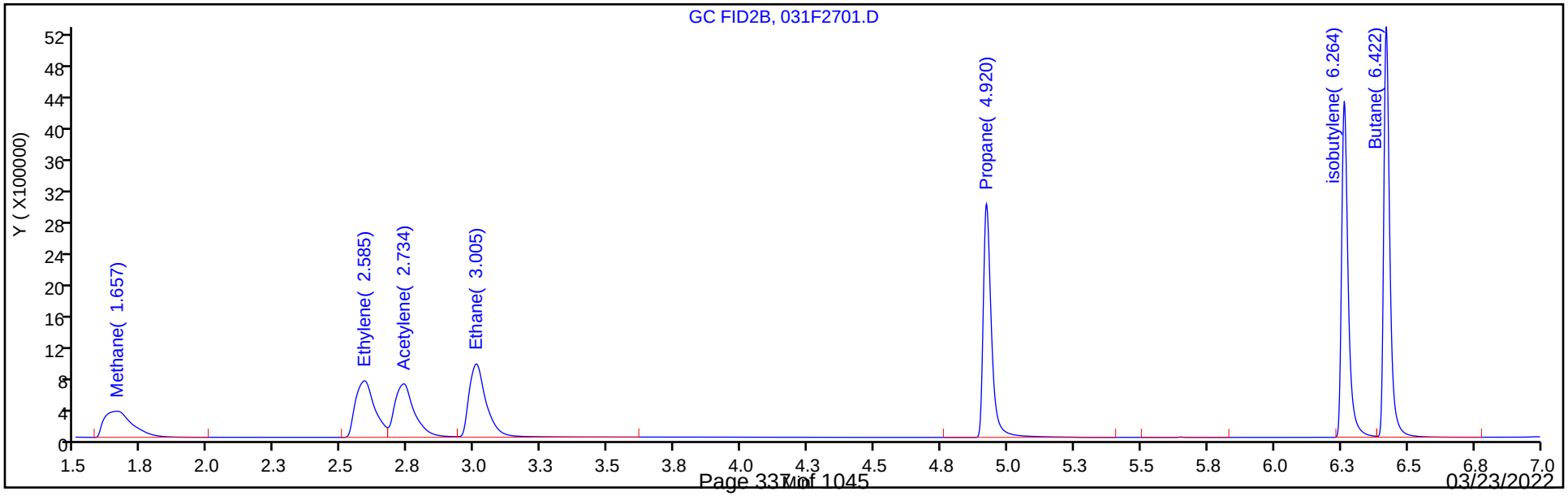
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Injection Date:	08-Mar-2022 19:45:00	Instrument ID:	VGC_J	Operator ID:	sciannac
Lims ID:	ccv			Worklist Smp#:	29
Client ID:					
Purge Vol:	18.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	31
Method:	RSK_J	Limit Group:	GCV - RSK 175		

Column: Rt-Alumina BOND/KCl (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: HP-PLOT/Q (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins Denver

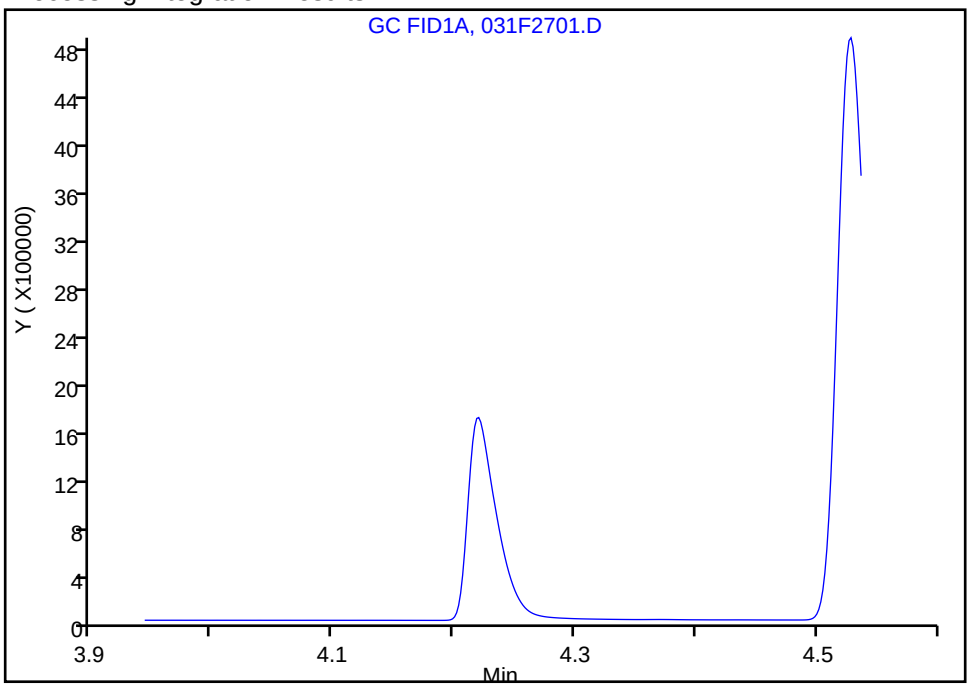
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Injection Date:	08-Mar-2022 19:45:00	Instrument ID:	VGC_J		
Lims ID:	ccv				
Client ID:					
Operator ID:	sciannac	ALS Bottle#:	31	Worklist Smp#:	29
Purge Vol:	18.000 mL	Dil. Factor:	1.0000		
Method:	RSK_J	Limit Group:	GCV - RSK 175		
Column:	Rt-Alumina BOND/KCl (0.53 mm)	Detector	GC FID1A		

6 Acetylene, CAS: 74-86-2

Signal: 1

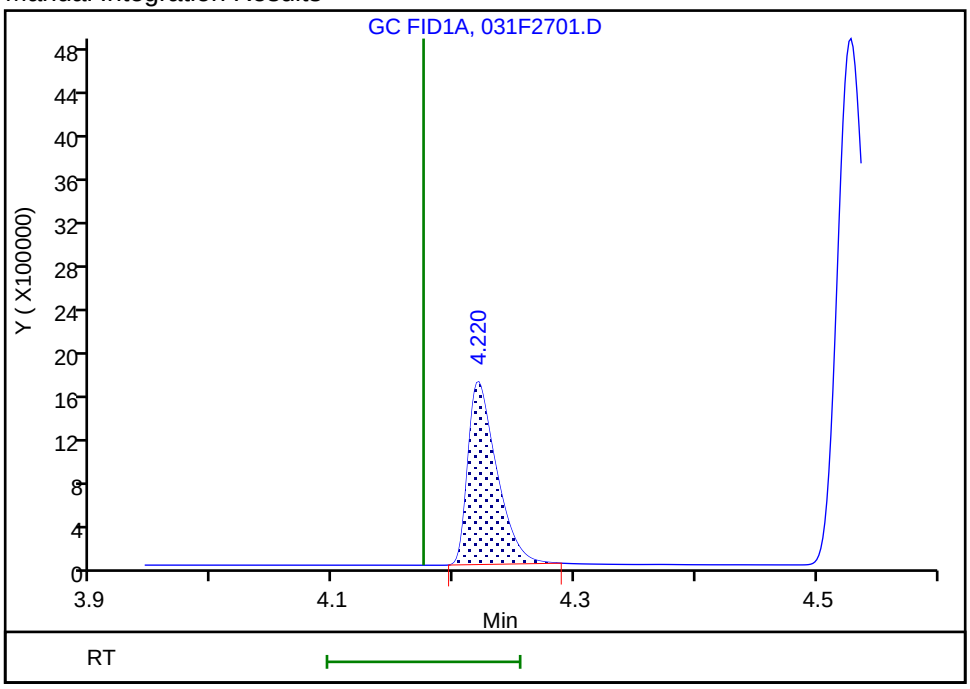
Processing Integration Results

Not Detected
Expected RT: 4.17



Manual Integration Results

RT: 4.22
Area: 2721121
Amount: 96.702765
Amount Units: ug/l



Reviewer: sciannac, 09-Mar-2022 13:33:08
Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Incomplete Integration

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Lab Sample ID: CCV 280-567999/29 Calibration Date: 03/08/2022 19:45

Instrument ID: VGC_J Calib Start Date: 09/24/2021 13:28

GC Column: HP-Plot Q ID: 0.53(mm) Calib End Date: 09/24/2021 15:12

Lab File ID: 031F2701.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methane	Lin2		36870		65.4	65.7	-0.5	20.0
Ethylene	Ave	30980	30884		115	115	-0.3	20.0
Acetylene	Ave	34179	32523		102	107	-4.8	20.0
Ethane	Ave	33383	33699		124	123	0.9	20.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Lab Sample ID: CCV 280-567999/29 Calibration Date: 03/08/2022 19:45

Instrument ID: VGC_J Calib Start Date: 09/24/2021 13:28

GC Column: HP-Plot Q ID: 0.53(mm) Calib End Date: 09/24/2021 15:12

Lab File ID: 031F2701.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Methane	1.66	1.62	1.70
Ethylene	2.59	2.55	2.65
Acetylene	2.73	2.67	2.83
Ethane	3.01	2.97	3.07

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20220308-109074.b\031F2701.D
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 08-Mar-2022 19:45:00 ALS Bottle#: 31 Worklist Smp#: 29
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: ccv
Operator ID: sciannac Instrument ID: VGC_J
Sublist: chrom-RSK_J*sub5

Method: \\chromfs\Denver\ChromData\VGC_J\20220308-109074.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 09-Mar-2022 13:35:22 Calib Date: 24-Sep-2021 15:12:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D

Column 1 : Rt-Alumina BOND/KCl (0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q (0.53 mm) Det: GC FID2B
Process Host: CTX1645

First Level Reviewer: sciannac Date: 09-Mar-2022 13:33:28

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Methane							
1	1.250	1.258	-0.008	2469925	65.7	68.4	
2	1.657	1.663	-0.006	2422450	65.7	65.4	
						RPD = 4.49	
3 Ethane							
1	1.522	1.523	-0.001	4200343	123.2	126.4	
2	3.005	3.018	-0.013	4150742	123.2	124.3	
						RPD = 1.61	
4 Ethylene							
1	1.832	1.818	0.014	4099398	114.9	116.4	
2	2.585	2.598	-0.013	3548523	114.9	114.5	
						RPD = 1.59	
5 Propane							
1	2.647	2.611	0.036	6721000	180.6	186.6	
2	4.920	4.926	-0.006	6269027	180.6	179.1	
						RPD = 4.15	
6 Acetylene							Ma
1	4.220	4.175	0.045	2721121	106.7	96.7	M
2	2.734	2.745	-0.011	3469253	106.7	101.5	a
						RPD = 4.84	
7 Butane							Ma
1	4.529	4.491	0.038	8715736	238.1	239.3	a
2	6.422	6.426	-0.004	8183837	238.1	232.9	M
						RPD = 2.71	
8 isobutylene							Ma
1	5.427	5.391	0.036	8093574	229.8	224.0	a
2	6.264	6.268	-0.004	7247662	229.8	218.3	M
						RPD = 2.60	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

RSK7gasMathes_00034 Amount Added: 200.00 Units: uL

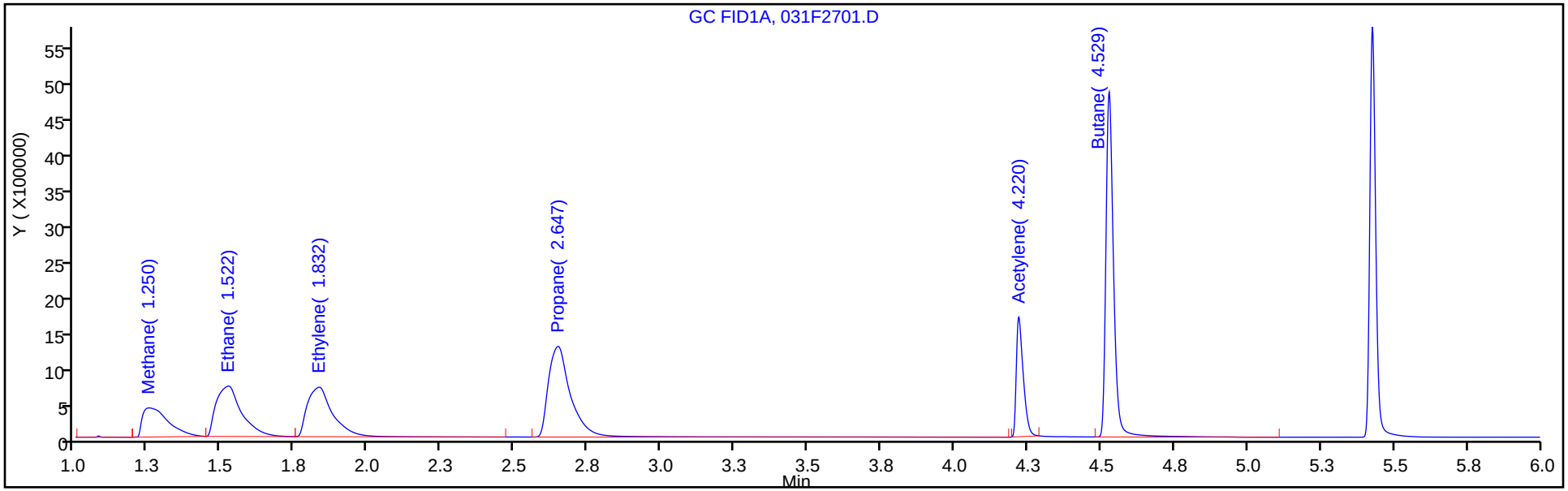
Report Date: 09-Mar-2022 13:35:22 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Denver

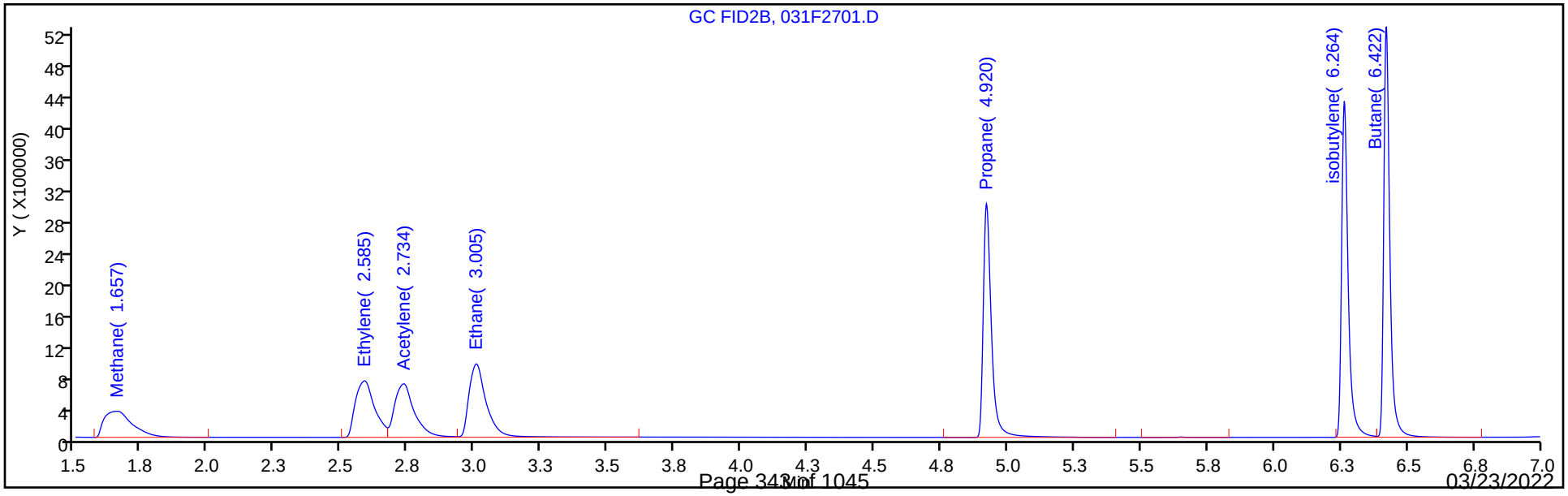
Data File: \\chromfs\Denver\ChromData\VGC_J\20220308-109074.b\031F2701.D

Injection Date:	08-Mar-2022 19:45:00	Instrument ID:	VGC_J	Operator ID:	sciannac
Lims ID:	ccv			Worklist Smp#:	29
Client ID:					
Purge Vol:	18.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	31
Method:	RSK_J	Limit Group:	GCV - RSK 175		

Column: Rt-Alumina BOND/KCl (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: HP-PLOT/Q (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins Denver

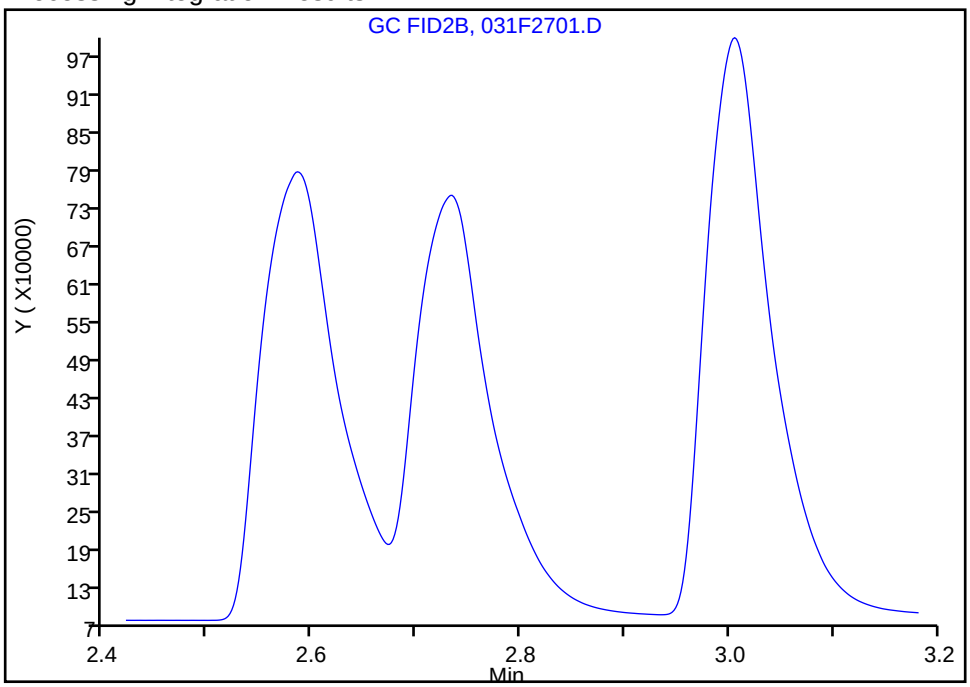
Data File:	\\chromfs\Denver\ChromData\VGC_J\20220308-109074.b\031F2701.D				
Injection Date:	08-Mar-2022 19:45:00	Instrument ID:	VGC_J		
Lims ID:	ccv				
Client ID:					
Operator ID:	sciannac	ALS Bottle#:	31	Worklist Smp#:	29
Purge Vol:	18.000 mL	Dil. Factor:	1.0000		
Method:	RSK_J	Limit Group:	GCV - RSK 175		
Column:	HP-PLOT/Q (0.53 mm)	Detector	GC FID2B		

6 Acetylene, CAS: 74-86-2

Signal: 2

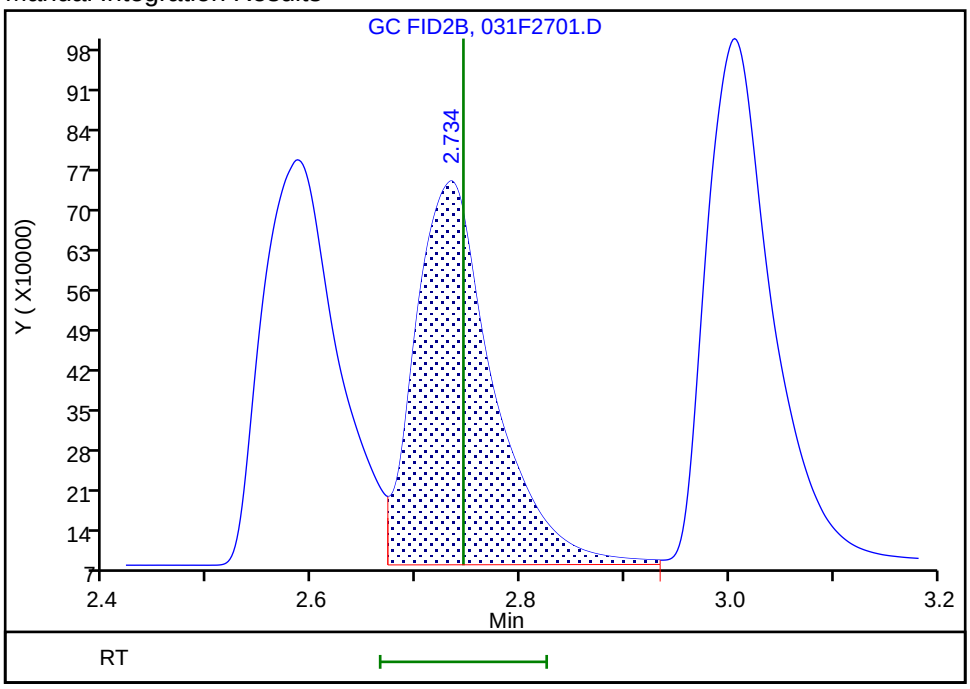
Not Detected
Expected RT: 2.74

Processing Integration Results



Manual Integration Results

RT: 2.73
Area: 3469253
Amount: 101.5031
Amount Units: ug/l



Reviewer: sciannac, 09-Mar-2022 13:32:57
Audit Action: Assigned Compound ID Audit Reason: Split Peak

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-159384-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 280-567999/3

Matrix: Water | Lab File ID: 001F0101.D

Analysis Method: RSK-175 | Date Collected:

Sample wt/vol: 20(mL) | Date Analyzed: 03/08/2022 14:07

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: HP-Plot Q ID: 0.53(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 567999 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
74-82-8	Methane	0.0013	U	0.0050	0.0013	0.00063

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20220308-109074.b\001F0101.D
Lims ID: mb
Client ID:
Sample Type: MB
Inject. Date: 08-Mar-2022 14:07:08 ALS Bottle#: 1 Worklist Smp#: 3
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: mb
Operator ID: sciannac Instrument ID: VGC_J

Method: \\chromfs\Denver\ChromData\VGC_J\20220308-109074.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 09-Mar-2022 13:35:04 Calib Date: 24-Sep-2021 15:12:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D

Column 1 : Rt-Alumina BOND/KCl (0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q (0.53 mm) Det: GC FID2B
Process Host: CTX1645

First Level Reviewer: sciannac Date: 08-Mar-2022 15:34:50

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
$ 1 1,1,1-Trifluoroethane							
1		4.362				ND	
2		5.458					
2 Methane							7
1		1.258				ND	
2		1.663					
3 Ethane							
1		1.523				ND	
2		3.018					
4 Ethylene							
1		1.818				ND	
2		2.598					
5 Propane							
1		2.611				ND	
2		4.926					
6 Acetylene							
1		4.175				ND	
2		2.745					
7 Butane							
1		4.491				ND	
2		6.426					
8 isobutylene							
1		5.391				ND	
2		6.268					

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

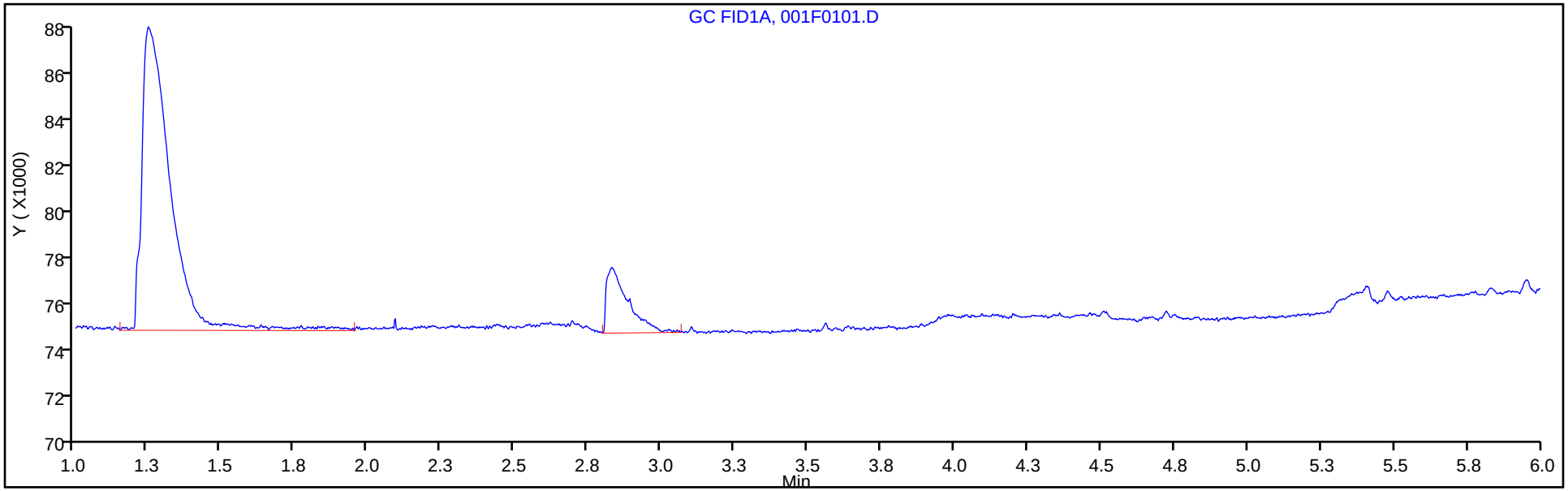
Report Date: 09-Mar-2022 13:35:05 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Denver

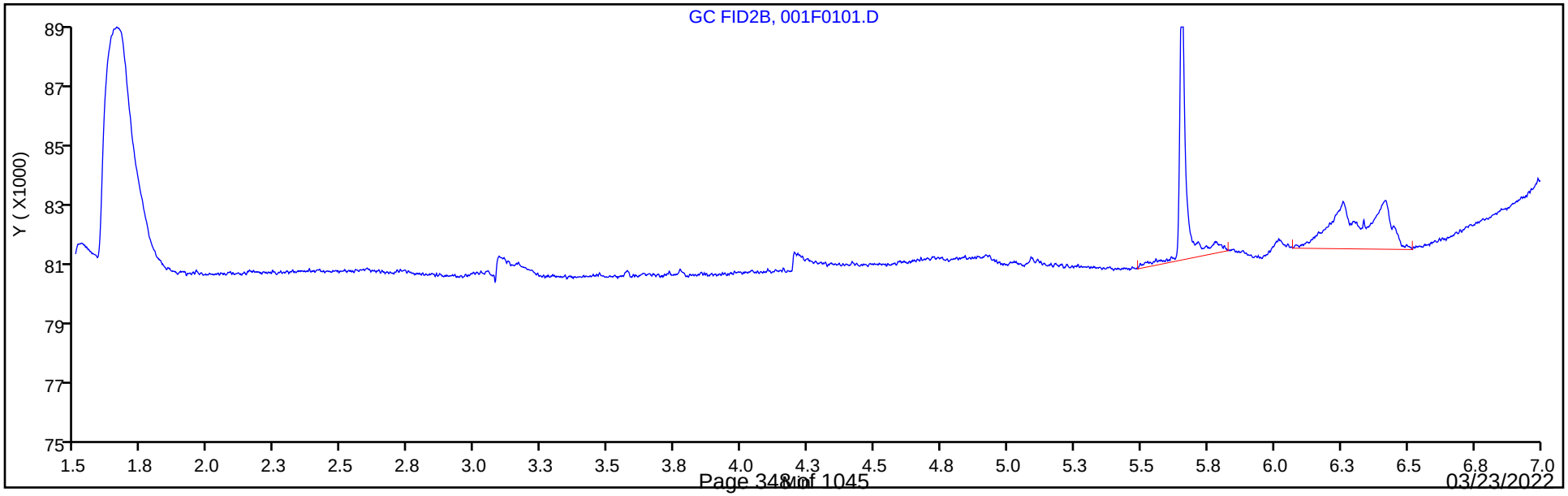
Data File: \\chromfs\Denver\ChromData\VGC_J\20220308-109074.b\001F0101.D

Injection Date:	08-Mar-2022 14:07:08	Instrument ID:	VGC_J	Operator ID:	sciannac
Lims ID:	mb			Worklist Smp#:	3
Client ID:					
Purge Vol:	18.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	RSK_J	Limit Group:	GCV - RSK 175		

Column: Rt-Alumina BOND/KCl (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: HP-PLOT/Q (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-159384-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 280-567999/4

Matrix: Water | Lab File ID: 002F0201.D

Analysis Method: RSK-175 | Date Collected:

Sample wt/vol: 20(mL) | Date Analyzed: 03/08/2022 14:20

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: HP-Plot Q ID: 0.53(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 567999 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
74-82-8	Methane	0.0648		0.0050	0.0013	0.00063

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20220308-109074.b\002F0201.D
Lims ID: lcs
Client ID:
Sample Type: LCS
Inject. Date: 08-Mar-2022 14:20:04 ALS Bottle#: 2 Worklist Smp#: 4
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: lcs
Operator ID: sciannac Instrument ID: VGC_J

Method: \\chromfs\Denver\ChromData\VGC_J\20220308-109074.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 09-Mar-2022 13:35:04 Calib Date: 24-Sep-2021 15:12:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D

Column 1 : Rt-Alumina BOND/KCl (0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q (0.53 mm) Det: GC FID2B
Process Host: CTX1645

First Level Reviewer: sciannac Date: 08-Mar-2022 15:35:10

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Methane							
1	1.255	1.258	-0.003	2426108	65.7	67.1	
2	1.659	1.663	-0.004	2401148	65.7	64.8	
						RPD = 3.56	
3 Ethane							
1	1.522	1.523	-0.001	4181320	123.2	125.8	
2	3.012	3.018	-0.006	4248774	123.2	127.3	
						RPD = 1.18	
4 Ethylene							Ma
1	1.825	1.818	0.007	4167904	114.9	118.3	
2	2.592	2.598	-0.006	3784593	114.9	122.2	M
						RPD = 3.20	
5 Propane							
1	2.632	2.611	0.021	6625101	180.6	184.0	
2	4.924	4.926	-0.002	6258850	180.6	178.8	
						RPD = 2.87	
6 Acetylene							Ma
1	4.202	4.175	0.027	3233395	106.7	114.9	
2	2.739	2.745	-0.006	3562867	106.7	104.2	M
						RPD = 9.73	
7 Butane							Ma
1	4.512	4.491	0.021	8824227	238.1	242.3	a
2	6.424	6.426	-0.002	8309042	238.1	236.5	M
						RPD = 2.43	
8 isobutylene							Ma
1	5.410	5.391	0.019	8397630	229.8	232.5	
2	6.267	6.268	-0.001	7522383	229.8	226.6	M
						RPD = 2.57	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

RSK7gasMathes_00034 Amount Added: 200.00 Units: uL

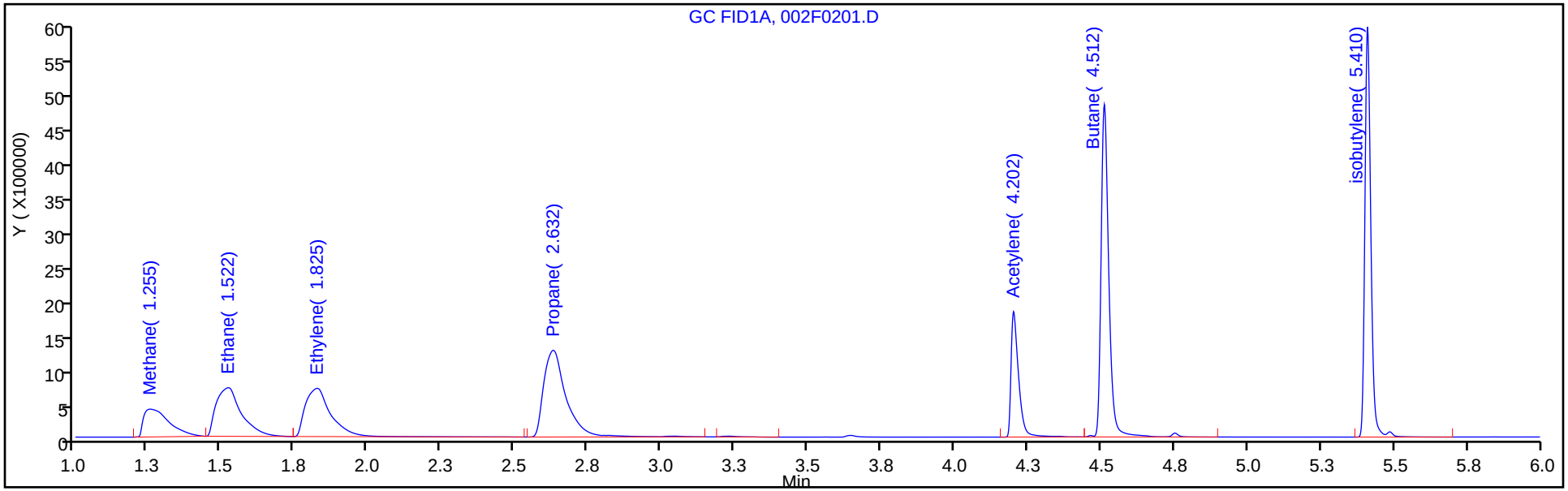
Report Date: 09-Mar-2022 13:35:06 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Denver

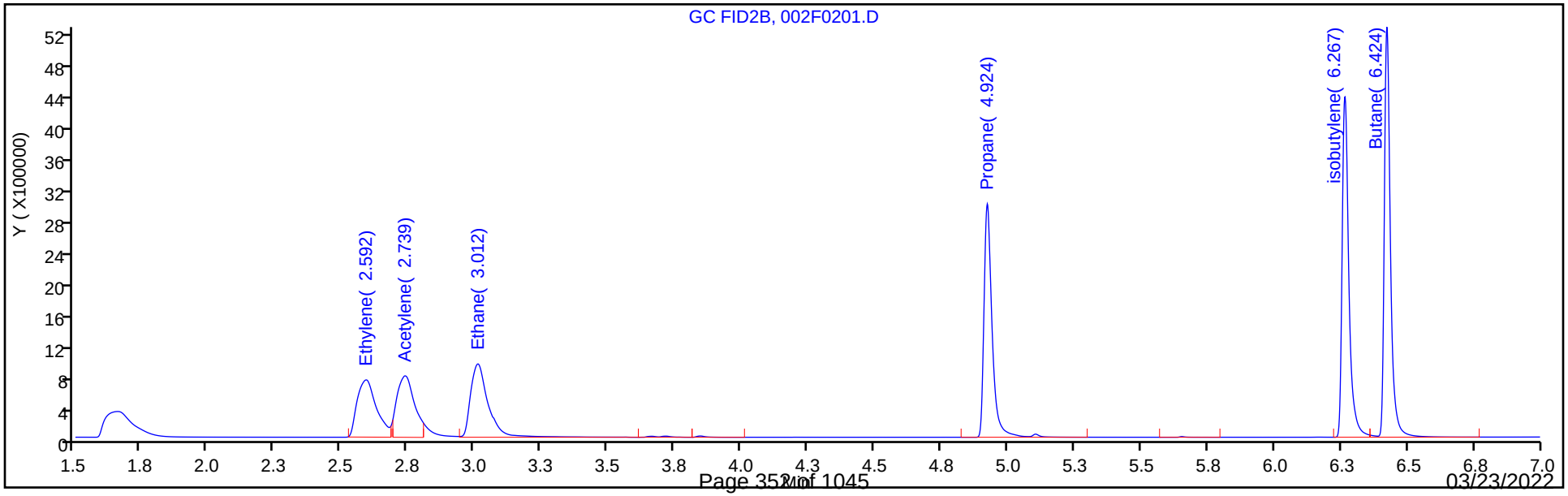
Data File: \\chromfs\Denver\ChromData\VGC_J\20220308-109074.b\002F0201.D

Injection Date:	08-Mar-2022 14:20:04	Instrument ID:	VGC_J	Operator ID:	sciannac
Lims ID:	lcs			Worklist Smp#:	4
Client ID:					
Purge Vol:	18.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	RSK_J	Limit Group:	GCV - RSK 175		

Column: Rt-Alumina BOND/KCl (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: HP-PLOT/Q (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-159384-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCSD 280-567999/5

Matrix: Water | Lab File ID: 003F0301.D

Analysis Method: RSK-175 | Date Collected:

Sample wt/vol: 20(mL) | Date Analyzed: 03/08/2022 14:32

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: HP-Plot Q ID: 0.53(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 567999 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
74-82-8	Methane	0.0649		0.0050	0.0013	0.00063

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20220308-109074.b\003F0301.D
Lims ID: lcsd
Client ID:
Sample Type: LCSD
Inject. Date: 08-Mar-2022 14:32:58 ALS Bottle#: 3 Worklist Smp#: 5
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: lcsd
Operator ID: sciannac Instrument ID: VGC_J

Method: \\chromfs\Denver\ChromData\VGC_J\20220308-109074.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 09-Mar-2022 13:35:04 Calib Date: 24-Sep-2021 15:12:55
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20210923-104922.b\012F1001.D

Column 1 : Rt-Alumina BOND/KCl (0.53 mm) Det: GC FID1A
Column 2 : HP-PLOT/Q (0.53 mm) Det: GC FID2B
Process Host: CTX1645

First Level Reviewer: sciannac Date: 08-Mar-2022 15:36:07

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Methane							
1	1.254	1.258	-0.004	2435059	65.7	67.4	
2	1.658	1.663	-0.005	2407106	65.7	64.9	
						RPD = 3.69	
3 Ethane							
1	1.523	1.523	0.000	4192782	123.2	126.1	
2	3.010	3.018	-0.008	4214363	123.2	126.2	
						RPD = 0.09	
4 Ethylene							
1	1.828	1.818	0.010	4193979	114.9	119.1	
2	2.590	2.598	-0.008	3628597	114.9	117.1	
						RPD = 1.64	
5 Propane							
1	2.634	2.611	0.023	6645224	180.6	184.5	
2	4.923	4.926	-0.003	6273229	180.6	179.2	
						RPD = 2.95	
6 Acetylene							
1	4.206	4.175	0.031	3355168	106.7	119.2	
2	2.738	2.745	-0.007	4119188	106.7	120.5	
						RPD = 1.07	
7 Butane							
1	4.514	4.491	0.023	8875771	238.1	243.7	
2	6.423	6.426	-0.003	8270543	238.1	235.4	
						RPD = 3.48	
8 isobutylene							
1	5.414	5.391	0.023	8468868	229.8	234.4	
2	6.265	6.268	-0.003	7586893	229.8	228.5	
						RPD = 2.56	

QC Flag Legend

Processing Flags

Reagents:

RSK7gasMathes_00034 Amount Added: 200.00 Units: uL

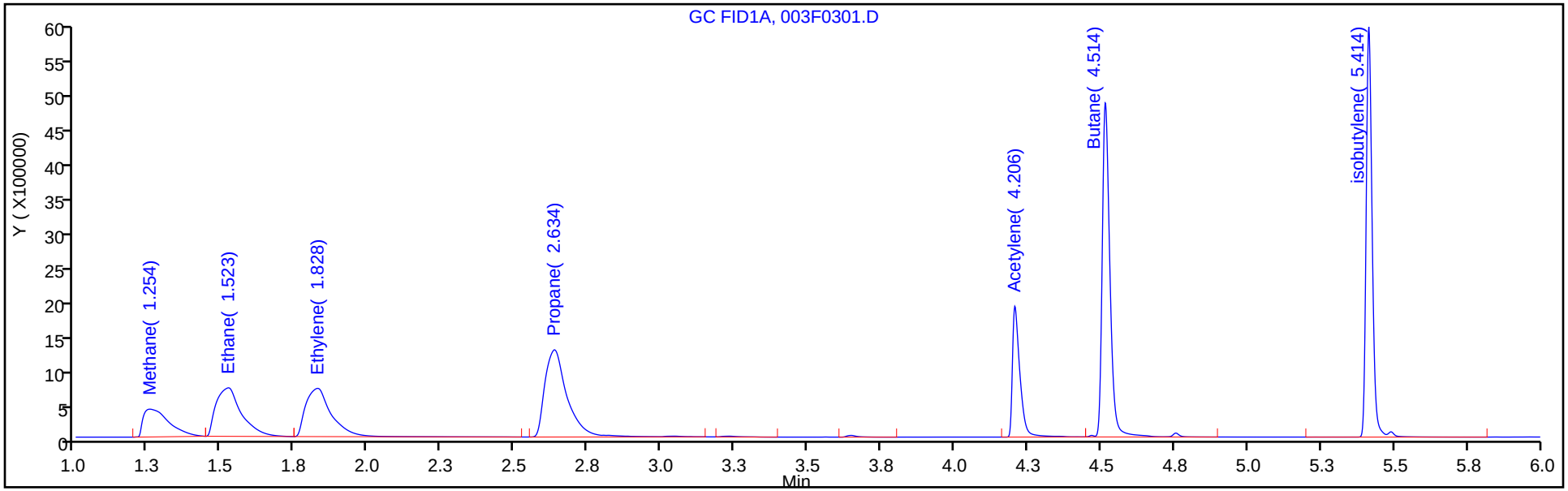
Report Date: 09-Mar-2022 13:35:06 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Denver

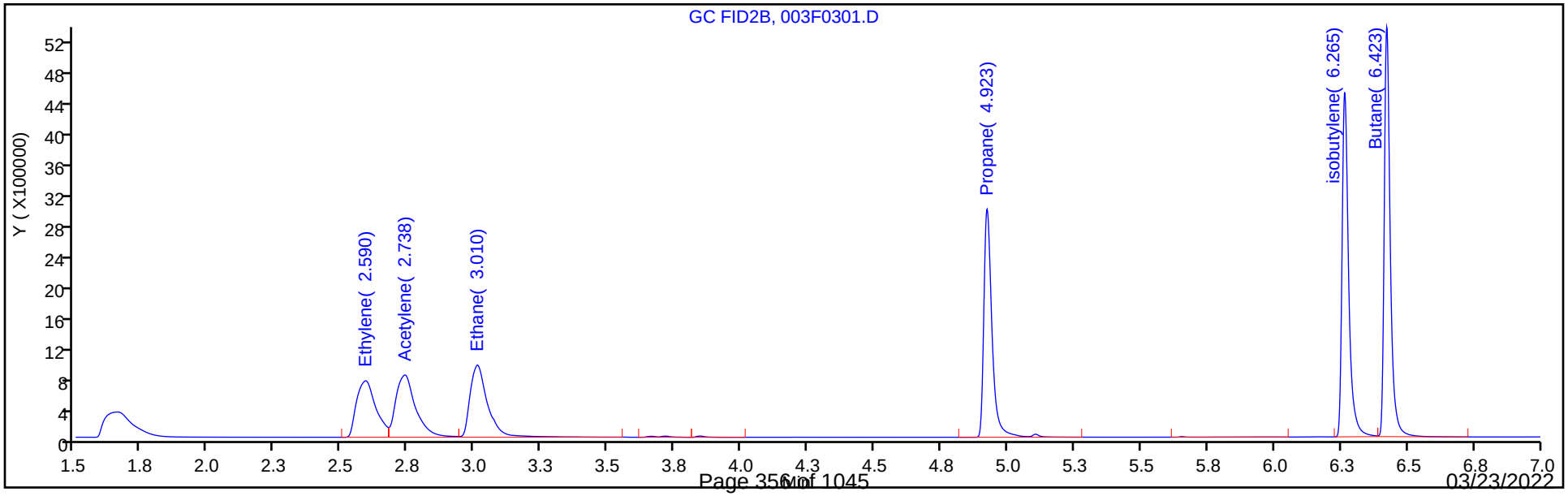
Data File: \\chromfs\Denver\ChromData\VGC_J\20220308-109074.b\003F0301.D

Injection Date:	08-Mar-2022 14:32:58	Instrument ID:	VGC_J	Operator ID:	sciannac
Lims ID:	lcsd			Worklist Smp#:	5
Client ID:					
Purge Vol:	18.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	RSK_J	Limit Group:	GCV - RSK 175		

Column: Rt-Alumina BOND/KCl (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: HP-PLOT/Q (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



GC VOA ANALYSIS RUN LOG

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Instrument ID: VGC_J Start Date: 09/24/2021 13:16

Analysis Batch Number: 550959 End Date: 09/24/2021 15:38

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
RTC 280-550959/1		09/24/2021 13:16	1		Rt-Alumina KCl 0.53(mm)
RTC 280-550959/1		09/24/2021 13:16	1		HP-Plot Q 0.53(mm)
IC 280-550959/2		09/24/2021 13:28	1	004F0201.D	Rt-Alumina KCl 0.53(mm)
IC 280-550959/2		09/24/2021 13:28	1	004F0201.D	HP-Plot Q 0.53(mm)
IC 280-550959/3		09/24/2021 13:41	1	005F0301.D	Rt-Alumina KCl 0.53(mm)
IC 280-550959/3		09/24/2021 13:41	1	005F0301.D	HP-Plot Q 0.53(mm)
IC 280-550959/4		09/24/2021 13:54	1	006F0401.D	Rt-Alumina KCl 0.53(mm)
IC 280-550959/4		09/24/2021 13:54	1	006F0401.D	HP-Plot Q 0.53(mm)
IC 280-550959/5		09/24/2021 14:07	1	007F0501.D	Rt-Alumina KCl 0.53(mm)
IC 280-550959/5		09/24/2021 14:07	1	007F0501.D	HP-Plot Q 0.53(mm)
IC 280-550959/6		09/24/2021 14:20	1	008F0601.D	Rt-Alumina KCl 0.53(mm)
IC 280-550959/6		09/24/2021 14:20	1	008F0601.D	HP-Plot Q 0.53(mm)
IC 280-550959/7		09/24/2021 14:33	1	009F0701.D	Rt-Alumina KCl 0.53(mm)
IC 280-550959/7		09/24/2021 14:33	1	009F0701.D	HP-Plot Q 0.53(mm)
IC 280-550959/9		09/24/2021 14:46	1	010F0801.D	Rt-Alumina KCl 0.53(mm)
IC 280-550959/9		09/24/2021 14:46	1	010F0801.D	HP-Plot Q 0.53(mm)
IC 280-550959/10		09/24/2021 14:59	1	011F0901.D	Rt-Alumina KCl 0.53(mm)
IC 280-550959/10		09/24/2021 14:59	1	011F0901.D	HP-Plot Q 0.53(mm)
IC 280-550959/11		09/24/2021 15:12	1	012F1001.D	Rt-Alumina KCl 0.53(mm)
IC 280-550959/11		09/24/2021 15:12	1	012F1001.D	HP-Plot Q 0.53(mm)
ZZZZZ		09/24/2021 15:25	1		Rt-Alumina KCl 0.53(mm)
ZZZZZ		09/24/2021 15:25	1		HP-Plot Q 0.53(mm)
ICV 280-550959/13		09/24/2021 15:38	1	014F1201.D	Rt-Alumina KCl 0.53(mm)
ICV 280-550959/13		09/24/2021 15:38	1	014F1201.D	HP-Plot Q 0.53(mm)

GC VOA ANALYSIS RUN LOG

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Instrument ID: VGC_J Start Date: 03/08/2022 13:54

Analysis Batch Number: 567999 End Date: 03/08/2022 19:45

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCVRT 280-567999/2		03/08/2022 13:54	1	030822f01.D	Rt-Alumina KCl 0.53(mm)
CCVRT 280-567999/2		03/08/2022 13:54	1	030822f01.D	HP-Plot Q 0.53(mm)
MB 280-567999/3		03/08/2022 14:07	1	001F0101.D	Rt-Alumina KCl 0.53(mm)
MB 280-567999/3		03/08/2022 14:07	1	001F0101.D	HP-Plot Q 0.53(mm)
LCS 280-567999/4		03/08/2022 14:20	1	002F0201.D	Rt-Alumina KCl 0.53(mm)
LCS 280-567999/4		03/08/2022 14:20	1	002F0201.D	HP-Plot Q 0.53(mm)
LCSD 280-567999/5		03/08/2022 14:32	1	003F0301.D	Rt-Alumina KCl 0.53(mm)
LCSD 280-567999/5		03/08/2022 14:32	1	003F0301.D	HP-Plot Q 0.53(mm)
ZZZZZ		03/08/2022 14:45	2		Rt-Alumina KCl 0.53(mm)
ZZZZZ		03/08/2022 14:45	2		HP-Plot Q 0.53(mm)
ZZZZZ		03/08/2022 14:58	2		Rt-Alumina KCl 0.53(mm)
ZZZZZ		03/08/2022 14:58	2		HP-Plot Q 0.53(mm)
ZZZZZ		03/08/2022 15:11	2		Rt-Alumina KCl 0.53(mm)
ZZZZZ		03/08/2022 15:11	2		HP-Plot Q 0.53(mm)
ZZZZZ		03/08/2022 15:25	2		Rt-Alumina KCl 0.53(mm)
ZZZZZ		03/08/2022 15:25	2		HP-Plot Q 0.53(mm)
ZZZZZ		03/08/2022 15:38	1		Rt-Alumina KCl 0.53(mm)
ZZZZZ		03/08/2022 15:38	1		HP-Plot Q 0.53(mm)
ZZZZZ		03/08/2022 15:51	1		Rt-Alumina KCl 0.53(mm)
ZZZZZ		03/08/2022 15:51	1		HP-Plot Q 0.53(mm)
ZZZZZ		03/08/2022 16:04	1		Rt-Alumina KCl 0.53(mm)
ZZZZZ		03/08/2022 16:04	1		HP-Plot Q 0.53(mm)
ZZZZZ		03/08/2022 16:17	1		Rt-Alumina KCl 0.53(mm)
ZZZZZ		03/08/2022 16:17	1		HP-Plot Q 0.53(mm)
ZZZZZ		03/08/2022 16:30	1		Rt-Alumina KCl 0.53(mm)
ZZZZZ		03/08/2022 16:30	1		HP-Plot Q 0.53(mm)
ZZZZZ		03/08/2022 16:43	1		Rt-Alumina KCl 0.53(mm)
ZZZZZ		03/08/2022 16:43	1		HP-Plot Q 0.53(mm)
ZZZZZ		03/08/2022 16:56	1		Rt-Alumina KCl 0.53(mm)
ZZZZZ		03/08/2022 16:56	1		HP-Plot Q 0.53(mm)
CCV 280-567999/17		03/08/2022 17:09	1	019F1501.D	Rt-Alumina KCl 0.53(mm)
CCV 280-567999/17		03/08/2022 17:09	1	019F1501.D	HP-Plot Q 0.53(mm)
ZZZZZ		03/08/2022 17:22	1		Rt-Alumina KCl 0.53(mm)
ZZZZZ		03/08/2022 17:22	1		HP-Plot Q 0.53(mm)
ZZZZZ		03/08/2022 17:35	1		Rt-Alumina KCl 0.53(mm)
ZZZZZ		03/08/2022 17:35	1		HP-Plot Q 0.53(mm)
ZZZZZ		03/08/2022 17:48	1		Rt-Alumina KCl 0.53(mm)
ZZZZZ		03/08/2022 17:48	1		HP-Plot Q 0.53(mm)
ZZZZZ		03/08/2022 18:01	1		Rt-Alumina KCl 0.53(mm)
ZZZZZ		03/08/2022 18:01	1		HP-Plot Q 0.53(mm)
ZZZZZ		03/08/2022 18:14	1		Rt-Alumina KCl 0.53(mm)
ZZZZZ		03/08/2022 18:14	1		HP-Plot Q 0.53(mm)
ZZZZZ		03/08/2022 18:27	1		Rt-Alumina KCl 0.53(mm)
ZZZZZ		03/08/2022 18:27	1		HP-Plot Q 0.53(mm)
280-159384-1	G0022-8	03/08/2022 18:40	1	026F2201.D	Rt-Alumina KCl 0.53(mm)

RSK-175

GC VOA ANALYSIS RUN LOG

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Instrument ID: VGC_J Start Date: 03/08/2022 13:54

Analysis Batch Number: 567999 End Date: 03/08/2022 19:45

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
280-159384-1	G0022-8	03/08/2022 18:40	1	026F2201.D	HP-Plot Q 0.53(mm)
280-159384-2	G0102-8	03/08/2022 18:53	1	027F2301.D	Rt-Alumina KCl 0.53(mm)
280-159384-2	G0102-8	03/08/2022 18:53	1	027F2301.D	HP-Plot Q 0.53(mm)
280-159384-4	G0121-8	03/08/2022 19:06	1	028F2401.D	Rt-Alumina KCl 0.53(mm)
280-159384-4	G0121-8	03/08/2022 19:06	1	028F2401.D	HP-Plot Q 0.53(mm)
280-159384-5	G0122-8	03/08/2022 19:19	1	029F2501.D	Rt-Alumina KCl 0.53(mm)
280-159384-5	G0122-8	03/08/2022 19:19	1	029F2501.D	HP-Plot Q 0.53(mm)
280-159384-6	G0123-8	03/08/2022 19:32	1	030F2601.D	Rt-Alumina KCl 0.53(mm)
280-159384-6	G0123-8	03/08/2022 19:32	1	030F2601.D	HP-Plot Q 0.53(mm)
CCV 280-567999/29		03/08/2022 19:45	1	031F2701.D	Rt-Alumina KCl 0.53(mm)
CCV 280-567999/29		03/08/2022 19:45	1	031F2701.D	HP-Plot Q 0.53(mm)

GC VOA BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Batch Number: 567999 Batch Start Date: 03/08/22 13:54 Batch Analyst: Scianna, Charles A

Batch Method: RSK-175 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Initial pH	RSK7gasMathes 00034		
CCVRT 280-567999/2		RSK-175		20 mL	20 mL	5 SU	200 uL		
MB 280-567999/3		RSK-175		20 mL	20 mL	5 SU			
LCS 280-567999/4		RSK-175		20 mL	20 mL	5 SU	200 uL		
LCSD 280-567999/5		RSK-175		20 mL	20 mL	5 SU	200 uL		
CCV 280-567999/17		RSK-175		20 mL	20 mL	5 SU	200 uL		
280-159384-H-1	G0022-8	RSK-175	T	20 mL	20 mL	< 2 SU			
280-159384-H-2	G0102-8	RSK-175	T	20 mL	20 mL	< 2 SU			
280-159384-H-4	G0121-8	RSK-175	T	20 mL	20 mL	< 2 SU			
280-159384-I-5	G0122-8	RSK-175	T	20 mL	20 mL	< 2 SU			
280-159384-G-6	G0123-8	RSK-175	T	20 mL	20 mL	< 2 SU			
CCV 280-567999/29		RSK-175		20 mL	20 mL	5 SU	200 uL		

Batch Notes	

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.

8330A_DOD5

Nitroaromatics and Nitramines (HPLC)

FORM II
HPLC/IC SURROGATE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-159384-1

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 #
G0022-8	280-159384-1	106 M	
G0022-8	280-159384-1		98
G0102-8	280-159384-2	104 M	
WATER-WC-Q8-MAR22	280-159384-3	126 M Q	
WATER-WC-Q8-MAR22	280-159384-3		93 M
G0121-8	280-159384-4	2845 M Q	
G0121-8	280-159384-4		94
G0122-8	280-159384-5	86 M	
G0122-8	280-159384-5		96 M
G0123-8	280-159384-6	102	
G0123-8	280-159384-6		98
	MB 280-567953/1-A	101	
	LCS 280-567953/2-A	95	
	LCS 280-567953/3-A	102	

	QC LIMITS
12DNB = 1,2-Dinitrobenzene	83-119

Column to be used to flag recovery values

FORM II 8330A

FORM III
HPLC/IC LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 03100052.D

Lab ID: LCS 280-567953/2-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,3,5-Trinitrobenzene	2.00	1.97	99	73-125	
1,3-Dinitrobenzene	2.00	1.98	99	78-120	
2,4,6-Trinitrotoluene	2.00	1.92	96	71-123	
2,4-Dinitrotoluene	2.00	1.85	93	78-120	
2,6-Dinitrotoluene	2.00	1.95	98	77-127	
2-Amino-4,6-dinitrotoluene	2.00	1.79	89	79-120	
2-Nitrotoluene	2.00	1.57	79	70-127	
3-Nitrotoluene	2.00	1.50	75	73-125	
4-Amino-2,6-dinitrotoluene	2.00	1.57	79	76-125	
4-Nitrotoluene	2.00	1.75	87	71-127	
HMX	2.00	1.84	92	65-135	M
Nitrobenzene	2.00	1.76	88	65-134	
RDX	2.00	2.03	102	68-130	
Tetryl	2.00	1.92	96	64-128	

Column to be used to flag recovery and RPD values

FORM III 8330A

FORM III
HPLC/IC LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 03100053.D

Lab ID: LCS 280-567953/3-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
MNX	2.33	2.29	98	57-132	M

Column to be used to flag recovery and RPD values

FORM III 8330A

FORM IV
HPLC/IC METHOD BLANK SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Lab Sample ID: MB 280-567953/1-A

Matrix: Water Date Extracted: 03/08/2022 11:19

Lab File ID:(1) 03100051.D Lab File ID:(2)

Date Analyzed:(1) 03/11/2022 06:45 Date Analyzed:(2)

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

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

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 280-567953/2-A	03/11/2022 07:08	
	LCS 280-567953/3-A	03/11/2022 07:31	
G0022-8	280-159384-1	03/11/2022 23:12	03/15/2022 21:38
G0102-8	280-159384-2	03/11/2022 23:35	
WATER-WC-Q8-MAR22	280-159384-3	03/11/2022 23:57	03/15/2022 22:13
G0121-8	280-159384-4	03/12/2022 00:20	03/15/2022 22:48
G0122-8	280-159384-5	03/12/2022 00:43	03/15/2022 23:23
G0123-8	280-159384-6	03/12/2022 01:06	03/15/2022 23:58

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Client Sample ID: G0022-8 Lab Sample ID: 280-159384-1

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

Date Analyzed (1): 03/11/2022 23:12 Date Analyzed (2): 03/15/2022 21:38

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

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
2,4,6-Trinitrotoluene	1		10.88	10.79	10.99	0.081		25.4
	2		25.03	24.92	25.22	0.063		
4-Amino-2,6-dinitrotoluene	1		11.07	10.97	11.17	0.51		13.7
	2		17.53	17.42	17.72	0.44		
2-Amino-4,6-dinitrotoluene	1		11.32	11.22	11.42	0.33		51.2
	2		18.54	18.43	18.73	0.19		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Client Sample ID: WATER-WC-Q8-MAR22 Lab Sample ID: 280-159384-3

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

Date Analyzed (1): 03/11/2022 23:57 Date Analyzed (2): 03/15/2022 22:13

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

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
MNX	1		7.25	7.06	7.36	7.4		161.0
	2		7.50	7.43	7.73	0.80		
RDX	1		7.57	7.43	7.73	0.58		55.3
	2		9.00	8.90	9.20	1.0		
4-Amino-2,6-dinitrotoluene	1		11.07	10.97	11.17	1.4		27.3
	2		17.54	17.42	17.72	1.1		
2-Amino-4,6-dinitrotoluene	1		11.33	11.22	11.42	2.3		73.2
	2		18.54	18.43	18.73	1.1		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Client Sample ID: G0121-8 Lab Sample ID: 280-159384-4

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

Date Analyzed (1): 03/12/2022 00:20 Date Analyzed (2): 03/15/2022 22:48

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

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
RDX	1		7.56	7.43	7.73	27		175.0
	2		9.07	8.90	9.20	1.8		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Client Sample ID: G0122-8 Lab Sample ID: 280-159384-5

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

Date Analyzed (1): 03/12/2022 00:43 Date Analyzed (2): 03/15/2022 23:23

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

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
MNX	1		7.25	7.06	7.36	27		184.7
	2		7.56	7.43	7.73	1.1		
RDX	1		7.59	7.43	7.73	5.6		26.2
	2		9.03	8.90	9.20	7.3		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Client Sample ID: G0123-8 Lab Sample ID: 280-159384-6

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

Date Analyzed (1): 03/12/2022 01:06 Date Analyzed (2): 03/15/2022 23:58

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

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
MNX	1		7.25	7.06	7.36	1.5		33.9
	2		7.57	7.43	7.73	1.1		

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-159384-1

SDG No.:

Client Sample ID: G0022-8 | Lab Sample ID: 280-159384-1

Matrix: Water | Lab File ID: 03110032.D

Analysis Method: 8330A | Date Collected: 03/02/2022 13:30

Extraction Method: 3535 | Date Extracted: 03/08/2022 11:19

Sample wt/vol: 469.6(mL) | Date Analyzed: 03/11/2022 23:12

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

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

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

Analysis Batch No.: 568433 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	0.21	U	0.22	0.21	0.090
99-65-0	1,3-Dinitrobenzene	0.11	U	0.12	0.11	0.039
118-96-7	2,4,6-Trinitrotoluene	0.081	J	0.12	0.11	0.048
121-14-2	2,4-Dinitrotoluene	0.085	U	0.11	0.085	0.029
606-20-2	2,6-Dinitrotoluene	0.085	U	0.11	0.085	0.043
35572-78-2	2-Amino-4,6-dinitrotoluene	0.33	J1	0.12	0.11	0.054
88-72-2	2-Nitrotoluene	0.21	U	0.22	0.21	0.091
99-08-1	3-Nitrotoluene	0.43	U	0.43	0.43	0.21
19406-51-0	4-Amino-2,6-dinitrotoluene	0.51		0.16	0.13	0.061
2691-41-0	HMX	0.21	U	0.22	0.21	0.093
5755-27-1	MNX	0.43	U	2.1	0.43	0.16
98-95-3	Nitrobenzene	0.21	U M	0.22	0.21	0.097
121-82-4	RDX	0.21	U	0.22	0.21	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	106	M	83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20220311-109174.b\03110032.D
Lims ID: 280-159384-B-1-A
Client ID: G0022-8
Sample Type: Client
Inject. Date: 11-Mar-2022 23:12:10 ALS Bottle#: 32 Worklist Smp#: 32
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-159384-B-1-A
Misc. Info.: 280-0109174-032
Operator ID: JZ Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20220311-109174.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 12-Mar-2022 10:32:02 Calib Date: 05-Jan-2022 04:24:15
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040037.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1616

First Level Reviewer: zhangji Date: 12-Mar-2022 09:36:11

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/mL	Flags
4 HMX	1		6.595			ND	
7 MNX	1		7.211			ND	
8 RDX	1		7.582			ND	
$ 10 1,2-Dinitrobenzene	1	8.529	8.529	0.000	26382	0.2116	M
11 1,3,5-Trinitrobenzene	1		8.655			ND	
12 1,3-Dinitrobenzene	1		9.282			ND	
13 Nitrobenzene	1		9.668			ND	U
15 Tetryl	1		9.982			ND	U
17 2,4,6-Trinitrotoluene	1	10.882	10.888	-0.006	1540	0.007596	
18 4-Amino-2,6-dinitrotoluene	1	11.069	11.068	0.001	7198	0.0477	
19 2-Amino-4,6-dinitrotoluene	1	11.322	11.322	0.000	6183	0.0306	
20 2,6-Dinitrotoluene	1		11.495			ND	
21 2,4-Dinitrotoluene	1		11.662			ND	
22 o-Nitrotoluene	1		12.508			ND	
23 p-Nitrotoluene	1	12.909	12.935	-0.026	1226	0.0115	
24 m-Nitrotoluene	1		13.502			ND	

QC Flag Legend

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

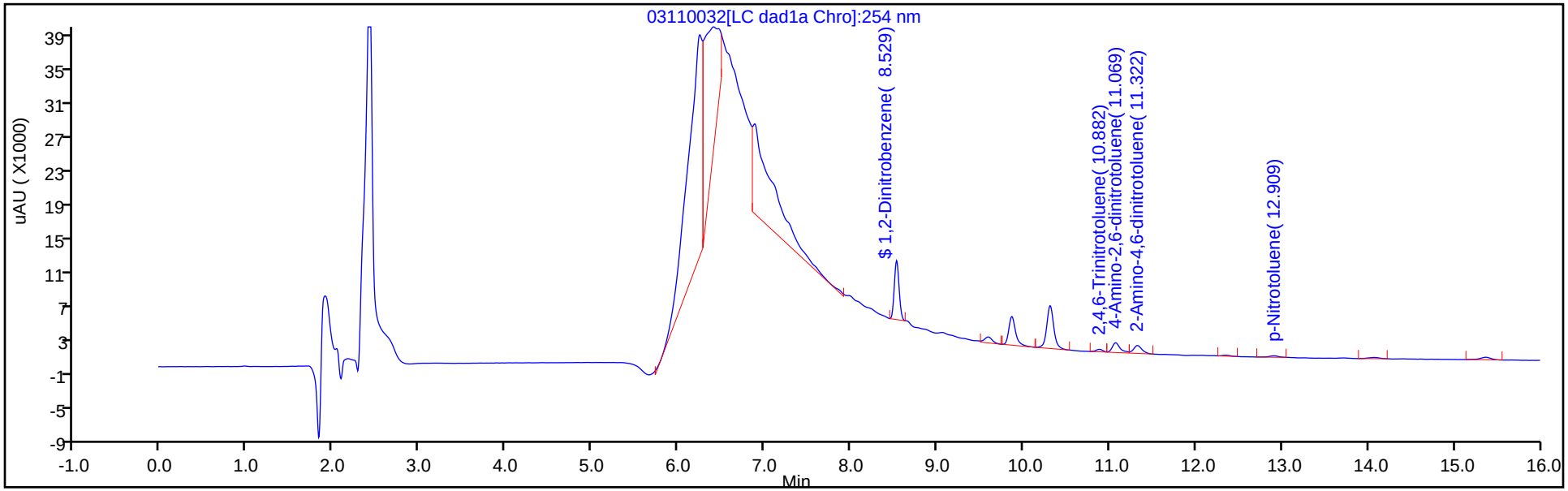
Report Date: 12-Mar-2022 10:32:05 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Denver

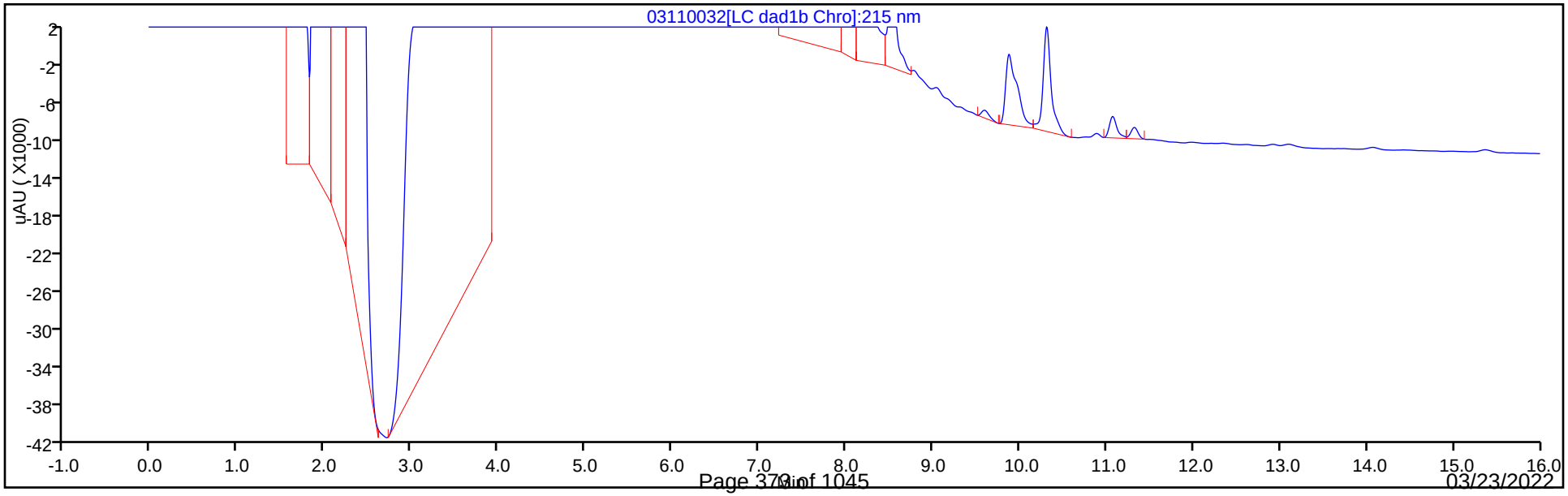
Data File: \\chromfs\denver\chromdata\chhplc_x\20220311-109174.b\03110032.d

Injection Date:	11-Mar-2022 23:12:10	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	280-159384-B-1-A	Lab Sample ID:	280-159384-1	Worklist Smp#:	32
Client ID:	G0022-8				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	32
Method:	8330_X3	Limit Group:	GCSV - 8330		

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



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



Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20220311-109174.b\03110032.D				
Lims ID:	280-159384-B-1-A				
Client ID:	G0022-8				
Sample Type:	Client				
Inject. Date:	11-Mar-2022 23:12:10	ALS Bottle#:	32	Worklist Smp#:	32
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-159384-B-1-A				
Misc. Info.:	280-0109174-032				
Operator ID:	JZ	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20220311-109174.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	12-Mar-2022 10:32:02	Calib Date:	05-Jan-2022 04:24:15		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040037.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1616				

First Level Reviewer: zhangji Date: 12-Mar-2022 09:36:11

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.2116	105.78

Manual Integration/User Assign Peak Report

Eurofins Denver

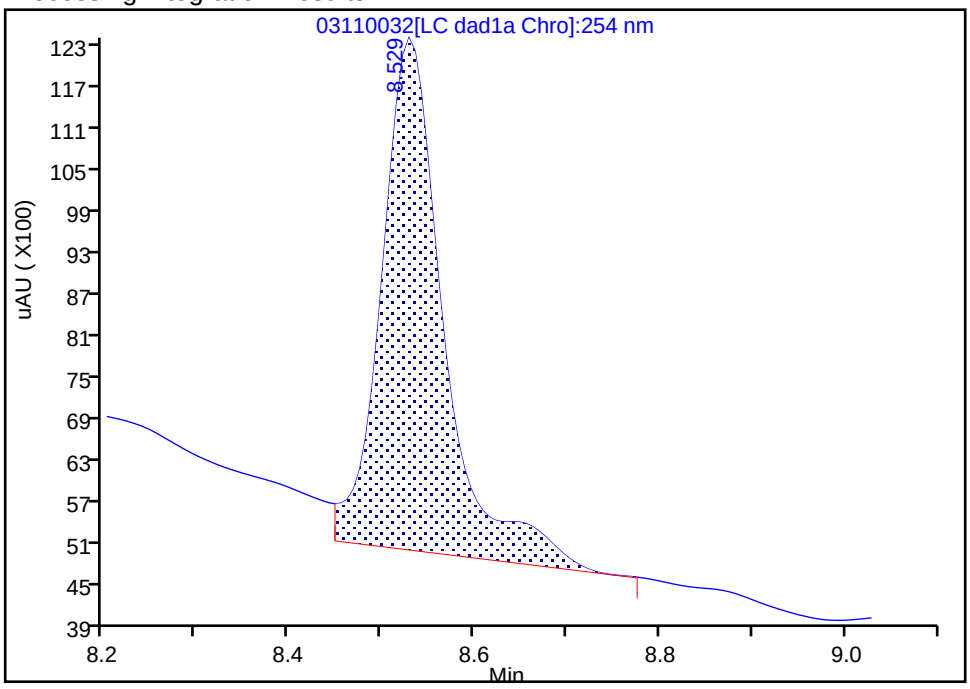
Data File:	\\chromfs\denver\chromdata\chhplc_x\20220311-109174.b\03110032.d				
Injection Date:	11-Mar-2022 23:12:10	Instrument ID:	CHHPLC_X3		
Lims ID:	280-159384-B-1-A	Lab Sample ID:	280-159384-1		
Client ID:	G0022-8				
Operator ID:	JZ	ALS Bottle#:	32	Worklist Smp#:	32
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

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

Signal: 1

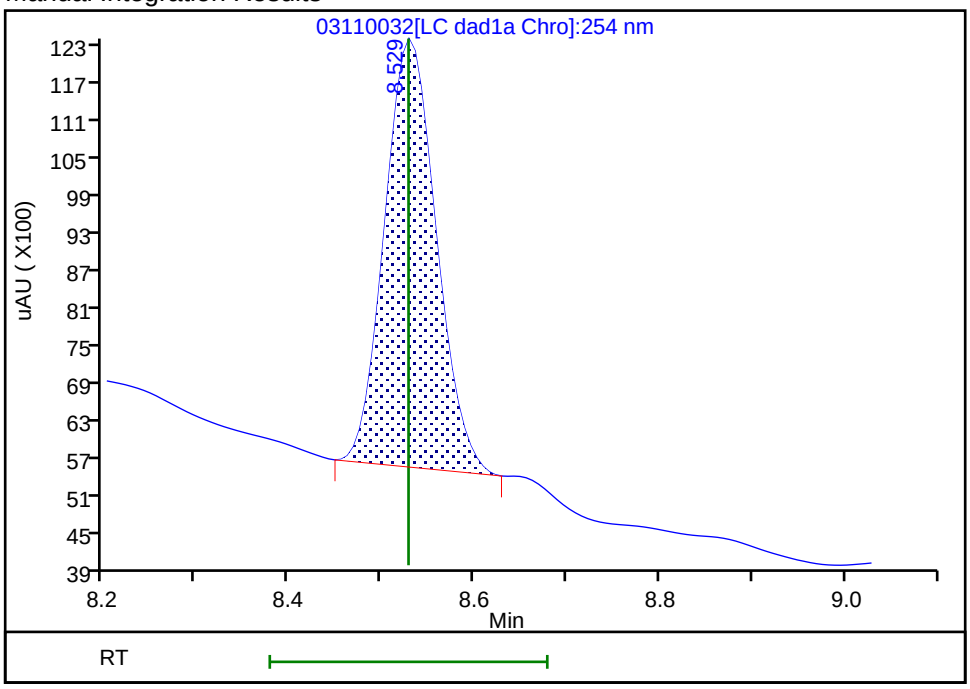
Processing Integration Results

RT: 8.53
Area: 34533
Amount: 0.276934
Amount Units: ug/mL



Manual Integration Results

RT: 8.53
Area: 26382
Amount: 0.211568
Amount Units: ug/mL



Reviewer: zhangji, 12-Mar-2022 09:36:10

Audit Action: Manually Integrated Audit Reason: Baseline

User Disabled Compound Report

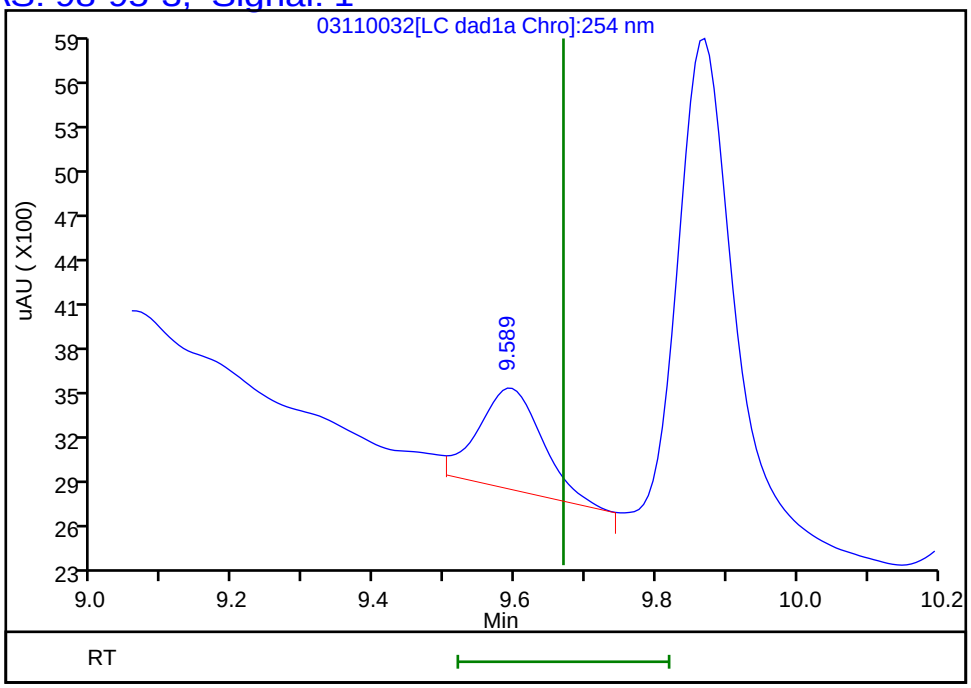
Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20220311-109174.b\03110032.d
Injection Date: 11-Mar-2022 23:12:10 Instrument ID: CHHPLC_X3
Lims ID: 280-159384-B-1-A Lab Sample ID: 280-159384-1
Client ID: G0022-8
Operator ID: JZ ALS Bottle#: 32 Worklist Smp#: 32
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330

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

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

RT: 9.59
Response: 4329
Amount: 0.022552



Reviewer: zhangji, 12-Mar-2022 09:36:11
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

User Disabled Compound Report

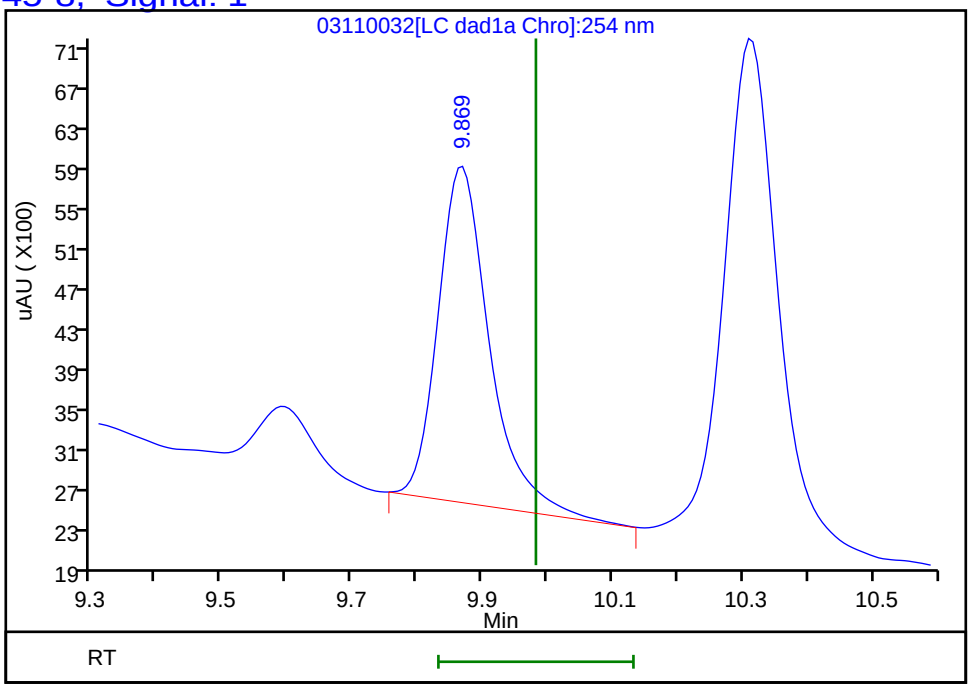
Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20220311-109174.b\03110032.d
Injection Date: 11-Mar-2022 23:12:10 Instrument ID: CHHPLC_X3
Lims ID: 280-159384-B-1-A Lab Sample ID: 280-159384-1
Client ID: G0022-8
Operator ID: JZ ALS Bottle#: 32 Worklist Smp#: 32
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330

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

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

RT: 9.87
Response: 18236
Amount: 0.106914



Reviewer: zhangji, 12-Mar-2022 09:36:11
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-159384-1

SDG No.:

Client Sample ID: G0022-8 | Lab Sample ID: 280-159384-1

Matrix: Water | Lab File ID: 03150014.D

Analysis Method: 8330A | Date Collected: 03/02/2022 13:30

Extraction Method: 3535 | Date Extracted: 03/08/2022 11:19

Sample wt/vol: 469.6(mL) | Date Analyzed: 03/15/2022 21:38

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

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

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

Analysis Batch No.: 568709 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
35572-78-2	*2-Amino-4,6-dinitrotoluene*	*0.19*	*J1*	*0.12*	0.11	*0.054*
99-99-0	4-Nitrotoluene	0.43	U	0.44	0.43	0.11

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	98		83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220315-109260.b\03150014.D
Lims ID: 280-159384-B-1-A
Client ID: G0022-8
Sample Type: Client
Inject. Date: 15-Mar-2022 21:38:16 ALS Bottle#: 14 Worklist Smp#: 14
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-159384-B-1-A
Misc. Info.: 280-0109260-014
Operator ID: JZ Instrument ID: CHHPLC_X5

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20220315-109260.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 16-Mar-2022 12:38:41 Calib Date: 03-Mar-2022 07:19:48
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1609

First Level Reviewer: zhangji Date: 16-Mar-2022 12:22:21

	Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
	5 HMX	1	6.821	6.854	-0.033	2666	0.0160	M
	6 MNX	1		7.581			ND	
	8 RDX	1	9.001	9.054	-0.053	549	0.002825	7M
	9 Nitrobenzene	1		11.960			ND	
$	10 1,2-Dinitrobenzene	1	13.120	13.160	-0.040	48933	0.1959	
	12 1,3-Dinitrobenzene	1		15.514			ND	
	14 o-Nitrotoluene	1		16.640			ND	7
	16 p-Nitrotoluene	1		16.954			ND	
	17 4-Amino-2,6-dinitrotoluene	1	17.534	17.574	-0.040	11047	0.0416	
	18 m-Nitrotoluene	1		17.914			ND	
	19 2-Amino-4,6-dinitrotoluene	1	18.540	18.580	-0.040	6531	0.0181	
	20 1,3,5-Trinitrobenzene	1		18.794			ND	
	21 2,6-Dinitrotoluene	1		20.054			ND	
	22 2,4-Dinitrotoluene	1		20.574			ND	
	23 Tetryl	1		24.307			ND	
	24 2,4,6-Trinitrotoluene	1	25.027	25.074	-0.047	2172	0.005883	

QC Flag Legend

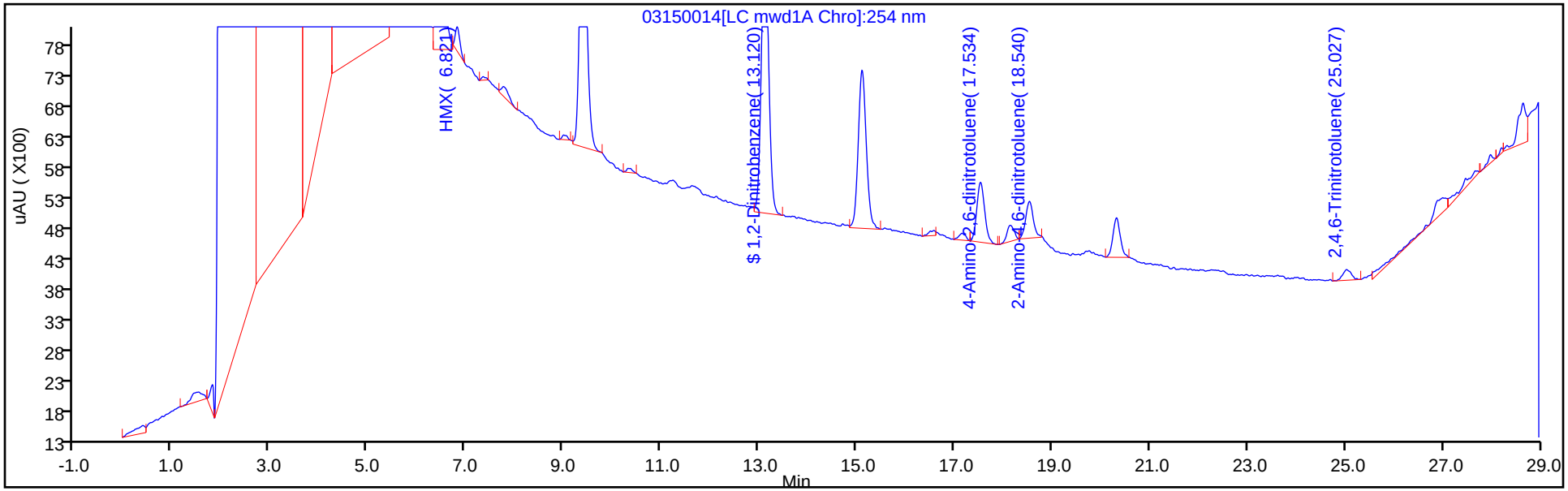
Processing Flags
7 - Failed Limit of Detection
Review Flags
M - Manually Integrated

Report Date: 16-Mar-2022 12:38:45 Chrom Revision: 2.3 14-Mar-2022 17:58:38

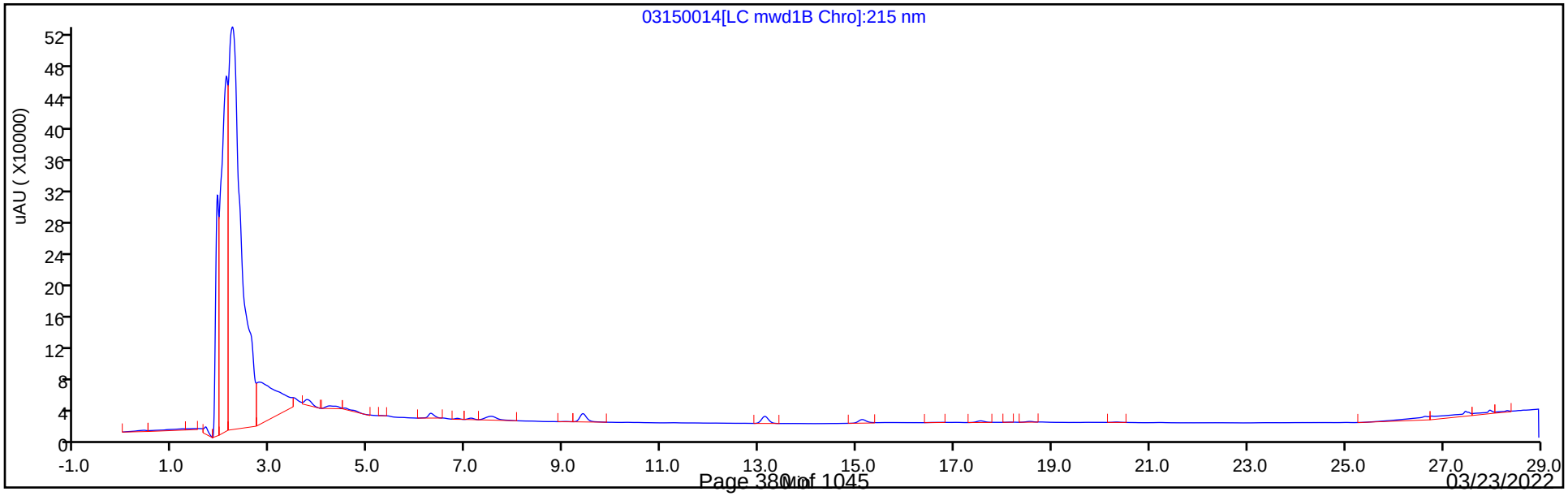
Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220315-109260.b\03150014.D				
Injection Date:	15-Mar-2022 21:38:16	Instrument ID:	CHHPLC_X5	Operator ID:	JZ
Lims ID:	280-159384-B-1-A	Lab Sample ID:	280-159384-1	Worklist Smp#:	14
Client ID:	G0022-8				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	14
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220315-109260.b\03150014.D				
Lims ID:	280-159384-B-1-A				
Client ID:	G0022-8				
Sample Type:	Client				
Inject. Date:	15-Mar-2022 21:38:16	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-159384-B-1-A				
Misc. Info.:	280-0109260-014				
Operator ID:	JZ	Instrument ID:	CHHPLC_X5		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220315-109260.b\8330_X5_Luna.m				
Limit Group:	GCSV - 8330				
Last Update:	16-Mar-2022 12:38:41	Calib Date:	03-Mar-2022 07:19:48		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020027.D				
Column 1 :	Luna-Phenyl hexyl (4.60 mm)		Det: LC mwd1A, 254 nm		
Process Host:	CTX1609				
First Level Reviewer: zhangji		Date:	16-Mar-2022 12:22:21		

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.1959	97.96

Manual Integration/User Assign Peak Report

Eurofins Denver

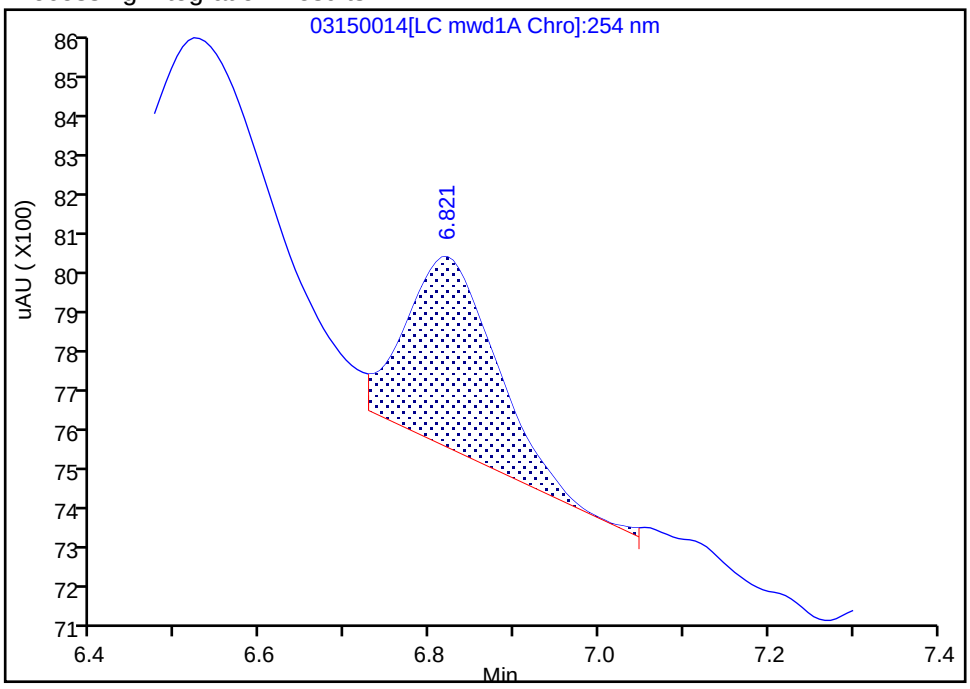
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220315-109260.b\03150014.D				
Injection Date:	15-Mar-2022 21:38:16	Instrument ID:	CHHPLC_X5		
Lims ID:	280-159384-B-1-A	Lab Sample ID:	280-159384-1		
Client ID:	G0022-8				
Operator ID:	JZ	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

5 HMX, CAS: 2691-41-0

Signal: 1

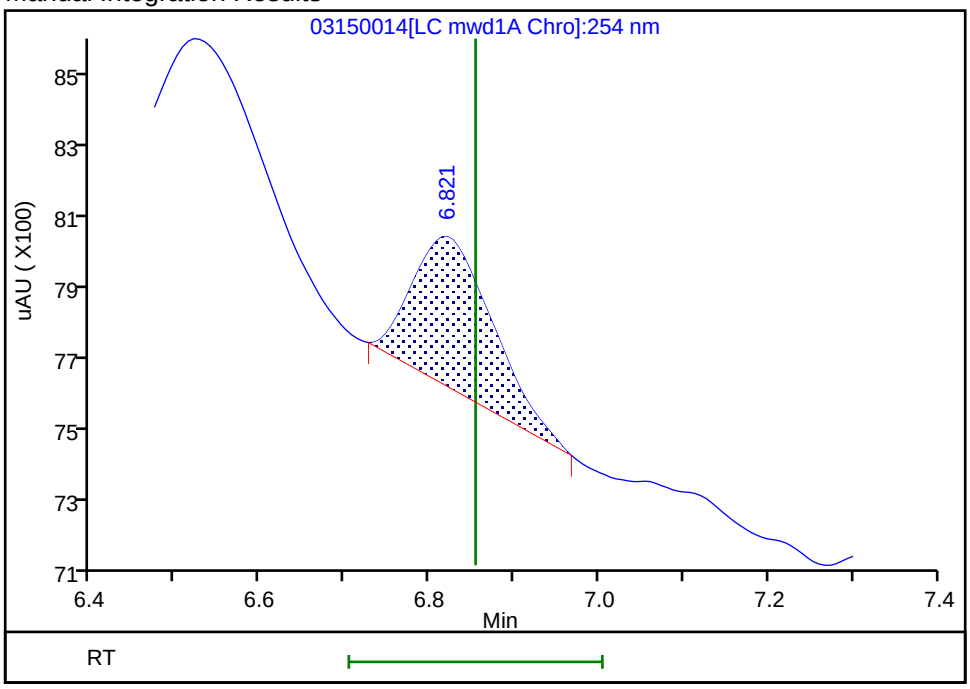
Processing Integration Results

RT: 6.82
Area: 3444
Amount: 0.020730
Amount Units: ug/ml



Manual Integration Results

RT: 6.82
Area: 2666
Amount: 0.016047
Amount Units: ug/ml



Reviewer: zhangji, 16-Mar-2022 12:22:03

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

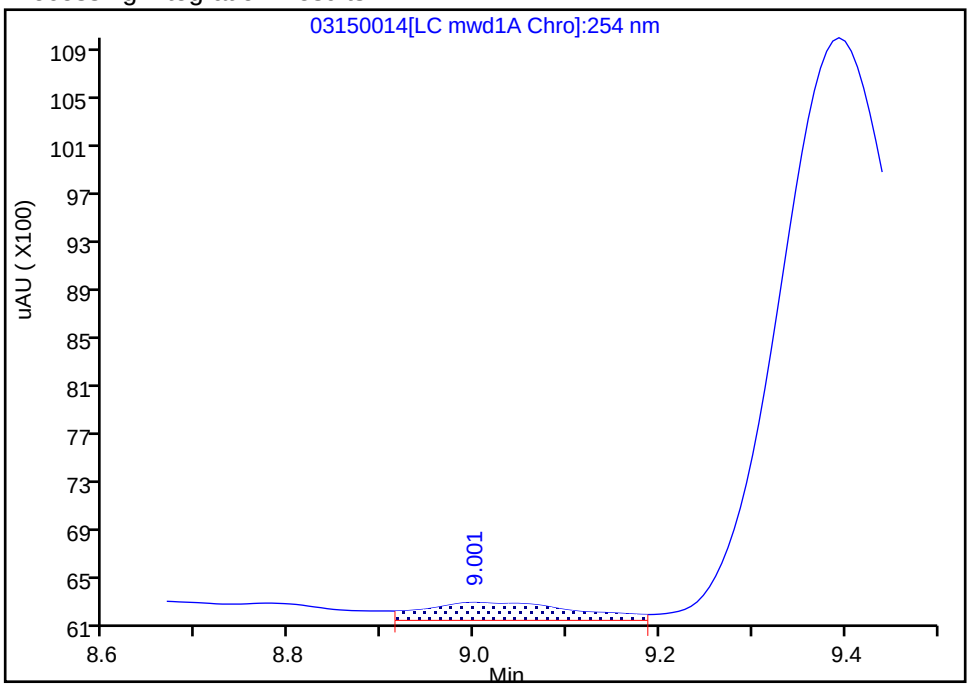
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220315-109260.b\03150014.D				
Injection Date:	15-Mar-2022 21:38:16	Instrument ID:	CHHPLC_X5		
Lims ID:	280-159384-B-1-A	Lab Sample ID:	280-159384-1		
Client ID:	G0022-8				
Operator ID:	JZ	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

8 RDX, CAS: 121-82-4

Signal: 1

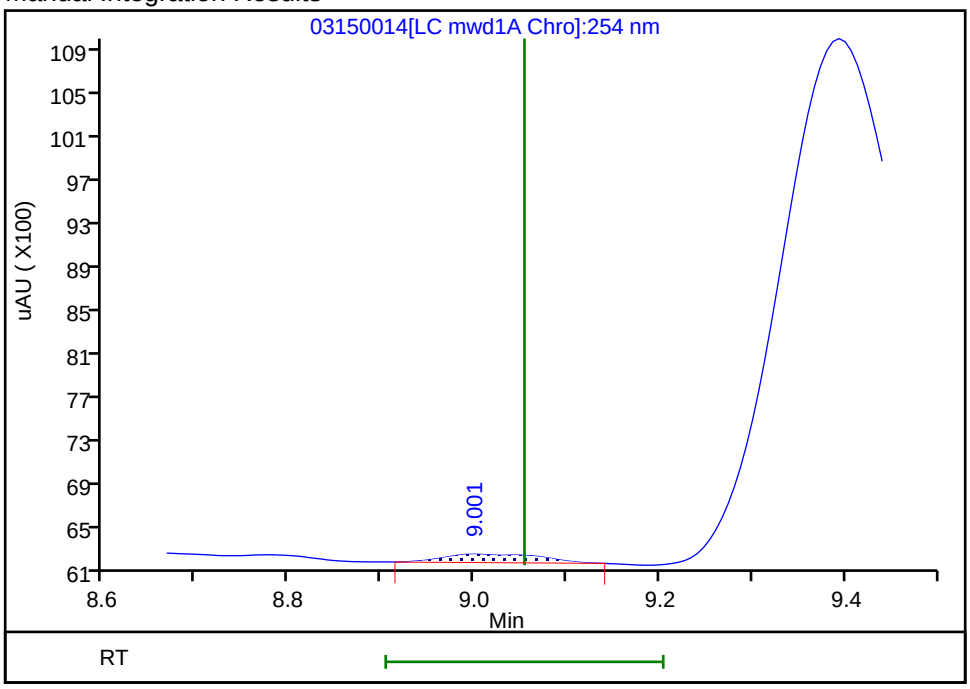
Processing Integration Results

RT: 9.00
Area: 1671
Amount: 0.008599
Amount Units: ug/ml



Manual Integration Results

RT: 9.00
Area: 549
Amount: 0.002825
Amount Units: ug/ml



Reviewer: zhangji, 16-Mar-2022 12:22:09

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-159384-1

SDG No.:

Client Sample ID: G0102-8 | Lab Sample ID: 280-159384-2

Matrix: Water | Lab File ID: 03110033.D

Analysis Method: 8330A | Date Collected: 03/02/2022 15:10

Extraction Method: 3535 | Date Extracted: 03/08/2022 11:19

Sample wt/vol: 487.7(mL) | Date Analyzed: 03/11/2022 23:35

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

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

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

Analysis Batch No.: 568433 | 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	0.086
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	0.082	U	0.10	0.082	0.028
606-20-2	2,6-Dinitrotoluene	0.082	U	0.10	0.082	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 M	0.22	0.21	0.088
99-08-1	3-Nitrotoluene	0.41	U	0.41	0.41	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 M	0.42	0.41	0.10
2691-41-0	HMX	0.21	U	0.22	0.21	0.090
5755-27-1	MNX	0.41	U M	2.1	0.41	0.16
98-95-3	Nitrobenzene	0.21	U	0.22	0.21	0.093
121-82-4	RDX	0.21	U M	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	104	M	83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20220311-109174.b\03110033.D
Lims ID: 280-159384-A-2-A
Client ID: G0102-8
Sample Type: Client
Inject. Date: 11-Mar-2022 23:35:02 ALS Bottle#: 33 Worklist Smp#: 33
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-159384-A-2-A
Misc. Info.: 280-0109174-033
Operator ID: JZ Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20220311-109174.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 12-Mar-2022 10:32:02 Calib Date: 05-Jan-2022 04:24:15
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040037.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1616

First Level Reviewer: zhangji Date: 12-Mar-2022 09:38:58

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/mL	Flags
4 HMX	1		6.595			ND	
7 MNX	1		7.211			ND	U
8 RDX	1		7.582			ND	U
$ 10 1,2-Dinitrobenzene	1	8.527	8.529	-0.002	25971	0.2083	M
11 1,3,5-Trinitrobenzene	1		8.655			ND	
12 1,3-Dinitrobenzene	1		9.282			ND	U
13 Nitrobenzene	1		9.668			ND	
15 Tetryl	1		9.982			ND	
17 2,4,6-Trinitrotoluene	1		10.888			ND	
18 4-Amino-2,6-dinitrotoluene	1		11.068			ND	
19 2-Amino-4,6-dinitrotoluene	1		11.322			ND	
20 2,6-Dinitrotoluene	1		11.495			ND	
21 2,4-Dinitrotoluene	1		11.662			ND	
22 o-Nitrotoluene	1		12.508			ND	U
23 p-Nitrotoluene	1		12.935			ND	U
24 m-Nitrotoluene	1		13.502			ND	7

QC Flag Legend

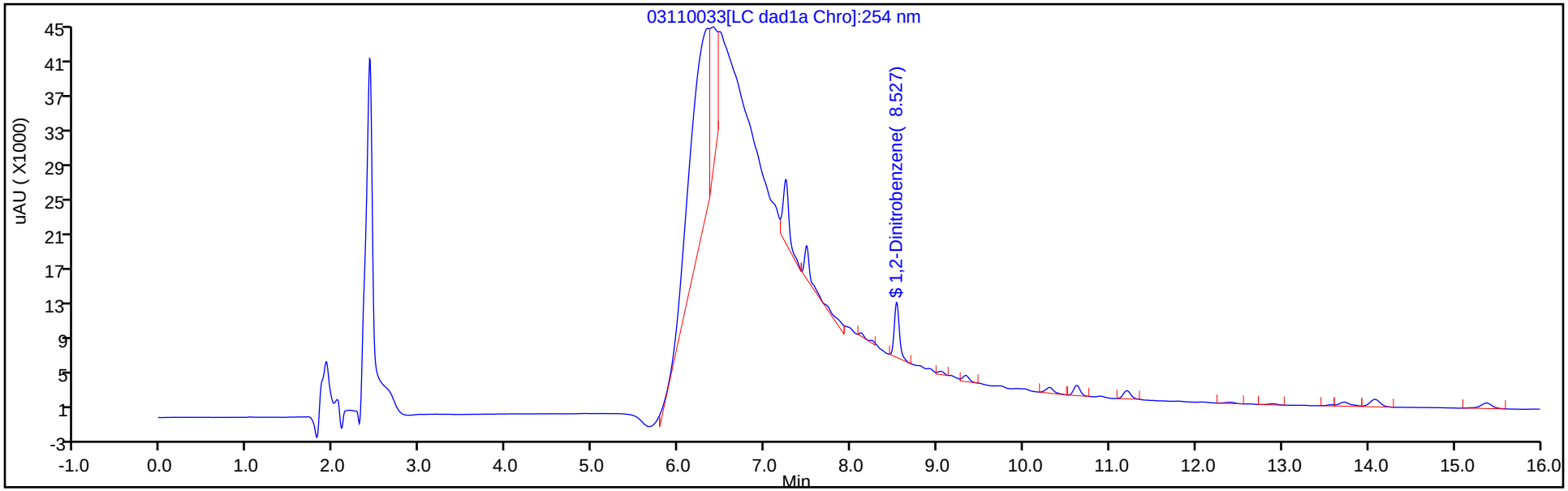
Processing Flags
7 - Failed Limit of Detection
Review Flags
M - Manually Integrated
U - Marked Undetected

Report Date: 12-Mar-2022 10:32:05 Chrom Revision: 2.3 16-Feb-2022 17:52:00

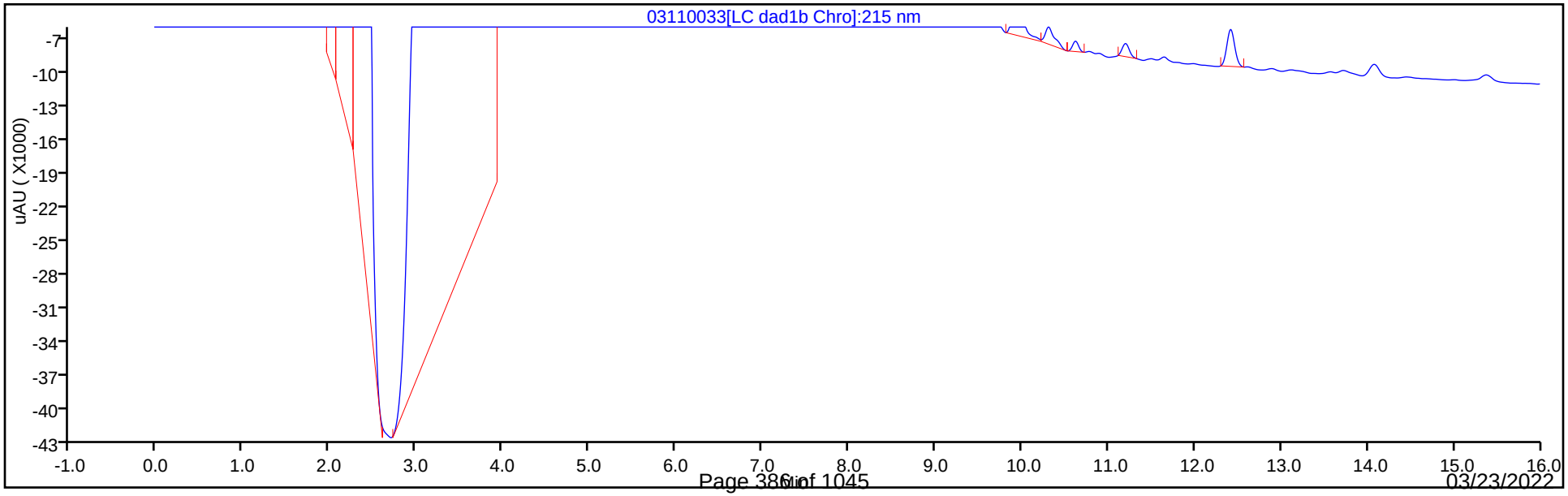
Eurofins Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20220311-109174.b\03110033.d				
Injection Date:	11-Mar-2022 23:35:02	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	280-159384-A-2-A	Lab Sample ID:	280-159384-2	Worklist Smp#:	33
Client ID:	G0102-8				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	33
Method:	8330_X3	Limit Group:	GCSV - 8330		

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



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



Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20220311-109174.b\03110033.D				
Lims ID:	280-159384-A-2-A				
Client ID:	G0102-8				
Sample Type:	Client				
Inject. Date:	11-Mar-2022 23:35:02	ALS Bottle#:	33	Worklist Smp#:	33
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-159384-A-2-A				
Misc. Info.:	280-0109174-033				
Operator ID:	JZ	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20220311-109174.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	12-Mar-2022 10:32:02	Calib Date:	05-Jan-2022 04:24:15		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040037.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1616				

First Level Reviewer: zhangji Date: 12-Mar-2022 09:38:58

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.2083	104.14

Manual Integration/User Assign Peak Report

Eurofins Denver

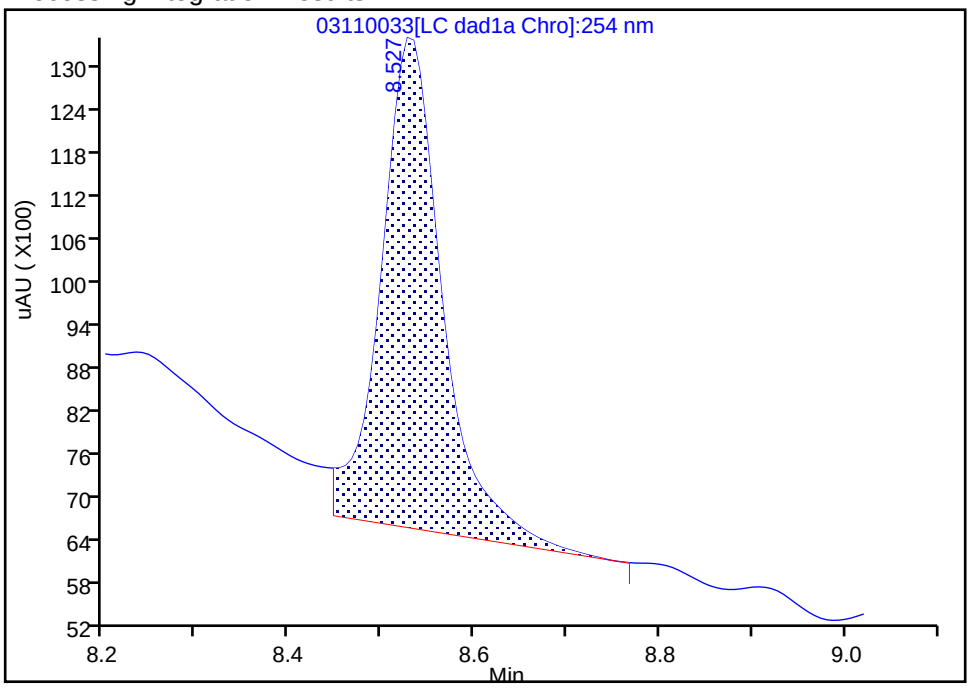
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Injection Date:	11-Mar-2022 23:35:02	Instrument ID:	CHHPLC_X3		
Lims ID:	280-159384-A-2-A	Lab Sample ID:	280-159384-2		
Client ID:	G0102-8				
Operator ID:	JZ	ALS Bottle#:	33	Worklist Smp#:	33
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

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

Signal: 1

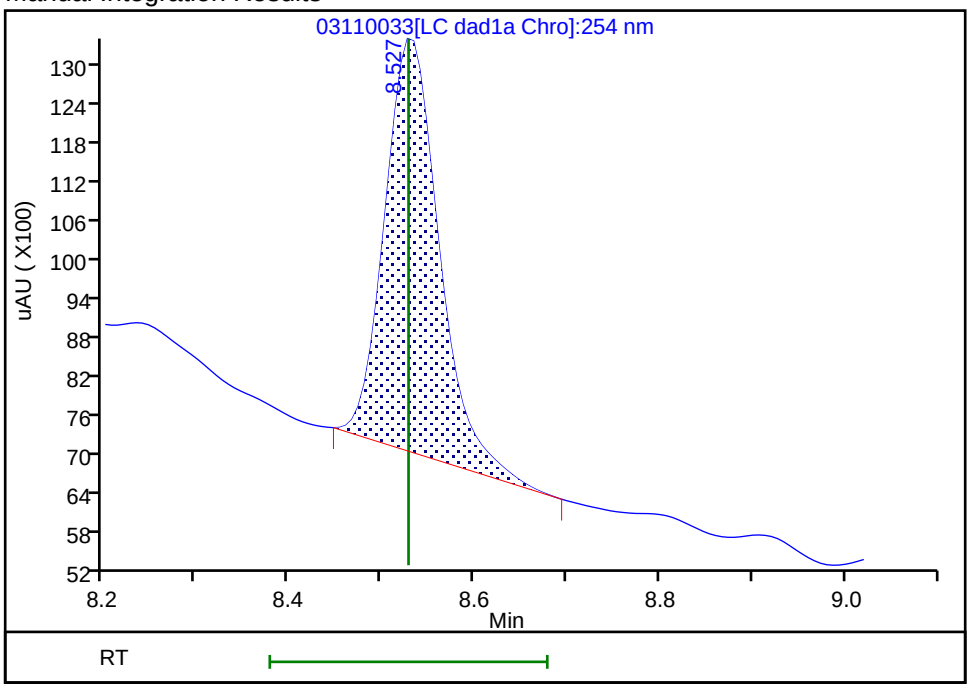
Processing Integration Results

RT: 8.53
Area: 31435
Amount: 0.252090
Amount Units: ug/mL



Manual Integration Results

RT: 8.53
Area: 25971
Amount: 0.208272
Amount Units: ug/mL



Reviewer: zhangji, 12-Mar-2022 09:38:52

Audit Action: Manually Integrated Audit Reason: Baseline

User Disabled Compound Report

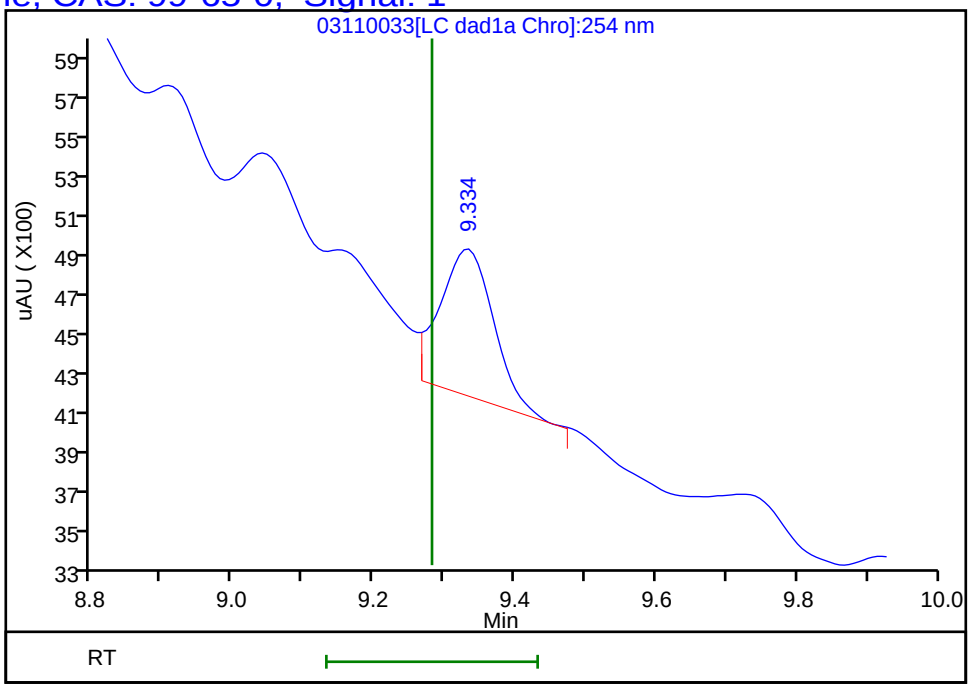
Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20220311-109174.b\03110033.d
Injection Date: 11-Mar-2022 23:35:02 Instrument ID: CHHPLC_X3
Lims ID: 280-159384-A-2-A Lab Sample ID: 280-159384-2
Client ID: G0102-8
Operator ID: JZ ALS Bottle#: 33 Worklist Smp#: 33
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330

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

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

RT: 9.33
Response: 3748
Amount: 0.012996



Reviewer: zhangji, 12-Mar-2022 09:38:58
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

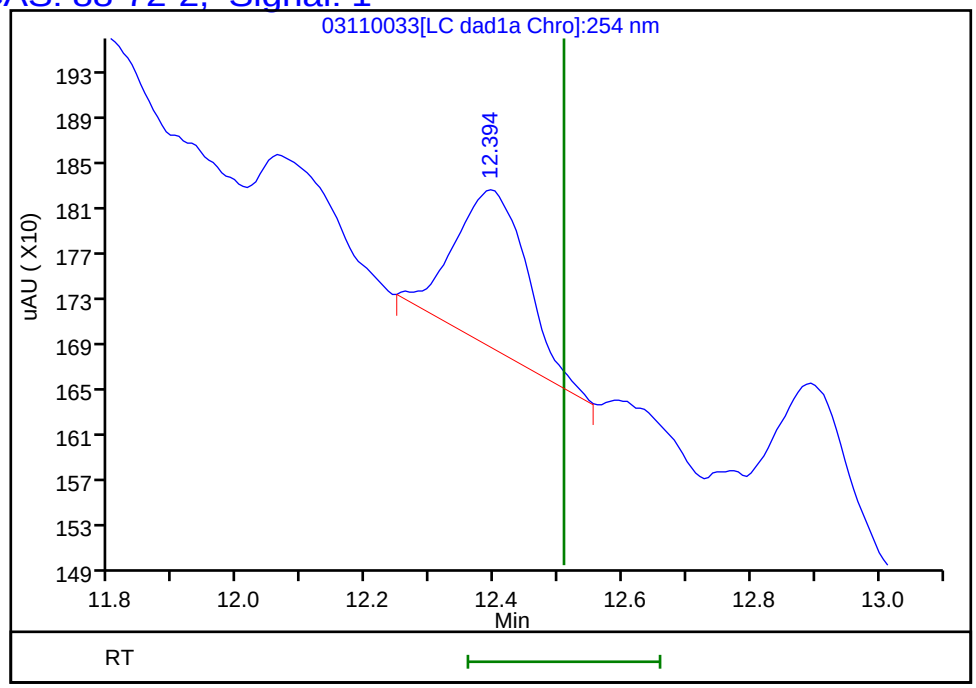
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20220311-109174.b\03110033.d				
Injection Date:	11-Mar-2022 23:35:02	Instrument ID:	CHHPLC_X3		
Lims ID:	280-159384-A-2-A	Lab Sample ID:	280-159384-2		
Client ID:	G0102-8				
Operator ID:	JZ	ALS Bottle#:	33	Worklist Smp#:	33
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

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

RT: 12.39
Response: 1093
Amount: 0.008565



Reviewer: zhangji, 12-Mar-2022 09:38:58
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

User Disabled Compound Report

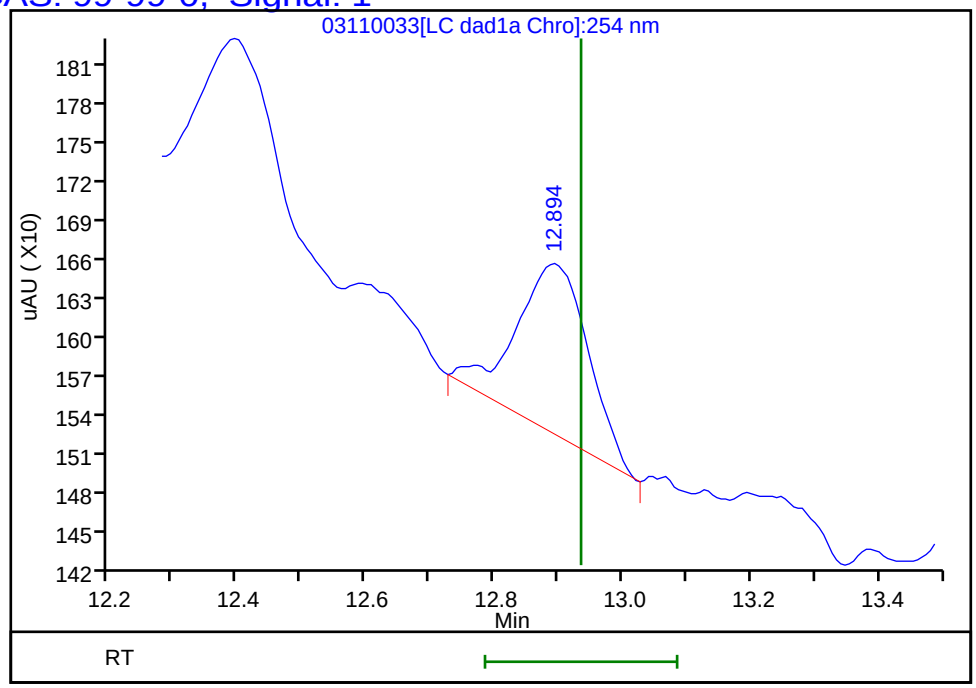
Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20220311-109174.b\03110033.d
Injection Date: 11-Mar-2022 23:35:02 Instrument ID: CHHPLC_X3
Lims ID: 280-159384-A-2-A Lab Sample ID: 280-159384-2
Client ID: G0102-8
Operator ID: JZ ALS Bottle#: 33 Worklist Smp#: 33
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330

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

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

RT: 12.89
Response: 1000
Amount: 0.009413



Reviewer: zhangji, 12-Mar-2022 09:38:58
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

User Disabled Compound Report

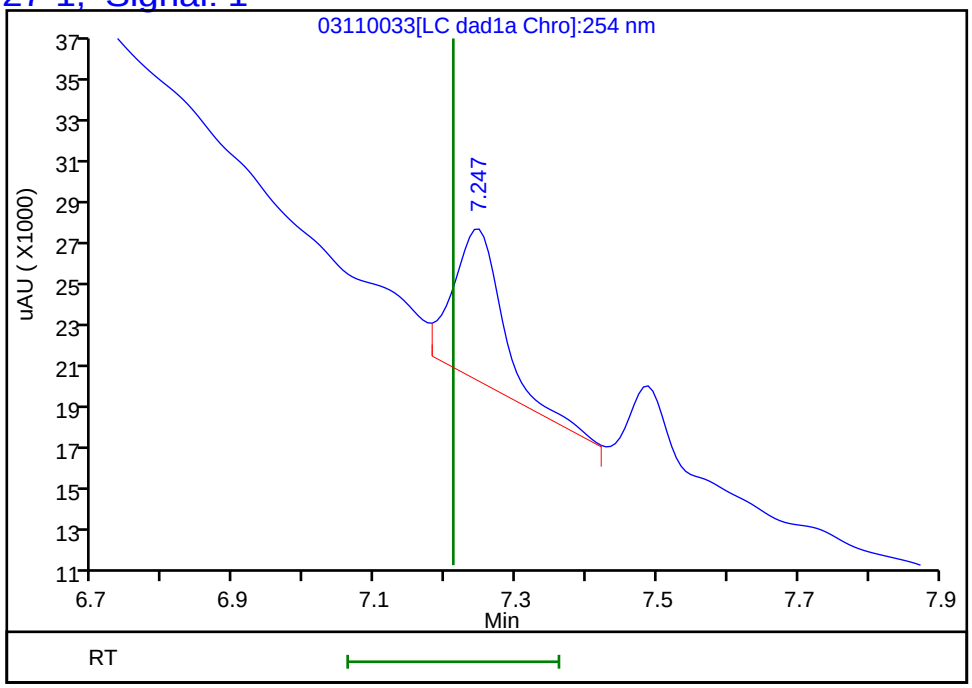
Eurofins Denver

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Injection Date: 11-Mar-2022 23:35:02 Instrument ID: CHHPLC_X3
Lims ID: 280-159384-A-2-A Lab Sample ID: 280-159384-2
Client ID: G0102-8
Operator ID: JZ ALS Bottle#: 33 Worklist Smp#: 33
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330

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

7 MNX, CAS: 5755-27-1, Signal: 1

RT: 7.25
Response: 35650
Amount: 0.282947



Reviewer: zhangji, 12-Mar-2022 09:38:58
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

User Disabled Compound Report

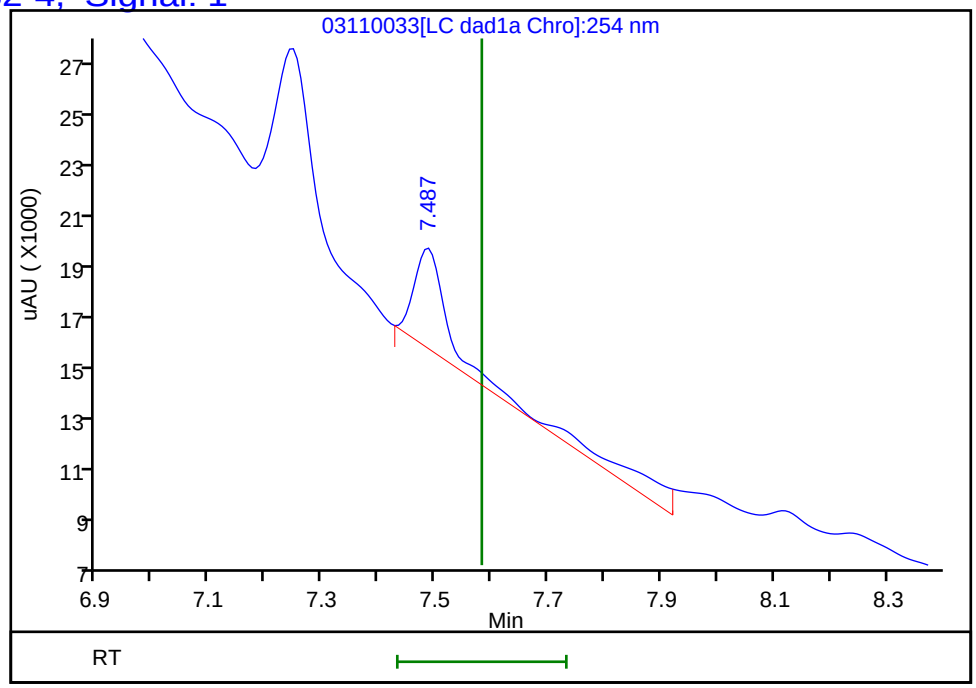
Eurofins Denver

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Injection Date: 11-Mar-2022 23:35:02 Instrument ID: CHHPLC_X3
Lims ID: 280-159384-A-2-A Lab Sample ID: 280-159384-2
Client ID: G0102-8
Operator ID: JZ ALS Bottle#: 33 Worklist Smp#: 33
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330

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

8 RDX, CAS: 121-82-4, Signal: 1

RT: 7.49
Response: 22879
Amount: 0.220820



Reviewer: zhangji, 12-Mar-2022 09:38:58
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-159384-1

SDG No.:

Client Sample ID: WATER-WC-Q8-MAR22 | Lab Sample ID: 280-159384-3

Matrix: Water | Lab File ID: 03110034.D

Analysis Method: 8330A | Date Collected: 03/02/2022 17:45

Extraction Method: 3535 | Date Extracted: 03/08/2022 11:19

Sample wt/vol: 475.9(mL) | Date Analyzed: 03/11/2022 23:57

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

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

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

Analysis Batch No.: 568433 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	0.21	U Q	0.22	0.21	0.088
99-65-0	1,3-Dinitrobenzene	0.11	U M Q	0.12	0.11	0.039
118-96-7	2,4,6-Trinitrotoluene	0.11	U Q	0.12	0.11	0.047
121-14-2	2,4-Dinitrotoluene	0.084	U M Q	0.11	0.084	0.029
606-20-2	2,6-Dinitrotoluene	0.084	U Q	0.11	0.084	0.042
35572-78-2	2-Amino-4,6-dinitrotoluene	2.3	Q J1	0.12	0.11	0.053
88-72-2	2-Nitrotoluene	0.21	U Q	0.22	0.21	0.090
99-08-1	3-Nitrotoluene	0.42	U M Q	0.42	0.42	0.20
19406-51-0	4-Amino-2,6-dinitrotoluene	1.4	Q	0.16	0.13	0.061
99-99-0	4-Nitrotoluene	0.42	U M Q	0.43	0.42	0.11
2691-41-0	HMX	0.21	U Q	0.22	0.21	0.092
5755-27-1	MNX	7.4	M J1	2.1	0.42	0.16
98-95-3	Nitrobenzene	0.21	U M Q	0.22	0.21	0.096
121-82-4	RDX	0.58	M Q J1	0.22	0.21	0.054
479-45-8	Tetryl	0.11	U M Q	0.12	0.11	0.033

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	126	M Q	83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20220311-109174.b\03110034.D
Lims ID: 280-159384-B-3-A
Client ID: WATER-WC-Q8-MAR22
Sample Type: Client
Inject. Date: 11-Mar-2022 23:57:55 ALS Bottle#: 34 Worklist Smp#: 34
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-159384-B-3-A
Misc. Info.: 280-0109174-034
Operator ID: JZ Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20220311-109174.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 12-Mar-2022 10:32:02 Calib Date: 05-Jan-2022 04:24:15
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040037.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1616

First Level Reviewer: zhangji Date: 12-Mar-2022 09:39:34

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/mL	Flags
4 HMX	1		6.595			ND	
7 MNX	1	7.245	7.211	0.034	89015	0.7065	M
8 RDX	1	7.565	7.582	-0.017	5749	0.0555	M
$ 10 1,2-Dinitrobenzene	1	8.532	8.529	0.003	31455	0.2523	M
11 1,3,5-Trinitrobenzene	1		8.655			ND	
12 1,3-Dinitrobenzene	1		9.282			ND	U
13 Nitrobenzene	1		9.668			ND	U
15 Tetryl	1		9.982			ND	U
17 2,4,6-Trinitrotoluene	1		10.888			ND	
18 4-Amino-2,6-dinitrotoluene	1	11.072	11.068	0.004	20563	0.1362	
19 2-Amino-4,6-dinitrotoluene	1	11.332	11.322	0.010	45116	0.2232	
20 2,6-Dinitrotoluene	1		11.495			ND	
21 2,4-Dinitrotoluene	1		11.662			ND	U
22 o-Nitrotoluene	1		12.508			ND	
23 p-Nitrotoluene	1		12.935			ND	U
24 m-Nitrotoluene	1		13.502			ND	U

QC Flag Legend

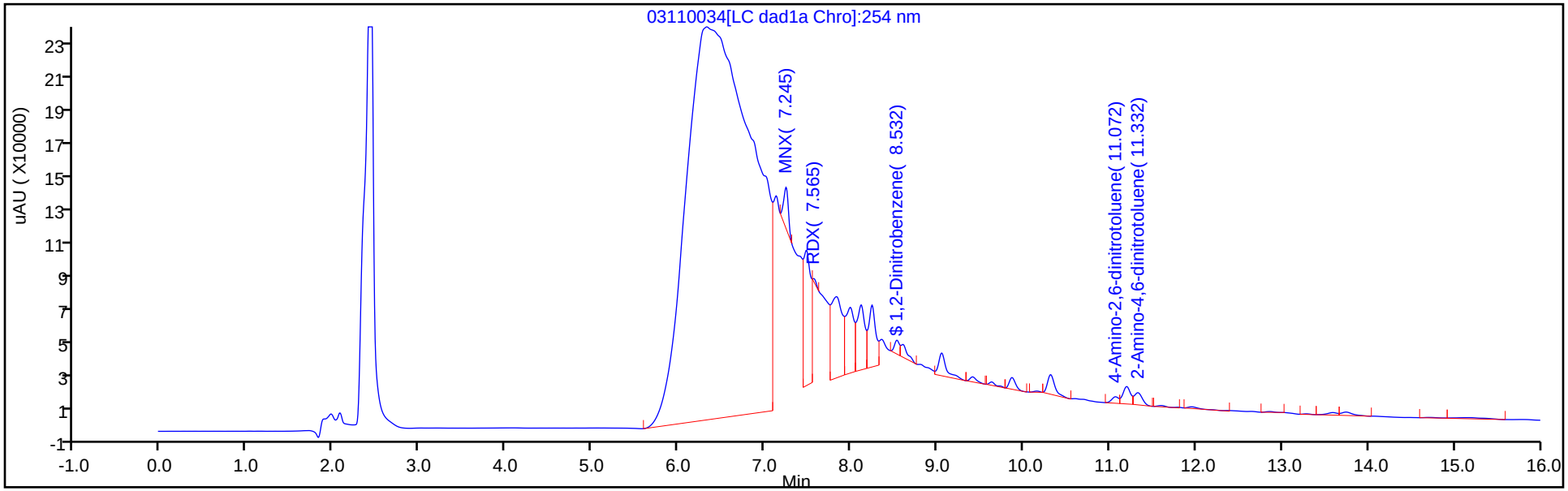
Processing Flags
Review Flags
M - Manually Integrated
U - Marked Undetected

Report Date: 12-Mar-2022 10:32:04 Chrom Revision: 2.3 16-Feb-2022 17:52:00

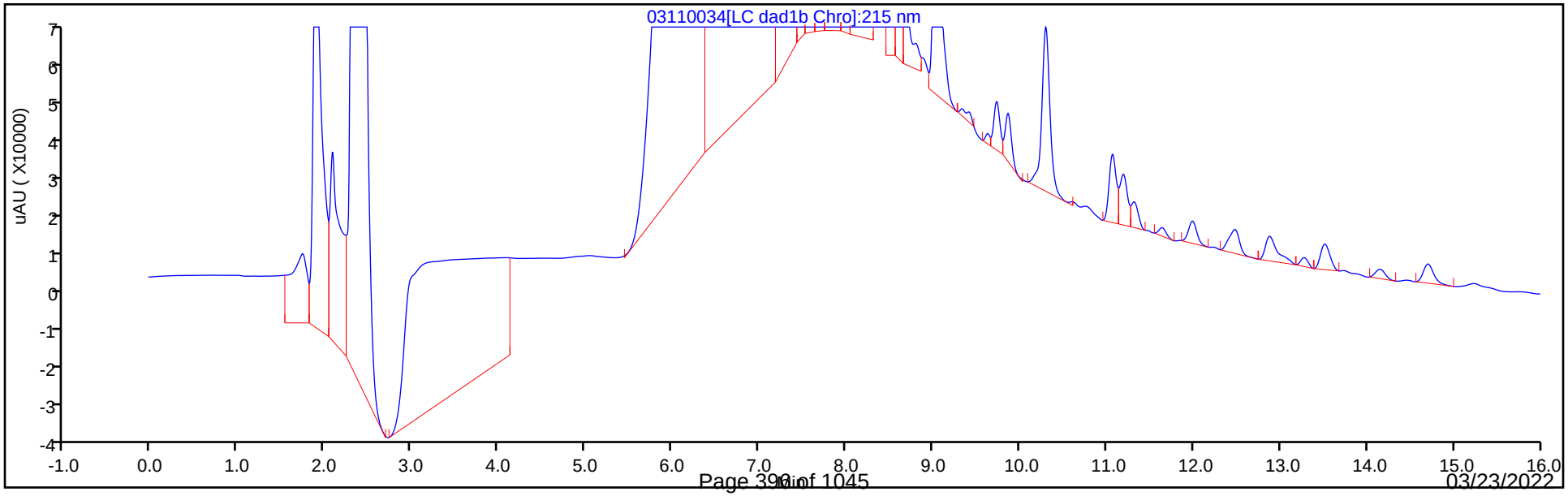
Eurofins Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20220311-109174.b\03110034.d				
Injection Date:	11-Mar-2022 23:57:55	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	280-159384-B-3-A	Lab Sample ID:	280-159384-3	Worklist Smp#:	34
Client ID:	WATER-WC-Q8-MAR22				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	34
Method:	8330_X3	Limit Group:	GCSV - 8330		

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



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



Eurofins Denver
Recovery Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20220311-109174.b\03110034.D
Lims ID: 280-159384-B-3-A
Client ID: WATER-WC-Q8-MAR22
Sample Type: Client
Inject. Date: 11-Mar-2022 23:57:55 ALS Bottle#: 34 Worklist Smp#: 34
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-159384-B-3-A
Misc. Info.: 280-0109174-034
Operator ID: JZ Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20220311-109174.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 12-Mar-2022 10:32:02 Calib Date: 05-Jan-2022 04:24:15
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040037.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1616

First Level Reviewer: zhangji Date: 12-Mar-2022 09:39:34

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.2523	126.13

Manual Integration/User Assign Peak Report

Eurofins Denver

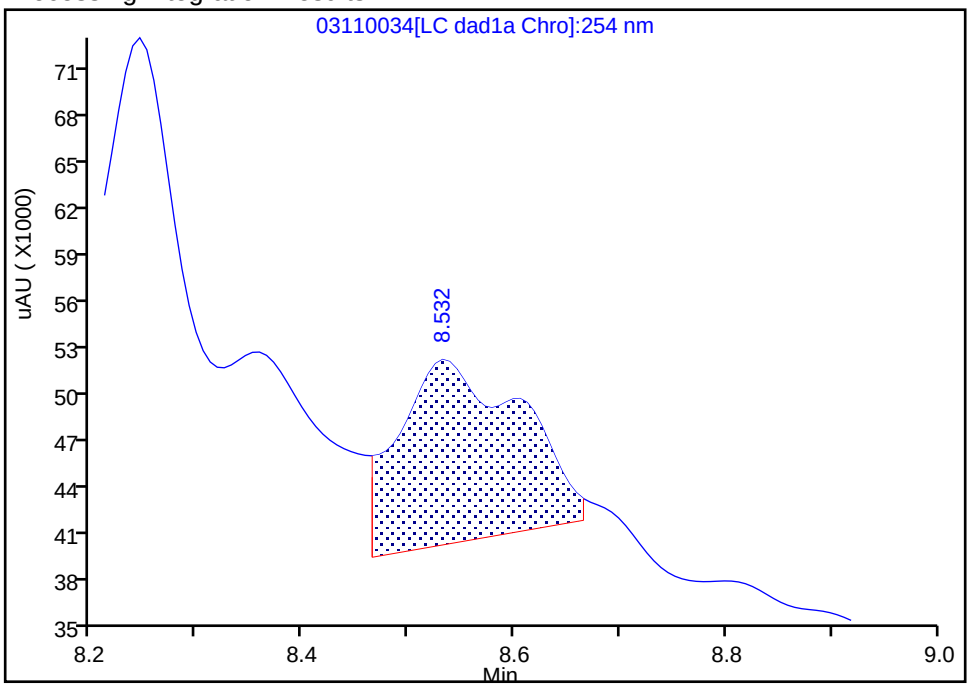
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Injection Date:	11-Mar-2022 23:57:55	Instrument ID:	CHHPLC_X3		
Lims ID:	280-159384-B-3-A	Lab Sample ID:	280-159384-3		
Client ID:	WATER-WC-Q8-MAR22				
Operator ID:	JZ	ALS Bottle#:	34	Worklist Smp#:	34
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

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

Signal: 1

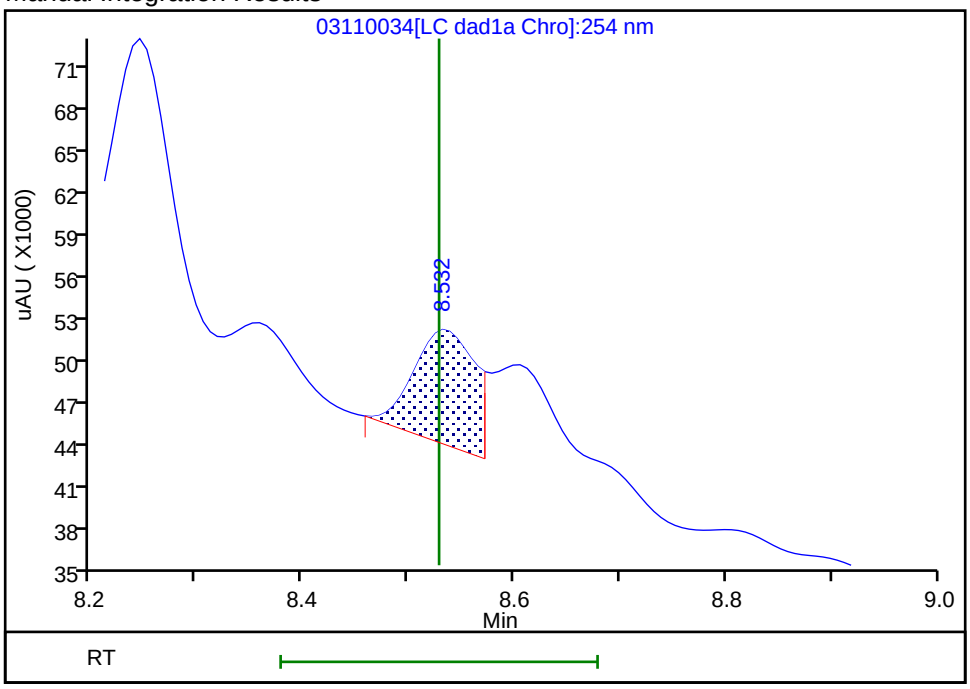
Processing Integration Results

RT: 8.53
Area: 91904
Amount: 0.737015
Amount Units: ug/mL



Manual Integration Results

RT: 8.53
Area: 31455
Amount: 0.252250
Amount Units: ug/mL



Reviewer: zhangji, 12-Mar-2022 09:39:21

Audit Action: Split an Integrated Peak Audit Reason: Baseline

User Disabled Compound Report

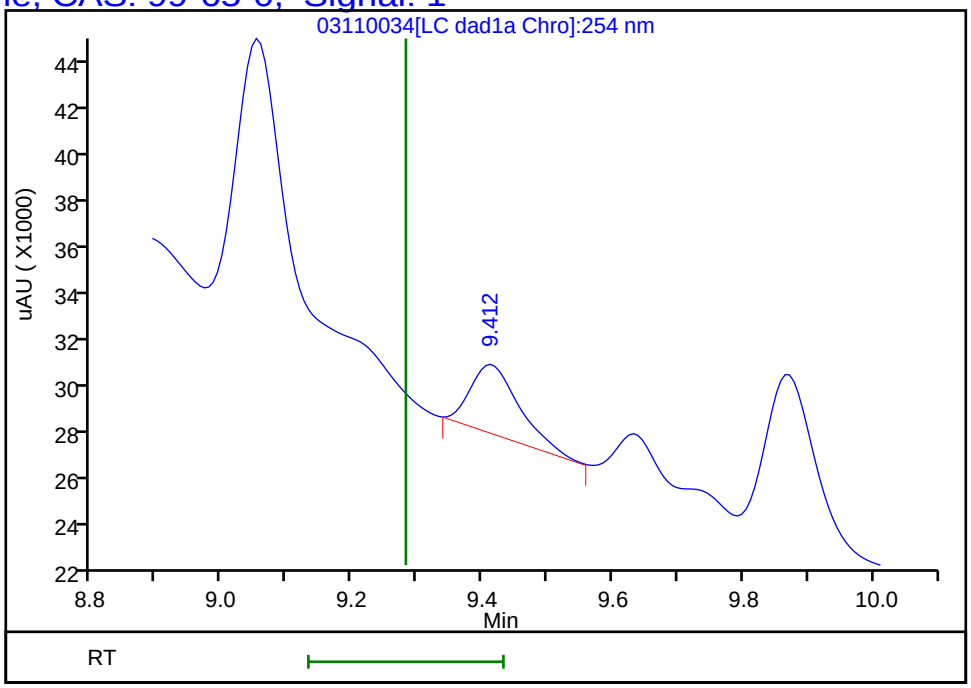
Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20220311-109174.b\03110034.d
Injection Date: 11-Mar-2022 23:57:55 Instrument ID: CHHPLC_X3
Lims ID: 280-159384-B-3-A Lab Sample ID: 280-159384-3
Client ID: WATER-WC-Q8-MAR22
Operator ID: JZ ALS Bottle#: 34 Worklist Smp#: 34
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330

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

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

RT: 9.41
Response: 15168
Amount: 0.052593



Reviewer: zhangji, 12-Mar-2022 09:39:34
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

User Disabled Compound Report

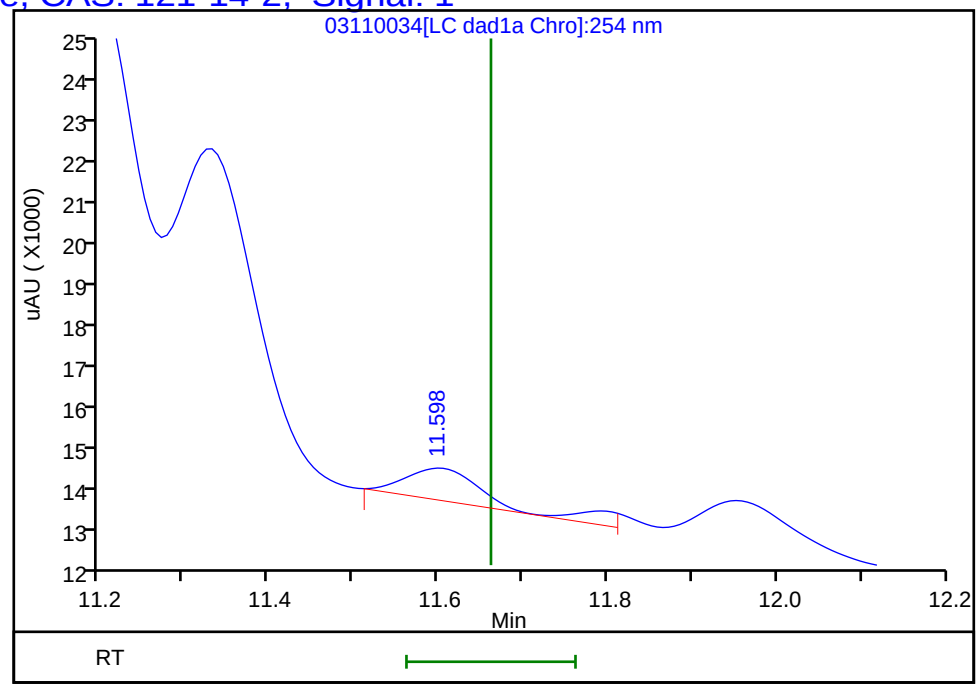
Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20220311-109174.b\03110034.d
Injection Date: 11-Mar-2022 23:57:55 Instrument ID: CHHPLC_X3
Lims ID: 280-159384-B-3-A Lab Sample ID: 280-159384-3
Client ID: WATER-WC-Q8-MAR22
Operator ID: JZ ALS Bottle#: 34 Worklist Smp#: 34
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330

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

21 2,4-Dinitrotoluene, CAS: 121-14-2, Signal: 1

RT: 11.60
Response: 5307
Amount: 0.018341



Reviewer: zhangji, 12-Mar-2022 09:39:34
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

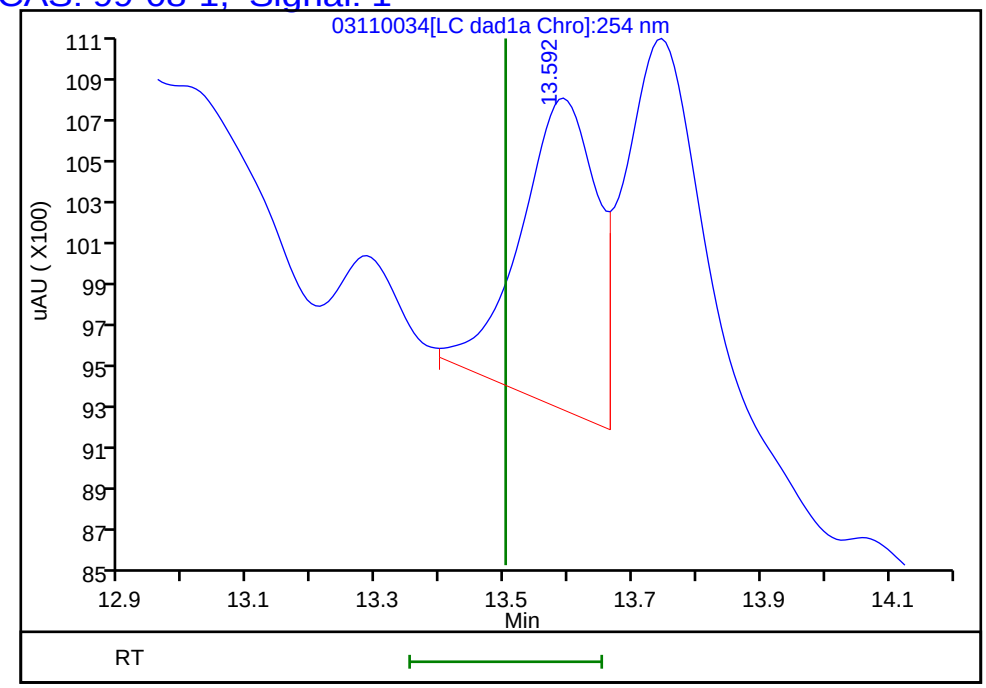
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20220311-109174.b\03110034.d				
Injection Date:	11-Mar-2022 23:57:55	Instrument ID:	CHHPLC_X3		
Lims ID:	280-159384-B-3-A	Lab Sample ID:	280-159384-3		
Client ID:	WATER-WC-Q8-MAR22				
Operator ID:	JZ	ALS Bottle#:	34	Worklist Smp#:	34
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

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

RT: 13.59
Response: 12011
Amount: 0.084422



Reviewer: zhangji, 12-Mar-2022 09:39:34
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

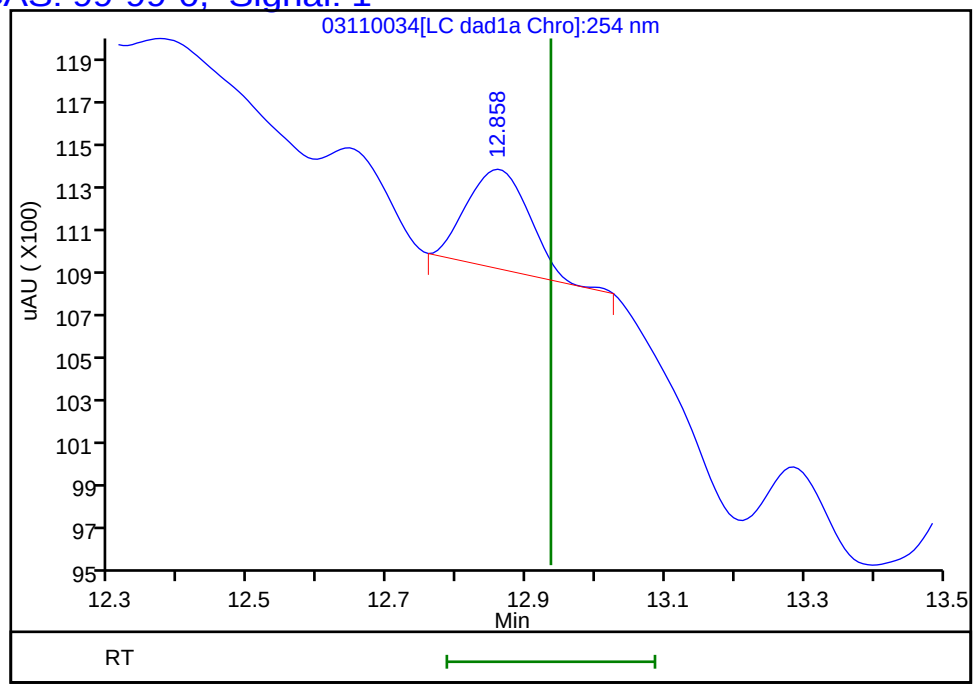
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20220311-109174.b\03110034.d				
Injection Date:	11-Mar-2022 23:57:55	Instrument ID:	CHHPLC_X3		
Lims ID:	280-159384-B-3-A	Lab Sample ID:	280-159384-3		
Client ID:	WATER-WC-Q8-MAR22				
Operator ID:	JZ	ALS Bottle#:	34	Worklist Smp#:	34
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

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

RT: 12.86
Response: 2747
Amount: 0.025858



Reviewer: zhangji, 12-Mar-2022 09:39:34
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Manual Integration/User Assign Peak Report

Eurofins Denver

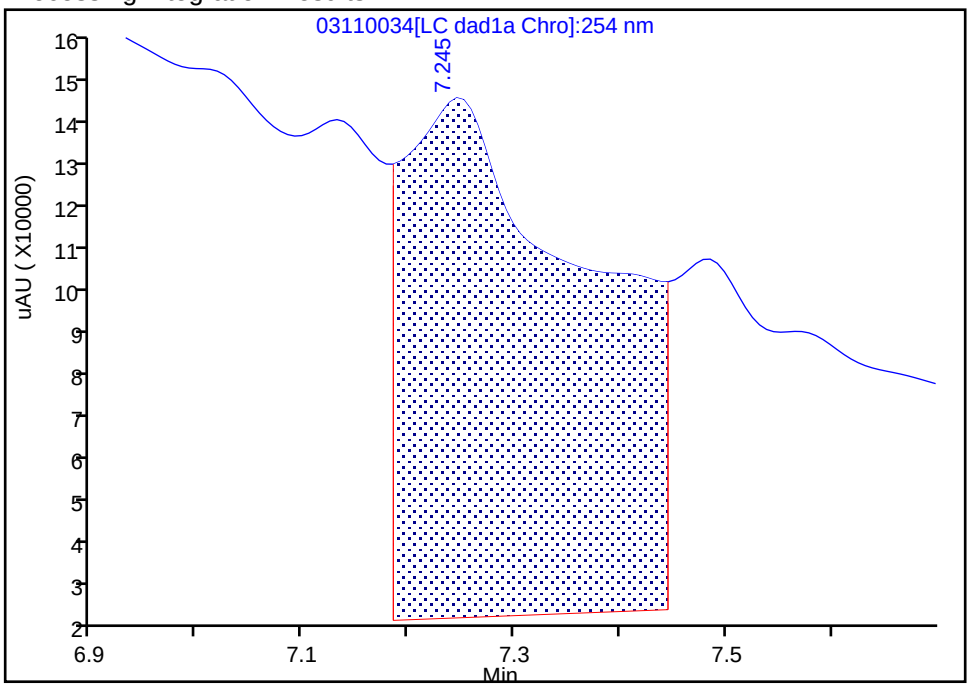
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Injection Date:	11-Mar-2022 23:57:55	Instrument ID:	CHHPLC_X3		
Lims ID:	280-159384-B-3-A	Lab Sample ID:	280-159384-3		
Client ID:	WATER-WC-Q8-MAR22				
Operator ID:	JZ	ALS Bottle#:	34	Worklist Smp#:	34
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

7 MNX, CAS: 5755-27-1

Signal: 1

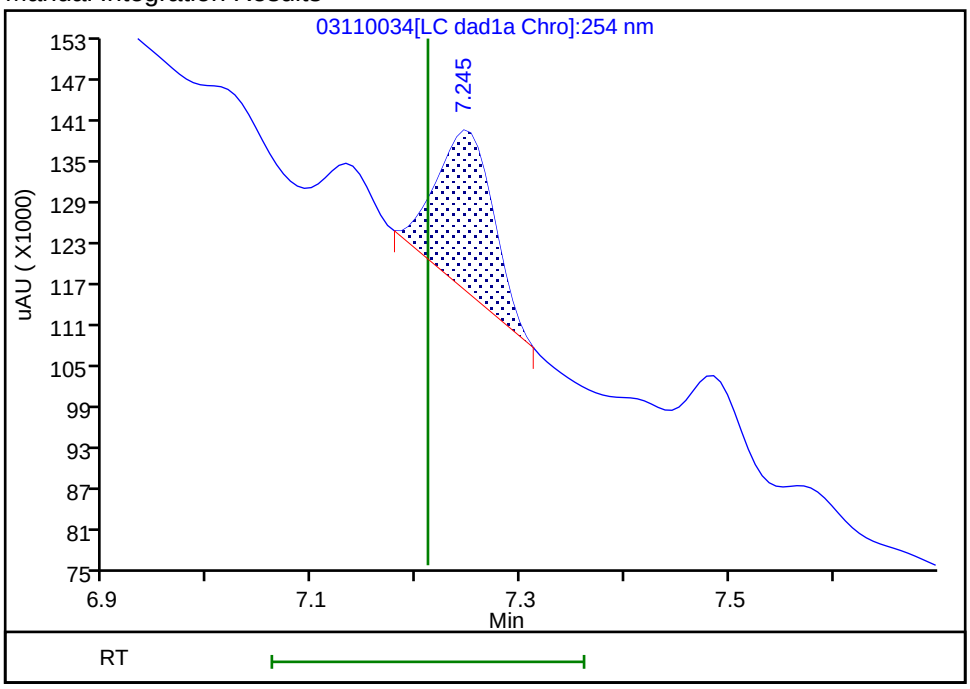
Processing Integration Results

RT: 7.25
Area: 1405883
Amount: 11.158208
Amount Units: ug/mL



Manual Integration Results

RT: 7.25
Area: 89015
Amount: 0.706494
Amount Units: ug/mL



Reviewer: zhangji, 12-Mar-2022 09:39:08
Audit Action: Manually Integrated Audit Reason: Baseline

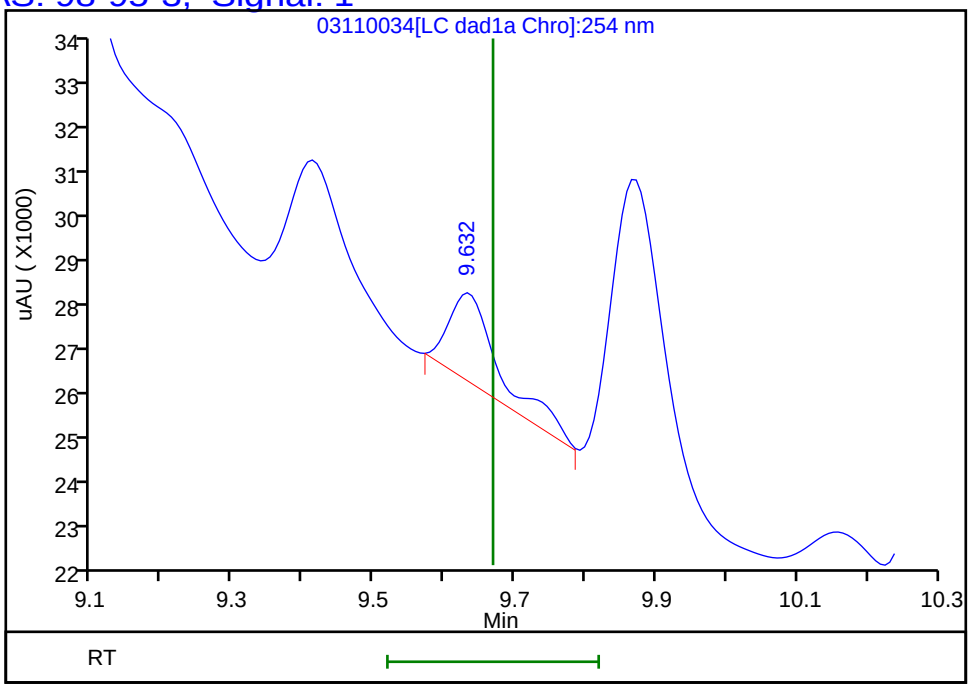
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20220311-109174.b\03110034.d				
Injection Date:	11-Mar-2022 23:57:55	Instrument ID:	CHHPLC_X3		
Lims ID:	280-159384-B-3-A	Lab Sample ID:	280-159384-3		
Client ID:	WATER-WC-Q8-MAR22				
Operator ID:	JZ	ALS Bottle#:	34	Worklist Smp#:	34
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

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

RT: 9.63
Response: 9668
Amount: 0.050366



Reviewer: zhangji, 12-Mar-2022 09:39:34
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Manual Integration/User Assign Peak Report

Eurofins Denver

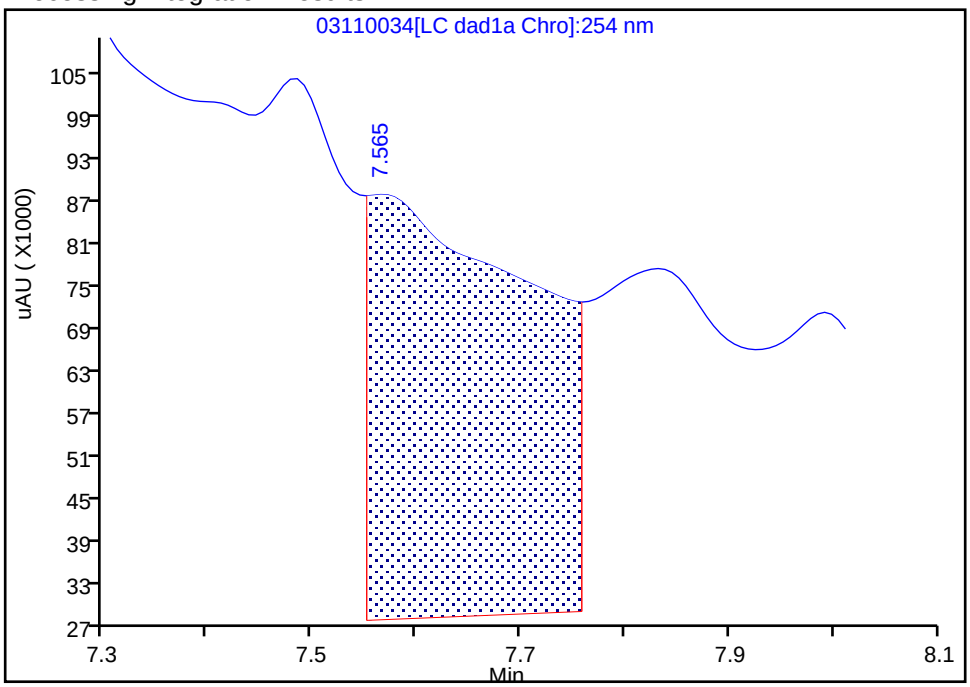
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Injection Date:	11-Mar-2022 23:57:55	Instrument ID:	CHHPLC_X3		
Lims ID:	280-159384-B-3-A	Lab Sample ID:	280-159384-3		
Client ID:	WATER-WC-Q8-MAR22				
Operator ID:	JZ	ALS Bottle#:	34	Worklist Smp#:	34
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

8 RDX, CAS: 121-82-4

Signal: 1

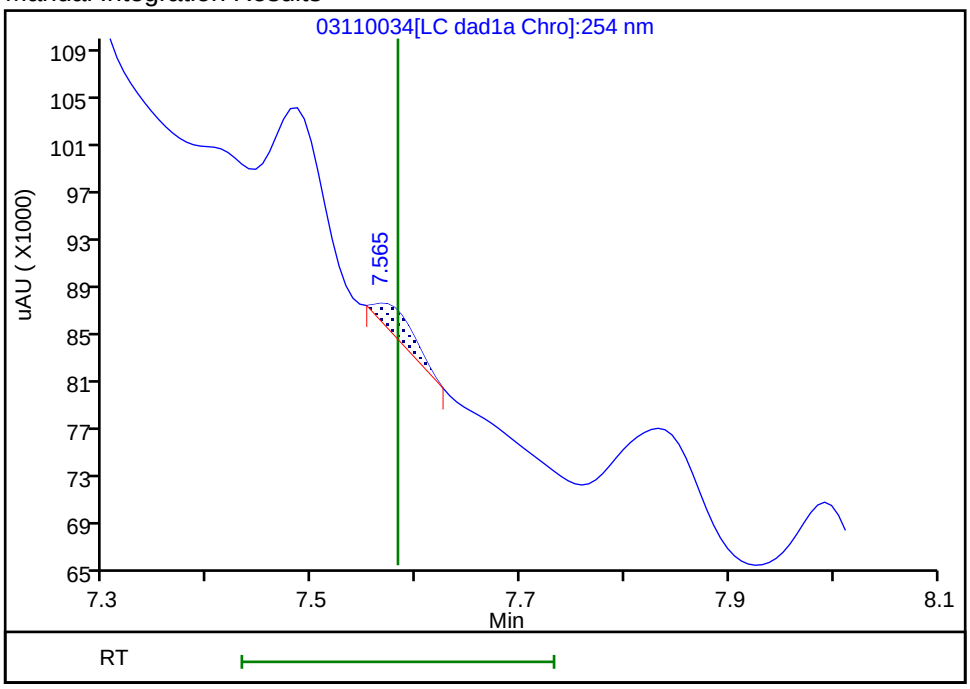
Processing Integration Results

RT: 7.57
Area: 627115
Amount: 6.052696
Amount Units: ug/mL



Manual Integration Results

RT: 7.57
Area: 5749
Amount: 0.055487
Amount Units: ug/mL



Reviewer: zhangji, 12-Mar-2022 09:39:12
Audit Action: Manually Integrated Audit Reason: Baseline

User Disabled Compound Report

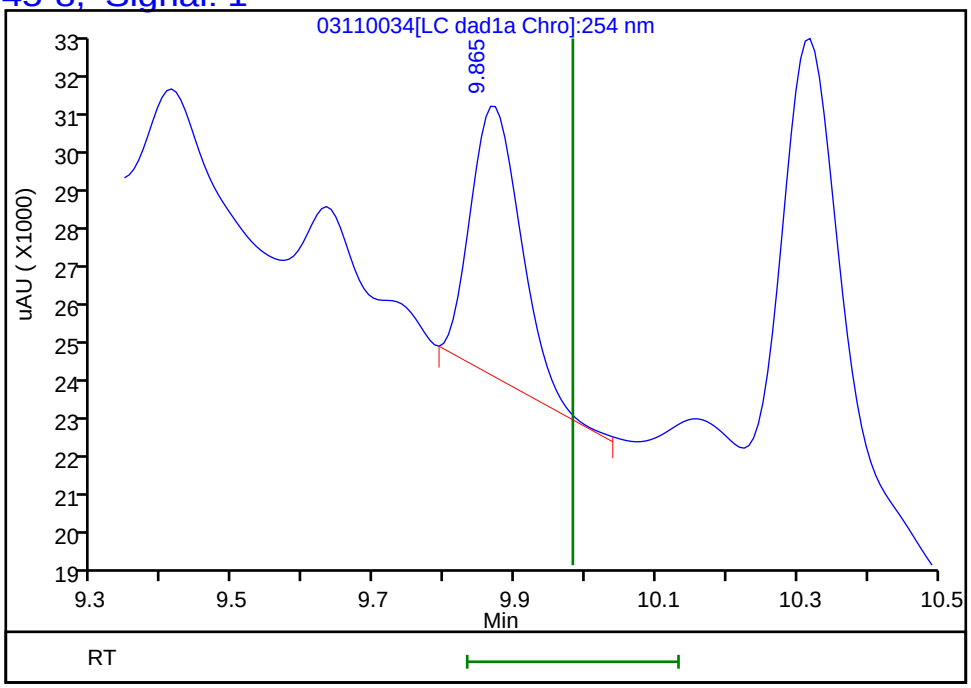
Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20220311-109174.b\03110034.d
Injection Date: 11-Mar-2022 23:57:55 Instrument ID: CHHPLC_X3
Lims ID: 280-159384-B-3-A Lab Sample ID: 280-159384-3
Client ID: WATER-WC-Q8-MAR22
Operator ID: JZ ALS Bottle#: 34 Worklist Smp#: 34
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330

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

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

RT: 9.87
Response: 33606
Amount: 0.197025



Reviewer: zhangji, 12-Mar-2022 09:39:34
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-159384-1

SDG No.:

Client Sample ID: WATER-WC-Q8-MAR22 | Lab Sample ID: 280-159384-3

Matrix: Water | Lab File ID: 03150015.D

Analysis Method: 8330A | Date Collected: 03/02/2022 17:45

Extraction Method: 3535 | Date Extracted: 03/08/2022 11:19

Sample wt/vol: 475.9(mL) | Date Analyzed: 03/15/2022 22:13

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

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

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

Analysis Batch No.: 568709 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
35572-78-2	*2-Amino-4,6-dinitrotoluene*	*1.1*	*J1*	*0.12*	0.11	*0.053*
5755-27-1	*MNX*	*0.80*	*J J1*	*2.1*	0.42	*0.16*
121-82-4	*RDX*	*1.0*	*J1*	*0.22*	0.21	*0.054*

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

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220315-109260.b\03150015.D
Lims ID: 280-159384-B-3-A
Client ID: WATER-WC-Q8-MAR22
Sample Type: Client
Inject. Date: 15-Mar-2022 22:13:23 ALS Bottle#: 15 Worklist Smp#: 15
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-159384-B-3-A
Misc. Info.: 280-0109260-015
Operator ID: JZ Instrument ID: CHHPLC_X5

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20220315-109260.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 16-Mar-2022 12:38:41 Calib Date: 03-Mar-2022 07:19:48
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1609

First Level Reviewer: zhangji Date: 16-Mar-2022 12:23:02

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
5 HMX	1	6.823	6.854	-0.031	6183	0.0372	
6 MNX	1	7.503	7.581	-0.078	19079	0.0763	
8 RDX	1	9.003	9.054	-0.051	19024	0.0979	
9 Nitrobenzene	1		11.960			ND	
$ 10 1,2-Dinitrobenzene	1	13.123	13.160	-0.037	46675	0.1869	M
12 1,3-Dinitrobenzene	1		15.514			ND	
14 o-Nitrotoluene	1		16.640			ND	U
16 p-Nitrotoluene	1	16.983	16.954	0.029	2007	0.009520	
17 4-Amino-2,6-dinitrotoluene	1	17.543	17.574	-0.031	27595	0.1035	
18 m-Nitrotoluene	1	17.830	17.914	-0.084	26738	0.1012	M
19 2-Amino-4,6-dinitrotoluene	1	18.543	18.580	-0.037	37328	0.1035	
20 1,3,5-Trinitrobenzene	1		18.794			ND	U
21 2,6-Dinitrotoluene	1		20.054			ND	7
22 2,4-Dinitrotoluene	1		20.574			ND	
23 Tetryl	1		24.307			ND	U
24 2,4,6-Trinitrotoluene	1		25.074			ND	7

QC Flag Legend

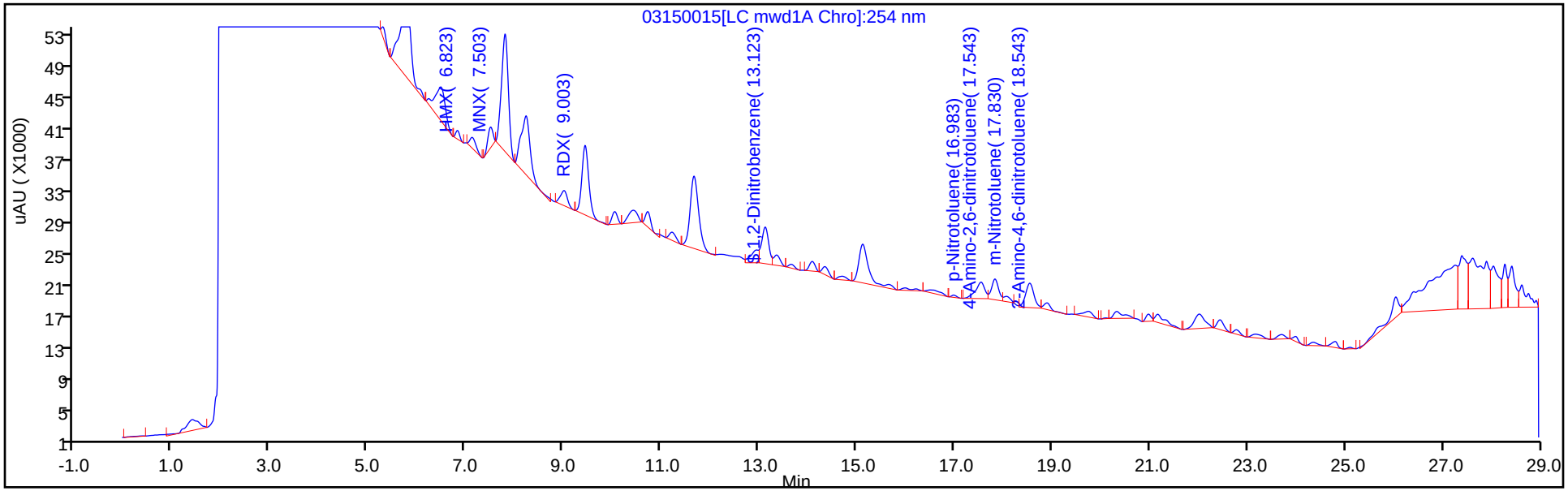
Processing Flags
7 - Failed Limit of Detection
Review Flags
M - Manually Integrated
U - Marked Undetected

Report Date: 16-Mar-2022 12:38:44 Chrom Revision: 2.3 14-Mar-2022 17:58:38

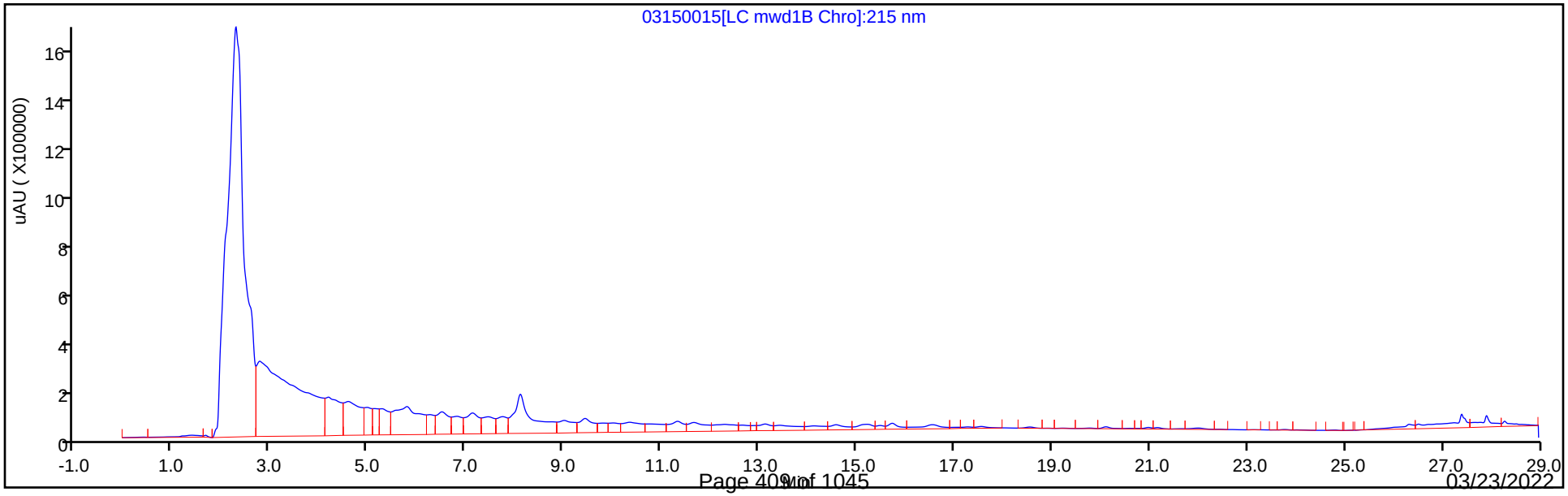
Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220315-109260.b\03150015.D				
Injection Date:	15-Mar-2022 22:13:23	Instrument ID:	CHHPLC_X5	Operator ID:	JZ
Lims ID:	280-159384-B-3-A	Lab Sample ID:	280-159384-3	Worklist Smp#:	15
Client ID:	WATER-WC-Q8-MAR22				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	15
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220315-109260.b\03150015.D				
Lims ID:	280-159384-B-3-A				
Client ID:	WATER-WC-Q8-MAR22				
Sample Type:	Client				
Inject. Date:	15-Mar-2022 22:13:23	ALS Bottle#:	15	Worklist Smp#:	15
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-159384-B-3-A				
Misc. Info.:	280-0109260-015				
Operator ID:	JZ	Instrument ID:	CHHPLC_X5		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220315-109260.b\8330_X5_Luna.m				
Limit Group:	GCSV - 8330				
Last Update:	16-Mar-2022 12:38:41	Calib Date:	03-Mar-2022 07:19:48		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020027.D				
Column 1 :	Luna-Phenyl hexyl (4.60 mm)		Det: LC mwd1A, 254 nm		
Process Host:	CTX1609				
First Level Reviewer: zhangji		Date:	16-Mar-2022 12:23:02		

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.1869	93.44

Manual Integration/User Assign Peak Report

Eurofins Denver

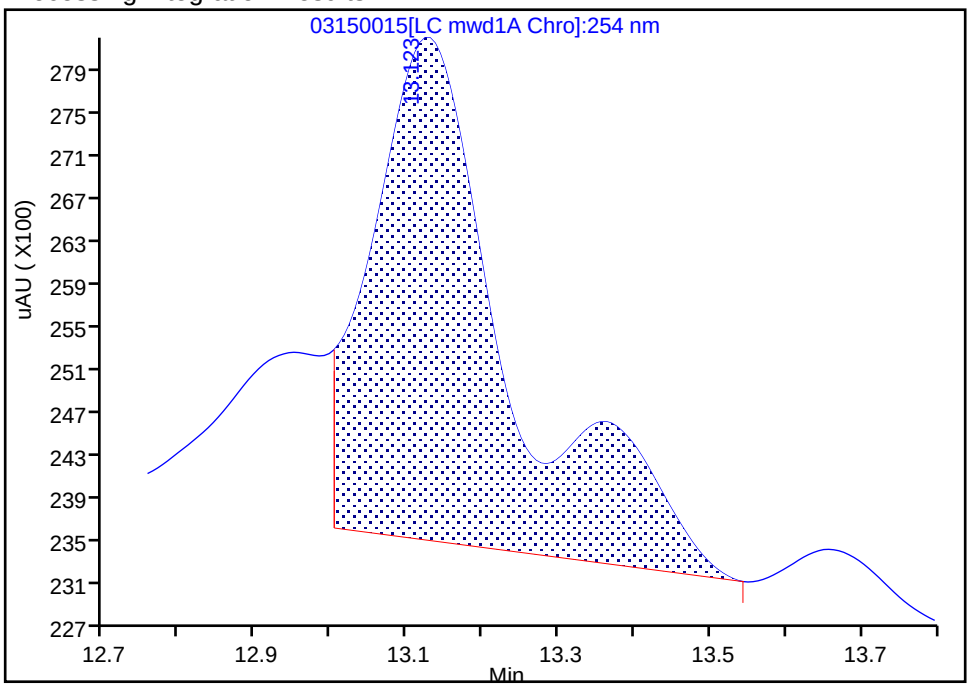
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Injection Date:	15-Mar-2022 22:13:23	Instrument ID:	CHHPLC_X5		
Lims ID:	280-159384-B-3-A	Lab Sample ID:	280-159384-3		
Client ID:	WATER-WC-Q8-MAR22				
Operator ID:	JZ	ALS Bottle#:	15	Worklist Smp#:	15
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

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

Signal: 1

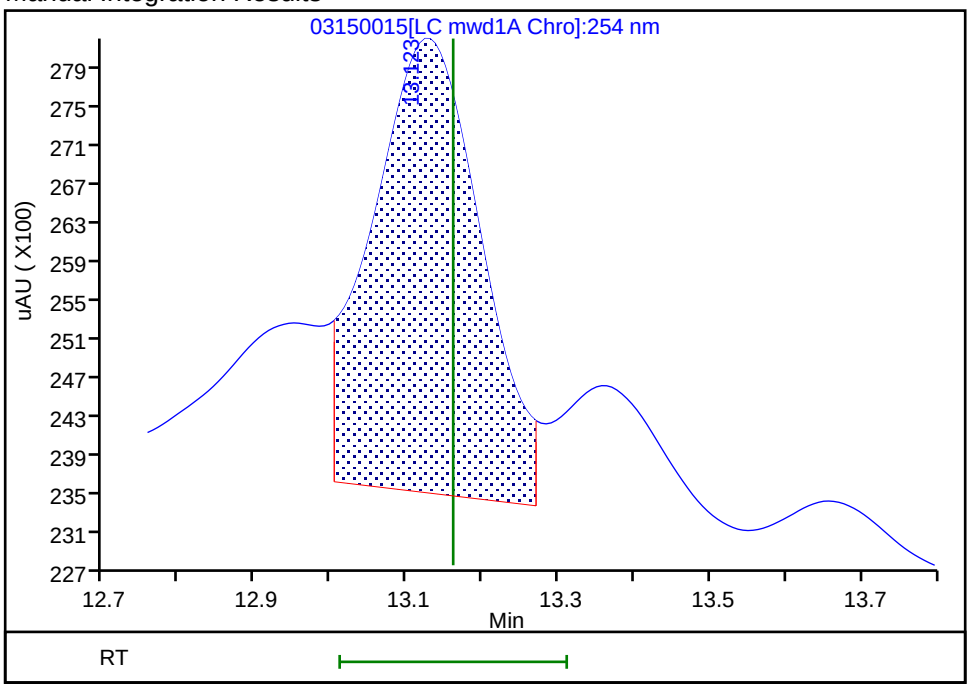
Processing Integration Results

RT: 13.12
Area: 59098
Amount: 0.236626
Amount Units: ug/ml



Manual Integration Results

RT: 13.12
Area: 46675
Amount: 0.186885
Amount Units: ug/ml



Reviewer: zhangji, 16-Mar-2022 12:22:37

Audit Action: Split an Integrated Peak Audit Reason: Split Peak

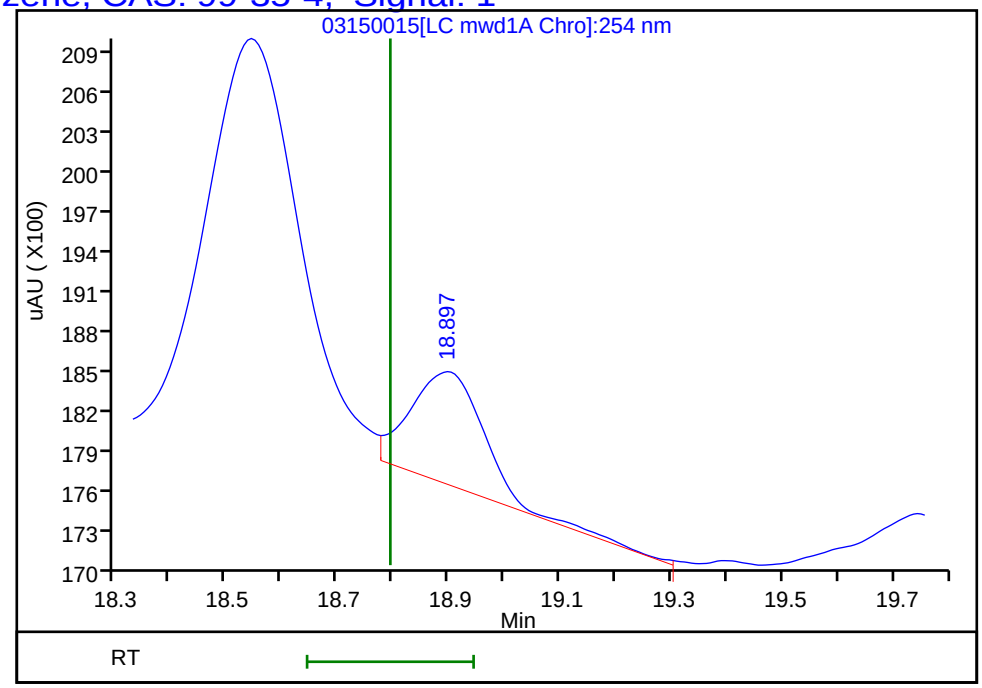
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220315-109260.b\03150015.D				
Injection Date:	15-Mar-2022 22:13:23	Instrument ID:	CHHPLC_X5		
Lims ID:	280-159384-B-3-A	Lab Sample ID:	280-159384-3		
Client ID:	WATER-WC-Q8-MAR22				
Operator ID:	JZ	ALS Bottle#:	15	Worklist Smp#:	15
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

20 1,3,5-Trinitrobenzene, CAS: 99-35-4, Signal: 1

RT: 18.90
Response: 7924
Amount: 0.019073



Reviewer: zhangji, 16-Mar-2022 12:23:02
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

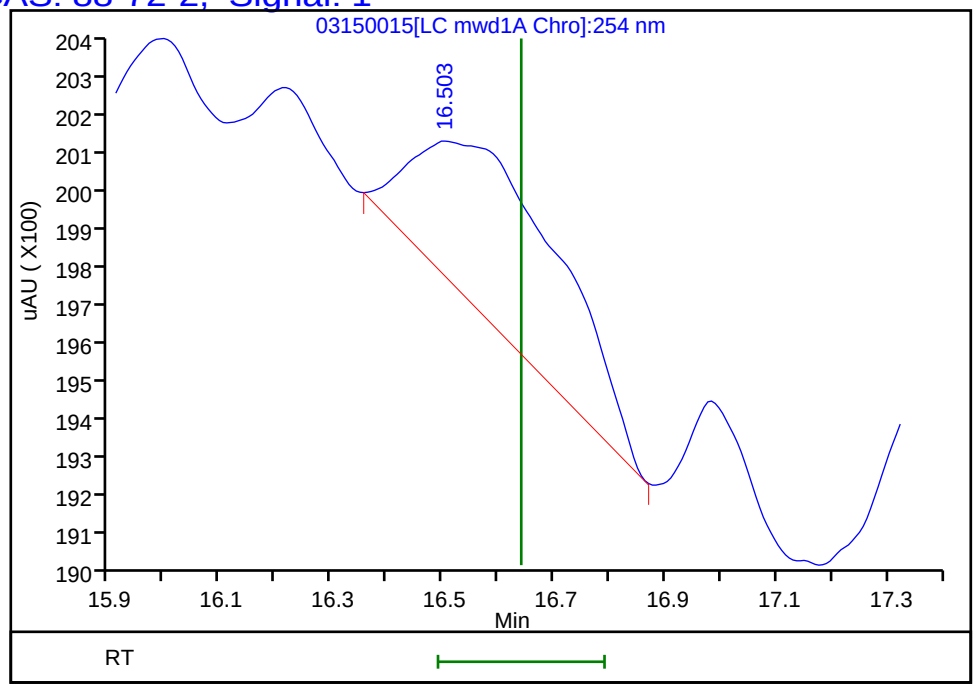
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220315-109260.b\03150015.D				
Injection Date:	15-Mar-2022 22:13:23	Instrument ID:	CHHPLC_X5		
Lims ID:	280-159384-B-3-A	Lab Sample ID:	280-159384-3		
Client ID:	WATER-WC-Q8-MAR22				
Operator ID:	JZ	ALS Bottle#:	15	Worklist Smp#:	15
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

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

RT: 16.50
Response: 8085
Amount: 0.034452



Reviewer: zhangji, 16-Mar-2022 12:23:02
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Manual Integration/User Assign Peak Report

Eurofins Denver

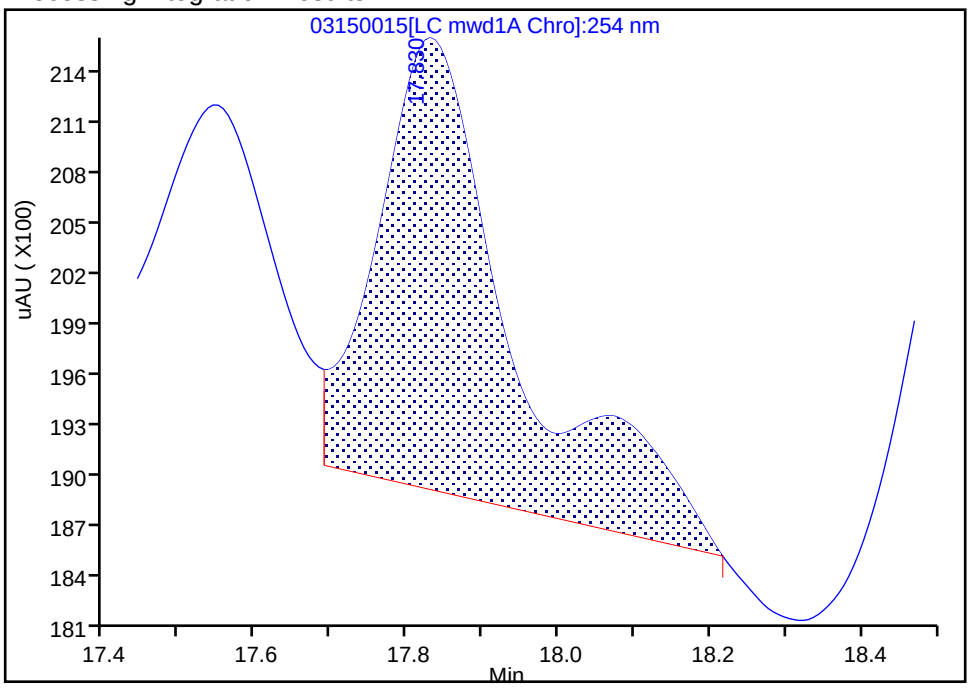
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220315-109260.b\03150015.D				
Injection Date:	15-Mar-2022 22:13:23	Instrument ID:	CHHPLC_X5		
Lims ID:	280-159384-B-3-A	Lab Sample ID:	280-159384-3		
Client ID:	WATER-WC-Q8-MAR22				
Operator ID:	JZ	ALS Bottle#:	15	Worklist Smp#:	15
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

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

Signal: 1

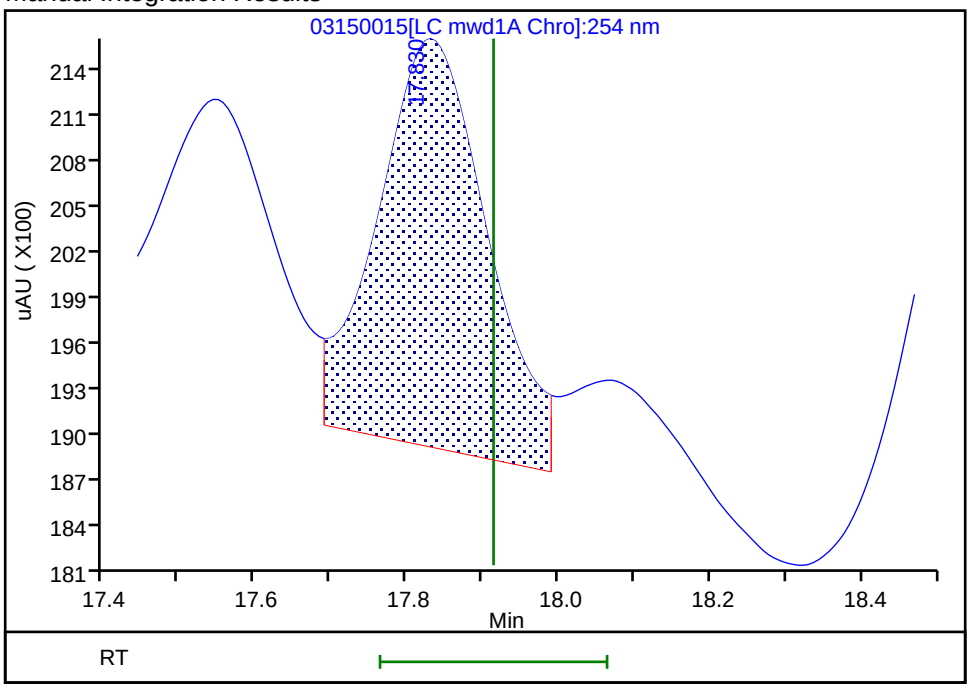
Processing Integration Results

RT: 17.83
Area: 33105
Amount: 0.125166
Amount Units: ug/ml



Manual Integration Results

RT: 17.83
Area: 26738
Amount: 0.101230
Amount Units: ug/ml



Reviewer: zhangji, 16-Mar-2022 12:22:55

Audit Action: Split an Integrated Peak Audit Reason: Baseline Smoothing

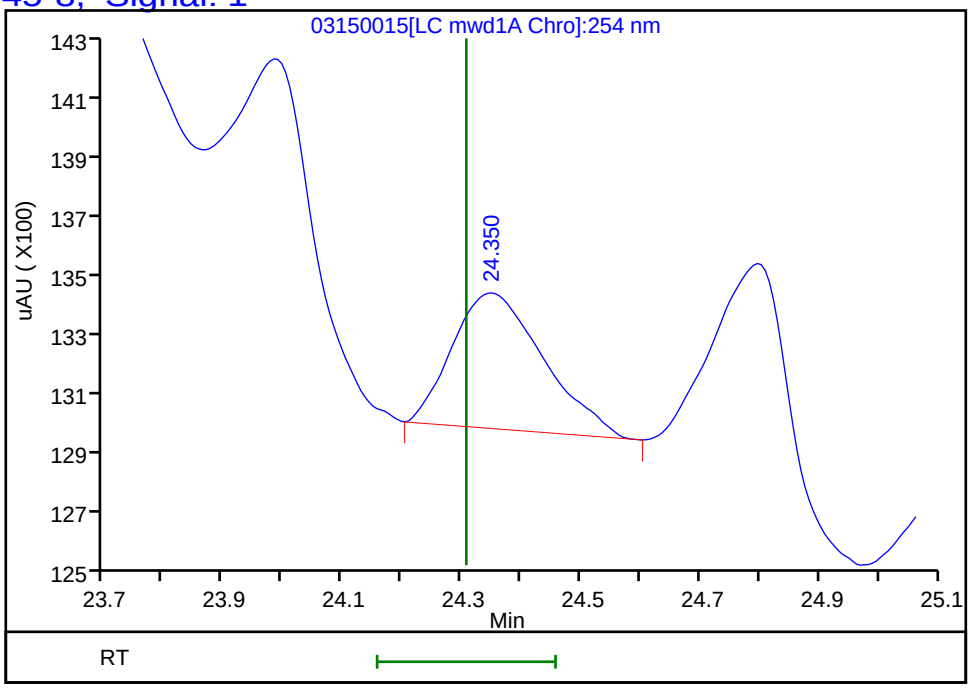
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220315-109260.b\03150015.D				
Injection Date:	15-Mar-2022 22:13:23	Instrument ID:	CHHPLC_X5		
Lims ID:	280-159384-B-3-A	Lab Sample ID:	280-159384-3		
Client ID:	WATER-WC-Q8-MAR22				
Operator ID:	JZ	ALS Bottle#:	15	Worklist Smp#:	15
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

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

RT: 24.35
Response: 4559
Amount: 0.013324



Reviewer: zhangji, 16-Mar-2022 12:23:02
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-159384-1

SDG No.:

Client Sample ID: G0121-8 | Lab Sample ID: 280-159384-4

Matrix: Water | Lab File ID: 03110035.D

Analysis Method: 8330A | Date Collected: 03/02/2022 15:10

Extraction Method: 3535 | Date Extracted: 03/08/2022 11:19

Sample wt/vol: 491.4(mL) | Date Analyzed: 03/12/2022 00:20

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

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

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

Analysis Batch No.: 568433 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	0.20	U Q	0.21	0.20	0.086
99-65-0	1,3-Dinitrobenzene	0.10	U Q	0.11	0.10	0.038
118-96-7	2,4,6-Trinitrotoluene	0.10	U Q	0.11	0.10	0.046
606-20-2	2,6-Dinitrotoluene	0.081	U Q	0.10	0.081	0.041
35572-78-2	2-Amino-4,6-dinitrotoluene	0.10	U Q	0.11	0.10	0.052
19406-51-0	4-Amino-2,6-dinitrotoluene	0.12	U Q	0.15	0.12	0.059
2691-41-0	HMX	0.20	U Q	0.21	0.20	0.089
121-82-4	*RDX*	*27*	*J1 M Q*	*0.21*	0.20	*0.052*

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	2845	M Q	83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20220311-109174.b\03110035.D
Lims ID: 280-159384-B-4-A
Client ID: G0121-8
Sample Type: Client
Inject. Date: 12-Mar-2022 00:20:50 ALS Bottle#: 35 Worklist Smp#: 35
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-159384-B-4-A
Misc. Info.: 280-0109174-035
Operator ID: JZ Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20220311-109174.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 12-Mar-2022 10:32:02 Calib Date: 05-Jan-2022 04:24:15
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040037.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1616

First Level Reviewer: zhangji Date: 12-Mar-2022 09:41:00

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/mL	Flags
4 HMX	1		6.595			ND	
7 MNX	1	7.246	7.211	0.035	616349	4.89	EM
8 RDX	1	7.560	7.582	-0.022	270644	2.61	EM
$ 10 1,2-Dinitrobenzene	1	8.600	8.529	0.071	709491	5.69	M
11 1,3,5-Trinitrobenzene	1		8.655			ND	
12 1,3-Dinitrobenzene	1		9.282			ND	
13 Nitrobenzene	1	9.739	9.668	0.071	67649	0.3524	M
15 Tetryl	1	10.039	9.982	0.057	5885	0.0345	M
17 2,4,6-Trinitrotoluene	1		10.888			ND	
18 4-Amino-2,6-dinitrotoluene	1		11.068			ND	
19 2-Amino-4,6-dinitrotoluene	1		11.322			ND	
20 2,6-Dinitrotoluene	1		11.495			ND	
21 2,4-Dinitrotoluene	1	11.633	11.662	-0.029	11494	0.0397	M
22 o-Nitrotoluene	1	12.399	12.508	-0.109	19327	0.1514	M
23 p-Nitrotoluene	1	12.873	12.935	-0.062	83205	0.7832	M
24 m-Nitrotoluene	1	13.546	13.502	0.044	69757	0.4903	M

QC Flag Legend

Processing Flags
E - Exceeded Maximum Amount
Review Flags
M - Manually Integrated

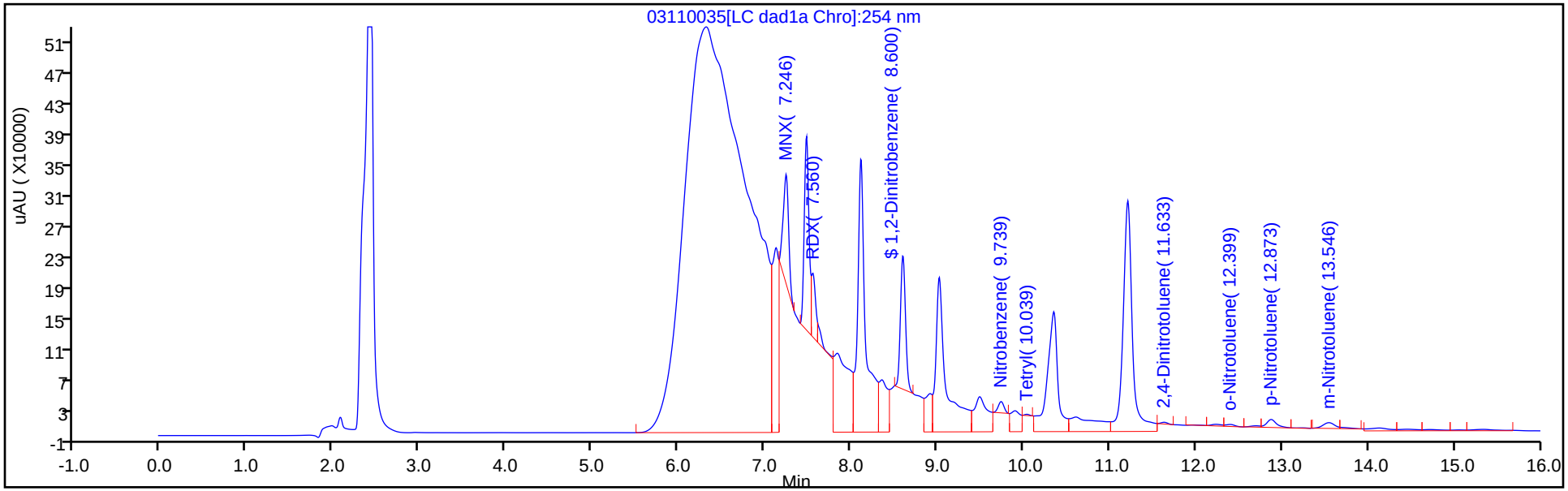
Report Date: 12-Mar-2022 10:32:04 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Denver

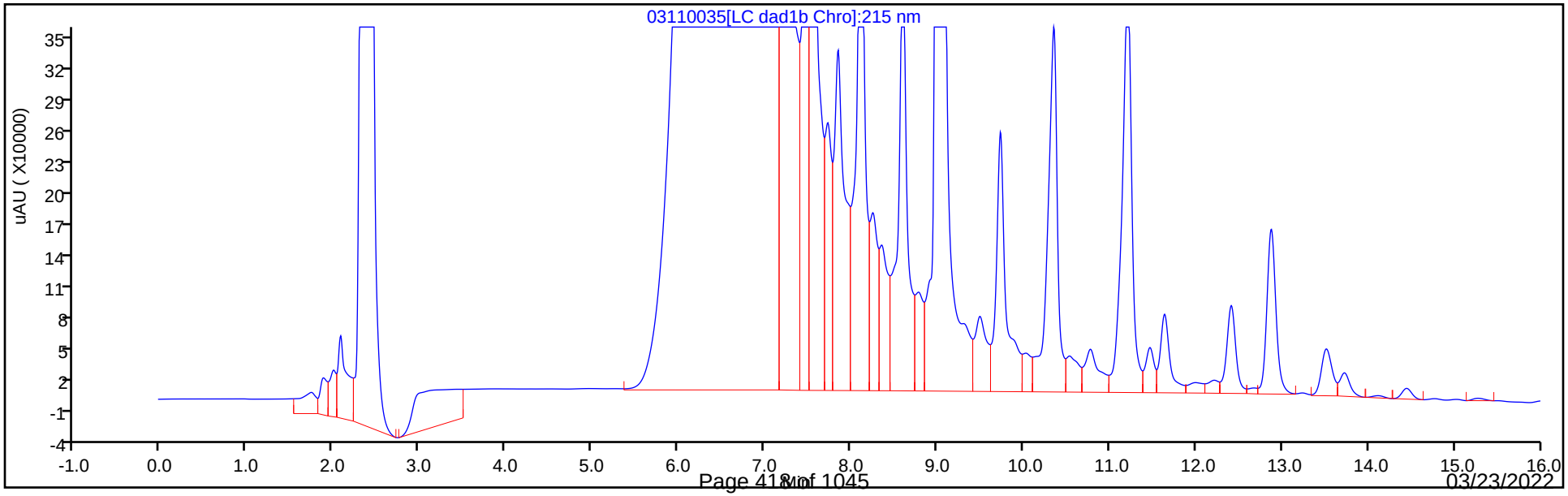
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Injection Date:	12-Mar-2022 00:20:50	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	280-159384-B-4-A	Lab Sample ID:	280-159384-4	Worklist Smp#:	35
Client ID:	G0121-8				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	35
Method:	8330_X3	Limit Group:	GCSV - 8330		

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



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



Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20220311-109174.b\03110035.D				
Lims ID:	280-159384-B-4-A				
Client ID:	G0121-8				
Sample Type:	Client				
Inject. Date:	12-Mar-2022 00:20:50	ALS Bottle#:	35	Worklist Smp#:	35
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-159384-B-4-A				
Misc. Info.:	280-0109174-035				
Operator ID:	JZ	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20220311-109174.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	12-Mar-2022 10:32:02	Calib Date:	05-Jan-2022 04:24:15		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040037.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1616				

First Level Reviewer: zhangji Date: 12-Mar-2022 09:41:00

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	5.69	2844.84

Manual Integration/User Assign Peak Report

Eurofins Denver

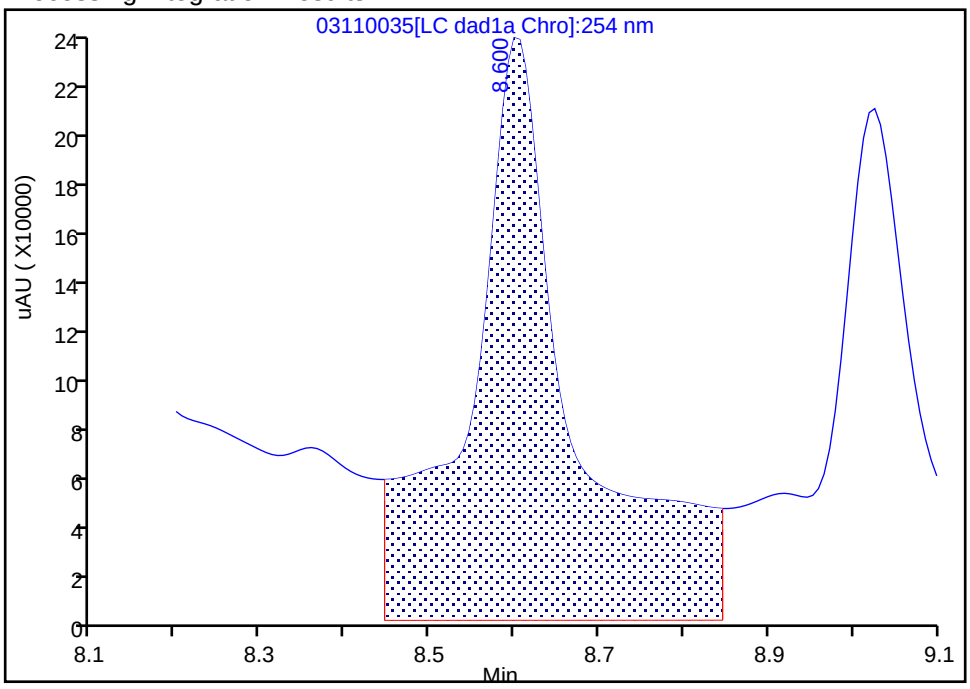
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Injection Date:	12-Mar-2022 00:20:50	Instrument ID:	CHHPLC_X3		
Lims ID:	280-159384-B-4-A	Lab Sample ID:	280-159384-4		
Client ID:	G0121-8				
Operator ID:	JZ	ALS Bottle#:	35	Worklist Smp#:	35
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

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

Signal: 1

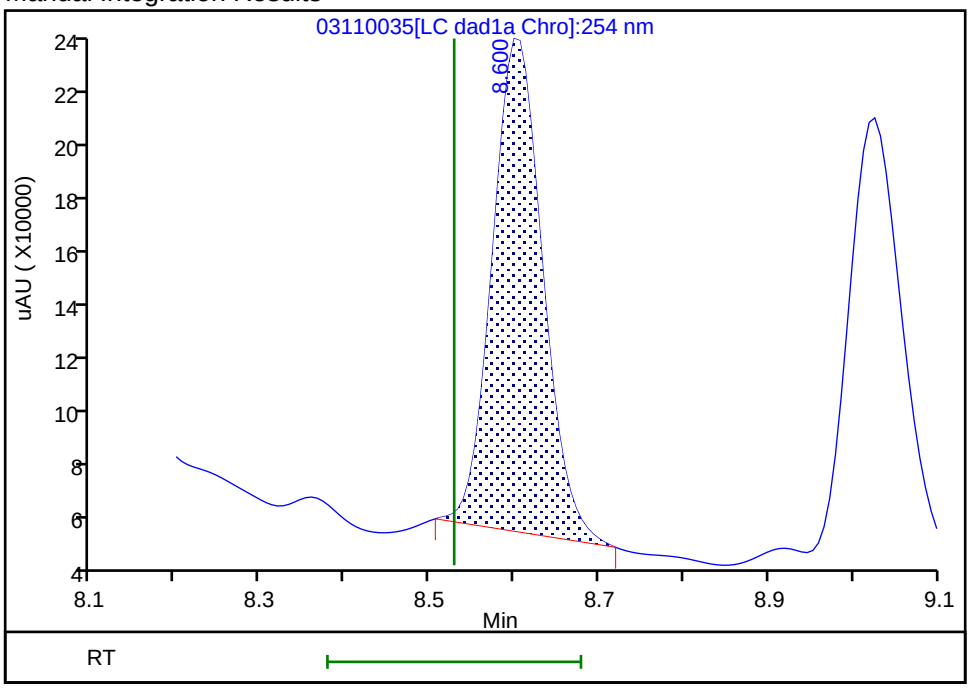
Processing Integration Results

RT: 8.60
Area: 1962769
Amount: 15.740221
Amount Units: ug/mL



Manual Integration Results

RT: 8.60
Area: 709491
Amount: 5.689689
Amount Units: ug/mL



Reviewer: zhangji, 12-Mar-2022 09:40:04

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

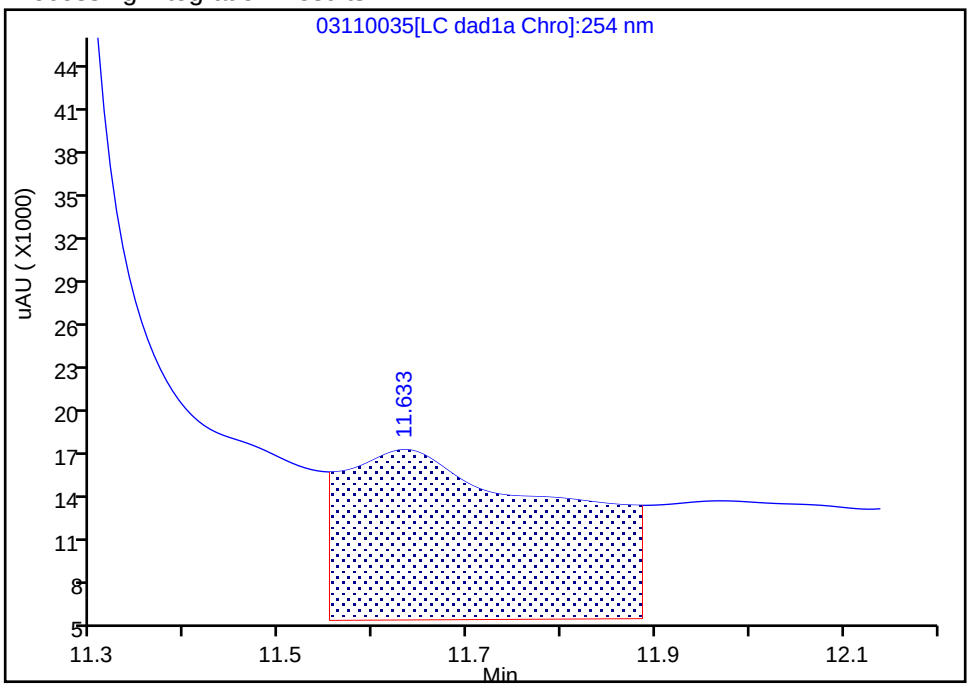
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Injection Date:	12-Mar-2022 00:20:50	Instrument ID:	CHHPLC_X3		
Lims ID:	280-159384-B-4-A	Lab Sample ID:	280-159384-4		
Client ID:	G0121-8				
Operator ID:	JZ	ALS Bottle#:	35	Worklist Smp#:	35
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

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

Signal: 1

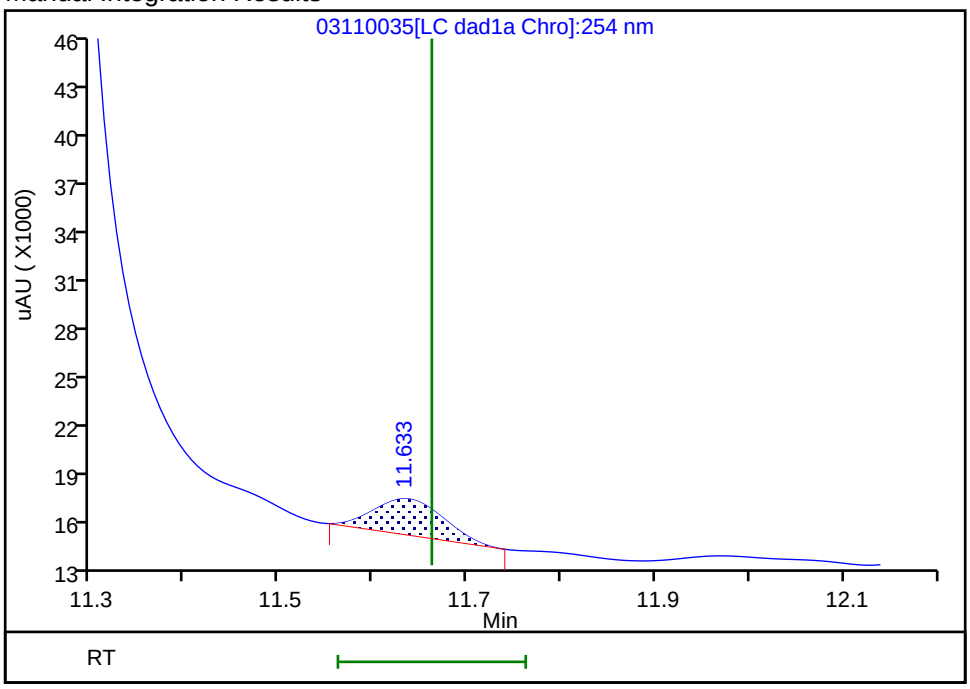
Processing Integration Results

RT: 11.63
Area: 188410
Amount: 0.651148
Amount Units: ug/mL



Manual Integration Results

RT: 11.63
Area: 11494
Amount: 0.039723
Amount Units: ug/mL



Reviewer: zhangji, 12-Mar-2022 09:40:36

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

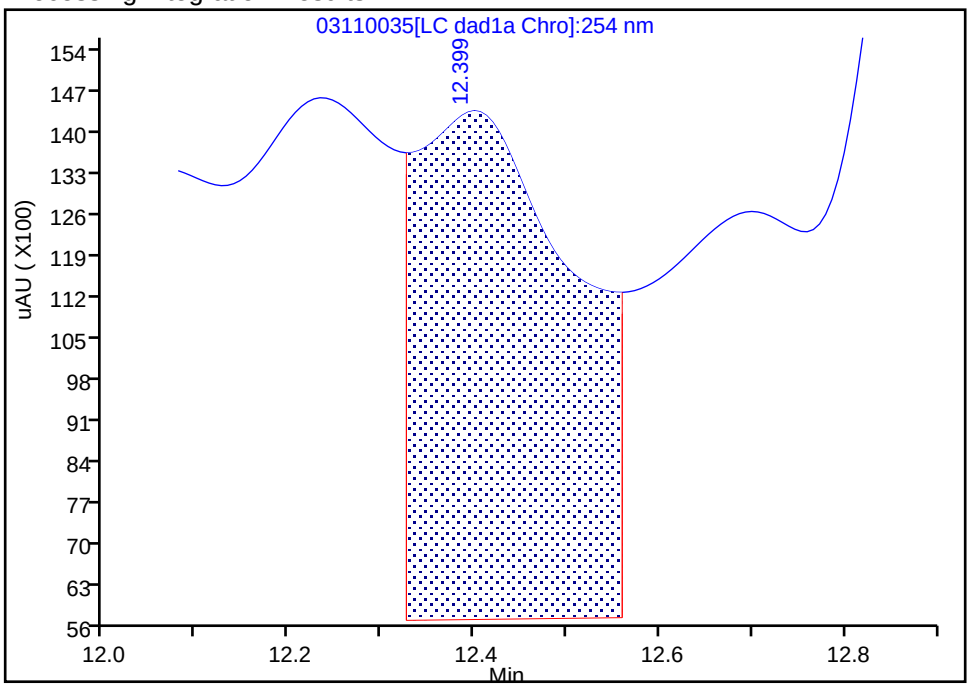
Data File:	\\chromfs\denver\chromdata\chhplc_x\20220311-109174.b\03110035.d				
Injection Date:	12-Mar-2022 00:20:50	Instrument ID:	CHHPLC_X3		
Lims ID:	280-159384-B-4-A	Lab Sample ID:	280-159384-4		
Client ID:	G0121-8				
Operator ID:	JZ	ALS Bottle#:	35	Worklist Smp#:	35
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

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

Signal: 1

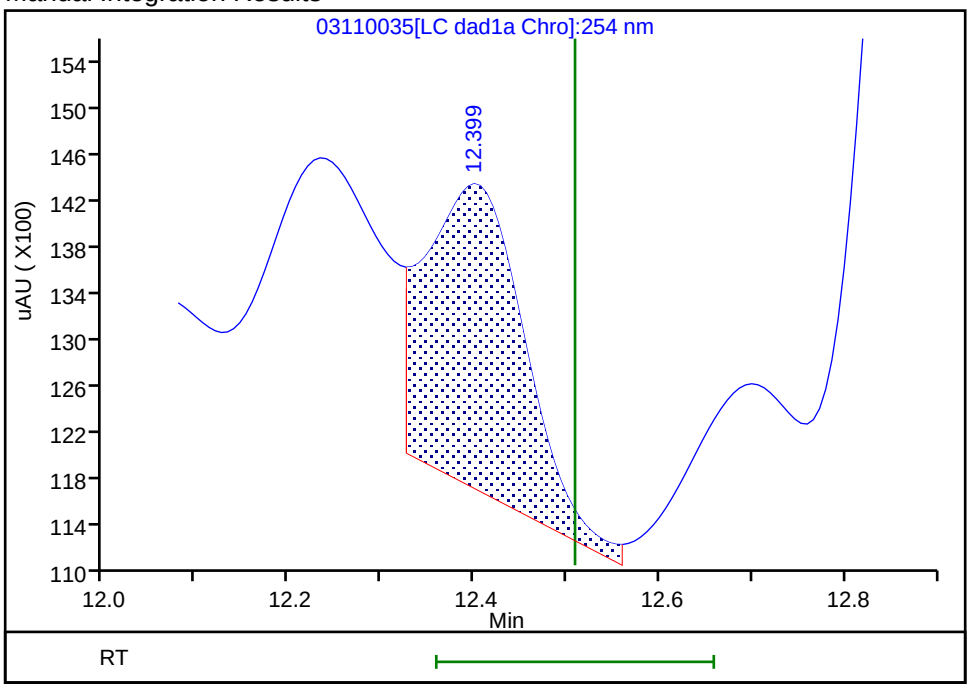
Processing Integration Results

RT: 12.40
Area: 100863
Amount: 0.790378
Amount Units: ug/mL



Manual Integration Results

RT: 12.40
Area: 19327
Amount: 0.151449
Amount Units: ug/mL



Reviewer: zhangji, 12-Mar-2022 09:40:45
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

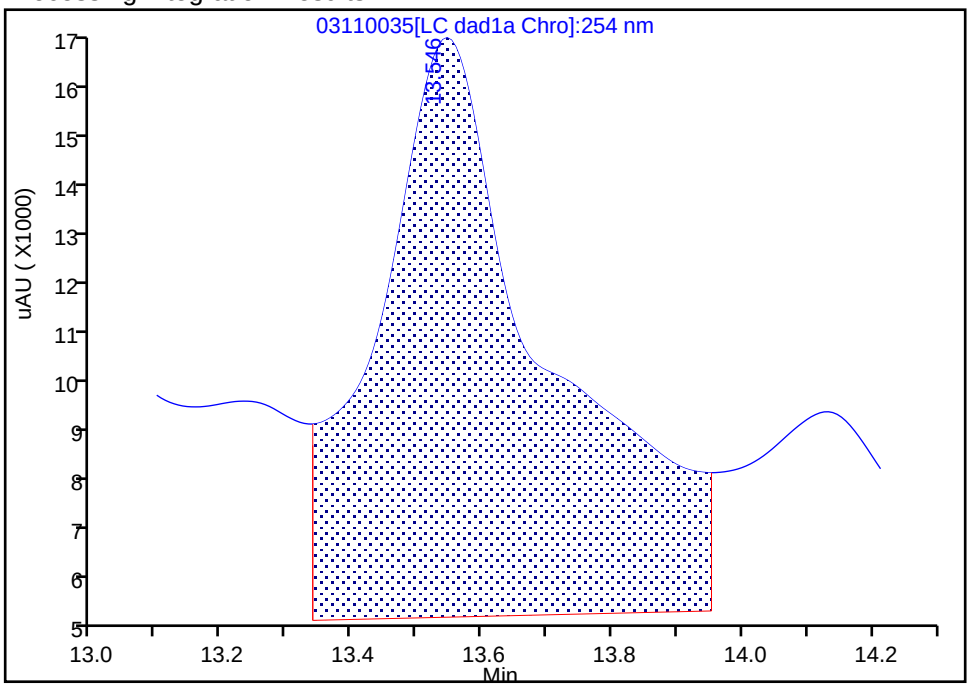
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Injection Date:	12-Mar-2022 00:20:50	Instrument ID:	CHHPLC_X3		
Lims ID:	280-159384-B-4-A	Lab Sample ID:	280-159384-4		
Client ID:	G0121-8				
Operator ID:	JZ	ALS Bottle#:	35	Worklist Smp#:	35
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

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

Signal: 1

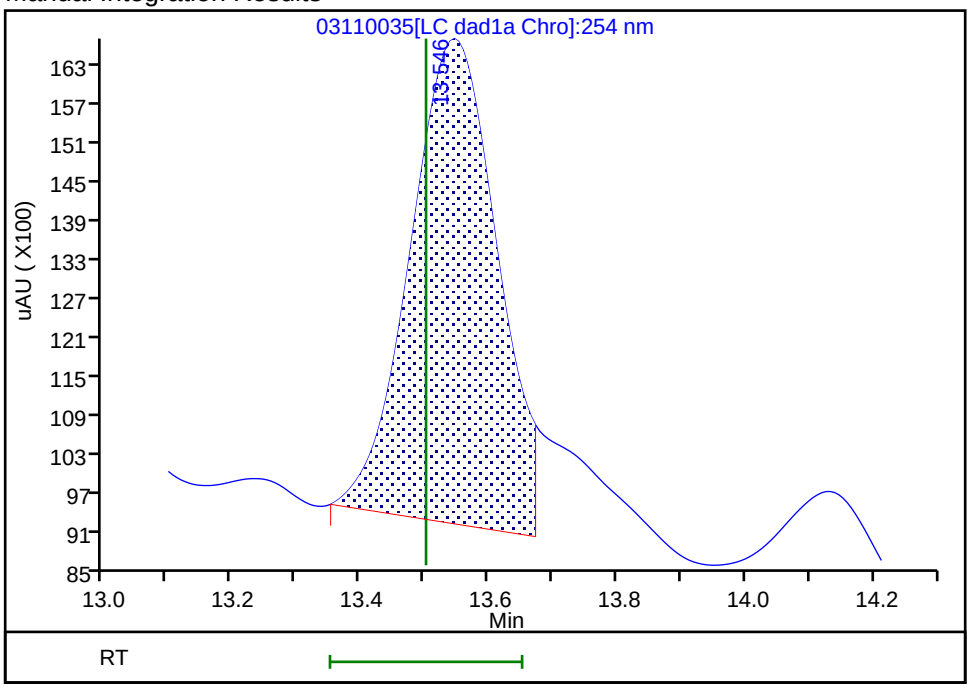
Processing Integration Results

RT: 13.55
Area: 196653
Amount: 1.382220
Amount Units: ug/mL



Manual Integration Results

RT: 13.55
Area: 69757
Amount: 0.490303
Amount Units: ug/mL



Reviewer: zhangji, 12-Mar-2022 09:40:59

Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

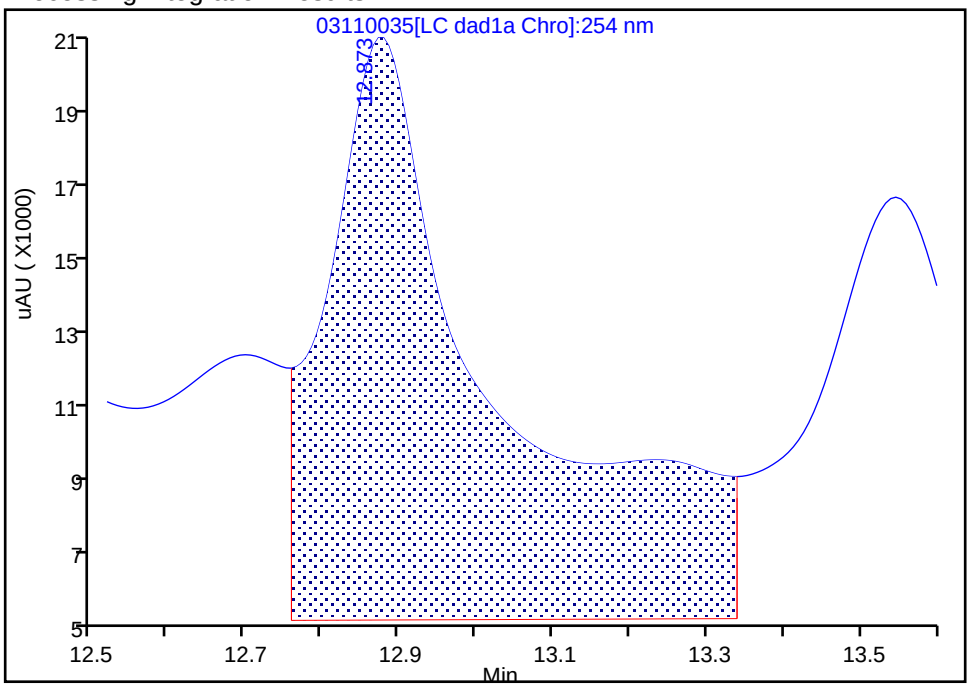
Data File:	\\chromfs\denver\chromdata\chhplc_x\20220311-109174.b\03110035.d				
Injection Date:	12-Mar-2022 00:20:50	Instrument ID:	CHHPLC_X3		
Lims ID:	280-159384-B-4-A	Lab Sample ID:	280-159384-4		
Client ID:	G0121-8				
Operator ID:	JZ	ALS Bottle#:	35	Worklist Smp#:	35
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

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

Signal: 1

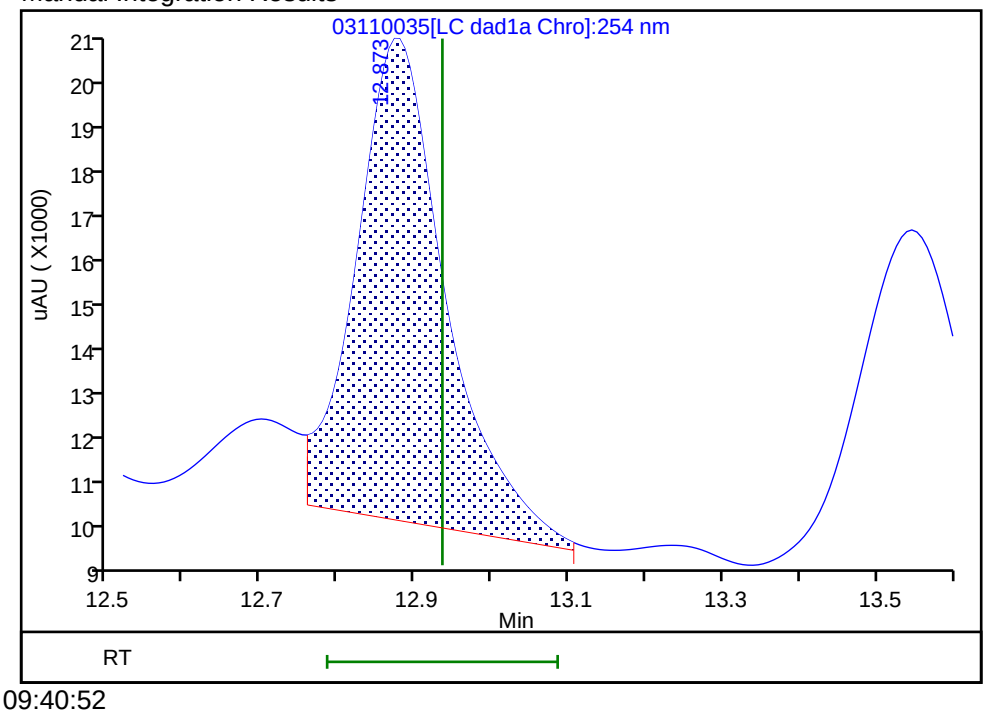
Processing Integration Results

RT: 12.87
Area: 230868
Amount: 2.173172
Amount Units: ug/mL



Manual Integration Results

RT: 12.87
Area: 83205
Amount: 0.783213
Amount Units: ug/mL



Reviewer: zhangji, 12-Mar-2022 09:40:52
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

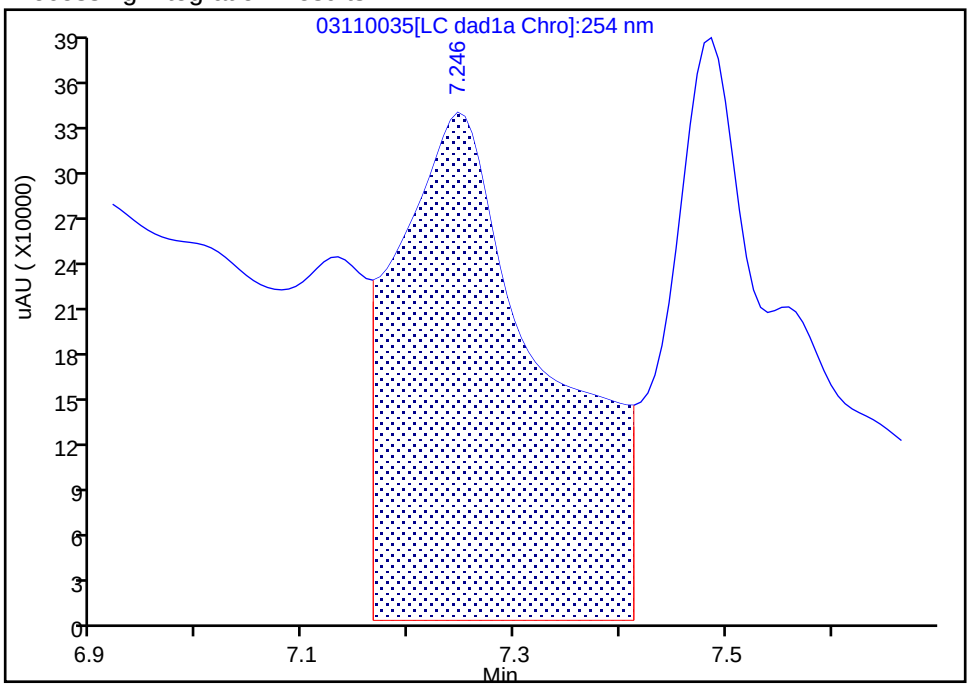
Data File:	\\chromfs\denver\chromdata\chhplc_x\20220311-109174.b\03110035.d				
Injection Date:	12-Mar-2022 00:20:50	Instrument ID:	CHHPLC_X3		
Lims ID:	280-159384-B-4-A	Lab Sample ID:	280-159384-4		
Client ID:	G0121-8				
Operator ID:	JZ	ALS Bottle#:	35	Worklist Smp#:	35
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

7 MNX, CAS: 5755-27-1

Signal: 1

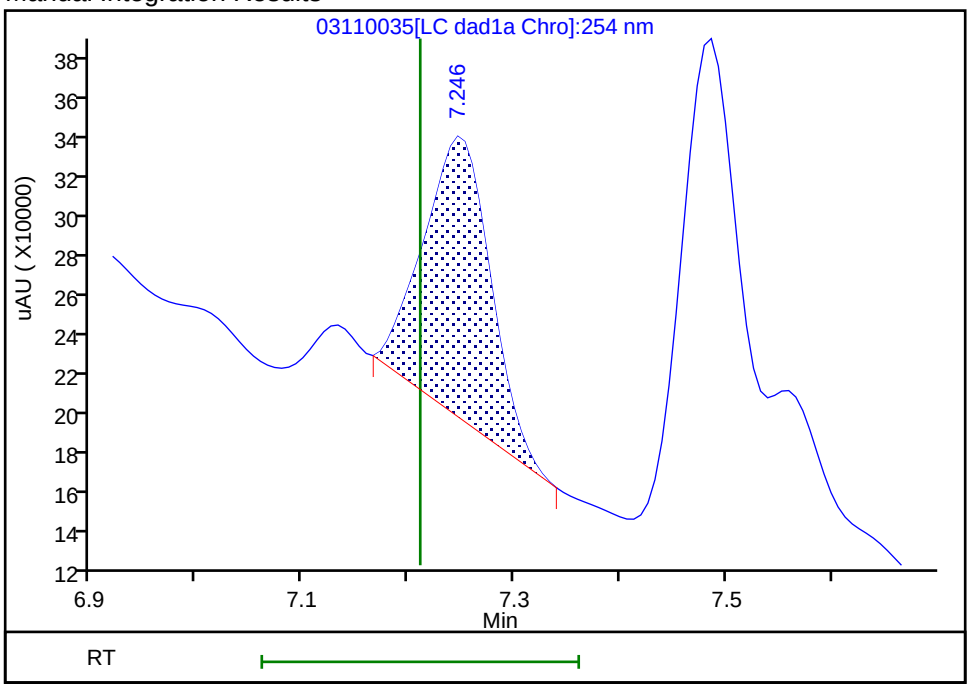
Processing Integration Results

RT: 7.25
Area: 3227768
Amount: 25.618138
Amount Units: ug/mL



Manual Integration Results

RT: 7.25
Area: 616349
Amount: 4.891837
Amount Units: ug/mL



Reviewer: zhangji, 12-Mar-2022 09:39:50
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

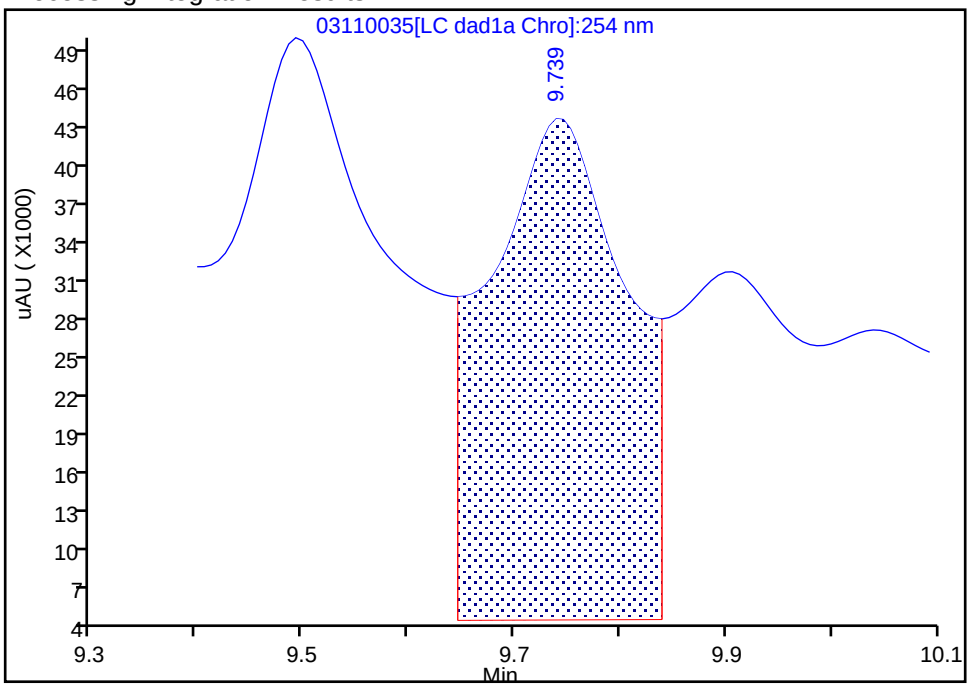
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Injection Date:	12-Mar-2022 00:20:50	Instrument ID:	CHHPLC_X3		
Lims ID:	280-159384-B-4-A	Lab Sample ID:	280-159384-4		
Client ID:	G0121-8				
Operator ID:	JZ	ALS Bottle#:	35	Worklist Smp#:	35
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

13 Nitrobenzene, CAS: 98-95-3

Signal: 1

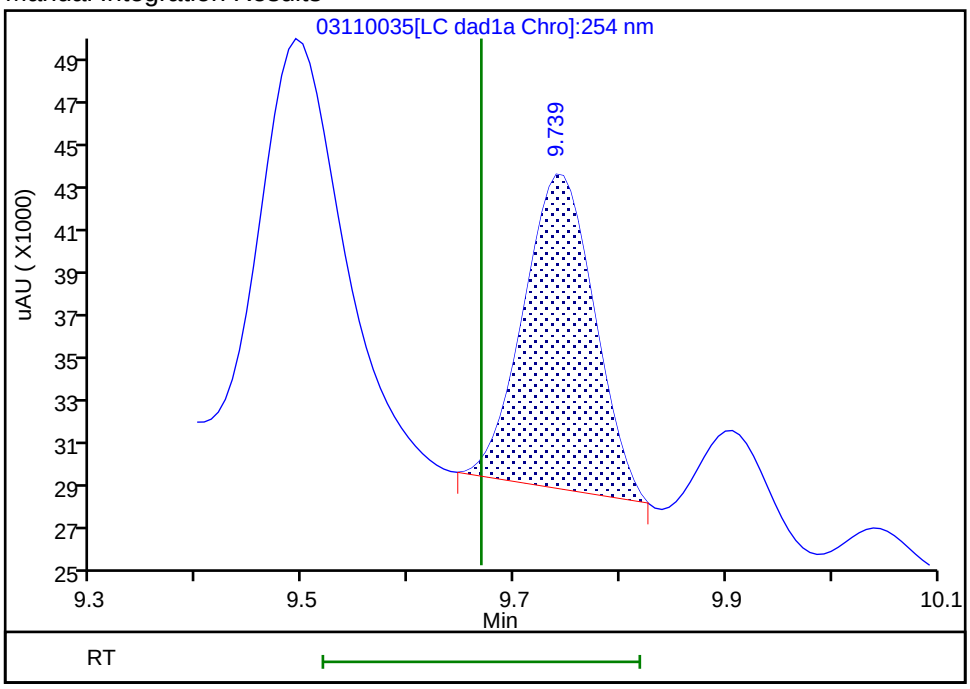
Processing Integration Results

RT: 9.74
Area: 348266
Amount: 1.814328
Amount Units: ug/mL



Manual Integration Results

RT: 9.74
Area: 67649
Amount: 0.352424
Amount Units: ug/mL



Reviewer: zhangji, 12-Mar-2022 09:40:16

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

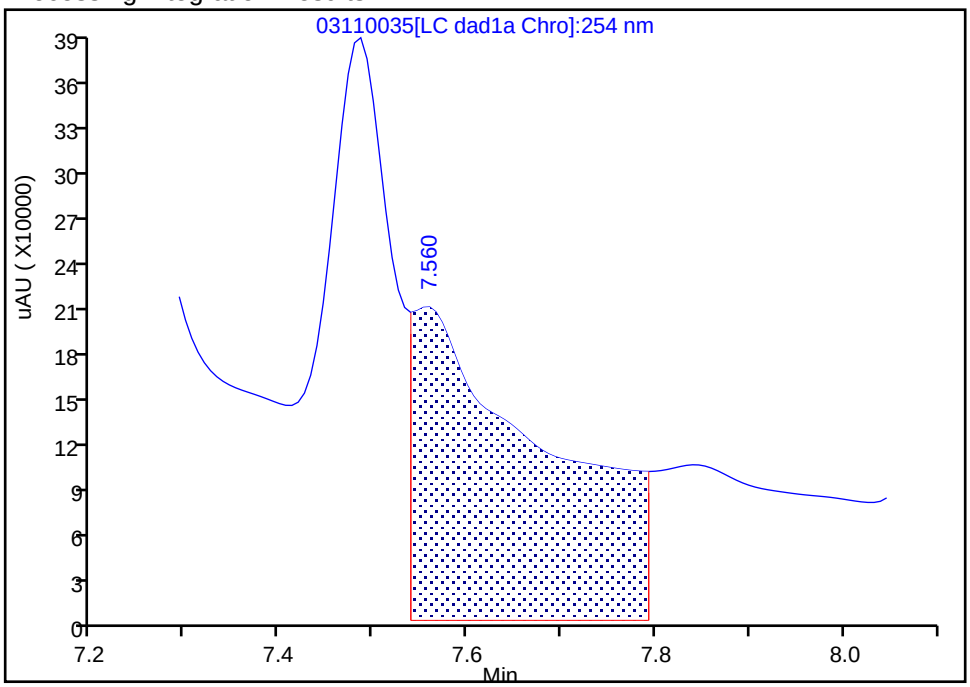
Data File:	\\chromfs\denver\chromdata\chhplc_x\20220311-109174.b\03110035.d				
Injection Date:	12-Mar-2022 00:20:50	Instrument ID:	CHHPLC_X3		
Lims ID:	280-159384-B-4-A	Lab Sample ID:	280-159384-4		
Client ID:	G0121-8				
Operator ID:	JZ	ALS Bottle#:	35	Worklist Smp#:	35
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

8 RDX, CAS: 121-82-4

Signal: 1

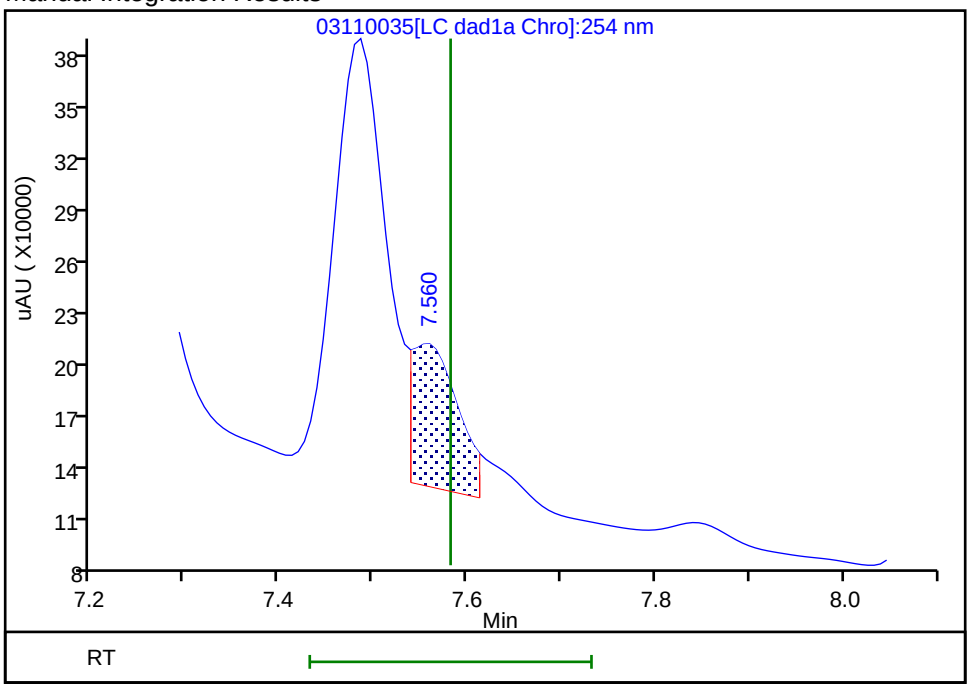
Processing Integration Results

RT: 7.56
Area: 1998484
Amount: 19.288674
Amount Units: ug/mL



Manual Integration Results

RT: 7.56
Area: 270644
Amount: 2.612162
Amount Units: ug/mL



Reviewer: zhangji, 12-Mar-2022 09:39:59
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

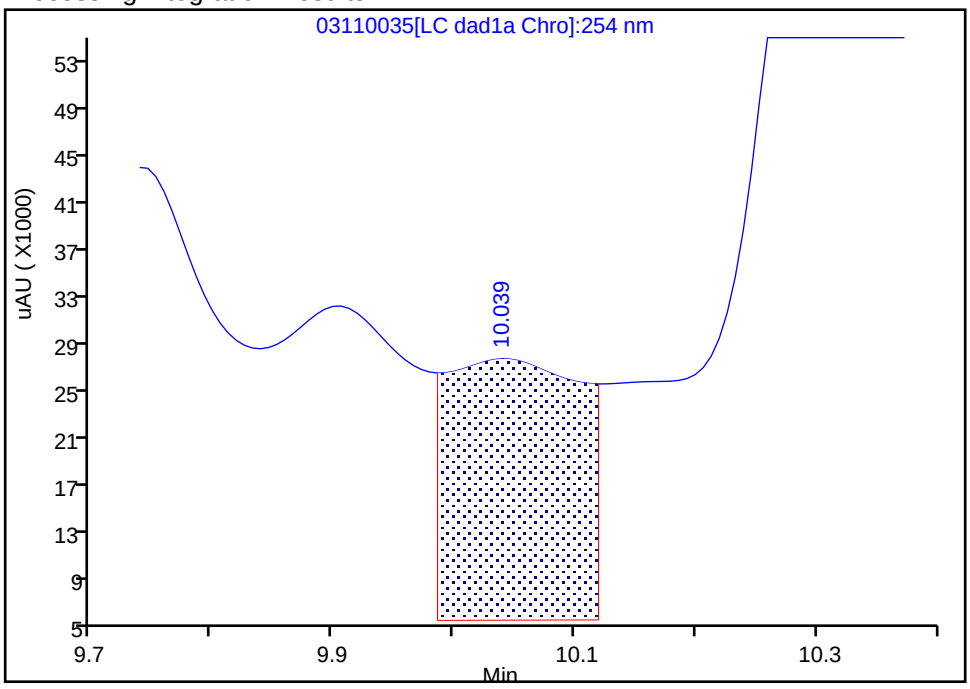
Data File:	\\chromfs\denver\chromdata\chhplc_x\20220311-109174.b\03110035.d				
Injection Date:	12-Mar-2022 00:20:50	Instrument ID:	CHHPLC_X3		
Lims ID:	280-159384-B-4-A	Lab Sample ID:	280-159384-4		
Client ID:	G0121-8				
Operator ID:	JZ	ALS Bottle#:	35	Worklist Smp#:	35
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

15 Tetryl, CAS: 479-45-8

Signal: 1

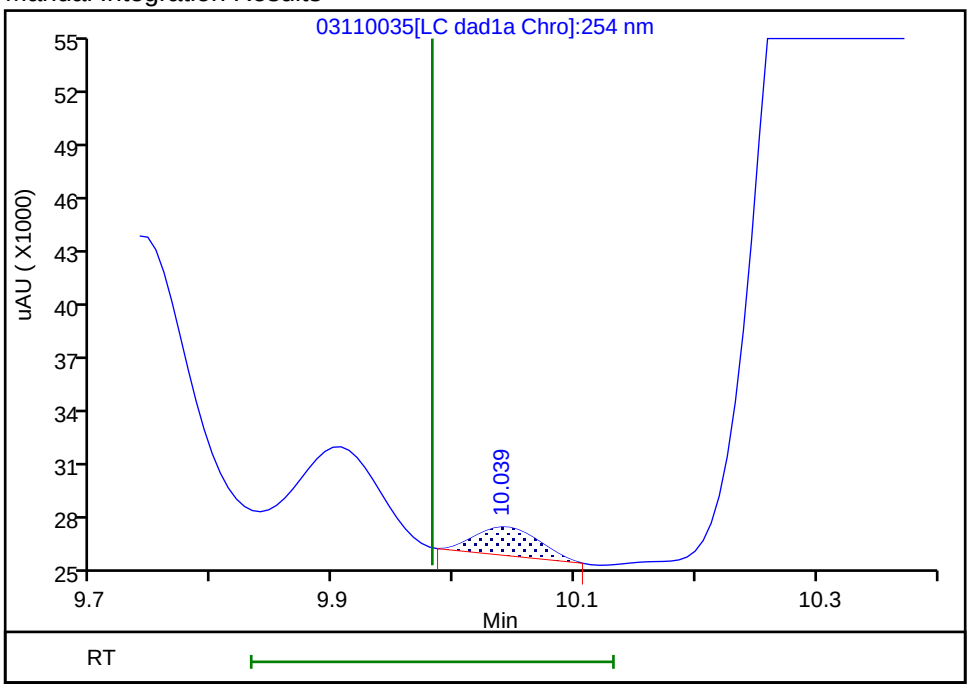
Processing Integration Results

RT: 10.04
Area: 170828
Amount: 1.001532
Amount Units: ug/mL



Manual Integration Results

RT: 10.04
Area: 5885
Amount: 0.034503
Amount Units: ug/mL



Reviewer: zhangji, 12-Mar-2022 09:40:22

Audit Action: Manually Integrated Audit Reason: Baseline

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-159384-1

SDG No.:

Client Sample ID: G0121-8 | Lab Sample ID: 280-159384-4

Matrix: Water | Lab File ID: 03150016.D

Analysis Method: 8330A | Date Collected: 03/02/2022 15:10

Extraction Method: 3535 | Date Extracted: 03/08/2022 11:19

Sample wt/vol: 491.4(mL) | Date Analyzed: 03/15/2022 22:48

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

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

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

Analysis Batch No.: 568709 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
121-14-2	2,4-Dinitrotoluene	0.081	U	0.10	0.081	0.028
88-72-2	2-Nitrotoluene	0.20	U M	0.21	0.20	0.087
99-08-1	3-Nitrotoluene	0.41	U	0.41	0.41	0.20
99-99-0	4-Nitrotoluene	0.41	U	0.42	0.41	0.10
5755-27-1	MNX	0.41	U	2.0	0.41	0.16
98-95-3	Nitrobenzene	0.20	U	0.21	0.20	0.093
121-82-4	RDX	1.8	J1	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	94		83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220315-109260.b\03150016.D
Lims ID: 280-159384-B-4-A
Client ID: G0121-8
Sample Type: Client
Inject. Date: 15-Mar-2022 22:48:27 ALS Bottle#: 16 Worklist Smp#: 16
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-159384-B-4-A
Misc. Info.: 280-0109260-016
Operator ID: JZ Instrument ID: CHHPLC_X5

