ANALYTICAL REPORT

Job Number: 280-137225-1

Job Description: Cornhusker (CHAAP)

For:
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Attention: Corey Schwabenlander

Approved for release.
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6/29/2020 8:54 AM

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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
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: 280-137225-1

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 6/3/2020 9:10 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 3 coolers at receipt time were 0.5º C, 1.5º C and 1.7º C.

Receipt Exceptions
The container label for the following sample did not match the information listed on the Chain-of-Custody (COC): G0082-20A (280-137225-4). The container labels list nothing for time on the 500mL plastic (sulfuric) container.

DISSOLVED GASES (GC)
Samples G0076-20A (280-137225-1), G0070-20A (280-137225-2), G0081-20A (280-137225-3) and G0082-20A (280-137225-4) were analyzed for Dissolved Gases (GC) in accordance with RSK_175. The samples were analyzed on 06/11/2020.

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

NITROAROMATICS AND NITRAMINES (HPLC)
Samples G0076-20A (280-137225-1), G0070-20A (280-137225-2), G0081-20A (280-137225-3) and G0082-20A (280-137225-4) were analyzed for Nitroaromatics and Nitramines (HPLC) in accordance with 8330A. The samples were prepared on 06/04/2020 and analyzed on 06/17/2020 and 06/20/2020.

1,2-Dinitrobenzene failed the surrogate recovery criteria low for G0070-20AMSD (280-137225-2MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed. Surrogate recovered within %R limit in the confirmation instrument.

Refer to the QC report for details. 2-Amino-4,6-dinitrotoluene and 4-Amino-2,6-dinitrotoluene failed the recovery criteria low for the MSD of sample G0070-20AMSD (280-137225-2) in batch 280-498992. Refer to the QC report for details.

The continuing calibration verification (CCV) associated with batch 280-498992 recovered above the upper control limit for 2,4,6-Trinitrotoluene(15%D) at 16.8%D. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated samples are impacted: G0076-20A (280-137225-1), G0070-20A (280-137225-2), G0070-20A (280-137225-2[MS]), G0070-20A (280-137225-2[MSD]), G0081-20A (280-137225-3) and G0082-20A (280-137225-4).

The %RPD between the primary and confirmation column exceeded 40% for 2-Amino-4,6-dinitrotoluene and RDX for the following sample: G0082-20A (280-137225-4). The results from both columns has been reported and qualified in accordance with the laboratory's QAS.

The %RPD between the primary and confirmation column exceeded 40% for RDX for the following sample: G0076-20A (280-137225-1). The results from both columns has been reported and qualified in accordance with the laboratory's QAS.

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

ALKALINITY
Samples G0076-20A (280-137225-1), G0070-20A (280-137225-2), G0081-20A (280-137225-3) and G0082-20A (280-137225-4) were analyzed for Alkalinity in accordance with SM20 2320B. The samples were analyzed on 06/05/2020 and 06/08/2020.

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

AMMONIA
Samples G0076-20A (280-137225-1), G0070-20A (280-137225-2), G0081-20A (280-137225-3) and G0082-20A (280-137225-4) were analyzed for ammonia in accordance with EPA Method 350.1. The samples were analyzed on 06/04/2020.

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

TOTAL KJELDAHL NITROGEN
Samples G0076-20A (280-137225-1), G0070-20A (280-137225-2), G0081-20A (280-137225-3) and G0082-20A (280-137225-4) were analyzed for total kjeldahl nitrogen in accordance with EPA Method 351.2. The samples were prepared on 06/08/2020 and analyzed on 06/10/2020.

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

NITRATE-NITRITE AS NITROGEN
Samples G0076-20A (280-137225-1), G0070-20A (280-137225-2), G0081-20A (280-137225-3) and G0082-20A (280-137225-4) were analyzed for nitrate-nitrite as nitrogen in accordance with EPA Method 353.2. The samples were analyzed on 06/09/2020.

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

SULFIDE
Samples G0076-20A (280-137225-1), G0070-20A (280-137225-2), G0081-20A (280-137225-3) and G0082-20A (280-137225-4) were analyzed for sulfide in accordance with EPA SW-846 Method 9034. The samples were prepared and analyzed on 06/05/2020 and 06/09/2020.

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

ANIONS (28 DAYS)
Samples G0076-20A (280-137225-1), G0070-20A (280-137225-2), G0081-20A (280-137225-3) and G0082-20A (280-137225-4) were analyzed for anions (28 days) in accordance with 9056A. The samples were analyzed on 06/15/2020 and 06/16/2020.

Sample G0076-20A (280-137225-1)[5X] 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.

DISSOLVED ORGANIC CARBON
Samples G0076-20A (280-137225-1), G0070-20A (280-137225-2), G0081-20A (280-137225-3) and G0082-20A (280-137225-4) were analyzed for dissolved organic carbon in accordance with EPA SW-846 Method 9060A. The samples were analyzed on 06/16/2020.

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: 280-137225-1

Client Sample ID: G0076-20A — Lab Sample ID: 280-137225-1

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	Dil Fac	D	Method	Prep Type
Methane	0.18		0.0050	0.0020	0.00063	mg/L	1		RSK-175	Total/NA
RDX	0.20	J J1 M	0.23	0.22	0.056	ug/L	1		8330A	Total/NA
RDX	0.10	J J1	0.23	0.22	0.056	ug/L	1		8330A	Total/NA
Ammonia	1.4		0.10	0.050	0.022	mg/L	1		350.1	Total/NA
Nitrogen, Total Kjeldahl	1.3		1.0	1.0	0.69	mg/L	1		351.2	Total/NA
Sulfate	310	D	25	15	5.2	mg/L	5		9056A	Total/NA
Total Alkalinity as CaCO3	320		10	10	3.1	mg/L	1		SM 2320B	Total/NA
Dissolved Organic Carbon - Quad	3.3		1.0	1.0	0.35	mg/L	1		9060A	Dissolved

Client Sample ID: G0070-20A — Lab Sample ID: 280-137225-2

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	Dil Fac	D	Method	Prep Type
Ammonia	0.039	J	0.10	0.050	0.022	mg/L	1		350.1	Total/NA
Sulfate	39		5.0	3.0	1.0	mg/L	1		9056A	Total/NA
Total Alkalinity as CaCO3	200		10	10	3.1	mg/L	1		SM 2320B	Total/NA
Dissolved Organic Carbon - Quad	1.0		1.0	1.0	0.35	mg/L	1		9060A	Dissolved

Client Sample ID: G0081-20A — Lab Sample ID: 280-137225-3

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	Dil Fac	D	Method	Prep Type
Methane	1.1		0.0050	0.0020	0.00063	mg/L	1		RSK-175	Total/NA
1,3,5-Trinitrobenzene	0.27	M	0.22	0.21	0.089	ug/L	1		8330A	Total/NA
Ammonia	0.31		0.10	0.050	0.022	mg/L	1		350.1	Total/NA
Nitrogen, Total Kjeldahl	1.1		1.0	1.0	0.69	mg/L	1		351.2	Total/NA
Sulfate	190		5.0	3.0	1.0	mg/L	1		9056A	Total/NA
Total Alkalinity as CaCO3	280		10	10	3.1	mg/L	1		SM 2320B	Total/NA
Dissolved Organic Carbon - Quad	6.6		1.0	1.0	0.35	mg/L	1		9060A	Dissolved

Client Sample ID: G0082-20A — Lab Sample ID: 280-137225-4

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	Dil Fac	D	Method	Prep Type
Methane	0.46		0.0050	0.0020	0.00063	mg/L	1		RSK-175	Total/NA
2-Amino-4,6-dinitrotoluene	0.098	J J1	0.13	0.12	0.058	ug/L	1		8330A	Total/NA
2-Amino-4,6-dinitrotoluene	0.57	M J1	0.13	0.12	0.058	ug/L	1		8330A	Total/NA
RDX	0.68	J1 M	0.24	0.23	0.059	ug/L	1		8330A	Total/NA
RDX	0.42	J1	0.24	0.23	0.059	ug/L	1		8330A	Total/NA
Ammonia	0.11		0.10	0.050	0.022	mg/L	1		350.1	Total/NA
Nitrate Nitrite as N	0.46		0.10	0.050	0.019	mg/L	1		353.2	Total/NA
Sulfate	130		5.0	3.0	1.0	mg/L	1		9056A	Total/NA
Total Alkalinity as CaCO3	260		10	10	3.1	mg/L	1		SM 2320B	Total/NA
Dissolved Organic Carbon - Quad	4.0		1.0	1.0	0.35	mg/L	1		9060A	Dissolved

This Detection Summary does not include radiochemical test results.

Client Sample Results

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

Job ID: 280-137225-1

Client Sample ID: G0076-20A

Lab Sample ID: 280-137225-1

Date Collected: 06/01/20 13:45
Date Received: 06/03/20 09:10

Matrix: Water

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Methane	**0.18**		0.0050	0.0020	0.00063	mg/L		06/11/20 16:14	1

Method: 8330A - Nitroaromatics and Nitramines (HPLC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.22	U	0.23	0.22	0.092	ug/L		06/17/20 06:25	1
1,3-Dinitrobenzene	0.11	U	0.12	0.11	0.040	ug/L		06/17/20 06:25	1
2,4,6-Trinitrotoluene	0.11	U Q	0.12	0.11	0.049	ug/L		06/17/20 06:25	1
2,4-Dinitrotoluene	0.087	U M	0.11	0.087	0.030	ug/L		06/17/20 06:25	1
2,6-Dinitrotoluene	0.087	U	0.11	0.087	0.044	ug/L		06/17/20 06:25	1
2-Amino-4,6-dinitrotoluene	0.11	U	0.12	0.11	0.055	ug/L		06/17/20 06:25	1
2-Nitrotoluene	0.22	U	0.23	0.22	0.093	ug/L		06/17/20 06:25	1
3-Nitrotoluene	0.44	U	0.44	0.44	0.21	ug/L		06/17/20 06:25	1
4-Amino-2,6-dinitrotoluene	0.13	U	0.16	0.13	0.063	ug/L		06/17/20 06:25	1
4-Nitrotoluene	0.44	U	0.45	0.44	0.11	ug/L		06/17/20 06:25	1
HMX	0.22	U	0.23	0.22	0.096	ug/L		06/17/20 06:25	1
MNX	0.44	U	2.2	0.44	0.17	ug/L		06/17/20 06:25	1
Nitrobenzene	0.22	U	0.23	0.22	0.099	ug/L		06/17/20 06:25	1
RDX	**0.20**	**J J1 M**	0.23	0.22	0.056	ug/L		06/17/20 06:25	1
RDX	**0.10**	**J J1**	0.23	0.22	0.056	ug/L		06/20/20 17:04	1
Tetryl	0.11	U	0.12	0.11	0.035	ug/L		06/17/20 06:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dinitrobenzene	*93*	*M*	*83 - 119*	*06/04/20 17:15*	*06/17/20 06:25*	*1*
1,2-Dinitrobenzene	*99*		*83 - 119*	*06/04/20 17:15*	*06/20/20 17:04*	*1*

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Ammonia	**1.4**		0.10	0.050	0.022	mg/L		06/04/20 13:30	1
Nitrogen, Total Kjeldahl	**1.3**		1.0	1.0	0.69	mg/L		06/10/20 18:02	1
Nitrate Nitrite as N	0.050	U	0.10	0.050	0.019	mg/L		06/09/20 17:17	1
Sulfide	1.9	U	4.0	1.9	0.79	mg/L		06/05/20 09:56	1
Sulfate	**310**	**D**	25	15	5.2	mg/L		06/16/20 17:02	5
Total Alkalinity as CaCO3	**320**		10	10	3.1	mg/L		06/08/20 13:36	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon - Quad	**3.3**		1.0	1.0	0.35	mg/L		06/16/20 07:19	1

Client Sample ID: G0070-20A

Lab Sample ID: 280-137225-2

Date Collected: 06/02/20 08:25
Date Received: 06/03/20 09:10

Matrix: Water

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Methane	0.0020	U	0.0050	0.0020	0.00063	mg/L		06/11/20 13:27	1

Method: 8330A - Nitroaromatics and Nitramines (HPLC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.22	U	0.23	0.22	0.093	ug/L		06/17/20 06:48	1
1,3-Dinitrobenzene	0.11	U	0.12	0.11	0.041	ug/L		06/17/20 06:48	1
2,4,6-Trinitrotoluene	0.11	U Q	0.12	0.11	0.050	ug/L		06/17/20 06:48	1

Client Sample ID: G0070-20A

Lab Sample ID: 280-137225-2

Date Collected: 06/02/20 08:25
Date Received: 06/03/20 09:10

Matrix: Water

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

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
2,4-Dinitrotoluene	0.088	U	0.11	0.088	0.030	ug/L		06/17/20 06:48	1
2,6-Dinitrotoluene	0.088	U	0.11	0.088	0.044	ug/L		06/17/20 06:48	1
2-Amino-4,6-dinitrotoluene	0.11	U J1	0.12	0.11	0.056	ug/L		06/17/20 06:48	1
2-Nitrotoluene	0.22	U	0.23	0.22	0.094	ug/L		06/17/20 06:48	1
3-Nitrotoluene	0.44	U	0.44	0.44	0.22	ug/L		06/17/20 06:48	1
4-Amino-2,6-dinitrotoluene	0.13	U J1	0.17	0.13	0.064	ug/L		06/17/20 06:48	1
4-Nitrotoluene	0.44	U M	0.45	0.44	0.11	ug/L		06/17/20 06:48	1
HMX	0.22	U	0.23	0.22	0.097	ug/L		06/17/20 06:48	1
MNX	0.44	U	2.2	0.44	0.17	ug/L		06/17/20 06:48	1
Nitrobenzene	0.22	U	0.23	0.22	0.10	ug/L		06/20/20 17:39	1
RDX	0.22	U	0.23	0.22	0.057	ug/L		06/17/20 06:48	1
Tetryl	0.11	U	0.12	0.11	0.035	ug/L		06/17/20 06:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dinitrobenzene	*99*	*M*	*83 - 119*	*06/04/20 17:15*	*06/17/20 06:48*	*1*
1,2-Dinitrobenzene	*91*	*M*	*83 - 119*	*06/04/20 17:15*	*06/20/20 17:39*	*1*

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Ammonia	**0.039**	**J**	0.10	0.050	0.022	mg/L		06/04/20 13:24	1
Nitrogen, Total Kjeldahl	1.0	U	1.0	1.0	0.69	mg/L		06/10/20 18:06	1
Nitrate Nitrite as N	0.050	U	0.10	0.050	0.019	mg/L		06/09/20 17:19	1
Sulfide	1.9	U	4.0	1.9	0.79	mg/L		06/09/20 11:38	1
Sulfate	**39**		5.0	3.0	1.0	mg/L		06/15/20 20:55	1
Total Alkalinity as CaCO3	**200**		10	10	3.1	mg/L		06/05/20 14:38	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon - Quad	**1.0**		1.0	1.0	0.35	mg/L		06/16/20 06:26	1

Client Sample ID: G0081-20A

Lab Sample ID: 280-137225-3

Date Collected: 06/02/20 09:45
Date Received: 06/03/20 09:10

Matrix: Water

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Methane	**1.1**		0.0050	0.0020	0.00063	mg/L		06/11/20 16:30	1

Method: 8330A - Nitroaromatics and Nitramines (HPLC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	**0.27**	**M**	0.22	0.21	0.089	ug/L		06/17/20 09:52	1
1,3-Dinitrobenzene	0.11	U	0.12	0.11	0.039	ug/L		06/17/20 09:52	1
2,4,6-Trinitrotoluene	0.11	U Q M	0.12	0.11	0.047	ug/L		06/17/20 09:52	1
2,4-Dinitrotoluene	0.084	U	0.11	0.084	0.029	ug/L		06/17/20 09:52	1
2,6-Dinitrotoluene	0.084	U	0.11	0.084	0.042	ug/L		06/17/20 09:52	1
2-Amino-4,6-dinitrotoluene	0.11	U	0.12	0.11	0.054	ug/L		06/17/20 09:52	1
2-Nitrotoluene	0.21	U M	0.22	0.21	0.090	ug/L		06/17/20 09:52	1
3-Nitrotoluene	0.42	U	0.42	0.42	0.21	ug/L		06/17/20 09:52	1
4-Amino-2,6-dinitrotoluene	0.13	U	0.16	0.13	0.061	ug/L		06/17/20 09:52	1
4-Nitrotoluene	0.42	U	0.43	0.42	0.11	ug/L		06/17/20 09:52	1
HMX	0.21	U	0.22	0.21	0.092	ug/L		06/17/20 09:52	1

Client Sample ID: G0081-20A

Lab Sample ID: 280-137225-3

Date Collected: 06/02/20 09:45
Matrix: Water
Date Received: 06/03/20 09:10

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

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
MNX	0.42	U	2.1	0.42	0.16	ug/L		06/17/20 09:52	1
Nitrobenzene	0.21	U	0.22	0.21	0.096	ug/L		06/20/20 21:44	1
RDX	0.21	U	0.22	0.21	0.054	ug/L		06/17/20 09:52	1
Tetryl	0.11	U M	0.12	0.11	0.034	ug/L		06/17/20 09:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dinitrobenzene	*89*	*M*	*83 - 119*	*06/04/20 17:15*	*06/17/20 09:52*	*1*
1,2-Dinitrobenzene	*93*		*83 - 119*	*06/04/20 17:15*	*06/20/20 21:44*	*1*

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Ammonia	**0.31**		0.10	0.050	0.022	mg/L		06/04/20 13:32	1
Nitrogen, Total Kjeldahl	**1.1**		1.0	1.0	0.69	mg/L		06/10/20 18:11	1
Nitrate Nitrite as N	0.050	U	0.10	0.050	0.019	mg/L		06/09/20 17:21	1
Sulfide	1.9	U	4.0	1.9	0.79	mg/L		06/05/20 09:56	1
Sulfate	**190**		5.0	3.0	1.0	mg/L		06/15/20 19:33	1
Total Alkalinity as CaCO3	**280**		10	10	3.1	mg/L		06/05/20 14:55	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon - Quad	**6.6**		1.0	1.0	0.35	mg/L		06/16/20 07:38	1

Client Sample ID: G0082-20A

Lab Sample ID: 280-137225-4

Date Collected: 06/02/20 10:55
Matrix: Water
Date Received: 06/03/20 09:10

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Methane	**0.46**		0.0050	0.0020	0.00063	mg/L		06/11/20 16:46	1

Method: 8330A - Nitroaromatics and Nitramines (HPLC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.23	U	0.24	0.23	0.097	ug/L		06/17/20 10:15	1
1,3-Dinitrobenzene	0.12	U	0.13	0.12	0.042	ug/L		06/17/20 10:15	1
2,4,6-Trinitrotoluene	0.12	U Q	0.13	0.12	0.052	ug/L		06/17/20 10:15	1
2,4-Dinitrotoluene	0.092	U	0.12	0.092	0.032	ug/L		06/20/20 22:19	1
2,6-Dinitrotoluene	0.092	U	0.12	0.092	0.046	ug/L		06/17/20 10:15	1
2-Amino-4,6-dinitrotoluene	**0.098**	**J J1**	0.13	0.12	0.058	ug/L		06/17/20 10:15	1
2-Amino-4,6-dinitrotoluene	**0.57**	**M J1**	0.13	0.12	0.058	ug/L		06/20/20 22:19	1
2-Nitrotoluene	0.23	U	0.24	0.23	0.098	ug/L		06/17/20 10:15	1
3-Nitrotoluene	0.46	U M	0.46	0.46	0.22	ug/L		06/17/20 10:15	1
4-Amino-2,6-dinitrotoluene	0.14	U	0.17	0.14	0.066	ug/L		06/20/20 22:19	1
4-Nitrotoluene	0.46	U	0.47	0.46	0.12	ug/L		06/20/20 22:19	1
HMX	0.23	U	0.24	0.23	0.10	ug/L		06/17/20 10:15	1
MNX	0.46	U	2.3	0.46	0.18	ug/L		06/17/20 10:15	1
Nitrobenzene	0.23	U	0.24	0.23	0.10	ug/L		06/17/20 10:15	1
RDX	**0.68**	**J1 M**	0.24	0.23	0.059	ug/L		06/17/20 10:15	1
RDX	**0.42**	**J1**	0.24	0.23	0.059	ug/L		06/20/20 22:19	1
Tetryl	0.12	U M	0.13	0.12	0.037	ug/L		06/17/20 10:15	1

Client Sample Results

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

Job ID: 280-137225-1

Client Sample ID: G0082-20A

Date Collected: 06/02/20 10:55
Date Received: 06/03/20 09:10

Lab Sample ID: 280-137225-4

Matrix: Water

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dinitrobenzene	*93*	*M*	*83 - 119*	*06/04/20 17:15*	*06/17/20 10:15*	*1*
1,2-Dinitrobenzene	*97*		*83 - 119*	*06/04/20 17:15*	*06/20/20 22:19*	*1*

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Ammonia	**0.11**		0.10	0.050	0.022	mg/L		06/04/20 13:34	1
Nitrogen, Total Kjeldahl	1.0	U	1.0	1.0	0.69	mg/L		06/10/20 18:12	1
Nitrate Nitrite as N	**0.46**		0.10	0.050	0.019	mg/L		06/09/20 17:23	1
Sulfide	1.9	U	4.0	1.9	0.79	mg/L		06/09/20 11:38	1
Sulfate	**130**		5.0	3.0	1.0	mg/L		06/15/20 22:17	1
Total Alkalinity as CaCO3	**260**		10	10	3.1	mg/L		06/05/20 15:01	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon - Quad	**4.0**		1.0	1.0	0.35	mg/L		06/16/20 07:53	1

Default Detection Limits

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

Job ID: 280-137225-1

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: 280-137225-1

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)							
280-137225-1	G0076-20A	93 M							
280-137225-2	G0070-20A	99 M							
280-137225-2 MS	G0070-20A	101							
280-137225-2 MS	G0070-20A	107							
280-137225-2 MSD	G0070-20A	66 Q							
280-137225-2 MSD	G0070-20A	104 M							
280-137225-3	G0081-20A	89 M							
280-137225-4	G0082-20A	93 M							
LCS 280-497449/2-A	Lab Control Sample	99							
LCS 280-497449/3-A	Lab Control Sample	92							
MB 280-497449/1-A	Method Blank	98							

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)							
280-137225-1	G0076-20A	99							
280-137225-2	G0070-20A	91 M							
280-137225-3	G0081-20A	93							
280-137225-4	G0082-20A	97							

Surrogate Legend

12DNB = 1,2-Dinitrobenzene

Method: RSK-175 - Dissolved Gases (GC)

Lab Sample ID: MB 280-498346/7 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 498346

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Methane	0.0020	U	0.0050	0.0020	0.00063	mg/L		06/11/20 11:47	1

Lab Sample ID: LCS 280-498346/5 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 498346

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methane	0.0730	0.0785		mg/L		108	73 - 125

Lab Sample ID: LCSD 280-498346/6 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 498346

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Methane	0.0730	0.0790		mg/L		108	73 - 125	1	20

Lab Sample ID: 280-137225-2 MS — **Client Sample ID: G0070-20A**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 498346

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Methane	0.0020	U	0.0730	0.0710		mg/L		97	73 - 125

Lab Sample ID: 280-137225-2 MSD — **Client Sample ID: G0070-20A**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 498346

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Methane	0.0020	U	0.0730	0.0673		mg/L		92	73 - 125	5	20

Lab Sample ID: 280-137225-2 DU — **Client Sample ID: G0070-20A**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 498346

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Methane	0.0020	U	0.0020	U	mg/L		NC	20

Method: 8330A - Nitroaromatics and Nitramines (HPLC)

Lab Sample ID: MB 280-497449/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 498992 — **Prep Batch: 497449**

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		06/17/20 04:30	1
1,3-Dinitrobenzene	0.10	U	0.11	0.10	0.037	ug/L		06/17/20 04:30	1
2,4,6-Trinitrotoluene	0.10	U	0.11	0.10	0.045	ug/L		06/17/20 04:30	1
2,4-Dinitrotoluene	0.080	U	0.10	0.080	0.027	ug/L		06/17/20 04:30	1
2,6-Dinitrotoluene	0.080	U	0.10	0.080	0.040	ug/L		06/17/20 04:30	1
2-Amino-4,6-dinitrotoluene	0.10	U	0.11	0.10	0.051	ug/L		06/17/20 04:30	1

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

Lab Sample ID: MB 280-497449/1-A
Matrix: Water
Analysis Batch: 498992

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 497449

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
2-Nitrotoluene	0.20	U	0.21	0.20	0.086	ug/L		06/17/20 04:30	1
3-Nitrotoluene	0.40	U	0.40	0.40	0.20	ug/L		06/17/20 04:30	1
4-Amino-2,6-dinitrotoluene	0.12	U	0.15	0.12	0.058	ug/L		06/17/20 04:30	1
4-Nitrotoluene	0.40	U	0.41	0.40	0.10	ug/L		06/17/20 04:30	1
HMX	0.20	U	0.21	0.20	0.088	ug/L		06/17/20 04:30	1
MNX	0.40	U M	2.0	0.40	0.15	ug/L		06/17/20 04:30	1
Nitrobenzene	0.20	U	0.21	0.20	0.091	ug/L		06/17/20 04:30	1
RDX	0.20	U	0.21	0.20	0.052	ug/L		06/17/20 04:30	1
Tetryl	0.10	U	0.11	0.10	0.032	ug/L		06/17/20 04:30	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dinitrobenzene	*98*		*83 - 119*	*06/04/20 17:15*	*06/17/20 04:30*	*1*

Lab Sample ID: LCS 280-497449/2-A
Matrix: Water
Analysis Batch: 498992

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 497449

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,3,5-Trinitrobenzene	2.00	2.33		ug/L		117	73 - 125
1,3-Dinitrobenzene	2.00	2.22		ug/L		111	78 - 120
2,4,6-Trinitrotoluene	2.00	2.33		ug/L		117	71 - 123
2,4-Dinitrotoluene	2.00	2.09		ug/L		104	78 - 120
2,6-Dinitrotoluene	2.00	2.13		ug/L		107	77 - 127
2-Amino-4,6-dinitrotoluene	2.00	2.04		ug/L		102	79 - 120
2-Nitrotoluene	2.00	1.83		ug/L		91	70 - 127
3-Nitrotoluene	2.00	2.02		ug/L		101	73 - 125
4-Amino-2,6-dinitrotoluene	2.00	1.80		ug/L		90	76 - 125
4-Nitrotoluene	2.00	1.90		ug/L		95	71 - 127
HMX	2.00	2.26		ug/L		113	65 - 135
Nitrobenzene	2.00	2.09		ug/L		104	65 - 134
RDX	2.00	2.10		ug/L		105	68 - 130
Tetryl	2.00	2.06		ug/L		103	64 - 128

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dinitrobenzene	*99*		*83 - 119*

Lab Sample ID: LCS 280-497449/3-A
Matrix: Water
Analysis Batch: 498992

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 497449

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
MNX	2.33	2.12		ug/L		91	57 - 132

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dinitrobenzene	*92*		*83 - 119*

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

Lab Sample ID: 280-137225-2 MS — **Client Sample ID: G0070-20A**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 498992 — **Prep Batch: 497449**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,3,5-Trinitrobenzene	0.22	U	2.11	2.41		ug/L		115	73 - 125
1,3-Dinitrobenzene	0.11	U	2.11	2.35		ug/L		112	78 - 120
2,4,6-Trinitrotoluene	0.11	U Q	2.11	2.40		ug/L		114	71 - 123
2,4-Dinitrotoluene	0.088	U	2.11	2.17		ug/L		103	78 - 120
2,6-Dinitrotoluene	0.088	U	2.11	2.20		ug/L		104	77 - 127
2-Amino-4,6-dinitrotoluene	0.11	U J1	2.11	2.13		ug/L		101	79 - 120
2-Nitrotoluene	0.22	U	2.11	1.90		ug/L		90	70 - 127
3-Nitrotoluene	0.44	U	2.11	2.12		ug/L		101	73 - 125
4-Amino-2,6-dinitrotoluene	0.13	U J1	2.11	1.89		ug/L		90	76 - 125
4-Nitrotoluene	0.44	U M	2.11	2.06		ug/L		98	71 - 127
HMX	0.22	U	2.11	2.28	M	ug/L		108	65 - 135
Nitrobenzene	0.14	J M	2.11	2.03		ug/L		90	65 - 134
RDX	0.22	U	2.11	2.45		ug/L		116	68 - 130
Tetryl	0.11	U	2.11	1.66		ug/L		79	64 - 128

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

Lab Sample ID: 280-137225-2 MS — **Client Sample ID: G0070-20A**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 498992 — **Prep Batch: 497449**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
MNX	0.44	U	2.62	2.33	M	ug/L		89	57 - 132

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,2-Dinitrobenzene	*107*		*83 - 119*

Lab Sample ID: 280-137225-2 MSD — **Client Sample ID: G0070-20A**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 498992 — **Prep Batch: 497449**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,3,5-Trinitrobenzene	0.22	U	2.12	2.14	Q	ug/L		101	73 - 125	12	30
1,3-Dinitrobenzene	0.11	U	2.12	2.11	Q	ug/L		100	78 - 120	11	30
2,4,6-Trinitrotoluene	0.11	U Q	2.12	2.07	Q M	ug/L		98	71 - 123	15	30
2,4-Dinitrotoluene	0.088	U	2.12	1.94	Q M	ug/L		92	78 - 120	11	30
2,6-Dinitrotoluene	0.088	U	2.12	1.82	Q M	ug/L		86	77 - 127	19	30
2-Amino-4,6-dinitrotoluene	0.11	U J1	2.12	1.63	Q M J1	ug/L		77	79 - 120	27	30
2-Nitrotoluene	0.22	U	2.12	1.85	Q	ug/L		88	70 - 127	3	30
3-Nitrotoluene	0.44	U	2.12	1.85	Q	ug/L		87	73 - 125	13	30
4-Amino-2,6-dinitrotoluene	0.13	U J1	2.12	1.55	Q M J1	ug/L		73	76 - 125	19	30
4-Nitrotoluene	0.44	U M	2.12	1.77	Q	ug/L		83	71 - 127	15	30
HMX	0.22	U	2.12	2.20	Q M	ug/L		104	65 - 135	4	30
Nitrobenzene	0.14	J M	2.12	1.90	Q	ug/L		83	65 - 134	7	30
RDX	0.22	U	2.12	2.32	Q	ug/L		110	68 - 130	5	30
Tetryl	0.11	U	2.12	2.03	Q	ug/L		96	64 - 128	20	30

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

Lab Sample ID: 280-137225-2 MSD — **Client Sample ID: G0070-20A**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 498992 — **Prep Batch: 497449**

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,2-Dinitrobenzene	*66*	*Q*	*83 - 119*

Lab Sample ID: 280-137225-2 MSD — **Client Sample ID: G0070-20A**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 498992 — **Prep Batch: 497449**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
MNX	0.44	U	2.47	1.79	J M	ug/L		73	57 - 132	26	30

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

Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: MB 280-497478/19 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 497478

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		06/04/20 13:22	1

Lab Sample ID: LCS 280-497478/18 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 497478

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia	2.50	2.66		mg/L		106	90 - 110

Lab Sample ID: 280-137225-2 MS — **Client Sample ID: G0070-20A**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 497478

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia	0.039	J	1.00	1.12		mg/L		108	90 - 110

Lab Sample ID: 280-137225-2 MSD — **Client Sample ID: G0070-20A**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 497478

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ammonia	0.039	J	1.00	1.07		mg/L		103	90 - 110	4	10

Method: 351.2 - Nitrogen, Total Kjeldahl

Lab Sample ID: MB 280-497896/2-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 498270 — **Prep Batch: 497896**

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Nitrogen, Total Kjeldahl	1.0	U	1.0	1.0	0.69	mg/L		06/10/20 17:40	1

Method: 351.2 - Nitrogen, Total Kjeldahl

Lab Sample ID: LCS 280-497896/1-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 498270 — **Prep Batch: 497896**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Nitrogen, Total Kjeldahl			6.00	5.80		mg/L		97	90 - 110		

Lab Sample ID: 280-137225-2 MS — **Client Sample ID: G0070-20A**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 498270 — **Prep Batch: 497896**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Nitrogen, Total Kjeldahl	1.0	U	3.00	2.93		mg/L		98	90 - 110		

Lab Sample ID: 280-137225-2 MSD — **Client Sample ID: G0070-20A**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 498270 — **Prep Batch: 497896**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrogen, Total Kjeldahl	1.0	U	3.00	2.81		mg/L		94	90 - 110	4	25

Method: 353.2 - Nitrogen, Nitrate-Nitrite

Lab Sample ID: MB 280-498113/22 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 498113

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		06/09/20 17:03	1

Lab Sample ID: LCS 280-498113/21 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 498113

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Nitrate Nitrite as N			5.00	5.26		mg/L		105	90 - 110		

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

Lab Sample ID: MB 280-497566/2-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 497568 — **Prep Batch: 497566**

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		06/05/20 09:56	1

Lab Sample ID: LCS 280-497566/1-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 497568 — **Prep Batch: 497566**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfide			17.8	12.0		mg/L		67	44 - 110		

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

Lab Sample ID: MB 280-498010/2-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 498013 — **Prep Batch: 498010**

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		06/09/20 11:38	1

Lab Sample ID: LCS 280-498010/1-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 498013 — **Prep Batch: 498010**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfide	22.3	20.0		mg/L		90	44 - 110

Lab Sample ID: 280-137225-2 MS — **Client Sample ID: G0070-20A**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 498013 — **Prep Batch: 498010**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfide	1.9	U	22.3	20.8		mg/L		93	44 - 110

Lab Sample ID: 280-137225-2 MSD — **Client Sample ID: G0070-20A**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 498013 — **Prep Batch: 498010**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfide	1.9	U	22.3	18.4		mg/L		82	44 - 110	12	20

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 280-498729/6 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 498729

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Sulfate	3.0	U	5.0	3.0	1.0	mg/L		06/15/20 11:42	1

Lab Sample ID: LCS 280-498729/4 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 498729

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	100	98.5		mg/L		99	87 - 112

Lab Sample ID: LCSD 280-498729/5 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 498729

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	100	98.4		mg/L		98	87 - 112	0	10

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

Lab Sample ID: MRL 280-498729/3 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 498729

Analyte			Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate			5.00	4.98	J	mg/L		100	50 - 150		

Lab Sample ID: 280-137225-2 MS — **Client Sample ID: G0070-20A**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 498729

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate	39		50.0	90.7		mg/L		103	87 - 112		

Lab Sample ID: 280-137225-2 MSD — **Client Sample ID: G0070-20A**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 498729

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	39		50.0	89.2		mg/L		100	87 - 112	2	10

Lab Sample ID: 280-137225-2 DU — **Client Sample ID: G0070-20A**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 498729

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Sulfate	39			39.3		mg/L				0.5	10

Lab Sample ID: MB 280-498916/6 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 498916

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Sulfate	3.0	U	5.0	3.0	1.0	mg/L		06/16/20 11:41	1

Lab Sample ID: LCS 280-498916/4 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 498916

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate			100	99.5		mg/L		100	87 - 112		

Lab Sample ID: LCSD 280-498916/5 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 498916

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate			100	99.5		mg/L		99	87 - 112	0	10

Lab Sample ID: MRL 280-498916/3 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 498916

Analyte			Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate			5.00	5.29		mg/L		106	50 - 150		

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

Lab Sample ID: MB 280-498750/3-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 498927

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon - Quad	1.0	U	1.0	1.0	0.35	mg/L		06/16/20 05:55	1

Lab Sample ID: LCS 280-498750/1-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 498927

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dissolved Organic Carbon - Quad	25.0	26.4		mg/L		106	88 - 112

Lab Sample ID: 280-137225-2 MS — **Client Sample ID: G0070-20A**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 498927

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Dissolved Organic Carbon - Quad	1.0		25.0	26.8		mg/L		103	88 - 112

Lab Sample ID: 280-137225-2 MSD — **Client Sample ID: G0070-20A**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 498927

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Dissolved Organic Carbon - Quad	1.0		25.0	26.6		mg/L		102	88 - 112	1	15

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 280-497742/31 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 497742

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3	10	U	10	10	3.1	mg/L		06/05/20 13:35	1

Lab Sample ID: LCS 280-497742/30 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 497742

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Alkalinity as CaCO3	200	192		mg/L		96	89 - 109

Lab Sample ID: MB 280-497942/5 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 497942

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3	10	U	10	10	3.1	mg/L		06/08/20 13:30	1

Method: SM 2320B - Alkalinity (Continued)

Lab Sample ID: LCS 280-497942/4
Matrix: Water
Analysis Batch: 497942

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	187		mg/L		94	89 - 109		

Lab Sample ID: 280-137225-1 DU
Matrix: Water
Analysis Batch: 497942

Client Sample ID: G0076-20A
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Alkalinity as CaCO3	320			322		mg/L				0.07	10

QC Association Summary

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

Job ID: 280-137225-1

GC VOA

Analysis Batch: 498346

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-137225-1	G0076-20A	Total/NA	Water	RSK-175	
280-137225-2	G0070-20A	Total/NA	Water	RSK-175	
280-137225-3	G0081-20A	Total/NA	Water	RSK-175	
280-137225-4	G0082-20A	Total/NA	Water	RSK-175	
MB 280-498346/7	Method Blank	Total/NA	Water	RSK-175	
LCS 280-498346/5	Lab Control Sample	Total/NA	Water	RSK-175	
LCSD 280-498346/6	Lab Control Sample Dup	Total/NA	Water	RSK-175	
280-137225-2 MS	G0070-20A	Total/NA	Water	RSK-175	
280-137225-2 MSD	G0070-20A	Total/NA	Water	RSK-175	
280-137225-2 DU	G0070-20A	Total/NA	Water	RSK-175	

HPLC/IC

Prep Batch: 497449

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-137225-1	G0076-20A	Total/NA	Water	3535	
280-137225-2	G0070-20A	Total/NA	Water	3535	
280-137225-3	G0081-20A	Total/NA	Water	3535	
280-137225-4	G0082-20A	Total/NA	Water	3535	
MB 280-497449/1-A	Method Blank	Total/NA	Water	3535	
LCS 280-497449/2-A	Lab Control Sample	Total/NA	Water	3535	
LCS 280-497449/3-A	Lab Control Sample	Total/NA	Water	3535	
280-137225-2 MS	G0070-20A	Total/NA	Water	3535	
280-137225-2 MS	G0070-20A	Total/NA	Water	3535	
280-137225-2 MSD	G0070-20A	Total/NA	Water	3535	
280-137225-2 MSD	G0070-20A	Total/NA	Water	3535	

Analysis Batch: 498992

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-137225-1	G0076-20A	Total/NA	Water	8330A	497449
280-137225-2	G0070-20A	Total/NA	Water	8330A	497449
280-137225-3	G0081-20A	Total/NA	Water	8330A	497449
280-137225-4	G0082-20A	Total/NA	Water	8330A	497449
MB 280-497449/1-A	Method Blank	Total/NA	Water	8330A	497449
LCS 280-497449/2-A	Lab Control Sample	Total/NA	Water	8330A	497449
LCS 280-497449/3-A	Lab Control Sample	Total/NA	Water	8330A	497449
280-137225-2 MS	G0070-20A	Total/NA	Water	8330A	497449
280-137225-2 MS	G0070-20A	Total/NA	Water	8330A	497449
280-137225-2 MSD	G0070-20A	Total/NA	Water	8330A	497449
280-137225-2 MSD	G0070-20A	Total/NA	Water	8330A	497449

Analysis Batch: 499503

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-137225-1	G0076-20A	Total/NA	Water	8330A	497449
280-137225-2	G0070-20A	Total/NA	Water	8330A	497449
280-137225-3	G0081-20A	Total/NA	Water	8330A	497449
280-137225-4	G0082-20A	Total/NA	Water	8330A	497449

General Chemistry

Analysis Batch: 497478

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-137225-1	G0076-20A	Total/NA	Water	350.1	
280-137225-2	G0070-20A	Total/NA	Water	350.1	
280-137225-3	G0081-20A	Total/NA	Water	350.1	
280-137225-4	G0082-20A	Total/NA	Water	350.1	
MB 280-497478/19	Method Blank	Total/NA	Water	350.1	
LCS 280-497478/18	Lab Control Sample	Total/NA	Water	350.1	
280-137225-2 MS	G0070-20A	Total/NA	Water	350.1	
280-137225-2 MSD	G0070-20A	Total/NA	Water	350.1	

Prep Batch: 497566

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-137225-1	G0076-20A	Total/NA	Water	9030B	
280-137225-3	G0081-20A	Total/NA	Water	9030B	
MB 280-497566/2-A	Method Blank	Total/NA	Water	9030B	
LCS 280-497566/1-A	Lab Control Sample	Total/NA	Water	9030B	

Analysis Batch: 497568

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-137225-1	G0076-20A	Total/NA	Water	9034	497566
280-137225-3	G0081-20A	Total/NA	Water	9034	497566
MB 280-497566/2-A	Method Blank	Total/NA	Water	9034	497566
LCS 280-497566/1-A	Lab Control Sample	Total/NA	Water	9034	497566

Analysis Batch: 497742

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-137225-2	G0070-20A	Total/NA	Water	SM 2320B	
280-137225-3	G0081-20A	Total/NA	Water	SM 2320B	
280-137225-4	G0082-20A	Total/NA	Water	SM 2320B	
MB 280-497742/31	Method Blank	Total/NA	Water	SM 2320B	
LCS 280-497742/30	Lab Control Sample	Total/NA	Water	SM 2320B	

Prep Batch: 497896

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-137225-1	G0076-20A	Total/NA	Water	351.2	
280-137225-2	G0070-20A	Total/NA	Water	351.2	
280-137225-3	G0081-20A	Total/NA	Water	351.2	
280-137225-4	G0082-20A	Total/NA	Water	351.2	
MB 280-497896/2-A	Method Blank	Total/NA	Water	351.2	
LCS 280-497896/1-A	Lab Control Sample	Total/NA	Water	351.2	
280-137225-2 MS	G0070-20A	Total/NA	Water	351.2	
280-137225-2 MSD	G0070-20A	Total/NA	Water	351.2	

Analysis Batch: 497942

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-137225-1	G0076-20A	Total/NA	Water	SM 2320B	
MB 280-497942/5	Method Blank	Total/NA	Water	SM 2320B	
LCS 280-497942/4	Lab Control Sample	Total/NA	Water	SM 2320B	
280-137225-1 DU	G0076-20A	Total/NA	Water	SM 2320B	

General Chemistry

Prep Batch: 498010

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-137225-2	G0070-20A	Total/NA	Water	9030B	
280-137225-4	G0082-20A	Total/NA	Water	9030B	
MB 280-498010/2-A	Method Blank	Total/NA	Water	9030B	
LCS 280-498010/1-A	Lab Control Sample	Total/NA	Water	9030B	
280-137225-2 MS	G0070-20A	Total/NA	Water	9030B	
280-137225-2 MSD	G0070-20A	Total/NA	Water	9030B	

Analysis Batch: 498013

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-137225-2	G0070-20A	Total/NA	Water	9034	498010
280-137225-4	G0082-20A	Total/NA	Water	9034	498010
MB 280-498010/2-A	Method Blank	Total/NA	Water	9034	498010
LCS 280-498010/1-A	Lab Control Sample	Total/NA	Water	9034	498010
280-137225-2 MS	G0070-20A	Total/NA	Water	9034	498010
280-137225-2 MSD	G0070-20A	Total/NA	Water	9034	498010

Analysis Batch: 498113

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-137225-1	G0076-20A	Total/NA	Water	353.2	
280-137225-2	G0070-20A	Total/NA	Water	353.2	
280-137225-3	G0081-20A	Total/NA	Water	353.2	
280-137225-4	G0082-20A	Total/NA	Water	353.2	
MB 280-498113/22	Method Blank	Total/NA	Water	353.2	
LCS 280-498113/21	Lab Control Sample	Total/NA	Water	353.2	

Analysis Batch: 498270

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-137225-1	G0076-20A	Total/NA	Water	351.2	497896
280-137225-2	G0070-20A	Total/NA	Water	351.2	497896
280-137225-3	G0081-20A	Total/NA	Water	351.2	497896
280-137225-4	G0082-20A	Total/NA	Water	351.2	497896
MB 280-497896/2-A	Method Blank	Total/NA	Water	351.2	497896
LCS 280-497896/1-A	Lab Control Sample	Total/NA	Water	351.2	497896
280-137225-2 MS	G0070-20A	Total/NA	Water	351.2	497896
280-137225-2 MSD	G0070-20A	Total/NA	Water	351.2	497896

Analysis Batch: 498729

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-137225-2	G0070-20A	Total/NA	Water	9056A	
280-137225-3	G0081-20A	Total/NA	Water	9056A	
280-137225-4	G0082-20A	Total/NA	Water	9056A	
MB 280-498729/6	Method Blank	Total/NA	Water	9056A	
LCS 280-498729/4	Lab Control Sample	Total/NA	Water	9056A	
LCSD 280-498729/5	Lab Control Sample Dup	Total/NA	Water	9056A	
MRL 280-498729/3	Lab Control Sample	Total/NA	Water	9056A	
280-137225-2 MS	G0070-20A	Total/NA	Water	9056A	
280-137225-2 MSD	G0070-20A	Total/NA	Water	9056A	
280-137225-2 DU	G0070-20A	Total/NA	Water	9056A	

QC Association Summary

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

Job ID: 280-137225-1

General Chemistry

Filtration Batch: 498750

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-137225-1	G0076-20A	Dissolved	Water	FILTRATION	
280-137225-2	G0070-20A	Dissolved	Water	FILTRATION	
280-137225-3	G0081-20A	Dissolved	Water	FILTRATION	
280-137225-4	G0082-20A	Dissolved	Water	FILTRATION	
MB 280-498750/3-A	Method Blank	Dissolved	Water	FILTRATION	
LCS 280-498750/1-A	Lab Control Sample	Dissolved	Water	FILTRATION	
280-137225-2 MS	G0070-20A	Dissolved	Water	FILTRATION	
280-137225-2 MSD	G0070-20A	Dissolved	Water	FILTRATION	

Analysis Batch: 498916

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-137225-1	G0076-20A	Total/NA	Water	9056A	
MB 280-498916/6	Method Blank	Total/NA	Water	9056A	
LCS 280-498916/4	Lab Control Sample	Total/NA	Water	9056A	
LCSD 280-498916/5	Lab Control Sample Dup	Total/NA	Water	9056A	
MRL 280-498916/3	Lab Control Sample	Total/NA	Water	9056A	

Analysis Batch: 498927

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-137225-1	G0076-20A	Dissolved	Water	9060A	498750
280-137225-2	G0070-20A	Dissolved	Water	9060A	498750
280-137225-3	G0081-20A	Dissolved	Water	9060A	498750
280-137225-4	G0082-20A	Dissolved	Water	9060A	498750
MB 280-498750/3-A	Method Blank	Dissolved	Water	9060A	498750
LCS 280-498750/1-A	Lab Control Sample	Dissolved	Water	9060A	498750
280-137225-2 MS	G0070-20A	Dissolved	Water	9060A	498750
280-137225-2 MSD	G0070-20A	Dissolved	Water	9060A	498750

Lab Chronicle

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

Job ID: 280-137225-1

Client Sample ID: G0076-20A

Lab Sample ID: 280-137225-1

Date Collected: 06/01/20 13:45
Matrix: Water
Date Received: 06/03/20 09:10

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	18 mL	18 mL	498346	06/11/20 16:14	CAS	TAL DEN
Total/NA	Prep	3535			458.5 mL	5 mL	497449	06/04/20 17:15	KSA	TAL DEN
Total/NA	Analysis	8330A		1			499503	06/20/20 17:04	JZ	TAL DEN
Total/NA	Prep	3535			458.5 mL	5 mL	497449	06/04/20 17:15	KSA	TAL DEN
Total/NA	Analysis	8330A		1			498992	06/17/20 06:25	JZ	TAL DEN
Total/NA	Analysis	350.1		1	10 mL	10 mL	497478	06/04/20 13:30	BWH	TAL DEN
Total/NA	Prep	351.2			25 mL	25 mL	497896	06/08/20 17:42	SVC	TAL DEN
Total/NA	Analysis	351.2		1			498270	06/10/20 18:02	SVC	TAL DEN
Total/NA	Analysis	353.2		1	100 mL	100 mL	498113	06/09/20 17:17	SVC	TAL DEN
Total/NA	Prep	9030B			50 mL	50 mL	497566	06/05/20 09:54	AAD	TAL DEN
Total/NA	Analysis	9034		1			497568	06/05/20 09:56	AAD	TAL DEN
Total/NA	Analysis	9056A		5	5 mL	5 mL	498916	06/16/20 17:02	JAP	TAL DEN
Dissolved	Filtration	FILTRATION			1.0 mL	1.0 mL	498750	06/15/20 11:21	JMB	TAL DEN
Dissolved	Analysis	9060A		1	20 mL	20 mL	498927	06/16/20 07:19	JMB	TAL DEN
Total/NA	Analysis	SM 2320B		1			497942	06/08/20 13:36	SPG	TAL DEN

Client Sample ID: G0070-20A

Lab Sample ID: 280-137225-2

Date Collected: 06/02/20 08:25
Matrix: Water
Date Received: 06/03/20 09:10

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	18 mL	18 mL	498346	06/11/20 13:27	CAS	TAL DEN
Total/NA	Prep	3535			452.8 mL	5 mL	497449	06/04/20 17:15	KSA	TAL DEN
Total/NA	Analysis	8330A		1			499503	06/20/20 17:39	JZ	TAL DEN
Total/NA	Prep	3535			452.8 mL	5 mL	497449	06/04/20 17:15	KSA	TAL DEN
Total/NA	Analysis	8330A		1			498992	06/17/20 06:48	JZ	TAL DEN
Total/NA	Analysis	350.1		1	10 mL	10 mL	497478	06/04/20 13:24	BWH	TAL DEN
Total/NA	Prep	351.2			25 mL	25 mL	497896	06/08/20 17:42	SVC	TAL DEN
Total/NA	Analysis	351.2		1			498270	06/10/20 18:06	SVC	TAL DEN
Total/NA	Analysis	353.2		1	100 mL	100 mL	498113	06/09/20 17:19	SVC	TAL DEN
Total/NA	Prep	9030B			50 mL	50 mL	498010	06/09/20 11:35	AAD	TAL DEN
Total/NA	Analysis	9034		1			498013	06/09/20 11:38	AAD	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	498729	06/15/20 20:55	JAP	TAL DEN
Dissolved	Filtration	FILTRATION			1.0 mL	1.0 mL	498750	06/15/20 11:21	JMB	TAL DEN
Dissolved	Analysis	9060A		1	20 mL	20 mL	498927	06/16/20 06:26	JMB	TAL DEN
Total/NA	Analysis	SM 2320B		1			497742	06/05/20 14:38	SPG	TAL DEN

Client Sample ID: G0081-20A

Lab Sample ID: 280-137225-3

Date Collected: 06/02/20 09:45
Matrix: Water
Date Received: 06/03/20 09:10

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	18 mL	18 mL	498346	06/11/20 16:30	CAS	TAL DEN

Lab Chronicle

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

Job ID: 280-137225-1

Client Sample ID: G0081-20A

Lab Sample ID: 280-137225-3

Date Collected: 06/02/20 09:45
Matrix: Water
Date Received: 06/03/20 09:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			473.7 mL	5 mL	497449	06/04/20 17:15	KSA	TAL DEN
Total/NA	Analysis	8330A		1			499503	06/20/20 21:44	JZ	TAL DEN
Total/NA	Prep	3535			473.7 mL	5 mL	497449	06/04/20 17:15	KSA	TAL DEN
Total/NA	Analysis	8330A		1			498992	06/17/20 09:52	JZ	TAL DEN
Total/NA	Analysis	350.1		1	10 mL	10 mL	497478	06/04/20 13:32	BWH	TAL DEN
Total/NA	Prep	351.2			25 mL	25 mL	497896	06/08/20 17:42	SVC	TAL DEN
Total/NA	Analysis	351.2		1			498270	06/10/20 18:11	SVC	TAL DEN
Total/NA	Analysis	353.2		1	100 mL	100 mL	498113	06/09/20 17:21	SVC	TAL DEN
Total/NA	Prep	9030B			50 mL	50 mL	497566	06/05/20 09:54	AAD	TAL DEN
Total/NA	Analysis	9034		1			497568	06/05/20 09:56	AAD	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	498729	06/15/20 19:33	JAP	TAL DEN
Dissolved	Filtration	FILTRATION			1.0 mL	1.0 mL	498750	06/15/20 11:21	JMB	TAL DEN
Dissolved	Analysis	9060A		1	20 mL	20 mL	498927	06/16/20 07:38	JMB	TAL DEN
Total/NA	Analysis	SM 2320B		1			497742	06/05/20 14:55	SPG	TAL DEN

Client Sample ID: G0082-20A

Lab Sample ID: 280-137225-4

Date Collected: 06/02/20 10:55
Matrix: Water
Date Received: 06/03/20 09:10

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	18 mL	18 mL	498346	06/11/20 16:46	CAS	TAL DEN
Total/NA	Prep	3535			434.4 mL	5 mL	497449	06/04/20 17:15	KSA	TAL DEN
Total/NA	Analysis	8330A		1			499503	06/20/20 22:19	JZ	TAL DEN
Total/NA	Prep	3535			434.4 mL	5 mL	497449	06/04/20 17:15	KSA	TAL DEN
Total/NA	Analysis	8330A		1			498992	06/17/20 10:15	JZ	TAL DEN
Total/NA	Analysis	350.1		1	10 mL	10 mL	497478	06/04/20 13:34	BWH	TAL DEN
Total/NA	Prep	351.2			25 mL	25 mL	497896	06/08/20 17:42	SVC	TAL DEN
Total/NA	Analysis	351.2		1			498270	06/10/20 18:12	SVC	TAL DEN
Total/NA	Analysis	353.2		1	100 mL	100 mL	498113	06/09/20 17:23	SVC	TAL DEN
Total/NA	Prep	9030B			50 mL	50 mL	498010	06/09/20 11:35	AAD	TAL DEN
Total/NA	Analysis	9034		1			498013	06/09/20 11:38	AAD	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	498729	06/15/20 22:17	JAP	TAL DEN
Dissolved	Filtration	FILTRATION			1.0 mL	1.0 mL	498750	06/15/20 11:21	JMB	TAL DEN
Dissolved	Analysis	9060A		1	20 mL	20 mL	498927	06/16/20 07:53	JMB	TAL DEN
Total/NA	Analysis	SM 2320B		1			497742	06/05/20 15:01	SPG	TAL DEN

Laboratory References:

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

Accreditation/Certification Summary

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

Job ID: 280-137225-1

Laboratory: Eurofins TestAmerica, Denver

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

Authority	Program	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP	2907.01	10-31-21

Method Summary

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

Job ID: 280-137225-1

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 TestAmerica, Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

Sample Summary

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

Job ID: 280-137225-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
280-137225-1	G0076-20A	Water	06/01/20 13:45	06/03/20 09:10	
280-137225-2	G0070-20A	Water	06/02/20 08:25	06/03/20 09:10	
280-137225-3	G0081-20A	Water	06/02/20 09:45	06/03/20 09:10	
280-137225-4	G0082-20A	Water	06/02/20 10:55	06/03/20 09:10	

GC VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Instrument ID: VGC_J Analysis Batch Number: 495152

Lab Sample ID: IC 280-495152/6 Client Sample ID:

Date Analyzed: 05/16/20 10:57 Lab File ID: 001F0101.D GC Column: Rt-Alumina KC ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Ethane	1.51	Peak not integrated	meierg	05/17/20 06:37

Lab Sample ID: IC 280-495152/6 Client Sample ID:

Date Analyzed: 05/16/20 10:57 Lab File ID: 001F0101.D GC Column: HP-Plot Q ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetylene	4.14	Shouldering	meierg	05/17/20 07:19
Ethane	4.31	Peak not integrated	meierg	05/17/20 06:37

Lab Sample ID: IC 280-495152/7 Client Sample ID:

Date Analyzed: 05/16/20 11:13 Lab File ID: 001F0201.D GC Column: Rt-Alumina KC ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetylene	4.04	Peak not integrated	meierg	05/17/20 06:43

Lab Sample ID: IC 280-495152/7 Client Sample ID:

Date Analyzed: 05/16/20 11:13 Lab File ID: 001F0201.D GC Column: HP-Plot Q ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Ethylene	4.03	Shouldering	meierg	05/17/20 06:43
Acetylene	4.14	Peak not integrated	meierg	05/17/20 06:43

Lab Sample ID: IC 280-495152/8 Client Sample ID:

Date Analyzed: 05/16/20 11:30 Lab File ID: 002F0301.D GC Column: Rt-Alumina KC ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetylene	4.04	Peak not integrated	meierg	05/17/20 06:45

RSK-175

GC VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Instrument ID: VGC_J Analysis Batch Number: 495152

Lab Sample ID: IC 280-495152/8 Client Sample ID:

Date Analyzed: 05/16/20 11:30 Lab File ID: 002F0301.D GC Column: HP-Plot Q ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Ethylene	4.03	Shouldering	meierg	05/17/20 06:44
Acetylene	4.14	Peak not integrated	meierg	05/17/20 06:45

Lab Sample ID: IC 280-495152/9 Client Sample ID:

Date Analyzed: 05/16/20 11:46 Lab File ID: 003F0401.D GC Column: HP-Plot Q ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetylene	4.14	Shouldering	meierg	05/17/20 06:46

Lab Sample ID: ICRT 280-495152/10 Client Sample ID:

Date Analyzed: 05/16/20 12:02 Lab File ID: 004F0501.D GC Column: Rt-Alumina KC ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetylene	4.02	Peak not integrated	meierg	05/17/20 07:07

Lab Sample ID: ICRT 280-495152/10 Client Sample ID:

Date Analyzed: 05/16/20 12:02 Lab File ID: 004F0501.D GC Column: HP-Plot Q ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Ethylene	4.03	Shouldering	meierg	05/17/20 07:06
Acetylene	4.14	Peak not integrated	meierg	05/17/20 07:07

Lab Sample ID: IC 280-495152/11 Client Sample ID:

Date Analyzed: 05/16/20 12:19 Lab File ID: 005F0601.D GC Column: HP-Plot Q ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetylene	4.14	Shouldering	meierg	05/17/20 07:09

RSK-175

GC VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Instrument ID: VGC_J Analysis Batch Number: 495152

Lab Sample ID: IC 280-495152/12 Client Sample ID:

Date Analyzed: 05/16/20 12:35 Lab File ID: 006F0701.D GC Column: HP-Plot Q ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetylene	4.14	Shouldering	meierg	05/17/20 07:16

Lab Sample ID: ICV 280-495152/16 Client Sample ID:

Date Analyzed: 05/16/20 13:25 Lab File ID: 010F1001.D GC Column: HP-Plot Q ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetylene	4.14	Shouldering	meierg	05/17/20 07:28

RSK-175

GC VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Instrument ID: VGC_J Analysis Batch Number: 498346

Lab Sample ID: CCVRT 280-498346/4 Client Sample ID:

Date Analyzed: 06/11/20 10:58 Lab File ID: 004F0401.D GC Column: Rt-Alumina KC ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetylene	3.94	Split Peak	sciannac	06/11/20 12:09

Lab Sample ID: CCVRT 280-498346/4 Client Sample ID:

Date Analyzed: 06/11/20 10:58 Lab File ID: 004F0401.D GC Column: HP-Plot Q ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Ethylene	4.02	Split Peak	sciannac	06/11/20 12:12
Acetylene	4.13	Split Peak	sciannac	06/11/20 12:12
Ethane	4.30	Peak not integrated	sciannac	06/11/20 12:11

Lab Sample ID: CCV 280-498346/21 Client Sample ID:

Date Analyzed: 06/11/20 17:19 Lab File ID: 023F1501.D GC Column: Rt-Alumina KC ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetylene	3.94	Split Peak	sciannac	06/11/20 20:55

Lab Sample ID: CCV 280-498346/21 Client Sample ID:

Date Analyzed: 06/11/20 17:19 Lab File ID: 023F1501.D GC Column: HP-Plot Q ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Ethylene	4.03	Split Peak	sciannac	06/11/20 20:55
Acetylene	4.13	Split Peak	sciannac	06/11/20 20:55

RSK-175

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Instrument ID: CHHPLC_G2_LUNA Analysis Batch Number: 494886

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

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

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

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

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

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

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

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

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

8330A

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Instrument ID: CHHPLC_G2_LUNA Analysis Batch Number: 494886

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

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

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

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

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

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

8330A

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Instrument ID: CHHPLC_G2_LUNA Analysis Batch Number: 494886

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

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

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

8330A

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Instrument ID: CHHPLC_G2_LUNA Analysis Batch Number: 494886

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

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

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

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

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

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

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

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

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

8330A

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Instrument ID: CHHPLC_G2_LUNA Analysis Batch Number: 494886

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

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

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

Lab Sample ID: IC 280-494886/17 Client Sample ID:

Date Analyzed: 05/14/20 22:06 Lab File ID: 05140017.D GC Column: Luna-phenylhe ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
MNX	7.71	Peak assignment corrected	zhangji	05/15/20 11:36

Lab Sample ID: IC 280-494886/18 Client Sample ID:

Date Analyzed: 05/14/20 22:41 Lab File ID: 05140018.D GC Column: Luna-phenylhe ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
MNX	7.73	Peak assignment corrected	zhangji	05/15/20 11:36

Lab Sample ID: IC 280-494886/19 Client Sample ID:

Date Analyzed: 05/14/20 23:16 Lab File ID: 05140019.D GC Column: Luna-phenylhe ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
MNX	7.74	Peak assignment corrected	zhangji	05/15/20 11:36

8330A

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Instrument ID: CHHPLC_G2_LUNA Analysis Batch Number: 494886

Lab Sample ID: IC 280-494886/20 Client Sample ID:

Date Analyzed: 05/14/20 23:51 Lab File ID: 05140020.D GC Column: Luna-phenylhe ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
MNX	7.74	Peak assignment corrected	zhangji	05/15/20 11:36

8330A

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Instrument ID: CHHPLC_G2_LUNA Analysis Batch Number: 499503

Lab Sample ID: CCV 280-499503/7 Client Sample ID:

Date Analyzed: 06/20/20 12:59 Lab File ID: 06200007.D GC Column: Luna-phenylhe ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitroglycerin	16.03	Baseline	zhangji	06/20/20 13:46
2-Nitrotoluene	16.73	Baseline	zhangji	06/20/20 13:46
4-Nitrotoluene	17.01	Baseline	zhangji	06/20/20 13:46
4-Amino-2,6-dinitrotoluene	17.45	Baseline	zhangji	06/20/20 13:46
3-Nitrotoluene	17.94	Baseline	zhangji	06/20/20 13:46
2-Amino-4,6-dinitrotoluene	18.38	Baseline	zhangji	06/20/20 13:46
1,3,5-Trinitrobenzene	19.12	Baseline	zhangji	06/20/20 13:46
2,6-Dinitrotoluene	20.05	Baseline	zhangji	06/20/20 13:46
2,4-Dinitrotoluene	20.56	Baseline	zhangji	06/20/20 13:46

Lab Sample ID: 280-137225-1 Client Sample ID: G0076-20A

Date Analyzed: 06/20/20 17:04 Lab File ID: 06200014.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	06/23/20 18:05
2-Nitrotoluene		Invalid Compound ID	zhangji	06/23/20 18:05
Tetryl		Invalid Compound ID	zhangji	06/23/20 18:05
2-Amino-4,6-dinitrotoluene	18.33	Baseline	zhangji	06/23/20 18:05

Lab Sample ID: 280-137225-2 Client Sample ID: G0070-20A

Date Analyzed: 06/20/20 17:39 Lab File ID: 06200015.D GC Column: Luna-phenylhe ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
3-Nitrotoluene		Invalid Compound ID	zhangji	06/23/20 18:06
1,2-Dinitrobenzene	13.25	Baseline	zhangji	06/23/20 18:06
2-Nitrotoluene	16.65	Baseline	zhangji	06/23/20 18:06

8330A

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Instrument ID: CHHPLC_G2_LUNA Analysis Batch Number: 499503

Lab Sample ID: CCV 280-499503/19 Client Sample ID:

Date Analyzed: 06/20/20 19:59 Lab File ID: 06200019.D GC Column: Luna-phenylhe ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2-Nitrotoluene	16.71	Baseline	zhangji	06/23/20 14:02
4-Nitrotoluene	17.00	Baseline	zhangji	06/23/20 14:02
4-Amino-2,6-dinitrotoluene	17.43	Baseline	zhangji	06/23/20 14:02
3-Nitrotoluene	17.92	Baseline	zhangji	06/23/20 14:02
2-Amino-4,6-dinitrotoluene	18.36	Baseline	zhangji	06/23/20 14:02
1,3,5-Trinitrobenzene	19.10	Baseline	zhangji	06/23/20 14:02
2,6-Dinitrotoluene	20.03	Baseline	zhangji	06/23/20 14:02
2,4-Dinitrotoluene	20.54	Baseline	zhangji	06/23/20 14:02

Lab Sample ID: 280-137225-3 Client Sample ID: G0081-20A

Date Analyzed: 06/20/20 21:44 Lab File ID: 06200022.D GC Column: Luna-phenylhe ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	7.12	Baseline	zhangji	06/23/20 18:08
2-Nitrotoluene		Invalid Compound ID	zhangji	06/23/20 18:08
2-Amino-4,6-dinitrotoluene	18.32	Baseline	zhangji	06/23/20 18:09
1,3,5-Trinitrobenzene	19.10	Baseline	zhangji	06/23/20 18:09

Lab Sample ID: 280-137225-4 Client Sample ID: G0082-20A

Date Analyzed: 06/20/20 22:19 Lab File ID: 06200023.D GC Column: Luna-phenylhe ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	7.14	Baseline	zhangji	06/23/20 18:09
MNX		Baseline	zhangji	06/23/20 18:09
2-Nitrotoluene	16.64	Baseline	zhangji	06/23/20 18:09
2-Amino-4,6-dinitrotoluene	18.33	Baseline	zhangji	06/23/20 18:09

8330A

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Instrument ID: CHHPLC_G2_LUNA Analysis Batch Number: 499503

Lab Sample ID: CCV 280-499503/26 Client Sample ID:

Date Analyzed: 06/21/20 00:04 Lab File ID: 06200026.D GC Column: Luna-phenylhe ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitroglycerin	16.01	Baseline	zhangji	06/23/20 14:01
2-Nitrotoluene	16.71	Baseline	zhangji	06/23/20 14:01
4-Nitrotoluene	17.00	Baseline	zhangji	06/23/20 14:01
4-Amino-2,6-dinitrotoluene	17.43	Baseline	zhangji	06/23/20 14:01
3-Nitrotoluene	17.93	Baseline	zhangji	06/23/20 14:01
2-Amino-4,6-dinitrotoluene	18.37	Baseline	zhangji	06/23/20 14:01
1,3,5-Trinitrobenzene	19.11	Baseline	zhangji	06/23/20 14:01
2,6-Dinitrotoluene	20.03	Baseline	zhangji	06/23/20 14:01
2,4-Dinitrotoluene	20.55	Baseline	zhangji	06/23/20 14:01

8330A

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 487658

Lab Sample ID: IC 280-487658/7 Client Sample ID:

Date Analyzed: 03/04/20 14:07 Lab File ID: 03040007.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.68	Baseline	beckerc	03/05/20 08:19

Lab Sample ID: IC 280-487658/8 Client Sample ID:

Date Analyzed: 03/04/20 14:30 Lab File ID: 03040008.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.69	Baseline	beckerc	03/05/20 08:21

Lab Sample ID: IC 280-487658/9 Client Sample ID:

Date Analyzed: 03/04/20 14:53 Lab File ID: 03040009.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.68	Baseline	beckerc	03/05/20 08:21

Lab Sample ID: IC 280-487658/10 Client Sample ID:

Date Analyzed: 03/04/20 15:16 Lab File ID: 03040010.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.68	Baseline	beckerc	03/05/20 08:21

Lab Sample ID: IC 280-487658/11 Client Sample ID:

Date Analyzed: 03/04/20 15:39 Lab File ID: 03040011.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.68	Baseline	beckerc	03/05/20 08:22

8330A

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 487658

Lab Sample ID: IC 280-487658/12 Client Sample ID:

Date Analyzed: 03/04/20 16:01 Lab File ID: 03040012.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.68	Baseline	beckerc	03/05/20 08:22

Lab Sample ID: IC 280-487658/13 Client Sample ID:

Date Analyzed: 03/04/20 16:24 Lab File ID: 03040013.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.68	Baseline	beckerc	03/05/20 08:22

Lab Sample ID: IC 280-487658/14 Client Sample ID:

Date Analyzed: 03/04/20 16:47 Lab File ID: 03040014.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.68	Baseline	beckerc	03/05/20 08:23
2-Amino-4,6-dinitrotoluene	11.62	Baseline	beckerc	03/05/20 08:23
2,6-Dinitrotoluene	11.79	Unspecified		

Lab Sample ID: ICV 280-487658/15 Client Sample ID:

Date Analyzed: 03/04/20 17:10 Lab File ID: 03040015.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.68	Baseline	beckerc	03/05/20 08:23

8330A

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 487658

Lab Sample ID: IC 280-487658/25 Client Sample ID:

Date Analyzed: 03/04/20 21:00 Lab File ID: 03040025.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TNX	6.59	Baseline	beckerc	03/05/20 08:29
DNX	6.92	Baseline	beckerc	03/05/20 08:29
MNX	7.36	Baseline	beckerc	03/05/20 08:30

Lab Sample ID: IC 280-487658/26 Client Sample ID:

Date Analyzed: 03/04/20 21:23 Lab File ID: 03040026.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TNX	6.59	Baseline	beckerc	03/05/20 08:30
DNX	6.92	Baseline	beckerc	03/05/20 08:30

Lab Sample ID: IC 280-487658/27 Client Sample ID:

Date Analyzed: 03/04/20 21:45 Lab File ID: 03040027.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TNX	6.59	Baseline	beckerc	03/05/20 08:30
DNX	6.92	Baseline	beckerc	03/05/20 08:30

Lab Sample ID: IC 280-487658/28 Client Sample ID:

Date Analyzed: 03/04/20 22:09 Lab File ID: 03040028.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TNX	6.59	Baseline	beckerc	03/05/20 08:31
DNX	6.92	Baseline	beckerc	03/05/20 08:31

8330A

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 487658

Lab Sample ID: IC 280-487658/29 Client Sample ID:

Date Analyzed: 03/04/20 22:31 Lab File ID: 03040029.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TNX	6.59	Baseline	beckerc	03/05/20 08:31
DNX	6.92	Baseline	beckerc	03/05/20 08:31

Lab Sample ID: IC 280-487658/30 Client Sample ID:

Date Analyzed: 03/04/20 22:54 Lab File ID: 03040030.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TNX	6.59	Baseline	beckerc	03/05/20 08:31
DNX	6.92	Baseline	beckerc	03/05/20 08:32

Lab Sample ID: IC 280-487658/31 Client Sample ID:

Date Analyzed: 03/04/20 23:17 Lab File ID: 03040031.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TNX	6.59	Baseline	beckerc	03/05/20 08:32
DNX	6.91	Baseline	beckerc	03/05/20 08:32

Lab Sample ID: IC 280-487658/32 Client Sample ID:

Date Analyzed: 03/04/20 23:40 Lab File ID: 03040032.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TNX	6.59	Baseline	beckerc	03/05/20 08:32
DNX	6.91	Baseline	beckerc	03/05/20 08:32

8330A

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 487658

Lab Sample ID: ICV 280-487658/33 Client Sample ID:

Date Analyzed: 03/05/20 00:03 Lab File ID: 03040033.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TNX	6.59	Baseline	beckerc	03/05/20 08:37
DNX	6.91	Baseline	beckerc	03/05/20 08:37

8330A

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 489145

Lab Sample ID: IC 280-489145/7 Client Sample ID:

Date Analyzed: 03/18/20 11:35 Lab File ID: 03180007.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.68	Baseline	beckerc	03/19/20 08:41
1,3-Dinitrobenzene	9.53	Baseline	beckerc	03/19/20 08:41

Lab Sample ID: IC 280-489145/8 Client Sample ID:

Date Analyzed: 03/18/20 11:58 Lab File ID: 03180008.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.69	Baseline	beckerc	03/19/20 08:41

Lab Sample ID: IC 280-489145/9 Client Sample ID:

Date Analyzed: 03/18/20 12:21 Lab File ID: 03180009.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.69	Baseline	beckerc	03/19/20 08:42

Lab Sample ID: IC 280-489145/10 Client Sample ID:

Date Analyzed: 03/18/20 12:44 Lab File ID: 03180010.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.69	Baseline	beckerc	03/19/20 08:42

Lab Sample ID: IC 280-489145/11 Client Sample ID:

Date Analyzed: 03/18/20 13:07 Lab File ID: 03180011.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.69	Baseline	beckerc	03/19/20 08:43

8330A

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 489145

Lab Sample ID: IC 280-489145/12 Client Sample ID:

Date Analyzed: 03/18/20 13:30 Lab File ID: 03180012.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.69	Baseline	beckerc	03/19/20 08:43

Lab Sample ID: IC 280-489145/13 Client Sample ID:

Date Analyzed: 03/18/20 13:53 Lab File ID: 03180013.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.69	Baseline	beckerc	03/19/20 08:44

Lab Sample ID: IC 280-489145/14 Client Sample ID:

Date Analyzed: 03/18/20 14:16 Lab File ID: 03180014.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.69	Baseline	beckerc	03/19/20 08:44
2-Amino-4,6-dinitrotoluene	11.63	Baseline	beckerc	03/19/20 08:44
2,6-Dinitrotoluene	11.79	Unspecified		

Lab Sample ID: IC 280-489145/15 Client Sample ID:

Date Analyzed: 03/18/20 14:39 Lab File ID: 03180015.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Picric acid	8.08	Unspecified		
2-Amino-4,6-dinitrotoluene	11.64	Baseline	beckerc	03/19/20 08:46
2,6-Dinitrotoluene	11.80	Unspecified		

8330A

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 489145

Lab Sample ID: ICV 280-489145/16 Client Sample ID:

Date Analyzed: 03/18/20 15:02 Lab File ID: 03180016.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.69	Baseline	beckerc	03/19/20 08:47

8330A

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 498992

Lab Sample ID: CCV 280-498992/29 Client Sample ID:

Date Analyzed: 06/17/20 03:21 Lab File ID: 06160029.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.72	Baseline	zhangji	06/17/20 13:59
Nitrobenzene	10.00	Baseline	zhangji	06/17/20 13:59
2-Nitrotoluene	12.95	Baseline	zhangji	06/17/20 13:59
4-Nitrotoluene	13.39	Baseline	zhangji	06/17/20 13:59
3-Nitrotoluene	13.98	Baseline	zhangji	06/17/20 14:00

Lab Sample ID: CCV 280-498992/31 Client Sample ID:

Date Analyzed: 06/17/20 04:07 Lab File ID: 06160031.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TNX	6.63	Baseline	zhangji	06/17/20 14:04
DNX	6.96	Baseline	zhangji	06/17/20 14:04

Lab Sample ID: MB 280-497449/1-A Client Sample ID:

Date Analyzed: 06/17/20 04:30 Lab File ID: 06160032.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
MNX		Invalid Compound ID	zhangji	06/17/20 14:04

Lab Sample ID: 280-137225-1 Client Sample ID: G0076-20A

Date Analyzed: 06/17/20 06:25 Lab File ID: 06160037.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
RDX	7.80	Baseline	zhangji	06/17/20 18:57
1,2-Dinitrobenzene	8.80	Baseline	zhangji	06/17/20 18:57
2,4-Dinitrotoluene		Invalid Compound ID	zhangji	06/17/20 18:57

8330A

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 498992

Lab Sample ID: 280-137225-2 Client Sample ID: G0070-20A

Date Analyzed: 06/17/20 06:48 Lab File ID: 06160038.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,2-Dinitrobenzene	8.80	Baseline	zhangji	06/17/20 18:57
4-Nitrotoluene		Invalid Compound ID	zhangji	06/17/20 18:57
Nitrobenzene	10.01	Baseline	zhangji	06/17/20 18:57

Lab Sample ID: 280-137225-2 MS Client Sample ID: G0070-20A MS

Date Analyzed: 06/17/20 07:11 Lab File ID: 06160039.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.72	Baseline	zhangji	06/17/20 18:57

Lab Sample ID: 280-137225-2 MSD Client Sample ID: G0070-20A MSD

Date Analyzed: 06/17/20 07:34 Lab File ID: 06160040.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.72	Baseline	zhangji	06/17/20 18:58
2,4,6-Trinitrotoluene	11.30	Baseline	zhangji	06/17/20 18:58
4-Amino-2,6-dinitrotoluene	11.48	Baseline	zhangji	06/17/20 18:58
2-Amino-4,6-dinitrotoluene	11.77	Baseline	zhangji	06/17/20 18:58
2,6-Dinitrotoluene	11.91	Baseline	zhangji	06/17/20 18:58
2,4-Dinitrotoluene	12.11	Baseline	zhangji	06/17/20 18:58

8330A

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 498992

Lab Sample ID: 280-137225-2 MS Client Sample ID: G0070-20A MS

Date Analyzed: 06/17/20 07:57 Lab File ID: 06160041.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
MNX	7.41	Baseline	zhangji	06/17/20 18:59
2-Nitrotoluene		Invalid Compound ID	zhangji	06/17/20 18:59
4-Nitrotoluene		Invalid Compound ID	zhangji	06/17/20 18:59

Lab Sample ID: CCV 280-498992/42 Client Sample ID:

Date Analyzed: 06/17/20 08:20 Lab File ID: 06160042.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.73	Baseline	zhangji	06/17/20 18:59
Picric acid	8.12	Baseline	zhangji	06/17/20 18:59
2-Nitrotoluene	12.92	Baseline	zhangji	06/17/20 19:00
4-Nitrotoluene	13.36	Baseline	zhangji	06/17/20 19:00
3-Nitrotoluene	13.96	Baseline	zhangji	06/17/20 19:00

Lab Sample ID: CCV 280-498992/44 Client Sample ID:

Date Analyzed: 06/17/20 09:06 Lab File ID: 06160044.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TNX	6.63	Baseline	zhangji	06/17/20 19:02
DNX	6.95	Baseline	zhangji	06/17/20 19:02

8330A

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 498992

Lab Sample ID: 280-137225-2 MSD Client Sample ID: G0070-20A MSD

Date Analyzed: 06/17/20 09:29 Lab File ID: 06160045.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
MNX	7.39	Baseline	zhangji	06/17/20 19:02
1,2-Dinitrobenzene	8.78	Baseline	zhangji	06/17/20 19:02
2,4,6-Trinitrotoluene		Invalid Compound ID	zhangji	06/17/20 19:03
2-Amino-4,6-dinitrotoluene		Invalid Compound ID	zhangji	06/17/20 19:03
4-Nitrotoluene		Invalid Compound ID	zhangji	06/17/20 19:03
Tetryl		Invalid Compound ID	zhangji	06/17/20 19:03

Lab Sample ID: 280-137225-3 Client Sample ID: G0081-20A

Date Analyzed: 06/17/20 09:52 Lab File ID: 06160046.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,2-Dinitrobenzene	8.77	Baseline	zhangji	06/17/20 19:03
1,3,5-Trinitrobenzene	8.95	Baseline	zhangji	06/17/20 19:03
Nitrobenzene	9.95	Baseline	zhangji	06/17/20 19:03
2,4,6-Trinitrotoluene		Invalid Compound ID	zhangji	06/17/20 19:03
2-Nitrotoluene		Invalid Compound ID	zhangji	06/17/20 19:03
Tetryl		Invalid Compound ID	zhangji	06/17/20 19:03

Lab Sample ID: 280-137225-4 Client Sample ID: G0082-20A

Date Analyzed: 06/17/20 10:15 Lab File ID: 06160047.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
RDX	7.78	Baseline	zhangji	06/17/20 19:04
1,2-Dinitrobenzene	8.76	Baseline	zhangji	06/17/20 19:04
3-Nitrotoluene		Invalid Compound ID	zhangji	06/17/20 19:04
Tetryl		Invalid Compound ID	zhangji	06/17/20 19:04
4-Amino-2,6-dinitrotoluene	11.42	Baseline	zhangji	06/17/20 19:04

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 498992

Lab Sample ID: CCV 280-498992/52 Client Sample ID:

Date Analyzed: 06/17/20 12:10 Lab File ID: 06160052.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.72	Baseline	zhangji	06/17/20 19:05

Lab Sample ID: CCV 280-498992/54 Client Sample ID:

Date Analyzed: 06/17/20 12:57 Lab File ID: 06160054.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TNX	6.62	Baseline	zhangji	06/17/20 19:06
DNX	6.95	Baseline	zhangji	06/17/20 19:06

8330A

GENERAL CHEMISTRY MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Instrument ID: WC_IonChrom10 Analysis Batch Number: 497179

Lab Sample ID: ICV 280-497179/1 Client Sample ID:

Date Analyzed: 06/03/20 09:53 Lab File ID: Info 2_DENPC179_Anions_20 GC Column: Metrosepp A S ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Sulfate	10.73	Incomplete Integration	pedrickj	06/03/20 10:18

9056A

GENERAL CHEMISTRY MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Instrument ID: WC_IonChrom7 Analysis Batch Number: 497185

Lab Sample ID: STD 280-497185/2 IC Client Sample ID:

Date Analyzed: 06/03/20 10:08 Lab File ID: 02.0000.d GC Column: Ion PAC AS 17 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Sulfate	9.41	Peak assignment corrected	pedrickj	06/03/20 11:51

Lab Sample ID: STD 280-497185/3 IC Client Sample ID:

Date Analyzed: 06/03/20 10:24 Lab File ID: 03.0000.d GC Column: Ion PAC AS 17 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Sulfate	9.55	Peak assignment corrected	pedrickj	06/03/20 11:51

Lab Sample ID: STD 280-497185/4 IC Client Sample ID:

Date Analyzed: 06/03/20 10:41 Lab File ID: 04.0000.d GC Column: Ion PAC AS 17 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chloride	2.90	Peak assignment corrected	pedrickj	06/03/20 11:51
Sulfate	9.50	Peak assignment corrected	pedrickj	06/03/20 11:51

Lab Sample ID: STD 280-497185/5 IC Client Sample ID:

Date Analyzed: 06/03/20 10:57 Lab File ID: 05.0000.d GC Column: Ion PAC AS 17 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Sulfate	9.16	Peak assignment corrected	pedrickj	06/03/20 11:51

Lab Sample ID: STD 280-497185/6 IC Client Sample ID:

Date Analyzed: 06/03/20 11:13 Lab File ID: 06.0000.d GC Column: Ion PAC AS 17 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Sulfate	9.06	Peak assignment corrected	pedrickj	06/03/20 11:51

9056A

GENERAL CHEMISTRY MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Instrument ID: WC_IonChrom7 Analysis Batch Number: 497185

Lab Sample ID: STD 280-497185/7 IC Client Sample ID:

Date Analyzed: 06/03/20 11:30 Lab File ID: 07.0000.d GC Column: Ion PAC AS 17 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chloride	3.09	Peak assignment corrected	pedrickj	06/03/20 11:50

9056A

GENERAL CHEMISTRY MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Instrument ID: WC_IonChrom7 Analysis Batch Number: 498916

Lab Sample ID: CCV 280-498916/1 Client Sample ID:

Date Analyzed: 06/16/20 10:20 Lab File ID: 01.0000.d GC Column: Ion PAC AS 17 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Bromide	4.93	Peak assignment corrected	jindaratc	06/16/20 14:06

9056A

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
350.1 cal_00418	06/11/20	06/04/20	Di Water, Lot na	100 mL	NH3 CAL STD_00031	10 mL	Ammonia	100 mg/L
.NH3 CAL STD_00031	08/31/20	Ricca, Lot 2902E25			(Purchased Reagent)		Ammonia	1000 mg/L
350.1 ICV_00406	06/11/20	06/04/20	na, Lot na	100 mL	NH3 ICV STD_00027	10 mL	Ammonia	100.2 mg/L
.NH3 ICV STD_00027	04/01/21	Inorganic Ventures, Lot N2-NH669544			(Purchased Reagent)		Ammonia	1002 mg/L
8330 DMT_00005	03/31/20	01/21/20	Acetonitrile, Lot 231453	5 mL	MNX,TNX,DNX_00032	1 mL	DNX	20.02 ug/mL
							MNX	23.34 ug/mL
							TNX	20.02 ug/mL
.MNX,TNX,DNX_00032	12/31/19	ULTRA Scientific, Lot CS-5628			(Purchased Reagent)		DNX	100.1 ug/mL
							MNX	116.7 ug/mL
							TNX	100.1 ug/mL
8330 DMT_00006	02/28/21	04/15/20	Acetonitrile, Lot ACN_00232	5 mL	MNX,TNX,DNX_00043	1 mL	DNX	20.02 ug/mL
							MNX	23.34 ug/mL
							TNX	20.02 ug/mL
.MNX,TNX,DNX_00043	02/28/21	ULTRA Scientific, Lot 006516106			(Purchased Reagent)		DNX	100.1 ug/mL
							MNX	116.7 ug/mL
							TNX	100.1 ug/mL
8330 LCS_00095	07/24/20	01/24/20	Acetonitrile, Lot ACN_00231	100 mL	8330LCSMix1_00113	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_00009	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_00113	07/31/24	Restek, Lot A0151407			(Purchased Reagent)		1,3,5-Trinitrobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							2,4,6-Trinitrotoluene	1000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							HMX	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							RDX	1000 ug/mL
.8330LCSmix2_00009	05/31/24	Restek, Lot A0149387			(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

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Tetryl	1000 ug/mL
8330 LCS_00098	07/31/20	04/28/20	Acetonitrile, Lot Acetonitrile_00233	100 mL	8330LCSMix1_00111	1 mL	1,3,5-Trinitrobenzene	10 ug/mL
							1,3-Dinitrobenzene	10 ug/mL
							2,4,6-Trinitrotoluene	10 ug/mL
							2,4-Dinitrotoluene	10 ug/mL
							HMX	10 ug/mL
							Nitrobenzene	10 ug/mL
							RDX	10 ug/mL
					8330LCSmix2_00011	1 mL	2,6-Dinitrotoluene	10 ug/mL
							2-Amino-4,6-dinitrotoluene	10 ug/mL
							2-Nitrotoluene	10 ug/mL
							3-Nitrotoluene	10 ug/mL
							4-Amino-2,6-dinitrotoluene	10 ug/mL
							4-Nitrotoluene	10 ug/mL
							Tetryl	10 ug/mL
.8330LCSMix1_00111	10/28/20	Restek, Lot A0151407			(Purchased Reagent)		1,3,5-Trinitrobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							2,4,6-Trinitrotoluene	1000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							HMX	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							RDX	1000 ug/mL
.8330LCSmix2_00011	10/28/20	Restek, Lot A0157533			(Purchased Reagent)		2,6-Dinitrotoluene	1000 ug/mL
							2-Amino-4,6-dinitrotoluene	1000 ug/mL
							2-Nitrotoluene	1000 ug/mL
							3-Nitrotoluene	1000 ug/mL
							4-Amino-2,6-dinitrotoluene	1000 ug/mL
							4-Nitrotoluene	1000 ug/mL
							Tetryl	1000 ug/mL
8330 LCS_00099	11/11/20	06/02/20	Acetonitrile, Lot Acetonitrile_00044	25 mL	8330 LCSMix2_00106	0.25 mL	2,6-Dinitrotoluene	10 ug/mL
							2-Amino-4,6-dinitrotoluene	10 ug/mL
							2-Nitrotoluene	10 ug/mL
							3-Nitrotoluene	10 ug/mL
							4-Amino-2,6-dinitrotoluene	10 ug/mL
							4-Nitrotoluene	10 ug/mL
							Tetryl	10 ug/mL
					8330_NG_AUX_00001	1 mL	Nitroglycerin	100 ug/mL
					8330_NG_AUX_00002	1 mL	Nitroglycerin	100 ug/mL
					8330_NG_AUX_00003	0.5 mL	Nitroglycerin	100 ug/mL
					8330_PETN_Stk_00081	0.5 mL	PETN	100 ug/mL
					8330LCSMix1_00112	0.25 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

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Nitrobenzene	10 ug/mL
							RDX	10 ug/mL
					PicricARestek_00090	0.25 mL	2,4,6-Trinitrophenol	10 ug/mL
.8330 LCSMix2_00106	11/11/20		Restek, Lot A0141002		(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_AUX_00001	06/02/21		Restek, Lot A0153378		(Purchased Reagent)		Nitroglycerin	1000 ug/mL
.8330_NG_AUX_00002	06/02/21		Restek, Lot A0153378		(Purchased Reagent)		Nitroglycerin	1000 ug/mL
.8330_NG_AUX_00003	06/02/21		Restek, Lot A0153378		(Purchased Reagent)		Nitroglycerin	1000 ug/mL
.8330_PETN_Stk_00081	03/31/21		Restek, Lot A0136306		(Purchased Reagent)		PETN	5000 ug/mL
.8330LCSMix1_00112	11/11/20		Restek, Lot A0151407		(Purchased Reagent)		1,3,5-Trinitrobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							2,4,6-Trinitrotoluene	1000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							HMX	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							RDX	1000 ug/mL
.PicricARestek_00090	06/02/21		Restek, Lot A0131892		(Purchased Reagent)		2,4,6-Trinitrophenol	1000 ug/mL
8330_OP_DMT_00006	02/24/21	02/24/20	Acetonitrile, Lot 0000196715	10 mL	MNX,TNX,DNX_00042	1 mL	MNX	11.67 ug/mL
.MNX,TNX,DNX_00042	02/28/21		ULTRA Scientific, Lot 006516106		(Purchased Reagent)		MNX	116.7 ug/mL
8330_OP_DMT_00008	02/28/21	04/30/20	Acetonitrile, Lot 0000249516	10 mL	MNX,TNX,DNX_00046	1 mL	DNX	10.01 ug/mL
							MNX	11.67 ug/mL
							TNX	10.01 ug/mL
.MNX,TNX,DNX_00046	02/28/21		ULTRA Scientific, Lot 006516106		(Purchased Reagent)		DNX	100.1 ug/mL
							MNX	116.7 ug/mL
							TNX	100.1 ug/mL
8330IntermStk_00061	09/09/21	01/09/20	Acetonitrile, Lot 130057	10 mL	8330_NG_Stk_00075	200 uL	Nitroglycerin	100 ug/mL
					8330_PETN_Stk_00087	200 uL	PETN	100 ug/mL
					8330ICALStock_00030	1 mL	1,3,5-Trinitrobenzene	10.02 ug/mL
							1,3-Dinitrobenzene	10.02 ug/mL
							2,4,6-Trinitrotoluene	10.04 ug/mL
							2,4-Dinitrotoluene	10.04 ug/mL
							2,6-Dinitrotoluene	10.04 ug/mL
							2-Amino-4,6-dinitrotoluene	10.04 ug/mL
							2-Nitrotoluene	10 ug/mL
							3-Nitrotoluene	10.01 ug/mL
							4-Amino-2,6-dinitrotoluene	10.01 ug/mL
							4-Nitrotoluene	10.02 ug/mL
							HMX	10 ug/mL
							Nitrobenzene	10.04 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							RDX	10 ug/mL
							Tetryl	10.02 ug/mL
							1,2-Dinitrobenzene	10 ug/mL
					8330PAStkPS_00061	1 mL	2,4,6-Trinitrophenol	10 ug/mL
.8330_NG_Stk_00075	08/31/22	Restek, Lot A0151571			(Purchased Reagent)		Nitroglycerin	5000 ug/mL
.8330_PETN_Stk_00087	11/30/22	Restek, Lot A0154763			(Purchased Reagent)		PETN	5000 ug/mL
.8330ICALStock_00030	03/03/22	01/09/20	Acetonitrile, Lot 130057	10 mL	8330 Stock_TS_00015	1 mL	1,3,5-Trinitrobenzene	100.2 ug/mL
							1,3-Dinitrobenzene	100.2 ug/mL
							2,4,6-Trinitrotoluene	100.4 ug/mL
							2,4-Dinitrotoluene	100.4 ug/mL
							2,6-Dinitrotoluene	100.4 ug/mL
							2-Amino-4,6-dinitrotoluene	100.4 ug/mL
							2-Nitrotoluene	100 ug/mL
							3-Nitrotoluene	100.1 ug/mL
							4-Amino-2,6-dinitrotoluene	100.1 ug/mL
							4-Nitrotoluene	100.2 ug/mL
							HMX	100 ug/mL
							Nitrobenzene	100.4 ug/mL
							RDX	100 ug/mL
							Tetryl	100.2 ug/mL
					8330SurrStock_00164	1 mL	1,2-Dinitrobenzene	100 ug/mL
..8330 Stock_TS_00015	03/31/22	Ultra Scientific, Lot CT-0801			(Purchased Reagent)		1,3,5-Trinitrobenzene	1002 ug/mL
							1,3-Dinitrobenzene	1002 ug/mL
							2,4,6-Trinitrotoluene	1004 ug/mL
							2,4-Dinitrotoluene	1004 ug/mL
							2,6-Dinitrotoluene	1004 ug/mL
							2-Amino-4,6-dinitrotoluene	1004 ug/mL
							2-Nitrotoluene	1000 ug/mL
							3-Nitrotoluene	1001 ug/mL
							4-Amino-2,6-dinitrotoluene	1001 ug/mL
							4-Nitrotoluene	1002 ug/mL
							HMX	1000 ug/mL
							Nitrobenzene	1004 ug/mL
							RDX	1000 ug/mL
							Tetryl	1002 ug/mL
..8330SurrStock_00164	07/01/26	AccuStandard, Lot 216071012			(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
.8330PAStkPS_00061	09/09/21	AccuStandard, Lot 214121302-02			(Purchased Reagent)		2,4,6-Trinitrophenol	100 ug/mL
8330IntermStk_00064	09/09/21	04/06/20	Acetonitrile, Lot 130057	10 mL	8330_NG_Stk_00075	200 uL	Nitroglycerin	100 ug/mL
					8330_PETN_Stk_00087	200 uL	PETN	100 ug/mL
					8330ICALStock_00030	1 mL	1,3,5-Trinitrobenzene	10.02 ug/mL
							1,3-Dinitrobenzene	10.02 ug/mL
							2,4,6-Trinitrotoluene	10.04 ug/mL
							2,4-Dinitrotoluene	10.04 ug/mL
							2,6-Dinitrotoluene	10.04 ug/mL
							2-Amino-4,6-dinitrotoluene	10.04 ug/mL
							2-Nitrotoluene	10 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							3-Nitrotoluene	10.01 ug/mL
							4-Amino-2,6-dinitrotoluene	10.01 ug/mL
							4-Nitrotoluene	10.02 ug/mL
							HMX	10 ug/mL
							Nitrobenzene	10.04 ug/mL
							RDX	10 ug/mL
							Tetryl	10.02 ug/mL
							1,2-Dinitrobenzene	10 ug/mL
					8330PAStkPS_00061	1 mL	2,4,6-Trinitrophenol	10 ug/mL
.8330_NG_Stk_00075	08/31/22	Restek, Lot A0151571			(Purchased Reagent)		Nitroglycerin	5000 ug/mL
.8330_PETN_Stk_00087	11/30/22	Restek, Lot A0154763			(Purchased Reagent)		PETN	5000 ug/mL
.8330ICALStock_00030	03/03/22	01/09/20	Acetonitrile, Lot 130057	10 mL	8330 Stock_TS_00015	1 mL	1,3,5-Trinitrobenzene	100.2 ug/mL
							1,3-Dinitrobenzene	100.2 ug/mL
							2,4,6-Trinitrotoluene	100.4 ug/mL
							2,4-Dinitrotoluene	100.4 ug/mL
							2,6-Dinitrotoluene	100.4 ug/mL
							2-Amino-4,6-dinitrotoluene	100.4 ug/mL
							2-Nitrotoluene	100 ug/mL
							3-Nitrotoluene	100.1 ug/mL
							4-Amino-2,6-dinitrotoluene	100.1 ug/mL
							4-Nitrotoluene	100.2 ug/mL
							HMX	100 ug/mL
							Nitrobenzene	100.4 ug/mL
							RDX	100 ug/mL
							Tetryl	100.2 ug/mL
					8330SurrStock_00164	1 mL	1,2-Dinitrobenzene	100 ug/mL
..8330 Stock_TS_00015	03/31/22	Ultra Scientific, Lot CT-0801			(Purchased Reagent)		1,3,5-Trinitrobenzene	1002 ug/mL
							1,3-Dinitrobenzene	1002 ug/mL
							2,4,6-Trinitrotoluene	1004 ug/mL
							2,4-Dinitrotoluene	1004 ug/mL
							2,6-Dinitrotoluene	1004 ug/mL
							2-Amino-4,6-dinitrotoluene	1004 ug/mL
							2-Nitrotoluene	1000 ug/mL
							3-Nitrotoluene	1001 ug/mL
							4-Amino-2,6-dinitrotoluene	1001 ug/mL
							4-Nitrotoluene	1002 ug/mL
							HMX	1000 ug/mL
							Nitrobenzene	1004 ug/mL
							RDX	1000 ug/mL
							Tetryl	1002 ug/mL
..8330SurrStock_00164	07/01/26	AccuStandard, Lot 216071012			(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
.8330PAStkPS_00061	09/09/21	AccuStandard, Lot 214121302-02			(Purchased Reagent)		2,4,6-Trinitrophenol	100 ug/mL
8330Surrogate_00110	05/17/20	12/17/19	Acetonitrile, Lot ACN_00223	250 mL	8330SurrStkSS_00145	0.25 mL	1,2-Dinitrobenzene	10 ug/mL
					8330SurrStkSS_00158	0.25 mL	1,2-Dinitrobenzene	10 ug/mL
					8330SurrStkSS_00160	1 mL	1,2-Dinitrobenzene	10 ug/mL
					8330SurrStkSS_00161	1 mL	1,2-Dinitrobenzene	10 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.8330SurrStkSS_00145	03/31/23		Restek, Lot A0135839		(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
.8330SurrStkSS_00158	07/31/24		Restek, Lot A0146866		(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
.8330SurrStkSS_00160	10/28/22		Restek, Lot A0150790		(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
.8330SurrStkSS_00161	07/31/24		Restek, Lot A0150790		(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
8330Surrogate_00114	11/07/20	05/07/20	Acetonitrile, Lot ACN 00234	100 mL	8330SurrStkSS_00157	1 mL	1,2-Dinitrobenzene	10 ug/mL
.8330SurrStkSS_00157	11/07/20		Restek, Lot A0146866		(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
8330Surrogate_00116	11/15/20	05/15/20	Acetonitrile, Lot Acetonitrile_00044	200 mL	8330SurrStkSS_00168	1 mL	1,2-Dinitrobenzene	10 ug/mL
							1,2-Dinitrobenzene (Surr)	10 ug/mL
					8330SurrStkSS_00169	1 mL	1,2-Dinitrobenzene	10 ug/mL
							1,2-Dinitrobenzene (Surr)	10 ug/mL
.8330SurrStkSS_00168	11/15/20		Restek, Lot A0155113		(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
							1,2-Dinitrobenzene (Surr)	1000 ug/mL
.8330SurrStkSS_00169	11/15/20		Restek, Lot A0155113		(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
							1,2-Dinitrobenzene (Surr)	1000 ug/mL
Alk daily lcs_00905	06/08/20	06/01/20	Di Water, Lot na	1000 mL	Alk stk std_00017	4 mL	Total Alkalinity as CaCO3	200 mg/L
.Alk stk std_00017	03/30/21		Fischer, Lot 191517		(Purchased Reagent)		Total Alkalinity as CaCO3	50 g/L
Alk daily lcs_00906	06/15/20	06/08/20	Di Water, Lot na	1000 mL	Alk stk std_00017	4 mL	Total Alkalinity as CaCO3	200 mg/L
.Alk stk std_00017	03/30/21		Fischer, Lot 191517		(Purchased Reagent)		Total Alkalinity as CaCO3	50 g/L
IC CAL cl/so4_00312	06/02/20	05/26/20	Di Water, Lot na	100 mL	IC CL cal_00060	25 mL	Chloride	250 mg/L
					IC sulfatecal_00059	25 mL	Sulfate	250 mg/L
.IC CL cal_00060	01/30/21		SPEX CertiPrep, Lot 4-176CL-2X		(Purchased Reagent)		Chloride	1000 mg/L
.IC sulfatecal_00059	01/30/21		SPEX CertiPrep, Lot 4-176SO4-2X		(Purchased Reagent)		Sulfate	1000 mg/L
IC CAL cl/so4_00313	06/09/20	06/02/20	Di Water, Lot na	100 mL	IC CL cal_00060	25 mL	Chloride	250 mg/L
					IC sulfatecal_00059	25 mL	Sulfate	250 mg/L
.IC CL cal_00060	01/30/21		SPEX CertiPrep, Lot 4-176CL-2X		(Purchased Reagent)		Chloride	1000 mg/L
.IC sulfatecal_00059	01/30/21		SPEX CertiPrep, Lot 4-176SO4-2X		(Purchased Reagent)		Sulfate	1000 mg/L
IC CAL cl/so4_00315	06/22/20	06/15/20	Di Water, Lot na	100 mL	IC sulfatecal_00059	25 mL	Sulfate	250 mg/L
.IC sulfatecal_00059	01/30/21		SPEX CertiPrep, Lot 4-176SO4-2X		(Purchased Reagent)		Sulfate	1000 mg/L
IC Cal low_00527	06/05/20	05/29/20	Di Water, Lot NA	100 mL	IC BR ICV_00018	5 mL	Bromide	50 mg/L
					IC FL cal_00014	5 mL	Fluoride	50 mg/L
.IC BR ICV_00018	01/31/21		ricca, Lot 2907E22		(Purchased Reagent)		Bromide	1000 mg/L
.IC FL cal_00014	11/30/20		Ricca, Lot 4905E80		(Purchased Reagent)		Fluoride	1000 mg/L
IC LCS_01745	06/19/20	06/12/20	Di Water, Lot 27	200 mL	IC sulfatecal_00057	20 mL	Sulfate	100 mg/L as N
.IC sulfatecal_00057	06/30/20		SPEX CertiPrep, Lot 4-197SO4-2X		(Purchased Reagent)		Sulfate	1000 mg/L
IC SO4 ICV_00021	08/31/21		ERA, Lot 100819m		(Purchased Reagent)		Sulfate	1000 mg/L
ICMS/MSD WEEK_00653	06/22/20	06/15/20	Di Water, Lot NA	10 mL	IC SPK 6 ANIO_00022	5 mL	Sulfate	5000.51 mg/L
.IC SPK 6 ANIO_00022	09/29/20	10/01/19	Di Water, Lot NA	1000 mL	IC MS/MSD S04_00005	18.1408 g	Sulfate	10001 mg/L
..IC MS/MSD S04_00005	09/29/20		FISHER, Lot 147276		(Purchased Reagent)		Sulfate	0.5513 g/g
NXN CAL INT_00534	06/15/20	06/08/20	Di Water, Lot NA	100 mL	NOXT Cal STD_00023	10 mL	Nitrate Nitrite as N	100 mg/L
.NOXT Cal STD_00023	12/31/20		RICCA, Lot 1906A84		(Purchased Reagent)		Nitrate Nitrite as N	1000 mg/L
NXN ICV INT_00515	06/15/20	06/08/20	Di Water, Lot NA	100 mL	NOXT ICV STD_00023	10 mL	Nitrate Nitrite as N	100 mg/L

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.NOXT ICV STD_00023	03/11/21	ERA, Lot 130319m			(Purchased Reagent)		Nitrate Nitrite as N	1000 mg/L
RSK175methane_00010	04/16/22	Supelco Analytical, Lot 160-401480003-1			(Purchased Reagent)		Methane	650500 ug/L
RSK7gasMathes_00027	10/24/20	Matheson, Lot 9308634170			(Purchased Reagent)		Methane	6570.3 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
SFD CAL INT_01760	07/20/20	04/20/20	Di Water, Lot NA	500 mL	50% NaOH_00017	2 mL	Sodium Hydroxide	2000 mg/L
					SFD CAL STK_00006	3.3409 g	Sulfide	892.02 mg/L
.50% NaOH_00017	10/01/20	Fisher, Lot 186215			(Purchased Reagent)		Sodium Hydroxide	50 %
.SFD CAL STK_00006	10/01/23	ACROS, Lot A0390872			(Purchased Reagent)		Sulfide	0.1335 g/g
SFD CAL INT_01763	09/08/20	06/08/20	Di Water, Lot NA	500 mL	50% NaOH_00018	2 mL	Sodium Hydroxide	2000 mg/L
					SFD CAL STK_00006	4.1798 g	Sulfide	1116.01 mg/L
.50% NaOH_00018	11/30/22	Fisher, Lot 1603D65			(Purchased Reagent)		Sodium Hydroxide	50 %
.SFD CAL STK_00006	10/01/23	ACROS, Lot A0390872			(Purchased Reagent)		Sulfide	0.1335 g/g
TKN 25ppm_00808	06/12/20	05/12/20	Di Water, Lot 1	100 mL	TKN 100PPM_00121	25 mL	Nitrogen, Total Kjeldahl	25 mg/L
.TKN 100PPM_00121	06/12/20	05/12/20	Di Water, Lot 1	500 mL	TKN CAL STD_00017	50 mL	Nitrogen, Total Kjeldahl	100 mg/L
..TKN CAL STD_00017	01/31/21	nsi lab solutions, Lot 010617			(Purchased Reagent)		Nitrogen, Total Kjeldahl	1000 mg/L
TKN ICV 25_00093	06/12/20	05/12/20	DI water, Lot 1	100 mL	TKN ICV 100_00083	25 mL	Nitrogen, Total Kjeldahl	25 mg/L
.TKN ICV 100_00083	06/12/20	05/12/20	Di Water, Lot 1	500 mL	TKN ICV_00011	50 mL	Nitrogen, Total Kjeldahl	100 mg/L
..TKN ICV_00011	11/30/20	ERA, Lot 281018			(Purchased Reagent)		Nitrogen, Total Kjeldahl	1000 mg/L
TOC ICV Std_00043	08/31/20	Ricca, Lot 2908E72			(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_00048	06/30/21	Agilent, Lot 0006465171			(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_00017

ThermoFisher SCIENTIFIC

Certificate of Analysis

1 Reagent Lane
Fair Lawn, NJ 07410
201.796.7100 tel
201.796.1329 fax

ThermoFisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2008 standard by SAI Global Certificate Number CERT - 0090918

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. ThermoFisher 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.ThermoFisher does not maintain DMF's with the FDA. The following are the actual analytical results obtained:

Catalog Number	SS254	Quality Test / Release Date	10/03/2018
Lot Number	186215	Expiration Date	Oct/2020
Description	SODIUM HYDROXIDE, 50%, CERTIFIED		
Country of Origin	United States		
Chemical Origin	Inorganic-non animal		
BSE/TSE Comment	This product is of mineral origin, not animal origin, and to the best of our knowledge, does not contribute to BSE or TSE.		
Chemical Comment	This product is not manufactured with natural latex rubber or genetically modified organisms. Also it is not manufactured using allergenic materials, including dyes/food dyes, eggs/egg products, fish/shellfish/crustaceans, flavors, glutens, legumes, milk, mollusks, MSG, mustards, plant nuts/seeds/oils, peanuts/peanut products, protein hydrolysates, soybean products, spices, sulfites, sulfates, tree nuts or oils, and wheat.		

N/A			
Result Name	Units	Specifications	Test Value
APPEARANCE		REPORT	CLEAR, COLORLESS LIQUID HAVING NO SEDIMENT OR PARTICULATES
ASSAY	%	Inclusive Between 50 - 52	50.5
CARBONATE	%	<= 0.10	0.07
CHLORIDE	%	<= 0.005	<0.005
HEAVY METALS (as Ag)	%	<= 0.001	<0.001
IDENTIFICATION	PASS/FAIL	= PASS TEST	PASS TEST
SULFATE (SO4)	%	<= 0.002	<0.002
AMMONIUM HYDROX. PPT	%	<= 0.010	<0.010
NITROGEN COMPOUNDS	ppm	<= 5	<5
PHOSPHATE (PO4)	ppm	<= 5	<5
POTASSIUM (K)	%	<= 0.025	<0.003
SILICA (SiO2)	%	<= 0.01	<0.01
IRON (Fe)	ppm	<= 5	<5

Teresa Bailey-Wyche

Quality Assurance Specialist - Certificate of Analysis Bridgewater

Note: The data listed is valid for all package sizes of this lot of this product, expressed as an extension of this catalog number listed above.
If there are any questions with this certificate, please call at (800) 227-6701.
*Based on suggested storage condition.

Reagent

50% NaOH_00018

RICCA CHEMICAL COMPANY®

448 West Fork Dr
Arlington, TX 76012
http://www.riccachemical.com
1-888-GO-RICCA
customerservice@riccachemical.com

Certificate of Analysis

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

Lot Number: 1912569 **Product Number:** 7291

Manufacture Date: DEC 05, 2019
Expiration Date: NOV 2022

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)	51 % (w/w)	723
Chloride (Cl)	max 0.002 %	< 0.002 %	
Heavy Metals (as Ag)	max 0.001 %	< 0.001 %	
Iron (Fe)	max 5 ppm	< 0.001 ppm	3126
NH_4OH Precipitate	max 0.01 %	0.004 %	
Nickel (Ni)	max 5 ppm	0.2 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)
7291-1	4 L natural poly	36 months
7291-16	500 mL natural poly	36 months

7291-5	20 L Cubitainer®	36 months

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

Israel Alamudun (12/05/2019)
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_00098

Preliminary Report

Eurofins TestAmerica, Denver

LCS, Lab Control Sample Report

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

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

Worklist ID: 280-0091143-006 Instrument: CHHPLC_X3

Method: 8330_X3

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

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

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

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

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

Reagent

8330 LCS_00099

Preliminary Report

Eurofins TestAmerica, Denver

LCS, Lab Control Sample Report

Sample Path: \\chromfs\Denver\ChromData\CHHPLC_X\20200604-92107.b\06040006.D

Lims ID: C18column:B16162 Inj. Date: 04-Jun-2020 15:10:48

Worklist ID: 280-0092107-006 Instrument: CHHPLC_X3

Method: 8330_X3

Compound	Amount Added	Amount Recovered	%Rec	Limits 1 3535	Limits 2 3535	Limits 3 3535
3 HMX	0.4000	0.4497	112.4	65-135	66-115	
7 RDX	0.4000	0.4082	102.1	68-130	69-122	
8 2,4,6-Trinitrophenol	0.4000	0.4552	113.8	80-120	63-135	
10 1,3,5-Trinitrobenzene	0.4000	0.4670	116.7	73-125	62-127	
11 1,3-Dinitrobenzene	0.4000	0.4525	113.1	78-120	59-131	
12 Nitrobenzene	0.4000	0.4580	114.5	65-134	46-144	
14 Tetryl	0.4000	0.4204	105.1	64-128	56-131	
15 Nitroglycerin	4.00	4.24	106.0	74-127	70-125	
16 2,4,6-Trinitrotoluene	0.4000	0.4581	114.5	71-123	46-139	
17 4-Amino-2,6-dinitrotolu	0.4000	0.3915	97.9	76-125	43-120	
18 2-Amino-4,6-dinitrotolu	0.4000	0.4340	108.5	79-120	46-124	
19 2,6-Dinitrotoluene	0.4000	0.4346	108.6	77-127	51-130	
20 2,4-Dinitrotoluene	0.4000	0.4315	107.9	78-120	53-127	
21 o-Nitrotoluene	0.4000	0.4112	102.8	70-127	37-138	
22 p-Nitrotoluene	0.4000	0.4272	106.8	71-127	41-137	
23 m-Nitrotoluene	0.4000	0.4348	108.7	73-125	31-140	
24 PETN	4.00	4.20	105.1	73-127	67-127	

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

280-136151-A-2-B 320-61052-D-3-A 320-61052-D-4-A
320-61052-D-5-A 320-61052-D-6-A 320-61052-D-7-A
320-61052-D-8-A 320-61052-D-9-A 320-61052-D-10-A
320-61052-D-11-A 320-61052-D-12-A 280-136408-B-2-A
280-136410-B-1-A 280-136946-A-6-A 280-136946-A-7-A
280-136946-A-8-A 280-136946-A-9-A

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

280-136951-C-1-A 280-136951-C-2-A 280-136951-C-3-A

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

600-205634-D-1-A

Reagent

8330 LCSMix2_00106

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

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CERTIFIED REFERENCE MATERIAL

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Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 31451 **Lot No.:** A0141002

Description : 8330 Calibration Mix #2

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

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

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

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Tetryl **CAS #** 479-45-8 **Purity** 99%	(Lot 091120JLM)	1,000.0 µg/mL	+/- 5.9397 µg/mL +/- 54.7830 µg/mL +/- 63.8824 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** 98%	(Lot 29550-55)	1,007.4 µg/mL	+/- 5.9839 µg/mL +/- 55.1906 µg/mL +/- 64.3577 µg/mL	Gravimetric Unstressed Stressed
4	2,6-Dinitrotoluene **CAS #** 606-20-2 **Purity** 99%	(Lot BCBB8606V)	1,000.0 µg/mL	+/- 5.9397 µg/mL +/- 54.7830 µg/mL +/- 63.8824 µg/mL	Gravimetric Unstressed Stressed
5	2-Nitrotoluene **CAS #** 88-72-2 **Purity** 99%	(Lot GA01)	1,004.0 µg/mL	+/- 5.9635 µg/mL +/- 55.0021 µg/mL +/- 64.1379 µg/mL	Gravimetric Unstressed Stressed
6	4-Nitrotoluene **CAS #** 99-99-0 **Purity** 99%	(Lot FAU01)	1,002.0 µg/mL	+/- 5.9516 µg/mL +/- 54.8926 µg/mL +/- 64.0101 µg/mL	Gravimetric Unstressed Stressed
7	3-Nitrotoluene **CAS #** 99-08-1 **Purity** 98%	(Lot FBO01)	1,003.5 µg/mL	+/- 5.9606 µg/mL +/- 54.9758 µg/mL +/- 64.1072 µg/mL	Gravimetric Unstressed Stressed

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

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

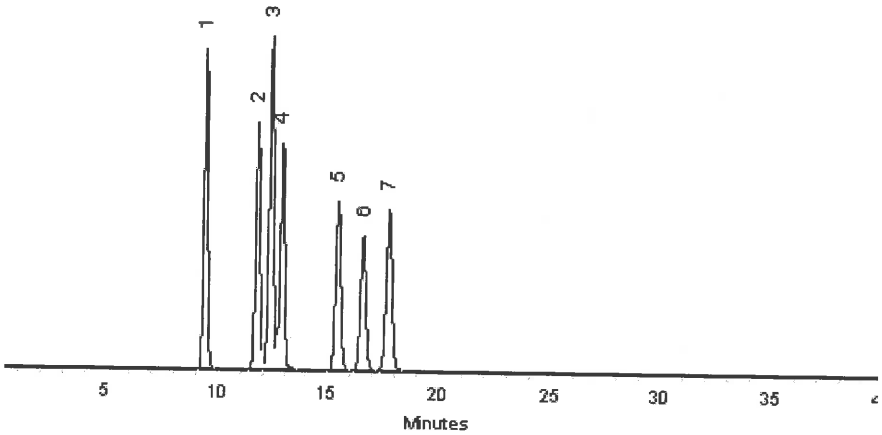
Flow Rate:
1.0 ml/min.

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

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210 nm



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

Matt Fragassi - Mix Technician

Date Mixed: 23-Aug-2018 **Balance:** B345965662

Jennifer Pollino - Operations Tech-ARM QC

Date Passed: 28-Aug-2018

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

Reagent

8330 Stock_TS_00015

Certificate of Analysis
ISO Guide 34

Agilent

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 ISO Guide 34 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 ISO/IEC 17025 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_AUX_00001

110 Benner Circle
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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

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Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 31498 **Lot No.:** A0153378

Description : Nitroglycerin Standard

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

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

Expiration Date : September 30, 2024 **Storage:** 10°C or colder

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Nitroglycerin **CAS #** 55-63-0 **Purity** 99%	(Lot 170616JLM)	1,003.3 µg/mL	+/- 5.9595 µg/mL +/- 54.9656 µg/mL +/- 64.0953 µg/mL		Gravimetric Unstressed Stressed

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

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

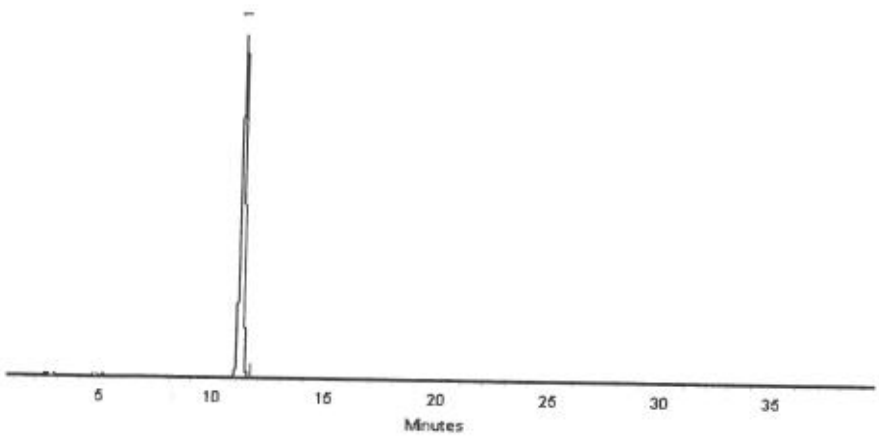
Flow Rate:
1.0 ml/min.

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

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210 nm



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

Joseph Jaglowski - Mix Technician **Date Mixed:** 27-Sep-2019 **Balance:** B707717271

Jennifer Pollino - Operations Tech-ARM QC **Date Passed:** 01-Oct-2019

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

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

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

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

Manufacturing Notes:

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

Handling Notes:

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

Reagent

8330_NG_AUX_00002

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

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Certificate #3222.01

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Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 31498 **Lot No.:** A0153378

Description : Nitroglycerin Standard

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

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

Expiration Date : September 30, 2024 **Storage:** 10°C or colder

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Nitroglycerin **CAS #** 55-63-0 **Purity** 99%	(Lot 170616JLM)	1,003.3 µg/mL	+/- 5.9595 µg/mL +/- 54.9656 µg/mL +/- 64.0953 µg/mL		Gravimetric Unstressed Stressed

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

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

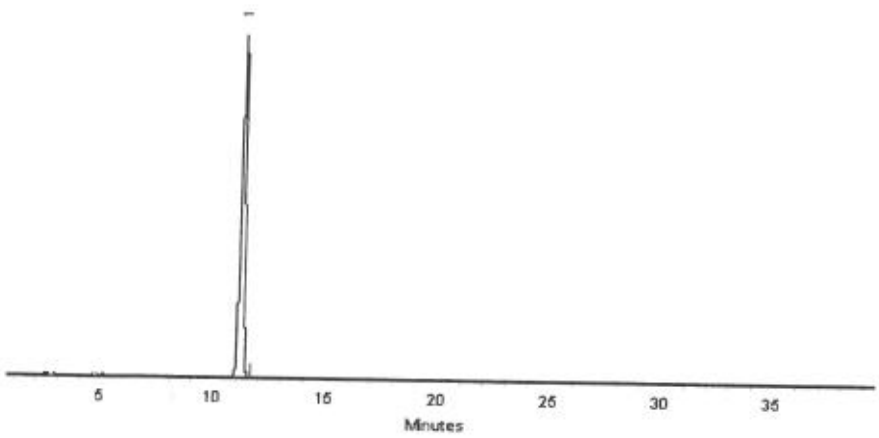
Flow Rate:
1.0 ml/min.

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

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210 nm



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

Joseph Jaglowski - Mix Technician **Date Mixed:** 27-Sep-2019 **Balance:** B707717271

Jennifer Pollino - Operations Tech-ARM QC **Date Passed:** 01-Oct-2019

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

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

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

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

Manufacturing Notes:

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

Handling Notes:

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

Reagent

8330_NG_AUX_00003

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Reference Material Producer
Certificate #3222.01

ilac-MRA

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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. : 31498 **Lot No.:** A0153378

Description : Nitroglycerin Standard

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

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

Expiration Date : September 30, 2024 **Storage:** 10°C or colder

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Nitroglycerin **CAS #** 55-63-0 **Purity** 99%	(Lot 170616JLM)	1,003.3 µg/mL	+/- 5.9595 µg/mL +/- 54.9656 µg/mL +/- 64.0953 µg/mL		Gravimetric Unstressed Stressed

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

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

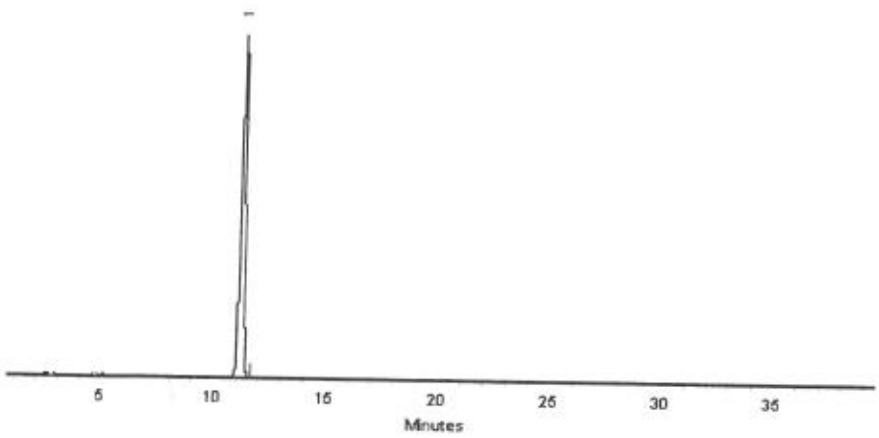
Flow Rate:
1.0 ml/min.

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

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210 nm



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

Joseph Jaglowski - Mix Technician **Date Mixed:** 27-Sep-2019 **Balance:** B707717271

Jennifer Pollino - Operations Tech-ARM QC **Date Passed:** 01-Oct-2019

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

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

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

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

Manufacturing Notes:

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

Handling Notes:

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

Reagent

8330_NG_Stk_00075

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Fax: (814)353-1309

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CERTIFIED REFERENCE MATERIAL

Certificate of Composition

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ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

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

Description : Custom Nitroglycerin Standard

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

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

Expiration Date : August 31, 2022 **Storage:** 10°C or colder

CERTIFIED VALUES

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

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

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

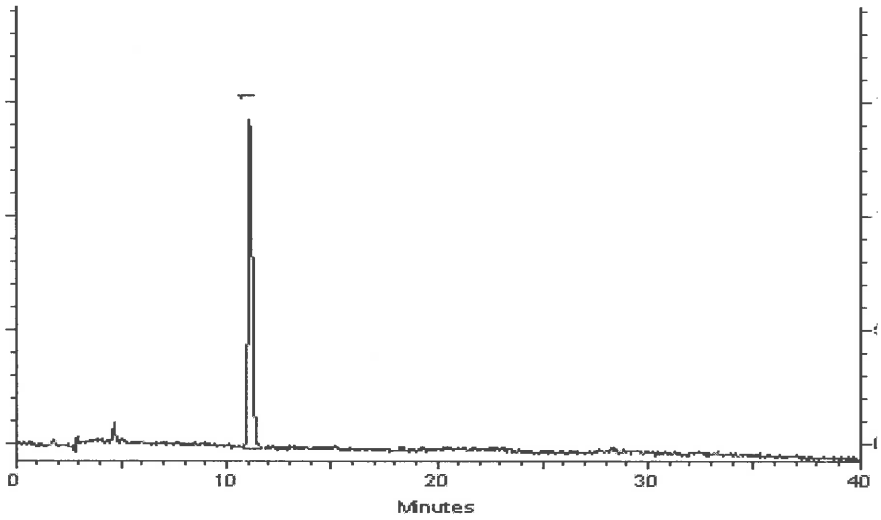
Flow Rate:
1.0 ml/min.

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

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210 nm



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

Joseph Jaglowski - Mix Technician

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

Jennifer Pollino - Operations Tech-ARM QC

Date Passed: 09-Aug-2019

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

Reagent

8330_PETN_Stk_00081

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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 568872 **Lot No.:** A0136306

Description : Custom PETN Standard

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

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

Expiration Date : March 31, 2021 **Storage:** 10°C or colder

CERTIFIED VALUES

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

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

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

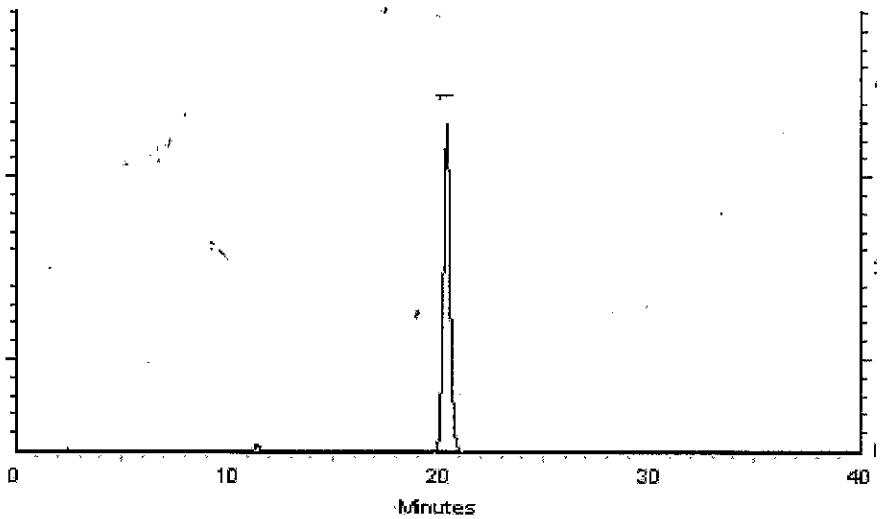
Flow Rate:
1.0 ml/min.

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

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210 nm



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

Cydnei L. Crust
Cydnei L. Crust - Mix Technician

Date Mixed: 19-Mar-2018 **Balance:** 1128360905

Jennifer L Pollino
Jennifer Pollino - Operations Tech-ARM QC

Date Passed: 23-Mar-2018

REVIEWED

Manufactured under Restek's ISO 9001:2008 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 Guides 34 and 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

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

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

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

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

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

Manufacturing Notes:

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

Handling Notes:

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

Reagent

8330_PETN_Stk_00087

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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

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

Description : Custom PETN Standard

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

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

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

CERTIFIED VALUES

Elution Order	Compound			Grav. Conc. (weight/volume)		Expanded Uncertainty (95% C.L.; K=2)			
1	PETN			5,024.0	µg/mL	+/-	46.7205	µg/mL	Gravimetric
	CAS #	78-11-5	(Lot 051108JLM)			+/-	277.5676	µg/mL	Unstressed
	Purity	99%				+/-	322.9521	µg/mL	Stressed

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

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

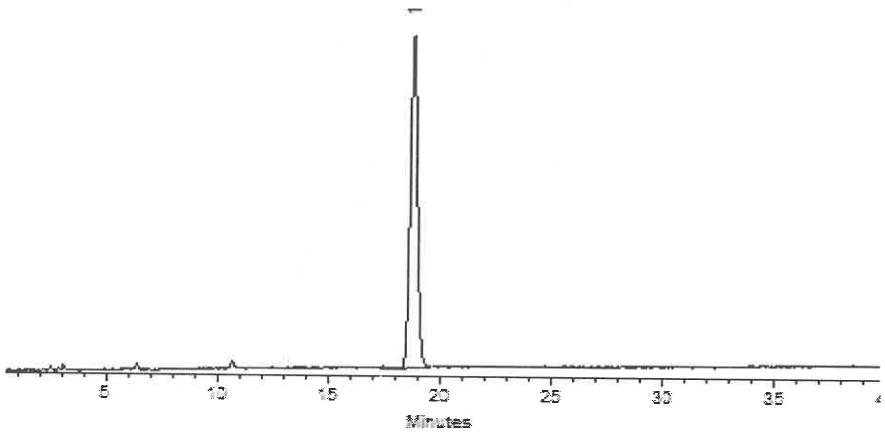
Flow Rate:
1.0 ml/min.

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

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210 nm



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

Clara Windle - Operations Technician I

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

Jennifer Pollino - Operations Tech-ARM QC

Date Passed: 08-Nov-2019

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

Reagent

8330LCSMix1_00111

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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.:** A0151407

Description : 8330 Calibration Mix #1

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

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

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

CERTIFIED VALUES

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

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

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

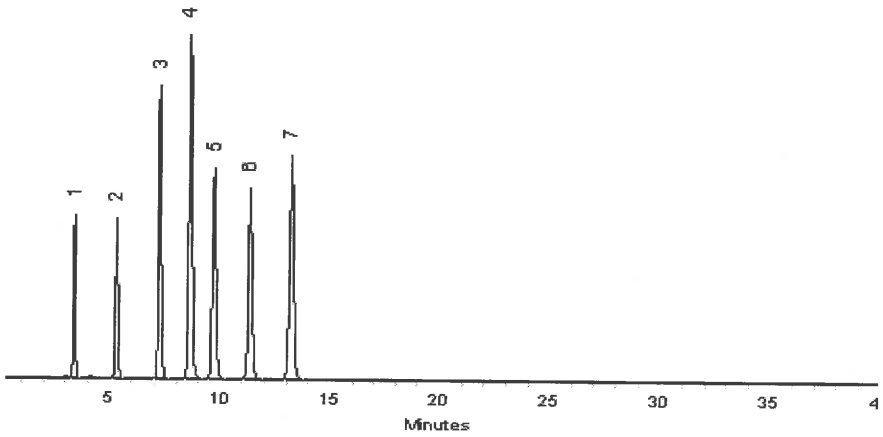
Flow Rate:
1.0 ml/min.

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

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210 nm



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

Matt Fragassi - Mix Technician

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

Jennifer Pollino - Operations Tech-ARM QC

Date Passed: 01-Aug-2019

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

Reagent

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

Description : 8330 Calibration Mix #1

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

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

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

CERTIFIED VALUES

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

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

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

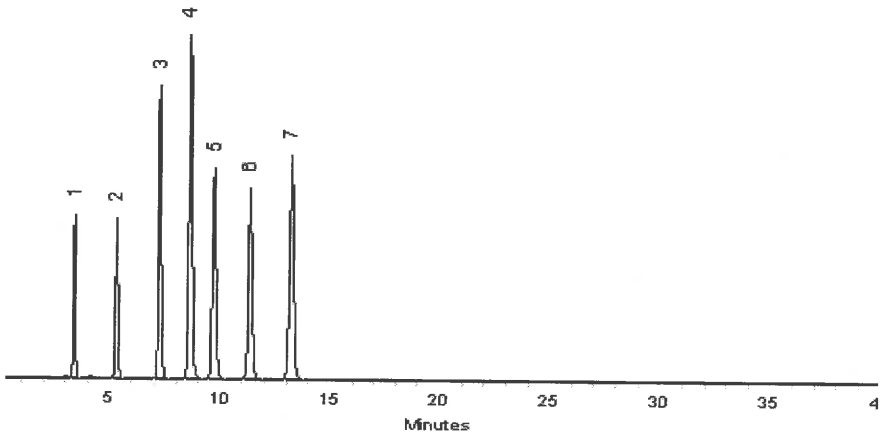
Flow Rate:
1.0 ml/min.

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

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210 nm



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

Matt Fragassi - Mix Technician

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

Jennifer Pollino - Operations Tech-ARM QC

Date Passed: 01-Aug-2019

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Reagent

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

Description : 8330 Calibration Mix #1

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

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

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

CERTIFIED VALUES

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

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

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

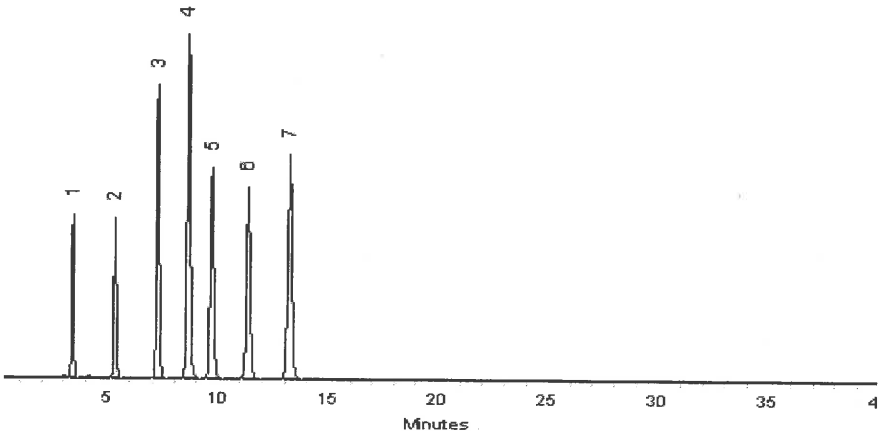
Flow Rate:
1.0 ml/min.

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

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210 nm



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

Matt Fragassi - Mix Technician

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

Jennifer Pollino - Operations Tech-ARM QC

Date Passed: 01-Aug-2019

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

Reagent

8330LCSmix2_00009

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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.:** A0149387

Description : 8330 Calibration Mix #2

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

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

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

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Tetryl **CAS #** 479-45-8 **Purity** 99%	(Lot 091120JLM)	1,004.0 µg/mL	+/- 5.9635 µg/mL +/- 55.0021 µg/mL +/- 64.1379 µg/mL	Gravimetric Unstressed Stressed
2	4-Amino-2,6-dinitrotoluene **CAS #** 19406-51-0 **Purity** 99%	(Lot ER070908-01)	1,000.0 µg/mL	+/- 5.9397 µg/mL +/- 54.7830 µg/mL +/- 63.8824 µg/mL	Gravimetric Unstressed Stressed
3	2-Amino-4,6-dinitrotoluene **CAS #** 35572-78-2 **Purity** 98%	(Lot 29550-55)	999.6 µg/mL	+/- 5.9373 µg/mL +/- 54.7611 µg/mL +/- 63.8568 µg/mL	Gravimetric Unstressed Stressed
4	2,6-Dinitrotoluene **CAS #** 606-20-2 **Purity** 99%	(Lot 1437483V)	1,004.0 µg/mL	+/- 5.9635 µg/mL +/- 55.0021 µg/mL +/- 64.1379 µg/mL	Gravimetric Unstressed Stressed
5	2-Nitrotoluene **CAS #** 88-72-2 **Purity** 99%	(Lot GA01)	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)	1,006.0 µg/mL	+/- 5.9753 µg/mL +/- 55.1117 µg/mL +/- 64.2657 µg/mL	Gravimetric Unstressed Stressed
7	3-Nitrotoluene **CAS #** 99-08-1 **Purity** 98%	(Lot 07329LG)	1,007.4 µg/mL	+/- 5.9839 µg/mL +/- 55.1906 µg/mL +/- 64.3577 µg/mL	Gravimetric Unstressed Stressed

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

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

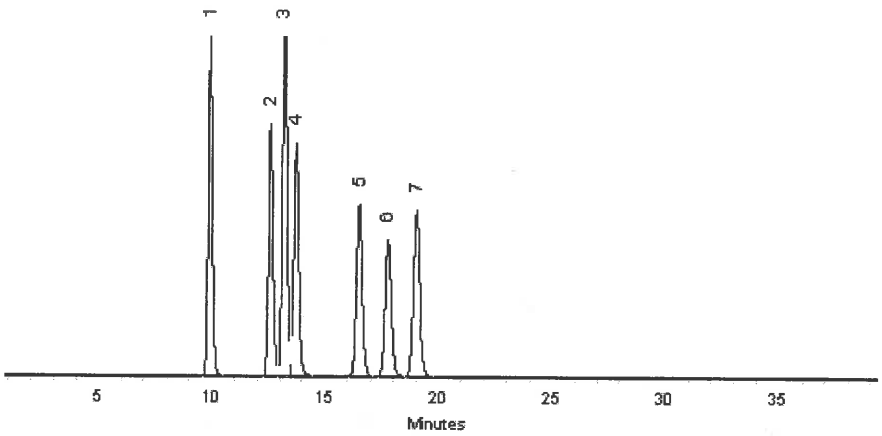
Flow Rate:
1.0 ml/min.

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

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210 nm



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

Lane Kibe - Mix Technician

Date Mixed: 21-May-2019 **Balance:** 1127510105

Jennifer Pollino - Operations Tech-ARM QC

Date Passed: 23-May-2019

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

Reagent

8330LCSmix2_00011

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

Description : 8330 Calibration Mix #2

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

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

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

CERTIFIED VALUES

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

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

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

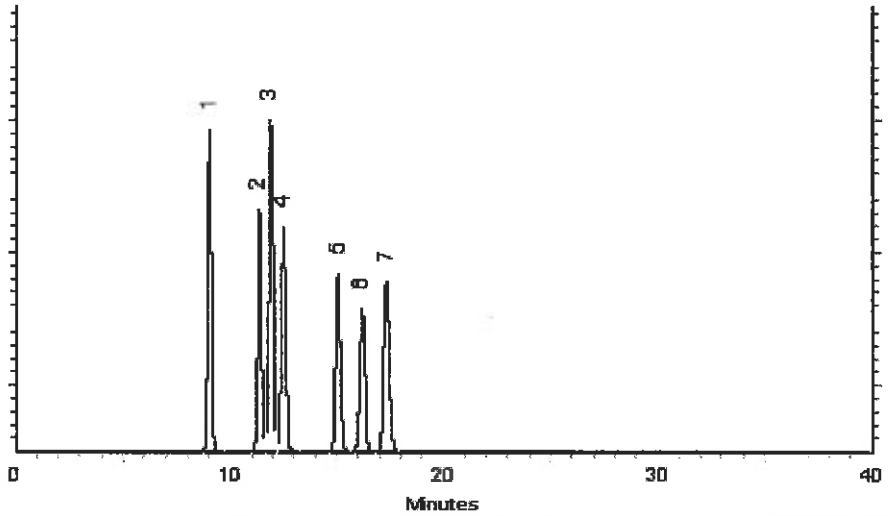
Flow Rate:
1.0 ml/min.

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.

Clara Windle - Operations Technician I

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

Jennifer Pollino - Operations Tech-ARM QC

Date Passed: 10-Feb-2020

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

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

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

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

Manufacturing Notes:

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

Handling Notes:

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

Reagent

8330PAStkPS_00061

125 Market Street
New Haven, CT 06513
USA

AccuStandard®

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

CERTIFICATE OF ANALYSIS

Catalog No: M-8330-ADD-3
Description: Picric acid
Lot: 214121302-02
Solvent: Acetonitrile (50%)
Methanol (50%)
Hazards: *Refer to SDS for complete safety information*

Signal Word: Danger

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

Certified Reference Material

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

Component	CAS #	Purity % (HPLC)	Prepared 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

Certified By: Larry Decker, Organic QC Manager

Page 1 of 1

For use in routine laboratory analysis.

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

QR-ORG/INO-001
Rev. 5/18

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

SAFETY DATA SHEET

SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

1.1 - Product Identifiers

Catalog Name: M-8330-ADD-3

Description: Picric Acid in Acetonitrile/Methanol Blend

1.2 - Relevant Identified Uses of the Substance or Mixture

Laboratory Chemical Reference Material

1.3 - Supplier Details

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

Telephone Number: 203-786-5290

Fax: 203-786-5287

Email: edocs@accustandard.com

1.4 - Emergency Telephone Number

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

24 hours / 7 days a week

SECTION 2 - HAZARDS IDENTIFICATION

2.1 - GHS Label Elements

Signal Word: Danger

Hazard Codes:

H225 - Highly Flammable (Flammable liquids, category 2)

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

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

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

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

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

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

Precautionary Codes:

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

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

SECTION 2 - HAZARDS IDENTIFICATION *- continued*

2.1 - GHS Label Elements *- continued*

P260 - Do not breathe vapor.

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

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

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

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

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

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

2.2 - Other Hazards

2.2.1 - Symptom of Exposure Health/Environment

Highly Flammable (Flammable liquids, category 2)

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

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

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

2.2.2 - Potential Health Effects

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

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

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

Irritating to mucous membrane and upper respiratory system.

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

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

2.2.3 - Routes of Entry

Inhalation, ingestion or skin contact.

2.2.4 - Carcinogenicity

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

SECTION 3 - COMPOSITION / ANALYTES DATA

Description: Picric Acid in Acetonitrile/Methanol Blend

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

SECTION 10 - STABILITY AND REACTIVITY

Stability: Stable

Materials to Avoid: Acids
Bases
Oxidizers

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

Hazardous Polymerization: Will not occur

Condition to Avoid: Heat; Contact with ignition sources

SECTION 11 - TOXICOLOGICAL INFORMATION

Human Health Toxicity

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

LD50 (Oral): N/A

LD50 (Dermal) : N/A

LC50 (Inhalation): N/A

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

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

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

SECTION 12 - ECOLOGICAL INFORMATION

Environmental Toxicity

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

LC50 (Fish): N/A

EC50 (Aquatic Invertebrate): N/A

BCF: N/A

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

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

SECTION 13 - DISPOSAL CONSIDERATIONS

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

SECTION 14 - TRANSPORT INFORMATION

Transportation Information (DOT/IATA)

UN Number: UN1993

Class: 3

Packing Group: II

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

Poison by Inhalation: No

Marine Pollutant: No

SECTION 15 - REGULATORY INFORMATION

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

All components are listed on the TSCA Inventory.

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

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

SECTION 16 - OTHER INFORMATION

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

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

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

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

Alteration of any information contained herein without written permission from the manufacturer is strictly prohibited.

HMIS/NFPA HAZARD INDEX

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

* - Additional Hazard

GHS HAZARD INDEX

Category 1 - Most Severe
Category 5 - Least Severe

**** End of Document ****

Reagent

8330Surrogate_00110

eurofins | Environment Testing TestAmerica

8330Surrogate_00110

good ✓

Reagent ID: 8330Surrogate_00110

		Expiration Date:	05/17/2020
Description:	10ug/mL 1,2-Dinitrobenzene	Laboratory:	Eurofins TestAmerica, Denver
No. of Bottles:	1	Prepared By:	Bourgery, David F
Storage Location:	Explosives Prep	Solvent:	Acetonitrile
Reagent Volume:	250.000 mL	Solvent Lot:	ACN_00223
Creation Date:	12/17/2019		
Open Date:			
Container(s):	6017392		
Comment:	Stored Frozen. 6 month expiration date. Take 1mL of 1,2 Dinitrobenzene (8330SurrStock) and Dilute to 100 mL in ACN. Mulitply recipe as needed.		

WL 88127 → C18

POS #6

Reagent Analyte Information

Analyte	Source ID	Source Exp. Date	Source Conc.	Source Conc. Units	Final Conc.	Final Conc. Units
1,2-Dinitrobenzene	8330SurrStkSS_00145	03/31/2023	1000.00000	ug/mL	10.00000	ug/mL
1,2-Dinitrobenzene (Surr)	8330SurrStkSS_00145	03/31/2023	1000.00000	ug/mL	10.00000	ug/mL
1,2-Dinitrobenzene	8330SurrStkSS_00158	07/31/2024	1000.00000	ug/mL	10.00000	ug/mL
1,2-Dinitrobenzene (Surr)	8330SurrStkSS_00158	07/31/2024	1000.00000	ug/mL	10.00000	ug/mL
1,2-Dinitrobenzene	8330SurrStkSS_00160	07/31/2024	1000.00000	ug/mL	10.00000	ug/mL
1,2-Dinitrobenzene (Surr)	8330SurrStkSS_00160	07/31/2024	1000.00000	ug/mL	10.00000	ug/mL
1,2-Dinitrobenzene	8330SurrStkSS_00161	07/31/2024	1000.00000	ug/mL	10.00000	ug/mL
1,2-Dinitrobenzene (Surr)	8330SurrStkSS_00161	07/31/2024	1000.00000	ug/mL	10.00000	ug/mL

Source Reagents

Reagent	Description	Type	Expiration	Vendor	Vendor Lot #	Vendor Cat Lot #	Volume Used	Volume Units
8330SurrStkSS_00145	31453, 1000ug/mL Restek 1,2-DNB SS	ASTD	03/31/23	Restek	A0135839	31453	0.25000	mL
8330SurrStkSS_00158	31453, 1000ug/mL Restek 1,2-DNB SS	ASTD	07/31/24	Restek	A0146866	31453	0.25000	mL
8330SurrStkSS_00160	31453, 1000ug/mL Restek 1,2-DNB SS	ASTD	07/31/24	Restek	A0150790	31453	1.00000	mL
8330SurrStkSS_00161	31453, 1000ug/mL Restek 1,2-DNB SS	ASTD	07/31/24	Restek	A0150790	31453	1.00000	mL

Preliminary Report

Eurofins TestAmerica, Denver

LCS, Lab Control Sample Report

Sample Path: \\chromna\Denver\ChromData\CHHPLC_X\20191220-88127.b\12200006.D

Lims ID: C18column:B16162 Inj. Date: 20-Dec-2019 11:19:02

Worklist ID: 280-0088127-006 Instrument: CHHPLC_X3

Method: 8330_X3

Compound	Amount Added	Amount Recovered	%Rec	Limits 1 3535	Limits 2 3535	Limits 3 3535
$ 9 1,2-Dinitrobenzene	0.4000	0.3843	96.1	83-119	63-127	

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

280-132090-A-2-A	280-132090-A-3-A	280-132090-A-4-A
280-132090-A-5-A	280-132090-A-6-A	280-132090-A-7-A
280-132090-A-8-A	280-132031-A-1-A	280-132031-A-2-A
280-132031-A-3-A	280-132031-A-4-A	280-131963-A-1-B
280-131963-B-2-A	280-131963-A-3-A	280-131963-B-4-A
280-131977-A-1-A	280-131977-B-2-A	280-131977-B-3-A
280-131977-A-4-A	280-131977-A-5-A	280-131977-A-6-A

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

280-131996-A-4-A	280-131996-A-5-A	280-131996-A-6-A
280-131996-A-7-A	280-131996-A-8-A	280-131996-A-9-A
280-131996-A-11-A	280-131996-A-12-A	280-131996-A-13-A
280-131996-A-14-A	280-131996-A-15-A	280-131996-A-1-A
280-131996-A-2-A	280-131996-A-3-A	280-131996-A-10-A

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

280-132013-A-1-A	600-197143-C-1-A	280-131992-C-1-A
280-131988-A-1-A	280-131988-A-2-A	280-131988-A-3-A
280-131988-B-4-A		

Reagent

8330Surrogate_00114

Preliminary Report

Eurofins TestAmerica, Denver

LCS, Lab Control Sample Report

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

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

Worklist ID: 280-0091339-004 Instrument: CHHPLC_G2_LUNA

Method: G2_8330_Luna

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

Samples for Limit Group: 1, Lims Prep Method: 8330B_Sonc_10g
280-135356-A-2-D

Reagent

8330Surrogate_00116

Preliminary Report

Eurofins TestAmerica, Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20200515-91560.b\05150003.D				
Lims ID:	MeOH=0000129165				
Client ID:					
Sample Type:	Client				
Inject. Date:	15-May-2020 15:31:37	ALS Bottle#:	6	Worklist Smp#:	3
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	MeOH=0000129165				
Misc. Info.:	280-0091560-003				
Operator ID:	CB	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20200515-91560.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	15-May-2020 16:18:31	Calib Date:	18-Mar-2020 14:39:27		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180015.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX0318				

Compound	Amount Added	Amount Recovered	% Rec.
$ 9 1,2-Dinitrobenzene	0.5000	0.4870	97.40

Reagent

8330SurrStkSS_00145

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ISO Guide 34 Accredited Reference Material Producer Certificate #3222.01

ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 31453 **Lot No.:** A0135839

Description : 8330 Surrogate Mix

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

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

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

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	1,2-Dinitrobenzene		1,000.0 µg/mL	+/- 5.9397	µg/mL	Gravimetric
	CAS # 528-29-0	(Lot MKBW2921V)		+/- 56.0822	µg/mL	Unstressed
	Purity 99%			+/- 57.3938	µg/mL	Stressed

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

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

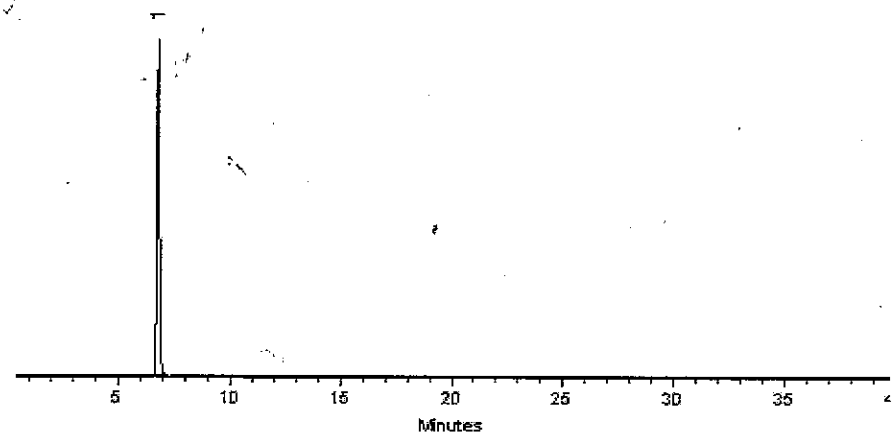
Flow Rate:
1.0 ml/min.

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

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210 nm



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

Dustin J Lidgett

Dustin Lidgett - Mix Technician **Date Mixed:** 05-Mar-2018 **Balance:** 1128360905

Jennifer J Pollino

Jennifer Pollino - Operations Tech-ARM QC **Date Passed:** 09-Mar-2018

Manufactured under Restek's ISO 9001:2008 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 Guides 34 and 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

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

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

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

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

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

Manufacturing Notes:

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

Handling Notes:

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

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

Reagent

8330SurrStkSS_00157

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. : 31453 **Lot No.:** A0146866

Description : 8330 Surrogate Mix

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

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

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

CERTIFIED VALUES

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

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

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

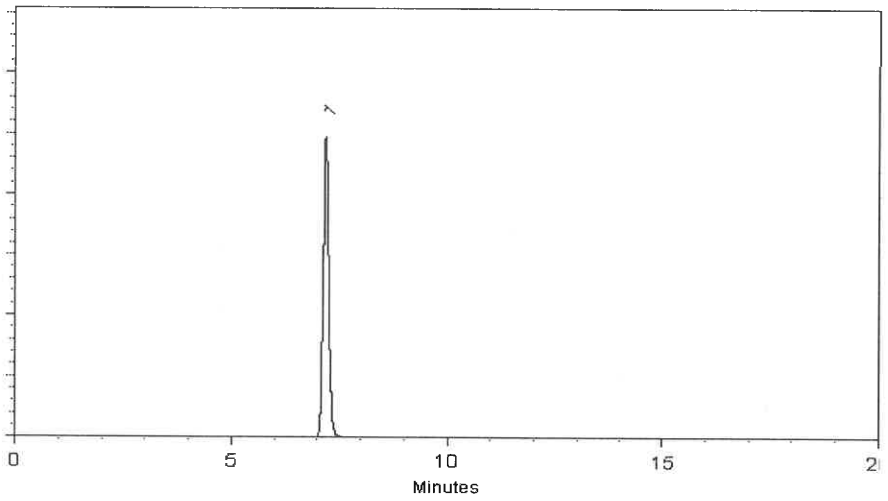
Flow Rate:
1.0 ml/min.

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

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210 nm



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

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

Fang-Yun Lo - QC Analyst

Date Passed: 14-Mar-2019

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

Reagent

8330SurrStkSS_00158

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

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

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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.:** A0150790

Description : 8330 Surrogate Mix

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

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

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

CERTIFIED VALUES

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

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

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

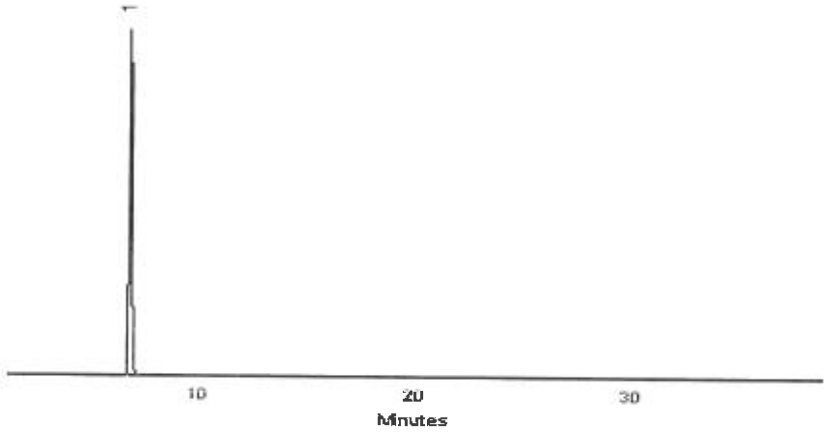
Flow Rate:
1.0 ml/min.

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

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210 nm



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

Walker Workman - Operations Technician I

Date Mixed: 12-Jul-2019 **Balance:** 1128360905

Jennifer Pollino - Operations Tech-ARM QC

Date Passed: 16-Jul-2019

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

Reagent

8330SurrStkSS_00160

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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.:** A0150790

Description : 8330 Surrogate Mix

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

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

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

CERTIFIED VALUES

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

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

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

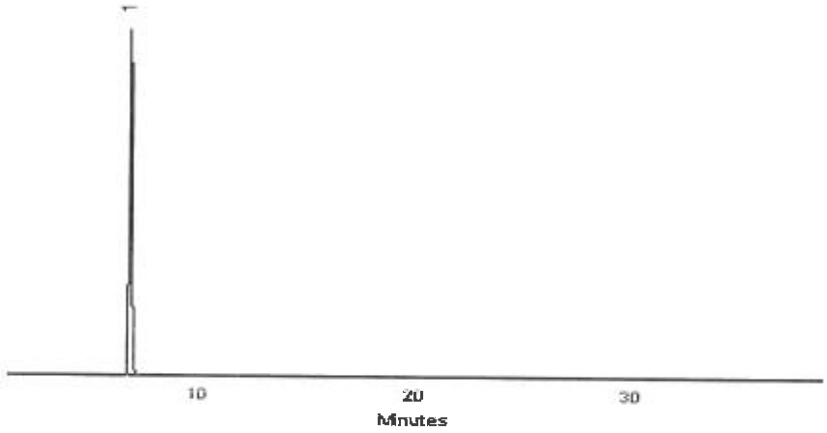
Flow Rate:
1.0 ml/min.

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

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210 nm



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

Walker Workman - Operations Technician I

Date Mixed: 12-Jul-2019 **Balance:** 1128360905

Jennifer Pollino - Operations Tech-ARM QC

Date Passed: 16-Jul-2019

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

Reagent

8330SurrStkSS_00161

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

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

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Reference Material Producer
Certificate #3222.01

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ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 31453 **Lot No.:** A0150790

Description : 8330 Surrogate Mix

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

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

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

CERTIFIED VALUES

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

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

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

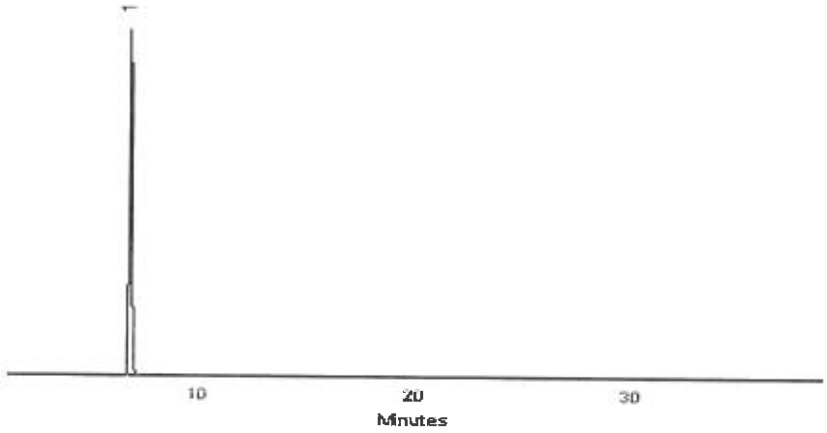
Flow Rate:
1.0 ml/min.

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

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210 nm



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

Walker Workman - Operations Technician I

Date Mixed: 12-Jul-2019 **Balance:** 1128360905

Jennifer Pollino - Operations Tech-ARM QC

Date Passed: 16-Jul-2019

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

Reagent

8330SurrStkSS_00168

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Fax: (814)353-1309

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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 31453 **Lot No.:** A0155113

Description : 8330 Surrogate Mix

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

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

Expiration Date : November 30, 2024 **Storage:** 10°C or colder

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	1,2-Dinitrobenzene		1,004.0 µg/mL	+/-	5.9635	µg/mL	Gravimetric
	CAS # 528-29-0	(Lot MKCH6067)		+/-	56.3065	µg/mL	Unstressed
	Purity 99%			+/-	57.6234	µg/mL	Stressed

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

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

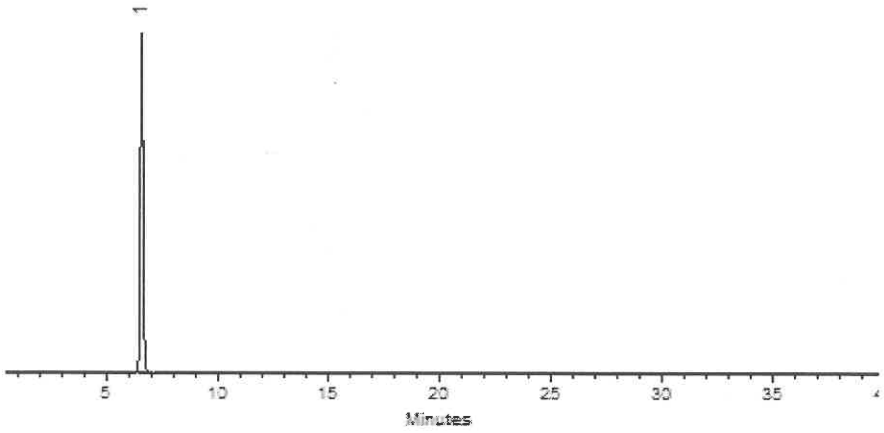
Flow Rate:
1.0 ml/min.

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

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210 nm



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

Miranda Kline

Miranda Kline - Operations Technician I

Date Mixed: 15-Nov-2019 **Balance:** 1128342314

Jennifer L Pollino

Jennifer Pollino - Operations Tech-ARM QC

Date Passed: 20-Nov-2019

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

Reagent

8330SurrStkSS_00169

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Tel: (800)356-1688
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Certificate of Analysis

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Certificate #3222.01

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Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 31453 **Lot No.:** A0155113

Description : 8330 Surrogate Mix

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

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

Expiration Date : November 30, 2024 **Storage:** 10°C or colder

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	1,2-Dinitrobenzene		1,004.0 µg/mL	+/-	5.9635	µg/mL	Gravimetric
	CAS # 528-29-0	(Lot MKCH6067)		+/-	56.3065	µg/mL	Unstressed
	Purity 99%			+/-	57.6234	µg/mL	Stressed

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

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

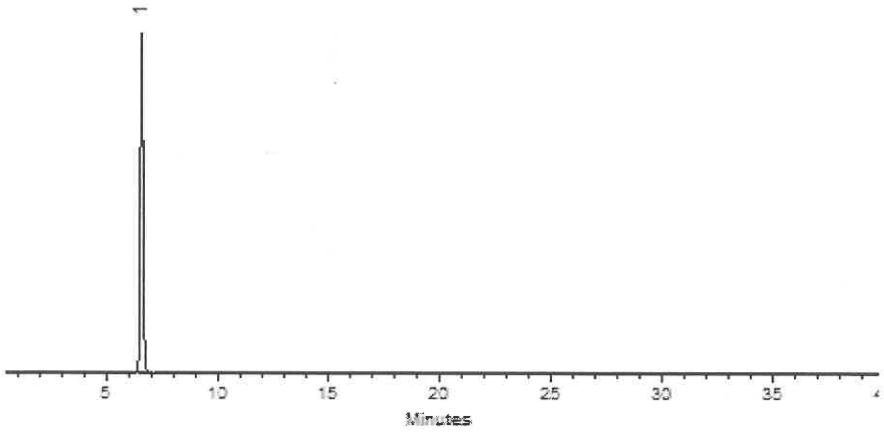
Flow Rate:
1.0 ml/min.

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

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210 nm



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

Miranda Kline

Miranda Kline - Operations Technician I

Date Mixed: 15-Nov-2019 **Balance:** 1128342314

Jennifer L Pollino

Jennifer Pollino - Operations Tech-ARM QC

Date Passed: 20-Nov-2019

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

Reagent

8330SurrStock_00164

125 Market Street
New Haven, CT 06513
USA

AccuStandard®

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

CERTIFICATE OF ANALYSIS

Catalog No: M-8330-SS
Description: 1,2-Dinitrobenzene
Lot: 216071012
Solvent: Methanol
Hazards: **HIGHLY FLAMMABLE** - *Refer to SDS for safety info*

Danger 2

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

Included on ISO/IEC 17025 Scope of Accreditation: Yes

Included on ISO Guide 34 Scope of Accreditation: Yes

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

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

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

[2] Certified Analyte Concentration = Purity x Prepared Concentration. The Uncertainty associated with the gravimetric values reported on this certificate is ±0.24%. The CRM Uncertainty calculated for this product is ±5%. These values are the expanded uncertainty and represent an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.

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

See reverse side for additional information

Certified By: Larry Decker, Organic QC Manager

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_00017

ThermoFisher SCIENTIFIC

Certificate of Analysis

1 Reagent Lane
Fair Lawn, NJ 07410
201.796.7100 tel
201.796.1329 fax

Thermo Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2015 by SAI Global Certificate Number CERT – 0120632

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. Thermo Fisher Scientific 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 humans or animals. It is the responsibility of the final formulator and end user 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	SS148	Quality Test / Release Date	03/20/2019
Lot Number	191517	Expiration Date	Mar/2021
Description	SODIUM CARBONATE SOLUTION, 1N		
Country of Origin	United States		
Chemical Origin			
BSE/TSE Comment			
Chemical Comment			

N/A			
Result Name	Units	Specifications	Test Value
APPEARANCE		REPORT	Clear, Colorless liquid
NORMALITY		Inclusive Between 0.995 - 1.000	0.999
COLOR	APHA	<= 5	<5
IDENTIFICATION	PASS/FAIL	= PASS TEST	PASS TEST

Teresa Bailey-Wyche

Quality Assurance Specialist - Certificate of Analysis Fair Lawn

Note: The data listed is valid for all package sizes of this lot of this product, expressed as an extension of this catalog number listed above.
If there are any questions with this certificate, please call at (800) 227-6701.
*Based on suggested storage condition.