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20220315-109260.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 16-Mar-2022 12:38:41 Calib Date: 03-Mar-2022 07:19:48
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1609

First Level Reviewer: zhangji Date: 16-Mar-2022 12:23:19

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
5 HMX	1		6.854			ND	
6 MNX	1		7.581			ND	
8 RDX	1	9.068	9.054	0.014	33846	0.1742	
9 Nitrobenzene	1		11.960			ND	
$ 10 1,2-Dinitrobenzene	1	13.114	13.160	-0.046	47052	0.1884	
12 1,3-Dinitrobenzene	1	15.474	15.514	-0.040	105024	0.1837	
14 o-Nitrotoluene	1		16.640			ND	U
16 p-Nitrotoluene	1		16.954			ND	
17 4-Amino-2,6-dinitrotoluene	1		17.574			ND	
18 m-Nitrotoluene	1		17.914			ND	
19 2-Amino-4,6-dinitrotoluene	1	18.494	18.580	-0.086	10269	0.0285	
20 1,3,5-Trinitrobenzene	1		18.794			ND	U
21 2,6-Dinitrotoluene	1		20.054			ND	U
22 2,4-Dinitrotoluene	1		20.574			ND	
23 Tetryl	1		24.307			ND	U
24 2,4,6-Trinitrotoluene	1		25.074			ND	

QC Flag Legend

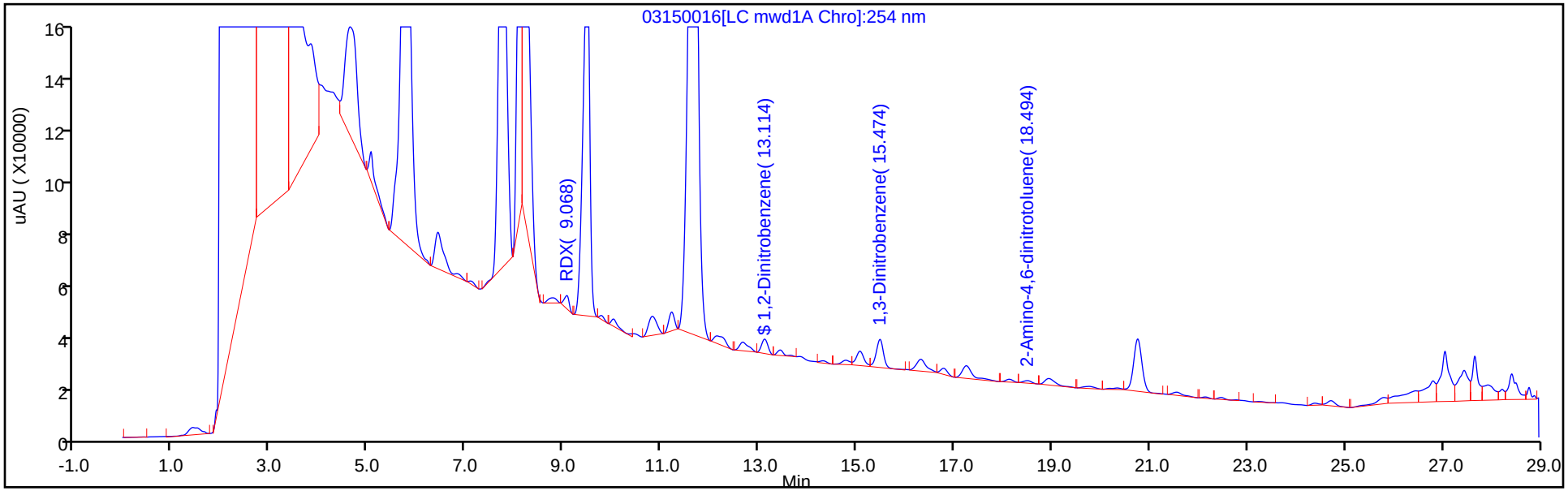
Processing Flags
Review Flags
U - Marked Undetected

Report Date: 16-Mar-2022 12:38:43 Chrom Revision: 2.3 14-Mar-2022 17:58:38

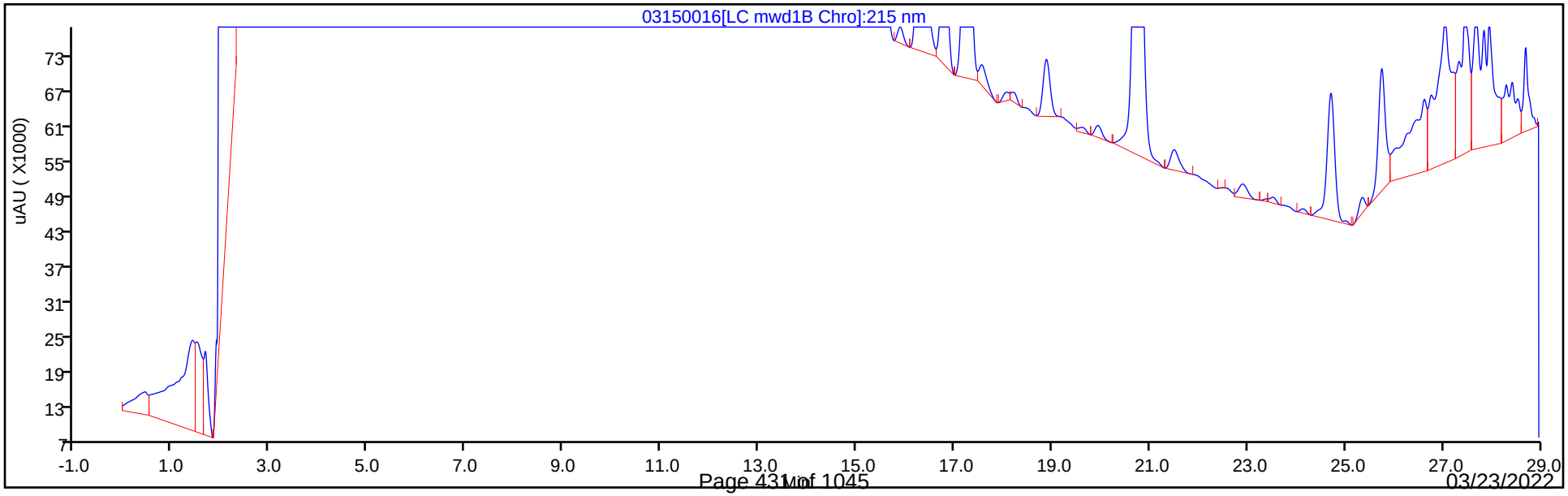
Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220315-109260.b\03150016.D				
Injection Date:	15-Mar-2022 22:48:27	Instrument ID:	CHHPLC_X5	Operator ID:	JZ
Lims ID:	280-159384-B-4-A	Lab Sample ID:	280-159384-4	Worklist Smp#:	16
Client ID:	G0121-8				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220315-109260.b\03150016.D				
Lims ID:	280-159384-B-4-A				
Client ID:	G0121-8				
Sample Type:	Client				
Inject. Date:	15-Mar-2022 22:48:27	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-159384-B-4-A				
Misc. Info.:	280-0109260-016				
Operator ID:	JZ	Instrument ID:	CHHPLC_X5		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220315-109260.b\8330_X5_Luna.m				
Limit Group:	GCSV - 8330				
Last Update:	16-Mar-2022 12:38:41	Calib Date:	03-Mar-2022 07:19:48		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020027.D				
Column 1 :	Luna-Phenyl hexyl (4.60 mm)		Det: LC mwd1A, 254 nm		
Process Host:	CTX1609				
First Level Reviewer: zhangji		Date:	16-Mar-2022 12:23:19		

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.1884	94.20

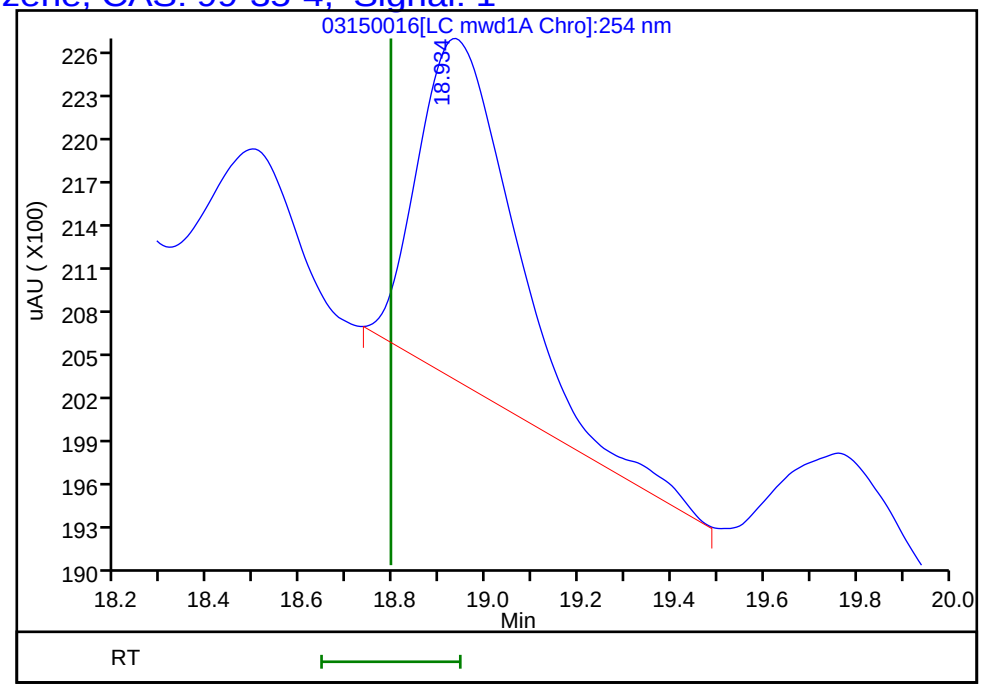
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220315-109260.b\03150016.D				
Injection Date:	15-Mar-2022 22:48:27	Instrument ID:	CHHPLC_X5		
Lims ID:	280-159384-B-4-A	Lab Sample ID:	280-159384-4		
Client ID:	G0121-8				
Operator ID:	JZ	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

20 1,3,5-Trinitrobenzene, CAS: 99-35-4, Signal: 1

RT: 18.93
Response: 34966
Amount: 0.084161



Reviewer: zhangji, 16-Mar-2022 12:23:19
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

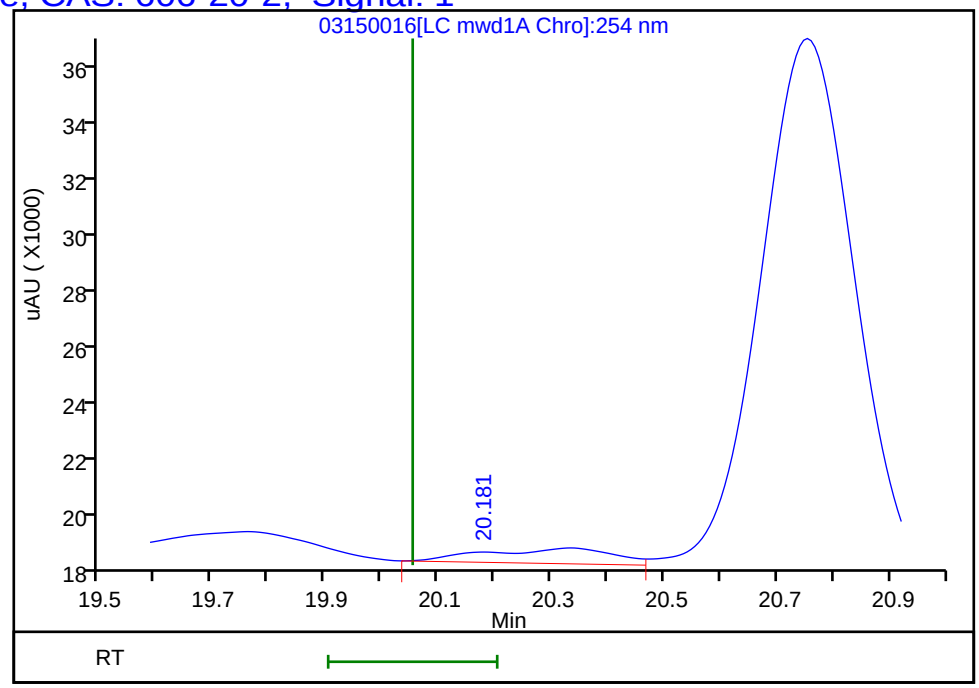
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220315-109260.b\03150016.D				
Injection Date:	15-Mar-2022 22:48:27	Instrument ID:	CHHPLC_X5		
Lims ID:	280-159384-B-4-A	Lab Sample ID:	280-159384-4		
Client ID:	G0121-8				
Operator ID:	JZ	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

21 2,6-Dinitrotoluene, CAS: 606-20-2, Signal: 1

RT: 20.18
Response: 8355
Amount: 0.031450



Reviewer: zhangji, 16-Mar-2022 12:23:19
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

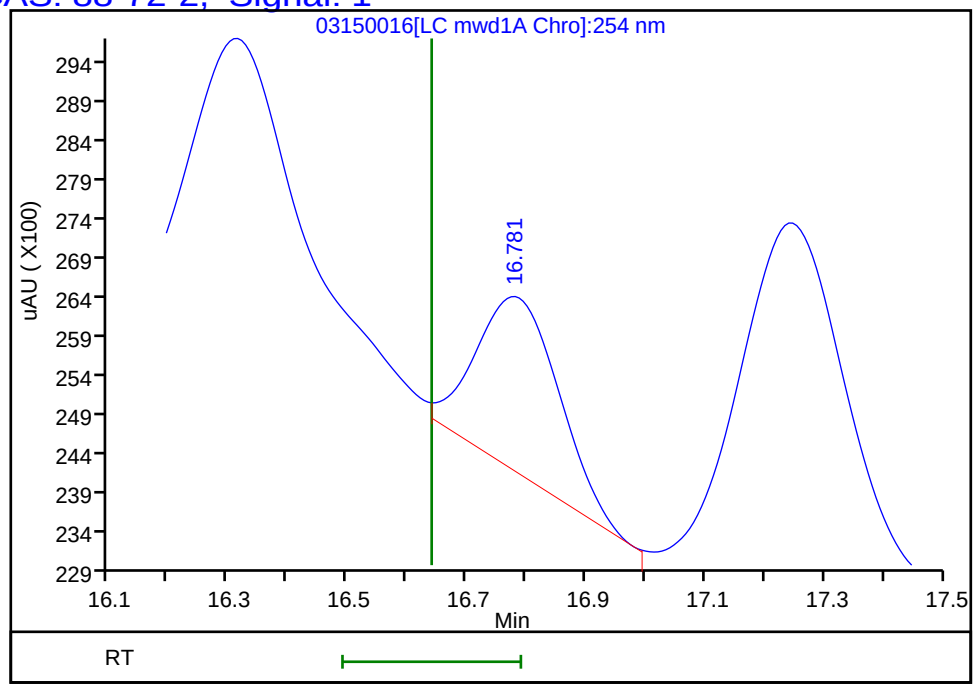
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220315-109260.b\03150016.D				
Injection Date:	15-Mar-2022 22:48:27	Instrument ID:	CHHPLC_X5		
Lims ID:	280-159384-B-4-A	Lab Sample ID:	280-159384-4		
Client ID:	G0121-8				
Operator ID:	JZ	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

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

RT: 16.78
Response: 21626
Amount: 0.092154



Reviewer: zhangji, 16-Mar-2022 12:23:19
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

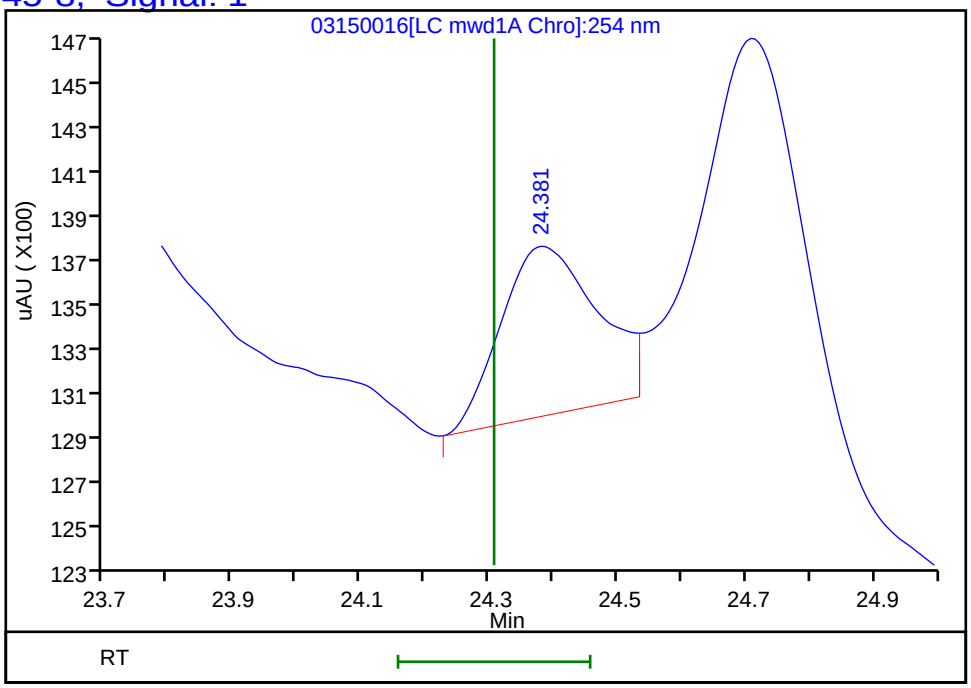
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220315-109260.b\03150016.D				
Injection Date:	15-Mar-2022 22:48:27	Instrument ID:	CHHPLC_X5		
Lims ID:	280-159384-B-4-A	Lab Sample ID:	280-159384-4		
Client ID:	G0121-8				
Operator ID:	JZ	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

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

RT: 24.38
Response: 7712
Amount: 0.022538



Reviewer: zhangji, 16-Mar-2022 12:23:19
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-159384-1

SDG No.:

Client Sample ID: G0122-8 | Lab Sample ID: 280-159384-5

Matrix: Water | Lab File ID: 03110036.D

Analysis Method: 8330A | Date Collected: 03/02/2022 12:45

Extraction Method: 3535 | Date Extracted: 03/08/2022 11:19

Sample wt/vol: 472.7(mL) | Date Analyzed: 03/12/2022 00:43

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

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

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

Analysis Batch No.: 568433 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	0.21	U M	0.22	0.21	0.089
99-65-0	1,3-Dinitrobenzene	0.11	U M	0.12	0.11	0.039
118-96-7	2,4,6-Trinitrotoluene	0.11	U	0.12	0.11	0.048
121-14-2	2,4-Dinitrotoluene	0.085	U	0.11	0.085	0.029
606-20-2	2,6-Dinitrotoluene	0.085	U	0.11	0.085	0.042
35572-78-2	2-Amino-4,6-dinitrotoluene	0.11	U	0.12	0.11	0.054
88-72-2	2-Nitrotoluene	0.21	U M	0.22	0.21	0.090
99-08-1	3-Nitrotoluene	0.42	U	0.42	0.42	0.21
99-99-0	4-Nitrotoluene	0.42	U M	0.43	0.42	0.11
2691-41-0	HMX	0.21	U	0.22	0.21	0.093
5755-27-1	MNX	27	M J1	2.1	0.42	0.16
98-95-3	Nitrobenzene	0.21	U M	0.22	0.21	0.096
121-82-4	RDX	5.6	M	0.22	0.21	0.054
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	86	M	83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20220311-109174.b\03110036.D
Lims ID: 280-159384-A-5-A
Client ID: G0122-8
Sample Type: Client
Inject. Date: 12-Mar-2022 00:43:46 ALS Bottle#: 36 Worklist Smp#: 36
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-159384-A-5-A
Misc. Info.: 280-0109174-036
Operator ID: JZ Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20220311-109174.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 12-Mar-2022 10:32:02 Calib Date: 05-Jan-2022 04:24:15
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040037.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1616

First Level Reviewer: zhangji Date: 12-Mar-2022 09:41:05

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/mL	Flags
4 HMX	1		6.595			ND	
7 MNX	1	7.246	7.211	0.035	319572	2.54	M
8 RDX	1	7.586	7.582	0.004	55037	0.5312	M
$ 10 1,2-Dinitrobenzene	1	8.526	8.529	-0.003	21424	0.1718	M
11 1,3,5-Trinitrobenzene	1		8.655			ND	U
12 1,3-Dinitrobenzene	1		9.282			ND	U
13 Nitrobenzene	1		9.668			ND	U
15 Tetryl	1		9.982			ND	U
17 2,4,6-Trinitrotoluene	1		10.888			ND	
18 4-Amino-2,6-dinitrotoluene	1	11.066	11.068	-0.002	3965	0.0263	M
19 2-Amino-4,6-dinitrotoluene	1		11.322			ND	
20 2,6-Dinitrotoluene	1		11.495			ND	
21 2,4-Dinitrotoluene	1		11.662			ND	
22 o-Nitrotoluene	1		12.508			ND	U
23 p-Nitrotoluene	1		12.935			ND	U
24 m-Nitrotoluene	1		13.502			ND	

QC Flag Legend

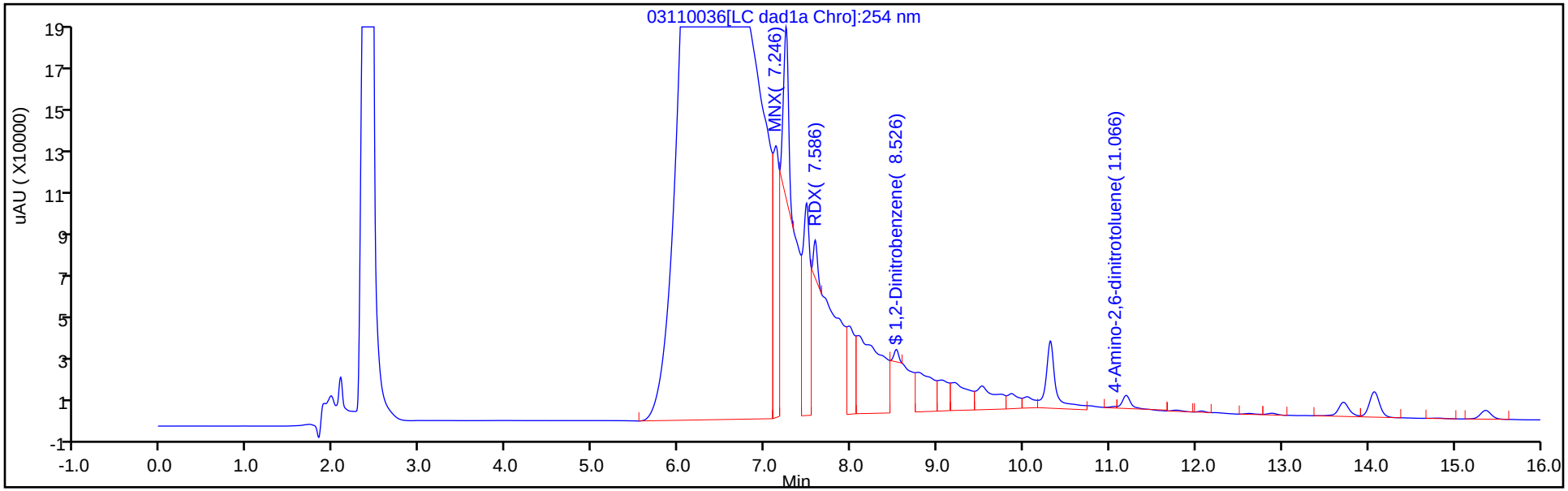
Processing Flags
Review Flags
M - Manually Integrated
U - Marked Undetected

Report Date: 12-Mar-2022 10:32:03 Chrom Revision: 2.3 16-Feb-2022 17:52:00

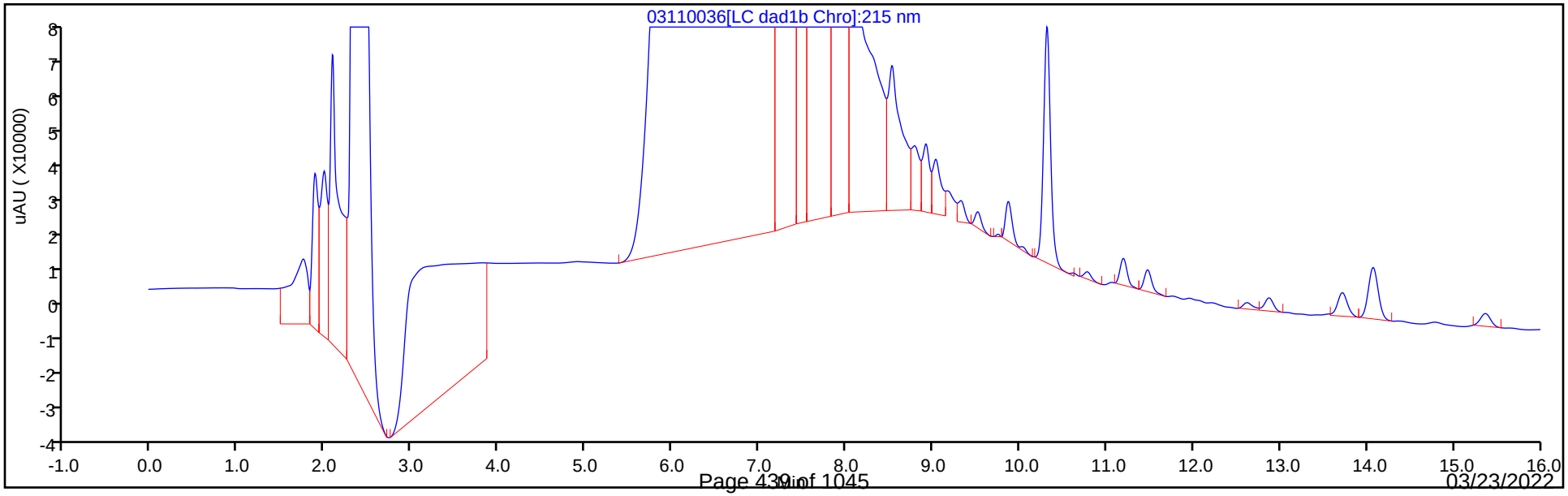
Eurofins Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20220311-109174.b\03110036.d				
Injection Date:	12-Mar-2022 00:43:46	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	280-159384-A-5-A	Lab Sample ID:	280-159384-5	Worklist Smp#:	36
Client ID:	G0122-8				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	36
Method:	8330_X3	Limit Group:	GCSV - 8330		

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



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



Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20220311-109174.b\03110036.D				
Lims ID:	280-159384-A-5-A				
Client ID:	G0122-8				
Sample Type:	Client				
Inject. Date:	12-Mar-2022 00:43:46	ALS Bottle#:	36	Worklist Smp#:	36
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-159384-A-5-A				
Misc. Info.:	280-0109174-036				
Operator ID:	JZ	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20220311-109174.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	12-Mar-2022 10:32:02	Calib Date:	05-Jan-2022 04:24:15		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040037.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1616				

First Level Reviewer: zhangji Date: 12-Mar-2022 09:41:05

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.1718	85.90

Manual Integration/User Assign Peak Report

Eurofins Denver

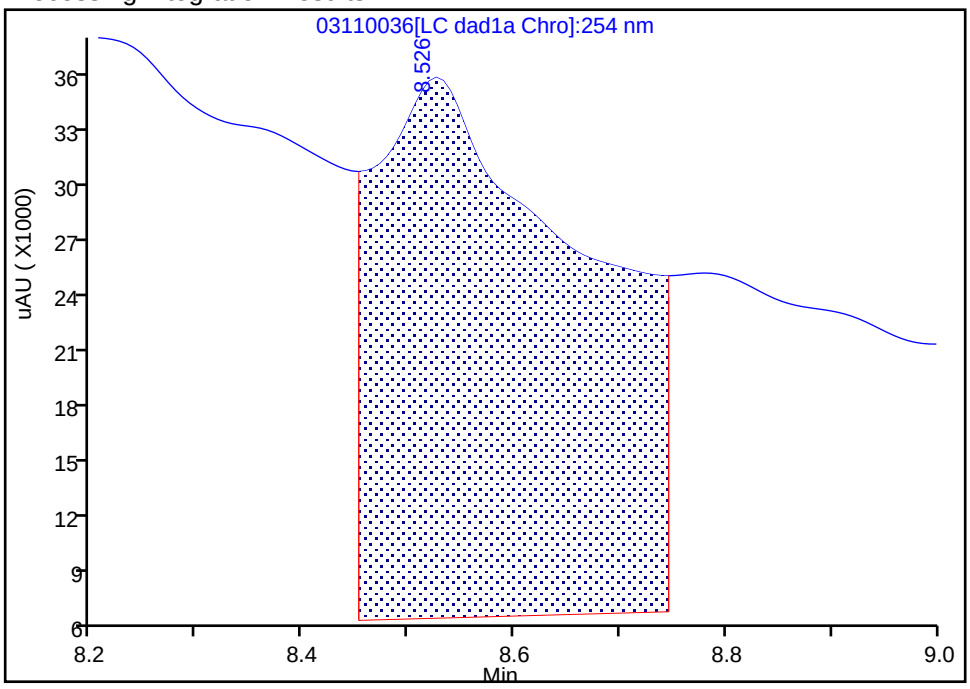
Data File:	\\chromfs\denver\chromdata\chhplc_x\20220311-109174.b\03110036.d				
Injection Date:	12-Mar-2022 00:43:46	Instrument ID:	CHHPLC_X3		
Lims ID:	280-159384-A-5-A	Lab Sample ID:	280-159384-5		
Client ID:	G0122-8				
Operator ID:	JZ	ALS Bottle#:	36	Worklist Smp#:	36
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

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

Signal: 1

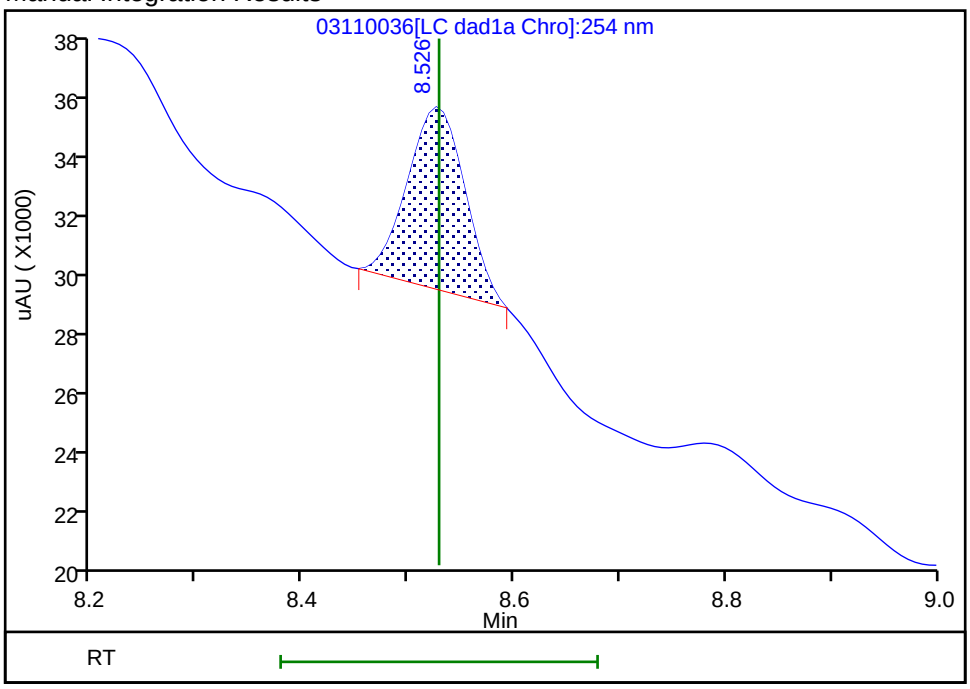
Processing Integration Results

RT: 8.53
Area: 398277
Amount: 3.193941
Amount Units: ug/mL



Manual Integration Results

RT: 8.53
Area: 21424
Amount: 0.171808
Amount Units: ug/mL



Reviewer: zhangji, 12-Mar-2022 09:42:04
Audit Action: Manually Integrated Audit Reason: Baseline

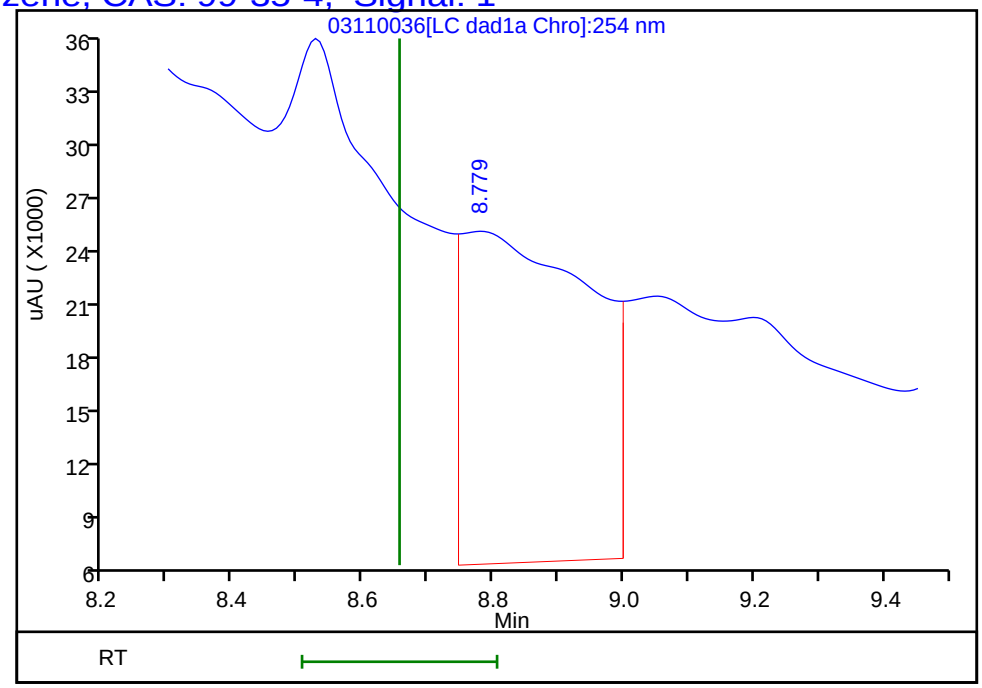
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20220311-109174.b\03110036.d				
Injection Date:	12-Mar-2022 00:43:46	Instrument ID:	CHHPLC_X3		
Lims ID:	280-159384-A-5-A	Lab Sample ID:	280-159384-5		
Client ID:	G0122-8				
Operator ID:	JZ	ALS Bottle#:	36	Worklist Smp#:	36
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

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

RT: 8.78
Response: 247252
Amount: 1.133687



Reviewer: zhangji, 12-Mar-2022 09:42:35
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

User Disabled Compound Report

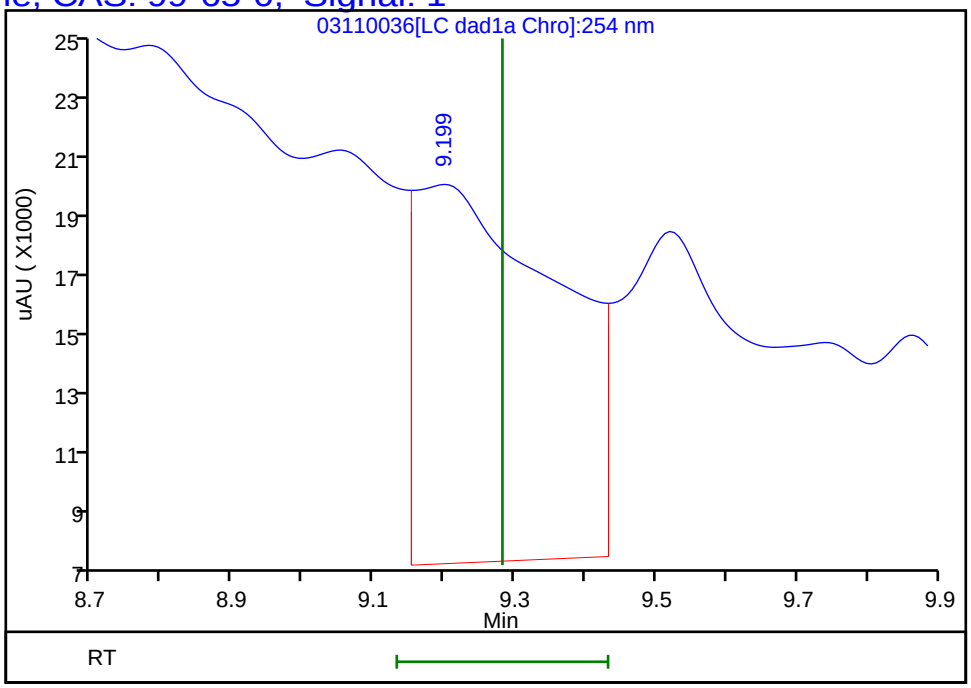
Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20220311-109174.b\03110036.d
Injection Date: 12-Mar-2022 00:43:46 Instrument ID: CHHPLC_X3
Lims ID: 280-159384-A-5-A Lab Sample ID: 280-159384-5
Client ID: G0122-8
Operator ID: JZ ALS Bottle#: 36 Worklist Smp#: 36
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330

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

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

RT: 9.20
Response: 178702
Amount: 0.619629



Reviewer: zhangji, 12-Mar-2022 09:42:35
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

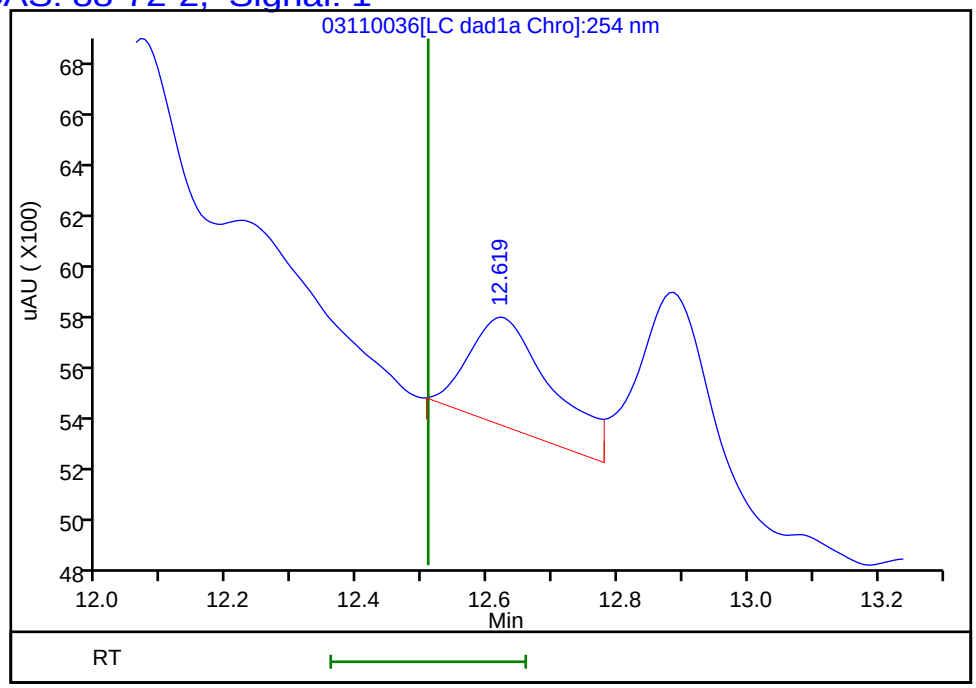
User Disabled Compound Report

Eurofins Denver

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Injection Date:	12-Mar-2022 00:43:46	Instrument ID:	CHHPLC_X3		
Lims ID:	280-159384-A-5-A	Lab Sample ID:	280-159384-5		
Client ID:	G0122-8				
Operator ID:	JZ	ALS Bottle#:	36	Worklist Smp#:	36
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

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

RT: 12.62
Response: 3840
Amount: 0.030091



Reviewer: zhangji, 12-Mar-2022 09:42:35
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Manual Integration/User Assign Peak Report

Eurofins Denver

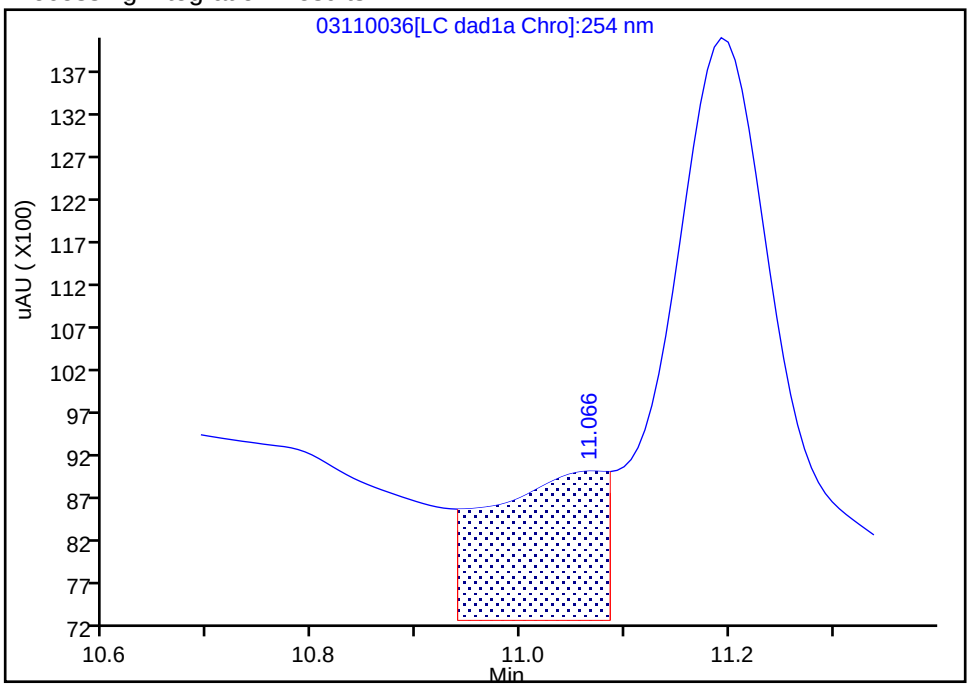
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Injection Date:	12-Mar-2022 00:43:46	Instrument ID:	CHHPLC_X3		
Lims ID:	280-159384-A-5-A	Lab Sample ID:	280-159384-5		
Client ID:	G0122-8				
Operator ID:	JZ	ALS Bottle#:	36	Worklist Smp#:	36
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

18 4-Amino-2,6-dinitrotoluene, CAS: 19406-51-0

Signal: 1

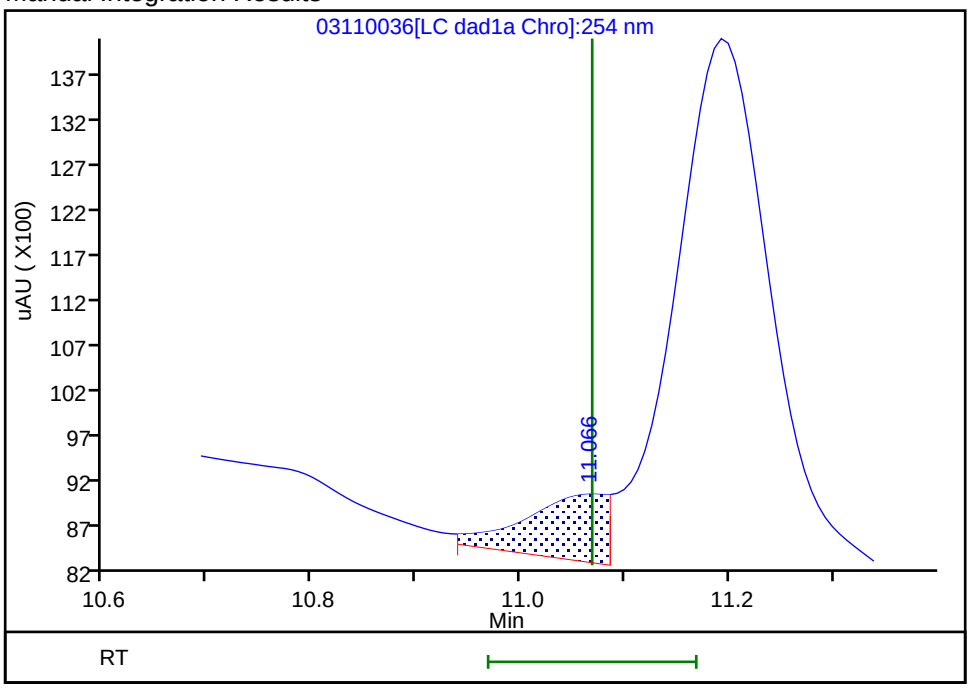
Processing Integration Results

RT: 11.07
Area: 13350
Amount: 0.088419
Amount Units: ug/mL



Manual Integration Results

RT: 11.07
Area: 3965
Amount: 0.026261
Amount Units: ug/mL



Reviewer: zhangji, 12-Mar-2022 09:42:24
Audit Action: Assigned New Baseline Audit Reason: Baseline

User Disabled Compound Report

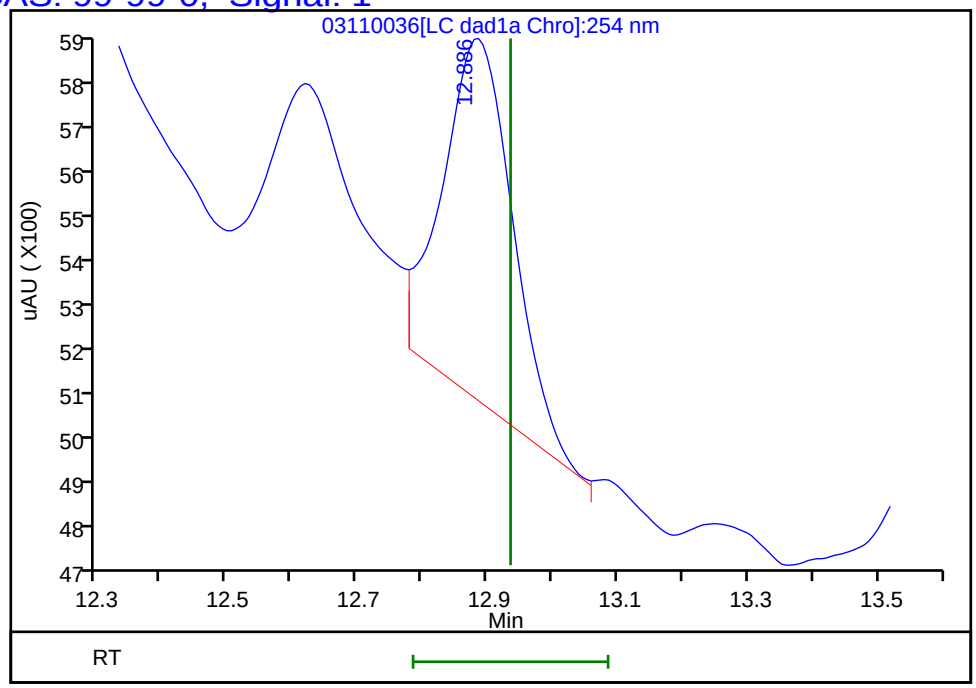
Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20220311-109174.b\03110036.d
Injection Date: 12-Mar-2022 00:43:46 Instrument ID: CHHPLC_X3
Lims ID: 280-159384-A-5-A Lab Sample ID: 280-159384-5
Client ID: G0122-8
Operator ID: JZ ALS Bottle#: 36 Worklist Smp#: 36
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330

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

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

RT: 12.89
Response: 5894
Amount: 0.055481



Reviewer: zhangji, 12-Mar-2022 09:42:35
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Manual Integration/User Assign Peak Report

Eurofins Denver

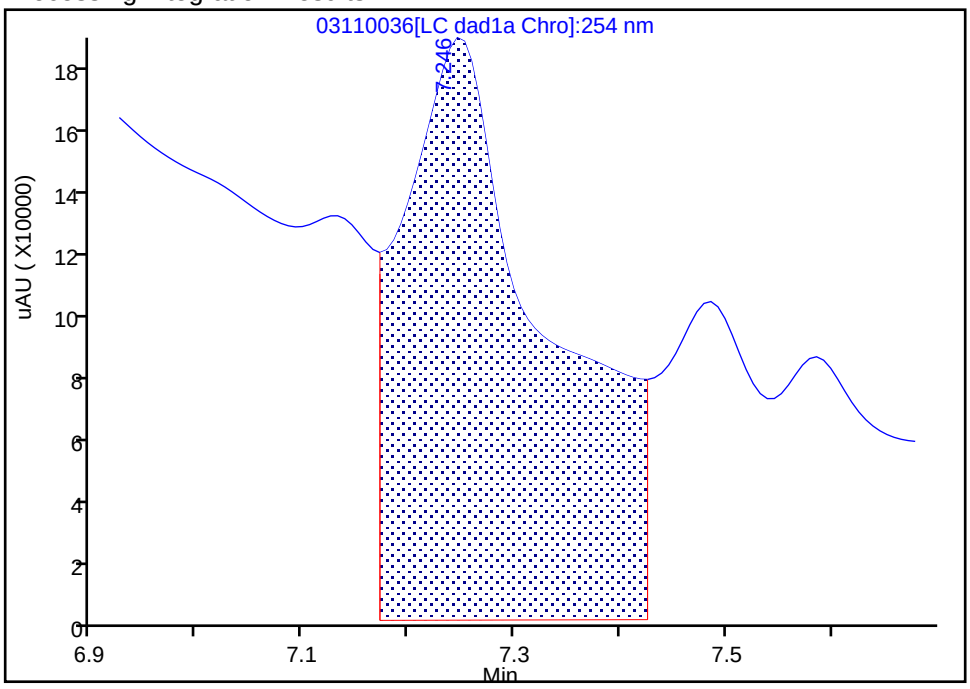
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Injection Date:	12-Mar-2022 00:43:46	Instrument ID:	CHHPLC_X3		
Lims ID:	280-159384-A-5-A	Lab Sample ID:	280-159384-5		
Client ID:	G0122-8				
Operator ID:	JZ	ALS Bottle#:	36	Worklist Smp#:	36
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

7 MNX, CAS: 5755-27-1

Signal: 1

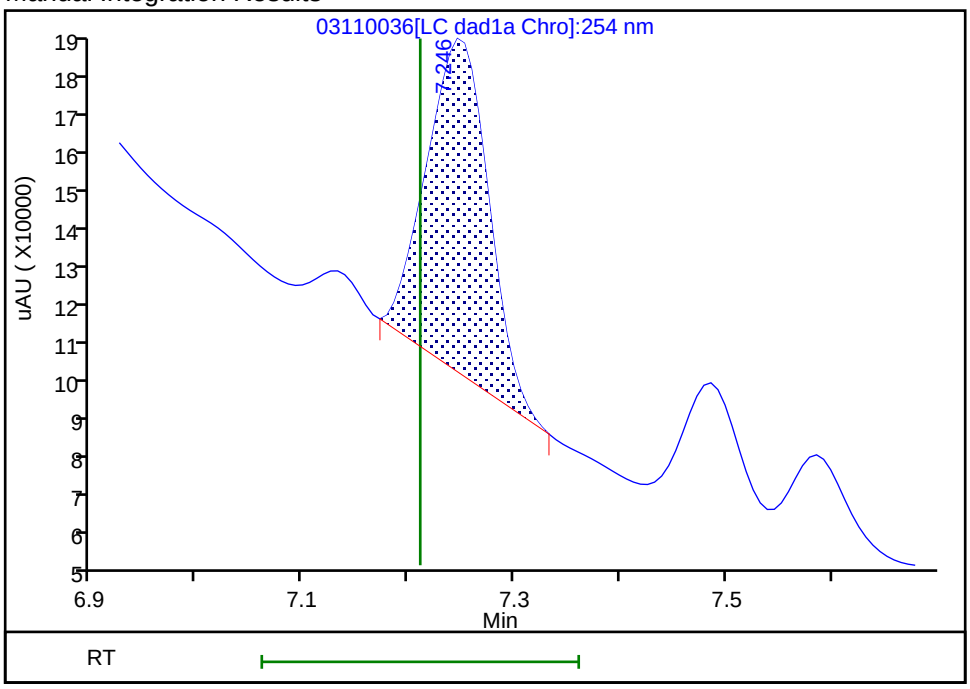
Processing Integration Results

RT: 7.25
Area: 1711158
Amount: 13.581113
Amount Units: ug/mL



Manual Integration Results

RT: 7.25
Area: 319572
Amount: 2.536378
Amount Units: ug/mL



Reviewer: zhangji, 12-Mar-2022 09:41:52
Audit Action: Manually Integrated Audit Reason: Baseline

User Disabled Compound Report

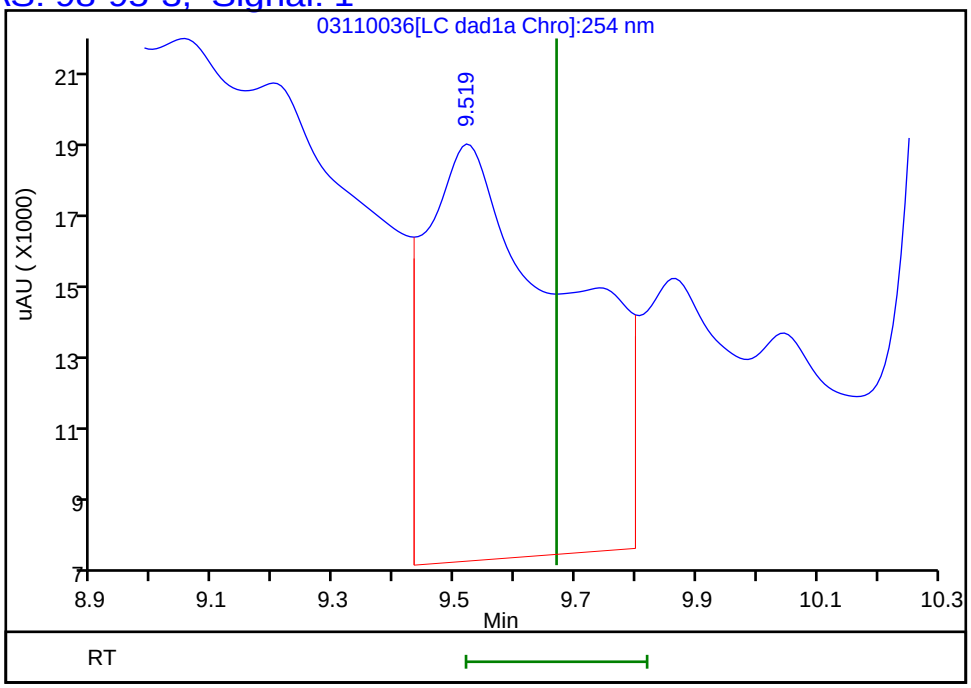
Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20220311-109174.b\03110036.d
Injection Date: 12-Mar-2022 00:43:46 Instrument ID: CHHPLC_X3
Lims ID: 280-159384-A-5-A Lab Sample ID: 280-159384-5
Client ID: G0122-8
Operator ID: JZ ALS Bottle#: 36 Worklist Smp#: 36
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330

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

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

RT: 9.52
Response: 176005
Amount: 0.916916



Reviewer: zhangji, 12-Mar-2022 09:42:35
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Manual Integration/User Assign Peak Report

Eurofins Denver

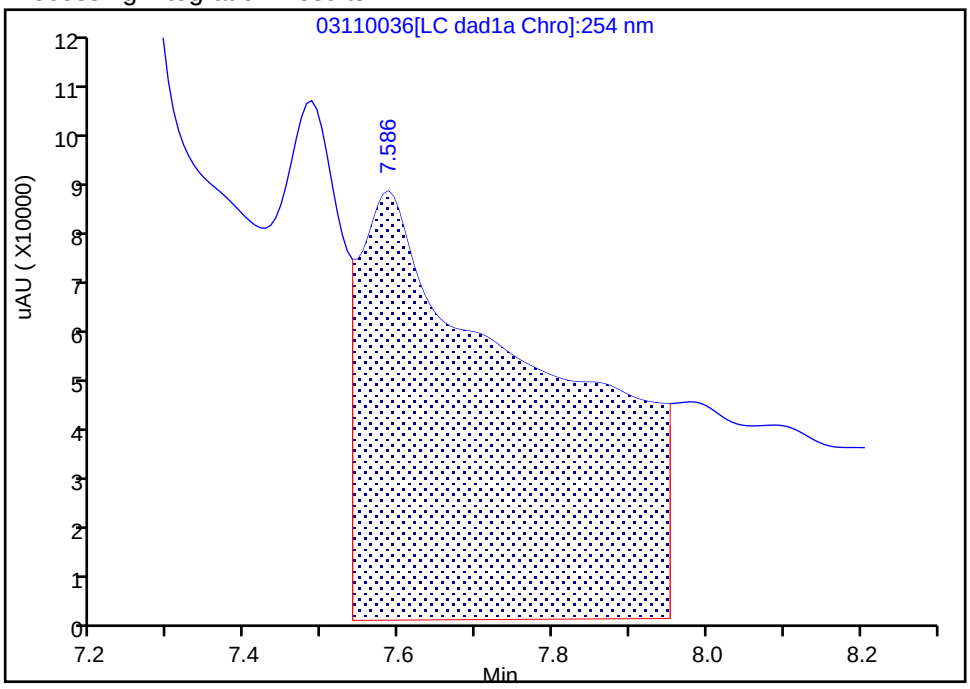
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Injection Date:	12-Mar-2022 00:43:46	Instrument ID:	CHHPLC_X3		
Lims ID:	280-159384-A-5-A	Lab Sample ID:	280-159384-5		
Client ID:	G0122-8				
Operator ID:	JZ	ALS Bottle#:	36	Worklist Smp#:	36
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

8 RDX, CAS: 121-82-4

Signal: 1

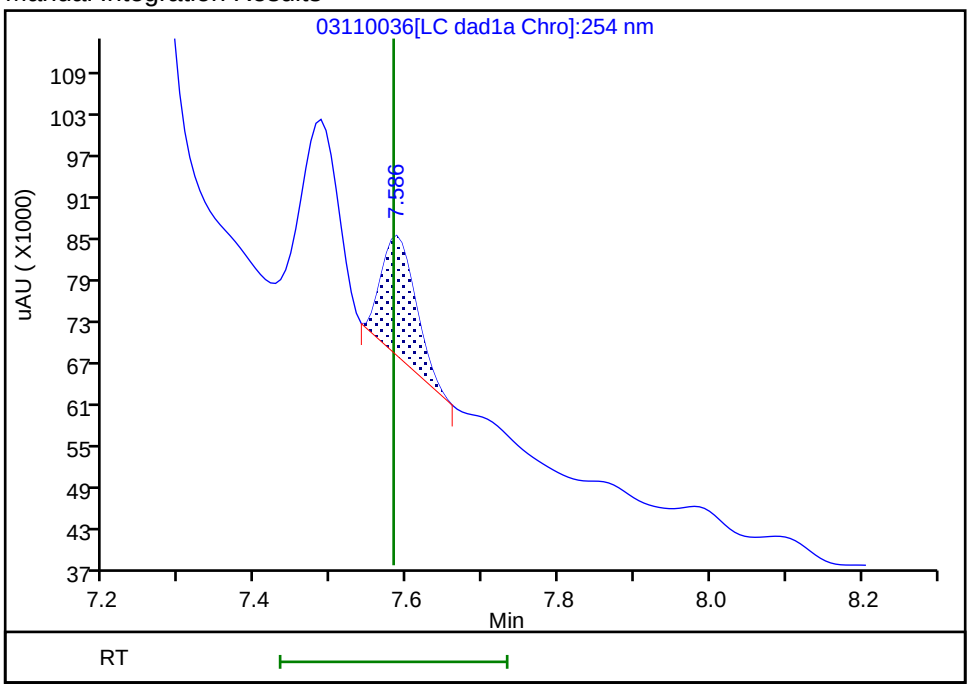
Processing Integration Results

RT: 7.59
Area: 1319037
Amount: 12.730887
Amount Units: ug/mL



Manual Integration Results

RT: 7.59
Area: 55037
Amount: 0.531198
Amount Units: ug/mL



Reviewer: zhangji, 12-Mar-2022 09:41:56
Audit Action: Manually Integrated Audit Reason: Baseline

User Disabled Compound Report

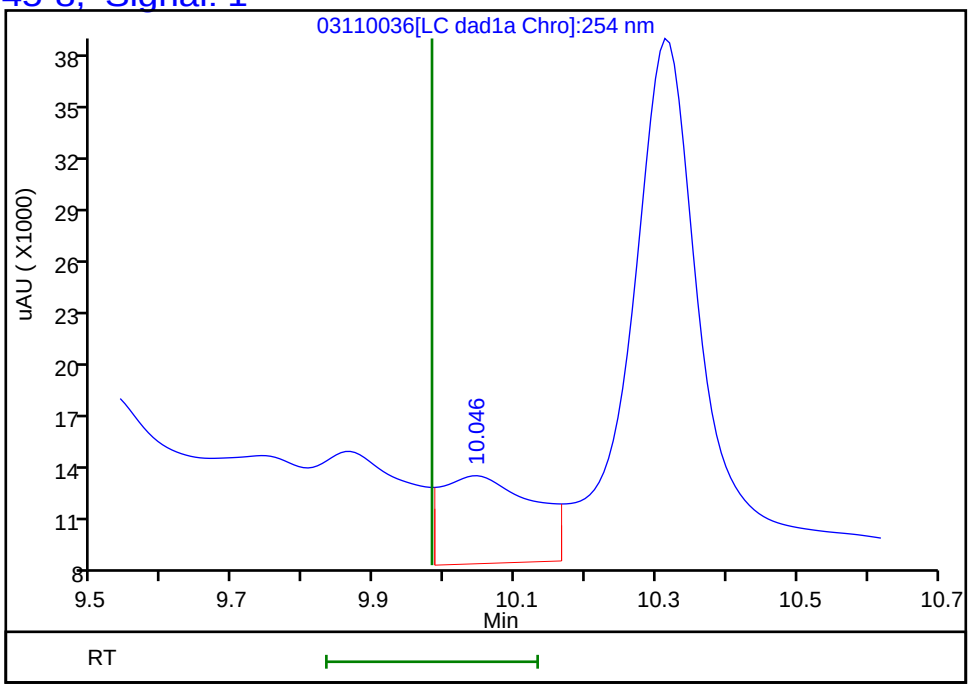
Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20220311-109174.b\03110036.d
Injection Date: 12-Mar-2022 00:43:46 Instrument ID: CHHPLC_X3
Lims ID: 280-159384-A-5-A Lab Sample ID: 280-159384-5
Client ID: G0122-8
Operator ID: JZ ALS Bottle#: 36 Worklist Smp#: 36
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330

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

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

RT: 10.05
Response: 46500
Amount: 0.272621



Reviewer: zhangji, 12-Mar-2022 09:42:35
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-159384-1

SDG No.:

Client Sample ID: G0122-8 | Lab Sample ID: 280-159384-5

Matrix: Water | Lab File ID: 03150017.D

Analysis Method: 8330A | Date Collected: 03/02/2022 12:45

Extraction Method: 3535 | Date Extracted: 03/08/2022 11:19

Sample wt/vol: 472.7(mL) | Date Analyzed: 03/15/2022 23:23

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

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

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

Analysis Batch No.: 568709 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
19406-51-0	4-Amino-2,6-dinitrotoluene	0.13	U	0.16	0.13	0.061
5755-27-1	*MNX*	*1.1*	*J M J1*	*2.1*	0.42	*0.16*

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

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220315-109260.b\03150017.D
Lims ID: 280-159384-A-5-A
Client ID: G0122-8
Sample Type: Client
Inject. Date: 15-Mar-2022 23:23:37 ALS Bottle#: 17 Worklist Smp#: 17
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-159384-A-5-A
Misc. Info.: 280-0109260-017
Operator ID: JZ Instrument ID: CHHPLC_X5

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20220315-109260.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 16-Mar-2022 12:38:41 Calib Date: 03-Mar-2022 07:19:48
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1609

First Level Reviewer: zhangji Date: 16-Mar-2022 12:24:02

	Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
	5 HMX	1	6.829	6.854	-0.025	33755	0.2032	M
	6 MNX	1	7.555	7.581	-0.026	25172	0.1007	M
	8 RDX	1	9.029	9.054	-0.025	134391	0.6916	M
	9 Nitrobenzene	1		11.960			ND	
$	10 1,2-Dinitrobenzene	1	13.155	13.160	-0.005	47938	0.1919	M
	12 1,3-Dinitrobenzene	1		15.514			ND	
	14 o-Nitrotoluene	1	16.588	16.640	-0.052	96187	0.4099	M
	16 p-Nitrotoluene	1		16.954			ND	
	17 4-Amino-2,6-dinitrotoluene	1		17.574			ND	
	18 m-Nitrotoluene	1		17.914			ND	
	19 2-Amino-4,6-dinitrotoluene	1		18.580			ND	
	20 1,3,5-Trinitrobenzene	1		18.794			ND	U
	21 2,6-Dinitrotoluene	1		20.054			ND	
	22 2,4-Dinitrotoluene	1		20.574			ND	
	23 Tetryl	1		24.307			ND	
	24 2,4,6-Trinitrotoluene	1		25.074			ND	

QC Flag Legend

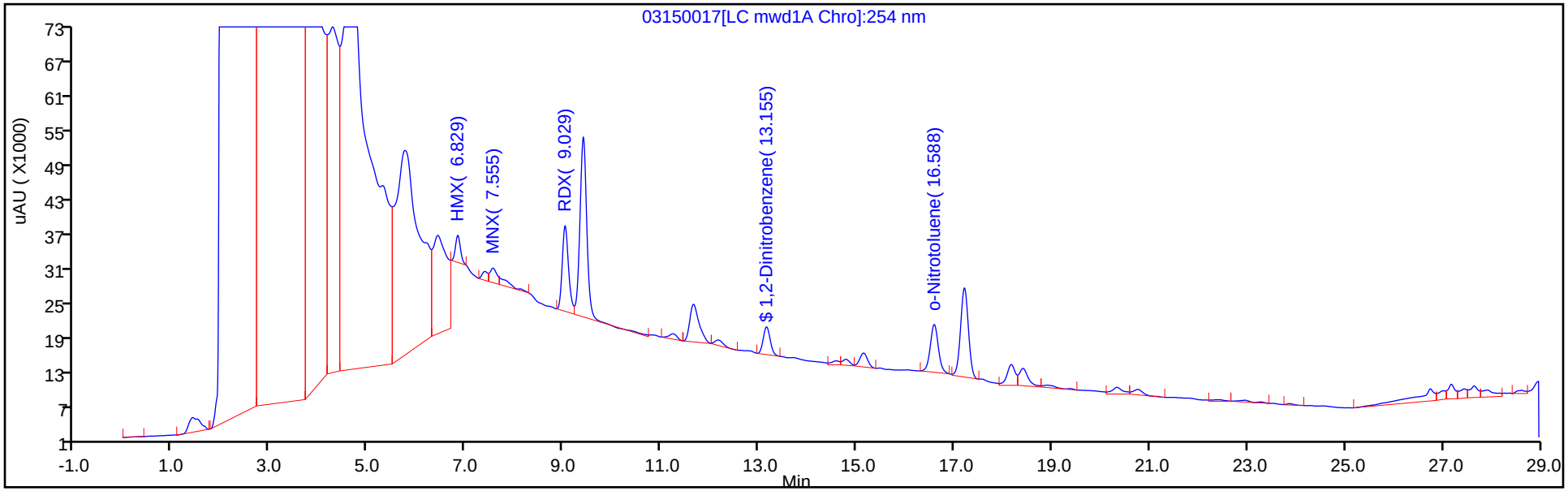
Processing Flags
Review Flags
M - Manually Integrated
U - Marked Undetected

Report Date: 16-Mar-2022 12:38:42 Chrom Revision: 2.3 14-Mar-2022 17:58:38

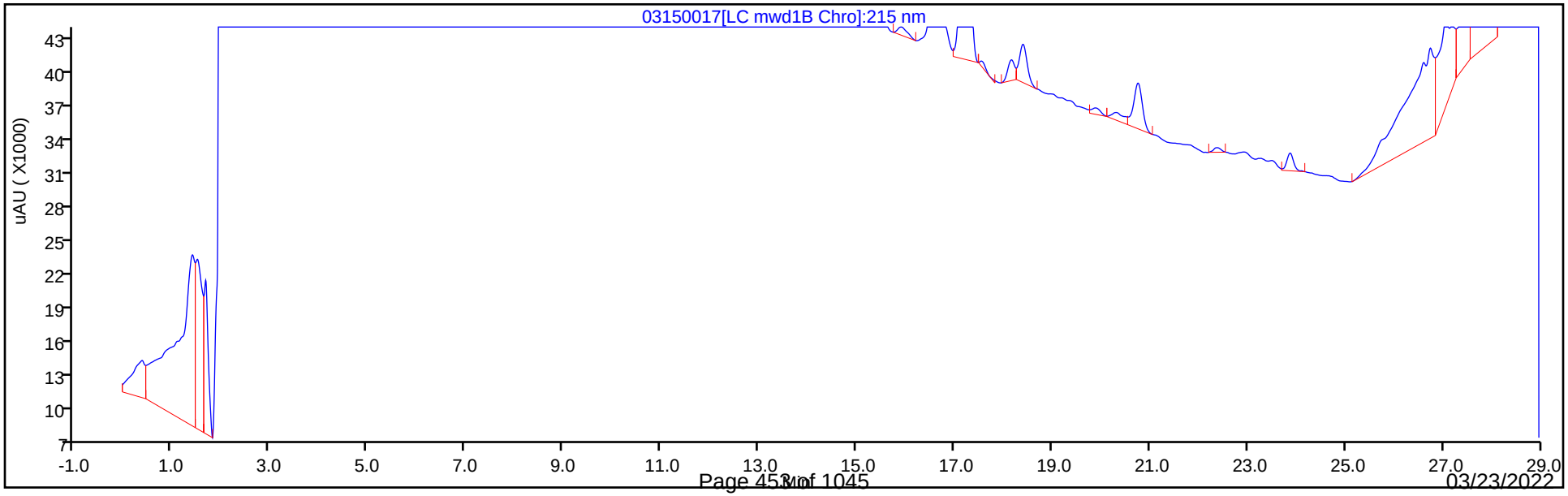
Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220315-109260.b\03150017.D				
Injection Date:	15-Mar-2022 23:23:37	Instrument ID:	CHHPLC_X5	Operator ID:	JZ
Lims ID:	280-159384-A-5-A	Lab Sample ID:	280-159384-5	Worklist Smp#:	17
Client ID:	G0122-8				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	17
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220315-109260.b\03150017.D				
Lims ID:	280-159384-A-5-A				
Client ID:	G0122-8				
Sample Type:	Client				
Inject. Date:	15-Mar-2022 23:23:37	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-159384-A-5-A				
Misc. Info.:	280-0109260-017				
Operator ID:	JZ	Instrument ID:	CHHPLC_X5		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220315-109260.b\8330_X5_Luna.m				
Limit Group:	GCSV - 8330				
Last Update:	16-Mar-2022 12:38:41	Calib Date:	03-Mar-2022 07:19:48		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020027.D				
Column 1 :	Luna-Phenyl hexyl (4.60 mm)		Det: LC mwd1A, 254 nm		
Process Host:	CTX1609				
First Level Reviewer: zhangji		Date:	16-Mar-2022 12:24:02		

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.1919	95.97

Manual Integration/User Assign Peak Report

Eurofins Denver

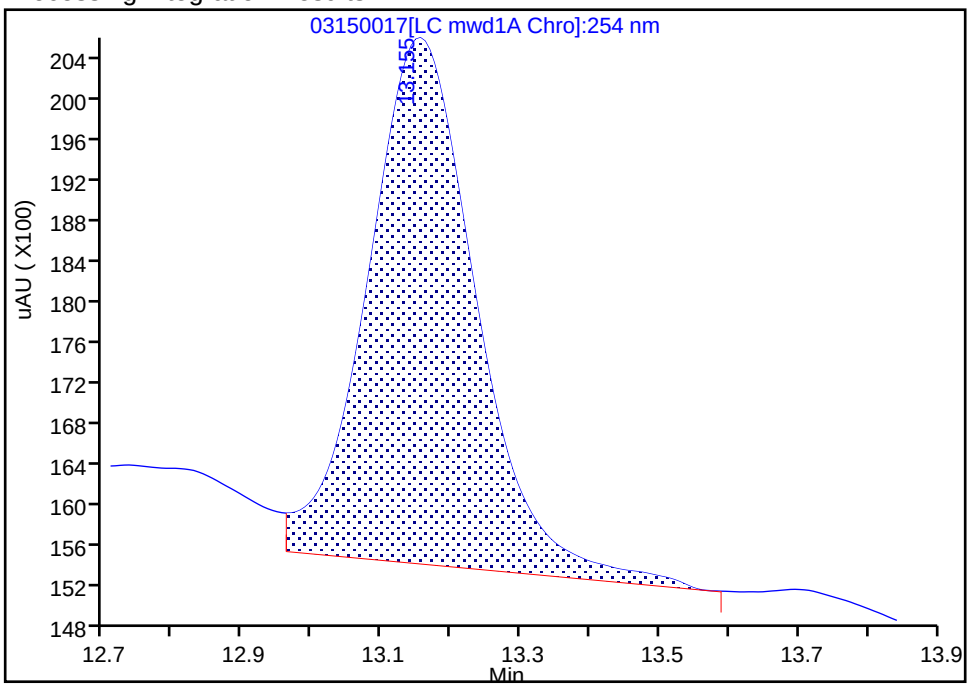
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Injection Date:	15-Mar-2022 23:23:37	Instrument ID:	CHHPLC_X5		
Lims ID:	280-159384-A-5-A	Lab Sample ID:	280-159384-5		
Client ID:	G0122-8				
Operator ID:	JZ	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

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

Signal: 1

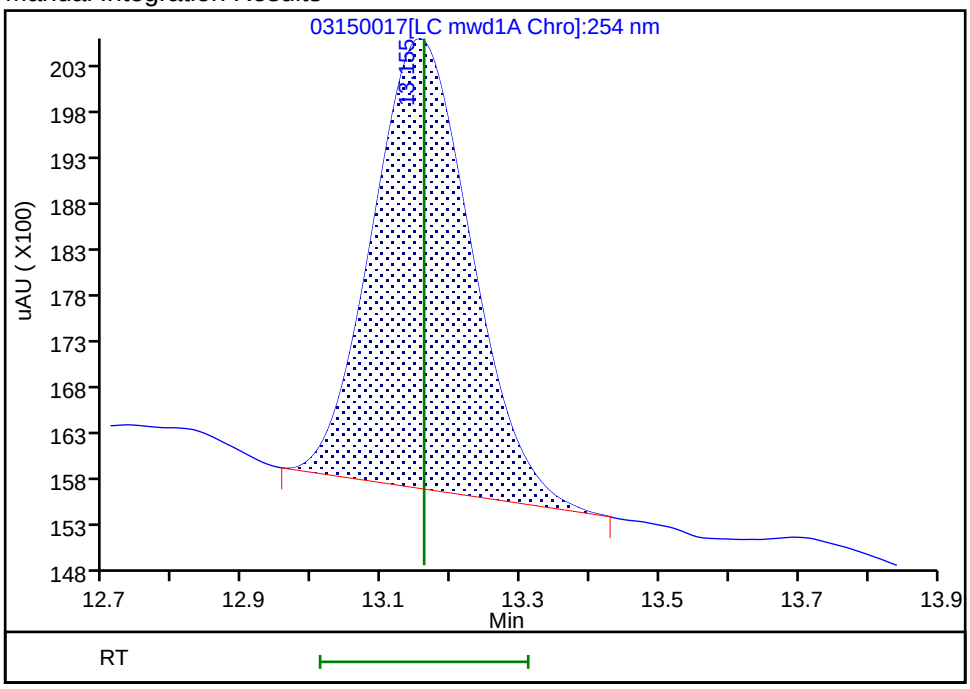
Processing Integration Results

RT: 13.16
Area: 55850
Amount: 0.223621
Amount Units: ug/ml



Manual Integration Results

RT: 13.16
Area: 47938
Amount: 0.191942
Amount Units: ug/ml



Reviewer: zhangji, 16-Mar-2022 12:23:34

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

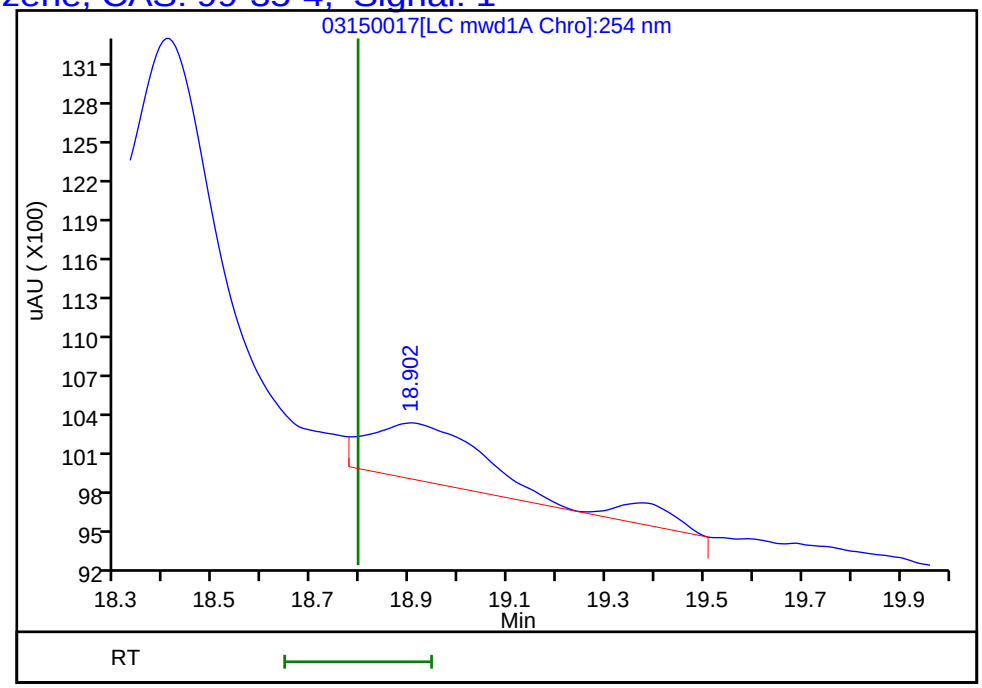
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220315-109260.b\03150017.D				
Injection Date:	15-Mar-2022 23:23:37	Instrument ID:	CHHPLC_X5		
Lims ID:	280-159384-A-5-A	Lab Sample ID:	280-159384-5		
Client ID:	G0122-8				
Operator ID:	JZ	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

20 1,3,5-Trinitrobenzene, CAS: 99-35-4, Signal: 1

RT: 18.90
Response: 8499
Amount: 0.020457



Reviewer: zhangji, 16-Mar-2022 12:24:02
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Manual Integration/User Assign Peak Report

Eurofins Denver

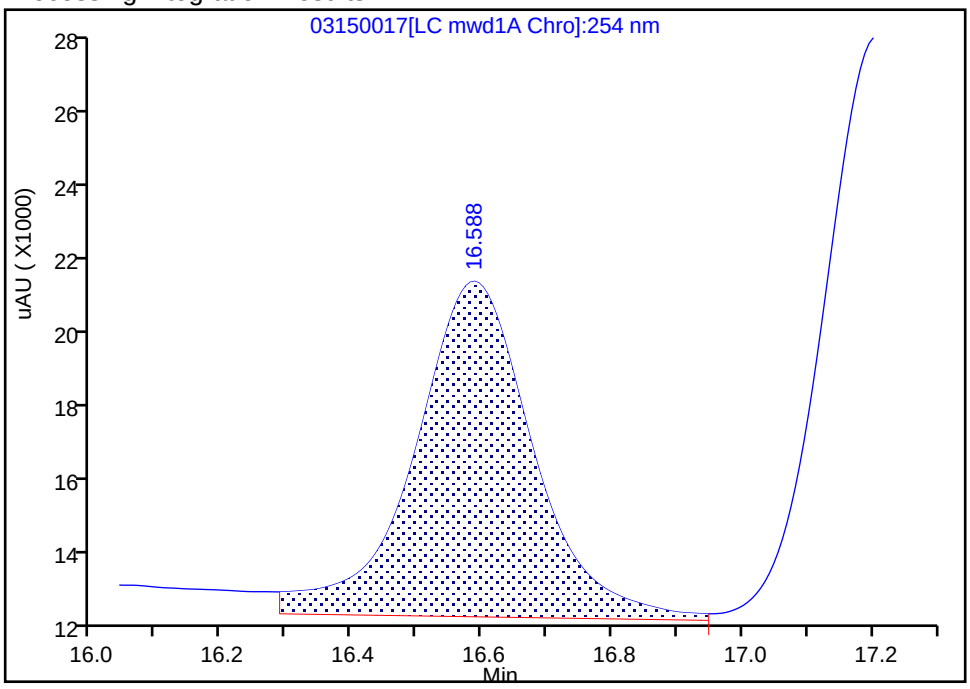
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Injection Date:	15-Mar-2022 23:23:37	Instrument ID:	CHHPLC_X5		
Lims ID:	280-159384-A-5-A	Lab Sample ID:	280-159384-5		
Client ID:	G0122-8				
Operator ID:	JZ	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

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

Signal: 1

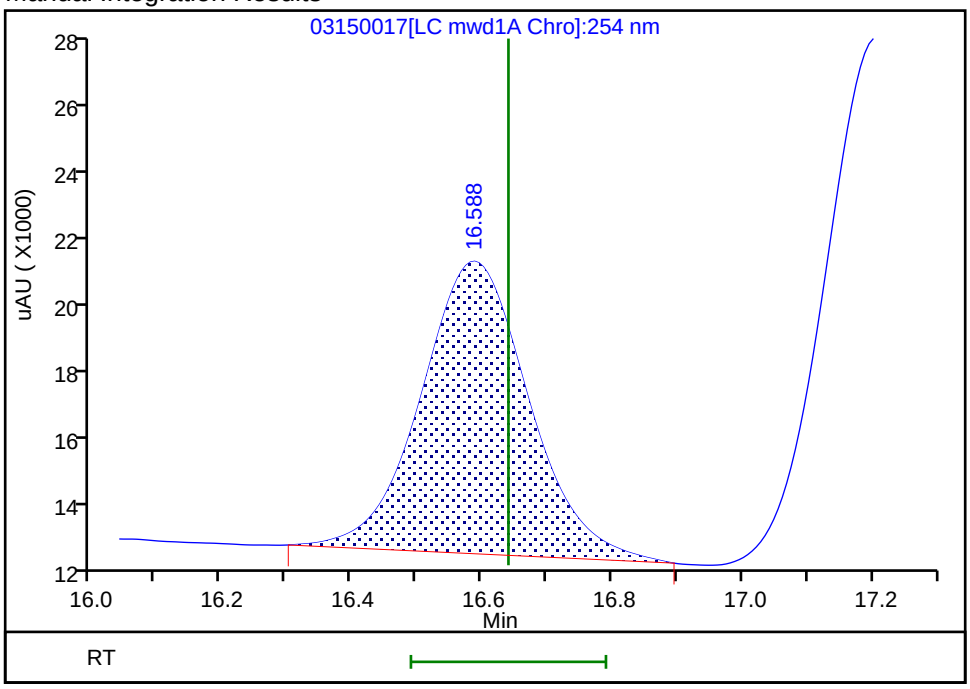
Processing Integration Results

RT: 16.59
Area: 111436
Amount: 0.474858
Amount Units: ug/ml



Manual Integration Results

RT: 16.59
Area: 96187
Amount: 0.409878
Amount Units: ug/ml



Reviewer: zhangji, 16-Mar-2022 12:23:30

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

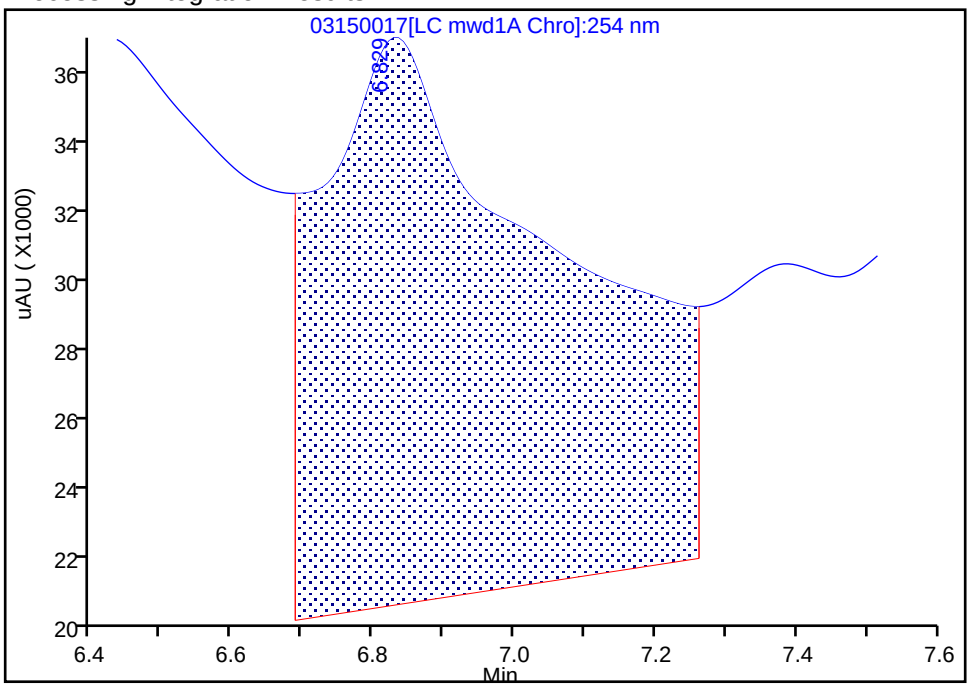
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220315-109260.b\03150017.D				
Injection Date:	15-Mar-2022 23:23:37	Instrument ID:	CHHPLC_X5		
Lims ID:	280-159384-A-5-A	Lab Sample ID:	280-159384-5		
Client ID:	G0122-8				
Operator ID:	JZ	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

5 HMX, CAS: 2691-41-0

Signal: 1

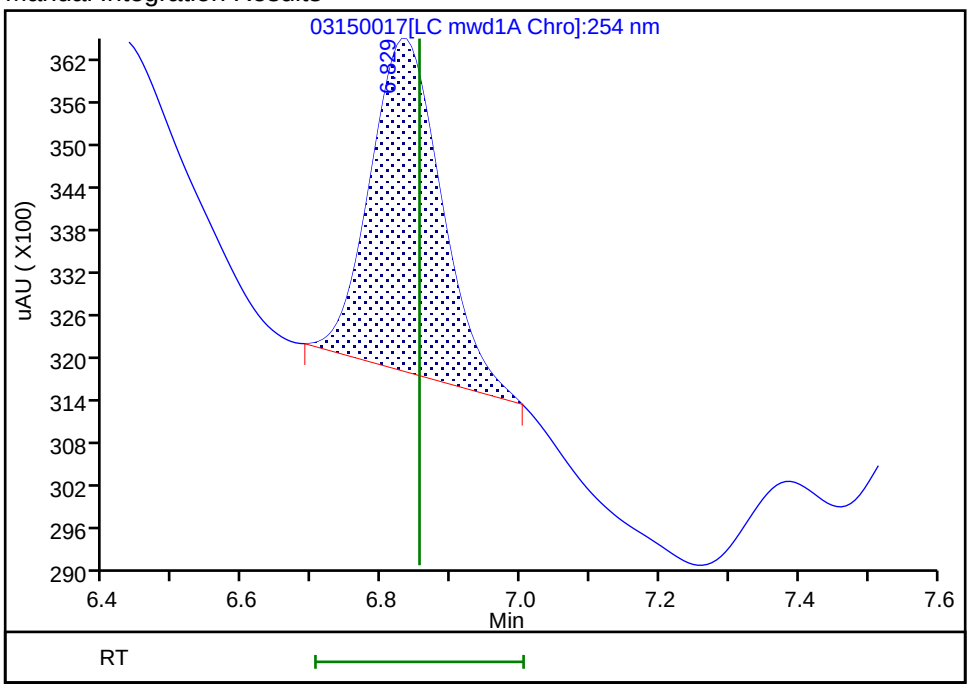
Processing Integration Results

RT: 6.83
Area: 368509
Amount: 2.218126
Amount Units: ug/ml



Manual Integration Results

RT: 6.83
Area: 33755
Amount: 0.203178
Amount Units: ug/ml



Reviewer: zhangji, 16-Mar-2022 12:23:40
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

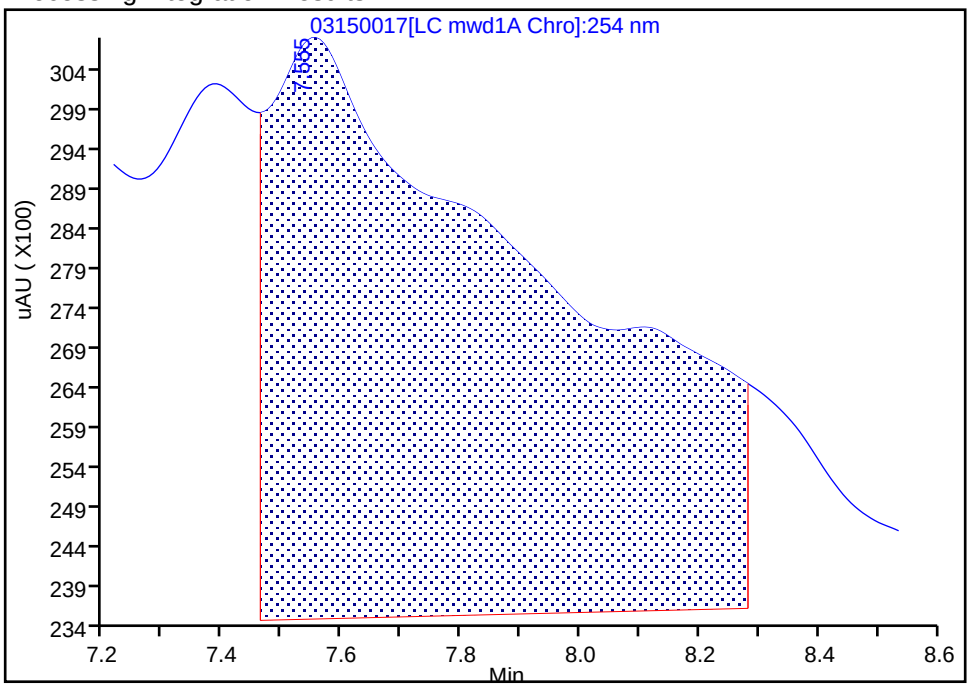
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220315-109260.b\03150017.D				
Injection Date:	15-Mar-2022 23:23:37	Instrument ID:	CHHPLC_X5		
Lims ID:	280-159384-A-5-A	Lab Sample ID:	280-159384-5		
Client ID:	G0122-8				
Operator ID:	JZ	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

6 MNX, CAS: 5755-27-1

Signal: 1

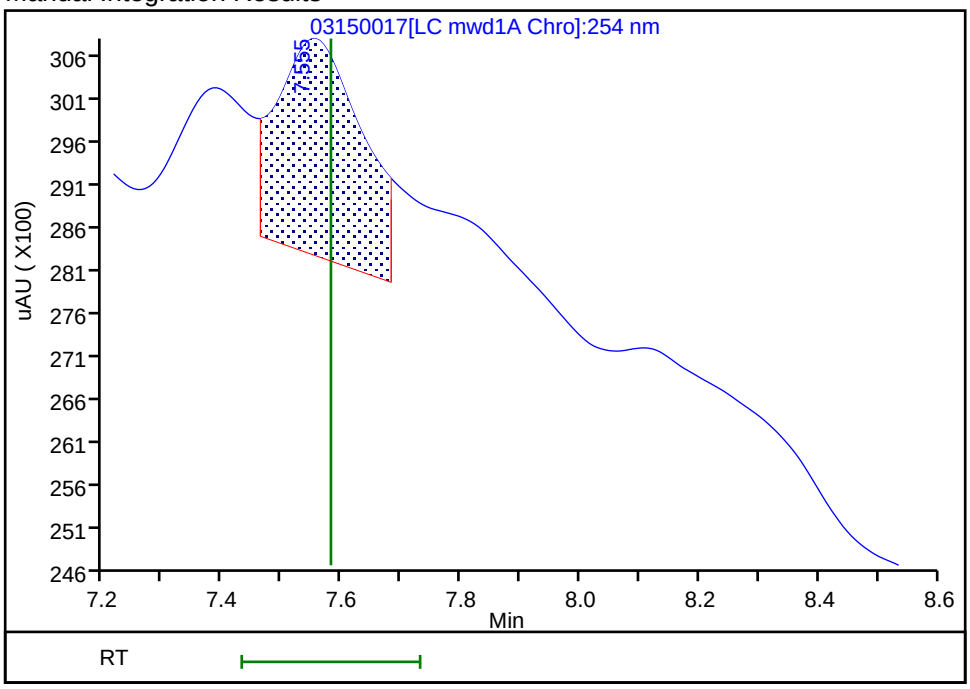
Processing Integration Results

RT: 7.56
Area: 234399
Amount: 0.937292
Amount Units: ug/ml



Manual Integration Results

RT: 7.56
Area: 25172
Amount: 0.100655
Amount Units: ug/ml



Reviewer: zhangji, 16-Mar-2022 12:23:50

Audit Action: Split an Integrated Peak Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

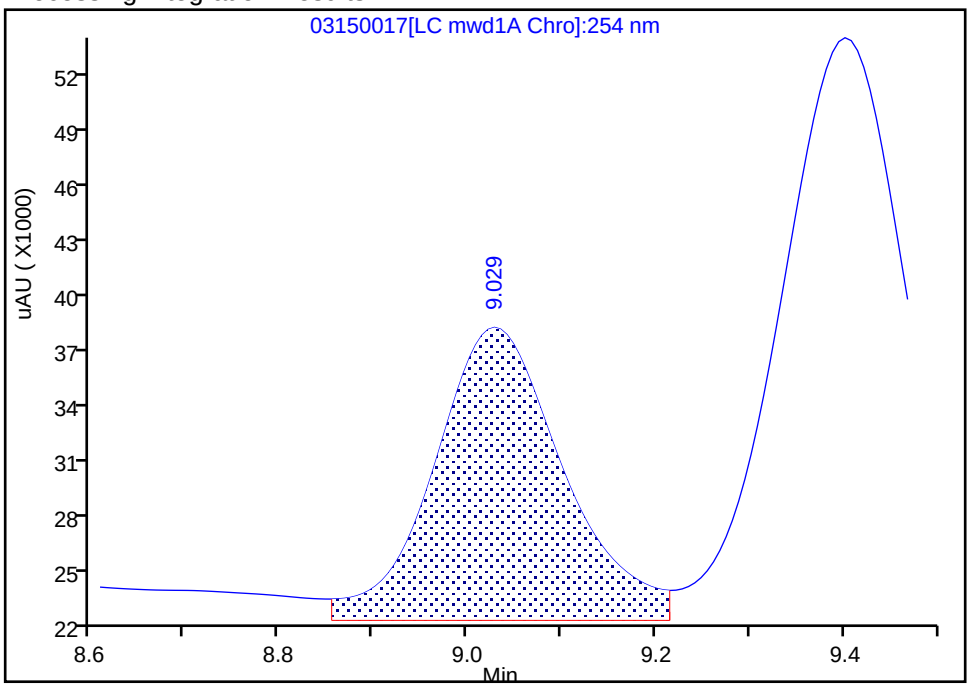
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220315-109260.b\03150017.D				
Injection Date:	15-Mar-2022 23:23:37	Instrument ID:	CHHPLC_X5		
Lims ID:	280-159384-A-5-A	Lab Sample ID:	280-159384-5		
Client ID:	G0122-8				
Operator ID:	JZ	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

8 RDX, CAS: 121-82-4

Signal: 1

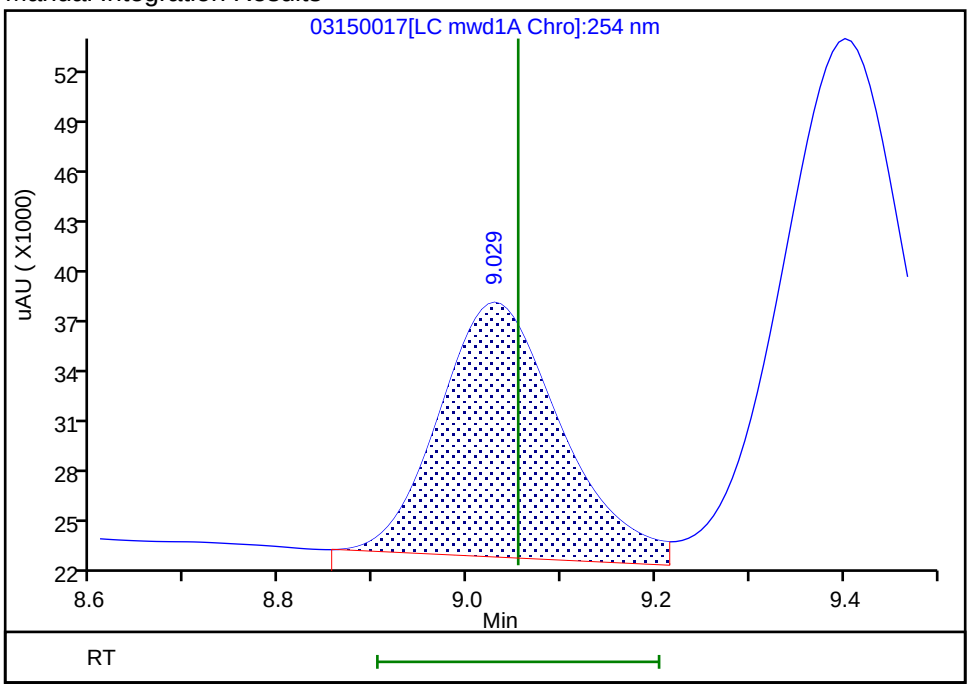
Processing Integration Results

RT: 9.03
Area: 149306
Amount: 0.768308
Amount Units: ug/ml



Manual Integration Results

RT: 9.03
Area: 134391
Amount: 0.691557
Amount Units: ug/ml



Reviewer: zhangji, 16-Mar-2022 12:23:59

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-159384-1

SDG No.:

Client Sample ID: G0123-8 | Lab Sample ID: 280-159384-6

Matrix: Water | Lab File ID: 03110037.D

Analysis Method: 8330A | Date Collected: 03/02/2022 16:35

Extraction Method: 3535 | Date Extracted: 03/08/2022 11:19

Sample wt/vol: 516(mL) | Date Analyzed: 03/12/2022 01:06

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

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

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

Analysis Batch No.: 568433 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	0.19	U M	0.20	0.19	0.081
118-96-7	2,4,6-Trinitrotoluene	0.097	U	0.11	0.097	0.044
121-14-2	2,4-Dinitrotoluene	0.078	U	0.097	0.078	0.027
606-20-2	2,6-Dinitrotoluene	0.078	U	0.097	0.078	0.039
35572-78-2	2-Amino-4,6-dinitrotoluene	0.097	U M	0.11	0.097	0.049
88-72-2	2-Nitrotoluene	0.19	U M	0.20	0.19	0.083
99-08-1	3-Nitrotoluene	0.39	U	0.39	0.39	0.19
19406-51-0	4-Amino-2,6-dinitrotoluene	0.12	U	0.15	0.12	0.056
2691-41-0	HMX	0.19	U	0.20	0.19	0.085
5755-27-1	MNX	1.5	J M	1.9	0.39	0.15
98-95-3	Nitrobenzene	0.19	U M	0.20	0.19	0.088
479-45-8	Tetryl	0.097	U M	0.11	0.097	0.031

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\20220311-109174.b\03110037.D
Lims ID: 280-159384-A-6-A
Client ID: G0123-8
Sample Type: Client
Inject. Date: 12-Mar-2022 01:06:41 ALS Bottle#: 37 Worklist Smp#: 37
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-159384-A-6-A
Misc. Info.: 280-0109174-037
Operator ID: JZ Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20220311-109174.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 12-Mar-2022 10:32:02 Calib Date: 05-Jan-2022 04:24:15
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040037.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1616

First Level Reviewer: zhangji Date: 12-Mar-2022 09:41:37

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/mL	Flags
4 HMX	1		6.595			ND	
7 MNX	1	7.246	7.211	0.035	19787	0.1570	M
8 RDX	1	7.613	7.582	0.031	9807	0.0947	M
$ 10 1,2-Dinitrobenzene	1	8.533	8.529	0.004	25380	0.2035	
11 1,3,5-Trinitrobenzene	1		8.655			ND	U
12 1,3-Dinitrobenzene	1	9.319	9.282	0.037	8246	0.0286	
13 Nitrobenzene	1		9.668			ND	U
15 Tetryl	1		9.982			ND	U
17 2,4,6-Trinitrotoluene	1		10.888			ND	
18 4-Amino-2,6-dinitrotoluene	1		11.068			ND	
19 2-Amino-4,6-dinitrotoluene	1		11.322			ND	U
20 2,6-Dinitrotoluene	1		11.495			ND	
21 2,4-Dinitrotoluene	1		11.662			ND	
22 o-Nitrotoluene	1		12.508			ND	U
23 p-Nitrotoluene	1	12.906	12.935	-0.029	5925	0.0558	
24 m-Nitrotoluene	1		13.502			ND	

QC Flag Legend

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

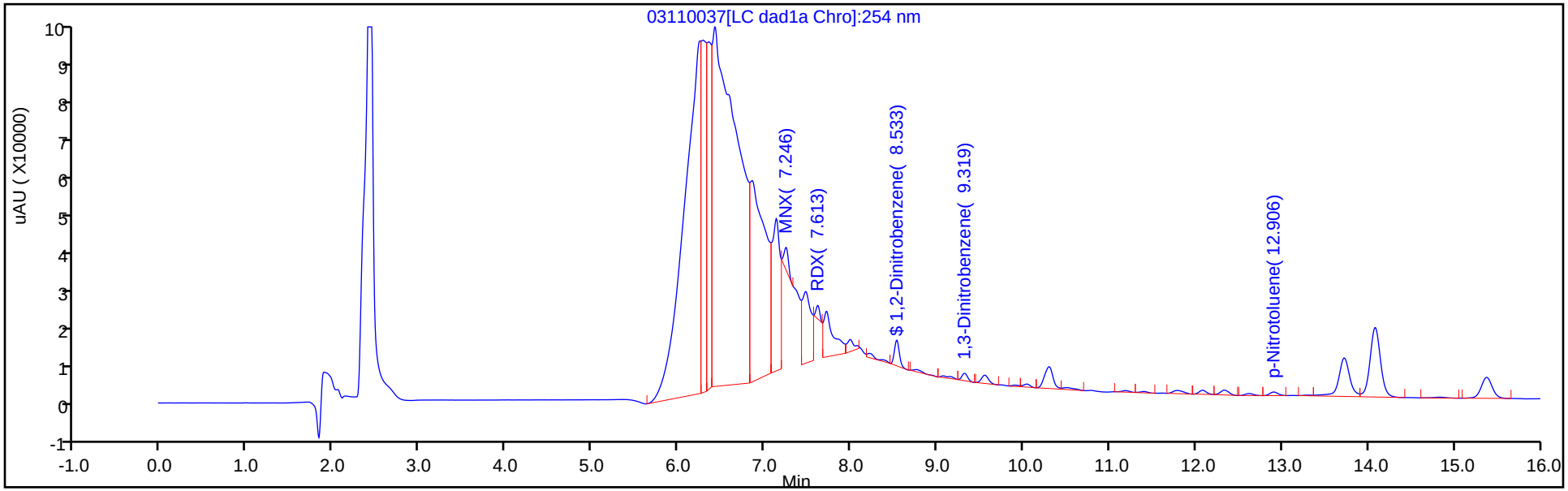
Report Date: 12-Mar-2022 10:32:03 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Denver

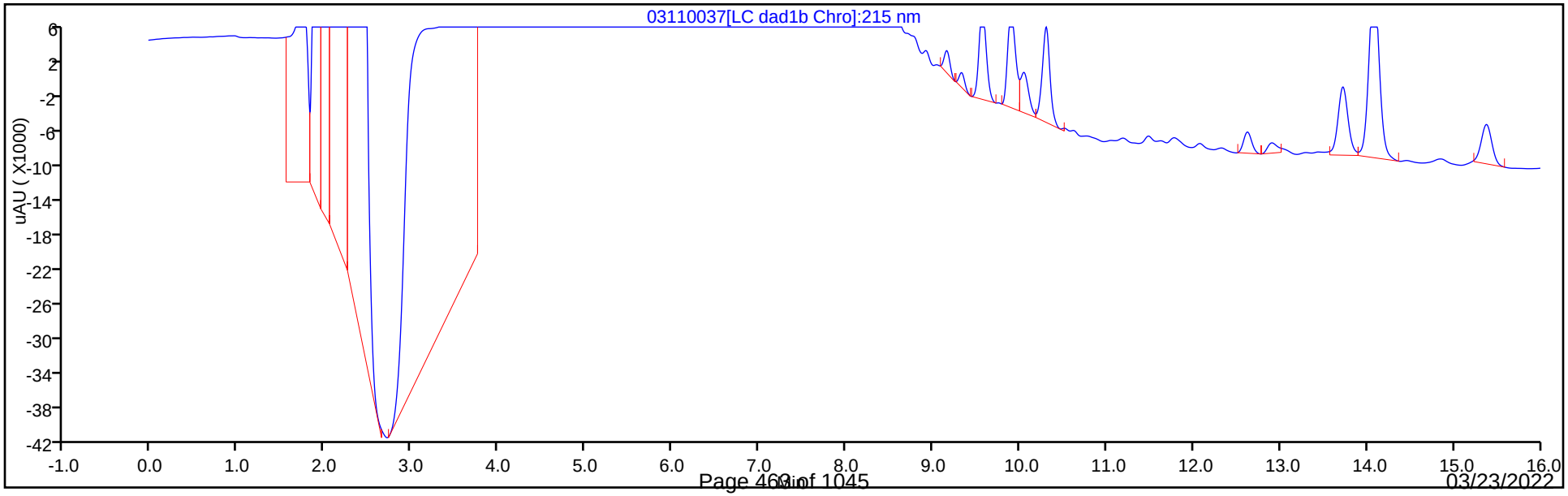
Data File: \\chromfs\denver\chromdata\chhplc_x\20220311-109174.b\03110037.d

Injection Date:	12-Mar-2022 01:06:41	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	280-159384-A-6-A	Lab Sample ID:	280-159384-6	Worklist Smp#:	37
Client ID:	G0123-8				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	37
Method:	8330_X3	Limit Group:	GCSV - 8330		

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



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



Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20220311-109174.b\03110037.D				
Lims ID:	280-159384-A-6-A				
Client ID:	G0123-8				
Sample Type:	Client				
Inject. Date:	12-Mar-2022 01:06:41	ALS Bottle#:	37	Worklist Smp#:	37
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-159384-A-6-A				
Misc. Info.:	280-0109174-037				
Operator ID:	JZ	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20220311-109174.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	12-Mar-2022 10:32:02	Calib Date:	05-Jan-2022 04:24:15		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040037.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1616				

First Level Reviewer: zhangji Date: 12-Mar-2022 09:41:37

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.2035	101.77

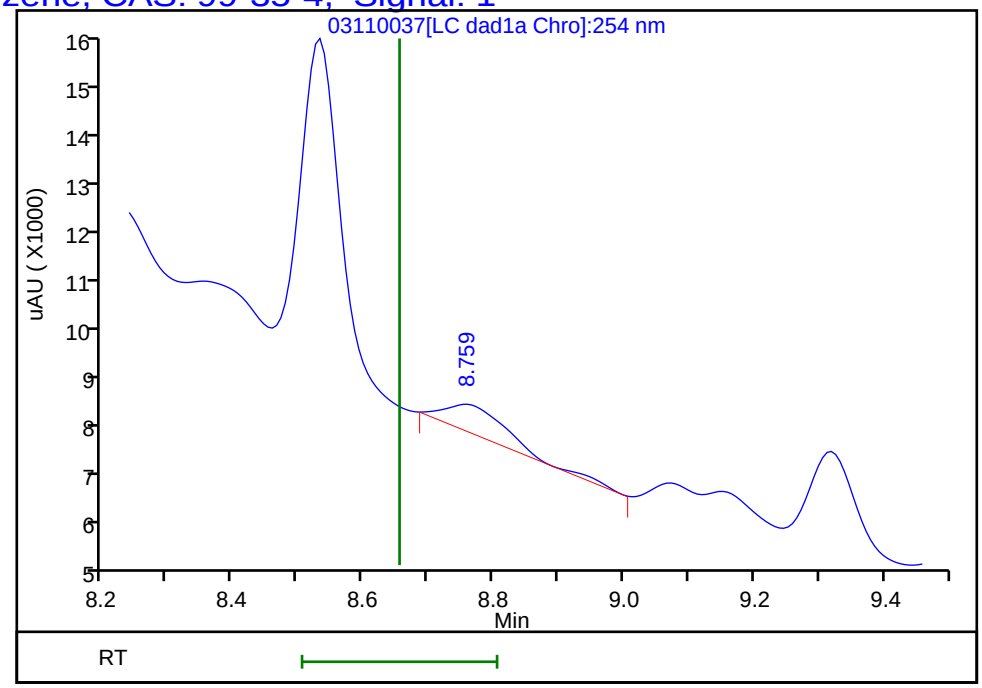
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20220311-109174.b\03110037.d				
Injection Date:	12-Mar-2022 01:06:41	Instrument ID:	CHHPLC_X3		
Lims ID:	280-159384-A-6-A	Lab Sample ID:	280-159384-6		
Client ID:	G0123-8				
Operator ID:	JZ	ALS Bottle#:	37	Worklist Smp#:	37
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

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

RT: 8.76
Response: 3867
Amount: 0.017731



Reviewer: zhangji, 12-Mar-2022 09:41:37
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

User Disabled Compound Report

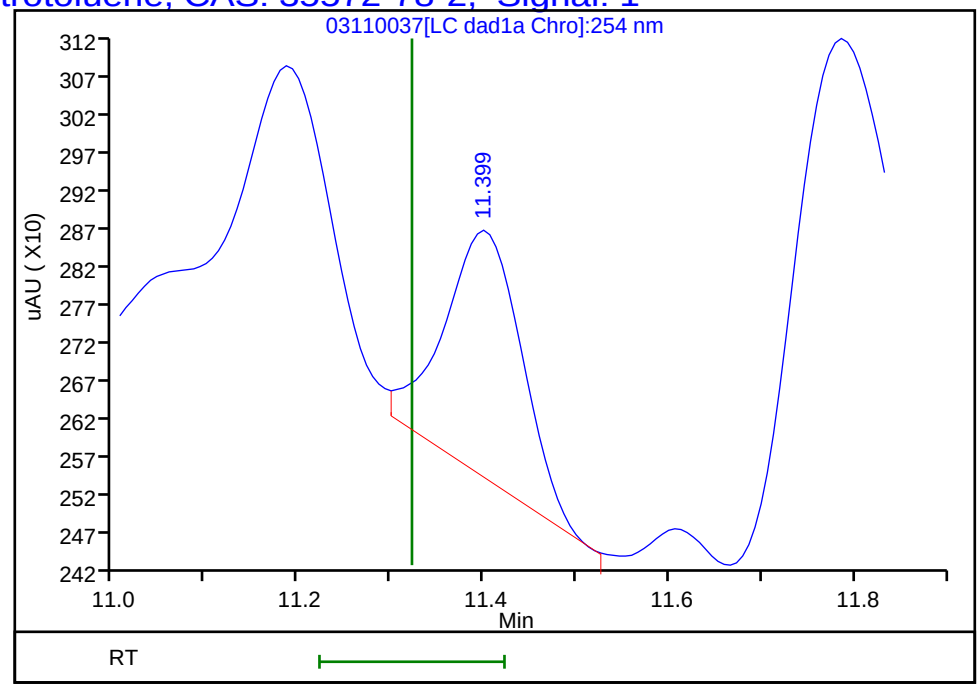
Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20220311-109174.b\03110037.d
Injection Date: 12-Mar-2022 01:06:41 Instrument ID: CHHPLC_X3
Lims ID: 280-159384-A-6-A Lab Sample ID: 280-159384-6
Client ID: G0123-8
Operator ID: JZ ALS Bottle#: 37 Worklist Smp#: 37
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330

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

19 2-Amino-4,6-dinitrotoluene, CAS: 35572-78-2, Signal: 1

RT: 11.40
Response: 1905
Amount: 0.009423



Reviewer: zhangji, 12-Mar-2022 09:41:37
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

User Disabled Compound Report

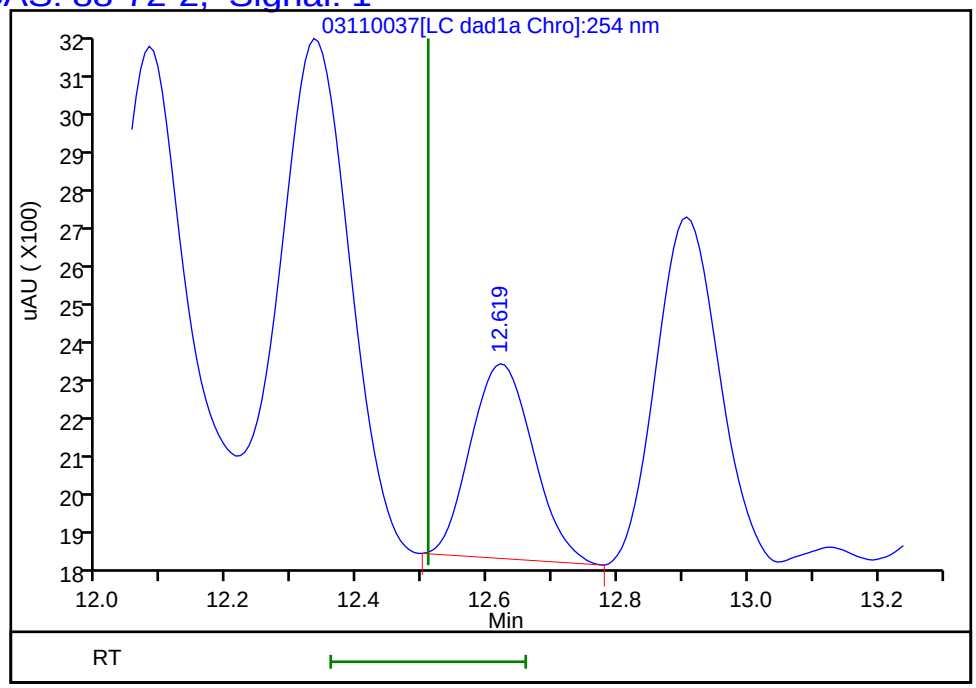
Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20220311-109174.b\03110037.d
Injection Date: 12-Mar-2022 01:06:41 Instrument ID: CHHPLC_X3
Lims ID: 280-159384-A-6-A Lab Sample ID: 280-159384-6
Client ID: G0123-8
Operator ID: JZ ALS Bottle#: 37 Worklist Smp#: 37
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330

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

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

RT: 12.62
Response: 3330
Amount: 0.026094



Reviewer: zhangji, 12-Mar-2022 09:41:37
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Manual Integration/User Assign Peak Report

Eurofins Denver

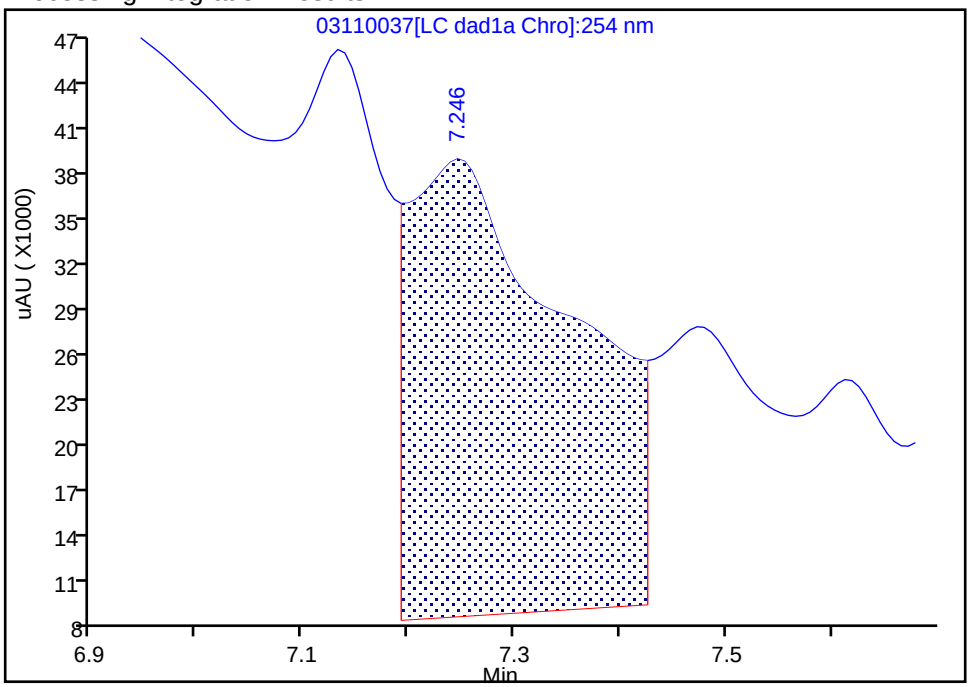
Data File:	\\chromfs\denver\chromdata\chhplc_x\20220311-109174.b\03110037.d				
Injection Date:	12-Mar-2022 01:06:41	Instrument ID:	CHHPLC_X3		
Lims ID:	280-159384-A-6-A	Lab Sample ID:	280-159384-6		
Client ID:	G0123-8				
Operator ID:	JZ	ALS Bottle#:	37	Worklist Smp#:	37
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

7 MNX, CAS: 5755-27-1

Signal: 1

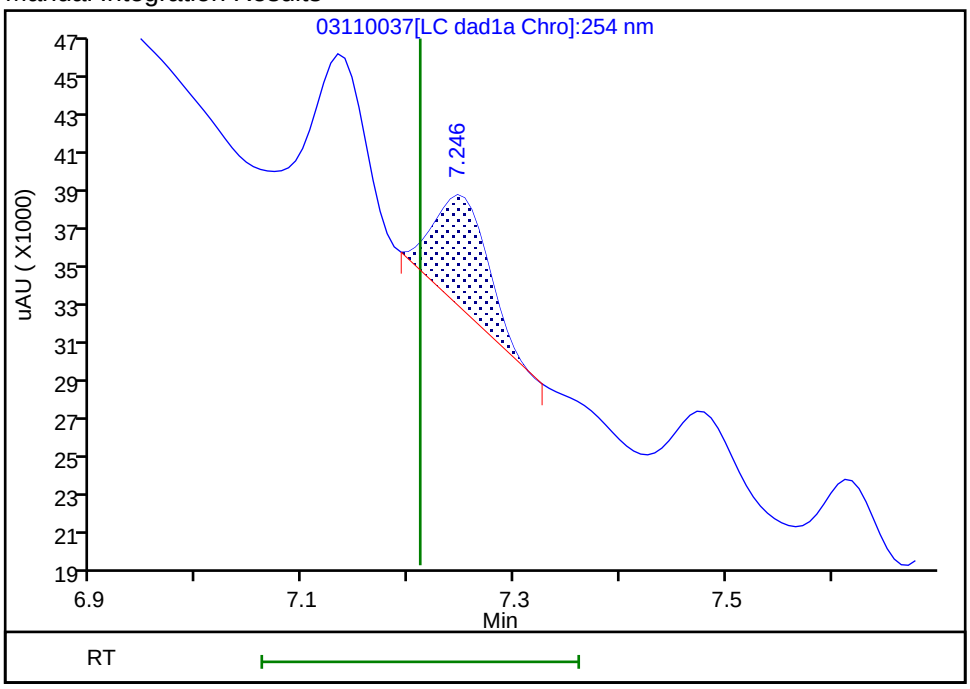
Processing Integration Results

RT: 7.25
Area: 315375
Amount: 2.503067
Amount Units: ug/mL



Manual Integration Results

RT: 7.25
Area: 19787
Amount: 0.157045
Amount Units: ug/mL



Reviewer: zhangji, 12-Mar-2022 09:41:16

Audit Action: Manually Integrated Audit Reason: Baseline

User Disabled Compound Report

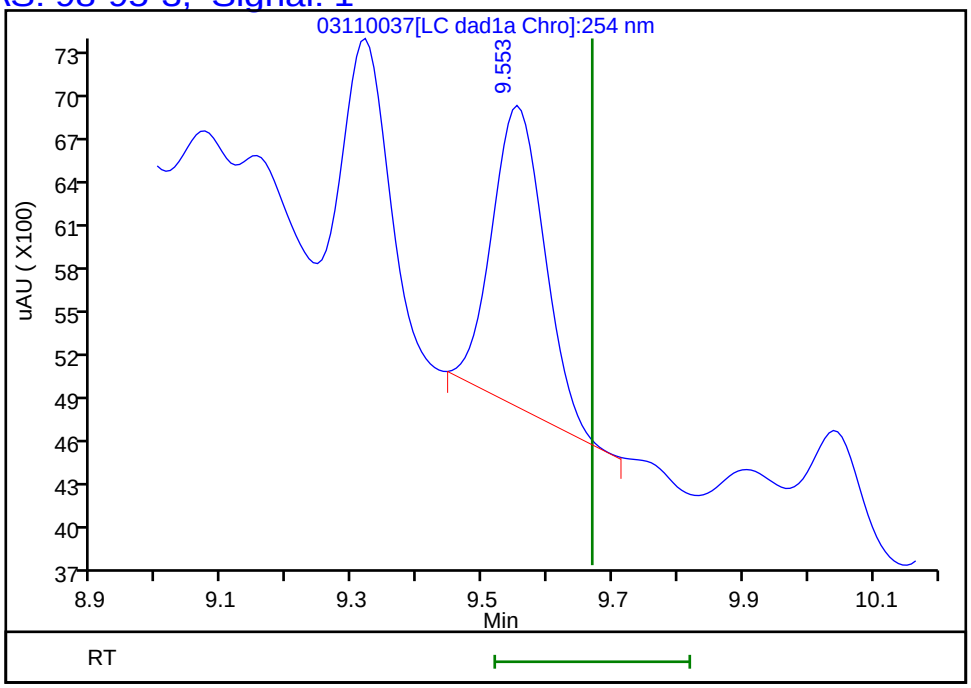
Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20220311-109174.b\03110037.d
Injection Date: 12-Mar-2022 01:06:41 Instrument ID: CHHPLC_X3
Lims ID: 280-159384-A-6-A Lab Sample ID: 280-159384-6
Client ID: G0123-8
Operator ID: JZ ALS Bottle#: 37 Worklist Smp#: 37
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330

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

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

RT: 9.55
Response: 11540
Amount: 0.060119



Reviewer: zhangji, 12-Mar-2022 09:41:37
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Manual Integration/User Assign Peak Report

Eurofins Denver

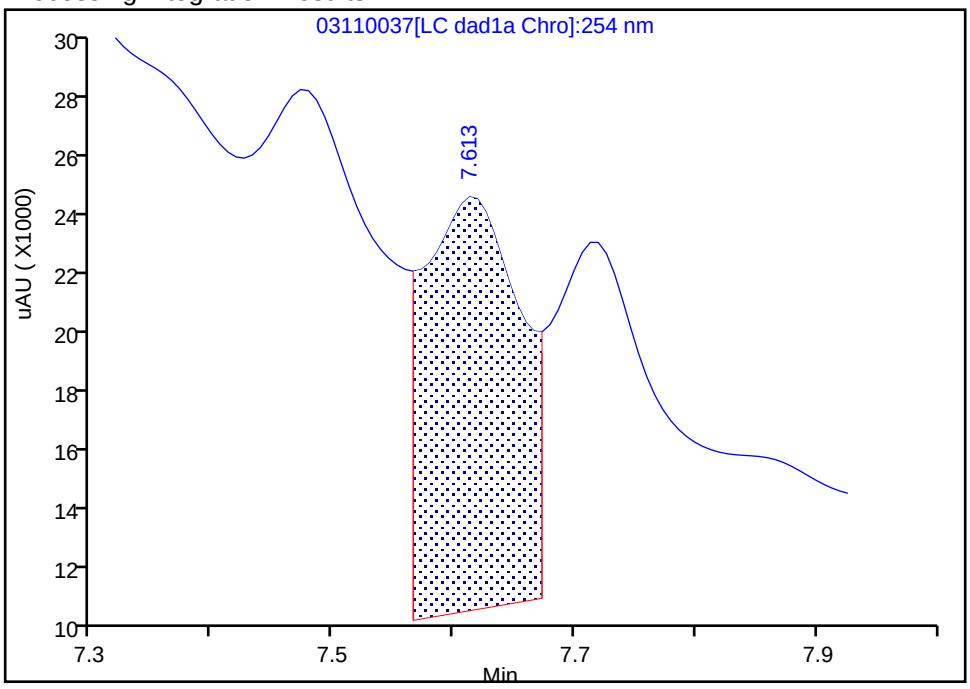
Data File:	\\chromfs\denver\chromdata\chhplc_x\20220311-109174.b\03110037.d				
Injection Date:	12-Mar-2022 01:06:41	Instrument ID:	CHHPLC_X3		
Lims ID:	280-159384-A-6-A	Lab Sample ID:	280-159384-6		
Client ID:	G0123-8				
Operator ID:	JZ	ALS Bottle#:	37	Worklist Smp#:	37
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

8 RDX, CAS: 121-82-4

Signal: 1

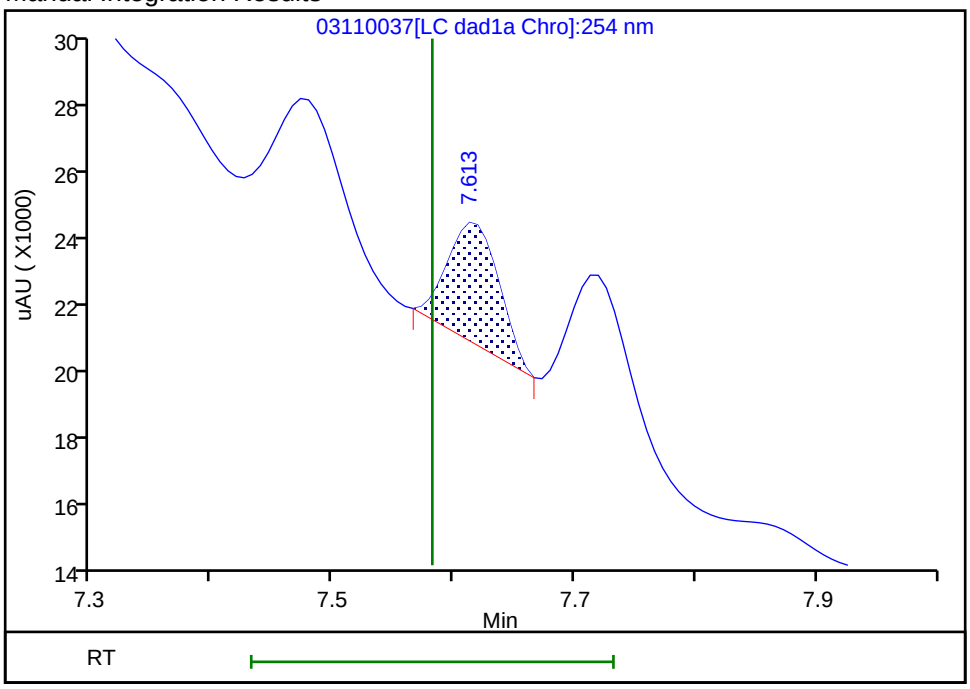
Processing Integration Results

RT: 7.61
Area: 72634
Amount: 0.701038
Amount Units: ug/mL



Manual Integration Results

RT: 7.61
Area: 9807
Amount: 0.094654
Amount Units: ug/mL



Reviewer: zhangji, 12-Mar-2022 09:41:20
Audit Action: Manually Integrated Audit Reason: Baseline

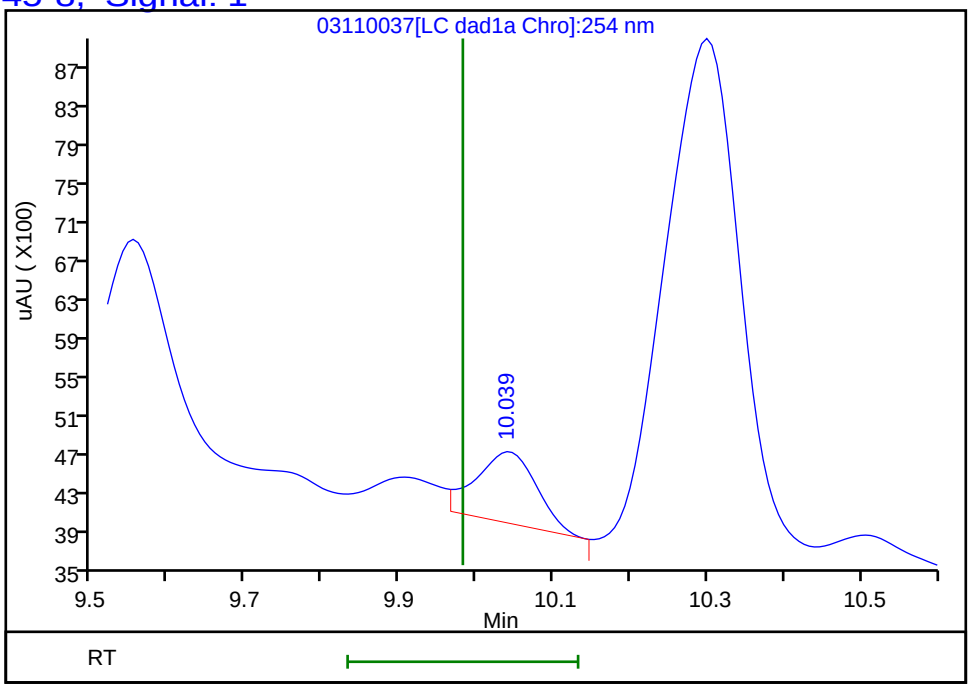
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20220311-109174.b\03110037.d				
Injection Date:	12-Mar-2022 01:06:41	Instrument ID:	CHHPLC_X3		
Lims ID:	280-159384-A-6-A	Lab Sample ID:	280-159384-6		
Client ID:	G0123-8				
Operator ID:	JZ	ALS Bottle#:	37	Worklist Smp#:	37
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

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

RT: 10.04
Response: 4017
Amount: 0.023551



Reviewer: zhangji, 12-Mar-2022 09:41:37
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-159384-1

SDG No.:

Client Sample ID: G0123-8 | Lab Sample ID: 280-159384-6

Matrix: Water | Lab File ID: 03150018.D

Analysis Method: 8330A | Date Collected: 03/02/2022 16:35

Extraction Method: 3535 | Date Extracted: 03/08/2022 11:19

Sample wt/vol: 516(mL) | Date Analyzed: 03/15/2022 23:58

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

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

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

Analysis Batch No.: 568709 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-65-0	1,3-Dinitrobenzene	0.097	U	0.11	0.097	0.036
99-99-0	4-Nitrotoluene	0.39	U	0.40	0.39	0.097
121-82-4	RDX	0.19	U M	0.20	0.19	0.050

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	98		83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220315-109260.b\03150018.D
Lims ID: 280-159384-A-6-A
Client ID: G0123-8
Sample Type: Client
Inject. Date: 15-Mar-2022 23:58:42 ALS Bottle#: 18 Worklist Smp#: 18
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-159384-A-6-A
Misc. Info.: 280-0109260-018
Operator ID: JZ Instrument ID: CHHPLC_X5

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20220315-109260.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 16-Mar-2022 12:38:41 Calib Date: 03-Mar-2022 07:19:48
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1609

First Level Reviewer: zhangji Date: 16-Mar-2022 12:24:34

	Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
	5 HMX	1	6.810	6.854	-0.044	14927	0.0898	M
	6 MNX	1	7.570	7.581	-0.011	27878	0.1115	M
	8 RDX	1		9.054			ND	U
	9 Nitrobenzene	1		11.960			ND	
$	10 1,2-Dinitrobenzene	1	13.083	13.160	-0.077	48948	0.1960	
	12 1,3-Dinitrobenzene	1		15.514			ND	
	14 o-Nitrotoluene	1	16.530	16.640	-0.110	132345	0.5640	M
	16 p-Nitrotoluene	1		16.954			ND	
	17 4-Amino-2,6-dinitrotoluene	1		17.574			ND	
	18 m-Nitrotoluene	1		17.914			ND	
	19 2-Amino-4,6-dinitrotoluene	1		18.580			ND	
	20 1,3,5-Trinitrobenzene	1		18.794			ND	7
	21 2,6-Dinitrotoluene	1		20.054			ND	
	22 2,4-Dinitrotoluene	1		20.574			ND	
	23 Tetryl	1		24.307			ND	
	24 2,4,6-Trinitrotoluene	1		25.074			ND	

QC Flag Legend

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

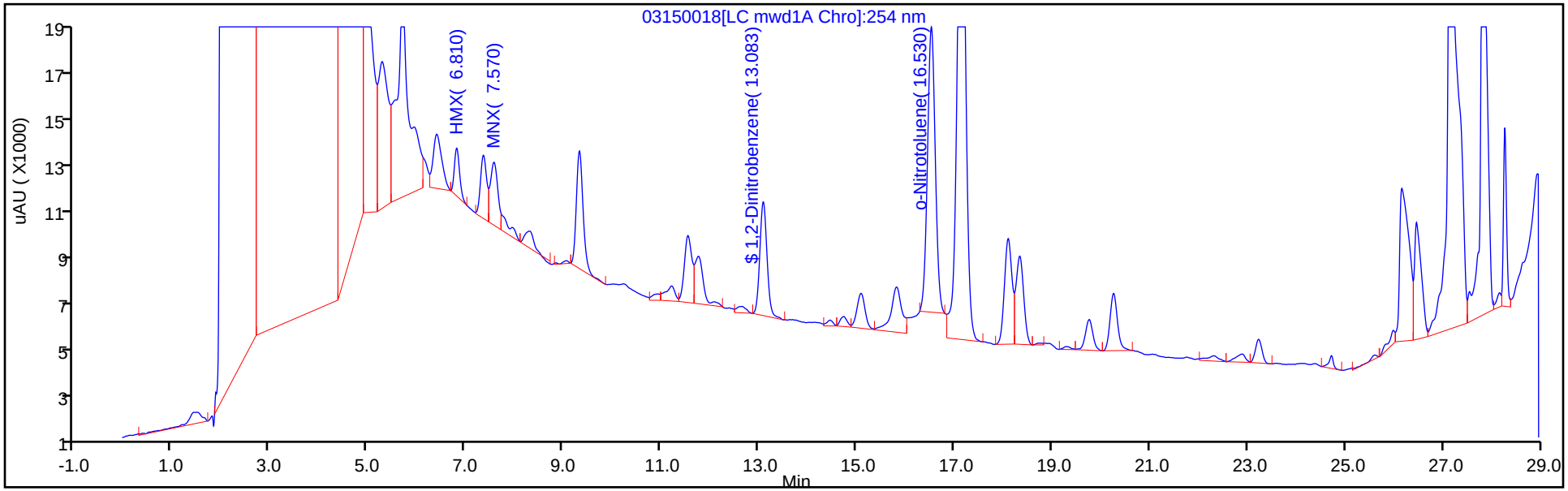
Report Date: 16-Mar-2022 12:38:42 Chrom Revision: 2.3 14-Mar-2022 17:58:38

Eurofins Denver

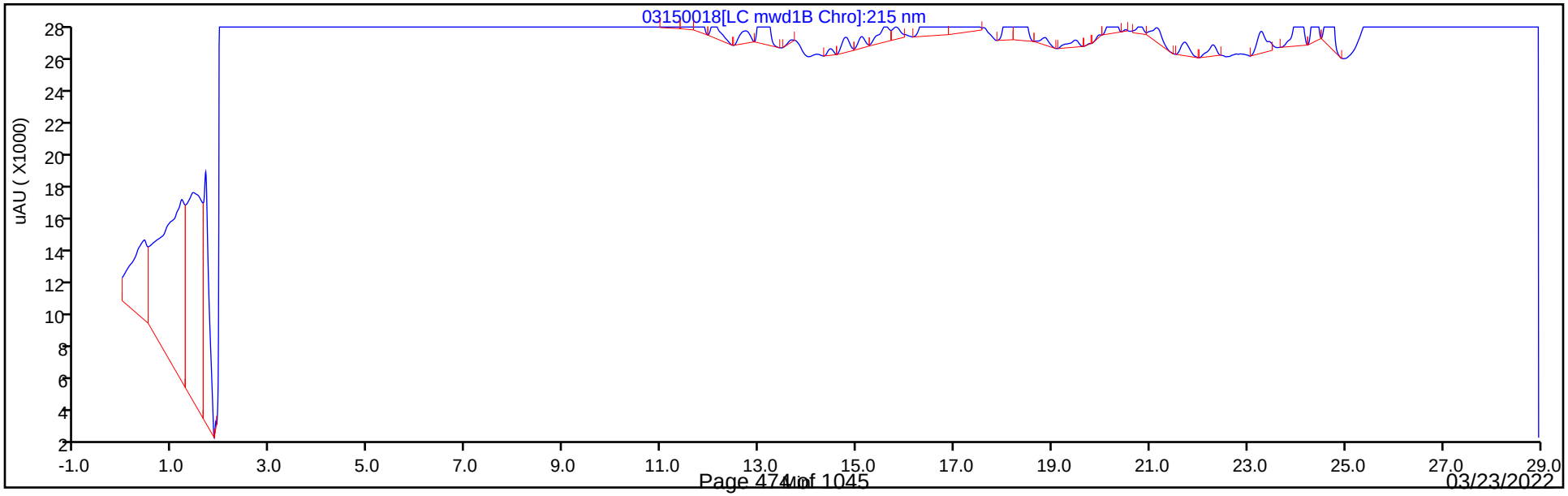
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Injection Date:	15-Mar-2022 23:58:42	Instrument ID:	CHHPLC_X5	Operator ID:	JZ
Lims ID:	280-159384-A-6-A	Lab Sample ID:	280-159384-6	Worklist Smp#:	18
Client ID:	G0123-8				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	18
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220315-109260.b\03150018.D				
Lims ID:	280-159384-A-6-A				
Client ID:	G0123-8				
Sample Type:	Client				
Inject. Date:	15-Mar-2022 23:58:42	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-159384-A-6-A				
Misc. Info.:	280-0109260-018				
Operator ID:	JZ	Instrument ID:	CHHPLC_X5		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220315-109260.b\8330_X5_Luna.m				
Limit Group:	GCSV - 8330				
Last Update:	16-Mar-2022 12:38:41	Calib Date:	03-Mar-2022 07:19:48		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020027.D				
Column 1 :	Luna-Phenyl hexyl (4.60 mm)		Det: LC mwd1A, 254 nm		
Process Host:	CTX1609				
First Level Reviewer: zhangji		Date:	16-Mar-2022 12:24:34		

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.1960	97.99

Manual Integration/User Assign Peak Report

Eurofins Denver

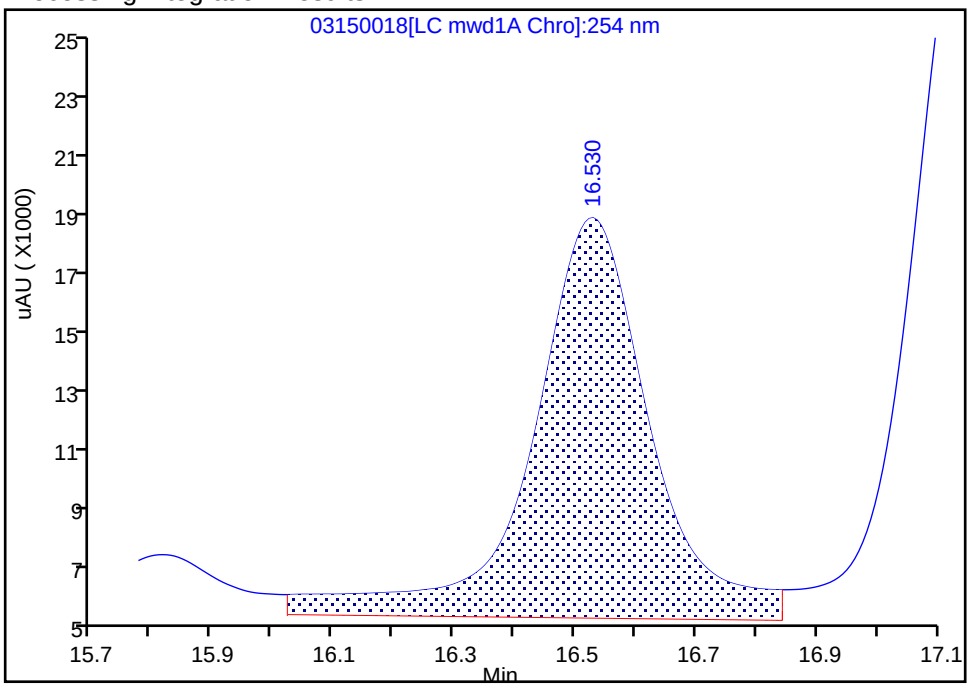
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220315-109260.b\03150018.D				
Injection Date:	15-Mar-2022 23:58:42	Instrument ID:	CHHPLC_X5		
Lims ID:	280-159384-A-6-A	Lab Sample ID:	280-159384-6		
Client ID:	G0123-8				
Operator ID:	JZ	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

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

Signal: 1

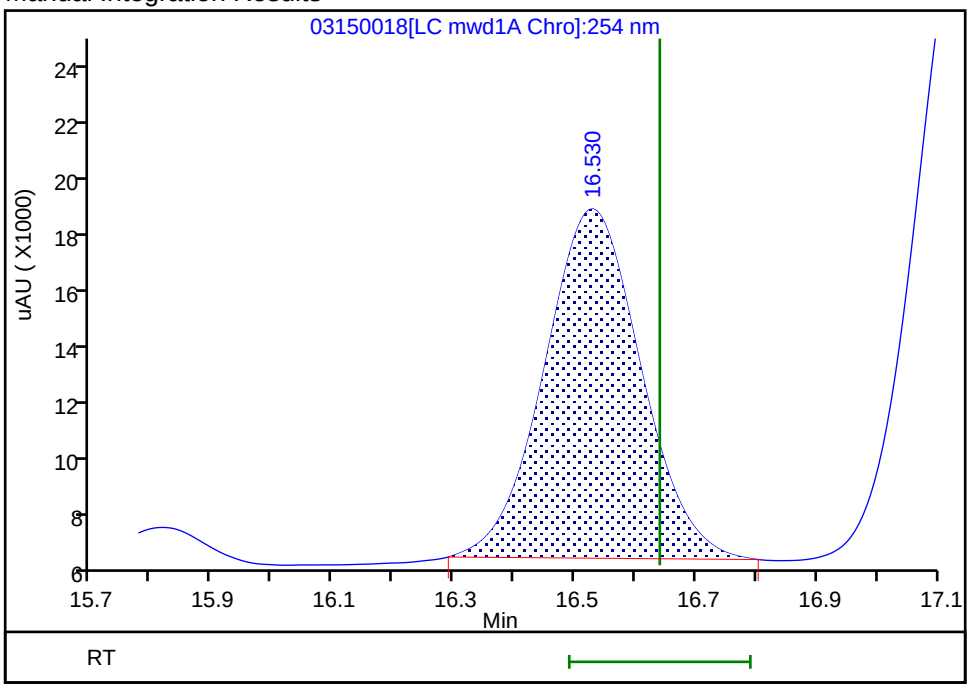
Processing Integration Results

RT: 16.53
Area: 177377
Amount: 0.755850
Amount Units: ug/ml



Manual Integration Results

RT: 16.53
Area: 132345
Amount: 0.563957
Amount Units: ug/ml



Reviewer: zhangji, 16-Mar-2022 12:24:11
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

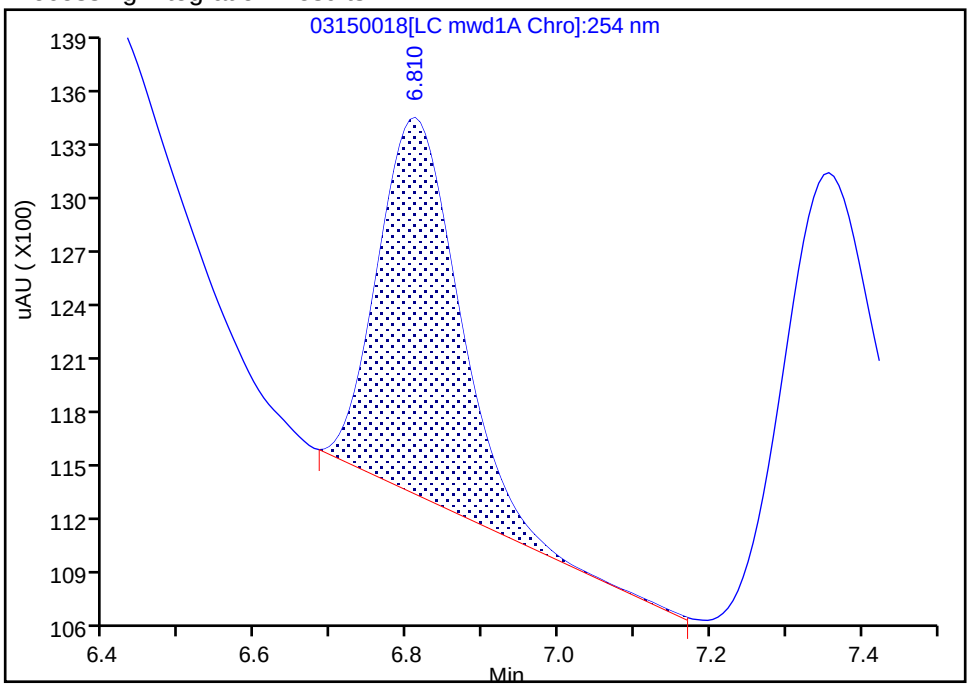
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220315-109260.b\03150018.D				
Injection Date:	15-Mar-2022 23:58:42	Instrument ID:	CHHPLC_X5		
Lims ID:	280-159384-A-6-A	Lab Sample ID:	280-159384-6		
Client ID:	G0123-8				
Operator ID:	JZ	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

5 HMX, CAS: 2691-41-0

Signal: 1

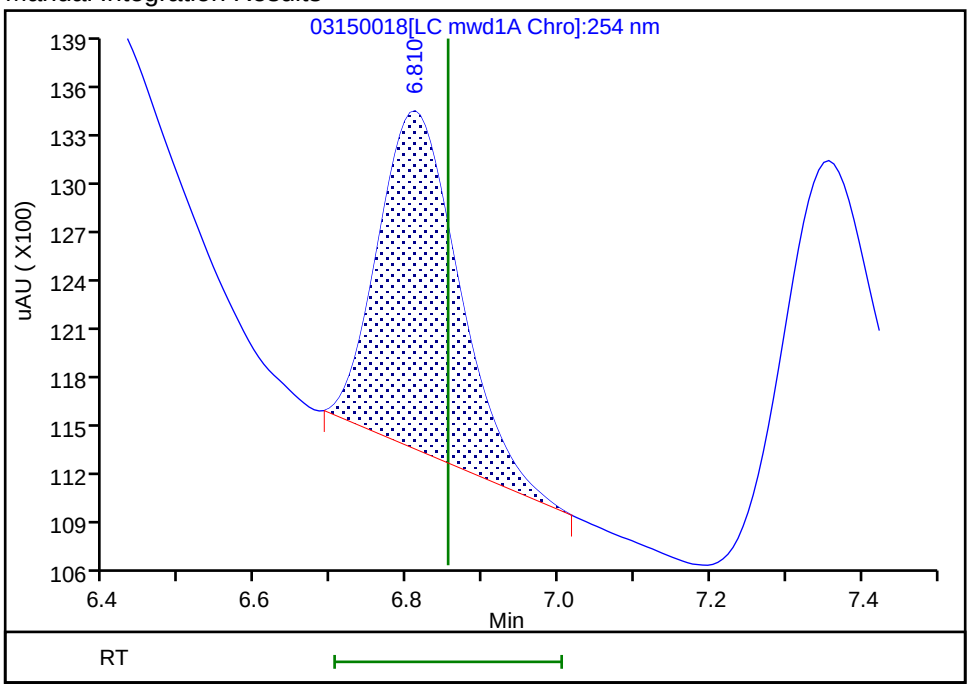
Processing Integration Results

RT: 6.81
Area: 15223
Amount: 0.091630
Amount Units: ug/ml



Manual Integration Results

RT: 6.81
Area: 14927
Amount: 0.089848
Amount Units: ug/ml



Reviewer: zhangji, 16-Mar-2022 12:24:22

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

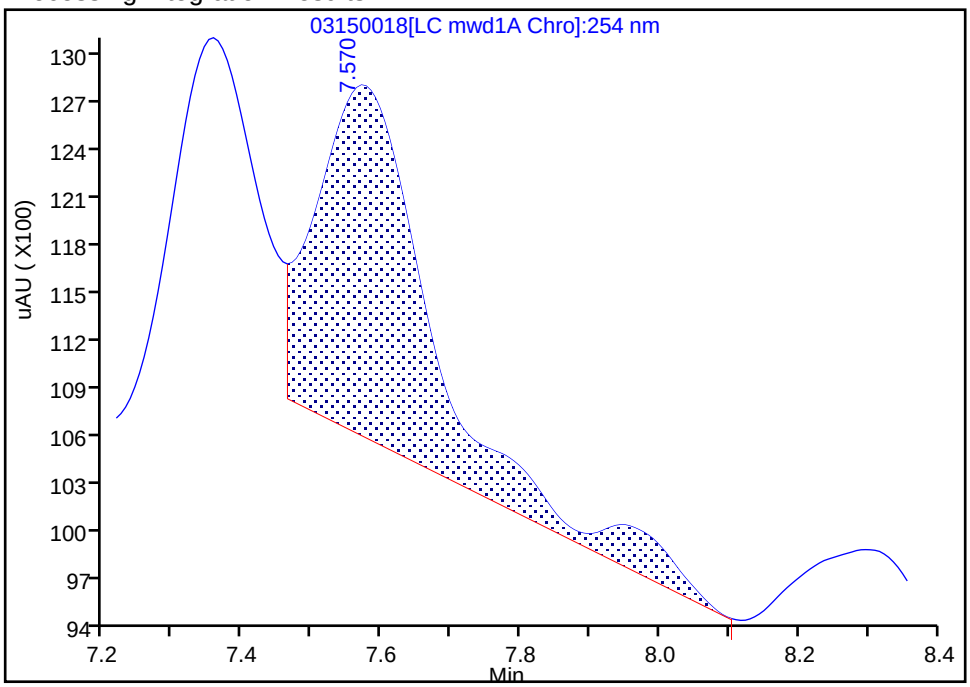
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220315-109260.b\03150018.D				
Injection Date:	15-Mar-2022 23:58:42	Instrument ID:	CHHPLC_X5		
Lims ID:	280-159384-A-6-A	Lab Sample ID:	280-159384-6		
Client ID:	G0123-8				
Operator ID:	JZ	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

6 MNX, CAS: 5755-27-1

Signal: 1

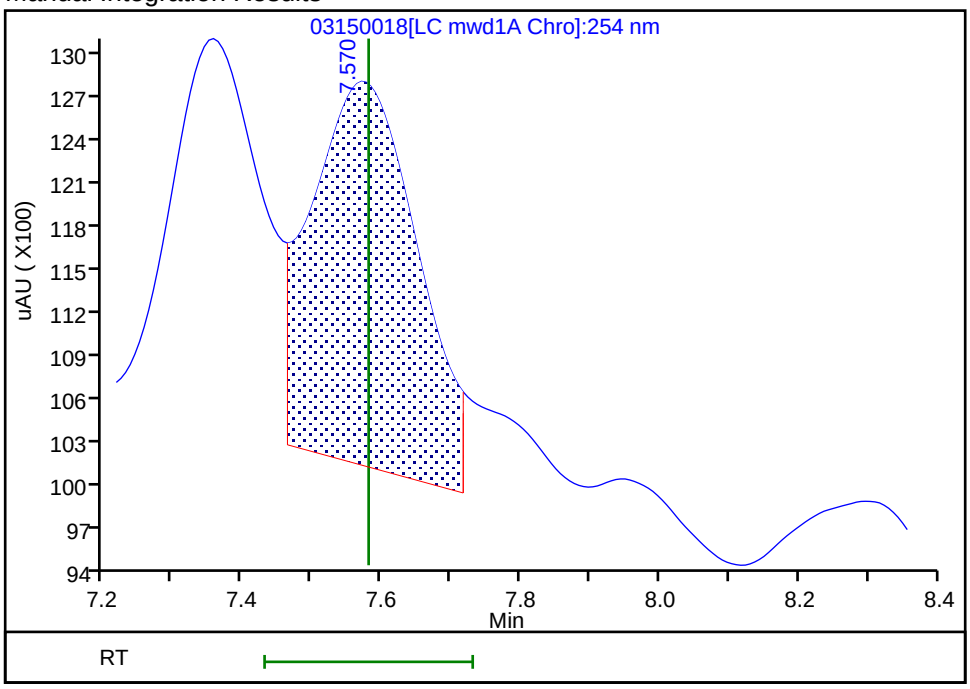
Processing Integration Results

RT: 7.57
Area: 25543
Amount: 0.102139
Amount Units: ug/ml



Manual Integration Results

RT: 7.57
Area: 27878
Amount: 0.111476
Amount Units: ug/ml



Reviewer: zhangji, 16-Mar-2022 12:24:33

Audit Action: Split an Integrated Peak Audit Reason: Baseline Smoothing

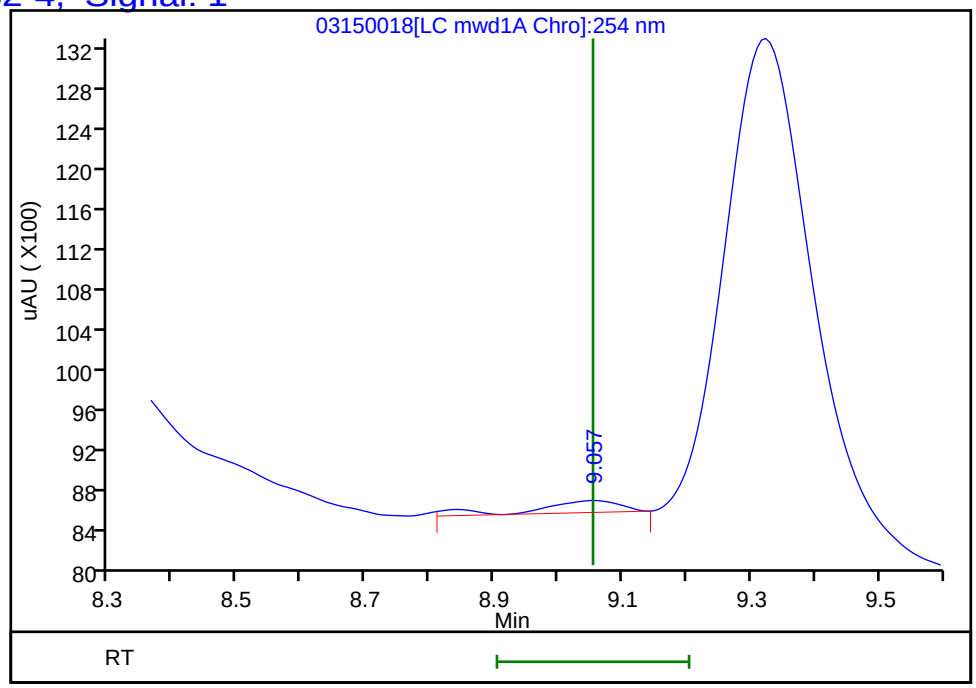
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220315-109260.b\03150018.D				
Injection Date:	15-Mar-2022 23:58:42	Instrument ID:	CHHPLC_X5		
Lims ID:	280-159384-A-6-A	Lab Sample ID:	280-159384-6		
Client ID:	G0123-8				
Operator ID:	JZ	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

8 RDX, CAS: 121-82-4, Signal: 1

RT: 9.06
Response: 1069
Amount: 0.005501



Reviewer: zhangji, 16-Mar-2022 12:24:34
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

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

Lab Name: Eurofins Denver Job No.: 280-159384-1 Analy Batch No.: 562503

SDG No.:

Instrument ID: CHHPLC_X3 GC Column: UltraCarb5u ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/04/2022 18:28 Calibration End Date: 01/04/2022 21:31 Calibration ID: 61345

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-562503/19	01040019.D
Level 2	IC 280-562503/18	01040018.D
Level 3	IC 280-562503/17	01040017.D
Level 4	IC 280-562503/16	01040016.D
Level 5	IC 280-562503/15	01040015.D
Level 6	IC 280-562503/14	01040014.D
Level 7	IC 280-562503/13	01040013.D
Level 8	IC 280-562503/12	01040012.D
Level 9	IC 280-562503/11	01040011.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	6.601	6.595	6.600	6.598	6.601	6.601	6.599	6.598	6.593		6.448 - 6.748	6.598
RDX	7.601	7.608	7.607	7.605	7.601	7.607	7.606	7.604	7.600		7.455 - 7.755	7.604
Picric acid	7.941	7.948	7.947	7.945	7.934	7.927	7.913	7.904	7.860		7.795 - 8.095	7.924
1,3,5-Trinitrobenzene	8.688	8.695	8.693	8.692	8.687	8.694	8.693	8.691	8.687		8.542 - 8.842	8.691
1,3-Dinitrobenzene	9.321	9.328	9.327	9.331	9.327	9.327	9.326	9.324	9.320		9.181 - 9.481	9.326
Nitrobenzene	9.714	9.722	9.727	9.725	9.720	9.727	9.726	9.717	9.713		9.575 - 9.875	9.721
Tetryl	10.041	10.055	10.060	10.058	10.054	10.061	10.053	10.051	10.046		9.908 - 10.208	10.053
Nitroglycerin	10.501	10.515	10.513	10.518	10.514	10.514	10.513	10.504	10.500		10.368 - 10.668	10.510
2,4,6-Trinitrotoluene	10.954	10.968	10.973	10.971	10.967	10.967	10.966	10.964	10.960		10.871 - 11.071	10.966
4-Amino-2,6-dinitrotoluene	11.154	11.175	11.173	11.171	11.167	11.174	11.173	11.164	11.160		11.071 - 11.271	11.168
2-Amino-4,6-dinitrotoluene	11.408	11.428	11.427	11.425	11.420	11.421	11.419	11.417	11.413		11.325 - 11.525	11.420
2,6-Dinitrotoluene	11.581	11.595	11.593	11.598	11.594	11.594	11.593	11.591	11.586		11.498 - 11.698	11.592
2,4-Dinitrotoluene	11.748	11.762	11.767	11.765	11.760	11.767	11.766	11.757	11.753		11.665 - 11.865	11.761
2-Nitrotoluene	12.614	12.642	12.640	12.638	12.634	12.634	12.633	12.631	12.620		12.488 - 12.788	12.632
4-Nitrotoluene	13.054	13.075	13.067	13.071	13.060	13.067	13.066	13.057	13.053		12.921 - 13.221	13.063
3-Nitrotoluene	13.634	13.655	13.653	13.651	13.647	13.647	13.646	13.644	13.633		13.501 - 13.801	13.646
PETN	14.708	14.735	14.733	14.738	14.727	14.734	14.733	14.724	14.713		14.588 - 14.888	14.727
1,2-Dinitrobenzene	8.561	8.575	8.573	8.572	8.567	8.574	8.573	8.571	8.567		8.422 - 8.722	8.570

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

Lab Name: Eurofins Denver Job No.: 280-159384-1 Analy Batch No.: 562503

SDG No.:

Instrument ID: CHHPLC_X3 GC Column: UltraCarb5u ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/04/2022 18:28 Calibration End Date: 01/04/2022 21:31 Calibration ID: 61345

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-562503/19	01040019.D
Level 2	IC 280-562503/18	01040018.D
Level 3	IC 280-562503/17	01040017.D
Level 4	IC 280-562503/16	01040016.D
Level 5	IC 280-562503/15	01040015.D
Level 6	IC 280-562503/14	01040014.D
Level 7	IC 280-562503/13	01040013.D
Level 8	IC 280-562503/12	01040012.D
Level 9	IC 280-562503/11	01040011.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	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	90100 81580 81292	86750 82313	84600 81626	84890 81295	Ave		83827.2016				3.6		20.0			
RDX	115200 98540 100273	104200 97815	114300 98669	104470 99016	Ave		103609.197				6.5		20.0			
Picric acid	71600 74240 80484	77700 76623	80580 76297	78550 77279	Ave		77039.1825				3.7		20.0			
1,3,5-Trinitrobenzene	219261 209936 225698	212026 217802	213792 221958	218124 224262	Ave		218095.534				2.5		20.0			
1,3-Dinitrobenzene	262774 281713 296660	291068 291824	293074 292328	291567 294606	Ave		288401.481				3.6		20.0			
Nitrobenzene	205876 184653 193838	191484 188466	185837 191771	192102 193551	Ave		191953.206				3.2		20.0			
Tetryl	177445 163545 172217	174551 166432	165968 169313	172036 173594	Ave		170566.759				2.7		20.0			
Nitroglycerin	63480 60791 64852	60040 64322	61302 64183	63595 64770	Ave		63037.2862				2.9		20.0			

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

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

Lab Name: Eurofins Denver Job No.: 280-159384-1 Analy Batch No.: 562503

SDG No.:

Instrument ID: CHHPLC_X3 GC Column: UltraCarb5u ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/04/2022 18:28 Calibration End Date: 01/04/2022 21:31 Calibration ID: 61345

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5 LVL 9	LVL 2 LVL 6	LVL 3 LVL 7	LVL 4 LVL 8		B	M1	M2								
2,4,6-Trinitrotoluene	211753 195486 202459	210508 199081	203227 198317	203267 200435	Ave		202725.952				2.7		20.0			
4-Amino-2,6-dinitrotoluene	171628 142434 147171	157343 146076	152967 145091	149600 146556	Ave		150985.194				5.9		20.0			
2-Amino-4,6-dinitrotoluene	227789 193171 199435	213247 197134	191235 196207	201992 199332	Ave		202171.240				5.7		20.0			
2,6-Dinitrotoluene	154482 136163 144227	149054 142460	137610 141928	141773 140340	Ave		143115.218				4.0		20.0			
2,4-Dinitrotoluene	303486 281295 293182	293327 286355	277550 285832	292380 290749	Ave		289350.655				2.6		20.0			
2-Nitrotoluene	138700 121120 126002	137150 123750	126280 123333	127770 124418	Ave		127613.606				4.8		20.0			
4-Nitrotoluene	108084 103090 108687	107335 105826	103054 106012	106936 107095	Ave		106235.483				1.9		20.0			
3-Nitrotoluene	176224 132507 139283	149301 136601	134525 135465	139890 136664	Ave		142273.338				9.6		20.0			
PETN	87840 71710 74726	78525 73771	70168 73720	74208 74427	Lin2	1383.22998	72545.1478							0.9990		0.9900
1,2-Dinitrobenzene	118800 123244 127495	125150 124888	122540 125351	127800 127011	Ave		124697.681				2.3		20.0			

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

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

Lab Name: Eurofins Denver Job No.: 280-159384-1 Analy Batch No.: 562503

SDG No.:

Instrument ID: CHHPLC_X3 GC Column: UltraCarb5u ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/04/2022 18:28 Calibration End Date: 01/04/2022 21:31 Calibration ID: 61345

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-562503/19	01040019.D
Level 2	IC 280-562503/18	01040018.D
Level 3	IC 280-562503/17	01040017.D
Level 4	IC 280-562503/16	01040016.D
Level 5	IC 280-562503/15	01040015.D
Level 6	IC 280-562503/14	01040014.D
Level 7	IC 280-562503/13	01040013.D
Level 8	IC 280-562503/12	01040012.D
Level 9	IC 280-562503/11	01040011.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
		LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
HMX	Ave	901	1735	4230	8489	20395	0.0100	0.0200	0.0500	0.100	0.250
		32925	57138	81295	203229		0.400	0.700	1.00	2.50	
RDX	Ave	1152	2084	5715	10447	24635	0.0100	0.0200	0.0500	0.100	0.250
		39126	69068	99016	250683		0.400	0.700	1.00	2.50	
Picric acid	Ave	716	1554	4029	7855	18560	0.0100	0.0200	0.0500	0.100	0.250
		30649	53408	77279	201210		0.400	0.700	1.00	2.50	
1,3,5-Trinitrobenzene	Ave	2197	4249	10711	21856	52589	0.0100	0.0200	0.0501	0.100	0.251
		87295	155681	224711	565374		0.401	0.701	1.00	2.51	
1,3-Dinitrobenzene	Ave	2633	5833	14683	29215	70569	0.0100	0.0200	0.0501	0.100	0.251
		116963	205039	295195	743133		0.401	0.701	1.00	2.51	
Nitrobenzene	Ave	2067	3845	9329	19287	46348	0.0100	0.0201	0.0502	0.100	0.251
		75688	134777	194325	486534		0.402	0.703	1.00	2.51	
Tetryl	Ave	1778	3498	8315	17238	40968	0.0100	0.0200	0.0501	0.100	0.251
		66706	118756	173941	431404		0.401	0.701	1.00	2.51	
Nitroglycerin	Ave	6348	12008	30651	63595	151977	0.100	0.200	0.500	1.00	2.50
		257287	449283	647703	1621311		4.00	7.00	10.0	25.0	
2,4,6-Trinitrotoluene	Ave	2126	4227	10202	20408	49067	0.0100	0.0201	0.0502	0.100	0.251
		79951	139377	201237	508173		0.402	0.703	1.00	2.51	
4-Amino-2,6-dinitrotoluene	Ave	1718	3150	7656	14975	35644	0.0100	0.0200	0.0501	0.100	0.250
		58489	101665	146703	368296		0.400	0.701	1.00	2.50	
2-Amino-4,6-dinitrotoluene	Ave	2287	4282	9600	20280	48486	0.0100	0.0201	0.0502	0.100	0.251
		79169	137894	200129	500581		0.402	0.703	1.00	2.51	
2,6-Dinitrotoluene	Ave	1551	2993	6908	14234	34177	0.0100	0.0201	0.0502	0.100	0.251
		57212	99747	140901	362011		0.402	0.703	1.00	2.51	
2,4-Dinitrotoluene	Ave	3047	5890	13933	29355	70605	0.0100	0.0201	0.0502	0.100	0.251

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

Lab Name: Eurofins Denver Job No.: 280-159384-1 Analy Batch No.: 562503

SDG No.:

Instrument ID: CHHPLC_X3 GC Column: UltraCarb5u ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/04/2022 18:28 Calibration End Date: 01/04/2022 21:31 Calibration ID: 61345

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
		115000	200883	291912	735887		0.402	0.703	1.00	2.51	
2-Nitrotoluene	Ave	1387	2743	6314	12777	30280	0.0100	0.0200	0.0500	0.100	0.250
		49500	86333	124418	315004		0.400	0.700	1.00	2.50	
4-Nitrotoluene	Ave	1083	2151	5163	10715	25824	0.0100	0.0200	0.0501	0.100	0.251
		42415	74357	107309	272262		0.401	0.701	1.00	2.51	
3-Nitrotoluene	Ave	1764	2989	6733	14003	33160	0.0100	0.0200	0.0501	0.100	0.250
		54695	94920	136801	348555		0.400	0.701	1.00	2.50	
PETN	Lin2	8784	15705	35084	74208	179275	0.100	0.200	0.500	1.00	2.50
		295082	516042	744274	1868141		4.00	7.00	10.0	25.0	
1,2-Dinitrobenzene	Ave	1188	2503	6127	12780	30811	0.0100	0.0200	0.0500	0.100	0.250
		49955	87746	127011	318738		0.400	0.700	1.00	2.50	

Curve Type Legend
Ave = Average
Lin2 = Linear 1/conc^2

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040011.D
Lims ID: IC INT 9
Client ID:
Sample Type: IC Calib Level: 9
Inject. Date: 04-Jan-2022 18:28:10 ALS Bottle#: 11 Worklist Smp#: 11
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT 9
Misc. Info.: 280-0107731-011
Operator ID: JZ Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub9

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 06-Jan-2022 20:05:10 Calib Date: 05-Jan-2022 04:24:15
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040037.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1641

First Level Reviewer: zhangji Date: 04-Jan-2022 19:18:32

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
4 HMX	1	6.593	6.598	-0.005	203229	2.50	2.42	M
8 RDX	1	7.600	7.605	-0.005	250683	2.50	2.42	
9 2,4,6-Trinitrophenol	1	7.860	7.945	-0.085	201210	2.50	2.61	
$ 10 1,2-Dinitrobenzene	1	8.567	8.572	-0.005	318738	2.50	2.56	
11 1,3,5-Trinitrobenzene	1	8.687	8.692	-0.005	565374	2.51	2.59	
12 1,3-Dinitrobenzene	1	9.320	9.331	-0.011	743133	2.51	2.58	
13 Nitrobenzene	1	9.713	9.725	-0.012	486534	2.51	2.53	
15 Tetryl	1	10.046	10.058	-0.012	431404	2.51	2.53	
16 Nitroglycerin	2	10.500	10.518	-0.018	1621311	25.0	25.7	
17 2,4,6-Trinitrotoluene	1	10.960	10.971	-0.011	508173	2.51	2.51	
18 4-Amino-2,6-dinitrotoluene	1	11.160	11.171	-0.011	368296	2.50	2.44	
19 2-Amino-4,6-dinitrotoluene	1	11.413	11.425	-0.012	500581	2.51	2.48	
20 2,6-Dinitrotoluene	1	11.586	11.598	-0.012	362011	2.51	2.53	
21 2,4-Dinitrotoluene	1	11.753	11.765	-0.012	735887	2.51	2.54	
22 o-Nitrotoluene	1	12.620	12.638	-0.018	315004	2.50	2.47	
23 p-Nitrotoluene	1	13.053	13.071	-0.018	272262	2.51	2.56	
24 m-Nitrotoluene	1	13.633	13.651	-0.018	348555	2.50	2.45	
25 PETN	2	14.713	14.738	-0.025	1868141	25.0	25.7	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330IntermStk_00070 Amount Added: 250.00 Units: uL

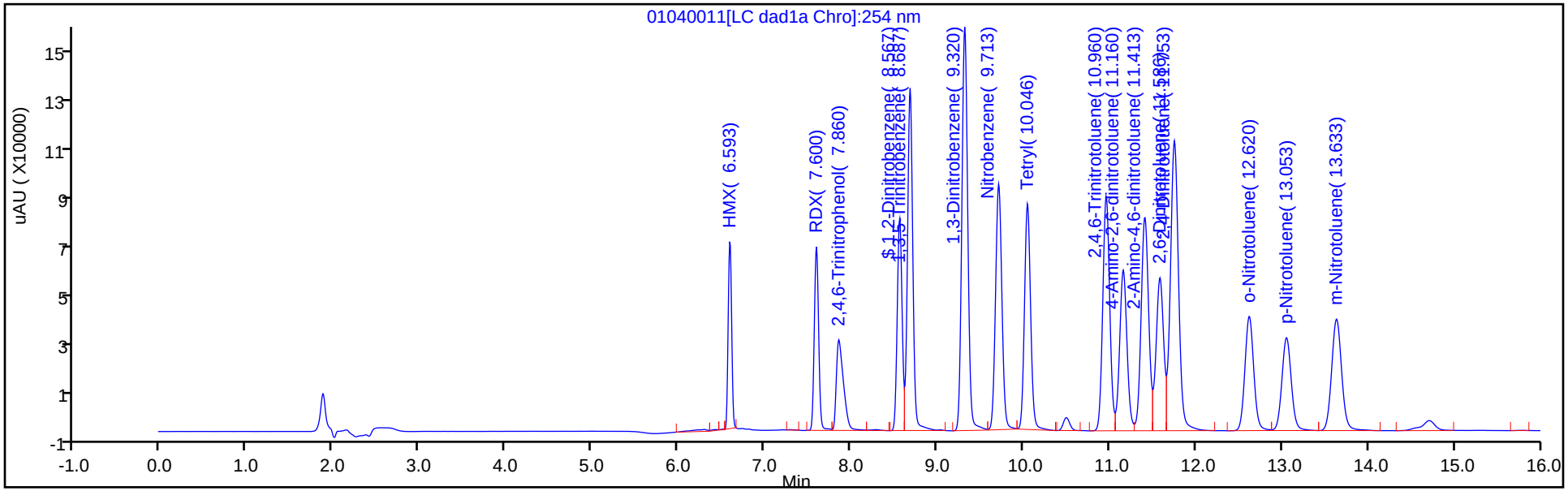
Report Date: 06-Jan-2022 20:05:10 Chrom Revision: 2.3 03-Jan-2022 17:03:12

Eurofins TestAmerica, Denver

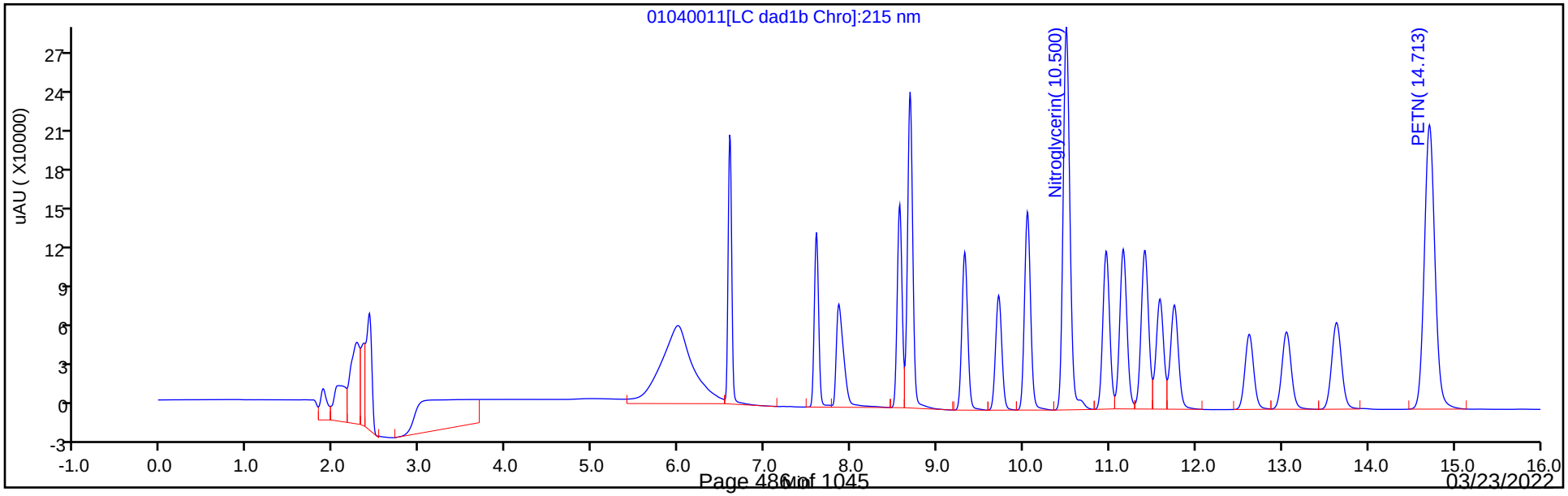
Data File: \\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040011.d

Injection Date:	04-Jan-2022 18:28:10	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	IC INT 9			Worklist Smp#:	11
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	11
Method:	8330_X3	Limit Group:	GCSV - 8330		

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



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



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

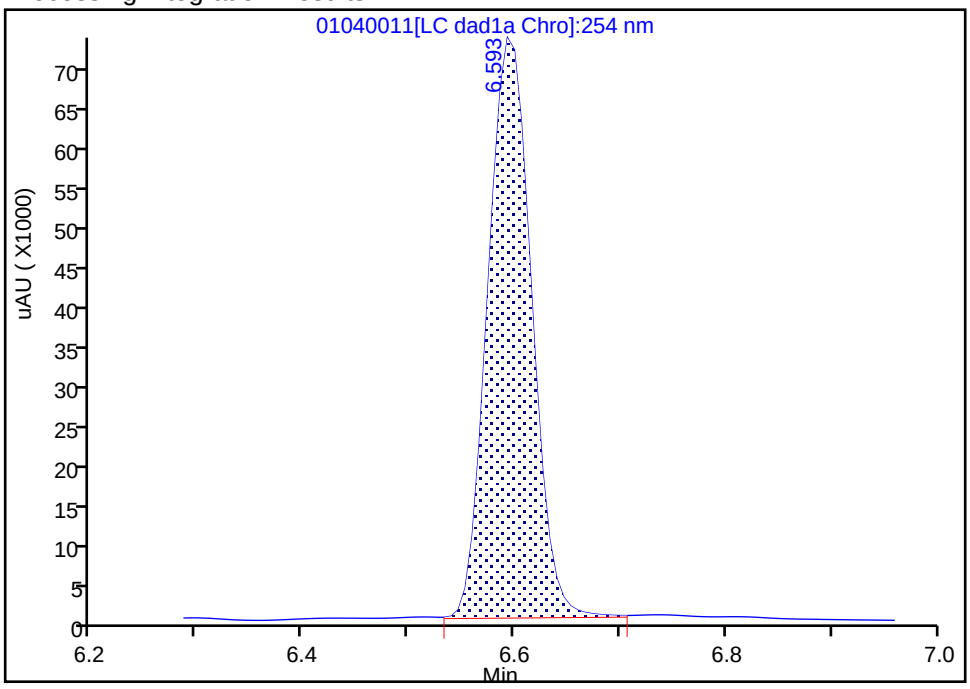
Data File:	\\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040011.d				
Injection Date:	04-Jan-2022 18:28:10	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT 9				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	11	Worklist Smp#:	11
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

4 HMX, CAS: 2691-41-0

Signal: 1

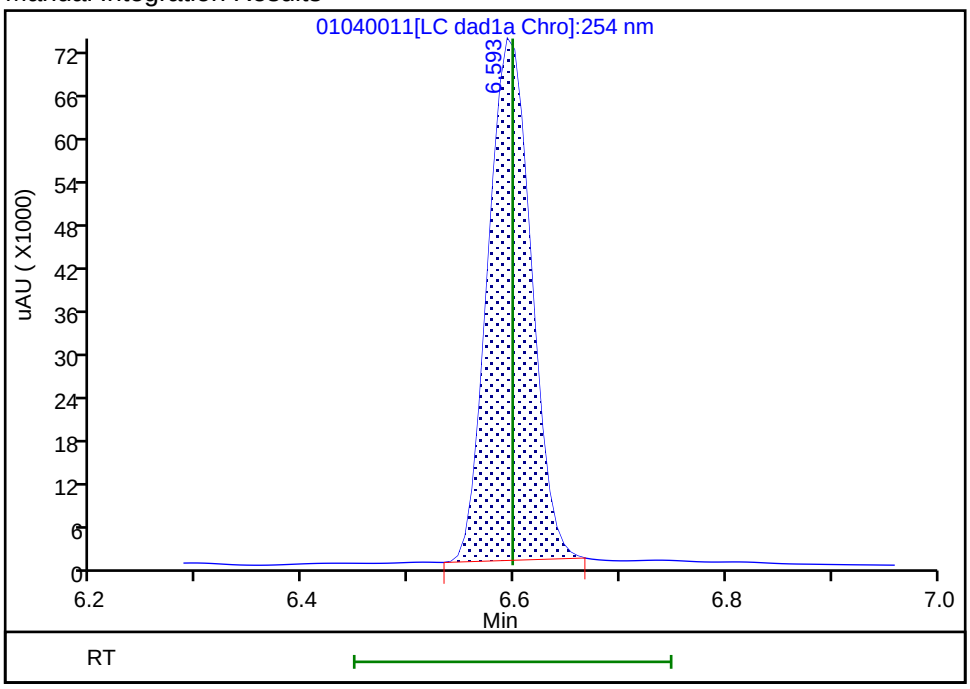
Processing Integration Results

RT: 6.59
Area: 207225
Amount: 2.498192
Amount Units: ug/mL



Manual Integration Results

RT: 6.59
Area: 203229
Amount: 2.424380
Amount Units: ug/mL



Reviewer: zhangji, 04-Jan-2022 19:18:30
Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040012.D
Lims ID: IC INT 8
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 04-Jan-2022 18:51:00 ALS Bottle#: 12 Worklist Smp#: 12
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT 8
Misc. Info.: 280-0107731-012
Operator ID: JZ Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub9

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 06-Jan-2022 20:05:11 Calib Date: 05-Jan-2022 04:24:15
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040037.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1641

First Level Reviewer: zhangji Date: 04-Jan-2022 19:18:25

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
4 HMX	1	6.598	6.598	0.000	81295	1.00	0.9698	M
8 RDX	1	7.604	7.605	-0.001	99016	1.00	0.9557	
9 2,4,6-Trinitrophenol	1	7.904	7.945	-0.041	77279	1.00	1.00	
$ 10 1,2-Dinitrobenzene	1	8.571	8.572	-0.001	127011	1.00	1.02	
11 1,3,5-Trinitrobenzene	1	8.691	8.692	-0.001	224711	1.00	1.03	
12 1,3-Dinitrobenzene	1	9.324	9.331	-0.007	295195	1.00	1.02	
13 Nitrobenzene	1	9.717	9.725	-0.008	194325	1.00	1.01	
15 Tetryl	1	10.051	10.058	-0.007	173941	1.00	1.02	
16 Nitroglycerin	2	10.504	10.518	-0.014	647703	10.0	10.3	
17 2,4,6-Trinitrotoluene	1	10.964	10.971	-0.007	201237	1.00	0.99	
18 4-Amino-2,6-dinitrotoluene	1	11.164	11.171	-0.007	146703	1.00	0.9716	
19 2-Amino-4,6-dinitrotoluene	1	11.417	11.425	-0.008	200129	1.00	0.9899	
20 2,6-Dinitrotoluene	1	11.591	11.598	-0.007	140901	1.00	0.9845	
21 2,4-Dinitrotoluene	1	11.757	11.765	-0.008	291912	1.00	1.01	
22 o-Nitrotoluene	1	12.631	12.638	-0.007	124418	1.00	0.9750	
23 p-Nitrotoluene	1	13.057	13.071	-0.014	107309	1.00	1.01	
24 m-Nitrotoluene	1	13.644	13.651	-0.007	136801	1.00	0.9615	
25 PETN	2	14.724	14.738	-0.014	744274	10.0	10.2	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

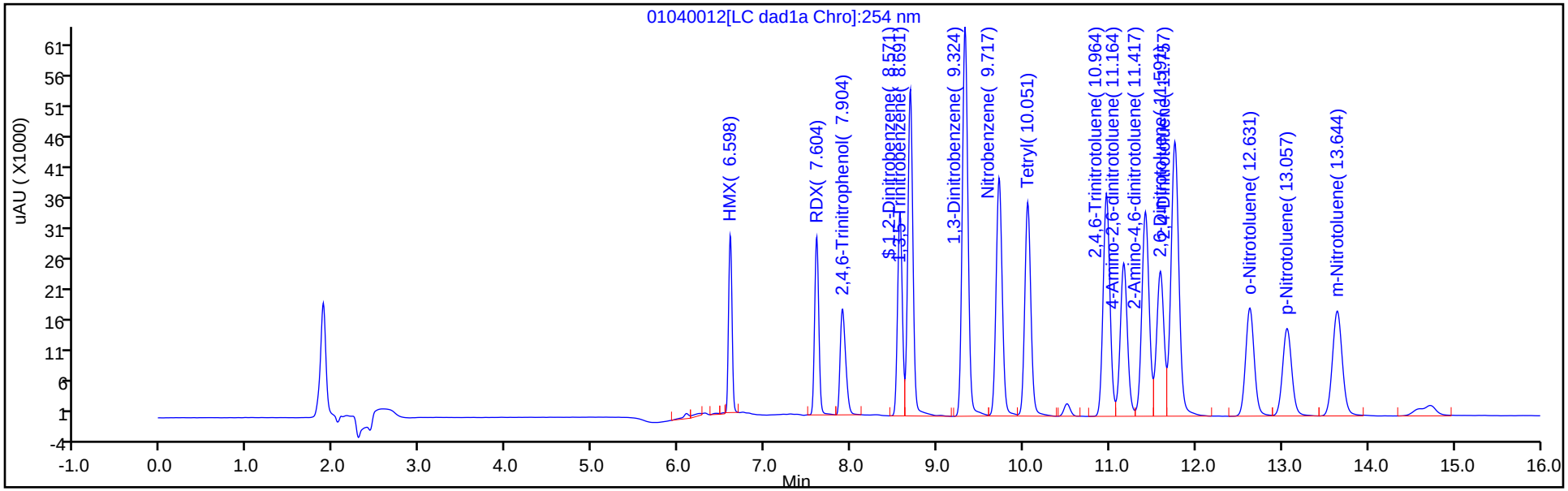
8330IntermStk_00070 Amount Added: 100.00 Units: uL

Report Date: 06-Jan-2022 20:05:11 Chrom Revision: 2.3 03-Jan-2022 17:03:12

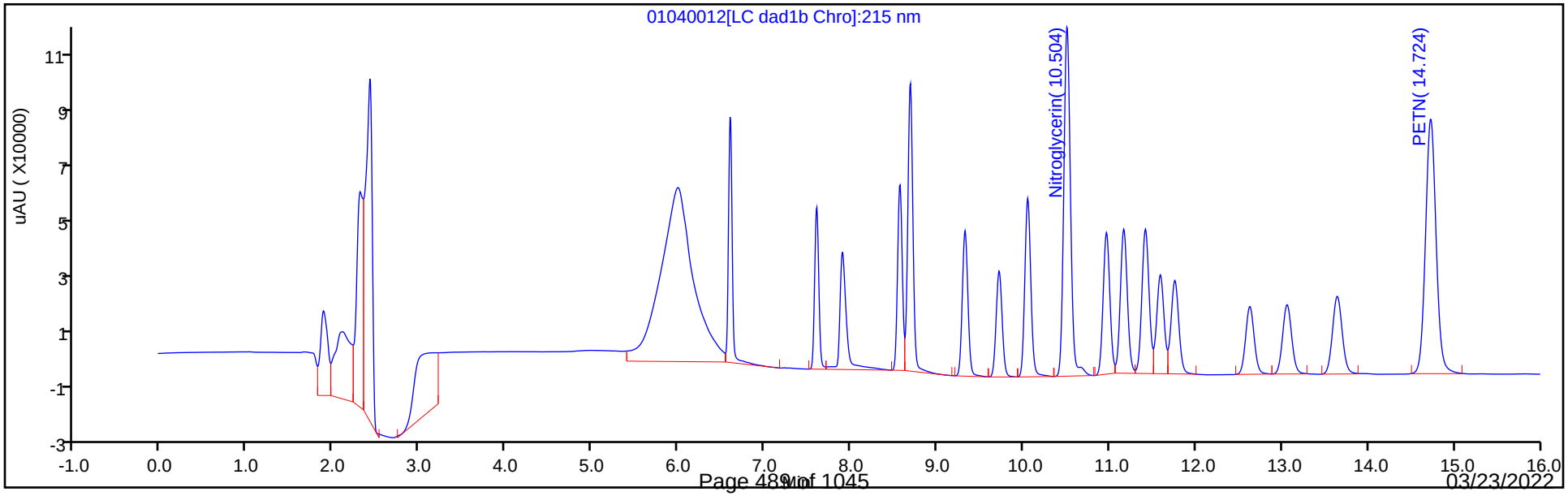
Eurofins TestAmerica, Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040012.d				
Injection Date:	04-Jan-2022 18:51:00	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	IC INT 8			Worklist Smp#:	12
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	12
Method:	8330_X3	Limit Group:	GCSV - 8330		

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



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



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

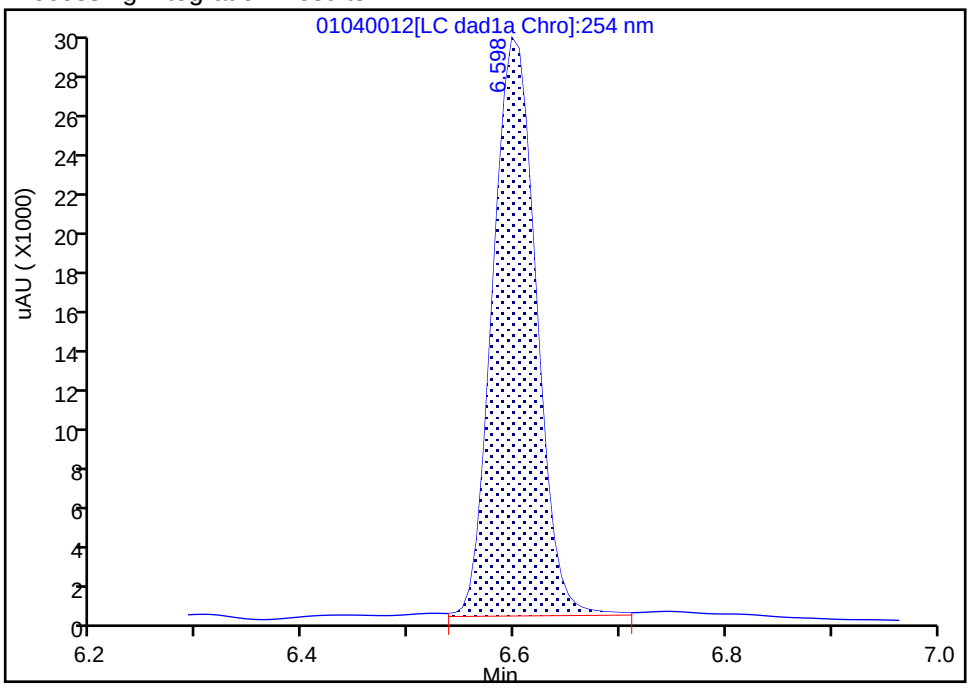
Data File:	\\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040012.d				
Injection Date:	04-Jan-2022 18:51:00	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT 8				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	12	Worklist Smp#:	12
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

4 HMX, CAS: 2691-41-0

Signal: 1

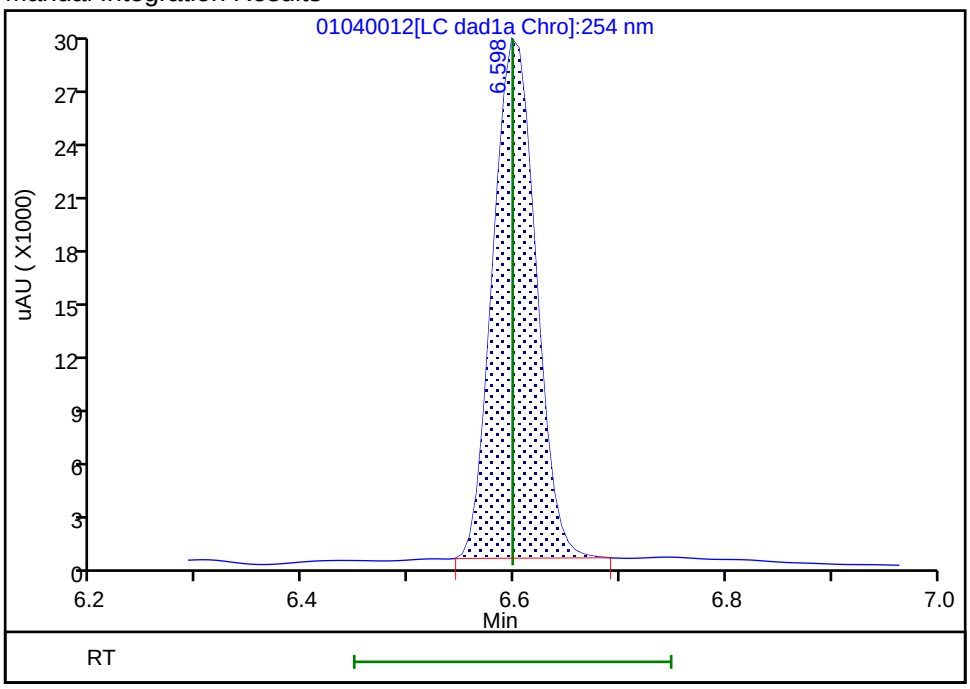
Processing Integration Results

RT: 6.60
Area: 83010
Amount: 1.010459
Amount Units: ug/mL



Manual Integration Results

RT: 6.60
Area: 81295
Amount: 0.969793
Amount Units: ug/mL



Reviewer: zhangji, 04-Jan-2022 19:18:46
Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040013.D
Lims ID: IC INT 7
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 04-Jan-2022 19:13:53 ALS Bottle#: 13 Worklist Smp#: 13
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT 7
Misc. Info.: 280-0107731-013
Operator ID: JZ Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub9

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 06-Jan-2022 20:05:11 Calib Date: 05-Jan-2022 04:24:15
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040037.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1641

First Level Reviewer: zhangji Date: 04-Jan-2022 19:38:01

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
4 HMX	1	6.599	6.598	0.001	57138	0.7000	0.6816	
8 RDX	1	7.606	7.605	0.001	69068	0.7000	0.6666	
9 2,4,6-Trinitrophenol	1	7.913	7.945	-0.032	53408	0.7000	0.6933	
$ 10 1,2-Dinitrobenzene	1	8.573	8.572	0.001	87746	0.7000	0.7037	
11 1,3,5-Trinitrobenzene	1	8.693	8.692	0.001	155681	0.7014	0.7138	
12 1,3-Dinitrobenzene	1	9.326	9.331	-0.005	205039	0.7014	0.7109	
13 Nitrobenzene	1	9.726	9.725	0.001	134777	0.7028	0.7021	
15 Tetryl	1	10.053	10.058	-0.005	118756	0.7014	0.6962	
16 Nitroglycerin	2	10.513	10.518	-0.005	449283	7.00	7.13	
17 2,4,6-Trinitrotoluene	1	10.966	10.971	-0.005	139377	0.7028	0.6875	
18 4-Amino-2,6-dinitrotoluene	1	11.173	11.171	0.002	101665	0.7007	0.6733	
19 2-Amino-4,6-dinitrotoluene	1	11.419	11.425	-0.006	137894	0.7028	0.6821	
20 2,6-Dinitrotoluene	1	11.593	11.598	-0.005	99747	0.7028	0.6970	
21 2,4-Dinitrotoluene	1	11.766	11.765	0.001	200883	0.7028	0.6943	
22 o-Nitrotoluene	1	12.633	12.638	-0.005	86333	0.7000	0.6765	
23 p-Nitrotoluene	1	13.066	13.071	-0.005	74357	0.7014	0.6999	
24 m-Nitrotoluene	1	13.646	13.651	-0.005	94920	0.7007	0.6672	
25 PETN	2	14.733	14.738	-0.005	516042	7.00	7.09	

QC Flag Legend

Processing Flags

Reagents:

8330IntermStk_00070 Amount Added: 70.00 Units: uL

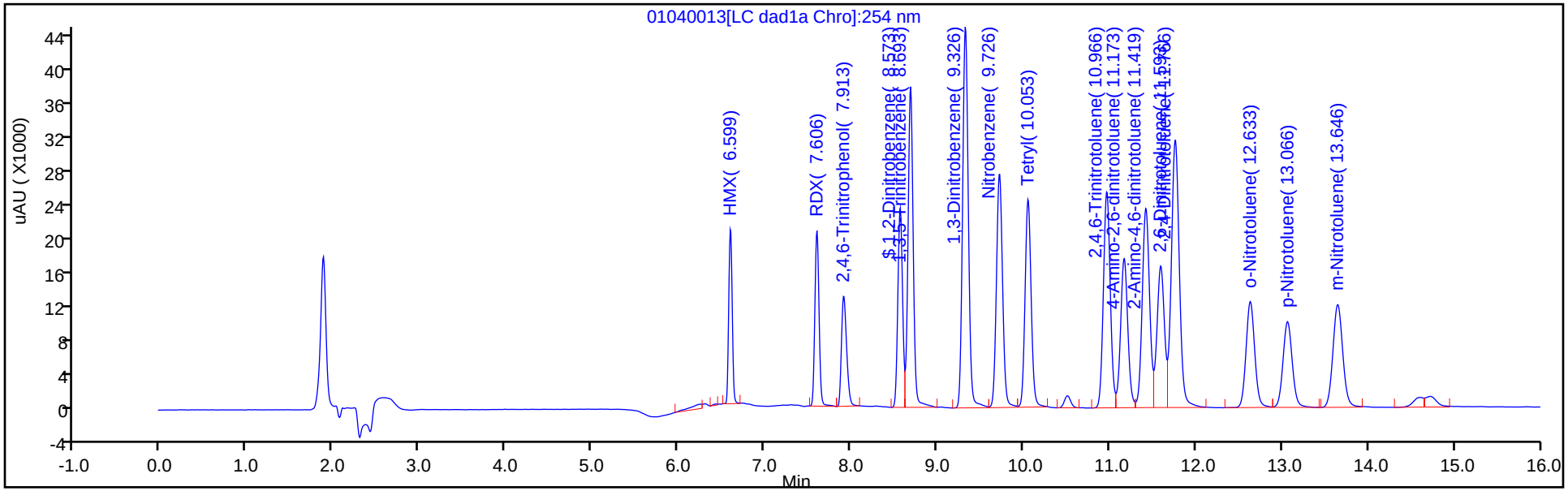
Report Date: 06-Jan-2022 20:05:11 Chrom Revision: 2.3 03-Jan-2022 17:03:12

Eurofins TestAmerica, Denver

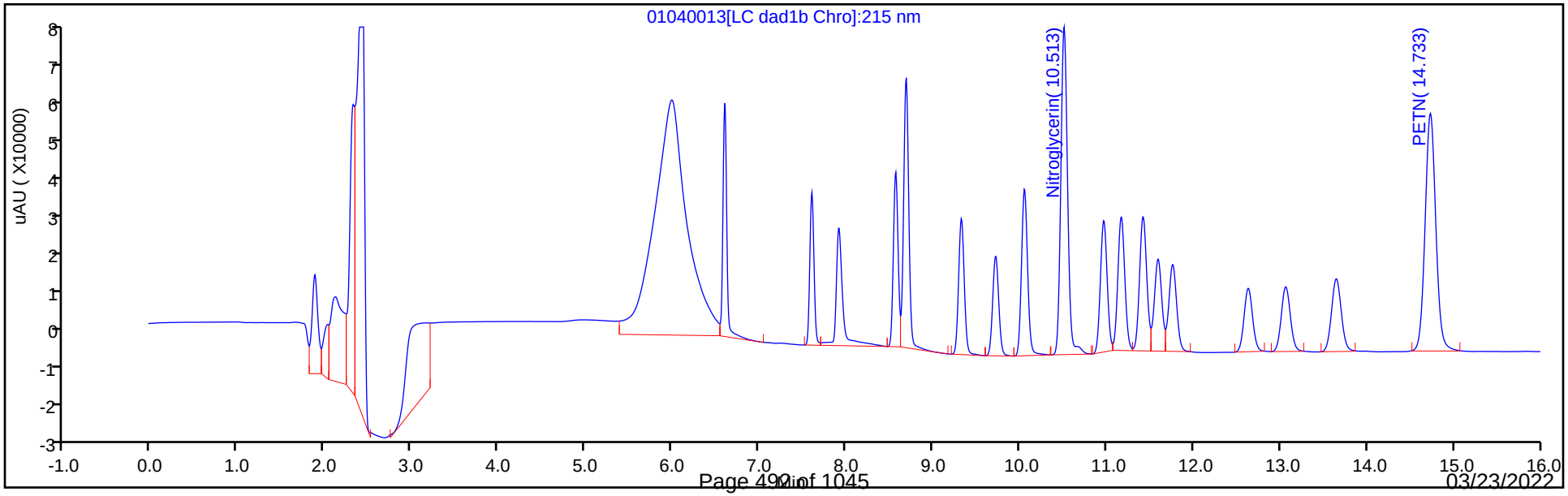
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Injection Date:	04-Jan-2022 19:13:53	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	IC INT 7			Worklist Smp#:	13
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	13
Method:	8330_X3	Limit Group:	GCSV - 8330		

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



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



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040014.D
Lims ID: IC INT 6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 04-Jan-2022 19:36:46 ALS Bottle#: 14 Worklist Smp#: 14
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT 6
Misc. Info.: 280-0107731-014
Operator ID: JZ Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub9

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 06-Jan-2022 20:05:12 Calib Date: 05-Jan-2022 04:24:15
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040037.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1641

First Level Reviewer: zhangji Date: 04-Jan-2022 20:03:49

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
4 HMX	1	6.601	6.598	0.003	32925	0.4000	0.3928	
8 RDX	1	7.607	7.605	0.002	39126	0.4000	0.3776	
9 2,4,6-Trinitrophenol	1	7.927	7.945	-0.018	30649	0.4000	0.3978	
$ 10 1,2-Dinitrobenzene	1	8.574	8.572	0.002	49955	0.4000	0.4006	
11 1,3,5-Trinitrobenzene	1	8.694	8.692	0.002	87295	0.4008	0.4003	
12 1,3-Dinitrobenzene	1	9.327	9.331	-0.004	116963	0.4008	0.4056	
13 Nitrobenzene	1	9.727	9.725	0.002	75688	0.4016	0.3943	
15 Tetryl	1	10.061	10.058	0.003	66706	0.4008	0.3911	
16 Nitroglycerin	2	10.514	10.518	-0.004	257287	4.00	4.08	
17 2,4,6-Trinitrotoluene	1	10.967	10.971	-0.004	79951	0.4016	0.3944	
18 4-Amino-2,6-dinitrotoluene	1	11.174	11.171	0.003	58489	0.4004	0.3874	
19 2-Amino-4,6-dinitrotoluene	1	11.421	11.425	-0.004	79169	0.4016	0.3916	
20 2,6-Dinitrotoluene	1	11.594	11.598	-0.004	57212	0.4016	0.3998	
21 2,4-Dinitrotoluene	1	11.767	11.765	0.002	115000	0.4016	0.3974	
22 o-Nitrotoluene	1	12.634	12.638	-0.004	49500	0.4000	0.3879	
23 p-Nitrotoluene	1	13.067	13.071	-0.004	42415	0.4008	0.3993	
24 m-Nitrotoluene	1	13.647	13.651	-0.004	54695	0.4004	0.3844	
25 PETN	2	14.734	14.738	-0.004	295082	4.00	4.05	

QC Flag Legend

Processing Flags

Reagents:

8330IntermStk_00070 Amount Added: 40.00 Units: uL

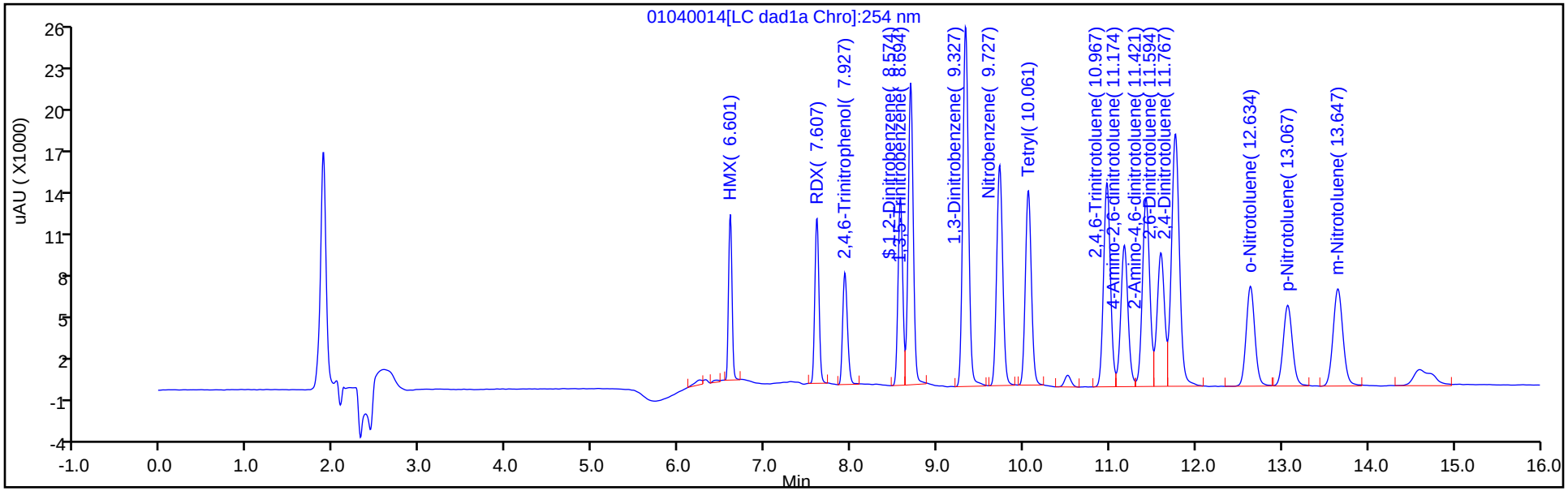
Report Date: 06-Jan-2022 20:05:12 Chrom Revision: 2.3 03-Jan-2022 17:03:12

Eurofins TestAmerica, Denver

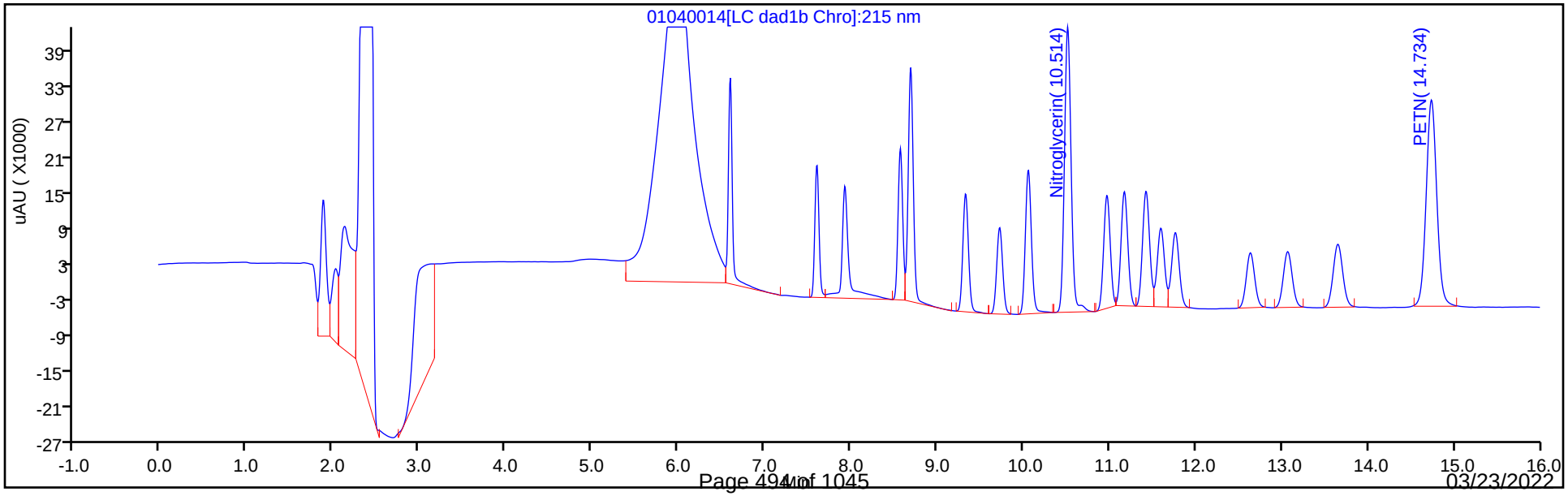
Data File: \\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040014.d

Injection Date:	04-Jan-2022 19:36:46	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	IC INT 6			Worklist Smp#:	14
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	14
Method:	8330_X3	Limit Group:	GCSV - 8330		

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



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



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040015.D
Lims ID: IC INT 5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 04-Jan-2022 19:59:42 ALS Bottle#: 15 Worklist Smp#: 15
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT 5
Misc. Info.: 280-0107731-015
Operator ID: JZ Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub9

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 06-Jan-2022 20:05:12 Calib Date: 05-Jan-2022 04:24:15
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040037.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1641

First Level Reviewer: zhangji Date: 04-Jan-2022 20:30:59

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
4 HMX	1	6.601	6.598	0.003	20395	0.2500	0.2433	
8 RDX	1	7.601	7.605	-0.004	24635	0.2500	0.2378	
9 2,4,6-Trinitrophenol	1	7.934	7.945	-0.011	18560	0.2500	0.2409	
$ 10 1,2-Dinitrobenzene	1	8.567	8.572	-0.005	30811	0.2500	0.2471	
11 1,3,5-Trinitrobenzene	1	8.687	8.692	-0.005	52589	0.2505	0.2411	
12 1,3-Dinitrobenzene	1	9.327	9.331	-0.004	70569	0.2505	0.2447	
13 Nitrobenzene	1	9.720	9.725	-0.005	46348	0.2510	0.2415	
15 Tetryl	1	10.054	10.058	-0.004	40968	0.2505	0.2402	
16 Nitroglycerin	2	10.514	10.518	-0.004	151977	2.50	2.41	
17 2,4,6-Trinitrotoluene	1	10.967	10.971	-0.004	49067	0.2510	0.2420	
18 4-Amino-2,6-dinitrotoluene	1	11.167	11.171	-0.004	35644	0.2503	0.2361	
19 2-Amino-4,6-dinitrotoluene	1	11.420	11.425	-0.005	48486	0.2510	0.2398	
20 2,6-Dinitrotoluene	1	11.594	11.598	-0.004	34177	0.2510	0.2388	
21 2,4-Dinitrotoluene	1	11.760	11.765	-0.005	70605	0.2510	0.2440	
22 o-Nitrotoluene	1	12.634	12.638	-0.004	30280	0.2500	0.2373	
23 p-Nitrotoluene	1	13.060	13.071	-0.011	25824	0.2505	0.2431	
24 m-Nitrotoluene	1	13.647	13.651	-0.004	33160	0.2503	0.2331	
25 PETN	2	14.727	14.738	-0.011	179275	2.50	2.45	

QC Flag Legend
Processing Flags

Reagents:
8330IntermStk_00070 Amount Added: 25.00 Units: uL

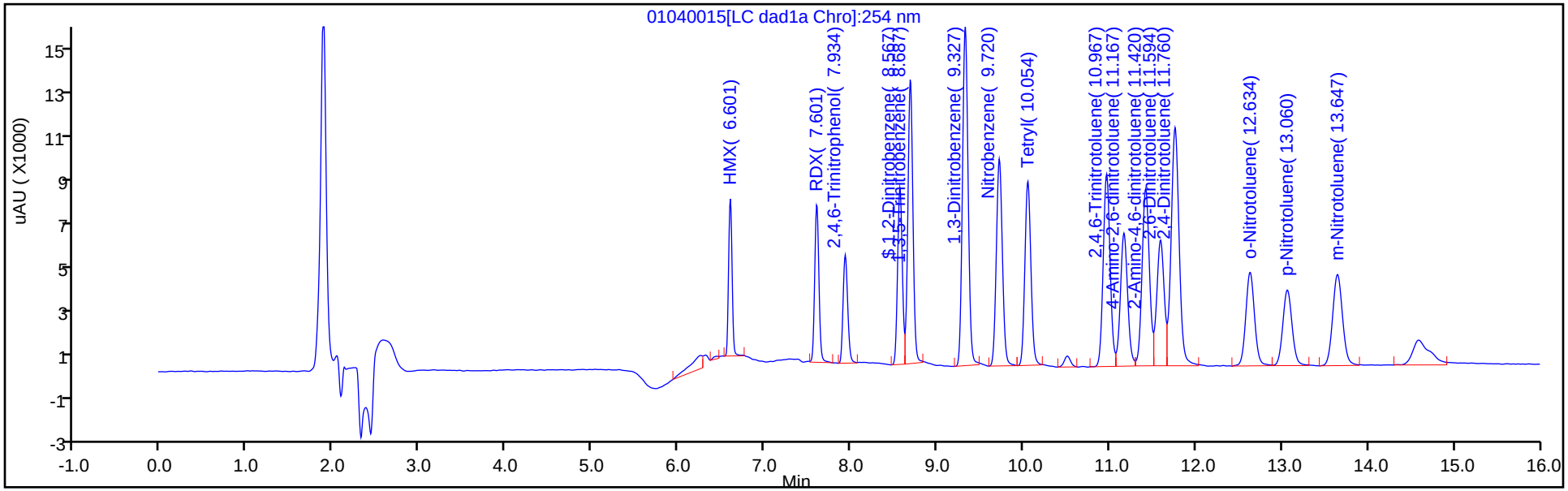
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Eurofins TestAmerica, Denver

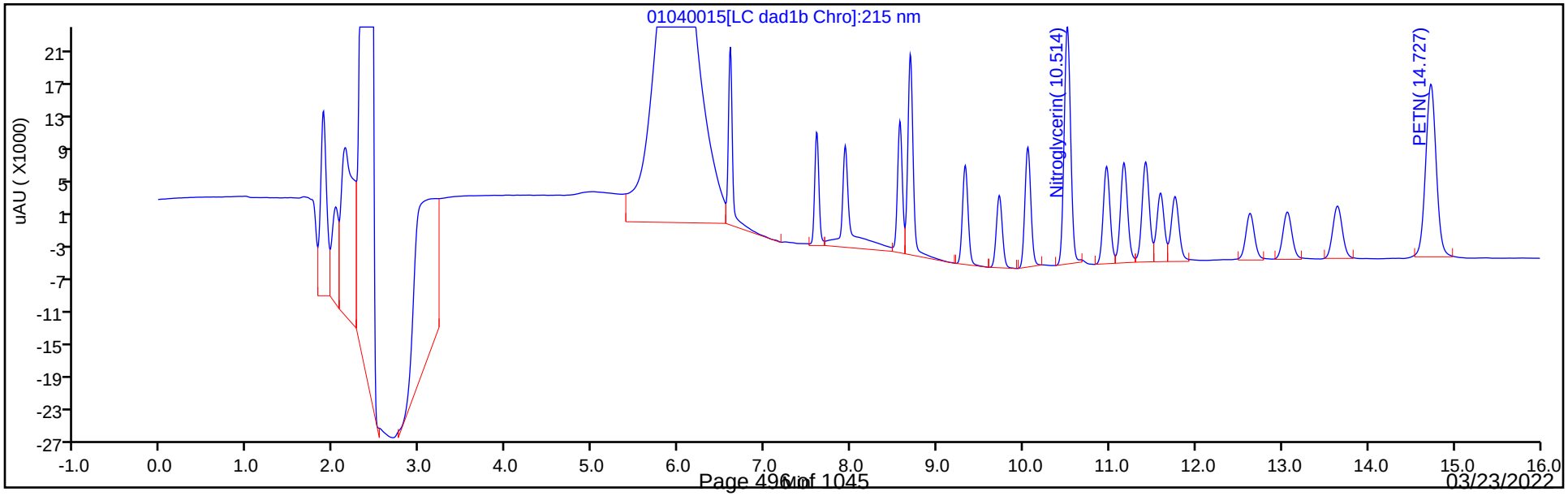
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Injection Date:	04-Jan-2022 19:59:42	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	IC INT 5			Worklist Smp#:	15
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	15
Method:	8330_X3	Limit Group:	GCSV - 8330		

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



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



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040016.D
Lims ID: IC INT 4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 04-Jan-2022 20:22:36 ALS Bottle#: 16 Worklist Smp#: 16
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT 4
Misc. Info.: 280-0107731-016
Operator ID: JZ Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub9

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 06-Jan-2022 20:05:12 Calib Date: 05-Jan-2022 04:24:15
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040037.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1641

First Level Reviewer: zhangji Date: 04-Jan-2022 20:49:54

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
4 HMX	1	6.598	6.598	0.000	8489	0.1000	0.1013	
8 RDX	1	7.605	7.605	0.000	10447	0.1000	0.1008	
9 2,4,6-Trinitrophenol	1	7.945	7.945	0.000	7855	0.1000	0.1020	
$ 10 1,2-Dinitrobenzene	1	8.572	8.572	0.000	12780	0.1000	0.1025	
11 1,3,5-Trinitrobenzene	1	8.692	8.692	0.000	21856	0.1002	0.1002	
12 1,3-Dinitrobenzene	1	9.331	9.331	0.000	29215	0.1002	0.1013	
13 Nitrobenzene	1	9.725	9.725	0.000	19287	0.1004	0.1005	
15 Tetryl	1	10.058	10.058	0.000	17238	0.1002	0.1011	
16 Nitroglycerin	2	10.518	10.518	0.000	63595	1.00	1.01	
17 2,4,6-Trinitrotoluene	1	10.971	10.971	0.000	20408	0.1004	0.1007	
18 4-Amino-2,6-dinitrotoluene	1	11.171	11.171	0.000	14975	0.1001	0.0992	
19 2-Amino-4,6-dinitrotoluene	1	11.425	11.425	0.000	20280	0.1004	0.1003	
20 2,6-Dinitrotoluene	1	11.598	11.598	0.000	14234	0.1004	0.0995	
21 2,4-Dinitrotoluene	1	11.765	11.765	0.000	29355	0.1004	0.1015	
22 o-Nitrotoluene	1	12.638	12.638	0.000	12777	0.1000	0.1001	
23 p-Nitrotoluene	1	13.071	13.071	0.000	10715	0.1002	0.1009	
24 m-Nitrotoluene	1	13.651	13.651	0.000	14003	0.1001	0.0984	
25 PETN	2	14.738	14.738	0.000	74208	1.00	1.00	

QC Flag Legend

Processing Flags

Reagents:

8330IntermStk_00070 Amount Added: 10.00 Units: uL

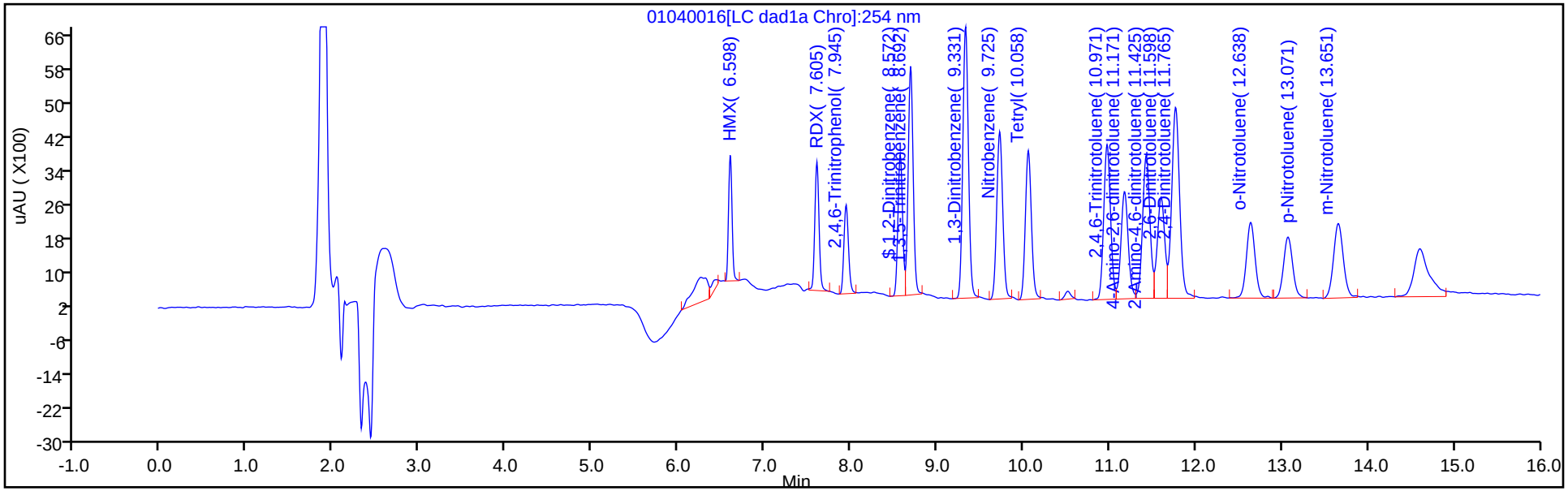
Report Date: 06-Jan-2022 20:05:13 Chrom Revision: 2.3 03-Jan-2022 17:03:12

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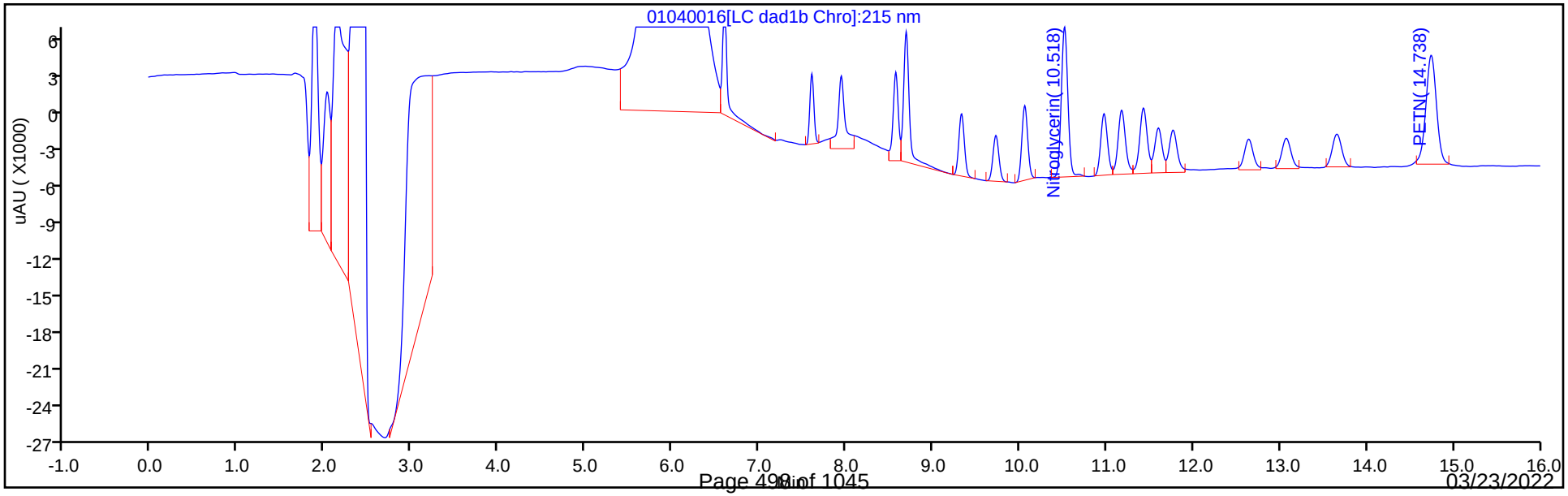
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Injection Date:	04-Jan-2022 20:22:36	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	IC INT 4			Worklist Smp#:	16
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	8330_X3	Limit Group:	GCSV - 8330		

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



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



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040017.D
Lims ID: IC INT 3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 04-Jan-2022 20:45:29 ALS Bottle#: 17 Worklist Smp#: 17
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT 3
Misc. Info.: 280-0107731-017
Operator ID: JZ Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub9

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 06-Jan-2022 20:05:13 Calib Date: 05-Jan-2022 04:24:15
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040037.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1641

	Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
	4 HMX	1	6.600	6.598	0.002	4230	0.0500	0.0505	
	8 RDX	1	7.607	7.605	0.002	5715	0.0500	0.0552	
	9 2,4,6-Trinitrophenol	1	7.947	7.945	0.002	4029	0.0500	0.0523	
$	10 1,2-Dinitrobenzene	1	8.573	8.572	0.001	6127	0.0500	0.0491	
	11 1,3,5-Trinitrobenzene	1	8.693	8.692	0.001	10711	0.0501	0.0491	
	12 1,3-Dinitrobenzene	1	9.327	9.331	-0.004	14683	0.0501	0.0509	
	13 Nitrobenzene	1	9.727	9.725	0.002	9329	0.0502	0.0486	
	15 Tetryl	1	10.060	10.058	0.002	8315	0.0501	0.0487	
	16 Nitroglycerin	2	10.513	10.518	-0.005	30651	0.5000	0.4862	
	17 2,4,6-Trinitrotoluene	1	10.973	10.971	0.002	10202	0.0502	0.0503	
	18 4-Amino-2,6-dinitrotoluene	1	11.173	11.171	0.002	7656	0.0501	0.0507	
	19 2-Amino-4,6-dinitrotoluene	1	11.427	11.425	0.002	9600	0.0502	0.0475	
	20 2,6-Dinitrotoluene	1	11.593	11.598	-0.005	6908	0.0502	0.0483	
	21 2,4-Dinitrotoluene	1	11.767	11.765	0.002	13933	0.0502	0.0482	
	22 o-Nitrotoluene	1	12.640	12.638	0.002	6314	0.0500	0.0495	
	23 p-Nitrotoluene	1	13.067	13.071	-0.004	5163	0.0501	0.0486	
	24 m-Nitrotoluene	1	13.653	13.651	0.002	6733	0.0501	0.0473	
	25 PETN	2	14.733	14.738	-0.005	35084	0.5000	0.4645	

Reagents:

8330IntermStk_00070 Amount Added: 5.00 Units: uL

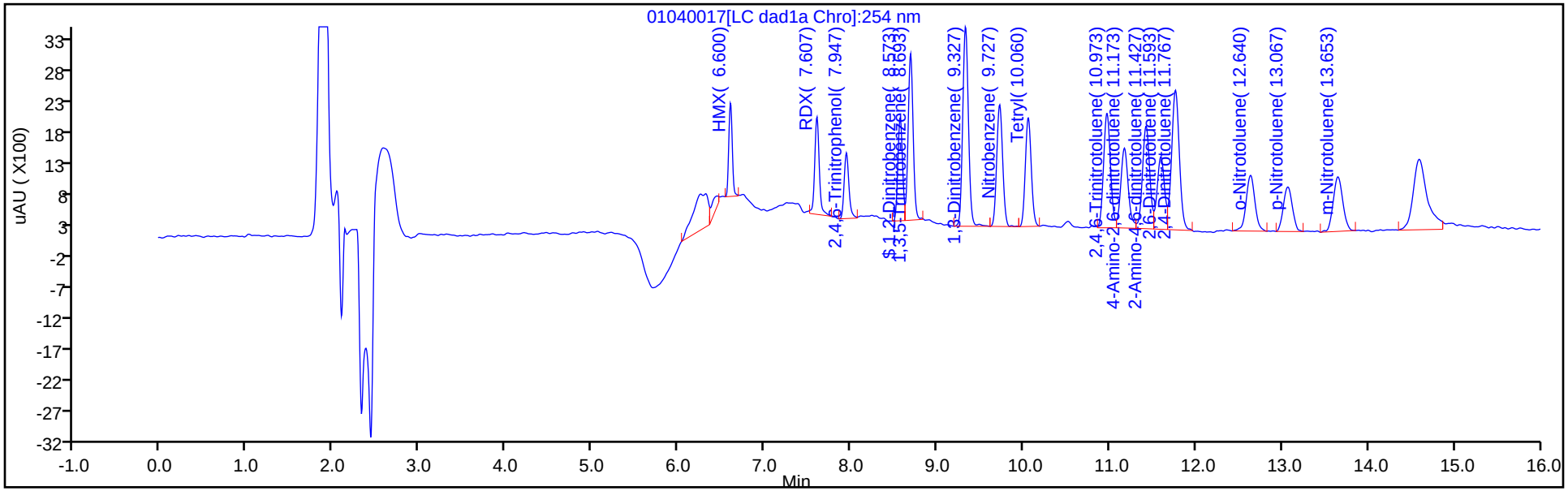
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Eurofins TestAmerica, Denver

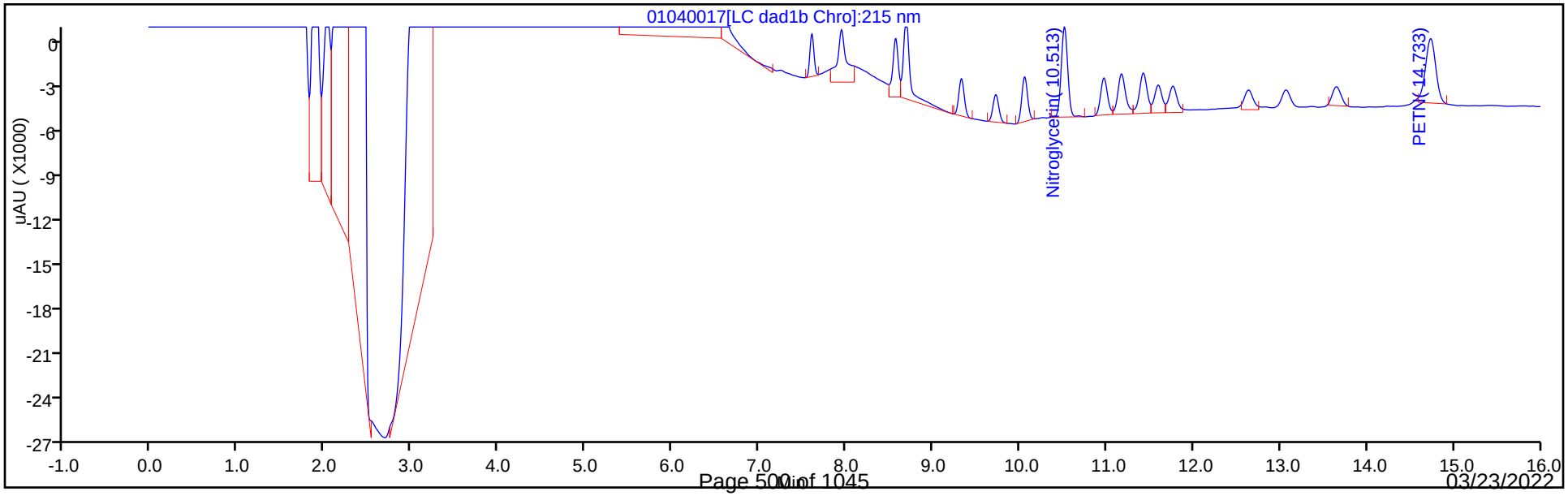
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Injection Date:	04-Jan-2022 20:45:29	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	IC INT 3			Worklist Smp#:	17
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	17
Method:	8330_X3	Limit Group:	GCSV - 8330		

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



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



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040018.D
Lims ID: IC INT 2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 04-Jan-2022 21:08:26 ALS Bottle#: 18 Worklist Smp#: 18
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT 2
Misc. Info.: 280-0107731-018
Operator ID: JZ Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub9

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 06-Jan-2022 20:05:13 Calib Date: 05-Jan-2022 04:24:15
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040037.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1641

First Level Reviewer: zhangji Date: 05-Jan-2022 12:01:28

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
4 HMX	1	6.595	6.598	-0.003	1735	0.0200	0.0207	
8 RDX	1	7.608	7.605	0.003	2084	0.0200	0.0201	M
9 2,4,6-Trinitrophenol	1	7.948	7.945	0.003	1554	0.0200	0.0202	M
$ 10 1,2-Dinitrobenzene	1	8.575	8.572	0.003	2503	0.0200	0.0201	
11 1,3,5-Trinitrobenzene	1	8.695	8.692	0.003	4249	0.0200	0.0195	
12 1,3-Dinitrobenzene	1	9.328	9.331	-0.003	5833	0.0200	0.0202	
13 Nitrobenzene	1	9.722	9.725	-0.003	3845	0.0201	0.0200	
15 Tetryl	1	10.055	10.058	-0.003	3498	0.0200	0.0205	
16 Nitroglycerin	2	10.515	10.518	-0.003	12008	0.2000	0.1905	
17 2,4,6-Trinitrotoluene	1	10.968	10.971	-0.003	4227	0.0201	0.0209	
18 4-Amino-2,6-dinitrotoluene	1	11.175	11.171	0.004	3150	0.0200	0.0209	
19 2-Amino-4,6-dinitrotoluene	1	11.428	11.425	0.003	4282	0.0201	0.0212	
20 2,6-Dinitrotoluene	1	11.595	11.598	-0.003	2993	0.0201	0.0209	
21 2,4-Dinitrotoluene	1	11.762	11.765	-0.003	5890	0.0201	0.0204	
22 o-Nitrotoluene	1	12.642	12.638	0.004	2743	0.0200	0.0215	
23 p-Nitrotoluene	1	13.075	13.071	0.004	2151	0.0200	0.0202	
24 m-Nitrotoluene	1	13.655	13.651	0.004	2989	0.0200	0.0210	
25 PETN	2	14.735	14.738	-0.003	15705	0.2000	0.1974	M

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330IntermStk_00070 Amount Added: 2.00 Units: uL

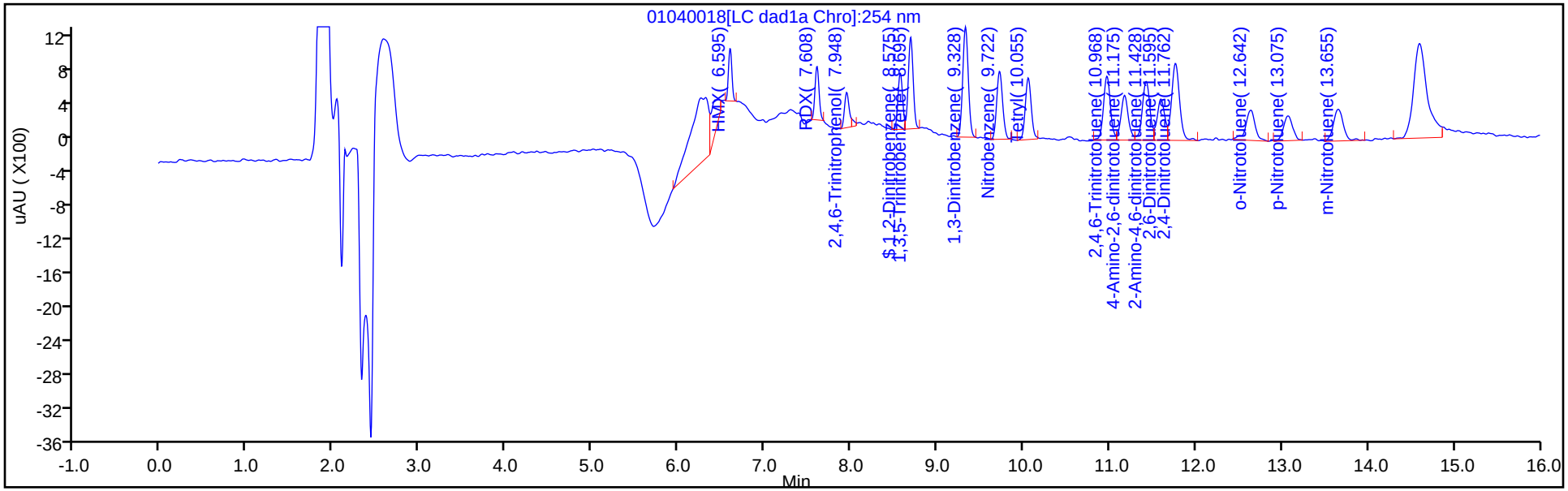
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Eurofins TestAmerica, Denver

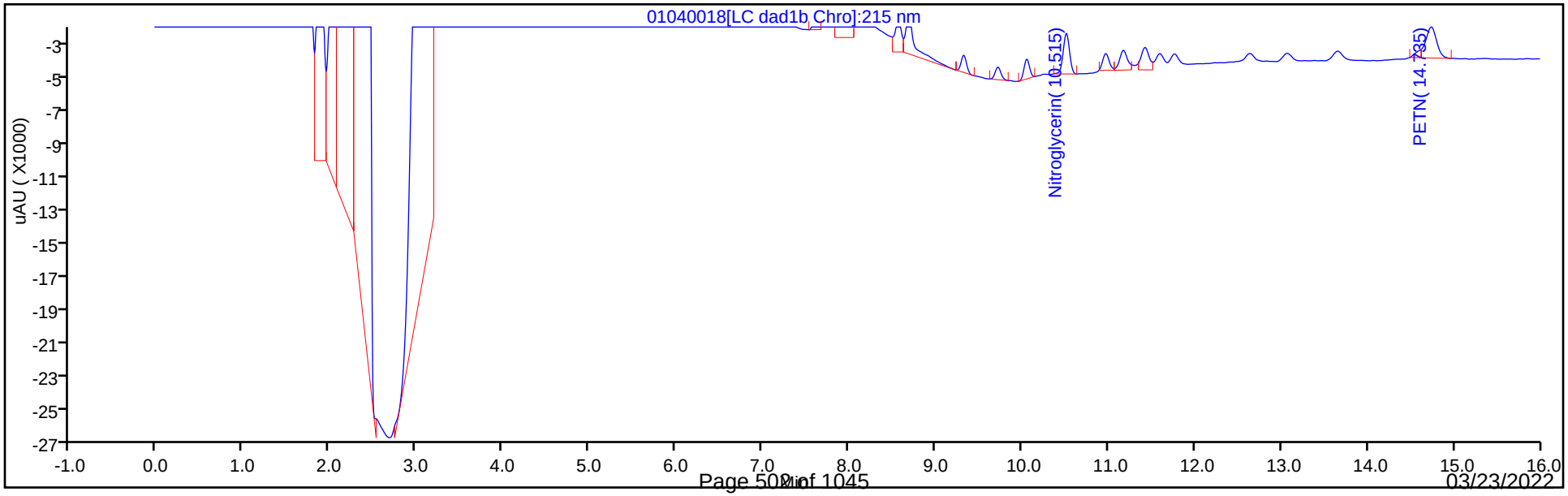
Data File: \\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040018.d

Injection Date:	04-Jan-2022 21:08:26	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	IC INT 2			Worklist Smp#:	18
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	18
Method:	8330_X3	Limit Group:	GCSV - 8330		

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



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



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

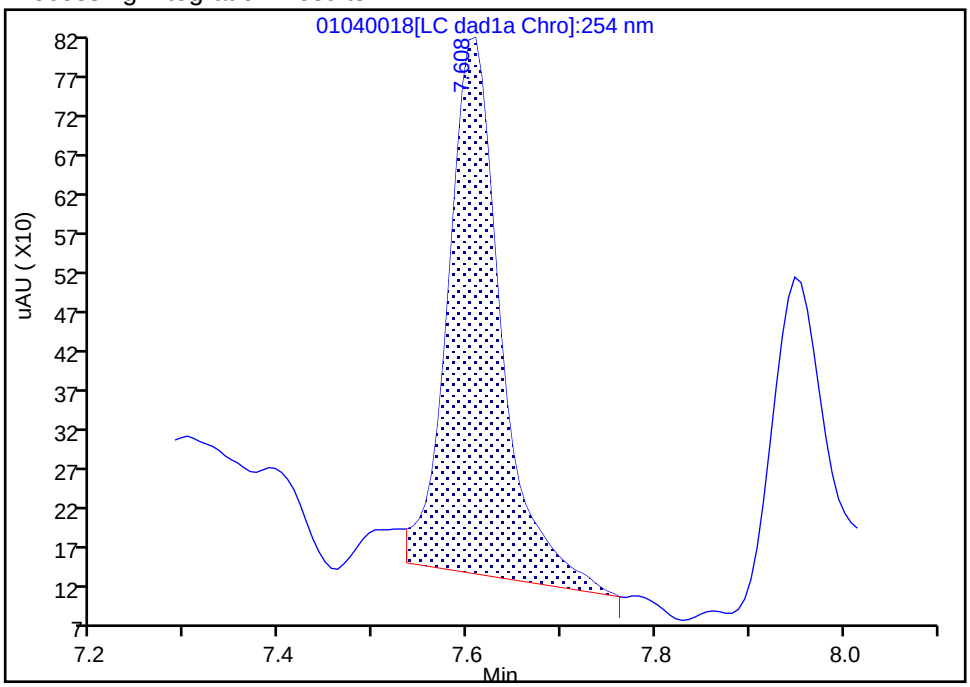
Data File:	\\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040018.d				
Injection Date:	04-Jan-2022 21:08:26	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT 2				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

8 RDX, CAS: 121-82-4

Signal: 1

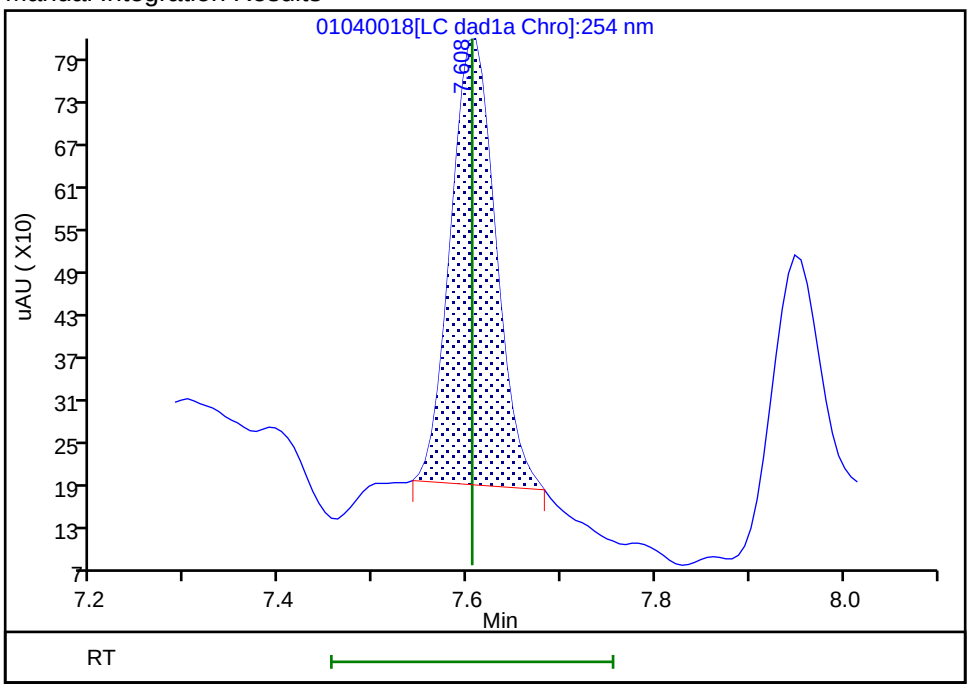
Processing Integration Results

RT: 7.61
Area: 2668
Amount: 0.024969
Amount Units: ug/mL



Manual Integration Results

RT: 7.61
Area: 2084
Amount: 0.020114
Amount Units: ug/mL



Reviewer: zhangji, 05-Jan-2022 12:01:55

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

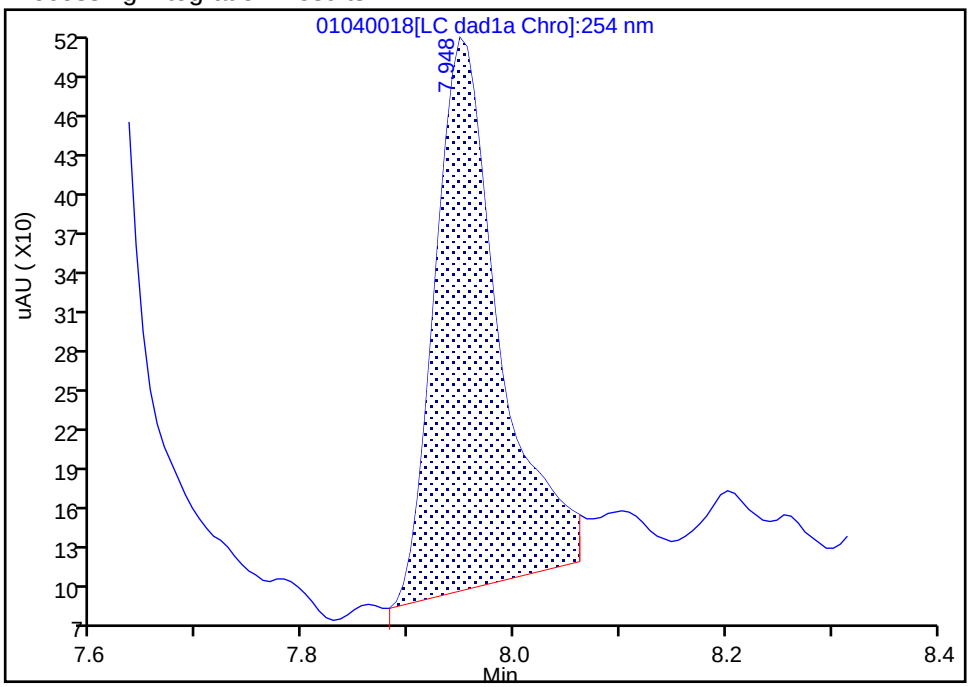
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Injection Date:	04-Jan-2022 21:08:26	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT 2				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

9 2,4,6-Trinitrophenol, CAS: 88-89-1

Signal: 1

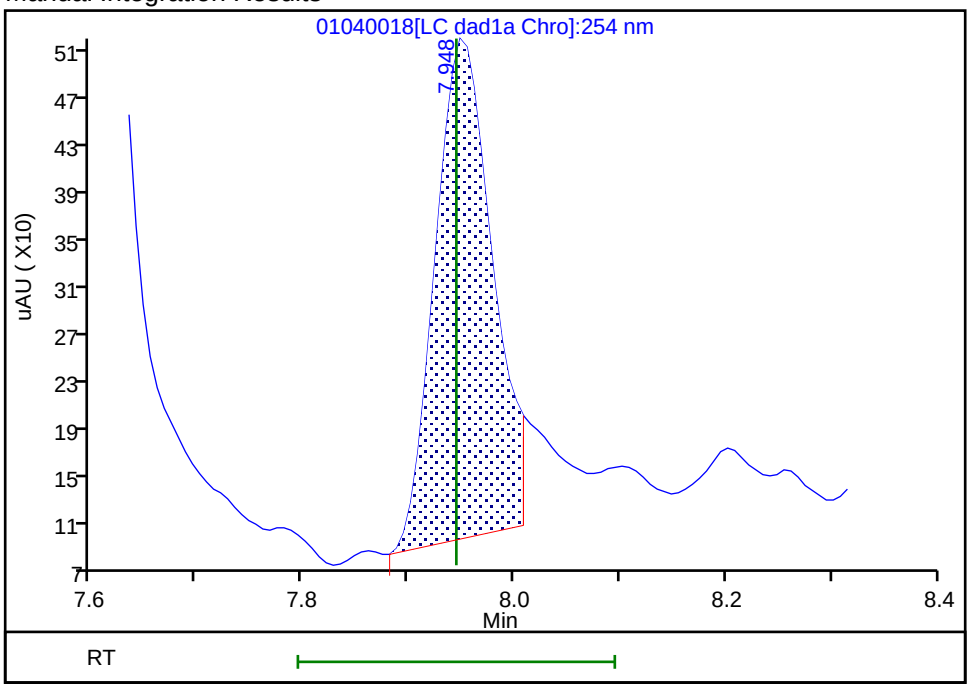
Processing Integration Results

RT: 7.95
Area: 1744
Amount: 0.022332
Amount Units: ug/mL



Manual Integration Results

RT: 7.95
Area: 1554
Amount: 0.020172
Amount Units: ug/mL



Reviewer: zhangji, 05-Jan-2022 12:02:02

Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

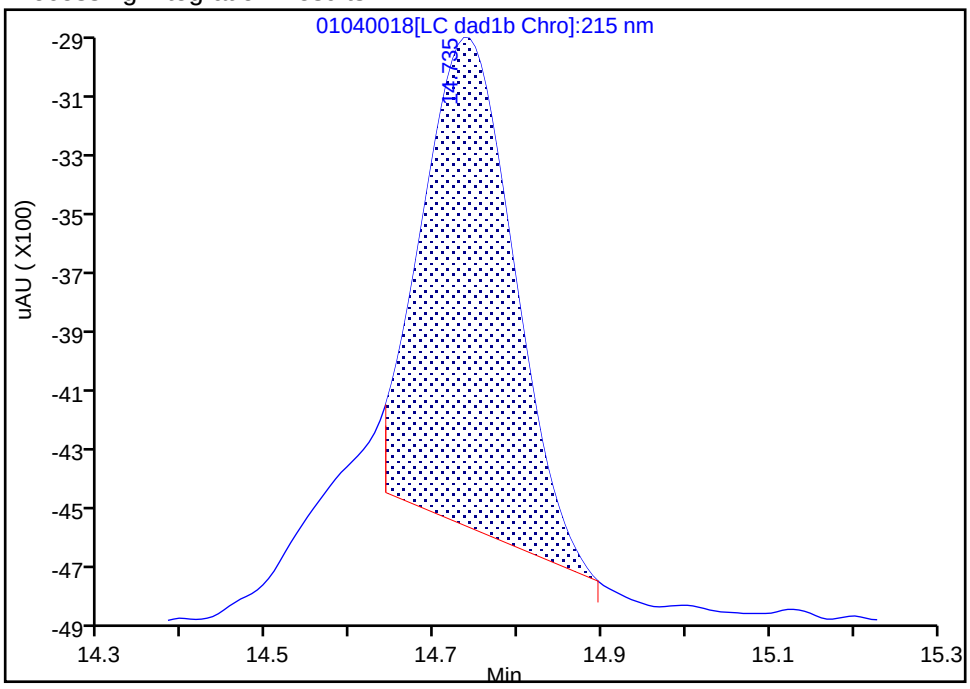
Data File: \\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040018.d
Injection Date: 04-Jan-2022 21:08:26 Instrument ID: CHHPLC_X3
Lims ID: IC INT 2
Client ID:
Operator ID: JZ ALS Bottle#: 18 Worklist Smp#: 18
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: Detector LC DAD1C, 215 nm

25 PETN, CAS: 78-11-5

Signal: 1

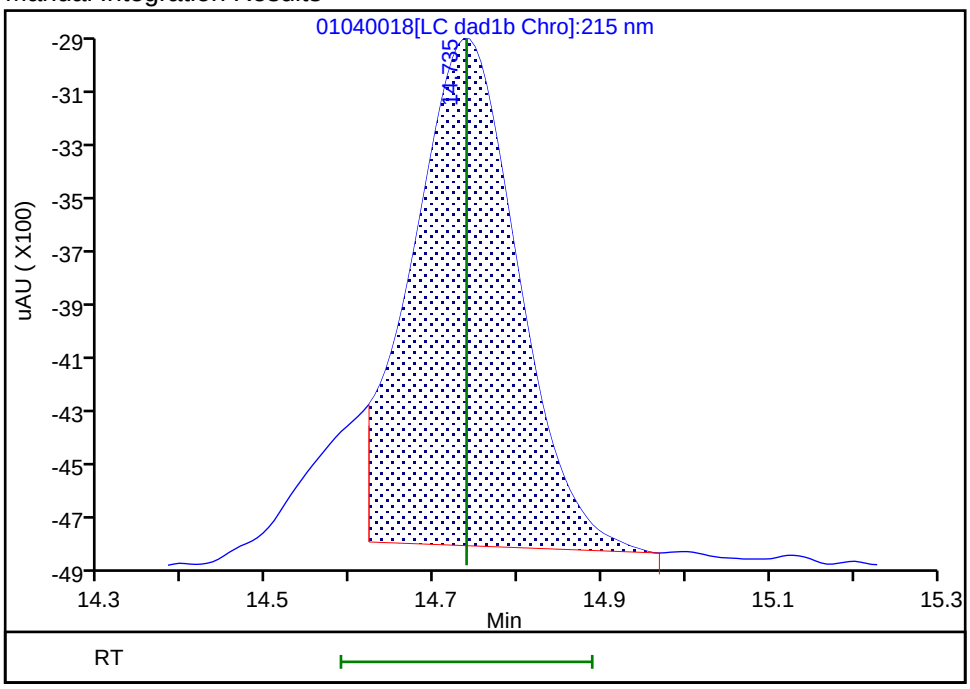
Processing Integration Results

RT: 14.73
Area: 11890
Amount: 0.166241
Amount Units: ug/mL



Manual Integration Results

RT: 14.73
Area: 15705
Amount: 0.197419
Amount Units: ug/mL



Reviewer: zhangji, 05-Jan-2022 12:01:38
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040019.D
Lims ID: IC INT 1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 04-Jan-2022 21:31:24 ALS Bottle#: 19 Worklist Smp#: 19
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT 1
Misc. Info.: 280-0107731-019
Operator ID: JZ Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub9

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 06-Jan-2022 20:05:14 Calib Date: 05-Jan-2022 04:24:15
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040037.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1641

First Level Reviewer: zhangji Date: 06-Jan-2022 20:05:03

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
4 HMX	1	6.601	6.598	0.003	901	0.0100	0.0107	M
8 RDX	1	7.601	7.605	-0.004	1152	0.0100	0.0111	M
9 2,4,6-Trinitrophenol	1	7.941	7.945	-0.004	716	0.0100	0.009294	M
$ 10 1,2-Dinitrobenzene	1	8.561	8.572	-0.011	1188	0.0100	0.009527	
11 1,3,5-Trinitrobenzene	1	8.688	8.692	-0.004	2197	0.0100	0.0101	
12 1,3-Dinitrobenzene	1	9.321	9.331	-0.010	2633	0.0100	0.009130	
13 Nitrobenzene	1	9.714	9.725	-0.011	2067	0.0100	0.0108	
15 Tetryl	1	10.041	10.058	-0.017	1778	0.0100	0.0104	
16 Nitroglycerin	2	10.501	10.518	-0.017	6348	0.1000	0.1007	
17 2,4,6-Trinitrotoluene	1	10.954	10.971	-0.017	2126	0.0100	0.0105	M
18 4-Amino-2,6-dinitrotoluene	1	11.154	11.171	-0.017	1718	0.0100	0.0114	M
19 2-Amino-4,6-dinitrotoluene	1	11.408	11.425	-0.017	2287	0.0100	0.0113	M
20 2,6-Dinitrotoluene	1	11.581	11.598	-0.017	1551	0.0100	0.0108	M
21 2,4-Dinitrotoluene	1	11.748	11.765	-0.017	3047	0.0100	0.0105	M
22 o-Nitrotoluene	1	12.614	12.638	-0.024	1387	0.0100	0.0109	
23 p-Nitrotoluene	1	13.054	13.071	-0.017	1083	0.0100	0.0102	
24 m-Nitrotoluene	1	13.634	13.651	-0.017	1764	0.0100	0.0124	
25 PETN	2	14.708	14.738	-0.030	8784	0.1000	0.1020	M

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330IntermStk_00070 Amount Added: 1.00 Units: uL

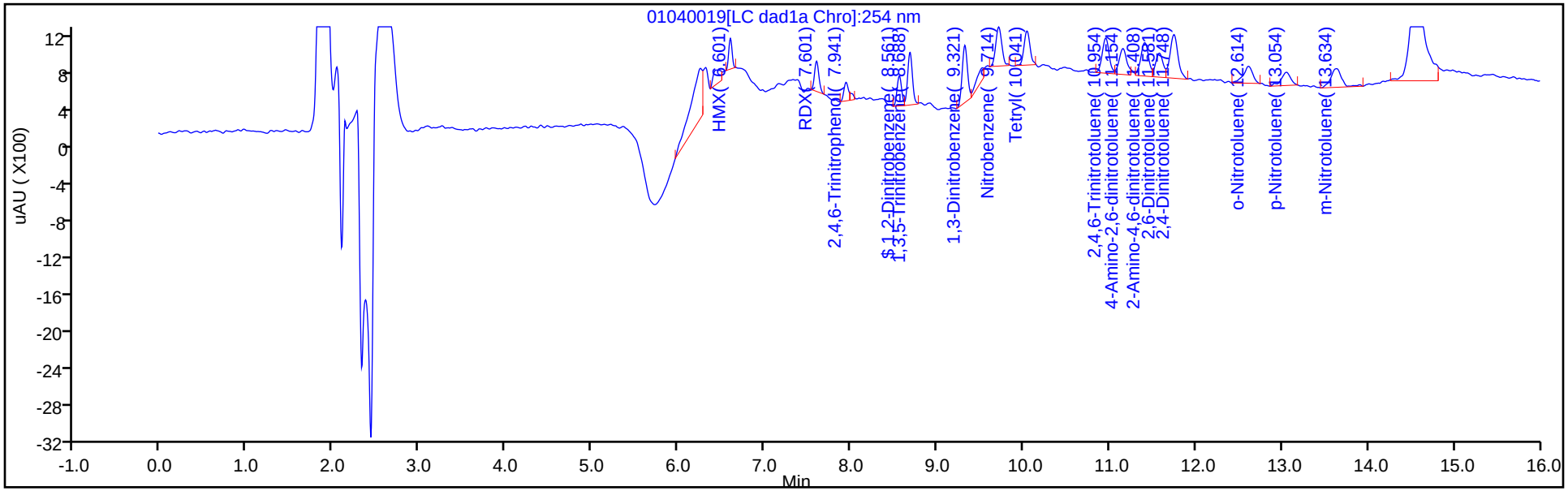
Report Date: 06-Jan-2022 20:05:14 Chrom Revision: 2.3 03-Jan-2022 17:03:12

Eurofins TestAmerica, Denver

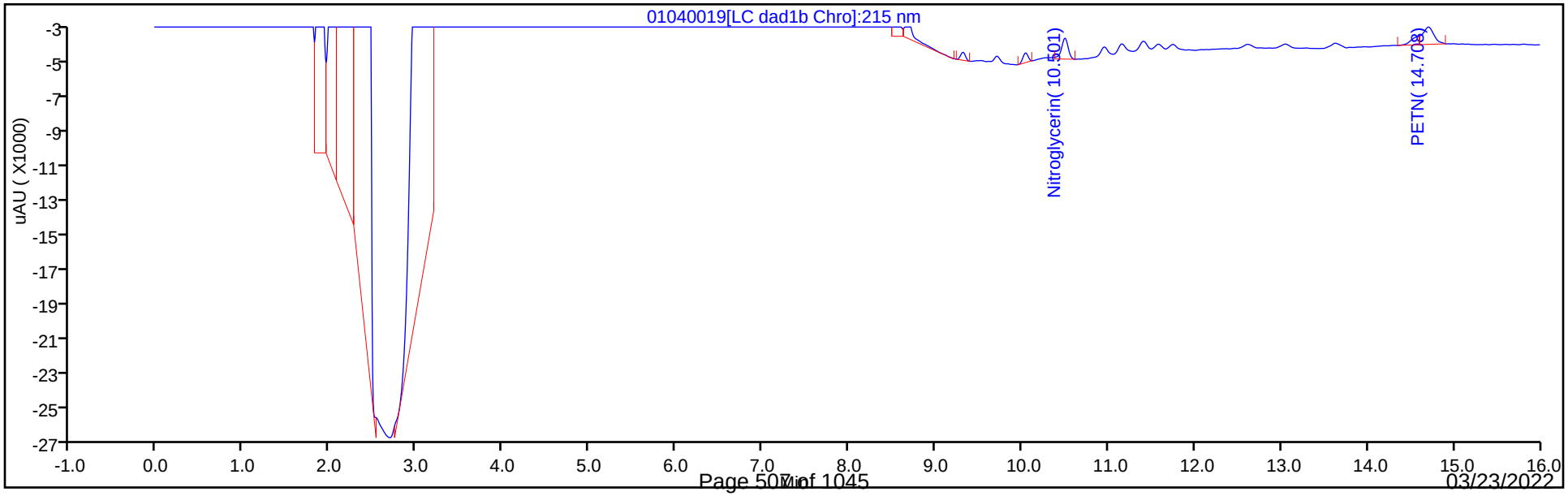
Data File: \\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040019.d

Injection Date:	04-Jan-2022 21:31:24	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	IC INT 1			Worklist Smp#:	19
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	19
Method:	8330_X3	Limit Group:	GCSV - 8330		

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



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



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

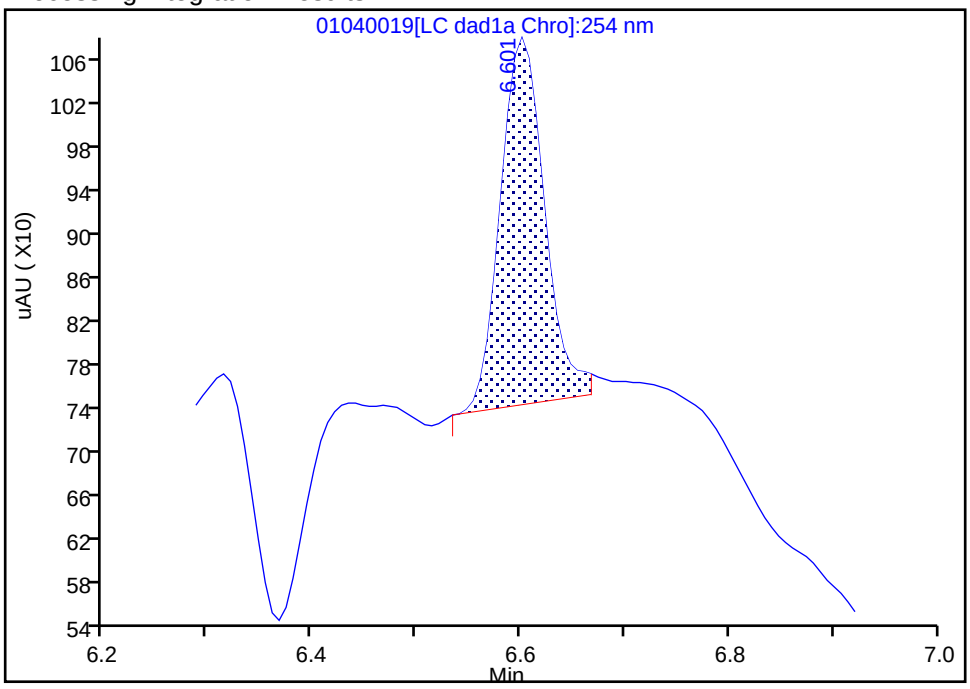
Data File:	\\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040019.d				
Injection Date:	04-Jan-2022 21:31:24	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT 1				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

4 HMX, CAS: 2691-41-0

Signal: 1

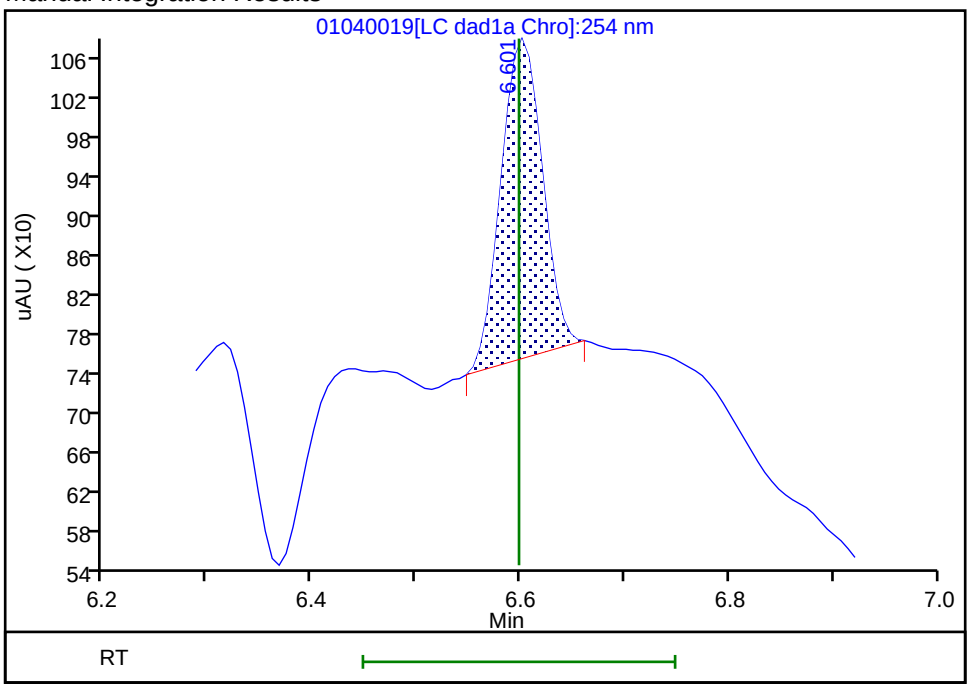
Processing Integration Results

RT: 6.60
Area: 995
Amount: 0.011724
Amount Units: ug/mL



Manual Integration Results

RT: 6.60
Area: 901
Amount: 0.010748
Amount Units: ug/mL



Reviewer: zhangji, 05-Jan-2022 11:59:58
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

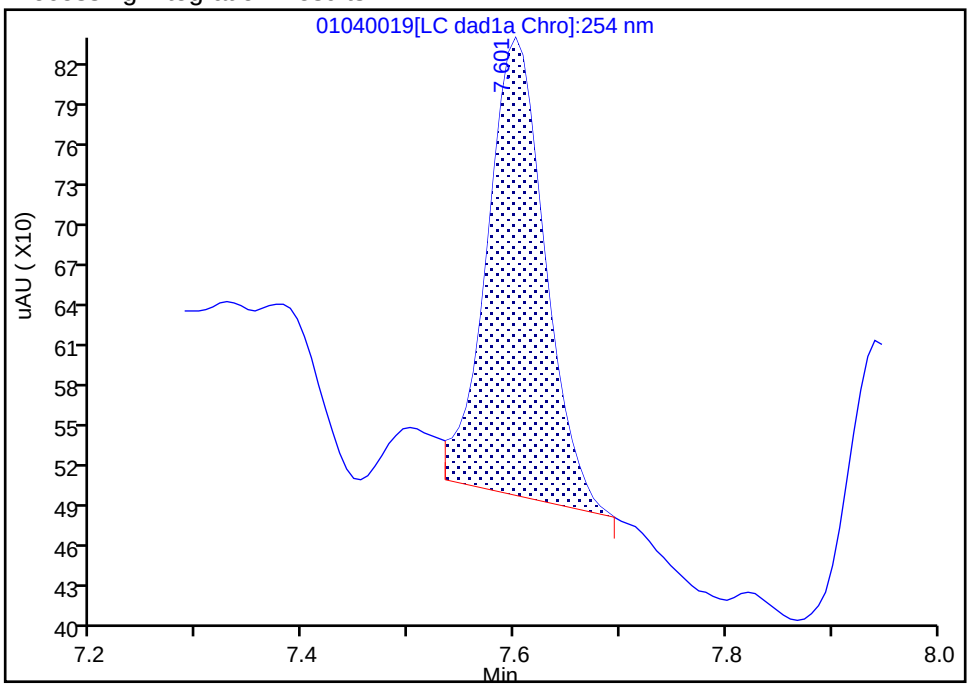
Data File:	\\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040019.d				
Injection Date:	04-Jan-2022 21:31:24	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT 1				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

8 RDX, CAS: 121-82-4

Signal: 1

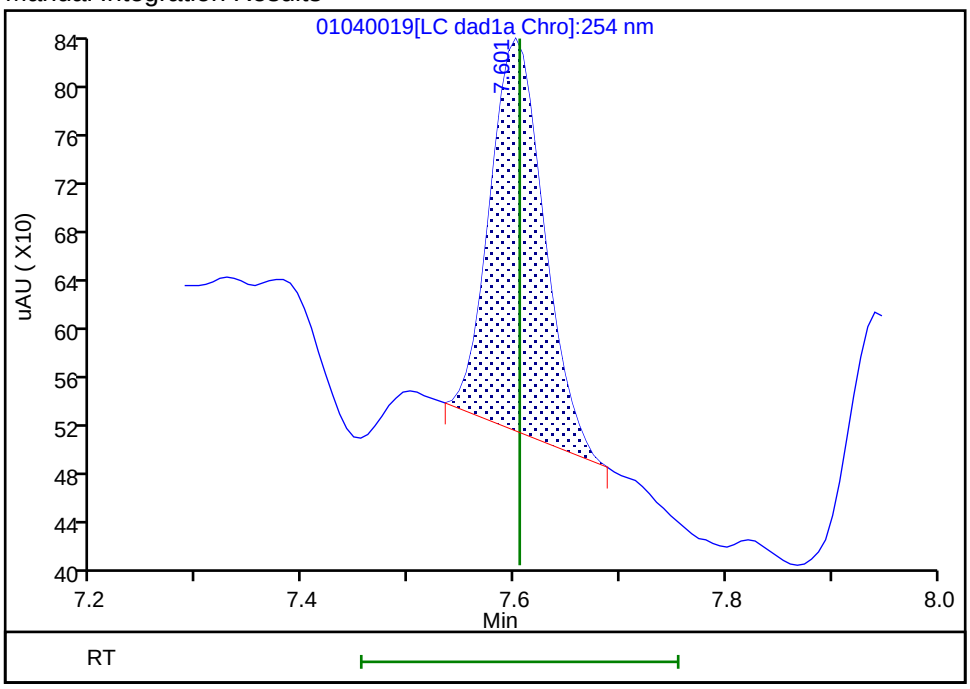
Processing Integration Results

RT: 7.60
Area: 1299
Amount: 0.011974
Amount Units: ug/mL



Manual Integration Results

RT: 7.60
Area: 1152
Amount: 0.011119
Amount Units: ug/mL



Reviewer: zhangji, 05-Jan-2022 12:00:04
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

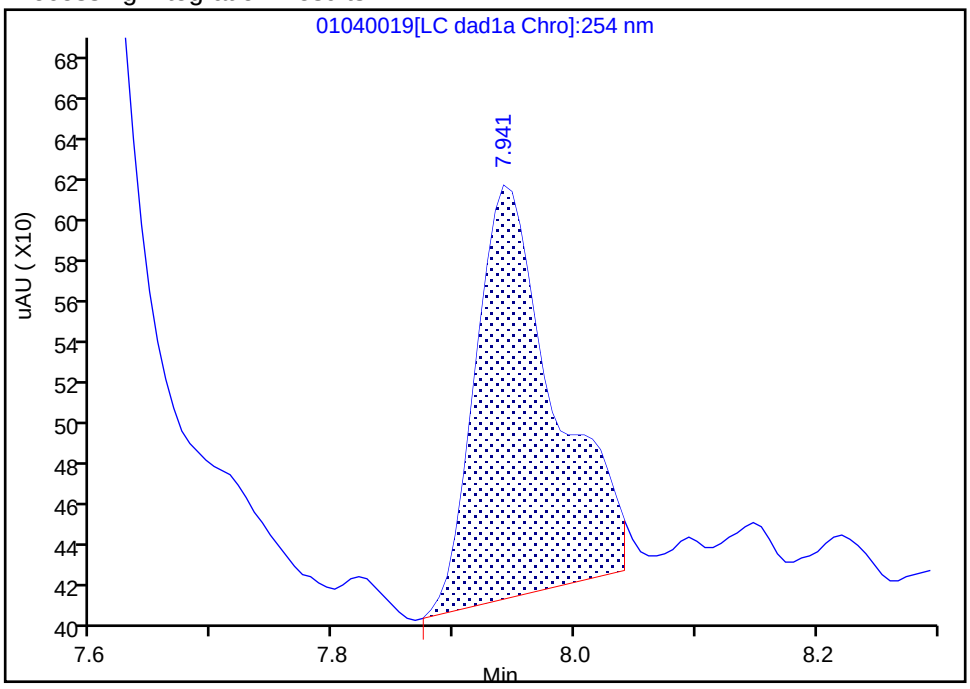
Data File:	\\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040019.d				
Injection Date:	04-Jan-2022 21:31:24	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT 1				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

9 2,4,6-Trinitrophenol, CAS: 88-89-1

Signal: 1

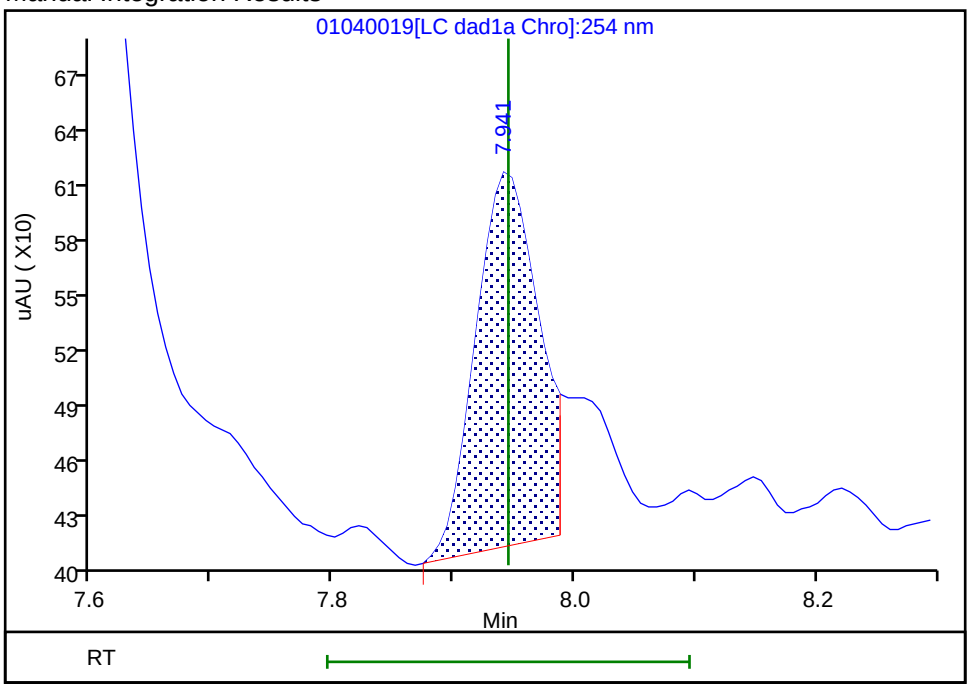
Processing Integration Results

RT: 7.94
Area: 903
Amount: 0.011263
Amount Units: ug/mL



Manual Integration Results

RT: 7.94
Area: 716
Amount: 0.009294
Amount Units: ug/mL



Reviewer: zhangji, 05-Jan-2022 12:00:13
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

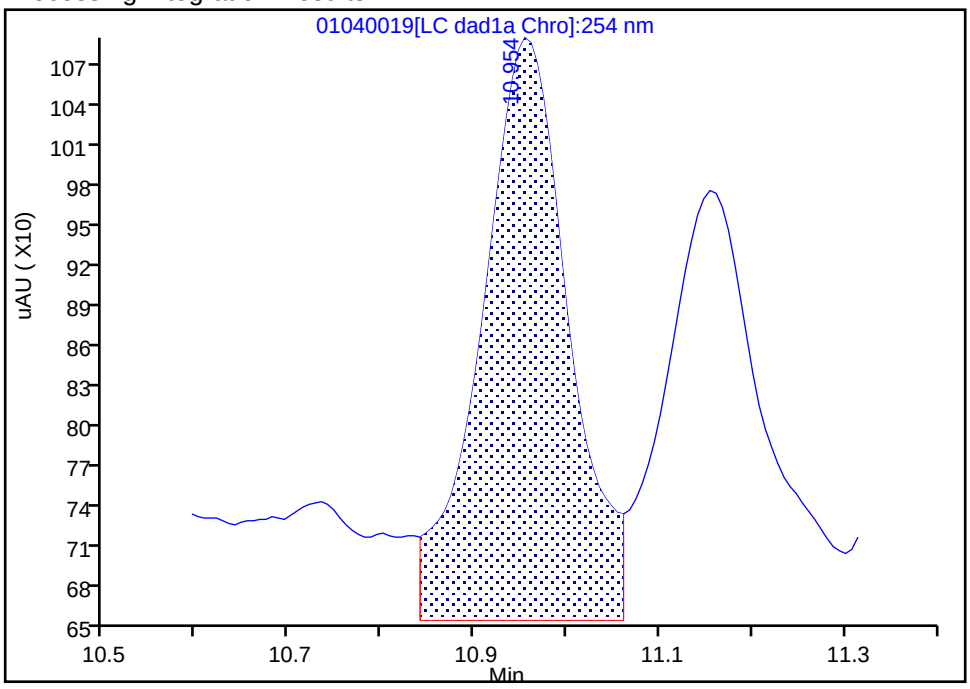
Data File:	\\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040019.d				
Injection Date:	04-Jan-2022 21:31:24	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT 1				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

17 2,4,6-Trinitrotoluene, CAS: 118-96-7

Signal: 1

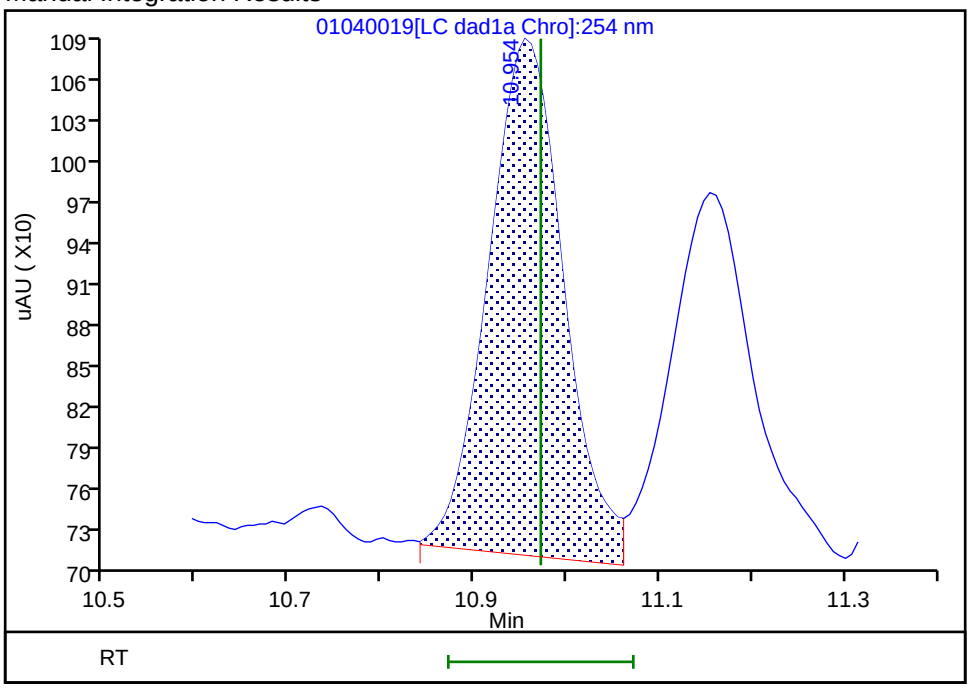
Processing Integration Results

RT: 10.95
Area: 2806
Amount: 0.013346
Amount Units: ug/mL



Manual Integration Results

RT: 10.95
Area: 2126
Amount: 0.010487
Amount Units: ug/mL



Reviewer: zhangji, 05-Jan-2022 12:00:35
Audit Action: Assigned New Baseline Audit Reason: Baseline

Eurofins TestAmerica, Denver

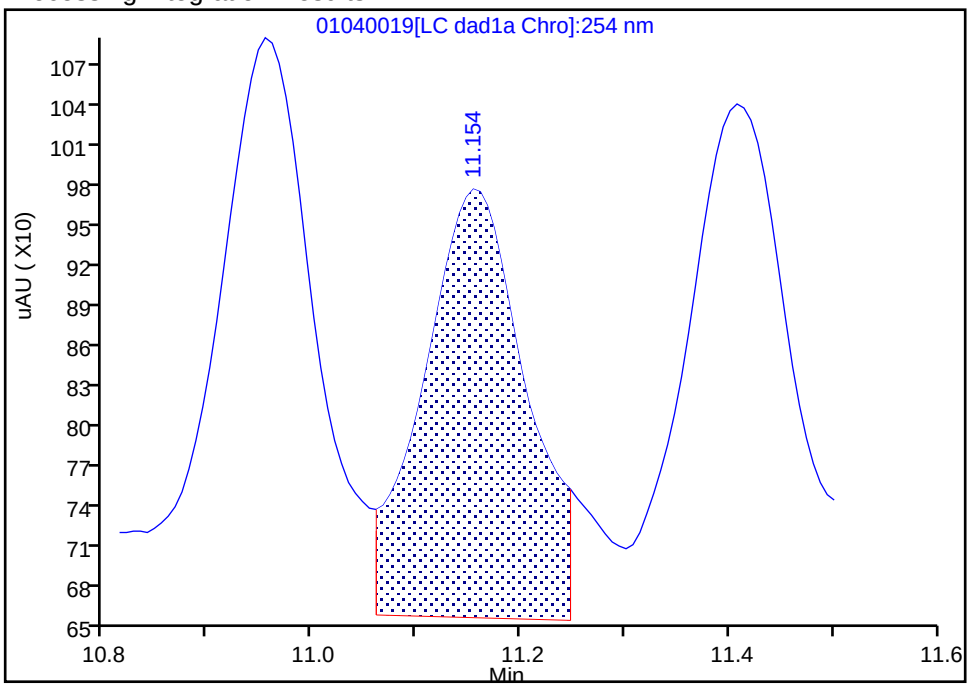
Data File:	\\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040019.d				
Injection Date:	04-Jan-2022 21:31:24	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT 1				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

18 4-Amino-2,6-dinitrotoluene, CAS: 19406-51-0

Signal: 1

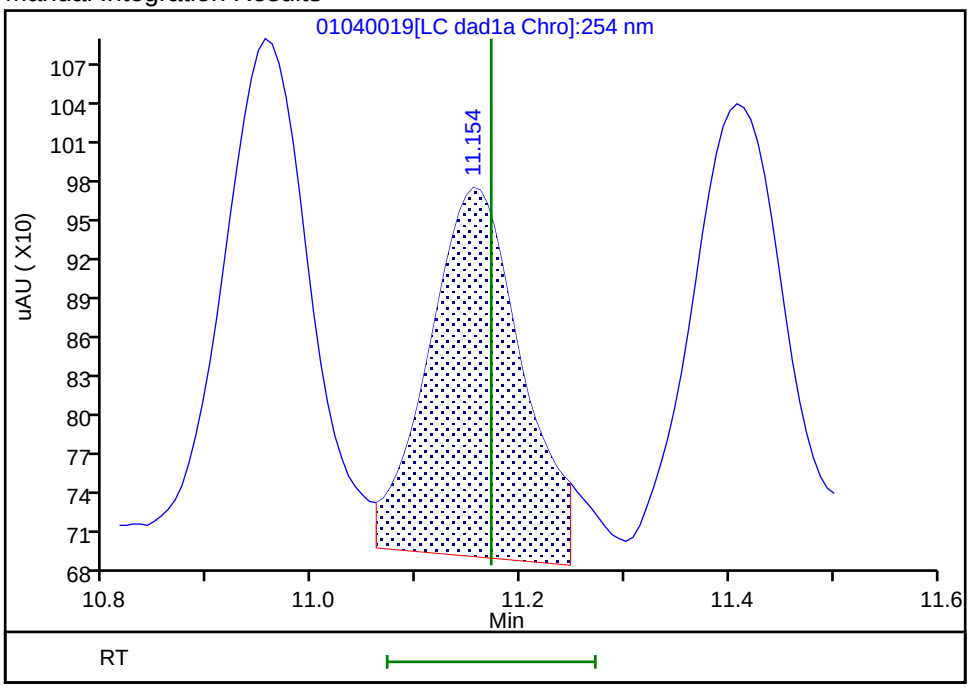
Processing Integration Results

RT: 11.15
Area: 2160
Amount: 0.013856
Amount Units: ug/mL



Manual Integration Results

RT: 11.15
Area: 1718
Amount: 0.011379
Amount Units: ug/mL



Reviewer: zhangji, 05-Jan-2022 12:00:35
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

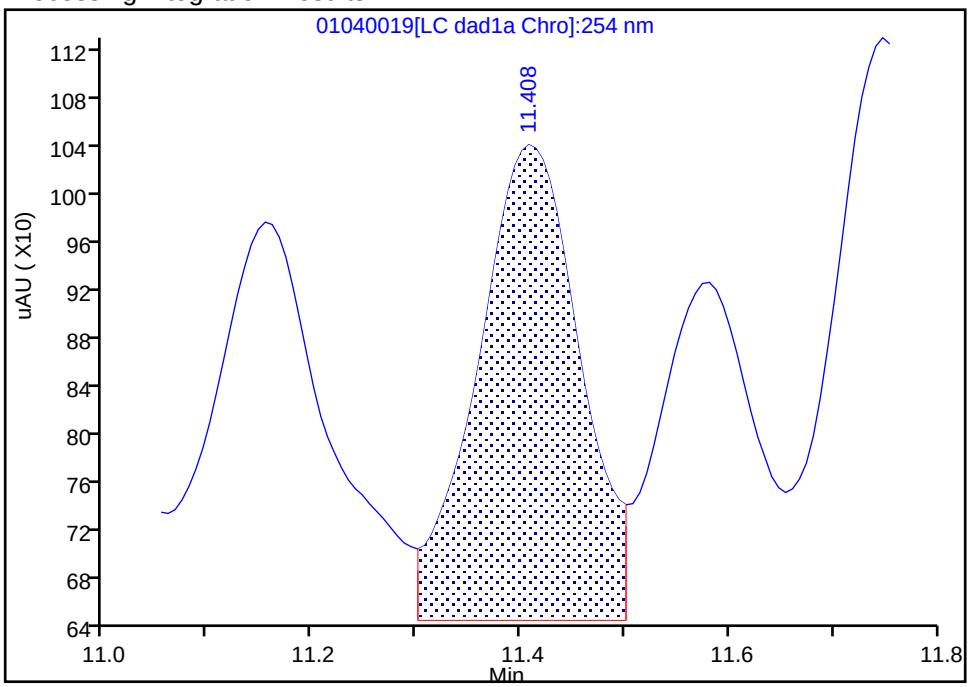
Data File:	\\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040019.d				
Injection Date:	04-Jan-2022 21:31:24	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT 1				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

19 2-Amino-4,6-dinitrotoluene, CAS: 35572-78-2

Signal: 1

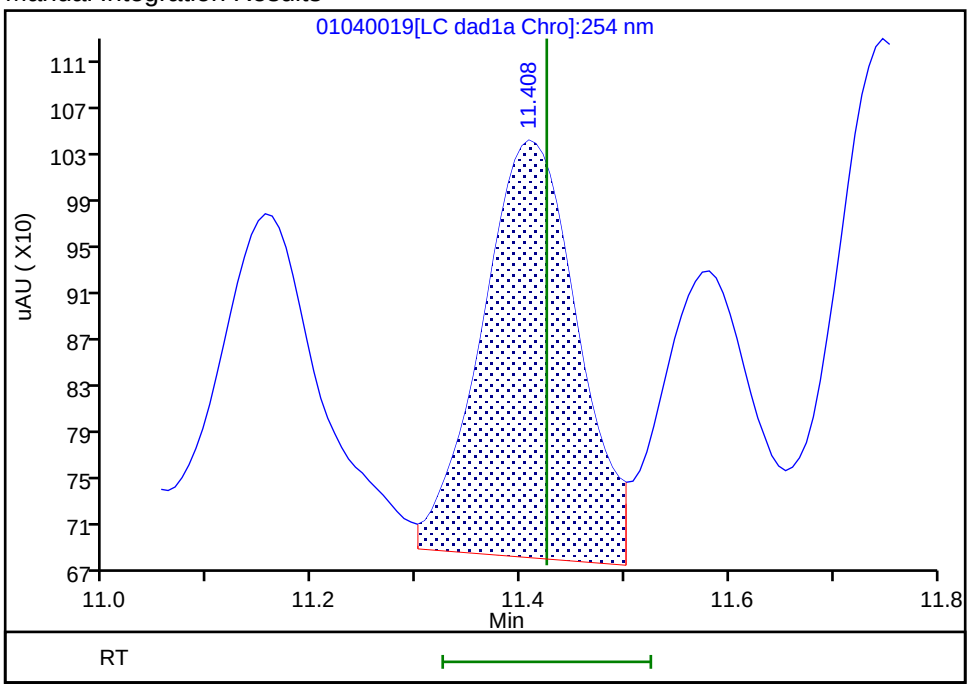
Processing Integration Results

RT: 11.41
Area: 2647
Amount: 0.012840
Amount Units: ug/mL



Manual Integration Results

RT: 11.41
Area: 2287
Amount: 0.011312
Amount Units: ug/mL



Reviewer: zhangji, 05-Jan-2022 12:00:35
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

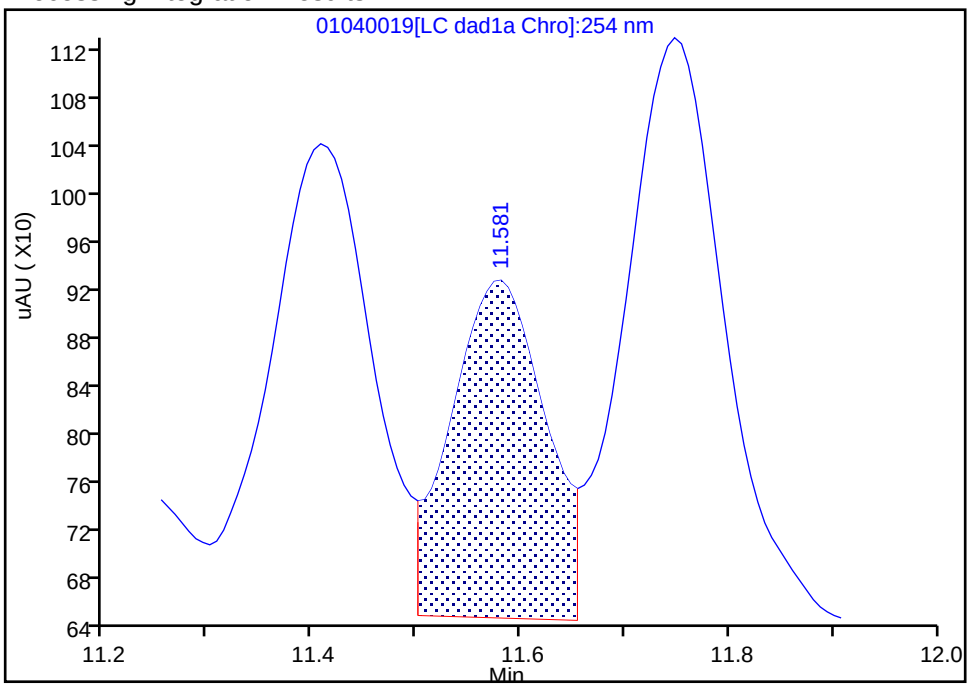
Data File:	\\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040019.d				
Injection Date:	04-Jan-2022 21:31:24	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT 1				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

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

Signal: 1

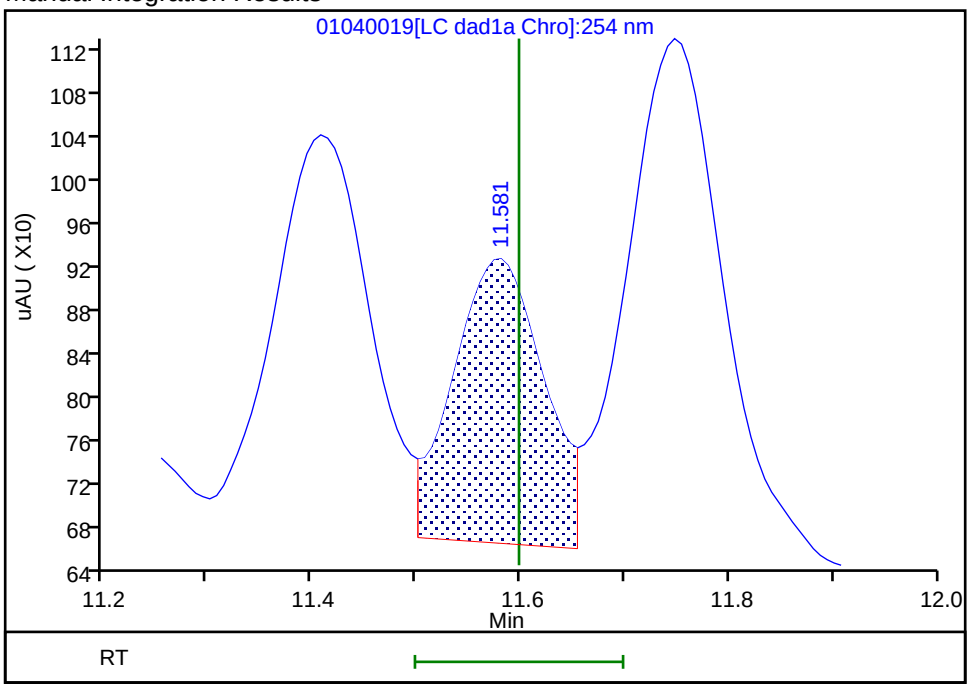
Processing Integration Results

RT: 11.58
Area: 1735
Amount: 0.011953
Amount Units: ug/mL



Manual Integration Results

RT: 11.58
Area: 1551
Amount: 0.010837
Amount Units: ug/mL



Reviewer: zhangji, 05-Jan-2022 12:00:35
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

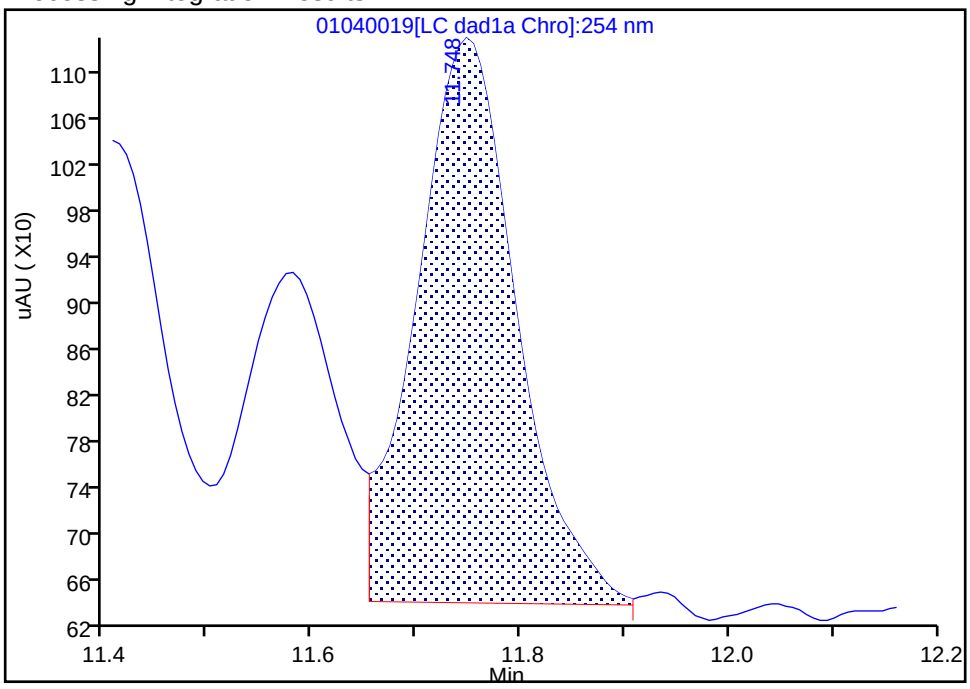
Data File:	\\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040019.d				
Injection Date:	04-Jan-2022 21:31:24	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT 1				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

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

Signal: 1

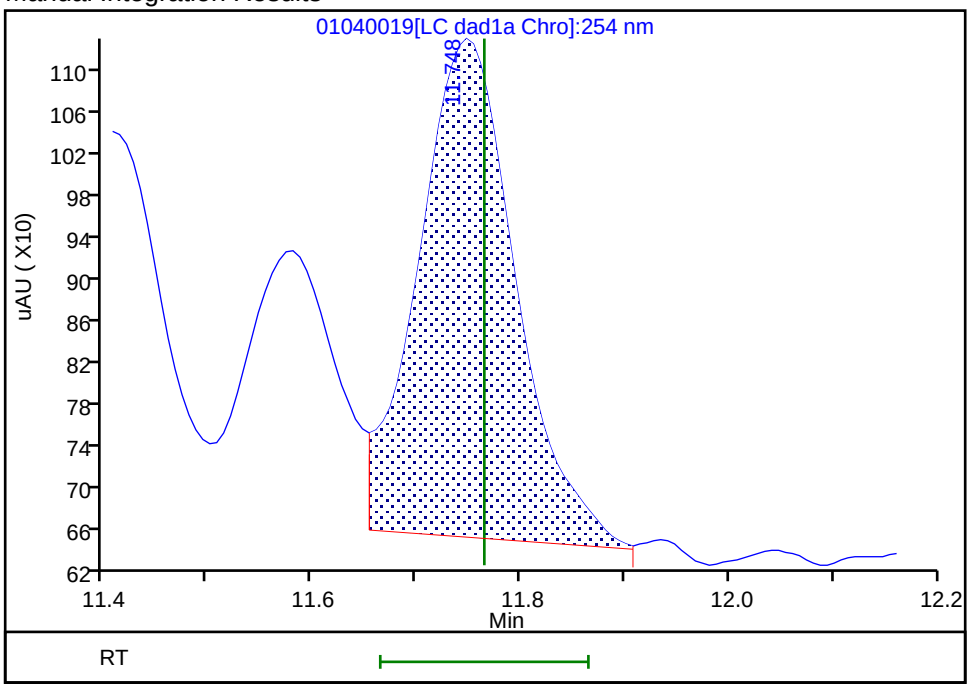
Processing Integration Results

RT: 11.75
Area: 3191
Amount: 0.010968
Amount Units: ug/mL



Manual Integration Results

RT: 11.75
Area: 3047
Amount: 0.010530
Amount Units: ug/mL



Reviewer: zhangji, 05-Jan-2022 12:00:35

Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

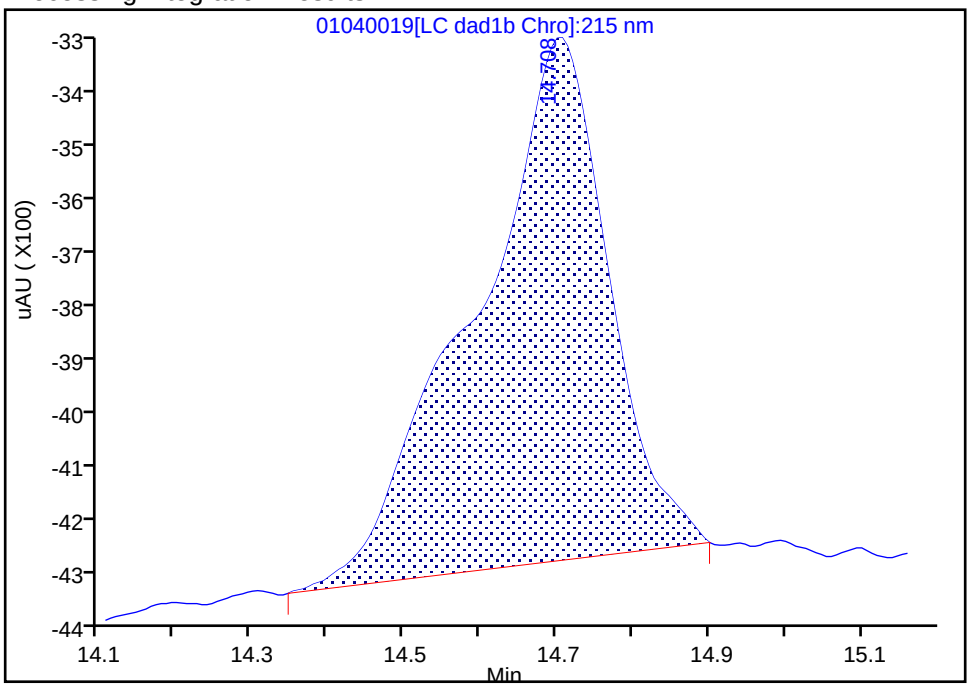
Data File: \\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040019.d
Injection Date: 04-Jan-2022 21:31:24 Instrument ID: CHHPLC_X3
Lims ID: IC INT 1
Client ID:
Operator ID: JZ ALS Bottle#: 19 Worklist Smp#: 19
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: Detector LC DAD1C, 215 nm

25 PETN, CAS: 78-11-5

Signal: 1

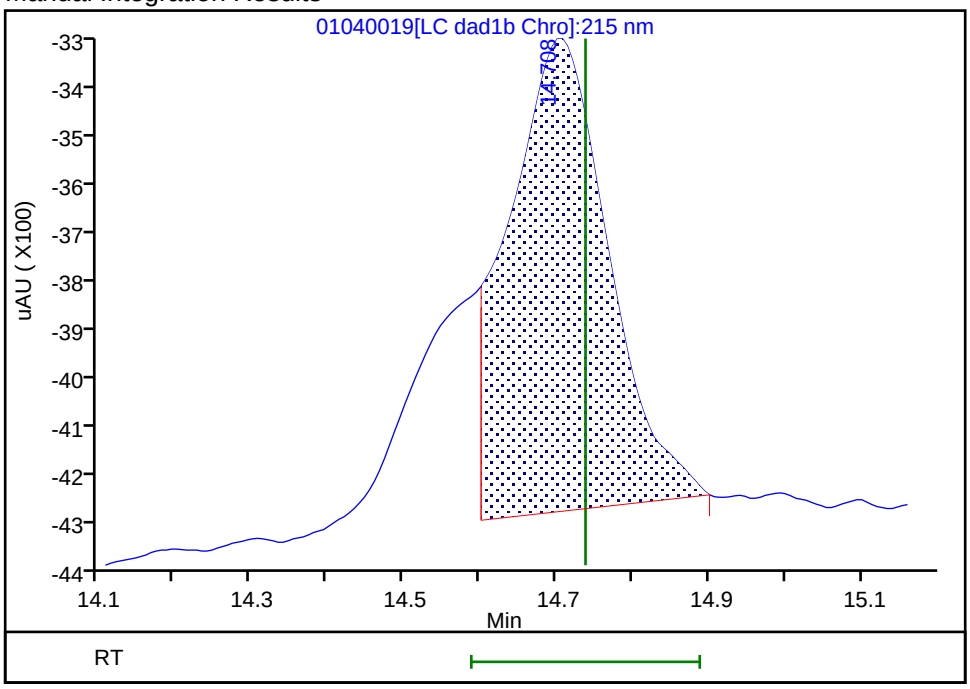
Processing Integration Results

RT: 14.71
Area: 11771
Amount: 0.142232
Amount Units: ug/mL



Manual Integration Results

RT: 14.71
Area: 8784
Amount: 0.102016
Amount Units: ug/mL



Reviewer: zhangji, 05-Jan-2022 12:00:58
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Calibration / HMX

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

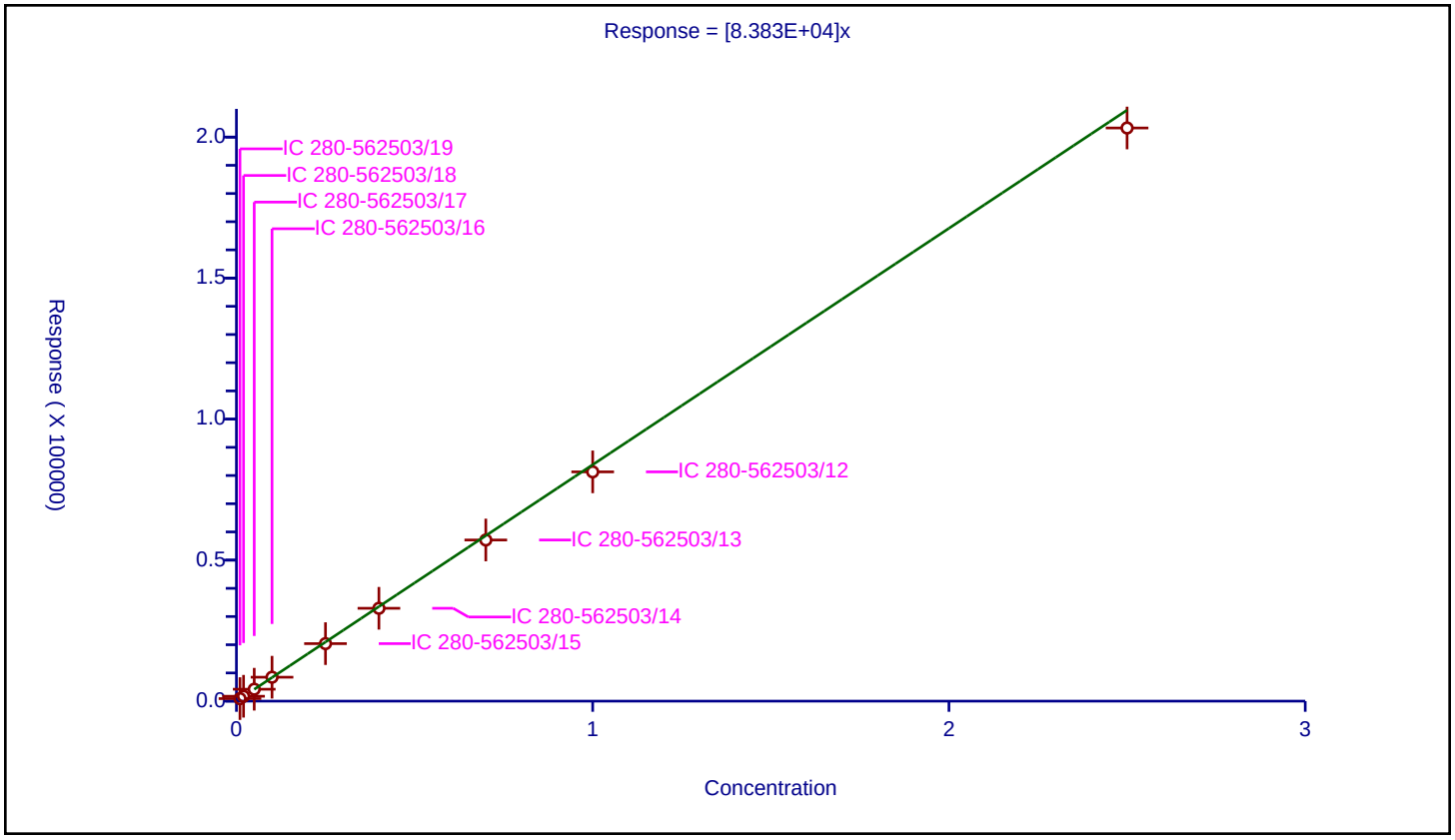
Curve Coefficients

Intercept:	0
Slope:	8.383E+04

Error Coefficients

Standard Error:	2490
Relative Standard Error:	3.6
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-562503/19	0.01	901.0			90100.0	Y
2	IC 280-562503/18	0.02	1735.0			86750.0	Y
3	IC 280-562503/17	0.05	4230.0			84600.0	Y
4	IC 280-562503/16	0.1	8489.0			84890.0	Y
5	IC 280-562503/15	0.25	20395.0			81580.0	Y
6	IC 280-562503/14	0.4	32925.0			82312.5	Y
7	IC 280-562503/13	0.7	57138.0			81625.714286	Y
8	IC 280-562503/12	1.0	81295.0			81295.0	Y
9	IC 280-562503/11	2.5	203229.0			81291.6	Y



Calibration / RDX

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

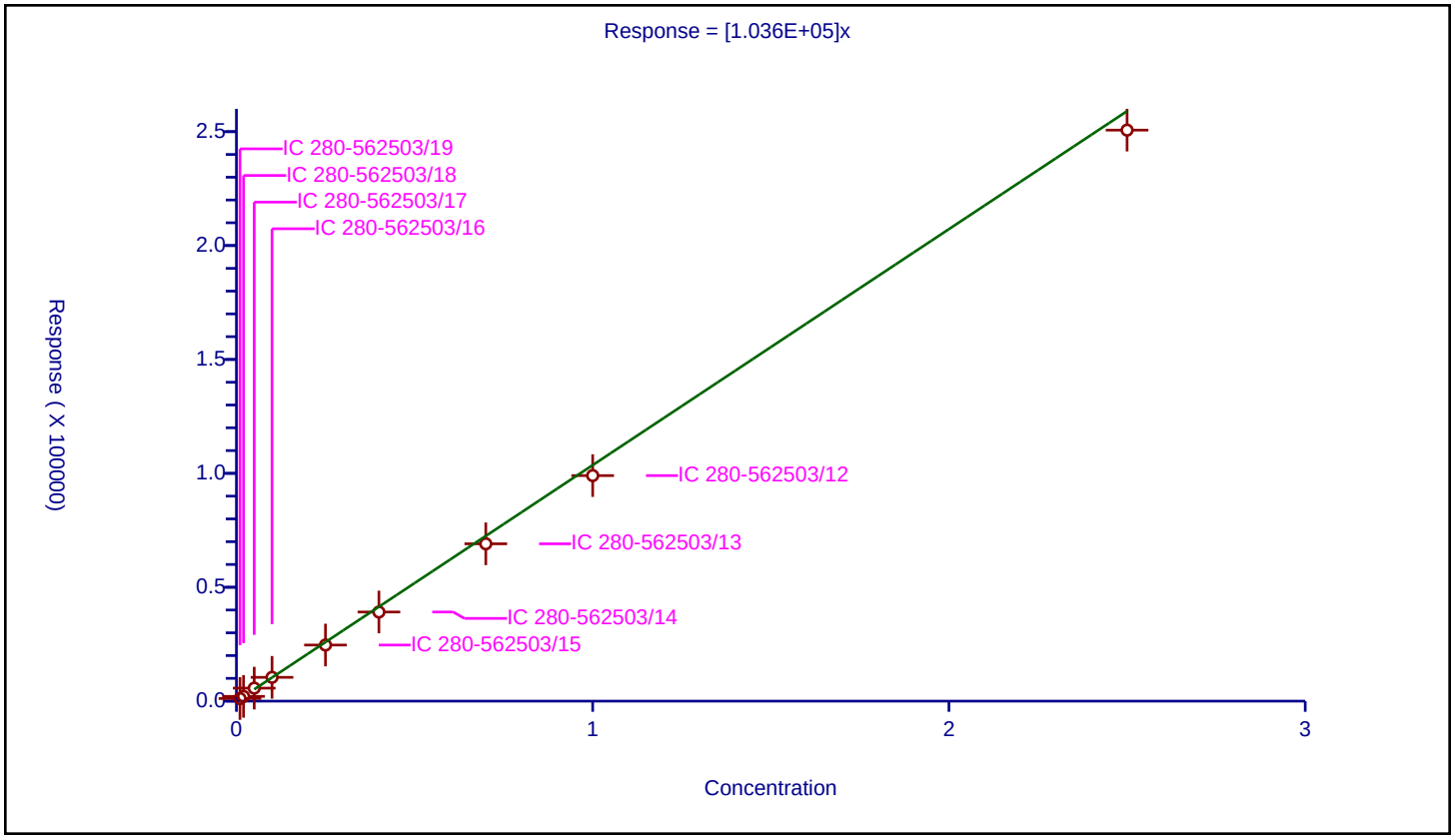
Curve Coefficients

Intercept:	0
Slope:	1.036E+05

Error Coefficients

Standard Error:	3710
Relative Standard Error:	6.5
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.994

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-562503/19	0.01	1152.0			115200.0	Y
2	IC 280-562503/18	0.02	2084.0			104200.0	Y
3	IC 280-562503/17	0.05	5715.0			114300.0	Y
4	IC 280-562503/16	0.1	10447.0			104470.0	Y
5	IC 280-562503/15	0.25	24635.0			98540.0	Y
6	IC 280-562503/14	0.4	39126.0			97815.0	Y
7	IC 280-562503/13	0.7	69068.0			98668.571429	Y
8	IC 280-562503/12	1.0	99016.0			99016.0	Y
9	IC 280-562503/11	2.5	250683.0			100273.2	Y



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

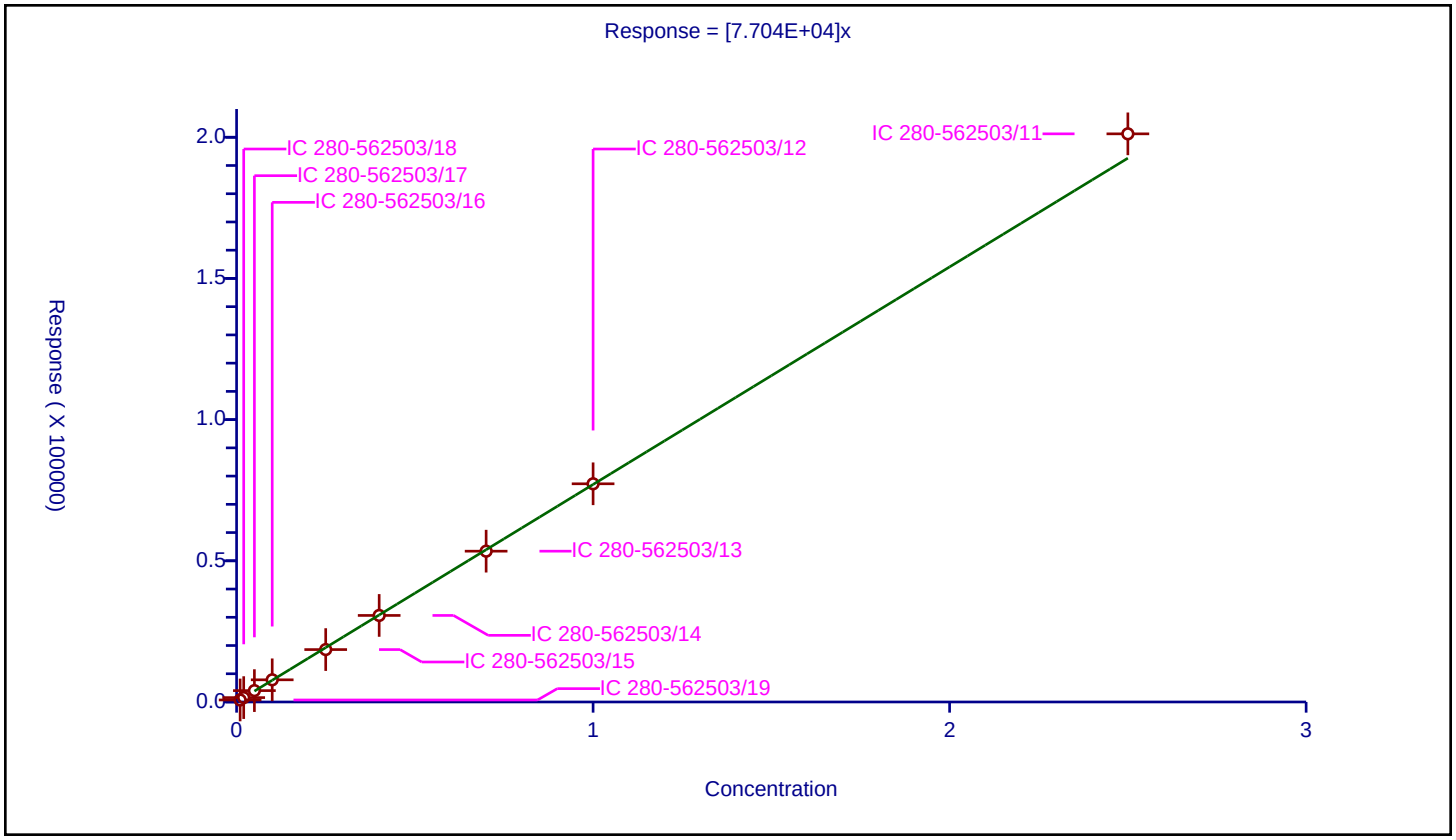
Curve Coefficients

Intercept:	0
Slope:	7.704E+04

Error Coefficients

Standard Error:	3060
Relative Standard Error:	3.7
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-562503/19	0.01	716.0			71600.0	Y
2	IC 280-562503/18	0.02	1554.0			77700.0	Y
3	IC 280-562503/17	0.05	4029.0			80580.0	Y
4	IC 280-562503/16	0.1	7855.0			78550.0	Y
5	IC 280-562503/15	0.25	18560.0			74240.0	Y
6	IC 280-562503/14	0.4	30649.0			76622.5	Y
7	IC 280-562503/13	0.7	53408.0			76297.142857	Y
8	IC 280-562503/12	1.0	77279.0			77279.0	Y
9	IC 280-562503/11	2.5	201210.0			80484.0	Y



Calibration / 1,2-Dinitrobenzene

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

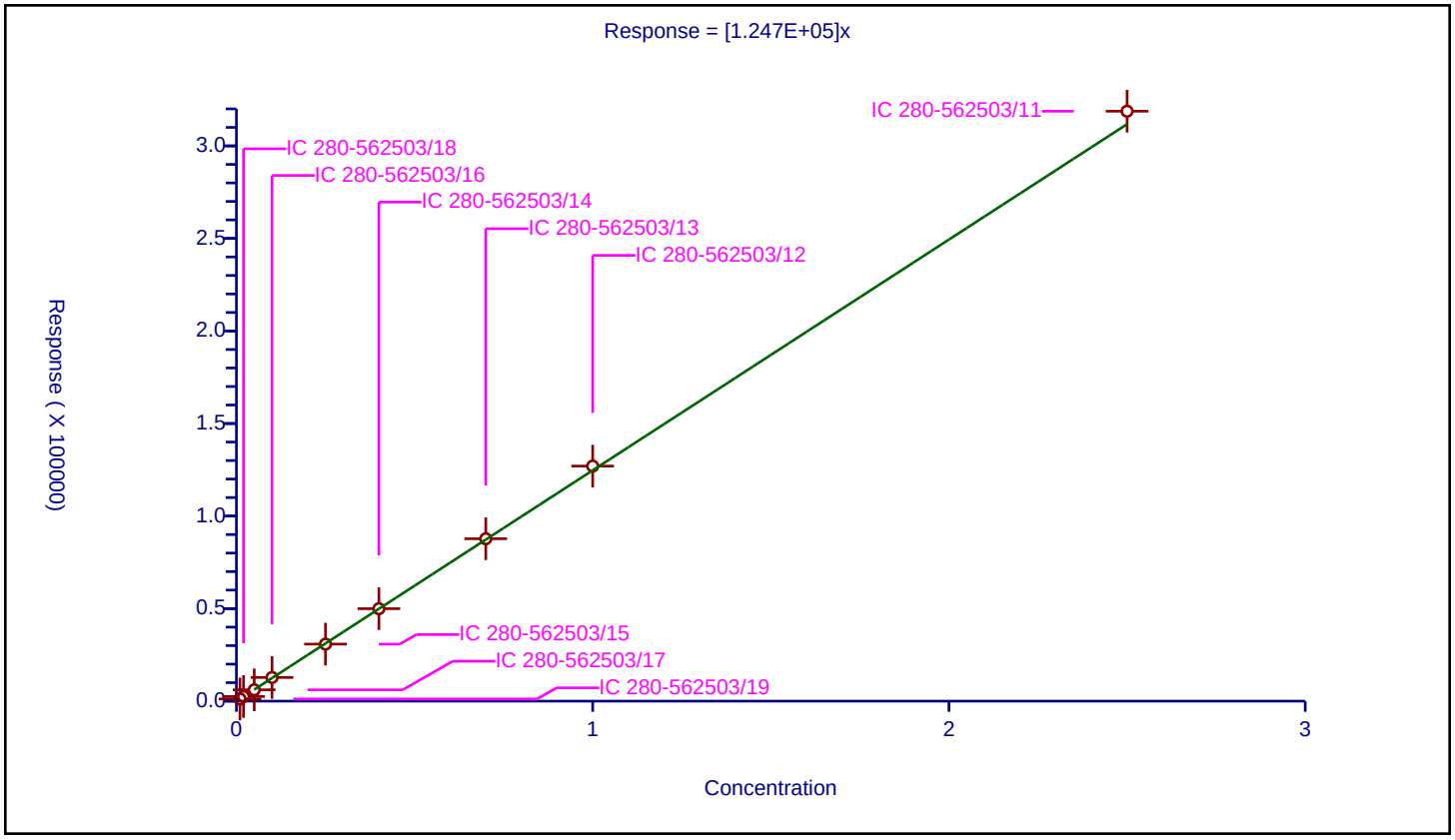
Curve Coefficients

Intercept:	0
Slope:	1.247E+05

Error Coefficients

Standard Error:	2620
Relative Standard Error:	2.3
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-562503/19	0.01	1188.0			118800.0	Y
2	IC 280-562503/18	0.02	2503.0			125150.0	Y
3	IC 280-562503/17	0.05	6127.0			122540.0	Y
4	IC 280-562503/16	0.1	12780.0			127800.0	Y
5	IC 280-562503/15	0.25	30811.0			123244.0	Y
6	IC 280-562503/14	0.4	49955.0			124887.5	Y
7	IC 280-562503/13	0.7	87746.0			125351.428571	Y
8	IC 280-562503/12	1.0	127011.0			127011.0	Y
9	IC 280-562503/11	2.5	318738.0			127495.2	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

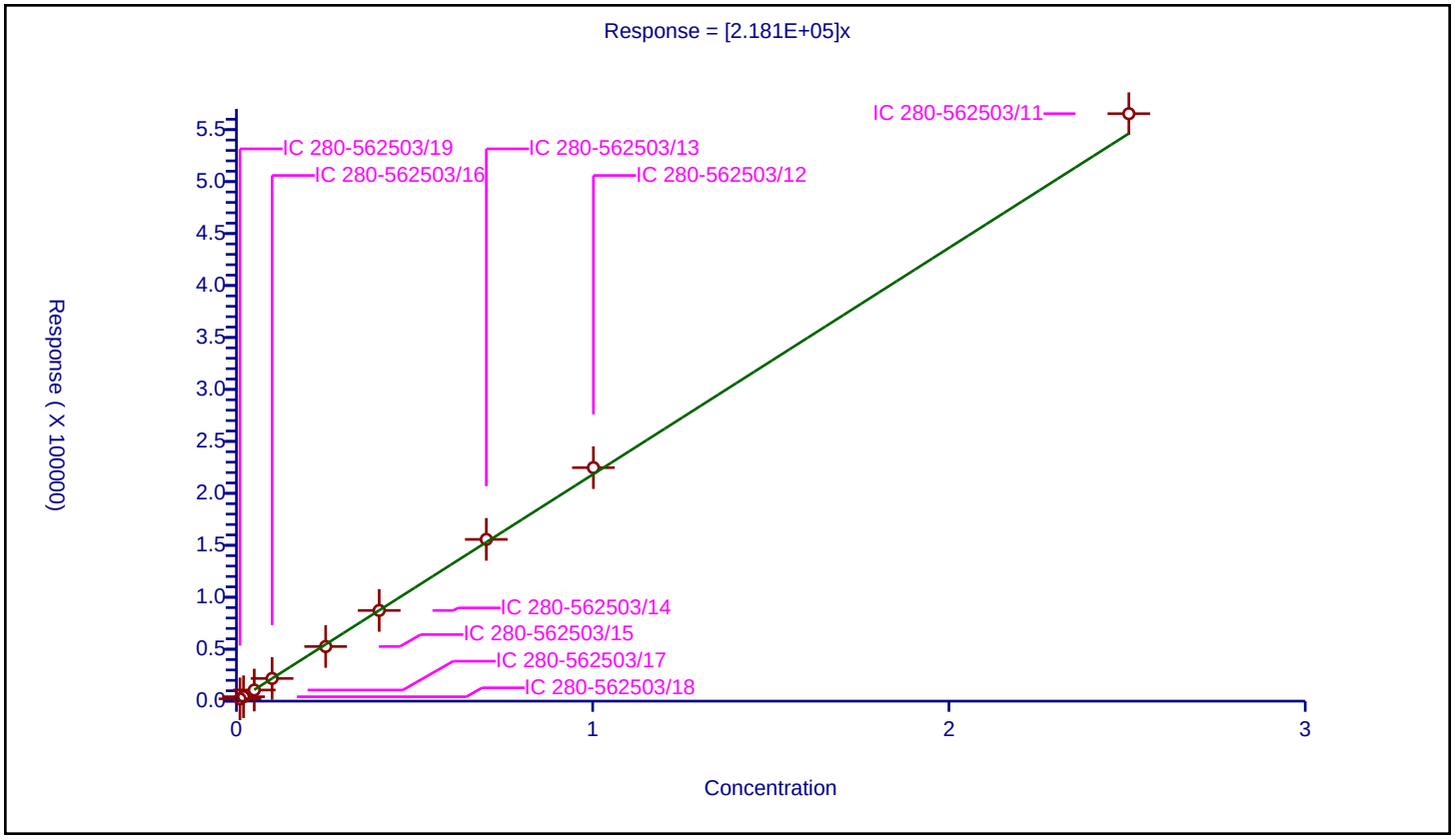
Curve Coefficients

Intercept:	0
Slope:	2.181E+05

Error Coefficients

Standard Error:	7180
Relative Standard Error:	2.5
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-562503/19	0.01002	2197.0			219261.477046	Y
2	IC 280-562503/18	0.02004	4249.0			212025.948104	Y
3	IC 280-562503/17	0.0501	10711.0			213792.41517	Y
4	IC 280-562503/16	0.1002	21856.0			218123.752495	Y
5	IC 280-562503/15	0.2505	52589.0			209936.127745	Y
6	IC 280-562503/14	0.4008	87295.0			217801.896208	Y
7	IC 280-562503/13	0.7014	155681.0			221957.513544	Y
8	IC 280-562503/12	1.002	224711.0			224262.47505	Y
9	IC 280-562503/11	2.505	565374.0			225698.203593	Y



Calibration / 1,3-Dinitrobenzene

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

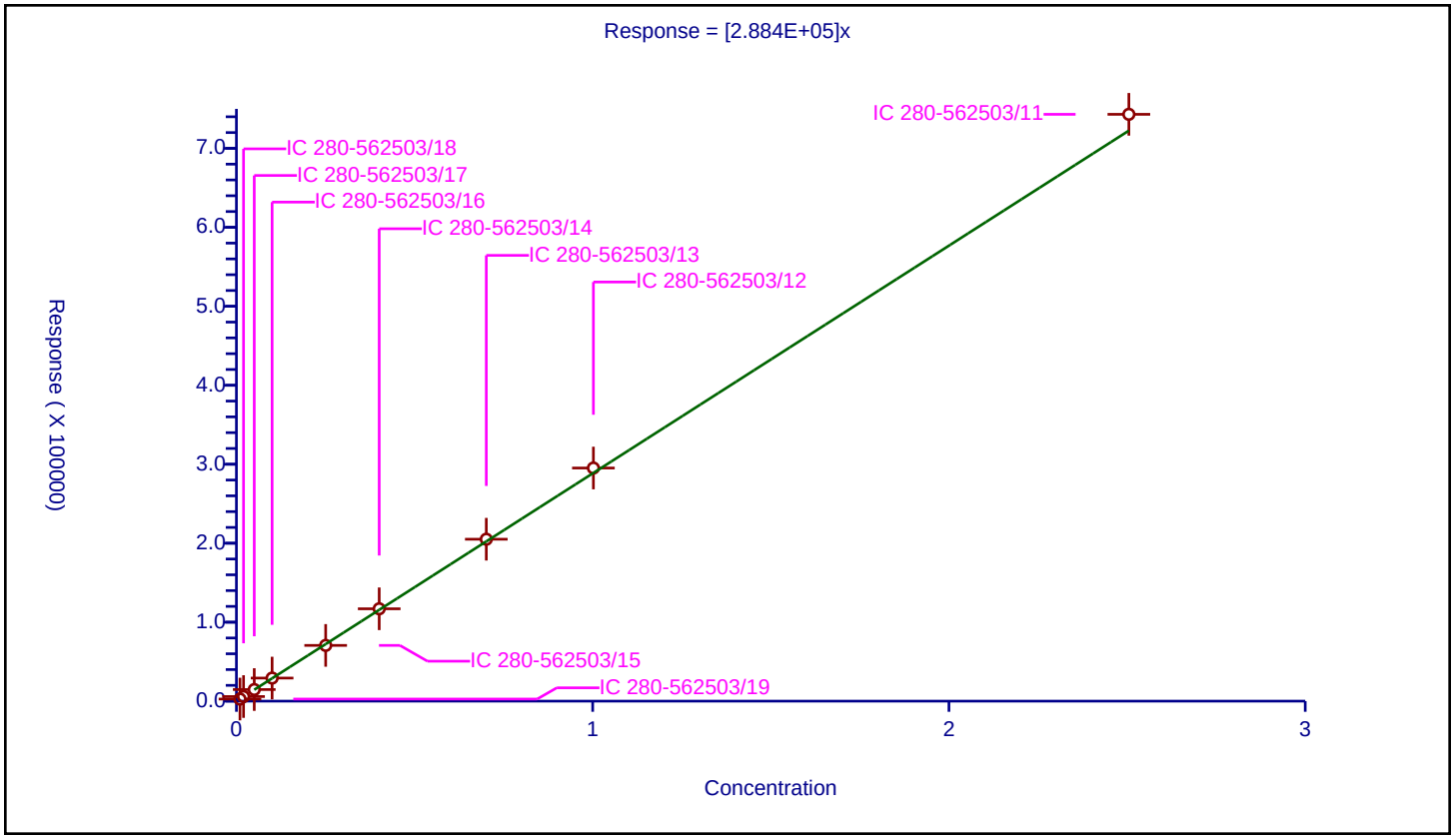
Curve Coefficients

Intercept:	0
Slope:	2.884E+05

Error Coefficients

Standard Error:	7740
Relative Standard Error:	3.6
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-562503/19	0.01002	2633.0			262774.451098	Y
2	IC 280-562503/18	0.02004	5833.0			291067.864271	Y
3	IC 280-562503/17	0.0501	14683.0			293073.852295	Y
4	IC 280-562503/16	0.1002	29215.0			291566.866267	Y
5	IC 280-562503/15	0.2505	70569.0			281712.57485	Y
6	IC 280-562503/14	0.4008	116963.0			291823.852295	Y
7	IC 280-562503/13	0.7014	205039.0			292328.200741	Y
8	IC 280-562503/12	1.002	295195.0			294605.788423	Y
9	IC 280-562503/11	2.505	743133.0			296659.88024	Y



Calibration / Nitrobenzene

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

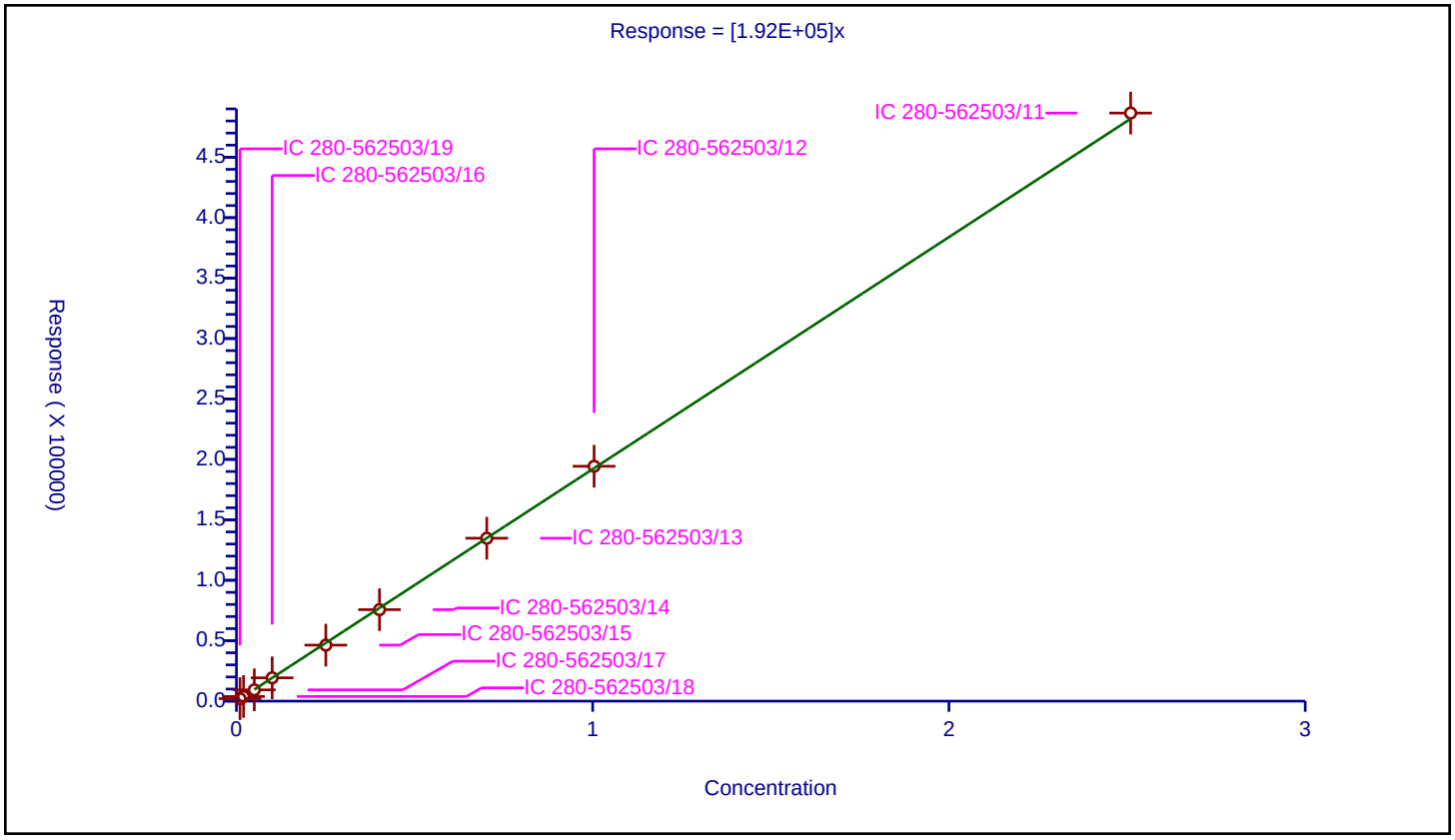
Curve Coefficients

Intercept:	0
Slope:	1.92E+05

Error Coefficients

Standard Error:	1950
Relative Standard Error:	3.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-562503/19	0.01004	2067.0			205876.494024	Y
2	IC 280-562503/18	0.02008	3845.0			191484.063745	Y
3	IC 280-562503/17	0.0502	9329.0			185836.653386	Y
4	IC 280-562503/16	0.1004	19287.0			192101.593625	Y
5	IC 280-562503/15	0.251	46348.0			184653.386454	Y
6	IC 280-562503/14	0.4016	75688.0			188466.135458	Y
7	IC 280-562503/13	0.7028	134777.0			191771.485487	Y
8	IC 280-562503/12	1.004	194325.0			193550.796813	Y
9	IC 280-562503/11	2.51	486534.0			193838.247012	Y



Calibration / Tetryl

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

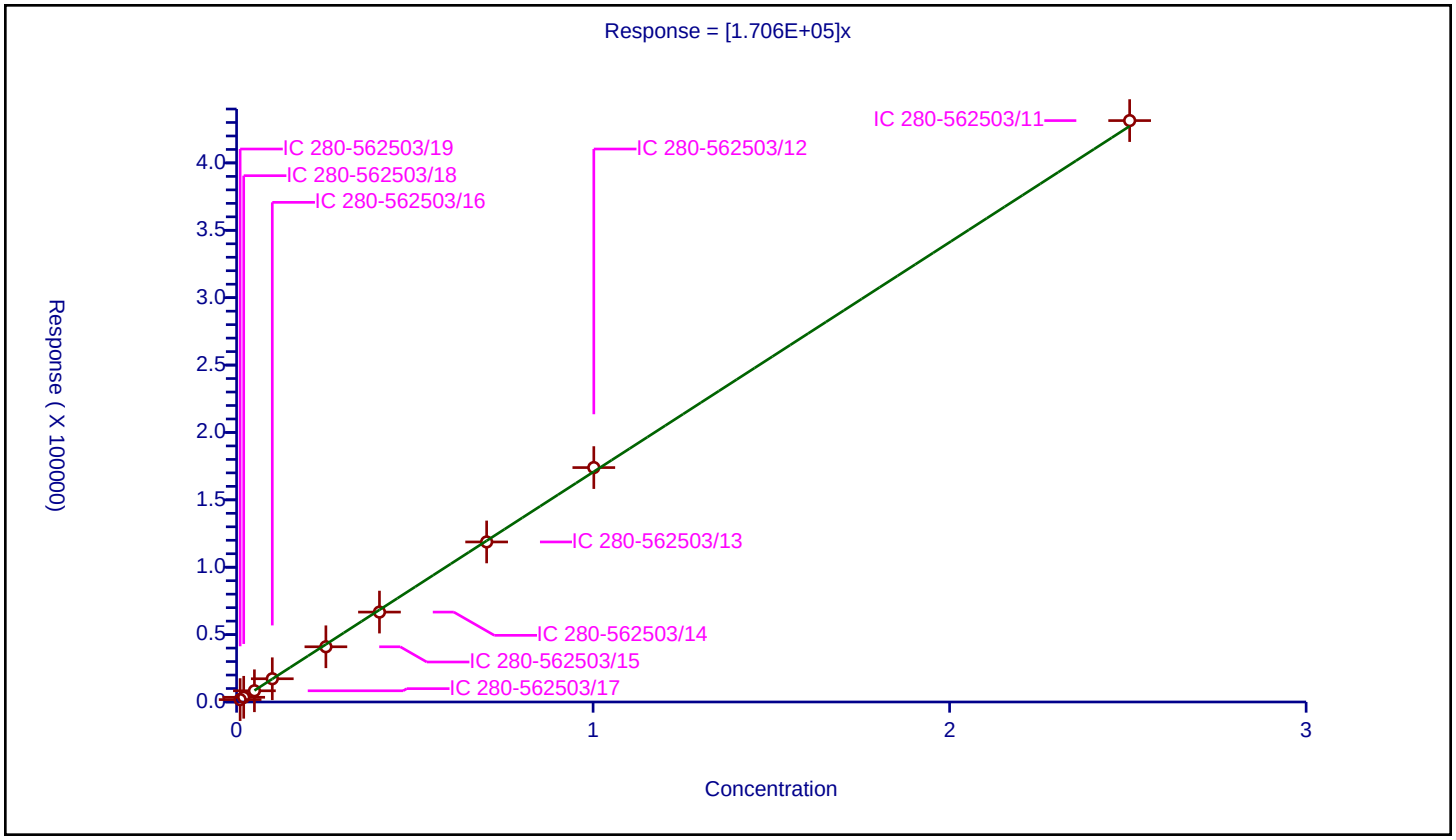
Curve Coefficients

Intercept:	0
Slope:	1.706E+05

Error Coefficients

Standard Error:	2030
Relative Standard Error:	2.7
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-562503/19	0.01002	1778.0			177445.10978	Y
2	IC 280-562503/18	0.02004	3498.0			174550.898204	Y
3	IC 280-562503/17	0.0501	8315.0			165968.063872	Y
4	IC 280-562503/16	0.1002	17238.0			172035.928144	Y
5	IC 280-562503/15	0.2505	40968.0			163544.91018	Y
6	IC 280-562503/14	0.4008	66706.0			166432.135729	Y
7	IC 280-562503/13	0.7014	118756.0			169312.802965	Y
8	IC 280-562503/12	1.002	173941.0			173593.812375	Y
9	IC 280-562503/11	2.505	431404.0			172217.165669	Y



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

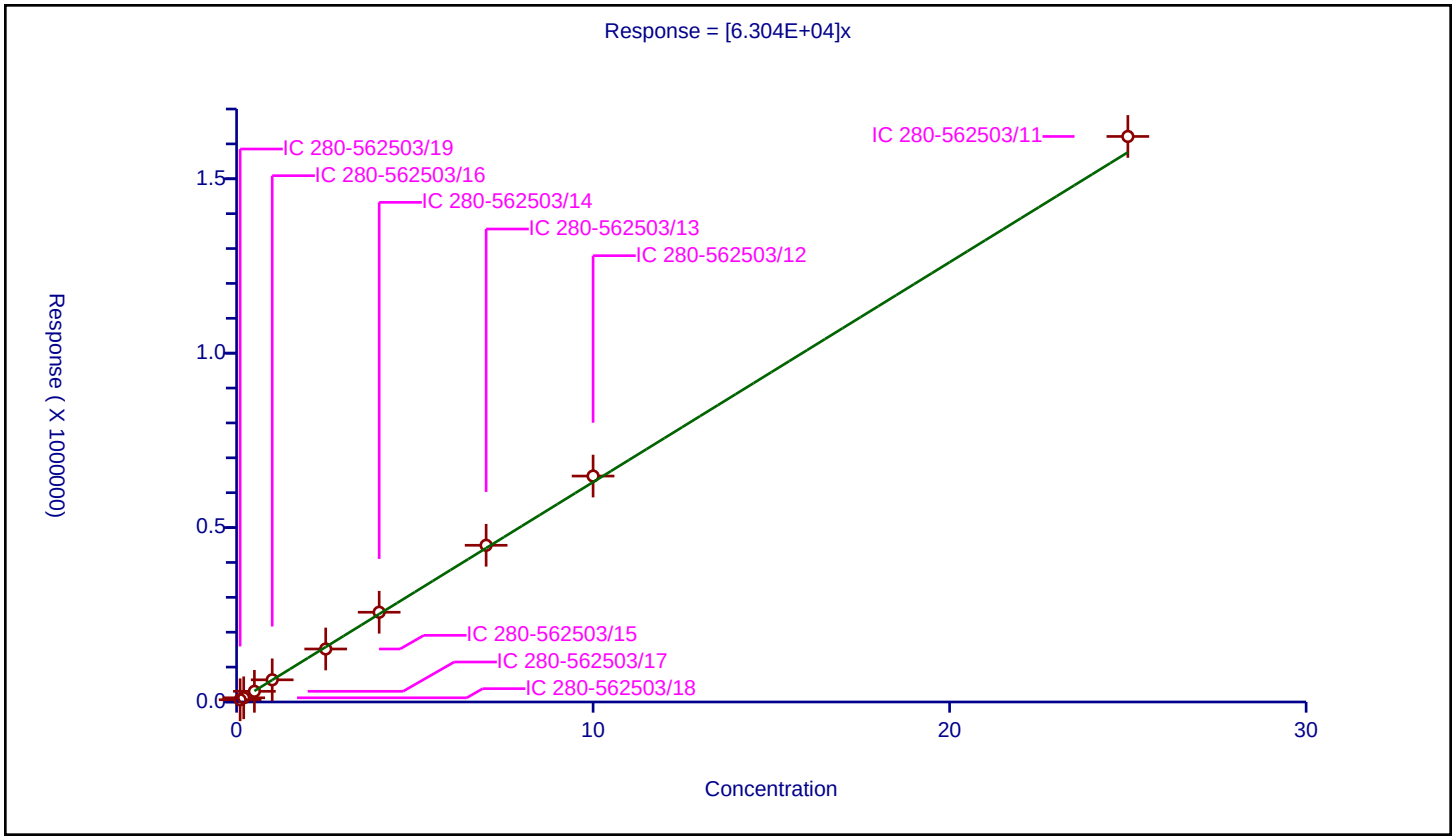
Curve Coefficients

Intercept:	0
Slope:	6.304E+04

Error Coefficients

Standard Error:	17600
Relative Standard Error:	2.9
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-562503/19	0.1	6348.0			63480.0	Y
2	IC 280-562503/18	0.2	12008.0			60040.0	Y
3	IC 280-562503/17	0.5	30651.0			61302.0	Y
4	IC 280-562503/16	1.0	63595.0			63595.0	Y
5	IC 280-562503/15	2.5	151977.0			60790.8	Y
6	IC 280-562503/14	4.0	257287.0			64321.75	Y
7	IC 280-562503/13	7.0	449283.0			64183.285714	Y
8	IC 280-562503/12	10.0	647703.0			64770.3	Y
9	IC 280-562503/11	25.0	1621311.0			64852.44	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

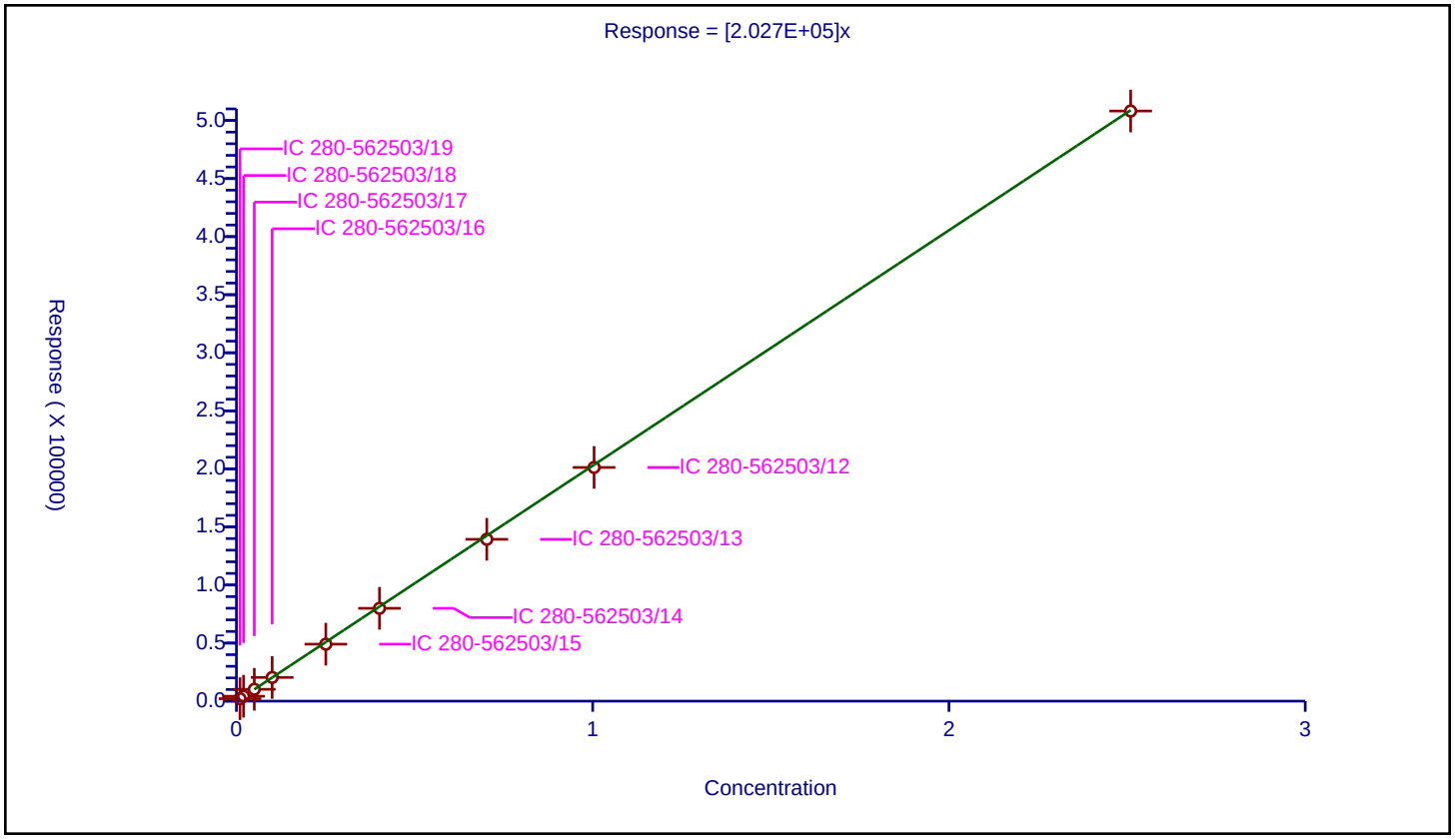
Curve Coefficients

Intercept:	0
Slope:	2.027E+05

Error Coefficients

Standard Error:	1610
Relative Standard Error:	2.7
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-562503/19	0.01004	2126.0			211752.988048	Y
2	IC 280-562503/18	0.02008	4227.0			210507.968127	Y
3	IC 280-562503/17	0.0502	10202.0			203227.091633	Y
4	IC 280-562503/16	0.1004	20408.0			203266.932271	Y
5	IC 280-562503/15	0.251	49067.0			195486.055777	Y
6	IC 280-562503/14	0.4016	79951.0			199081.175299	Y
7	IC 280-562503/13	0.7028	139377.0			198316.733068	Y
8	IC 280-562503/12	1.004	201237.0			200435.258964	Y
9	IC 280-562503/11	2.51	508173.0			202459.36255	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

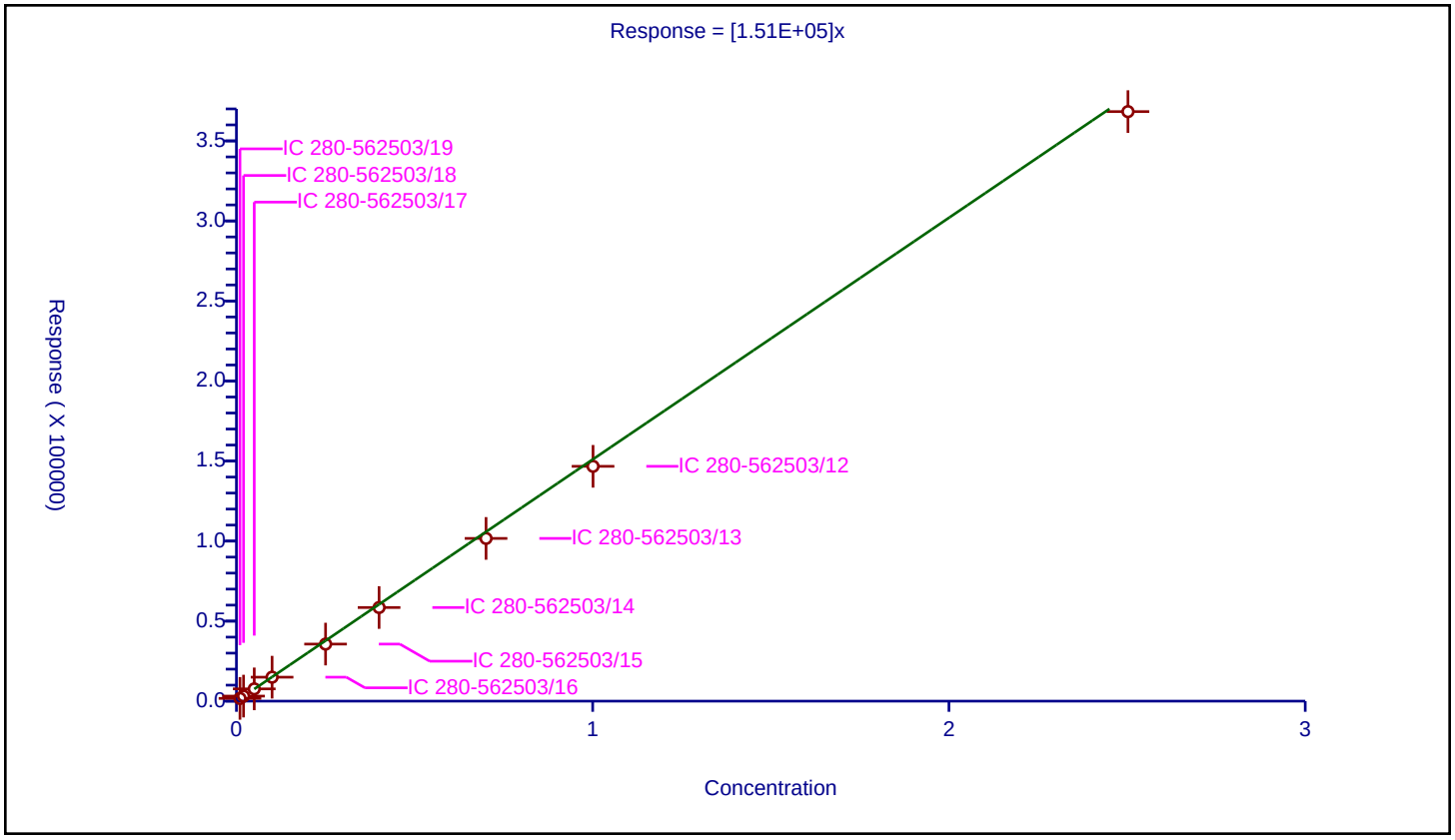
Curve Coefficients

Intercept:	0
Slope:	1.51E+05

Error Coefficients

Standard Error:	4130
Relative Standard Error:	5.9
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.995

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-562503/19	0.01001	1718.0			171628.371628	Y
2	IC 280-562503/18	0.02002	3150.0			157342.657343	Y
3	IC 280-562503/17	0.05005	7656.0			152967.032967	Y
4	IC 280-562503/16	0.1001	14975.0			149600.3996	Y
5	IC 280-562503/15	0.25025	35644.0			142433.566434	Y
6	IC 280-562503/14	0.4004	58489.0			146076.423576	Y
7	IC 280-562503/13	0.7007	101665.0			145090.623662	Y
8	IC 280-562503/12	1.001	146703.0			146556.443556	Y
9	IC 280-562503/11	2.5025	368296.0			147171.228771	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

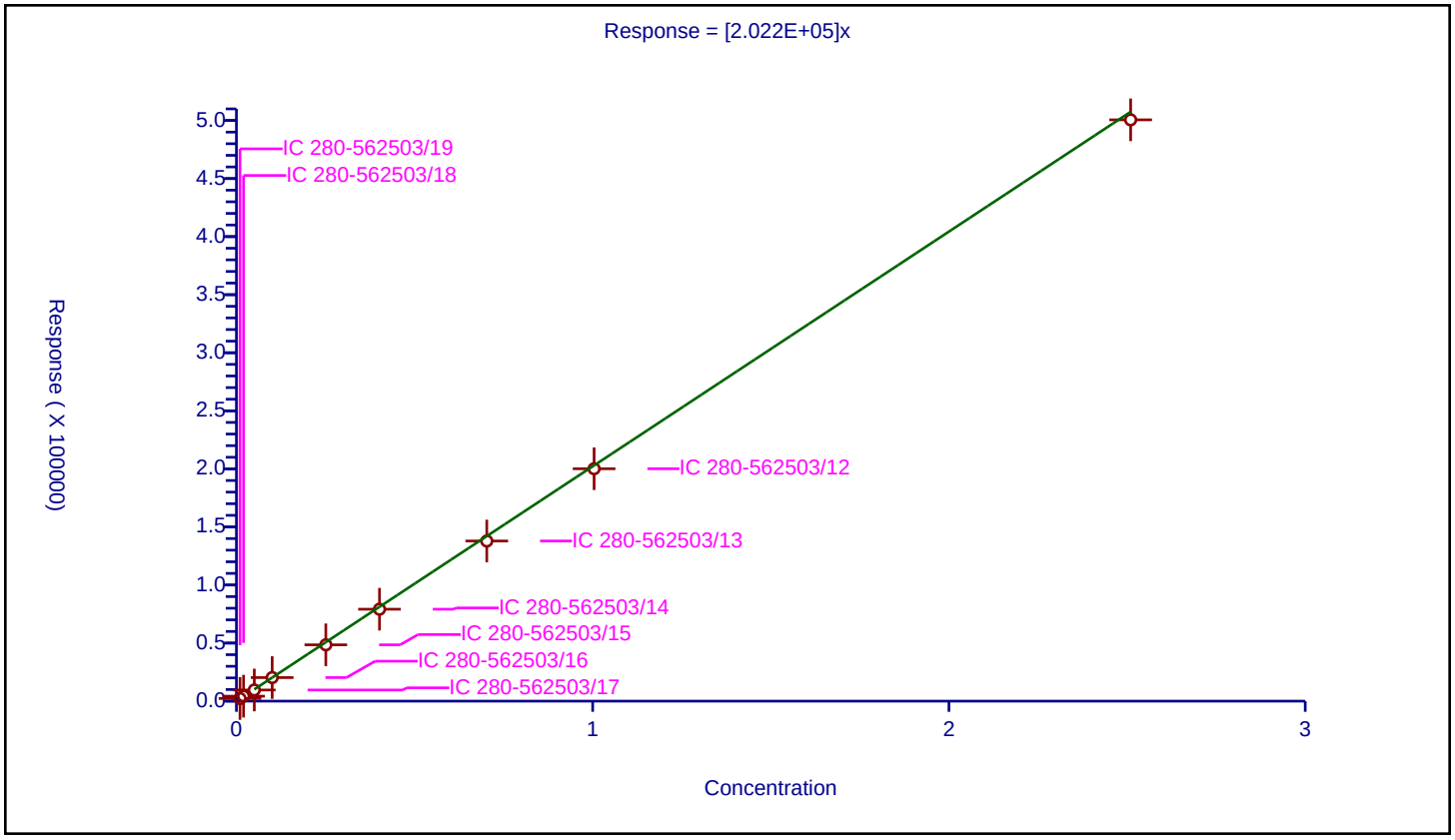
Curve Coefficients

Intercept:	0
Slope:	2.022E+05

Error Coefficients

Standard Error:	3210
Relative Standard Error:	5.7
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-562503/19	0.01004	2287.0			227788.844622	Y
2	IC 280-562503/18	0.02008	4282.0			213247.011952	Y
3	IC 280-562503/17	0.0502	9600.0			191235.059761	Y
4	IC 280-562503/16	0.1004	20280.0			201992.031873	Y
5	IC 280-562503/15	0.251	48486.0			193171.314741	Y
6	IC 280-562503/14	0.4016	79169.0			197133.964143	Y
7	IC 280-562503/13	0.7028	137894.0			196206.602163	Y
8	IC 280-562503/12	1.004	200129.0			199331.673307	Y
9	IC 280-562503/11	2.51	500581.0			199434.661355	Y



Calibration / 2,6-Dinitrotoluene

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

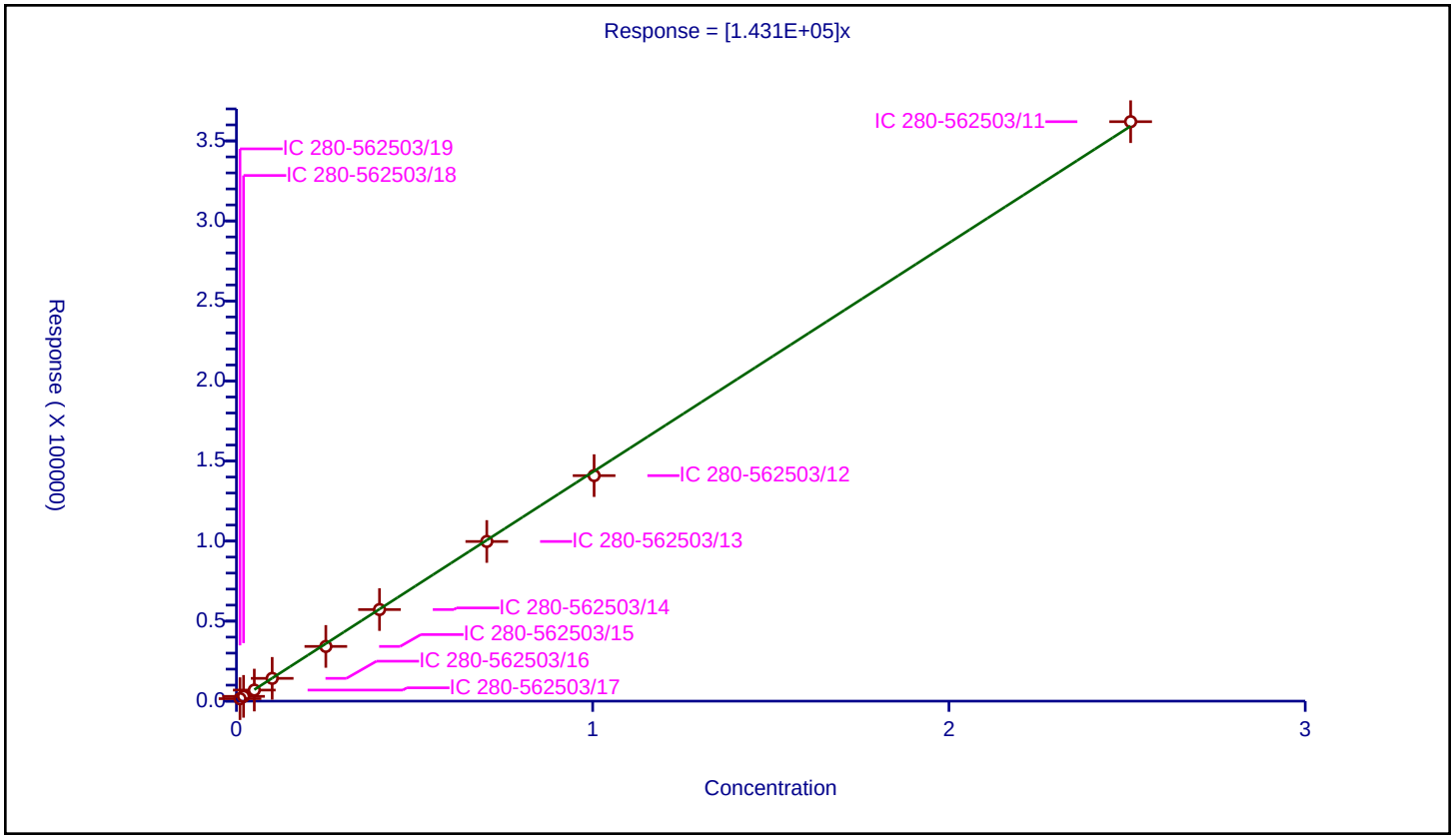
Curve Coefficients

Intercept:	0
Slope:	1.431E+05

Error Coefficients

Standard Error:	1560
Relative Standard Error:	4.0
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-562503/19	0.01004	1551.0			154482.071713	Y
2	IC 280-562503/18	0.02008	2993.0			149053.784861	Y
3	IC 280-562503/17	0.0502	6908.0			137609.561753	Y
4	IC 280-562503/16	0.1004	14234.0			141772.908367	Y
5	IC 280-562503/15	0.251	34177.0			136163.346614	Y
6	IC 280-562503/14	0.4016	57212.0			142460.159363	Y
7	IC 280-562503/13	0.7028	99747.0			141928.002277	Y
8	IC 280-562503/12	1.004	140901.0			140339.641434	Y
9	IC 280-562503/11	2.51	362011.0			144227.49004	Y



Calibration / 2,4-Dinitrotoluene

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

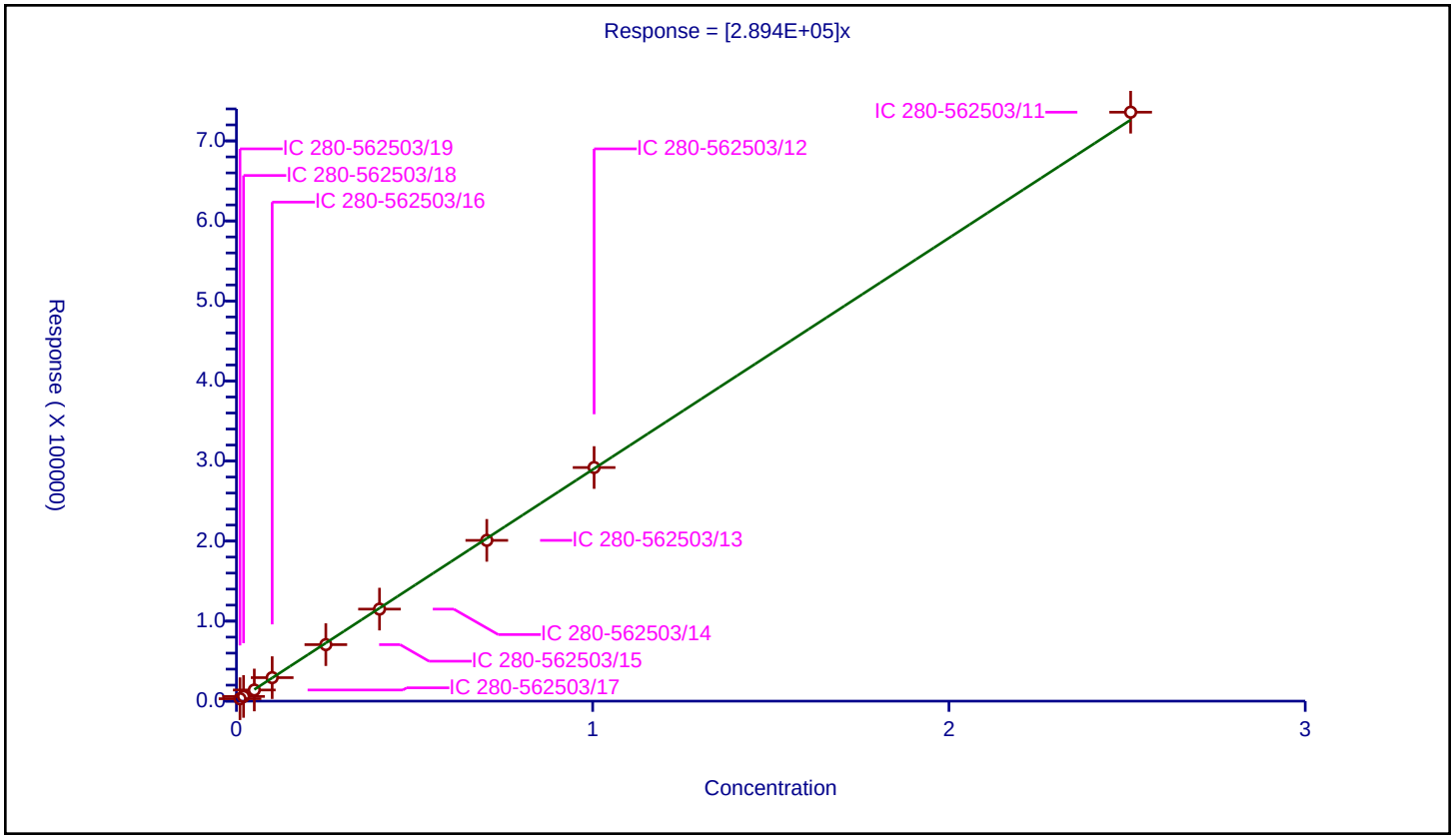
Curve Coefficients

Intercept:	0
Slope:	2.894E+05

Error Coefficients

Standard Error:	3650
Relative Standard Error:	2.6
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-562503/19	0.01004	3047.0			303486.055777	Y
2	IC 280-562503/18	0.02008	5890.0			293326.693227	Y
3	IC 280-562503/17	0.0502	13933.0			277549.800797	Y
4	IC 280-562503/16	0.1004	29355.0			292380.478088	Y
5	IC 280-562503/15	0.251	70605.0			281294.820717	Y
6	IC 280-562503/14	0.4016	115000.0			286354.581673	Y
7	IC 280-562503/13	0.7028	200883.0			285832.384747	Y
8	IC 280-562503/12	1.004	291912.0			290749.003984	Y
9	IC 280-562503/11	2.51	735887.0			293182.071713	Y



Calibration / o-Nitrotoluene

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

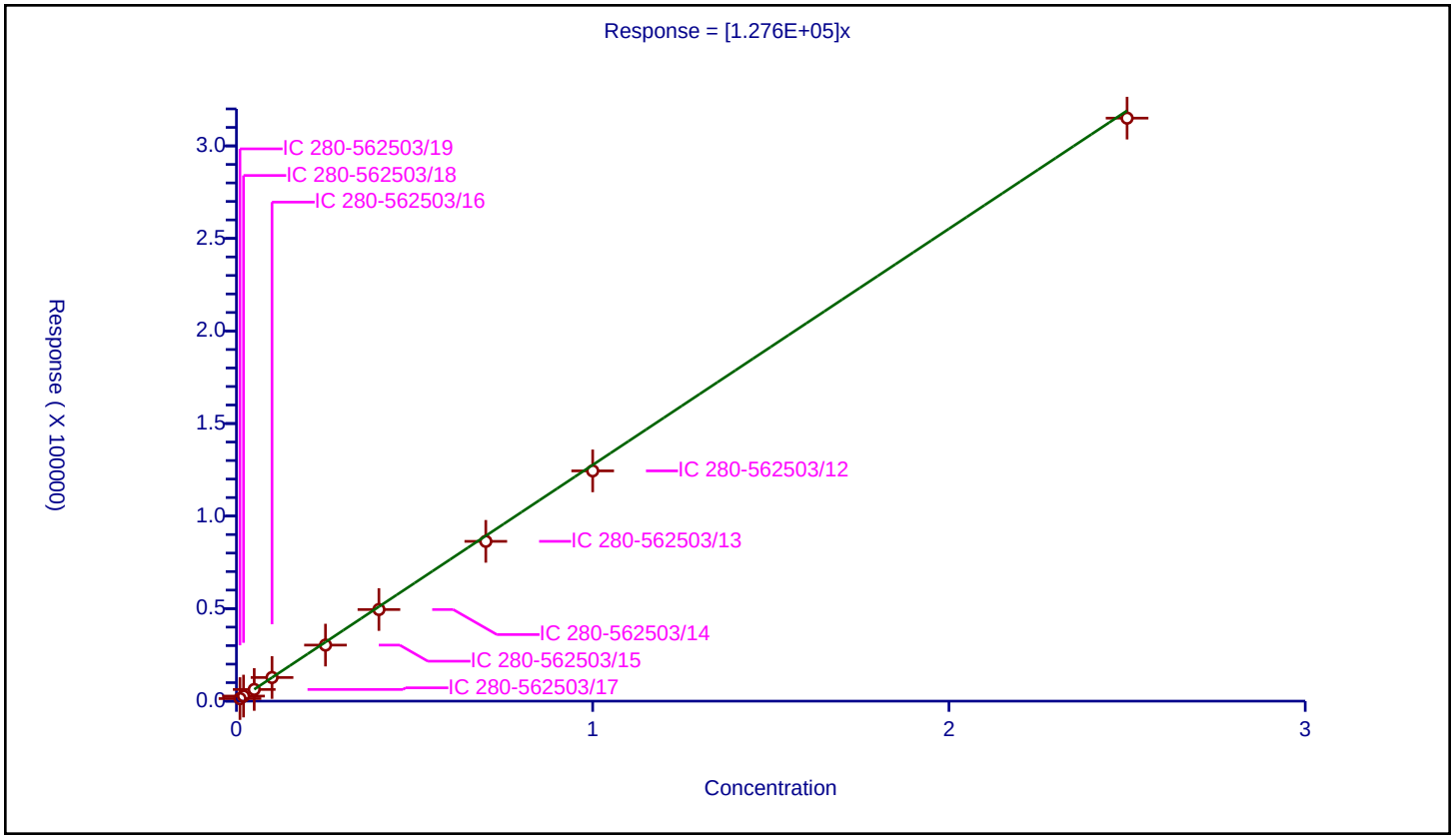
Curve Coefficients

Intercept:	0
Slope:	1.276E+05

Error Coefficients

Standard Error:	2250
Relative Standard Error:	4.8
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-562503/19	0.01	1387.0			138700.0	Y
2	IC 280-562503/18	0.02	2743.0			137150.0	Y
3	IC 280-562503/17	0.05	6314.0			126280.0	Y
4	IC 280-562503/16	0.1	12777.0			127770.0	Y
5	IC 280-562503/15	0.25	30280.0			121120.0	Y
6	IC 280-562503/14	0.4	49500.0			123750.0	Y
7	IC 280-562503/13	0.7	86333.0			123332.857143	Y
8	IC 280-562503/12	1.0	124418.0			124418.0	Y
9	IC 280-562503/11	2.5	315004.0			126001.6	Y



Calibration / p-Nitrotoluene

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

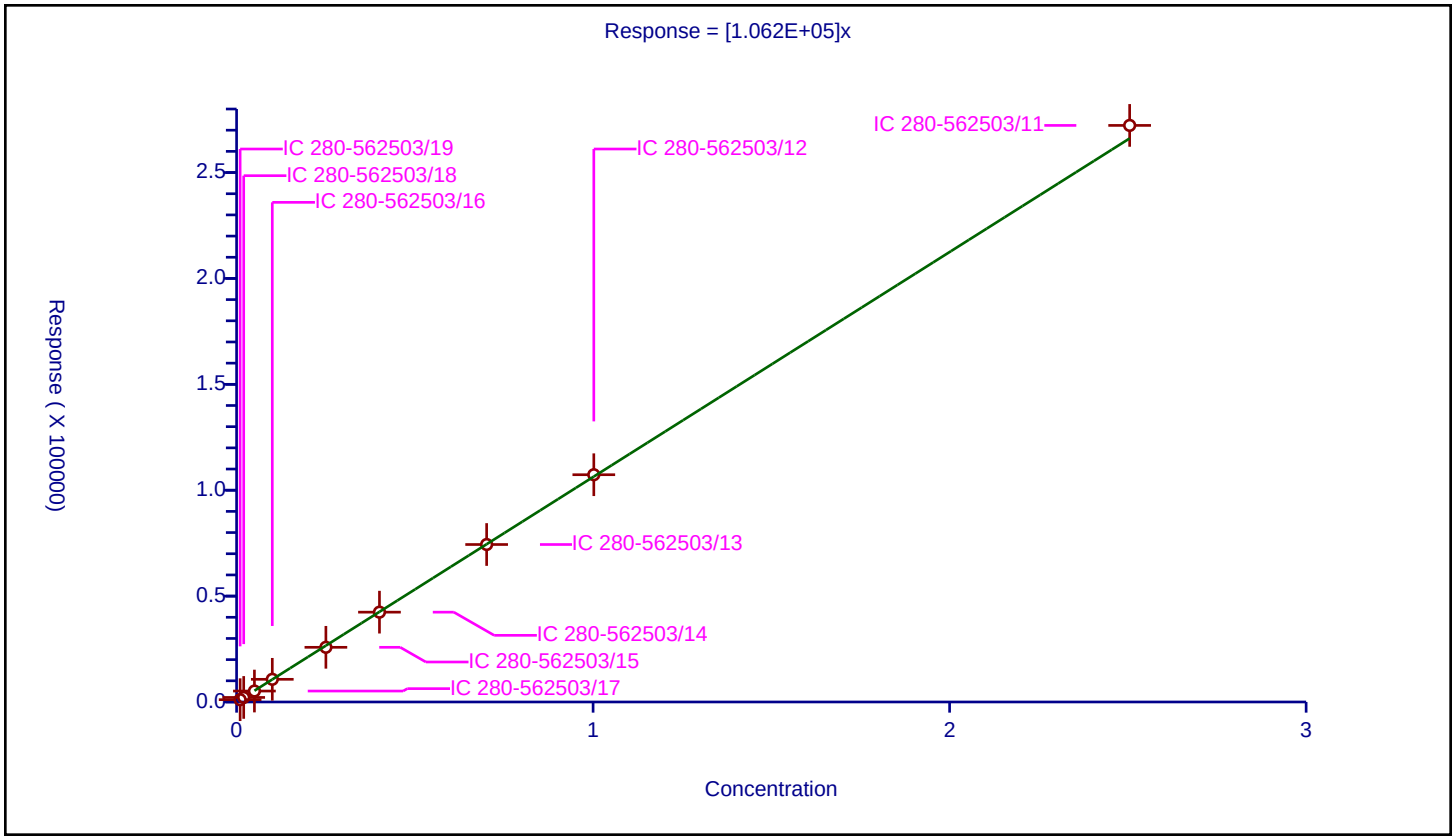
Curve Coefficients

Intercept:	0
Slope:	1.062E+05

Error Coefficients

Standard Error:	2210
Relative Standard Error:	1.9
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	1.000

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-562503/19	0.01002	1083.0			108083.832335	Y
2	IC 280-562503/18	0.02004	2151.0			107335.329341	Y
3	IC 280-562503/17	0.0501	5163.0			103053.892216	Y
4	IC 280-562503/16	0.1002	10715.0			106936.127745	Y
5	IC 280-562503/15	0.2505	25824.0			103089.820359	Y
6	IC 280-562503/14	0.4008	42415.0			105825.848303	Y
7	IC 280-562503/13	0.7014	74357.0			106012.261192	Y
8	IC 280-562503/12	1.002	107309.0			107094.810379	Y
9	IC 280-562503/11	2.505	272262.0			108687.42515	Y



Calibration / m-Nitrotoluene

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

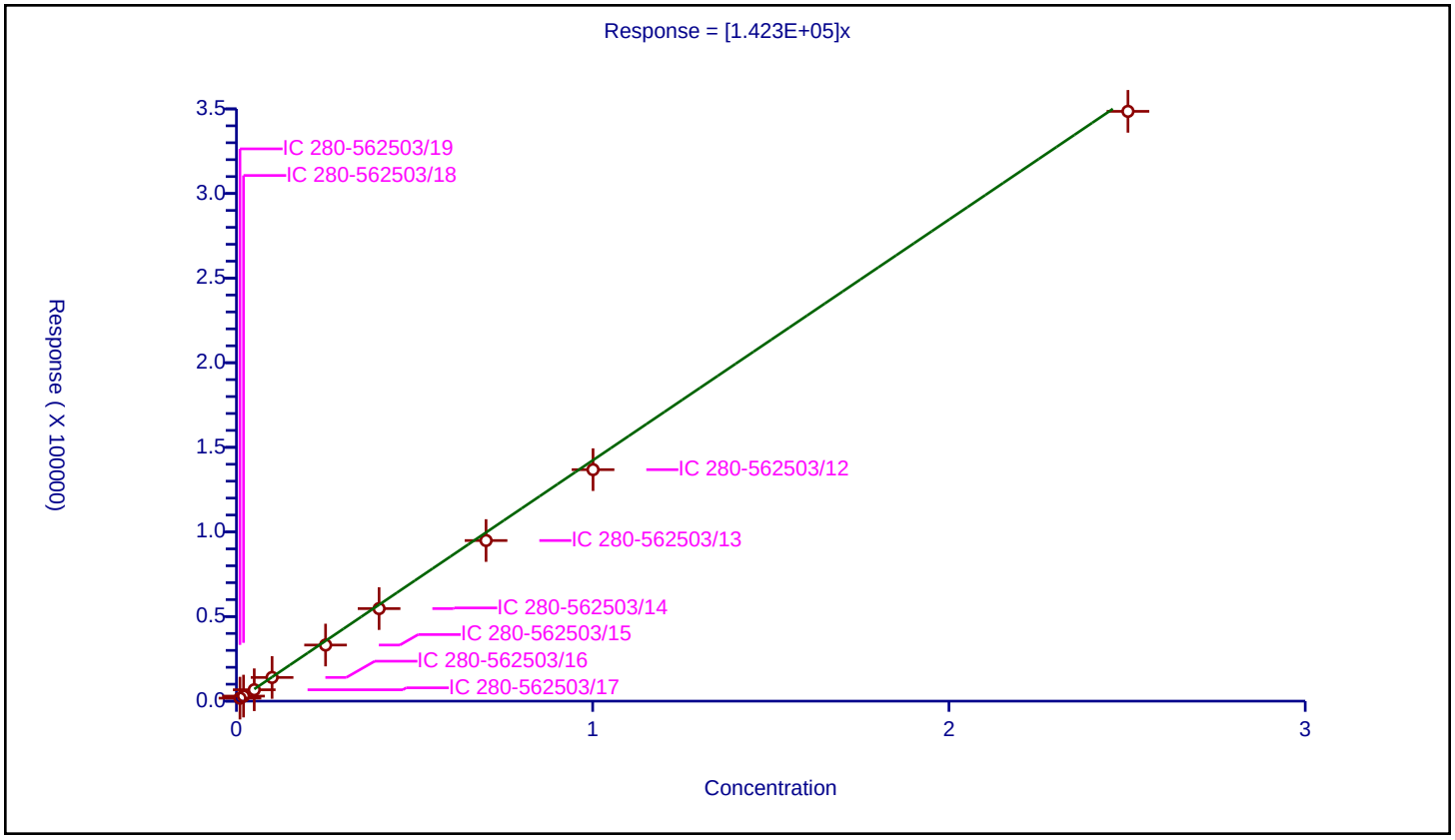
Curve Coefficients

Intercept:	0
Slope:	1.423E+05

Error Coefficients

Standard Error:	3900
Relative Standard Error:	9.6
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.987

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-562503/19	0.01001	1764.0			176223.776224	Y
2	IC 280-562503/18	0.02002	2989.0			149300.699301	Y
3	IC 280-562503/17	0.05005	6733.0			134525.474525	Y
4	IC 280-562503/16	0.1001	14003.0			139890.10989	Y
5	IC 280-562503/15	0.25025	33160.0			132507.492507	Y
6	IC 280-562503/14	0.4004	54695.0			136600.899101	Y
7	IC 280-562503/13	0.7007	94920.0			135464.535465	Y
8	IC 280-562503/12	1.001	136801.0			136664.335664	Y
9	IC 280-562503/11	2.5025	348555.0			139282.717283	Y



Calibration / PETN

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

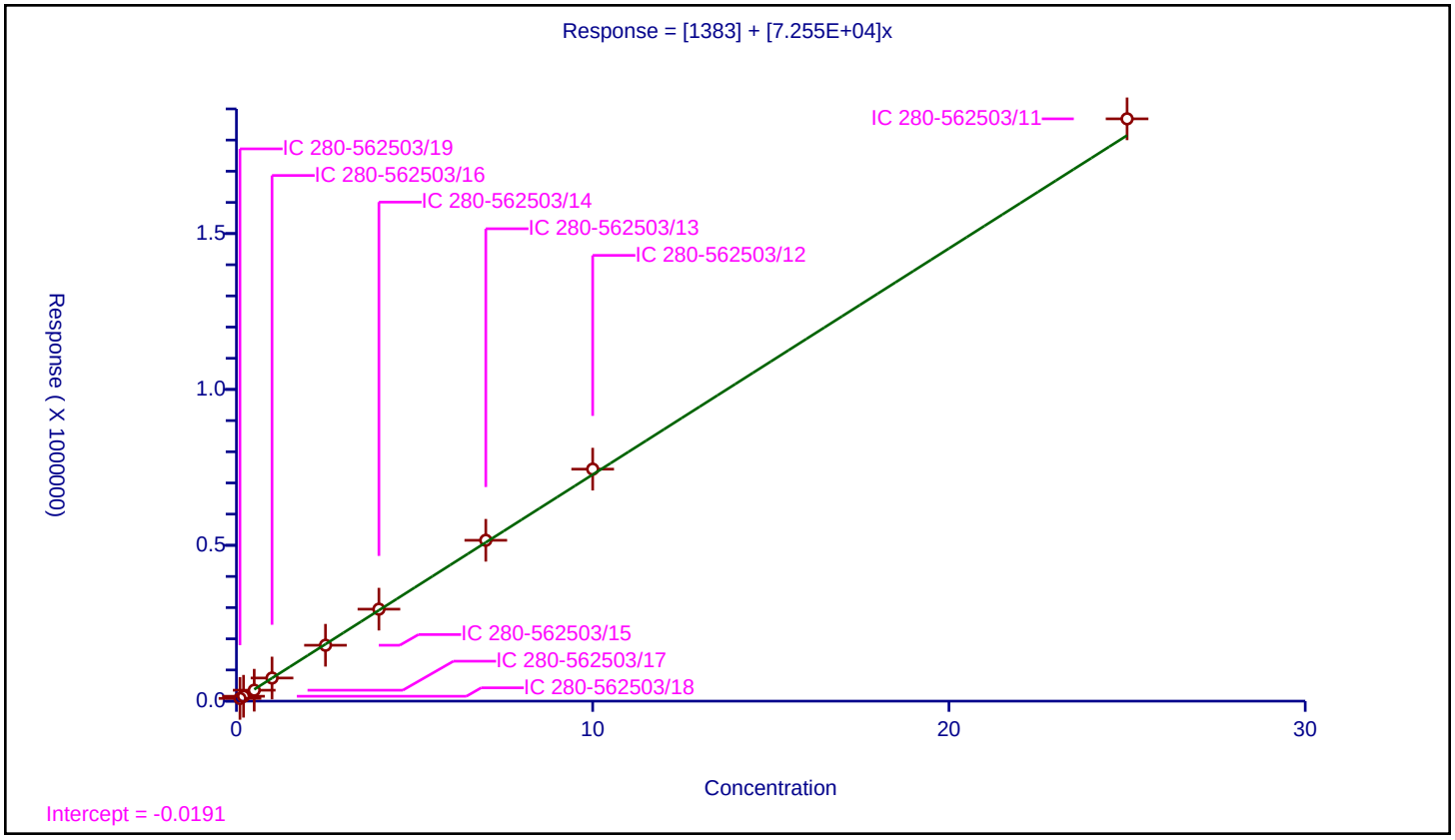
Curve Coefficients

Intercept:	1383
Slope:	7.255E+04

Error Coefficients

Standard Error:	21400
Relative Standard Error:	3.3
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-562503/19	0.1	8784.0			87840.0	Y
2	IC 280-562503/18	0.2	15705.0			78525.0	Y
3	IC 280-562503/17	0.5	35084.0			70168.0	Y
4	IC 280-562503/16	1.0	74208.0			74208.0	Y
5	IC 280-562503/15	2.5	179275.0			71710.0	Y
6	IC 280-562503/14	4.0	295082.0			73770.5	Y
7	IC 280-562503/13	7.0	516042.0			73720.285714	Y
8	IC 280-562503/12	10.0	744274.0			74427.4	Y
9	IC 280-562503/11	25.0	1868141.0			74725.64	Y



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

Lab Name: Eurofins Denver Job No.: 280-159384-1 Analy Batch No.: 562503

SDG No.:

Instrument ID: CHHPLC_X3 GC Column: UltraCarb5u ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/05/2022 01:43 Calibration End Date: 01/05/2022 04:24 Calibration ID: 61347

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-562503/37	01040037.D
Level 2	IC 280-562503/36	01040036.D
Level 3	IC 280-562503/35	01040035.D
Level 4	IC 280-562503/34	01040034.D
Level 5	IC 280-562503/33	01040033.D
Level 6	IC 280-562503/32	01040032.D
Level 7	IC 280-562503/31	01040031.D
Level 8	IC 280-562503/30	01040030.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	LVL 7	LVL 8			RT WINDOW	AVG RT
TNX	6.479	6.478	6.483	6.484	6.483	6.477	6.478	6.472			6.384 - 6.584	6.479
DNX	6.799	6.798	6.796	6.797	6.803	6.797	6.798	6.792			6.697 - 6.897	6.798
MNX	7.219	7.224	7.223	7.224	7.223	7.217	7.218	7.218			7.074 - 7.374	7.221

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

Lab Name: Eurofins Denver Job No.: 280-159384-1 Analy Batch No.: 562503

SDG No.:

Instrument ID: CHHPLC_X3 GC Column: UltraCarb5u ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/05/2022 01:43 Calibration End Date: 01/05/2022 04:24 Calibration ID: 61347

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-562503/37	01040037.D
Level 2	IC 280-562503/36	01040036.D
Level 3	IC 280-562503/35	01040035.D
Level 4	IC 280-562503/34	01040034.D
Level 5	IC 280-562503/33	01040033.D
Level 6	IC 280-562503/32	01040032.D
Level 7	IC 280-562503/31	01040031.D
Level 8	IC 280-562503/30	01040030.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3 LVL 7	LVL 4 LVL 8		B	M1	M2								
TNX	179820 181618	180440 185306	179710 183906	170821 188038	Ave		181207.471				2.8		20.0			
DNX	140709 139048	139620 138881	139141 137206	129534 140763	Ave		138112.950				2.6		20.0			
MNX	130334 127284	125073 127309	123719 126586	118458 129201	Ave		125995.416				2.9		20.0			

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

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

Lab Name: Eurofins Denver Job No.: 280-159384-1 Analy Batch No.: 562503

SDG No.:

Instrument ID: CHHPLC_X3 GC Column: UltraCarb5u ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/05/2022 01:43 Calibration End Date: 01/05/2022 04:24 Calibration ID: 61347

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-562503/37	01040037.D
Level 2	IC 280-562503/36	01040036.D
Level 3	IC 280-562503/35	01040035.D
Level 4	IC 280-562503/34	01040034.D
Level 5	IC 280-562503/33	01040033.D
Level 6	IC 280-562503/32	01040032.D
Level 7	IC 280-562503/31	01040031.D
Level 8	IC 280-562503/30	01040030.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
		LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
TNX	Ave	3600 129844	9031 184090	17989 470565	42748	72720	0.0200 0.701	0.0501 1.00	0.100 2.50	0.250	0.400
DNX	Ave	2817 97314	6988 137343	13928 352260	32416	55675	0.0200 0.701	0.0501 1.00	0.100 2.50	0.250	0.400
MNX	Ave	3042 103999	7298 147726	14438 376943	34560	59416	0.0233 0.817	0.0584 1.17	0.117 2.92	0.292	0.467

Curve Type Legend
Ave = Average

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040030.D				
Lims ID:	IC DMT 8				
Client ID:					
Sample Type:	IC	Calib Level:	8		
Inject. Date:	05-Jan-2022 01:43:42	ALS Bottle#:	30	Worklist Smp#:	30
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	IC DMT 8				
Misc. Info.:	280-0107731-030				
Operator ID:	JZ	Instrument ID:	CHHPLC_X3		
Sublist:	chrom-8330_X3*sub17				
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	05-Jan-2022 12:10:05	Calib Date:	05-Jan-2022 04:24:15		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040037.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1613				
First Level Reviewer: zhangji		Date:	05-Jan-2022 12:07:13		

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 TNX	1	6.472	6.484	-0.012	470565	2.50	2.60	M
6 DNX	1	6.792	6.797	-0.005	352260	2.50	2.55	M
7 MNX	1	7.218	7.224	-0.006	376943	2.92	2.99	M

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330 DMT_00010 Amount Added: 125.00 Units: uL

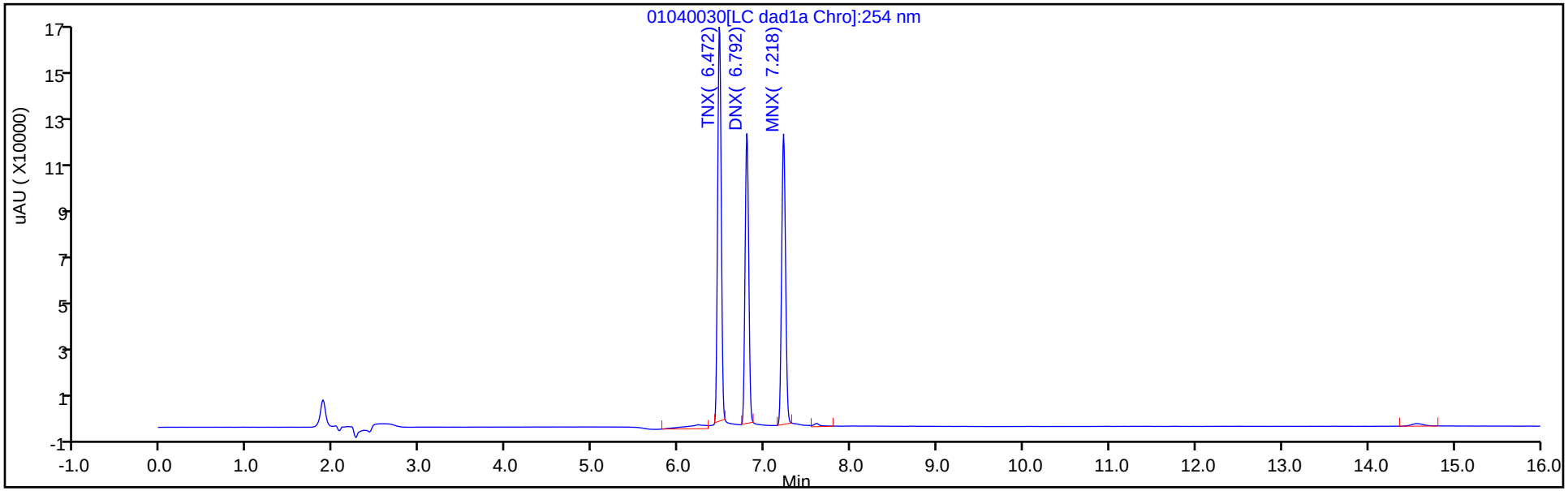
Report Date: 05-Jan-2022 12:10:05 Chrom Revision: 2.3 03-Jan-2022 17:03:12

Eurofins TestAmerica, Denver

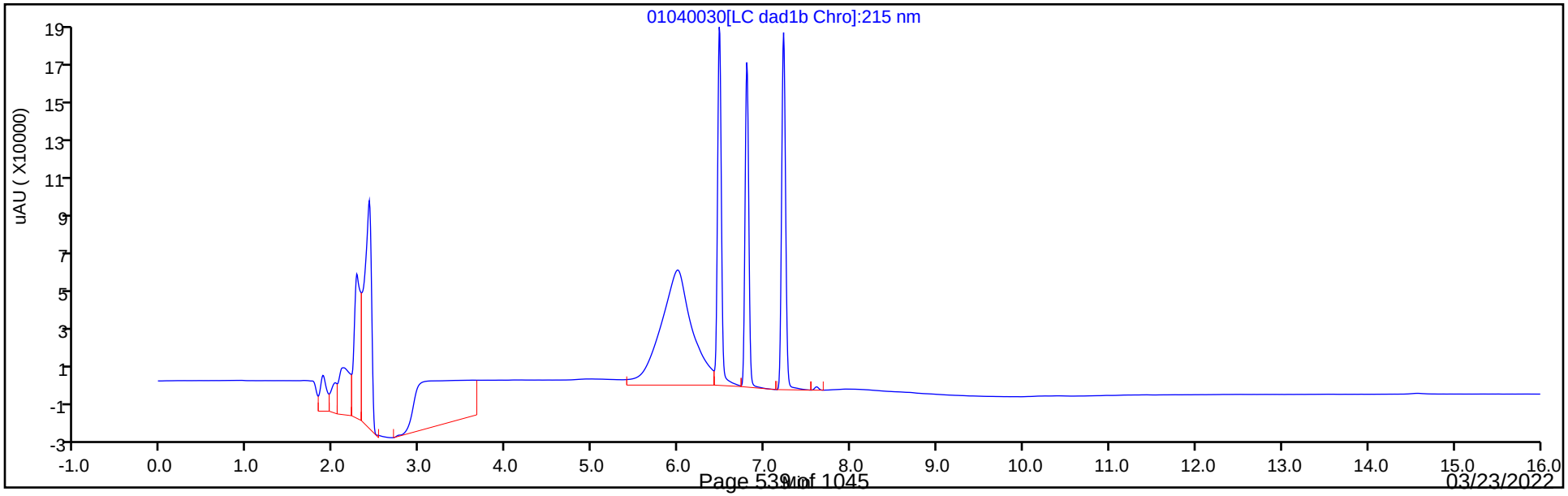
Data File: \\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040030.d

Injection Date:	05-Jan-2022 01:43:42	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	IC DMT 8			Worklist Smp#:	30
Client ID:					
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



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



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

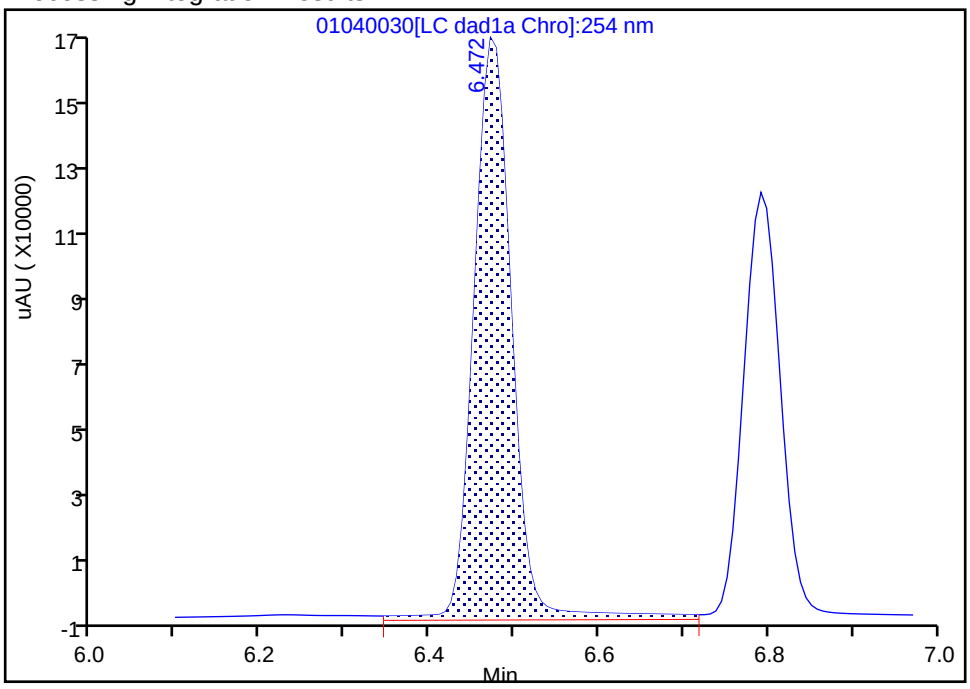
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Injection Date:	05-Jan-2022 01:43:42	Instrument ID:	CHHPLC_X3		
Lims ID:	IC DMT 8				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	30	Worklist Smp#:	30
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

3 TNX, CAS: 13980-04-6

Signal: 1

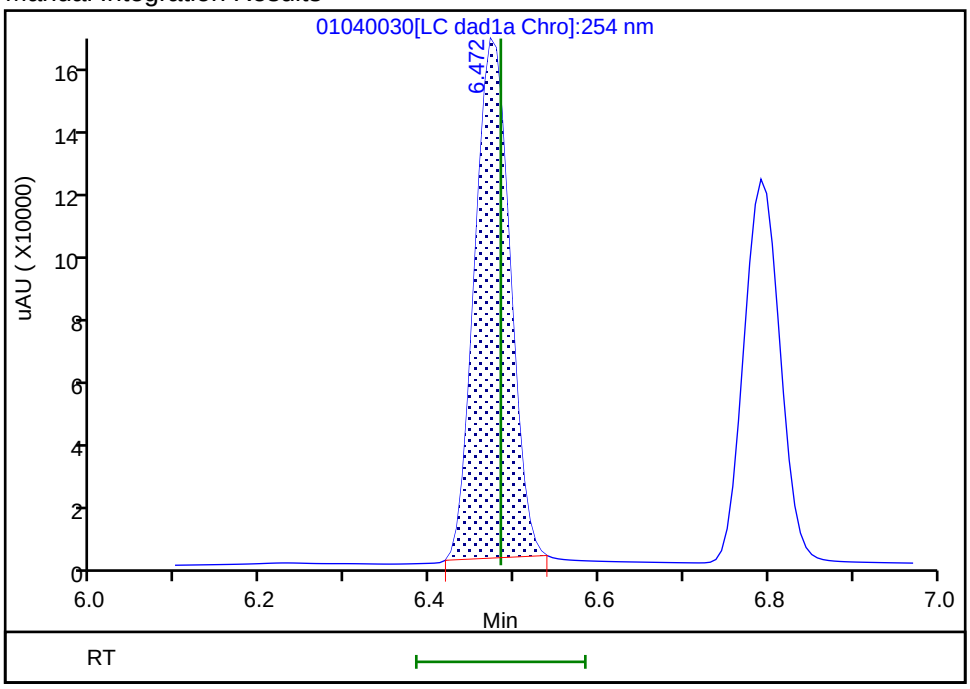
Processing Integration Results

RT: 6.47
Area: 518954
Amount: 2.391054
Amount Units: ug/mL



Manual Integration Results

RT: 6.47
Area: 470565
Amount: 2.596830
Amount Units: ug/mL



Reviewer: zhangji, 05-Jan-2022 12:05:51
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

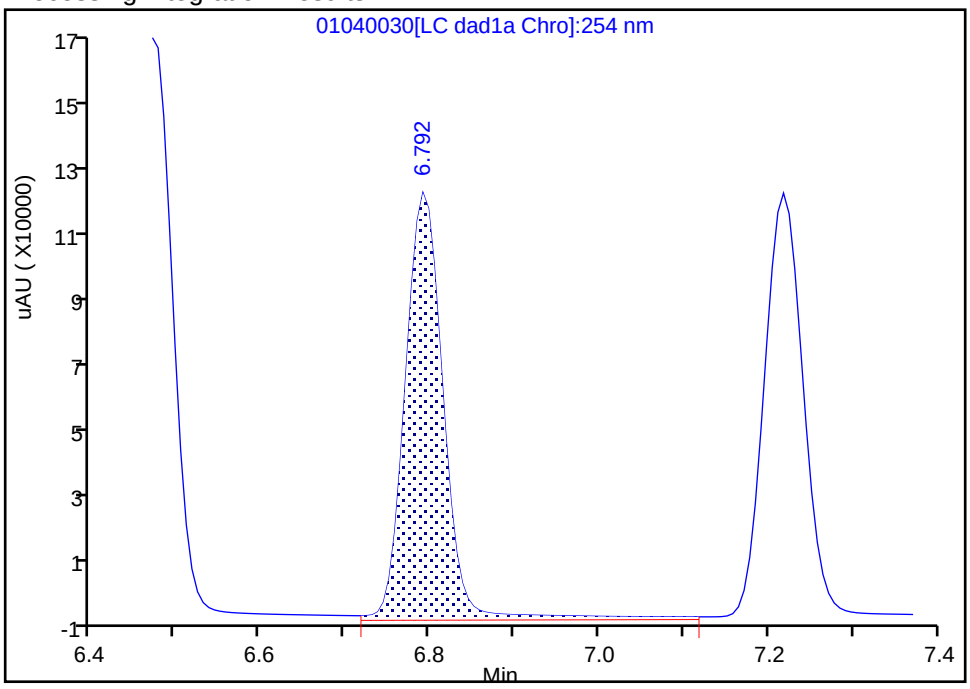
Data File:	\\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040030.d				
Injection Date:	05-Jan-2022 01:43:42	Instrument ID:	CHHPLC_X3		
Lims ID:	IC DMT 8				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	30	Worklist Smp#:	30
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

6 DNX, CAS: 80251-29-2

Signal: 1

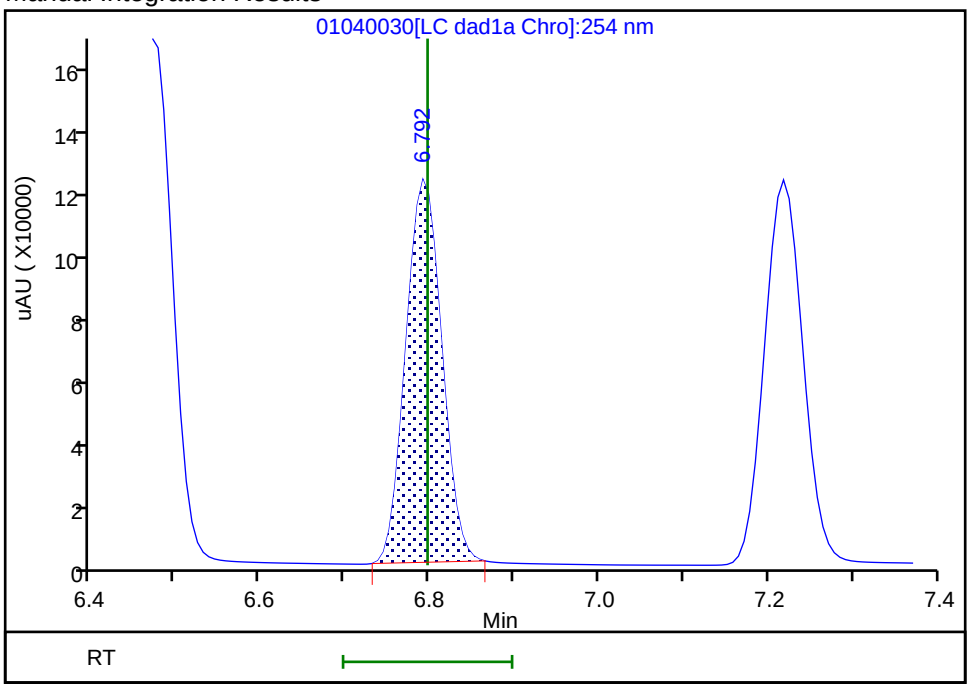
Processing Integration Results

RT: 6.79
Area: 385621
Amount: 2.575003
Amount Units: ug/mL



Manual Integration Results

RT: 6.79
Area: 352260
Amount: 2.550521
Amount Units: ug/mL



Reviewer: zhangji, 05-Jan-2022 12:07:08
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

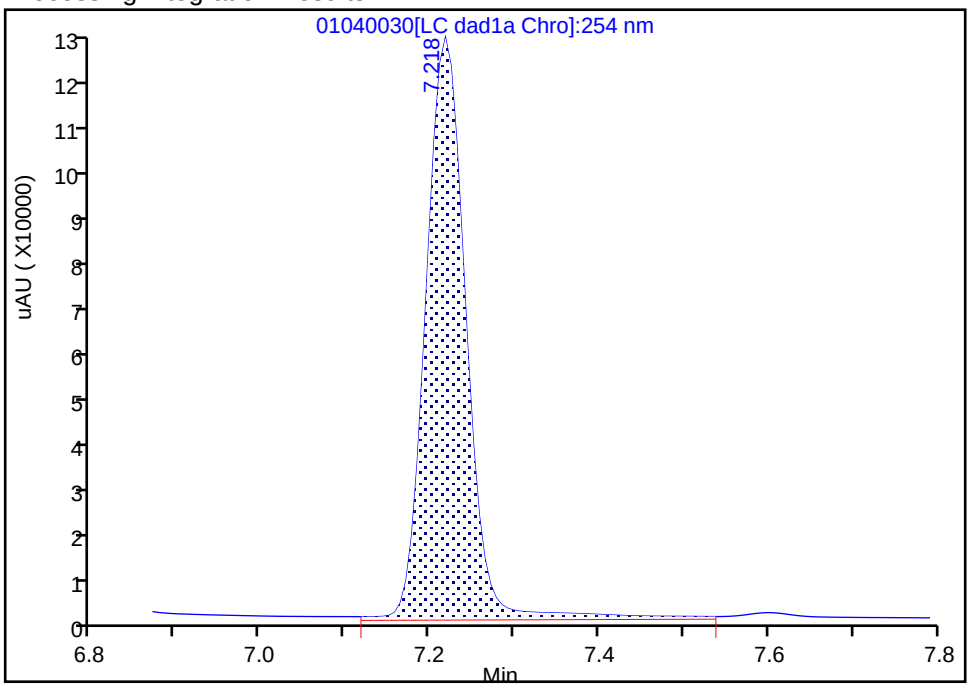
Data File:	\\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040030.d				
Injection Date:	05-Jan-2022 01:43:42	Instrument ID:	CHHPLC_X3		
Lims ID:	IC DMT 8				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	30	Worklist Smp#:	30
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

7 MNX, CAS: 5755-27-1

Signal: 1

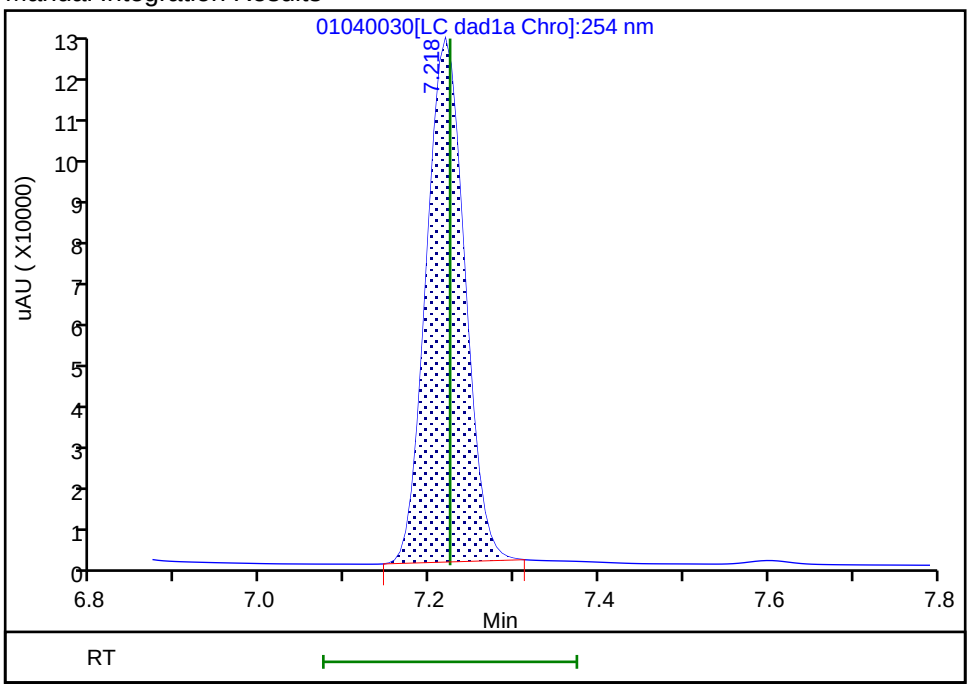
Processing Integration Results

RT: 7.22
Area: 403714
Amount: 3.070267
Amount Units: ug/mL



Manual Integration Results

RT: 7.22
Area: 376943
Amount: 2.991720
Amount Units: ug/mL



Reviewer: zhangji, 05-Jan-2022 12:07:12
Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040031.D				
Lims ID:	IC DMT 7				
Client ID:					
Sample Type:	IC	Calib Level:	7		
Inject. Date:	05-Jan-2022 02:06:41	ALS Bottle#:	31	Worklist Smp#:	31
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	IC DMT 7				
Misc. Info.:	280-0107731-031				
Operator ID:	JZ	Instrument ID:	CHHPLC_X3		
Sublist:	chrom-8330_X3*sub17				
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	05-Jan-2022 12:10:06	Calib Date:	05-Jan-2022 04:24:15		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040037.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1613				
First Level Reviewer: zhangji		Date:	05-Jan-2022 12:07:30		

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	6.484	-0.006	184090	1.00	1.02	M
6 DNX	1	6.798	6.797	0.001	137343	1.00	0.99	M
7 MNX	1	7.218	7.224	-0.006	147726	1.17	1.17	M

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330 DMT_00010 Amount Added: 50.00 Units: uL

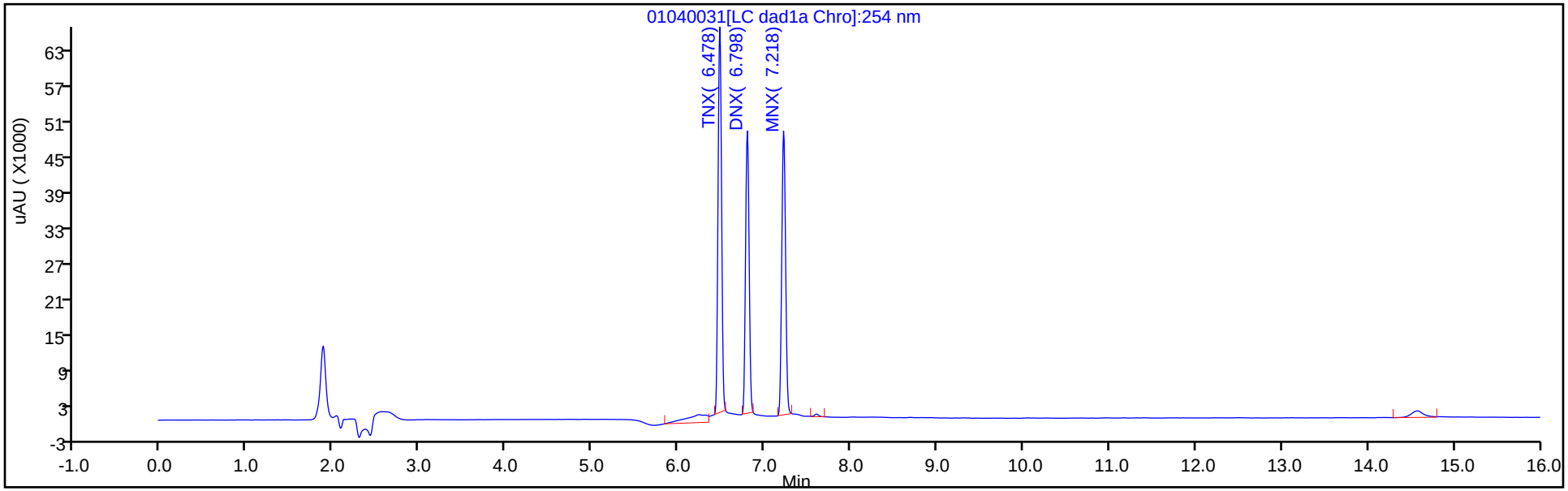
Report Date: 05-Jan-2022 12:10:06 Chrom Revision: 2.3 03-Jan-2022 17:03:12

Eurofins TestAmerica, Denver

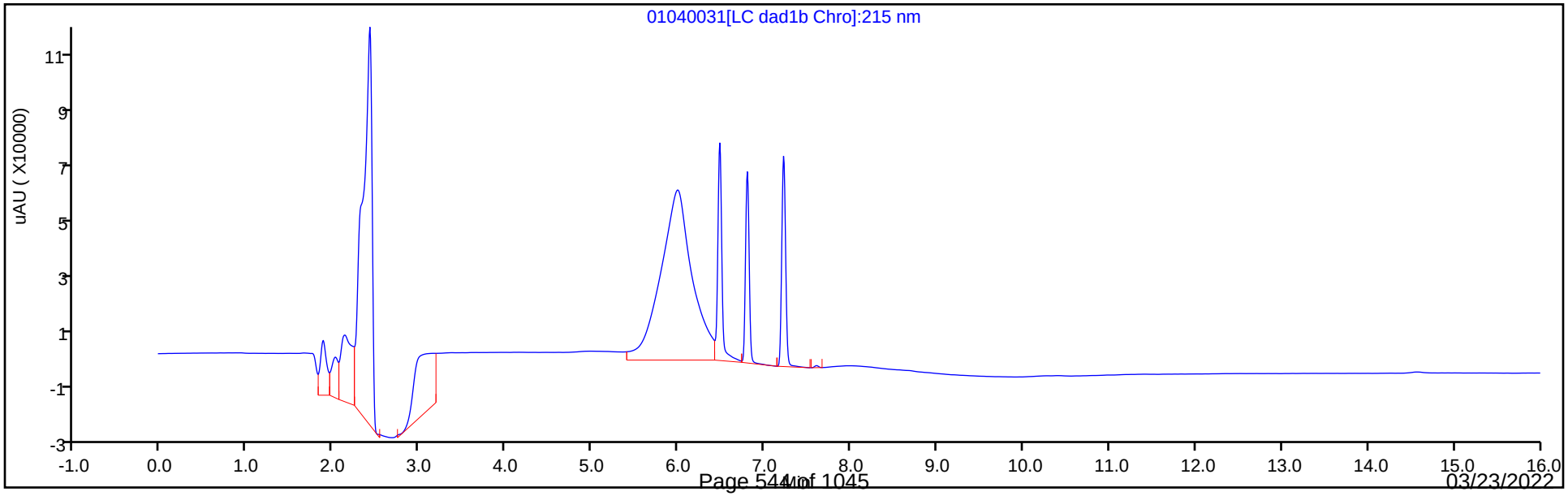
Data File: \\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040031.d

Injection Date:	05-Jan-2022 02:06:41	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	IC DMT 7			Worklist Smp#:	31
Client ID:					
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



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



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

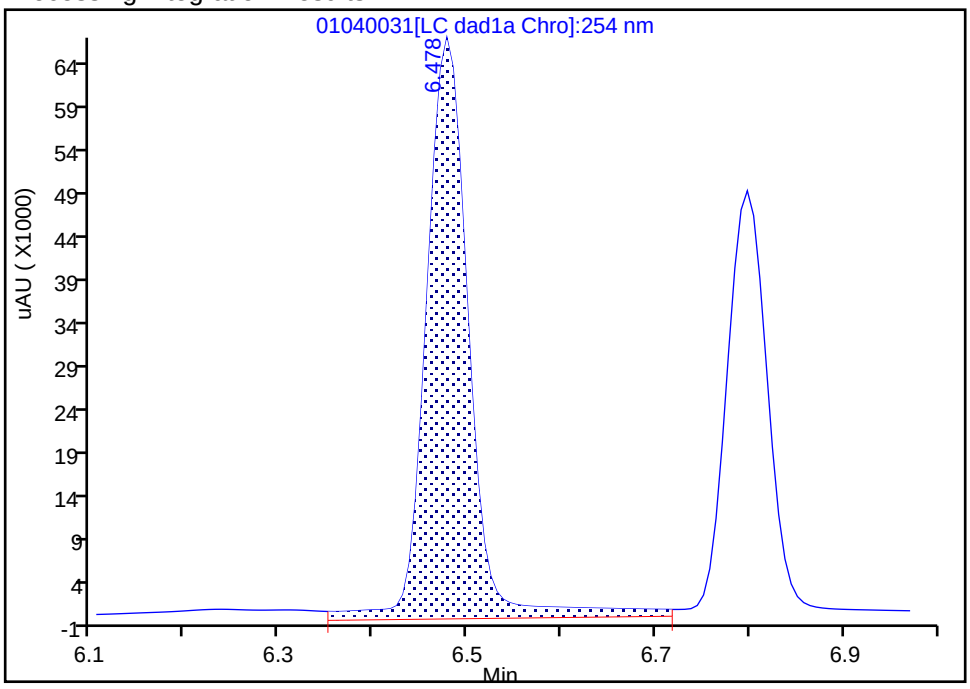
Data File:	\\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040031.d				
Injection Date:	05-Jan-2022 02:06:41	Instrument ID:	CHHPLC_X3		
Lims ID:	IC DMT 7				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	31	Worklist Smp#:	31
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

3 TNX, CAS: 13980-04-6

Signal: 1

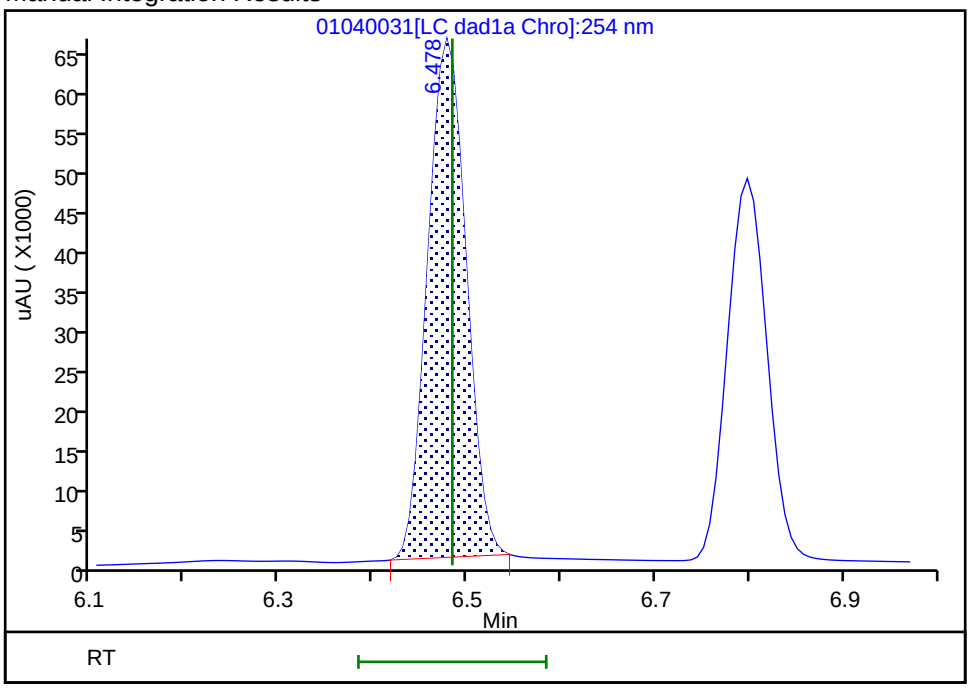
Processing Integration Results

RT: 6.48
Area: 210952
Amount: 0.982896
Amount Units: ug/mL



Manual Integration Results

RT: 6.48
Area: 184090
Amount: 1.015907
Amount Units: ug/mL



Reviewer: zhangji, 05-Jan-2022 12:07:22

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

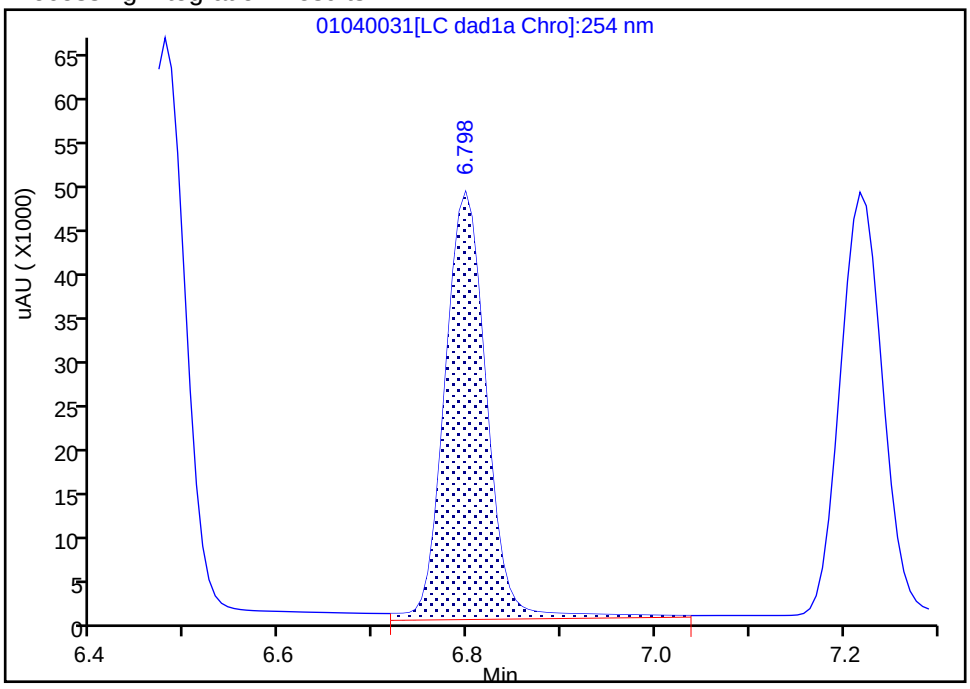
Data File:	\\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040031.d				
Injection Date:	05-Jan-2022 02:06:41	Instrument ID:	CHHPLC_X3		
Lims ID:	IC DMT 7				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	31	Worklist Smp#:	31
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

6 DNX, CAS: 80251-29-2

Signal: 1

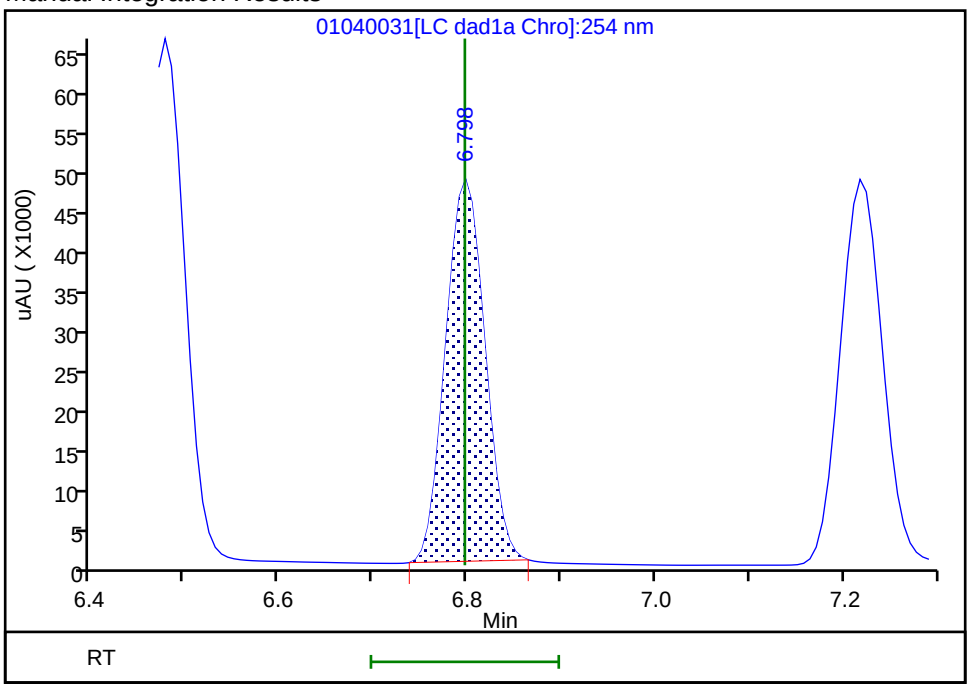
Processing Integration Results

RT: 6.80
Area: 149885
Amount: 1.012127
Amount Units: ug/mL



Manual Integration Results

RT: 6.80
Area: 137343
Amount: 0.994425
Amount Units: ug/mL



Reviewer: zhangji, 05-Jan-2022 12:07:25

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

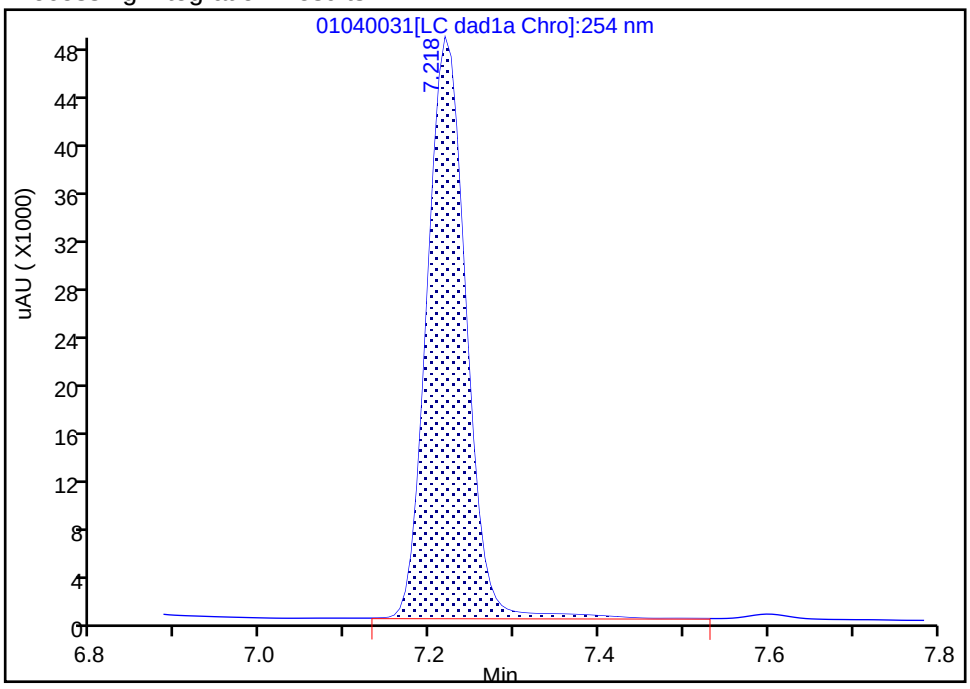
Data File:	\\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040031.d				
Injection Date:	05-Jan-2022 02:06:41	Instrument ID:	CHHPLC_X3		
Lims ID:	IC DMT 7				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	31	Worklist Smp#:	31
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

7 MNX, CAS: 5755-27-1

Signal: 1

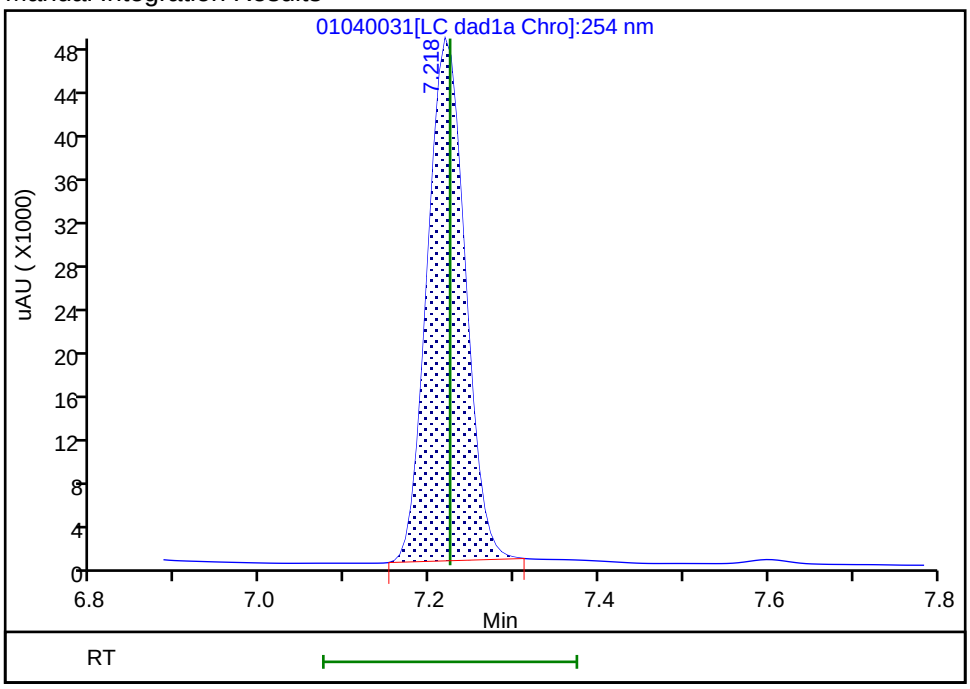
Processing Integration Results

RT: 7.22
Area: 153452
Amount: 1.177280
Amount Units: ug/mL



Manual Integration Results

RT: 7.22
Area: 147726
Amount: 1.172471
Amount Units: ug/mL



Reviewer: zhangji, 05-Jan-2022 12:07:29

Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040032.D
Lims ID: IC DMT 6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 05-Jan-2022 02:29:42 ALS Bottle#: 32 Worklist Smp#: 32
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC DMT 6
Misc. Info.: 280-0107731-032
Operator ID: JZ Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub17

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 05-Jan-2022 12:10:06 Calib Date: 05-Jan-2022 04:24:15
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040037.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1613

First Level Reviewer: zhangji Date: 05-Jan-2022 12:07:46

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 TNX	1	6.477	6.484	-0.007	129844	0.7007	0.7165	M
6 DNX	1	6.797	6.797	0.000	97314	0.7007	0.7046	M
7 MNX	1	7.217	7.224	-0.007	103999	0.8169	0.8254	M

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330 DMT_00010 Amount Added: 35.00 Units: uL

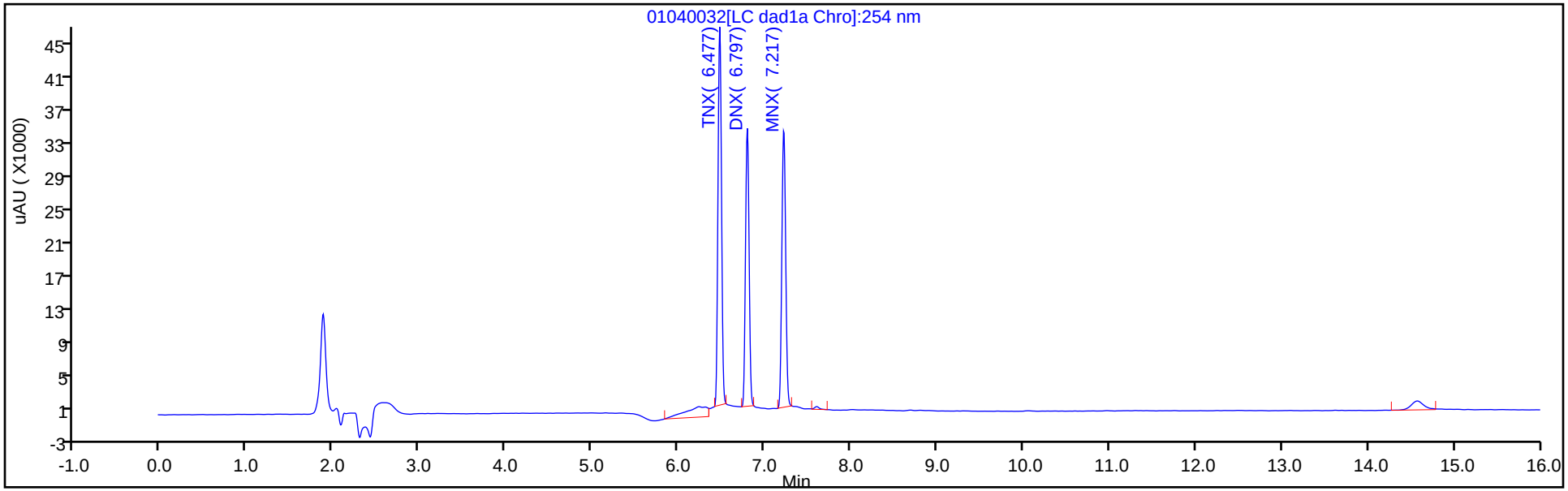
Report Date: 05-Jan-2022 12:10:06 Chrom Revision: 2.3 03-Jan-2022 17:03:12

Eurofins TestAmerica, Denver

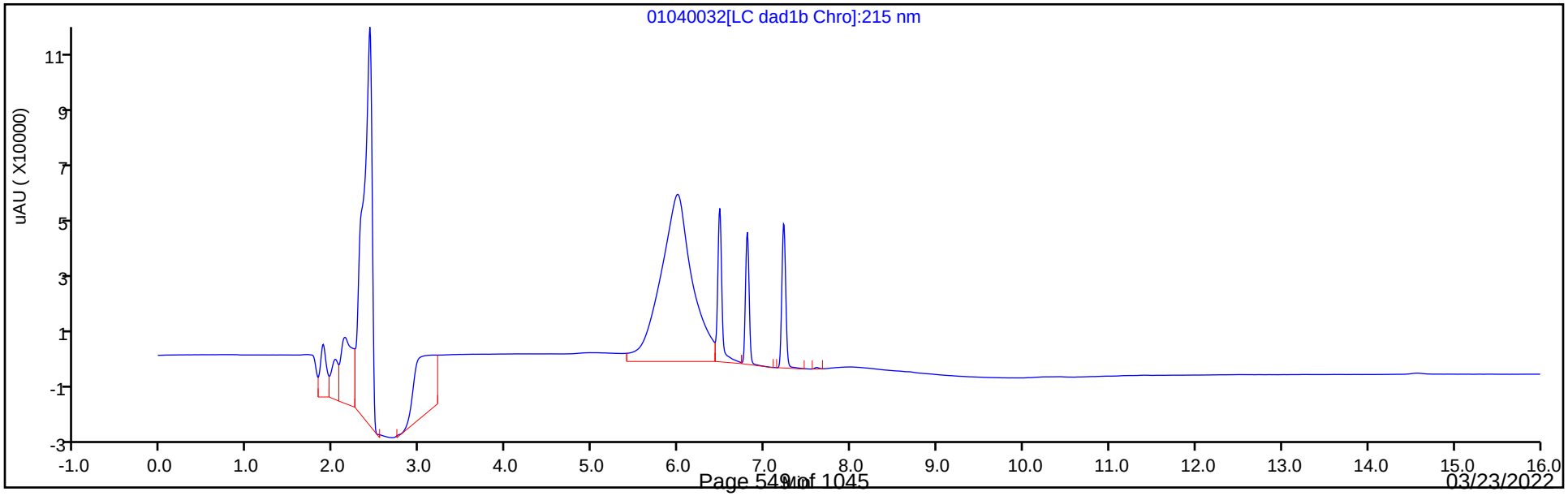
Data File: \\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040032.d

Injection Date:	05-Jan-2022 02:29:42	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	IC DMT 6			Worklist Smp#:	32
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	32
Method:	8330_X3	Limit Group:	GCSV - 8330		

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



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



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

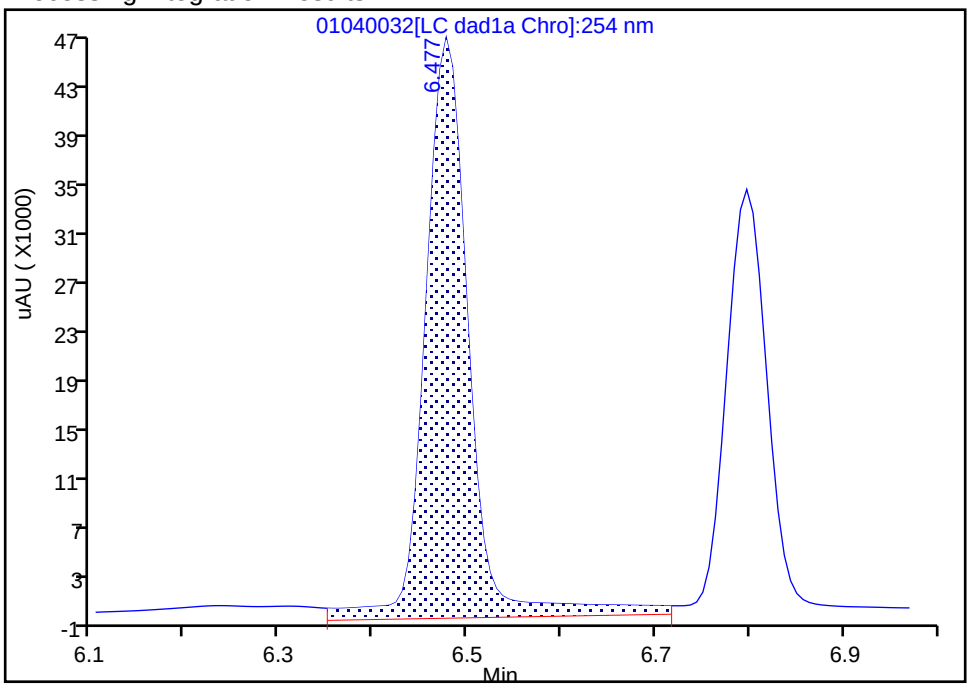
Data File:	\\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040032.d				
Injection Date:	05-Jan-2022 02:29:42	Instrument ID:	CHHPLC_X3		
Lims ID:	IC DMT 6				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	32	Worklist Smp#:	32
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

3 TNX, CAS: 13980-04-6

Signal: 1

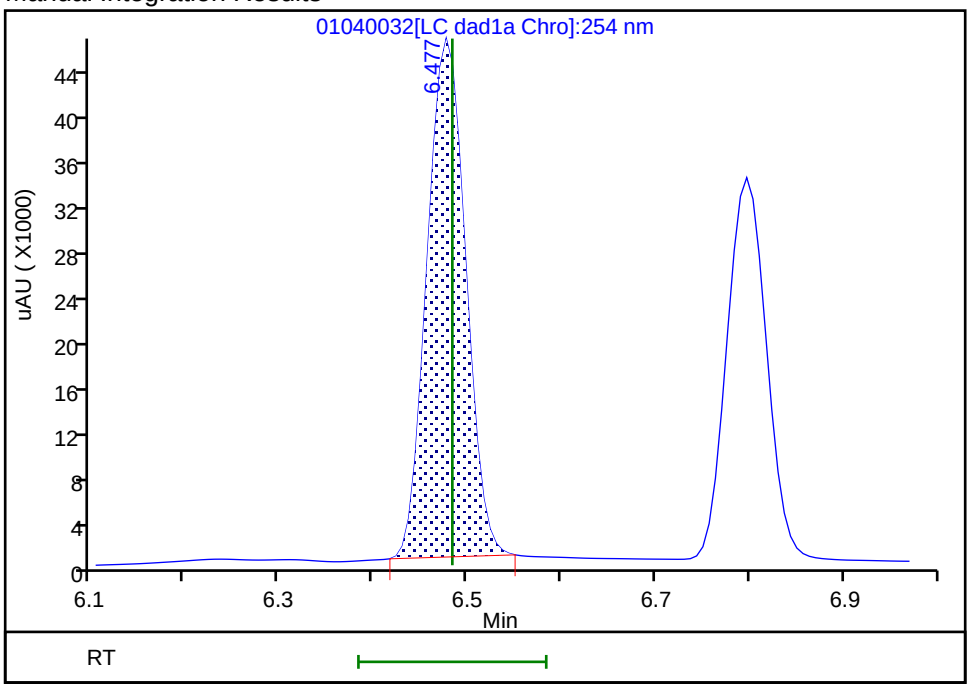
Processing Integration Results

RT: 6.48
Area: 152631
Amount: 0.722450
Amount Units: ug/mL



Manual Integration Results

RT: 6.48
Area: 129844
Amount: 0.716549
Amount Units: ug/mL



Reviewer: zhangji, 05-Jan-2022 12:07:40

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

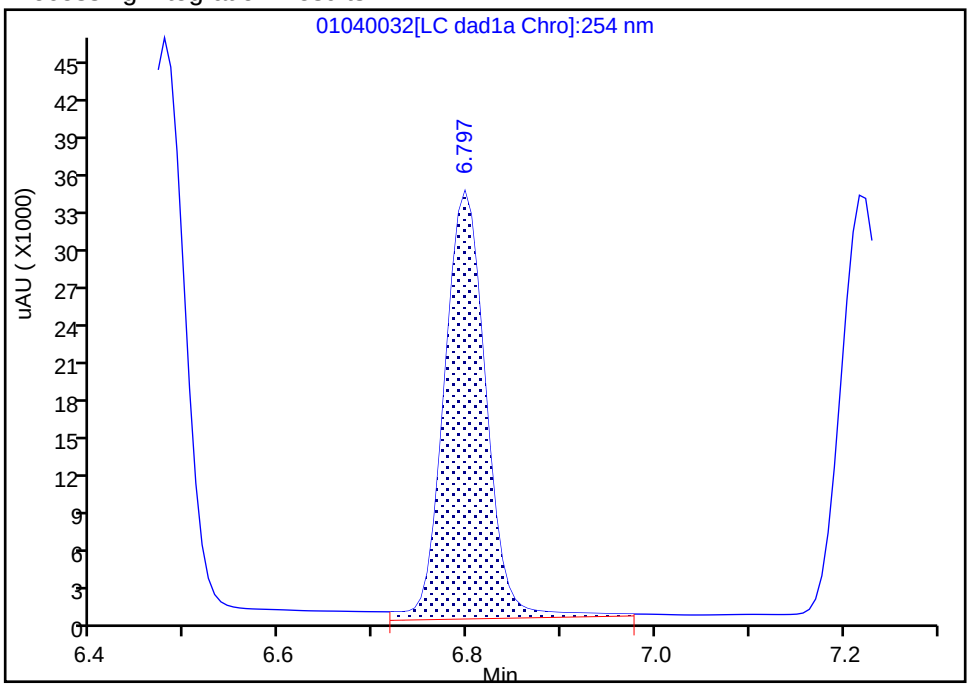
Data File:	\\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040032.d				
Injection Date:	05-Jan-2022 02:29:42	Instrument ID:	CHHPLC_X3		
Lims ID:	IC DMT 6				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	32	Worklist Smp#:	32
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

6 DNX, CAS: 80251-29-2

Signal: 1

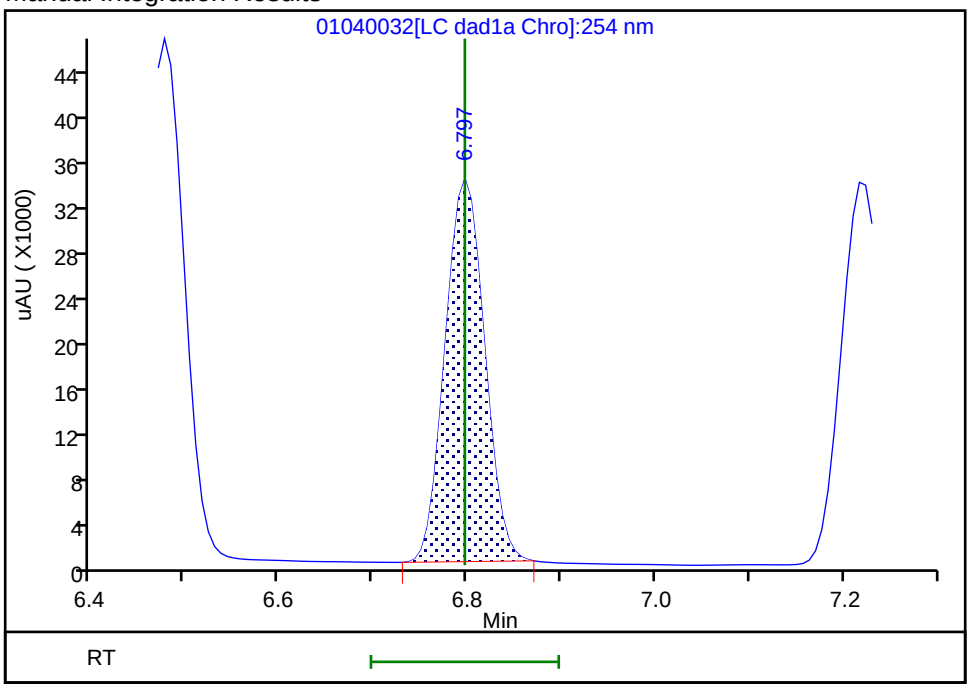
Processing Integration Results

RT: 6.80
Area: 105159
Amount: 0.717696
Amount Units: ug/mL



Manual Integration Results

RT: 6.80
Area: 97314
Amount: 0.704597
Amount Units: ug/mL



Reviewer: zhangji, 05-Jan-2022 12:07:43
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

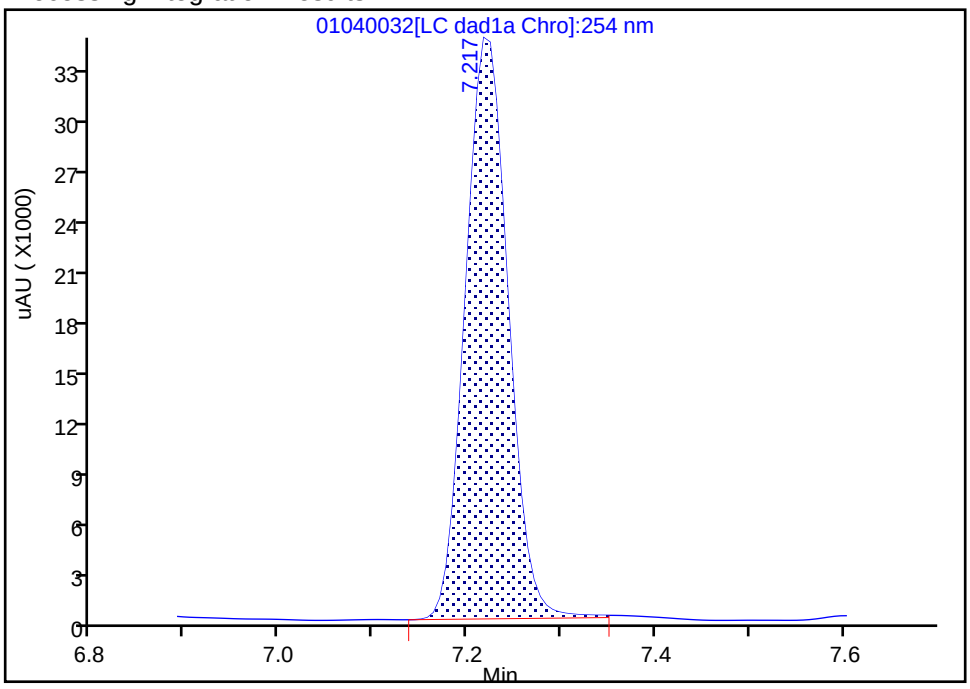
Data File:	\\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040032.d				
Injection Date:	05-Jan-2022 02:29:42	Instrument ID:	CHHPLC_X3		
Lims ID:	IC DMT 6				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	32	Worklist Smp#:	32
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

7 MNX, CAS: 5755-27-1

Signal: 1

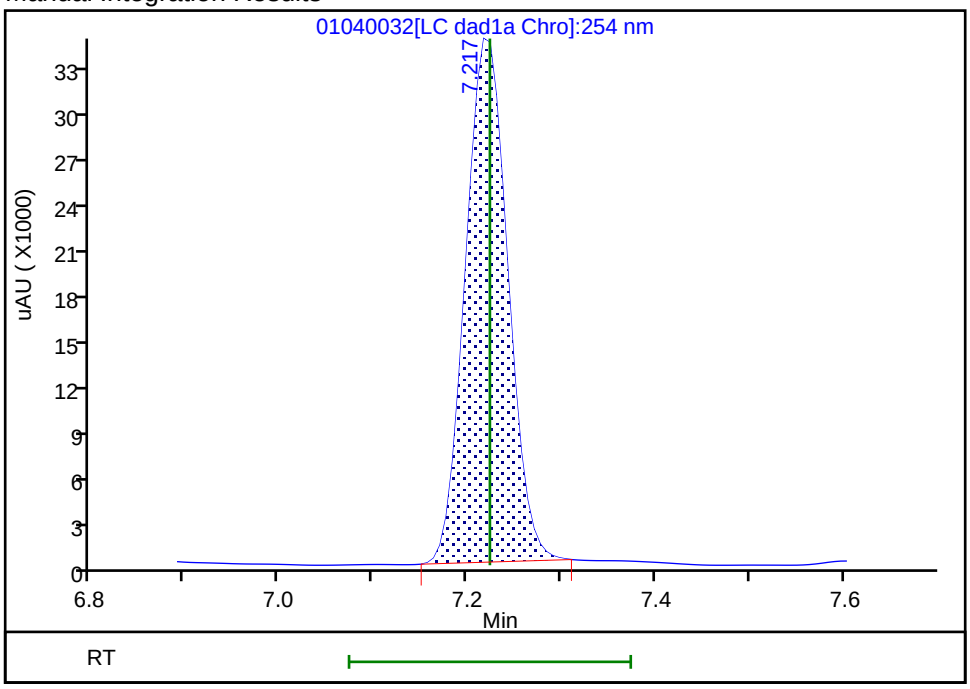
Processing Integration Results

RT: 7.22
Area: 105581
Amount: 0.816470
Amount Units: ug/mL



Manual Integration Results

RT: 7.22
Area: 103999
Amount: 0.825419
Amount Units: ug/mL



Reviewer: zhangji, 05-Jan-2022 12:08:26

Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040033.D
Lims ID: IC DMT 5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 05-Jan-2022 02:52:35 ALS Bottle#: 33 Worklist Smp#: 33
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC DMT 5
Misc. Info.: 280-0107731-033
Operator ID: JZ Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub17

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 05-Jan-2022 12:10:07 Calib Date: 05-Jan-2022 04:24:15
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040037.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1613

First Level Reviewer: zhangji Date: 05-Jan-2022 12:08:18

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 TNX	1	6.483	6.484	-0.001	72720	0.4004	0.4013	M
6 DNX	1	6.803	6.797	0.006	55675	0.4004	0.4031	M
7 MNX	1	7.223	7.224	-0.001	59416	0.4668	0.4716	M

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330 DMT_00010 Amount Added: 20.00 Units: uL

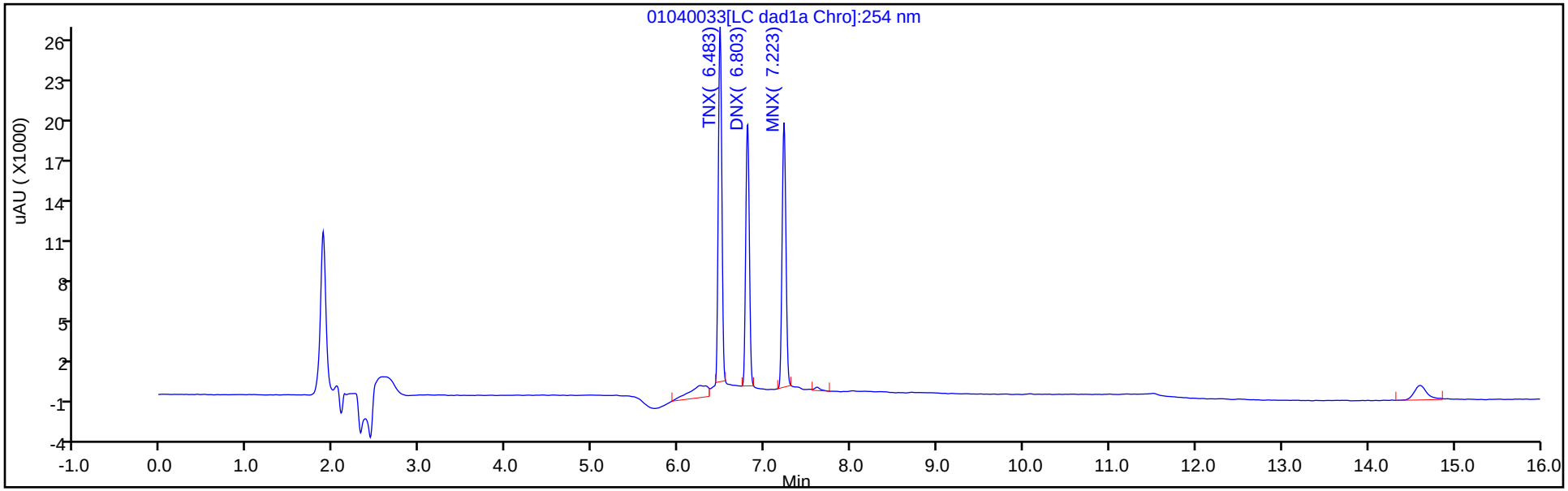
Report Date: 05-Jan-2022 12:10:07 Chrom Revision: 2.3 03-Jan-2022 17:03:12

Eurofins TestAmerica, Denver

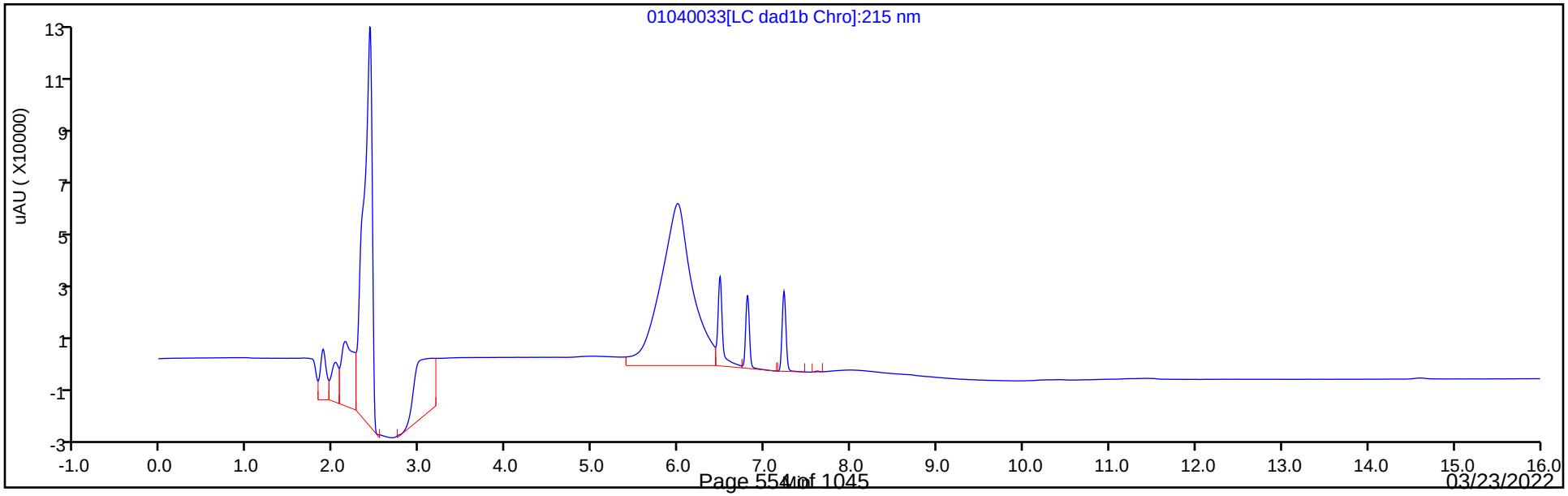
Data File: \\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040033.d

Injection Date:	05-Jan-2022 02:52:35	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	IC DMT 5			Worklist Smp#:	33
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	33
Method:	8330_X3	Limit Group:	GCSV - 8330		

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



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



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

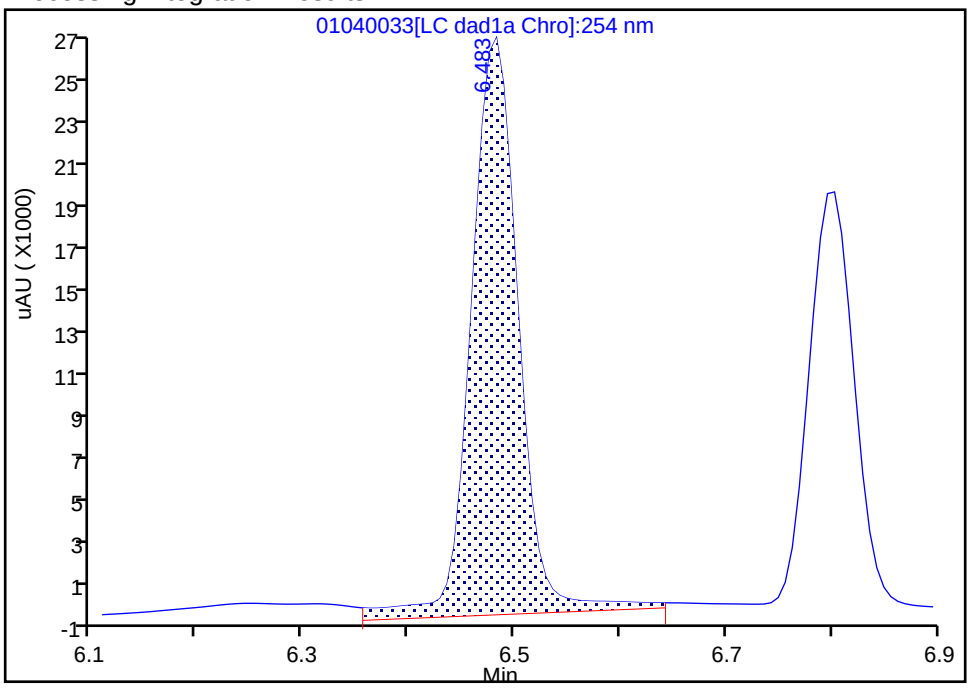
Data File:	\\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040033.d				
Injection Date:	05-Jan-2022 02:52:35	Instrument ID:	CHHPLC_X3		
Lims ID:	IC DMT 5				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	33	Worklist Smp#:	33
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

3 TNX, CAS: 13980-04-6

Signal: 1

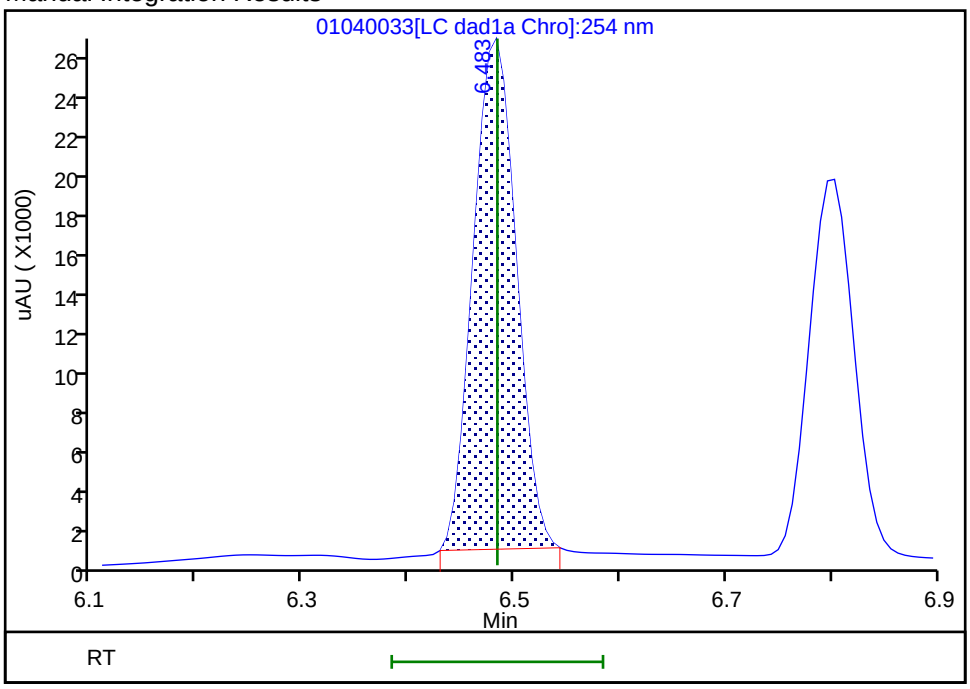
Processing Integration Results

RT: 6.48
Area: 83275
Amount: 0.401900
Amount Units: ug/mL



Manual Integration Results

RT: 6.48
Area: 72720
Amount: 0.401308
Amount Units: ug/mL



Reviewer: zhangji, 05-Jan-2022 12:07:54
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

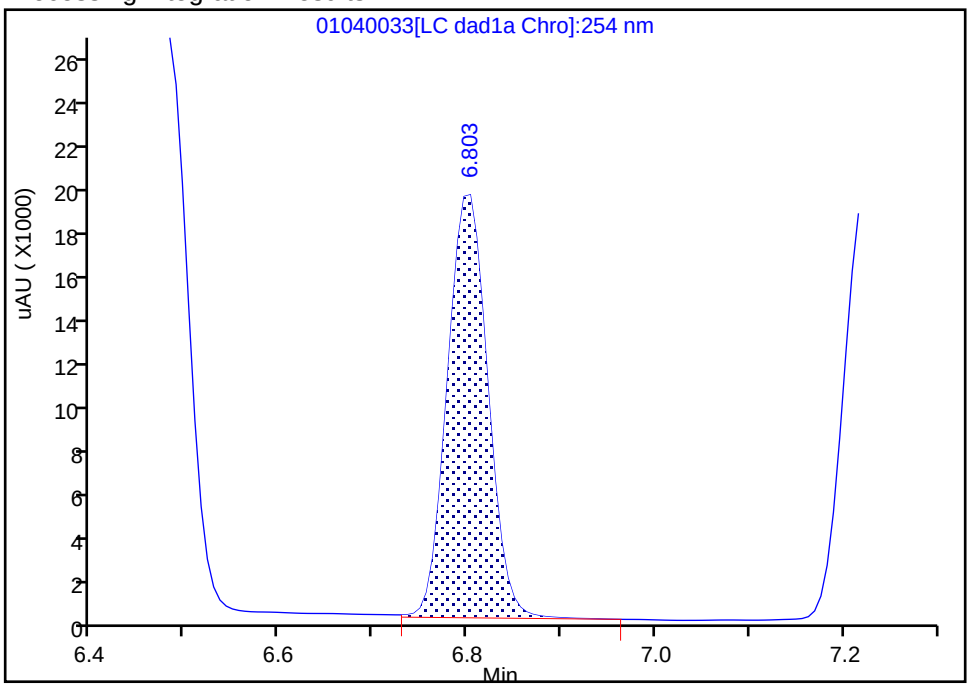
Data File:	\\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040033.d				
Injection Date:	05-Jan-2022 02:52:35	Instrument ID:	CHHPLC_X3		
Lims ID:	IC DMT 5				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	33	Worklist Smp#:	33
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

6 DNX, CAS: 80251-29-2

Signal: 1

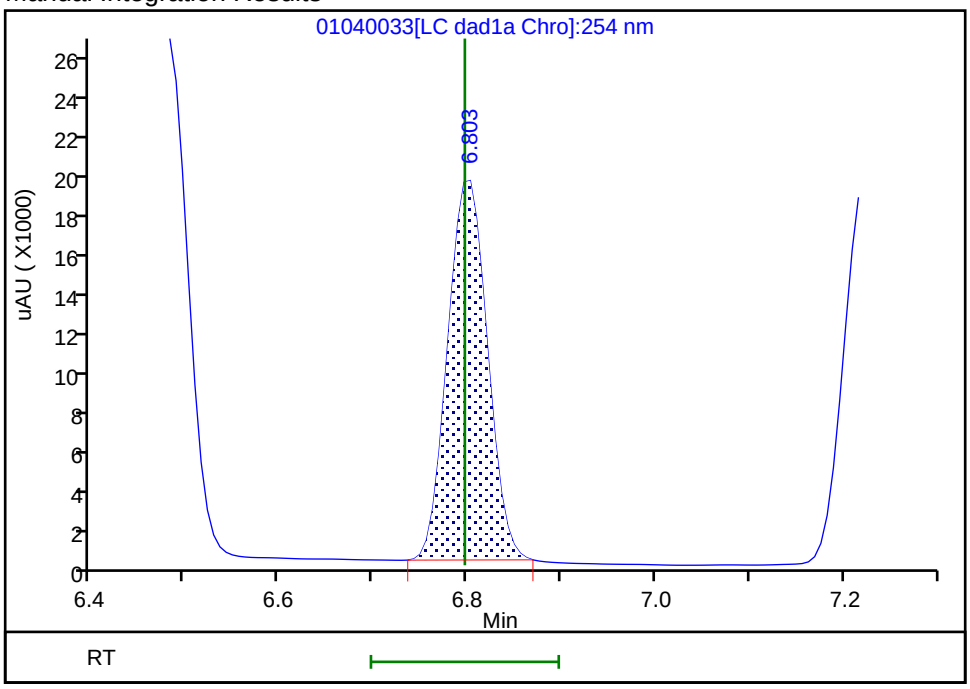
Processing Integration Results

RT: 6.80
Area: 57132
Amount: 0.393678
Amount Units: ug/mL



Manual Integration Results

RT: 6.80
Area: 55675
Amount: 0.403112
Amount Units: ug/mL



Reviewer: zhangji, 05-Jan-2022 12:07:58
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

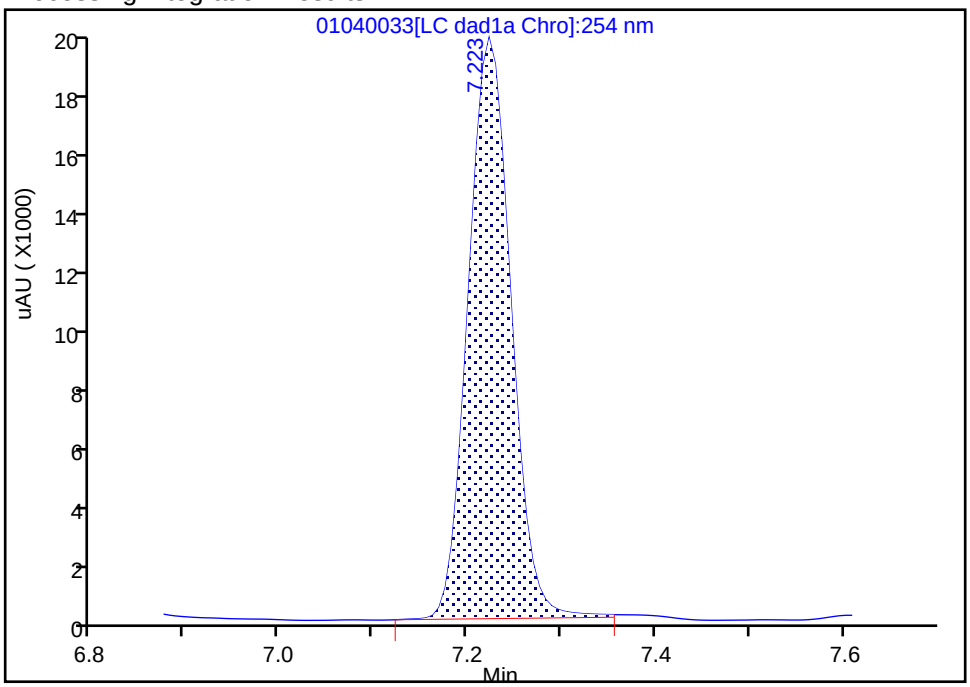
Data File:	\\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040033.d				
Injection Date:	05-Jan-2022 02:52:35	Instrument ID:	CHHPLC_X3		
Lims ID:	IC DMT 5				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	33	Worklist Smp#:	33
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

7 MNX, CAS: 5755-27-1

Signal: 1

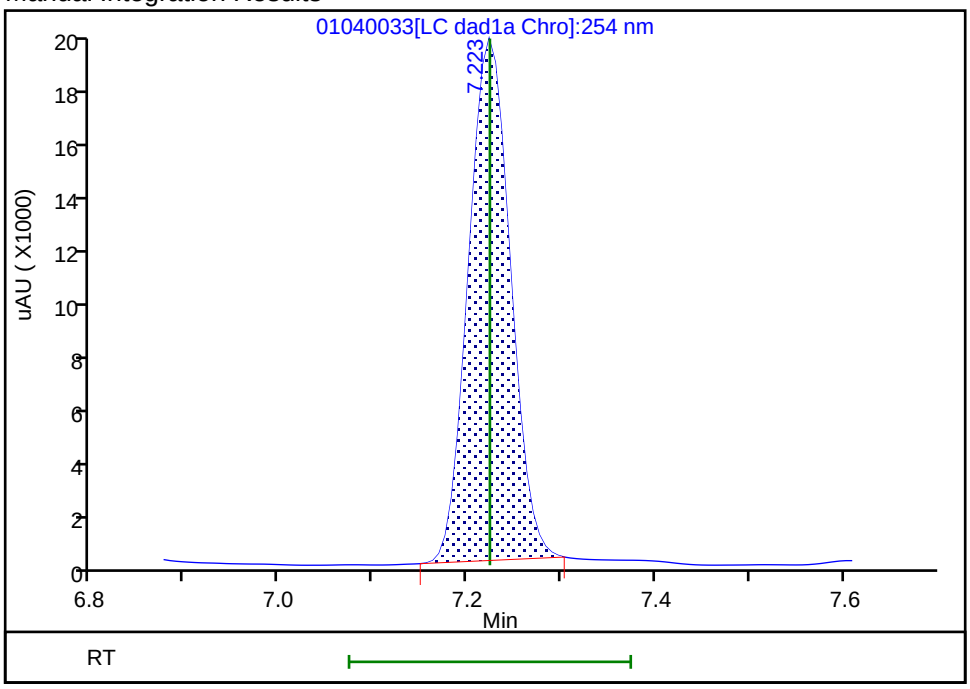
Processing Integration Results

RT: 7.22
Area: 60974
Amount: 0.470003
Amount Units: ug/mL



Manual Integration Results

RT: 7.22
Area: 59416
Amount: 0.471573
Amount Units: ug/mL



Reviewer: zhangji, 05-Jan-2022 12:08:17
Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040034.D				
Lims ID:	IC DMT 4				
Client ID:					
Sample Type:	IC	Calib Level:	4		
Inject. Date:	05-Jan-2022 03:15:30	ALS Bottle#:	34	Worklist Smp#:	34
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	IC DMT 4				
Misc. Info.:	280-0107731-034				
Operator ID:	JZ	Instrument ID:	CHHPLC_X3		
Sublist:	chrom-8330_X3*sub17				
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	05-Jan-2022 12:10:07	Calib Date:	05-Jan-2022 04:24:15		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040037.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1613				
First Level Reviewer: zhangji		Date:	05-Jan-2022 12:08:44		

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 TNX	1	6.484	6.484	0.000	42748	0.2503	0.2359	M
6 DNX	1	6.797	6.797	0.000	32416	0.2503	0.2347	M
7 MNX	1	7.224	7.224	0.000	34560	0.2918	0.2743	M

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330 DMT_00010 Amount Added: 12.50 Units: uL

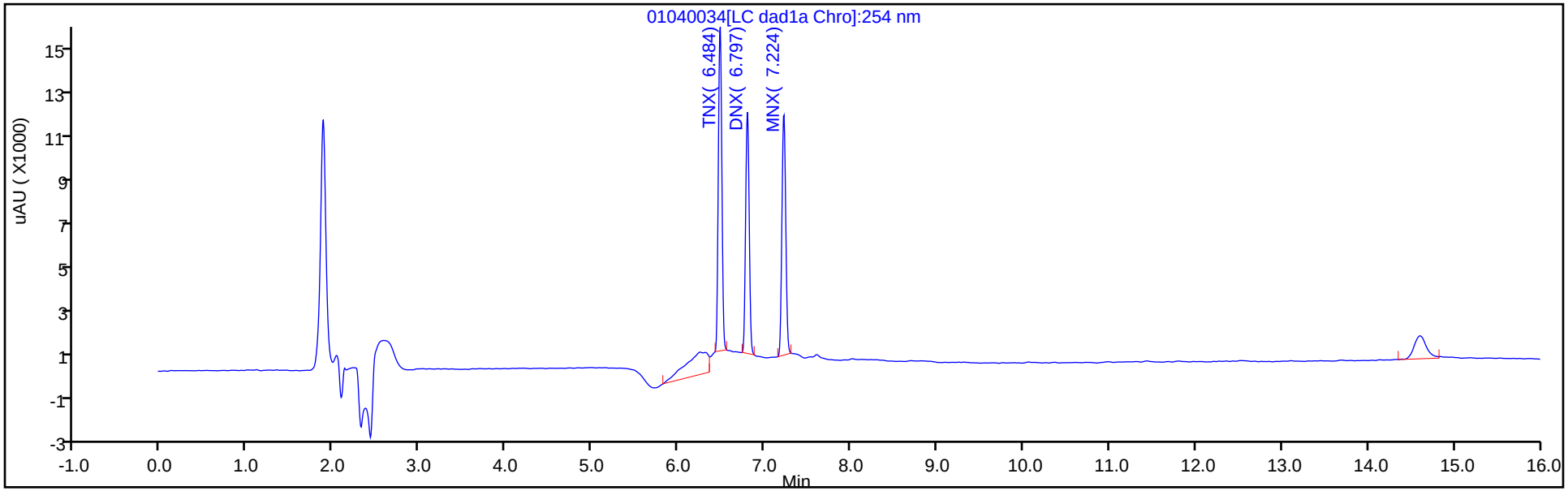
Report Date: 05-Jan-2022 12:10:07 Chrom Revision: 2.3 03-Jan-2022 17:03:12

Eurofins TestAmerica, Denver

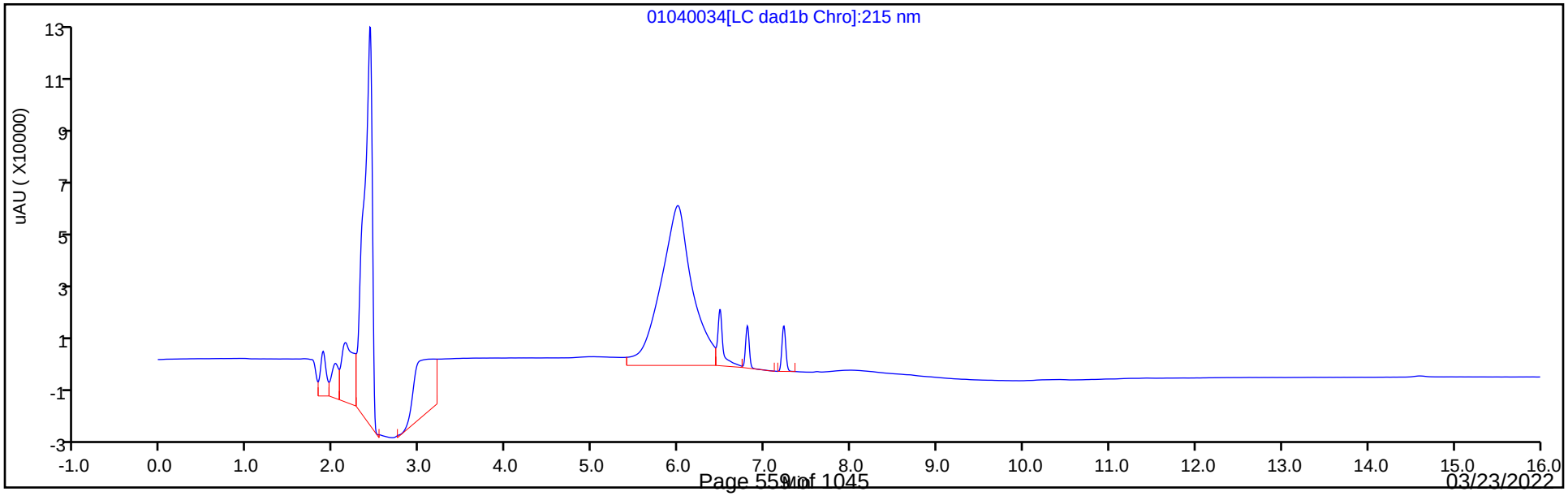
Data File: \\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040034.d

Injection Date:	05-Jan-2022 03:15:30	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	IC DMT 4			Worklist Smp#:	34
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	34
Method:	8330_X3	Limit Group:	GCSV - 8330		

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



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



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

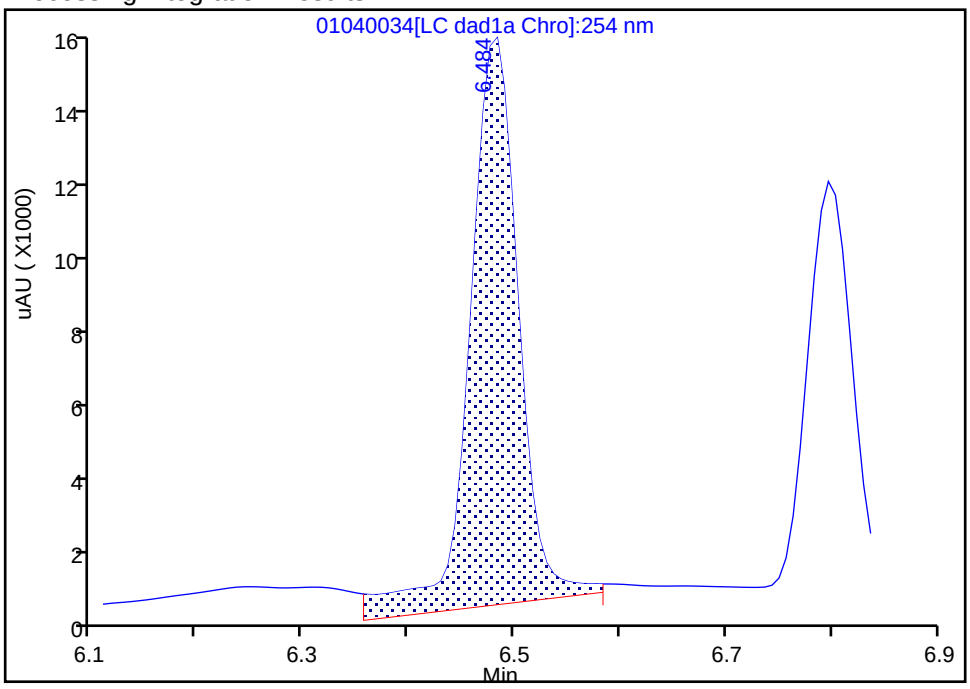
Data File:	\\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040034.d				
Injection Date:	05-Jan-2022 03:15:30	Instrument ID:	CHHPLC_X3		
Lims ID:	IC DMT 4				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	34	Worklist Smp#:	34
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

3 TNX, CAS: 13980-04-6

Signal: 1

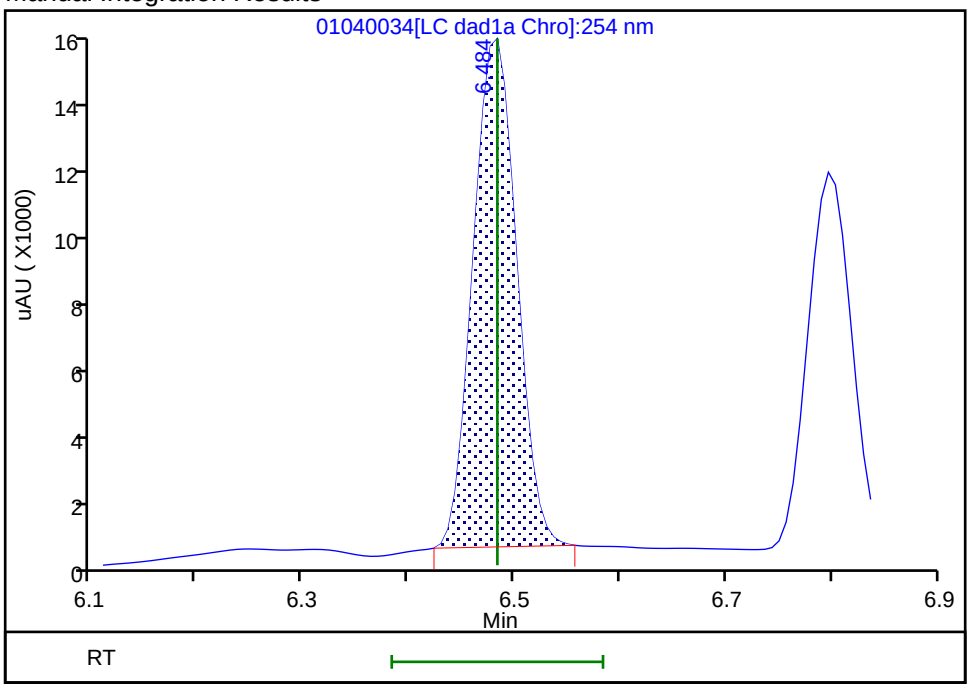
Processing Integration Results

RT: 6.48
Area: 50220
Amount: 0.246287
Amount Units: ug/mL



Manual Integration Results

RT: 6.48
Area: 42748
Amount: 0.235906
Amount Units: ug/mL



Reviewer: zhangji, 05-Jan-2022 12:08:35
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

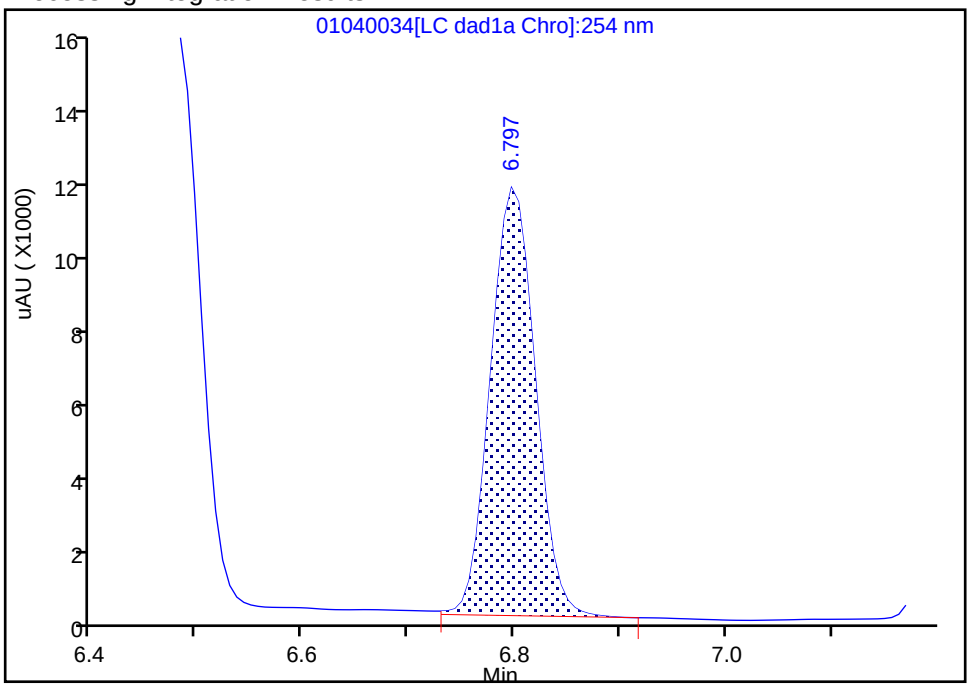
Data File:	\\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040034.d				
Injection Date:	05-Jan-2022 03:15:30	Instrument ID:	CHHPLC_X3		
Lims ID:	IC DMT 4				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	34	Worklist Smp#:	34
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

6 DNX, CAS: 80251-29-2

Signal: 1

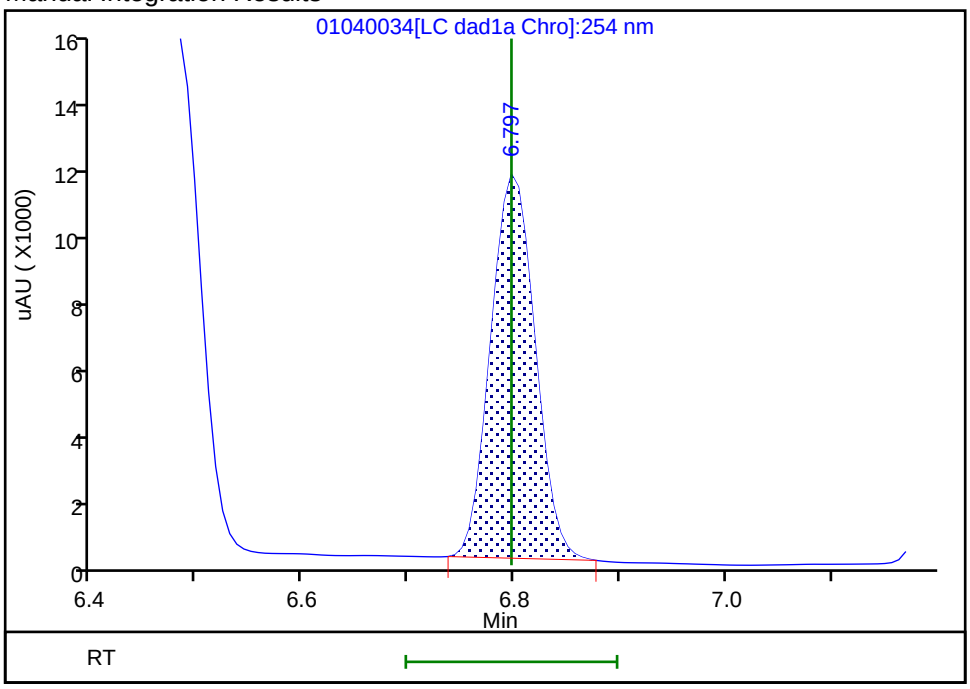
Processing Integration Results

RT: 6.80
Area: 33123
Amount: 0.228958
Amount Units: ug/mL



Manual Integration Results

RT: 6.80
Area: 32416
Amount: 0.234706
Amount Units: ug/mL



Reviewer: zhangji, 05-Jan-2022 12:08:39

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

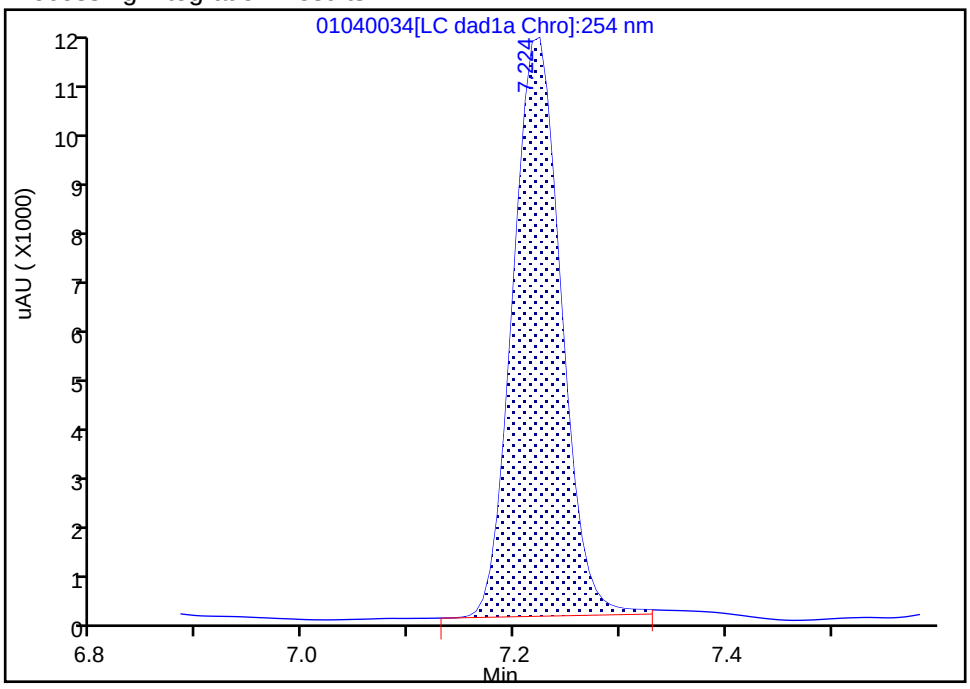
Data File:	\\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040034.d				
Injection Date:	05-Jan-2022 03:15:30	Instrument ID:	CHHPLC_X3		
Lims ID:	IC DMT 4				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	34	Worklist Smp#:	34
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

7 MNX, CAS: 5755-27-1

Signal: 1

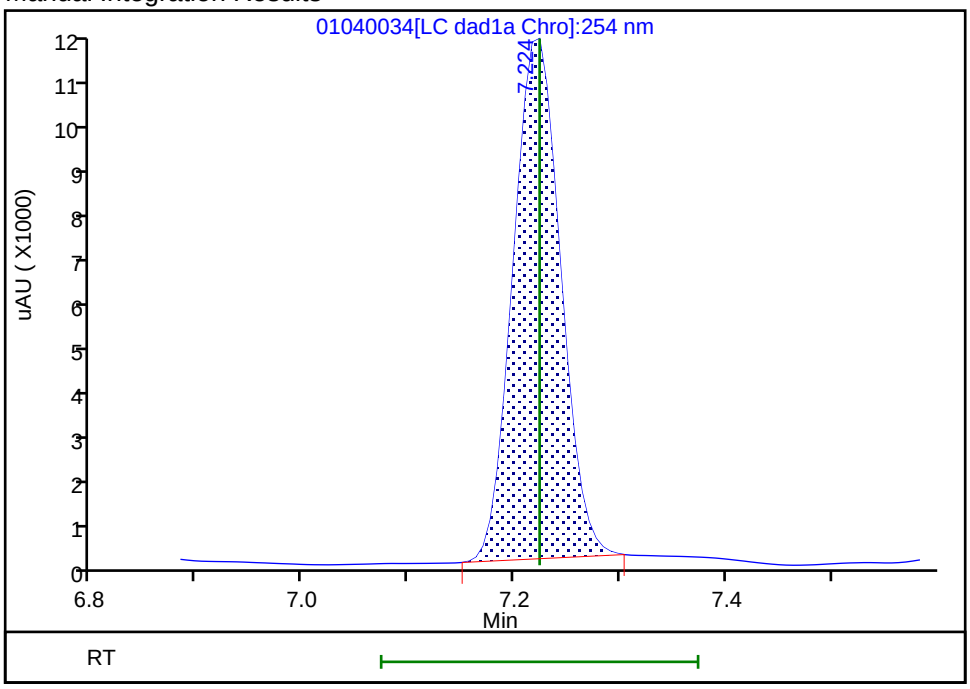
Processing Integration Results

RT: 7.22
Area: 35288
Amount: 0.273398
Amount Units: ug/mL



Manual Integration Results

RT: 7.22
Area: 34560
Amount: 0.274296
Amount Units: ug/mL



Reviewer: zhangji, 05-Jan-2022 12:08:43

Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040035.D				
Lims ID:	IC DMT 3				
Client ID:					
Sample Type:	IC	Calib Level:	3		
Inject. Date:	05-Jan-2022 03:38:24	ALS Bottle#:	35	Worklist Smp#:	35
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	IC DMT 3				
Misc. Info.:	280-0107731-035				
Operator ID:	JZ	Instrument ID:	CHHPLC_X3		
Sublist:	chrom-8330_X3*sub17				
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	05-Jan-2022 12:10:07	Calib Date:	05-Jan-2022 04:24:15		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040037.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1613				
First Level Reviewer: zhangji		Date:	05-Jan-2022 12:08:58		

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 TNX	1	6.483	6.484	-0.001	17989	0.1001	0.0993	M
6 DNX	1	6.796	6.797	-0.001	13928	0.1001	0.1008	M
7 MNX	1	7.223	7.224	-0.001	14438	0.1167	0.1146	M

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330 DMT_00010 Amount Added: 5.00 Units: uL

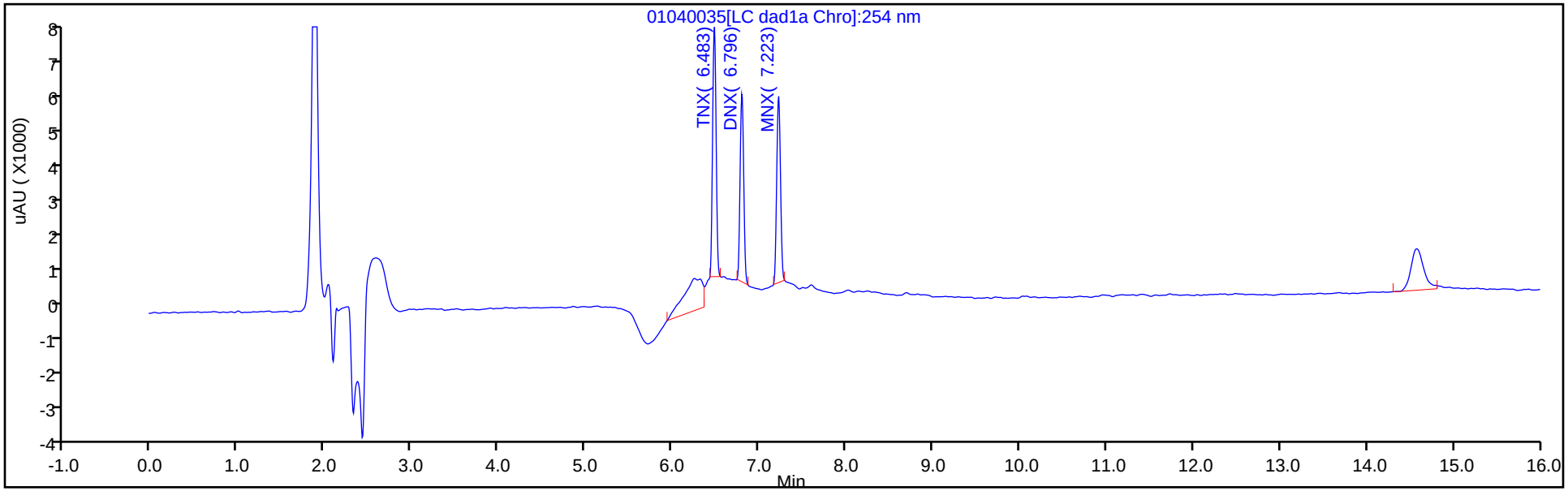
Report Date: 05-Jan-2022 12:10:08 Chrom Revision: 2.3 03-Jan-2022 17:03:12