Reagent

IC BR ICV_00018

RICCA CHEMICAL COMPANY®

1841 Broad Street
Pocomoke City, MD 21851
http://www.riccachemical.com
1-888-GO-RICCA
customerservice@riccachemical.com

Certificate of Analysis

Bromide Standard, 1000 ppm Br^-

Lot Number: 2907E22 **Product Number:** 1180

Manufacture Date: JUL 23, 2019
Expiration Date: JAN 2021

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
1180-8	250 mL natural poly	18 months

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

Sharon Travers (07/23/2019)
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_00060

Reference Materials Producer
Cert #2495.01

SPEXertificate®

Certificate of Reference Material

Chemical Testing
Cert #2495.02

Catalog Number: AS-CL9-2X **Lot No.** 4-176CL-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: 1001 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: 1004 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: JAN - - 2020 Certifying Officer: Katherine Cullinan, QC Manager

Page 1 of 2
Rev. 0

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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 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 and labels
- ISO Guide 35: Reference Materials – General and principals for certification
- 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 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@spexcsp.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 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@spexcsp.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.

SPEX CertiPrep®
Your Science is Our Passion.®

203 Norcross Ave, Metuchen, NJ 08840
www.spexcertiprep.com • E-mail: crmsales@spexcsp.com
Phone: 1-800-LAB-SPEX • Fax: 732-603-9647

Reagent

IC FL cal_00014

RICCA CHEMICAL COMPANY®

1490 Lammers Pike
Batesville, IN 47006
http://www.riccachemical.com
1-888-GO-RICCA
customerservice@riccachemical.com

Certificate of Analysis

Fluoride Standard, 1000 ppm F^-

Lot Number: 4905E80 **Product Number:** 3173

Manufacture Date: MAY 23, 2019
Expiration Date: NOV 2020

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	1000 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

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

Jim Gibbs (05/23/2019)
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 MS/MSD S04_00005

Fisher Scientific

1 Reagent Lane
Fair Lawn, NJ 07410
201.796.7100 tel
201.796.1329 fax

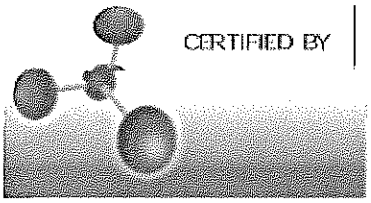
Certificate of Analysis

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



CERTIFIED BY

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 ICV_00021

ERA

A Waters Company

Certificate of Analysis

PRODUCT:	1000 mg/L Sulfate (SO_4)
CATALOG NUMBER:	062 -125 mL; 995 - 500 mL
LOT NUMBER:	100819m
ISSUE DATE:	August 23, 2019
REVISION DATE:	Original
STARTING MATERIAL:	Potassium Sulfate (K_2SO_4)
CERTIFIED CONCENTRATION[1]:	1000 mg/L
UNCERTAINTY[2]:	0.6%
MATRIX:	18 megohm deionized water
DENSITY:	0.9986 ± 0.0010 g/mL at 19.7°C and 757 mm Hg
TRACEABILITY[3]:	97.6%
NIST/SRM:	3181 Sulfate
VERIFICATION METHOD:	Ion Chromatography
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 08/06/2021**. 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

IC sulfatecal_00057

Reference Materials Producer
Cert #2495.01

SPEXertificate®

Certificate of Reference Material

Chemical Testing
Cert #2495.02

Catalog Number: AS-SO49-2X **Lot No.** 4-197SO4-2X

Description: 1000 µg/mL Sulfate

EXPIRES JUN. 30, 2020

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: 1001 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# MAN1018SO4. 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: 1002 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^-	<0.006	NO_2^-	<0.004
Cl^-	<0.01	NO_3^-	<0.006
F^-	<0.008	$PO4^{-3}$	<0.01

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: JUN -- 2019 Certifying Officer: Katherine Cullinan, QC Manager

Page 1 of 2
Rev. 0

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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 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 and labels
- ISO Guide 35: Reference Materials – General and principals for certification
- 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 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@spexcsp.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 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
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Reagent

IC sulfatecal_00059

Reference Materials Producer
Cert #2495.01

SPEXertificate®

Certificate of Reference Material

Chemical Testing
Cert #2495.02

Catalog Number: AS-SO49-2X **Lot No.** 4-197SO4-2X

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: 1001 µg/mL ±5 µg/mL

Certified Value is Traceable to: 3181*

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Date of Certification: JAN - - 2020 Certifying Officer: Katherine Cullinan, QC Manager

Page 1 of 2
Rev. 0

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- ISO Guide 30: Reference Materials – Selected terms and definitions
- ISO Guide 31: Reference Materials – Contents of certificates and labels
- ISO Guide 35: Reference Materials – General and principals for certification
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- NIST Technical Note 1297

Material Source:

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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:

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Certification Report:

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SPEX CertiPrep®
Your Science is Our Passion.®

203 Norcross Ave, Metuchen, NJ 08840
www.spexcertiprep.com • E-mail: crmsales@spexcsp.com
Phone: 1-800-[illegible] 732-603-9647

Reagent

MNX,TNX,DNX_00032

Agilent

Certificate of Analysis
ISO Guide 34

Custom Standard

Product Number:	CUS-23984			**Page:**	1 of 1
Lot Number:	CS-5628	**Lot Issue Date:**	16-Nov-2018	**Expiration Date:**	31-Dec-2019

This ISO Guide 34 Reference Material (RM) was manufactured and verified in accordance with Agilent Technologies ISO 9001 registered quality system. A review of the gravimetric preparation data by our ISO 17025 accredited laboratory serves to verify the concentration of each analyte. 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
1,3,5-trinitroso-1,3,5-triazacyclohexane (TNX)		RM12428	100.3 ± 0.5 µg/mL
1-nitro-3,5-dinitroso-1,3,5-triazacyclohexane		RM12428	100.1 ± 0.5 µg/mL
1-nitroso-3,5-dinitro-1,3,5-triazacyclohexane		RM12428	116.7 ± 0.6 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.

Monica Bourgeois
QMS Representative

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

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

ANAB ACCREDITED ISO/IEC 17025 TESTING LABORATORY
ISO17025 Cert No.
AT-1937

ORG ver 1.1

250 Smith Street North Kingstown, Rhode Island 02852 **www.ultrasci.com**

Reagent

MNX,TNX,DNX_00042

Agilent

Certificate of Analysis

Product Name: Custom Standard

Product Number: CUS-23984 **Lot Issue Date:** 24-Jan-2020

Lot Number: 0006516106 **Expiration Date:** 28-Feb-2021

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	100.3 ± 0.5 µg/mL
1-nitro-3,5-dinitroso-1,3,5-triazacyclohexane (DNX)	N/A	RM12428	100.4 ± 0.5 µg/mL
1-nitroso-3,5-dinitro-1,3,5-triazacyclohexane (MNX)	N/A	RM12428	117.1 ± 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.

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.

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

ISO 17034 Cert No. AR-1936

RM was produced in accordance with TUV USA Inc registered ISO 9001 Quality Management System. Cert # 56 100 18560026

Page: 1 of 2

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:** 0006516106

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

ISO 17034 Cert No.
AR-1936

RM was produced in accordance with TUV USA Inc registered ISO 9001 Quality Management System. Cert # 56 100 18560026

www.agilent.com/quality/
CSD-QA-015.1

ISO 17025 Cert
No. AT-1937

Reagent

MNX,TNX,DNX_00043

Agilent

Certificate of Analysis

Product Name: Custom Standard

Product Number: CUS-23984 **Lot Issue Date:** 24-Jan-2020

Lot Number: 0006516106 **Expiration Date:** 28-Feb-2021

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	100.3 ± 0.5 µg/mL
1-nitro-3,5-dinitroso-1,3,5-triazacyclohexane (DNX)	N/A	RM12428	100.4 ± 0.5 µg/mL
1-nitroso-3,5-dinitro-1,3,5-triazacyclohexane (MNX)	N/A	RM12428	117.1 ± 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.

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.

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

ISO 17034 Cert No. AR-1936

RM was produced in accordance with TUV USA Inc registered ISO 9001 Quality Management System. Cert # 56 100 18560026

Page: 1 of 2

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:** 0006516106

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

ISO 17034 Cert No.
AR-1936

RM was produced in accordance with TUV USA Inc registered ISO 9001 Quality Management System. Cert # 56 100 18560026

www.agilent.com/quality/
CSD-QA-015.1

ISO 17025 Cert
No. AT-1937

Reagent

MNX,TNX,DNX_00046

Agilent

Certificate of Analysis

Product Name: Custom Standard

Product Number: CUS-23984 **Lot Issue Date:** 24-Jan-2020

Lot Number: 0006516106 **Expiration Date:** 28-Feb-2021

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	100.3 ± 0.5 µg/mL
1-nitro-3,5-dinitroso-1,3,5-triazacyclohexane (DNX)	N/A	RM12428	100.4 ± 0.5 µg/mL
1-nitroso-3,5-dinitro-1,3,5-triazacyclohexane (MNX)	N/A	RM12428	117.1 ± 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.

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.

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

ISO 17034 Cert No. AR-1936

RM was produced in accordance with TUV USA Inc registered ISO 9001 Quality Management System. Cert # 56 100 18560026

Page: 1 of 2

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:** 0006516106

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

ISO 17034 Cert No.
AR-1936

RM was produced in accordance with TUV USA Inc registered ISO 9001 Quality Management System. Cert # 56 100 18560026

www.agilent.com/quality/
CSD-QA-015.1

ISO 17025 Cert
No. AT-1937

Reagent

NH3 CAL STD_00031

RICCA CHEMICAL COMPANY®

1841 Broad Street
Pocomoke City, MD 21851
http://www.riccachemical.com
1-888-GO-RICCA
customerservice@riccachemical.com

Certificate of Analysis

Ammonia Nitrogen Standard, 1000 ppm N (1216 ppm NH_3)

Lot Number: 2902E25 **Product Number:** 5455

Manufacture Date: FEB 25, 2019
Expiration Date: AUG 2020

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
Ammonium Chloride	12125-02-9	High Purity

Test	Specification	Result
Appearance	Colorless liquid	Passed
Nitrogen (N)	995-1005 ppm	1000 ppm

Specification	Reference
Ammonia Solution, Stock (1.0 mL = 1.0 mg ammonia nitrogen)	ASTM (D 3590 A)
Ammonia Solution, Stock (1.0 mL = 1.0 mg ammonium nitrogen)	ASTM (D 3590 B)
Stock Ammonium Chloride Solution	APHA (4500-CN- L)
Stock Ammonium Solution	APHA (4500-NH3 C)
Stock Ammonium chloride Solution	APHA (4500-NH3 D)
Stock Ammonium Solution	APHA (4500-NH3 F)
Ammonium Chloride, Stock Solution, 1.0 mL = 1.0 mg NH3-N	EPA (351.2)
Ammonium Chloride, Stock Solution, 1.0 mL = 1.0 mg NH3-N	EPA (350.2)
Ammonium Chloride, Stock Solution, 1.0 mL = 1.0 mg NH3-N	EPA (350.3)
Ammonium Chloride, Stock Solution, 1.0 mL = 1.0 mg NH3-N	EPA (351.4)
Stock Solution, 1.0 mL = 1.0 mg NH3-N	EPA (350.1)
Ammonium Chloride, Stock Solution, 1.0 mL = 1.0 mg NH3-N	EPA (351.3)

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)
5455-16	500 mL natural poly	18 months
5455-32	1 L natural poly	18 months

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

Tara Jones (02/25/2019)
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

NH3 ICV STD_00027

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 by two independent methods **Characterization of CRM by one method**

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 (±) = $U_{CRM/RM} = k\,(u^2_{char\ a\&b} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2 in all cases at Inorganic Ventures

$u_{char\ a\&b} = [(w_a)^2 (u_{char\ a})^2 + (w_b)^2 (u_{char\ b})^2]^{1/2}$ 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 (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

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.

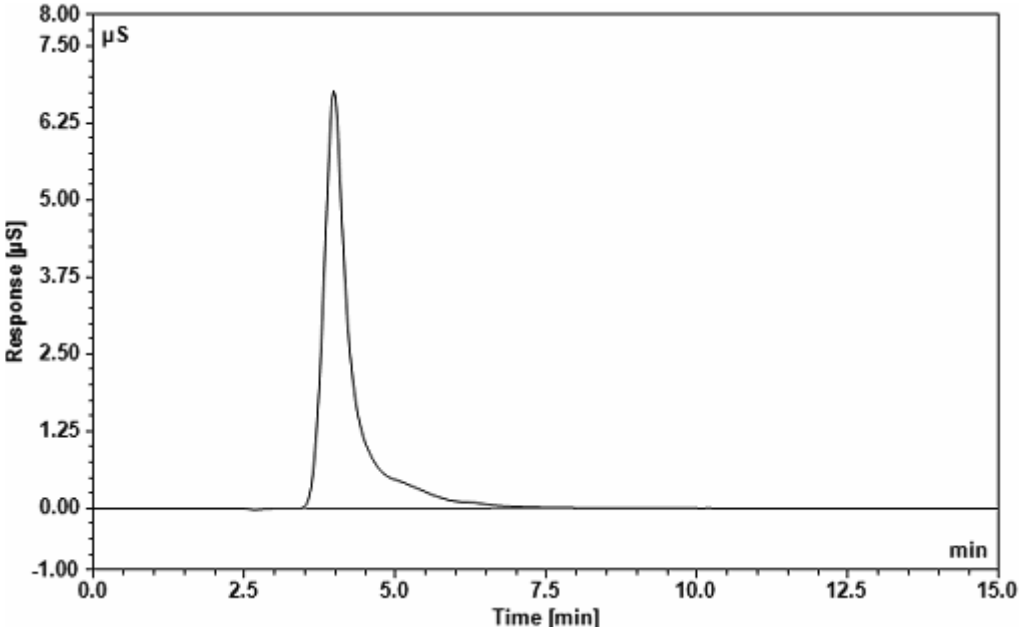
4.2 Balance Calibration

- 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 ICV STD_00023

ERA

A Waters Company

Certificate of Analysis

PRODUCT:	1000 mg/L Nitrate as N (NO_3-N)
CATALOG NUMBER:	052 -125 mL; 991 - 500 mL
LOT NUMBER:	130319m
ISSUE DATE:	April 3, 2019
REVISION DATE:	Original
STARTING MATERIAL:	Potassium Nitrate (KNO_3)
CERTIFIED CONCENTRATION[1]:	1000 mg/L
UNCERTAINTY[2]:	0.6%
MATRIX:	18 megohm deionized water
DENSITY:	1.0041 ± 0.0004 g/mL at 18.4°C and 754 mm Hg
TRACEABILITY[3]:	101%
NIST/SRM:	3185 Nitrate
VERIFICATION METHOD:	Ion Chromatography
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 3/11/2021**. 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

PicricARestek_00090

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 Guide 34 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.:** A0131892

Description : Picric Acid Standard

1000µg/mL, Methanol, 1mL/ampul *PGI BOX REQUIRED* SHIP FED EX GROUND ONLY

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

Expiration Date : October 31, 2022 **Storage:** 10°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Picric Acid **CAS #** 88-89-1 **Purity** 97% (Lot 06130CU)	1,004.9 µg/mL	+/- 5.9689	µg/mL	Gravimetric
			+/- 55.0525	µg/mL	Unstressed
			+/- 64.1967	µg/mL	Stressed

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

Specific Reference Material Notes:
This is a derivatized analysis.

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

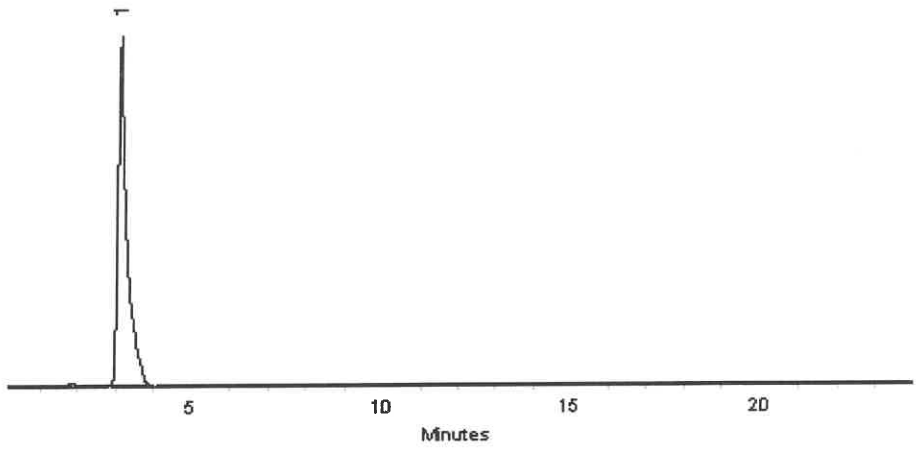
Flow Rate:
1.0 ml/min.

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

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210 nm



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

Matt Fragassi - Mix Technician

Date Mixed: 25-Oct-2017 **Balance:** B345965662

Jennifer Pollino - Operations Tech-ARM QC

Date Passed: 30-Oct-2017

Manufactured under Restek's ISO 9001:2008 Registered Quality System Certificate #FM 80397

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_00027

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
200 ALESSIO DR
JOLIET, IL 60433

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)
*DL955755

	Requested Concentration	Certified Concentration	Units	Blend Tolerance	Certified Accuracy
Butane	1.00	0.995	%	±10%	±2%
Acetylene	1.00	0.995	%	±10%	±2%
Isobutylene	1.00	0.995	%	±10%	±2%
Propane	1.00	0.995	%	±10%	±2%
Ethene	1.00	0.996	%	±10%	±2%
Ethylene	1.00	0.996	%	±10%	±2%
Methane	1.00	0.999	%	±10%	±2%
Nitrogen	Balance	Balance			

TRACEABILITY

COMMENTS

*** Indicates the actual cylinder(s) analyzed.**

Lot No: 1029602081C
Fill Date: 09/04/2019
Expiration Date: 09/09/2021

Analysis Date: 09/09/2019

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

Jennifer Fender - Analyst — 09/09/2019 Date

Jennifer Fender - QA Approval — 09/09/2019 Date

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)
*DI.039162

	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 — Date: 03/09/2020

Merich Boyett - QA Approval — Date: 03/09/2020

Reagent

SFD CAL STK_00006

Version	02
Molecular weight	240.18
Quality Test / Release Date	09/06/2018
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 above mentioned lot number 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. Unless otherwise stated, these products are not intended for dialysis, parenteral, or injectable use without further processing. The following are the actual analytical results obtained:

Catalog Number	38706	**Quality Test / Release Date** 09/06/2018
Lot Number	A0390872	
Description	Sodium sulfide nonahydrate,98+%,extra pure	
Country of Origin	INDIA	
Declaration of Origin	synthetic	

BSE/TSE comment	
Chemical Comment	

Result name	Units	Specifications	Test Value
Appearance (Color)		Colorless to light yellow	Light yellow
Appearance (Form)		Adhering crystals and/or chunks	Adhering crystals and chunks
Titration Iodimetric		32.0 to 38.0 % (Na2S)	35.9 % (Na2S)
Total nitrogen (as N)		=<0.005 %	=<0.005 %
Sulfite (as SO2)		=<2000 ppm	=<2000 ppm
Thiosulphate (S2O3)		=<5000 ppm	=<5000 ppm

CERTIFIED BY

L. Van den Broek, QA Manager

Issued: 09-06-2018

Acros Organics
ENA23, zone1, 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 Regent Lane, Fair Lawn, NJ 07410, USA Fax 201-796-1329

Reagent

TKN CAL STD_00017

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: 010617
Manufacture Date: 01/06/17
Certified Date: 01/12/17

Expiration: 01/31/2021
Matrix: Water
Hazards: Irritant
(See MSDS)

Bulk Number	Analyte	CAS #	Purity	Certified Concentration (mg/L TKN)
W-1477-25	TKN from Glycine	56-40-6	99.4%	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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7212 ACC Blvd. | Raleigh, NC 27617 | 800.234.7837

Catalog Number: IS-009, IS-009-500
Lot Number: 010617

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_00011

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:	281018
ISSUE DATE:	December 7, 2018
REVISION DATE:	Original
STARTING MATERIAL:	Glycine (NH_2CH_2COOH)
CERTIFIED CONCENTRATION[1]:	1000 mg/L
UNCERTAINTY[2]:	0.6%
MATRIX:	18 megohm deionized water and 1% (v/v) HCl
DENSITY:	1.0055 ± 0.0010 g/mL at 16.6°C and 754 mm Hg
TRACEABILITY[3]:	100%
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 10/2020**. 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. 1439.02

16341 Table Mtn Pkwy, Golden, CO 80403 800-372-0122 fax: 303-421-0159 www.eraqc.com

Reagent

TOC LCS Std_00048

Agilent

Certificate of Analysis
ISO Guide 34

Product Number: IQC-106
Lot Number: 0006465171

Lot Issue Date: 10-May 2019
Expiration Date: 30-Jun 2021

Product Name: Total Organic Carbon (TOC) Standard

Description:
This Reference Material (RM) was gravimetrically prepared in accordance with ISO Guide 34 and under Agilent's ISO 9001 registered quality system. The neat materials used for this product have been verified by Agilent's ISO 17025 laboratory and under Agilent's ISO Guide 34 accreditation. The analyte concentrations were verified by Agilent's ISO 17025 accredited laboratory. For each analyte, the true value, with its uncertainty value calculated at the 95% confidence level, is reported below.

Analyte	Starting Material	Lot Number	Purity (%)	Analyte Concentration	Traceability & Method
TOC	potassium hydrogen phthalate	RM14067	99.97	1001 ± 5 µg/mL	NAA02099; TOC Analyzer

Solvent: water (low TOC, <50 ppb)

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

Traceability:
Traceability has been established through an unbroken chain of comparisons, each having stated uncertainties. Comparisons are based on appropriate physical or chemical measurements, including gravimetric or volumetric dilution, where the mass or volume of a solution before and after dilution is measured. The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z-540-1, ISO 9001, ISO 17025, and ISO Guide 34. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 819.

Estimation of Uncertainties:
The true value is reported, with its uncertainty value calculated at the 95% confidence level.

Homogeneity:
This RM was formulated and 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 and should be processed without delay for the true value to be valid within the stated uncertainties. Do not pipet from the bottle. Do not return any material removed for pipetting to the bottle. Tightly cap the bottle after removing any material and store according to the instructions noted above.

Hazards:
Refer to the Safety Data Sheet for information regarding this RM.

Expiration of Certification:
The certification of this RM is valid, within the measurement uncertainty specified, 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.

ANAB ACCREDITED ISO Guide 34 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

250 Smith Street North Kingstown, Rhode Island 02852 www.agilent.com/quality

Certificate of Analysis
ISO Guide 34

Product Number: IQC-106
Lot Number: 0006465171

Lot Issue Date: 10-May 2019
Expiration Date: 30-Jun 2021

Maintenance of Certification:
The real-time, long term stability of the RM may be monitored over the lifetime of the certification. If substantive changes occur that affect the certification before the expiration of this certificate, Agilent Technologies will notify the purchaser.

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

RSK_175_DOD5

Dissolved Gases (GC)

FORM III
GC VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 005F0501.D

Lab ID: LCS 280-498346/5 Client ID:

COMPOUND	SPIKE ADDED (mg/L)	LCS CONCENTRATION (mg/L)	LCS % REC	QC LIMITS REC	#
Methane	0.0730	0.0785	108	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 TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 006F0601.D

Lab ID: LCSD 280-498346/6 Client ID:

COMPOUND	SPIKE ADDED (mg/L)	LCSD CONCENTRATION (mg/L)	LCSD % REC	% RPD	QC LIMITS		#
					RPD	REC	
Methane	0.0730	0.0790	108	1	20	73-125	

Column to be used to flag recovery and RPD values

FORM III RSK-175

FORM III
GC VOA MATRIX SPIKE RECOVERY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 011F0301.D

Lab ID: 280-137225-2 MS Client ID: G0070-20A MS

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENTRATION (mg/L)	MS CONCENTRATION (mg/L)	MS % REC	QC LIMITS REC	#
Methane	0.0730	0.0020 U	0.0710	97	73-125	

Column to be used to flag recovery and RPD values

FORM III RSK-175

FORM III
GC VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 012F0401.D

Lab ID: 280-137225-2 MSD Client ID: G0070-20A MSD

COMPOUND	SPIKE ADDED (mg/L)	MSD CONCENTRATION (mg/L)	MSD % REC	% RPD	QC LIMITS		#
					RPD	REC	
Methane	0.0730	0.0673	92	5	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 TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Lab Sample ID: MB 280-498346/7

Matrix: Water Date Extracted:

Lab File ID:(1) 007F0701.D Lab File ID:(2) 007F0701.D

Date Analyzed:(1) 06/11/2020 11:47 Date Analyzed:(2) 06/11/2020 11:47

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 280-498346/5	06/11/2020 11:14	06/11/2020 11:14
	LCSD 280-498346/6	06/11/2020 11:31	06/11/2020 11:31
G0070-20A	280-137225-2	06/11/2020 13:27	06/11/2020 13:27
G0070-20A DU	280-137225-2 DU	06/11/2020 13:43	06/11/2020 13:43
G0070-20A MS	280-137225-2 MS	06/11/2020 14:00	06/11/2020 14:00
G0070-20A MSD	280-137225-2 MSD	06/11/2020 14:17	06/11/2020 14:17
G0076-20A	280-137225-1	06/11/2020 16:14	06/11/2020 16:14
G0081-20A	280-137225-3	06/11/2020 16:30	06/11/2020 16:30
G0082-20A	280-137225-4	06/11/2020 16:46	06/11/2020 16:46

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Client Sample ID: G0076-20A Lab Sample ID: 280-137225-1

Instrument ID (1): VGC_J Instrument ID (2): VGC_J

Date Analyzed (1): 06/11/2020 16:14 Date Analyzed (2): 06/11/2020 16:14

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		3.15	3.12	3.20	0.18		2.3
	2		1.25	1.21	1.29	0.19		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Client Sample ID: G0070-20A MS Lab Sample ID: 280-137225-2 MS

Instrument ID (1): VGC_J Instrument ID (2): VGC_J

Date Analyzed (1): 06/11/2020 14:00 Date Analyzed (2): 06/11/2020 14:00

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		3.16	3.12	3.20	0.0710		0.9
	2		1.25	1.21	1.29	0.0716		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Client Sample ID: G0070-20A MSD Lab Sample ID: 280-137225-2 MSD

Instrument ID (1): VGC_J Instrument ID (2): VGC_J

Date Analyzed (1): 06/11/2020 14:17 Date Analyzed (2): 06/11/2020 14:17

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		3.15	3.12	3.20	0.0673		1.6
	2		1.25	1.21	1.29	0.0684		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Client Sample ID: G0081-20A Lab Sample ID: 280-137225-3

Instrument ID (1): VGC_J Instrument ID (2): VGC_J

Date Analyzed (1): 06/11/2020 16:30 Date Analyzed (2): 06/11/2020 16:30

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		3.15	3.12	3.20	1.1		3.6
	2		1.24	1.21	1.29	1.1		

FORM X RSK-175

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Client Sample ID: G0082-20A Lab Sample ID: 280-137225-4

Instrument ID (1): VGC_J Instrument ID (2): VGC_J

Date Analyzed (1): 06/11/2020 16:46 Date Analyzed (2): 06/11/2020 16:46

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		3.15	3.12	3.20	0.46		2.5
	2		1.25	1.21	1.29	0.48		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 280-498346/5

Instrument ID (1): VGC_J Instrument ID (2): VGC_J

Date Analyzed (1): 06/11/2020 11:14 Date Analyzed (2): 06/11/2020 11:14

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		3.16	3.12	3.20	0.0785		1.5
	2		1.25	1.21	1.29	0.0773		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Client Sample ID: Lab Sample ID: LCSD 280-498346/6

Instrument ID (1): VGC_J Instrument ID (2): VGC_J

Date Analyzed (1): 06/11/2020 11:31 Date Analyzed (2): 06/11/2020 11:31

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		3.16	3.12	3.20	0.0790		1.6
	2		1.25	1.21	1.29	0.0777		

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-137225-1
SDG No.:
Client Sample ID: G0076-20A
Lab Sample ID: 280-137225-1
Matrix: Water
Lab File ID: 019F1101.D
Analysis Method: RSK-175
Date Collected: 06/01/2020 13:45
Sample wt/vol: 18(mL)
Date Analyzed: 06/11/2020 16:14
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.: 498346
Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
74-82-8	Methane	0.18		0.0050	0.0020	0.00063

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20200611-92320.b\019F1101.D
Lims ID: 280-137225-H-1
Client ID: G0076-20A
Sample Type: Client
Inject. Date: 11-Jun-2020 16:14:03 ALS Bottle#: 19 Worklist Smp#: 17
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: 280-137225-H-1
Operator ID: SCIANNAC Instrument ID: VGC_J

Method: \\chromfs\Denver\ChromData\VGC_J\20200611-92320.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 12-Jun-2020 10:45:55 Calib Date: 16-May-2020 13:08:56
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\009F0901.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: CTX1019

First Level Reviewer: sciannac Date: 12-Jun-2020 10:07:21

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/l	Flags
$ 1 1,1,1-Trifluoroethane						
1		4.098			ND	
2		5.458				
2 Methane						
1	1.245	1.246	-0.001	26749266	185.8	
2	3.147	3.155	-0.008	12437422	181.5	
					RPD = 2.35	
3 Ethane						
1		1.500			ND	
2		4.293				
4 Ethylene						
1		1.773			ND	
2		4.018				
5 Propane						a
1	3.221	2.461	0.760	13549	0.0946	a
2	5.938	5.917	0.021	52668	0.8409	a
					RPD = 159.56	
6 Acetylene						
1		3.935			ND	
2		4.125				
7 Butane						
1		4.218			ND	
2		7.362				
8 isobutylene						
1		5.123			ND	
2		7.215				

QC Flag Legend

Review Flags

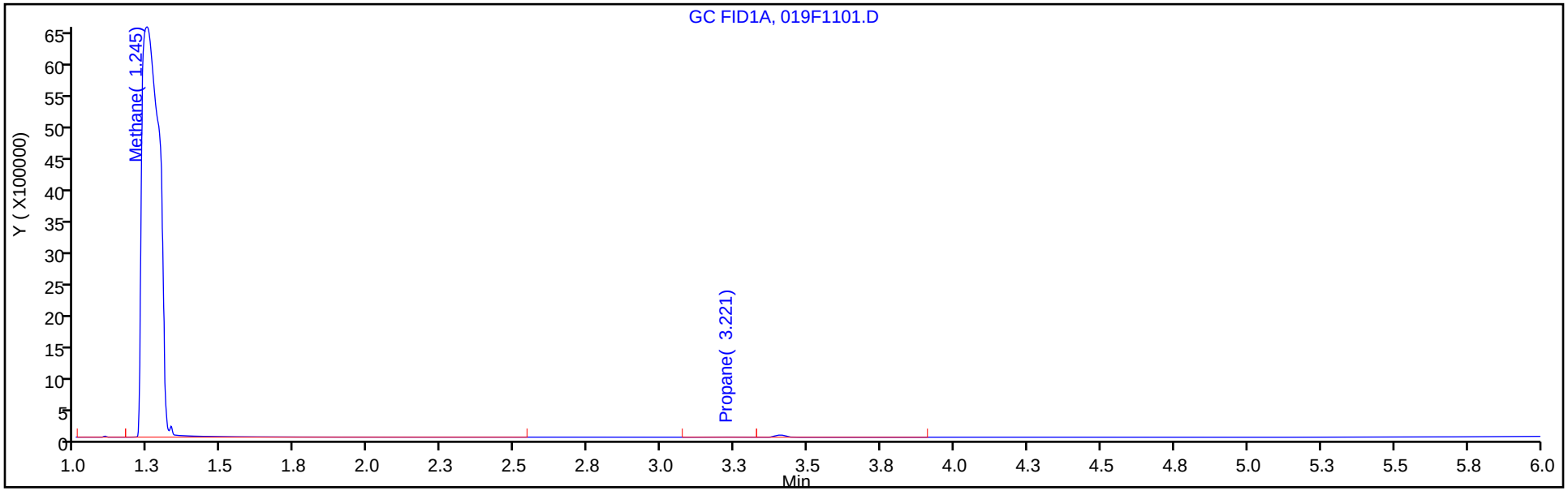
a - User Assigned ID

Report Date: 12-Jun-2020 10:46:02 Chrom Revision: 2.3 10-Jun-2020 22:46:48

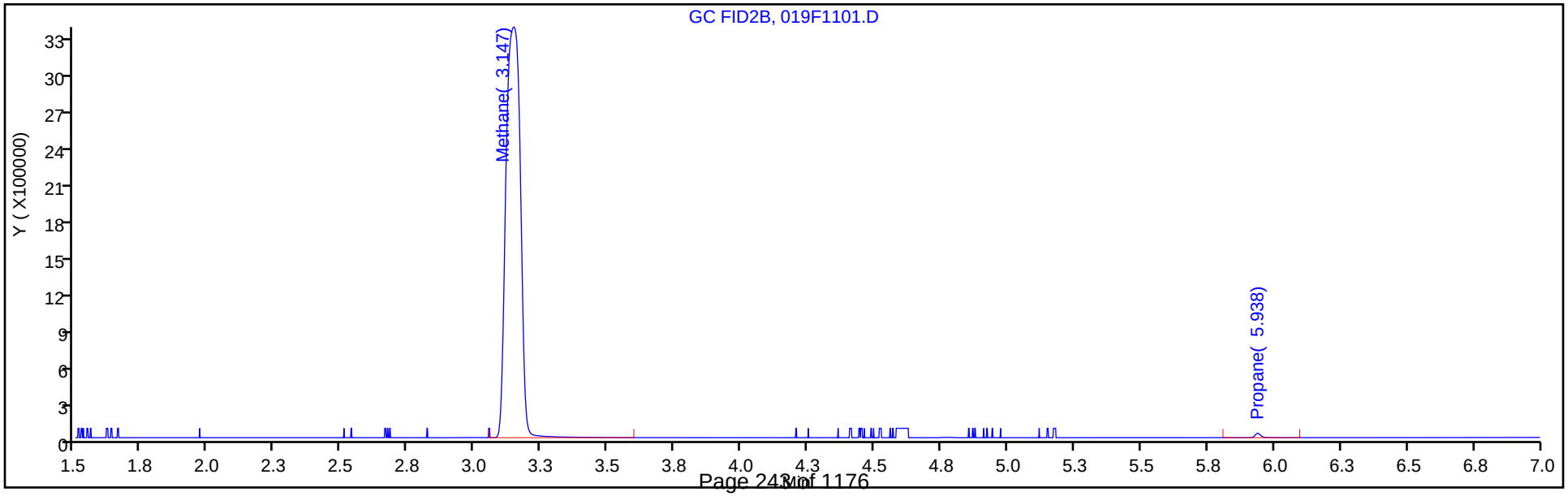
Eurofins TestAmerica, Denver

Data File:	\\chromfs\Denver\ChromData\VGC_J\20200611-92320.b\019F1101.D				
Injection Date:	11-Jun-2020 16:14:03	Instrument ID:	VGC_J	Operator ID:	SCIANNAC
Lims ID:	280-137225-H-1	Lab Sample ID:	280-137225-1	Worklist Smp#:	17
Client ID:	G0076-20A				
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 I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Client Sample ID: G0070-20A Lab Sample ID: 280-137225-2

Matrix: Water Lab File ID: 008F0101.D

Analysis Method: RSK-175 Date Collected: 06/02/2020 08:25

Sample wt/vol: 18(mL) Date Analyzed: 06/11/2020 13:27

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.: 498346 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
74-82-8	Methane	0.0020	U	0.0050	0.0020	0.00063

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\VGC_J\20200611-92320.b\008F0101.D				
Lims ID:	280-137225-I-2				
Client ID:	G0070-20A				
Sample Type:	Client				
Inject. Date:	11-Jun-2020 13:27:38	ALS Bottle#:	8	Worklist Smp#:	8
Purge Vol:	18.000 mL	Dil. Factor:	1.0000		
Sample Info:	280-137225-I-2				
Operator ID:	SCIANNAC	Instrument ID:	VGC_J		
Method:	\\chromfs\Denver\ChromData\VGC_J\20200611-92320.b\RSK_J.m				
Limit Group:	GCV - RSK 175				
Method Label:	DV-GC-0025: Dissolved Gases in Water by RSK-175				
Last Update:	12-Jun-2020 10:45:55	Calib Date:	16-May-2020 13:08:56		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\009F0901.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:	CTX1019				

First Level Reviewer: sciannac Date: 12-Jun-2020 10:02:09

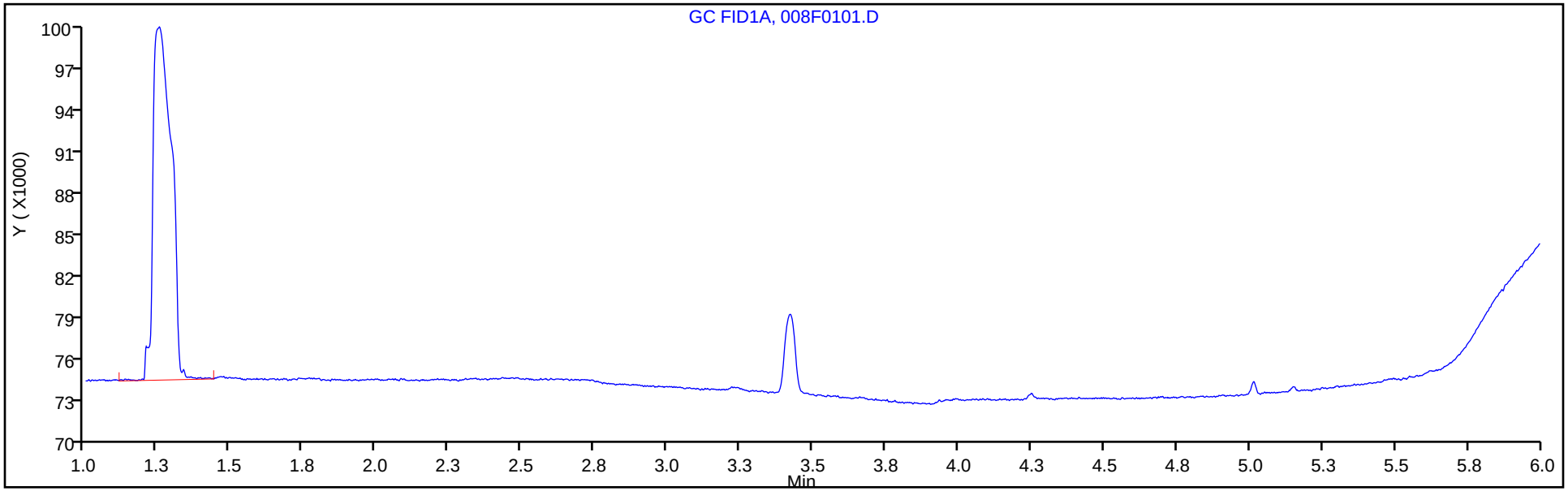
Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/l	Flags
$ 1 1,1,1-Trifluoroethane						
1		4.098			ND	
2		5.458				
2 Methane						
1		1.246			ND	
2		3.155				
3 Ethane						
1		1.500			ND	
2		4.293				
4 Ethylene						
1		1.773			ND	
2		4.018				
5 Propane						
1		2.461			ND	
2		5.917				
6 Acetylene						
1		3.935			ND	
2		4.125				
7 Butane						
1		4.218			ND	
2		7.362				
8 isobutylene						
1		5.123			ND	
2		7.215				

Report Date: 12-Jun-2020 10:45:56 Chrom Revision: 2.3 10-Jun-2020 22:46:48

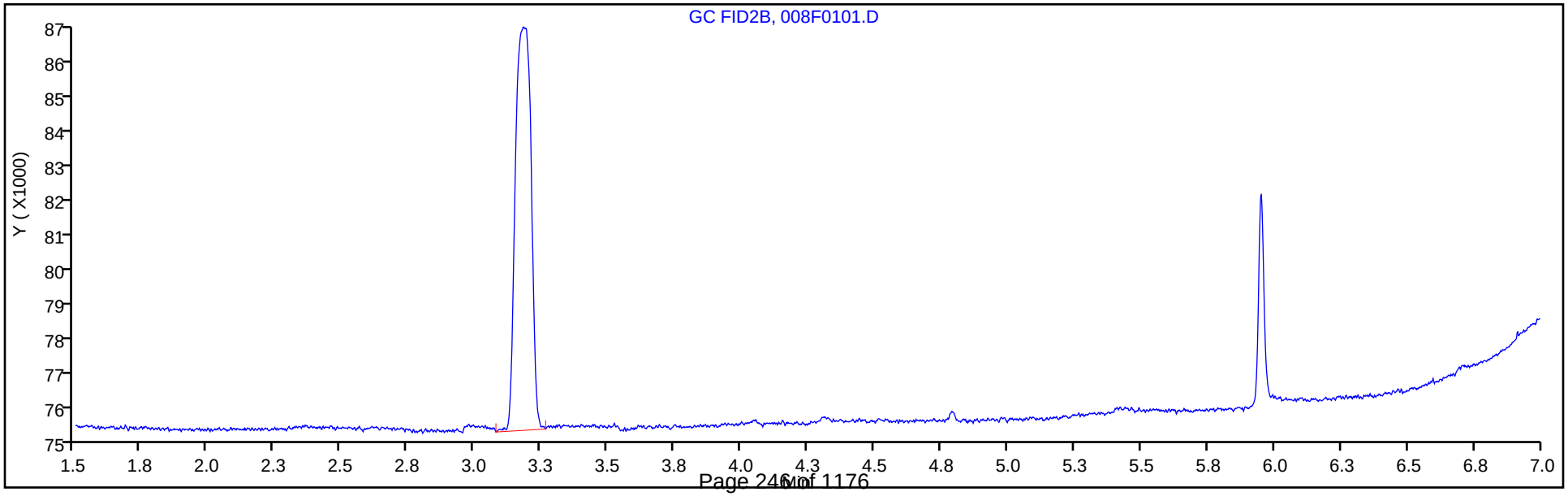
Eurofins TestAmerica, Denver

Data File:	\\chromfs\Denver\ChromData\VGC_J\20200611-92320.b\008F0101.D				
Injection Date:	11-Jun-2020 13:27:38	Instrument ID:	VGC_J	Operator ID:	SCIANNAC
Lims ID:	280-137225-I-2	Lab Sample ID:	280-137225-2	Worklist Smp#:	8
Client ID:	G0070-20A				
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



FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Client Sample ID: G0081-20A Lab Sample ID: 280-137225-3

Matrix: Water Lab File ID: 020F1201.D

Analysis Method: RSK-175 Date Collected: 06/02/2020 09:45

Sample wt/vol: 18(mL) Date Analyzed: 06/11/2020 16:30

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.: 498346 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
74-82-8	Methane	1.1		0.0050	0.0020	0.00063

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20200611-92320.b\020F1201.D
Lims ID: 280-137225-G-3
Client ID: G0081-20A
Sample Type: Client
Inject. Date: 11-Jun-2020 16:30:26 ALS Bottle#: 20 Worklist Smp#: 18
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: 280-137225-G-3
Operator ID: SCIANNAC Instrument ID: VGC_J

Method: \\chromfs\Denver\ChromData\VGC_J\20200611-92320.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 12-Jun-2020 10:45:55 Calib Date: 16-May-2020 13:08:56
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\009F0901.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: CTX1019

First Level Reviewer: sciannac Date: 12-Jun-2020 10:07:28

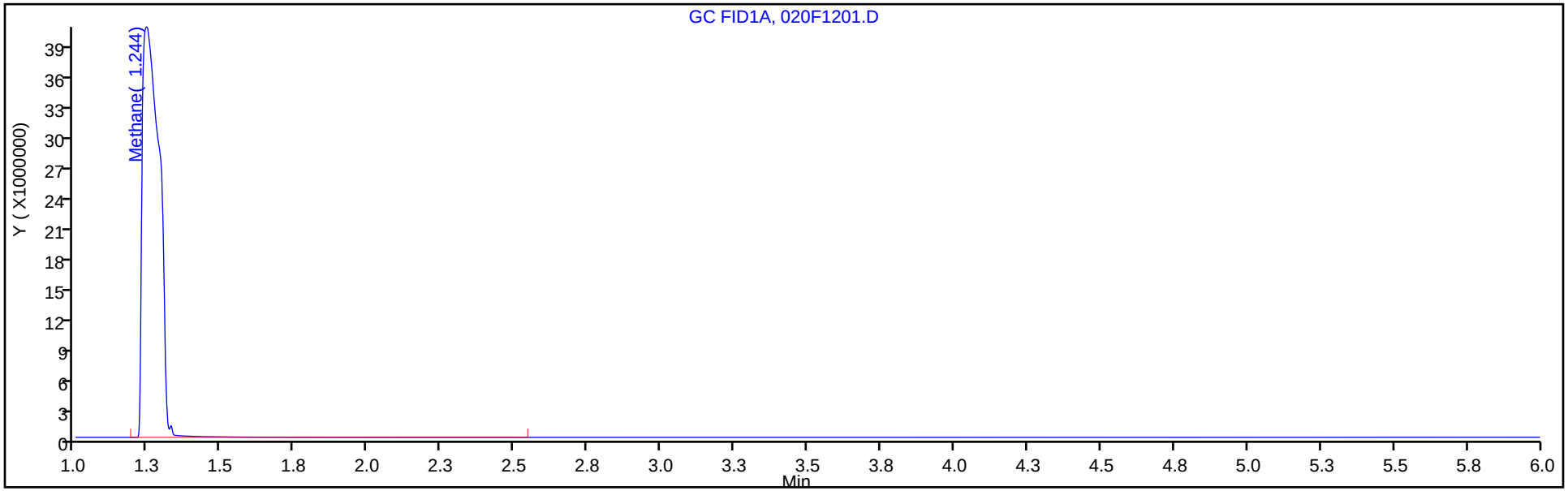
Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/l	Flags
$ 1 1,1,1-Trifluoroethane						
1		4.098			ND	
2		5.458				
2 Methane						
1	1.244	1.246	-0.002	164529305	1144.3	
2	3.151	3.155	-0.004	75576836	1103.9	
					RPD = 3.60	
3 Ethane						
1		1.500			ND	
2		4.293				
4 Ethylene						
1		1.773			ND	
2		4.018				
5 Propane						
1		2.461			ND	
2		5.917				
6 Acetylene						
1		3.935			ND	
2		4.125				
7 Butane						
1		4.218			ND	
2		7.362				
8 isobutylene						
1		5.123			ND	
2		7.215				

Report Date: 12-Jun-2020 10:46:03 Chrom Revision: 2.3 10-Jun-2020 22:46:48

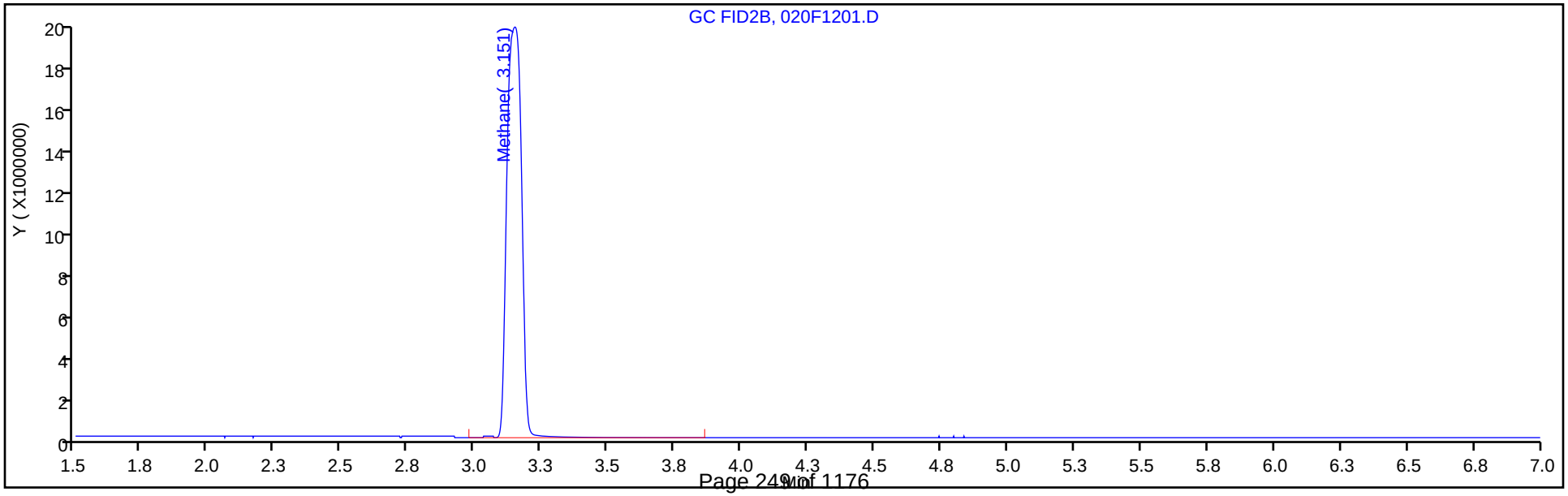
Eurofins TestAmerica, Denver

Data File:	\\chromfs\Denver\ChromData\VGC_J\20200611-92320.b\020F1201.D				
Injection Date:	11-Jun-2020 16:30:26	Instrument ID:	VGC_J	Operator ID:	SCIANNAC
Lims ID:	280-137225-G-3	Lab Sample ID:	280-137225-3	Worklist Smp#:	18
Client ID:	G0081-20A				
Purge Vol:	18.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	20
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 TestAmerica, Denver
Job No.: 280-137225-1
SDG No.:
Client Sample ID: G0082-20A
Lab Sample ID: 280-137225-4
Matrix: Water
Lab File ID: 021F1301.D
Analysis Method: RSK-175
Date Collected: 06/02/2020 10:55
Sample wt/vol: 18(mL)
Date Analyzed: 06/11/2020 16:46
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.: 498346
Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
74-82-8	Methane	0.46		0.0050	0.0020	0.00063

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20200611-92320.b\021F1301.D
Lims ID: 280-137225-I-4
Client ID: G0082-20A
Sample Type: Client
Inject. Date: 11-Jun-2020 16:46:48 ALS Bottle#: 21 Worklist Smp#: 19
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: 280-137225-I-4
Operator ID: SCIANNAC Instrument ID: VGC_J

Method: \\chromfs\Denver\ChromData\VGC_J\20200611-92320.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 12-Jun-2020 10:45:55 Calib Date: 16-May-2020 13:08:56
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\009F0901.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: CTX1019

First Level Reviewer: sciannac Date: 12-Jun-2020 10:07:34

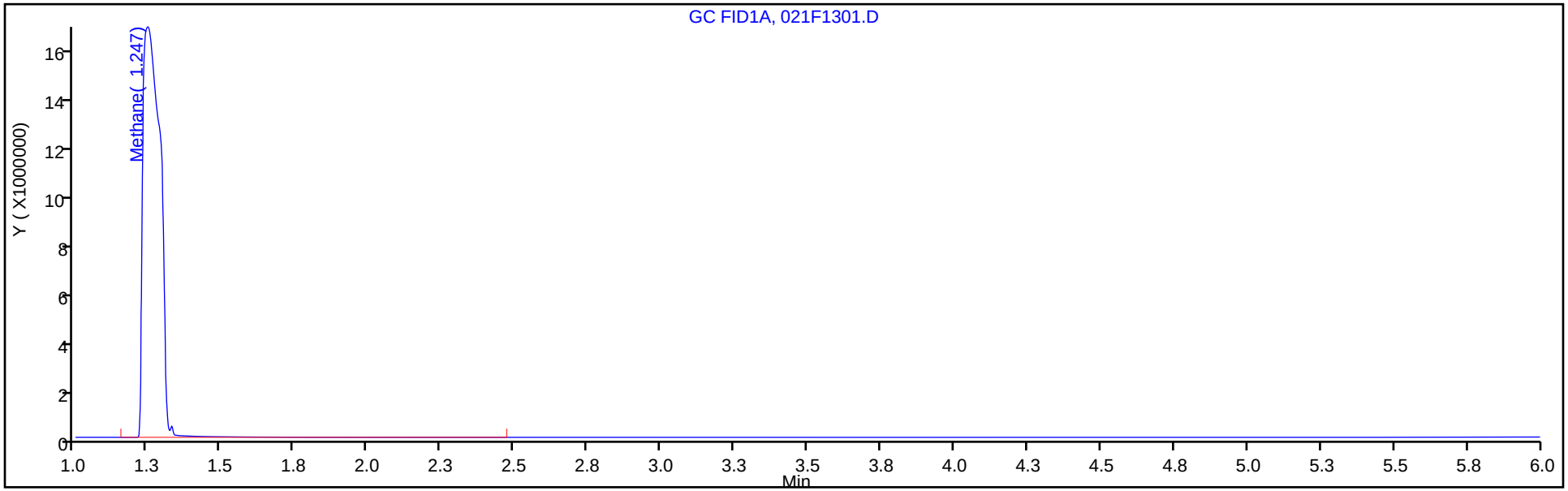
Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/l	Flags
$ 1 1,1,1-Trifluoroethane						
1		4.098			ND	
2		5.458				
2 Methane						
1	1.247	1.246	0.001	68535435	476.5	
2	3.152	3.155	-0.003	31834198	464.8	
					RPD = 2.48	
3 Ethane						
1		1.500			ND	
2		4.293				
4 Ethylene						
1		1.773			ND	
2		4.018				
5 Propane						
1		2.461			ND	
2		5.917				
6 Acetylene						
1		3.935			ND	
2		4.125				
7 Butane						
1		4.218			ND	
2		7.362				
8 isobutylene						
1		5.123			ND	
2		7.215				

Report Date: 12-Jun-2020 10:46:03 Chrom Revision: 2.3 10-Jun-2020 22:46:48

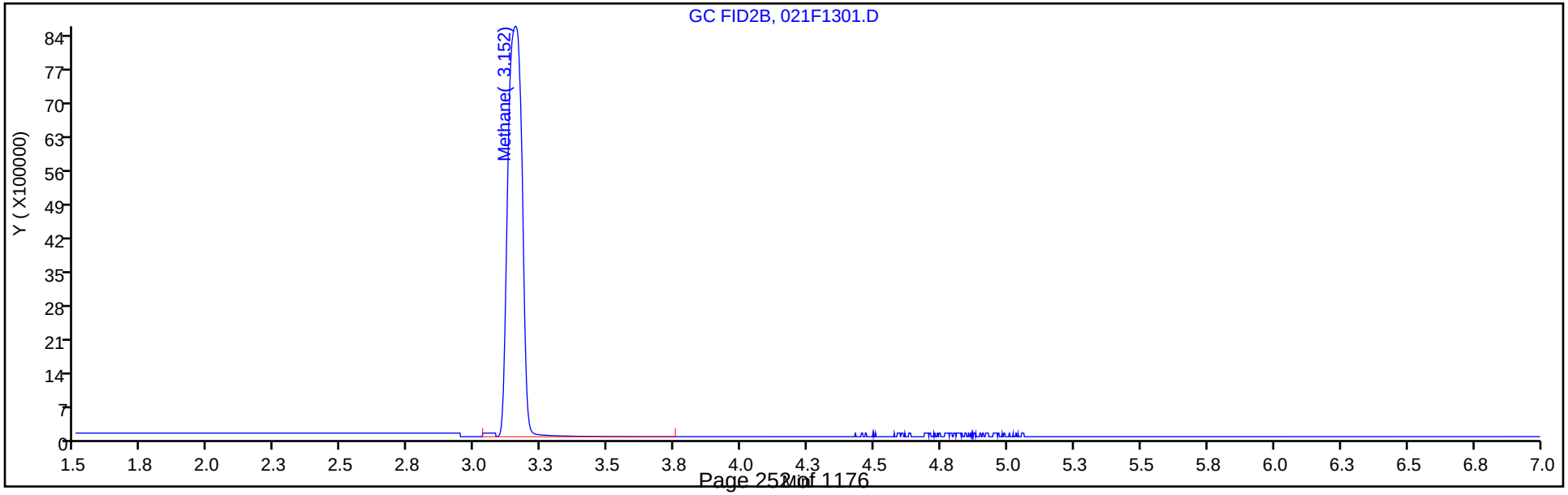
Eurofins TestAmerica, Denver

Data File:	\\chromfs\Denver\ChromData\VGC_J\20200611-92320.b\021F1301.D				
Injection Date:	11-Jun-2020 16:46:48	Instrument ID:	VGC_J	Operator ID:	SCIANNAC
Lims ID:	280-137225-I-4	Lab Sample ID:	280-137225-4	Worklist Smp#:	19
Client ID:	G0082-20A				
Purge Vol:	18.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	21
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 TestAmerica, Denver Job No.: 280-137225-1 Analy Batch No.: 495152

SDG No.:

Instrument ID: VGC_J GC Column: Rt-Alumina ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/16/2020 10:57 Calibration End Date: 05/16/2020 13:08 Calibration ID: 44285

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-495152/6	001F0101.D
Level 2	IC 280-495152/7	001F0201.D
Level 3	IC 280-495152/8	002F0301.D
Level 4	IC 280-495152/9	003F0401.D
Level 5	ICRT 280-495152/10	004F0501.D
Level 6	IC 280-495152/11	005F0601.D
Level 7	IC 280-495152/12	006F0701.D
Level 8	IC 280-495152/13	007F0801.D
Level 9	IC 280-495152/14	009F0901.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	1.250	1.251	1.248	1.249	1.250	1.250	1.243	1.248	1.245		1.210 - 1.290	1.248
Ethane	1.513	1.514	1.511	1.510	1.511	1.512	1.508				1.461 - 1.561	1.511
Ethylene	1.795	1.788	1.791	1.792	1.793	1.785	1.785				1.743 - 1.843	1.790
Acetylene	4.048	4.044	4.043	4.034	4.015	4.002	3.983				3.935 - 4.095	4.024

FORM VI
GC VOA BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1 Analy Batch No.: 495152

SDG No.:

Instrument ID: VGC_J GC Column: Rt-Alumina ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/16/2020 10:57 Calibration End Date: 05/16/2020 13:08 Calibration ID: 44285

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-495152/6	001F0101.D
Level 2	IC 280-495152/7	001F0201.D
Level 3	IC 280-495152/8	002F0301.D
Level 4	IC 280-495152/9	003F0401.D
Level 5	ICRT 280-495152/10	004F0501.D
Level 6	IC 280-495152/11	005F0601.D
Level 7	IC 280-495152/12	006F0701.D
Level 8	IC 280-495152/13	007F0801.D
Level 9	IC 280-495152/14	009F0901.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	244228 139356 139547	206236 146223	177863 139400	150422 142004	Lin2	48790.6512	143733.270							0.9980		0.9900
Ethane	116248 135523	138788 141935	141875 135846	142086	Ave		136042.830				6.7		20.0			
Ethylene	95153 109903	112972 114358	114801 109412	114895	Ave		110213.494				6.4		20.0			
Acetylene	32541 32001	35741 34987	35768 33689	35334	Ave		34294.2686				4.5		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 TestAmerica, Denver Job No.: 280-137225-1 Analy Batch No.: 495152

SDG No.:

Instrument ID: VGC_J GC Column: Rt-Alumina ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/16/2020 10:57 Calibration End Date: 05/16/2020 13:08 Calibration ID: 44285

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-495152/6	001F0101.D
Level 2	IC 280-495152/7	001F0201.D
Level 3	IC 280-495152/8	002F0301.D
Level 4	IC 280-495152/9	003F0401.D
Level 5	ICRT 280-495152/10	004F0501.D
Level 6	IC 280-495152/11	005F0601.D
Level 7	IC 280-495152/12	006F0701.D
Level 8	IC 280-495152/13	007F0801.D
Level 9	IC 280-495152/14	009F0901.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	111434 21349465	188199 40706597	324614 256592942	2196261 1008615918	10173489	0.456 146	0.913 292	1.83 1807	14.6 7228	73.0
Ethane	Ave	99432 38849075	237424 74364849	485411	3889050	18547040	0.855 274	1.71 547	3.42	27.4	137
Ethylene	Ave	75924 29199476	180285 55873290	366405	2933658	14030935	0.798 255	1.60 511	3.19	25.5	128
Acetylene	Ave	24105 8293493	52951 15971476	105983	837564	3792795	0.741 237	1.48 474	2.96	23.7	119

Curve Type Legend:

Ave = Average
Lin2 = Linear 1/conc^2

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\001F0101.D
Lims ID: IC L1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 16-May-2020 10:57:08 ALS Bottle#: 1 Worklist Smp#: 6
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: IC 1
Operator ID: MEIERG Instrument ID: VGC_J
Sublist: chrom-RSK_J*sub5

Method: \\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 17-May-2020 08:59:46 Calib Date: 16-May-2020 13:08:56
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\009F0901.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: CTX0312

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Methane							
1	1.250	1.250	0.000	111434	0.4563	0.4358	
2	3.180	3.172	0.008	47082	0.4563	0.4350	
						RPD = 0.19	
3 Ethane							Ma
1	1.513	1.511	0.002	99432	0.8553	0.7309	M
2	4.310	4.305	0.005	45402	0.8553	0.7436	a
						RPD = 1.73	
4 Ethylene							
1	1.795	1.793	0.002	75924	0.7979	0.6889	
2	4.038	4.032	0.006	33393	0.7979	0.6966	
						RPD = 1.12	
5 Propane							
1	2.535	2.528	0.007	162619	1.25	1.14	
2	5.932	5.928	0.004	68003	1.25	1.09	
						RPD = 4.45	
6 Acetylene							M
1	4.048	4.015	0.033	24105	0.7408	0.7029	
2	4.142	4.137	0.005	13119	0.7408	0.6072	M
						RPD = 14.61	
7 Butane							Ma
1	4.315	4.286	0.029	175523	1.65	1.66	M
2	7.382	7.375	0.007	85626	1.65	1.67	a
						RPD = 0.36	
8 isobutylene							
1	5.190	5.163	0.027	120280	1.60	1.35	
2	7.232	7.227	0.005	54094	1.60	1.30	
						RPD = 3.46	

QC Flag Legend

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

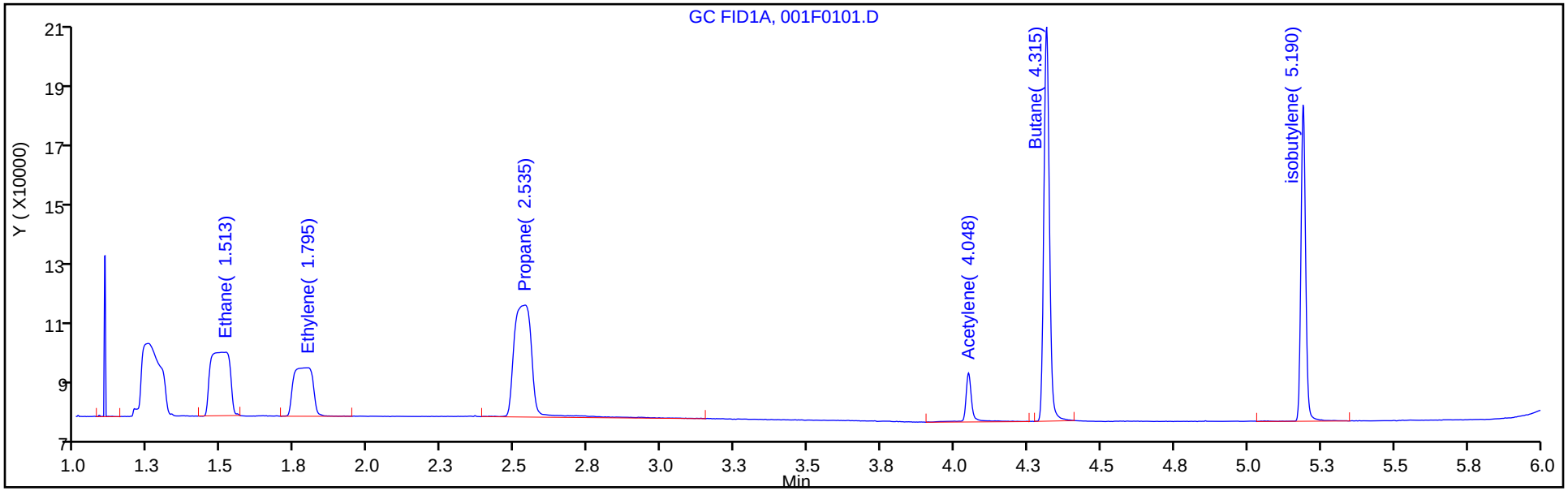
RSK7gasMathes_00031 Amount Added: 1.25 Units: uL

Report Date: 17-May-2020 08:59:46 Chrom Revision: 2.3 05-May-2020 17:48:18

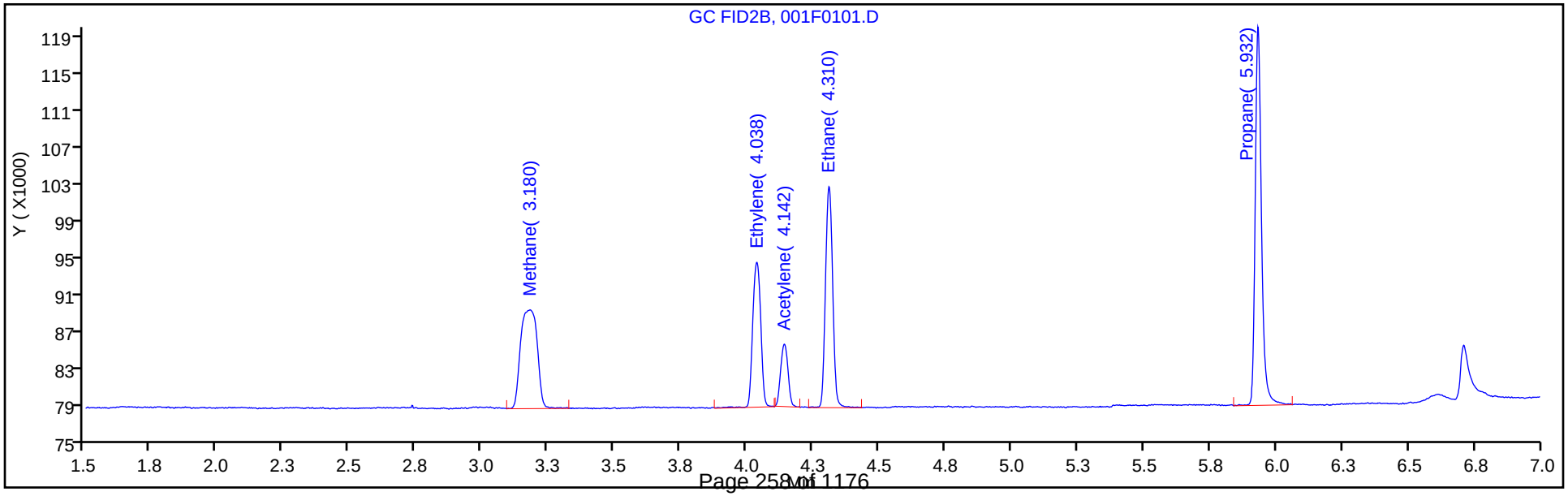
Eurofins TestAmerica, Denver

Data File:	\\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\001F0101.D				
Injection Date:	16-May-2020 10:57:08	Instrument ID:	VGC_J	Operator ID:	MEIERG
Lims ID:	IC L1			Worklist Smp#:	6
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



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

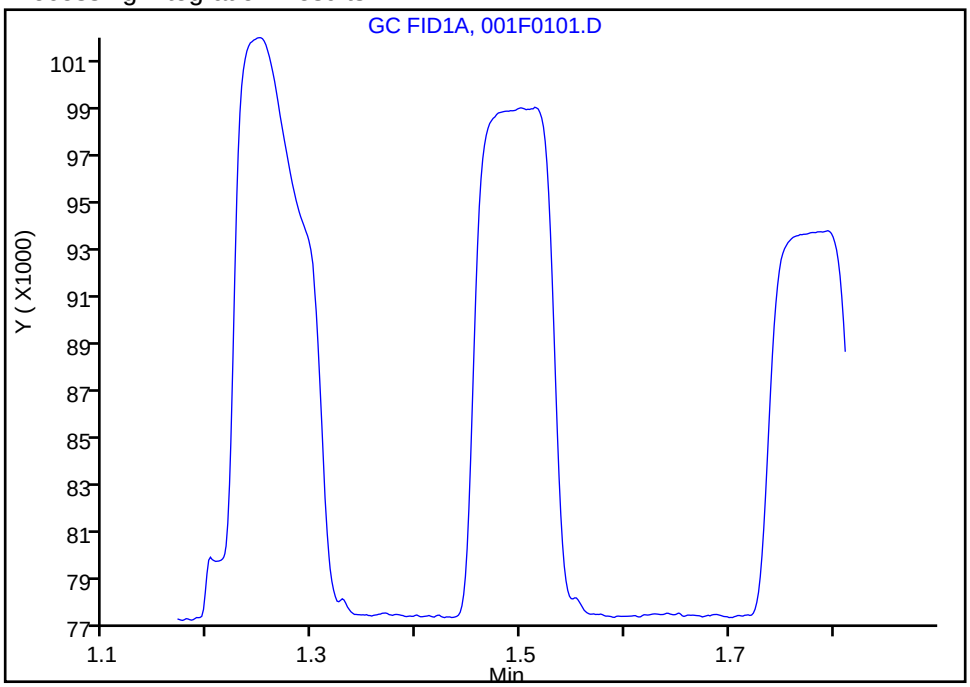
Data File:	\\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\001F0101.D				
Injection Date:	16-May-2020 10:57:08	Instrument ID:	VGC_J		
Lims ID:	IC L1				
Client ID:					
Operator ID:	MEIERG	ALS Bottle#:	1	Worklist Smp#:	6
Purge Vol:	18.000 mL	Dil. Factor:	1.0000		
Method:	RSK_J	Limit Group:	GCV - RSK 175		
Column:	Rt-Alumina BOND/KCl (0.53 mm)	Detector	GC FID1A		

3 Ethane, CAS: 74-84-0

Signal: 1

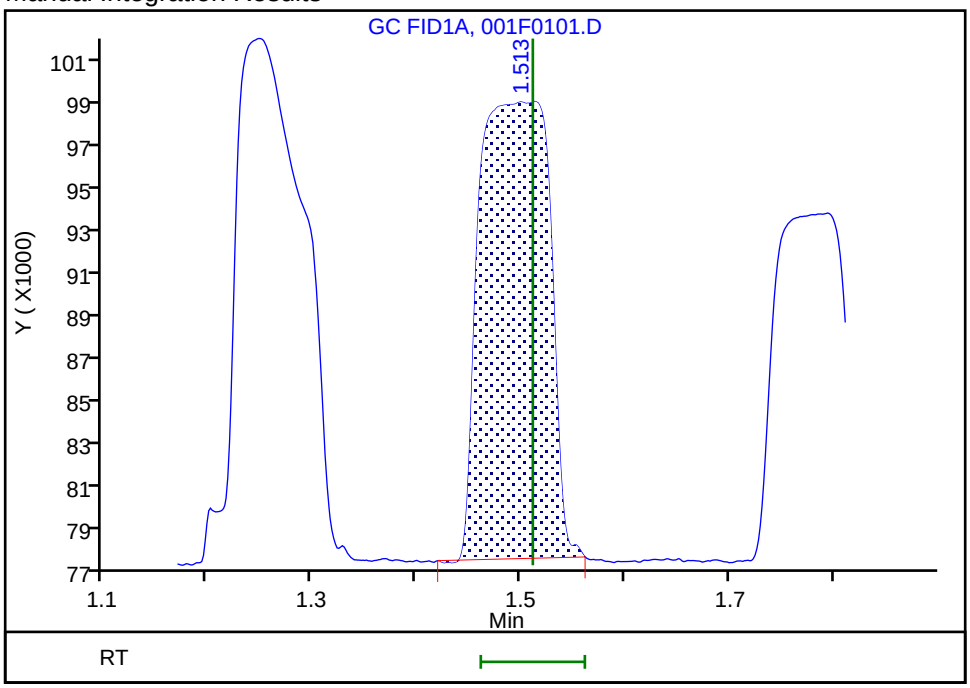
Not Detected
Expected RT: 1.51

Processing Integration Results



Manual Integration Results

RT: 1.51
Area: 99432
Amount: 0.730887
Amount Units: ug/l



Reviewer: meierg, 17-May-2020 06:37:33
Audit Action: Manually Integrated Audit Reason: Peak not integrated

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\001F0201.D
Lims ID: IC L2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 16-May-2020 11:13:34 ALS Bottle#: 1 Worklist Smp#: 7
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: IC 2
Operator ID: MEIERG Instrument ID: VGC_J
Sublist: chrom-RSK_J*sub5

Method: \\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 17-May-2020 08:59:46 Calib Date: 16-May-2020 13:08:56
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\009F0901.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: CTX0312

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Methane							
1	1.251	1.250	0.001	188199	0.9125	0.9699	
2	3.171	3.172	-0.001	83897	0.9125	0.9729	
						RPD = 0.31	
3 Ethane							
1	1.514	1.511	0.003	237424	1.71	1.75	
2	4.306	4.305	0.001	106974	1.71	1.75	
						RPD = 0.39	
4 Ethylene							M
1	1.788	1.793	-0.005	180285	1.60	1.64	
2	4.031	4.032	-0.001	77235	1.60	1.61	M
						RPD = 1.51	
5 Propane							
1	2.534	2.528	0.006	366612	2.51	2.56	
2	5.933	5.928	0.005	156230	2.51	2.49	
						RPD = 2.56	
6 Acetylene							Ma
1	4.044	4.015	0.029	52951	1.48	1.54	a
2	4.136	4.137	-0.001	31554	1.48	1.46	M
						RPD = 5.56	
7 Butane							
1	4.311	4.286	0.025	384054	3.31	3.24	
2	7.381	7.375	0.006	184917	3.31	3.22	
						RPD = 0.55	
8 isobutylene							
1	5.186	5.163	0.023	261296	3.19	2.93	
2	7.231	7.227	0.004	119878	3.19	2.88	
						RPD = 1.46	

QC Flag Legend

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

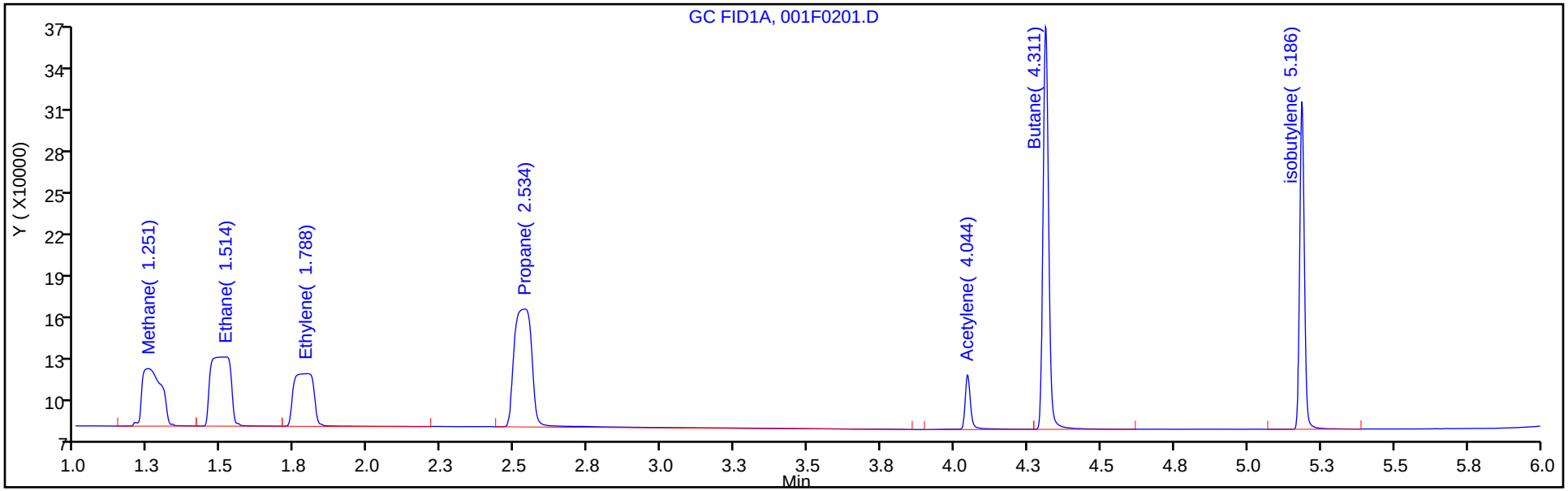
RSK7gasMathes_00031 Amount Added: 2.50 Units: uL

Report Date: 17-May-2020 08:59:47 Chrom Revision: 2.3 05-May-2020 17:48:18

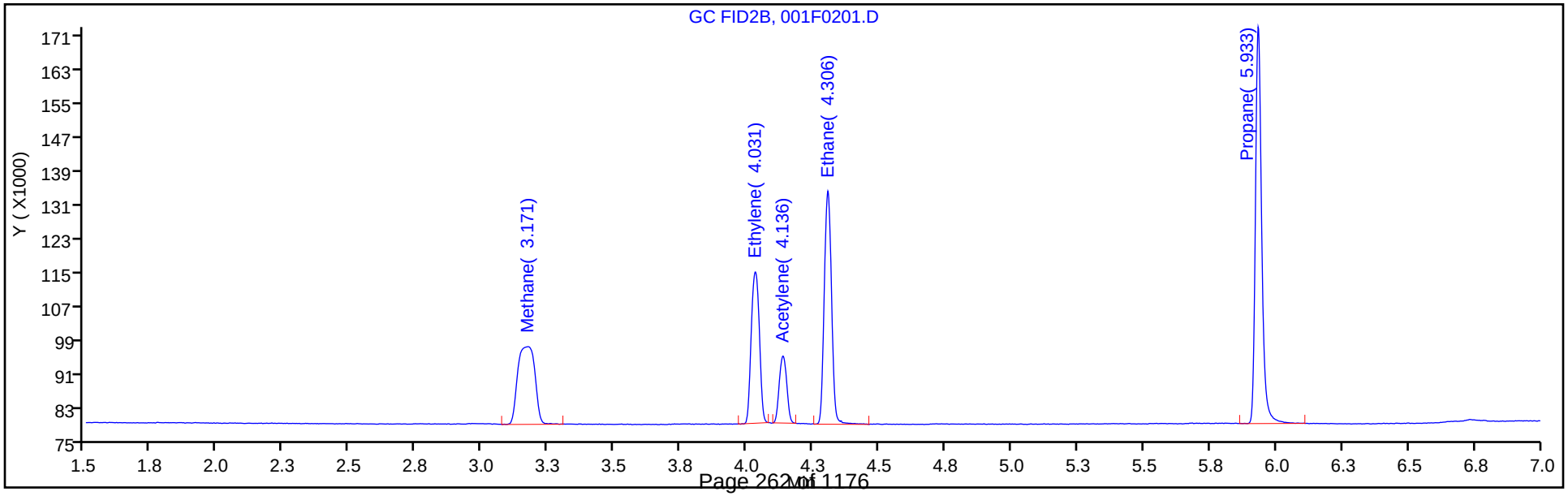
Eurofins TestAmerica, Denver

Data File:	\\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\001F0201.D				
Injection Date:	16-May-2020 11:13:34	Instrument ID:	VGC_J	Operator ID:	MEIERG
Lims ID:	IC L2			Worklist Smp#:	7
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



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

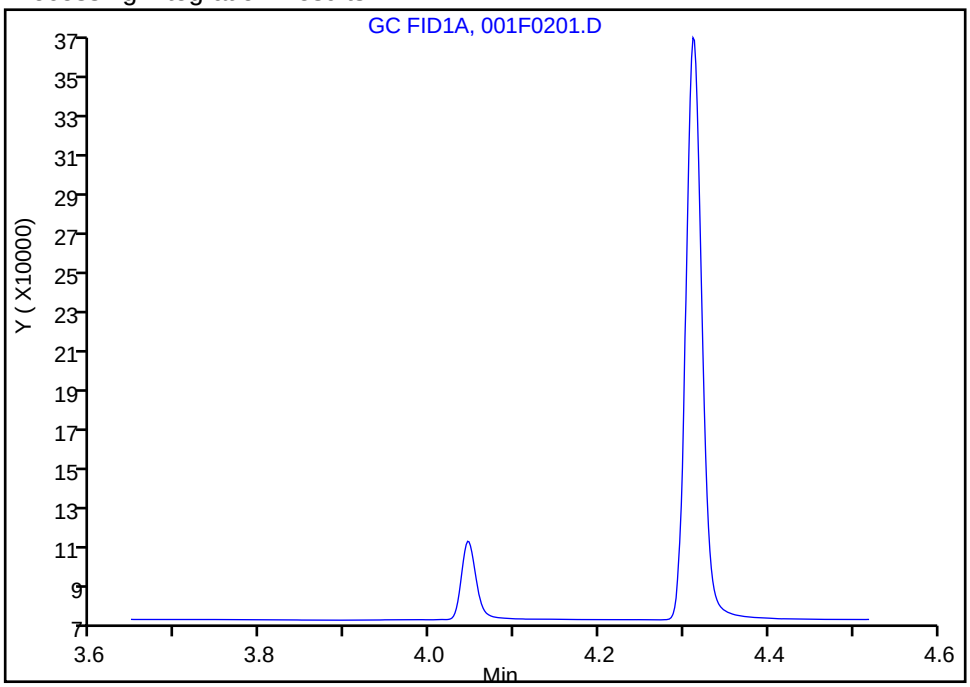
Data File:	\\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\001F0201.D				
Injection Date:	16-May-2020 11:13:34	Instrument ID:	VGC_J		
Lims ID:	IC L2				
Client ID:					
Operator ID:	MEIERG	ALS Bottle#:	1	Worklist Smp#:	7
Purge Vol:	18.000 mL	Dil. Factor:	1.0000		
Method:	RSK_J	Limit Group:	GCV - RSK 175		
Column:	Rt-Alumina BOND/KCl (0.53 mm)	Detector	GC FID1A		

6 Acetylene, CAS: 74-86-2

Signal: 1

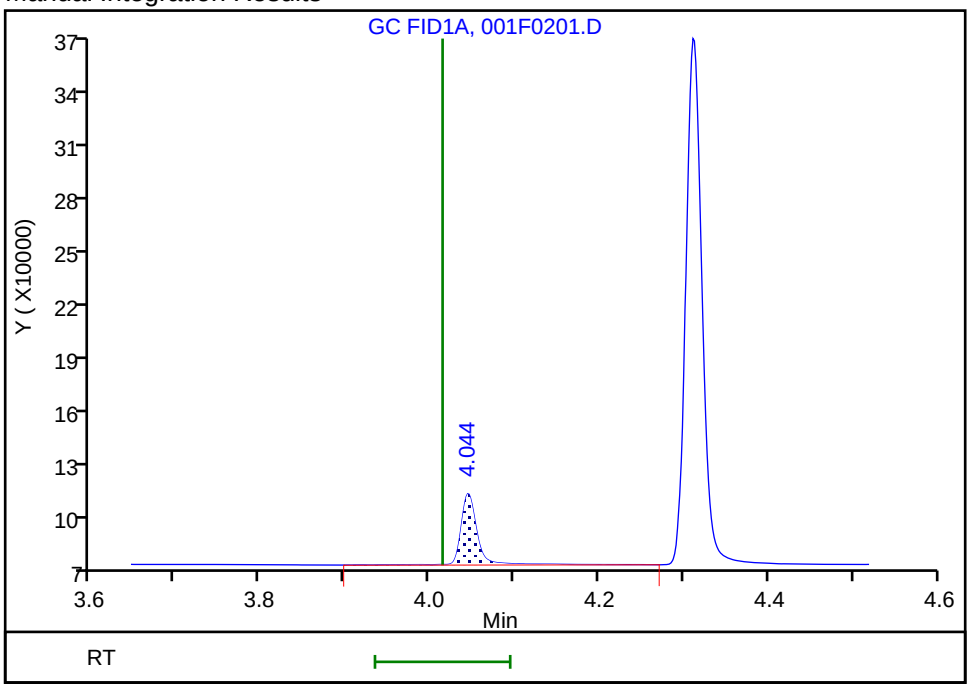
Processing Integration Results

RT: 4.01
Area: 0
Amount: 1.109766
Amount Units: ug/l



Manual Integration Results

RT: 4.04
Area: 52951
Amount: 1.544019
Amount Units: ug/l



Reviewer: meierg, 17-May-2020 06:43:56

Audit Action: Assigned Compound ID Audit Reason: Peak not integrated

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\002F0301.D
Lims ID: IC L3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 16-May-2020 11:30:01 ALS Bottle#: 2 Worklist Smp#: 8
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: IC 3
Operator ID: MEIERG Instrument ID: VGC_J
Sublist: chrom-RSK_J*sub5

Method: \\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 17-May-2020 08:59:47 Calib Date: 16-May-2020 13:08:56
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\009F0901.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: CTX0312

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Methane							
1	1.248	1.250	-0.002	324614	1.83	1.92	
2	3.169	3.172	-0.003	148689	1.83	1.92	
						RPD = 0.02	
3 Ethane							
1	1.511	1.511	0.000	485411	3.42	3.57	
2	4.306	4.305	0.001	217520	3.42	3.56	
						RPD = 0.15	
4 Ethylene							M
1	1.791	1.793	-0.002	366405	3.19	3.32	
2	4.031	4.032	-0.001	157852	3.19	3.29	M
						RPD = 0.95	
5 Propane							
1	2.531	2.528	0.003	754733	5.02	5.27	
2	5.933	5.928	0.005	326853	5.02	5.22	
						RPD = 0.95	
6 Acetylene							Ma
1	4.043	4.015	0.028	105983	2.96	3.09	a
2	4.136	4.137	-0.001	66161	2.96	3.06	M
						RPD = 0.92	
7 Butane							
1	4.311	4.286	0.025	850630	6.61	6.77	
2	7.379	7.375	0.004	410288	6.61	6.75	
						RPD = 0.31	
8 isobutylene							
1	5.184	5.163	0.021	571566	6.38	6.40	
2	7.229	7.227	0.002	264983	6.38	6.38	
						RPD = 0.42	

QC Flag Legend

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

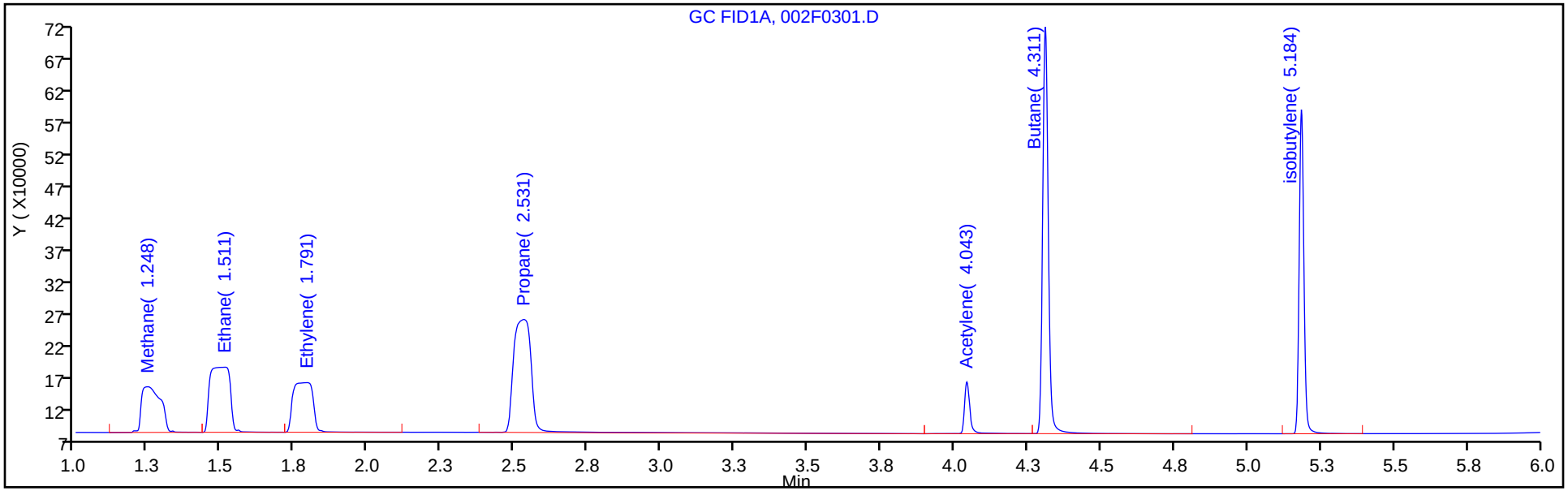
RSK7gasMathes_00031 Amount Added: 5.00 Units: uL

Report Date: 17-May-2020 08:59:47 Chrom Revision: 2.3 05-May-2020 17:48:18

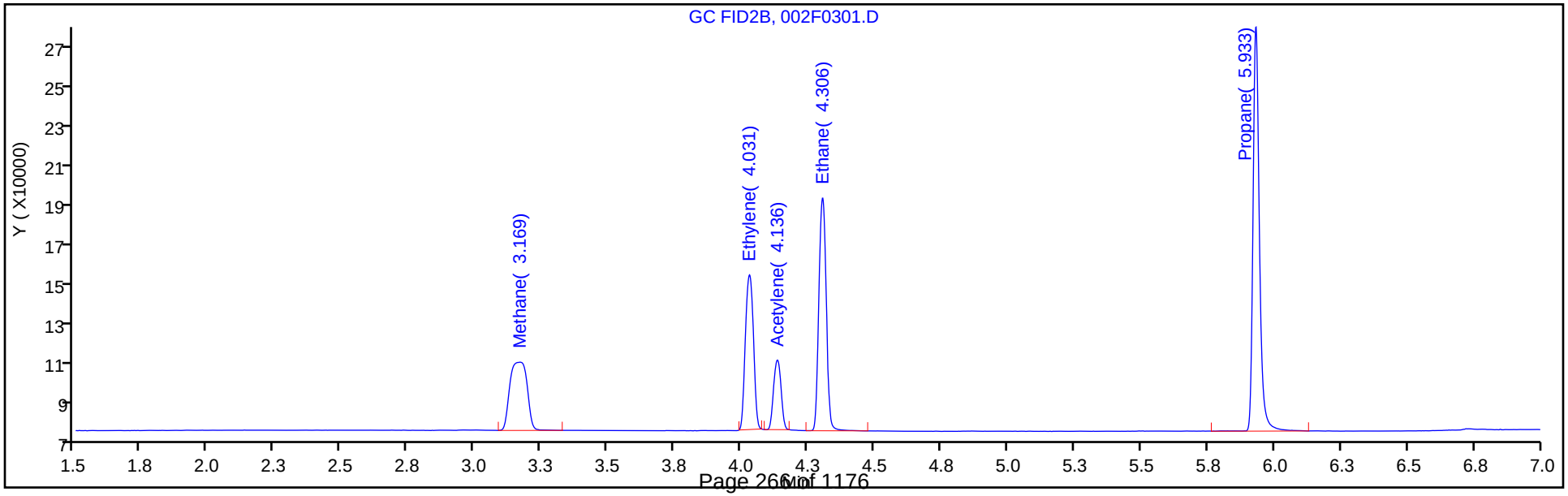
Eurofins TestAmerica, Denver

Data File:	\\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\002F0301.D				
Injection Date:	16-May-2020 11:30:01	Instrument ID:	VGC_J	Operator ID:	MEIERG
Lims ID:	IC L3			Worklist Smp#:	8
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



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

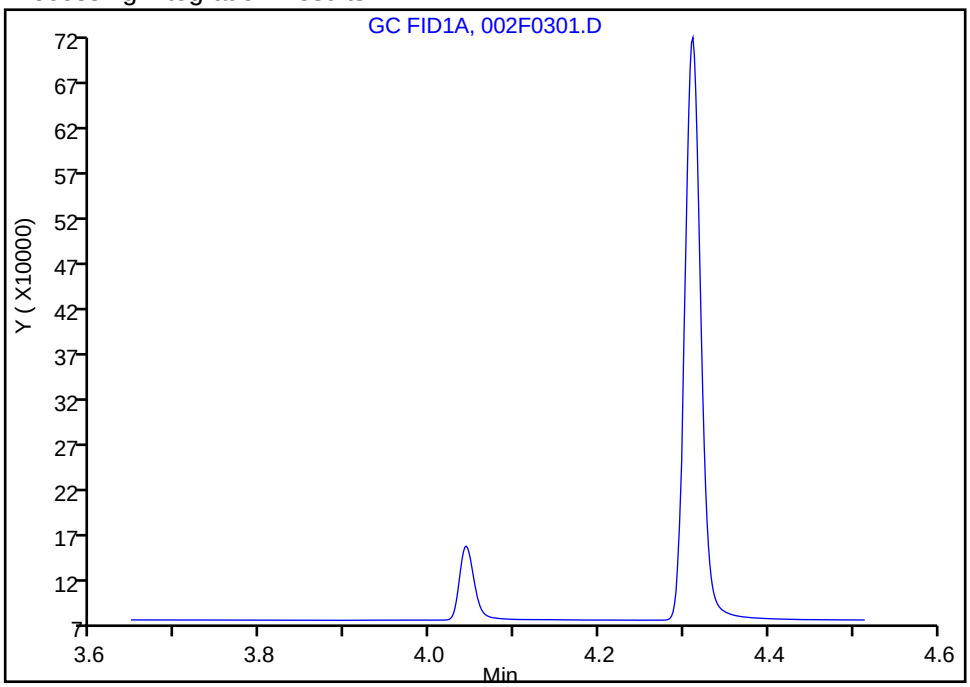
Data File:	\\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\002F0301.D				
Injection Date:	16-May-2020 11:30:01	Instrument ID:	VGC_J		
Lims ID:	IC L3				
Client ID:					
Operator ID:	MEIERG	ALS Bottle#:	2	Worklist Smp#:	8
Purge Vol:	18.000 mL	Dil. Factor:	1.0000		
Method:	RSK_J	Limit Group:	GCV - RSK 175		
Column:	Rt-Alumina BOND/KCl (0.53 mm)	Detector	GC FID1A		

6 Acetylene, CAS: 74-86-2

Signal: 1

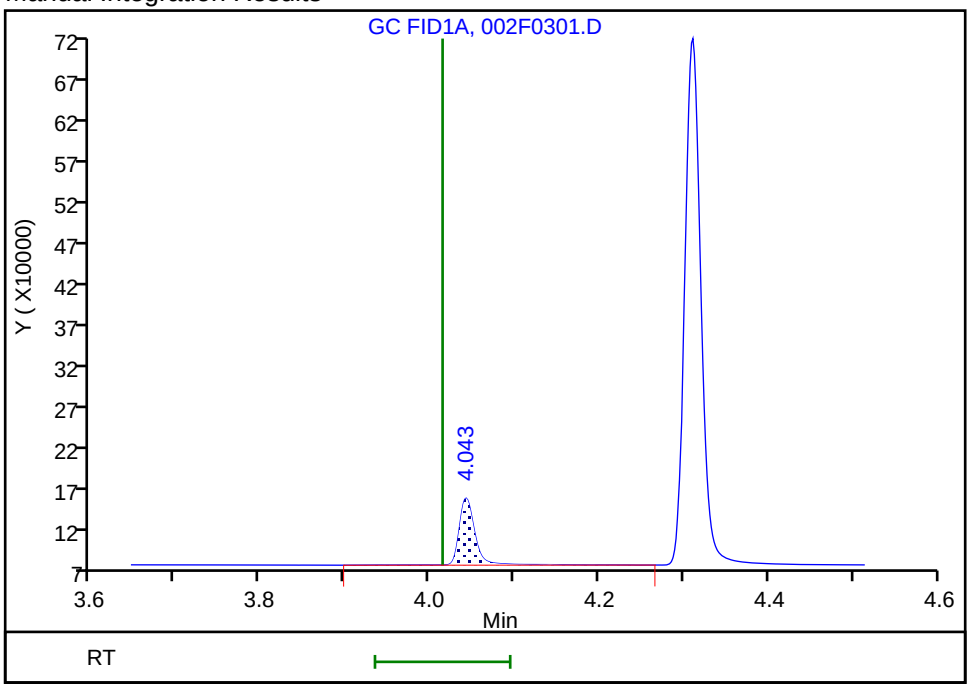
Processing Integration Results

RT: 4.01
Area: 0
Amount: 2.336755
Amount Units: ug/l



Manual Integration Results

RT: 4.04
Area: 105983
Amount: 3.090400
Amount Units: ug/l



Reviewer: meierg, 17-May-2020 06:45:26
Audit Action: Assigned Compound ID Audit Reason: Peak not integrated

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\003F0401.D
Lims ID: IC L4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 16-May-2020 11:46:30 ALS Bottle#: 3 Worklist Smp#: 9
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: IC 4
Operator ID: MEIERG Instrument ID: VGC_J
Sublist: chrom-RSK_J*sub5

Method: \\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 17-May-2020 08:59:48 Calib Date: 16-May-2020 13:08:56
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\009F0901.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: CTX0312

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Methane							
1	1.249	1.250	-0.001	2196261	14.6	14.9	
2	3.171	3.172	-0.001	1043265	14.6	15.0	
						RPD = 0.32	
3 Ethane							
1	1.510	1.511	-0.001	3889050	27.4	28.6	
2	4.306	4.305	0.001	1745027	27.4	28.6	
						RPD = 0.02	
4 Ethylene							
1	1.792	1.793	-0.001	2933658	25.5	26.6	
2	4.032	4.032	0.000	1284690	25.5	26.8	
						RPD = 0.69	
5 Propane							
1	2.534	2.528	0.006	5864755	40.1	40.9	
2	5.932	5.928	0.004	2613101	40.1	41.7	
						RPD = 1.89	
6 Acetylene							M
1	4.034	4.015	0.019	837564	23.7	24.4	
2	4.136	4.137	-0.001	545422	23.7	25.2	M
						RPD = 3.31	
7 Butane							
1	4.304	4.286	0.018	6888912	52.9	52.5	
2	7.381	7.375	0.006	3316499	52.9	52.3	
						RPD = 0.43	
8 isobutylene							
1	5.179	5.163	0.016	4611649	51.1	51.7	
2	7.231	7.227	0.004	2147651	51.1	51.7	
						RPD = 0.03	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

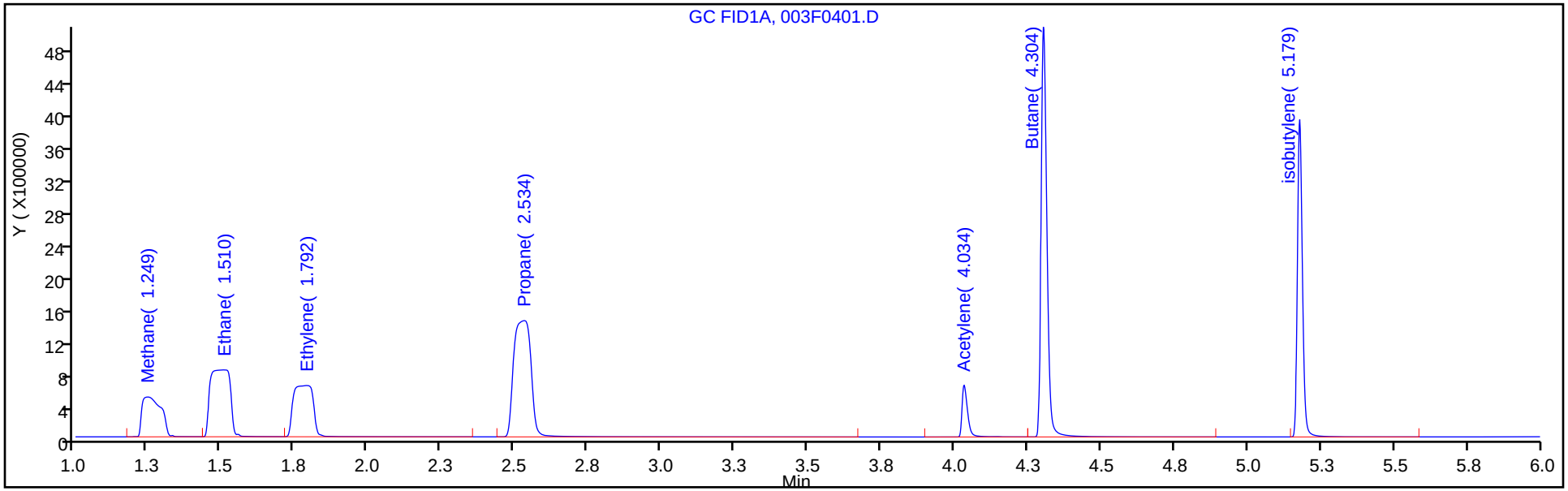
RSK7gasMathes_00031 Amount Added: 40.00 Units: uL

Report Date: 17-May-2020 08:59:48 Chrom Revision: 2.3 05-May-2020 17:48:18

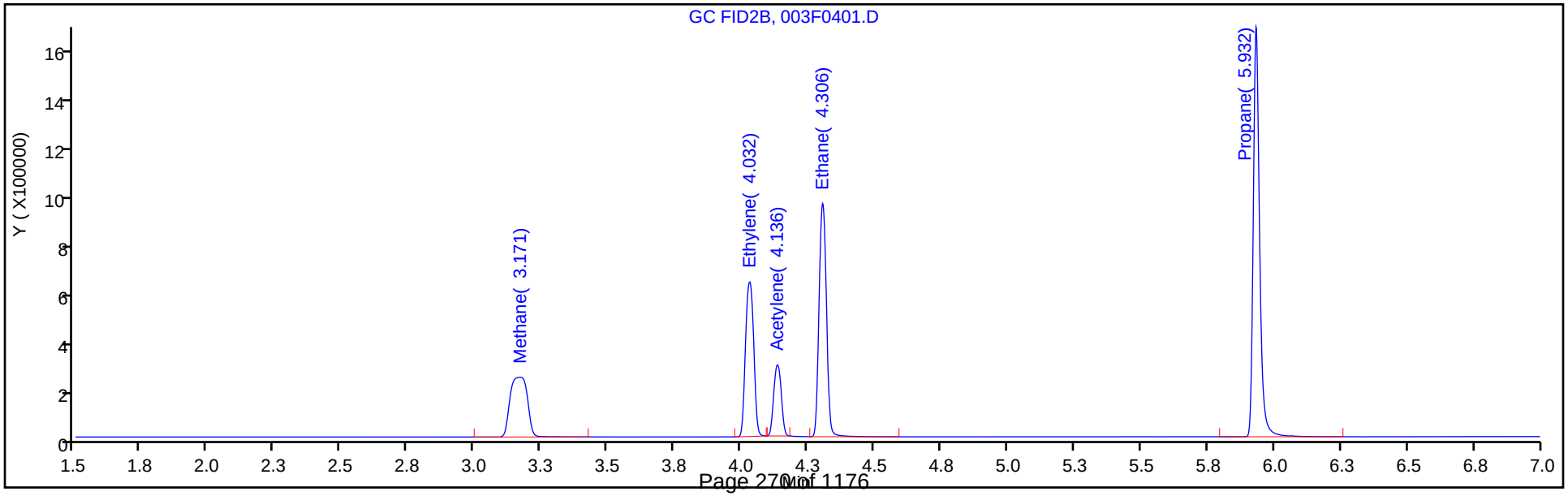
Eurofins TestAmerica, Denver

Data File:	\\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\003F0401.D				
Injection Date:	16-May-2020 11:46:30	Instrument ID:	VGC_J	Operator ID:	MEIERG
Lims ID:	IC L4			Worklist Smp#:	9
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



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\004F0501.D
Lims ID: ICRT L5
Client ID:
Sample Type: ICRT Calib Level: 5
Inject. Date: 16-May-2020 12:02:59 ALS Bottle#: 4 Worklist Smp#: 10
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: ICRT 5
Operator ID: MEIERG Instrument ID: VGC_J
Sublist: chrom-RSK_J*sub5

Method: \\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 17-May-2020 08:59:48 Calib Date: 16-May-2020 13:08:56
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\009F0901.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: CTX0312

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Methane							
1	1.250	1.250	0.000	10173489	73.0	70.4	
2	3.172	3.172	0.000	4836394	73.0	70.4	
						RPD = 0.05	
3 Ethane							
1	1.511	1.511	0.000	18547040	136.9	136.3	
2	4.305	4.305	0.000	8282362	136.9	135.7	
						RPD = 0.50	
4 Ethylene							M
1	1.793	1.793	0.000	14030935	127.7	127.3	
2	4.032	4.032	0.000	6120221	127.7	127.7	M
						RPD = 0.29	
5 Propane							
1	2.528	2.528	0.000	28325635	200.7	197.7	
2	5.928	5.928	0.000	12604888	200.7	201.3	
						RPD = 1.77	
6 Acetylene							Ma
1	4.015	4.015	0.000	3792795	118.5	110.6	M
2	4.137	4.137	0.000	2629705	118.5	121.7	M
						RPD = 9.57	
7 Butane							Ma
1	4.286	4.286	0.000	34343170	264.5	260.4	M
2	7.375	7.375	0.000	16648646	264.5	261.1	a
						RPD = 0.27	
8 isobutylene							
1	5.163	5.163	0.000	23123734	255.4	259.0	
2	7.227	7.227	0.000	10785387	255.4	259.5	
						RPD = 0.19	

QC Flag Legend

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

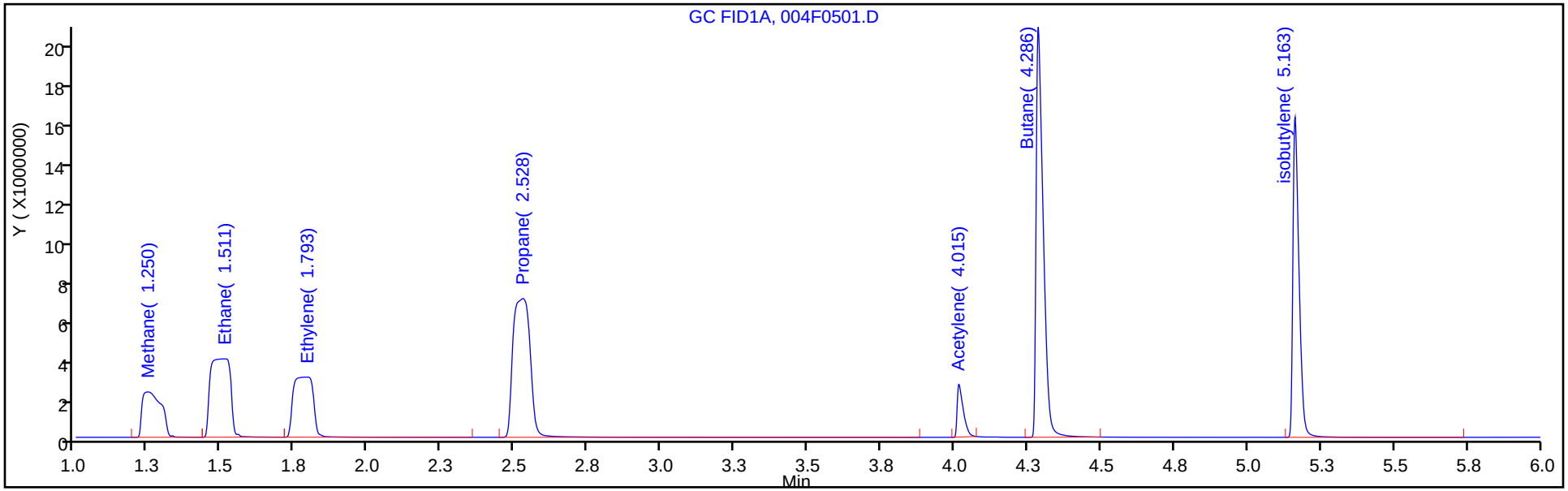
RSK7gasMathes_00031 Amount Added: 200.00 Units: uL

Report Date: 17-May-2020 08:59:48 Chrom Revision: 2.3 05-May-2020 17:48:18

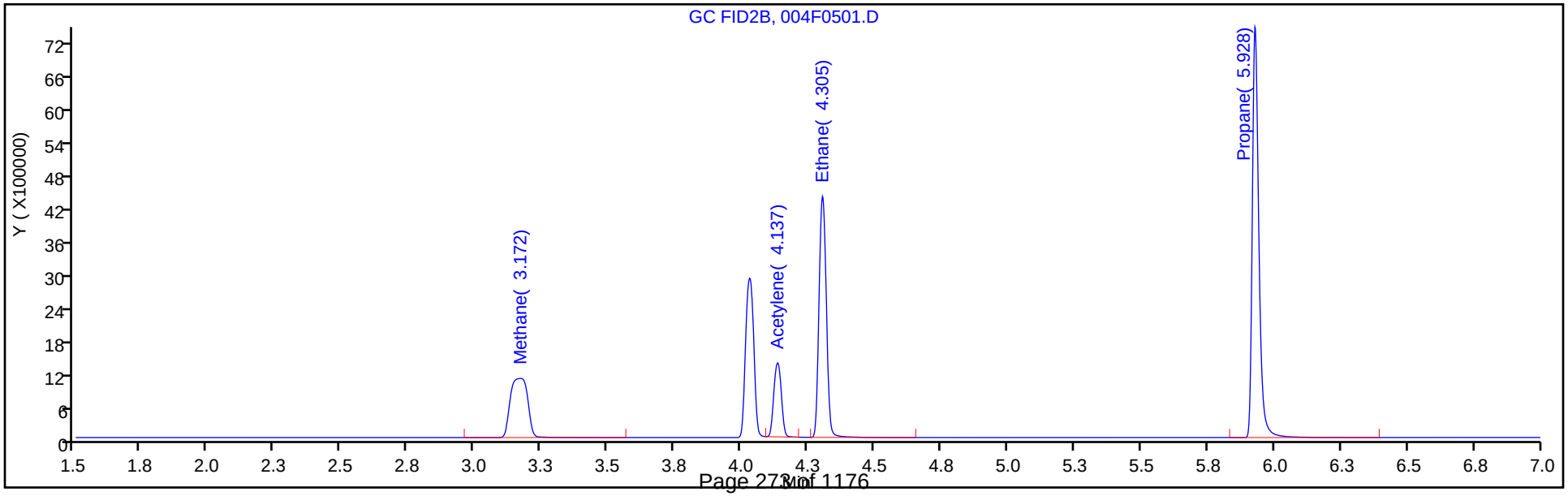
Eurofins TestAmerica, Denver

Data File:	\\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\004F0501.D				
Injection Date:	16-May-2020 12:02:59	Instrument ID:	VGC_J	Operator ID:	MEIERG
Lims ID:	ICRT L5			Worklist Smp#:	10
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

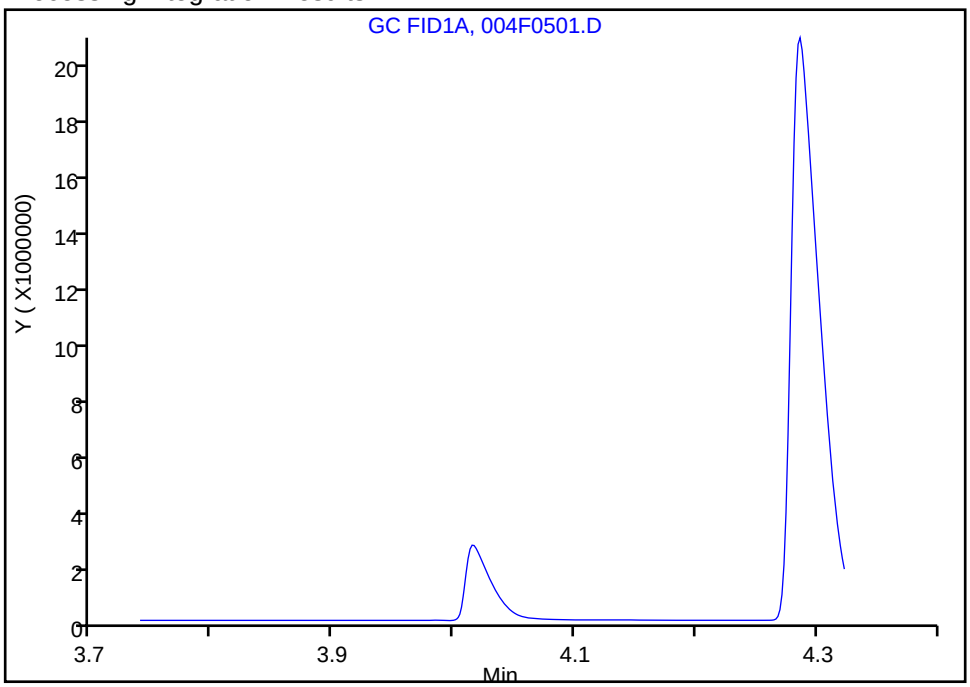
Data File:	\\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\004F0501.D				
Injection Date:	16-May-2020 12:02:59	Instrument ID:	VGC_J		
Lims ID:	ICRT L5				
Client ID:					
Operator ID:	MEIERG	ALS Bottle#:	4	Worklist Smp#:	10
Purge Vol:	18.000 mL	Dil. Factor:	1.0000		
Method:	RSK_J	Limit Group:	GCV - RSK 175		
Column:	Rt-Alumina BOND/KCl (0.53 mm)	Detector	GC FID1A		

6 Acetylene, CAS: 74-86-2

Signal: 1

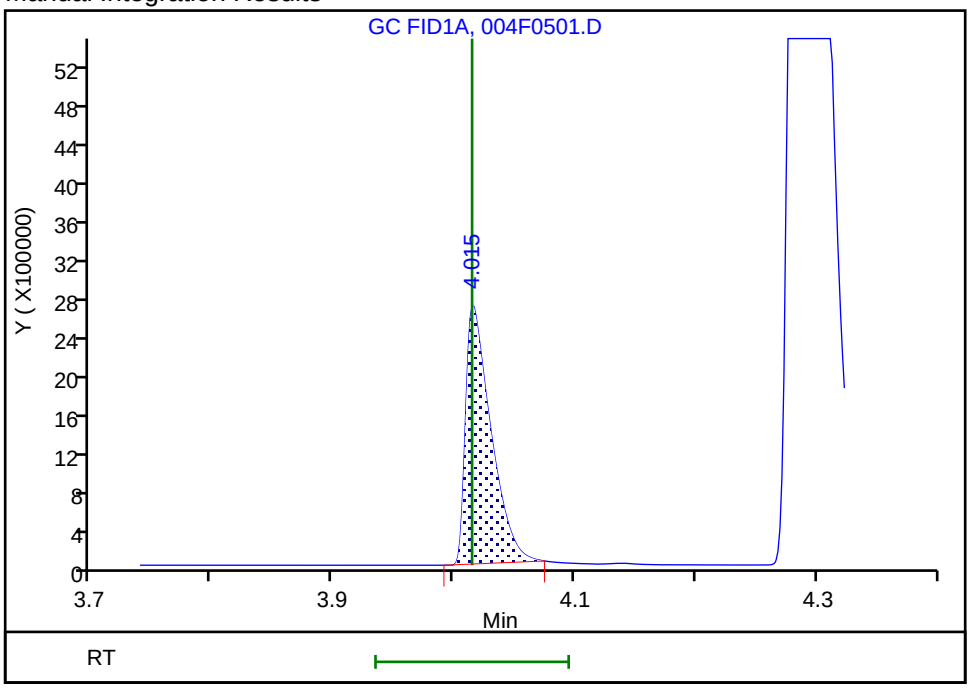
Processing Integration Results

RT: 4.01
Area: 0
Amount: 70.054658
Amount Units: ug/l



Manual Integration Results

RT: 4.01
Area: 3792795
Amount: 110.5956
Amount Units: ug/l



Reviewer: meierg, 17-May-2020 07:07:53

Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Peak not integrated

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\005F0601.D
Lims ID: IC L6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 16-May-2020 12:19:27 ALS Bottle#: 5 Worklist Smp#: 11
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: IC 6
Operator ID: MEIERG Instrument ID: VGC_J
Sublist: chrom-RSK_J*sub5

Method: \\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 17-May-2020 08:59:49 Calib Date: 16-May-2020 13:08:56
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\009F0901.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: CTX0312

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Methane							
1	1.250	1.250	0.000	21349465	146.0	148.2	
2	3.172	3.172	0.000	10129316	146.0	147.7	
						RPD = 0.31	
3 Ethane							
1	1.512	1.511	0.001	38849075	273.7	285.6	
2	4.306	4.305	0.001	17331467	273.7	283.9	
						RPD = 0.60	
4 Ethylene							
1	1.785	1.793	-0.008	29199476	255.3	264.9	
2	4.032	4.032	0.000	12731776	255.3	265.6	
						RPD = 0.26	
5 Propane							
1	2.522	2.528	-0.006	59231481	401.4	413.5	
2	5.926	5.928	-0.002	26366224	401.4	421.0	
						RPD = 1.80	
6 Acetylene							M
1	4.002	4.015	-0.013	8293493	237.0	241.8	
2	4.137	4.137	0.000	5438964	237.0	251.7	M
						RPD = 4.01	
7 Butane							
1	4.270	4.286	-0.016	71750490	529.0	543.6	
2	7.369	7.375	-0.006	34602301	529.0	542.3	
						RPD = 0.25	
8 isobutylene							Ma
1	5.150	5.163	-0.013	47351348	510.8	530.4	M
2	7.222	7.227	-0.005	22287396	510.8	536.3	a
						RPD = 1.10	

QC Flag Legend

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

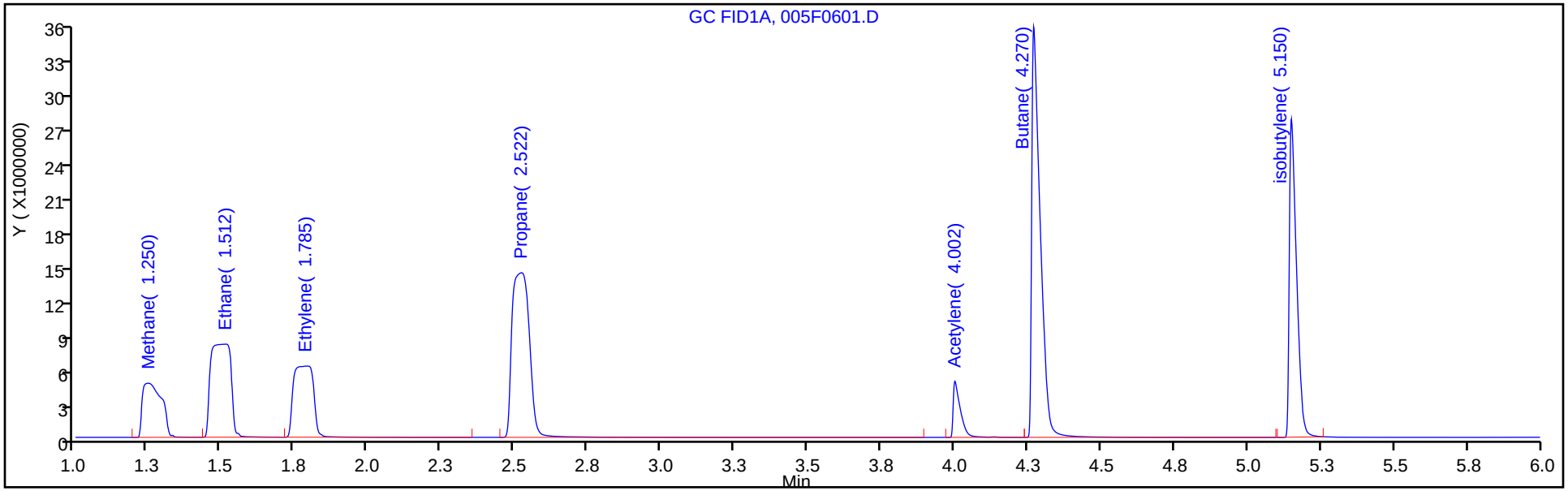
RSK7gasMathes_00031 Amount Added: 400.00 Units: uL

Report Date: 17-May-2020 08:59:49 Chrom Revision: 2.3 05-May-2020 17:48:18

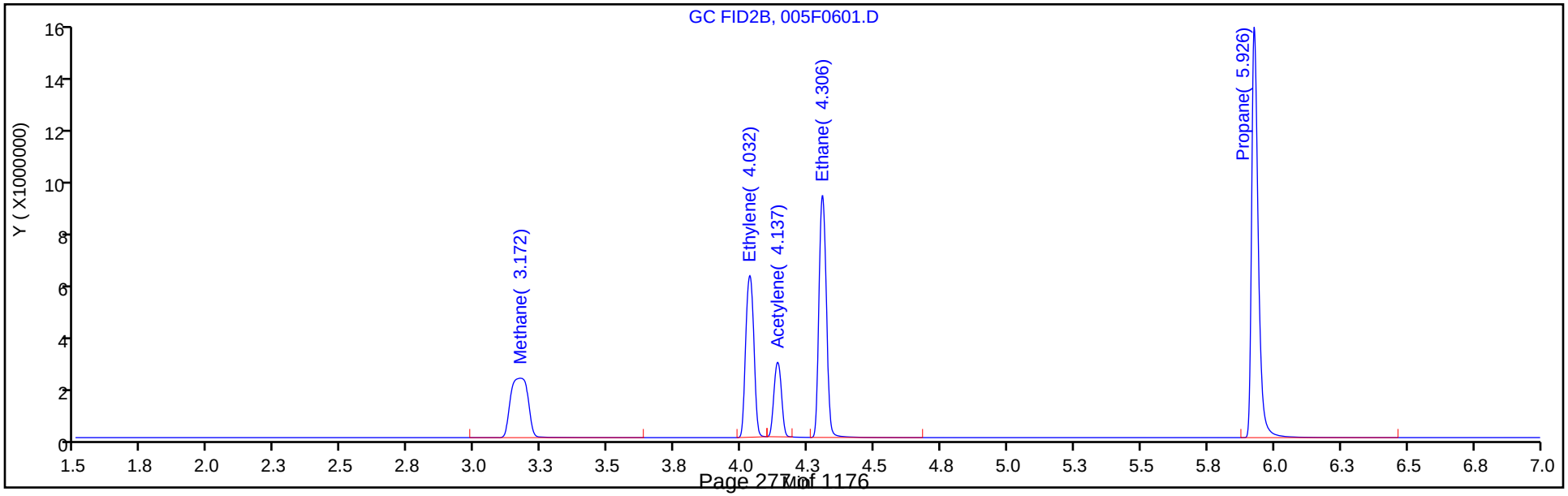
Eurofins TestAmerica, Denver

Data File:	\\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\005F0601.D				
Injection Date:	16-May-2020 12:19:27	Instrument ID:	VGC_J	Operator ID:	MEIERG
Lims ID:	IC L6			Worklist Smp#:	11
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\20200516-91574.b\006F0701.D
Lims ID: IC L7
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 16-May-2020 12:35:56 ALS Bottle#: 6 Worklist Smp#: 12
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: IC 7
Operator ID: MEIERG Instrument ID: VGC_J
Sublist: chrom-RSK_J*sub5

Method: \\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 17-May-2020 08:59:49 Calib Date: 16-May-2020 13:08:56
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\009F0901.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: CTX0312

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Methane							
1	1.243	1.250	-0.007	40706597	292.0	282.9	
2	3.168	3.172	-0.004	19242711	292.0	280.9	
						RPD = 0.71	
3 Ethane							
1	1.508	1.511	-0.003	74364849	547.4	546.6	
2	4.302	4.305	-0.003	33180606	547.4	543.4	
						RPD = 0.58	
4 Ethylene							
1	1.785	1.793	-0.008	55873290	510.7	507.0	
2	4.028	4.032	-0.004	24365732	510.7	508.3	
						RPD = 0.27	
5 Propane							
1	2.510	2.528	-0.018	113846992	802.8	794.7	
2	5.920	5.928	-0.008	50751227	802.8	810.3	
						RPD = 1.94	
6 Acetylene							M
1	3.983	4.015	-0.032	15971476	474.1	465.7	
2	4.135	4.137	-0.002	10316086	474.1	477.5	M
						RPD = 2.49	
7 Butane							
1	4.250	4.286	-0.036	137944774	1058.1	1044.9	
2	7.362	7.375	-0.013	67311032	1058.1	1054.6	
						RPD = 0.92	
8 isobutylene							
1	5.133	5.163	-0.030	92637372	1021.5	1037.7	
2	7.217	7.227	-0.010	43289193	1021.5	1041.6	
						RPD = 0.38	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

RSK7gasMathes_00031 Amount Added: 800.00 Units: uL

Report Date: 17-May-2020 08:59:49 Chrom Revision: 2.3 05-May-2020 17:48:18

Eurofins TestAmerica, Denver

Data File: \\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\006F0701.D

Injection Date: 16-May-2020 12:35:56 Instrument ID: VGC_J Operator ID: MEIERG

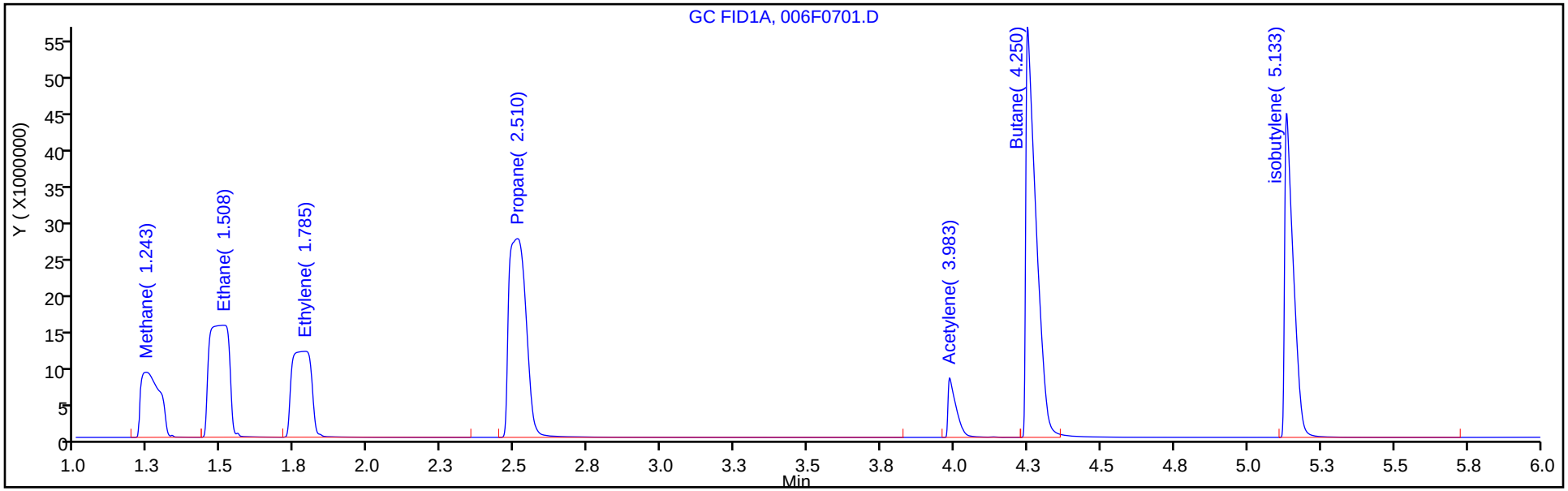
Lims ID: IC L7 Worklist Smp#: 12

Client ID:

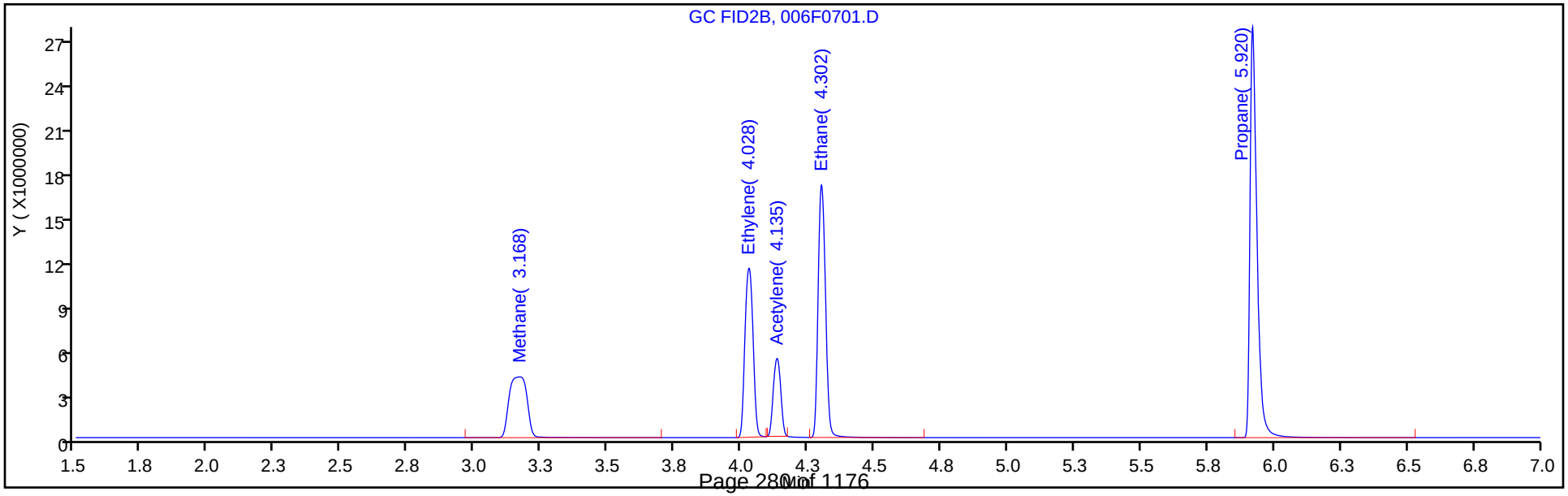
Purge Vol: 18.000 mL Dil. Factor: 1.0000 ALS Bottle#: 6

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



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\007F0801.D				
Lims ID:	IC L8				
Client ID:					
Sample Type:	IC	Calib Level:	8		
Inject. Date:	16-May-2020 12:52:27	ALS Bottle#:	7	Worklist Smp#:	13
Purge Vol:	18.000 mL	Dil. Factor:	1.0000		
Sample Info:	IC 8				
Operator ID:	MEIERG	Instrument ID:	VGC_J		
Sublist:	chrom-RSK_J*sub5				
Method:	\\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\RSK_J.m				
Limit Group:	GCV - RSK 175				
Method Label:	DV-GC-0025: Dissolved Gases in Water by RSK-175				
Last Update:	17-May-2020 08:59:50	Calib Date:	16-May-2020 13:08:56		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\009F0901.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:	CTX0312				

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Methane							
1	1.248	1.250	-0.002	256592942	1806.9	1784.9	
2	3.168	3.172	-0.004	121745624	1806.9	1778.4	
						RPD = 0.36	

Reagents:

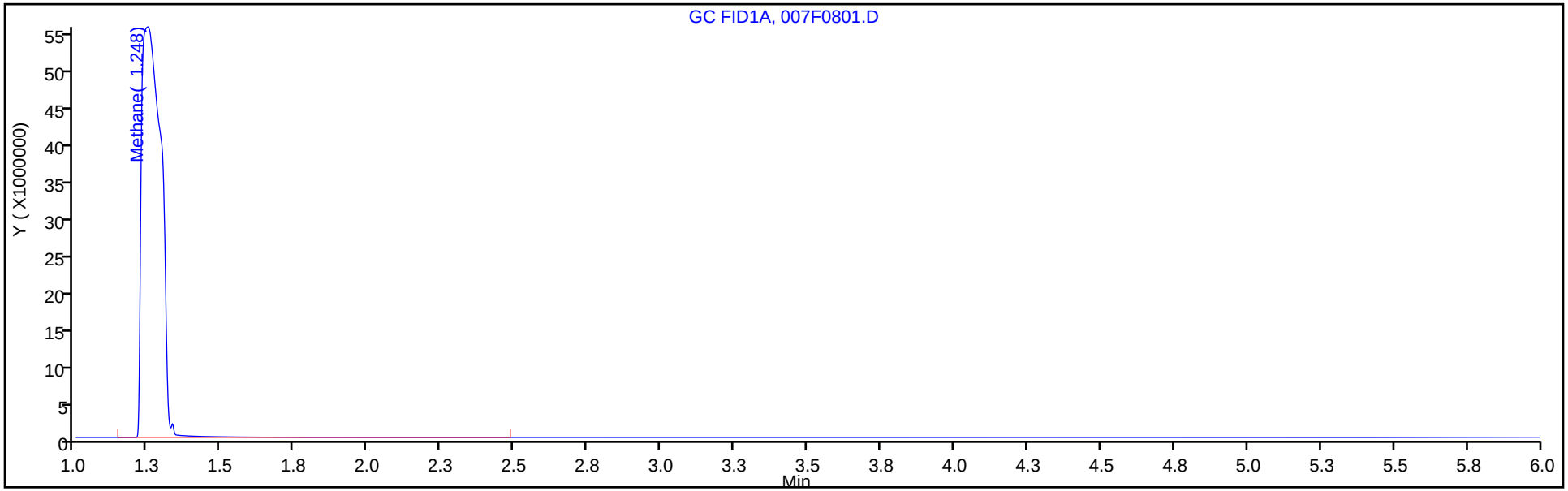
RSK175methane_00010 Amount Added: 50.00 Units: uL

Report Date: 17-May-2020 08:59:50 Chrom Revision: 2.3 05-May-2020 17:48:18

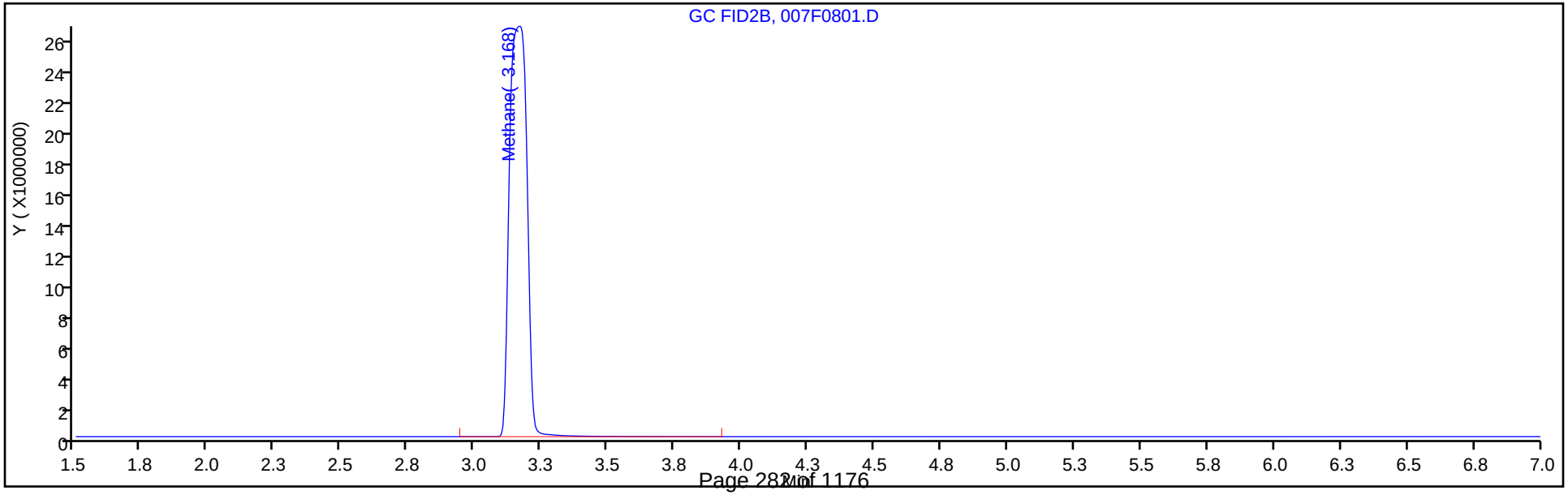
Eurofins TestAmerica, Denver

Data File:	\\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\007F0801.D				
Injection Date:	16-May-2020 12:52:27	Instrument ID:	VGC_J	Operator ID:	MEIERG
Lims ID:	IC L8			Worklist Smp#:	13
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



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\009F0901.D				
Lims ID:	IC L9				
Client ID:					
Sample Type:	IC	Calib Level:	9		
Inject. Date:	16-May-2020 13:08:56	ALS Bottle#:	9	Worklist Smp#:	14
Purge Vol:	18.000 mL	Dil. Factor:	1.0000		
Sample Info:	IC 9				
Operator ID:	MEIERG	Instrument ID:	VGC_J		
Sublist:	chrom-RSK_J*sub5				
Method:	\\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\RSK_J.m				
Limit Group:	GCV - RSK 175				
Method Label:	DV-GC-0025: Dissolved Gases in Water by RSK-175				
Last Update:	17-May-2020 08:59:50	Calib Date:	16-May-2020 13:08:56		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\009F0901.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:	CTX0312				

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Methane							
1	1.245	1.250	-0.005	1008615918	7227.8	7016.9	
2	3.160	3.172	-0.012	484781088	7227.8	7082.2	
						RPD = 0.93	

Reagents:

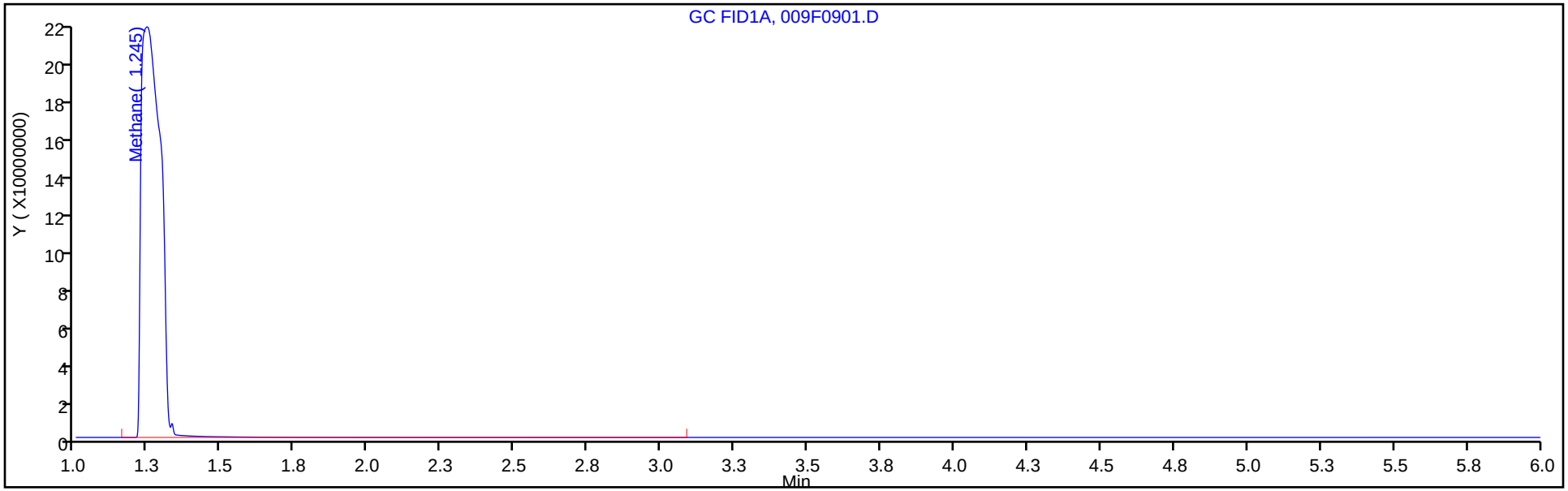
RSK175methane_00010 Amount Added: 200.00 Units: uL

Report Date: 17-May-2020 08:59:50 Chrom Revision: 2.3 05-May-2020 17:48:18

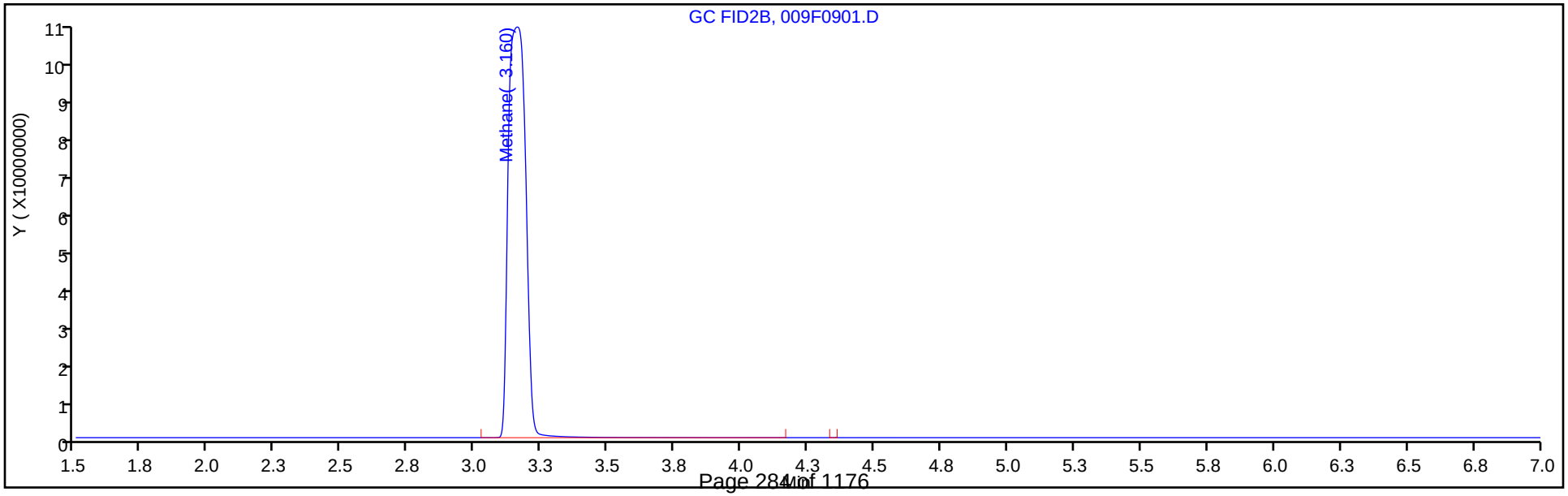
Eurofins TestAmerica, Denver

Data File:	\\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\009F0901.D				
Injection Date:	16-May-2020 13:08:56	Instrument ID:	VGC_J	Operator ID:	MEIERG
Lims ID:	IC L9			Worklist Smp#:	14
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



FORM VI
GC VOA BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1 Analy Batch No.: 495152

SDG No.:

Instrument ID: VGC_J GC Column: HP-Plot Q ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/16/2020 10:57 Calibration End Date: 05/16/2020 13:08 Calibration ID: 44286

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-495152/6	001F0101.D
Level 2	IC 280-495152/7	001F0201.D
Level 3	IC 280-495152/8	002F0301.D
Level 4	IC 280-495152/9	003F0401.D
Level 5	ICRT 280-495152/10	004F0501.D
Level 6	IC 280-495152/11	005F0601.D
Level 7	IC 280-495152/12	006F0701.D
Level 8	IC 280-495152/13	007F0801.D
Level 9	IC 280-495152/14	009F0901.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	3.180	3.171	3.169	3.171	3.172	3.172	3.168	3.168	3.160		3.132 - 3.212	3.170
Ethylene	4.038	4.031	4.031	4.032	4.032	4.032	4.028				3.982 - 4.082	4.032
Acetylene	4.142	4.136	4.136	4.136	4.137	4.137	4.135				4.057 - 4.217	4.137
Ethane	4.310	4.306	4.306	4.306	4.305	4.306	4.302				4.255 - 4.355	4.306

FORM VI
GC VOA BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1 Analy Batch No.: 495152

SDG No.:

Instrument ID: VGC_J GC Column: HP-Plot Q ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/16/2020 10:57 Calibration End Date: 05/16/2020 13:08 Calibration ID: 44286

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-495152/6	001F0101.D
Level 2	IC 280-495152/7	001F0201.D
Level 3	IC 280-495152/8	002F0301.D
Level 4	IC 280-495152/9	003F0401.D
Level 5	ICRT 280-495152/10	004F0501.D
Level 6	IC 280-495152/11	005F0601.D
Level 7	IC 280-495152/12	006F0701.D
Level 8	IC 280-495152/13	007F0801.D
Level 9	IC 280-495152/14	009F0901.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	103189 66249 67072	91938 69376	81470 65897	71453 67377	Lin2	17305.4468	68448.1220							0.9980		0.9900
Ethylene	41850 47939	48398 49863	49458 47714	50314	Ave		47933.7023				6.0		20.0			
Acetylene	17710 22187	21298 22945	22329 21760	23009	Ave		21605.4944				8.4		20.0			
Ethane	53080 60519	62532 63320	63577 60612	63754	Ave		61056.4722				6.2		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 TestAmerica, Denver Job No.: 280-137225-1 Analy Batch No.: 495152

SDG No.:

Instrument ID: VGC_J GC Column: HP-Plot Q ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/16/2020 10:57 Calibration End Date: 05/16/2020 13:08 Calibration ID: 44286

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-495152/6	001F0101.D
Level 2	IC 280-495152/7	001F0201.D
Level 3	IC 280-495152/8	002F0301.D
Level 4	IC 280-495152/9	003F0401.D
Level 5	ICRT 280-495152/10	004F0501.D
Level 6	IC 280-495152/11	005F0601.D
Level 7	IC 280-495152/12	006F0701.D
Level 8	IC 280-495152/13	007F0801.D
Level 9	IC 280-495152/14	009F0901.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	47082 10129316	83897 19242711	148689 121745624	1043265 484781088	4836394	0.456 146	0.913 292	1.83 1807	14.6 7228	73.0
Ethylene	Ave	33393 12731776	77235 24365732	157852	1284690	6120221	0.798 255	1.60 511	3.19	25.5	128
Acetylene	Ave	13119 5438964	31554 10316086	66161	545422	2629705	0.741 237	1.48 474	2.96	23.7	119
Ethane	Ave	45402 17331467	106974 33180606	217520	1745027	8282362	0.855 274	1.71 547	3.42	27.4	137

Curve Type Legend:

Ave = Average
Lin2 = Linear 1/conc^2

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\001F0101.D
Lims ID: IC L1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 16-May-2020 10:57:08 ALS Bottle#: 1 Worklist Smp#: 6
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: IC 1
Operator ID: MEIERG Instrument ID: VGC_J
Sublist: chrom-RSK_J*sub5

Method: \\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 17-May-2020 08:59:46 Calib Date: 16-May-2020 13:08:56
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\009F0901.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: CTX0312

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Methane							
1	1.250	1.250	0.000	111434	0.4563	0.4358	
2	3.180	3.172	0.008	47082	0.4563	0.4350	
						RPD = 0.19	
3 Ethane							Ma
1	1.513	1.511	0.002	99432	0.8553	0.7309	M
2	4.310	4.305	0.005	45402	0.8553	0.7436	a
						RPD = 1.73	
4 Ethylene							
1	1.795	1.793	0.002	75924	0.7979	0.6889	
2	4.038	4.032	0.006	33393	0.7979	0.6966	
						RPD = 1.12	
5 Propane							
1	2.535	2.528	0.007	162619	1.25	1.14	
2	5.932	5.928	0.004	68003	1.25	1.09	
						RPD = 4.45	
6 Acetylene							M
1	4.048	4.015	0.033	24105	0.7408	0.7029	
2	4.142	4.137	0.005	13119	0.7408	0.6072	M
						RPD = 14.61	
7 Butane							Ma
1	4.315	4.286	0.029	175523	1.65	1.66	M
2	7.382	7.375	0.007	85626	1.65	1.67	a
						RPD = 0.36	
8 isobutylene							
1	5.190	5.163	0.027	120280	1.60	1.35	
2	7.232	7.227	0.005	54094	1.60	1.30	
						RPD = 3.46	

QC Flag Legend

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

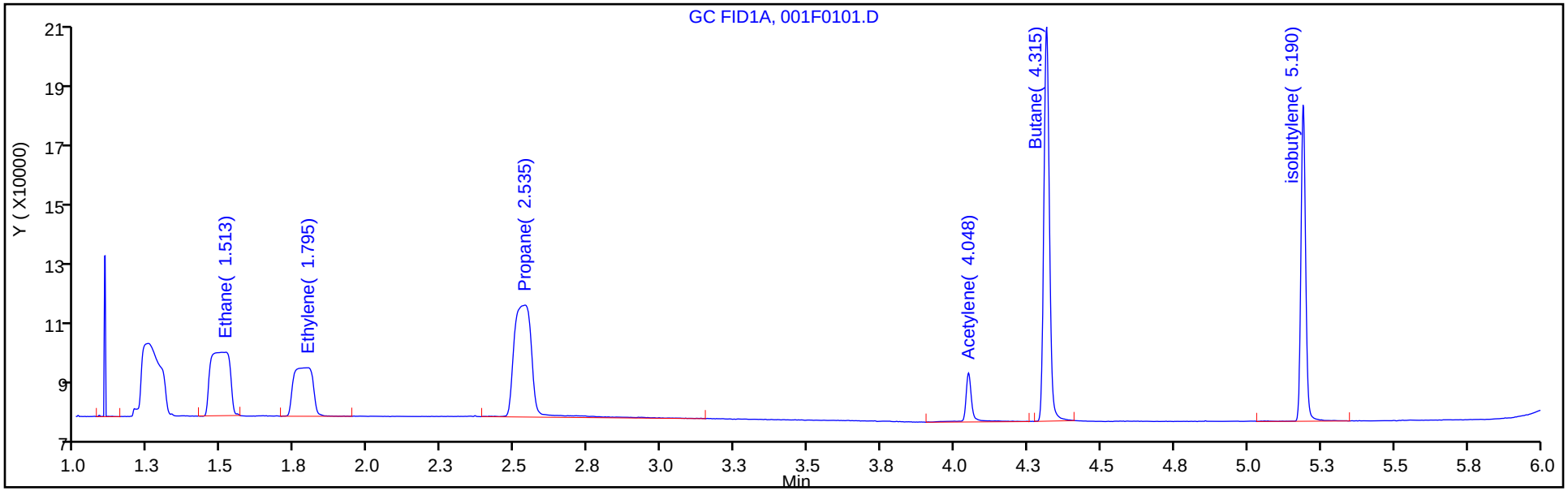
RSK7gasMathes_00031 Amount Added: 1.25 Units: uL

Report Date: 17-May-2020 08:59:46 Chrom Revision: 2.3 05-May-2020 17:48:18

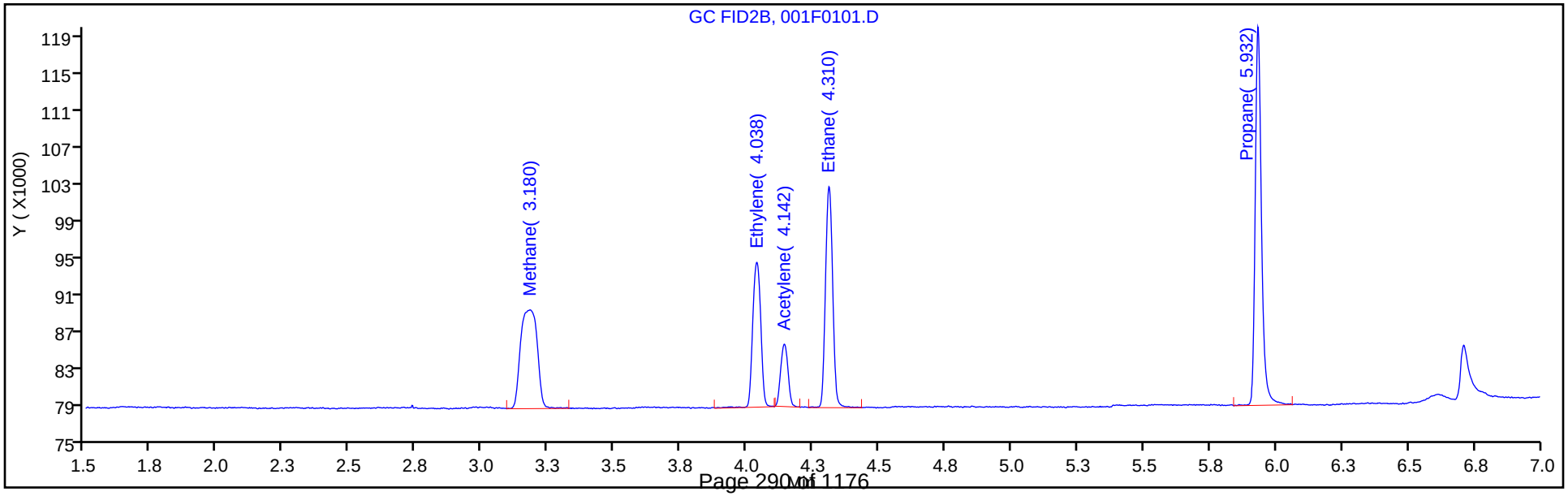
Eurofins TestAmerica, Denver

Data File:	\\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\001F0101.D				
Injection Date:	16-May-2020 10:57:08	Instrument ID:	VGC_J	Operator ID:	MEIERG
Lims ID:	IC L1			Worklist Smp#:	6
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



Eurofins TestAmerica, Denver

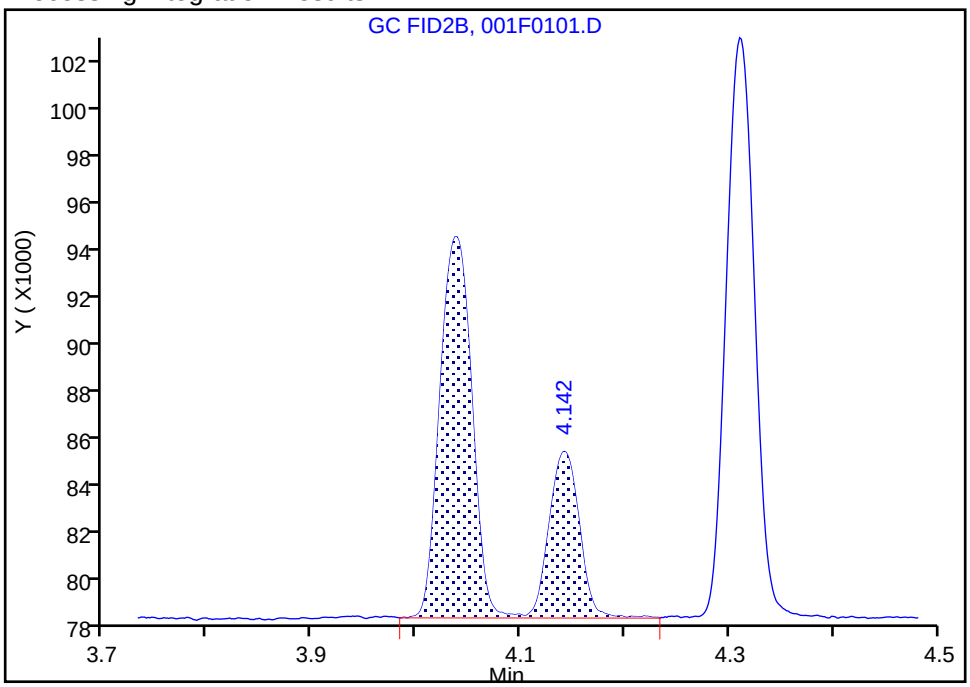
Data File:	\\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\001F0101.D				
Injection Date:	16-May-2020 10:57:08	Instrument ID:	VGC_J		
Lims ID:	IC L1				
Client ID:					
Operator ID:	MEIERG	ALS Bottle#:	1	Worklist Smp#:	6
Purge Vol:	18.000 mL	Dil. Factor:	1.0000		
Method:	RSK_J	Limit Group:	GCV - RSK 175		
Column:	HP-PLOT/Q (0.53 mm)	Detector	GC FID2B		

6 Acetylene, CAS: 74-86-2

Signal: 2

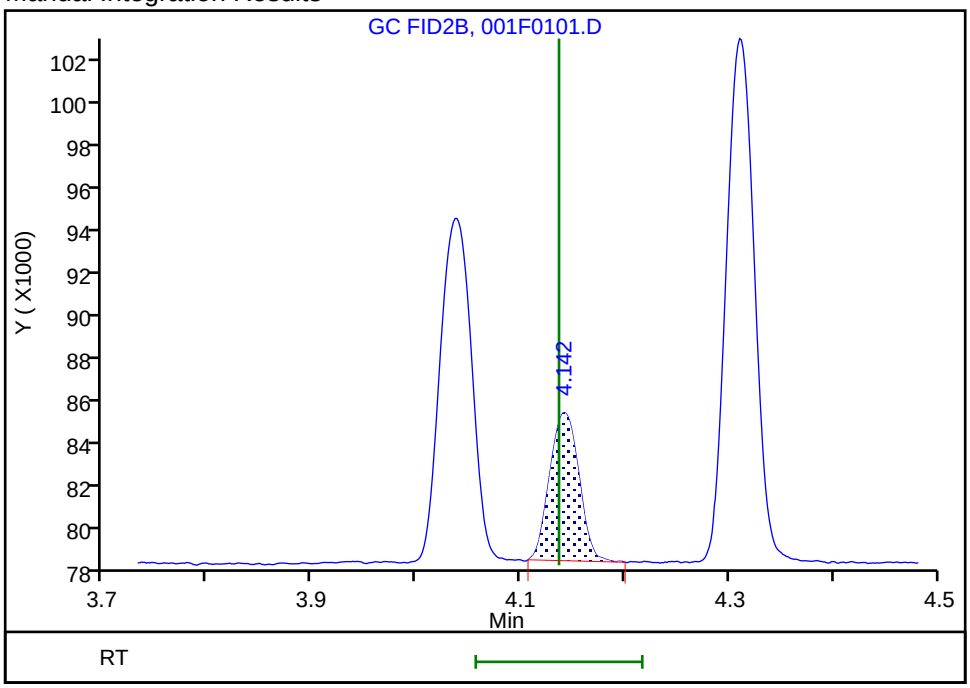
Processing Integration Results

RT: 4.14
Area: 47095
Amount: 1.672538
Amount Units: ug/l



Manual Integration Results

RT: 4.14
Area: 13119
Amount: 0.607207
Amount Units: ug/l



Reviewer: meierg, 17-May-2020 07:19:02
Audit Action: Manually Integrated Audit Reason: Shouldering

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

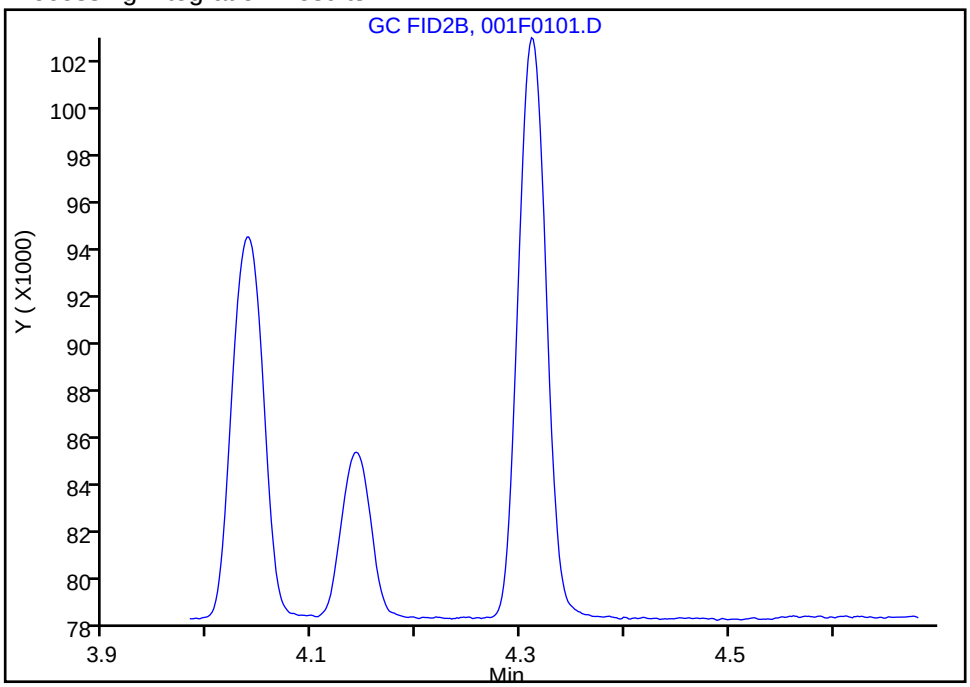
Data File:	\\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\001F0101.D				
Injection Date:	16-May-2020 10:57:08	Instrument ID:	VGC_J		
Lims ID:	IC L1				
Client ID:					
Operator ID:	MEIERG	ALS Bottle#:	1	Worklist Smp#:	6
Purge Vol:	18.000 mL	Dil. Factor:	1.0000		
Method:	RSK_J	Limit Group:	GCV - RSK 175		
Column:	HP-PLOT/Q (0.53 mm)	Detector	GC FID2B		