Eurofins TestAmerica, Denver

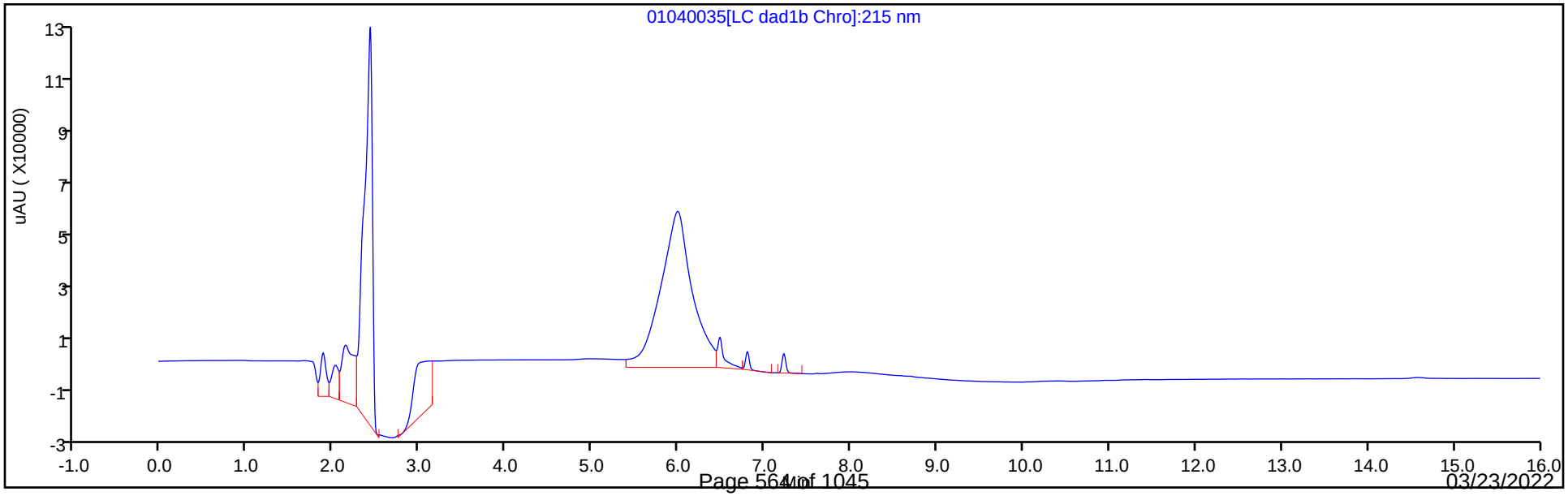
Data File: \\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040035.d

Injection Date:	05-Jan-2022 03:38:24	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	IC DMT 3			Worklist Smp#:	35
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	35
Method:	8330_X3	Limit Group:	GCSV - 8330		

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



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



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

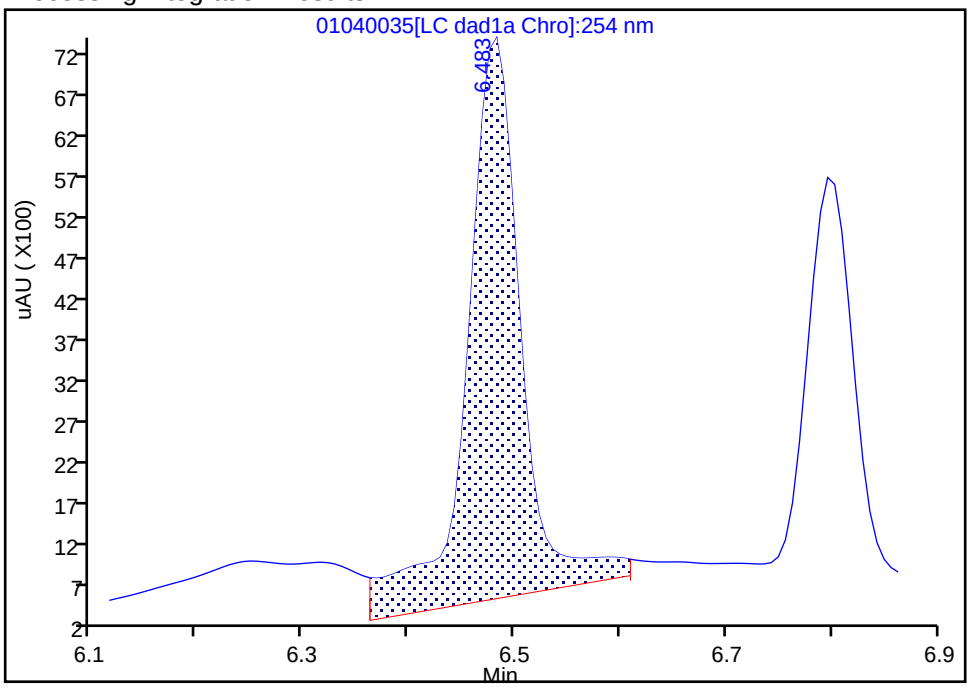
Data File:	\\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040035.d				
Injection Date:	05-Jan-2022 03:38:24	Instrument ID:	CHHPLC_X3		
Lims ID:	IC DMT 3				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	35	Worklist Smp#:	35
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

3 TNX, CAS: 13980-04-6

Signal: 1

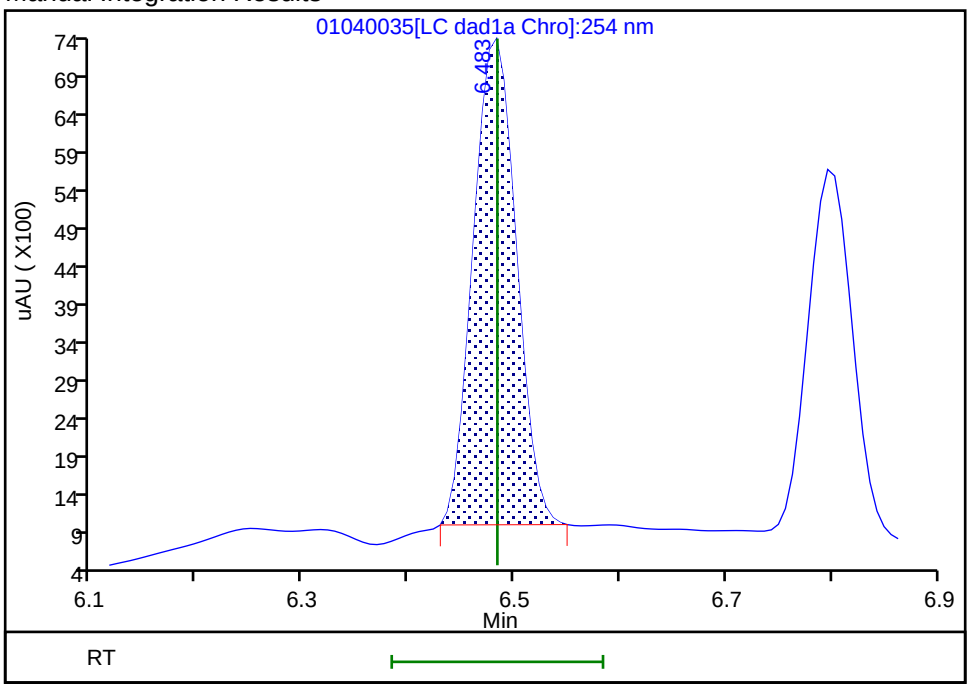
Processing Integration Results

RT: 6.48
Area: 24762
Amount: 0.123701
Amount Units: ug/mL



Manual Integration Results

RT: 6.48
Area: 17989
Amount: 0.099273
Amount Units: ug/mL



Reviewer: zhangji, 05-Jan-2022 12:08:50
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

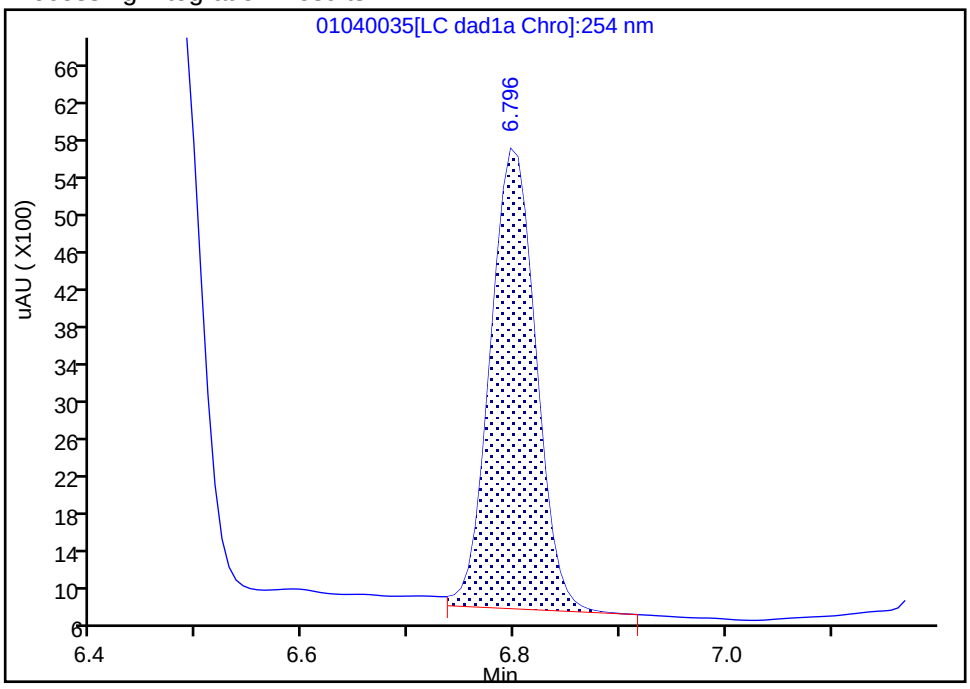
Data File:	\\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040035.d				
Injection Date:	05-Jan-2022 03:38:24	Instrument ID:	CHHPLC_X3		
Lims ID:	IC DMT 3				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	35	Worklist Smp#:	35
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

6 DNX, CAS: 80251-29-2

Signal: 1

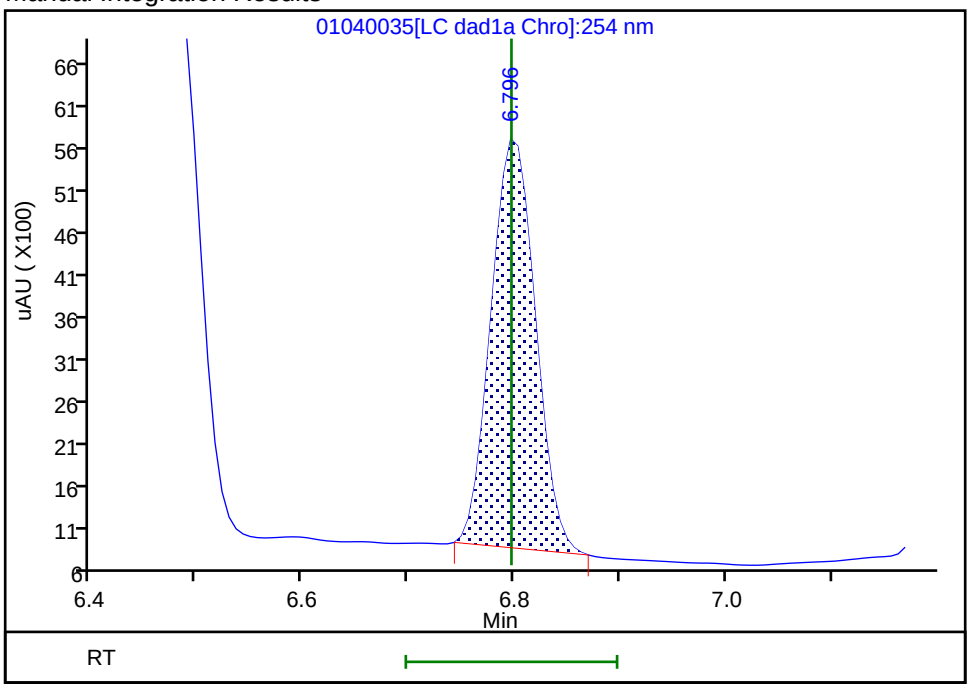
Processing Integration Results

RT: 6.80
Area: 14564
Amount: 0.100918
Amount Units: ug/mL



Manual Integration Results

RT: 6.80
Area: 13928
Amount: 0.100845
Amount Units: ug/mL



Reviewer: zhangji, 05-Jan-2022 12:08:53
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

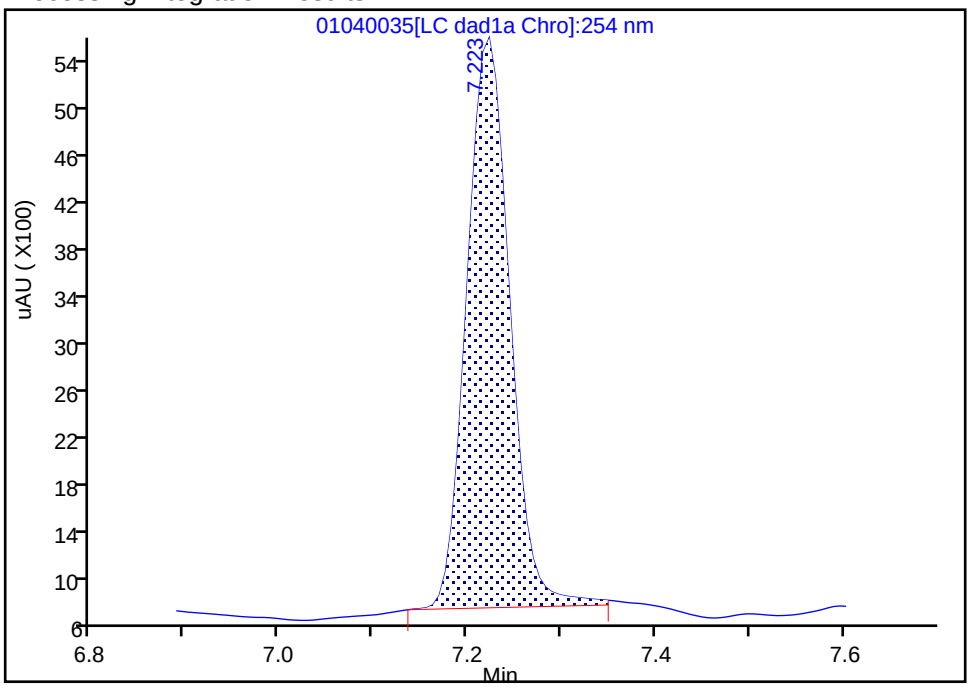
Data File:	\\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040035.d				
Injection Date:	05-Jan-2022 03:38:24	Instrument ID:	CHHPLC_X3		
Lims ID:	IC DMT 3				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	35	Worklist Smp#:	35
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

7 MNX, CAS: 5755-27-1

Signal: 1

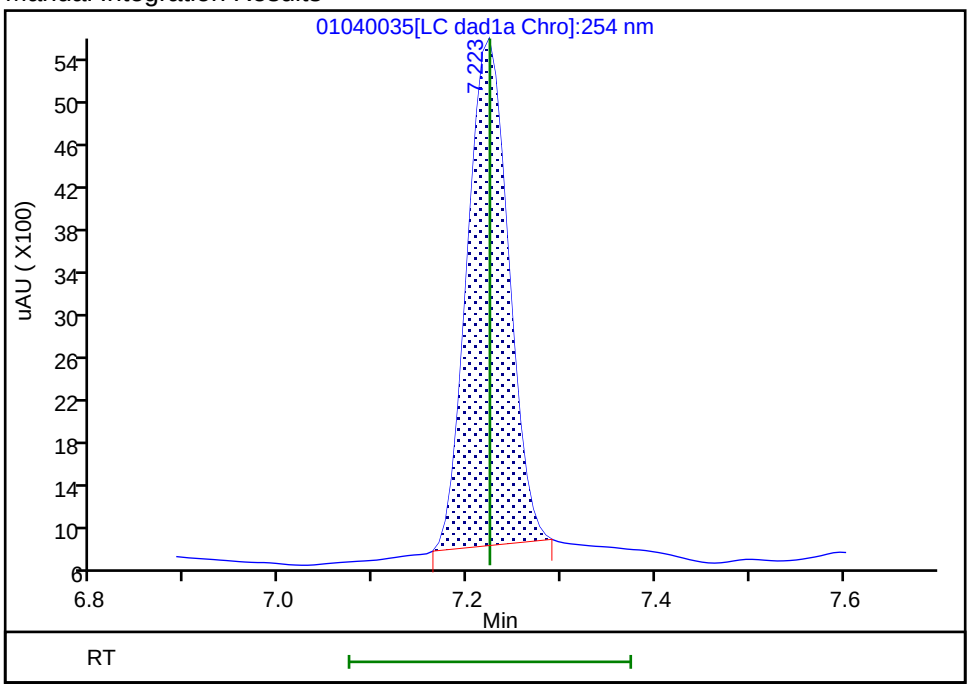
Processing Integration Results

RT: 7.22
Area: 15316
Amount: 0.118950
Amount Units: ug/mL



Manual Integration Results

RT: 7.22
Area: 14438
Amount: 0.114591
Amount Units: ug/mL



Reviewer: zhangji, 05-Jan-2022 12:08:56

Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040036.D				
Lims ID:	IC DMT 2				
Client ID:					
Sample Type:	IC	Calib Level:	2		
Inject. Date:	05-Jan-2022 04:01:20	ALS Bottle#:	36	Worklist Smp#:	36
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	IC DMT 2				
Misc. Info.:	280-0107731-036				
Operator ID:	JZ	Instrument ID:	CHHPLC_X3		
Sublist:	chrom-8330_X3*sub17				
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	05-Jan-2022 12:10:08	Calib Date:	05-Jan-2022 04:24:15		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040037.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1613				
First Level Reviewer: zhangji		Date:	05-Jan-2022 12:09:13		

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	6.484	-0.006	9031	0.0501	0.0498	M
6 DNX	1	6.798	6.797	0.001	6988	0.0501	0.0506	M
7 MNX	1	7.224	7.224	0.000	7298	0.0584	0.0579	M

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330 DMT_00010 Amount Added: 2.50 Units: uL

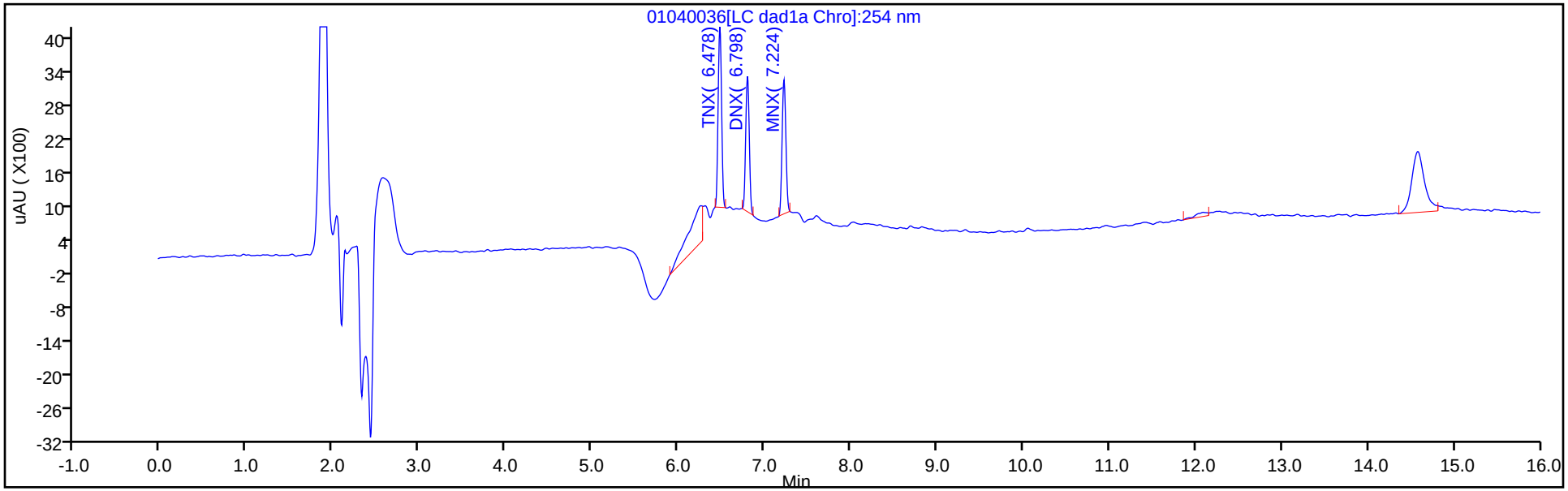
Report Date: 05-Jan-2022 12:10:08 Chrom Revision: 2.3 03-Jan-2022 17:03:12

Eurofins TestAmerica, Denver

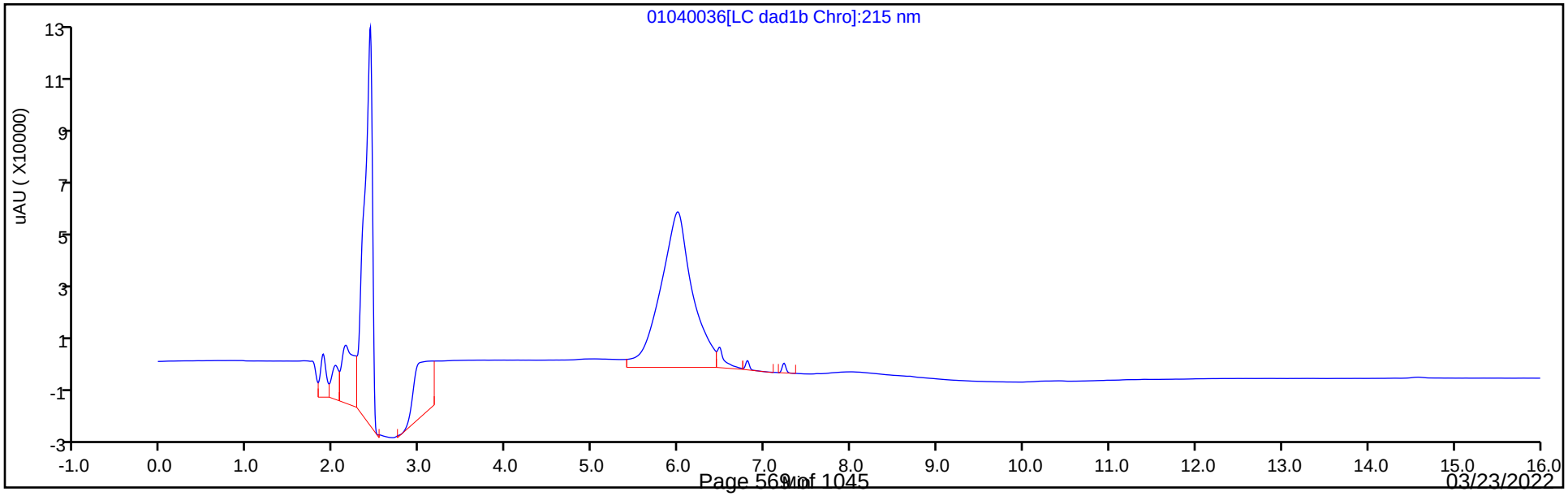
Data File: \\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040036.d

Injection Date:	05-Jan-2022 04:01:20	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	IC DMT 2			Worklist Smp#:	36
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	36
Method:	8330_X3	Limit Group:	GCSV - 8330		

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



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



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

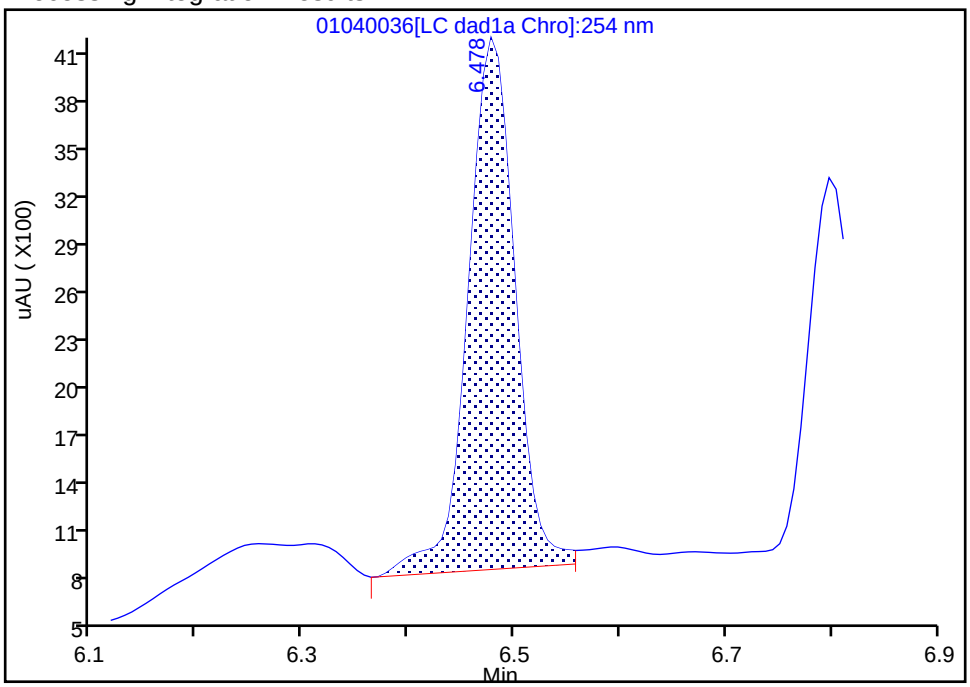
Data File:	\\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040036.d				
Injection Date:	05-Jan-2022 04:01:20	Instrument ID:	CHHPLC_X3		
Lims ID:	IC DMT 2				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	36	Worklist Smp#:	36
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

3 TNX, CAS: 13980-04-6

Signal: 1

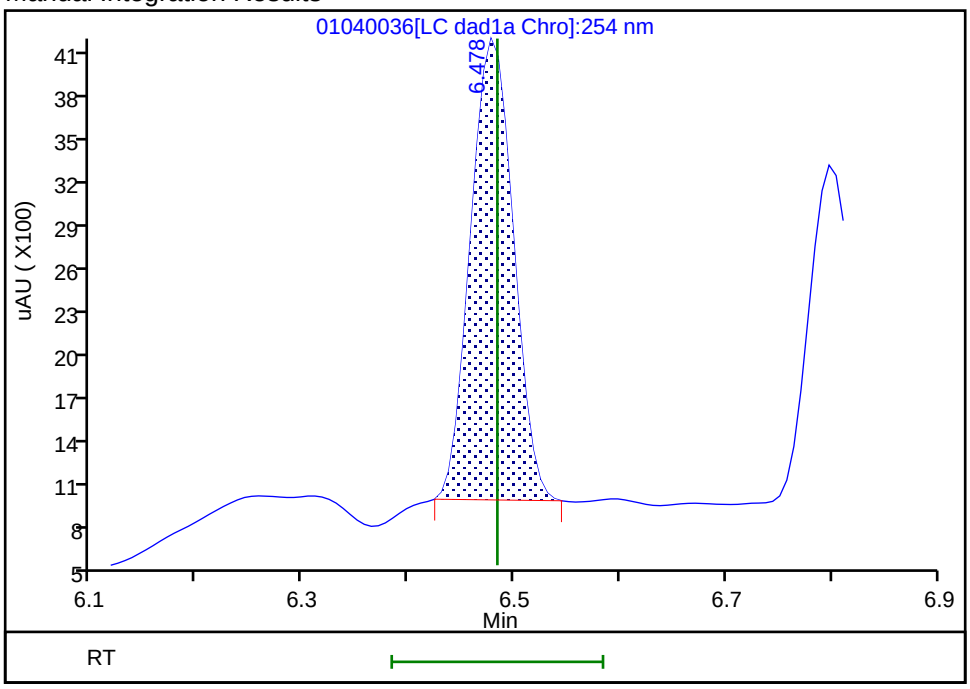
Processing Integration Results

RT: 6.48
Area: 10352
Amount: 0.053996
Amount Units: ug/mL



Manual Integration Results

RT: 6.48
Area: 9031
Amount: 0.049838
Amount Units: ug/mL



Reviewer: zhangji, 05-Jan-2022 12:09:04
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

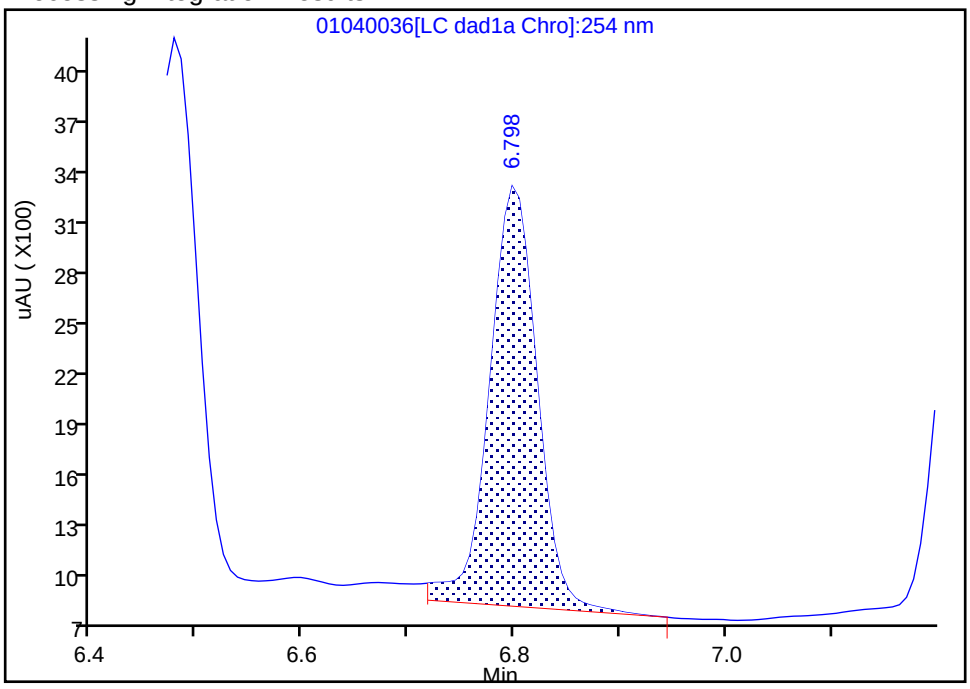
Data File:	\\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040036.d				
Injection Date:	05-Jan-2022 04:01:20	Instrument ID:	CHHPLC_X3		
Lims ID:	IC DMT 2				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	36	Worklist Smp#:	36
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

6 DNX, CAS: 80251-29-2

Signal: 1

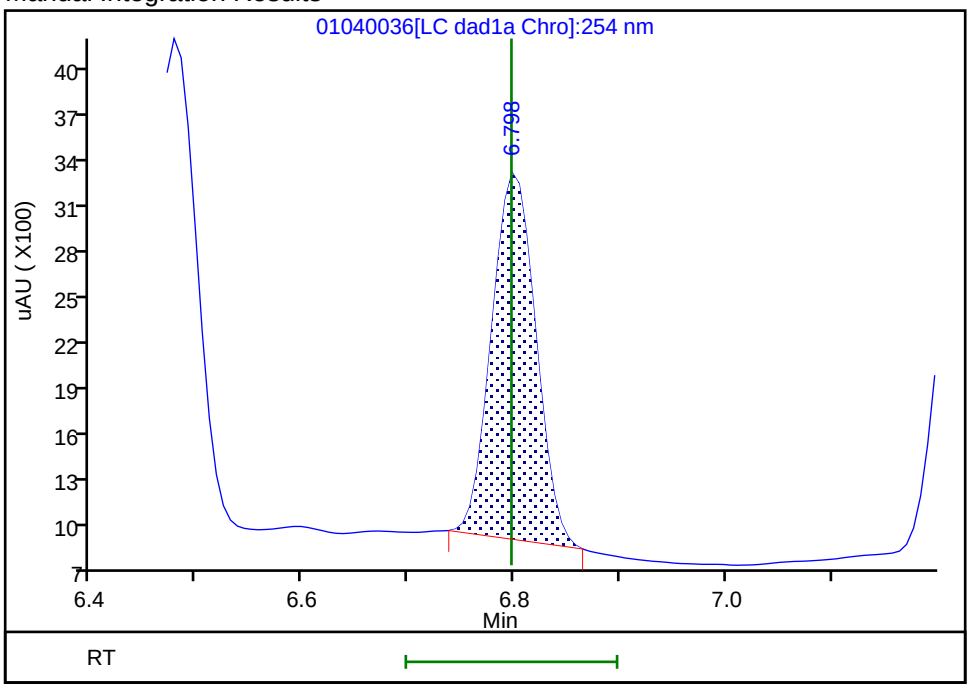
Processing Integration Results

RT: 6.80
Area: 7841
Amount: 0.054633
Amount Units: ug/mL



Manual Integration Results

RT: 6.80
Area: 6988
Amount: 0.050596
Amount Units: ug/mL



Reviewer: zhangji, 05-Jan-2022 12:09:07

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

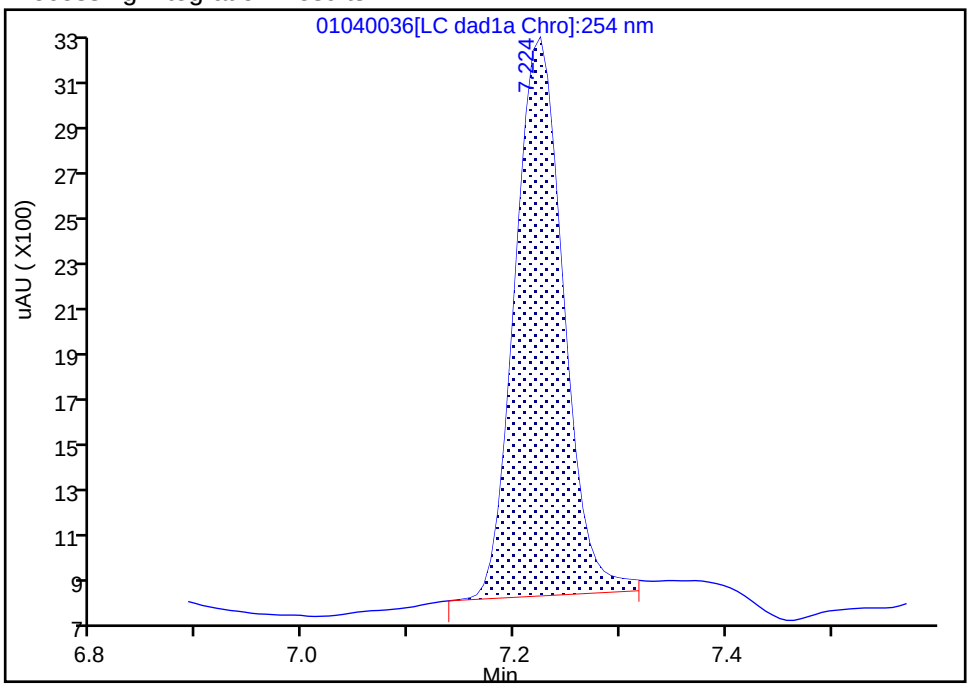
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Injection Date:	05-Jan-2022 04:01:20	Instrument ID:	CHHPLC_X3		
Lims ID:	IC DMT 2				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	36	Worklist Smp#:	36
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

7 MNX, CAS: 5755-27-1

Signal: 1

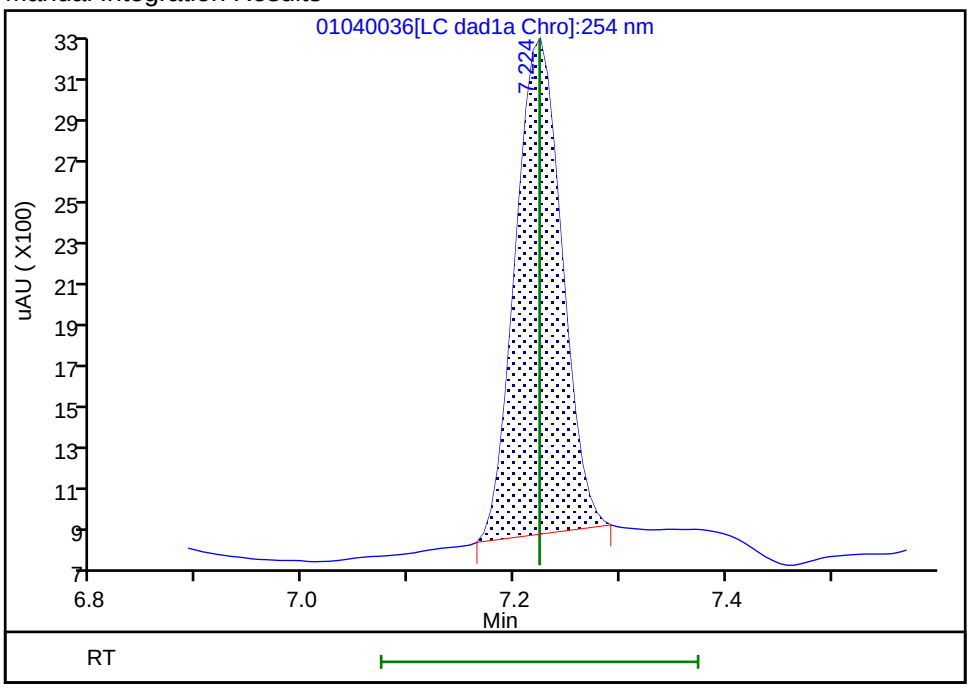
Processing Integration Results

RT: 7.22
Area: 7737
Amount: 0.060531
Amount Units: ug/mL



Manual Integration Results

RT: 7.22
Area: 7298
Amount: 0.057923
Amount Units: ug/mL



Reviewer: zhangji, 05-Jan-2022 12:09:11

Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040037.D				
Lims ID:	IC DMT 1				
Client ID:					
Sample Type:	IC	Calib Level:	1		
Inject. Date:	05-Jan-2022 04:24:15	ALS Bottle#:	37	Worklist Smp#:	37
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	IC DMT 1				
Misc. Info.:	280-0107731-037				
Operator ID:	JZ	Instrument ID:	CHHPLC_X3		
Sublist:	chrom-8330_X3*sub17				
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	05-Jan-2022 12:10:08	Calib Date:	05-Jan-2022 04:24:15		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040037.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1613				
First Level Reviewer: zhangji		Date:	05-Jan-2022 12:09:28		

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	6.484	-0.005	3600	0.0200	0.0199	M
6 DNX	1	6.799	6.797	0.002	2817	0.0200	0.0204	M
7 MNX	1	7.219	7.224	-0.005	3042	0.0233	0.0241	M

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330 DMT_00010 Amount Added: 1.00 Units: uL

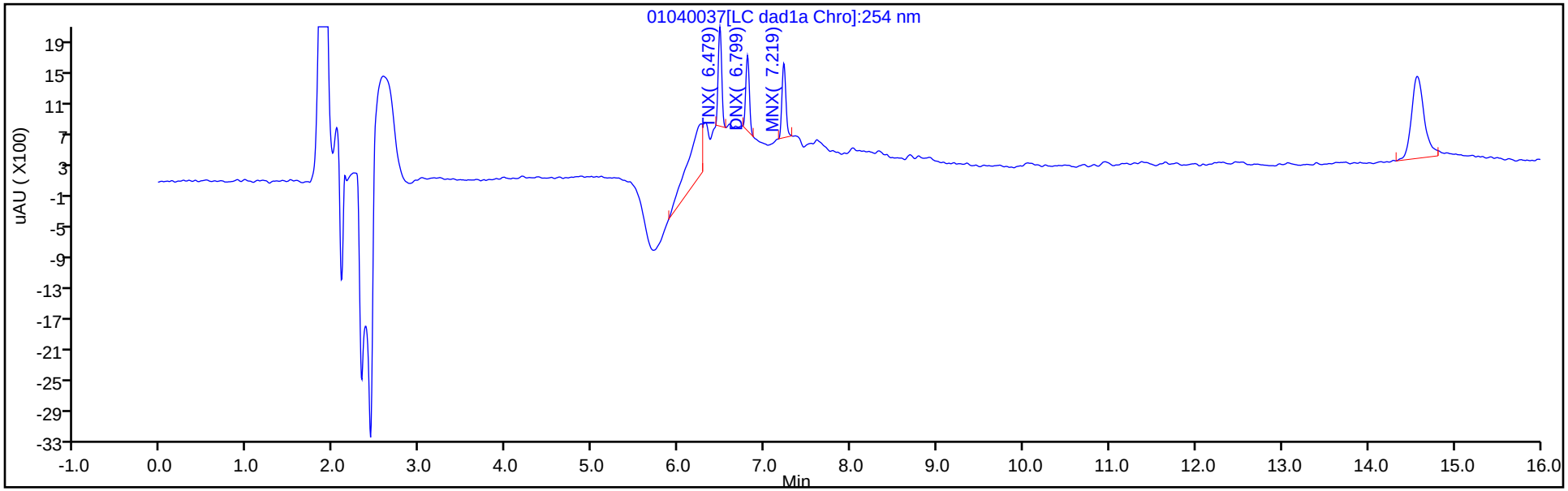
Report Date: 05-Jan-2022 12:10:09 Chrom Revision: 2.3 03-Jan-2022 17:03:12

Eurofins TestAmerica, Denver

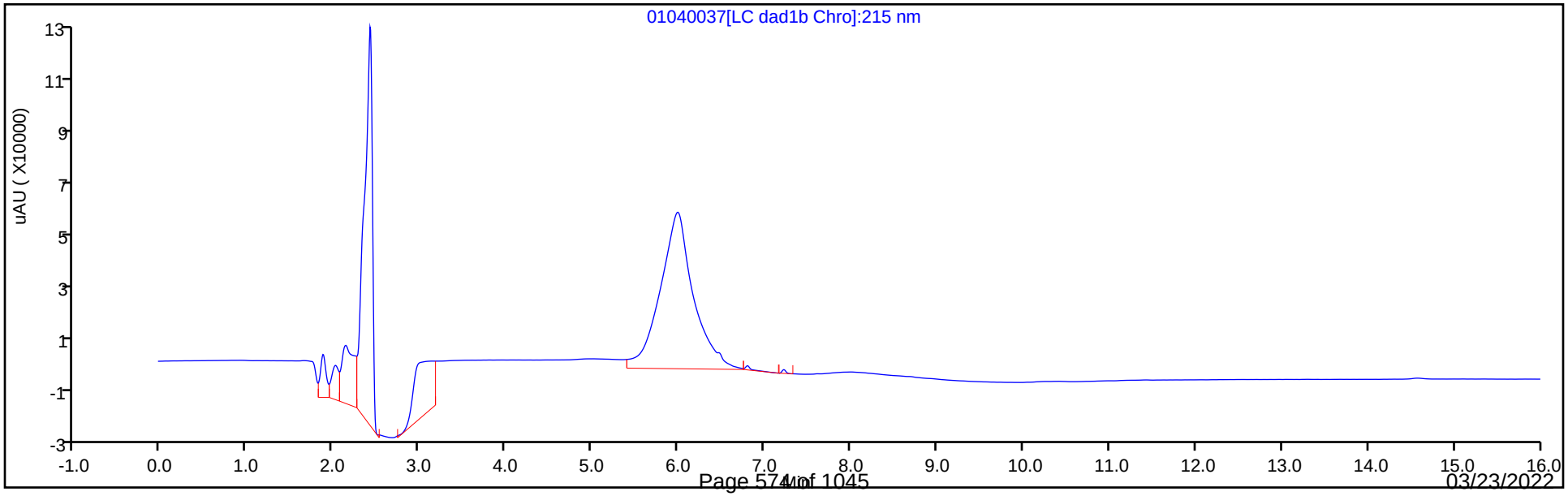
Data File: \\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040037.d

Injection Date:	05-Jan-2022 04:24:15	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	IC DMT 1			Worklist Smp#:	37
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	37
Method:	8330_X3	Limit Group:	GCSV - 8330		

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



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



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

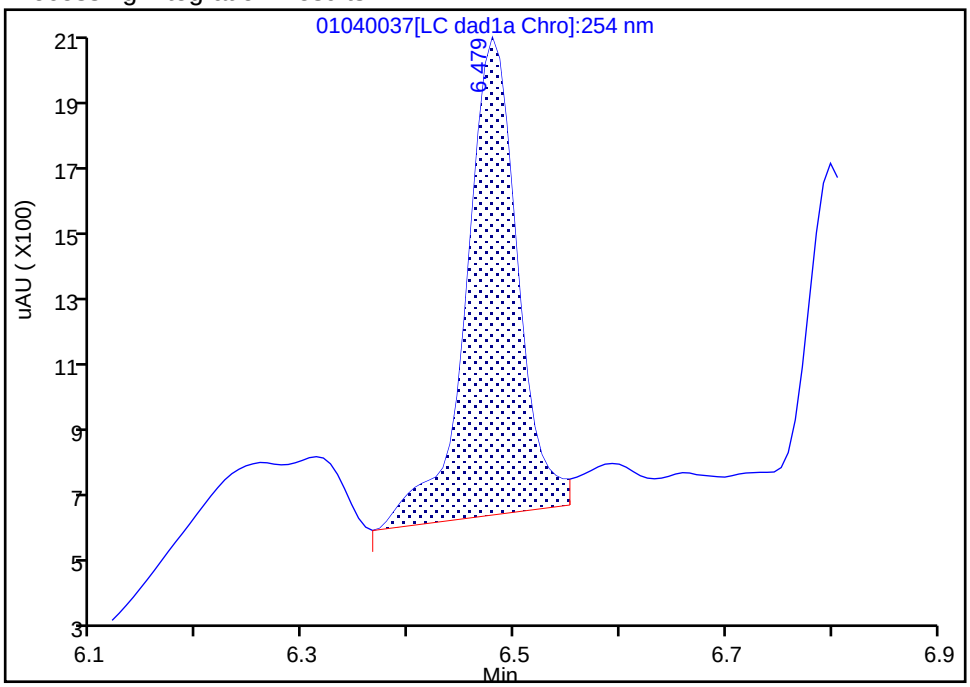
Data File:	\\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040037.d				
Injection Date:	05-Jan-2022 04:24:15	Instrument ID:	CHHPLC_X3		
Lims ID:	IC DMT 1				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	37	Worklist Smp#:	37
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

3 TNX, CAS: 13980-04-6

Signal: 1

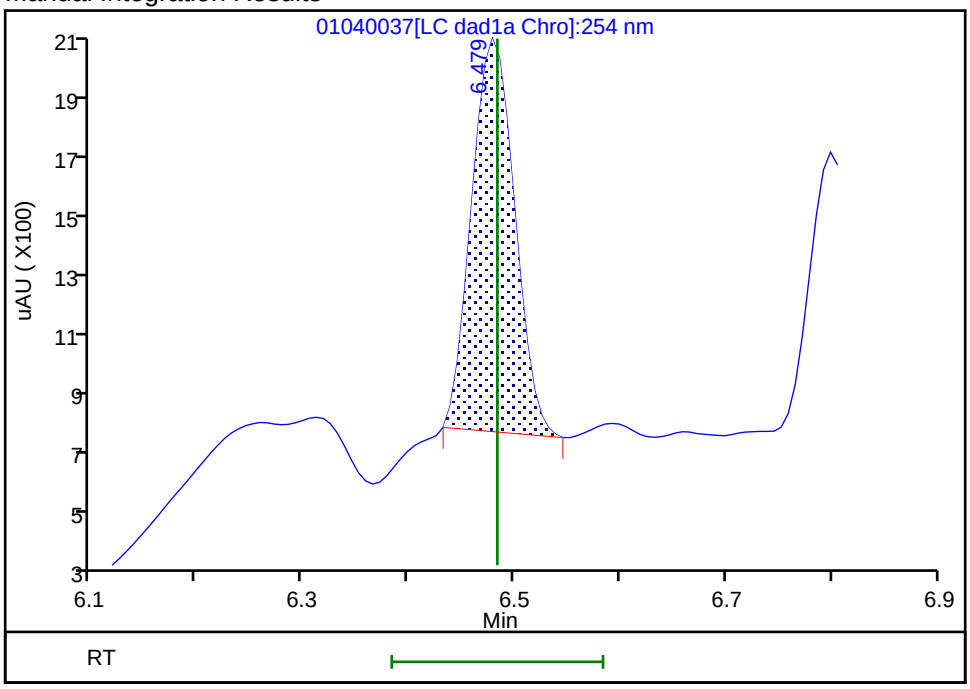
Processing Integration Results

RT: 6.48
Area: 4755
Amount: 0.025236
Amount Units: ug/mL



Manual Integration Results

RT: 6.48
Area: 3600
Amount: 0.019867
Amount Units: ug/mL



Reviewer: zhangji, 05-Jan-2022 12:09:20

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

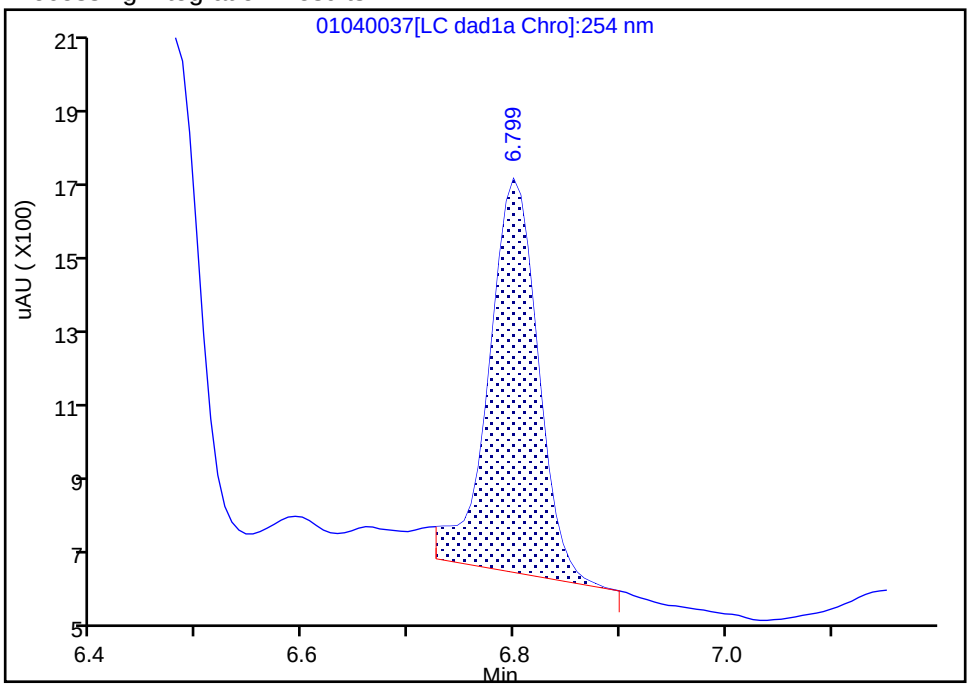
Data File:	\\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040037.d				
Injection Date:	05-Jan-2022 04:24:15	Instrument ID:	CHHPLC_X3		
Lims ID:	IC DMT 1				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	37	Worklist Smp#:	37
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

6 DNX, CAS: 80251-29-2

Signal: 1

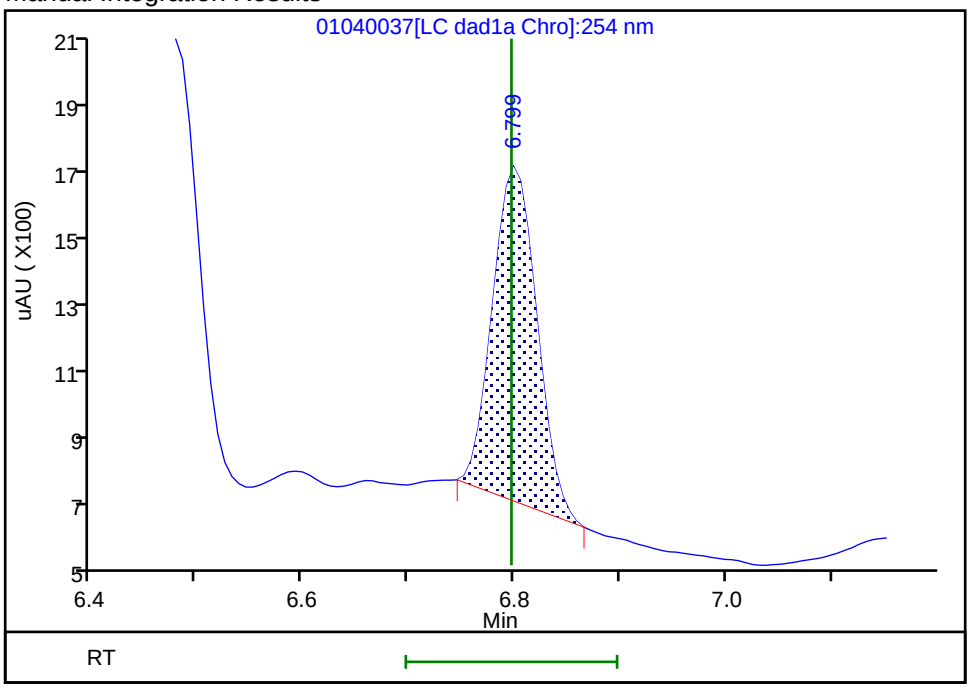
Processing Integration Results

RT: 6.80
Area: 3342
Amount: 0.023637
Amount Units: ug/mL



Manual Integration Results

RT: 6.80
Area: 2817
Amount: 0.020396
Amount Units: ug/mL



Reviewer: zhangji, 05-Jan-2022 12:09:23

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

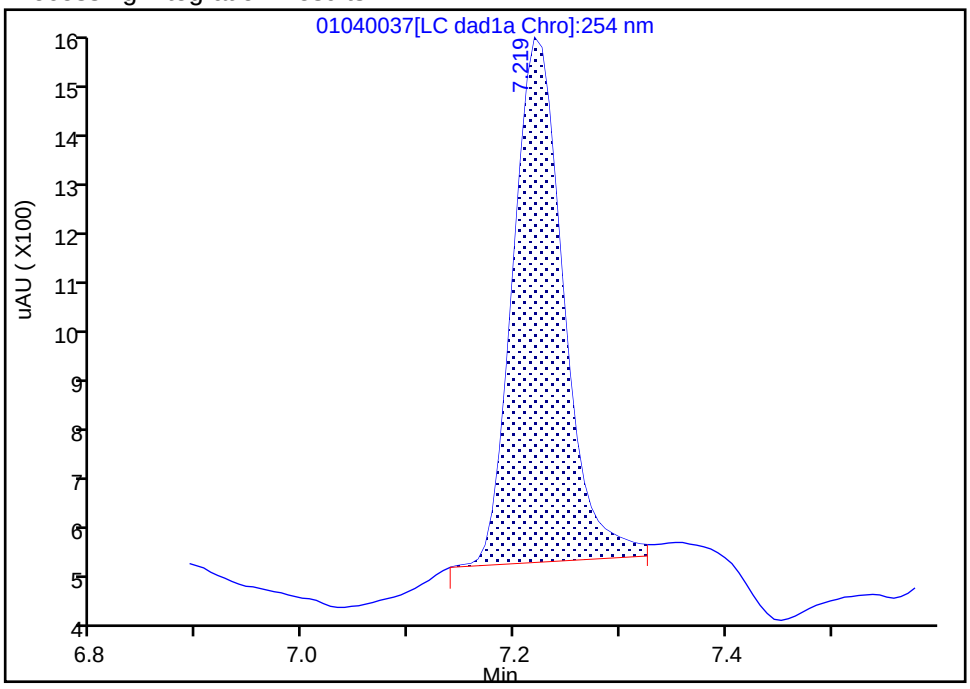
Data File:	\\chromfs\denver\chromdata\chhplc_x\20220104-107731.b\01040037.d				
Injection Date:	05-Jan-2022 04:24:15	Instrument ID:	CHHPLC_X3		
Lims ID:	IC DMT 1				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	37	Worklist Smp#:	37
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

7 MNX, CAS: 5755-27-1

Signal: 1

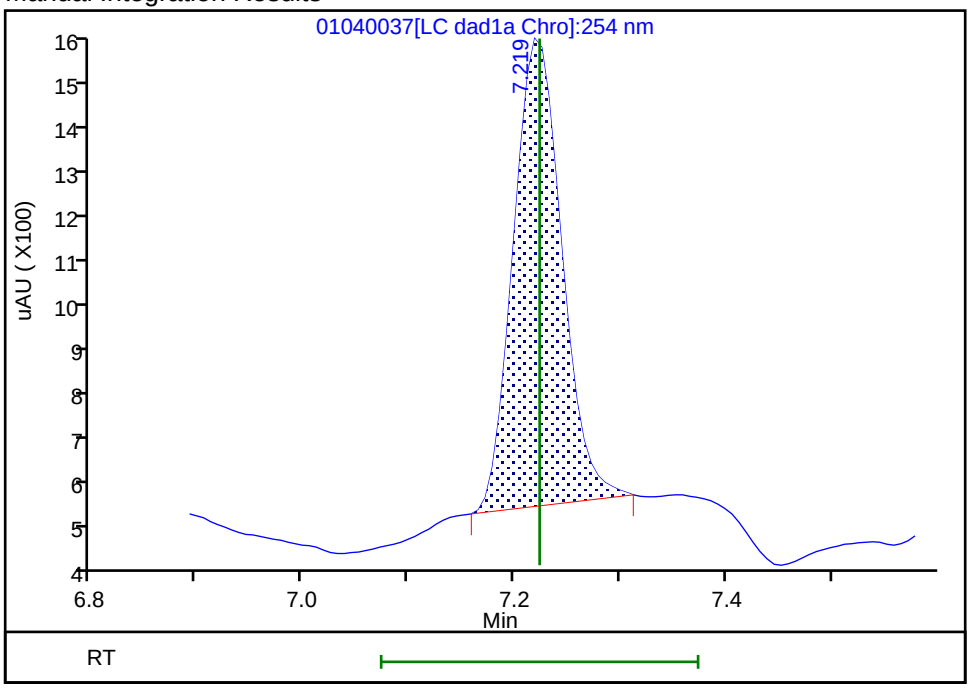
Processing Integration Results

RT: 7.22
Area: 3207
Amount: 0.025276
Amount Units: ug/mL



Manual Integration Results

RT: 7.22
Area: 3042
Amount: 0.024144
Amount Units: ug/mL



Reviewer: zhangji, 05-Jan-2022 12:09:26

Audit Action: Manually Integrated Audit Reason: Baseline

Calibration / TNX

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

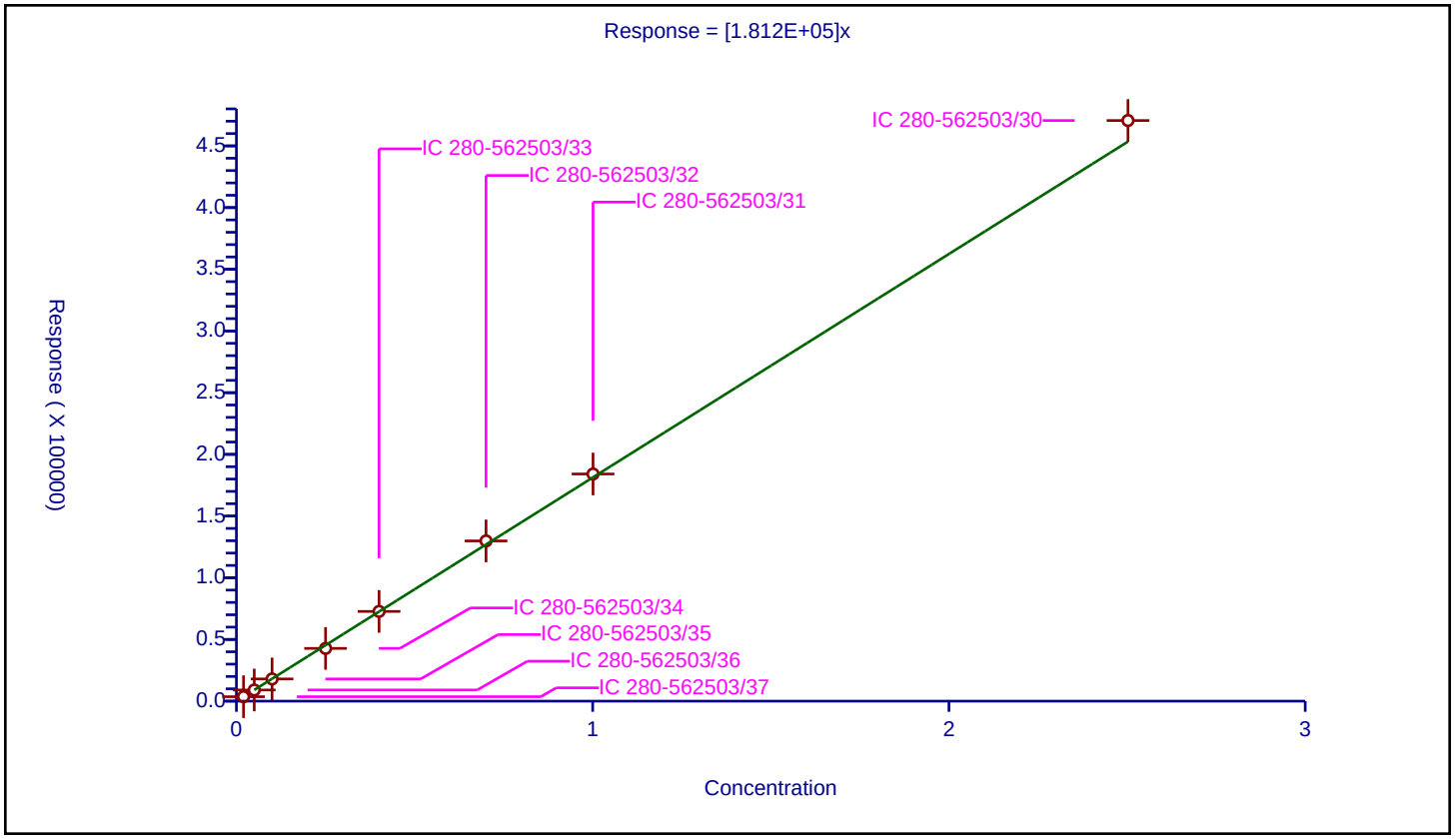
Curve Coefficients

Intercept:	0
Slope:	1.812E+05

Error Coefficients

Standard Error:	6700
Relative Standard Error:	2.8
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-562503/37	0.02002	3600.0			179820.17982	Y
2	IC 280-562503/36	0.05005	9031.0			180439.56044	Y
3	IC 280-562503/35	0.1001	17989.0			179710.28971	Y
4	IC 280-562503/34	0.25025	42748.0			170821.178821	Y
5	IC 280-562503/33	0.4004	72720.0			181618.381618	Y
6	IC 280-562503/32	0.7007	129844.0			185306.122449	Y
7	IC 280-562503/31	1.001	184090.0			183906.093906	Y
8	IC 280-562503/30	2.5025	470565.0			188037.962038	Y



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

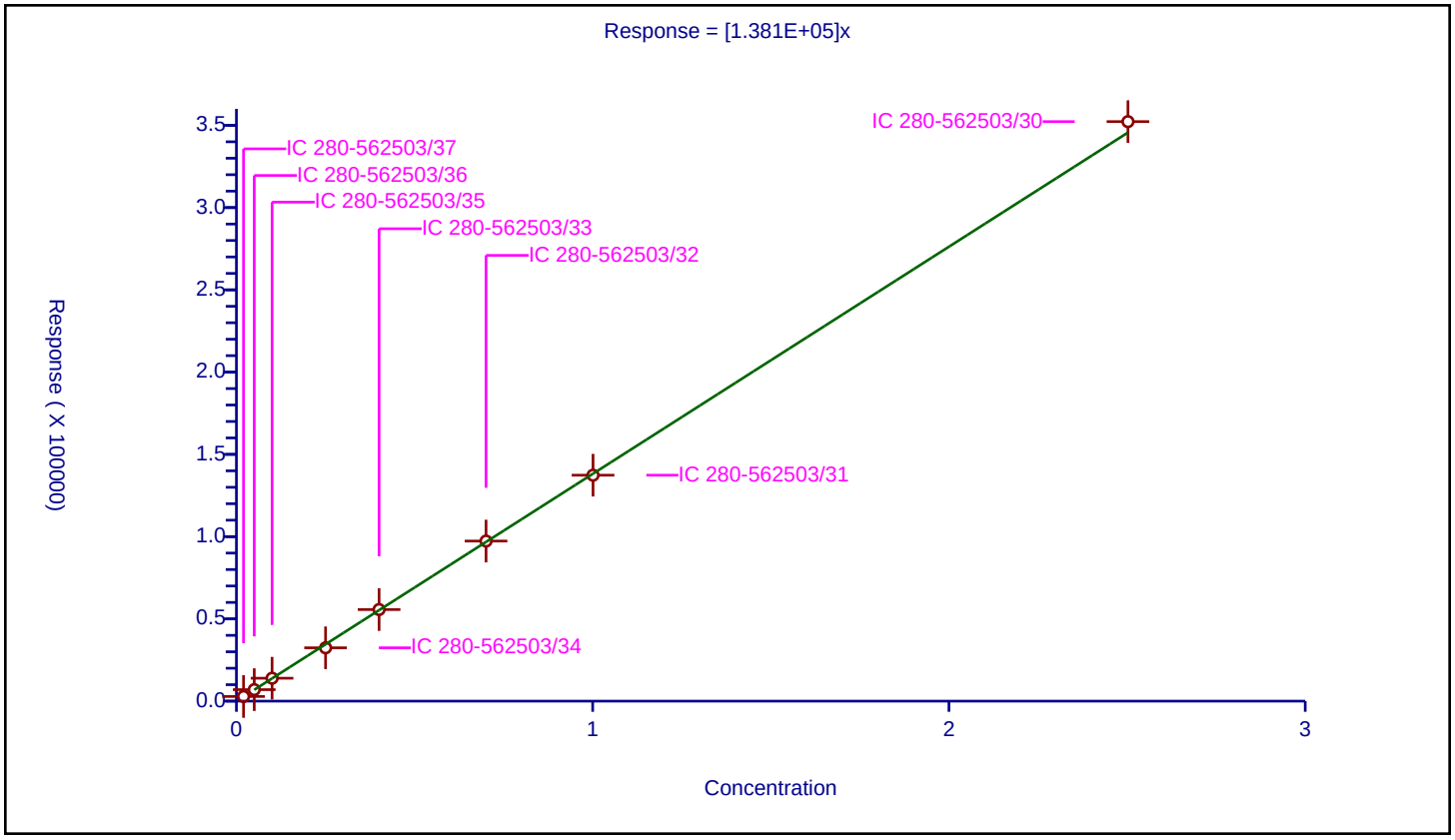
Curve Coefficients

Intercept:	0
Slope:	1.381E+05

Error Coefficients

Standard Error:	2670
Relative Standard Error:	2.6
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-562503/37	0.02002	2817.0			140709.290709	Y
2	IC 280-562503/36	0.05005	6988.0			139620.37962	Y
3	IC 280-562503/35	0.1001	13928.0			139140.859141	Y
4	IC 280-562503/34	0.25025	32416.0			129534.465534	Y
5	IC 280-562503/33	0.4004	55675.0			139048.451548	Y
6	IC 280-562503/32	0.7007	97314.0			138881.118881	Y
7	IC 280-562503/31	1.001	137343.0			137205.794206	Y
8	IC 280-562503/30	2.5025	352260.0			140763.236763	Y



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

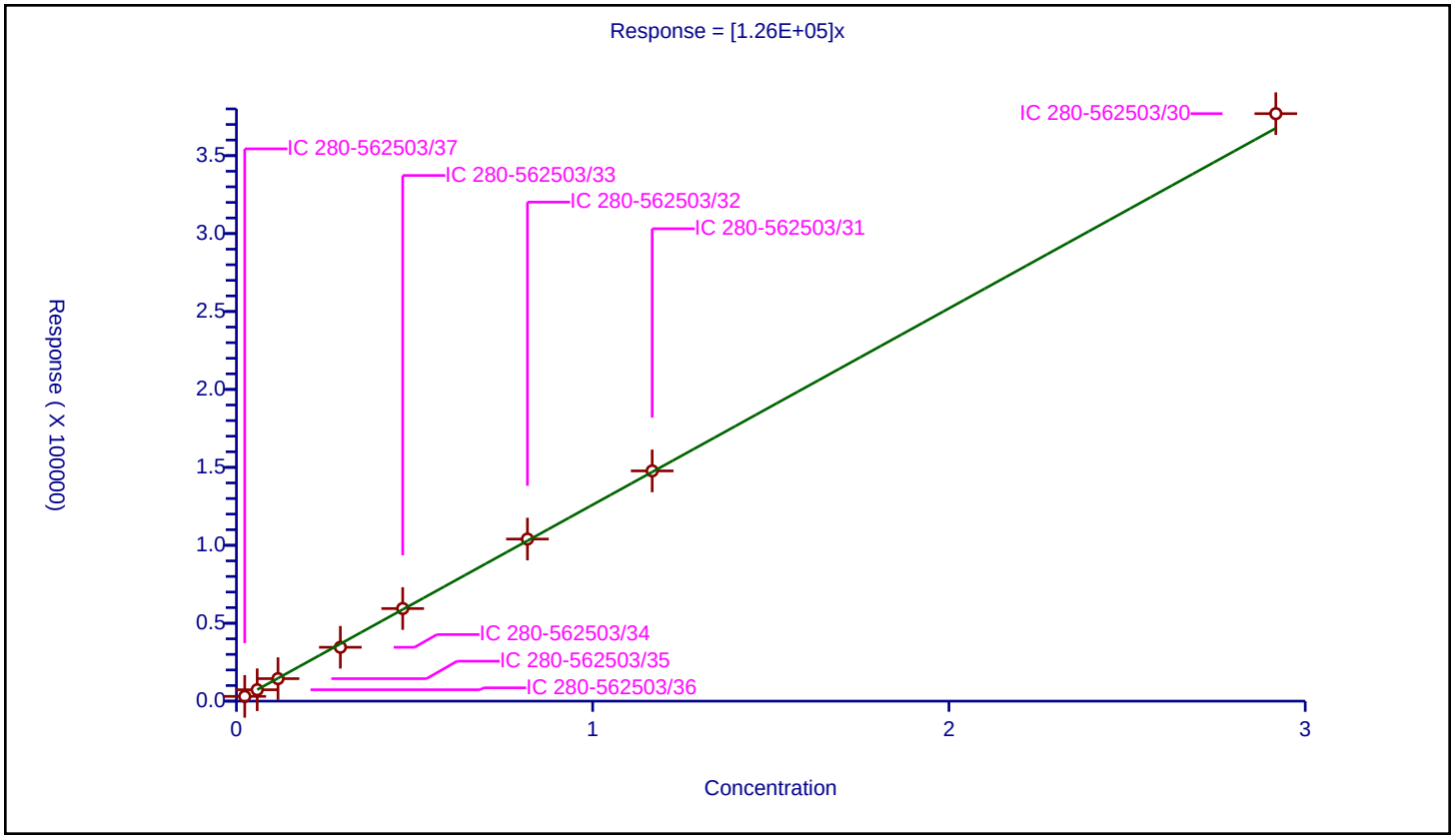
Curve Coefficients

Intercept:	0
Slope:	1.26E+05

Error Coefficients

Standard Error:	3670
Relative Standard Error:	2.9
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-562503/37	0.02334	3042.0			130334.190231	Y
2	IC 280-562503/36	0.05835	7298.0			125072.836332	Y
3	IC 280-562503/35	0.1167	14438.0			123718.937446	Y
4	IC 280-562503/34	0.29175	34560.0			118457.583548	Y
5	IC 280-562503/33	0.4668	59416.0			127283.633248	Y
6	IC 280-562503/32	0.8169	103999.0			127309.340189	Y
7	IC 280-562503/31	1.167	147726.0			126586.118252	Y
8	IC 280-562503/30	2.9175	376943.0			129200.685518	Y



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

Lab Name: Eurofins Denver Job No.: 280-159384-1 Analy Batch No.: 567560

SDG No.:

Instrument ID: CHHPLC_X5 GC Column: Luna-phenyl ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/02/2022 21:22 Calibration End Date: 03/03/2022 02:03 Calibration ID: 62762

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-567560/18	03020018.D
Level 2	IC 280-567560/17	03020017.D
Level 3	IC 280-567560/16	03020016.D
Level 4	IC 280-567560/15	03020015.D
Level 5	IC 280-567560/14	03020014.D
Level 6	IC 280-567560/13	03020013.D
Level 7	IC 280-567560/12	03020012.D
Level 8	IC 280-567560/11	03020011.D
Level 9	IC 280-567560/10	03020010.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	6.887	6.896	6.894	6.896	6.889	6.880	6.863	6.860	6.791		6.739 - 7.039	6.873
Picric acid		7.863	7.767	7.696	7.602	7.527	7.430	7.346	7.231		7.452 - 7.752	7.558
RDX	9.114	9.129	9.120	9.129	9.115	9.100	9.083	9.066	8.985		8.965 - 9.265	9.093
Nitrobenzene	12.047	12.069	12.073	12.069	12.062	12.060	12.036	12.020	11.925		11.912 - 12.212	12.040
1,3-Dinitrobenzene	15.627	15.642	15.647	15.642	15.635	15.627	15.616	15.600	15.525		15.485 - 15.785	15.618
Nitroglycerin	16.054	16.062	16.073	16.062	16.055	16.054	16.050	16.033	15.971		15.905 - 16.205	16.046
2-Nitrotoluene	16.807	16.829	16.833	16.829	16.822	16.820	16.810	16.793	16.725		16.672 - 16.972	16.808
4-Nitrotoluene	17.147	17.129	17.147	17.136	17.129	17.127	17.123	17.100	17.018		16.979 - 17.279	17.117
4-Amino-2,6-dinitrotoluene	17.734	17.756	17.773	17.756	17.755	17.747	17.736	17.720	17.651		17.605 - 17.905	17.736
3-Nitrotoluene	18.094	18.116	18.120	18.109	18.102	18.100	18.090	18.073	18.005		17.952 - 18.252	18.090
2-Amino-4,6-dinitrotoluene	18.754	18.762	18.773	18.749	18.742	18.740	18.730	18.706	18.725		18.592 - 18.892	18.742
1,3,5-Trinitrobenzene	18.947	18.956	18.973	18.956	18.949	18.947	18.936	18.920	18.851		18.799 - 19.099	18.937
2,6-Dinitrotoluene	20.260	20.262	20.267	20.256	20.255	20.254	20.243	20.233	20.171		20.105 - 20.405	20.245
2,4-Dinitrotoluene	20.674	20.716	20.767	20.756	20.762	20.760	20.750	20.733	20.671		20.612 - 20.912	20.732
Tetryl	24.514	24.496	24.500	24.483	24.489	24.494	24.483	24.466	24.425		24.339 - 24.639	24.483
2,4,6-Trinitrotoluene	25.274	25.269	25.274	25.256	25.262	25.267	25.257	25.246	25.198		25.112 - 25.412	25.256
PETN	26.220	26.223	26.220	26.209	26.215	26.220	26.217	26.206	26.185		26.065 - 26.365	26.213
1,2-Dinitrobenzene	13.260	13.282	13.287	13.282	13.282	13.274	13.256	13.240	13.158		13.132 - 13.432	13.258

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

Lab Name: Eurofins Denver Job No.: 280-159384-1 Analy Batch No.: 567560

SDG No.:

Instrument ID: CHHPLC_X5 GC Column: Luna-phenyl ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/02/2022 21:22 Calibration End Date: 03/03/2022 02:03 Calibration ID: 62762

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-567560/18	03020018.D
Level 2	IC 280-567560/17	03020017.D
Level 3	IC 280-567560/16	03020016.D
Level 4	IC 280-567560/15	03020015.D
Level 5	IC 280-567560/14	03020014.D
Level 6	IC 280-567560/13	03020013.D
Level 7	IC 280-567560/12	03020012.D
Level 8	IC 280-567560/11	03020011.D
Level 9	IC 280-567560/10	03020010.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	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	204000 153272 187359	156350 157048	161060 156446	161090 158593	Ave		166135.268				10.5		20.0			
Picric acid	137152 100000	115050 145895	127120 147056	140090 150719	Ave		132885.214				13.3		20.0			
RDX	209700 185668 192949	185950 191778	200560 191473	197500 193402	Ave		194331.017				3.8		20.0			
Nitrobenzene	387450 359546 376404	332968 370117	381454 369358	371225 366118	Ave		368293.361				4.2		20.0			
1,3-Dinitrobenzene	594910 544854 583320	531088 563411	602415 562742	594182 568076	Ave		571666.383				4.2		20.0			
Nitroglycerin	106640 123863 126320	108750 129921	119788 126936	133241 127202	Ave		122517.801				7.5		20.0			
2-Nitrotoluene	249100 224884 232108	230350 232660	241140 230763	238570 232476	Ave		234672.317				3.1		20.0			
4-Nitrotoluene	219860 201816 215781	203493 209224	211477 208958	215818 210922	Ave		210816.657				2.8		20.0			

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

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

Lab Name: Eurofins Denver Job No.: 280-159384-1 Analy Batch No.: 567560

SDG No.:

Instrument ID: CHHPLC_X5 GC Column: Luna-phenyl ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/02/2022 21:22 Calibration End Date: 03/03/2022 02:03 Calibration ID: 62762

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	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-Amino-2,6-dinitrotoluene	260739 258018 268817	263287 267340	268232 265560	271888 269422	Lin2	-62.900141	267244.423							1.0000		0.9900
3-Nitrotoluene	254046 256344 271648	240010 266386	267473 265219	269510 267544	Lin2	-189.49318	266002.360							0.9990		0.9900
2-Amino-4,6-dinitrotoluene	369024 350637 335952	343576 365448	369761 366702	370299 373422	Ave		360535.698				3.8		20.0			
1,3,5-Trinitrobenzene	393912 409485 468023	347804 424182	425928 421012	424291 424539	Ave		415464.126				7.7		20.0			
2,6-Dinitrotoluene	269323 256928 267124	260608 264846	274044 264869	265807 267408	Ave		265661.838				1.8		20.0			
2,4-Dinitrotoluene	1185259 555279 545162	839791 549871	675657 543624	639313 546924	Lin2	6399.59049	541564.591							0.9990		0.9900
Tetryl	471257 308379 316049	345958 315734	361477 313195	331218 316267	Ave		342170.507				15.0		20.0			
2,4,6-Trinitrotoluene	370518 363896 385306	324054 376581	369641 378025	370568 384024	Ave		369179.221				5.0		20.0			
PETN	108420 131804 136767	109615 136247	134164 135887	134076 136984	Ave		129329.182				9.0		20.0			
1,2-Dinitrobenzene	246100 244792 252426	240450 249510	257280 250511	254990 251717	Ave		249752.937				2.1		20.0			

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

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

Lab Name: Eurofins Denver Job No.: 280-159384-1 Analy Batch No.: 567560

SDG No.:

Instrument ID: CHHPLC_X5 GC Column: Luna-phenyl ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/02/2022 21:22 Calibration End Date: 03/03/2022 02:03 Calibration ID: 62762

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-567560/18	03020018.D
Level 2	IC 280-567560/17	03020017.D
Level 3	IC 280-567560/16	03020016.D
Level 4	IC 280-567560/15	03020015.D
Level 5	IC 280-567560/14	03020014.D
Level 6	IC 280-567560/13	03020013.D
Level 7	IC 280-567560/12	03020012.D
Level 8	IC 280-567560/11	03020011.D
Level 9	IC 280-567560/10	03020010.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
		LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
HMX	Ave	2040	3127	8053	16109	38318	0.0100	0.0200	0.0500	0.100	0.250
		62819	109512	158593	468398		0.400	0.700	1.00	2.50	
Picric acid	Ave		2301	6356	14009	34288		0.0200	0.0500	0.100	0.250
		58358	102939	150719	250000		0.400	0.700	1.00	2.50	
RDX	Ave	2097	3719	10028	19750	46417	0.0100	0.0200	0.0500	0.100	0.250
		76711	134031	193402	482372		0.400	0.700	1.00	2.50	
Nitrobenzene	Ave	3890	6686	19149	37271	90246	0.0100	0.0201	0.0502	0.100	0.251
		148639	259585	367582	944774		0.402	0.703	1.00	2.51	
1,3-Dinitrobenzene	Ave	5961	10643	30181	59537	136486	0.0100	0.0200	0.0501	0.100	0.251
		225815	394707	569212	1461217		0.401	0.701	1.00	2.51	
Nitroglycerin	Ave	10664	21750	59894	133241	309657	0.100	0.200	0.500	1.00	2.50
		519683	888552	1272015	3158004		4.00	7.00	10.0	25.0	
2-Nitrotoluene	Ave	2491	4607	12057	23857	56221	0.0100	0.0200	0.0500	0.100	0.250
		93064	161534	232476	580270		0.400	0.700	1.00	2.50	
4-Nitrotoluene	Ave	2203	4078	10595	21625	50555	0.0100	0.0200	0.0501	0.100	0.251
		83857	146563	211344	540531		0.401	0.701	1.00	2.51	
4-Amino-2,6-dinitrotoluene	Lin2	2610	5271	13425	27216	64569	0.0100	0.0200	0.0501	0.100	0.250
		107043	186078	269691	672715		0.400	0.701	1.00	2.50	
3-Nitrotoluene	Lin2	2543	4805	13387	26978	64150	0.0100	0.0200	0.0501	0.100	0.250
		106661	185839	267812	679800		0.400	0.701	1.00	2.50	
2-Amino-4,6-dinitrotoluene	Ave	3705	6899	18562	37178	88010	0.0100	0.0201	0.0502	0.100	0.251
		146764	257718	374916	843240		0.402	0.703	1.00	2.51	
1,3,5-Trinitrobenzene	Ave	3947	6970	21339	42514	102576	0.0100	0.0200	0.0501	0.100	0.251
		170012	295298	425388	1172398		0.401	0.701	1.00	2.51	
2,6-Dinitrotoluene	Ave	2704	5233	13757	26687	64489	0.0100	0.0201	0.0502	0.100	0.251

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

Lab Name: Eurofins Denver Job No.: 280-159384-1 Analy Batch No.: 567560

SDG No.:

Instrument ID: CHHPLC_X5 GC Column: Luna-phenyl ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/02/2022 21:22 Calibration End Date: 03/03/2022 02:03 Calibration ID: 62762

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
		106362	186150	268478	670482		0.402	0.703	1.00	2.51	
2,4-Dinitrotoluene	Lin2	11900 220828	16863 382059	33918 549112	64187 1368356	139375	0.0100 0.402	0.0201 0.703	0.0502 1.00	0.100 2.51	0.251
Tetryl	Ave	4722 126546	6933 219675	18110 316900	33188 791703	77249	0.0100 0.401	0.0200 0.701	0.0501 1.00	0.100 2.51	0.251
2,4,6-Trinitrotoluene	Ave	3720 151235	6507 265676	18556 385560	37205 967117	91338	0.0100 0.402	0.0201 0.703	0.0502 1.00	0.100 2.51	0.251
PETN	Ave	10842 544987	21923 951206	67082 1369840	134076 3419168	329509	0.100 4.00	0.200 7.00	0.500 10.0	1.00 25.0	2.50
1,2-Dinitrobenzene	Ave	2461 99804	4809 175358	12864 251717	25499 631065	61198	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250

Curve Type Legend
Ave = Average
Lin2 = Linear 1/conc^2

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020010.D
Lims ID: IC INT/ADD 9
Client ID:
Sample Type: IC Calib Level: 9
Inject. Date: 02-Mar-2022 21:22:03 ALS Bottle#: 10 Worklist Smp#: 10
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT/ADD 9
Misc. Info.: 280-0108949-010
Operator ID: JZ Instrument ID: CHHPLC_X5
Sublist: chrom-8330_X5_Luna*sub1

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 03-Mar-2022 12:49:12 Calib Date: 03-Mar-2022 07:19:48
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020027.D

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

First Level Reviewer: zhangji Date: 03-Mar-2022 12:05:51

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 2,6-diamino-4-nitrotoluene	1	4.071	4.142	-0.071	1053484	2.50	2.59	M
2 2,4-diamino-6-nitrotoluene	1	4.698	4.669	0.029	475027	2.50	2.09	M
5 HMX	1	6.791	6.889	-0.098	468398	2.50	2.82	
7 2,4,6-Trinitrophenol	1	7.231	7.602	-0.371	250000	2.50	1.88	
8 RDX	1	8.985	9.115	-0.130	482372	2.50	2.48	
9 Nitrobenzene	1	11.925	12.062	-0.137	944774	2.51	2.57	
$ 10 1,2-Dinitrobenzene	1	13.158	13.282	-0.124	631065	2.50	2.53	
11 3,5-Dinitroaniline	1	15.151	15.269	-0.118	1039131	2.50	2.53	
12 1,3-Dinitrobenzene	1	15.525	15.635	-0.110	1461217	2.51	2.56	
13 Nitroglycerin	2	15.971	16.055	-0.084	3158004	25.0	25.8	
14 o-Nitrotoluene	1	16.725	16.822	-0.097	580270	2.50	2.47	
16 p-Nitrotoluene	1	17.018	17.129	-0.111	540531	2.51	2.56	
17 4-Amino-2,6-dinitrotoluene	1	17.651	17.755	-0.104	672715	2.50	2.52	
18 m-Nitrotoluene	1	18.005	18.102	-0.097	679800	2.50	2.56	
19 2-Amino-4,6-dinitrotoluene	1	18.725	18.742	-0.017	843240	2.51	2.34	M
20 1,3,5-Trinitrobenzene	1	18.851	18.949	-0.098	1172398	2.51	2.82	M
21 2,6-Dinitrotoluene	1	20.171	20.255	-0.084	670482	2.51	2.52	
22 2,4-Dinitrotoluene	1	20.671	20.762	-0.091	1368356	2.51	2.51	
23 Tetryl	1	24.425	24.489	-0.064	791703	2.51	2.31	
24 2,4,6-Trinitrotoluene	1	25.198	25.262	-0.064	967117	2.51	2.62	
25 PETN	2	26.185	26.215	-0.030	3419168	25.0	26.4	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330IntermStk_00070	Amount Added: 250.00	Units: uL
8330_ADDs_00031	Amount Added: 125.00	Units: uL

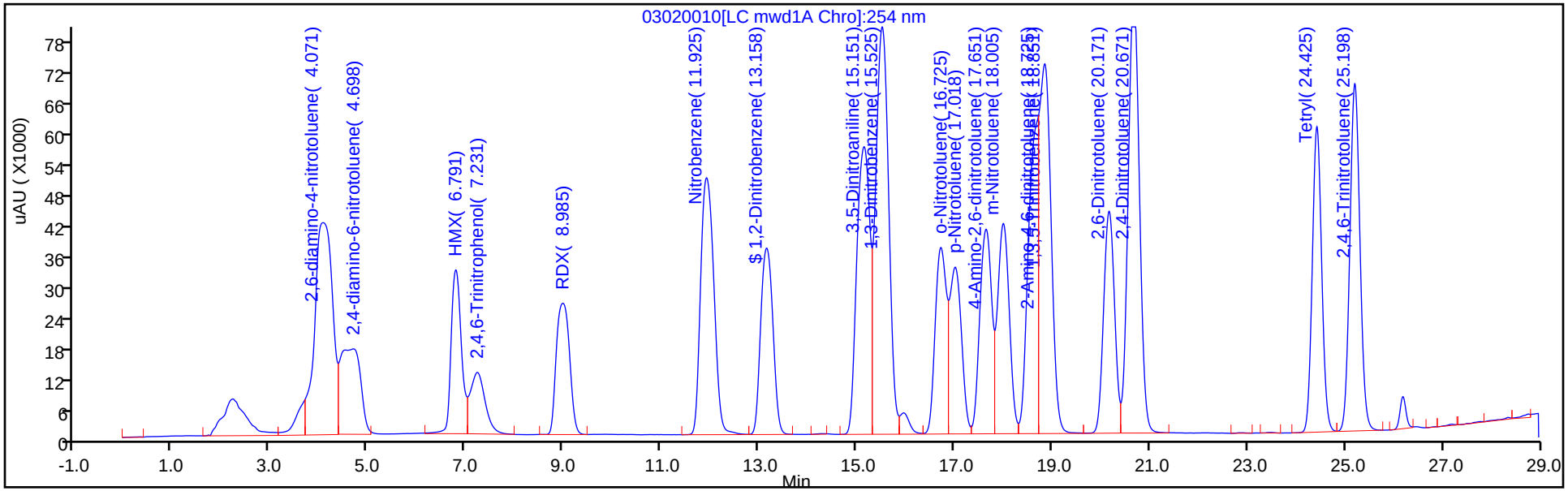
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Eurofins Denver

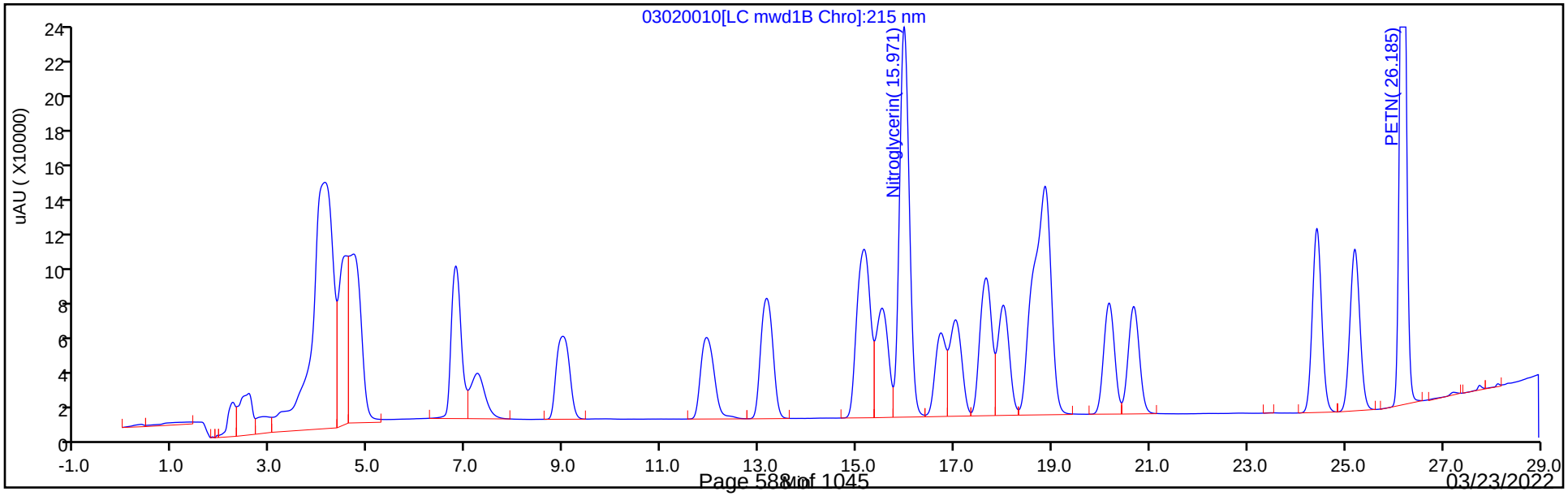
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Injection Date:	02-Mar-2022 21:22:03	Instrument ID:	CHHPLC_X5	Operator ID:	JZ
Lims ID:	IC INT/ADD 9			Worklist Smp#:	10
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	10
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

Eurofins Denver

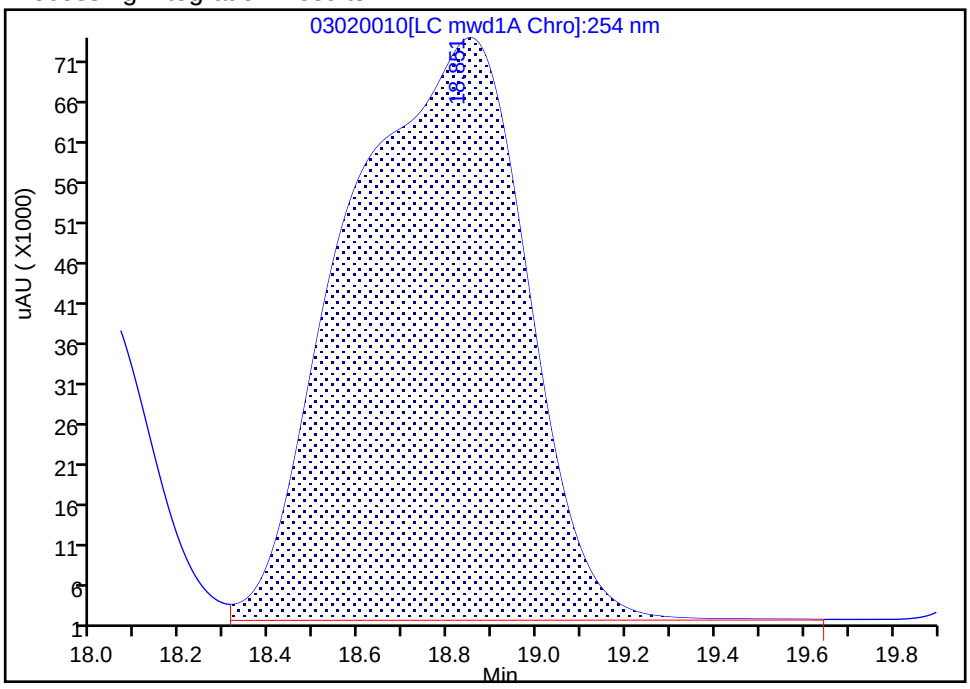
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Injection Date: 02-Mar-2022 21:22:03 Instrument ID: CHHPLC_X5
Lims ID: IC INT/ADD 9
Client ID:
Operator ID: JZ ALS Bottle#: 10 Worklist Smp#: 10
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X5_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC mwd1A, 254 nm

20 1,3,5-Trinitrobenzene, CAS: 99-35-4

Signal: 1

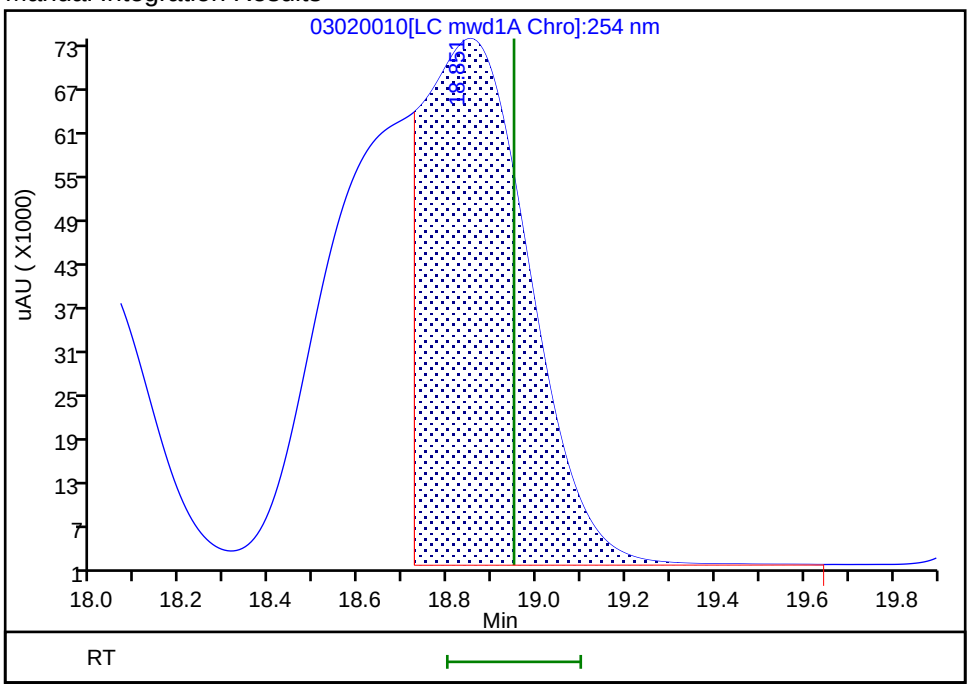
Processing Integration Results

RT: 18.85
Area: 2015640
Amount: 4.231891
Amount Units: ug/ml



Manual Integration Results

RT: 18.85
Area: 1172398
Amount: 2.821899
Amount Units: ug/ml



Reviewer: zhangji, 03-Mar-2022 12:08:36
Audit Action: Split an Integrated Peak Audit Reason: Split Peak

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020011.D
Lims ID: IC INT/ADD 8
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 02-Mar-2022 21:57:13 ALS Bottle#: 11 Worklist Smp#: 11
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT/ADD 8
Misc. Info.: 280-0108949-011
Operator ID: JZ Instrument ID: CHHPLC_X5
Sublist: chrom-8330_X5_Luna*sub1

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 03-Mar-2022 12:49:13 Calib Date: 03-Mar-2022 07:19:48
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020027.D

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

First Level Reviewer: zhangji Date: 03-Mar-2022 12:09:27

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 2,6-diamino-4-nitrotoluene	1	4.093	4.142	-0.049	386260	1.00	0.9503	M
2 2,4-diamino-6-nitrotoluene	1	4.713	4.669	0.044	247885	1.00	1.09	M
5 HMX	1	6.860	6.889	-0.029	158593	1.00	0.9546	
7 2,4,6-Trinitrophenol	1	7.346	7.602	-0.256	150719	1.00	1.13	
8 RDX	1	9.066	9.115	-0.049	193402	1.00	1.00	
9 Nitrobenzene	1	12.020	12.062	-0.042	367582	1.00	1.00	
$ 10 1,2-Dinitrobenzene	1	13.240	13.282	-0.042	251717	1.00	1.01	
11 3,5-Dinitroaniline	1	15.226	15.269	-0.043	419224	1.00	1.02	
12 1,3-Dinitrobenzene	1	15.600	15.635	-0.035	569212	1.00	1.00	
13 Nitroglycerin	2	16.033	16.055	-0.022	1272015	10.0	10.4	
14 o-Nitrotoluene	1	16.793	16.822	-0.029	232476	1.00	0.99	
16 p-Nitrotoluene	1	17.100	17.129	-0.029	211344	1.00	1.00	
17 4-Amino-2,6-dinitrotoluene	1	17.720	17.755	-0.035	269691	1.00	1.01	
18 m-Nitrotoluene	1	18.073	18.102	-0.029	267812	1.00	1.01	
19 2-Amino-4,6-dinitrotoluene	1	18.706	18.742	-0.036	374916	1.00	1.04	
20 1,3,5-Trinitrobenzene	1	18.920	18.949	-0.029	425388	1.00	1.02	
21 2,6-Dinitrotoluene	1	20.233	20.255	-0.022	268478	1.00	1.01	
22 2,4-Dinitrotoluene	1	20.733	20.762	-0.029	549112	1.00	1.00	
23 Tetryl	1	24.466	24.489	-0.023	316900	1.00	0.9261	
24 2,4,6-Trinitrotoluene	1	25.246	25.262	-0.016	385560	1.00	1.04	
25 PETN	2	26.206	26.215	-0.009	1369840	10.0	10.6	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330IntermStk_00070	Amount Added: 100.00	Units: uL
8330_ADDs_00031	Amount Added: 50.00	Units: uL

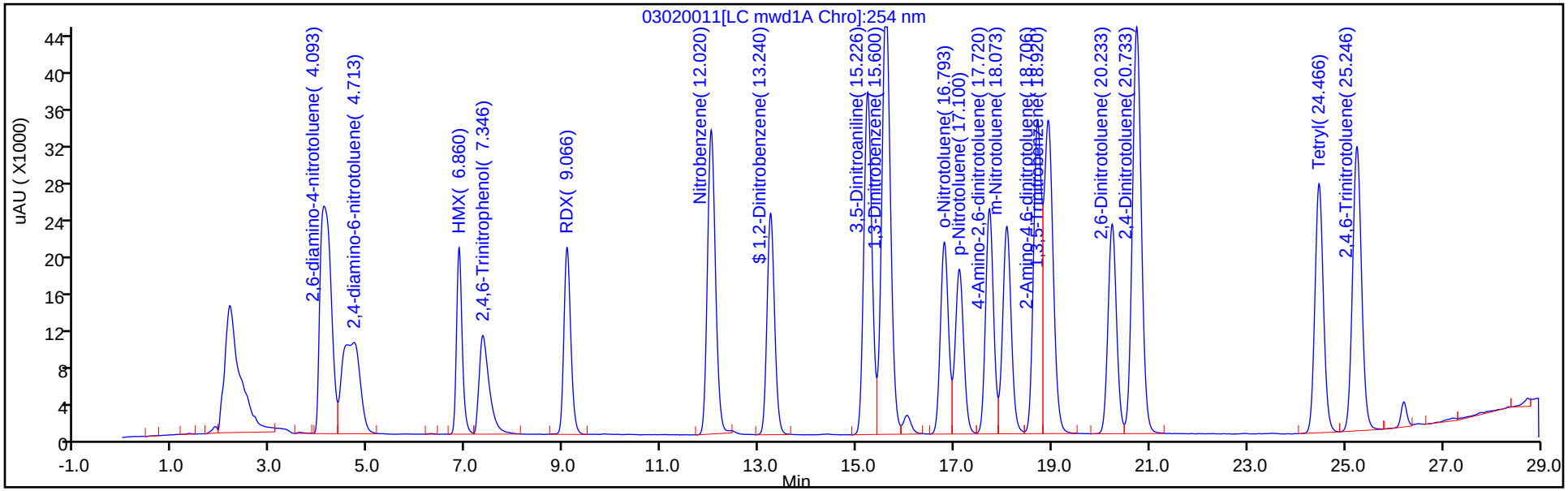
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Eurofins Denver

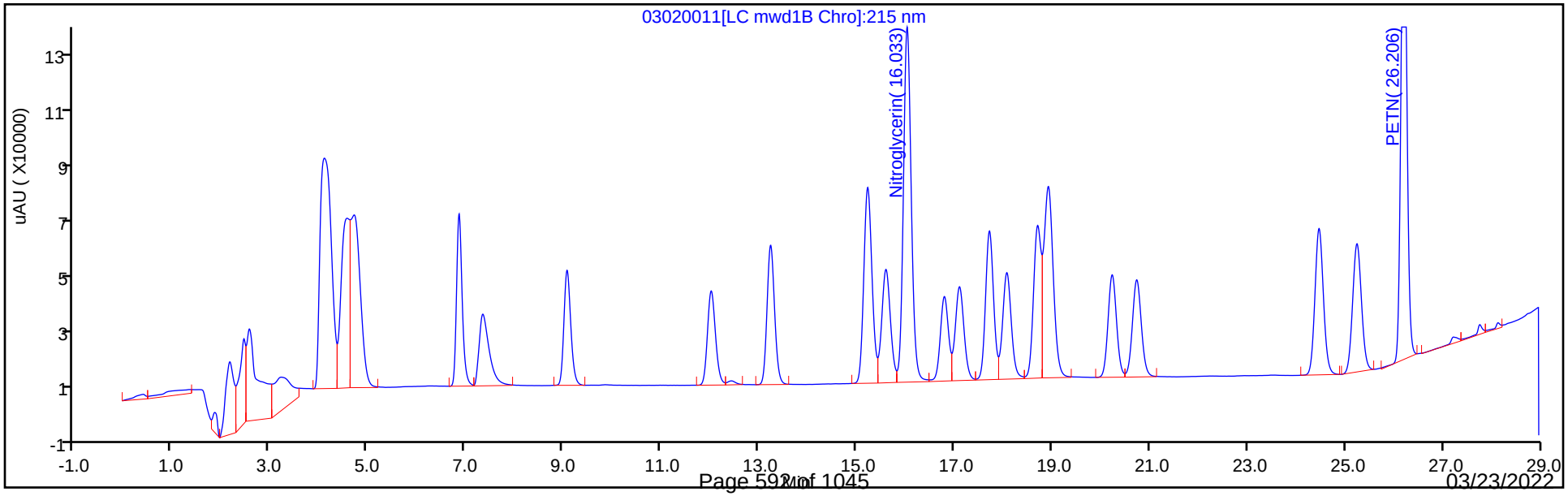
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Injection Date:	02-Mar-2022 21:57:13	Instrument ID:	CHHPLC_X5	Operator ID:	JZ
Lims ID:	IC INT/ADD 8			Worklist Smp#:	11
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	11
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020012.D
Lims ID: IC INT/ADD 7
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 02-Mar-2022 22:32:16 ALS Bottle#: 12 Worklist Smp#: 12
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT/ADD 7
Misc. Info.: 280-0108949-012
Operator ID: JZ Instrument ID: CHHPLC_X5
Sublist: chrom-8330_X5_Luna*sub1

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 03-Mar-2022 12:49:14 Calib Date: 03-Mar-2022 07:19:48
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020027.D

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

First Level Reviewer: zhangji Date: 03-Mar-2022 12:09:45

	Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
	1 2,6-diamino-4-nitrotoluene	1	4.110	4.142	-0.032	273235	0.7000	0.6722	M
	2 2,4-diamino-6-nitrotoluene	1	4.710	4.669	0.041	172644	0.7000	0.7557	M
	5 HMX	1	6.863	6.889	-0.026	109512	0.7000	0.6592	
	7 2,4,6-Trinitrophenol	1	7.430	7.602	-0.172	102939	0.7000	0.7746	
	8 RDX	1	9.083	9.115	-0.032	134031	0.7000	0.6897	
	9 Nitrobenzene	1	12.036	12.062	-0.026	259585	0.7028	0.7048	
$	10 1,2-Dinitrobenzene	1	13.256	13.282	-0.026	175358	0.7000	0.7021	
	11 3,5-Dinitroaniline	1	15.243	15.269	-0.026	294648	0.7000	0.7162	
	12 1,3-Dinitrobenzene	1	15.616	15.635	-0.019	394707	0.7014	0.6904	
	13 Nitroglycerin	2	16.050	16.055	-0.005	888552	7.00	7.25	
	14 o-Nitrotoluene	1	16.810	16.822	-0.012	161534	0.7000	0.6883	
	16 p-Nitrotoluene	1	17.123	17.129	-0.006	146563	0.7014	0.6952	
	17 4-Amino-2,6-dinitrotoluene	1	17.736	17.755	-0.019	186078	0.7007	0.6965	
	18 m-Nitrotoluene	1	18.090	18.102	-0.012	185839	0.7007	0.6993	
	19 2-Amino-4,6-dinitrotoluene	1	18.730	18.742	-0.012	257718	0.7028	0.7148	
	20 1,3,5-Trinitrobenzene	1	18.936	18.949	-0.013	295298	0.7014	0.7108	
	21 2,6-Dinitrotoluene	1	20.243	20.255	-0.012	186150	0.7028	0.7007	
	22 2,4-Dinitrotoluene	1	20.750	20.762	-0.012	382059	0.7028	0.6937	
	23 Tetryl	1	24.483	24.489	-0.006	219675	0.7014	0.6420	
	24 2,4,6-Trinitrotoluene	1	25.257	25.262	-0.005	265676	0.7028	0.7196	
	25 PETN	2	26.217	26.215	0.002	951206	7.00	7.35	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330IntermStk_00070	Amount Added:	70.00	Units: uL
8330_ADDs_00031	Amount Added:	35.00	Units: uL

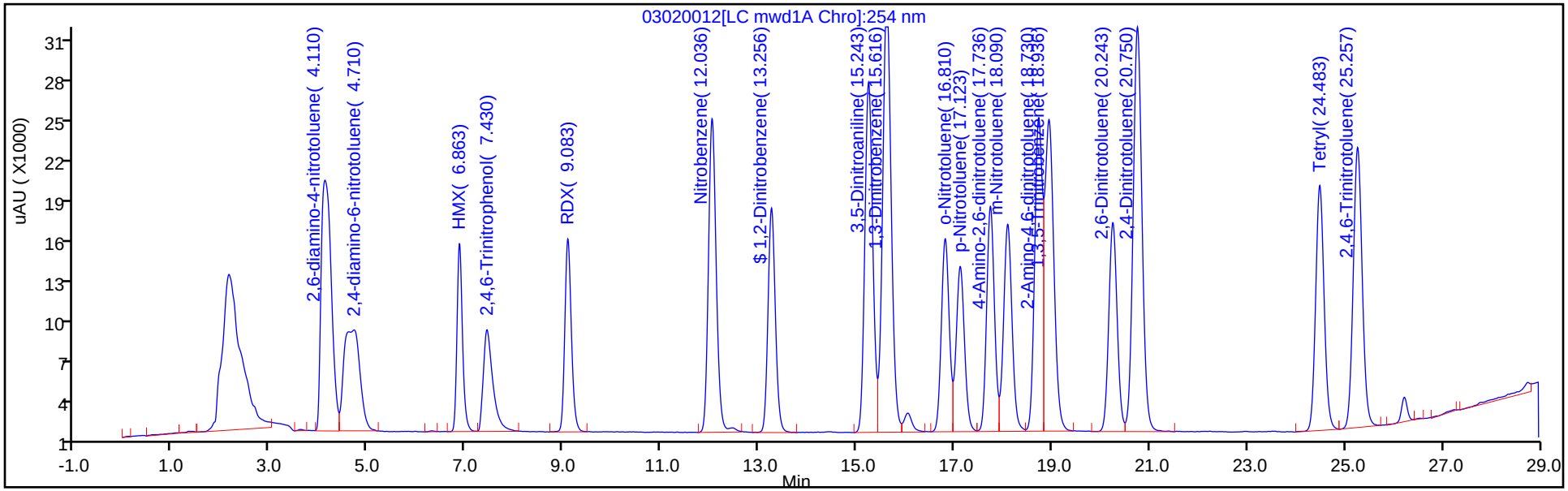
Report Date: 03-Mar-2022 12:49:14 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Denver

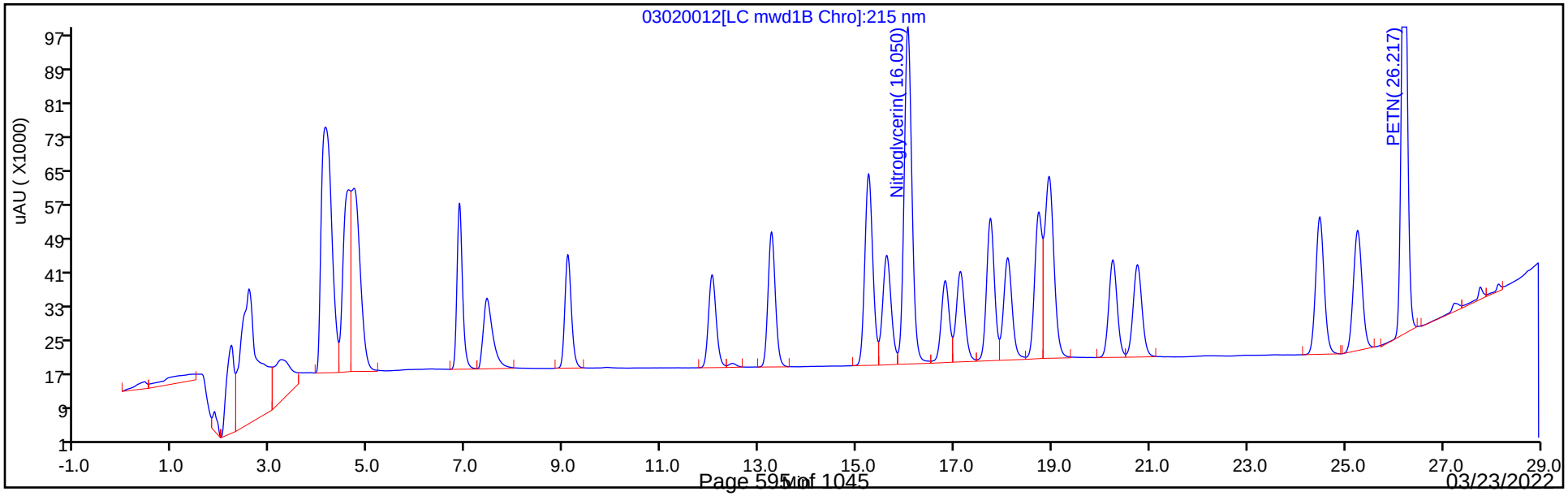
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020012.D

Injection Date:	02-Mar-2022 22:32:16	Instrument ID:	CHHPLC_X5	Operator ID:	JZ
Lims ID:	IC INT/ADD 7			Worklist Smp#:	12
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	12
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020013.D
Lims ID: IC INT/ADD 6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 02-Mar-2022 23:07:23 ALS Bottle#: 13 Worklist Smp#: 13
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT/ADD 6
Misc. Info.: 280-0108949-013
Operator ID: JZ Instrument ID: CHHPLC_X5
Sublist: chrom-8330_X5_Luna*sub1

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 03-Mar-2022 12:49:14 Calib Date: 03-Mar-2022 07:19:48
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020027.D

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

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 2,6-diamino-4-nitrotoluene	1	4.127	4.142	-0.015	147662	0.4000	0.3633	
2 2,4-diamino-6-nitrotoluene	1	4.700	4.669	0.031	93419	0.4000	0.4055	
5 HMX	1	6.880	6.889	-0.009	62819	0.4000	0.3781	
7 2,4,6-Trinitrophenol	1	7.527	7.602	-0.075	58358	0.4000	0.4392	
8 RDX	1	9.100	9.115	-0.015	76711	0.4000	0.3947	
9 Nitrobenzene	1	12.060	12.062	-0.002	148639	0.4016	0.4036	
$ 10 1,2-Dinitrobenzene	1	13.274	13.282	-0.008	99804	0.4000	0.3996	
11 3,5-Dinitroaniline	1	15.260	15.269	-0.009	157805	0.4000	0.3835	
12 1,3-Dinitrobenzene	1	15.627	15.635	-0.008	225815	0.4008	0.3950	
13 Nitroglycerin	2	16.054	16.055	-0.001	519683	4.00	4.24	
14 o-Nitrotoluene	1	16.820	16.822	-0.002	93064	0.4000	0.3966	
16 p-Nitrotoluene	1	17.127	17.129	-0.002	83857	0.4008	0.3978	
17 4-Amino-2,6-dinitrotoluene	1	17.747	17.755	-0.008	107043	0.4004	0.4008	
18 m-Nitrotoluene	1	18.100	18.102	-0.002	106661	0.4004	0.4017	
19 2-Amino-4,6-dinitrotoluene	1	18.740	18.742	-0.002	146764	0.4016	0.4071	
20 1,3,5-Trinitrobenzene	1	18.947	18.949	-0.002	170012	0.4008	0.4092	
21 2,6-Dinitrotoluene	1	20.254	20.255	-0.001	106362	0.4016	0.4004	
22 2,4-Dinitrotoluene	1	20.760	20.762	-0.002	220828	0.4016	0.3959	
23 Tetryl	1	24.494	24.489	0.005	126546	0.4008	0.3698	
24 2,4,6-Trinitrotoluene	1	25.267	25.262	0.005	151235	0.4016	0.4097	
25 PETN	2	26.220	26.215	0.005	544987	4.00	4.21	

Reagents:

8330IntermStk_00070 Amount Added: 40.00 Units: uL
8330_ADDs_00031 Amount Added: 20.00 Units: uL

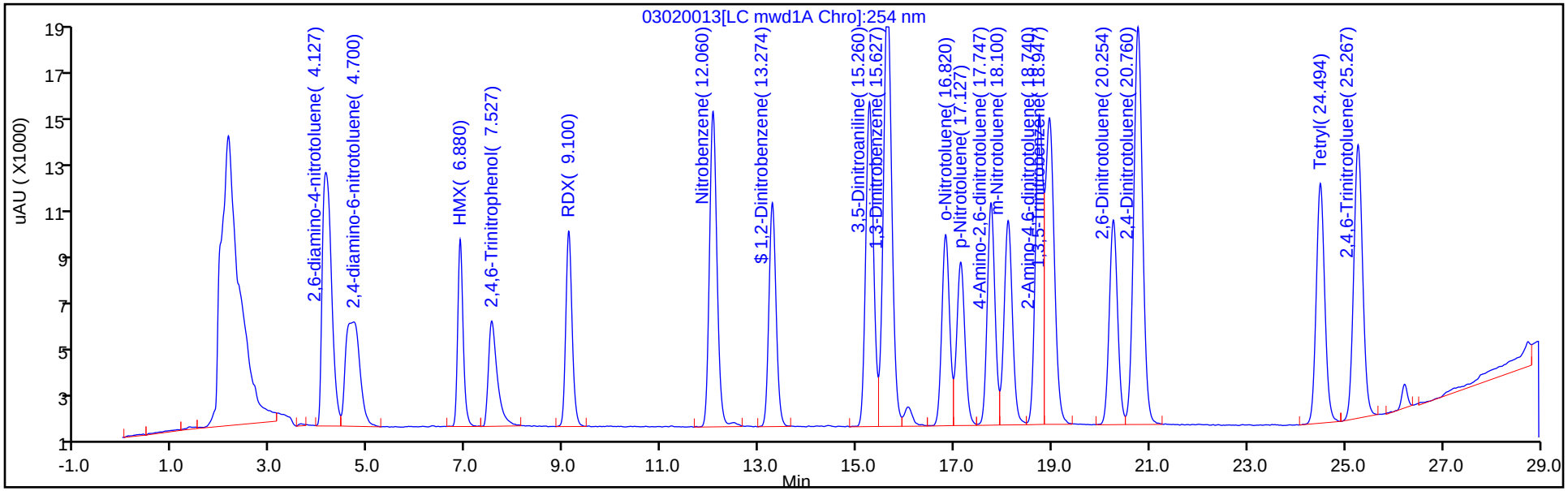
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Eurofins Denver

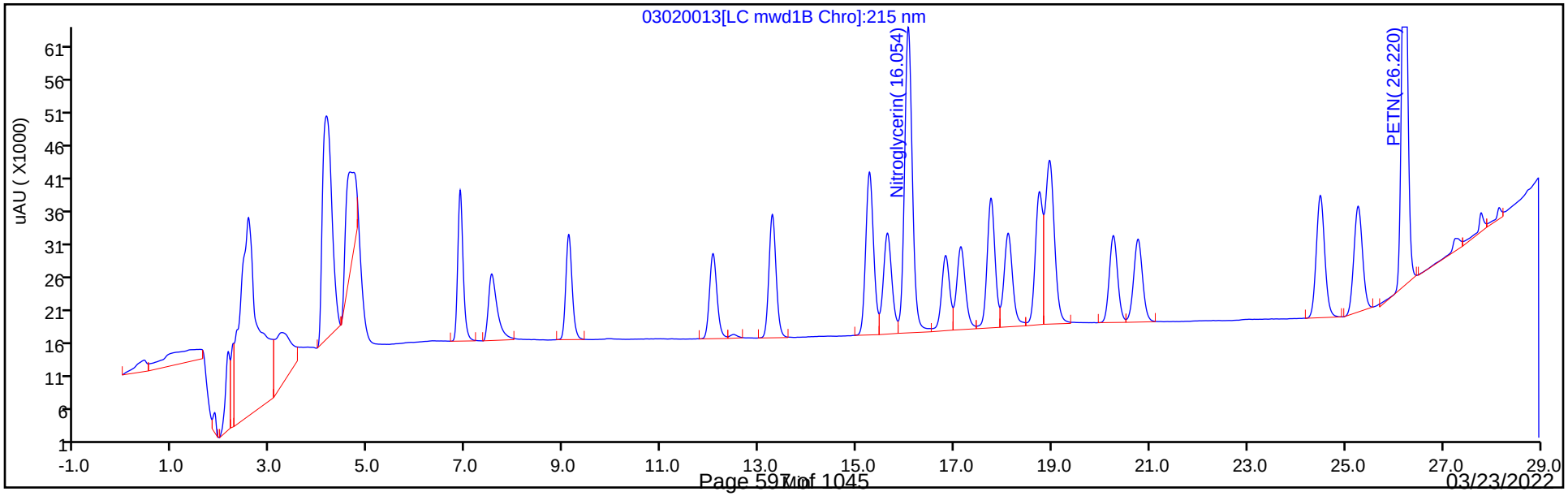
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Injection Date:	02-Mar-2022 23:07:23	Instrument ID:	CHHPLC_X5	Operator ID:	JZ
Lims ID:	IC INT/ADD 6			Worklist Smp#:	13
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	13
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020014.D
Lims ID: IC INT/ADD 5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 02-Mar-2022 23:42:39 ALS Bottle#: 14 Worklist Smp#: 14
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT/ADD 5
Misc. Info.: 280-0108949-014
Operator ID: JZ Instrument ID: CHHPLC_X5
Sublist: chrom-8330_X5_Luna*sub1

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 03-Mar-2022 12:49:15 Calib Date: 03-Mar-2022 07:19:48
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020027.D

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

First Level Reviewer: zhangji Date: 03-Mar-2022 12:06:29

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 2,6-diamino-4-nitrotoluene	1	4.142	4.142	0.000	96596	0.2500	0.2377	
2 2,4-diamino-6-nitrotoluene	1	4.669	4.669	0.000	59944	0.2500	0.2576	
5 HMX	1	6.889	6.889	0.000	38318	0.2500	0.2306	
7 2,4,6-Trinitrophenol	1	7.602	7.602	0.000	34288	0.2500	0.2580	
8 RDX	1	9.115	9.115	0.000	46417	0.2500	0.2389	
9 Nitrobenzene	1	12.062	12.062	0.000	90246	0.2510	0.2450	
$ 10 1,2-Dinitrobenzene	1	13.282	13.282	0.000	61198	0.2500	0.2450	
11 3,5-Dinitroaniline	1	15.269	15.269	0.000	102787	0.2500	0.2497	
12 1,3-Dinitrobenzene	1	15.635	15.635	0.000	136486	0.2505	0.2388	
13 Nitroglycerin	2	16.055	16.055	0.000	309657	2.50	2.53	
14 o-Nitrotoluene	1	16.822	16.822	0.000	56221	0.2500	0.2396	
16 p-Nitrotoluene	1	17.129	17.129	0.000	50555	0.2505	0.2398	
17 4-Amino-2,6-dinitrotoluene	1	17.755	17.755	0.000	64569	0.2503	0.2418	
18 m-Nitrotoluene	1	18.102	18.102	0.000	64150	0.2503	0.2419	
19 2-Amino-4,6-dinitrotoluene	1	18.742	18.742	0.000	88010	0.2510	0.2441	
20 1,3,5-Trinitrobenzene	1	18.949	18.949	0.000	102576	0.2505	0.2469	
21 2,6-Dinitrotoluene	1	20.255	20.255	0.000	64489	0.2510	0.2427	
22 2,4-Dinitrotoluene	1	20.762	20.762	0.000	139375	0.2510	0.2455	
23 Tetryl	1	24.489	24.489	0.000	77249	0.2505	0.2258	
24 2,4,6-Trinitrotoluene	1	25.262	25.262	0.000	91338	0.2510	0.2474	
25 PETN	2	26.215	26.215	0.000	329509	2.50	2.55	

QC Flag Legend
Processing Flags

Reagents:

8330IntermStk_00070	Amount Added:	25.00	Units: uL
8330_ADDs_00031	Amount Added:	12.50	Units: uL

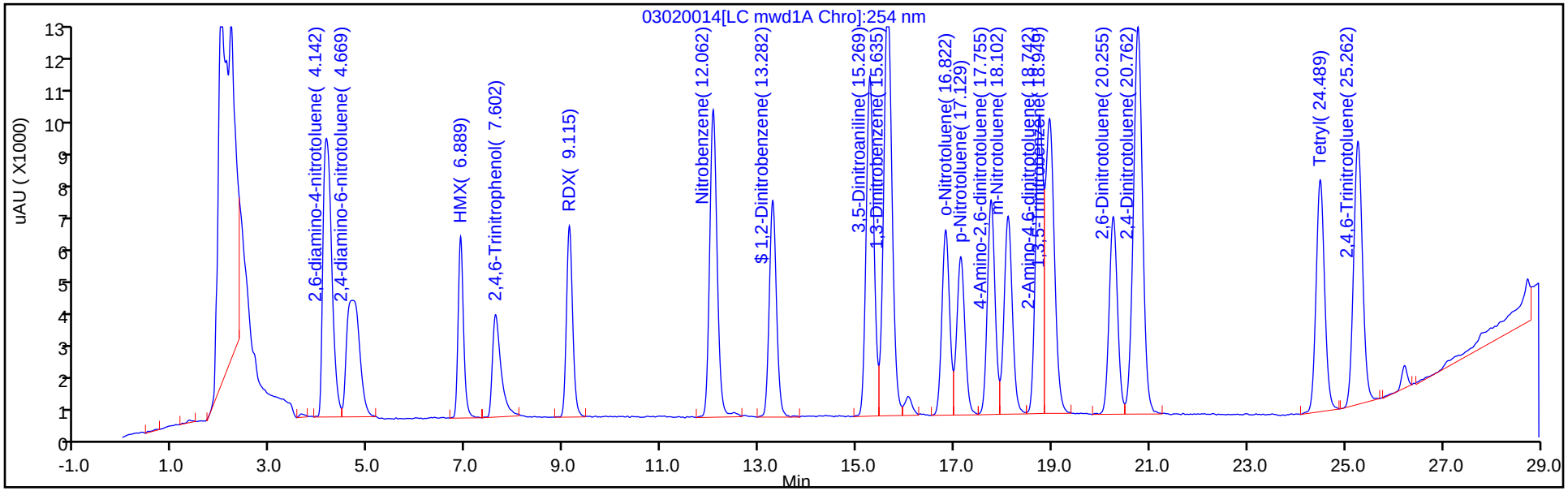
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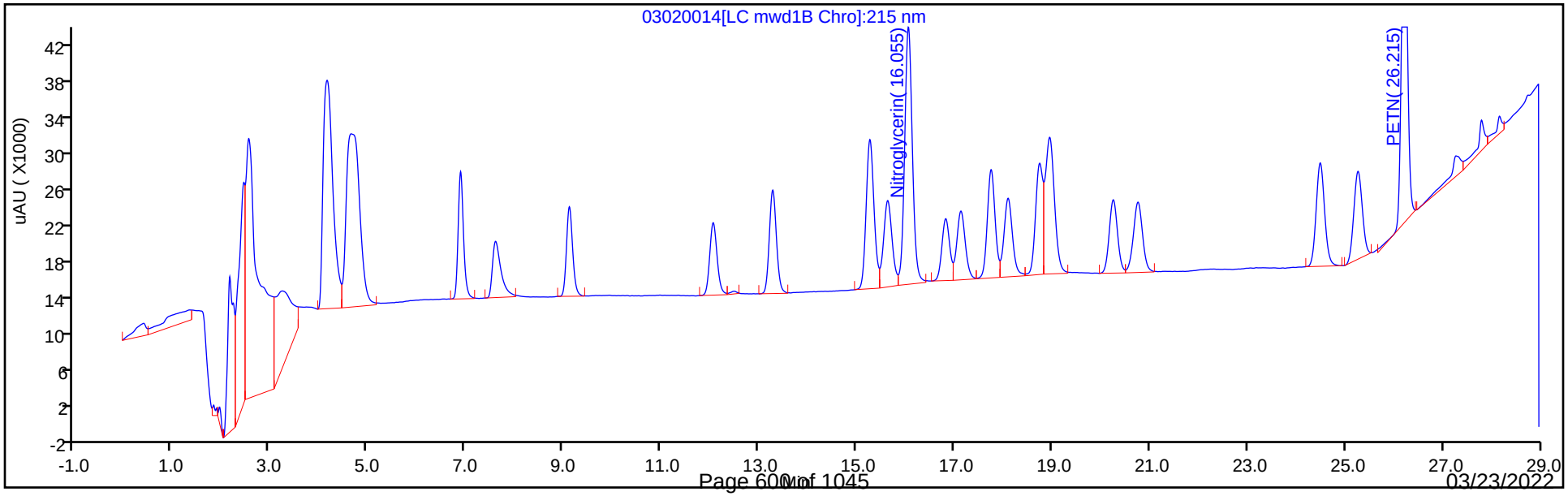
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Injection Date:	02-Mar-2022 23:42:39	Instrument ID:	CHHPLC_X5	Operator ID:	JZ
Lims ID:	IC INT/ADD 5			Worklist Smp#:	14
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	14
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020015.D
Lims ID: IC INT/ADD 4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 03-Mar-2022 00:17:55 ALS Bottle#: 15 Worklist Smp#: 15
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT/ADD 4
Misc. Info.: 280-0108949-015
Operator ID: JZ Instrument ID: CHHPLC_X5
Sublist: chrom-8330_X5_Luna*sub1

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 03-Mar-2022 12:49:16 Calib Date: 03-Mar-2022 07:19:48
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020027.D

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

First Level Reviewer: zhangji Date: 03-Mar-2022 12:12:37

	Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
	1 2,6-diamino-4-nitrotoluene	1	4.149	4.142	0.007	41030	0.1000	0.1009	
	2 2,4-diamino-6-nitrotoluene	1	4.669	4.669	0.000	24932	0.1000	0.1028	
	5 HMX	1	6.896	6.889	0.007	16109	0.1000	0.0970	
	7 2,4,6-Trinitrophenol	1	7.696	7.602	0.094	14009	0.1000	0.1054	
	8 RDX	1	9.129	9.115	0.014	19750	0.1000	0.1016	
	9 Nitrobenzene	1	12.069	12.062	0.007	37271	0.1004	0.1012	
$	10 1,2-Dinitrobenzene	1	13.282	13.282	0.000	25499	0.1000	0.1021	
	11 3,5-Dinitroaniline	1	15.276	15.269	0.007	42107	0.1000	0.1022	
	12 1,3-Dinitrobenzene	1	15.642	15.635	0.007	59537	0.1002	0.1041	
	13 Nitroglycerin	2	16.062	16.055	0.007	133241	1.00	1.09	
	14 o-Nitrotoluene	1	16.829	16.822	0.007	23857	0.1000	0.1017	
	16 p-Nitrotoluene	1	17.136	17.129	0.007	21625	0.1002	0.1026	
	17 4-Amino-2,6-dinitrotoluene	1	17.756	17.755	0.001	27216	0.1001	0.1021	
	18 m-Nitrotoluene	1	18.109	18.102	0.007	26978	0.1001	0.1021	
	19 2-Amino-4,6-dinitrotoluene	1	18.749	18.742	0.007	37178	0.1004	0.1031	
	20 1,3,5-Trinitrobenzene	1	18.956	18.949	0.007	42514	0.1002	0.1023	
	21 2,6-Dinitrotoluene	1	20.256	20.255	0.001	26687	0.1004	0.1005	
	22 2,4-Dinitrotoluene	1	20.756	20.762	-0.006	64187	0.1004	0.1067	
	23 Tetryl	1	24.483	24.489	-0.006	33188	0.1002	0.0970	
	24 2,4,6-Trinitrotoluene	1	25.256	25.262	-0.006	37205	0.1004	0.1008	
	25 PETN	2	26.209	26.215	-0.006	134076	1.00	1.04	M

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330IntermStk_00070	Amount Added:	10.00	Units: uL
8330_ADDs_00031	Amount Added:	5.00	Units: uL

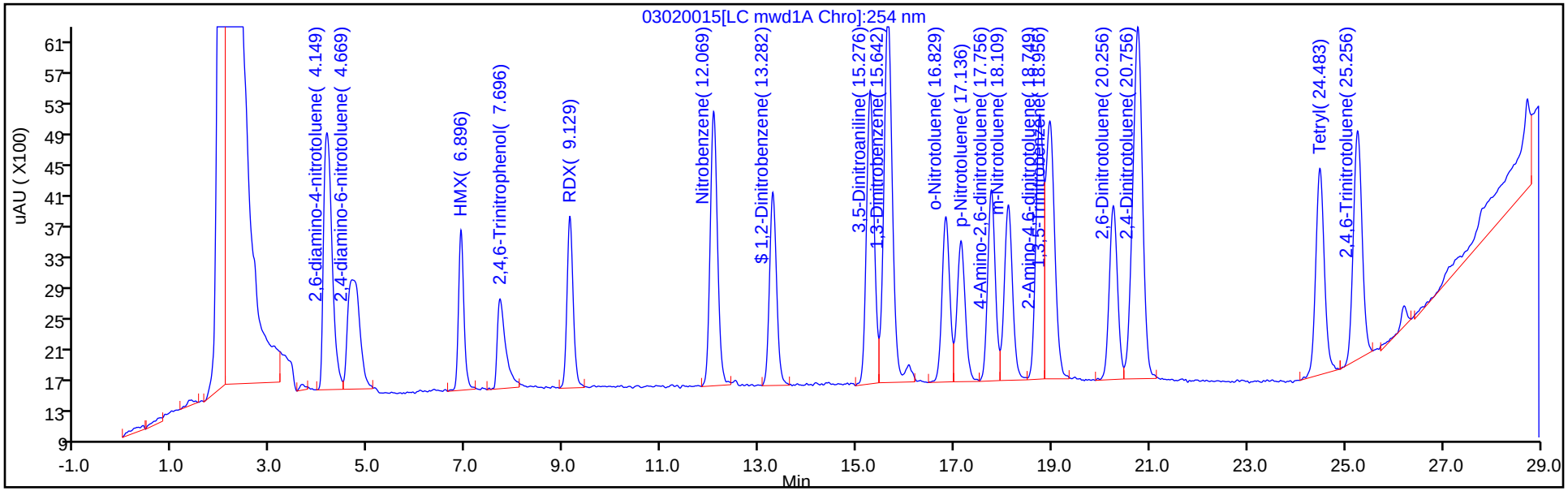
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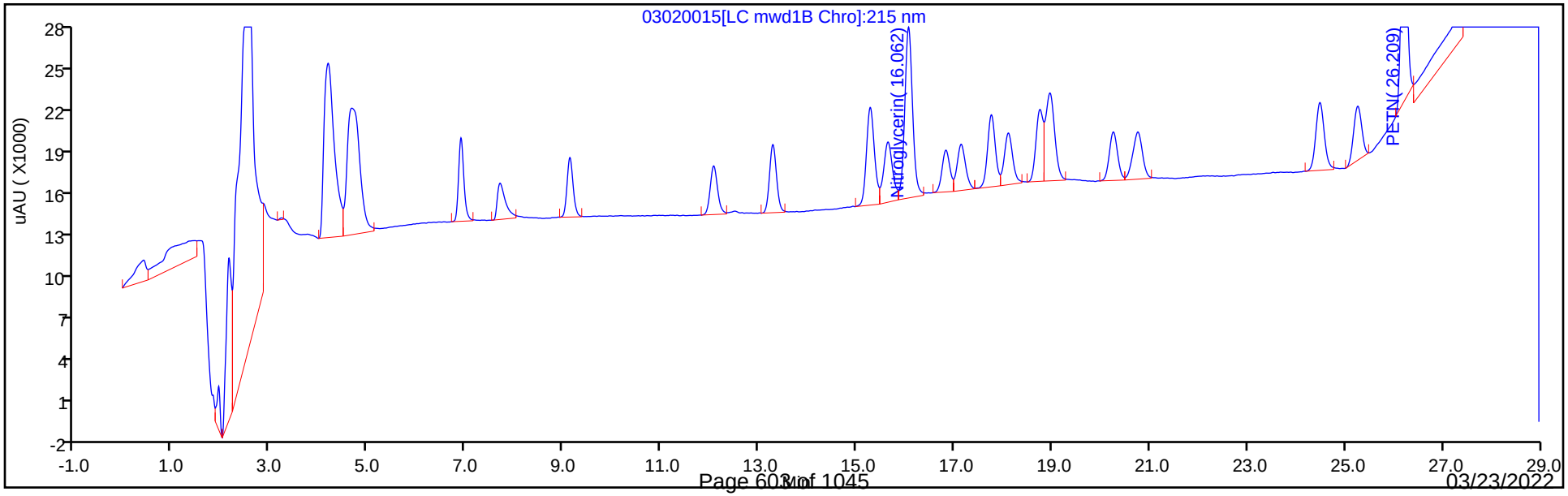
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Injection Date:	03-Mar-2022 00:17:55	Instrument ID:	CHHPLC_X5	Operator ID:	JZ
Lims ID:	IC INT/ADD 4			Worklist Smp#:	15
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	15
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

Eurofins Denver

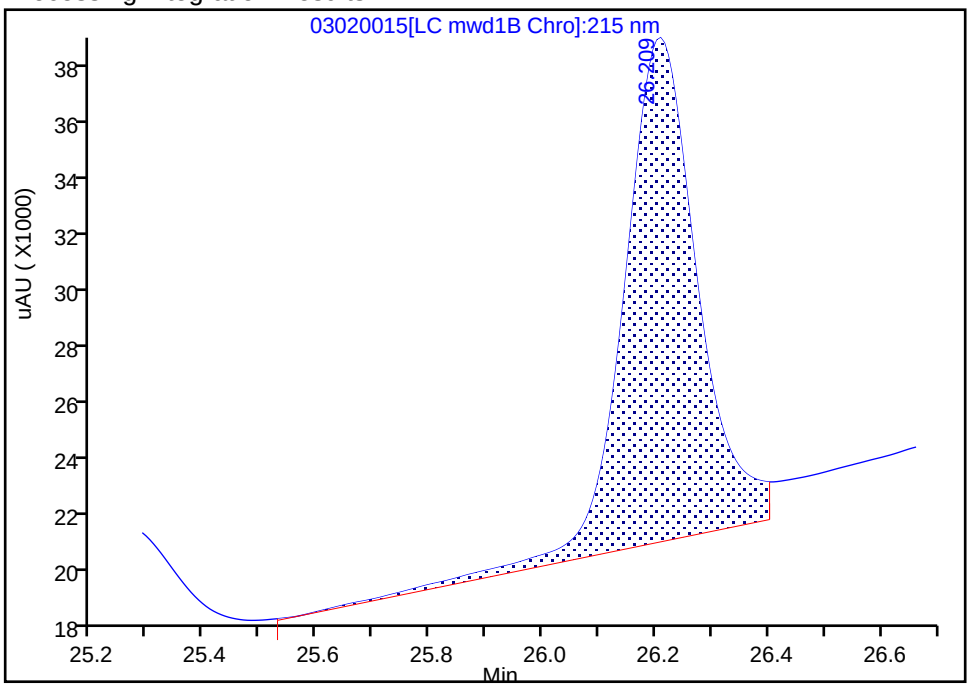
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Lims ID:	IC INT/ADD 4				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	15	Worklist Smp#:	15
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:		Detector	LC mwd1B, 215 nm		

25 PETN, CAS: 78-11-5

Signal: 1

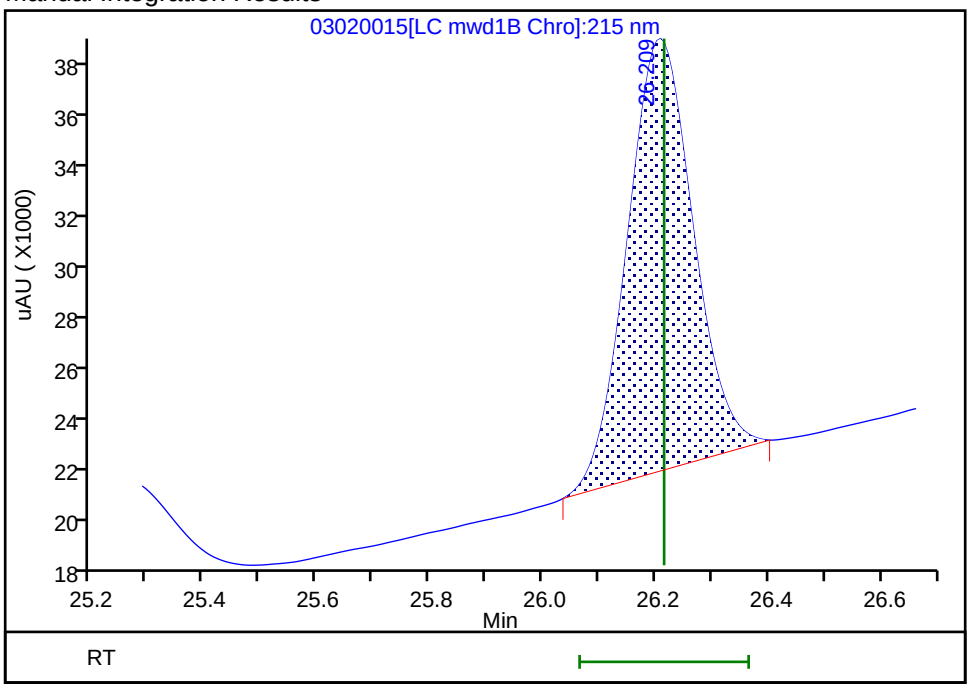
Processing Integration Results

RT: 26.21
Area: 159234
Amount: 1.166681
Amount Units: ug/ml



Manual Integration Results

RT: 26.21
Area: 134076
Amount: 1.036703
Amount Units: ug/ml



Reviewer: zhangji, 03-Mar-2022 12:12:35
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020016.D
Lims ID: IC INT/ADD 3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 03-Mar-2022 00:53:03 ALS Bottle#: 16 Worklist Smp#: 16
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT/ADD 3
Misc. Info.: 280-0108949-016
Operator ID: JZ Instrument ID: CHHPLC_X5
Sublist: chrom-8330_X5_Luna*sub1

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 03-Mar-2022 12:49:16 Calib Date: 03-Mar-2022 07:19:48
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020027.D

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

First Level Reviewer: zhangji Date: 03-Mar-2022 12:09:56

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 2,6-diamino-4-nitrotoluene	1	4.154	4.142	0.012	21526	0.0500	0.0530	
2 2,4-diamino-6-nitrotoluene	1	4.674	4.669	0.005	12869	0.0500	0.0495	
5 HMX	1	6.894	6.889	0.005	8053	0.0500	0.0485	
7 2,4,6-Trinitrophenol	1	7.767	7.602	0.165	6356	0.0500	0.0478	
8 RDX	1	9.120	9.115	0.005	10028	0.0500	0.0516	
9 Nitrobenzene	1	12.073	12.062	0.011	19149	0.0502	0.0520	
$ 10 1,2-Dinitrobenzene	1	13.287	13.282	0.005	12864	0.0500	0.0515	
11 3,5-Dinitroaniline	1	15.287	15.269	0.018	20966	0.0500	0.0508	
12 1,3-Dinitrobenzene	1	15.647	15.635	0.012	30181	0.0501	0.0528	
13 Nitroglycerin	2	16.073	16.055	0.018	59894	0.5000	0.4889	M
14 o-Nitrotoluene	1	16.833	16.822	0.011	12057	0.0500	0.0514	
16 p-Nitrotoluene	1	17.147	17.129	0.018	10595	0.0501	0.0503	
17 4-Amino-2,6-dinitrotoluene	1	17.773	17.755	0.018	13425	0.0501	0.0505	
18 m-Nitrotoluene	1	18.120	18.102	0.018	13387	0.0501	0.0510	
19 2-Amino-4,6-dinitrotoluene	1	18.773	18.742	0.031	18562	0.0502	0.0515	
20 1,3,5-Trinitrobenzene	1	18.973	18.949	0.024	21339	0.0501	0.0514	
21 2,6-Dinitrotoluene	1	20.267	20.255	0.012	13757	0.0502	0.0518	
22 2,4-Dinitrotoluene	1	20.767	20.762	0.005	33918	0.0502	0.0508	
23 Tetryl	1	24.500	24.489	0.011	18110	0.0501	0.0529	
24 2,4,6-Trinitrotoluene	1	25.274	25.262	0.012	18556	0.0502	0.0503	
25 PETN	2	26.220	26.215	0.005	67082	0.5000	0.5187	M

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330IntermStk_00070	Amount Added:	5.00	Units: uL
8330_ADDs_00031	Amount Added:	2.50	Units: uL

Report Date: 03-Mar-2022 12:49:17 Chrom Revision: 2.3 16-Feb-2022 17:52:00

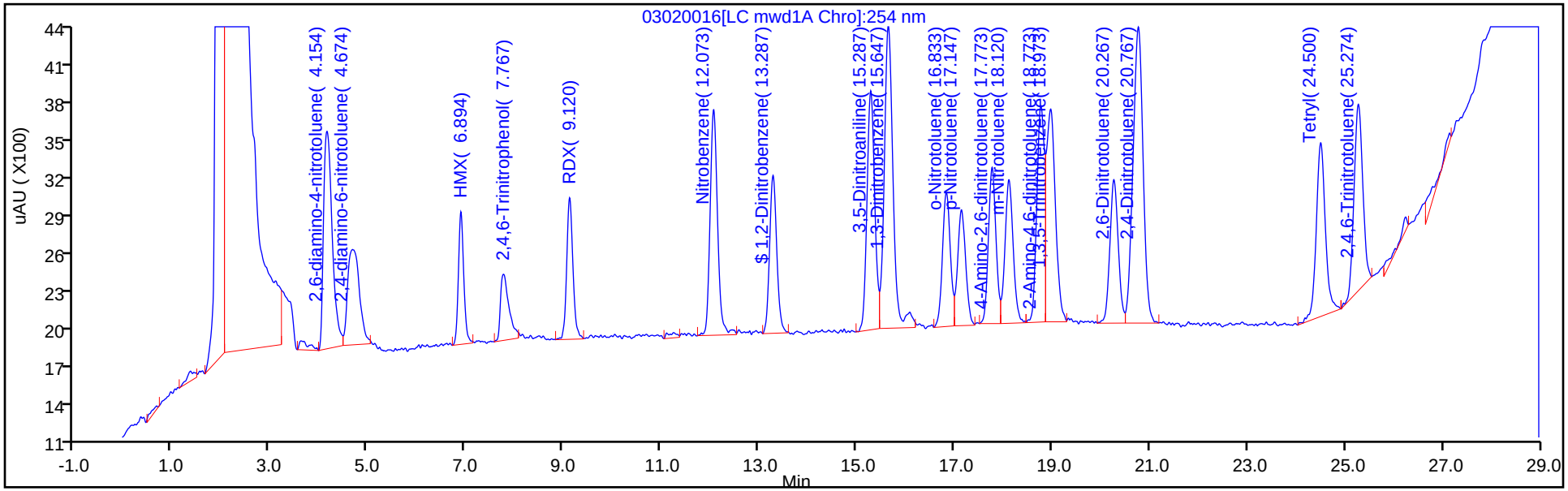
Eurofins Denver

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020016.D

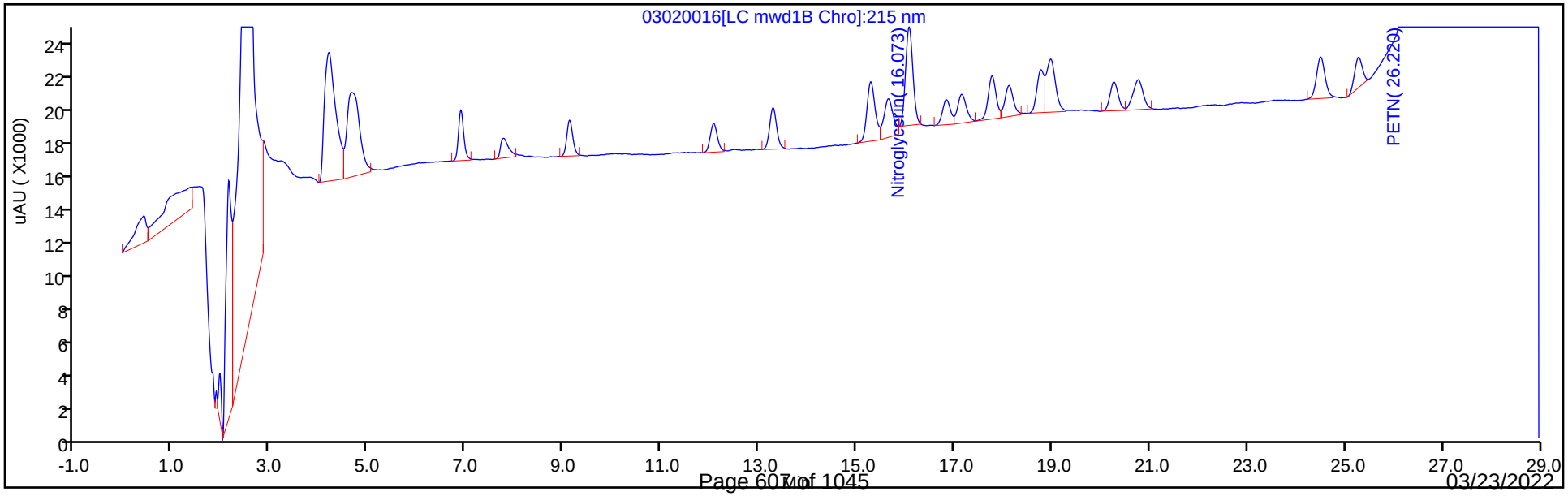
Injection Date:	03-Mar-2022 00:53:03	Instrument ID:	CHHPLC_X5	Operator ID:	JZ
Lims ID:	IC INT/ADD 3			Worklist Smp#:	16
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

Eurofins Denver

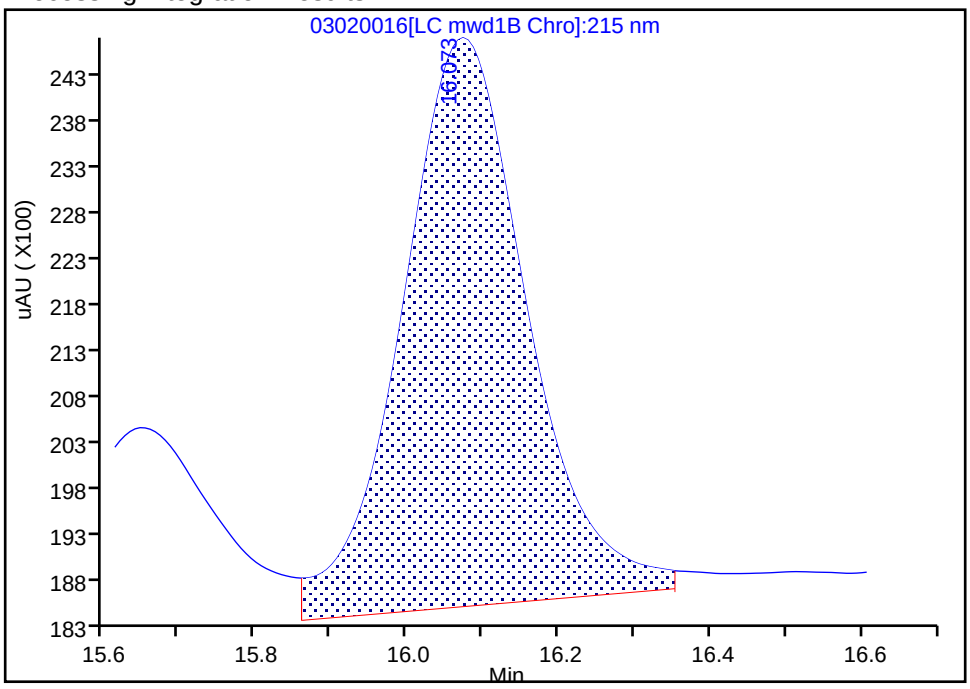
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Injection Date: 03-Mar-2022 00:53:03 Instrument ID: CHHPLC_X5
Lims ID: IC INT/ADD 3
Client ID:
Operator ID: JZ ALS Bottle#: 16 Worklist Smp#: 16
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X5_Luna Limit Group: GCSV - 8330
Column: Detector LC mwd1B, 215 nm

13 Nitroglycerin, CAS: 55-63-0

Signal: 1

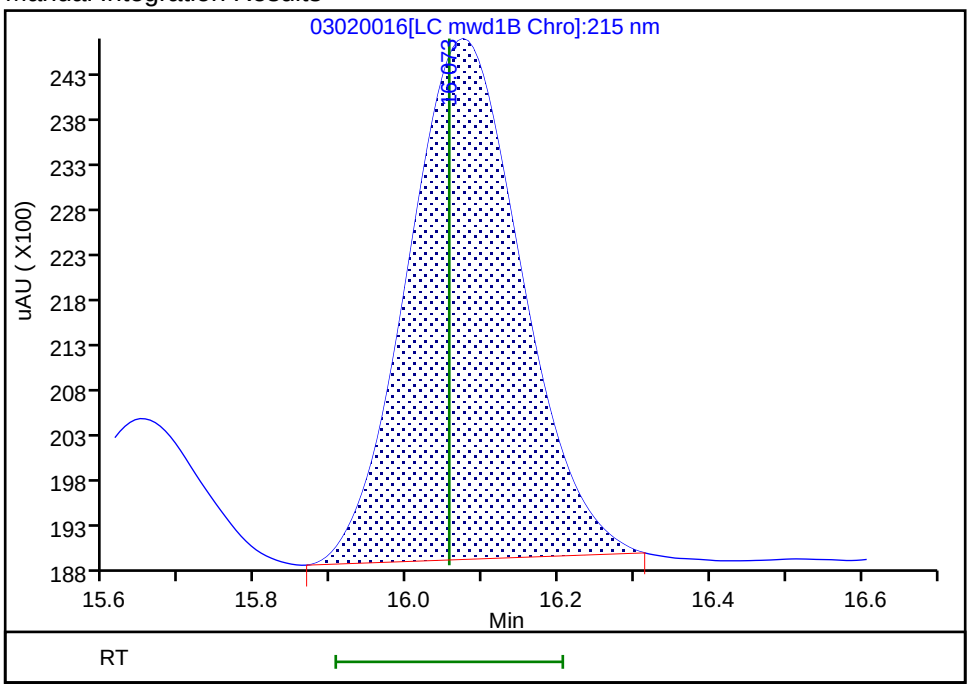
Processing Integration Results

RT: 16.07
Area: 70358
Amount: 0.563571
Amount Units: ug/ml



Manual Integration Results

RT: 16.07
Area: 59894
Amount: 0.488860
Amount Units: ug/ml



Reviewer: zhangji, 03-Mar-2022 12:12:24
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

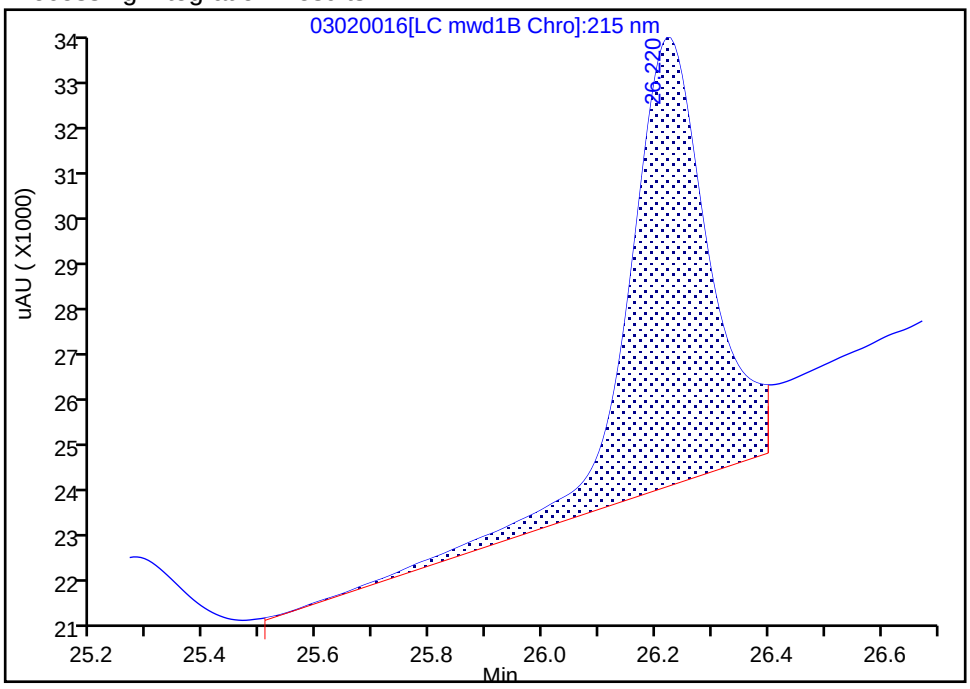
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Injection Date: 03-Mar-2022 00:53:03 Instrument ID: CHHPLC_X5
Lims ID: IC INT/ADD 3
Client ID:
Operator ID: JZ ALS Bottle#: 16 Worklist Smp#: 16
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X5_Luna Limit Group: GCSV - 8330
Column: Detector LC mwd1B, 215 nm

25 PETN, CAS: 78-11-5

Signal: 1

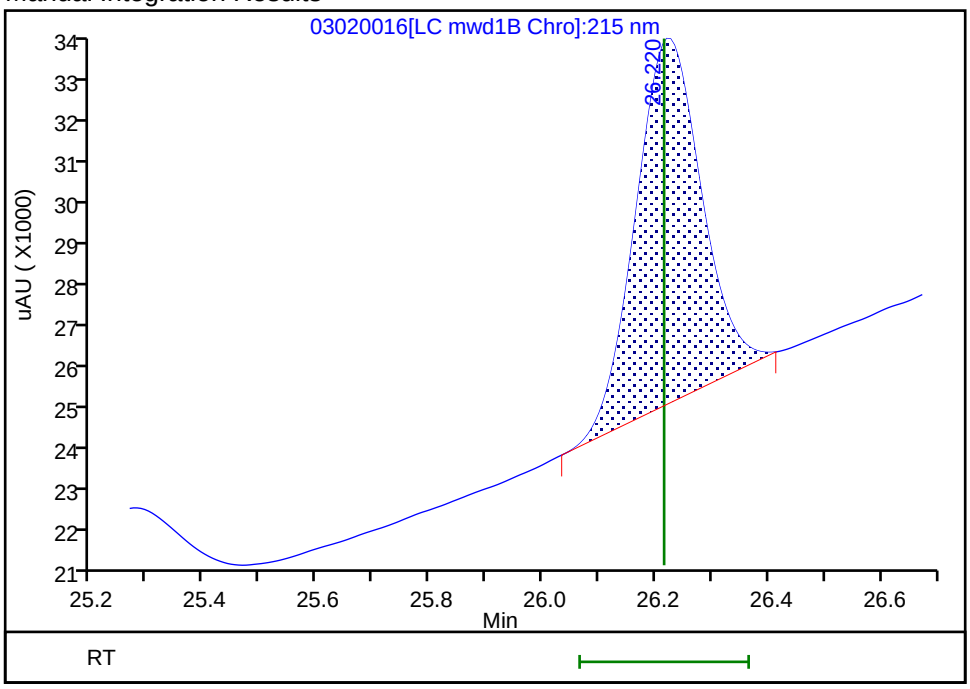
Processing Integration Results

RT: 26.22
Area: 91339
Amount: 0.654475
Amount Units: ug/ml



Manual Integration Results

RT: 26.22
Area: 67082
Amount: 0.518692
Amount Units: ug/ml



Reviewer: zhangji, 03-Mar-2022 12:12:20
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020017.D
Lims ID: IC INT/ADD 2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 03-Mar-2022 01:28:22 ALS Bottle#: 17 Worklist Smp#: 17
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT/ADD 2
Misc. Info.: 280-0108949-017
Operator ID: JZ Instrument ID: CHHPLC_X5
Sublist: chrom-8330_X5_Luna*sub1

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 03-Mar-2022 12:49:17 Calib Date: 03-Mar-2022 07:19:48
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020027.D

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

First Level Reviewer: zhangji Date: 03-Mar-2022 12:10:52

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 2,6-diamino-4-nitrotoluene	1	4.169	4.142	0.027	9145	0.0200	0.0225	
2 2,4-diamino-6-nitrotoluene	1	4.716	4.669	0.047	5618	0.0200	0.0175	
5 HMX	1	6.896	6.889	0.007	3127	0.0200	0.0188	
7 2,4,6-Trinitrophenol	1	7.863	7.602	0.261	2301	0.0200	0.0173	
8 RDX	1	9.129	9.115	0.014	3719	0.0200	0.0191	
9 Nitrobenzene	1	12.069	12.062	0.007	6686	0.0201	0.0182	
$ 10 1,2-Dinitrobenzene	1	13.282	13.282	0.000	4809	0.0200	0.0193	
11 3,5-Dinitroaniline	1	15.282	15.269	0.013	7621	0.0200	0.0183	
12 1,3-Dinitrobenzene	1	15.642	15.635	0.007	10643	0.0200	0.0186	
13 Nitroglycerin	2	16.062	16.055	0.007	21750	0.2000	0.1775	M
14 o-Nitrotoluene	1	16.829	16.822	0.007	4607	0.0200	0.0196	
16 p-Nitrotoluene	1	17.129	17.129	0.000	4078	0.0200	0.0193	
17 4-Amino-2,6-dinitrotoluene	1	17.756	17.755	0.001	5271	0.0200	0.0200	
18 m-Nitrotoluene	1	18.116	18.102	0.014	4805	0.0200	0.0188	
19 2-Amino-4,6-dinitrotoluene	1	18.762	18.742	0.020	6899	0.0201	0.0191	M
20 1,3,5-Trinitrobenzene	1	18.956	18.949	0.007	6970	0.0200	0.0168	M
21 2,6-Dinitrotoluene	1	20.262	20.255	0.007	5233	0.0201	0.0197	
22 2,4-Dinitrotoluene	1	20.716	20.762	-0.046	16863	0.0201	0.0193	
23 Tetryl	1	24.496	24.489	0.007	6933	0.0200	0.0203	
24 2,4,6-Trinitrotoluene	1	25.269	25.262	0.007	6507	0.0201	0.0176	
25 PETN	2	26.223	26.215	0.008	21923	0.2000	0.1695	M

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330IntermStk_00070	Amount Added:	2.00	Units: uL
8330_ADDs_00031	Amount Added:	1.00	Units: uL

Report Date: 03-Mar-2022 12:49:17 Chrom Revision: 2.3 16-Feb-2022 17:52:00

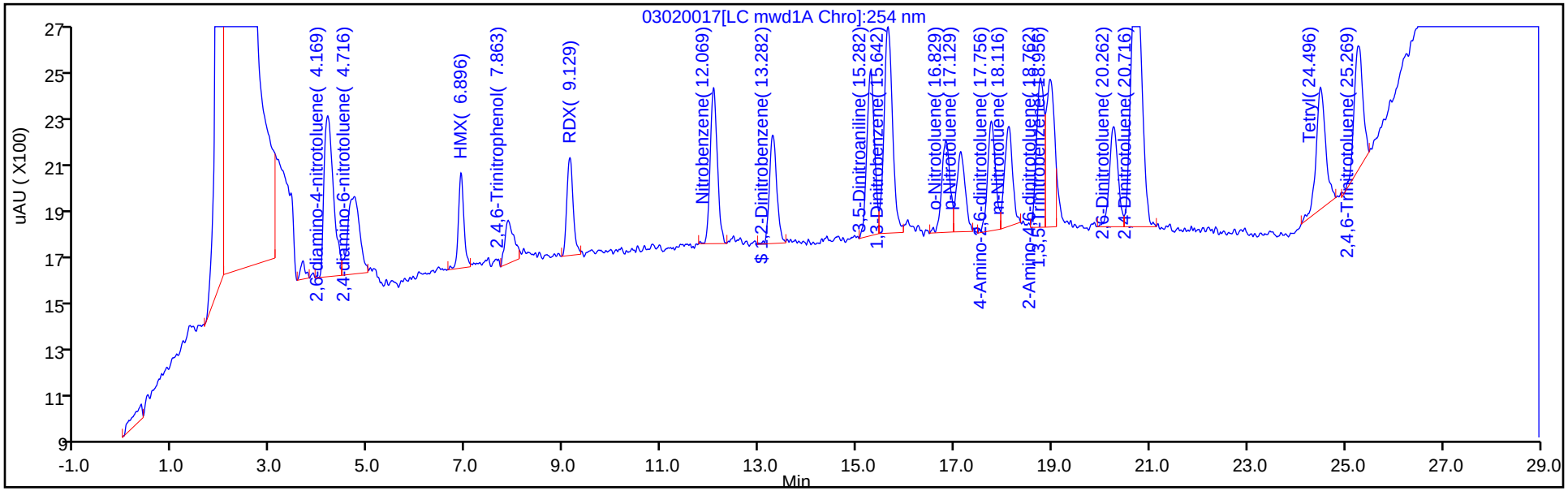
Eurofins Denver

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020017.D

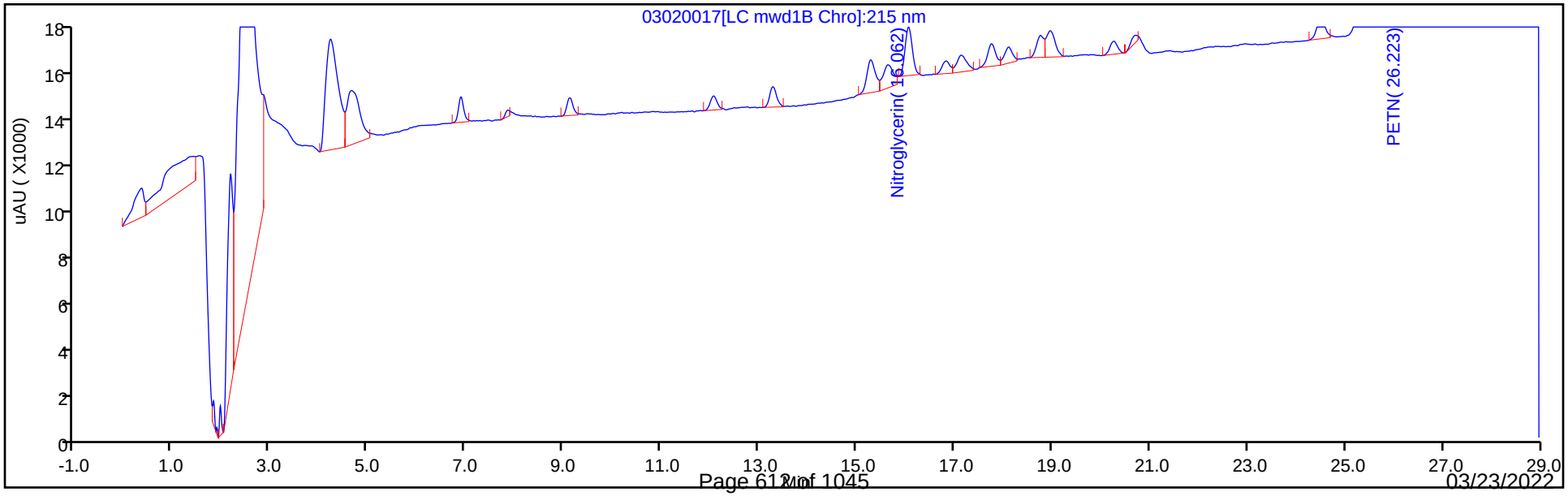
Injection Date:	03-Mar-2022 01:28:22	Instrument ID:	CHHPLC_X5	Operator ID:	JZ
Lims ID:	IC INT/ADD 2			Worklist Smp#:	17
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	17
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

Eurofins Denver

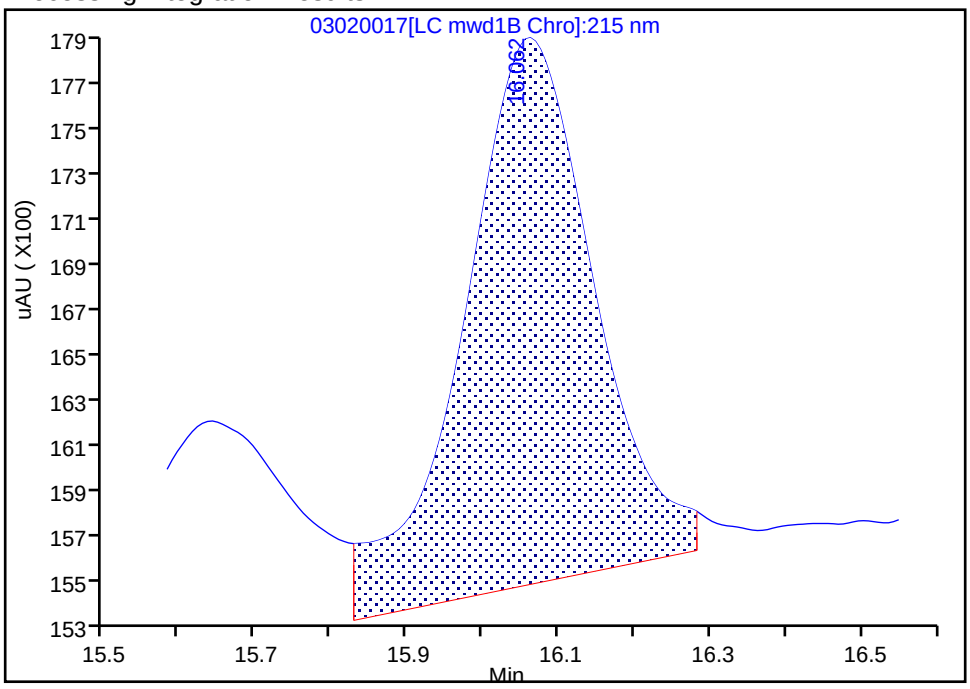
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020017.D
Injection Date: 03-Mar-2022 01:28:22 Instrument ID: CHHPLC_X5
Lims ID: IC INT/ADD 2
Client ID:
Operator ID: JZ ALS Bottle#: 17 Worklist Smp#: 17
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X5_Luna Limit Group: GCSV - 8330
Column: Detector LC mwd1B, 215 nm

13 Nitroglycerin, CAS: 55-63-0

Signal: 1

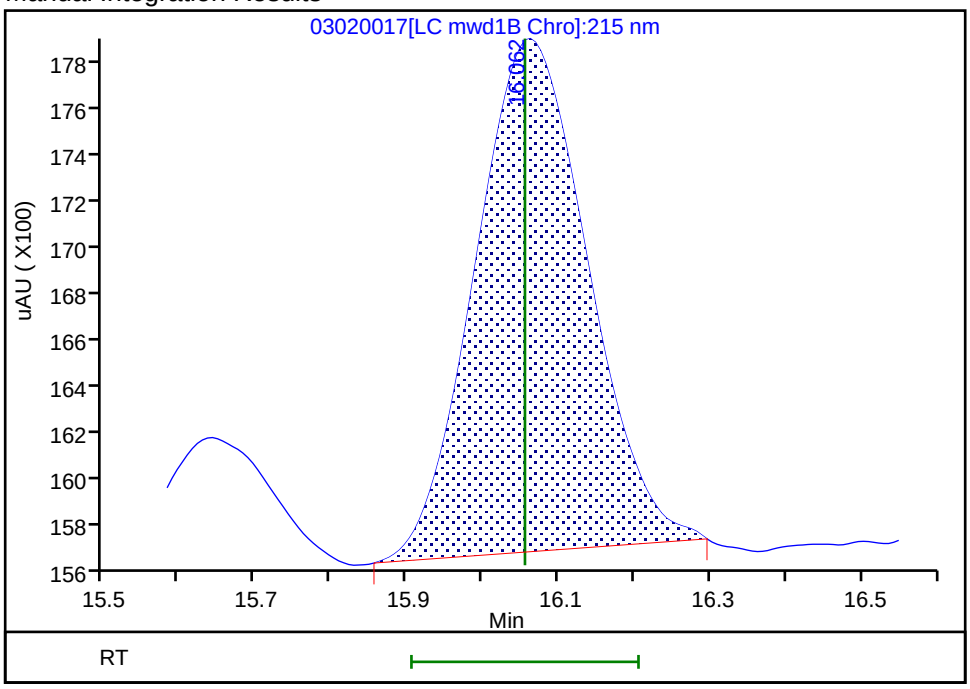
Processing Integration Results

RT: 16.06
Area: 28042
Amount: 0.218500
Amount Units: ug/ml



Manual Integration Results

RT: 16.06
Area: 21750
Amount: 0.177525
Amount Units: ug/ml



Reviewer: zhangji, 03-Mar-2022 12:12:09
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

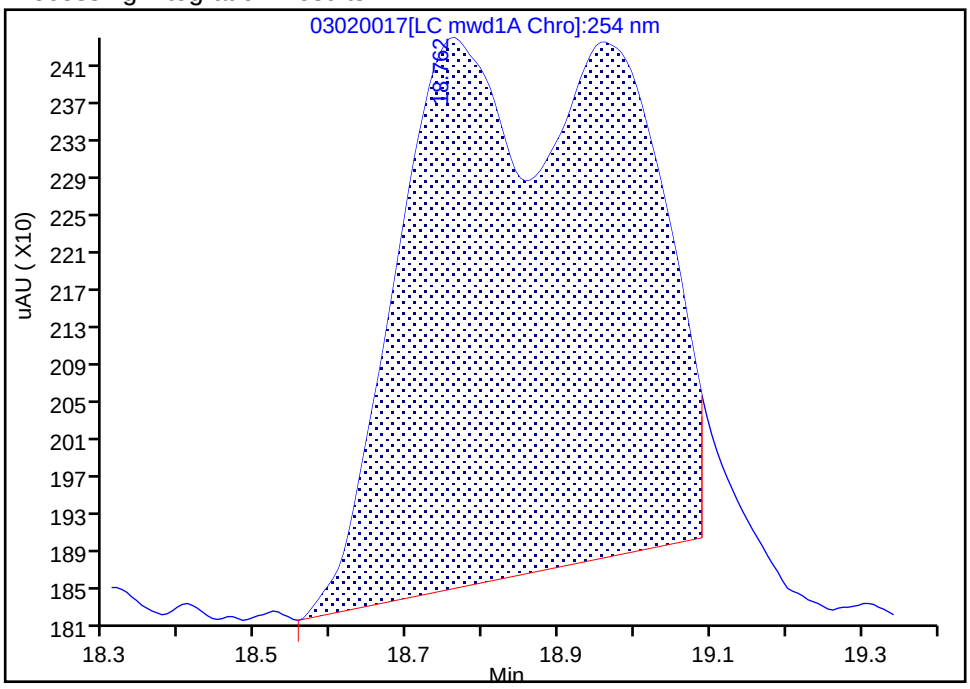
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020017.D				
Injection Date:	03-Mar-2022 01:28:22	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT/ADD 2				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

19 2-Amino-4,6-dinitrotoluene, CAS: 35572-78-2

Signal: 1

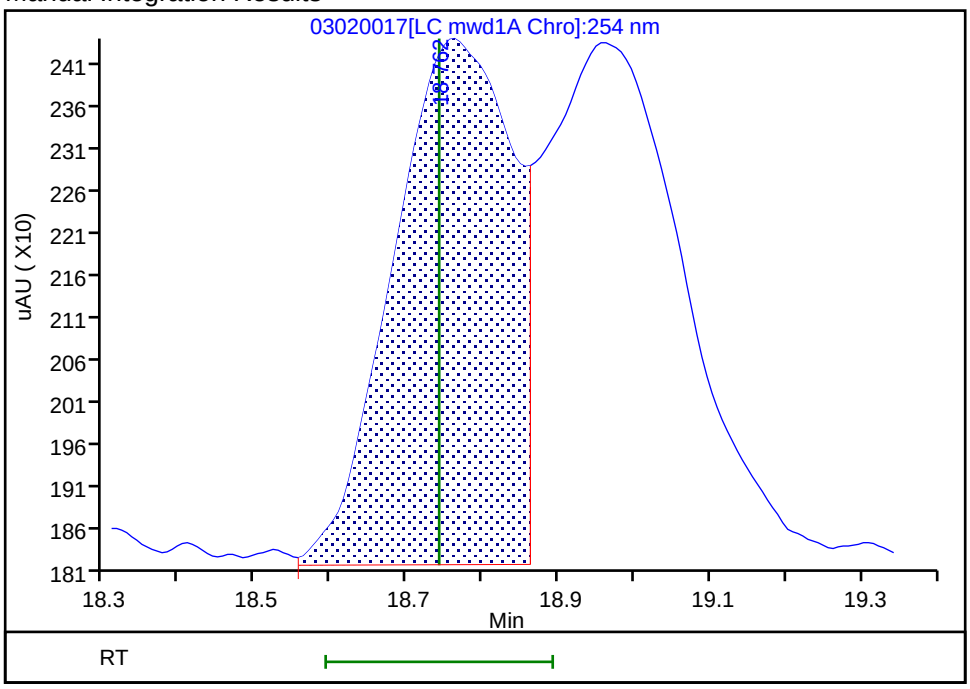
Processing Integration Results

RT: 18.76
Area: 12210
Amount: 0.025658
Amount Units: ug/ml



Manual Integration Results

RT: 18.76
Area: 6899
Amount: 0.019135
Amount Units: ug/ml



Reviewer: zhangji, 03-Mar-2022 12:10:14
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

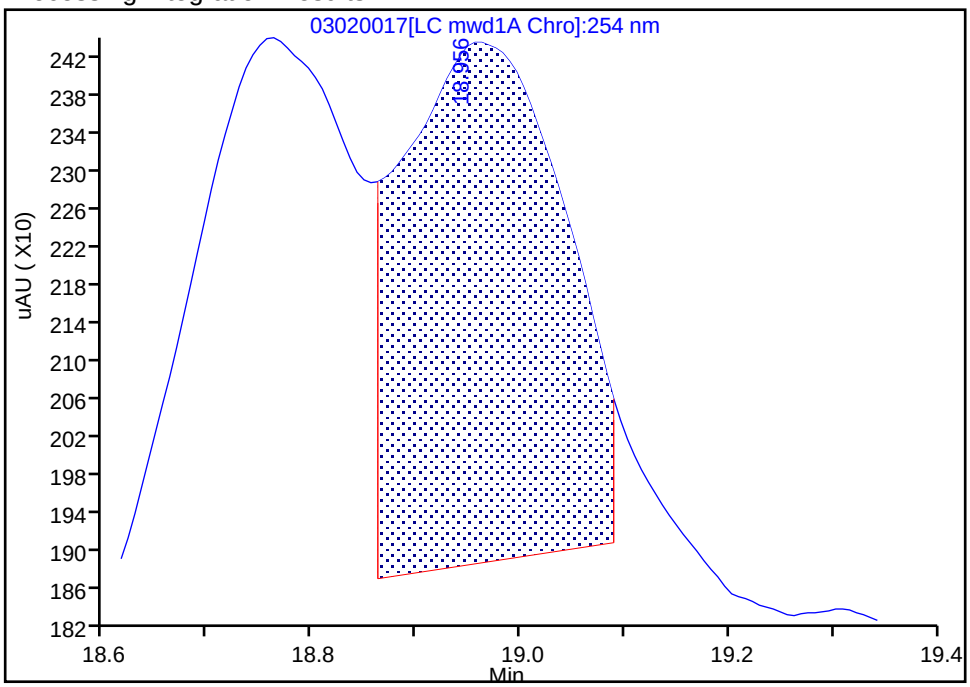
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Injection Date:	03-Mar-2022 01:28:22	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT/ADD 2				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

20 1,3,5-Trinitrobenzene, CAS: 99-35-4

Signal: 1

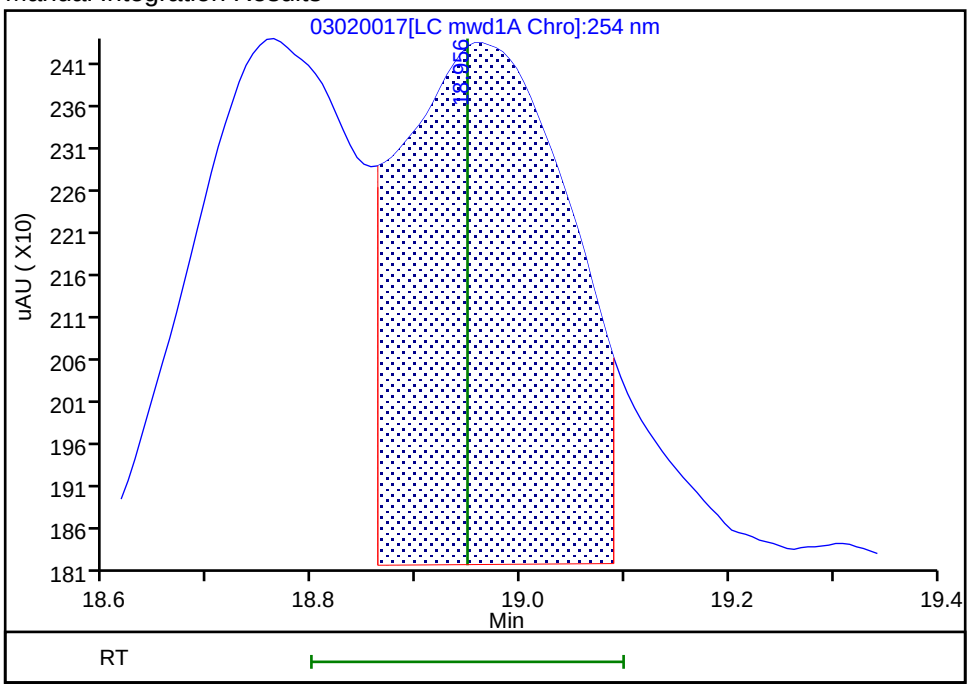
Processing Integration Results

RT: 18.96
Area: 5936
Amount: 0.014418
Amount Units: ug/ml



Manual Integration Results

RT: 18.96
Area: 6970
Amount: 0.016776
Amount Units: ug/ml



Reviewer: zhangji, 03-Mar-2022 12:10:14

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

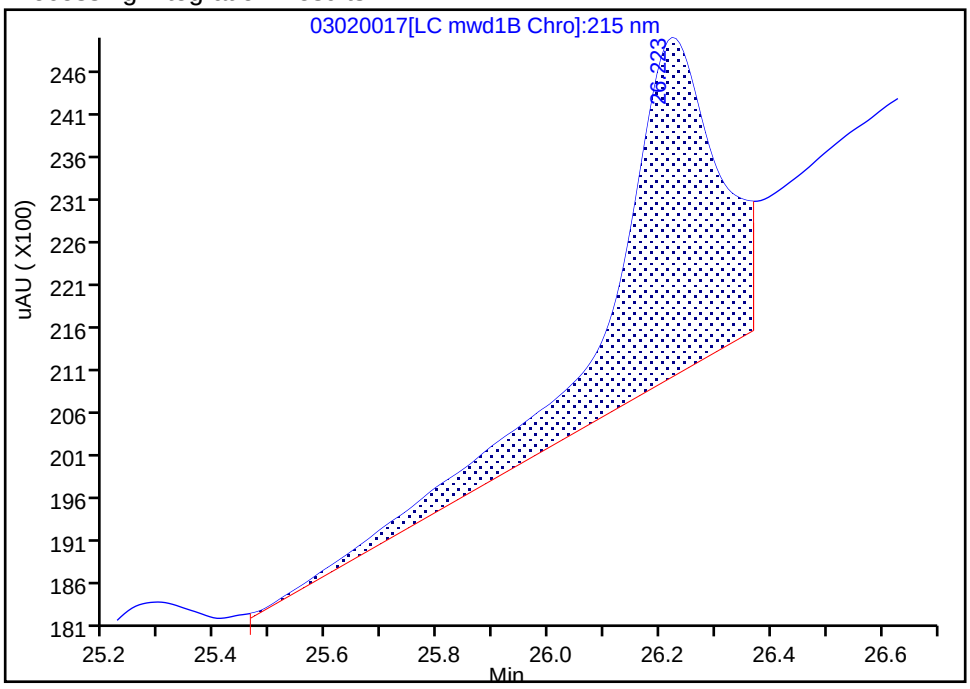
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Injection Date: 03-Mar-2022 01:28:22 Instrument ID: CHHPLC_X5
Lims ID: IC INT/ADD 2
Client ID:
Operator ID: JZ ALS Bottle#: 17 Worklist Smp#: 17
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X5_Luna Limit Group: GCSV - 8330
Column: Detector LC mwd1B, 215 nm

25 PETN, CAS: 78-11-5

Signal: 1

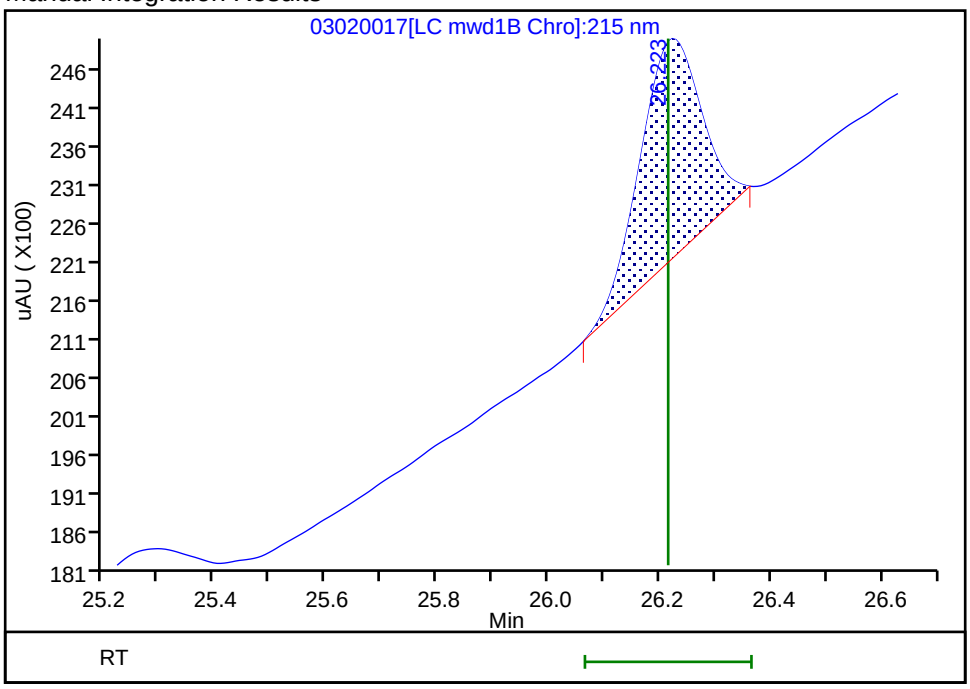
Processing Integration Results

RT: 26.22
Area: 51157
Amount: 0.330478
Amount Units: ug/ml



Manual Integration Results

RT: 26.22
Area: 21923
Amount: 0.169513
Amount Units: ug/ml



Reviewer: zhangji, 03-Mar-2022 12:12:13
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020018.D
Lims ID: IC INT/ADD 1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 03-Mar-2022 02:03:29 ALS Bottle#: 18 Worklist Smp#: 18
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT/ADD 1
Misc. Info.: 280-0108949-018
Operator ID: JZ Instrument ID: CHHPLC_X5
Sublist: chrom-8330_X5_Luna*sub1

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 03-Mar-2022 12:49:18 Calib Date: 03-Mar-2022 07:19:48
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020027.D

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

First Level Reviewer: zhangji Date: 03-Mar-2022 12:07:10

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 2,6-diamino-4-nitrotoluene	1	4.174	4.142	0.032	6283	0.0100	0.0155	
2 2,4-diamino-6-nitrotoluene	1	4.714	4.669	0.045	4064	0.0100	0.0106	
5 HMX	1	6.887	6.889	-0.002	2040	0.0100	0.0123	
7 2,4,6-Trinitrophenol	1		7.602			ND	ND	
8 RDX	1	9.114	9.115	-0.001	2097	0.0100	0.0108	
9 Nitrobenzene	1	12.047	12.062	-0.015	3890	0.0100	0.0106	
$ 10 1,2-Dinitrobenzene	1	13.260	13.282	-0.022	2461	0.0100	0.009854	
11 3,5-Dinitroaniline	1	15.287	15.269	0.018	4362	0.0100	0.0104	
12 1,3-Dinitrobenzene	1	15.627	15.635	-0.008	5961	0.0100	0.0104	
13 Nitroglycerin	2	16.054	16.055	-0.001	10664	0.1000	0.0870	M
14 o-Nitrotoluene	1	16.807	16.822	-0.015	2491	0.0100	0.0106	
16 p-Nitrotoluene	1	17.147	17.129	0.018	2203	0.0100	0.0104	
17 4-Amino-2,6-dinitrotoluene	1	17.734	17.755	-0.021	2610	0.0100	0.0100	
18 m-Nitrotoluene	1	18.094	18.102	-0.008	2543	0.0100	0.0103	
19 2-Amino-4,6-dinitrotoluene	1	18.754	18.742	0.012	3705	0.0100	0.0103	M
20 1,3,5-Trinitrobenzene	1	18.947	18.949	-0.002	3947	0.0100	0.009500	Ma
21 2,6-Dinitrotoluene	1	20.260	20.255	0.005	2704	0.0100	0.0102	
22 2,4-Dinitrotoluene	1	20.674	20.762	-0.088	11900	0.0100	0.0102	
23 Tetryl	1	24.514	24.489	0.025	4722	0.0100	0.0138	
24 2,4,6-Trinitrotoluene	1	25.274	25.262	0.012	3720	0.0100	0.0101	
25 PETN	2	26.220	26.215	0.005	10842	0.1000	0.0838	M

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags
M - Manually Integrated
a - User Assigned ID

Reagents:

8330IntermStk_00070	Amount Added:	1.00	Units: uL
8330_ADDs_00031	Amount Added:	0.50	Units: uL

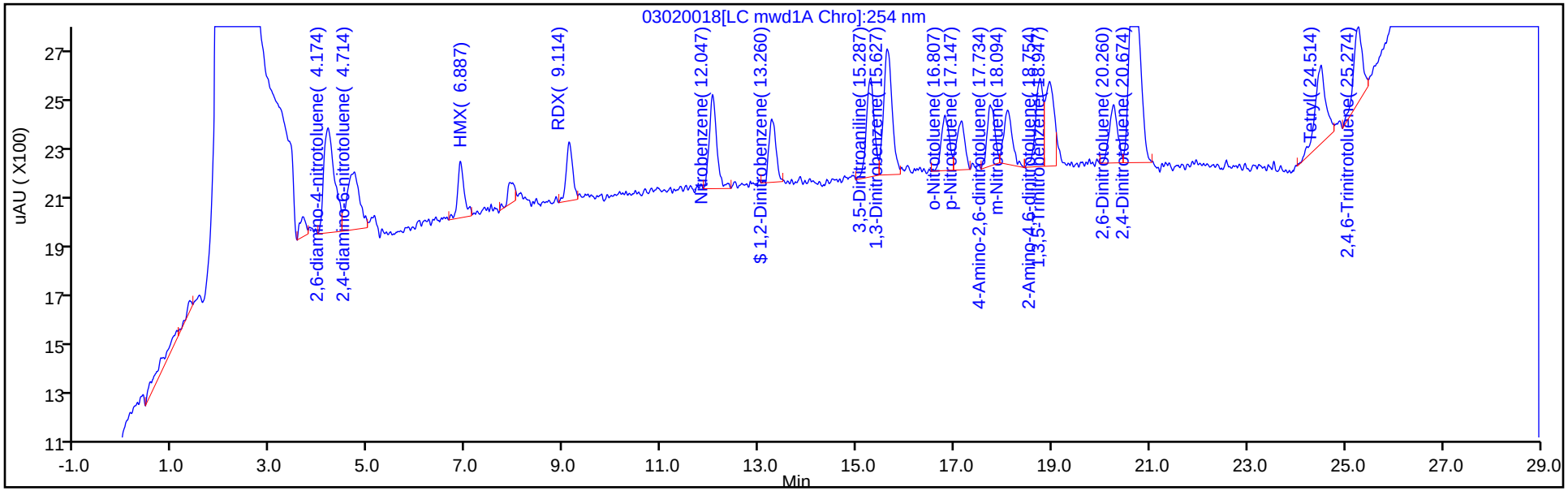
Report Date: 03-Mar-2022 12:49:18 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Denver

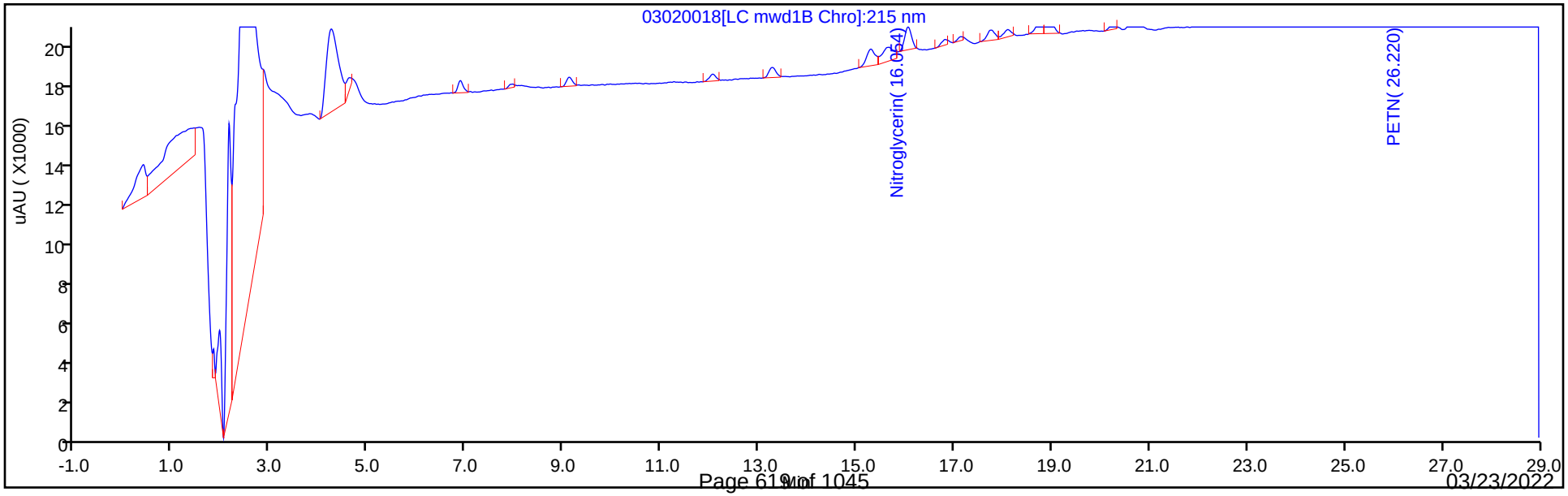
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020018.D

Injection Date:	03-Mar-2022 02:03:29	Instrument ID:	CHHPLC_X5	Operator ID:	JZ
Lims ID:	IC INT/ADD 1			Worklist Smp#:	18
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	18
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

Eurofins Denver

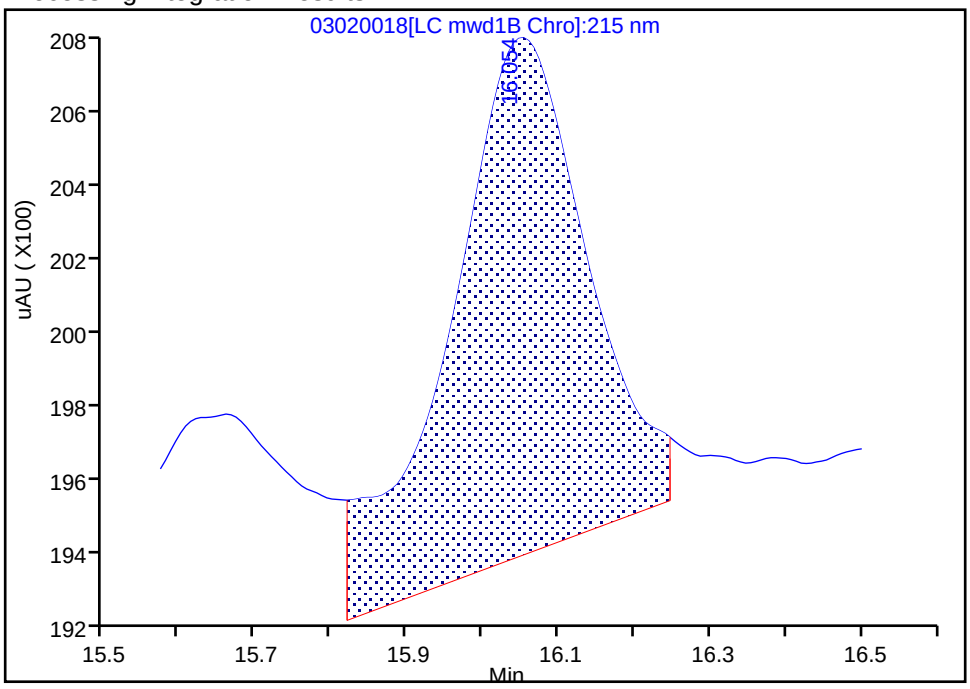
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020018.D
Injection Date: 03-Mar-2022 02:03:29 Instrument ID: CHHPLC_X5
Lims ID: IC INT/ADD 1
Client ID:
Operator ID: JZ ALS Bottle#: 18 Worklist Smp#: 18
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X5_Luna Limit Group: GCSV - 8330
Column: Detector LC mwd1B, 215 nm

13 Nitroglycerin, CAS: 55-63-0

Signal: 1

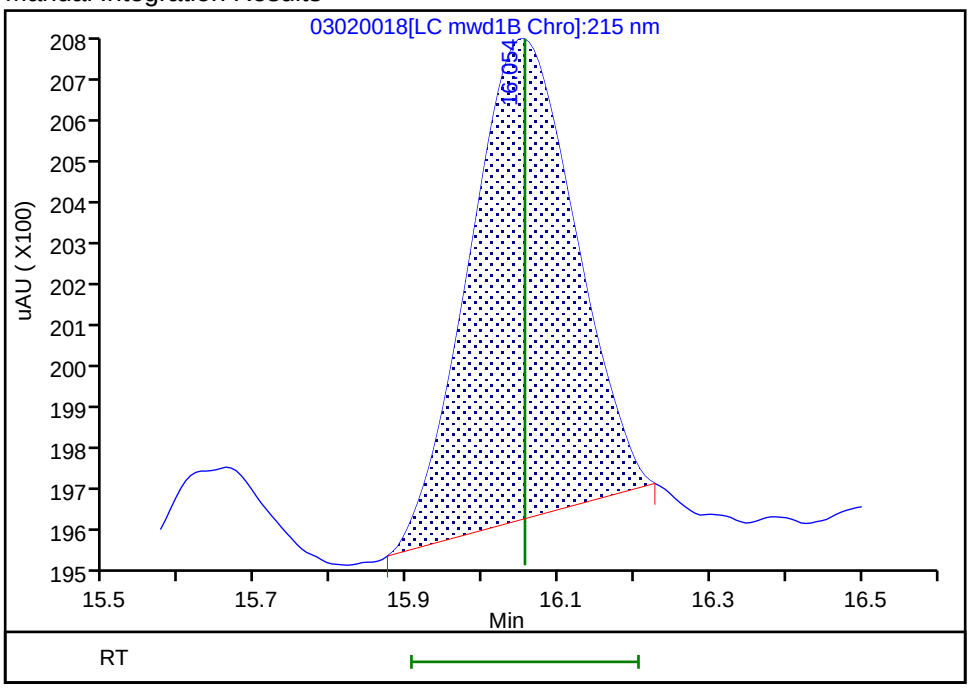
Processing Integration Results

RT: 16.05
Area: 17086
Amount: 0.126120
Amount Units: ug/ml



Manual Integration Results

RT: 16.05
Area: 10664
Amount: 0.087040
Amount Units: ug/ml



Reviewer: zhangji, 03-Mar-2022 12:12:01
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

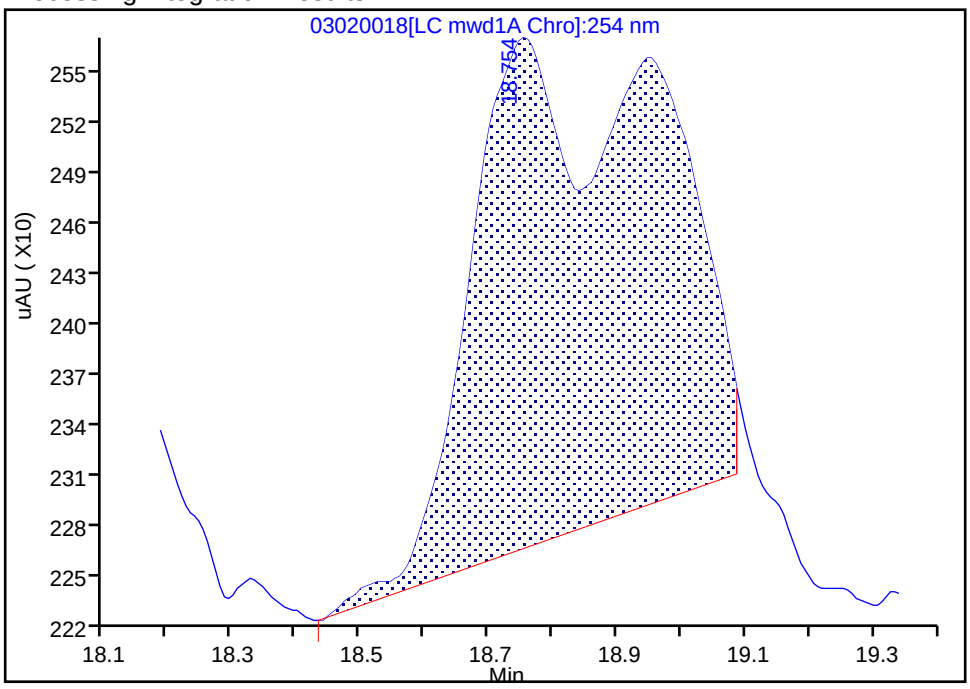
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020018.D
Injection Date: 03-Mar-2022 02:03:29 Instrument ID: CHHPLC_X5
Lims ID: IC INT/ADD 1
Client ID:
Operator ID: JZ ALS Bottle#: 18 Worklist Smp#: 18
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X5_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC mwd1A, 254 nm

19 2-Amino-4,6-dinitrotoluene, CAS: 35572-78-2

Signal: 1

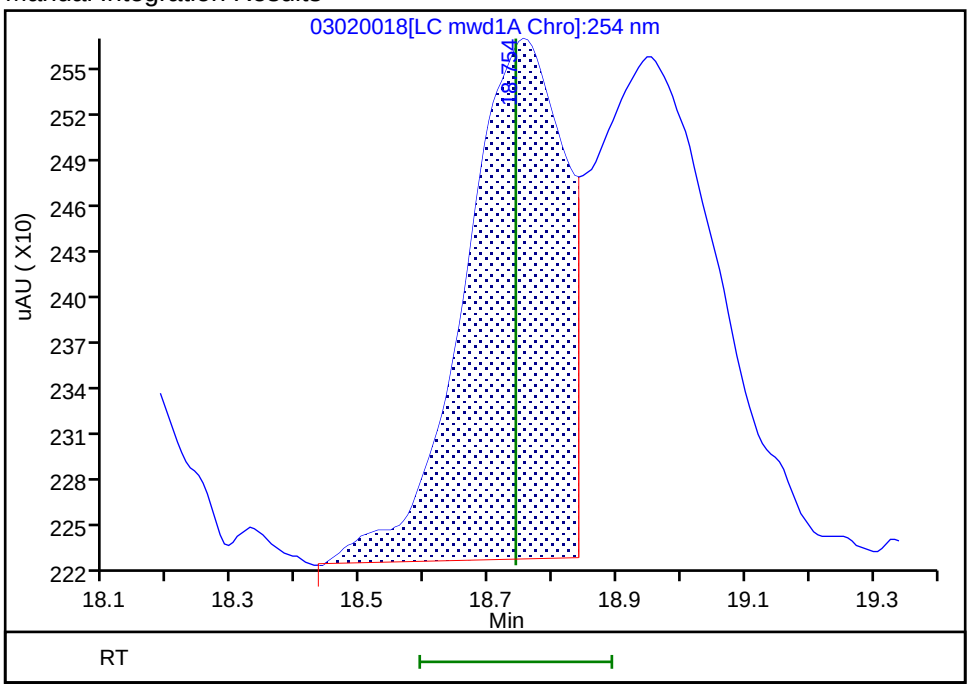
Processing Integration Results

RT: 18.75
Area: 6109
Amount: 0.012300
Amount Units: ug/ml



Manual Integration Results

RT: 18.75
Area: 3705
Amount: 0.010276
Amount Units: ug/ml



Reviewer: zhangji, 03-Mar-2022 12:11:46
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

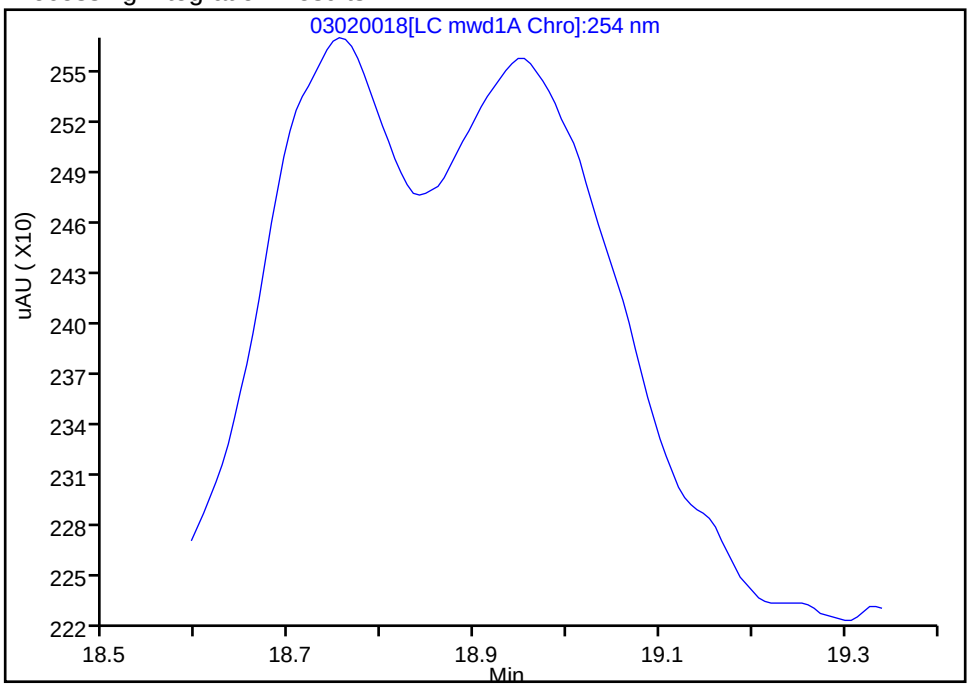
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020018.D				
Injection Date:	03-Mar-2022 02:03:29	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT/ADD 1				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

20 1,3,5-Trinitrobenzene, CAS: 99-35-4

Signal: 1

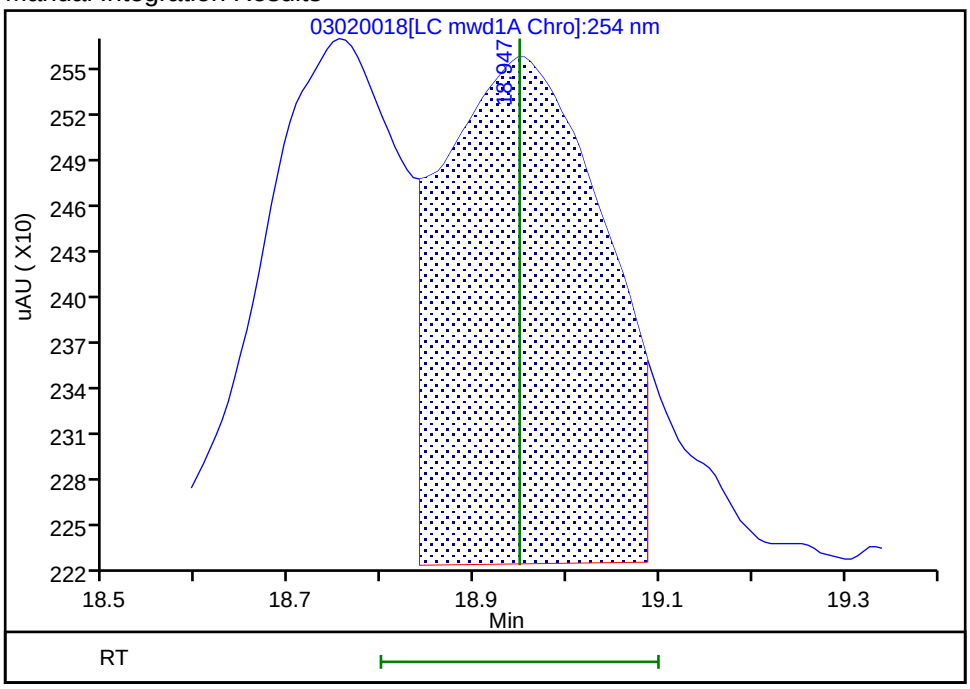
Not Detected
Expected RT: 18.95

Processing Integration Results



Manual Integration Results

RT: 18.95
Area: 3947
Amount: 0.009500
Amount Units: ug/ml



Reviewer: zhangji, 03-Mar-2022 12:11:46
Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

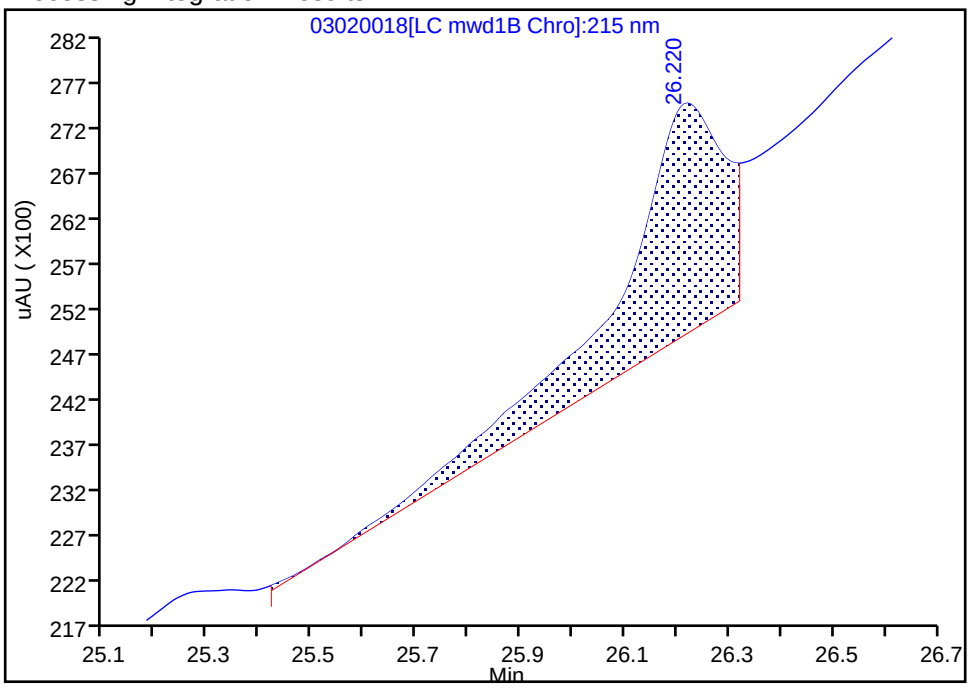
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020018.D
Injection Date: 03-Mar-2022 02:03:29 Instrument ID: CHHPLC_X5
Lims ID: IC INT/ADD 1
Client ID:
Operator ID: JZ ALS Bottle#: 18 Worklist Smp#: 18
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X5_Luna Limit Group: GCSV - 8330
Column: Detector LC mwd1B, 215 nm

25 PETN, CAS: 78-11-5

Signal: 1

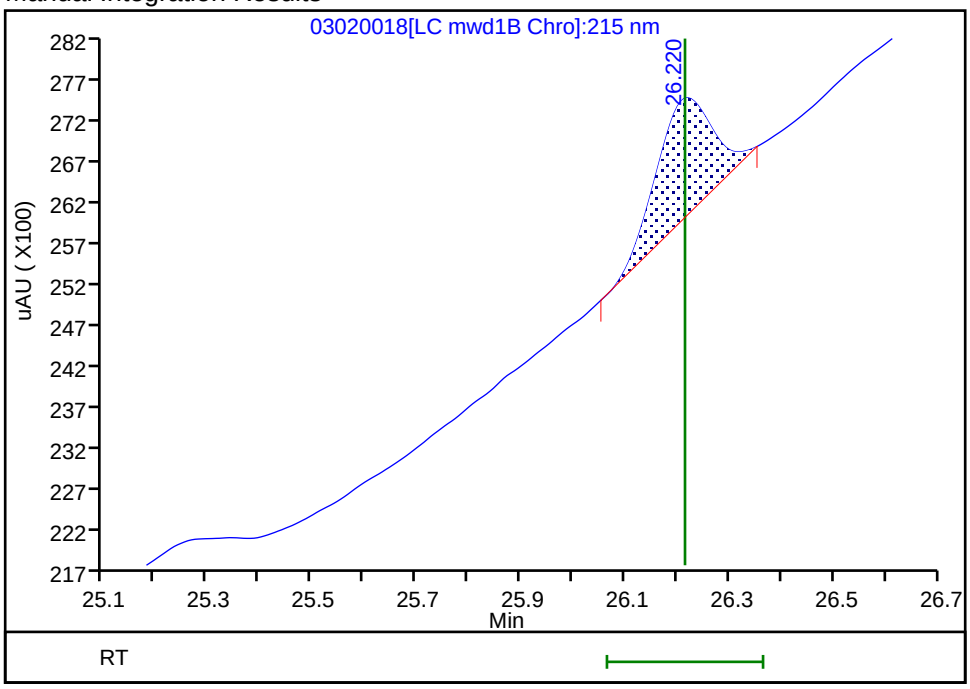
Processing Integration Results

RT: 26.22
Area: 35507
Amount: 0.096197
Amount Units: ug/ml



Manual Integration Results

RT: 26.22
Area: 10842
Amount: 0.083833
Amount Units: ug/ml



Reviewer: zhangji, 03-Mar-2022 12:11:57
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Calibration / HMX

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

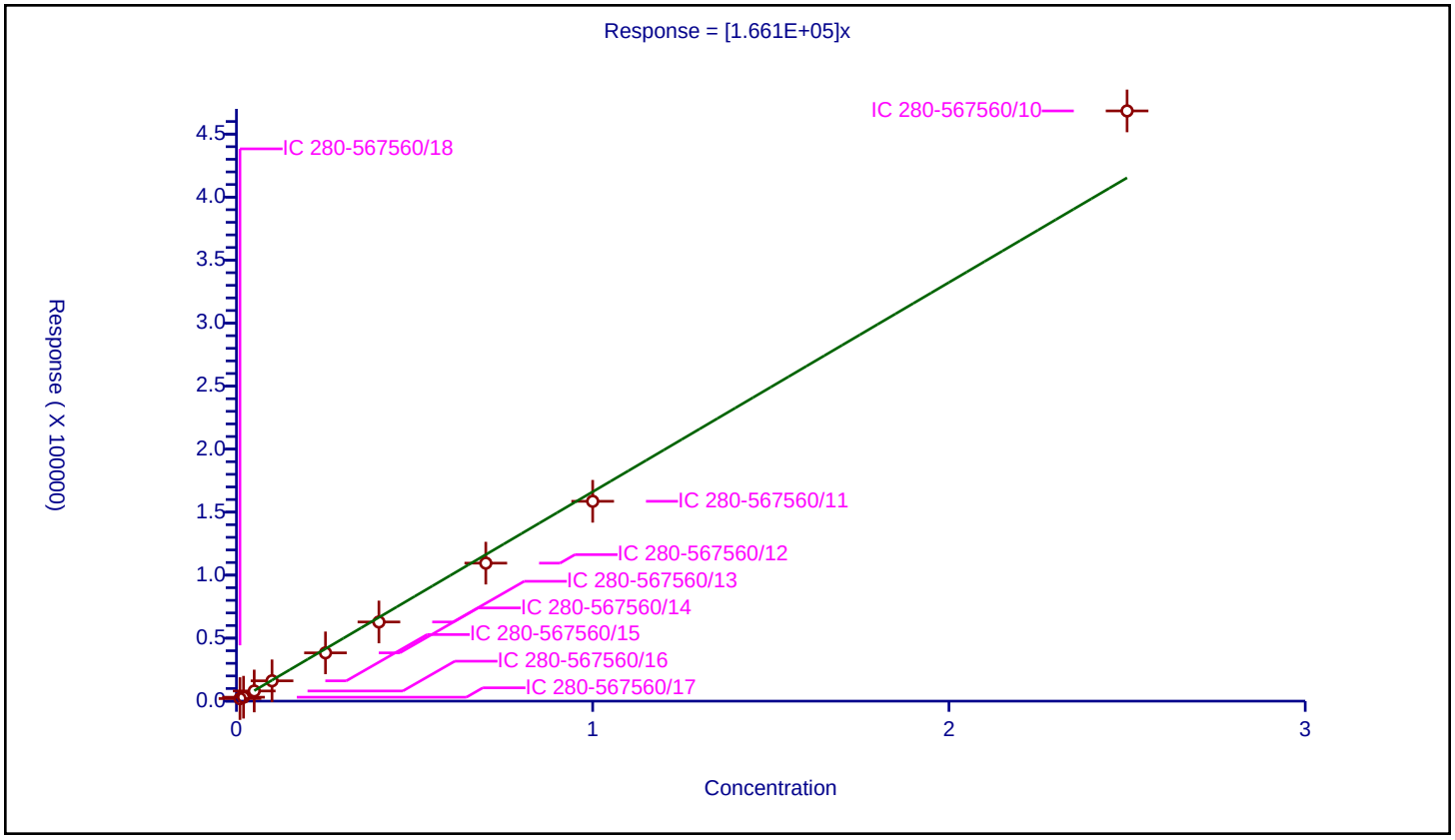
Curve Coefficients

Intercept:	0
Slope:	1.661E+05

Error Coefficients

Standard Error:	19200
Relative Standard Error:	10.5
Correlation Coefficient:	0.995
Coefficient of Determination (Adjusted):	0.985

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-567560/18	0.01	2040.0			204000.0	Y
2	IC 280-567560/17	0.02	3127.0			156350.0	Y
3	IC 280-567560/16	0.05	8053.0			161060.0	Y
4	IC 280-567560/15	0.1	16109.0			161090.0	Y
5	IC 280-567560/14	0.25	38318.0			153272.0	Y
6	IC 280-567560/13	0.4	62819.0			157047.5	Y
7	IC 280-567560/12	0.7	109512.0			156445.714286	Y
8	IC 280-567560/11	1.0	158593.0			158593.0	Y
9	IC 280-567560/10	2.5	468398.0			187359.2	Y



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

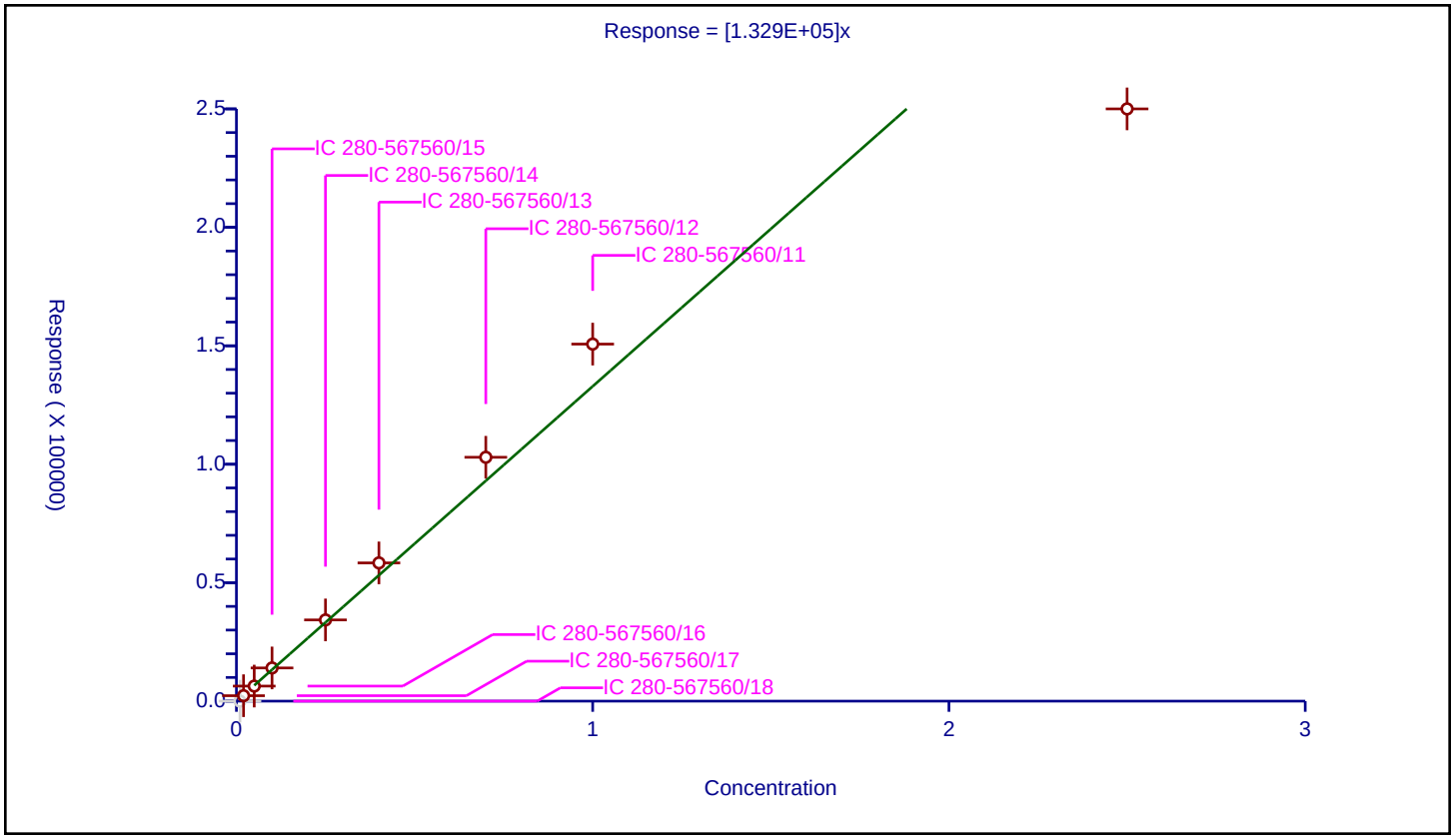
Curve Coefficients

Intercept:	0
Slope:	1.329E+05

Error Coefficients

Standard Error:	32100
Relative Standard Error:	13.3
Correlation Coefficient:	0.955
Coefficient of Determination (Adjusted):	0.979

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-567560/18	0.01	0.0			0.0	N
2	IC 280-567560/17	0.02	2301.0			115050.0	Y
3	IC 280-567560/16	0.05	6356.0			127120.0	Y
4	IC 280-567560/15	0.1	14009.0			140090.0	Y
5	IC 280-567560/14	0.25	34288.0			137152.0	Y
6	IC 280-567560/13	0.4	58358.0			145895.0	Y
7	IC 280-567560/12	0.7	102939.0			147055.714286	Y
8	IC 280-567560/11	1.0	150719.0			150719.0	Y
9	IC 280-567560/10	2.5	250000.0			100000.0	Y



Calibration / RDX

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

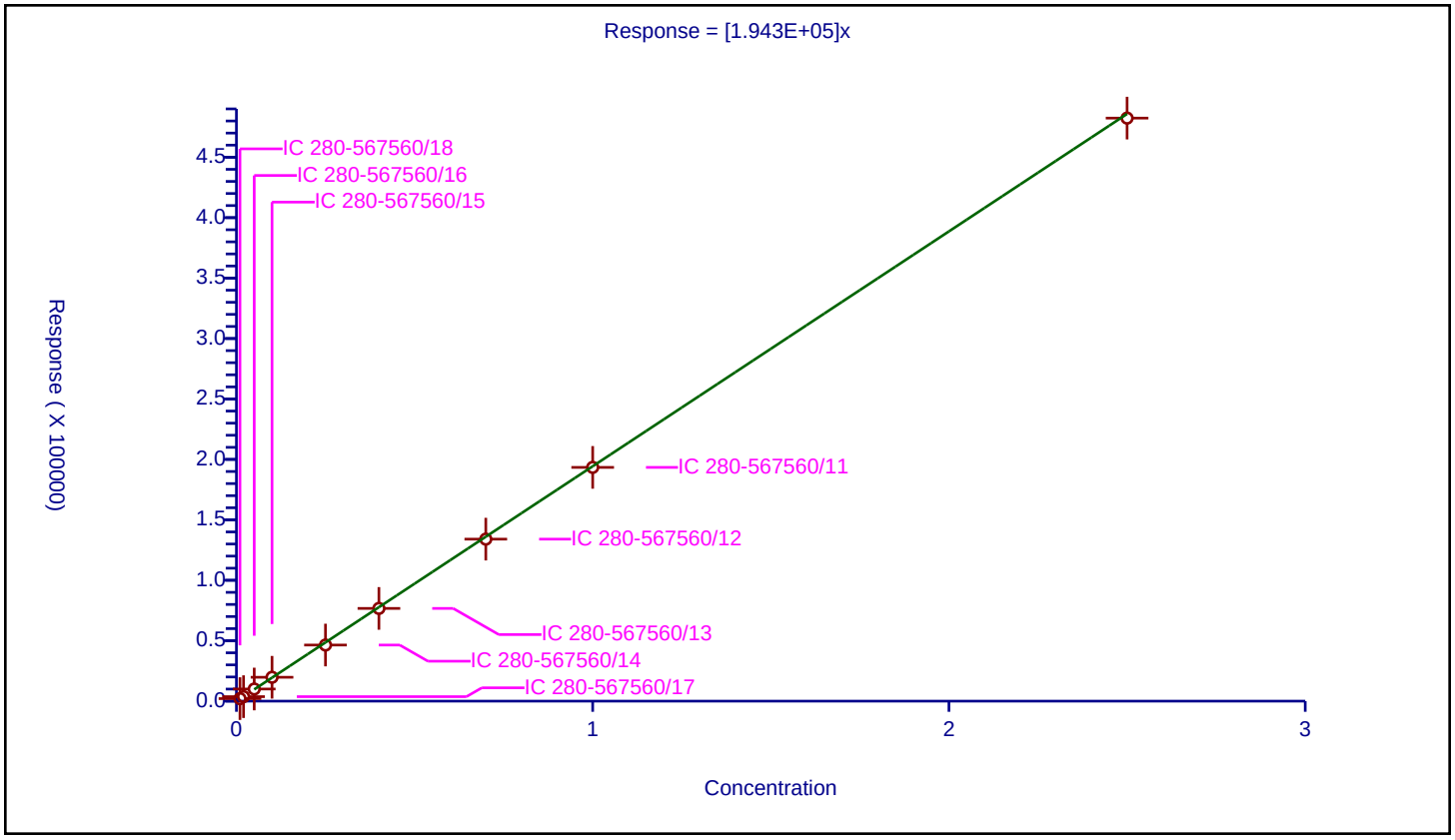
Curve Coefficients

Intercept:	0
Slope:	1.943E+05

Error Coefficients

Standard Error:	1690
Relative Standard Error:	3.8
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-567560/18	0.01	2097.0			209700.0	Y
2	IC 280-567560/17	0.02	3719.0			185950.0	Y
3	IC 280-567560/16	0.05	10028.0			200560.0	Y
4	IC 280-567560/15	0.1	19750.0			197500.0	Y
5	IC 280-567560/14	0.25	46417.0			185668.0	Y
6	IC 280-567560/13	0.4	76711.0			191777.5	Y
7	IC 280-567560/12	0.7	134031.0			191472.857143	Y
8	IC 280-567560/11	1.0	193402.0			193402.0	Y
9	IC 280-567560/10	2.5	482372.0			192948.8	Y



Calibration / Nitrobenzene

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

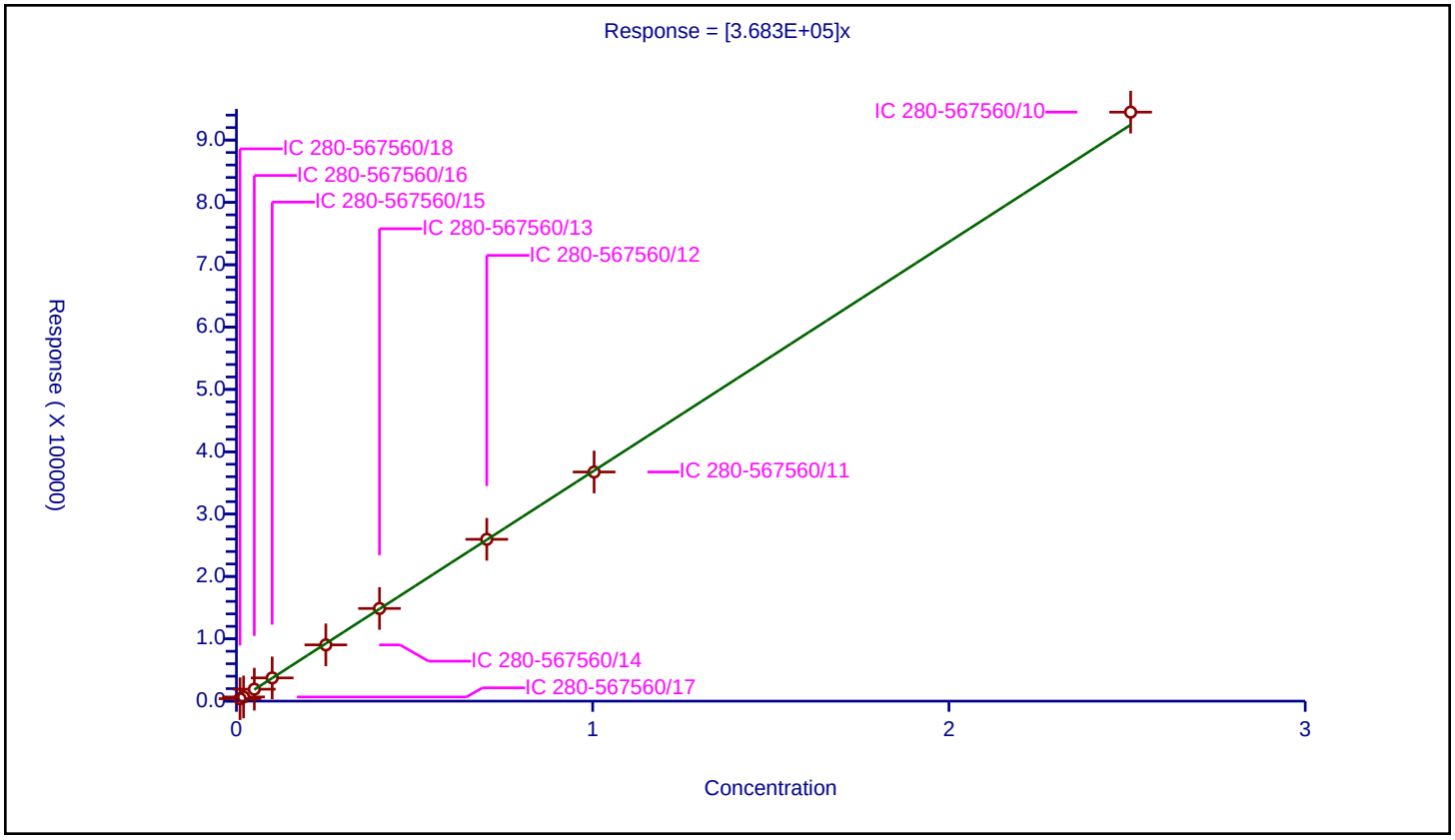
Curve Coefficients

Intercept:	0
Slope:	3.683E+05

Error Coefficients

Standard Error:	7300
Relative Standard Error:	4.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-567560/18	0.01004	3890.0			387450.199203	Y
2	IC 280-567560/17	0.02008	6686.0			332968.12749	Y
3	IC 280-567560/16	0.0502	19149.0			381454.183267	Y
4	IC 280-567560/15	0.1004	37271.0			371225.099602	Y
5	IC 280-567560/14	0.251	90246.0			359545.816733	Y
6	IC 280-567560/13	0.4016	148639.0			370117.031873	Y
7	IC 280-567560/12	0.7028	259585.0			369358.281161	Y
8	IC 280-567560/11	1.004	367582.0			366117.52988	Y
9	IC 280-567560/10	2.51	944774.0			376403.984064	Y



Calibration / 1,2-Dinitrobenzene

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

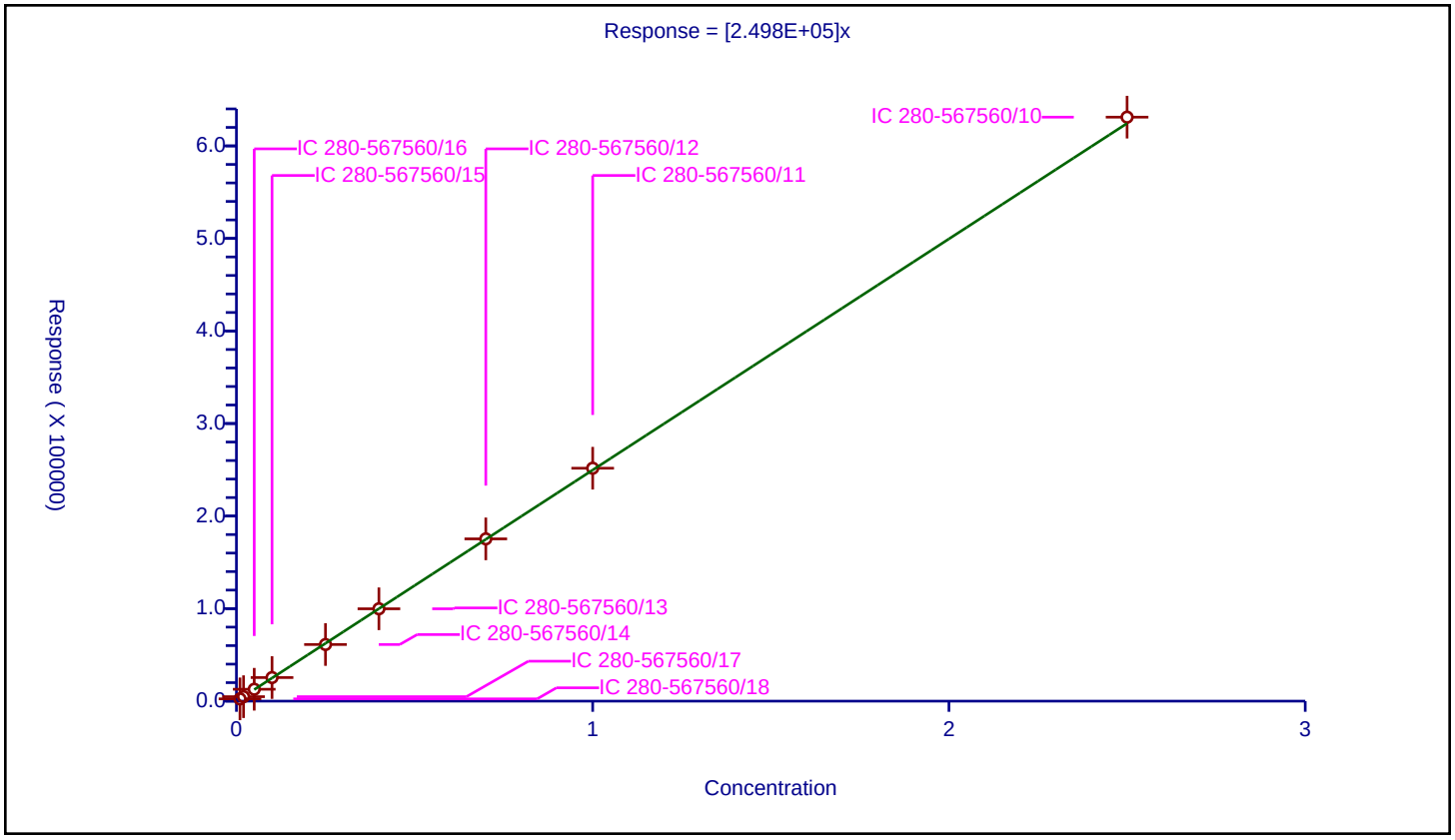
Curve Coefficients

Intercept:	0
Slope:	2.498E+05

Error Coefficients

Standard Error:	2520
Relative Standard Error:	2.1
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-567560/18	0.01	2461.0			246100.0	Y
2	IC 280-567560/17	0.02	4809.0			240450.0	Y
3	IC 280-567560/16	0.05	12864.0			257280.0	Y
4	IC 280-567560/15	0.1	25499.0			254990.0	Y
5	IC 280-567560/14	0.25	61198.0			244792.0	Y
6	IC 280-567560/13	0.4	99804.0			249510.0	Y
7	IC 280-567560/12	0.7	175358.0			250511.428571	Y
8	IC 280-567560/11	1.0	251717.0			251717.0	Y
9	IC 280-567560/10	2.5	631065.0			252426.0	Y



Calibration / 1,3-Dinitrobenzene

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

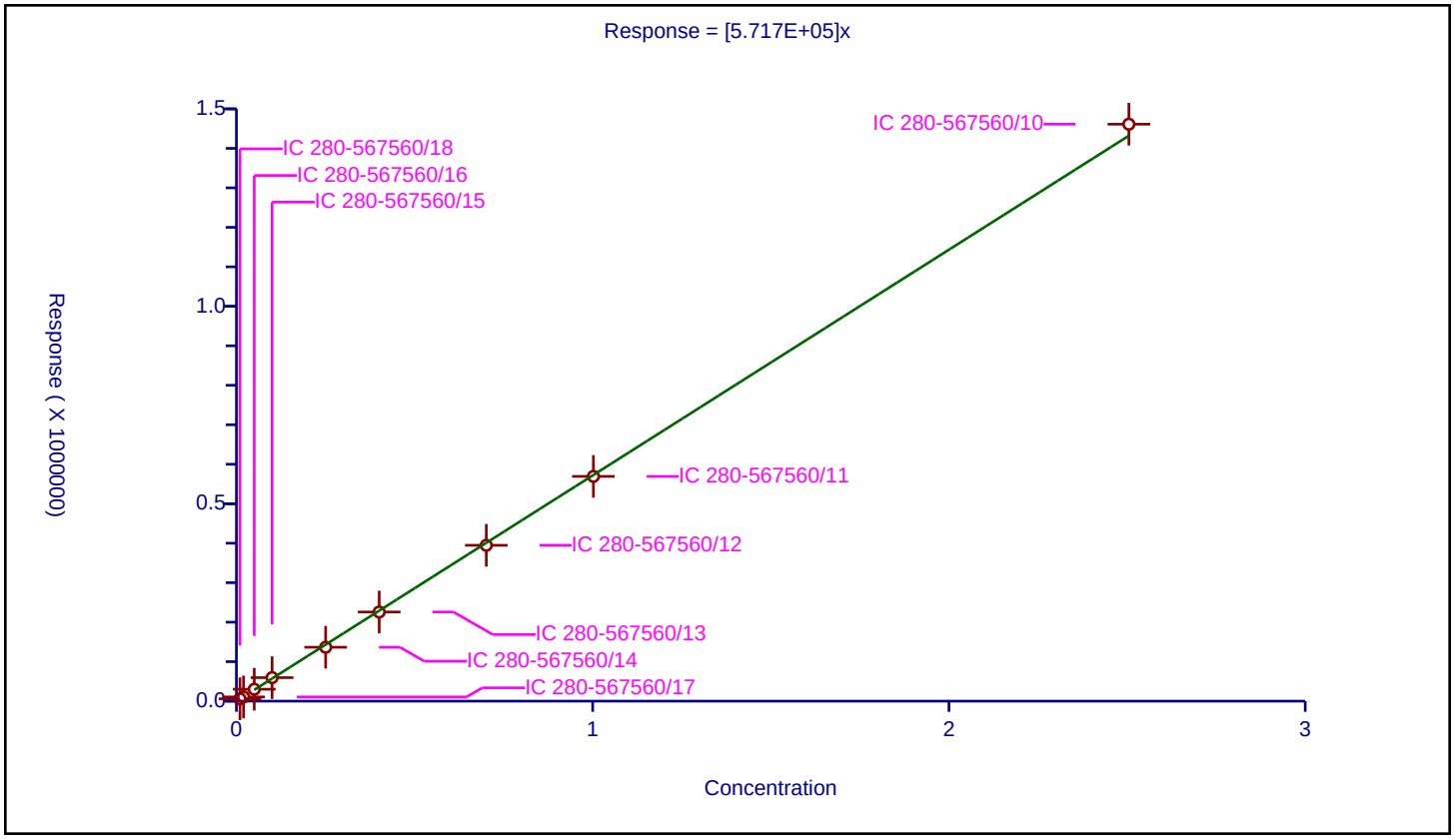
Curve Coefficients

Intercept:	0
Slope:	5.717E+05

Error Coefficients

Standard Error:	11000
Relative Standard Error:	4.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-567560/18	0.01002	5961.0			594910.179641	Y
2	IC 280-567560/17	0.02004	10643.0			531087.824351	Y
3	IC 280-567560/16	0.0501	30181.0			602415.169661	Y
4	IC 280-567560/15	0.1002	59537.0			594181.636727	Y
5	IC 280-567560/14	0.2505	136486.0			544854.291417	Y
6	IC 280-567560/13	0.4008	225815.0			563410.678643	Y
7	IC 280-567560/12	0.7014	394707.0			562741.659538	Y
8	IC 280-567560/11	1.002	569212.0			568075.848303	Y
9	IC 280-567560/10	2.505	1461217.0			583320.159681	Y



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

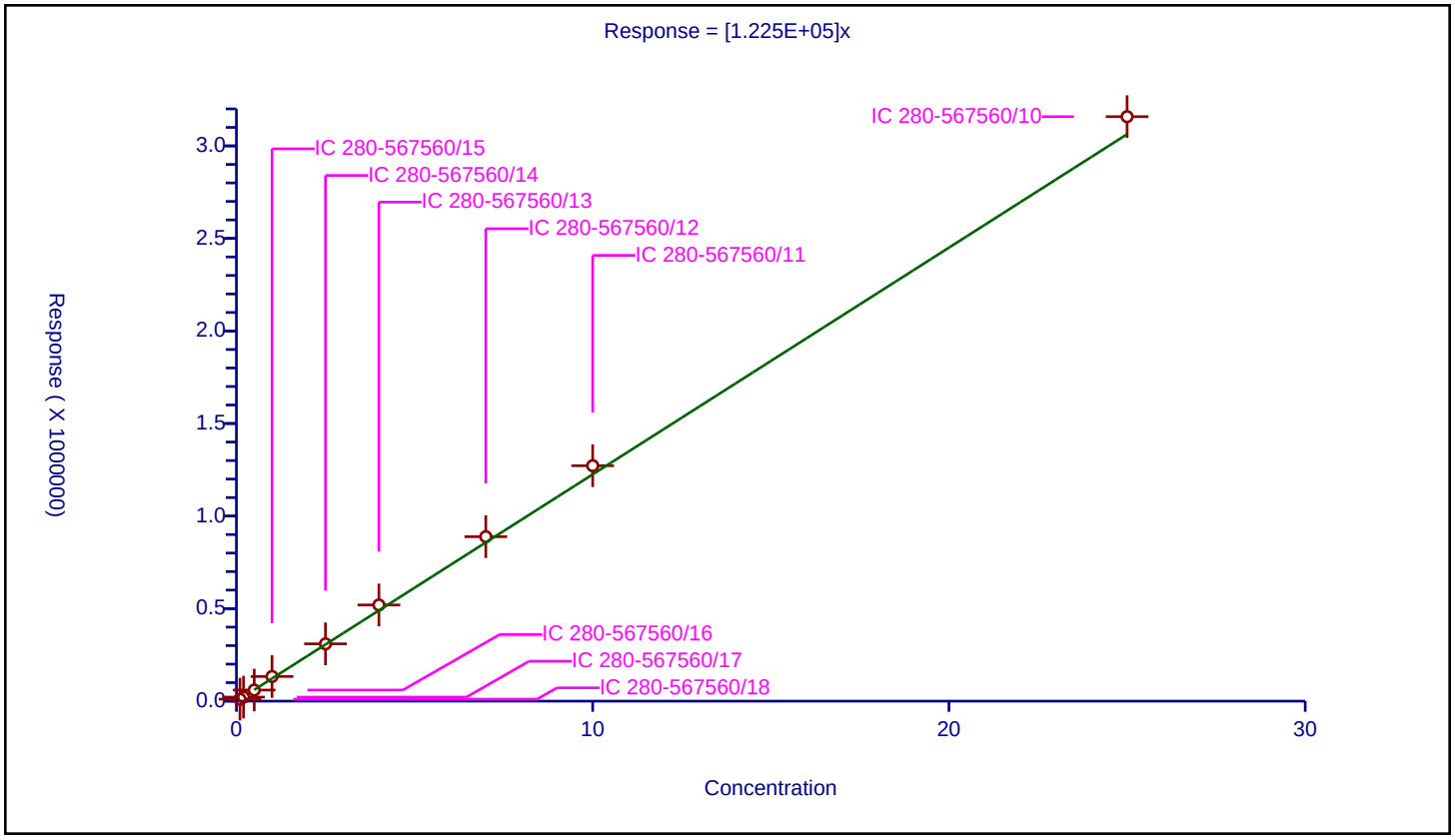
Curve Coefficients

Intercept:	0
Slope:	1.225E+05

Error Coefficients

Standard Error:	40600
Relative Standard Error:	7.5
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.993

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-567560/18	0.1	10664.0			106640.0	Y
2	IC 280-567560/17	0.2	21750.0			108750.0	Y
3	IC 280-567560/16	0.5	59894.0			119788.0	Y
4	IC 280-567560/15	1.0	133241.0			133241.0	Y
5	IC 280-567560/14	2.5	309657.0			123862.8	Y
6	IC 280-567560/13	4.0	519683.0			129920.75	Y
7	IC 280-567560/12	7.0	888552.0			126936.0	Y
8	IC 280-567560/11	10.0	1272015.0			127201.5	Y
9	IC 280-567560/10	25.0	3158004.0			126320.16	Y



Calibration / o-Nitrotoluene

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

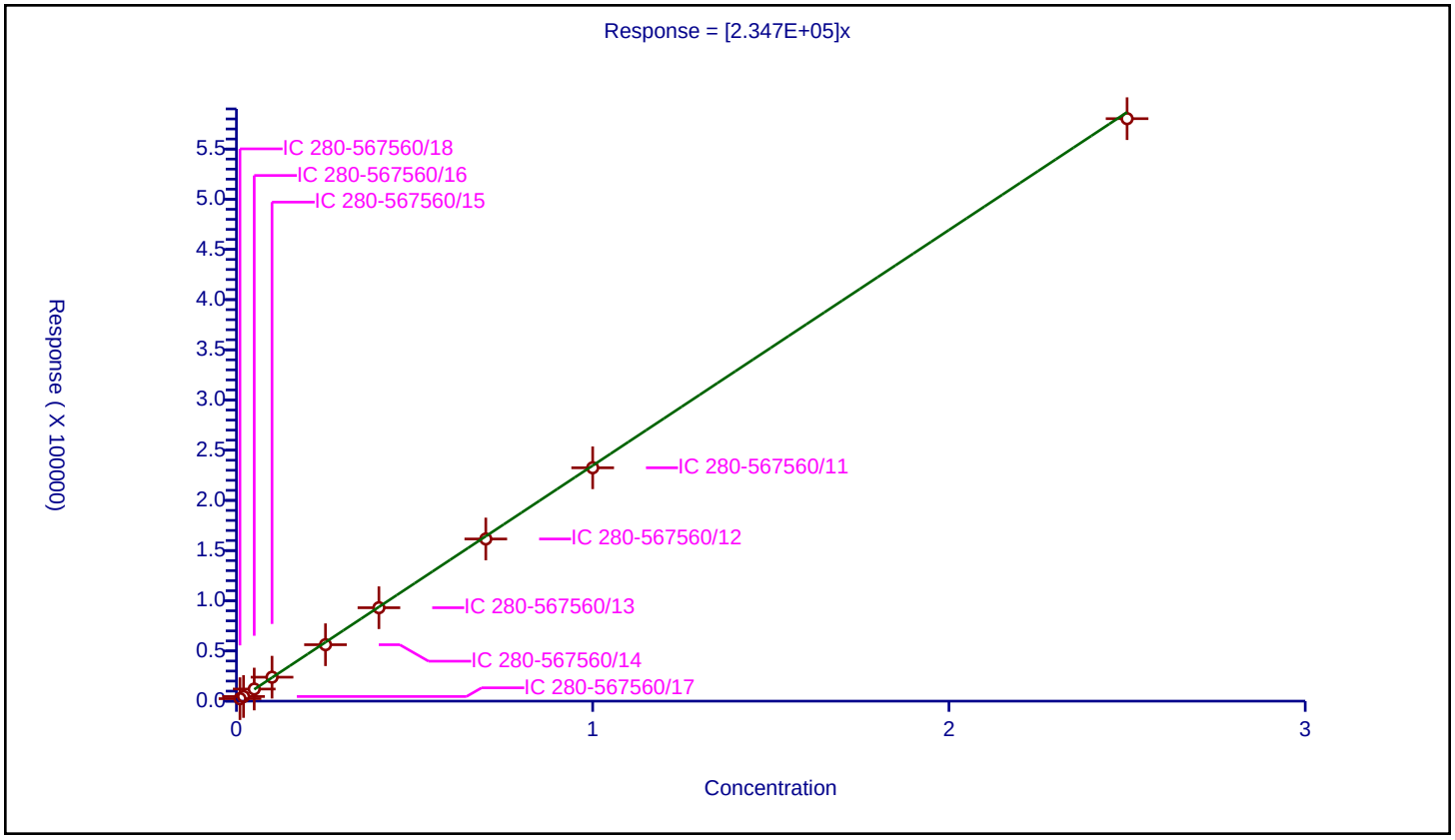
Curve Coefficients

Intercept:	0
Slope:	2.347E+05

Error Coefficients

Standard Error:	2750
Relative Standard Error:	3.1
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-567560/18	0.01	2491.0			249100.0	Y
2	IC 280-567560/17	0.02	4607.0			230350.0	Y
3	IC 280-567560/16	0.05	12057.0			241140.0	Y
4	IC 280-567560/15	0.1	23857.0			238570.0	Y
5	IC 280-567560/14	0.25	56221.0			224884.0	Y
6	IC 280-567560/13	0.4	93064.0			232660.0	Y
7	IC 280-567560/12	0.7	161534.0			230762.857143	Y
8	IC 280-567560/11	1.0	232476.0			232476.0	Y
9	IC 280-567560/10	2.5	580270.0			232108.0	Y



Calibration / p-Nitrotoluene

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

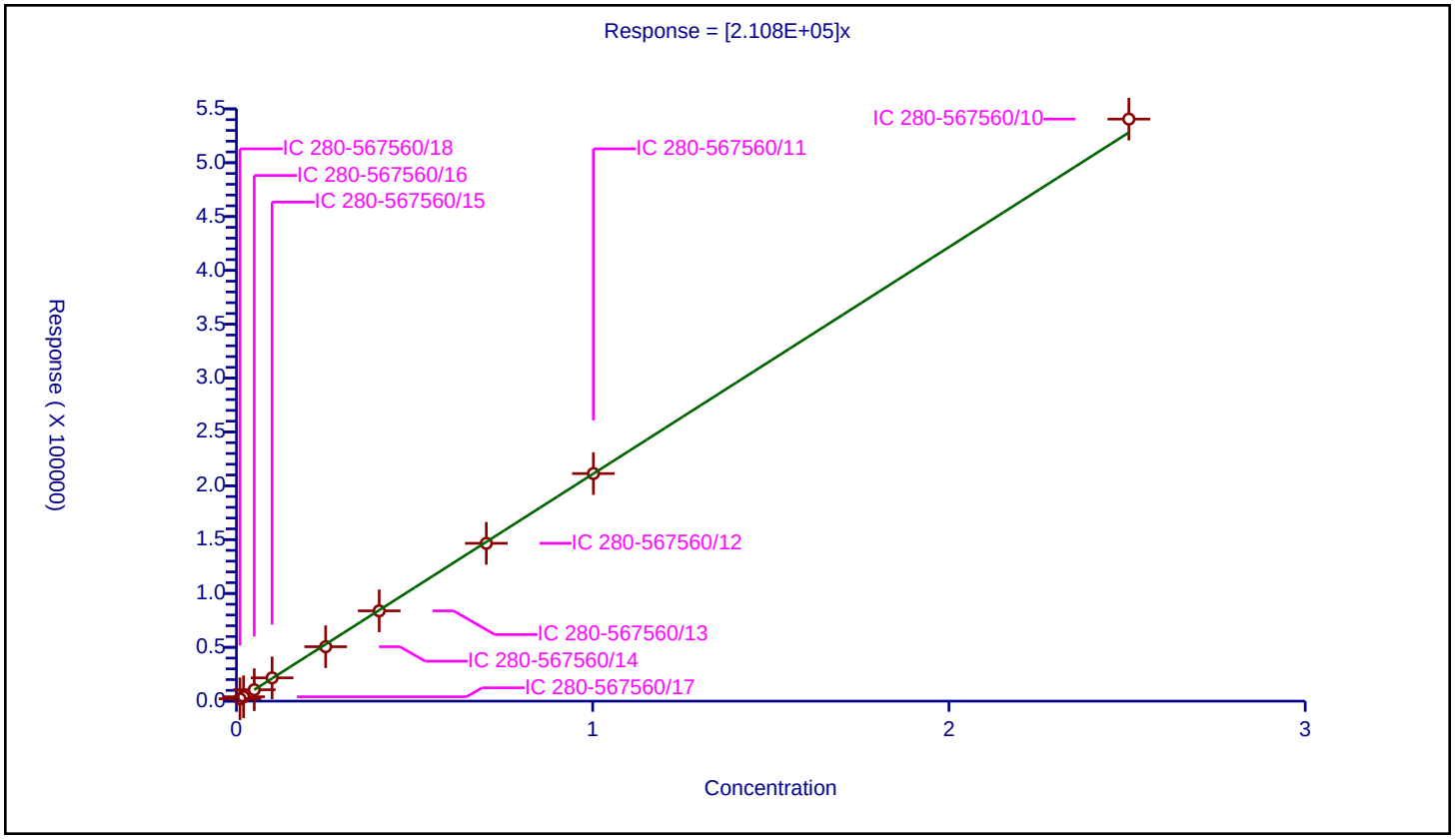
Curve Coefficients

Intercept:	0
Slope:	2.108E+05

Error Coefficients

Standard Error:	4500
Relative Standard Error:	2.8
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-567560/18	0.01002	2203.0			219860.279441	Y
2	IC 280-567560/17	0.02004	4078.0			203493.013972	Y
3	IC 280-567560/16	0.0501	10595.0			211477.045908	Y
4	IC 280-567560/15	0.1002	21625.0			215818.363273	Y
5	IC 280-567560/14	0.2505	50555.0			201816.367265	Y
6	IC 280-567560/13	0.4008	83857.0			209224.051896	Y
7	IC 280-567560/12	0.7014	146563.0			208957.798688	Y
8	IC 280-567560/11	1.002	211344.0			210922.155689	Y
9	IC 280-567560/10	2.505	540531.0			215780.838323	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

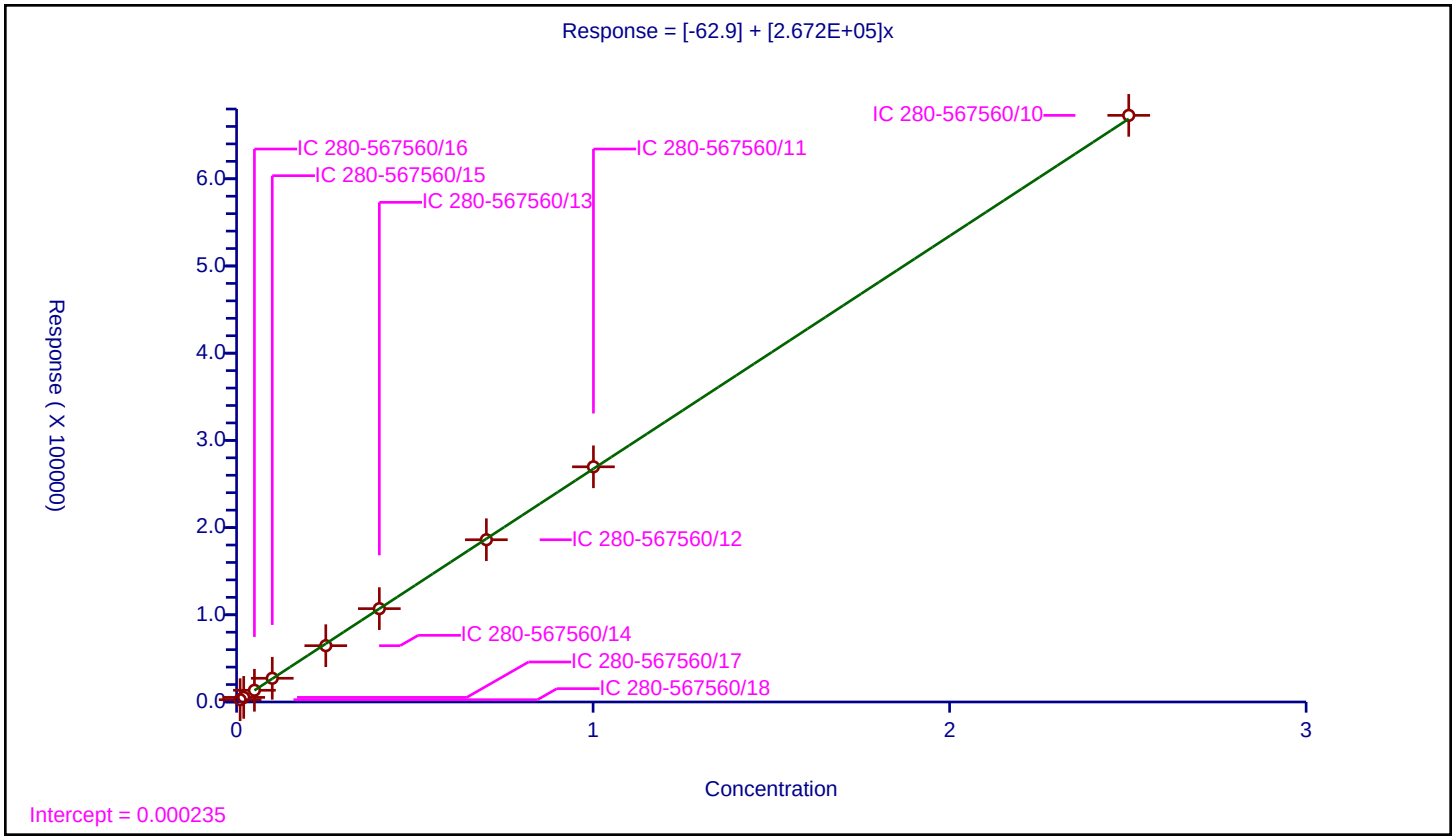
Curve Coefficients

Intercept:	-62.9
Slope:	2.672E+05

Error Coefficients

Standard Error:	1990
Relative Standard Error:	1.6
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	1.000

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-567560/18	0.01001	2610.0			260739.260739	Y
2	IC 280-567560/17	0.02002	5271.0			263286.713287	Y
3	IC 280-567560/16	0.05005	13425.0			268231.768232	Y
4	IC 280-567560/15	0.1001	27216.0			271888.111888	Y
5	IC 280-567560/14	0.25025	64569.0			258017.982018	Y
6	IC 280-567560/13	0.4004	107043.0			267340.15984	Y
7	IC 280-567560/12	0.7007	186078.0			265560.154132	Y
8	IC 280-567560/11	1.001	269691.0			269421.578422	Y
9	IC 280-567560/10	2.5025	672715.0			268817.182817	Y



Calibration / m-Nitrotoluene

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

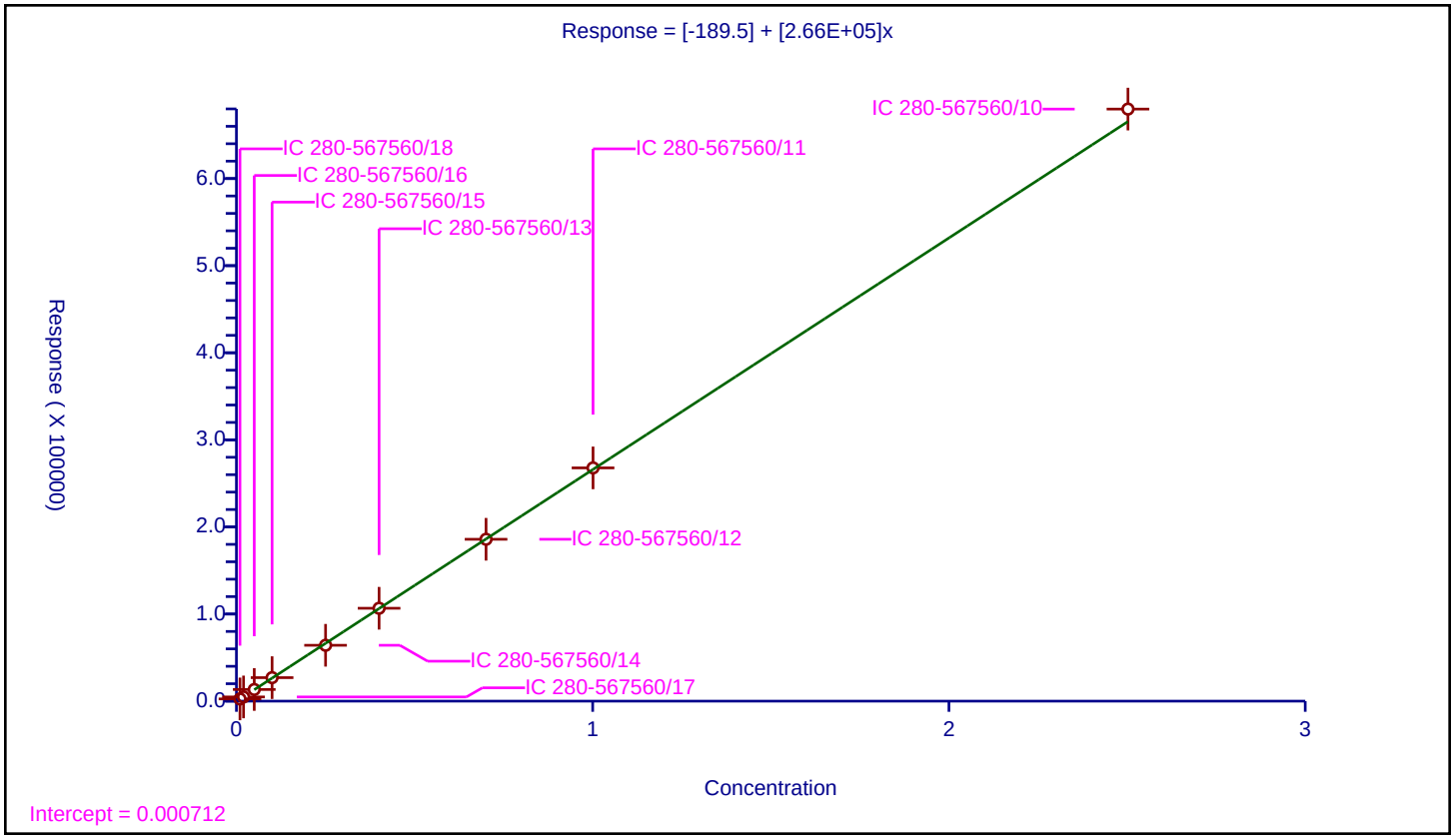
Curve Coefficients

Intercept:	-189.5
Slope:	2.66E+05

Error Coefficients

Standard Error:	5530
Relative Standard Error:	3.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-567560/18	0.01001	2543.0			254045.954046	Y
2	IC 280-567560/17	0.02002	4805.0			240009.99001	Y
3	IC 280-567560/16	0.05005	13387.0			267472.527473	Y
4	IC 280-567560/15	0.1001	26978.0			269510.48951	Y
5	IC 280-567560/14	0.25025	64150.0			256343.656344	Y
6	IC 280-567560/13	0.4004	106661.0			266386.113886	Y
7	IC 280-567560/12	0.7007	185839.0			265219.066648	Y
8	IC 280-567560/11	1.001	267812.0			267544.455544	Y
9	IC 280-567560/10	2.5025	679800.0			271648.351648	Y



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

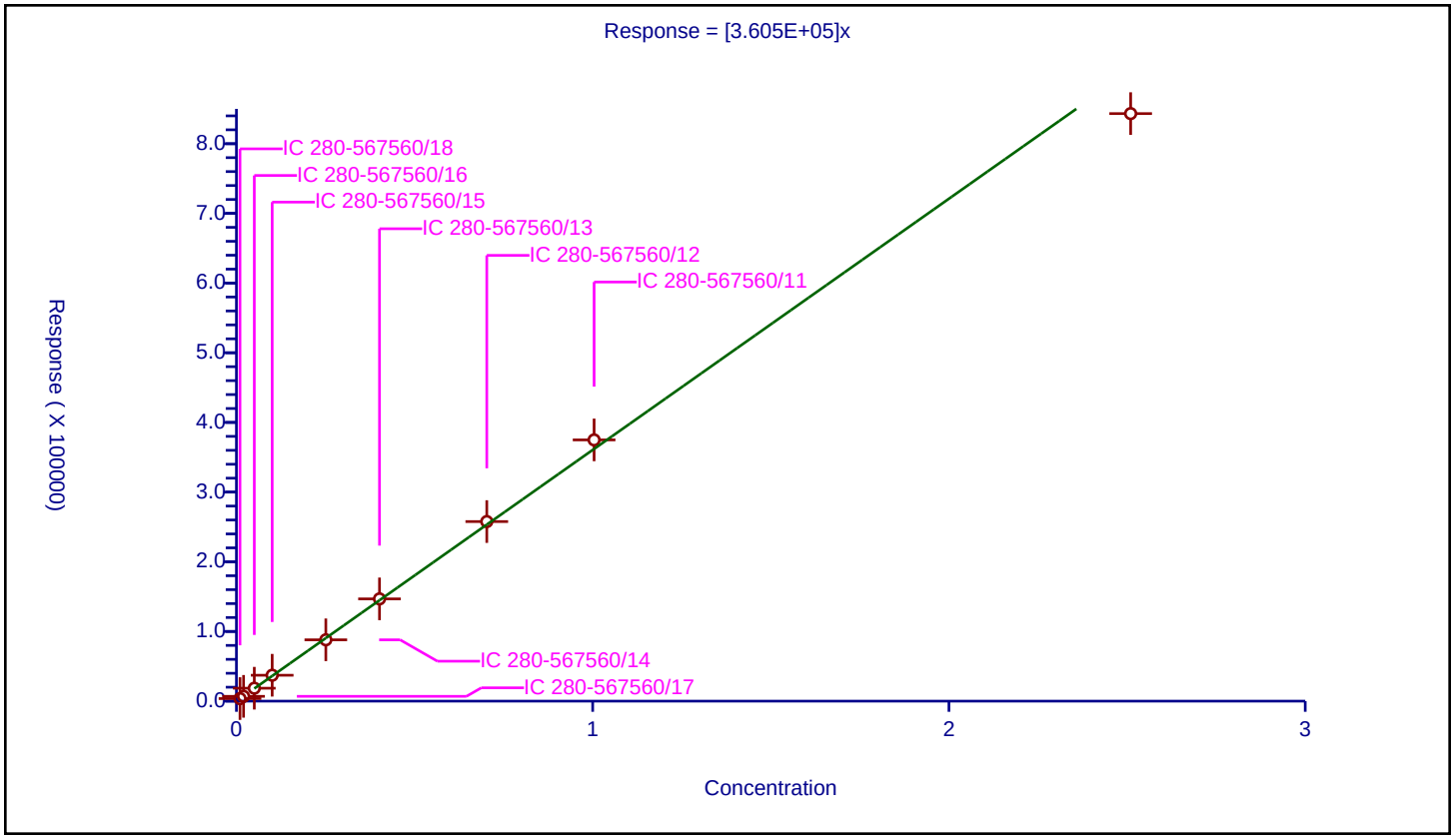
Curve Coefficients

Intercept:	0
Slope:	3.605E+05

Error Coefficients

Standard Error:	22400
Relative Standard Error:	3.8
Correlation Coefficient:	0.998
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-567560/18	0.01004	3705.0			369023.904382	Y
2	IC 280-567560/17	0.02008	6899.0			343575.697211	Y
3	IC 280-567560/16	0.0502	18562.0			369760.956175	Y
4	IC 280-567560/15	0.1004	37178.0			370298.804781	Y
5	IC 280-567560/14	0.251	88010.0			350637.450199	Y
6	IC 280-567560/13	0.4016	146764.0			365448.207171	Y
7	IC 280-567560/12	0.7028	257718.0			366701.764371	Y
8	IC 280-567560/11	1.004	374916.0			373422.310757	Y
9	IC 280-567560/10	2.51	843240.0			335952.191235	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

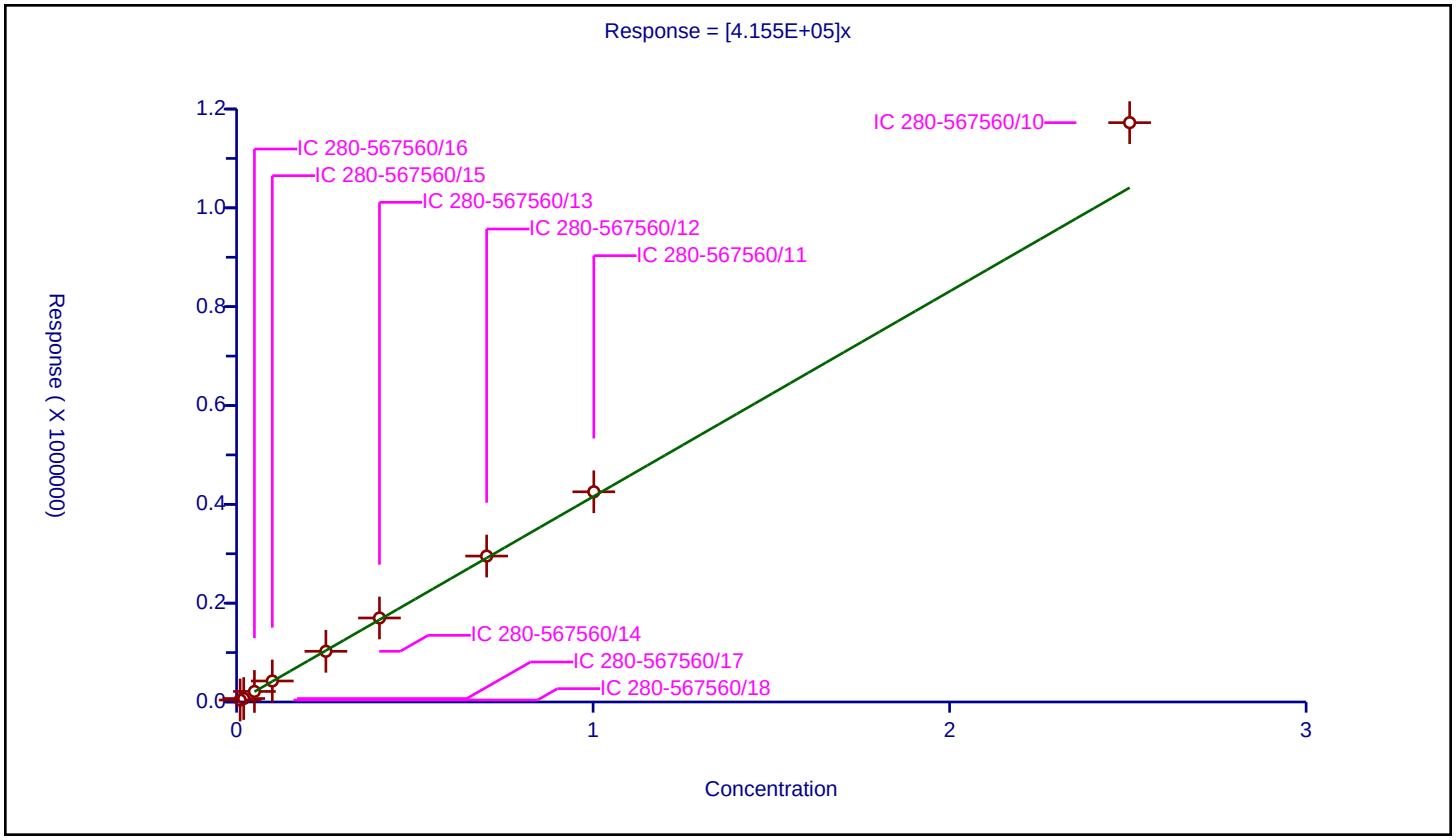
Curve Coefficients

Intercept:	0
Slope:	4.155E+05

Error Coefficients

Standard Error:	46700
Relative Standard Error:	7.7
Correlation Coefficient:	0.998
Coefficient of Determination (Adjusted):	0.993

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-567560/18	0.01002	3947.0			393912.175649	Y
2	IC 280-567560/17	0.02004	6970.0			347804.391218	Y
3	IC 280-567560/16	0.0501	21339.0			425928.143713	Y
4	IC 280-567560/15	0.1002	42514.0			424291.417166	Y
5	IC 280-567560/14	0.2505	102576.0			409485.02994	Y
6	IC 280-567560/13	0.4008	170012.0			424181.636727	Y
7	IC 280-567560/12	0.7014	295298.0			421012.261192	Y
8	IC 280-567560/11	1.002	425388.0			424538.922156	Y
9	IC 280-567560/10	2.505	1172398.0			468023.153693	Y



Calibration / 2,6-Dinitrotoluene

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

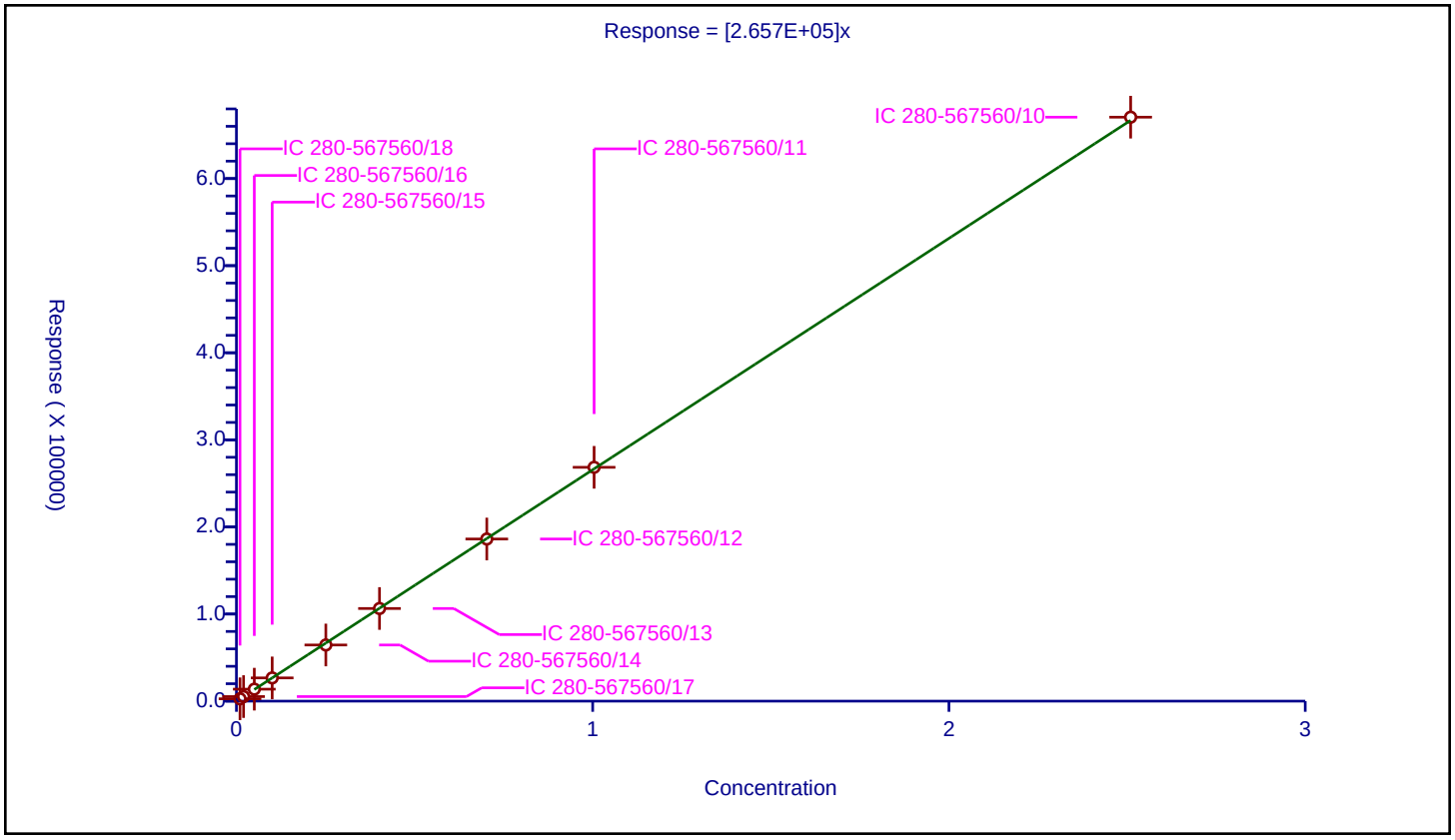
Curve Coefficients

Intercept:	0
Slope:	2.657E+05

Error Coefficients

Standard Error:	1660
Relative Standard Error:	1.8
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	1.000

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-567560/18	0.01004	2704.0			269322.709163	Y
2	IC 280-567560/17	0.02008	5233.0			260607.569721	Y
3	IC 280-567560/16	0.0502	13757.0			274043.824701	Y
4	IC 280-567560/15	0.1004	26687.0			265806.772908	Y
5	IC 280-567560/14	0.251	64489.0			256928.286853	Y
6	IC 280-567560/13	0.4016	106362.0			264845.61753	Y
7	IC 280-567560/12	0.7028	186150.0			264869.095048	Y
8	IC 280-567560/11	1.004	268478.0			267408.366534	Y
9	IC 280-567560/10	2.51	670482.0			267124.302789	Y



Calibration / 2,4-Dinitrotoluene

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

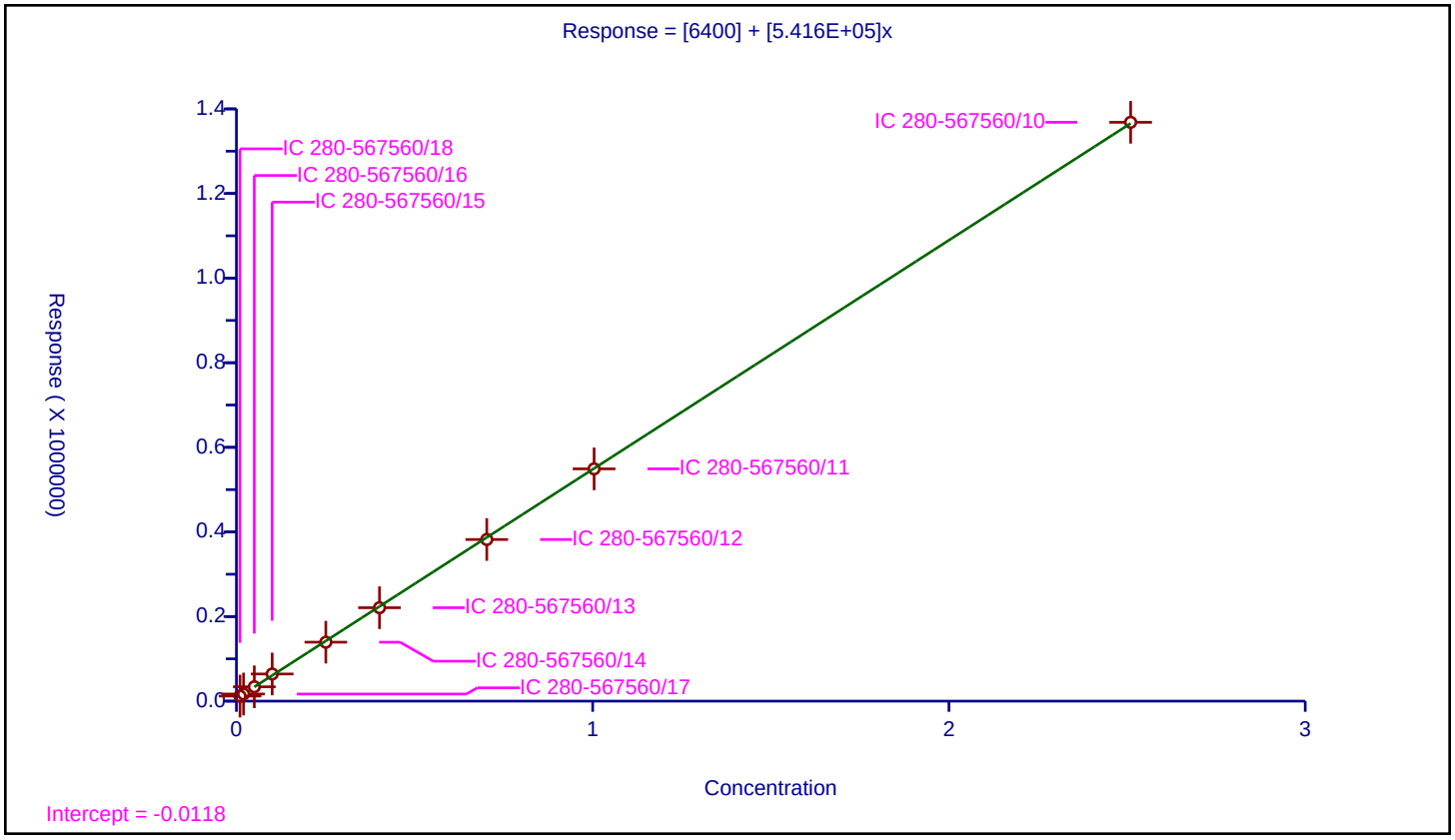
Curve Coefficients

Intercept:	6400
Slope:	5.416E+05

Error Coefficients

Standard Error:	2990
Relative Standard Error:	3.0
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-567560/18	0.01004	11900.0			1185258.964143	Y
2	IC 280-567560/17	0.02008	16863.0			839790.836653	Y
3	IC 280-567560/16	0.0502	33918.0			675657.370518	Y
4	IC 280-567560/15	0.1004	64187.0			639312.749004	Y
5	IC 280-567560/14	0.251	139375.0			555278.884462	Y
6	IC 280-567560/13	0.4016	220828.0			549870.517928	Y
7	IC 280-567560/12	0.7028	382059.0			543624.075128	Y
8	IC 280-567560/11	1.004	549112.0			546924.302789	Y
9	IC 280-567560/10	2.51	1368356.0			545161.752988	Y



Calibration / Tetryl

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

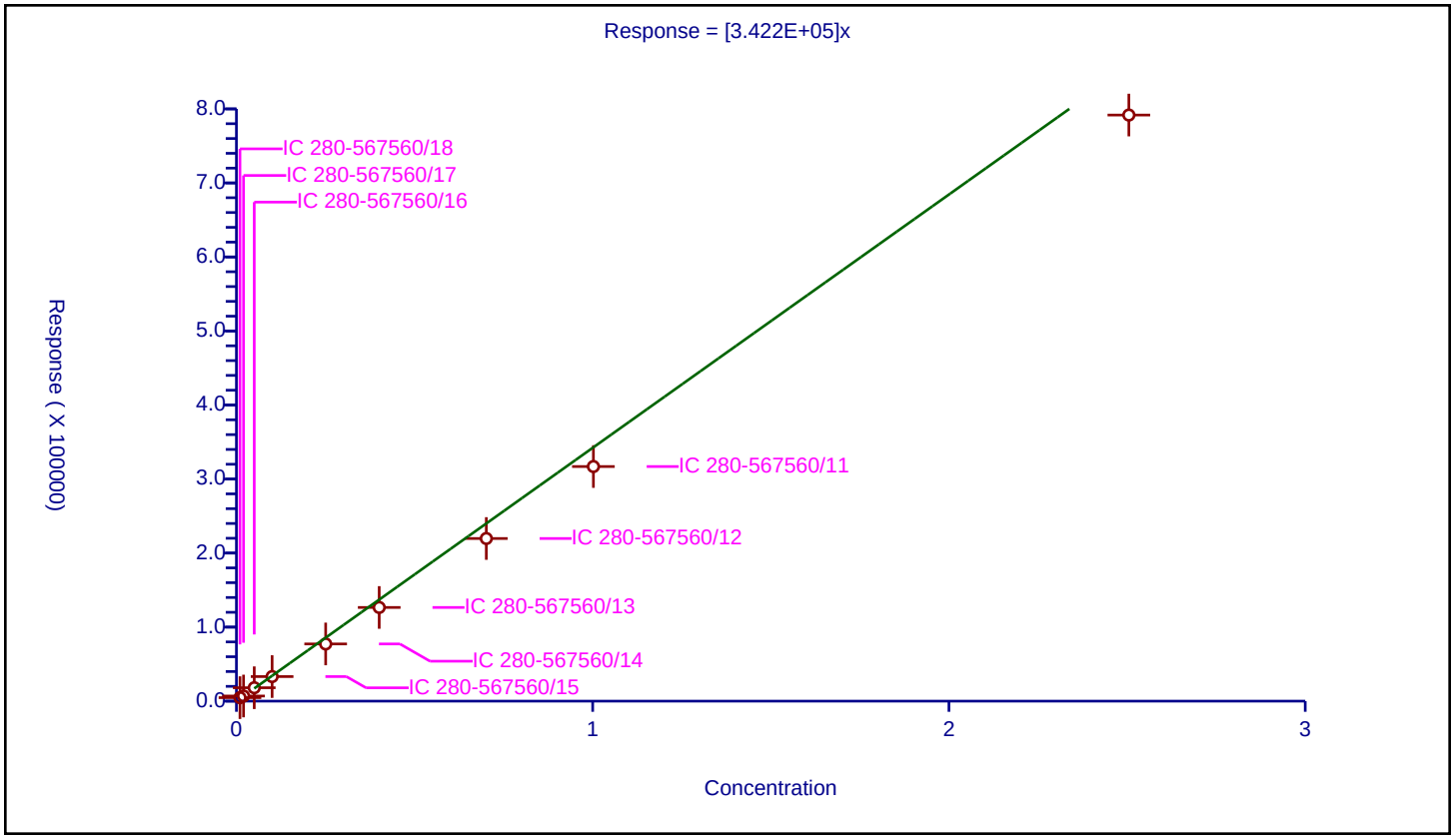
Curve Coefficients

Intercept:	0
Slope:	3.422E+05

Error Coefficients

Standard Error:	26400
Relative Standard Error:	15.0
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.965

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-567560/18	0.01002	4722.0			471257.48503	Y
2	IC 280-567560/17	0.02004	6933.0			345958.083832	Y
3	IC 280-567560/16	0.0501	18110.0			361477.045908	Y
4	IC 280-567560/15	0.1002	33188.0			331217.56487	Y
5	IC 280-567560/14	0.2505	77249.0			308379.241517	Y
6	IC 280-567560/13	0.4008	126546.0			315733.532934	Y
7	IC 280-567560/12	0.7014	219675.0			313195.038494	Y
8	IC 280-567560/11	1.002	316900.0			316267.46507	Y
9	IC 280-567560/10	2.505	791703.0			316049.101796	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

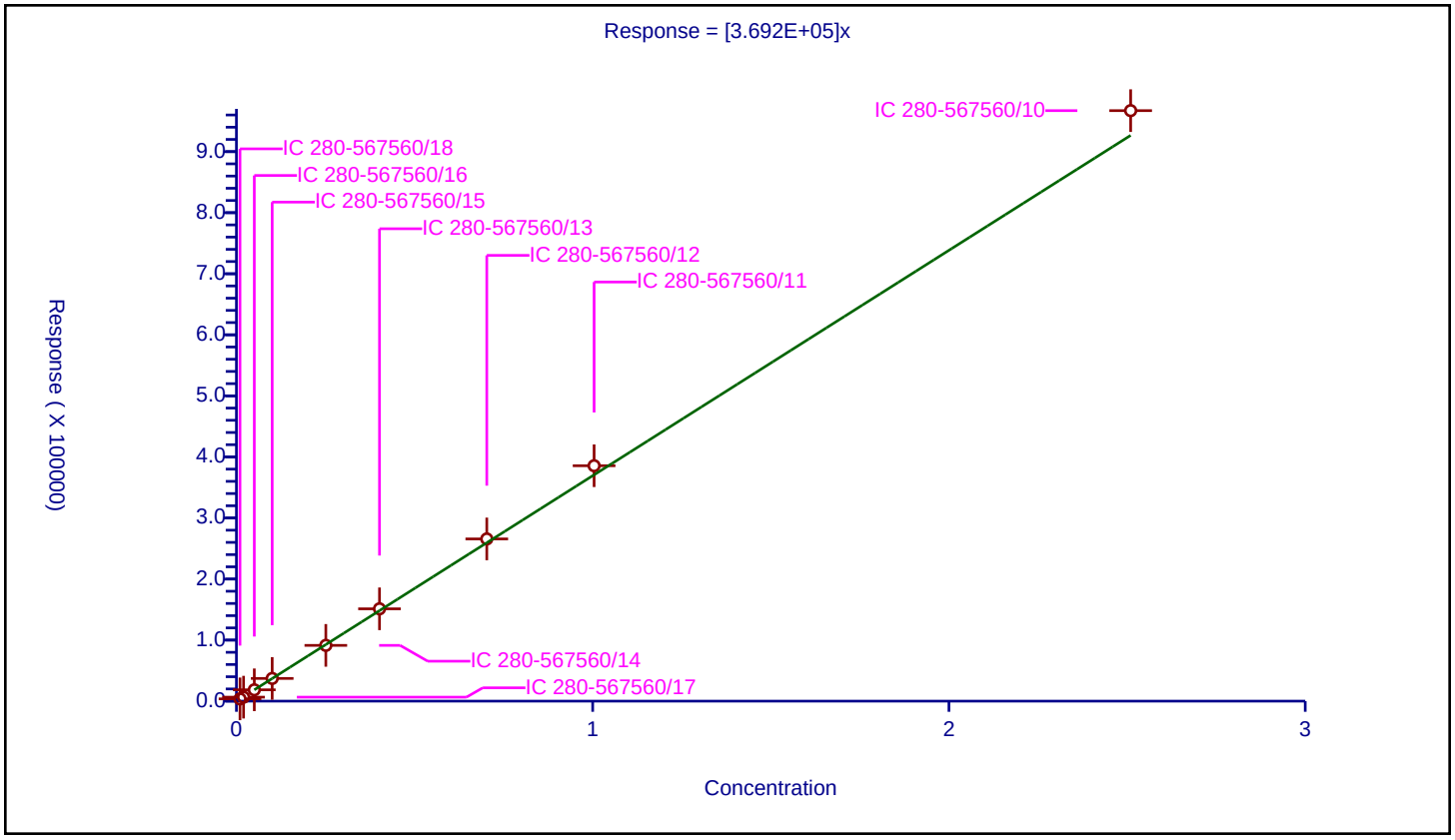
Curve Coefficients

Intercept:	0
Slope:	3.692E+05

Error Coefficients

Standard Error:	15500
Relative Standard Error:	5.0
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-567560/18	0.01004	3720.0			370517.928287	Y
2	IC 280-567560/17	0.02008	6507.0			324053.784861	Y
3	IC 280-567560/16	0.0502	18556.0			369641.434263	Y
4	IC 280-567560/15	0.1004	37205.0			370567.729084	Y
5	IC 280-567560/14	0.251	91338.0			363896.414343	Y
6	IC 280-567560/13	0.4016	151235.0			376581.175299	Y
7	IC 280-567560/12	0.7028	265676.0			378025.042686	Y
8	IC 280-567560/11	1.004	385560.0			384023.904382	Y
9	IC 280-567560/10	2.51	967117.0			385305.577689	Y



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

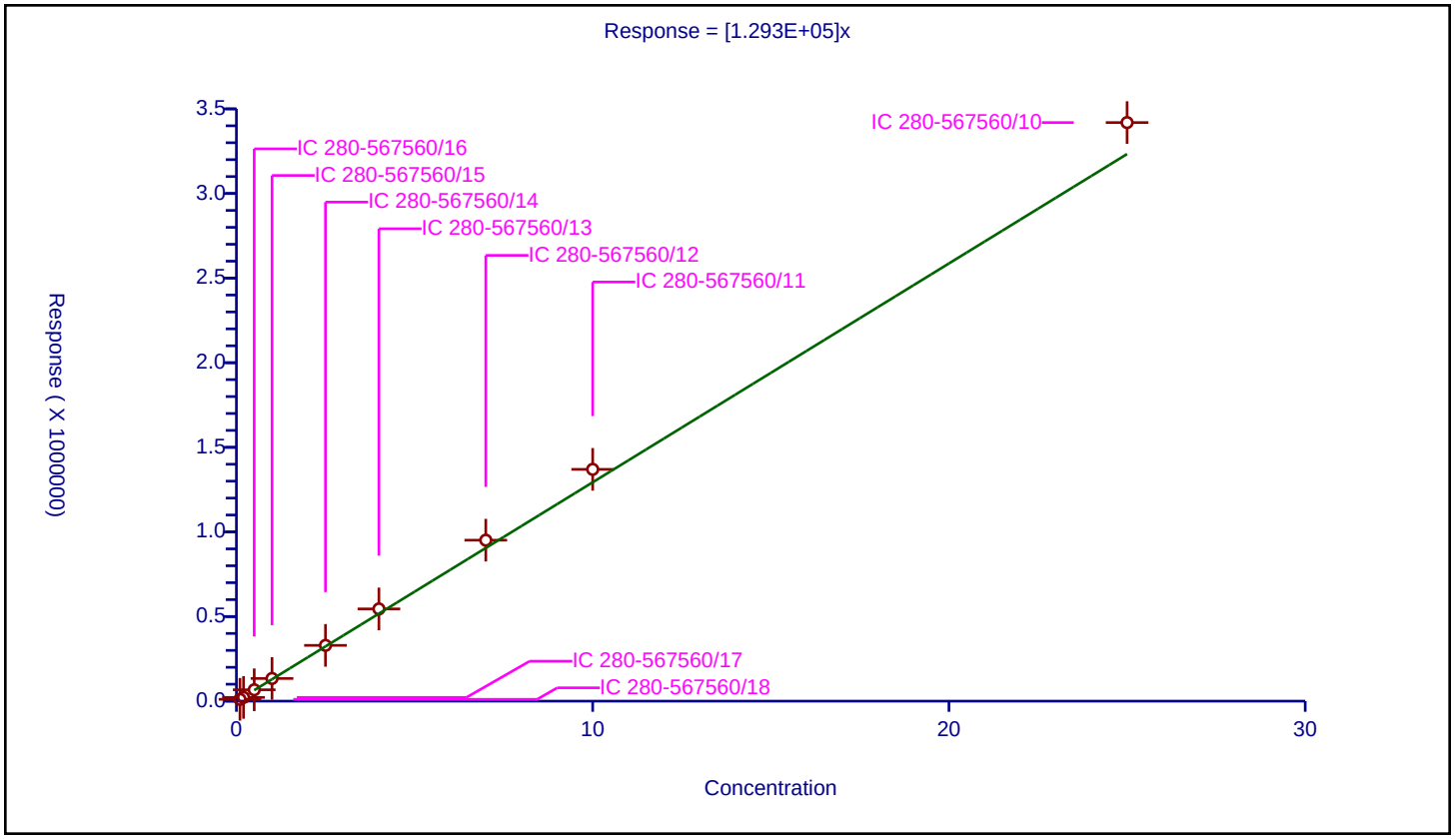
Curve Coefficients

Intercept:	0
Slope:	1.293E+05

Error Coefficients

Standard Error:	73600
Relative Standard Error:	9.0
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.991

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-567560/18	0.1	10842.0			108420.0	Y
2	IC 280-567560/17	0.2	21923.0			109615.0	Y
3	IC 280-567560/16	0.5	67082.0			134164.0	Y
4	IC 280-567560/15	1.0	134076.0			134076.0	Y
5	IC 280-567560/14	2.5	329509.0			131803.6	Y
6	IC 280-567560/13	4.0	544987.0			136246.75	Y
7	IC 280-567560/12	7.0	951206.0			135886.571429	Y
8	IC 280-567560/11	10.0	1369840.0			136984.0	Y
9	IC 280-567560/10	25.0	3419168.0			136766.72	Y



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

Lab Name: Eurofins Denver Job No.: 280-159384-1 Analy Batch No.: 567560

SDG No.:

Instrument ID: CHHPLC_X5 GC Column: Luna-phenyl ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/03/2022 03:13 Calibration End Date: 03/03/2022 07:19 Calibration ID: 62763

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-567560/27	03020027.D
Level 2	IC 280-567560/26	03020026.D
Level 3	IC 280-567560/25	03020025.D
Level 4	IC 280-567560/24	03020024.D
Level 5	IC 280-567560/23	03020023.D
Level 6	IC 280-567560/22	03020022.D
Level 7	IC 280-567560/21	03020021.D
Level 8	IC 280-567560/20	03020020.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	LVL 7	LVL 8			RT WINDOW	AVG RT
TNX	5.170	5.168	5.172	5.164	5.171	5.157	5.156	5.140			5.021 - 5.321	5.162
DNX	6.030	6.028	6.032	6.024	6.031	6.017	6.016	6.000			5.881 - 6.181	6.022
MNX	7.624	7.621	7.625	7.617	7.625	7.610	7.602	7.593			7.475 - 7.775	7.615

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

Lab Name: Eurofins Denver | Job No.: 280-159384-1 | Analy Batch No.: 567560

SDG No.:

Instrument ID: CHHPLC_X5 | GC Column: Luna-phenyl ID: 4.6(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 03/03/2022 03:13 | Calibration End Date: 03/03/2022 07:19 | Calibration ID: 62763

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-567560/27	03020027.D
Level 2	IC 280-567560/26	03020026.D
Level 3	IC 280-567560/25	03020025.D
Level 4	IC 280-567560/24	03020024.D
Level 5	IC 280-567560/23	03020023.D
Level 6	IC 280-567560/22	03020022.D
Level 7	IC 280-567560/21	03020021.D
Level 8	IC 280-567560/20	03020020.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3 LVL 7	LVL 4 LVL 8		B	M1	M2								
TNX	349201 351611	355385 355367	353267 354987	350933 361808	Ave		354069.850				1.1		20.0			
DNX	317133 267552	289031 269316	277622 267891	269419 271146	Ave		278638.900				6.2		20.0			
MNX	257326 246598	252785 247481	254053 246929	246461 249015	Ave		250081.020				1.6		20.0			

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

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

Lab Name: Eurofins Denver Job No.: 280-159384-1 Analy Batch No.: 567560

SDG No.:

Instrument ID: CHHPLC_X5 GC Column: Luna-phenyl ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/03/2022 03:13 Calibration End Date: 03/03/2022 07:19 Calibration ID: 62763

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-567560/27	03020027.D
Level 2	IC 280-567560/26	03020026.D
Level 3	IC 280-567560/25	03020025.D
Level 4	IC 280-567560/24	03020024.D
Level 5	IC 280-567560/23	03020023.D
Level 6	IC 280-567560/22	03020022.D
Level 7	IC 280-567560/21	03020021.D
Level 8	IC 280-567560/20	03020020.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
		LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
TNX	Ave	6991 249006	17787 355342	35362 905425	87821	140785	0.0200 0.701	0.0501 1.00	0.100 2.50	0.250	0.400
DNX	Ave	6349 188710	14466 268159	27790 678544	67422	107128	0.0200 0.701	0.0501 1.00	0.100 2.50	0.250	0.400
MNX	Ave	6006 202167	14750 288166	29648 726501	71905	115112	0.0233 0.817	0.0584 1.17	0.117 2.92	0.292	0.467

Curve Type Legend
Ave = Average

Eurofins Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020020.D				
Lims ID:	IC DMT 8				
Client ID:					
Sample Type:	IC	Calib Level:	8		
Inject. Date:	03-Mar-2022 03:13:58	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	IC DMT 8				
Misc. Info.:	280-0108949-020				
Operator ID:	JZ	Instrument ID:	CHHPLC_X5		
Sublist:	chrom-8330_X5_Luna*sub2				
Method:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\8330_X5_Luna.m				
Limit Group:	GCSV - 8330				
Last Update:	03-Mar-2022 12:49:18	Calib Date:	03-Mar-2022 07:19:48		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020027.D				
Column 1 :	Luna-Phenyl hexyl (4.60 mm)		Det: LC mwd1A, 254 nm		
Process Host:	CTX1618				

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
3 TNX	1	5.140	5.171	-0.031	905425	2.50	2.56	
4 DNX	1	6.000	6.031	-0.031	678544	2.50	2.44	
6 MNX	1	7.593	7.625	-0.032	726501	2.92	2.91	

Reagents:

8330 DMT_00010 Amount Added: 125.00 Units: uL

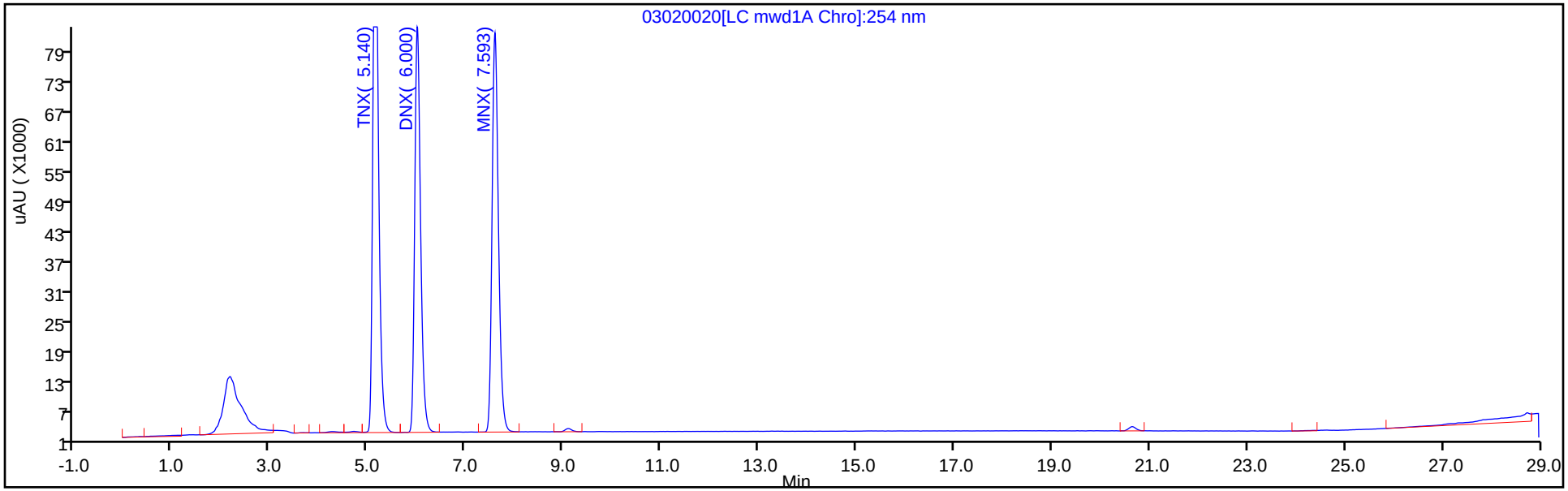
Report Date: 03-Mar-2022 12:49:19 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Denver

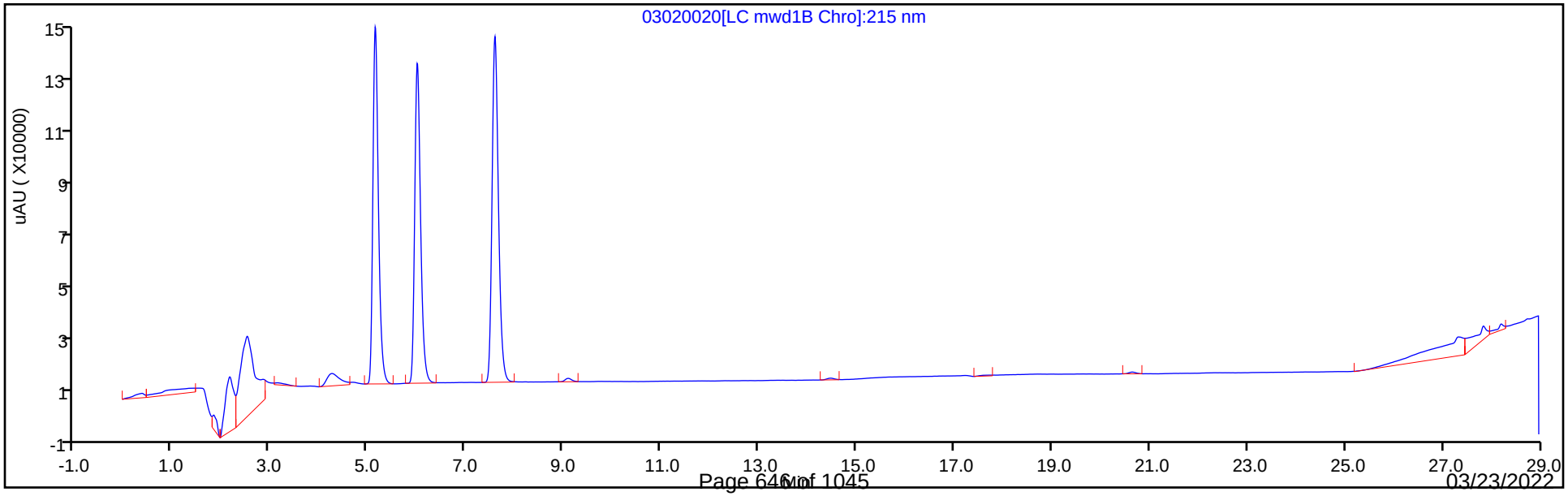
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020020.D

Injection Date:	03-Mar-2022 03:13:58	Instrument ID:	CHHPLC_X5	Operator ID:	JZ
Lims ID:	IC DMT 8			Worklist Smp#:	20
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	20
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020021.D				
Lims ID:	IC DMT 7				
Client ID:					
Sample Type:	IC	Calib Level:	7		
Inject. Date:	03-Mar-2022 03:49:08	ALS Bottle#:	21	Worklist Smp#:	21
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	IC DMT 7				
Misc. Info.:	280-0108949-021				
Operator ID:	JZ	Instrument ID:	CHHPLC_X5		
Sublist:	chrom-8330_X5_Luna*sub2				
Method:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\8330_X5_Luna.m				
Limit Group:	GCSV - 8330				
Last Update:	03-Mar-2022 12:49:19	Calib Date:	03-Mar-2022 07:19:48		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020027.D				
Column 1 :	Luna-Phenyl hexyl (4.60 mm)		Det: LC mwd1A, 254 nm		
Process Host:	CTX1618				

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
3 TNX	1	5.156	5.171	-0.015	355342	1.00	1.00	
4 DNX	1	6.016	6.031	-0.015	268159	1.00	0.9624	
6 MNX	1	7.602	7.625	-0.023	288166	1.17	1.15	

Reagents:

8330 DMT_00010 Amount Added: 50.00 Units: uL

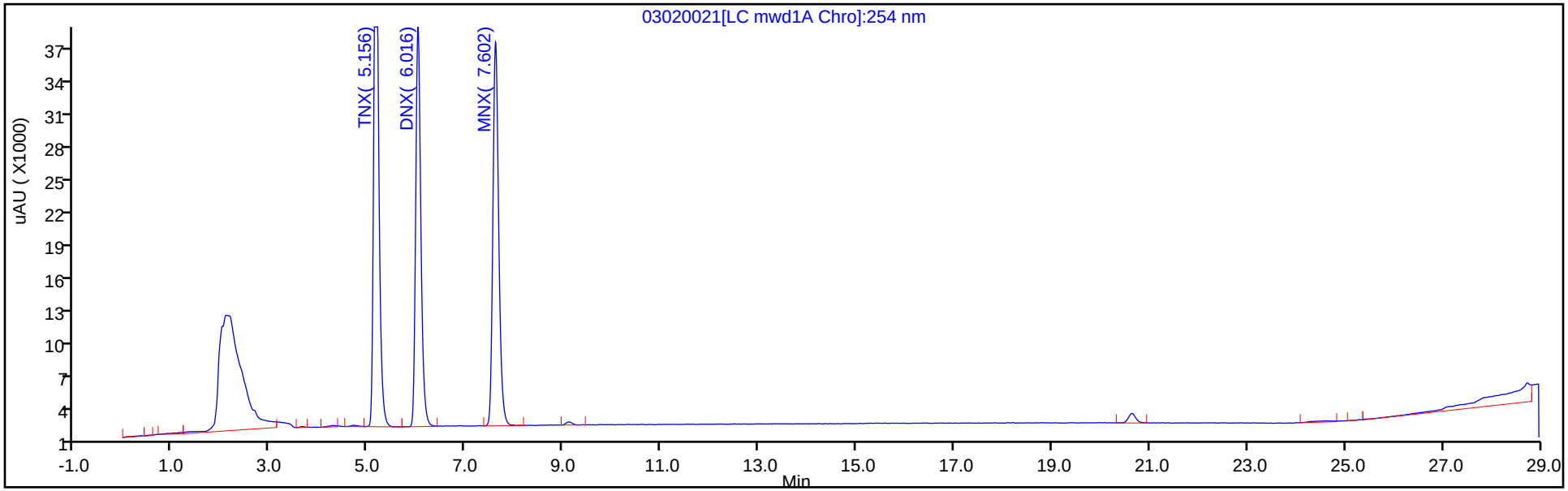
Report Date: 03-Mar-2022 12:49:19 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Denver

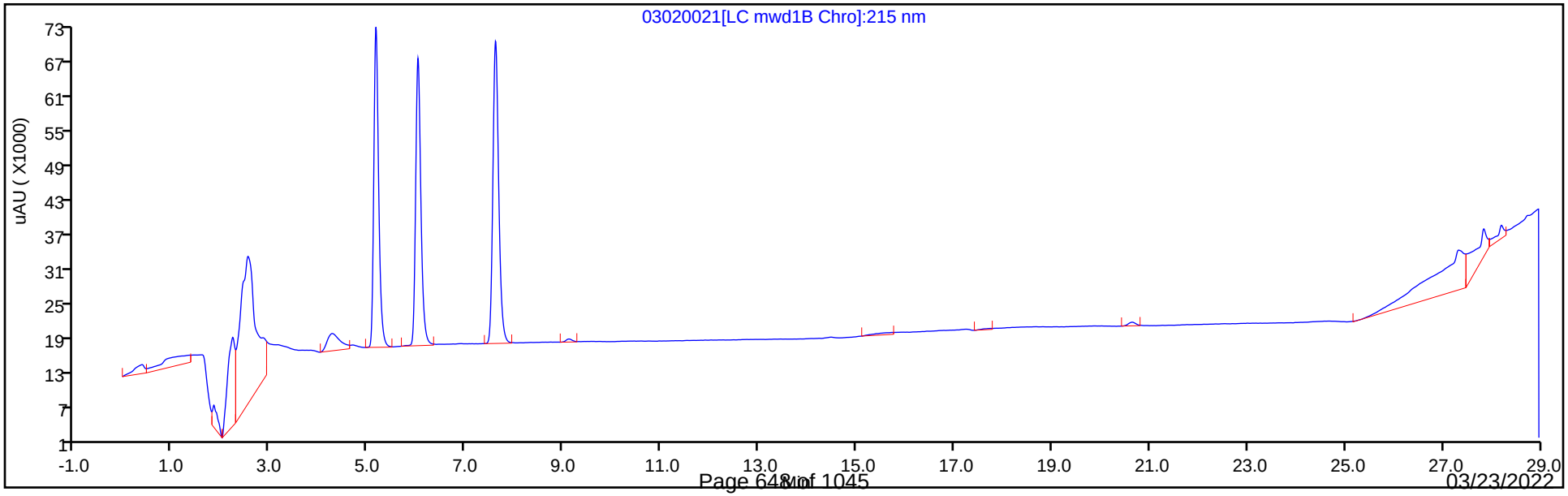
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Injection Date:	03-Mar-2022 03:49:08	Instrument ID:	CHHPLC_X5	Operator ID:	JZ
Lims ID:	IC DMT 7			Worklist Smp#:	21
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	21
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020022.D				
Lims ID:	IC DMT 6				
Client ID:					
Sample Type:	IC	Calib Level:	6		
Inject. Date:	03-Mar-2022 04:24:13	ALS Bottle#:	22	Worklist Smp#:	22
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	IC DMT 6				
Misc. Info.:	280-0108949-022				
Operator ID:	JZ	Instrument ID:	CHHPLC_X5		
Sublist:	chrom-8330_X5_Luna*sub2				
Method:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\8330_X5_Luna.m				
Limit Group:	GCSV - 8330				
Last Update:	03-Mar-2022 12:49:19	Calib Date:	03-Mar-2022 07:19:48		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020027.D				
Column 1 :	Luna-Phenyl hexyl (4.60 mm)		Det: LC mwd1A, 254 nm		
Process Host:	CTX1618				

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
3 TNX	1	5.157	5.171	-0.014	249006	0.7007	0.7033	
4 DNX	1	6.017	6.031	-0.014	188710	0.7007	0.6773	
6 MNX	1	7.610	7.625	-0.015	202167	0.8169	0.8084	

Reagents:

8330 DMT_00010 Amount Added: 35.00 Units: uL

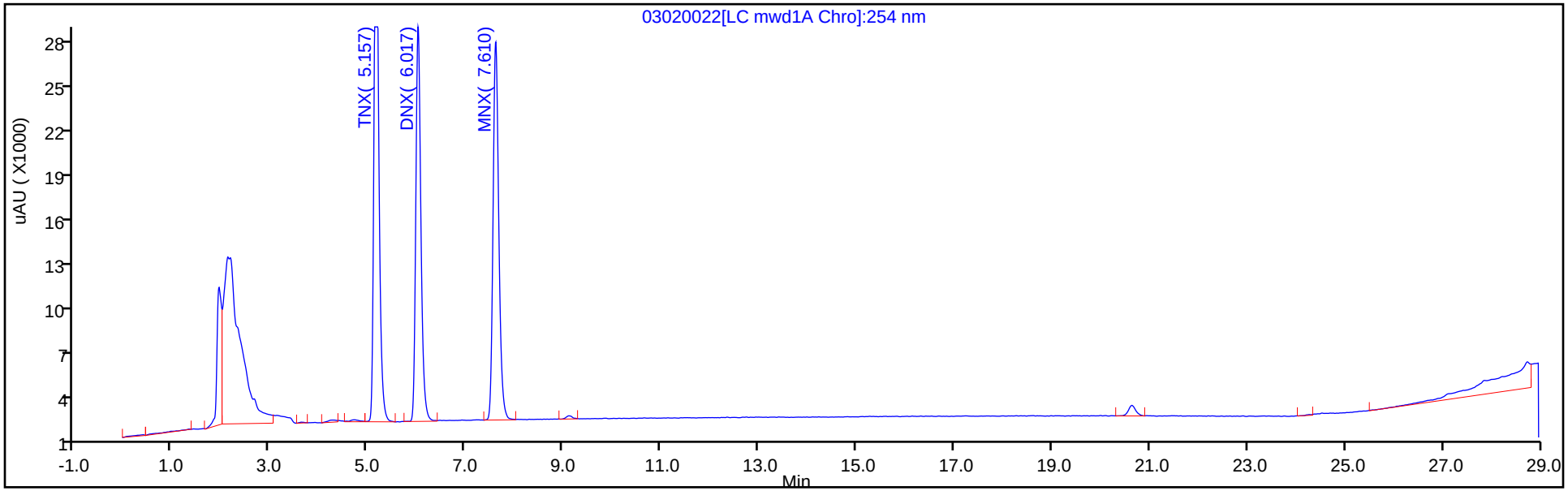
Report Date: 03-Mar-2022 12:49:19 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Denver

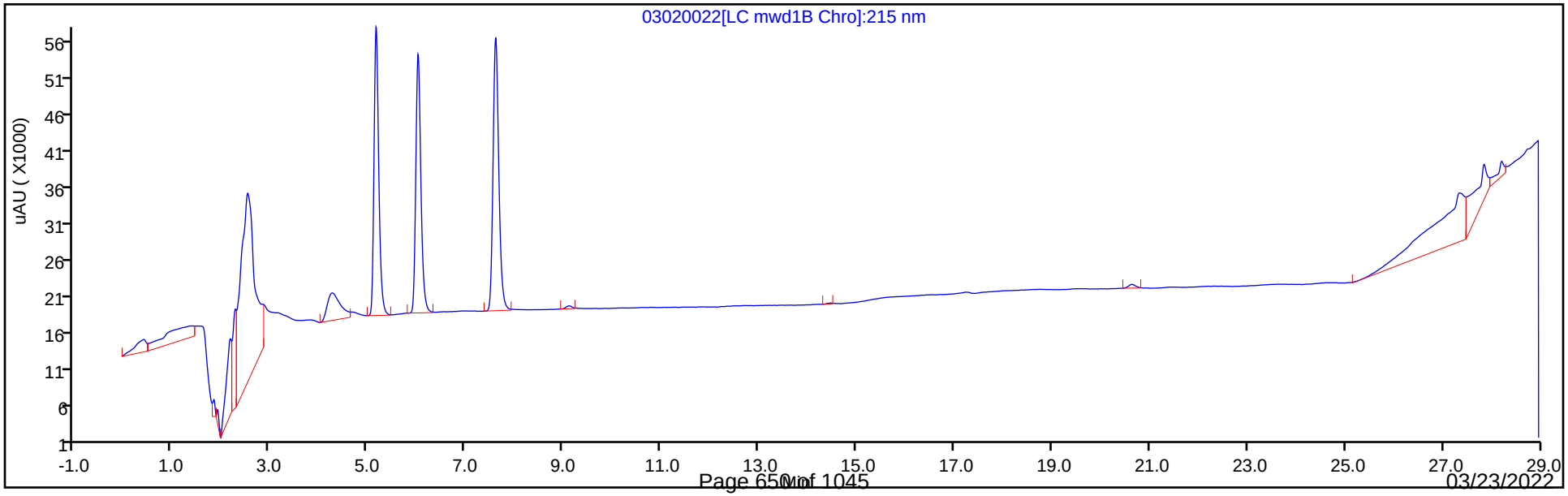
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Injection Date:	03-Mar-2022 04:24:13	Instrument ID:	CHHPLC_X5	Operator ID:	JZ
Lims ID:	IC DMT 6			Worklist Smp#:	22
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	22
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020023.D				
Lims ID:	IC DMT 5				
Client ID:					
Sample Type:	IC	Calib Level:	5		
Inject. Date:	03-Mar-2022 04:59:22	ALS Bottle#:	23	Worklist Smp#:	23
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	IC DMT 5				
Misc. Info.:	280-0108949-023				
Operator ID:	JZ	Instrument ID:	CHHPLC_X5		
Sublist:	chrom-8330_X5_Luna*sub2				
Method:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\8330_X5_Luna.m				
Limit Group:	GCSV - 8330				
Last Update:	03-Mar-2022 12:49:20	Calib Date:	03-Mar-2022 07:19:48		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020027.D				
Column 1 :	Luna-Phenyl hexyl (4.60 mm)		Det: LC mwd1A, 254 nm		
Process Host:	CTX1618				

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
3 TNX	1	5.171	5.171	0.000	140785	0.4004	0.3976	
4 DNX	1	6.031	6.031	0.000	107128	0.4004	0.3845	
6 MNX	1	7.625	7.625	0.000	115112	0.4668	0.4603	

Reagents:

8330 DMT_00010 Amount Added: 20.00 Units: uL

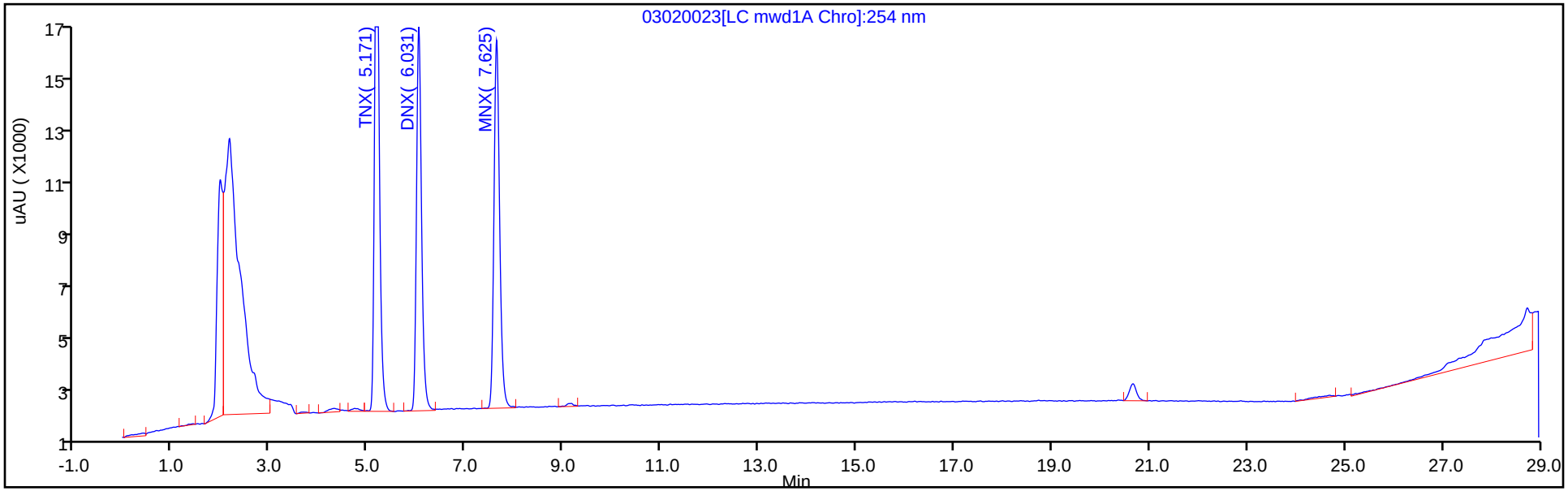
Report Date: 03-Mar-2022 12:49:20 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Denver

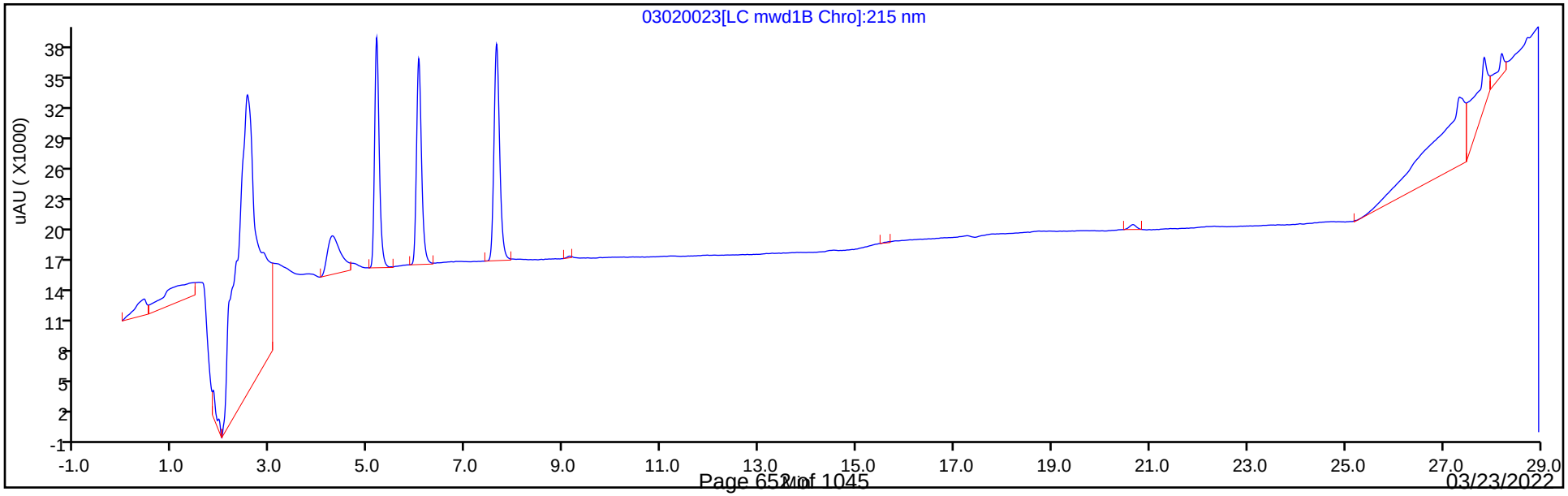
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Injection Date:	03-Mar-2022 04:59:22	Instrument ID:	CHHPLC_X5	Operator ID:	JZ
Lims ID:	IC DMT 5			Worklist Smp#:	23
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	23
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020024.D
Lims ID: IC DMT 4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 03-Mar-2022 05:34:27 ALS Bottle#: 24 Worklist Smp#: 24
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC DMT 4
Misc. Info.: 280-0108949-024
Operator ID: JZ Instrument ID: CHHPLC_X5
Sublist: chrom-8330_X5_Luna*sub2

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 03-Mar-2022 12:49:20 Calib Date: 03-Mar-2022 07:19:48
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020027.D

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

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
3 TNX	1	5.164	5.171	-0.007	87821	0.2503	0.2480	
4 DNX	1	6.024	6.031	-0.007	67422	0.2503	0.2420	
6 MNX	1	7.617	7.625	-0.008	71905	0.2918	0.2875	

Reagents:

8330 DMT_00010 Amount Added: 12.50 Units: uL

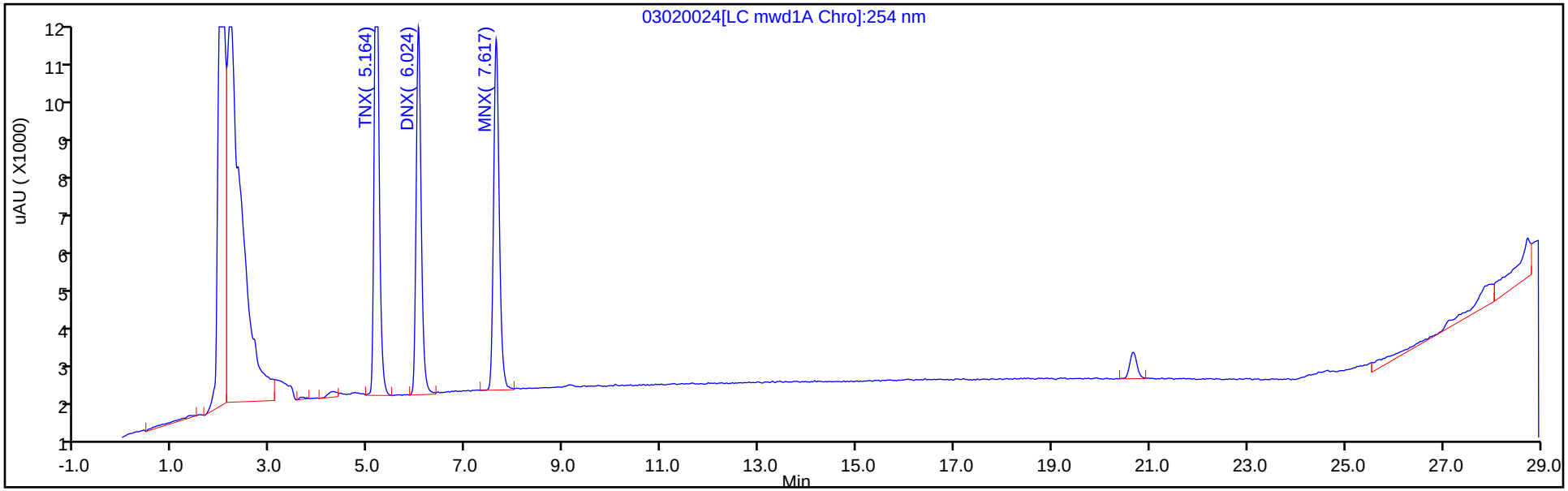
Report Date: 03-Mar-2022 12:49:20 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Denver

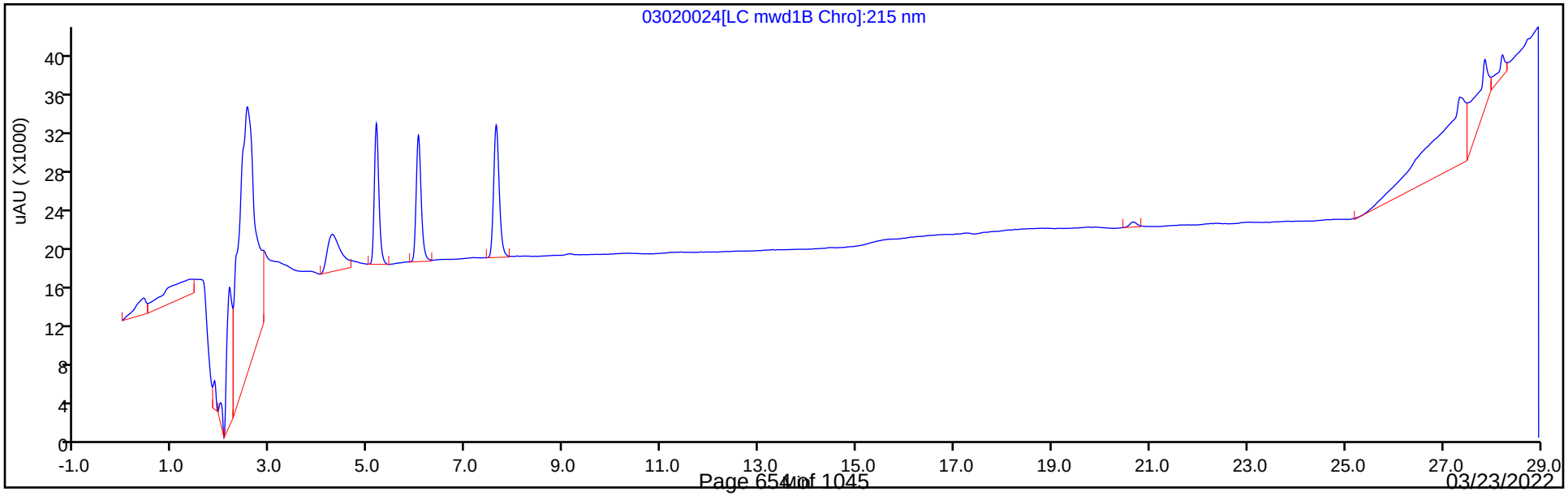
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020024.D

Injection Date:	03-Mar-2022 05:34:27	Instrument ID:	CHHPLC_X5	Operator ID:	JZ
Lims ID:	IC DMT 4			Worklist Smp#:	24
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	24
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020025.D				
Lims ID:	IC DMT 3				
Client ID:					
Sample Type:	IC	Calib Level:	3		
Inject. Date:	03-Mar-2022 06:09:35	ALS Bottle#:	25	Worklist Smp#:	25
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	IC DMT 3				
Misc. Info.:	280-0108949-025				
Operator ID:	JZ	Instrument ID:	CHHPLC_X5		
Sublist:	chrom-8330_X5_Luna*sub2				
Method:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\8330_X5_Luna.m				
Limit Group:	GCSV - 8330				
Last Update:	03-Mar-2022 12:49:21	Calib Date:	03-Mar-2022 07:19:48		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020027.D				
Column 1 :	Luna-Phenyl hexyl (4.60 mm)		Det: LC mwd1A, 254 nm		
Process Host:	CTX1618				

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
3 TNX	1	5.172	5.171	0.001	35362	0.1001	0.0999	
4 DNX	1	6.032	6.031	0.001	27790	0.1001	0.0997	
6 MNX	1	7.625	7.625	0.000	29648	0.1167	0.1186	

Reagents:

8330 DMT_00010 Amount Added: 5.00 Units: uL

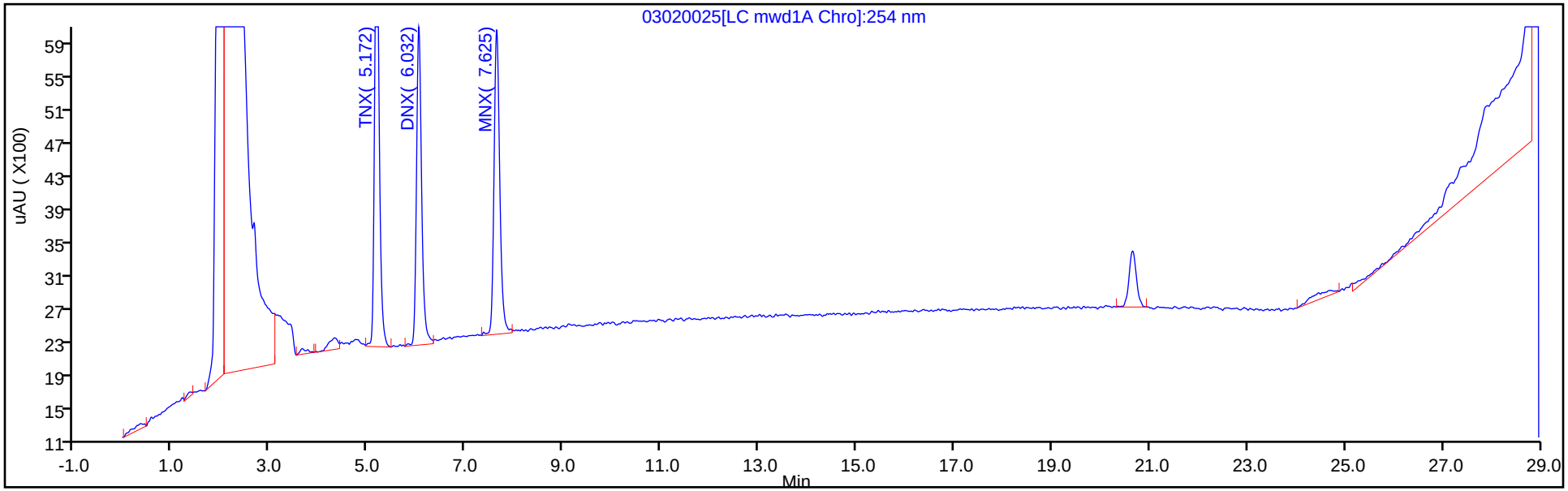
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Eurofins Denver

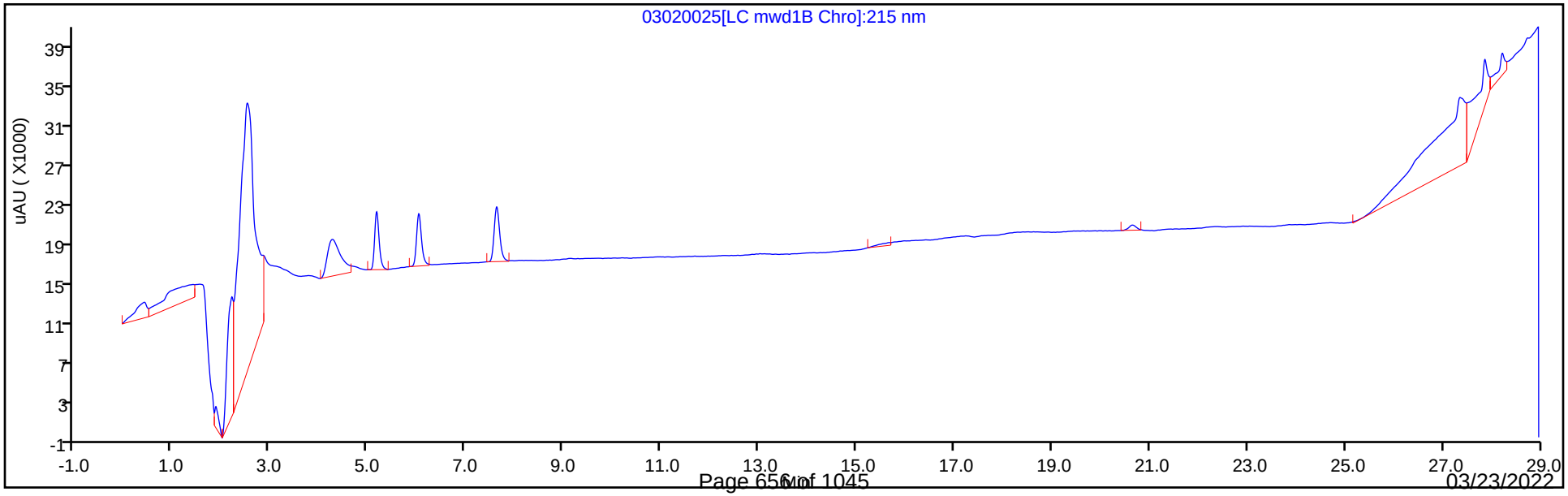
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Injection Date:	03-Mar-2022 06:09:35	Instrument ID:	CHHPLC_X5	Operator ID:	JZ
Lims ID:	IC DMT 3			Worklist Smp#:	25
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	25
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020026.D				
Lims ID:	IC DMT 2				
Client ID:					
Sample Type:	IC	Calib Level:	2		
Inject. Date:	03-Mar-2022 06:44:40	ALS Bottle#:	26	Worklist Smp#:	26
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	IC DMT 2				
Misc. Info.:	280-0108949-026				
Operator ID:	JZ	Instrument ID:	CHHPLC_X5		
Sublist:	chrom-8330_X5_Luna*sub2				
Method:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\8330_X5_Luna.m				
Limit Group:	GCSV - 8330				
Last Update:	03-Mar-2022 12:49:21	Calib Date:	03-Mar-2022 07:19:48		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020027.D				
Column 1 :	Luna-Phenyl hexyl (4.60 mm)		Det: LC mwd1A, 254 nm		
Process Host:	CTX1618				

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
3 TNX	1	5.168	5.171	-0.003	17787	0.0501	0.0502	
4 DNX	1	6.028	6.031	-0.003	14466	0.0501	0.0519	
6 MNX	1	7.621	7.625	-0.004	14750	0.0584	0.0590	

Reagents:

8330 DMT_00010 Amount Added: 2.50 Units: uL

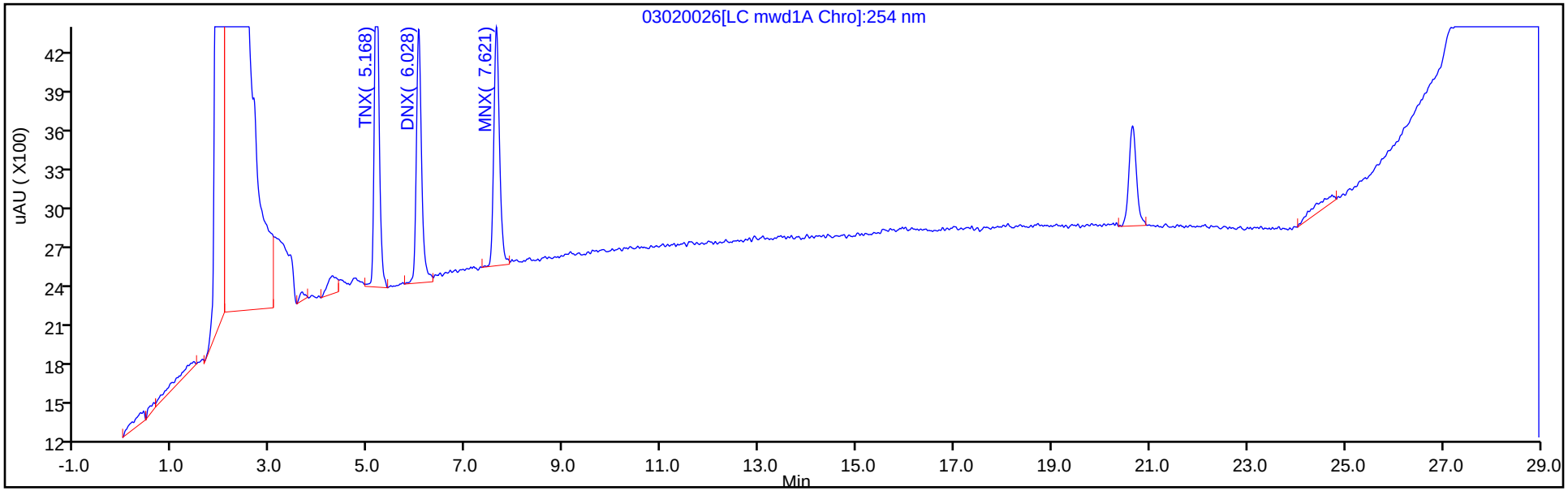
Report Date: 03-Mar-2022 12:49:21 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Denver

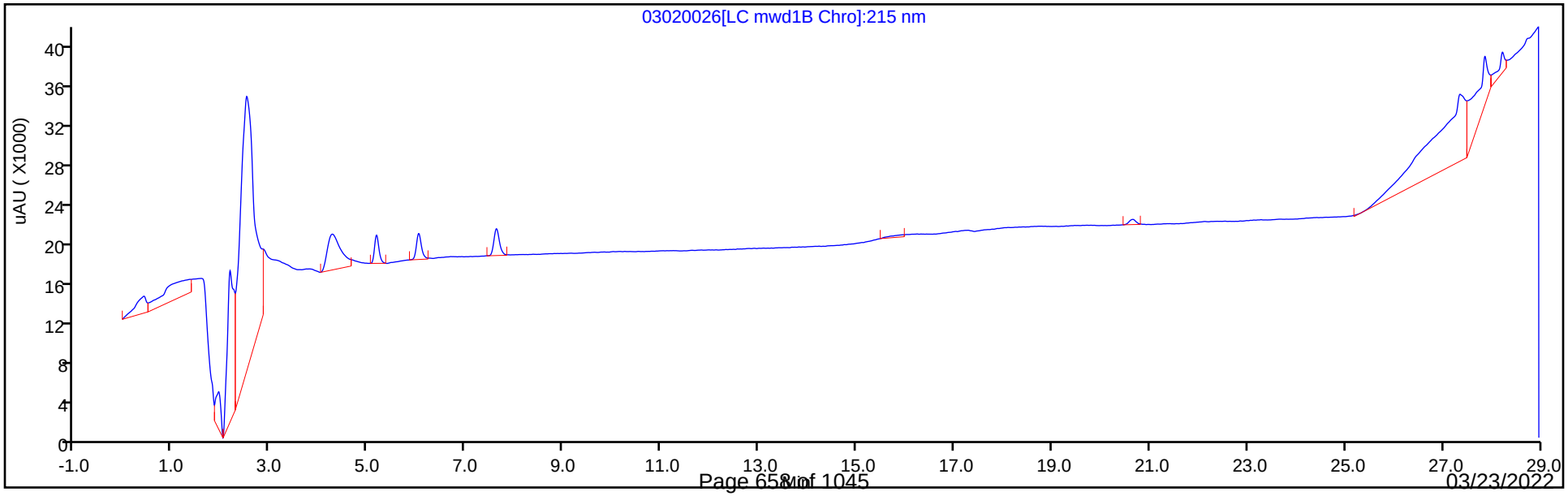
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Injection Date:	03-Mar-2022 06:44:40	Instrument ID:	CHHPLC_X5	Operator ID:	JZ
Lims ID:	IC DMT 2			Worklist Smp#:	26
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	26
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020027.D				
Lims ID:	IC DMT 1				
Client ID:					
Sample Type:	IC	Calib Level:	1		
Inject. Date:	03-Mar-2022 07:19:48	ALS Bottle#:	27	Worklist Smp#:	27
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	IC DMT 1				
Misc. Info.:	280-0108949-027				
Operator ID:	JZ	Instrument ID:	CHHPLC_X5		
Sublist:	chrom-8330_X5_Luna*sub2				
Method:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\8330_X5_Luna.m				
Limit Group:	GCSV - 8330				
Last Update:	03-Mar-2022 12:49:22	Calib Date:	03-Mar-2022 07:19:48		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020027.D				
Column 1 :	Luna-Phenyl hexyl (4.60 mm)		Det: LC mwd1A, 254 nm		
Process Host:	CTX1618				

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
3 TNX	1	5.170	5.171	-0.001	6991	0.0200	0.0197	
4 DNX	1	6.030	6.031	-0.001	6349	0.0200	0.0228	
6 MNX	1	7.624	7.625	-0.001	6006	0.0233	0.0240	

Reagents:

8330 DMT_00010 Amount Added: 1.00 Units: uL

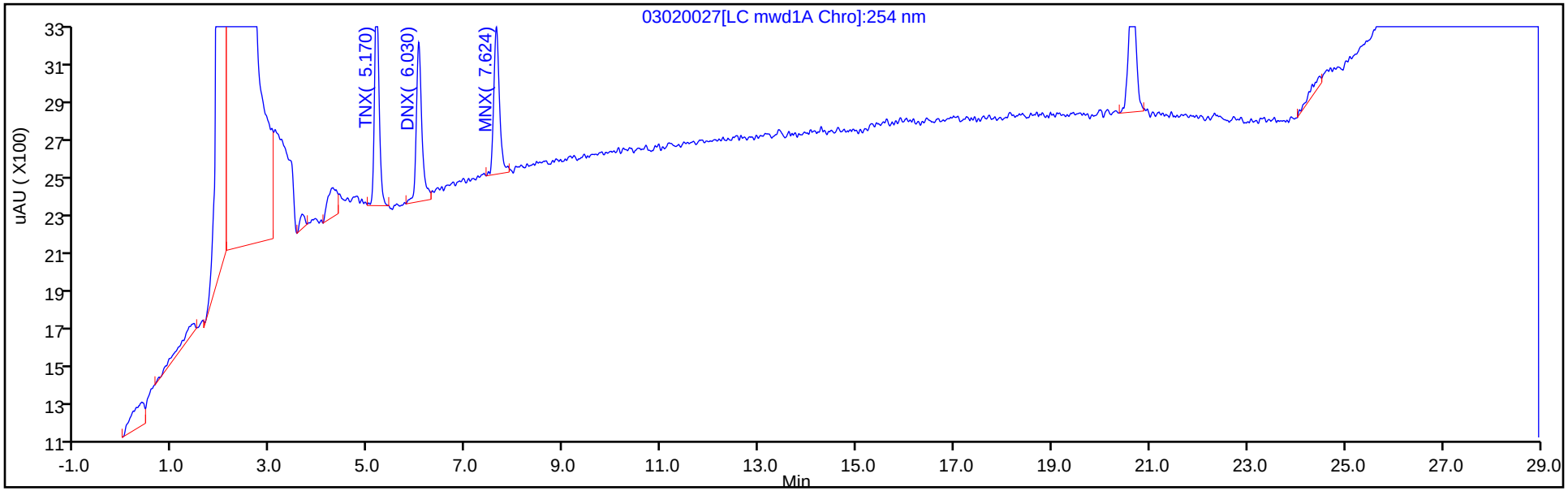
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Eurofins Denver

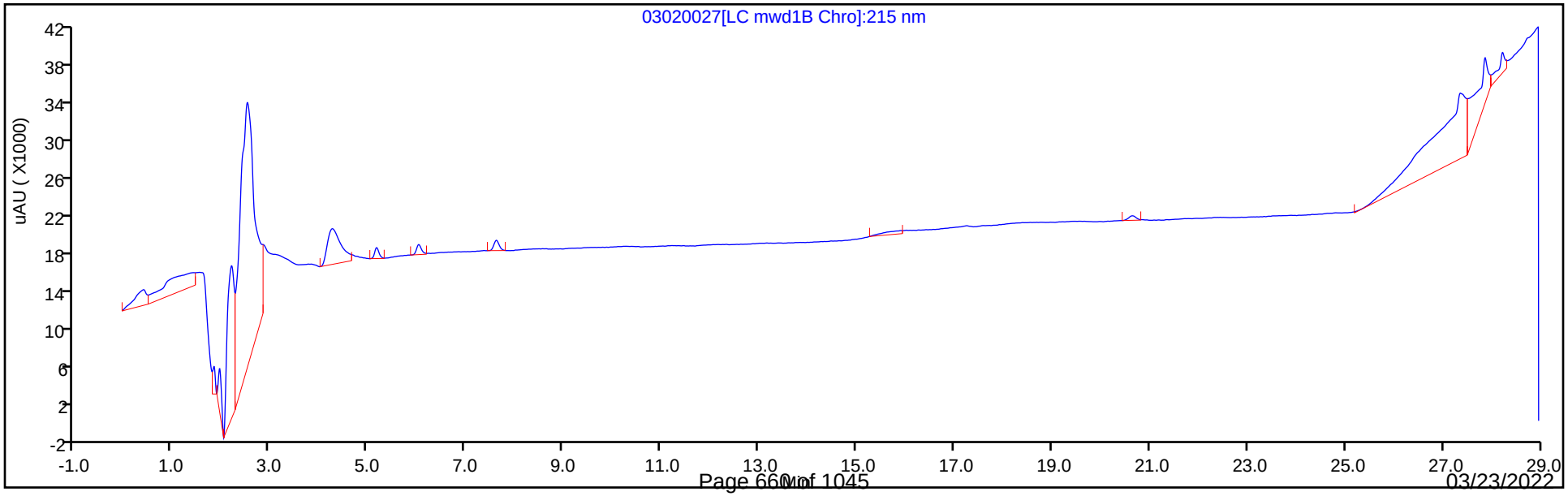
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Injection Date:	03-Mar-2022 07:19:48	Instrument ID:	CHHPLC_X5	Operator ID:	JZ
Lims ID:	IC DMT 1			Worklist Smp#:	27
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	27
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Calibration / TNX

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

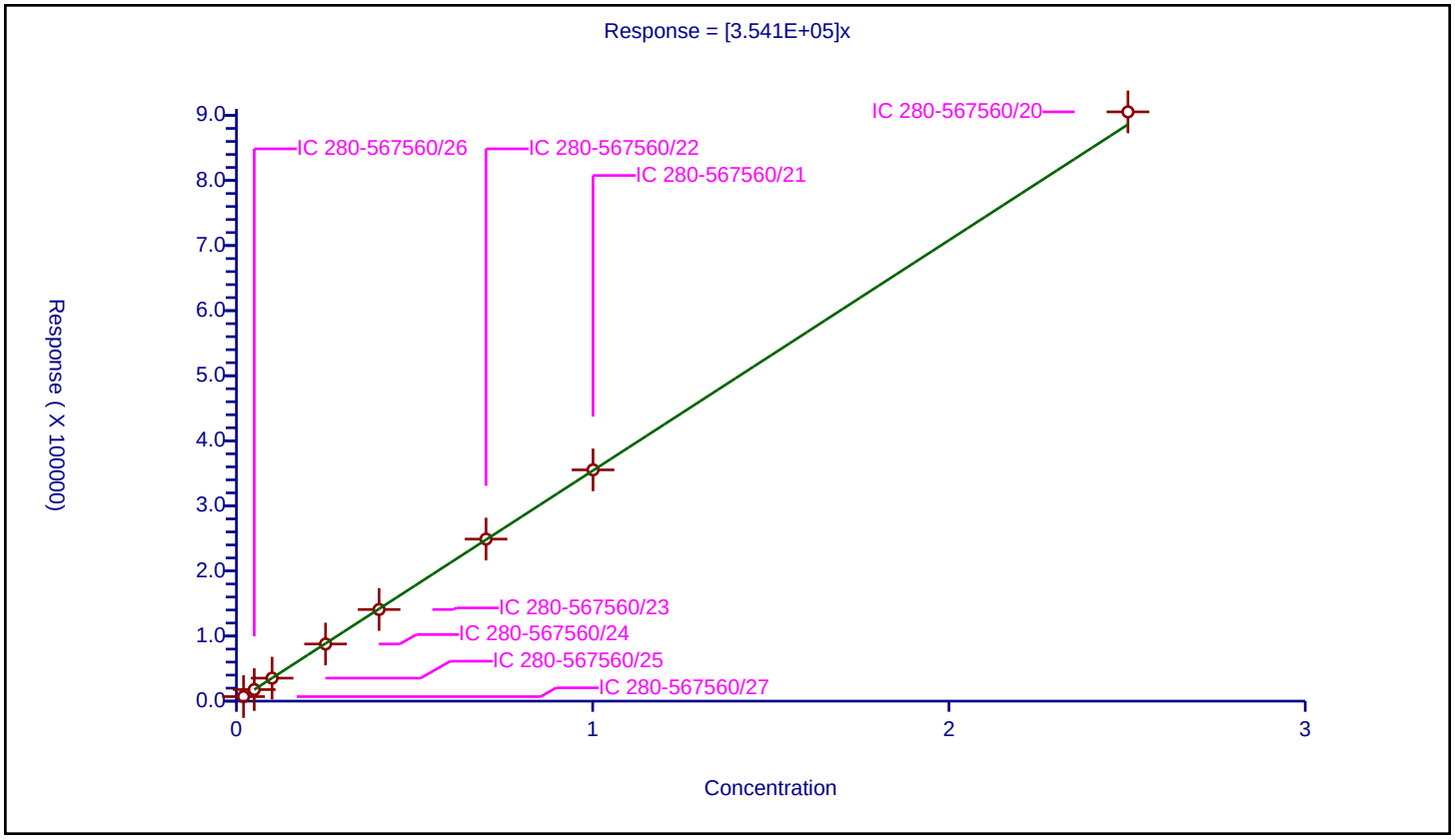
Curve Coefficients

Intercept:	0
Slope:	3.541E+05

Error Coefficients

Standard Error:	7350
Relative Standard Error:	1.1
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	1.000

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-567560/27	0.02002	6991.0			349200.799201	Y
2	IC 280-567560/26	0.05005	17787.0			355384.615385	Y
3	IC 280-567560/25	0.1001	35362.0			353266.733267	Y
4	IC 280-567560/24	0.25025	87821.0			350933.066933	Y
5	IC 280-567560/23	0.4004	140785.0			351610.889111	Y
6	IC 280-567560/22	0.7007	249006.0			355367.489653	Y
7	IC 280-567560/21	1.001	355342.0			354987.012987	Y
8	IC 280-567560/20	2.5025	905425.0			361808.191808	Y



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

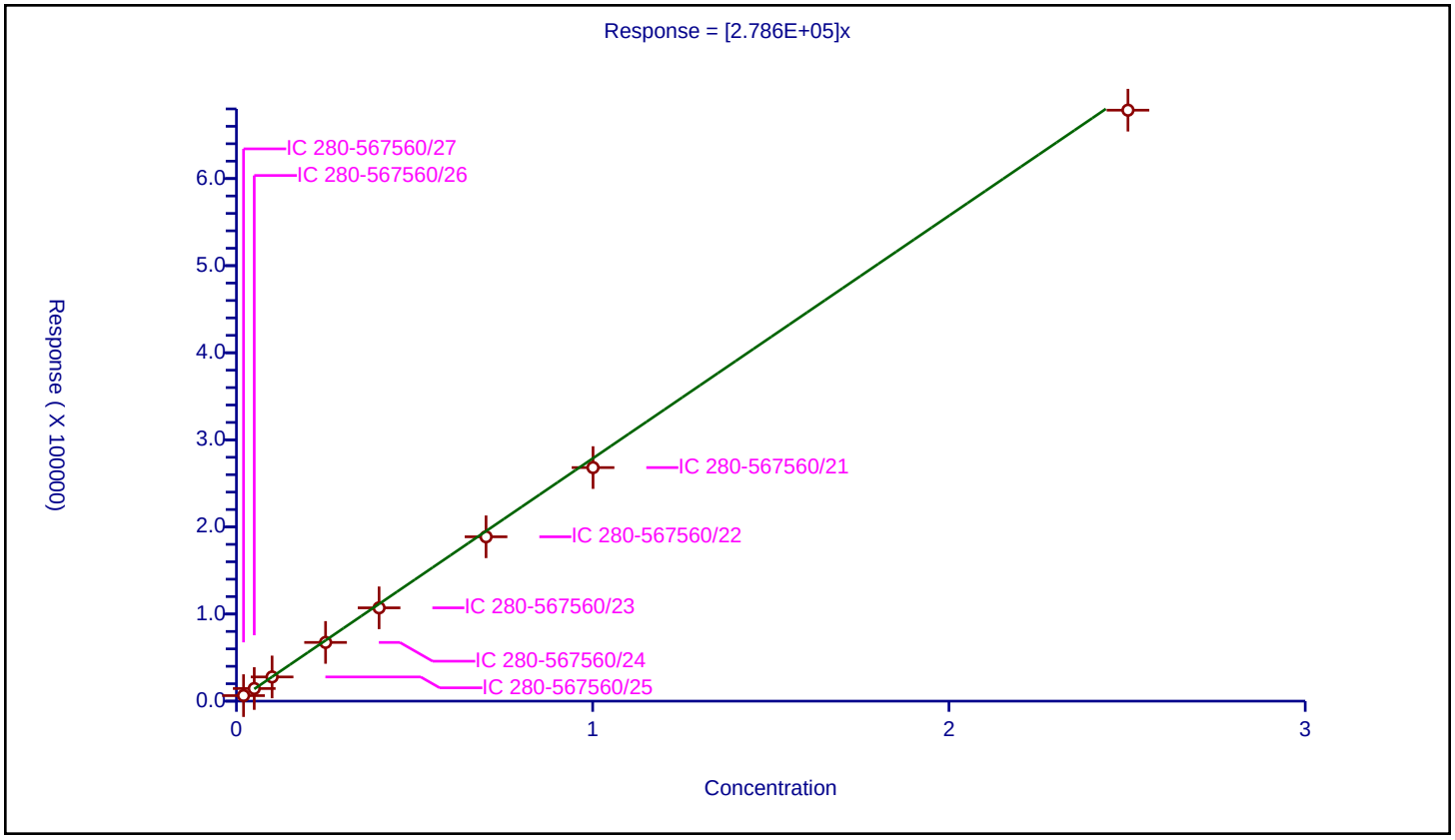
Curve Coefficients

Intercept:	0
Slope:	2.786E+05

Error Coefficients

Standard Error:	8750
Relative Standard Error:	6.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.995

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-567560/27	0.02002	6349.0			317132.867133	Y
2	IC 280-567560/26	0.05005	14466.0			289030.969031	Y
3	IC 280-567560/25	0.1001	27790.0			277622.377622	Y
4	IC 280-567560/24	0.25025	67422.0			269418.581419	Y
5	IC 280-567560/23	0.4004	107128.0			267552.447552	Y
6	IC 280-567560/22	0.7007	188710.0			269316.397888	Y
7	IC 280-567560/21	1.001	268159.0			267891.108891	Y
8	IC 280-567560/20	2.5025	678544.0			271146.453546	Y



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

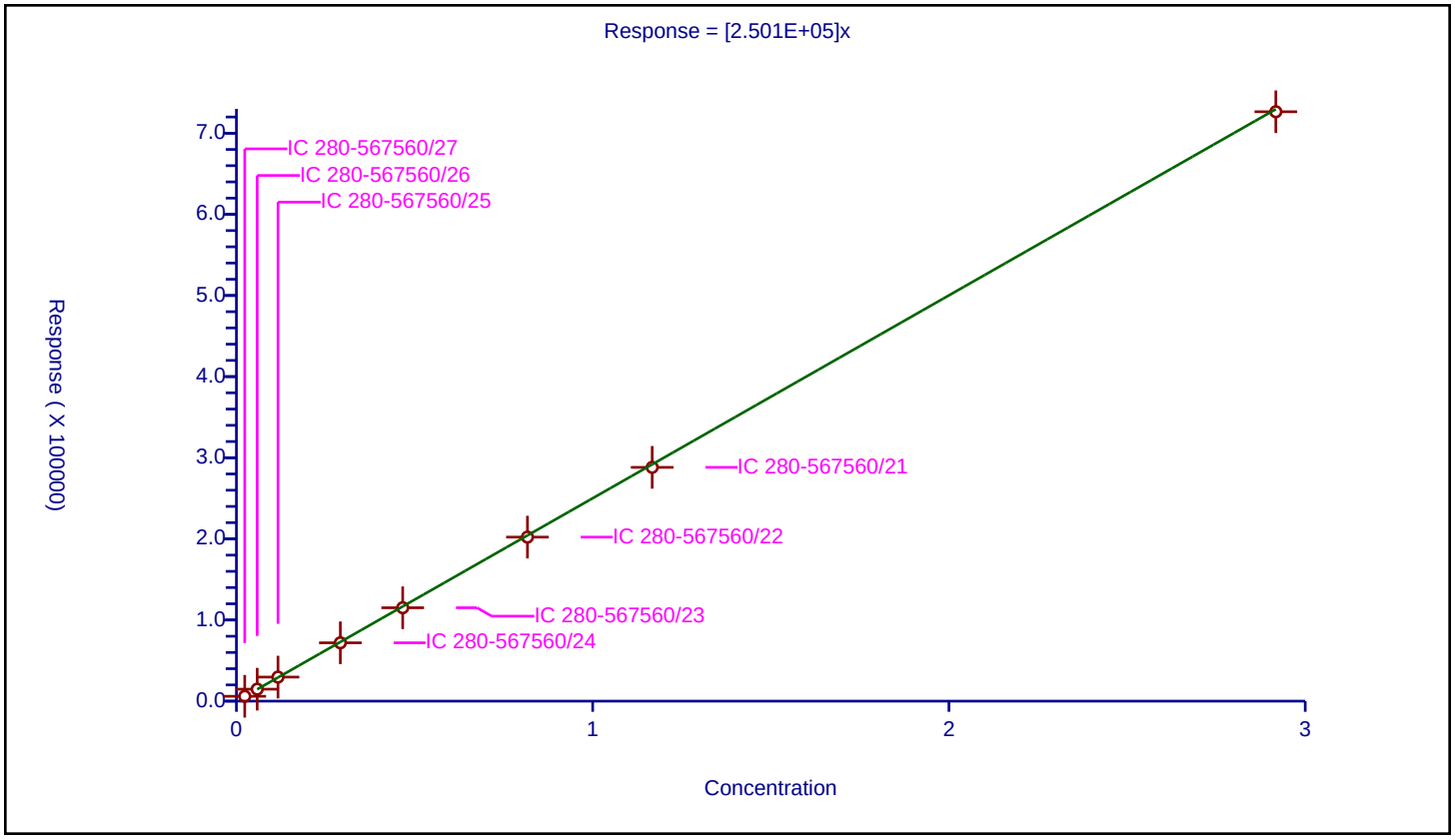
Curve Coefficients

Intercept:	0
Slope:	2.501E+05

Error Coefficients

Standard Error:	2130
Relative Standard Error:	1.6
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	1.000

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-567560/27	0.02334	6006.0			257326.478149	Y
2	IC 280-567560/26	0.05835	14750.0			252784.918595	Y
3	IC 280-567560/25	0.1167	29648.0			254053.127678	Y
4	IC 280-567560/24	0.29175	71905.0			246461.01114	Y
5	IC 280-567560/23	0.4668	115112.0			246598.114824	Y
6	IC 280-567560/22	0.8169	202167.0			247480.719794	Y
7	IC 280-567560/21	1.167	288166.0			246928.877464	Y
8	IC 280-567560/20	2.9175	726501.0			249014.910026	Y



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Lab Sample ID: ICV 280-562503/20 Calibration Date: 01/04/2022 21:54

Instrument ID: CHHPLC_X3 Calib Start Date: 01/04/2022 18:28

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 01/04/2022 21:31

Lab File ID: 01040020.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
HMX	Ave	83827	81972		489	500	-2.2	15.0
RDX	Ave	103609	97016		468	500	-6.4	15.0
Picric acid	Ave	77039	79050		513	500	2.6	15.0
1,3,5-Trinitrobenzene	Ave	218096	225924		518	500	3.6	15.0
1,3-Dinitrobenzene	Ave	288401	300348		521	500	4.1	15.0
Nitrobenzene	Ave	191953	197872		515	500	3.1	15.0
Tetryl	Ave	170567	173346		508	500	1.6	15.0
Nitroglycerin	Ave	63037	66420		5270	5000	5.4	15.0
2,4,6-Trinitrotoluene	Ave	202726	207174		511	500	2.2	15.0
4-Amino-2,6-dinitrotoluene	Ave	150985	149862		496	500	-0.7	15.0
2-Amino-4,6-dinitrotoluene	Ave	202171	202042		500	500	-0.0	15.0
2,6-Dinitrotoluene	Ave	143115	146810		513	500	2.6	15.0
2,4-Dinitrotoluene	Ave	289351	286440		495	500	-1.0	15.0
2-Nitrotoluene	Ave	127614	127510		500	500	-0.0	15.0
4-Nitrotoluene	Ave	106235	113254		533	500	6.6	15.0
3-Nitrotoluene	Ave	142273	134496		473	500	-5.5	15.0
PETN	Lin2		76139		5230	5000	4.6	15.0
1,2-Dinitrobenzene	Ave	124698	132072		530	500	5.9	15.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Lab Sample ID: ICV 280-562503/20 Calibration Date: 01/04/2022 21:54

Instrument ID: CHHPLC_X3 Calib Start Date: 01/04/2022 18:28

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 01/04/2022 21:31

Lab File ID: 01040020.D

Analyte	RT	RT WINDOW	
		FROM	TO
HMX	6.60	6.45	6.75
RDX	7.60	7.46	7.76
Picric acid	7.92	7.80	8.10
1,3,5-Trinitrobenzene	8.68	8.54	8.84
1,3-Dinitrobenzene	9.32	9.18	9.48
Nitrobenzene	9.71	9.58	9.88
Tetryl	10.04	9.91	10.21
Nitroglycerin	10.50	10.37	10.67
2,4,6-Trinitrotoluene	10.96	10.87	11.07
4-Amino-2,6-dinitrotoluene	11.16	11.07	11.27
2-Amino-4,6-dinitrotoluene	11.41	11.33	11.53
2,6-Dinitrotoluene	11.58	11.50	11.70
2,4-Dinitrotoluene	11.75	11.67	11.87
2-Nitrotoluene	12.62	12.49	12.79
4-Nitrotoluene	13.05	12.92	13.22
3-Nitrotoluene	13.63	13.50	13.80
PETN	14.72	14.59	14.89
1,2-Dinitrobenzene	8.56	8.42	8.72

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040020.D
Lims ID: ICV INT
Client ID:
Sample Type: ICV
Inject. Date: 04-Jan-2022 21:54:19 ALS Bottle#: 20 Worklist Smp#: 20
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: ICV INT
Misc. Info.: 280-0107731-020
Operator ID: JZ Instrument ID: CHHPLC_X3
Sublist:

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 06-Jan-2022 20:07:47 Calib Date: 04-Jan-2022 21:31:24
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040019.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1641

First Level Reviewer: zhangji Date: 06-Jan-2022 20:07:47

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
4 HMX	1	6.602	6.598	0.004	40986	0.5000	0.4889	
8 RDX	1	7.602	7.605	-0.003	48508	0.5000	0.4682	M
9 2,4,6-Trinitrophenol	1	7.915	7.945	-0.030	39525	0.5000	0.5131	M
$ 10 1,2-Dinitrobenzene	1	8.562	8.572	-0.010	66036	0.5000	0.5296	
11 1,3,5-Trinitrobenzene	1	8.682	8.692	-0.010	112962	0.5000	0.5179	
12 1,3-Dinitrobenzene	1	9.315	9.331	-0.016	150174	0.5000	0.5207	
13 Nitrobenzene	1	9.708	9.725	-0.017	98936	0.5000	0.5154	
15 Tetryl	1	10.042	10.058	-0.016	86673	0.5000	0.5081	
16 Nitroglycerin	2	10.502	10.518	-0.016	332100	5.00	5.27	
17 2,4,6-Trinitrotoluene	1	10.955	10.971	-0.016	103587	0.5000	0.5110	
18 4-Amino-2,6-dinitrotoluene	1	11.155	11.171	-0.016	74931	0.5000	0.4963	
19 2-Amino-4,6-dinitrotoluene	1	11.408	11.425	-0.017	101021	0.5000	0.4997	
20 2,6-Dinitrotoluene	1	11.582	11.598	-0.016	73405	0.5000	0.5129	
21 2,4-Dinitrotoluene	1	11.748	11.765	-0.017	143220	0.5000	0.4950	
22 o-Nitrotoluene	1	12.615	12.638	-0.023	63755	0.5000	0.4996	
23 p-Nitrotoluene	1	13.048	13.071	-0.023	56627	0.5000	0.5330	
24 m-Nitrotoluene	1	13.628	13.651	-0.023	67248	0.5000	0.4727	
25 PETN	2	14.715	14.738	-0.023	380697	5.00	5.23	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330Surrogate_00127 Amount Added: 50.00 Units: uL
8330 LCS_00111 Amount Added: 50.00 Units: uL

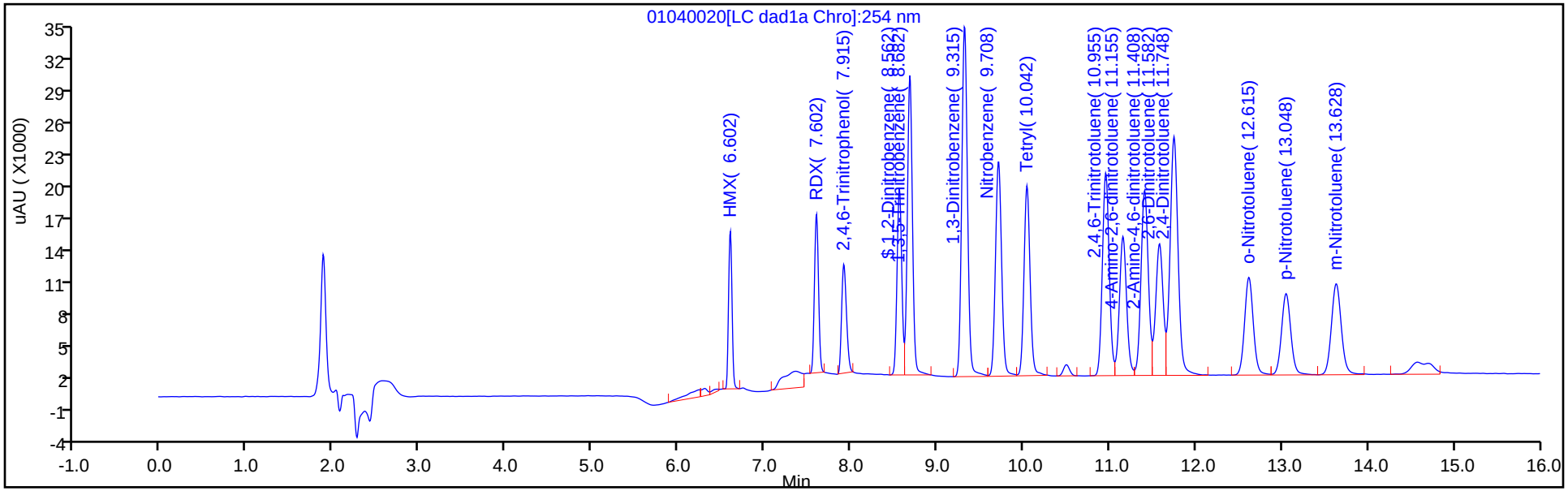
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Eurofins TestAmerica, Denver

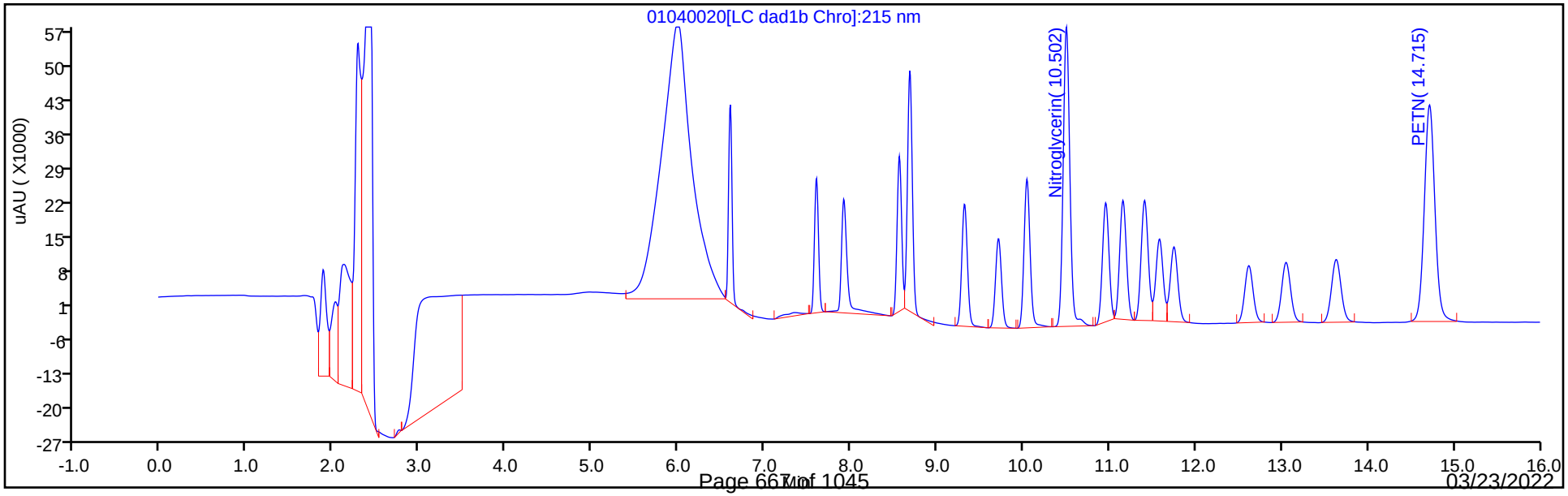
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Injection Date:	04-Jan-2022 21:54:19	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	ICV INT			Worklist Smp#:	20
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	20
Method:	8330_X3	Limit Group:	GCSV - 8330		

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



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



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

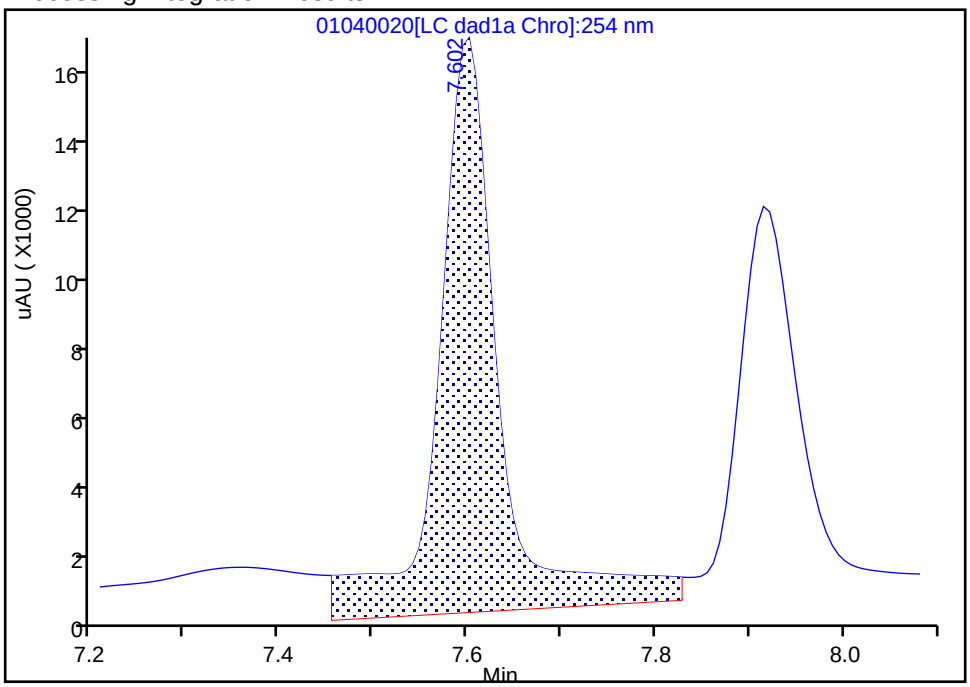
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Injection Date:	04-Jan-2022 21:54:19	Instrument ID:	CHHPLC_X3		
Lims ID:	ICV INT				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

8 RDX, CAS: 121-82-4

Signal: 1

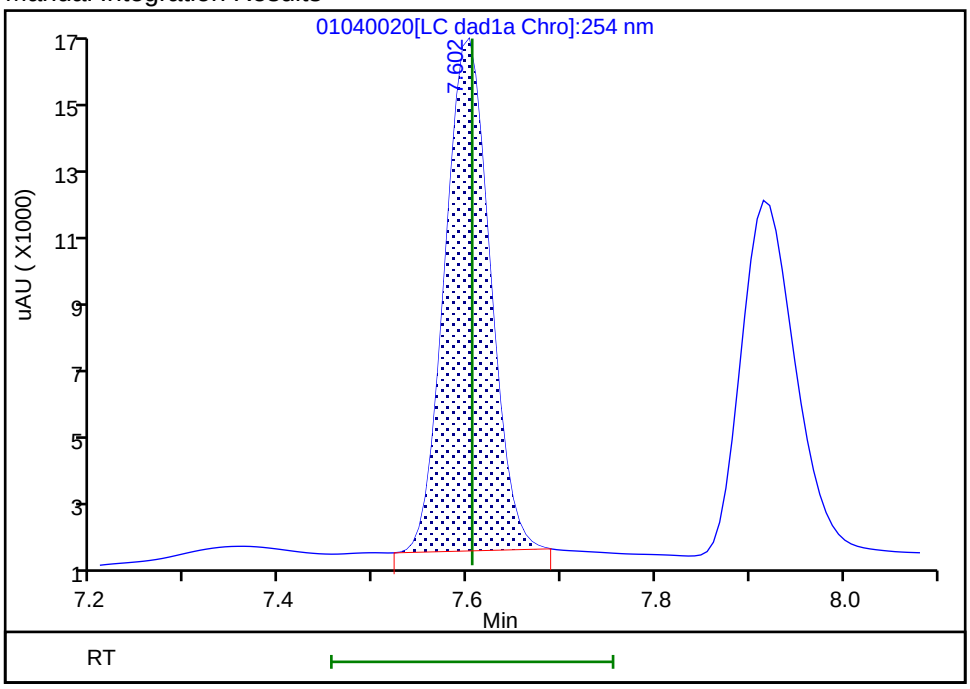
Processing Integration Results

RT: 7.60
Area: 71144
Amount: 0.655784
Amount Units: ug/mL



Manual Integration Results

RT: 7.60
Area: 48508
Amount: 0.468182
Amount Units: ug/mL



Reviewer: zhangji, 05-Jan-2022 11:59:11
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

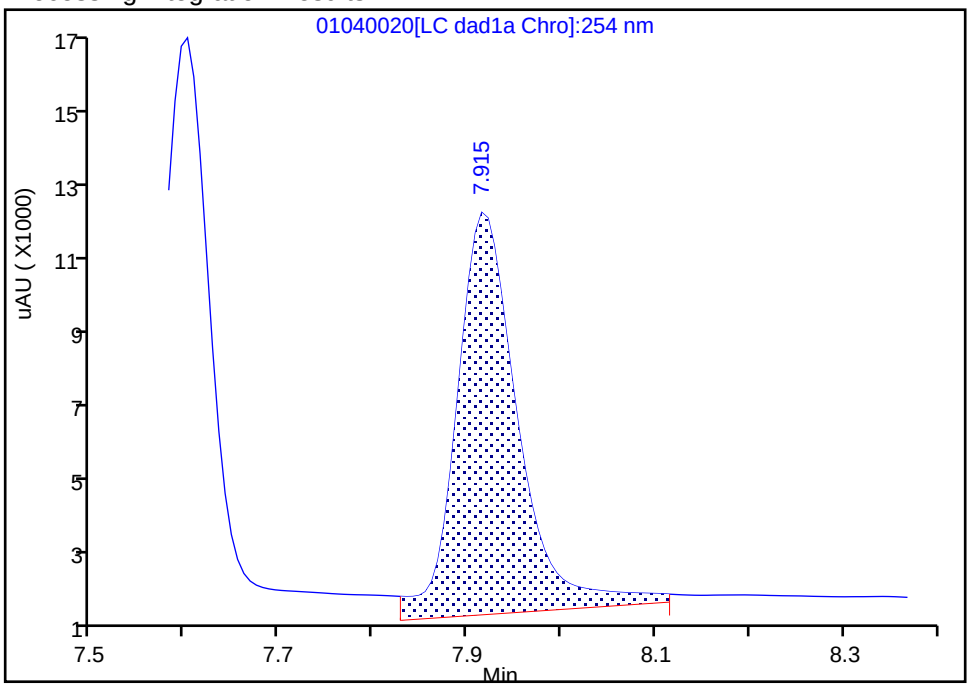
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Lims ID:	ICV INT				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

9 2,4,6-Trinitrophenol, CAS: 88-89-1

Signal: 1

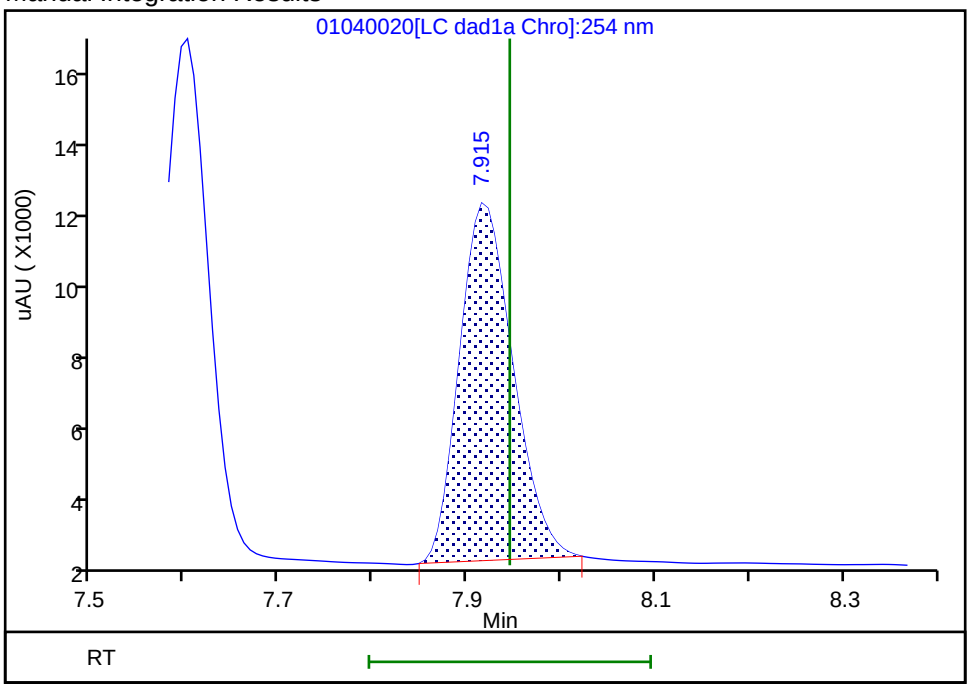
Processing Integration Results

RT: 7.92
Area: 48188
Amount: 0.601054
Amount Units: ug/mL



Manual Integration Results

RT: 7.92
Area: 39525
Amount: 0.513051
Amount Units: ug/mL



Reviewer: zhangji, 05-Jan-2022 11:59:15

Audit Action: Manually Integrated Audit Reason: Baseline

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Lab Sample ID: ICV 280-562503/38 Calibration Date: 01/05/2022 04:47

Instrument ID: CHHPLC_X3 Calib Start Date: 01/05/2022 01:43

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 01/05/2022 04:24

Lab File ID: 01040038.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
TNX	Ave	181207	178414		493	501	-1.5	15.0
DNX	Ave	138113	139363		505	501	0.9	15.0
MNX	Ave	125995	128593		596	584	2.1	15.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Lab Sample ID: ICV 280-562503/38 Calibration Date: 01/05/2022 04:47

Instrument ID: CHHPLC_X3 Calib Start Date: 01/05/2022 01:43

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 01/05/2022 04:24

Lab File ID: 01040038.D

Analyte	RT	RT WINDOW	
		FROM	TO
TNX	6.48	6.38	6.58
DNX	6.80	6.70	6.90
MNX	7.22	7.07	7.37

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040038.D				
Lims ID:	ICV DMT				
Client ID:					
Sample Type:	ICV				
Inject. Date:	05-Jan-2022 04:47:17	ALS Bottle#:	38	Worklist Smp#:	38
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	ICV DMT				
Misc. Info.:	280-0107731-038				
Operator ID:	JZ	Instrument ID:	CHHPLC_X3		
Sublist:					
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	05-Jan-2022 12:18:54	Calib Date:	05-Jan-2022 04:24:15		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040037.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1613				
First Level Reviewer: zhangji		Date:	05-Jan-2022 12:09:42		

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 TNX	1	6.482	6.484	-0.002	89296	0.5005	0.4928	M
6 DNX	1	6.796	6.797	-0.001	69751	0.5005	0.5050	M
7 MNX	1	7.222	7.224	-0.002	75034	0.5835	0.5955	M

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330_OP_DMT_00012 Amount Added: 50.00 Units: uL

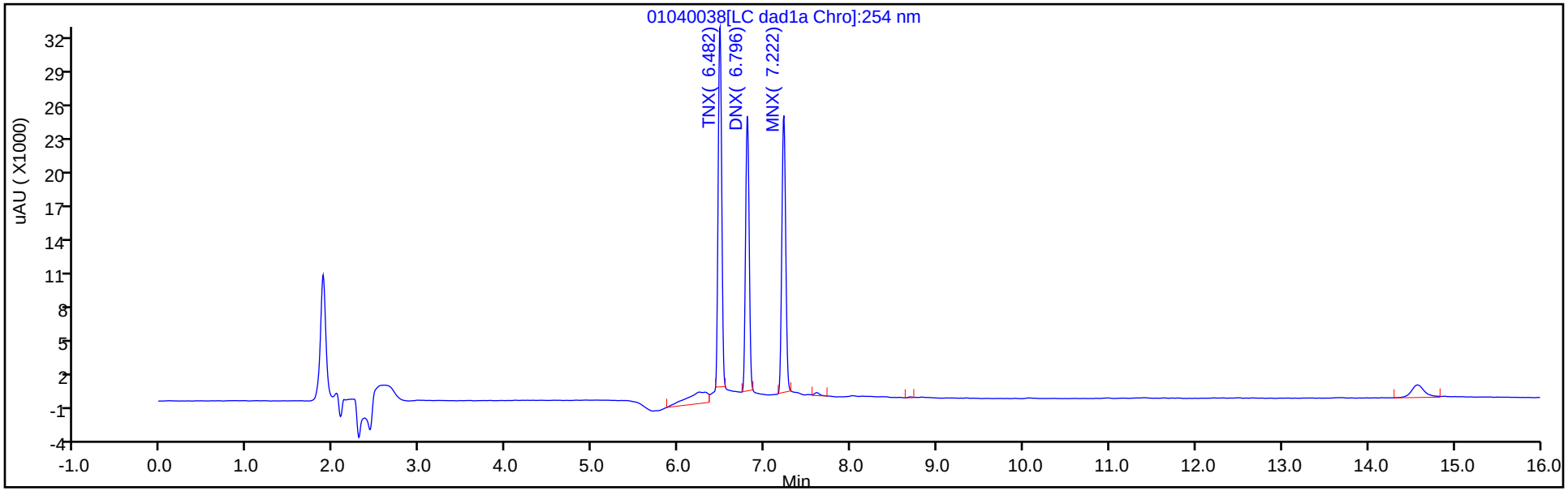
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Eurofins TestAmerica, Denver

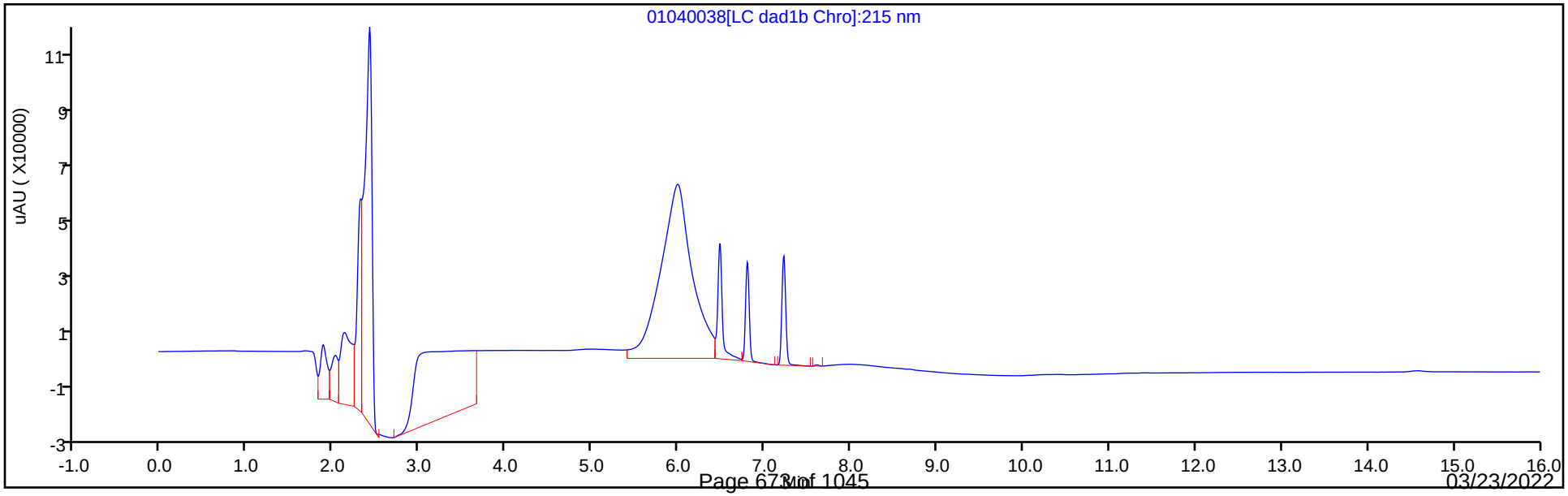
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Injection Date:	05-Jan-2022 04:47:17	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	ICV DMT			Worklist Smp#:	38
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	38
Method:	8330_X3	Limit Group:	GCSV - 8330		

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



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



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

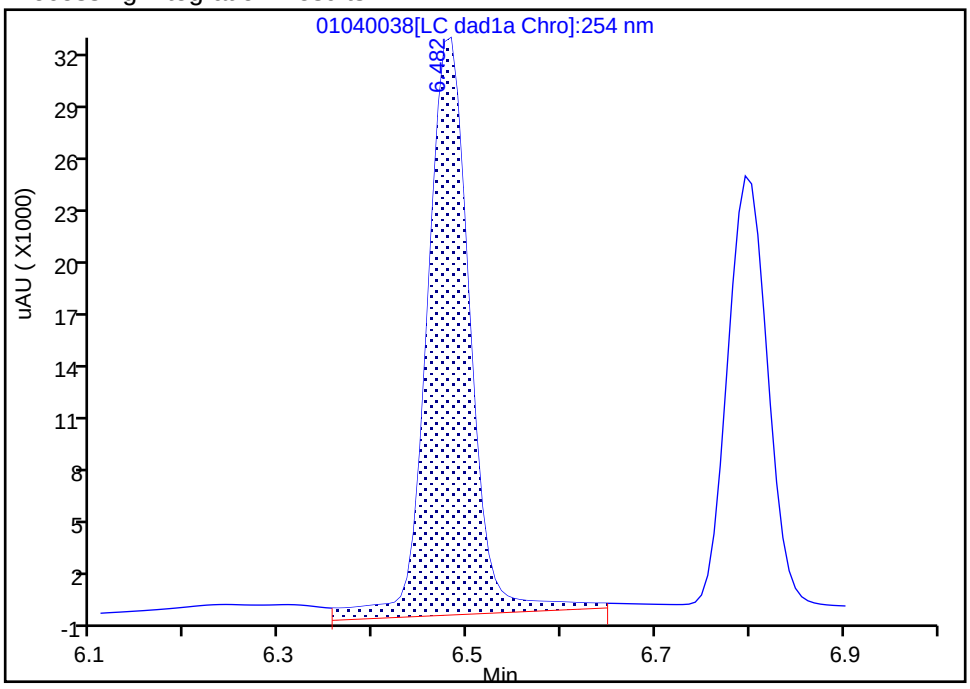
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Injection Date:	05-Jan-2022 04:47:17	Instrument ID:	CHHPLC_X3		
Lims ID:	ICV DMT				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	38	Worklist Smp#:	38
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

3 TNX, CAS: 13980-04-6

Signal: 1

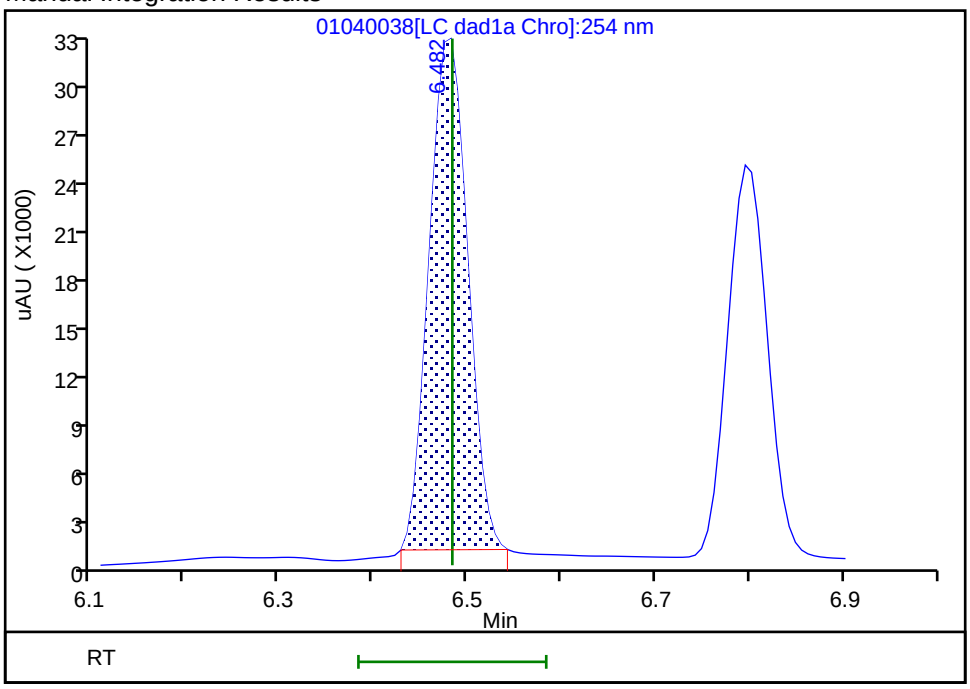
Processing Integration Results

RT: 6.48
Area: 102738
Amount: 0.566963
Amount Units: ug/mL



Manual Integration Results

RT: 6.48
Area: 89296
Amount: 0.492783
Amount Units: ug/mL



Reviewer: zhangji, 05-Jan-2022 12:09:35

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

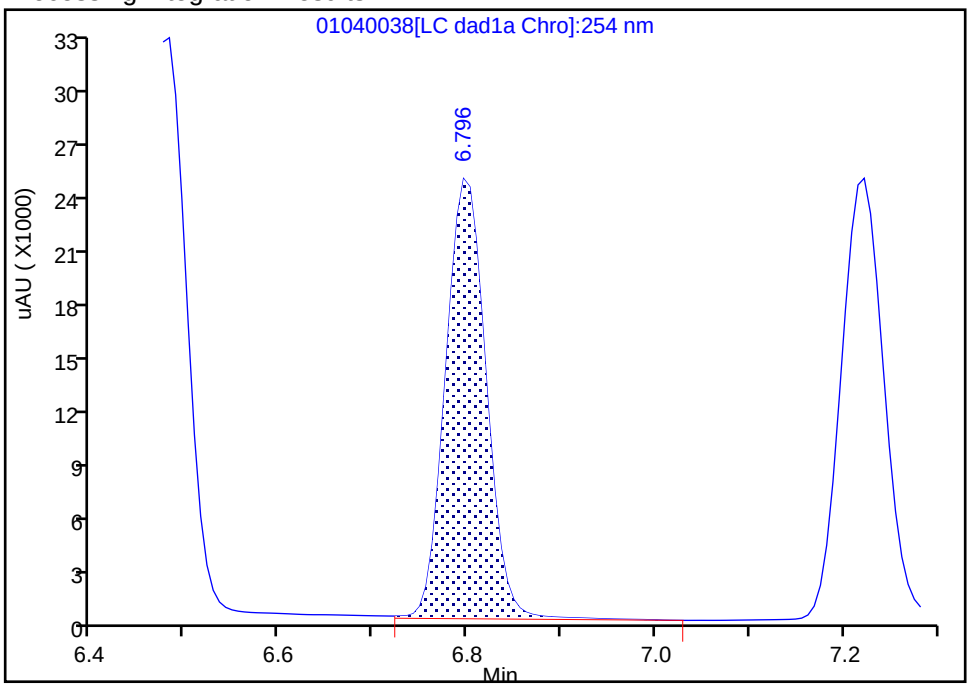
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Injection Date:	05-Jan-2022 04:47:17	Instrument ID:	CHHPLC_X3		
Lims ID:	ICV DMT				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	38	Worklist Smp#:	38
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

6 DNX, CAS: 80251-29-2

Signal: 1

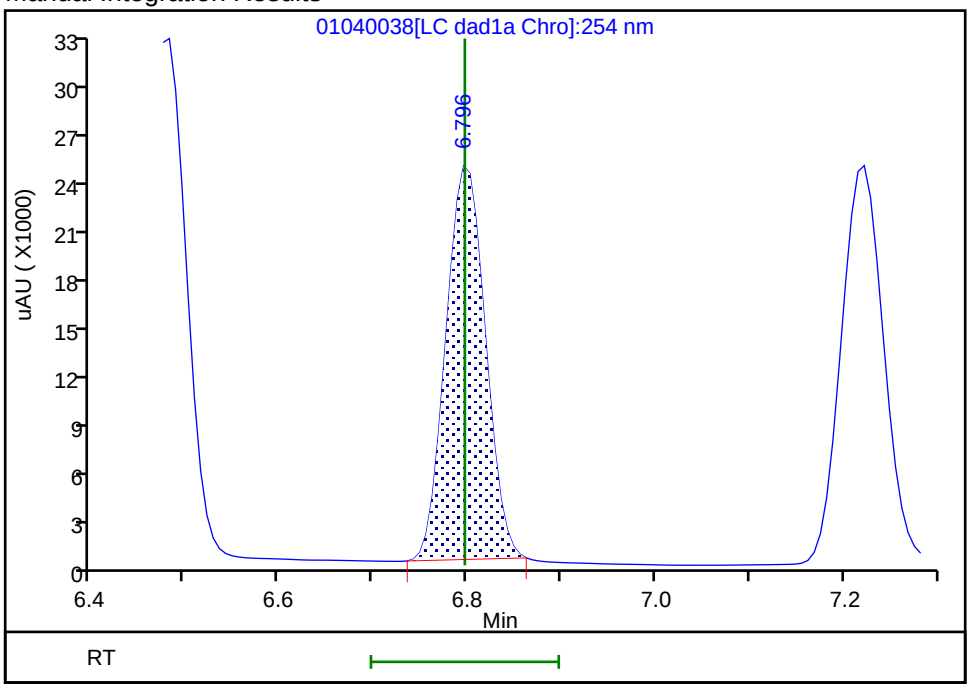
Processing Integration Results

RT: 6.80
Area: 72644
Amount: 0.525975
Amount Units: ug/mL



Manual Integration Results

RT: 6.80
Area: 69751
Amount: 0.505029
Amount Units: ug/mL



Reviewer: zhangji, 05-Jan-2022 12:09:38

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

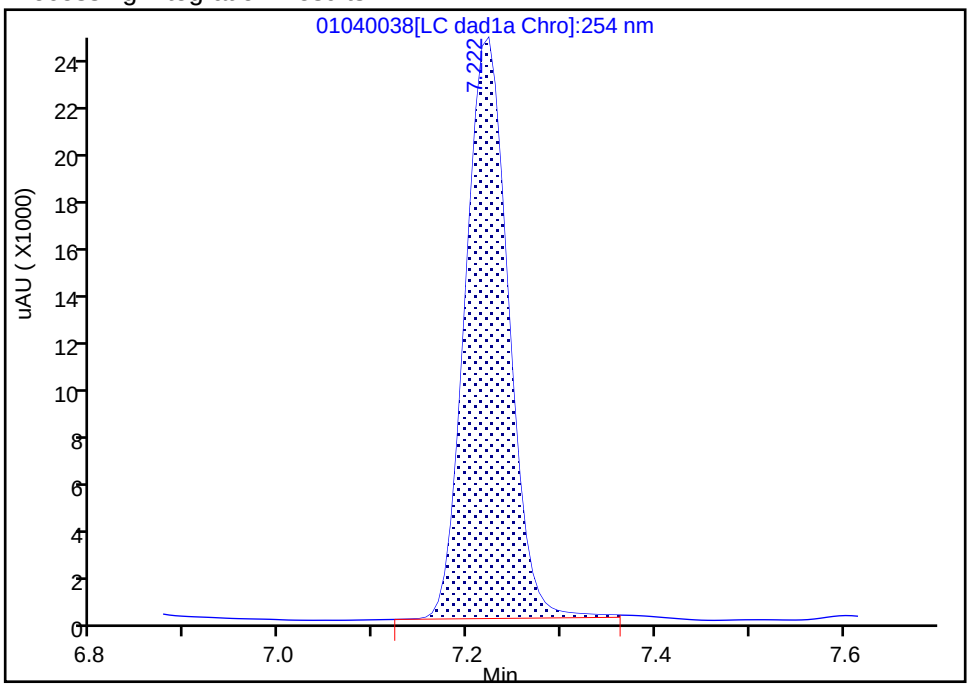
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Injection Date:	05-Jan-2022 04:47:17	Instrument ID:	CHHPLC_X3		
Lims ID:	ICV DMT				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	38	Worklist Smp#:	38
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

7 MNX, CAS: 5755-27-1

Signal: 1

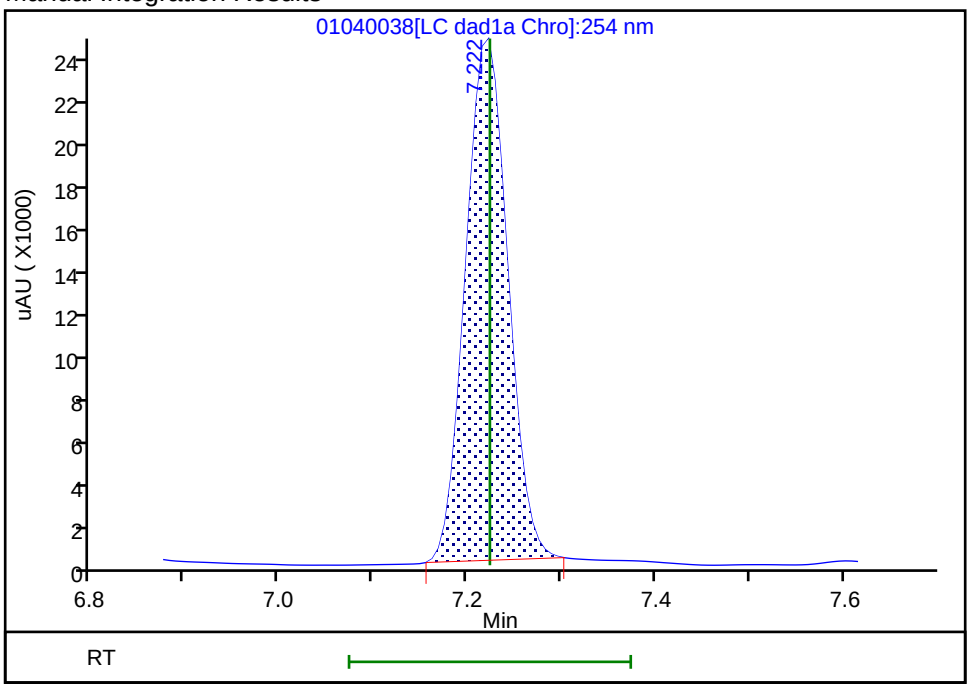
Processing Integration Results

RT: 7.22
Area: 76990
Amount: 0.611054
Amount Units: ug/mL



Manual Integration Results

RT: 7.22
Area: 75034
Amount: 0.595530
Amount Units: ug/mL



Reviewer: zhangji, 05-Jan-2022 12:09:41

Audit Action: Manually Integrated Audit Reason: Baseline

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Lab Sample ID: CCV 280-568287/49 Calibration Date: 03/11/2022 05:59

Instrument ID: CHHPLC_X3 Calib Start Date: 01/04/2022 18:28

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 01/04/2022 21:31

Lab File ID: 03100049.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
HMX	Ave	83827	86956		259	250	3.7	15.0
RDX	Ave	103609	108540		262	250	4.8	15.0
Picric acid	Ave	77039	79636		258	250	3.4	15.0
1,3,5-Trinitrobenzene	Ave	218096	228511		262	251	4.8	15.0
1,3-Dinitrobenzene	Ave	288401	302719		263	251	5.0	15.0
Nitrobenzene	Ave	191953	188478		246	251	-1.8	15.0
Tetryl	Ave	170567	168475		247	251	-1.2	15.0
Nitroglycerin	Ave	63037	66646		2640	2500	5.7	15.0
2,4,6-Trinitrotoluene	Ave	202726	203637		252	251	0.4	15.0
4-Amino-2,6-dinitrotoluene	Ave	150985	150881		250	250	-0.0	15.0
2-Amino-4,6-dinitrotoluene	Ave	202171	201936		251	251	-0.1	15.0
2,6-Dinitrotoluene	Ave	143115	144056		253	251	0.7	15.0
2,4-Dinitrotoluene	Ave	289351	300319		261	251	3.8	15.0
2-Nitrotoluene	Ave	127614	121808		239	250	-4.5	15.0
4-Nitrotoluene	Ave	106235	106499		251	251	0.2	15.0
3-Nitrotoluene	Ave	142273	134210		236	250	-5.7	15.0
PETN	Lin2		74353		2540	2500	1.7	15.0
1,2-Dinitrobenzene	Ave	124698	129260		259	250	3.7	15.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Lab Sample ID: CCV 280-568287/49 Calibration Date: 03/11/2022 05:59

Instrument ID: CHHPLC_X3 Calib Start Date: 01/04/2022 18:28

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 01/04/2022 21:31

Lab File ID: 03100049.D

Analyte	RT	RT WINDOW	
		FROM	TO
HMX	6.60	6.44	6.74
RDX	7.59	7.44	7.74
Picric acid	7.94	7.78	8.08
1,3,5-Trinitrobenzene	8.66	8.51	8.81
1,3-Dinitrobenzene	9.27	9.13	9.43
Nitrobenzene	9.66	9.52	9.82
Tetryl	9.97	9.84	10.14
Nitroglycerin	10.42	10.29	10.59
2,4,6-Trinitrotoluene	10.87	10.79	10.99
4-Amino-2,6-dinitrotoluene	11.05	10.98	11.18
2-Amino-4,6-dinitrotoluene	11.31	11.23	11.43
2,6-Dinitrotoluene	11.48	11.40	11.60
2,4-Dinitrotoluene	11.65	11.57	11.77
2-Nitrotoluene	12.49	12.36	12.66
4-Nitrotoluene	12.91	12.79	13.09
3-Nitrotoluene	13.48	13.36	13.66
PETN	14.53	14.41	14.71
1,2-Dinitrobenzene	8.53	8.38	8.68

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20220310-109139.b\03100049.D
Lims ID: CCV INT
Client ID:
Sample Type: CCV
Inject. Date: 11-Mar-2022 05:59:55 ALS Bottle#: 7 Worklist Smp#: 49
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: CCV INT
Misc. Info.: 280-0109139-049
Operator ID: JZ Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub9

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20220310-109139.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 11-Mar-2022 12:32:37 Calib Date: 05-Jan-2022 04:24:15
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040037.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1614

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
4 HMX	1	6.601	6.593	0.008	21739	0.2500	0.2593	
8 RDX	1	7.588	7.587	0.001	27135	0.2500	0.2619	
9 2,4,6-Trinitrophenol	1	7.935	7.933	0.002	19909	0.2500	0.2584	
$ 10 1,2-Dinitrobenzene	1	8.528	8.533	-0.005	32315	0.2500	0.2591	
11 1,3,5-Trinitrobenzene	1	8.655	8.660	-0.005	57242	0.2505	0.2625	
12 1,3-Dinitrobenzene	1	9.274	9.280	-0.006	75831	0.2505	0.2629	
13 Nitrobenzene	1	9.661	9.667	-0.006	47308	0.2510	0.2465	
15 Tetryl	1	9.968	9.987	-0.019	42203	0.2505	0.2474	
16 Nitroglycerin	2	10.421	10.440	-0.019	166615	2.50	2.64	
17 2,4,6-Trinitrotoluene	1	10.874	10.893	-0.019	51113	0.2510	0.2521	
18 4-Amino-2,6-dinitrotoluene	1	11.054	11.080	-0.026	37758	0.2503	0.2501	
19 2-Amino-4,6-dinitrotoluene	1	11.308	11.327	-0.019	50686	0.2510	0.2507	
20 2,6-Dinitrotoluene	1	11.481	11.500	-0.019	36158	0.2510	0.2526	
21 2,4-Dinitrotoluene	1	11.648	11.667	-0.019	75380	0.2510	0.2605	
22 o-Nitrotoluene	1	12.494	12.513	-0.019	30452	0.2500	0.2386	
23 p-Nitrotoluene	1	12.914	12.940	-0.026	26678	0.2505	0.2511	
24 m-Nitrotoluene	1	13.481	13.507	-0.026	33586	0.2503	0.2361	
25 PETN	2	14.528	14.560	-0.032	185883	2.50	2.54	

Reagents:

8330IntermStk_00070 Amount Added: 25.00 Units: uL

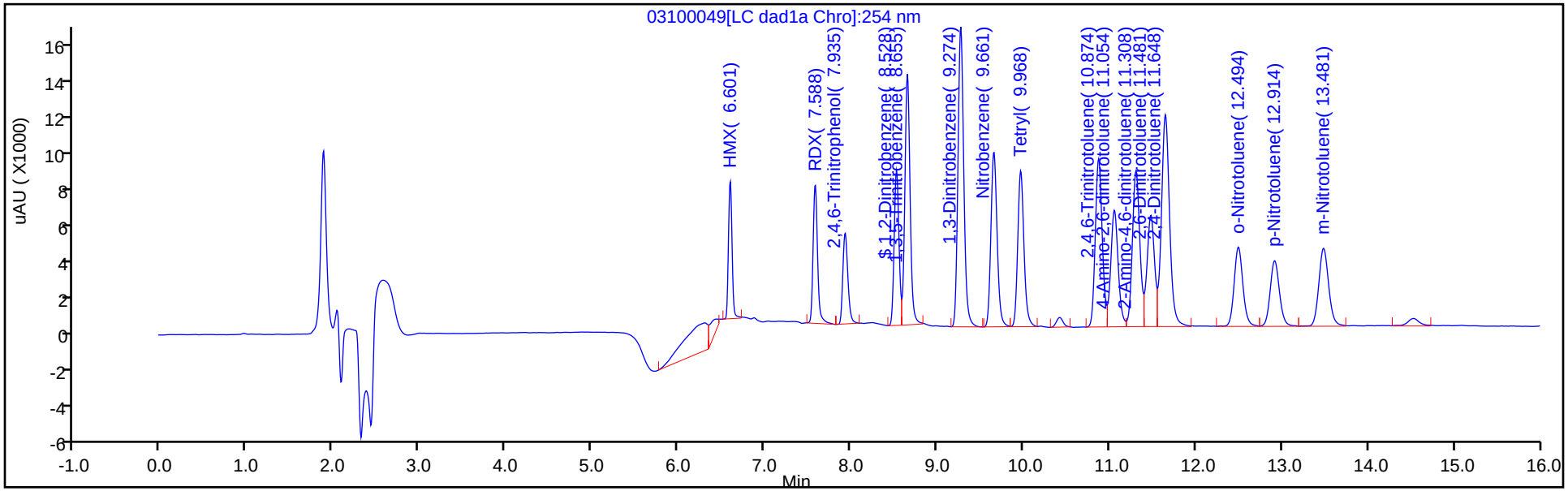
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Eurofins Denver

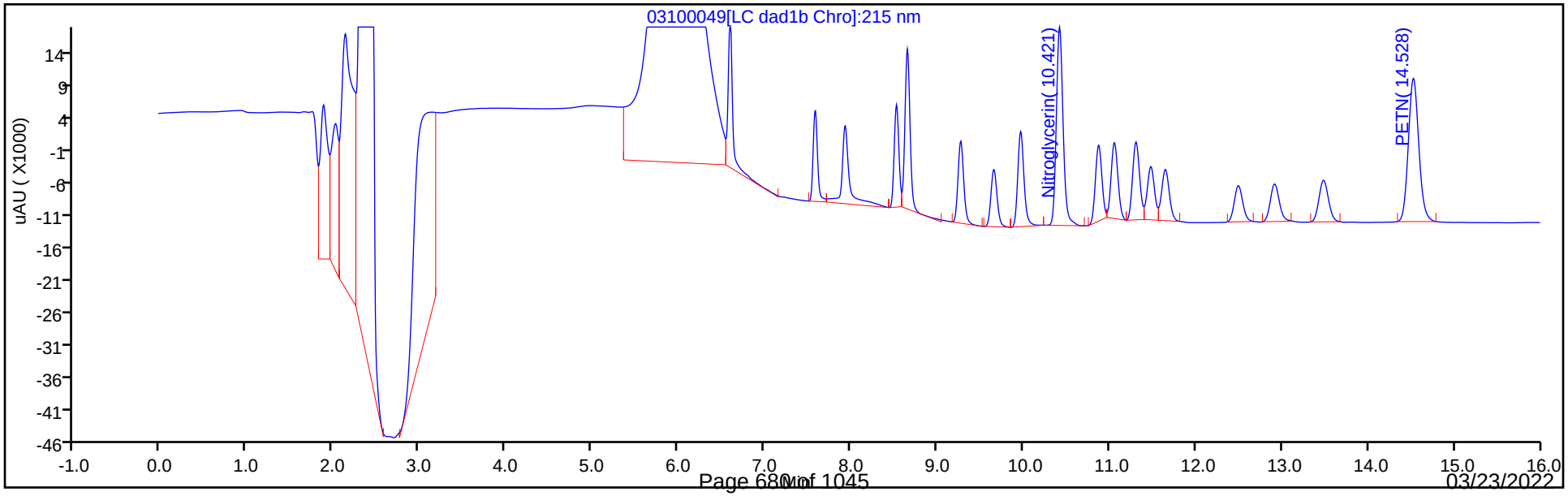
Data File: \\chromfs\denver\chromdata\chhplc_x\20220310-109139.b\03100049.d

Injection Date:	11-Mar-2022 05:59:55	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	CCV INT			Worklist Smp#:	49
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



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



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver | Job No.: 280-159384-1

SDG No.:

Lab Sample ID: CCV 280-568287/50 | Calibration Date: 03/11/2022 06:22

Instrument ID: CHHPLC_X3 | Calib Start Date: 01/05/2022 01:43

GC Column: UltraCarb5uODS ID: 4.60(mm) | Calib End Date: 01/05/2022 04:24

Lab File ID: 03100050.D | Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
TNX	Ave	181207	172408		238	250	-4.9	15.0
DNX	Ave	138113	131588		238	250	-4.7	15.0
MNX	Ave	125995	131290		304	292	4.2	15.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Lab Sample ID: CCV 280-568287/50 Calibration Date: 03/11/2022 06:22

Instrument ID: CHHPLC_X3 Calib Start Date: 01/05/2022 01:43

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 01/05/2022 04:24

Lab File ID: 03100050.D

Analyte	RT	RT WINDOW	
		FROM	TO
TNX	6.48	6.38	6.58
DNX	6.79	6.70	6.90
MNX	7.21	7.06	7.36

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20220310-109139.b\03100050.D
Lims ID: CCV DMT
Client ID:
Sample Type: CCV
Inject. Date: 11-Mar-2022 06:22:49 ALS Bottle#: 9 Worklist Smp#: 50
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: CCV DMT
Misc. Info.: 280-0109139-050
Operator ID: JZ Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub17

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20220310-109139.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 11-Mar-2022 12:32:36 Calib Date: 05-Jan-2022 04:24:15
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040037.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1614

First Level Reviewer: zhangji Date: 11-Mar-2022 12:32:20

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	43145	0.2503	0.2381	M
6 DNX	1	6.791	6.796	-0.005	32930	0.2503	0.2384	M
7 MNX	1	7.205	7.209	-0.004	38304	0.2918	0.3040	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330 DMT_00010 Amount Added: 12.50 Units: uL

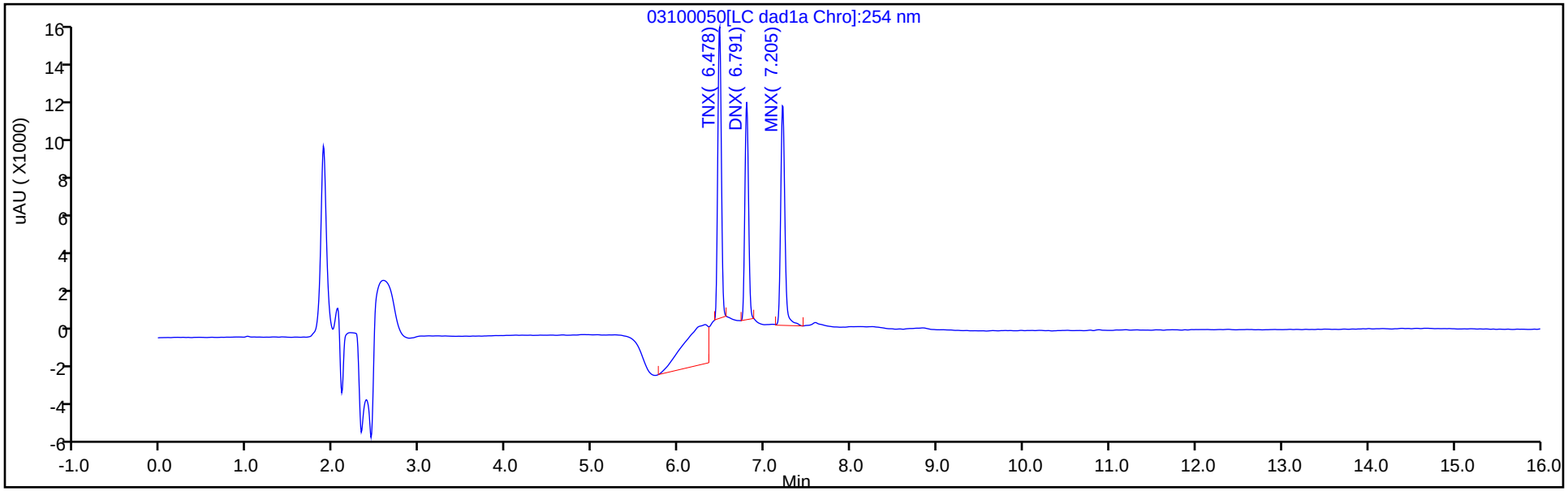
Report Date: 11-Mar-2022 12:32:36 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Denver

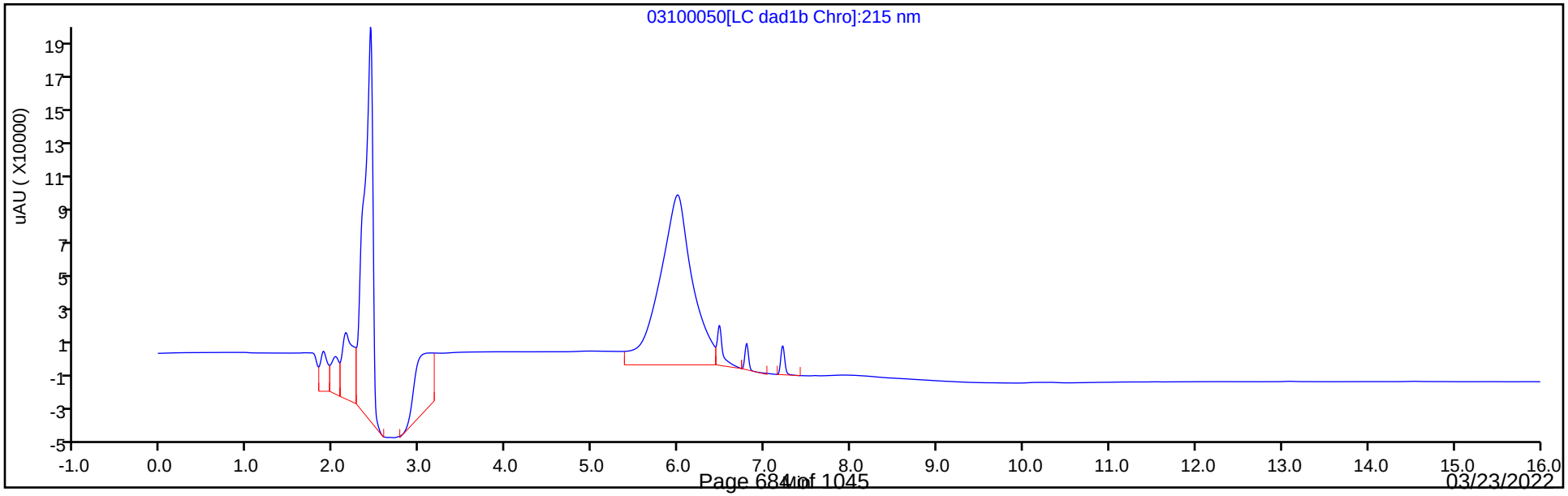
Data File: \\chromfs\denver\chromdata\chhplc_x\20220310-109139.b\03100050.d

Injection Date:	11-Mar-2022 06:22:49	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	CCV DMT			Worklist Smp#:	50
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	9
Method:	8330_X3	Limit Group:	GCSV - 8330		

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



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



Manual Integration/User Assign Peak Report

Eurofins Denver

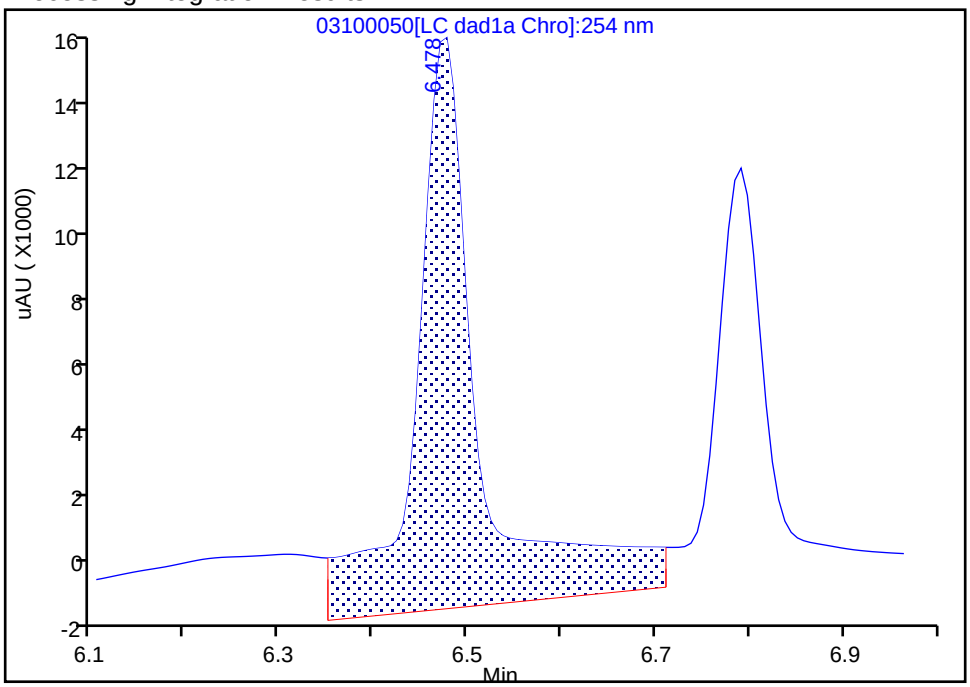
Data File: \\chromfs\denver\chromdata\chhplc_x\20220310-109139.b\03100050.d
Injection Date: 11-Mar-2022 06:22:49 Instrument ID: CHHPLC_X3
Lims ID: CCV DMT
Client ID:
Operator ID: JZ ALS Bottle#: 9 Worklist Smp#: 50
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

3 TNX, CAS: 13980-04-6

Signal: 1

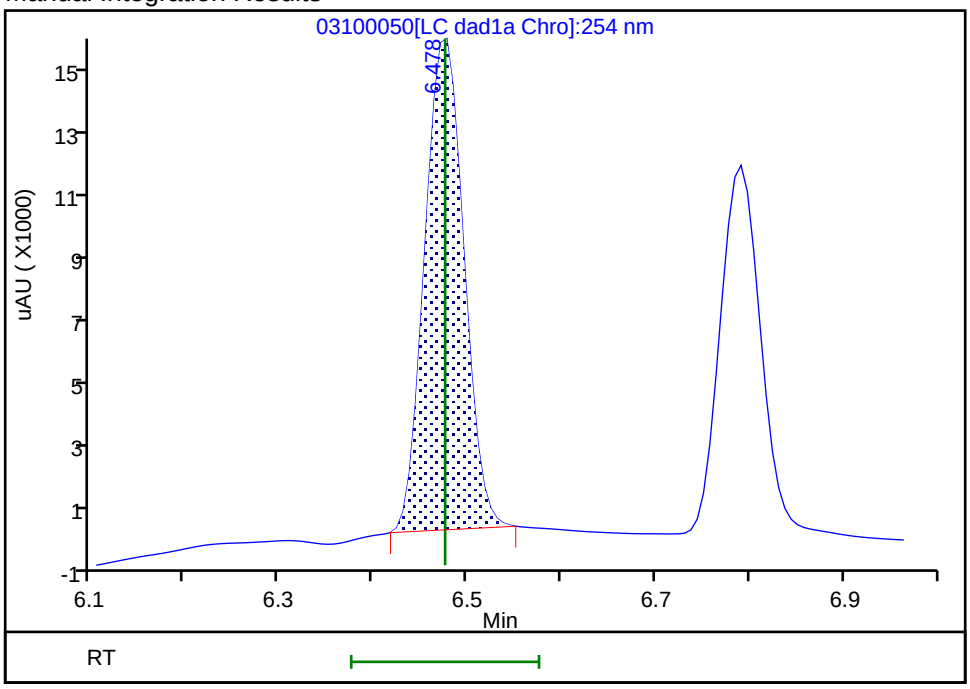
Processing Integration Results

RT: 6.48
Area: 80422
Amount: 0.443812
Amount Units: ug/mL



Manual Integration Results

RT: 6.48
Area: 43145
Amount: 0.238097
Amount Units: ug/mL



Reviewer: zhangji, 11-Mar-2022 12:32:14
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

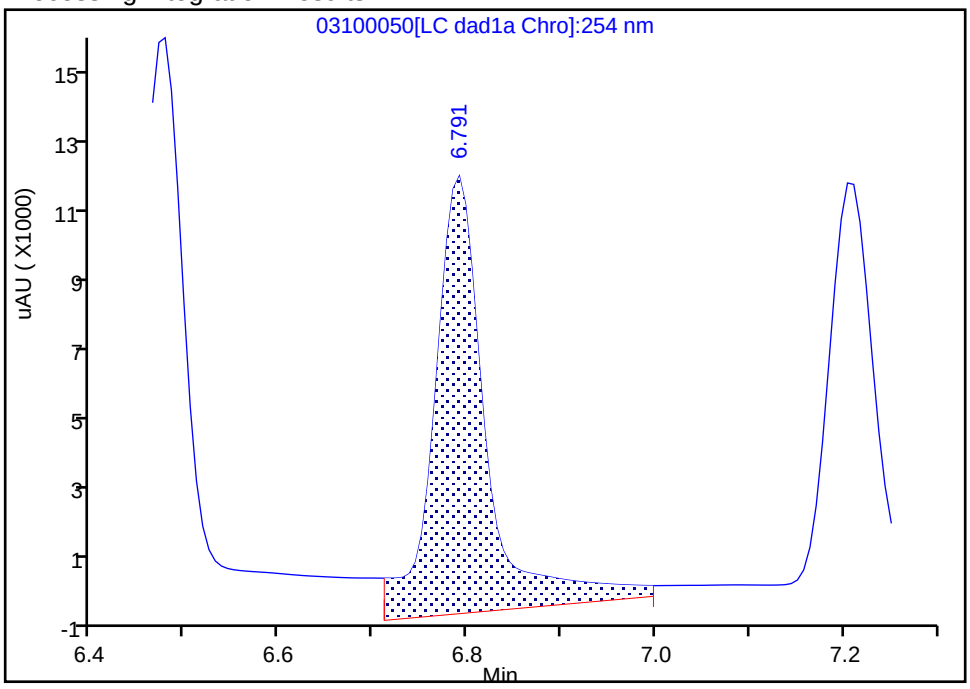
Data File: \\chromfs\denver\chromdata\chhplc_x\20220310-109139.b\03100050.d
Injection Date: 11-Mar-2022 06:22:49 Instrument ID: CHHPLC_X3
Lims ID: CCV DMT
Client ID:
Operator ID: JZ ALS Bottle#: 9 Worklist Smp#: 50
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

6 DNX, CAS: 80251-29-2

Signal: 1

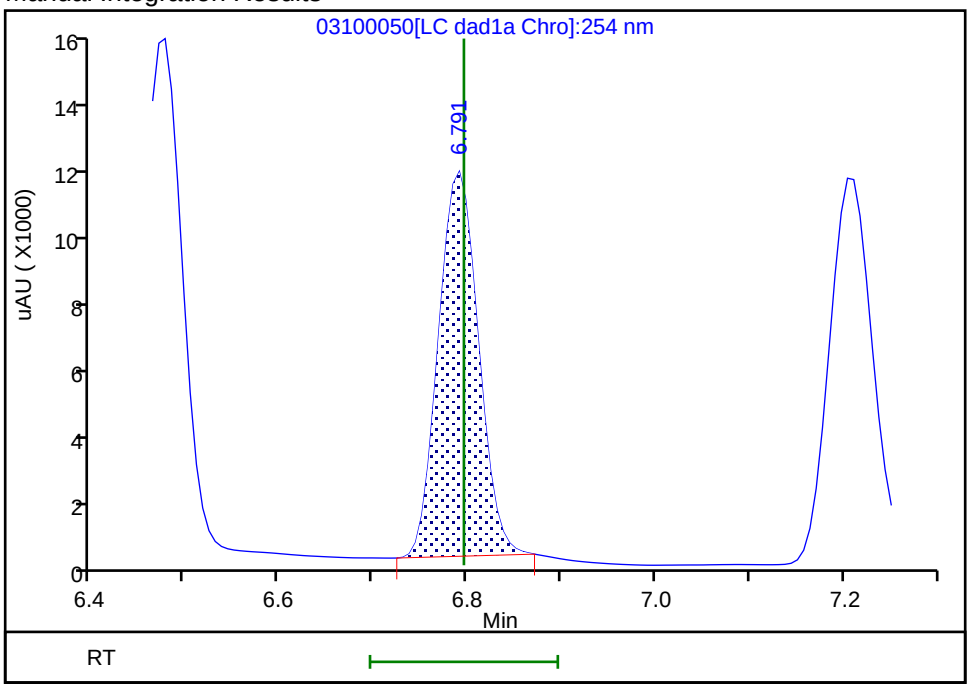
Processing Integration Results

RT: 6.79
Area: 47111
Amount: 0.341105
Amount Units: ug/mL



Manual Integration Results

RT: 6.79
Area: 32930
Amount: 0.238428
Amount Units: ug/mL



Reviewer: zhangji, 11-Mar-2022 12:32:17
Audit Action: Manually Integrated Audit Reason: Baseline

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver | Job No.: 280-159384-1

SDG No.:

Lab Sample ID: CCV 280-568287/61 | Calibration Date: 03/11/2022 10:35

Instrument ID: CHHPLC_X3 | Calib Start Date: 01/04/2022 18:28

GC Column: UltraCarb5uODS ID: 4.60(mm) | Calib End Date: 01/04/2022 21:31

Lab File ID: 03100061.D | Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
HMX	Ave	83827	83508		249	250	-0.4	15.0
RDX	Ave	103609	108460		262	250	4.7	15.0
Picric acid	Ave	77039	80828		262	250	4.9	15.0
1,3,5-Trinitrobenzene	Ave	218096	227713		262	251	4.4	15.0
1,3-Dinitrobenzene	Ave	288401	302758		263	251	5.0	15.0
Nitrobenzene	Ave	191953	184689		242	251	-3.8	15.0
Tetryl	Ave	170567	167784		246	251	-1.6	15.0
Nitroglycerin	Ave	63037	66963		2660	2500	6.2	15.0
2,4,6-Trinitrotoluene	Ave	202726	203060		251	251	0.2	15.0
4-Amino-2,6-dinitrotoluene	Ave	150985	150929		250	250	-0.0	15.0
2-Amino-4,6-dinitrotoluene	Ave	202171	201398		250	251	-0.4	15.0
2,6-Dinitrotoluene	Ave	143115	146092		256	251	2.1	15.0
2,4-Dinitrotoluene	Ave	289351	297920		258	251	3.0	15.0
2-Nitrotoluene	Ave	127614	116856		229	250	-8.4	15.0
4-Nitrotoluene	Ave	106235	103457		244	251	-2.6	15.0
3-Nitrotoluene	Ave	142273	130709		230	250	-8.1	15.0
PETN	Lin2		74862		2560	2500	2.4	15.0
1,2-Dinitrobenzene	Ave	124698	129348		259	250	3.7	15.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Lab Sample ID: CCV 280-568287/61 Calibration Date: 03/11/2022 10:35

Instrument ID: CHHPLC_X3 Calib Start Date: 01/04/2022 18:28

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 01/04/2022 21:31

Lab File ID: 03100061.D

Analyte	RT	RT WINDOW	
		FROM	TO
HMX	6.60	6.44	6.74
RDX	7.58	7.44	7.74
Picric acid	7.93	7.78	8.08
1,3,5-Trinitrobenzene	8.66	8.51	8.81
1,3-Dinitrobenzene	9.28	9.13	9.43
Nitrobenzene	9.66	9.52	9.82
Tetryl	9.98	9.84	10.14
Nitroglycerin	10.43	10.29	10.59
2,4,6-Trinitrotoluene	10.88	10.79	10.99
4-Amino-2,6-dinitrotoluene	11.06	10.98	11.18
2-Amino-4,6-dinitrotoluene	11.31	11.23	11.43
2,6-Dinitrotoluene	11.48	11.40	11.60
2,4-Dinitrotoluene	11.66	11.57	11.77
2-Nitrotoluene	12.50	12.36	12.66
4-Nitrotoluene	12.92	12.79	13.09
3-Nitrotoluene	13.50	13.36	13.66
PETN	14.54	14.41	14.71
1,2-Dinitrobenzene	8.53	8.38	8.68

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20220310-109139.b\03100061.D
Lims ID: CCV INT
Client ID:
Sample Type: CCV
Inject. Date: 11-Mar-2022 10:35:06 ALS Bottle#: 7 Worklist Smp#: 61
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: CCV INT
Misc. Info.: 280-0109139-061
Operator ID: JZ Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub9

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20220310-109139.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 11-Mar-2022 13:57:00 Calib Date: 05-Jan-2022 04:24:15
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040037.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1614

First Level Reviewer: zhangji Date: 11-Mar-2022 13:56:40

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
4 HMX	1	6.597	6.593	0.004	20877	0.2500	0.2490	M
8 RDX	1	7.583	7.587	-0.004	27115	0.2500	0.2617	
9 2,4,6-Trinitrophenol	1	7.930	7.933	-0.003	20207	0.2500	0.2623	
$ 10 1,2-Dinitrobenzene	1	8.530	8.533	-0.003	32337	0.2500	0.2593	
11 1,3,5-Trinitrobenzene	1	8.657	8.660	-0.003	57042	0.2505	0.2615	
12 1,3-Dinitrobenzene	1	9.277	9.280	-0.003	75841	0.2505	0.2630	
13 Nitrobenzene	1	9.663	9.667	-0.004	46357	0.2510	0.2415	
15 Tetryl	1	9.977	9.987	-0.010	42030	0.2505	0.2464	
16 Nitroglycerin	2	10.430	10.440	-0.010	167408	2.50	2.66	
17 2,4,6-Trinitrotoluene	1	10.877	10.893	-0.016	50968	0.2510	0.2514	
18 4-Amino-2,6-dinitrotoluene	1	11.057	11.080	-0.023	37770	0.2503	0.2502	
19 2-Amino-4,6-dinitrotoluene	1	11.310	11.327	-0.017	50551	0.2510	0.2500	
20 2,6-Dinitrotoluene	1	11.483	11.500	-0.017	36669	0.2510	0.2562	
21 2,4-Dinitrotoluene	1	11.657	11.667	-0.010	74778	0.2510	0.2584	
22 o-Nitrotoluene	1	12.503	12.513	-0.010	29214	0.2500	0.2289	
23 p-Nitrotoluene	1	12.923	12.940	-0.017	25916	0.2505	0.2439	
24 m-Nitrotoluene	1	13.497	13.507	-0.010	32710	0.2503	0.2299	
25 PETN	2	14.543	14.560	-0.017	187155	2.50	2.56	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330IntermStk_00070 Amount Added: 25.00 Units: uL

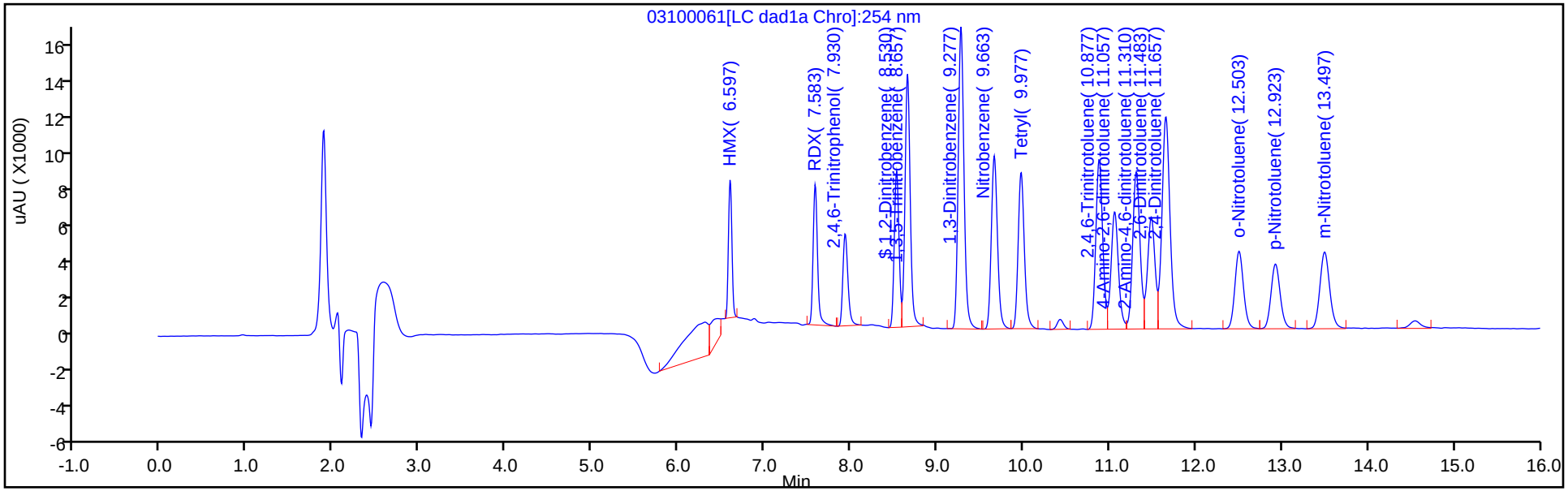
Report Date: 11-Mar-2022 13:57:00 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Denver

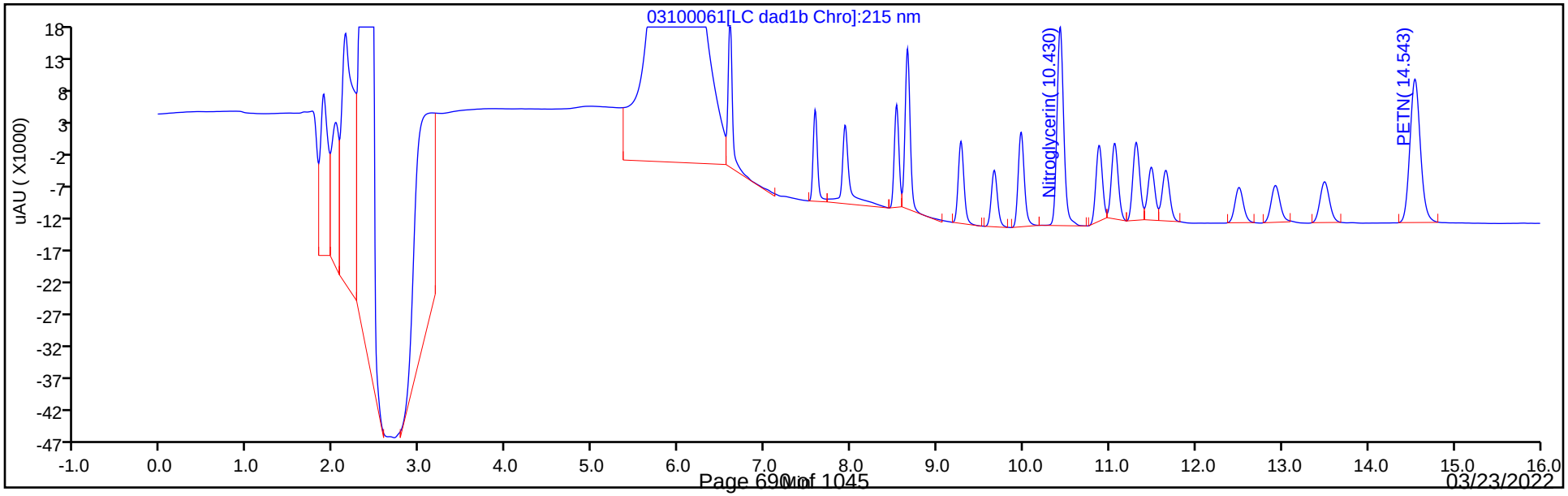
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Injection Date:	11-Mar-2022 10:35:06	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	CCV INT			Worklist Smp#:	61
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	8330_X3	Limit Group:	GCSV - 8330		

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



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



Manual Integration/User Assign Peak Report

Eurofins Denver

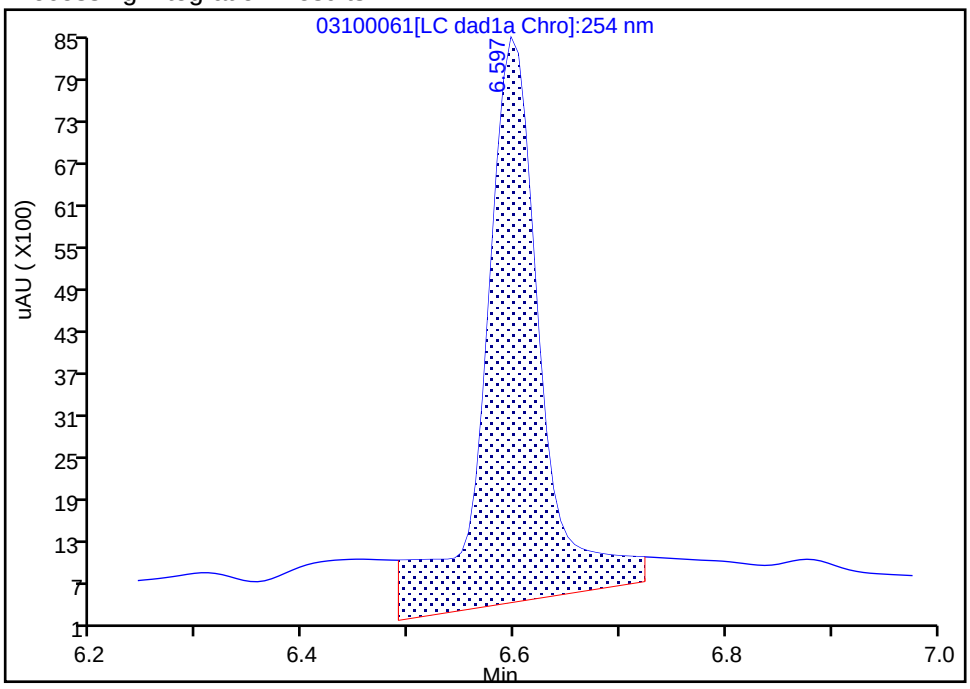
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Injection Date: 11-Mar-2022 10:35:06 Instrument ID: CHHPLC_X3
Lims ID: CCV INT
Client ID:
Operator ID: JZ ALS Bottle#: 7 Worklist Smp#: 61
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

4 HMX, CAS: 2691-41-0

Signal: 1

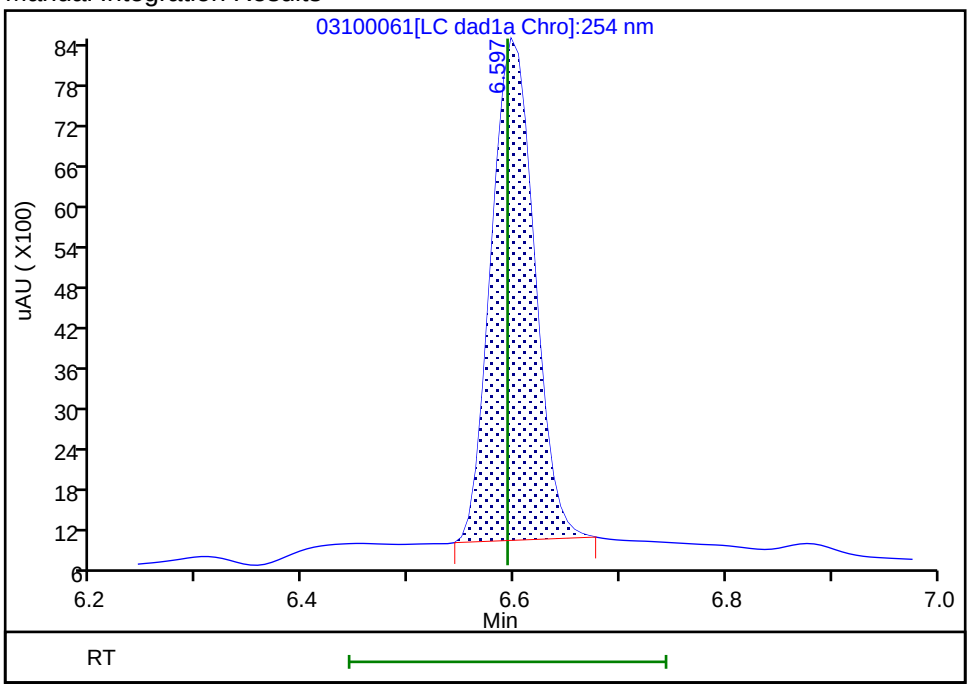
Processing Integration Results

RT: 6.60
Area: 29767
Amount: 0.355100
Amount Units: ug/mL



Manual Integration Results

RT: 6.60
Area: 20877
Amount: 0.249048
Amount Units: ug/mL



Reviewer: zhangji, 11-Mar-2022 13:56:39
Audit Action: Manually Integrated Audit Reason: Baseline

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Lab Sample ID: CCV 280-568287/62 Calibration Date: 03/11/2022 10:58

Instrument ID: CHHPLC_X3 Calib Start Date: 01/05/2022 01:43

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 01/05/2022 04:24

Lab File ID: 03100062.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
TNX	Ave	181207	169263		234	250	-6.6	15.0
DNX	Ave	138113	131564		238	250	-4.7	15.0
MNX	Ave	125995	120960		280	292	-4.0	15.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Lab Sample ID: CCV 280-568287/62 Calibration Date: 03/11/2022 10:58

Instrument ID: CHHPLC_X3 Calib Start Date: 01/05/2022 01:43

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 01/05/2022 04:24

Lab File ID: 03100062.D

Analyte	RT	RT WINDOW	
		FROM	TO
TNX	6.48	6.38	6.58
DNX	6.80	6.70	6.90
MNX	7.21	7.06	7.36

Eurofins Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20220310-109139.b\03100062.D				
Lims ID:	CCV DMT				
Client ID:					
Sample Type:	CCV				
Inject. Date:	11-Mar-2022 10:58:05	ALS Bottle#:	9	Worklist Smp#:	62
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	CCV DMT				
Misc. Info.:	280-0109139-062				
Operator ID:	JZ	Instrument ID:	CHHPLC_X3		
Sublist:	chrom-8330_X3*sub17				
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20220310-109139.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	11-Mar-2022 13:56:59	Calib Date:	05-Jan-2022 04:24:15		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040037.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1614				
First Level Reviewer: zhangji		Date:	11-Mar-2022 13:56:56		

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	42358	0.2503	0.2338	M
6 DNX	1	6.796	6.796	0.000	32924	0.2503	0.2384	M
7 MNX	1	7.210	7.209	0.001	35290	0.2918	0.2801	M

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330 DMT_00010 Amount Added: 12.50 Units: uL

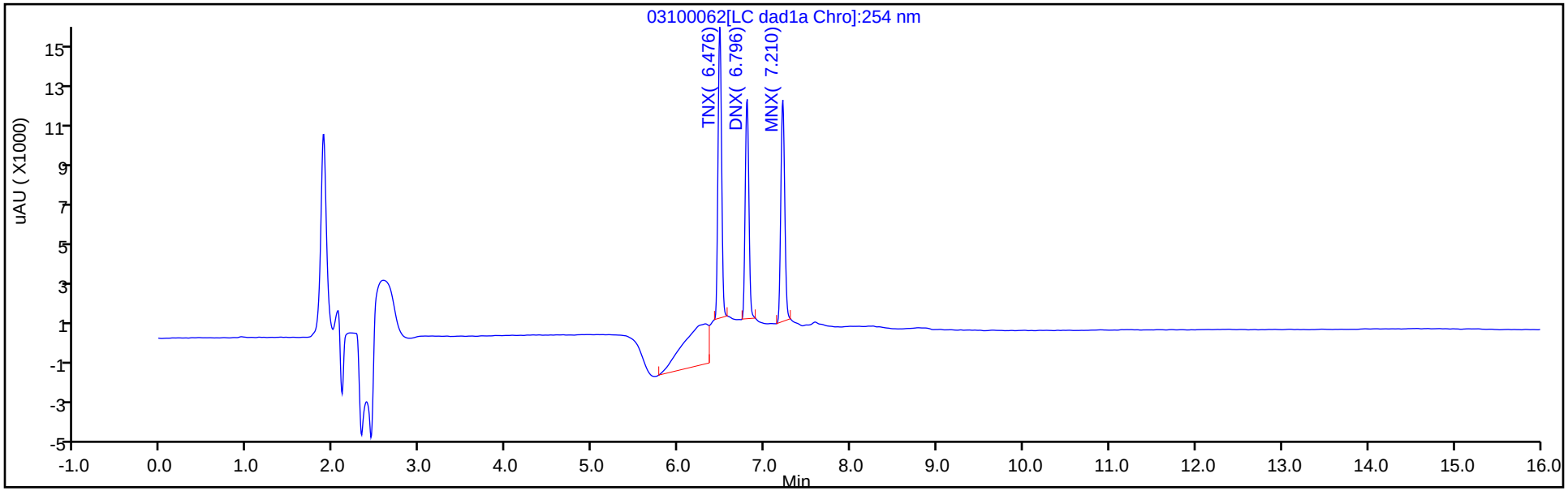
Report Date: 11-Mar-2022 13:57:00 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Denver

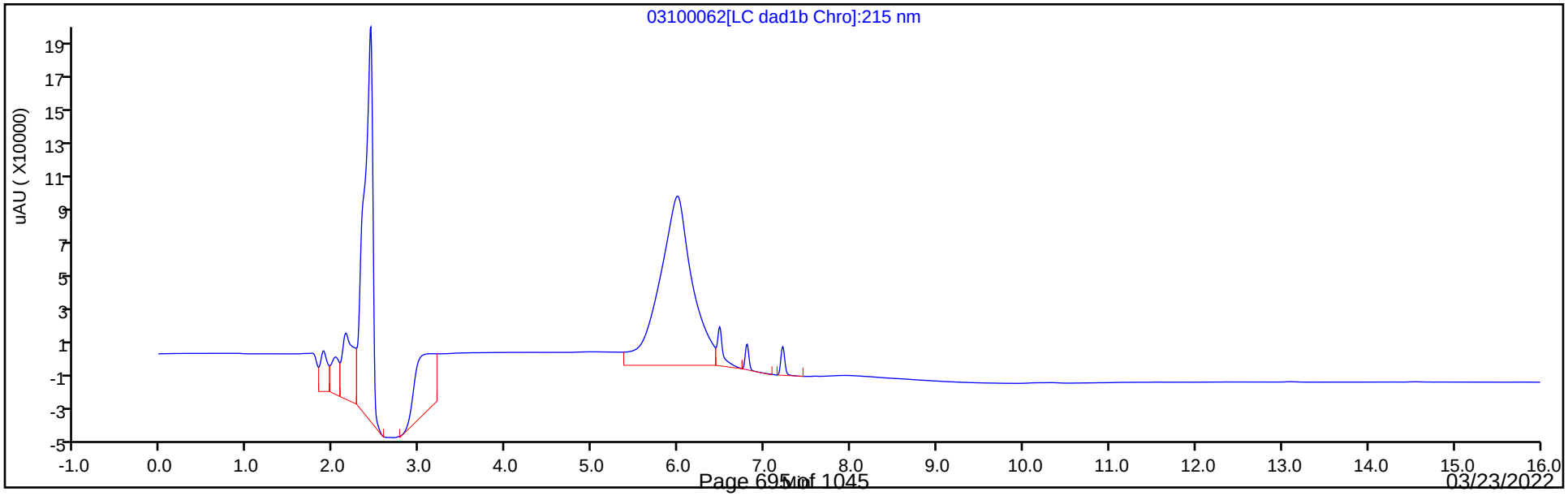
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Injection Date:	11-Mar-2022 10:58:05	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	CCV DMT			Worklist Smp#:	62
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	9
Method:	8330_X3	Limit Group:	GCSV - 8330		

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



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



Manual Integration/User Assign Peak Report

Eurofins Denver

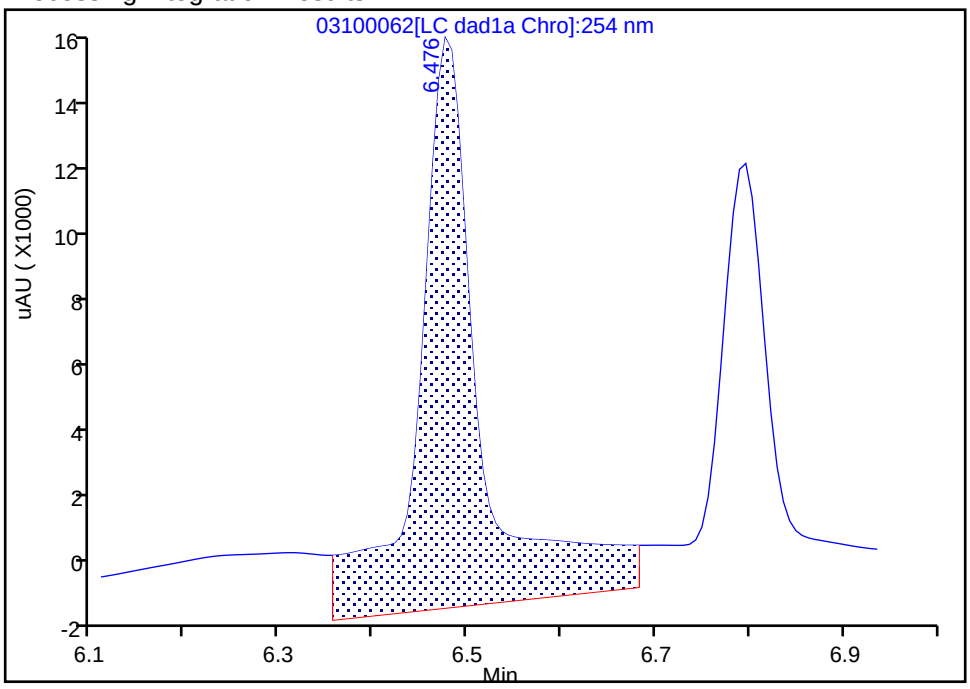
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Injection Date:	11-Mar-2022 10:58:05	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV DMT				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	9	Worklist Smp#:	62
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

3 TNX, CAS: 13980-04-6

Signal: 1

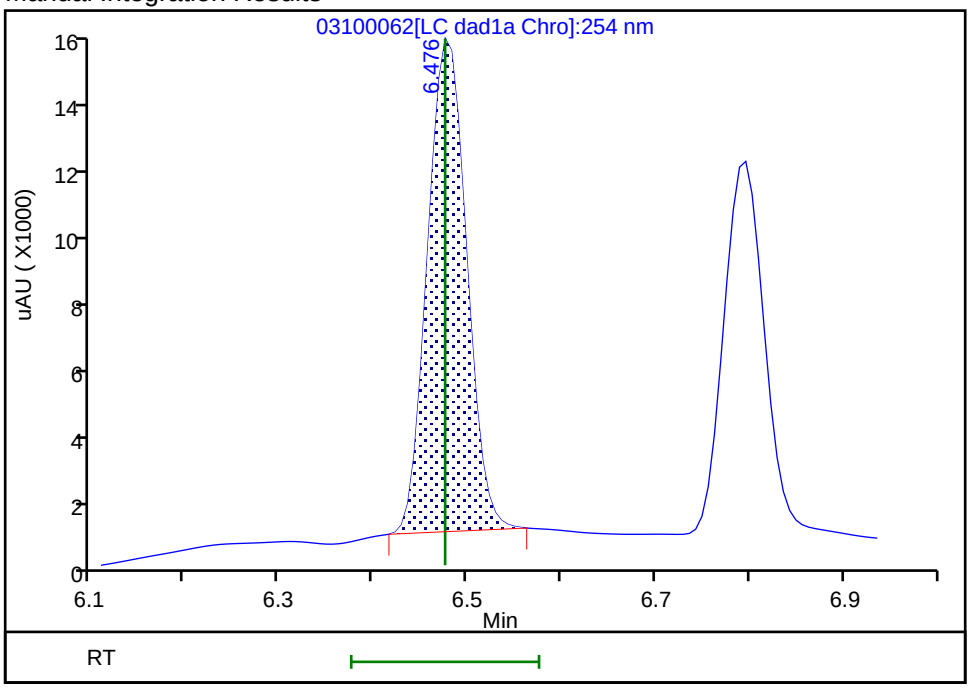
Processing Integration Results

RT: 6.48
Area: 76592
Amount: 0.422676
Amount Units: ug/mL



Manual Integration Results

RT: 6.48
Area: 42358
Amount: 0.233754
Amount Units: ug/mL



Reviewer: zhangji, 11-Mar-2022 13:56:46
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

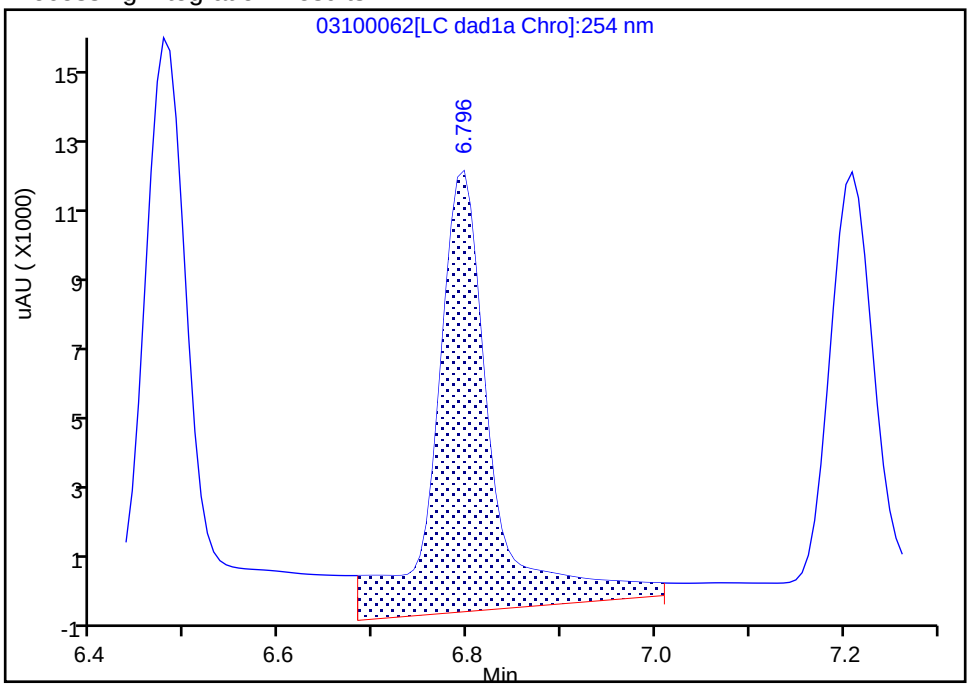
Data File:	\\chromfs\denver\chromdata\chhplc_x\20220310-109139.b\03100062.d				
Injection Date:	11-Mar-2022 10:58:05	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV DMT				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	9	Worklist Smp#:	62
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

6 DNX, CAS: 80251-29-2

Signal: 1

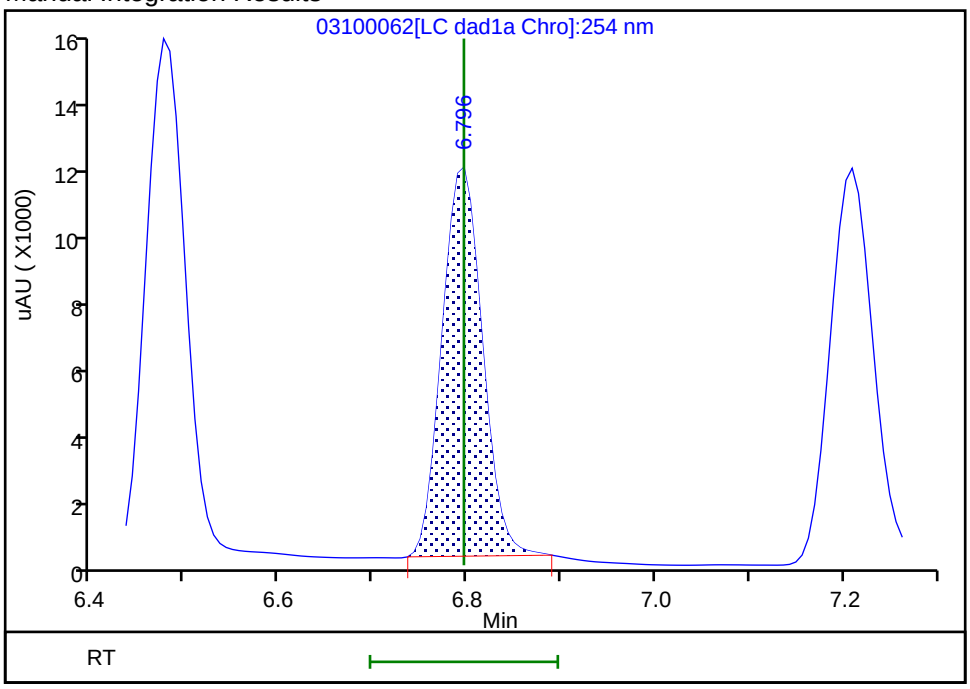
Processing Integration Results

RT: 6.80
Area: 50008
Amount: 0.362080
Amount Units: ug/mL



Manual Integration Results

RT: 6.80
Area: 32924
Amount: 0.238385
Amount Units: ug/mL



Reviewer: zhangji, 11-Mar-2022 13:56:48

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

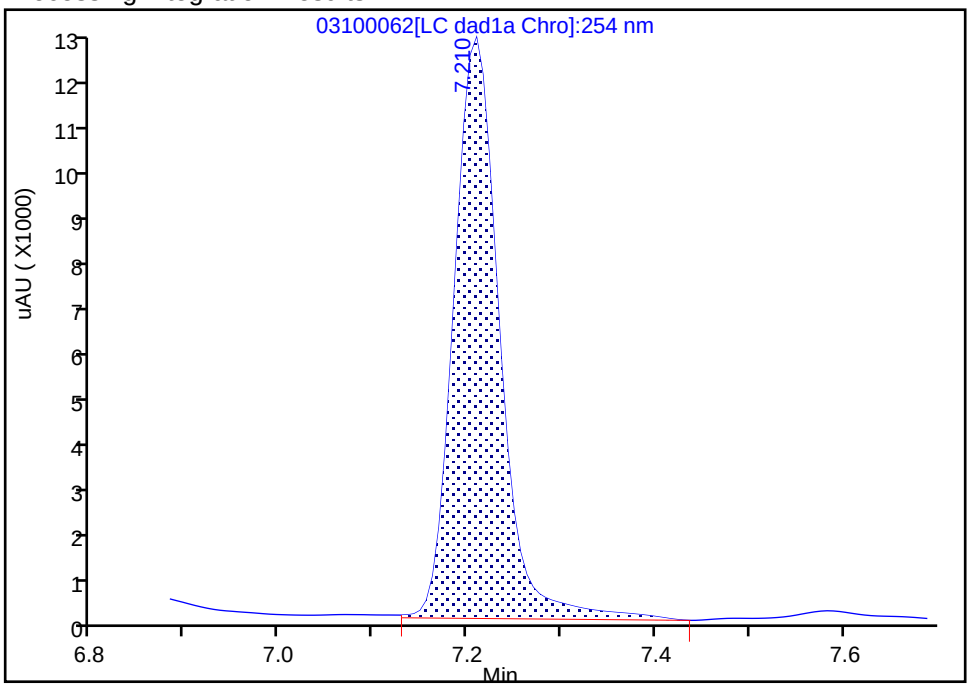
Data File:	\\chromfs\denver\chromdata\chhplc_x\20220310-109139.b\03100062.d				
Injection Date:	11-Mar-2022 10:58:05	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV DMT				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	9	Worklist Smp#:	62
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

7 MNX, CAS: 5755-27-1

Signal: 1

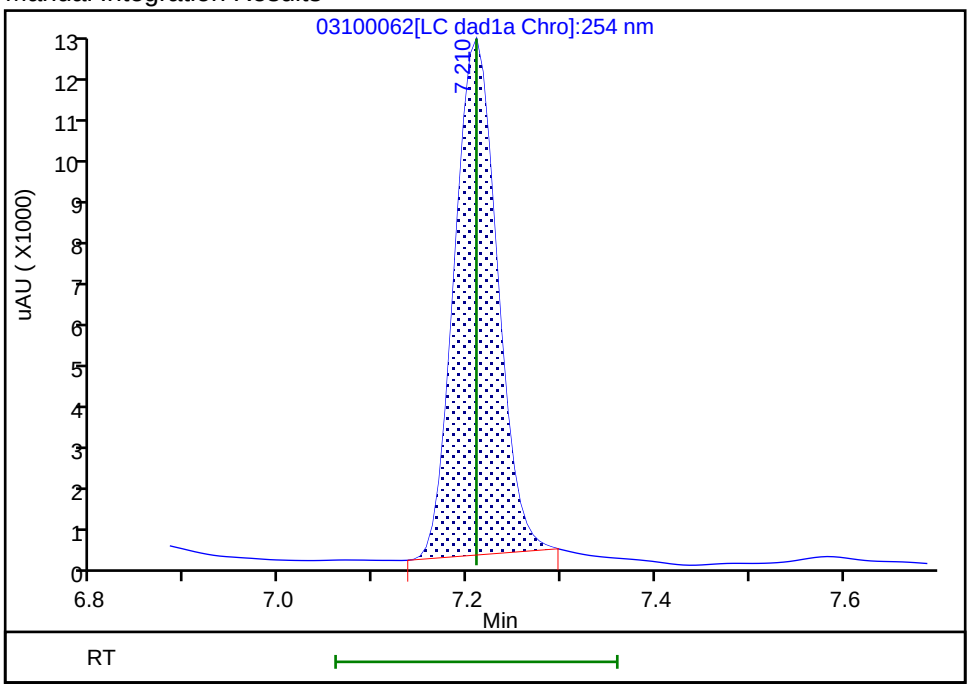
Processing Integration Results

RT: 7.21
Area: 38320
Amount: 0.304138
Amount Units: ug/mL



Manual Integration Results

RT: 7.21
Area: 35290
Amount: 0.280090
Amount Units: ug/mL



Reviewer: zhangji, 11-Mar-2022 13:56:52
Audit Action: Manually Integrated Audit Reason: Baseline

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Lab Sample ID: CCV 280-568433/26 Calibration Date: 03/11/2022 20:54

Instrument ID: CHHPLC_X3 Calib Start Date: 01/04/2022 18:28

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 01/04/2022 21:31

Lab File ID: 03110026.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
HMX	Ave	83827	82472		246	250	-1.6	15.0
RDX	Ave	103609	106800		258	250	3.1	15.0
Picric acid	Ave	77039	80656		262	250	4.7	15.0
1,3,5-Trinitrobenzene	Ave	218096	225078		259	251	3.2	15.0
1,3-Dinitrobenzene	Ave	288401	299174		260	251	3.7	15.0
Nitrobenzene	Ave	191953	192701		252	251	0.4	15.0
Tetryl	Ave	170567	166978		245	251	-2.1	15.0
Nitroglycerin	Ave	63037	65783		2610	2500	4.4	15.0
2,4,6-Trinitrotoluene	Ave	202726	200331		248	251	-1.2	15.0
4-Amino-2,6-dinitrotoluene	Ave	150985	149590		248	250	-0.9	15.0
2-Amino-4,6-dinitrotoluene	Ave	202171	199159		247	251	-1.5	15.0
2,6-Dinitrotoluene	Ave	143115	142430		250	251	-0.5	15.0
2,4-Dinitrotoluene	Ave	289351	295873		257	251	2.3	15.0
2-Nitrotoluene	Ave	127614	125212		245	250	-1.9	15.0
4-Nitrotoluene	Ave	106235	109369		258	251	2.9	15.0
3-Nitrotoluene	Ave	142273	135864		239	250	-4.5	15.0
PETN	Lin2		73709		2520	2500	0.8	15.0
1,2-Dinitrobenzene	Ave	124698	129296		259	250	3.7	15.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Lab Sample ID: CCV 280-568433/26 Calibration Date: 03/11/2022 20:54

Instrument ID: CHHPLC_X3 Calib Start Date: 01/04/2022 18:28

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 01/04/2022 21:31

Lab File ID: 03110026.D

Analyte	RT	RT WINDOW	
		FROM	TO
HMX	6.60	6.45	6.75
RDX	7.58	7.43	7.73
Picric acid	7.93	7.78	8.08
1,3,5-Trinitrobenzene	8.66	8.51	8.81
1,3-Dinitrobenzene	9.28	9.13	9.43
Nitrobenzene	9.66	9.52	9.82
Tetryl	9.98	9.83	10.13
Nitroglycerin	10.43	10.29	10.59
2,4,6-Trinitrotoluene	10.89	10.79	10.99
4-Amino-2,6-dinitrotoluene	11.08	10.97	11.17
2-Amino-4,6-dinitrotoluene	11.32	11.22	11.42
2,6-Dinitrotoluene	11.50	11.40	11.60
2,4-Dinitrotoluene	11.66	11.56	11.76
2-Nitrotoluene	12.52	12.36	12.66
4-Nitrotoluene	12.94	12.79	13.09
3-Nitrotoluene	13.51	13.35	13.65
PETN	14.56	14.41	14.71
1,2-Dinitrobenzene	8.53	8.38	8.68

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20220311-109174.b\03110026.D
Lims ID: CCV INT
Client ID:
Sample Type: CCV
Inject. Date: 11-Mar-2022 20:54:32 ALS Bottle#: 7 Worklist Smp#: 26
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: CCV INT
Misc. Info.: 280-0109174-026
Operator ID: JZ Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub9

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20220311-109174.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 12-Mar-2022 10:32:08 Calib Date: 05-Jan-2022 04:24:15
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040037.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1616

First Level Reviewer: zhangji Date: 12-Mar-2022 09:45:12

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
4 HMX	1	6.596	6.595	0.001	20618	0.2500	0.2460	M
8 RDX	1	7.583	7.582	0.001	26700	0.2500	0.2577	
9 2,4,6-Trinitrophenol	1	7.929	7.929	0.000	20164	0.2500	0.2617	
$ 10 1,2-Dinitrobenzene	1	8.529	8.529	0.000	32324	0.2500	0.2592	
11 1,3,5-Trinitrobenzene	1	8.656	8.655	0.001	56382	0.2505	0.2585	
12 1,3-Dinitrobenzene	1	9.276	9.282	-0.006	74943	0.2505	0.2599	
13 Nitrobenzene	1	9.662	9.668	-0.006	48368	0.2510	0.2520	
15 Tetryl	1	9.982	9.982	0.000	41828	0.2505	0.2452	
16 Nitroglycerin	2	10.429	10.435	-0.006	164458	2.50	2.61	
17 2,4,6-Trinitrotoluene	1	10.889	10.888	0.001	50283	0.2510	0.2480	
18 4-Amino-2,6-dinitrotoluene	1	11.076	11.068	0.008	37435	0.2503	0.2479	
19 2-Amino-4,6-dinitrotoluene	1	11.322	11.322	0.000	49989	0.2510	0.2473	
20 2,6-Dinitrotoluene	1	11.496	11.495	0.001	35750	0.2510	0.2498	
21 2,4-Dinitrotoluene	1	11.662	11.662	0.000	74264	0.2510	0.2567	
22 o-Nitrotoluene	1	12.516	12.508	0.008	31303	0.2500	0.2453	
23 p-Nitrotoluene	1	12.936	12.935	0.001	27397	0.2505	0.2579	
24 m-Nitrotoluene	1	13.509	13.502	0.007	34000	0.2503	0.2390	
25 PETN	2	14.562	14.555	0.007	184273	2.50	2.52	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330IntermStk_00070 Amount Added: 25.00 Units: uL

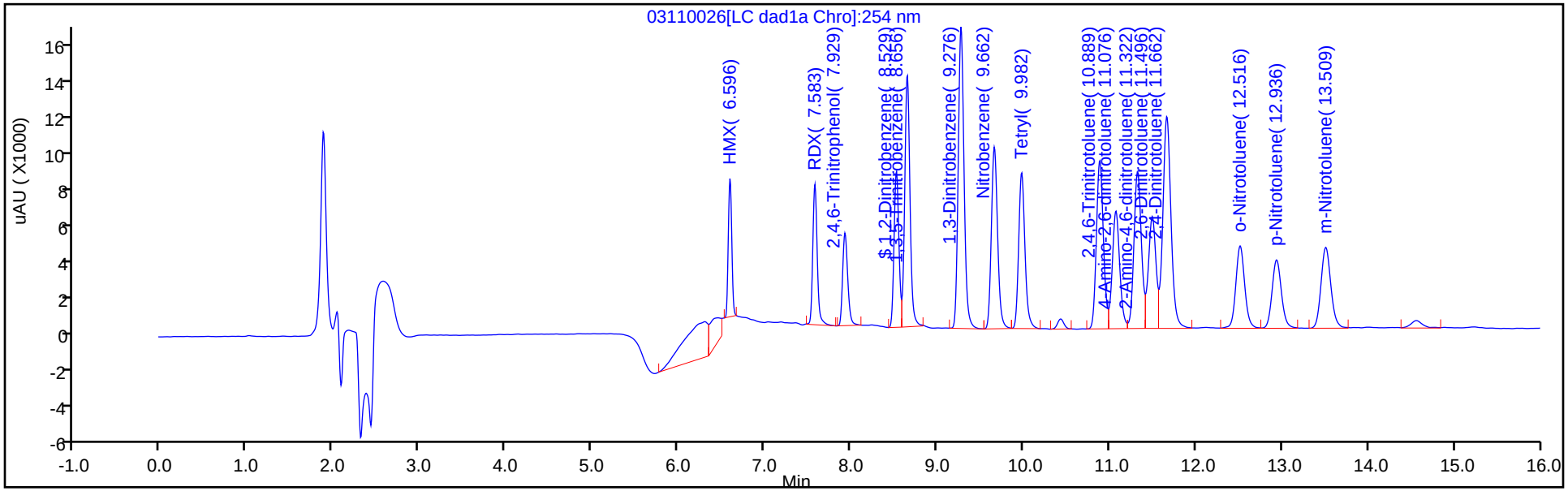
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Eurofins Denver

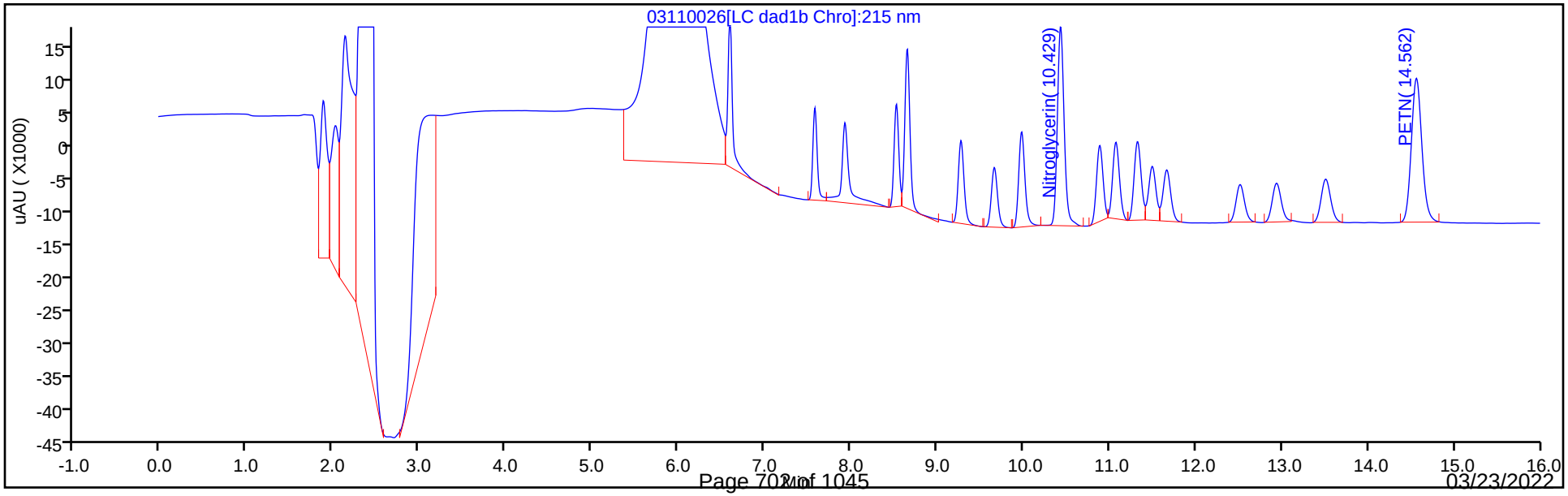
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Injection Date:	11-Mar-2022 20:54:32	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	CCV INT			Worklist Smp#:	26
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	8330_X3	Limit Group:	GCSV - 8330		

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



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



Manual Integration/User Assign Peak Report

Eurofins Denver

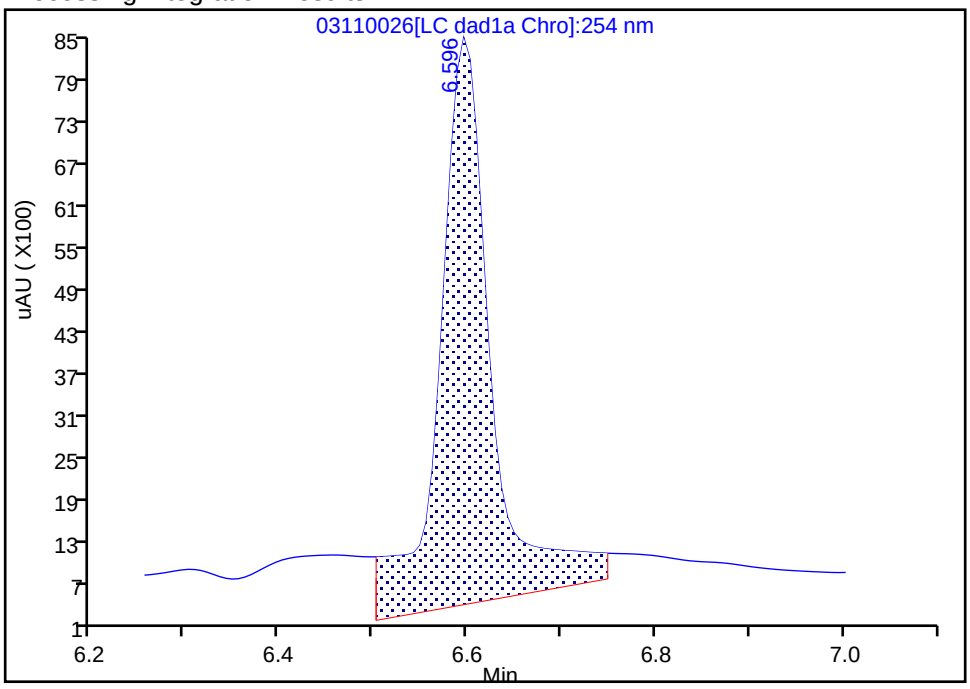
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Injection Date: 11-Mar-2022 20:54:32 Instrument ID: CHHPLC_X3
Lims ID: CCV INT
Client ID:
Operator ID: JZ ALS Bottle#: 7 Worklist Smp#: 26
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

4 HMX, CAS: 2691-41-0

Signal: 1

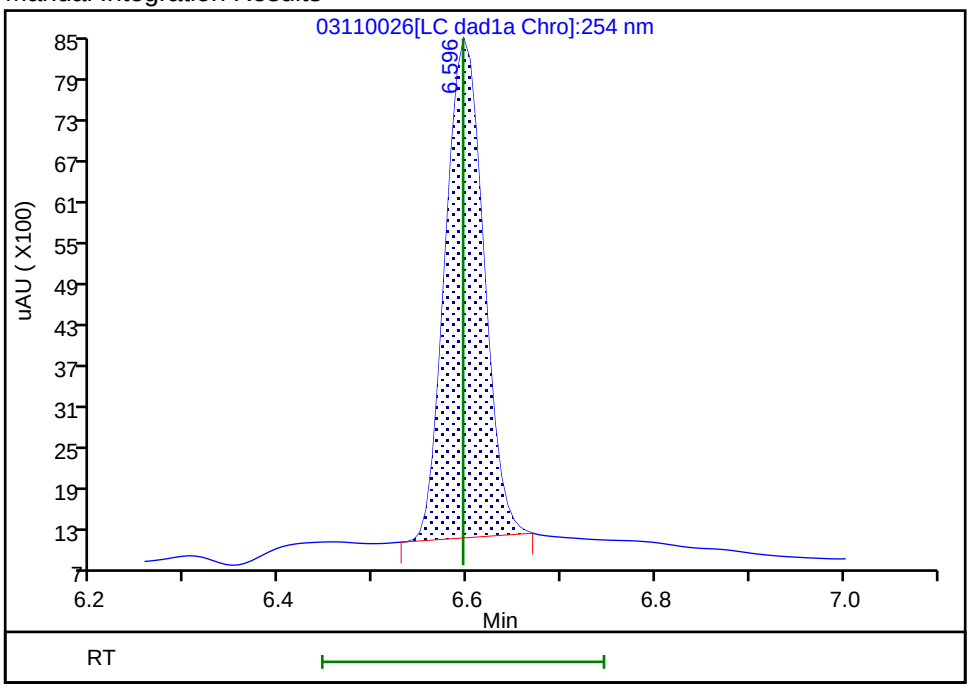
Processing Integration Results

RT: 6.60
Area: 30763
Amount: 0.366981
Amount Units: ug/mL



Manual Integration Results

RT: 6.60
Area: 20618
Amount: 0.245958
Amount Units: ug/mL



Reviewer: zhangji, 12-Mar-2022 09:45:11
Audit Action: Manually Integrated Audit Reason: Baseline

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Lab Sample ID: CCV 280-568433/27 Calibration Date: 03/11/2022 21:17

Instrument ID: CHHPLC_X3 Calib Start Date: 01/05/2022 01:43

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 01/05/2022 04:24

Lab File ID: 03110027.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
TNX	Ave	181207	182022		251	250	0.4	15.0
DNX	Ave	138113	137047		248	250	-0.8	15.0
MNX	Ave	125995	122170		283	292	-3.0	15.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Lab Sample ID: CCV 280-568433/27 Calibration Date: 03/11/2022 21:17

Instrument ID: CHHPLC_X3 Calib Start Date: 01/05/2022 01:43

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 01/05/2022 04:24

Lab File ID: 03110027.D

Analyte	RT	RT WINDOW	
		FROM	TO
TNX	6.48	6.38	6.58
DNX	6.80	6.69	6.89
MNX	7.21	7.06	7.36

Eurofins Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20220311-109174.b\03110027.D				
Lims ID:	CCV DMT				
Client ID:					
Sample Type:	CCV				
Inject. Date:	11-Mar-2022 21:17:29	ALS Bottle#:	9	Worklist Smp#:	27
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	CCV DMT				
Misc. Info.:	280-0109174-027				
Operator ID:	JZ	Instrument ID:	CHHPLC_X3		
Sublist:	chrom-8330_X3*sub17				
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20220311-109174.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	12-Mar-2022 10:32:07	Calib Date:	05-Jan-2022 04:24:15		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040037.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1616				
First Level Reviewer: zhangji		Date:	12-Mar-2022 09:45:25		

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 TNX	1	6.475	6.477	-0.002	45551	0.2503	0.2514	M
6 DNX	1	6.795	6.791	0.004	34296	0.2503	0.2483	M
7 MNX	1	7.208	7.211	-0.003	35643	0.2918	0.2829	M

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330 DMT_00010 Amount Added: 12.50 Units: uL

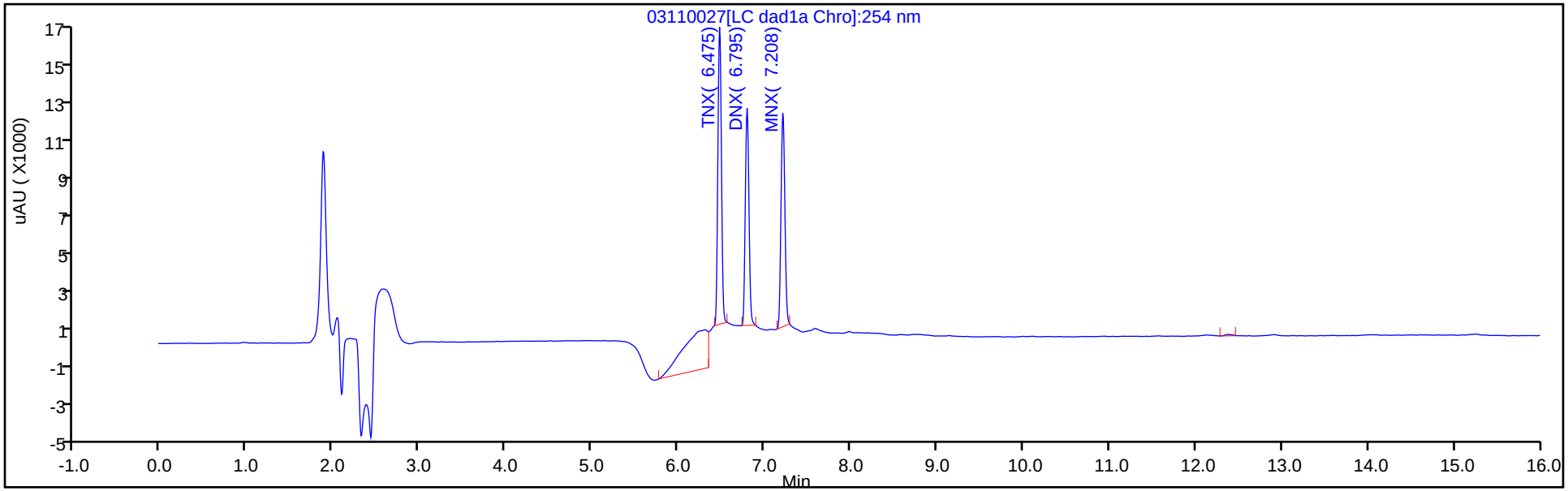
Report Date: 12-Mar-2022 10:32:08 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Denver

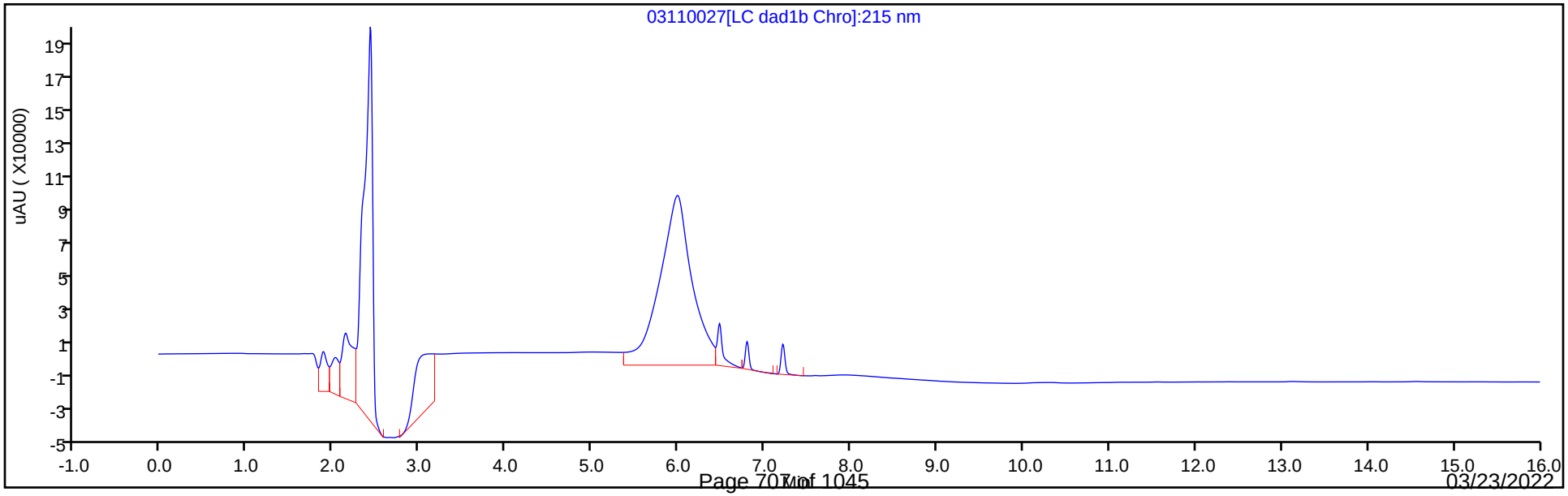
Data File: \\chromfs\denver\chromdata\chhplc_x\20220311-109174.b\03110027.d

Injection Date:	11-Mar-2022 21:17:29	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	CCV DMT			Worklist Smp#:	27
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	9
Method:	8330_X3	Limit Group:	GCSV - 8330		

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



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



Manual Integration/User Assign Peak Report

Eurofins Denver

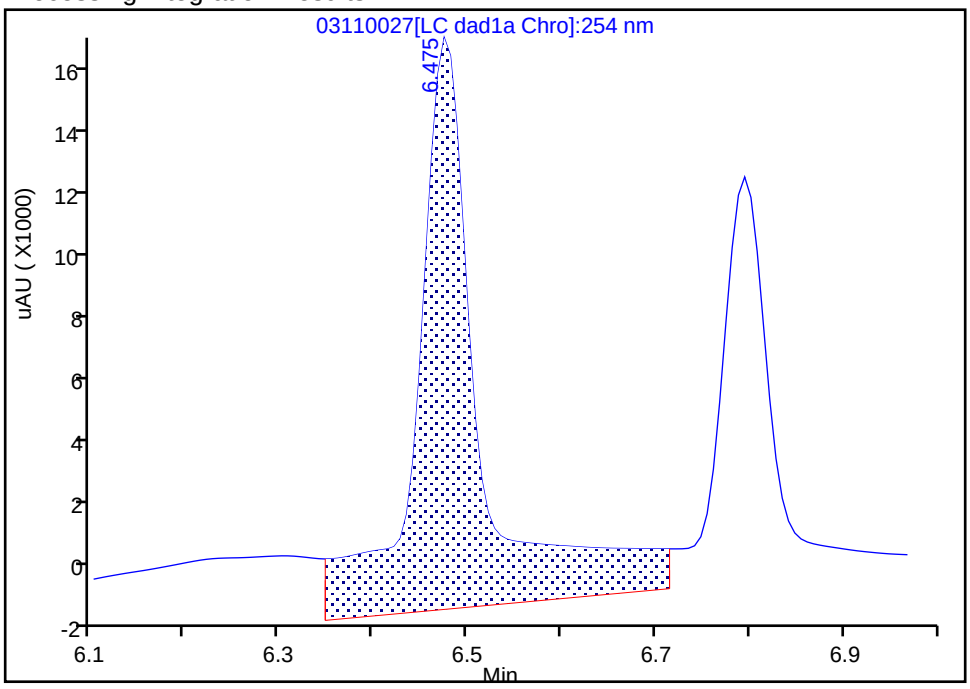
Data File: \\chromfs\denver\chromdata\chhplc_x\20220311-109174.b\03110027.d
Injection Date: 11-Mar-2022 21:17:29 Instrument ID: CHHPLC_X3
Lims ID: CCV DMT
Client ID:
Operator ID: JZ ALS Bottle#: 9 Worklist Smp#: 27
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