3 Ethane, CAS: 74-84-0

Signal: 2

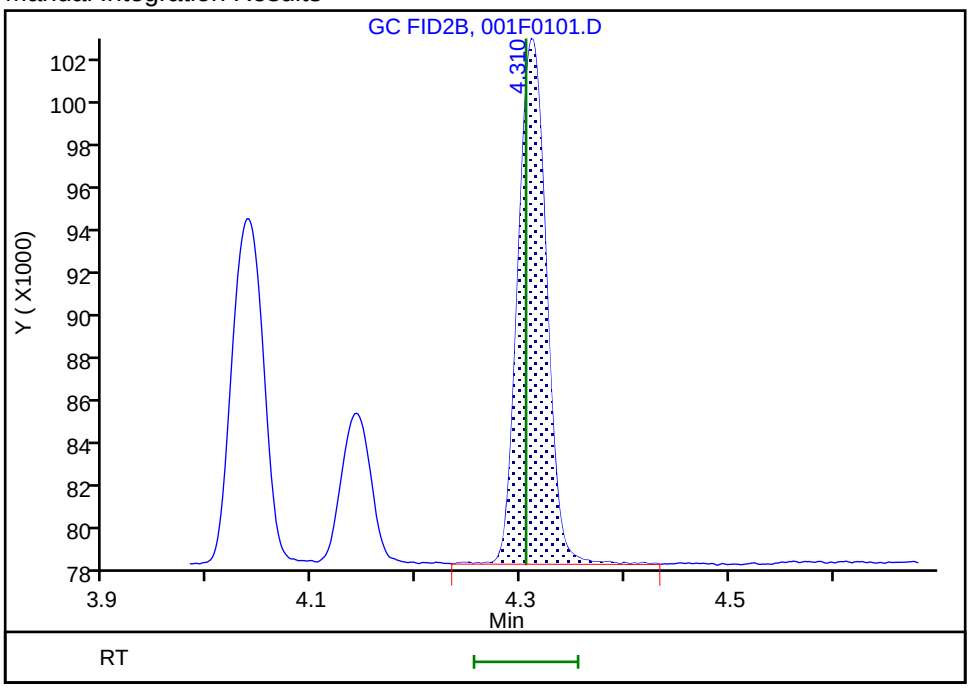
Processing Integration Results

Not Detected
Expected RT: 4.30



Manual Integration Results

RT: 4.31
Area: 45402
Amount: 0.743607
Amount Units: ug/l



Reviewer: meierg, 17-May-2020 06:37:15
Audit Action: Assigned Compound ID Audit Reason: Peak not integrated

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\001F0201.D
Lims ID: IC L2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 16-May-2020 11:13:34 ALS Bottle#: 1 Worklist Smp#: 7
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: IC 2
Operator ID: MEIERG Instrument ID: VGC_J
Sublist: chrom-RSK_J*sub5

Method: \\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 17-May-2020 08:59:46 Calib Date: 16-May-2020 13:08:56
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\009F0901.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: CTX0312

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Methane							
1	1.251	1.250	0.001	188199	0.9125	0.9699	
2	3.171	3.172	-0.001	83897	0.9125	0.9729	
						RPD = 0.31	
3 Ethane							
1	1.514	1.511	0.003	237424	1.71	1.75	
2	4.306	4.305	0.001	106974	1.71	1.75	
						RPD = 0.39	
4 Ethylene							M
1	1.788	1.793	-0.005	180285	1.60	1.64	
2	4.031	4.032	-0.001	77235	1.60	1.61	M
						RPD = 1.51	
5 Propane							
1	2.534	2.528	0.006	366612	2.51	2.56	
2	5.933	5.928	0.005	156230	2.51	2.49	
						RPD = 2.56	
6 Acetylene							Ma
1	4.044	4.015	0.029	52951	1.48	1.54	a
2	4.136	4.137	-0.001	31554	1.48	1.46	M
						RPD = 5.56	
7 Butane							
1	4.311	4.286	0.025	384054	3.31	3.24	
2	7.381	7.375	0.006	184917	3.31	3.22	
						RPD = 0.55	
8 isobutylene							
1	5.186	5.163	0.023	261296	3.19	2.93	
2	7.231	7.227	0.004	119878	3.19	2.88	
						RPD = 1.46	

QC Flag Legend

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

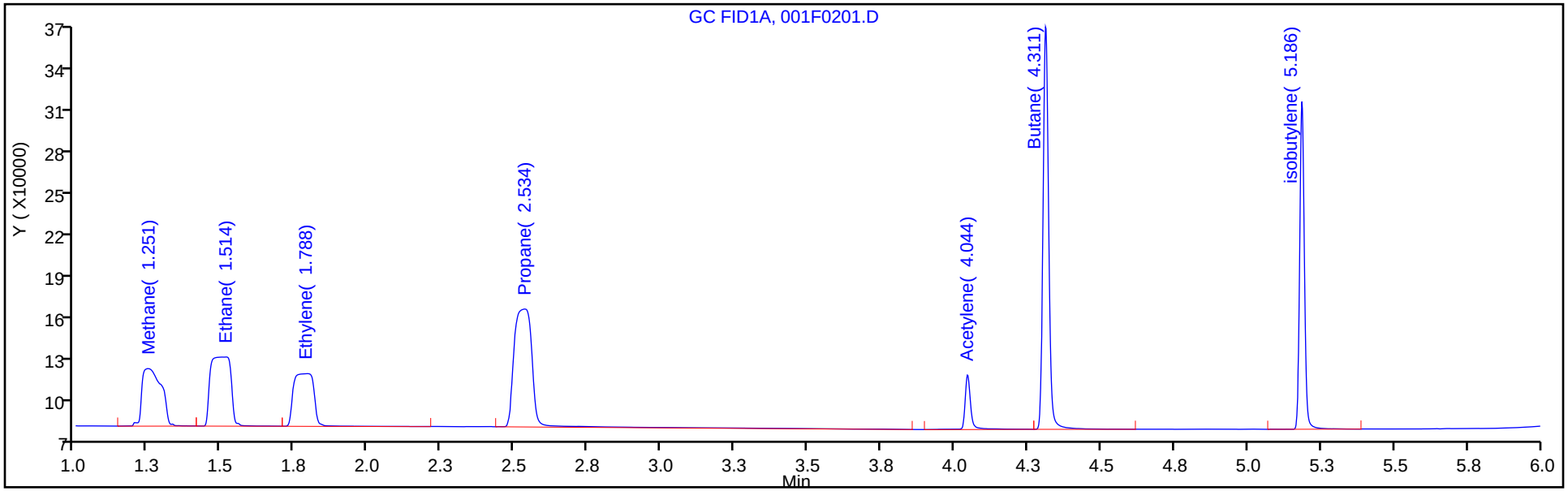
RSK7gasMathes_00031 Amount Added: 2.50 Units: uL

Report Date: 17-May-2020 08:59:47 Chrom Revision: 2.3 05-May-2020 17:48:18

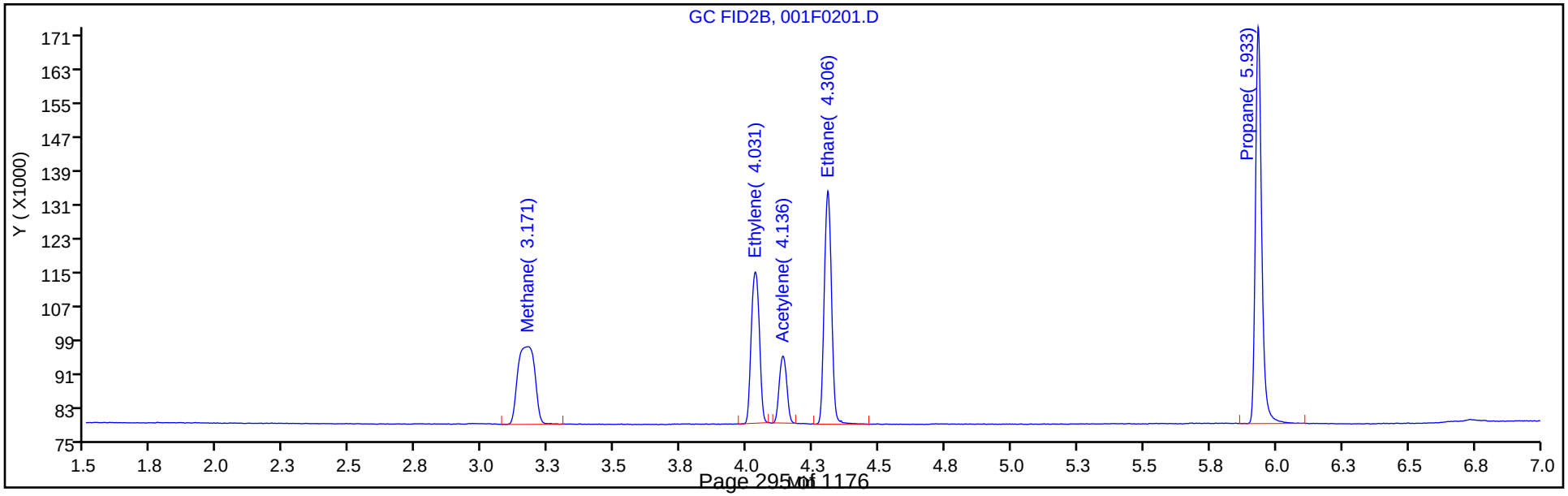
Eurofins TestAmerica, Denver

Data File:	\\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\001F0201.D				
Injection Date:	16-May-2020 11:13:34	Instrument ID:	VGC_J	Operator ID:	MEIERG
Lims ID:	IC L2			Worklist Smp#:	7
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



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

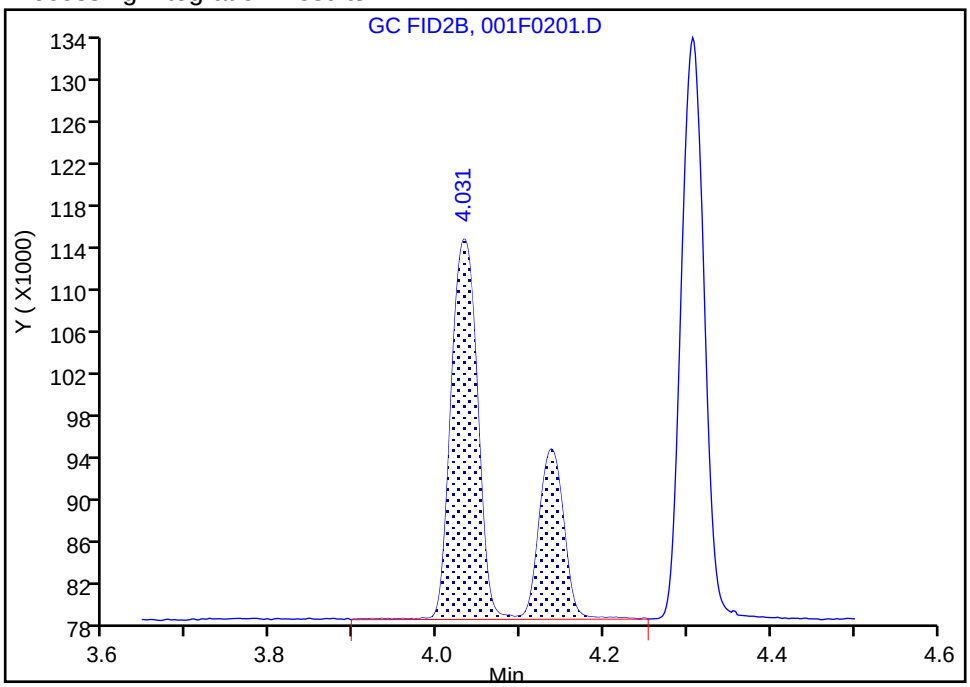
Data File:	\\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\001F0201.D				
Injection Date:	16-May-2020 11:13:34	Instrument ID:	VGC_J		
Lims ID:	IC L2				
Client ID:					
Operator ID:	MEIERG	ALS Bottle#:	1	Worklist Smp#:	7
Purge Vol:	18.000 mL	Dil. Factor:	1.0000		
Method:	RSK_J	Limit Group:	GCV - RSK 175		
Column:	HP-PLOT/Q (0.53 mm)	Detector	GC FID2B		

4 Ethylene, CAS: 74-85-1

Signal: 2

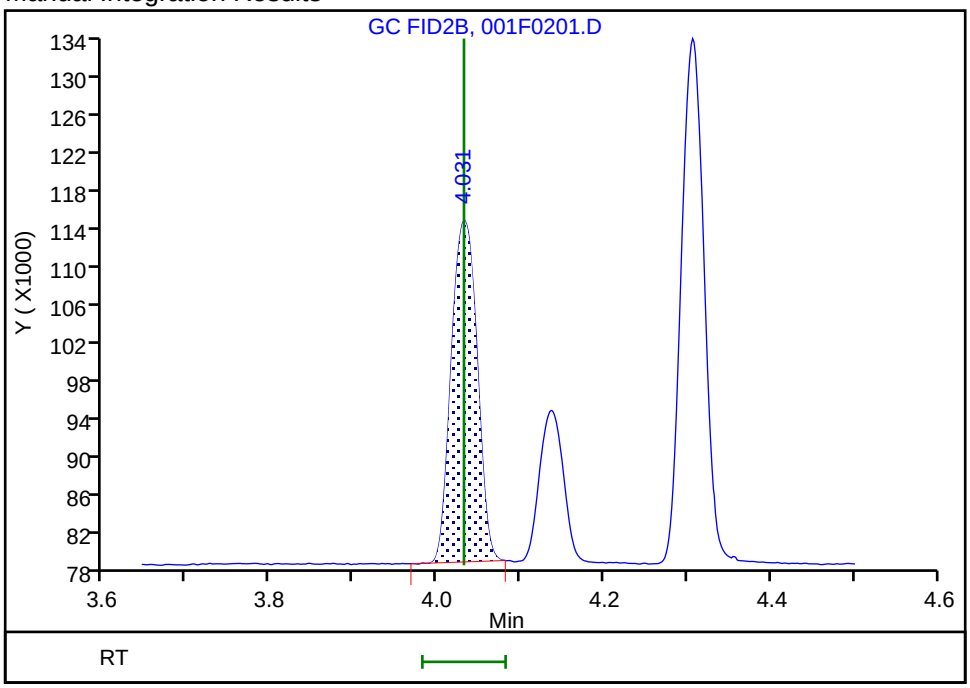
Processing Integration Results

RT: 4.03
Area: 113071
Amount: 2.160644
Amount Units: ug/l



Manual Integration Results

RT: 4.03
Area: 77235
Amount: 1.611288
Amount Units: ug/l



Reviewer: meierg, 17-May-2020 06:43:17

Audit Action: Manually Integrated Audit Reason: Shouldering

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

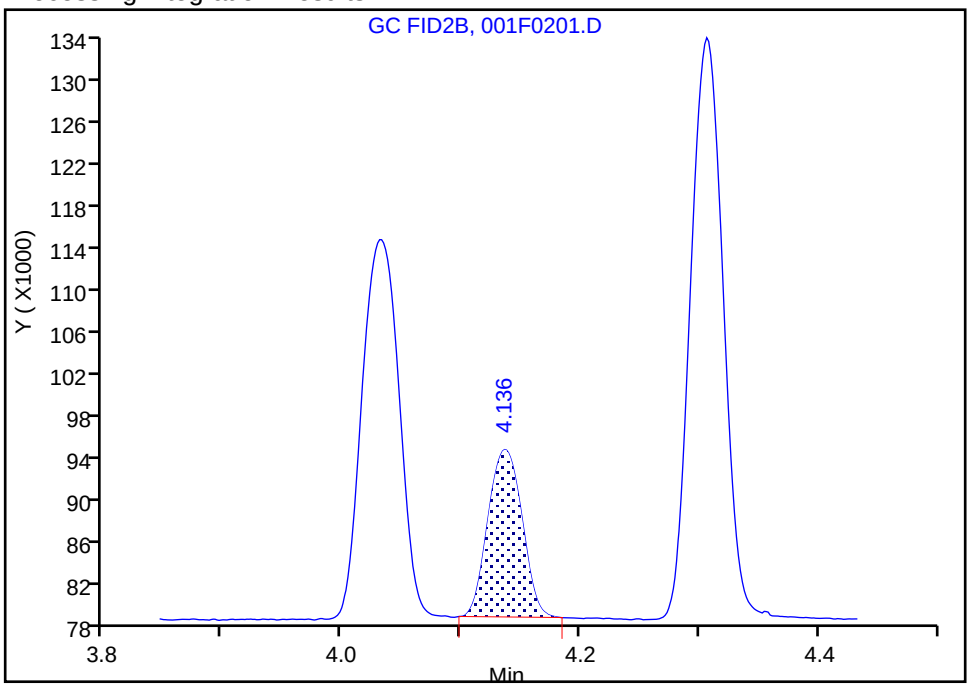
Data File:	\\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\001F0201.D				
Injection Date:	16-May-2020 11:13:34	Instrument ID:	VGC_J		
Lims ID:	IC L2				
Client ID:					
Operator ID:	MEIERG	ALS Bottle#:	1	Worklist Smp#:	7
Purge Vol:	18.000 mL	Dil. Factor:	1.0000		
Method:	RSK_J	Limit Group:	GCV - RSK 175		
Column:	HP-PLOT/Q (0.53 mm)	Detector	GC FID2B		

6 Acetylene, CAS: 74-86-2

Signal: 2

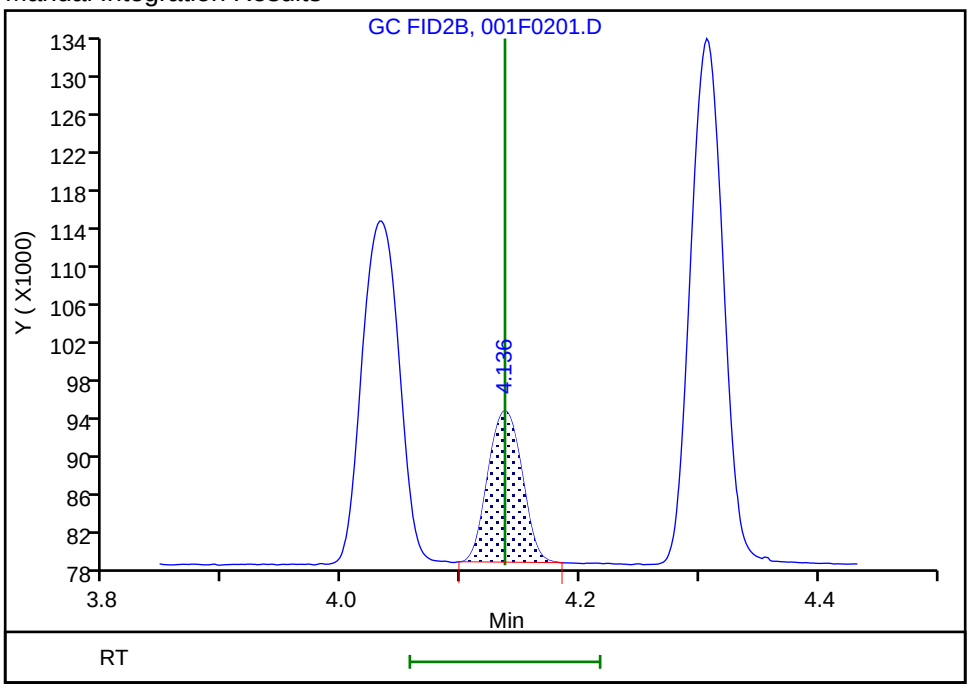
Processing Integration Results

RT: 4.14
Area: 31554
Amount: 1.109766
Amount Units: ug/l



Manual Integration Results

RT: 4.14
Area: 31554
Amount: 1.460462
Amount Units: ug/l



Reviewer: meierg, 17-May-2020 06:43:43

Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Peak not integrated

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\002F0301.D
Lims ID: IC L3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 16-May-2020 11:30:01 ALS Bottle#: 2 Worklist Smp#: 8
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: IC 3
Operator ID: MEIERG Instrument ID: VGC_J
Sublist: chrom-RSK_J*sub5

Method: \\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 17-May-2020 08:59:47 Calib Date: 16-May-2020 13:08:56
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\009F0901.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: CTX0312

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Methane							
1	1.248	1.250	-0.002	324614	1.83	1.92	
2	3.169	3.172	-0.003	148689	1.83	1.92	
						RPD = 0.02	
3 Ethane							
1	1.511	1.511	0.000	485411	3.42	3.57	
2	4.306	4.305	0.001	217520	3.42	3.56	
						RPD = 0.15	
4 Ethylene							M
1	1.791	1.793	-0.002	366405	3.19	3.32	
2	4.031	4.032	-0.001	157852	3.19	3.29	M
						RPD = 0.95	
5 Propane							
1	2.531	2.528	0.003	754733	5.02	5.27	
2	5.933	5.928	0.005	326853	5.02	5.22	
						RPD = 0.95	
6 Acetylene							Ma
1	4.043	4.015	0.028	105983	2.96	3.09	a
2	4.136	4.137	-0.001	66161	2.96	3.06	M
						RPD = 0.92	
7 Butane							
1	4.311	4.286	0.025	850630	6.61	6.77	
2	7.379	7.375	0.004	410288	6.61	6.75	
						RPD = 0.31	
8 isobutylene							
1	5.184	5.163	0.021	571566	6.38	6.40	
2	7.229	7.227	0.002	264983	6.38	6.38	
						RPD = 0.42	

QC Flag Legend

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

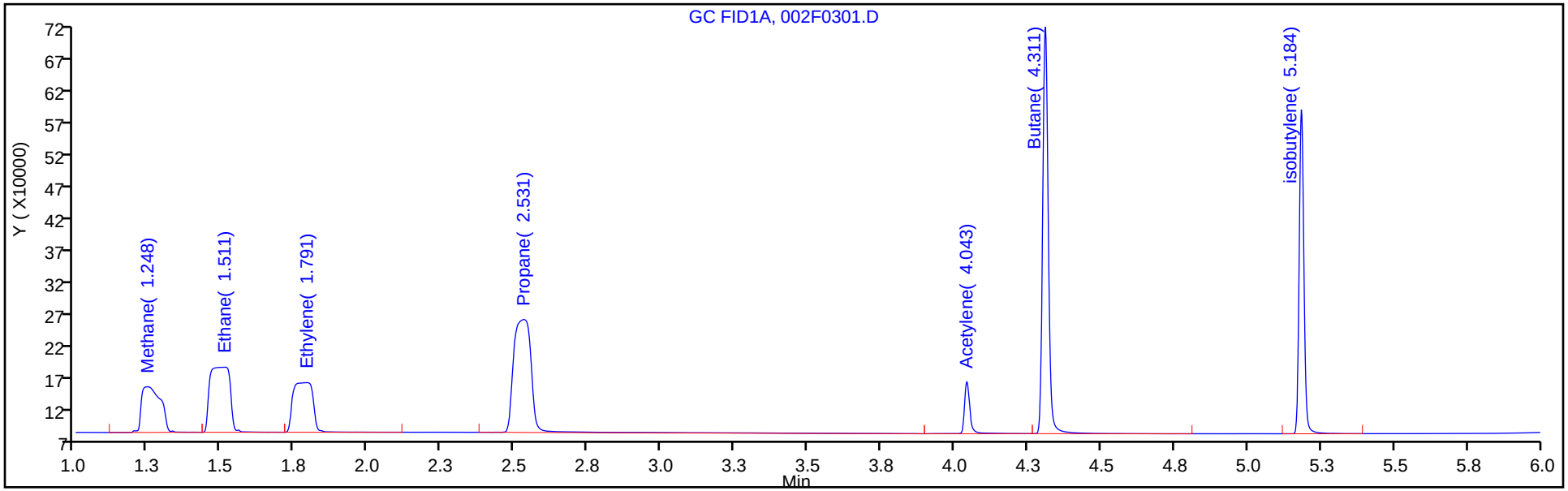
RSK7gasMathes_00031 Amount Added: 5.00 Units: uL

Report Date: 17-May-2020 08:59:47 Chrom Revision: 2.3 05-May-2020 17:48:18

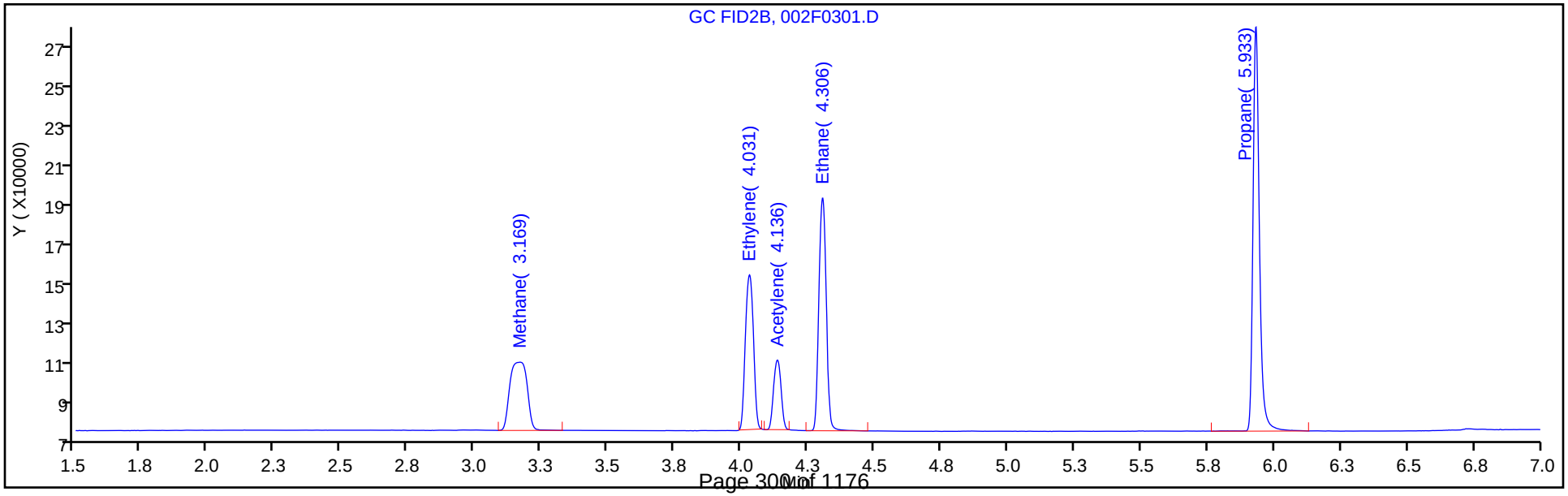
Eurofins TestAmerica, Denver

Data File:	\\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\002F0301.D				
Injection Date:	16-May-2020 11:30:01	Instrument ID:	VGC_J	Operator ID:	MEIERG
Lims ID:	IC L3			Worklist Smp#:	8
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



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

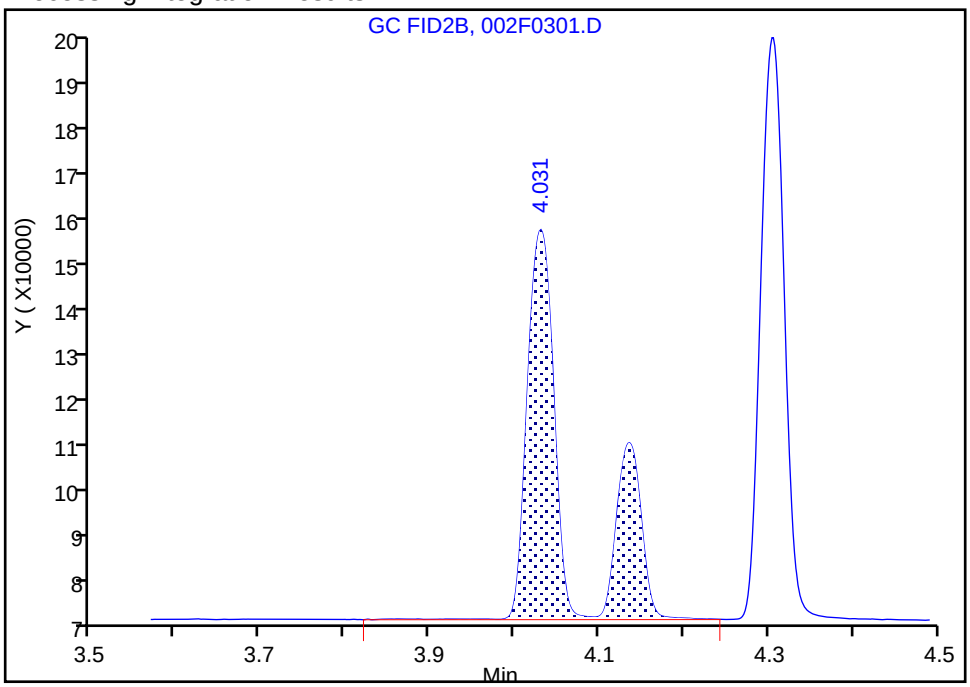
Data File:	\\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\002F0301.D				
Injection Date:	16-May-2020 11:30:01	Instrument ID:	VGC_J		
Lims ID:	IC L3				
Client ID:					
Operator ID:	MEIERG	ALS Bottle#:	2	Worklist Smp#:	8
Purge Vol:	18.000 mL	Dil. Factor:	1.0000		
Method:	RSK_J	Limit Group:	GCV - RSK 175		
Column:	HP-PLOT/Q (0.53 mm)	Detector	GC FID2B		

4 Ethylene, CAS: 74-85-1

Signal: 2

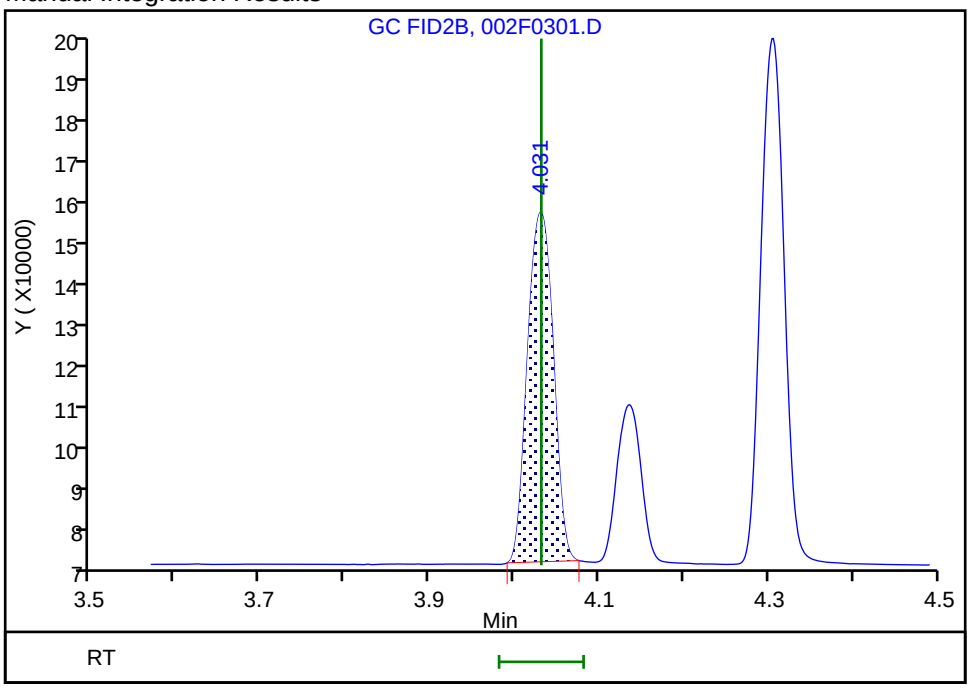
Processing Integration Results

RT: 4.03
Area: 232536
Amount: 4.445704
Amount Units: ug/l



Manual Integration Results

RT: 4.03
Area: 157852
Amount: 3.293132
Amount Units: ug/l



Reviewer: meierg, 17-May-2020 06:44:57

Audit Action: Manually Integrated Audit Reason: Shouldering

Eurofins TestAmerica, Denver

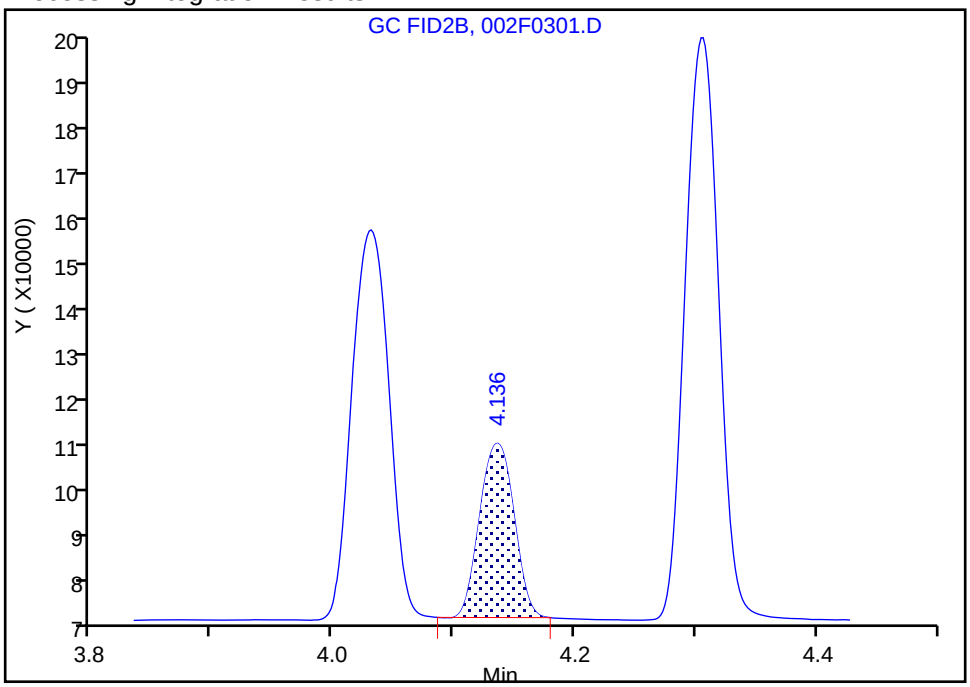
Data File:	\\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\002F0301.D				
Injection Date:	16-May-2020 11:30:01	Instrument ID:	VGC_J		
Lims ID:	IC L3				
Client ID:					
Operator ID:	MEIERG	ALS Bottle#:	2	Worklist Smp#:	8
Purge Vol:	18.000 mL	Dil. Factor:	1.0000		
Method:	RSK_J	Limit Group:	GCV - RSK 175		
Column:	HP-PLOT/Q (0.53 mm)	Detector	GC FID2B		

6 Acetylene, CAS: 74-86-2

Signal: 2

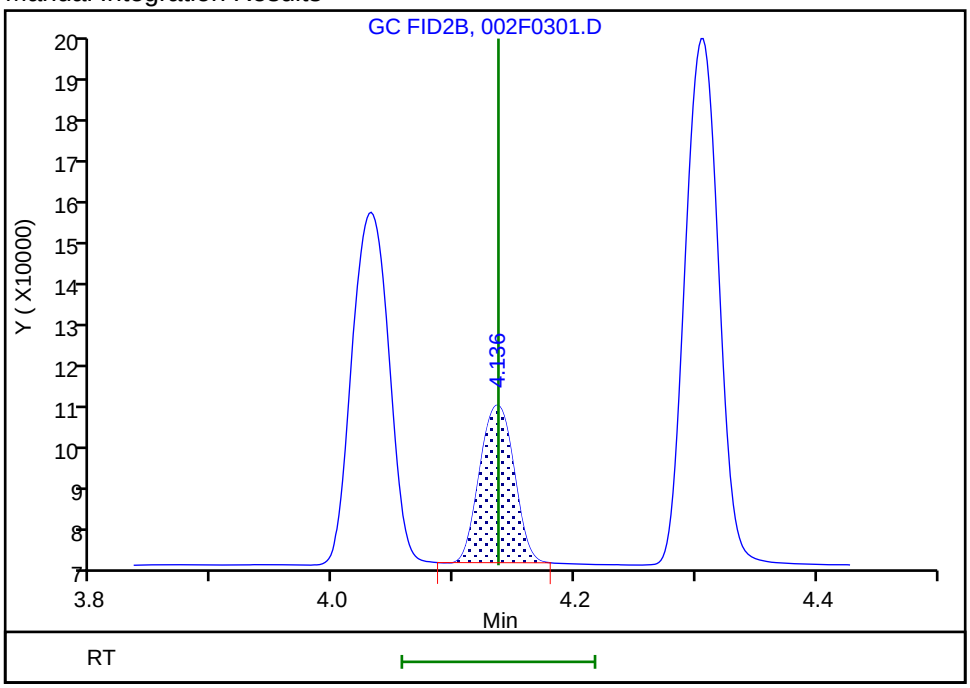
Processing Integration Results

RT: 4.14
Area: 66161
Amount: 2.336755
Amount Units: ug/l



Manual Integration Results

RT: 4.14
Area: 66161
Amount: 3.062230
Amount Units: ug/l



Reviewer: meierg, 17-May-2020 06:45:15
Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Peak not integrated

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\003F0401.D
Lims ID: IC L4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 16-May-2020 11:46:30 ALS Bottle#: 3 Worklist Smp#: 9
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: IC 4
Operator ID: MEIERG Instrument ID: VGC_J
Sublist: chrom-RSK_J*sub5

Method: \\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 17-May-2020 08:59:48 Calib Date: 16-May-2020 13:08:56
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\009F0901.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: CTX0312

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Methane							
1	1.249	1.250	-0.001	2196261	14.6	14.9	
2	3.171	3.172	-0.001	1043265	14.6	15.0	
						RPD = 0.32	
3 Ethane							
1	1.510	1.511	-0.001	3889050	27.4	28.6	
2	4.306	4.305	0.001	1745027	27.4	28.6	
						RPD = 0.02	
4 Ethylene							
1	1.792	1.793	-0.001	2933658	25.5	26.6	
2	4.032	4.032	0.000	1284690	25.5	26.8	
						RPD = 0.69	
5 Propane							
1	2.534	2.528	0.006	5864755	40.1	40.9	
2	5.932	5.928	0.004	2613101	40.1	41.7	
						RPD = 1.89	
6 Acetylene							M
1	4.034	4.015	0.019	837564	23.7	24.4	
2	4.136	4.137	-0.001	545422	23.7	25.2	M
						RPD = 3.31	
7 Butane							
1	4.304	4.286	0.018	6888912	52.9	52.5	
2	7.381	7.375	0.006	3316499	52.9	52.3	
						RPD = 0.43	
8 isobutylene							
1	5.179	5.163	0.016	4611649	51.1	51.7	
2	7.231	7.227	0.004	2147651	51.1	51.7	
						RPD = 0.03	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

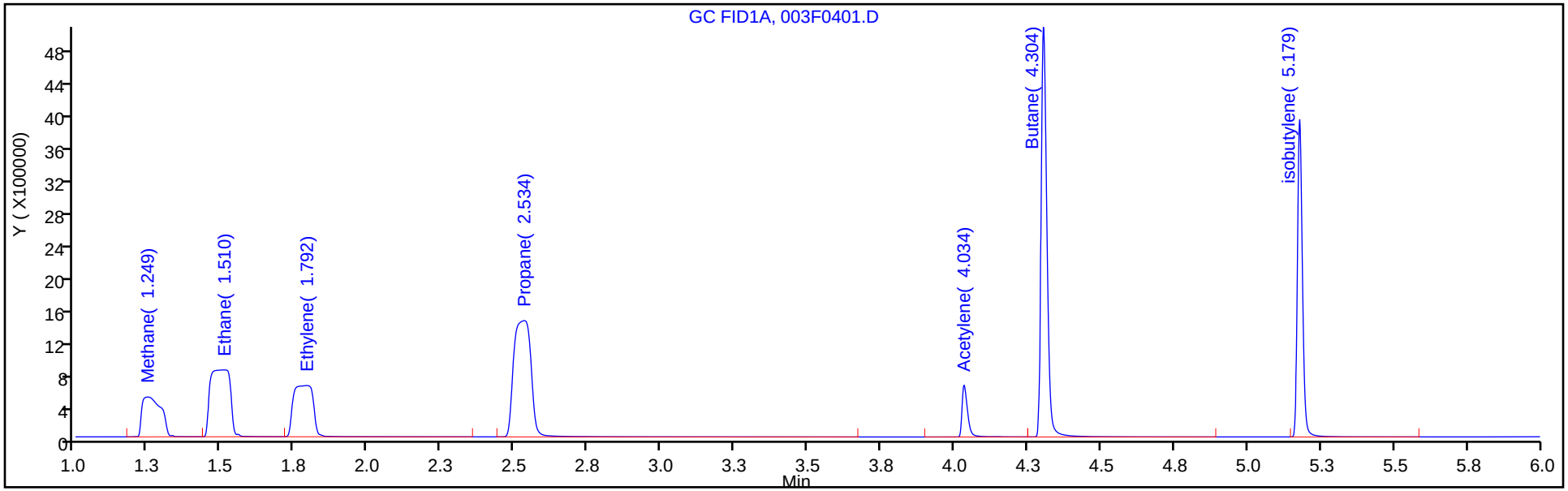
RSK7gasMathes_00031 Amount Added: 40.00 Units: uL

Report Date: 17-May-2020 08:59:48 Chrom Revision: 2.3 05-May-2020 17:48:18

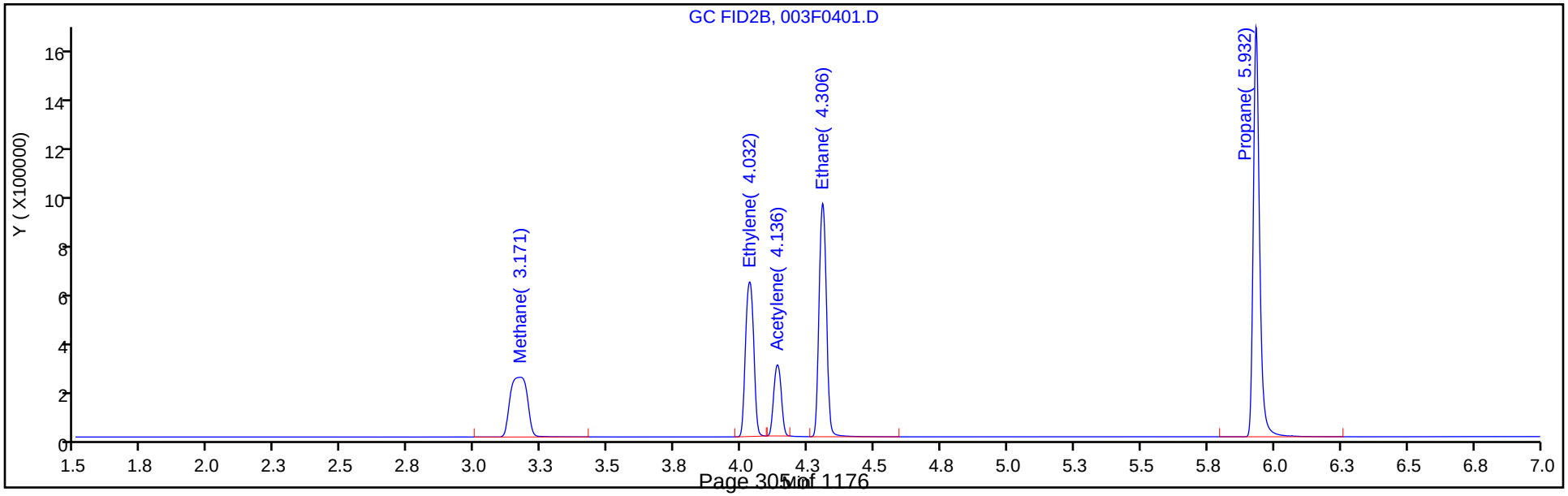
Eurofins TestAmerica, Denver

Data File:	\\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\003F0401.D				
Injection Date:	16-May-2020 11:46:30	Instrument ID:	VGC_J	Operator ID:	MEIERG
Lims ID:	IC L4			Worklist Smp#:	9
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



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

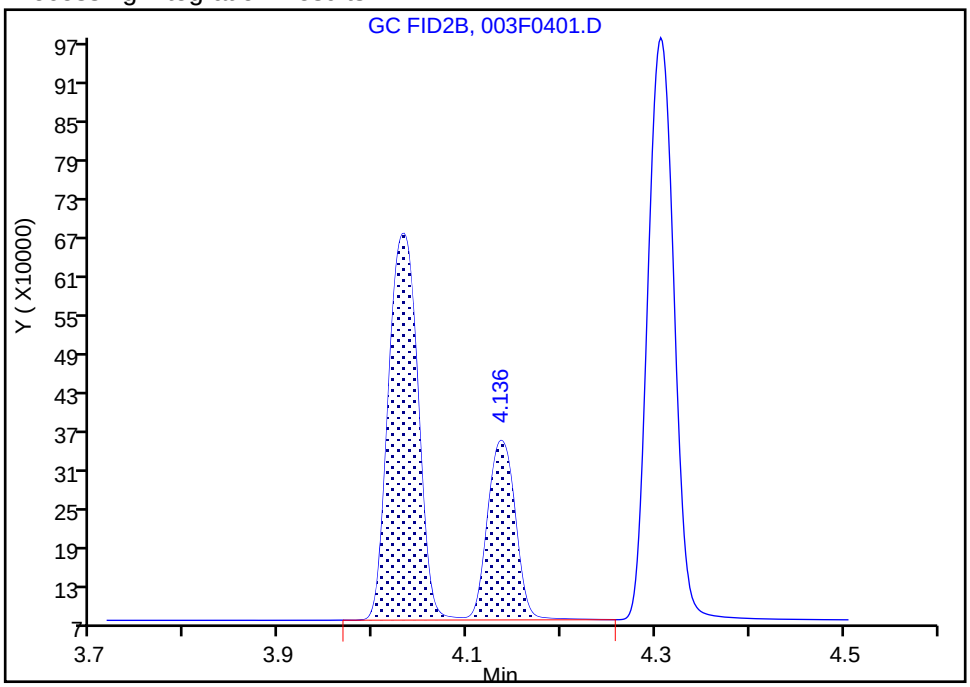
Data File:	\\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\003F0401.D				
Injection Date:	16-May-2020 11:46:30	Instrument ID:	VGC_J		
Lims ID:	IC L4				
Client ID:					
Operator ID:	MEIERG	ALS Bottle#:	3	Worklist Smp#:	9
Purge Vol:	18.000 mL	Dil. Factor:	1.0000		
Method:	RSK_J	Limit Group:	GCV - RSK 175		
Column:	HP-PLOT/Q (0.53 mm)	Detector	GC FID2B		

6 Acetylene, CAS: 74-86-2

Signal: 2

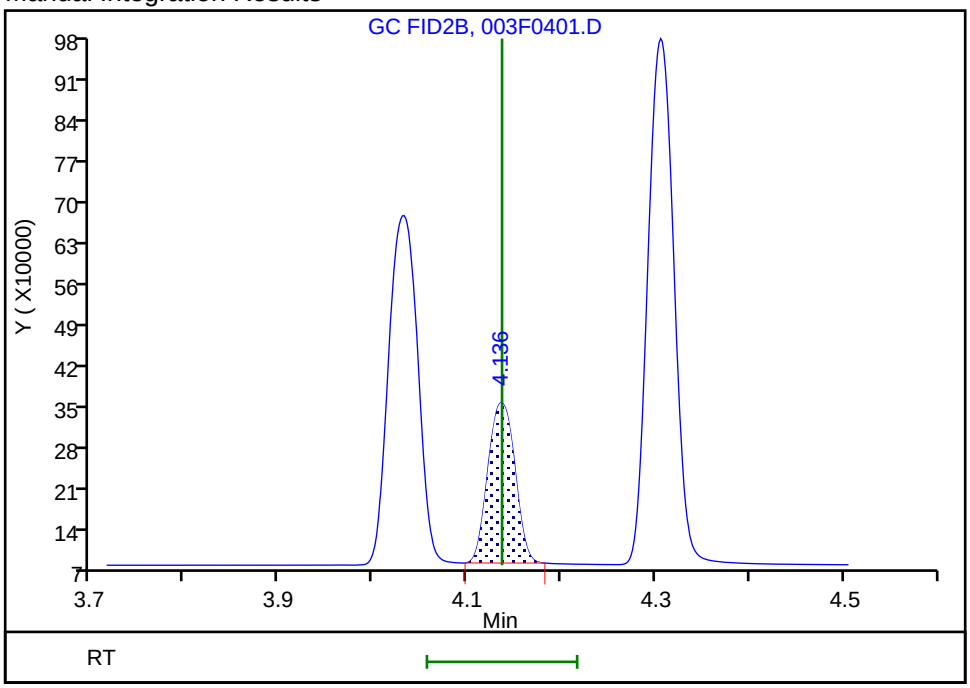
Processing Integration Results

RT: 4.14
Area: 1861367
Amount: 51.616625
Amount Units: ug/l



Manual Integration Results

RT: 4.14
Area: 545422
Amount: 25.244597
Amount Units: ug/l



Reviewer: meierg, 17-May-2020 06:46:16

Audit Action: Manually Integrated Audit Reason: Shouldering

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\004F0501.D
Lims ID: ICRT L5
Client ID:
Sample Type: ICRT Calib Level: 5
Inject. Date: 16-May-2020 12:02:59 ALS Bottle#: 4 Worklist Smp#: 10
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: ICRT 5
Operator ID: MEIERG Instrument ID: VGC_J
Sublist: chrom-RSK_J*sub5

Method: \\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 17-May-2020 08:59:48 Calib Date: 16-May-2020 13:08:56
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\009F0901.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: CTX0312

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Methane							
1	1.250	1.250	0.000	10173489	73.0	70.4	
2	3.172	3.172	0.000	4836394	73.0	70.4	
						RPD = 0.05	
3 Ethane							
1	1.511	1.511	0.000	18547040	136.9	136.3	
2	4.305	4.305	0.000	8282362	136.9	135.7	
						RPD = 0.50	
4 Ethylene							M
1	1.793	1.793	0.000	14030935	127.7	127.3	
2	4.032	4.032	0.000	6120221	127.7	127.7	M
						RPD = 0.29	
5 Propane							
1	2.528	2.528	0.000	28325635	200.7	197.7	
2	5.928	5.928	0.000	12604888	200.7	201.3	
						RPD = 1.77	
6 Acetylene							Ma
1	4.015	4.015	0.000	3792795	118.5	110.6	M
2	4.137	4.137	0.000	2629705	118.5	121.7	M
						RPD = 9.57	
7 Butane							Ma
1	4.286	4.286	0.000	34343170	264.5	260.4	M
2	7.375	7.375	0.000	16648646	264.5	261.1	a
						RPD = 0.27	
8 isobutylene							
1	5.163	5.163	0.000	23123734	255.4	259.0	
2	7.227	7.227	0.000	10785387	255.4	259.5	
						RPD = 0.19	

QC Flag Legend

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

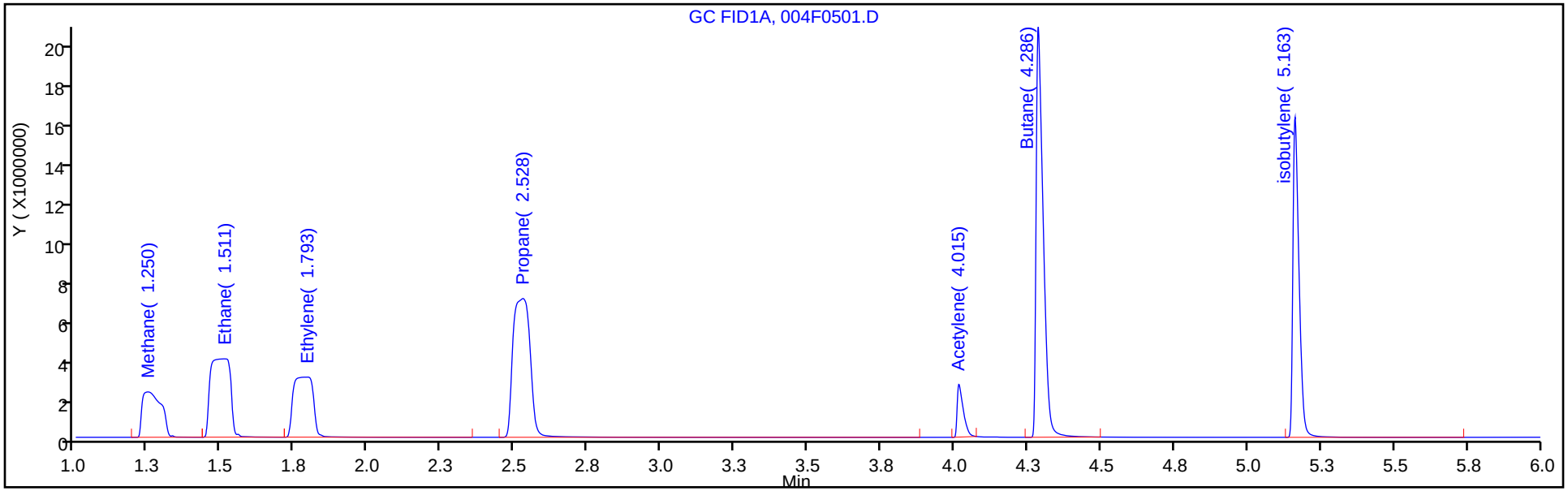
RSK7gasMathes_00031 Amount Added: 200.00 Units: uL

Report Date: 17-May-2020 08:59:48 Chrom Revision: 2.3 05-May-2020 17:48:18

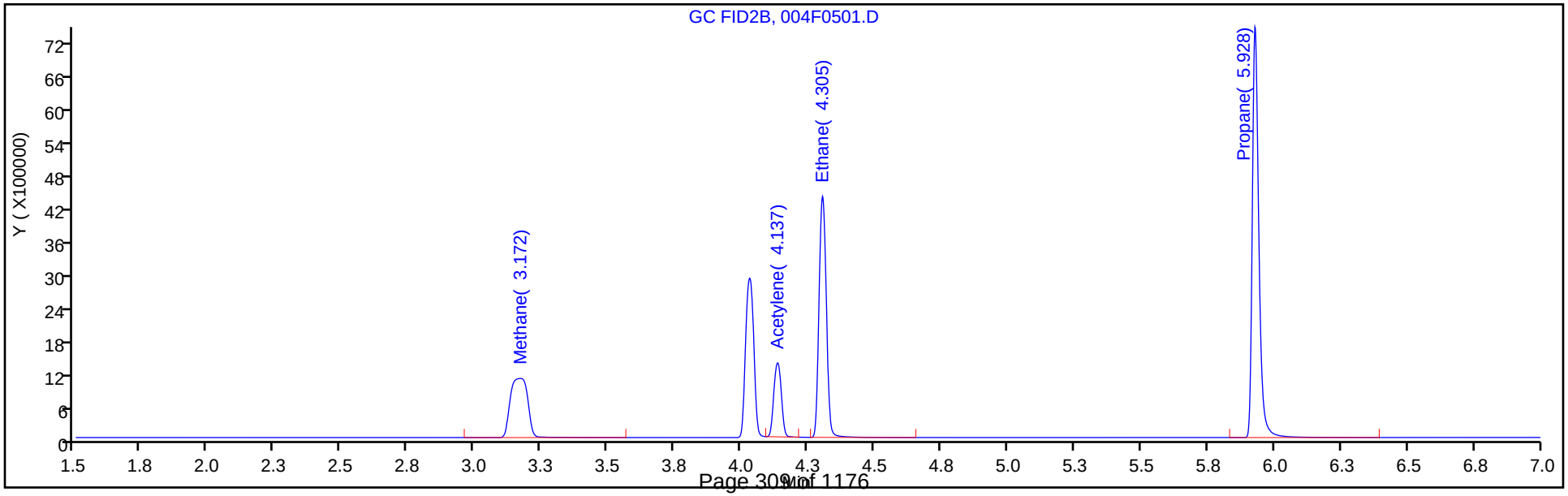
Eurofins TestAmerica, Denver

Data File:	\\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\004F0501.D				
Injection Date:	16-May-2020 12:02:59	Instrument ID:	VGC_J	Operator ID:	MEIERG
Lims ID:	ICRT L5			Worklist Smp#:	10
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

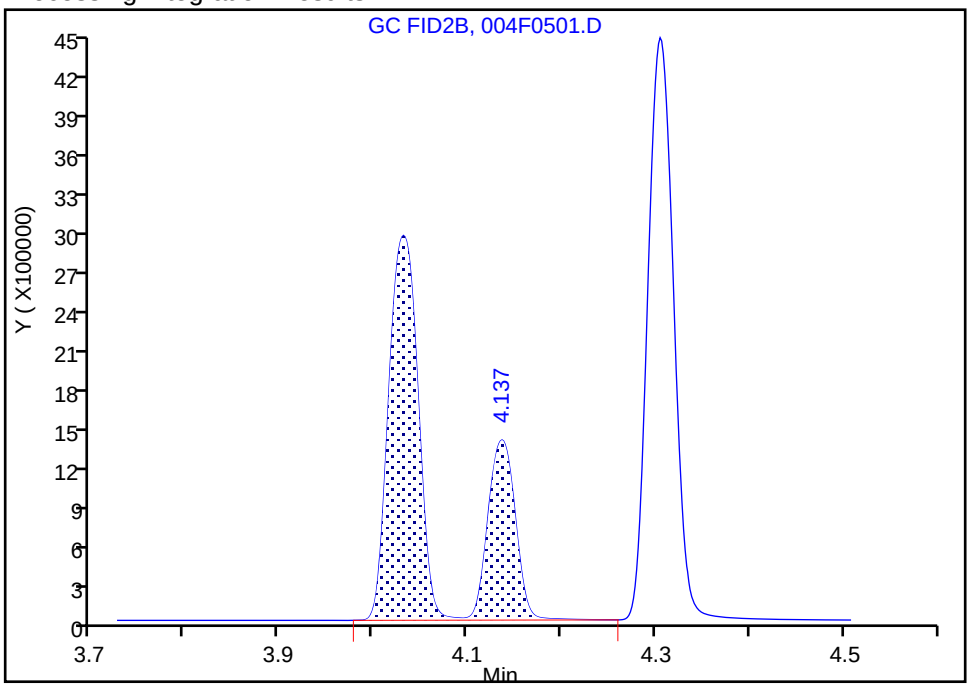
Data File:	\\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\004F0501.D				
Injection Date:	16-May-2020 12:02:59	Instrument ID:	VGC_J		
Lims ID:	ICRT L5				
Client ID:					
Operator ID:	MEIERG	ALS Bottle#:	4	Worklist Smp#:	10
Purge Vol:	18.000 mL	Dil. Factor:	1.0000		
Method:	RSK_J	Limit Group:	GCV - RSK 175		
Column:	HP-PLOT/Q (0.53 mm)	Detector	GC FID2B		

4 Ethylene, CAS: 74-85-1

Signal: 2

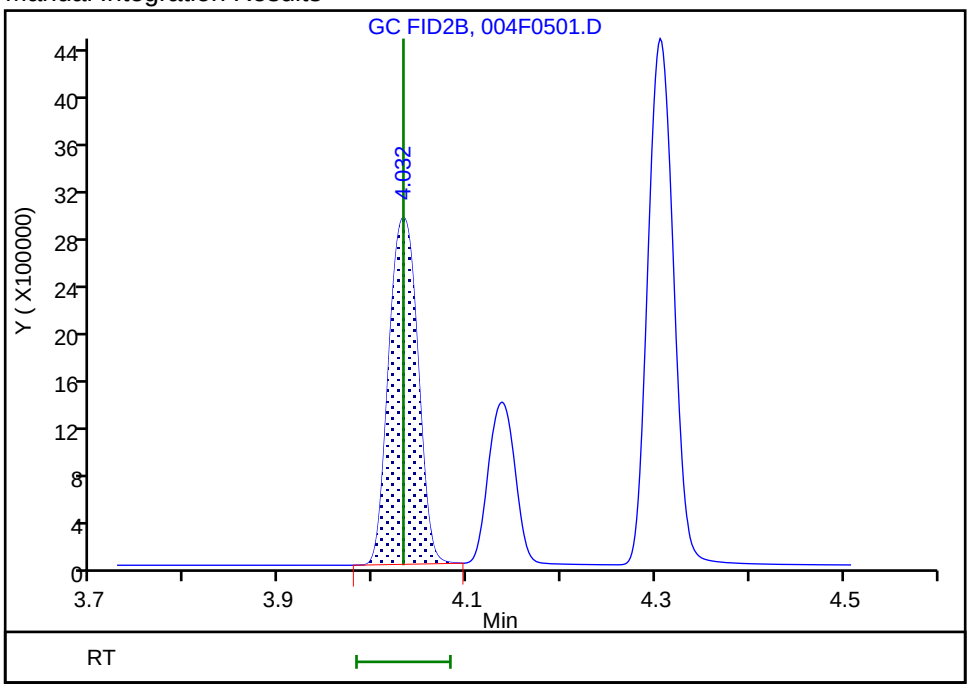
Processing Integration Results

RT: 4.14
Area: 8876599
Amount: 170.8990
Amount Units: ug/l



Manual Integration Results

RT: 4.03
Area: 6120221
Amount: 127.6810
Amount Units: ug/l



Reviewer: meierg, 17-May-2020 07:06:47

Audit Action: Manually Integrated Audit Reason: Shouldering

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

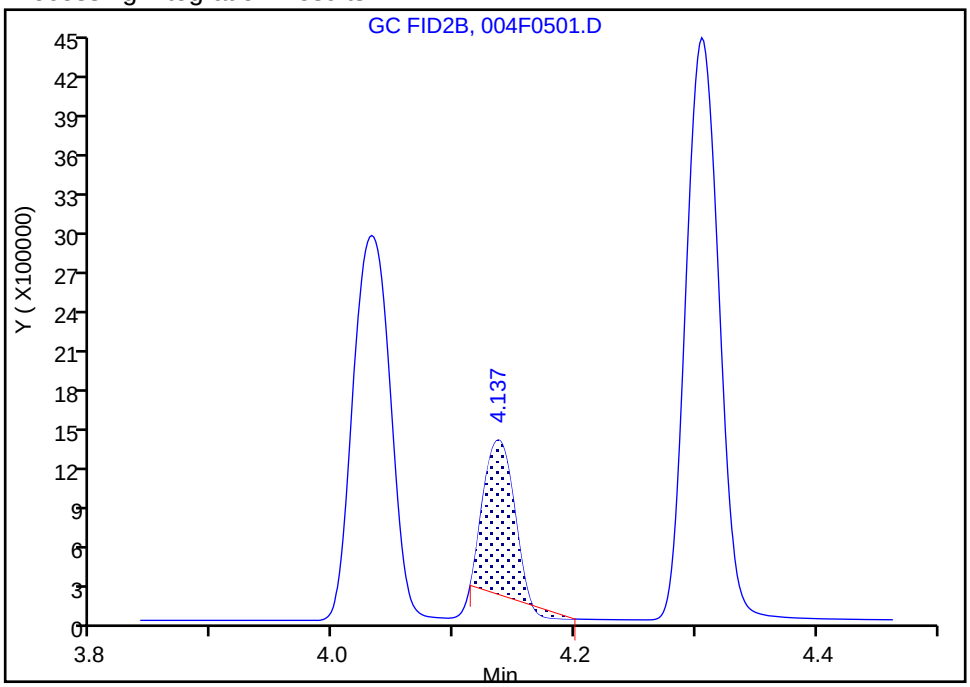
Data File:	\\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\004F0501.D				
Injection Date:	16-May-2020 12:02:59	Instrument ID:	VGC_J		
Lims ID:	ICRT L5				
Client ID:					
Operator ID:	MEIERG	ALS Bottle#:	4	Worklist Smp#:	10
Purge Vol:	18.000 mL	Dil. Factor:	1.0000		
Method:	RSK_J	Limit Group:	GCV - RSK 175		
Column:	HP-PLOT/Q (0.53 mm)	Detector	GC FID2B		

6 Acetylene, CAS: 74-86-2

Signal: 2

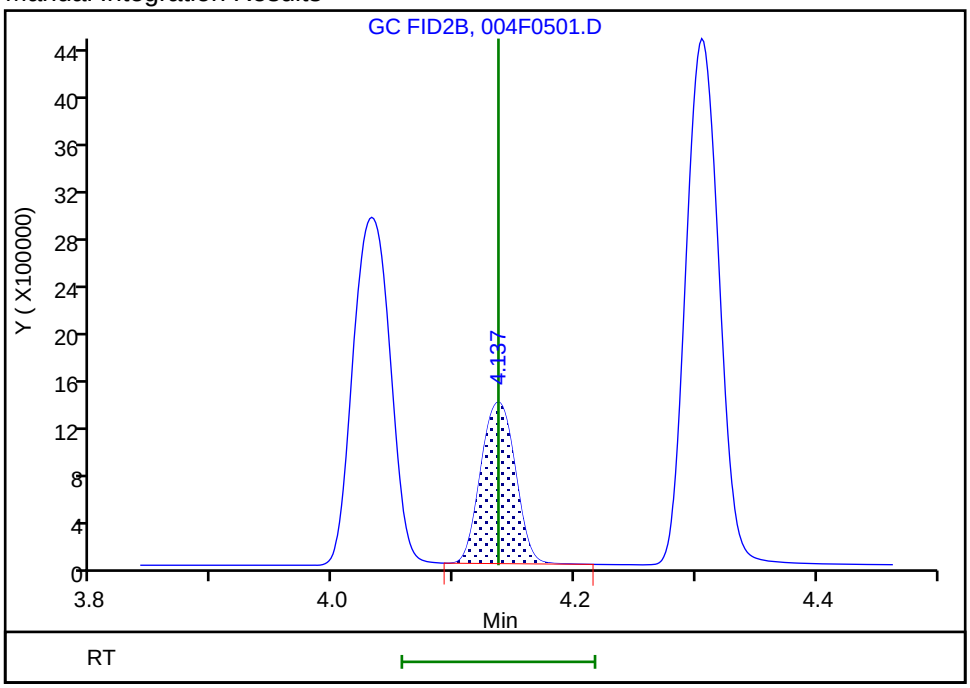
Processing Integration Results

RT: 4.14
Area: 1926231
Amount: 70.054658
Amount Units: ug/l



Manual Integration Results

RT: 4.14
Area: 2629705
Amount: 121.7146
Amount Units: ug/l



Reviewer: meierg, 17-May-2020 07:07:42

Audit Action: Manually Integrated Audit Reason: Peak not integrated

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\005F0601.D
Lims ID: IC L6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 16-May-2020 12:19:27 ALS Bottle#: 5 Worklist Smp#: 11
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: IC 6
Operator ID: MEIERG Instrument ID: VGC_J
Sublist: chrom-RSK_J*sub5

Method: \\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 17-May-2020 08:59:49 Calib Date: 16-May-2020 13:08:56
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\009F0901.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: CTX0312

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Methane							
1	1.250	1.250	0.000	21349465	146.0	148.2	
2	3.172	3.172	0.000	10129316	146.0	147.7	
						RPD = 0.31	
3 Ethane							
1	1.512	1.511	0.001	38849075	273.7	285.6	
2	4.306	4.305	0.001	17331467	273.7	283.9	
						RPD = 0.60	
4 Ethylene							
1	1.785	1.793	-0.008	29199476	255.3	264.9	
2	4.032	4.032	0.000	12731776	255.3	265.6	
						RPD = 0.26	
5 Propane							
1	2.522	2.528	-0.006	59231481	401.4	413.5	
2	5.926	5.928	-0.002	26366224	401.4	421.0	
						RPD = 1.80	
6 Acetylene							M
1	4.002	4.015	-0.013	8293493	237.0	241.8	
2	4.137	4.137	0.000	5438964	237.0	251.7	M
						RPD = 4.01	
7 Butane							
1	4.270	4.286	-0.016	71750490	529.0	543.6	
2	7.369	7.375	-0.006	34602301	529.0	542.3	
						RPD = 0.25	
8 isobutylene							Ma
1	5.150	5.163	-0.013	47351348	510.8	530.4	M
2	7.222	7.227	-0.005	22287396	510.8	536.3	a
						RPD = 1.10	

QC Flag Legend

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

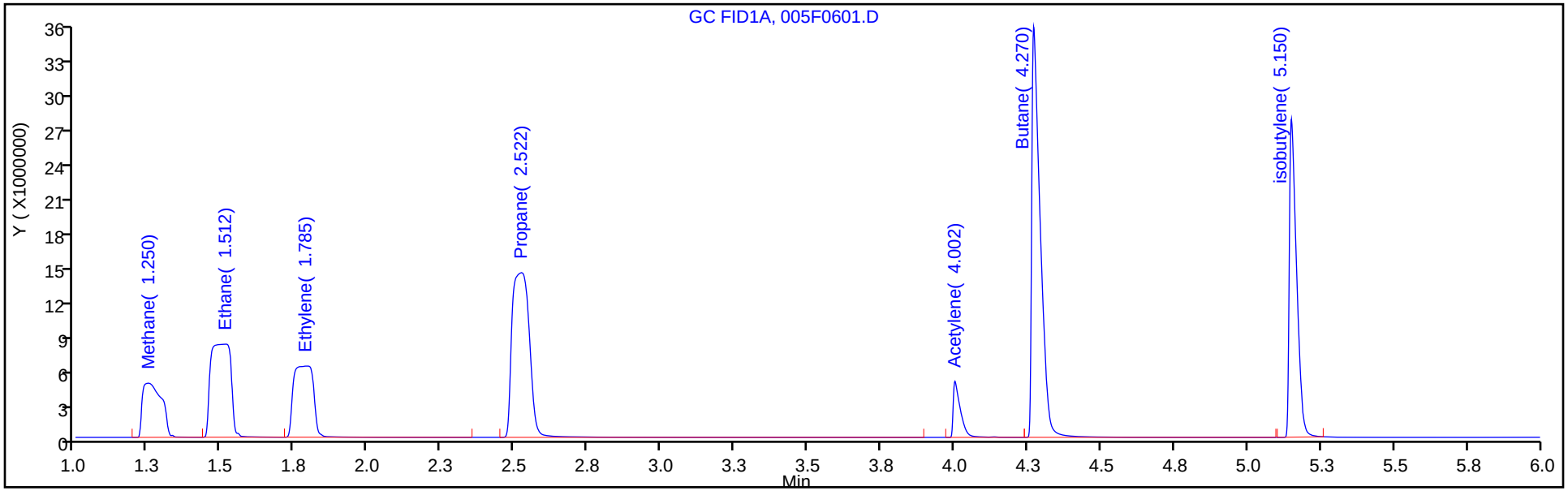
RSK7gasMathes_00031 Amount Added: 400.00 Units: uL

Report Date: 17-May-2020 08:59:49 Chrom Revision: 2.3 05-May-2020 17:48:18

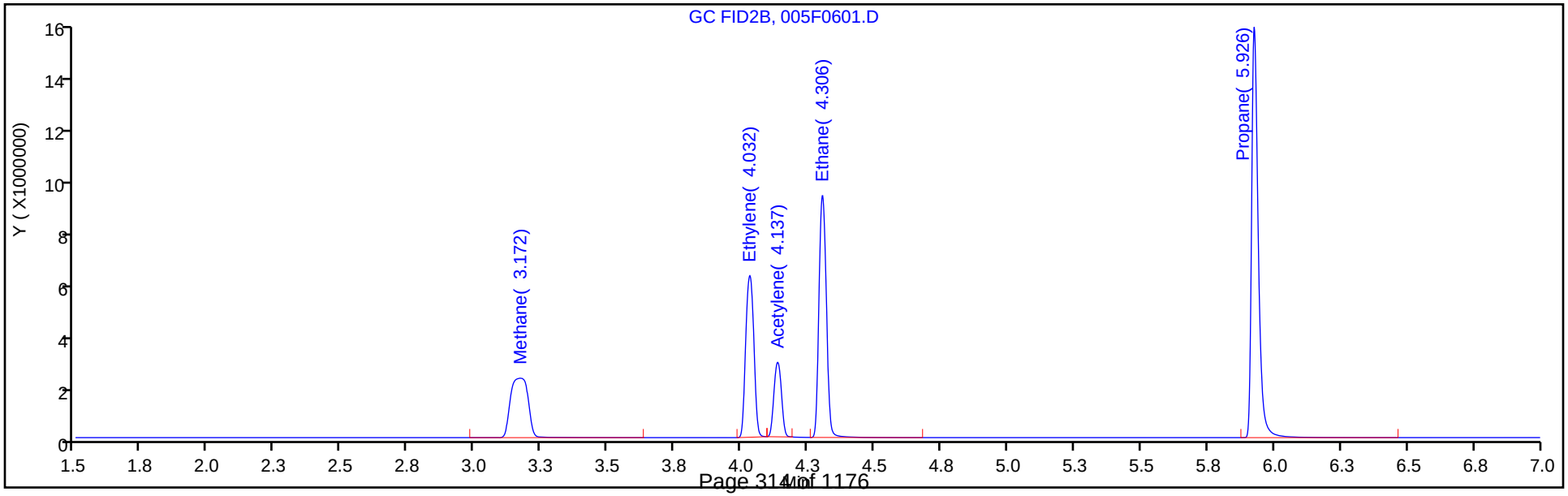
Eurofins TestAmerica, Denver

Data File:	\\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\005F0601.D				
Injection Date:	16-May-2020 12:19:27	Instrument ID:	VGC_J	Operator ID:	MEIERG
Lims ID:	IC L6			Worklist Smp#:	11
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



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

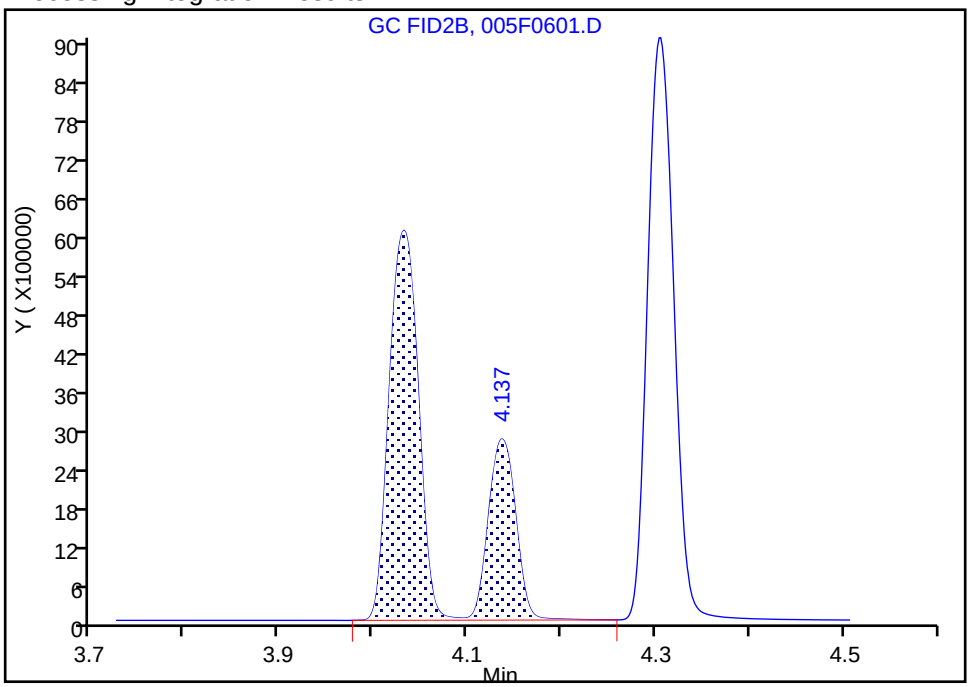
Data File:	\\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\005F0601.D				
Injection Date:	16-May-2020 12:19:27	Instrument ID:	VGC_J		
Lims ID:	IC L6				
Client ID:					
Operator ID:	MEIERG	ALS Bottle#:	5	Worklist Smp#:	11
Purge Vol:	18.000 mL	Dil. Factor:	1.0000		
Method:	RSK_J	Limit Group:	GCV - RSK 175		
Column:	HP-PLOT/Q (0.53 mm)	Detector	GC FID2B		

6 Acetylene, CAS: 74-86-2

Signal: 2

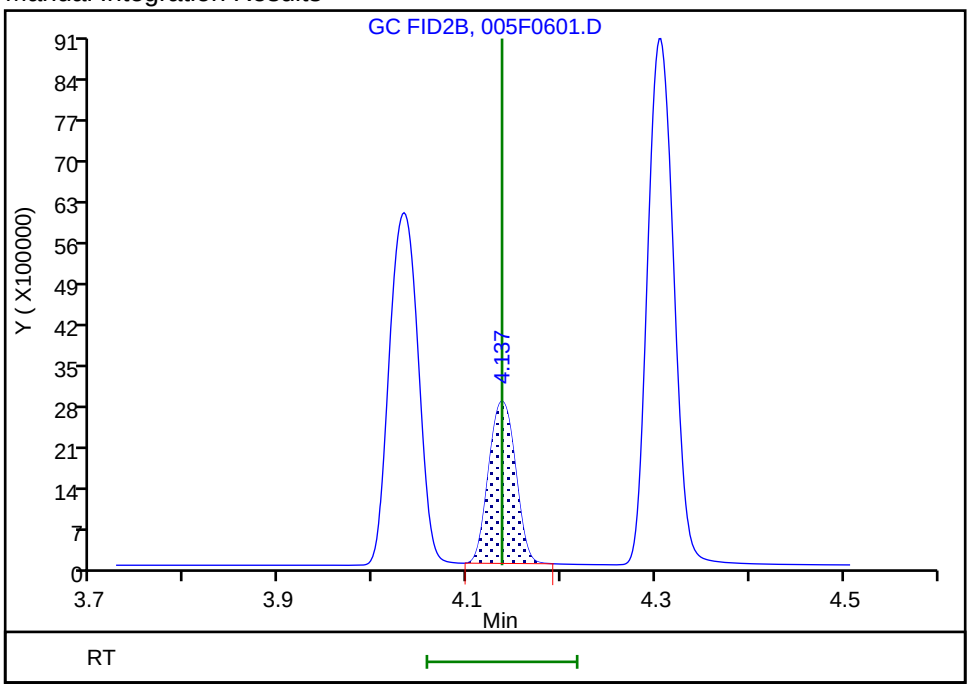
Processing Integration Results

RT: 4.14
Area: 18449274
Amount: 510.5285
Amount Units: ug/l



Manual Integration Results

RT: 4.14
Area: 5438964
Amount: 251.7399
Amount Units: ug/l



Reviewer: meierg, 17-May-2020 07:09:29

Audit Action: Manually Integrated Audit Reason: Shouldering

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\006F0701.D
Lims ID: IC L7
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 16-May-2020 12:35:56 ALS Bottle#: 6 Worklist Smp#: 12
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: IC 7
Operator ID: MEIERG Instrument ID: VGC_J
Sublist: chrom-RSK_J*sub5

Method: \\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 17-May-2020 08:59:49 Calib Date: 16-May-2020 13:08:56
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\009F0901.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: CTX0312

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Methane							
1	1.243	1.250	-0.007	40706597	292.0	282.9	
2	3.168	3.172	-0.004	19242711	292.0	280.9	
						RPD = 0.71	
3 Ethane							
1	1.508	1.511	-0.003	74364849	547.4	546.6	
2	4.302	4.305	-0.003	33180606	547.4	543.4	
						RPD = 0.58	
4 Ethylene							
1	1.785	1.793	-0.008	55873290	510.7	507.0	
2	4.028	4.032	-0.004	24365732	510.7	508.3	
						RPD = 0.27	
5 Propane							
1	2.510	2.528	-0.018	113846992	802.8	794.7	
2	5.920	5.928	-0.008	50751227	802.8	810.3	
						RPD = 1.94	
6 Acetylene							M
1	3.983	4.015	-0.032	15971476	474.1	465.7	
2	4.135	4.137	-0.002	10316086	474.1	477.5	M
						RPD = 2.49	
7 Butane							
1	4.250	4.286	-0.036	137944774	1058.1	1044.9	
2	7.362	7.375	-0.013	67311032	1058.1	1054.6	
						RPD = 0.92	
8 isobutylene							
1	5.133	5.163	-0.030	92637372	1021.5	1037.7	
2	7.217	7.227	-0.010	43289193	1021.5	1041.6	
						RPD = 0.38	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

RSK7gasMathes_00031 Amount Added: 800.00 Units: uL

Report Date: 17-May-2020 08:59:49 Chrom Revision: 2.3 05-May-2020 17:48:18

Eurofins TestAmerica, Denver

Data File: \\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\006F0701.D

Injection Date: 16-May-2020 12:35:56 Instrument ID: VGC_J Operator ID: MEIERG

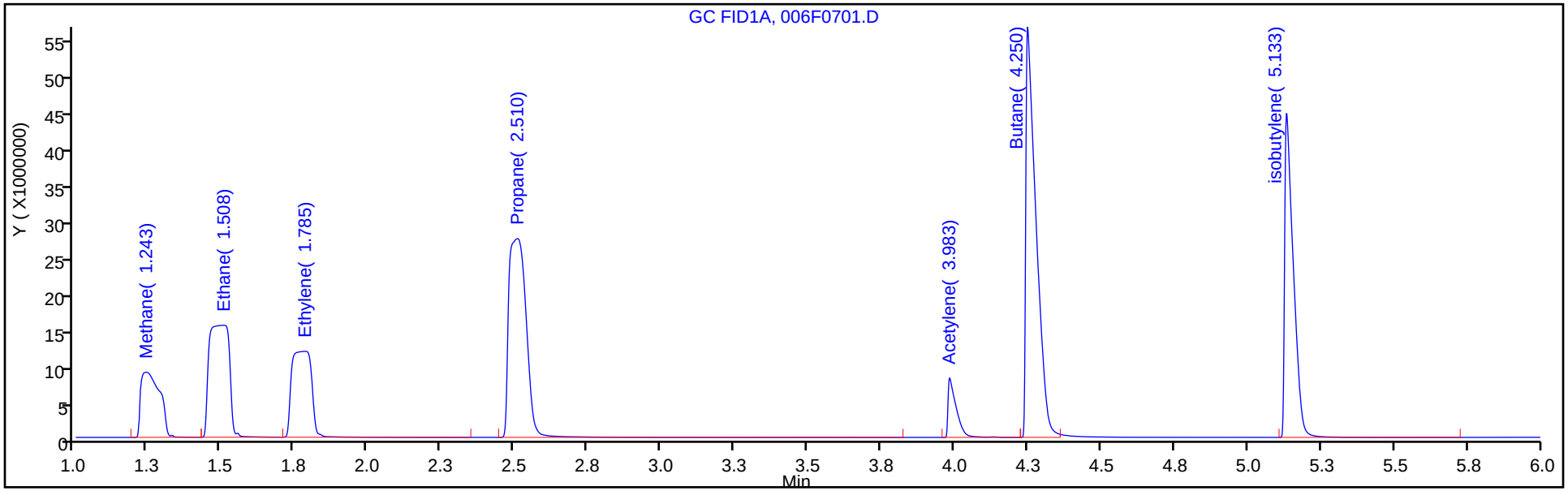
Lims ID: IC L7 Worklist Smp#: 12

Client ID:

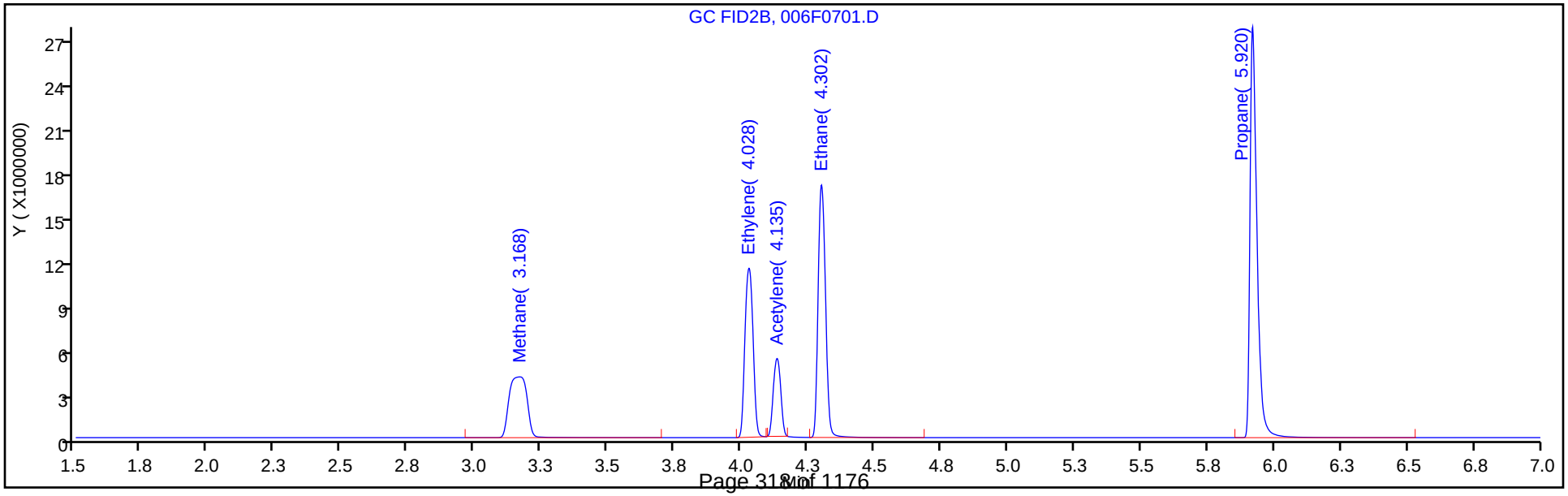
Purge Vol: 18.000 mL Dil. Factor: 1.0000 ALS Bottle#: 6

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

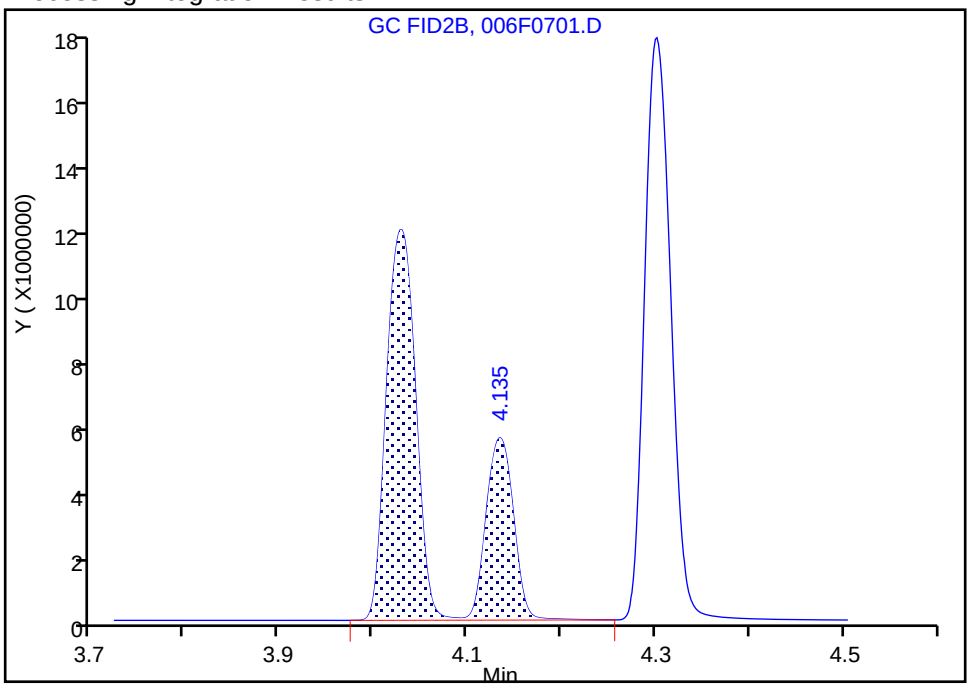
Data File:	\\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\006F0701.D				
Injection Date:	16-May-2020 12:35:56	Instrument ID:	VGC_J		
Lims ID:	IC L7				
Client ID:					
Operator ID:	MEIERG	ALS Bottle#:	6	Worklist Smp#:	12
Purge Vol:	18.000 mL	Dil. Factor:	1.0000		
Method:	RSK_J	Limit Group:	GCV - RSK 175		
Column:	HP-PLOT/Q (0.53 mm)	Detector	GC FID2B		

6 Acetylene, CAS: 74-86-2

Signal: 2

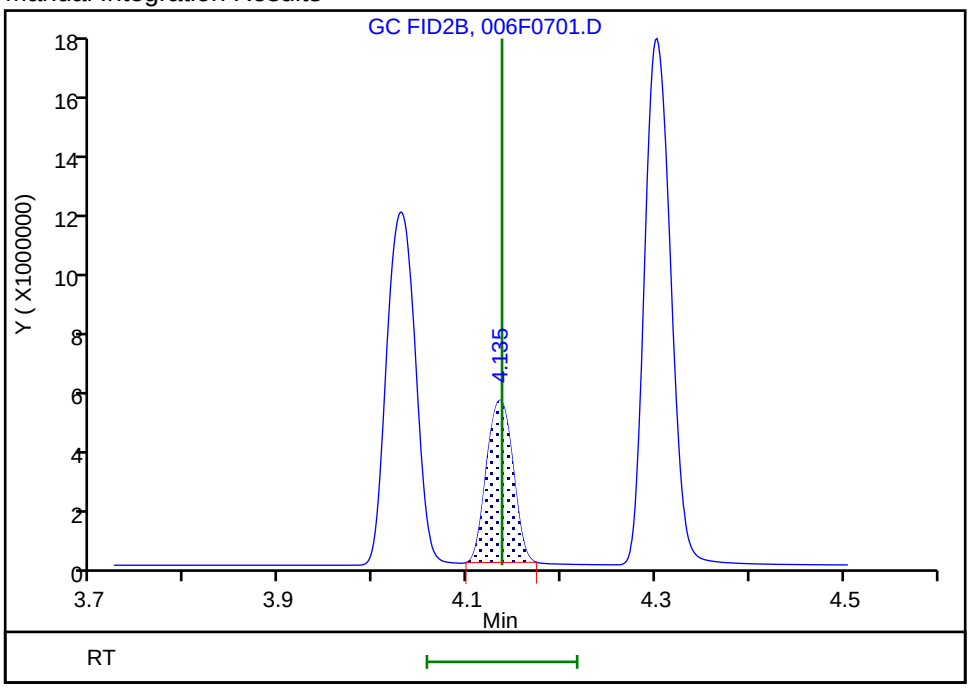
Processing Integration Results

RT: 4.13
Area: 35374141
Amount: 990.6352
Amount Units: ug/l



Manual Integration Results

RT: 4.13
Area: 10316086
Amount: 477.4751
Amount Units: ug/l



Reviewer: meierg, 17-May-2020 07:16:23

Audit Action: Manually Integrated Audit Reason: Shouldering

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\007F0801.D				
Lims ID:	IC L8				
Client ID:					
Sample Type:	IC	Calib Level:	8		
Inject. Date:	16-May-2020 12:52:27	ALS Bottle#:	7	Worklist Smp#:	13
Purge Vol:	18.000 mL	Dil. Factor:	1.0000		
Sample Info:	IC 8				
Operator ID:	MEIERG	Instrument ID:	VGC_J		
Sublist:	chrom-RSK_J*sub5				
Method:	\\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\RSK_J.m				
Limit Group:	GCV - RSK 175				
Method Label:	DV-GC-0025: Dissolved Gases in Water by RSK-175				
Last Update:	17-May-2020 08:59:50	Calib Date:	16-May-2020 13:08:56		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\009F0901.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:	CTX0312				

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Methane							
1	1.248	1.250	-0.002	256592942	1806.9	1784.9	
2	3.168	3.172	-0.004	121745624	1806.9	1778.4	
						RPD = 0.36	

Reagents:

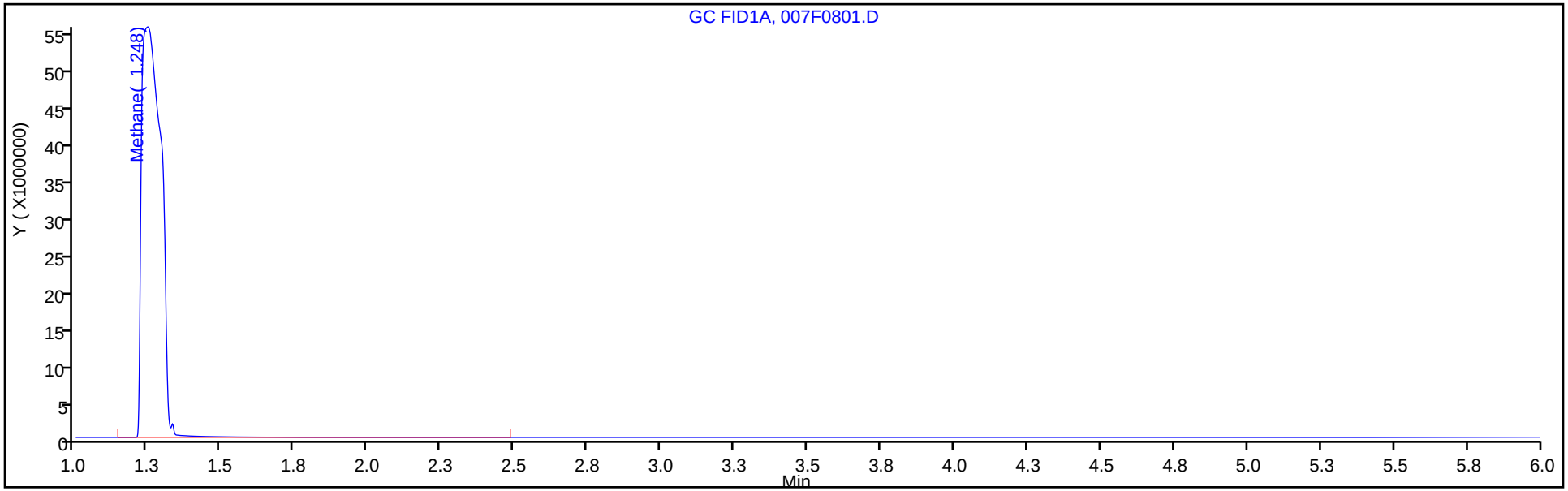
RSK175methane_00010 Amount Added: 50.00 Units: uL

Report Date: 17-May-2020 08:59:50 Chrom Revision: 2.3 05-May-2020 17:48:18

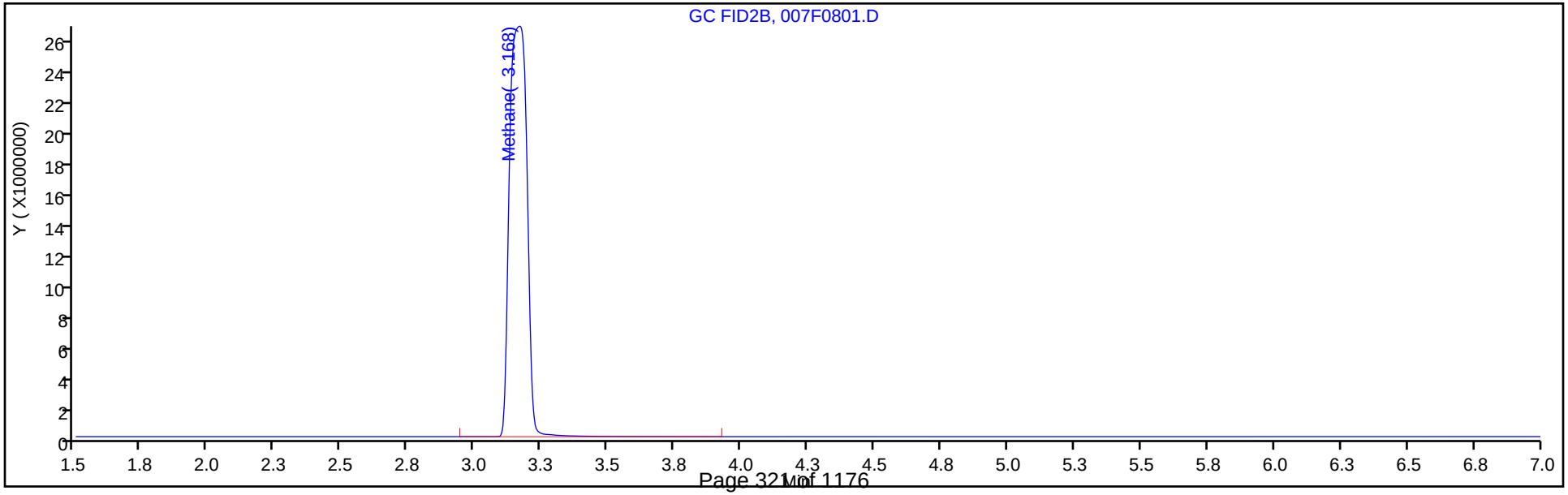
Eurofins TestAmerica, Denver

Data File:	\\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\007F0801.D				
Injection Date:	16-May-2020 12:52:27	Instrument ID:	VGC_J	Operator ID:	MEIERG
Lims ID:	IC L8			Worklist Smp#:	13
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



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\009F0901.D				
Lims ID:	IC L9				
Client ID:					
Sample Type:	IC	Calib Level:	9		
Inject. Date:	16-May-2020 13:08:56	ALS Bottle#:	9	Worklist Smp#:	14
Purge Vol:	18.000 mL	Dil. Factor:	1.0000		
Sample Info:	IC 9				
Operator ID:	MEIERG	Instrument ID:	VGC_J		
Sublist:	chrom-RSK_J*sub5				
Method:	\\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\RSK_J.m				
Limit Group:	GCV - RSK 175				
Method Label:	DV-GC-0025: Dissolved Gases in Water by RSK-175				
Last Update:	17-May-2020 08:59:50	Calib Date:	16-May-2020 13:08:56		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\009F0901.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:	CTX0312				

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Methane							
1	1.245	1.250	-0.005	1008615918	7227.8	7016.9	
2	3.160	3.172	-0.012	484781088	7227.8	7082.2	
						RPD = 0.93	

Reagents:

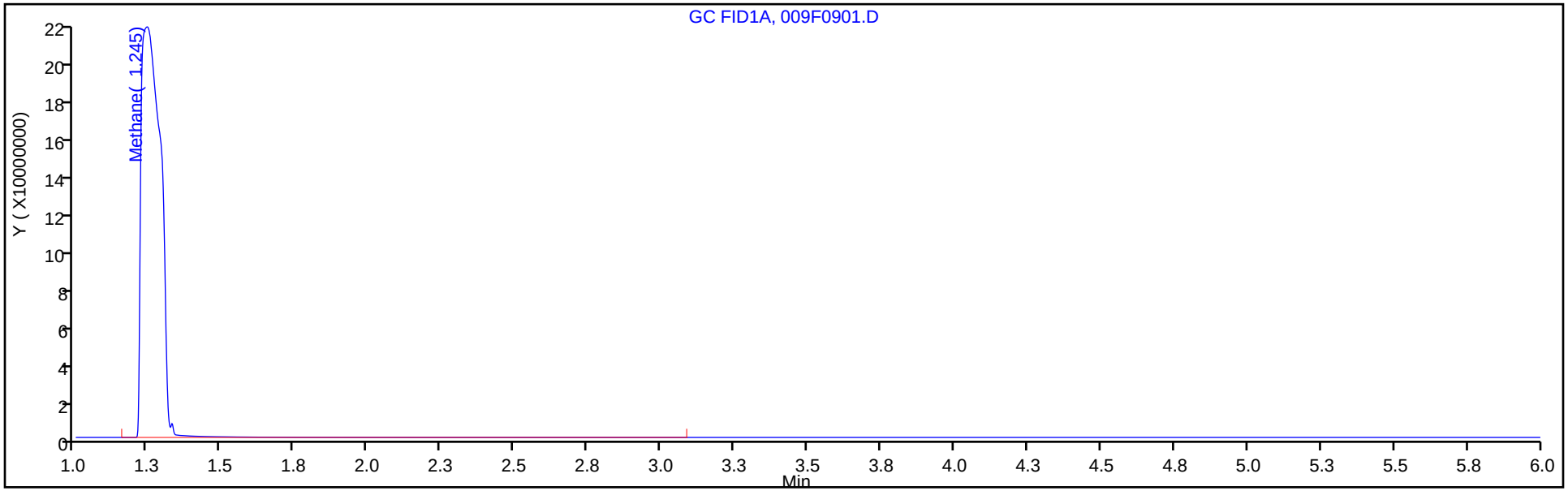
RSK175methane_00010 Amount Added: 200.00 Units: uL

Report Date: 17-May-2020 08:59:50 Chrom Revision: 2.3 05-May-2020 17:48:18

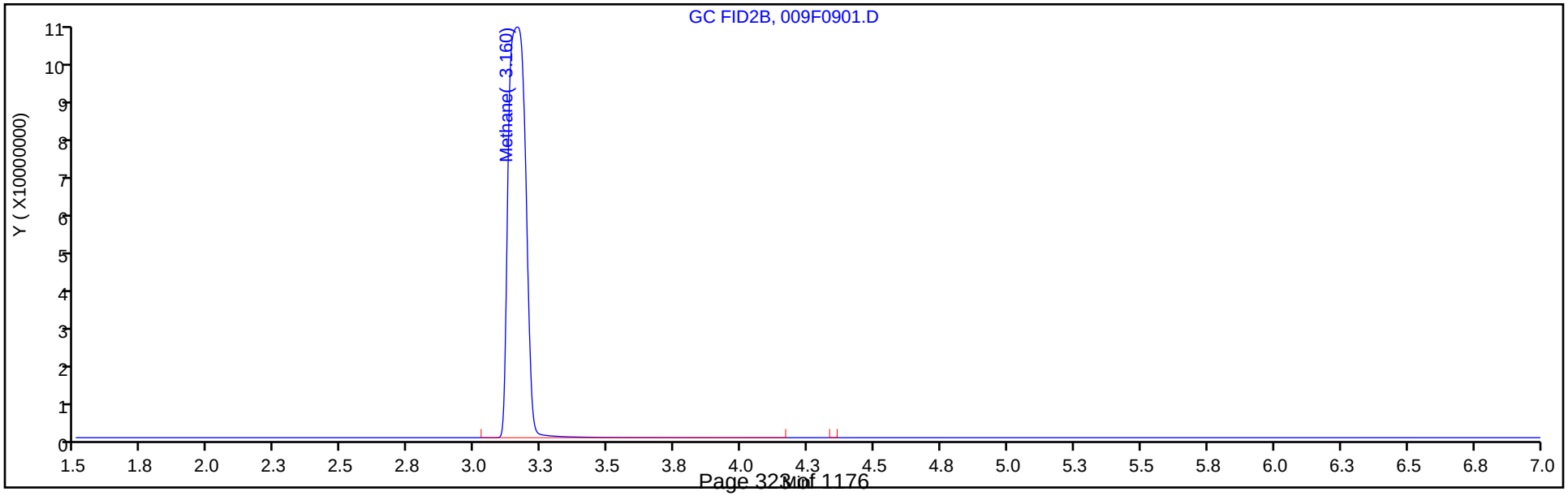
Eurofins TestAmerica, Denver

Data File:	\\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\009F0901.D				
Injection Date:	16-May-2020 13:08:56	Instrument ID:	VGC_J	Operator ID:	MEIERG
Lims ID:	IC L9			Worklist Smp#:	14
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



FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Lab Sample ID: ICV 280-495152/16 Calibration Date: 05/16/2020 13:25

Instrument ID: VGC_J Calib Start Date: 05/16/2020 10:57

GC Column: Rt-Alumina KCl ID: 0.53(mm) Calib End Date: 05/16/2020 13:08

Lab File ID: 010F1001.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		158281		80.1	73.0	9.7	20.0
Ethane	Ave	136043	153595		155	137	12.9	20.0
Ethylene	Ave	110213	122313		142	128	11.0	20.0
Acetylene	Ave	34294	36540		126	119	6.5	20.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Lab Sample ID: ICV 280-495152/16 Calibration Date: 05/16/2020 13:25

Instrument ID: VGC_J Calib Start Date: 05/16/2020 10:57

GC Column: Rt-Alumina KCl ID: 0.53(mm) Calib End Date: 05/16/2020 13:08

Lab File ID: 010F1001.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Methane	1.25	1.21	1.29
Ethane	1.51	1.46	1.56
Ethylene	1.79	1.74	1.84
Acetylene	4.01	3.94	4.10

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\010F1001.D
Lims ID: ICV
Client ID:
Sample Type: ICV
Inject. Date: 16-May-2020 13:25:26 ALS Bottle#: 10 Worklist Smp#: 16
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: ICV
Operator ID: MEIERG Instrument ID: VGC_J
Sublist:

Method: \\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 17-May-2020 09:03:52 Calib Date: 16-May-2020 13:08:56
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\009F0901.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: CTX0312

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Methane							
1	1.249	1.250	-0.001	11555066	73.0	80.1	
2	3.171	3.172	-0.001	5497214	73.0	80.1	
						RPD = 0.01	
3 Ethane							
1	1.513	1.511	0.002	21020301	136.9	154.5	
2	4.305	4.305	0.000	9395211	136.9	153.9	
						RPD = 0.41	
4 Ethylene							
1	1.791	1.793	-0.002	15615273	127.7	141.7	
2	4.031	4.032	-0.001	6823571	127.7	142.4	
						RPD = 0.47	
5 Propane							
1	2.524	2.528	-0.004	32214966	200.7	224.9	
2	5.930	5.928	0.002	14336595	200.7	228.9	
						RPD = 1.77	
6 Acetylene							M
1	4.008	4.015	-0.007	4330795	118.5	126.3	
2	4.136	4.137	-0.001	2842552	118.5	131.6	M
						RPD = 4.10	
7 Butane							Ma
1	4.279	4.286	-0.007	38944801	264.5	295.2	M
2	7.373	7.375	-0.002	18966689	264.5	297.4	a
						RPD = 0.73	
8 isobutylene							
1	5.156	5.163	-0.007	25717354	255.4	288.1	
2	7.226	7.227	-0.001	12003603	255.4	288.8	
						RPD = 0.26	

QC Flag Legend

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

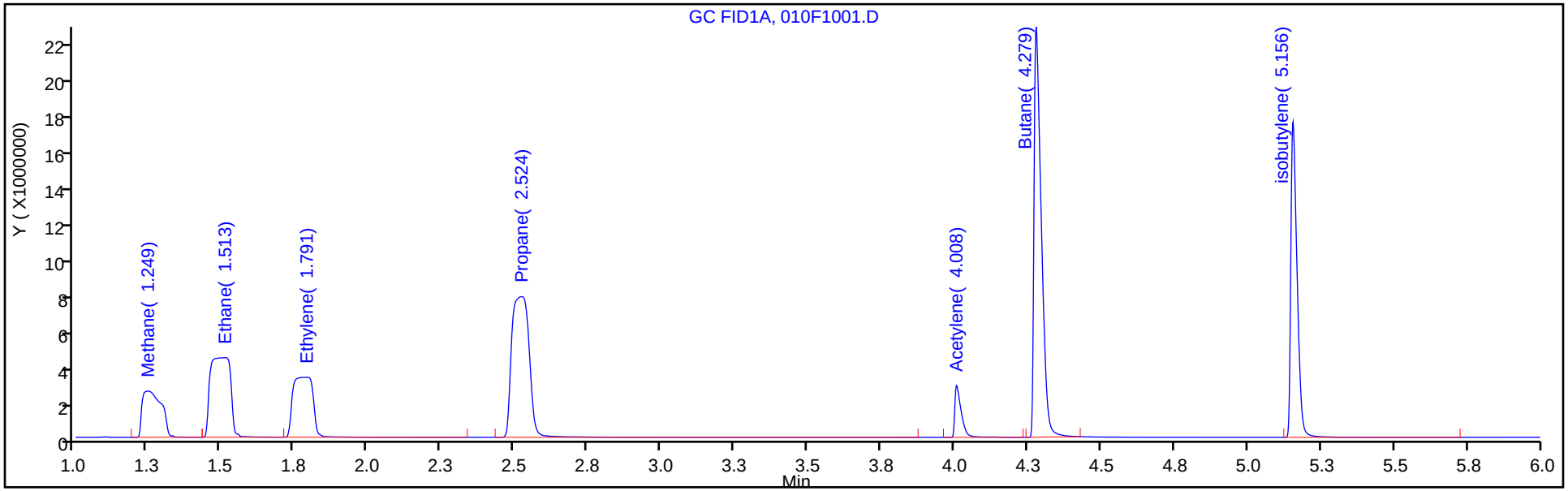
RSK7gasMathes_00027 Amount Added: 200.00 Units: uL

Report Date: 17-May-2020 09:03:52 Chrom Revision: 2.3 05-May-2020 17:48:18

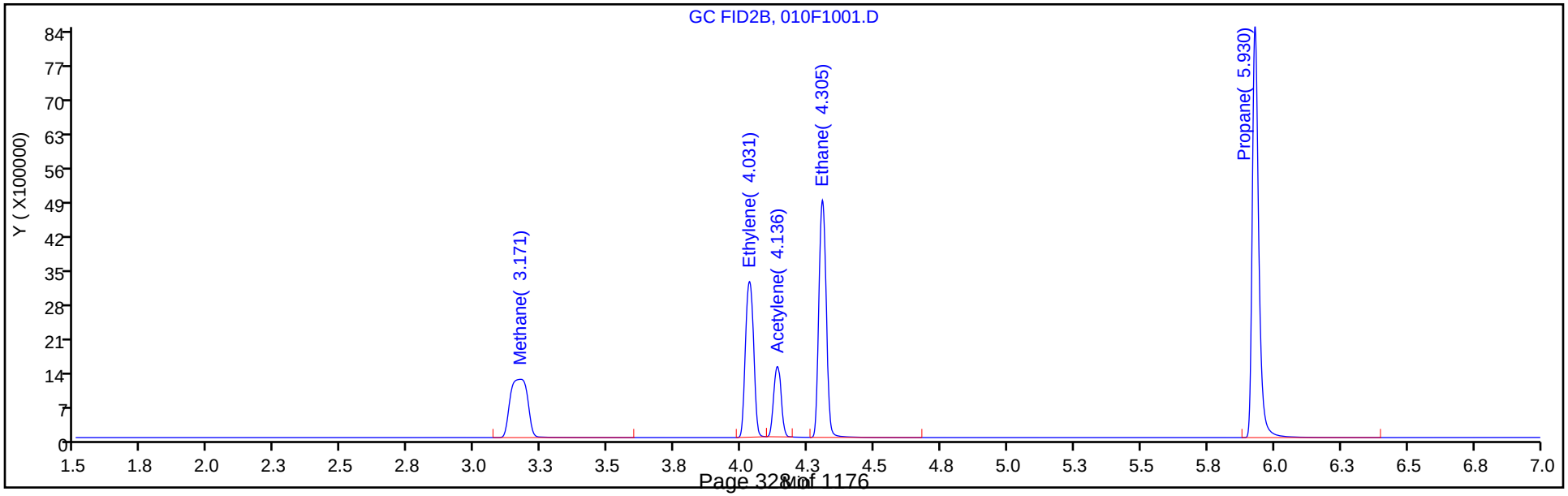
Eurofins TestAmerica, Denver

Data File:	\\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\010F1001.D				
Injection Date:	16-May-2020 13:25:26	Instrument ID:	VGC_J	Operator ID:	MEIERG
Lims ID:	ICV			Worklist Smp#:	16
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



FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Lab Sample ID: ICV 280-495152/16 Calibration Date: 05/16/2020 13:25

Instrument ID: VGC_J Calib Start Date: 05/16/2020 10:57

GC Column: HP-Plot Q ID: 0.53(mm) Calib End Date: 05/16/2020 13:08

Lab File ID: 010F1001.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		75301		80.1	73.0	9.7	20.0
Ethylene	Ave	47934	53448		142	128	11.5	20.0
Acetylene	Ave	21605	23983		132	119	11.0	20.0
Ethane	Ave	61056	68651		154	137	12.4	20.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Lab Sample ID: ICV 280-495152/16 Calibration Date: 05/16/2020 13:25

Instrument ID: VGC_J Calib Start Date: 05/16/2020 10:57

GC Column: HP-Plot Q ID: 0.53(mm) Calib End Date: 05/16/2020 13:08

Lab File ID: 010F1001.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Methane	3.17	3.13	3.21
Ethylene	4.03	3.98	4.08
Acetylene	4.14	4.06	4.22
Ethane	4.31	4.26	4.36

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\010F1001.D
Lims ID: ICV
Client ID:
Sample Type: ICV
Inject. Date: 16-May-2020 13:25:26 ALS Bottle#: 10 Worklist Smp#: 16
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: ICV
Operator ID: MEIERG Instrument ID: VGC_J
Sublist:

Method: \\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 17-May-2020 09:03:52 Calib Date: 16-May-2020 13:08:56
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\009F0901.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: CTX0312

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Methane							
1	1.249	1.250	-0.001	11555066	73.0	80.1	
2	3.171	3.172	-0.001	5497214	73.0	80.1	
						RPD = 0.01	
3 Ethane							
1	1.513	1.511	0.002	21020301	136.9	154.5	
2	4.305	4.305	0.000	9395211	136.9	153.9	
						RPD = 0.41	
4 Ethylene							
1	1.791	1.793	-0.002	15615273	127.7	141.7	
2	4.031	4.032	-0.001	6823571	127.7	142.4	
						RPD = 0.47	
5 Propane							
1	2.524	2.528	-0.004	32214966	200.7	224.9	
2	5.930	5.928	0.002	14336595	200.7	228.9	
						RPD = 1.77	
6 Acetylene							M
1	4.008	4.015	-0.007	4330795	118.5	126.3	
2	4.136	4.137	-0.001	2842552	118.5	131.6	M
						RPD = 4.10	
7 Butane							Ma
1	4.279	4.286	-0.007	38944801	264.5	295.2	M
2	7.373	7.375	-0.002	18966689	264.5	297.4	a
						RPD = 0.73	
8 isobutylene							
1	5.156	5.163	-0.007	25717354	255.4	288.1	
2	7.226	7.227	-0.001	12003603	255.4	288.8	
						RPD = 0.26	

QC Flag Legend

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

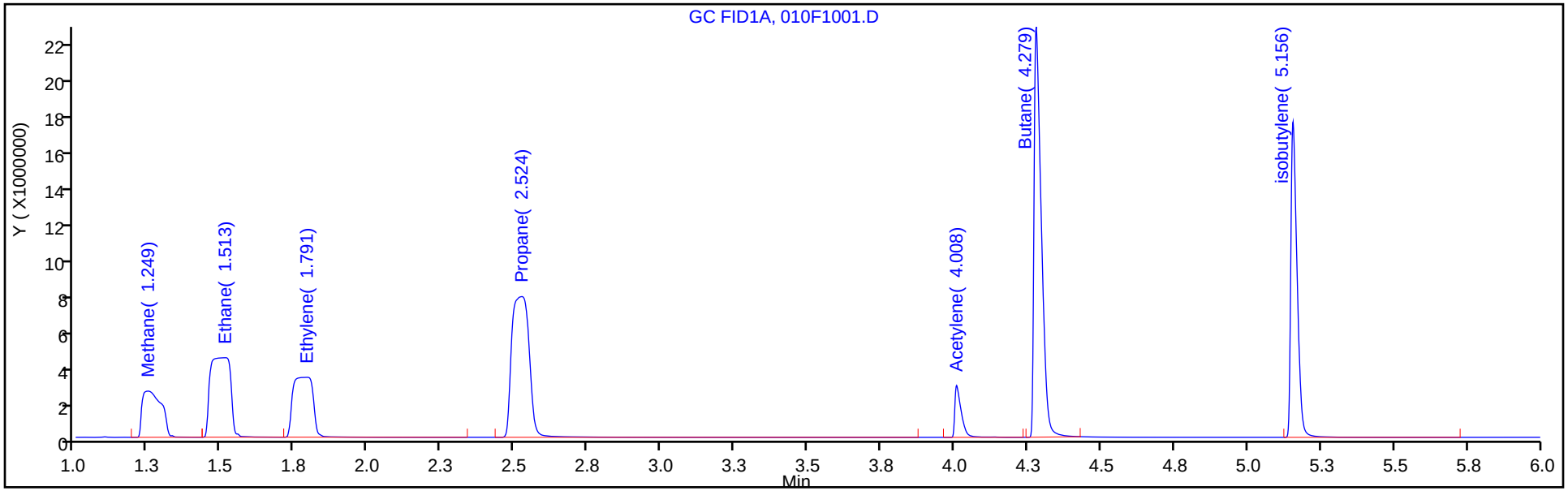
RSK7gasMathes_00027 Amount Added: 200.00 Units: uL

Report Date: 17-May-2020 09:03:52 Chrom Revision: 2.3 05-May-2020 17:48:18

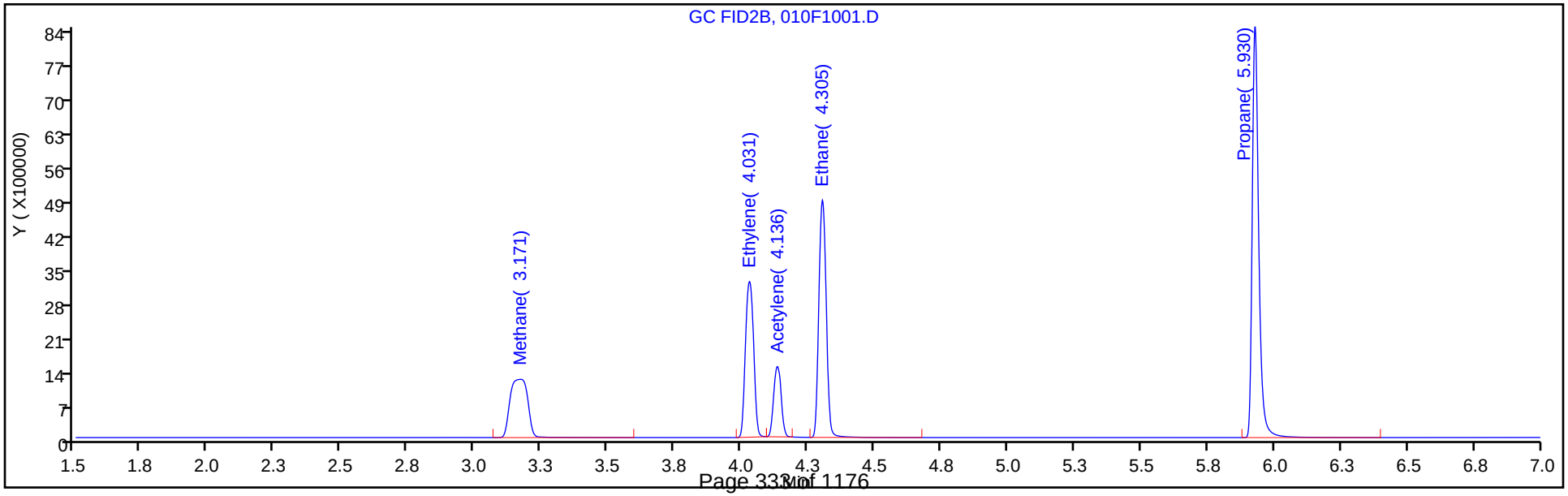
Eurofins TestAmerica, Denver

Data File:	\\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\010F1001.D				
Injection Date:	16-May-2020 13:25:26	Instrument ID:	VGC_J	Operator ID:	MEIERG
Lims ID:	ICV			Worklist Smp#:	16
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

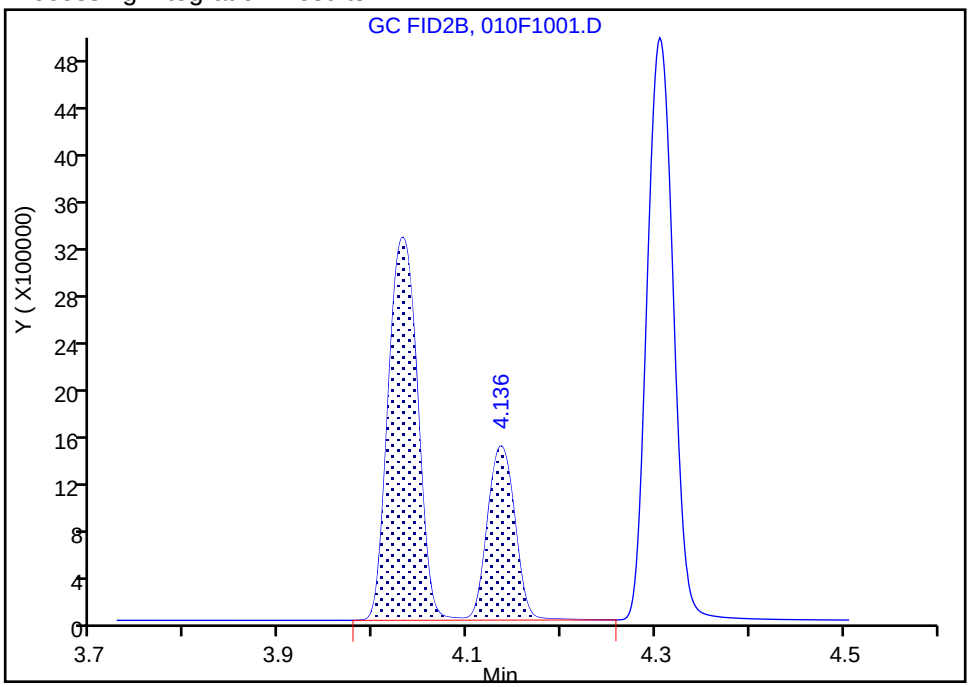
Data File:	\\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\010F1001.D				
Injection Date:	16-May-2020 13:25:26	Instrument ID:	VGC_J		
Lims ID:	ICV				
Client ID:					
Operator ID:	MEIERG	ALS Bottle#:	10	Worklist Smp#:	16
Purge Vol:	18.000 mL	Dil. Factor:	1.0000		
Method:	RSK_J	Limit Group:	GCV - RSK 175		
Column:	HP-PLOT/Q (0.53 mm)	Detector	GC FID2B		

6 Acetylene, CAS: 74-86-2

Signal: 2

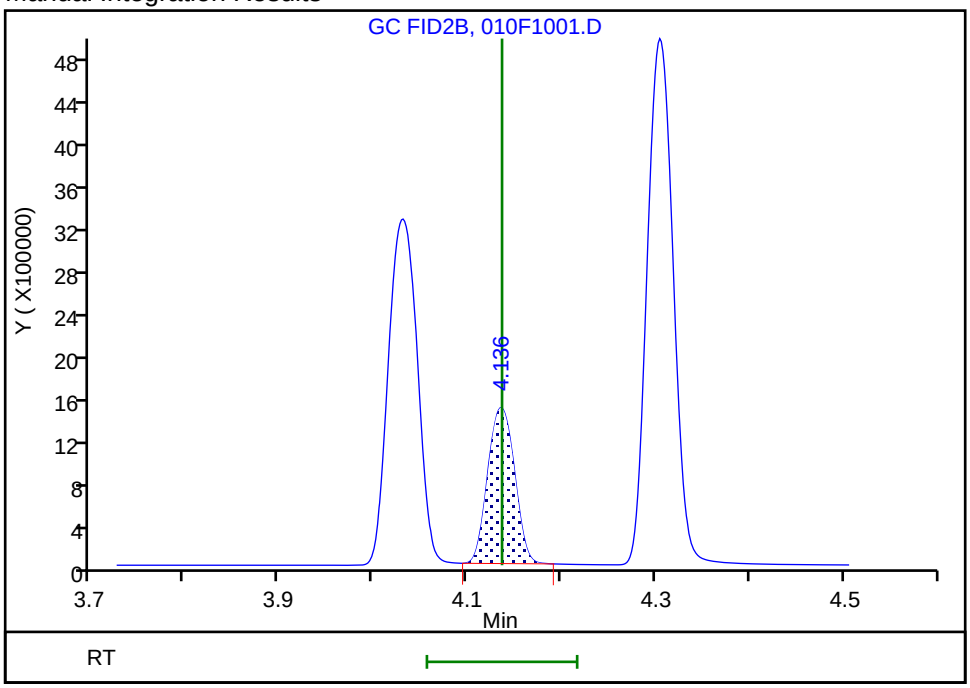
Processing Integration Results

RT: 4.14
Area: 9809067
Amount: 454.0080
Amount Units: ug/l



Manual Integration Results

RT: 4.14
Area: 2842552
Amount: 131.5662
Amount Units: ug/l



Reviewer: meierg, 17-May-2020 07:28:53
Audit Action: Manually Integrated Audit Reason: Shouldering

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Lab Sample ID: CCVRT 280-498346/4 Calibration Date: 06/11/2020 10:58

Instrument ID: VGC_J Calib Start Date: 05/16/2020 10:57

GC Column: Rt-Alumina KCl ID: 0.53(mm) Calib End Date: 05/16/2020 13:08

Lab File ID: 004F0401.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		153143		77.4	73.0	6.1	20.0
Ethane	Ave	136043	151913		153	137	11.7	20.0
Ethylene	Ave	110213	124039		144	128	12.5	20.0
Acetylene	Ave	34294	36553		126	119	6.6	20.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Lab Sample ID: CCVRT 280-498346/4 Calibration Date: 06/11/2020 10:58

Instrument ID: VGC_J Calib Start Date: 05/16/2020 10:57

GC Column: Rt-Alumina KCl ID: 0.53(mm) Calib End Date: 05/16/2020 13:08

Lab File ID: 004F0401.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Methane	1.25	1.21	1.29
Ethane	1.51	1.46	1.56
Ethylene	1.78	1.73	1.83
Acetylene	3.94	3.86	4.02

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20200611-92320.b\004F0401.D
Lims ID: ccvrt
Client ID:
Sample Type: CCVRT
Inject. Date: 11-Jun-2020 10:58:19 ALS Bottle#: 4 Worklist Smp#: 4
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\20200611-92320.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 12-Jun-2020 10:45:54 Calib Date: 16-May-2020 13:08:56
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\009F0901.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: CTX1019

First Level Reviewer: sciannac Date: 11-Jun-2020 12:12:42

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Methane							
1	1.250	1.250	0.000	11179944	73.0	77.4	
2	3.162	3.162	0.000	5412965	73.0	78.8	
						RPD = 1.77	
3 Ethane							M
1	1.505	1.505	0.000	20790171	136.9	152.8	
2	4.297	4.297	0.000	9511792	136.9	155.8	M
						RPD = 1.92	
4 Ethylene							Ma
1	1.777	1.777	0.000	15835652	127.7	143.7	
2	4.024	4.024	0.000	7107372	127.7	148.3	M
						RPD = 3.15	
5 Propane							
1	2.467	2.467	0.000	31825025	200.7	222.2	
2	5.920	5.920	0.000	14400384	200.7	229.9	
						RPD = 3.43	
6 Acetylene							Ma
1	3.935	3.935	0.000	4332365	118.5	126.3	a
2	4.129	4.129	0.000	2951697	118.5	136.6	M
						RPD = 7.83	
7 Butane							
1	4.220	4.220	0.000	38942662	264.5	295.2	
2	7.365	7.365	0.000	19090992	264.5	299.3	
						RPD = 1.39	
8 isobutylene							
1	5.123	5.123	0.000	27009489	255.4	302.6	
2	7.219	7.219	0.000	12823187	255.4	308.6	
						RPD = 1.96	

QC Flag Legend

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

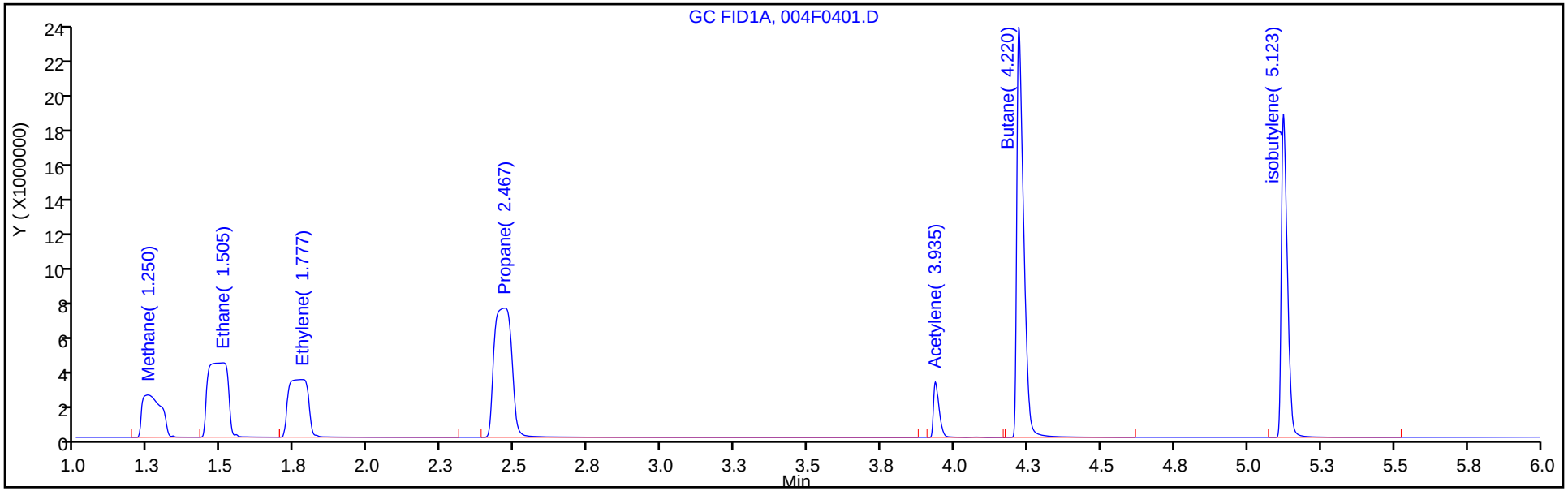
RSK7gasMathes_00031 Amount Added: 200.00 Units: uL

Report Date: 12-Jun-2020 10:45:54 Chrom Revision: 2.3 10-Jun-2020 22:46:48

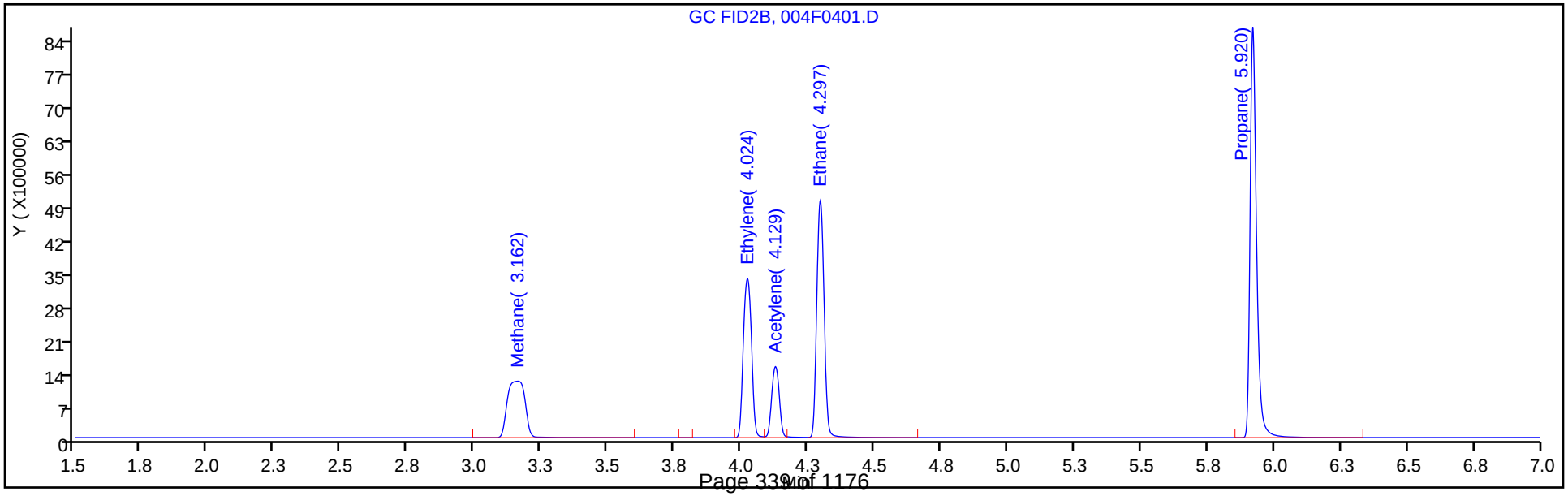
Eurofins TestAmerica, Denver

Data File:	\\chromfs\Denver\ChromData\VGC_J\20200611-92320.b\004F0401.D				
Injection Date:	11-Jun-2020 10:58:19	Instrument ID:	VGC_J	Operator ID:	SCIANNAC
Lims ID:	ccvrt			Worklist Smp#:	4
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

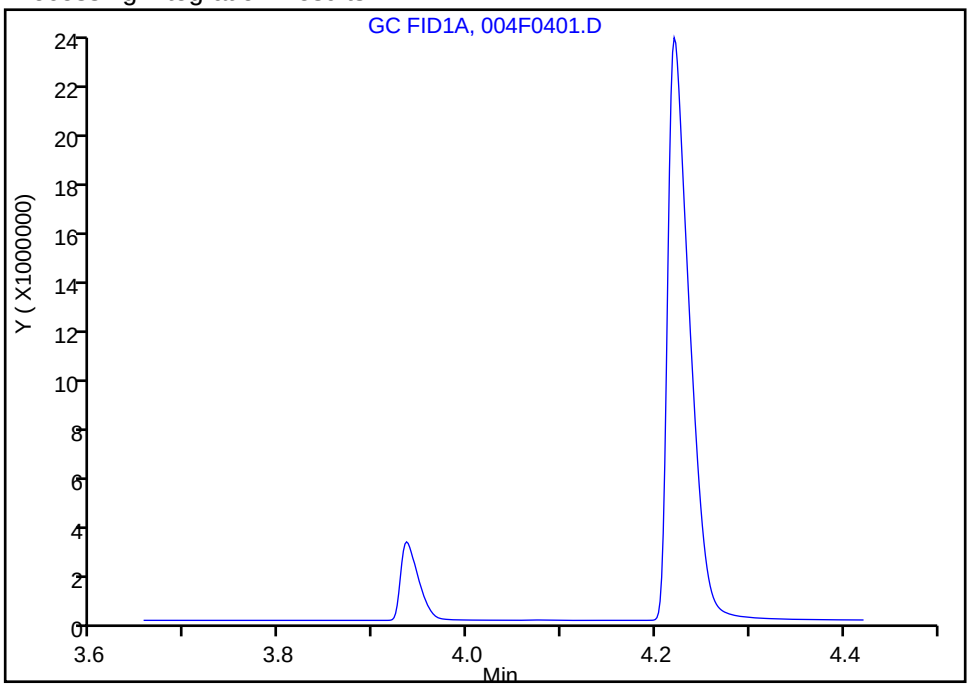
Data File:	\\chromfs\Denver\ChromData\VGC_J\20200611-92320.b\004F0401.D				
Injection Date:	11-Jun-2020 10:58:19	Instrument ID:	VGC_J		
Lims ID:	ccvrt				
Client ID:					
Operator ID:	SCIANNAC	ALS Bottle#:	4	Worklist Smp#:	4
Purge Vol:	18.000 mL	Dil. Factor:	1.0000		
Method:	RSK_J	Limit Group:	GCV - RSK 175		
Column:	Rt-Alumina BOND/KCl (0.53 mm)	Detector	GC FID1A		

6 Acetylene, CAS: 74-86-2

Signal: 1

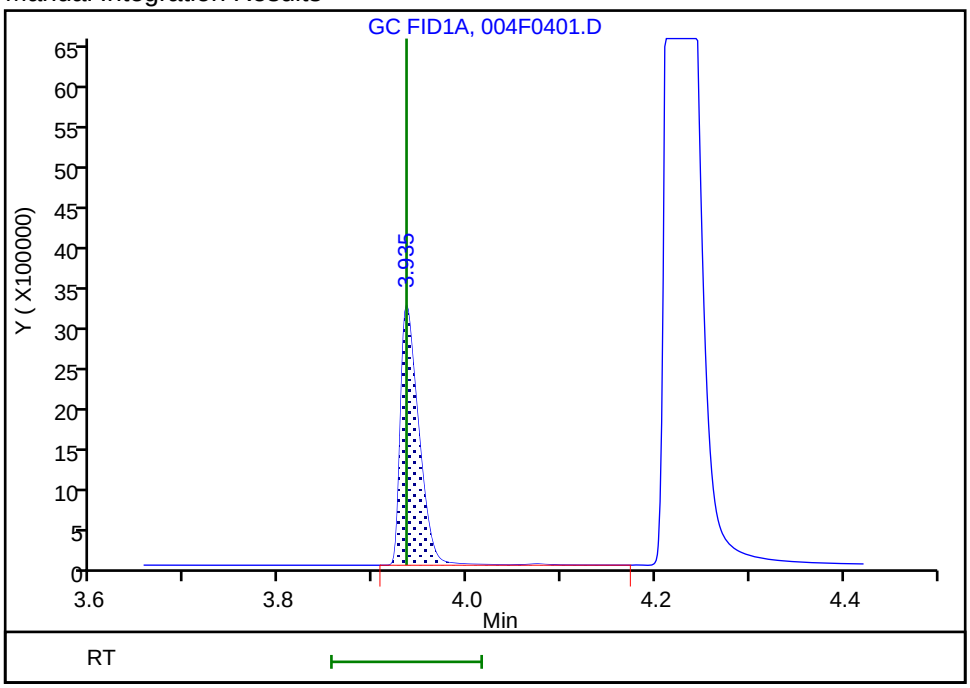
Not Detected
Expected RT: 3.93

Processing Integration Results



Manual Integration Results

RT: 3.93
Area: 4332365
Amount: 126.3291
Amount Units: ug/l



Reviewer: sciannac, 11-Jun-2020 12:09:40
Audit Action: Assigned Compound ID Audit Reason: Split Peak

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Lab Sample ID: CCVRT 280-498346/4 Calibration Date: 06/11/2020 10:58

Instrument ID: VGC_J Calib Start Date: 05/16/2020 10:57

GC Column: HP-Plot Q ID: 0.53(mm) Calib End Date: 05/16/2020 13:08

Lab File ID: 004F0401.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		74147		78.8	73.0	8.0	20.0
Ethylene	Ave	47934	55671		148	128	16.1	20.0
Acetylene	Ave	21605	24904		137	119	15.3	20.0
Ethane	Ave	61056	69502		156	137	13.8	20.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Lab Sample ID: CCVRT 280-498346/4 Calibration Date: 06/11/2020 10:58

Instrument ID: VGC_J Calib Start Date: 05/16/2020 10:57

GC Column: HP-Plot Q ID: 0.53(mm) Calib End Date: 05/16/2020 13:08

Lab File ID: 004F0401.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Methane	3.16	3.12	3.20
Ethylene	4.02	3.97	4.07
Acetylene	4.13	4.05	4.21
Ethane	4.30	4.25	4.35

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20200611-92320.b\004F0401.D
Lims ID: ccvrt
Client ID:
Sample Type: CCVRT
Inject. Date: 11-Jun-2020 10:58:19 ALS Bottle#: 4 Worklist Smp#: 4
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\20200611-92320.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 12-Jun-2020 10:45:54 Calib Date: 16-May-2020 13:08:56
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\009F0901.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: CTX1019

First Level Reviewer: sciannac Date: 11-Jun-2020 12:12:42

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Methane							
1	1.250	1.250	0.000	11179944	73.0	77.4	
2	3.162	3.162	0.000	5412965	73.0	78.8	
						RPD = 1.77	
3 Ethane							M
1	1.505	1.505	0.000	20790171	136.9	152.8	
2	4.297	4.297	0.000	9511792	136.9	155.8	M
						RPD = 1.92	
4 Ethylene							Ma
1	1.777	1.777	0.000	15835652	127.7	143.7	
2	4.024	4.024	0.000	7107372	127.7	148.3	M
						RPD = 3.15	
5 Propane							
1	2.467	2.467	0.000	31825025	200.7	222.2	
2	5.920	5.920	0.000	14400384	200.7	229.9	
						RPD = 3.43	
6 Acetylene							Ma
1	3.935	3.935	0.000	4332365	118.5	126.3	a
2	4.129	4.129	0.000	2951697	118.5	136.6	M
						RPD = 7.83	
7 Butane							
1	4.220	4.220	0.000	38942662	264.5	295.2	
2	7.365	7.365	0.000	19090992	264.5	299.3	
						RPD = 1.39	
8 isobutylene							
1	5.123	5.123	0.000	27009489	255.4	302.6	
2	7.219	7.219	0.000	12823187	255.4	308.6	
						RPD = 1.96	

QC Flag Legend

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

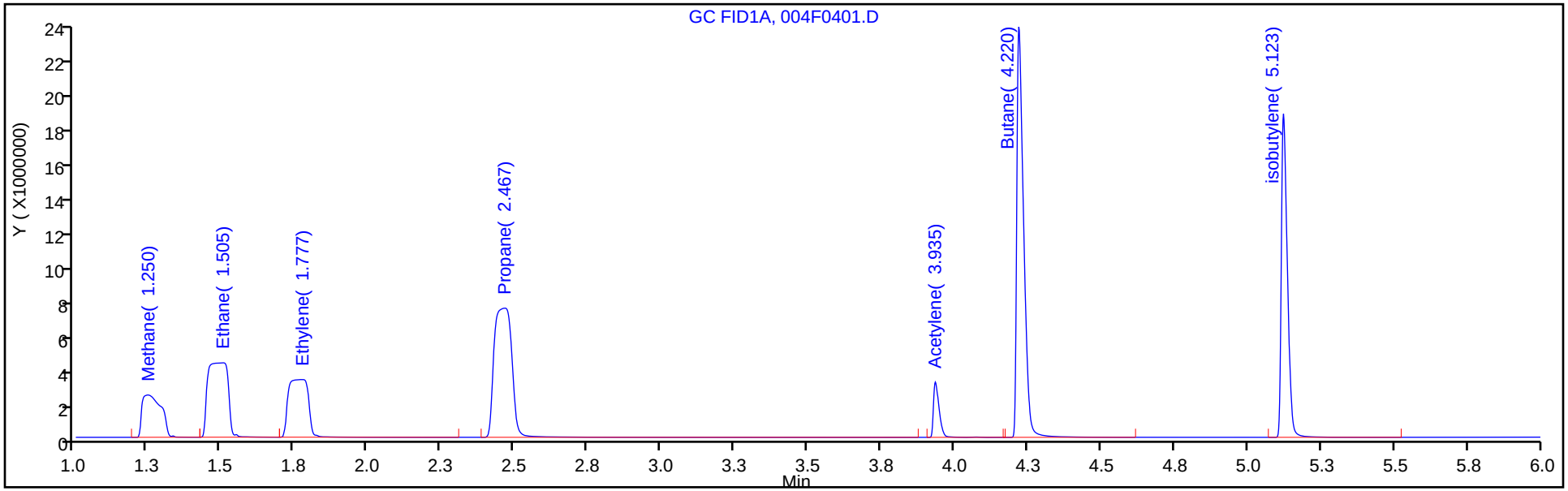
RSK7gasMathes_00031 Amount Added: 200.00 Units: uL

Report Date: 12-Jun-2020 10:45:54 Chrom Revision: 2.3 10-Jun-2020 22:46:48

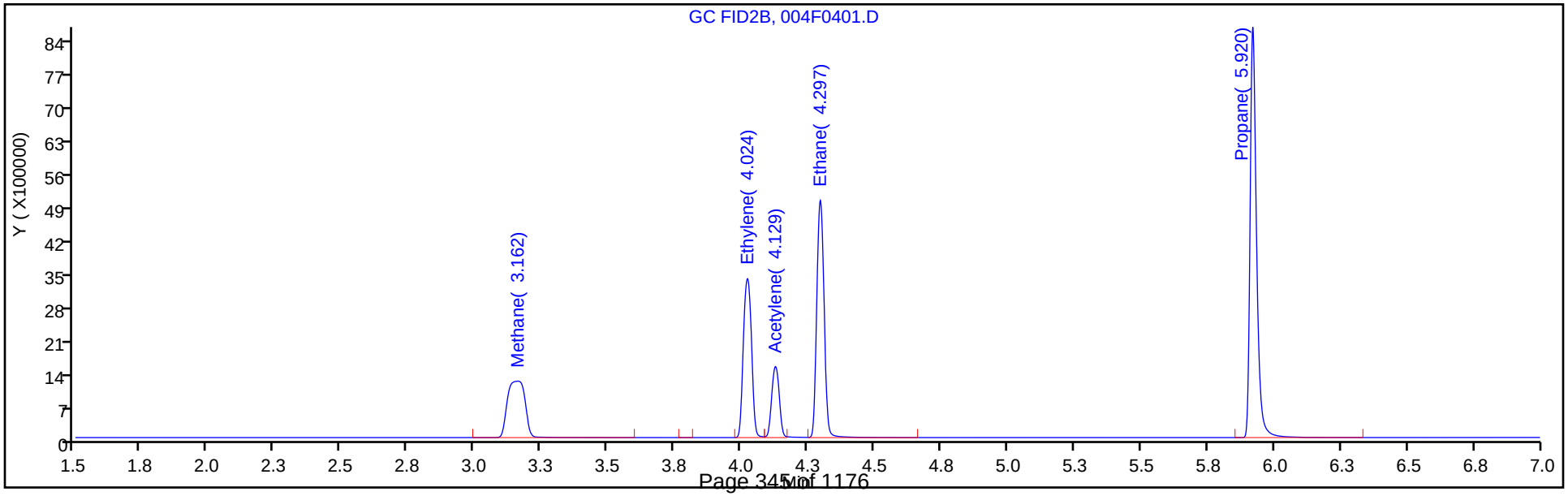
Eurofins TestAmerica, Denver

Data File:	\\chromfs\Denver\ChromData\VGC_J\20200611-92320.b\004F0401.D				
Injection Date:	11-Jun-2020 10:58:19	Instrument ID:	VGC_J	Operator ID:	SCIANNAC
Lims ID:	ccvrt			Worklist Smp#:	4
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

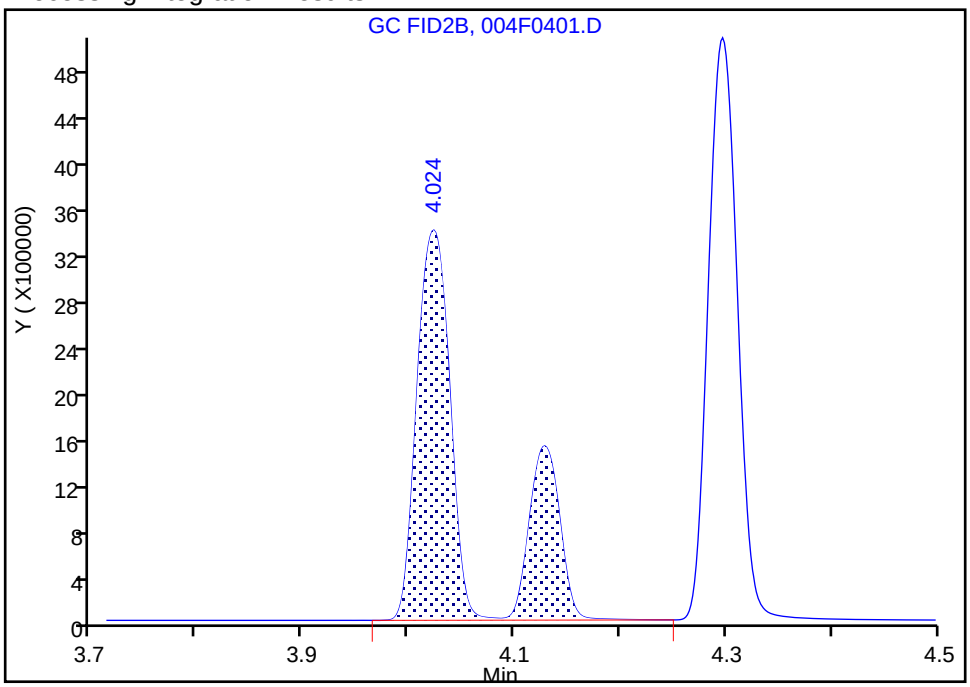
Data File:	\\chromfs\Denver\ChromData\VGC_J\20200611-92320.b\004F0401.D				
Injection Date:	11-Jun-2020 10:58:19	Instrument ID:	VGC_J		
Lims ID:	ccvrt				
Client ID:					
Operator ID:	SCIANNAC	ALS Bottle#:	4	Worklist Smp#:	4
Purge Vol:	18.000 mL	Dil. Factor:	1.0000		
Method:	RSK_J	Limit Group:	GCV - RSK 175		
Column:	HP-PLOT/Q (0.53 mm)	Detector	GC FID2B		

4 Ethylene, CAS: 74-85-1

Signal: 2

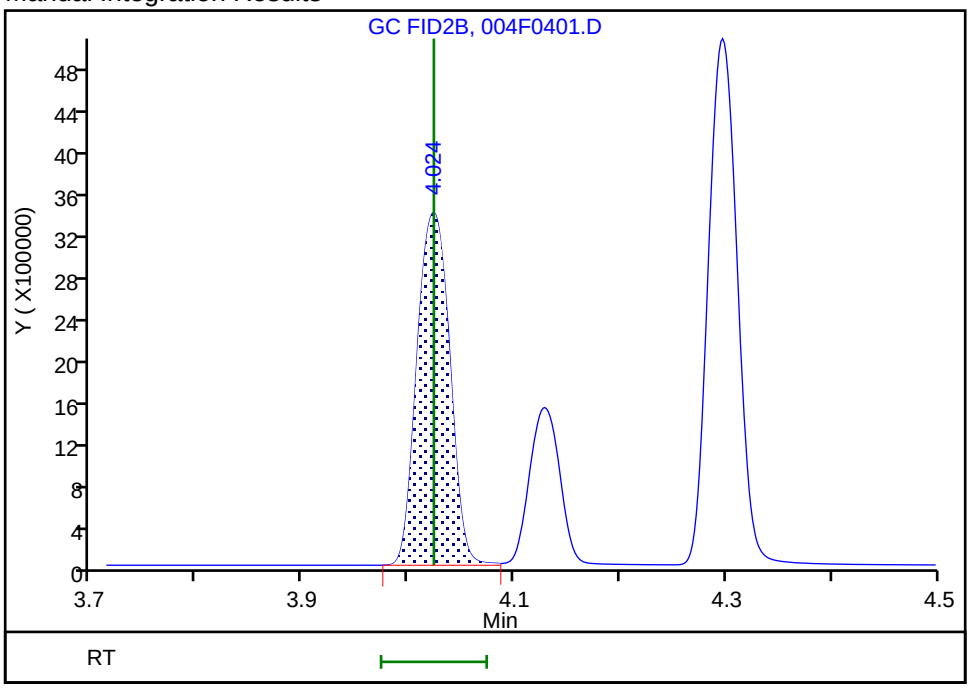
Processing Integration Results

RT: 4.02
Area: 10062470
Amount: 209.9247
Amount Units: ug/l



Manual Integration Results

RT: 4.02
Area: 7107372
Amount: 148.2750
Amount Units: ug/l



Reviewer: sciannac, 11-Jun-2020 12:12:20
Audit Action: Split an Integrated Peak Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

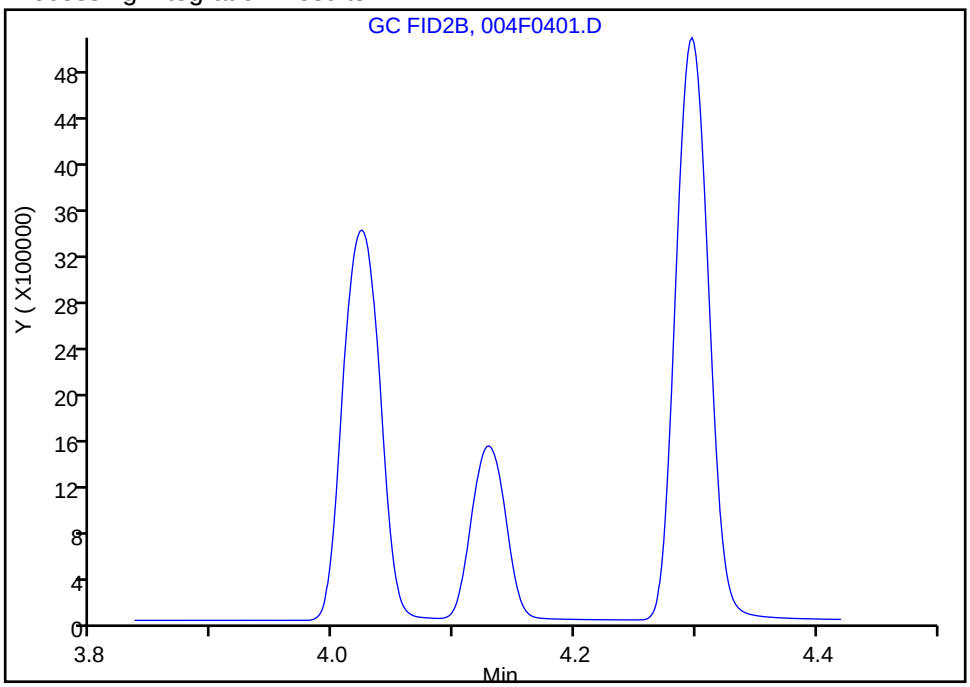
Data File:	\\chromfs\Denver\ChromData\VGC_J\20200611-92320.b\004F0401.D				
Injection Date:	11-Jun-2020 10:58:19	Instrument ID:	VGC_J		
Lims ID:	ccvrt				
Client ID:					
Operator ID:	SCIANNAC	ALS Bottle#:	4	Worklist Smp#:	4
Purge Vol:	18.000 mL	Dil. Factor:	1.0000		
Method:	RSK_J	Limit Group:	GCV - RSK 175		
Column:	HP-PLOT/Q (0.53 mm)	Detector	GC FID2B		

6 Acetylene, CAS: 74-86-2

Signal: 2

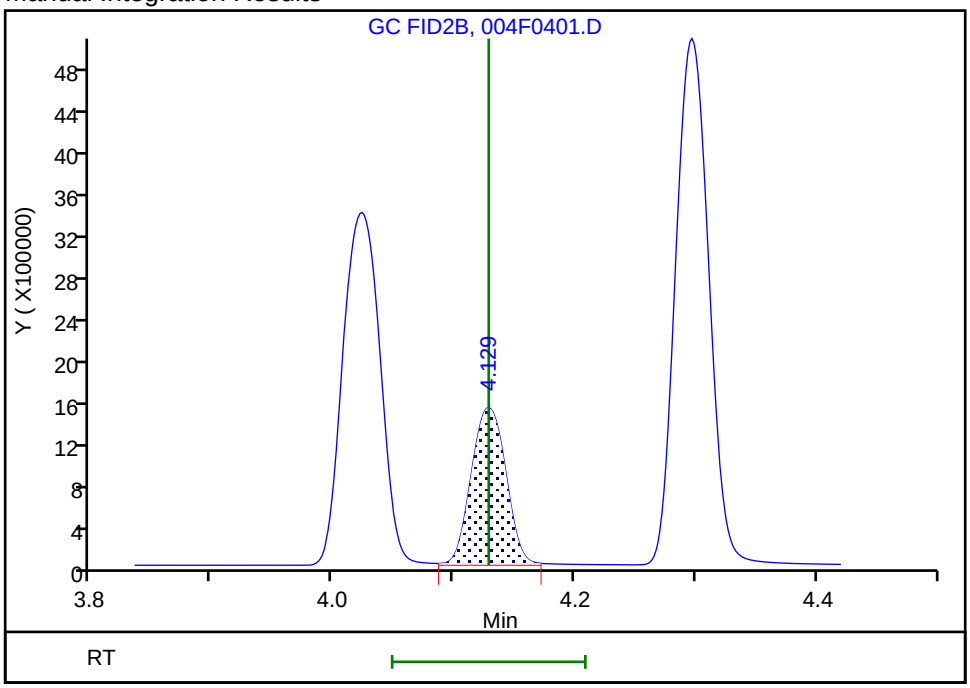
Not Detected
Expected RT: 4.13

Processing Integration Results



Manual Integration Results

RT: 4.13
Area: 2951697
Amount: 136.6179
Amount Units: ug/l



Reviewer: sciannac, 11-Jun-2020 12:12:27
Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

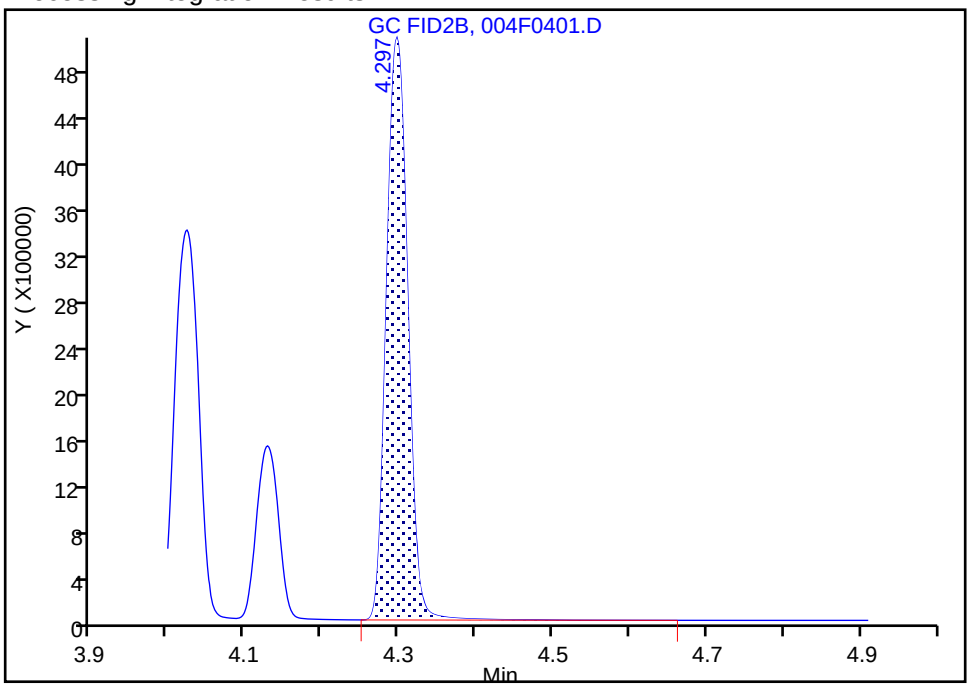
Data File:	\\chromfs\Denver\ChromData\VGC_J\20200611-92320.b\004F0401.D				
Injection Date:	11-Jun-2020 10:58:19	Instrument ID:	VGC_J		
Lims ID:	ccvrt				
Client ID:					
Operator ID:	SCIANNAC	ALS Bottle#:	4	Worklist Smp#:	4
Purge Vol:	18.000 mL	Dil. Factor:	1.0000		
Method:	RSK_J	Limit Group:	GCV - RSK 175		
Column:	HP-PLOT/Q (0.53 mm)	Detector	GC FID2B		

3 Ethane, CAS: 74-84-0

Signal: 2

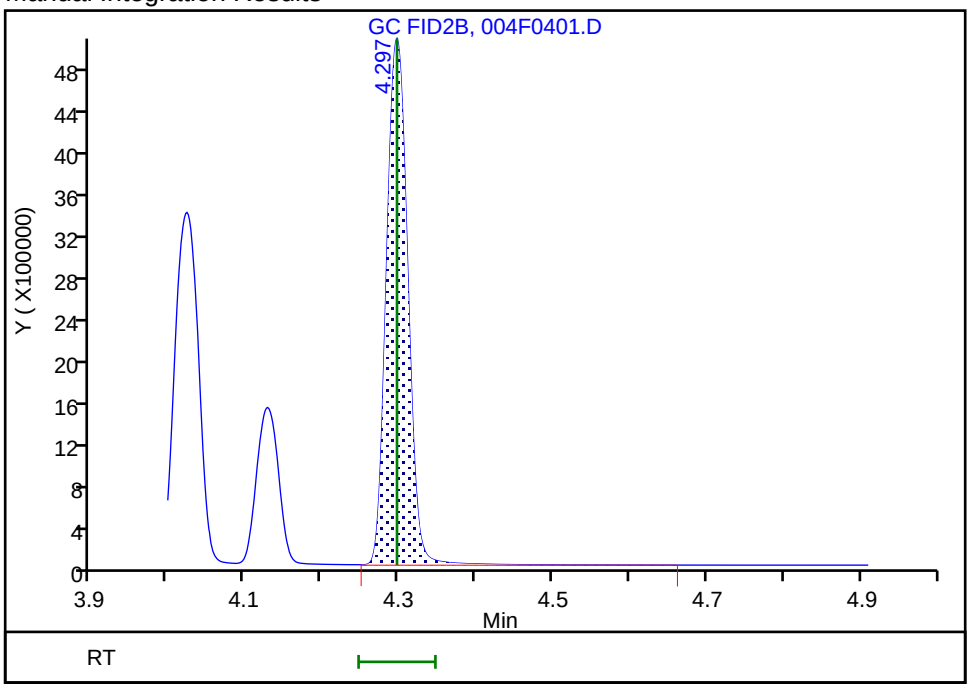
Processing Integration Results

RT: 4.30
Area: 9445929
Amount: 154.7081
Amount Units: ug/l



Manual Integration Results

RT: 4.30
Area: 9511792
Amount: 155.7868
Amount Units: ug/l



Reviewer: sciannac, 11-Jun-2020 12:11:44
Audit Action: Assigned New Baseline Audit Reason: Peak not integrated

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Lab Sample ID: CCV 280-498346/21 Calibration Date: 06/11/2020 17:19

Instrument ID: VGC_J Calib Start Date: 05/16/2020 10:57

GC Column: Rt-Alumina KCl ID: 0.53(mm) Calib End Date: 05/16/2020 13:08

Lab File ID: 023F1501.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		131558		66.5	73.0	-8.9	20.0
Ethane	Ave	136043	132560		133	137	-2.6	20.0
Ethylene	Ave	110213	107652		125	128	-2.3	20.0
Acetylene	Ave	34294	33801		117	119	-1.4	20.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Lab Sample ID: CCV 280-498346/21 Calibration Date: 06/11/2020 17:19

Instrument ID: VGC_J Calib Start Date: 05/16/2020 10:57

GC Column: Rt-Alumina KCl ID: 0.53(mm) Calib End Date: 05/16/2020 13:08

Lab File ID: 023F1501.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Methane	1.25	1.21	1.29
Ethane	1.51	1.45	1.55
Ethylene	1.78	1.72	1.82
Acetylene	3.94	3.86	4.02

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20200611-92320.b\023F1501.D
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 11-Jun-2020 17:19:25 ALS Bottle#: 23 Worklist Smp#: 21
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\20200611-92320.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 12-Jun-2020 10:46:04 Calib Date: 16-May-2020 13:08:56
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\009F0901.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: CTX1019

First Level Reviewer: sciannac Date: 11-Jun-2020 17:52:00

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Methane							
1	1.252	1.246	0.006	9604165	73.0	66.5	
2	3.164	3.155	0.009	4638570	73.0	67.5	
						RPD = 1.54	
3 Ethane							
1	1.505	1.500	0.005	18141592	136.9	133.4	
2	4.299	4.293	0.006	8204884	136.9	134.4	
						RPD = 0.77	
4 Ethylene							Ma
1	1.779	1.773	0.006	13743522	127.7	124.7	
2	4.026	4.018	0.008	6136089	127.7	128.0	M
						RPD = 2.62	
5 Propane							
1	2.469	2.461	0.008	28146733	200.7	196.5	
2	5.922	5.917	0.005	12677823	200.7	202.4	
						RPD = 2.98	
6 Acetylene							Ma
1	3.937	3.935	0.002	4006167	118.5	116.8	a
2	4.131	4.125	0.006	2724740	118.5	126.1	M
						RPD = 7.65	
7 Butane							
1	4.222	4.218	0.004	35233578	264.5	267.1	
2	7.366	7.362	0.004	17186077	264.5	269.5	
						RPD = 0.89	
8 isobutylene							
1	5.125	5.123	0.002	24043525	255.4	269.3	
2	7.219	7.215	0.004	11359799	255.4	273.3	
						RPD = 1.48	