3 TNX, CAS: 13980-04-6

Signal: 1

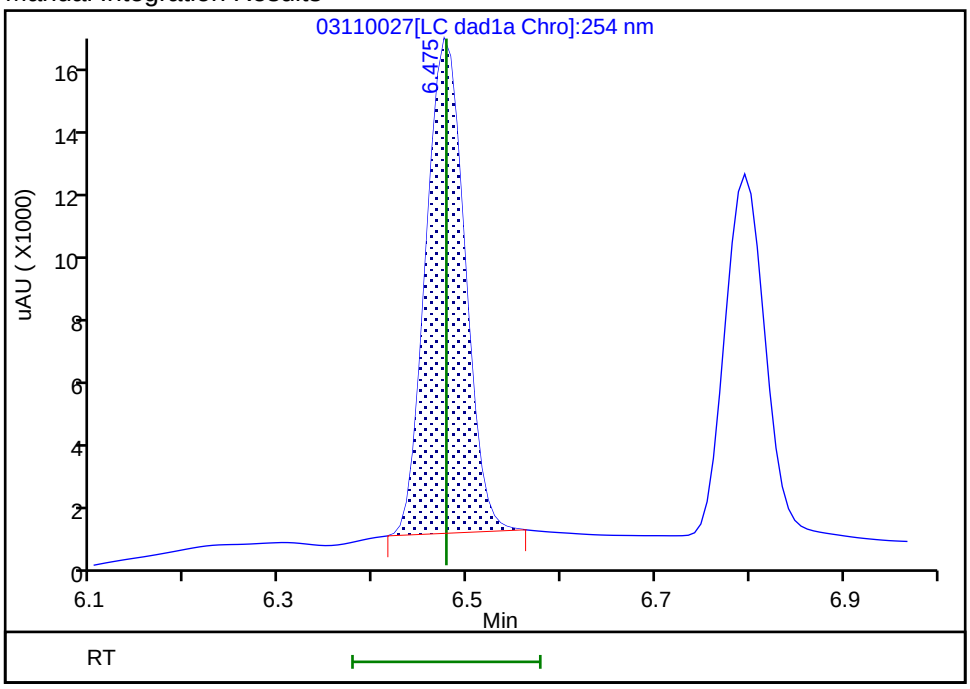
Processing Integration Results

RT: 6.48
Area: 84337
Amount: 0.465417
Amount Units: ug/mL



Manual Integration Results

RT: 6.48
Area: 45551
Amount: 0.251375
Amount Units: ug/mL



Reviewer: zhangji, 12-Mar-2022 09:45:18
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

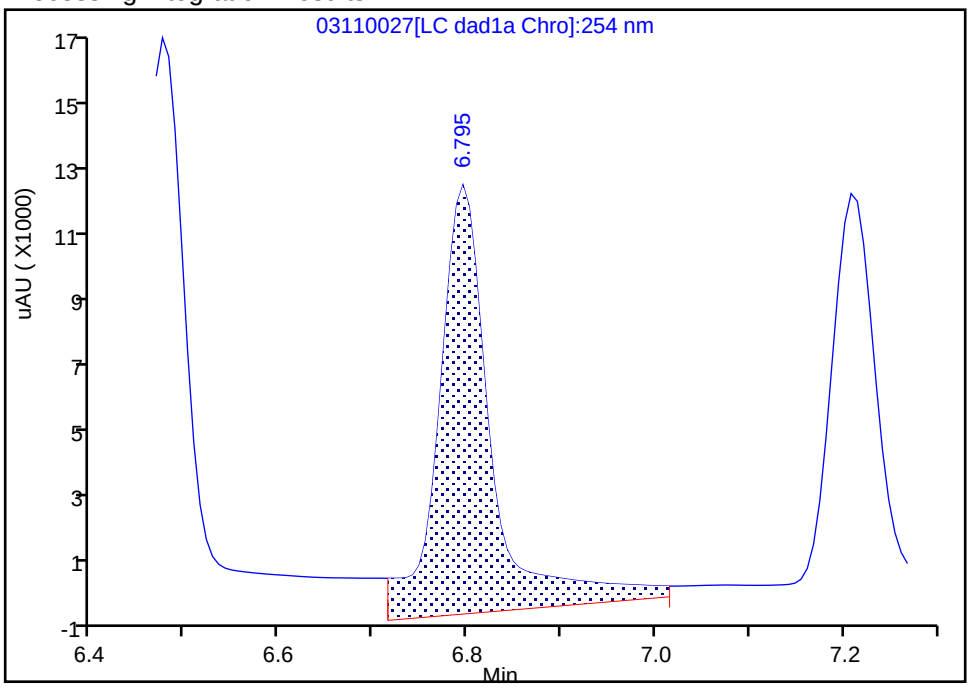
Data File: \\chromfs\denver\chromdata\chhplc_x\20220311-109174.b\03110027.d
Injection Date: 11-Mar-2022 21:17:29 Instrument ID: CHHPLC_X3
Lims ID: CCV DMT
Client ID:
Operator ID: JZ ALS Bottle#: 9 Worklist Smp#: 27
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

6 DNX, CAS: 80251-29-2

Signal: 1

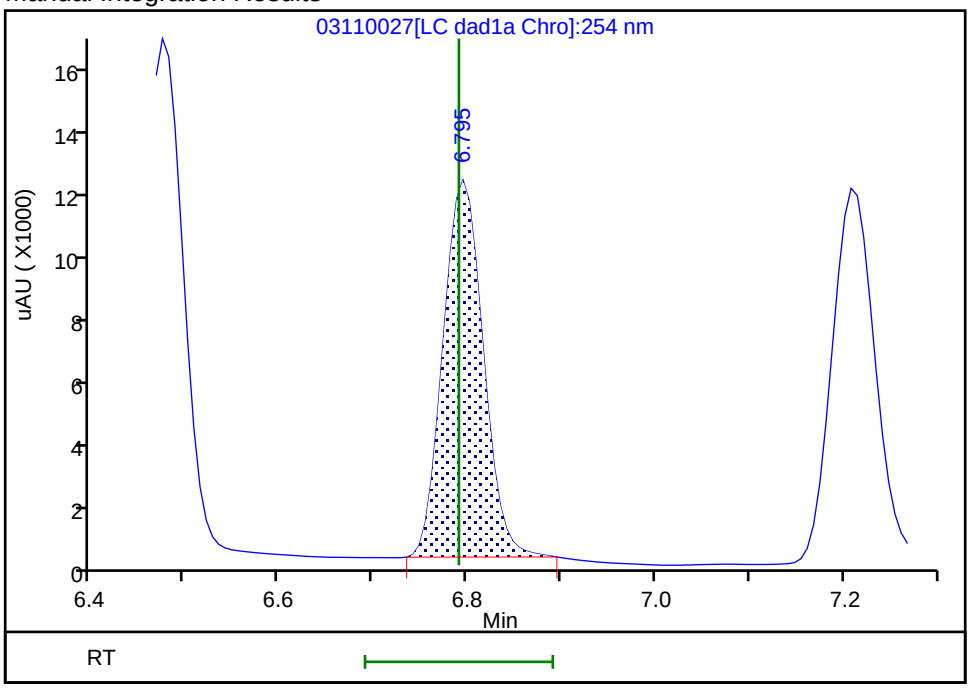
Processing Integration Results

RT: 6.80
Area: 49520
Amount: 0.358547
Amount Units: ug/mL



Manual Integration Results

RT: 6.80
Area: 34296
Amount: 0.248318
Amount Units: ug/mL



Reviewer: zhangji, 12-Mar-2022 09:45:21
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

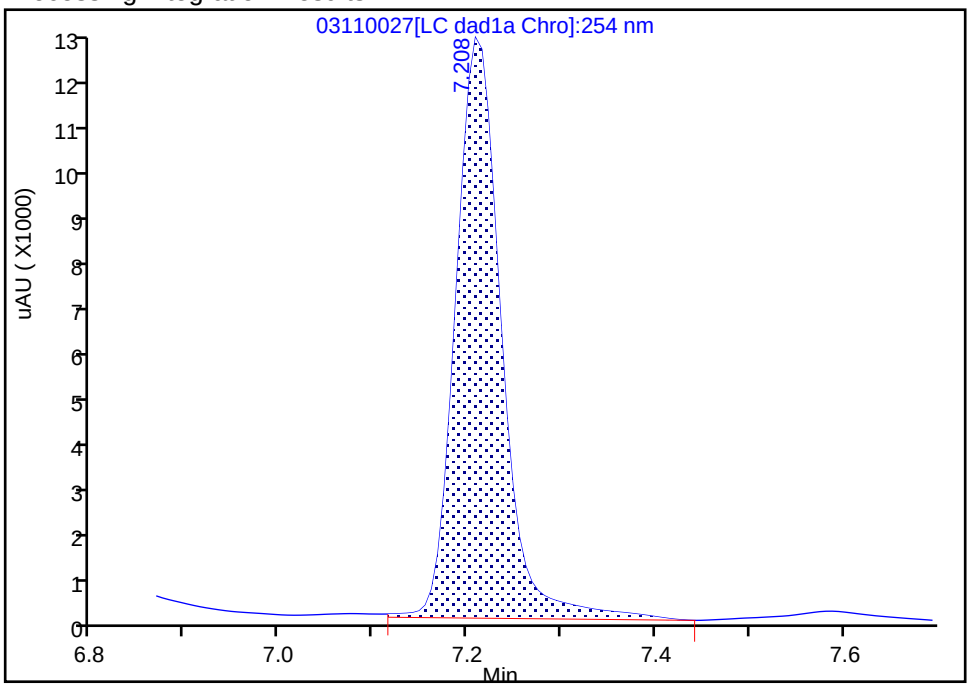
Data File:	\\chromfs\denver\chromdata\chhplc_x\20220311-109174.b\03110027.d				
Injection Date:	11-Mar-2022 21:17:29	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV DMT				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	9	Worklist Smp#:	27
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

7 MNX, CAS: 5755-27-1

Signal: 1

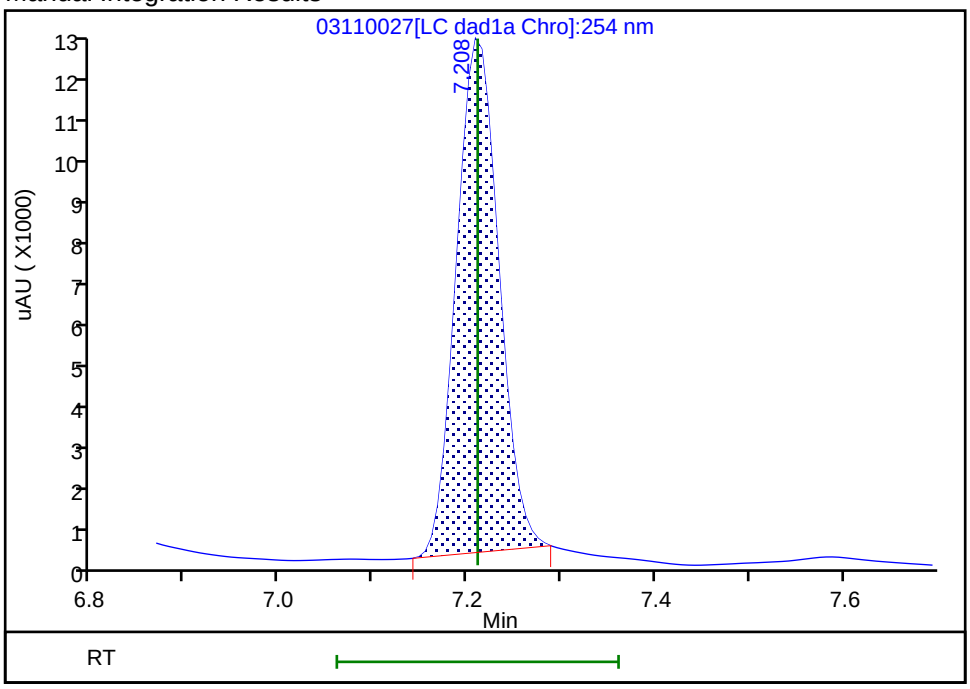
Processing Integration Results

RT: 7.21
Area: 39362
Amount: 0.312408
Amount Units: ug/mL



Manual Integration Results

RT: 7.21
Area: 35643
Amount: 0.282891
Amount Units: ug/mL



Reviewer: zhangji, 12-Mar-2022 09:45:24
Audit Action: Manually Integrated Audit Reason: Baseline

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Lab Sample ID: CCV 280-568433/38 Calibration Date: 03/12/2022 01:29

Instrument ID: CHHPLC_X3 Calib Start Date: 01/05/2022 01:43

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 01/05/2022 04:24

Lab File ID: 03110038.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
TNX	Ave	181207	178753		247	250	-1.4	15.0
DNX	Ave	138113	135181		245	250	-2.1	15.0
MNX	Ave	125995	125837		291	292	-0.1	15.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Lab Sample ID: CCV 280-568433/38 Calibration Date: 03/12/2022 01:29

Instrument ID: CHHPLC_X3 Calib Start Date: 01/05/2022 01:43

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 01/05/2022 04:24

Lab File ID: 03110038.D

Analyte	RT	RT WINDOW	
		FROM	TO
TNX	6.48	6.38	6.58
DNX	6.80	6.69	6.89
MNX	7.21	7.06	7.36

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20220311-109174.b\03110038.D
Lims ID: CCV DMT
Client ID:
Sample Type: CCV
Inject. Date: 12-Mar-2022 01:29:36 ALS Bottle#: 9 Worklist Smp#: 38
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: CCV DMT
Misc. Info.: 280-0109174-038
Operator ID: JZ Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub17

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20220311-109174.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 12-Mar-2022 10:32:02 Calib Date: 05-Jan-2022 04:24:15
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040037.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1616

First Level Reviewer: zhangji Date: 12-Mar-2022 10:31:46

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	6.477	0.002	44733	0.2503	0.2469	M
6 DNX	1	6.799	6.791	0.008	33829	0.2503	0.2449	M
7 MNX	1	7.212	7.211	0.001	36713	0.2918	0.2914	M

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330 DMT_00010 Amount Added: 12.50 Units: uL

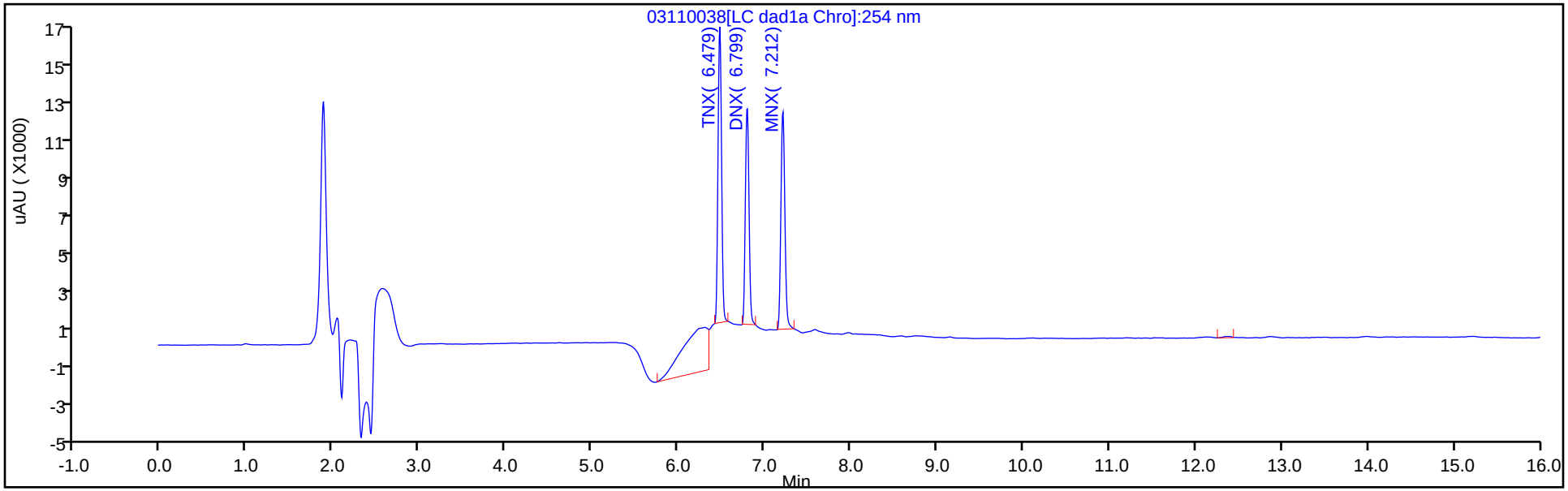
Report Date: 12-Mar-2022 10:32:02 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Denver

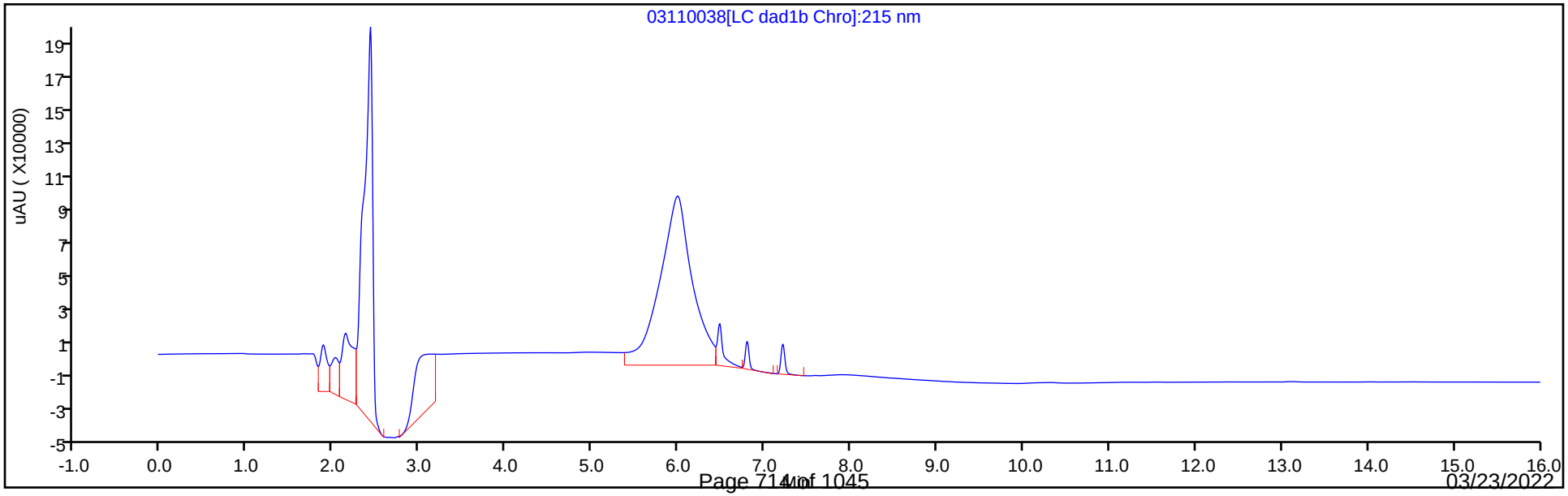
Data File: \\chromfs\denver\chromdata\chhplc_x\20220311-109174.b\03110038.d

Injection Date:	12-Mar-2022 01:29:36	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	CCV DMT			Worklist Smp#:	38
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	9
Method:	8330_X3	Limit Group:	GCSV - 8330		

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



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



Manual Integration/User Assign Peak Report

Eurofins Denver

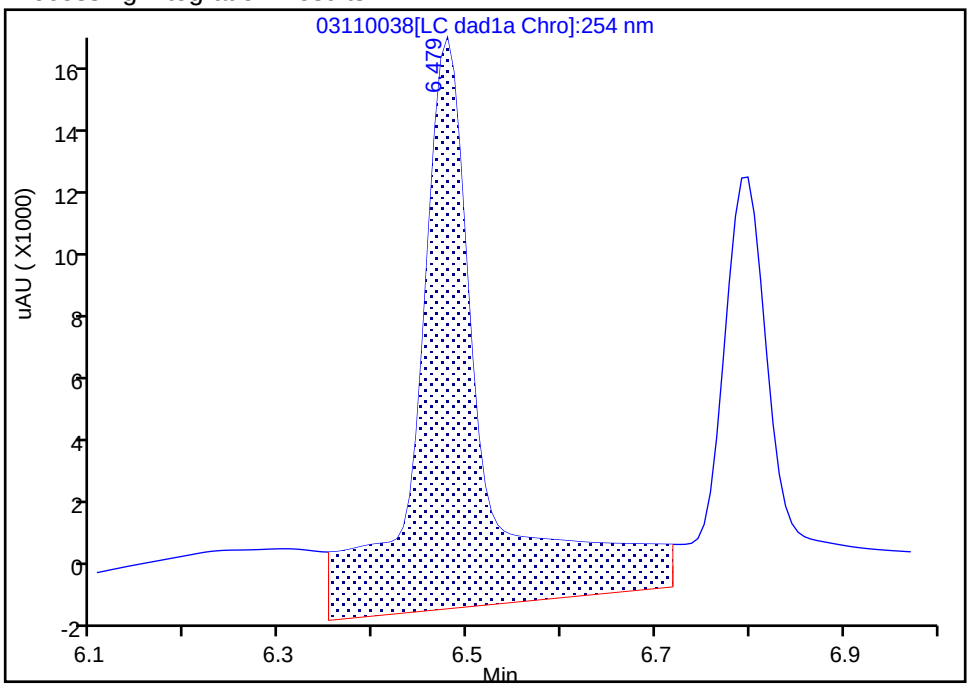
Data File: \\chromfs\denver\chromdata\chhplc_x\20220311-109174.b\03110038.d
Injection Date: 12-Mar-2022 01:29:36 Instrument ID: CHHPLC_X3
Lims ID: CCV DMT
Client ID:
Operator ID: JZ ALS Bottle#: 9 Worklist Smp#: 38
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

3 TNX, CAS: 13980-04-6

Signal: 1

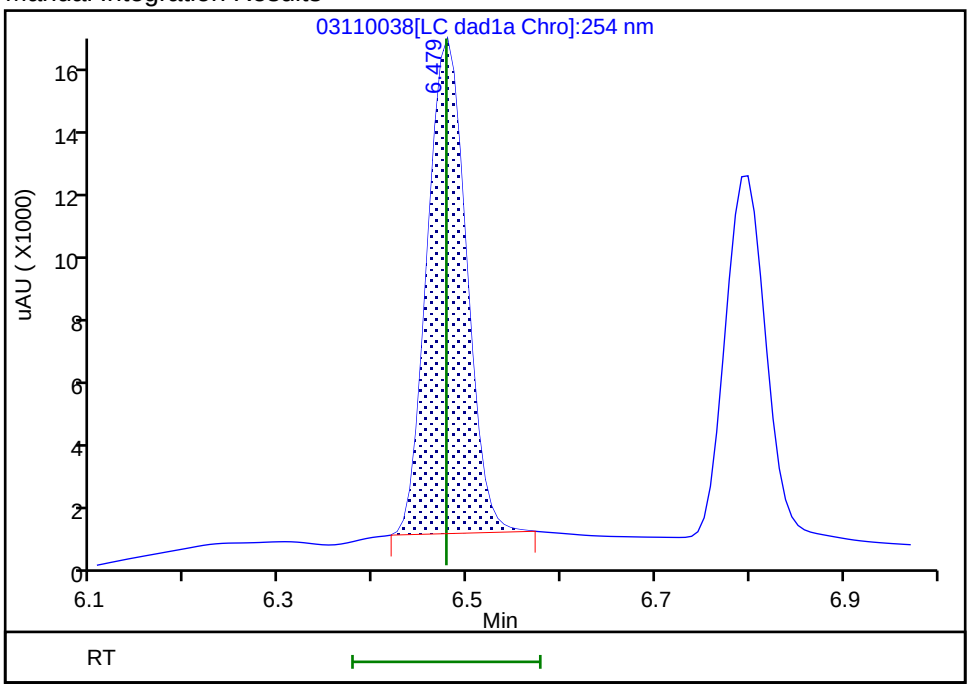
Processing Integration Results

RT: 6.48
Area: 86351
Amount: 0.476531
Amount Units: ug/mL



Manual Integration Results

RT: 6.48
Area: 44733
Amount: 0.246861
Amount Units: ug/mL



Reviewer: zhangji, 12-Mar-2022 10:31:39
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

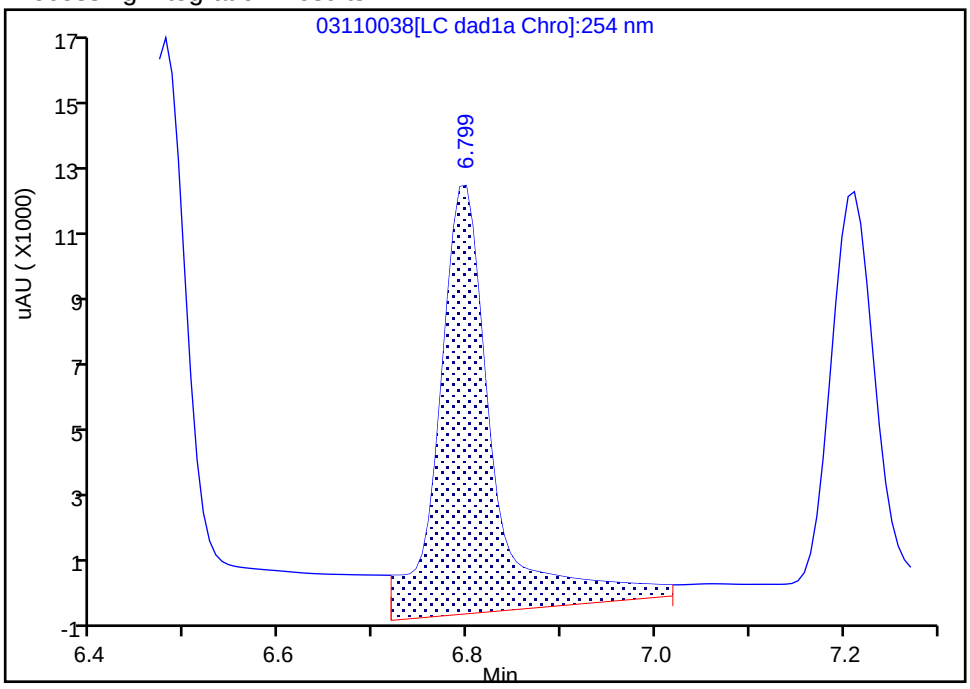
Data File:	\\chromfs\denver\chromdata\chhplc_x\20220311-109174.b\03110038.d				
Injection Date:	12-Mar-2022 01:29:36	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV DMT				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	9	Worklist Smp#:	38
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

6 DNX, CAS: 80251-29-2

Signal: 1

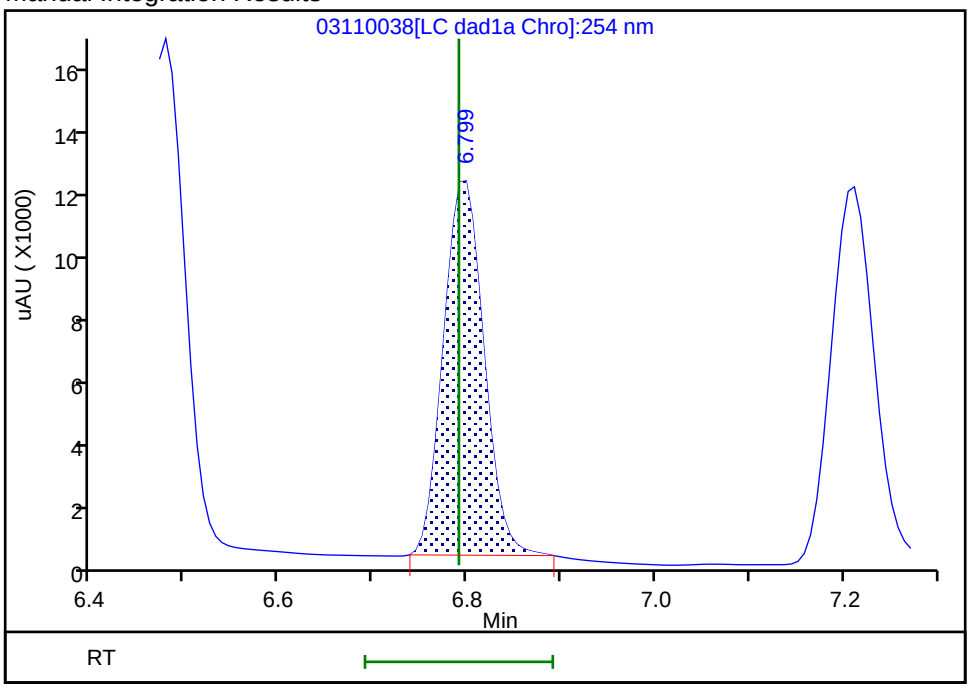
Processing Integration Results

RT: 6.80
Area: 49882
Amount: 0.361168
Amount Units: ug/mL



Manual Integration Results

RT: 6.80
Area: 33829
Amount: 0.244937
Amount Units: ug/mL



Reviewer: zhangji, 12-Mar-2022 10:31:42
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

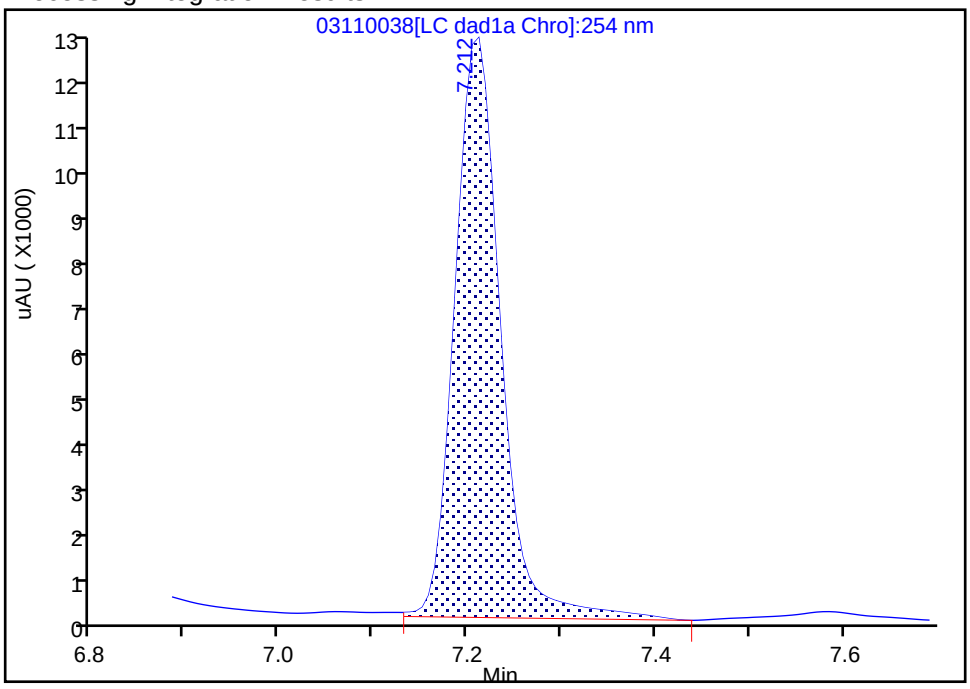
Data File:	\\chromfs\denver\chromdata\chhplc_x\20220311-109174.b\03110038.d				
Injection Date:	12-Mar-2022 01:29:36	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV DMT				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	9	Worklist Smp#:	38
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

7 MNX, CAS: 5755-27-1

Signal: 1

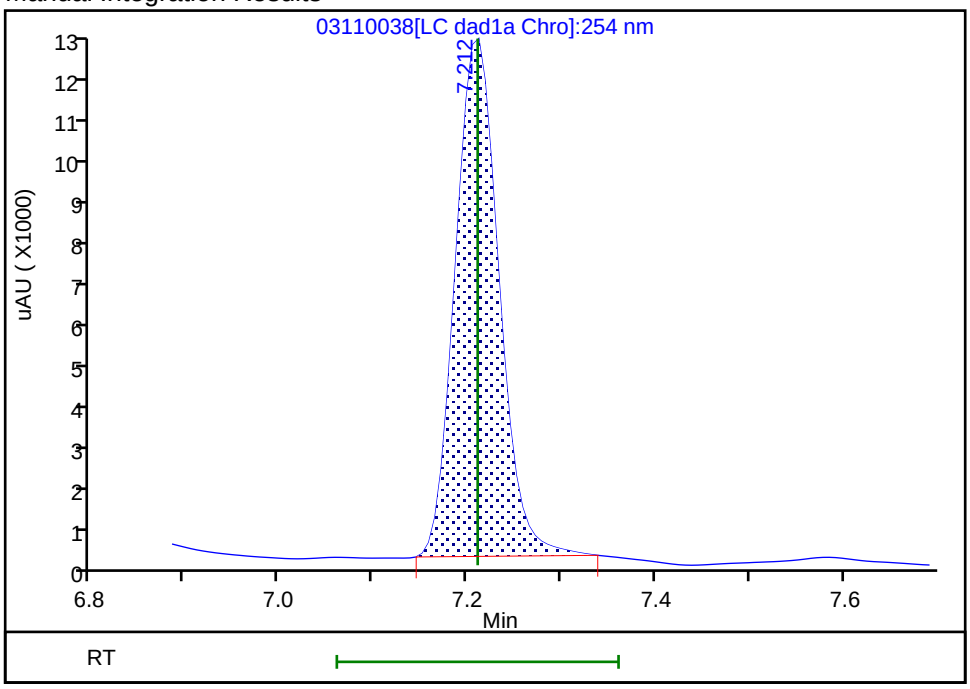
Processing Integration Results

RT: 7.21
Area: 39065
Amount: 0.310051
Amount Units: ug/mL



Manual Integration Results

RT: 7.21
Area: 36713
Amount: 0.291384
Amount Units: ug/mL



Reviewer: zhangji, 12-Mar-2022 10:31:45
Audit Action: Manually Integrated Audit Reason: Baseline

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Lab Sample ID: CCV 280-568433/39 Calibration Date: 03/12/2022 01:52

Instrument ID: CHHPLC_X3 Calib Start Date: 01/04/2022 18:28

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 01/04/2022 21:31

Lab File ID: 03110039.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
HMX	Ave	83827	85080		254	250	1.5	15.0
RDX	Ave	103609	106816		258	250	3.1	15.0
Picric acid	Ave	77039	79956		259	250	3.8	15.0
1,3,5-Trinitrobenzene	Ave	218096	226667		260	251	3.9	15.0
1,3-Dinitrobenzene	Ave	288401	299836		260	251	4.0	15.0
Nitrobenzene	Ave	191953	190139		249	251	-0.9	15.0
Tetryl	Ave	170567	166822		245	251	-2.2	15.0
Nitroglycerin	Ave	63037	65985		2620	2500	4.7	15.0
2,4,6-Trinitrotoluene	Ave	202726	200084		248	251	-1.3	15.0
4-Amino-2,6-dinitrotoluene	Ave	150985	149019		247	250	-1.3	15.0
2-Amino-4,6-dinitrotoluene	Ave	202171	198741		247	251	-1.7	15.0
2,6-Dinitrotoluene	Ave	143115	145849		256	251	1.9	15.0
2,4-Dinitrotoluene	Ave	289351	293550		255	251	1.5	15.0
2-Nitrotoluene	Ave	127614	121988		239	250	-4.4	15.0
4-Nitrotoluene	Ave	106235	107609		254	251	1.3	15.0
3-Nitrotoluene	Ave	142273	133051		234	250	-6.5	15.0
PETN	Lin2		73682		2520	2500	0.8	15.0
1,2-Dinitrobenzene	Ave	124698	129232		259	250	3.6	15.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Lab Sample ID: CCV 280-568433/39 Calibration Date: 03/12/2022 01:52

Instrument ID: CHHPLC_X3 Calib Start Date: 01/04/2022 18:28

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 01/04/2022 21:31

Lab File ID: 03110039.D

Analyte	RT	RT WINDOW	
		FROM	TO
HMX	6.59	6.45	6.75
RDX	7.59	7.43	7.73
Picric acid	7.94	7.78	8.08
1,3,5-Trinitrobenzene	8.66	8.51	8.81
1,3-Dinitrobenzene	9.28	9.13	9.43
Nitrobenzene	9.67	9.52	9.82
Tetryl	9.98	9.83	10.13
Nitroglycerin	10.43	10.29	10.59
2,4,6-Trinitrotoluene	10.89	10.79	10.99
4-Amino-2,6-dinitrotoluene	11.07	10.97	11.17
2-Amino-4,6-dinitrotoluene	11.33	11.22	11.42
2,6-Dinitrotoluene	11.49	11.40	11.60
2,4-Dinitrotoluene	11.66	11.56	11.76
2-Nitrotoluene	12.51	12.36	12.66
4-Nitrotoluene	12.93	12.79	13.09
3-Nitrotoluene	13.50	13.35	13.65
PETN	14.55	14.41	14.71
1,2-Dinitrobenzene	8.53	8.38	8.68

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20220311-109174.b\03110039.D
Lims ID: CCV INT
Client ID:
Sample Type: CCV
Inject. Date: 12-Mar-2022 01:52:30 ALS Bottle#: 7 Worklist Smp#: 39
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: CCV INT
Misc. Info.: 280-0109174-039
Operator ID: JZ Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub9

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20220311-109174.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 12-Mar-2022 10:32:01 Calib Date: 05-Jan-2022 04:24:15
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040037.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1616

First Level Reviewer: zhangji Date: 12-Mar-2022 10:31:50

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
4 HMX	1	6.592	6.595	-0.003	21270	0.2500	0.2537	
8 RDX	1	7.586	7.582	0.004	26704	0.2500	0.2577	
9 2,4,6-Trinitrophenol	1	7.939	7.929	0.010	19989	0.2500	0.2595	
$ 10 1,2-Dinitrobenzene	1	8.532	8.529	0.003	32308	0.2500	0.2591	
11 1,3,5-Trinitrobenzene	1	8.659	8.655	0.004	56780	0.2505	0.2603	
12 1,3-Dinitrobenzene	1	9.279	9.282	-0.003	75109	0.2505	0.2604	
13 Nitrobenzene	1	9.666	9.668	-0.002	47725	0.2510	0.2486	
15 Tetryl	1	9.979	9.982	-0.003	41789	0.2505	0.2450	
16 Nitroglycerin	2	10.432	10.435	-0.003	164962	2.50	2.62	
17 2,4,6-Trinitrotoluene	1	10.886	10.888	-0.002	50221	0.2510	0.2477	
18 4-Amino-2,6-dinitrotoluene	1	11.072	11.068	0.004	37292	0.2503	0.2470	
19 2-Amino-4,6-dinitrotoluene	1	11.326	11.322	0.004	49884	0.2510	0.2467	
20 2,6-Dinitrotoluene	1	11.492	11.495	-0.003	36608	0.2510	0.2558	
21 2,4-Dinitrotoluene	1	11.659	11.662	-0.003	73681	0.2510	0.2546	
22 o-Nitrotoluene	1	12.506	12.508	-0.002	30497	0.2500	0.2390	
23 p-Nitrotoluene	1	12.932	12.935	-0.003	26956	0.2505	0.2537	
24 m-Nitrotoluene	1	13.499	13.502	-0.003	33296	0.2503	0.2340	
25 PETN	2	14.546	14.555	-0.009	184205	2.50	2.52	

QC Flag Legend
Processing Flags

Reagents:
8330IntermStk_00070 Amount Added: 25.00 Units: uL

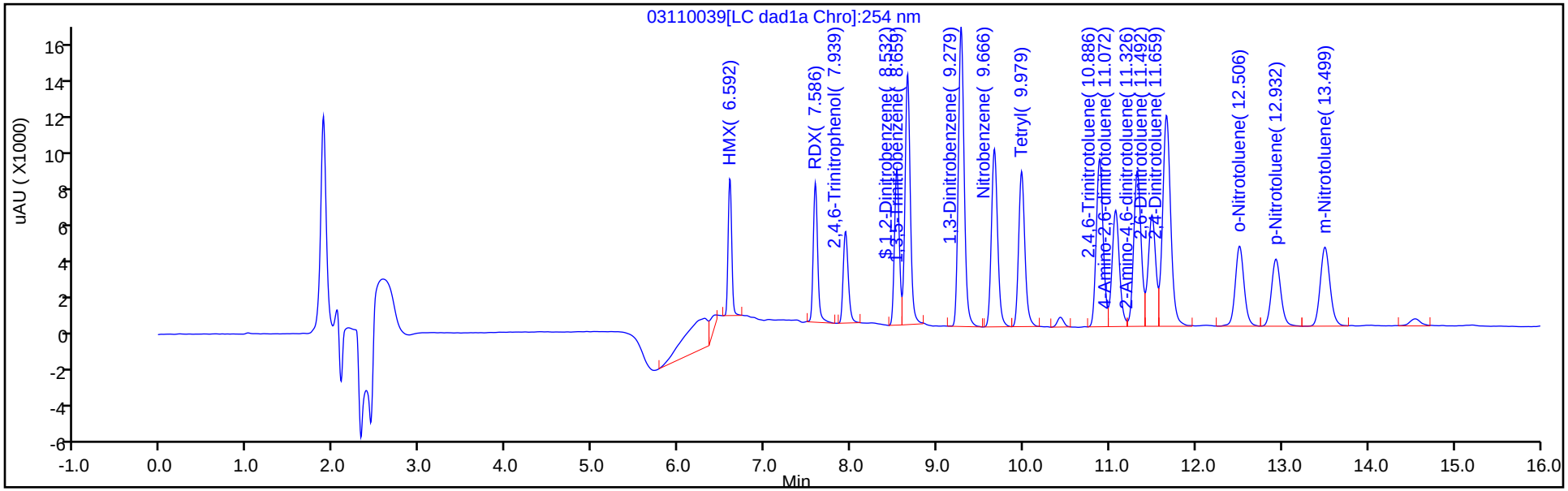
Report Date: 12-Mar-2022 10:32:02 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Denver

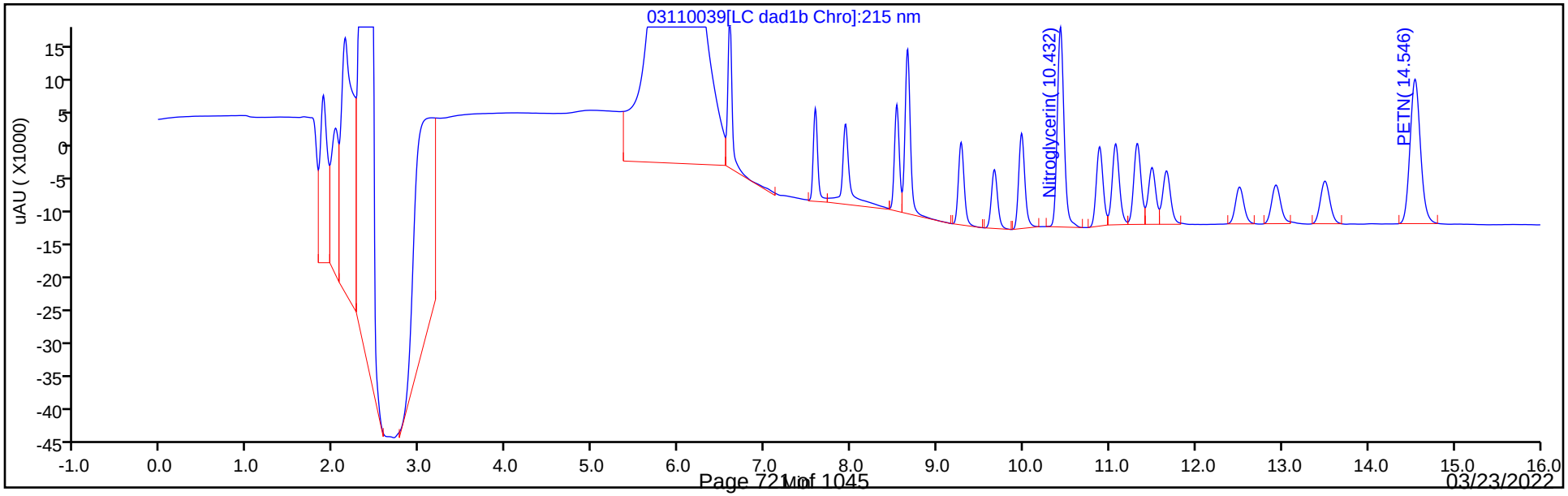
Data File: \\chromfs\denver\chromdata\chhplc_x\20220311-109174.b\03110039.d

Injection Date:	12-Mar-2022 01:52:30	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	CCV INT			Worklist Smp#:	39
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	8330_X3	Limit Group:	GCSV - 8330		

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



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



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver | Job No.: 280-159384-1

SDG No.:

Lab Sample ID: ICV 280-567560/19 | Calibration Date: 03/03/2022 02:38

Instrument ID: CHHPLC_X5 | Calib Start Date: 03/02/2022 21:22

GC Column: Luna-phenylhex ID: 4.60(mm) | Calib End Date: 03/03/2022 02:03

Lab File ID: 03020019.D | Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
HMX	Ave	166135	152908		460	500	-8.0	15.0
Picric acid	Ave	132885	149388		562	500	12.4	15.0
RDX	Ave	194331	186788		481	500	-3.9	15.0
Nitrobenzene	Ave	368293	368460		500	500	0.0	15.0
1,3-Dinitrobenzene	Ave	571666	563218		493	500	-1.5	15.0
Nitroglycerin	Ave	122518	128779		5260	5000	5.1	15.0
2-Nitrotoluene	Ave	234672	232836		496	500	-0.8	15.0
4-Nitrotoluene	Ave	210817	216650		514	500	2.8	15.0
4-Amino-2,6-dinitrotoluene	Lin2		269688		505	500	1.0	15.0
3-Nitrotoluene	Lin2		254816		480	500	-4.1	15.0
2-Amino-4,6-dinitrotoluene	Ave	360536	361200		501	500	0.2	15.0
1,3,5-Trinitrobenzene	Ave	415464	433072		521	500	4.2	15.0
2,6-Dinitrotoluene	Ave	265662	266814		502	500	0.4	15.0
2,4-Dinitrotoluene	Lin2		522322		470	500	-5.9	15.0
Tetryl	Ave	342171	323254		472	500	-5.5	15.0
2,4,6-Trinitrotoluene	Ave	369179	384614		521	500	4.2	15.0
PETN	Ave	129329	137808		5330	5000	6.6	15.0
1,2-Dinitrobenzene	Ave	249753	254466		509	500	1.9	15.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Lab Sample ID: ICV 280-567560/19 Calibration Date: 03/03/2022 02:38

Instrument ID: CHHPLC_X5 Calib Start Date: 03/02/2022 21:22

GC Column: Luna-phenylhex ID: 4.60(mm) Calib End Date: 03/03/2022 02:03

Lab File ID: 03020019.D

Analyte	RT	RT WINDOW	
		FROM	TO
HMX	6.87	6.74	7.04
Picric acid	7.62	7.45	7.75
RDX	9.08	8.97	9.27
Nitrobenzene	12.01	11.91	12.21
1,3-Dinitrobenzene	15.60	15.49	15.79
Nitroglycerin	16.04	15.91	16.21
2-Nitrotoluene	16.78	16.67	16.97
4-Nitrotoluene	17.08	16.98	17.28
4-Amino-2,6-dinitrotoluene	17.72	17.61	17.91
3-Nitrotoluene	18.06	17.95	18.25
2-Amino-4,6-dinitrotoluene	18.72	18.59	18.89
1,3,5-Trinitrobenzene	18.92	18.80	19.10
2,6-Dinitrotoluene	20.22	20.11	20.41
2,4-Dinitrotoluene	20.73	20.61	20.91
Tetryl	24.48	24.34	24.64
2,4,6-Trinitrotoluene	25.24	25.11	25.41
PETN	26.21	26.07	26.37
1,2-Dinitrobenzene	13.24	13.13	13.43

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020019.D
Lims ID: ICV INT
Client ID:
Sample Type: ICV
Inject. Date: 03-Mar-2022 02:38:50 ALS Bottle#: 19 Worklist Smp#: 19
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: ICV INT
Misc. Info.: 280-0108949-019
Operator ID: JZ Instrument ID: CHHPLC_X5
Sublist:

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 03-Mar-2022 12:52:22 Calib Date: 03-Mar-2022 02:03:29
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020018.D

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

First Level Reviewer: zhangji Date: 03-Mar-2022 12:42:44
Second Level Reviewer: zhangji Date: 03-Mar-2022 12:52:22

	Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1	2,6-diamino-4-nitrotoluene	1	4.143	4.142	0.001	223893	0.5000	0.5509	
2	2,4-diamino-6-nitrotoluene	1	4.749	4.669	0.080	110582	0.5000	0.4814	M
5	HMX	1	6.869	6.889	-0.020	76454	0.5000	0.4602	
7	2,4,6-Trinitrophenol	1	7.623	7.602	0.021	74694	0.5000	0.5621	
8	RDX	1	9.076	9.115	-0.039	93394	0.5000	0.4806	
9	Nitrobenzene	1	12.009	12.062	-0.053	184230	0.5000	0.5002	
$ 10	1,2-Dinitrobenzene	1	13.236	13.282	-0.046	127233	0.5000	0.5094	
11	3,5-Dinitroaniline	1	15.229	15.269	-0.040	225413	0.5000	0.5479	
12	1,3-Dinitrobenzene	1	15.596	15.635	-0.039	281609	0.5000	0.4926	
13	Nitroglycerin	2	16.036	16.055	-0.019	643894	5.00	5.26	
14	o-Nitrotoluene	1	16.776	16.822	-0.046	116418	0.5000	0.4961	
16	p-Nitrotoluene	1	17.083	17.129	-0.046	108325	0.5000	0.5138	
17	4-Amino-2,6-dinitrotoluene	1	17.716	17.755	-0.039	134844	0.5000	0.5048	
18	m-Nitrotoluene	1	18.056	18.102	-0.046	127408	0.5000	0.4797	
19	2-Amino-4,6-dinitrotoluene	1	18.716	18.742	-0.026	180600	0.5000	0.5009	
20	1,3,5-Trinitrobenzene	1	18.916	18.949	-0.033	216536	0.5000	0.5212	
21	2,6-Dinitrotoluene	1	20.223	20.255	-0.032	133407	0.5000	0.5022	
22	2,4-Dinitrotoluene	1	20.729	20.762	-0.033	261161	0.5000	0.4704	
23	Tetryl	1	24.476	24.489	-0.013	161627	0.5000	0.4724	
24	2,4,6-Trinitrotoluene	1	25.243	25.262	-0.019	192307	0.5000	0.5209	
25	PETN	2	26.209	26.215	-0.006	689039	5.00	5.33	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330 LCS_00111	Amount Added:	50.00	Units: uL
8330Surrogate_00127	Amount Added:	50.00	Units: uL
3,5-DNA LCS_00040	Amount Added:	50.00	Units: uL
8330DiaminLCS_00047	Amount Added:	50.00	Units: uL

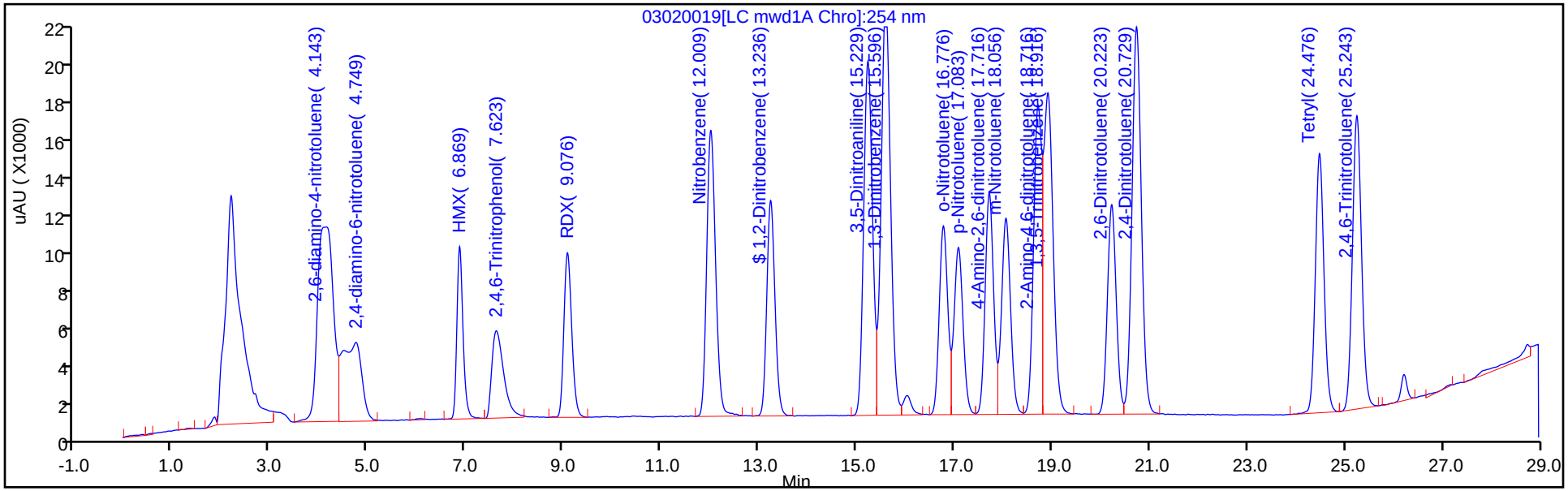
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Eurofins Denver

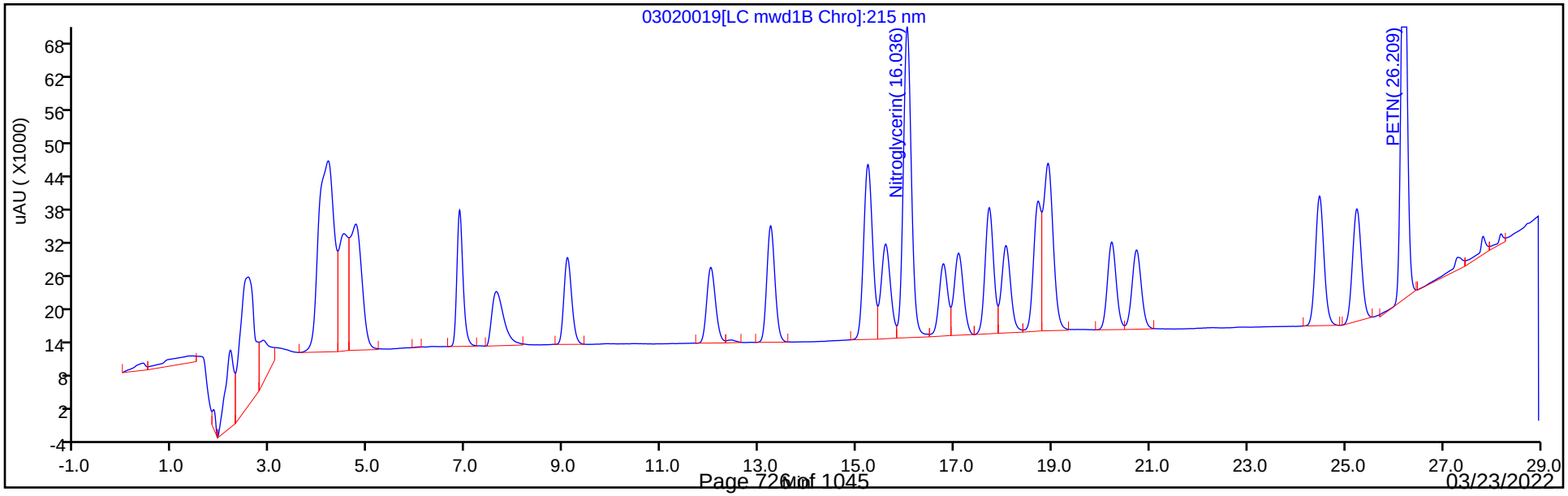
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Injection Date:	03-Mar-2022 02:38:50	Instrument ID:	CHHPLC_X5	Operator ID:	JZ
Lims ID:	ICV INT			Worklist Smp#:	19
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	19
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Lab Sample ID: ICV 280-567560/28 Calibration Date: 03/03/2022 07:54

Instrument ID: CHHPLC_X5 Calib Start Date: 03/03/2022 03:13

GC Column: Luna-phenylhex ID: 4.60(mm) Calib End Date: 03/03/2022 07:19

Lab File ID: 03020028.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
TNX	Ave	354070	354839		502	501	0.2	15.0
DNX	Ave	278639	276448		497	501	-0.8	15.0
MNX	Ave	250081	253925		592	584	1.5	15.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Lab Sample ID: ICV 280-567560/28 Calibration Date: 03/03/2022 07:54

Instrument ID: CHHPLC_X5 Calib Start Date: 03/03/2022 03:13

GC Column: Luna-phenylhex ID: 4.60(mm) Calib End Date: 03/03/2022 07:19

Lab File ID: 03020028.D

Analyte	RT	RT WINDOW	
		FROM	TO
TNX	5.16	5.02	5.32
DNX	6.02	5.88	6.18
MNX	7.61	7.48	7.78

Eurofins Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020028.D				
Lims ID:	ICV DMT				
Client ID:					
Sample Type:	ICV				
Inject. Date:	03-Mar-2022 07:54:47	ALS Bottle#:	28	Worklist Smp#:	28
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	ICV DMT				
Misc. Info.:	280-0108949-028				
Operator ID:	JZ	Instrument ID:	CHHPLC_X5		
Sublist:					
Method:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\8330_X5_Luna.m				
Limit Group:	GCSV - 8330				
Last Update:	03-Mar-2022 13:02:36	Calib Date:	03-Mar-2022 07:19:48		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020027.D				
Column 1 :	Luna-Phenyl hexyl (4.60 mm)		Det: LC mwd1A, 254 nm		
Process Host:	CTX1618				

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
3 TNX	1	5.157	5.171	-0.014	177597	0.5005	0.5016	
4 DNX	1	6.017	6.031	-0.014	138362	0.5005	0.4966	
6 MNX	1	7.610	7.625	-0.015	148165	0.5835	0.5925	

Reagents:

8330_OP_DMT_00012 Amount Added: 50.00 Units: uL

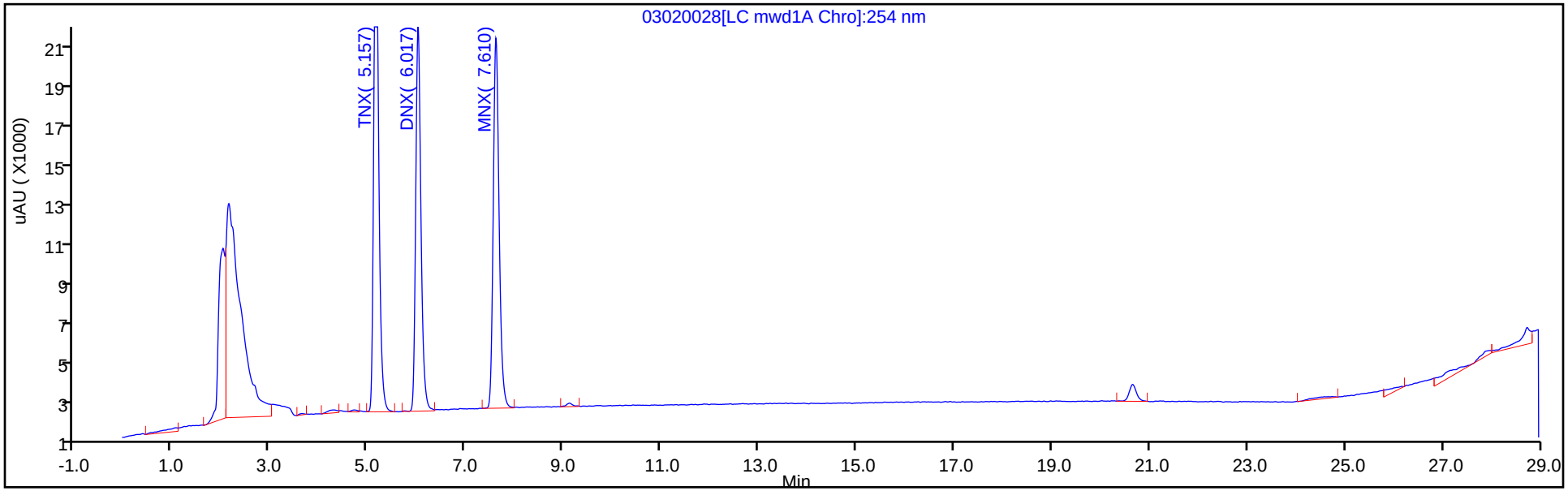
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Eurofins Denver

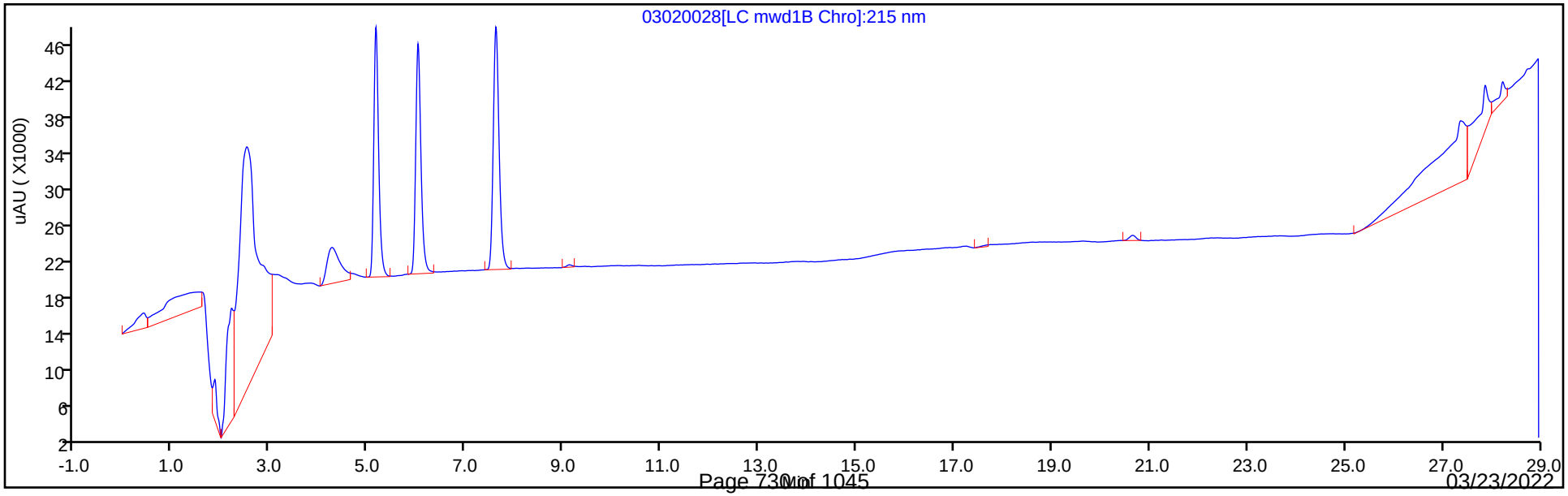
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Injection Date:	03-Mar-2022 07:54:47	Instrument ID:	CHHPLC_X5	Operator ID:	JZ
Lims ID:	ICV DMT			Worklist Smp#:	28
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	28
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver | Job No.: 280-159384-1

SDG No.:

Lab Sample ID: CCV 280-568709/7 | Calibration Date: 03/15/2022 18:07

Instrument ID: CHHPLC_X5 | Calib Start Date: 03/02/2022 21:22

GC Column: Luna-phenylhex ID: 4.60(mm) | Calib End Date: 03/03/2022 02:03

Lab File ID: 03150007.D | Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
HMX	Ave	166135	160556		242	250	-3.4	15.0
Picric acid	Ave	132885	154452		291	250	16.2*	15.0
RDX	Ave	194331	207308		267	250	6.7	15.0
Nitrobenzene	Ave	368293	393968		268	251	7.0	15.0
1,3-Dinitrobenzene	Ave	571666	589621		258	251	3.1	15.0
Nitroglycerin	Ave	122518	118026		2410	2500	-3.7	15.0
2-Nitrotoluene	Ave	234672	237088		253	250	1.0	15.0
4-Nitrotoluene	Ave	210817	215904		257	251	2.4	15.0
4-Amino-2,6-dinitrotoluene	Lin2		274158		257	250	2.7	15.0
3-Nitrotoluene	Lin2		272659		257	250	2.8	15.0
2-Amino-4,6-dinitrotoluene	Ave	360536	379841		264	251	5.4	15.0
1,3,5-Trinitrobenzene	Ave	415464	426471		257	251	2.6	15.0
2,6-Dinitrotoluene	Ave	265662	271351		256	251	2.1	15.0
2,4-Dinitrotoluene	Lin2		571781		253	251	0.9	15.0
Tetryl	Ave	342171	318355		233	251	-7.0	15.0
2,4,6-Trinitrotoluene	Ave	369179	381538		259	251	3.3	15.0
PETN	Ave	129329	134966		2610	2500	4.4	15.0
1,2-Dinitrobenzene	Ave	249753	255028		255	250	2.1	15.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Lab Sample ID: CCV 280-568709/7 Calibration Date: 03/15/2022 18:07

Instrument ID: CHHPLC_X5 Calib Start Date: 03/02/2022 21:22

GC Column: Luna-phenylhex ID: 4.60(mm) Calib End Date: 03/03/2022 02:03

Lab File ID: 03150007.D

Analyte	RT	RT WINDOW	
		FROM	TO
HMX	6.85	6.70	7.00
Picric acid	8.31	8.16	8.46
RDX	9.05	8.90	9.20
Nitrobenzene	11.96	11.81	12.11
1,3-Dinitrobenzene	15.51	15.36	15.66
Nitroglycerin	15.91	15.76	16.06
2-Nitrotoluene	16.64	16.49	16.79
4-Nitrotoluene	16.95	16.80	17.10
4-Amino-2,6-dinitrotoluene	17.57	17.42	17.72
3-Nitrotoluene	17.91	17.76	18.06
2-Amino-4,6-dinitrotoluene	18.58	18.43	18.73
1,3,5-Trinitrobenzene	18.79	18.64	18.94
2,6-Dinitrotoluene	20.05	19.90	20.20
2,4-Dinitrotoluene	20.57	20.42	20.72
Tetryl	24.31	24.16	24.46
2,4,6-Trinitrotoluene	25.07	24.92	25.22
PETN	26.07	25.92	26.22
1,2-Dinitrobenzene	13.16	13.01	13.31

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220315-109260.b\03150007.D
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 15-Mar-2022 18:07:51 ALS Bottle#: 7 Worklist Smp#: 7
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: CCV
Misc. Info.: 280-0109260-007
Operator ID: JZ Instrument ID: CHHPLC_X5
Sublist: chrom-8330_X5_Luna*sub1

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20220315-109260.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 16-Mar-2022 12:38:49 Calib Date: 03-Mar-2022 07:19:48
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1609

First Level Reviewer: zhangji Date: 15-Mar-2022 19:51:13

	Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
	1 2,6-diamino-4-nitrotoluene	1	4.134	4.134	0.000	90993	0.2500	0.2239	M
	2 2,4-diamino-6-nitrotoluene	1	4.714	4.621	0.093	30681	0.2500	0.1282	M
	5 HMX	1	6.854	6.854	0.000	40139	0.2500	0.2416	
	7 2,4,6-Trinitrophenol	1	8.314	8.314	0.000	38613	0.2500	0.2906	
	8 RDX	1	9.054	9.054	0.000	51827	0.2500	0.2667	
	9 Nitrobenzene	1	11.960	11.960	0.000	98886	0.2510	0.2685	
$	10 1,2-Dinitrobenzene	1	13.160	13.160	0.000	63757	0.2500	0.2553	
	11 3,5-Dinitroaniline	1	15.154	15.154	0.000	107070	0.2500	0.2601	
	12 1,3-Dinitrobenzene	1	15.514	15.514	0.000	147700	0.2505	0.2584	
	13 Nitroglycerin	2	15.914	15.914	0.000	295064	2.50	2.41	M
	14 o-Nitrotoluene	1	16.640	16.640	0.000	59272	0.2500	0.2526	
	16 p-Nitrotoluene	1	16.954	16.954	0.000	54084	0.2505	0.2565	
	17 4-Amino-2,6-dinitrotoluene	1	17.574	17.574	0.000	68608	0.2503	0.2570	
	18 m-Nitrotoluene	1	17.914	17.914	0.000	68233	0.2503	0.2572	
	19 2-Amino-4,6-dinitrotoluene	1	18.580	18.580	0.000	95340	0.2510	0.2644	
	20 1,3,5-Trinitrobenzene	1	18.794	18.794	0.000	106831	0.2505	0.2571	
	21 2,6-Dinitrotoluene	1	20.054	20.054	0.000	68109	0.2510	0.2564	
	22 2,4-Dinitrotoluene	1	20.574	20.574	0.000	143517	0.2510	0.2532	
	23 Tetryl	1	24.307	24.307	0.000	79748	0.2505	0.2331	
	24 2,4,6-Trinitrotoluene	1	25.074	25.074	0.000	95766	0.2510	0.2594	
	25 PETN	2	26.074	26.074	0.000	337414	2.50	2.61	M

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330IntermStk_00070	Amount Added:	25.00	Units: uL
8330_ADDs_00031	Amount Added:	12.50	Units: uL

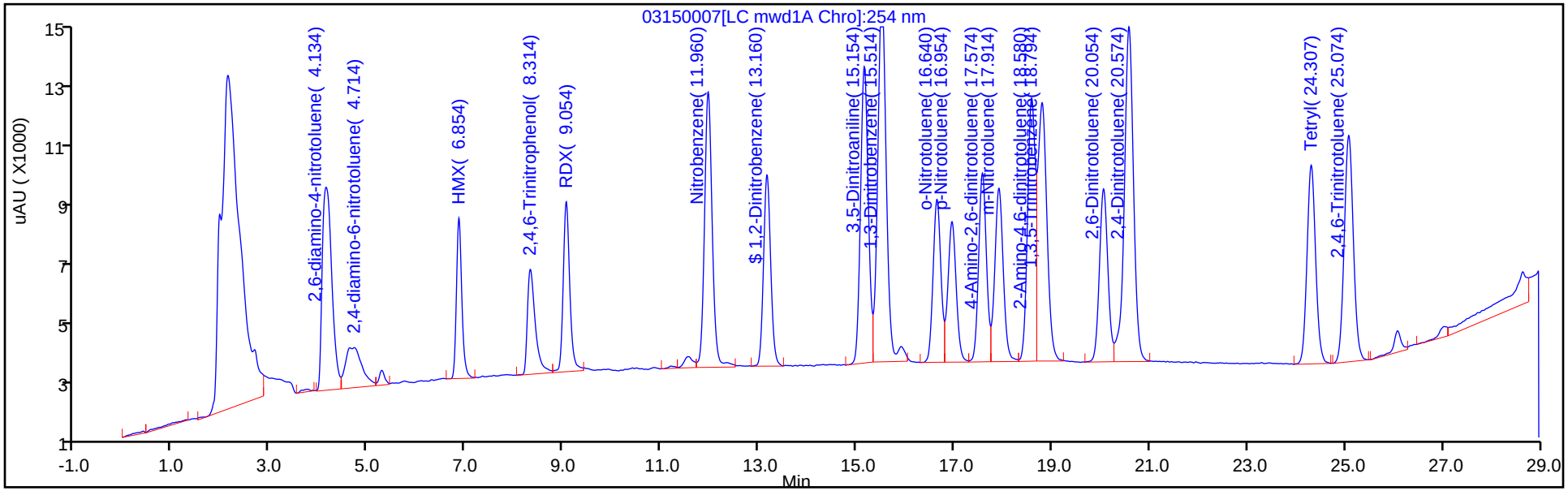
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Eurofins Denver

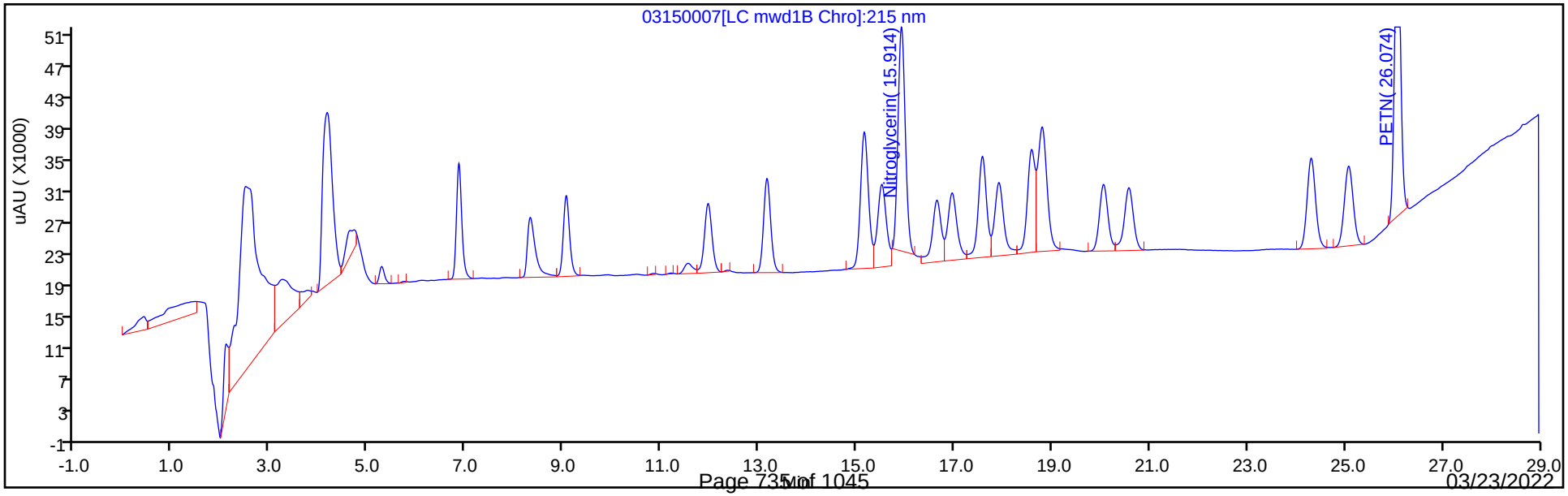
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Injection Date:	15-Mar-2022 18:07:51	Instrument ID:	CHHPLC_X5	Operator ID:	JZ
Lims ID:	CCV			Worklist Smp#:	7
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

Eurofins Denver

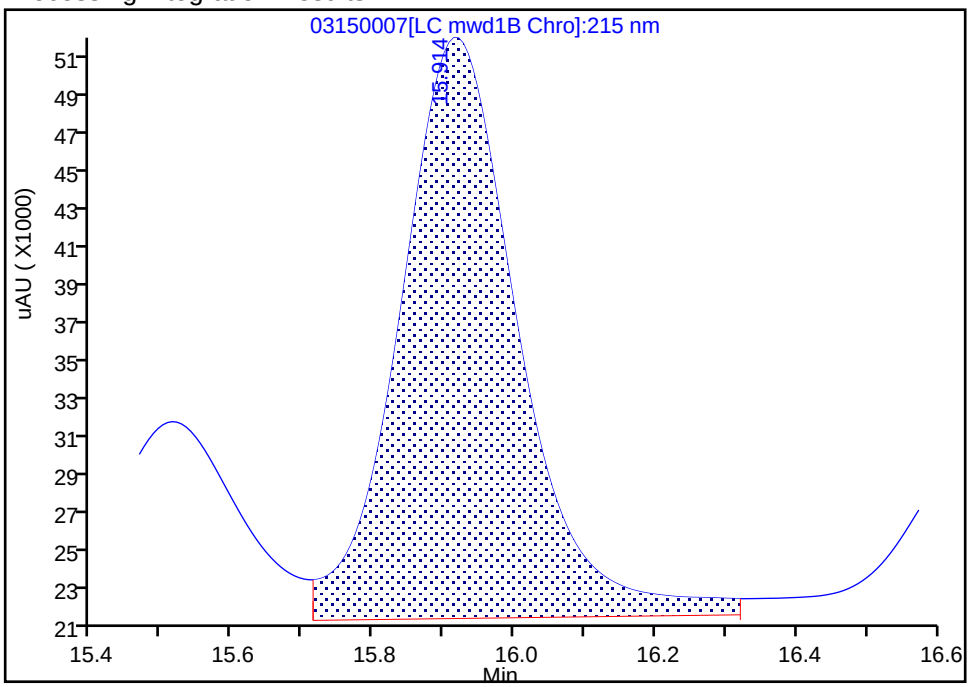
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Injection Date: 15-Mar-2022 18:07:51 Instrument ID: CHHPLC_X5
Lims ID: CCV
Client ID:
Operator ID: JZ ALS Bottle#: 7 Worklist Smp#: 7
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X5_Luna Limit Group: GCSV - 8330
Column: Detector LC mwd1B, 215 nm

13 Nitroglycerin, CAS: 55-63-0

Signal: 1

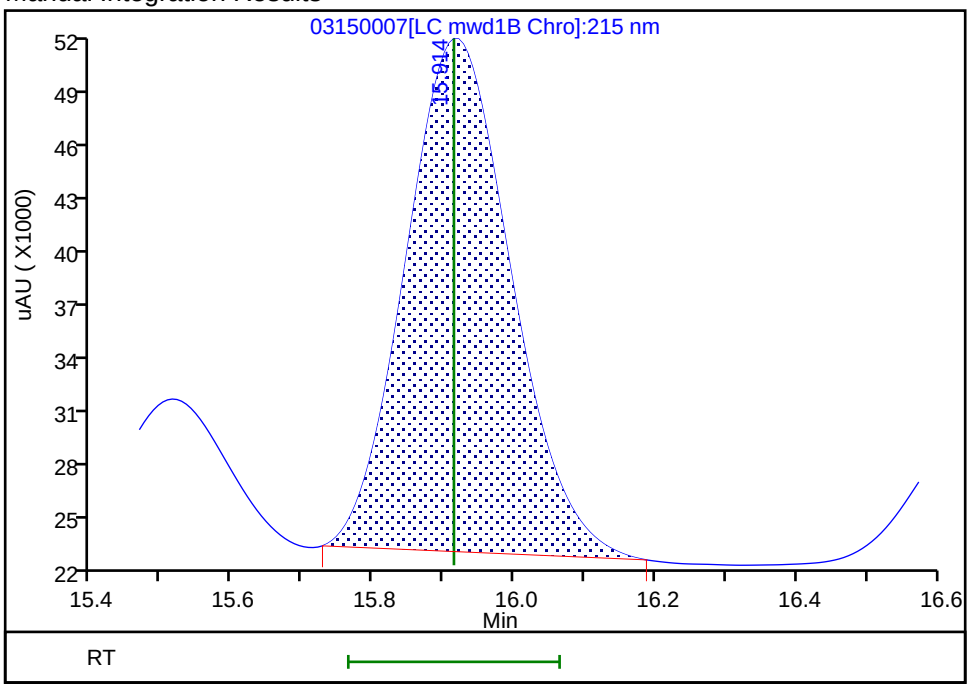
Processing Integration Results

RT: 15.91
Area: 350983
Amount: 2.864751
Amount Units: ug/ml



Manual Integration Results

RT: 15.91
Area: 295064
Amount: 2.408336
Amount Units: ug/ml



Reviewer: zhangji, 15-Mar-2022 18:53:40
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

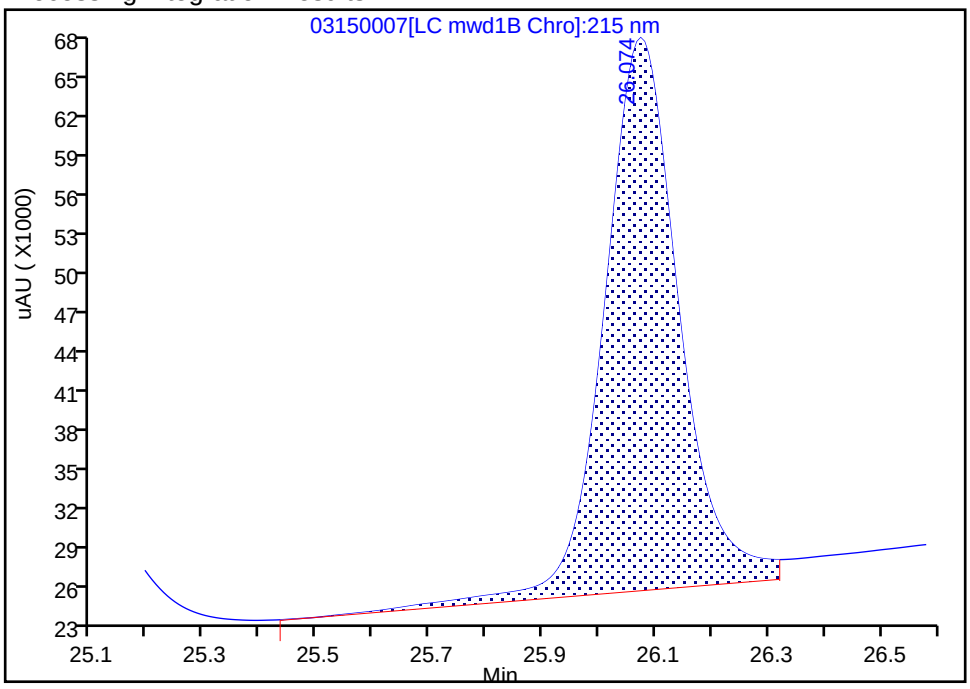
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Injection Date: 15-Mar-2022 18:07:51 Instrument ID: CHHPLC_X5
Lims ID: CCV
Client ID:
Operator ID: JZ ALS Bottle#: 7 Worklist Smp#: 7
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X5_Luna Limit Group: GCSV - 8330
Column: Detector LC mwd1B, 215 nm

25 PETN, CAS: 78-11-5

Signal: 1

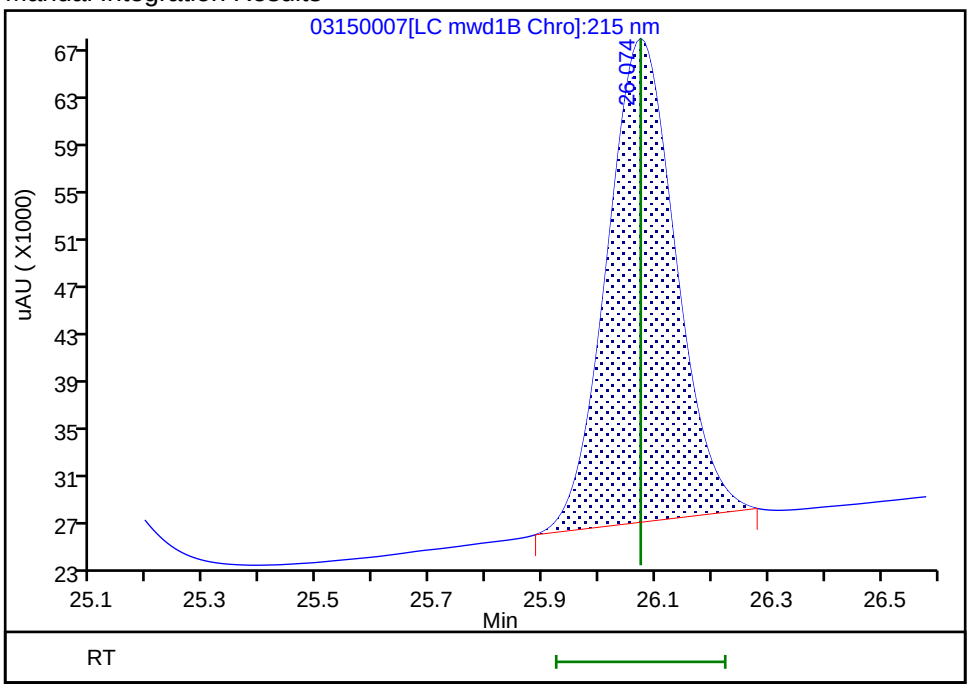
Processing Integration Results

RT: 26.07
Area: 381533
Amount: 2.950092
Amount Units: ug/ml



Manual Integration Results

RT: 26.07
Area: 337414
Amount: 2.608955
Amount Units: ug/ml



Reviewer: zhangji, 15-Mar-2022 18:53:44
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Lab Sample ID: CCV 280-568709/8 Calibration Date: 03/15/2022 18:42

Instrument ID: CHHPLC_X5 Calib Start Date: 03/03/2022 03:13

GC Column: Luna-phenylhex ID: 4.60(mm) Calib End Date: 03/03/2022 07:19

Lab File ID: 03150008.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
TNX	Ave	354070	361339		255	250	2.1	15.0
DNX	Ave	278639	272464		245	250	-2.2	15.0
MNX	Ave	250081	255208		298	292	2.1	15.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Lab Sample ID: CCV 280-568709/8 Calibration Date: 03/15/2022 18:42

Instrument ID: CHHPLC_X5 Calib Start Date: 03/03/2022 03:13

GC Column: Luna-phenylhex ID: 4.60(mm) Calib End Date: 03/03/2022 07:19

Lab File ID: 03150008.D

Analyte	RT	RT WINDOW	
		FROM	TO
TNX	5.16	5.01	5.31
DNX	6.01	5.86	6.16
MNX	7.58	7.43	7.73

Eurofins Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220315-109260.b\03150008.D				
Lims ID:	CCV DMT				
Client ID:					
Sample Type:	CCV				
Inject. Date:	15-Mar-2022 18:42:58	ALS Bottle#:	8	Worklist Smp#:	8
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	CCV DMT				
Misc. Info.:	280-0109260-008				
Operator ID:	JZ	Instrument ID:	CHHPLC_X5		
Sublist:	chrom-8330_X5_Luna*sub2				
Method:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220315-109260.b\8330_X5_Luna.m				
Limit Group:	GCSV - 8330				
Last Update:	16-Mar-2022 12:38:49	Calib Date:	03-Mar-2022 07:19:48		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020027.D				
Column 1 :	Luna-Phenyl hexyl (4.60 mm)		Det: LC mwd1A, 254 nm		
Process Host:	CTX1609				
First Level Reviewer: zhangji		Date:	15-Mar-2022 19:51:33		

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
3 TNX	1	5.161	5.161	0.000	90425	0.2503	0.2554	M
4 DNX	1	6.007	6.007	0.000	68184	0.2503	0.2447	M
6 MNX	1	7.581	7.581	0.000	74457	0.2918	0.2977	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330 DMT_00010 Amount Added: 12.50 Units: uL

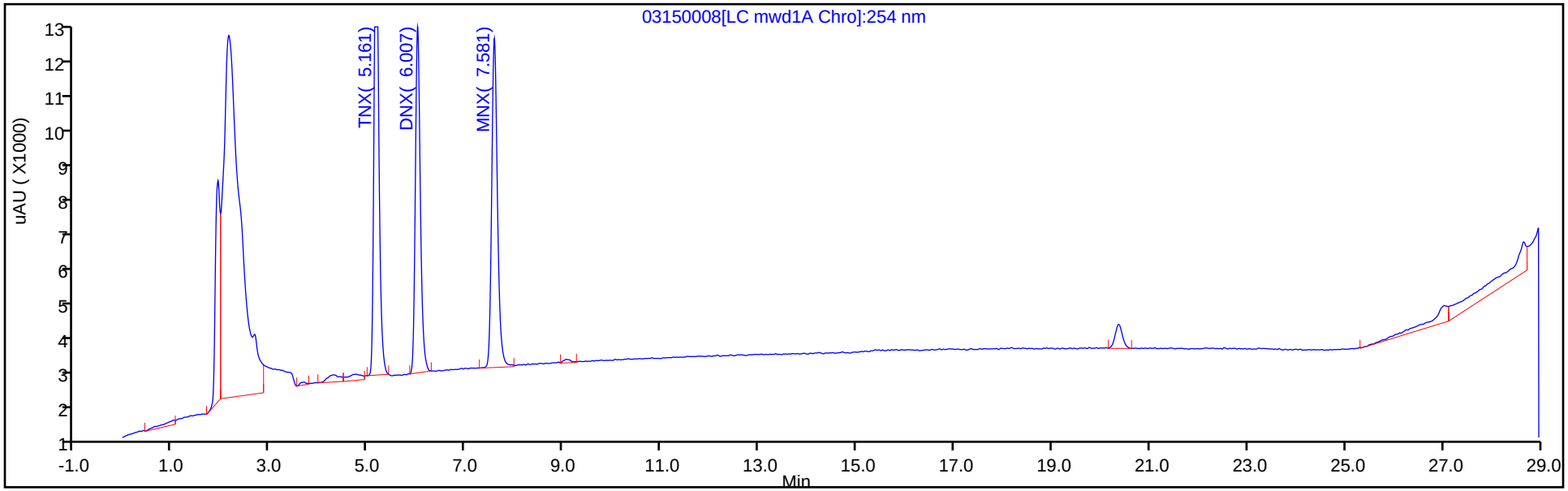
Report Date: 16-Mar-2022 12:38:49 Chrom Revision: 2.3 14-Mar-2022 17:58:38

Eurofins Denver

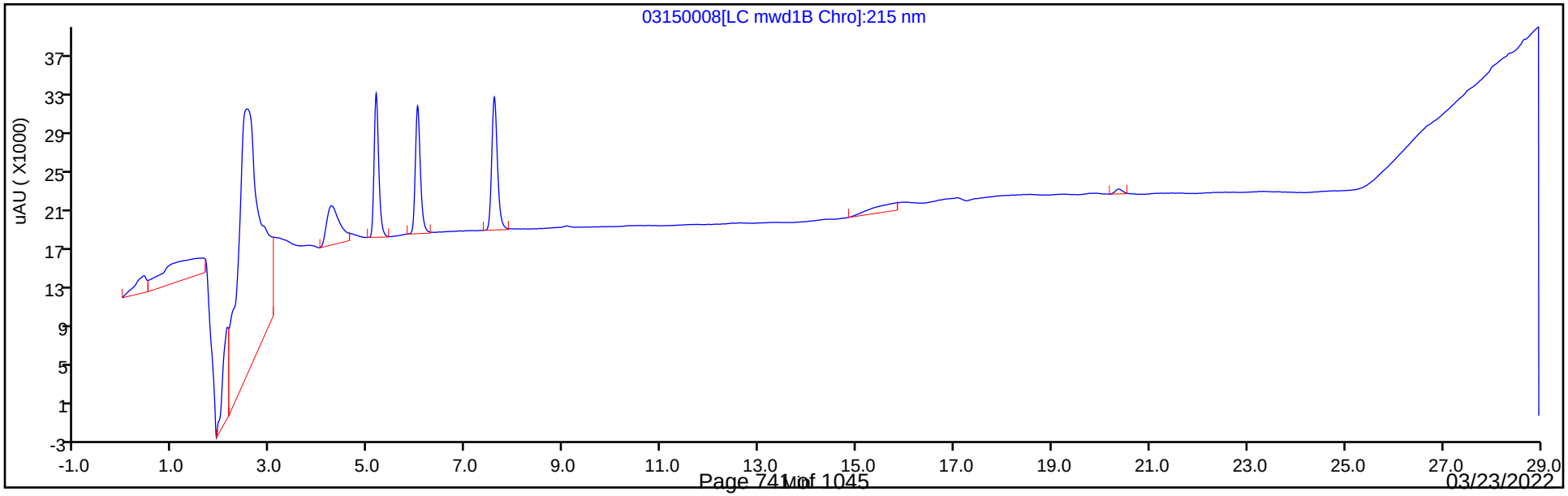
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Injection Date:	15-Mar-2022 18:42:58	Instrument ID:	CHHPLC_X5	Operator ID:	JZ
Lims ID:	CCV DMT			Worklist Smp#:	8
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	8
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

Eurofins Denver

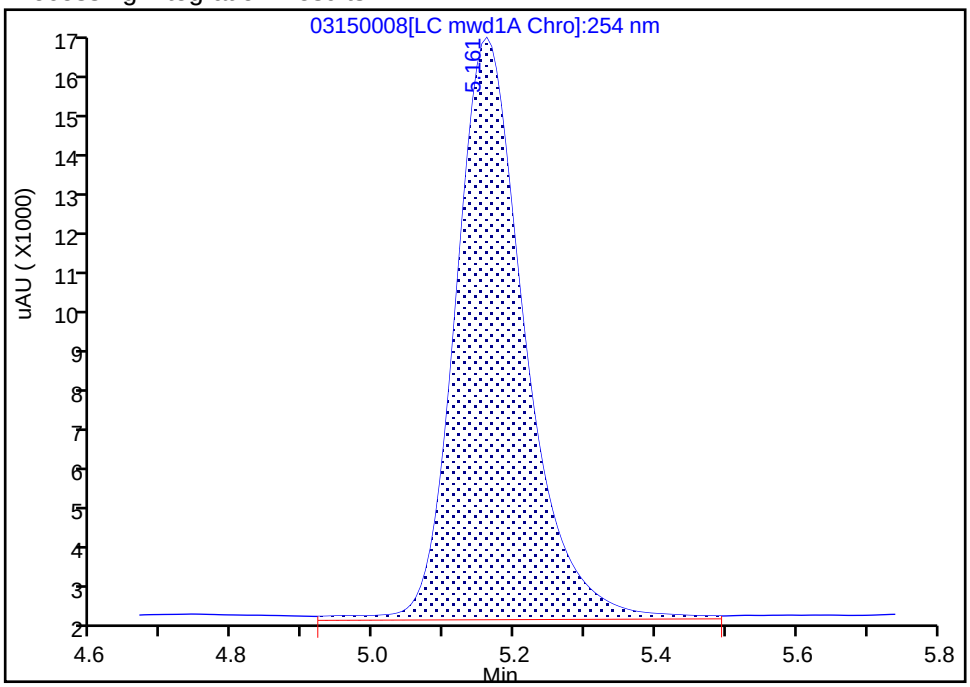
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220315-109260.b\03150008.D
Injection Date: 15-Mar-2022 18:42:58 Instrument ID: CHHPLC_X5
Lims ID: CCV DMT
Client ID:
Operator ID: JZ ALS Bottle#: 8 Worklist Smp#: 8
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X5_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC mwd1A, 254 nm

3 TNX, CAS: 13980-04-6

Signal: 1

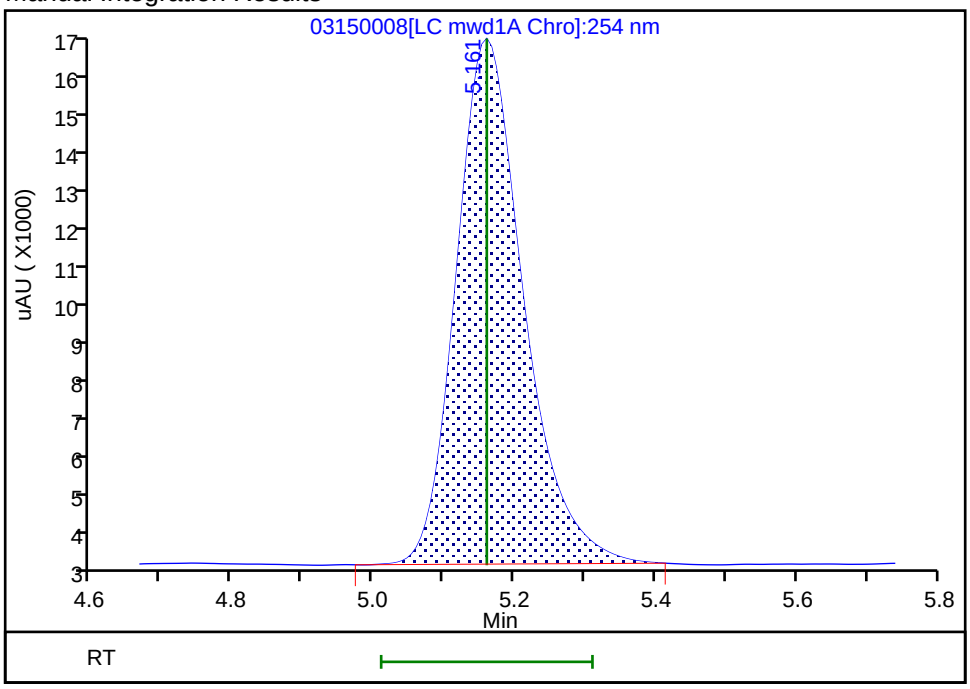
Processing Integration Results

RT: 5.16
Area: 94007
Amount: 0.265504
Amount Units: ug/ml



Manual Integration Results

RT: 5.16
Area: 90425
Amount: 0.255387
Amount Units: ug/ml



Reviewer: zhangji, 15-Mar-2022 19:51:27
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

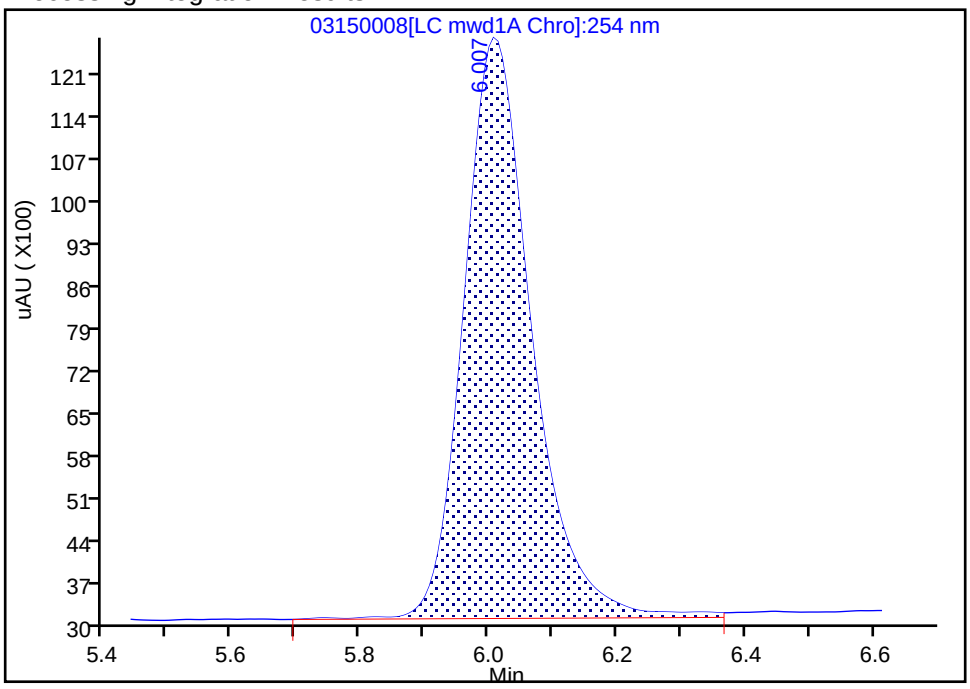
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220315-109260.b\03150008.D				
Injection Date:	15-Mar-2022 18:42:58	Instrument ID:	CHHPLC_X5		
Lims ID:	CCV DMT				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	8	Worklist Smp#:	8
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

4 DNX, CAS: 80251-29-2

Signal: 1

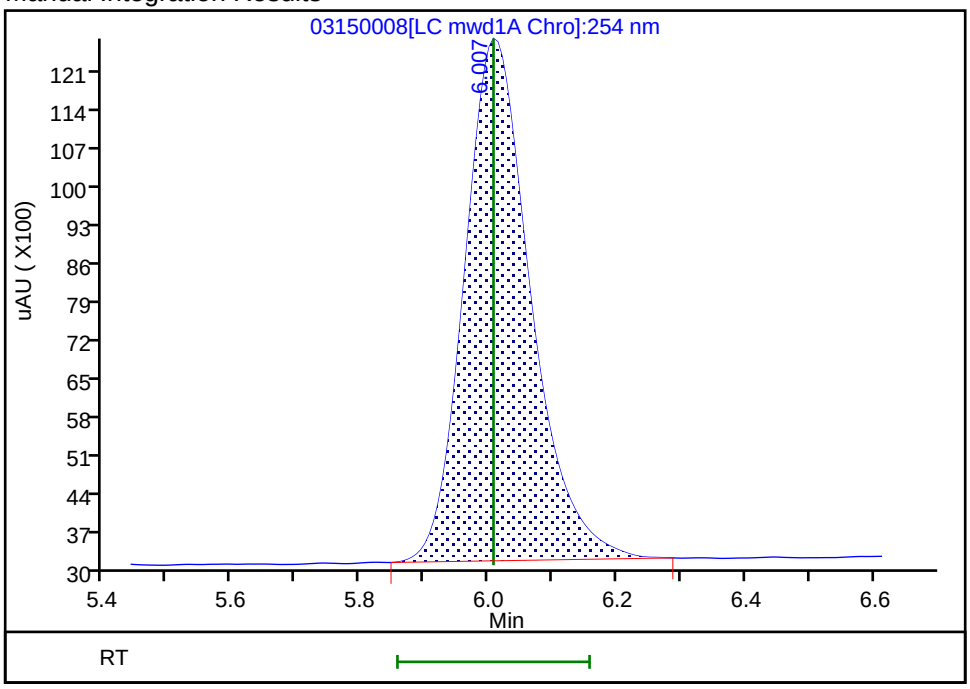
Processing Integration Results

RT: 6.01
Area: 70291
Amount: 0.252266
Amount Units: ug/ml



Manual Integration Results

RT: 6.01
Area: 68184
Amount: 0.244704
Amount Units: ug/ml



Reviewer: zhangji, 15-Mar-2022 19:51:30

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver | Job No.: 280-159384-1

SDG No.:

Lab Sample ID: CCV 280-568709/19 | Calibration Date: 03/16/2022 00:33

Instrument ID: CHHPLC_X5 | Calib Start Date: 03/02/2022 21:22

GC Column: Luna-phenylhex ID: 4.60(mm) | Calib End Date: 03/03/2022 02:03

Lab File ID: 03150019.D | Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
HMX	Ave	166135	163568		246	250	-1.5	15.0
Picric acid	Ave	132885	155240		292	250	16.8*	15.0
RDX	Ave	194331	203208		261	250	4.6	15.0
Nitrobenzene	Ave	368293	365175		249	251	-0.8	15.0
1,3-Dinitrobenzene	Ave	571666	578503		253	251	1.2	15.0
Nitroglycerin	Ave	122518	119482		2440	2500	-2.5	15.0
2-Nitrotoluene	Ave	234672	232712		248	250	-0.8	15.0
4-Nitrotoluene	Ave	210817	212695		253	251	0.9	15.0
4-Amino-2,6-dinitrotoluene	Lin2		272711		256	250	2.1	15.0
3-Nitrotoluene	Lin2		269083		254	250	1.4	15.0
2-Amino-4,6-dinitrotoluene	Ave	360536	383084		267	251	6.3	15.0
1,3,5-Trinitrobenzene	Ave	415464	430483		260	251	3.6	15.0
2,6-Dinitrotoluene	Ave	265662	271502		257	251	2.2	15.0
2,4-Dinitrotoluene	Lin2		573442		254	251	1.2	15.0
Tetryl	Ave	342171	321433		235	251	-6.1	15.0
2,4,6-Trinitrotoluene	Ave	369179	385857		262	251	4.5	15.0
PETN	Ave	129329	137890		2670	2500	6.6	15.0
1,2-Dinitrobenzene	Ave	249753	257648		258	250	3.2	15.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Lab Sample ID: CCV 280-568709/19 Calibration Date: 03/16/2022 00:33

Instrument ID: CHHPLC_X5 Calib Start Date: 03/02/2022 21:22

GC Column: Luna-phenylhex ID: 4.60(mm) Calib End Date: 03/03/2022 02:03

Lab File ID: 03150019.D

Analyte	RT	RT WINDOW	
		FROM	TO
HMX	6.82	6.70	7.00
Picric acid	8.22	8.16	8.46
RDX	9.02	8.90	9.20
Nitrobenzene	11.92	11.81	12.11
1,3-Dinitrobenzene	15.47	15.36	15.66
Nitroglycerin	15.88	15.76	16.06
2-Nitrotoluene	16.60	16.49	16.79
4-Nitrotoluene	16.92	16.80	17.10
4-Amino-2,6-dinitrotoluene	17.53	17.42	17.72
3-Nitrotoluene	17.88	17.76	18.06
2-Amino-4,6-dinitrotoluene	18.54	18.43	18.73
1,3,5-Trinitrobenzene	18.76	18.64	18.94
2,6-Dinitrotoluene	20.02	19.90	20.20
2,4-Dinitrotoluene	20.54	20.42	20.72
Tetryl	24.23	24.16	24.46
2,4,6-Trinitrotoluene	25.00	24.92	25.22
PETN	26.00	25.92	26.22
1,2-Dinitrobenzene	13.11	13.01	13.31

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220315-109260.b\03150019.D
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 16-Mar-2022 00:33:49 ALS Bottle#: 7 Worklist Smp#: 19
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: CCV
Misc. Info.: 280-0109260-019
Operator ID: JZ Instrument ID: CHHPLC_X5
Sublist: chrom-8330_X5_Luna*sub1

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20220315-109260.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 16-Mar-2022 12:38:41 Calib Date: 03-Mar-2022 07:19:48
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1609

First Level Reviewer: zhangji Date: 16-Mar-2022 12:35:46

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 2,6-diamino-4-nitrotoluene	1	4.108	4.134	-0.026	100453	0.2500	0.2471	
2 2,4-diamino-6-nitrotoluene	1	4.675	4.621	0.054	63695	0.2500	0.2741	
5 HMX	1	6.815	6.854	-0.039	40892	0.2500	0.2461	
7 2,4,6-Trinitrophenol	1	8.215	8.314	-0.099	38810	0.2500	0.2921	
8 RDX	1	9.015	9.054	-0.039	50802	0.2500	0.2614	
9 Nitrobenzene	1	11.915	11.960	-0.045	91659	0.2510	0.2489	
$ 10 1,2-Dinitrobenzene	1	13.108	13.160	-0.052	64412	0.2500	0.2579	
11 3,5-Dinitroaniline	1	15.101	15.154	-0.053	108231	0.2500	0.2629	
12 1,3-Dinitrobenzene	1	15.468	15.514	-0.046	144915	0.2505	0.2535	
13 Nitroglycerin	2	15.875	15.914	-0.039	298705	2.50	2.44	M
14 o-Nitrotoluene	1	16.601	16.640	-0.039	58178	0.2500	0.2479	
16 p-Nitrotoluene	1	16.915	16.954	-0.039	53280	0.2505	0.2527	
17 4-Amino-2,6-dinitrotoluene	1	17.528	17.574	-0.046	68246	0.2503	0.2556	
18 m-Nitrotoluene	1	17.875	17.914	-0.039	67338	0.2503	0.2539	
19 2-Amino-4,6-dinitrotoluene	1	18.535	18.580	-0.045	96154	0.2510	0.2667	
20 1,3,5-Trinitrobenzene	1	18.761	18.794	-0.033	107836	0.2505	0.2596	
21 2,6-Dinitrotoluene	1	20.015	20.054	-0.039	68147	0.2510	0.2565	
22 2,4-Dinitrotoluene	1	20.535	20.574	-0.039	143934	0.2510	0.2540	
23 Tetryl	1	24.228	24.307	-0.079	80519	0.2505	0.2353	
24 2,4,6-Trinitrotoluene	1	24.995	25.074	-0.079	96850	0.2510	0.2623	
25 PETN	2	26.002	26.074	-0.072	344724	2.50	2.67	M

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330IntermStk_00070	Amount Added:	25.00	Units: uL
8330_ADDs_00031	Amount Added:	12.50	Units: uL

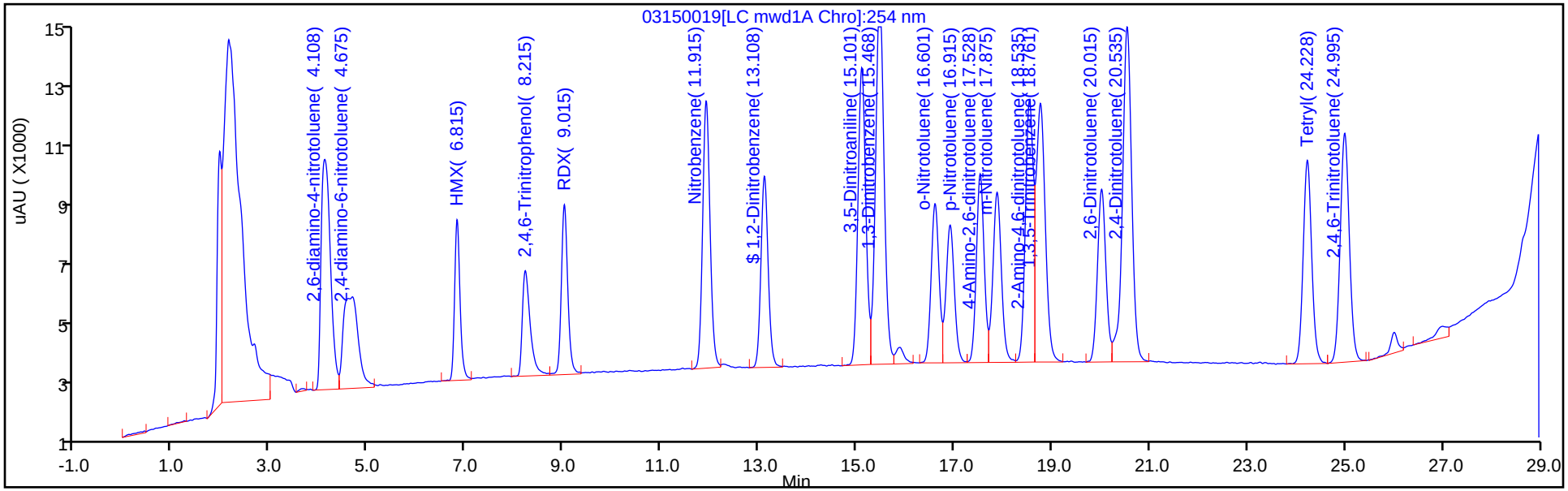
Report Date: 16-Mar-2022 12:38:41 Chrom Revision: 2.3 14-Mar-2022 17:58:38

Eurofins Denver

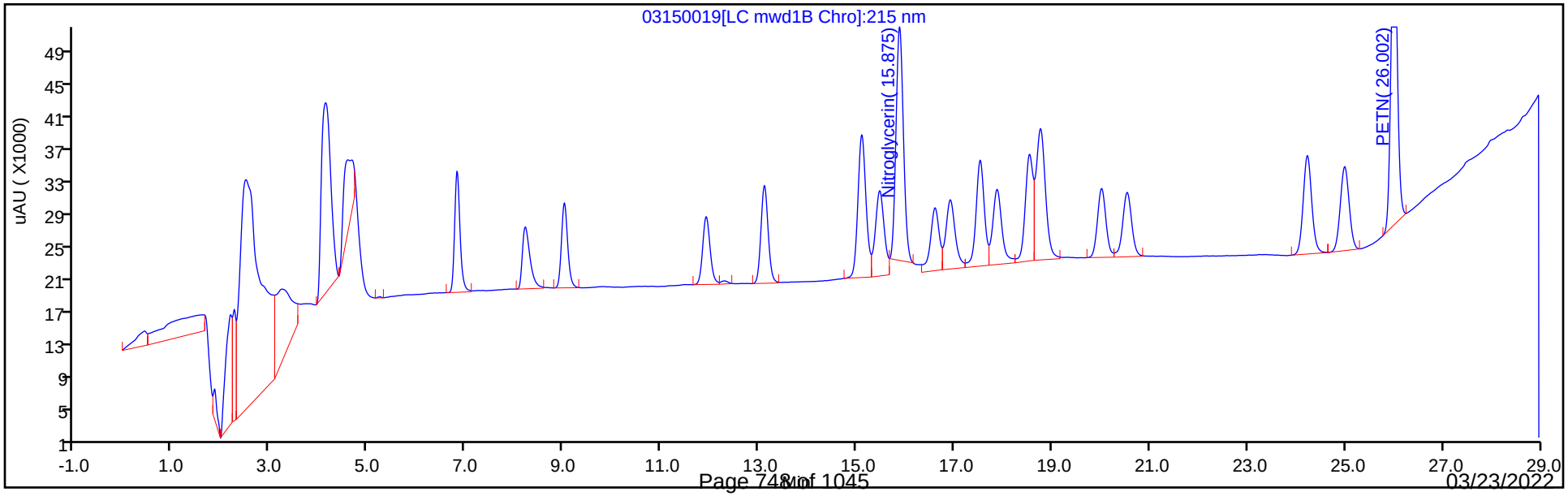
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220315-109260.b\03150019.D

Injection Date:	16-Mar-2022 00:33:49	Instrument ID:	CHHPLC_X5	Operator ID:	JZ
Lims ID:	CCV			Worklist Smp#:	19
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

Eurofins Denver

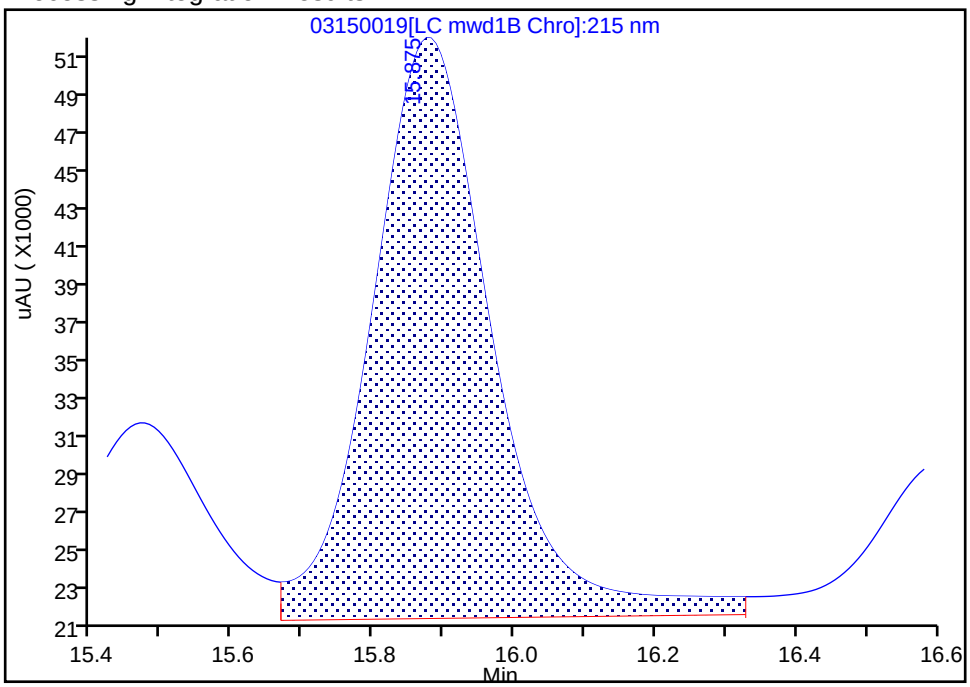
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Injection Date: 16-Mar-2022 00:33:49 Instrument ID: CHHPLC_X5
Lims ID: CCV
Client ID:
Operator ID: JZ ALS Bottle#: 7 Worklist Smp#: 19
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X5_Luna Limit Group: GCSV - 8330
Column: Detector LC mwd1B, 215 nm

13 Nitroglycerin, CAS: 55-63-0

Signal: 1

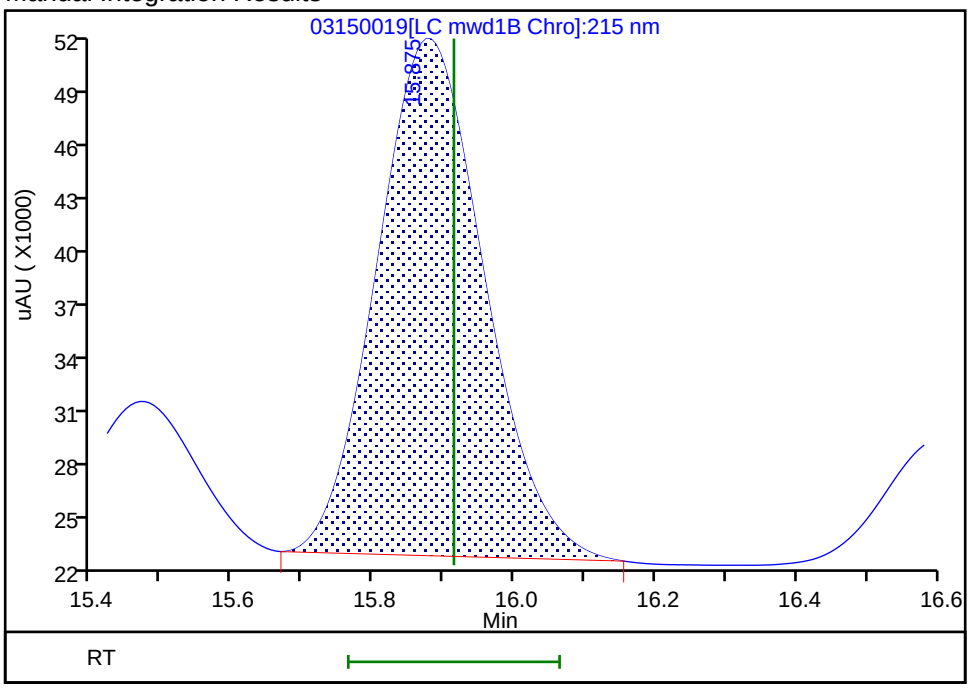
Processing Integration Results

RT: 15.87
Area: 355607
Amount: 2.902493
Amount Units: ug/ml



Manual Integration Results

RT: 15.87
Area: 298705
Amount: 2.438054
Amount Units: ug/ml



Reviewer: zhangji, 16-Mar-2022 12:35:44
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

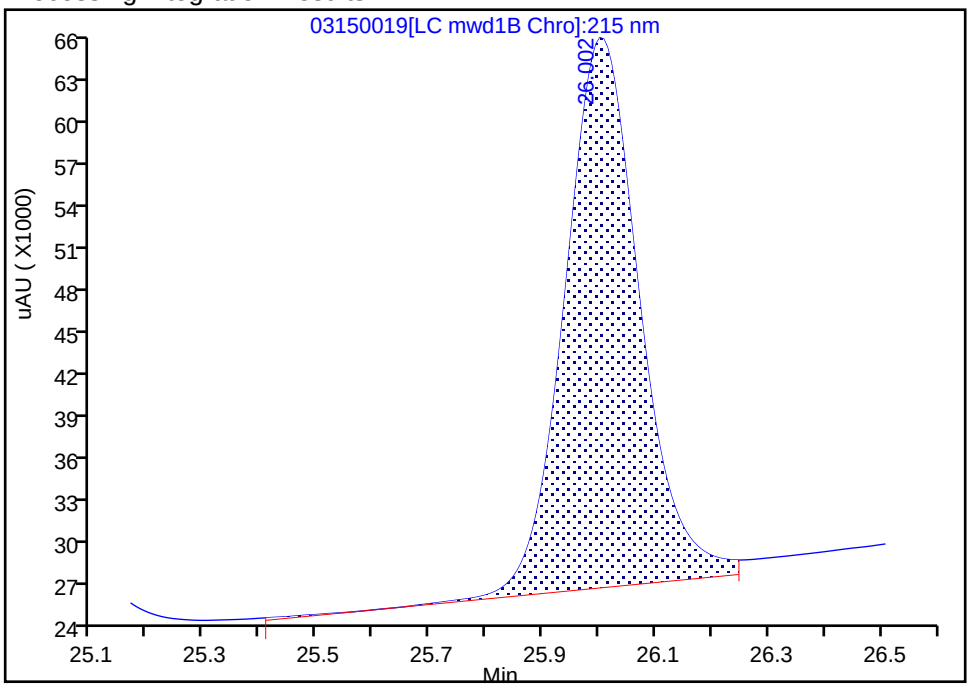
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220315-109260.b\03150019.D
Injection Date: 16-Mar-2022 00:33:49 Instrument ID: CHHPLC_X5
Lims ID: CCV
Client ID:
Operator ID: JZ ALS Bottle#: 7 Worklist Smp#: 19
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X5_Luna Limit Group: GCSV - 8330
Column: Detector LC mwd1B, 215 nm

25 PETN, CAS: 78-11-5

Signal: 1

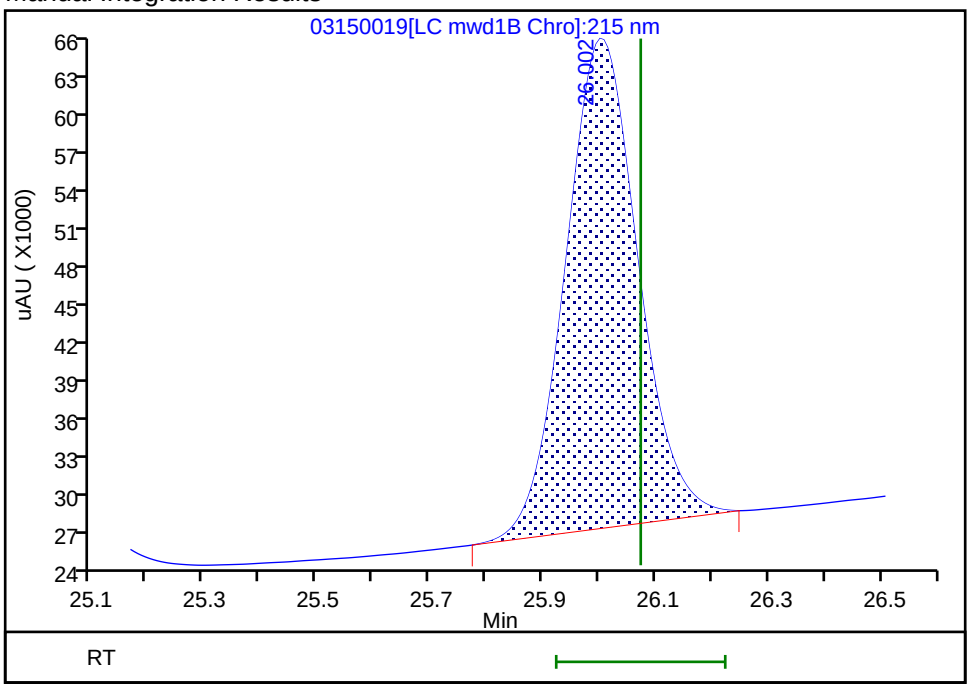
Processing Integration Results

RT: 26.00
Area: 363054
Amount: 2.807209
Amount Units: ug/ml



Manual Integration Results

RT: 26.00
Area: 344724
Amount: 2.665477
Amount Units: ug/ml



Reviewer: zhangji, 16-Mar-2022 12:35:40
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Lab Sample ID: CCV 280-568709/20 Calibration Date: 03/16/2022 01:08

Instrument ID: CHHPLC_X5 Calib Start Date: 03/03/2022 03:13

GC Column: Luna-phenylhex ID: 4.60(mm) Calib End Date: 03/03/2022 07:19

Lab File ID: 03150020.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
TNX	Ave	354070	357614		253	250	1.0	15.0
DNX	Ave	278639	277966		250	250	-0.2	15.0
MNX	Ave	250081	253580		296	292	1.4	15.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Lab Sample ID: CCV 280-568709/20 Calibration Date: 03/16/2022 01:08

Instrument ID: CHHPLC_X5 Calib Start Date: 03/03/2022 03:13

GC Column: Luna-phenylhex ID: 4.60(mm) Calib End Date: 03/03/2022 07:19

Lab File ID: 03150020.D

Analyte	RT	RT WINDOW	
		FROM	TO
TNX	5.13	5.01	5.31
DNX	5.97	5.86	6.16
MNX	7.54	7.43	7.73

Eurofins Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220315-109260.b\03150020.D				
Lims ID:	CCV DMT				
Client ID:					
Sample Type:	CCV				
Inject. Date:	16-Mar-2022 01:08:55	ALS Bottle#:	8	Worklist Smp#:	20
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	CCV DMT				
Misc. Info.:	280-0109260-020				
Operator ID:	JZ	Instrument ID:	CHHPLC_X5		
Sublist:	chrom-8330_X5_Luna*sub2				
Method:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220315-109260.b\8330_X5_Luna.m				
Limit Group:	GCSV - 8330				
Last Update:	16-Mar-2022 12:38:40	Calib Date:	03-Mar-2022 07:19:48		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20220302-108949.b\03020027.D				
Column 1 :	Luna-Phenyl hexyl (4.60 mm)		Det: LC mwd1A, 254 nm		
Process Host:	CTX1609				

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
3 TNX	1	5.134	5.161	-0.027	89493	0.2503	0.2528	
4 DNX	1	5.974	6.007	-0.033	69561	0.2503	0.2496	
6 MNX	1	7.541	7.581	-0.040	73982	0.2918	0.2958	

Reagents:

8330 DMT_00010 Amount Added: 12.50 Units: uL

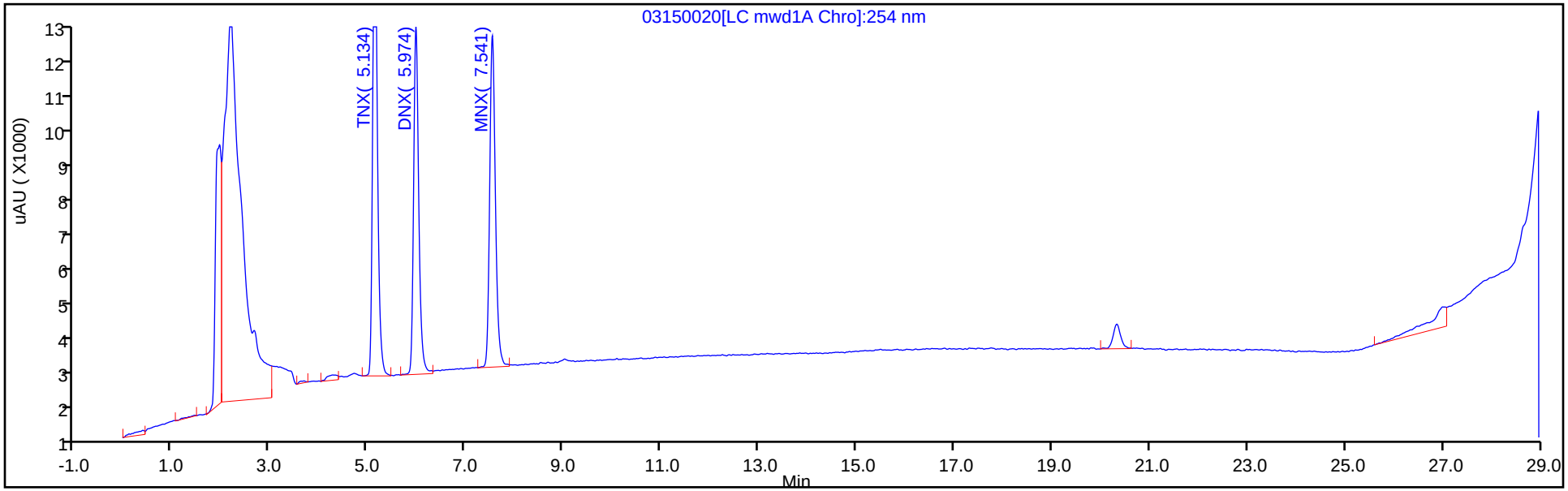
Report Date: 16-Mar-2022 12:38:40 Chrom Revision: 2.3 14-Mar-2022 17:58:38

Eurofins Denver

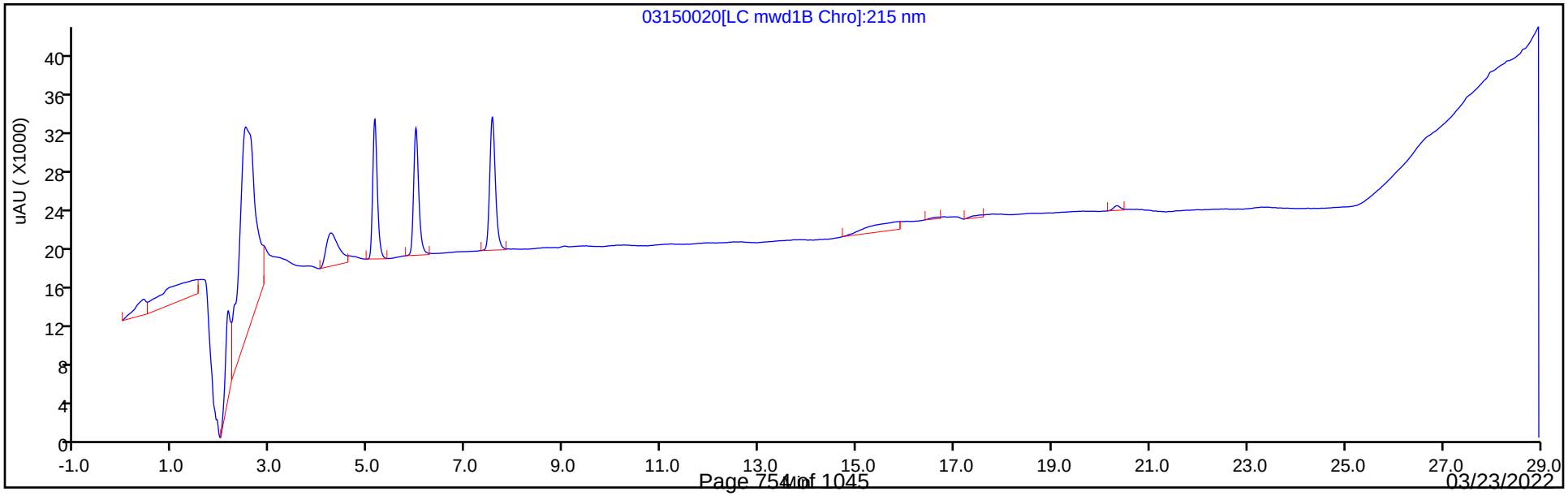
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20220315-109260.b\03150020.D

Injection Date:	16-Mar-2022 01:08:55	Instrument ID:	CHHPLC_X5	Operator ID:	JZ
Lims ID:	CCV DMT			Worklist Smp#:	20
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	8
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-159384-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 280-567953/1-A

Matrix: Water | Lab File ID: 03100051.D

Analysis Method: 8330A | Date Collected:

Extraction Method: 3535 | Date Extracted: 03/08/2022 11:19

Sample wt/vol: 500(mL) | Date Analyzed: 03/11/2022 06:45

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

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

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

Analysis Batch No.: 568287 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	0.20	U	0.21	0.20	0.084
99-65-0	1,3-Dinitrobenzene	0.10	U	0.11	0.10	0.037
118-96-7	2,4,6-Trinitrotoluene	0.10	U	0.11	0.10	0.045
121-14-2	2,4-Dinitrotoluene	0.080	U	0.10	0.080	0.027
606-20-2	2,6-Dinitrotoluene	0.080	U	0.10	0.080	0.040
35572-78-2	2-Amino-4,6-dinitrotoluene	0.10	U	0.11	0.10	0.051
88-72-2	2-Nitrotoluene	0.20	U	0.21	0.20	0.086
99-08-1	3-Nitrotoluene	0.40	U	0.40	0.40	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
5755-27-1	MNX	0.40	U M	2.0	0.40	0.15
98-95-3	Nitrobenzene	0.20	U	0.21	0.20	0.091
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		83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20220310-109139.b\03100051.D
Lims ID: MB 280-567953/1-A
Client ID:
Sample Type: MB
Inject. Date: 11-Mar-2022 06:45:49 ALS Bottle#: 51 Worklist Smp#: 51
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: MB 280-567953/1-
Misc. Info.: 280-0109139-051
Operator ID: JZ Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20220310-109139.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 11-Mar-2022 13:57:00 Calib Date: 05-Jan-2022 04:24:15
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040037.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1614

First Level Reviewer: zhangji Date: 11-Mar-2022 12:35:32

	Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
	1 Triamine Trinitrobenzene	1		2.447				ND	
	2 2,6-diamino-4-nitrotoluene	1		6.466				ND	
	3 TNX	1		6.476				ND	U
	4 HMX	1		6.593				ND	
	5 2,4-diamino-6-nitrotoluene	1		6.646				ND	
	6 DNX	1		6.796				ND	
	7 MNX	1		7.209				ND	U
	8 RDX	1		7.587				ND	
	9 2,4,6-Trinitrophenol	1		7.933				ND	U
$	10 1,2-Dinitrobenzene	1	8.528	8.533	-0.005	25155	0.2000	0.2017	
	11 1,3,5-Trinitrobenzene	1		8.660				ND	
	12 1,3-Dinitrobenzene	1		9.280				ND	
	13 Nitrobenzene	1		9.667				ND	
	14 3,5-Dinitroaniline	1		9.872				ND	
	15 Tetryl	1		9.987				ND	
	16 Nitroglycerin	2		10.440				ND	
	17 2,4,6-Trinitrotoluene	1		10.893				ND	
	18 4-Amino-2,6-dinitrotoluene	1		11.080				ND	
	19 2-Amino-4,6-dinitrotoluene	1		11.327				ND	
	20 2,6-Dinitrotoluene	1		11.500				ND	
	21 2,4-Dinitrotoluene	1		11.667				ND	
	22 o-Nitrotoluene	1		12.513				ND	
	23 p-Nitrotoluene	1		12.940				ND	
	24 m-Nitrotoluene	1		13.507				ND	
	25 PETN	2		14.560				ND	
	26 Ammonium Picrate	1		0.000				ND	

QC Flag Legend
Processing Flags

Review Flags
U - Marked Undetected

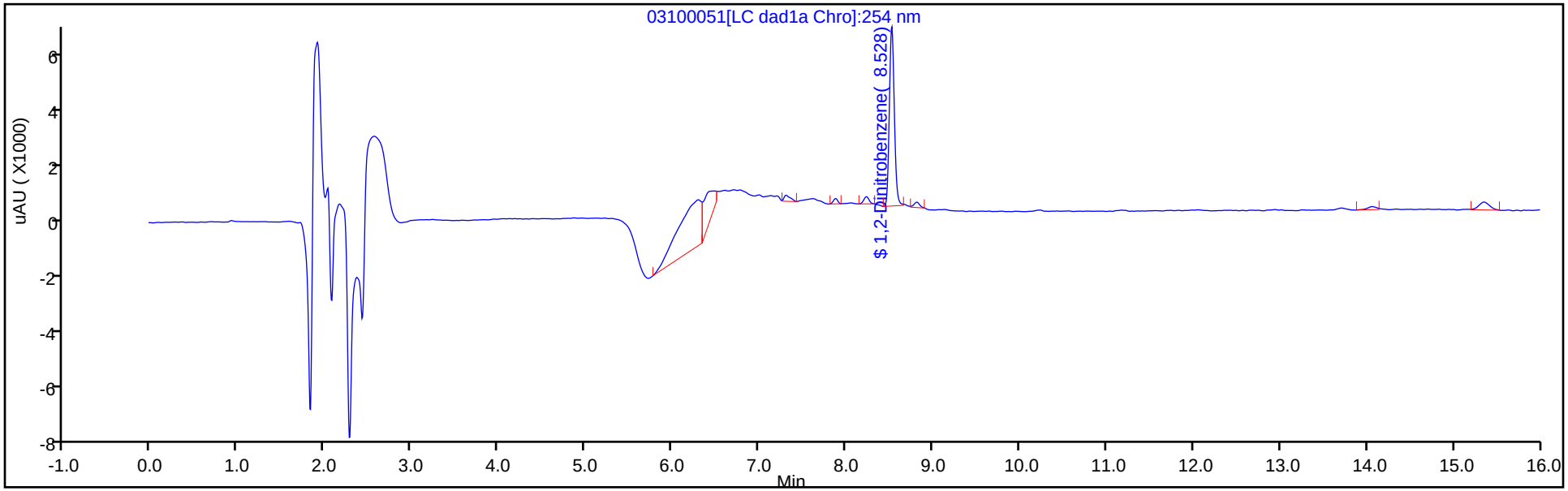
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Eurofins Denver

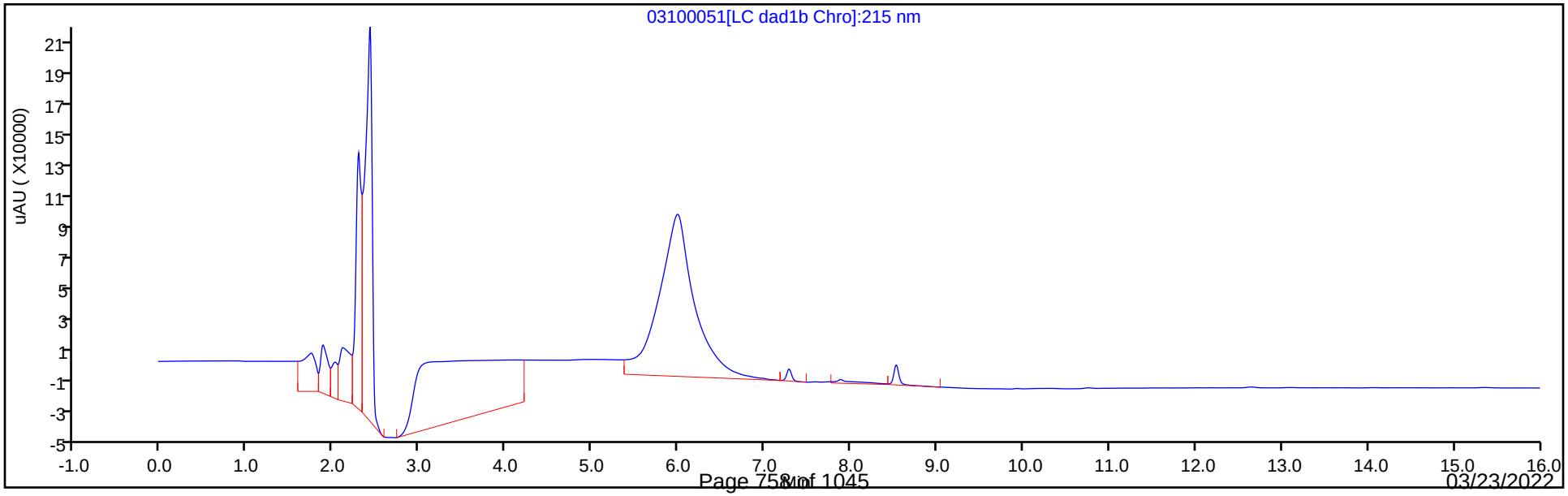
Data File: \\chromfs\denver\chromdata\chhplc_x\20220310-109139.b\03100051.d

Injection Date:	11-Mar-2022 06:45:49	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	MB 280-567953/1-A			Worklist Smp#:	51
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	51
Method:	8330_X3	Limit Group:	GCSV - 8330		

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



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



Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20220310-109139.b\03100051.D				
Lims ID:	MB 280-567953/1-A				
Client ID:					
Sample Type:	MB				
Inject. Date:	11-Mar-2022 06:45:49	ALS Bottle#:	51	Worklist Smp#:	51
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	MB 280-567953/1-				
Misc. Info.:	280-0109139-051				
Operator ID:	JZ	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20220310-109139.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	11-Mar-2022 13:57:00	Calib Date:	05-Jan-2022 04:24:15		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040037.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1614				
First Level Reviewer: zhangji		Date:	11-Mar-2022 12:35:32		

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.2017	100.86

User Disabled Compound Report

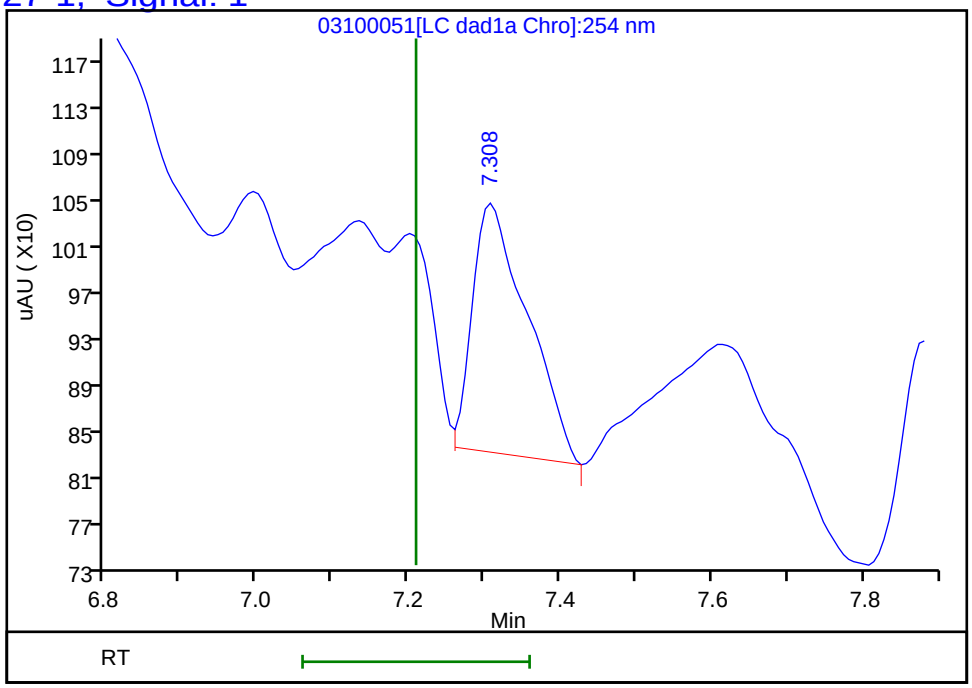
Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20220310-109139.b\03100051.d
Injection Date: 11-Mar-2022 06:45:49 Instrument ID: CHHPLC_X3
Lims ID: MB 280-567953/1-A
Client ID:
Operator ID: JZ ALS Bottle#: 51 Worklist Smp#: 51
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330

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

7 MNX, CAS: 5755-27-1, Signal: 1

RT: 7.31
Response: 1075
Amount: 0.008532



Reviewer: zhangji, 11-Mar-2022 12:35:32
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-159384-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 280-567953/2-A

Matrix: Water | Lab File ID: 03100052.D

Analysis Method: 8330A | Date Collected:

Extraction Method: 3535 | Date Extracted: 03/08/2022 11:19

Sample wt/vol: 500(mL) | Date Analyzed: 03/11/2022 07:08

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

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

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

Analysis Batch No.: 568287 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	1.97		0.21	0.20	0.084
99-65-0	1,3-Dinitrobenzene	1.98		0.11	0.10	0.037
118-96-7	2,4,6-Trinitrotoluene	1.92		0.11	0.10	0.045
121-14-2	2,4-Dinitrotoluene	1.85		0.10	0.080	0.027
606-20-2	2,6-Dinitrotoluene	1.95		0.10	0.080	0.040
35572-78-2	2-Amino-4,6-dinitrotoluene	1.79		0.11	0.10	0.051
88-72-2	2-Nitrotoluene	1.57		0.21	0.20	0.086
99-08-1	3-Nitrotoluene	1.50		0.40	0.40	0.20
19406-51-0	4-Amino-2,6-dinitrotoluene	1.57		0.15	0.12	0.058
99-99-0	4-Nitrotoluene	1.75		0.41	0.40	0.10
2691-41-0	HMX	1.84	M	0.21	0.20	0.088
98-95-3	Nitrobenzene	1.76		0.21	0.20	0.091
121-82-4	RDX	2.03		0.21	0.20	0.052
479-45-8	Tetryl	1.92		0.11	0.10	0.032

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	95		83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20220310-109139.b\03100052.D
Lims ID: LCS 280-567953/2-A
Client ID:
Sample Type: LCS
Inject. Date: 11-Mar-2022 07:08:45 ALS Bottle#: 52 Worklist Smp#: 52
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: LCS 280-567953/2
Misc. Info.: 280-0109139-052
Operator ID: JZ Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20220310-109139.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 11-Mar-2022 13:57:00 Calib Date: 05-Jan-2022 04:24:15
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040037.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1614

First Level Reviewer: zhangji Date: 11-Mar-2022 13:41:21

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
4 HMX	1	6.597	6.593	0.004	15409	0.2000	0.1838	M
8 RDX	1	7.583	7.587	-0.004	21049	0.2000	0.2032	
9 2,4,6-Trinitrophenol	1	7.923	7.933	-0.010	15916	0.2000	0.2066	
$ 10 1,2-Dinitrobenzene	1	8.530	8.533	-0.003	23768	0.2000	0.1906	
11 1,3,5-Trinitrobenzene	1	8.657	8.660	-0.003	42988	0.2000	0.1971	
12 1,3-Dinitrobenzene	1	9.276	9.280	-0.004	56967	0.2000	0.1975	
13 Nitrobenzene	1	9.656	9.667	-0.011	33855	0.2000	0.1764	
15 Tetryl	1	9.976	9.987	-0.011	32782	0.2000	0.1922	
16 Nitroglycerin	2	10.430	10.440	-0.010	128032	2.00	2.03	
17 2,4,6-Trinitrotoluene	1	10.876	10.893	-0.017	38898	0.2000	0.1919	
18 4-Amino-2,6-dinitrotoluene	1	11.063	11.080	-0.017	23734	0.2000	0.1572	
19 2-Amino-4,6-dinitrotoluene	1	11.316	11.327	-0.011	36112	0.2000	0.1786	
20 2,6-Dinitrotoluene	1	11.483	11.500	-0.017	27915	0.2000	0.1951	
21 2,4-Dinitrotoluene	1	11.656	11.667	-0.011	53668	0.2000	0.1855	
22 o-Nitrotoluene	1	12.503	12.513	-0.010	20079	0.2000	0.1573	
23 p-Nitrotoluene	1	12.923	12.940	-0.017	18568	0.2000	0.1748	
24 m-Nitrotoluene	1	13.496	13.507	-0.011	21324	0.2000	0.1499	
25 PETN	2	14.543	14.560	-0.017	144587	2.00	1.97	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

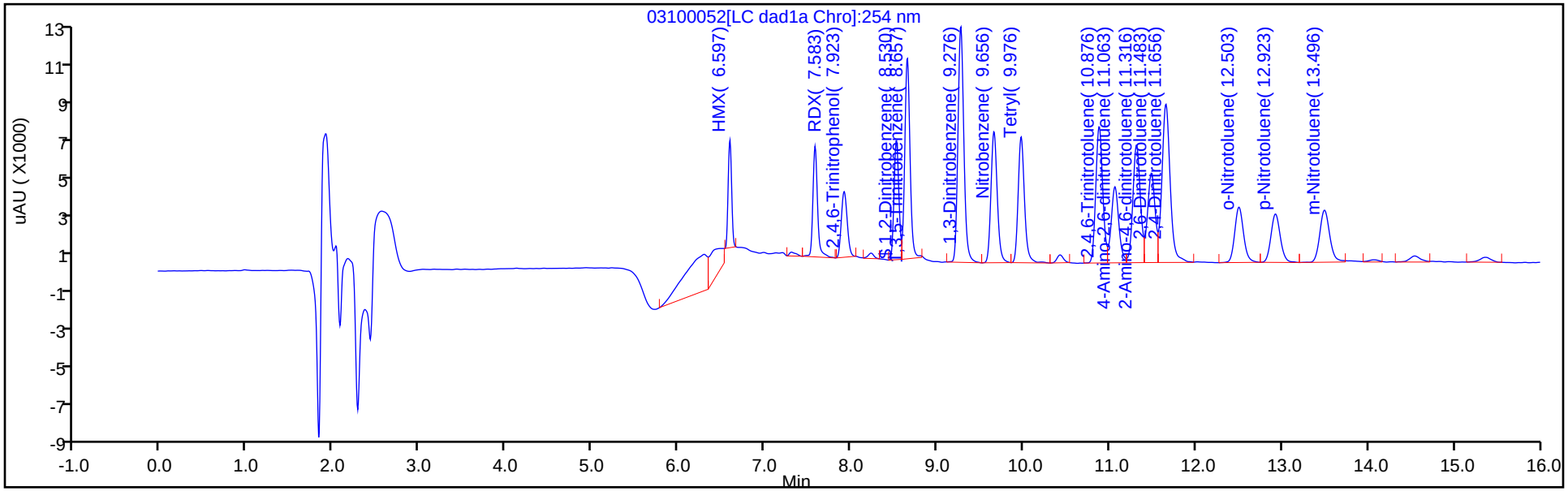
Report Date: 11-Mar-2022 13:57:07 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Denver

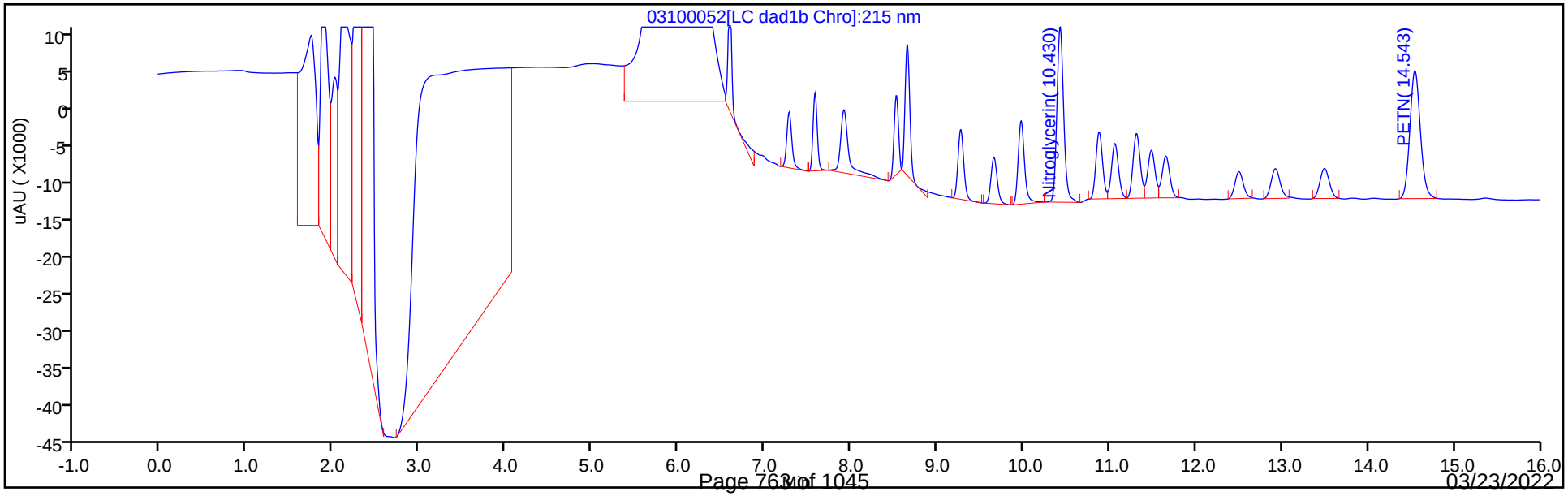
Data File: \\chromfs\denver\chromdata\chhplc_x\20220310-109139.b\03100052.d

Injection Date:	11-Mar-2022 07:08:45	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	LCS 280-567953/2-A			Worklist Smp#:	52
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	52
Method:	8330_X3	Limit Group:	GCSV - 8330		

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



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



Eurofins Denver
Recovery Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20220310-109139.b\03100052.D
Lims ID: LCS 280-567953/2-A
Client ID:
Sample Type: LCS
Inject. Date: 11-Mar-2022 07:08:45 ALS Bottle#: 52 Worklist Smp#: 52
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: LCS 280-567953/2
Misc. Info.: 280-0109139-052
Operator ID: JZ Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20220310-109139.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 11-Mar-2022 13:57:00 Calib Date: 05-Jan-2022 04:24:15
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040037.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1614

First Level Reviewer: zhangji Date: 11-Mar-2022 13:41:21

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.1906	95.30

Manual Integration/User Assign Peak Report

Eurofins Denver

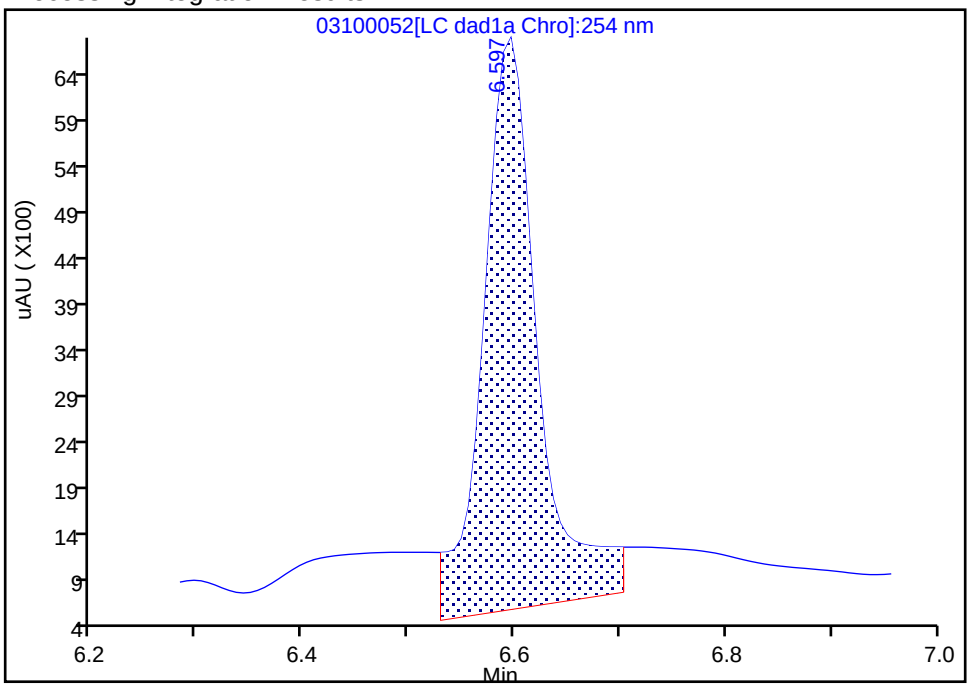
Data File:	\\chromfs\denver\chromdata\chhplc_x\20220310-109139.b\03100052.d				
Injection Date:	11-Mar-2022 07:08:45	Instrument ID:	CHHPLC_X3		
Lims ID:	LCS 280-567953/2-A				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	52	Worklist Smp#:	52
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

4 HMX, CAS: 2691-41-0

Signal: 1

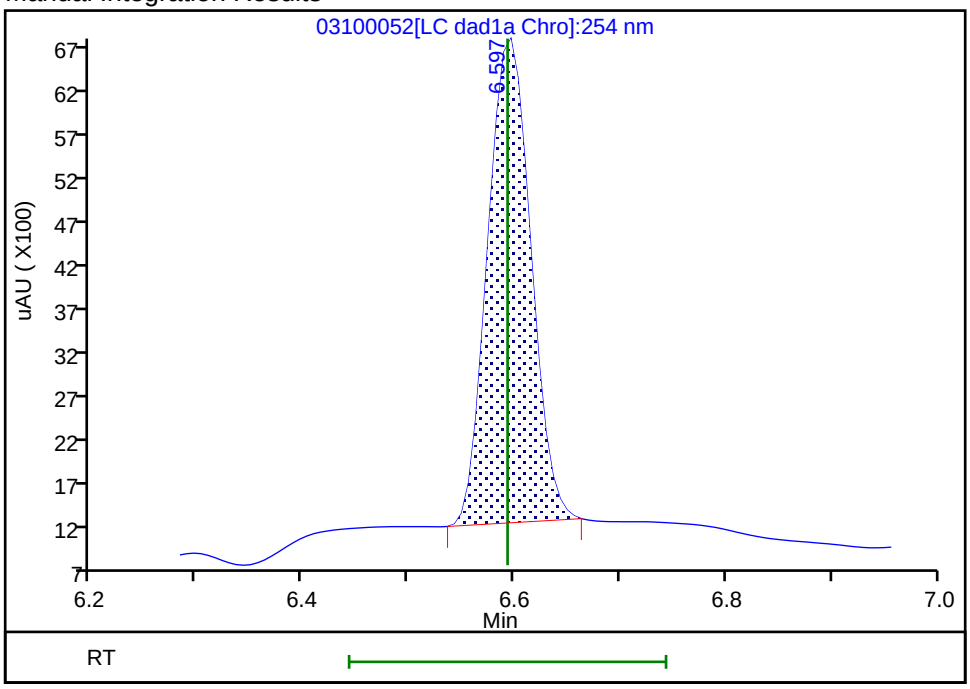
Processing Integration Results

RT: 6.60
Area: 21902
Amount: 0.261276
Amount Units: ug/mL



Manual Integration Results

RT: 6.60
Area: 15409
Amount: 0.183819
Amount Units: ug/mL



Reviewer: zhangji, 11-Mar-2022 13:41:20
Audit Action: Manually Integrated Audit Reason: Baseline

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-159384-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 280-567953/3-A

Matrix: Water | Lab File ID: 03100053.D

Analysis Method: 8330A | Date Collected:

Extraction Method: 3535 | Date Extracted: 03/08/2022 11:19

Sample wt/vol: 500(mL) | Date Analyzed: 03/11/2022 07:31

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

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

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

Analysis Batch No.: 568287 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
5755-27-1	MNX	2.29	M	2.0	0.40	0.15

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\20220310-109139.b\03100053.D
Lims ID: LCS 280-567953/3-A
Client ID:
Sample Type: LCS
Inject. Date: 11-Mar-2022 07:31:39 ALS Bottle#: 53 Worklist Smp#: 53
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: LCS 280-567953/3
Misc. Info.: 280-0109139-053
Operator ID: JZ Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20220310-109139.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 11-Mar-2022 13:57:00 Calib Date: 05-Jan-2022 04:24:15
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040037.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1614

First Level Reviewer: zhangji Date: 11-Mar-2022 13:41:32

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 TNX	1	6.472	6.476	-0.004	34148	0.2002	0.1884	M
6 DNX	1	6.792	6.796	-0.004	28067	0.2002	0.2032	M
7 MNX	1	7.205	7.209	-0.004	28828	0.2334	0.2288	M
$ 10 1,2-Dinitrobenzene	1	8.532	8.533	-0.001	25323	0.2000	0.2031	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

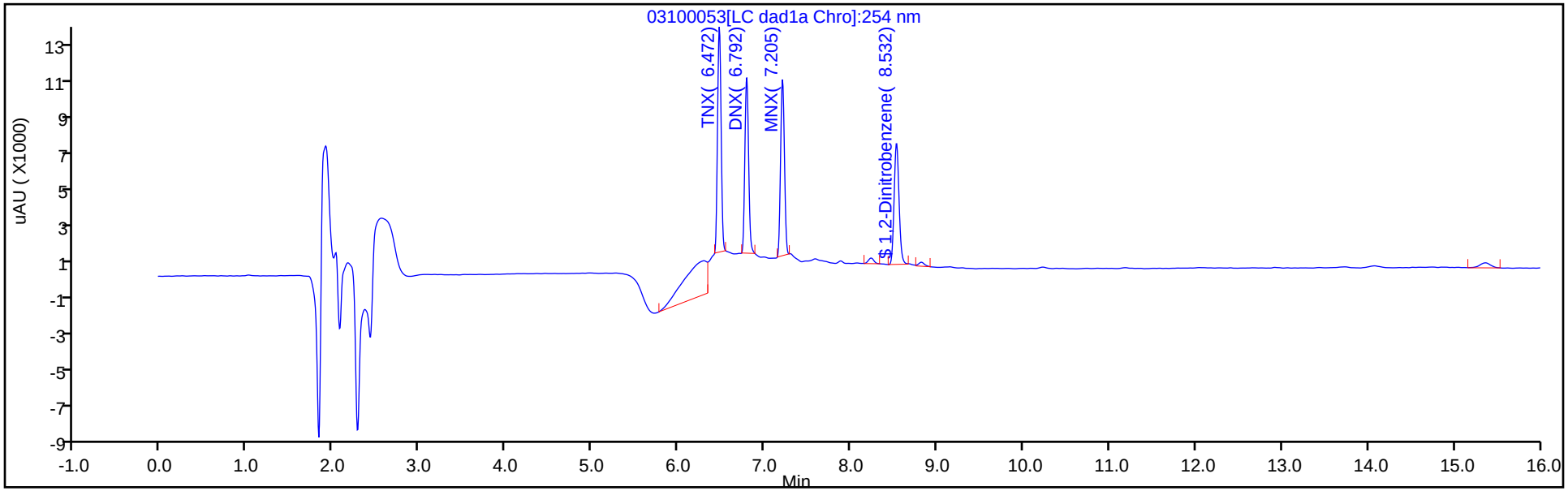
Report Date: 11-Mar-2022 13:57:06 Chrom Revision: 2.3 16-Feb-2022 17:52:00

Eurofins Denver

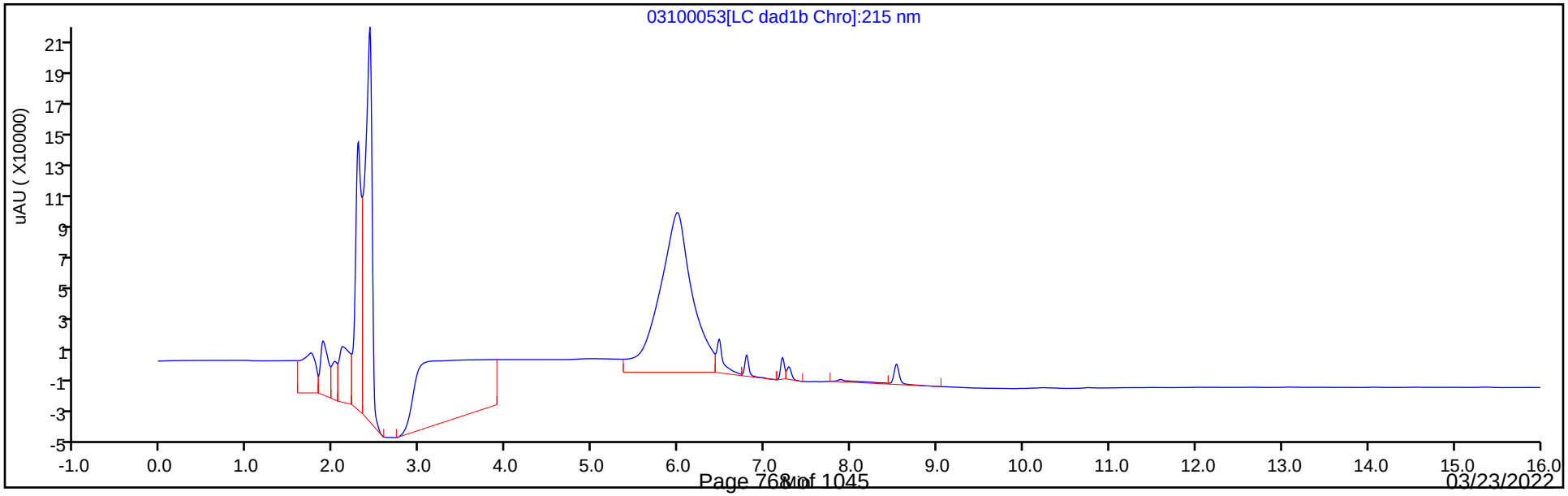
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Injection Date:	11-Mar-2022 07:31:39	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	LCS 280-567953/3-A			Worklist Smp#:	53
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	53
Method:	8330_X3	Limit Group:	GCSV - 8330		

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



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



Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20220310-109139.b\03100053.D				
Lims ID:	LCS 280-567953/3-A				
Client ID:					
Sample Type:	LCS				
Inject. Date:	11-Mar-2022 07:31:39	ALS Bottle#:	53	Worklist Smp#:	53
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	LCS 280-567953/3				
Misc. Info.:	280-0109139-053				
Operator ID:	JZ	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20220310-109139.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	11-Mar-2022 13:57:00	Calib Date:	05-Jan-2022 04:24:15		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X\20220104-107731.b\01040037.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1614				

First Level Reviewer: zhangji Date: 11-Mar-2022 13:41:32

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.2031	101.54

Manual Integration/User Assign Peak Report

Eurofins Denver

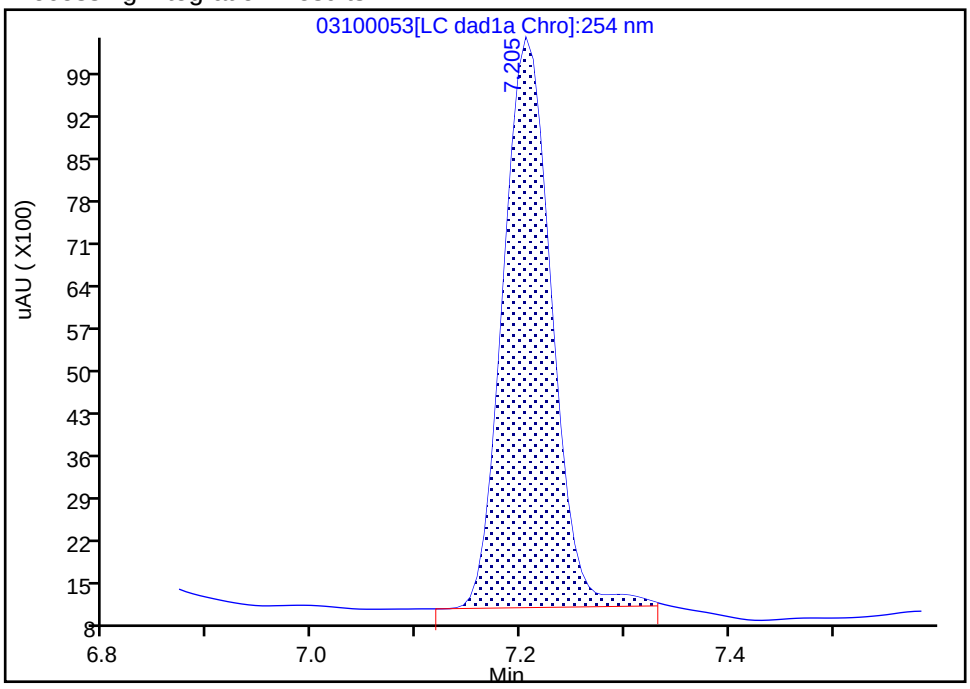
Data File:	\\chromfs\denver\chromdata\chhplc_x\20220310-109139.b\03100053.d				
Injection Date:	11-Mar-2022 07:31:39	Instrument ID:	CHHPLC_X3		
Lims ID:	LCS 280-567953/3-A				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	53	Worklist Smp#:	53
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

7 MNX, CAS: 5755-27-1

Signal: 1

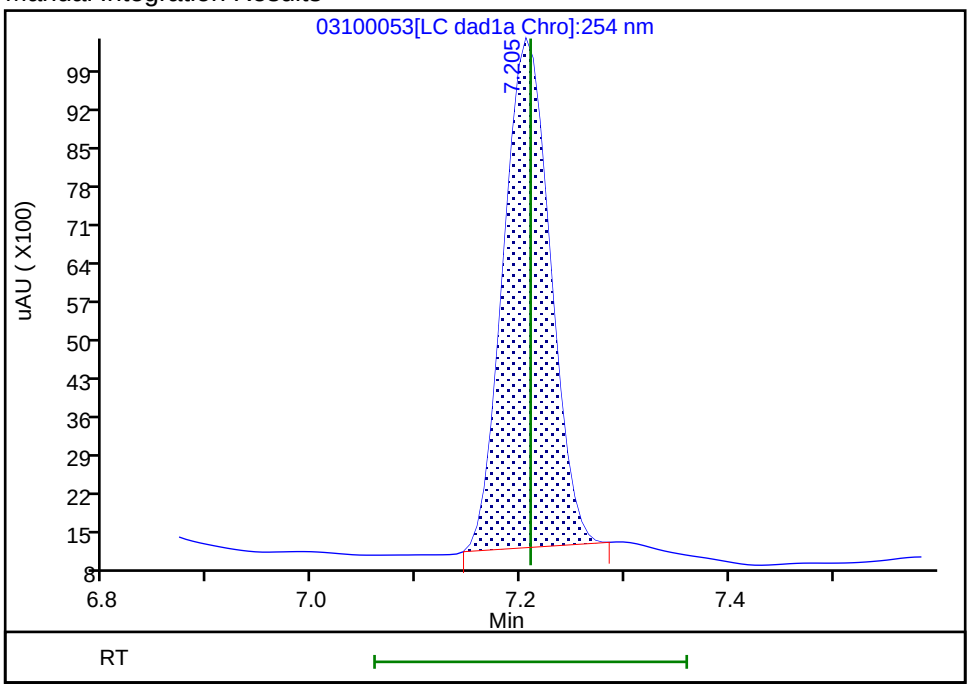
Processing Integration Results

RT: 7.20
Area: 30268
Amount: 0.240231
Amount Units: ug/mL



Manual Integration Results

RT: 7.20
Area: 28828
Amount: 0.228802
Amount Units: ug/mL



Reviewer: zhangji, 11-Mar-2022 13:41:31

Audit Action: Manually Integrated Audit Reason: Baseline

HPLC/IC ANALYSIS RUN LOG

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Instrument ID: CHHPLC_X3 Start Date: 01/04/2022 18:28

Analysis Batch Number: 562503 End Date: 01/05/2022 04:47

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
IC 280-562503/11		01/04/2022 18:28	1	01040011.D	UltraCarb5uODS 4.6(mm)
IC 280-562503/12		01/04/2022 18:51	1	01040012.D	UltraCarb5uODS 4.6(mm)
IC 280-562503/13		01/04/2022 19:13	1	01040013.D	UltraCarb5uODS 4.6(mm)
IC 280-562503/14		01/04/2022 19:36	1	01040014.D	UltraCarb5uODS 4.6(mm)
IC 280-562503/15		01/04/2022 19:59	1	01040015.D	UltraCarb5uODS 4.6(mm)
IC 280-562503/16		01/04/2022 20:22	1	01040016.D	UltraCarb5uODS 4.6(mm)
IC 280-562503/17		01/04/2022 20:45	1	01040017.D	UltraCarb5uODS 4.6(mm)
IC 280-562503/18		01/04/2022 21:08	1	01040018.D	UltraCarb5uODS 4.6(mm)
IC 280-562503/19		01/04/2022 21:31	1	01040019.D	UltraCarb5uODS 4.6(mm)
ICV 280-562503/20		01/04/2022 21:54	1	01040020.D	UltraCarb5uODS 4.6(mm)
IC 280-562503/21		01/04/2022 22:17	1		UltraCarb5uODS 4.6(mm)
IC 280-562503/22		01/04/2022 22:40	1		UltraCarb5uODS 4.6(mm)
IC 280-562503/23		01/04/2022 23:03	1		UltraCarb5uODS 4.6(mm)
IC 280-562503/24		01/04/2022 23:26	1		UltraCarb5uODS 4.6(mm)
IC 280-562503/25		01/04/2022 23:49	1		UltraCarb5uODS 4.6(mm)
IC 280-562503/26		01/05/2022 00:11	1		UltraCarb5uODS 4.6(mm)
IC 280-562503/27		01/05/2022 00:34	1		UltraCarb5uODS 4.6(mm)
IC 280-562503/28		01/05/2022 00:57	1		UltraCarb5uODS 4.6(mm)
ICV 280-562503/29		01/05/2022 01:20	1		UltraCarb5uODS 4.6(mm)
IC 280-562503/30		01/05/2022 01:43	1	01040030.D	UltraCarb5uODS 4.6(mm)
IC 280-562503/31		01/05/2022 02:06	1	01040031.D	UltraCarb5uODS 4.6(mm)
IC 280-562503/32		01/05/2022 02:29	1	01040032.D	UltraCarb5uODS 4.6(mm)
IC 280-562503/33		01/05/2022 02:52	1	01040033.D	UltraCarb5uODS 4.6(mm)
IC 280-562503/34		01/05/2022 03:15	1	01040034.D	UltraCarb5uODS 4.6(mm)
IC 280-562503/35		01/05/2022 03:38	1	01040035.D	UltraCarb5uODS 4.6(mm)
IC 280-562503/36		01/05/2022 04:01	1	01040036.D	UltraCarb5uODS 4.6(mm)
IC 280-562503/37		01/05/2022 04:24	1	01040037.D	UltraCarb5uODS 4.6(mm)
ICV 280-562503/38		01/05/2022 04:47	1	01040038.D	UltraCarb5uODS 4.6(mm)

HPLC/IC ANALYSIS RUN LOG

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Instrument ID: CHHPLC_X5 Start Date: 03/02/2022 21:22

Analysis Batch Number: 567560 End Date: 03/03/2022 07:54

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
IC 280-567560/10		03/02/2022 21:22	1	03020010.D	Luna-phenylhex 4.6(mm)
IC 280-567560/11		03/02/2022 21:57	1	03020011.D	Luna-phenylhex 4.6(mm)
IC 280-567560/12		03/02/2022 22:32	1	03020012.D	Luna-phenylhex 4.6(mm)
IC 280-567560/13		03/02/2022 23:07	1	03020013.D	Luna-phenylhex 4.6(mm)
IC 280-567560/14		03/02/2022 23:42	1	03020014.D	Luna-phenylhex 4.6(mm)
IC 280-567560/15		03/03/2022 00:17	1	03020015.D	Luna-phenylhex 4.6(mm)
IC 280-567560/16		03/03/2022 00:53	1	03020016.D	Luna-phenylhex 4.6(mm)
IC 280-567560/17		03/03/2022 01:28	1	03020017.D	Luna-phenylhex 4.6(mm)
IC 280-567560/18		03/03/2022 02:03	1	03020018.D	Luna-phenylhex 4.6(mm)
ICV 280-567560/19		03/03/2022 02:38	1	03020019.D	Luna-phenylhex 4.6(mm)
IC 280-567560/20		03/03/2022 03:13	1	03020020.D	Luna-phenylhex 4.6(mm)
IC 280-567560/21		03/03/2022 03:49	1	03020021.D	Luna-phenylhex 4.6(mm)
IC 280-567560/22		03/03/2022 04:24	1	03020022.D	Luna-phenylhex 4.6(mm)
IC 280-567560/23		03/03/2022 04:59	1	03020023.D	Luna-phenylhex 4.6(mm)
IC 280-567560/24		03/03/2022 05:34	1	03020024.D	Luna-phenylhex 4.6(mm)
IC 280-567560/25		03/03/2022 06:09	1	03020025.D	Luna-phenylhex 4.6(mm)
IC 280-567560/26		03/03/2022 06:44	1	03020026.D	Luna-phenylhex 4.6(mm)
IC 280-567560/27		03/03/2022 07:19	1	03020027.D	Luna-phenylhex 4.6(mm)
ICV 280-567560/28		03/03/2022 07:54	1	03020028.D	Luna-phenylhex 4.6(mm)

HPLC/IC ANALYSIS RUN LOG

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Instrument ID: CHHPLC_X3 Start Date: 03/11/2022 05:59

Analysis Batch Number: 568287 End Date: 03/11/2022 10:58

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCV 280-568287/49		03/11/2022 05:59	1	03100049.D	UltraCarb5uODS 4.6(mm)
CCV 280-568287/50		03/11/2022 06:22	1	03100050.D	UltraCarb5uODS 4.6(mm)
MB 280-567953/1-A		03/11/2022 06:45	1	03100051.D	UltraCarb5uODS 4.6(mm)
LCS 280-567953/2-A		03/11/2022 07:08	1	03100052.D	UltraCarb5uODS 4.6(mm)
LCS 280-567953/3-A		03/11/2022 07:31	1	03100053.D	UltraCarb5uODS 4.6(mm)
ZZZZZ		03/11/2022 07:54	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		03/11/2022 08:17	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		03/11/2022 08:40	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		03/11/2022 09:03	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		03/11/2022 09:26	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		03/11/2022 09:49	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		03/11/2022 10:12	1		UltraCarb5uODS 4.6(mm)
CCV 280-568287/61		03/11/2022 10:35	1	03100061.D	UltraCarb5uODS 4.6(mm)
CCV 280-568287/62		03/11/2022 10:58	1	03100062.D	UltraCarb5uODS 4.6(mm)

HPLC/IC ANALYSIS RUN LOG

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Instrument ID: CHHPLC_X3 Start Date: 03/11/2022 16:42

Analysis Batch Number: 568433 End Date: 03/12/2022 01:52

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCV 280-568433/15		03/11/2022 16:42	1		UltraCarb5uODS 4.6(mm)
CCV 280-568433/16		03/11/2022 17:05	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		03/11/2022 17:28	5		UltraCarb5uODS 4.6(mm)
ZZZZZ		03/11/2022 17:51	5		UltraCarb5uODS 4.6(mm)
ZZZZZ		03/11/2022 18:14	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		03/11/2022 18:37	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		03/11/2022 19:00	5		UltraCarb5uODS 4.6(mm)
ZZZZZ		03/11/2022 19:23	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		03/11/2022 19:45	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		03/11/2022 20:08	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		03/11/2022 20:31	1		UltraCarb5uODS 4.6(mm)
CCV 280-568433/26		03/11/2022 20:54	1	03110026.D	UltraCarb5uODS 4.6(mm)
CCV 280-568433/27		03/11/2022 21:17	1	03110027.D	UltraCarb5uODS 4.6(mm)
ZZZZZ		03/11/2022 21:40	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		03/11/2022 22:03	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		03/11/2022 22:26	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		03/11/2022 22:49	1		UltraCarb5uODS 4.6(mm)
280-159384-1	G0022-8	03/11/2022 23:12	1	03110032.D	UltraCarb5uODS 4.6(mm)
280-159384-2	G0102-8	03/11/2022 23:35	1	03110033.D	UltraCarb5uODS 4.6(mm)
280-159384-3	WATER-WC-Q8-MAR22	03/11/2022 23:57	1	03110034.D	UltraCarb5uODS 4.6(mm)
280-159384-4	G0121-8	03/12/2022 00:20	1	03110035.D	UltraCarb5uODS 4.6(mm)
280-159384-5	G0122-8	03/12/2022 00:43	1	03110036.D	UltraCarb5uODS 4.6(mm)
280-159384-6	G0123-8	03/12/2022 01:06	1	03110037.D	UltraCarb5uODS 4.6(mm)
CCV 280-568433/38		03/12/2022 01:29	1	03110038.D	UltraCarb5uODS 4.6(mm)
CCV 280-568433/39		03/12/2022 01:52	1	03110039.D	UltraCarb5uODS 4.6(mm)

HPLC/IC ANALYSIS RUN LOG

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Instrument ID: CHHPLC_X5 Start Date: 03/15/2022 18:07

Analysis Batch Number: 568709 End Date: 03/16/2022 04:39

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCV 280-568709/7		03/15/2022 18:07	1	03150007.D	Luna-phenylhex 4.6(mm)
CCV 280-568709/8		03/15/2022 18:42	1	03150008.D	Luna-phenylhex 4.6(mm)
ZZZZZ		03/15/2022 19:18	1		Luna-phenylhex 4.6(mm)
ZZZZZ		03/15/2022 19:53	1		Luna-phenylhex 4.6(mm)
ZZZZZ		03/15/2022 20:28	1		Luna-phenylhex 4.6(mm)
ZZZZZ		03/15/2022 21:03	1		Luna-phenylhex 4.6(mm)
280-159384-1	G0022-8	03/15/2022 21:38	1	03150014.D	Luna-phenylhex 4.6(mm)
280-159384-3	WATER-WC-Q8-MAR22	03/15/2022 22:13	1	03150015.D	Luna-phenylhex 4.6(mm)
280-159384-4	G0121-8	03/15/2022 22:48	1	03150016.D	Luna-phenylhex 4.6(mm)
280-159384-5	G0122-8	03/15/2022 23:23	1	03150017.D	Luna-phenylhex 4.6(mm)
280-159384-6	G0123-8	03/15/2022 23:58	1	03150018.D	Luna-phenylhex 4.6(mm)
CCV 280-568709/19		03/16/2022 00:33	1	03150019.D	Luna-phenylhex 4.6(mm)
CCV 280-568709/20		03/16/2022 01:08	1	03150020.D	Luna-phenylhex 4.6(mm)
ZZZZZ		03/16/2022 01:43	5		Luna-phenylhex 4.6(mm)
ZZZZZ		03/16/2022 02:19	5		Luna-phenylhex 4.6(mm)
ZZZZZ		03/16/2022 02:53	5		Luna-phenylhex 4.6(mm)
ZZZZZ		03/16/2022 03:28	5		Luna-phenylhex 4.6(mm)
CCV 280-568709/25		03/16/2022 04:04	1		Luna-phenylhex 4.6(mm)
CCV 280-568709/26		03/16/2022 04:39	1		Luna-phenylhex 4.6(mm)

HPLC/IC BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Batch Number: 567953 Batch Start Date: 03/08/22 11:19 Batch Analyst: Cook, Ashleigh R

Batch Method: 3535 Batch End Date: 03/08/22 14:44

Lab Sample ID	Client Sample ID	Method Chain	Basis	GrossWeight	TareWeight	InitialAmount	FinalAmount	8330 LCS 00113	8330_OP_DMT 00013
MB 280-567953/1		3535, 8330A				500 mL	5 mL		
LCS 280-567953/2		3535, 8330A				500 mL	5 mL	0.1 mL	
LCS 280-567953/3		3535, 8330A				500 mL	5 mL		0.1 mL
280-159384-B-1	G0022-8	3535, 8330A	T	725.5 g	255.9 g	469.6 mL	5 mL		
280-159384-A-2	G0102-8	3535, 8330A	T	743.6 g	255.9 g	487.7 mL	5 mL		
280-159384-B-3	WATER-WC-Q8-MAR22	3535, 8330A	T	732.4 g	256.5 g	475.9 mL	5 mL		
280-159384-B-4	G0121-8	3535, 8330A	T	746.9 g	255.5 g	491.4 mL	5 mL		
280-159384-A-5	G0122-8	3535, 8330A	T	727.9 g	255.2 g	472.7 mL	5 mL		
280-159384-A-6	G0123-8	3535, 8330A	T	800.4 g	284.4 g	516 mL	5 mL		

Lab Sample ID	Client Sample ID	Method Chain	Basis	8330Surrogate 00127	AnalysisComment				
MB 280-567953/1		3535, 8330A		0.1 mL					
LCS 280-567953/2		3535, 8330A		0.1 mL	8330 LCS				
LCS 280-567953/3		3535, 8330A		0.1 mL	DMT				
280-159384-B-1	G0022-8	3535, 8330A	T	0.1 mL					
280-159384-A-2	G0102-8	3535, 8330A	T	0.1 mL					
280-159384-B-3	WATER-WC-Q8-MAR22	3535, 8330A	T	0.1 mL					
280-159384-B-4	G0121-8	3535, 8330A	T	0.1 mL					
280-159384-A-5	G0122-8	3535, 8330A	T	0.1 mL					
280-159384-A-6	G0123-8	3535, 8330A	T	0.1 mL					

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

HPLC/IC BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Batch Number: 567953 Batch Start Date: 03/08/22 11:19 Batch Analyst: Cook, Ashleigh R

Batch Method: 3535 Batch End Date: 03/08/22 14:44

Batch Notes	
First Start time	03/08/2022 11:37
First End time	03/08/2022 13:47
SPE Cartridge Type	Porapak RDX
SPE Cartridge Lot ID	004838018A
Balance ID	24350888
Pipette/Syringe/Dispenser ID	JiJi, Soot, DOD
Solvent Name	Acetonitrile
Solvent Lot #	Acetonitrile_0055
Rinse Solvent Name	0.1%AAinACN
Rinse Solvent Lot	0.1%AAinACN_00179
Acid Name	Ca2Cl
Acid ID	Ca2Cl_Sol_00079
Analyst ID - Spike Analyst	ARC
Analyst ID - Spike Witness Analyst	Reviewer: DL
Batch Comment	DV-OP-0017; Mantel: B/C

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY

COVER PAGE
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job Number: 280-159384-1

SDG No.:

Project: Cornhusker (CHAAP)

Client Sample ID	Lab Sample ID
G0022-8	280-159384-1
G0102-8	280-159384-2
G0121-8	280-159384-4
G0122-8	280-159384-5
G0123-8	280-159384-6

Comments:

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: G0022-8 | Lab Sample ID: 280-159384-1

Lab Name: Eurofins Denver | Job No.: 280-159384-1

SDG ID.:

Matrix: Water | Date Sampled: 03/02/2022 13:30

Reporting Basis: WET | Date Received: 03/04/2022 09:30

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Ammonia	0.74	0.10	0.050	0.022	mg/L			1	350.1
Nitrogen, Total Kjeldahl	0.80	1.0	0.80	0.69	mg/L	U	J1	1	351.2
Nitrate Nitrite as N	11	0.20	0.10	0.038	mg/L			2	353.2
Sulfide	1.6	4.0	1.9	0.79	mg/L	J		1	9034
Sulfate	110	5.0	2.5	1.0	mg/L		J1	1	9056A
Total Alkalinity as CaCO3	370	10	6.4	3.1	mg/L			1	SM 2320B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY - DISSOLVED

Client Sample ID: G0022-8 Lab Sample ID: 280-159384-1

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG ID.:

Matrix: Water Date Sampled: 03/02/2022 13:30

Reporting Basis: WET Date Received: 03/04/2022 09:30

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Dissolved Organic Carbon - Quad	3.7	1.0	0.80	0.35	mg/L			1	9060A

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: G0102-8 Lab Sample ID: 280-159384-2

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG ID.:

Matrix: Water Date Sampled: 03/02/2022 15:10

Reporting Basis: WET Date Received: 03/04/2022 09:30

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Ammonia	0.24	1.0	0.50	0.22	mg/L	J		10	350.1
Nitrogen, Total Kjeldahl	0.98	1.0	0.80	0.69	mg/L	J		1	351.2
Nitrate Nitrite as N	0.050	0.10	0.050	0.019	mg/L	U		1	353.2
Sulfide	12	4.0	1.9	0.79	mg/L			1	9034
Sulfate	1200	50	25	10	mg/L		D	10	9056A
Total Alkalinity as CaCO3	510	10	6.4	3.1	mg/L			1	SM 2320B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY - DISSOLVED

Client Sample ID: G0102-8 Lab Sample ID: 280-159384-2

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG ID.:

Matrix: Water Date Sampled: 03/02/2022 15:10

Reporting Basis: WET Date Received: 03/04/2022 09:30

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Dissolved Organic Carbon - Quad	5.6	1.0	0.80	0.35	mg/L			1	9060A

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: G0121-8 | Lab Sample ID: 280-159384-4

Lab Name: Eurofins Denver | Job No.: 280-159384-1

SDG ID.:

Matrix: Water | Date Sampled: 03/02/2022 15:10

Reporting Basis: WET | Date Received: 03/04/2022 09:30

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Ammonia	13	1.0	0.50	0.22	mg/L			10	350.1
Nitrogen, Total Kjeldahl	4.0	5.0	4.0	3.4	mg/L	U		1	351.2
Nitrate Nitrite as N	0.050	0.10	0.050	0.019	mg/L	U		1	353.2
Sulfide	2.8	4.0	1.9	0.79	mg/L	J		1	9034
Sulfate	220	25	13	5.2	mg/L		D	5	9056A
Total Alkalinity as CaCO3	710	10	6.4	3.1	mg/L			1	SM 2320B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY - DISSOLVED

Client Sample ID: G0121-8 Lab Sample ID: 280-159384-4

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG ID.:

Matrix: Water Date Sampled: 03/02/2022 15:10

Reporting Basis: WET Date Received: 03/04/2022 09:30

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Dissolved Organic Carbon - Quad	43	1.0	0.80	0.35	mg/L			1	9060A

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: G0122-8 | Lab Sample ID: 280-159384-5

Lab Name: Eurofins Denver | Job No.: 280-159384-1

SDG ID.:

Matrix: Water | Date Sampled: 03/02/2022 12:45

Reporting Basis: WET | Date Received: 03/04/2022 09:30

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Ammonia	8.2	1.0	0.50	0.22	mg/L			10	350.1
Nitrogen, Total Kjeldahl	2.9	2.5	2.0	1.7	mg/L			1	351.2
Nitrate Nitrite as N	0.061	0.10	0.050	0.019	mg/L	J		1	353.2
Sulfide	2.4	4.0	1.9	0.79	mg/L	J		1	9034
Sulfate	590	25	13	5.2	mg/L		D	5	9056A
Total Alkalinity as CaCO3	850	10	6.4	3.1	mg/L			1	SM 2320B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY - DISSOLVED

Client Sample ID: G0122-8 Lab Sample ID: 280-159384-5

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG ID.:

Matrix: Water Date Sampled: 03/02/2022 12:45

Reporting Basis: WET Date Received: 03/04/2022 09:30

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Dissolved Organic Carbon - Quad	18	1.0	0.80	0.35	mg/L			1	9060A

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: G0123-8 | Lab Sample ID: 280-159384-6

Lab Name: Eurofins Denver | Job No.: 280-159384-1

SDG ID.:

Matrix: Water | Date Sampled: 03/02/2022 16:35

Reporting Basis: WET | Date Received: 03/04/2022 09:30

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Ammonia	1.5	0.20	0.10	0.044	mg/L			2	350.1
Nitrogen, Total Kjeldahl	0.80	1.0	0.80	0.69	mg/L	U		1	351.2
Nitrate Nitrite as N	0.050	0.10	0.050	0.019	mg/L	U		1	353.2
Sulfide	0.80	4.0	1.9	0.79	mg/L	J		1	9034
Sulfate	340	10	5.0	2.1	mg/L		D	2	9056A
Total Alkalinity as CaCO3	670	10	6.4	3.1	mg/L			1	SM 2320B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY - DISSOLVED

Client Sample ID: G0123-8 Lab Sample ID: 280-159384-6

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG ID.:

Matrix: Water Date Sampled: 03/02/2022 16:35

Reporting Basis: WET Date Received: 03/04/2022 09:30

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Dissolved Organic Carbon - Quad	7.9	1.0	0.80	0.35	mg/L			1	9060A

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Analyst: MMP Batch Start Date: 03/22/2022

Reporting Units: mg/L Analytical Batch No.: 569404

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
14	ICVL	11:42	Ammonia	0.504	0.501	101	90-110		350.1 ICV_00509
15	ICV	11:44	Ammonia	2.50	2.51	100	90-110		350.1 ICV_00509
16	ICB	11:46	Ammonia	0.050				U	
33	CCVL	12:20	Ammonia	0.478	0.500	96	90-110		350.1 cal_00525
34	CCV	12:22	Ammonia	2.43	2.50	97	90-110		350.1 cal_00525
35	CCB	12:24	Ammonia	0.050				U	

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

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Analyst: SVC Batch Start Date: 03/14/2022

Reporting Units: mg/L Analytical Batch No.: 568623

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
7	ICV	17:02	Nitrogen, Total Kjeldahl	5.27	5.00	105	90-110		TKN ICV 25_00115
8	ICB	17:02	Nitrogen, Total Kjeldahl	1.0				U	
21	CCV	17:07	Nitrogen, Total Kjeldahl	5.33	5.00	107	90-110		TKN 25ppm_00829
22	CCB	17:08	Nitrogen, Total Kjeldahl	1.0				U	

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

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Analyst: SVC Batch Start Date: 03/20/2022

Reporting Units: mg/L Analytical Batch No.: 569157

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
17	ICV	15:54	Nitrate Nitrite as N	5.08	5.00	102	90-110		NXN ICV INT_00590
18	ICVL	15:56	Nitrate Nitrite as N	2.04	2.00	102	90-110		NXN ICV INT_00590
19	ICB	15:58	Nitrate Nitrite as N	0.050				U	
51	CCV	17:02	Nitrate Nitrite as N	4.95	5.00	99	90-110		NXN CAL INT_00614
52	CCVL	17:04	Nitrate Nitrite as N	1.05	1.00	105	90-110		NXN CAL INT_00614
53	CCB	17:06	Nitrate Nitrite as N	0.050				U	
67	CCV	17:34	Nitrate Nitrite as N	4.89	5.00	98	90-110		NXN CAL INT_00614
68	CCVL	17:36	Nitrate Nitrite as N	1.04	1.00	104	90-110		NXN CAL INT_00614
69	CCB	17:38	Nitrate Nitrite as N	0.050				U	
83	CCV	18:06	Nitrate Nitrite as N	4.87	5.00	97	90-110		NXN CAL INT_00614
84	CCVL	18:08	Nitrate Nitrite as N	1.05	1.00	105	90-110		NXN CAL INT_00614
85	CCB	18:10	Nitrate Nitrite as N	0.050				U	

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

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Analyst: CJ Batch Start Date: 03/17/2022

Reporting Units: mg/L Analytical Batch No.: 568923

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
8	ICV	14:45	Sulfate	81.9	80.0	102	90-110		IC SO4 ICV_00022
9	ICB	15:01	Sulfate	2.5				U	
24	CCV	19:45	Sulfate	96.2	100	96	90-110		IC LCS_01863
25	CCB	20:01	Sulfate	2.5				U	

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

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Analyst: ABW Batch Start Date: 03/14/2022

Reporting Units: mg/L Analytical Batch No.: 568667

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
2	ICV	17:02	Dissolved Organic Carbon - Quad	20.3	20.0	101	90-110		TOC ICV Std_00049
3	ICB	17:16	Dissolved Organic Carbon - Quad	0.80				U	
16	CCV	20:57	Dissolved Organic Carbon - Quad	24.4	25.0	97	90-110		TOC LCS Std_00053
17	CCB	21:14	Dissolved Organic Carbon - Quad	0.80				U	
44	CCV	04:51	Dissolved Organic Carbon - Quad	25.5	25.0	102	90-110		TOC LCS Std_00053
45	CCB	05:07	Dissolved Organic Carbon - Quad	0.80				U	
46	ICV	15:45	Dissolved Organic Carbon - Quad	19.7	20.0	99	90-110		TOC ICV Std_00049
47	ICB	15:59	Dissolved Organic Carbon - Quad	0.80				U	
60	CCV	19:33	Dissolved Organic Carbon - Quad	24.7	25.0	99	90-110		TOC LCS Std_00053
61	CCB	19:49	Dissolved Organic Carbon - Quad	0.80				U	
64	CCV	20:36	Dissolved Organic Carbon - Quad	24.5	25.0	98	90-110		TOC LCS Std_00053
65	CCB	20:52	Dissolved Organic Carbon - Quad	0.380				J	

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

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Analyst: KEG Batch Start Date: 03/08/2022

Reporting Units: mg/L Analytical Batch No.: 567962

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
81	CCV	04:34	Total Alkalinity as CaCO3	204	200	102	90-110		Alk daily lcs 01027
82	CCB	04:40	Total Alkalinity as CaCO3	6.4				U	
95	CCV	06:09	Total Alkalinity as CaCO3	207	200	103	90-110		Alk daily lcs 01027
96	CCB	06:15	Total Alkalinity as CaCO3	6.4				U	

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

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Analyst: KEG Batch Start Date: 03/08/2022

Reporting Units: mg/L Analytical Batch No.: 568099

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
17	CCV	16:53	Total Alkalinity as CaCO3	198	200	99	90-110		Alk daily lcs 01028
18	CCB	16:59	Total Alkalinity as CaCO3	6.4				U	

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

FORM II-IN

3-IN
METHOD BLANK
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Method	Lab Sample ID	Analyte	Result	Qual	Units	LOQ	Dil
Batch ID: 569404 Date: 03/22/2022 11:54							
350.1	MB 280-569404/20	Ammonia	0.050	U	mg/L	0.10	1
Batch ID: 568623 Date: 03/14/2022 17:02 Prep Batch: 568334 Date: 03/10/2022 16:03							
351.2	MB 280-568334/2-A	Nitrogen, Total Kjeldahl	0.80	U	mg/L	1.0	1
Batch ID: 569157 Date: 03/20/2022 17:20							
353.2	MB 280-569157/60	Nitrate Nitrite as N	0.050	U	mg/L	0.10	1
Batch ID: 568182 Date: 03/09/2022 15:33 Prep Batch: 568178 Date: 03/09/2022 15:33							
9034	MB 280-568178/2-A	Sulfide	1.9	U	mg/L	4.0	1
Batch ID: 568923 Date: 03/17/2022 16:07							
9056A	MB 280-568923/13	Sulfate	2.5	U	mg/L	5.0	1
Batch ID: 568667 Date: 03/14/2022 17:47							
9060A	MB 280-568667/5	Dissolved Organic Carbon - Quad	0.80	U	mg/L	1.0	1
Batch ID: 568667 Date: 03/15/2022 16:27							
9060A	MB 280-568667/49	Dissolved Organic Carbon - Quad	0.80	U	mg/L	1.0	1
Batch ID: 568667 Date: 03/15/2022 17:12							
9060A	MB 280-568705/2-A	Dissolved Organic Carbon - Quad	0.80	U	mg/L	1.0	1
Batch ID: 567962 Date: 03/08/2022 04:52							
SM 2320B	MB 280-567962/84	Total Alkalinity as CaCO3	6.4	U	mg/L	10	1
Batch ID: 568099 Date: 03/08/2022 15:03							
SM 2320B	MB 280-568099/6	Total Alkalinity as CaCO3	6.4	U	mg/L	10	1

5-IN
MATRIX SPIKE SAMPLE RECOVERY
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 568623	Date: 03/14/2022 17:03		Prep Batch: 568334		Date: 03/10/2022 16:03						
351.2	280-159384-1	Nitrogen, Total Kjeldahl	0.80	U	mg/L						J1
351.2	280-159384-1 MS	Nitrogen, Total Kjeldahl	0.80	U	mg/L	3.00	0	90-110			J1
Batch ID: 568923	Date: 03/17/2022 17:34										
9056A	280-159384-1	Sulfate	110		mg/L						J1
9056A	280-159384-1 MS	Sulfate	174		mg/L	50.0	123	87-112			J1

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

FORM V-IN

5-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 568623	Date: 03/14/2022 17:04		Prep Batch: 568334		Date: 03/10/2022 16:03						
351.2	280-159384-1 MSD	Nitrogen, Total Kjeldahl	0.80	U	mg/L	3.00	0	90-110	NC	25	J1
Batch ID: 568923	Date: 03/17/2022 17:50										
9056A	280-159384-1 MSD	Sulfate	174		mg/L	50.0	122	87-112	0	10	J1

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

FORM V-IN

6-IN
DUPLICATE
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Matrix: Water

Method	Client Sample ID	Lab Sample ID	Analyte	Result	Unit	RPD	RPD Limit	Qual
Batch ID: 568923 Date: 03/17/2022 17:17								
9056A	G0022-8	280-159384-1	Sulfate	110	mg/L			
9056A	G0022-8	280-159384-1 DU	Sulfate	113	mg/L	0.1	10	

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

FORM VI-IN

7A-IN
LAB CONTROL SAMPLE
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 569404	Date: 03/22/2022 11:50										
						LCS Source: 350.1 cal_00525					
350.1	LCS 280-569404/18	Ammonia	2.48		mg/L	2.50	99	90-110	0	10	
Batch ID: 568623	Date: 03/14/2022 17:02	Prep Batch: 568334	Date: 03/10/2022 16:03								
						LCS Source: TKN 25ppm_00829					
351.2	LCS 280-568334/1-A	Nitrogen, Total Kjeldahl	5.85		mg/L	6.00	97	90-110			
Batch ID: 569157	Date: 03/20/2022 17:18										
						LCS Source: NXN CAL INT_00614					
353.2	LCS 280-569157/59	Nitrate Nitrite as N	4.92		mg/L	5.00	98	90-110			
Batch ID: 568182	Date: 03/09/2022 15:33	Prep Batch: 568178	Date: 03/09/2022 15:33								
						LCS Source: SFD ICV INT_02092					
9034	LCS 280-568178/1-A	Sulfide	16.8		mg/L	21.1	80	44-110			
Batch ID: 568923	Date: 03/17/2022 15:34										
						LCS Source: IC LCS_01863					
9056A	LCS 280-568923/11	Sulfate	95.8		mg/L	100	96	87-112	0	10	
Batch ID: 568667	Date: 03/15/2022 16:13										
						LCS Source: TOC LCS Std_00053					
9060A	LCS 280-568667/48	Dissolved Organic Carbon - Quad	24.6		mg/L	25.0	98	88-112			
Batch ID: 568667	Date: 03/15/2022 16:56										
						LCS Source: TOC LCS Std_00053					
9060A	LCS 280-568705/1-A	Dissolved Organic Carbon - Quad	24.9		mg/L	25.0	99	88-112			
Batch ID: 567962	Date: 03/08/2022 04:47										
						LCS Source: Alk daily lcs_01027					
SM 2320B	LCS 280-567962/83	Total Alkalinity as CaCO3	205		mg/L	200	102	89-109			
Batch ID: 568099	Date: 03/08/2022 14:50										
						LCS Source: Alk daily lcs_01028					
SM 2320B	LCS 280-568099/4	Total Alkalinity as CaCO3	198		mg/L	200	99	89-109	0	10	

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

FORM VIIA-IN

7A-IN
LAB CONTROL SAMPLE DUPLICATE
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 569404	Date: 03/22/2022 11:52										
						LCSD Source: 350.1 cal_00525					
350.1	LCSD 280-569404/19	Ammonia	2.47		mg/L	2.50	99	90-110	0	10	
Batch ID: 568923	Date: 03/17/2022 15:50										
						LCSD Source: IC LCS_01863					
9056A	LCSD 280-568923/12	Sulfate	95.8		mg/L	100	96	87-112	0	10	
Batch ID: 568099	Date: 03/08/2022 14:57										
						LCSD Source: Alk daily lcs_01028					
SM 2320B	LCSD 280-568099/5	Total Alkalinity as CaCO3	197		mg/L	200	99	89-109	0	10	

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

FORM VIIA-IN

7A-IN
METHOD REPORTING LIMIT CHECK
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 568923	Date: 03/17/2022 15:18										
						LCS Source: IC CAL cl/so4_00411					
9056A	MRL 280-568923/10	Sulfate	4.18	J	mg/L	5.00	84	50-150			

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

FORM VIIA-IN

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job Number: 280-159384-1

SDG Number:

Matrix: Water Instrument ID: WC_Alp 4

Method: 350.1 DL Date: 03/28/2011 13:26

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Ammonia		0.1	0.022

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job Number: 280-159384-1

SDG Number:

Matrix: Water Instrument ID: WC_Alp 4

Method: 350.1 XMDL Date: 03/28/2011 13:26

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Ammonia		0.1	0.0225

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job Number: 280-159384-1

SDG Number:

Matrix: Water Instrument ID: WC_GAL1

Method: 351.2 DL Date: 02/03/2019 00:00

Prep Method: 351.2

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Nitrogen, Total Kjeldahl		1	0.687

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job Number: 280-159384-1

SDG Number:

Matrix: Water Instrument ID: WC_GAL1

Method: 351.2 XMDL Date: 02/03/2019 00:00

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Nitrogen, Total Kjeldahl		1	0.687

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job Number: 280-159384-1

SDG Number:

Matrix: Water Instrument ID: WC_Alp 2

Method: 353.2 DL Date: 12/16/2011 09:50

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Nitrate Nitrite as N		0.1	0.019

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job Number: 280-159384-1

SDG Number:

Matrix: Water Instrument ID: WC_Alp 2

Method: 353.2 XMDL Date: 05/16/2011 11:21

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Nitrate Nitrite as N		0.1	0.0191

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job Number: 280-159384-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: 9034 DL Date: 03/28/2011 13:37

Prep Method: 9030B

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Sulfide		4	0.793

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job Number: 280-159384-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: 9034 XMDL Date: 03/28/2011 13:37

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Sulfide		4	0.793

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job Number: 280-159384-1

SDG Number:

Matrix: Water Instrument ID: WC_IonChrom11

Method: 9056A DL Date: 06/21/2019 00:00

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Sulfate		5	1.03

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job Number: 280-159384-1

SDG Number:

Matrix: Water Instrument ID: WC_IonChrom11

Method: 9056A XMDL Date: 06/21/2019 00:00

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Sulfate		5	1.03

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY - DISSOLVED

Lab Name: Eurofins Denver Job Number: 280-159384-1

SDG Number:

Matrix: Water Instrument ID: WC_SHI5

Method: 9060A DL Date: 06/21/2019 00:00

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Dissolved Organic Carbon - Quad		1	0.345

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY - DISSOLVED

Lab Name: Eurofins Denver Job Number: 280-159384-1

SDG Number:

Matrix: Water Instrument ID: WC_SHI5

Method: 9060A XMDL Date: 06/21/2019 00:00

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Dissolved Organic Carbon - Quad		1	0.345

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job Number: 280-159384-1

SDG Number:

Matrix: Water Instrument ID: WC_AT4

Method: SM 2320B DL Date: 02/03/2019 00:00

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Total Alkalinity as CaCO3		10	3.08

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job Number: 280-159384-1

SDG Number:

Matrix: Water Instrument ID: WC_AT4

Method: SM 2320B XMDL Date: 02/03/2019 00:00

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Total Alkalinity as CaCO3		10	3.08

12-IN
PREPARATION LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Prep Method: 351.2

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
LCS 280-568334/1-A	03/10/2022 16:03	568334		25	25
MB 280-568334/2-A	03/10/2022 16:03	568334		25	25
280-159384-1	03/10/2022 16:03	568334		25	25
280-159384-1 MS	03/10/2022 16:03	568334		25	25
280-159384-1 MSD	03/10/2022 16:03	568334		25	25
280-159384-2	03/10/2022 16:03	568334		25	25
280-159384-4	03/10/2022 16:03	568334		5	25
280-159384-5	03/10/2022 16:03	568334		10	25
280-159384-6	03/10/2022 16:03	568334		25	25

12-IN
PREPARATION LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Prep Method: 9030B

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
LCS 280-568178/1-A	03/09/2022 15:33	568178		50	50
MB 280-568178/2-A	03/09/2022 15:33	568178		50	50
280-159384-1	03/09/2022 15:33	568178		50	50
280-159384-2	03/09/2022 15:33	568178		50	50
280-159384-5	03/09/2022 15:33	568178		50	50
280-159384-4	03/09/2022 15:33	568178		50	50
280-159384-6	03/09/2022 15:33	568178		50	50

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Instrument ID: WC_Alp 4 Analysis Method: 350.1

Start Date: 03/19/2022 10:03 End Date: 03/19/2022 13:28

Lab Sample Id	D/F	Type	Time	Analytes																								
				NH3																								
ZZZZZZ			10:03																									
ZZZZZZ			10:05																									
ZZZZZZ			10:07																									
IC 280-569144/4			10:09	X																								
IC 280-569144/5			10:11	X																								
IC 280-569144/6			10:13	X																								
IC 280-569144/7			10:15	X																								
IC 280-569144/8			10:17	X																								
IC 280-569144/9			10:19	X																								
IC 280-569144/10			10:21	X																								
IC 280-569144/11			10:23	X																								
ZZZZZZ			10:25																									
ZZZZZZ			10:27																									
ICVL 280-569144/14			10:29																									
ICV 280-569144/15			10:31																									
ICB 280-569144/16			10:33																									
ZZZZZZ			10:35																									
ZZZZZZ			10:37																									
ZZZZZZ			10:39																									
ZZZZZZ			10:41																									
ZZZZZZ			10:43																									
ZZZZZZ			10:45																									
ZZZZZZ			10:47																									
ZZZZZZ			10:49																									
ZZZZZZ			10:51																									
ZZZZZZ			10:53																									
ZZZZZZ			10:55																									
ZZZZZZ			10:57																									
ZZZZZZ			10:59																									
ZZZZZZ			11:01																									
ZZZZZZ			11:03																									
ZZZZZZ			11:05																									
CCVL 280-569144/33			11:07																									
CCV 280-569144/34			11:09																									
CCB 280-569144/35			11:11																									
ZZZZZZ			11:13																									
ZZZZZZ			11:15																									
ZZZZZZ			11:17																									
ZZZZZZ			11:19																									
ZZZZZZ			11:21																									
ZZZZZZ			11:23																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Instrument ID: WC_Alp 4 Analysis Method: 350.1

Start Date: 03/19/2022 10:03 End Date: 03/19/2022 13:28

Lab Sample Id	D/F	Type	Time	Analytes																								
				NH3																								
ZZZZZZ			11:25																									
280-159384-1	1	T	11:27	X																								
280-159384-2	10	T	11:29	X																								
ZZZZZZ			11:31																									
ZZZZZZ			11:33																									
ZZZZZZ			11:35																									
ZZZZZZ			11:37																									
CCVL 280-569144/49			11:39																									
CCV 280-569144/50			11:41																									
CCB 280-569144/51			11:43																									
ZZZZZZ			11:45																									
ZZZZZZ			11:47																									
ZZZZZZ			11:49																									
ZZZZZZ			11:51																									
ZZZZZZ			11:53																									
ZZZZZZ			11:55																									
ZZZZZZ			11:57																									
ZZZZZZ			11:59																									
ZZZZZZ			12:01																									
ZZZZZZ			12:03																									
ZZZZZZ			12:05																									
ZZZZZZ			12:07																									
ZZZZZZ			12:09																									
CCVL 280-569144/65			12:11																									
CCV 280-569144/66			12:13																									
CCB 280-569144/67			12:15																									
ZZZZZZ			12:17																									
ZZZZZZ			12:19																									
ZZZZZZ			12:21																									
ZZZZZZ			12:23																									
ZZZZZZ			12:25																									
ZZZZZZ			12:27																									
ZZZZZZ			12:29																									
ZZZZZZ			12:31																									
ZZZZZZ			12:33																									
ZZZZZZ			12:35																									
ZZZZZZ			12:37																									
ZZZZZZ			12:39																									
ZZZZZZ			12:41																									
CCVL 280-569144/81			12:43																									
CCV 280-569144/82			12:45																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Instrument ID: WC_Alp 4 Analysis Method: 350.1

Start Date: 03/19/2022 10:03 End Date: 03/19/2022 13:28

Lab Sample Id	D/F	Type	Time	Analytes																								
				NH3																								
CCB 280-569144/83			12:47																									
ZZZZZZ			12:49																									
ZZZZZZ			12:51																									
ZZZZZZ			12:53																									
ZZZZZZ			13:04																									
ZZZZZZ			13:06																									
ZZZZZZ			13:08																									
ZZZZZZ			13:10																									
ZZZZZZ			13:18																									
ZZZZZZ			13:20																									
CCVL 280-569144/93			13:22																									
CCV 280-569144/94			13:24																									
CCB 280-569144/95			13:26																									
ZZZZZZ			13:28																									

Prep Types:
T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Instrument ID: WC_Alp 4 Analysis Method: 350.1

Start Date: 03/22/2022 11:16 End Date: 03/22/2022 15:02

Lab Sample Id	D/F	Type	Time	Analytes
				NH3
ZZZZZZ			11:16	
ZZZZZZ			11:18	
ZZZZZZ			11:20	
IC 280-569404/4			11:22	X
IC 280-569404/5			11:24	X
IC 280-569404/6			11:26	X
IC 280-569404/7			11:28	X
IC 280-569404/8			11:30	X
IC 280-569404/9			11:32	X
IC 280-569404/10			11:34	X
IC 280-569404/11			11:36	X
ZZZZZZ			11:38	
ZZZZZZ			11:40	
ICVL 280-569404/14	1		11:42	X
ICV 280-569404/15	1		11:44	X
ICB 280-569404/16	1		11:46	X
ZZZZZZ			11:48	
LCS 280-569404/18	1	T	11:50	X
LCSD 280-569404/19	1	T	11:52	X
MB 280-569404/20	1	T	11:54	X
ZZZZZZ			11:56	
ZZZZZZ			11:58	
ZZZZZZ			12:00	
280-159384-4	10	T	12:02	X
280-159384-5	10	T	12:04	X
280-159384-6	2	T	12:06	X
ZZZZZZ			12:08	
ZZZZZZ			12:10	
ZZZZZZ			12:12	
ZZZZZZ			12:14	
ZZZZZZ			12:16	
ZZZZZZ			12:18	
CCVL 280-569404/33	1		12:20	X
CCV 280-569404/34	1		12:22	X
CCB 280-569404/35	1		12:24	X
ZZZZZZ			12:26	
ZZZZZZ			12:28	
ZZZZZZ			12:30	
ZZZZZZ			12:32	
ZZZZZZ			12:34	
ZZZZZZ			12:36	

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Instrument ID: WC_Alp 4 Analysis Method: 350.1

Start Date: 03/22/2022 11:16 End Date: 03/22/2022 15:02

Lab Sample Id	D/F	Type	Time	Analytes																								
				NH3																								
ZZZZZZ			12:38																									
ZZZZZZ			12:40																									
ZZZZZZ			12:42																									
ZZZZZZ			12:44																									
ZZZZZZ			12:46																									
ZZZZZZ			12:48																									
ZZZZZZ			12:50																									
CCVL 280-569404/49			12:52																									
CCV 280-569404/50			12:54																									
CCB 280-569404/51			12:56																									
ZZZZZZ			12:58																									
ZZZZZZ			13:00																									
ZZZZZZ			13:02																									
ZZZZZZ			13:04																									
ZZZZZZ			13:06																									
ZZZZZZ			13:08																									
ZZZZZZ			13:10																									
ZZZZZZ			13:12																									
ZZZZZZ			13:14																									
ZZZZZZ			13:16																									
ZZZZZZ			13:18																									
ZZZZZZ			13:20																									
ZZZZZZ			13:22																									
CCVL 280-569404/65			13:24																									
CCV 280-569404/66			13:26																									
CCB 280-569404/67			13:28																									
ZZZZZZ			13:30																									
ZZZZZZ			13:32																									
ZZZZZZ			13:34																									
ZZZZZZ			13:36																									
ZZZZZZ			13:38																									
ZZZZZZ			13:40																									
ZZZZZZ			13:42																									
ZZZZZZ			13:44																									
ZZZZZZ			13:46																									
ZZZZZZ			13:48																									
ZZZZZZ			13:50																									
ZZZZZZ			13:52																									
ZZZZZZ			13:54																									
CCVL 280-569404/81			13:56																									
CCV 280-569404/82			13:58																									

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Instrument ID: WC_Alp 4 Analysis Method: 350.1

Start Date: 03/22/2022 11:16 End Date: 03/22/2022 15:02

Lab Sample Id	D/F	Type	Time	Analytes																								
				NH3																								
CCB 280-569404/83			14:00																									
ZZZZZZ			14:02																									
ZZZZZZ			14:04																									
ZZZZZZ			14:06																									
ZZZZZZ			14:08																									
ZZZZZZ			14:10																									
ZZZZZZ			14:12																									
ZZZZZZ			14:14																									
ZZZZZZ			14:16																									
ZZZZZZ			14:18																									
ZZZZZZ			14:20																									
ZZZZZZ			14:22																									
ZZZZZZ			14:24																									
ZZZZZZ			14:26																									
CCVL 280-569404/97			14:28																									
CCV 280-569404/98			14:30																									
CCB 280-569404/99			14:32																									
ZZZZZZ			14:34																									
ZZZZZZ			14:40																									
ZZZZZZ			14:42																									
ZZZZZZ			14:44																									
ZZZZZZ			14:46																									
ZZZZZZ			14:48																									
ZZZZZZ			14:50																									
ZZZZZZ			14:52																									
ZZZZZZ			14:54																									
CCVL 280-569404/109			14:56																									
CCV 280-569404/110			14:58																									
CCB 280-569404/111			15:00																									
ZZZZZZ			15:02																									

Prep Types:
T = Total/NA

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ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver | Job No.: 280-159384-1

SDG No.:

Instrument ID: WC_GAL1 | Analysis Method: 351.2

Start Date: 02/22/2022 16:21 | End Date: 03/14/2022 17:58

Lab Sample Id	D/F	Type	Time	Analytes
				TKN
IC 280-566632/15-A			16:21	X
IC 280-566632/16-A			16:22	X
IC 280-566632/17-A			16:22	X
IC 280-566632/18-A			16:23	X
IC 280-566632/19-A			16:23	X
IC 280-566632/20-A			16:23	X
ICV 280-566632/21-A	1		17:02	X
ICB 280-566632/22-A	1		17:02	X
LCS 280-568334/1-A	1	T	17:02	X
MB 280-568334/2-A	1	T	17:02	X
280-159384-1	1	T	17:03	X
280-159384-1 MS	1	T	17:03	X
280-159384-1 MSD	1	T	17:04	X
280-159384-2	1	T	17:04	X
280-159384-4	1	T	17:05	X
280-159384-5	1	T	17:05	X
280-159384-6	1	T	17:06	X
ZZZZZZ			17:06	
ZZZZZZ			17:07	
ZZZZZZ			17:07	
CCV 280-566632/23-A	1		17:07	X
CCB 280-566632/24-A	1		17:08	X
ZZZZZZ			17:08	
ZZZZZZ			17:08	
ZZZZZZ			17:10	
ZZZZZZ			17:10	
ZZZZZZ			17:10	
ZZZZZZ			17:10	
ZZZZZZ			17:11	
ZZZZZZ			17:11	
ZZZZZZ			17:12	
ZZZZZZ			17:12	
CCV 280-566632/23-A			17:13	
CCB 280-566632/24-A			17:13	
ZZZZZZ			17:14	
ZZZZZZ			17:14	
ZZZZZZ			17:15	
ZZZZZZ			17:15	
ZZZZZZ			17:16	
ZZZZZZ			17:16	
ZZZZZZ			17:16	

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ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Instrument ID: WC_GAL1 Analysis Method: 351.2

Start Date: 02/22/2022 16:21 End Date: 03/14/2022 17:58

Lab Sample Id	D/F	Type	Time	Analytes																								
				TKN																								
ZZZZZZ			17:17																									
ZZZZZZ			17:17																									
ZZZZZZ			17:17																									
CCV 280-566632/23-A			17:19																									
CCB 280-566632/24-A			17:19																									
ZZZZZZ			17:19																									
ZZZZZZ			17:19																									
ZZZZZZ			17:20																									
ZZZZZZ			17:20																									
ZZZZZZ			17:21																									
ZZZZZZ			17:22																									
CCV 280-566632/23-A			17:23																									
CCB 280-566632/24-A			17:23																									
ZZZZZZ			17:34																									
ZZZZZZ			17:35																									
CCV 280-566632/23-A			17:58																									
CCB 280-566632/24-A			17:58																									

Prep Types:
T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver | Job No.: 280-159384-1

SDG No.:

Instrument ID: WC_Alp 2 | Analysis Method: 353.2

Start Date: 03/20/2022 15:22 | End Date: 03/20/2022 18:44

Lab Sample Id	D/F	Type	Time	Analytes
				NNO32
ZZZZZZ			15:22	
ZZZZZZ			15:24	
ZZZZZZ			15:26	
ZZZZZZ			15:28	
IC 280-569157/5			15:30	X
IC 280-569157/6			15:32	X
IC 280-569157/7			15:34	X
IC 280-569157/8			15:36	X
IC 280-569157/9			15:38	X
IC 280-569157/10			15:40	X
IC 280-569157/11			15:42	X
IC 280-569157/12			15:44	X
IC 280-569157/13			15:46	X
ZZZZZZ			15:48	
ZZZZZZ			15:50	
ZZZZZZ			15:52	
ICV 280-569157/17	1		15:54	X
ICVL 280-569157/18	1		15:56	X
ICB 280-569157/19	1		15:58	X
ZZZZZZ			16:00	
ZZZZZZ			16:02	
ZZZZZZ			16:04	
ZZZZZZ			16:06	
ZZZZZZ			16:08	
ZZZZZZ			16:10	
ZZZZZZ			16:12	
ZZZZZZ			16:14	
ZZZZZZ			16:16	
ZZZZZZ			16:18	
ZZZZZZ			16:20	
ZZZZZZ			16:22	
ZZZZZZ			16:24	
RINSE 280-569157/33			16:26	
ZZZZZZ			16:28	
CCV 280-569157/35			16:30	
CCVL 280-569157/36			16:32	
CCB 280-569157/37			16:34	
ZZZZZZ			16:36	
ZZZZZZ			16:38	

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ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Instrument ID: WC_Alp 2 Analysis Method: 353.2

Start Date: 03/20/2022 15:22 End Date: 03/20/2022 18:44

Lab Sample Id	D/F	Type	Time	Analytes
				NNO32
ZZZZZZ			16:40	
ZZZZZZ			16:42	
ZZZZZZ			16:44	
ZZZZZZ			16:46	
ZZZZZZ			16:48	
ZZZZZZ			16:50	
ZZZZZZ			16:52	
ZZZZZZ			16:54	
ZZZZZZ			16:56	
RINSE 280-569157/49			16:58	
ZZZZZZ			17:00	
CCV 280-569157/51	1		17:02	X
CCVL 280-569157/52	1		17:04	X
CCB 280-569157/53	1		17:06	X
ZZZZZZ			17:08	
ZZZZZZ			17:10	
ZZZZZZ			17:12	
ZZZZZZ			17:14	
ZZZZZZ			17:16	
LCS 280-569157/59	1	T	17:18	X
MB 280-569157/60	1	T	17:20	X
ZZZZZZ			17:22	
ZZZZZZ			17:24	
ZZZZZZ			17:26	
280-159384-1	2	T	17:28	X
RINSE 280-569157/65			17:30	
ZZZZZZ			17:32	
CCV 280-569157/67	1		17:34	X
CCVL 280-569157/68	1		17:36	X
CCB 280-569157/69	1		17:38	X
ZZZZZZ			17:40	
280-159384-2	1	T	17:42	X
280-159384-4	1	T	17:44	X
280-159384-5	1	T	17:46	X
280-159384-6	1	T	17:48	X
ZZZZZZ			17:50	
ZZZZZZ			17:52	
ZZZZZZ			17:54	
ZZZZZZ			17:56	

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ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Instrument ID: WC_Alp 2 Analysis Method: 353.2

Start Date: 03/20/2022 15:22 End Date: 03/20/2022 18:44

Lab Sample Id	D/F	Type	Time	Analytes
				NNO32
ZZZZZZ			17:58	
ZZZZZZ			18:00	
RINSE 280-569157/81			18:02	
ZZZZZZ			18:04	
CCV 280-569157/83	1		18:06	X
CCVL 280-569157/84	1		18:08	X
CCB 280-569157/85	1		18:10	X
ZZZZZZ			18:12	
ZZZZZZ			18:14	
ZZZZZZ			18:16	
ZZZZZZ			18:18	
ZZZZZZ			18:20	
ZZZZZZ			18:22	
ZZZZZZ			18:24	
ZZZZZZ			18:26	
ZZZZZZ			18:28	
ZZZZZZ			18:30	
ZZZZZZ			18:32	
RINSE 280-569157/97			18:34	
ZZZZZZ			18:36	
CCV 280-569157/99			18:38	
CCVL 280-569157/100			18:40	
CCB 280-569157/101			18:42	
ZZZZZZ			18:44	

Prep Types:
T = Total/NA

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ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: 9034

Start Date: 03/09/2022 15:33 End Date: 03/09/2022 15:33

Lab Sample Id	D/F	Type	Time	Analytes																								
				S2																								
LCS 280-568178/1-A	1	T	15:33	X																								
MB 280-568178/2-A	1	T	15:33	X																								
ZZZZZZ			15:33																									
ZZZZZZ			15:33																									
ZZZZZZ			15:33																									
ZZZZZZ			15:33																									
ZZZZZZ			15:33																									
ZZZZZZ			15:33																									
ZZZZZZ			15:33																									
ZZZZZZ			15:33																									
280-159384-1	1	T	15:33	X																								
280-159384-2	1	T	15:33	X																								
280-159384-5	1	T	15:33	X																								
280-159384-4	1	T	15:33	X																								
280-159384-6	1	T	15:33	X																								

Prep Types:
T = Total/NA

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ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Method: 9056A

Start Date: 03/17/2022 13:06 End Date: 03/18/2022 04:30

Lab Sample Id	D/F	Type	Time	Analytes																								
				SO4																								
STD 280-568923/2 IC	1		13:06	X																								
STD 280-568923/3 IC	1		13:23	X																								
STD 280-568923/4 IC	1		13:39	X																								
STD 280-568923/5 IC	1		13:56	X																								
STD 280-568923/6 IC	1		14:12	X																								
STD 280-568923/7 IC	1		14:28	X																								
ICV 280-568923/8	1		14:45	X																								
ICB 280-568923/9	1		15:01	X																								
MRL 280-568923/10	1	T	15:18	X																								
LCS 280-568923/11	1	T	15:34	X																								
LCSD 280-568923/12	1	T	15:50	X																								
MB 280-568923/13	1	T	16:07	X																								
280-159384-1	1	T	17:02	X																								
280-159384-1 DU	1	T	17:17	X																								
280-159384-1 MS	1	T	17:34	X																								
280-159384-1 MSD	1	T	17:50	X																								
280-159384-2	10	T	18:07	X																								
280-159384-4	5	T	18:23	X																								
280-159384-5	5	T	18:39	X																								
280-159384-6	2	T	18:56	X																								
ZZZZZZ			19:12																									
ZZZZZZ			19:29																									
CCV 280-568923/24	1		19:45	X																								
CCB 280-568923/25	1		20:01	X																								
ZZZZZZ			20:18																									
ZZZZZZ			20:34																									
ZZZZZZ			20:51																									
ZZZZZZ			21:07																									
ZZZZZZ			21:24																									
ZZZZZZ			21:40																									
ZZZZZZ			21:56																									
ZZZZZZ			22:13																									
ZZZZZZ			22:29																									
ZZZZZZ			22:46																									
CCV 280-568923/36			23:02																									
CCB 280-568923/37			23:18																									
ZZZZZZ			23:35																									
ZZZZZZ			23:51																									
ZZZZZZ			00:08																									
ZZZZZZ			00:24																									
ZZZZZZ			00:41																									

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ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Method: 9056A

Start Date: 03/17/2022 13:06 End Date: 03/18/2022 04:30

Lab Sample Id	D/F	Type	Time	Analytes																									
				SO4																									
ZZZZZZ			00:57																										
ZZZZZZ			01:13																										
ZZZZZZ			01:30																										
ZZZZZZ			01:46																										
ZZZZZZ			02:03																										
CCV 280-568923/48			02:19																										
CCB 280-568923/49			02:35																										
ZZZZZZ			02:52																										
ZZZZZZ			03:08																										
ZZZZZZ			03:25																										
ZZZZZZ			03:41																										
ZZZZZZ			03:58																										
CCV 280-568923/55			04:14																										
CCB 280-568923/56			04:30																										

Prep Types:
T = Total/NA

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ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Instrument ID: WC_SHI5 Analysis Method: 9060A

Start Date: 03/14/2022 16:01 End Date: 03/15/2022 20:52

Lab Sample Id	D/F	Type	Time	Analytes
				DOCQ
ZZZZZZ			16:01	
ICV 280-568667/2	1		17:02	X
ICB 280-568667/3	1		17:16	X
ZZZZZZ			17:33	
MB 280-568667/5	1	D	17:47	X
ZZZZZZ			18:05	
ZZZZZZ			18:20	
ZZZZZZ			18:34	
ZZZZZZ			18:52	
ZZZZZZ			19:13	
ZZZZZZ			19:27	
ZZZZZZ			19:45	
ZZZZZZ			20:03	
ZZZZZZ			20:20	
ZZZZZZ			20:39	
CCV 280-568667/16	1		20:57	X
CCB 280-568667/17	1		21:14	X
ZZZZZZ			21:43	
ZZZZZZ			21:57	
ZZZZZZ			22:12	
ZZZZZZ			22:30	
ZZZZZZ			22:46	
ZZZZZZ			23:04	
ZZZZZZ			23:23	
ZZZZZZ			23:42	
ZZZZZZ			00:00	
ZZZZZZ			00:14	
CCV 280-568667/28			00:32	
CCB 280-568667/29			00:47	
ZZZZZZ			01:01	
ZZZZZZ			01:20	
ZZZZZZ			01:36	
ZZZZZZ			01:52	
ZZZZZZ			02:08	
ZZZZZZ			02:29	
ZZZZZZ			02:46	
ZZZZZZ			03:02	
ZZZZZZ			03:21	
ZZZZZZ			03:39	
CCV 280-568667/40			03:54	

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ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Instrument ID: WC_SHI5 Analysis Method: 9060A

Start Date: 03/14/2022 16:01 End Date: 03/15/2022 20:52

Lab Sample Id	D/F	Type	Time	Analytes
				DOCQ
CCB 280-568667/41			04:08	
ZZZZZZ			04:22	
ZZZZZZ			04:37	
CCV 280-568667/44	1		04:51	X
CCB 280-568667/45	1		05:07	X
ICV 280-568667/46	1		15:45	X
ICB 280-568667/47	1		15:59	X
LCS 280-568667/48	1	D	16:13	X
MB 280-568667/49	1	D	16:27	X
ZZZZZZ			16:42	
LCS 280-568705/1-A	1	D	16:56	X
MB 280-568705/2-A	1	D	17:12	X
ZZZZZZ			17:26	
ZZZZZZ			17:45	
ZZZZZZ			18:01	
ZZZZZZ			18:22	
280-159384-1	1	D	18:40	X
280-159384-2	1	D	18:56	X
280-159384-4	1	D	19:17	X
CCV 280-568667/60	1		19:33	X
CCB 280-568667/61	1		19:49	X
280-159384-5	1	D	20:03	X
280-159384-6	1	D	20:20	X
CCV 280-568667/64	1		20:36	X
CCB 280-568667/65	1		20:52	X

Prep Types:
D = Dissolved

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ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Instrument ID: WC_AT4 Analysis Method: SM 2320B

Start Date: 03/07/2022 16:25 End Date: 03/08/2022 06:15

Lab Sample Id	D/F	Type	Time	Analytes
				Alk
RINSE 280-567962/1			16:25	
ZZZZZZ			16:33	
ZZZZZZ			16:36	
ZZZZZZ			16:43	
ZZZZZZ			16:50	
ZZZZZZ			16:56	
ZZZZZZ			17:01	
ZZZZZZ			17:07	
ZZZZZZ			17:13	
ZZZZZZ			17:19	
ZZZZZZ			17:25	
ZZZZZZ			17:30	
ZZZZZZ			17:38	
ZZZZZZ			17:45	
ZZZZZZ			17:53	
ZZZZZZ			18:03	
CCV 280-567962/17			18:10	
CCB 280-567962/18			18:15	
ZZZZZZ			18:25	
ZZZZZZ			18:33	
ZZZZZZ			18:39	
ZZZZZZ			18:50	
ZZZZZZ			18:59	
ZZZZZZ			19:07	
ZZZZZZ			19:16	
ZZZZZZ			19:26	
ZZZZZZ			19:36	
ZZZZZZ			19:45	
CCV 280-567962/29			19:52	
CCB 280-567962/30			19:57	
ZZZZZZ			20:05	
ZZZZZZ			20:11	
ZZZZZZ			20:19	
ZZZZZZ			20:27	
ZZZZZZ			20:35	
ZZZZZZ			20:41	
ZZZZZZ			20:50	
ZZZZZZ			20:57	
ZZZZZZ			21:06	
ZZZZZZ			21:14	
ZZZZZZ			21:24	

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ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Instrument ID: WC_AT4 Analysis Method: SM 2320B

Start Date: 03/07/2022 16:25 End Date: 03/08/2022 06:15

Lab Sample Id	D/F	Type	Time	Analytes																								
				Alk																								
ZZZZZZ			21:33																									
CCV 280-567962/43			21:41																									
CCB 280-567962/44			21:46																									
ZZZZZZ			21:54																									
ZZZZZZ			22:01																									
ZZZZZZ			22:09																									
ZZZZZZ			22:15																									
ZZZZZZ			22:22																									
ZZZZZZ			22:28																									
ZZZZZZ			22:35																									
ZZZZZZ			22:41																									
ZZZZZZ			22:48																									
ZZZZZZ			23:09																									
CCV 280-567962/55			23:17																									
CCB 280-567962/56			23:22																									
ZZZZZZ			23:29																									
ZZZZZZ			23:35																									
ZZZZZZ			23:57																									
ZZZZZZ			00:20																									
ZZZZZZ			00:41																									
ZZZZZZ			01:02																									
ZZZZZZ			01:20																									
ZZZZZZ			01:34																									
ZZZZZZ			01:55																									
ZZZZZZ			02:19																									
ZZZZZZ			02:32																									
ZZZZZZ			02:43																									
CCV 280-567962/69			02:51																									
CCB 280-567962/70			02:56																									
ZZZZZZ			03:10																									
ZZZZZZ			03:20																									
ZZZZZZ			03:28																									
ZZZZZZ			03:38																									
ZZZZZZ			03:47																									
ZZZZZZ			03:56																									
ZZZZZZ			04:05																									
ZZZZZZ			04:13																									
ZZZZZZ			04:19																									
ZZZZZZ			04:26																									
CCV 280-567962/81	1		04:34	X																								
CCB 280-567962/82	1		04:40	X																								

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ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Instrument ID: WC_AT4 Analysis Method: SM 2320B

Start Date: 03/07/2022 16:25 End Date: 03/08/2022 06:15

Lab Sample Id	D/F	Type	Time	Analytes																								
				Alk																								
LCS 280-567962/83	1	T	04:47	X																								
MB 280-567962/84	1	T	04:52	X																								
ZZZZZZ			05:00																									
ZZZZZZ			05:07																									
ZZZZZZ			05:13																									
ZZZZZZ			05:19																									
ZZZZZZ			05:26																									
ZZZZZZ			05:33																									
ZZZZZZ			05:40																									
ZZZZZZ			05:47																									
ZZZZZZ			05:54																									
280-159384-1	1	T	06:02	X																								
CCV 280-567962/95	1		06:09	X																								
CCB 280-567962/96	1		06:15	X																								

Prep Types:
T = Total/NA

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ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Instrument ID: WC_AT4 Analysis Method: SM 2320B

Start Date: 03/08/2022 14:33 End Date: 03/09/2022 03:03

Lab Sample Id	D/F	Type	Time	Analytes
				Alk
RINSE 280-568099/1			14:33	
ZZZZZZ			14:40	
ZZZZZZ			14:43	
LCS 280-568099/4	1	T	14:50	X
LCSD 280-568099/5	1	T	14:57	X
MB 280-568099/6	1	T	15:03	X
ZZZZZZ			15:08	
ZZZZZZ			15:13	
280-159384-2	1	T	15:22	X
280-159384-4	1	T	15:33	X
280-159384-5	1	T	15:45	X
280-159384-6	1	T	15:55	X
ZZZZZZ			16:09	
ZZZZZZ			16:22	
ZZZZZZ			16:31	
ZZZZZZ			16:46	
CCV 280-568099/17	1		16:53	X
CCB 280-568099/18	1		16:59	X
ZZZZZZ			17:09	
ZZZZZZ			17:18	
ZZZZZZ			17:25	
ZZZZZZ			17:32	
ZZZZZZ			17:41	
ZZZZZZ			17:53	
ZZZZZZ			18:02	
ZZZZZZ			18:09	
ZZZZZZ			18:16	
ZZZZZZ			18:23	
CCV 280-568099/29			18:30	
CCB 280-568099/30			18:36	
ZZZZZZ			18:43	
ZZZZZZ			18:48	
ZZZZZZ			18:56	
ZZZZZZ			19:04	
ZZZZZZ			19:12	
ZZZZZZ			19:20	
ZZZZZZ			19:27	
ZZZZZZ			19:35	
ZZZZZZ			19:42	
ZZZZZZ			19:51	
ZZZZZZ			20:00	

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Instrument ID: WC_AT4 Analysis Method: SM 2320B

Start Date: 03/08/2022 14:33 End Date: 03/09/2022 03:03

Lab Sample Id	D/F	Type	Time	Analytes
				Alk
ZZZZZZ			20:09	
CCV 280-568099/43			20:15	
CCB 280-568099/44			20:21	
ZZZZZZ			20:27	
ZZZZZZ			20:42	
ZZZZZZ			20:51	
ZZZZZZ			21:00	
ZZZZZZ			21:08	
ZZZZZZ			21:16	
ZZZZZZ			21:26	
ZZZZZZ			21:35	
ZZZZZZ			21:48	
ZZZZZZ			21:54	
CCV 280-568099/55			22:01	
CCB 280-568099/56			22:06	
ZZZZZZ			22:13	
ZZZZZZ			22:19	
ZZZZZZ			22:28	
ZZZZZZ			22:38	
ZZZZZZ			22:44	
ZZZZZZ			22:53	
ZZZZZZ			23:05	
ZZZZZZ			23:16	
ZZZZZZ			23:26	
ZZZZZZ			23:36	
ZZZZZZ			23:42	
ZZZZZZ			23:48	
CCV 280-568099/69			23:54	
CCB 280-568099/70			00:00	
ZZZZZZ			00:05	
ZZZZZZ			00:13	
ZZZZZZ			00:20	
ZZZZZZ			00:32	
ZZZZZZ			00:45	
ZZZZZZ			00:54	
ZZZZZZ			01:03	
ZZZZZZ			01:13	
ZZZZZZ			01:22	
ZZZZZZ			01:40	
CCV 280-568099/81			01:48	
CCB 280-568099/82			01:53	

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Instrument ID: WC_AT4 Analysis Method: SM 2320B

Start Date: 03/08/2022 14:33 End Date: 03/09/2022 03:03

Lab Sample Id	D/F	Type	Time	Analytes																								
				Alk																								
ZZZZZZ			02:01																									
ZZZZZZ			02:06																									
ZZZZZZ			02:28																									
ZZZZZZ			02:50																									
CCV 280-568099/87			02:58																									
CCB 280-568099/88			03:03																									

Prep Types:
T = Total/NA

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Batch Number: 569144 Batch Start Date: 03/19/22 10:03 Batch Analyst: Mitchell, Jacob J

Batch Method: 350.1 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	ClResPres	InitialAmount	FinalAmount	Initial pH		
280-159384-C-1	G0022-8	350.1	T	no	10 mL	10 mL	<2 SU		
280-159384-C-2	G0102-8	350.1	T	no	10 mL	10 mL	<2 SU		

Batch Notes	
Sodium Nitroprusside ID	350.1 color_00277
Hypochlorite ID	350.1 bleach_01588
Carrier Identification	350.1 complex_00603
Sodium Salicylate ID	Sodium Sal_00023
Pipette/Syringe/Dispenser ID	SAH5000, 1000 INTERCESSOR, BWH 200
Batch Comment	JM

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Batch Number: 569404 Batch Start Date: 03/22/22 11:16 Batch Analyst: Peterson, McKenzy M

Batch Method: 350.1 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	ClResPres	InitialAmount	FinalAmount	Initial pH	350.1 cal 00525	350.1 ICV 00509
ICVL 280-569404/14		350.1		No	100 mL	100 mL	<2 SU		0.5 mL
ICV 280-569404/15		350.1		No	100 mL	100 mL	<2 SU		2.5 mL
ICB 280-569404/16		350.1		No	10 mL	10 mL	<2 SU		
LCS 280-569404/18		350.1		No	100 mL	100 mL	<2 SU	2.5 mL	
LCSD 280-569404/19		350.1		No	100 mL	100 mL	<2 SU	2.5 mL	
MB 280-569404/20		350.1		No	10 mL	10 mL	<2 SU		
280-159384-C-4	G0121-8	350.1	T	No	10 mL	10 mL	<2 SU		
280-159384-C-5	G0122-8	350.1	T	No	10 mL	10 mL	<2 SU		
280-159384-C-6	G0123-8	350.1	T	No	10 mL	10 mL	<2 SU		
CCVL 280-569404/33		350.1		No	100 mL	100 mL	<2 SU	0.5 mL	
CCV 280-569404/34		350.1		No	100 mL	100 mL	<2 SU	2.5 mL	
CCB 280-569404/35		350.1		No	10 mL	10 mL	<2 SU		

Batch Notes	
Acid used for pH adjustment	Sulfuric Acid_00264
Sodium Nitroprusside ID	350.1 color_00278
Hypochlorite ID	350.1 bleach_01589
Carrier Identification	350.1 complex_00603
Sodium Salicylate ID	Sodium Sal_00023
Pipette/Syringe/Dispenser ID	5000CONDOR, 1000SM, 200SM

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Batch Number: 566632 Batch Start Date: 02/21/22 15:30 Batch Analyst: Cherry, Scott V

Batch Method: 351.2 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	Initial pH	InitialAmount	FinalAmount	TKN 25ppm 00829	TKN ICV 25 00115	
ICV 280-566632/21		351.2, 351.2		<2	25 mL	25 mL		5 mL	
ICB 280-566632/22		351.2, 351.2		<2	25 mL	25 mL			
CCV 280-566632/23		351.2, 351.2		<2	25 mL	25 mL	5 mL		
CCB 280-566632/24		351.2, 351.2		<2	25 mL	25 mL			

Batch Notes	
Block Digestor ID	TKN Hotblock
Digestion Solution ID	TKN digestion_00145
Oven, Bath or Block Temperature 1	160 Degrees C
Block Digestion Temperature Start Date	02/21/2022 16:30
Oven, Bath or Block Temperature 2	380 Degrees C
Bl;ock Digestion Temperature End Date	02/21/2022 22:30
Pipette/Syringe/Dispenser ID	5000ad, 1000ad
pH Indicator ID	hc902937

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Batch Number: 568334 Batch Start Date: 03/10/22 16:03 Batch Analyst: Cherry, Scott V

Batch Method: 351.2 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	Initial pH	InitialAmount	FinalAmount	TKN 25ppm 00829		
LCS 280-568334/1		351.2, 351.2			25 mL	25 mL	6 mL		
MB 280-568334/2		351.2, 351.2			25 mL	25 mL			
280-159384-C-1	G0022-8	351.2, 351.2	T	<2	25 mL	25 mL			
280-159384-C-1 MS	G0022-8	351.2, 351.2	T	<2	25 mL	25 mL	3 mL		
280-159384-C-1 MSD	G0022-8	351.2, 351.2	T	<2	25 mL	25 mL	3 mL		
280-159384-C-2	G0102-8	351.2, 351.2	T	<2	25 mL	25 mL			
280-159384-C-4	G0121-8	351.2, 351.2	T	<2	5 mL	25 mL			
280-159384-C-5	G0122-8	351.2, 351.2	T	<2	10 mL	25 mL			
280-159384-C-6	G0123-8	351.2, 351.2	T	<2	25 mL	25 mL			

Batch Notes	
Block Digestor ID	TKN Hotblock
Digestion Solution ID	TKN digestion_00146
Oven, Bath or Block Temperature 1	160 Degrees C
Block Digestion Temperature Start Date	03/10/2022 17:00
Oven, Bath or Block Temperature 2	380 Degrees C
Bl;ock Digestion Temperature End Date	03/10/2022 23:00
Pipette/Syringe/Dispenser ID	5000ad, 1000ad
pH Indicator ID	hc902937

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Batch Number: 568623 Batch Start Date: 02/22/22 16:21 Batch Analyst: Cherry, Scott V

Batch Method: 351.2 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	FinalAmount					
ICV 280-566632/21-A		351.2		2 mL					
ICB 280-566632/22-A		351.2		2 mL					
LCS 280-568334/1-A		351.2		2 mL					
MB 280-568334/2-A		351.2		2 mL					
280-159384-C-1-A	G0022-8	351.2	T	2 mL					
280-159384-C-1-B MS	G0022-8	351.2	T	2 mL					
280-159384-C-1-C MSD	G0022-8	351.2	T	2 mL					
280-159384-C-2-A	G0102-8	351.2	T	2 mL					
280-159384-C-4-A	G0121-8	351.2	T	2 mL					
280-159384-C-5-A	G0122-8	351.2	T	2 mL					
280-159384-C-6-A	G0123-8	351.2	T	2 mL					
CCV 280-566632/23-A		351.2		2 mL					
CCB 280-566632/24-A		351.2		2 mL					

Batch Notes	
Hypochlorite ID	TKN Hypo_00676
Buffer Reagent ID	TKN buffer_00133
Pipette/Syringe/Dispenser ID	5000ad, 1000ad
Sodium Nitroprusside ID	sodium nitro_00108

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Batch Number: 569157 Batch Start Date: 03/20/22 15:22 Batch Analyst: Cherry, Scott V

Batch Method: 353.2 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	NXN CAL INT 00614	NXN ICV INT 00590		
ICV 280-569157/17		353.2		100 mL	100 mL		5 mL		
ICVL 280-569157/18		353.2		100 mL	100 mL		2 mL		
ICB 280-569157/19		353.2		100 mL	100 mL				
CCV 280-569157/51		353.2		100 mL	100 mL	5 mL			
CCVL 280-569157/52		353.2		100 mL	100 mL	1 mL			
CCB 280-569157/53		353.2		100 mL	100 mL				
LCS 280-569157/59		353.2		100 mL	100 mL	5 mL			
MB 280-569157/60		353.2		100 mL	100 mL				
280-159384-C-1	G0022-8	353.2	T	100 mL	100 mL				
CCV 280-569157/67		353.2		100 mL	100 mL	5 mL			
CCVL 280-569157/68		353.2		100 mL	100 mL	1 mL			
CCB 280-569157/69		353.2		100 mL	100 mL				
280-159384-C-2	G0102-8	353.2	T	100 mL	100 mL				
280-159384-C-4	G0121-8	353.2	T	100 mL	100 mL				
280-159384-C-5	G0122-8	353.2	T	100 mL	100 mL				
280-159384-C-6	G0123-8	353.2	T	100 mL	100 mL				
CCV 280-569157/83		353.2		100 mL	100 mL	5 mL			
CCVL 280-569157/84		353.2		100 mL	100 mL	1 mL			
CCB 280-569157/85		353.2		100 mL	100 mL				

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Batch Number: 569157 Batch Start Date: 03/20/22 15:22 Batch Analyst: Cherry, Scott V

Batch Method: 353.2 Batch End Date:

Batch Notes	
pH Indicator ID	hc155968
Buffer Reagent ID	NOXT Buffer_00223
Color Reagent ID	NOXT CR_00123
Pipette/Syringe/Dispenser ID	5000ad, 1000ad
Cadmium Column Lot ID	q11513937102
Copper Sulfate ID	CuSO4 NOXT_0015
Hydrochloric Acid ID	0.5N HCl_0085

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Batch Number: 568178 Batch Start Date: 03/09/22 15:32 Batch Analyst: Guerrero, Martha P

Batch Method: 9030B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	DistillUnitPort	Initial pH	Final pH	AcidVolAdded
LCS 280-568178/1		9030B, 9034		50 mL	50 mL	1	>9 SU	<2 SU	5 mL
MB 280-568178/2		9030B, 9034		50 mL	50 mL	2	>9 SU	<2 SU	5 mL
280-159384-E-1	G0022-8	9030B, 9034	T	50 mL	50 mL	11	>9 SU	<2 SU	5 mL
280-159384-E-2	G0102-8	9030B, 9034	T	50 mL	50 mL	12	>9 SU	<2 SU	5 mL
280-159384-E-5	G0122-8	9030B, 9034	T	50 mL	50 mL	13	>9 SU	<2 SU	5 mL
280-159384-E-4	G0121-8	9030B, 9034	T	50 mL	50 mL	14	>9 SU	<2 SU	5 mL
280-159384-E-6	G0123-8	9030B, 9034	T	50 mL	50 mL	15	>9 SU	<2 SU	5 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	SFD ICV INT 02092					
LCS 280-568178/1		9030B, 9034		1 mL					
MB 280-568178/2		9030B, 9034							
280-159384-E-1	G0022-8	9030B, 9034	T						
280-159384-E-2	G0102-8	9030B, 9034	T						
280-159384-E-5	G0122-8	9030B, 9034	T						
280-159384-E-4	G0121-8	9030B, 9034	T						
280-159384-E-6	G0123-8	9030B, 9034	T						

Batch Notes	
Formaldehyde ID	form_00121
Zinc Acetate Buffer ID	znac_00121
Pipette/Syringe/Dispenser ID	5Hz4, ARM1000
Sulfuric Acid Reagent ID Number	SulfuricAcid_00288
pH Indicator ID	HC157843
Oven, Bath or Block Temperature 1	80 Degrees C
Distillation Start Time	03/08/2022 16:20
Uncorrected Temperature 2	80 Degrees C
Oven, Bath or Block Temperature 2	80 Degrees C
Distillation End Time	03/08/2022 17:40
Batch Comment	JM Training MG

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Batch Number: 568178 Batch Start Date: 03/09/22 15:32 Batch Analyst: Guerrero, Martha P

Batch Method: 9030B Batch End Date:

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Batch Number: 568182 Batch Start Date: 03/09/22 17:00 Batch Analyst: Guerrero, Martha P

Batch Method: 9034 Batch End Date: 03/09/22 18:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	BuretStart1	BuretStop1	IodineAmount	TitrantVolume1	FinalAmount	
LCS 280-568178/1-A		9034		0.05 mL	2.95 mL	5 mL	2.9 mL	50 mL	
MB 280-568178/2-A		9034		2.95 mL	4.95 mL	2 mL	2 mL	50 mL	
280-159384-E-1-A	G0022-8	9034	T	10.50 mL	12.30 mL	2 mL	1.8 mL	50 mL	
280-159384-E-2-A	G0102-8	9034	T	12.30 mL	14.85 mL	4 mL	2.55 mL	50 mL	
280-159384-E-5-A	G0122-8	9034	T	14.85 mL	16.55 mL	2 mL	1.7 mL	50 mL	
280-159384-E-4-A	G0121-8	9034	T	16.55 mL	18.20 mL	2 mL	1.65 mL	50 mL	
280-159384-E-6-A	G0123-8	9034	T	18.20 mL	20.10 mL	2 mL	1.9 mL	50 mL	

Batch Notes	
Normality of First Titrant	0.025 N
Normality of Iodine Solution	0.025 N
Zinc Acetate Buffer ID	znac_00121
Iodine ID	WCIODINE_01326
Hydrochloric Acid ID	HCl sol_00197
Sodium Thiosulfate ID	NaThio_00177
Starch Reagent ID	Starch Ind_00068
Pipette/Syringe/Dispenser ID	5Hz4, ARM1000
Batch Comment	LRB Training MG

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Batch Number: 568923 Batch Start Date: 03/17/22 13:06 Batch Analyst: Jindarat, Chanida

Batch Method: 9056A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Cl ICV Std 00002	IC CAL cl/so4 00411	IC Cal low 00627	IC ICV 5 00355
STD 280-568923/2 IC		9056A		5 mL	5 mL		0.02 mL	0.02 mL	
STD 280-568923/3 IC		9056A		5 mL	5 mL		0.05 mL	0.05 mL	
STD 280-568923/4 IC		9056A		5 mL	5 mL		0.1 mL	0.1 mL	
STD 280-568923/5 IC		9056A		5 mL	5 mL		1.2 mL	0.4 mL	
STD 280-568923/6 IC		9056A		5 mL	5 mL		2.4 mL	0.8 mL	
STD 280-568923/7 IC		9056A		5 mL	5 mL		4 mL	1 mL	
ICV 280-568923/8		9056A		5 mL	5 mL	0.4 mL			0.4 mL
ICB 280-568923/9		9056A		5 mL	5 mL				
MRL 280-568923/10		9056A		5 mL	5 mL		0.1 mL	0.05 mL	
LCS 280-568923/11		9056A		5 mL	5 mL				
LCSD 280-568923/12		9056A		5 mL	5 mL				
MB 280-568923/13		9056A		5 mL	5 mL				
280-159384-F-1	G0022-8	9056A	T	5 mL	5 mL				
280-159384-F-1 DU	G0022-8	9056A	T	5 mL	5 mL				
280-159384-F-1 MS	G0022-8	9056A	T	5 mL	5 mL				
280-159384-F-1 MSD	G0022-8	9056A	T	5 mL	5 mL				
280-159384-F-2	G0102-8	9056A	T	5 mL	5 mL				
280-159384-F-4	G0121-8	9056A	T	5 mL	5 mL				
280-159384-F-5	G0122-8	9056A	T	5 mL	5 mL				
280-159384-F-6	G0123-8	9056A	T	5 mL	5 mL				
CCV 280-568923/24		9056A		5 mL	5 mL				
CCB 280-568923/25		9056A		5 mL	5 mL				

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Batch Number: 568923 Batch Start Date: 03/17/22 13:06 Batch Analyst: Jindarat, Chanida

Batch Method: 9056A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	IC LCS 01863	IC SO4 ICV 00022	ICMS/MSD WEEK 00748			
STD 280-568923/2 IC		9056A							
STD 280-568923/3 IC		9056A							
STD 280-568923/4 IC		9056A							
STD 280-568923/5 IC		9056A							
STD 280-568923/6 IC		9056A							
STD 280-568923/7 IC		9056A							
ICV 280-568923/8		9056A			0.4 mL				
ICB 280-568923/9		9056A							
MRL 280-568923/10		9056A							
LCS 280-568923/11		9056A		5 mL					
LCSD 280-568923/12		9056A		5 mL					
MB 280-568923/13		9056A							
280-159384-F-1	G0022-8	9056A	T						
280-159384-F-1 DU	G0022-8	9056A	T						
280-159384-F-1 MS	G0022-8	9056A	T			0.05 mL			
280-159384-F-1 MSD	G0022-8	9056A	T			0.05 mL			
280-159384-F-2	G0102-8	9056A	T						
280-159384-F-4	G0121-8	9056A	T						
280-159384-F-5	G0122-8	9056A	T						
280-159384-F-6	G0123-8	9056A	T						
CCV 280-568923/24		9056A		5 mL					
CCB 280-568923/25		9056A							

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Batch Number: 568923 Batch Start Date: 03/17/22 13:06 Batch Analyst: Jindarat, Chanida

Batch Method: 9056A Batch End Date:

Batch Notes	
Filter ID	SF020E
Pipette/Syringe/Dispenser ID	5000CK,BMF1000,200Cj,ic100
Sufficient Volume for Batch QC	Yes
Eluent 1 ID	AS14 Eluent_00024
Batch Comment	CJ

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Batch Number: 568667 Batch Start Date: 03/14/22 16:01 Batch Analyst: Wondimu, Akewak B

Batch Method: 9060A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Initial pH	Final pH	TOC ICV Std 00049	TOC LCS Std 00053
ICV 280-568667/2		9060A		50 mL	50 mL	<2 SU	<2 SU	1 mL	
ICB 280-568667/3		9060A		20 mL	20 mL	<2 SU	<2 SU		
MB 280-568667/5		9060A		20 mL	20 mL	<2 SU	<2 SU		
CCV 280-568667/16		9060A		200 mL	200 mL	<2 SU	<2 SU		5 mL
CCB 280-568667/17		9060A		20 mL	20 mL	<2 SU	<2 SU		
CCV 280-568667/44		9060A		200 mL	200 mL	<2 SU	<2 SU		5 mL
CCB 280-568667/45		9060A		20 mL	20 mL	<2 SU	<2 SU		
ICV 280-568667/46		9060A		50 mL	50 mL	<2 SU	<2 SU	1 mL	
ICB 280-568667/47		9060A		20 mL	20 mL	<2 SU	<2 SU		
LCS 280-568667/48		9060A		200 mL	200 mL	<2 SU	<2 SU		5 mL
MB 280-568667/49		9060A		20 mL	20 mL	<2 SU	<2 SU		
LCS 280-568705/1-A		9060A		200 mL	200 mL	<2 SU	<2 SU		5 mL
MB 280-568705/2-A		9060A		20 mL	20 mL	<2 SU	<2 SU		
280-159384-D-1-A	G0022-8	9060A	D	20 mL	20 mL	>2 SU	<2 SU		
280-159384-D-2-A	G0102-8	9060A	D	20 mL	20 mL	>2 SU	<2 SU		
280-159384-D-4-A	G0121-8	9060A	D	20 mL	20 mL	>2 SU	<2 SU		
CCV 280-568667/60		9060A		200 mL	200 mL	<2 SU	<2 SU		5 mL
CCB 280-568667/61		9060A		20 mL	20 mL	<2 SU	<2 SU		
280-159384-D-5-A	G0122-8	9060A	D	20 mL	20 mL	>2 SU	<2 SU		
280-159384-D-6-A	G0123-8	9060A	D	20 mL	20 mL	>2 SU	<2 SU		
CCV 280-568667/64		9060A		200 mL	200 mL	<2 SU	<2 SU		5 mL

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Batch Number: 568667 Batch Start Date: 03/14/22 16:01 Batch Analyst: Wondimu, Akewak B

Batch Method: 9060A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Initial pH	Final pH	TOC ICV Std 00049	TOC LCS Std 00053
CCB 280-568667/65		9060A		20 mL	20 mL	<2 SU	<2 SU		

Lab Sample ID	Client Sample ID	Method Chain	Basis	AnalysisComment					
ICV 280-568667/2		9060A		The final volume of these samples was fixed at 50 by the TOCControlV preprocessor.					
ICB 280-568667/3		9060A		The final volume of these samples was fixed at 50 by the TOCControlV preprocessor.					
MB 280-568667/5		9060A		The final volume of these samples was fixed at 50 by the TOCControlV preprocessor.					
CCV 280-568667/16		9060A		The final volume of these samples was fixed at 50 by the TOCControlV preprocessor.					
CCB 280-568667/17		9060A		The final volume of these samples was fixed at 50 by the TOCControlV preprocessor.					
CCV 280-568667/44		9060A		The final volume of these samples was fixed at 50 by the TOCControlV preprocessor.					