QC Flag Legend

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

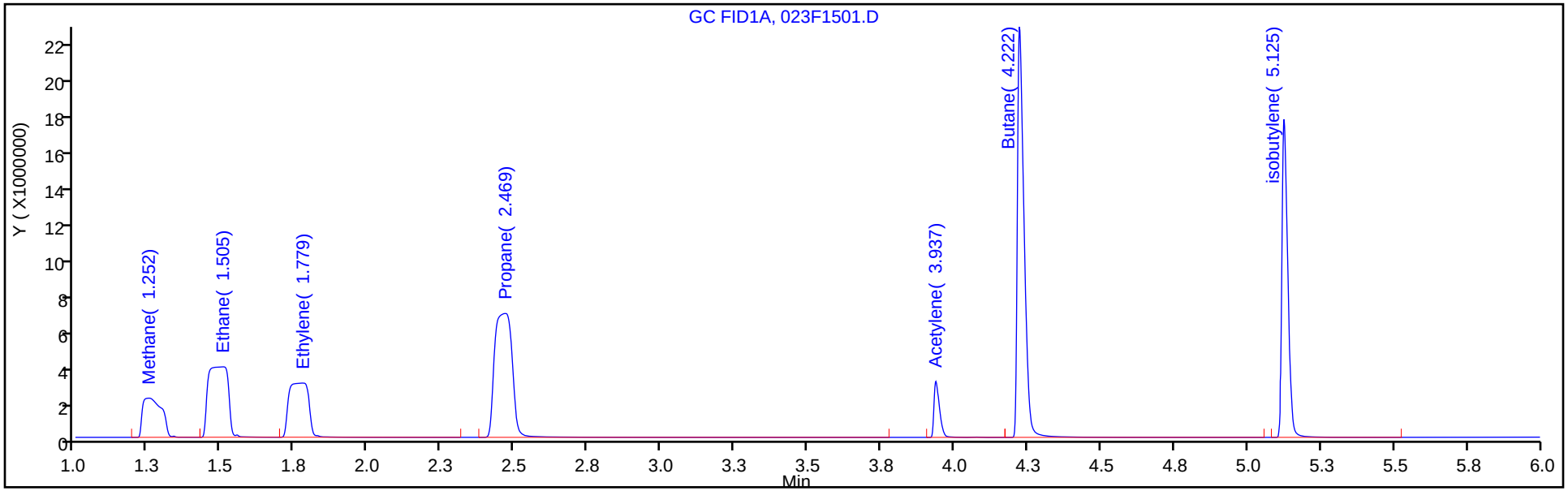
RSK7gasMathes_00031 Amount Added: 200.00 Units: uL

Report Date: 12-Jun-2020 10:46:04 Chrom Revision: 2.3 10-Jun-2020 22:46:48

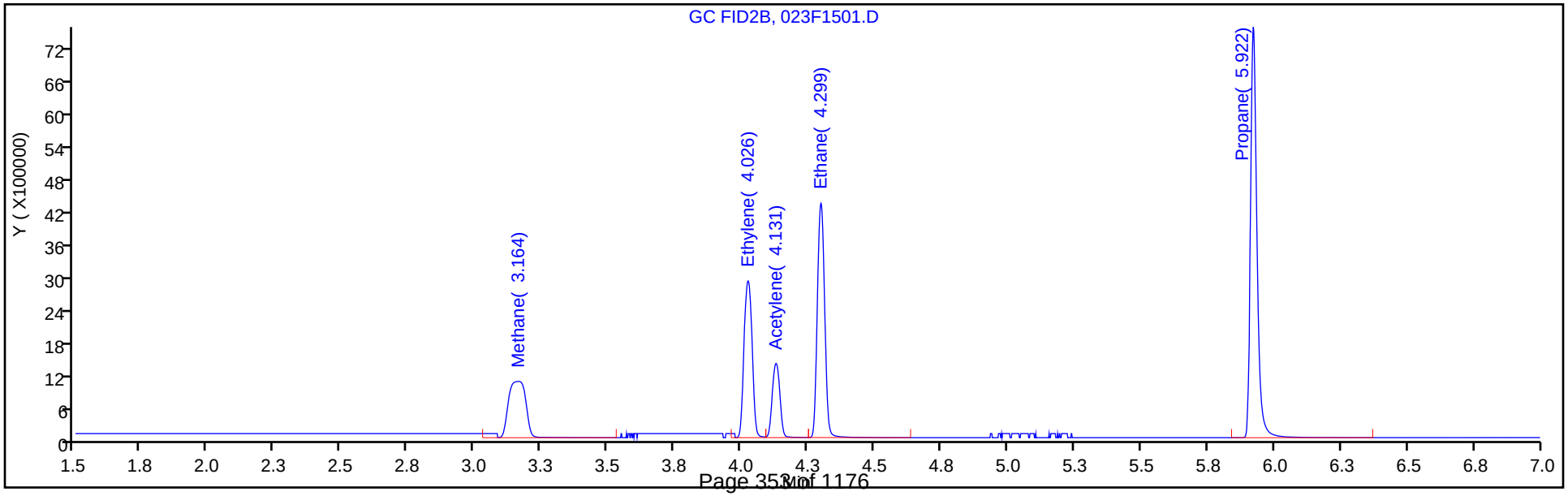
Eurofins TestAmerica, Denver

Data File:	\\chromfs\Denver\ChromData\VGC_J\20200611-92320.b\023F1501.D				
Injection Date:	11-Jun-2020 17:19:25	Instrument ID:	VGC_J	Operator ID:	SCIANNAC
Lims ID:	ccv			Worklist Smp#:	21
Client ID:					
Purge Vol:	18.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	23
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

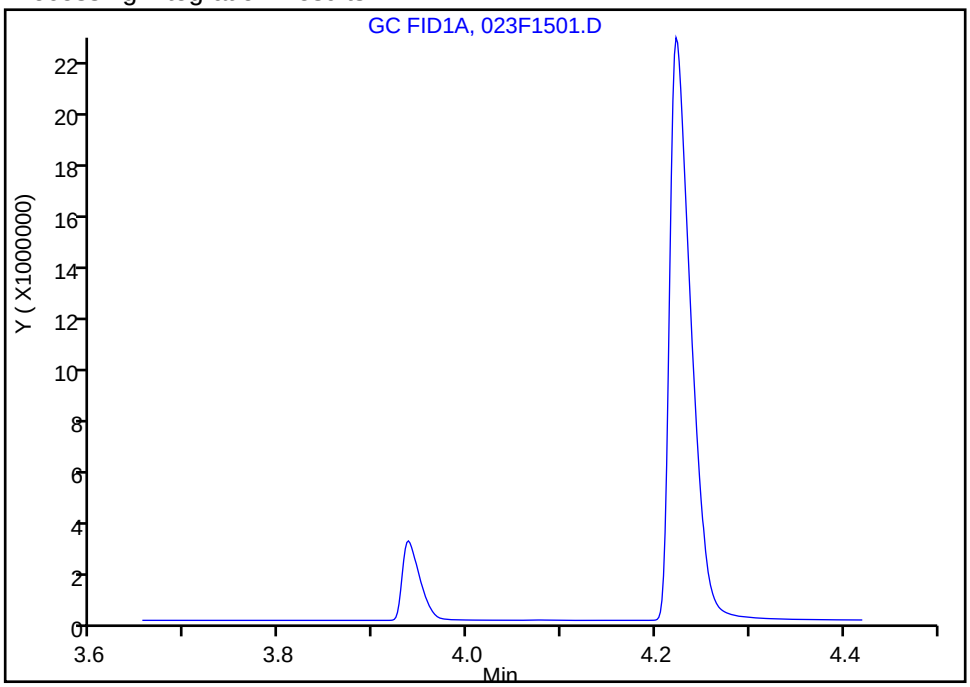
Data File:	\\chromfs\Denver\ChromData\VGC_J\20200611-92320.b\023F1501.D				
Injection Date:	11-Jun-2020 17:19:25	Instrument ID:	VGC_J		
Lims ID:	ccv				
Client ID:					
Operator ID:	SCIANNAC	ALS Bottle#:	23	Worklist Smp#:	21
Purge Vol:	18.000 mL	Dil. Factor:	1.0000		
Method:	RSK_J	Limit Group:	GCV - RSK 175		
Column:	Rt-Alumina BOND/KCl (0.53 mm)	Detector	GC FID1A		

6 Acetylene, CAS: 74-86-2

Signal: 1

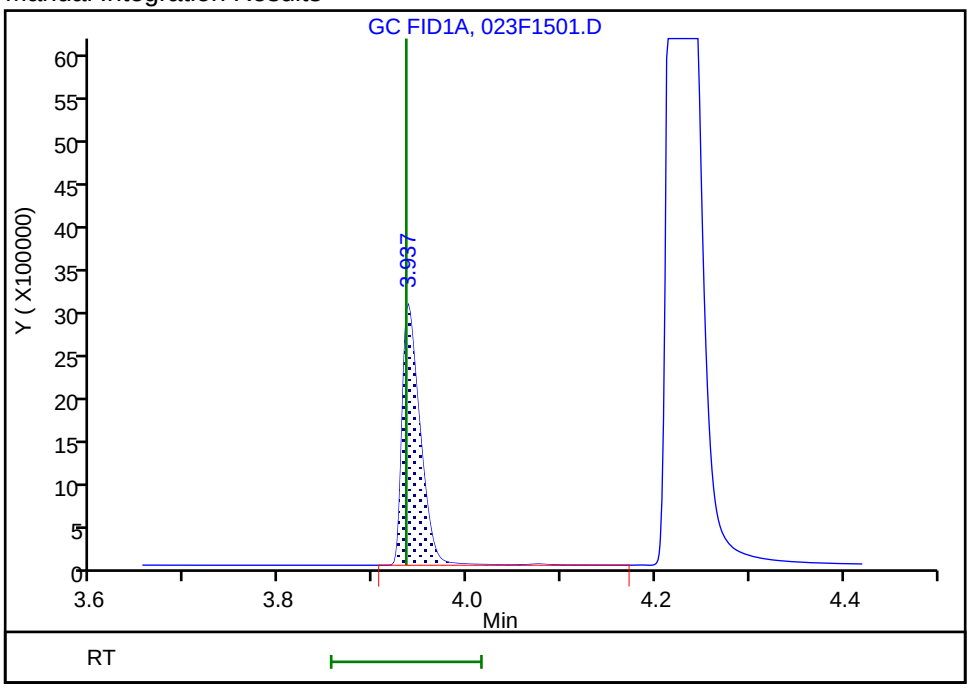
Not Detected
Expected RT: 3.93

Processing Integration Results



Manual Integration Results

RT: 3.94
Area: 4006167
Amount: 116.8174
Amount Units: ug/l



Reviewer: sciannac, 11-Jun-2020 20:55:55
Audit Action: Assigned Compound ID Audit Reason: Split Peak

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Lab Sample ID: CCV 280-498346/21 Calibration Date: 06/11/2020 17:19

Instrument ID: VGC_J Calib Start Date: 05/16/2020 10:57

GC Column: HP-Plot Q ID: 0.53(mm) Calib End Date: 05/16/2020 13:08

Lab File ID: 023F1501.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		63539		67.5	73.0	-7.5	20.0
Ethylene	Ave	47934	48063		128	128	0.3	20.0
Acetylene	Ave	21605	22989		126	119	6.4	20.0
Ethane	Ave	61056	59953		134	137	-1.8	20.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Lab Sample ID: CCV 280-498346/21 Calibration Date: 06/11/2020 17:19

Instrument ID: VGC_J Calib Start Date: 05/16/2020 10:57

GC Column: HP-Plot Q ID: 0.53(mm) Calib End Date: 05/16/2020 13:08

Lab File ID: 023F1501.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Methane	3.16	3.12	3.20
Ethylene	4.03	3.97	4.07
Acetylene	4.13	4.05	4.21
Ethane	4.30	4.24	4.34

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20200611-92320.b\023F1501.D
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 11-Jun-2020 17:19:25 ALS Bottle#: 23 Worklist Smp#: 21
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\20200611-92320.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 12-Jun-2020 10:46:04 Calib Date: 16-May-2020 13:08:56
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\009F0901.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: CTX1019

First Level Reviewer: sciannac Date: 11-Jun-2020 17:52:00

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Methane							
1	1.252	1.246	0.006	9604165	73.0	66.5	
2	3.164	3.155	0.009	4638570	73.0	67.5	
						RPD = 1.54	
3 Ethane							
1	1.505	1.500	0.005	18141592	136.9	133.4	
2	4.299	4.293	0.006	8204884	136.9	134.4	
						RPD = 0.77	
4 Ethylene							Ma
1	1.779	1.773	0.006	13743522	127.7	124.7	
2	4.026	4.018	0.008	6136089	127.7	128.0	M
						RPD = 2.62	
5 Propane							
1	2.469	2.461	0.008	28146733	200.7	196.5	
2	5.922	5.917	0.005	12677823	200.7	202.4	
						RPD = 2.98	
6 Acetylene							Ma
1	3.937	3.935	0.002	4006167	118.5	116.8	a
2	4.131	4.125	0.006	2724740	118.5	126.1	M
						RPD = 7.65	
7 Butane							
1	4.222	4.218	0.004	35233578	264.5	267.1	
2	7.366	7.362	0.004	17186077	264.5	269.5	
						RPD = 0.89	
8 isobutylene							
1	5.125	5.123	0.002	24043525	255.4	269.3	
2	7.219	7.215	0.004	11359799	255.4	273.3	
						RPD = 1.48	

QC Flag Legend

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

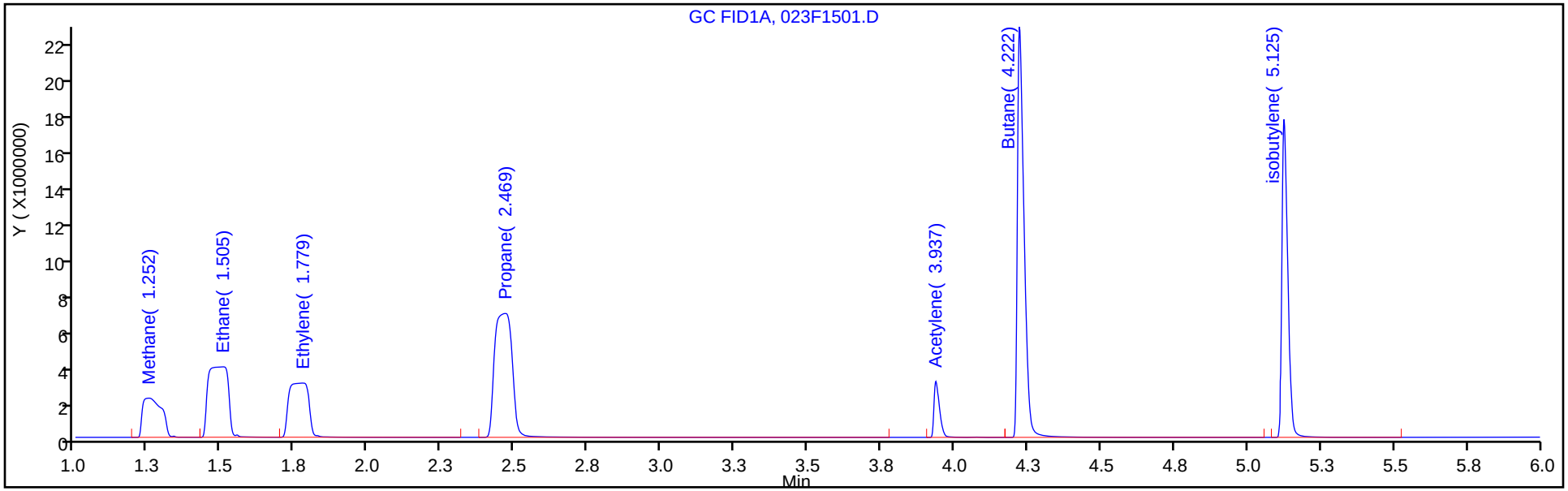
RSK7gasMathes_00031 Amount Added: 200.00 Units: uL

Report Date: 12-Jun-2020 10:46:04 Chrom Revision: 2.3 10-Jun-2020 22:46:48

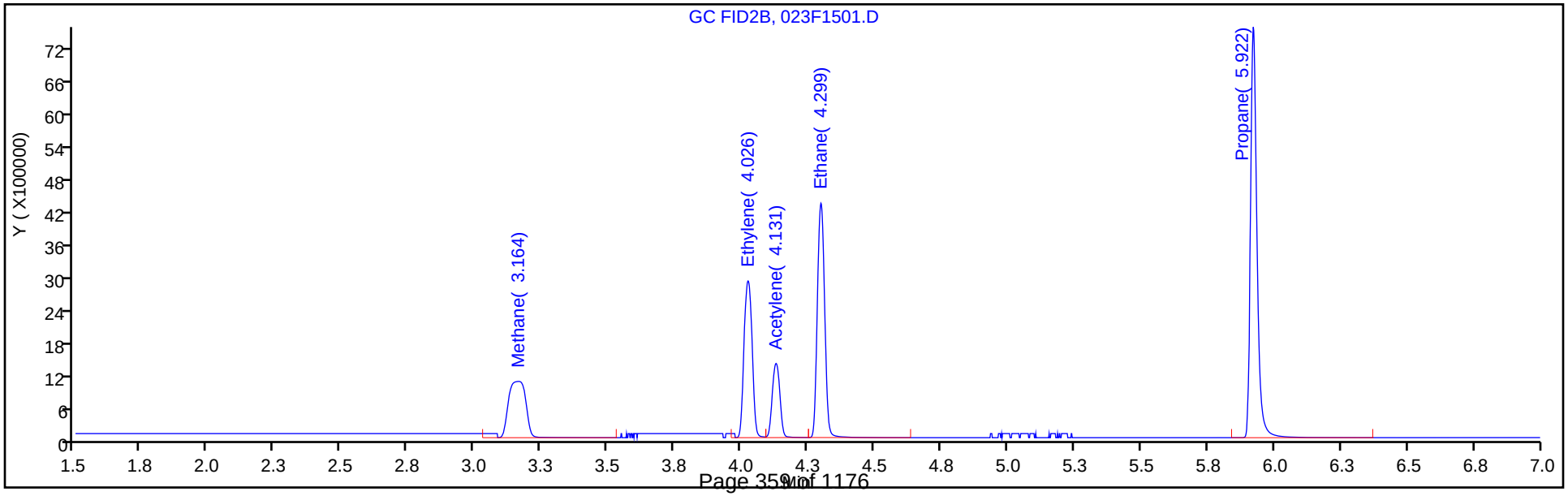
Eurofins TestAmerica, Denver

Data File:	\\chromfs\Denver\ChromData\VGC_J\20200611-92320.b\023F1501.D				
Injection Date:	11-Jun-2020 17:19:25	Instrument ID:	VGC_J	Operator ID:	SCIANNAC
Lims ID:	ccv			Worklist Smp#:	21
Client ID:					
Purge Vol:	18.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	23
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

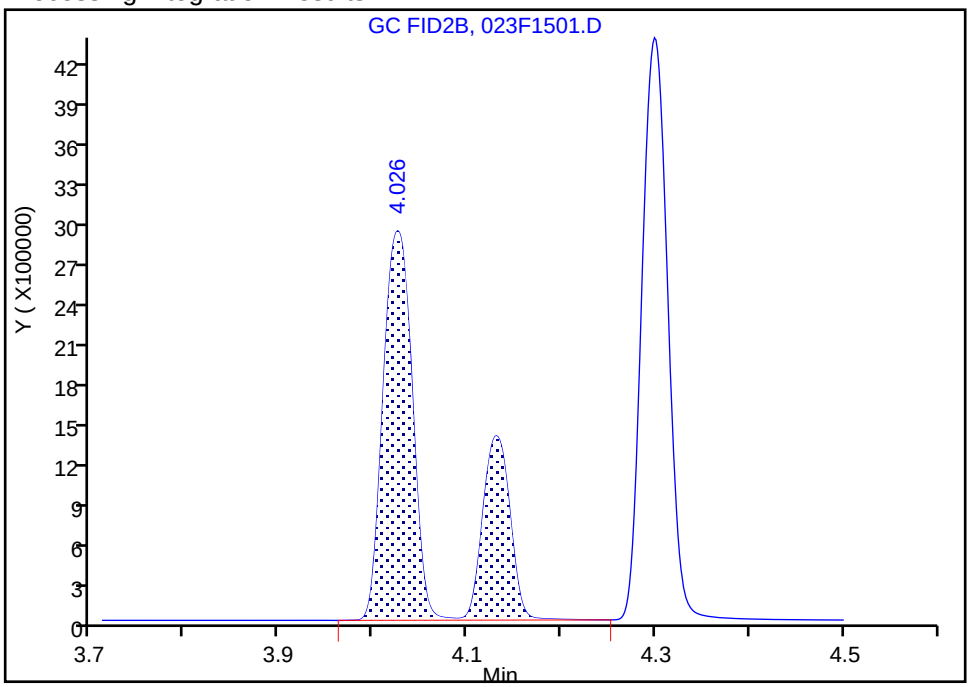
Data File:	\\chromfs\Denver\ChromData\VGC_J\20200611-92320.b\023F1501.D				
Injection Date:	11-Jun-2020 17:19:25	Instrument ID:	VGC_J		
Lims ID:	ccv				
Client ID:					
Operator ID:	SCIANNAC	ALS Bottle#:	23	Worklist Smp#:	21
Purge Vol:	18.000 mL	Dil. Factor:	1.0000		
Method:	RSK_J	Limit Group:	GCV - RSK 175		
Column:	HP-PLOT/Q (0.53 mm)	Detector	GC FID2B		

4 Ethylene, CAS: 74-85-1

Signal: 2

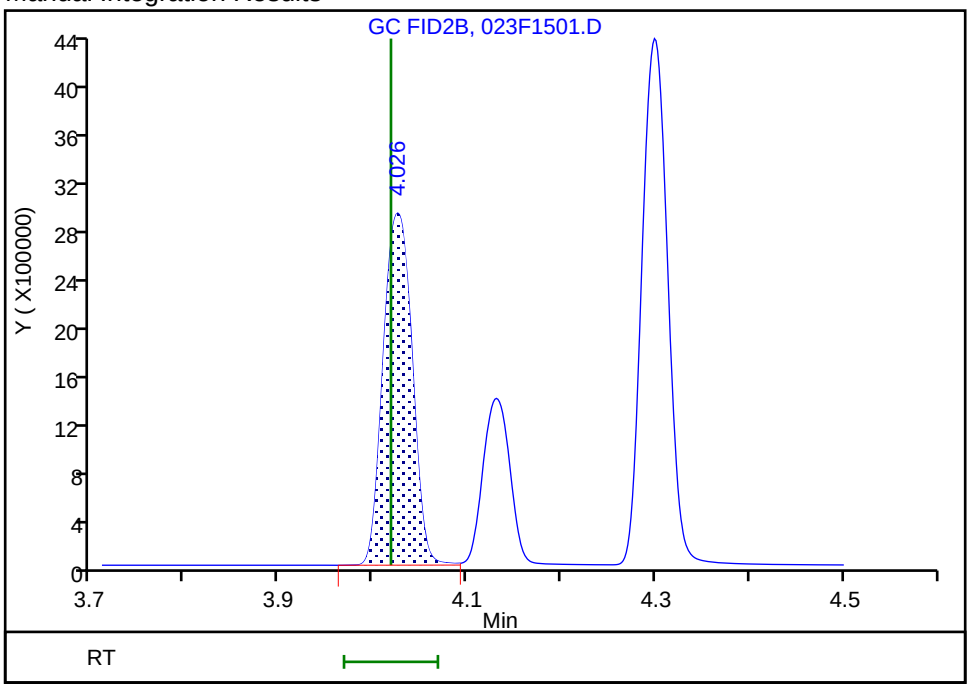
Processing Integration Results

RT: 4.03
Area: 8860776
Amount: 184.8548
Amount Units: ug/l



Manual Integration Results

RT: 4.03
Area: 6136089
Amount: 128.0120
Amount Units: ug/l



Reviewer: sciannac, 11-Jun-2020 20:55:44

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

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

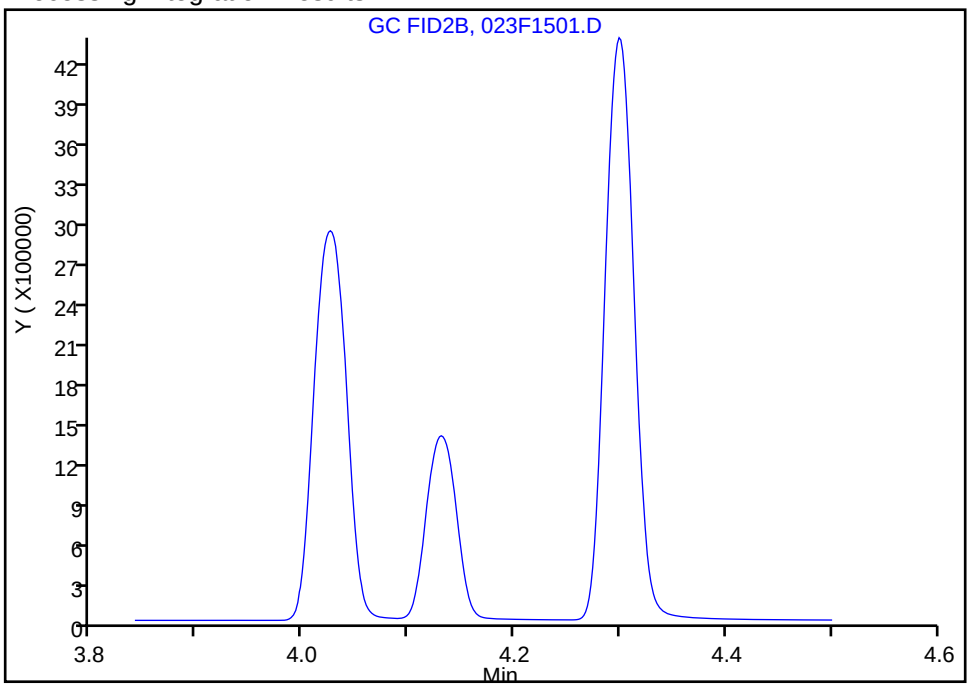
Data File:	\\chromfs\Denver\ChromData\VGC_J\20200611-92320.b\023F1501.D				
Injection Date:	11-Jun-2020 17:19:25	Instrument ID:	VGC_J		
Lims ID:	ccv				
Client ID:					
Operator ID:	SCIANNAC	ALS Bottle#:	23	Worklist Smp#:	21
Purge Vol:	18.000 mL	Dil. Factor:	1.0000		
Method:	RSK_J	Limit Group:	GCV - RSK 175		
Column:	HP-PLOT/Q (0.53 mm)	Detector	GC FID2B		

6 Acetylene, CAS: 74-86-2

Signal: 2

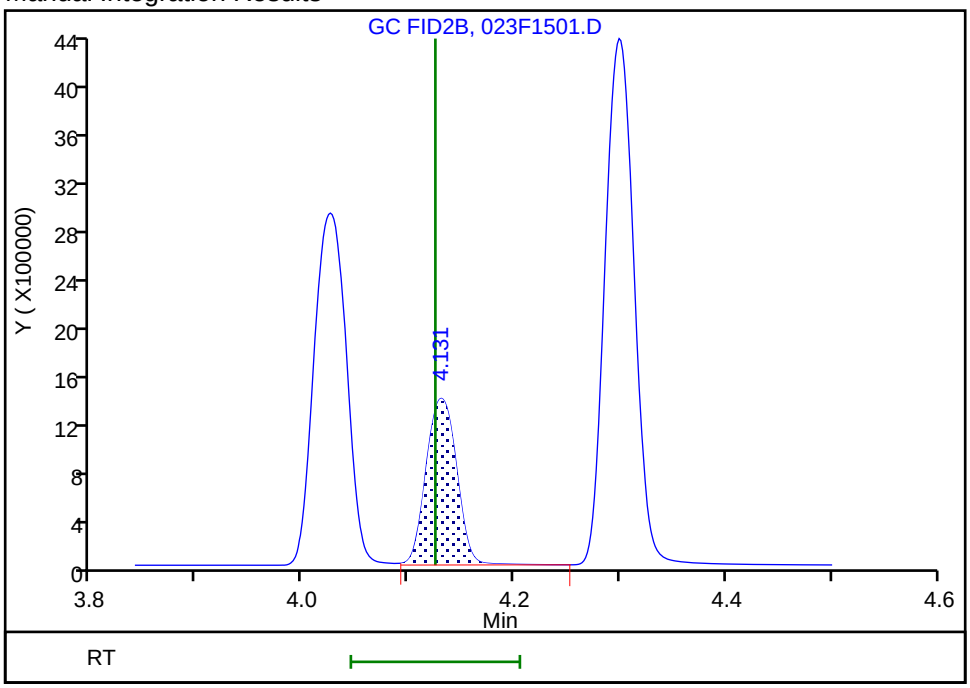
Not Detected
Expected RT: 4.12

Processing Integration Results



RT: 4.13
Area: 2724740
Amount: 126.1133
Amount Units: ug/l

Manual Integration Results



Reviewer: sciannac, 11-Jun-2020 20:55:50
Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Split Peak

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-137225-1
SDG No.:
Client Sample ID:
Lab Sample ID: MB 280-498346/7
Matrix: Water
Lab File ID: 007F0701.D
Analysis Method: RSK-175
Date Collected:
Sample wt/vol: 18(mL)
Date Analyzed: 06/11/2020 11:47
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.: 498346
Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
74-82-8	Methane	0.0020	U	0.0050	0.0020	0.00063

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20200611-92320.b\007F0701.D
Lims ID: mb
Client ID:
Sample Type: MB
Inject. Date: 11-Jun-2020 11:47:57 ALS Bottle#: 7 Worklist Smp#: 7
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\20200611-92320.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 12-Jun-2020 10:45:55 Calib Date: 16-May-2020 13:08:56
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\009F0901.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: CTX1019

First Level Reviewer: sciannac Date: 11-Jun-2020 12:08:23

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		4.098				ND	
2		5.458					
2 Methane							
1		1.246			73.0	ND	
2		3.155					
3 Ethane							
1		1.500			ND	ND	
2		4.293					
4 Ethylene							
1		1.773			ND	ND	
2		4.018					
5 Propane							
1		2.461			ND	ND	
2		5.917					
6 Acetylene							
1		3.935			ND	ND	
2		4.125					
7 Butane							
1		4.218			ND	ND	
2		7.362					
8 isobutylene							
1		5.123			ND	ND	
2		7.215					

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

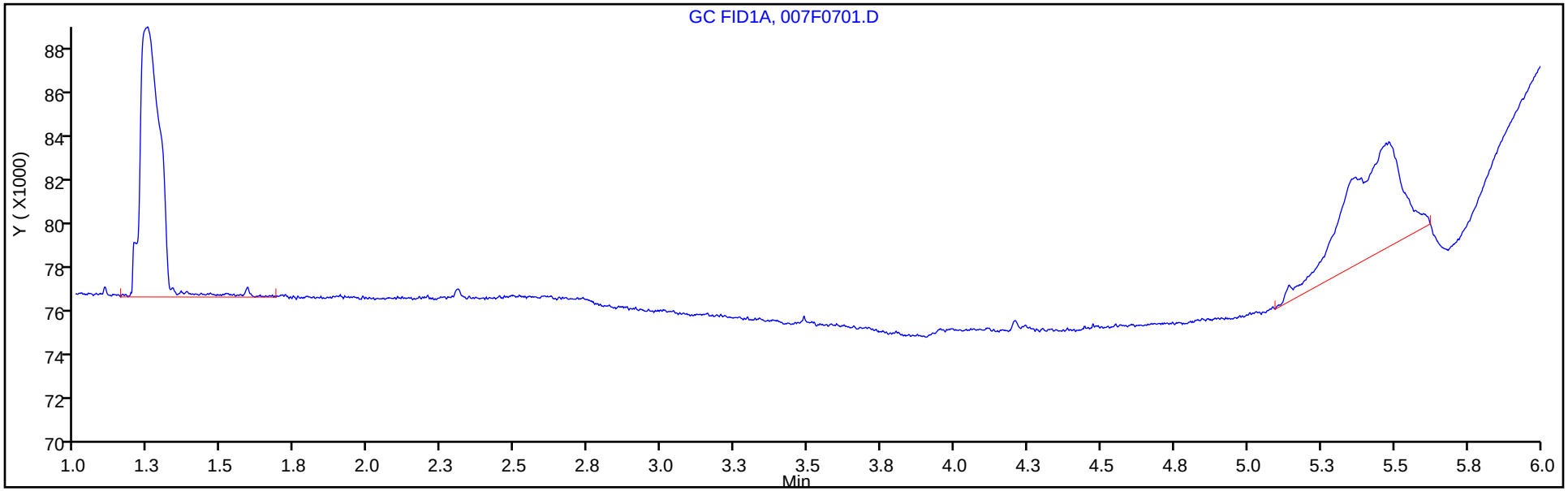
RSK7gasMathes_00031 Amount Added: 200.00 Units: uL

Report Date: 12-Jun-2020 10:45:56 Chrom Revision: 2.3 10-Jun-2020 22:46:48

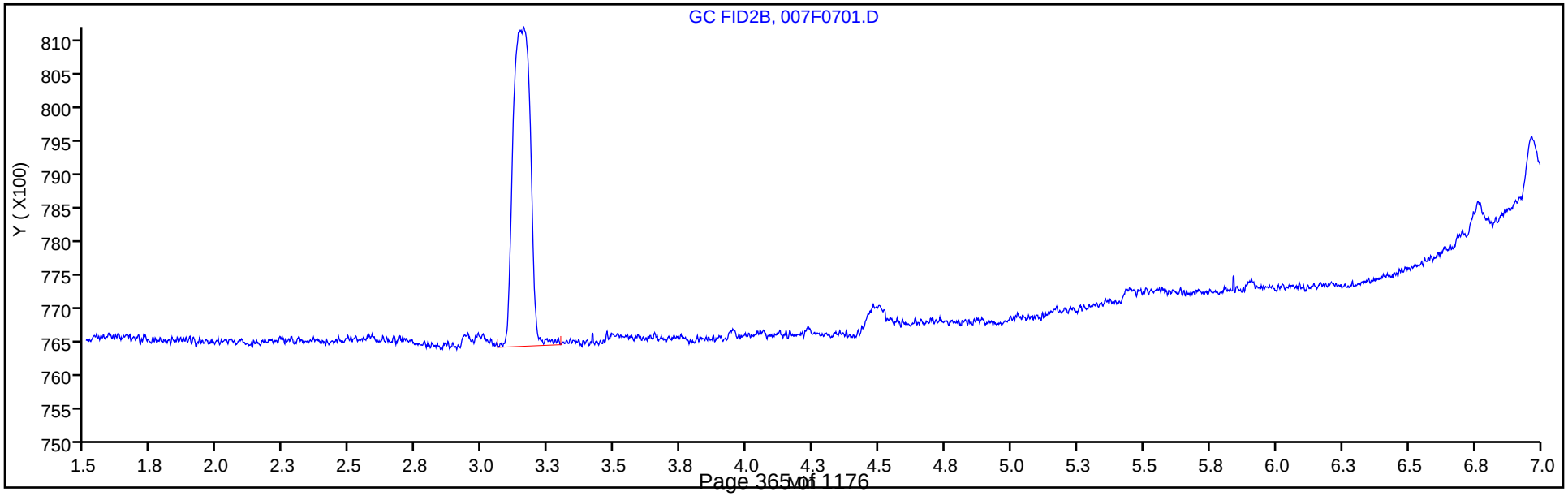
Eurofins TestAmerica, Denver

Data File:	\\chromfs\Denver\ChromData\VGC_J\20200611-92320.b\007F0701.D				
Injection Date:	11-Jun-2020 11:47:57	Instrument ID:	VGC_J	Operator ID:	SCIANNAC
Lims ID:	mb			Worklist Smp#:	7
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



FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-137225-1
SDG No.:
Client Sample ID:
Lab Sample ID: LCS 280-498346/5
Matrix: Water
Lab File ID: 005F0501.D
Analysis Method: RSK-175
Date Collected:
Sample wt/vol: 18(mL)
Date Analyzed: 06/11/2020 11:14
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.: 498346
Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
74-82-8	Methane	0.0785		0.0050	0.0020	0.00063

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20200611-92320.b\005F0501.D
Lims ID: lcs
Client ID:
Sample Type: LCS
Inject. Date: 11-Jun-2020 11:14:52 ALS Bottle#: 5 Worklist Smp#: 5
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\20200611-92320.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 12-Jun-2020 16:29:37 Calib Date: 16-May-2020 13:08:56
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\009F0901.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: CTX1019

First Level Reviewer: sciannac Date: 11-Jun-2020 12:15:41

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Methane							
1	1.249	1.246	0.003	11161381	73.0	77.3	
2	3.160	3.155	0.005	5390805	73.0	78.5	
						RPD = 1.53	
3 Ethane							M
1	1.506	1.500	0.006	20694359	136.9	152.1	
2	4.295	4.293	0.002	9422727	136.9	154.3	M
						RPD = 1.44	
4 Ethylene							Ma
1	1.774	1.773	0.001	15602088	127.7	141.6	
2	4.021	4.018	0.003	7001302	127.7	146.1	M
						RPD = 3.13	
5 Propane							
1	2.466	2.461	0.005	31763827	200.7	221.7	
2	5.918	5.917	0.001	14346544	200.7	229.1	
						RPD = 3.25	
6 Acetylene							Ma
1	3.936	3.935	0.001	4177458	118.5	121.8	a
2	4.126	4.125	0.001	2862312	118.5	132.5	M
						RPD = 8.39	
7 Butane							Ma
1	4.219	4.218	0.001	39012093	264.5	295.7	a
2	7.363	7.362	0.001	19057506	264.5	298.8	M
						RPD = 1.03	
8 isobutylene							Ma
1	5.123	5.123	0.000	26505101	255.4	296.9	M
2	7.215	7.215	0.000	12495338	255.4	300.7	M
						RPD = 1.26	

QC Flag Legend

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

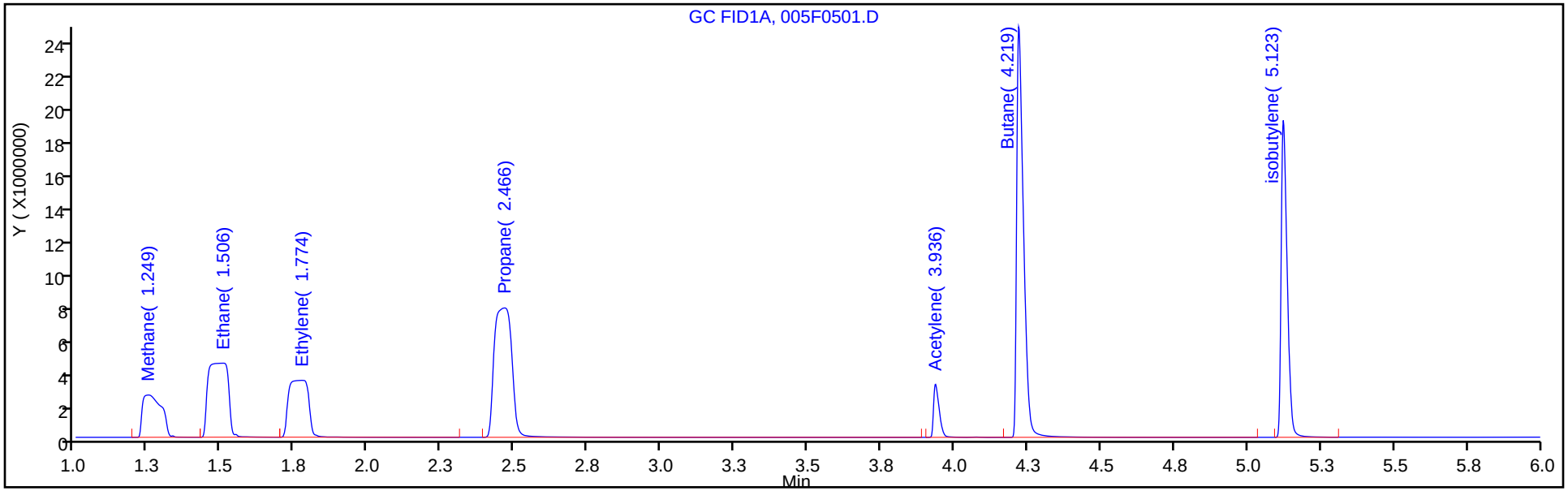
RSK7gasMathes_00031 Amount Added: 200.00 Units: uL

Report Date: 12-Jun-2020 16:32:32 Chrom Revision: 2.3 10-Jun-2020 22:46:48

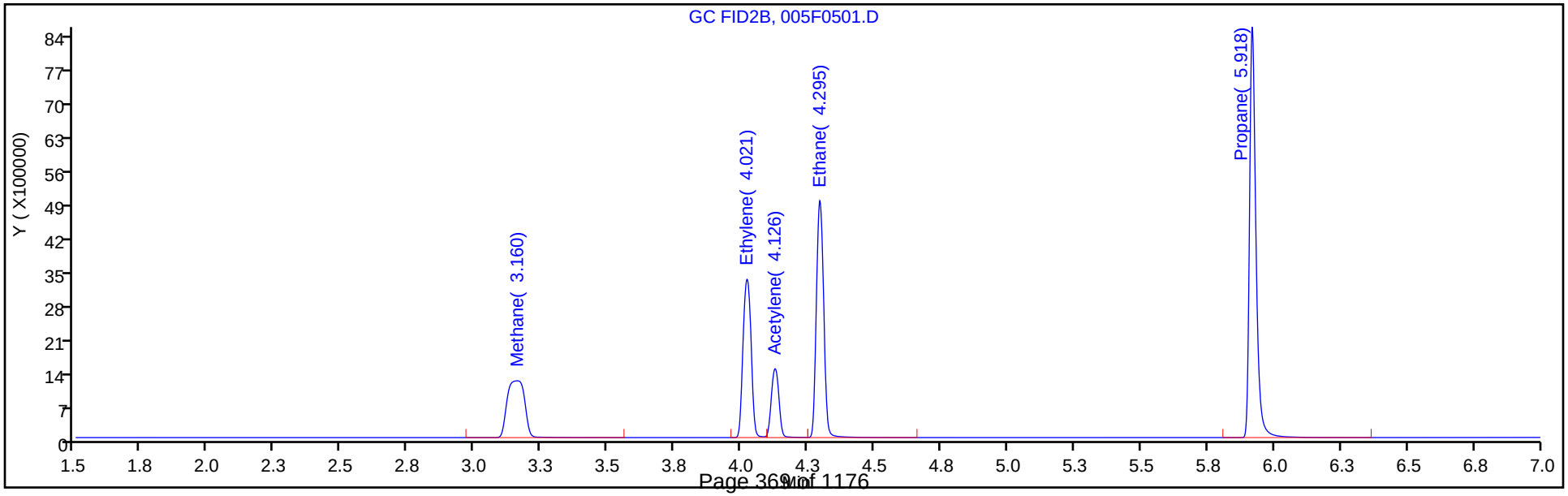
Eurofins TestAmerica, Denver

Data File:	\\chromfs\Denver\ChromData\VGC_J\20200611-92320.b\005F0501.D				
Injection Date:	11-Jun-2020 11:14:52	Instrument ID:	VGC_J	Operator ID:	SCIANNAC
Lims ID:	lcs			Worklist Smp#:	5
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



FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-137225-1
SDG No.:
Client Sample ID:
Lab Sample ID: LCSD 280-498346/6
Matrix: Water
Lab File ID: 006F0601.D
Analysis Method: RSK-175
Date Collected:
Sample wt/vol: 18(mL)
Date Analyzed: 06/11/2020 11:31
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.: 498346
Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
74-82-8	Methane	0.0790		0.0050	0.0020	0.00063

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20200611-92320.b\006F0601.D
Lims ID: lcsd
Client ID:
Sample Type: LCSD
Inject. Date: 11-Jun-2020 11:31:24 ALS Bottle#: 6 Worklist Smp#: 6
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\20200611-92320.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 12-Jun-2020 17:12:16 Calib Date: 16-May-2020 13:08:56
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\009F0901.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: CTX1019

First Level Reviewer: sciannac Date: 12-Jun-2020 17:08:13

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Methane							
1	1.246	1.246	0.000	11222015	73.0	77.7	
2	3.155	3.155	0.000	5423734	73.0	79.0	
						RPD = 1.60	
3 Ethane							
1	1.500	1.500	0.000	20781750	136.9	152.8	
2	4.293	4.293	0.000	9435134	136.9	154.5	
						RPD = 1.15	
4 Ethylene							Ma
1	1.773	1.773	0.000	15591852	127.7	141.5	
2	4.018	4.018	0.000	6985089	127.7	145.7	M
						RPD = 2.96	
5 Propane							
1	2.461	2.461	0.000	31992561	200.7	223.3	
2	5.917	5.917	0.000	14465051	200.7	231.0	
						RPD = 3.36	
6 Acetylene							Ma
1	3.935	3.935	0.000	4297256	118.5	125.3	a
2	4.125	4.125	0.000	2937723	118.5	136.0	M
						RPD = 8.16	
7 Butane							
1	4.218	4.218	0.000	39546156	264.5	299.8	
2	7.362	7.362	0.000	19370216	264.5	303.7	
						RPD = 1.30	
8 isobutylene							
1	5.123	5.123	0.000	26677098	255.4	298.8	
2	7.215	7.215	0.000	12612381	255.4	303.5	
						RPD = 1.54	

QC Flag Legend

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

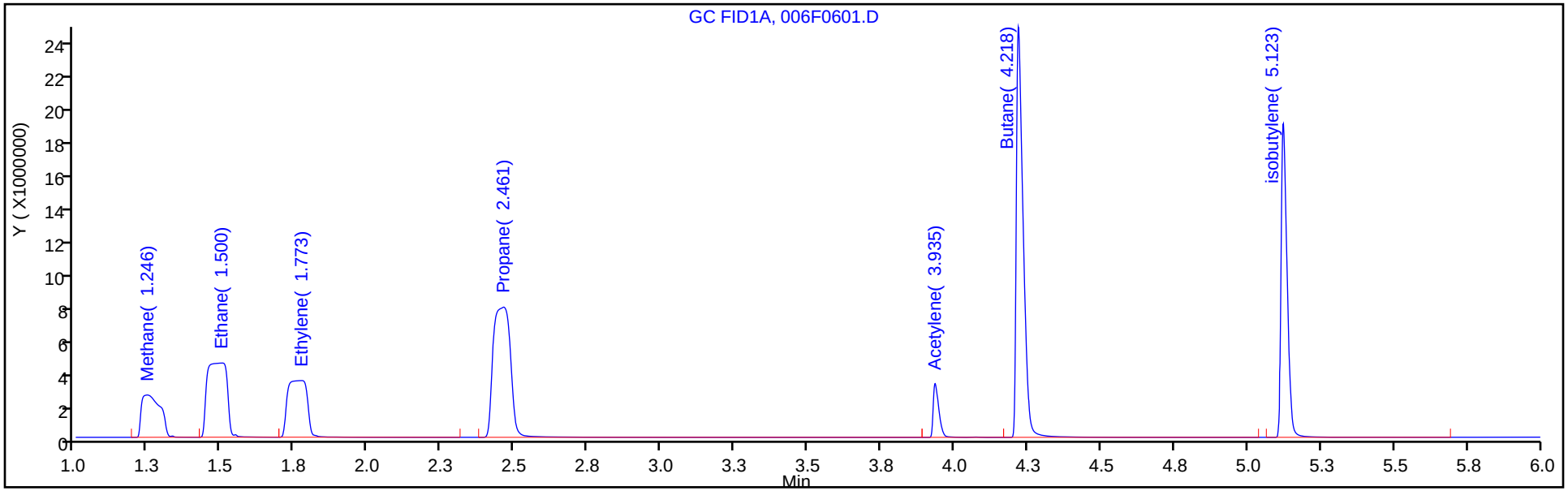
RSK7gasMathes_00031 Amount Added: 200.00 Units: uL

Report Date: 12-Jun-2020 17:12:34 Chrom Revision: 2.3 10-Jun-2020 22:46:48

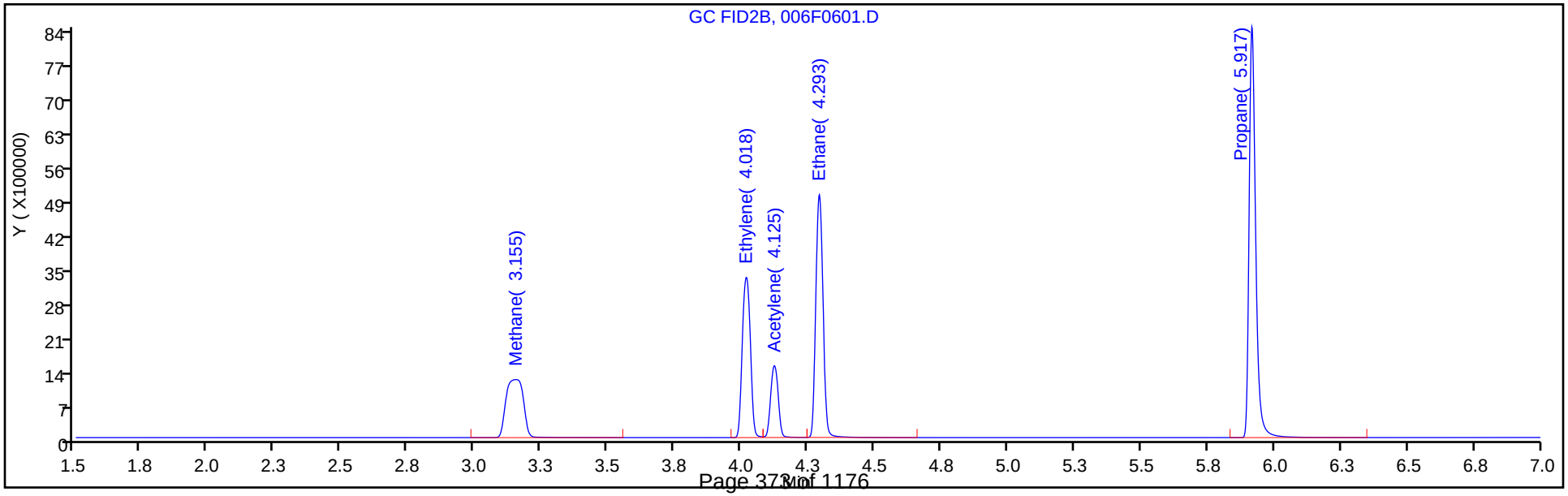
Eurofins TestAmerica, Denver

Data File:	\\chromfs\Denver\ChromData\VGC_J\20200611-92320.b\006F0601.D				
Injection Date:	11-Jun-2020 11:31:24	Instrument ID:	VGC_J	Operator ID:	SCIANNAC
Lims ID:	lcsd			Worklist Smp#:	6
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



FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Client Sample ID: G0070-20A MS Lab Sample ID: 280-137225-2 MS

Matrix: Water Lab File ID: 011F0301.D

Analysis Method: RSK-175 Date Collected: 06/02/2020 08:25

Sample wt/vol: 18(mL) Date Analyzed: 06/11/2020 14:00

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.: 498346 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
74-82-8	Methane	0.0710		0.0050	0.0020	0.00063

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\VGC_J\20200611-92320.b\011F0301.D				
Lims ID:	280-137225-G-2 MS				
Client ID:	G0070-20A				
Sample Type:	MS				
Inject. Date:	11-Jun-2020 14:00:27	ALS Bottle#:	11	Worklist Smp#:	10
Purge Vol:	18.000 mL	Dil. Factor:	1.0000		
Sample Info:	280-137225-G-2MS				
Operator ID:	SCIANNAC	Instrument ID:	VGC_J		
Method:	\\chromfs\Denver\ChromData\VGC_J\20200611-92320.b\RSK_J.m				
Limit Group:	GCV - RSK 175				
Method Label:	DV-GC-0025: Dissolved Gases in Water by RSK-175				
Last Update:	12-Jun-2020 16:32:45	Calib Date:	16-May-2020 13:08:56		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\009F0901.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:	CTX1019				

First Level Reviewer: sciannac Date: 12-Jun-2020 16:20:00

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		4.098				ND	
2		5.458					
2 Methane							
1	1.247	1.246	0.001	10342383	73.0	71.6	
2	3.162	3.155	0.007	4876010	73.0	71.0	
						RPD = 0.89	
3 Ethane							
1	1.500	1.500	0.000	19213274	136.9	141.2	
2	4.299	4.293	0.006	8526953	136.9	139.7	
						RPD = 1.12	
4 Ethylene							Ma
1	1.742	1.773	-0.031	14990116	127.7	136.0	
2	4.025	4.018	0.007	6567244	127.7	137.0	M
						RPD = 0.73	
5 Propane							
1	2.437	2.461	-0.024	29605002	200.7	206.7	
2	5.922	5.917	0.005	13078685	200.7	208.8	
						RPD = 1.04	
6 Acetylene							Ma
1	3.935	3.935	0.000	4220619	118.5	123.1	a
2	4.130	4.125	0.005	2815605	118.5	130.3	M
						RPD = 5.72	
7 Butane							M
1	4.223	4.218	0.005	37018129	264.5	280.6	
2	7.365	7.362	0.003	17685036	264.5	277.3	M
						RPD = 1.19	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
8 isobutylene							Ma
1	5.128	5.123	0.005	26371294	255.4	295.4	M
2	7.217	7.215	0.002	12050684	255.4	290.0	M
						RPD = 1.86	

QC Flag Legend

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

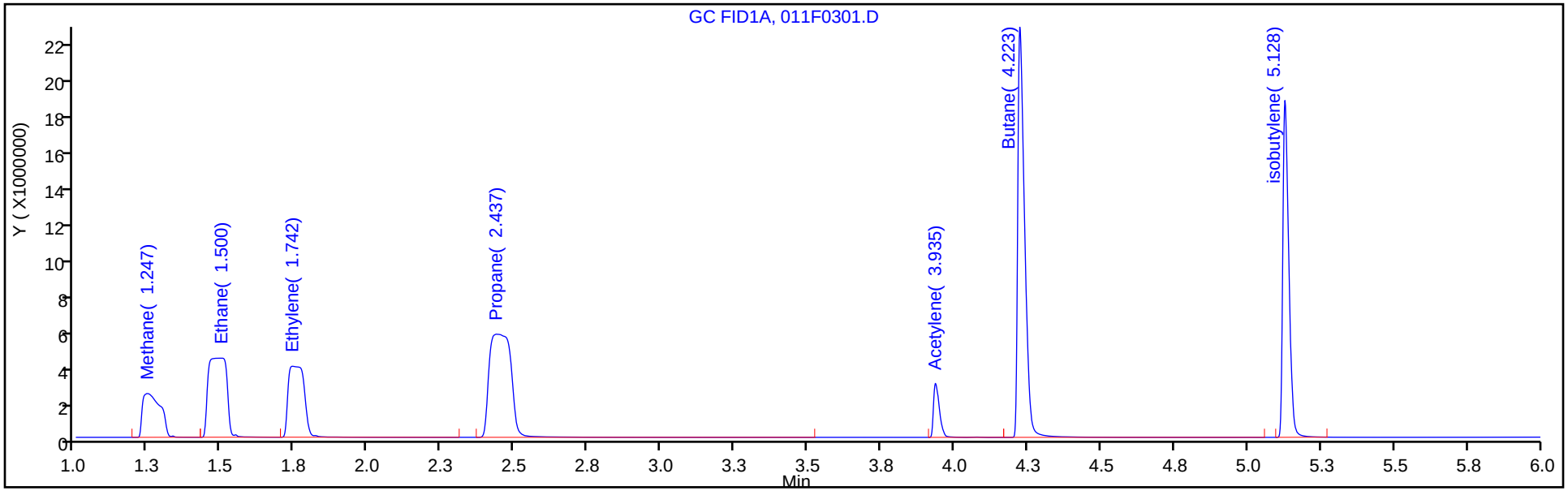
RSK7gasMathes_00031 Amount Added: 200.00 Units: uL

Report Date: 12-Jun-2020 16:32:46 Chrom Revision: 2.3 10-Jun-2020 22:46:48

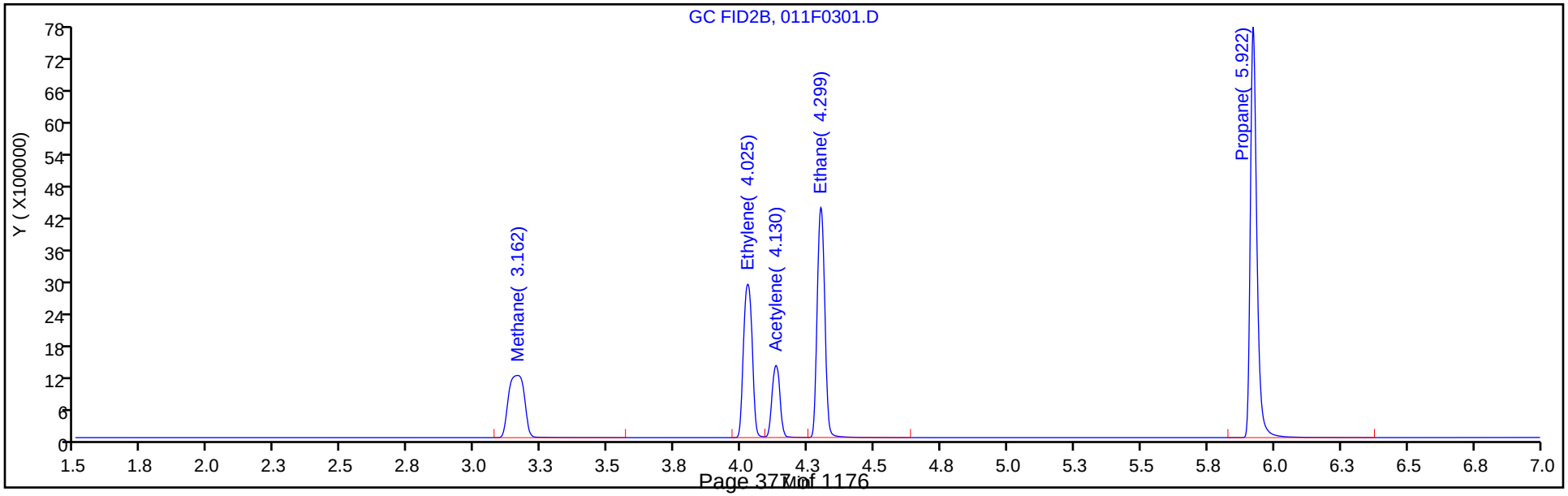
Eurofins TestAmerica, Denver

Data File:	\\chromfs\Denver\ChromData\VGC_J\20200611-92320.b\011F0301.D				
Injection Date:	11-Jun-2020 14:00:27	Instrument ID:	VGC_J	Operator ID:	SCIANNAC
Lims ID:	280-137225-G-2 MS			Worklist Smp#:	10
Client ID:	G0070-20A				
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



FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-137225-1
SDG No.:
Client Sample ID: G0070-20A MSD
Lab Sample ID: 280-137225-2 MSD
Matrix: Water
Lab File ID: 012F0401.D
Analysis Method: RSK-175
Date Collected: 06/02/2020 08:25
Sample wt/vol: 18(mL)
Date Analyzed: 06/11/2020 14:17
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.: 498346
Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
74-82-8	Methane	0.0673		0.0050	0.0020	0.00063

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\VGC_J\20200611-92320.b\012F0401.D
Lims ID: 280-137225-G-2 MSD
Client ID: G0070-20A
Sample Type: MSD
Inject. Date: 11-Jun-2020 14:17:15 ALS Bottle#: 12 Worklist Smp#: 11
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: 280-137225-G-2MS
Operator ID: SCIANNAC Instrument ID: VGC_J

Method: \\chromfs\Denver\ChromData\VGC_J\20200611-92320.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 12-Jun-2020 16:32:45 Calib Date: 16-May-2020 13:08:56
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\009F0901.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: CTX1019

First Level Reviewer: sciannac Date: 11-Jun-2020 20:56:38

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		4.098				ND	
2		5.458					
2 Methane							
1	1.246	1.246	0.000	9874922	73.0	68.4	
2	3.153	3.155	-0.002	4621944	73.0	67.3	
						RPD = 1.61	
3 Ethane							
1	1.493	1.500	-0.007	18414631	136.9	135.4	
2	4.293	4.293	0.000	8113748	136.9	132.9	
						RPD = 1.84	
4 Ethylene							Ma
1	1.735	1.773	-0.038	14278965	127.7	129.6	
2	4.020	4.018	0.002	6213036	127.7	129.6	M
						RPD = 0.05	
5 Propane							
1	2.428	2.461	-0.033	28376213	200.7	198.1	
2	5.918	5.917	0.001	12435150	200.7	198.5	
						RPD = 0.23	
6 Acetylene							Ma
1	3.931	3.935	-0.004	4202835	118.5	122.6	a
2	4.125	4.125	0.000	2785681	118.5	128.9	M
						RPD = 5.08	
7 Butane							
1	4.221	4.218	0.003	35340913	264.5	267.9	
2	7.363	7.362	0.001	16799217	264.5	263.4	
						RPD = 1.69	

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
8 isobutylene							
1	5.126	5.123	0.003	24995561	255.4	280.0	
2	7.215	7.215	0.000	11478919	255.4	276.2	
						RPD = 1.36	

QC Flag Legend

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

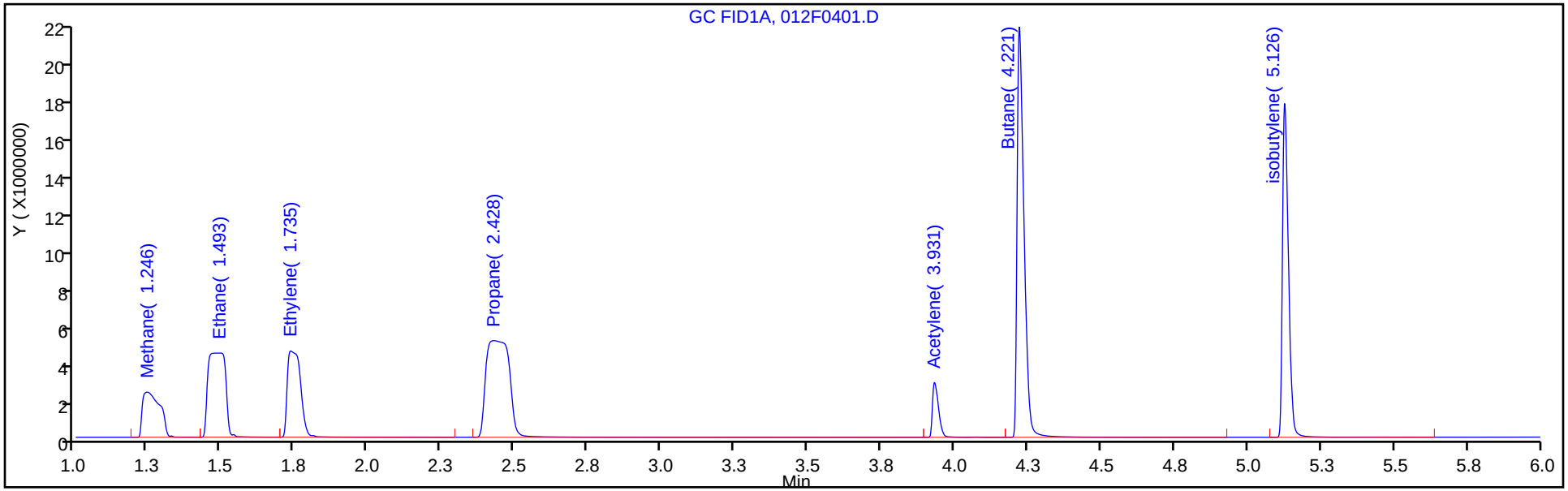
RSK7gasMathes_00031 Amount Added: 200.00 Units: uL

Report Date: 12-Jun-2020 16:32:47 Chrom Revision: 2.3 10-Jun-2020 22:46:48

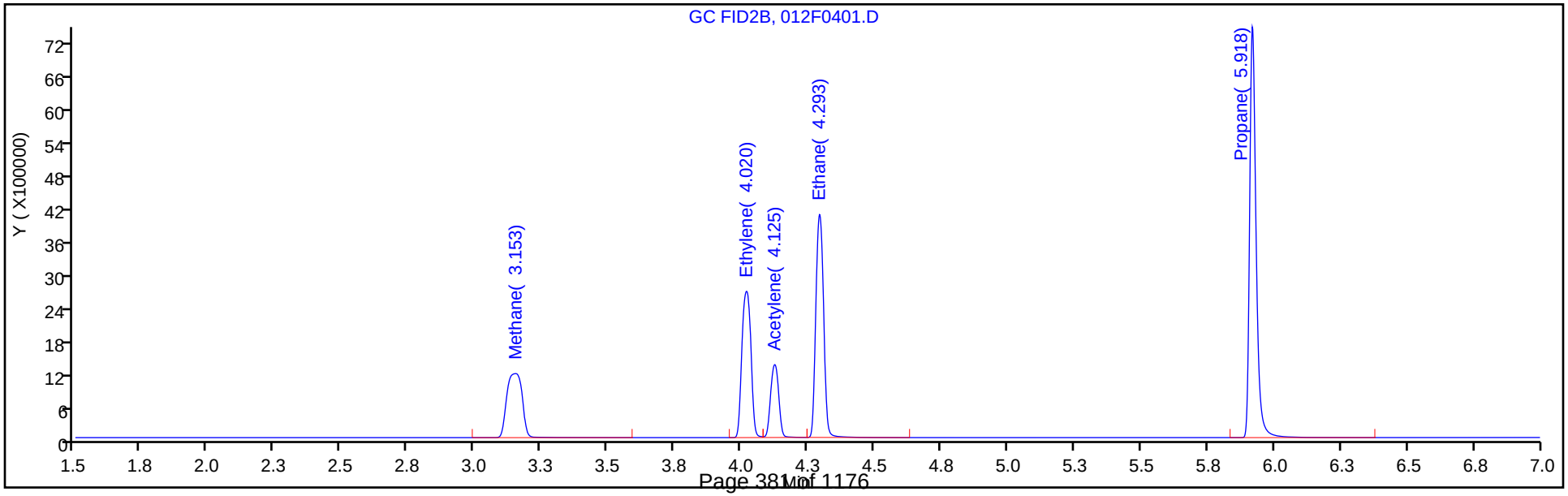
Eurofins TestAmerica, Denver

Data File:	\\chromfs\Denver\ChromData\VGC_J\20200611-92320.b\012F0401.D				
Injection Date:	11-Jun-2020 14:17:15	Instrument ID:	VGC_J	Operator ID:	SCIANNAC
Lims ID:	280-137225-G-2 MSD			Worklist Smp#:	11
Client ID:	G0070-20A				
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



FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Client Sample ID: G0070-20A DU Lab Sample ID: 280-137225-2 DU

Matrix: Water Lab File ID: 010F0201.D

Analysis Method: RSK-175 Date Collected: 06/02/2020 08:25

Sample wt/vol: 18(mL) Date Analyzed: 06/11/2020 13:43

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.: 498346 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
74-82-8	Methane	0.0020	U	0.0050	0.0020	0.00063

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\VGC_J\20200611-92320.b\010F0201.D				
Lims ID:	280-137225-I-2 DU				
Client ID:					
Sample Type:	DU				
Inject. Date:	11-Jun-2020 13:43:54	ALS Bottle#:	10	Worklist Smp#:	9
Purge Vol:	18.000 mL	Dil. Factor:	1.0000		
Sample Info:	280-137225-I-2				
Operator ID:	SCIANNAC	Instrument ID:	VGC_J		
Method:	\\chromfs\Denver\ChromData\VGC_J\20200611-92320.b\RSK_J.m				
Limit Group:	GCV - RSK 175				
Method Label:	DV-GC-0025: Dissolved Gases in Water by RSK-175				
Last Update:	12-Jun-2020 10:45:55	Calib Date:	16-May-2020 13:08:56		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\VGC_J\20200516-91574.b\009F0901.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:	CTX1019				

First Level Reviewer: sciannac Date: 12-Jun-2020 10:02:15

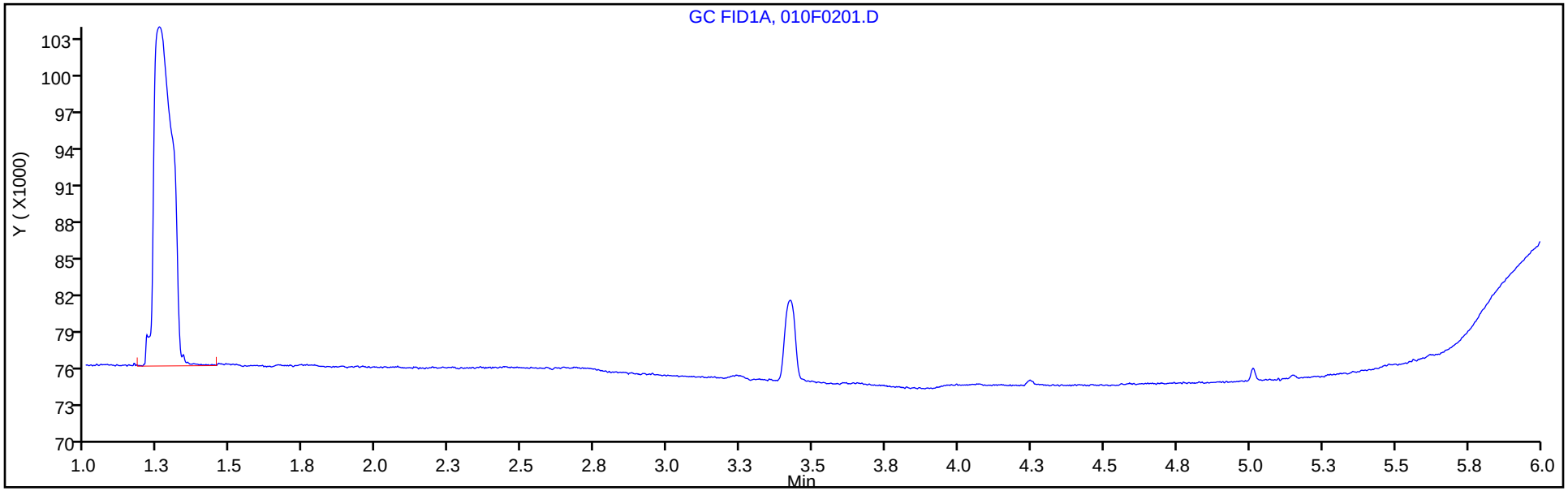
Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
$ 1 1,1,1-Trifluoroethane							
1		4.098				ND	
2		5.458					
2 Methane							
1		1.246				ND	
2		3.155					
3 Ethane							
1		1.500				ND	
2		4.293					
4 Ethylene							
1		1.773				ND	
2		4.018					
5 Propane							
1		2.461				ND	
2		5.917					
6 Acetylene							
1		3.935				ND	
2		4.125					
7 Butane							
1		4.218				ND	
2		7.362					
8 isobutylene							
1		5.123				ND	
2		7.215					

Report Date: 12-Jun-2020 10:45:57 Chrom Revision: 2.3 10-Jun-2020 22:46:48

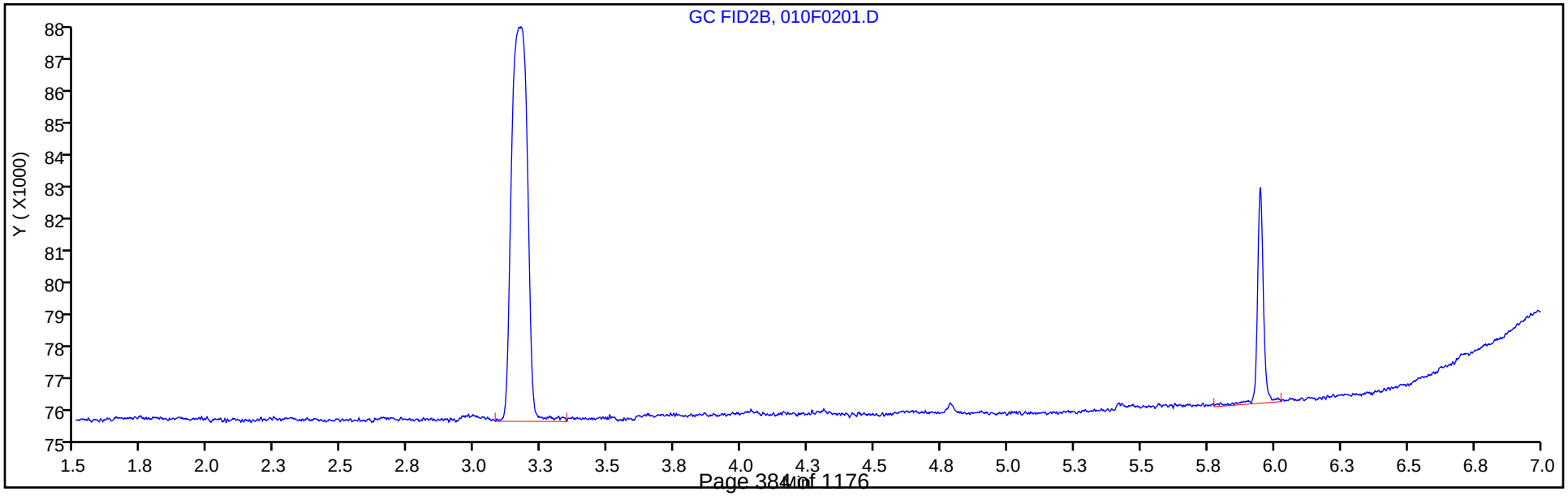
Eurofins TestAmerica, Denver

Data File:	\\chromfs\Denver\ChromData\VGC_J\20200611-92320.b\010F0201.D				
Injection Date:	11-Jun-2020 13:43:54	Instrument ID:	VGC_J	Operator ID:	SCIANNAC
Lims ID:	280-137225-I-2 DU			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



GC VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Instrument ID: VGC_J Start Date: 05/16/2020 10:57

Analysis Batch Number: 495152 End Date: 05/16/2020 13:25

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
IC 280-495152/6		05/16/2020 10:57	1	001F0101.D	Rt-Alumina KCl 0.53(mm)
IC 280-495152/6		05/16/2020 10:57	1	001F0101.D	HP-Plot Q 0.53(mm)
IC 280-495152/7		05/16/2020 11:13	1	001F0201.D	Rt-Alumina KCl 0.53(mm)
IC 280-495152/7		05/16/2020 11:13	1	001F0201.D	HP-Plot Q 0.53(mm)
IC 280-495152/8		05/16/2020 11:30	1	002F0301.D	Rt-Alumina KCl 0.53(mm)
IC 280-495152/8		05/16/2020 11:30	1	002F0301.D	HP-Plot Q 0.53(mm)
IC 280-495152/9		05/16/2020 11:46	1	003F0401.D	Rt-Alumina KCl 0.53(mm)
IC 280-495152/9		05/16/2020 11:46	1	003F0401.D	HP-Plot Q 0.53(mm)
ICRT 280-495152/10		05/16/2020 12:02	1	004F0501.D	Rt-Alumina KCl 0.53(mm)
ICRT 280-495152/10		05/16/2020 12:02	1	004F0501.D	HP-Plot Q 0.53(mm)
IC 280-495152/11		05/16/2020 12:19	1	005F0601.D	Rt-Alumina KCl 0.53(mm)
IC 280-495152/11		05/16/2020 12:19	1	005F0601.D	HP-Plot Q 0.53(mm)
IC 280-495152/12		05/16/2020 12:35	1	006F0701.D	Rt-Alumina KCl 0.53(mm)
IC 280-495152/12		05/16/2020 12:35	1	006F0701.D	HP-Plot Q 0.53(mm)
IC 280-495152/13		05/16/2020 12:52	1	007F0801.D	Rt-Alumina KCl 0.53(mm)
IC 280-495152/13		05/16/2020 12:52	1	007F0801.D	HP-Plot Q 0.53(mm)
IC 280-495152/14		05/16/2020 13:08	1	009F0901.D	Rt-Alumina KCl 0.53(mm)
IC 280-495152/14		05/16/2020 13:08	1	009F0901.D	HP-Plot Q 0.53(mm)
ICV 280-495152/16		05/16/2020 13:25	1	010F1001.D	Rt-Alumina KCl 0.53(mm)
ICV 280-495152/16		05/16/2020 13:25	1	010F1001.D	HP-Plot Q 0.53(mm)

RSK-175

GC VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Instrument ID: VGC_J Start Date: 06/11/2020 10:58

Analysis Batch Number: 498346 End Date: 06/11/2020 21:07

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCVRT 280-498346/4		06/11/2020 10:58	1	004F0401.D	Rt-Alumina KCl 0.53(mm)
CCVRT 280-498346/4		06/11/2020 10:58	1	004F0401.D	HP-Plot Q 0.53(mm)
LCS 280-498346/5		06/11/2020 11:14	1	005F0501.D	Rt-Alumina KCl 0.53(mm)
LCS 280-498346/5		06/11/2020 11:14	1	005F0501.D	HP-Plot Q 0.53(mm)
LCSD 280-498346/6		06/11/2020 11:31	1	006F0601.D	Rt-Alumina KCl 0.53(mm)
LCSD 280-498346/6		06/11/2020 11:31	1	006F0601.D	HP-Plot Q 0.53(mm)
MB 280-498346/7		06/11/2020 11:47	1	007F0701.D	Rt-Alumina KCl 0.53(mm)
MB 280-498346/7		06/11/2020 11:47	1	007F0701.D	HP-Plot Q 0.53(mm)
280-137225-2		06/11/2020 13:27	1	008F0101.D	Rt-Alumina KCl 0.53(mm)
280-137225-2		06/11/2020 13:27	1	008F0101.D	HP-Plot Q 0.53(mm)
280-137225-2 DU		06/11/2020 13:43	1	010F0201.D	Rt-Alumina KCl 0.53(mm)
280-137225-2 DU		06/11/2020 13:43	1	010F0201.D	HP-Plot Q 0.53(mm)
280-137225-2 MS		06/11/2020 14:00	1	011F0301.D	Rt-Alumina KCl 0.53(mm)
280-137225-2 MS		06/11/2020 14:00	1	011F0301.D	HP-Plot Q 0.53(mm)
280-137225-2 MSD		06/11/2020 14:17	1	012F0401.D	Rt-Alumina KCl 0.53(mm)
280-137225-2 MSD		06/11/2020 14:17	1	012F0401.D	HP-Plot Q 0.53(mm)
ZZZZZ		06/11/2020 14:34	3		Rt-Alumina KCl 0.53(mm)
ZZZZZ		06/11/2020 14:34	3		HP-Plot Q 0.53(mm)
ZZZZZ		06/11/2020 14:51	3		Rt-Alumina KCl 0.53(mm)
ZZZZZ		06/11/2020 14:51	3		HP-Plot Q 0.53(mm)
ZZZZZ		06/11/2020 15:08	3		Rt-Alumina KCl 0.53(mm)
ZZZZZ		06/11/2020 15:08	3		HP-Plot Q 0.53(mm)
ZZZZZ		06/11/2020 15:24	6		Rt-Alumina KCl 0.53(mm)
ZZZZZ		06/11/2020 15:24	6		HP-Plot Q 0.53(mm)
ZZZZZ		06/11/2020 15:41	3		Rt-Alumina KCl 0.53(mm)
ZZZZZ		06/11/2020 15:41	3		HP-Plot Q 0.53(mm)
ZZZZZ		06/11/2020 15:57	3		Rt-Alumina KCl 0.53(mm)
ZZZZZ		06/11/2020 15:57	3		HP-Plot Q 0.53(mm)
280-137225-1		06/11/2020 16:14	1	019F1101.D	Rt-Alumina KCl 0.53(mm)
280-137225-1		06/11/2020 16:14	1	019F1101.D	HP-Plot Q 0.53(mm)
280-137225-3		06/11/2020 16:30	1	020F1201.D	Rt-Alumina KCl 0.53(mm)
280-137225-3		06/11/2020 16:30	1	020F1201.D	HP-Plot Q 0.53(mm)
280-137225-4		06/11/2020 16:46	1	021F1301.D	Rt-Alumina KCl 0.53(mm)
280-137225-4		06/11/2020 16:46	1	021F1301.D	HP-Plot Q 0.53(mm)
ZZZZZ		06/11/2020 17:03	1		Rt-Alumina KCl 0.53(mm)
ZZZZZ		06/11/2020 17:03	1		HP-Plot Q 0.53(mm)
CCV 280-498346/21		06/11/2020 17:19	1	023F1501.D	Rt-Alumina KCl 0.53(mm)
CCV 280-498346/21		06/11/2020 17:19	1	023F1501.D	HP-Plot Q 0.53(mm)
ZZZZZ		06/11/2020 17:35	1		Rt-Alumina KCl 0.53(mm)
ZZZZZ		06/11/2020 17:35	1		HP-Plot Q 0.53(mm)
ZZZZZ		06/11/2020 17:51	1		Rt-Alumina KCl 0.53(mm)
ZZZZZ		06/11/2020 17:51	1		HP-Plot Q 0.53(mm)
ZZZZZ		06/11/2020 18:08	1		Rt-Alumina KCl 0.53(mm)
ZZZZZ		06/11/2020 18:08	1		HP-Plot Q 0.53(mm)
ZZZZZ		06/11/2020 18:24	1		Rt-Alumina KCl 0.53(mm)

RSK-175

GC VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Instrument ID: VGC_J Start Date: 06/11/2020 10:58

Analysis Batch Number: 498346 End Date: 06/11/2020 21:07

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		06/11/2020 18:24	1		HP-Plot Q 0.53(mm)
ZZZZZ		06/11/2020 18:40	1		Rt-Alumina KCl 0.53(mm)
ZZZZZ		06/11/2020 18:40	1		HP-Plot Q 0.53(mm)
ZZZZZ		06/11/2020 18:57	1		Rt-Alumina KCl 0.53(mm)
ZZZZZ		06/11/2020 18:57	1		HP-Plot Q 0.53(mm)
ZZZZZ		06/11/2020 19:13	1		Rt-Alumina KCl 0.53(mm)
ZZZZZ		06/11/2020 19:13	1		HP-Plot Q 0.53(mm)
ZZZZZ		06/11/2020 19:29	1		Rt-Alumina KCl 0.53(mm)
ZZZZZ		06/11/2020 19:29	1		HP-Plot Q 0.53(mm)
ZZZZZ		06/11/2020 19:46	1		Rt-Alumina KCl 0.53(mm)
ZZZZZ		06/11/2020 19:46	1		HP-Plot Q 0.53(mm)
ZZZZZ		06/11/2020 20:02	1		Rt-Alumina KCl 0.53(mm)
ZZZZZ		06/11/2020 20:02	1		HP-Plot Q 0.53(mm)
ZZZZZ		06/11/2020 20:18	1		Rt-Alumina KCl 0.53(mm)
ZZZZZ		06/11/2020 20:18	1		HP-Plot Q 0.53(mm)
ZZZZZ		06/11/2020 20:35	1		Rt-Alumina KCl 0.53(mm)
ZZZZZ		06/11/2020 20:35	1		HP-Plot Q 0.53(mm)
ZZZZZ		06/11/2020 20:51	1		Rt-Alumina KCl 0.53(mm)
ZZZZZ		06/11/2020 20:51	1		HP-Plot Q 0.53(mm)
CCV 280-498346/35		06/11/2020 21:07	1		Rt-Alumina KCl 0.53(mm)
CCV 280-498346/35		06/11/2020 21:07	1		HP-Plot Q 0.53(mm)

RSK-175

GC VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Batch Number: 498346 Batch Start Date: 06/11/20 10:58 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 00031		
CCVRT 280-498346/4		RSK-175		18 mL	18 mL	5 SU	200 uL		
LCS 280-498346/5		RSK-175		18 mL	18 mL	5 SU	200 uL		
LCSD 280-498346/6		RSK-175		18 mL	18 mL	5 SU	200 uL		
MB 280-498346/7		RSK-175		18 mL	18 mL	5 SU			
280-137225-I-2	G0070-20A	RSK-175	T	18 mL	18 mL	< 2 SU			
280-137225-I-2 DU	G0070-20A	RSK-175	T	18 mL	18 mL	< 2 SU			
280-137225-G-2 MS	G0070-20A	RSK-175	T	18 mL	18 mL	< 2 SU	200 uL		
280-137225-G-2 MSD	G0070-20A	RSK-175	T	18 mL	18 mL	< 2 SU	200 uL		
280-137225-H-1	G0076-20A	RSK-175	T	18 mL	18 mL	< 2 SU			
280-137225-G-3	G0081-20A	RSK-175	T	18 mL	18 mL	< 2 SU			
280-137225-I-4	G0082-20A	RSK-175	T	18 mL	18 mL	< 2 SU			
CCV 280-498346/21		RSK-175		18 mL	18 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 TestAmerica, Denver Job No.: 280-137225-1

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 #
G0076-20A	280-137225-1		99
G0076-20A	280-137225-1	93 M	
G0070-20A	280-137225-2		91 M
G0070-20A	280-137225-2	99 M	
G0081-20A	280-137225-3		93
G0081-20A	280-137225-3	89 M	
G0082-20A	280-137225-4		97
G0082-20A	280-137225-4	93 M	
	MB 280-497449/1-A	98	
	LCS 280-497449/2-A	99	
	LCS 280-497449/3-A	92	
G0070-20A MS	280-137225-2 MS	101	
G0070-20A MS	280-137225-2 MS	107	
G0070-20A MSD	280-137225-2 MSD	66 Q	
G0070-20A MSD	280-137225-2 MSD	104 M	

	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 TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 06160033.D

Lab ID: LCS 280-497449/2-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,3,5-Trinitrobenzene	2.00	2.33	117	73-125	
1,3-Dinitrobenzene	2.00	2.22	111	78-120	
2,4,6-Trinitrotoluene	2.00	2.33	117	71-123	
2,4-Dinitrotoluene	2.00	2.09	104	78-120	
2,6-Dinitrotoluene	2.00	2.13	107	77-127	
2-Amino-4,6-dinitrotoluene	2.00	2.04	102	79-120	
2-Nitrotoluene	2.00	1.83	91	70-127	
3-Nitrotoluene	2.00	2.02	101	73-125	
4-Amino-2,6-dinitrotoluene	2.00	1.80	90	76-125	
4-Nitrotoluene	2.00	1.90	95	71-127	
HMX	2.00	2.26	113	65-135	
Nitrobenzene	2.00	2.09	104	65-134	
RDX	2.00	2.10	105	68-130	
Tetryl	2.00	2.06	103	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 TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 06160034.D

Lab ID: LCS 280-497449/3-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
MNX	2.33	2.12	91	57-132	

Column to be used to flag recovery and RPD values

FORM III 8330A

FORM III
HPLC/IC MATRIX SPIKE RECOVERY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 06160039.D

Lab ID: 280-137225-2 MS Client ID: G0070-20A MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
1,3,5-Trinitrobenzene	2.11	0.22 U	2.41	115	73-125	
1,3-Dinitrobenzene	2.11	0.11 U	2.35	112	78-120	
2,4,6-Trinitrotoluene	2.11	0.11 U	2.40	114	71-123	
2,4-Dinitrotoluene	2.11	0.088 U	2.17	103	78-120	
2,6-Dinitrotoluene	2.11	0.088 U	2.20	104	77-127	
2-Amino-4,6-dinitrotoluene	2.11	0.11 U	2.13	101	79-120	
2-Nitrotoluene	2.11	0.22 U	1.90	90	70-127	
3-Nitrotoluene	2.11	0.44 U	2.12	101	73-125	
4-Amino-2,6-dinitrotoluene	2.11	0.13 U	1.89	90	76-125	
4-Nitrotoluene	2.11	0.44 U	2.06	98	71-127	
HMX	2.11	0.22 U	2.28	108	65-135	M
Nitrobenzene	2.11	0.14 J	2.03	90	65-134	
RDX	2.11	0.22 U	2.45	116	68-130	
Tetryl	2.11	0.11 U	1.66	79	64-128	

Column to be used to flag recovery and RPD values

FORM III 8330A

FORM III
HPLC/IC MATRIX SPIKE RECOVERY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 06160041.D

Lab ID: 280-137225-2 MS Client ID: G0070-20A MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
MNX	2.62	0.44 U	2.33	89	57-132	M

Column to be used to flag recovery and RPD values

FORM III 8330A

FORM III
HPLC/IC MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 06160040.D

Lab ID: 280-137225-2 MSD Client ID: G0070-20A MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,3,5-Trinitrobenzene	2.12	2.14	101	12	30	73-125	Q
1,3-Dinitrobenzene	2.12	2.11	100	11	30	78-120	Q
2,4,6-Trinitrotoluene	2.12	2.07	98	15	30	71-123	Q M
2,4-Dinitrotoluene	2.12	1.94	92	11	30	78-120	Q M
2,6-Dinitrotoluene	2.12	1.82	86	19	30	77-127	Q M
2-Amino-4,6-dinitrotoluene	2.12	1.63	77	27	30	79-120	Q M J1
2-Nitrotoluene	2.12	1.85	88	3	30	70-127	Q
3-Nitrotoluene	2.12	1.85	87	13	30	73-125	Q
4-Amino-2,6-dinitrotoluene	2.12	1.55	73	19	30	76-125	Q M J1
4-Nitrotoluene	2.12	1.77	83	15	30	71-127	Q
HMX	2.12	2.20	104	4	30	65-135	Q M
Nitrobenzene	2.12	1.90	83	7	30	65-134	Q
RDX	2.12	2.32	110	5	30	68-130	Q
Tetryl	2.12	2.03	96	20	30	64-128	Q

Column to be used to flag recovery and RPD values

FORM III 8330A

FORM III
HPLC/IC MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 06160045.D

Lab ID: 280-137225-2 MSD Client ID: G0070-20A MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
MNX	2.47	1.79 J	73	26	30	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 TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Lab Sample ID: MB 280-497449/1-A

Matrix: Water Date Extracted: 06/04/2020 17:15

Lab File ID:(1) 06160032.D Lab File ID:(2)

Date Analyzed:(1) 06/17/2020 04:30 Date Analyzed:(2)

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

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

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 280-497449/2-A	06/17/2020 04:53	
	LCS 280-497449/3-A	06/17/2020 05:16	
G0076-20A	280-137225-1	06/17/2020 06:25	06/20/2020 17:04
G0070-20A	280-137225-2	06/17/2020 06:48	06/20/2020 17:39
G0070-20A MS	280-137225-2 MS	06/17/2020 07:11	
G0070-20A MSD	280-137225-2 MSD	06/17/2020 07:34	
G0070-20A MS	280-137225-2 MS	06/17/2020 07:57	
G0070-20A MSD	280-137225-2 MSD	06/17/2020 09:29	
G0081-20A	280-137225-3	06/17/2020 09:52	06/20/2020 21:44
G0082-20A	280-137225-4	06/17/2020 10:15	06/20/2020 22:19

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Client Sample ID: G0076-20A Lab Sample ID: 280-137225-1

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

Date Analyzed (1): 06/17/2020 06:25 Date Analyzed (2): 06/20/2020 17:04

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		7.80	7.64	7.94	0.20		62.1
	2		9.38	9.22	9.52	0.10		

FORM X 8330A

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Client Sample ID: G0081-20A Lab Sample ID: 280-137225-3

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

Date Analyzed (1): 06/17/2020 09:52 Date Analyzed (2): 06/20/2020 21:44

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

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
1,3,5-Trinitrobenzene	1		8.95	8.79	9.09	0.27		29.1
	2		19.10	18.97	19.27	0.36		

FORM X 8330A

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Client Sample ID: G0082-20A Lab Sample ID: 280-137225-4

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

Date Analyzed (1): 06/17/2020 10:15 Date Analyzed (2): 06/20/2020 22:19

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		7.78	7.64	7.94	0.68		46.8
	2		9.36	9.22	9.52	0.42		
2-Amino-4,6-dinitrotoluene	1		11.72	11.60	11.80	0.098		141.7
	2		18.33	18.23	18.53	0.57		

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-137225-1
SDG No.:
Client Sample ID: G0076-20A
Lab Sample ID: 280-137225-1
Matrix: Water
Lab File ID: 06160037.D
Analysis Method: 8330A
Date Collected: 06/01/2020 13:45
Extraction Method: 3535
Date Extracted: 06/04/2020 17:15
Sample wt/vol: 458.5(mL)
Date Analyzed: 06/17/2020 06:25
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.: 498992
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	0.22	U	0.23	0.22	0.092
99-65-0	1,3-Dinitrobenzene	0.11	U	0.12	0.11	0.040
118-96-7	2,4,6-Trinitrotoluene	0.11	U Q	0.12	0.11	0.049
121-14-2	2,4-Dinitrotoluene	0.087	U M	0.11	0.087	0.030
606-20-2	2,6-Dinitrotoluene	0.087	U	0.11	0.087	0.044
35572-78-2	2-Amino-4,6-dinitrotoluene	0.11	U	0.12	0.11	0.055
88-72-2	2-Nitrotoluene	0.22	U	0.23	0.22	0.093
99-08-1	3-Nitrotoluene	0.44	U	0.44	0.44	0.21
19406-51-0	4-Amino-2,6-dinitrotoluene	0.13	U	0.16	0.13	0.063
99-99-0	4-Nitrotoluene	0.44	U	0.45	0.44	0.11
2691-41-0	HMX	0.22	U	0.23	0.22	0.096
5755-27-1	MNX	0.44	U	2.2	0.44	0.17
98-95-3	Nitrobenzene	0.22	U	0.23	0.22	0.099
121-82-4	RDX	0.20	J J1 M	0.23	0.22	0.056
479-45-8	Tetryl	0.11	U	0.12	0.11	0.035

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

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20200616-92483.b\06160037.D				
Lims ID:	280-137225-A-1-A				
Client ID:	G0076-20A				
Sample Type:	Client				
Inject. Date:	17-Jun-2020 06:25:33	ALS Bottle#:	37	Worklist Smp#:	37
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-137225-A-1-A				
Misc. Info.:	280-0092483-037				
Operator ID:	JZ	Instrument ID:	CHHPLC_X3		

Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20200616-92483.b\8330_X3.m		
Limit Group:	GCSV - 8330		
Last Update:	17-Jun-2020 20:30:26	Calib Date:	18-Mar-2020 14:39:27
Integrator:	Falcon		
Quant Method:	External Standard	Quant By:	Initial Calibration
Last ICal File:	\\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180015.D		

Column 1 :	UltraCarb5uODS (20) (4.60 mm)	Det: LC DAD1B, 254 nm
Process Host:	CTX1005	

First Level Reviewer: zhangji Date: 17-Jun-2020 18:57:17

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/mL	Flags
3 HMX	1		6.709			ND	
6 MNX	1		7.394			ND	
7 RDX	1	7.795	7.789	0.006	2088	0.0179	M
$ 9 1,2-Dinitrobenzene	1	8.795	8.763	0.032	25584	0.1851	M
10 1,3,5-Trinitrobenzene	1		8.936			ND	
11 1,3-Dinitrobenzene	1		9.589			ND	
12 Nitrobenzene	1		9.969			ND	
14 Tetryl	1		10.282			ND	
16 2,4,6-Trinitrotoluene	1		11.249			ND	
17 4-Amino-2,6-dinitrotoluene	1		11.416			ND	
18 2-Amino-4,6-dinitrotoluene	1		11.702			ND	
19 2,6-Dinitrotoluene	1		11.849			ND	
20 2,4-Dinitrotoluene	1		12.049			ND	U
21 o-Nitrotoluene	1		12.876			ND	
22 p-Nitrotoluene	1		13.309			ND	
23 m-Nitrotoluene	1		13.902			ND	

QC Flag Legend

Review Flags

M - Manually Integrated

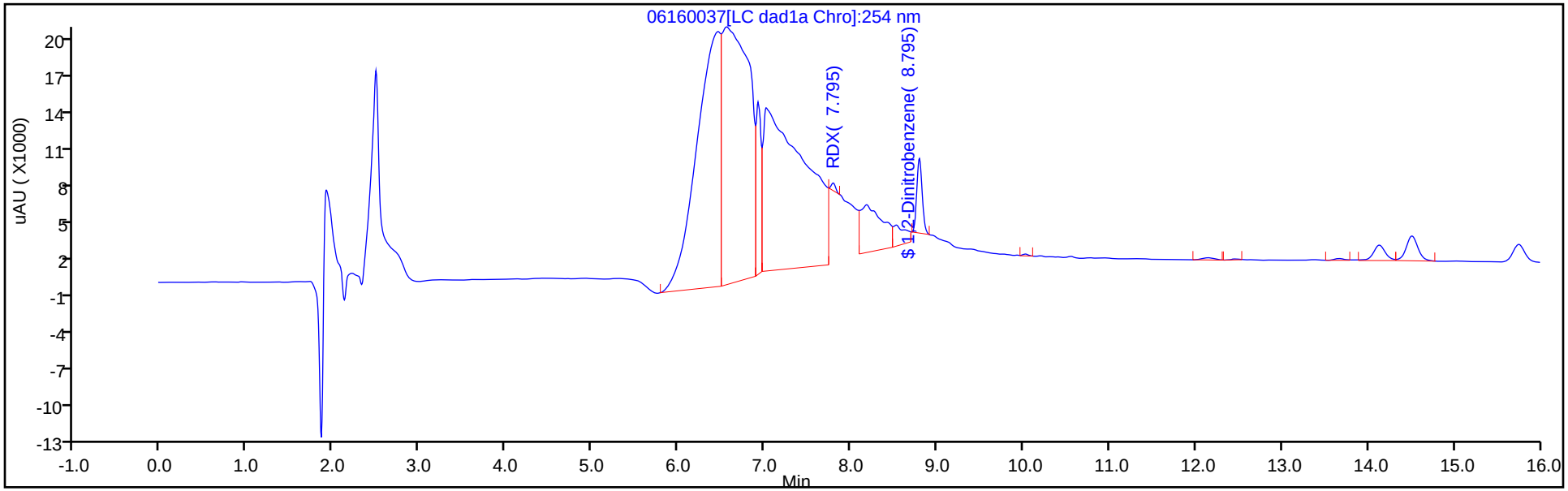
U - Marked Undetected

Report Date: 17-Jun-2020 20:30:28 Chrom Revision: 2.3 10-Jun-2020 22:46:48

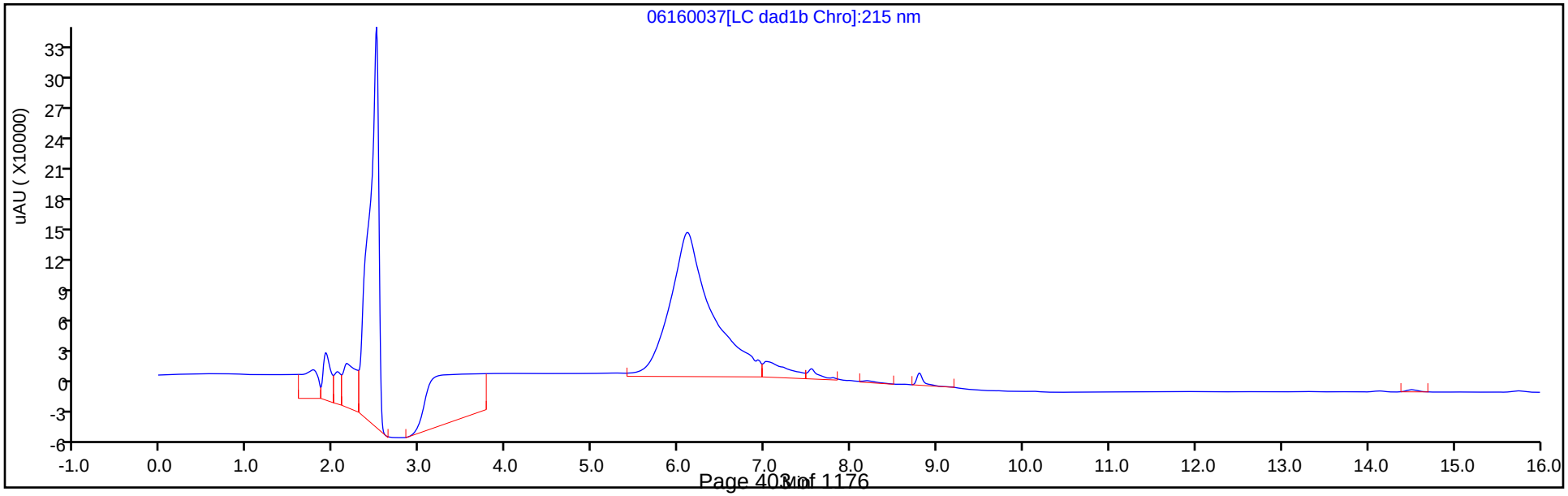
Eurofins TestAmerica, Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20200616-92483.b\06160037.d				
Injection Date:	17-Jun-2020 06:25:33	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	280-137225-A-1-A	Lab Sample ID:	280-137225-1	Worklist Smp#:	37
Client ID:	G0076-20A				
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 TestAmerica, Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20200616-92483.b\06160037.D				
Lims ID:	280-137225-A-1-A				
Client ID:	G0076-20A				
Sample Type:	Client				
Inject. Date:	17-Jun-2020 06:25:33	ALS Bottle#:	37	Worklist Smp#:	37
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-137225-A-1-A				
Misc. Info.:	280-0092483-037				
Operator ID:	JZ	Instrument ID:	CHHPLC_X3		

Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20200616-92483.b\8330_X3.m		
Limit Group:	GCSV - 8330		
Last Update:	17-Jun-2020 20:30:26	Calib Date:	18-Mar-2020 14:39:27
Integrator:	Falcon		
Quant Method:	External Standard	Quant By:	Initial Calibration
Last ICal File:	\\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180015.D		

Column 1 :	UltraCarb5uODS (20) (4.60 mm)	Det: LC DAD1B, 254 nm
Process Host:	CTX1005	

First Level Reviewer: zhangji Date: 17-Jun-2020 18:57:17

Compound	Amount Added	Amount Recovered	% Rec.
$ 9 1,2-Dinitrobenzene	0.2000	0.1851	92.55

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

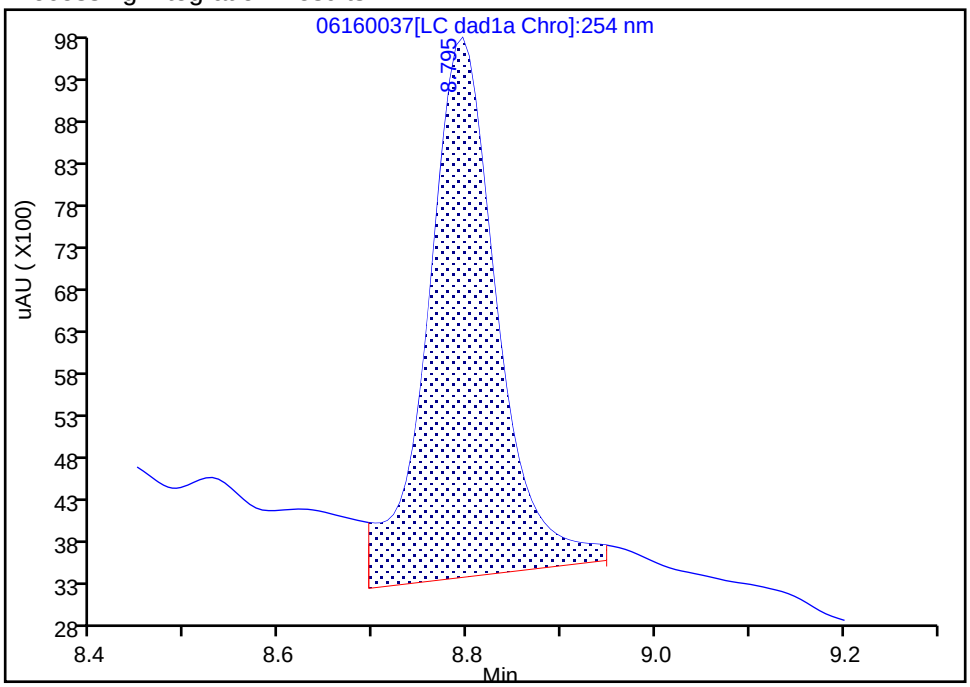
Data File:	\\chromfs\denver\chromdata\chhplc_x\20200616-92483.b\06160037.d				
Injection Date:	17-Jun-2020 06:25:33	Instrument ID:	CHHPLC_X3		
Lims ID:	280-137225-A-1-A	Lab Sample ID:	280-137225-1		
Client ID:	G0076-20A				
Operator ID:	JZ	ALS Bottle#:	37	Worklist Smp#:	37
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

$ 9 1,2-Dinitrobenzene, CAS: 528-29-0

Signal: 1

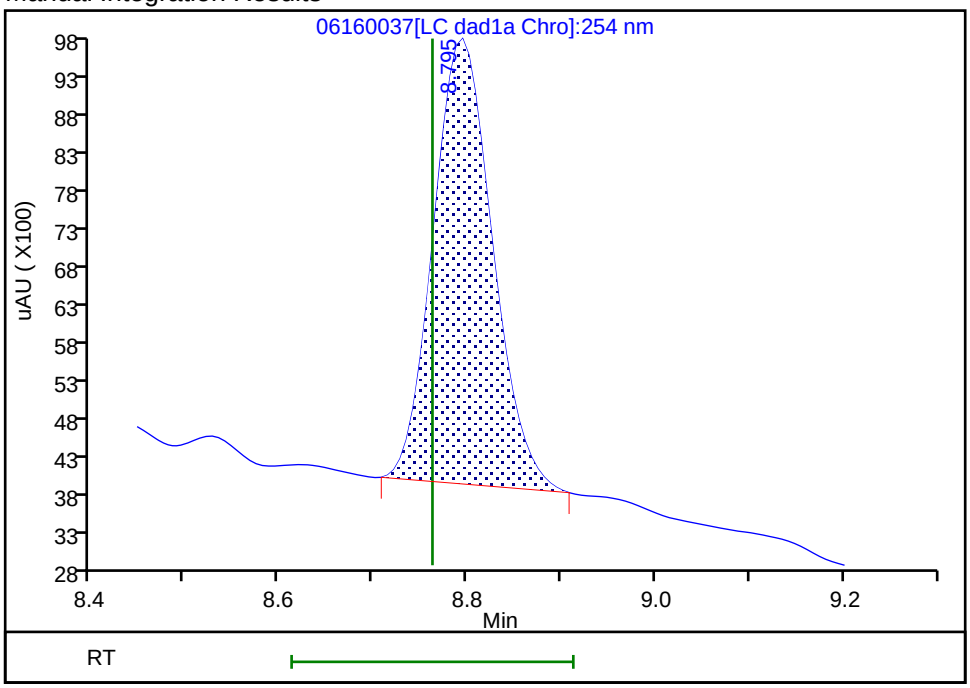
Processing Integration Results

RT: 8.79
Area: 33047
Amount: 0.239103
Amount Units: ug/mL



Manual Integration Results

RT: 8.79
Area: 25584
Amount: 0.185107
Amount Units: ug/mL



Reviewer: zhangji, 17-Jun-2020 18:57:11

Audit Action: Manually Integrated Audit Reason: Baseline

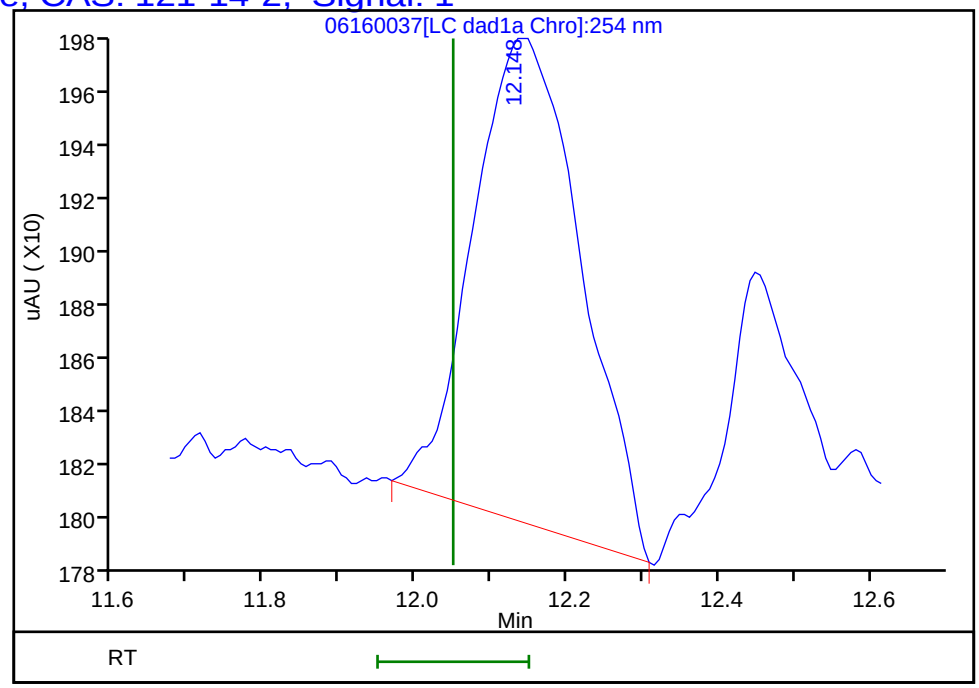
User Disabled Compound Report

Eurofins TestAmerica, Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20200616-92483.b\06160037.d				
Injection Date:	17-Jun-2020 06:25:33	Instrument ID:	CHHPLC_X3		
Lims ID:	280-137225-A-1-A	Lab Sample ID:	280-137225-1		
Client ID:	G0076-20A				
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		

20 2,4-Dinitrotoluene, CAS: 121-14-2, Signal: 1

RT: 12.15
Response: 1714
Amount: 0.005646



Reviewer: zhangji, 17-Jun-2020 18:57:17
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

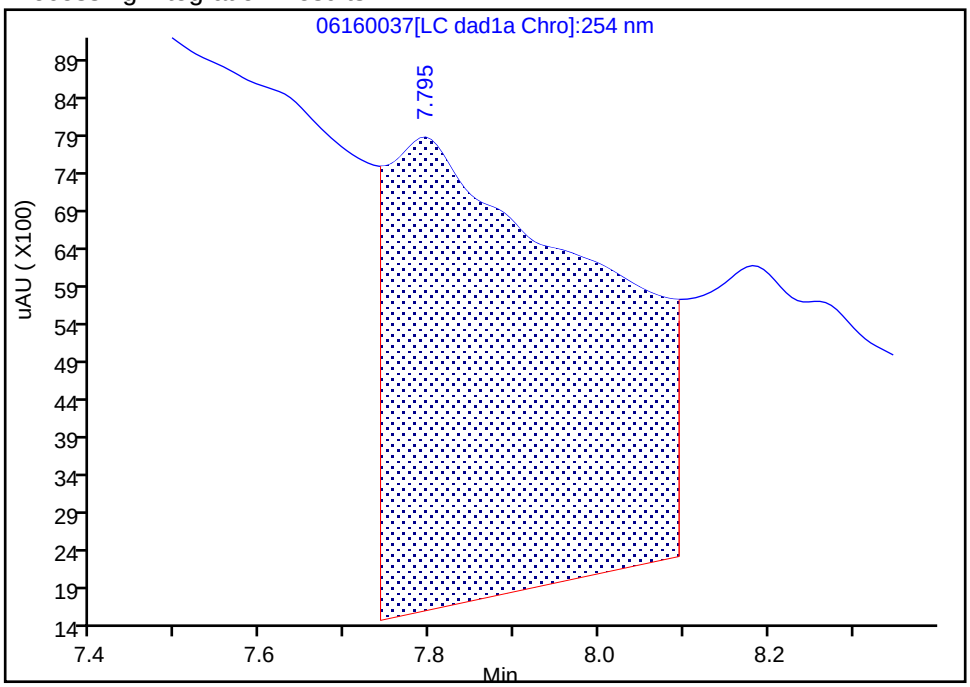
Data File:	\\chromfs\denver\chromdata\chhplc_x\20200616-92483.b\06160037.d				
Injection Date:	17-Jun-2020 06:25:33	Instrument ID:	CHHPLC_X3		
Lims ID:	280-137225-A-1-A	Lab Sample ID:	280-137225-1		
Client ID:	G0076-20A				
Operator ID:	JZ	ALS Bottle#:	37	Worklist Smp#:	37
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

7 RDX, CAS: 121-82-4

Signal: 1

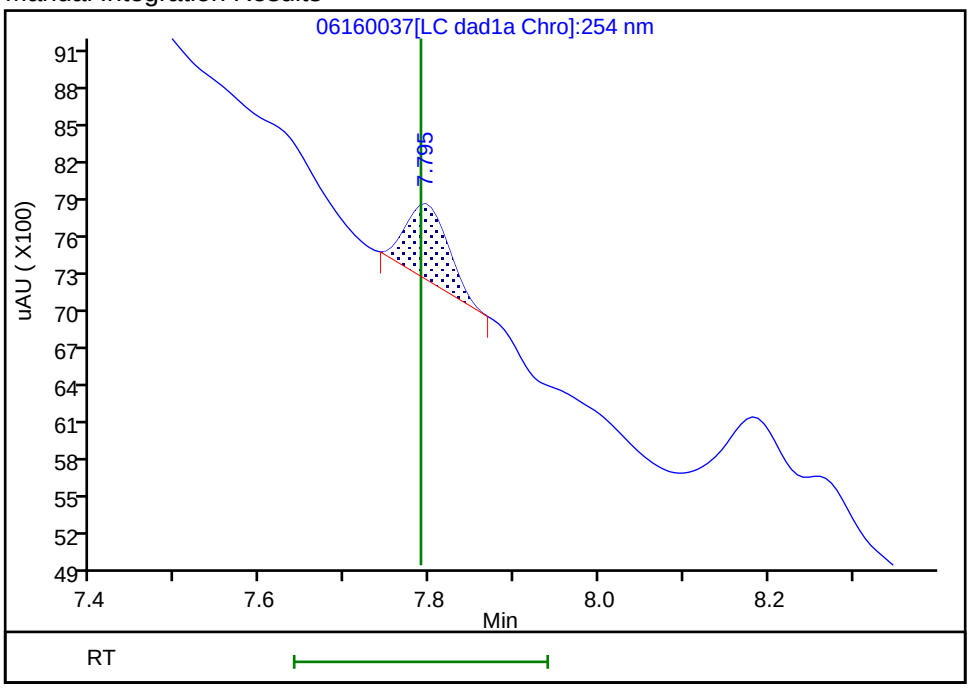
Processing Integration Results

RT: 7.79
Area: 102292
Amount: 0.877192
Amount Units: ug/mL



Manual Integration Results

RT: 7.79
Area: 2088
Amount: 0.017905
Amount Units: ug/mL



Reviewer: zhangji, 17-Jun-2020 18:57:07

Audit Action: Manually Integrated Audit Reason: Baseline

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-137225-1
SDG No.:
Client Sample ID: G0076-20A
Lab Sample ID: 280-137225-1
Matrix: Water
Lab File ID: 06200014.D
Analysis Method: 8330A
Date Collected: 06/01/2020 13:45
Extraction Method: 3535
Date Extracted: 06/04/2020 17:15
Sample wt/vol: 458.5(mL)
Date Analyzed: 06/20/2020 17:04
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.: 499503
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
121-82-4	*RDX*	*0.10*	*J J1*	*0.23*	0.22	*0.056*

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

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\G2_LUNA\20200619-92597.b\06200014.D				
Lims ID:	280-137225-A-1-A				
Client ID:	G0076-20A				
Sample Type:	Client				
Inject. Date:	20-Jun-2020 17:04:36	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-137225-A-1-A				
Misc. Info.:	280-0092597-014				
Operator ID:	JZ	Instrument ID:	CHHPLC_G2_LUNA		
Method:	\\chromfs\Denver\ChromData\G2_LUNA\20200619-92597.b\G2_8330_Luna.m				
Limit Group:	GCSV - 8330				
Last Update:	23-Jun-2020 18:23:07	Calib Date:	15-May-2020 02:11:20		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140024.D				
Column 1 :	Luna-Phenyl hexyl (4.60 mm)		Det: LC DAD1A, 254 nm		
Process Host:	CTX1017				

First Level Reviewer: zhangji Date: 23-Jun-2020 18:05:59

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
6 HMX	1		7.153			ND	
7 MNX	1		7.876			ND	
8 RDX	1	9.379	9.366	0.013	2302	0.009421	
9 Nitrobenzene	1		12.259			ND	
$ 10 1,2-Dinitrobenzene	1	13.252	13.266	-0.014	56525	0.1973	
12 1,3-Dinitrobenzene	1		15.793			ND	
14 o-Nitrotoluene	1		16.726			ND	U
15 p-Nitrotoluene	1		17.006			ND	
16 4-Amino-2,6-dinitrotoluene	1		17.446			ND	
17 m-Nitrotoluene	1		17.939			ND	
18 2-Amino-4,6-dinitrotoluene	1	18.332	18.379	-0.047	9655	0.0208	M
19 1,3,5-Trinitrobenzene	1		19.119			ND	U
20 2,6-Dinitrotoluene	1		20.046			ND	
21 2,4-Dinitrotoluene	1		20.560			ND	
22 Tetryl	1		23.860			ND	U
23 2,4,6-Trinitrotoluene	1		24.880			ND	

QC Flag Legend

Review Flags

M - Manually Integrated

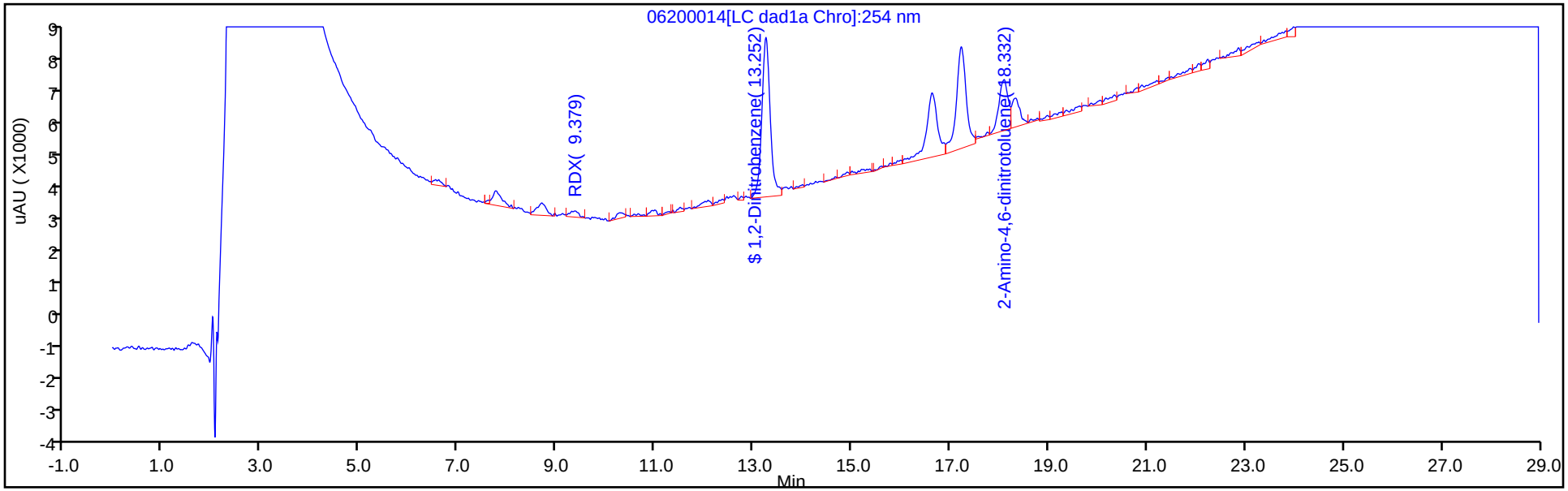
U - Marked Undetected

Report Date: 23-Jun-2020 18:23:10 Chrom Revision: 2.3 21-Jun-2020 18:30:46

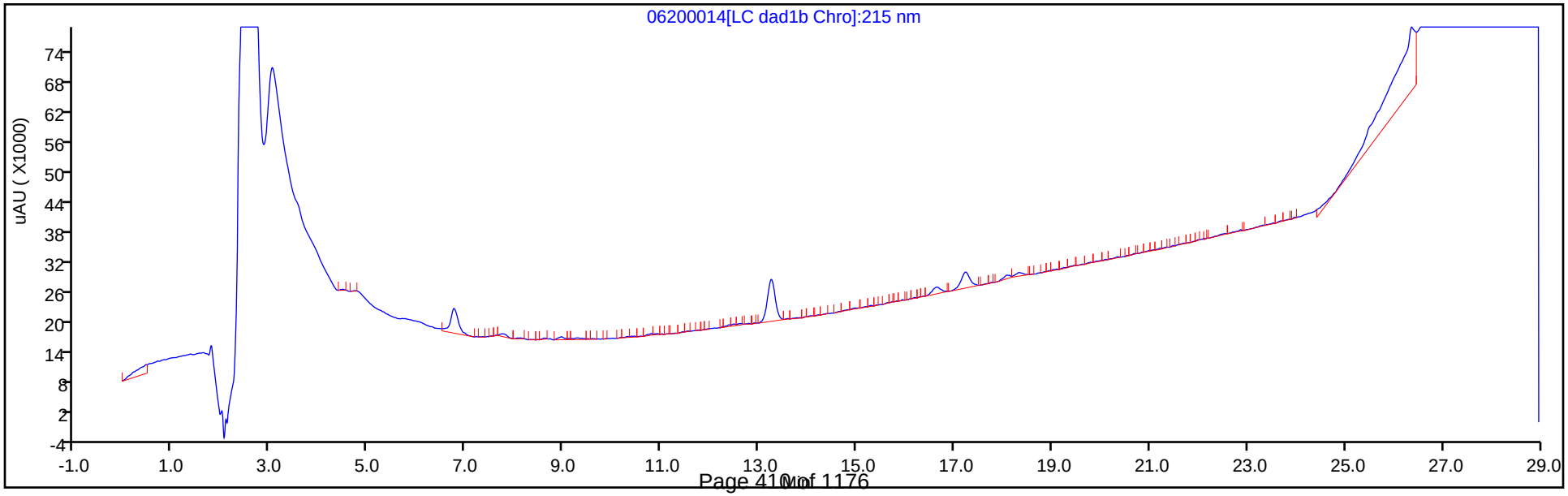
Eurofins TestAmerica, Denver

Data File:	\\chromfs\denver\chromdata\g2_luna\20200619-92597.b\06200014.d				
Injection Date:	20-Jun-2020 17:04:36	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	JZ
Lims ID:	280-137225-A-1-A	Lab Sample ID:	280-137225-1	Worklist Smp#:	14
Client ID:	G0076-20A				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	14
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		

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



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



Eurofins TestAmerica, Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\G2_LUNA\20200619-92597.b\06200014.D				
Lims ID:	280-137225-A-1-A				
Client ID:	G0076-20A				
Sample Type:	Client				
Inject. Date:	20-Jun-2020 17:04:36	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-137225-A-1-A				
Misc. Info.:	280-0092597-014				
Operator ID:	JZ	Instrument ID:	CHHPLC_G2_LUNA		
Method:	\\chromfs\Denver\ChromData\G2_LUNA\20200619-92597.b\G2_8330_Luna.m				
Limit Group:	GCSV - 8330				
Last Update:	23-Jun-2020 18:23:07	Calib Date:	15-May-2020 02:11:20		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140024.D				
Column 1 :	Luna-Phenyl hexyl (4.60 mm)		Det: LC DAD1A, 254 nm		
Process Host:	CTX1017				

First Level Reviewer: zhangji Date: 23-Jun-2020 18:05:59

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.1973	98.63

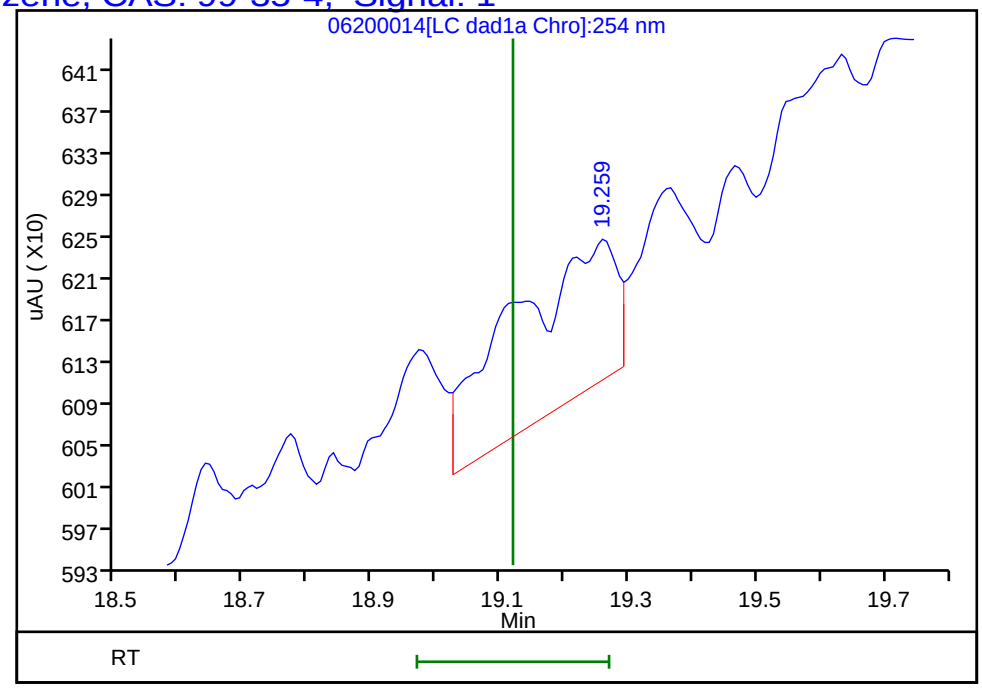
User Disabled Compound Report

Eurofins TestAmerica, Denver

Data File:	\\chromfs\denver\chromdata\g2_luna\20200619-92597.b\06200014.d				
Injection Date:	20-Jun-2020 17:04:36	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	280-137225-A-1-A	Lab Sample ID:	280-137225-1		
Client ID:	G0076-20A				
Operator ID:	JZ	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

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

RT: 19.26
Response: 1735
Amount: 0.003672



Reviewer: zhangji, 23-Jun-2020 18:05:59
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

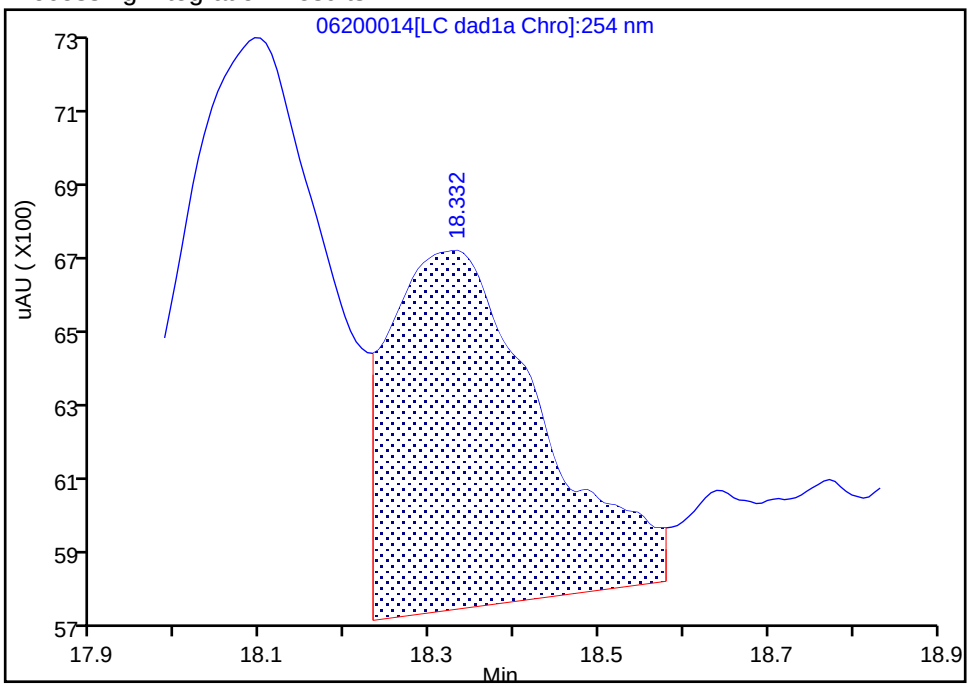
Data File:	\\chromfs\denver\chromdata\g2_luna\20200619-92597.b\06200014.d				
Injection Date:	20-Jun-2020 17:04:36	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	280-137225-A-1-A	Lab Sample ID:	280-137225-1		
Client ID:	G0076-20A				
Operator ID:	JZ	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

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

Signal: 1

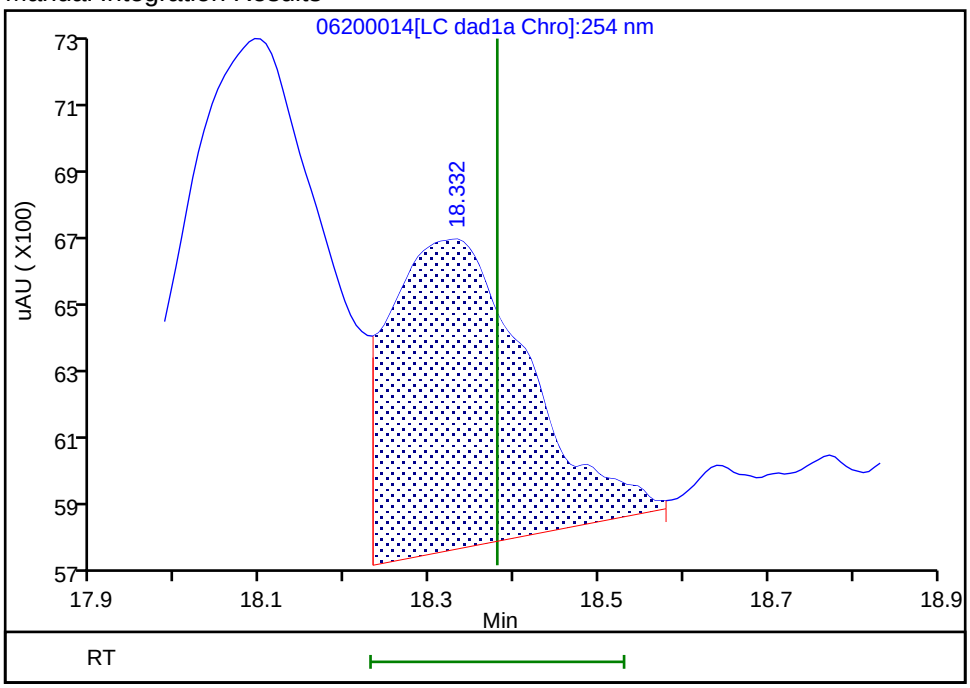
Processing Integration Results

RT: 18.33
Area: 11507
Amount: 0.024735
Amount Units: ug/ml



Manual Integration Results

RT: 18.33
Area: 9655
Amount: 0.020754
Amount Units: ug/ml



Reviewer: zhangji, 23-Jun-2020 18:05:57
Audit Action: Assigned New Baseline Audit Reason: Baseline

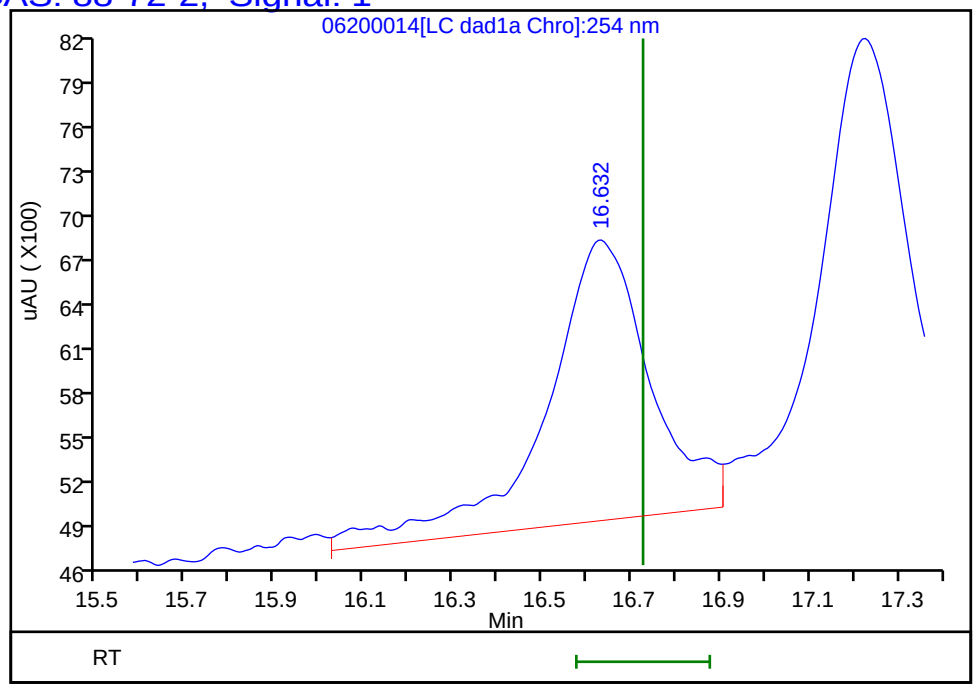
User Disabled Compound Report

Eurofins TestAmerica, Denver

Data File:	\\chromfs\denver\chromdata\g2_luna\20200619-92597.b\06200014.d				
Injection Date:	20-Jun-2020 17:04:36	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	280-137225-A-1-A	Lab Sample ID:	280-137225-1		
Client ID:	G0076-20A				
Operator ID:	JZ	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

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

RT: 16.63
Response: 31168
Amount: 0.114183



Reviewer: zhangji, 23-Jun-2020 18:05:59
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

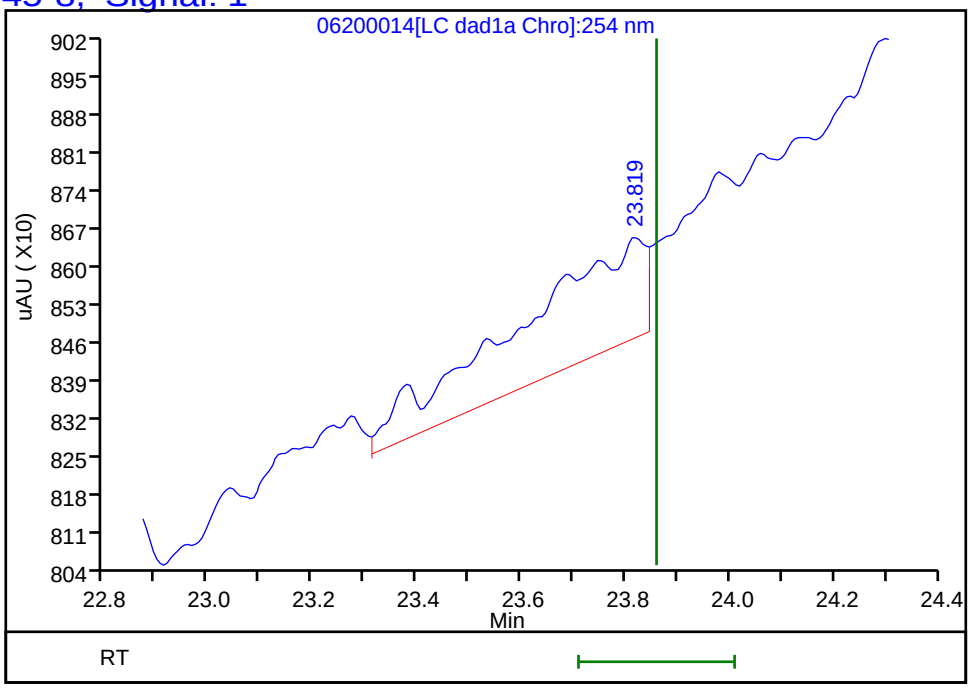
User Disabled Compound Report

Eurofins TestAmerica, Denver

Data File:	\\chromfs\denver\chromdata\g2_luna\20200619-92597.b\06200014.d				
Injection Date:	20-Jun-2020 17:04:36	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	280-137225-A-1-A	Lab Sample ID:	280-137225-1		
Client ID:	G0076-20A				
Operator ID:	JZ	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

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

RT: 23.82
Response: 3623
Amount: 0.009827



Reviewer: zhangji, 23-Jun-2020 18:05:59
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-137225-1
SDG No.:
Client Sample ID: G0070-20A
Lab Sample ID: 280-137225-2
Matrix: Water
Lab File ID: 06160038.D
Analysis Method: 8330A
Date Collected: 06/02/2020 08:25
Extraction Method: 3535
Date Extracted: 06/04/2020 17:15
Sample wt/vol: 452.8(mL)
Date Analyzed: 06/17/2020 06:48
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.: 498992
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	0.22	U	0.23	0.22	0.093
99-65-0	1,3-Dinitrobenzene	0.11	U	0.12	0.11	0.041
118-96-7	2,4,6-Trinitrotoluene	0.11	U Q	0.12	0.11	0.050
121-14-2	2,4-Dinitrotoluene	0.088	U	0.11	0.088	0.030
606-20-2	2,6-Dinitrotoluene	0.088	U	0.11	0.088	0.044
35572-78-2	2-Amino-4,6-dinitrotoluene	0.11	U J1	0.12	0.11	0.056
88-72-2	2-Nitrotoluene	0.22	U	0.23	0.22	0.094
99-08-1	3-Nitrotoluene	0.44	U	0.44	0.44	0.22
19406-51-0	4-Amino-2,6-dinitrotoluene	0.13	U J1	0.17	0.13	0.064
99-99-0	4-Nitrotoluene	0.44	U M	0.45	0.44	0.11
2691-41-0	HMX	0.22	U	0.23	0.22	0.097
5755-27-1	MNX	0.44	U	2.2	0.44	0.17
121-82-4	RDX	0.22	U	0.23	0.22	0.057
479-45-8	Tetryl	0.11	U	0.12	0.11	0.035

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

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20200616-92483.b\06160038.D
Lims ID: 280-137225-A-2-A
Client ID: G0070-20A
Sample Type: Client
Inject. Date: 17-Jun-2020 06:48:31 ALS Bottle#: 38 Worklist Smp#: 38
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-137225-A-2-A
Misc. Info.: 280-0092483-038
Operator ID: JZ Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20200616-92483.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 17-Jun-2020 20:30:26 Calib Date: 18-Mar-2020 14:39:27
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180015.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1005

First Level Reviewer: zhangji Date: 17-Jun-2020 18:57:42

	Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/mL	Flags
	1 2,6-diamino-4-nitrotoluene	1		6.568			ND	U
	2 TNX	1		6.621			ND	
	3 HMX	1		6.709			ND	
	4 2,4-diamino-6-nitrotoluene	1		6.754			ND	
	5 DNX	1		6.947			ND	
	6 MNX	1		7.394			ND	
	7 RDX	1		7.789			ND	
	8 2,4,6-Trinitrophenol	1		8.089			ND	U
$	9 1,2-Dinitrobenzene	1	8.795	8.763	0.032	27377	0.1981	M
	10 1,3,5-Trinitrobenzene	1		8.936			ND	
	11 1,3-Dinitrobenzene	1		9.589			ND	
	12 Nitrobenzene	1	10.008	9.969	0.039	2485	0.0124	M
	13 3,5-Dinitroaniline	1		10.201			ND	
	14 Tetryl	1		10.282			ND	
	15 Nitroglycerin	2		10.789			ND	
	16 2,4,6-Trinitrotoluene	1		11.249			ND	
	17 4-Amino-2,6-dinitrotoluene	1		11.416			ND	
	18 2-Amino-4,6-dinitrotoluene	1		11.702			ND	
	19 2,6-Dinitrotoluene	1		11.849			ND	
	20 2,4-Dinitrotoluene	1		12.049			ND	
	21 o-Nitrotoluene	1		12.876			ND	
	22 p-Nitrotoluene	1		13.309			ND	U
	23 m-Nitrotoluene	1		13.902			ND	
	24 PETN	2		14.996			ND	
	25 Ammonium Picrate	1		0.000			ND	

QC Flag Legend

Review Flags

M - Manually Integrated

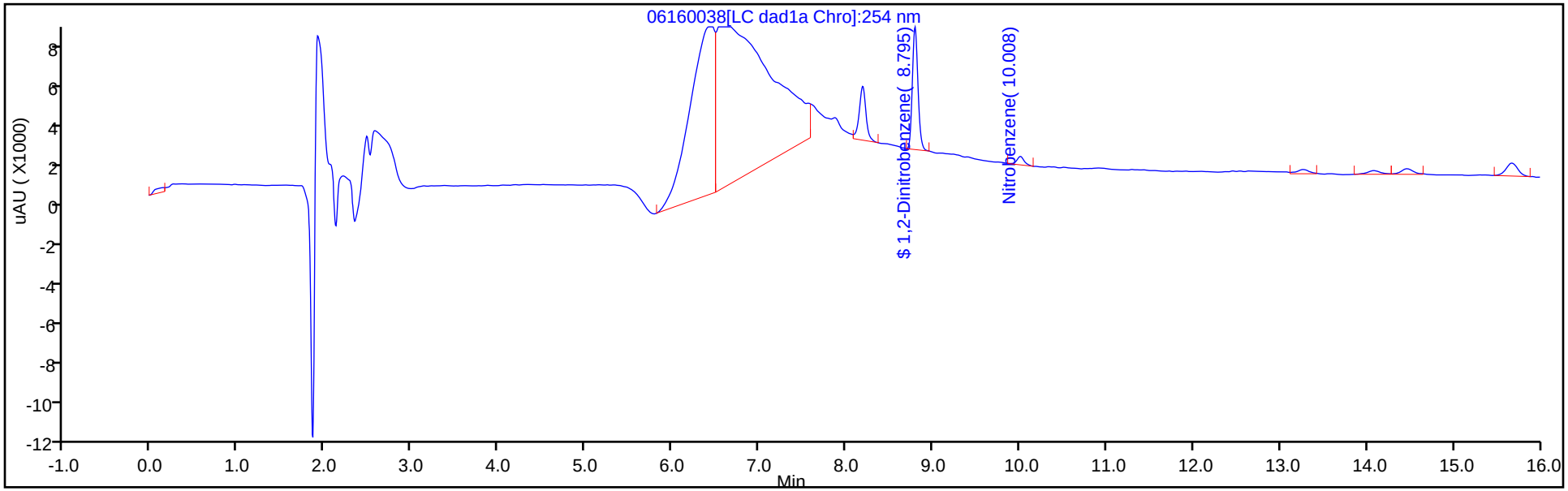
U - Marked Undetected

Report Date: 17-Jun-2020 20:30:28 Chrom Revision: 2.3 10-Jun-2020 22:46:48

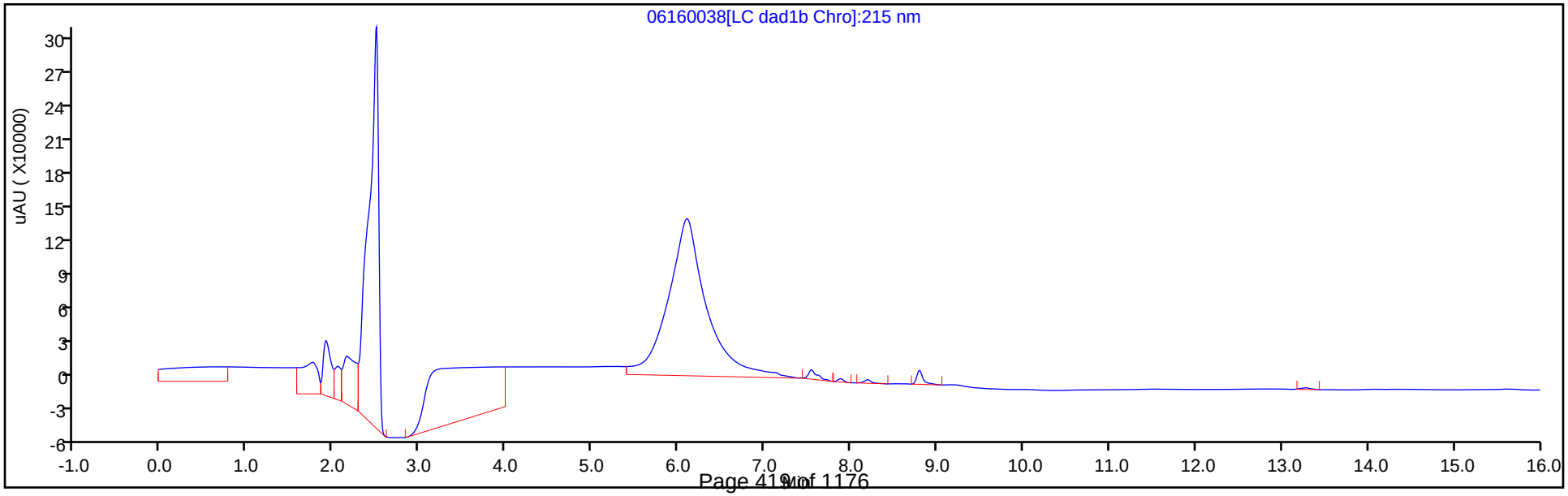
Eurofins TestAmerica, Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20200616-92483.b\06160038.d				
Injection Date:	17-Jun-2020 06:48:31	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	280-137225-A-2-A	Lab Sample ID:	280-137225-2	Worklist Smp#:	38
Client ID:	G0070-20A				
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



Eurofins TestAmerica, Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20200616-92483.b\06160038.D				
Lims ID:	280-137225-A-2-A				
Client ID:	G0070-20A				
Sample Type:	Client				
Inject. Date:	17-Jun-2020 06:48:31	ALS Bottle#:	38	Worklist Smp#:	38
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-137225-A-2-A				
Misc. Info.:	280-0092483-038				
Operator ID:	JZ	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20200616-92483.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	17-Jun-2020 20:30:26	Calib Date:	18-Mar-2020 14:39:27		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180015.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1005				

First Level Reviewer: zhangji Date: 17-Jun-2020 18:57:42

Compound	Amount Added	Amount Recovered	% Rec.
$ 9 1,2-Dinitrobenzene	0.2000	0.1981	99.04

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

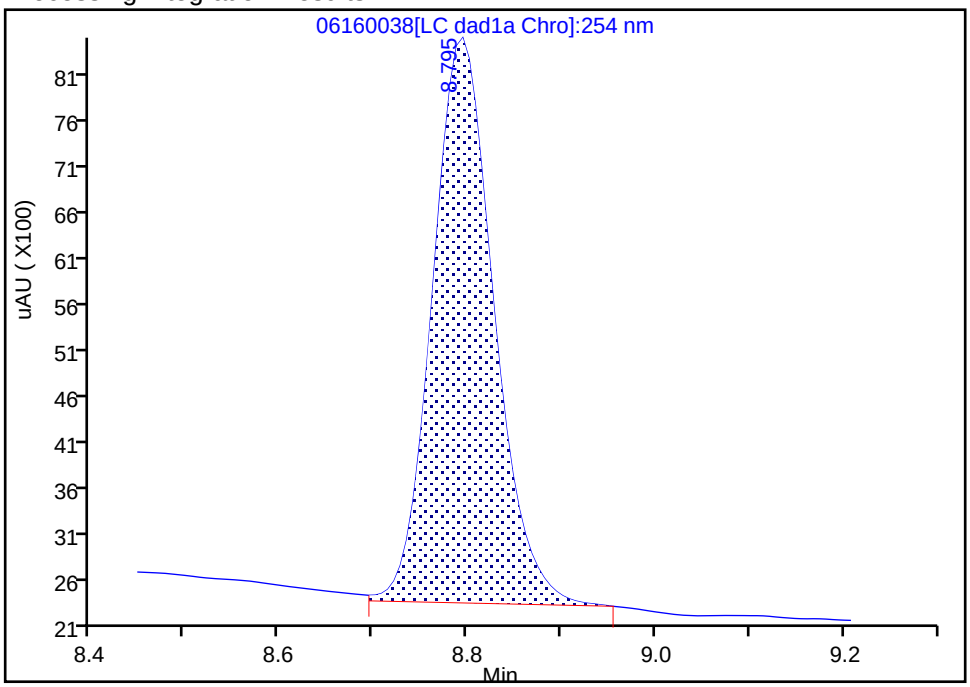
Data File:	\\chromfs\denver\chromdata\chhplc_x\20200616-92483.b\06160038.d				
Injection Date:	17-Jun-2020 06:48:31	Instrument ID:	CHHPLC_X3		
Lims ID:	280-137225-A-2-A	Lab Sample ID:	280-137225-2		
Client ID:	G0070-20A				
Operator ID:	JZ	ALS Bottle#:	38	Worklist Smp#:	38
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

$ 9 1,2-Dinitrobenzene, CAS: 528-29-0

Signal: 1

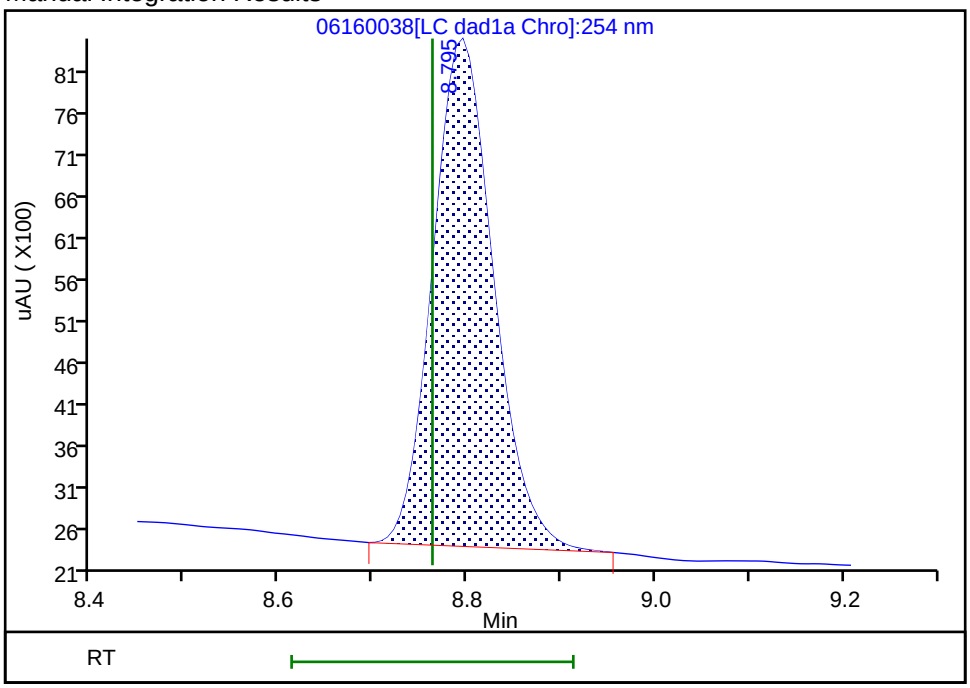
Processing Integration Results

RT: 8.79
Area: 27845
Amount: 0.201466
Amount Units: ug/mL



Manual Integration Results

RT: 8.79
Area: 27377
Amount: 0.198079
Amount Units: ug/mL



Reviewer: zhangji, 17-Jun-2020 18:57:34
Audit Action: Manually Integrated Audit Reason: Baseline

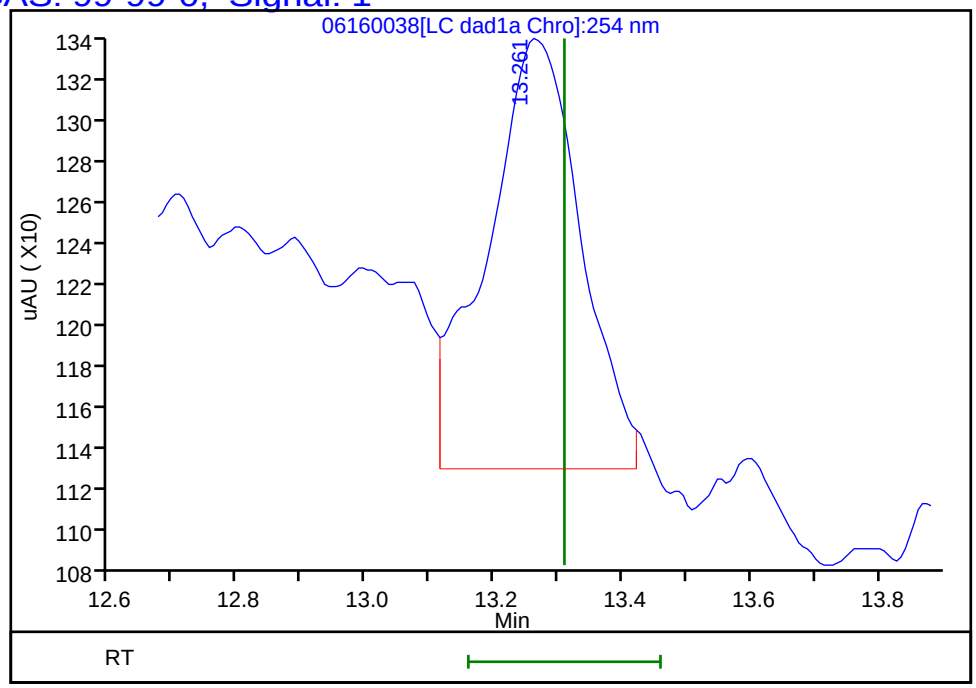
User Disabled Compound Report

Eurofins TestAmerica, Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20200616-92483.b\06160038.d				
Injection Date:	17-Jun-2020 06:48:31	Instrument ID:	CHHPLC_X3		
Lims ID:	280-137225-A-2-A	Lab Sample ID:	280-137225-2		
Client ID:	G0070-20A				
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		

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

RT: 13.26
Response: 2134
Amount: 0.018884



Reviewer: zhangji, 17-Jun-2020 18:57:42
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

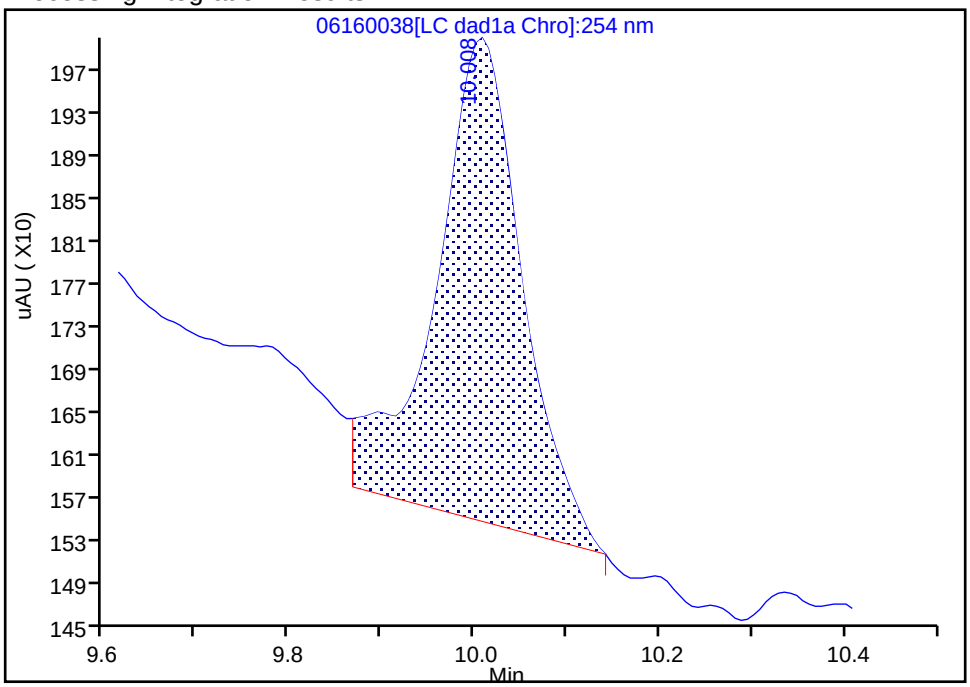
Data File:	\\chromfs\denver\chromdata\chhplc_x\20200616-92483.b\06160038.d				
Injection Date:	17-Jun-2020 06:48:31	Instrument ID:	CHHPLC_X3		
Lims ID:	280-137225-A-2-A	Lab Sample ID:	280-137225-2		
Client ID:	G0070-20A				
Operator ID:	JZ	ALS Bottle#:	38	Worklist Smp#:	38
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

12 Nitrobenzene, CAS: 98-95-3

Signal: 1

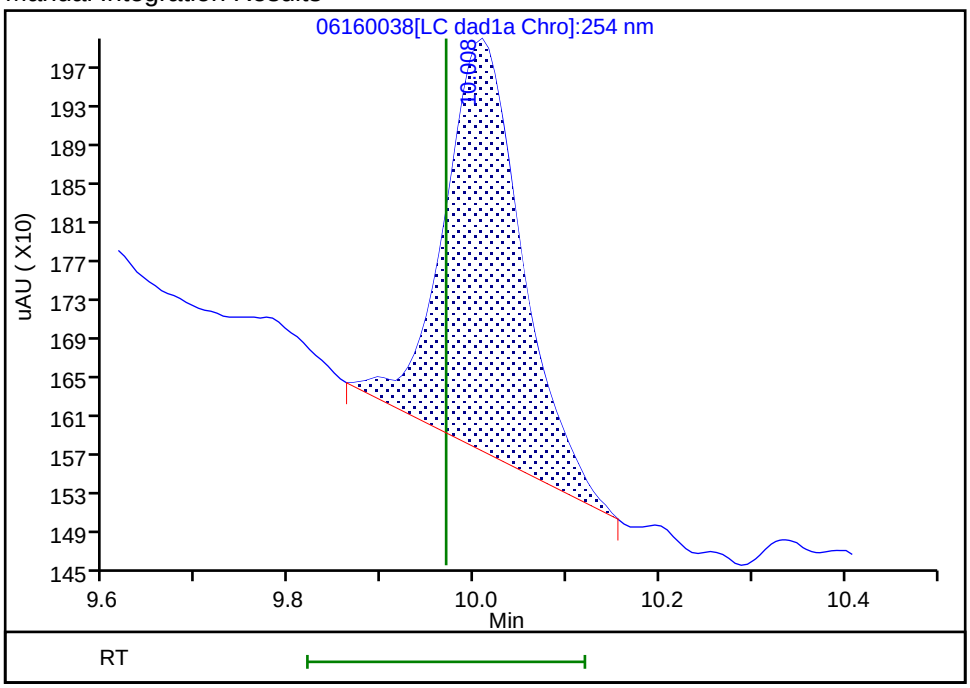
Processing Integration Results

RT: 10.01
Area: 2909
Amount: 0.014516
Amount Units: ug/mL



Manual Integration Results

RT: 10.01
Area: 2485
Amount: 0.012400
Amount Units: ug/mL



Reviewer: zhangji, 17-Jun-2020 18:57:39

Audit Action: Manually Integrated Audit Reason: Baseline

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-137225-1
SDG No.:
Client Sample ID: G0070-20A
Lab Sample ID: 280-137225-2
Matrix: Water
Lab File ID: 06200015.D
Analysis Method: 8330A
Date Collected: 06/02/2020 08:25
Extraction Method: 3535
Date Extracted: 06/04/2020 17:15
Sample wt/vol: 452.8(mL)
Date Analyzed: 06/20/2020 17:39
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.: 499503
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
98-95-3	Nitrobenzene	0.22	U	0.23	0.22	0.10

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	91	*M*	83-119

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2_LUNA\20200619-92597.b\06200015.D
Lims ID: 280-137225-A-2-A
Client ID: G0070-20A
Sample Type: Client
Inject. Date: 20-Jun-2020 17:39:33 ALS Bottle#: 15 Worklist Smp#: 15
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-137225-A-2-A
Misc. Info.: 280-0092597-015
Operator ID: JZ Instrument ID: CHHPLC_G2_LUNA

Method: \\chromfs\Denver\ChromData\G2_LUNA\20200619-92597.b\G2_8330_Luna.m
Limit Group: GCSV - 8330
Last Update: 23-Jun-2020 18:23:07 Calib Date: 15-May-2020 02:11:20
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140024.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC DAD1A, 254 nm
Process Host: CTX1017

First Level Reviewer: zhangji Date: 23-Jun-2020 18:06:29

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 2,6-diamino-4-nitrotoluene	1		4.386			ND	
2 2,4-diamino-6-nitrotoluene	1		4.973			ND	
3 TNX	1		5.509			ND	
4 DNX	1		6.336			ND	
6 HMX	1		7.153			ND	
7 MNX	1		7.876			ND	
5 2,4,6-Trinitrophenol	1		8.480			ND	
8 RDX	1		9.366			ND	
9 Nitrobenzene	1		12.259			ND	
$ 10 1,2-Dinitrobenzene	1	13.253	13.266	-0.013	52023	0.1810	M
11 3,5-Dinitroaniline	1		15.199			ND	
12 1,3-Dinitrobenzene	1		15.793			ND	
13 Nitroglycerin	2		16.026			ND	
14 o-Nitrotoluene	1	16.646	16.726	-0.080	3540	0.0130	M
15 p-Nitrotoluene	1		17.006			ND	
16 4-Amino-2,6-dinitrotoluene	1		17.446			ND	
17 m-Nitrotoluene	1		17.939			ND	U
18 2-Amino-4,6-dinitrotoluene	1		18.379			ND	
19 1,3,5-Trinitrobenzene	1		19.119			ND	
20 2,6-Dinitrotoluene	1		20.046			ND	
21 2,4-Dinitrotoluene	1		20.560			ND	
22 Tetryl	1		23.860			ND	
23 2,4,6-Trinitrotoluene	1		24.880			ND	
24 PETN	2		25.420			ND	
25 Ammonium Picrate	1		0.000			ND	