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Batch Number: 568667 Batch Start Date: 03/14/22 16:01 Batch Analyst: Wondimu, Akewak B

Batch Method: 9060A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	AnalysisComment					
CCB 280-568667/45		9060A		The final volume of these samples was fixed at 50 by the TOCControlV preprocessor.					
ICV 280-568667/46		9060A		The final volume of these samples was fixed at 50 by the TOCControlV preprocessor.					
ICB 280-568667/47		9060A		The final volume of these samples was fixed at 50 by the TOCControlV preprocessor.					
LCS 280-568667/48		9060A		The final volume of these samples was fixed at 50 by the TOCControlV preprocessor.					
MB 280-568667/49		9060A		The final volume of these samples was fixed at 50 by the TOCControlV preprocessor.					
LCS 280-568705/1-A		9060A		The final volume of these samples was fixed at 50 by the TOCControlV preprocessor.					
MB 280-568705/2-A		9060A		The final volume of these samples was fixed at 50 by the TOCControlV preprocessor.					

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Batch Number: 568667 Batch Start Date: 03/14/22 16:01 Batch Analyst: Wondimu, Akewak B

Batch Method: 9060A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	AnalysisComment					
280-159384-D-1-A	G0022-8	9060A	D	The final volume of these samples was fixed at 50 by the TOCControlV preprocessor.					
280-159384-D-2-A	G0102-8	9060A	D	The final volume of these samples was fixed at 50 by the TOCControlV preprocessor.					
280-159384-D-4-A	G0121-8	9060A	D	The final volume of these samples was fixed at 50 by the TOCControlV preprocessor.					
CCV 280-568667/60		9060A		The final volume of these samples was fixed at 50 by the TOCControlV preprocessor.					
CCB 280-568667/61		9060A		The final volume of these samples was fixed at 50 by the TOCControlV preprocessor.					
280-159384-D-5-A	G0122-8	9060A	D	The final volume of these samples was fixed at 50 by the TOCControlV preprocessor.					
280-159384-D-6-A	G0123-8	9060A	D	The final volume of these samples was fixed at 50 by the TOCControlV preprocessor.					

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Batch Number: 568667 Batch Start Date: 03/14/22 16:01 Batch Analyst: Wondimu, Akewak B

Batch Method: 9060A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	AnalysisComment					
CCV 280-568667/64		9060A		The final volume of these samples was fixed at 50 by the TOCControlV preprocessor.					
CCB 280-568667/65		9060A		The final volume of these samples was fixed at 50 by the TOCControlV preprocessor.					

Batch Notes	
Acid ID	0.2% H2SO4_00421, H2SO4_00210
Combustion Catylyst ID	19003D-03
Pipette/Syringe/Dispenser ID	BWH 5000, 1000 MS
Filter ID	17233826
pH Paper ID	HC169501
Batch Comment	Run and reviewed by ABW

Basis	Basis Description
D	Dissolved

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Batch Number: 567962 Batch Start Date: 03/07/22 16:25 Batch Analyst: Guillen, Kristela E

Batch Method: SM 2320B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	CalcMsg	Alk daily lcs 01027				
CCV 280-567962/81		SM 2320B		InitialAmount is blank	10 mL				
CCB 280-567962/82		SM 2320B		InitialAmount is blank					
LCS 280-567962/83		SM 2320B		InitialAmount is blank	10 mL				
MB 280-567962/84		SM 2320B		InitialAmount is blank					
280-159384-F-1	G0022-8	SM 2320B	T	InitialAmount is blank					
CCV 280-567962/95		SM 2320B		InitialAmount is blank	10 mL				
CCB 280-567962/96		SM 2320B		InitialAmount is blank					

Batch Notes	
Nominal Amount Used	10 mL
Acid ID	0.02 H2SO4_00293
Normality of First Titrant	0.02 N
Sodium Carbonate ID	Alk Stk Std_00022
pH Buffer 1 ID	pH 2.0 buffer_00095
pH Buffer 2 ID	pH 4.0 buffer_00202
pH Buffer 3 ID	pH 7.0 buffer_00309
pH Buffer 4 ID	pH 10 buffer_00160
pH Buffer 5 ID	pH 12 buffer_00179
pH Buffer 6 ID	pH 7.0 buffer_00310
Probe ID	PCE 80 pH 1200D_8918
Batch Comment	KG

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-159384-1

SDG No.:

Batch Number: 568099 Batch Start Date: 03/08/22 14:33 Batch Analyst: Guillen, Kristela E

Batch Method: SM 2320B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	CalcMsg	Alk daily lcs 01028				
LCS 280-568099/4		SM 2320B		InitialAmount is blank	10 mL				
LCSD 280-568099/5		SM 2320B		InitialAmount is blank	10 mL				
MB 280-568099/6		SM 2320B		InitialAmount is blank					
280-159384-F-2	G0102-8	SM 2320B	T	InitialAmount is blank					
280-159384-F-4	G0121-8	SM 2320B	T	InitialAmount is blank					
280-159384-F-5	G0122-8	SM 2320B	T	InitialAmount is blank					
280-159384-F-6	G0123-8	SM 2320B	T	InitialAmount is blank					
CCV 280-568099/17		SM 2320B		InitialAmount is blank	10 mL				
CCB 280-568099/18		SM 2320B		InitialAmount is blank					

Batch Notes	
Nominal Amount Used	10 mL
Acid ID	0.02 H2SO4_00293
Normality of First Titrant	0.02 N
Sodium Carbonate ID	Alk Stk Std_00022
pH Buffer 1 ID	pH 2.0 buffer_00096
pH Buffer 2 ID	pH 4.0 buffer_00202
pH Buffer 3 ID	pH 7.0 buffer_00309
pH Buffer 4 ID	pH 10 buffer_00160
pH Buffer 5 ID	pH 12 buffer_00179
pH Buffer 6 ID	pH 7.0 buffer_00310
Probe ID	PCE 80 pH 1200D_8918
Batch Comment	KG

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.

*** Sample Table from Analysis ***

File name: *** Sample Table from Analysis ***
Date: 19-Mar-22

Cup	Name	Type	R	Dil	Wt	Vial	Comment
106	Sync	SYNC	1	1	1		
0	Carry Over	CO	1	1	1		
0	Blank	BLNK	1	1	1		
101	Cal 0 ppb	C	1	1	1		
102	Cal 25 ppb	C	1	1	1		
103	Cal 50 ppb	C	1	1	1		
104	Cal 100 ppb	C	1	1	1		
105	Cal 500 ppb	C	1	1	1		
106	Cal 1000 ppb	C	1	1	1		
107	Cal 2500 ppb	C	1	1	1		
108	Cal 5000 ppb	C	1	1	1		
0	Blank	BLNK	1	1	1		
0	Read Baseline	RB	1	1	1		
109	ICVL 500.0 ppb	U	1	1	1		
110	ICV 2500.0 ppb	U	1	1	1		
111	ICB	U	1	1	1		
0	read baseline	RB	1	1	1		
107	LCS	U	1	1	1		
107	LCSD	U	1	1	1		
111	MB	U	1	1	1		
201	280-159888-A-2	U	1	1	1		pH<2, Cl- non-detect
202	ms 280-159888-A-2	U	1	1	1		pH<2, Cl- non-detect
203	msd 280-159888-A-2	U	1	1	1		pH<2, Cl- non-detect
204	280-159302-C-2	U	1	1	1		pH<2, Cl- non-detect
205	280-159332-C-4	U	1	1	1		pH<2, Cl- non-detect
206	280-159332-C-5	U	1	1	1		pH<2, Cl- non-detect
207	280-159332-C-9	U	1	1	1		pH<2, Cl- non-detect
208	280-159361-B-2	U	1	1	1		pH<2, Cl- non-detect
209	280-159361-B-3	U	1	1	1		pH<2, Cl- non-detect
210	280-159361-B-4	U	1	1	1		pH<2, Cl- non-detect
0	Blank	BLNK	1	1	1		
0	Read Baseline	RB	1	1	1		
105	CCVL 500.0 ppb	U	1	1	1		
107	CCV 2500.0 ppb	U	1	1	1		
111	CCB	U	1	1	1		
0	read baseline	RB	1	1	1		
211	280-159361-B-5	U	1	1	1		pH<2, Cl- non-detect
212	280-159361-B-6	U	1	1	1		pH<2, Cl- non-detect
213	280-159361-B-7	U	1	1	1		pH<2, Cl- non-detect
214	ms 280-159361-B-7	U	1	1	1		pH<2, Cl- non-detect
215	msd 280-159361-B-7	U	1	1	1		pH<2, Cl- non-detect
216	280-159361-B-8	U	1	1	1		pH<2, Cl- non-detect
217	280-159384-C-1	U	1	1	1		pH<2, Cl- non-detect
218	280-159384-C-2	U	1	10	1		pH<2, Cl- non-detect
219	280-159384-C-6	U	1	10	1		pH<2, Cl- non-detect
220	VOID 280-159384-C-4	U	1	100	1		pH<2, Cl- non-detect
0	Blank	BLNK	1	1	1		
0	Read Baseline	RB	1	1	1		
105	CCVL 500.0 ppb	U	1	1	1		
107	CCV 2500.0 ppb	U	1	1	1		
111	CCB	U	1	1	1		
0	read baseline	RB	1	1	1		
221	VOID 280-159384-C-5	U	1	100	1		pH<2, Cl- non-detect
222	280-159419-B-1	U	1	1	1		pH<2, Cl- non-detect
223	280-159419-B-2	U	1	1	1		pH<2, Cl- non-detect
224	280-159419-B-3	U	1	1	1		pH<2, Cl- non-detect
107	LCS	U	1	1	1		
107	LCSD	U	1	1	1		
111	MB	U	1	1	1		
225	280-159419-B-4	U	1	1	1		pH<2, Cl- non-detect
226	ms 280-159419-B-4	U	1	1	1		pH<2, Cl- non-detect

Cup	Name	Type	R	Dil	Wt	Vial	Comment
227	msd 280-159419-B-4 U		1	1	1	1	pH<2, Cl- non-detect
0	Blank	BLNK	1	1	1		
0	Read Baseline	RB	1	1	1		
105	CCVL 500.0 ppb	U	1	1	1		
107	CCV 2500.0 ppb	U	1	1	1		
111	CCB	U	1	1	1		
0	read baseline	RB	1	1	1		
228	280-159419-B-6	U	1	1	1		pH<2, Cl- non-detect
229	280-159342-H-2	U	1	20	1		pH<2, Cl- non-detect
230	280-159342-H-3	U	1	20	1		pH<2, Cl- non-detect
231	280-159341-J-1	U	1	100	1		pH<2, Cl- non-detect
232	280-159341-J-2	U	1	100	1		pH<2, Cl- non-detect
233	VOID 280-159341-H-3 U		1	100	1	1	pH<2, Cl- non-detect
234	VOID 280-159342-H-1 U		1	100	1	1	pH<2, Cl- non-detect
235	280-159343-I-1	U	1	100	1		pH<2, Cl- non-detect
236	280-159343-J-2	U	1	100	1		pH<2, Cl- non-detect
237	280-159419-B-5	U	1	1	1		pH<2, Cl- non-detect
0	Blank	BLNK	1	1	1		
0	Read Baseline	RB	1	1	1		
105	CCVL 500.0 ppb	U	1	1	1		
107	CCV 2500.0 ppb	U	1	1	1		
111	CCB	U	1	1	1		
0	read baseline	RB	1	1	1		
238	ms 280-159419-B-5 U		1	1	1	1	pH<2, Cl- non-detect
239	msd 280-159419-B-5 U		1	1	1	1	pH<2, Cl- non-detect
240	280-159341-h-3	U	1	200	1		pH<2, Cl- non-detect
241	280-159342-h-1	U	1	200	1		pH<2, Cl- non-detect
242	280-159384-c-4	U	1	10	1		pH<2, Cl- non-detect
243	280-159384-c-5	U	1	10	1		pH<2, Cl- non-detect
0	Blank	BLNK	1	1	1		
0	Read Baseline	RB	1	1	1		
105	CCVL 500.0 ppb	U	1	1	1		
107	CCV 2500.0 ppb	U	1	1	1		
111	CCB	U	1	1	1		
0	read baseline	RB	1	1	1		

Peak Table:NH3

File name: C:\FLOW_4\031922.RST
Date: 19-Mar-22
Operator: JM

Peak	Cup	Name	R	Type	Dil	Wt	Height	Calc. (ppb)	Flags
1	106	Sync	1	SYNC	1	1	15151	986.360352	
2	0	Carry Over	1	CO	1	1	59	-21.542271	LO
3	0	Blank	1	BLNK	1	1	43	-22.582760	LO
4	101	Cal 0 ppb	1	C	1	1	531	9.695040	
5	102	Cal 25 ppb	1	C	1	1	702	21.007793	
6	103	Cal 50 ppb	1	C	1	1	1086	46.456394	
7	104	Cal 100 ppb	1	C	1	1	1835	96.057518	
8	105	Cal 500 ppb	1	C	1	1	7869	497.570099	
9	106	Cal 1000 ppb	1	C	1	1	15455	1006.831421	
10	107	Cal 2500 ppb	1	C	1	1	37236	2496.830322	
11	108	Cal 5000 ppb	1	C	1	1	72559	5000.566406	HI
12	0	Blank	1	BLNK	1	1	-168	-36.518921	LO
B	0	Read Baseline	1	RB	1	1	0	-25.435322	BL
14	109	ICVL 500.0 ppb	1	U	1	1	7777	491.403107	
15	110	ICV 2500.0 ppb	1	U	1	1	37630	2524.107422	
16	111	ICB	1	U	1	1	303	-5.409184	LO
B	0	read baseline	1	RB	1	1	0	-25.435322	BL
18	107	LCS	1	U	1	1	37335	2503.652344	
19	107	LCSD	1	U	1	1	37842	2538.840820	
20	111	MB	1	U	1	1	248	-9.034856	LO
21	201	280-159888-A-2	1	U	1	1	718	22.055817	
22	202	ms 280-159888-A-2	1	U	1	1	16142	1053.217163	
23	203	msd 280-159888-A-2	1	U	1	1	16045	1046.685547	
24	204	280-159302-C-2	1	U	1	1	74	-20.551632	LO
25	205	280-159332-C-4	1	U	1	1	36720	2461.000488	
26	206	280-159332-C-5	1	U	1	1	38231	2565.817871	
27	207	280-159332-C-9	1	U	1	1	48508	3283.998047	
28	208	280-159361-B-2	1	U	1	1	2593	146.279678	
29	209	280-159361-B-3	1	U	1	1	1803	93.927078	
30	210	280-159361-B-4	1	U	1	1	900	34.083664	
31	0	Blank	1	BLNK	1	1	-45	-28.415340	LO
B	0	Read Baseline	1	RB	1	1	0	-25.435322	BL
33	105	CCVL 500.0 ppb	1	U	1	1	8008	506.872009	
34	107	CCV 2500.0 ppb	1	U	1	1	37556	2519.004395	
35	111	CCB	1	U	1	1	213	-11.352287	LO
B	0	read baseline	1	RB	1	1	0	-25.435322	BL
37	211	280-159361-B-5	1	U	1	1	3893	232.627350	
38	212	280-159361-B-6	1	U	1	1	406	1.439364	
39	213	280-159361-B-7	1	U	1	1	4699	286.209106	
40	214	ms 280-159361-B-7	1	U	1	1	19884	1306.492310	
41	215	msd 280-159361-B-7	1	U	1	1	19634	1289.506348	
42	216	280-159361-B-8	1	U	1	1	2094	113.196274	
43	217	280-159384-C-1	1	U	1	1	11469	738.616516	
44	218	280-159384-C-2	1	U	10	1	753	243.771332	
45	219	280-159384-C-6	1	U	10	1	2975	1716.305176	
46	220	VOID 280-159384-C-4	1	U	100	1	2296	12658.966797	
47	0	Blank	1	BLNK	1	1	50	-22.161015	LO
B	0	Read Baseline	1	RB	1	1	0	-25.435322	BL
49	105	CCVL 500.0 ppb	1	U	1	1	7812	493.763641	
50	107	CCV 2500.0 ppb	1	U	1	1	37746	2532.201416	
51	111	CCB	1	U	1	1	189	-12.964509	LO
B	0	read baseline	1	RB	1	1	0	-25.435322	BL
53	221	VOID 280-159384-C-5	1	U	100	1	1590	7978.251465	
54	222	280-159419-B-1	1	U	1	1	22579	1489.650757	
55	223	280-159419-B-2	1	U	1	1	32579	2174.770996	
56	224	280-159419-B-3	1	U	1	1	1147	50.486713	
57	107	LCS	1	U	1	1	38572	2589.554932	
58	107	LCSD	1	U	1	1	38716	2599.537109	
59	111	MB	1	U	1	1	437	3.442815	
60	225	280-159419-B-4	1	U	1	1	3904	233.395889	
61	226	ms 280-159419-B-4	1	U	1	1	19467	1278.228516	
62	227	msd 280-159419-B-4	1	U	1	1	18766	1230.697510	
63	0	Blank	1	BLNK	1	1	7	-24.944736	LO
B	0	Read Baseline	1	RB	1	1	0	-25.435322	BL
65	105	CCVL 500.0 ppb	1	U	1	1	8060	510.307465	
66	107	CCV 2500.0 ppb	1	U	1	1	38316	2571.746338	
67	111	CCB	1	U	1	1	498	7.523621	
B	0	read baseline	1	RB	1	1	0	-25.435322	BL
69	228	280-159419-B-6	1	U	1	1	4582	278.426208	
70	229	280-159342-H-2	1	U	20	1	68186	93694.046875	

Peak	Cup	Name	R	Type	Dil	Wt	Height	Calc. (ppb)	Flags
71	230	280-159342-H-3	1	U	20	1	42310	56996.230469	
72	231	280-159341-J-1	1	U	100	1	15566	101430.882812	
73	232	280-159341-J-2	1	U	100	1	42366	285369.750000	
74	233	VOID 280-159341-H-3	1	U	100	1	84622	588035.937500	HI
75	234	VOID 280-159342-H-1	1	U	100	1	76274	527017.375000	HI
76	235	280-159343-I-1	1	U	100	1	27459	182290.812500	FL
77	236	280-159343-J-2	1	U	100	1	45333	306115.156250	FL
78	237	280-159419-B-5	1	U	1	1	3253	190.093536	
79	0	Blank	1	BLNK	1	1	14	-24.537720	LO
B	0	Read Baseline	1	RB	1	1	0	-25.435322	BL
81	105	CCVL 500.0 ppb	1	U	1	1	7776	491.342621	
82	107	CCV 2500.0 ppb	1	U	1	1	38058	2553.836182	
83	111	CCB	1	U	1	1	423	2.566536	
B	0	read baseline	1	RB	1	1	0	-25.435322	BL
85	238	ms 280-159419-B-5	1	U	1	1	18493	1212.190674	
86	239	msd 280-159419-B-5	1	U	1	1	18500	1212.660522	
87	240	280-159341-h-3	1	U	200	1	49250	667244.125000	
88	241	280-159342-h-1	1	U	200	1	45201	610389.500000	
89	242	280-159384-c-4	1	U	10	1	23316	15398.203125	
90	243	280-159384-c-5	1	U	10	1	13993	9082.945312	
91	0	Blank	1	BLNK	1	1	59	-21.511436	LO
B	0	Read Baseline	1	RB	1	1	0	-25.435322	BL
93	105	CCVL 500.0 ppb	1	U	1	1	7966	504.026642	
94	107	CCV 2500.0 ppb	1	U	1	1	37270	2499.125732	
95	111	CCB	1	U	1	1	495	7.276415	
B	0	read baseline	1	RB	1	1	0	-25.435322	BL

NH3:Calibration 1: Peak 4-96

File name: C:\FLOW_4\031922.RST
Date: 19-Mar-22
Operator: JM

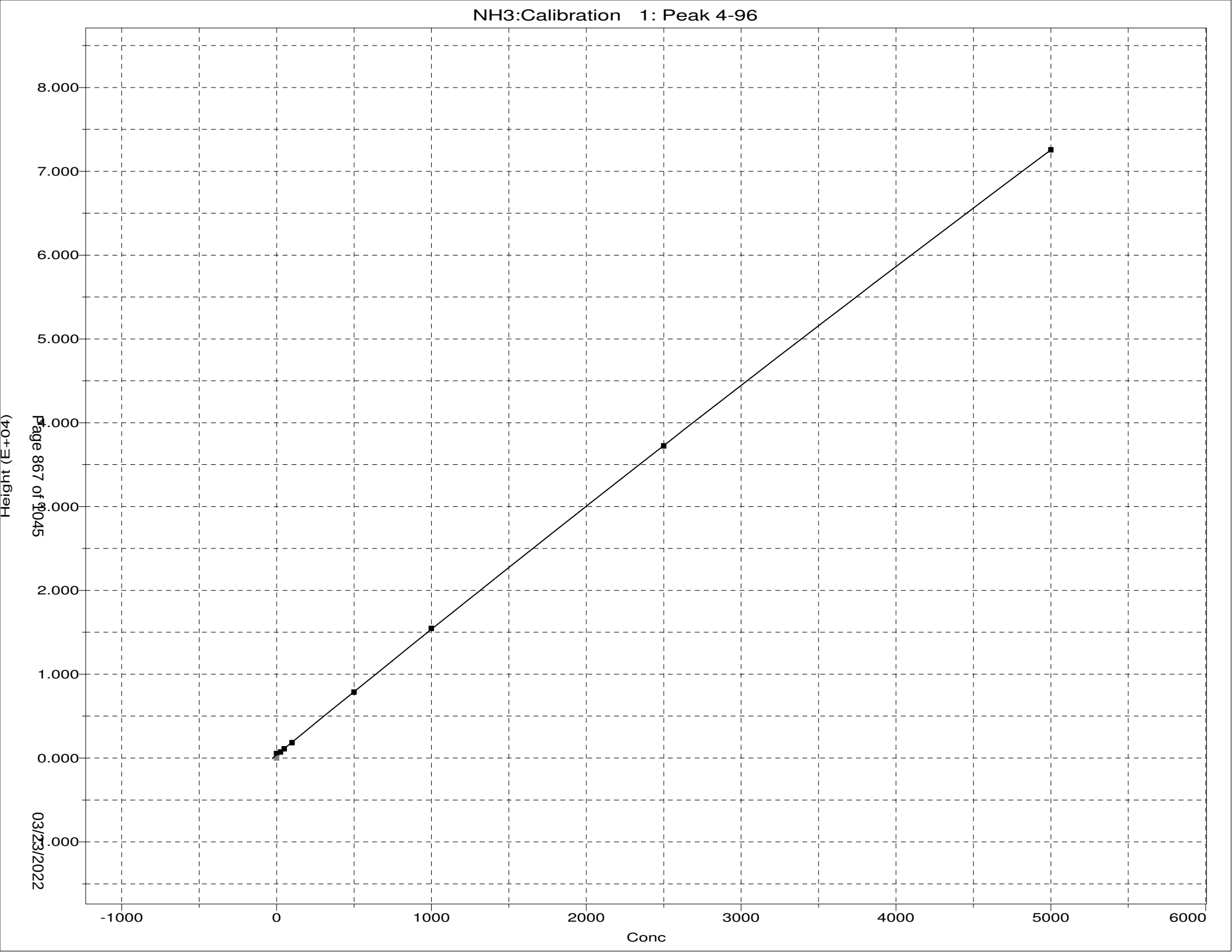
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*	Cal 0 ppb	0.000000	531.109009
*	Cal 25 ppb	25.000000	702.059143
*	Cal 50 ppb	50.000000	1086.480225
*	Cal 100 ppb	100.000000	1835.188599
*	Cal 500 ppb	500.000000	7869.072754
*	Cal 1000 ppb	1000.000000	15454.886719
*	Cal 2500 ppb	2500.000000	37236.429688
*	Cal 5000 ppb	5000.000000	72559.023438

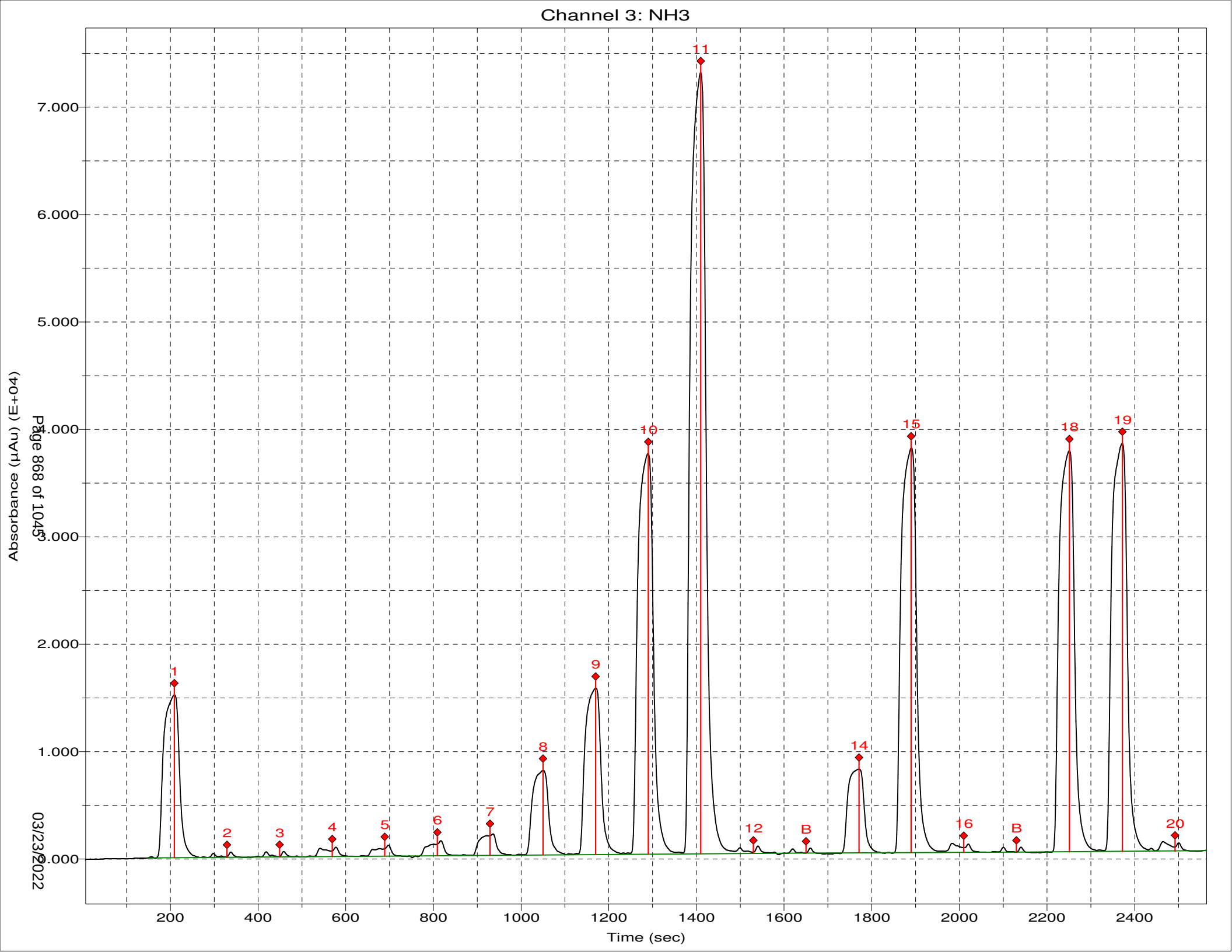
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a: (intercept) -2.5435e+01
b: 6.6122e-02
c: 4.3351e-08

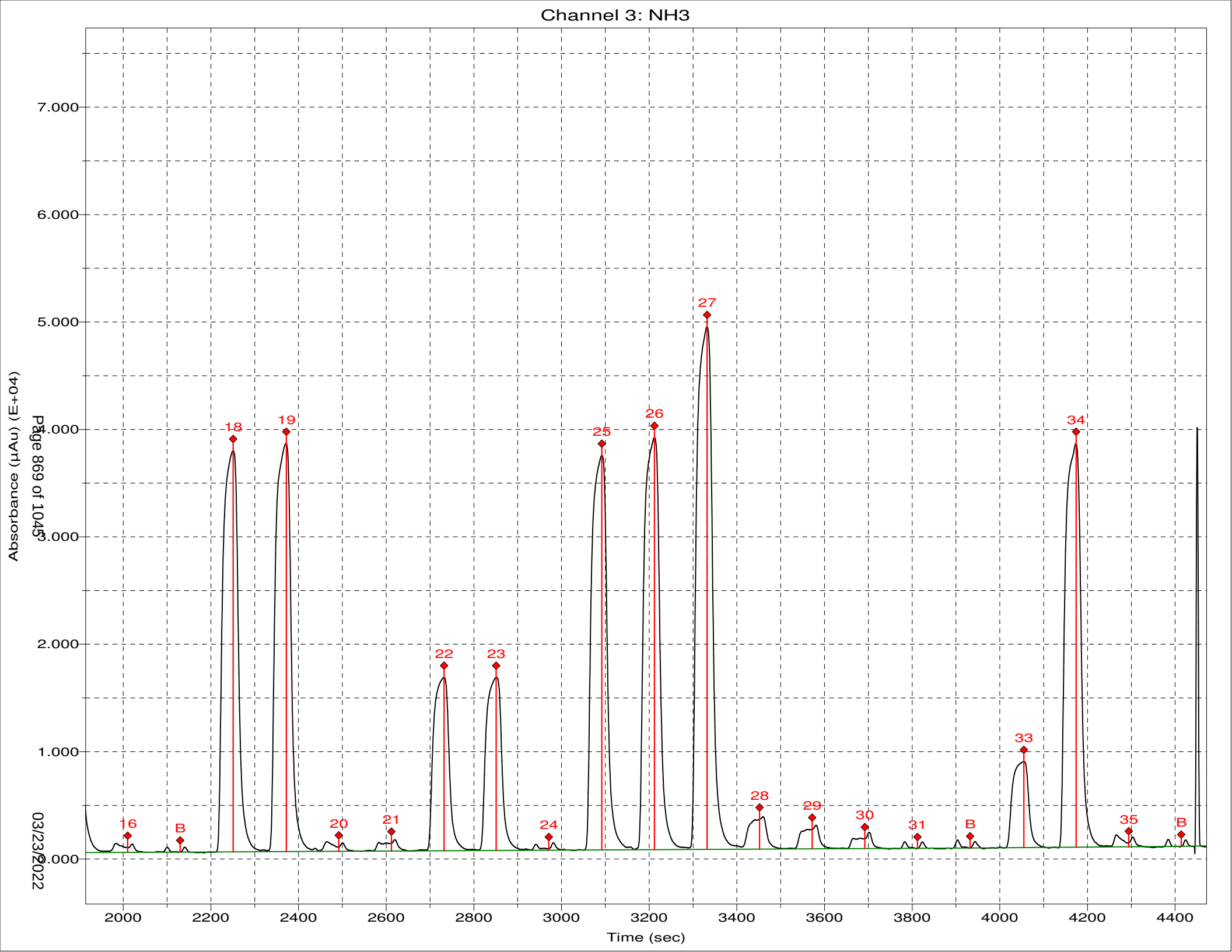
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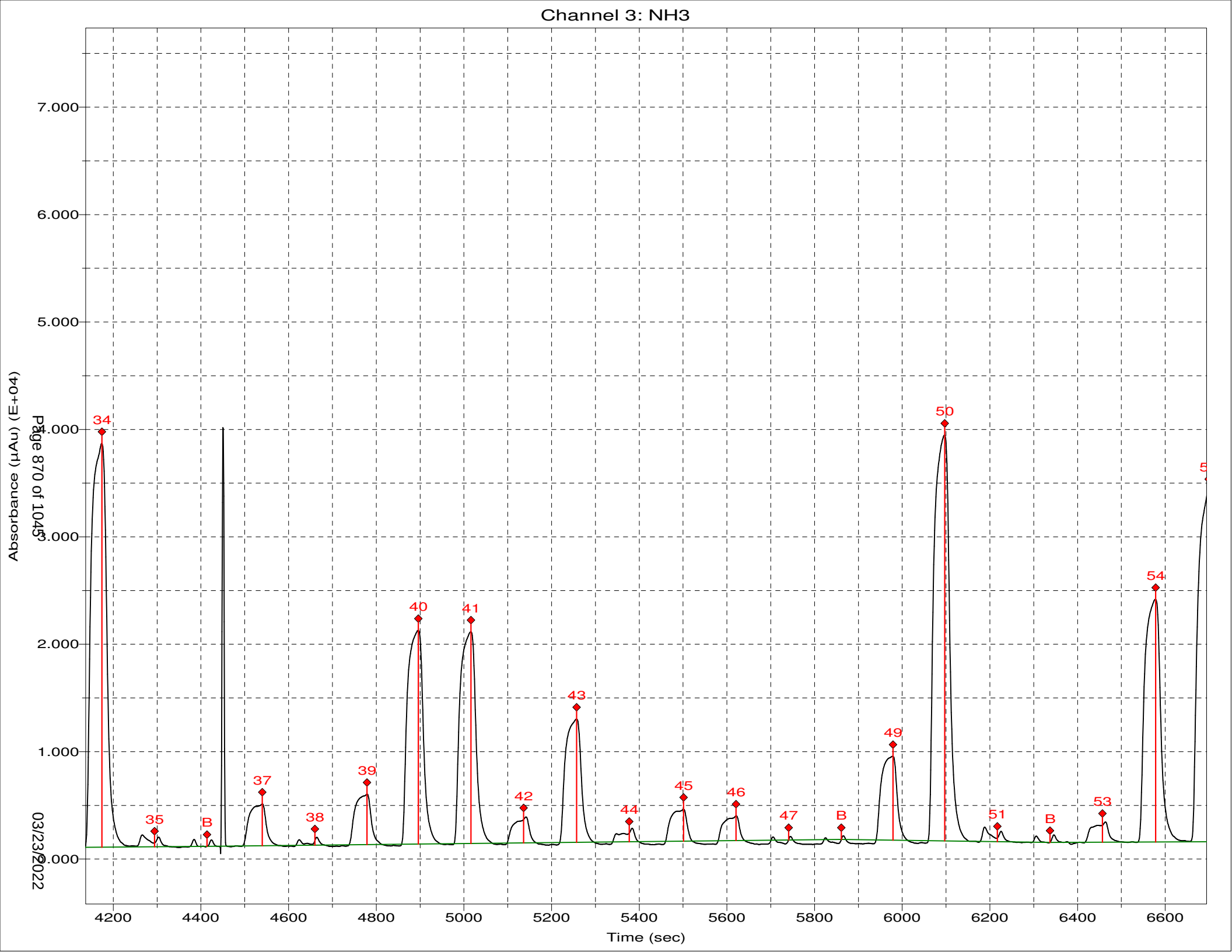
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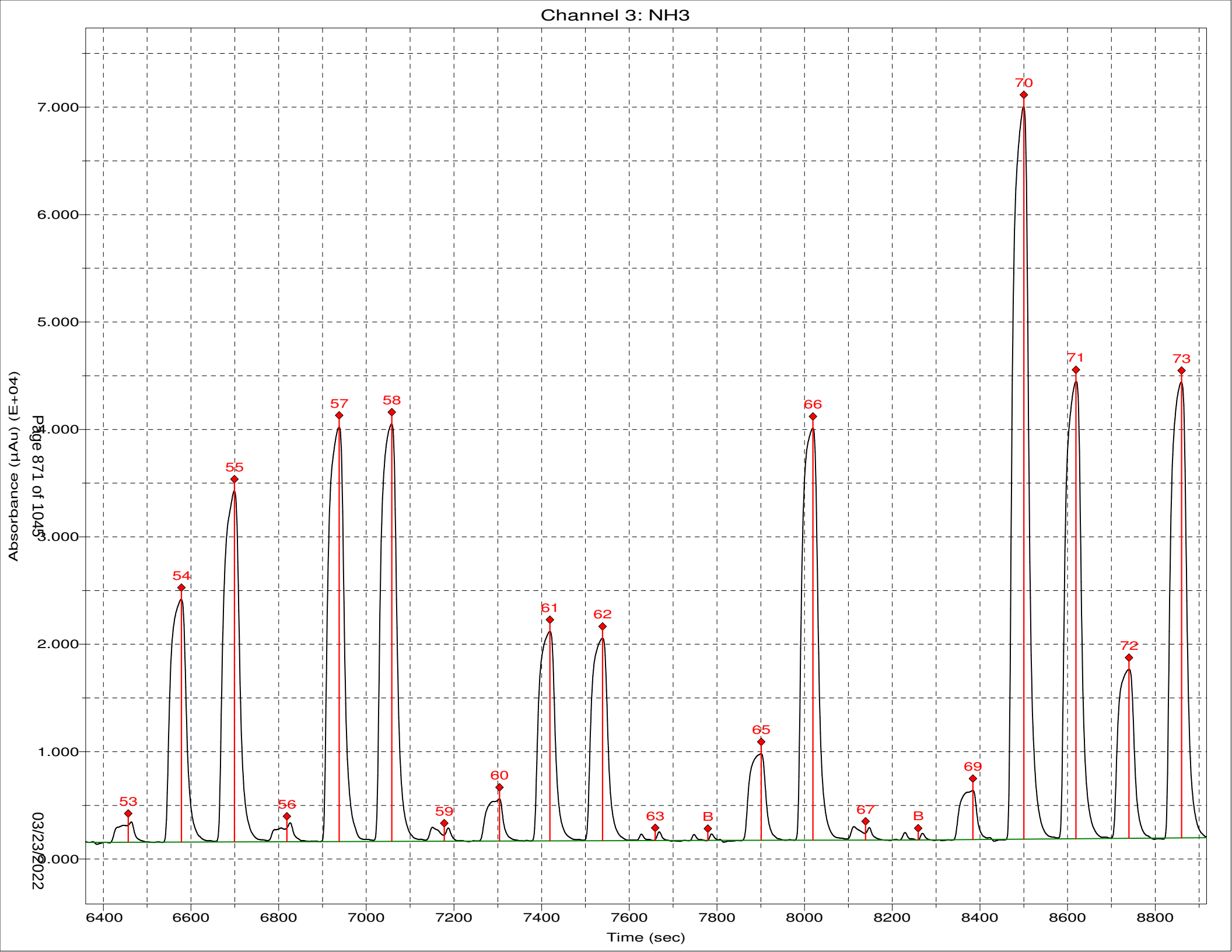
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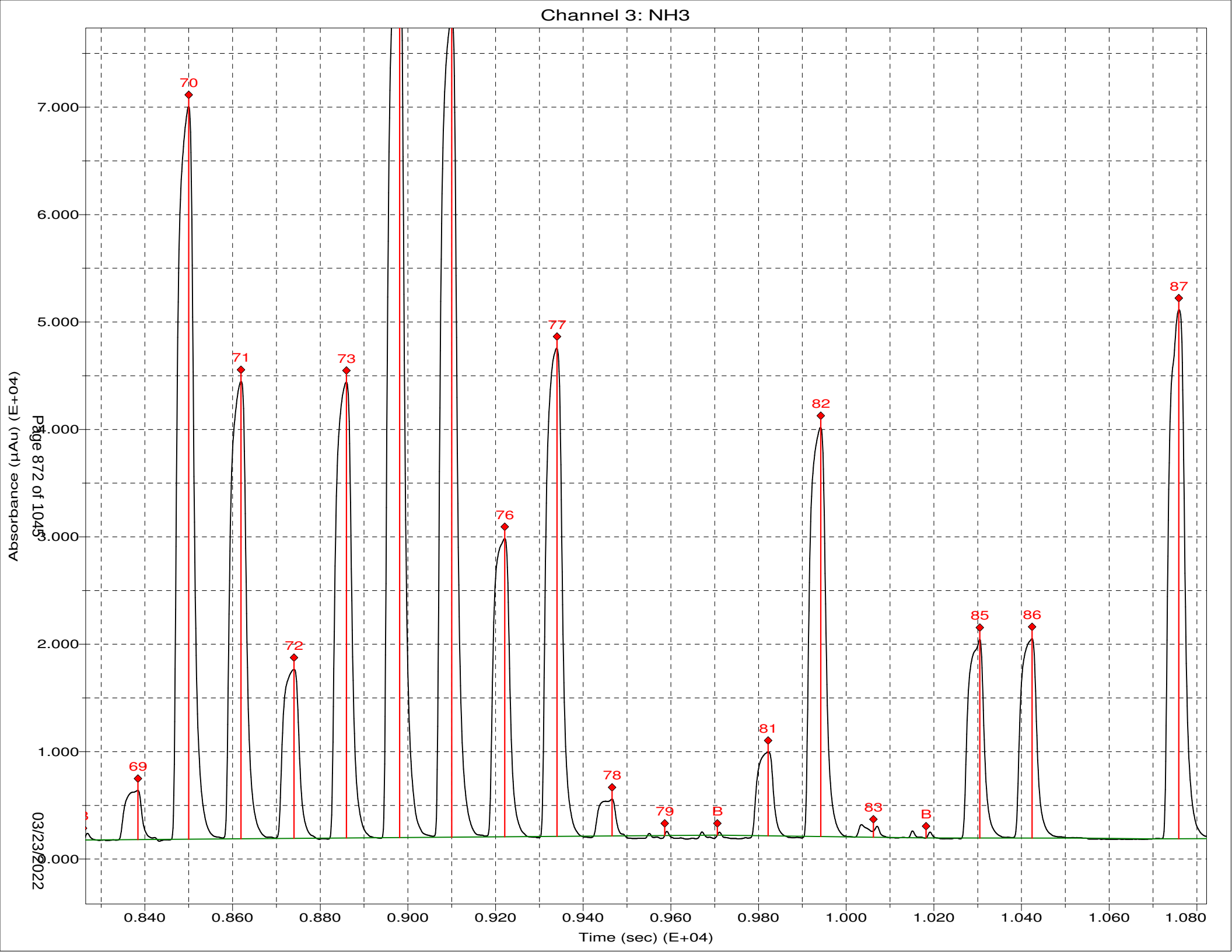

NH3:Calibration 1: Peak 4-96
8.000
7.000
6.000
5.000
4.000
3.000
2.000
1.000
0.000
-1.000
Height (E+04)
-1000
0
1000
2000
3000
4000
5000
6000
Conc

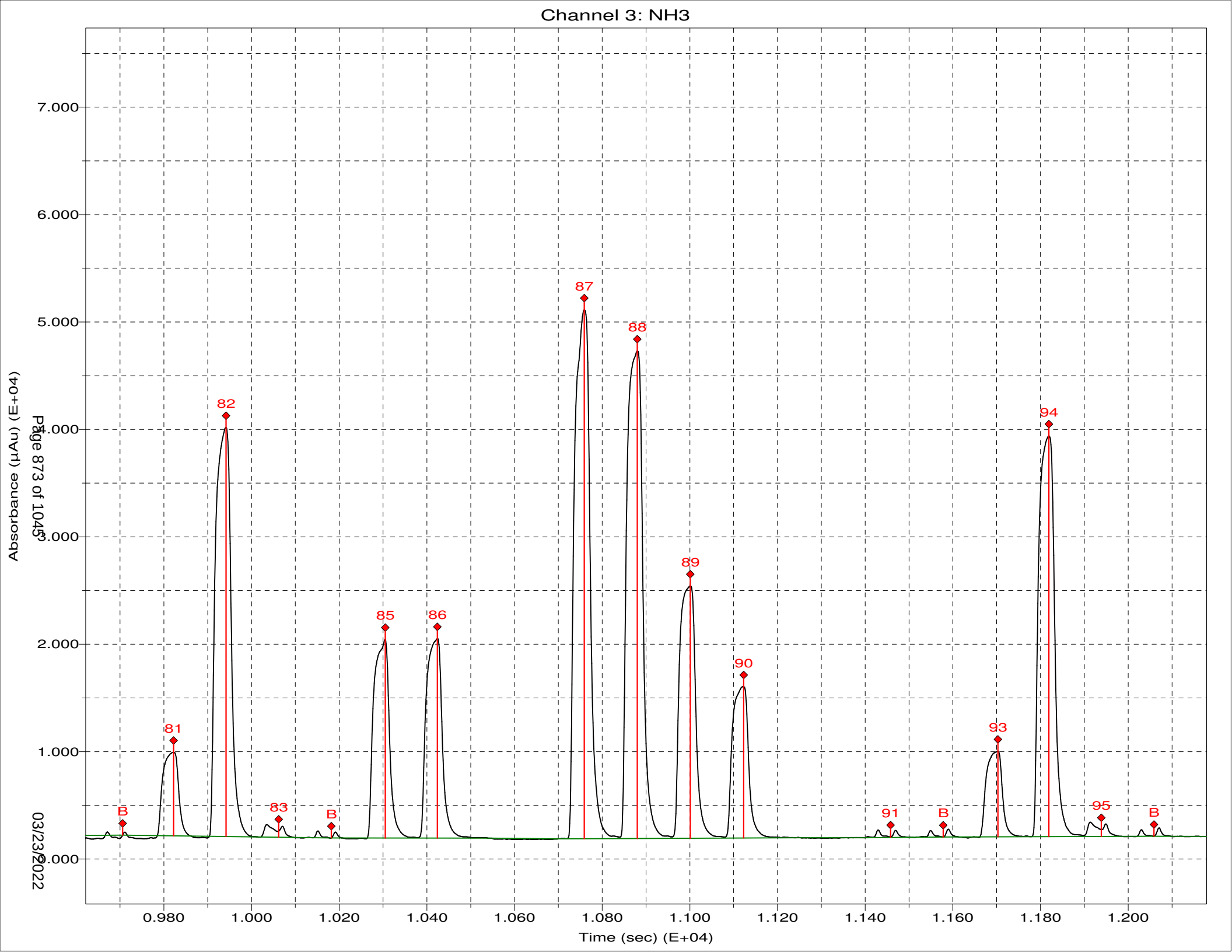

Channel 3: NH3
Absorbance (µAu) (E+04)
7.000
6.000
5.000
4.000
3.000
2.000
1.000
0.000
1
2
3
4
5
6
7
8
9
10
11
12
B
14
15
16
B
18
19
20
200
400
600
800
1000
1200
1400
1600
1800
2000
2200
2400
Time (sec)
Page 868 of 1045
03/23/2022


Channel 3: NH3
Absorbance (µAu) (E+04)
7.000
6.000
5.000
4.000
3.000
2.000
1.000
0.000
16
B
18
19
20
21
22
23
24
25
26
27
28
29
30
31
B
33
34
35
B
2000
2200
2400
2600
2800
3000
3200
3400
3600
3800
4000
4200
4400
Time (sec)
Page 869 of 1045
03/23/2022


Channel 3: NH3
Absorbance (µAu) (E+04)
7.000
6.000
5.000
4.000
3.000
2.000
1.000
0.000
34
35
B
37
38
39
40
41
42
43
44
45
46
47
B
49
50
51
B
53
54
4200
4400
4600
4800
5000
5200
5400
5600
5800
6000
6200
6400
6600
Time (sec)
Page 870 of 1045
03/23/2022


Channel 3: NH3
Absorbance (µAu) (E+04)
7.000
6.000
5.000
4.000
3.000
2.000
1.000
0.000
Time (sec)
6400
6600
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
53
54
55
56
57
58
59
60
61
62
63
B
65
66
67
B
69
70
71
72
73
Page 871 of 1045
03/23/2022


Channel 3: NH3
Absorbance (µAu) (E+04)
Time (sec) (E+04)
Page 872 of 1045
03/23/2022
7.000
6.000
5.000
4.000
3.000
2.000
1.000
0.000
0.840
0.860
0.880
0.900
0.920
0.940
0.960
0.980
1.000
1.020
1.040
1.060
1.080
69
70
71
72
73
76
77
78
79
B
81
82
83
B
85
86
87


Channel 3: NH3
Absorbance (µAu) (E+04)
7.000
6.000
5.000
4.000
3.000
2.000
1.000
0.000
Time (sec) (E+04)
0.980
1.000
1.020
1.040
1.060
1.080
1.100
1.120
1.140
1.160
1.180
1.200
B
81
82
83
B
85
86
87
88
89
90
91
B
93
94
95
B

TestAmerica Calibration Spreadsheet, Work Instruction No. CA-Q-WI-13; dated 8/10/2011

Method		350.1
Analyte/Da	NH3	3/18/2022

Input Calibration Data

Amount	Response	ISTD Amt	ISTD Resp	Response
0.000	531.109			531.10900
25.000	702.059			702.05900
50.000	1086.480			1086.48000
100.000	1835.189			1835.18900
500.000	7869.073			7869.07300
1000.000	15454.887			15454.88700
2500.000	37236.429			37236.42900
5000.000	72559.023			72559.02300
				0.00000
				0.00000

Relative Errors in X

	Average	Linear (1/x2)	Linear (1/X)	Linear Forced	Linear	Quadratic
	#DIV/0!	#DIV/0!	#DIV/0!	87.15%	-29.52%	-12.81%
	#DIV/0!	#DIV/0!	#DIV/0!	44.81%	-12.67%	-5.83%
	#DIV/0!	#DIV/0!	#DIV/0!	22.30%	-5.61%	-3.62%
	#DIV/0!	#DIV/0!	#DIV/0!	4.88%	0.64%	-0.83%
	#DIV/0!	#DIV/0!	#DIV/0!	3.00%	1.72%	0.38%
	#DIV/0!	#DIV/0!	#DIV/0!	-0.74%	-0.28%	-0.02%
	#DIV/0!	#DIV/0!	#DIV/0!	-3.29%	-2.28%	1.16%
RSE in X:	#DIV/0!	#DIV/0!	#DIV/0!	41.1%	14.6%	7.3%

Curve Fit Statistics

	Constant	1ST Degree Coefficient	2ND Degree Coefficient	X-Intercept	r²	r
Weighted (1/Amt^2)						
Average		#DIV/0!		0	#DIV/0!	#DIV/0!
Linear	#DIV/0!	#DIV/0!		#DIV/0!	#DIV/0!	#DIV/0!
Weighted (1/Amt)						
Linear	#DIV/0!	#DIV/0!		#DIV/0!	#DIV/0!	#DIV/0!
Unweighted						
Forced Zero		1.5005E+01		0	0.99898	0.99949
Linear	4.4200E+02	1.4760E+01		-29.95	0.99936	0.99968
Quadratic	3.7050E+02	1.5215E+01	-1.8637E-04	-24.34	0.99986	0.99993
	c	b	a			

Sample Results

	Sample 1	Sample 2	Sample 3	Sample 4	Sample 5
Instrum.Responses:	702.059	7,869.073			
IS Response:					
Avg RF Result:	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Linear(1/x2) Result:	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Linear(1/x) Result:	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Linear Forced:	46.788	524.423	0.000	0.000	0.000
Linear Result:	17.620	503.204	-29.947	-29.947	-29.947
Quad Result (no IS):	21.798	495.858	-24.344	-24.344	-24.344
Quad Result (with IS):					

*** Sample Table from Analysis ***

File name: *** Sample Table from Analysis ***
Date: 19-Mar-22

Cup	Name	Type	R	Dil	Wt	Vial	Comment
106	Sync	SYNC	1	1	1		
0	Carry Over	CO	1	1	1		
0	Blank	BLNK	1	1	1		
101	Cal 0 ppb	C	1	1	1		
102	Cal 25 ppb	C	1	1	1		
103	Cal 50 ppb	C	1	1	1		
104	Cal 100 ppb	C	1	1	1		
105	Cal 500 ppb	C	1	1	1		
106	Cal 1000 ppb	C	1	1	1		
107	Cal 2500 ppb	C	1	1	1		
108	Cal 5000 ppb	C	1	1	1		
0	Blank	BLNK	1	1	1		
0	Read Baseline	RB	1	1	1		
109	ICVL 500.0 ppb	U	1	1	1		
110	ICV 2500.0 ppb	U	1	1	1		
111	ICB	U	1	1	1		
0	read baseline	RB	1	1	1		
107	LCS	U	1	1	1		
107	LCSD	U	1	1	1		
111	MB	U	1	1	1		
201	280-159888-A-2	U	1	1	1		pH<2, Cl- non-detect
202	ms 280-159888-A-2 U		1	1	1		pH<2, Cl- non-detect
203	msd 280-159888-A-2 U		1	1	1		pH<2, Cl- non-detect
204	280-159302-C-2	U	1	1	1		pH<2, Cl- non-detect
205	280-159332-C-4	U	1	1	1		pH<2, Cl- non-detect
206	280-159332-C-5	U	1	1	1		pH<2, Cl- non-detect
207	280-159332-C-9	U	1	1	1		pH<2, Cl- non-detect
208	280-159361-B-2	U	1	1	1		pH<2, Cl- non-detect
209	280-159361-B-3	U	1	1	1		pH<2, Cl- non-detect
210	280-159361-B-4	U	1	1	1		pH<2, Cl- non-detect
0	Blank	BLNK	1	1	1		
0	Read Baseline	RB	1	1	1		
105	CCVL 500.0 ppb	U	1	1	1		
107	CCV 2500.0 ppb	U	1	1	1		
111	CCB	U	1	1	1		
0	read baseline	RB	1	1	1		
211	280-159361-B-5	U	1	1	1		pH<2, Cl- non-detect
212	280-159361-B-6	U	1	1	1		pH<2, Cl- non-detect
213	280-159361-B-7	U	1	1	1		pH<2, Cl- non-detect
214	ms 280-159361-B-7 U		1	1	1		pH<2, Cl- non-detect
215	msd 280-159361-B-7 U		1	1	1		pH<2, Cl- non-detect
216	280-159361-B-8	U	1	1	1		pH<2, Cl- non-detect
217	280-159384-C-1	U	1	1	1		pH<2, Cl- non-detect
218	280-159384-C-2	U	1	10	1		pH<2, Cl- non-detect
219	280-159384-C-6	U	1	10	1		pH<2, Cl- non-detect
220	VOID 280-159384-C-4 U		1	100	1		pH<2, Cl- non-detect
0	Blank	BLNK	1	1	1		
0	Read Baseline	RB	1	1	1		
105	CCVL 500.0 ppb	U	1	1	1		
107	CCV 2500.0 ppb	U	1	1	1		
111	CCB	U	1	1	1		
0	read baseline	RB	1	1	1		
221	VOID 280-159384-C-5 U		1	100	1		pH<2, Cl- non-detect
222	280-159419-B-1	U	1	1	1		pH<2, Cl- non-detect
223	280-159419-B-2	U	1	1	1		pH<2, Cl- non-detect
224	280-159419-B-3	U	1	1	1		pH<2, Cl- non-detect

350.1 color_00247

350.1 bleach_01588

350.1 complex_00603

Cup	Name	Type	R	Dil	Wt	Vial	Comment
107	LCS	U	1	1	1		
107	LCSD	U	1	1	1		
111	MB	U	1	1	1		
225	280-159419-B-4	U	1	1	1		pH<2, Cl- non-detect
226	ms 280-159419-B-4	U	1	1	1		pH<2, Cl- non-detect
227	msd 280-159419-B-4	U	1	1	1		pH<2, Cl- non-detect
0	Blank	BLNK	1	1	1		
0	Read Baseline	RB	1	1	1		
105	CCVL 500.0 ppb	U	1	1	1		
107	CCV 2500.0 ppb	U	1	1	1		
111	CCB	U	1	1	1		
0	read baseline	RB	1	1	1		
228	280-159419-B-6	U	1	1	1		pH<2, Cl- non-detect
229	280-159342-H-2	U	1	20	1		pH<2, Cl- non-detect
230	280-159342-H-3	U	1	20	1		pH<2, Cl- non-detect
231	280-159341-J-1	U	1	100	1		pH<2, Cl- non-detect
232	280-159341-J-2	U	1	100	1		pH<2, Cl- non-detect
233	VOID 280-159341-H-3	U	1	100	1		pH<2, Cl- non-detect
234	VOID 280-159342-H-1	U	1	100	1		pH<2, Cl- non-detect
235	280-159343-I-1	U	1	100	1		pH<2, Cl- non-detect
236	280-159343-J-2	U	1	100	1		pH<2, Cl- non-detect
237	280-159419-B-5	U	1	1	1		pH<2, Cl- non-detect
0	Blank	BLNK	1	1	1		
0	Read Baseline	RB	1	1	1		
105	CCVL 500.0 ppb	U	1	1	1		
107	CCV 2500.0 ppb	U	1	1	1		
111	CCB	U	1	1	1		
0	read baseline	RB	1	1	1		
238	ms 280-159419-B-5	U	1	1	1		pH<2, Cl- non-detect
239	msd 280-159419-B-5	U	1	1	1		pH<2, Cl- non-detect
240	280-159341-h-3	U	1	200	1		pH<2, Cl- non-detect
241	280-159342-h-1	U	1	200	1		pH<2, Cl- non-detect
242	280-159384-c-4	U	1	10	1		pH<2, Cl- non-detect
243	280-159384-c-5	U	1	10	1		pH<2, Cl- non-detect
0	Blank	BLNK	1	1	1		
0	Read Baseline	RB	1	1	1		
105	CCVL 500.0 ppb	U	1	1	1		
107	CCV 2500.0 ppb	U	1	1	1		
111	CCB	U	1	1	1		
0	read baseline	RB	1	1	1		

*** Sample Table from Analysis ***

File name: *** Sample Table from Analysis ***
Date: 22-Mar-22

Cup	Name	Type	R	Dil	Wt	Vial	Comment
106	Sync	SYNC	1	1	1		
0	Carry Over	CO	1	1	1		
0	Blank	BLNK	1	1	1		
101	Cal 0 ppb	C	1	1	1		
102	Cal 25 ppb	C	1	1	1		
103	Cal 50 ppb	C	1	1	1		
104	Cal 100 ppb	C	1	1	1		
105	Cal 500 ppb	C	1	1	1		
106	Cal 1000 ppb	C	1	1	1		
107	Cal 2500 ppb	C	1	1	1		
108	Cal 5000 ppb	C	1	1	1		
0	Blank	BLNK	1	1	1		
0	Read Baseline	RB	1	1	1		
109	ICVL 500.0 ppb	U	1	1	1		
110	ICV 2500.0 ppb	U	1	1	1		
111	ICB	U	1	1	1		
0	read baseline	RB	1	1	1		
107	LCS	U	1	1	1		
107	LCSD	U	1	1	1		
111	MB	U	1	1	1		
201	280-159419-B-1	U	1	1	1		pH<2, Cl- non-detect
202	ms 280-159419-B-1	U	1	1	1		pH<2, Cl- non-detect
203	msd 280-159419-B-1	U	1	1	1		pH<2, Cl- non-detect
204	280-159384-C-4	U	1	10	1		pH<2, Cl- non-detect
205	280-159384-C-5	U	1	10	1		pH<2, Cl- non-detect
206	280-159384-C-6	U	1	2	1		pH<2, Cl- non-detect
207	280-159587-A-1	U	1	1	1		pH<2, Cl- non-detect
208	280-159635-B-1	U	1	1	1		pH<2, Cl- non-detect
209	VOID 280-159654-A-1	U	1	1	1		pH<2, Cl- non-detect
210	VOID 280-159663-A-1	U	1	1	1		pH<2, Cl- non-detect
0	Blank	BLNK	1	1	1		
0	Read Baseline	RB	1	1	1		
105	CCVL 500.0 ppb	U	1	1	1		
107	CCV 2500.0 ppb	U	1	1	1		
111	CCB	U	1	1	1		
0	read baseline	RB	1	1	1		
211	280-159668-B-1	U	1	1	1		pH<2, Cl- non-detect
212	320-85603-A-3	U	1	1	1		pH<2, Cl- non-detect
213	320-85603-A-10	U	1	1	1		pH<2, Cl- non-detect
214	ms 320-85603-A-10	U	1	1	1		pH<2, Cl- non-detect
215	msd 320-85603-A-10	U	1	1	1		pH<2, Cl- non-detect
216	320-85611-A-3	U	1	1	1		pH<2, Cl- non-detect
217	320-85611-A-10	U	1	1	1		pH<2, Cl- non-detect
218	280-159636-C-1	U	1	1	1		pH<2, Cl- non-detect
219	280-159636-C-2	U	1	1	1		pH<2, Cl- non-detect
220	280-159636-C-3	U	1	1	1		pH<2, Cl- non-detect
0	Blank	BLNK	1	1	1		
0	Read Baseline	RB	1	1	1		
105	CCVL 500.0 ppb	U	1	1	1		
107	CCV 2500.0 ppb	U	1	1	1		
111	CCB	U	1	1	1		
0	read baseline	RB	1	1	1		
221	280-159636-C-4	U	1	1	1		pH<2, Cl- non-detect
222	280-159636-C-5	U	1	1	1		pH<2, Cl- non-detect
223	280-159636-C-6	U	1	1	1		pH<2, Cl- non-detect
224	280-159636-C-7	U	1	1	1		pH<2, Cl- non-detect
107	LCS	U	1	1	1		
107	LCSD	U	1	1	1		
111	MB	U	1	1	1		
225	280-159636-C-8	U	1	1	1		pH<2, Cl- non-detect
226	ms 280-159636-C-8	U	1	1	1		pH<2, Cl- non-detect

Cup	Name	Type	R	Dil	Wt	Vial	Comment
227	msd 280-159636-C-8 U		1	1	1	1	pH<2, Cl- non-detect
0	Blank	BLNK	1	1	1		
0	Read Baseline	RB	1	1	1		
105	CCVL 500.0 ppb	U	1	1	1		
107	CCV 2500.0 ppb	U	1	1	1		
111	CCB	U	1	1	1		
0	read baseline	RB	1	1	1		
228	280-159636-C-9	U	1	1	1		pH<2, Cl- non-detect
229	280-159636-C-10	U	1	1	1		pH<2, Cl- non-detect
230	280-159636-C-11	U	1	1	1		pH<2, Cl- non-detect
231	280-159636-C-12	U	1	1	1		pH<2, Cl- non-detect
232	280-159636-C-13	U	1	1	1		pH<2, Cl- non-detect
233	280-159636-C-14	U	1	1	1		pH<2, Cl- non-detect
234	280-159636-C-15	U	1	1	1		pH<2, Cl- non-detect
235	280-159636-C-16	U	1	1	1		pH<2, Cl- non-detect
236	280-159455-E-1	U	1	1	1		pH<2, Cl- non-detect
237	280-159475-F-1	U	1	1	1		pH<2, Cl- non-detect
0	Blank	BLNK	1	1	1		
0	Read Baseline	RB	1	1	1		
105	CCVL 500.0 ppb	U	1	1	1		
107	CCV 2500.0 ppb	U	1	1	1		
111	CCB	U	1	1	1		
0	read baseline	RB	1	1	1		
238	ms 280-159475-F-1 U		1	1	1	1	pH<2, Cl- non-detect
239	msd 280-159475-F-1 U		1	1	1	1	pH<2, Cl- non-detect
240	280-159475-F-2	U	1	1	1		pH<2, Cl- non-detect
241	280-159475-G-3	U	1	1	1		pH<2, Cl- non-detect
242	280-159475-G-4	U	1	1	1		pH<2, Cl- non-detect
243	280-159706-B-1	U	1	1	1		pH<2, Cl- non-detect
244	VOID 280-159937-E-1 U		1	1	1	1	pH<2, Cl- non-detect
245	VOID 580-111282-D-1 U		1	1	1	1	pH<2, Cl- non-detect
246	VOID 580-111282-D-2 U		1	1	1	1	pH<2, Cl- non-detect
247	280-159454-C-1	U	1	1	1		pH<2, Cl- non-detect
0	Blank	BLNK	1	1	1		
0	Read Baseline	RB	1	1	1		
105	CCVL 500.0 ppb	U	1	1	1		
107	CCV 2500.0 ppb	U	1	1	1		
111	CCB	U	1	1	1		
0	read baseline	RB	1	1	1		
201	280-159654-a-1	U	1	10	1		pH<2, Cl- non-detect
202	280-159663-a-1	U	1	10	1		pH<2, Cl- non-detect
203	280-159937-e-1	U	1	50	1		pH<2, Cl- non-detect
204	580-111282-d-1	U	1	1	1		pH<2, Cl- non-detect
205	580-111282-d-2	U	1	1	1		pH<2, Cl- non-detect
206	280-159454-c-2	U	1	1	1		pH<2, Cl- non-detect
0	Blank	BLNK	1	1	1		
0	Read Baseline	RB	1	1	1		
105	CCVL 500.0 ppb	U	1	1	1		
107	CCV 2500.0 ppb	U	1	1	1		
111	CCB	U	1	1	1		
0	read baseline	RB	1	1	1		

Peak Table:NH3

File name: C:\FLOW_4\032222.RST
Date: 22-Mar-22
Operator: MP

Peak	Cup	Name	R	Type	Dil	Wt	Height	Calc. (ppb)	Flags
1	106	Sync	1	SYNC	1	1	12320	1011.684814	
2	0	Carry Over	1	CO	1	1	-31	-23.312716	LO
3	0	Blank	1	BLNK	1	1	-7	-21.325329	LO
4	101	Cal 0 ppb	1	C	1	1	346	7.820799	
5	102	Cal 25 ppb	1	C	1	1	533	23.258936	
6	103	Cal 50 ppb	1	C	1	1	805	45.748089	
7	104	Cal 100 ppb	1	C	1	1	1475	101.299980	
8	105	Cal 500 ppb	1	C	1	1	6237	498.211914	
9	106	Cal 1000 ppb	1	C	1	1	12135	995.986633	
10	107	Cal 2500 ppb	1	C	1	1	29524	2503.368652	
11	108	Cal 5000 ppb	1	C	1	1	56928	4999.287109	
12	0	Blank	1	BLNK	1	1	99	-12.588230	LO
B	0	Read Baseline	1	RB	1	1	0	-20.779793	BL
14	109	ICVL 500.0 ppb	1	U	1	1	6304	503.841187	
15	110	ICV 2500.0 ppb	1	U	1	1	29518	2502.808594	
16	111	ICB	1	U	1	1	290	3.221871	
B	0	read baseline	1	RB	1	1	0	-20.779793	BL
18	107	LCS	1	U	1	1	29205	2475.138428	
19	107	LCSD	1	U	1	1	29116	2467.338379	
20	111	MB	1	U	1	1	291	3.294328	
21	201	280-159419-B-1	1	U	1	1	17409	1446.909790	
22	202	ms 280-159419-B-1	1	U	1	1	29314	2484.814453	
23	203	msd 280-159419-B-1	1	U	1	1	29428	2494.843994	
24	204	280-159384-C-4	1	U	10	1	16247	13470.861328	
25	205	280-159384-C-5	1	U	10	1	10045	8188.097656	
26	206	280-159384-C-6	1	U	2	1	9485	1542.916626	
27	207	280-159587-A-1	1	U	1	1	381	10.685475	
28	208	280-159635-B-1	1	U	1	1	33460	2852.769043	
29	209	VOID 280-159654-A-1	1	U	1	1	170484	16911.835938	HI
30	210	VOID 280-159663-A-1	1	U	1	1	85482	7756.634766	HI
31	0	Blank	1	BLNK	1	1	186	-5.442169	LO
B	0	Read Baseline	1	RB	1	1	0	-20.779793	BL
33	105	CCVL 500.0 ppb	1	U	1	1	5998	478.193481	
34	107	CCV 2500.0 ppb	1	U	1	1	28669	2427.901855	
35	111	CCB	1	U	1	1	288	3.021185	
B	0	read baseline	1	RB	1	1	0	-20.779793	BL
37	211	280-159668-B-1	1	U	1	1	23469	1971.783325	
38	212	320-85603-A-3	1	U	1	1	1965	141.900330	
39	213	320-85603-A-10	1	U	1	1	1116	71.497009	
40	214	ms 320-85603-A-10	1	U	1	1	13228	1089.002563	
41	215	msd 320-85603-A-10	1	U	1	1	13241	1090.086548	
42	216	320-85611-A-3	1	U	1	1	143	-8.948088	LO
43	217	320-85611-A-10	1	U	1	1	97	-12.750637	LO
44	218	280-159636-C-1	1	U	1	1	-94	-28.535992	LO
45	219	280-159636-C-2	1	U	1	1	3814	295.652069	
46	220	280-159636-C-3	1	U	1	1	2072	150.754837	
47	0	Blank	1	BLNK	1	1	77	-14.451486	LO
B	0	Read Baseline	1	RB	1	1	0	-20.779793	BL
49	105	CCVL 500.0 ppb	1	U	1	1	6004	478.687408	
50	107	CCV 2500.0 ppb	1	U	1	1	28472	2410.447754	
51	111	CCB	1	U	1	1	197	-4.475821	LO
B	0	read baseline	1	RB	1	1	0	-20.779793	BL
53	221	280-159636-C-4	1	U	1	1	-71	-26.603767	LO
54	222	280-159636-C-5	1	U	1	1	25455	2145.323975	
55	223	280-159636-C-6	1	U	1	1	199	-4.325992	LO
56	224	280-159636-C-7	1	U	1	1	253	0.134956	
57	107	LCS	1	U	1	1	28712	2431.698486	
58	107	LCSD	1	U	1	1	29404	2492.796875	
59	111	MB	1	U	1	1	253	0.148474	
60	225	280-159636-C-8	1	U	1	1	7	-20.203522	LO
61	226	ms 280-159636-C-8	1	U	1	1	12373	1016.197754	
62	227	msd 280-159636-C-8	1	U	1	1	12356	1014.811890	
63	0	Blank	1	BLNK	1	1	39	-17.545443	LO
B	0	Read Baseline	1	RB	1	1	0	-20.779793	BL
65	105	CCVL 500.0 ppb	1	U	1	1	6106	487.259064	
66	107	CCV 2500.0 ppb	1	U	1	1	28970	2454.387695	
67	111	CCB	1	U	1	1	377	10.352885	
B	0	read baseline	1	RB	1	1	0	-20.779793	BL
69	228	280-159636-C-9	1	U	1	1	45020	3896.609375	
70	229	280-159636-C-10	1	U	1	1	23308	1957.697144	

Peak	Cup	Name	R	Type	Dil	Wt	Height	Calc. (ppb)	Flags
71	230	280-159636-C-11	1	U	1	1	2975	225.796173	
72	231	280-159636-C-12	1	U	1	1	12087	991.927124	
73	232	280-159636-C-13	1	U	1	1	15381	1272.889160	
74	233	280-159636-C-14	1	U	1	1	9635	784.154358	
75	234	280-159636-C-15	1	U	1	1	16679	1384.200317	
76	235	280-159636-C-16	1	U	1	1	26564	2242.614746	
77	236	280-159455-E-1	1	U	1	1	105	-12.094029	LO
78	237	280-159475-F-1	1	U	1	1	27456	2321.019775	
79	0	Blank	1	BLNK	1	1	41	-17.381474	LO
B	0	Read Baseline	1	RB	1	1	0	-20.779793	BL
81	105	CCVL 500.0 ppb	1	U	1	1	6299	503.382599	
82	107	CCV 2500.0 ppb	1	U	1	1	29401	2492.532471	
83	111	CCB	1	U	1	1	385	11.026949	
B	0	read baseline	1	RB	1	1	0	-20.779793	BL
85	238	ms 280-159475-F-1	1	U	1	1	39104	3359.181152	
86	239	msd 280-159475-F-1	1	U	1	1	38656	3318.717285	
87	240	280-159475-F-2	1	U	1	1	556	25.203299	
88	241	280-159475-G-3	1	U	1	1	2095	152.709534	
89	242	280-159475-G-4	1	U	1	1	1571	109.266212	
90	243	280-159706-B-1	1	U	1	1	-39	-24.009113	LO
91	244	VOID 280-159937-E-1	1	U	1	1	33783	2881.583008	
92	245	VOID 580-111282-D-1	1	U	1	1	469	17.998613	
93	246	VOID 580-111282-D-2	1	U	1	1	731	39.632984	
94	247	280-159454-C-1	1	U	1	1	4374	342.414612	
95	0	Blank	1	BLNK	1	1	119	-10.938099	LO
B	0	Read Baseline	1	RB	1	1	0	-20.779793	BL
97	105	CCVL 500.0 ppb	1	U	1	1	5945	473.701263	
98	107	CCV 2500.0 ppb	1	U	1	1	28992	2456.327881	
99	111	CCB	1	U	1	1	263	0.966630	
B	0	read baseline	1	RB	1	1	0	-20.779793	BL
101	201	280-159654-a-1	1	U	10	1	21665	18147.625000	
102	202	280-159663-a-1	1	U	10	1	10050	8192.547852	
103	203	280-159937-e-1	1	U	50	1	34475	147170.359375	
104	204	580-111282-d-1	1	U	1	1	17185	1427.663574	
105	205	580-111282-d-2	1	U	1	1	35405	3026.581299	
106	206	280-159454-c-2	1	U	1	1	4207	328.450958	
107	0	Blank	1	BLNK	1	1	42	-17.331858	LO
B	0	Read Baseline	1	RB	1	1	0	-20.779793	BL
109	105	CCVL 500.0 ppb	1	U	1	1	5790	460.780884	
110	107	CCV 2500.0 ppb	1	U	1	1	27697	2342.202881	
111	111	CCB	1	U	1	1	262	0.850641	
B	0	read baseline	1	RB	1	1	0	-20.779793	BL

NH3:Calibration 1: Peak 4-112

File name: C:\FLOW_4\032222.RST
Date: 22-Mar-22
Operator: MP

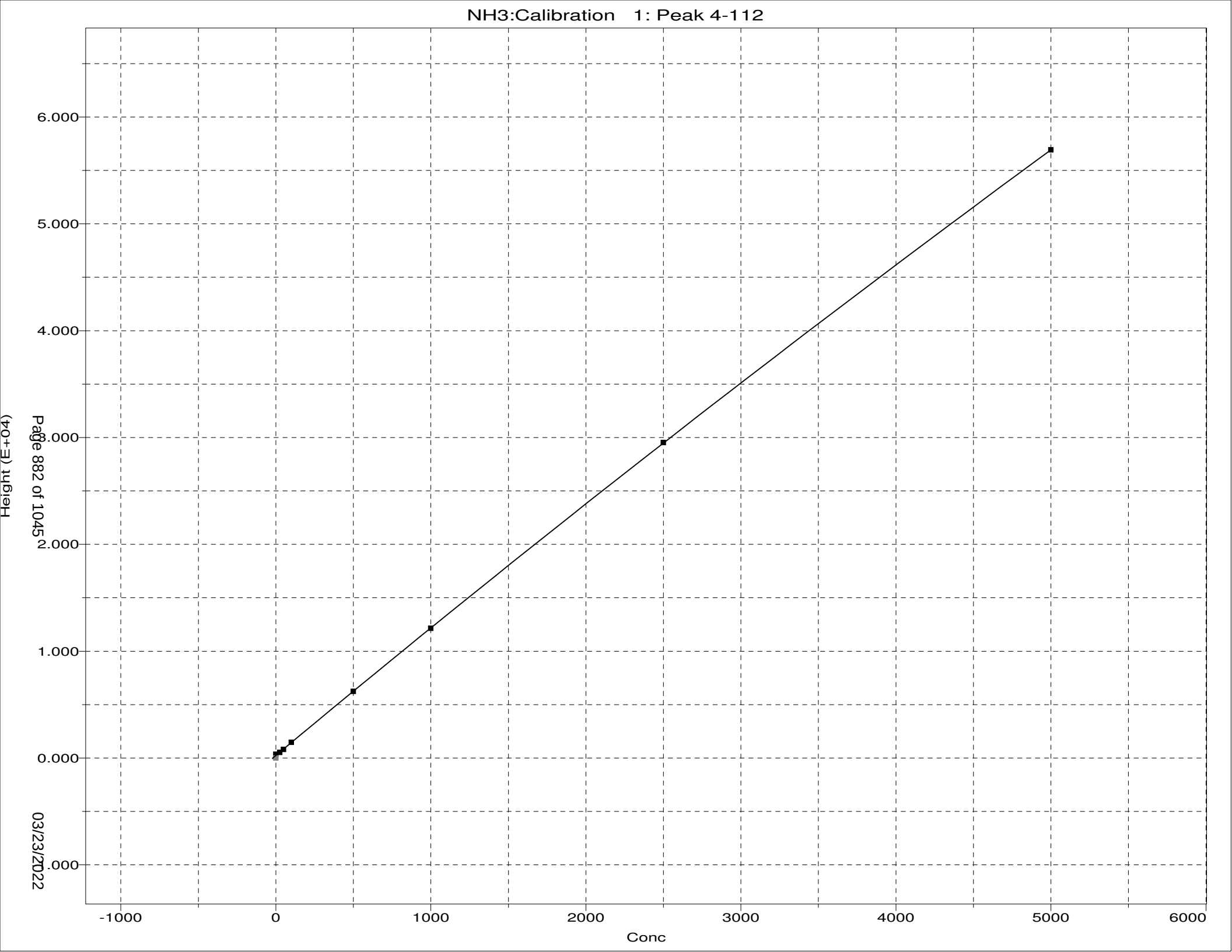
*	Name	Conc	Height
*	Cal 0 ppb	0.000000	346.116791
*	Cal 25 ppb	25.000000	532.826904
*	Cal 50 ppb	50.000000	804.664795
*	Cal 100 ppb	100.000000	1475.399414
*	Cal 500 ppb	500.000000	6237.086426
*	Cal 1000 ppb	1000.000000	12134.830078
*	Cal 2500 ppb	2500.000000	29524.019531
*	Cal 5000 ppb	5000.000000	56928.019531

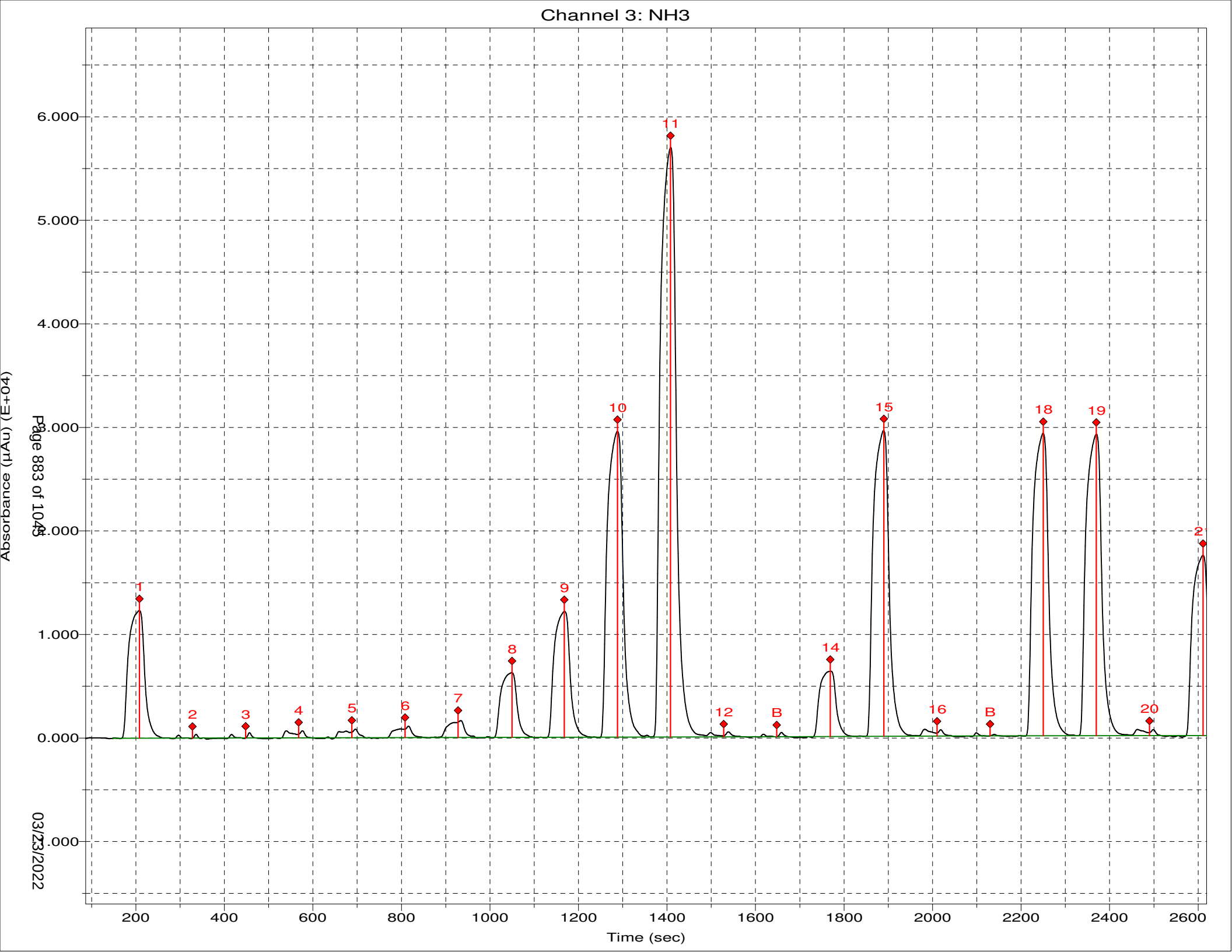
Calib Coef:
x=cyy+by+a
a: (intercept) -2.0780e+01
b: 8.2599e-02
c: 9.8087e-08

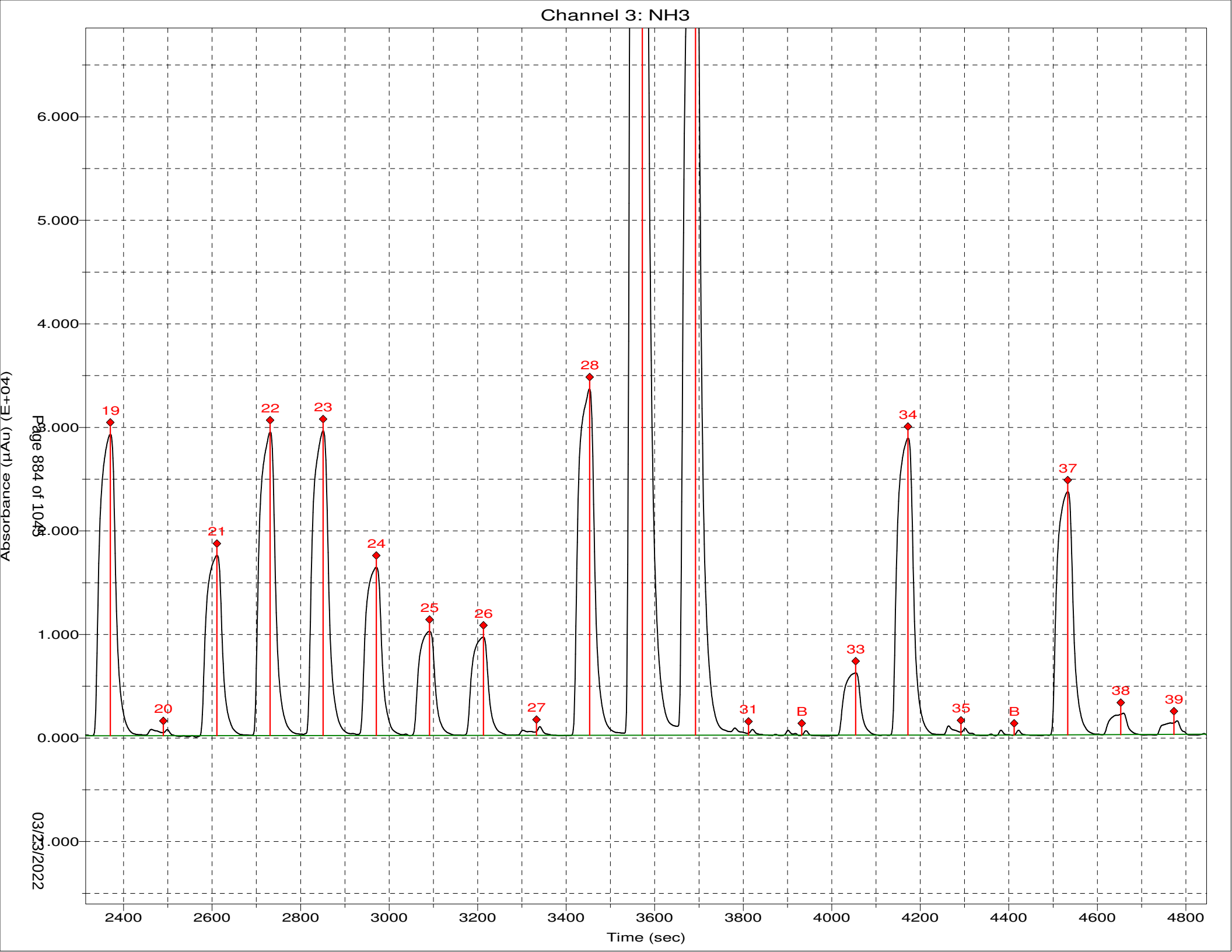
Corr Coef: 0.999997

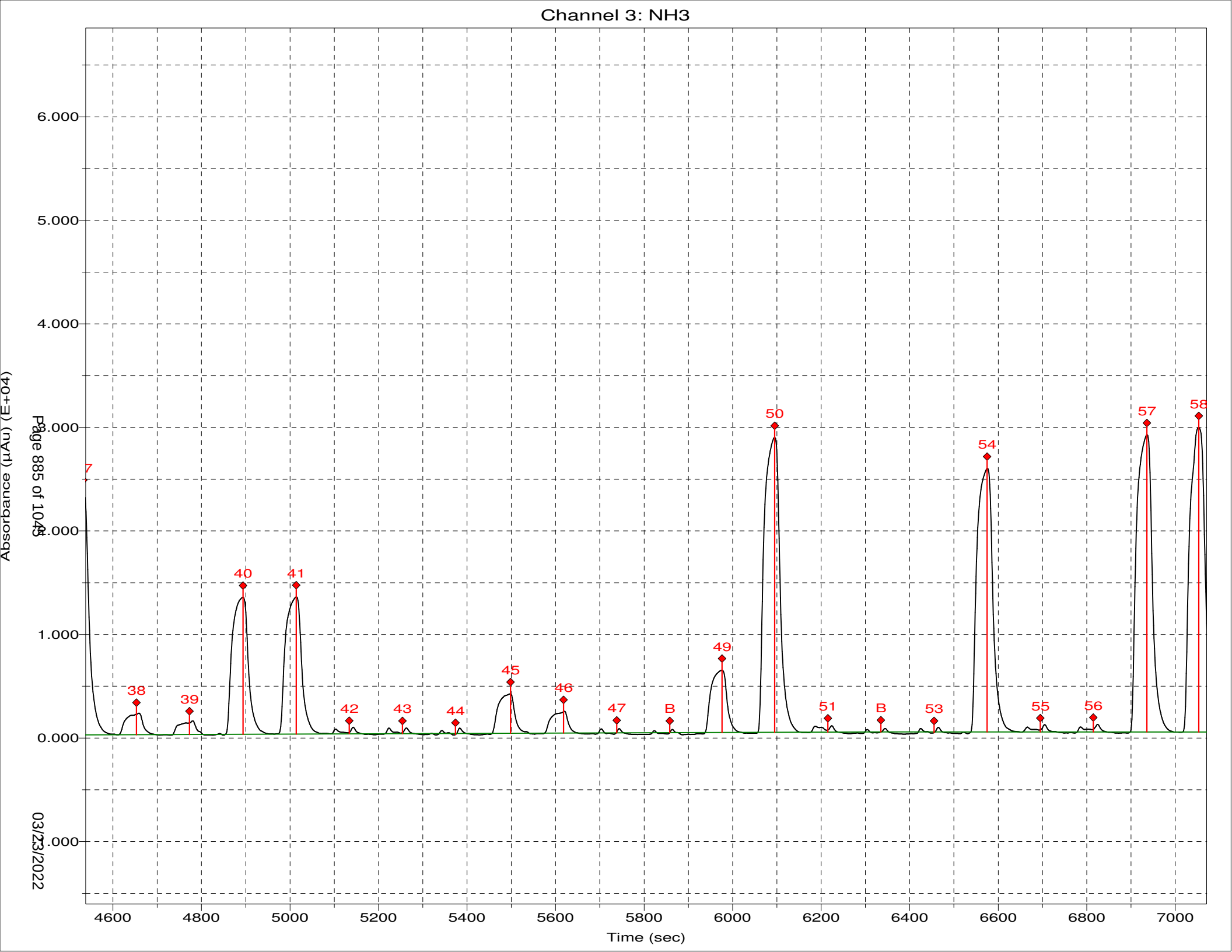
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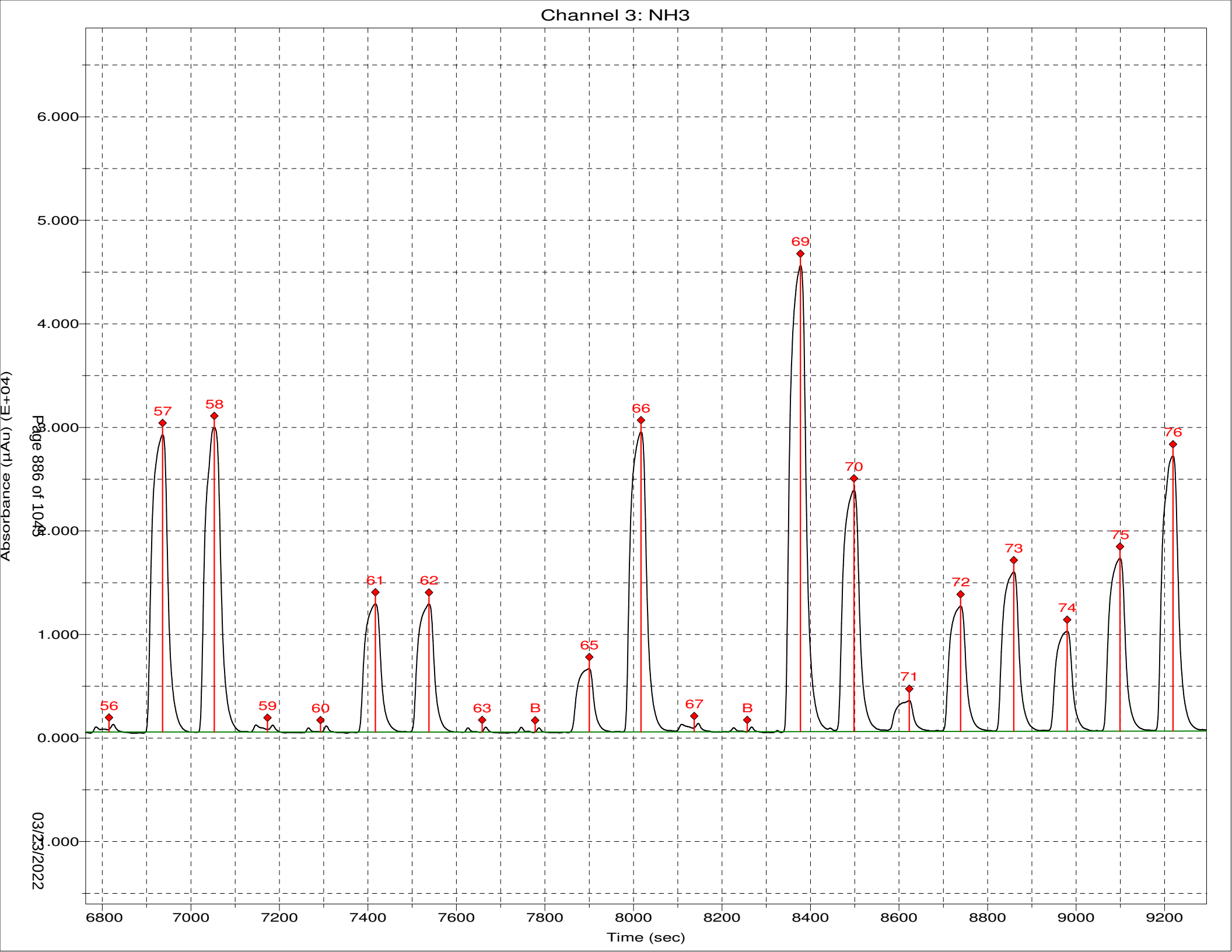
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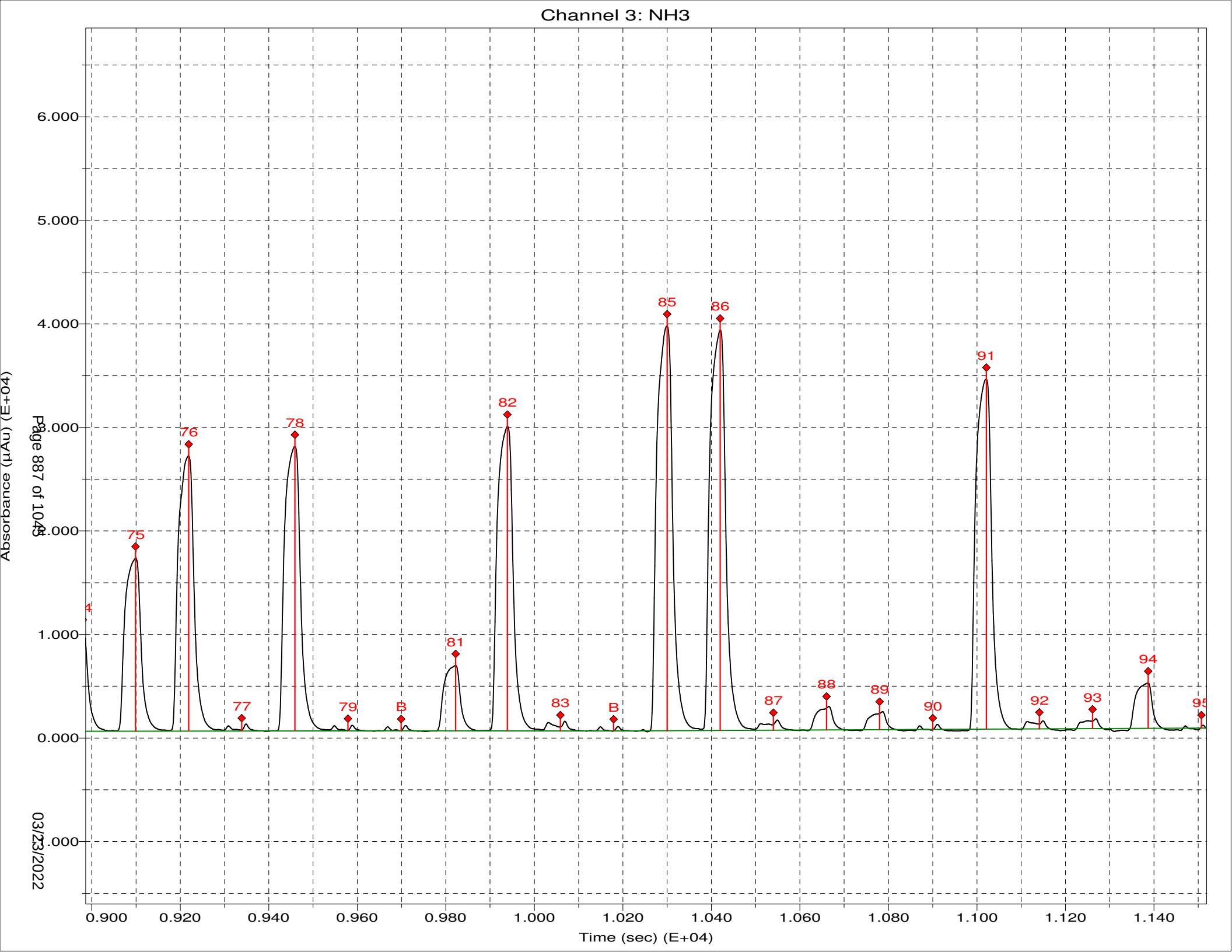

NH3:Calibration 1: Peak 4-112
6.000
5.000
4.000
3.000
2.000
1.000
0.000
-1.000
Height (E+04)
-1000
0
1000
2000
3000
4000
5000
6000
Conc
Page 882 of 1045
03/23/2022

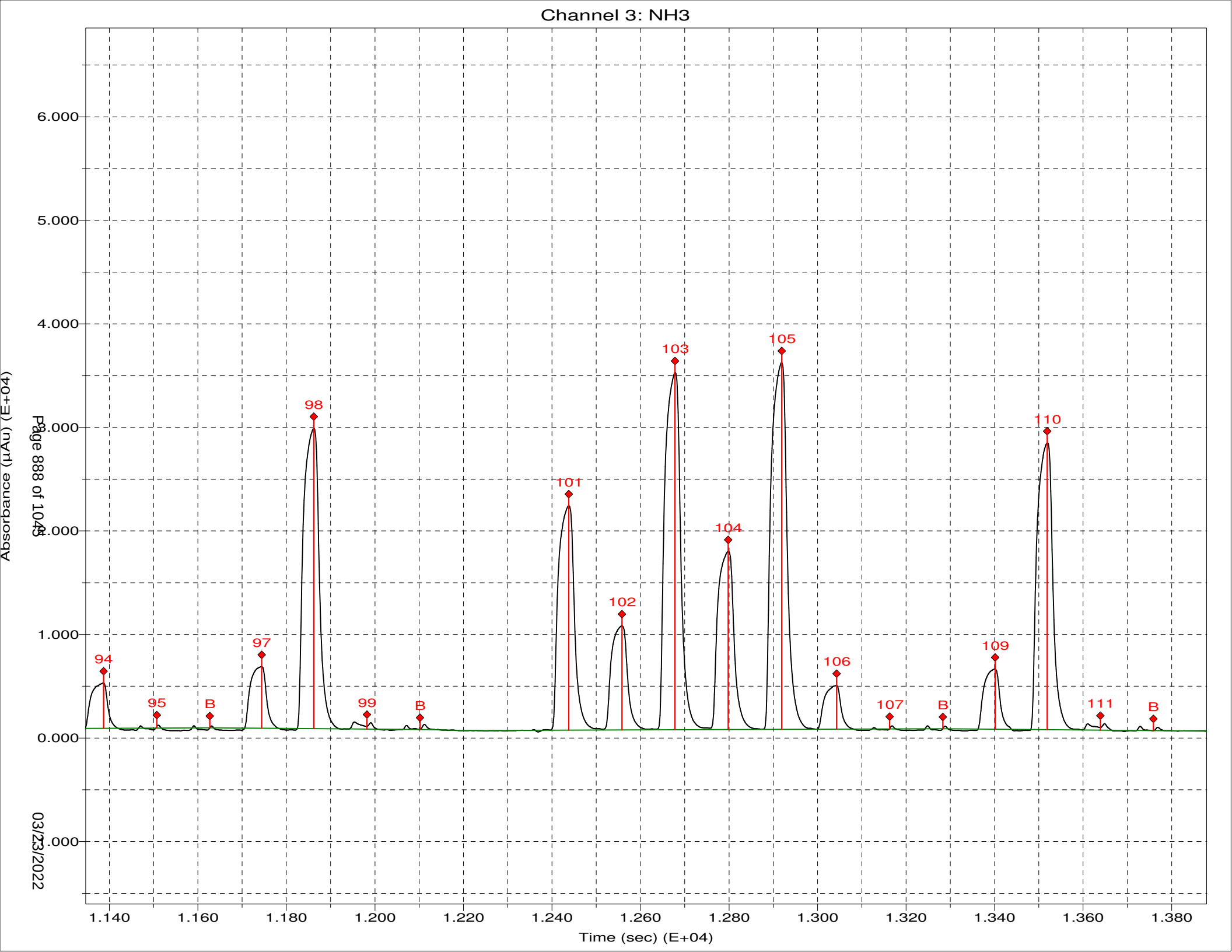

Channel 3: NH3
Absorbance (µAu) (E+04)
6.000
5.000
4.000
3.000
2.000
1.000
0.000
-1.000
Page 883 of 1045
03/23/2022
200
400
600
800
1000
1200
1400
1600
1800
2000
2200
2400
2600
Time (sec)
1
2
3
4
5
6
7
8
9
10
11
12
B
14
15
16
B
18
19
20
21


Channel 3: NH3
Absorbance (µAu) (E+04)
6.000
5.000
4.000
3.000
2.000
1.000
0.000
-1.000
19
20
21
22
23
24
25
26
27
28
31
B
33
34
35
B
37
38
39
2400
2600
2800
3000
3200
3400
3600
3800
4000
4200
4400
4600
4800
Time (sec)
Page 884 of 1045
03/23/2022


Channel 3: NH3
Absorbance (µAu) (E+04)
6.000
5.000
4.000
3.000
2.000
1.000
0.000
-1.000
Page 885 of 1045
03/23/2022
4600
4800
5000
5200
5400
5600
5800
6000
6200
6400
6600
6800
7000
Time (sec)
7
38
39
40
41
42
43
44
45
46
47
B
49
50
51
B
53
54
55
56
57
58


Channel 3: NH3
Absorbance (µAu) (E+04)
6.000
5.000
4.000
3.000
2.000
1.000
0.000
-1.000
Page 886 of 1045
03/23/2022
56
57
58
59
60
61
62
63
B
65
66
67
B
69
70
71
72
73
74
75
76
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200
Time (sec)


Channel 3: NH3
6.000
5.000
4.000
3.000
2.000
1.000
0.000
-1.000
Absorbance (µAu) (E+04)
Page 887 of 1045
03/23/2022
0.900
0.920
0.940
0.960
0.980
1.000
1.020
1.040
1.060
1.080
1.100
1.120
1.140
Time (sec) (E+04)
75
76
77
78
79
B
81
82
83
B
85
86
87
88
89
90
91
92
93
94


Channel 3: NH3
Absorbance (µAu) (E+04)
6.000
5.000
4.000
3.000
2.000
1.000
0.000
-1.000
94
95
B
97
98
99
B
101
102
103
104
105
106
107
B
109
110
111
B
1.140
1.160
1.180
1.200
1.220
1.240
1.260
1.280
1.300
1.320
1.340
1.360
1.380
Time (sec) (E+04)
Page 888 of 1045
03/23/2022

TestAmerica Calibration Spreadsheet, Work Instruction No. CA-Q-WI-13; dated 8/10/2011

Method		350.1
Analyte/Da	NH3	3/22/2022

Input Calibration Data

Amount	Response	ISTD Amt	ISTD Resp	Response
0.000	346.117			346.11670
25.000	532.827			532.82690
50.000	804.648			804.64795
100.000	1475.399			1475.39900
500.000	6237.086			6237.08643
1000.000	12134.830			12134.83008
2500.000	29524.020			29524.01953
5000.000	56928.020			56928.01950
				0.00000
				0.00000

Relative Errors in X

Average	Linear (1/x2)	Linear (1/X)	Linear Forced	Linear	Quadratic
#DIV/0!	#DIV/0!	#DIV/0!	79.39%	-23.90%	-11.50%
#DIV/0!	#DIV/0!	#DIV/0!	35.45%	-15.52%	-10.33%
#DIV/0!	#DIV/0!	#DIV/0!	24.18%	-0.47%	0.91%
#DIV/0!	#DIV/0!	#DIV/0!	4.99%	1.24%	0.13%
#DIV/0!	#DIV/0!	#DIV/0!	2.14%	0.99%	0.00%
#DIV/0!	#DIV/0!	#DIV/0!	-0.60%	-0.20%	0.00%
#DIV/0!	#DIV/0!	#DIV/0!	-4.17%	-3.29%	-0.88%
#DIV/0!	#DIV/0!	#DIV/0!	36.9%	12.9%	7.8%

RSE in X:

Curve Fit Statistics

	Constant	1ST Degree Coefficient	2ND Degree Coefficient	X-Intercept	r²	r
Weighted (1/Amt^2)						
Average		#DIV/0!		0	#DIV/0!	#DIV/0!
Linear	#DIV/0!	#DIV/0!		#DIV/0!	#DIV/0!	#DIV/0!
Weighted (1/Amt)						
Linear	#DIV/0!	#DIV/0!		#DIV/0!	#DIV/0!	#DIV/0!
Unweighted						
Forced Zero		1.1881E+01		0	0.99846	0.99923
Linear	3.1008E+02	1.1709E+01		-26.48	0.99868	0.99934
Quadratic	2.6788E+02	1.1977E+01	-1.0998E-04	-22.36	0.99992	0.99996
	c	b	a			

Sample Results

	Sample 1	Sample 2	Sample 3	Sample 4	Sample 5
Instrum.Responses:	532.827	6,237.086			
IS Response:					
Avg RF Result:	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Linear(1/x2) Result:	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Linear(1/x) Result:	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Linear Forced:	44.846	524.957	0.000	0.000	0.000
Linear Result:	19.024	506.200	-26.482	-26.482	-26.482
Quad Result (no IS):	22.125	500.670	-22.361	-22.361	-22.361
Quad Result (with IS):					

*** Sample Table from Analysis ***

File name: *** Sample Table from Analysis ***
Date: 22-Mar-22

Batch: 569404

350.1 color _ 00278
350.1 complex _ 00603
350.1 ICV _ 01589

Sulfuric Acid_00264

5000CONDOR
1000 SM
200 SM

MP 3-22-22

Cup	Name	Type	R	Dil	Wt	Vial	Comment
106	Sync	SYNC	1	1	1		
0	Carry Over	CO	1	1	1		
0	Blank	BLNK	1	1	1		
101	Cal 0 ppb	C	1	1	1		
102	Cal 25 ppb	C	1	1	1		
103	Cal 50 ppb	C	1	1	1		
104	Cal 100 ppb	C	1	1	1		
105	Cal 500 ppb	C	1	1	1		
106	Cal 1000 ppb	C	1	1	1		
107	Cal 2500 ppb	C	1	1	1		
108	Cal 5000 ppb	C	1	1	1		
0	Blank	BLNK	1	1	1		
0	Read Baseline	RB	1	1	1		
109	ICVL 500.0 ppb	U	1	1	1		
110	ICV 2500.0 ppb	U	1	1	1		
111	ICB	U	1	1	1		
0	read baseline	RB	1	1	1		
107	LCS	U	1	1	1		
107	LCSD	U	1	1	1		
111	MB	U	1	1	1		
201	280-159419-B-1	U	1	1	1		pH<2, Cl- non-detect
202	ms 280-159419-B-1	U	1	1	1		pH<2, Cl- non-detect
203	msd 280-159419-B-1	U	1	1	1		pH<2, Cl- non-detect
204	280-159384-C-4	U	1	10	1		pH<2, Cl- non-detect
205	280-159384-C-5	U	1	10	1		pH<2, Cl- non-detect
206	280-159384-C-6	U	1	2	1		pH<2, Cl- non-detect
207	280-159587-A-1	U	1	1	1		pH<2, Cl- non-detect
208	280-159635-B-1	U	1	1	1		pH<2, Cl- non-detect
X209	VOID 280-159654-A-1	U	1	1	1		pH<2, Cl- non-detect
X210	VOID 280-159663-A-1	U	1	1	1		pH<2, Cl- non-detect
0	Blank	BLNK	1	1	1		
0	Read Baseline	RB	1	1	1		
105	CCVL 500.0 ppb	U	1	1	1		
107	CCV 2500.0 ppb	U	1	1	1		
111	CCB	U	1	1	1		
0	read baseline	RB	1	1	1		
211	280-159668-B-1	U	1	1	1		pH<2, Cl- non-detect
212	320-85603-A-3	U	1	1	1		pH<2, Cl- non-detect
213	320-85603-A-10	U	1	1	1		pH<2, Cl- non-detect
214	ms 320-85603-A-10	U	1	1	1		pH<2, Cl- non-detect
215	msd 320-85603-A-10	U	1	1	1		pH<2, Cl- non-detect
216	320-85611-A-3	U	1	1	1		pH<2, Cl- non-detect
217	320-85611-A-10	U	1	1	1		pH<2, Cl- non-detect
218	280-159636-C-1	U	1	1	1		pH<2, Cl- non-detect
219	280-159636-C-2	U	1	1	1		pH<2, Cl- non-detect
220	280-159636-C-3	U	1	1	1		pH<2, Cl- non-detect
0	Blank	BLNK	1	1	1		
0	Read Baseline	RB	1	1	1		
105	CCVL 500.0 ppb	U	1	1	1		
107	CCV 2500.0 ppb	U	1	1	1		
111	CCB	U	1	1	1		
0	read baseline	RB	1	1	1		
221	280-159636-C-4	U	1	1	1		pH<2, Cl- non-detect
222	280-159636-C-5	U	1	1	1		pH<2, Cl- non-detect
223	280-159636-C-6	U	1	1	1		pH<2, Cl- non-detect
224	280-159636-C-7	U	1	1	1		pH<2, Cl- non-detect

Cup	Name	Type	R	Dil	Wt	Vial	Comment
107	LCS	U	1	1	1		
107	LCSD	U	1	1	1		
111	MB	U	1	1	1		
225	280-159636-C-8	U	1	1	1		pH<2, Cl- non-detect
226	ms 280-159636-C-8	U	1	1	1		pH<2, Cl- non-detect
227	msd 280-159636-C-8	U	1	1	1		pH<2, Cl- non-detect
0	Blank	BLNK	1	1	1		
0	Read Baseline	RB	1	1	1		
105	CCVL 500.0 ppb	U	1	1	1		
107	CCV 2500.0 ppb	U	1	1	1		
111	CCB	U	1	1	1		
0	read baseline	RB	1	1	1		
228	280-159636-C-9	U	1	1	1		pH<2, Cl- non-detect
229	280-159636-C-10	U	1	1	1		pH<2, Cl- non-detect
230	280-159636-C-11	U	1	1	1		pH<2, Cl- non-detect
231	280-159636-C-12	U	1	1	1		pH<2, Cl- non-detect
232	280-159636-C-13	U	1	1	1		pH<2, Cl- non-detect
233	280-159636-C-14	U	1	1	1		pH<2, Cl- non-detect
234	280-159636-C-15	U	1	1	1		pH<2, Cl- non-detect
235	280-159636-C-16	U	1	1	1		pH<2, Cl- non-detect
236	280-159455-E-1	U	1	1	1		pH<2, Cl- non-detect
237	280-159475-F-1	U	1	1	1		pH<2, Cl- non-detect
0	Blank	BLNK	1	1	1		
0	Read Baseline	RB	1	1	1		
105	CCVL 500.0 ppb	U	1	1	1		
107	CCV 2500.0 ppb	U	1	1	1		
111	CCB	U	1	1	1		
0	read baseline	RB	1	1	1		
238	ms 280-159475-F-1	U	1	1	1		pH<2, Cl- non-detect
239	msd 280-159475-F-1	U	1	1	1		pH<2, Cl- non-detect
240	280-159475-F-2	U	1	1	1		pH<2, Cl- non-detect
241	280-159475-G-3	U	1	1	1		pH<2, Cl- non-detect
242	280-159475-G-4	U	1	1	1		pH<2, Cl- non-detect
243	280-159706-B-1	U	1	1	1		pH<2, Cl- non-detect
X244	VOID 280-159937-E-1	U	1	X50	1		pH<2, Cl- non-detect
X245	VOID 580-111282-D-1	U	1	X50	1		pH<2, Cl- non-detect
X246	VOID 580-111282-D-2	U	1	X50	1		pH<2, Cl- non-detect
247	280-159454-C-1	U	1	1	1		pH<2, Cl- non-detect
0	Blank	BLNK	1	1	1		
0	Read Baseline	RB	1	1	1		
105	CCVL 500.0 ppb	U	1	1	1		
107	CCV 2500.0 ppb	U	1	1	1		
111	CCB	U	1	1	1		
0	read baseline	RB	1	1	1		
201	280-159654-a-1	U	1	10	1		pH<2, Cl- non-detect
202	280-159663-a-1	U	1	10	1		pH<2, Cl- non-detect
203	280-159937-e-1	U	1	50	1		pH<2, Cl- non-detect
204	580-111282-d-1	U	1	1	1		pH<2, Cl- non-detect
205	580-111282-d-2	U	1	1	1		pH<2, Cl- non-detect
206	280-159454-c-2	U	1	1	1		pH<2, Cl- non-detect
0	Blank	BLNK	1	1	1		
0	Read Baseline	RB	1	1	1		
105	CCVL 500.0 ppb	U	1	1	1		
107	CCV 2500.0 ppb	U	1	1	1		
111	CCB	U	1	1	1		
0	read baseline	RB	1	1	1		

Calibration results

TKN Version number 1.5 WC_GAL1

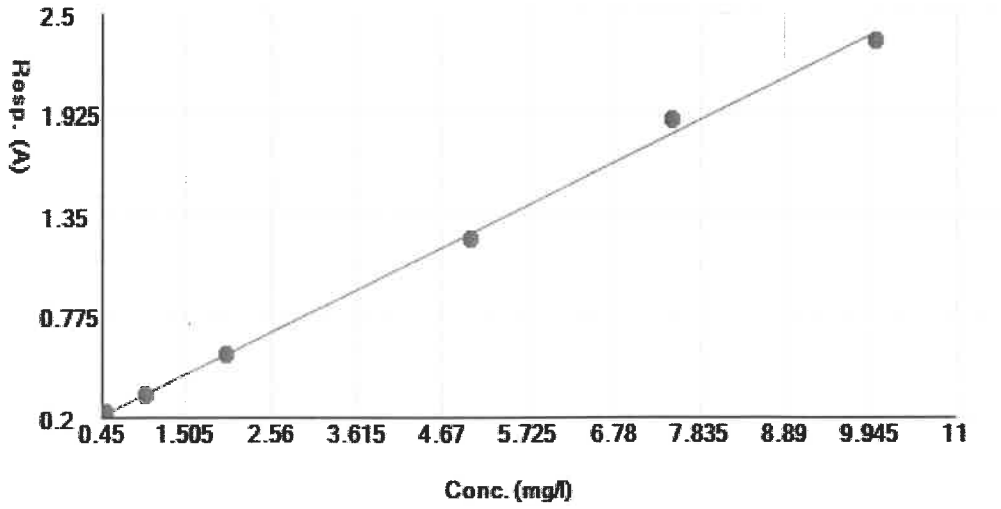
Date 3/14/2022 **User** Dealer

Time 4:57:44PM **Software version: 7.0**

Analyzer name WC_GAL1

Test	TKN	**Coeff. of deter.**	0.997758
Status	Accepted	**Total factor**	4.396
Accepted	2/22/2022 4:32 PM		
Checked	2/22/2022 4:32 PM		
User name	Dealer		
Comment			
Errors			
Factor	4.396		
Bias	0.107		

Cal/Ctrl	Response	Calc. conc.	Given conc.	Lot	Errors
TKN 10.0	0.231	0.54543910	0.50000000	Default	
TKN 10.0	0.330	0.97760830	1.00000000	Default	
TKN 10.0	0.554	1.96398400	2.00000000	Default	
TKN 10.0	1.209	4.84515700	5.00000000	Default	
TKN 7.5	1.889	7.83287700	7.50000000	Default	
TKN 10.0	2.344	9.83493300	10.00000000	Default	



Test results report

WC_GAL1

Test name TKN

Date 3/14/2022 **User** Dealer

Time 6:01:14PM **Software version: 7.0**

Test TKN **Group ID** [All] **Acceptance** Not accepted

Sample ID [All] **Group name** [All] **Request type** All

Test	Sample/ctrl ID	Test version	Result	Unit	Note	Dil. 1 +	Status	Errors
TKN	icv	1.5	5.2708190	mg/l		0.0	calc	
TKN	icb	1.5	0.0227165	mg/l		0.0	calc	
TKN	LCS 280-568334/1-A	1.5	5.8459130	mg/l		0.0	calc	
TKN	MB 280-568334/2-A	1.5	-0.0401942	mg/l		0.0	calc	
TKN	280-159384-C-1-A	1.5	-0.1714457	mg/l		0.0	calc	
TKN	280-159384-C-1-B MS	1.5	-0.1153076	mg/l		0.0	calc	
TKN	280-159384-C-1-C MSD	1.5	-0.0873640	mg/l		0.0	calc	
TKN	280-159384-C-2-A	1.5	0.9833338	mg/l		0.0	calc	
TKN	280-159384-C-4-A	1.5	0.2057191	mg/l		0.0	calc	
TKN	280-159384-C-5-A	1.5	1.1579750	mg/l		0.0	calc	
TKN	280-159384-C-6-A	1.5	-0.1698207	mg/l		0.0	calc	
TKN	280-159341-B-1-A	1.5	0.0327413	mg/l		0.0	calc	
TKN	280-159341-B-2-A	1.5	1.2491350	mg/l		0.0	calc	
TKN	280-159341-A-3-A	1.5	0.0673253	mg/l		0.0	calc	
TKN	ccv1	1.5	5.3344740	mg/l		0.0	calc	
TKN	ccb1	1.5	-0.0359808	mg/l		0.0	calc	
TKN	280-159315-A-3-A	1.5	-0.1697045	mg/l		0.0	calc	
TKN	580-111014-I-2-A	1.5	3.7774530	mg/l		0.0	calc	
TKN	LCS 280-568332/1-A	1.5	5.7813060	mg/l		0.0	calc	
TKN	MB 280-568332/2-A	1.5	-0.0389935	mg/l		0.0	calc	
TKN	280-159275-C-2-A	1.5	-0.1016267	mg/l		0.0	calc	

Test	Sample/ctrl ID	Test version	Result	Unit	Note	Dil. 1 +	Status	Errors
TKN	280-159275-C-2-B MS	1.5	-0.1666925	mg/l		0.0	calc	
TKN	280-159275-C-2-C MSD	1.5	-0.1682392	mg/l		0.0	calc	
TKN	280-159275-B-3-A	1.5	3.9785340	mg/l		0.0	calc	
TKN	280-159275-C-4-A	1.5	-0.1649425	mg/l		0.0	calc	
TKN	280-159275-B-5-A	1.5	-0.1389836	mg/l		0.0	calc	
TKN	ccv2	1.5	5.3885130	mg/l		0.0	calc	
TKN	ccb2	1.5	0.0957609	mg/l		0.0	calc	
TKN	280-159275-B-6-A	1.5	0.4563175	mg/l		0.0	calc	
TKN	580-110868-A-2-A	1.5	3.1458040	mg/l		0.0	calc	
TKN	280-159332-C-1-A	1.5	4.0151850	mg/l		0.0	calc	
TKN	280-159332-C-2-A	1.5	1.6140330	mg/l		0.0	calc	
TKN	280-159332-C-3-A	1.5	1.1306330	mg/l		0.0	calc	
TKN	280-159332-C-4-A	1.5	-0.0132570	mg/l		0.0	calc	
TKN	280-159332-C-13-A	1.5	0.1373091	mg/l		0.0	calc	
TKN	280-159332-C-13-B MS	1.5	2.6379580	mg/l		0.0	calc	
TKN	280-159332-C-13-C MS	1.5	2.6261480	mg/l		0.0	calc	
TKN	280-159332-C-5-A	1.5	0.8201759	mg/l		0.0	calc	
TKN	ccv3	1.5	5.3723730	mg/l		0.0	calc	
TKN	ccb3	1.5	0.0043324	mg/l		0.0	calc	
TKN	280-159332-C-6-A	1.5	4.2868430	mg/l		0.0	calc	
TKN	280-159332-C-7-A	1.5	4.5513310	mg/l		0.0	calc	
TKN	280-159332-C-8-A	1.5	2.9557220	mg/l		0.0	calc	
TKN	280-159332-C-9-A	1.5	2.8191520	mg/l		0.0	calc	
TKN	280-159332-C-10-A	1.5	7.0107070	mg/l		0.0	calc	
TKN	280-159332-C-12-A	1.5	1.4839770	mg/l		0.0	calc	
TKN	ccv4	1.5	5.3363210	mg/l		0.0	calc	
TKN	ccb4	1.5	-0.0245247	mg/l		0.0	calc	

Test	Sample/ctrl ID	Test version	Result	Unit	Note	Dil. 1 +	Status	Errors
TKN	280-159332-C-11-A	1.5	14.7131300	mg/l		4.0	calc	
TKN	580-110867-A-2-A	1.5	16.4291300	mg/l		4.0	calc	
TKN	ccv5	1.5	5.3621510	mg/l		0.0	calc	
TKN	ccb5	1.5	-0.0346537	mg/l		0.0	calc	

Run Results Report

Facility Name	
Facility Location	
Department	
Operator Name	svc
Operator ID	svc
Platform	FS III/IV/3100
Software Rev Code	240
Data system ID	54
Result path	C:\FLOW_4\032022.RST
Sample table path	C:\FLOW_4\032022.tbl
Method path	C:\FLOW_4\nox.mth
Date acquired	20-Mar-22
Time acquired	18:51

Date	Time	Cup	Name
20-Mar-22	15:22	109	SYNC
20-Mar-22	15:24	0	Carryover
20-Mar-22	15:26	0	Carryover (Statistics)
20-Mar-22	15:28	0	read baseline
20-Mar-22	15:30	101	Cal 0.00 ppb
20-Mar-22	15:32	102	Cal 50.0 ppb
20-Mar-22	15:34	103	Cal 100 ppb
20-Mar-22	15:36	104	Cal 500 ppb
20-Mar-22	15:38	105	Cal 1000 ppb
20-Mar-22	15:40	106	Cal 2500 ppb
20-Mar-22	15:42	107	Cal 5000 ppb
20-Mar-22	15:44	108	Cal 7500 ppb
20-Mar-22	15:46	109	Cal 10000 ppb
20-Mar-22	15:48	0	Blank
20-Mar-22	15:50	0	Read Baseline
20-Mar-22	15:52	110	5000 PPB NO2
20-Mar-22	15:54	111	ICV 5000 PPB
20-Mar-22	15:56	112	ICV 2000 PPB
20-Mar-22	15:58	0	ICB
20-Mar-22	16:00	0	Read Baseline
20-Mar-22	16:02	107	LCS
20-Mar-22	16:04	0	MB
20-Mar-22	16:06	113	280-159312-A-6
20-Mar-22	16:08	114	ms 280-159312-A-6
20-Mar-22	16:10	115	msd 280-159312-A-6
20-Mar-22	16:12	116	280-159312-A-13
20-Mar-22	16:14	117	280-159332-C-9
20-Mar-22	16:16	118	280-159315-A-3
20-Mar-22	16:18	119	280-159485-A-1
20-Mar-22	16:20	120	280-159485-B-2
20-Mar-22	16:22	121	280-159485-B-3
20-Mar-22	16:24	122	280-159485-B-4
20-Mar-22	16:26	0	Rinse
20-Mar-22	16:28	0	Read Baseline
20-Mar-22	16:30	107	CCV 5000 ppb
20-Mar-22	16:32	105	CCVL 1000 ppb
20-Mar-22	16:34	0	CCB
20-Mar-22	16:36	0	Read Baseline
20-Mar-22	16:38	123	280-159345-A-2
20-Mar-22	16:40	124	280-159345-E-3
20-Mar-22	16:42	125	280-159375-A-4
20-Mar-22	16:44	126	ms 280-159375-A-4
20-Mar-22	16:46	127	msd 280-159375-A-4
20-Mar-22	16:48	128	280-159345-E-4

Result path C:\FLOW_4\032022.RST
Sample table path C:\FLOW_4\032022.tbl
Method path C:\FLOW_4\nox.mth
Date acquired 20-Mar-22
Time acquired 18:51

Date	Time	Cup	Name
20-Mar-22	16:50	129	280-159345-E-5
20-Mar-22	16:52	130	280-159345-E-6
20-Mar-22	16:54	131	280-159345-E-7
20-Mar-22	16:56	132	280-159345-E-8
20-Mar-22	16:58	0	Rinse
20-Mar-22	17:00	0	Read Baseline
20-Mar-22	17:02	107	CCV 5000 ppb
20-Mar-22	17:04	105	CCVL 1000 ppb
20-Mar-22	17:06	0	CCB
20-Mar-22	17:08	0	Read Baseline
20-Mar-22	17:10	133	280-159345-A-9
20-Mar-22	17:12	134	280-159345-C-10
20-Mar-22	17:14	135	280-159454-C-1
20-Mar-22	17:16	136	280-159454-C-2
20-Mar-22	17:18	107	LCS
20-Mar-22	17:20	0	MB
20-Mar-22	17:22	137	280-159370-A-1
20-Mar-22	17:24	138	ms 280-159370-A-1
20-Mar-22	17:26	139	msd 280-159370-A-1
20-Mar-22	17:28	140	280-159384-C-1
20-Mar-22	17:30	0	Rinse
20-Mar-22	17:32	0	Read Baseline
20-Mar-22	17:34	107	CCV 5000 ppb
20-Mar-22	17:36	105	CCVL 1000 ppb
20-Mar-22	17:38	0	CCB
20-Mar-22	17:40	0	Read Baseline
20-Mar-22	17:42	141	280-159384-C-2
20-Mar-22	17:44	142	280-159384-C-4
20-Mar-22	17:46	143	280-159384-C-5
20-Mar-22	17:48	144	280-159384-C-6
20-Mar-22	17:50	145	280-159419-B-1
20-Mar-22	17:52	146	280-159419-B-2
20-Mar-22	17:54	147	280-159419-B-3
20-Mar-22	17:56	148	280-159419-B-4
20-Mar-22	17:58	149	280-159369-A-1
20-Mar-22	18:00	150	ms 280-159369-A-1
20-Mar-22	18:02	0	Rinse
20-Mar-22	18:04	0	Read Baseline
20-Mar-22	18:06	107	CCV 5000 ppb
20-Mar-22	18:08	105	CCVL 1000 ppb
20-Mar-22	18:10	0	CCB
20-Mar-22	18:12	0	Read Baseline
20-Mar-22	18:14	151	msd 280-159369-A-1
20-Mar-22	18:16	152	280-159419-B-5
20-Mar-22	18:18	153	280-159419-B-6
20-Mar-22	18:20	154	280-159455-E-1
20-Mar-22	18:22	155	550-180434-J-1
20-Mar-22	18:24	156	550-180434-J-2
20-Mar-22	18:26	157	550-180434-J-3
20-Mar-22	18:28	158	550-180434-J-4
20-Mar-22	18:30	159	280-159706-B-1
20-Mar-22	18:32	160	280-159663-A-1
20-Mar-22	18:34	0	Rinse
20-Mar-22	18:36	0	Read Baseline
20-Mar-22	18:38	107	CCV 5000 ppb
20-Mar-22	18:40	105	CCVL 1000 ppb
20-Mar-22	18:42	0	CCB

Result path	C:\FLOW_4\032022.RST
Sample table path	C:\FLOW_4\032022.tbl
Method path	C:\FLOW_4\nox.mth
Date acquired	20-Mar-22
Time acquired	18:51

Date	Time	Cup	Name
20-Mar-22	18:44	0	Read Baseline

Run Results Report

Facility Name	
Facility Location	
Department	
Operator Name	svc
Operator ID	svc
Platform	FS III/IV/3100
Software Rev Code	240
Data system ID	54
Result path	C:\FLOW_4\032022.RST
Sample table path	C:\FLOW_4\032022.tbl
Method path	C:\FLOW_4\nox.mth
Date acquired	20-Mar-22
Time acquired	18:51

	Nitrate as N					
Name	Response	Calc [ppb]	Flags	Mean Response	Mean Calc [ppb]	
SYNC	2576803	9989.227				
Carryover	3596	7.844				
Carryover	501	-4.159	LO			
(Statistics)				2049	1.842	N
read baseline	0	-6.104	BL			
Cal 0.00 ppb	1794	0.855				
Cal 50.0 ppb	13208	45.128				
Cal 100 ppb	25955	94.575				
Cal 500 ppb	130296	499.308				
Cal 1000 ppb	265785	1024.866				
Cal 2500 ppb	660897	2557.493				
Cal 5000 ppb	1276097	4943.833				
Cal 7500 ppb	1906830	7390.423				
Cal 10000 ppb	2603689	10093.518	HI			
Blank	-2484	-15.738	LO			
Read Baseline	0	-6.104	BL			
5000 PPB NO2	1263731	4895.867				
ICV 5000 PPB	1310427	5076.997				
ICV 2000 PPB	527518	2040.119				
ICB	94	-5.741	LO			
Read Baseline	0	-6.104	BL			
LCS	1301196	5041.193				
MB	-910	-9.632	LO			
280-159312-A-6	299297	1154.859				
ms 280-159312-A-6	1307102	5064.098				
msd 280-159312-A-6	1303470	5050.010				
280-159312-A-13	295501	1140.135				
280-159332-C-9	1581329	12255.636				
280-159315-A-3	1466832	5683.688				
280-159485-A-1	-3071	-18.015	LO			
280-159485-B-2	1461294	56622.051				
280-159485-B-3	1456667	56442.582				
280-159485-B-4	1496206	57976.258				
Rinse	-414	-7.710	LO			
Read Baseline	0	-6.104	BL			
CCV 5000 ppb	1282333	4968.022				
CCVL 1000 ppb	271354	1046.469				
CCB	-208	-6.911	LO			
Read Baseline	0	-6.104	BL			
280-159345-A-2	705641	2731.053				
280-159345-E-3	708553	2742.350				
280-159375-A-4	131165	502.680				
ms 280-159375-A-4	1141088	4420.136				
msd 280-159375-A-4	1149560	4453.002				
280-159345-E-4	239166	921.611				

Result path	C:\FLOW_4\032022.RST
Sample table path	C:\FLOW_4\032022.tbl
Method path	C:\FLOW_4\nox.mth
Date acquired	20-Mar-22
Time acquired	18:51

	Nitrate as N				
Name	Response	Calc [ppb]	Flags	Mean Response	Mean Calc [ppb]
280-159345-E-5	-659	-8.661	LO		
280-159345-E-6	10619	35.088			
280-159345-E-7	-72	-6.384	LO		
280-159345-E-8	80324	305.470			
Rinse	-272	-7.159	LO		
Read Baseline	0	-6.104	BL		
CCV 5000 ppb	1277760	4950.283			
CCVL 1000 ppb	271969	1048.855			
CCB	103	-5.705	LO		
Read Baseline	0	-6.104	BL		
280-159345-A-9	39156	145.782			
280-159345-C-10	163	-5.471	LO		
280-159454-C-1	182411	701.461			
280-159454-C-2	193964	746.278			
LCS	1269824	4919.501			
MB	-1246	-10.938	LO		
280-159370-A-1	629738	2436.630			
ms 280-159370-A-1	1580975	6126.444			
msd 280-159370-A-1	1609052	6235.356			
280-159384-C-1	1464636	11350.340			
Rinse	-750	-9.015	LO		
Read Baseline	0	-6.104	BL		
CCV 5000 ppb	1263393	4894.556			
CCVL 1000 ppb	270386	1042.714			
CCB	-27	-6.210	LO		
Read Baseline	0	-6.104	BL		
280-159384-C-2	2133	2.169			
280-159384-C-4	4751	12.325			
280-159384-C-5	17289	60.961			
280-159384-C-6	475	-4.263	LO		
280-159419-B-1	1096	-1.851	LO		
280-159419-B-2	-681	-8.745	LO		
280-159419-B-3	1544540	5985.114			
280-159419-B-4	732	-3.264	LO		
280-159369-A-1	403076	1557.414			
ms 280-159369-A-1	1385615	5368.650			
Rinse	-1002	-9.992	LO		
Read Baseline	0	-6.104	BL		
CCV 5000 ppb	1258082	4873.952			
CCVL 1000 ppb	272474	1050.815			
CCB	145	-5.540	LO		
Read Baseline	0	-6.104	BL		
msd 280-159369-A-1	1381891	5354.204			
280-159419-B-5	29278	107.463			
280-159419-B-6	4610	11.778			
280-159455-E-1	861377	3335.149			
550-180434-J-1	9798	31.901			
550-180434-J-2	12918	44.006			
550-180434-J-3	7175	21.726			
550-180434-J-4	7442	22.765			
280-159706-B-1	371053	1433.198			
280-159663-A-1	244383	941.848			
Rinse	104	-5.699	LO		
Read Baseline	0	-6.104	BL		
CCV 5000 ppb	1249474	4840.565			
CCVL 1000 ppb	272149	1049.553			
CCB	-305	-7.288	LO		

Result path C:\FLOW_4\032022.RST
Sample table path C:\FLOW_4\032022.tbl
Method path C:\FLOW_4\nox.mth
Date acquired 20-Mar-22
Time acquired 18:51

	Nitrate as N				
Name	Response	Calc [ppb]	Flags	Mean Response	Mean Calc [ppb]
Read Baseline	0	-6.104	BL		

Peak Table:Nitrate as N

File name: C:\FLOW_4\032022.RST
Date: 20-Mar-22
Operator: svc

Peak	Cup	Name	R	Type	Dil	Wt	Height	Calc. (ppb)	Flags
1	109	SYNC	1	SYNC	1	1	2576803	9989.226562	
2	0	Carryover	1	CO	1	1	3596	7.843800	
3	0	Carryover	2	CO	1	1	501	-4.159135	LO
B	0	read baseline	1	RB	1	1	0	-6.103962	BL
5	101	Cal 0.00 ppb	1	C	1	1	1794	0.854789	
6	102	Cal 50.0 ppb	1	C	1	1	13208	45.127693	
7	103	Cal 100 ppb	1	C	1	1	25955	94.574982	
8	104	Cal 500 ppb	1	C	1	1	130296	499.308319	
9	105	Cal 1000 ppb	1	C	1	1	265785	1024.866089	
10	106	Cal 2500 ppb	1	C	1	1	660897	2557.493164	
11	107	Cal 5000 ppb	1	C	1	1	1276097	4943.833496	
12	108	Cal 7500 ppb	1	C	1	1	1906830	7390.422852	
13	109	Cal 10000 ppb	1	C	1	1	2603689	10093.517578	HI
14	0	Blank	1	BLNK	1	1	-2484	-15.738497	LO
B	0	Read Baseline	1	RB	1	1	0	-6.103966	BL
16	110	5000 PPB NO2	1	U	1	1	1263731	4895.866699	
17	111	ICV 5000 PPB	1	CCV	1	1	1310427	5076.997070	
18	112	ICV 2000 PPB	1	CCV	1	1	527518	2040.118774	
19	0	ICB	1	U	1	1	94	-5.740914	LO
B	0	Read Baseline	1	RB	1	1	0	-6.103962	BL
21	107	LCS	1	U	1	1	1301196	5041.192871	
22	0	MB	1	U	1	1	-910	-9.632334	LO
23	113	280-159312-A-6	1	U	1	1	299297	1154.859497	
24	114	ms 280-159312-A-6	1	U	1	1	1307102	5064.098145	
25	115	msd 280-159312-A-6	1	U	1	1	1303470	5050.010254	
26	116	280-159312-A-13	1	U	1	1	295501	1140.135132	
27	117	280-159332-C-9	1	U	2	1	1581329	12255.635742	
28	118	280-159315-A-3	1	U	1	1	1466832	5683.687988	
29	119	280-159485-A-1	1	U	1	1	-3071	-18.015198	LO
30	120	280-159485-B-2	1	U	10	1	1461294	56622.050781	
31	121	280-159485-B-3	1	U	10	1	1456667	56442.582031	
32	122	280-159485-B-4	1	U	10	1	1496206	57976.257812	
33	0	Rinse	1	U	1	1	-414	-7.710243	LO
B	0	Read Baseline	1	RB	1	1	0	-6.103962	BL
35	107	CCV 5000 ppb	1	CCV	1	1	1282333	4968.022461	
36	105	CCVL 1000 ppb	1	CCV	1	1	271354	1046.468750	
37	0	CCB	1	U	1	1	-208	-6.911433	LO
B	0	Read Baseline	1	RB	1	1	0	-6.103962	BL
39	123	280-159345-A-2	1	U	1	1	705641	2731.053223	
40	124	280-159345-E-3	1	U	1	1	708553	2742.350098	
41	125	280-159375-A-4	1	U	1	1	131165	502.680206	
42	126	ms 280-159375-A-4	1	U	1	1	1141088	4420.136230	
43	127	msd 280-159375-A-4	1	U	1	1	1149560	4453.001953	
44	128	280-159345-E-4	1	U	1	1	239166	921.611023	
45	129	280-159345-E-5	1	U	1	1	-659	-8.661107	LO
46	130	280-159345-E-6	1	U	1	1	10619	35.088051	
47	131	280-159345-E-7	1	U	1	1	-72	-6.384443	LO
48	132	280-159345-E-8	1	U	1	1	80324	305.470306	
49	0	Rinse	1	U	1	1	-272	-7.159269	LO
B	0	Read Baseline	1	RB	1	1	0	-6.103962	BL
51	107	CCV 5000 ppb	1	CCV	1	1	1277760	4950.283203	
52	105	CCVL 1000 ppb	1	CCV	1	1	271969	1048.854858	
53	0	CCB	1	U	1	1	103	-5.704998	LO
B	0	Read Baseline	1	RB	1	1	0	-6.103962	BL
55	133	280-159345-A-9	1	U	1	1	39156	145.782104	
56	134	280-159345-C-10	1	U	1	1	163	-5.470888	LO
57	135	280-159454-C-1	1	U	1	1	182411	701.460815	
58	136	280-159454-C-2	1	U	1	1	193964	746.277527	
59	107	LCS	1	U	1	1	1269824	4919.501465	
60	0	MB	1	U	1	1	-1246	-10.938306	LO
61	137	280-159370-A-1	1	U	1	1	629738	2436.630127	
62	138	ms 280-159370-A-1	1	U	1	1	1580975	6126.443848	
63	139	msd 280-159370-A-1	1	U	1	1	1609052	6235.355957	
64	140	280-159384-C-1	1	U	2	1	1464636	11350.339844	
65	0	Rinse	1	U	1	1	-750	-9.014830	LO
B	0	Read Baseline	1	RB	1	1	0	-6.103962	BL
67	107	CCV 5000 ppb	1	CCV	1	1	1263393	4894.556152	
68	105	CCVL 1000 ppb	1	CCV	1	1	270386	1042.714233	
69	0	CCB	1	U	1	1	-27	-6.209905	LO
B	0	Read Baseline	1	RB	1	1	0	-6.103962	BL

Peak	Cup	Name	R	Type	Dil	Wt	Height	Calc. (ppb)	Flags
71	141	280-159384-C-2	1	U	1	1	2133	2.168793	
72	142	280-159384-C-4	1	U	1	1	4751	12.325336	
73	143	280-159384-C-5	1	U	1	1	17289	60.961353	
74	144	280-159384-C-6	1	U	1	1	475	-4.262721	LO
75	145	280-159419-B-1	1	U	1	1	1096	-1.851118	LO
76	146	280-159419-B-2	1	U	1	1	-681	-8.745366	LO
77	147	280-159419-B-3	1	U	1	1	1544540	5985.114258	
78	148	280-159419-B-4	1	U	1	1	732	-3.263721	LO
79	149	280-159369-A-1	1	U	1	1	403076	1557.413940	
80	150	ms 280-159369-A-1	1	U	1	1	1385615	5368.649902	
81	0	Rinse	1	U	1	1	-1002	-9.992111	LO
B	0	Read Baseline	1	RB	1	1	0	-6.103962	BL
83	107	CCV 5000 ppb	1	CCV	1	1	1258082	4873.951660	
84	105	CCVL 1000 ppb	1	CCV	1	1	272474	1050.815063	
85	0	CCB	1	U	1	1	145	-5.540202	LO
B	0	Read Baseline	1	RB	1	1	0	-6.103962	BL
87	151	msd 280-159369-A-1	1	U	1	1	1381891	5354.204102	
88	152	280-159419-B-5	1	U	1	1	29278	107.463394	
89	153	280-159419-B-6	1	U	1	1	4610	11.777969	
90	154	280-159455-E-1	1	U	1	1	861377	3335.148682	
91	155	550-180434-J-1	1	U	1	1	9798	31.901251	
92	156	550-180434-J-2	1	U	1	1	12918	44.006226	
93	157	550-180434-J-3	1	U	1	1	7175	21.726479	
94	158	550-180434-J-4	1	U	1	1	7442	22.764771	
95	159	280-159706-B-1	1	U	1	1	371053	1433.198364	
96	160	280-159663-A-1	1	U	1	1	244383	941.847839	
97	0	Rinse	1	U	1	1	104	-5.698692	LO
B	0	Read Baseline	1	RB	1	1	0	-6.103962	BL
99	107	CCV 5000 ppb	1	CCV	1	1	1249474	4840.564941	
100	105	CCVL 1000 ppb	1	CCV	1	1	272149	1049.553467	
101	0	CCB	1	U	1	1	-305	-7.287851	LO
B	0	Read Baseline	1	RB	1	1	0	-6.103962	BL

Nitrate as N:Calibration 1: Peak 5-102

File name: C:\FLOW_4\032022.RST
Date: 20-Mar-22
Operator: svc

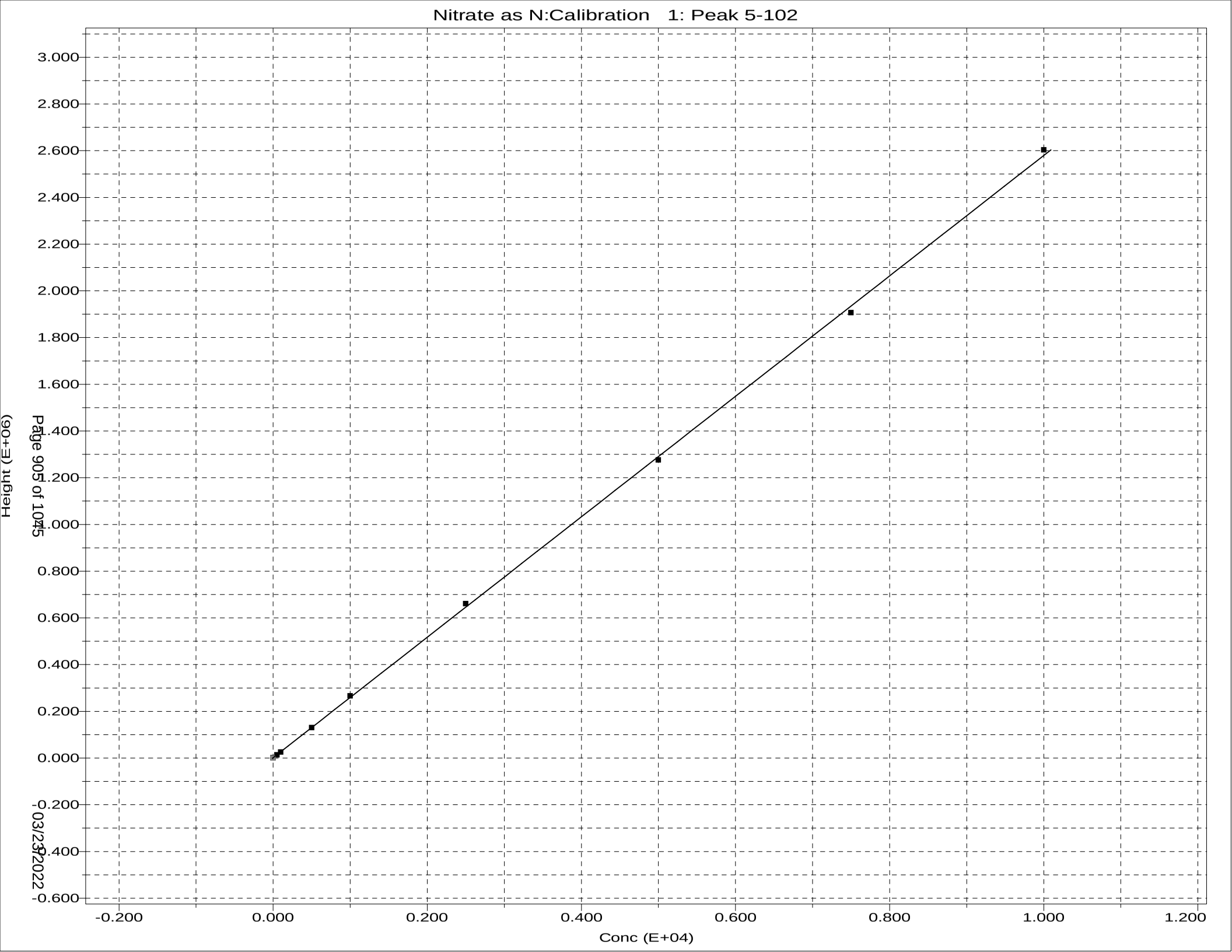
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*	Cal 0.00 ppb	0.000000	1793.970459
*	Cal 50.0 ppb	50.000000	13207.553711
*	Cal 100 ppb	100.000000	25955.097656
*	Cal 500 ppb	500.000000	130295.617188
*	Cal 1000 ppb	1000.000000	265784.781250
*	Cal 2500 ppb	2500.000000	660897.000000
*	Cal 5000 ppb	5000.000000	1276097.125000
*	Cal 7500 ppb	7500.000000	1906829.500000
*	Cal 10000 ppb	10000.000000	2603689.250000

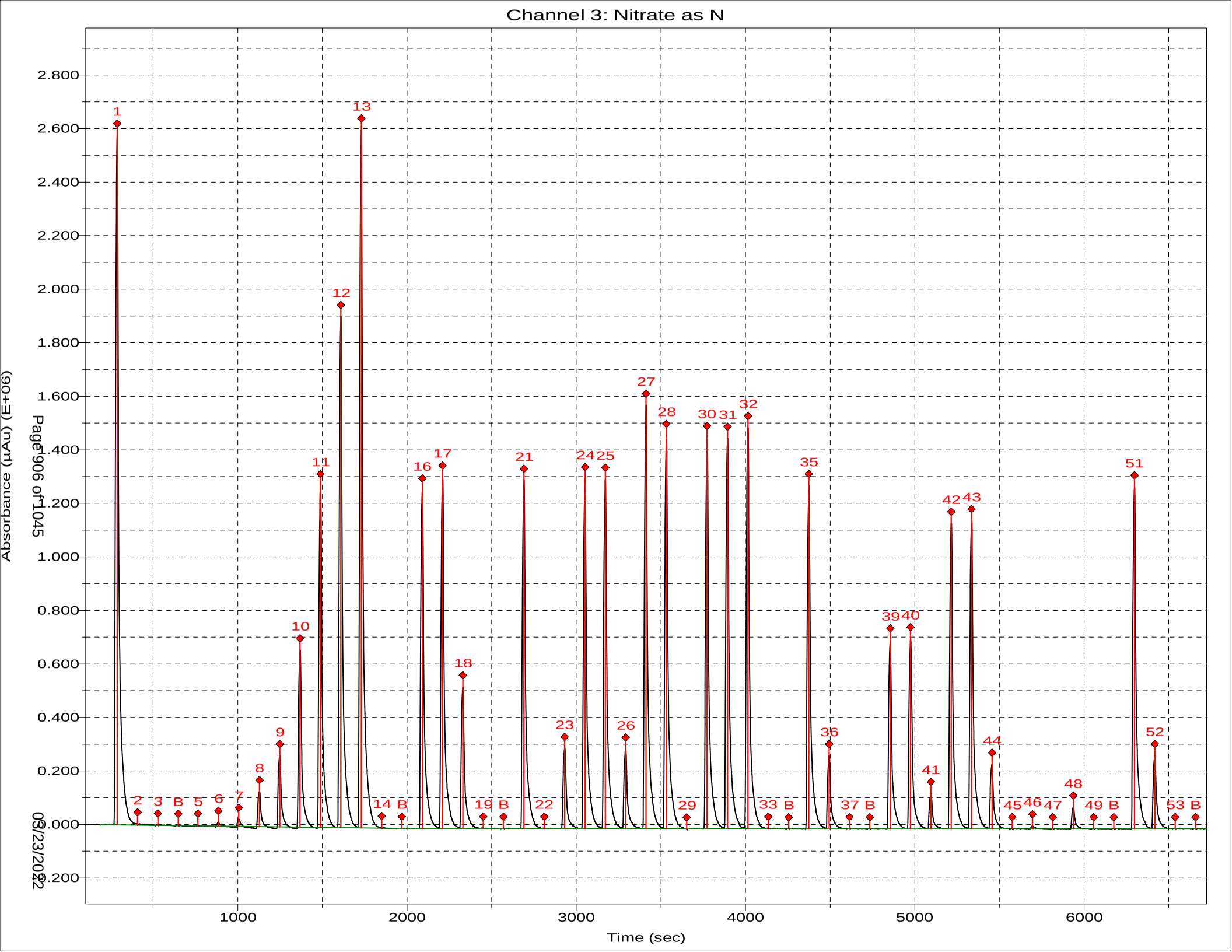
Calib Coef:
y=bx+a
a: (intercept) 1.5736e+03
b: 2.5780e+02

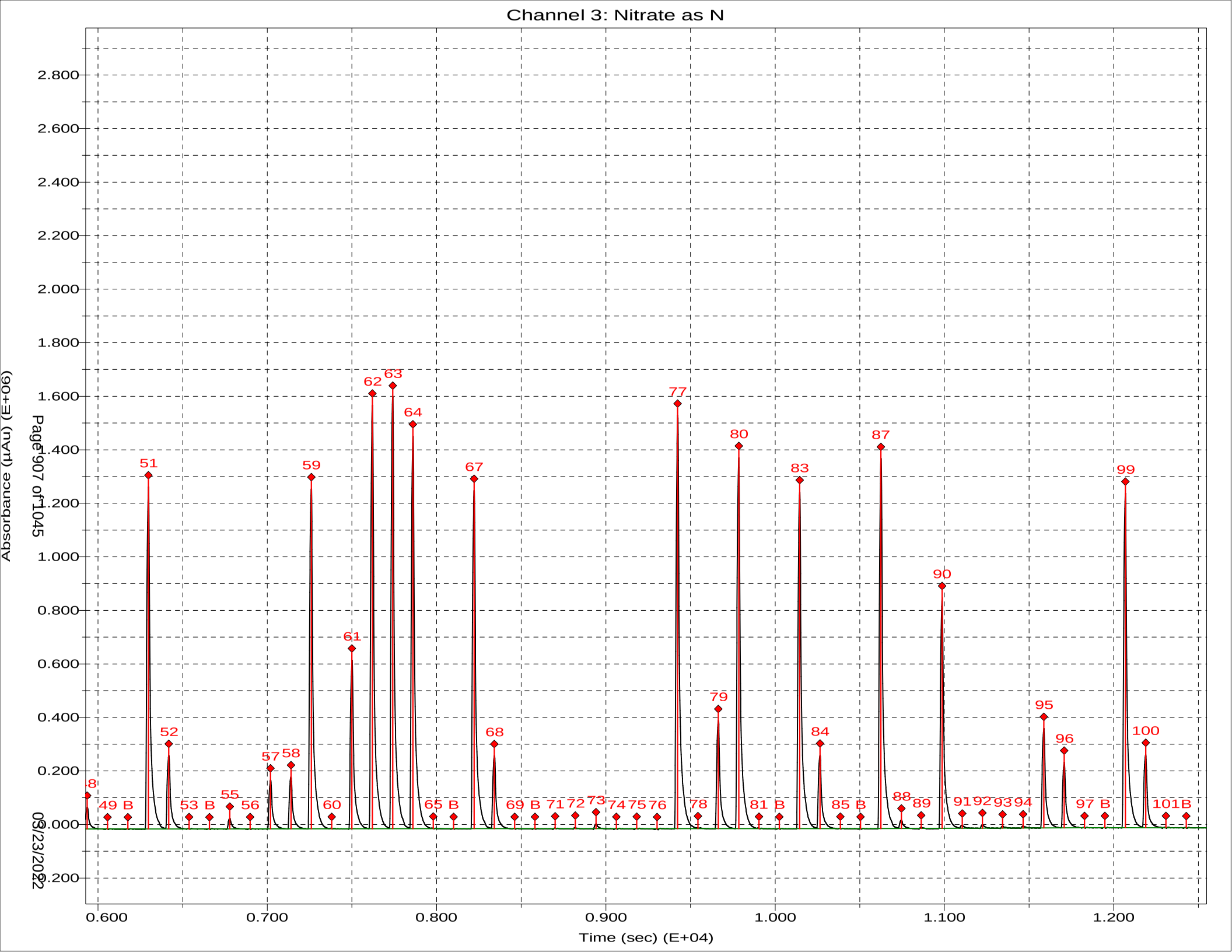
Corr Coef: 0.999873

Carryover: 0.14%

No Drift Peaks


Nitrate as N:Calibration 1: Peak 5-102
Height (E+06)
3.000
2.800
2.600
2.400
2.200
2.000
1.800
1.600
1.400
1.200
1.000
0.800
0.600
0.400
0.200
0.000
-0.200
-0.400
-0.600
-0.200
0.000
0.200
0.400
0.600
0.800
1.000
1.200
Conc (E+04)


Channel 3: Nitrate as N
Absorbance (µAu) (E+06)
Time (sec)
Page 906 of 1045
03/23/2022
2.800
2.600
2.400
2.200
2.000
1.800
1.600
1.400
1.200
1.000
0.800
0.600
0.400
0.200
0.000
-0.200
1000
2000
3000
4000
5000
6000
1
2
3
B
5
6
7
8
9
10
11
12
13
14
B
16
17
18
19
B
21
22
23
24
25
26
27
28
29
30
31
32
33
B
35
36
37
B
39
40
41
42
43
44
45
46
47
48
49
B
51
52
53
B


Channel 3: Nitrate as N
Absorbance (µAu) (E+06)
Time (sec) (E+04)
Page 907 of 1045
03/23/2022
2.800
2.600
2.400
2.200
2.000
1.800
1.600
1.400
1.200
1.000
0.800
0.600
0.400
0.200
0.000
-0.200
0.600
0.700
0.800
0.900
1.000
1.100
1.200
8
49 B
51
52
53 B
55
56
57
58
59
60
61
62
63
64
65 B
67
68
69 B
71
72
73
74
75
76
77
78
79
80
81 B
83
84
85 B
87
88
89
90
91
92
93
94
95
96
97 B
99
100
101B

Sample Table - 032022.tbl

File name: C:\FLOW_4\032022.TBL
Date: 20-Mar-22

Cup	Name	Type	R	Dil	Wt	Vial	Comment
109	SYNC	SYNC	1	1	1		
0	Carryover	CO	1	1	1		
0	Carryover	CO	1	1	1		
0	read baseline	RB	1	1	1		
101	Cal 0.00 ppb	C	1	1	1		
102	Cal 50.0 ppb	C	1	1	1		
103	Cal 100 ppb	C	1	1	1		
104	Cal 500 ppb	C	1	1	1		
105	Cal 1000 ppb	C	1	1	1		
106	Cal 2500 ppb	C	1	1	1		
107	Cal 5000 ppb	C	1	1	1		
108	Cal 7500 ppb	C	1	1	1		
109	Cal 10000 ppb	C	1	1	1		
0	Blank	BLNK	1	1	1		
0	Read Baseline	RB	1	1	1		
110	5000 PPB NO2	U	1	1	1		
111	ICV 5000 PPB	CCV	1	1	1		
112	ICV 2000 PPB	CCV	1	1	1		
0	ICB	U	1	1	1		
0	Read Baseline	RB	1	1	1		
107	LCS	U	1	1	1		pH
0	MB	U	1	1	1		
113	280-159312-A-6	U	1	1	1		∠∠
114	ms 280-159312-A-6	U	1	1	1		∠∠
115	msd 280-159312-A-6	U	1	1	1		∠∠
116	280-159312-A-13	U	1	1	1		∠∠
117	280-159332-C-9	U	1	2	1		∠∠
118	280-159315-A-3	U	1	1	1		∠∠
119	280-159485-A-1	U	1	1	1		∠∠
120	280-159485-B-2	U	1	10	1		∠∠
121	280-159485-B-3	U	1	10	1		∠∠
122	280-159485-B-4	U	1	10	1		∠∠
0	Rinse	U	1	1	1		
0	Read Baseline	RB	1	1	1		
107	CCV 5000 ppb	CCV	1	1	1		
105	CCVL 1000 ppb	CCV	1	1	1		
0	CCB	U	1	1	1		
0	Read Baseline	RB	1	1	1		
123	280-159345-A-2	U	1	1	1		∠∠
124	280-159345-E-3	U	1	1	1		∠∠
125	280-159375-A-4	U	1	1	1		∠∠
126	ms 280-159375-A-4	U	1	1	1		∠∠
127	msd 280-159375-A-4	U	1	1	1		∠∠
128	280-159345-E-4	U	1	1	1		∠∠
129	280-159345-E-5	U	1	1	1		∠∠
130	280-159345-E-6	U	1	1	1		∠∠
131	280-159345-E-7	U	1	1	1		∠∠
132	280-159345-E-8	U	1	1	1		∠∠
0	Rinse	U	1	1	1		
0	Read Baseline	RB	1	1	1		
107	CCV 5000 ppb	CCV	1	1	1		
105	CCVL 1000 ppb	CCV	1	1	1		
0	CCB	U	1	1	1		
0	Read Baseline	RB	1	1	1		
133	280-159345-A-9	U	1	1	1		∠∠
134	280-159345-C-10	U	1	1	1		∠∠

Cup	Name	Type	R	Dil	Wt	Vial	Comment
135	280-159454-C-1	U	1	1	1		<2
136	280-159454-C-2	U	1	1	1		<2
107	LCS	U	1	1	1		
0	MB	U	1	1	1		
137	280-159370-A-1	U	1	1	1		<2
138	ms 280-159370-A-1	U	1	1	1		<2
139	msd 280-159370-A-1	U	1	1	1		<2
140	280-159384-C-1	U	1	2	1		<2
0	Rinse	U	1	1	1		
0	Read Baseline	RB	1	1	1		
107	CCV 5000 ppb	CCV	1	1	1		
105	CCVL 1000 ppb	CCV	1	1	1		
0	CCB	U	1	1	1		
0	Read Baseline	RB	1	1	1		
141	280-159384-C-2	U	1	1	1		<2
142	280-159384-C-4	U	1	1	1		<2
143	280-159384-C-5	U	1	1	1		<2
144	280-159384-C-6	U	1	1	1		<2
145	280-159419-B-1	U	1	1	1		<2
146	280-159419-B-2	U	1	1	1		<2
147	280-159419-B-3	U	1	1	1		<2
148	280-159419-B-4	U	1	1	1		<2
149	280-159369-A-1	U	1	1	1		<2
150	ms 280-159369-A-1	U	1	1	1		<2
0	Rinse	U	1	1	1		
0	Read Baseline	RB	1	1	1		
107	CCV 5000 ppb	CCV	1	1	1		
105	CCVL 1000 ppb	CCV	1	1	1		
0	CCB	U	1	1	1		
0	Read Baseline	RB	1	1	1		
151	msd 280-159369-A-1	U	1	1	1		<2
152	280-159419-B-5	U	1	1	1		<2
153	280-159419-B-6	U	1	1	1		<2
154	280-159455-E-1	U	1	1	1		<2
155	550-180434-J-1	U	1	1	1		<2
156	550-180434-J-2	U	1	1	1		<2
157	550-180434-J-3	U	1	1	1		<2
158	550-180434-J-4	U	1	1	1		<2
159	280-159706-B-1	U	1	1	1		<2
160	280-159663-A-1	U	1	1	1		<2
0	Rinse	U	1	1	1		
0	Read Baseline	RB	1	1	1		
107	CCV 5000 ppb	CCV	1	1	1		
105	CCVL 1000 ppb	CCV	1	1	1		
0	CCB	U	1	1	1		
0	Read Baseline	RB	1	1	1		

General Chemistry Raw Data Report

Job ID: 280-159384-1

Batch: 568182 **Analyst Initials: MPG**

Method: 9034 **Instrument: No Equipment Used for this Test**

Lab Sample ID: LCS 280-568178/1-A **Analysis Date: Mar 09, 2022 15:33**

Analyte	Detector	Dilution	Raw Result	Unit	Initial Amount	Final Amount
Sulfide	None	1	16.8	mg/L	50 mL	50 mL

Lab Sample ID: MB 280-568178/2-A **Analysis Date: Mar 09, 2022 15:33**

Analyte	Detector	Dilution	Raw Result	Unit	Initial Amount	Final Amount
Sulfide	None	1	0	mg/L	50 mL	50 mL

Lab Sample ID: 280-159384-E-1-A **Analysis Date: Mar 09, 2022 15:33**

Analyte	Detector	Dilution	Raw Result	Unit	Initial Amount	Final Amount
Sulfide	None	1	1.6	mg/L	50 mL	50 mL

Lab Sample ID: 280-159384-E-2-A **Analysis Date: Mar 09, 2022 15:33**

Analyte	Detector	Dilution	Raw Result	Unit	Initial Amount	Final Amount
Sulfide	None	1	11.6	mg/L	50 mL	50 mL

Lab Sample ID: 280-159384-E-5-A **Analysis Date: Mar 09, 2022 15:33**

Analyte	Detector	Dilution	Raw Result	Unit	Initial Amount	Final Amount
Sulfide	None	1	2.4	mg/L	50 mL	50 mL

Lab Sample ID: 280-159384-E-4-A **Analysis Date: Mar 09, 2022 15:33**

Analyte	Detector	Dilution	Raw Result	Unit	Initial Amount	Final Amount
Sulfide	None	1	2.8	mg/L	50 mL	50 mL

Lab Sample ID: 280-159384-E-6-A **Analysis Date: Mar 09, 2022 15:33**

Analyte	Detector	Dilution	Raw Result	Unit	Initial Amount	Final Amount
Sulfide	None	1	0.8	mg/L	50 mL	50 mL

Sulfide by Titration

Analyst:	MG	SOP Information:	
Date:	3/9/2022	Number:	91
Titration Solutions		**Calibration Information**	
Solution 1:	Iodine	Source/Ver-Lot#:	INT_0209
TALS ID	WCIODINE_01326	Prep Date:	2/8/2022
Normality:	0.025	Made By:	MMP
Solution 2:	sodium thiosulfate	Concentration:	1054
TALS ID	Na Thio_00176	Expiration Date:	5/8/2022
Normality:	0.025		
	Starch Indicator		
TALS ID	Starch IND_00067		

ICV Information	
Source/Ver-Lot#:	INT_0204
Prep Date:	2/8/2022
Made By:	MMP
Concentration:	1036
Expiration Date:	5/8/2022

	CAL Volume	Buret Start	Buret End	mL Iodine	Final mL	Conc mg/L
CAL	5	0.00	6.50	20	6.50	1080.000
CAL	5	6.50	13.65	20	7.15	1028.000

	CAL Volume	Buret Start	Buret End	mL Iodine	Final mL	Conc mg/L
ICV	5	13.65	21.00	20	7.35	1012.000
ICV	5	0.00	6.75	20	6.75	1060.000

TALS Raw Data Report

Job Number: 280-159275-1
LIMS Batch: 568182
Equipment: NOEQUIP

Laboratory: Eurofins Denver

RS# 1 Lab ID: **LCS 280-568178/1-A** Inj Date: 3/9/2022 3:33:36PM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		16.8 mg/L	mg/L	80	44 110		
Sulfide as H2S		17.85 mg/L	mg/L				

RS# 2 Lab ID: **MB 280-568178/2-A** Inj Date: 3/9/2022 3:33:36PM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		0 mg/L	mg/L				
Sulfide as H2S		0 mg/L	mg/L				

RS# 3 Lab ID: **280-159275-E-2-A** Inj Date: 3/9/2022 3:33:36PM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		0.4 mg/L	mg/L				
Sulfide as H2S		0.425 mg/L	mg/L				

RS# 4 Lab ID: **280-159275-E-2-B MS** Inj Date: 3/9/2022 3:33:36PM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		17.2 mg/L	mg/L	82	44 110		
Sulfide as H2S		18.275 mg/L	mg/L				

RS# 5 Lab ID: **280-159275-E-2-C MSD** Inj Date: 3/9/2022 3:33:36PM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		15.2 mg/L	mg/L	72	44 110	12	20
Sulfide as H2S		16.15 mg/L	mg/L				

TALS Raw Data Report

Job Number: 280-159347-1
LIMS Batch: 568182
Equipment: NOEQUIP

Laboratory: Eurofins Denver

RS# 1 Lab ID: **LCS 280-568178/1-A** Inj Date: 3/9/2022 3:33:36PM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		16.8 mg/L	mg/L	80	44 110		
Sulfide as H2S		17.85 mg/L	mg/L				

RS# 2 Lab ID: **MB 280-568178/2-A** Inj Date: 3/9/2022 3:33:36PM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		0 mg/L	mg/L				
Sulfide as H2S		0 mg/L	mg/L				

RS# 3 Lab ID: **280-159275-E-2-A** Inj Date: 3/9/2022 3:33:36PM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		0.4 mg/L	mg/L				
Sulfide as H2S		0.425 mg/L	mg/L				

RS# 4 Lab ID: **280-159275-E-2-B MS** Inj Date: 3/9/2022 3:33:36PM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		17.2 mg/L	mg/L	82	44 110		
Sulfide as H2S		18.275 mg/L	mg/L				

RS# 5 Lab ID: **280-159275-E-2-C MSD** Inj Date: 3/9/2022 3:33:36PM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		15.2 mg/L	mg/L	72	44 110	12	20
Sulfide as H2S		16.15 mg/L	mg/L				

RS# 6 Lab ID: **280-159347-E-1-A** Inj Date: 3/9/2022 3:33:36PM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		0.4 mg/L	mg/L				
Sulfide as H2S		0.425 mg/L	mg/L				

RS# 7 Lab ID: **280-159347-E-2-A** Inj Date: 3/9/2022 3:33:36PM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		0 mg/L	mg/L				
Sulfide as H2S		0 mg/L	mg/L				

RS# 8 Lab ID: **280-159347-E-3-A** Inj Date: 3/9/2022 3:33:36PM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		0.4 mg/L	mg/L				
Sulfide as H2S		0.425 mg/L	mg/L				

TALS Raw Data Report

Job Number: 280-159355-1
LIMS Batch: 568182
Equipment: NOEQUIP

Laboratory: Eurofins Denver

RS# 1 Lab ID: **LCS 280-568178/1-A** Inj Date: 3/9/2022 3:33:36PM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		16.8 mg/L	mg/L	80	44 110		
Sulfide as H2S		17.85 mg/L	mg/L				

RS# 2 Lab ID: **MB 280-568178/2-A** Inj Date: 3/9/2022 3:33:36PM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		0 mg/L	mg/L				
Sulfide as H2S		0 mg/L	mg/L				

RS# 3 Lab ID: **280-159275-E-2-A** Inj Date: 3/9/2022 3:33:36PM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		0.4 mg/L	mg/L				
Sulfide as H2S		0.425 mg/L	mg/L				

RS# 4 Lab ID: **280-159275-E-2-B MS** Inj Date: 3/9/2022 3:33:36PM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		17.2 mg/L	mg/L	82	44 110		
Sulfide as H2S		18.275 mg/L	mg/L				

RS# 5 Lab ID: **280-159275-E-2-C MSD** Inj Date: 3/9/2022 3:33:36PM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		15.2 mg/L	mg/L	72	44 110	12	20
Sulfide as H2S		16.15 mg/L	mg/L				

RS# 9 Lab ID: **280-159355-D-1-A** Inj Date: 3/9/2022 3:33:36PM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		-2 mg/L	mg/L				
Sulfide as H2S		-2.125 mg/L	mg/L				

RS# 10 Lab ID: **280-159355-D-2-A** Inj Date: 3/9/2022 3:33:36PM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		3.2 mg/L	3.2 J mg/L				
Sulfide as H2S		3.4 mg/L	3.4 J mg/L				

TALS Raw Data Report

Job Number: 280-159384-1
LIMS Batch: 568182
Equipment: NOEQUIP

Laboratory: Eurofins Denver

RS# 1 Lab ID: **LCS 280-568178/1-A** Inj Date: 3/9/2022 3:33:36PM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		16.8 mg/L	mg/L	80	44 110		
Sulfide as H2S		17.85 mg/L	mg/L				

RS# 2 Lab ID: **MB 280-568178/2-A** Inj Date: 3/9/2022 3:33:36PM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		0 mg/L	1.9 U mg/L				
Sulfide as H2S		0 mg/L	2.0 U mg/L				

RS# 3 Lab ID: **280-159275-E-2-A** Inj Date: 3/9/2022 3:33:36PM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		0.4 mg/L	1.9 U mg/L				
Sulfide as H2S		0.425 mg/L	2.0 U mg/L				

RS# 4 Lab ID: **280-159275-E-2-B MS** Inj Date: 3/9/2022 3:33:36PM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		17.2 mg/L	mg/L	82	44 110		
Sulfide as H2S		18.275 mg/L	mg/L				

RS# 5 Lab ID: **280-159275-E-2-C MSD** Inj Date: 3/9/2022 3:33:36PM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		15.2 mg/L	mg/L	72	44 110	12	20
Sulfide as H2S		16.15 mg/L	mg/L				

RS# 11 Lab ID: **280-159384-E-1-A** Inj Date: 3/9/2022 3:33:36PM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		1.6 mg/L	1.6 J mg/L				
Sulfide as H2S		1.7 mg/L	1.7 J mg/L				

RS# 12 Lab ID: **280-159384-E-2-A** Inj Date: 3/9/2022 3:33:36PM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		11.6 mg/L	mg/L				
Sulfide as H2S		12.325 mg/L	mg/L				

RS# 13 Lab ID: **280-159384-E-5-A** Inj Date: 3/9/2022 3:33:36PM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		2.4 mg/L	2.4 J mg/L				
Sulfide as H2S		2.55 mg/L	2.6 J mg/L				

RS# 14 Lab ID: **280-159384-E-4-A** Inj Date: 3/9/2022 3:33:36PM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		2.8 mg/L	2.8 J mg/L				
Sulfide as H2S		2.975 mg/L	3.0 J mg/L				

RS# 15 Lab ID: **280-159384-E-6-A** Inj Date: 3/9/2022 3:33:36PM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		0.8 mg/L	0.80 J mg/L				
Sulfide as H2S		0.85 mg/L	0.85 J mg/L				

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220317-109320.b\0004.d
Lims ID: std L1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 17-Mar-2022 13:06:00 ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0109320-002
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromfs\Denver\ChromData\WC_IonChrom11\20220317-109320.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 18-Mar-2022 10:37:06 Calib Date: 17-Mar-2022 14:28:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220317-109320.b\0009.d

Column 1 : Det: 0005
Process Host: CTX1628

First Level Reviewer: jindaratc Date: 17-Mar-2022 15:09:47

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.542	2.542	0.000	2752737	0.2000	0.2284	Ma
2 Chloride	3.667	3.667	0.000	11216657	1.00	1.31	M
3 Nitrite as N	4.442	4.442	0.000	5012992	NC	NC	
4 Bromide	5.359	5.359	0.000	1004981	0.2000	0.2192	
5 Nitrate as N	6.034	6.034	0.000	5515941	NC	NC	
7 Orthophosphate as P	9.167	9.167	0.000	1046520	NC	NC	
6 Sulfate	10.017	10.017	0.000	8000615	1.00	1.32	

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated
a - User Assigned ID

Reagents:

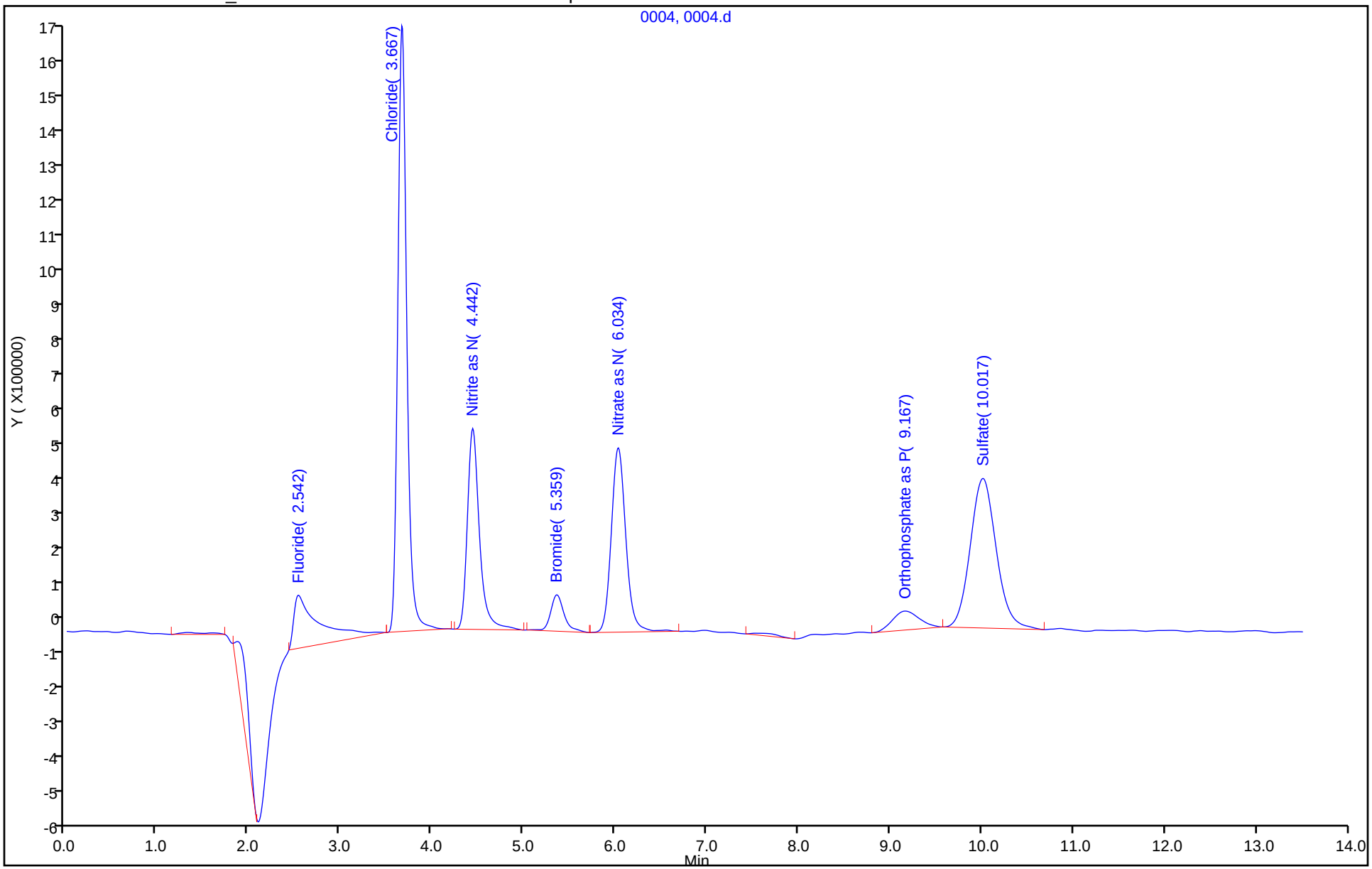
IC Cal low_00627 Amount Added: 0.02 Units: mL
IC CAL cl/so4_00411 Amount Added: 0.02 Units: mL

Report Date: 18-Mar-2022 10:37:06 Chrom Revision: 2.3 14-Mar-2022 17:58:38

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220317-109320.b\0004.d

Injection Date:	17-Mar-2022 13:06:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L1			Worklist Smp#:	2
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins Denver

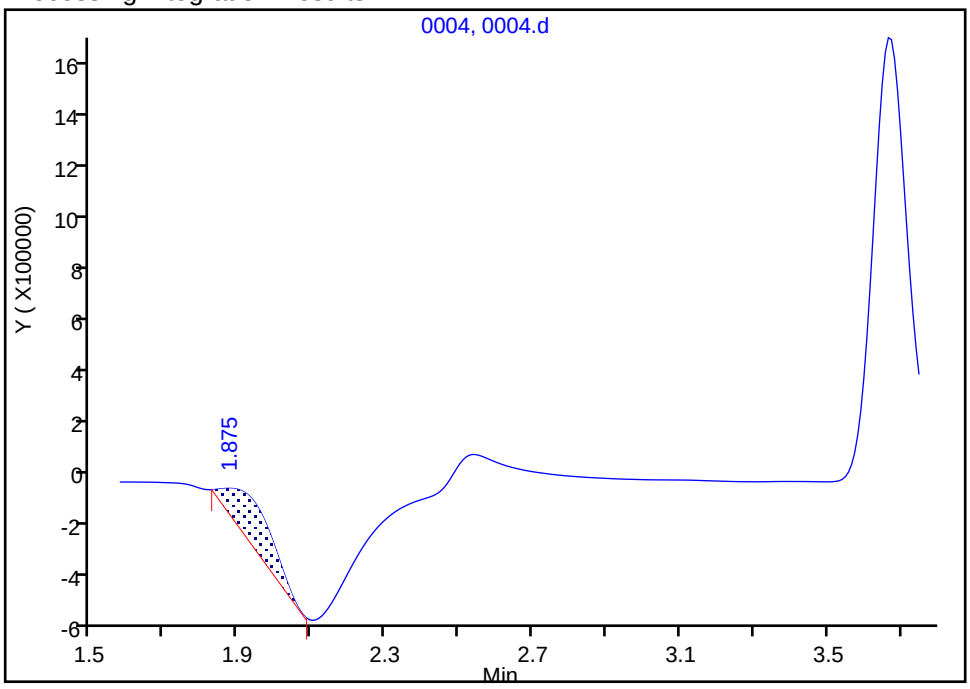
Data File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220317-109320.b\0004.d
Injection Date: 17-Mar-2022 13:06:00 Instrument ID: WC_IonChrom11
Lims ID: std L1
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

1 Fluoride, CAS: 16984-48-8

Signal: 1

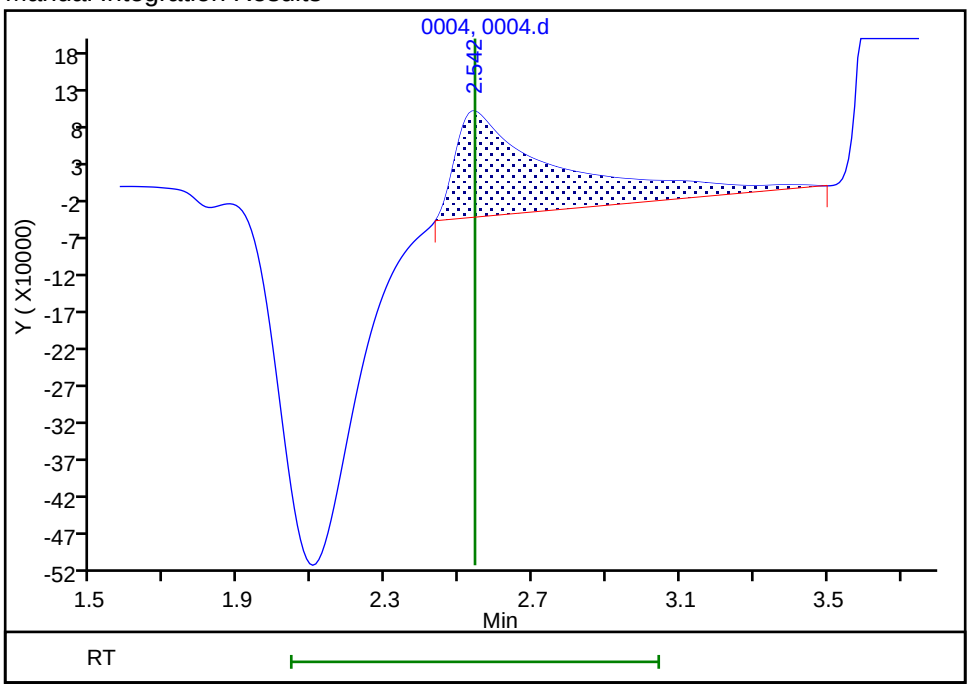
RT: 1.88
Area: 1439212
Amount: 7.235055
Amount Units: ug/ml

Processing Integration Results



RT: 2.54
Area: 2752737
Amount: 0.228398
Amount Units: ug/ml

Manual Integration Results



Reviewer: jindaratc, 17-Mar-2022 15:09:39
Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

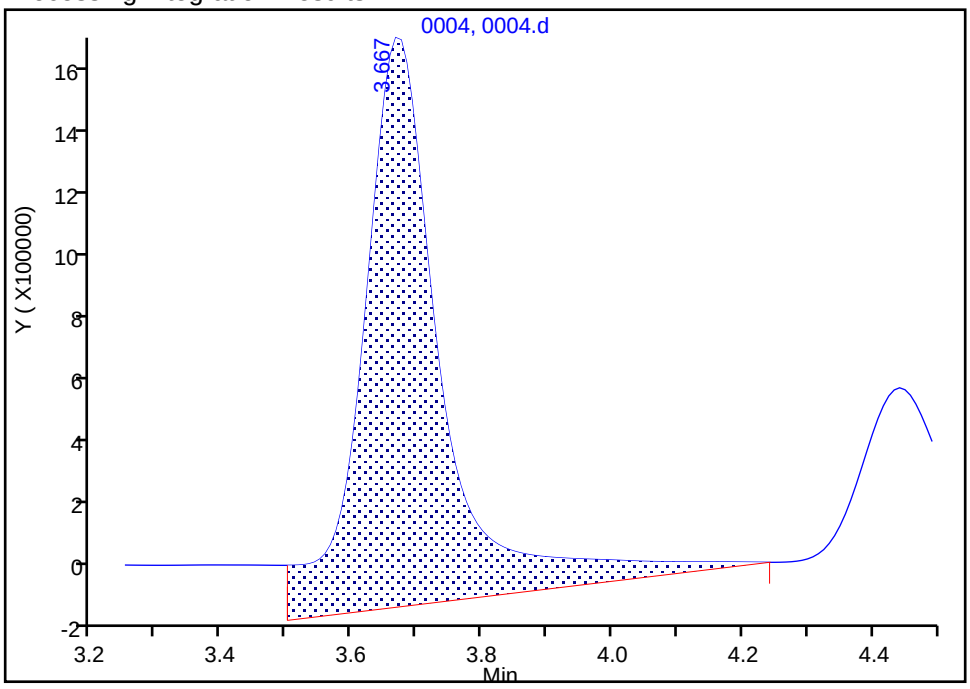
Data File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220317-109320.b\0004.d
Injection Date: 17-Mar-2022 13:06:00 Instrument ID: WC_IonChrom11
Lims ID: std L1
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

2 Chloride, CAS: 16887-00-6

Signal: 1

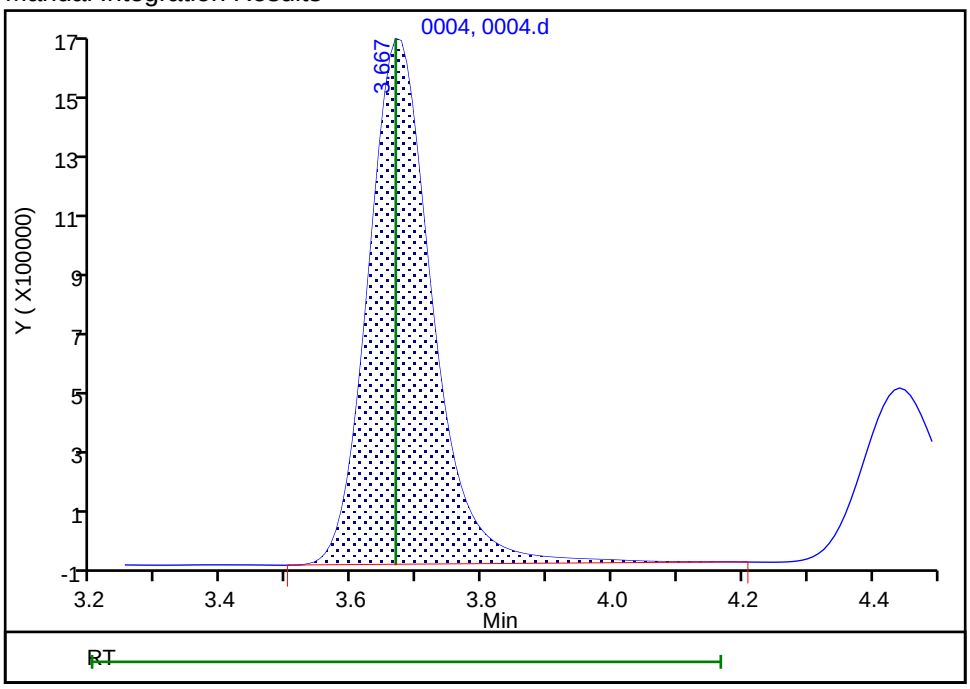
Processing Integration Results

RT: 3.67
Area: 15084131
Amount: 1.388639
Amount Units: ug/ml



Manual Integration Results

RT: 3.67
Area: 11216657
Amount: 1.310779
Amount Units: ug/ml



Reviewer: jindaratc, 17-Mar-2022 15:09:35
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220317-109320.b\0005.d
Lims ID: std L2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 17-Mar-2022 13:23:00 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0109320-003
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromfs\Denver\ChromData\WC_IonChrom11\20220317-109320.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 18-Mar-2022 10:37:07 Calib Date: 17-Mar-2022 14:28:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220317-109320.b\0009.d

Column 1 : Det: 0005
Process Host: CTX1628

First Level Reviewer: jindaratc Date: 17-Mar-2022 15:10:16

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.534	2.534	0.000	6187673	0.5000	0.4775	Ma
2 Chloride	3.675	3.675	0.000	28799059	2.50	2.27	
3 Nitrite as N	4.450	4.450	0.000	12750694	NC	NC	
4 Bromide	5.367	5.367	0.000	2360679	0.5000	0.4826	
5 Nitrate as N	6.034	6.034	0.000	13827035	NC	NC	
7 Orthophosphate as P	9.150	9.150	0.000	2655477	NC	NC	
6 Sulfate	10.009	10.009	0.000	19995708	2.50	2.33	

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated
a - User Assigned ID

Reagents:

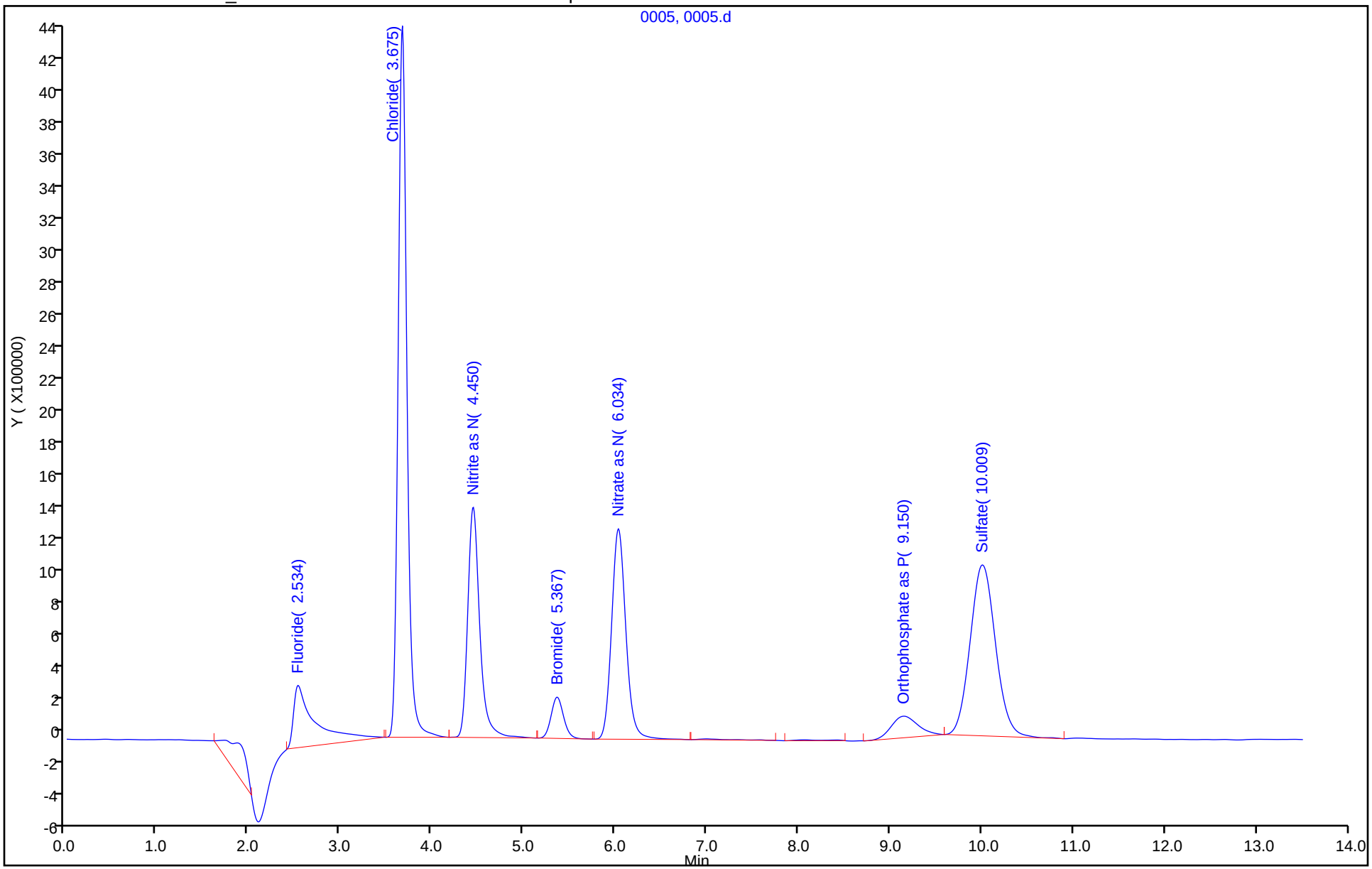
IC Cal low_00627 Amount Added: 0.05 Units: mL
IC CAL cl/so4_00411 Amount Added: 0.05 Units: mL

Report Date: 18-Mar-2022 10:37:07 Chrom Revision: 2.3 14-Mar-2022 17:58:38

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220317-109320.b\0005.d

Injection Date:	17-Mar-2022 13:23:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L2			Worklist Smp#:	3
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins Denver

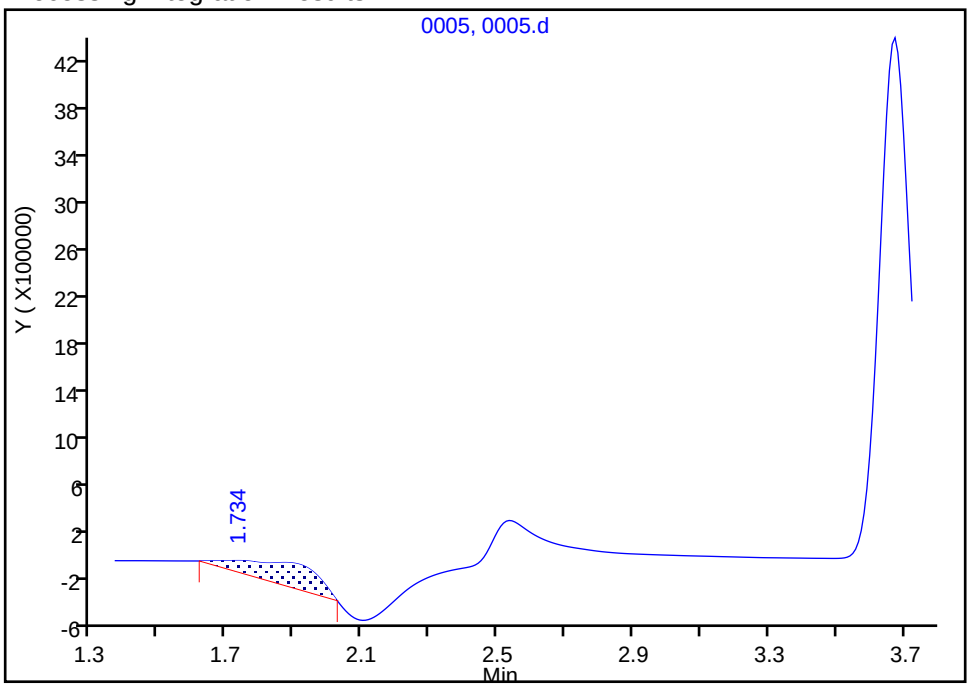
Data File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220317-109320.b\0005.d
Injection Date: 17-Mar-2022 13:23:00 Instrument ID: WC_IonChrom11
Lims ID: std L2
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

1 Fluoride, CAS: 16984-48-8

Signal: 1

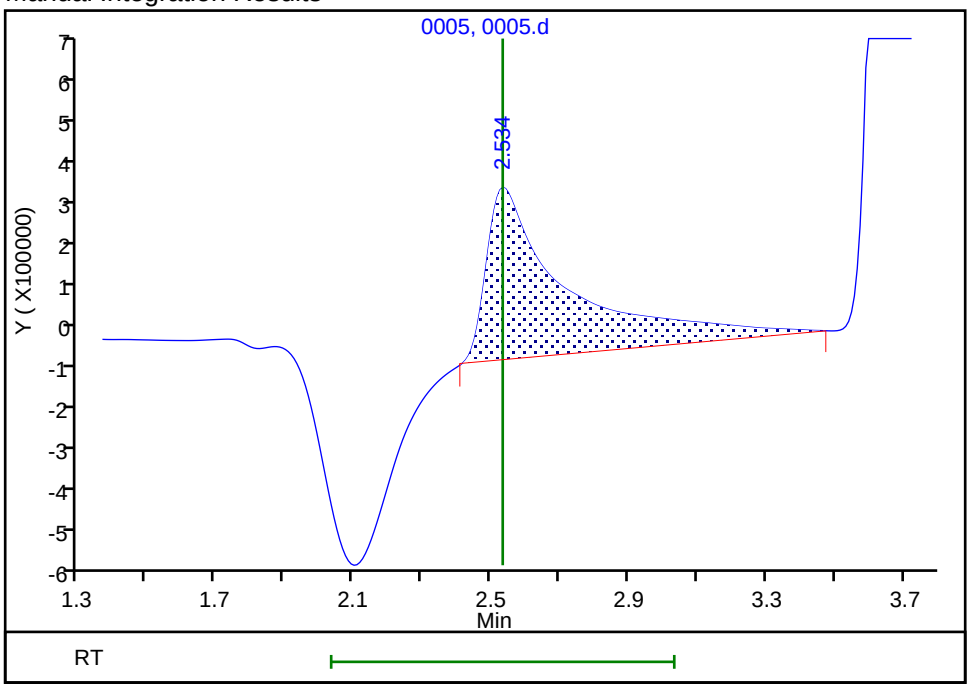
Processing Integration Results

RT: 1.73
Area: 2924111
Amount: 0.592667
Amount Units: ug/ml



Manual Integration Results

RT: 2.53
Area: 6187673
Amount: 0.477537
Amount Units: ug/ml



Reviewer: jindaratc, 17-Mar-2022 15:10:11
Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Baseline Smoothing

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220317-109320.b\0006.d
Lims ID: std L3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 17-Mar-2022 13:39:00 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0109320-004
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromfs\Denver\ChromData\WC_IonChrom11\20220317-109320.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 18-Mar-2022 10:37:07 Calib Date: 17-Mar-2022 14:28:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220317-109320.b\0009.d

Column 1 : Det: 0005
Process Host: CTX1628

First Level Reviewer: jindaratc Date: 17-Mar-2022 15:10:39

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.534	2.534	0.000	12649515	1.00	0.9462	Ma
2 Chloride	3.675	3.675	0.000	61886577	5.00	4.07	
3 Nitrite as N	4.450	4.450	0.000	26370013	NC	NC	
4 Bromide	5.359	5.359	0.000	4821738	1.00	0.9608	
5 Nitrate as N	6.025	6.025	0.000	28317138	NC	NC	
7 Orthophosphate as P	9.142	9.142	0.000	6073110	NC	NC	
6 Sulfate	10.009	10.009	0.000	41227149	5.00	4.12	

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated
a - User Assigned ID

Reagents:

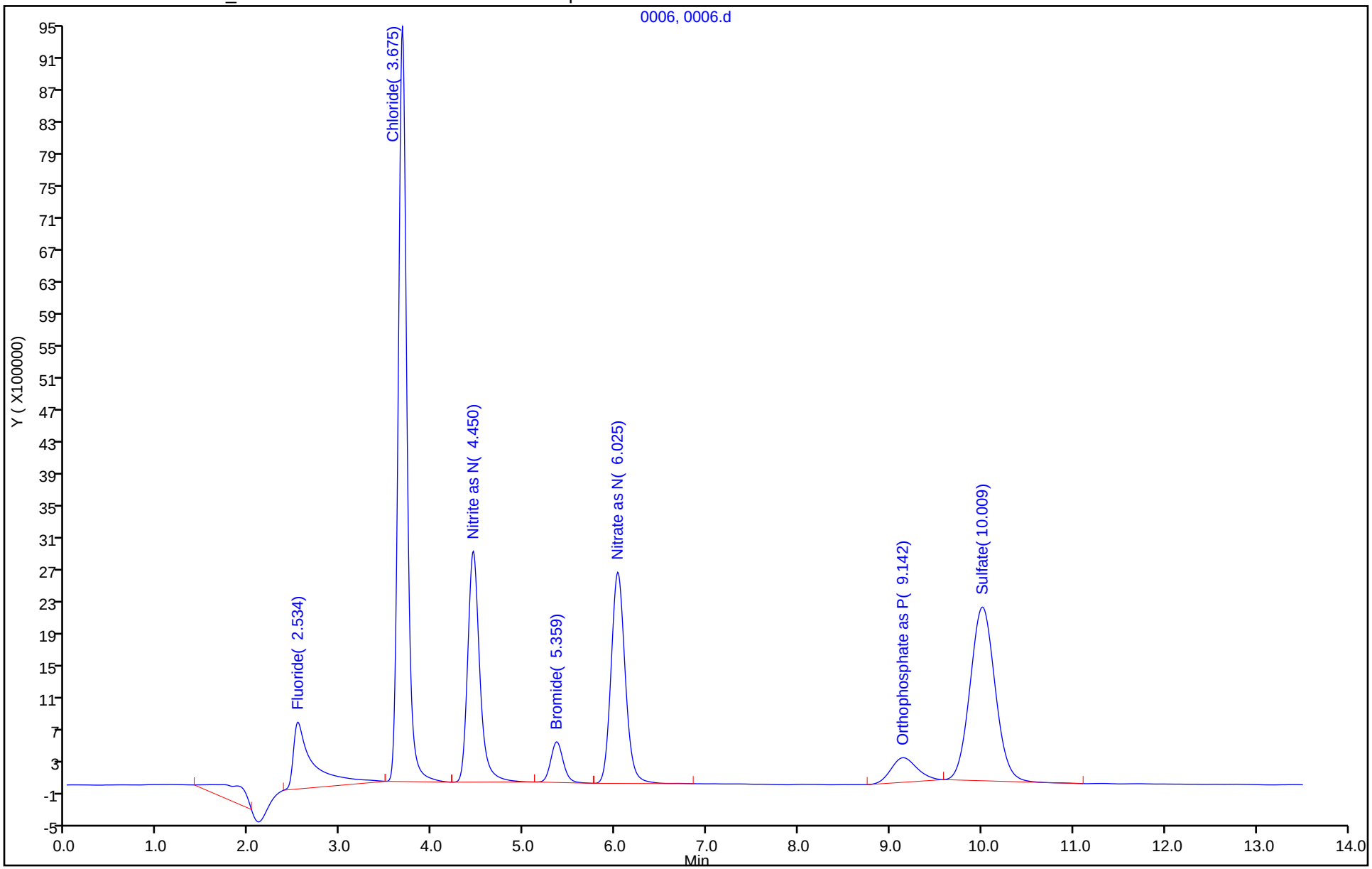
IC Cal low_00627 Amount Added: 0.10 Units: mL
IC CAL cl/so4_00411 Amount Added: 0.10 Units: mL

Report Date: 18-Mar-2022 10:37:08 Chrom Revision: 2.3 14-Mar-2022 17:58:38

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220317-109320.b\0006.d

Injection Date:	17-Mar-2022 13:39:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L3			Worklist Smp#:	4
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins Denver

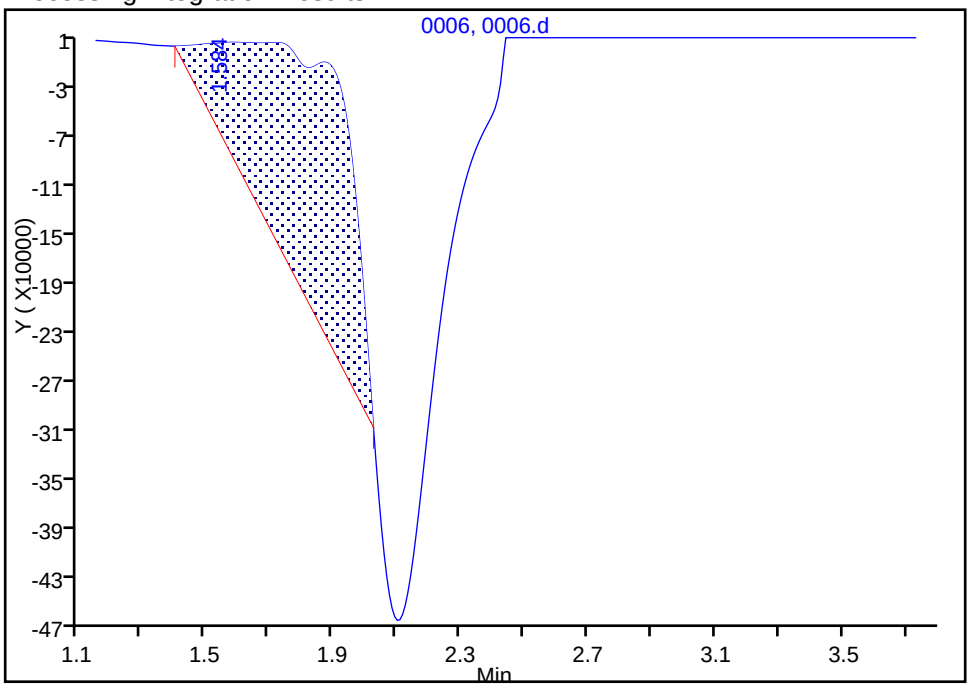
Data File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220317-109320.b\0006.d
Injection Date: 17-Mar-2022 13:39:00 Instrument ID: WC_IonChrom11
Lims ID: std L3
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

1 Fluoride, CAS: 16984-48-8

Signal: 1

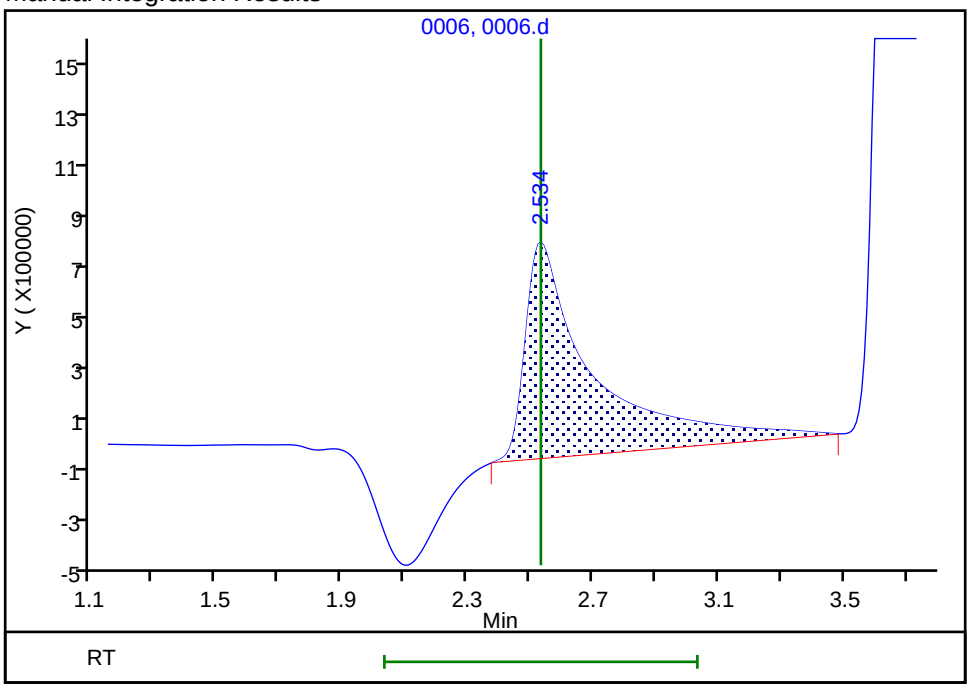
RT: 1.58
Area: 4745444
Amount: -2.279687
Amount Units: ug/ml

Processing Integration Results



RT: 2.53
Area: 12649515
Amount: 0.946219
Amount Units: ug/ml

Manual Integration Results



Reviewer: jindaratc, 17-Mar-2022 15:10:35
Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Baseline Smoothing

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220317-109320.b\0007.d
Lims ID: std L4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 17-Mar-2022 13:56:00 ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0109320-005
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromfs\Denver\ChromData\WC_IonChrom11\20220317-109320.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 18-Mar-2022 10:37:08 Calib Date: 17-Mar-2022 14:28:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220317-109320.b\0009.d

Column 1 : Det: 0005
Process Host: CTX1628

First Level Reviewer: jindaratc Date: 17-Mar-2022 15:10:56

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.534	2.534	0.000	50429929	4.00	3.69	Ma
2 Chloride	3.725	3.725	0.000	1033313509	60.0	57.0	
3 Nitrite as N	4.467	4.467	0.000	114970041	NC	NC	
4 Bromide	5.359	5.359	0.000	19617636	4.00	3.84	
5 Nitrate as N	6.017	6.017	0.000	124990301	NC	NC	
7 Orthophosphate as P	9.117	9.117	0.000	30852286	NC	NC	
6 Sulfate	10.067	10.067	0.000	628317117	60.0	53.7	

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated
a - User Assigned ID

Reagents:

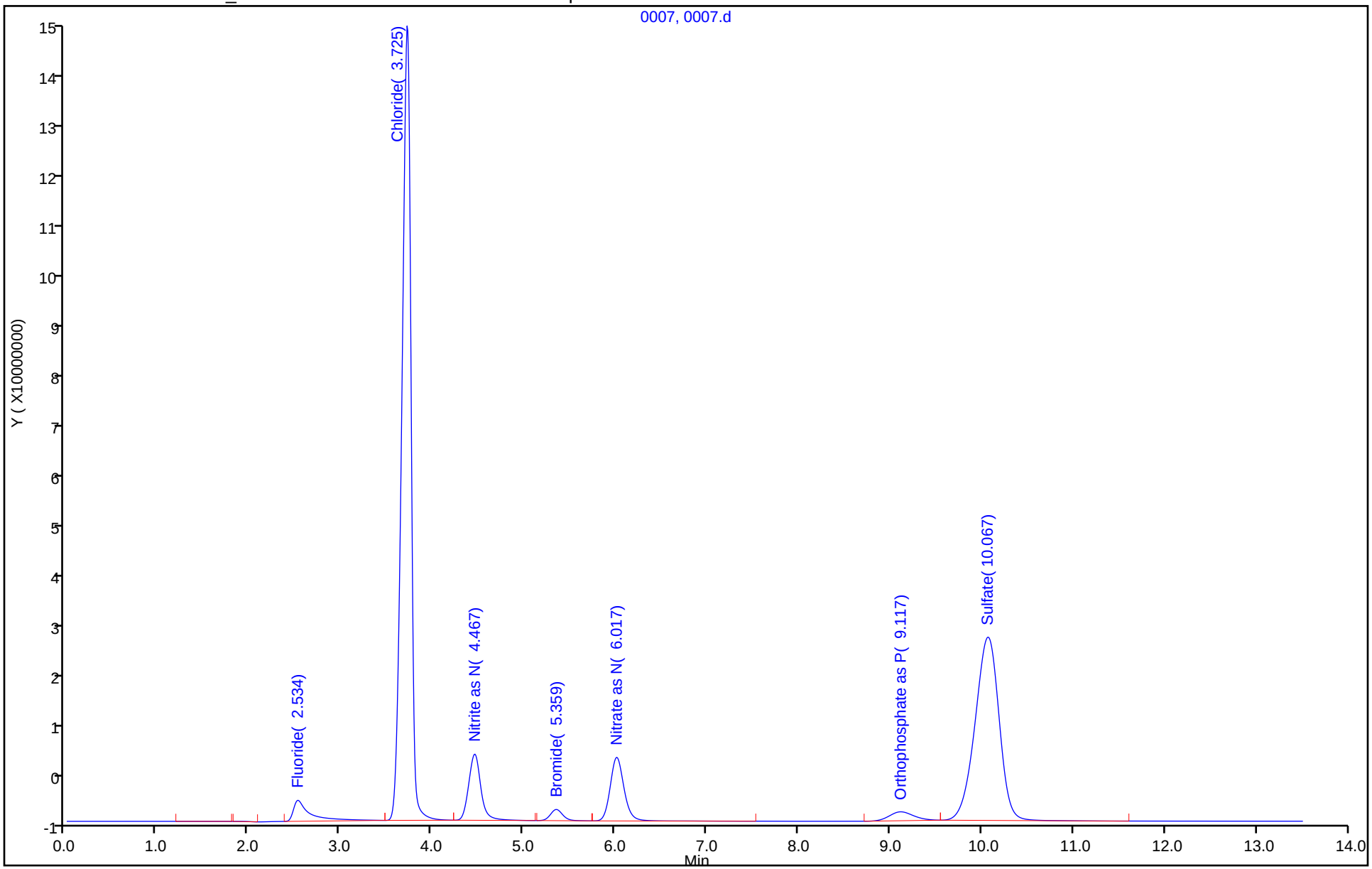
IC Cal low_00627 Amount Added: 0.40 Units: mL
IC CAL cl/so4_00411 Amount Added: 1.20 Units: mL

Report Date: 18-Mar-2022 10:37:08 Chrom Revision: 2.3 14-Mar-2022 17:58:38

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220317-109320.b\0007.d

Injection Date:	17-Mar-2022 13:56:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L4			Worklist Smp#:	5
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins Denver

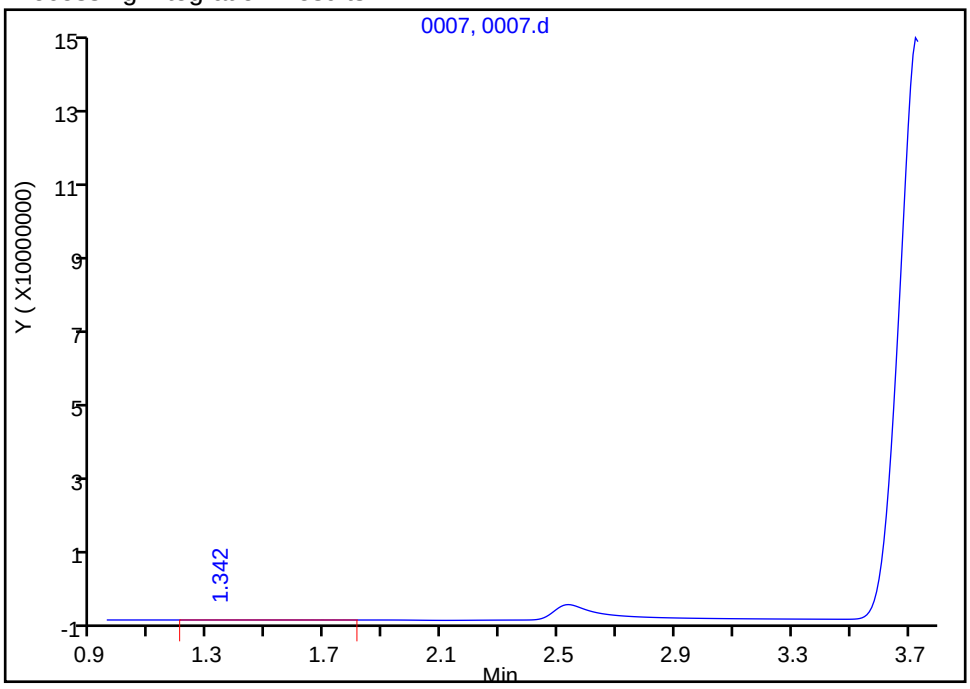
Data File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220317-109320.b\0007.d
Injection Date: 17-Mar-2022 13:56:00 Instrument ID: WC_IonChrom11
Lims ID: std L4
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

1 Fluoride, CAS: 16984-48-8

Signal: 1

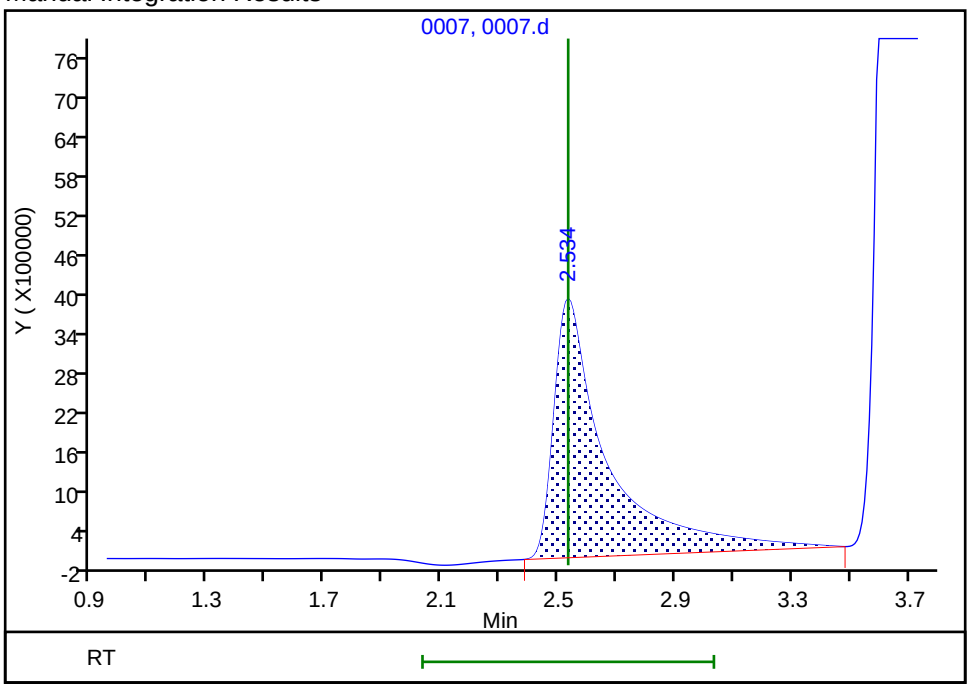
Processing Integration Results

RT: 1.34
Area: 129529
Amount: 40.869487
Amount Units: ug/ml



Manual Integration Results

RT: 2.53
Area: 50429929
Amount: 3.686460
Amount Units: ug/ml



Reviewer: jindaratc, 17-Mar-2022 15:10:53
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220317-109320.b\0008.d
Lims ID: std L5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 17-Mar-2022 14:12:00 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0109320-006
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromfs\Denver\ChromData\WC_IonChrom11\20220317-109320.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 18-Mar-2022 10:37:08 Calib Date: 17-Mar-2022 14:28:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220317-109320.b\0009.d

Column 1 : Det: 0005
Process Host: CTX1628

First Level Reviewer: jindaratc Date: 17-Mar-2022 15:11:09

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.534	2.534	0.000	109329787	8.00	7.96	a
2 Chloride	3.776	3.776	0.000	2186348502	120.0	119.7	
3 Nitrite as N	4.484	4.484	0.000	245458246	NC	NC	
4 Bromide	5.351	5.351	0.000	40831994	8.00	7.96	
5 Nitrate as N	6.001	6.001	0.000	276332577	NC	NC	M
7 Orthophosphate as P	9.084	9.084	0.000	72697992	NC	NC	
6 Sulfate	10.134	10.134	0.000	1396432121	120.0	118.6	

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated
a - User Assigned ID

Reagents:

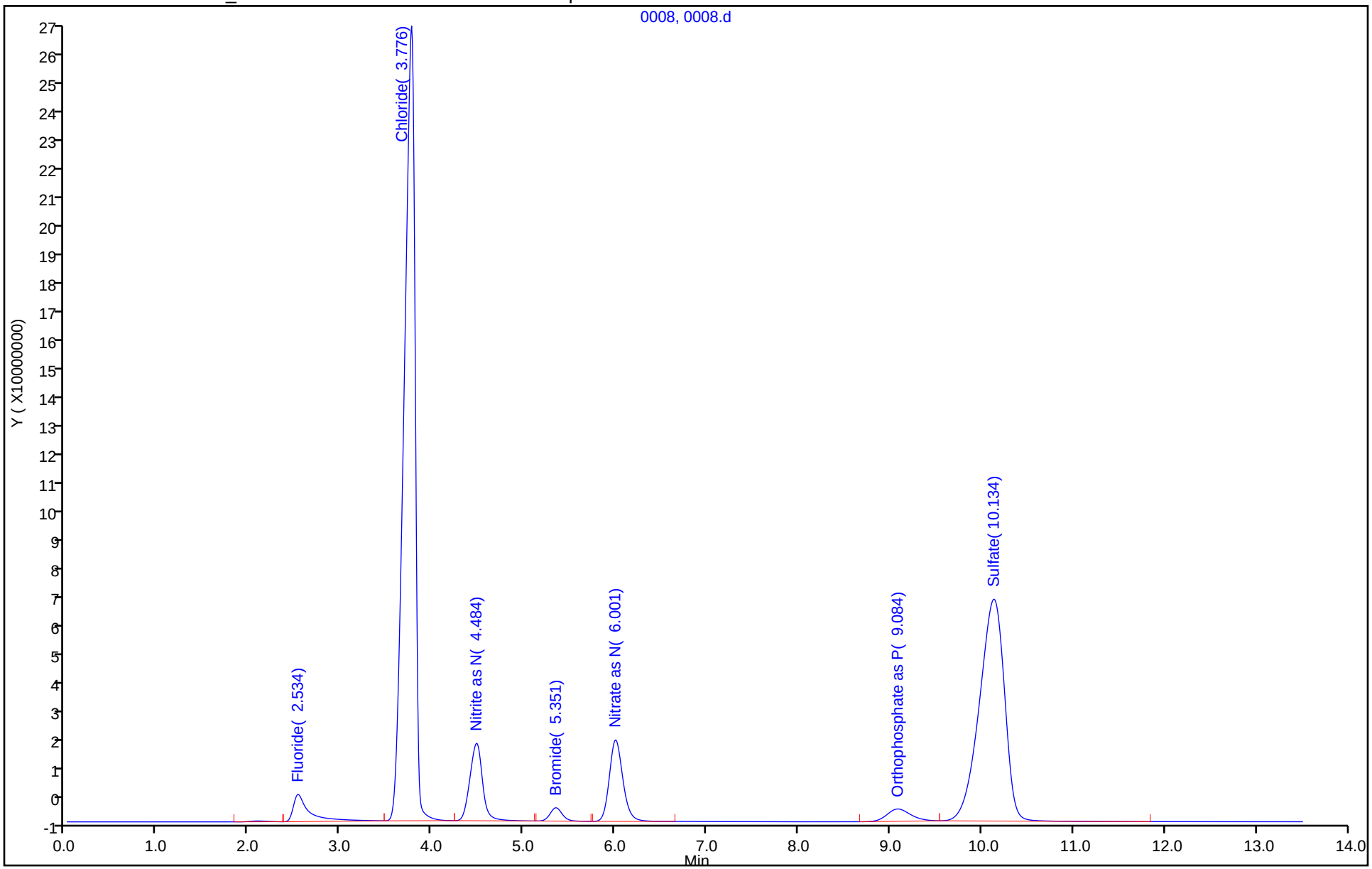
IC Cal low_00627 Amount Added: 0.80 Units: mL
IC CAL cl/so4_00411 Amount Added: 2.40 Units: mL

Report Date: 18-Mar-2022 10:37:09 Chrom Revision: 2.3 14-Mar-2022 17:58:38

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220317-109320.b\0008.d

Injection Date:	17-Mar-2022 14:12:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L5			Worklist Smp#:	6
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins Denver

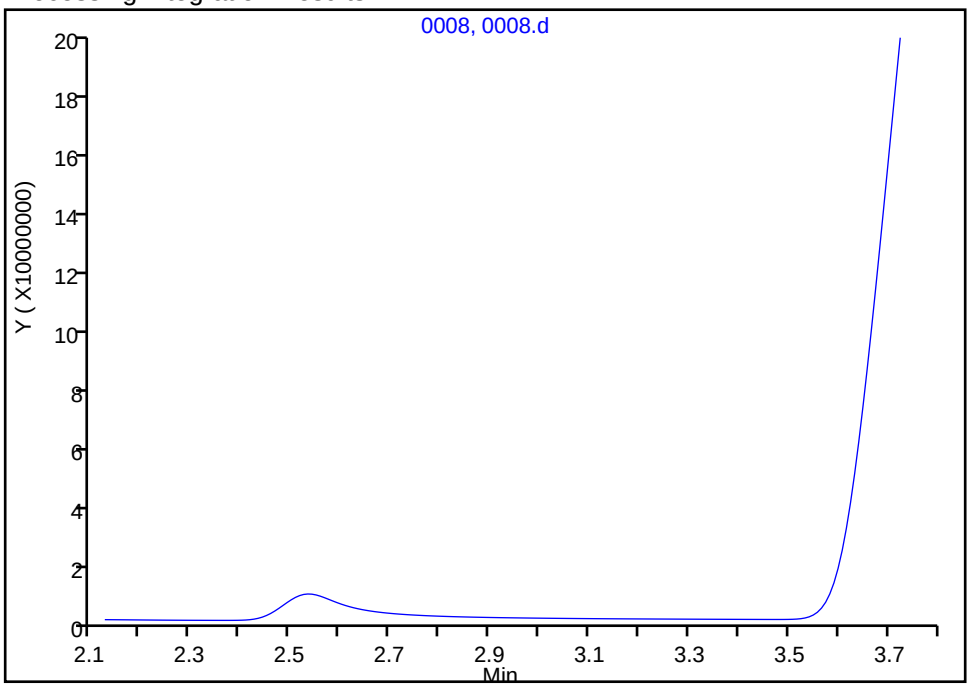
Data File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220317-109320.b\0008.d
Injection Date: 17-Mar-2022 14:12:00 Instrument ID: WC_IonChrom11
Lims ID: std L5
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

1 Fluoride, CAS: 16984-48-8

Signal: 1

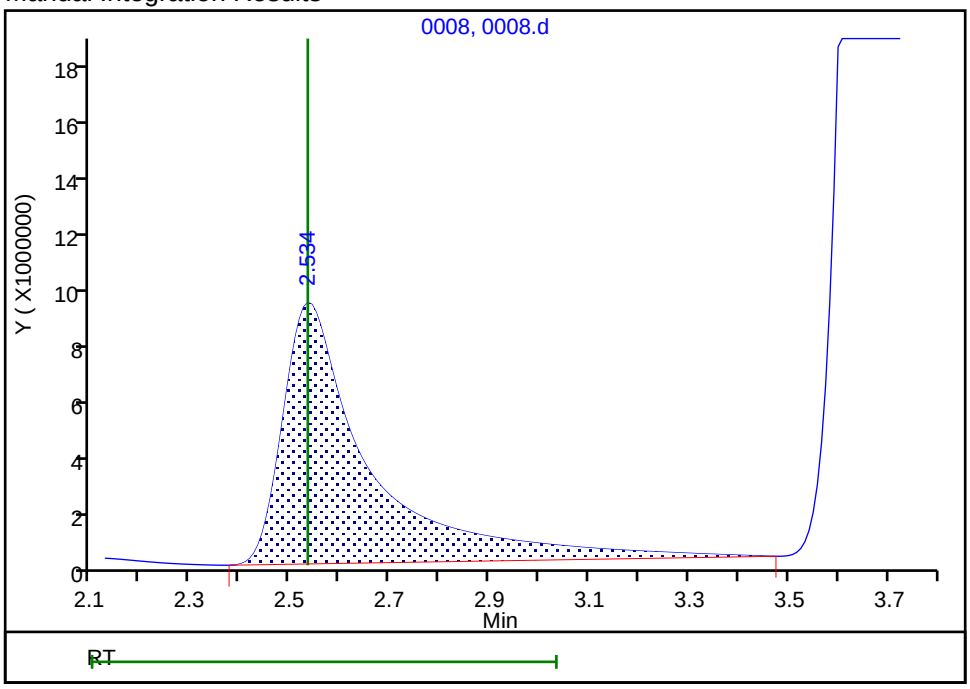
Not Detected
Expected RT: 2.53

Processing Integration Results



Manual Integration Results

RT: 2.53
Area: 109329787
Amount: 7.958510
Amount Units: ug/ml



Reviewer: jindaratc, 17-Mar-2022 15:11:02
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220317-109320.b\0009.d
Lims ID: std L6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 17-Mar-2022 14:28:00 ALS Bottle#: 0 Worklist Smp#: 7
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0109320-007
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromfs\Denver\ChromData\WC_IonChrom11\20220317-109320.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 18-Mar-2022 10:37:09 Calib Date: 17-Mar-2022 14:28:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220317-109320.b\0009.d

Column 1 : Det: 0005
Process Host: CTX1628

First Level Reviewer: jindaratc Date: 17-Mar-2022 15:11:28

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.534	2.534	0.000	143030892	10.0	10.4	a
2 Chloride	3.825	3.825	0.000	3736207108	200.0	204.1	
3 Nitrite as N	4.500	4.500	0.000	317459531	NC	NC	
4 Bromide	5.350	5.350	0.000	52597899	10.0	10.2	
5 Nitrate as N	6.000	6.000	0.000	363428982	NC	NC	M
7 Orthophosphate as P	9.067	9.067	0.000	97518999	NC	NC	
6 Sulfate	10.209	10.209	0.000	2461213950	200.0	208.5	

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated
a - User Assigned ID

Reagents:

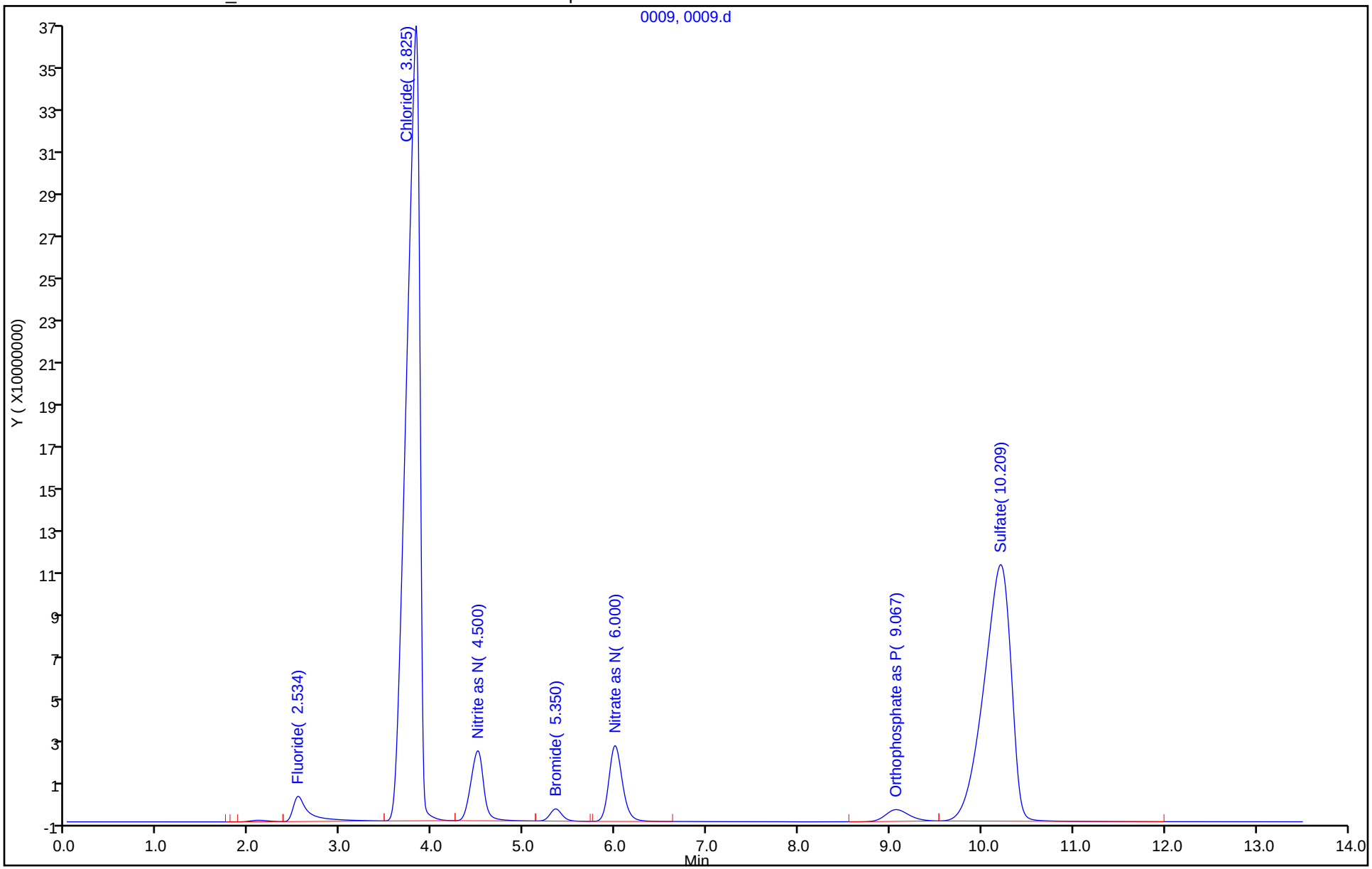
IC Cal low_00627 Amount Added: 1.00 Units: mL
IC CAL cl/so4_00411 Amount Added: 4.00 Units: mL

Report Date: 18-Mar-2022 10:37:09 Chrom Revision: 2.3 14-Mar-2022 17:58:38

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220317-109320.b\0009.d

Injection Date:	17-Mar-2022 14:28:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L6			Worklist Smp#:	7
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins Denver

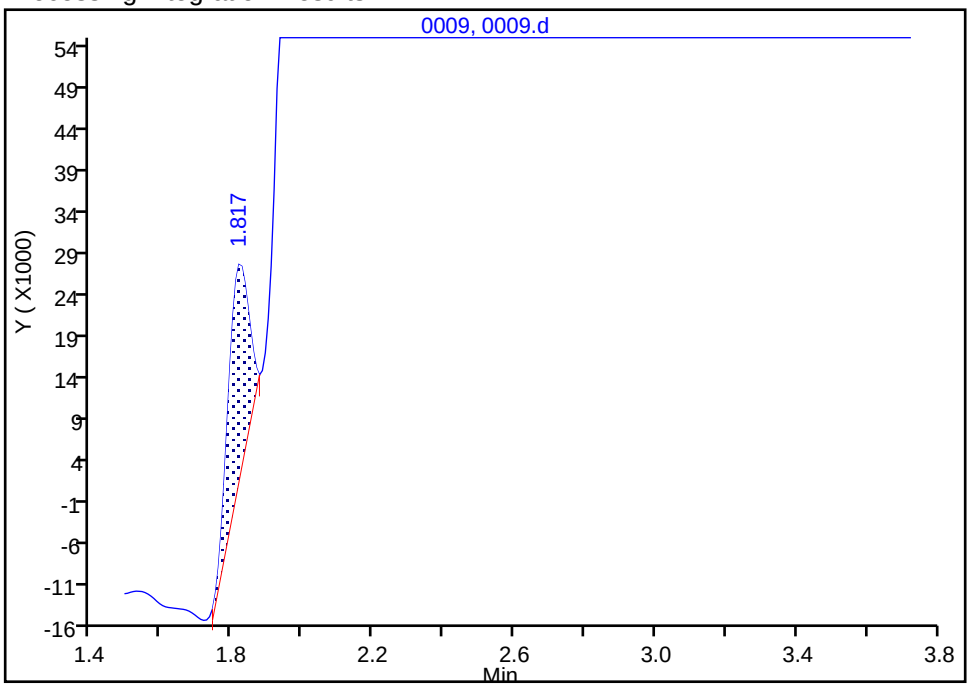
Data File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220317-109320.b\0009.d
Injection Date: 17-Mar-2022 14:28:00 Instrument ID: WC_IonChrom11
Lims ID: std L6
Client ID:
Operator ID: ALS Bottle#: 0 Worklist Smp#: 7
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: Anions_IC11 Limit Group: Wet - Anions 28D
Column: Detector 0005

1 Fluoride, CAS: 16984-48-8

Signal: 1

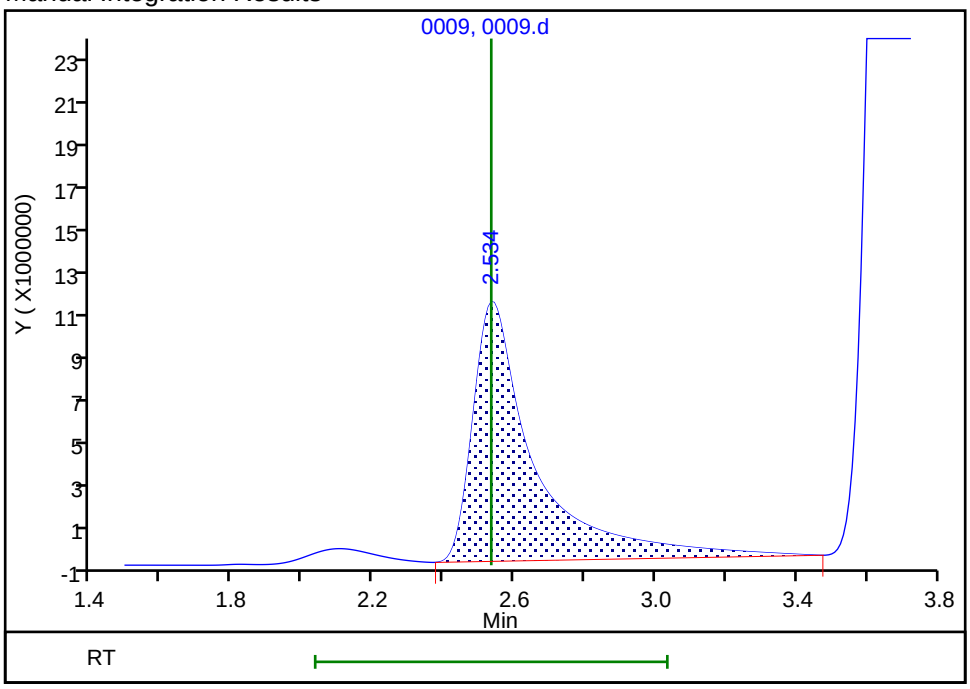
RT: 1.82
Area: 106563
Amount: -0.379921
Amount Units: ug/ml

Processing Integration Results



Manual Integration Results

RT: 2.53
Area: 143030892
Amount: 10.402876
Amount Units: ug/ml



Reviewer: jindaratc, 17-Mar-2022 15:11:15
Audit Action: Assigned Compound ID Audit Reason: Baseline Smoothing

IC Instrument Information

WL: 109320 **Inst ID:** IC11 **Analysis Date:** 3/17/2022 **Analyst:** CJ

Rush	Job No.	Samples	Anions	QC Req	HT Exp
☐	159384	5	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐	159543	7	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐	159844	10	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	

Dilutions

Job No.	Samples	Anions	Dilution	Reason
384		F Cl NO2 Br NO3 PO4 SO4	2,5,10X	Test.
543		F Cl NO2 Br NO3 PO4 SO4	10X	coverage
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		

Eurofins Environment Testing America
Initial Calibration Summary Report

Method: \\chromfs\Denver\ChromData\WC_IonChrom11\20220317-109320.b\Anions_IC11.m

Instrument:	WC_IonChrom11	Lims Location:	280
Lock State:	Unlocked	Cpnd Order:	Retention Time
Integrator:	Falcon	Last Modified:	18-Mar-2022 10:37:06

No.Compounds:7

Initial Calibration Batches

Ical Batch: \\chromfs\Denver\ChromData\WC_IonChrom11\20220317-109320.b
Inj Date : 17-Mar-2022 13:06:00, Sublist: chrom-Anions_IC11*sub1

Detector 1: 0005

	Wet - Anions				Wet - Anions 28D			
Compound	b	M1	M2	Err	b	M1	M2	Err
1 Fluoride					-396249	1378725		0.997
2 Chloride					-128561	1836527		1.000
3 Nitrite as N	-211085	3099943		0.998				
4 Bromide					-123086	5146559		0.999
5 Nitrate as N	-287391	3500655		0.997				
7 Orthophosphate as P	-146771	9267961	R1	).991*				
6 Sulfate					-760477	1184251		0.996

ICalib Error Legend
R1, Curve Fit Fail Error Limit Test

Eurofins Environment Testing America
Initial Calibration Report

Method: \\chromfs\Denver\ChromData\WC_IonChrom11\20220317-109320.b\Anions_IC11.m
Instrument: WC_IonChrom11 Lims Location: 280
Lock State: Unlocked Cpnd Order: Retention Time
Integrator: Falcon Last Modified: 18-Mar-2022 10:37:06
No.Compounds:7
Sublist: chrom-Anions_IC11*sub1
Limit Group: Wet - Anions 28D

Detectors

Detector: 1, 0005
Data Type: ic Spec Type: none
Supports Extracted Chromatograms: False
Run Time: 0.001-13.501 No. Points: 1561

Calibration File Names

Level: 1 \\chromfs\Denver\ChromData\WC_IonChrom11\20220317-109320.b\0004.d
Inj Date: 17-Mar-2022 13:06:00 Worklist: 109320 Sample#: 2
Level: 2 \\chromfs\Denver\ChromData\WC_IonChrom11\20220317-109320.b\0005.d
Inj Date: 17-Mar-2022 13:23:00 Worklist: 109320 Sample#: 3
Level: 3 \\chromfs\Denver\ChromData\WC_IonChrom11\20220317-109320.b\0006.d
Inj Date: 17-Mar-2022 13:39:00 Worklist: 109320 Sample#: 4
Level: 4 \\chromfs\Denver\ChromData\WC_IonChrom11\20220317-109320.b\0007.d
Inj Date: 17-Mar-2022 13:56:00 Worklist: 109320 Sample#: 5
Level: 5 \\chromfs\Denver\ChromData\WC_IonChrom11\20220317-109320.b\0008.d
Inj Date: 17-Mar-2022 14:12:00 Worklist: 109320 Sample#: 6
Level: 6 \\chromfs\Denver\ChromData\WC_IonChrom11\20220317-109320.b\0009.d
Inj Date: 17-Mar-2022 14:28:00 Worklist: 109320 Sample#: 7

Start Cal Date: 17-Mar-2022 12:50:00 End Cal Date: 17-Mar-2022 14:28:00

Individual Compound Calibration Parameters

Quant Method: ESTD RF Calibration: Replace
Rule Name: Linear1 Curve: Linear Weighting: Conc
Origin: None Error: CorrCoef Error Limit: 1.00
RF %Dif: 0.0 SPCC Limit: 0.0 CCC Limit: 0.0
Dependent Variable: Resp

Number of Compounds: 4

RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	b	m1	m2	Error

Eurofins Environment Testing America
Initial Calibration Report

Method: \\chromfs\Denver\ChromData\WC_IonChrom11\20220317-109320.b\Anions_IC11.m
Instrument: WC_IonChrom11 Lims Location: 280
Lock State: Unlocked Cpnd Order: Retention Time
Integrator: Falcon Last Modified: 18-Mar-2022 10:38:53
No.Compounds:7
Sublist: chrom-Anions_IC11*sub1
Limit Group: Wet - Anions

Detectors

Detector: 1, 0005
Data Type: ic Spec Type: none
Supports Extracted Chromatograms: False
Run Time: 0.001-13.501 No. Points: 1561

Calibration File Names

Level: 1 \\chromfs\Denver\ChromData\WC_IonChrom11\20220317-109320.b\0004.d
Inj Date: 17-Mar-2022 13:06:00 Worklist: 109320 Sample#: 2
Level: 2 \\chromfs\Denver\ChromData\WC_IonChrom11\20220317-109320.b\0005.d
Inj Date: 17-Mar-2022 13:23:00 Worklist: 109320 Sample#: 3
Level: 3 \\chromfs\Denver\ChromData\WC_IonChrom11\20220317-109320.b\0006.d
Inj Date: 17-Mar-2022 13:39:00 Worklist: 109320 Sample#: 4
Level: 4 \\chromfs\Denver\ChromData\WC_IonChrom11\20220317-109320.b\0007.d
Inj Date: 17-Mar-2022 13:56:00 Worklist: 109320 Sample#: 5
Level: 5 \\chromfs\Denver\ChromData\WC_IonChrom11\20220317-109320.b\0008.d
Inj Date: 17-Mar-2022 14:12:00 Worklist: 109320 Sample#: 6
Level: 6 \\chromfs\Denver\ChromData\WC_IonChrom11\20220317-109320.b\0009.d
Inj Date: 17-Mar-2022 14:28:00 Worklist: 109320 Sample#: 7

Start Cal Date: 17-Mar-2022 12:50:00 End Cal Date: 17-Mar-2022 14:28:00

Individual Compound Calibration Parameters

Quant Method: ESTD RF Calibration: Replace
Rule Name: Linear1 Curve: Linear Weighting: Conc
Origin: None Error: raw_COD Error Limit: 1.00
RF %Dif: 0.0 SPCC Limit: 0.0 CCC Limit: 0.0
Dependent Variable: Resp

Number of Compounds: 3

RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	b	m1	m2	Error

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220317-109320.b\0010.d
Lims ID: ICV
Client ID:
Sample Type: ICV
Inject. Date: 17-Mar-2022 14:45:00 ALS Bottle#: 0 Worklist Smp#: 8
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0109320-008
Misc. Info.: 10
Operator ID: Instrument ID: WC_IonChrom11
Sublist:

Method: \\chromfs\Denver\ChromData\WC_IonChrom11\20220317-109320.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 18-Mar-2022 11:01:04 Calib Date: 17-Mar-2022 14:28:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220317-109320.b\0009.d

Column 1 : Det: 0005
Process Host: CTX1628

First Level Reviewer: jindaratc Date: 17-Mar-2022 15:08:20

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.526	2.526	0.000	50060872	4.00	3.66	a
2 Chloride	3.751	3.751	0.000	1453848069	80.0	79.9	
3 Nitrite as N	4.467	4.467	0.000	113594212	NC	NC	
4 Bromide	5.351	5.351	0.000	20155202	4.00	3.94	
5 Nitrate as N	6.009	6.009	0.000	129299623	NC	NC	M
7 Orthophosphate as P	9.101	9.101	0.000	32544603	NC	NC	
6 Sulfate	10.084	10.084	0.000	962445570	80.0	81.9	

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated
a - User Assigned ID

Reagents:

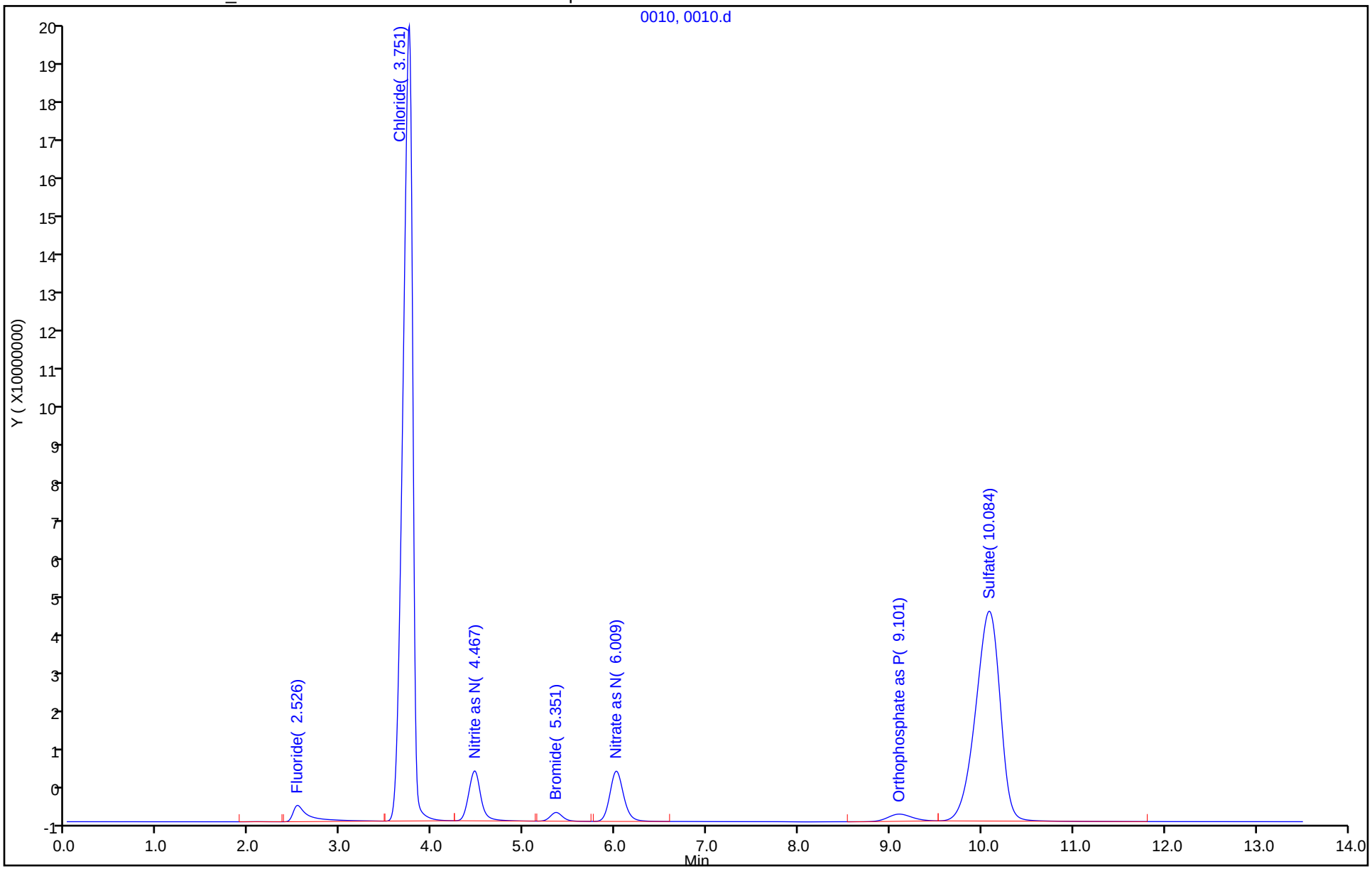
IC SO4 ICV_00022	Amount Added:	0.40	Units: mL
Cl ICV Std_00002	Amount Added:	0.40	Units: mL
IC ICV 5_00355	Amount Added:	0.40	Units: mL

Report Date: 18-Mar-2022 11:01:04 Chrom Revision: 2.3 14-Mar-2022 17:58:38

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220317-109320.b\0010.d

Injection Date:	17-Mar-2022 14:45:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ICV			Worklist Smp#:	8
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220317-109320.b\0011.d
Lims ID: ICB
Client ID:
Sample Type: ICB
Inject. Date: 17-Mar-2022 15:01:00 ALS Bottle#: 0 Worklist Smp#: 9
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0109320-009
Misc. Info.: 11
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromfs\Denver\ChromData\WC_IonChrom11\20220317-109320.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 18-Mar-2022 11:01:04 Calib Date: 17-Mar-2022 14:28:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220317-109320.b\0009.d

Column 1 : Det: 0005
Process Host: CTX1628

First Level Reviewer: jindaratc Date: 18-Mar-2022 10:35:13

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride		2.526				ND	U
2 Chloride	3.675	3.751	-0.076	157978		0.7086	M
3 Nitrite as N		4.467				ND	U
4 Bromide		5.351				ND	U
5 Nitrate as N		6.009				ND	U
7 Orthophosphate as P	9.142	9.101	0.041	103805		NC	
6 Sulfate	9.950	10.084	-0.134	191408		0.6583	

QC Flag Legend

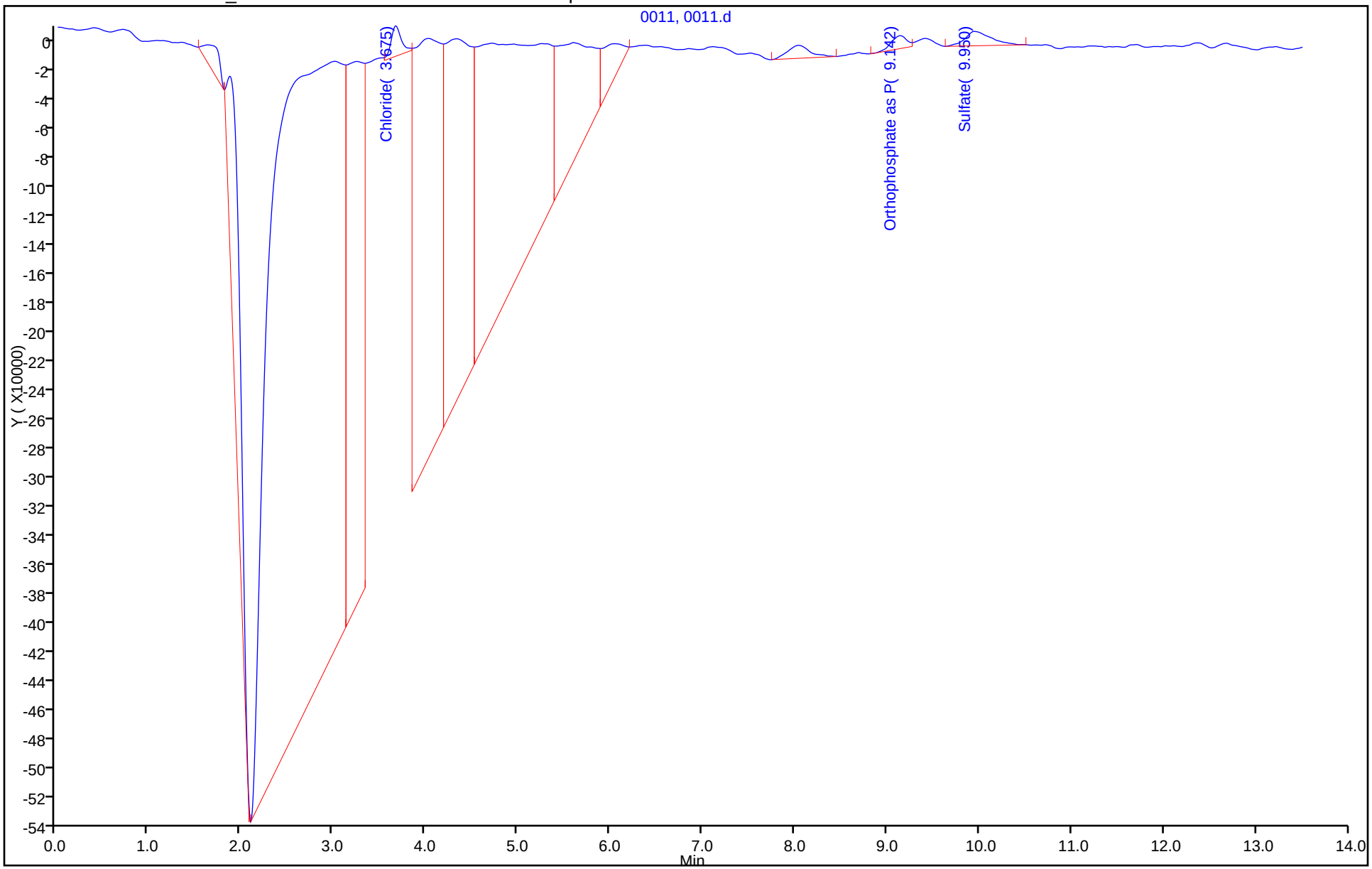
Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated
U - Marked Undetected

Report Date: 18-Mar-2022 11:01:05 Chrom Revision: 2.3 14-Mar-2022 17:58:38

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220317-109320.b\0011.d

Injection Date:	17-Mar-2022 15:01:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ICB			Worklist Smp#:	9
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220317-109320.b\0012.d
Lims ID: MRL
Client ID:
Sample Type: MRL
Inject. Date: 17-Mar-2022 15:18:00 ALS Bottle#: 0 Worklist Smp#: 10
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0109320-010
Misc. Info.: 12
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromfs\Denver\ChromData\WC_IonChrom11\20220317-109320.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 18-Mar-2022 11:01:04 Calib Date: 17-Mar-2022 14:28:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220317-109320.b\0009.d

Column 1 : Det: 0005
Process Host: CTX1628

First Level Reviewer: jindaratc Date: 18-Mar-2022 10:38:53

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.526	2.526	0.000	6428682	0.5000	0.4950	M
2 Chloride	3.676	3.751	-0.075	62046951	5.00	4.08	
3 Nitrite as N	4.442	4.467	-0.025	12743479	NC	NC	
4 Bromide	5.359	5.351	0.008	2345613	0.5000	0.4797	
5 Nitrate as N	6.034	6.009	0.025	13530634	NC	NC	
7 Orthophosphate as P	9.134	9.101	0.033	3057185	NC	NC	
6 Sulfate	9.984	10.084	-0.100	41905326	5.00	4.18	

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

Reagents:

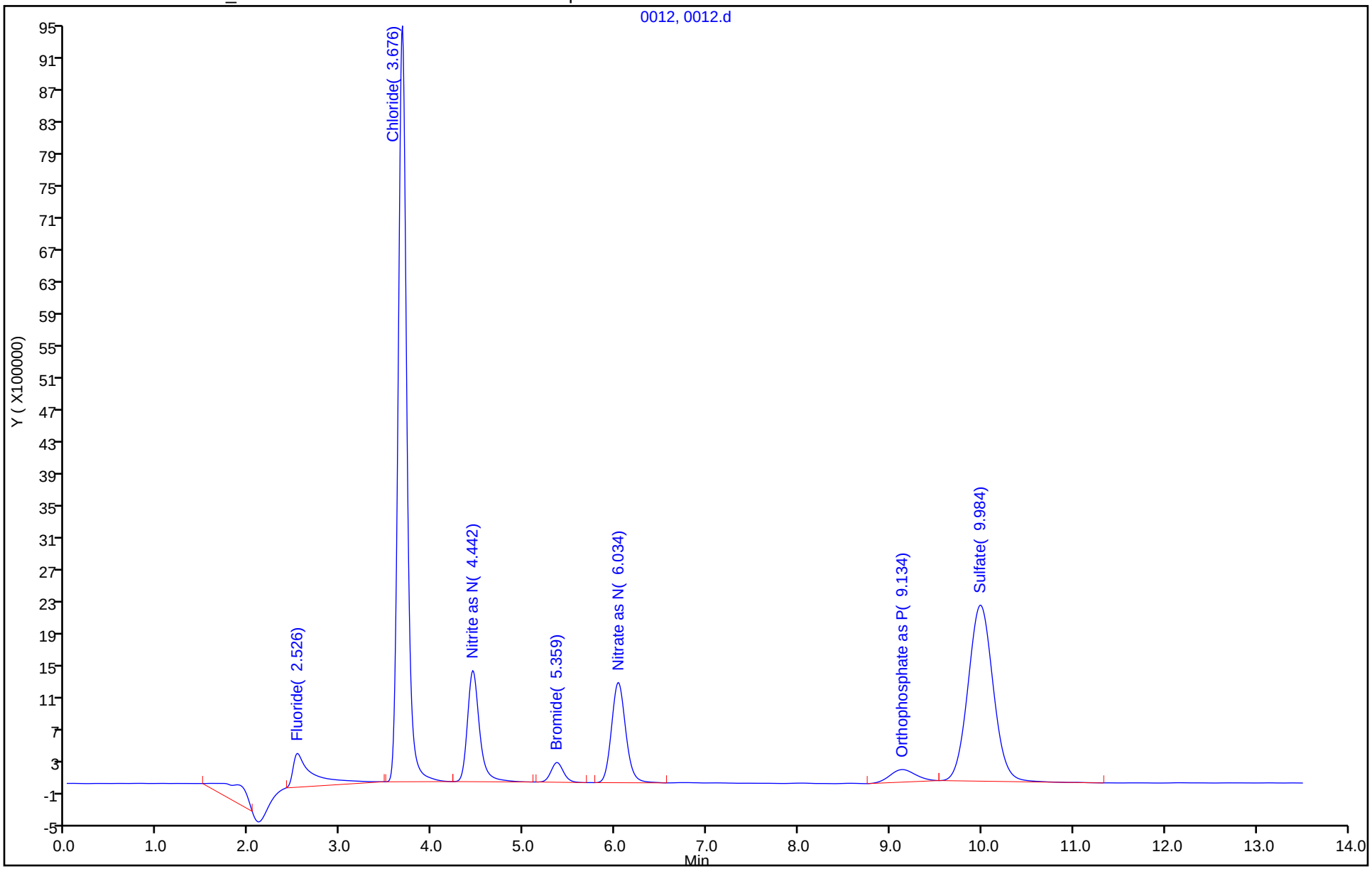
IC Cal low_00627 Amount Added: 0.05 Units: mL
IC CAL cl/so4_00411 Amount Added: 0.10 Units: mL

Report Date: 18-Mar-2022 11:01:06 Chrom Revision: 2.3 14-Mar-2022 17:58:38

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220317-109320.b\0012.d

Injection Date:	17-Mar-2022 15:18:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	MRL			Worklist Smp#:	10
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220317-109320.b\0013.d
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 17-Mar-2022 15:34:00 ALS Bottle#: 0 Worklist Smp#: 11
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0109320-011
Misc. Info.: 13
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromfs\Denver\ChromData\WC_IonChrom11\20220317-109320.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 18-Mar-2022 11:01:04 Calib Date: 17-Mar-2022 14:28:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220317-109320.b\0009.d

Column 1 : Det: 0005
Process Host: CTX1628

First Level Reviewer: foxr Date: 17-Mar-2022 16:22:40

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.525	2.526	-0.001	65170564	5.00	4.76	
2 Chloride	3.759	3.751	0.008	1761767780	100.0	96.6	
3 Nitrite as N	4.467	4.467	0.000	146354820	NC	NC	
4 Bromide	5.350	5.351	-0.001	24497525	5.00	4.78	
5 Nitrate as N	6.009	6.009	0.000	160472636	NC	NC	
7 Orthophosphate as P	9.092	9.101	-0.009	42529239	NC	NC	
6 Sulfate	10.109	10.084	0.025	1126575825	100.0	95.8	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

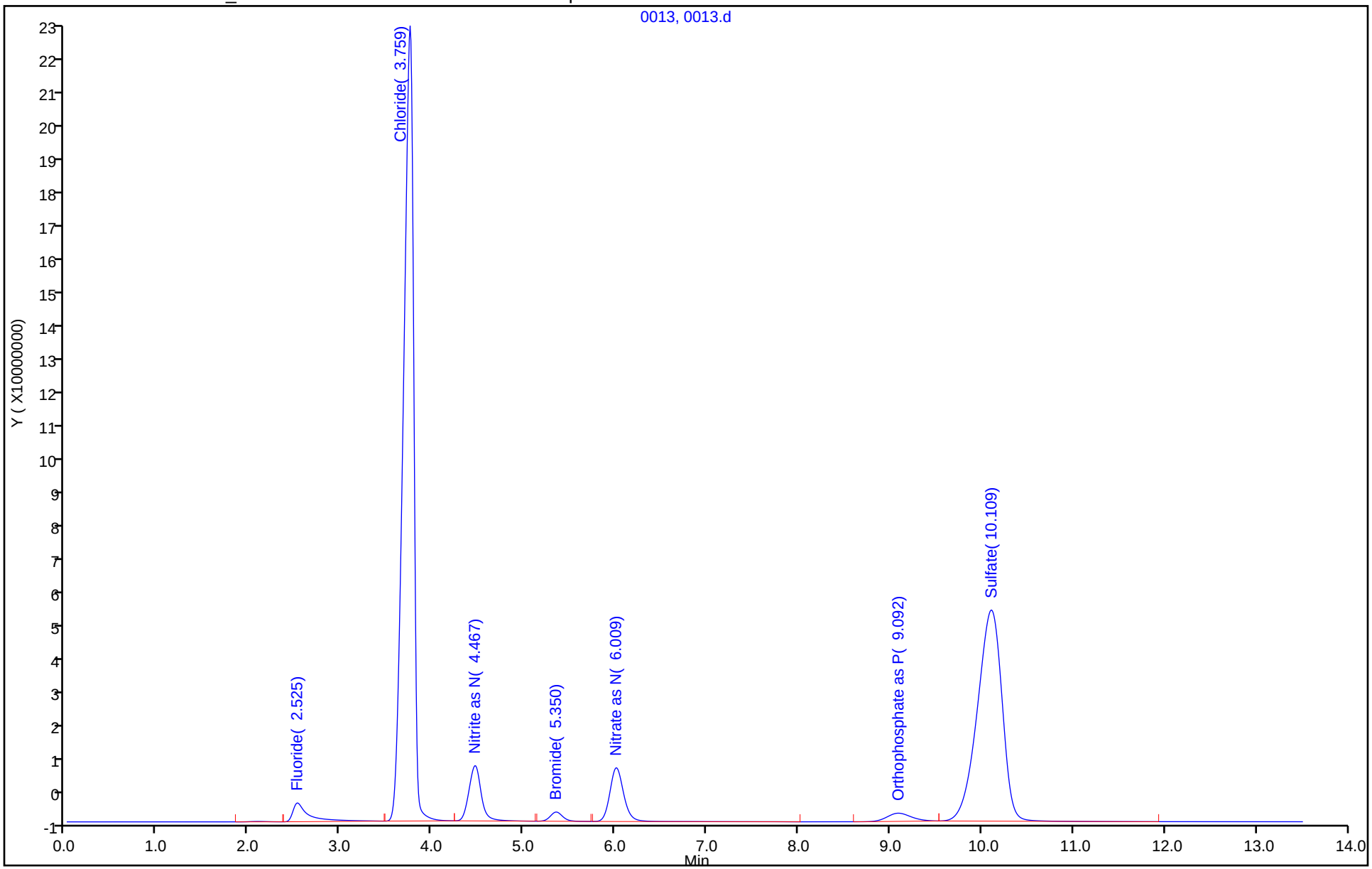
IC LCS_01863 Amount Added: 5.00 Units: mL

Report Date: 18-Mar-2022 11:01:06 Chrom Revision: 2.3 14-Mar-2022 17:58:38

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220317-109320.b\0013.d

Injection Date:	17-Mar-2022 15:34:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	LCS			Worklist Smp#:	11
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220317-109320.b\0014.d
Lims ID: LCSD
Client ID:
Sample Type: LCSD
Inject. Date: 17-Mar-2022 15:50:00 ALS Bottle#: 0 Worklist Smp#: 12
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0109320-012
Misc. Info.: 14
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromfs\Denver\ChromData\WC_IonChrom11\20220317-109320.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 18-Mar-2022 11:01:04 Calib Date: 17-Mar-2022 14:28:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220317-109320.b\0009.d

Column 1 : Det: 0005
Process Host: CTX1628

First Level Reviewer: foxr Date: 17-Mar-2022 16:22:54

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.534	2.526	0.008	65805562	5.00	4.80	
2 Chloride	3.759	3.751	0.008	1765177462	100.0	96.8	
3 Nitrite as N	4.467	4.467	0.000	147180474	NC	NC	
4 Bromide	5.359	5.351	0.008	24625494	5.00	4.81	
5 Nitrate as N	6.009	6.009	0.000	161153744	NC	NC	
7 Orthophosphate as P	9.092	9.101	-0.009	43111182	NC	NC	
6 Sulfate	10.100	10.084	0.016	1127142082	100.0	95.8	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

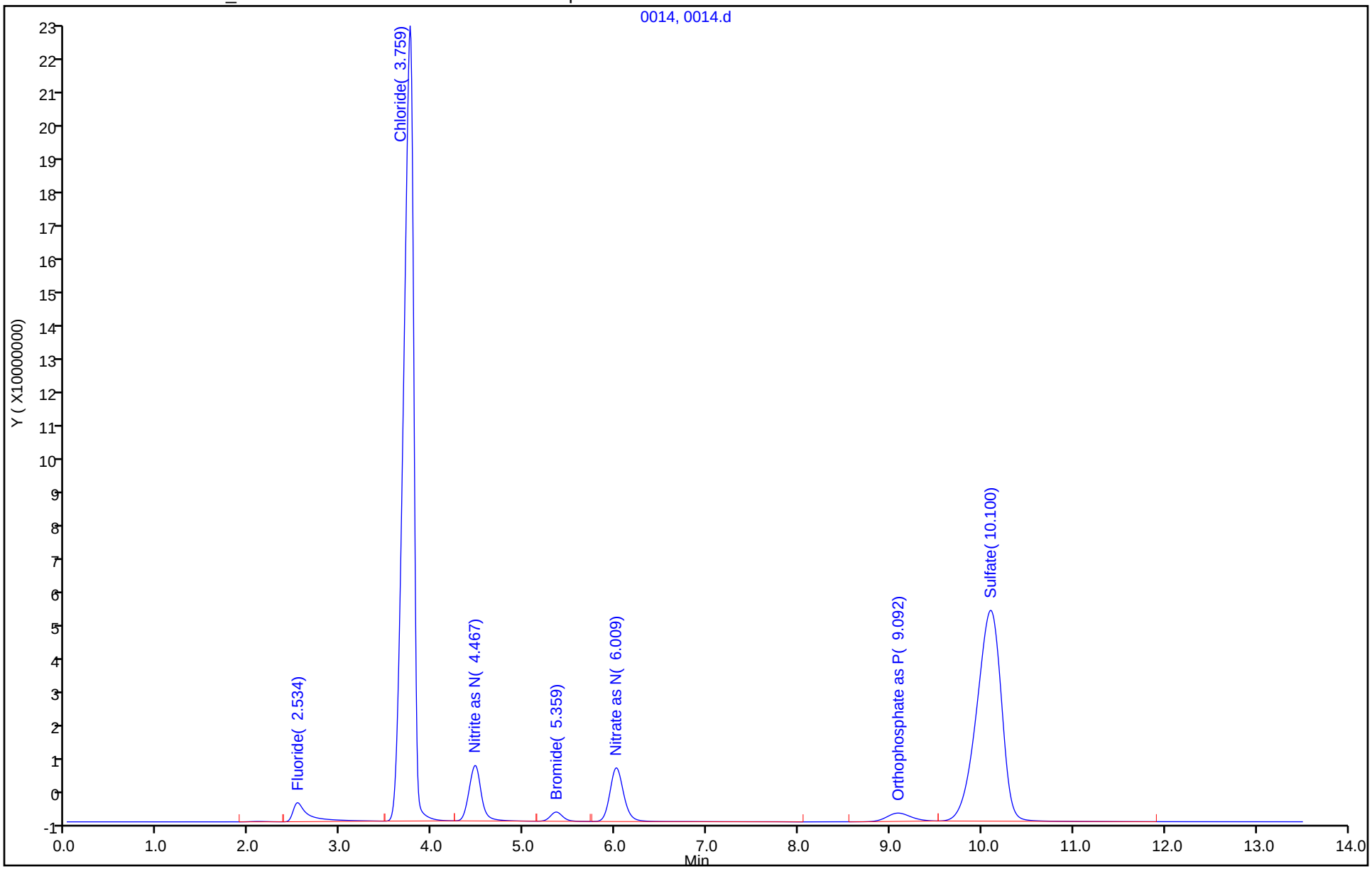
IC LCS_01863 Amount Added: 5.00 Units: mL

Report Date: 18-Mar-2022 11:01:06 Chrom Revision: 2.3 14-Mar-2022 17:58:38

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220317-109320.b\0014.d

Injection Date:	17-Mar-2022 15:50:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	LCSD			Worklist Smp#:	12
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220317-109320.b\0015.d
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 17-Mar-2022 16:07:00 ALS Bottle#: 0 Worklist Smp#: 13
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0109320-013
Misc. Info.: 15
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromfs\Denver\ChromData\WC_IonChrom11\20220317-109320.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 18-Mar-2022 11:01:04 Calib Date: 17-Mar-2022 14:28:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220317-109320.b\0009.d

Column 1 : Det: 0005
Process Host: CTX1628

First Level Reviewer: jindaratc Date: 18-Mar-2022 10:51:44

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride		2.526				ND	U
2 Chloride	3.675	3.751	-0.076	270429		0.7148	M
3 Nitrite as N		4.467				ND	U
4 Bromide		5.351				ND	U
5 Nitrate as N		6.009				ND	U
7 Orthophosphate as P	9.200	9.101	0.099	388219		NC	
6 Sulfate	9.975	10.084	-0.109	279486		0.6658	

QC Flag Legend

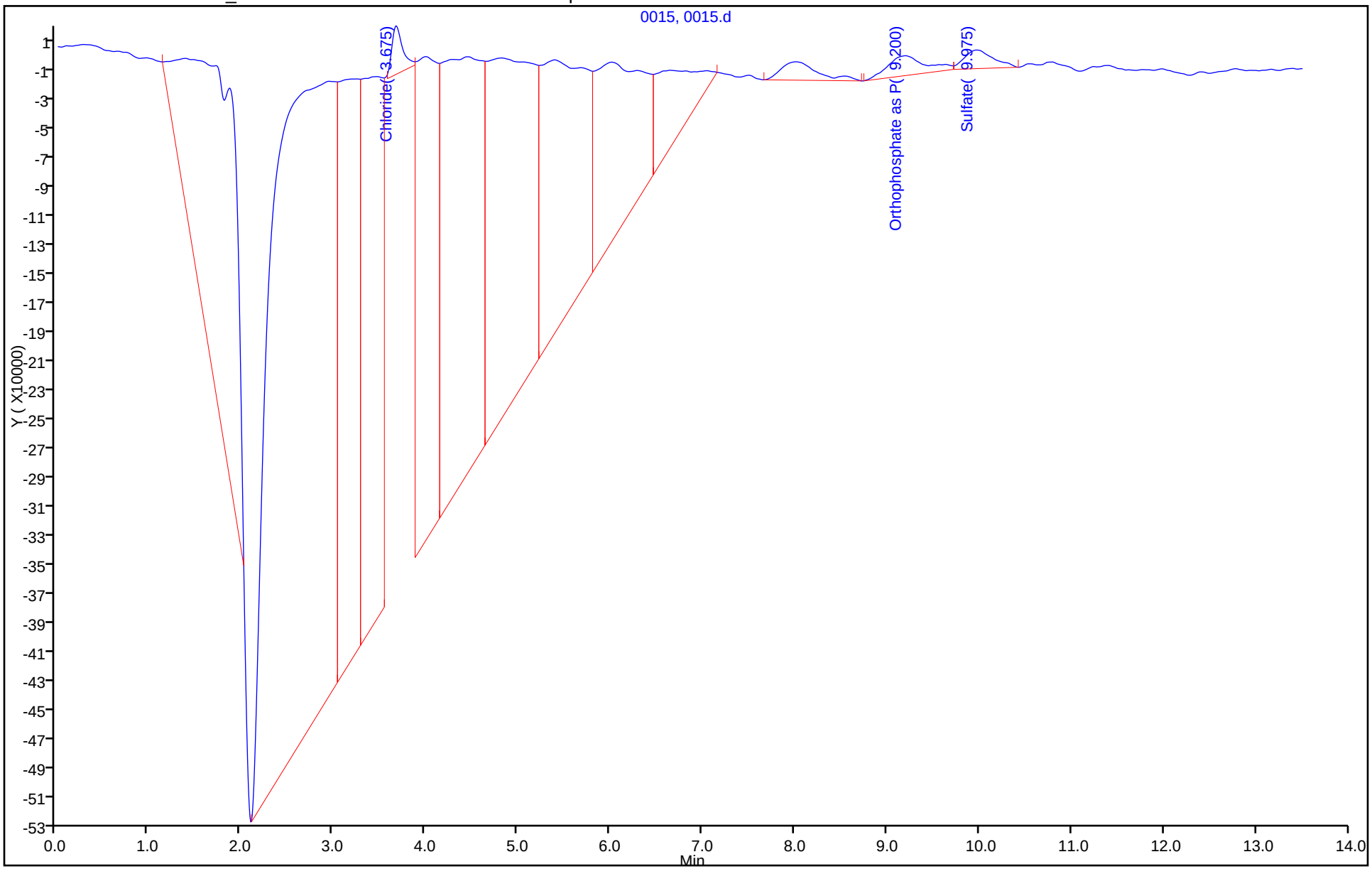
Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated
U - Marked Undetected

Report Date: 18-Mar-2022 11:01:07 Chrom Revision: 2.3 14-Mar-2022 17:58:38

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220317-109320.b\0015.d

Injection Date:	17-Mar-2022 16:07:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	MB			Worklist Smp#:	13
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220317-109320.b\0016.d
Lims ID: 280-159384-F-1
Client ID: G0022-8
Sample Type: Client
Inject. Date: 17-Mar-2022 17:02:00 ALS Bottle#: 0 Worklist Smp#: 14
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0109320-014
Misc. Info.: 14584
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromfs\Denver\ChromData\WC_IonChrom11\20220317-109320.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 18-Mar-2022 11:01:04 Calib Date: 17-Mar-2022 14:28:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220317-109320.b\0009.d

Column 1 : Det: 0005
Process Host: CTX1628

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.517	2.526	-0.009	4003260	0.3191	
2 Chloride	3.701	3.751	-0.050	337811122	19.1	
3 Nitrite as N	4.451	4.467	-0.016	538401	NC	
4 Bromide	5.476	5.351	0.125	516406	0.1243	
5 Nitrate as N	6.092	6.009	0.083	402786837	NC	
7 Orthophosphate as P	9.242	9.101	0.141	2816703	NC	
6 Sulfate	10.167	10.084	0.083	1326595888	112.7	

QC Flag Legend

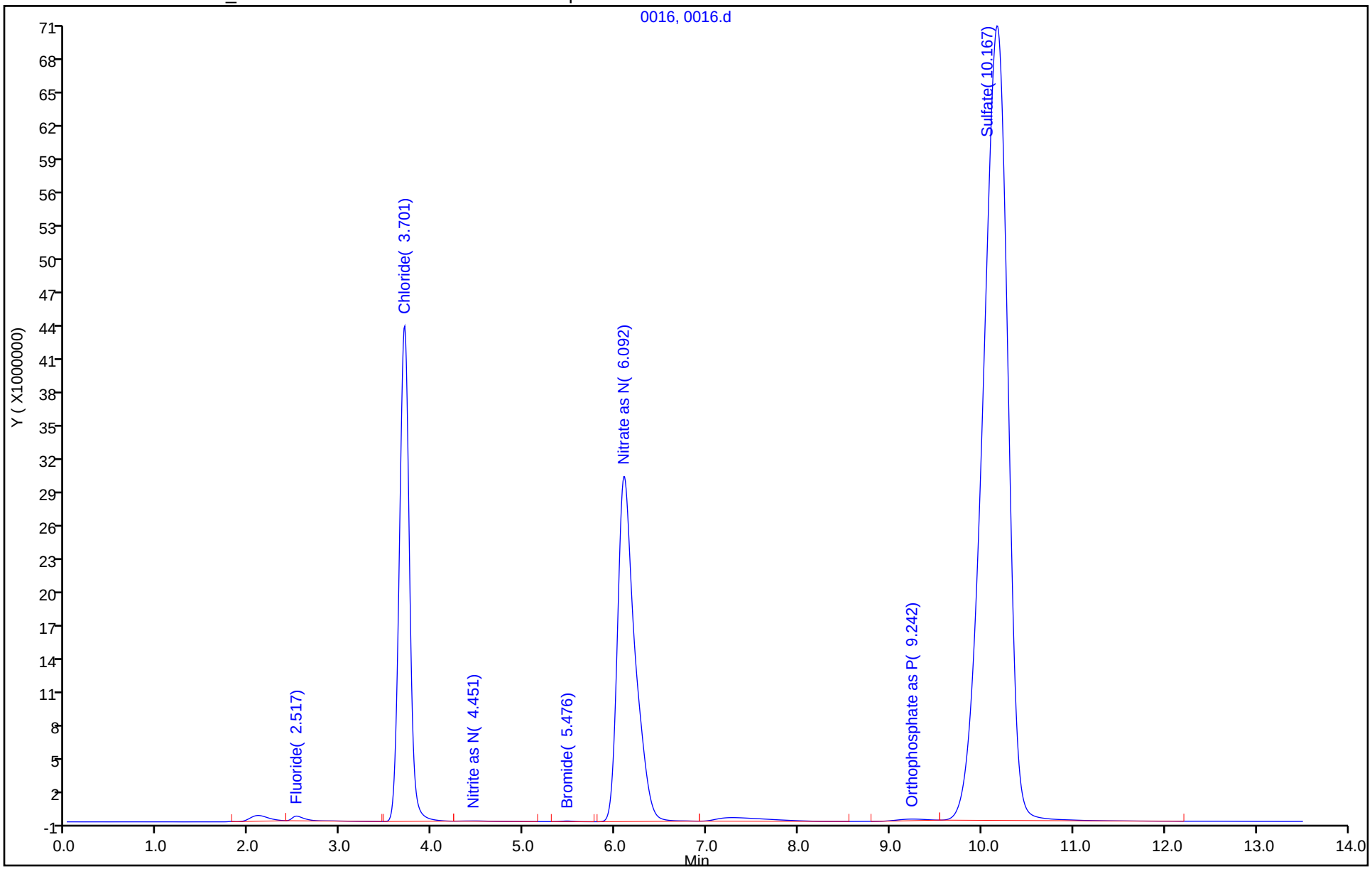
Processing Flags
NC - Not Calibrated

Report Date: 18-Mar-2022 11:01:07 Chrom Revision: 2.3 14-Mar-2022 17:58:38

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220317-109320.b\0016.d

Injection Date:	17-Mar-2022 17:02:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-159384-F-1	Lab Sample ID:	280-159384-1	Worklist Smp#:	14
Client ID:	G0022-8				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220317-109320.b\0017.d
Lims ID: 280-159384-F-1 DU
Client ID:
Sample Type: DU
Inject. Date: 17-Mar-2022 17:17:00 ALS Bottle#: 0 Worklist Smp#: 15
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0109320-015
Misc. Info.: 13423
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromfs\Denver\ChromData\WC_IonChrom11\20220317-109320.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 18-Mar-2022 11:01:04 Calib Date: 17-Mar-2022 14:28:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220317-109320.b\0009.d

Column 1 : Det: 0005
Process Host: CTX1628

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.517	2.526	-0.009	3804356		0.3047	
2 Chloride	3.700	3.751	-0.051	337775716		19.1	
3 Nitrite as N	4.459	4.467	-0.008	561039		NC	
4 Bromide	5.475	5.351	0.124	543451		0.1295	
5 Nitrate as N	6.100	6.009	0.091	402162904		NC	
7 Orthophosphate as P	9.234	9.101	0.133	2595065		NC	
6 Sulfate	10.167	10.084	0.083	1328521470		112.8	

QC Flag Legend

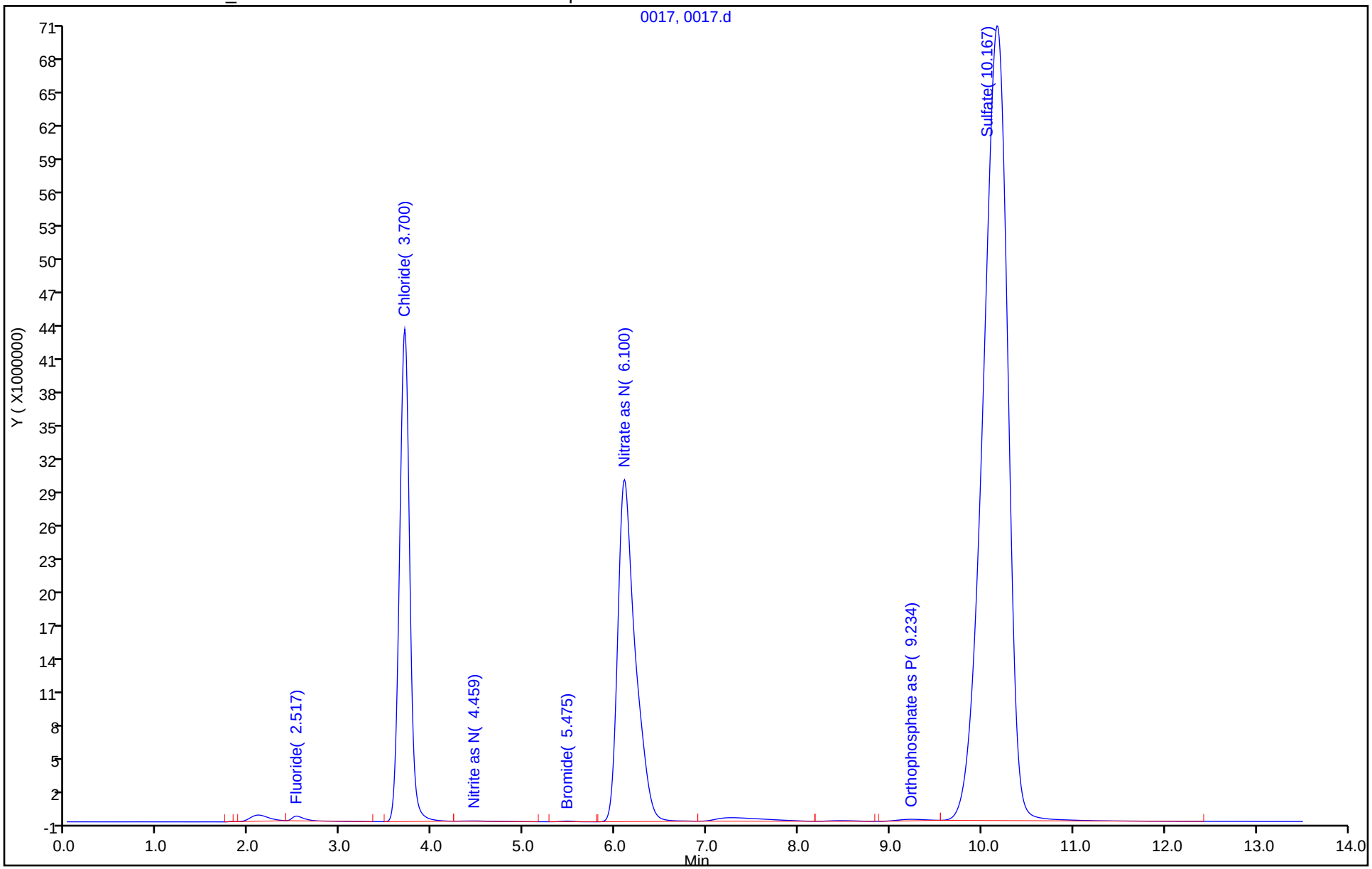
Processing Flags
NC - Not Calibrated

Report Date: 18-Mar-2022 11:01:08 Chrom Revision: 2.3 14-Mar-2022 17:58:38

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220317-109320.b\0017.d

Injection Date:	17-Mar-2022 17:17:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-159384-F-1 DU			Worklist Smp#:	15
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220317-109320.b\0018.d
Lims ID: 280-159384-F-1 MS
Client ID:
Sample Type: MS
Inject. Date: 17-Mar-2022 17:34:00 ALS Bottle#: 0 Worklist Smp#: 16
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0109320-016
Misc. Info.: 12519
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromfs\Denver\ChromData\WC_IonChrom11\20220317-109320.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 18-Mar-2022 11:01:04 Calib Date: 17-Mar-2022 14:28:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220317-109320.b\0009.d

Column 1 : Det: 0005
Process Host: CTX1628

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.525	2.526	-0.001	75917580	5.00	5.54	
2 Chloride	3.734	3.751	-0.017	1380895693	50.0	75.9	
3 Nitrite as N	4.525	4.467	0.058	152002278	NC	NC	
4 Bromide	5.467	5.351	0.116	27537452	5.00	5.37	
5 Nitrate as N	6.084	6.009	0.075	623365763	NC	NC	
7 Orthophosphate as P	9.142	9.101	0.041	56424662	NC	NC	
6 Sulfate	10.225	10.084	0.141	2055379379	50.0	174.2	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

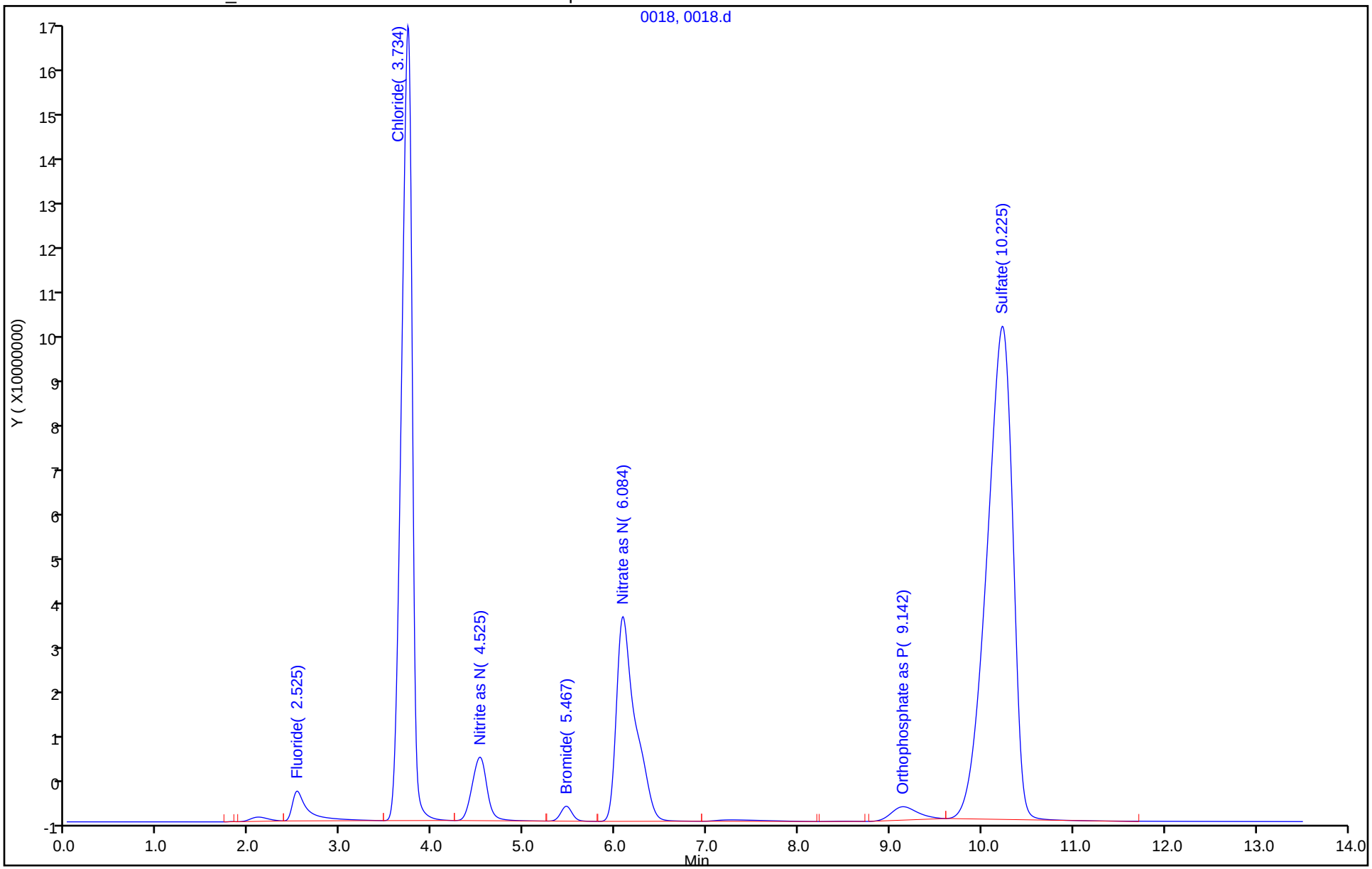
ICMS/MSD WEEK_00748 Amount Added: 0.05 Units: mL

Report Date: 18-Mar-2022 11:01:08 Chrom Revision: 2.3 14-Mar-2022 17:58:38

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220317-109320.b\0018.d

Injection Date:	17-Mar-2022 17:34:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-159384-F-1 MS			Worklist Smp#:	16
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220317-109320.b\0019.d
Lims ID: 280-159384-F-1 MSD
Client ID:
Sample Type: MSD
Inject. Date: 17-Mar-2022 17:50:00 ALS Bottle#: 0 Worklist Smp#: 17
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0109320-017
Misc. Info.: 25684
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromfs\Denver\ChromData\WC_IonChrom11\20220317-109320.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 18-Mar-2022 11:01:04 Calib Date: 17-Mar-2022 14:28:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220317-109320.b\0009.d

Column 1 : Det: 0005
Process Host: CTX1628

First Level Reviewer: jindaratc Date: 18-Mar-2022 10:49:51

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.526	2.526	0.000	75934171	5.00	5.54	
2 Chloride	3.734	3.751	-0.017	1365077778	50.0	75.0	
3 Nitrite as N	4.526	4.467	0.059	149753928	NC	NC	
4 Bromide	5.467	5.351	0.116	27014677	5.00	5.27	
5 Nitrate as N	6.084	6.009	0.075	620280718	NC	NC	
7 Orthophosphate as P	9.134	9.101	0.033	63180926	NC	NC	
6 Sulfate	10.234	10.084	0.150	2047412486	50.0	173.5	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

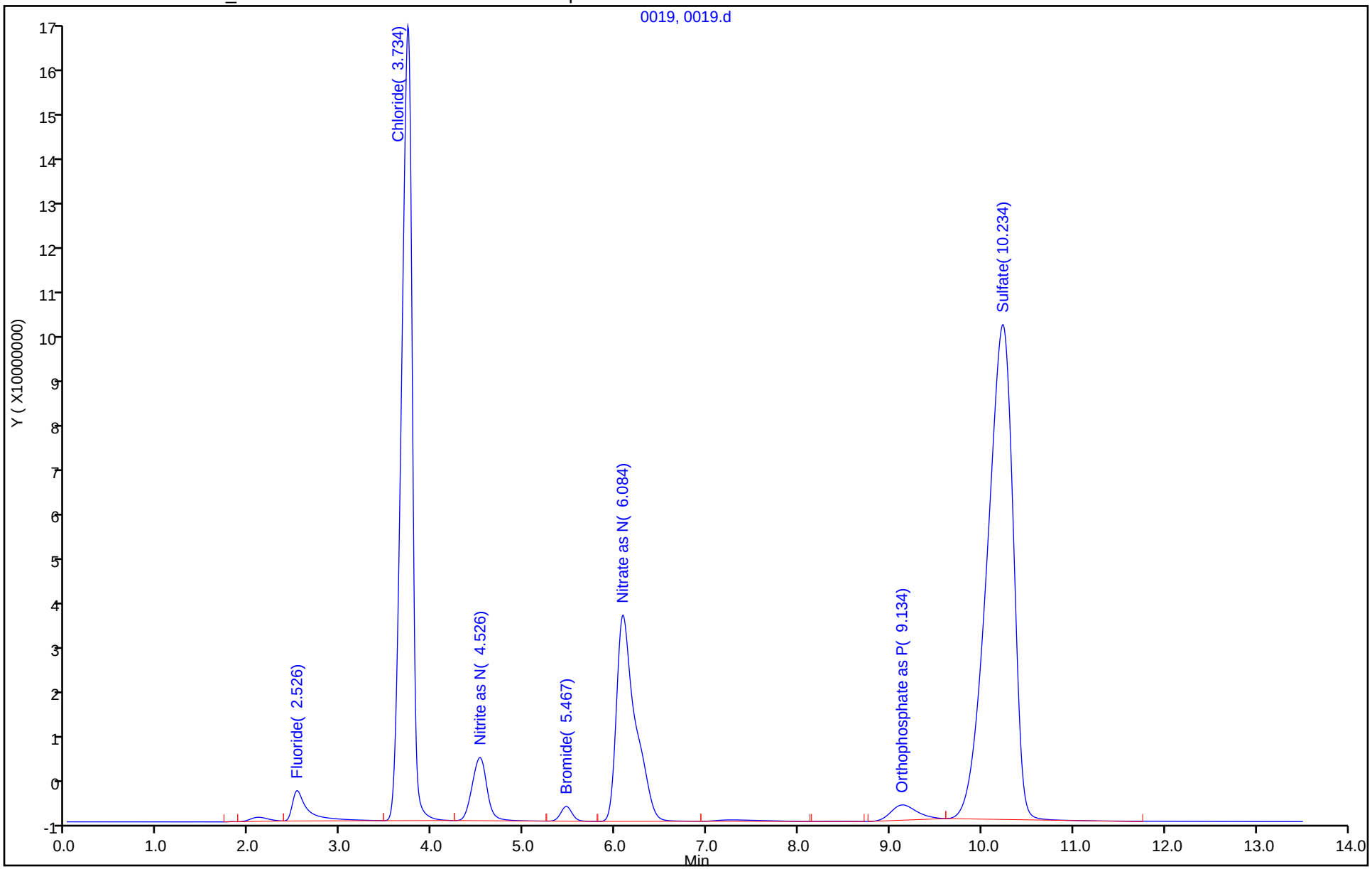
ICMS/MSD WEEK_00748 Amount Added: 0.05 Units: mL

Report Date: 18-Mar-2022 11:01:08 Chrom Revision: 2.3 14-Mar-2022 17:58:38

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220317-109320.b\0019.d

Injection Date:	17-Mar-2022 17:50:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-159384-F-1 MSD			Worklist Smp#:	17
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220317-109320.b\0020.d
Lims ID: 280-159384-F-2
Client ID: G0102-8
Sample Type: Client
Inject. Date: 17-Mar-2022 18:07:00 ALS Bottle#: 0 Worklist Smp#: 18
Injection Vol: 10.0 ul Dil. Factor: 10.0000
Sample Info: 280-0109320-018
Misc. Info.: 12098
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromfs\Denver\ChromData\WC_IonChrom11\20220317-109320.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 18-Mar-2022 11:01:04 Calib Date: 17-Mar-2022 14:28:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220317-109320.b\0009.d

Column 1 : Det: 0005
Process Host: CTX1628

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.525	2.526	-0.001	4797755	0.3767	
2 Chloride	3.675	3.751	-0.076	109367924	6.66	
3 Nitrite as N	4.425	4.467	-0.042	5534609	NC	
4 Bromide	5.359	5.351	0.008	2065854	0.4253	
5 Nitrate as N	6.075	6.009	0.066	1068461	NC	
7 Orthophosphate as P	9.300	9.101	0.199	1974385	NC	
6 Sulfate	10.134	10.084	0.050	1456442347	123.6	

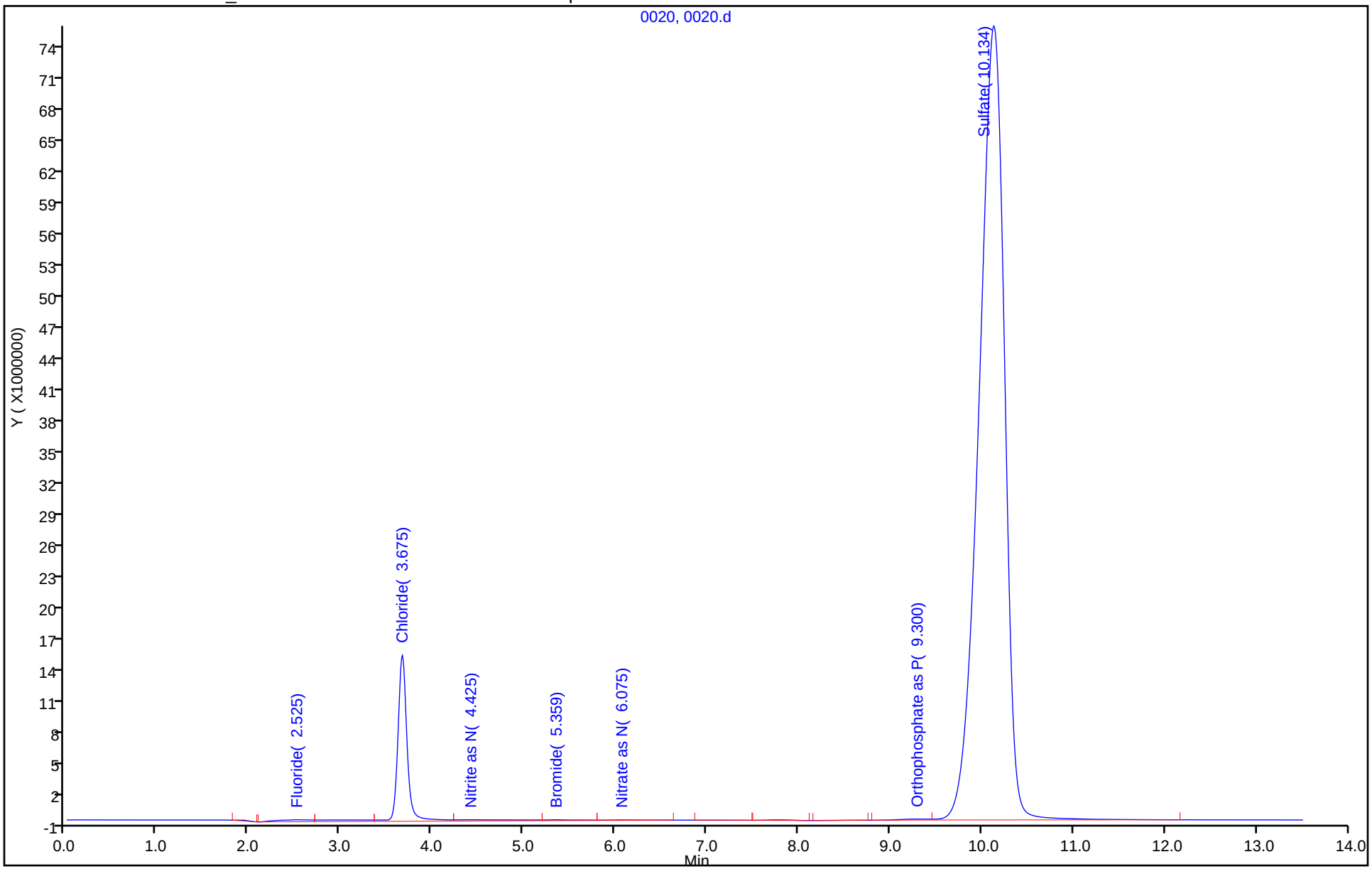
QC Flag Legend

Processing Flags
NC - Not Calibrated

Report Date: 18-Mar-2022 11:01:08 Chrom Revision: 2.3 14-Mar-2022 17:58:38

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom11\20220317-109320.b\0020.d				
Injection Date:	17-Mar-2022 18:07:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-159384-F-2	Lab Sample ID:	280-159384-2	Worklist Smp#:	18
Client ID:	G0102-8				
Injection Vol:	10.0 ul	Dil. Factor:	10.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220317-109320.b\0021.d
Lims ID: 280-159384-F-4
Client ID: G0121-8
Sample Type: Client
Inject. Date: 17-Mar-2022 18:23:00 ALS Bottle#: 0 Worklist Smp#: 19
Injection Vol: 10.0 ul Dil. Factor: 5.0000
Sample Info: 280-0109320-019
Misc. Info.: 16332
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromfs\Denver\ChromData\WC_IonChrom11\20220317-109320.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 18-Mar-2022 11:01:04 Calib Date: 17-Mar-2022 14:28:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220317-109320.b\0009.d

Column 1 : Det: 0005
Process Host: CTX1628

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.526	2.526	0.000	2339774	0.1984	
2 Chloride	3.692	3.751	-0.059	197796595	11.5	
3 Nitrite as N	4.384	4.467	-0.083	1917510	NC	
4 Bromide	5.409	5.351	0.058	369173	0.0956	
5 Nitrate as N	6.084	6.009	0.075	438121	NC	
7 Orthophosphate as P	9.184	9.101	0.083	11876065	NC	
6 Sulfate	10.076	10.084	-0.008	502225649	43.1	

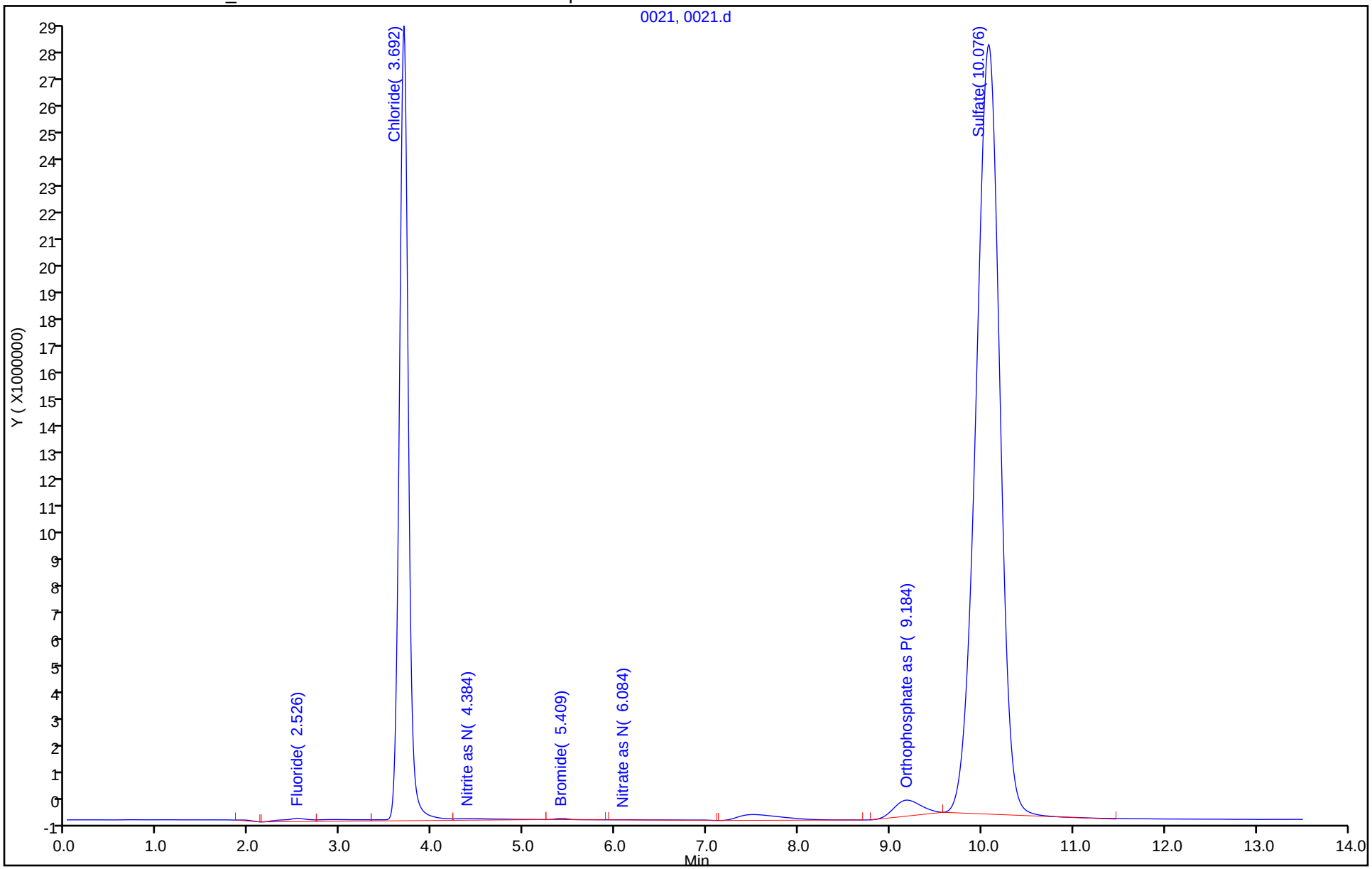
QC Flag Legend

Processing Flags
NC - Not Calibrated

Report Date: 18-Mar-2022 11:01:09 Chrom Revision: 2.3 14-Mar-2022 17:58:38

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom11\20220317-109320.b\0021.d				
Injection Date:	17-Mar-2022 18:23:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-159384-F-4	Lab Sample ID:	280-159384-4	Worklist Smp#:	19
Client ID:	G0121-8				
Injection Vol:	10.0 ul	Dil. Factor:	5.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220317-109320.b\0022.d
Lims ID: 280-159384-F-5
Client ID: G0122-8
Sample Type: Client
Inject. Date: 17-Mar-2022 18:39:00 ALS Bottle#: 0 Worklist Smp#: 20
Injection Vol: 10.0 ul Dil. Factor: 5.0000
Sample Info: 280-0109320-020
Misc. Info.: 5980
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromfs\Denver\ChromData\WC_IonChrom11\20220317-109320.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 18-Mar-2022 11:01:04 Calib Date: 17-Mar-2022 14:28:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220317-109320.b\0009.d

Column 1 : Det: 0005
Process Host: CTX1628

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.517	2.526	-0.009	307292	0.0510	
2 Chloride	3.692	3.751	-0.059	262414425	15.0	
3 Nitrite as N	4.425	4.467	-0.042	458814	NC	
4 Bromide	5.409	5.351	0.058	574895	0.1356	
5 Nitrate as N	6.092	6.009	0.083	584520	NC	
7 Orthophosphate as P	9.225	9.101	0.124	7390645	NC	
6 Sulfate	10.167	10.084	0.083	1394690214	118.4	

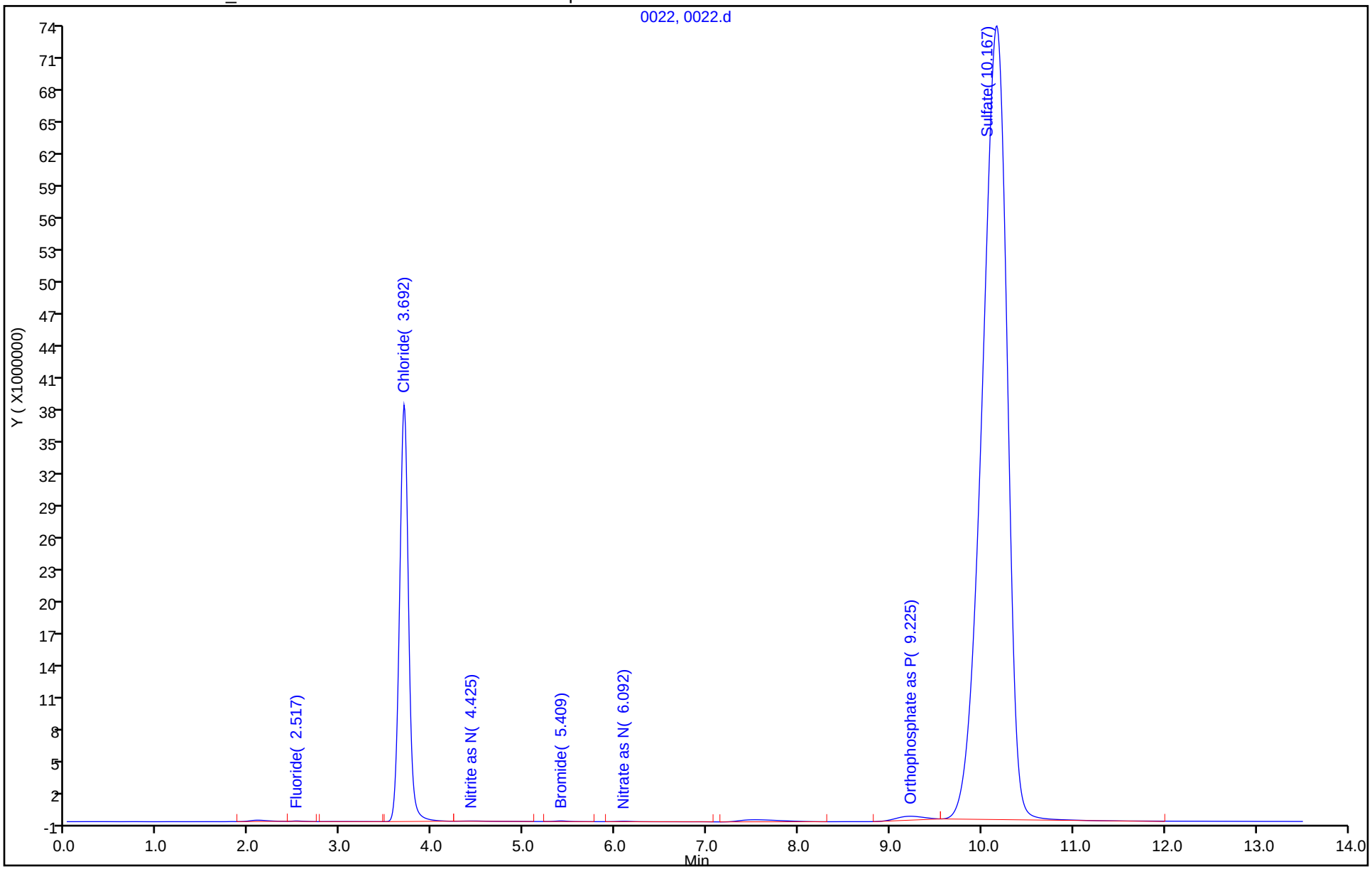
QC Flag Legend

Processing Flags
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Report Date: 18-Mar-2022 11:01:09 Chrom Revision: 2.3 14-Mar-2022 17:58:38

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom11\20220317-109320.b\0022.d				
Injection Date:	17-Mar-2022 18:39:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-159384-F-5	Lab Sample ID:	280-159384-5	Worklist Smp#:	20
Client ID:	G0122-8				
Injection Vol:	10.0 ul	Dil. Factor:	5.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



03/23/2022

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220317-109320.b\0023.d
Lims ID: 280-159384-F-6
Client ID: G0123-8
Sample Type: Client
Inject. Date: 17-Mar-2022 18:56:00 ALS Bottle#: 0 Worklist Smp#: 21
Injection Vol: 10.0 ul Dil. Factor: 2.0000
Sample Info: 280-0109320-021
Misc. Info.: 7566
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromfs\Denver\ChromData\WC_IonChrom11\20220317-109320.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 18-Mar-2022 11:01:04 Calib Date: 17-Mar-2022 14:28:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220317-109320.b\0009.d

Column 1 : Det: 0005
Process Host: CTX1628

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.517	2.526	-0.009	973391	0.0993	
2 Chloride	3.700	3.751	-0.051	279346578	15.9	
3 Nitrite as N	4.384	4.467	-0.083	1424602	NC	
4 Bromide	5.534	5.351	0.183	580773	0.1368	
5 Nitrate as N	6.234	6.009	0.225	397329	NC	
7 Orthophosphate as P	9.317	9.101	0.216	1520254	NC	
6 Sulfate	10.250	10.084	0.166	1984904992	168.3	

QC Flag Legend

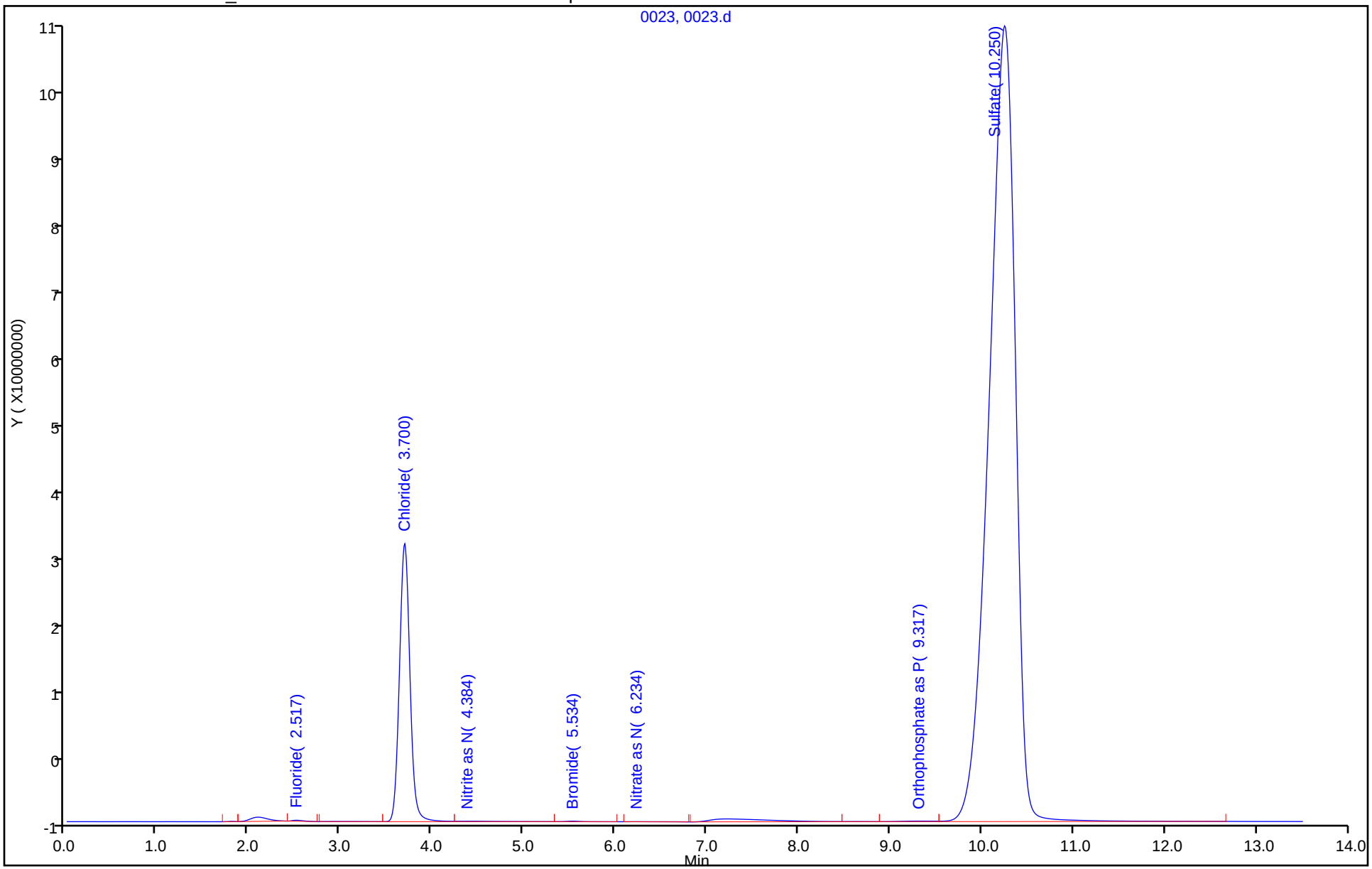
Processing Flags
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Report Date: 18-Mar-2022 11:01:09 Chrom Revision: 2.3 14-Mar-2022 17:58:38

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220317-109320.b\0023.d

Injection Date:	17-Mar-2022 18:56:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-159384-F-6	Lab Sample ID:	280-159384-6	Worklist Smp#:	21
Client ID:	G0123-8				
Injection Vol:	10.0 ul	Dil. Factor:	2.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220317-109320.b\0026.d
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 17-Mar-2022 19:45:00 ALS Bottle#: 0 Worklist Smp#: 24
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0109320-024
Misc. Info.: 15581
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromfs\Denver\ChromData\WC_IonChrom11\20220317-109320.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 18-Mar-2022 11:01:10 Calib Date: 17-Mar-2022 14:28:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220317-109320.b\0009.d

Column 1 : Det: 0005
Process Host: CTX1628

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.517	2.526	-0.009	67269548	5.00	4.91	
2 Chloride	3.726	3.751	-0.025	1766870939	100.0	96.9	
3 Nitrite as N	4.426	4.467	-0.041	146308845	NC	NC	
4 Bromide	5.292	5.351	-0.059	24554299	5.00	4.79	
5 Nitrate as N	5.934	6.009	-0.075	160739547	NC	NC	
7 Orthophosphate as P	8.826	9.101	-0.275	47026669	NC	NC	
6 Sulfate	9.826	10.084	-0.258	1132045234	100.0	96.2	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

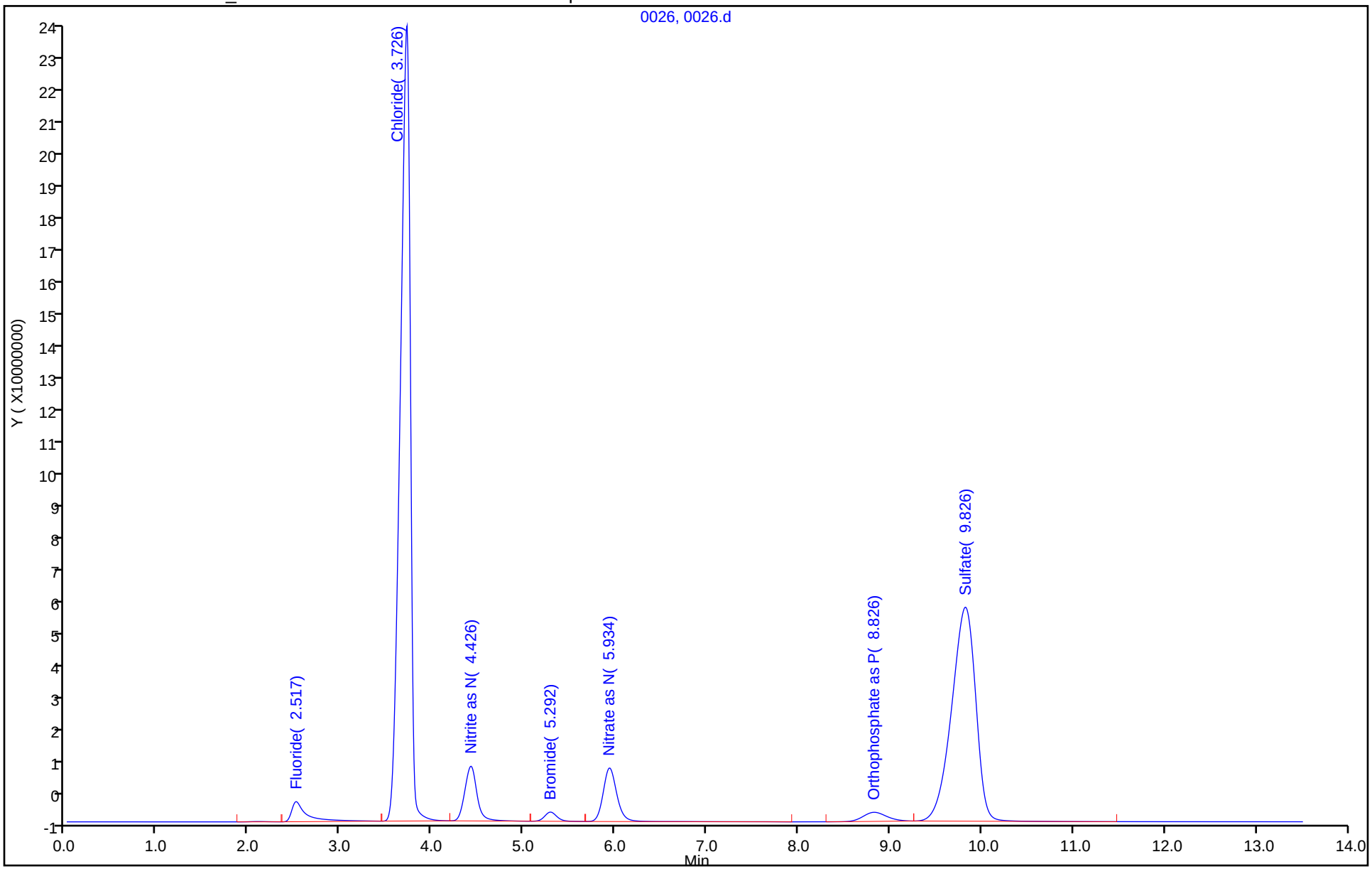
IC LCS_01863 Amount Added: 5.00 Units: mL

Report Date: 18-Mar-2022 11:01:10 Chrom Revision: 2.3 14-Mar-2022 17:58:38

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220317-109320.b\0026.d

Injection Date:	17-Mar-2022 19:45:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccv			Worklist Smp#:	24
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220317-109320.b\0027.d
Lims ID: ccb
Client ID:
Sample Type: CCB
Inject. Date: 17-Mar-2022 20:01:00 ALS Bottle#: 0 Worklist Smp#: 25
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0109320-025
Misc. Info.: 29409
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromfs\Denver\ChromData\WC_IonChrom11\20220317-109320.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 18-Mar-2022 11:01:10 Calib Date: 17-Mar-2022 14:28:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220317-109320.b\0009.d

Column 1 : Det: 0005
Process Host: CTX1628

First Level Reviewer: jindaratc Date: 18-Mar-2022 10:53:05

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride		2.526				ND	U
2 Chloride	3.642	3.751	-0.109	206317		0.7113	M
3 Nitrite as N		4.467				ND	
4 Bromide		5.351				ND	
5 Nitrate as N		6.009				ND	
7 Orthophosphate as P	8.900	9.101	-0.201	349755		NC	
6 Sulfate	9.717	10.084	-0.367	248049		0.6631	

QC Flag Legend

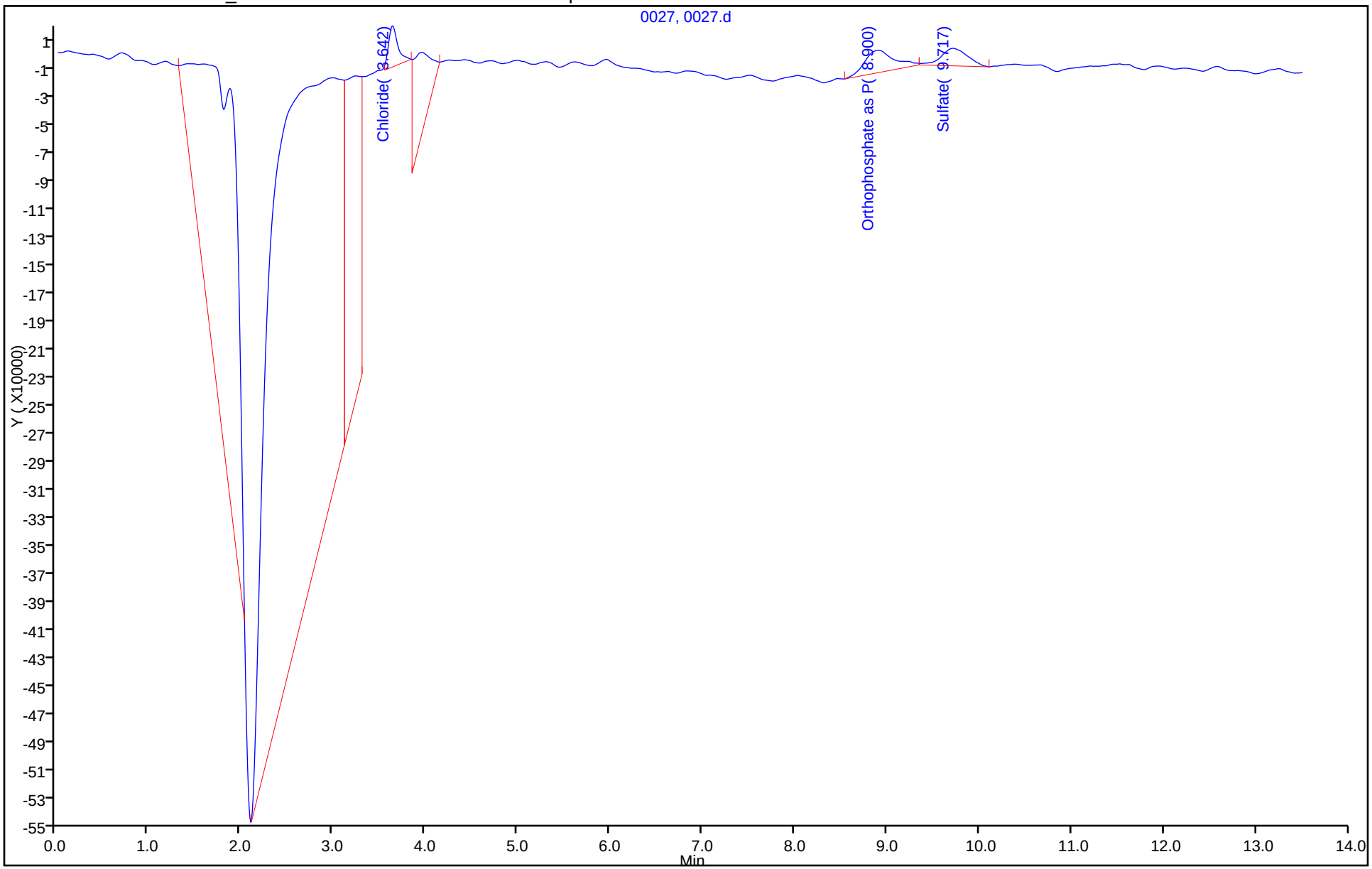
Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated
U - Marked Undetected

Report Date: 18-Mar-2022 11:01:11 Chrom Revision: 2.3 14-Mar-2022 17:58:38

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom11\20220317-109320.b\0027.d

Injection Date:	17-Mar-2022 20:01:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccb			Worklist Smp#:	25
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



	Type	Analysi	Sample Name	Sample ID	Origin	Manual Dilution
1	Standard	NPOC	CAL		NPOC11.2022_03_14_15_53_52.	1.000
2	Unknown	NPOC	ICV		NPOC 2022.met	1.000
3	Unknown	NPOC	ICB		NPOC 2022.met	1.000
4	Unknown	NPOC	LCS		NPOC 2022.met	1.000
5	Unknown	NPOC	MB		NPOC 2022.met	1.000
6	Unknown	NPOC	TIC		NPOC 2022.met	1.000
7	Unknown	NPOC	lcs 280-568571/1-a		NPOC 2022.met	1.000
8	Unknown	NPOC	mb 280-568571/2-a		NPOC 2022.met	1.000
9	Unknown	NPOC	280-159234-m-1-a		NPOC 2022.met	1.000
10	Unknown	NPOC	280-159234-m-2-a		NPOC 2022.met	1.000
11	Unknown	NPOC	280-159234-m-3-a		NPOC 2022.met	1.000
12	Unknown	NPOC	280-159234-m-4-a		NPOC 2022.met	1.000
13	Unknown	NPOC	280-159234-m-5-a		NPOC 2022.met	1.000
14	Unknown	NPOC	280-159234-m-6-a		NPOC 2022.met	1.000
15	Unknown	NPOC	280-159234-m-7-a		NPOC 2022.met	1.000
16	Unknown	NPOC	CCV		NPOC 2022.met	1.000
17	Unknown	NPOC	CCB		NPOC 2022.met	1.000
18	Unknown	NPOC	280-159234-m-7-b ms		NPOC 2022.met	1.000
19	Unknown	NPOC	280-159234-m-7-c msd		NPOC 2022.met	1.000
20	Unknown	NPOC	280-159234-m-8-a		NPOC 2022.met	1.000
21	Unknown	NPOC	280-159234-m-9-a		NPOC 2022.met	1.000
22	Unknown	NPOC	280-159234-m-10-a		NPOC 2022.met	1.000
23	Unknown	NPOC	280-159332-d-1-a		NPOC 2022.met	1.000
24	Unknown	NPOC	280-159332-d-1-b ms		NPOC 2022.met	1.000
25	Unknown	NPOC	280-159332-d-1-c msd		NPOC 2022.met	1.000
26	Unknown	NPOC	280-159332-d-2-a		NPOC 2022.met	1.000
27	Unknown	NPOC	280-159332-d-3		NPOC 2022.met	1.000
28	Unknown	NPOC	CCV		NPOC 2022.met	1.000
29	Unknown	NPOC	CCB		NPOC 2022.met	1.000
30	Unknown	NPOC	280-159332-d-4-a		NPOC 2022.met	1.000
31	Unknown	NPOC	280-159332-d-5-a		NPOC 2022.met	1.000
32	Unknown	NPOC	280-159332-d-6-a		NPOC 2022.met	1.000
33	Unknown	NPOC	280-159332-d-7-a		NPOC 2022.met	1.000
34	Unknown	NPOC	280-159332-d-8-a		NPOC 2022.met	1.000
35	Unknown	NPOC	280-159332-d-9-a		NPOC 2022.met	1.000
36	Unknown	NPOC	280-159332-d-10-a		NPOC 2022.met	1.000
37	Unknown	NPOC	280-159332-d-11-a		NPOC 2022.met	1.000
38	Unknown	NPOC	280-159332-d-12-a		NPOC 2022.met	1.000
39	Unknown	NPOC	280-159332-d-13-a		NPOC 2022.met	1.000
40	Unknown	NPOC	CCV		NPOC 2022.met	1.000
41	Unknown	NPOC	CCB		NPOC 2022.met	1.000
42	Unknown	NPOC	280-159332-d-13-b ms		NPOC 2022.met	1.000
43	Unknown	NPOC	280-159332-d-13-c ms		NPOC 2022.met	1.000
44	Unknown	NPOC	CCV		NPOC 2022.met	1.000
45	Unknown	NPOC	CCB		NPOC 2022.met	1.000

	Result	Notes	Status	Date / Time	Vial
1		Cal Curve OK	Completed	3/14/2022 4:54:43 PM	90, 91, 91, 92, 92, 93
2	NPOC:20.28mg/L		Completed	3/14/2022 5:09:02 PM	1
3	NPOC:0.08539mg/L		Completed	3/14/2022 5:25:20 PM	2
4	NPOC:24.77mg/L		Completed	3/14/2022 5:39:46 PM	3
5	NPOC:0.05641mg/L		Completed	3/14/2022 5:58:10 PM	4
6	NPOC:0.04026mg/L		Completed	3/14/2022 6:12:16 PM	5
7	NPOC:25.68mg/L		Completed	3/14/2022 6:26:27 PM	6
8	NPOC:0.2042mg/L		Completed	3/14/2022 6:42:45 PM	7
9	NPOC:7.261mg/L		Completed	3/14/2022 7:01:06 PM	8
10	NPOC:3.134mg/L		Completed	3/14/2022 7:19:22 PM	9
11	NPOC:3.456mg/L		Completed	3/14/2022 7:33:28 PM	10
12	NPOC:5.057mg/L		Completed	3/14/2022 7:51:52 PM	11
13	NPOC:2.966mg/L		Completed	3/14/2022 8:10:36 PM	12
14	NPOC:3.614mg/L		Completed	3/14/2022 8:29:32 PM	13
15	NPOC:1.378mg/L		Completed	3/14/2022 8:47:54 PM	14
16	NPOC:24.36mg/L		Completed	3/14/2022 9:06:19 PM	15
17	NPOC:0.06800mg/L		Completed	3/14/2022 9:31:16 PM	16
18	NPOC:25.25mg/L		Completed	3/14/2022 9:49:53 PM	17
19	NPOC:25.90mg/L		Completed	3/14/2022 10:04:18 PM	18
20	NPOC:3.443mg/L		Completed	3/14/2022 10:20:32 PM	19
21	NPOC:3.296mg/L		Completed	3/14/2022 10:38:53 PM	20
22	NPOC:3.203mg/L		Completed	3/14/2022 10:57:09 PM	21
23	NPOC:5.887mg/L		Completed	3/14/2022 11:11:19 PM	22
24	NPOC:30.10mg/L		Completed	3/14/2022 11:30:07 PM	23
25	NPOC:29.85mg/L		Completed	3/14/2022 11:48:24 PM	24
26	NPOC:3.834mg/L		Completed	3/15/2022 12:06:41 AM	25
27	NPOC:3.576mg/L		Completed	3/15/2022 12:25:07 AM	26
28	NPOC:25.21mg/L		Completed	3/15/2022 12:39:27 AM	27
29	NPOC:0.08879mg/L		Completed	3/15/2022 12:53:44 AM	28
30	NPOC:6.115mg/L		Completed	3/15/2022 1:08:02 AM	29
31	NPOC:6.291mg/L		Completed	3/15/2022 1:26:25 AM	30
32	NPOC:3.950mg/L		Completed	3/15/2022 1:42:38 AM	31
33	NPOC:4.486mg/L		Completed	3/15/2022 2:01:00 AM	32
34	NPOC:3.078mg/L		Completed	3/15/2022 2:19:46 AM	33
35	NPOC:6.446mg/L		Completed	3/15/2022 2:38:23 AM	34
36	NPOC:22.41mg/L		Completed	3/15/2022 2:55:03 AM	35
37	NPOC:7.412mg/L		Completed	3/15/2022 3:09:16 AM	36
38	NPOC:7.230mg/L		Completed	3/15/2022 3:27:52 AM	37
39	NPOC:2.191mg/L		Completed	3/15/2022 3:46:16 AM	38
40	NPOC:25.33mg/L		Completed	3/15/2022 4:00:33 AM	39
41	NPOC:0.08737mg/L		Completed	3/15/2022 4:14:50 AM	40
42	NPOC:27.27mg/L		Completed	3/15/2022 4:29:08 AM	41
43	NPOC:26.80mg/L		Completed	3/15/2022 4:43:24 AM	42
44	NPOC:25.45mg/L		Completed	3/15/2022 4:57:34 AM	43
45	NPOC:-0.00468mg/L		Completed	3/15/2022 5:14:03 AM	44

TOC-L Cal Curve Information
C:\TOC-L\CalCurves\NPOC11.2022 03 14 15 53 52.cal

Date of Creation 3/14/2022 4:54:43 PM
User H
System TOC-LCSN

Cal. Curve

Sample Name: CAL
Sample ID:
Object ID 0L-10900100866-10101000-134899A253D4-0000
Cal. Curve: NPOC11.2022_03_14_15_53_52.cal
Status Completed
Comment:

Type	Anal.
Standard	NPOC

Conc: 0.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	0.1367	50uL	1.000	*******		3/14/2022 4:01:09 PM
2	0.1047	50uL	1.000	*******		3/14/2022 4:03:18 PM

Acid Add. 1.500%
Sparge Gas Flow 80mL/min
Sp. Time 90.00sec
Mean Area 0.1207
SD Area 0.02263
CV Area 18.75%
Vial 90
No Washes 2

Conc: 1.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	2.048	50uL	50.00	*******		3/14/2022 4:11:59 PM
2	2.033	50uL	50.00	*******		3/14/2022 4:14:08 PM

Acid Add. 1.500%
Sparge Gas Flow 80mL/min
Sp. Time 90.00sec
Mean Area 2.040
SD Area 0.01061
CV Area 0.52%
Vial 91
No Washes 2

Conc: 5.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	10.55	50uL	10.00	*******		3/14/2022 4:21:44 PM
2	10.42	50uL	10.00	*******		3/14/2022 4:23:58 PM

Acid Add. 1.500%
Sparge Gas Flow 80mL/min
Sp. Time 90.00sec
Mean Area 10.48
SD Area 0.09192
CV Area 0.88%
Vial 91
No Washes 2

Conc: 10.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	20.82	50uL	5.000	*******		3/14/2022 4:32:41 PM
2	20.74	50uL	5.000	*******		3/14/2022 4:34:50 PM

Acid Add.	1.500%
Sparge Gas Flow	80mL/min
Sp. Time	90.00sec
Mean Area	20.78
SD Area	0.05657
CV Area	0.27%
Vial	92
No Washes	2

Conc: 25.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	52.01	50uL	2.000	*******		3/14/2022 4:42:26 PM
2	51.51	50uL	2.000	*******		3/14/2022 4:44:35 PM

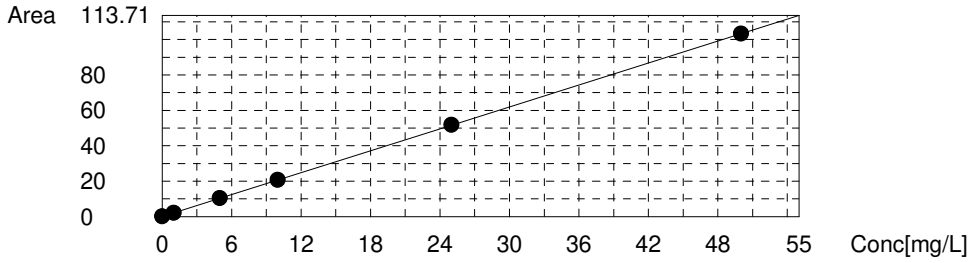
Acid Add.	1.500%
Sparge Gas Flow	80mL/min
Sp. Time	90.00sec
Mean Area	51.76
SD Area	0.3536
CV Area	0.68%
Vial	92
No Washes	2

Conc: 50.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	103.2	50uL	1.000	*******		3/14/2022 4:52:38 PM
2	103.5	50uL	1.000	*******		3/14/2022 4:54:43 PM

Acid Add.	1.500%
Sparge Gas Flow	80mL/min
Sp. Time	90.00sec
Mean Area	103.3
SD Area	0.2121
CV Area	0.21%
Vial	93
No Washes	2

Slope:	2.066
Intercept	0.09519
r^2	1.0000
r	1.0000
RSE(%)	N/A
Zero Shift	No



Instr.Information

Instrument Options	TOC/ASI/
Catalyst	Regular Sensitivity

Cal. Curve

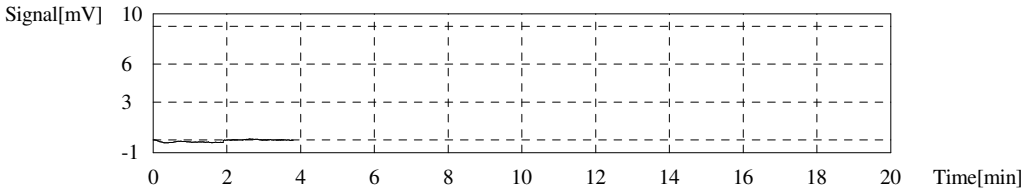
Sample Name:	CAL
Sample ID:	
Cal. Curve:	NPOC11.2022_03_14_15_53_52.cal
Status	Completed

Type	Anal.
Standard	NPOC

Conc: 0.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	0.1367	50uL	1.000	*******		3/14/2022 4:01:09 PM
2	0.1047	50uL	1.000	*******		3/14/2022 4:03:18 PM

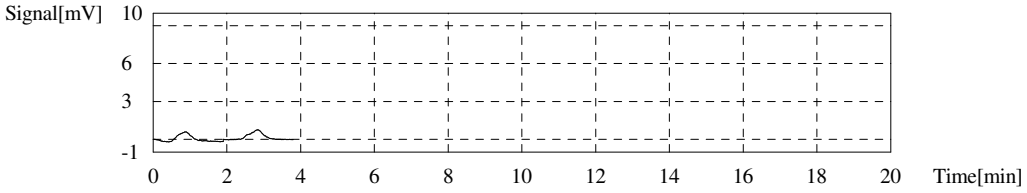
Acid Add.	1.500%
Sparge Gas Flow	80mL/min
Sp. Time	90.00sec
Mean Area	0.1207



Conc: 1.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	2.048	50uL	50.00	*******		3/14/2022 4:11:59 PM
2	2.033	50uL	50.00	*******		3/14/2022 4:14:08 PM

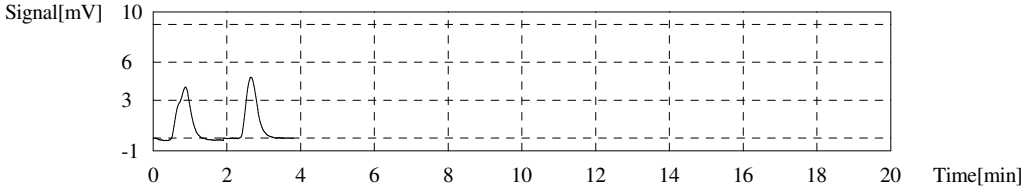
Acid Add.	1.500%
Sparge Gas Flow	80mL/min
Sp. Time	90.00sec
Mean Area	2.040



Conc: 5.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	10.55	50uL	10.00	*******		3/14/2022 4:21:44 PM
2	10.42	50uL	10.00	*******		3/14/2022 4:23:58 PM

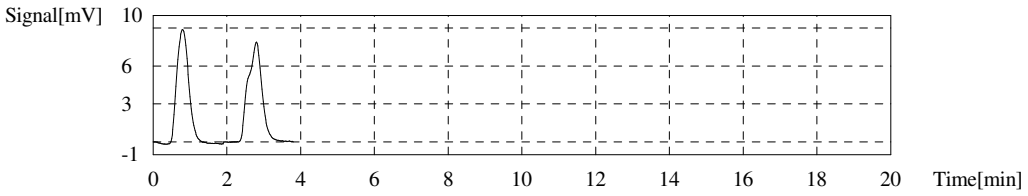
Acid Add.	1.500%
Sparge Gas Flow	80mL/min
Sp. Time	90.00sec
Mean Area	10.48



Conc: 10.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	20.82	50uL	5.000	*******		3/14/2022 4:32:41 PM
2	20.74	50uL	5.000	*******		3/14/2022 4:34:50 PM

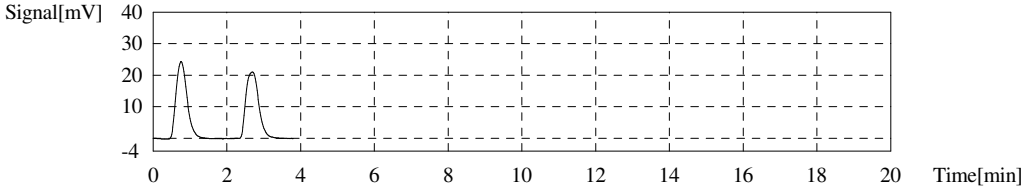
Acid Add. 1.500%
Sparge Gas Flow 80mL/min
Sp. Time 90.00sec
Mean Area 20.78



Conc: 25.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	52.01	50uL	2.000	*******		3/14/2022 4:42:26 PM
2	51.51	50uL	2.000	*******		3/14/2022 4:44:35 PM

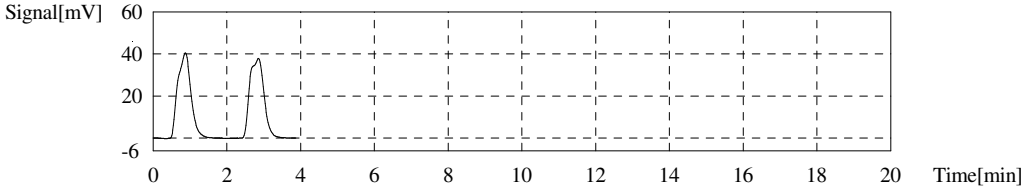
Acid Add. 1.500%
Sparge Gas Flow 80mL/min
Sp. Time 90.00sec
Mean Area 51.76



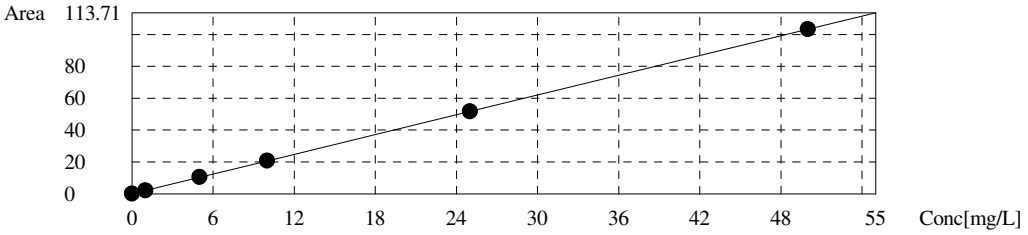
Conc: 50.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	103.2	50uL	1.000	*******		3/14/2022 4:52:38 PM
2	103.5	50uL	1.000	*******		3/14/2022 4:54:43 PM

Acid Add. 1.500%
Sparge Gas Flow 80mL/min
Sp. Time 90.00sec
Mean Area 103.3



Slope: 2.066
Intercept 0.09519
r^2 1.0000
r 1.0000
RSE(%) N/A
Zero Shift No



Sample

Sample Name: ICV
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

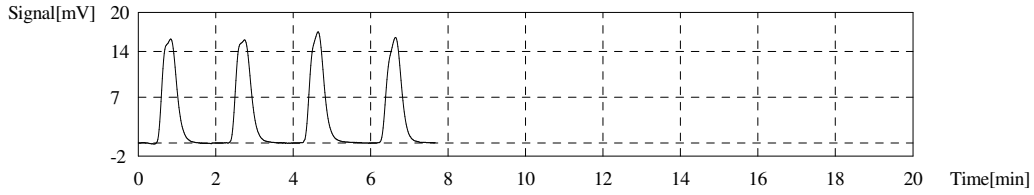
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:20.28mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	41.52	20.06mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/14/2022 5:02:39 PM
2	42.29	20.43mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/14/2022 5:04:48 PM
3	42.70	20.63mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/14/2022 5:06:57 PM
4	41.41	20.00mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/14/2022 5:09:02 PM

Mean Area 41.98
Mean Conc. 20.28mg/L



Sample

Sample Name: ICB
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

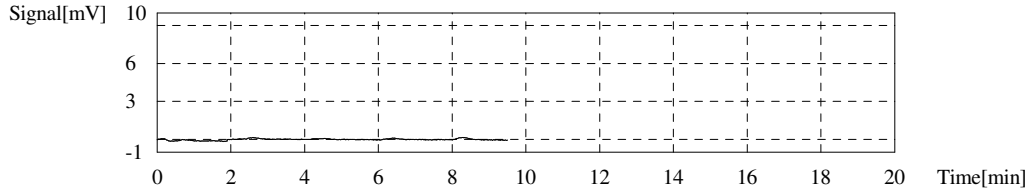
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.08539mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.2397	0.06996mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/14/2022 5:16:56 PM
2	0.1806	0.04135mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/14/2022 5:19:05 PM
3	0.000	-0.04609mg/L	50uL	1.000	E	NPOC11.2022_03_14_15_53_52.cal	3/14/2022 5:21:10 PM
4	0.2943	0.09639mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/14/2022 5:23:15 PM
5	0.3717	0.1339mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/14/2022 5:25:20 PM

Mean Area 0.2716
Mean Conc. 0.08539mg/L



Sample

Sample Name: LCS
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

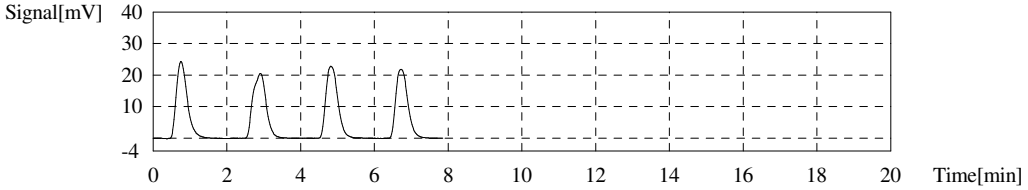
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:24.77mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	51.69	24.98mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/14/2022 5:33:21 PM
2	51.62	24.94mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/14/2022 5:35:36 PM
3	51.82	25.04mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/14/2022 5:37:41 PM
4	49.93	24.13mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/14/2022 5:39:46 PM

Mean Area 51.27
Mean Conc. 24.77mg/L



Sample

Sample Name: MB
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

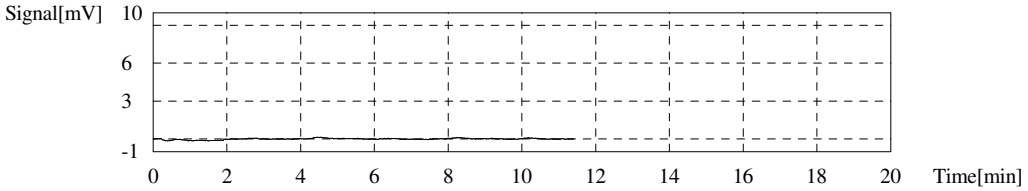
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.05641mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.1486	0.02586mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/14/2022 5:47:40 PM
2	0.000	-0.04609mg/L	50uL	1.000	E	NPOC11.2022_03_14_15_53_52.cal	3/14/2022 5:49:50 PM
3	0.2599	0.07974mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/14/2022 5:51:55 PM
4	0.000	-0.04609mg/L	50uL	1.000	E	NPOC11.2022_03_14_15_53_52.cal	3/14/2022 5:54:00 PM
5	0.1967	0.04914mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/14/2022 5:56:05 PM
6	0.2416	0.07088mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/14/2022 5:58:10 PM

Mean Area 0.2117
Mean Conc. 0.05641mg/L



Sample

Sample Name: TIC
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

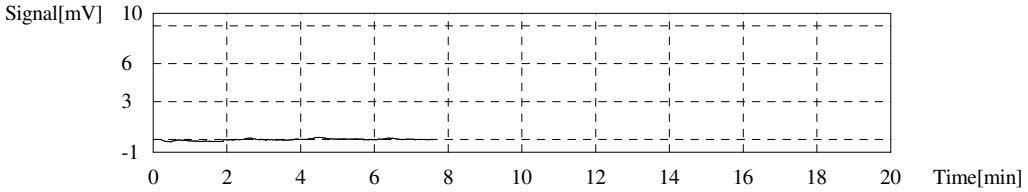
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.04026mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.1756	0.03893mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/14/2022 6:05:57 PM
2	0.1853	0.04362mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/14/2022 6:08:06 PM
3	0.2672	0.08327mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/14/2022 6:10:11 PM
4	0.08530	-0.00479mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/14/2022 6:12:16 PM

Mean Area 0.1784
Mean Conc. 0.04026mg/L



Sample

Sample Name: lcs 280-568571/1-a
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

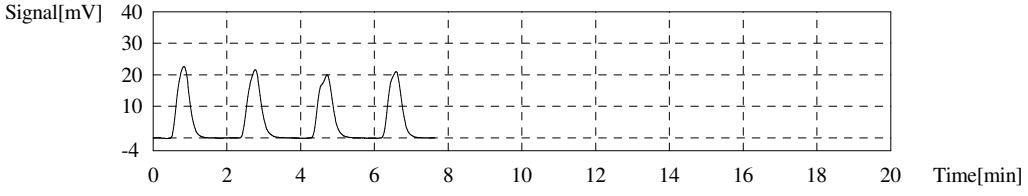
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:25.68mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	53.44	25.83mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/14/2022 6:20:10 PM
2	53.53	25.87mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/14/2022 6:22:17 PM
3	53.31	25.76mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/14/2022 6:24:22 PM
4	52.26	25.25mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/14/2022 6:26:27 PM

Mean Area 53.14
Mean Conc. 25.68mg/L



Sample

Sample Name: mb 280-568571/2-a
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

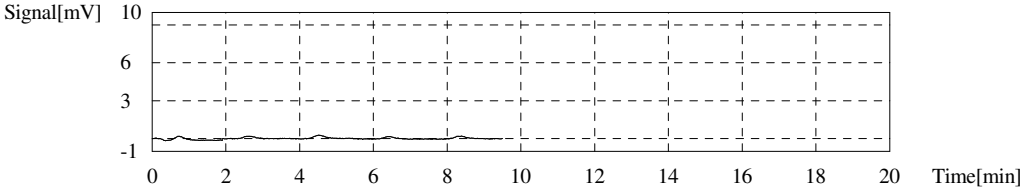
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.2042mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.6273	0.2576mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/14/2022 6:34:21 PM
2	0.4307	0.1624mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/14/2022 6:36:30 PM
3	0.5371	0.2139mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/14/2022 6:38:35 PM
4	0.2991	0.09872mg/L	50uL	1.000	E	NPOC11.2022_03_14_15_53_52.cal	3/14/2022 6:40:40 PM
5	0.4726	0.1827mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/14/2022 6:42:45 PM

Mean Area 0.5169
Mean Conc. 0.2042mg/L



Sample

Sample Name: 280-159234-m-1-a
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

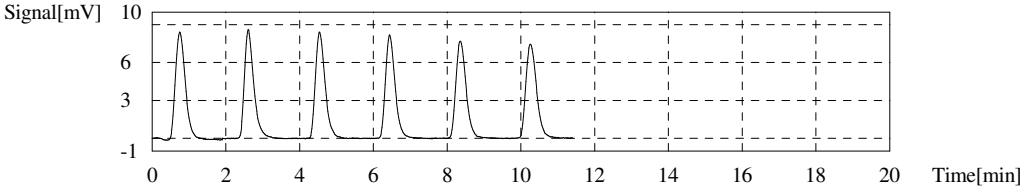
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:7.261mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	16.25	7.821mg/L	50uL	1.000	E	NPOC11.2022_03_14_15_53_52.cal	3/14/2022 6:50:37 PM
2	15.38	7.400mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/14/2022 6:52:46 PM
3	15.54	7.477mg/L	50uL	1.000	E	NPOC11.2022_03_14_15_53_52.cal	3/14/2022 6:54:51 PM
4	14.88	7.158mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/14/2022 6:56:56 PM
5	14.97	7.201mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/14/2022 6:59:01 PM
6	15.14	7.284mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/14/2022 7:01:06 PM

Mean Area 15.09
Mean Conc. 7.261mg/L



Sample

Sample Name: 280-159234-m-2-a
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

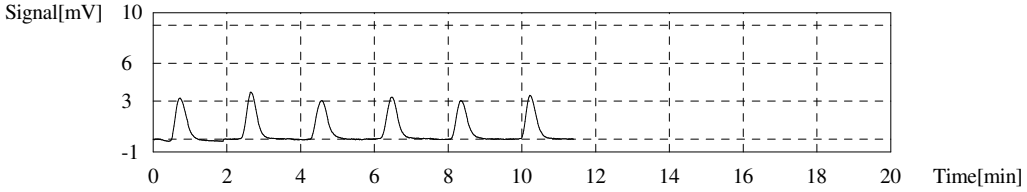
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:3.134mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.204	3.442mg/L	50uL	1.000	E	NPOC11.2022_03_14_15_53_52.cal	3/14/2022 7:08:53 PM
2	7.039	3.362mg/L	50uL	1.000	E	NPOC11.2022_03_14_15_53_52.cal	3/14/2022 7:11:02 PM
3	6.676	3.186mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/14/2022 7:13:07 PM
4	6.674	3.185mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/14/2022 7:15:12 PM
5	6.353	3.030mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/14/2022 7:17:17 PM
6	6.572	3.136mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/14/2022 7:19:22 PM

Mean Area 6.569
Mean Conc. 3.134mg/L



Sample

Sample Name: 280-159234-m-3-a
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

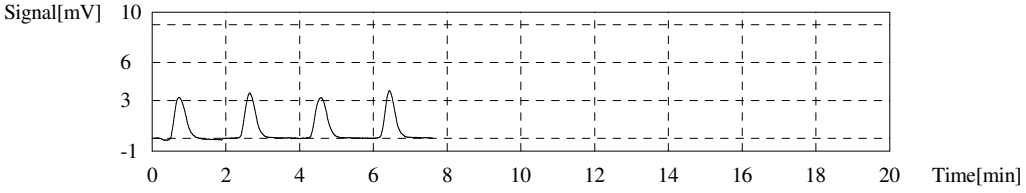
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:3.456mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.441	3.556mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/14/2022 7:27:09 PM
2	7.148	3.414mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/14/2022 7:29:18 PM
3	7.174	3.427mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/14/2022 7:31:23 PM
4	7.171	3.426mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/14/2022 7:33:28 PM

Mean Area 7.234
Mean Conc. 3.456mg/L



Sample

Sample Name: 280-159234-m-4-a
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

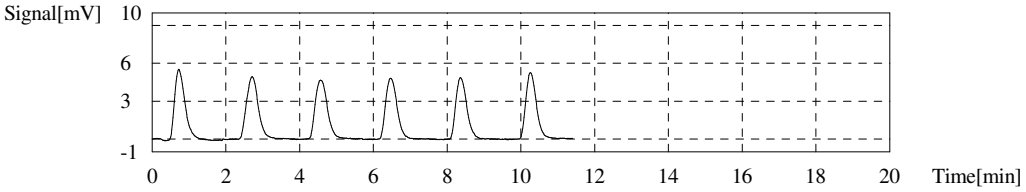
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:5.057mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	11.34	5.444mg/L	50uL	1.000	E	NPOC11.2022_03_14_15_53_52.cal	3/14/2022 7:41:22 PM
2	11.14	5.347mg/L	50uL	1.000	E	NPOC11.2022_03_14_15_53_52.cal	3/14/2022 7:43:31 PM
3	10.68	5.124mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/14/2022 7:45:37 PM
4	10.53	5.052mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/14/2022 7:47:42 PM
5	10.29	4.936mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/14/2022 7:49:47 PM
6	10.66	5.115mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/14/2022 7:51:52 PM

Mean Area 10.54
Mean Conc. 5.057mg/L



Sample

Sample Name: 280-159234-m-5-a
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

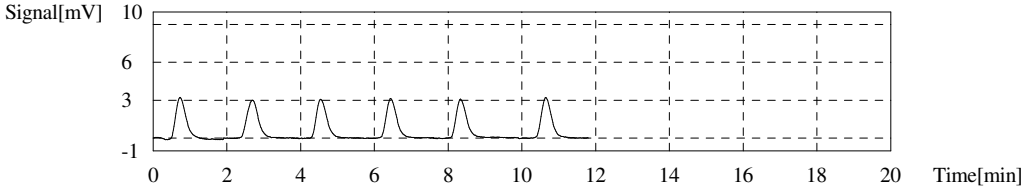
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:2.966mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.678	3.187mg/L	50uL	1.000	E	NPOC11.2022_03_14_15_53_52.cal	3/14/2022 7:59:39 PM
2	6.608	3.153mg/L	50uL	1.000	E	NPOC11.2022_03_14_15_53_52.cal	3/14/2022 8:01:48 PM
3	6.035	2.876mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/14/2022 8:03:53 PM
4	6.184	2.948mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/14/2022 8:05:58 PM
5	6.401	3.053mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/14/2022 8:08:27 PM
6	6.267	2.988mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/14/2022 8:10:36 PM

Mean Area 6.222
Mean Conc. 2.966mg/L



Sample

Sample Name: 280-159234-m-6-a
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

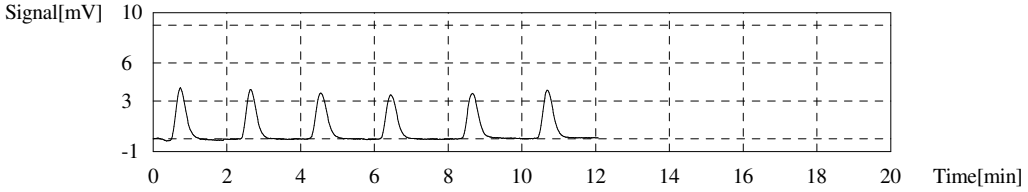
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:3.614mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	8.217	3.932mg/L	50uL	1.000	E	NPOC11.2022_03_14_15_53_52.cal	3/14/2022 8:18:23 PM
2	7.431	3.552mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/14/2022 8:20:32 PM
3	7.790	3.725mg/L	50uL	1.000	E	NPOC11.2022_03_14_15_53_52.cal	3/14/2022 8:22:37 PM
4	7.470	3.570mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/14/2022 8:25:00 PM
5	7.663	3.664mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/14/2022 8:27:14 PM
6	7.678	3.671mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/14/2022 8:29:32 PM

Mean Area 7.561
Mean Conc. 3.614mg/L



Sample

Sample Name: 280-159234-m-7-a
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

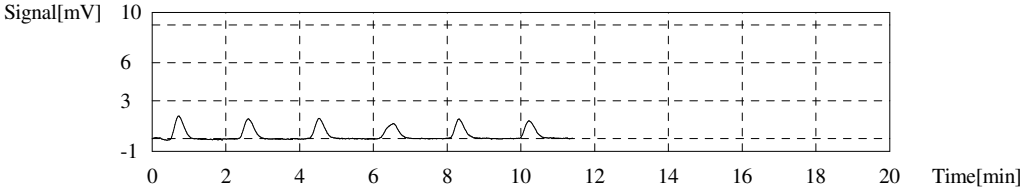
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.378mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3.400	1.600mg/L	50uL	1.000	E	NPOC11.2022_03_14_15_53_52.cal	3/14/2022 8:37:19 PM
2	3.054	1.432mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/14/2022 8:39:29 PM
3	3.016	1.414mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/14/2022 8:41:34 PM
4	2.875	1.346mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/14/2022 8:43:39 PM
5	2.824	1.321mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/14/2022 8:45:44 PM
6	2.697	1.260mg/L	50uL	1.000	E	NPOC11.2022_03_14_15_53_52.cal	3/14/2022 8:47:54 PM

Mean Area 2.942
Mean Conc. 1.378mg/L



Sample

Sample Name: CCV
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

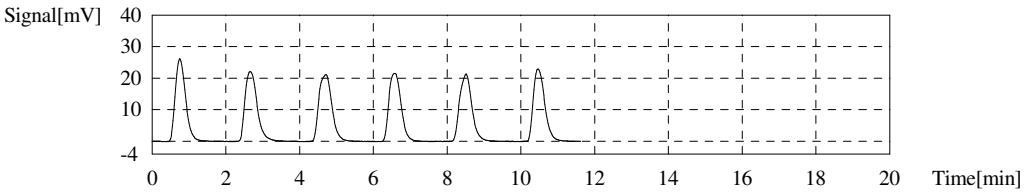
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:24.36mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	52.26	25.25mg/L	50uL	1.000	E	NPOC11.2022_03_14_15_53_52.cal	3/14/2022 8:55:41 PM
2	51.38	24.83mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/14/2022 8:57:51 PM
3	52.71	25.47mg/L	50uL	1.000	E	NPOC11.2022_03_14_15_53_52.cal	3/14/2022 8:59:56 PM
4	50.01	24.17mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/14/2022 9:02:01 PM
5	49.99	24.16mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/14/2022 9:04:14 PM
6	50.26	24.29mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/14/2022 9:06:19 PM

Mean Area 50.41
Mean Conc. 24.36mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

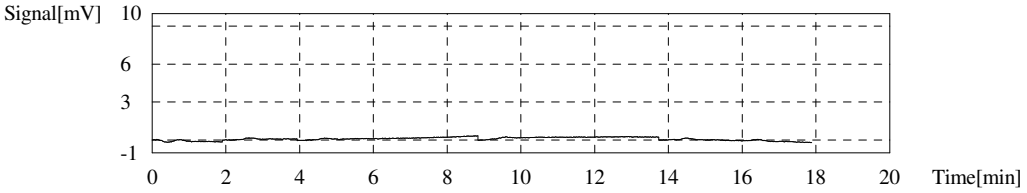
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.06800mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.2930	0.09577mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/14/2022 9:14:06 PM
2	0.3385	0.1178mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/14/2022 9:16:23 PM
3	0.000	-0.04609mg/L	50uL	1.000	E	NPOC11.2022_03_14_15_53_52.cal	3/14/2022 9:21:32 PM
4	2.478	1.154mg/L	50uL	1.000	E	NPOC11.2022_03_14_15_53_52.cal	3/14/2022 9:26:41 PM
5	0.2133	0.05718mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/14/2022 9:28:50 PM
6	0.09780	0.00126mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/14/2022 9:31:16 PM

Mean Area 0.2357
Mean Conc. 0.06800mg/L



Sample

Sample Name: 280-159234-m-7-b ms
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

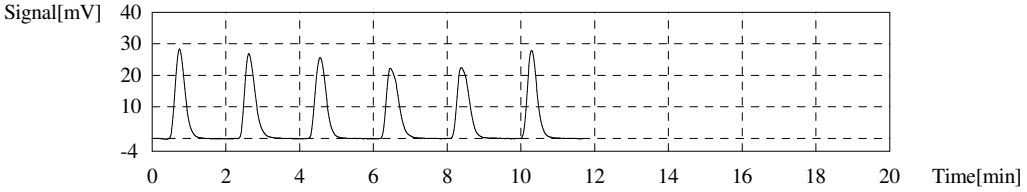
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:25.25mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	53.99	26.09mg/L	50uL	1.000	E	NPOC11.2022_03_14_15_53_52.cal	3/14/2022 9:39:03 PM
2	54.18	26.18mg/L	50uL	1.000	E	NPOC11.2022_03_14_15_53_52.cal	3/14/2022 9:41:12 PM
3	53.42	25.82mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/14/2022 9:43:20 PM
4	51.69	24.98mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/14/2022 9:45:25 PM
5	51.61	24.94mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/14/2022 9:47:30 PM
6	52.26	25.25mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/14/2022 9:49:53 PM

Mean Area 52.25
Mean Conc. 25.25mg/L



Sample

Sample Name: 280-159234-m-7-c msd
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

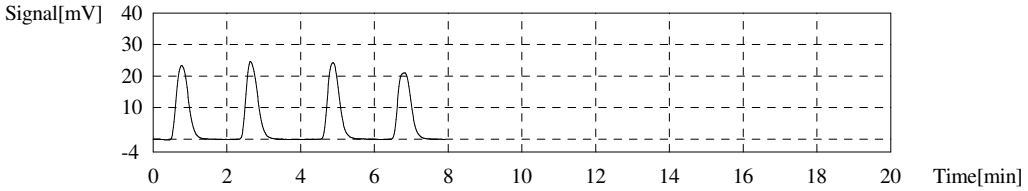
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:25.90mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	53.75	25.98mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/14/2022 9:57:40 PM
2	54.57	26.37mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/14/2022 10:00:04 PM
3	53.72	25.96mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/14/2022 10:02:13 PM
4	52.35	25.30mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/14/2022 10:04:18 PM

Mean Area 53.60
Mean Conc. 25.90mg/L



Sample

Sample Name: 280-159234-m-8-a
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

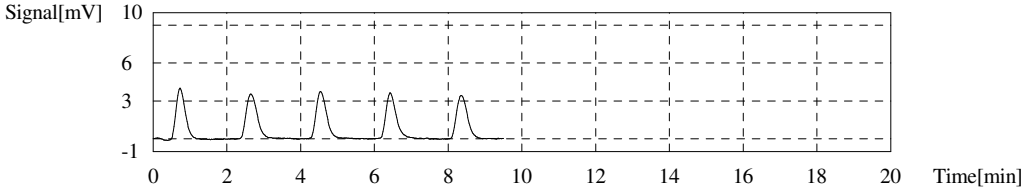
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:3.443mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.247	3.462mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/14/2022 10:12:12 PM
2	7.528	3.598mg/L	50uL	1.000	E	NPOC11.2022_03_14_15_53_52.cal	3/14/2022 10:14:17 PM
3	7.248	3.463mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/14/2022 10:16:22 PM
4	7.117	3.399mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/14/2022 10:18:27 PM
5	7.219	3.449mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/14/2022 10:20:32 PM

Mean Area 7.208
Mean Conc. 3.443mg/L



Sample

Sample Name: 280-159234-m-9-a
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

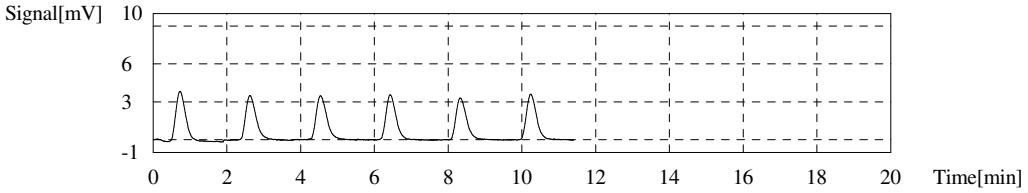
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:3.296mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.401	3.537mg/L	50uL	1.000	E	NPOC11.2022_03_14_15_53_52.cal	3/14/2022 10:28:24 PM
2	7.020	3.353mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/14/2022 10:30:33 PM
3	6.966	3.326mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/14/2022 10:32:38 PM
4	6.785	3.239mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/14/2022 10:34:43 PM
5	6.456	3.079mg/L	50uL	1.000	E	NPOC11.2022_03_14_15_53_52.cal	3/14/2022 10:36:48 PM
6	6.840	3.265mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/14/2022 10:38:53 PM

Mean Area 6.903
Mean Conc. 3.296mg/L



Sample

Sample Name: 280-159234-m-10-a
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

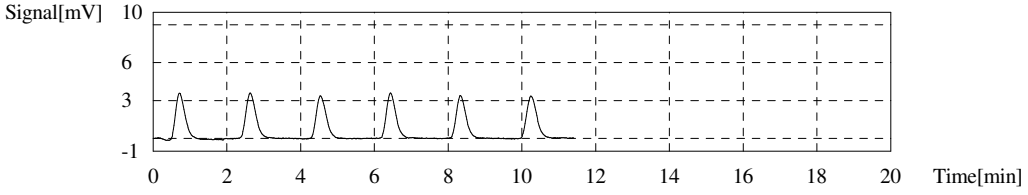
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:3.203mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.835	3.263mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/14/2022 10:46:40 PM
2	6.816	3.254mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/14/2022 10:48:49 PM
3	6.402	3.053mg/L	50uL	1.000	E	NPOC11.2022_03_14_15_53_52.cal	3/14/2022 10:50:54 PM
4	6.592	3.145mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/14/2022 10:52:59 PM
5	6.186	2.949mg/L	50uL	1.000	E	NPOC11.2022_03_14_15_53_52.cal	3/14/2022 10:55:04 PM
6	6.605	3.152mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/14/2022 10:57:09 PM

Mean Area 6.712
Mean Conc. 3.203mg/L



Sample

Sample Name: 280-159332-d-1-a
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

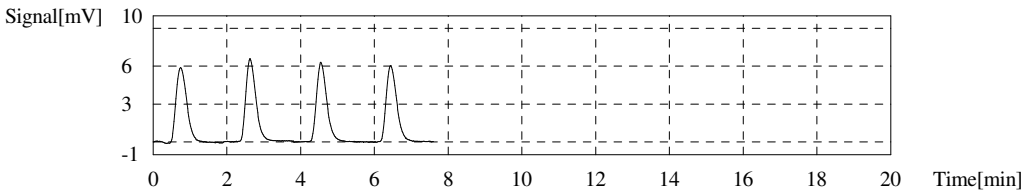
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:5.887mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	12.35	5.933mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/14/2022 11:04:57 PM
2	12.33	5.923mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/14/2022 11:07:05 PM
3	12.18	5.851mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/14/2022 11:09:14 PM
4	12.16	5.841mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/14/2022 11:11:19 PM

Mean Area 12.25
Mean Conc. 5.887mg/L



Sample

Sample Name: 280-159332-d-1-b ms
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

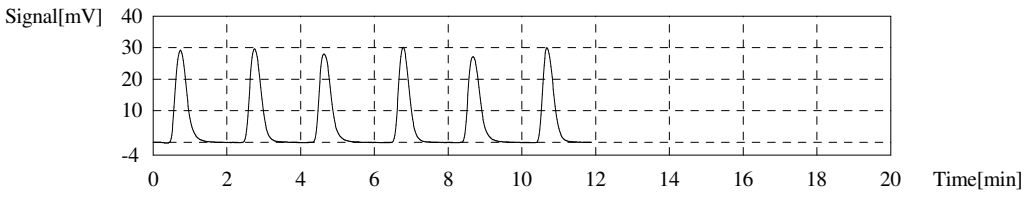
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:30.10mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	65.20	31.52mg/L	50uL	1.000	E	NPOC11.2022_03_14_15_53_52.cal	3/14/2022 11:19:19 PM
2	64.28	31.07mg/L	50uL	1.000	E	NPOC11.2022_03_14_15_53_52.cal	3/14/2022 11:21:24 PM
3	63.53	30.71mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/14/2022 11:23:43 PM
4	61.64	29.80mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/14/2022 11:25:48 PM
5	61.92	29.93mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/14/2022 11:28:00 PM
6	61.97	29.96mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/14/2022 11:30:07 PM

Mean Area 62.27
Mean Conc. 30.10mg/L



Sample

Sample Name: 280-159332-d-1-c msd
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

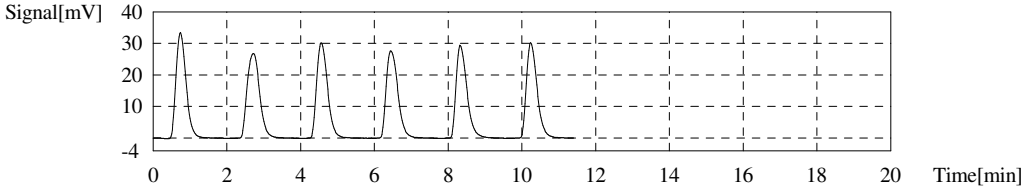
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:29.85mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	64.84	31.35mg/L	50uL	1.000	E	NPOC11.2022_03_14_15_53_52.cal	3/14/2022 11:37:55 PM
2	64.14	31.01mg/L	50uL	1.000	E	NPOC11.2022_03_14_15_53_52.cal	3/14/2022 11:40:00 PM
3	62.77	30.34mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/14/2022 11:42:05 PM
4	61.63	29.79mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/14/2022 11:44:10 PM
5	60.91	29.44mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/14/2022 11:46:15 PM
6	61.73	29.84mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/14/2022 11:48:24 PM

Mean Area 61.76
Mean Conc. 29.85mg/L



Sample

Sample Name: 280-159332-d-2-a
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

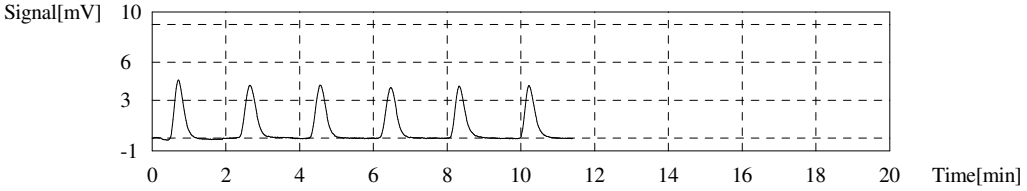
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:3.834mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	8.480	4.059mg/L	50uL	1.000	E	NPOC11.2022_03_14_15_53_52.cal	3/14/2022 11:56:12 PM
2	8.691	4.162mg/L	50uL	1.000	E	NPOC11.2022_03_14_15_53_52.cal	3/14/2022 11:58:21 PM
3	8.258	3.952mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 12:00:26 AM
4	8.004	3.829mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 12:02:31 AM
5	7.874	3.766mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 12:04:36 AM
6	7.921	3.789mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 12:06:41 AM

Mean Area 8.014
Mean Conc. 3.834mg/L



Sample

Sample Name: 280-159332-d-3
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

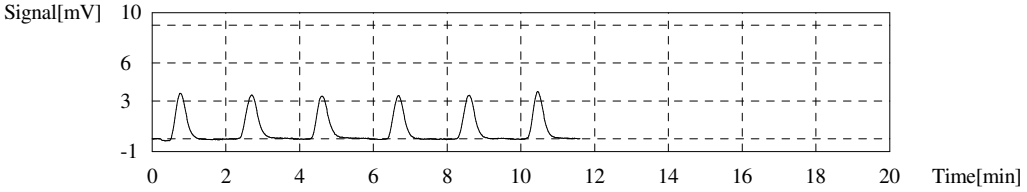
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:3.576mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.633	3.649mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 12:14:29 AM
2	7.902	3.780mg/L	50uL	1.000	E	NPOC11.2022_03_14_15_53_52.cal	3/15/2022 12:16:36 AM
3	7.482	3.576mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 12:18:51 AM
4	7.079	3.381mg/L	50uL	1.000	E	NPOC11.2022_03_14_15_53_52.cal	3/15/2022 12:20:57 AM
5	7.301	3.489mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 12:23:02 AM
6	7.508	3.589mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 12:25:07 AM

Mean Area 7.481
Mean Conc. 3.576mg/L



Sample

Sample Name: CCV
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

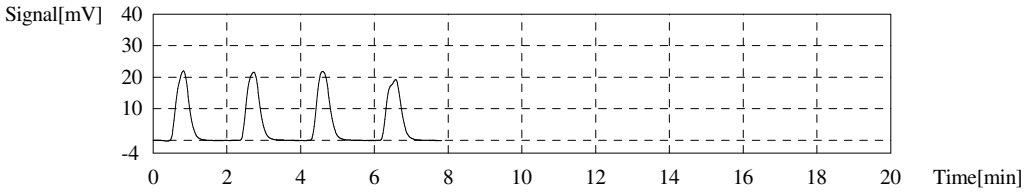
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:25.21mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	52.38	25.31mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 12:32:55 AM
2	52.27	25.26mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 12:35:04 AM
3	52.54	25.39mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 12:37:09 AM
4	51.51	24.89mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 12:39:27 AM

Mean Area 52.17
Mean Conc. 25.21mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

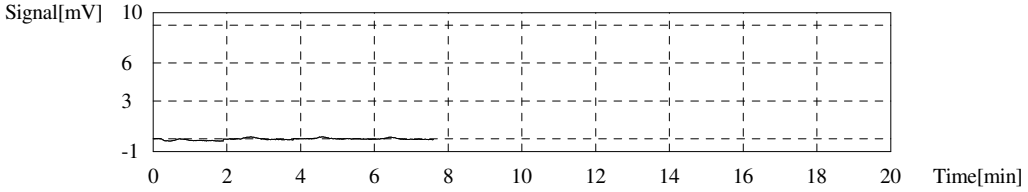
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.08879mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.2583	0.07897mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 12:47:21 AM
2	0.3375	0.1173mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 12:49:30 AM
3	0.2324	0.06643mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 12:51:39 AM
4	0.2862	0.09247mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 12:53:44 AM

Mean Area 0.2786
Mean Conc. 0.08879mg/L



Sample

Sample Name: 280-159332-d-4-a
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

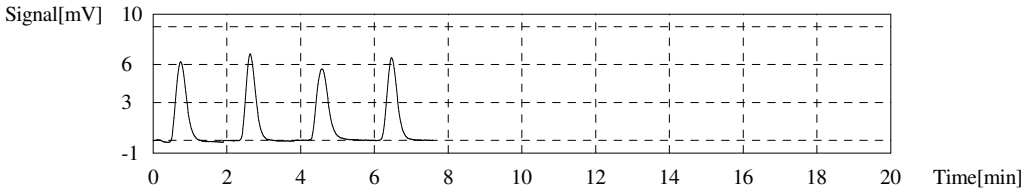
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:6.115mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	12.90	6.199mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 1:01:38 AM
2	12.71	6.107mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 1:03:48 AM
3	12.56	6.035mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 1:05:57 AM
4	12.73	6.117mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 1:08:02 AM

Mean Area 12.73
Mean Conc. 6.115mg/L



Sample

Sample Name: 280-159332-d-5-a
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

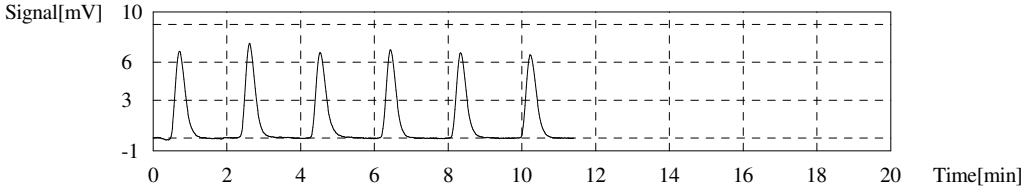
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:6.291mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	13.69	6.582mg/L	50uL	1.000	E	NPOC11.2022_03_14_15_53_52.cal	3/15/2022 1:15:55 AM
2	13.81	6.640mg/L	50uL	1.000	E	NPOC11.2022_03_14_15_53_52.cal	3/15/2022 1:18:06 AM
3	13.36	6.422mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 1:20:11 AM
4	13.11	6.301mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 1:22:16 AM
5	12.91	6.204mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 1:24:21 AM
6	12.98	6.238mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 1:26:25 AM

Mean Area 13.09
Mean Conc. 6.291mg/L



Sample

Sample Name: 280-159332-d-6-a
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

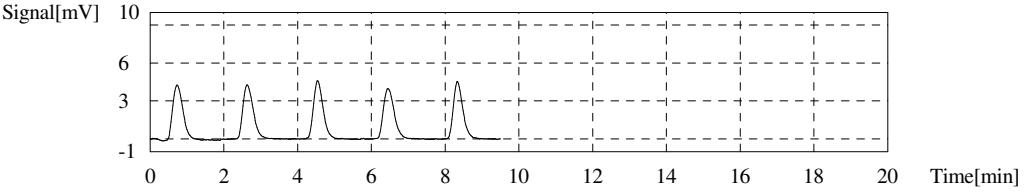
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:3.950mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	8.659	4.146mg/L	50uL	1.000	E	NPOC11.2022_03_14_15_53_52.cal	3/15/2022 1:34:14 AM
2	8.359	4.001mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 1:36:22 AM
3	8.402	4.022mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 1:38:28 AM
4	8.055	3.854mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 1:40:33 AM
5	8.203	3.925mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 1:42:38 AM

Mean Area 8.255
Mean Conc. 3.950mg/L



Sample

Sample Name: 280-159332-d-7-a
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

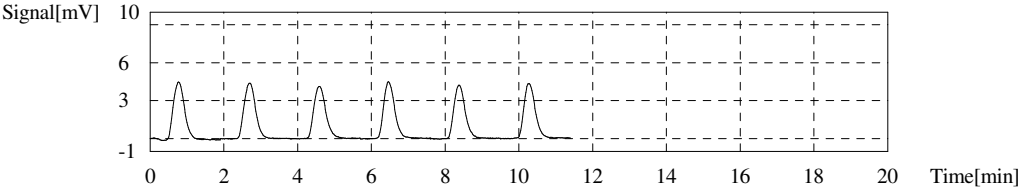
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:4.486mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	9.927	4.760mg/L	50uL	1.000	E	NPOC11.2022_03_14_15_53_52.cal	3/15/2022 1:50:32 AM
2	9.495	4.551mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 1:52:40 AM
3	9.288	4.451mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 1:54:45 AM
4	9.332	4.472mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 1:56:50 AM
5	9.033	4.327mg/L	50uL	1.000	E	NPOC11.2022_03_14_15_53_52.cal	3/15/2022 1:58:55 AM
6	9.333	4.472mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 2:01:00 AM

Mean Area 9.362
Mean Conc. 4.486mg/L



Sample

Sample Name: 280-159332-d-8-a
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

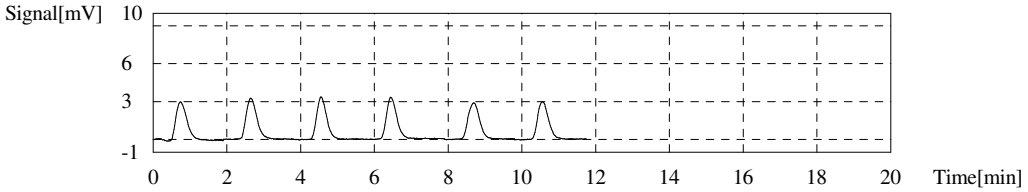
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:3.078mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.590	3.144mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 2:08:48 AM
2	6.511	3.106mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 2:10:57 AM
3	6.333	3.020mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 2:13:02 AM
4	6.824	3.258mg/L	50uL	1.000	E	NPOC11.2022_03_14_15_53_52.cal	3/15/2022 2:15:25 AM
5	6.145	2.929mg/L	50uL	1.000	E	NPOC11.2022_03_14_15_53_52.cal	3/15/2022 2:17:34 AM
6	6.376	3.041mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 2:19:46 AM

Mean Area 6.453
Mean Conc. 3.078mg/L



Sample

Sample Name: 280-159332-d-9-a
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

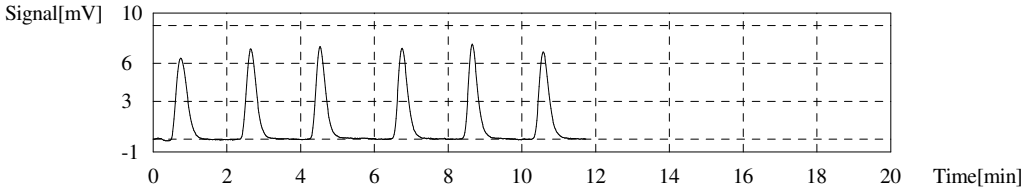
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:6.446mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	14.01	6.737mg/L	50uL	1.000	E	NPOC11.2022_03_14_15_53_52.cal	3/15/2022 2:27:34 AM
2	13.63	6.553mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 2:29:39 AM
3	13.90	6.683mg/L	50uL	1.000	E	NPOC11.2022_03_14_15_53_52.cal	3/15/2022 2:32:04 AM
4	13.37	6.427mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 2:34:13 AM
5	13.26	6.374mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 2:36:18 AM
6	13.38	6.432mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 2:38:23 AM

Mean Area 13.41
Mean Conc. 6.446mg/L



Sample

Sample Name: 280-159332-d-10-a
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

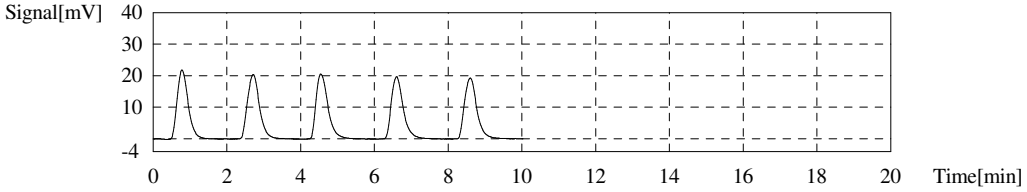
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:22.41mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	46.40	22.42mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 2:46:11 AM
2	46.61	22.52mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 2:48:16 AM
3	46.94	22.68mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 2:50:28 AM
4	44.82	21.65mg/L	50uL	1.000	E	NPOC11.2022_03_14_15_53_52.cal	3/15/2022 2:52:38 AM
5	45.57	22.02mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 2:55:03 AM

Mean Area 46.38
Mean Conc. 22.41mg/L



Sample

Sample Name: 280-159332-d-11-a
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

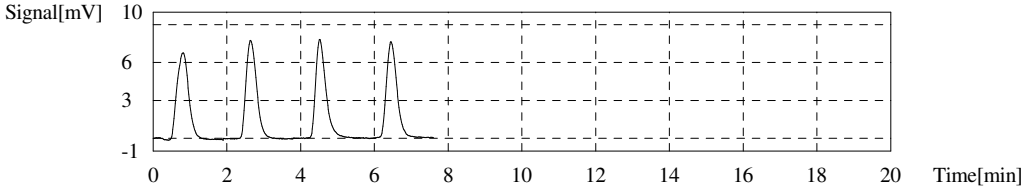
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:7.412mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	15.53	7.472mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 3:02:56 AM
2	15.66	7.535mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 3:05:05 AM
3	15.23	7.327mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 3:07:11 AM
4	15.20	7.313mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 3:09:16 AM

Mean Area 15.41
Mean Conc. 7.412mg/L



Sample

Sample Name: 280-159332-d-12-a
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

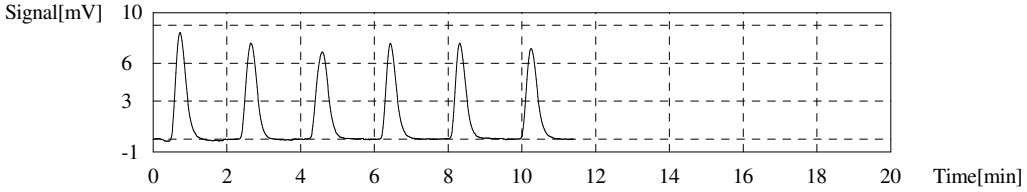
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:7.230mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	17.33	8.344mg/L	50uL	1.000	E	NPOC11.2022_03_14_15_53_52.cal	3/15/2022 3:17:10 AM
2	15.97	7.686mg/L	50uL	1.000	E	NPOC11.2022_03_14_15_53_52.cal	3/15/2022 3:19:19 AM
3	15.55	7.482mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 3:21:29 AM
4	14.93	7.182mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 3:23:34 AM
5	14.67	7.056mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 3:25:43 AM
6	14.97	7.201mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 3:27:52 AM

Mean Area 15.03
Mean Conc. 7.230mg/L



Sample

Sample Name: 280-159332-d-13-a
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

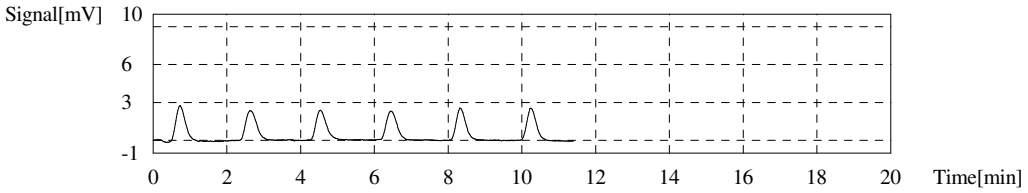
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:2.191mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	5.260	2.500mg/L	50uL	1.000	E	NPOC11.2022_03_14_15_53_52.cal	3/15/2022 3:35:40 AM
2	4.899	2.326mg/L	50uL	1.000	E	NPOC11.2022_03_14_15_53_52.cal	3/15/2022 3:37:49 AM
3	4.769	2.263mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 3:39:58 AM
4	4.552	2.158mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 3:42:06 AM
5	4.665	2.212mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 3:44:11 AM
6	4.498	2.132mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 3:46:16 AM

Mean Area 4.621
Mean Conc. 2.191mg/L



Sample

Sample Name: CCV
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

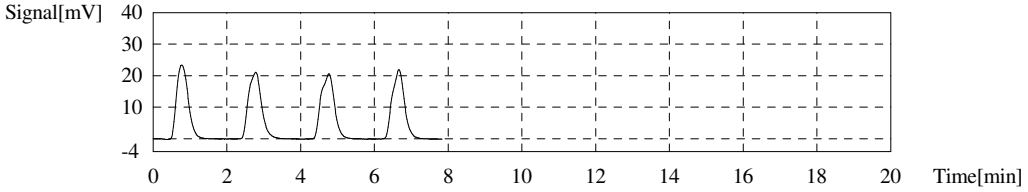
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:25.33mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	52.73	25.48mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 3:54:07 AM
2	52.75	25.49mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 3:56:14 AM
3	52.72	25.48mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 3:58:20 AM
4	51.49	24.88mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 4:00:33 AM

Mean Area 52.42
Mean Conc. 25.33mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

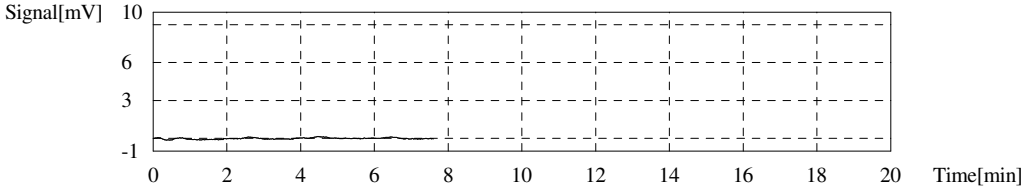
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.08737mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.2861	0.09242mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 4:08:27 AM
2	0.2443	0.07219mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 4:10:37 AM
3	0.3275	0.1125mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 4:12:45 AM
4	0.2447	0.07238mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 4:14:50 AM

Mean Area 0.2757
Mean Conc. 0.08737mg/L



Sample

Sample Name: 280-159332-d-13-b ms
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

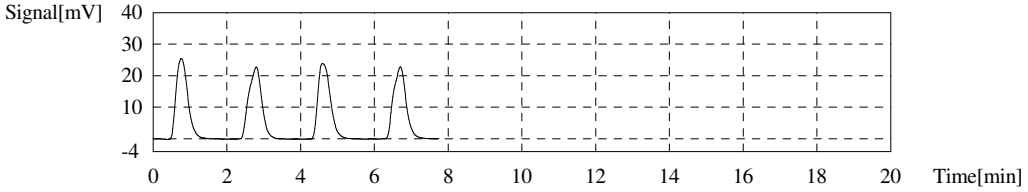
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:27.27mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	57.24	27.67mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 4:22:45 AM
2	56.62	27.37mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 4:24:52 AM
3	56.93	27.52mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 4:27:03 AM
4	54.88	26.52mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 4:29:08 AM

Mean Area 56.42
Mean Conc. 27.27mg/L



Sample

Sample Name: 280-159332-d-13-c msd
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

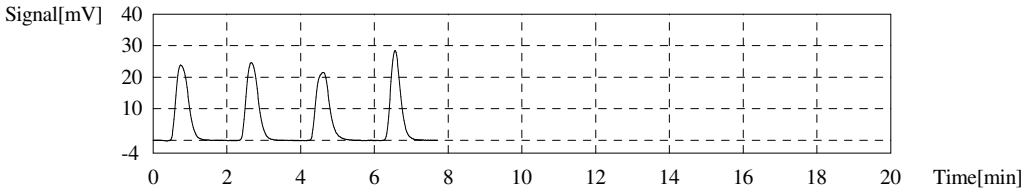
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:26.80mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	56.45	27.28mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 4:37:02 AM
2	55.99	27.06mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 4:39:07 AM
3	55.21	26.68mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 4:41:19 AM
4	54.13	26.16mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 4:43:24 AM

Mean Area 55.45
Mean Conc. 26.80mg/L



Sample

Sample Name: CCV
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

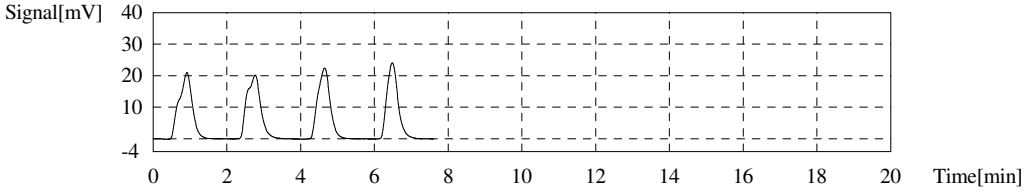
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:25.45mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	52.99	25.61mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 4:51:19 AM
2	53.38	25.80mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 4:53:24 AM
3	52.80	25.52mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 4:55:29 AM
4	51.46	24.87mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 4:57:34 AM

Mean Area 52.66
Mean Conc. 25.45mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

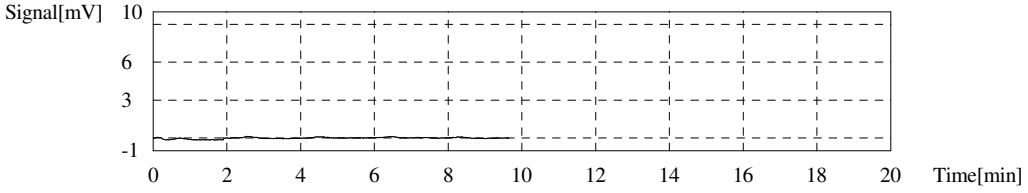
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:-0.00468mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.2554	0.07756mg/L	50uL	1.000	E	NPOC11.2022_03_14_15_53_52.cal	3/15/2022 5:05:28 AM
2	0.1980	0.04977mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 5:07:38 AM
3	0.000	-0.04609mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 5:09:43 AM
4	0.1026	0.00359mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 5:11:48 AM
5	0.04150	-0.02599mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 5:14:03 AM

Mean Area 0.08553
Mean Conc. -0.00468mg/L



	Type	Analysis	Sample Name	Sample ID	Origin	Manual Dilution
1	Unknown	NPOC	ICV		NPOC 2022.met	1.000
2	Unknown	NPOC	ICB		NPOC 2022.met	1.000
3	Unknown	NPOC	LCS		NPOC 2022.met	1.000
4	Unknown	NPOC	MB		NPOC 2022.met	1.000
5	Unknown	NPOC	TIC		NPOC 2022.met	1.000
6	Unknown	NPOC	lcs 280-568705/1-a		NPOC 2022.met	1.000
7	Unknown	NPOC	mb 280-568705/2-a		NPOC 2022.met	1.000
8	Unknown	NPOC	280-159454-d-1-a		NPOC 2022.met	1.000
9	Unknown	NPOC	280-159454-d-1-b ms		NPOC 2022.met	1.000
10	Unknown	NPOC	280-159454-d-1-c msd		NPOC 2022.met	1.000
11	Unknown	NPOC	280-159454-d-2-a		NPOC 2022.met	1.000
12	Unknown	NPOC	280-159384-d-1-a		NPOC 2022.met	1.000
13	Unknown	NPOC	280-159384-d-2-a		NPOC 2022.met	1.000
14	Unknown	NPOC	280-159384-d-4-a		NPOC 2022.met	1.000
15	Unknown	NPOC	CCV		NPOC 2022.met	1.000
16	Unknown	NPOC	CCB		NPOC 2022.met	1.000
17	Unknown	NPOC	280-159384-d-5-a		NPOC 2022.met	1.000
18	Unknown	NPOC	280-159384-d-6-a		NPOC 2022.met	1.000
19	Unknown	NPOC	CCV		NPOC 2022.met	1.000
20	Unknown	NPOC	CCB		NPOC 2022.met	1.000

	Result	Notes	Status	Date / Time
1	NPOC:19.70mg/L		Completed	3/15/2022 3:51:24 PM
2	NPOC:0.08188mg/L		Completed	3/15/2022 4:05:36 PM
3	NPOC:24.61mg/L		Completed	3/15/2022 4:19:57 PM
4	NPOC:-0.03752mg/L		Completed	3/15/2022 4:34:15 PM
5	NPOC:0.1381mg/L		Completed	3/15/2022 4:48:29 PM
6	NPOC:24.89mg/L		Completed	3/15/2022 5:02:41 PM
7	NPOC:0.2674mg/L		Completed	3/15/2022 5:19:00 PM
8	NPOC:9.489mg/L		Completed	3/15/2022 5:33:09 PM
9	NPOC:33.42mg/L		Completed	3/15/2022 5:51:38 PM
10	NPOC:33.59mg/L		Completed	3/15/2022 6:10:09 PM
11	NPOC:9.110mg/L		Completed	3/15/2022 6:28:25 PM
12	NPOC:3.707mg/L		Completed	3/15/2022 6:46:41 PM
13	NPOC:5.557mg/L		Completed	3/15/2022 7:05:06 PM
14	NPOC:42.66mg/L		Completed	3/15/2022 7:23:34 PM
15	NPOC:24.70mg/L		Completed	3/15/2022 7:39:42 PM
16	NPOC:0.1077mg/L		Completed	3/15/2022 7:55:59 PM
17	NPOC:17.85mg/L		Completed	3/15/2022 8:10:11 PM
18	NPOC:7.941mg/L		Completed	3/15/2022 8:26:25 PM
19	NPOC:24.50mg/L		Completed	3/15/2022 8:42:45 PM
20	NPOC:0.3797mg/L		Completed	3/15/2022 9:01:07 PM

	Vial
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9
10	10
11	11
12	12
13	13
14	14
15	15
16	16
17	17
18	18
19	19
20	20

TOC-L Cal Curve Information
C:\TOC-L\CalCurves\NPOC11.2022 03 14 15 53 52.cal

Date of Creation	3/14/2022 4:54:43 PM
User	H
System	TOC-LCSN

Cal. Curve

Sample Name:	CAL
Sample ID:	
Object ID	0L-10900100866-10101000-134899A253D4-0000
Cal. Curve:	NPOC11.2022_03_14_15_53_52.cal
Status	Completed
Comment:	

Type	Anal.
Standard	NPOC

Conc: 0.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	0.1367	50uL	1.000	*******		3/14/2022 4:01:09 PM
2	0.1047	50uL	1.000	*******		3/14/2022 4:03:18 PM

Acid Add.	1.500%
Sparge Gas Flow	80mL/min
Sp. Time	90.00sec
Mean Area	0.1207
SD Area	0.02263
CV Area	18.75%
Vial	90
No Washes	2

Conc: 1.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	2.048	50uL	50.00	*******		3/14/2022 4:11:59 PM
2	2.033	50uL	50.00	*******		3/14/2022 4:14:08 PM

Acid Add.	1.500%
Sparge Gas Flow	80mL/min
Sp. Time	90.00sec
Mean Area	2.040
SD Area	0.01061
CV Area	0.52%
Vial	91
No Washes	2

Conc: 5.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	10.55	50uL	10.00	*******		3/14/2022 4:21:44 PM
2	10.42	50uL	10.00	*******		3/14/2022 4:23:58 PM

Acid Add.	1.500%
Sparge Gas Flow	80mL/min
Sp. Time	90.00sec
Mean Area	10.48
SD Area	0.09192
CV Area	0.88%
Vial	91
No Washes	2

Conc: 10.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	20.82	50uL	5.000	*******		3/14/2022 4:32:41 PM
2	20.74	50uL	5.000	*******		3/14/2022 4:34:50 PM

Acid Add.	1.500%
Sparge Gas Flow	80mL/min
Sp. Time	90.00sec
Mean Area	20.78
SD Area	0.05657
CV Area	0.27%
Vial	92
No Washes	2

Conc: 25.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	52.01	50uL	2.000	*******		3/14/2022 4:42:26 PM
2	51.51	50uL	2.000	*******		3/14/2022 4:44:35 PM

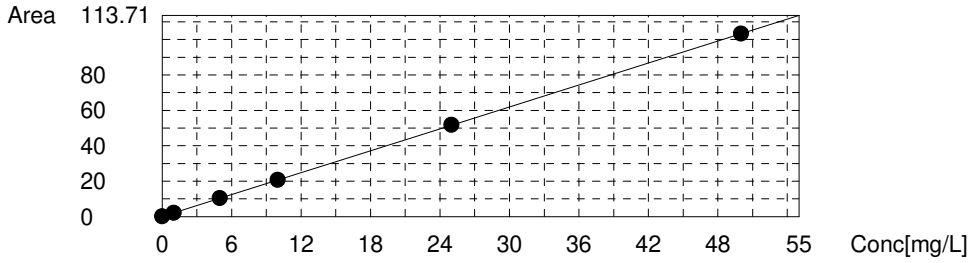
Acid Add.	1.500%
Sparge Gas Flow	80mL/min
Sp. Time	90.00sec
Mean Area	51.76
SD Area	0.3536
CV Area	0.68%
Vial	92
No Washes	2

Conc: 50.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	103.2	50uL	1.000	*******		3/14/2022 4:52:38 PM
2	103.5	50uL	1.000	*******		3/14/2022 4:54:43 PM

Acid Add.	1.500%
Sparge Gas Flow	80mL/min
Sp. Time	90.00sec
Mean Area	103.3
SD Area	0.2121
CV Area	0.21%
Vial	93
No Washes	2

Slope:	2.066
Intercept	0.09519
r^2	1.0000
r	1.0000
RSE(%)	N/A
Zero Shift	No



TOC-Control L Report

H
2022_03_15_001.tlx

Instr.Information

Instrument Options TOC/ASI/
Catalyst Regular Sensitivity

Sample

Sample Name: ICV
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

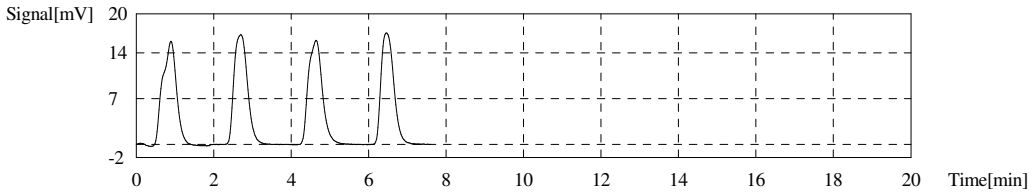
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:19.70mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	41.08	19.84mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 3:45:05 PM
2	41.43	20.01mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 3:47:14 PM
3	40.84	19.73mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 3:49:19 PM
4	39.82	19.23mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 3:51:24 PM

Mean Area 40.79
Mean Conc. 19.70mg/L



Sample

Sample Name: ICB
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

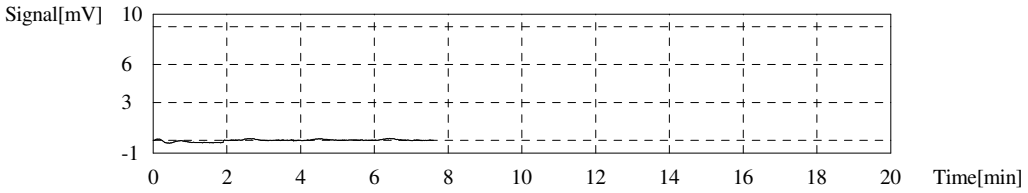
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.08188mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.3305	0.1139mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 3:59:17 PM
2	0.2591	0.07935mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 4:01:26 PM
3	0.1759	0.03907mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 4:03:31 PM
4	0.2918	0.09518mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 4:05:36 PM

Mean Area 0.2643
Mean Conc. 0.08188mg/L



Sample

Sample Name: LCS
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

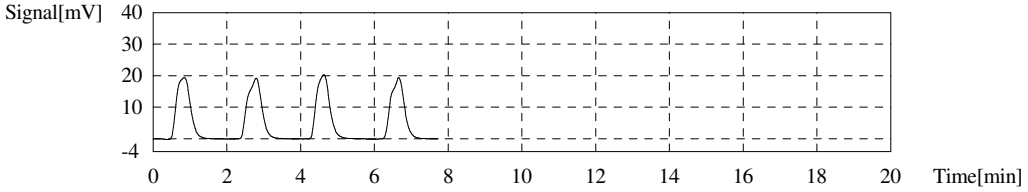
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:24.61mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	51.28	24.78mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 4:13:29 PM
2	51.42	24.85mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 4:15:34 PM
3	50.95	24.62mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 4:17:49 PM
4	50.08	24.20mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 4:19:57 PM

Mean Area 50.93
Mean Conc. 24.61mg/L



Sample

Sample Name: MB
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

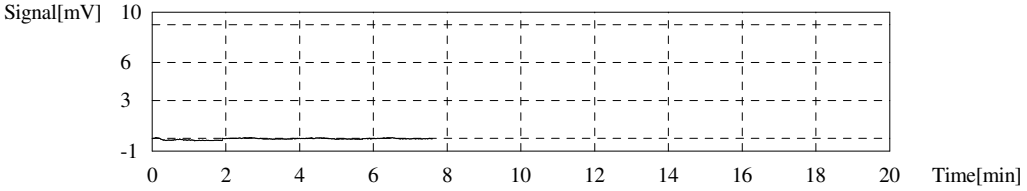
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:-0.03752mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.07080	-0.01181mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 4:27:51 PM
2	0.000	-0.04609mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 4:30:01 PM
3	0.000	-0.04609mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 4:32:06 PM
4	0.000	-0.04609mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 4:34:15 PM

Mean Area 0.01770
Mean Conc. -0.03752mg/L



Sample

Sample Name: TIC
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

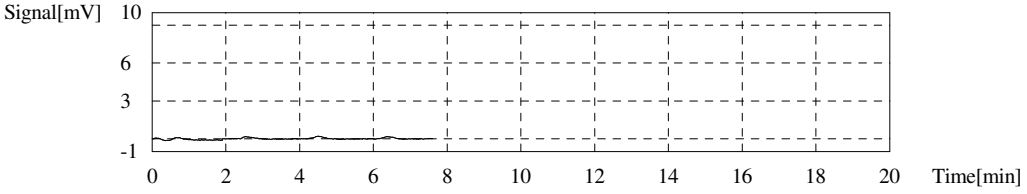
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1381mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.4362	0.1651mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 4:42:09 PM
2	0.2692	0.08424mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 4:44:19 PM
3	0.4188	0.1567mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 4:46:24 PM
4	0.3976	0.1464mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 4:48:29 PM

Mean Area 0.3805
Mean Conc. 0.1381mg/L



Sample

Sample Name: lcs 280-568705/1-a
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

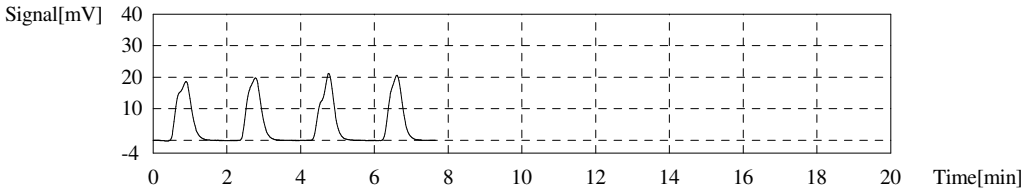
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:24.89mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	51.71	24.99mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 4:56:23 PM
2	51.98	25.12mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 4:58:31 PM
3	51.76	25.01mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 5:00:36 PM
4	50.59	24.45mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 5:02:41 PM

Mean Area 51.51
Mean Conc. 24.89mg/L



Sample

Sample Name: mb 280-568705/2-a
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

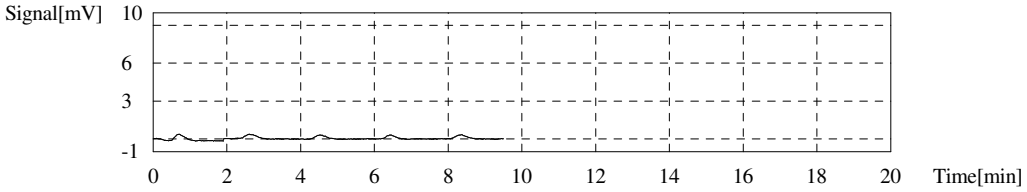
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.2674mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.9155	0.3971mg/L	50uL	1.000	E	NPOC11.2022_03_14_15_53_52.cal	3/15/2022 5:10:35 PM
2	0.7335	0.3090mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 5:12:45 PM
3	0.6867	0.2864mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 5:14:50 PM
4	0.5394	0.2151mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 5:16:55 PM
5	0.6308	0.2593mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 5:19:00 PM

Mean Area 0.6476
Mean Conc. 0.2674mg/L



Sample

Sample Name: 280-159454-d-1-a
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

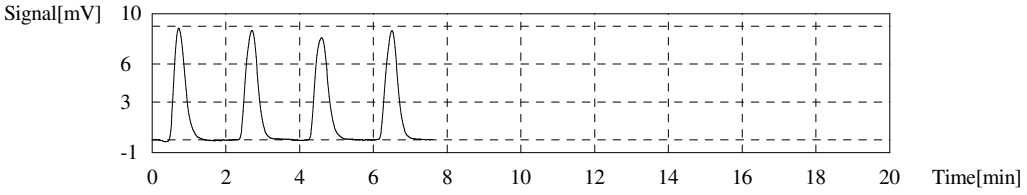
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:9.489mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	19.36	9.327mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 5:26:53 PM
2	19.87	9.574mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 5:28:58 PM
3	19.97	9.622mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 5:31:03 PM
4	19.58	9.433mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 5:33:09 PM

Mean Area 19.70
Mean Conc. 9.489mg/L



Sample

Sample Name: 280-159454-d-1-b ms
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

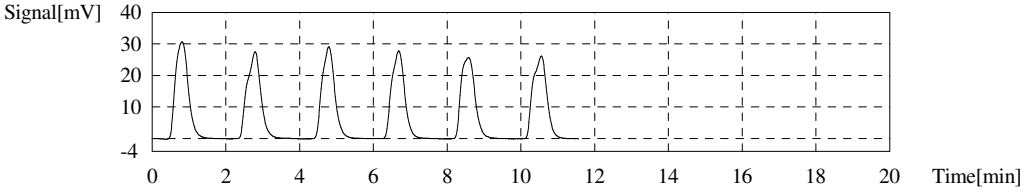
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:33.42mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	75.69	36.60mg/L	50uL	1.000	E	NPOC11.2022_03_14_15_53_52.cal	3/15/2022 5:41:02 PM
2	71.66	34.65mg/L	50uL	1.000	E	NPOC11.2022_03_14_15_53_52.cal	3/15/2022 5:43:16 PM
3	70.30	33.99mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 5:45:21 PM
4	68.41	33.07mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 5:47:27 PM
5	68.27	33.01mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 5:49:33 PM
6	69.50	33.60mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 5:51:38 PM

Mean Area 69.12
Mean Conc. 33.42mg/L



Sample

Sample Name: 280-159454-d-1-c msd
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

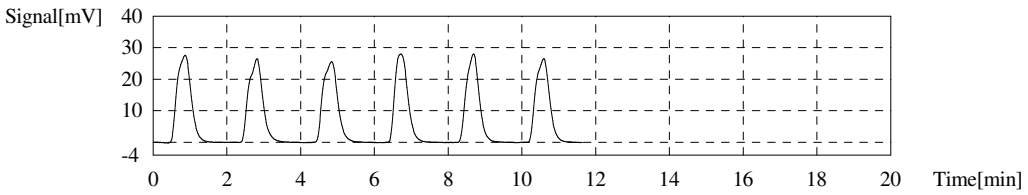
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:33.59mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	74.22	35.89mg/L	50uL	1.000	E	NPOC11.2022_03_14_15_53_52.cal	3/15/2022 5:59:27 PM
2	70.84	34.25mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 6:01:40 PM
3	71.50	34.57mg/L	50uL	1.000	E	NPOC11.2022_03_14_15_53_52.cal	3/15/2022 6:03:50 PM
4	68.88	33.30mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 6:05:55 PM
5	68.60	33.17mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 6:08:00 PM
6	69.60	33.65mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 6:10:09 PM

Mean Area 69.48
Mean Conc. 33.59mg/L



Sample

Sample Name: 280-159454-d-2-a
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

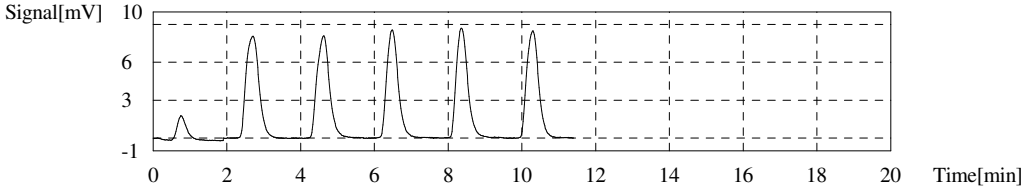
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:9.110mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3.433	1.616mg/L	50uL	1.000	E	NPOC11.2022_03_14_15_53_52.cal	3/15/2022 6:17:56 PM
2	19.82	9.549mg/L	50uL	1.000	E	NPOC11.2022_03_14_15_53_52.cal	3/15/2022 6:20:05 PM
3	19.12	9.211mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 6:22:10 PM
4	18.49	8.906mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 6:24:15 PM
5	18.69	9.002mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 6:26:20 PM
6	19.35	9.322mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 6:28:25 PM

Mean Area 18.91
Mean Conc. 9.110mg/L



Sample

Sample Name: 280-159384-d-1-a
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

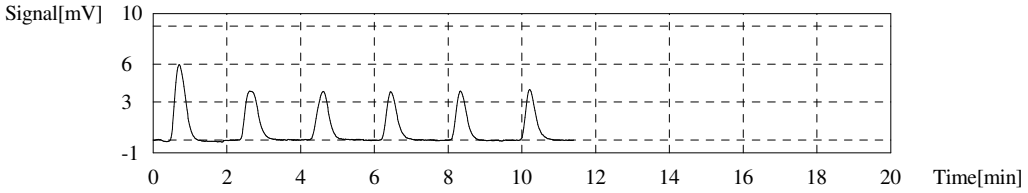
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:3.707mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	12.30	5.909mg/L	50uL	1.000	E	NPOC11.2022_03_14_15_53_52.cal	3/15/2022 6:36:12 PM
2	9.692	4.646mg/L	50uL	1.000	E	NPOC11.2022_03_14_15_53_52.cal	3/15/2022 6:38:21 PM
3	8.261	3.953mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 6:40:26 PM
4	7.599	3.633mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 6:42:31 PM
5	7.581	3.624mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 6:44:36 PM
6	7.567	3.617mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 6:46:41 PM

Mean Area 7.752
Mean Conc. 3.707mg/L



Sample

Sample Name: 280-159384-d-2-a
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

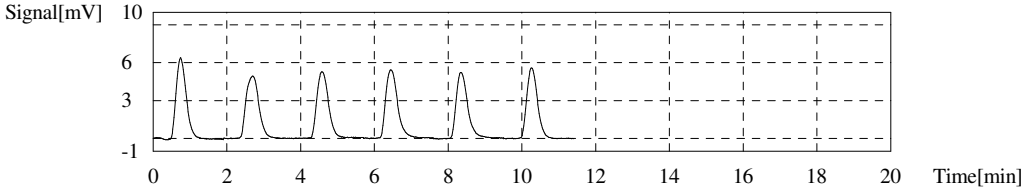
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:5.557mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	12.63	6.069mg/L	50uL	1.000	E	NPOC11.2022_03_14_15_53_52.cal	3/15/2022 6:54:29 PM
2	12.04	5.783mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 6:56:38 PM
3	11.52	5.531mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 6:58:43 PM
4	12.21	5.865mg/L	50uL	1.000	E	NPOC11.2022_03_14_15_53_52.cal	3/15/2022 7:00:52 PM
5	11.37	5.459mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 7:02:57 PM
6	11.36	5.454mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 7:05:06 PM

Mean Area 11.57
Mean Conc. 5.557mg/L



Sample

Sample Name: 280-159384-d-4-a
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

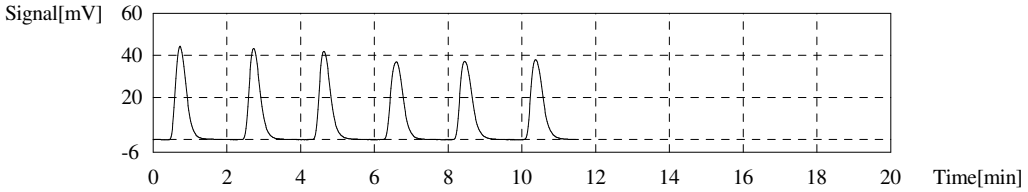
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:42.66mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	92.56	44.77mg/L	50uL	1.000	E	NPOC11.2022_03_14_15_53_52.cal	3/15/2022 7:13:00 PM
2	90.75	43.89mg/L	50uL	1.000	E	NPOC11.2022_03_14_15_53_52.cal	3/15/2022 7:15:09 PM
3	89.80	43.43mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 7:17:15 PM
4	87.80	42.46mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 7:19:23 PM
5	86.87	42.01mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 7:21:29 PM
6	88.37	42.74mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 7:23:34 PM

Mean Area 88.21
Mean Conc. 42.66mg/L



Sample

Sample Name: CCV
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

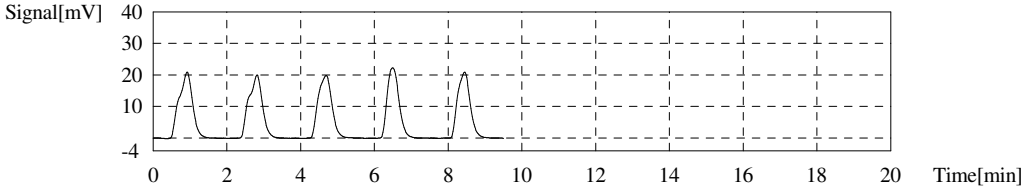
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:24.70mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	54.23	26.21mg/L	50uL	1.000	E	NPOC11.2022_03_14_15_53_52.cal	3/15/2022 7:31:22 PM
2	51.82	25.04mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 7:33:27 PM
3	52.10	25.18mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 7:35:32 PM
4	50.46	24.38mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 7:37:37 PM
5	50.05	24.18mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 7:39:42 PM

Mean Area 51.11
Mean Conc. 24.70mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

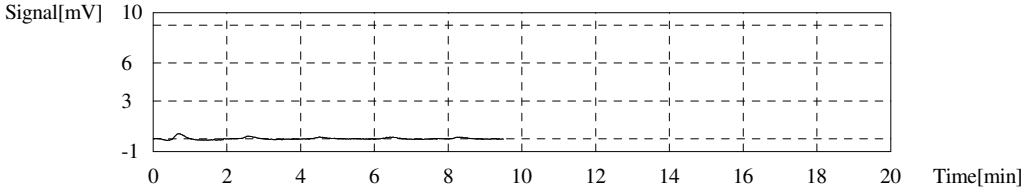
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1077mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.075	0.4744mg/L	50uL	1.000	E	NPOC11.2022_03_14_15_53_52.cal	3/15/2022 7:47:35 PM
2	0.3829	0.1393mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 7:49:44 PM
3	0.2299	0.06522mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 7:51:49 PM
4	0.3384	0.1177mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 7:53:54 PM
5	0.3194	0.1085mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 7:55:59 PM

Mean Area 0.3176
Mean Conc. 0.1077mg/L



Sample

Sample Name: 280-159384-d-5-a
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

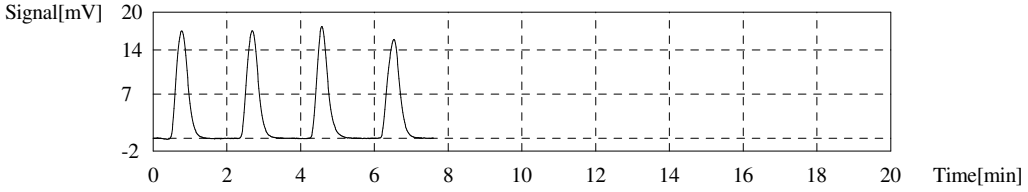
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:17.85mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	37.72	18.22mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 8:03:52 PM
2	37.19	17.96mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 8:06:01 PM
3	36.77	17.76mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 8:08:06 PM
4	36.18	17.47mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 8:10:11 PM

Mean Area 36.97
Mean Conc. 17.85mg/L



Sample

Sample Name: 280-159384-d-6-a
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

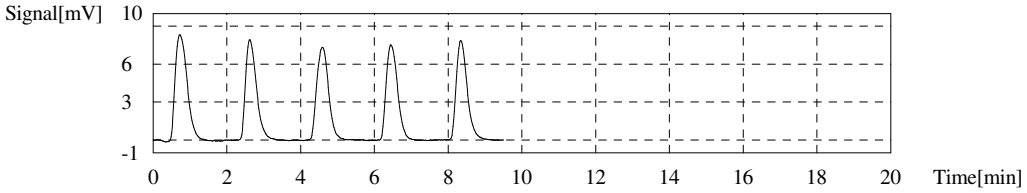
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:7.941mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	19.50	9.394mg/L	50uL	1.000	E	NPOC11.2022_03_14_15_53_52.cal	3/15/2022 8:18:05 PM
2	16.58	7.981mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 8:20:10 PM
3	16.63	8.005mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 8:22:15 PM
4	16.39	7.889mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 8:24:20 PM
5	16.39	7.889mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 8:26:25 PM

Mean Area 16.50
Mean Conc. 7.941mg/L



Sample

Sample Name: CCV
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

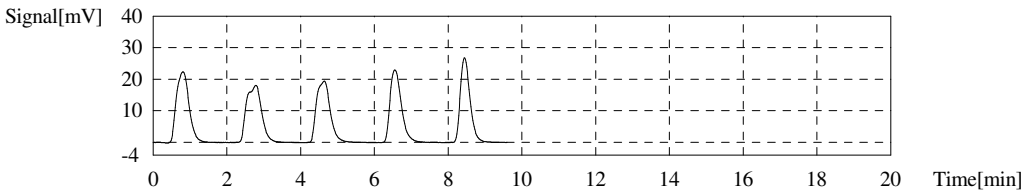
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:24.50mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	54.57	26.37mg/L	50uL	1.000	E	NPOC11.2022_03_14_15_53_52.cal	3/15/2022 8:34:18 PM
2	51.98	25.12mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 8:36:24 PM
3	50.95	24.62mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 8:38:35 PM
4	50.00	24.16mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 8:40:40 PM
5	49.87	24.10mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 8:42:45 PM

Mean Area 50.70
Mean Conc. 24.50mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: NPOC 2022.met
Status Completed
Chk. Result

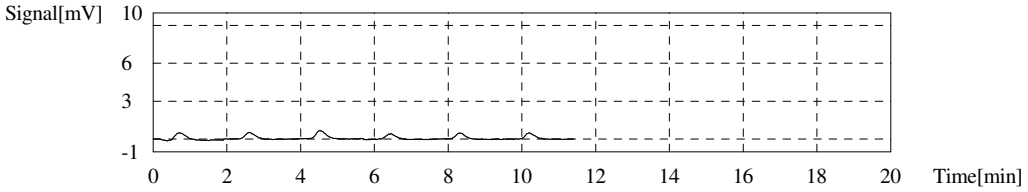
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.3797mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.316	0.5910mg/L	50uL	1.000	E	NPOC11.2022_03_14_15_53_52.cal	3/15/2022 8:50:38 PM
2	0.9730	0.4250mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 8:52:47 PM
3	1.185	0.5276mg/L	50uL	1.000	E	NPOC11.2022_03_14_15_53_52.cal	3/15/2022 8:54:52 PM
4	0.8787	0.3793mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 8:56:57 PM
5	0.7713	0.3273mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 8:59:02 PM
6	0.8949	0.3872mg/L	50uL	1.000		NPOC11.2022_03_14_15_53_52.cal	3/15/2022 9:01:07 PM

Mean Area 0.8795
Mean Conc. 0.3797mg/L



FILTRATION Analysis Sheet

(To Accompany Samples to Instruments)

03/23/2022

Batch Number: 280-568571

Analyst: Wondimu, Akewak B

Batch Open: 3/14/2022 11:57:00AM

Batch End:

Sample Filtration

	Input Sample Lab ID (Analytical Method)	SDG (Job #)	Matrix	Initial Amount	Final Amount	Due Date	Analytical TAT	Dlv Rank	Comments	Output Sample Lab ID
1	LCS~280-568571/1 N/A	N/A				N/A	N/A	N/A		LCS 280-568571/1-A
2	MB~280-568571/2 N/A	N/A				N/A	N/A	N/A		MB 280-568571/2-A
3	280-159234-M-1 (9060A_Diss)	N/A (280-159234-1)	Water			3/20/22	18_Days	4		280-159234-M-1-A
4	280-159234-M-2 (9060A_Diss)	N/A (280-159234-1)	Water			3/20/22	18_Days	4		280-159234-M-2-A
5	280-159234-M-3 (9060A_Diss)	N/A (280-159234-1)	Water			3/20/22	18_Days	4		280-159234-M-3-A
6	280-159234-M-4 (9060A_Diss)	N/A (280-159234-1)	Water			3/20/22	18_Days	4		280-159234-M-4-A
7	280-159234-M-5 (9060A_Diss)	N/A (280-159234-1)	Water			3/20/22	18_Days	4		280-159234-M-5-A
8	280-159234-M-6 (9060A_Diss)	N/A (280-159234-1)	Water			3/20/22	18_Days	4		280-159234-M-6-A
9	280-159234-M-7 (9060A_Diss)	N/A (280-159234-1)	Water			3/20/22	18_Days	4		280-159234-M-7-A
10	280-159234-M-7~MS (9060A_Diss)	N/A (280-159234-1)	Water			3/20/22	18_Days	4		280-159234-M-7-B MS
11	280-159234-M-7~MSD (9060A_Diss)	N/A (280-159234-1)	Water			3/20/22	18_Days	4		280-159234-M-7-C MSD
12	280-159234-M-8 (9060A_Diss)	N/A (280-159234-1)	Water			3/20/22	18_Days	4		280-159234-M-8-A
13	280-159234-M-9 (9060A_Diss)	N/A (280-159234-1)	Water			3/20/22	18_Days	4		280-159234-M-9-A
14	280-159234-M-10 (9060A_Diss)	N/A (280-159234-1)	Water			3/20/22	18_Days	4		280-159234-M-10-A

FILTRATION Analysis Sheet

(To Accompany Samples to Instruments)

Batch Number: 280-568571 Analyst: Wondimu, Akewak B Batch Open: 3/14/2022 11:57:00AM

Batch End:

03/23/2022

15	280-159332-D-1 (9060A_Diss)	N/A (280-159332-1)	Water			3/21/22	18_Days	4	
16	280-159332-D-1~MS (9060A_Diss)	N/A (280-159332-1)	Water			3/21/22	18_Days	4	
17	280-159332-D-1~MSD (9060A_Diss)	N/A (280-159332-1)	Water			3/21/22	18_Days	4	
18	280-159332-D-2 (9060A_Diss)	N/A (280-159332-1)	Water			3/21/22	18_Days	4	
19	280-159332-D-3 (9060A_Diss)	N/A (280-159332-1)	Water			3/21/22	18_Days	4	
20	280-159332-D-4 (9060A_Diss)	N/A (280-159332-1)	Water			3/21/22	18_Days	4	
21	280-159332-D-5 (9060A_Diss)	N/A (280-159332-1)	Water			3/21/22	18_Days	4	
22	280-159332-D-6 (9060A_Diss)	N/A (280-159332-1)	Water			3/21/22	18_Days	4	
23	280-159332-D-7 (9060A_Diss)	N/A (280-159332-1)	Water			3/21/22	18_Days	4	
24	280-159332-D-8 (9060A_Diss)	N/A (280-159332-1)	Water			3/21/22	18_Days	4	
25	280-159332-D-9 (9060A_Diss)	N/A (280-159332-1)	Water			3/21/22	18_Days	4	
26	280-159332-D-10 (9060A_Diss)	N/A (280-159332-1)	Water			3/21/22	18_Days	4	
27	280-159332-D-11 (9060A_Diss)	N/A (280-159332-1)	Water			3/21/22	18_Days	4	
28	280-159332-D-12 (9060A_Diss)	N/A (280-159332-1)	Water			3/21/22	18_Days	4	
29	280-159332-D-13 (9060A_Diss)	N/A (280-159332-1)	Water			3/21/22	18_Days	4	
30	280-159332-D-13~MS (9060A_Diss)	N/A (280-159332-1)	Water			3/21/22	18_Days	4	
31	280-159332-D-13~MSD (9060A_Diss)	N/A (280-159332-1)	Water			3/21/22	18_Days	4	

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FILTRATION Analysis Sheet

(To Accompany Samples to Instruments)

Batch Number: 280-568571

Analyst: Wondimu, Akewak B

Batch Open: 3/14/2022 11:57:00AM

Batch End:

03/23/2022

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FILTRATION Analysis Sheet

(To Accompany Samples to Instruments)

Batch Number: 280-568571

Analyst: Wondimu, Akewak B

Batch Open: 3/14/2022 11:57:00AM

Batch End:

Batch Notes

Pipette/Syringe/Dispenser ID	9086953
Filter ID	17233826
Nitric Acid ID	N/A
Batch Comment	DOC Filtration

FILTRATION Analysis Sheet

(To Accompany Samples to Instruments)

Batch Number: 280-568571

Analyst: Wondimu, Akewak B

Batch Open: 3/14/2022 11:57:00AM

Batch End:

03/23/2022

Comments

280-159234-M-1	Method Comments:	Q5Rev3.1-12212015_Std Var App_60day disposal
280-159234-M-2	Method Comments:	Q5Rev3.1-12212015_Std Var App_60day disposal
280-159234-M-3	Method Comments:	Q5Rev3.1-12212015_Std Var App_60day disposal
280-159234-M-4	Method Comments:	Q5Rev3.1-12212015_Std Var App_60day disposal
280-159234-M-5	Method Comments:	Q5Rev3.1-12212015_Std Var App_60day disposal
280-159234-M-6	Method Comments:	Q5Rev3.1-12212015_Std Var App_60day disposal
280-159234-M-7	Method Comments:	Q5Rev3.1-12212015_Std Var App_60day disposal
280-159234-M-7~MS	Method Comments:	Q5Rev3.1-12212015_Std Var App_60day disposal
280-159234-M-7~MS	Method Comments:	Q5Rev3.1-12212015_Std Var App_60day disposal
280-159234-M-8	Method Comments:	Q5Rev3.1-12212015_Std Var App_60day disposal
280-159234-M-9	Method Comments:	Q5Rev3.1-12212015_Std Var App_60day disposal
280-159234-M-10	Method Comments:	Q5Rev3.1-12212015_Std Var App_60day disposal
280-159332-D-1	Method Comments:	Q5Rev3.1-12212015_Std Var App_60day disposal
280-159332-D-1~MS	Method Comments:	Q5Rev3.1-12212015_Std Var App_60day disposal
280-159332-D-1~MS	Method Comments:	Q5Rev3.1-12212015_Std Var App_60day disposal
280-159332-D-2	Method Comments:	Q5Rev3.1-12212015_Std Var App_60day disposal

FILTRATION Analysis Sheet

(To Accompany Samples to Instruments)

Batch Number: 280-568571 Analyst: Wondimu, Akewak B Batch Open: 3/14/2022 11:57:00AM

Batch End:

	Method Comments:	Q5Rev3.1-12212015_Std Var App_60day disposal
280-159332-D-3		
	Method Comments:	Q5Rev3.1-12212015_Std Var App_60day disposal
280-159332-D-4		
	Method Comments:	Q5Rev3.1-12212015_Std Var App_60day disposal
280-159332-D-5		
	Method Comments:	Q5Rev3.1-12212015_Std Var App_60day disposal
280-159332-D-6		
	Method Comments:	Q5Rev3.1-12212015_Std Var App_60day disposal
280-159332-D-7		
	Method Comments:	Q5Rev3.1-12212015_Std Var App_60day disposal
280-159332-D-8		
	Method Comments:	Q5Rev3.1-12212015_Std Var App_60day disposal
280-159332-D-9		
	Method Comments:	Q5Rev3.1-12212015_Std Var App_60day disposal
280-159332-D-10		
	Method Comments:	Q5Rev3.1-12212015_Std Var App_60day disposal
280-159332-D-11		
	Method Comments:	Q5Rev3.1-12212015_Std Var App_60day disposal
280-159332-D-12		
	Method Comments:	Q5Rev3.1-12212015_Std Var App_60day disposal
280-159332-D-13		
	Method Comments:	Q5Rev3.1-12212015_Std Var App_60day disposal
280-159332-D-13~M		
	Method Comments:	Q5Rev3.1-12212015_Std Var App_60day disposal
280-159332-D-13~M		
	Method Comments:	Q5Rev3.1-12212015_Std Var App_60day disposal

03/23/2022

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FILTRATION Analysis Sheet

(To Accompany Samples to Instruments)

03/23/2022

Batch Number: 280-568571

Analyst: Wondimu, Akewak B

Batch Open: 3/14/2022 11:57:00AM

Batch End:

Reagent Additions Worksheet

Lab ID	Reagent Code	Amount Added	Final Amount	By	Witness

Other Reagents:

Reagent	Amount/Units	Lot#:

9060A

Shi 5 pH Filtration.

	Type	Analysi	Sample Name	Sa	O	M	Result	Notes	S	D	Vial
1*	Unknown	NPOC	ICV		N	1	✓		D		1
2*	Unknown	NPOC	ICB		N	1	✓		D		2
3*	Unknown	NPOC	LCS		N	1	✓		D		3
4*	Unknown	NPOC	MB		N	1	✓		D		4
5*	Unknown	NPOC	TIC		N	1	✓		D		5
6*	Unknown	NPOC	lcs 280-568571/1-a		N	1	✓		D		6
7*	Unknown	NPOC	mb 280-568571/2-a		N	1	✓		D		7
8*	Unknown	NPOC	280-159234-m-1-a		N	1	>2		D		8
9*	Unknown	NPOC	280-159234-m-2-a		N	1	>2		D		9
10*	Unknown	NPOC	280-159234-m-3-a		N	1	>2		D		10
11*	Unknown	NPOC	280-159234-m-4-a		N	1	>2		D		11
12*	Unknown	NPOC	280-159234-m-5-a		N	1	>2		D		12
13*	Unknown	NPOC	280-159234-m-6-a		N	1	>2		D		13
14*	Unknown	NPOC	280-159234-m-7-a		N	1	>2		D		14
15*	Unknown	NPOC	CCV		N	1	✓		D		15
16*	Unknown	NPOC	CCB		N	1	✓		D		16
17*	Unknown	NPOC	280-159234-m-7-b ms		N	1	>2		D		17
18*	Unknown	NPOC	280-159234-m-7-c msd		N	1	>2		D		18
19*	Unknown	NPOC	280-159234-m-8-a		N	1	>2	Filtration DOC	D		19
20*	Unknown	NPOC	280-159234-m-9-a		N	1	>2		D		20
21*	Unknown	NPOC	280-159234-m-10-a		N	1	>2		D		21
22*	Unknown	NPOC	280-159332-d-1-a		N	1	>2		D		22
23*	Unknown	NPOC	280-159332-d-1-b ms		N	1	>2		D		23
24*	Unknown	NPOC	280-159332-d-1-c msd		N	1	>2		D		24
25*	Unknown	NPOC	280-159332-d-2-a		N	1	>2		D		25
26*	Unknown	NPOC	280-159332-d-3		N	1	>2		D		26
27*	Unknown	NPOC	CCV		N	1	✓		D		27
28*	Unknown	NPOC	CCB		N	1	✓		D		28
29*	Unknown	NPOC	280-159332-d-4-a		N	1	>2		D		29
30*	Unknown	NPOC	280-159332-d-5-a		N	1	>2		D		30
31*	Unknown	NPOC	280-159332-d-6-a		N	1	>2		D		31
32*	Unknown	NPOC	280-159332-d-7-a		N	1	>2		D		32
33*	Unknown	NPOC	280-159332-d-8-a		N	1	>2		D		33
34*	Unknown	NPOC	280-159332-d-9-a		N	1	>2		D		34
35*	Unknown	NPOC	280-159332-d-10-a		N	1	>2		D		35
36*	Unknown	NPOC	280-159332-d-11-a		N	1	>2		D		36
37*	Unknown	NPOC	280-159332-d-12-a		N	1	>2		D		37
38*	Unknown	NPOC	280-159332-d-13-a		N	1	>2		D		38
39*	Unknown	NPOC	CCV		N	1	✓		D		39
40*	Unknown	NPOC	CCB		N	1	✓		D		40
41*	Unknown	NPOC	280-159332-d-13-b ms		N	1	>2		D		41
42*	Unknown	NPOC	280-159332-d-13-c msd		N	1	>2		D		42
43*	Unknown	NPOC	CCV		N	1	✓		D		43
44*	Unknown	NPOC	CCB		N	1	✓		D		44

BWI 5000, MS 1000

FILTRATION Analysis Sheet

(To Accompany Samples to Instruments)

Batch Number: 280-568705

Analyst: Wondimu, Akewak B

Batch Open: 3/15/2022 1:56:00PM

Batch End:

03/23/2022

Sample Filtration

	Input Sample Lab ID (Analytical Method)	SDG (Job #)	Matrix	Initial Amount	Final Amount	Due Date	Analytical TAT	Dlv Rank	Comments	Output Sample Lab ID
1	LCS~280-568705/1 N/A	N/A				N/A	N/A	N/A		
2	MB~280-568705/2 N/A	N/A				N/A	N/A	N/A		
3	280-159454-D-1 (9060A_Diss)	N/A (280-159454-1)	Water			3/25/22	18_Days	4		
4	280-159454-D-1~MS (9060A_Diss)	N/A (280-159454-1)	Water			3/25/22	18_Days	4		
5	280-159454-D-1~MSD (9060A_Diss)	N/A (280-159454-1)	Water			3/25/22	18_Days	4		
6	280-159454-D-2 (9060A_Diss)	N/A (280-159454-1)	Water			3/25/22	18_Days	4		
7	280-159384-D-1 (9060A_Diss)	N/A (280-159384-1)	Water			3/22/22	18_Days	4		
8	280-159384-D-2 (9060A_Diss)	N/A (280-159384-1)	Water			3/22/22	18_Days	4		
9	280-159384-D-4 (9060A_Diss)	N/A (280-159384-1)	Water			3/22/22	18_Days	4		
10	280-159384-D-5 (9060A_Diss)	N/A (280-159384-1)	Water			3/22/22	18_Days	4		
11	280-159384-D-6 (9060A_Diss)	N/A (280-159384-1)	Water			3/22/22	18_Days	4		

FILTRATION Analysis Sheet

(To Accompany Samples to Instruments)

03/23/2022

Batch Number: 280-568705

Analyst: Wondimu, Akewak B

Batch Open: 3/15/2022 1:56:00PM

Batch End:

Batch Notes

Pipette/Syringe/Dispenser ID	9086953
Filter ID	17233826
Nitric Acid ID	N/A
Batch Comment	DOC Filtration

Comments

280-159454-D-1	Method Comments:	Q5Rev3.1-12212015_Std Var App_60day disposal
280-159454-D-1~MS	Method Comments:	Q5Rev3.1-12212015_Std Var App_60day disposal
280-159454-D-1~MS	Method Comments:	Q5Rev3.1-12212015_Std Var App_60day disposal
280-159454-D-2	Method Comments:	Q5Rev3.1-12212015_Std Var App_60day disposal
280-159384-D-1	Method Comments:	Q5Rev3.1-12212015_Std Var App_60day disposal
280-159384-D-2	Method Comments:	Q5Rev3.1-12212015_Std Var App_60day disposal
280-159384-D-4	Method Comments:	Q5Rev3.1-12212015_Std Var App_60day disposal
280-159384-D-5	Method Comments:	Q5Rev3.1-12212015_Std Var App_60day disposal
280-159384-D-6	Method Comments:	Q5Rev3.1-12212015_Std Var App_60day disposal

FILTRATION Analysis Sheet

(To Accompany Samples to Instruments)

03/23/2022

Batch Number: 280-568705

Analyst: Wondimu, Akewak B

Batch Open: 3/15/2022 1:56:00PM

Batch End:

Reagent Additions Worksheet

Lab ID	Reagent Code	Amount Added	Final Amount	By	Witness

Other Reagents:

Reagent	Amount/Units	Lot#:

Page 1029 of 1045

Shi 5 Filtration

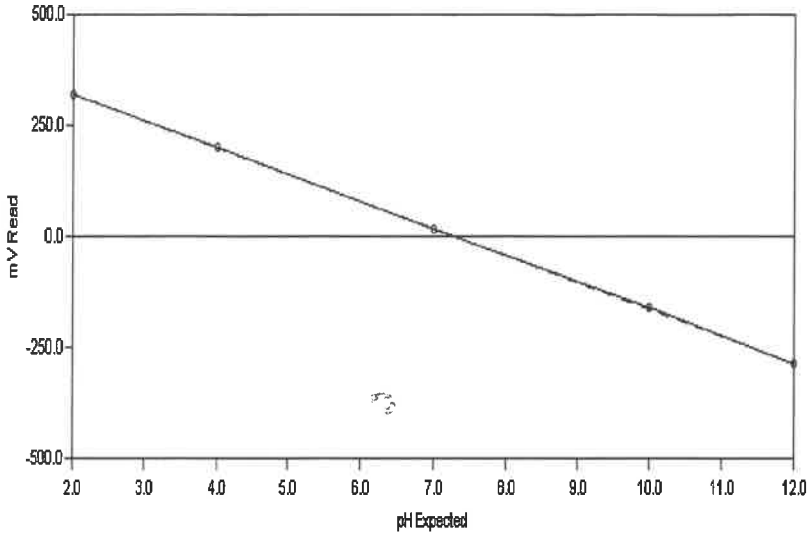
9060A

	Type	A	Sample Name	Sa	O	M	Result	Notes	S	D	Vi
1*	Unknown	N	ICV		N	1	✓		D		1
2*	Unknown	N	ICB		N	1	✓		D		2
3*	Unknown	N	LCS		N	1	✓		D		3
4*	Unknown	N	MB		N	1	✓		D		4
5*	Unknown	N	TIC		N	1	✓		D		5
6*	Unknown	N	lcs 280-568705/1-a		N	1	✓		D		6
7*	Unknown	N	mb 280-568705/2-a		N	1	✓		D		7
8*	Unknown	N	280-159454-d-1-a		N	1	>2		D		8
9*	Unknown	N	280-159454-d-1-b ms		N	1	>2		D		9
10*	Unknown	N	280-159454-d-1-c msd		N	1	>2		D		1
11*	Unknown	N	280-159454-d-2-a		N	1	>2		D		1
12*	Unknown	N	280-159384-d-1-a		N	1	>2		D		1
13*	Unknown	N	280-159384-d-2-a		N	1	>2		D		1
14*	Unknown	N	280-159384-d-4-a		N	1	>2		D		1
15*	Unknown	N	CCV		N	1	✓		D		1
16*	Unknown	N	CCB		N	1	✓		D		1
17*	Unknown	N	280-159384-d-5-a		N	1	>2		D		1
18*	Unknown	N	280-159384-d-6-a		N	1	>2		D		1
19*	Unknown	N	CCV		N	1	✓		D		1
20*	Unknown	N	CCB		N	1	✓		D		2

BWH 5000

Calibration Report

Calibration Record # 472



Calibration Settings

Calibration ID	PH	Date	03/07/2022	
Channel	1	Time	3:22 PM	
Probe Type	pH	Temperature	295.69 K	22.54 C
Probe ID	PH ELECTRODE	Analysis Type	Single Line Fit	

Calibration Results

Slope	-60.530	CorrCoeff	1.0000
Intercept	17.796	Equation:	Y = (-60.530) X + (17.796)

Calibration Validity **True** Operator

	Result	Minimum	Maximum
Slope	-60.530	-65.00	-53.00
Intercept	17.796	-100.00	100.00
Correlation Coefficient	1.0000	0.99	1.00

Note: "True" means the calibration was within the specified ranges
"False" means the calibration was NOT within the specified ranges

Calibration Data	Standard	Reading
	2.00	320.92
	4.00	198.85
	7.00	16.84
	10.00	-161.62
	12.00	-286.01

Test America

Water Analysis Report

AT4 Analyst:_____

03/23/2022

Run Number 1390 **Order Number** 20220307-2

SampleID	RunDate	RunTime	Temp	cond (uS)	pH	palk-ppm	talk-ppm	bcarb-ppm	carb-ppm	hydr-ppm	(mL) @ 8.3	(mL) @ 4.5	(mL) @ 4.2	Conc (N)
RINSE	3/7/2022	4:25 PM	22.66	-1.00	5.31	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00
INITIAL CHECK	3/7/2022	4:33 PM	22.75	-1.00	10.61	104.15	198.39	.00	188.48	9.91	1.04	1.98	-1.00	.02
BUFFER 7	3/7/2022	4:36 PM	22.19	-1.00	7.01	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00
LCS	3/7/2022	4:43 PM	22.26	-1.00	10.64	99.57	196.36	.00	193.59	2.77	1.00	1.96	-1.00	.02
LCSD	3/7/2022	4:50 PM	22.05	-1.00	10.65	103.08	197.54	.00	188.92	8.62	1.03	1.98	-1.00	.02
MB	3/7/2022	4:56 PM	22.31	-1.00	7.48	.00	.80	.80	.00	.00	.00	.02	.04	.02
280-159312-A-5	3/7/2022	5:01 PM	22.14	-1.00	7.32	.00	116.16	116.16	.00	.00	.00	1.16	-1.00	.02
DU 280-159312-a-5	3/7/2022	5:07 PM	22.08	-1.00	7.38	.00	114.88	114.88	.00	.00	.00	1.15	-1.00	.02
280-159312-a-12	3/7/2022	5:13 PM	22.02	-1.00	7.43	.00	114.93	114.93	.00	.00	.00	1.15	-1.00	.02
280-159375-a-3	3/7/2022	5:19 PM	22.22	-1.00	8.14	.00	159.04	159.04	.00	.00	.00	1.59	-1.00	.02
280-159377-a-3	3/7/2022	5:25 PM	22.51	-1.00	8.19	.00	119.31	119.31	.00	.00	.00	1.19	-1.00	.02
280-159377-a-10	3/7/2022	5:30 PM	22.28	-1.00	6.28	.00	8.21	8.21	.00	.00	.00	.10	.12	.02
280-159276-a-2	3/7/2022	5:38 PM	21.99	-1.00	7.77	.00	273.70	273.70	.00	.00	.00	2.74	-1.00	.02
280-159276-a-3	3/7/2022	5:45 PM	21.86	-1.00	7.86	.00	324.45	324.45	.00	.00	.00	3.24	-1.00	.02
280-159276-a-4	3/7/2022	5:53 PM	21.85	-1.00	7.79	.00	316.80	316.80	.00	.00	.00	3.17	-1.00	.02
280-159276-a-5	3/7/2022	6:03 PM	21.89	-1.00	8.13	.00	625.92	625.92	.00	.00	.00	6.26	-1.00	.02
CCV	3/7/2022	6:10 PM	21.57	-1.00	10.61	103.14	199.03	.00	191.78	7.25	1.03	1.99	-1.00	.02
CCB	3/7/2022	6:15 PM	21.96	-1.00	7.64	.00	.90	.90	.00	.00	.00	.03	.04	.02
280-159285-c-1	3/7/2022	6:25 PM	21.90	-1.00	7.81	.00	557.08	557.08	.00	.00	.00	5.57	-1.00	.02
280-159285-c-2	3/7/2022	6:33 PM	22.16	-1.00	7.65	.00	459.66	459.66	.00	.00	.00	4.60	-1.00	.02
280-159285-c-3	3/7/2022	6:39 PM	22.20	-1.00	7.35	.00	1.66	1.66	.00	.00	.00	.03	.05	.02
280-159286-c-1	3/7/2022	6:50 PM	22.37	-1.00	7.76	.00	772.10	772.10	.00	.00	.00	7.72	-1.00	.02
280-159286-c-2	3/7/2022	6:59 PM	22.75	-1.00	7.72	.00	538.32	538.32	.00	.00	.00	5.38	-1.00	.02
280-159286-c-3	3/7/2022	7:07 PM	22.42	-1.00	7.77	.00	378.67	378.67	.00	.00	.00	3.79	-1.00	.02
280-159286-c-4	3/7/2022	7:16 PM	22.07	-1.00	7.66	.00	467.30	467.30	.00	.00	.00	4.67	-1.00	.02
280-159288-c-1	3/7/2022	7:26 PM	21.93	-1.00	7.80	.00	612.17	612.17	.00	.00	.00	6.12	-1.00	.02
280-159288-c-2	3/7/2022	7:36 PM	21.90	-1.00	7.95	.00	709.74	709.74	.00	.00	.00	7.10	-1.00	.02

GENERAL RESULTS REPORT.SRW

PC-TitratION PLUS by Man-Tech Associates, Inc.

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Run Number 1390 **Order Number** 20220307-2

SampleID	RunDate	RunTime	Temp	cond (uS)	pH	palk-ppm	talk-ppm	bcarb-ppm	carb-ppm	hydr-ppm	(mL) @ 8.3	(mL) @ 4.5	(mL) @ 4.2	Conc (N)
280-159288-c-3	3/7/2022	7:45 PM	21.89	-1.00	7.84	.00	438.25	438.25	.00	.00	.00	4.38	-1.00	.02
CCV	3/7/2022	7:52 PM	21.69	-1.00	10.57	101.80	198.16	.00	192.73	5.43	1.02	1.98	-1.00	.02
CCB	3/7/2022	7:57 PM	21.80	-1.00	7.70	.00	1.12	1.12	.00	.00	.00	.03	.04	.02
LCS	3/7/2022	8:05 PM	21.76	-1.00	10.57	99.80	197.26	.00	194.93	2.34	1.00	1.97	-1.00	.02
MB	3/7/2022	8:11 PM	22.02	-1.00	7.61	.00	.87	.87	.00	.00	.00	.02	.04	.02
280-159288-c-4	3/7/2022	8:19 PM	22.20	-1.00	7.86	.00	427.92	427.92	.00	.00	.00	4.28	-1.00	.02
DU 280-159288-c-4	3/7/2022	8:27 PM	22.63	-1.00	7.86	.00	431.42	431.42	.00	.00	.00	4.31	-1.00	.02
280-159302-a-1	3/7/2022	8:35 PM	22.57	-1.00	7.68	.00	334.86	334.86	.00	.00	.00	3.35	-1.00	.02
280-159302-a-2	3/7/2022	8:41 PM	22.26	-1.00	7.27	.00	1.78	1.78	.00	.00	.00	.03	.05	.02
280-159302-a-3	3/7/2022	8:50 PM	21.99	-1.00	7.48	.00	535.24	535.24	.00	.00	.00	5.35	-1.00	.02
280-159302-a-4	3/7/2022	8:57 PM	21.95	-1.00	6.45	.00	297.22	297.22	.00	.00	.00	2.97	-1.00	.02
280-159302-a-5	3/7/2022	9:06 PM	21.90	-1.00	7.46	.00	509.00	509.00	.00	.00	.00	5.09	-1.00	.02
280-159302-a-6	3/7/2022	9:14 PM	21.90	-1.00	7.52	.00	437.72	437.72	.00	.00	.00	4.38	-1.00	.02
280-159302-a-7	3/7/2022	9:24 PM	21.93	-1.00	7.78	.00	531.20	531.20	.00	.00	.00	5.31	-1.00	.02
280-159302-a-8	3/7/2022	9:33 PM	21.96	-1.00	7.76	.00	593.41	593.41	.00	.00	.00	5.93	-1.00	.02
CCV	3/7/2022	9:41 PM	21.95	-1.00	10.52	98.60	199.09	1.90	197.19	.00	.99	1.99	-1.00	.02
CCB	3/7/2022	9:46 PM	22.23	-1.00	7.47	.00	.98	.98	.00	.00	.00	.03	.04	.02
280-159302-a-9	3/7/2022	9:54 PM	22.45	-1.00	7.79	.00	400.84	400.84	.00	.00	.00	4.01	-1.00	.02
280-159225-a-3	3/7/2022	10:01 PM	22.78	-1.00	7.46	.00	200.94	200.94	.00	.00	.00	2.01	-1.00	.02
280-159225-a-4	3/7/2022	10:09 PM	22.42	-1.00	7.86	.00	359.98	359.98	.00	.00	.00	3.60	-1.00	.02
280-159225-a-5	3/7/2022	10:15 PM	22.20	-1.00	7.05	.00	209.94	209.94	.00	.00	.00	2.10	-1.00	.02
280-159340-d-1	3/7/2022	10:22 PM	22.00	-1.00	7.66	.00	142.02	142.02	.00	.00	.00	1.42	-1.00	.02
280-159340-d-2	3/7/2022	10:28 PM	21.92	-1.00	7.66	.00	163.48	163.48	.00	.00	.00	1.63	-1.00	.02
280-159340-d-3	3/7/2022	10:35 PM	21.93	-1.00	7.44	.00	183.37	183.37	.00	.00	.00	1.83	-1.00	.02
280-159340-d-4	3/7/2022	10:41 PM	21.93	-1.00	7.52	.00	156.36	156.36	.00	.00	.00	1.56	-1.00	.02
280-159340-d-5	3/7/2022	10:48 PM	21.99	-1.00	7.47	.00	184.63	184.63	.00	.00	.00	1.85	-1.00	.02
280-159341-c-1	3/7/2022	11:09 PM	22.00	-1.00	7.81	.00	2,070.50	2,070.50	.00	.00	.00	20.70	-1.00	.02
CCV	3/7/2022	11:17 PM	22.25	-1.00	10.49	99.07	200.10	1.96	198.14	.00	.99	2.00	-1.00	.02
CCB	3/7/2022	11:22 PM	22.49	-1.00	7.72	.00	1.60	1.60	.00	.00	.00	.03	.05	.02
LCS	3/7/2022	11:29 PM	22.52	-1.00	10.48	97.04	201.70	7.63	194.07	.00	.97	2.02	-1.00	.02

PC-TitratION PLUS by Man-Tech Associates, Inc.

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Run Number 1390 **Order Number** 20220307-2

SampleID	RunDate	RunTime	Temp	cond (uS)	pH	palk-ppm	talk-ppm	bcarb-ppm	carb-ppm	hydr-ppm	(mL) @ 8.3	(mL) @ 4.5	(mL) @ 4.2	Conc (N)
MB	3/7/2022	11:35 PM	22.74	-1.00	7.74	.00	1.92	1.92	.00	.00	.00	.04	.05	.02
280-159341-c-2	3/7/2022	11:57 PM	22.40	-1.00	7.77	.00	.00	.00	.00	.00	.00	.00	.00	.02
DU 280-159341-c-2	3/8/2022	12:20 AM	22.45	-1.00	7.73	.00	.00	.00	.00	.00	.00	.00	.00	.02
280-159341-c-3	3/8/2022	12:41 AM	22.31	-1.00	7.86	.00	.00	.00	.00	.00	.00	.00	.00	.02
280-159342-c-1	3/8/2022	1:02 AM	22.31	-1.00	7.91	.00	.00	.00	.00	.00	.00	.00	.00	.02
280-159342-c-2	3/8/2022	1:20 AM	22.23	-1.00	7.78	.00	1,495.90	1,495.90	.00	.00	.00	14.96	-1.00	.02
280-159342-c-3	3/8/2022	1:34 AM	21.98	-1.00	8.49	39.67	1,201.87	1,122.53	79.34	.00	.40	12.02	-1.00	.02
280-159343-d-1	3/8/2022	1:55 AM	22.22	-1.00	7.77	.00	2,142.20	2,142.20	.00	.00	.00	21.42	-1.00	.02
280-159343-d-2	3/8/2022	2:19 AM	22.31	-1.00	7.98	.00	2,449.96	2,449.96	.00	.00	.00	24.50	-1.00	.02
280-159346-b-1	3/8/2022	2:32 AM	22.37	-1.00	8.50	25.05	1,065.77	1,015.67	50.10	.00	.25	10.66	-1.00	.02
280-159346-d-2	3/8/2022	2:43 AM	22.55	-1.00	8.56	20.53	709.08	668.01	41.07	.00	.21	7.09	-1.00	.02
CCV	3/8/2022	2:51 AM	22.89	-1.00	10.38	92.62	202.93	17.70	185.23	.00	.93	2.03	-1.00	.02
CCB	3/8/2022	2:56 AM	22.63	-1.00	7.71	.00	3.80	3.80	.00	.00	.00	.05	.07	.02
280-159346-d-3	3/8/2022	3:10 AM	22.35	-1.00	8.68	48.09	1,175.19	1,079.02	96.18	.00	.48	11.75	-1.00	.02
280-159347-a-1	3/8/2022	3:20 AM	22.42	-1.00	8.39	10.87	647.10	625.37	21.73	.00	.11	6.47	-1.00	.02
280-159347-a-2	3/8/2022	3:28 AM	22.37	-1.00	6.98	.00	327.86	327.86	.00	.00	.00	3.28	-1.00	.02
280-159347-a-3	3/8/2022	3:38 AM	22.31	-1.00	7.31	.00	621.99	621.99	.00	.00	.00	6.22	-1.00	.02
280-159354-a-1	3/8/2022	3:47 AM	22.42	-1.00	7.85	.00	488.78	488.78	.00	.00	.00	4.89	-1.00	.02
280-159354-a-2	3/8/2022	3:56 AM	22.45	-1.00	7.94	.00	493.95	493.95	.00	.00	.00	4.94	-1.00	.02
280-159354-a-3	3/8/2022	4:05 AM	22.49	-1.00	7.99	.00	590.67	590.67	.00	.00	.00	5.91	-1.00	.02
280-159354-a-4	3/8/2022	4:13 AM	22.49	-1.00	8.14	.00	307.57	307.57	.00	.00	.00	3.08	-1.00	.02
280-159354-a-9	3/8/2022	4:19 AM	22.60	-1.00	7.19	.00	2.17	2.17	.00	.00	.00	.04	.05	.02
280-159355-b-1	3/8/2022	4:26 AM	22.70	-1.00	8.11	.00	302.77	302.77	.00	.00	.00	3.03	-1.00	.02
CCV	3/8/2022	4:34 AM	22.87	-1.00	10.35	91.95	204.21	20.30	183.91	.00	.92	2.04	-1.00	.02
CCB	3/8/2022	4:40 AM	22.75	-1.00	7.60	.00	2.12	2.12	.00	.00	.00	.04	.05	.02
LCS	3/8/2022	4:47 AM	22.46	-1.00	10.34	91.60	204.70	21.50	183.21	.00	.92	2.05	-1.00	.02
MB	3/8/2022	4:52 AM	22.58	-1.00	7.79	.00	2.18	2.18	.00	.00	.00	.04	.05	.02
280-159355-b-2	3/8/2022	5:00 AM	22.55	-1.00	8.03	.00	305.90	305.90	.00	.00	.00	3.06	-1.00	.02
DU 280-159355-b-2	3/8/2022	5:07 AM	22.58	-1.00	8.06	.00	306.85	306.85	.00	.00	.00	3.07	-1.00	.02
280-159359-a-1	3/8/2022	5:13 AM	22.64	-1.00	7.61	.00	93.83	93.83	.00	.00	.00	.94	-1.00	.02

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Run Number 1390 **Order Number** 20220307-2

SampleID	RunDate	RunTime	Temp	cond (uS)	pH	palk-ppm	talk-ppm	bcarb-ppm	carb-ppm	hydr-ppm	(mL) @ 8.3	(mL) @ 4.5	(mL) @ 4.2	Conc (N)
280-159359-a-2	3/8/2022	5:19 AM	22.66	-1.00	7.86	.00	141.93	141.93	.00	.00	.00	1.42	-1.00	.02
280-159359-a-3	3/8/2022	5:26 AM	22.75	-1.00	7.81	.00	249.71	249.71	.00	.00	.00	2.50	-1.00	.02
280-159359-a-4	3/8/2022	5:33 AM	22.75	-1.00	7.76	.00	143.02	143.02	.00	.00	.00	1.43	-1.00	.02
280-159364-a-1	3/8/2022	5:40 AM	22.80	-1.00	7.74	.00	214.45	214.45	.00	.00	.00	2.14	-1.00	.02
280-159364-a-2	3/8/2022	5:47 AM	23.11	-1.00	7.87	.00	307.58	307.58	.00	.00	.00	3.08	-1.00	.02
280-159364-a-3	3/8/2022	5:54 AM	23.04	-1.00	7.82	.00	223.81	223.81	.00	.00	.00	2.24	-1.00	.02
280-159384-f-1	3/8/2022	6:02 AM	23.03	-1.00	7.89	.00	367.84	367.84	.00	.00	.00	3.68	-1.00	.02
CCV	3/8/2022	6:09 AM	22.93	-1.00	10.30	89.11	206.92	28.71	178.22	.00	.89	2.07	-1.00	.02
CCB	3/8/2022	6:15 AM	22.98	-1.00	7.34	.00	1.33	1.33	.00	.00	.00	.03	.05	.02

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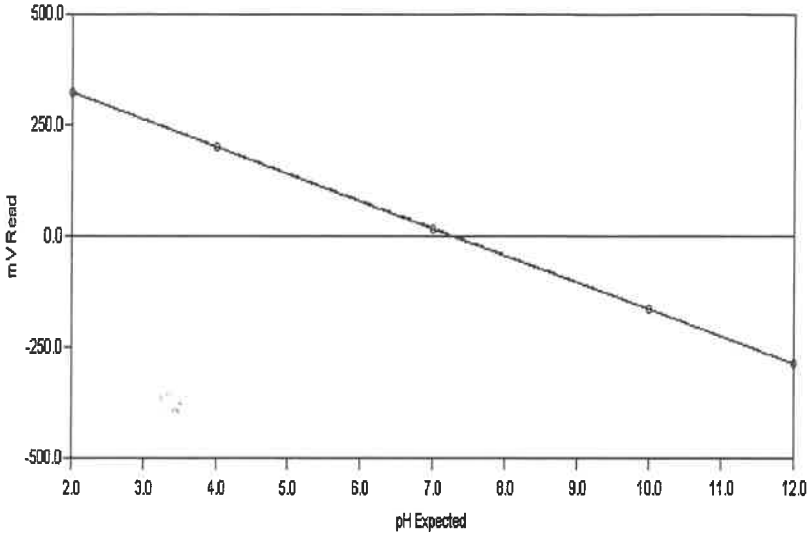
MANTECH

MANTECH INC.

Report Date: 3/8/2022 : 1:04 PM

Calibration Report

Calibration Record # 473



Calibration Settings

Calibration ID	PH	Date	3/8/2022	
Channel	1	Time	12:41 PM	
Probe Type	pH	Temperature	295.99 K	22.84 C
Probe ID	PH ELECTRODE	Analysis Type	Single Line Fit	

Calibration Results

Slope	-60.832	CorrCoeff	1.0000
Intercept	18.016	Equation:	Y = (-60.832) X + (18.016)

Calibration Validity **True** Operator

	Result	Minimum	Maximum
Slope	-60.832	-65.00	-53.00
Intercept	18.016	-100.00	100.00
Correlation Coefficient	1.0000	0.99	1.00

Note: "True" means the calibration was within the specified ranges
"False" means the calibration was NOT within the specified ranges

Calibration Data	Standard	Reading
	2.00	322.50
	4.00	200.07
	7.00	17.08
	10.00	-161.98
	12.00	-287.59

Test America
Water Analysis Report

AT4 Analyst:_____

03/23/2022

Run Number 1392 **Order Number** 20220308-2

SampleID	RunDate	RunTime	Temp	cond (uS)	pH	palk-ppm	talk-ppm	bcarb-ppm	carb-ppm	hydr-ppm	(mL) @ 8.3	(mL) @ 4.5	(mL) @ 4.2	Conc (N)
RINSE	3/8/2022	2:33 PM	22.96	-1.00	5.28	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00
INITIAL CHECK	3/8/2022	2:40 PM	22.58	-1.00	10.66	103.62	197.04	.00	186.85	10.19	1.04	1.97	-1.00	.02
BUFFER 7	3/8/2022	2:43 PM	22.49	-1.00	7.01	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00
LCS	3/8/2022	2:50 PM	22.20	-1.00	10.67	104.63	197.91	.00	186.56	11.35	1.05	1.98	-1.00	.02
LCSD	3/8/2022	2:57 PM	22.08	-1.00	10.69	105.14	197.07	.00	183.85	13.22	1.05	1.97	-1.00	.02
MB	3/8/2022	3:03 PM	22.28	-1.00	7.90	.00	.99	.99	.00	.00	.00	.03	.04	.02
280-159382-a-3	3/8/2022	3:08 PM	22.17	-1.00	6.85	.00	87.29	87.29	.00	.00	.00	.87	-1.00	.02
DU 280-159382-a-3	3/8/2022	3:13 PM	22.14	-1.00	6.92	.00	88.72	88.72	.00	.00	.00	.89	-1.00	.02
280-159384-f-2	3/8/2022	3:22 PM	22.23	-1.00	7.46	.00	509.71	509.71	.00	.00	.00	5.10	-1.00	.02
280-159384-f-4	3/8/2022	3:33 PM	22.34	-1.00	7.04	.00	707.82	707.82	.00	.00	.00	7.08	-1.00	.02
280-159384-f-5	3/8/2022	3:45 PM	22.58	-1.00	7.18	.00	849.32	849.32	.00	.00	.00	8.49	-1.00	.02
280-159384-f-6	3/8/2022	3:55 PM	22.67	-1.00	7.01	.00	670.77	670.77	.00	.00	.00	6.71	-1.00	.02
280-159401-b-1	3/8/2022	4:09 PM	22.57	-1.00	8.28	.00	1,130.70	1,130.70	.00	.00	.00	11.31	-1.00	.02
280-159401-b-2	3/8/2022	4:22 PM	22.37	-1.00	8.48	19.88	1,000.72	960.96	39.76	.00	.20	10.01	-1.00	.02
280-159419-d-1	3/8/2022	4:31 PM	22.29	-1.00	6.99	.00	519.53	519.53	.00	.00	.00	5.20	-1.00	.02
280-159419-d-2	3/8/2022	4:46 PM	22.11	-1.00	6.98	.00	1,249.83	1,249.83	.00	.00	.00	12.50	-1.00	.02
CCV	3/8/2022	4:53 PM	21.79	-1.00	10.60	102.93	197.81	.00	189.76	8.06	1.03	1.98	-1.00	.02
CCB	3/8/2022	4:59 PM	21.99	-1.00	7.63	.00	.99	.99	.00	.00	.00	.03	.04	.02
280-159419-d-3	3/8/2022	5:09 PM	22.02	-1.00	6.99	.00	643.34	643.34	.00	.00	.00	6.43	-1.00	.02
280-159419-d-4	3/8/2022	5:18 PM	22.11	-1.00	6.97	.00	513.03	513.03	.00	.00	.00	5.13	-1.00	.02
280-159419-d-5	3/8/2022	5:25 PM	22.17	-1.00	7.06	.00	296.77	296.77	.00	.00	.00	2.97	-1.00	.02
280-159419-d-6	3/8/2022	5:32 PM	22.45	-1.00	7.01	.00	220.56	220.56	.00	.00	.00	2.21	-1.00	.02
280-159432-c-1	3/8/2022	5:41 PM	22.80	-1.00	7.68	.00	542.76	542.76	.00	.00	.00	5.43	-1.00	.02
280-159431-a-1	3/8/2022	5:53 PM	22.57	-1.00	7.76	.00	903.76	903.76	.00	.00	.00	9.04	-1.00	.02
280-159431-a-2	3/8/2022	6:02 PM	22.32	-1.00	7.81	.00	395.38	395.38	.00	.00	.00	3.95	-1.00	.02
280-159332-f-1	3/8/2022	6:09 PM	22.14	-1.00	7.07	.00	324.60	324.60	.00	.00	.00	3.25	-1.00	.02
280-159332-f-2	3/8/2022	6:16 PM	22.07	-1.00	7.18	.00	300.22	300.22	.00	.00	.00	3.00	-1.00	.02

PC-TitratION PLUS by Man-Tech Associates, Inc.

GENERAL RESULTS REPORT.SRW

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Run Number 1392 **Order Number** 20220308-2

SampleID	RunDate	RunTime	Temp	cond (uS)	pH	palk-ppm	talk-ppm	bcarb-ppm	carb-ppm	hydr-ppm	(mL) @ 8.3	(mL) @ 4.5	(mL) @ 4.2	Conc (N)
280-159332-f-3	3/8/2022	6:23 PM	21.96	-1.00	7.13	.00	210.07	210.07	.00	.00	.00	2.10	-1.00	.02
CCV	3/8/2022	6:30 PM	21.93	-1.00	10.57	99.13	197.43	.00	196.60	.83	.99	1.97	-1.00	.02
CCB	3/8/2022	6:36 PM	21.98	-1.00	7.69	.00	1.06	1.06	.00	.00	.00	.03	.05	.02
LCS	3/8/2022	6:43 PM	21.70	-1.00	10.59	101.98	200.27	.00	196.59	3.69	1.02	2.00	-1.00	.02
MB	3/8/2022	6:48 PM	22.08	-1.00	7.58	.00	1.12	1.12	.00	.00	.00	.03	.05	.02
280-159332-f-4	3/8/2022	6:56 PM	22.22	-1.00	7.14	.00	397.84	397.84	.00	.00	.00	3.98	-1.00	.02
DU 280-159332-f-4	3/8/2022	7:04 PM	22.48	-1.00	7.09	.00	397.16	397.16	.00	.00	.00	3.97	-1.00	.02
280-159332-f-5	3/8/2022	7:12 PM	22.60	-1.00	7.13	.00	399.04	399.04	.00	.00	.00	3.99	-1.00	.02
280-159332-f-6	3/8/2022	7:20 PM	22.28	-1.00	7.42	.00	331.90	331.90	.00	.00	.00	3.32	-1.00	.02
280-159332-f-7	3/8/2022	7:27 PM	22.13	-1.00	7.29	.00	297.56	297.56	.00	.00	.00	2.98	-1.00	.02
280-159332-f-8	3/8/2022	7:35 PM	22.00	-1.00	7.51	.00	321.92	321.92	.00	.00	.00	3.22	-1.00	.02
280-159332-f-9	3/8/2022	7:42 PM	21.92	-1.00	6.88	.00	298.53	298.53	.00	.00	.00	2.99	-1.00	.02
280-159332-f-10	3/8/2022	7:51 PM	21.86	-1.00	6.96	.00	554.73	554.73	.00	.00	.00	5.55	-1.00	.02
280-159332-f-11	3/8/2022	8:00 PM	21.86	-1.00	7.03	.00	452.84	452.84	.00	.00	.00	4.53	-1.00	.02
280-159332-f-12	3/8/2022	8:09 PM	21.95	-1.00	7.01	.00	456.28	456.28	.00	.00	.00	4.56	-1.00	.02
CCV	3/8/2022	8:15 PM	21.74	-1.00	10.55	98.52	198.66	1.62	197.04	.00	.99	1.99	-1.00	.02
CCB	3/8/2022	8:21 PM	22.16	-1.00	7.68	.00	1.12	1.12	.00	.00	.00	.03	.04	.02
280-159332-f-13	3/8/2022	8:27 PM	22.37	-1.00	6.92	.00	138.21	138.21	.00	.00	.00	1.38	-1.00	.02
280-159361-a-2	3/8/2022	8:42 PM	22.74	-1.00	7.50	.00	1,293.82	1,293.82	.00	.00	.00	12.94	-1.00	.02
280-159361-a-3	3/8/2022	8:51 PM	22.52	-1.00	7.70	.00	526.85	526.85	.00	.00	.00	5.27	-1.00	.02
280-159361-a-4	3/8/2022	9:00 PM	22.31	-1.00	7.46	.00	450.83	450.83	.00	.00	.00	4.51	-1.00	.02
280-159361-a-5	3/8/2022	9:08 PM	22.10	-1.00	7.78	.00	385.36	385.36	.00	.00	.00	3.85	-1.00	.02
280-159361-a-6	3/8/2022	9:16 PM	22.05	-1.00	7.43	.00	438.60	438.60	.00	.00	.00	4.39	-1.00	.02
280-159361-a-7	3/8/2022	9:26 PM	22.07	-1.00	7.50	.00	604.13	604.13	.00	.00	.00	6.04	-1.00	.02
280-159361-a-8	3/8/2022	9:35 PM	22.02	-1.00	7.67	.00	426.20	426.20	.00	.00	.00	4.26	-1.00	.02
280-159346-d-3	3/8/2022	9:48 PM	21.85	-1.00	8.61	38.81	1,152.10	1,074.47	77.62	.00	.39	11.52	-1.00	.02
280-159441-a-2	3/8/2022	9:54 PM	22.08	-1.00	6.30	.00	82.11	82.11	.00	.00	.00	.82	-1.00	.02
CCV	3/8/2022	10:01 PM	21.83	-1.00	10.50	98.47	200.90	3.96	196.94	.00	.98	2.01	-1.00	.02
CCB	3/8/2022	10:06 PM	22.25	-1.00	7.64	.00	1.21	1.21	.00	.00	.00	.03	.04	.02
LCS	3/8/2022	10:13 PM	22.42	-1.00	10.51	98.35	203.13	6.43	196.71	.00	.98	2.03	-1.00	.02

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Run Number 1392 **Order Number** 20220308-2

SampleID	RunDate	RunTime	Temp	cond (uS)	pH	palk-ppm	talk-ppm	bcarb-ppm	carb-ppm	hydr-ppm	(mL) @ 8.3	(mL) @ 4.5	(mL) @ 4.2	Conc (N)
MB	3/8/2022	10:19 PM	22.69	-1.00	7.67	.00	.94	.94	.00	.00	.00	.03	.04	.02
280-159441-a-3	3/8/2022	10:28 PM	22.46	-1.00	7.37	.00	582.10	582.10	.00	.00	.00	5.82	-1.00	.02
DU 280-159441-a-3	3/8/2022	10:38 PM	22.35	-1.00	7.27	.00	577.63	577.63	.00	.00	.00	5.78	-1.00	.02
280-159441-a-4	3/8/2022	10:44 PM	22.23	-1.00	6.84	.00	158.70	158.70	.00	.00	.00	1.59	-1.00	.02
280-159442-a-1	3/8/2022	10:53 PM	22.11	-1.00	7.17	.00	476.13	476.13	.00	.00	.00	4.76	-1.00	.02
280-159442-a-2	3/8/2022	11:05 PM	22.13	-1.00	7.38	.00	836.93	836.93	.00	.00	.00	8.37	-1.00	.02
280-159434-a-1	3/8/2022	11:16 PM	22.22	-1.00	7.87	.00	693.30	693.30	.00	.00	.00	6.93	-1.00	.02
280-159347-a-1	3/8/2022	11:26 PM	22.20	-1.00	8.28	.00	639.96	639.96	.00	.00	.00	6.40	-1.00	.02
280-159443-a-1	3/8/2022	11:36 PM	22.26	-1.00	7.39	.00	700.66	700.66	.00	.00	.00	7.01	-1.00	.02
280-159452-a-1	3/8/2022	11:42 PM	22.39	-1.00	6.56	.00	72.60	72.60	.00	.00	.00	.73	-1.00	.02
280-159452-a-2	3/8/2022	11:48 PM	22.52	-1.00	6.75	.00	118.55	118.55	.00	.00	.00	1.19	-1.00	.02
CCV	3/8/2022	11:54 PM	22.84	-1.00	10.46	97.41	206.86	12.05	194.81	.00	.97	2.07	-1.00	.02
CCB	3/9/2022	12:00 AM	22.78	-1.00	7.65	.00	.75	.75	.00	.00	.00	.03	.05	.02
280-159452-a-3	3/9/2022	12:05 AM	22.58	-1.00	5.91	.00	23.16	23.16	.00	.00	.00	.23	-1.00	.02
280-159452-a-4	3/9/2022	12:13 AM	22.43	-1.00	7.63	.00	335.20	335.20	.00	.00	.00	3.35	-1.00	.02
280-159452-a-5	3/9/2022	12:20 AM	22.49	-1.00	7.30	.00	276.90	276.90	.00	.00	.00	2.77	-1.00	.02
280-159454-f-1	3/9/2022	12:32 AM	22.34	-1.00	7.45	.00	970.09	970.09	.00	.00	.00	9.70	-1.00	.02
280-159454-f-2	3/9/2022	12:45 AM	22.49	-1.00	7.45	.00	973.28	973.28	.00	.00	.00	9.73	-1.00	.02
280-159421-a-1	3/9/2022	12:54 AM	22.54	-1.00	8.19	.00	367.67	367.67	.00	.00	.00	3.68	-1.00	.02
280-159421-a-2	3/9/2022	1:03 AM	22.35	-1.00	8.82	49.24	689.74	591.25	98.49	.00	.49	6.90	-1.00	.02
280-159421-a-4	3/9/2022	1:13 AM	22.66	-1.00	7.47	.00	517.27	517.27	.00	.00	.00	5.17	-1.00	.02
280-159421-a-3	3/9/2022	1:22 AM	22.74	-1.00	8.13	.00	604.01	604.01	.00	.00	.00	6.04	-1.00	.02
280-159450-h-1	3/9/2022	1:40 AM	22.90	-1.00	7.91	.00	.00	.00	.00	.00	.00	.00	.00	.02
CCV	3/9/2022	1:48 AM	23.09	-1.00	10.39	97.87	209.94	14.20	195.74	.00	.98	2.10	-1.00	.02
CCB	3/9/2022	1:53 AM	23.03	-1.00	7.79	.00	1.50	1.50	.00	.00	.00	.03	.05	.02
LCS	3/9/2022	2:01 AM	22.87	-1.00	10.42	96.13	205.30	13.03	192.27	.00	.96	2.05	-1.00	.02
MB	3/9/2022	2:06 AM	22.90	-1.00	7.84	.00	2.30	2.30	.00	.00	.00	.04	.06	.02
280-159450-g-2	3/9/2022	2:28 AM	22.87	-1.00	7.88	.00	.00	.00	.00	.00	.00	.00	.00	.02
DU 280-159450-g-2	3/9/2022	2:50 AM	22.92	-1.00	7.90	.00	.00	.00	.00	.00	.00	.00	.00	.02
CCV	3/9/2022	2:58 AM	22.89	-1.00	10.38	96.51	210.49	17.47	193.02	.00	.97	2.10	-1.00	.02

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Run Number 1392 **Order Number** 20220308-2

SampleID	RunDate	RunTime	Temp	cond (uS)	pH	palk-ppm	talk-ppm	bcarb-ppm	carb-ppm	hydr-ppm	(mL) @ 8.3	(mL) @ 4.5	(mL) @ 4.2	Conc (N)
CCB	3/9/2022	3:03 AM	22.83	-1.00	7.68	.00	6.50	6.50	.00	.00	.00	.07	.07	.02

03/23/2022

PC-TitratION PLUS by Man-Tech Associates, Inc.

GENERAL RESULTS REPORT.SRW

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Shipping and Receiving Documents

AECOM
12120 Shamrock Plaza Suite 300, Omaha, NE 68154 (402) 334-8181 Fax (402) 334-1984

CHAIN OF CUSTODY RECORD

Project Name: CHAAP 2019	AECOM Project Number: 60565355	Bill to: Brice Engineering
Project Location: Grand Island, Nebraska	AECOM Project Manager: Dean Converse	Remarks
Sampler(s): BE AP KD GC		standard TAT

Sample Date	Sample Time	Type Comp.	Type Grab	Sample Identification	Matrix	Containers No.	Containers Type	Explosives+MNX (8330A)	TKN (351.2), NH_3 (350.1), NO_2/NO_3 (353.2)	SO_4 (9056A), Alkalinity (2320B)	Sulfide (9034)	DOC (9060A)*	Methane (RSK 175)		Remarks
3-2-22	1330		X	GW022-S	AQ	9	ABCDEF	X	X	X	X	X	X		6°C
3-2-22	1510		X	GW02-S	AQ	9	ABCDEF	X	X	X	X	X	X		↓
3-2-22	1745		X	water-wc-QS-MAR22	AQ	9	ABCDEF	X							

Page 1043 of 1045



Signatures	Date	Time	Shipping Details	Special Instructions
Relinquished by:	3-3-22	1600	Method of Shipment: Federal Express	* Filter groundwater sample before analyzing for DOC
Received by:	03/3/22	0930	Airbill Number: 923524188659	(A) (2) 500mL Ambers (Explosives) (B) (1) 500mL HDPE w/ H_2SO_4 (TKN, NH_3, NO_2/NO_3) (C) (1) 250mL HDPE (SO_4, Alkalinity) (D) (1) 250mL HDPE w/ ZnOAc/NaOH (Sulfide) (E) (1) 250mL Amber (DOC)* (F) (3) 40 mL VOA w/ HCl (Methane)
Relinquished by:			**Lab Address:** TestAmerica Lab, Inc. Attn: Patrick McEntee 4955 Yarrow St. Arvada, CO 80002 (303) 736-0107	
Received for Laboratory by:				TAL/Brice Project #: 28017805

03/23/2022

White copy - Laboratory Yellow copy - Laboratory Pink copy - Sampler

Temp 1.5, 0.6 CF -0.2 IR#13

2020624

AECOM
12120 Shamrock Plaza Suite 300, Omaha, NE 68154 (402) 334-8181 Fax (402) 334-1984

CHAIN OF CUSTODY RECORD

Project Name: CHAAP 2019	AECOM Project Number: 60565355	Bill to: Brice Engineering
Project Location: Grand Island, Nebraska	AECOM Project Manager: Dean Converse	Remarks
Sampler(s): KD GC		standard TAT

Sample Date	Sample Time	Type Comp.	Type Grab	Sample Identification	Matrix	Containers No.	Containers Type	Explosives+MNX (8330A)	TKN (351.2), NH_3 (350.1), NO_2/NO_3 (353.2)	SO_4 (9056A), Alkalinity (2320B)	Sulfide (9034)	DOC (9060A)*	Methane (RSK 175)		Remarks
3-2-22	1510		X	GW121-S	AQ	9	ABCDEF	X	X	X	X	X	X		6°C
3-2-22	1245		X	GW122-S	AQ	9	↓	X	X	X	X	X	X		↓
3-2-22	1635		X	GW123-S	AQ	9	↓	X	X	X	X	X	X		↓

Signatures	Date	Time	Shipping Details	Special Instructions
Relinquished by:	3-2-22	1600	Method of Shipment: Federal Express	* Filter groundwater sample before analyzing for DOC
Received by:	3/3/22	0930	Airbill Number: 923524188409	(A) (2) 500mL Ambers (Explosives) (B) (1) 500mL HDPE w/ H_2SO_4 (TKN, NH_3, NO_2/NO_3) (C) (1) 250mL HDPE (SO_4, Alkalinity) (D) (1) 250mL HDPE w/ ZnOAc/NaOH (Sulfide) (E) (1) 250mL Amber (DOC)* (F) (3) 40 mL VOA w/ HCl (Methane)
Relinquished by:			**Lab Address:** TestAmerica Lab, Inc. Attn: Patrick McEntee 4955 Yarrow St. Arvada, CO 80002 (303) 736-0107	
Received for Laboratory by:				TAL/Brice Project #: 28017805

White copy - Laboratory Yellow copy - Laboratory Pink copy - Sampler

2020625

Login Sample Receipt Checklist

Client: Brice Environmental Services, Corp

Job Number: 280-159384-1

Login Number: 159384
List Number: 1
Creator: Roehsner, Karen P

List Source: Eurofins Denver

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	