QC Flag Legend

Review Flags

M - Manually Integrated

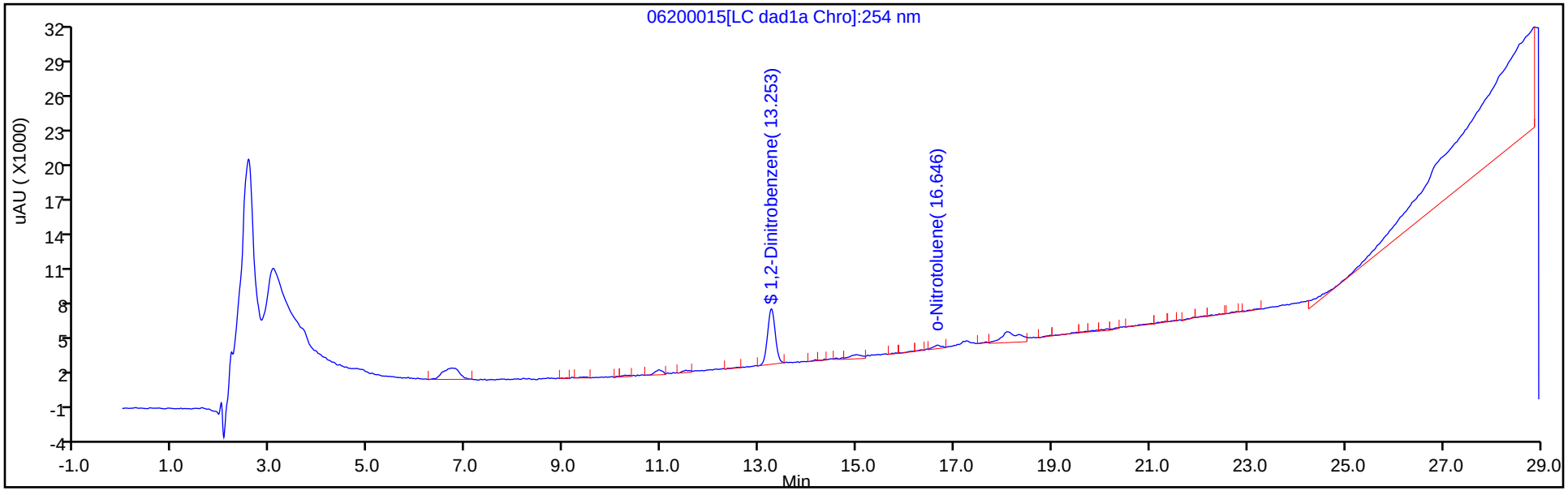
U - Marked Undetected

Report Date: 23-Jun-2020 18:23:09 Chrom Revision: 2.3 21-Jun-2020 18:30:46

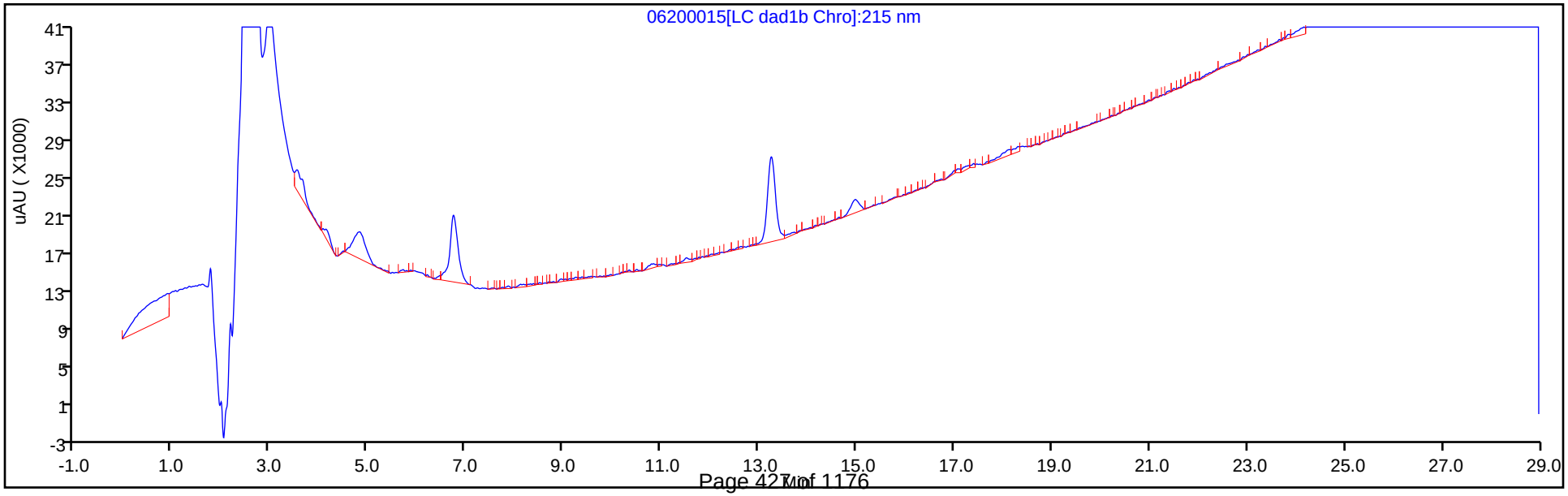
Eurofins TestAmerica, Denver

Data File:	\\chromfs\denver\chromdata\g2_luna\20200619-92597.b\06200015.d				
Injection Date:	20-Jun-2020 17:39:33	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	JZ
Lims ID:	280-137225-A-2-A	Lab Sample ID:	280-137225-2	Worklist Smp#:	15
Client ID:	G0070-20A				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	15
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		

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



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



Eurofins TestAmerica, Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\G2_LUNA\20200619-92597.b\06200015.D				
Lims ID:	280-137225-A-2-A				
Client ID:	G0070-20A				
Sample Type:	Client				
Inject. Date:	20-Jun-2020 17:39:33	ALS Bottle#:	15	Worklist Smp#:	15
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-137225-A-2-A				
Misc. Info.:	280-0092597-015				
Operator ID:	JZ	Instrument ID:	CHHPLC_G2_LUNA		
Method:	\\chromfs\Denver\ChromData\G2_LUNA\20200619-92597.b\G2_8330_Luna.m				
Limit Group:	GCSV - 8330				
Last Update:	23-Jun-2020 18:23:07	Calib Date:	15-May-2020 02:11:20		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140024.D				
Column 1 :	Luna-Phenyl hexyl (4.60 mm)		Det: LC DAD1A, 254 nm		
Process Host:	CTX1017				

First Level Reviewer: zhangji Date: 23-Jun-2020 18:06:29

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.1810	90.51

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

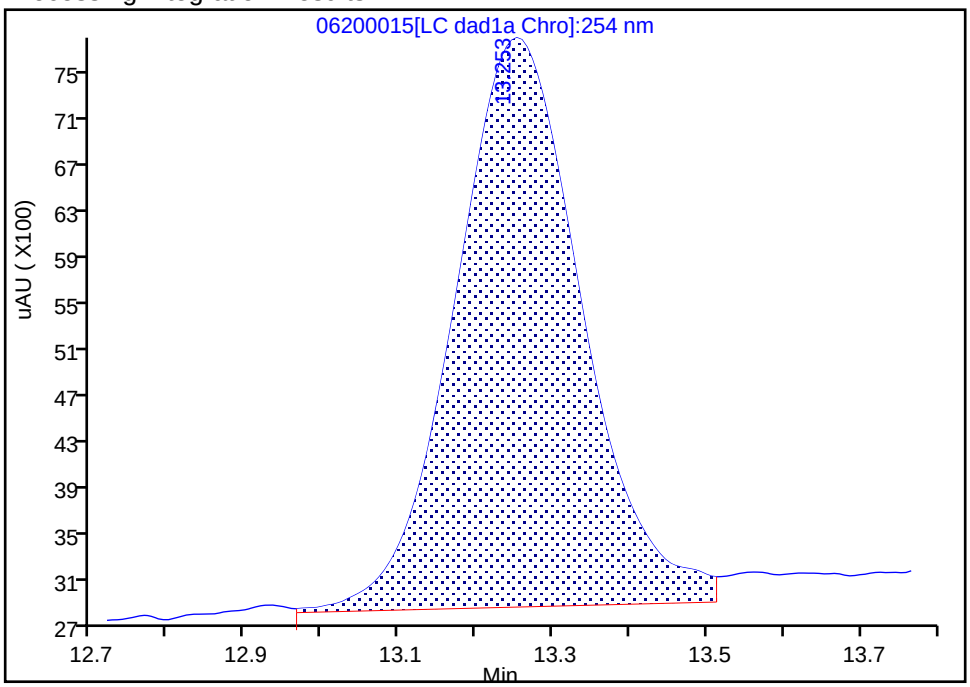
Data File:	\\chromfs\denver\chromdata\g2_luna\20200619-92597.b\06200015.d				
Injection Date:	20-Jun-2020 17:39:33	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	280-137225-A-2-A	Lab Sample ID:	280-137225-2		
Client ID:	G0070-20A				
Operator ID:	JZ	ALS Bottle#:	15	Worklist Smp#:	15
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

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

Signal: 1

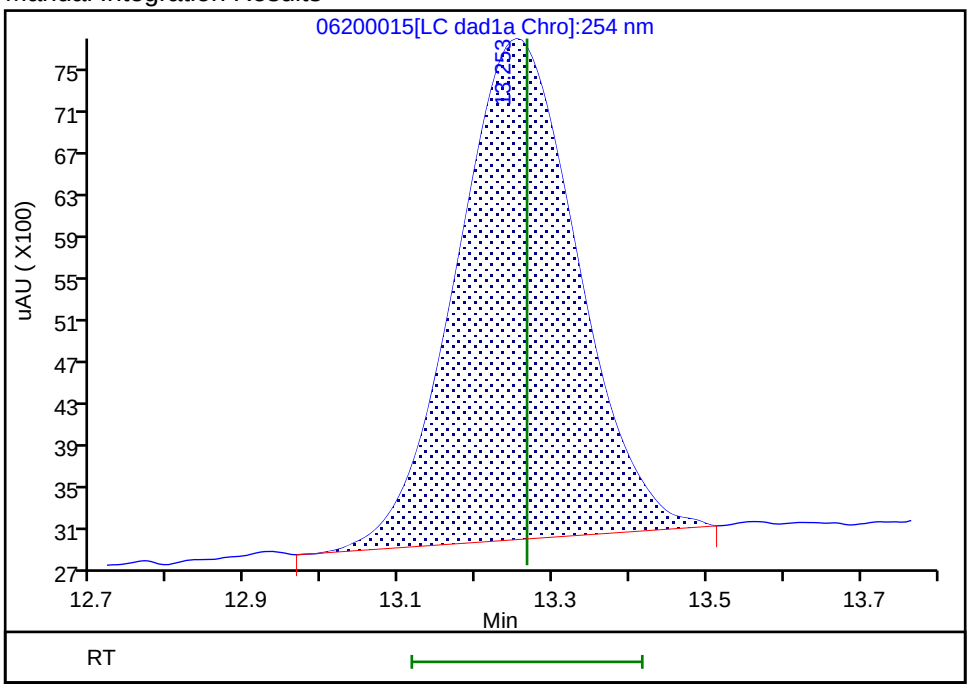
Processing Integration Results

RT: 13.25
Area: 56106
Amount: 0.195749
Amount Units: ug/ml



Manual Integration Results

RT: 13.25
Area: 52023
Amount: 0.181021
Amount Units: ug/ml



Reviewer: zhangji, 23-Jun-2020 18:06:09
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

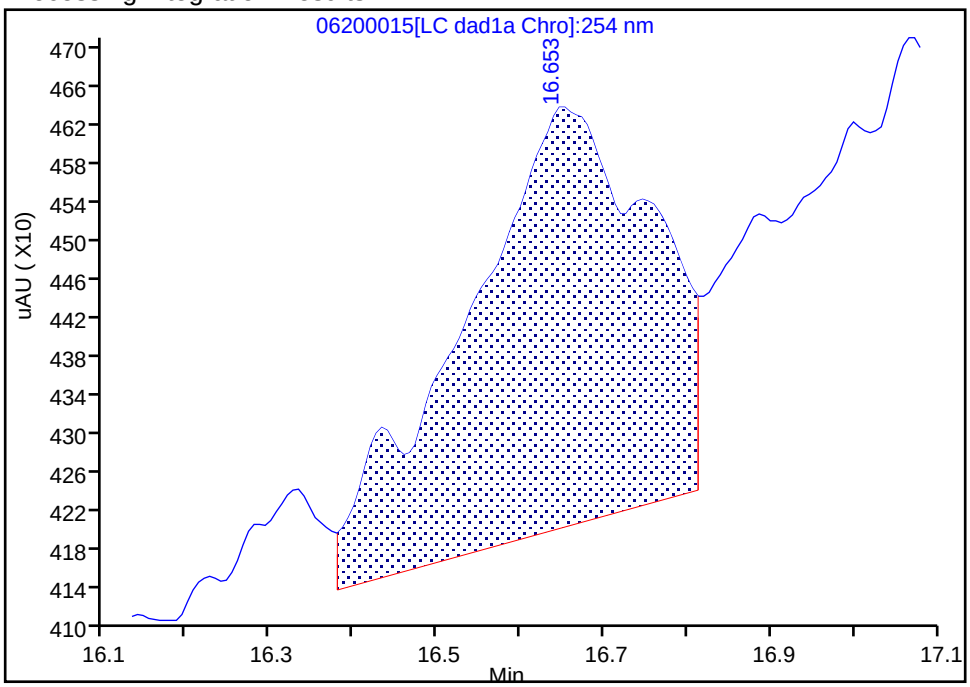
Data File:	\\chromfs\denver\chromdata\g2_luna\20200619-92597.b\06200015.d				
Injection Date:	20-Jun-2020 17:39:33	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	280-137225-A-2-A	Lab Sample ID:	280-137225-2		
Client ID:	G0070-20A				
Operator ID:	JZ	ALS Bottle#:	15	Worklist Smp#:	15
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

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

Signal: 1

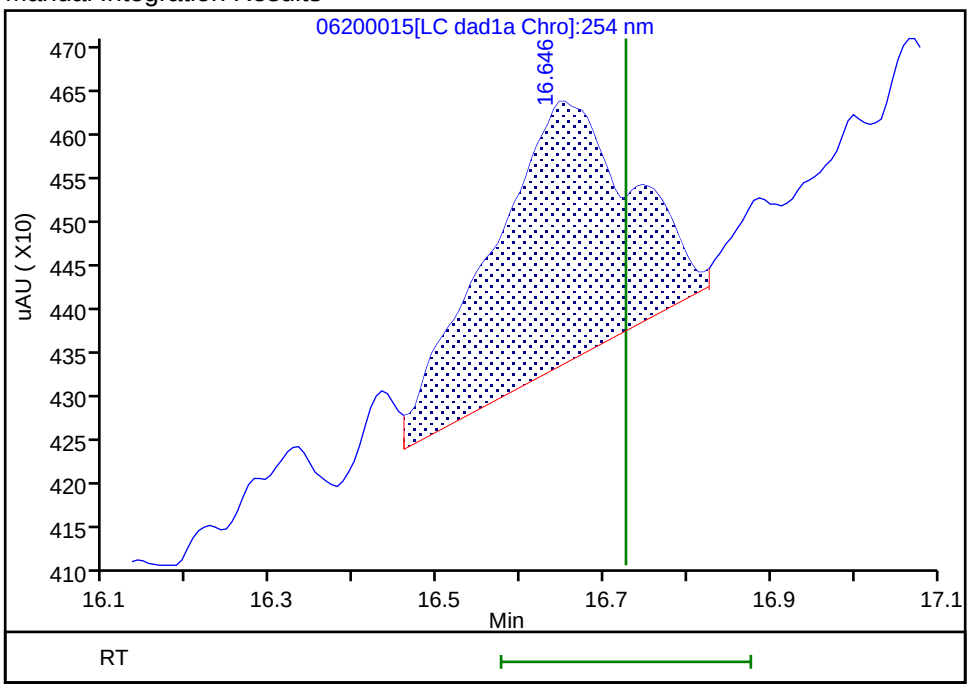
Processing Integration Results

RT: 16.65
Area: 6791
Amount: 0.024879
Amount Units: ug/ml



Manual Integration Results

RT: 16.65
Area: 3540
Amount: 0.012969
Amount Units: ug/ml



Reviewer: zhangji, 23-Jun-2020 18:06:27
Audit Action: Assigned New Baseline Audit Reason: Baseline

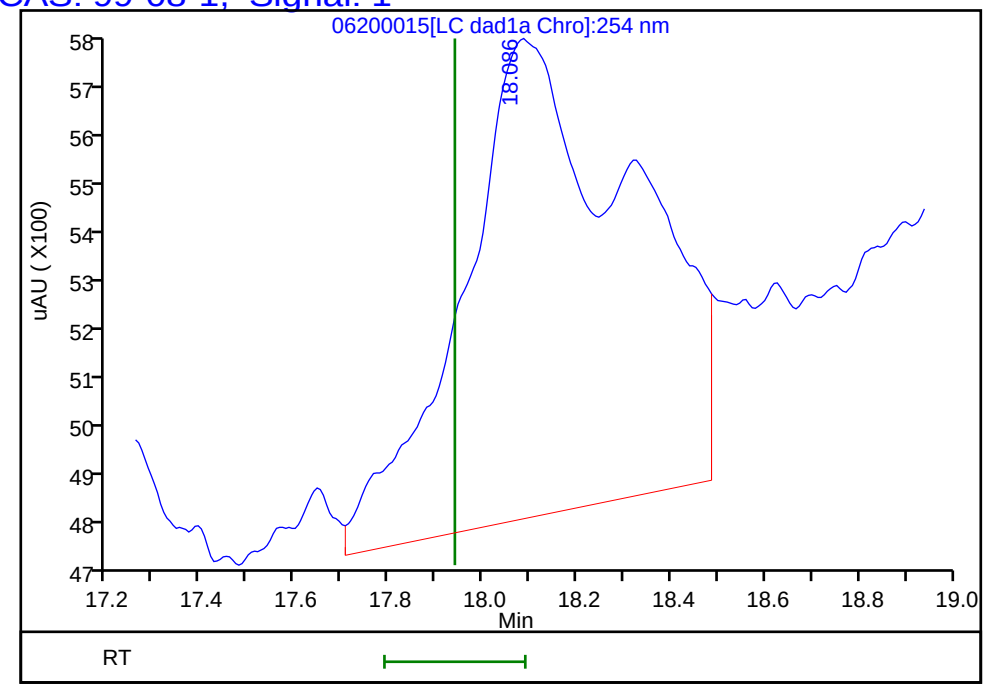
User Disabled Compound Report

Eurofins TestAmerica, Denver

Data File:	\\chromfs\denver\chromdata\g2_luna\20200619-92597.b\06200015.d				
Injection Date:	20-Jun-2020 17:39:33	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	280-137225-A-2-A	Lab Sample ID:	280-137225-2		
Client ID:	G0070-20A				
Operator ID:	JZ	ALS Bottle#:	15	Worklist Smp#:	15
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

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

RT: 18.09
Response: 23461
Amount: 0.078642



Reviewer: zhangji, 23-Jun-2020 18:06:29
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-137225-1
SDG No.:
Client Sample ID: G0081-20A
Lab Sample ID: 280-137225-3
Matrix: Water
Lab File ID: 06160046.D
Analysis Method: 8330A
Date Collected: 06/02/2020 09:45
Extraction Method: 3535
Date Extracted: 06/04/2020 17:15
Sample wt/vol: 473.7(mL)
Date Analyzed: 06/17/2020 09:52
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.: 498992
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	0.27	M	0.22	0.21	0.089
99-65-0	1,3-Dinitrobenzene	0.11	U	0.12	0.11	0.039
118-96-7	2,4,6-Trinitrotoluene	0.11	U Q M	0.12	0.11	0.047
121-14-2	2,4-Dinitrotoluene	0.084	U	0.11	0.084	0.029
606-20-2	2,6-Dinitrotoluene	0.084	U	0.11	0.084	0.042
35572-78-2	2-Amino-4,6-dinitrotoluene	0.11	U	0.12	0.11	0.054
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
19406-51-0	4-Amino-2,6-dinitrotoluene	0.13	U	0.16	0.13	0.061
99-99-0	4-Nitrotoluene	0.42	U	0.43	0.42	0.11
2691-41-0	HMX	0.21	U	0.22	0.21	0.092
5755-27-1	MNX	0.42	U	2.1	0.42	0.16
121-82-4	RDX	0.21	U	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	89	M	83-119

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20200616-92483.b\06160046.D				
Lims ID:	280-137225-A-3-A				
Client ID:	G0081-20A				
Sample Type:	Client				
Inject. Date:	17-Jun-2020 09:52:54	ALS Bottle#:	46	Worklist Smp#:	46
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-137225-A-3-A				
Misc. Info.:	280-0092483-046				
Operator ID:	JZ	Instrument ID:	CHHPLC_X3		

Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20200616-92483.b\8330_X3.m		
Limit Group:	GCSV - 8330		
Last Update:	17-Jun-2020 20:30:31	Calib Date:	18-Mar-2020 14:39:27
Integrator:	Falcon		
Quant Method:	External Standard	Quant By:	Initial Calibration
Last ICal File:	\\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180015.D		

Column 1 :	UltraCarb5uODS (20) (4.60 mm)	Det: LC DAD1B, 254 nm
Process Host:	CTX1005	

First Level Reviewer: zhangji Date: 17-Jun-2020 19:04:00

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/mL	Flags
3 HMX	1		6.709			ND	
6 MNX	1		7.394			ND	
7 RDX	1		7.789			ND	
$ 9 1,2-Dinitrobenzene	1	8.773	8.763	0.010	24631	0.1782	M
10 1,3,5-Trinitrobenzene	1	8.946	8.936	0.010	5847	0.0254	M
11 1,3-Dinitrobenzene	1		9.589			ND	
12 Nitrobenzene	1	9.953	9.969	-0.016	4654	0.0232	M
14 Tetryl	1		10.282			ND	U
16 2,4,6-Trinitrotoluene	1		11.249			ND	MU
17 4-Amino-2,6-dinitrotoluene	1		11.416			ND	
18 2-Amino-4,6-dinitrotoluene	1		11.702			ND	
19 2,6-Dinitrotoluene	1		11.849			ND	
20 2,4-Dinitrotoluene	1		12.049			ND	
21 o-Nitrotoluene	1		12.876			ND	U
22 p-Nitrotoluene	1		13.309			ND	
23 m-Nitrotoluene	1		13.902			ND	

QC Flag Legend

Review Flags

M - Manually Integrated

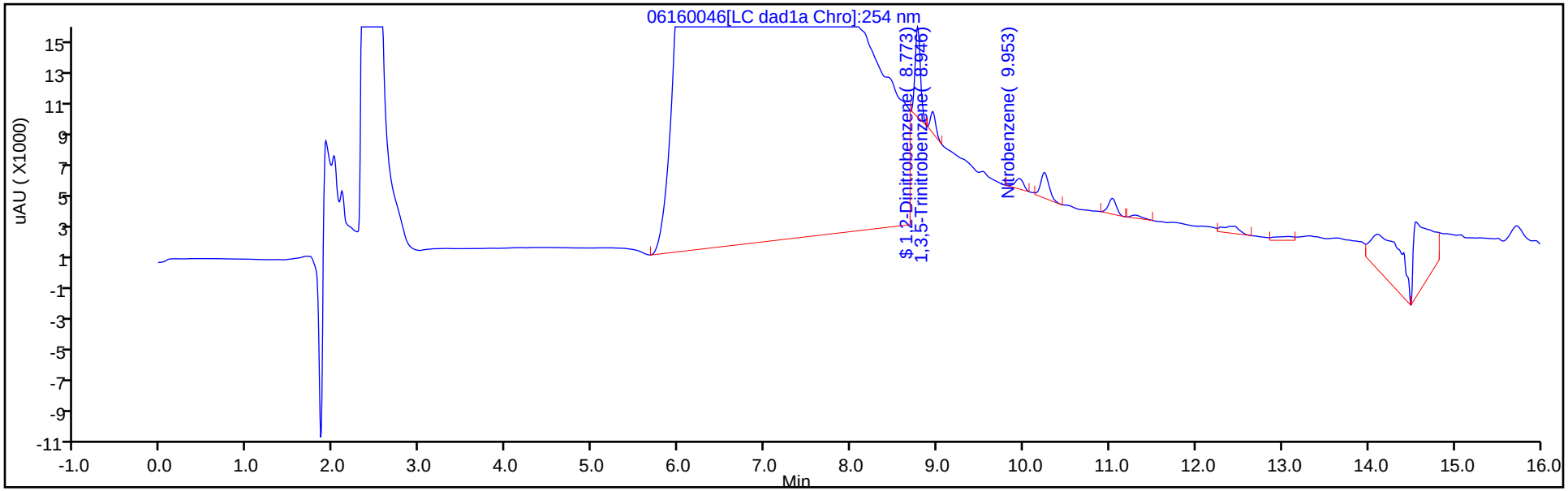
U - Marked Undetected

Report Date: 17-Jun-2020 20:30:32 Chrom Revision: 2.3 10-Jun-2020 22:46:48

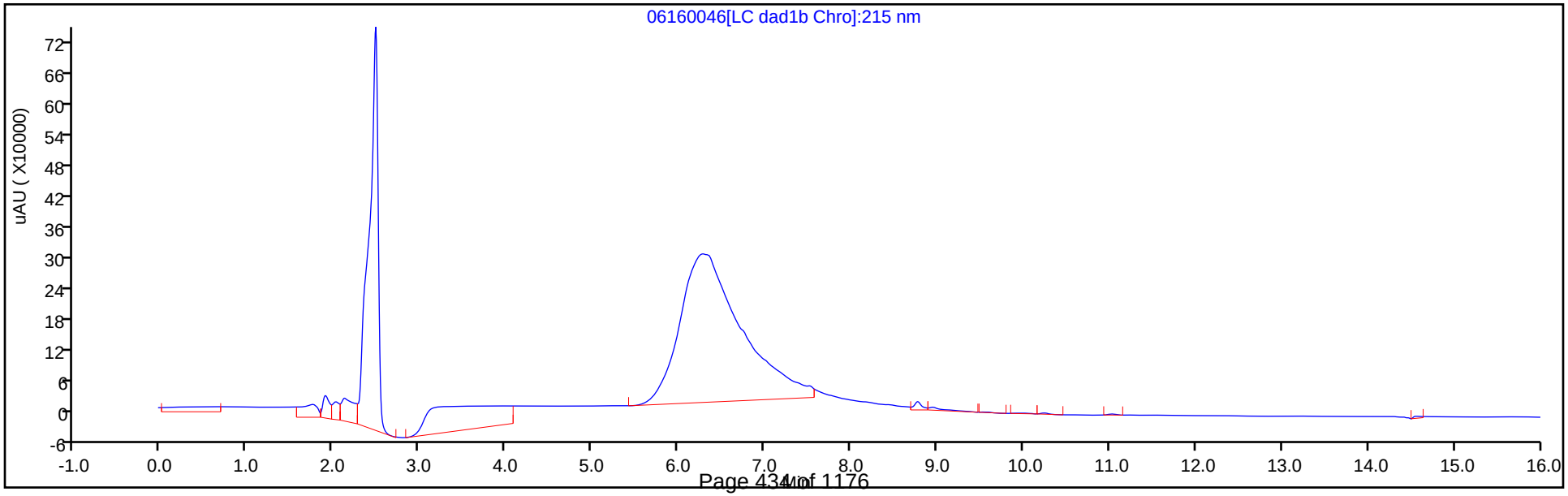
Eurofins TestAmerica, Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20200616-92483.b\06160046.d				
Injection Date:	17-Jun-2020 09:52:54	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	280-137225-A-3-A	Lab Sample ID:	280-137225-3	Worklist Smp#:	46
Client ID:	G0081-20A				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	46
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
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20200616-92483.b\06160046.D				
Lims ID:	280-137225-A-3-A				
Client ID:	G0081-20A				
Sample Type:	Client				
Inject. Date:	17-Jun-2020 09:52:54	ALS Bottle#:	46	Worklist Smp#:	46
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-137225-A-3-A				
Misc. Info.:	280-0092483-046				
Operator ID:	JZ	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20200616-92483.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	17-Jun-2020 20:30:31	Calib Date:	18-Mar-2020 14:39:27		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180015.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1005				

First Level Reviewer: zhangji Date: 17-Jun-2020 19:04:00

Compound	Amount Added	Amount Recovered	% Rec.
$ 9 1,2-Dinitrobenzene	0.2000	0.1782	89.11

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

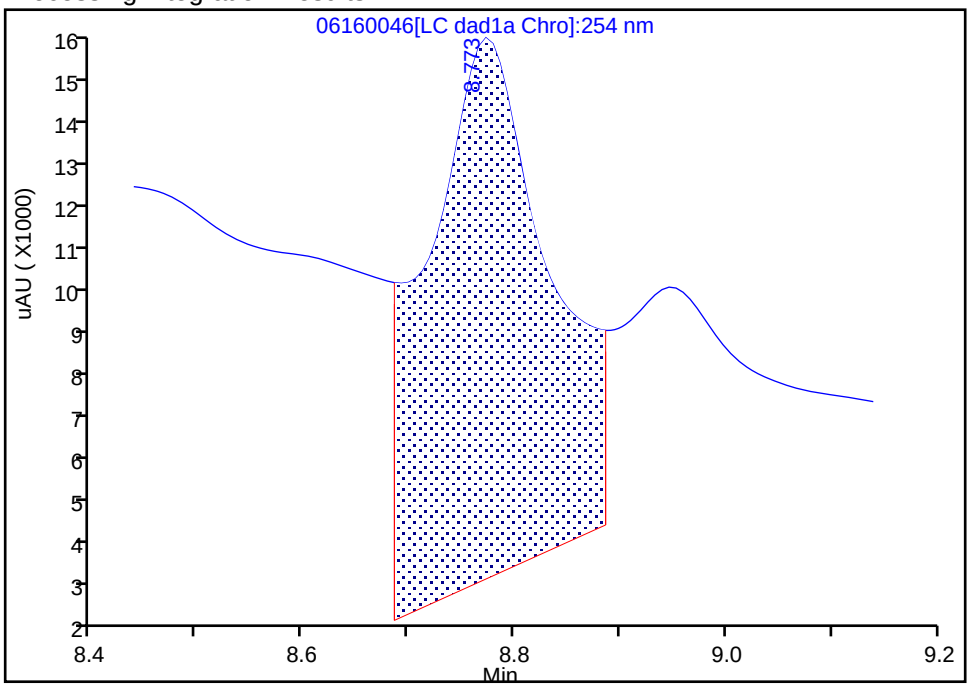
Data File:	\\chromfs\denver\chromdata\chhplc_x\20200616-92483.b\06160046.d				
Injection Date:	17-Jun-2020 09:52:54	Instrument ID:	CHHPLC_X3		
Lims ID:	280-137225-A-3-A	Lab Sample ID:	280-137225-3		
Client ID:	G0081-20A				
Operator ID:	JZ	ALS Bottle#:	46	Worklist Smp#:	46
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

$ 9 1,2-Dinitrobenzene, CAS: 528-29-0

Signal: 1

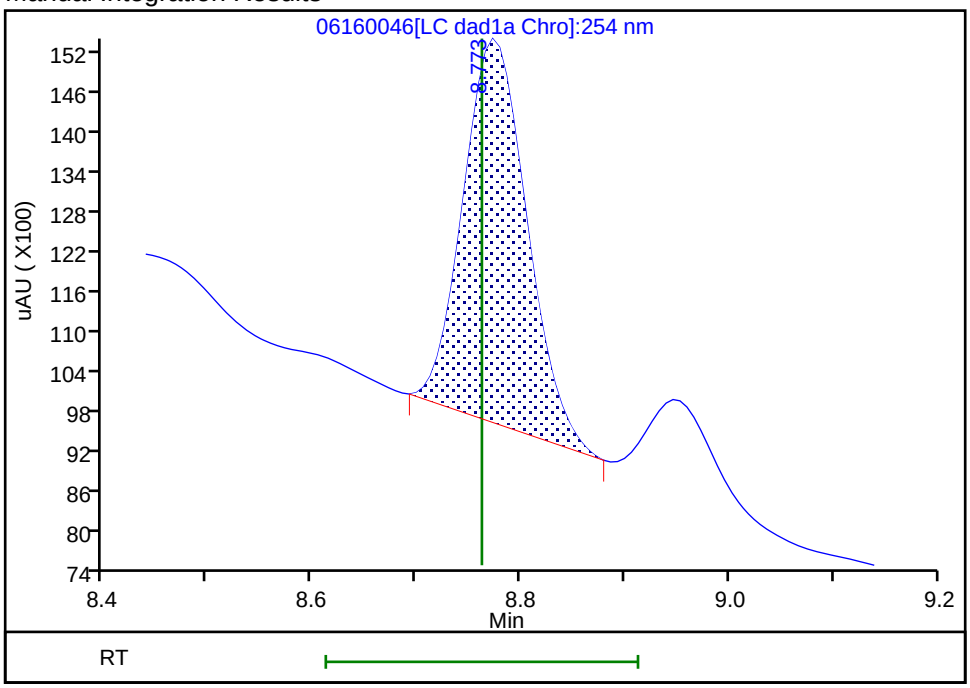
Processing Integration Results

RT: 8.77
Area: 94120
Amount: 0.680982
Amount Units: ug/mL



Manual Integration Results

RT: 8.77
Area: 24631
Amount: 0.178211
Amount Units: ug/mL



Reviewer: zhangji, 17-Jun-2020 19:03:22

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

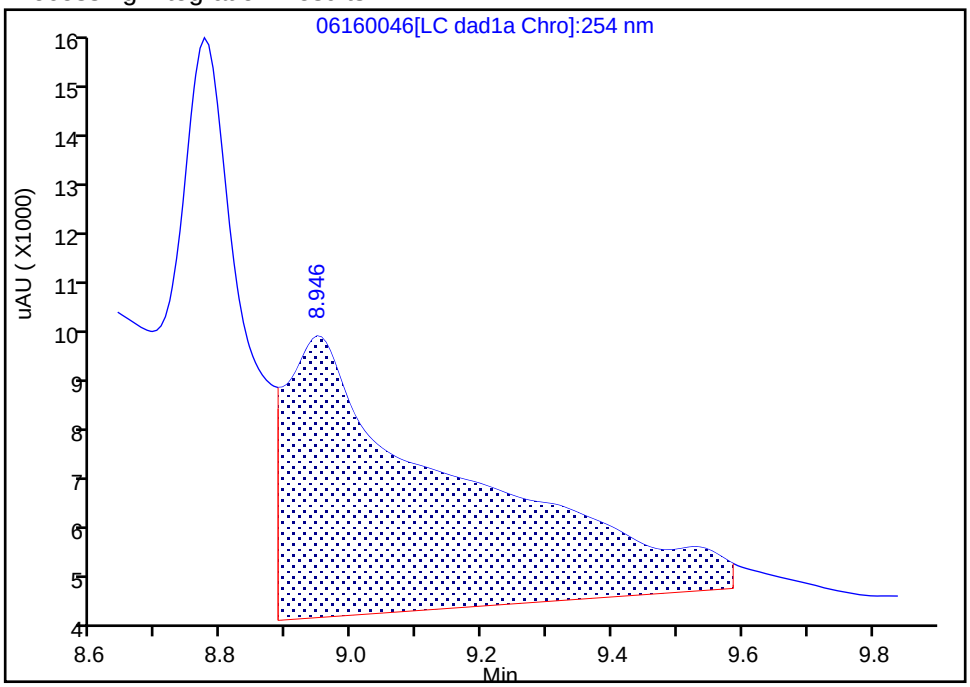
Data File:	\\chromfs\denver\chromdata\chhplc_x\20200616-92483.b\06160046.d				
Injection Date:	17-Jun-2020 09:52:54	Instrument ID:	CHHPLC_X3		
Lims ID:	280-137225-A-3-A	Lab Sample ID:	280-137225-3		
Client ID:	G0081-20A				
Operator ID:	JZ	ALS Bottle#:	46	Worklist Smp#:	46
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

10 1,3,5-Trinitrobenzene, CAS: 99-35-4

Signal: 1

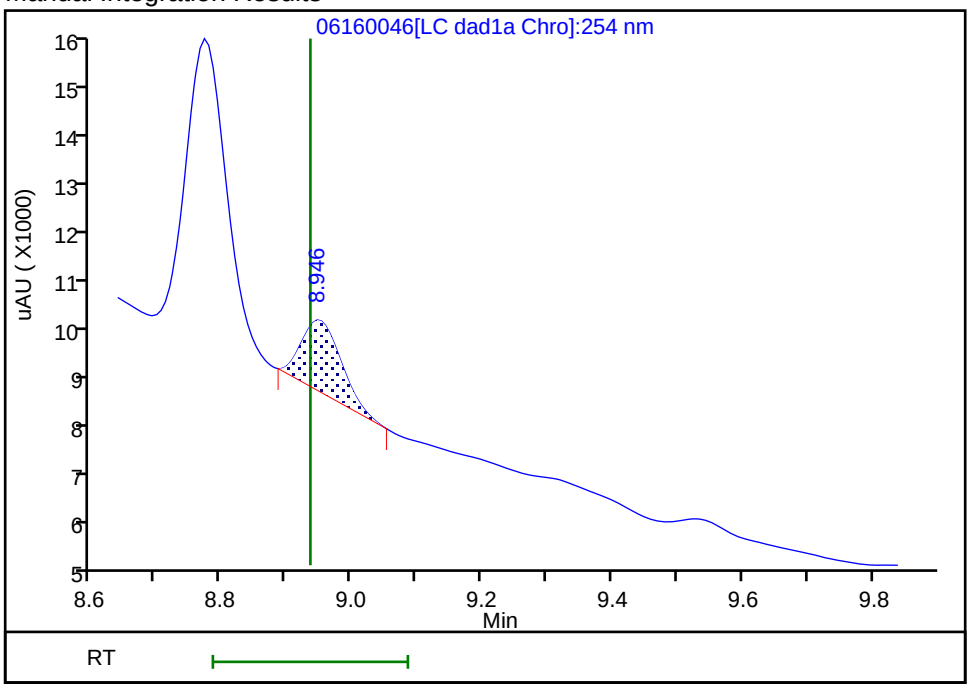
Processing Integration Results

RT: 8.95
Area: 94600
Amount: 0.410753
Amount Units: ug/mL



Manual Integration Results

RT: 8.95
Area: 5847
Amount: 0.025388
Amount Units: ug/mL



Reviewer: zhangji, 17-Jun-2020 19:03:27
Audit Action: Manually Integrated Audit Reason: Baseline

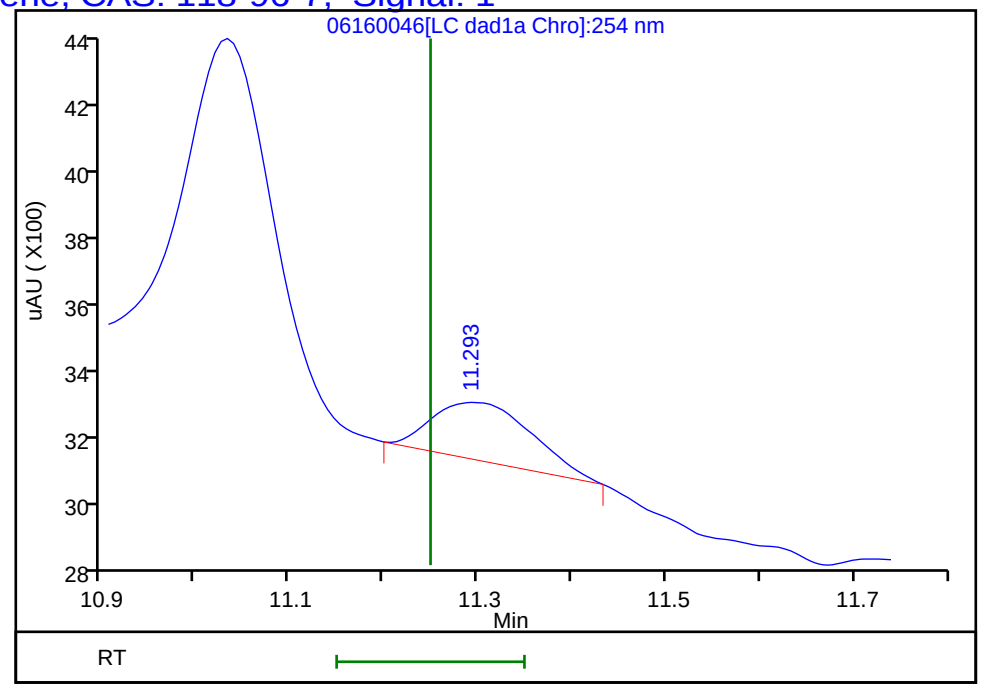
User Disabled Compound Report

Eurofins TestAmerica, Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20200616-92483.b\06160046.d				
Injection Date:	17-Jun-2020 09:52:54	Instrument ID:	CHHPLC_X3		
Lims ID:	280-137225-A-3-A	Lab Sample ID:	280-137225-3		
Client ID:	G0081-20A				
Operator ID:	JZ	ALS Bottle#:	46	Worklist Smp#:	46
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

16 2,4,6-Trinitrotoluene, CAS: 118-96-7, Signal: 1

RT: 11.29
Response: 1266
Amount: 0.006205



Reviewer: zhangji, 17-Jun-2020 19:04:00
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

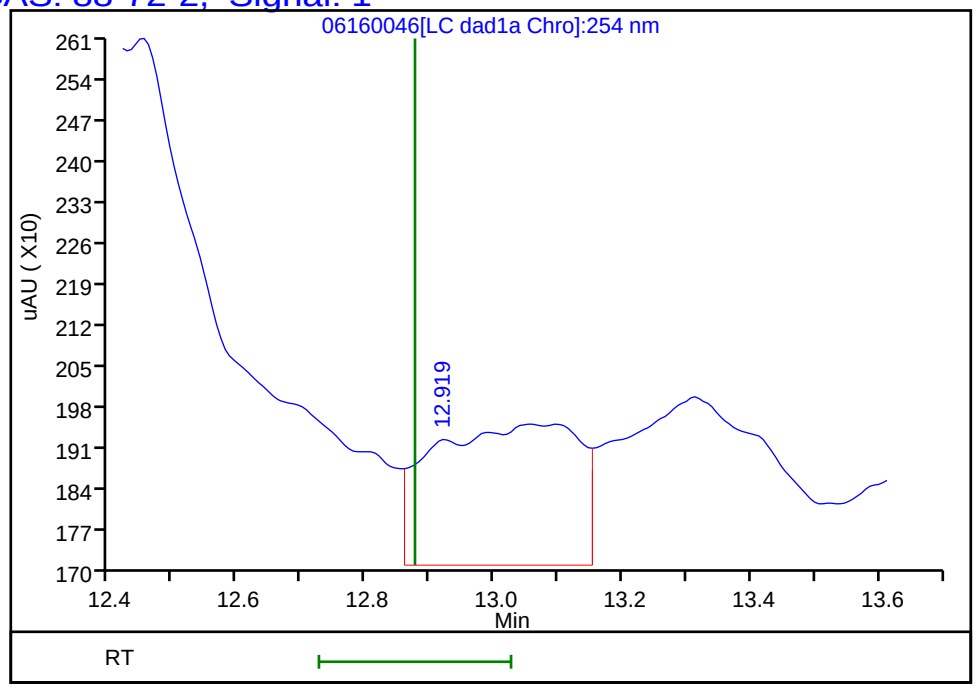
User Disabled Compound Report

Eurofins TestAmerica, Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20200616-92483.b\06160046.d				
Injection Date:	17-Jun-2020 09:52:54	Instrument ID:	CHHPLC_X3		
Lims ID:	280-137225-A-3-A	Lab Sample ID:	280-137225-3		
Client ID:	G0081-20A				
Operator ID:	JZ	ALS Bottle#:	46	Worklist Smp#:	46
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

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

RT: 12.92
Response: 3824
Amount: 0.028315



Reviewer: zhangji, 17-Jun-2020 19:04:00
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

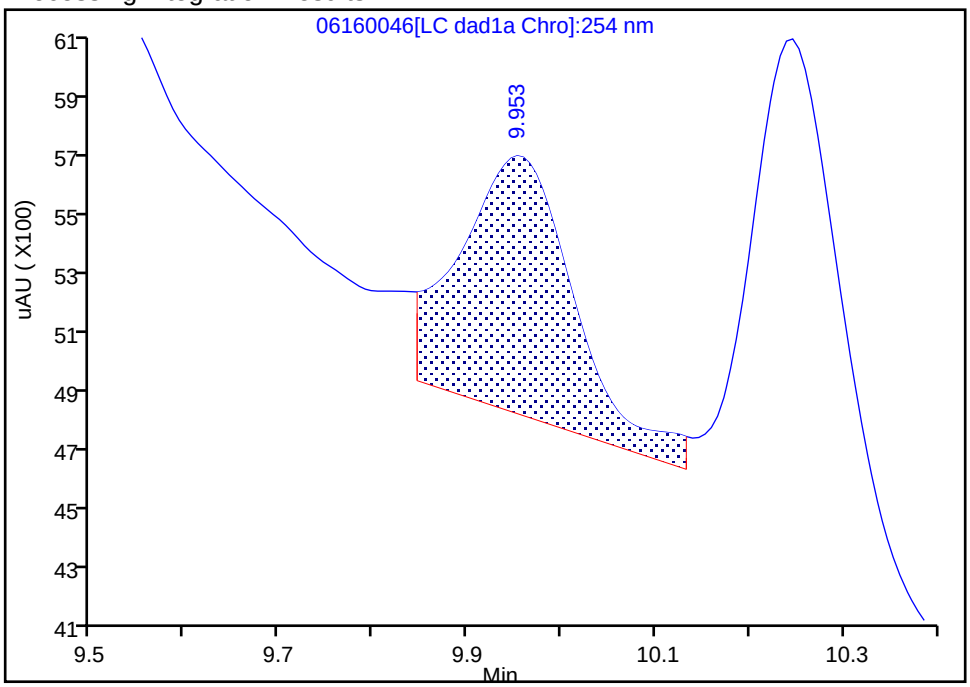
Data File:	\\chromfs\denver\chromdata\chhplc_x\20200616-92483.b\06160046.d				
Injection Date:	17-Jun-2020 09:52:54	Instrument ID:	CHHPLC_X3		
Lims ID:	280-137225-A-3-A	Lab Sample ID:	280-137225-3		
Client ID:	G0081-20A				
Operator ID:	JZ	ALS Bottle#:	46	Worklist Smp#:	46
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

12 Nitrobenzene, CAS: 98-95-3

Signal: 1

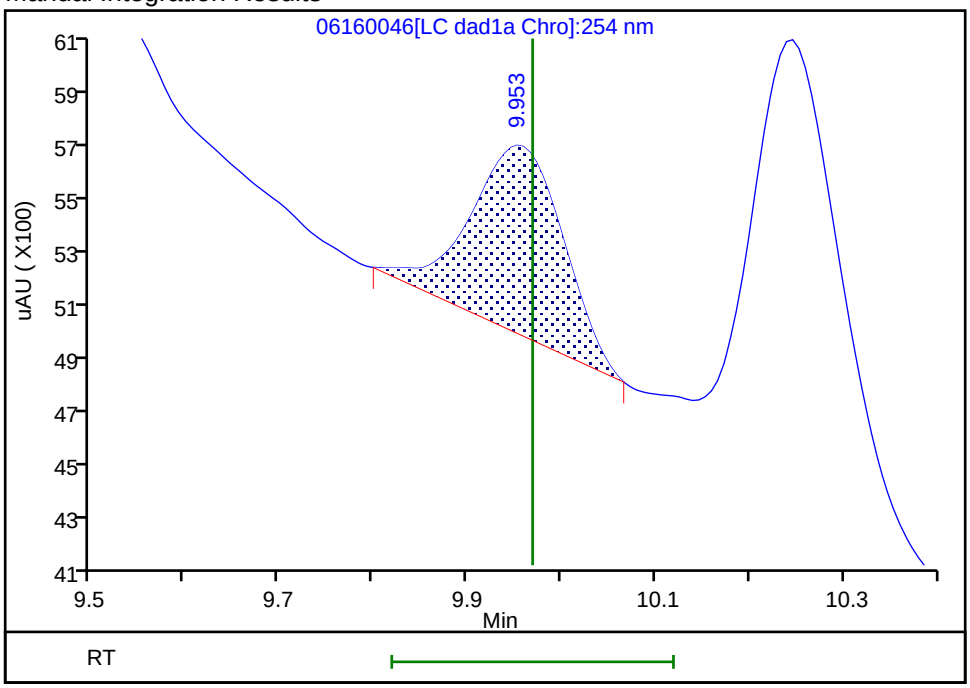
Processing Integration Results

RT: 9.95
Area: 7036
Amount: 0.035109
Amount Units: ug/mL



Manual Integration Results

RT: 9.95
Area: 4654
Amount: 0.023223
Amount Units: ug/mL



Reviewer: zhangji, 17-Jun-2020 19:03:32
Audit Action: Manually Integrated Audit Reason: Baseline

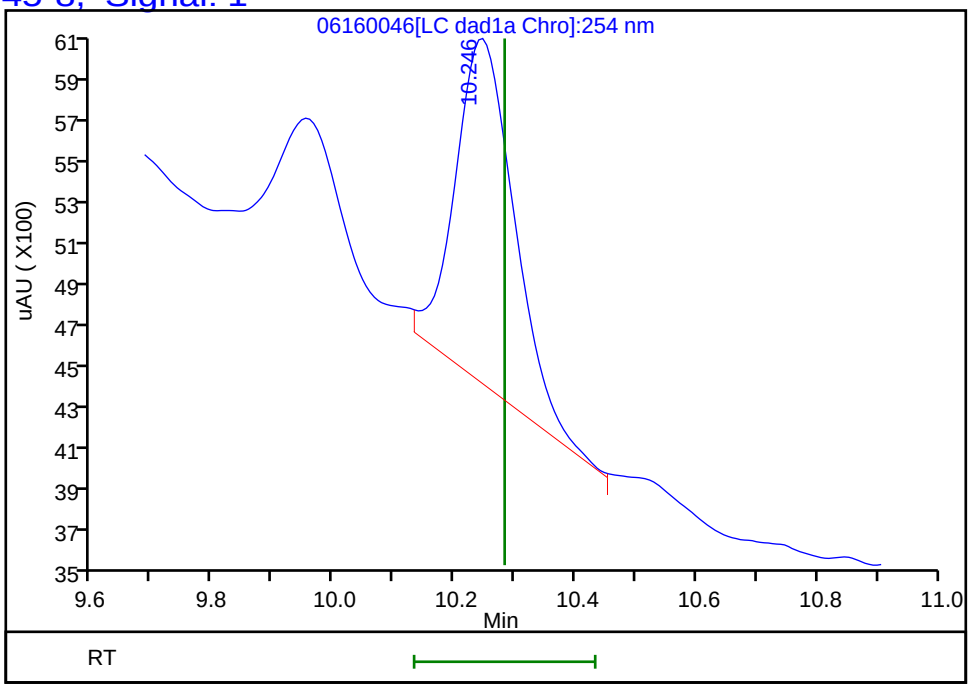
User Disabled Compound Report

Eurofins TestAmerica, Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20200616-92483.b\06160046.d				
Injection Date:	17-Jun-2020 09:52:54	Instrument ID:	CHHPLC_X3		
Lims ID:	280-137225-A-3-A	Lab Sample ID:	280-137225-3		
Client ID:	G0081-20A				
Operator ID:	JZ	ALS Bottle#:	46	Worklist Smp#:	46
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

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

RT: 10.25
Response: 11221
Amount: 0.063384



Reviewer: zhangji, 17-Jun-2020 19:04:00
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-137225-1
SDG No.:
Client Sample ID: G0081-20A
Lab Sample ID: 280-137225-3
Matrix: Water
Lab File ID: 06200022.D
Analysis Method: 8330A
Date Collected: 06/02/2020 09:45
Extraction Method: 3535
Date Extracted: 06/04/2020 17:15
Sample wt/vol: 473.7(mL)
Date Analyzed: 06/20/2020 21:44
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.: 499503
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
98-95-3	Nitrobenzene	0.21	U	0.22	0.21	0.096

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

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\G2_LUNA\20200619-92597.b\06200022.D				
Lims ID:	280-137225-A-3-A				
Client ID:	G0081-20A				
Sample Type:	Client				
Inject. Date:	20-Jun-2020 21:44:16	ALS Bottle#:	22	Worklist Smp#:	22
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-137225-A-3-A				
Misc. Info.:	280-0092597-022				
Operator ID:	JZ	Instrument ID:	CHHPLC_G2_LUNA		
Method:	\\chromfs\Denver\ChromData\G2_LUNA\20200619-92597.b\G2_8330_Luna.m				
Limit Group:	GCSV - 8330				
Last Update:	23-Jun-2020 18:23:01	Calib Date:	15-May-2020 02:11:20		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140024.D				
Column 1 :	Luna-Phenyl hexyl (4.60 mm)		Det: LC DAD1A, 254 nm		
Process Host:	CTX1017				

First Level Reviewer: zhangji Date: 23-Jun-2020 18:09:03

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
6 HMX	1	7.122	7.153	-0.031	13878	0.0483	M
7 MNX	1		7.876			ND	
8 RDX	1		9.366			ND	
9 Nitrobenzene	1		12.259			ND	
$ 10 1,2-Dinitrobenzene	1	13.242	13.266	-0.024	53604	0.1867	
12 1,3-Dinitrobenzene	1		15.793			ND	
14 o-Nitrotoluene	1		16.726			ND	U
15 p-Nitrotoluene	1		17.006			ND	
16 4-Amino-2,6-dinitrotoluene	1		17.446			ND	
17 m-Nitrotoluene	1		17.939			ND	
18 2-Amino-4,6-dinitrotoluene	1	18.315	18.379	-0.064	11598	0.0249	M
19 1,3,5-Trinitrobenzene	1	19.102	19.119	-0.017	16077	0.0340	M
20 2,6-Dinitrotoluene	1		20.046			ND	
21 2,4-Dinitrotoluene	1		20.560			ND	
22 Tetryl	1		23.860			ND	
23 2,4,6-Trinitrotoluene	1		24.880			ND	

QC Flag Legend

Review Flags

M - Manually Integrated

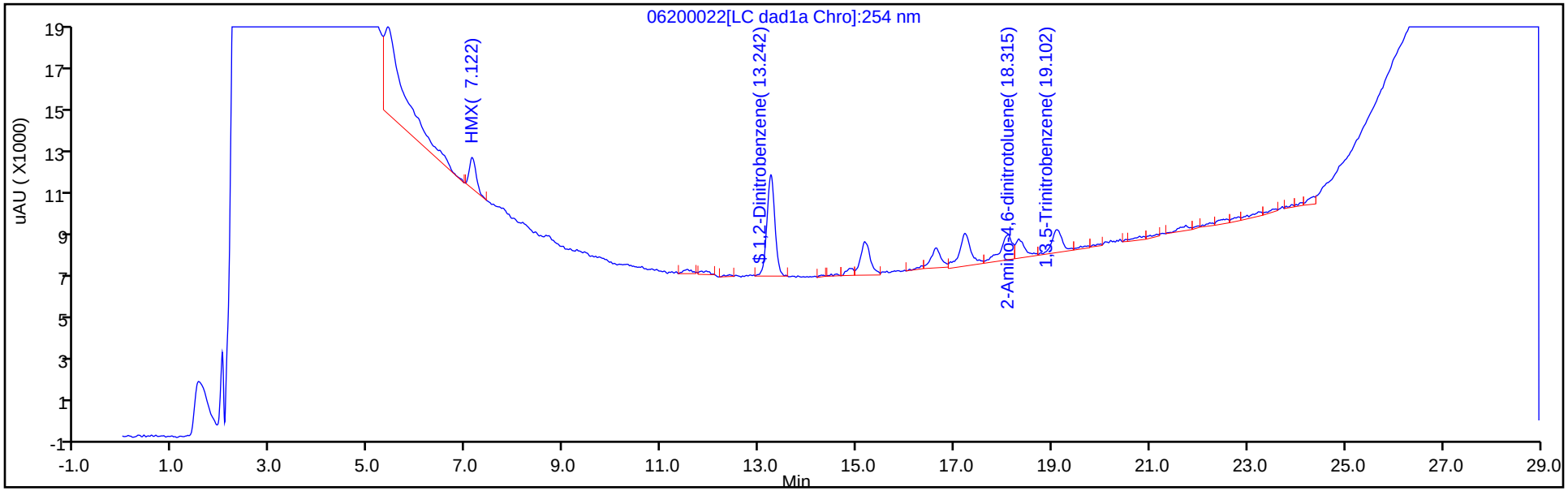
U - Marked Undetected

Report Date: 23-Jun-2020 18:23:05 Chrom Revision: 2.3 21-Jun-2020 18:30:46

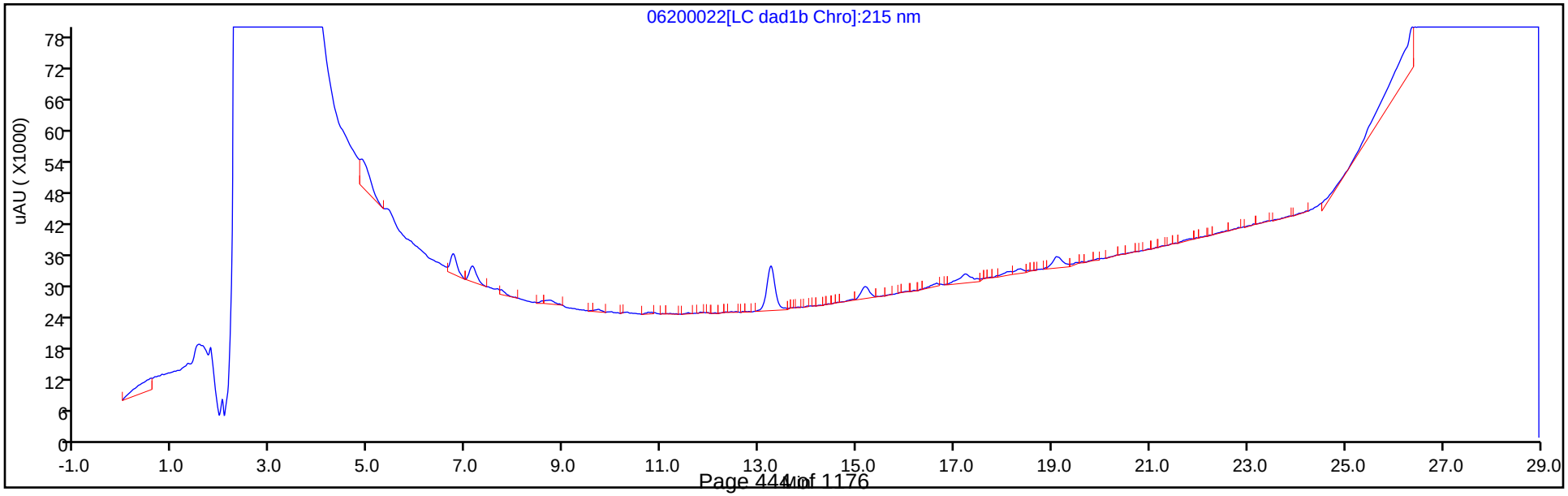
Eurofins TestAmerica, Denver

Data File:	\\chromfs\denver\chromdata\g2_luna\20200619-92597.b\06200022.d				
Injection Date:	20-Jun-2020 21:44:16	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	JZ
Lims ID:	280-137225-A-3-A	Lab Sample ID:	280-137225-3	Worklist Smp#:	22
Client ID:	G0081-20A				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	22
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		

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



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



Eurofins TestAmerica, Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\G2_LUNA\20200619-92597.b\06200022.D				
Lims ID:	280-137225-A-3-A				
Client ID:	G0081-20A				
Sample Type:	Client				
Inject. Date:	20-Jun-2020 21:44:16	ALS Bottle#:	22	Worklist Smp#:	22
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-137225-A-3-A				
Misc. Info.:	280-0092597-022				
Operator ID:	JZ	Instrument ID:	CHHPLC_G2_LUNA		
Method:	\\chromfs\Denver\ChromData\G2_LUNA\20200619-92597.b\G2_8330_Luna.m				
Limit Group:	GCSV - 8330				
Last Update:	23-Jun-2020 18:23:01	Calib Date:	15-May-2020 02:11:20		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140024.D				
Column 1 :	Luna-Phenyl hexyl (4.60 mm)		Det: LC DAD1A, 254 nm		
Process Host:	CTX1017				

First Level Reviewer: zhangji Date: 23-Jun-2020 18:09:03

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.1867	93.36

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

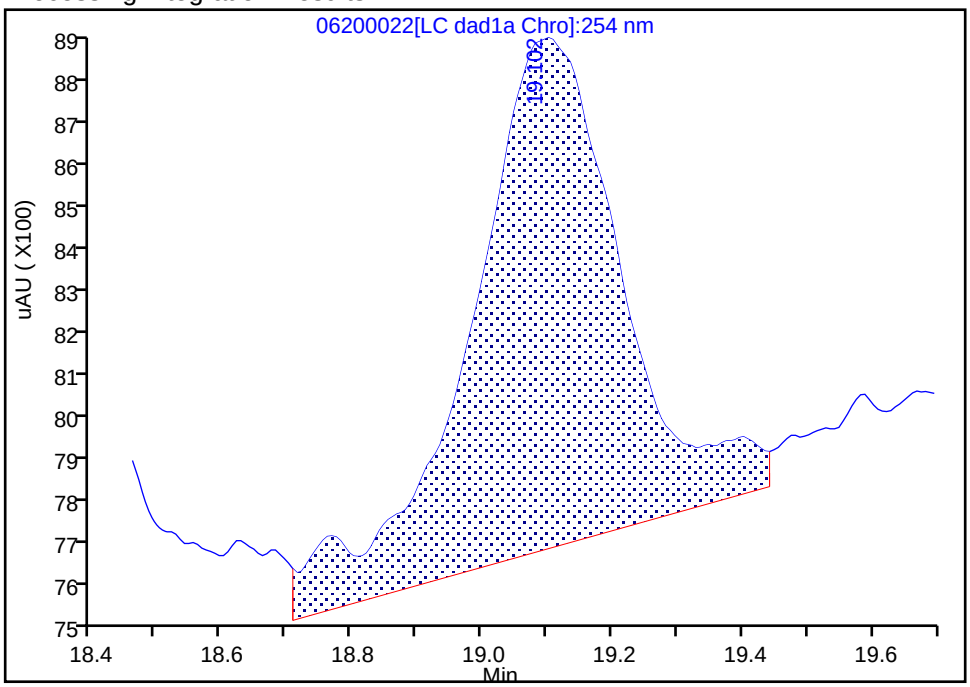
Data File:	\\chromfs\denver\chromdata\g2_luna\20200619-92597.b\06200022.d				
Injection Date:	20-Jun-2020 21:44:16	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	280-137225-A-3-A	Lab Sample ID:	280-137225-3		
Client ID:	G0081-20A				
Operator ID:	JZ	ALS Bottle#:	22	Worklist Smp#:	22
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

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

Signal: 1

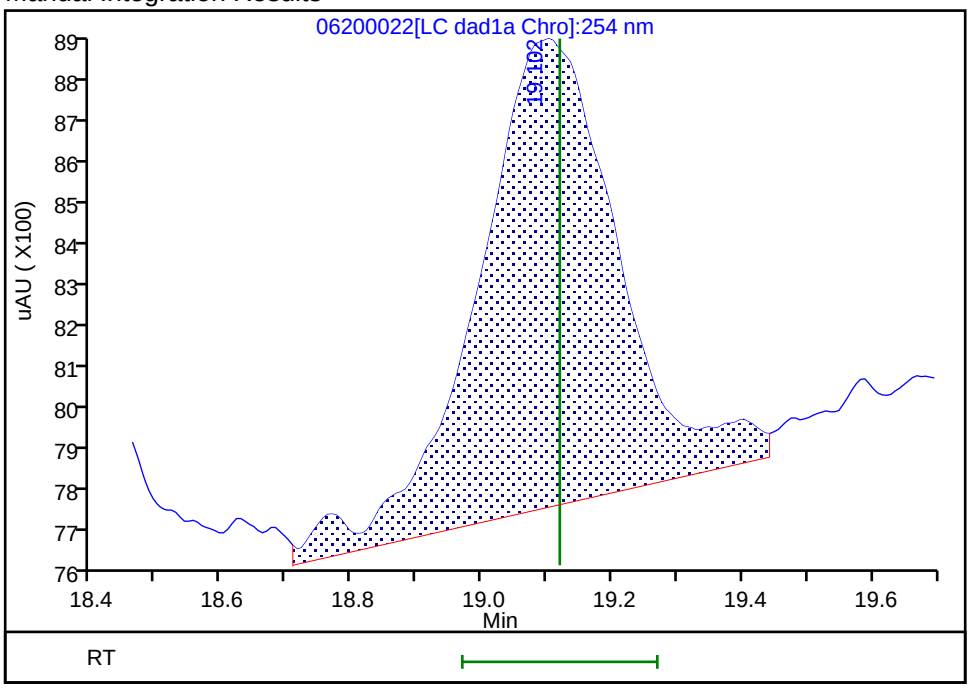
Processing Integration Results

RT: 19.10
Area: 18013
Amount: 0.038127
Amount Units: ug/ml



Manual Integration Results

RT: 19.10
Area: 16077
Amount: 0.034029
Amount Units: ug/ml



Reviewer: zhangji, 23-Jun-2020 18:09:01

Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

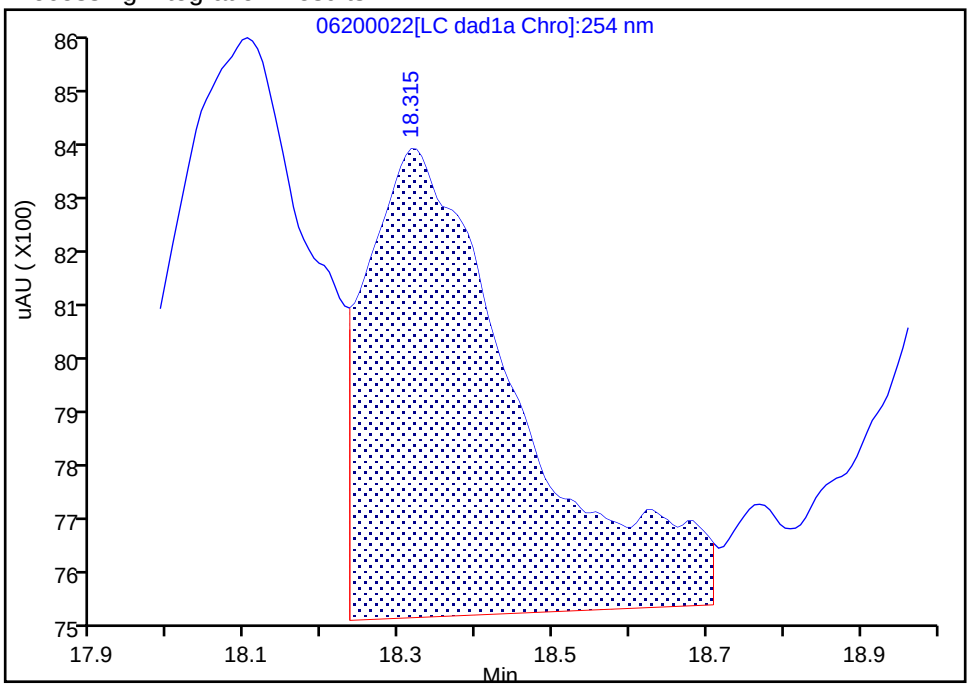
Data File:	\\chromfs\denver\chromdata\g2_luna\20200619-92597.b\06200022.d				
Injection Date:	20-Jun-2020 21:44:16	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	280-137225-A-3-A	Lab Sample ID:	280-137225-3		
Client ID:	G0081-20A				
Operator ID:	JZ	ALS Bottle#:	22	Worklist Smp#:	22
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

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

Signal: 1

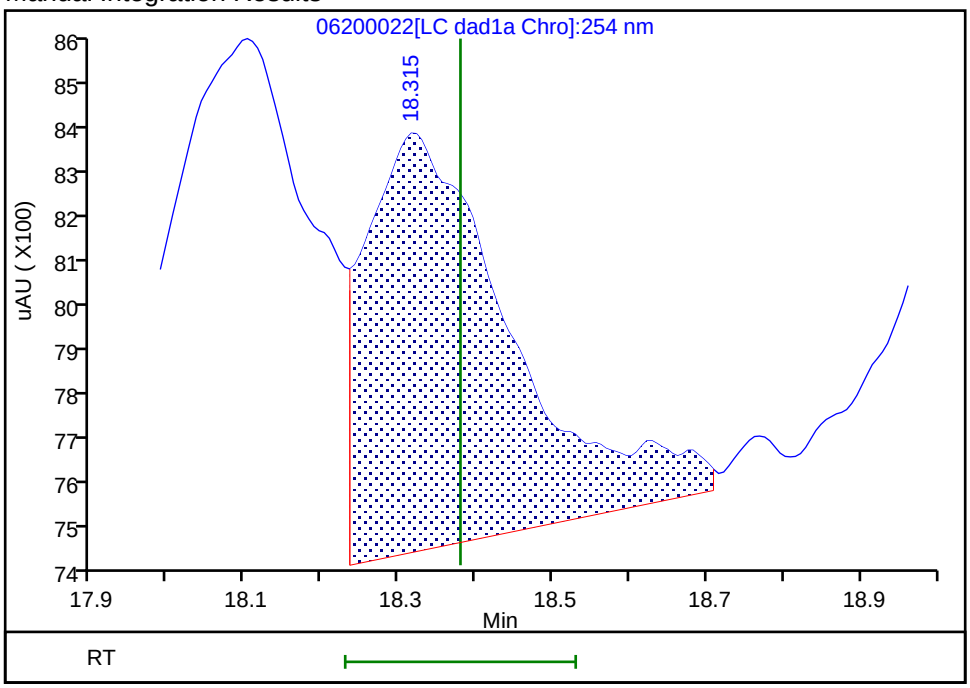
Processing Integration Results

RT: 18.32
Area: 11627
Amount: 0.024993
Amount Units: ug/ml



Manual Integration Results

RT: 18.32
Area: 11598
Amount: 0.024931
Amount Units: ug/ml



Reviewer: zhangji, 23-Jun-2020 18:09:01
Audit Action: Assigned New Baseline Audit Reason: Baseline

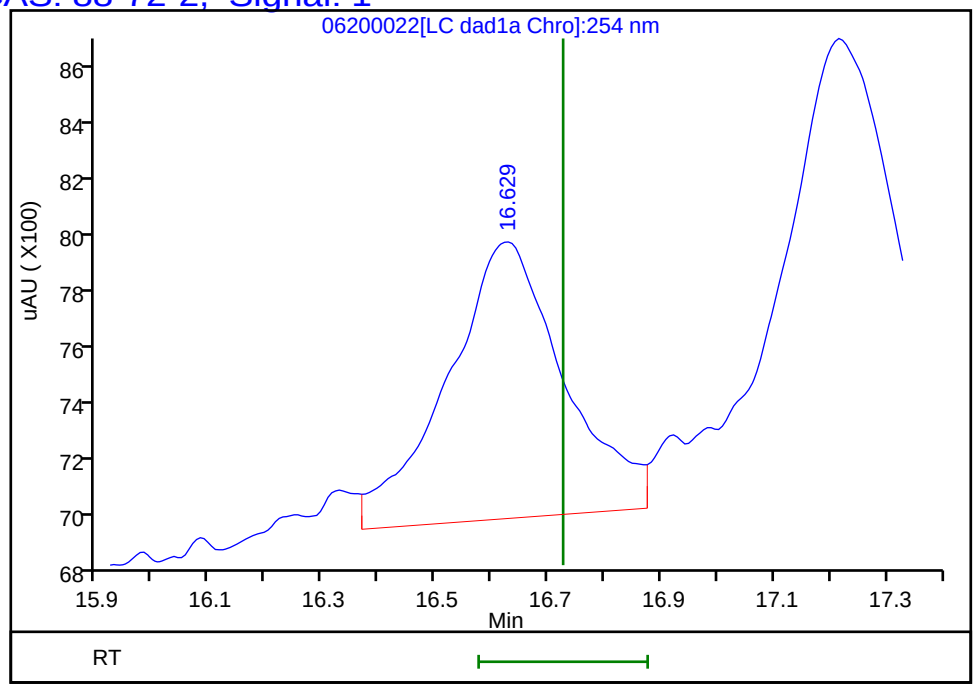
User Disabled Compound Report

Eurofins TestAmerica, Denver

Data File:	\\chromfs\denver\chromdata\g2_luna\20200619-92597.b\06200022.d				
Injection Date:	20-Jun-2020 21:44:16	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	280-137225-A-3-A	Lab Sample ID:	280-137225-3		
Client ID:	G0081-20A				
Operator ID:	JZ	ALS Bottle#:	22	Worklist Smp#:	22
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

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

RT: 16.63
Response: 13203
Amount: 0.048369



Reviewer: zhangji, 23-Jun-2020 18:09:03
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

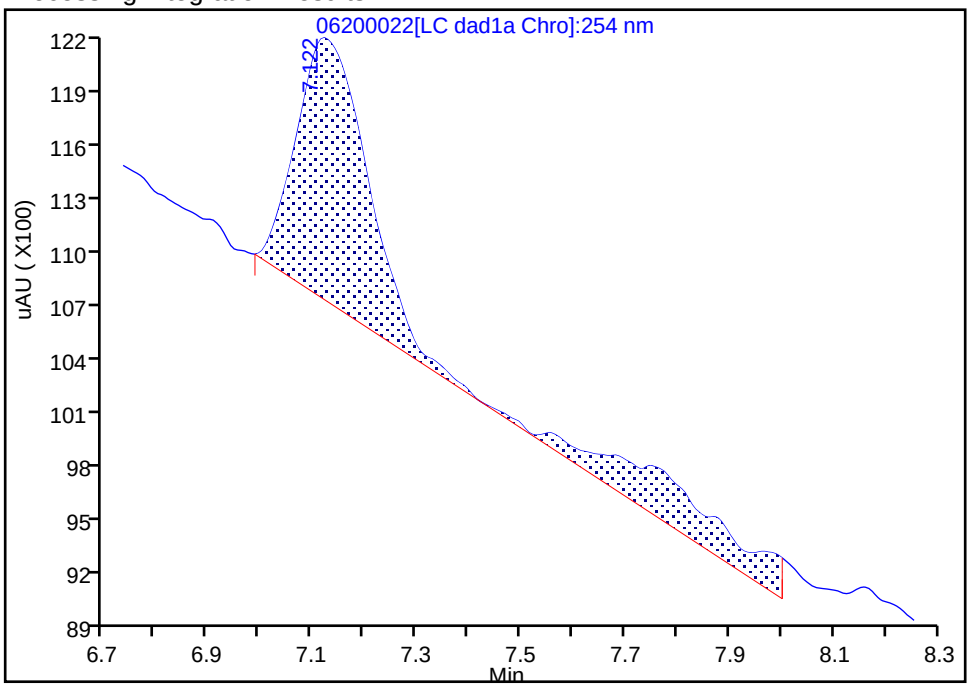
Data File:	\\chromfs\denver\chromdata\g2_luna\20200619-92597.b\06200022.d				
Injection Date:	20-Jun-2020 21:44:16	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	280-137225-A-3-A	Lab Sample ID:	280-137225-3		
Client ID:	G0081-20A				
Operator ID:	JZ	ALS Bottle#:	22	Worklist Smp#:	22
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

6 HMX, CAS: 2691-41-0

Signal: 1

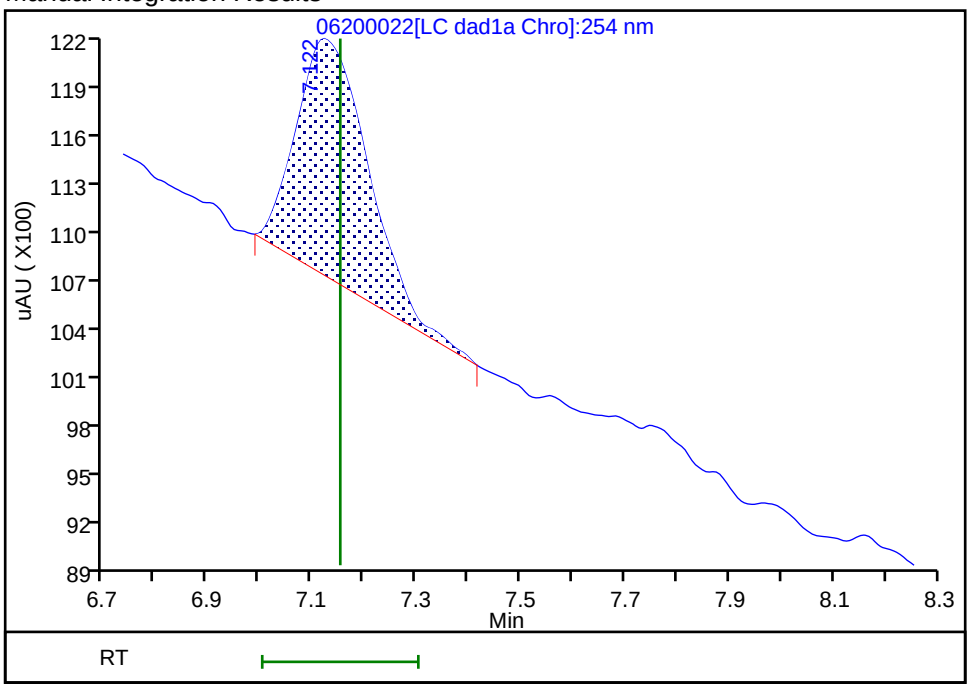
Processing Integration Results

RT: 7.12
Area: 18768
Amount: 0.075949
Amount Units: ug/ml



Manual Integration Results

RT: 7.12
Area: 13878
Amount: 0.048324
Amount Units: ug/ml



Reviewer: zhangji, 23-Jun-2020 18:08:44

Audit Action: Manually Integrated Audit Reason: Baseline

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-137225-1
SDG No.:
Client Sample ID: G0082-20A
Lab Sample ID: 280-137225-4
Matrix: Water
Lab File ID: 06160047.D
Analysis Method: 8330A
Date Collected: 06/02/2020 10:55
Extraction Method: 3535
Date Extracted: 06/04/2020 17:15
Sample wt/vol: 434.4(mL)
Date Analyzed: 06/17/2020 10:15
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.: 498992
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	0.23	U	0.24	0.23	0.097
99-65-0	1,3-Dinitrobenzene	0.12	U	0.13	0.12	0.042
118-96-7	2,4,6-Trinitrotoluene	0.12	U Q	0.13	0.12	0.052
606-20-2	2,6-Dinitrotoluene	0.092	U	0.12	0.092	0.046
35572-78-2	2-Amino-4,6-dinitrotoluene	0.098	J J1	0.13	0.12	0.058
88-72-2	2-Nitrotoluene	0.23	U	0.24	0.23	0.098
99-08-1	3-Nitrotoluene	0.46	U M	0.46	0.46	0.22
2691-41-0	HMX	0.23	U	0.24	0.23	0.10
5755-27-1	MNX	0.46	U	2.3	0.46	0.18
98-95-3	Nitrobenzene	0.23	U	0.24	0.23	0.10
121-82-4	RDX	0.68	J1 M	0.24	0.23	0.059
479-45-8	Tetryl	0.12	U M	0.13	0.12	0.037

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

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20200616-92483.b\06160047.D				
Lims ID:	280-137225-A-4-A				
Client ID:	G0082-20A				
Sample Type:	Client				
Inject. Date:	17-Jun-2020 10:15:54	ALS Bottle#:	47	Worklist Smp#:	47
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-137225-A-4-A				
Misc. Info.:	280-0092483-047				
Operator ID:	JZ	Instrument ID:	CHHPLC_X3		

Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20200616-92483.b\8330_X3.m		
Limit Group:	GCSV - 8330		
Last Update:	17-Jun-2020 20:30:31	Calib Date:	18-Mar-2020 14:39:27
Integrator:	Falcon		
Quant Method:	External Standard	Quant By:	Initial Calibration
Last ICal File:	\\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180015.D		

Column 1 :	UltraCarb5uODS (20) (4.60 mm)	Det: LC DAD1B, 254 nm
Process Host:	CTX1005	

First Level Reviewer: zhangji Date: 17-Jun-2020 19:04:43

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/mL	Flags
3 HMX	1		6.709			ND	
6 MNX	1		7.394			ND	
7 RDX	1	7.784	7.789	-0.005	6845	0.0587	M
$ 9 1,2-Dinitrobenzene	1	8.764	8.763	0.001	25636	0.1855	M
10 1,3,5-Trinitrobenzene	1		8.936			ND	
11 1,3-Dinitrobenzene	1		9.589			ND	
12 Nitrobenzene	1		9.969			ND	
14 Tetryl	1		10.282			ND	U
16 2,4,6-Trinitrotoluene	1		11.249			ND	
17 4-Amino-2,6-dinitrotoluene	1	11.418	11.416	0.002	844	0.0113	M
18 2-Amino-4,6-dinitrotoluene	1	11.718	11.702	0.016	1727	0.008515	
19 2,6-Dinitrotoluene	1		11.849			ND	
20 2,4-Dinitrotoluene	1	12.064	12.049	0.015	2123	0.006993	
21 o-Nitrotoluene	1		12.876			ND	
22 p-Nitrotoluene	1	13.298	13.309	-0.011	1885	0.0167	
23 m-Nitrotoluene	1		13.902			ND	U

QC Flag Legend

Review Flags

M - Manually Integrated

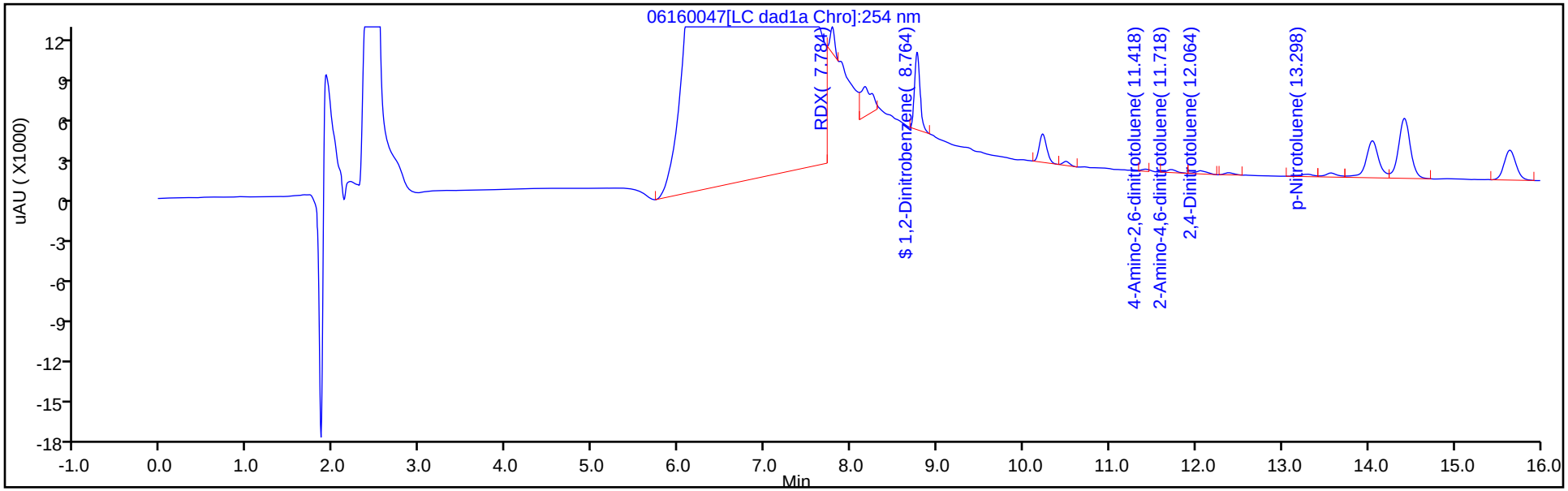
U - Marked Undetected

Report Date: 17-Jun-2020 20:30:32 Chrom Revision: 2.3 10-Jun-2020 22:46:48

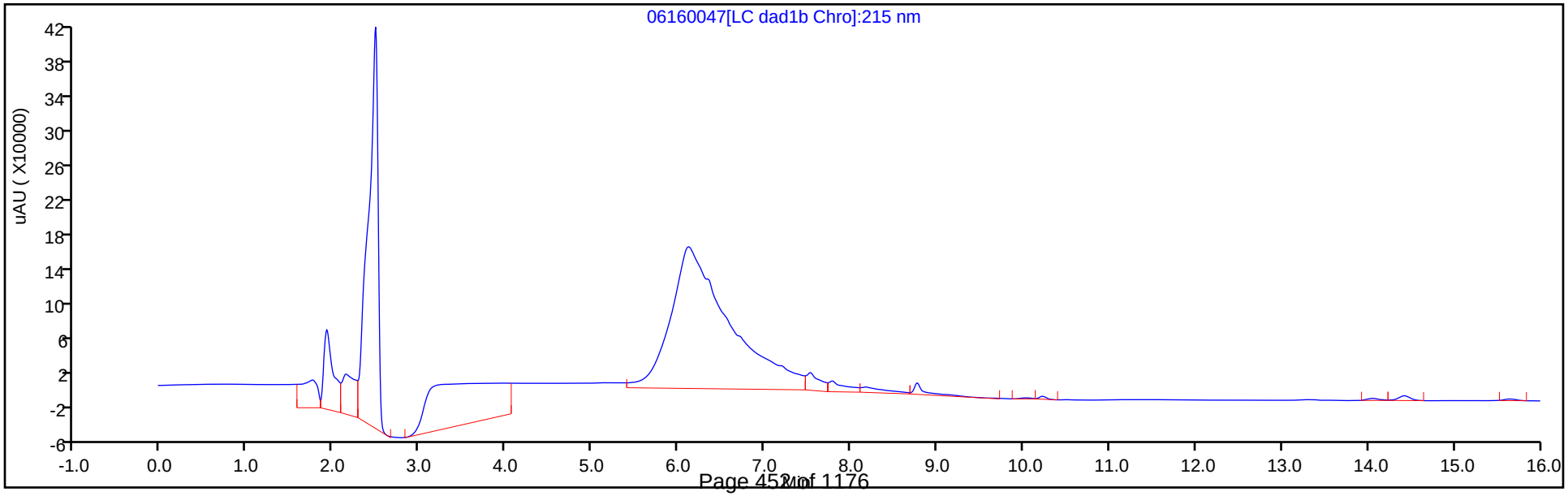
Eurofins TestAmerica, Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20200616-92483.b\06160047.d				
Injection Date:	17-Jun-2020 10:15:54	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	280-137225-A-4-A	Lab Sample ID:	280-137225-4	Worklist Smp#:	47
Client ID:	G0082-20A				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	47
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
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20200616-92483.b\06160047.D				
Lims ID:	280-137225-A-4-A				
Client ID:	G0082-20A				
Sample Type:	Client				
Inject. Date:	17-Jun-2020 10:15:54	ALS Bottle#:	47	Worklist Smp#:	47
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-137225-A-4-A				
Misc. Info.:	280-0092483-047				
Operator ID:	JZ	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20200616-92483.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	17-Jun-2020 20:30:31	Calib Date:	18-Mar-2020 14:39:27		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180015.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1005				

First Level Reviewer: zhangji Date: 17-Jun-2020 19:04:43

Compound	Amount Added	Amount Recovered	% Rec.
$ 9 1,2-Dinitrobenzene	0.2000	0.1855	92.74

Eurofins TestAmerica, Denver

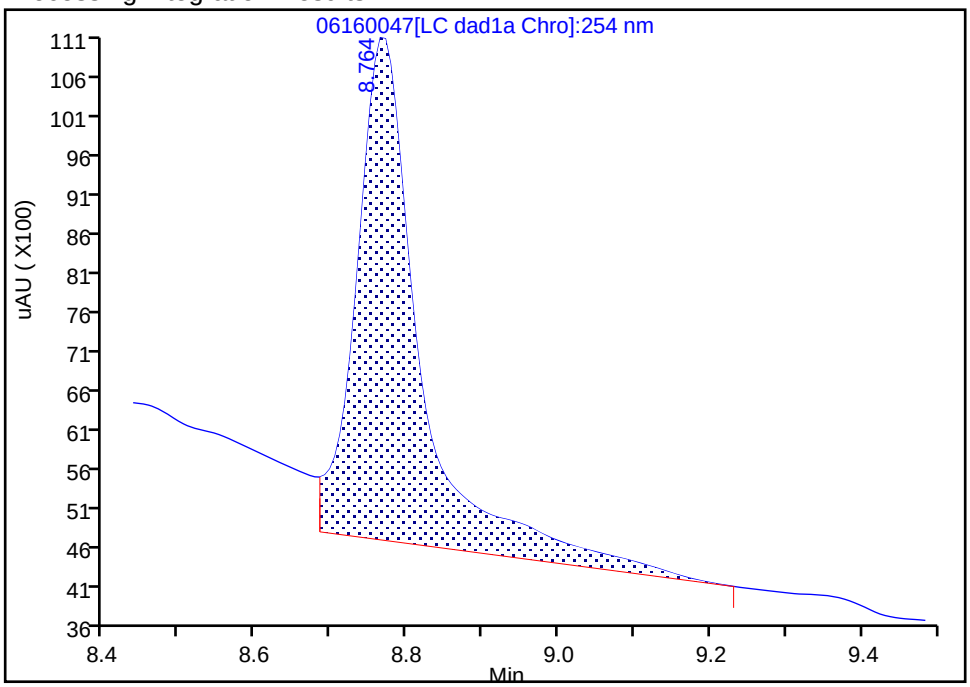
Data File:	\\chromfs\denver\chromdata\chhplc_x\20200616-92483.b\06160047.d				
Injection Date:	17-Jun-2020 10:15:54	Instrument ID:	CHHPLC_X3		
Lims ID:	280-137225-A-4-A	Lab Sample ID:	280-137225-4		
Client ID:	G0082-20A				
Operator ID:	JZ	ALS Bottle#:	47	Worklist Smp#:	47
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

$ 9 1,2-Dinitrobenzene, CAS: 528-29-0

Signal: 1

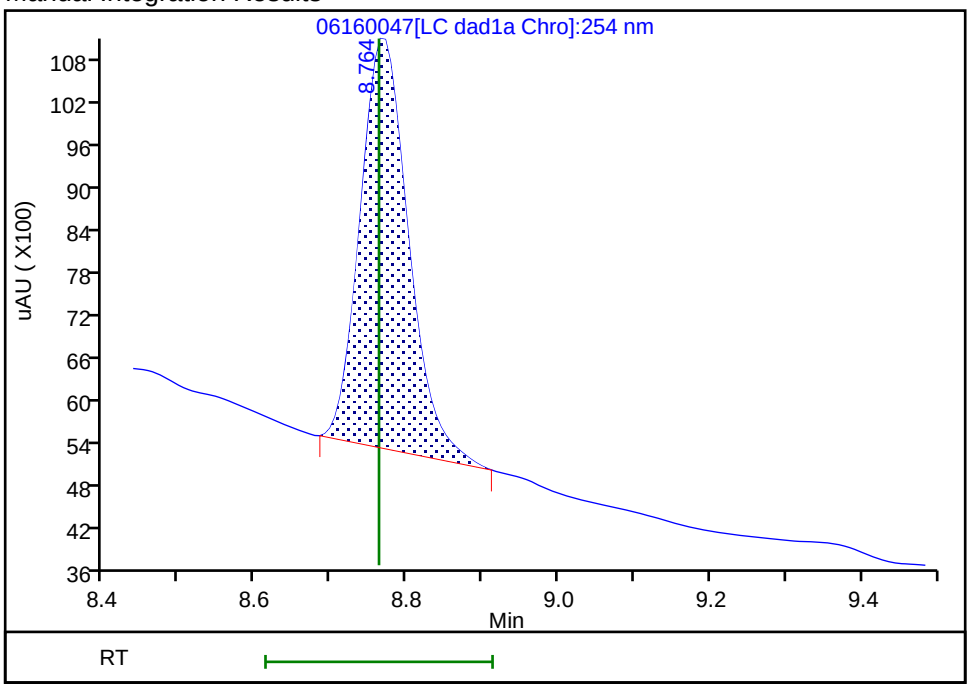
Processing Integration Results

RT: 8.76
Area: 37693
Amount: 0.272718
Amount Units: ug/mL



Manual Integration Results

RT: 8.76
Area: 25636
Amount: 0.185483
Amount Units: ug/mL



Reviewer: zhangji, 17-Jun-2020 19:04:11
Audit Action: Manually Integrated Audit Reason: Baseline

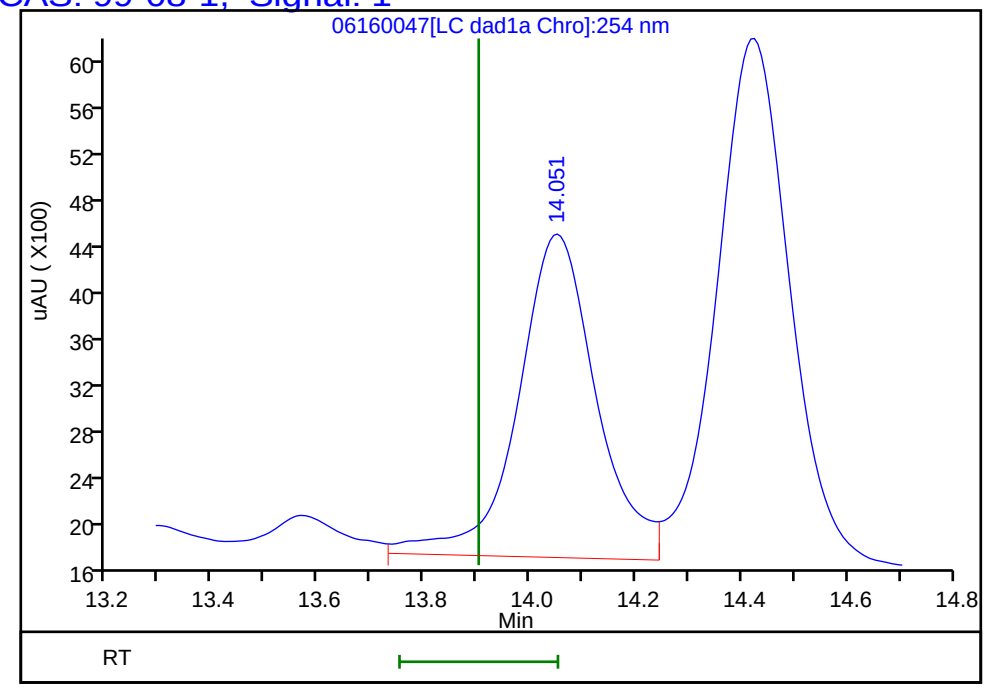
User Disabled Compound Report

Eurofins TestAmerica, Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20200616-92483.b\06160047.d				
Injection Date:	17-Jun-2020 10:15:54	Instrument ID:	CHHPLC_X3		
Lims ID:	280-137225-A-4-A	Lab Sample ID:	280-137225-4		
Client ID:	G0082-20A				
Operator ID:	JZ	ALS Bottle#:	47	Worklist Smp#:	47
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

23 m-Nitrotoluene, CAS: 99-08-1, Signal: 1

RT: 14.05
Response: 28488
Amount: 0.199177



Reviewer: zhangji, 17-Jun-2020 19:04:43
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

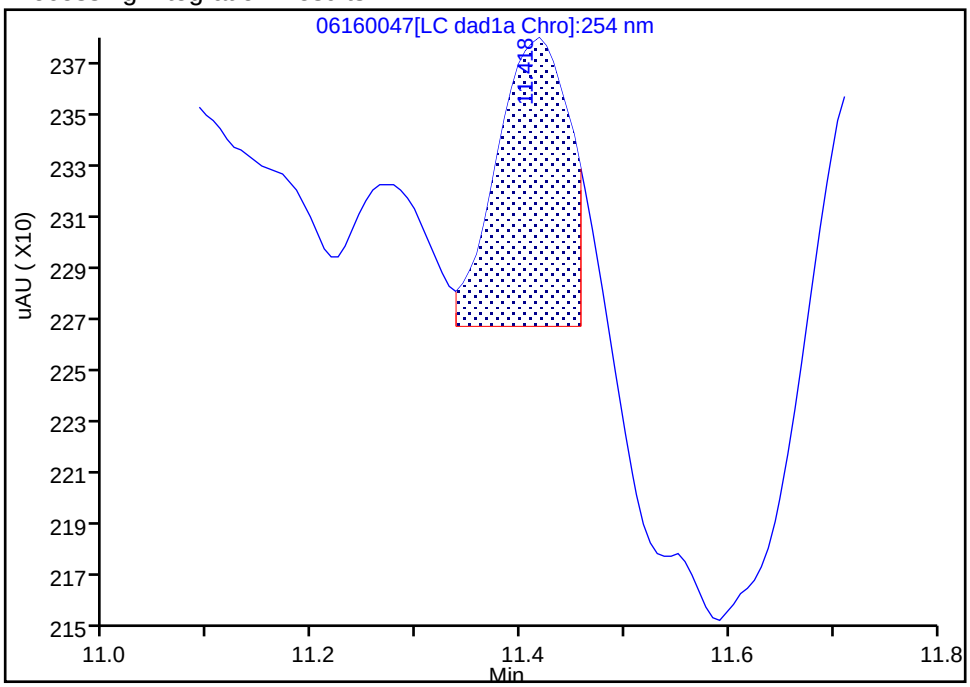
Data File:	\\chromfs\denver\chromdata\chhplc_x\20200616-92483.b\06160047.d				
Injection Date:	17-Jun-2020 10:15:54	Instrument ID:	CHHPLC_X3		
Lims ID:	280-137225-A-4-A	Lab Sample ID:	280-137225-4		
Client ID:	G0082-20A				
Operator ID:	JZ	ALS Bottle#:	47	Worklist Smp#:	47
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

17 4-Amino-2,6-dinitrotoluene, CAS: 19406-51-0

Signal: 1

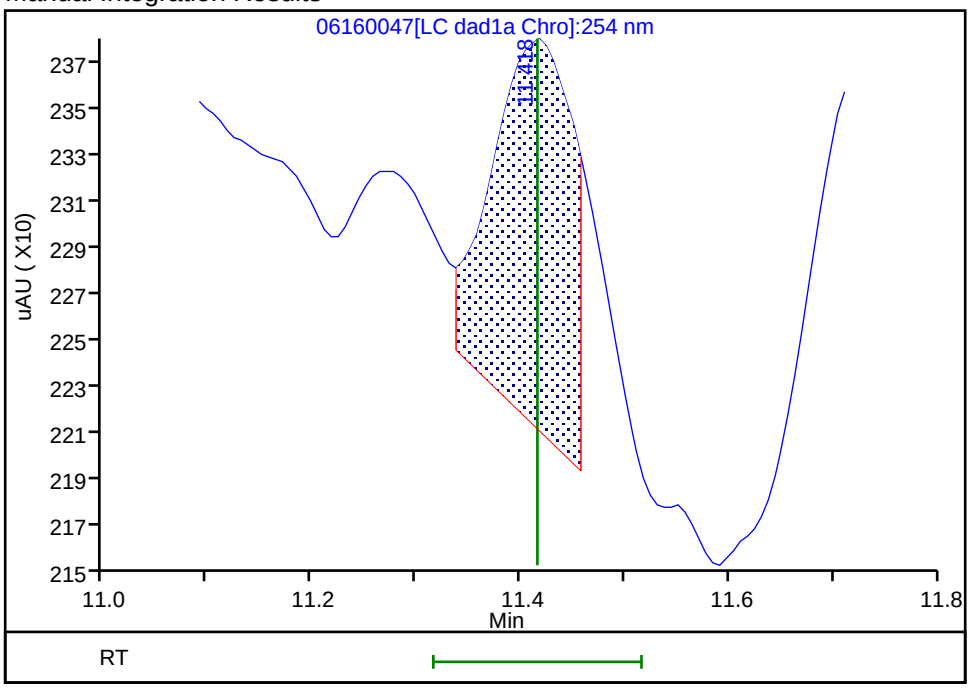
Processing Integration Results

RT: 11.42
Area: 513
Amount: 0.009400
Amount Units: ug/mL



Manual Integration Results

RT: 11.42
Area: 844
Amount: 0.011255
Amount Units: ug/mL



Reviewer: zhangji, 17-Jun-2020 19:04:36
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

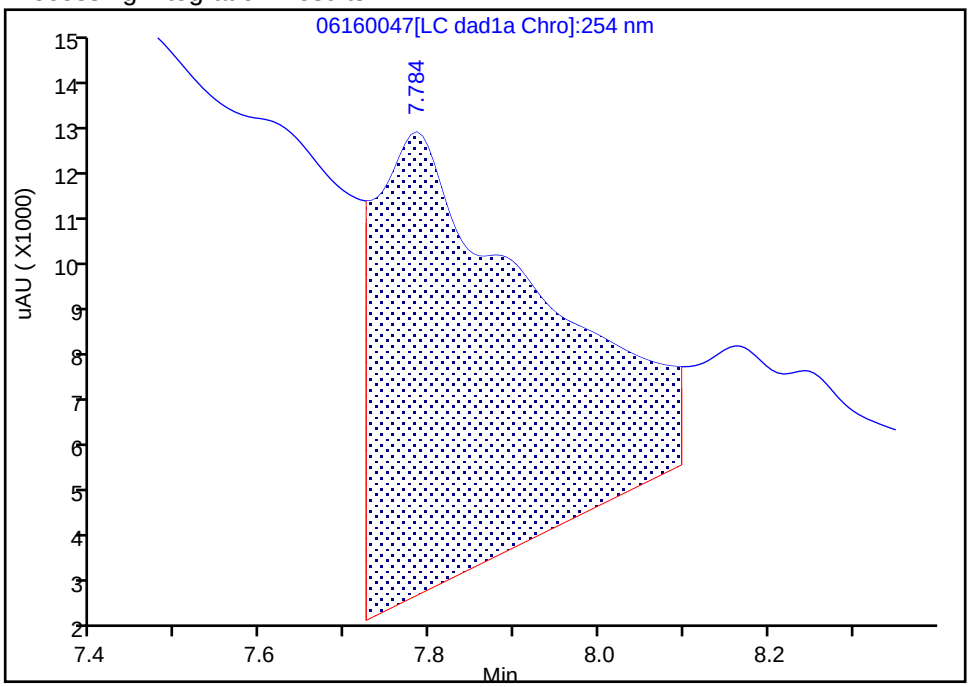
Data File:	\\chromfs\denver\chromdata\chhplc_x\20200616-92483.b\06160047.d				
Injection Date:	17-Jun-2020 10:15:54	Instrument ID:	CHHPLC_X3		
Lims ID:	280-137225-A-4-A	Lab Sample ID:	280-137225-4		
Client ID:	G0082-20A				
Operator ID:	JZ	ALS Bottle#:	47	Worklist Smp#:	47
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

7 RDX, CAS: 121-82-4

Signal: 1

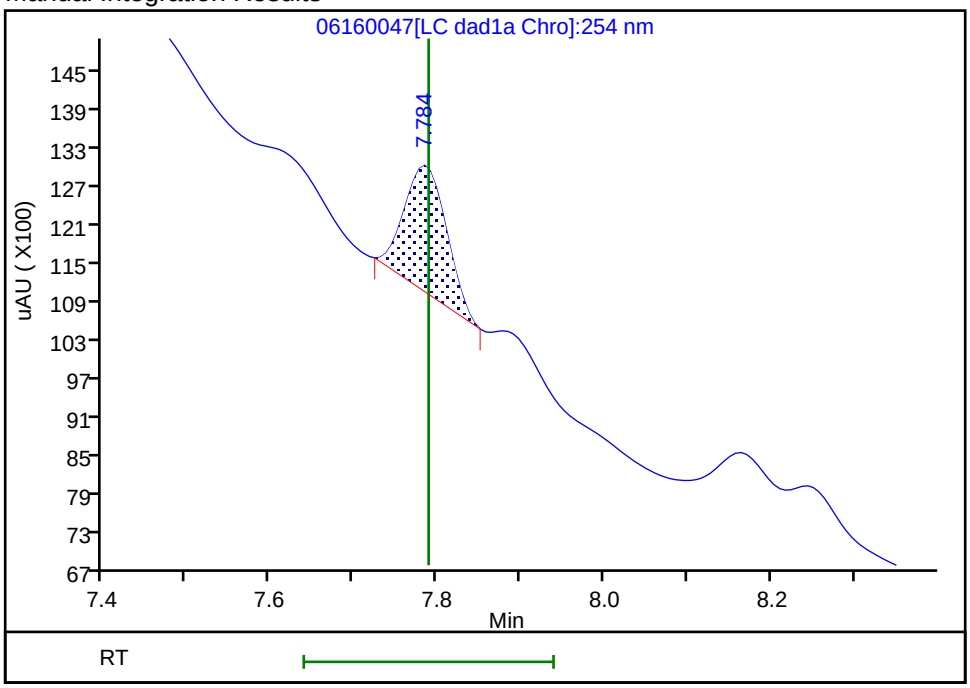
Processing Integration Results

RT: 7.78
Area: 126375
Amount: 1.083712
Amount Units: ug/mL



Manual Integration Results

RT: 7.78
Area: 6845
Amount: 0.058698
Amount Units: ug/mL



Reviewer: zhangji, 17-Jun-2020 19:04:15

Audit Action: Manually Integrated Audit Reason: Baseline

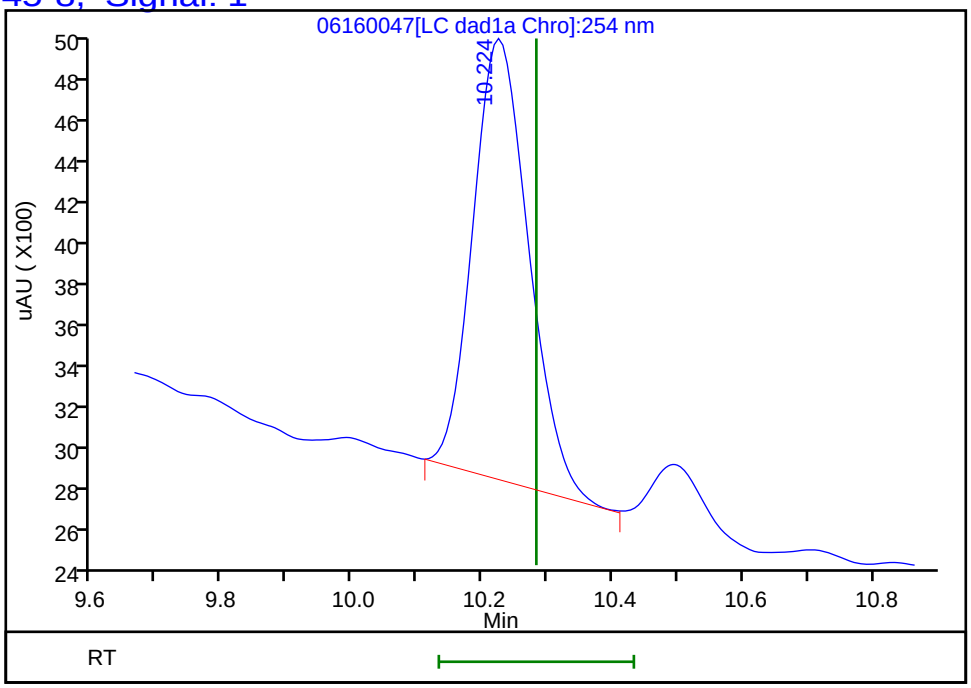
User Disabled Compound Report

Eurofins TestAmerica, Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20200616-92483.b\06160047.d				
Injection Date:	17-Jun-2020 10:15:54	Instrument ID:	CHHPLC_X3		
Lims ID:	280-137225-A-4-A	Lab Sample ID:	280-137225-4		
Client ID:	G0082-20A				
Operator ID:	JZ	ALS Bottle#:	47	Worklist Smp#:	47
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

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

RT: 10.22
Response: 12654
Amount: 0.071479



Reviewer: zhangji, 17-Jun-2020 19:04:43
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-137225-1
SDG No.:
Client Sample ID: G0082-20A
Lab Sample ID: 280-137225-4
Matrix: Water
Lab File ID: 06200023.D
Analysis Method: 8330A
Date Collected: 06/02/2020 10:55
Extraction Method: 3535
Date Extracted: 06/04/2020 17:15
Sample wt/vol: 434.4(mL)
Date Analyzed: 06/20/2020 22:19
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.: 499503
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
121-14-2	2,4-Dinitrotoluene	0.092	U	0.12	0.092	0.032
35572-78-2	*2-Amino-4,6-dinitrotoluene*	*0.57*	*M J1*	*0.13*	0.12	*0.058*
19406-51-0	4-Amino-2,6-dinitrotoluene	0.14	U	0.17	0.14	0.066
99-99-0	4-Nitrotoluene	0.46	U	0.47	0.46	0.12
121-82-4	*RDX*	*0.42*	*J1*	*0.24*	0.23	*0.059*

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

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\G2_LUNA\20200619-92597.b\06200023.D				
Lims ID:	280-137225-A-4-A				
Client ID:	G0082-20A				
Sample Type:	Client				
Inject. Date:	20-Jun-2020 22:19:11	ALS Bottle#:	23	Worklist Smp#:	23
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-137225-A-4-A				
Misc. Info.:	280-0092597-023				
Operator ID:	JZ	Instrument ID:	CHHPLC_G2_LUNA		

Method:	\\chromfs\Denver\ChromData\G2_LUNA\20200619-92597.b\G2_8330_Luna.m		
Limit Group:	GCSV - 8330		
Last Update:	23-Jun-2020 18:23:01	Calib Date:	15-May-2020 02:11:20
Integrator:	Falcon		
Quant Method:	External Standard	Quant By:	Initial Calibration
Last ICal File:	\\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140024.D		

Column 1 :	Luna-Phenyl hexyl (4.60 mm)	Det: LC DAD1A, 254 nm
Process Host:	CTX1017	

First Level Reviewer: zhangji Date: 23-Jun-2020 18:09:48

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
6 HMX	1	7.142	7.153	-0.011	6397	0.006062	M
7 MNX	1		7.876			ND	MU
8 RDX	1	9.356	9.366	-0.010	8904	0.0364	
9 Nitrobenzene	1		12.259			ND	
$ 10 1,2-Dinitrobenzene	1	13.249	13.266	-0.017	55421	0.1933	
12 1,3-Dinitrobenzene	1		15.793			ND	
14 o-Nitrotoluene	1	16.642	16.726	-0.084	51567	0.1889	M
15 p-Nitrotoluene	1		17.006			ND	
16 4-Amino-2,6-dinitrotoluene	1		17.446			ND	
17 m-Nitrotoluene	1		17.939			ND	
18 2-Amino-4,6-dinitrotoluene	1	18.329	18.379	-0.050	23198	0.0499	M
19 1,3,5-Trinitrobenzene	1		19.119			ND	
20 2,6-Dinitrotoluene	1		20.046			ND	
21 2,4-Dinitrotoluene	1		20.560			ND	
22 Tetryl	1		23.860			ND	
23 2,4,6-Trinitrotoluene	1		24.880			ND	

QC Flag Legend

Review Flags

M - Manually Integrated

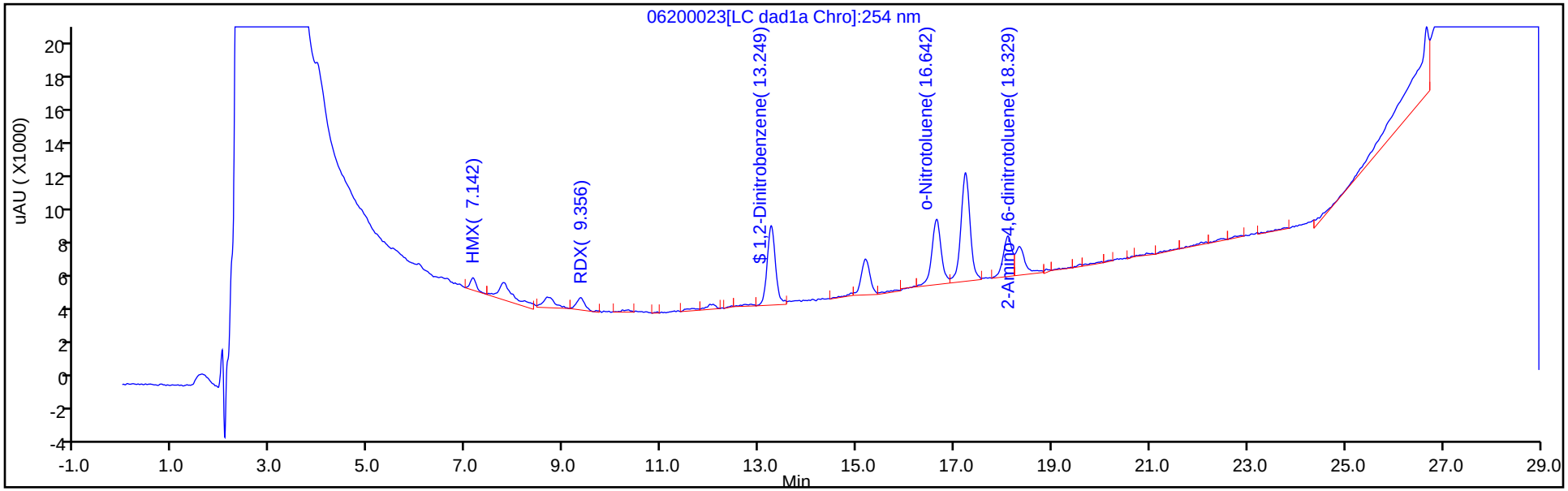
U - Marked Undetected

Report Date: 23-Jun-2020 18:23:05 Chrom Revision: 2.3 21-Jun-2020 18:30:46

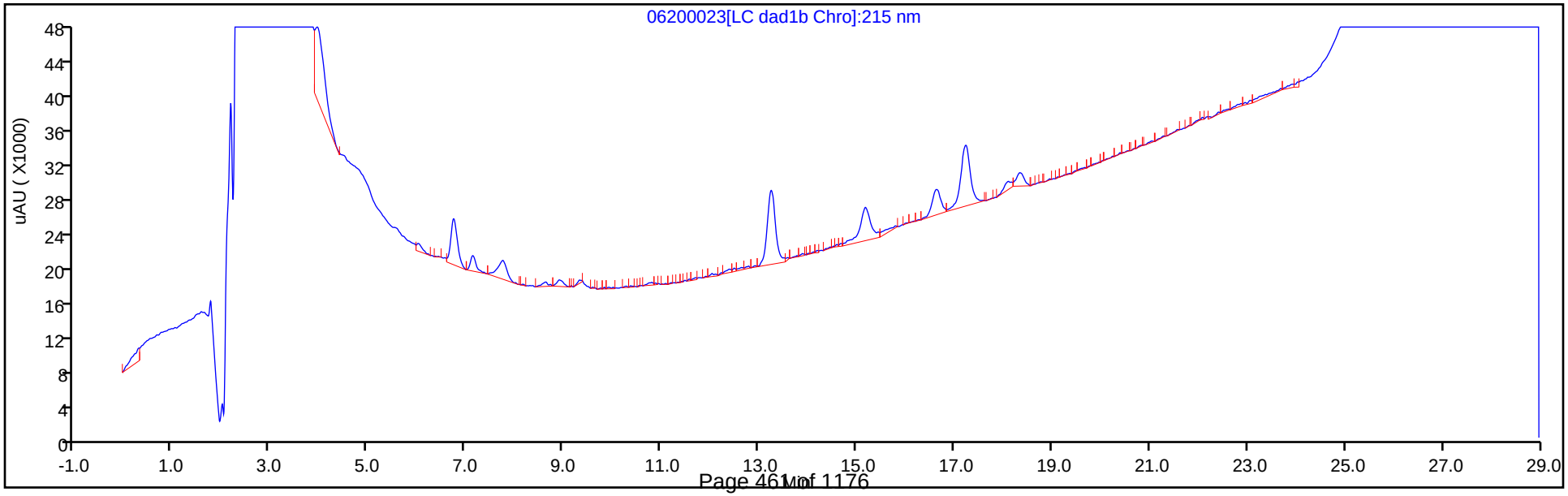
Eurofins TestAmerica, Denver

Data File:	\\chromfs\denver\chromdata\g2_luna\20200619-92597.b\06200023.d				
Injection Date:	20-Jun-2020 22:19:11	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	JZ
Lims ID:	280-137225-A-4-A	Lab Sample ID:	280-137225-4	Worklist Smp#:	23
Client ID:	G0082-20A				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	23
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		

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



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



Eurofins TestAmerica, Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\G2_LUNA\20200619-92597.b\06200023.D				
Lims ID:	280-137225-A-4-A				
Client ID:	G0082-20A				
Sample Type:	Client				
Inject. Date:	20-Jun-2020 22:19:11	ALS Bottle#:	23	Worklist Smp#:	23
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-137225-A-4-A				
Misc. Info.:	280-0092597-023				
Operator ID:	JZ	Instrument ID:	CHHPLC_G2_LUNA		
Method:	\\chromfs\Denver\ChromData\G2_LUNA\20200619-92597.b\G2_8330_Luna.m				
Limit Group:	GCSV - 8330				
Last Update:	23-Jun-2020 18:23:01	Calib Date:	15-May-2020 02:11:20		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140024.D				
Column 1 :	Luna-Phenyl hexyl (4.60 mm)		Det: LC DAD1A, 254 nm		
Process Host:	CTX1017				

First Level Reviewer: zhangji Date: 23-Jun-2020 18:09:48

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.1933	96.64

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

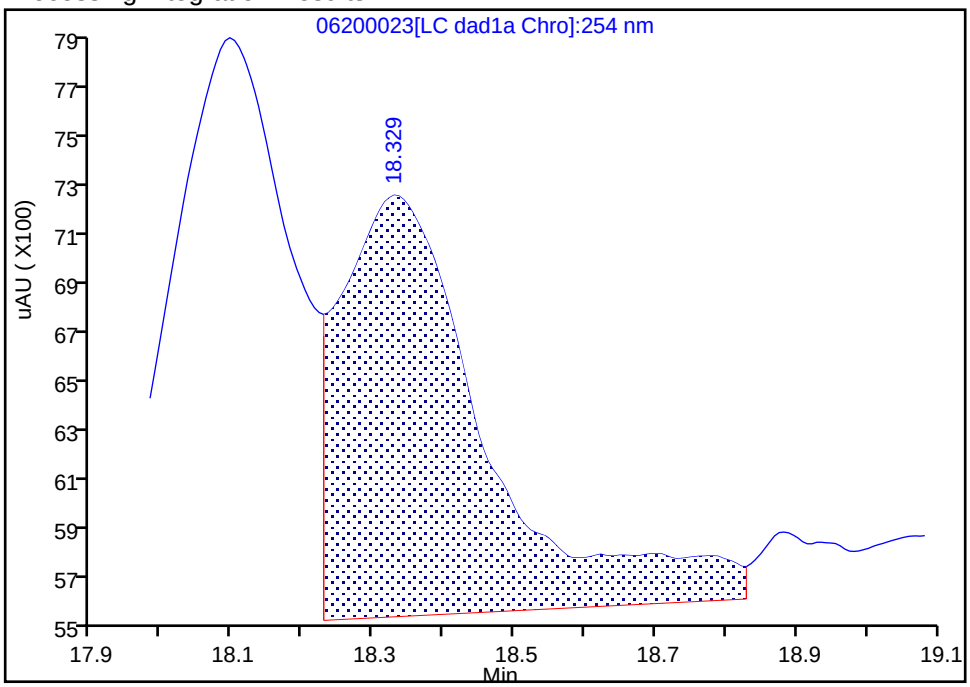
Data File:	\\chromfs\denver\chromdata\g2_luna\20200619-92597.b\06200023.d				
Injection Date:	20-Jun-2020 22:19:11	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	280-137225-A-4-A	Lab Sample ID:	280-137225-4		
Client ID:	G0082-20A				
Operator ID:	JZ	ALS Bottle#:	23	Worklist Smp#:	23
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

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

Signal: 1

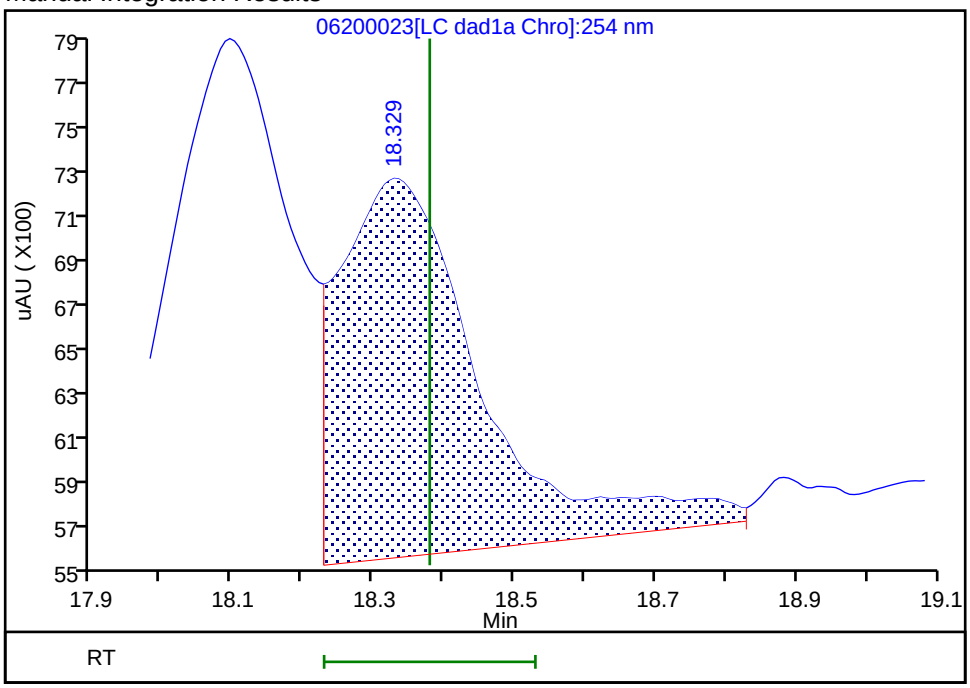
Processing Integration Results

RT: 18.33
Area: 23684
Amount: 0.050910
Amount Units: ug/ml



Manual Integration Results

RT: 18.33
Area: 23198
Amount: 0.049866
Amount Units: ug/ml



Reviewer: zhangji, 23-Jun-2020 18:09:44
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

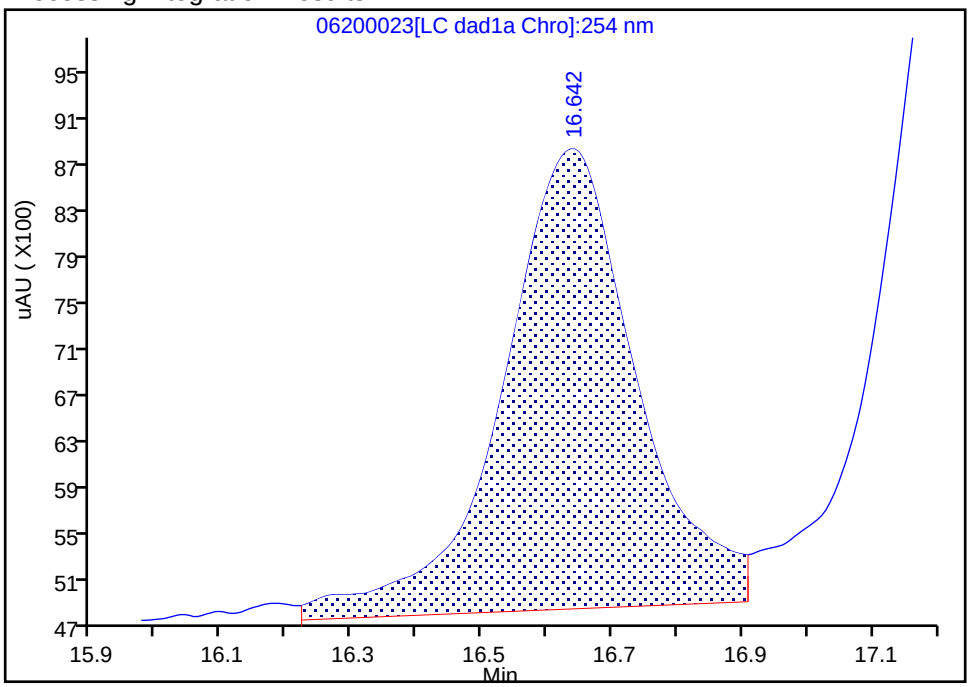
Data File:	\\chromfs\denver\chromdata\g2_luna\20200619-92597.b\06200023.d				
Injection Date:	20-Jun-2020 22:19:11	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	280-137225-A-4-A	Lab Sample ID:	280-137225-4		
Client ID:	G0082-20A				
Operator ID:	JZ	ALS Bottle#:	23	Worklist Smp#:	23
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

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

Signal: 1

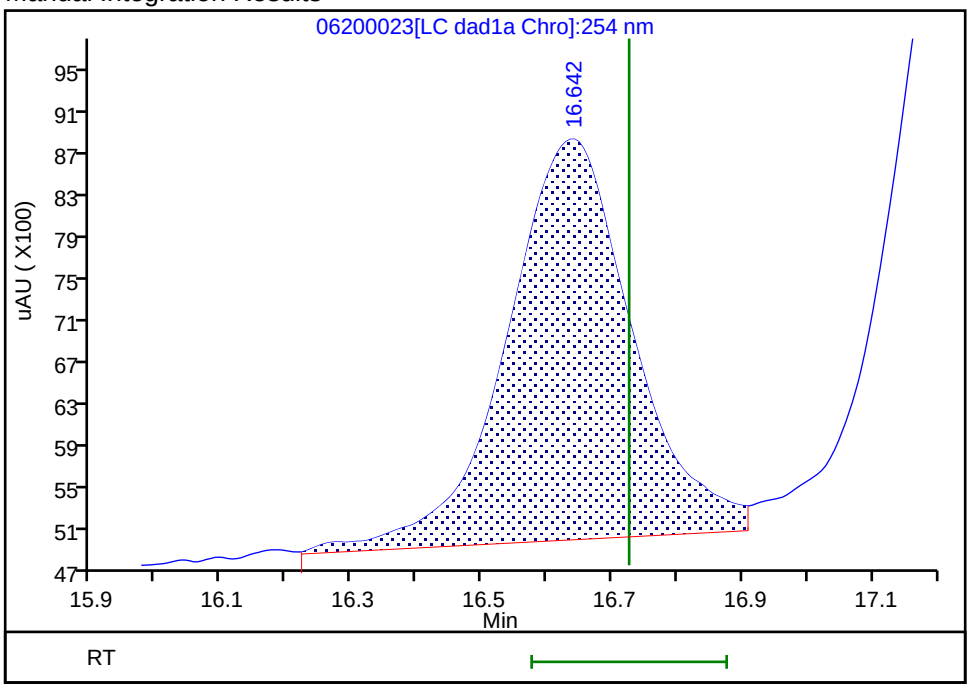
Processing Integration Results

RT: 16.64
Area: 57190
Amount: 0.209514
Amount Units: ug/ml



Manual Integration Results

RT: 16.64
Area: 51567
Amount: 0.188915
Amount Units: ug/ml



Reviewer: zhangji, 23-Jun-2020 18:09:44
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

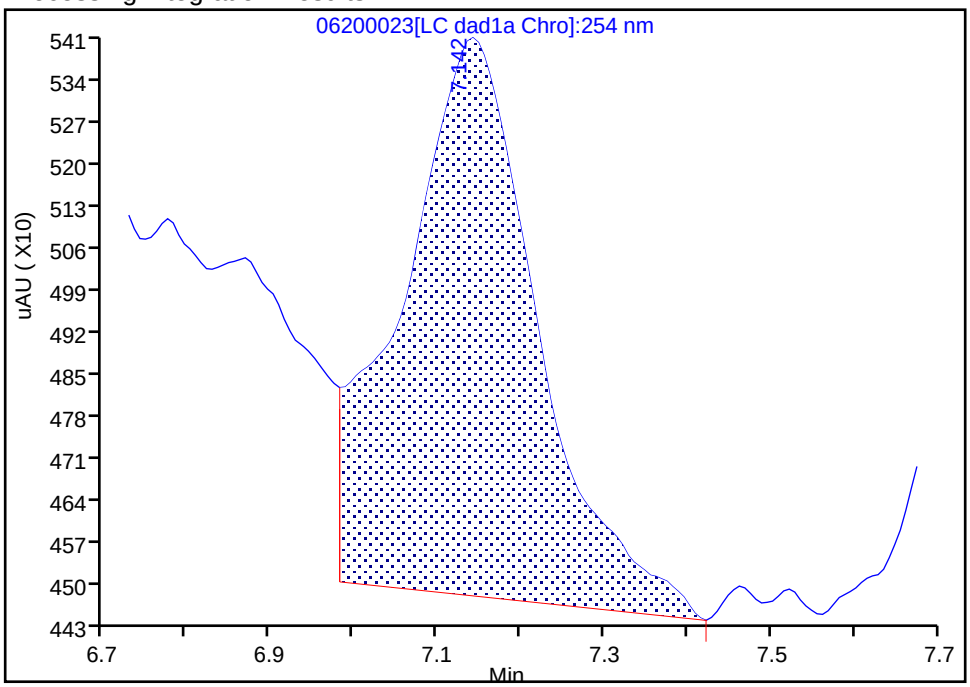
Data File:	\\chromfs\denver\chromdata\g2_luna\20200619-92597.b\06200023.d				
Injection Date:	20-Jun-2020 22:19:11	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	280-137225-A-4-A	Lab Sample ID:	280-137225-4		
Client ID:	G0082-20A				
Operator ID:	JZ	ALS Bottle#:	23	Worklist Smp#:	23
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

6 HMX, CAS: 2691-41-0

Signal: 1

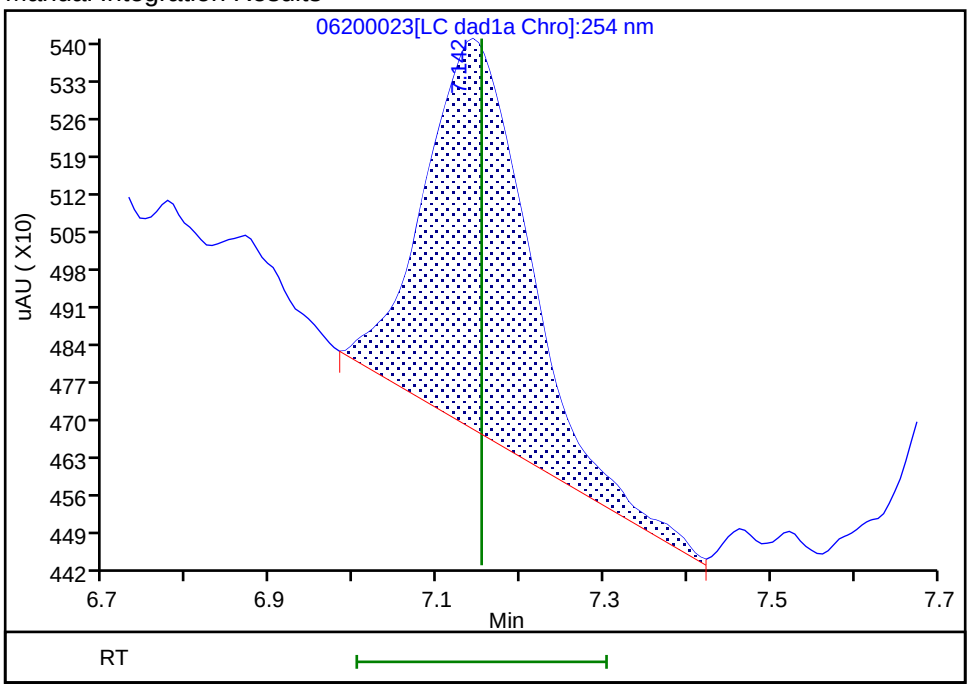
Processing Integration Results

RT: 7.14
Area: 10516
Amount: 0.029331
Amount Units: ug/ml



Manual Integration Results

RT: 7.14
Area: 6397
Amount: 0.006062
Amount Units: ug/ml



Reviewer: zhangji, 23-Jun-2020 18:09:27
Audit Action: Assigned New Baseline Audit Reason: Baseline

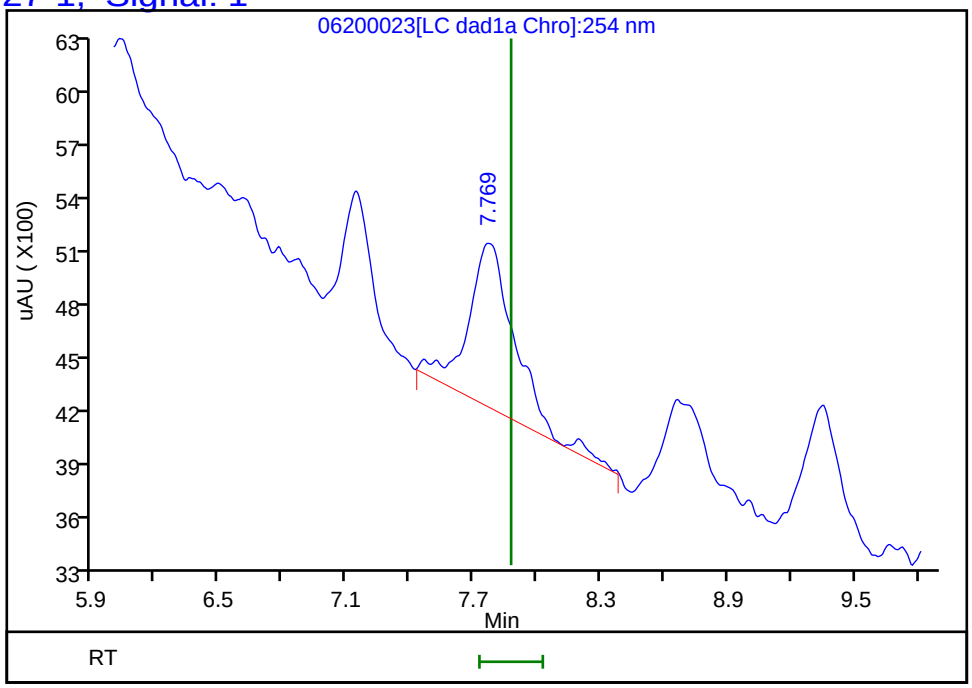
User Disabled Compound Report

Eurofins TestAmerica, Denver

Data File:	\\chromfs\denver\chromdata\g2_luna\20200619-92597.b\06200023.d				
Injection Date:	20-Jun-2020 22:19:11	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	280-137225-A-4-A	Lab Sample ID:	280-137225-4		
Client ID:	G0082-20A				
Operator ID:	JZ	ALS Bottle#:	23	Worklist Smp#:	23
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

7 MNX, CAS: 5755-27-1, Signal: 1

RT: 7.77
Response: 13921
Amount: 0.031894



Reviewer: zhangji, 23-Jun-2020 18:09:48
Audit Action: Assigned New Baseline Audit Reason: Baseline

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

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1 Analy Batch No.: 494886

SDG No.:

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

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

Calibration Files:

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

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

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

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1 Analy Batch No.: 494886

SDG No.:

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

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

Calibration Files:

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

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	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								
Picric acid	194456 +++++	227320 170053	189240 169399	231700 174504	Ave		193810.153				13.5		20.0			
HMX	216260 175837	400720 186210	252920 179567	242940 183992	Lin2	5323.97093	177012.867							0.9900		0.9900
RDX	250504 220101	251440 221363	302380 217280	272330 219481	Ave		244359.838				12.7		20.0			
Nitrobenzene	422566 420057	411355 413613	566215 420302	425090 434621	Ave		439227.211				11.8		20.0			
1,3-Dinitrobenzene	687780 651230	649900 645107	741737 661018	688743 667994	Ave		674188.610				4.7		20.0			
Nitroglycerin	132151 128856	106184 127479	128084 121758	141489 128426	Ave		126803.331				7.9		20.0			
2-Nitrotoluene	252584 263350	272480 263733	320060 259206	290620 261684	Ave		272964.527				8.1		20.0			
4-Nitrotoluene	237944 205745	214531 233965	309222 235547	259042 231055	Ave		240881.296				13.2		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 TestAmerica, Denver Job No.: 280-137225-1 Analy Batch No.: 494886

SDG No.:

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

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

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	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	316356 338348	374386 325764	441918 319452	324156 321498	Ave		345234.619				12.5		20.0			
3-Nitrotoluene	284364 280237	276523 288039	385215 286309	305554 280373	Ave		298326.800				12.1		20.0			
2-Amino-4,6-dinitrotoluene	449641 452344	413386 446609	577331 454954	473367 454056	Ave		465211.017				10.4		20.0			
1,3,5-Trinitrobenzene	473888 459025	432016 445838	531916 461195	509261 466466	Ave		472450.766				7.0		20.0			
2,6-Dinitrotoluene	+++++ 296084 293622	462869 294056	380618 294513	345209 297272	Lin2	4435.95604	289218.236							0.9990		0.9900
2,4-Dinitrotoluene	636653 610554 606816	669761 610082	743068 605778	672311 605997	Ave		640113.339				7.4		20.0			
Tetryl	368208 349575	394172 348927	403234 350489	384701 350116	Ave		368677.570				6.1		20.0			
2,4,6-Trinitrotoluene	399076 406271	460040 393653	565060 401302	430359 406644	Lin1	3158.03416	401610.023							0.9990		0.9900
PETN	135296 128081	+++++ 139434	204240 136840	132172 136576	Lin1	27366.0232	129287.517							0.9980		0.9900
1,2-Dinitrobenzene	249500 288347	337440 268080	374880 263961	306830 274673	Lin1	1839.02265	277228.024							0.9970		0.9900

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

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

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1 Analy Batch No.: 494886

SDG No.:

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

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

Calibration Files:

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

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
		LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
Picric acid	Ave	68021	5683 118579	9462 174504	23170 +++++	48614	0.400	0.0250 0.700	0.0500 1.00	0.100 +++++	0.250
HMX	Lin2	74484	10018 125697	12646 183992	24294 439592	54065	0.400	0.0250 0.700	0.0500 1.00	0.100 2.50	0.250
RDX	Ave	88545	6286 152096	15119 219481	27233 550253	62626	0.400	0.0250 0.700	0.0500 1.00	0.100 2.50	0.250
Nitrobenzene	Ave	166107	10325 295388	28424 436359	42679 1054344	106064	0.402	0.0251 0.703	0.0502 1.00	0.100 2.51	0.251
1,3-Dinitrobenzene	Ave	258559	16280 463638	37161 669330	69012 1631331	172289	0.401	0.0251 0.701	0.0501 1.00	0.100 2.51	0.251
Nitroglycerin	Ave	509915	26546 852305	64042 1284256	141489 3221406	330378	4.00	0.250 7.00	0.500 10.0	1.00 25.0	2.50
2-Nitrotoluene	Ave	105493	6812 181444	16003 261684	29062 658375	63146	0.400	0.0250 0.700	0.0500 1.00	0.100 2.50	0.250
4-Nitrotoluene	Ave	93773	5374 165213	15492 231517	25956 515391	59605	0.401	0.0251 0.701	0.0501 1.00	0.100 2.51	0.251
4-Amino-2,6-dinitrotoluene	Ave	130436	9369 223840	22118 321819	32448 846716	79168	0.400	0.0250 0.701	0.0501 1.00	0.100 2.50	0.250
3-Nitrotoluene	Ave	115331	6920 200617	19280 280653	30586 701292	71162	0.400	0.0250 0.701	0.0501 1.00	0.100 2.50	0.250
2-Amino-4,6-dinitrotoluene	Ave	179358	10376 319742	28982 455872	47526 1135384	112860	0.402	0.0251 0.703	0.0502 1.00	0.100 2.51	0.251
1,3,5-Trinitrobenzene	Ave	178692	10822 323482	26649 467399	51028 1149858	118709	0.401	0.0251 0.701	0.0501 1.00	0.100 2.51	0.251
2,6-Dinitrotoluene	Lin2	+++++ 118093	11618 206984	19107 298461	34659 736990	74317	+++++ 0.402	0.0251 0.703	0.0502 1.00	0.100 2.51	0.251
2,4-Dinitrotoluene	Ave	7990 245009	16811 425741	37302 608421	67500 1523108	153249	0.0126 0.402	0.0251 0.703	0.0502 1.00	0.100 2.51	0.251

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

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1 Analy Batch No.: 494886

SDG No.:

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

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

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
		LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
Tetryl	Ave	139850	9874 245833	20202 350816	38547 875686	92236	0.401	0.0251 0.701	0.0501 1.00	0.100 2.51	0.251
2,4,6-Trinitrotoluene	Lin1	158091	11547 282035	28366 408271	43208 1019741	100168	0.402	0.0251 0.703	0.0502 1.00	0.100 2.51	0.251
PETN	Lin1	557734	+++++ 957879	102120 1365764	132172 3202028	338241	4.00	+++++ 7.00	0.500 10.0	1.00 25.0	2.50
1,2-Dinitrobenzene	Lin1	107232	8436 184773	18744 274673	30683 720867	62375	0.400	0.0250 0.700	0.0500 1.00	0.100 2.50	0.250

Curve Type Legend:

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

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

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

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

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

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

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

QC Flag Legend

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

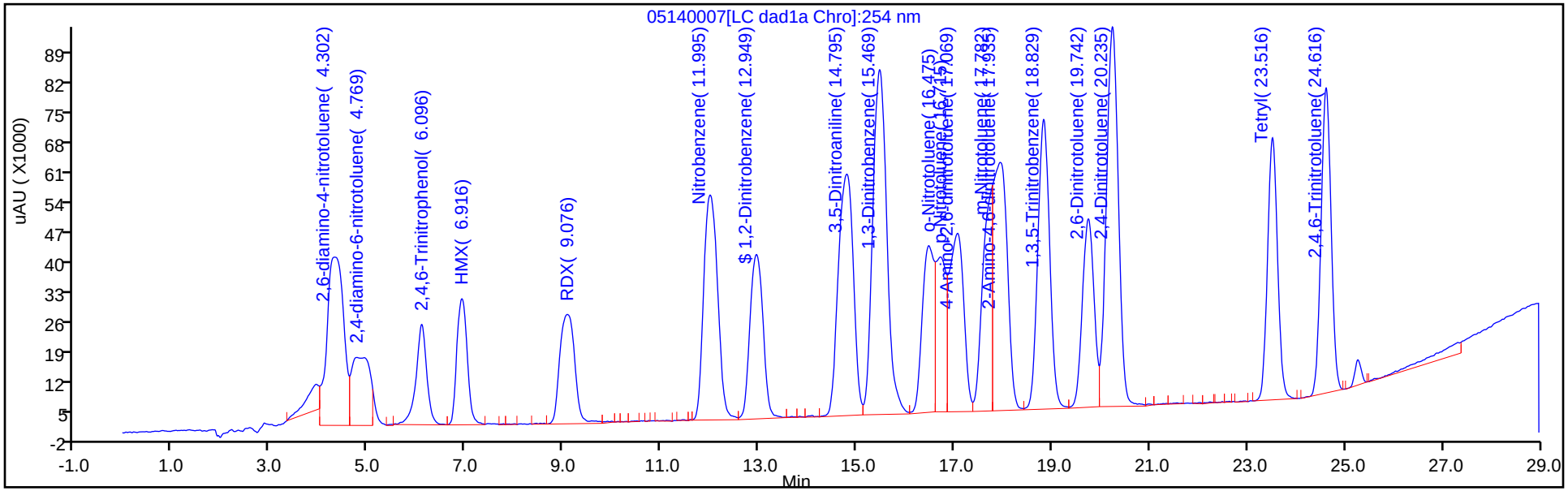
8330IntermStk_00064	Amount Added: 250.00	Units: uL
8330_ADDs_00026	Amount Added: 125.00	Units: uL

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

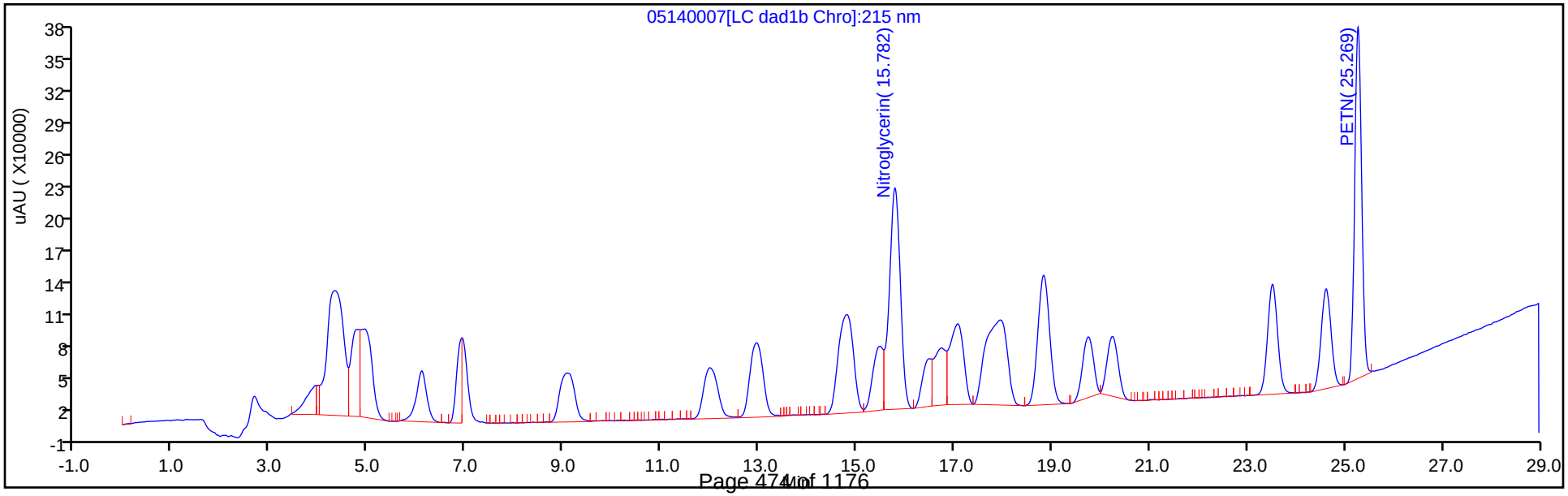
Eurofins TestAmerica, Denver

Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140007.d				
Injection Date:	14-May-2020 16:16:43	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	CB
Lims ID:	IC FULL 9			Worklist Smp#:	7
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		

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



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



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

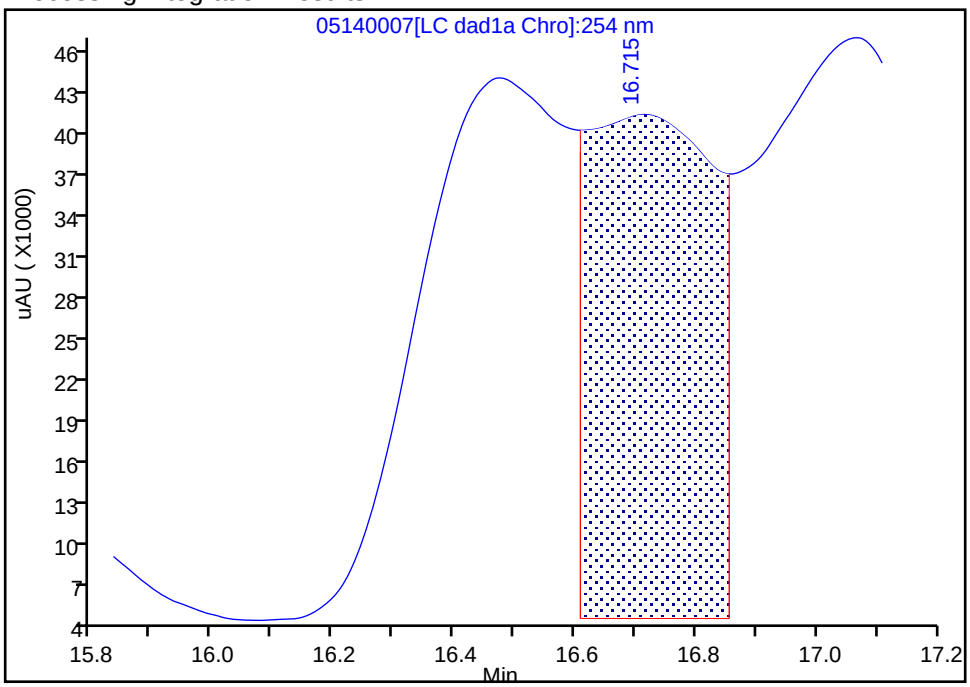
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140007.d				
Injection Date:	14-May-2020 16:16:43	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 9				
Client ID:					
Operator ID:	CB	ALS Bottle#:	7	Worklist Smp#:	7
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna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

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

Signal: 1

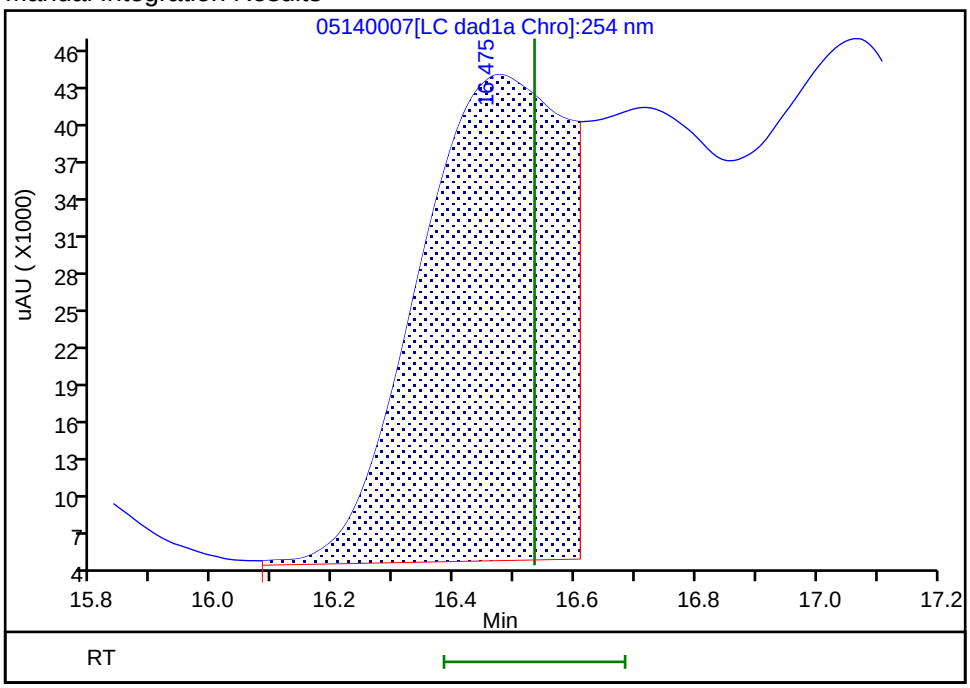
Processing Integration Results

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



Manual Integration Results

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



Reviewer: zhangji, 14-May-2020 17:09:15
Audit Action: Assigned Compound ID Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

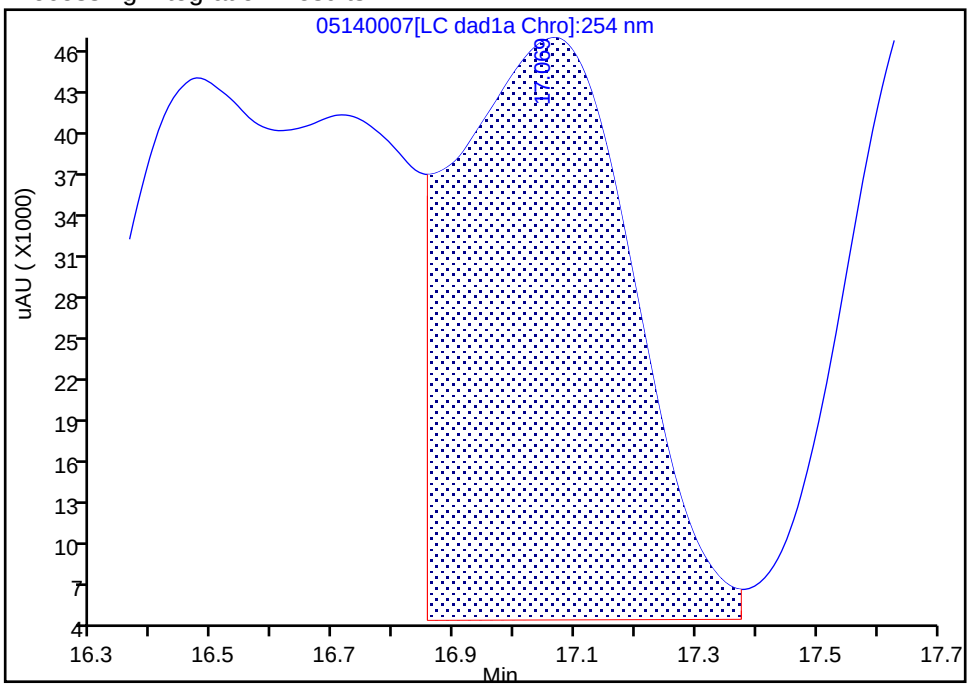
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140007.d				
Injection Date:	14-May-2020 16:16:43	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 9				
Client ID:					
Operator ID:	CB	ALS Bottle#:	7	Worklist Smp#:	7
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna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

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

Signal: 1

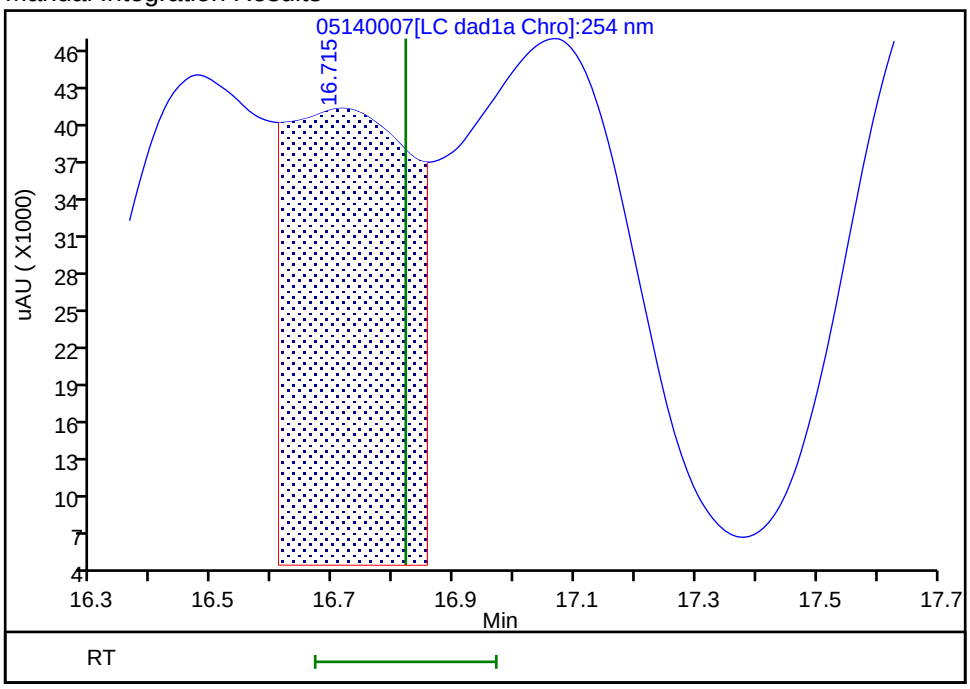
Processing Integration Results

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



Manual Integration Results

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



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

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

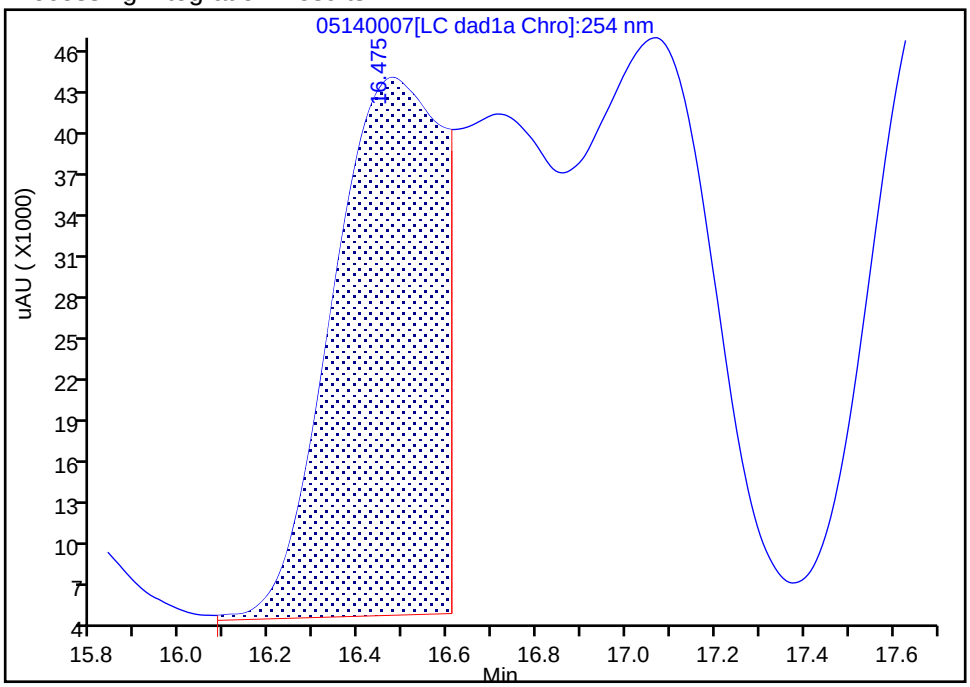
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140007.d				
Injection Date:	14-May-2020 16:16:43	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 9				
Client ID:					
Operator ID:	CB	ALS Bottle#:	7	Worklist Smp#:	7
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna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

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

Signal: 1

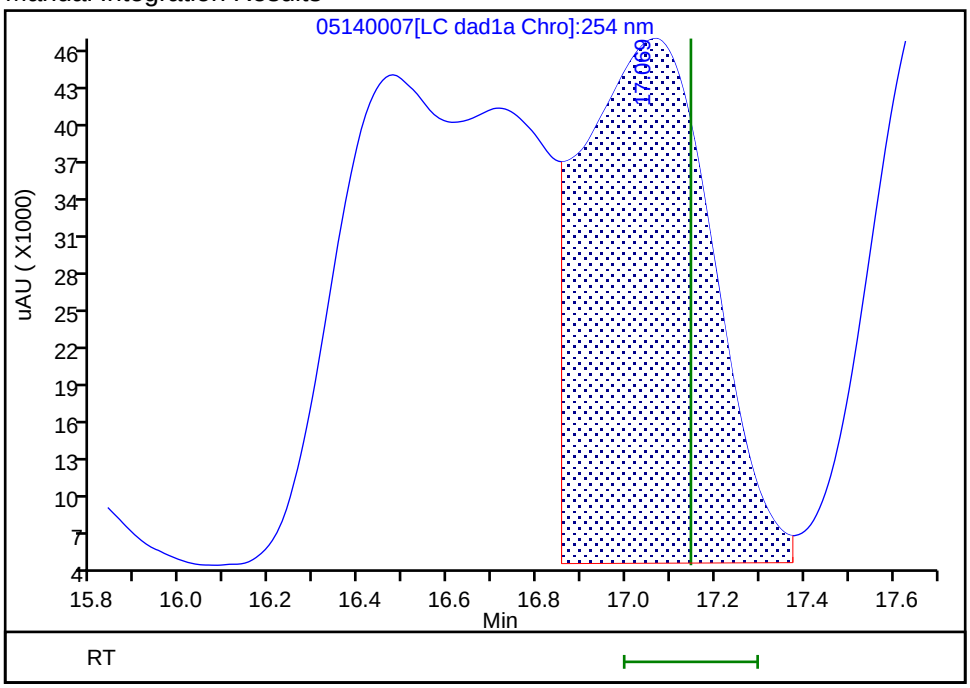
Processing Integration Results

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



Manual Integration Results

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



Reviewer: zhangji, 14-May-2020 17:08:59
Audit Action: Assigned Compound ID Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

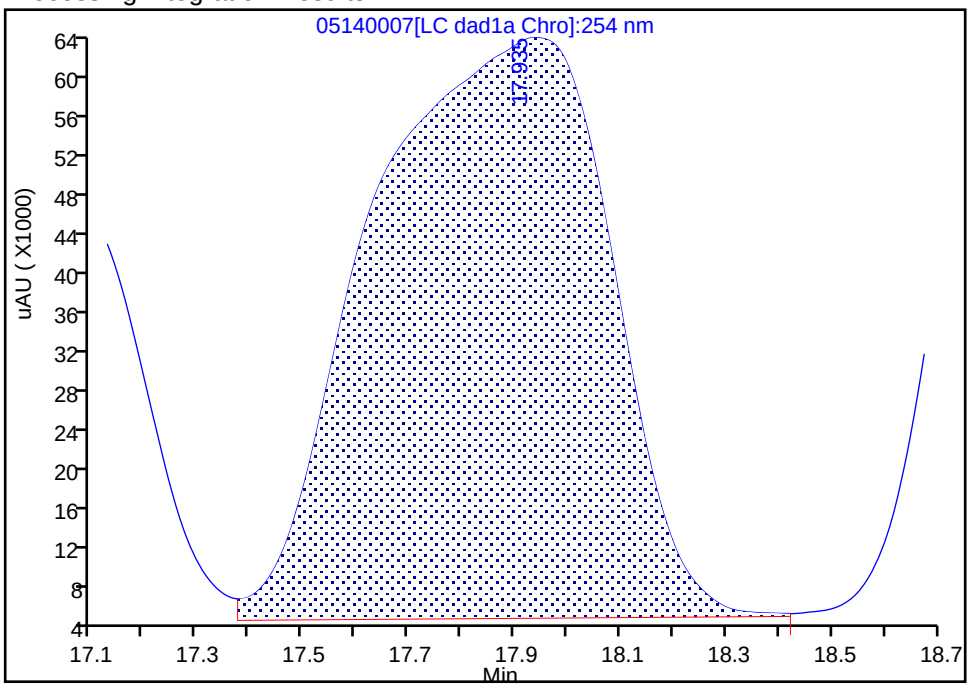
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140007.d				
Injection Date:	14-May-2020 16:16:43	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 9				
Client ID:					
Operator ID:	CB	ALS Bottle#:	7	Worklist Smp#:	7
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna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

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

Signal: 1

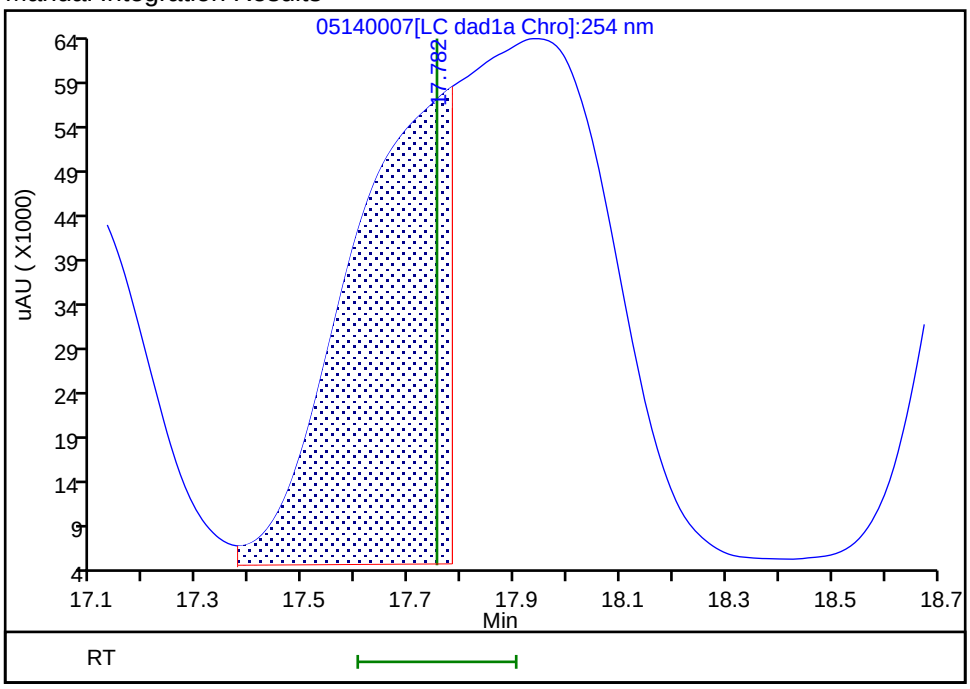
Processing Integration Results

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



Manual Integration Results

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



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

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

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

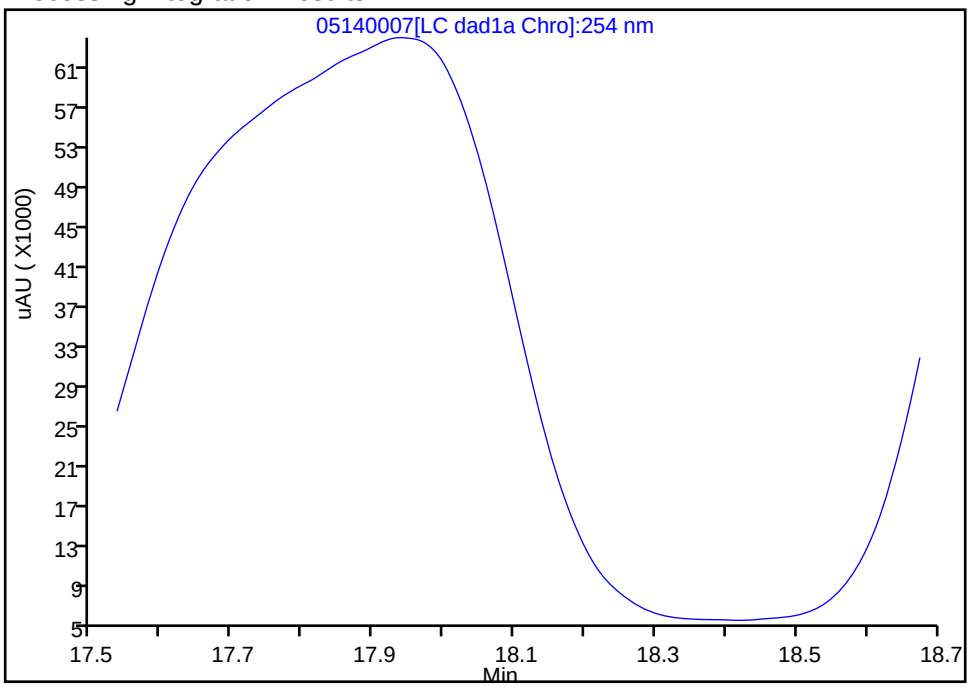
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140007.d				
Injection Date:	14-May-2020 16:16:43	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 9				
Client ID:					
Operator ID:	CB	ALS Bottle#:	7	Worklist Smp#:	7
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna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

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

Signal: 1

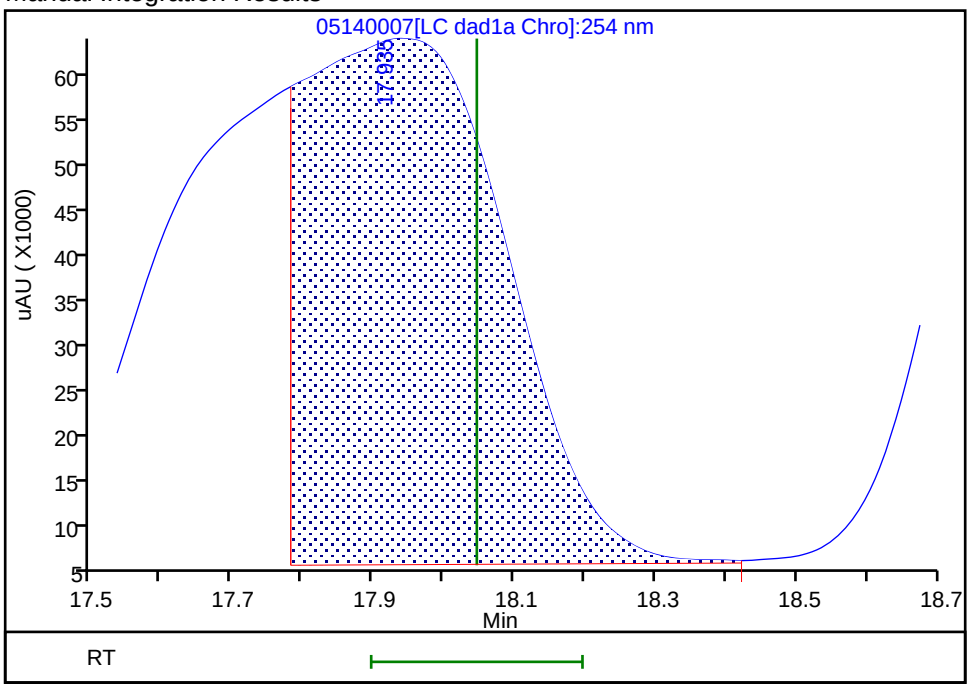
Not Detected
Expected RT: 18.05

Processing Integration Results



Manual Integration Results

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



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

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

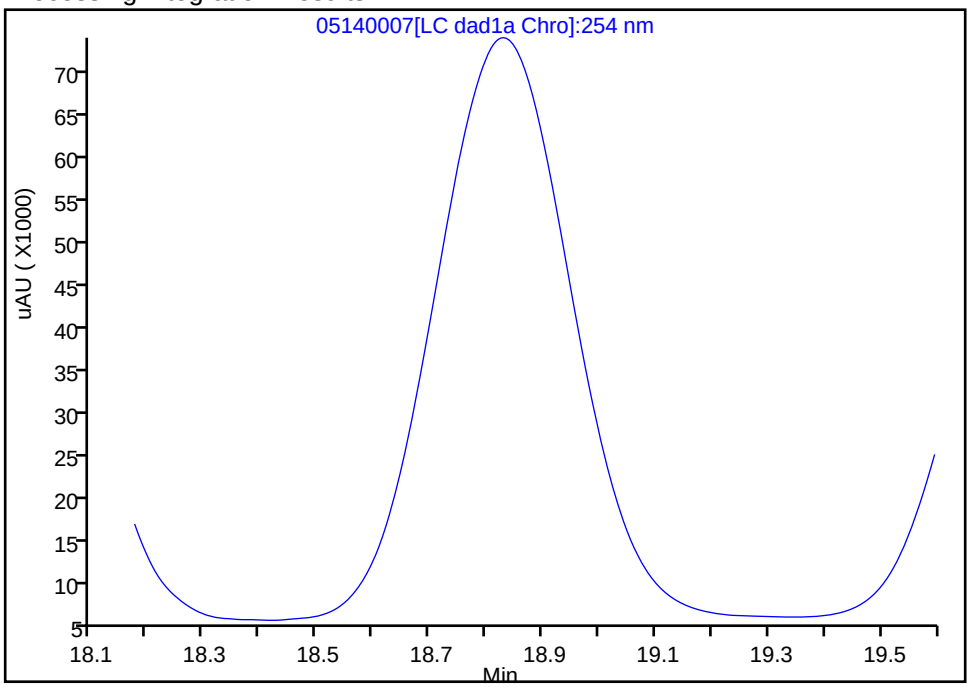
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140007.d				
Injection Date:	14-May-2020 16:16:43	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 9				
Client ID:					
Operator ID:	CB	ALS Bottle#:	7	Worklist Smp#:	7
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna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

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

Signal: 1

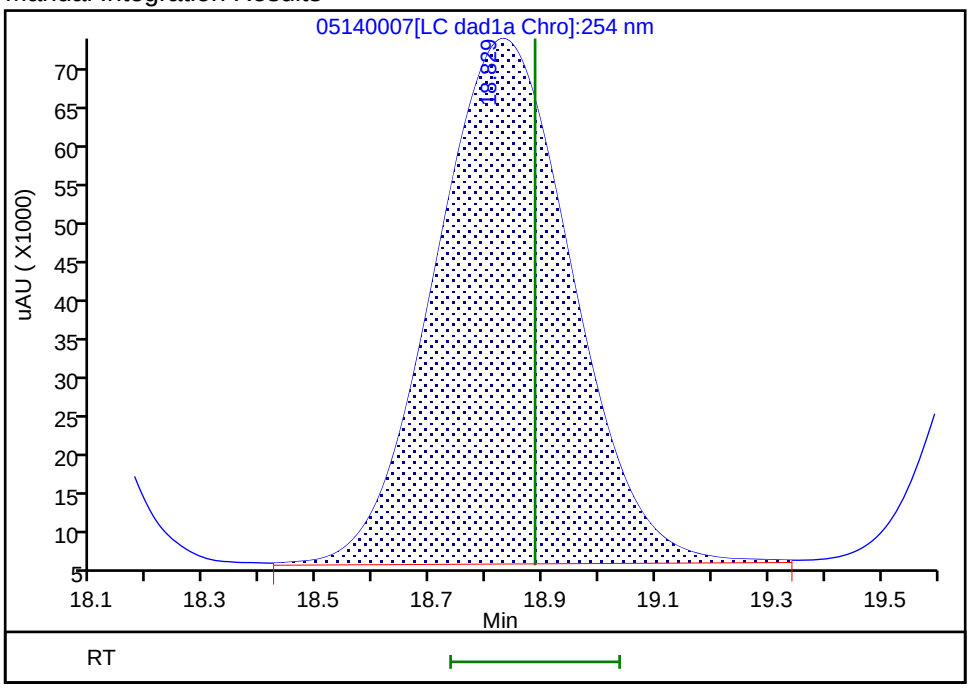
Not Detected
Expected RT: 18.89

Processing Integration Results



Manual Integration Results

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



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

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

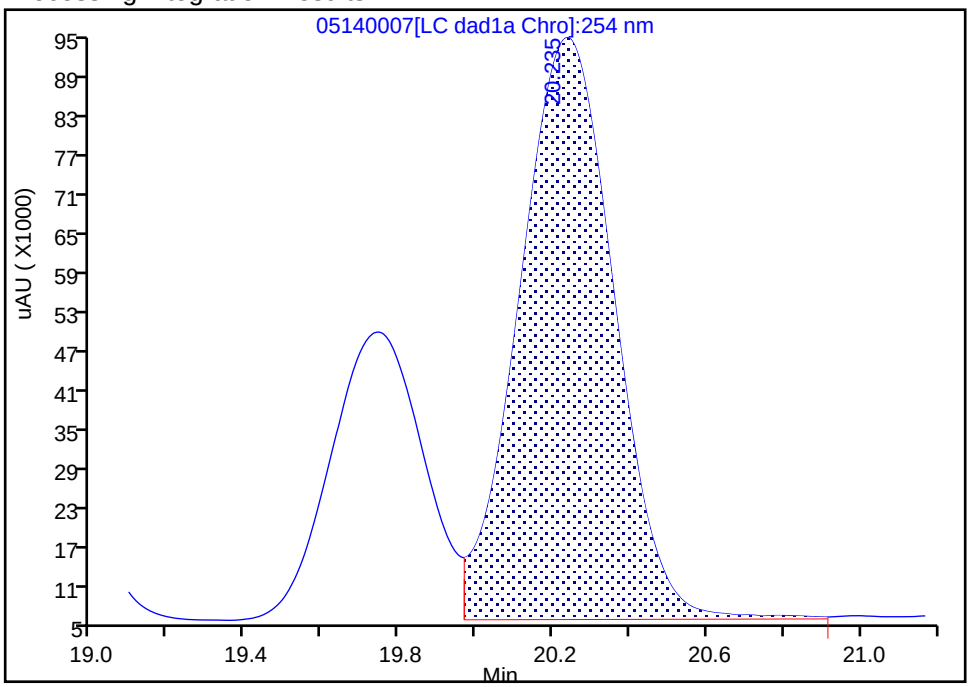
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140007.d				
Injection Date:	14-May-2020 16:16:43	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 9				
Client ID:					
Operator ID:	CB	ALS Bottle#:	7	Worklist Smp#:	7
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna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

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

Signal: 1

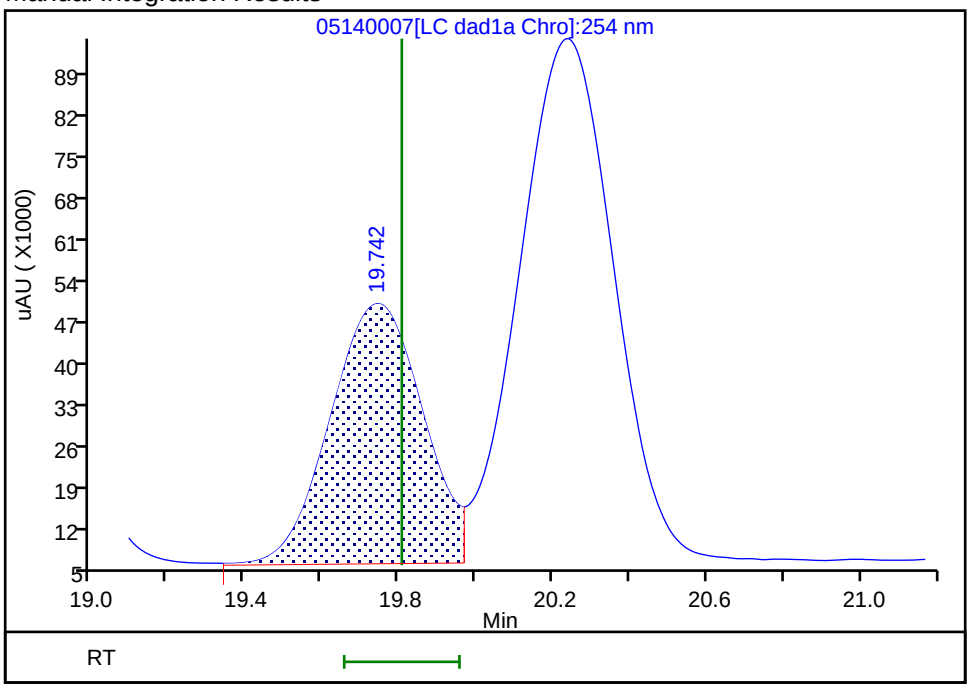
Processing Integration Results

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



Manual Integration Results

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



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

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

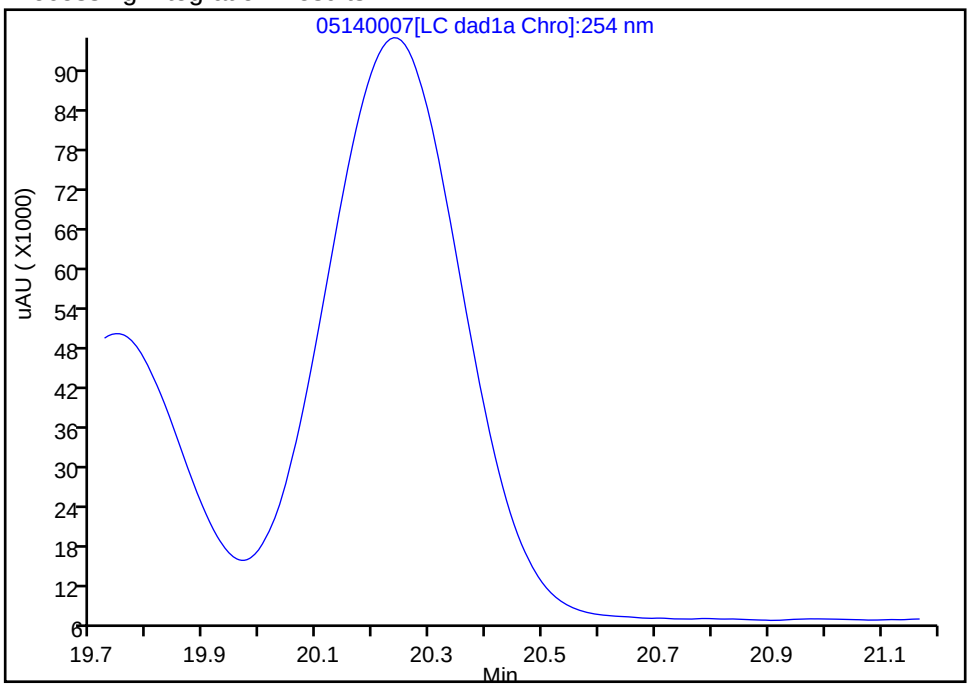
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140007.d				
Injection Date:	14-May-2020 16:16:43	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 9				
Client ID:					
Operator ID:	CB	ALS Bottle#:	7	Worklist Smp#:	7
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna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

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

Signal: 1

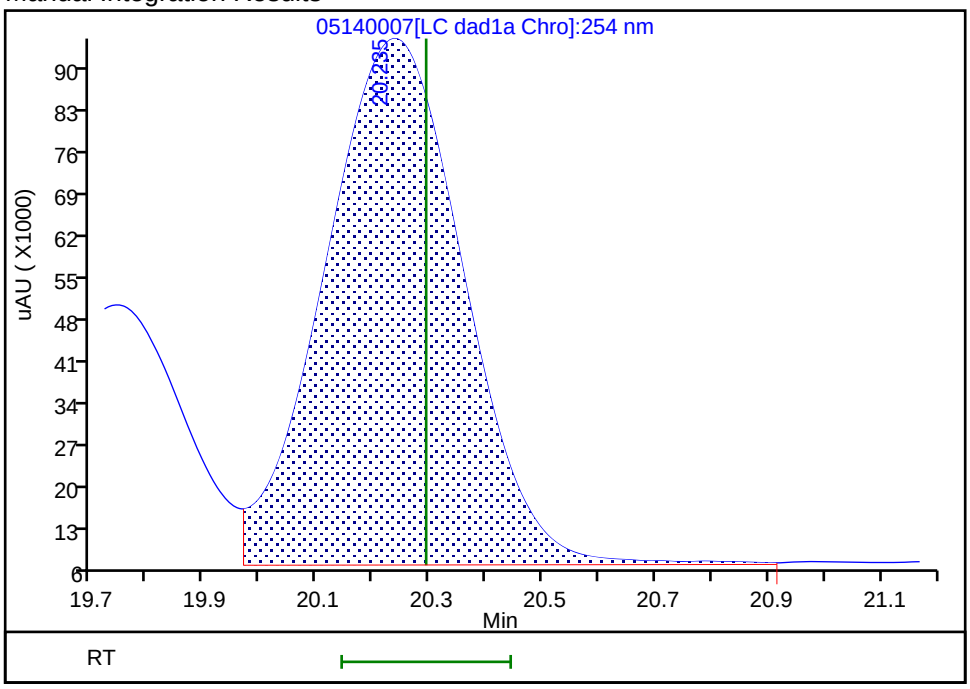
Not Detected
Expected RT: 20.29

Processing Integration Results



Manual Integration Results

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



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

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

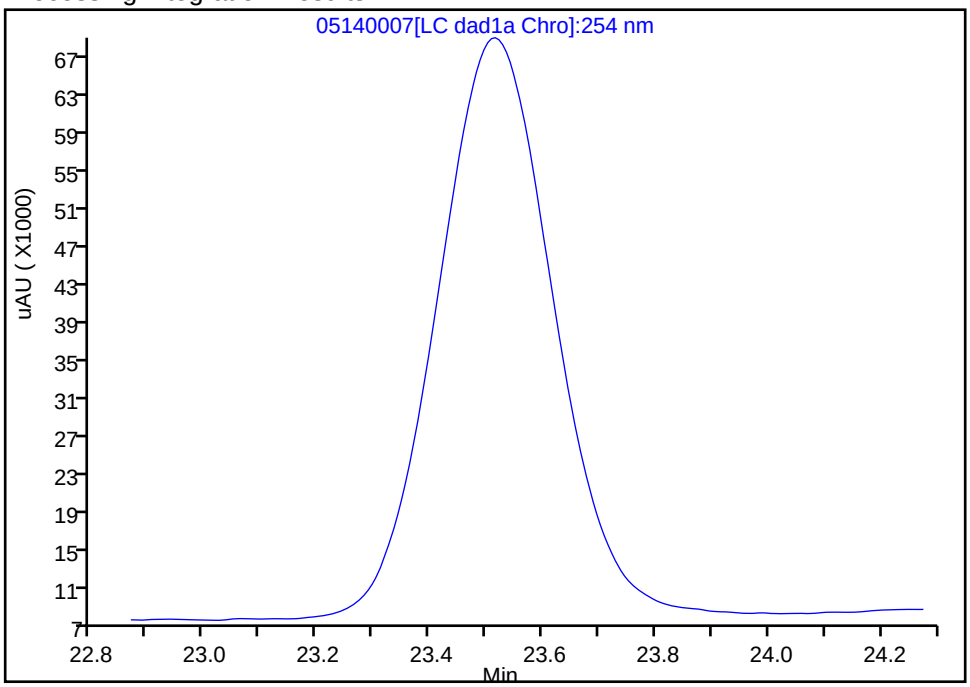
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140007.d				
Injection Date:	14-May-2020 16:16:43	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 9				
Client ID:					
Operator ID:	CB	ALS Bottle#:	7	Worklist Smp#:	7
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna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

22 Tetryl, CAS: 479-45-8

Signal: 1

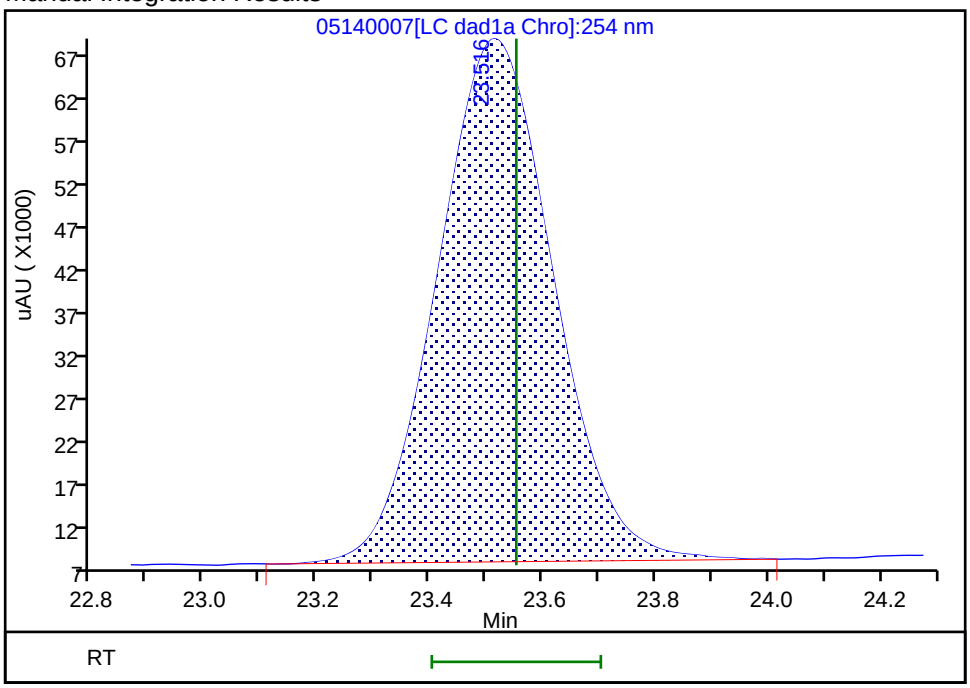
Not Detected
Expected RT: 23.55

Processing Integration Results



Manual Integration Results

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



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

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

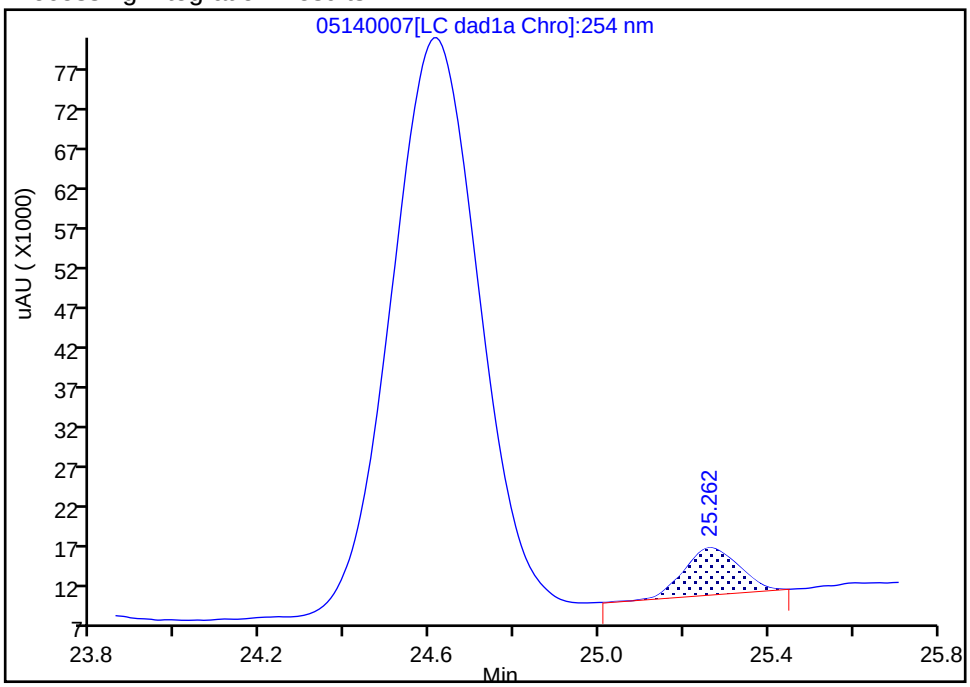
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140007.d				
Injection Date:	14-May-2020 16:16:43	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 9				
Client ID:					
Operator ID:	CB	ALS Bottle#:	7	Worklist Smp#:	7
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna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

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

Signal: 1

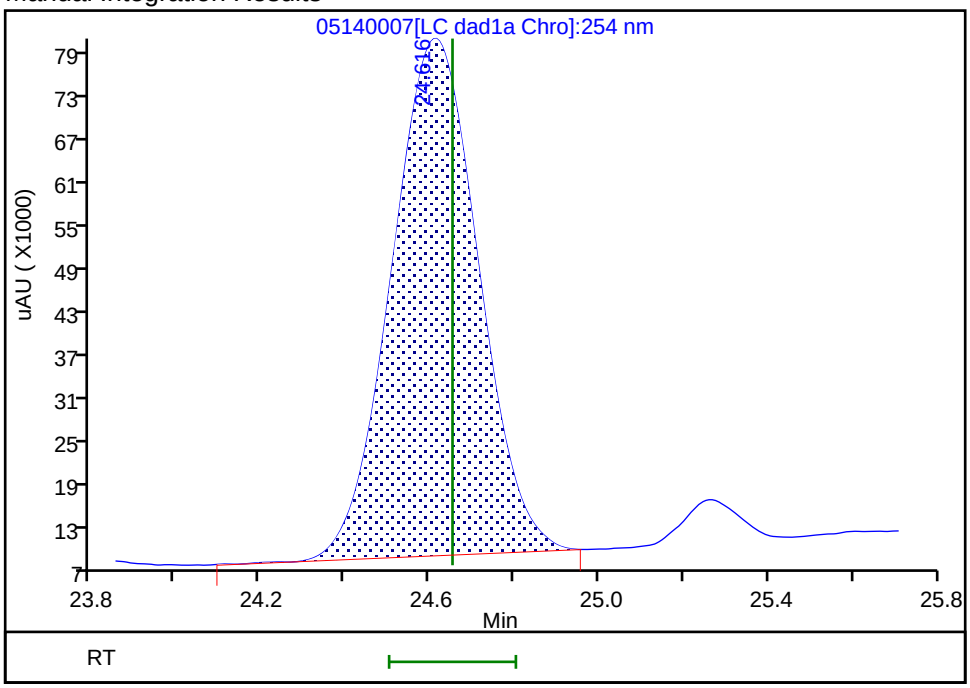
Processing Integration Results

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



Manual Integration Results

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



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

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

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

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

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

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

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

QC Flag Legend

Review Flags
M - Manually Integrated

Reagents:

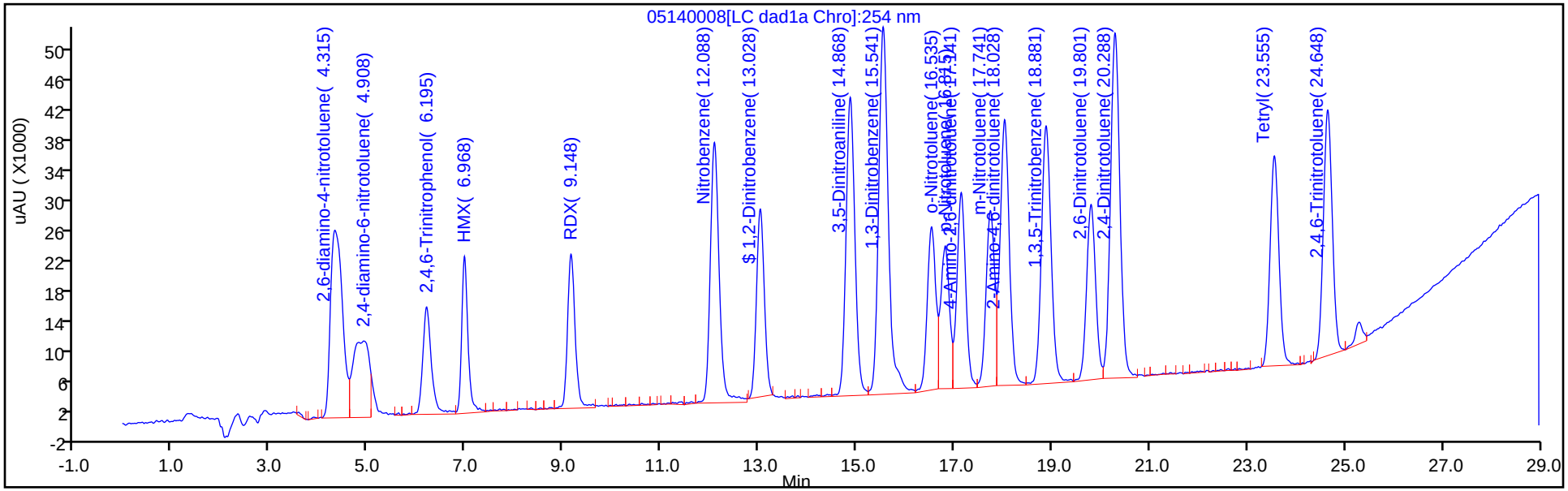
8330IntermStk_00064	Amount Added: 100.00	Units: uL
8330_ADDs_00026	Amount Added: 50.00	Units: uL

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

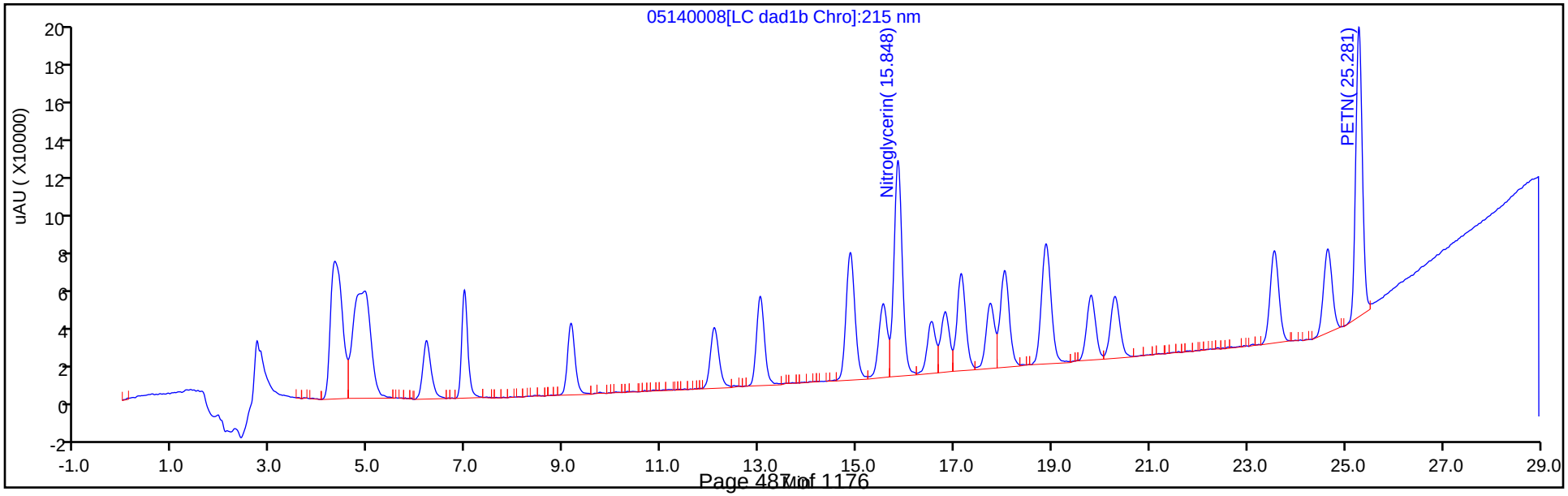
Eurofins TestAmerica, Denver

Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140008.d				
Injection Date:	14-May-2020 16:51:43	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	CB
Lims ID:	IC FULL 8			Worklist Smp#:	8
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	8
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		

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



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



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

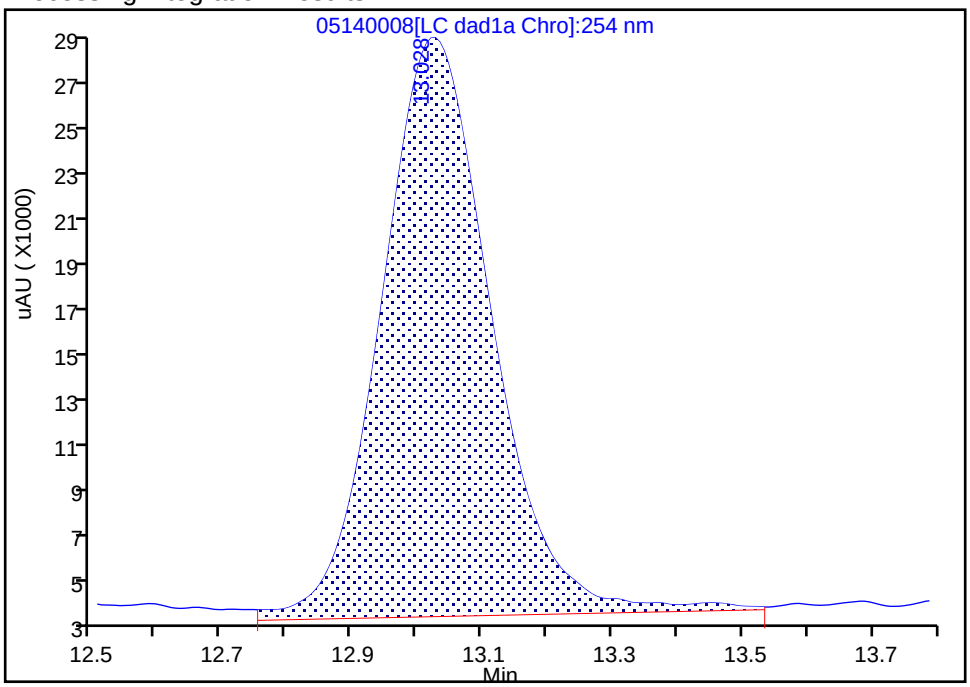
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140008.d				
Injection Date:	14-May-2020 16:51:43	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 8				
Client ID:					
Operator ID:	CB	ALS Bottle#:	8	Worklist Smp#:	8
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna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

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

Signal: 1

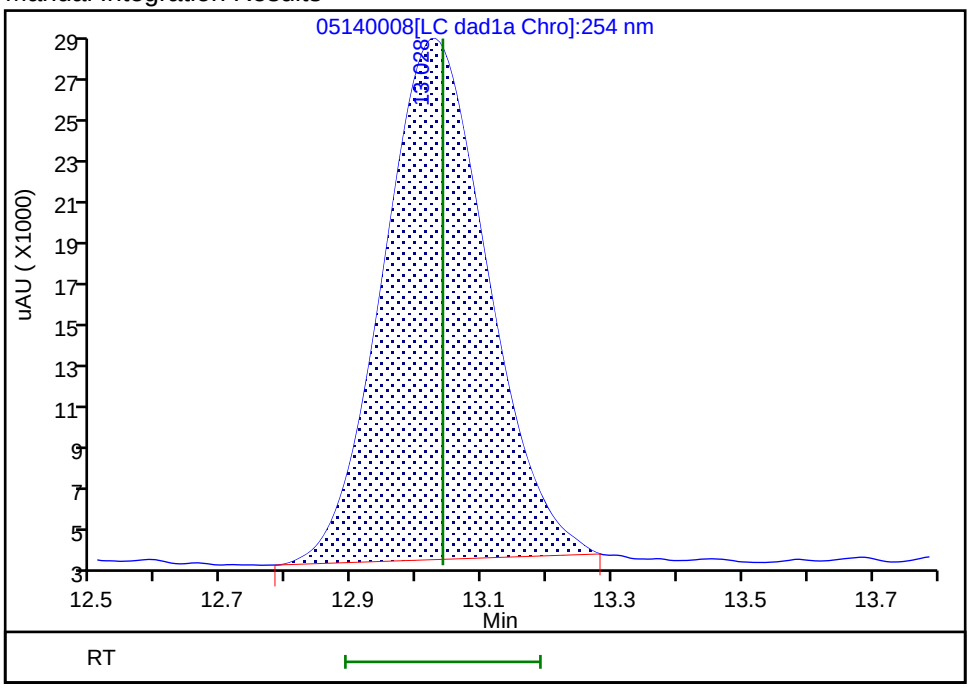
Processing Integration Results

RT: 13.03
Area: 297550
Amount: 0.923853
Amount Units: ug/ml



Manual Integration Results

RT: 13.03
Area: 274673
Amount: 0.984150
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:34:32

Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140009.D
Lims ID: IC FULL 7
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 14-May-2020 17:26:40 ALS Bottle#: 9 Worklist Smp#: 9
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC FULL 7
Misc. Info.: 280-0091518-009
Operator ID: CB Instrument ID: CHHPLC_G2_LUNA
Sublist: chrom-G2_8330_Luna*sub6

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

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

First Level Reviewer: zhangji Date: 15-May-2020 11:20:09

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 2,6-diamino-4-nitrotoluene	1	4.342	4.366	-0.024	272072	0.7000	0.6337	
2 2,4-diamino-6-nitrotoluene	1	4.915	4.880	0.035	176663	0.7000	0.7197	
5 2,4,6-Trinitrophenol	1	6.235	6.300	-0.065	118579	0.7000	0.6118	
6 HMX	1	6.982	6.986	-0.004	125697	0.7000	0.6800	
8 RDX	1	9.162	9.173	-0.011	152096	0.7000	0.6224	
9 Nitrobenzene	1	12.095	12.106	-0.011	295388	0.7028	0.6725	
$ 10 1,2-Dinitrobenzene	1	13.028	13.040	-0.012	184773	0.7000	0.6599	M
11 3,5-Dinitroaniline	1	14.875	14.886	-0.011	320559	0.7000	0.6552	
12 1,3-Dinitrobenzene	1	15.548	15.553	-0.005	463638	0.7014	0.6877	
13 Nitroglycerin	2	15.842	15.853	-0.011	852305	7.00	6.72	
14 o-Nitrotoluene	1	16.535	16.533	0.002	181444	0.7000	0.6647	
15 p-Nitrotoluene	1	16.808	16.820	-0.012	165213	0.7014	0.6859	
16 4-Amino-2,6-dinitrotoluene	1	17.142	17.146	-0.004	223840	0.7007	0.6484	
17 m-Nitrotoluene	1	17.742	17.753	-0.011	200617	0.7007	0.6725	
18 2-Amino-4,6-dinitrotoluene	1	18.035	18.046	-0.011	319742	0.7028	0.6873	
19 1,3,5-Trinitrobenzene	1	18.875	18.886	-0.011	323482	0.7014	0.6847	
20 2,6-Dinitrotoluene	1	19.795	19.806	-0.011	206984	0.7028	0.7003	
21 2,4-Dinitrotoluene	1	20.288	20.293	-0.005	425741	0.7028	0.6651	
22 Tetryl	1	23.542	23.553	-0.011	245833	0.7014	0.6668	
23 2,4,6-Trinitrotoluene	1	24.642	24.653	-0.011	282035	0.7028	0.6944	
24 PETN	2	25.275	25.280	-0.005	957879	7.00	7.20	

QC Flag Legend

Review Flags
M - Manually Integrated

Reagents:

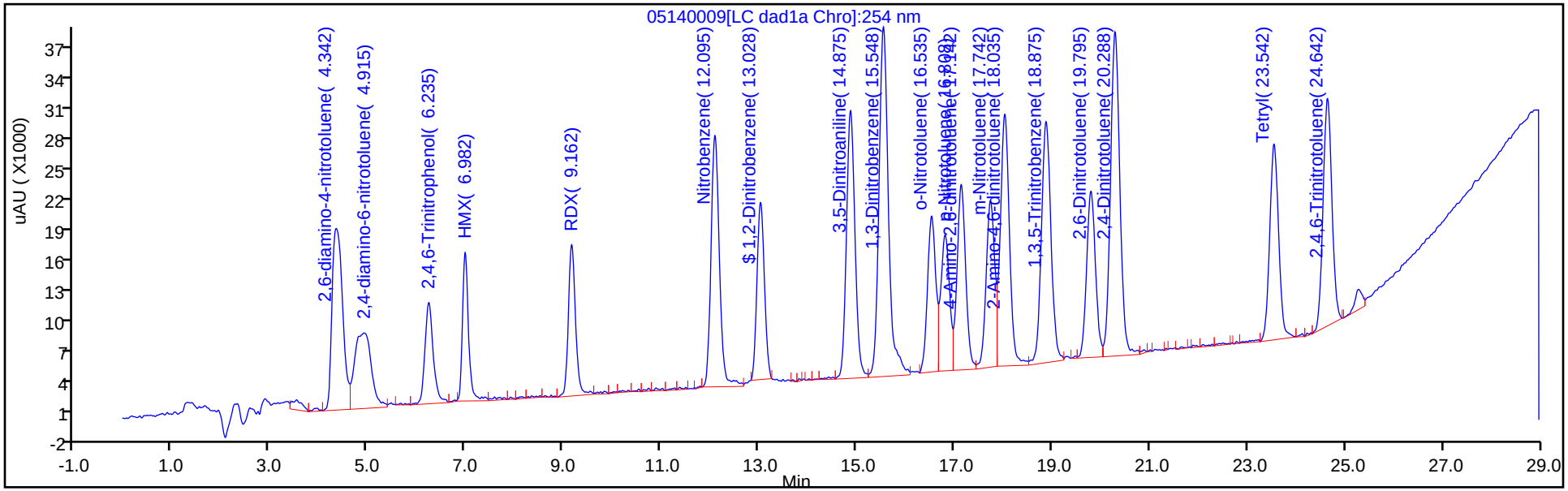
8330_ADDs_00026	Amount Added:	35.00	Units: uL
8330IntermStk_00064	Amount Added:	70.00	Units: uL

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

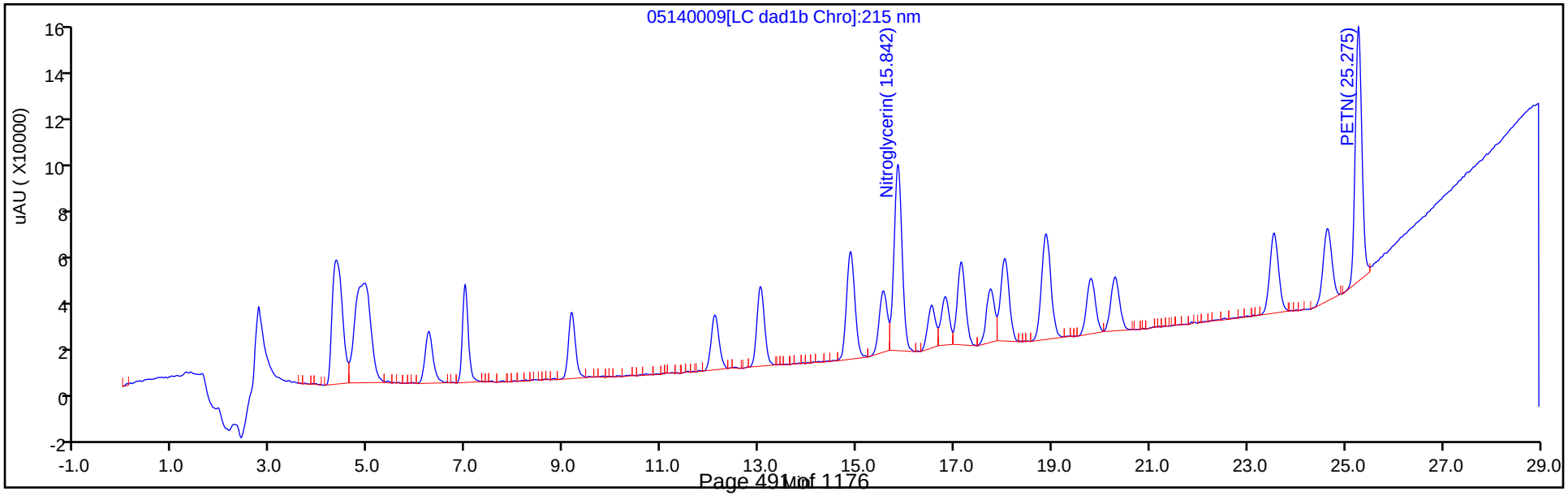
Eurofins TestAmerica, Denver

Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140009.d				
Injection Date:	14-May-2020 17:26:40	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	CB
Lims ID:	IC FULL 7			Worklist Smp#:	9
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	9
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		

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



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



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

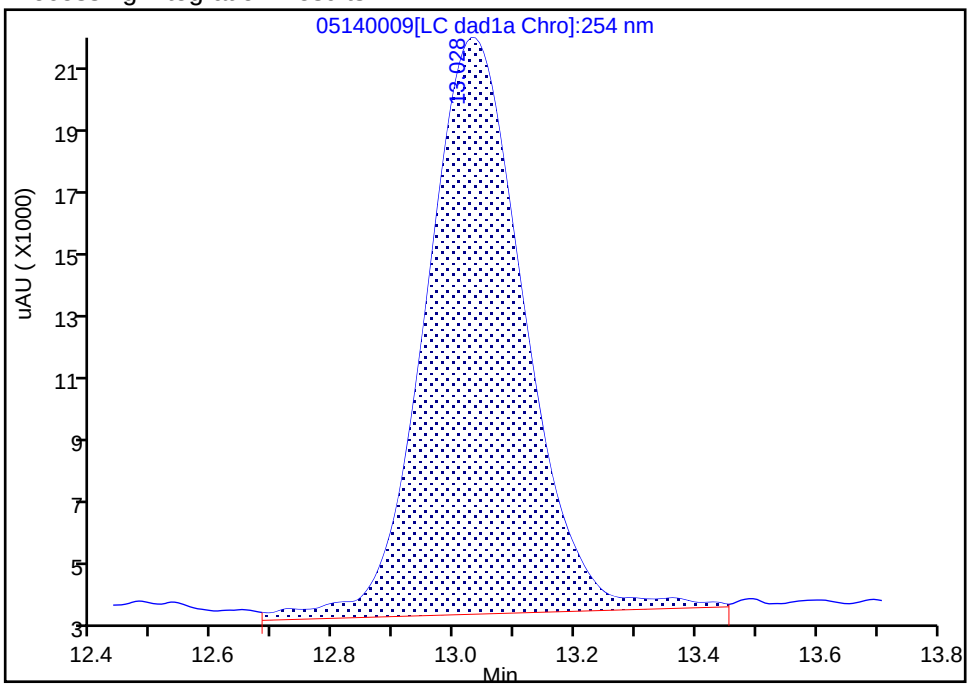
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140009.d				
Injection Date:	14-May-2020 17:26:40	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 7				
Client ID:					
Operator ID:	CB	ALS Bottle#:	9	Worklist Smp#:	9
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

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

Signal: 1

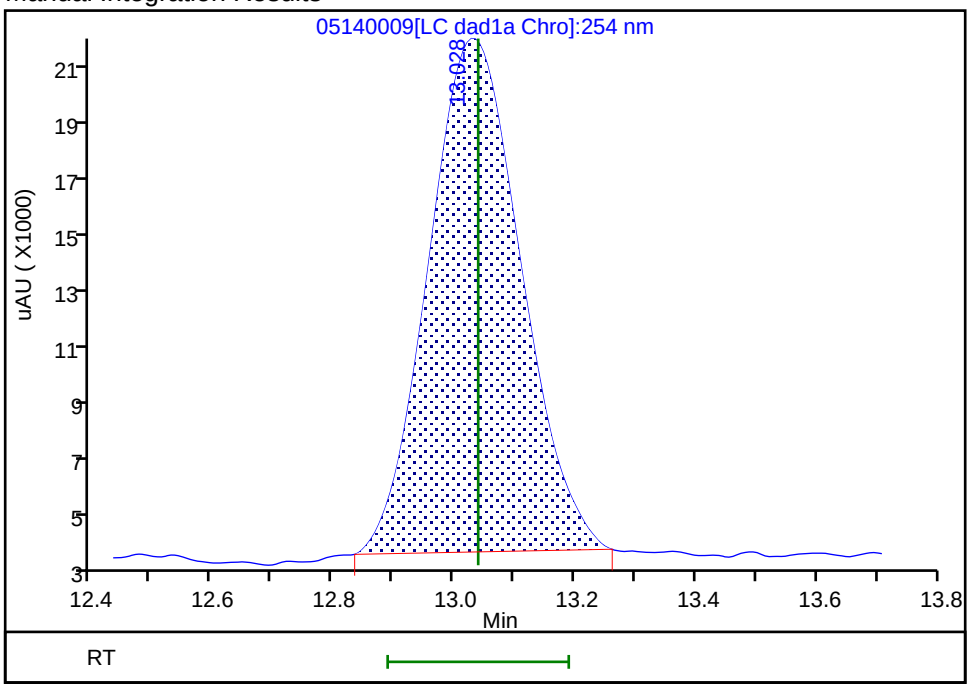
Processing Integration Results

RT: 13.03
Area: 203295
Amount: 0.637674
Amount Units: ug/ml



Manual Integration Results

RT: 13.03
Area: 184773
Amount: 0.659868
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:34:40

Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140010.D
Lims ID: IC FULL 6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 14-May-2020 18:01:41 ALS Bottle#: 10 Worklist Smp#: 10
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC FULL 6
Misc. Info.: 280-0091518-010
Operator ID: CB Instrument ID: CHHPLC_G2_LUNA
Sublist: chrom-G2_8330_Luna*sub6

Method: \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\G2_8330_Luna.m
Limit Group: GCSV - 8330
Last Update: 15-May-2020 12:00:56 Calib Date: 15-May-2020 02:11:20
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140024.D

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

First Level Reviewer: zhangji Date: 15-May-2020 11:52:49

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 2,6-diamino-4-nitrotoluene	1	4.347	4.366	-0.019	161291	0.4000	0.3757	M
2 2,4-diamino-6-nitrotoluene	1	4.940	4.880	0.060	100170	0.4000	0.3980	M
5 2,4,6-Trinitrophenol	1	6.267	6.300	-0.033	68021	0.4000	0.3510	a
6 HMX	1	6.987	6.986	0.001	74484	0.4000	0.3907	
8 RDX	1	9.173	9.173	0.000	88545	0.4000	0.3624	
9 Nitrobenzene	1	12.107	12.106	0.001	166107	0.4016	0.3782	
$ 10 1,2-Dinitrobenzene	1	13.040	13.040	0.000	107232	0.4000	0.3802	M
11 3,5-Dinitroaniline	1	14.887	14.886	0.001	190015	0.4000	0.3861	M
12 1,3-Dinitrobenzene	1	15.553	15.553	0.000	258559	0.4008	0.3835	M
13 Nitroglycerin	2	15.853	15.853	0.000	509915	4.00	4.02	
14 o-Nitrotoluene	1	16.540	16.533	0.007	105493	0.4000	0.3865	M
15 p-Nitrotoluene	1	16.820	16.820	0.000	93773	0.4008	0.3893	M
16 4-Amino-2,6-dinitrotoluene	1	17.153	17.146	0.007	130436	0.4004	0.3778	M
17 m-Nitrotoluene	1	17.747	17.753	-0.006	115331	0.4004	0.3866	M
18 2-Amino-4,6-dinitrotoluene	1	18.040	18.046	-0.006	179358	0.4016	0.3855	M
19 1,3,5-Trinitrobenzene	1	18.887	18.886	0.001	178692	0.4008	0.3782	
20 2,6-Dinitrotoluene	1	19.807	19.806	0.001	118093	0.4016	0.3930	M
21 2,4-Dinitrotoluene	1	20.293	20.293	0.000	245009	0.4016	0.3828	M
22 Tetryl	1	23.553	23.553	0.000	139850	0.4008	0.3793	
23 2,4,6-Trinitrotoluene	1	24.647	24.653	-0.006	158091	0.4016	0.3858	
24 PETN	2	25.280	25.280	0.000	557734	4.00	4.10	M

QC Flag Legend

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

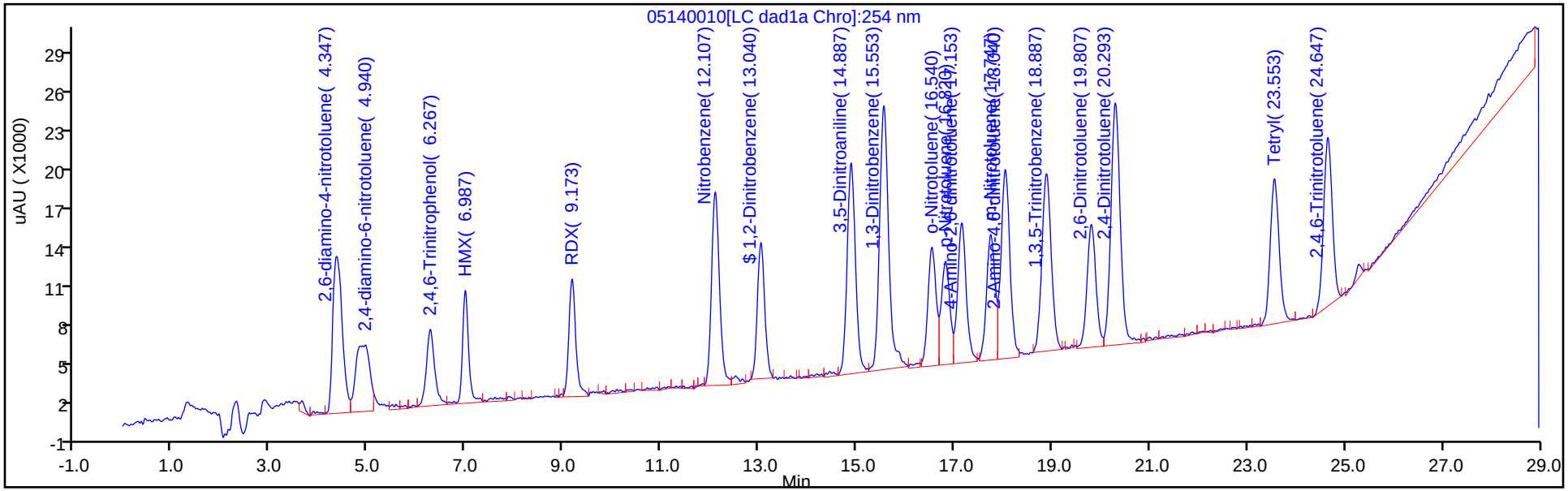
8330IntermStk_00064	Amount Added:	40.00	Units: uL
8330_ADDs_00026	Amount Added:	20.00	Units: uL

Report Date: 15-May-2020 12:00:56 Chrom Revision: 2.3 05-May-2020 17:48:18

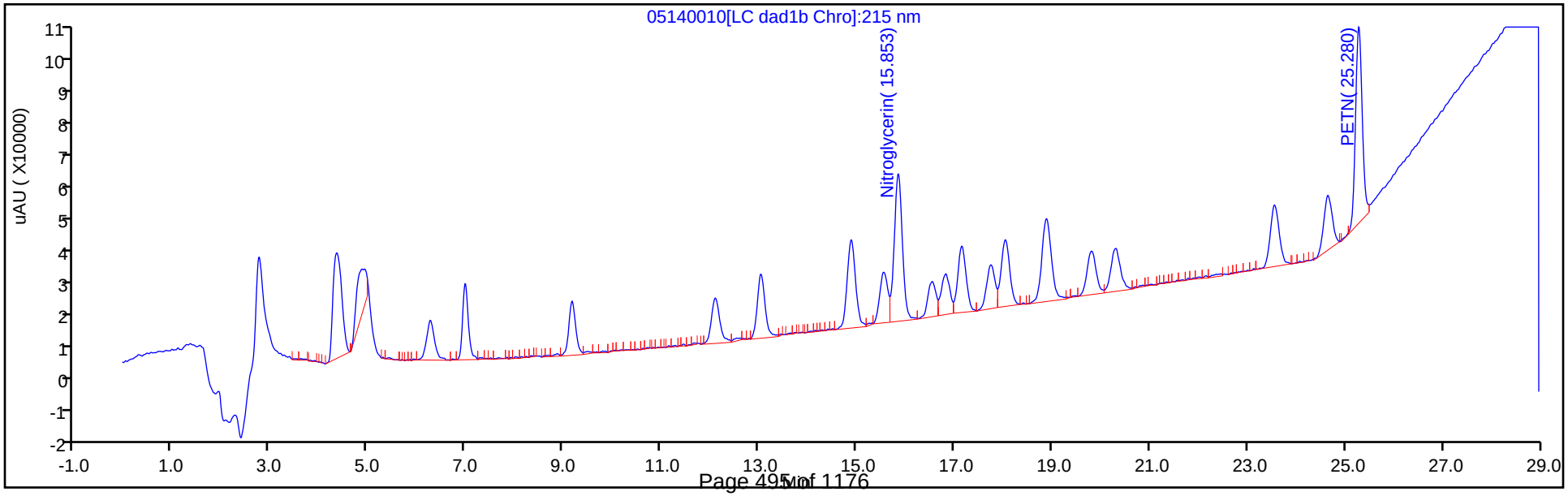
Eurofins TestAmerica, Denver

Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140010.d				
Injection Date:	14-May-2020 18:01:41	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	CB
Lims ID:	IC FULL 6			Worklist Smp#:	10
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	10
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		

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



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



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

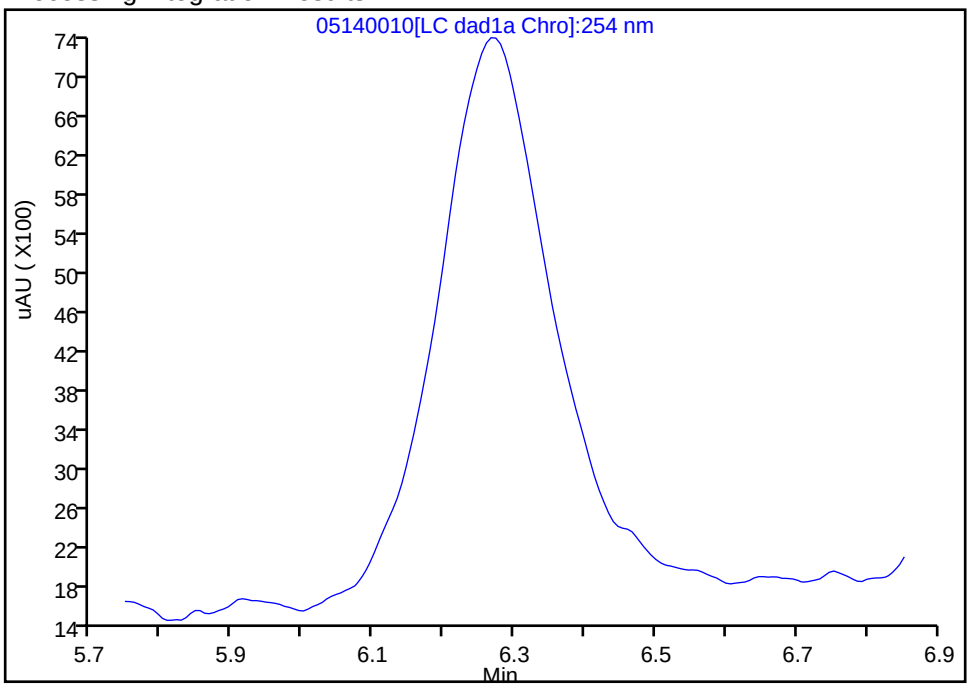
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140010.d				
Injection Date:	14-May-2020 18:01:41	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 6				
Client ID:					
Operator ID:	CB	ALS Bottle#:	10	Worklist Smp#:	10
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

5 2,4,6-Trinitrophenol, CAS: 88-89-1

Signal: 1

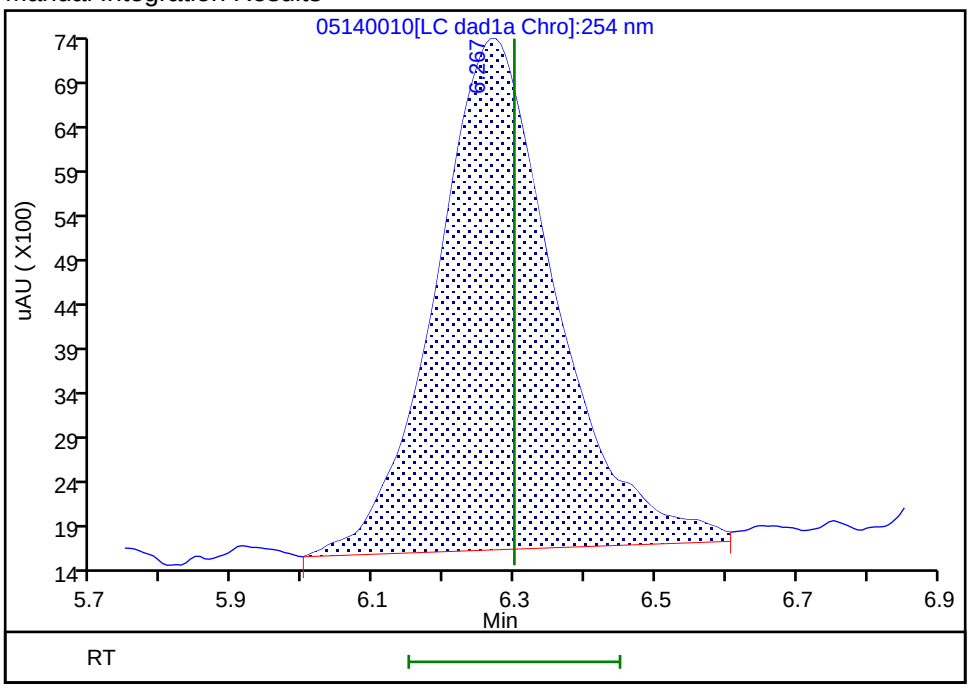
Not Detected
Expected RT: 6.30

Processing Integration Results



Manual Integration Results

RT: 6.27
Area: 68021
Amount: 0.350967
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:20:14
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

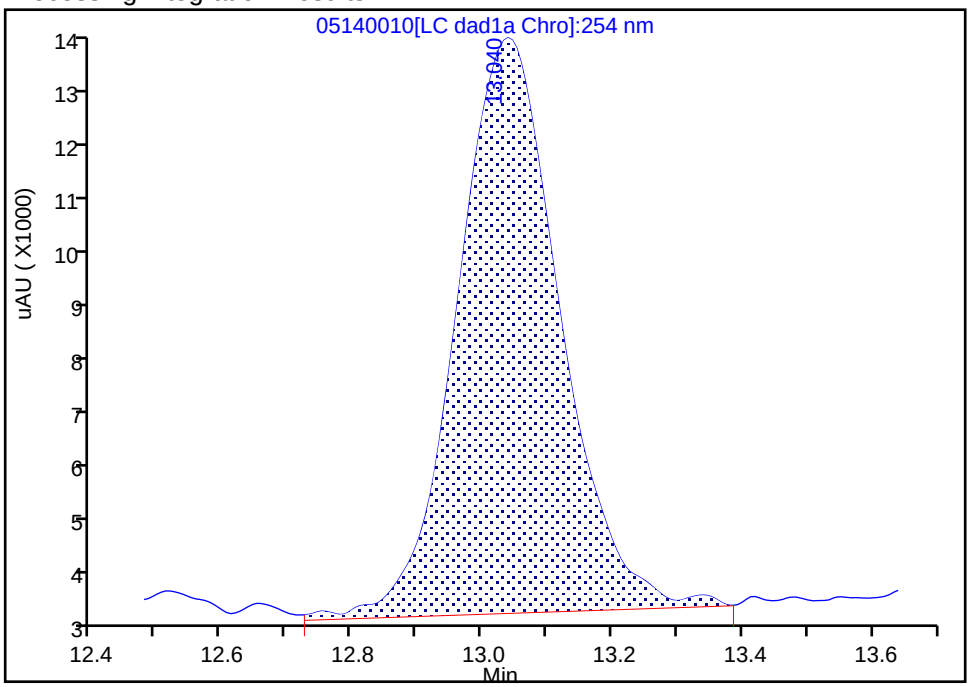
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140010.d				
Injection Date:	14-May-2020 18:01:41	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 6				
Client ID:					
Operator ID:	CB	ALS Bottle#:	10	Worklist Smp#:	10
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

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

Signal: 1

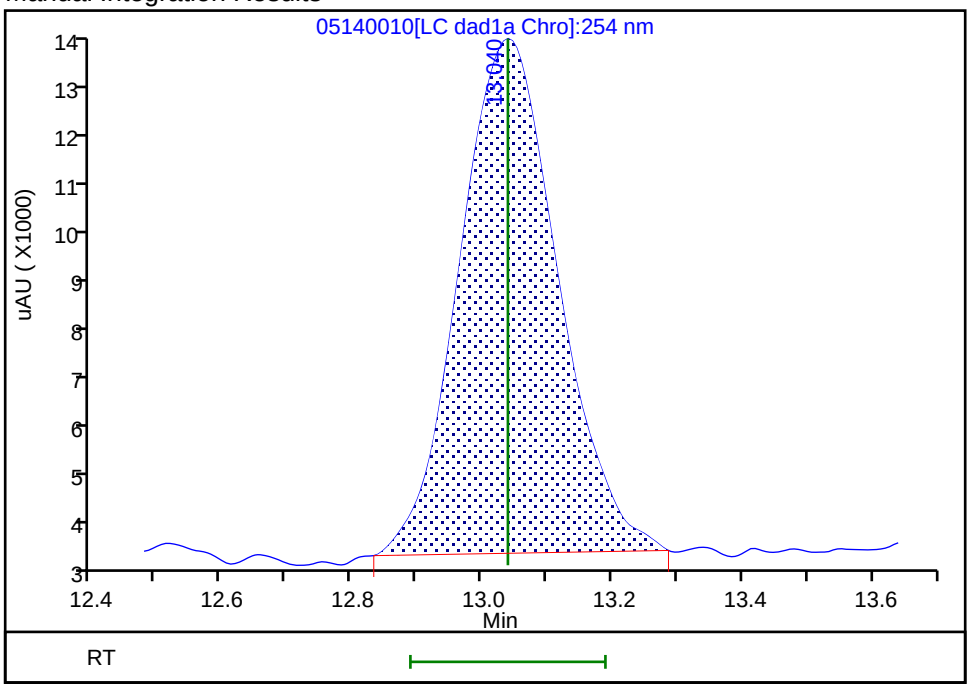
Processing Integration Results

RT: 13.04
Area: 114682
Amount: 0.364039
Amount Units: ug/ml



Manual Integration Results

RT: 13.04
Area: 107232
Amount: 0.380167
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:34:50

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

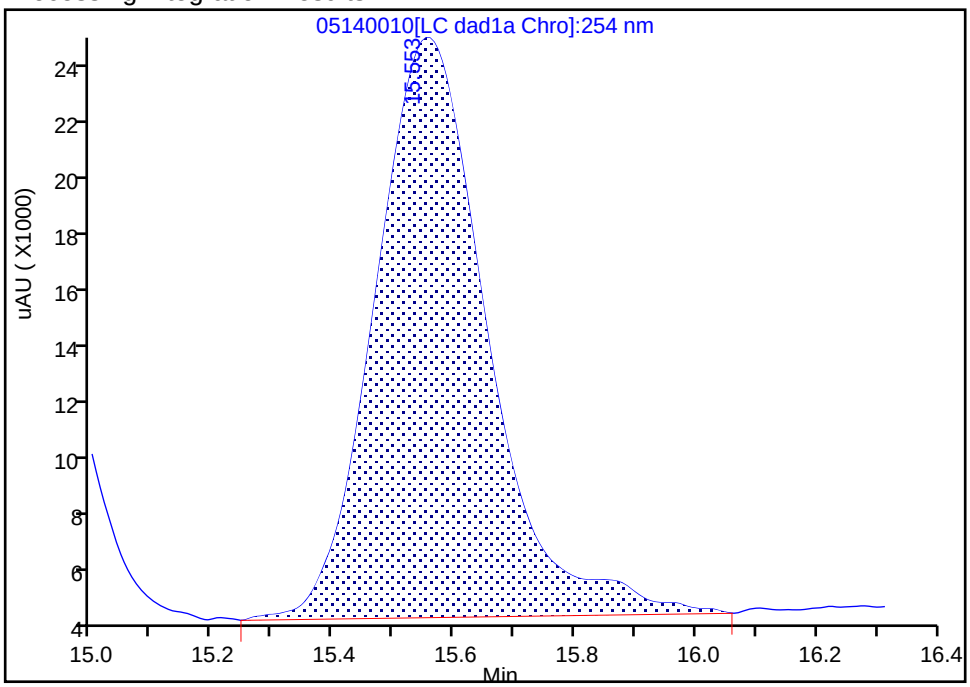
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140010.d				
Injection Date:	14-May-2020 18:01:41	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 6				
Client ID:					
Operator ID:	CB	ALS Bottle#:	10	Worklist Smp#:	10
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

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

Signal: 1

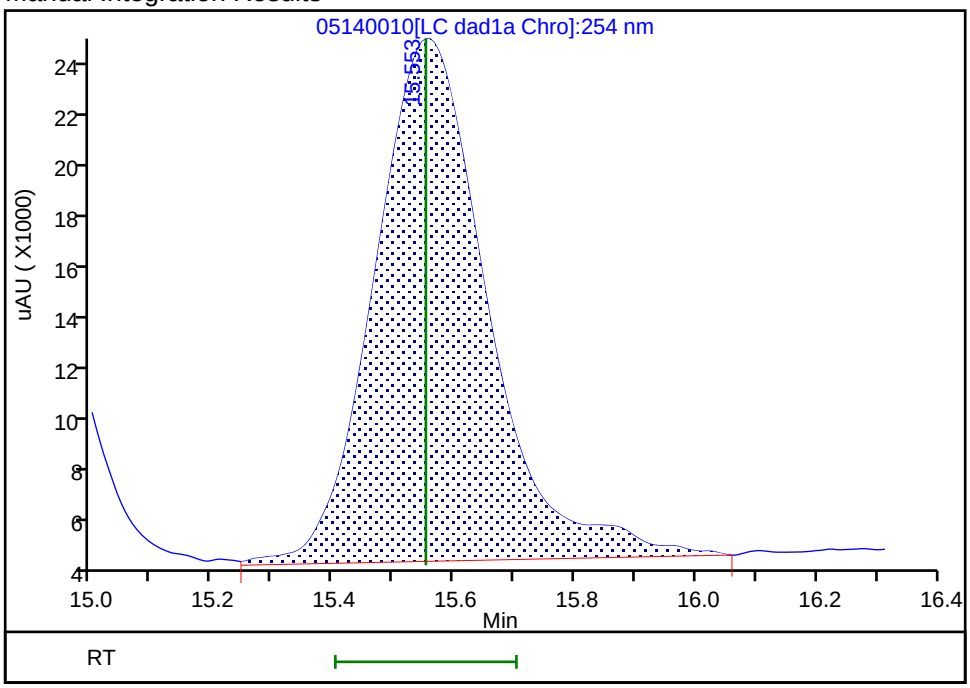
Processing Integration Results

RT: 15.55
Area: 255534
Amount: 0.374138
Amount Units: ug/ml



Manual Integration Results

RT: 15.55
Area: 258559
Amount: 0.383511
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:20:35
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

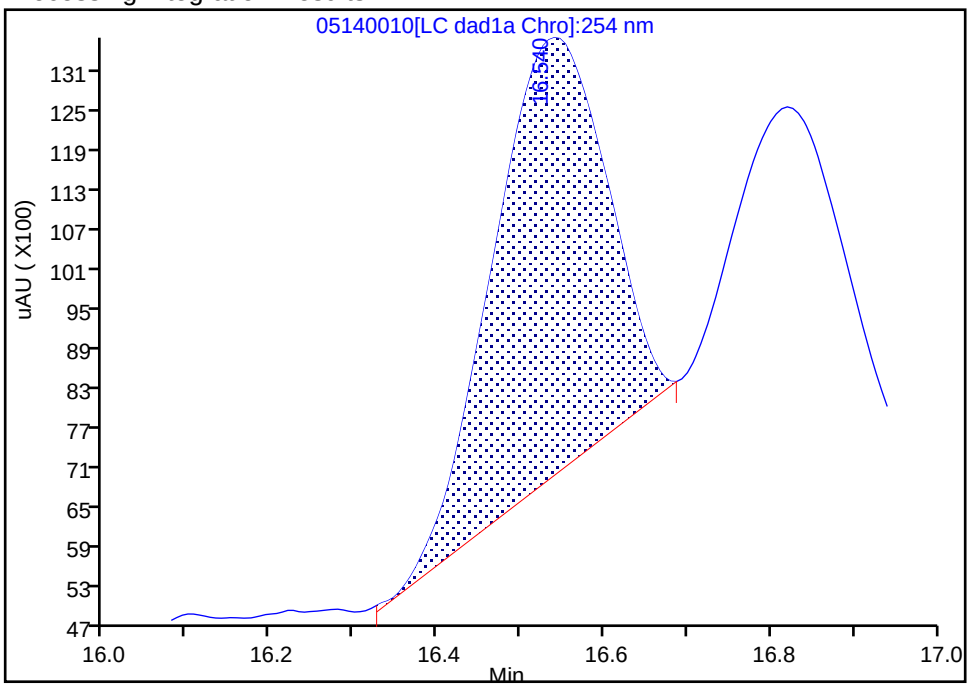
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140010.d				
Injection Date:	14-May-2020 18:01:41	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 6				
Client ID:					
Operator ID:	CB	ALS Bottle#:	10	Worklist Smp#:	10
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

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

Signal: 1

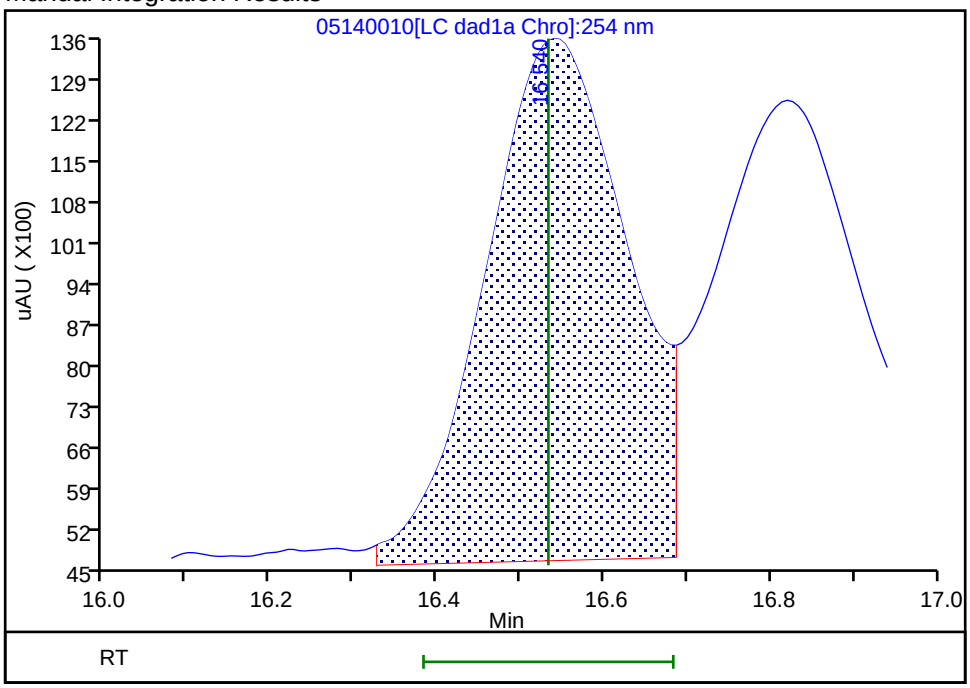
Processing Integration Results

RT: 16.54
Area: 63784
Amount: 0.238403
Amount Units: ug/ml



Manual Integration Results

RT: 16.54
Area: 105493
Amount: 0.386471
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:20:32
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

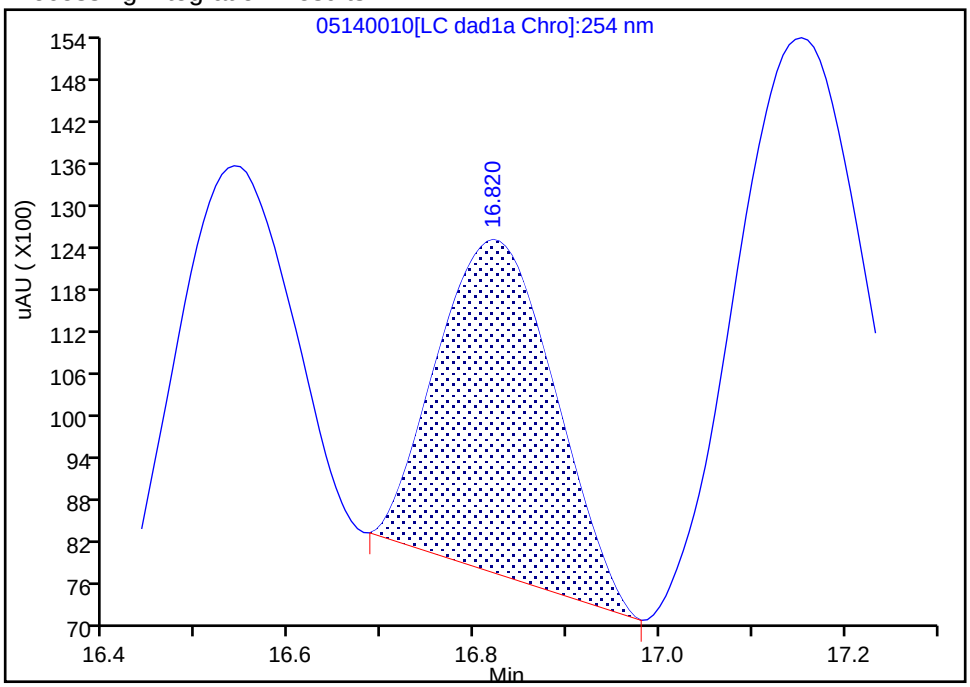
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140010.d				
Injection Date:	14-May-2020 18:01:41	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 6				
Client ID:					
Operator ID:	CB	ALS Bottle#:	10	Worklist Smp#:	10
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

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

Signal: 1

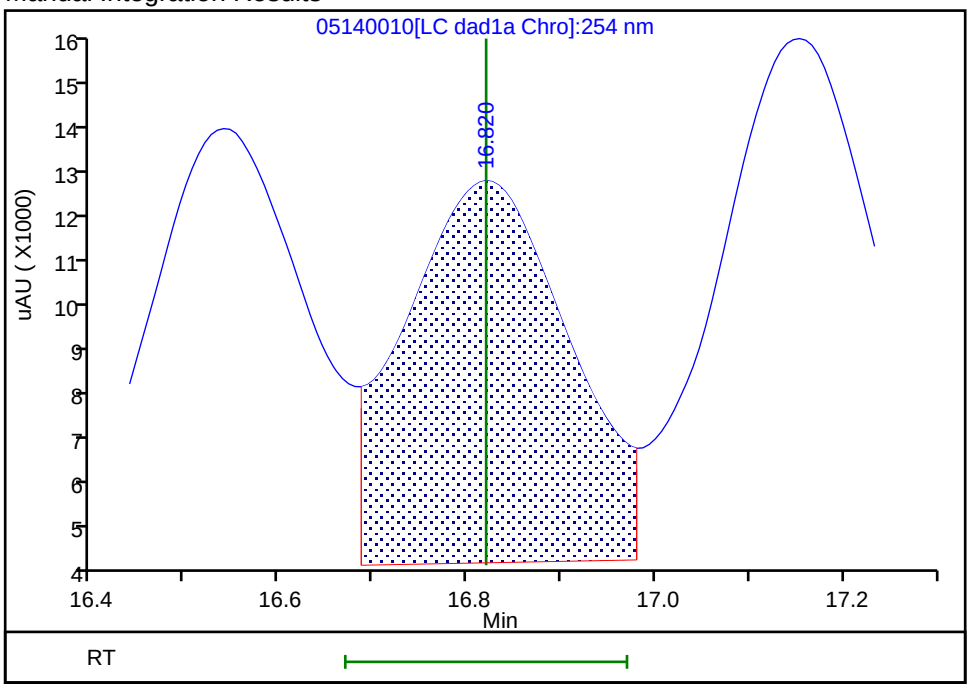
Processing Integration Results

RT: 16.82
Area: 42038
Amount: 0.176152
Amount Units: ug/ml



Manual Integration Results

RT: 16.82
Area: 93773
Amount: 0.389291
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:20:32
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

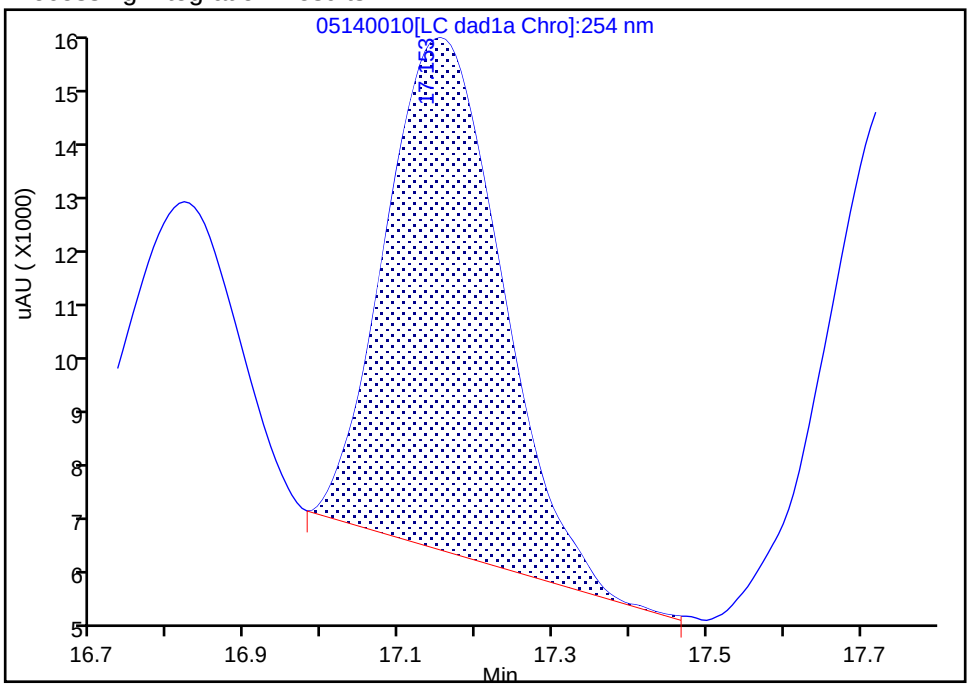
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140010.d				
Injection Date:	14-May-2020 18:01:41	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 6				
Client ID:					
Operator ID:	CB	ALS Bottle#:	10	Worklist Smp#:	10
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

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

Signal: 1

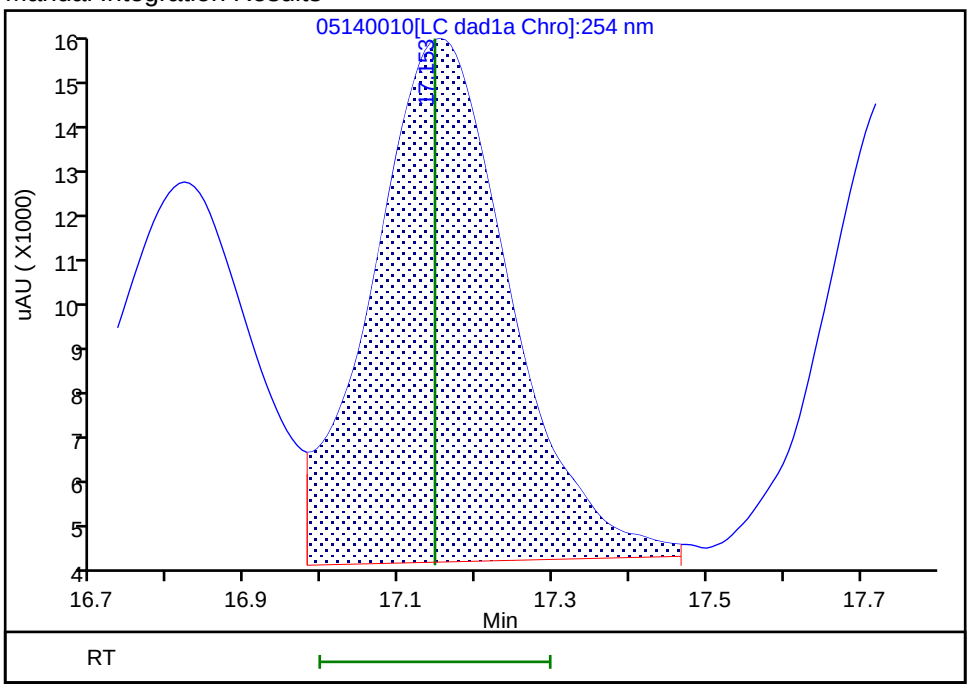
Processing Integration Results

RT: 17.15
Area: 95002
Amount: 0.278639
Amount Units: ug/ml



Manual Integration Results

RT: 17.15
Area: 130436
Amount: 0.377818
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:20:32
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

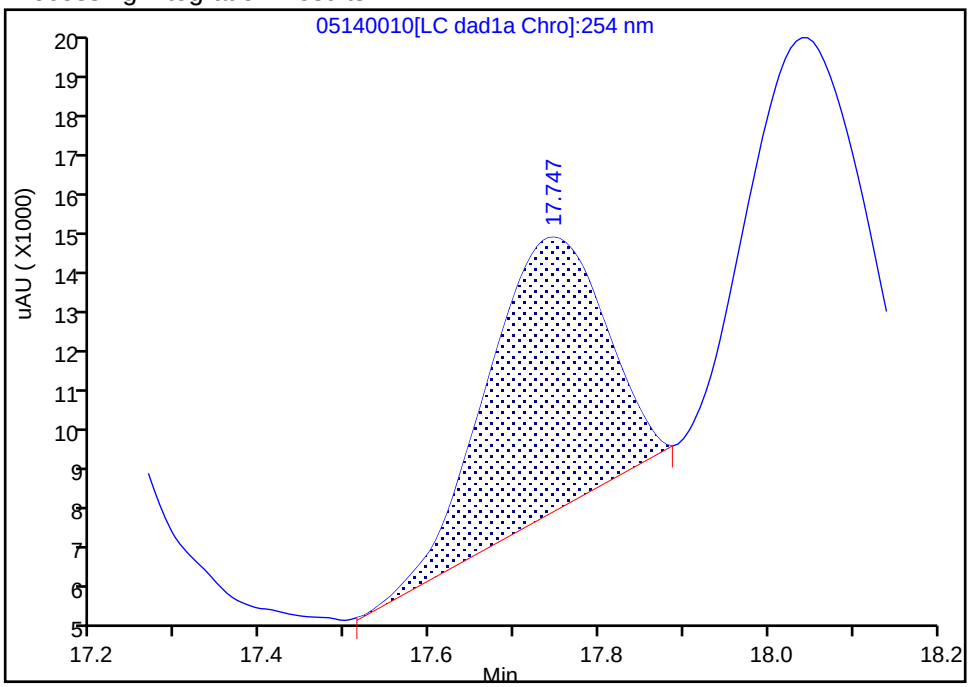
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140010.d				
Injection Date:	14-May-2020 18:01:41	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 6				
Client ID:					
Operator ID:	CB	ALS Bottle#:	10	Worklist Smp#:	10
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

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

Signal: 1

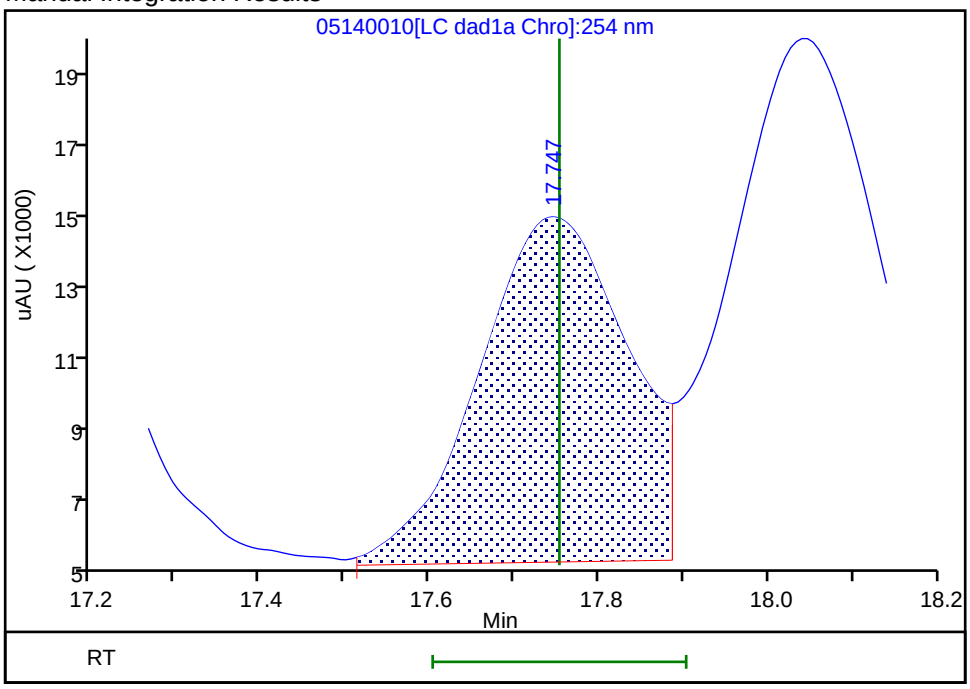
Processing Integration Results

RT: 17.75
Area: 65895
Amount: 0.232967
Amount Units: ug/ml



Manual Integration Results

RT: 17.75
Area: 115331
Amount: 0.386593
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:20:32
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

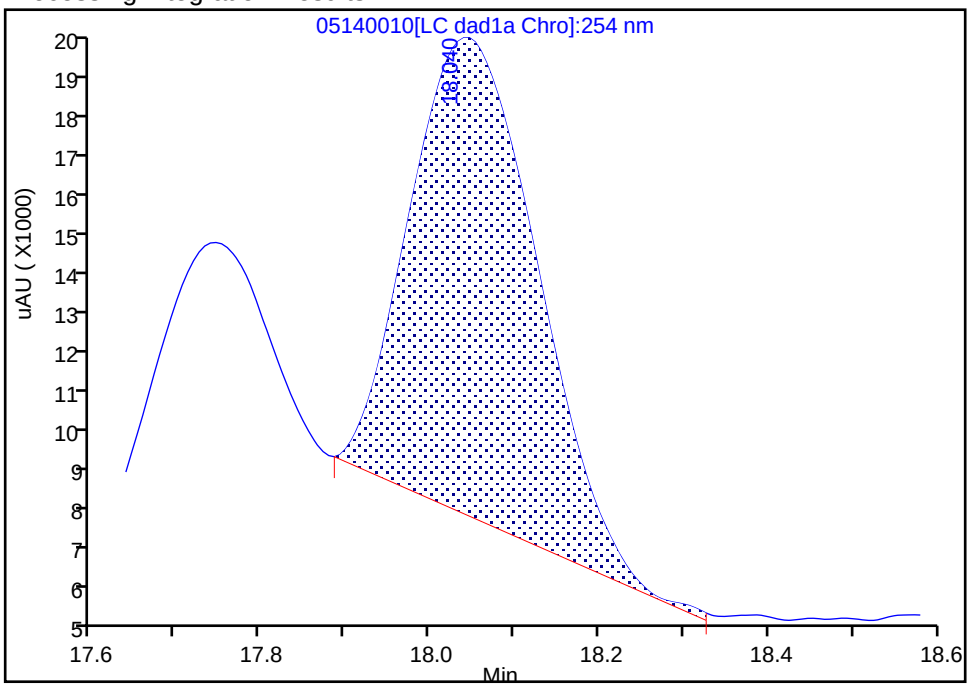
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140010.d				
Injection Date:	14-May-2020 18:01:41	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 6				
Client ID:					
Operator ID:	CB	ALS Bottle#:	10	Worklist Smp#:	10
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

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

Signal: 1

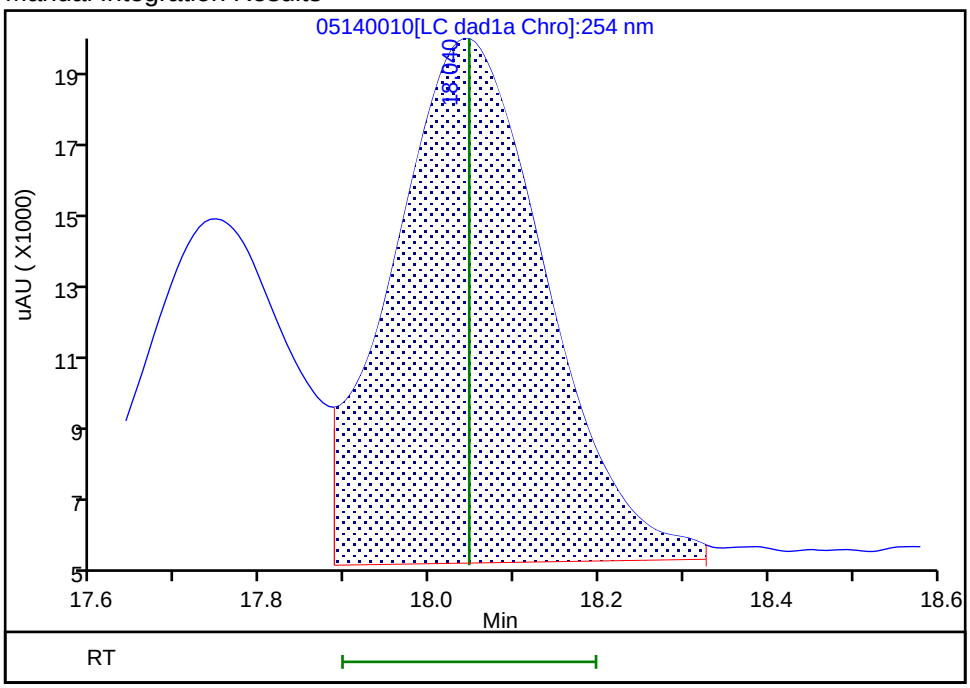
Processing Integration Results

RT: 18.04
Area: 120261
Amount: 0.277181
Amount Units: ug/ml



Manual Integration Results

RT: 18.04
Area: 179358
Amount: 0.385541
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:20:32
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

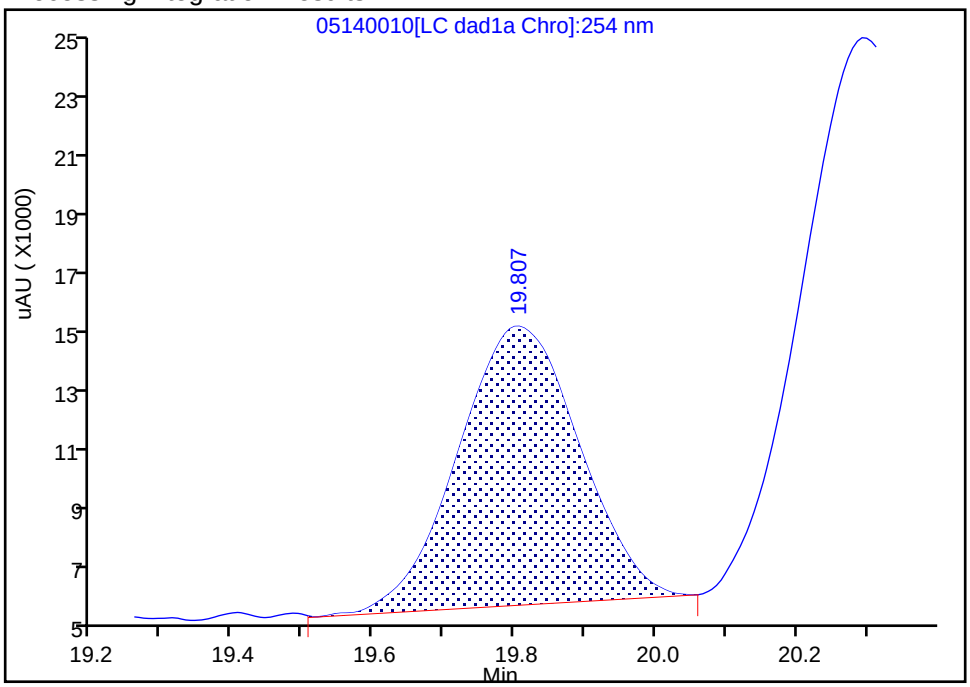
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140010.d				
Injection Date:	14-May-2020 18:01:41	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 6				
Client ID:					
Operator ID:	CB	ALS Bottle#:	10	Worklist Smp#:	10
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

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

Signal: 1

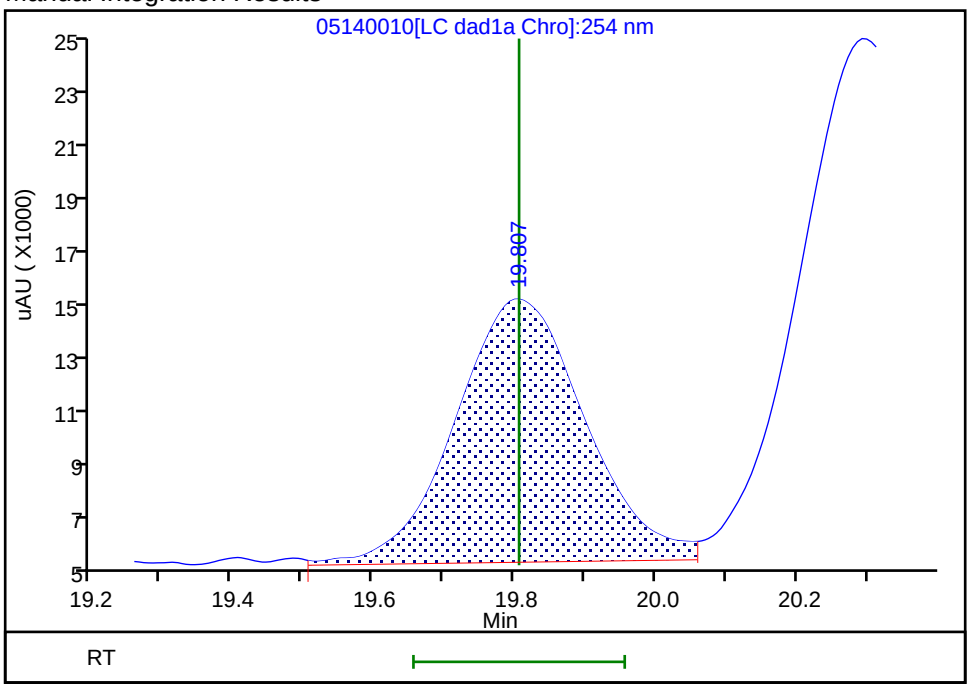
Processing Integration Results

RT: 19.81
Area: 105710
Amount: 0.311662
Amount Units: ug/ml



Manual Integration Results

RT: 19.81
Area: 118093
Amount: 0.392980
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:20:40
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

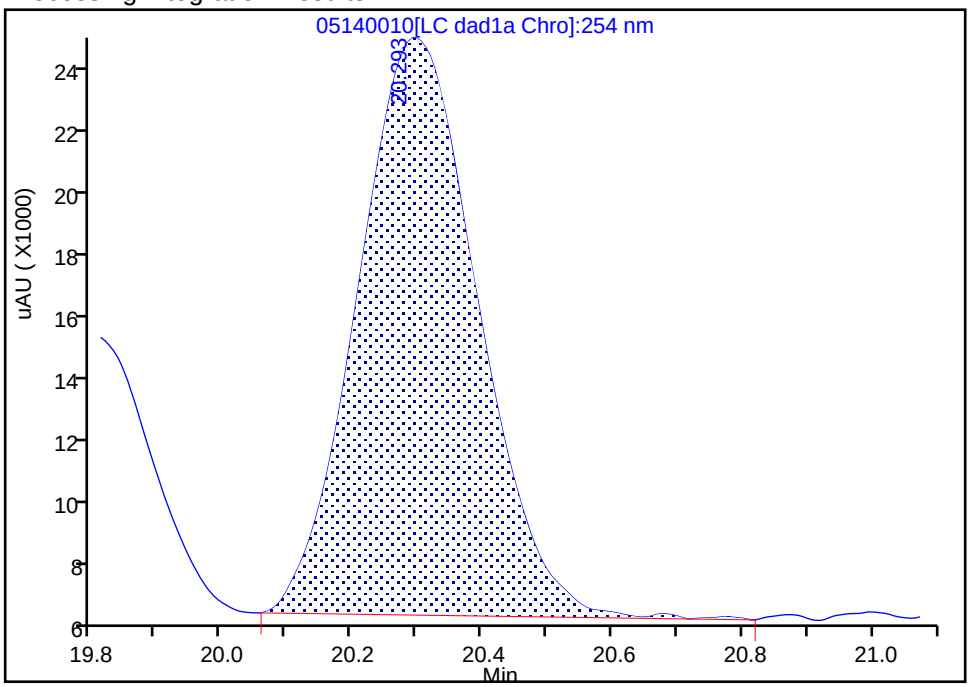
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140010.d				
Injection Date:	14-May-2020 18:01:41	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 6				
Client ID:					
Operator ID:	CB	ALS Bottle#:	10	Worklist Smp#:	10
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

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

Signal: 1

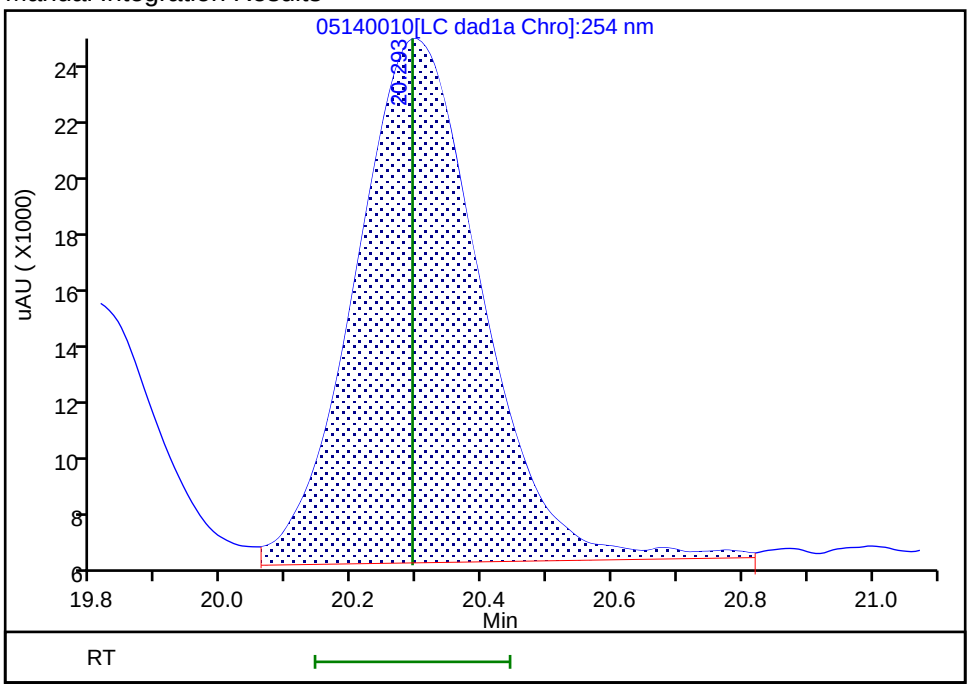
Processing Integration Results

RT: 20.29
Area: 226951
Amount: 0.348081
Amount Units: ug/ml



Manual Integration Results

RT: 20.29
Area: 245009
Amount: 0.382759
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:20:40
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

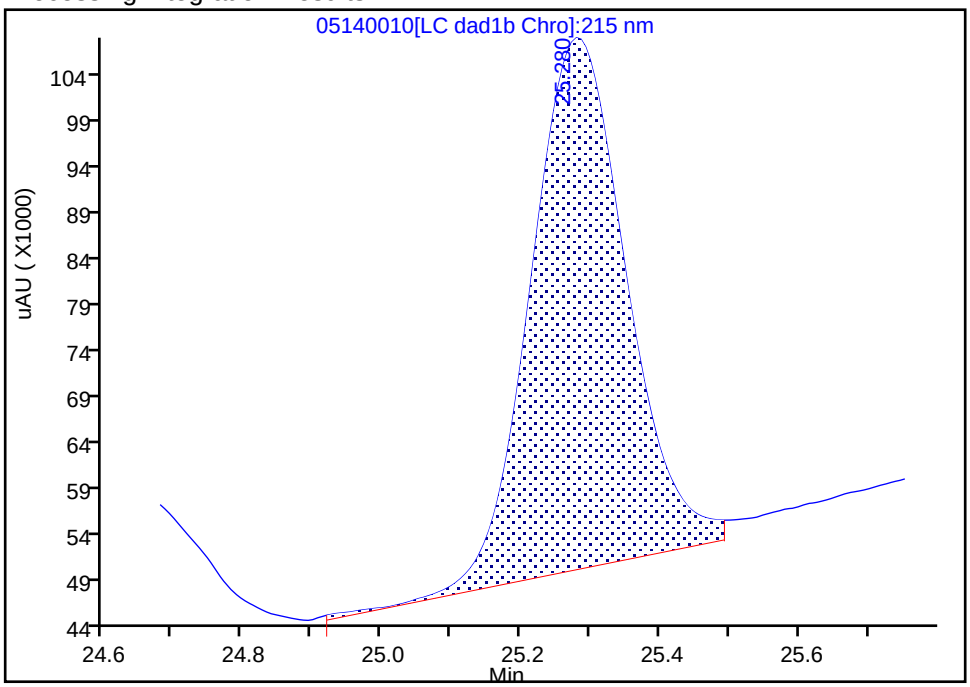
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140010.d				
Injection Date:	14-May-2020 18:01:41	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 6				
Client ID:					
Operator ID:	CB	ALS Bottle#:	10	Worklist Smp#:	10
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:		Detector	LC DAD1B, 215 nm		

24 PETN, CAS: 78-11-5

Signal: 1

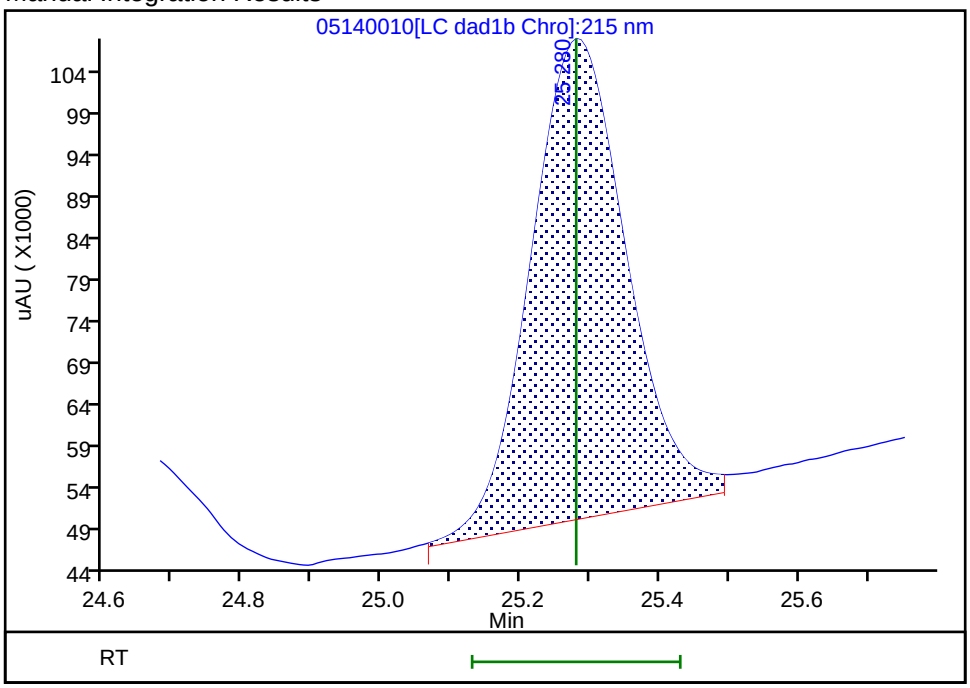
Processing Integration Results

RT: 25.28
Area: 559852
Amount: 4.200524
Amount Units: ug/ml



Manual Integration Results

RT: 25.28
Area: 557734
Amount: 4.102237
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:25:18

Audit Action: Split an Integrated Peak Audit Reason: Peak Tail

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140011.D
Lims ID: IC FULL 5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 14-May-2020 18:36:40 ALS Bottle#: 11 Worklist Smp#: 11
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC FULL 5
Misc. Info.: 280-0091518-011
Operator ID: CB Instrument ID: CHHPLC_G2_LUNA
Sublist: chrom-G2_8330_Luna*sub6

Method: \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\G2_8330_Luna.m
Limit Group: GCSV - 8330
Last Update: 15-May-2020 12:00:56 Calib Date: 15-May-2020 02:11:20
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140024.D

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

First Level Reviewer: zhangji Date: 15-May-2020 11:20:54

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 2,6-diamino-4-nitrotoluene	1	4.366	4.366	0.000	106754	0.2500	0.2487	
2 2,4-diamino-6-nitrotoluene	1	4.880	4.880	0.000	74938	0.2500	0.2919	
5 2,4,6-Trinitrophenol	1	6.300	6.300	0.000	48614	0.2500	0.2508	a
6 HMX	1	6.986	6.986	0.000	54065	0.2500	0.2754	
8 RDX	1	9.173	9.173	0.000	62626	0.2500	0.2563	
9 Nitrobenzene	1	12.106	12.106	0.000	106064	0.2510	0.2415	
$ 10 1,2-Dinitrobenzene	1	13.040	13.040	0.000	62375	0.2500	0.2184	M
11 3,5-Dinitroaniline	1	14.886	14.886	0.000	130301	0.2500	0.2629	
12 1,3-Dinitrobenzene	1	15.553	15.553	0.000	172289	0.2505	0.2556	
13 Nitroglycerin	2	15.853	15.853	0.000	330378	2.50	2.61	M
14 o-Nitrotoluene	1	16.533	16.533	0.000	63146	0.2500	0.2313	
15 p-Nitrotoluene	1	16.820	16.820	0.000	59605	0.2505	0.2474	
16 4-Amino-2,6-dinitrotoluene	1	17.146	17.146	0.000	79168	0.2503	0.2293	
17 m-Nitrotoluene	1	17.753	17.753	0.000	71162	0.2503	0.2385	
18 2-Amino-4,6-dinitrotoluene	1	18.046	18.046	0.000	112860	0.2510	0.2426	
19 1,3,5-Trinitrobenzene	1	18.886	18.886	0.000	118709	0.2505	0.2513	
20 2,6-Dinitrotoluene	1	19.806	19.806	0.000	74317	0.2510	0.2416	
21 2,4-Dinitrotoluene	1	20.293	20.293	0.000	153249	0.2510	0.2394	
22 Tetryl	1	23.553	23.553	0.000	92236	0.2505	0.2502	
23 2,4,6-Trinitrotoluene	1	24.653	24.653	0.000	100168	0.2510	0.2416	
24 PETN	2	25.280	25.280	0.000	338241	2.50	2.40	M

QC Flag Legend

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

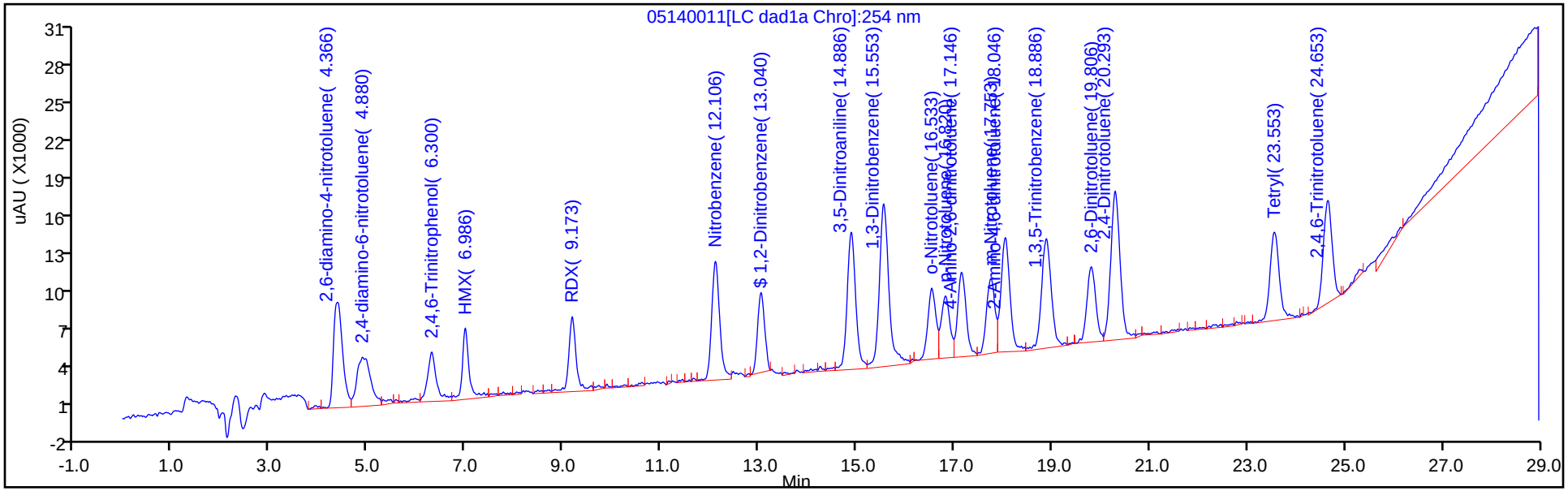
8330IntermStk_00064	Amount Added:	25.00	Units: uL
8330_ADDs_00026	Amount Added:	12.50	Units: uL

Report Date: 15-May-2020 12:00:57 Chrom Revision: 2.3 05-May-2020 17:48:18

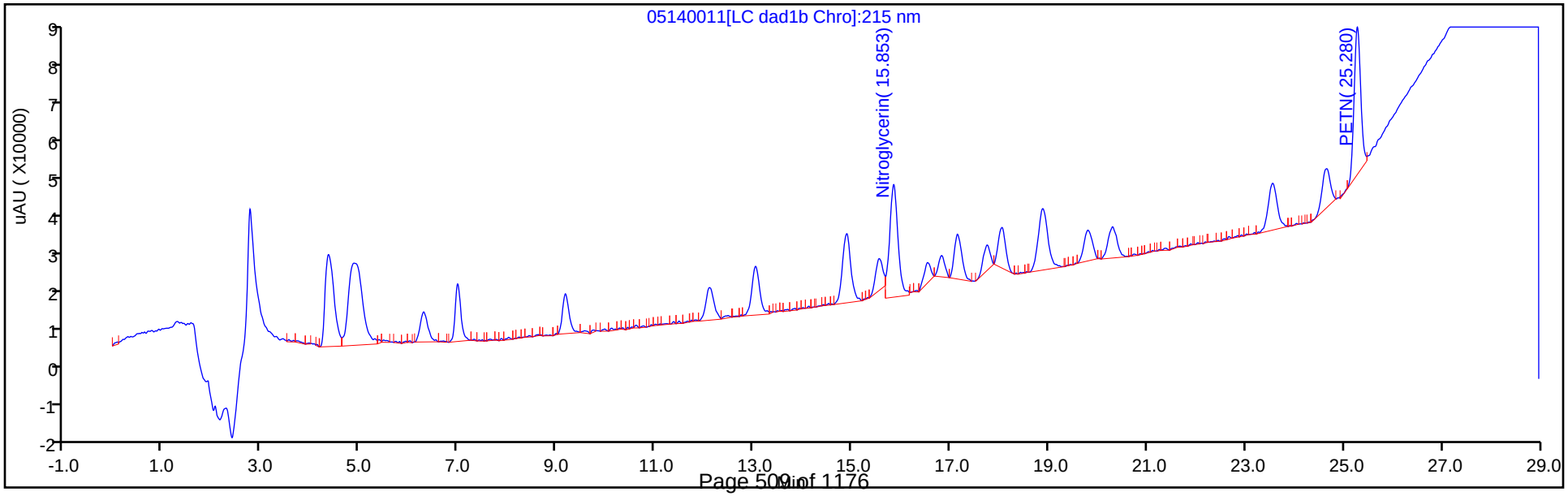
Eurofins TestAmerica, Denver

Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140011.d				
Injection Date:	14-May-2020 18:36:40	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	CB
Lims ID:	IC FULL 5			Worklist Smp#:	11
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	11
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		

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



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



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

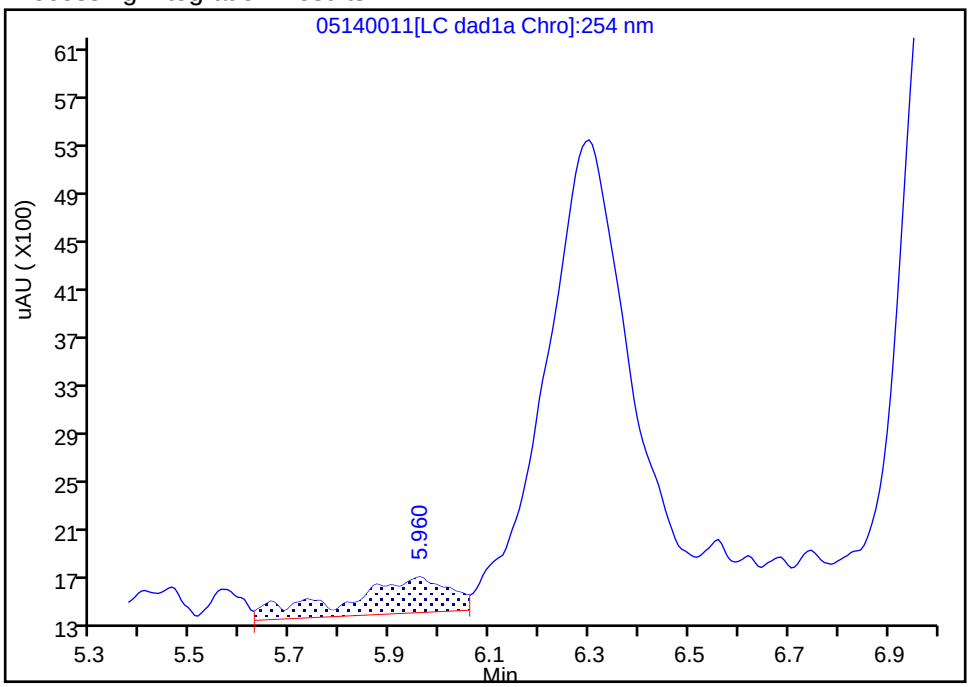
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140011.d				
Injection Date:	14-May-2020 18:36:40	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 5				
Client ID:					
Operator ID:	CB	ALS Bottle#:	11	Worklist Smp#:	11
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

5 2,4,6-Trinitrophenol, CAS: 88-89-1

Signal: 1

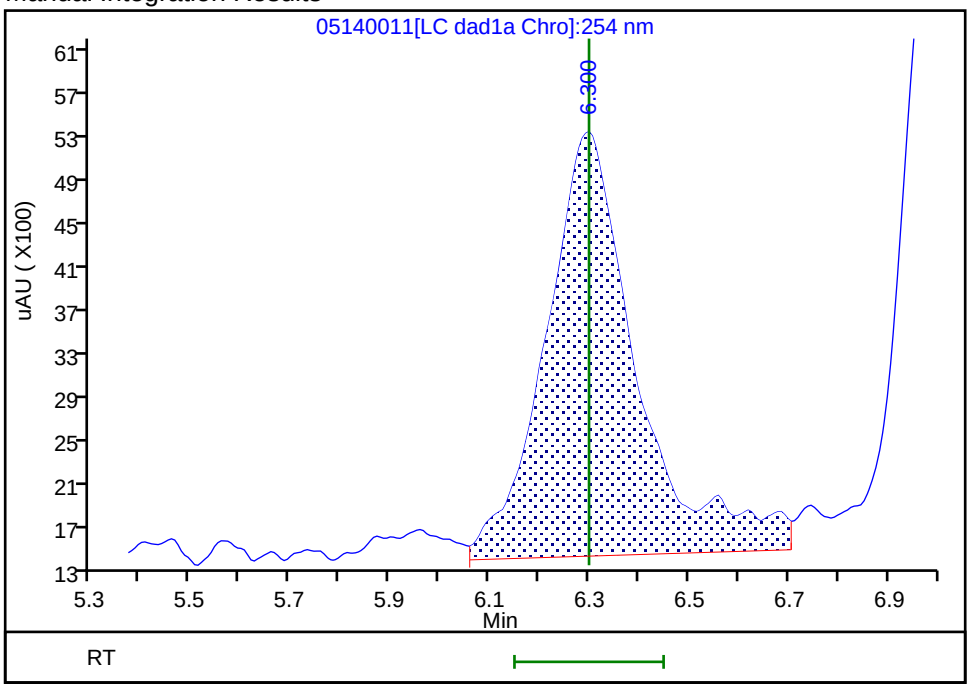
Processing Integration Results

RT: 5.96
Area: 4251
Amount: 0.036696
Amount Units: ug/ml



Manual Integration Results

RT: 6.30
Area: 48614
Amount: 0.250833
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:20:52
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

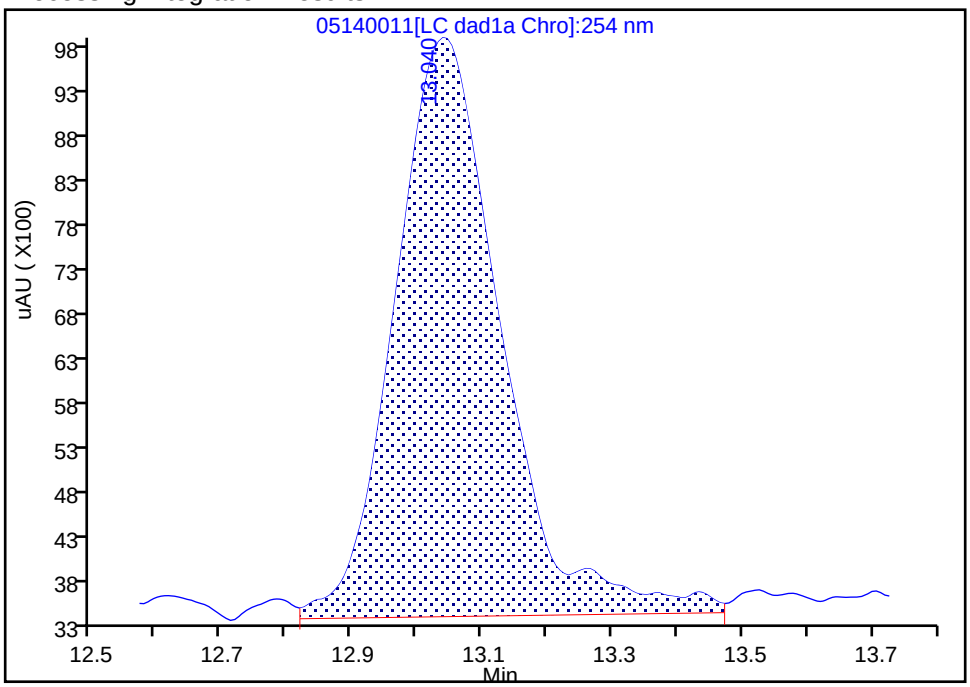
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140011.d				
Injection Date:	14-May-2020 18:36:40	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 5				
Client ID:					
Operator ID:	CB	ALS Bottle#:	11	Worklist Smp#:	11
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

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

Signal: 1

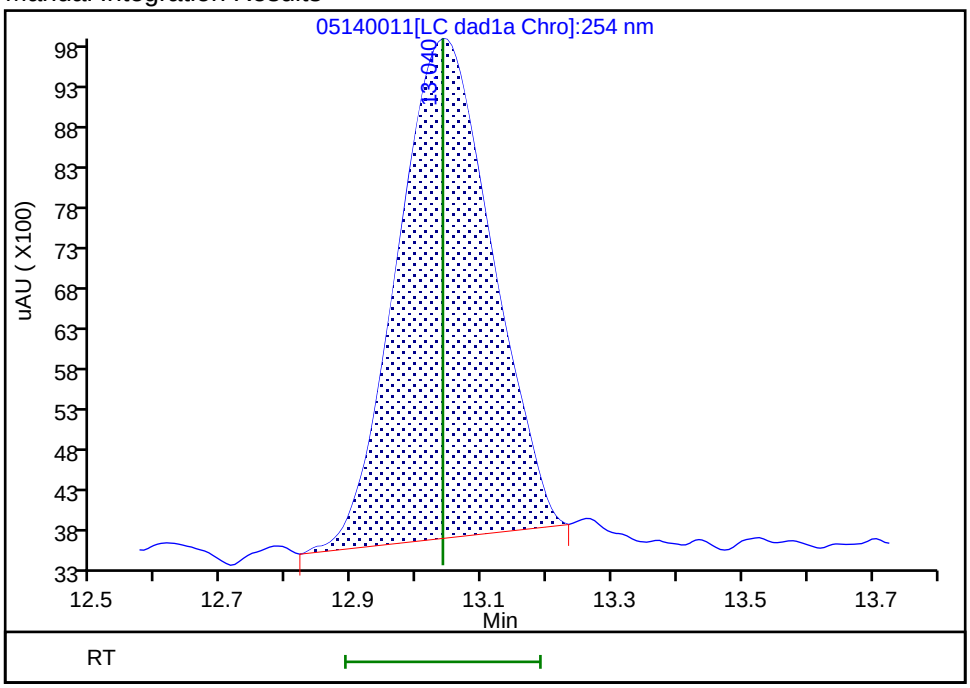
Processing Integration Results

RT: 13.04
Area: 73345
Amount: 0.234804
Amount Units: ug/ml



Manual Integration Results

RT: 13.04
Area: 62375
Amount: 0.218362
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:35:01

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

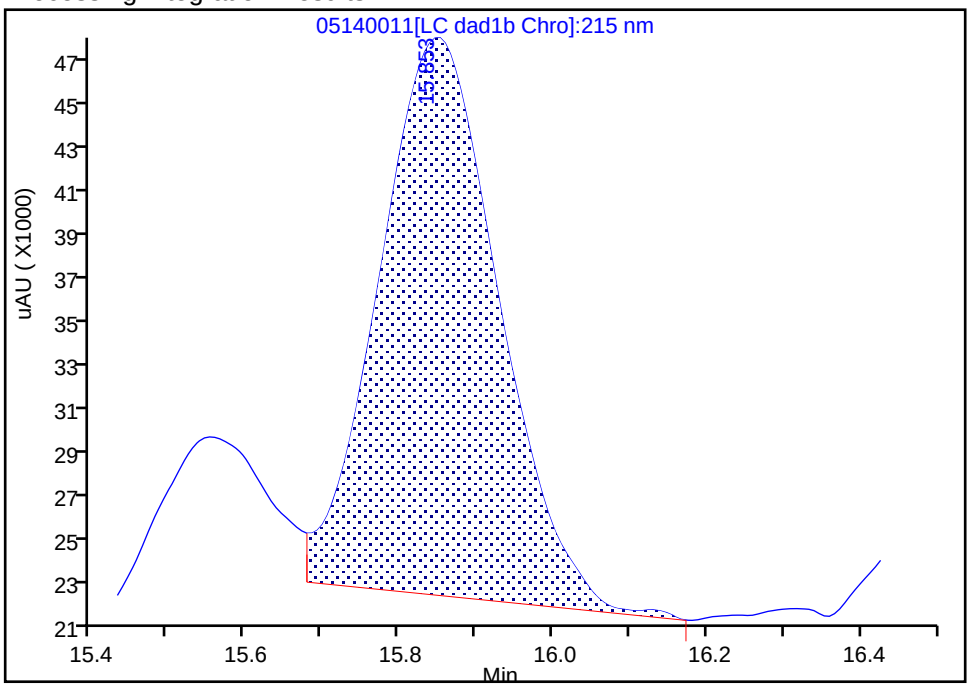
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140011.d				
Injection Date:	14-May-2020 18:36:40	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 5				
Client ID:					
Operator ID:	CB	ALS Bottle#:	11	Worklist Smp#:	11
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:		Detector	LC DAD1B, 215 nm		

13 Nitroglycerin, CAS: 55-63-0

Signal: 1

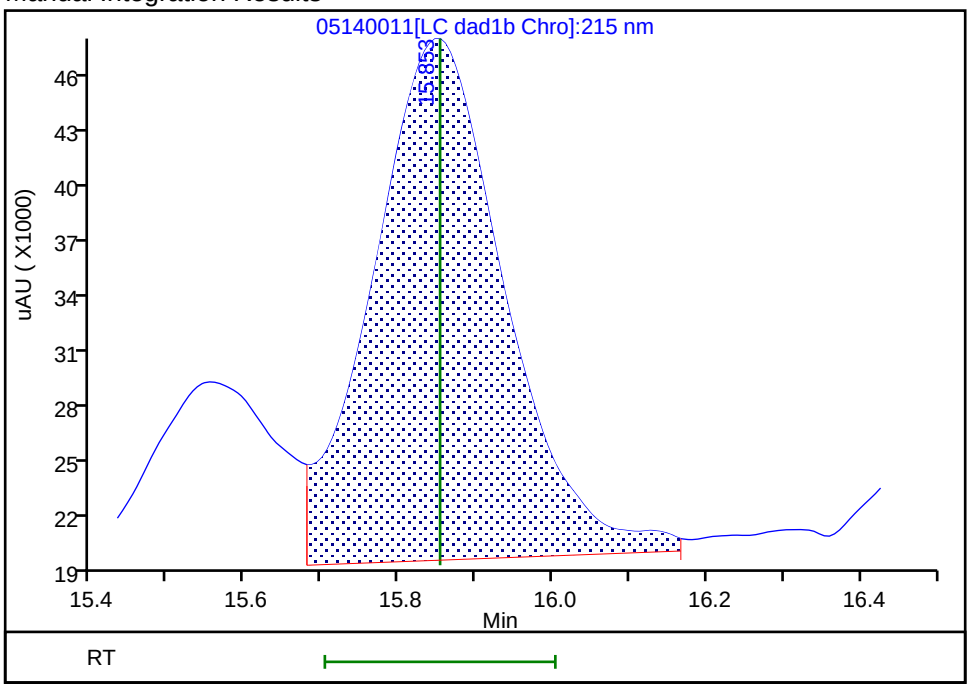
Processing Integration Results

RT: 15.85
Area: 276053
Amount: 2.464482
Amount Units: ug/ml



Manual Integration Results

RT: 15.85
Area: 330378
Amount: 2.605436
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:32:11

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

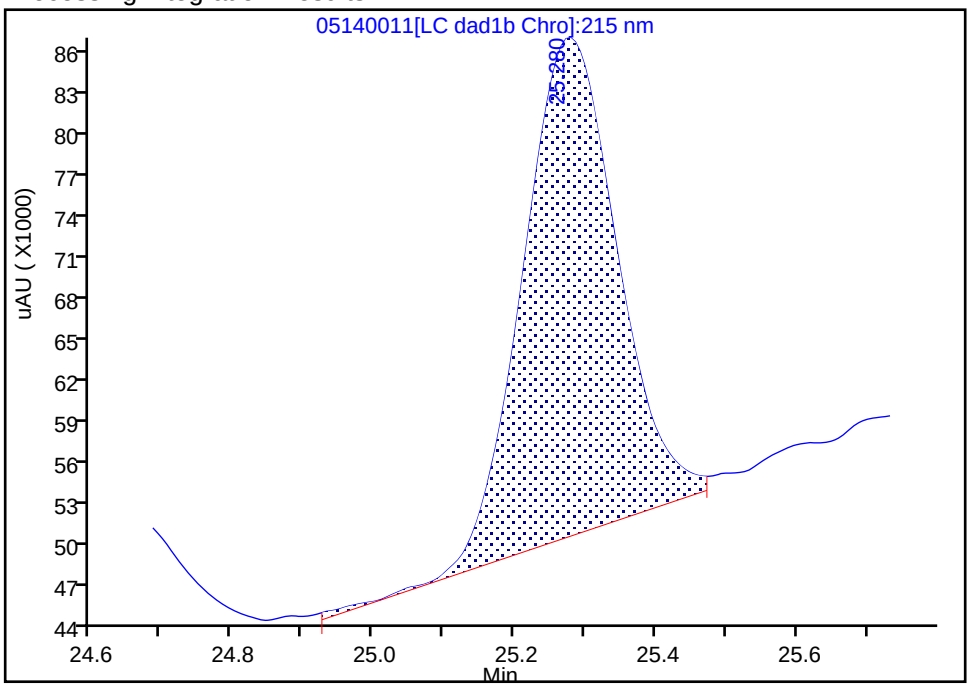
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140011.d				
Injection Date:	14-May-2020 18:36:40	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 5				
Client ID:					
Operator ID:	CB	ALS Bottle#:	11	Worklist Smp#:	11
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:		Detector	LC DAD1B, 215 nm		

24 PETN, CAS: 78-11-5

Signal: 1

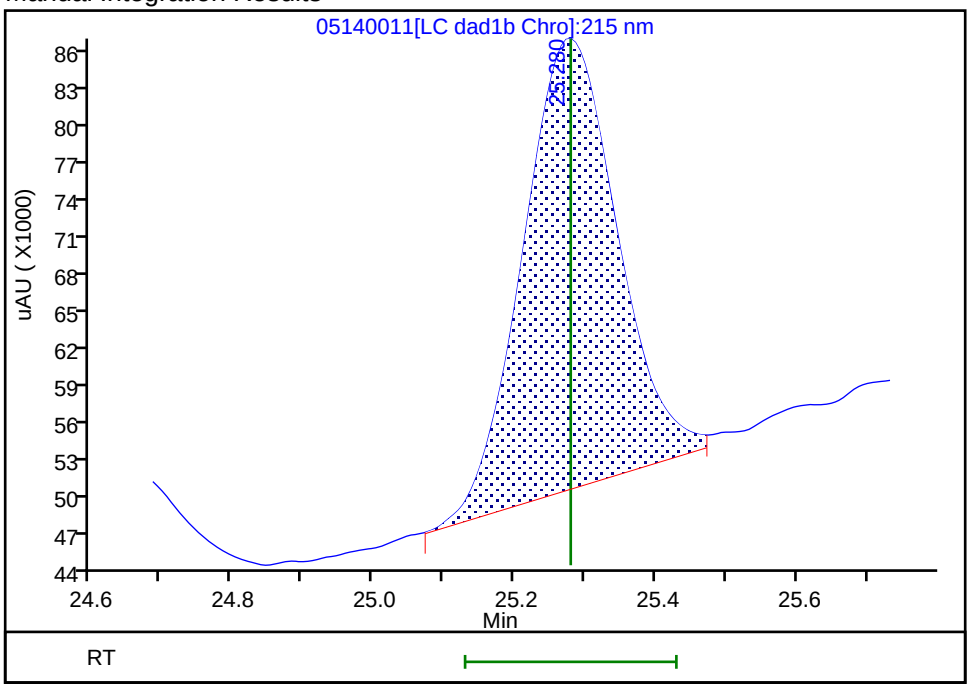
Processing Integration Results

RT: 25.28
Area: 339815
Amount: 2.534573
Amount Units: ug/ml



Manual Integration Results

RT: 25.28
Area: 338241
Amount: 2.404524
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:25:08

Audit Action: Split an Integrated Peak Audit Reason: Peak Tail

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140012.D
Lims ID: IC FULL 4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 14-May-2020 19:11:37 ALS Bottle#: 12 Worklist Smp#: 12
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC FULL 4
Misc. Info.: 280-0091518-012
Operator ID: CB Instrument ID: CHHPLC_G2_LUNA
Sublist: chrom-G2_8330_Luna*sub6

Method: \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\G2_8330_Luna.m
Limit Group: GCSV - 8330
Last Update: 15-May-2020 12:00:57 Calib Date: 15-May-2020 02:11:20
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140024.D

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

First Level Reviewer: zhangji Date: 15-May-2020 11:21:52

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 2,6-diamino-4-nitrotoluene	1	4.361	4.366	-0.005	44739	0.1000	0.1042	
2 2,4-diamino-6-nitrotoluene	1	4.941	4.880	0.061	33889	0.1000	0.1193	
5 2,4,6-Trinitrophenol	1	6.308	6.300	0.008	23170	0.1000	0.1195	a
6 HMX	1	6.994	6.986	0.008	24294	0.1000	0.1072	
8 RDX	1	9.181	9.173	0.008	27233	0.1000	0.1114	
9 Nitrobenzene	1	12.114	12.106	0.008	42679	0.1004	0.0972	
$ 10 1,2-Dinitrobenzene	1	13.048	13.040	0.008	30683	0.1000	0.1040	
11 3,5-Dinitroaniline	1	14.901	14.886	0.015	51716	0.1000	0.1009	M
12 1,3-Dinitrobenzene	1	15.554	15.553	0.001	69012	0.1002	0.1024	M
13 Nitroglycerin	2	15.848	15.853	-0.005	141489	1.00	1.12	M
14 o-Nitrotoluene	1	16.534	16.533	0.001	29062	0.1000	0.1065	M
15 p-Nitrotoluene	1	16.828	16.820	0.008	25956	0.1002	0.1078	M
16 4-Amino-2,6-dinitrotoluene	1	17.148	17.146	0.002	32448	0.1001	0.0940	M
17 m-Nitrotoluene	1	17.741	17.753	-0.012	30586	0.1001	0.1025	M
18 2-Amino-4,6-dinitrotoluene	1	18.054	18.046	0.008	47526	0.1004	0.1022	M
19 1,3,5-Trinitrobenzene	1	18.881	18.886	-0.005	51028	0.1002	0.1080	M
20 2,6-Dinitrotoluene	1	19.794	19.806	-0.012	34659	0.1004	0.1045	M
21 2,4-Dinitrotoluene	1	20.288	20.293	-0.005	67500	0.1004	0.1055	M
22 Tetryl	1	23.548	23.553	-0.005	38547	0.1002	0.1046	
23 2,4,6-Trinitrotoluene	1	24.654	24.653	0.001	43208	0.1004	0.0997	
24 PETN	2	25.281	25.280	0.001	132172	1.00	0.8106	M

QC Flag Legend

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

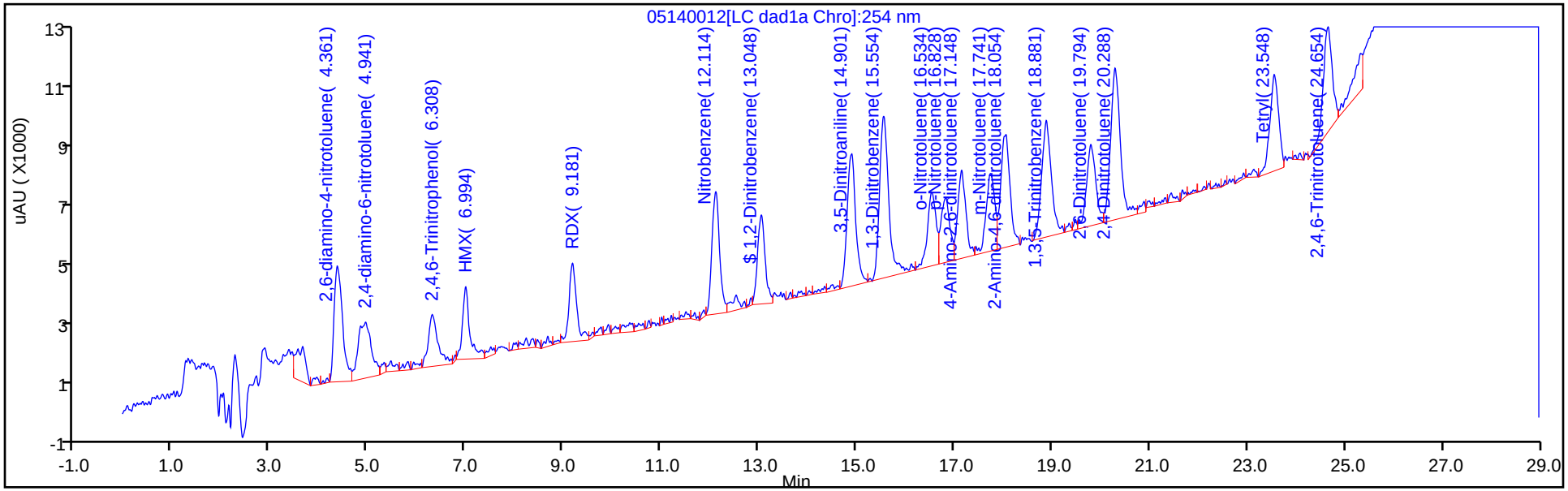
8330IntermStk_00064	Amount Added: 10.00	Units: uL
8330_ADDs_00026	Amount Added: 5.00	Units: uL

Report Date: 15-May-2020 12:00:57 Chrom Revision: 2.3 05-May-2020 17:48:18

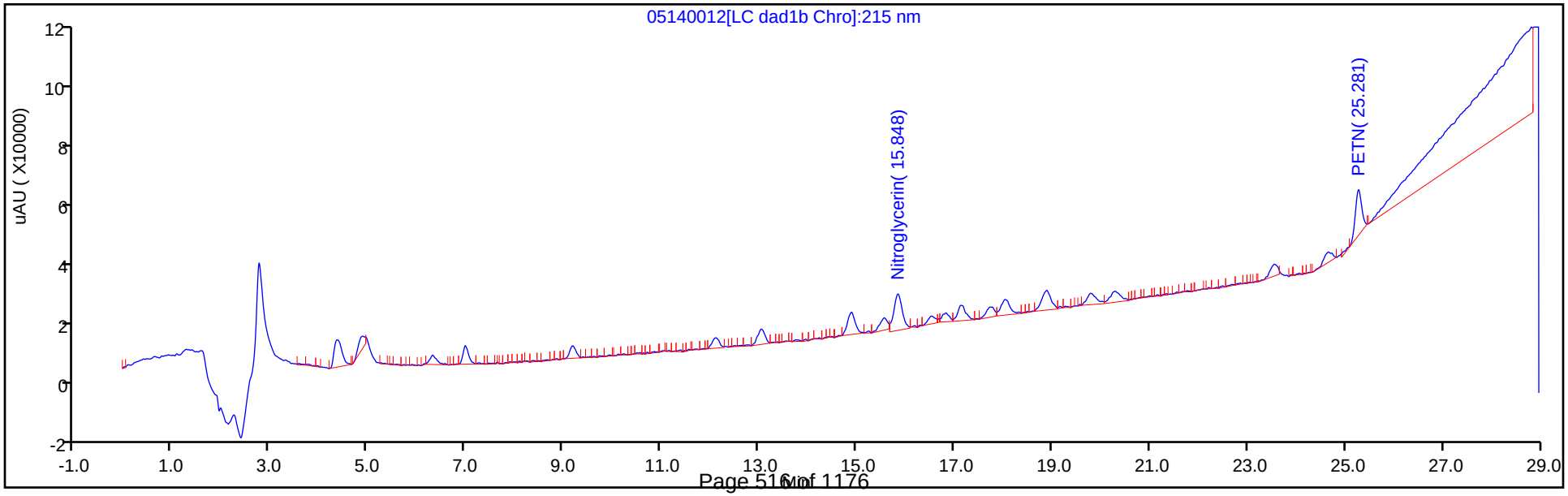
Eurofins TestAmerica, Denver

Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140012.d				
Injection Date:	14-May-2020 19:11:37	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	CB
Lims ID:	IC FULL 4			Worklist Smp#:	12
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	12
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		

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



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



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

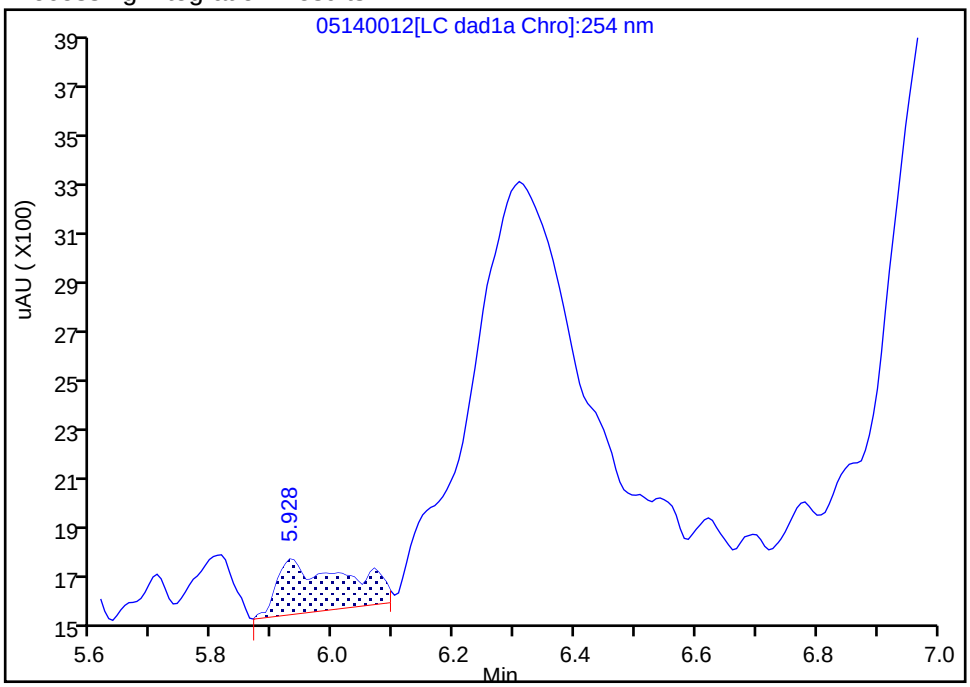
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140012.d				
Injection Date:	14-May-2020 19:11:37	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 4				
Client ID:					
Operator ID:	CB	ALS Bottle#:	12	Worklist Smp#:	12
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

5 2,4,6-Trinitrophenol, CAS: 88-89-1

Signal: 1

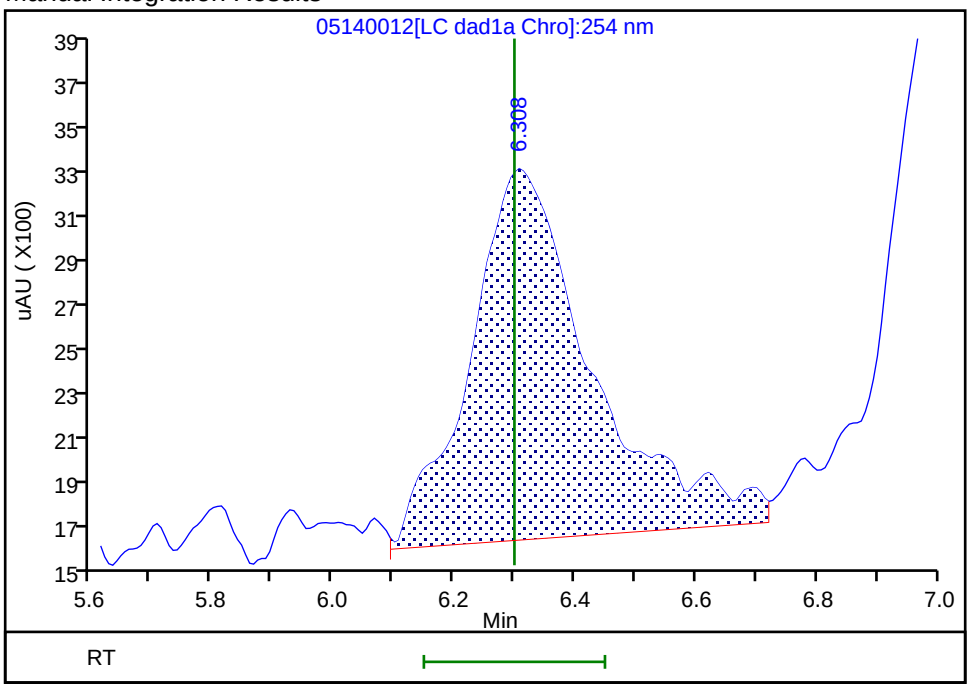
Processing Integration Results

RT: 5.93
Area: 1700
Amount: 0.010784
Amount Units: ug/ml



Manual Integration Results

RT: 6.31
Area: 23170
Amount: 0.119550
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:22:21
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

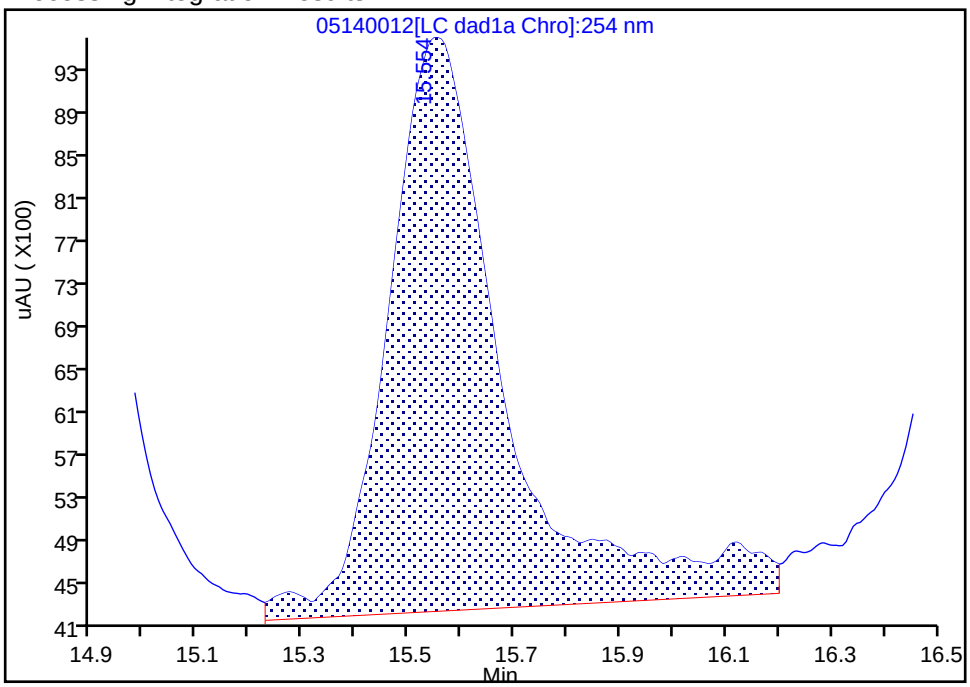
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140012.d				
Injection Date:	14-May-2020 19:11:37	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 4				
Client ID:					
Operator ID:	CB	ALS Bottle#:	12	Worklist Smp#:	12
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

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

Signal: 1

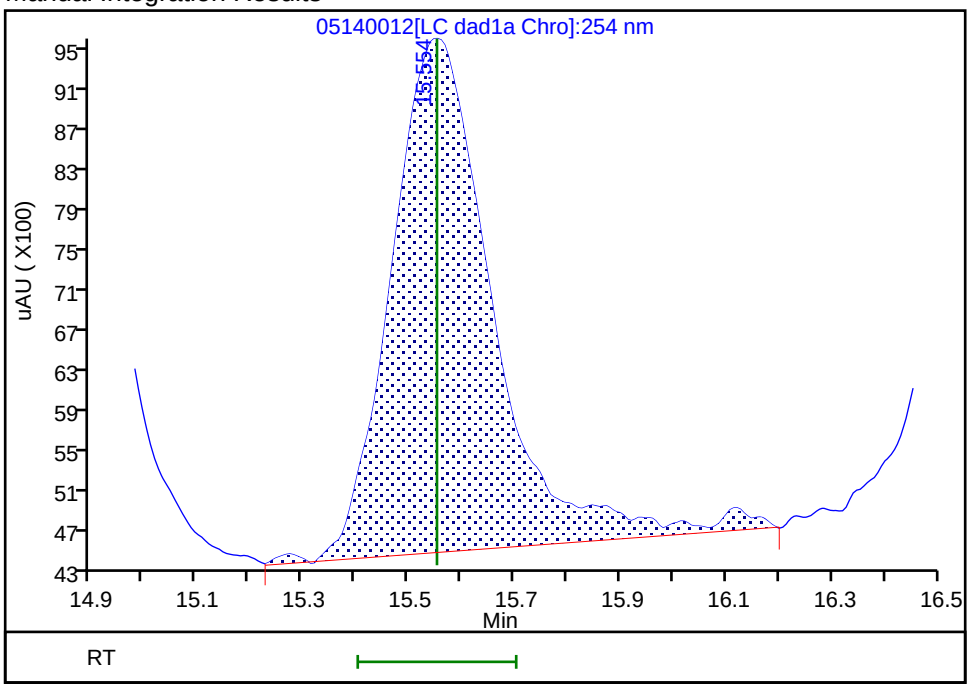
Processing Integration Results

RT: 15.55
Area: 81626
Amount: 0.119366
Amount Units: ug/ml



Manual Integration Results

RT: 15.55
Area: 69012
Amount: 0.102363
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:21:48
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

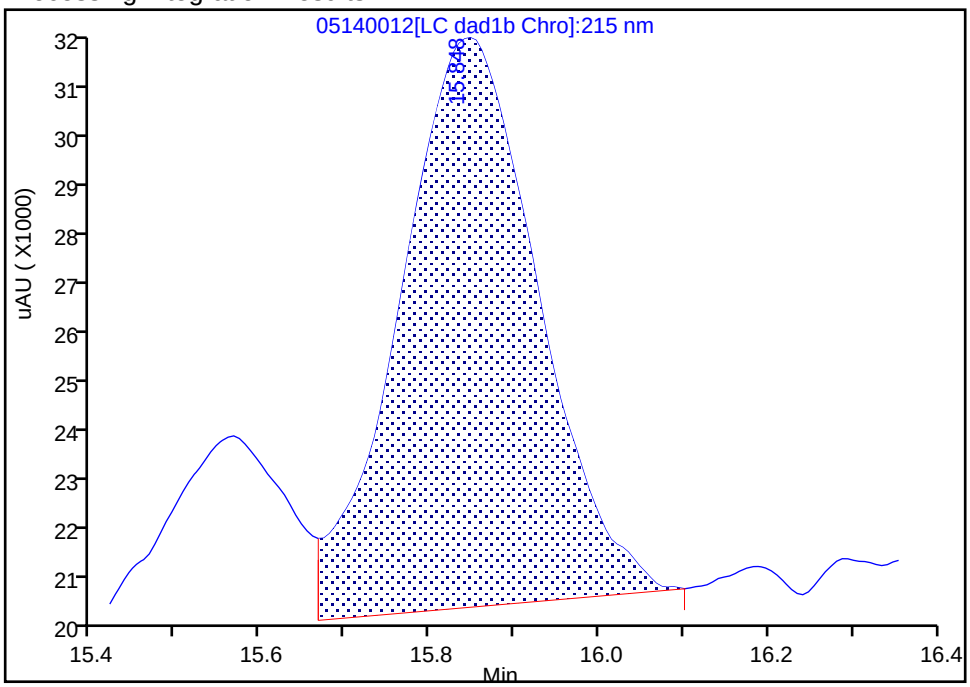
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140012.d				
Injection Date:	14-May-2020 19:11:37	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 4				
Client ID:					
Operator ID:	CB	ALS Bottle#:	12	Worklist Smp#:	12
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:		Detector	LC DAD1B, 215 nm		

13 Nitroglycerin, CAS: 55-63-0

Signal: 1

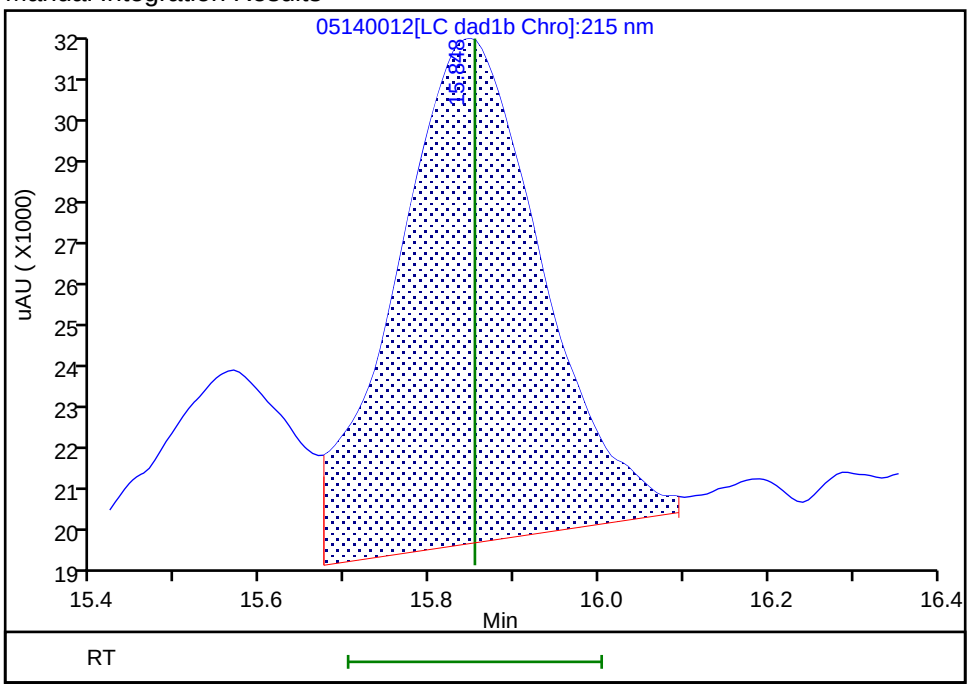
Processing Integration Results

RT: 15.85
Area: 125471
Amount: 1.093631
Amount Units: ug/ml



Manual Integration Results

RT: 15.85
Area: 141489
Amount: 1.115815
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:32:25

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

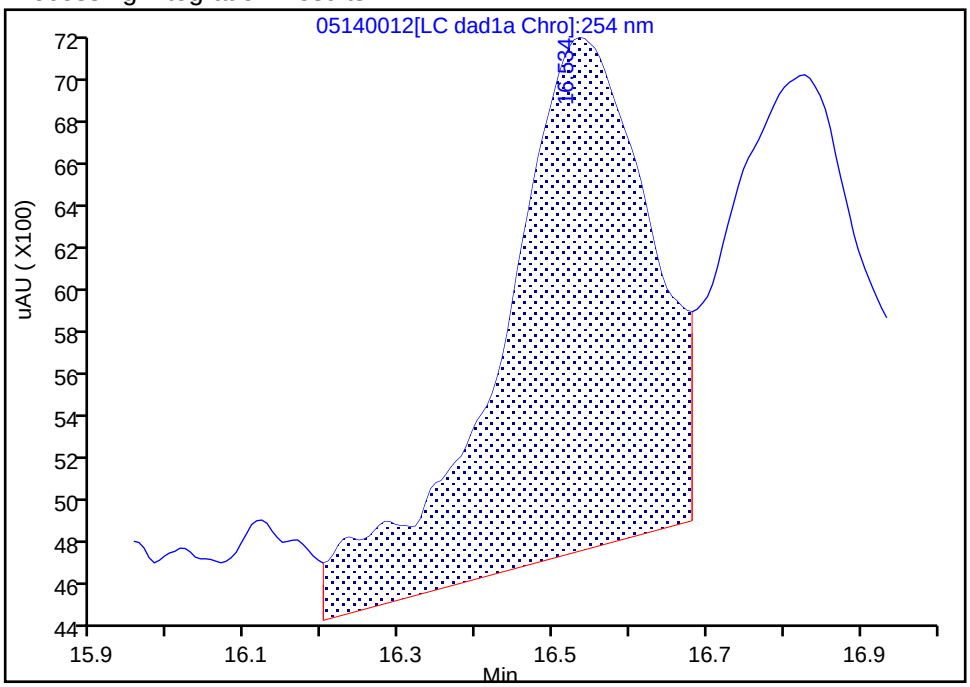
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140012.d				
Injection Date:	14-May-2020 19:11:37	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 4				
Client ID:					
Operator ID:	CB	ALS Bottle#:	12	Worklist Smp#:	12
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

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

Signal: 1

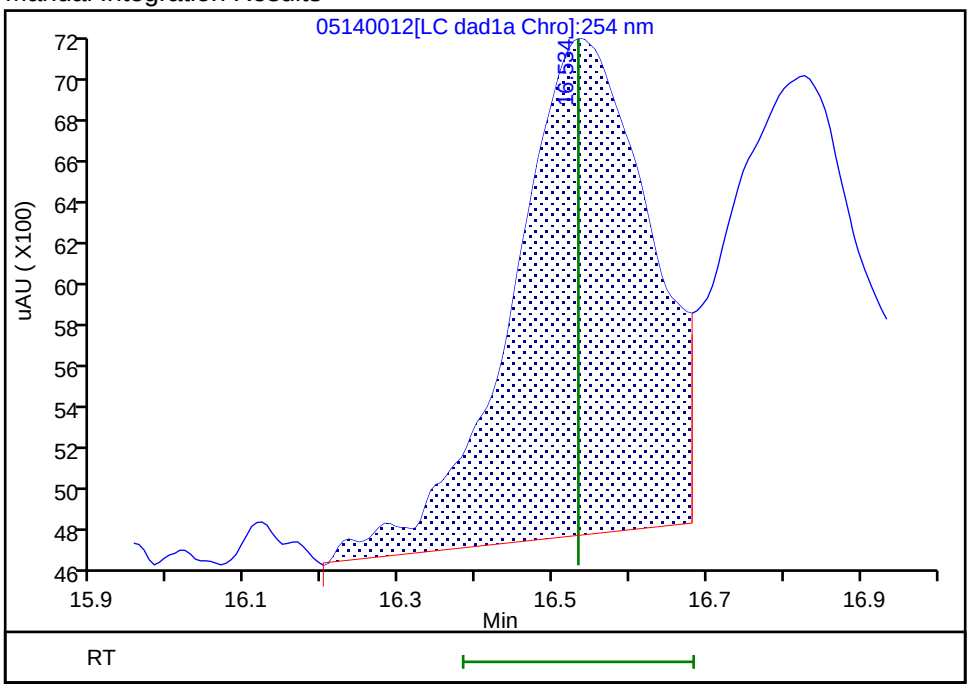
Processing Integration Results

RT: 16.53
Area: 33080
Amount: 0.118510
Amount Units: ug/ml



Manual Integration Results

RT: 16.53
Area: 29062
Amount: 0.106468
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:21:48
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

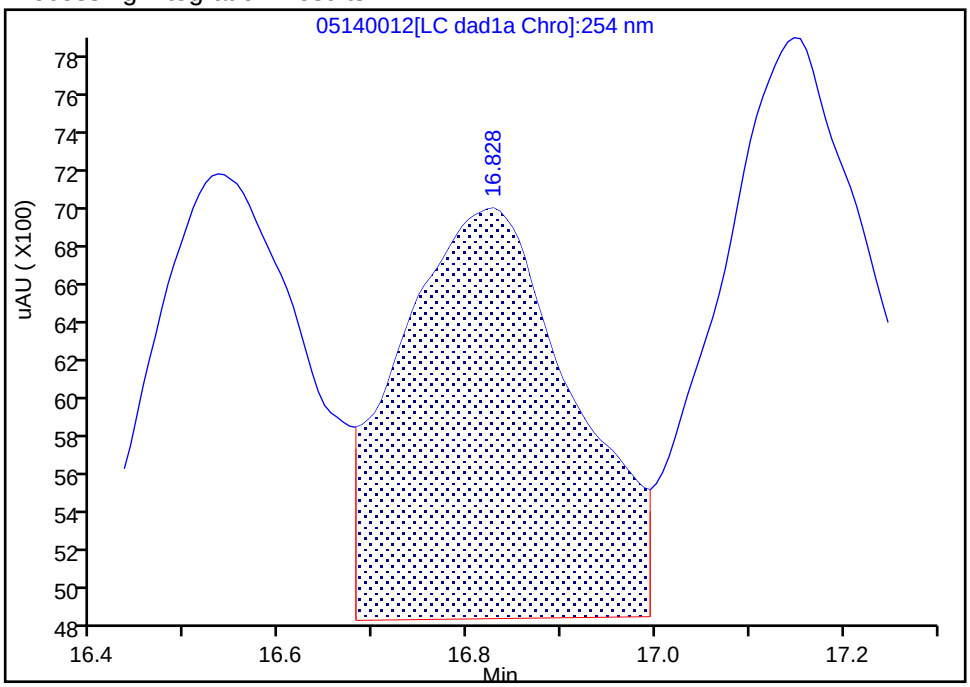
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140012.d				
Injection Date:	14-May-2020 19:11:37	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 4				
Client ID:					
Operator ID:	CB	ALS Bottle#:	12	Worklist Smp#:	12
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

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

Signal: 1

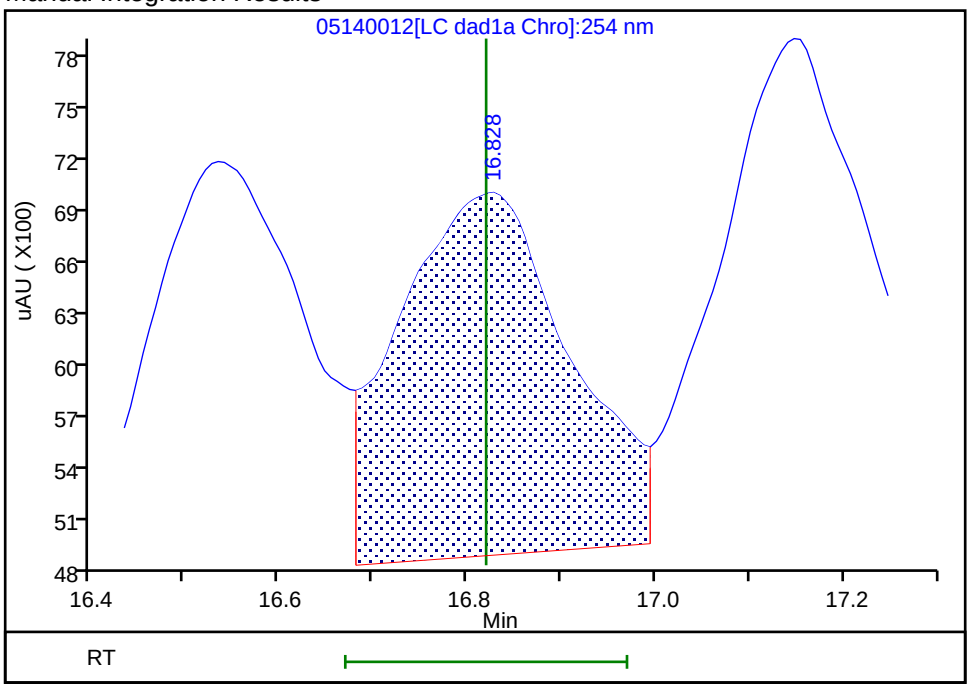
Processing Integration Results

RT: 16.83
Area: 26887
Amount: 0.106277
Amount Units: ug/ml



Manual Integration Results

RT: 16.83
Area: 25956
Amount: 0.107754
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:21:48
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

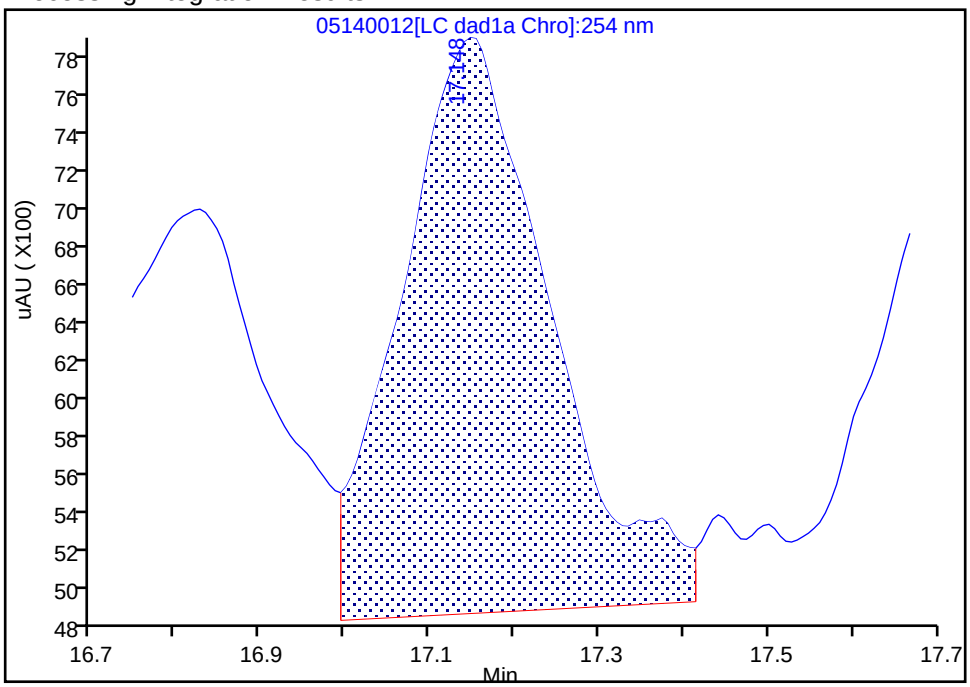
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140012.d				
Injection Date:	14-May-2020 19:11:37	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 4				
Client ID:					
Operator ID:	CB	ALS Bottle#:	12	Worklist Smp#:	12
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

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

Signal: 1

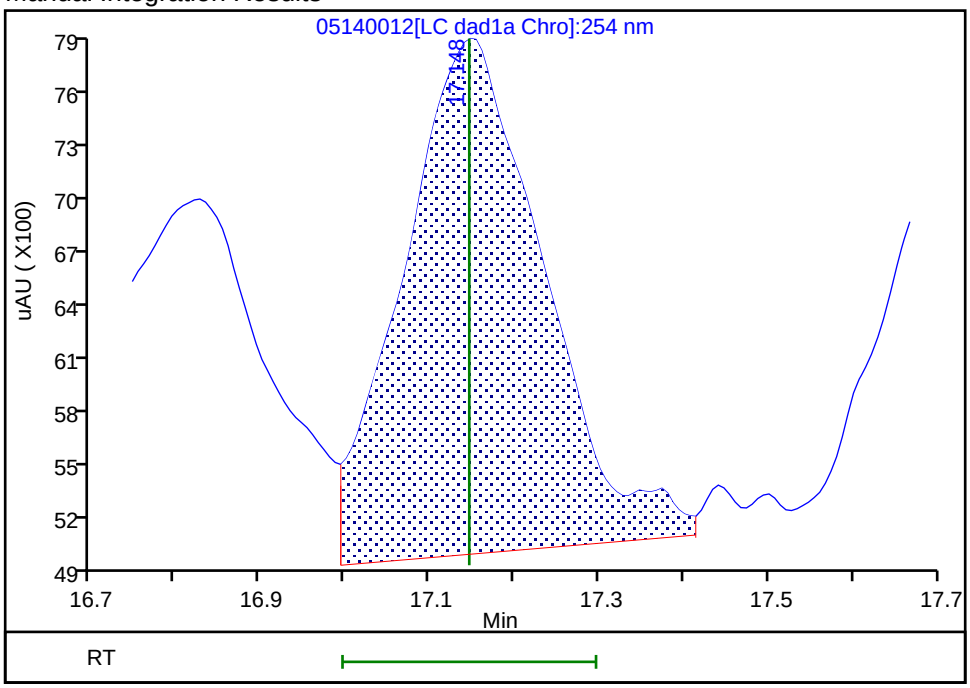
Processing Integration Results

RT: 17.15
Area: 35863
Amount: 0.102237
Amount Units: ug/ml



Manual Integration Results

RT: 17.15
Area: 32448
Amount: 0.093988
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:21:48
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

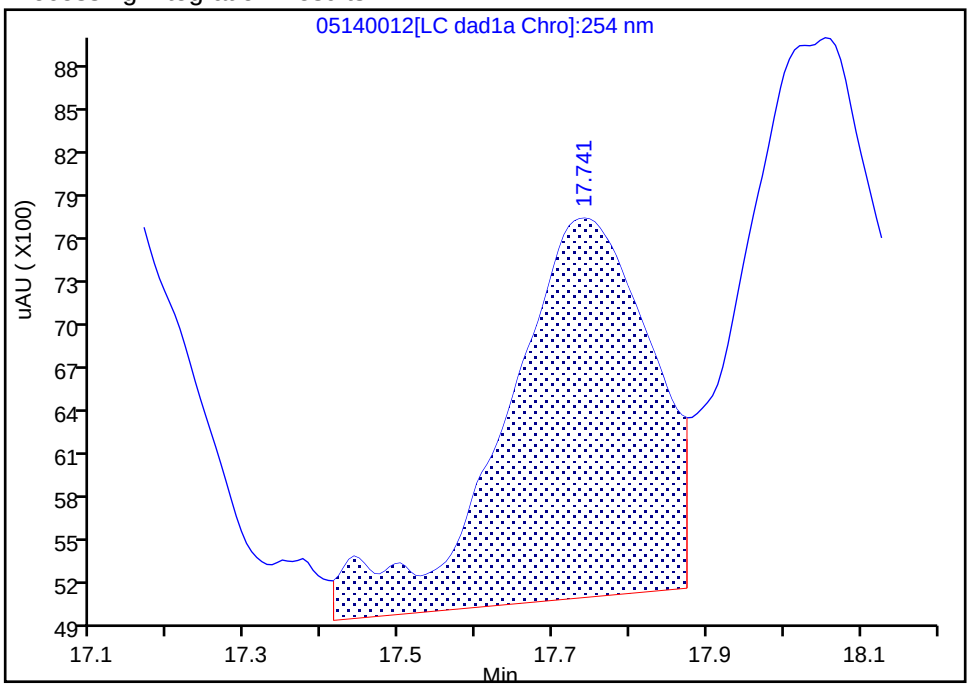
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140012.d				
Injection Date:	14-May-2020 19:11:37	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 4				
Client ID:					
Operator ID:	CB	ALS Bottle#:	12	Worklist Smp#:	12
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

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

Signal: 1

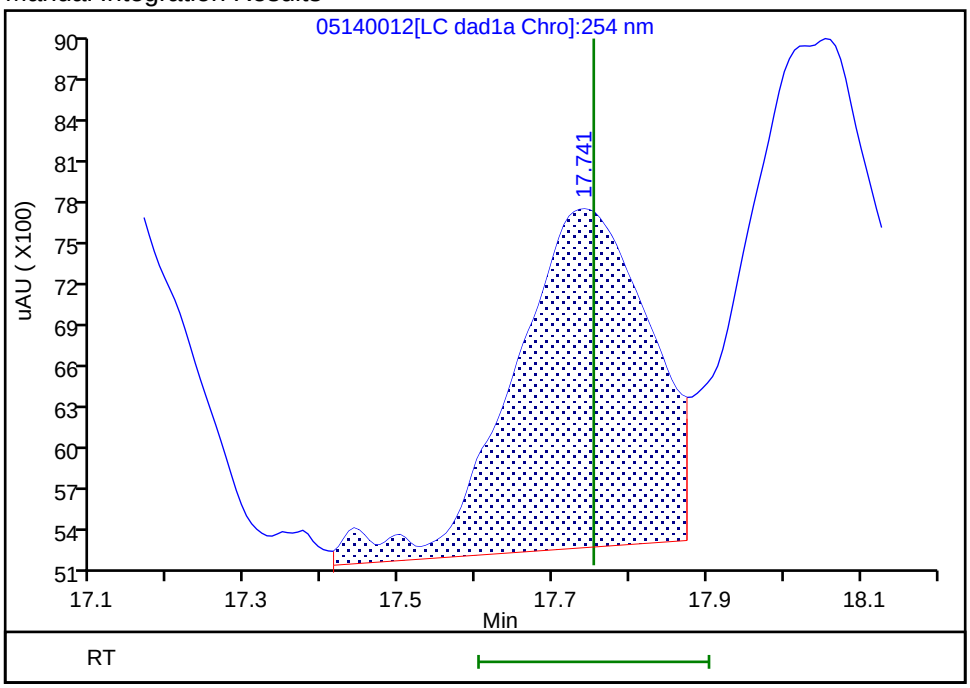
Processing Integration Results

RT: 17.74
Area: 34712
Amount: 0.117045
Amount Units: ug/ml



Manual Integration Results

RT: 17.74
Area: 30586
Amount: 0.102525
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:21:48
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

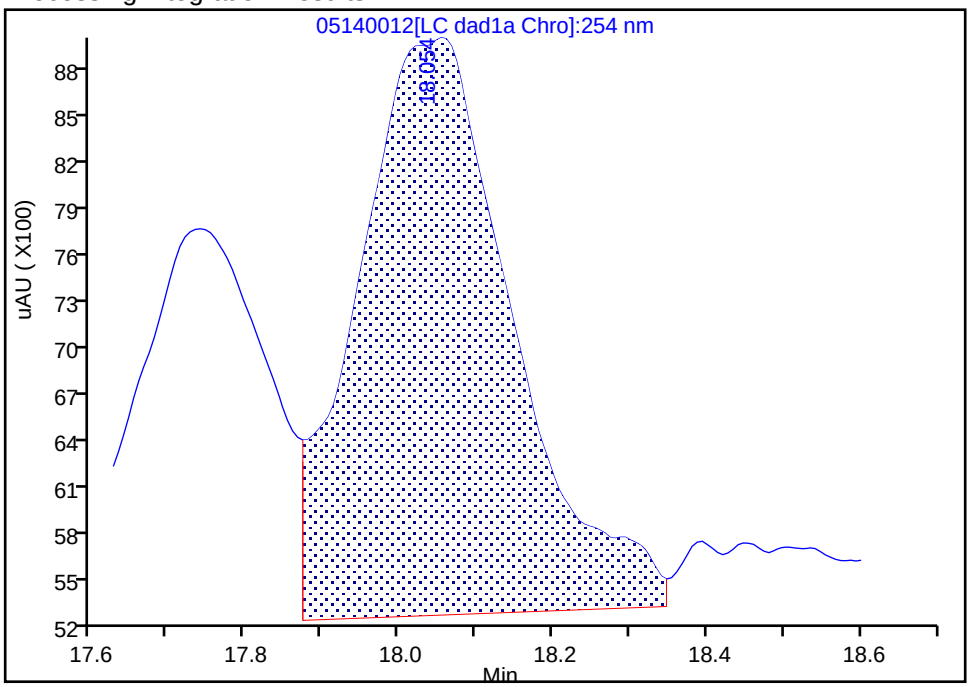
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140012.d				
Injection Date:	14-May-2020 19:11:37	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 4				
Client ID:					
Operator ID:	CB	ALS Bottle#:	12	Worklist Smp#:	12
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

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

Signal: 1

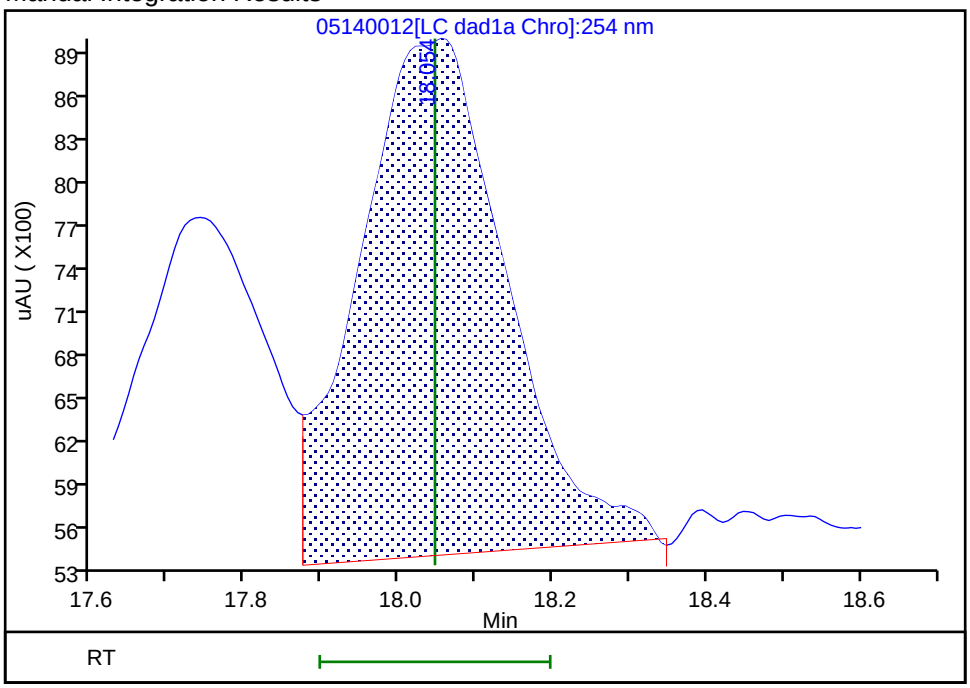
Processing Integration Results

RT: 18.05
Area: 52538
Amount: 0.110599
Amount Units: ug/ml



Manual Integration Results

RT: 18.05
Area: 47526
Amount: 0.102160
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:21:48
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

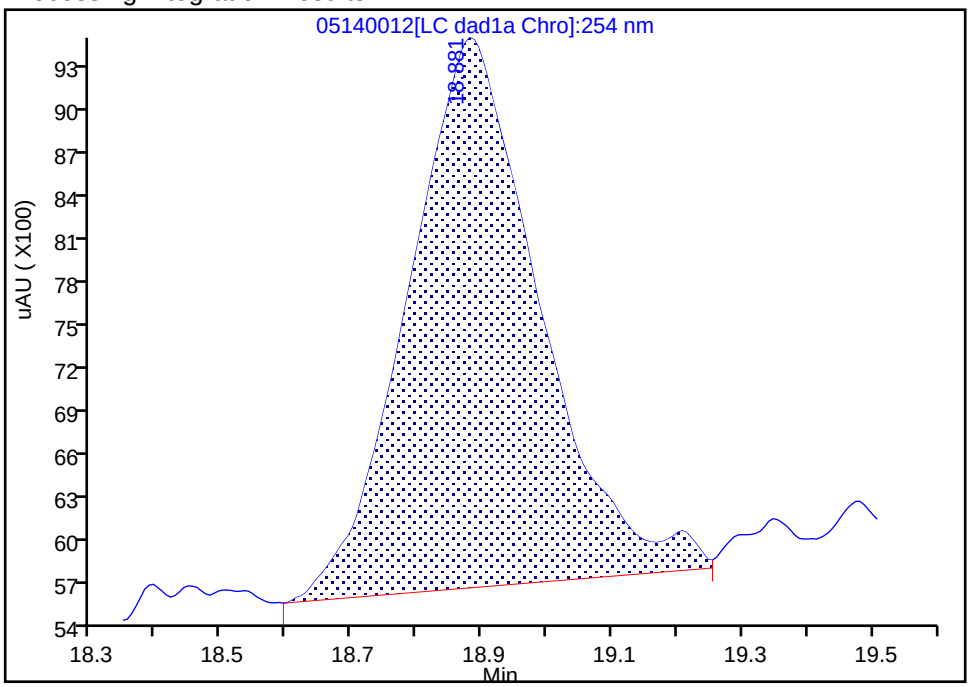
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140012.d				
Injection Date:	14-May-2020 19:11:37	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 4				
Client ID:					
Operator ID:	CB	ALS Bottle#:	12	Worklist Smp#:	12
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

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

Signal: 1

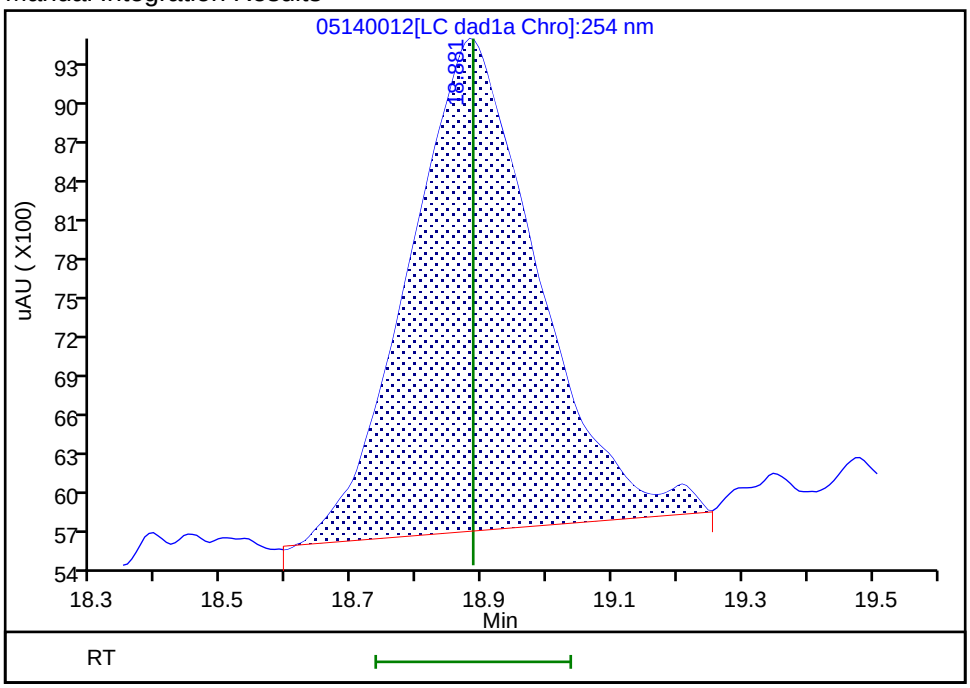
Processing Integration Results

RT: 18.88
Area: 52433
Amount: 0.109995
Amount Units: ug/ml



Manual Integration Results

RT: 18.88
Area: 51028
Amount: 0.108007
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:21:48
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

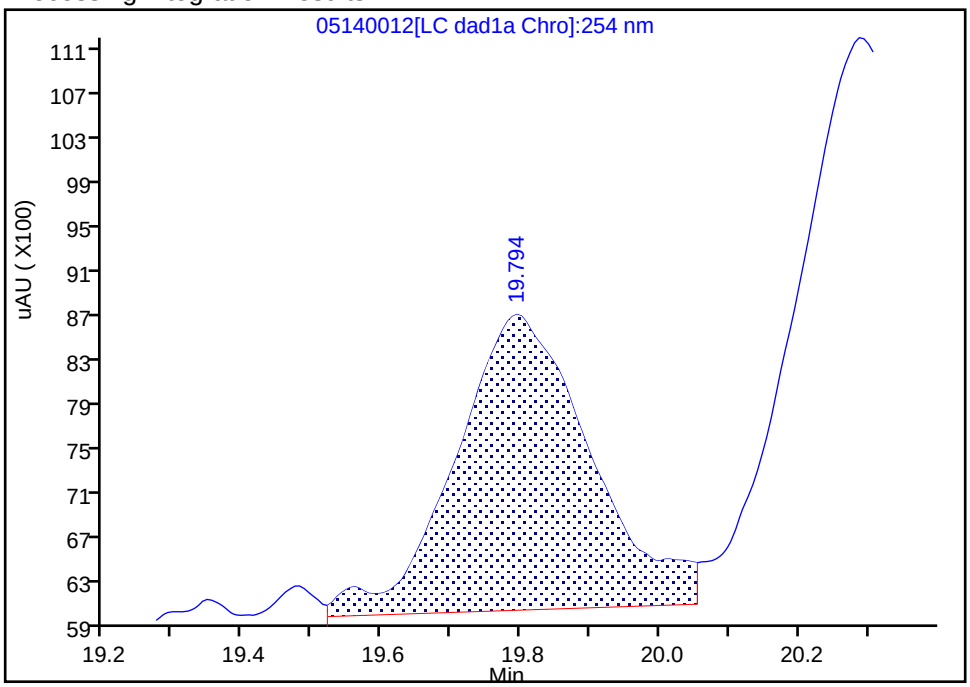
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140012.d				
Injection Date:	14-May-2020 19:11:37	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 4				
Client ID:					
Operator ID:	CB	ALS Bottle#:	12	Worklist Smp#:	12
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

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

Signal: 1

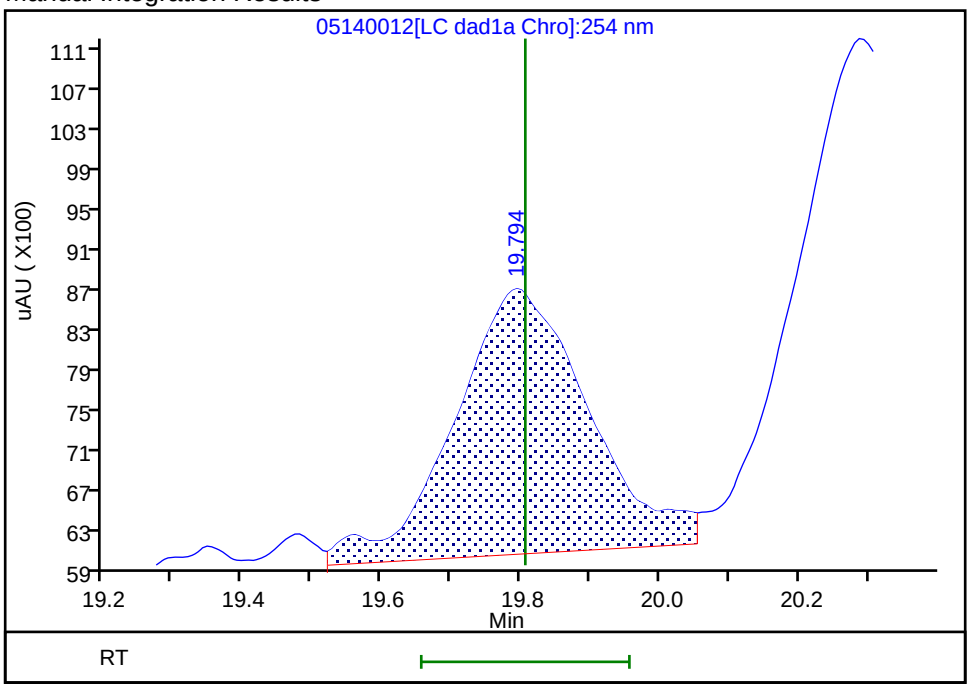
Processing Integration Results

RT: 19.79
Area: 35123
Amount: 0.102517
Amount Units: ug/ml



Manual Integration Results

RT: 19.79
Area: 34659
Amount: 0.104499
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:21:48
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

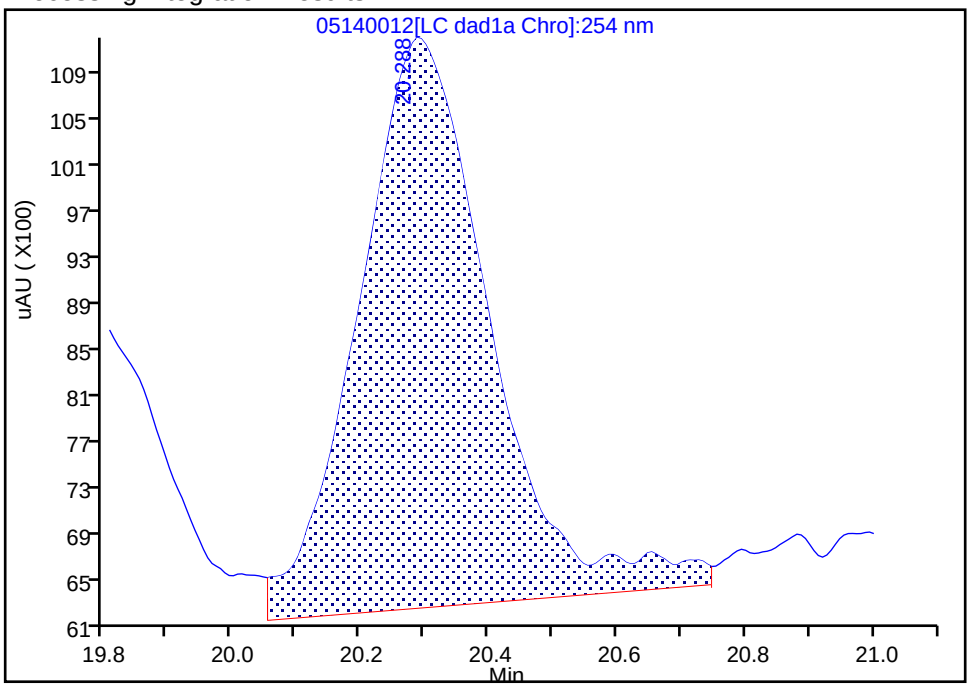
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140012.d				
Injection Date:	14-May-2020 19:11:37	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 4				
Client ID:					
Operator ID:	CB	ALS Bottle#:	12	Worklist Smp#:	12
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

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

Signal: 1

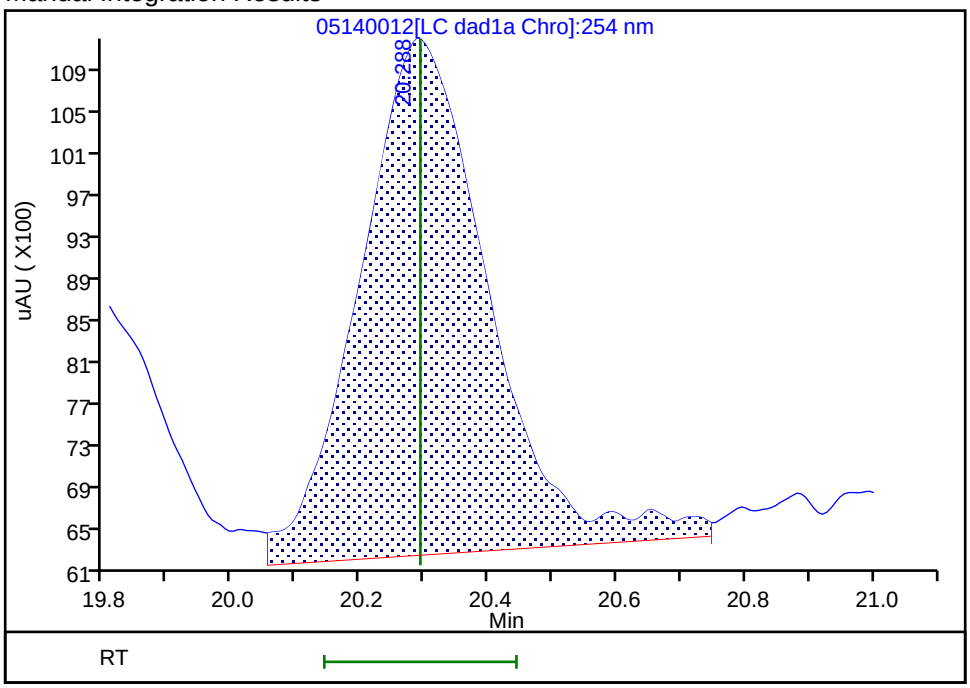
Processing Integration Results

RT: 20.29
Area: 69455
Amount: 0.105715
Amount Units: ug/ml



Manual Integration Results

RT: 20.29
Area: 67500
Amount: 0.105450
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:21:48
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

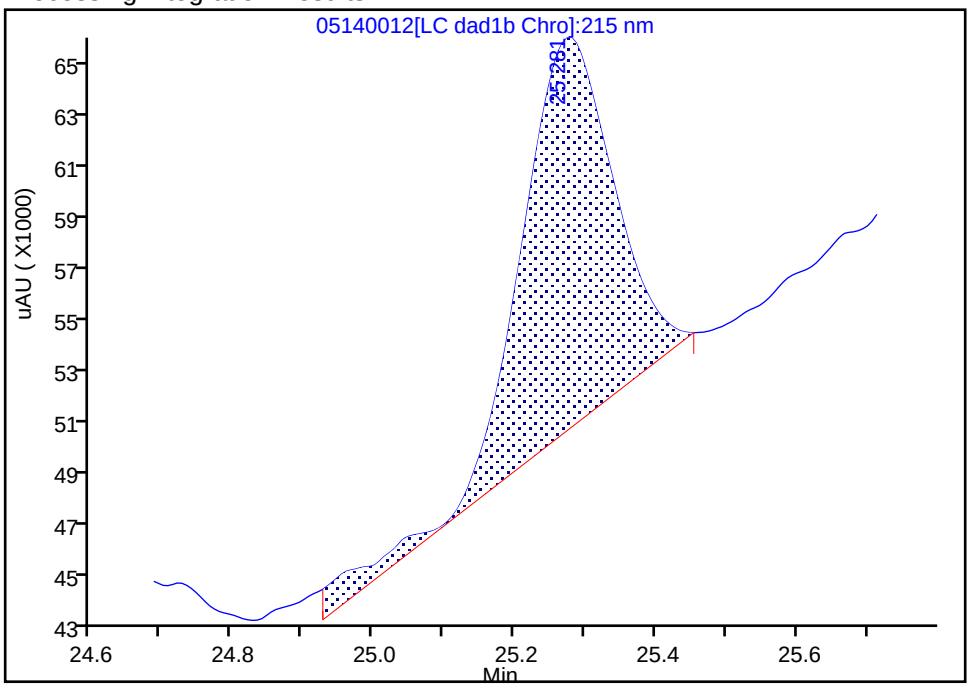
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140012.d				
Injection Date:	14-May-2020 19:11:37	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 4				
Client ID:					
Operator ID:	CB	ALS Bottle#:	12	Worklist Smp#:	12
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:		Detector	LC DAD1B, 215 nm		

24 PETN, CAS: 78-11-5

Signal: 1

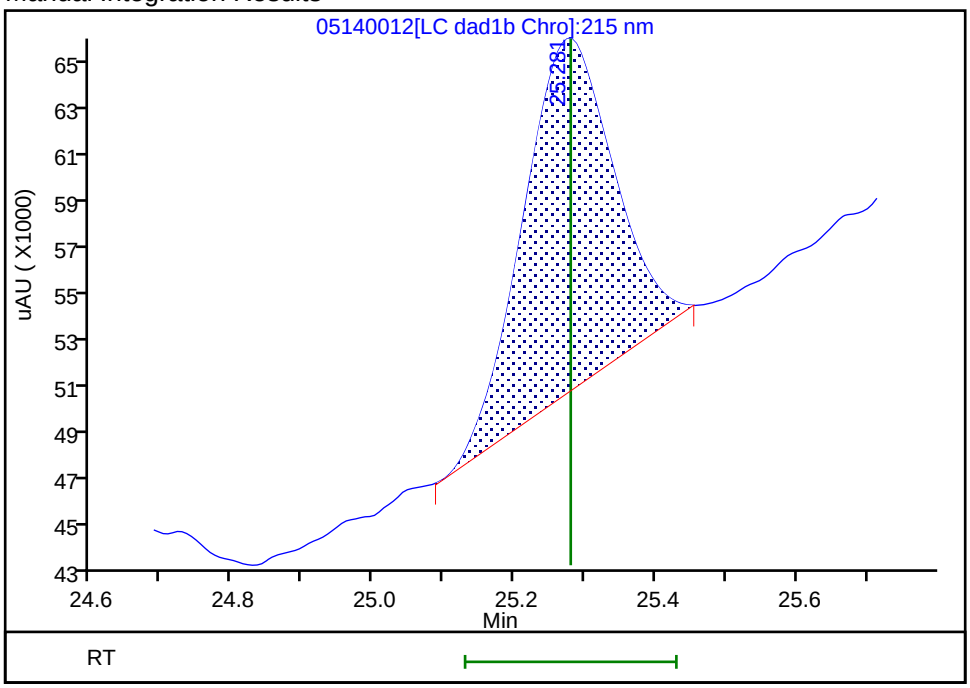
Processing Integration Results

RT: 25.28
Area: 139443
Amount: 1.011611
Amount Units: ug/ml



Manual Integration Results

RT: 25.28
Area: 132172
Amount: 0.810643
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:24:59

Audit Action: Split an Integrated Peak Audit Reason: Peak Tail

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140013.D
Lims ID: IC FULL 3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 14-May-2020 19:46:37 ALS Bottle#: 13 Worklist Smp#: 13
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC FULL 3
Misc. Info.: 280-0091518-013
Operator ID: CB Instrument ID: CHHPLC_G2_LUNA
Sublist: chrom-G2_8330_Luna*sub6

Method: \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\G2_8330_Luna.m
Limit Group: GCSV - 8330
Last Update: 15-May-2020 12:00:58 Calib Date: 15-May-2020 02:11:20
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140024.D

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

First Level Reviewer: zhangji Date: 15-May-2020 11:22:17

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 2,6-diamino-4-nitrotoluene	1	4.357	4.366	-0.009	22969	0.0500	0.0535	
2 2,4-diamino-6-nitrotoluene	1	4.851	4.880	-0.029	16562	0.0500	0.0464	
5 2,4,6-Trinitrophenol	1	6.331	6.300	0.031	9462	0.0500	0.0488	a
6 HMX	1	6.984	6.986	-0.002	12646	0.0500	0.0414	
8 RDX	1	9.184	9.173	0.011	15119	0.0500	0.0619	
9 Nitrobenzene	1	12.110	12.106	0.004	28424	0.0502	0.0647	
$ 10 1,2-Dinitrobenzene	1	13.037	13.040	-0.003	18744	0.0500	0.0610	M
11 3,5-Dinitroaniline	1	14.890	14.886	0.004	27916	0.0500	0.0518	M
12 1,3-Dinitrobenzene	1	15.544	15.553	-0.009	37161	0.0501	0.0551	M
13 Nitroglycerin	2	15.844	15.853	-0.009	64042	0.5000	0.5050	M
14 o-Nitrotoluene	1	16.550	16.533	0.017	16003	0.0500	0.0586	M
15 p-Nitrotoluene	1	16.837	16.820	0.017	15492	0.0501	0.0643	M
16 4-Amino-2,6-dinitrotoluene	1	17.157	17.146	0.011	22118	0.0501	0.0641	M
17 m-Nitrotoluene	1	17.724	17.753	-0.029	19280	0.0501	0.0646	M
18 2-Amino-4,6-dinitrotoluene	1	18.030	18.046	-0.016	28982	0.0502	0.0623	M
19 1,3,5-Trinitrobenzene	1	18.864	18.886	-0.022	26649	0.0501	0.0564	M
20 2,6-Dinitrotoluene	1	19.817	19.806	0.011	19107	0.0502	0.0507	M
21 2,4-Dinitrotoluene	1	20.290	20.293	-0.003	37302	0.0502	0.0583	M
22 Tetryl	1	23.557	23.553	0.004	20202	0.0501	0.0548	
23 2,4,6-Trinitrotoluene	1	24.637	24.653	-0.016	28366	0.0502	0.0628	
24 PETN	2	25.277	25.280	-0.003	102120	0.5000	0.5782	M

QC Flag Legend

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

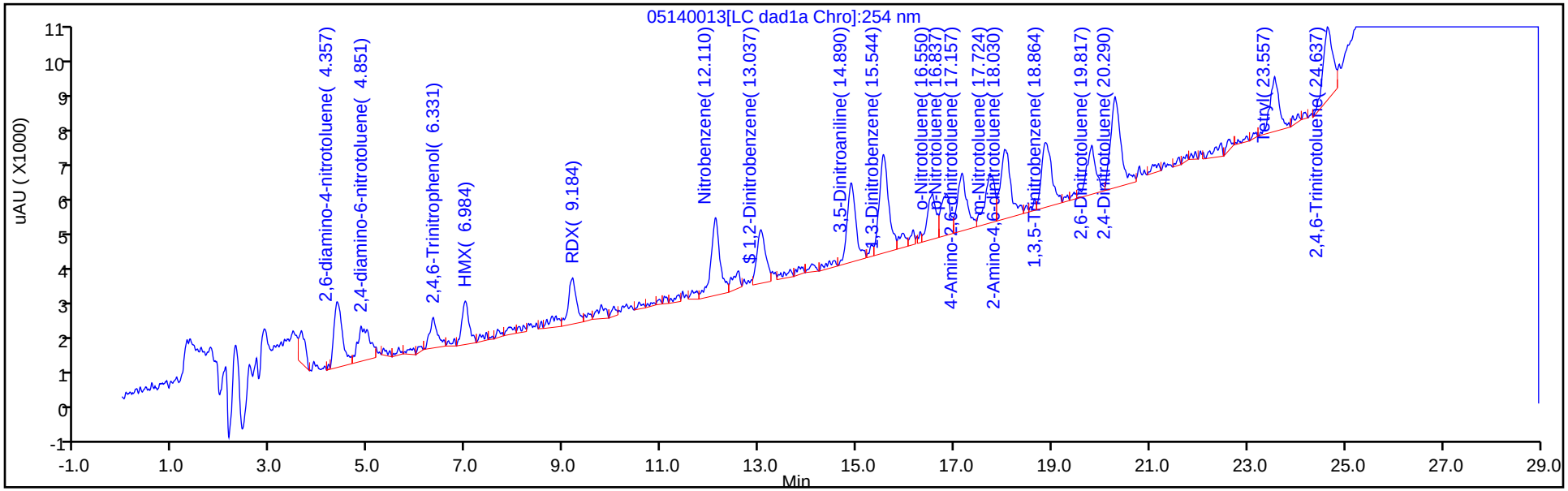
8330IntermStk_00064	Amount Added:	5.00	Units: uL
8330_ADDs_00026	Amount Added:	2.50	Units: uL

Report Date: 15-May-2020 12:00:58 Chrom Revision: 2.3 05-May-2020 17:48:18

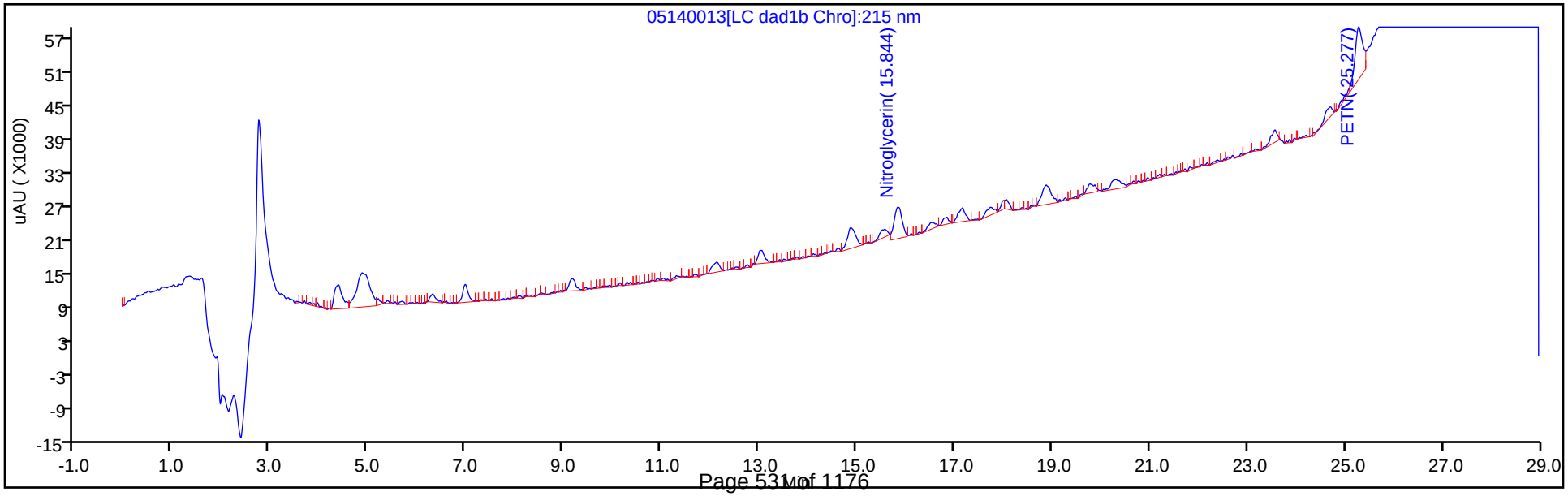
Eurofins TestAmerica, Denver

Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140013.d				
Injection Date:	14-May-2020 19:46:37	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	CB
Lims ID:	IC FULL 3			Worklist Smp#:	13
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	13
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		

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



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



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

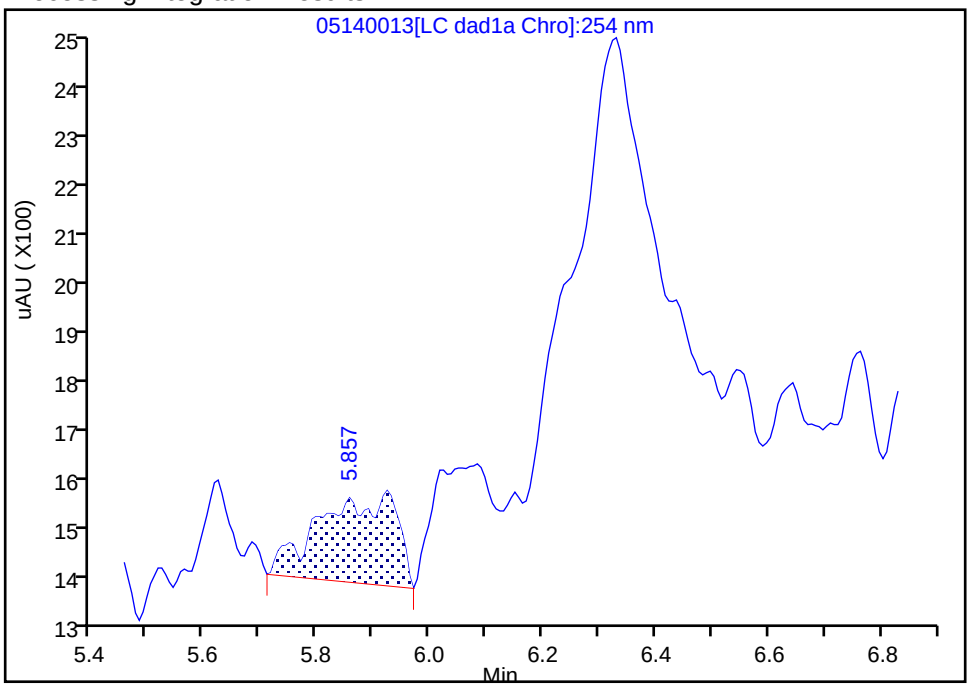
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140013.d				
Injection Date:	14-May-2020 19:46:37	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 3				
Client ID:					
Operator ID:	CB	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

5 2,4,6-Trinitrophenol, CAS: 88-89-1

Signal: 1

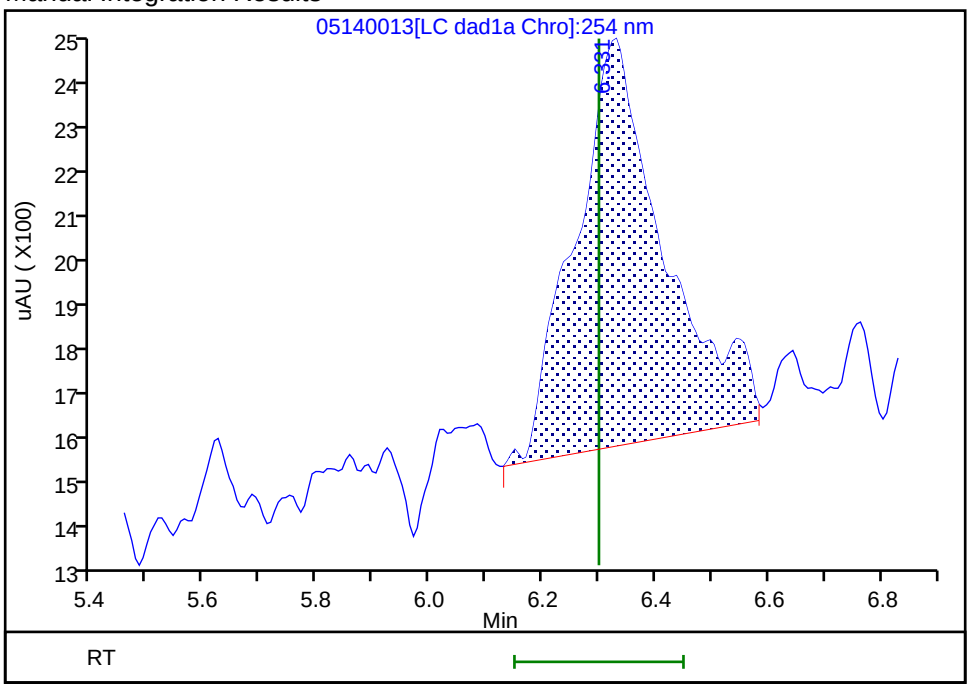
Processing Integration Results

RT: 5.86
Area: 1615
Amount: 0.011701
Amount Units: ug/ml



Manual Integration Results

RT: 6.33
Area: 9462
Amount: 0.048821
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:22:16
Audit Action: Assigned Compound ID Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

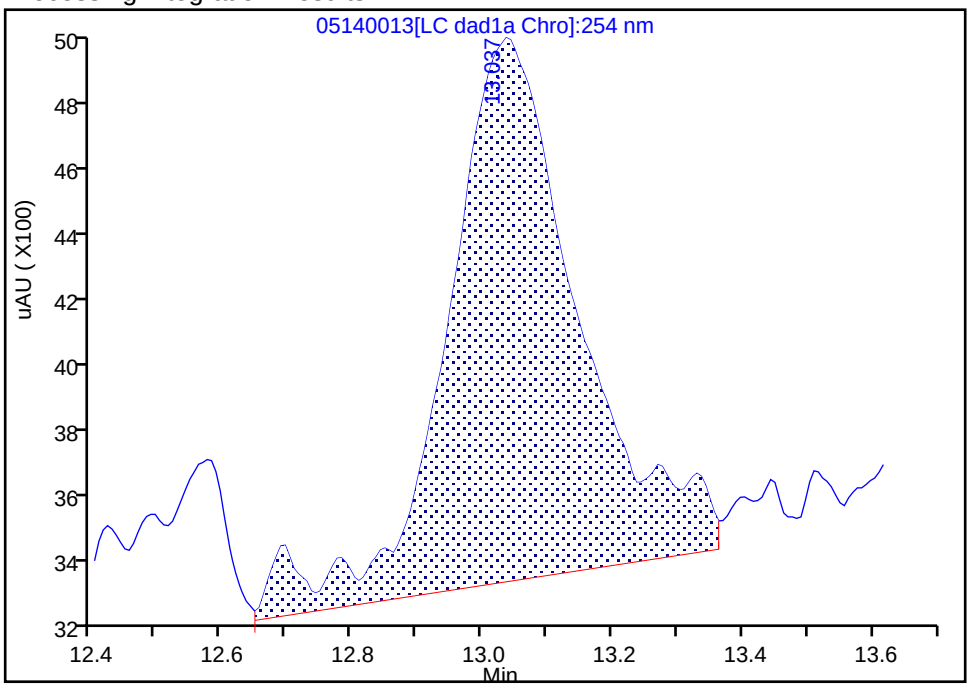
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140013.d				
Injection Date:	14-May-2020 19:46:37	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 3				
Client ID:					
Operator ID:	CB	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

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

Signal: 1

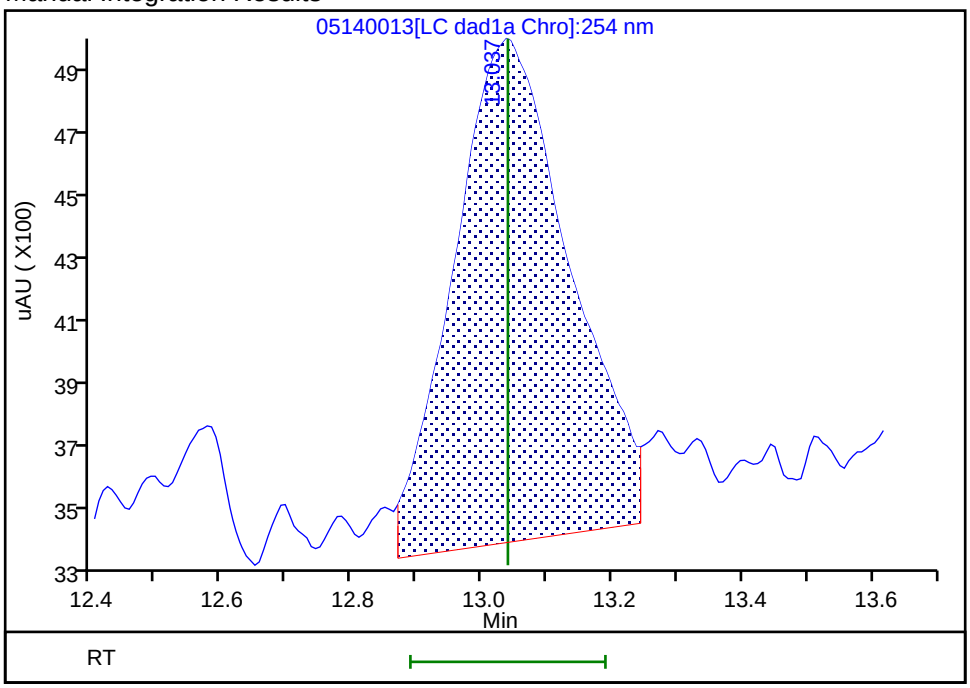
Processing Integration Results

RT: 13.04
Area: 21320
Amount: 0.066490
Amount Units: ug/ml



Manual Integration Results

RT: 13.04
Area: 18744
Amount: 0.060979
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:35:23

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

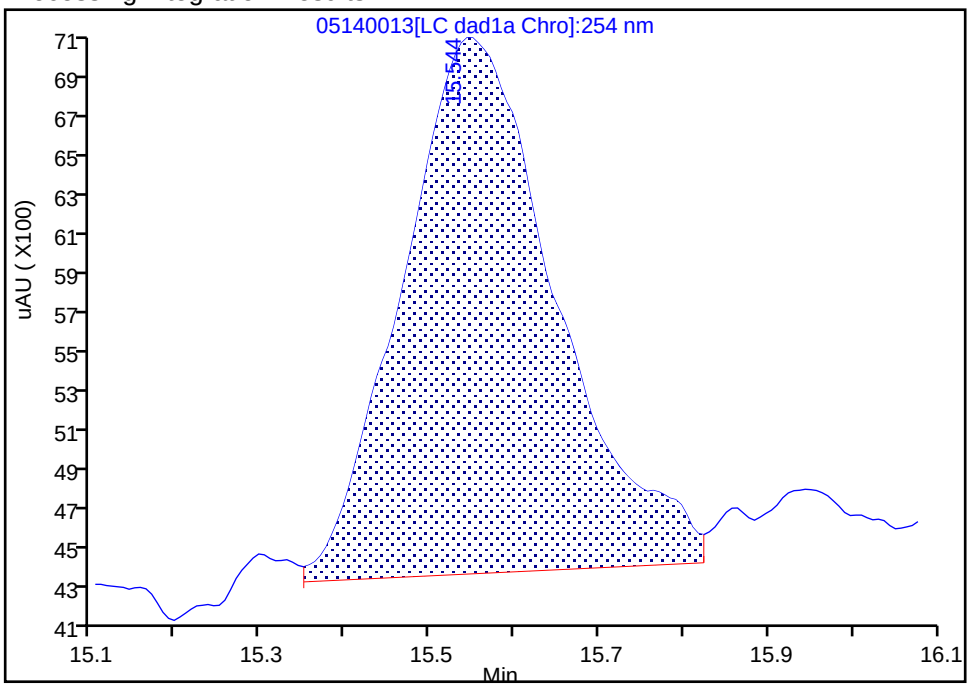
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140013.d				
Injection Date:	14-May-2020 19:46:37	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 3				
Client ID:					
Operator ID:	CB	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

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

Signal: 1

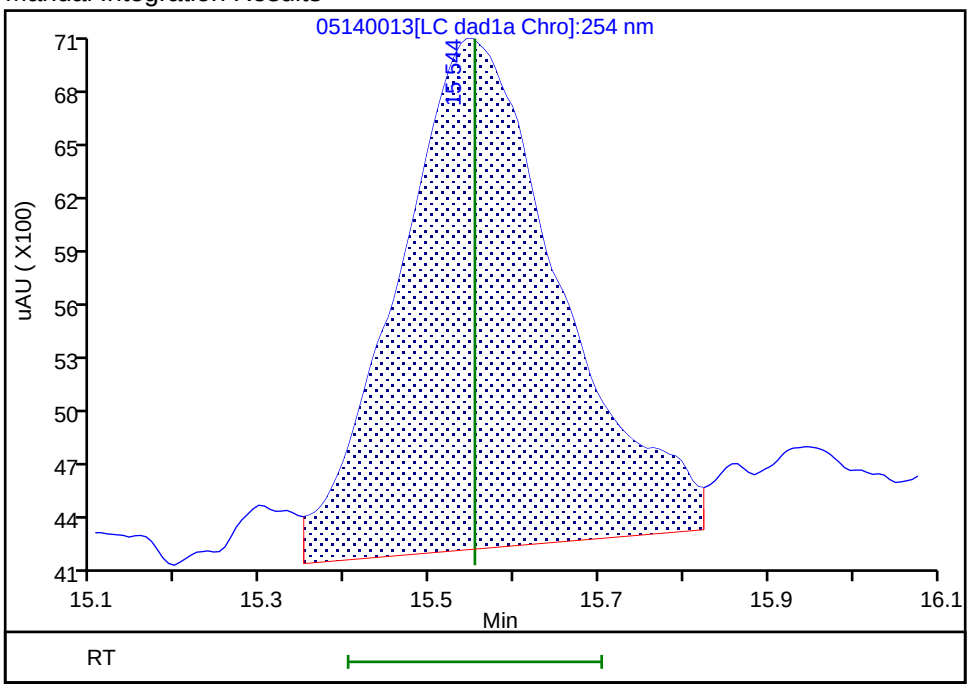
Processing Integration Results

RT: 15.54
Area: 33327
Amount: 0.049753
Amount Units: ug/ml



Manual Integration Results

RT: 15.54
Area: 37161
Amount: 0.055120
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:22:04
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

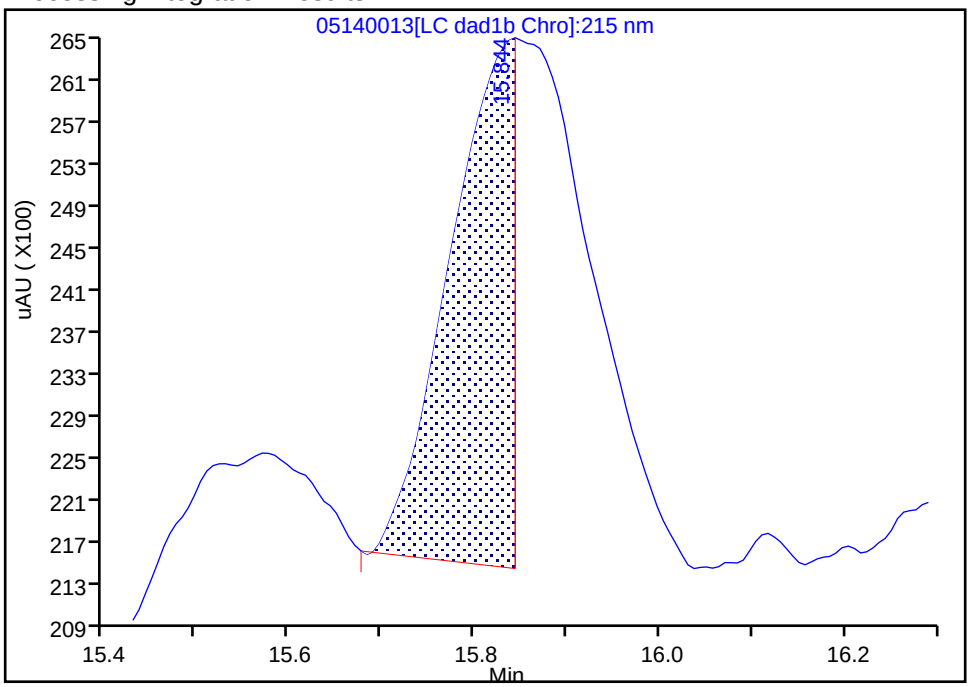
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140013.d				
Injection Date:	14-May-2020 19:46:37	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 3				
Client ID:					
Operator ID:	CB	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:		Detector	LC DAD1B, 215 nm		

13 Nitroglycerin, CAS: 55-63-0

Signal: 1

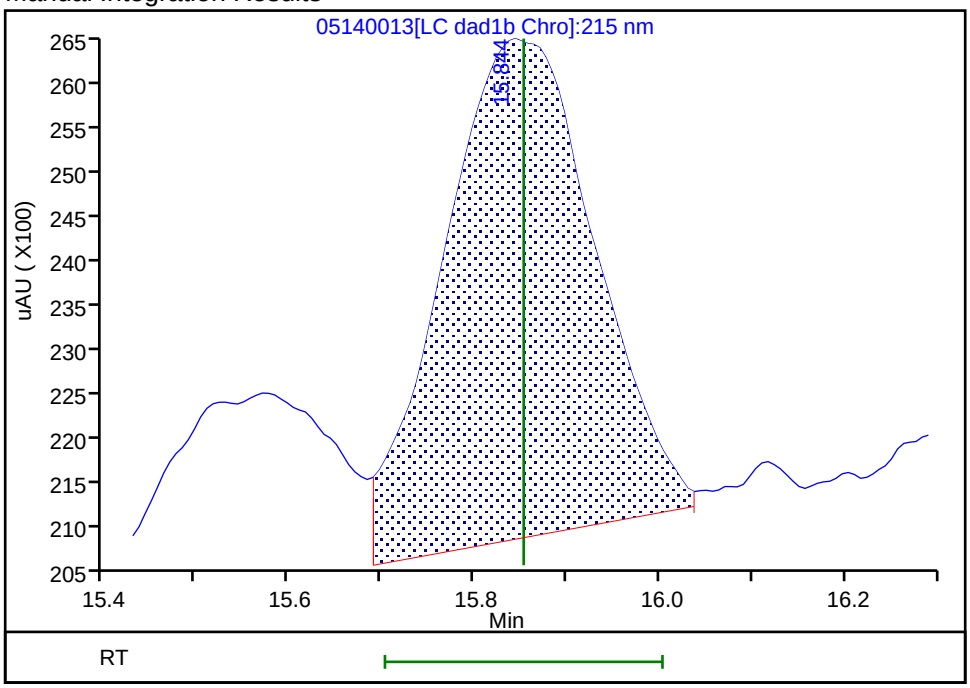
Processing Integration Results

RT: 15.84
Area: 23753
Amount: 0.203485
Amount Units: ug/ml



Manual Integration Results

RT: 15.84
Area: 64042
Amount: 0.505050
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:32:41

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

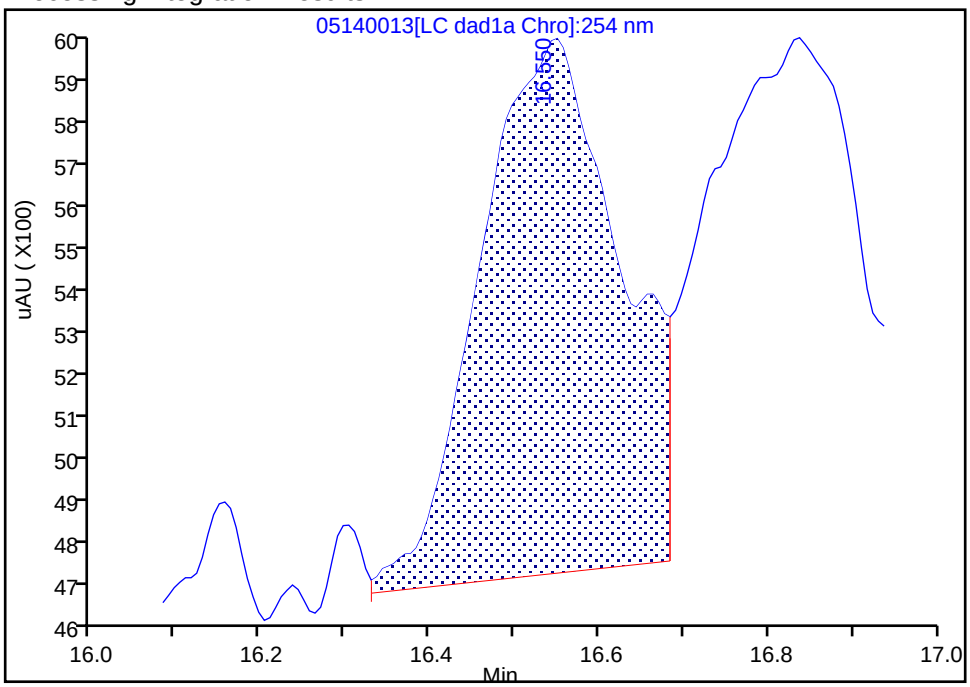
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140013.d				
Injection Date:	14-May-2020 19:46:37	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 3				
Client ID:					
Operator ID:	CB	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

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

Signal: 1

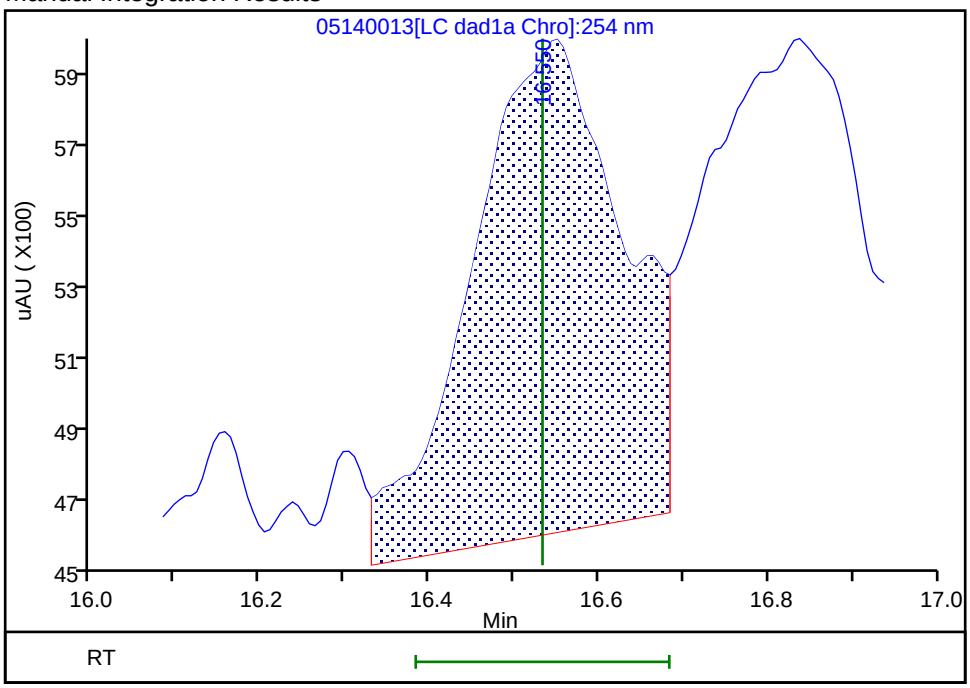
Processing Integration Results

RT: 16.55
Area: 13586
Amount: 0.049463
Amount Units: ug/ml



Manual Integration Results

RT: 16.55
Area: 16003
Amount: 0.058627
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:22:04
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

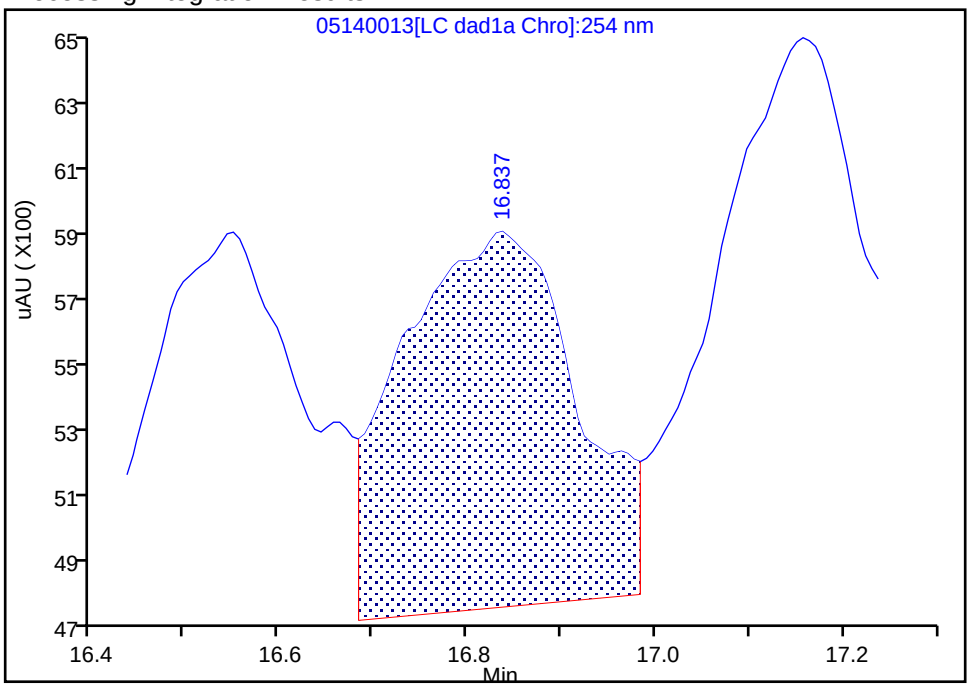
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140013.d				
Injection Date:	14-May-2020 19:46:37	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 3				
Client ID:					
Operator ID:	CB	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

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

Signal: 1

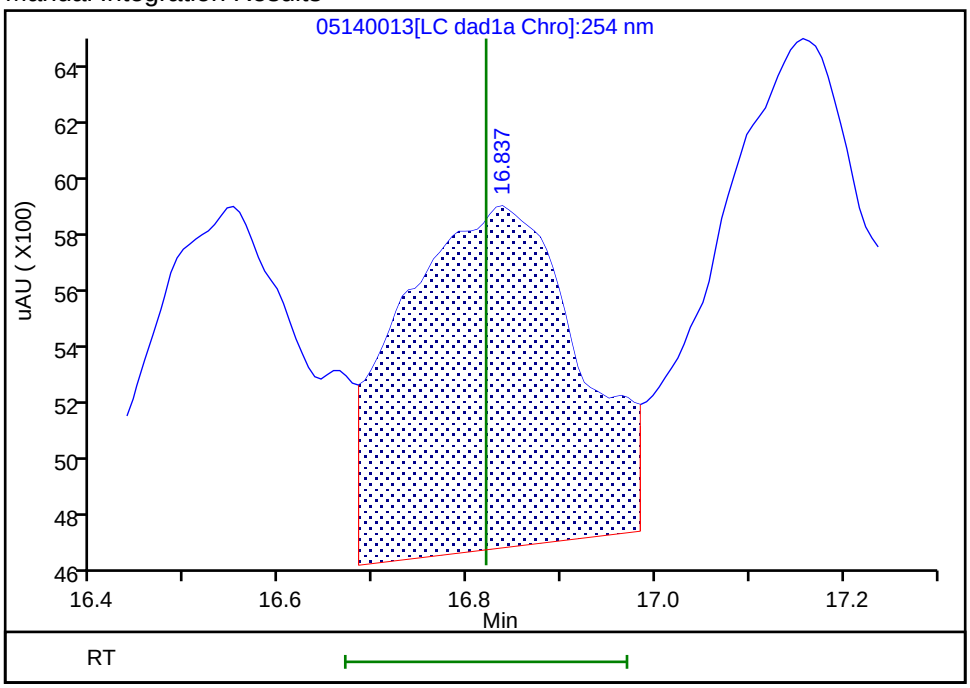
Processing Integration Results

RT: 16.84
Area: 14394
Amount: 0.057129
Amount Units: ug/ml



Manual Integration Results

RT: 16.84
Area: 15492
Amount: 0.064314
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:22:04
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

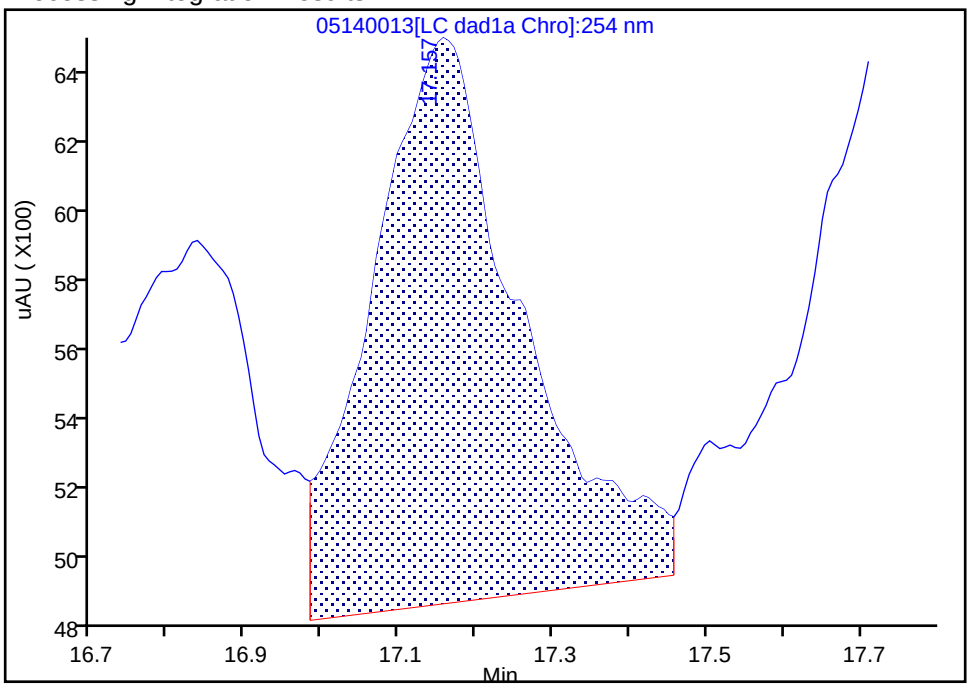
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140013.d				
Injection Date:	14-May-2020 19:46:37	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 3				
Client ID:					
Operator ID:	CB	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

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

Signal: 1

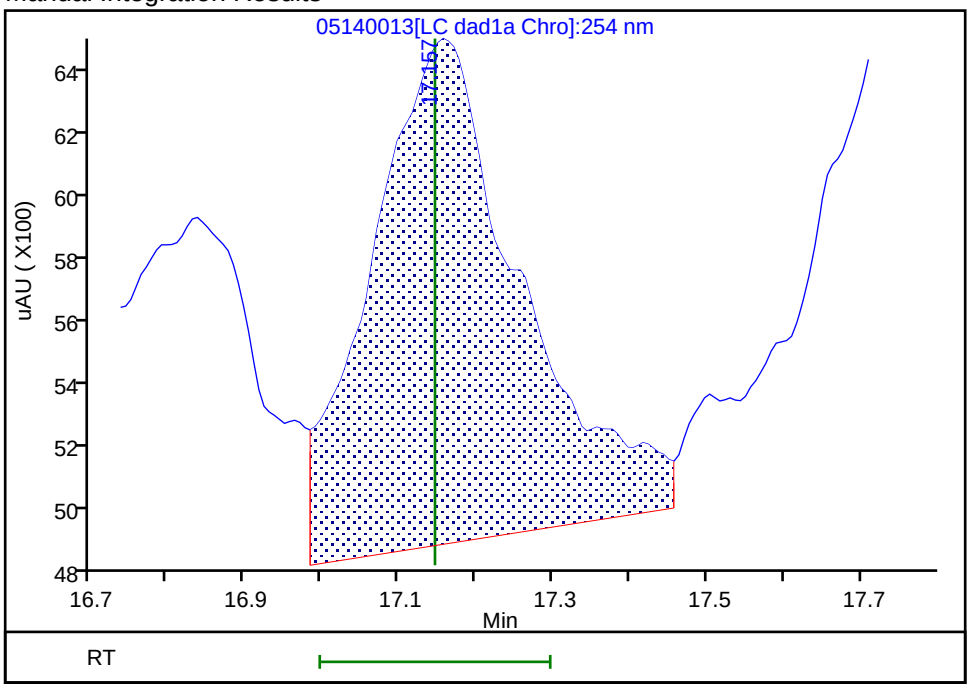
Processing Integration Results

RT: 17.16
Area: 21749
Amount: 0.062679
Amount Units: ug/ml



Manual Integration Results

RT: 17.16
Area: 22118
Amount: 0.064067
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:22:04
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

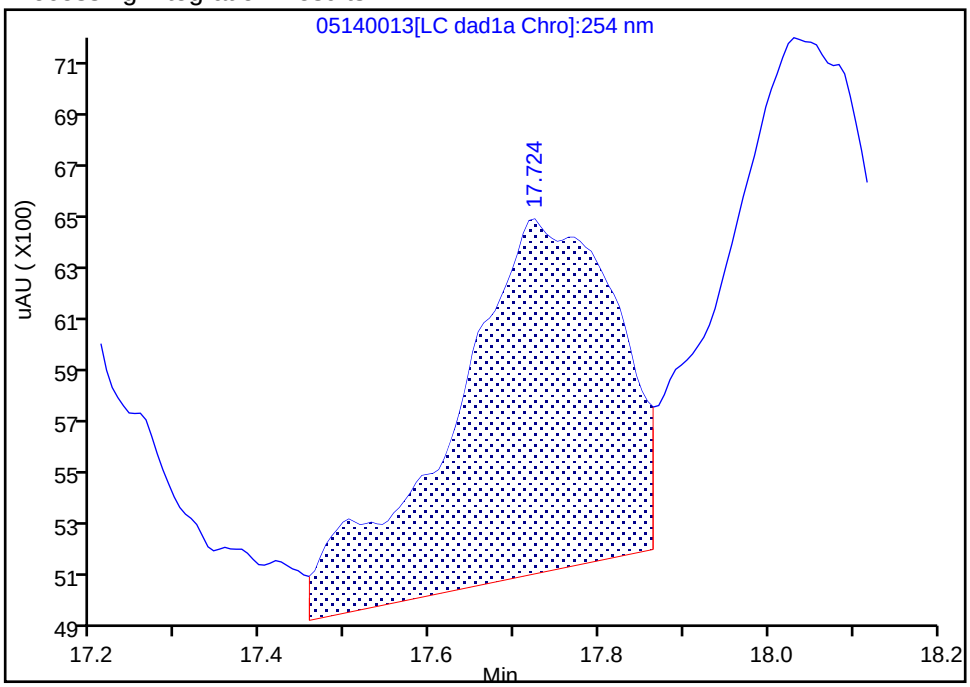
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140013.d				
Injection Date:	14-May-2020 19:46:37	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 3				
Client ID:					
Operator ID:	CB	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

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

Signal: 1

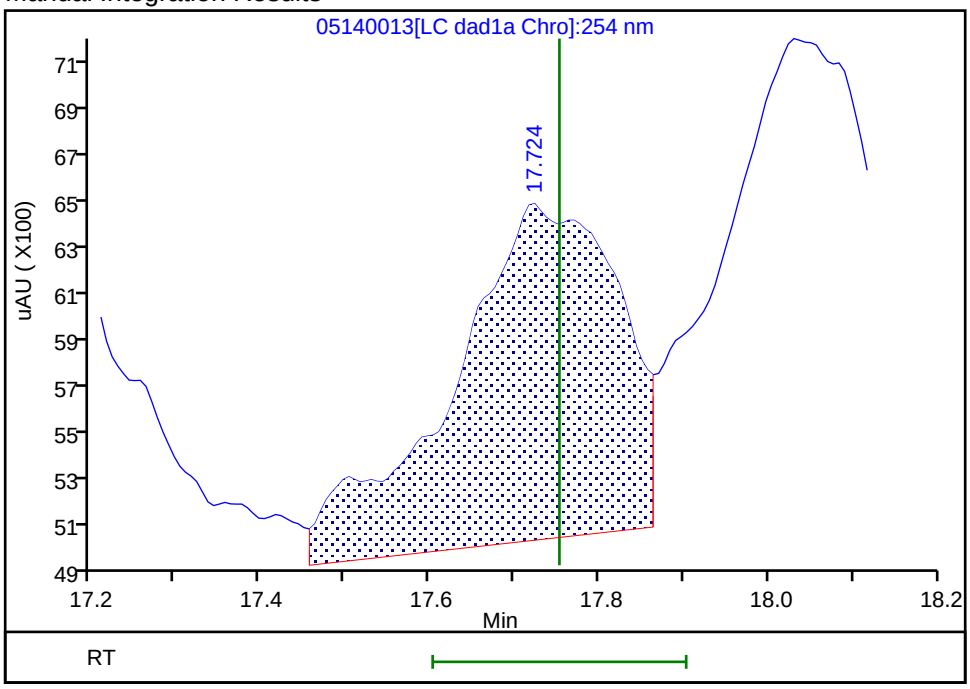
Processing Integration Results

RT: 17.72
Area: 18317
Amount: 0.062732
Amount Units: ug/ml



Manual Integration Results

RT: 17.72
Area: 19280
Amount: 0.064627
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:22:04
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

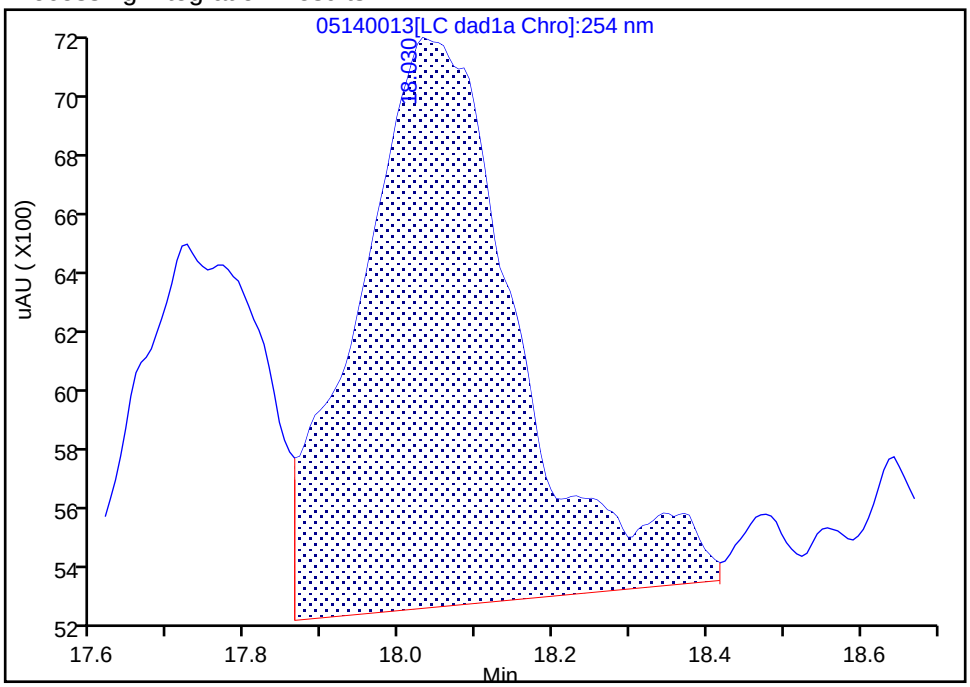
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140013.d				
Injection Date:	14-May-2020 19:46:37	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 3				
Client ID:					
Operator ID:	CB	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

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

Signal: 1

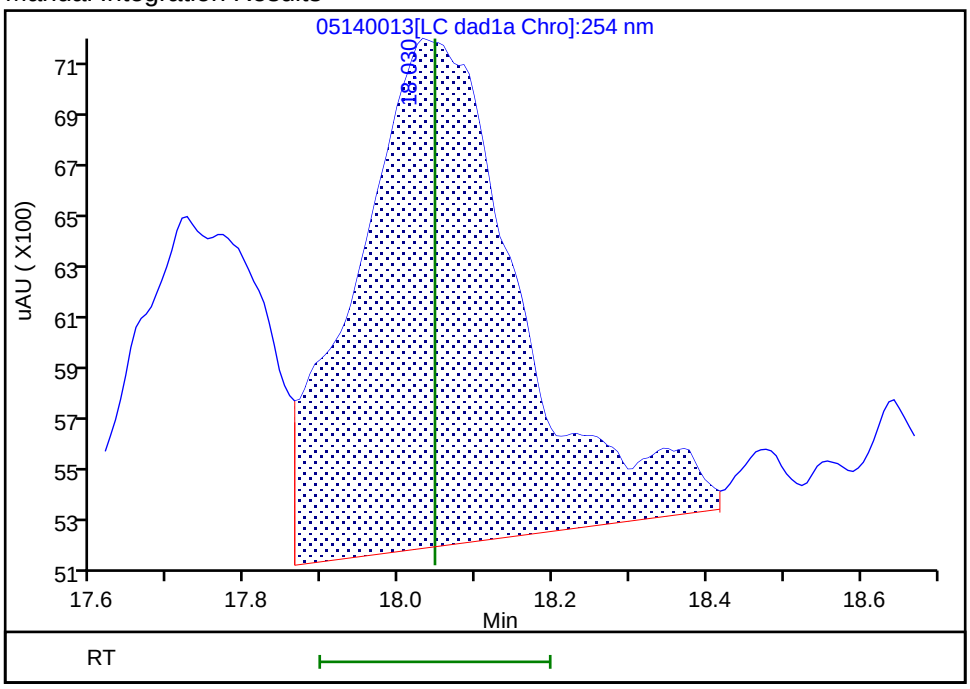
Processing Integration Results

RT: 18.03
Area: 27239
Amount: 0.055134
Amount Units: ug/ml



Manual Integration Results

RT: 18.03
Area: 28982
Amount: 0.062299
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:22:04
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

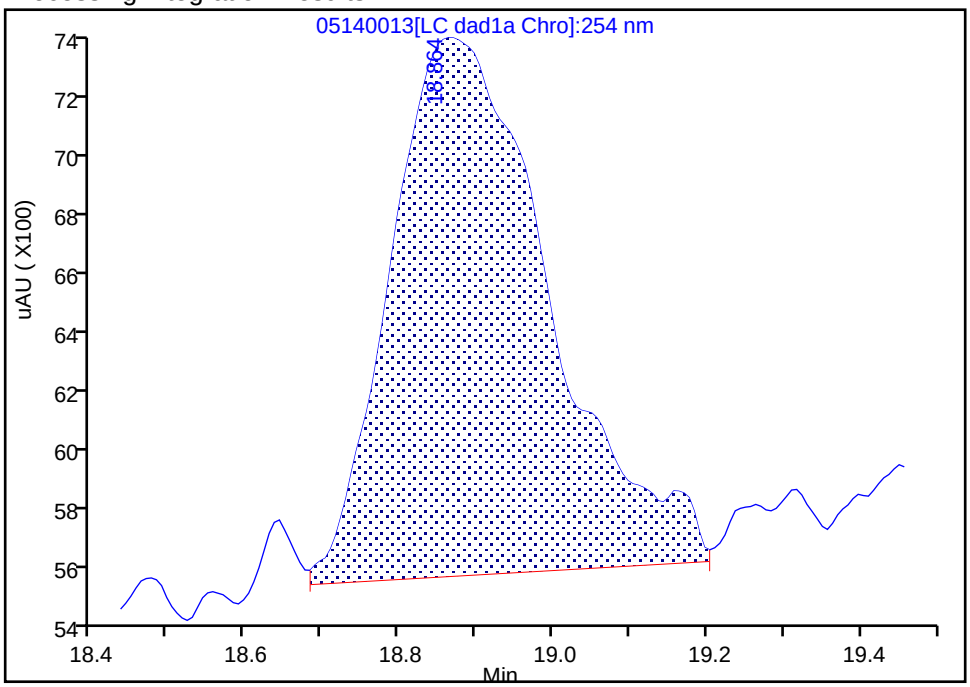
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140013.d				
Injection Date:	14-May-2020 19:46:37	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 3				
Client ID:					
Operator ID:	CB	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

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

Signal: 1

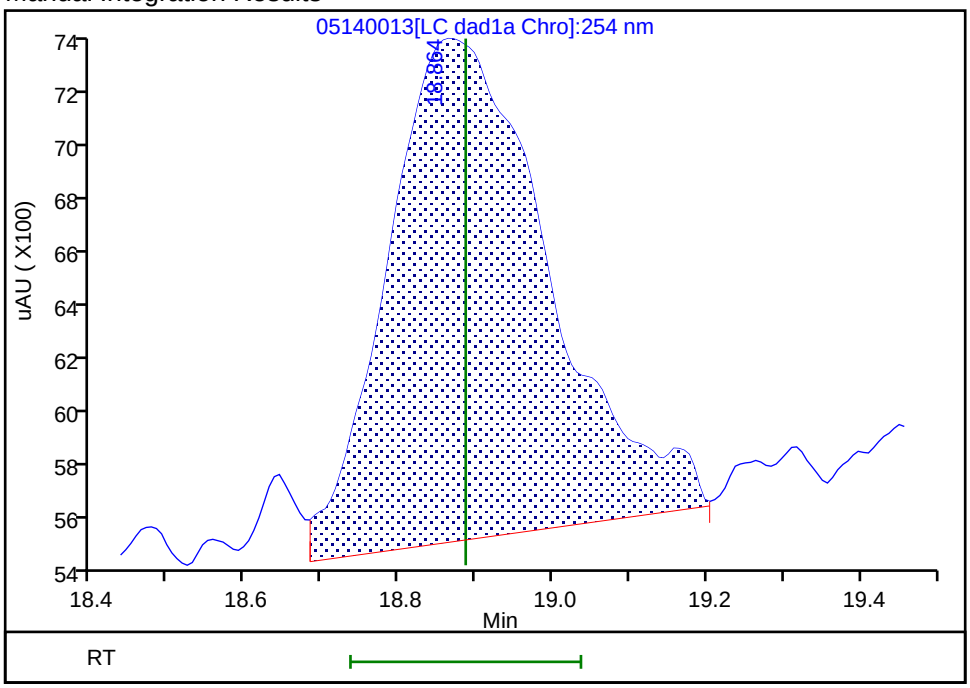
Processing Integration Results

RT: 18.86
Area: 25370
Amount: 0.053396
Amount Units: ug/ml



Manual Integration Results

RT: 18.86
Area: 26649
Amount: 0.056406
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:22:04
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

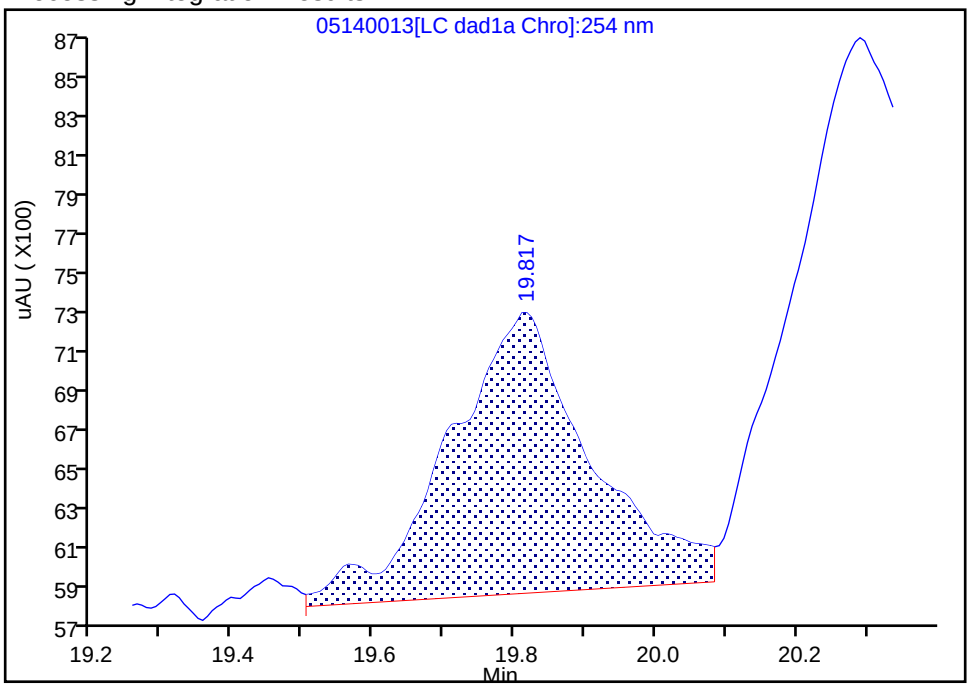
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140013.d				
Injection Date:	14-May-2020 19:46:37	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 3				
Client ID:					
Operator ID:	CB	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

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

Signal: 1

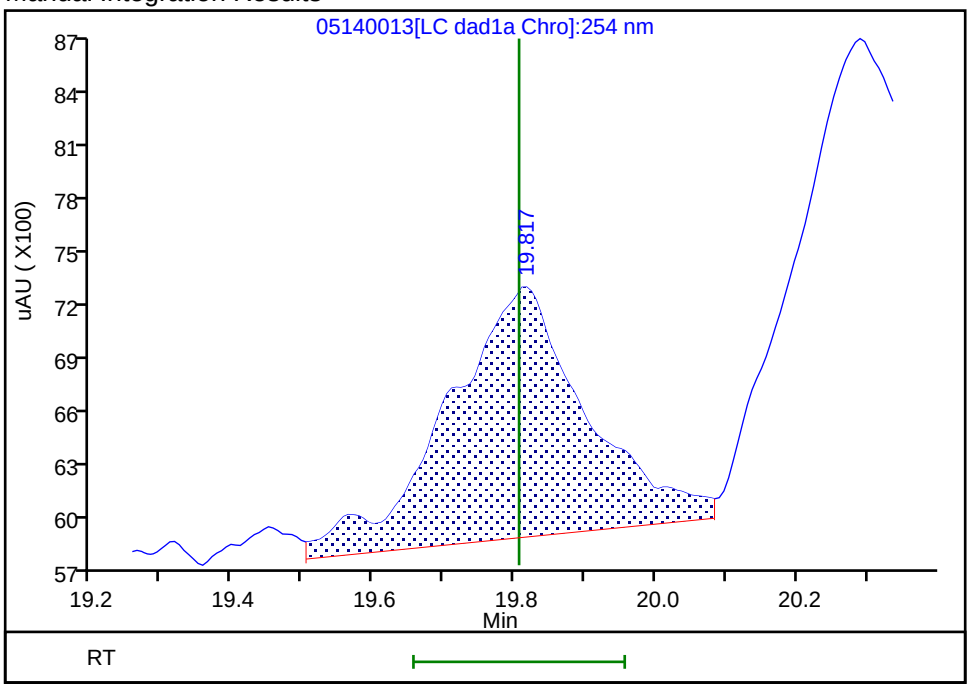
Processing Integration Results

RT: 19.82
Area: 19664
Amount: 0.057481
Amount Units: ug/ml



Manual Integration Results

RT: 19.82
Area: 19107
Amount: 0.050727
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:22:04
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

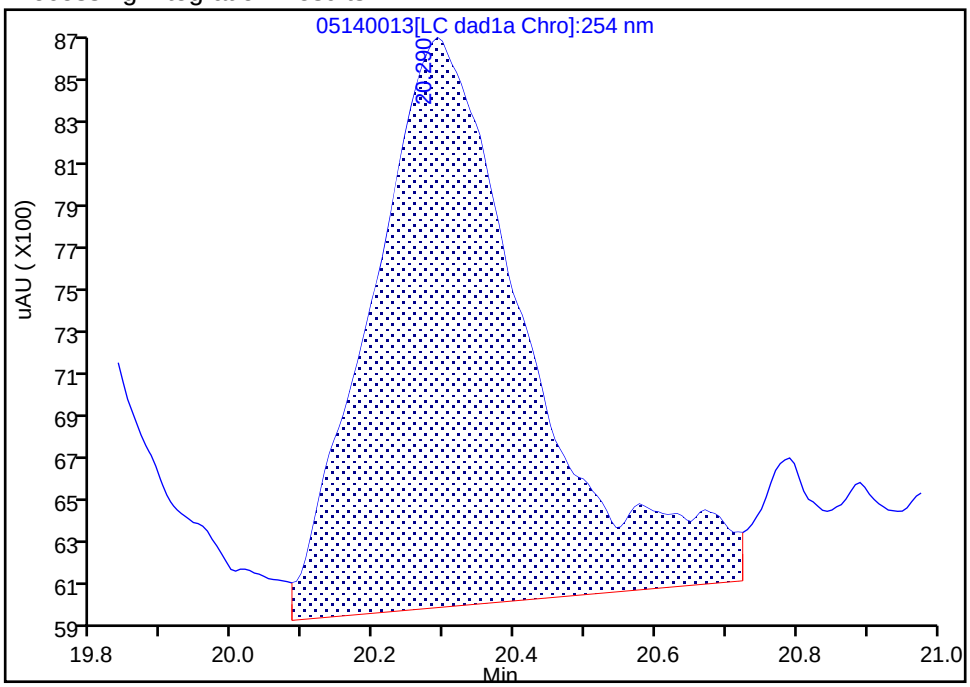
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140013.d				
Injection Date:	14-May-2020 19:46:37	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 3				
Client ID:					
Operator ID:	CB	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

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

Signal: 1

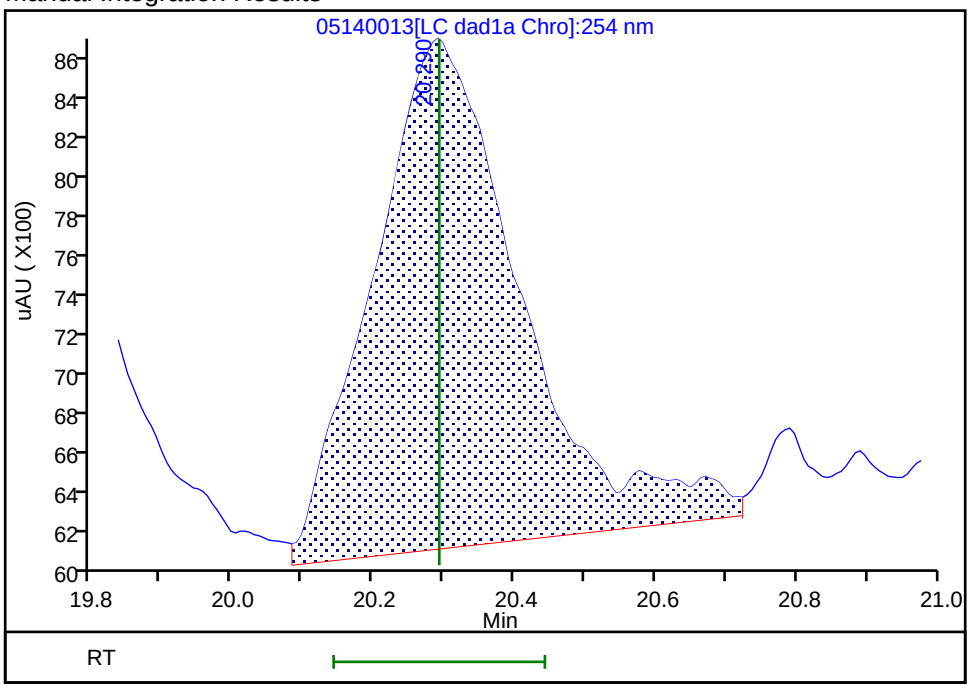
Processing Integration Results

RT: 20.29
Area: 41123
Amount: 0.062799
Amount Units: ug/ml



Manual Integration Results

RT: 20.29
Area: 37302
Amount: 0.058274
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:22:04
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

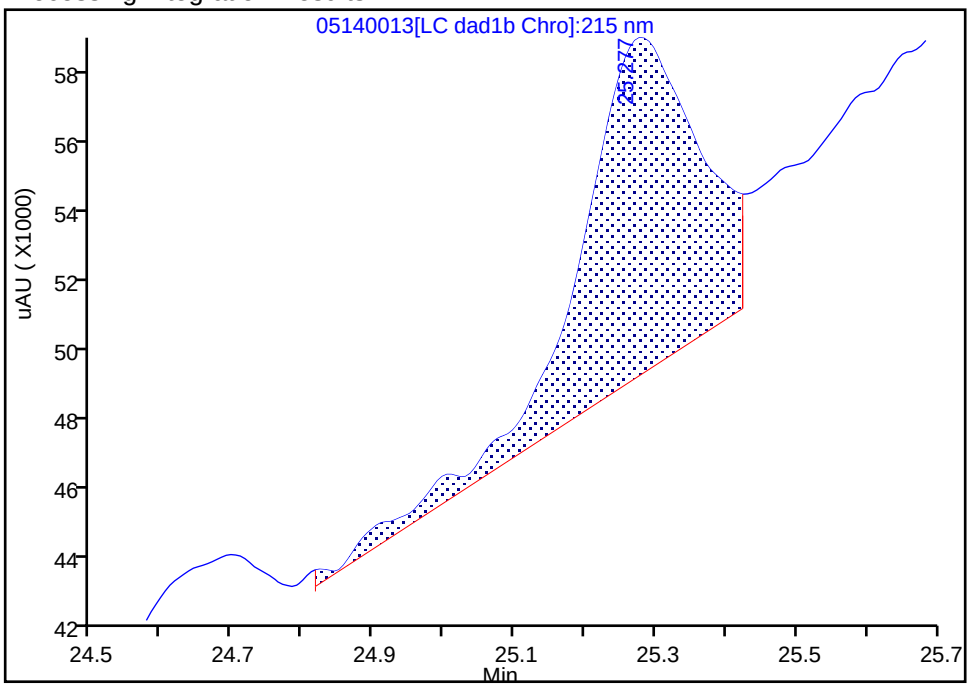
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140013.d				
Injection Date:	14-May-2020 19:46:37	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 3				
Client ID:					
Operator ID:	CB	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:		Detector	LC DAD1B, 215 nm		

24 PETN, CAS: 78-11-5

Signal: 1

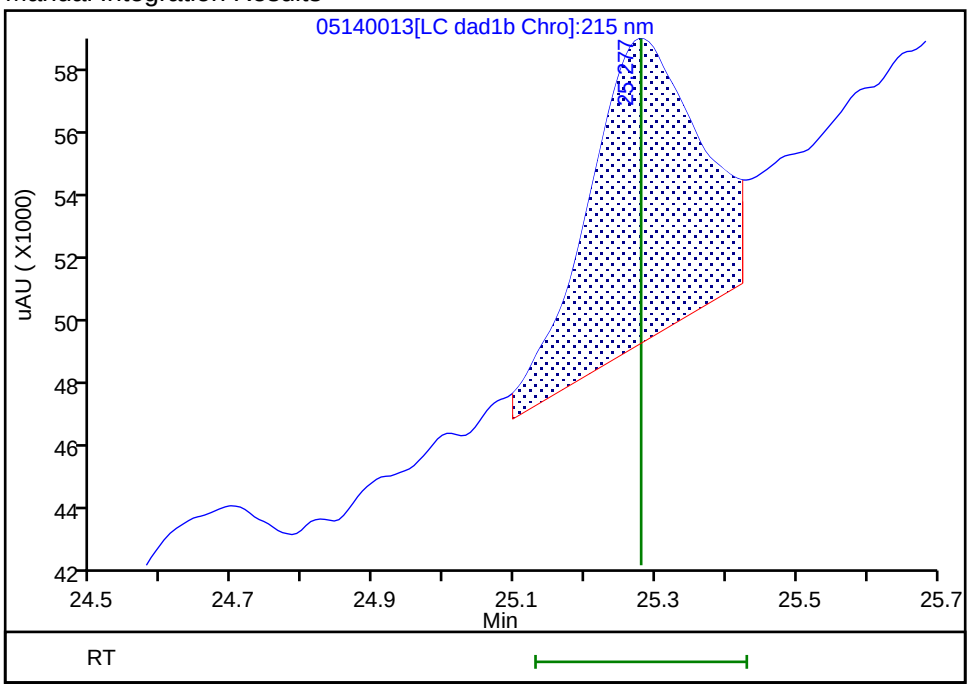
Processing Integration Results

RT: 25.28
Area: 109947
Amount: 0.773174
Amount Units: ug/ml



Manual Integration Results

RT: 25.28
Area: 102120
Amount: 0.578199
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:24:48

Audit Action: Split an Integrated Peak Audit Reason: Peak Tail

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140014.D
Lims ID: IC FULL 2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 14-May-2020 20:21:33 ALS Bottle#: 14 Worklist Smp#: 14
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC FULL 2
Misc. Info.: 280-0091518-014
Operator ID: CB Instrument ID: CHHPLC_G2_LUNA
Sublist: chrom-G2_8330_Luna*sub6

Method: \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\G2_8330_Luna.m
Limit Group: GCSV - 8330
Last Update: 15-May-2020 12:00:58 Calib Date: 15-May-2020 02:11:20
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140024.D

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

First Level Reviewer: zhangji Date: 15-May-2020 11:22:32

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 2,6-diamino-4-nitrotoluene	1	4.375	4.366	0.009	10106	0.0200	0.0235	
2 2,4-diamino-6-nitrotoluene	1	4.855	4.880	-0.025	9147	0.0200	0.0152	
5 2,4,6-Trinitrophenol	1	6.322	6.300	0.022	5683	0.0250	0.0293	a
6 HMX	1	6.982	6.986	-0.004	10018	0.0250	0.0265	
8 RDX	1	9.095	9.173	-0.078	6286	0.0250	0.0257	
9 Nitrobenzene	1	12.095	12.106	-0.011	10325	0.0251	0.0235	
$ 10 1,2-Dinitrobenzene	1	13.022	13.040	-0.018	8436	0.0250	0.0238	M
11 3,5-Dinitroaniline	1	14.862	14.886	-0.024	12305	0.0200	0.0197	
12 1,3-Dinitrobenzene	1	15.542	15.553	-0.011	16280	0.0251	0.0241	
13 Nitroglycerin	2	15.855	15.853	0.002	26546	0.2500	0.2093	
14 o-Nitrotoluene	1	16.515	16.533	-0.018	6812	0.0250	0.0250	
15 p-Nitrotoluene	1	16.795	16.820	-0.025	5374	0.0251	0.0223	
16 4-Amino-2,6-dinitrotoluene	1	17.155	17.146	0.009	9369	0.0250	0.0271	
17 m-Nitrotoluene	1	17.748	17.753	-0.005	6920	0.0250	0.0232	
18 2-Amino-4,6-dinitrotoluene	1	18.048	18.046	0.002	10376	0.0251	0.0223	
19 1,3,5-Trinitrobenzene	1	18.855	18.886	-0.031	10822	0.0251	0.0229	
20 2,6-Dinitrotoluene	1	19.828	19.806	0.022	11618	0.0251	0.0248	
21 2,4-Dinitrotoluene	1	20.295	20.293	0.002	16811	0.0251	0.0263	
22 Tetryl	1	23.529	23.553	-0.024	9874	0.0251	0.0268	
23 2,4,6-Trinitrotoluene	1	24.682	24.653	0.029	11547	0.0251	0.0209	
24 PETN	2	25.282	25.280	0.002	20453	0.2500	-0.0535	M

QC Flag Legend

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

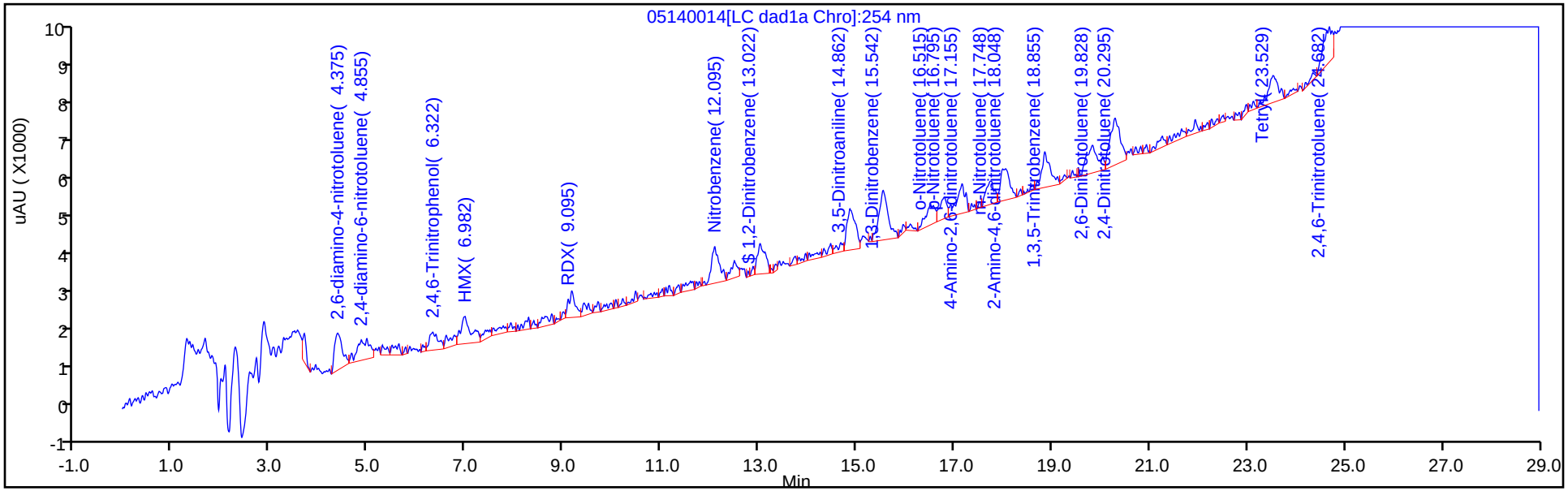
8330IntermStk_00064	Amount Added:	2.50	Units: uL
8330_ADDs_00026	Amount Added:	1.00	Units: uL

Report Date: 15-May-2020 12:00:59 Chrom Revision: 2.3 05-May-2020 17:48:18

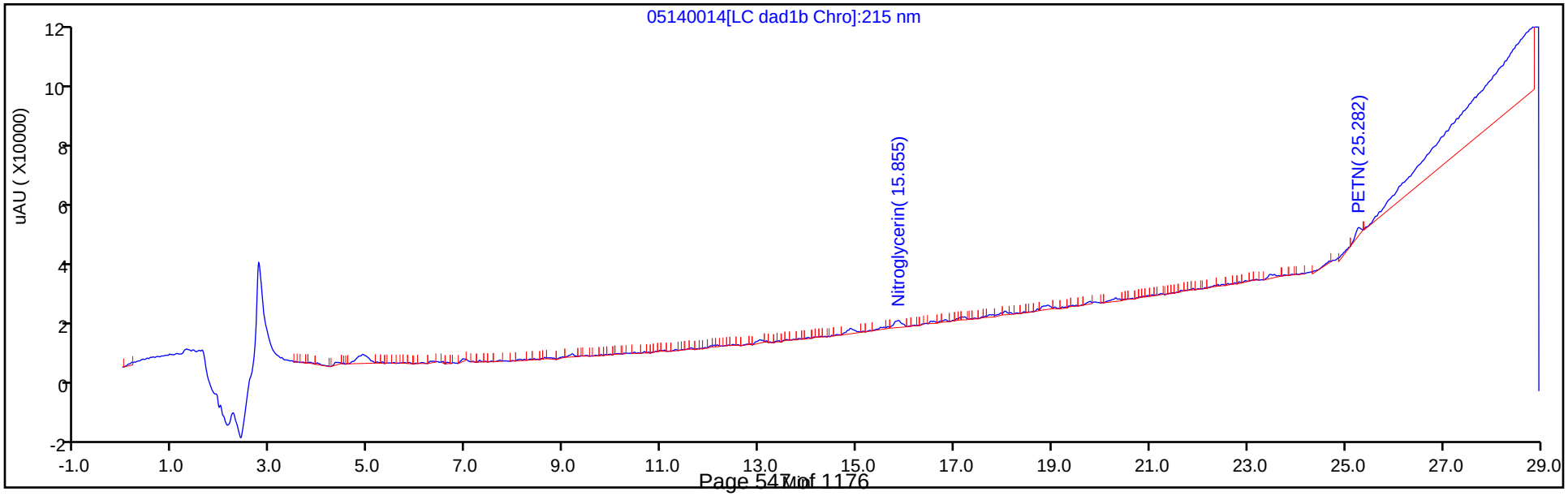
Eurofins TestAmerica, Denver

Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140014.d				
Injection Date:	14-May-2020 20:21:33	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	CB
Lims ID:	IC FULL 2			Worklist Smp#:	14
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	14
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		

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



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



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

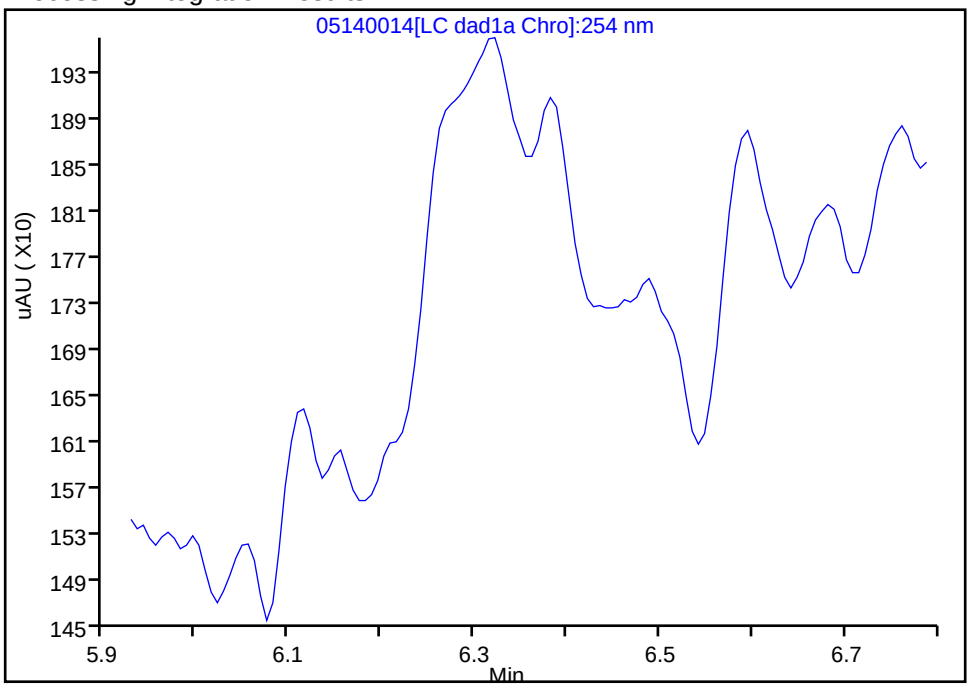
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140014.d				
Injection Date:	14-May-2020 20:21:33	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 2				
Client ID:					
Operator ID:	CB	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

5 2,4,6-Trinitrophenol, CAS: 88-89-1

Signal: 1

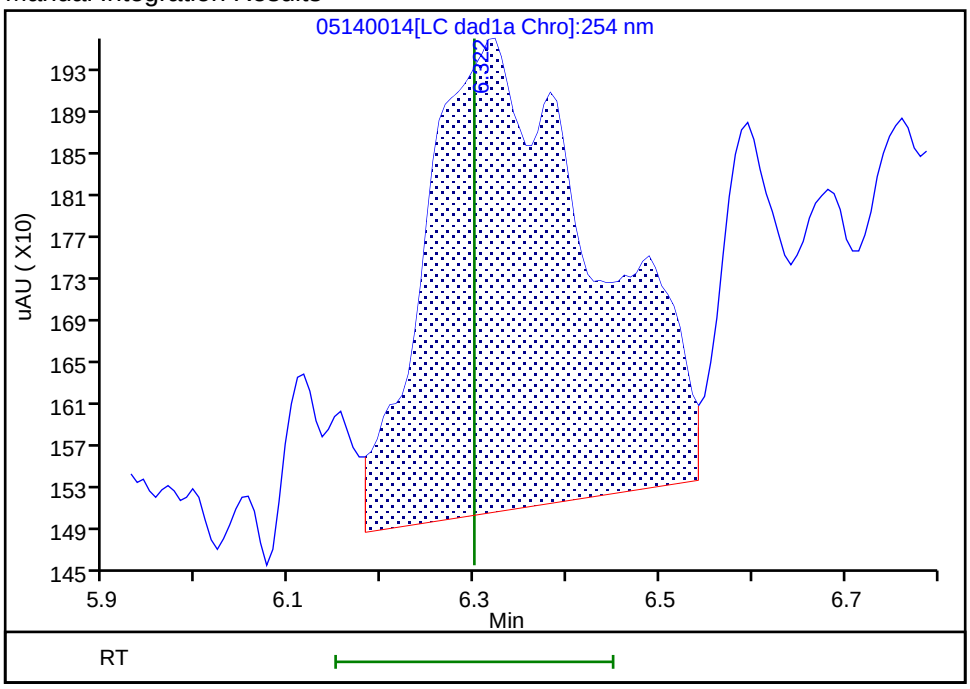
Not Detected
Expected RT: 6.30

Processing Integration Results



Manual Integration Results

RT: 6.32
Area: 5683
Amount: 0.029323
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:22:29
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

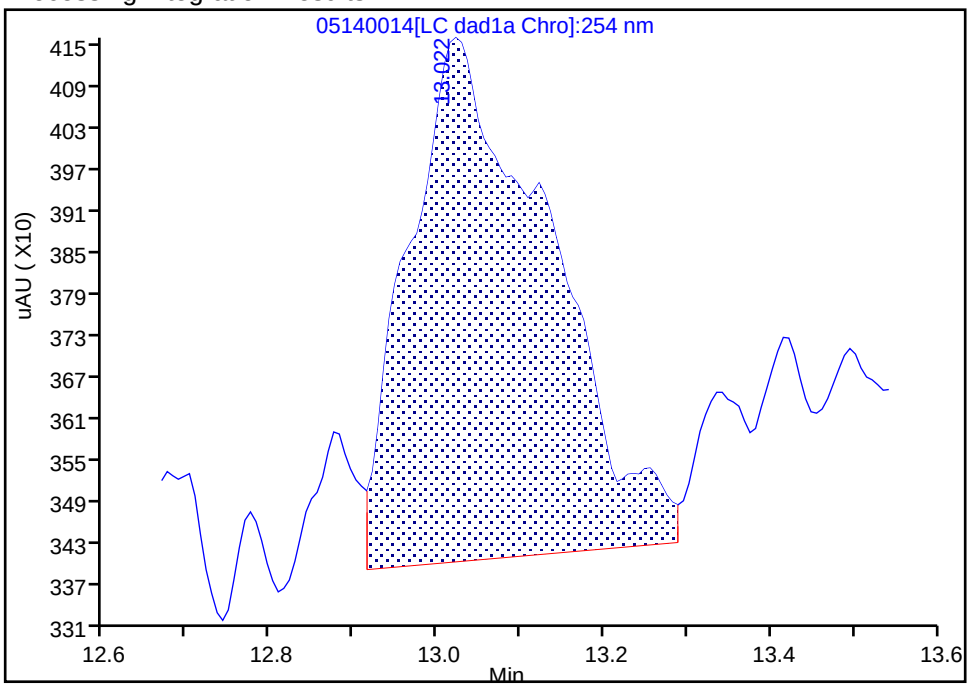
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140014.d				
Injection Date:	14-May-2020 20:21:33	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 2				
Client ID:					
Operator ID:	CB	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

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

Signal: 1

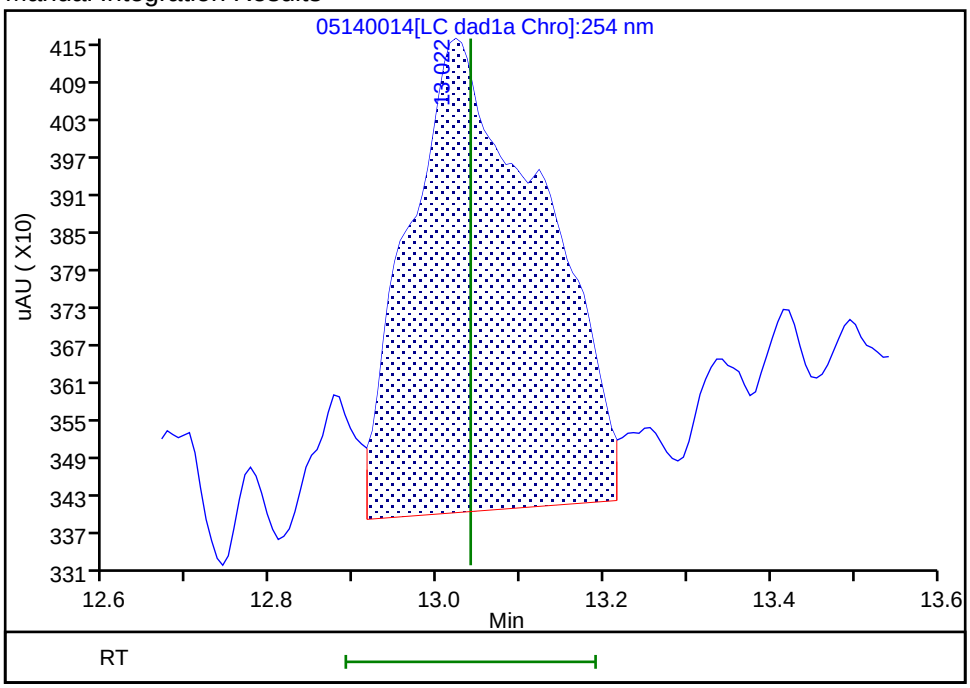
Processing Integration Results

RT: 13.02
Area: 8831
Amount: 0.029561
Amount Units: ug/ml



Manual Integration Results

RT: 13.02
Area: 8436
Amount: 0.023796
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:35:34

Audit Action: Split an Integrated Peak Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

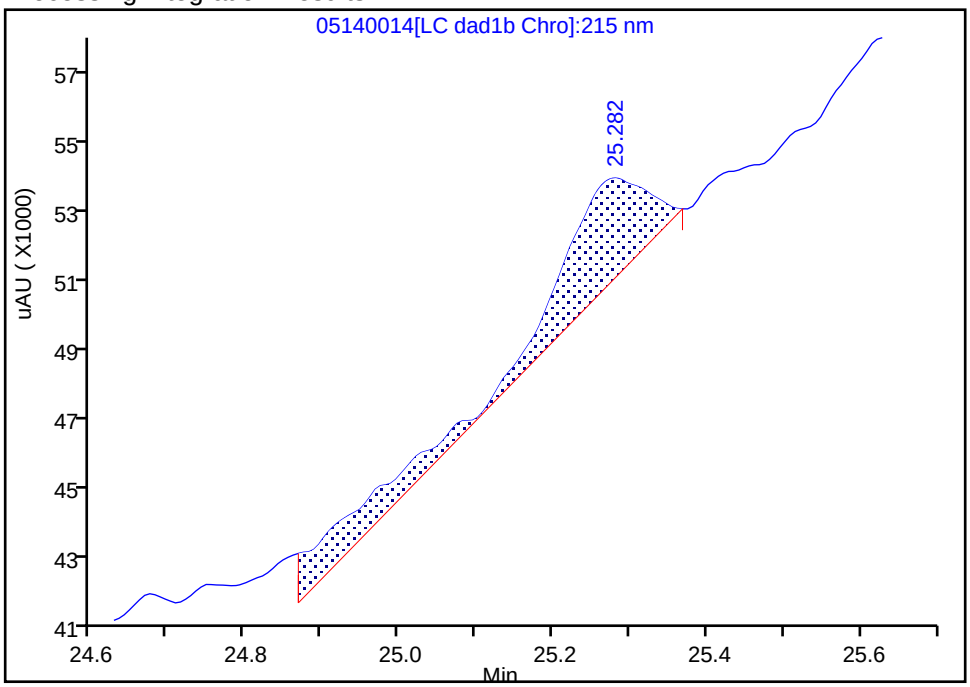
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140014.d				
Injection Date:	14-May-2020 20:21:33	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 2				
Client ID:					
Operator ID:	CB	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:		Detector	LC DAD1B, 215 nm		

24 PETN, CAS: 78-11-5

Signal: 1

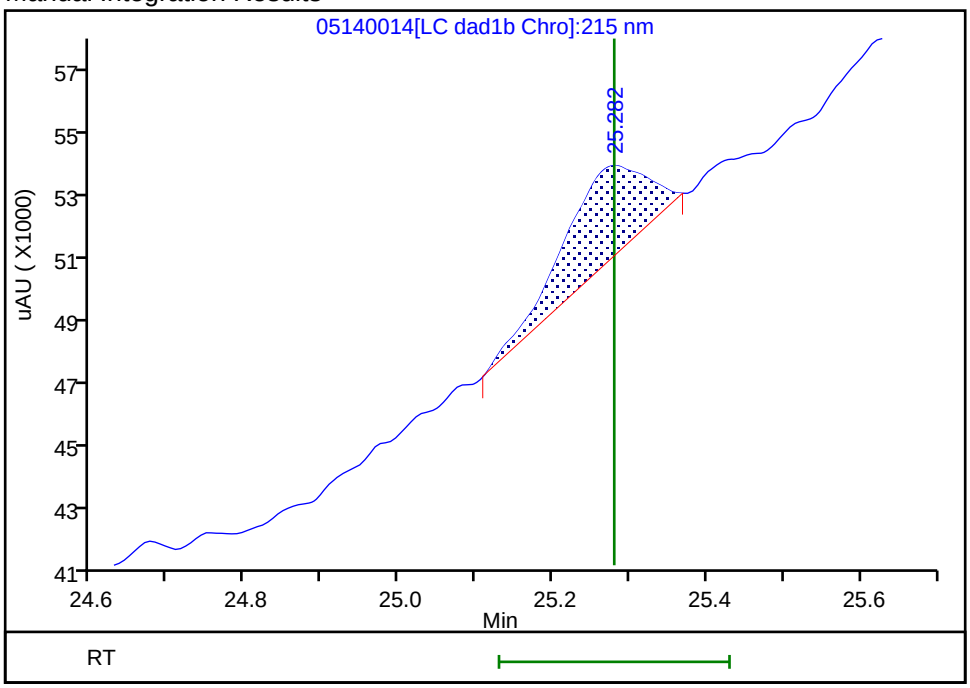
Processing Integration Results

RT: 25.28
Area: 31007
Amount: 0.129673
Amount Units: ug/ml



Manual Integration Results

RT: 25.28
Area: 20453
Amount: -0.053470
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:24:34

Audit Action: Split an Integrated Peak Audit Reason: Split Peak

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140015.D
Lims ID: IC FULL 1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 14-May-2020 20:56:30 ALS Bottle#: 15 Worklist Smp#: 15
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC FULL 1
Misc. Info.: 280-0091518-015
Operator ID: CB Instrument ID: CHHPLC_G2_LUNA
Sublist: chrom-G2_8330_Luna*sub6

Method: \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\G2_8330_Luna.m
Limit Group: GCSV - 8330
Last Update: 15-May-2020 12:00:59 Calib Date: 15-May-2020 02:11:20
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140024.D

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

First Level Reviewer: zhangji Date: 15-May-2020 11:24:04

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 2,6-diamino-4-nitrotoluene	1		4.366			ND	ND	U
2 2,4-diamino-6-nitrotoluene	1		4.880			ND	ND	U
5 2,4,6-Trinitrophenol	1		6.300			ND	ND	U
6 HMX	1		6.986			ND	ND	U
8 RDX	1		9.173			ND	ND	U
9 Nitrobenzene	1		12.106			ND	ND	U
$ 10 1,2-Dinitrobenzene	1		13.040			ND	ND	U
11 3,5-Dinitroaniline	1		14.886			ND	ND	U
12 1,3-Dinitrobenzene	1		15.553			ND	ND	U
13 Nitroglycerin	2		15.853			ND	ND	U
14 o-Nitrotoluene	1		16.533			ND	ND	U
15 p-Nitrotoluene	1		16.820			ND	ND	U
16 4-Amino-2,6-dinitrotoluene	1		17.146			ND	ND	U
17 m-Nitrotoluene	1		17.753			ND	ND	U
18 2-Amino-4,6-dinitrotoluene	1		18.046			ND	ND	U
19 1,3,5-Trinitrobenzene	1		18.886			ND	ND	U
20 2,6-Dinitrotoluene	1	19.755	19.806	-0.051	4758	0.0126	0.001113	M
21 2,4-Dinitrotoluene	1	20.295	20.293	0.002	7990	0.0126	0.0125	M
22 Tetryl	1		23.553			ND	ND	U
23 2,4,6-Trinitrotoluene	1		24.653			ND	ND	U
24 PETN	2		25.280			ND	ND	U

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

U - Marked Undetected

Reagents:

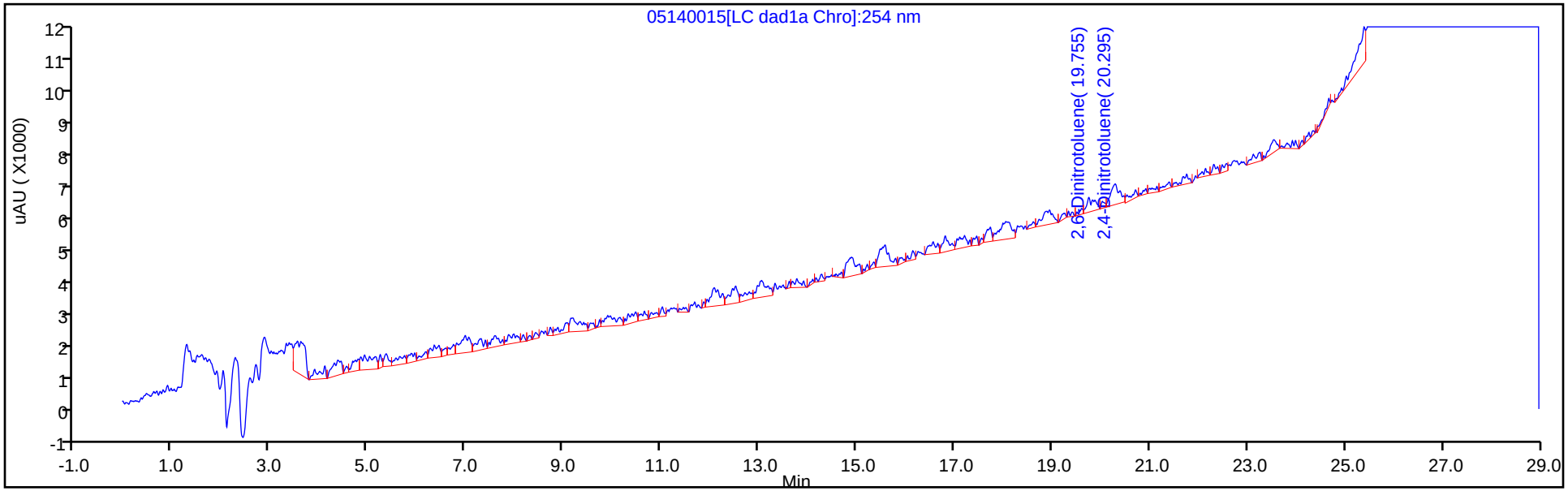
8330IntermStk_00064	Amount Added:	1.25	Units: uL
8330_ADDs_00026	Amount Added:	0.50	Units: uL

Report Date: 15-May-2020 12:00:59 Chrom Revision: 2.3 05-May-2020 17:48:18

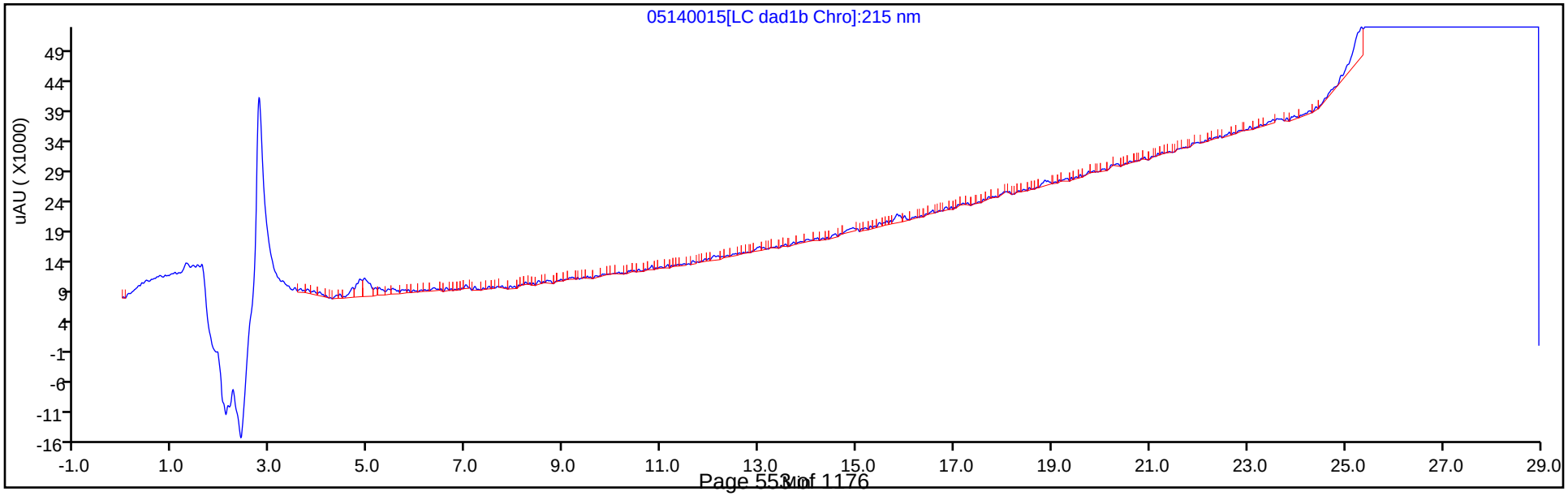
Eurofins TestAmerica, Denver

Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140015.d				
Injection Date:	14-May-2020 20:56:30	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	CB
Lims ID:	IC FULL 1			Worklist Smp#:	15
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	15
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		

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



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



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

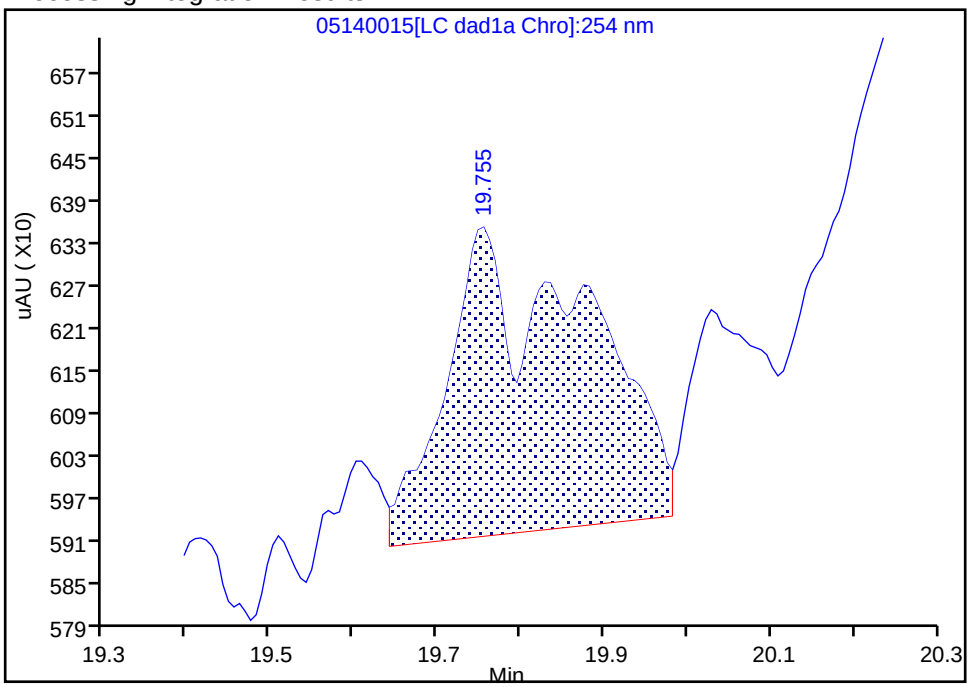
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140015.d				
Injection Date:	14-May-2020 20:56:30	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 1				
Client ID:					
Operator ID:	CB	ALS Bottle#:	15	Worklist Smp#:	15
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

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

Signal: 1

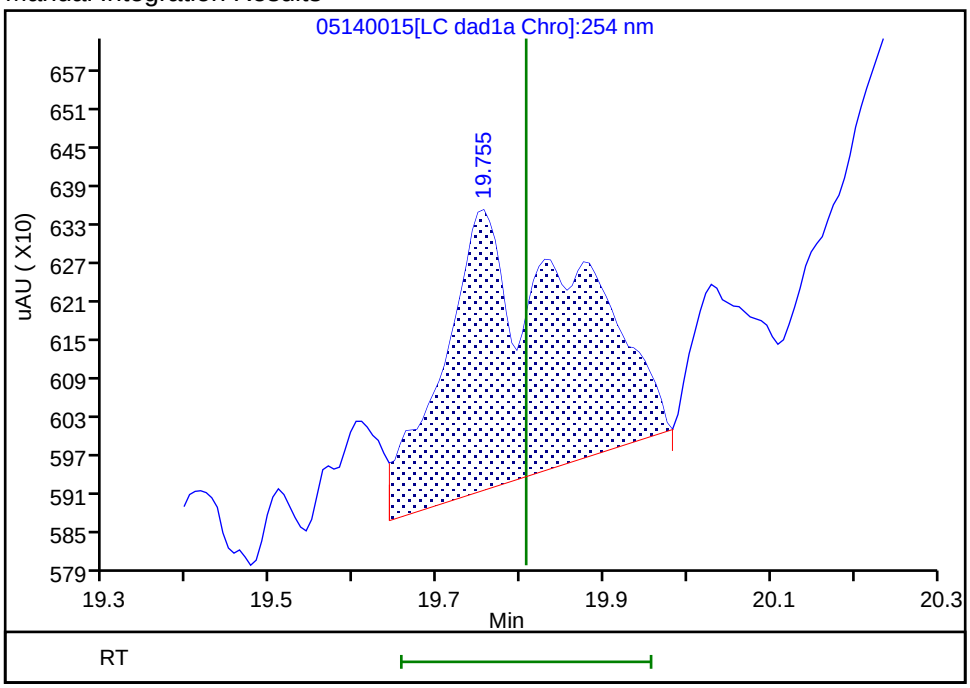
Processing Integration Results

RT: 19.76
Area: 5064
Amount: 0.014857
Amount Units: ug/ml



Manual Integration Results

RT: 19.76
Area: 4758
Amount: 0.001113
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:30:41
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

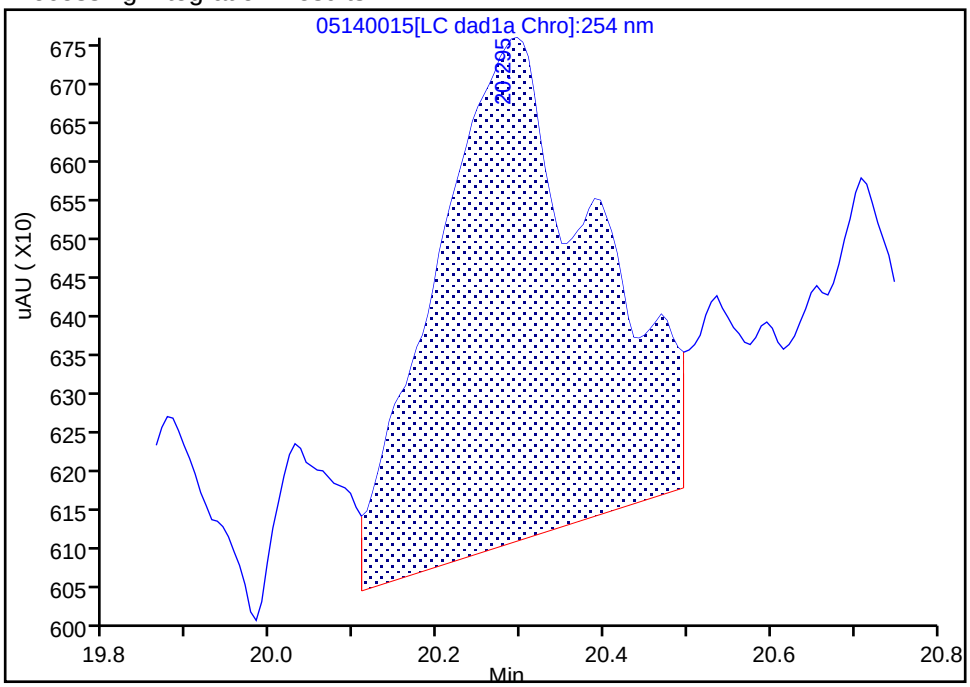
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140015.d				
Injection Date:	14-May-2020 20:56:30	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 1				
Client ID:					
Operator ID:	CB	ALS Bottle#:	15	Worklist Smp#:	15
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

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

Signal: 1

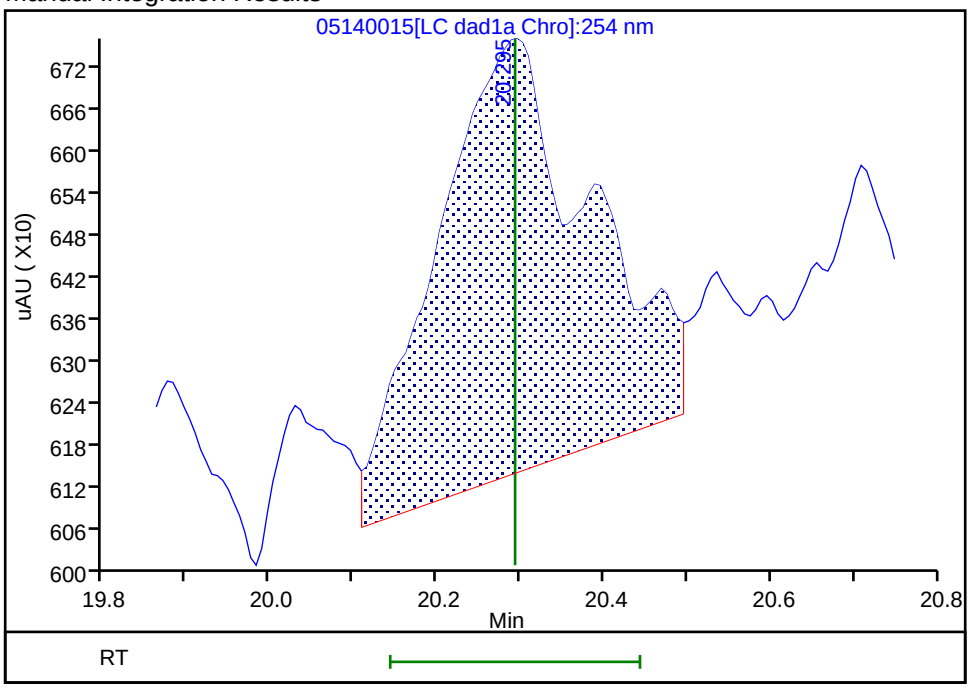
Processing Integration Results

RT: 20.30
Area: 8698
Amount: 0.013456
Amount Units: ug/ml



Manual Integration Results

RT: 20.30
Area: 7990
Amount: 0.012482
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:30:41
Audit Action: Assigned New Baseline Audit Reason: Baseline

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

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1 Analy Batch No.: 494886

SDG No.:

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

Calibration Start Date: 05/14/2020 22:06 Calibration End Date: 05/15/2020 02:46 Calibration ID: 44235

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-494886/24	05140024.D
Level 2	IC 280-494886/23	05140023.D
Level 3	IC 280-494886/22	05140022.D
Level 4	IC 280-494886/21	05140021.D
Level 5	IC 280-494886/20	05140020.D
Level 6	IC 280-494886/19	05140019.D
Level 7	IC 280-494886/18	05140018.D
Level 8	IC 280-494886/17	05140017.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	LVL 7	LVL 8			RT WINDOW	AVG RT
TNX	5.430	5.411	5.420	5.417	5.419	5.416	5.408	5.395			5.267 - 5.567	5.415
DNX	6.217	6.224	6.226	6.231	6.226	6.223	6.214	6.202			6.081 - 6.381	6.220
MNX	7.737	7.744	7.740	7.744	7.739	7.736	7.728	7.709			7.594 - 7.894	7.735

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

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1 Analy Batch No.: 494886

SDG No.:

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

Calibration Start Date: 05/14/2020 22:06 Calibration End Date: 05/15/2020 02:46 Calibration ID: 44235

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-494886/24	05140024.D
Level 2	IC 280-494886/23	05140023.D
Level 3	IC 280-494886/22	05140022.D
Level 4	IC 280-494886/21	05140021.D
Level 5	IC 280-494886/20	05140020.D
Level 6	IC 280-494886/19	05140019.D
Level 7	IC 280-494886/18	05140018.D
Level 8	IC 280-494886/17	05140017.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	552048 411823	425974 414575	452338 409749	404831 415188	Ave		435815.884				11.3		20.0			
DNX	380619 318914	320939 302202	322807 308244	308000 307920	Ave		321205.643				7.8		20.0			
MNX	510454 287059	337087 281216	295227 270908	285954 281272	Lin2	5408.61434	266896.431							0.9970		0.9900

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 TestAmerica, Denver Job No.: 280-137225-1 Analy Batch No.: 494886

SDG No.:

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

Calibration Start Date: 05/14/2020 22:06 Calibration End Date: 05/15/2020 02:46 Calibration ID: 44235

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-494886/24	05140024.D
Level 2	IC 280-494886/23	05140023.D
Level 3	IC 280-494886/22	05140022.D
Level 4	IC 280-494886/21	05140021.D
Level 5	IC 280-494886/20	05140020.D
Level 6	IC 280-494886/19	05140019.D
Level 7	IC 280-494886/18	05140018.D
Level 8	IC 280-494886/17	05140017.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	11052 290493	21320 410159	45279 1039009	101309	164894	0.0200 0.701	0.0501 1.00	0.100 2.50	0.250	0.400
DNX	Ave	7620 211753	16063 308552	32313 770570	77077	127693	0.0200 0.701	0.0501 1.00	0.100 2.50	0.250	0.400
MNX	Lin2	11914 229725	19669 316150	34453 820612	83427	133999	0.0233 0.817	0.0584 1.17	0.117 2.92	0.292	0.467

Curve Type Legend:

Ave = Average
Lin2 = Linear 1/conc^2

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140017.D				
Lims ID:	IC DMT 9				
Client ID:					
Sample Type:	IC	Calib Level:	9		
Inject. Date:	14-May-2020 22:06:26	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	IC DMT 9				
Misc. Info.:	280-0091518-017				
Operator ID:	CB	Instrument ID:	CHHPLC_G2_LUNA		
Sublist:	chrom-G2_8330_Luna*sub13				
Method:	\\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\G2_8330_Luna.m				
Limit Group:	GCSV - 8330				
Last Update:	15-May-2020 12:01:02	Calib Date:	15-May-2020 02:11:20		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140024.D				
Column 1 :	Luna-Phenyl hexyl (4.60 mm)		Det: LC DAD1A, 254 nm		
Process Host:	CTX0318				

First Level Reviewer: zhangji Date: 15-May-2020 11:36:21

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
3 TNX	1	5.395	5.417	-0.022	1039009	2.50	2.38	
4 DNX	1	6.202	6.231	-0.029	770570	2.50	2.40	
7 MNX	1	7.709	7.744	-0.035	820612	2.92	3.05	a

QC Flag Legend

Review Flags

a - User Assigned ID

Reagents:

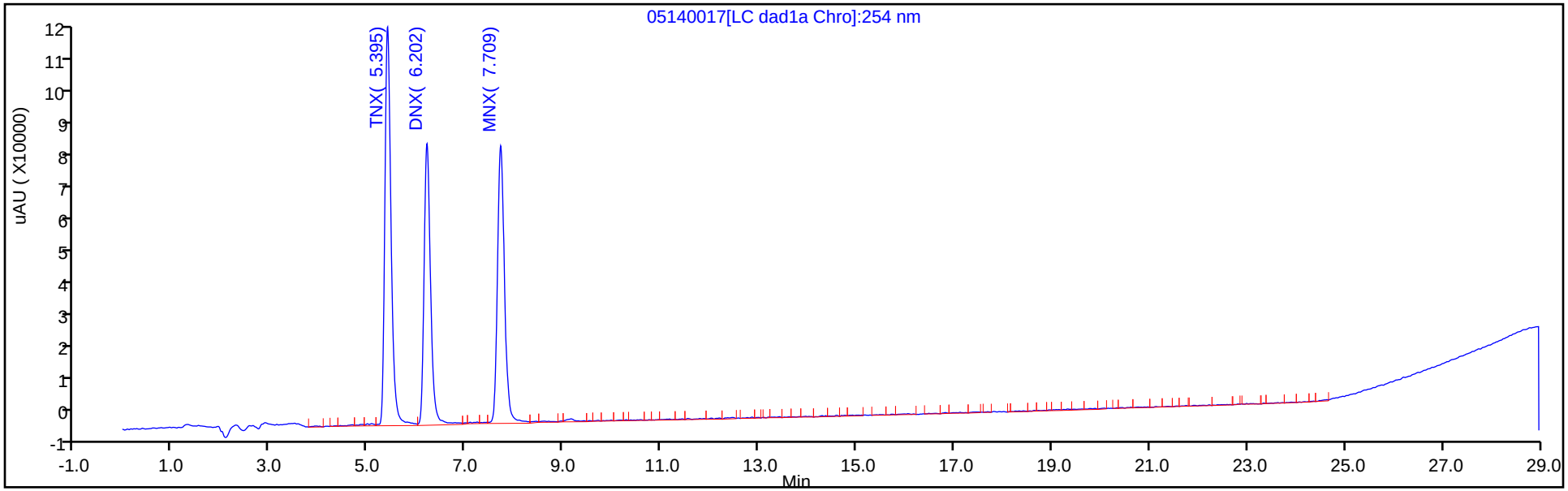
8330 DMT_00006 Amount Added: 125.00 Units: uL

Report Date: 15-May-2020 12:01:02 Chrom Revision: 2.3 05-May-2020 17:48:18

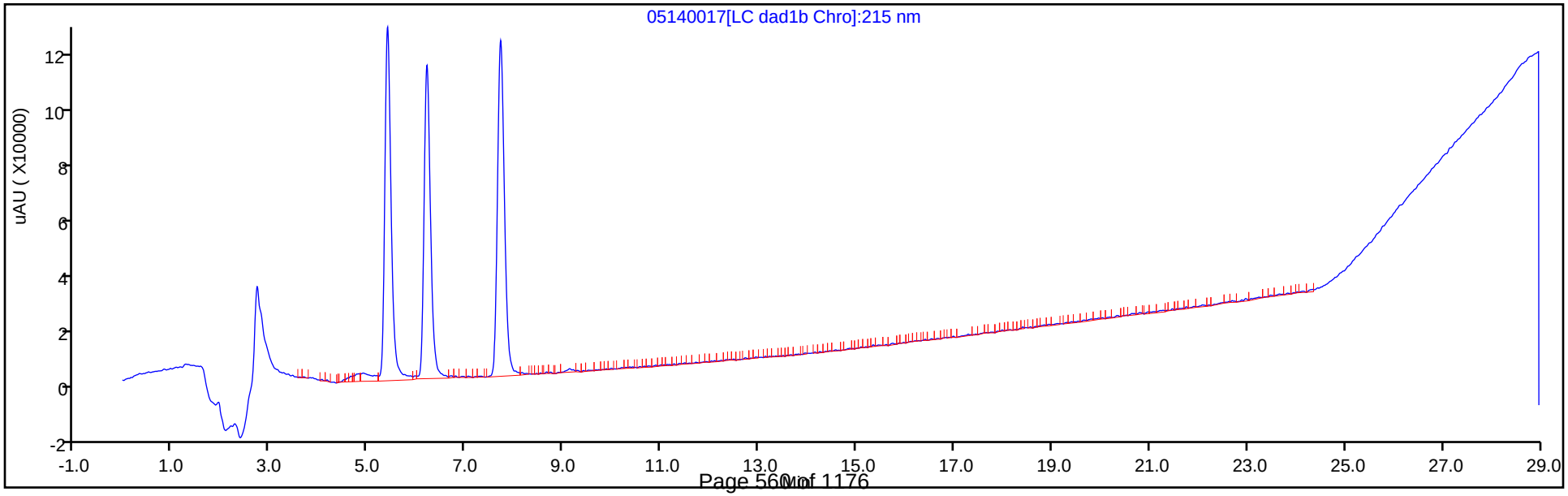
Eurofins TestAmerica, Denver

Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140017.d				
Injection Date:	14-May-2020 22:06:26	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	CB
Lims ID:	IC DMT 9			Worklist Smp#:	17
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	17
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		

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



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



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

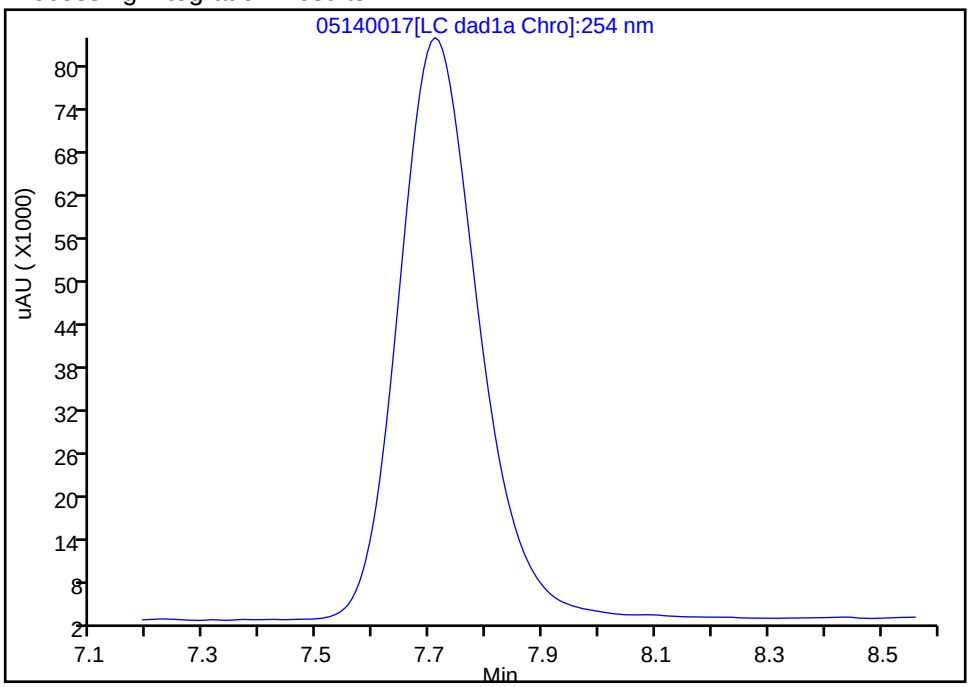
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140017.d				
Injection Date:	14-May-2020 22:06:26	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC DMT 9				
Client ID:					
Operator ID:	CB	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

7 MNX, CAS: 5755-27-1

Signal: 1

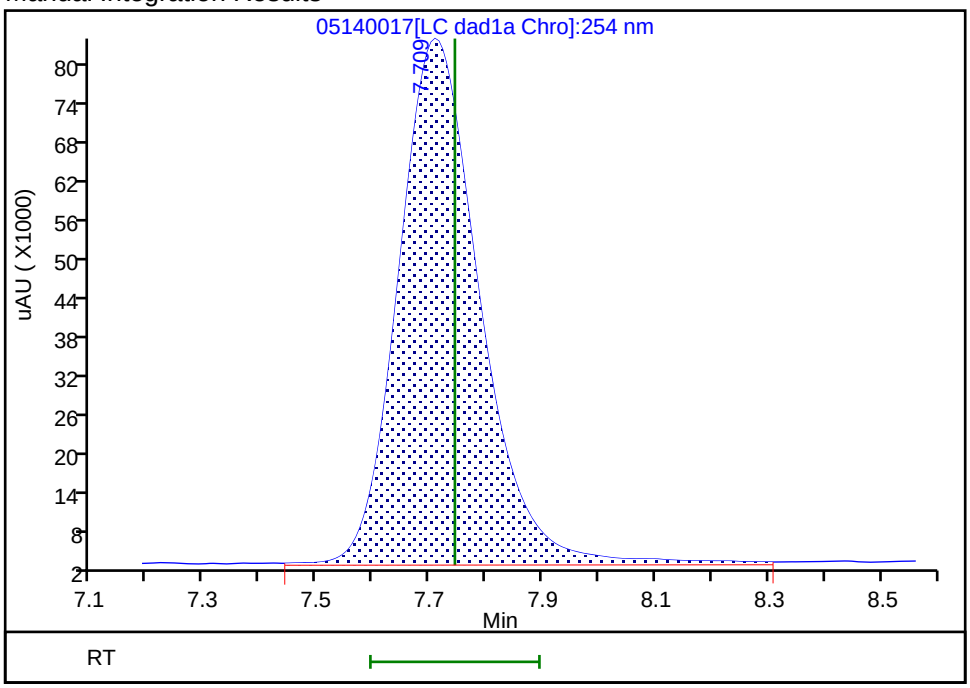
Not Detected
Expected RT: 7.74

Processing Integration Results



RT: 7.71
Area: 820612
Amount: 3.054381
Amount Units: ug/ml

Manual Integration Results



Reviewer: zhangji, 15-May-2020 11:36:42
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140018.D				
Lims ID:	IC DMT 8				
Client ID:					
Sample Type:	IC	Calib Level:	8		
Inject. Date:	14-May-2020 22:41:23	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	IC DMT 8				
Misc. Info.:	280-0091518-018				
Operator ID:	CB	Instrument ID:	CHHPLC_G2_LUNA		
Sublist:	chrom-G2_8330_Luna*sub13				
Method:	\\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\G2_8330_Luna.m				
Limit Group:	GCSV - 8330				
Last Update:	15-May-2020 12:01:02	Calib Date:	15-May-2020 02:11:20		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140024.D				
Column 1 :	Luna-Phenyl hexyl (4.60 mm)		Det: LC DAD1A, 254 nm		
Process Host:	CTX0318				

First Level Reviewer: zhangji Date: 15-May-2020 11:36:48

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
3 TNX	1	5.408	5.417	-0.009	410159	1.00	0.9411	
4 DNX	1	6.214	6.231	-0.017	308552	1.00	0.9606	
7 MNX	1	7.728	7.744	-0.016	316150	1.17	1.16	a

QC Flag Legend

Review Flags

a - User Assigned ID

Reagents:

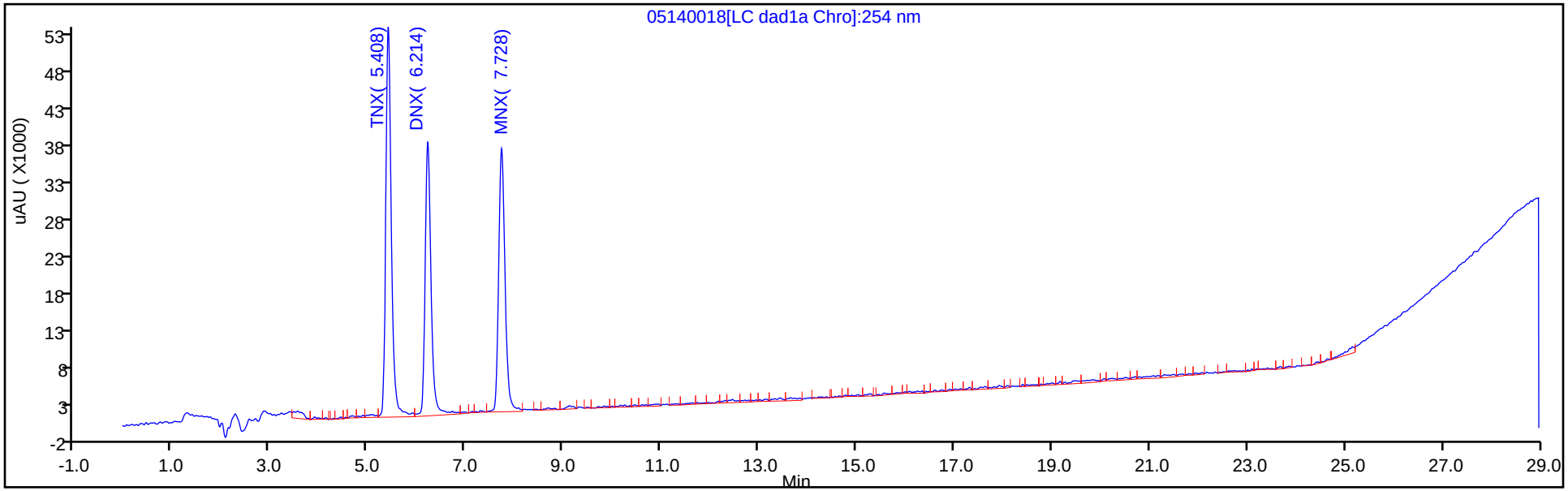
8330 DMT_00006 Amount Added: 50.00 Units: uL

Report Date: 15-May-2020 12:01:03 Chrom Revision: 2.3 05-May-2020 17:48:18

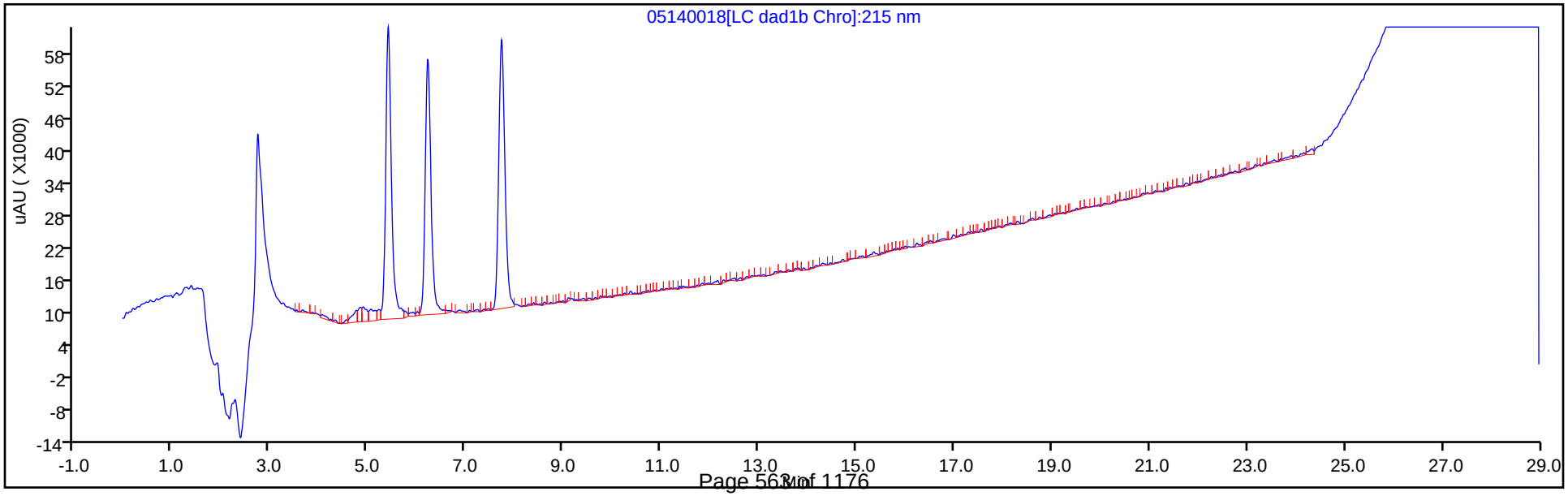
Eurofins TestAmerica, Denver

Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140018.d				
Injection Date:	14-May-2020 22:41:23	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	CB
Lims ID:	IC DMT 8			Worklist Smp#:	18
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	18
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		

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



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



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

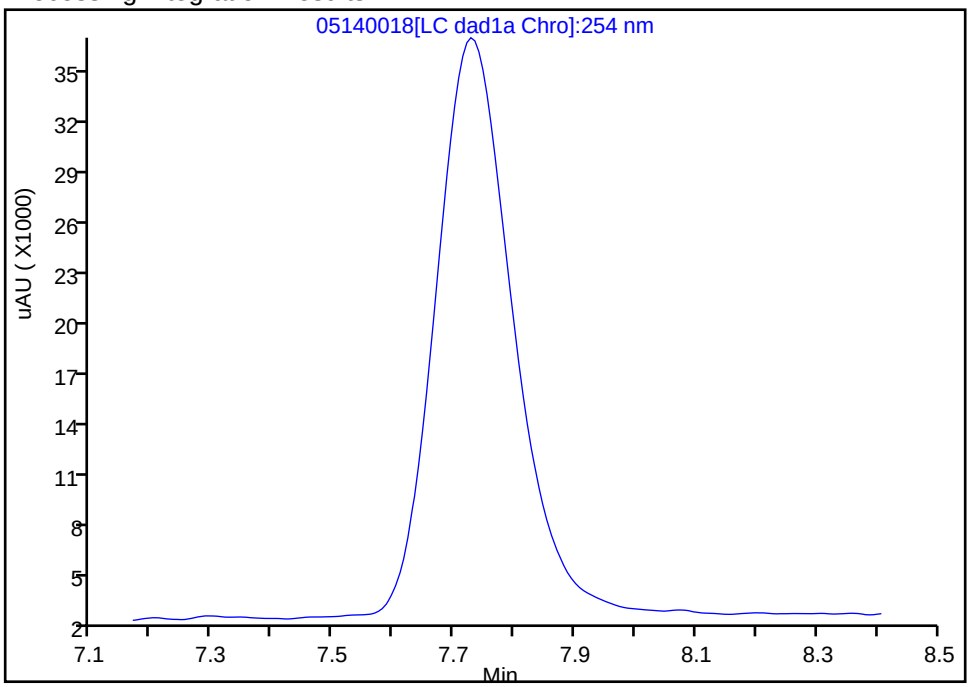
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140018.d				
Injection Date:	14-May-2020 22:41:23	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC DMT 8				
Client ID:					
Operator ID:	CB	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

7 MNX, CAS: 5755-27-1

Signal: 1

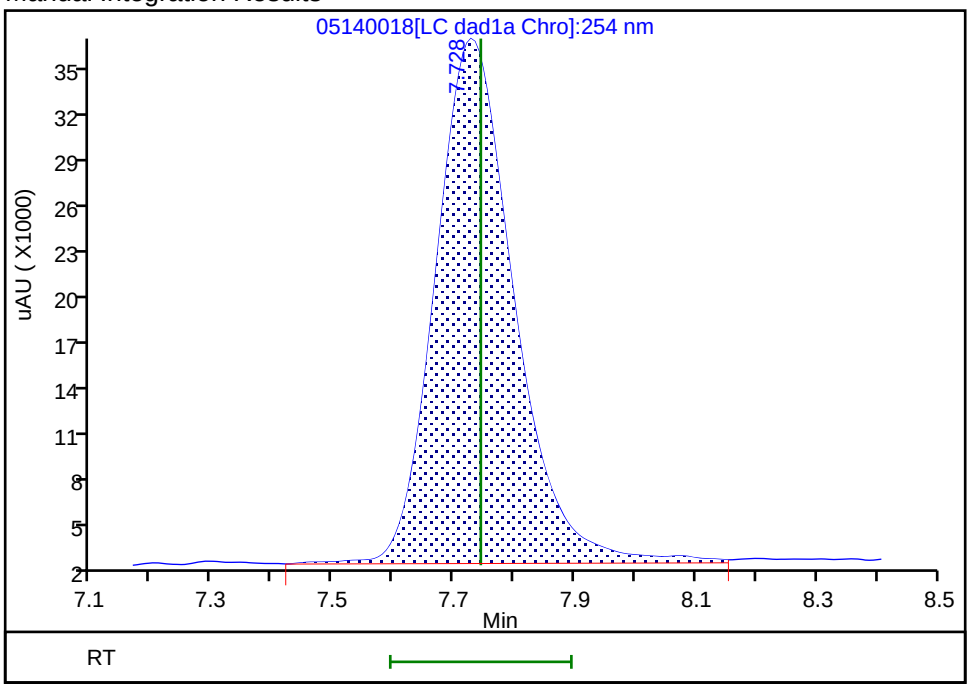
Not Detected
Expected RT: 7.74

Processing Integration Results



Manual Integration Results

RT: 7.73
Area: 316150
Amount: 1.164277
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:36:46
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140019.D				
Lims ID:	IC DMT 7				
Client ID:					
Sample Type:	IC	Calib Level:	7		
Inject. Date:	14-May-2020 23:16:26	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	IC DMT 7				
Misc. Info.:	280-0091518-019				
Operator ID:	CB	Instrument ID:	CHHPLC_G2_LUNA		
Sublist:	chrom-G2_8330_Luna*sub13				
Method:	\\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\G2_8330_Luna.m				
Limit Group:	GCSV - 8330				
Last Update:	15-May-2020 12:01:03	Calib Date:	15-May-2020 02:11:20		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140024.D				
Column 1 :	Luna-Phenyl hexyl (4.60 mm)		Det: LC DAD1A, 254 nm		
Process Host:	CTX0318				

First Level Reviewer: zhangji Date: 15-May-2020 11:36:56

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
3 TNX	1	5.416	5.417	-0.001	290493	0.7007	0.6665	
4 DNX	1	6.223	6.231	-0.008	211753	0.7007	0.6592	
7 MNX	1	7.736	7.744	-0.008	229725	0.8169	0.8405	a

QC Flag Legend

Review Flags

a - User Assigned ID

Reagents:

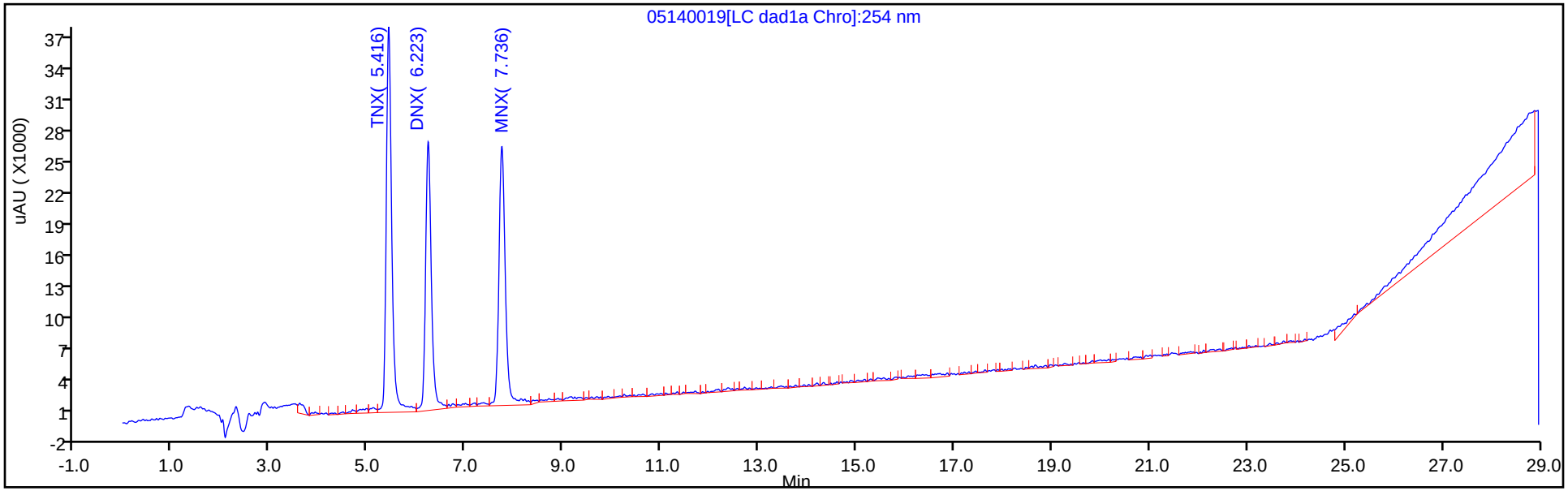
8330 DMT_00006 Amount Added: 35.00 Units: uL

Report Date: 15-May-2020 12:01:03 Chrom Revision: 2.3 05-May-2020 17:48:18

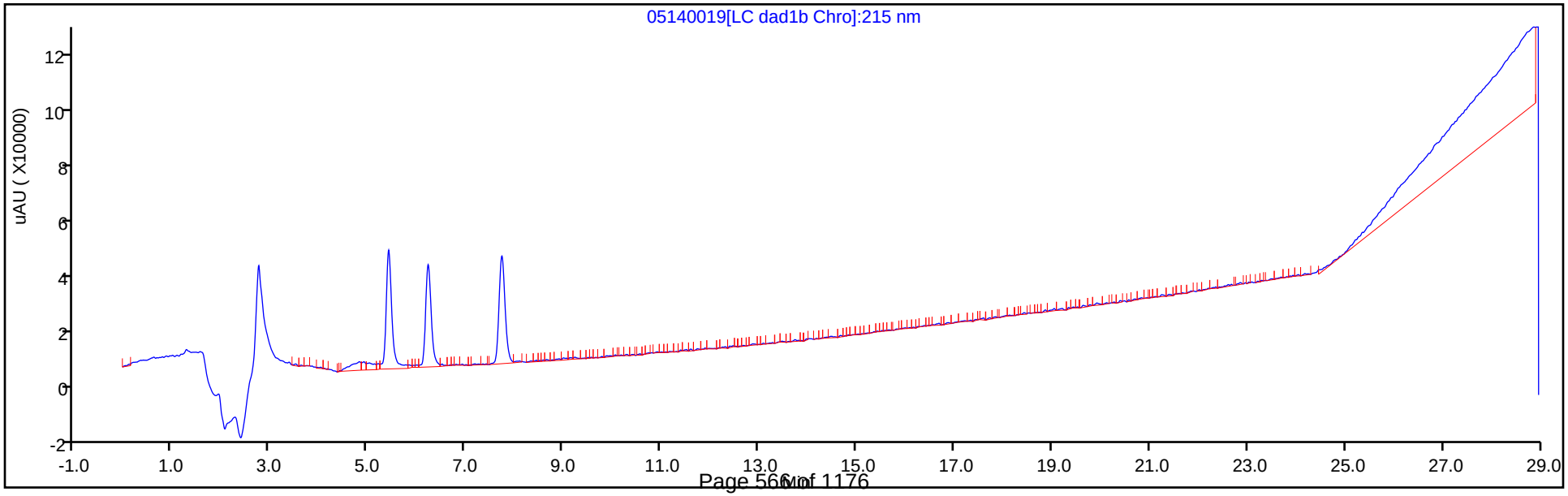
Eurofins TestAmerica, Denver

Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140019.d				
Injection Date:	14-May-2020 23:16:26	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	CB
Lims ID:	IC DMT 7			Worklist Smp#:	19
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	19
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		

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



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



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

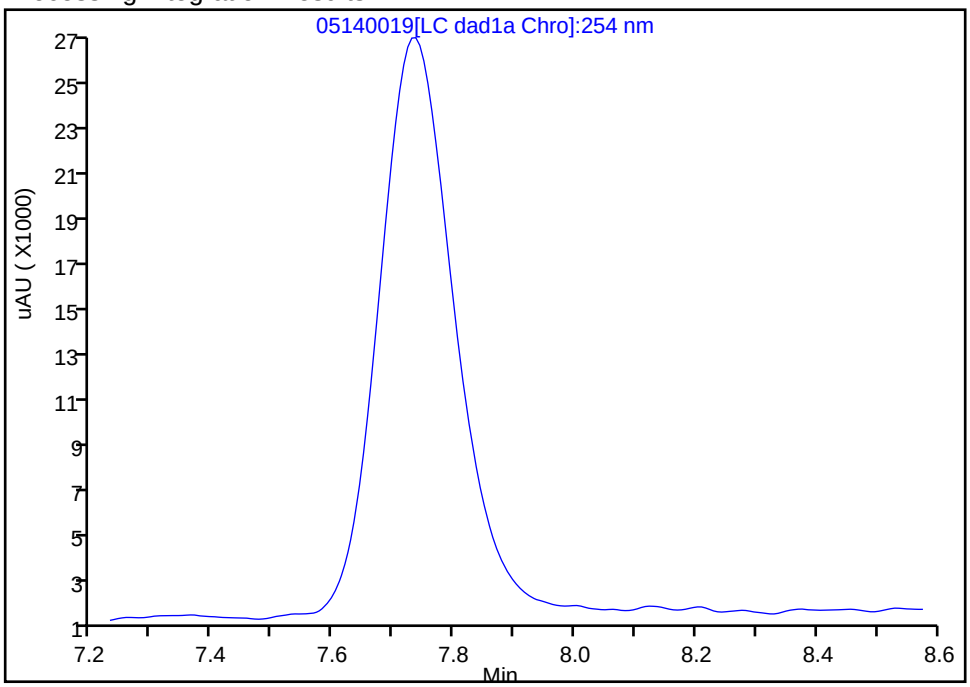
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140019.d				
Injection Date:	14-May-2020 23:16:26	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC DMT 7				
Client ID:					
Operator ID:	CB	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

7 MNX, CAS: 5755-27-1

Signal: 1

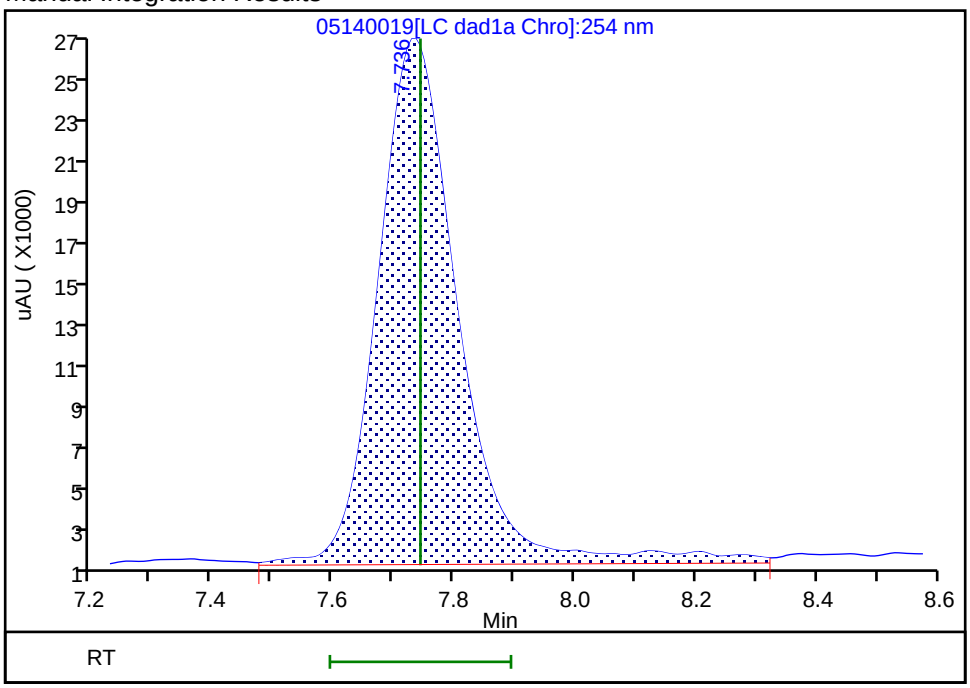
Processing Integration Results

Not Detected
Expected RT: 7.74



Manual Integration Results

RT: 7.74
Area: 229725
Amount: 0.840462
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:36:55
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140020.D				
Lims ID:	IC DMT 6				
Client ID:					
Sample Type:	IC	Calib Level:	6		
Inject. Date:	14-May-2020 23:51:28	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	IC DMT 6				
Misc. Info.:	280-0091518-020				
Operator ID:	CB	Instrument ID:	CHHPLC_G2_LUNA		
Sublist:	chrom-G2_8330_Luna*sub13				
Method:	\\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\G2_8330_Luna.m				
Limit Group:	GCSV - 8330				
Last Update:	15-May-2020 12:01:03	Calib Date:	15-May-2020 02:11:20		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140024.D				
Column 1 :	Luna-Phenyl hexyl (4.60 mm)		Det: LC DAD1A, 254 nm		
Process Host:	CTX0318				
First Level Reviewer: zhangji		Date:	15-May-2020 11:37:01		

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
3 TNX	1	5.419	5.417	0.002	164894	0.4004	0.3784	
4 DNX	1	6.226	6.231	-0.005	127693	0.4004	0.3975	
7 MNX	1	7.739	7.744	-0.005	133999	0.4668	0.4818	a

QC Flag Legend

Review Flags

a - User Assigned ID

Reagents:

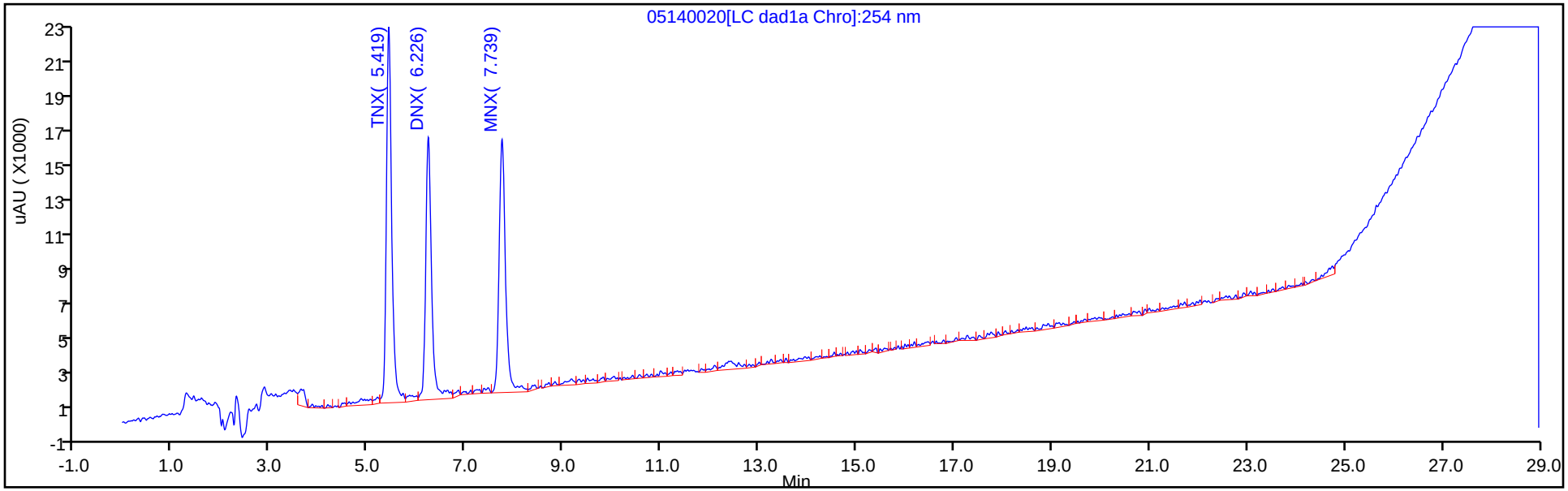
8330 DMT_00006 Amount Added: 20.00 Units: uL

Report Date: 15-May-2020 12:01:04 Chrom Revision: 2.3 05-May-2020 17:48:18

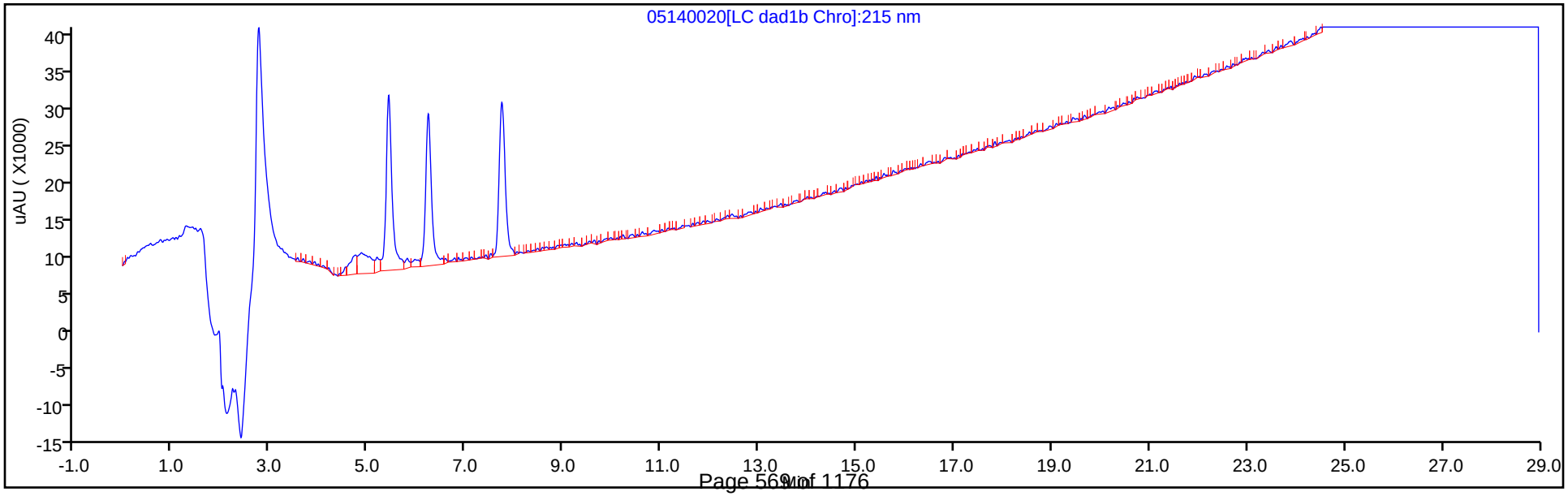
Eurofins TestAmerica, Denver

Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140020.d				
Injection Date:	14-May-2020 23:51:28	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	CB
Lims ID:	IC DMT 6			Worklist Smp#:	20
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	20
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		

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



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



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

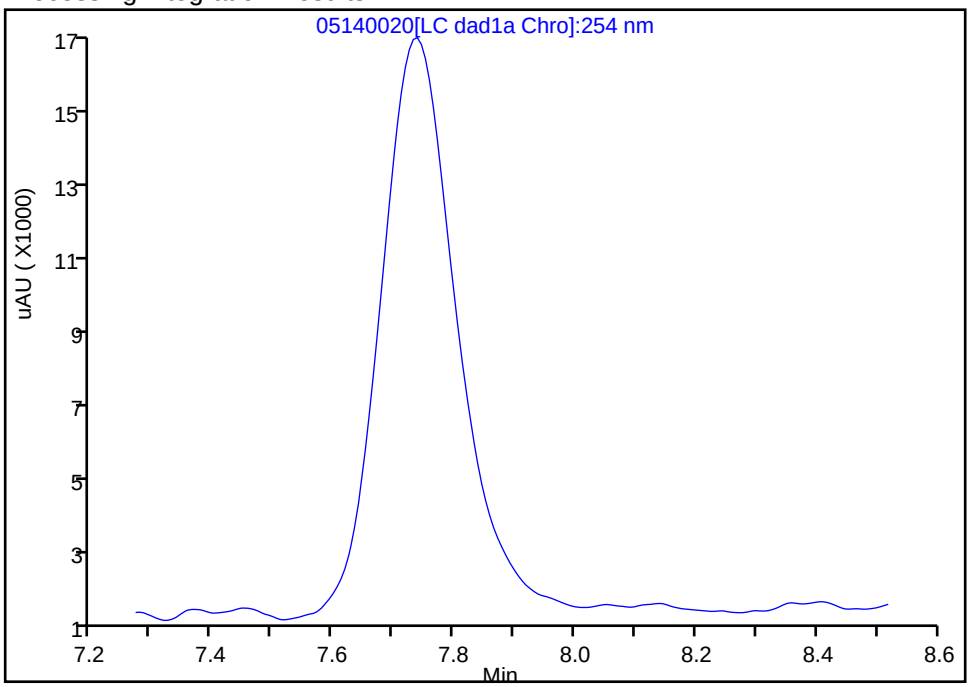
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140020.d				
Injection Date:	14-May-2020 23:51:28	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC DMT 6				
Client ID:					
Operator ID:	CB	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

7 MNX, CAS: 5755-27-1

Signal: 1

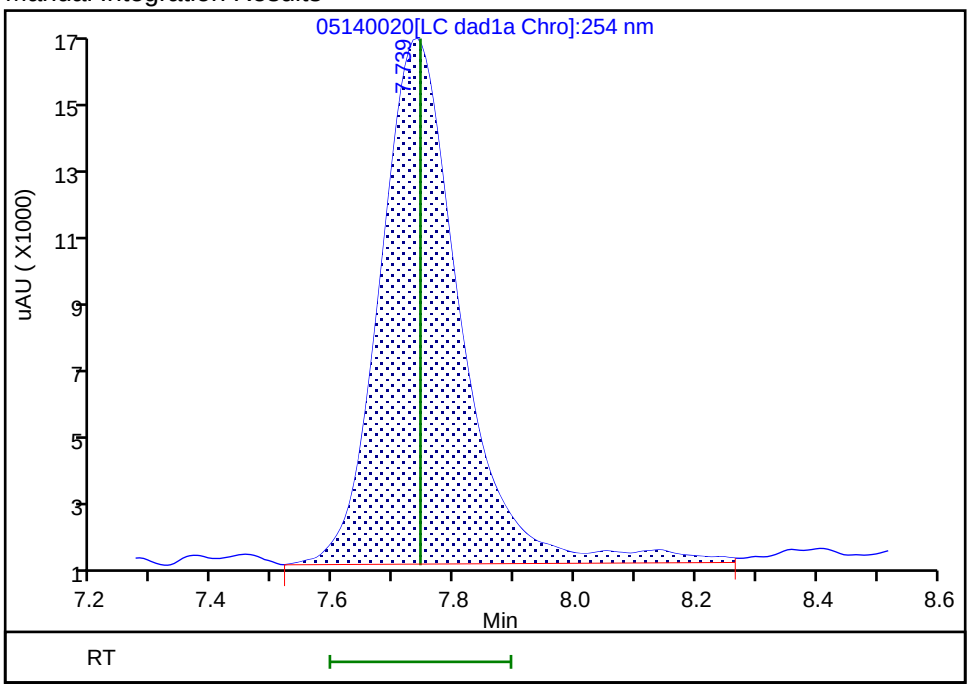
Not Detected
Expected RT: 7.74

Processing Integration Results



RT: 7.74
Area: 133999
Amount: 0.481799
Amount Units: ug/ml

Manual Integration Results



Reviewer: zhangji, 15-May-2020 11:36:59
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140021.D				
Lims ID:	IC DMT 5				
Client ID:					
Sample Type:	IC	Calib Level:	5		
Inject. Date:	15-May-2020 00:26:25	ALS Bottle#:	21	Worklist Smp#:	21
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	IC DMT 5				
Misc. Info.:	280-0091518-021				
Operator ID:	CB	Instrument ID:	CHHPLC_G2_LUNA		
Sublist:	chrom-G2_8330_Luna*sub13				
Method:	\\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\G2_8330_Luna.m				
Limit Group:	GCSV - 8330				
Last Update:	15-May-2020 12:01:04	Calib Date:	15-May-2020 02:11:20		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140024.D				
Column 1 :	Luna-Phenyl hexyl (4.60 mm)		Det: LC DAD1A, 254 nm		
Process Host:	CTX0318				

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
3 TNX	1	5.417	5.417	0.000	101309	0.2503	0.2325	
4 DNX	1	6.231	6.231	0.000	77077	0.2503	0.2400	
7 MNX	1	7.744	7.744	0.000	83427	0.2918	0.2923	

Reagents:

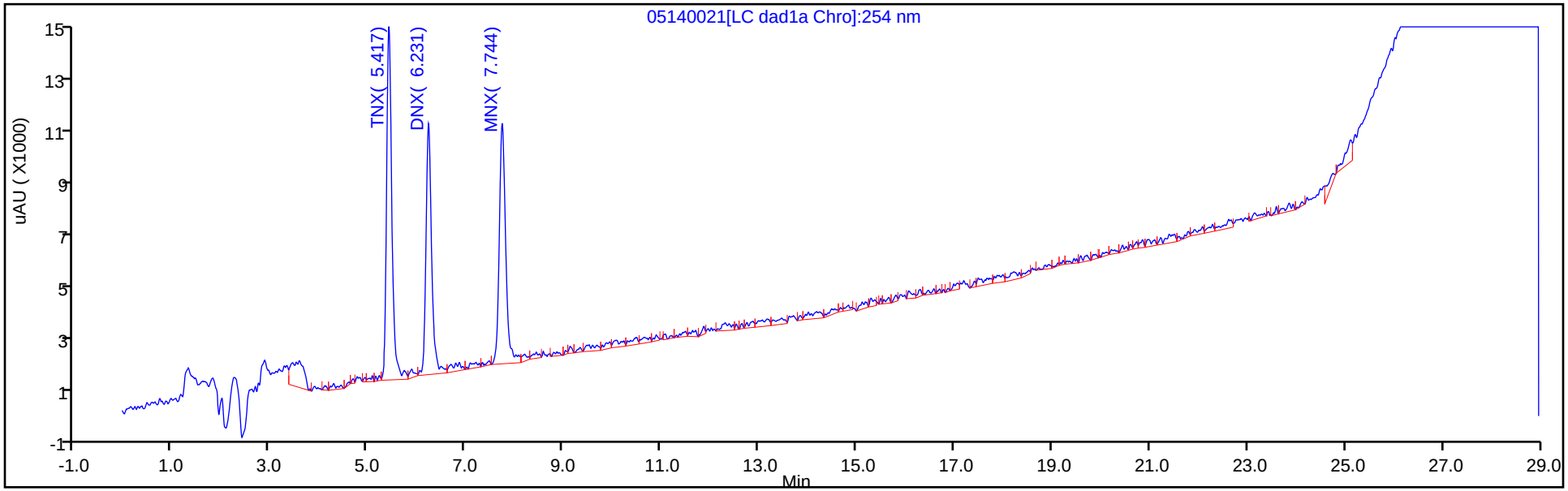
8330 DMT_00006 Amount Added: 12.50 Units: uL

Report Date: 15-May-2020 12:01:04 Chrom Revision: 2.3 05-May-2020 17:48:18

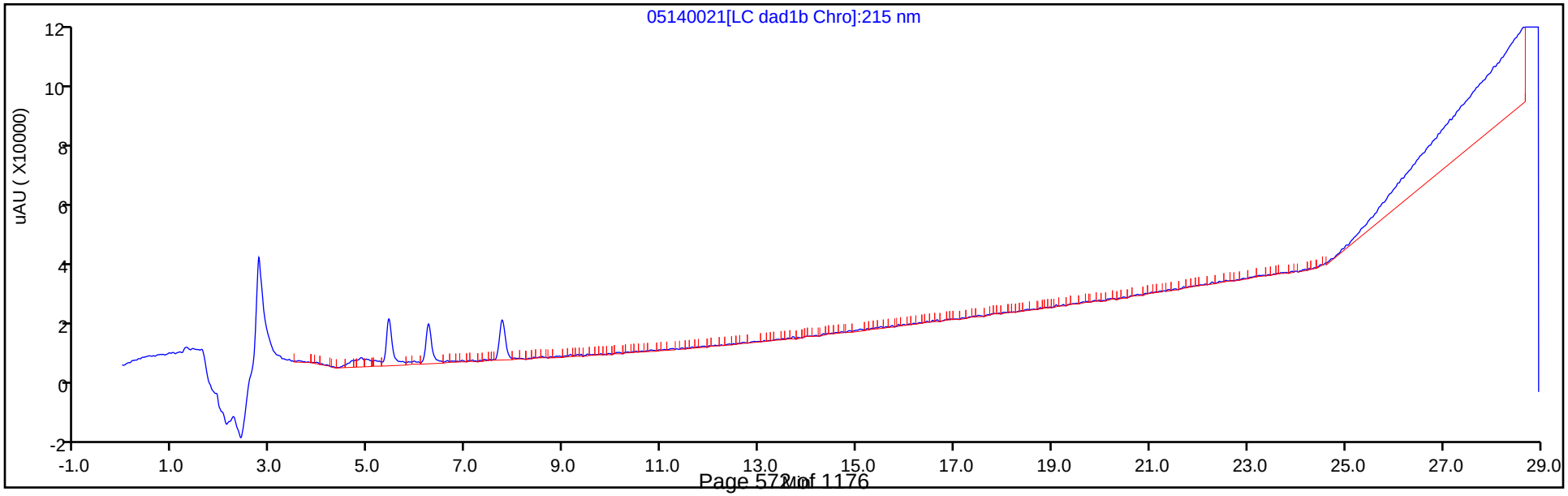
Eurofins TestAmerica, Denver

Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140021.d				
Injection Date:	15-May-2020 00:26:25	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	CB
Lims ID:	IC DMT 5			Worklist Smp#:	21
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	21
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		

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



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



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140022.D				
Lims ID:	IC DMT 4				
Client ID:					
Sample Type:	IC	Calib Level:	4		
Inject. Date:	15-May-2020 01:01:25	ALS Bottle#:	22	Worklist Smp#:	22
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	IC DMT 4				
Misc. Info.:	280-0091518-022				
Operator ID:	CB	Instrument ID:	CHHPLC_G2_LUNA		
Sublist:	chrom-G2_8330_Luna*sub13				
Method:	\\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\G2_8330_Luna.m				
Limit Group:	GCSV - 8330				
Last Update:	15-May-2020 12:01:04	Calib Date:	15-May-2020 02:11:20		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140024.D				
Column 1 :	Luna-Phenyl hexyl (4.60 mm)		Det: LC DAD1A, 254 nm		
Process Host:	CTX0318				

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
3 TNX	1	5.420	5.417	0.003	45279	0.1001	0.1039	
4 DNX	1	6.226	6.231	-0.005	32313	0.1001	0.1006	
7 MNX	1	7.740	7.744	-0.004	34453	0.1167	0.1088	

Reagents:

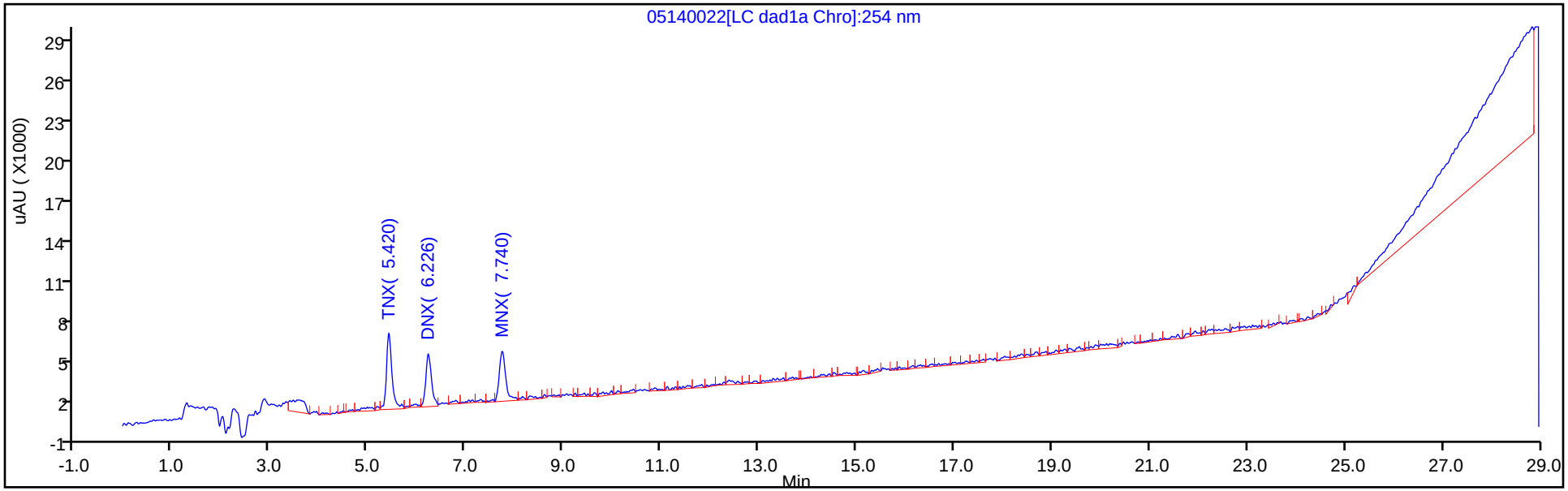
8330 DMT_00006 Amount Added: 5.00 Units: uL

Report Date: 15-May-2020 12:01:04 Chrom Revision: 2.3 05-May-2020 17:48:18

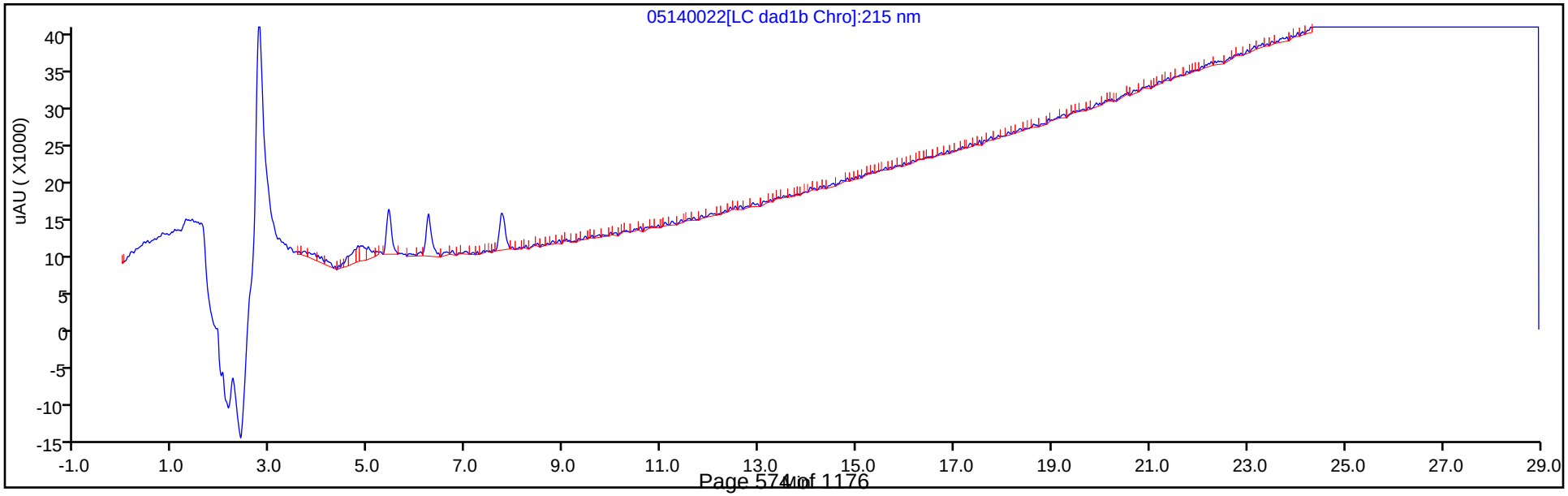
Eurofins TestAmerica, Denver

Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140022.d				
Injection Date:	15-May-2020 01:01:25	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	CB
Lims ID:	IC DMT 4			Worklist Smp#:	22
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	22
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		

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



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



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140023.D				
Lims ID:	IC DMT 3				
Client ID:					
Sample Type:	IC	Calib Level:	3		
Inject. Date:	15-May-2020 01:36:23	ALS Bottle#:	23	Worklist Smp#:	23
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	IC DMT 3				
Misc. Info.:	280-0091518-023				
Operator ID:	CB	Instrument ID:	CHHPLC_G2_LUNA		
Sublist:	chrom-G2_8330_Luna*sub13				
Method:	\\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\G2_8330_Luna.m				
Limit Group:	GCSV - 8330				
Last Update:	15-May-2020 12:01:05	Calib Date:	15-May-2020 02:11:20		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140024.D				
Column 1 :	Luna-Phenyl hexyl (4.60 mm)		Det: LC DAD1A, 254 nm		
Process Host:	CTX0318				

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
3 TNX	1	5.411	5.417	-0.006	21320	0.0501	0.0489	
4 DNX	1	6.224	6.231	-0.007	16063	0.0501	0.0500	
7 MNX	1	7.744	7.744	0.000	19669	0.0584	0.0534	

Reagents:

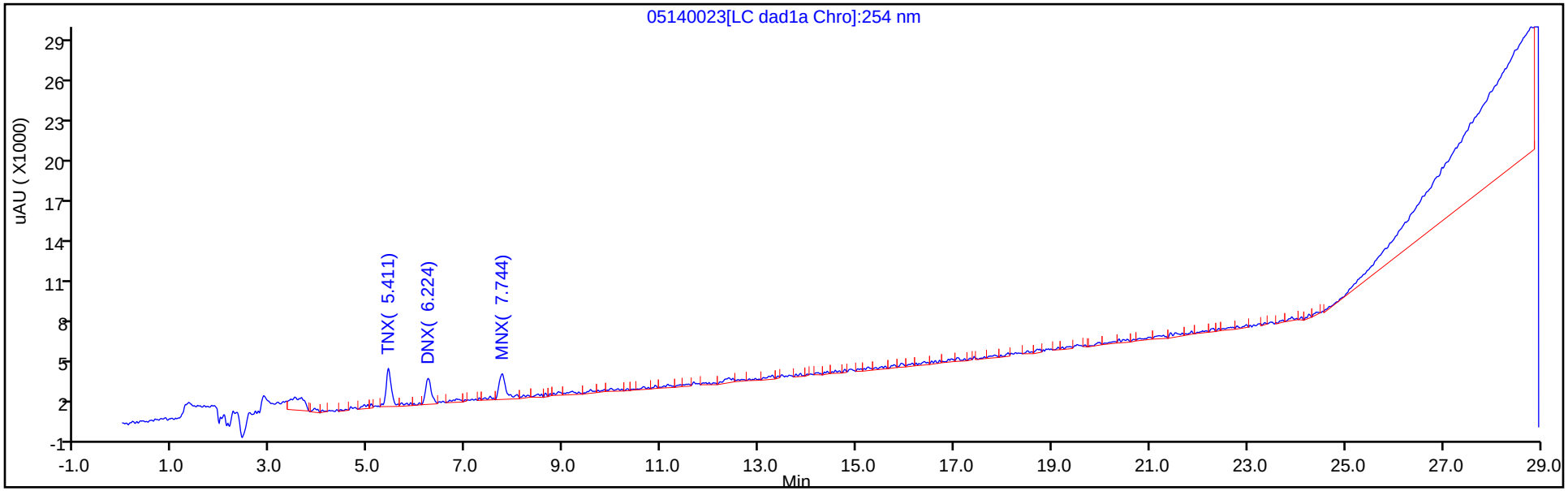
8330 DMT_00006 Amount Added: 2.50 Units: uL

Report Date: 15-May-2020 12:01:05 Chrom Revision: 2.3 05-May-2020 17:48:18

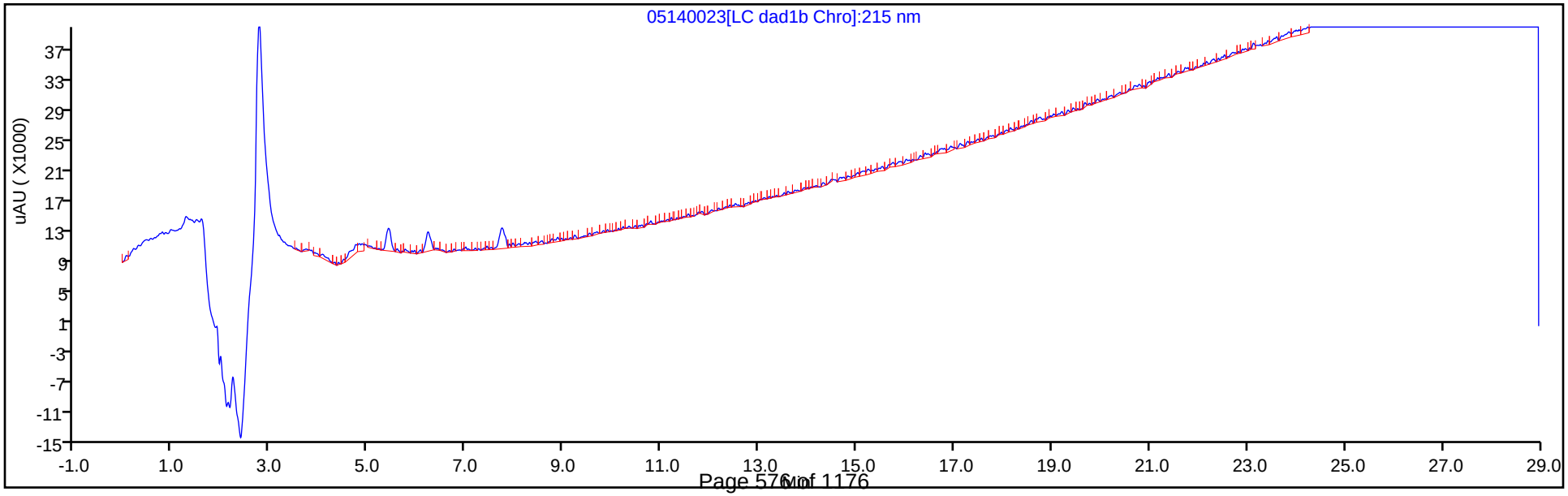
Eurofins TestAmerica, Denver

Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140023.d				
Injection Date:	15-May-2020 01:36:23	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	CB
Lims ID:	IC DMT 3			Worklist Smp#:	23
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	23
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		

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



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



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140024.D				
Lims ID:	IC DMT 2				
Client ID:					
Sample Type:	IC	Calib Level:	2		
Inject. Date:	15-May-2020 02:11:20	ALS Bottle#:	24	Worklist Smp#:	24
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	IC DMT 2				
Misc. Info.:	280-0091518-024				
Operator ID:	CB	Instrument ID:	CHHPLC_G2_LUNA		
Sublist:	chrom-G2_8330_Luna*sub13				
Method:	\\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\G2_8330_Luna.m				
Limit Group:	GCSV - 8330				
Last Update:	15-May-2020 12:01:05	Calib Date:	15-May-2020 02:11:20		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140024.D				
Column 1 :	Luna-Phenyl hexyl (4.60 mm)		Det: LC DAD1A, 254 nm		
Process Host:	CTX0318				

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
3 TNX	1	5.430	5.417	0.013	11052	0.0200	0.0254	
4 DNX	1	6.217	6.231	-0.014	7620	0.0200	0.0237	
7 MNX	1	7.737	7.744	-0.007	11914	0.0233	0.0244	

Reagents:

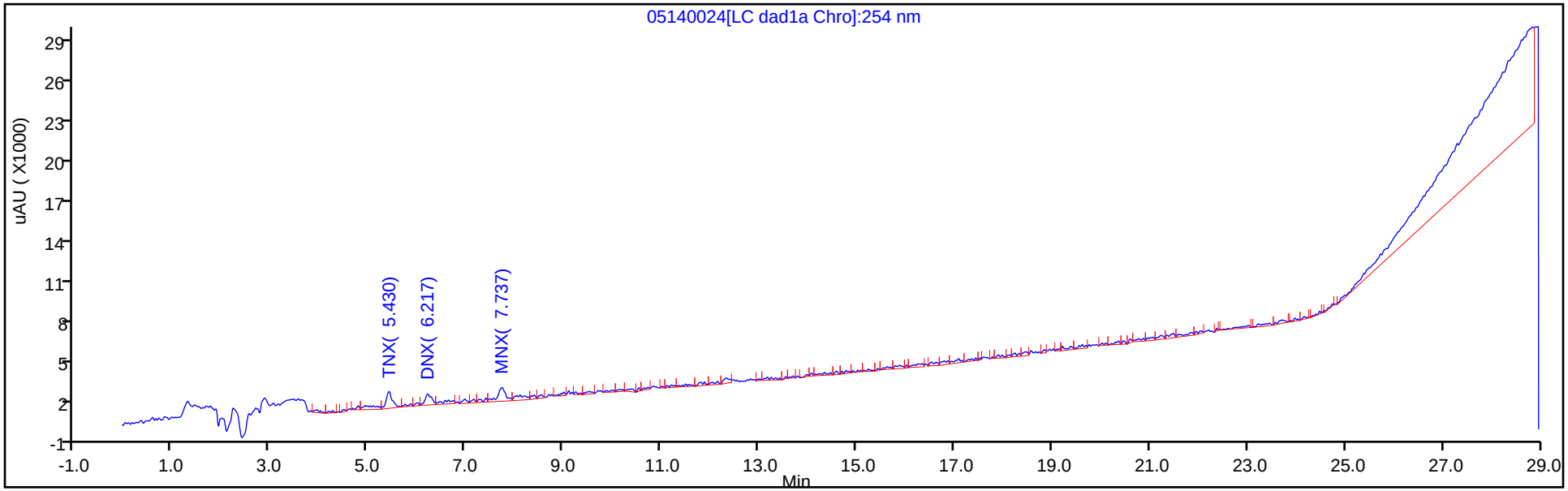
8330 DMT_00006 Amount Added: 1.00 Units: uL

Report Date: 15-May-2020 12:01:05 Chrom Revision: 2.3 05-May-2020 17:48:18

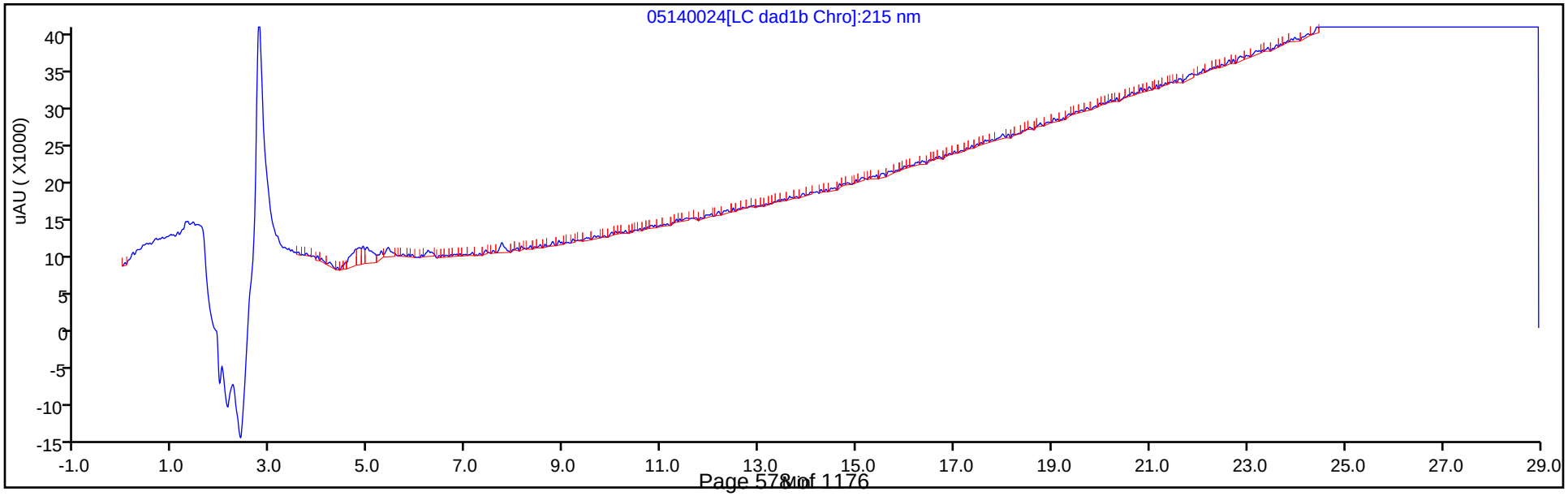
Eurofins TestAmerica, Denver

Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140024.d				
Injection Date:	15-May-2020 02:11:20	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	CB
Lims ID:	IC DMT 2			Worklist Smp#:	24
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	24
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		

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



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



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

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1 Analy Batch No.: 487658

SDG No.:

Instrument ID: CHHPLC_X3 GC Column: UltraCarb5u ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/04/2020 14:07 Calibration End Date: 03/04/2020 16:47 Calibration ID: 42562

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-487658/14	03040014.D
Level 2	IC 280-487658/13	03040013.D
Level 3	IC 280-487658/12	03040012.D
Level 4	IC 280-487658/11	03040011.D
Level 5	IC 280-487658/10	03040010.D
Level 6	IC 280-487658/9	03040009.D
Level 7	IC 280-487658/8	03040008.D
Level 8	IC 280-487658/7	03040007.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	LVL 7	LVL 8			RT WINDOW	AVG RT
HMX	6.682	6.684	6.682	6.683	6.684	6.683	6.685	6.682			6.533 - 6.833	6.683
RDX	7.755	7.750	7.749	7.750	7.758	7.756	7.759	7.748			7.600 - 7.900	7.753
Picric acid	8.082	8.077	8.069	8.063	8.058	8.043	8.032	7.982			7.906 - 8.206	8.051
1,3,5-Trinitrobenzene	8.882	8.884	8.882	8.883	8.884	8.883	8.885	8.875			8.733 - 9.033	8.882
1,3-Dinitrobenzene	9.535	9.530	9.529	9.536	9.531	9.529	9.532	9.522			9.379 - 9.679	9.531
Nitrobenzene	9.922	9.917	9.915	9.923	9.917	9.916	9.912	9.908			9.766 - 10.066	9.916
Tetryl	10.215	10.217	10.215	10.216	10.217	10.216	10.212	10.208			10.066 - 10.366	10.215
Nitroglycerin	10.728	10.730	10.722	10.730	10.731	10.729	10.719	10.708			10.579 - 10.879	10.725
2,4,6-Trinitrotoluene	11.182	11.183	11.175	11.183	11.184	11.182	11.172	11.175			11.083 - 11.283	11.180
4-Amino-2,6-dinitrotoluene	11.342	11.337	11.329	11.336	11.344	11.336	11.325	11.322			11.236 - 11.436	11.334
2-Amino-4,6-dinitrotoluene	11.622	11.623	11.615	11.623	11.631	11.622	11.612	11.608			11.523 - 11.723	11.620
2,6-Dinitrotoluene	11.788	11.790	11.782	11.790	11.791	11.789	11.779	11.775			11.689 - 11.889	11.786
2,4-Dinitrotoluene	11.988	11.983	11.975	11.983	11.991	11.982	11.972	11.968			11.883 - 12.083	11.980
o-Nitrotoluene	12.828	12.830	12.822	12.830	12.831	12.822	12.819	12.815			12.679 - 12.979	12.825
p-Nitrotoluene	13.268	13.263	13.255	13.263	13.271	13.262	13.252	13.248			13.119 - 13.419	13.260
m-Nitrotoluene	13.868	13.863	13.855	13.863	13.871	13.856	13.852	13.842			13.713 - 14.013	13.859
PETN	14.962	14.963	14.962	14.963	14.971	14.956	14.952	14.942			14.819 - 15.119	14.959
1,2-Dinitrobenzene	8.715	8.710	8.709	8.710	8.711	8.709	8.712	8.702			8.560 - 8.860	8.710

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

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1 Analy Batch No.: 487658

SDG No.:

Instrument ID: CHHPLC_X3 GC Column: UltraCarb5u ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/04/2020 14:07 Calibration End Date: 03/04/2020 16:47 Calibration ID: 42562

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-487658/14	03040014.D
Level 2	IC 280-487658/13	03040013.D
Level 3	IC 280-487658/12	03040012.D
Level 4	IC 280-487658/11	03040011.D
Level 5	IC 280-487658/10	03040010.D
Level 6	IC 280-487658/9	03040009.D
Level 7	IC 280-487658/8	03040008.D
Level 8	IC 280-487658/7	03040007.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								
HMX	76000 92195	84000 92901	90690 91886	91556 94192	Ave		89177.5536				6.9		20.0			
RDX	135800 113668	121280 113474	118060 112538	114104 114027	Ave		117868.823				6.6		20.0			
Picric acid	85600 87078	86880 87800	86250 87686	86696 89985	Ave		87246.8375				1.5		20.0			
1,3,5-Trinitrobenzene	241317 243301	243114 244799	242255 243367	242443 247077	Ave		243459.240				0.7		20.0			
1,3-Dinitrobenzene	317016 326305	319760 327946	324012 325028	322762 331181	Ave		324251.264				1.4		20.0			
Nitrobenzene	213496 213700	206972 215276	212400 212102	209502 218063	Ave		212688.862				1.6		20.0			
Tetryl	201248 192630	193054 193253	192365 192871	189457 196083	Ave		193870.110				1.8		20.0			
Nitroglycerin	65725 73511	68592 73876	71710 73303	73524 74137	Ave		71797.3561				4.2		20.0			
2,4,6-Trinitrotoluene	221713 220022	223725 219599	219920 221109	216454 224745	Ave		220910.986				1.2		20.0			
4-Amino-2,6-dinitrotoluene	172827 171731	179960 174551	170849 170344	174965 172519	Ave		173468.308				1.8		20.0			
2-Amino-4,6-dinitrotoluene	221713 216511	215040 216363	215538 218189	214008 222947	Ave		217538.754				1.5		20.0			
2,6-Dinitrotoluene	159512 159933	160657 161471	158845 155997	160088 158732	Ave		159404.313				1.0		20.0			
2,4-Dinitrotoluene	316285 321230	320458 323479	317131 322066	320327 328339	Ave		321164.424				1.2		20.0			
o-Nitrotoluene	165800 137323	156020 137486	142550 135008	137560 138961	Ave		143838.427				7.7		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 TestAmerica, Denver Job No.: 280-137225-1 Analy Batch No.: 487658

SDG No.:

Instrument ID: CHHPLC_X3 GC Column: UltraCarb5u ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/04/2020 14:07 Calibration End Date: 03/04/2020 16:47 Calibration ID: 42562

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								
p-Nitrotoluene	127495 118346	123273 118529	119112 116856	118255 120524	Ave		120298.779				2.9		20.0			
m-Nitrotoluene	160639 152110	161319 152488	152188 149787	150997 154421	Ave		154243.594				2.8		20.0			
PETN	66740 82493	74332 83187	80671 82517	81690 84015	Ave		79455.6132				7.5		20.0			
1,2-Dinitrobenzene	149050 144823	148380 145561	145890 144385	144548 147083	Ave		146215.016				1.2		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 TestAmerica, Denver Job No.: 280-137225-1 Analy Batch No.: 487658

SDG No.:

Instrument ID: CHHPLC_X3 GC Column: UltraCarb5u ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/04/2020 14:07 Calibration End Date: 03/04/2020 16:47 Calibration ID: 42562

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-487658/14	03040014.D
Level 2	IC 280-487658/13	03040013.D
Level 3	IC 280-487658/12	03040012.D
Level 4	IC 280-487658/11	03040011.D
Level 5	IC 280-487658/10	03040010.D
Level 6	IC 280-487658/9	03040009.D
Level 7	IC 280-487658/8	03040008.D
Level 8	IC 280-487658/7	03040007.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
HMX	Ave	1520 65031	4200 91886	9069 235480	22889	36878	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250	0.400
RDX	Ave	2716 79432	6064 112538	11806 285067	28526	45467	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250	0.400
Picric acid	Ave	1712 61460	4344 87686	8625 224963	21674	34831	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250	0.400
1,3,5-Trinitrobenzene	Ave	4836 171702	12180 243854	24274 618928	60732	97515	0.0200 0.701	0.0501 1.00	0.100 2.51	0.251	0.401
1,3-Dinitrobenzene	Ave	6353 230021	16020 325678	32466 829608	80852	130783	0.0200 0.701	0.0501 1.00	0.100 2.51	0.251	0.401
Nitrobenzene	Ave	4287 151296	10390 212950	21325 547337	52585	85822	0.0201 0.703	0.0502 1.00	0.100 2.51	0.251	0.402
Tetryl	Ave	4033 135548	9672 193257	19275 491187	47459	77206	0.0200 0.701	0.0501 1.00	0.100 2.51	0.251	0.401
Nitroglycerin	Ave	13145 517135	34296 733033	71710 1853418	183811	294044	0.200 7.00	0.500 10.0	1.00 25.0	2.50	4.00
2,4,6-Trinitrotoluene	Ave	4452 154334	11231 221993	22080 564111	54330	88361	0.0201 0.703	0.0502 1.00	0.100 2.51	0.251	0.402
4-Amino-2,6-dinitrotoluene	Ave	3460 122308	9007 170514	17102 431730	43785	68761	0.0200 0.701	0.0501 1.00	0.100 2.50	0.250	0.400
2-Amino-4,6-dinitrotoluene	Ave	4452 152060	10795 219062	21640 559598	53716	86951	0.0201 0.703	0.0502 1.00	0.100 2.51	0.251	0.402
2,6-Dinitrotoluene	Ave	3203 113482	8065 156621	15948 398417	40182	64229	0.0201 0.703	0.0502 1.00	0.100 2.51	0.251	0.402
2,4-Dinitrotoluene	Ave	6351 227341	16087 323354	31840 824132	80402	129006	0.0201 0.703	0.0502 1.00	0.100 2.51	0.251	0.402
o-Nitrotoluene	Ave	3316 96240	7801 135008	14255 347403	34390	54929	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250	0.400
p-Nitrotoluene	Ave	2555 83136	6176 117090	11935 301912	29623	47433	0.0200 0.701	0.0501 1.00	0.100 2.51	0.251	0.401

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

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1 Analy Batch No.: 487658

SDG No.:

Instrument ID: CHHPLC_X3 GC Column: UltraCarb5u ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/04/2020 14:07 Calibration End Date: 03/04/2020 16:47 Calibration ID: 42562

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
m-Nitrotoluene	Ave	3216 106848	8074 149937	15234 386438	37787	60905	0.0200 0.701	0.0501 1.00	0.100 2.50	0.250	0.400
PETN	Ave	13348 582311	37166 825168	80671 2100383	204225	329970	0.200 7.00	0.500 10.0	1.00 25.0	2.50	4.00
1,2-Dinitrobenzene	Ave	2981 101893	7419 144385	14589 367708	36137	57929	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250	0.400

Curve Type Legend:
Ave = Average

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\03040007.D				
Lims ID:	IC MAIN L8				
Client ID:					
Sample Type:	IC	Calib Level:	8		
Inject. Date:	04-Mar-2020 14:07:07	ALS Bottle#:	7	Worklist Smp#:	7
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	IC MAIN L8				
Misc. Info.:	280-0089779-007				
Operator ID:	CB	Instrument ID:	CHHPLC_X3		
Sublist:	chrom-8330_X3*sub9				
Method:	\\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	06-Mar-2020 10:24:59	Calib Date:	04-Mar-2020 23:40:46		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\03040032.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX0308				

First Level Reviewer: beckerc Date: 05-Mar-2020 08:21:11

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 HMX	1	6.682	6.683	-0.001	235480	2.50	2.64	M
7 RDX	1	7.748	7.750	-0.002	285067	2.50	2.42	
8 2,4,6-Trinitrophenol	1	7.982	8.056	-0.074	224963	2.50	2.58	
$ 9 1,2-Dinitrobenzene	1	8.702	8.710	-0.008	367708	2.50	2.51	
10 1,3,5-Trinitrobenzene	1	8.875	8.883	-0.008	618928	2.51	2.54	
11 1,3-Dinitrobenzene	1	9.522	9.529	-0.007	829608	2.51	2.56	
12 Nitrobenzene	1	9.908	9.916	-0.008	547337	2.51	2.57	
14 Tetryl	1	10.208	10.216	-0.008	491187	2.51	2.53	
15 Nitroglycerin	2	10.708	10.729	-0.021	1853418	25.0	25.8	
16 2,4,6-Trinitrotoluene	1	11.175	11.183	-0.008	564111	2.51	2.55	
17 4-Amino-2,6-dinitrotoluene	1	11.322	11.336	-0.014	431730	2.50	2.49	
18 2-Amino-4,6-dinitrotoluene	1	11.608	11.623	-0.015	559598	2.51	2.57	
19 2,6-Dinitrotoluene	1	11.775	11.789	-0.014	398417	2.51	2.50	
20 2,4-Dinitrotoluene	1	11.968	11.983	-0.015	824132	2.51	2.57	
21 o-Nitrotoluene	1	12.815	12.829	-0.014	347403	2.50	2.42	
22 p-Nitrotoluene	1	13.248	13.269	-0.021	301912	2.51	2.51	
23 m-Nitrotoluene	1	13.842	13.863	-0.021	386438	2.50	2.51	
24 PETN	2	14.942	14.969	-0.027	2100383	25.0	26.4	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

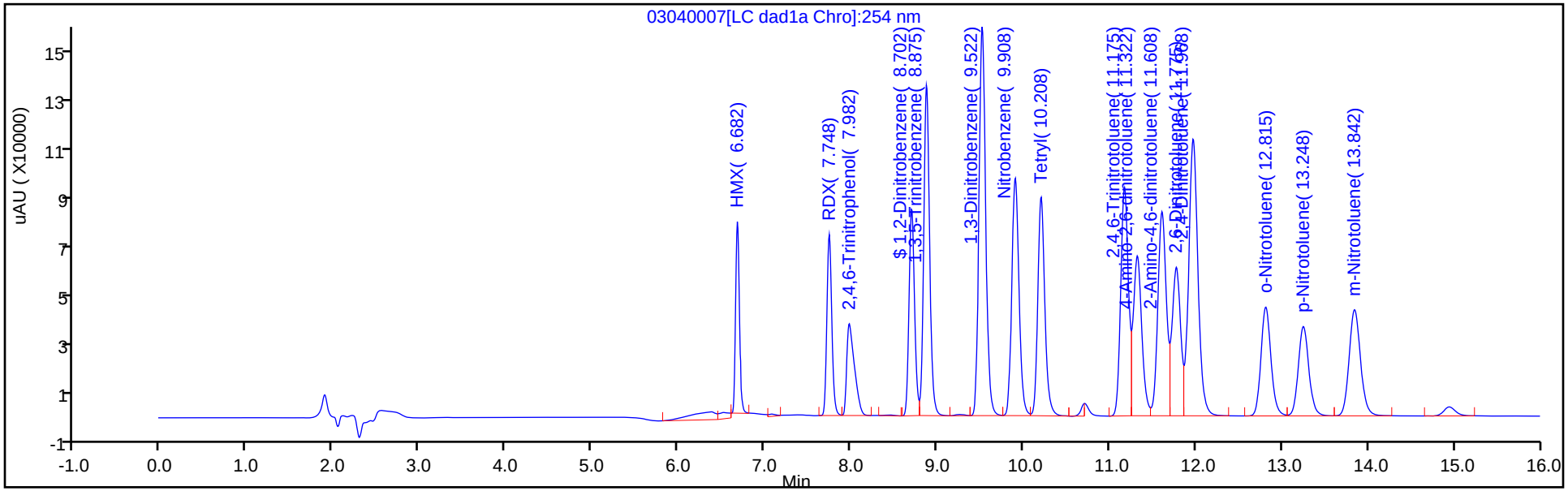
8330IntermStk_00061 Amount Added: 250.00 Units: uL

Report Date: 06-Mar-2020 10:24:59 Chrom Revision: 2.3 19-Feb-2020 16:45:46

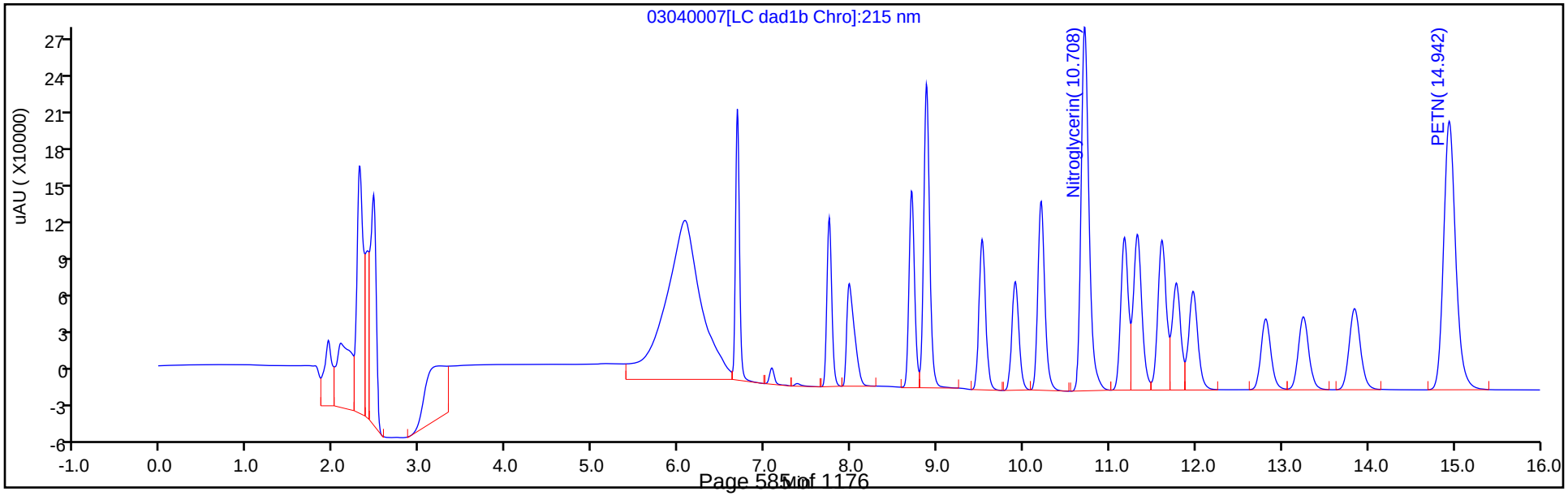
Eurofins TestAmerica, Denver

Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040007.d				
Injection Date:	04-Mar-2020 14:07:07	Instrument ID:	CHHPLC_X3	Operator ID:	CB
Lims ID:	IC MAIN L8			Worklist Smp#:	7
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	8330_X3	Limit Group:	GCSV - 8330		

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



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



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

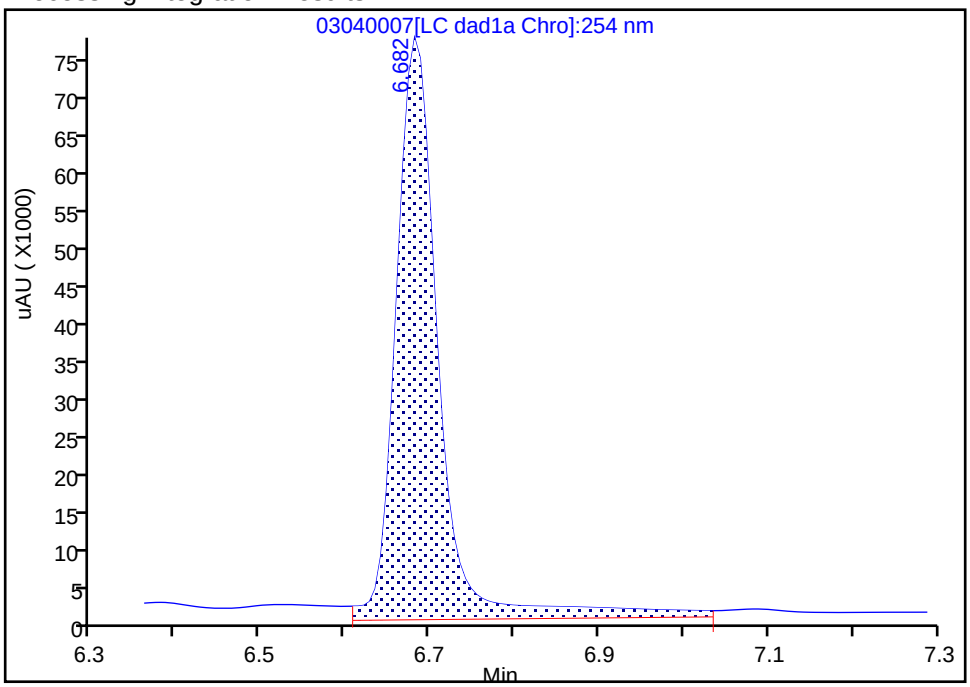
Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040007.d				
Injection Date:	04-Mar-2020 14:07:07	Instrument ID:	CHHPLC_X3		
Lims ID:	IC MAIN L8				
Client ID:					
Operator ID:	CB	ALS Bottle#:	7	Worklist Smp#:	7
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

3 HMX, CAS: 2691-41-0

Signal: 1

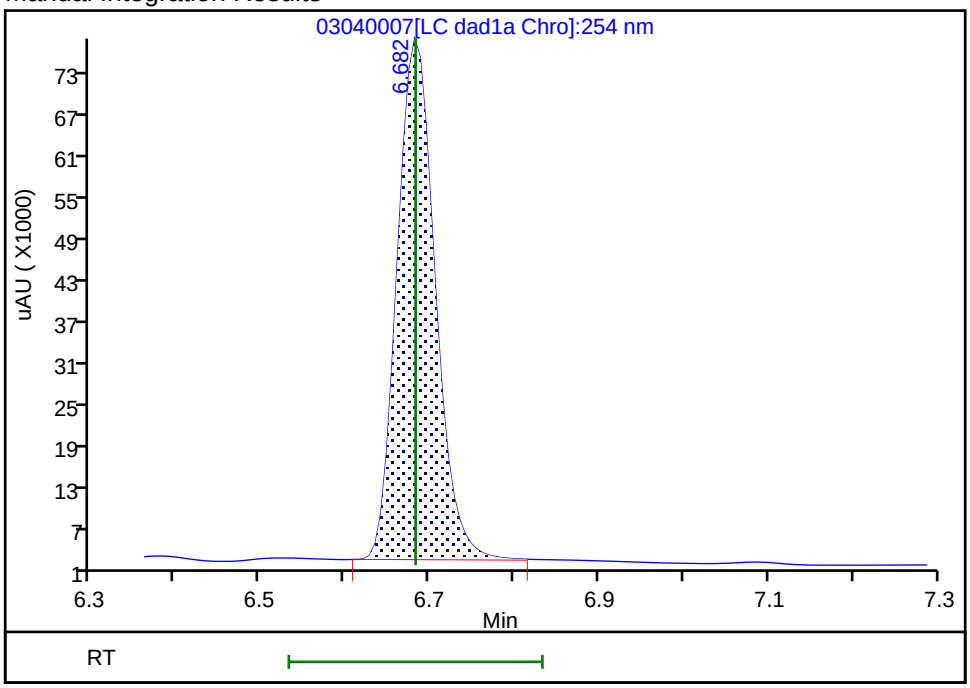
Processing Integration Results

RT: 6.68
Area: 273190
Amount: 2.501188
Amount Units: ug/mL



Manual Integration Results

RT: 6.68
Area: 235480
Amount: 2.640575
Amount Units: ug/mL



Reviewer: beckerc, 05-Mar-2020 08:19:14

Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\03040008.D				
Lims ID:	IC MAIN L7				
Client ID:					
Sample Type:	IC	Calib Level:	7		
Inject. Date:	04-Mar-2020 14:30:11	ALS Bottle#:	8	Worklist Smp#:	8
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	IC MAIN L7				
Misc. Info.:	280-0089779-008				
Operator ID:	CB	Instrument ID:	CHHPLC_X3		
Sublist:	chrom-8330_X3*sub9				
Method:	\\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	06-Mar-2020 10:25:01	Calib Date:	04-Mar-2020 23:40:46		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\03040032.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX0308				

First Level Reviewer: beckerc Date: 05-Mar-2020 08:21:29

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 HMX	1	6.685	6.683	0.002	91886	1.00	1.03	M
7 RDX	1	7.759	7.750	0.009	112538	1.00	0.9548	
8 2,4,6-Trinitrophenol	1	8.032	8.056	-0.024	87686	1.00	1.01	
$ 9 1,2-Dinitrobenzene	1	8.712	8.710	0.002	144385	1.00	0.9875	
10 1,3,5-Trinitrobenzene	1	8.885	8.883	0.002	243854	1.00	1.00	
11 1,3-Dinitrobenzene	1	9.532	9.529	0.003	325678	1.00	1.00	
12 Nitrobenzene	1	9.912	9.916	-0.004	212950	1.00	1.00	
14 Tetryl	1	10.212	10.216	-0.004	193257	1.00	1.00	
15 Nitroglycerin	2	10.719	10.729	-0.010	733033	10.0	10.2	
16 2,4,6-Trinitrotoluene	1	11.172	11.183	-0.011	221993	1.00	1.00	
17 4-Amino-2,6-dinitrotoluene	1	11.325	11.336	-0.011	170514	1.00	0.9830	
18 2-Amino-4,6-dinitrotoluene	1	11.612	11.623	-0.011	219062	1.00	1.01	
19 2,6-Dinitrotoluene	1	11.779	11.789	-0.010	156621	1.00	0.9825	
20 2,4-Dinitrotoluene	1	11.972	11.983	-0.011	323354	1.00	1.01	
21 o-Nitrotoluene	1	12.819	12.829	-0.010	135008	1.00	0.9386	
22 p-Nitrotoluene	1	13.252	13.269	-0.017	117090	1.00	0.9733	
23 m-Nitrotoluene	1	13.852	13.863	-0.011	149937	1.00	0.9721	
24 PETN	2	14.952	14.969	-0.017	825168	10.0	10.4	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

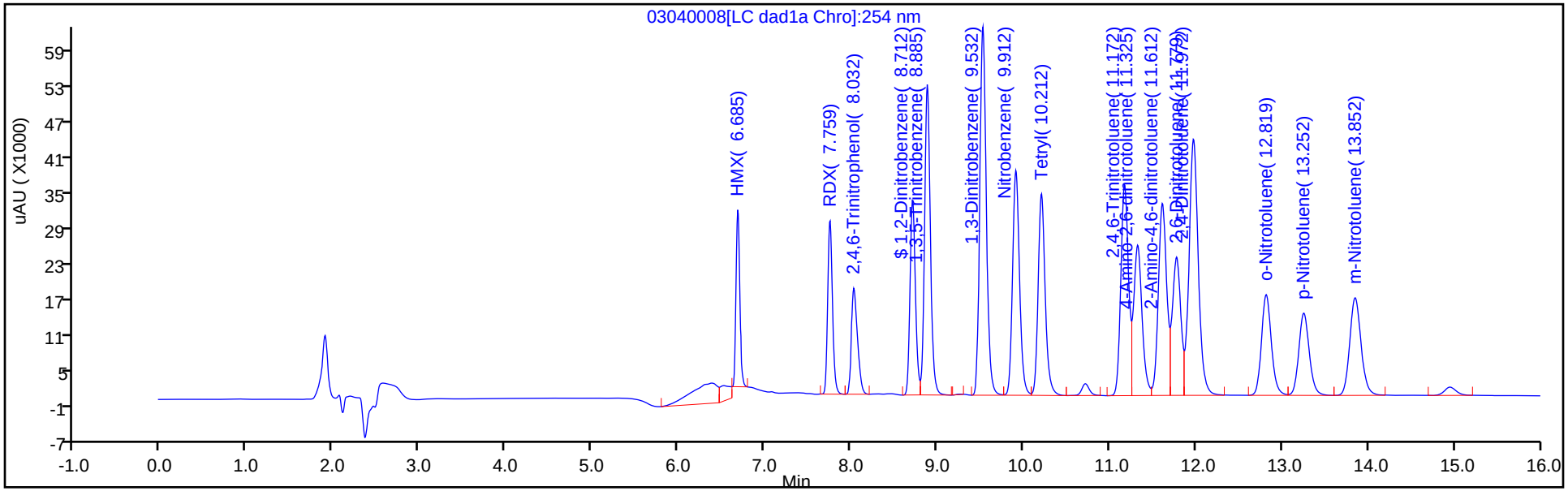
8330IntermStk_00061 Amount Added: 100.00 Units: uL

Report Date: 06-Mar-2020 10:25:02 Chrom Revision: 2.3 19-Feb-2020 16:45:46

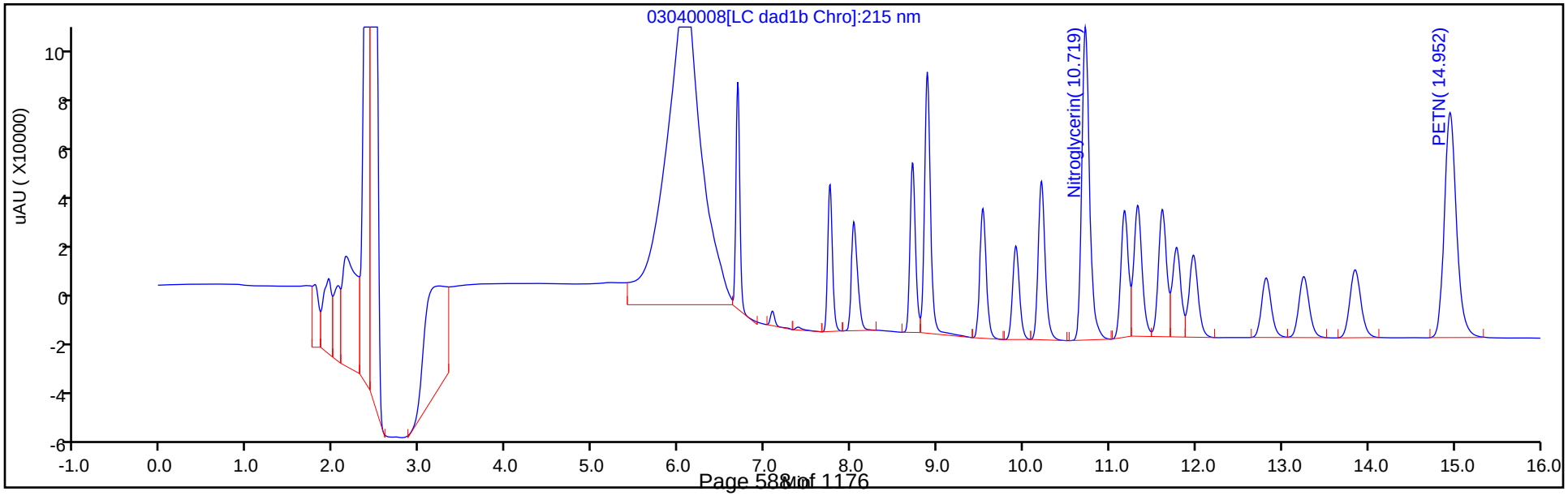
Eurofins TestAmerica, Denver

Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040008.d				
Injection Date:	04-Mar-2020 14:30:11	Instrument ID:	CHHPLC_X3	Operator ID:	CB
Lims ID:	IC MAIN L7			Worklist Smp#:	8
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	8
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

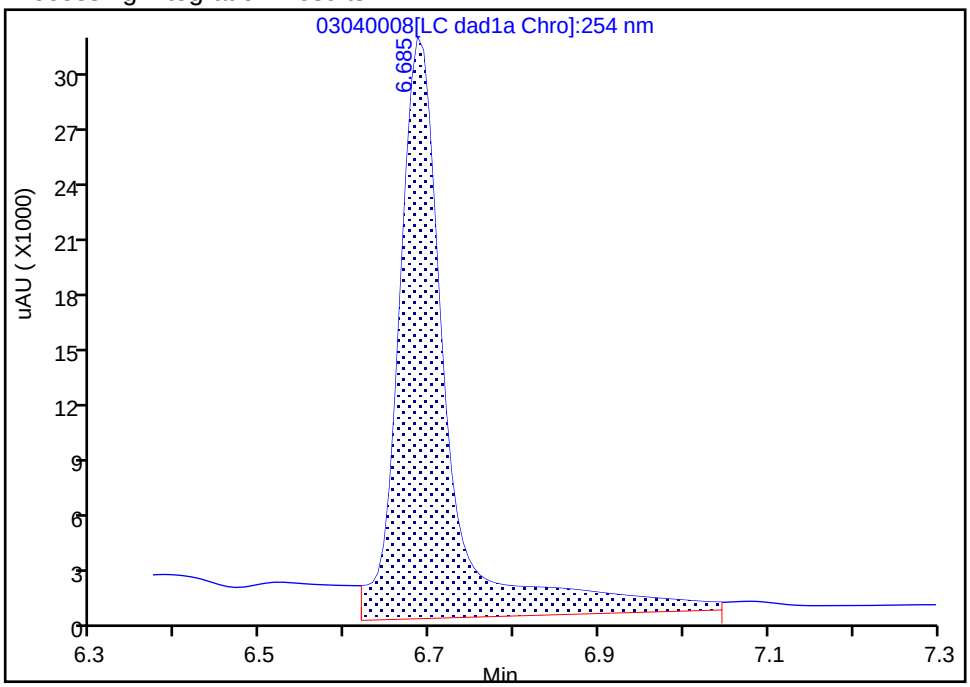
Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040008.d				
Injection Date:	04-Mar-2020 14:30:11	Instrument ID:	CHHPLC_X3		
Lims ID:	IC MAIN L7				
Client ID:					
Operator ID:	CB	ALS Bottle#:	8	Worklist Smp#:	8
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

3 HMX, CAS: 2691-41-0

Signal: 1

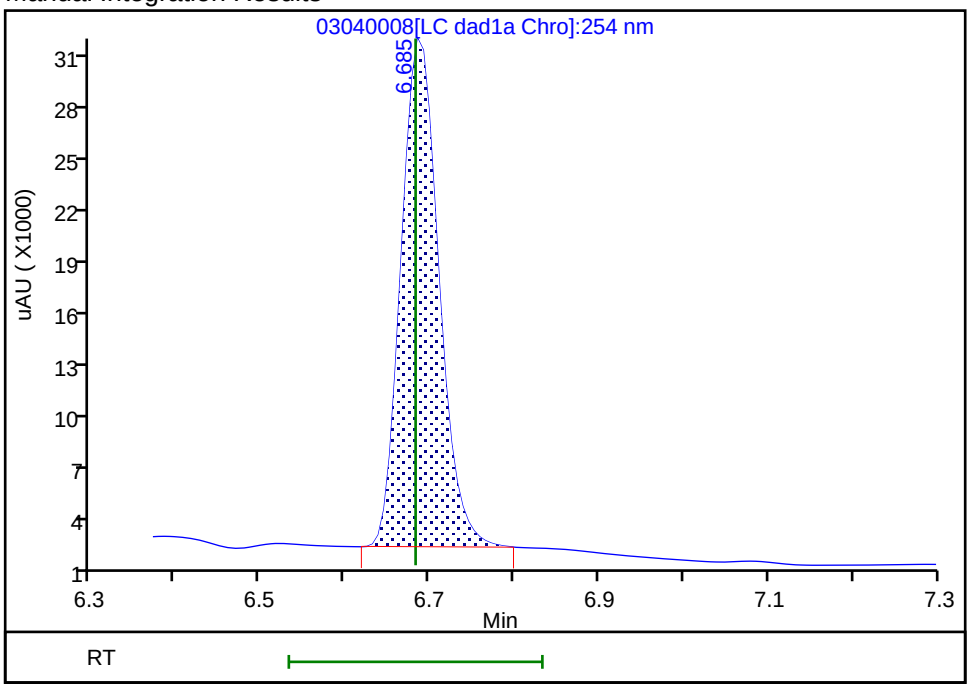
Processing Integration Results

RT: 6.69
Area: 125872
Amount: 0.749140
Amount Units: ug/mL



Manual Integration Results

RT: 6.69
Area: 91886
Amount: 1.030371
Amount Units: ug/mL



Reviewer: beckerc, 05-Mar-2020 08:21:25
Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\03040009.D
Lims ID: IC MAIN L6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 04-Mar-2020 14:53:07 ALS Bottle#: 9 Worklist Smp#: 9
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC MAIN L6
Misc. Info.: 280-0089779-009
Operator ID: CB Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub9

Method: \\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 06-Mar-2020 10:25:02 Calib Date: 04-Mar-2020 23:40:46
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\03040032.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX0308

First Level Reviewer: beckerc Date: 05-Mar-2020 08:21:45

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 HMX	1	6.683	6.683	0.000	65031	0.7000	0.7292	M
7 RDX	1	7.756	7.750	0.006	79432	0.7000	0.6739	
8 2,4,6-Trinitrophenol	1	8.043	8.056	-0.013	61460	0.7000	0.7044	
$ 9 1,2-Dinitrobenzene	1	8.709	8.710	-0.001	101893	0.7000	0.6969	
10 1,3,5-Trinitrobenzene	1	8.883	8.883	0.000	171702	0.7014	0.7053	
11 1,3-Dinitrobenzene	1	9.529	9.529	0.000	230021	0.7014	0.7094	
12 Nitrobenzene	1	9.916	9.916	0.000	151296	0.7028	0.7113	
14 Tetryl	1	10.216	10.216	0.000	135548	0.7014	0.6992	
15 Nitroglycerin	2	10.729	10.729	0.000	517135	7.00	7.20	
16 2,4,6-Trinitrotoluene	1	11.182	11.183	-0.001	154334	0.7028	0.6986	
17 4-Amino-2,6-dinitrotoluene	1	11.336	11.336	0.000	122308	0.7007	0.7051	
18 2-Amino-4,6-dinitrotoluene	1	11.622	11.623	-0.001	152060	0.7028	0.6990	
19 2,6-Dinitrotoluene	1	11.789	11.789	0.000	113482	0.7028	0.7119	
20 2,4-Dinitrotoluene	1	11.982	11.983	-0.001	227341	0.7028	0.7079	
21 o-Nitrotoluene	1	12.822	12.829	-0.007	96240	0.7000	0.6691	
22 p-Nitrotoluene	1	13.262	13.269	-0.007	83136	0.7014	0.6911	
23 m-Nitrotoluene	1	13.856	13.863	-0.007	106848	0.7007	0.6927	
24 PETN	2	14.956	14.969	-0.013	582311	7.00	7.33	

QC Flag Legend

Review Flags
M - Manually Integrated

Reagents:

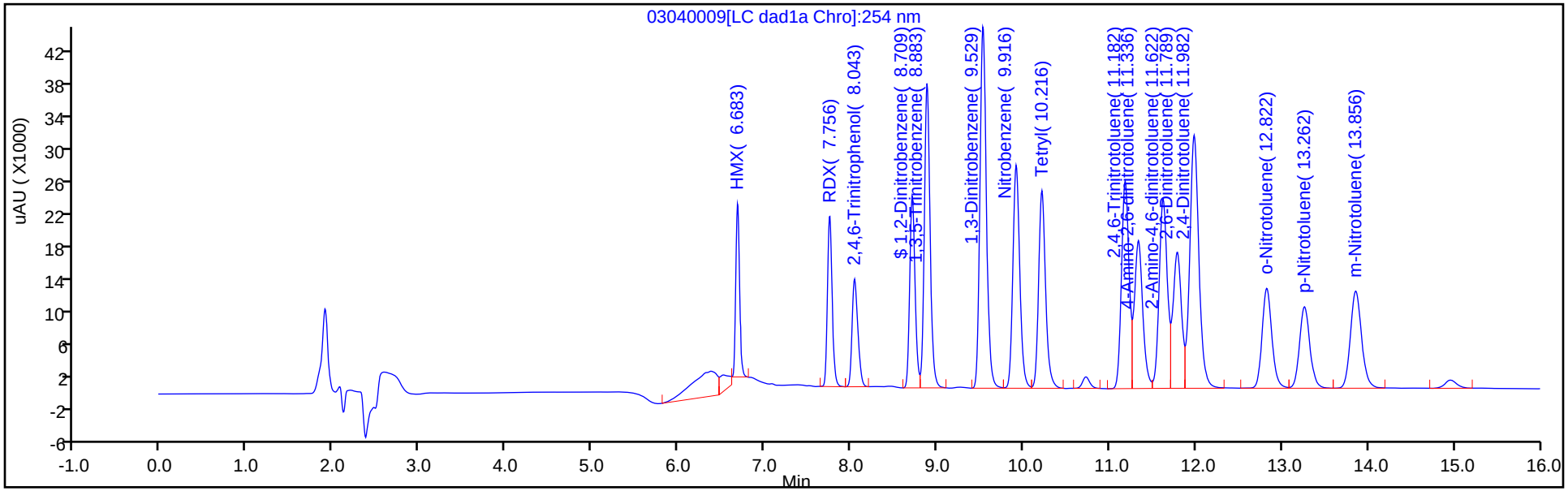
8330IntermStk_00061 Amount Added: 70.00 Units: uL

Report Date: 06-Mar-2020 10:25:02 Chrom Revision: 2.3 19-Feb-2020 16:45:46

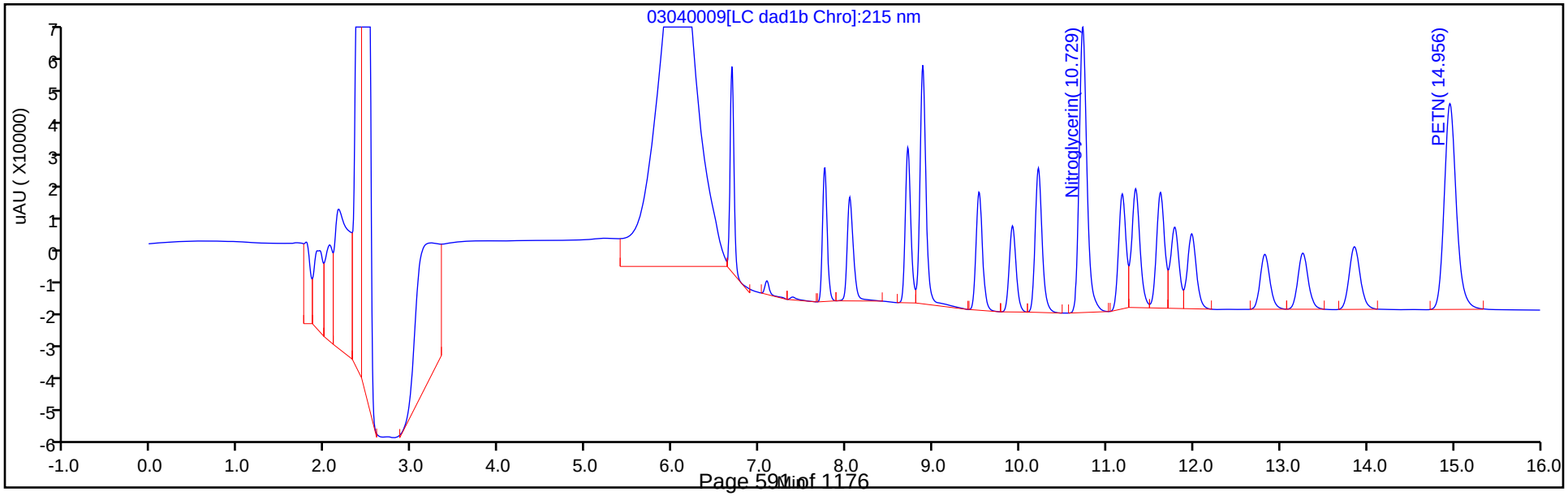
Eurofins TestAmerica, Denver

Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040009.d				
Injection Date:	04-Mar-2020 14:53:07	Instrument ID:	CHHPLC_X3	Operator ID:	CB
Lims ID:	IC MAIN L6			Worklist Smp#:	9
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 TestAmerica, Denver

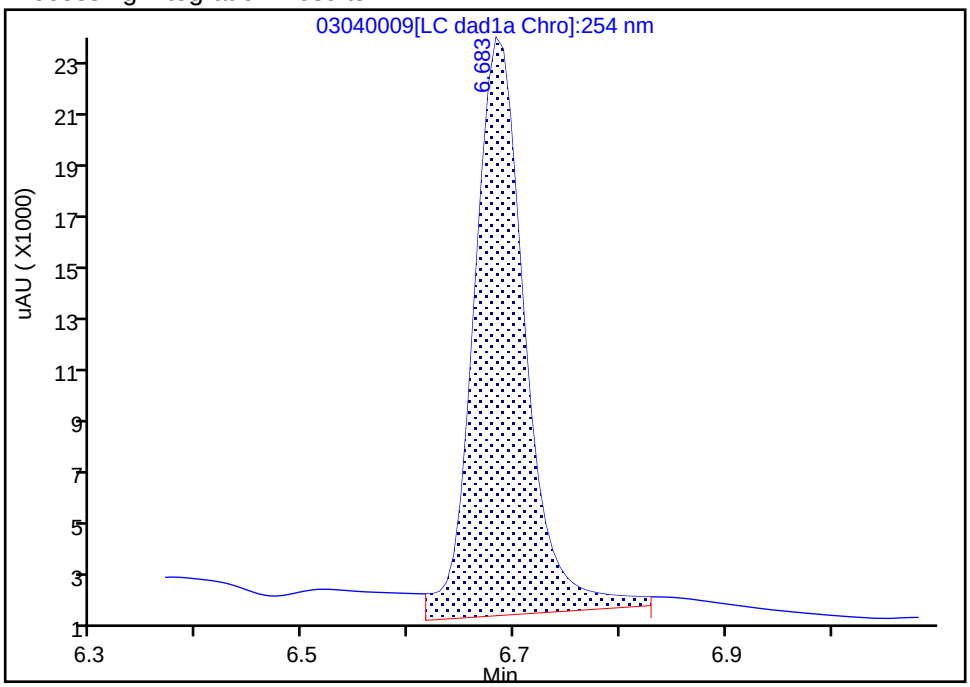
Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040009.d				
Injection Date:	04-Mar-2020 14:53:07	Instrument ID:	CHHPLC_X3		
Lims ID:	IC MAIN L6				
Client ID:					
Operator ID:	CB	ALS Bottle#:	9	Worklist Smp#:	9
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

3 HMX, CAS: 2691-41-0

Signal: 1

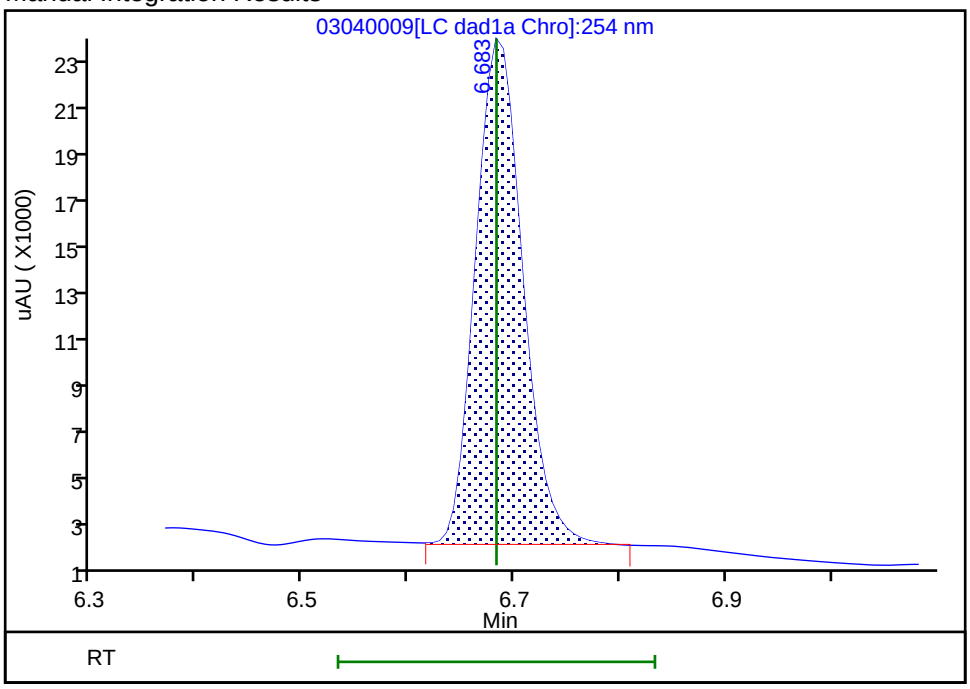
Processing Integration Results

RT: 6.68
Area: 73442
Amount: 0.448436
Amount Units: ug/mL



Manual Integration Results

RT: 6.68
Area: 65031
Amount: 0.729231
Amount Units: ug/mL



Reviewer: beckerc, 05-Mar-2020 08:21:40

Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\03040010.D
Lims ID: IC MAIN L5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 04-Mar-2020 15:16:04 ALS Bottle#: 10 Worklist Smp#: 10
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC MAIN L5
Misc. Info.: 280-0089779-010
Operator ID: CB Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub9

Method: \\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 06-Mar-2020 10:25:03 Calib Date: 04-Mar-2020 23:40:46
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\03040032.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX0308

First Level Reviewer: beckerc Date: 05-Mar-2020 08:22:03

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 HMX	1	6.684	6.683	0.001	36878	0.4000	0.4135	M
7 RDX	1	7.758	7.750	0.008	45467	0.4000	0.3857	
8 2,4,6-Trinitrophenol	1	8.058	8.056	0.002	34831	0.4000	0.3992	
$ 9 1,2-Dinitrobenzene	1	8.711	8.710	0.001	57929	0.4000	0.3962	
10 1,3,5-Trinitrobenzene	1	8.884	8.883	0.001	97515	0.4008	0.4005	
11 1,3-Dinitrobenzene	1	9.531	9.529	0.002	130783	0.4008	0.4033	
12 Nitrobenzene	1	9.917	9.916	0.001	85822	0.4016	0.4035	
14 Tetryl	1	10.217	10.216	0.001	77206	0.4008	0.3982	
15 Nitroglycerin	2	10.731	10.729	0.002	294044	4.00	4.10	
16 2,4,6-Trinitrotoluene	1	11.184	11.183	0.001	88361	0.4016	0.4000	
17 4-Amino-2,6-dinitrotoluene	1	11.344	11.336	0.008	68761	0.4004	0.3964	
18 2-Amino-4,6-dinitrotoluene	1	11.631	11.623	0.008	86951	0.4016	0.3997	
19 2,6-Dinitrotoluene	1	11.791	11.789	0.002	64229	0.4016	0.4029	
20 2,4-Dinitrotoluene	1	11.991	11.983	0.008	129006	0.4016	0.4017	
21 o-Nitrotoluene	1	12.831	12.829	0.002	54929	0.4000	0.3819	
22 p-Nitrotoluene	1	13.271	13.269	0.002	47433	0.4008	0.3943	
23 m-Nitrotoluene	1	13.871	13.863	0.008	60905	0.4004	0.3949	
24 PETN	2	14.971	14.969	0.002	329970	4.00	4.15	

QC Flag Legend

Review Flags
M - Manually Integrated

Reagents:

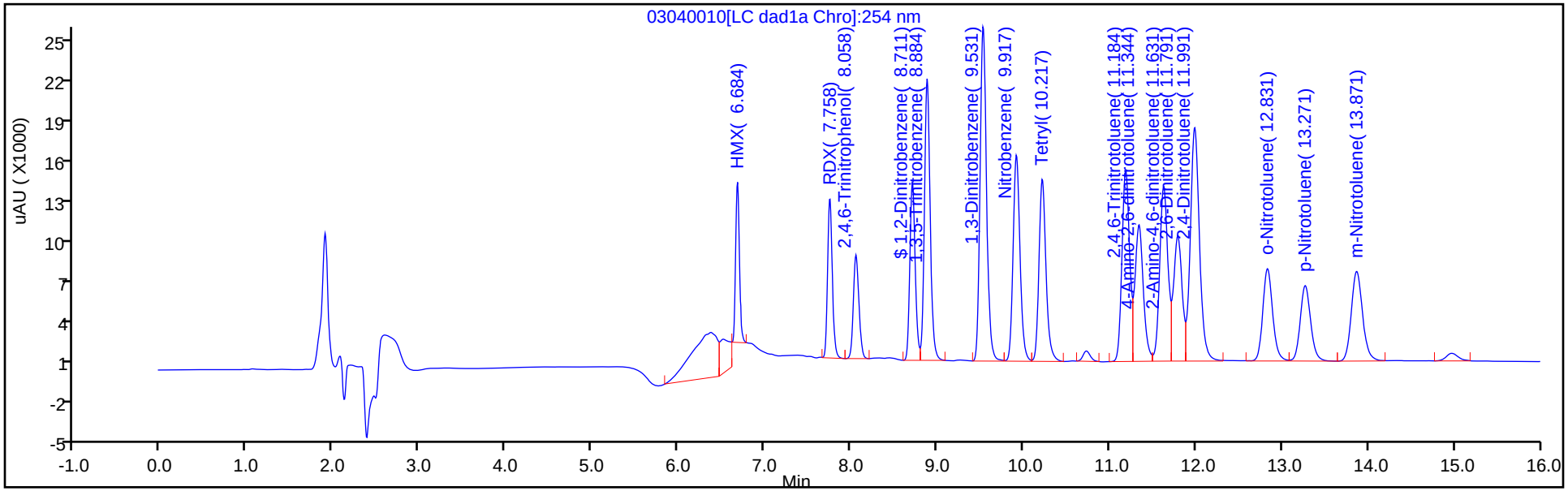
8330IntermStk_00061 Amount Added: 40.00 Units: uL

Report Date: 06-Mar-2020 10:25:04 Chrom Revision: 2.3 19-Feb-2020 16:45:46

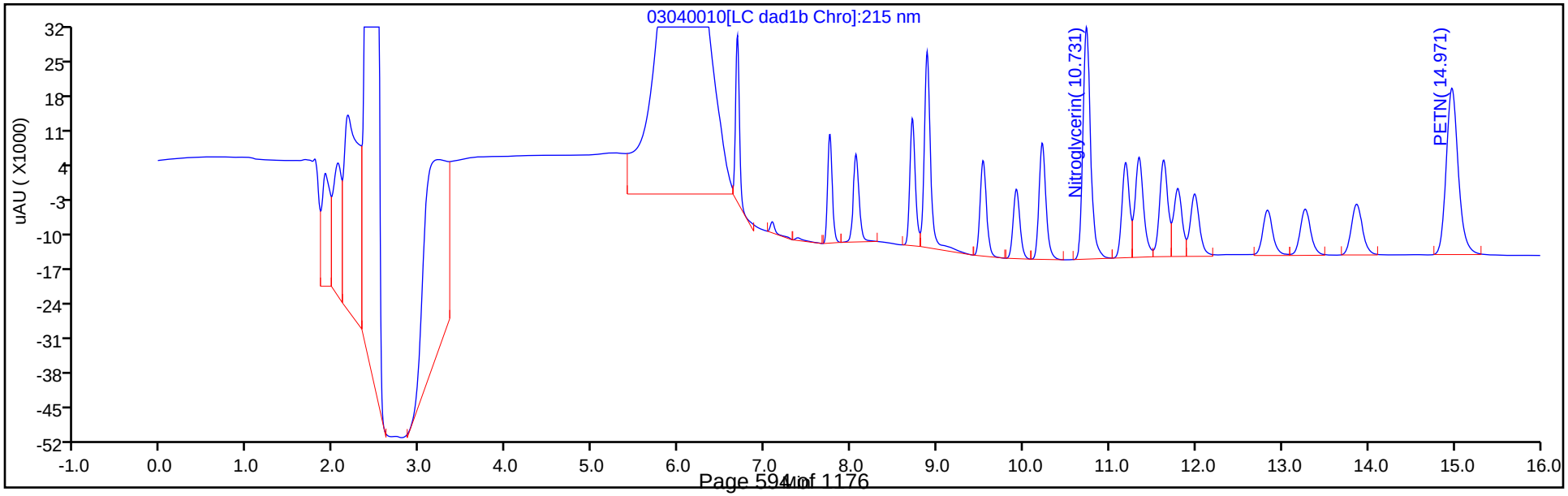
Eurofins TestAmerica, Denver

Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040010.d				
Injection Date:	04-Mar-2020 15:16:04	Instrument ID:	CHHPLC_X3	Operator ID:	CB
Lims ID:	IC MAIN L5			Worklist Smp#:	10
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	10
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

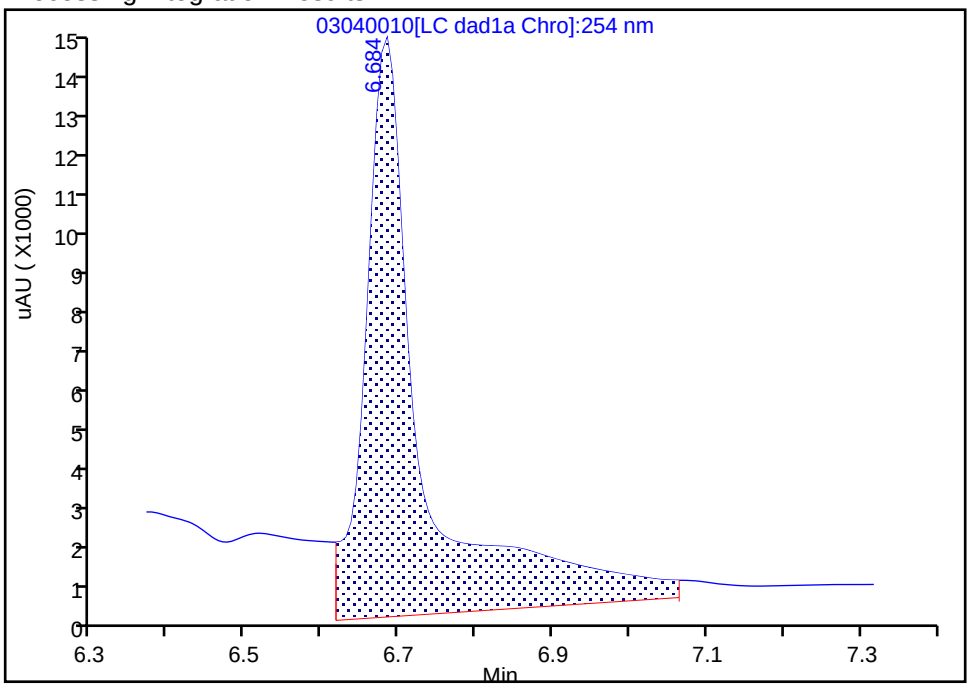
Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040010.d				
Injection Date:	04-Mar-2020 15:16:04	Instrument ID:	CHHPLC_X3		
Lims ID:	IC MAIN L5				
Client ID:					
Operator ID:	CB	ALS Bottle#:	10	Worklist Smp#:	10
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

3 HMX, CAS: 2691-41-0

Signal: 1

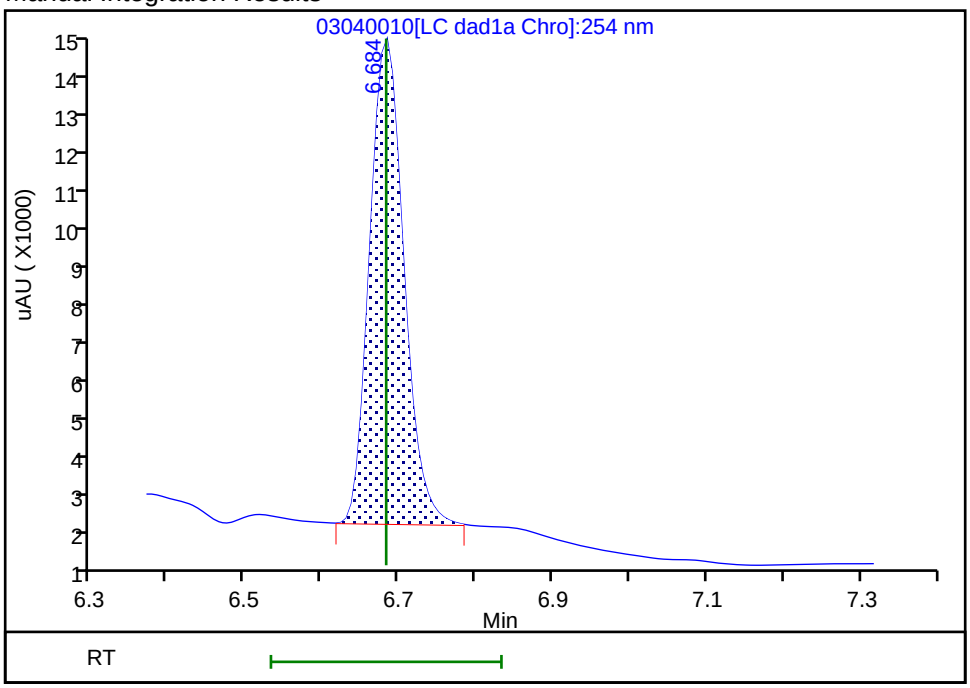
Processing Integration Results

RT: 6.68
Area: 70815
Amount: 0.436397
Amount Units: ug/mL



Manual Integration Results

RT: 6.68
Area: 36878
Amount: 0.413535
Amount Units: ug/mL



Reviewer: beckerc, 05-Mar-2020 08:21:59
Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\03040011.D
Lims ID: IC MAIN L4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 04-Mar-2020 15:39:01 ALS Bottle#: 11 Worklist Smp#: 11
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC MAIN L4
Misc. Info.: 280-0089779-011
Operator ID: CB Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub9

Method: \\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 06-Mar-2020 10:25:05 Calib Date: 04-Mar-2020 23:40:46
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\03040032.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX0308

First Level Reviewer: beckerc Date: 05-Mar-2020 08:22:21

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 HMX	1	6.683	6.683	0.000	22889	0.2500	0.2567	M
7 RDX	1	7.750	7.750	0.000	28526	0.2500	0.2420	
8 2,4,6-Trinitrophenol	1	8.063	8.056	0.007	21674	0.2500	0.2484	
$ 9 1,2-Dinitrobenzene	1	8.710	8.710	0.000	36137	0.2500	0.2471	
10 1,3,5-Trinitrobenzene	1	8.883	8.883	0.000	60732	0.2505	0.2495	
11 1,3-Dinitrobenzene	1	9.536	9.529	0.007	80852	0.2505	0.2493	
12 Nitrobenzene	1	9.923	9.916	0.007	52585	0.2510	0.2472	
14 Tetryl	1	10.216	10.216	0.000	47459	0.2505	0.2448	
15 Nitroglycerin	2	10.730	10.729	0.001	183811	2.50	2.56	
16 2,4,6-Trinitrotoluene	1	11.183	11.183	0.000	54330	0.2510	0.2459	
17 4-Amino-2,6-dinitrotoluene	1	11.336	11.336	0.000	43785	0.2503	0.2524	
18 2-Amino-4,6-dinitrotoluene	1	11.623	11.623	0.000	53716	0.2510	0.2469	
19 2,6-Dinitrotoluene	1	11.790	11.789	0.001	40182	0.2510	0.2521	
20 2,4-Dinitrotoluene	1	11.983	11.983	0.000	80402	0.2510	0.2503	
21 o-Nitrotoluene	1	12.830	12.829	0.001	34390	0.2500	0.2391	
22 p-Nitrotoluene	1	13.263	13.269	-0.006	29623	0.2505	0.2462	
23 m-Nitrotoluene	1	13.863	13.863	0.000	37787	0.2503	0.2450	
24 PETN	2	14.963	14.969	-0.006	204225	2.50	2.57	

QC Flag Legend

Review Flags
M - Manually Integrated

Reagents:

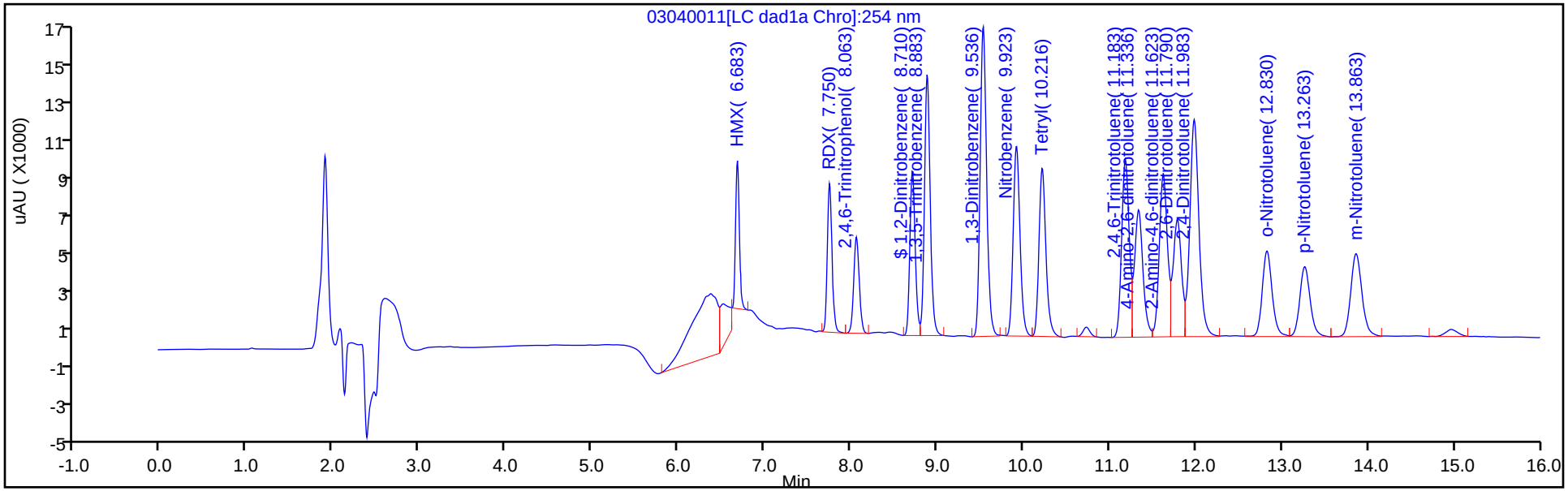
8330IntermStk_00061 Amount Added: 25.00 Units: uL

Report Date: 06-Mar-2020 10:25:05 Chrom Revision: 2.3 19-Feb-2020 16:45:46

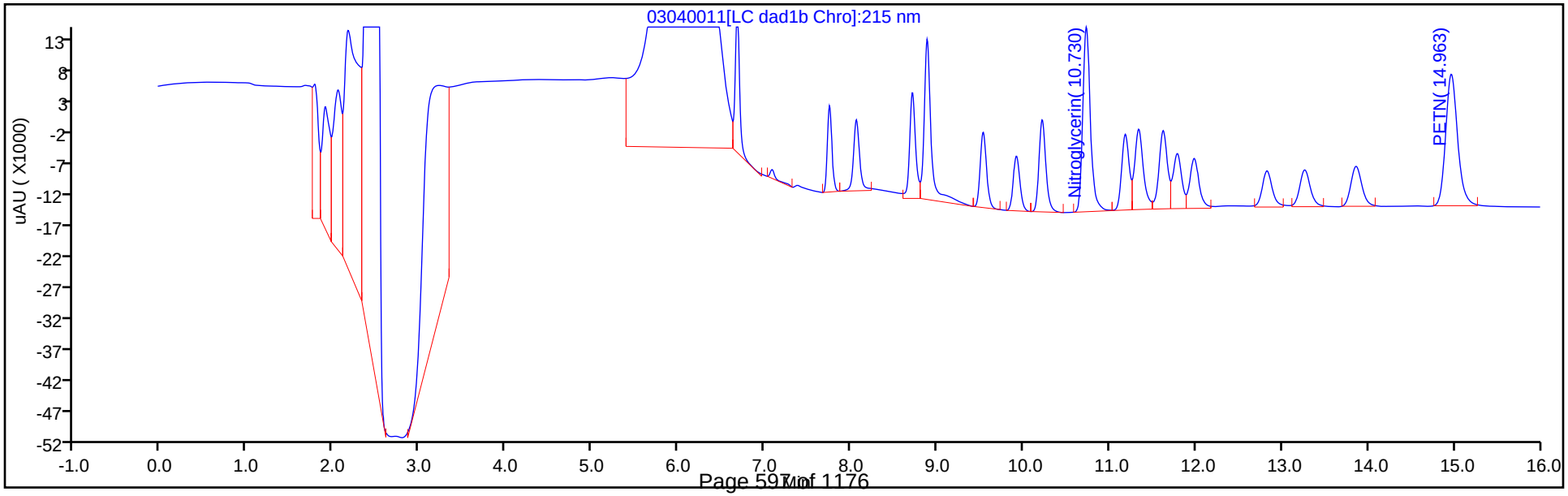
Eurofins TestAmerica, Denver

Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040011.d				
Injection Date:	04-Mar-2020 15:39:01	Instrument ID:	CHHPLC_X3	Operator ID:	CB
Lims ID:	IC MAIN L4			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

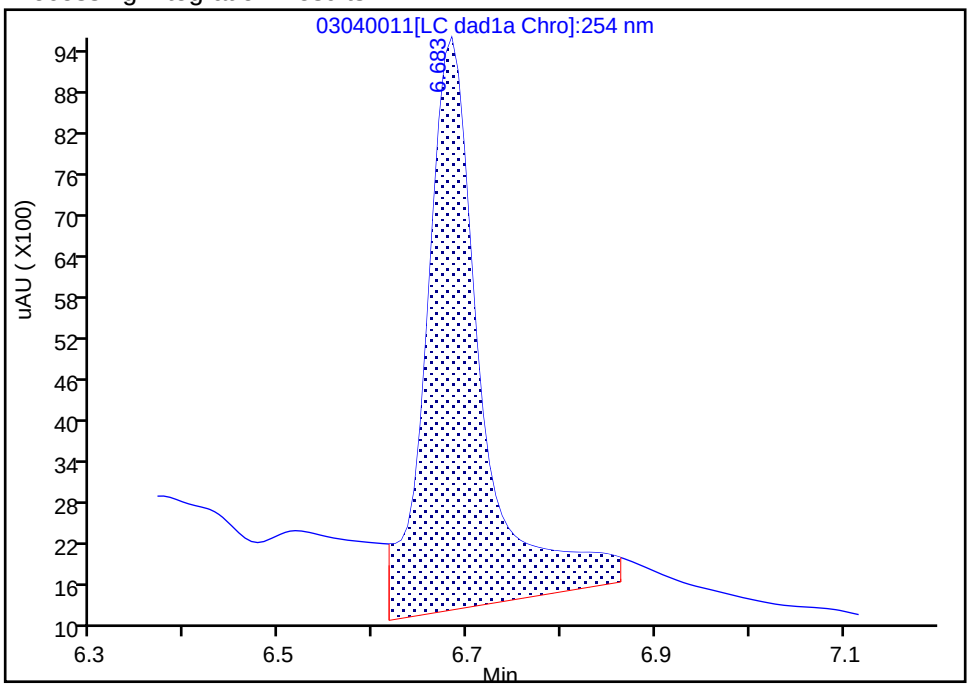
Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040011.d				
Injection Date:	04-Mar-2020 15:39:01	Instrument ID:	CHHPLC_X3		
Lims ID:	IC MAIN L4				
Client ID:					
Operator ID:	CB	ALS Bottle#:	11	Worklist Smp#:	11
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

3 HMX, CAS: 2691-41-0

Signal: 1

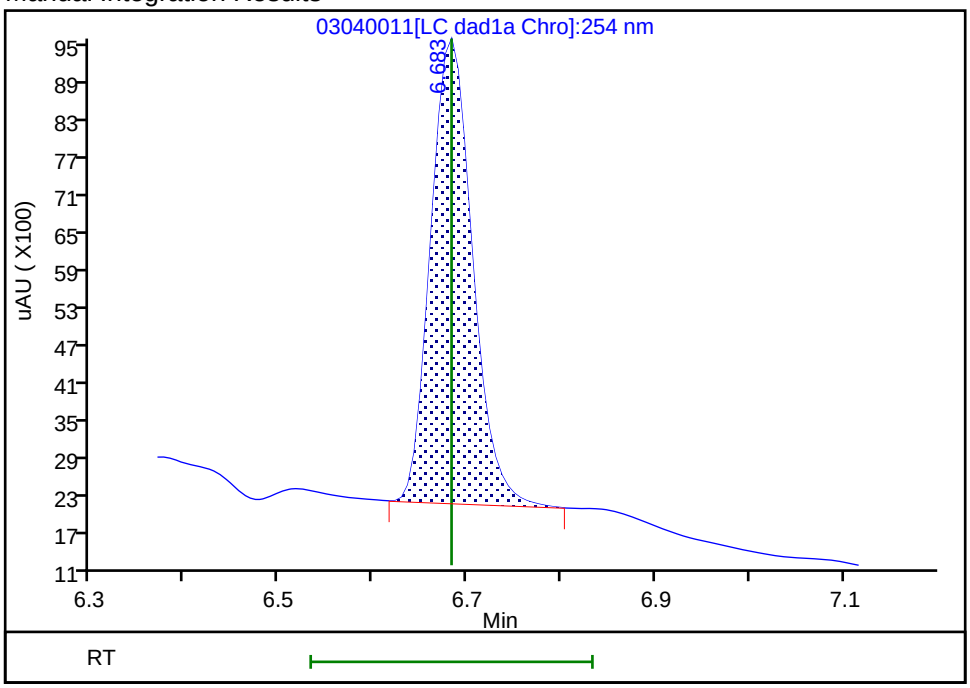
Processing Integration Results

RT: 6.68
Area: 33992
Amount: 0.316859
Amount Units: ug/mL



Manual Integration Results

RT: 6.68
Area: 22889
Amount: 0.256668
Amount Units: ug/mL



Reviewer: beckerc, 05-Mar-2020 08:22:17

Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\03040012.D
Lims ID: IC MAIN L3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 04-Mar-2020 16:01:56 ALS Bottle#: 12 Worklist Smp#: 12
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC MAIN L3
Misc. Info.: 280-0089779-012
Operator ID: CB Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub9

Method: \\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 06-Mar-2020 10:25:06 Calib Date: 04-Mar-2020 23:40:46
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\03040032.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX0308

First Level Reviewer: beckerc Date: 05-Mar-2020 08:22:43

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 HMX	1	6.682	6.683	-0.001	9069	0.1000	0.1017	M
7 RDX	1	7.749	7.750	-0.001	11806	0.1000	0.1002	
8 2,4,6-Trinitrophenol	1	8.069	8.056	0.013	8625	0.1000	0.0989	
$ 9 1,2-Dinitrobenzene	1	8.709	8.710	-0.001	14589	0.1000	0.0998	
10 1,3,5-Trinitrobenzene	1	8.882	8.883	-0.001	24274	0.1002	0.0997	
11 1,3-Dinitrobenzene	1	9.529	9.529	0.000	32466	0.1002	0.1001	
12 Nitrobenzene	1	9.915	9.916	-0.001	21325	0.1004	0.1003	
14 Tetryl	1	10.215	10.216	-0.001	19275	0.1002	0.0994	
15 Nitroglycerin	2	10.722	10.729	-0.007	71710	1.00	1.00	
16 2,4,6-Trinitrotoluene	1	11.175	11.183	-0.008	22080	0.1004	0.0999	
17 4-Amino-2,6-dinitrotoluene	1	11.329	11.336	-0.007	17102	0.1001	0.0986	
18 2-Amino-4,6-dinitrotoluene	1	11.615	11.623	-0.008	21640	0.1004	0.0995	
19 2,6-Dinitrotoluene	1	11.782	11.789	-0.007	15948	0.1004	0.1000	
20 2,4-Dinitrotoluene	1	11.975	11.983	-0.008	31840	0.1004	0.0991	
21 o-Nitrotoluene	1	12.822	12.829	-0.007	14255	0.1000	0.0991	
22 p-Nitrotoluene	1	13.255	13.269	-0.014	11935	0.1002	0.0992	
23 m-Nitrotoluene	1	13.855	13.863	-0.008	15234	0.1001	0.0988	
24 PETN	2	14.962	14.969	-0.007	80671	1.00	1.02	

QC Flag Legend

Review Flags
M - Manually Integrated

Reagents:

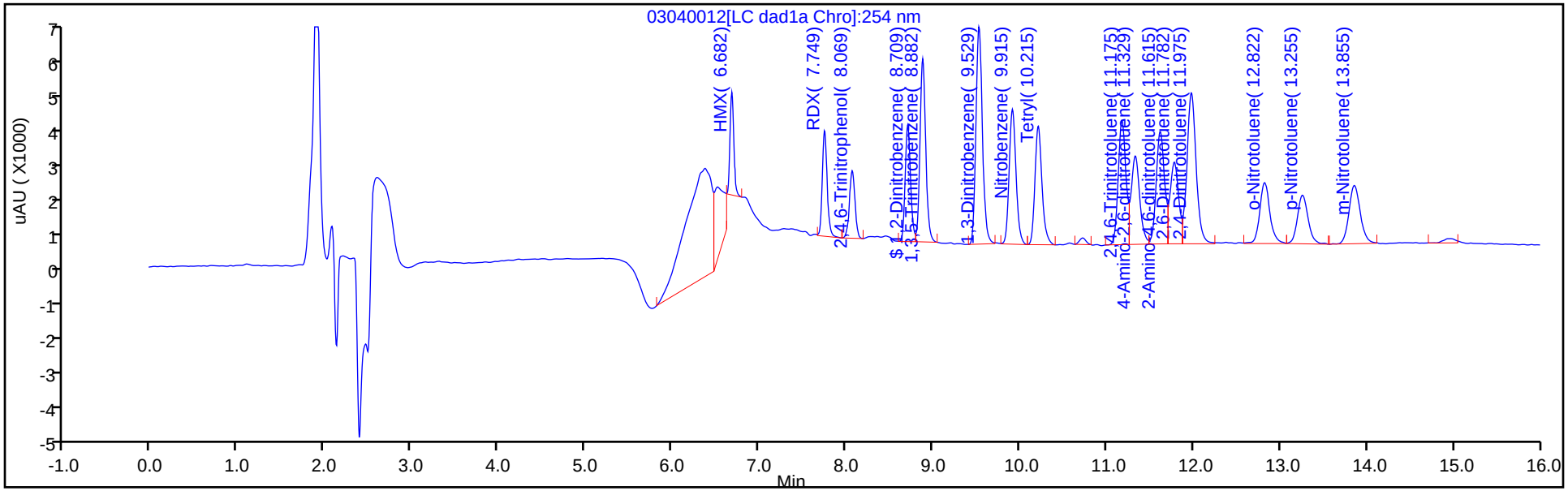
8330IntermStk_00061 Amount Added: 10.00 Units: uL

Report Date: 06-Mar-2020 10:25:06 Chrom Revision: 2.3 19-Feb-2020 16:45:46

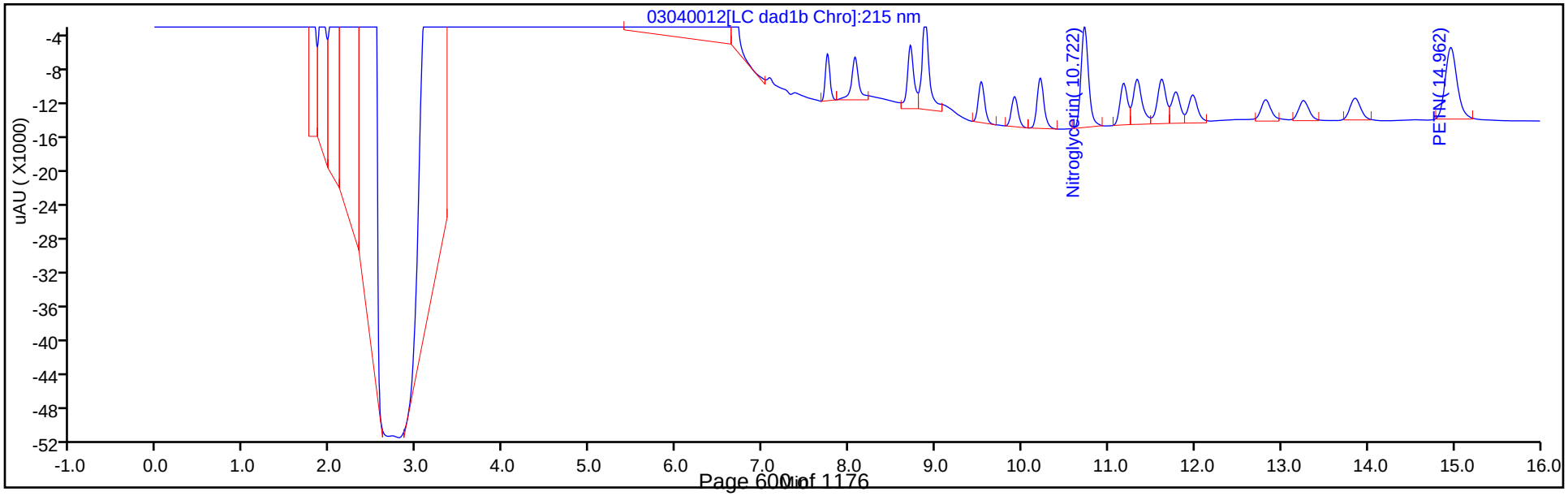
Eurofins TestAmerica, Denver

Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040012.d				
Injection Date:	04-Mar-2020 16:01:56	Instrument ID:	CHHPLC_X3	Operator ID:	CB
Lims ID:	IC MAIN L3			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

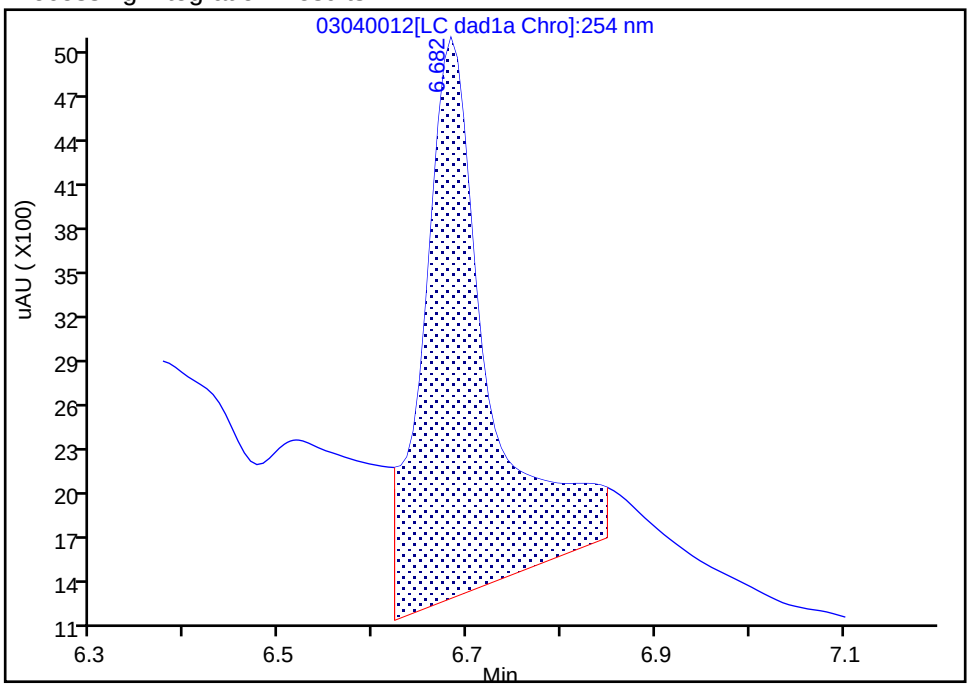
Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040012.d				
Injection Date:	04-Mar-2020 16:01:56	Instrument ID:	CHHPLC_X3		
Lims ID:	IC MAIN L3				
Client ID:					
Operator ID:	CB	ALS Bottle#:	12	Worklist Smp#:	12
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

3 HMX, CAS: 2691-41-0

Signal: 1

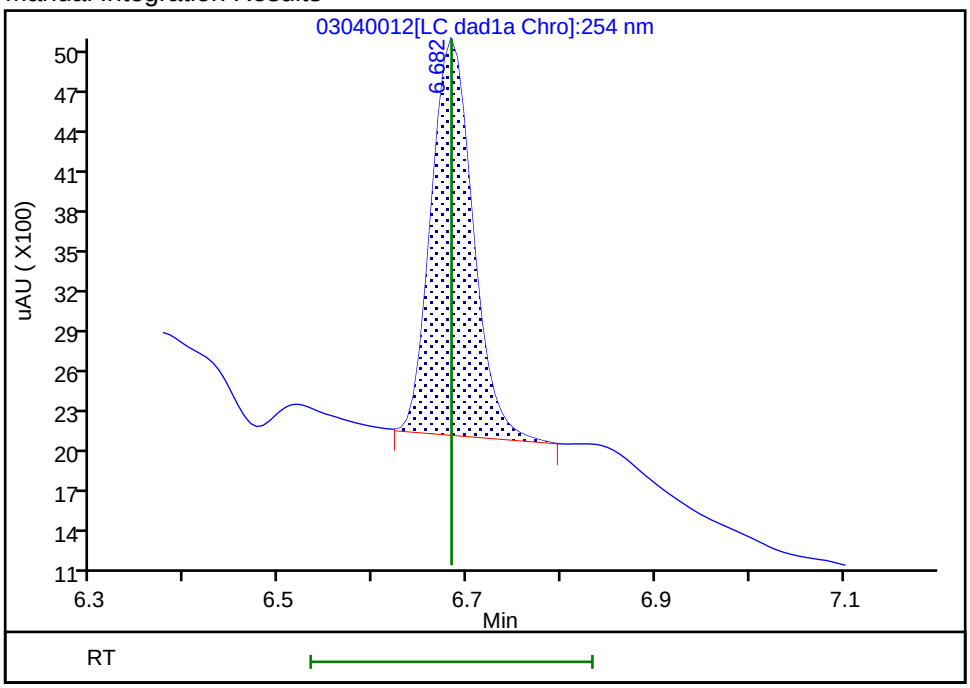
Processing Integration Results

RT: 6.68
Area: 18300
Amount: 0.148246
Amount Units: ug/mL



Manual Integration Results

RT: 6.68
Area: 9069
Amount: 0.101696
Amount Units: ug/mL



Reviewer: beckerc, 05-Mar-2020 08:22:39
Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\03040013.D				
Lims ID:	IC MAIN L2				
Client ID:					
Sample Type:	IC	Calib Level:	2		
Inject. Date:	04-Mar-2020 16:24:51	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	IC MAIN L2				
Misc. Info.:	280-0089779-013				
Operator ID:	CB	Instrument ID:	CHHPLC_X3		
Sublist:	chrom-8330_X3*sub9				
Method:	\\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	06-Mar-2020 10:25:07	Calib Date:	04-Mar-2020 23:40:46		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\03040032.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX0308				

First Level Reviewer: beckerc Date: 05-Mar-2020 08:23:01

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 HMX	1	6.684	6.683	0.001	4200	0.0500	0.0471	M
7 RDX	1	7.750	7.750	0.000	6064	0.0500	0.0514	
8 2,4,6-Trinitrophenol	1	8.077	8.056	0.021	4344	0.0500	0.0498	
$ 9 1,2-Dinitrobenzene	1	8.710	8.710	0.000	7419	0.0500	0.0507	
10 1,3,5-Trinitrobenzene	1	8.884	8.883	0.001	12180	0.0501	0.0500	
11 1,3-Dinitrobenzene	1	9.530	9.529	0.001	16020	0.0501	0.0494	
12 Nitrobenzene	1	9.917	9.916	0.001	10390	0.0502	0.0489	
14 Tetryl	1	10.217	10.216	0.001	9672	0.0501	0.0499	
15 Nitroglycerin	2	10.730	10.729	0.001	34296	0.5000	0.4777	
16 2,4,6-Trinitrotoluene	1	11.183	11.183	0.000	11231	0.0502	0.0508	
17 4-Amino-2,6-dinitrotoluene	1	11.337	11.336	0.001	9007	0.0501	0.0519	
18 2-Amino-4,6-dinitrotoluene	1	11.623	11.623	0.000	10795	0.0502	0.0496	
19 2,6-Dinitrotoluene	1	11.790	11.789	0.001	8065	0.0502	0.0506	
20 2,4-Dinitrotoluene	1	11.983	11.983	0.000	16087	0.0502	0.0501	
21 o-Nitrotoluene	1	12.830	12.829	0.001	7801	0.0500	0.0542	
22 p-Nitrotoluene	1	13.263	13.269	-0.006	6176	0.0501	0.0513	
23 m-Nitrotoluene	1	13.863	13.863	0.000	8074	0.0501	0.0523	
24 PETN	2	14.963	14.969	-0.006	37166	0.5000	0.4678	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

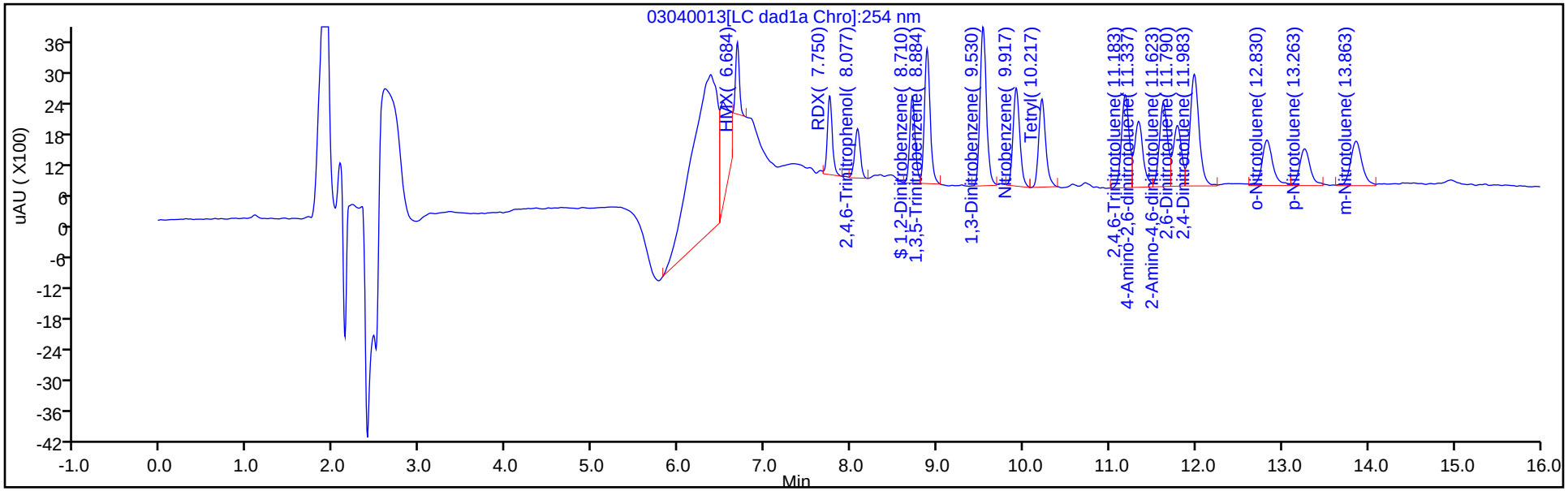
8330IntermStk_00061 Amount Added: 5.00 Units: uL

Report Date: 06-Mar-2020 10:25:07 Chrom Revision: 2.3 19-Feb-2020 16:45:46

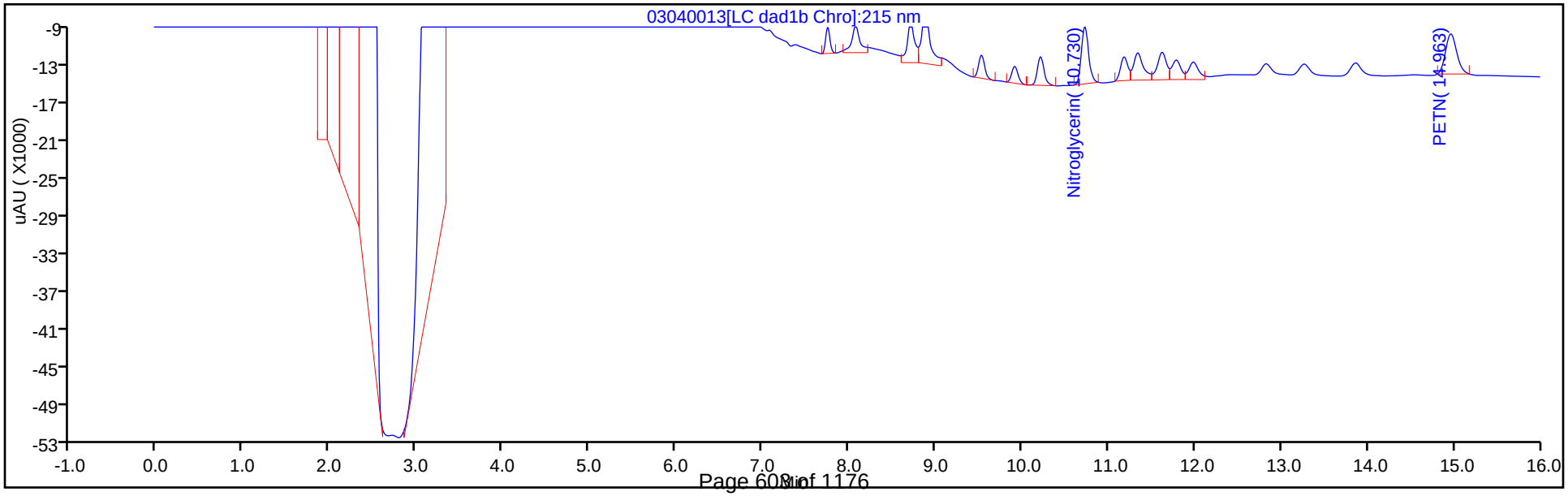
Eurofins TestAmerica, Denver

Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040013.d				
Injection Date:	04-Mar-2020 16:24:51	Instrument ID:	CHHPLC_X3	Operator ID:	CB
Lims ID:	IC MAIN L2			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



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

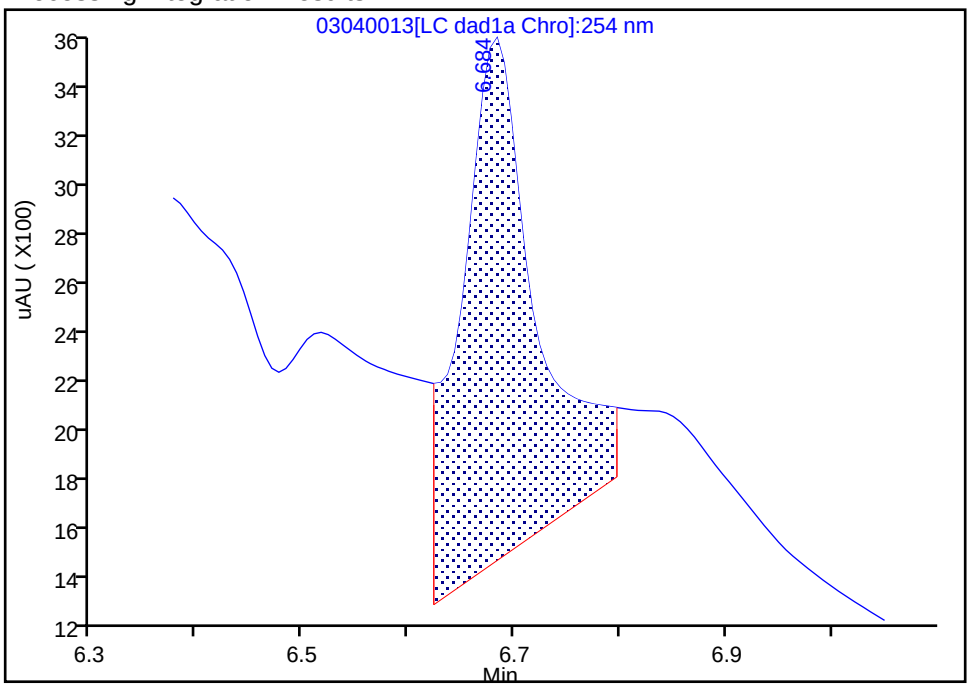
Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040013.d				
Injection Date:	04-Mar-2020 16:24:51	Instrument ID:	CHHPLC_X3		
Lims ID:	IC MAIN L2				
Client ID:					
Operator ID:	CB	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

3 HMX, CAS: 2691-41-0

Signal: 1

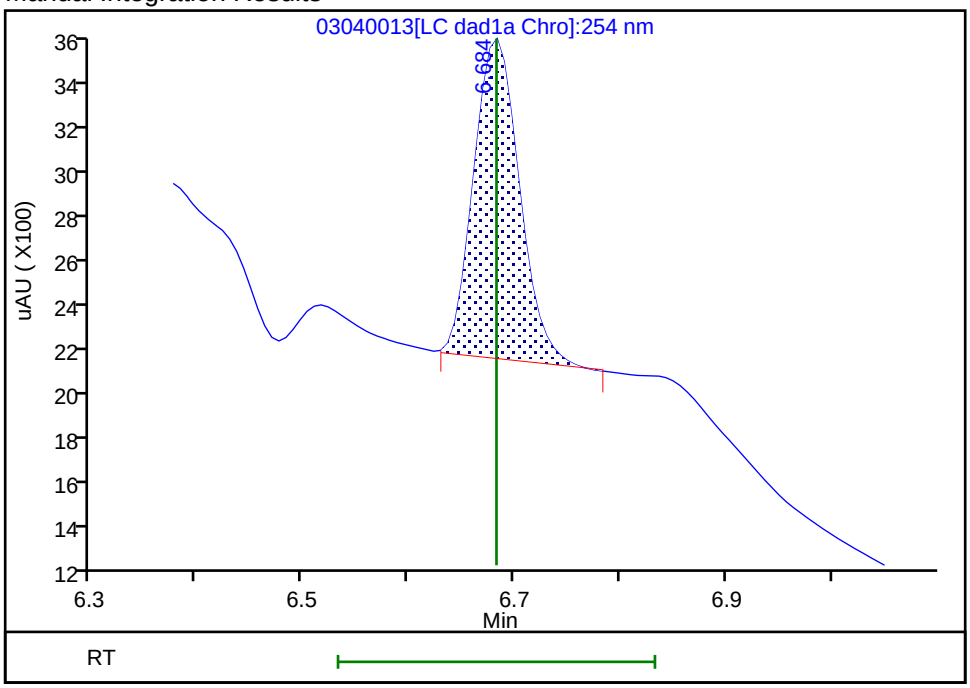
Processing Integration Results

RT: 6.68
Area: 10197
Amount: 0.075771
Amount Units: ug/mL



Manual Integration Results

RT: 6.68
Area: 4200
Amount: 0.047097
Amount Units: ug/mL



Reviewer: beckerc, 05-Mar-2020 08:22:58
Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\03040014.D
Lims ID: IC MAIN L1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 04-Mar-2020 16:47:48 ALS Bottle#: 14 Worklist Smp#: 14
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC MAIN L1
Misc. Info.: 280-0089779-014
Operator ID: CB Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub9

Method: \\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 06-Mar-2020 10:25:08 Calib Date: 04-Mar-2020 23:40:46
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\03040032.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX0308

First Level Reviewer: beckerc Date: 05-Mar-2020 08:23:37

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 HMX	1	6.682	6.683	-0.001	1520	0.0200	0.0170	M
7 RDX	1	7.755	7.750	0.005	2716	0.0200	0.0230	
8 2,4,6-Trinitrophenol	1	8.082	8.056	0.026	1712	0.0200	0.0196	
$ 9 1,2-Dinitrobenzene	1	8.715	8.710	0.005	2981	0.0200	0.0204	
10 1,3,5-Trinitrobenzene	1	8.882	8.883	-0.001	4836	0.0200	0.0199	
11 1,3-Dinitrobenzene	1	9.535	9.529	0.006	6353	0.0200	0.0196	
12 Nitrobenzene	1	9.922	9.916	0.006	4287	0.0201	0.0202	
14 Tetryl	1	10.215	10.216	-0.001	4033	0.0200	0.0208	
15 Nitroglycerin	2	10.728	10.729	-0.001	13145	0.2000	0.1831	
16 2,4,6-Trinitrotoluene	1	11.182	11.183	-0.001	4452	0.0201	0.0202	
17 4-Amino-2,6-dinitrotoluene	1	11.342	11.336	0.006	3460	0.0200	0.0199	
18 2-Amino-4,6-dinitrotoluene	1	11.622	11.623	-0.001	4452	0.0201	0.0205	M
19 2,6-Dinitrotoluene	1	11.788	11.789	-0.001	3203	0.0201	0.0201	M
20 2,4-Dinitrotoluene	1	11.988	11.983	0.005	6351	0.0201	0.0198	
21 o-Nitrotoluene	1	12.828	12.829	-0.001	3316	0.0200	0.0231	
22 p-Nitrotoluene	1	13.268	13.269	-0.001	2555	0.0200	0.0212	
23 m-Nitrotoluene	1	13.868	13.863	0.005	3216	0.0200	0.0209	
24 PETN	2	14.962	14.969	-0.007	13348	0.2000	0.1680	

QC Flag Legend

Review Flags
M - Manually Integrated

Reagents:

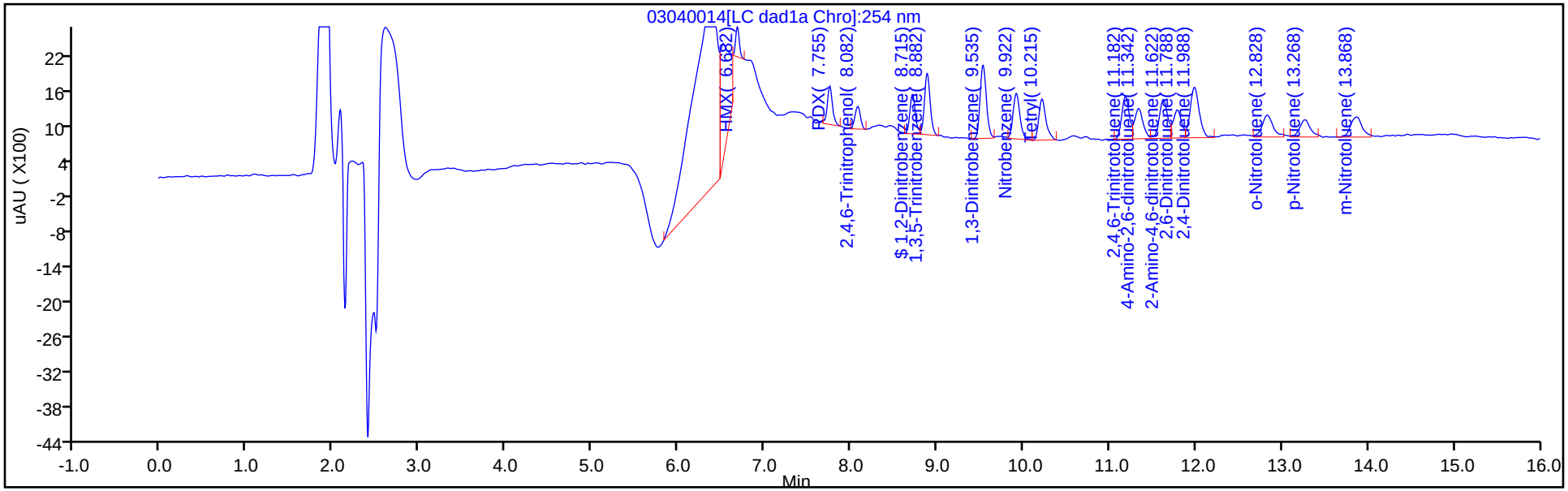
8330IntermStk_00061 Amount Added: 2.00 Units: uL

Report Date: 06-Mar-2020 10:25:09 Chrom Revision: 2.3 19-Feb-2020 16:45:46

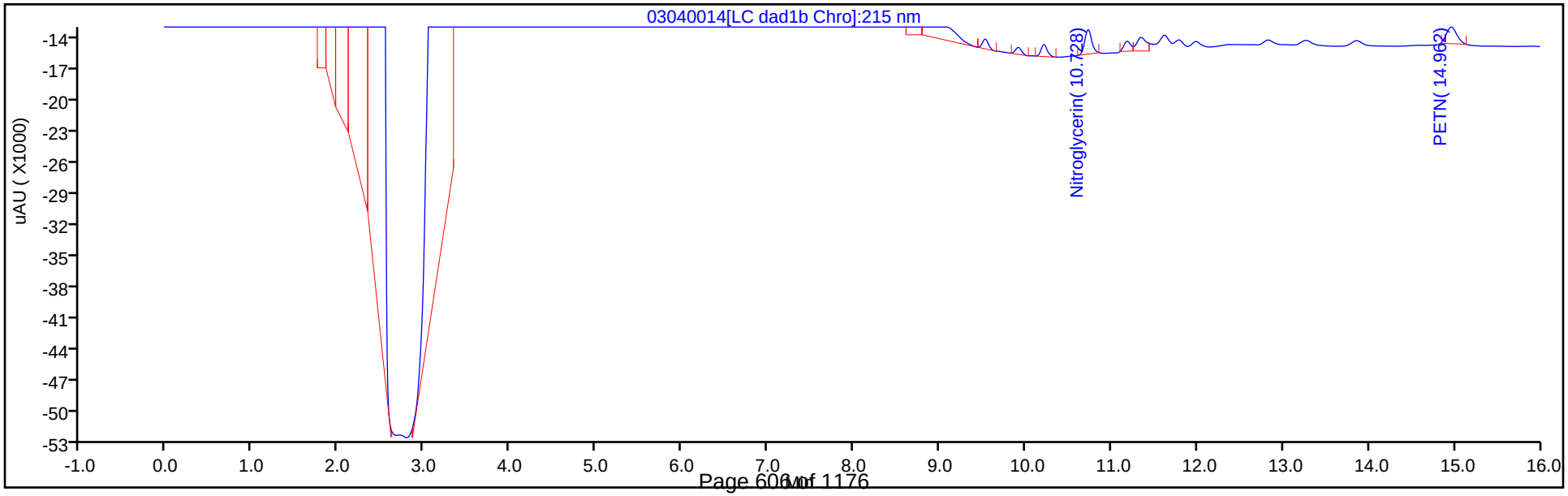
Eurofins TestAmerica, Denver

Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040014.d				
Injection Date:	04-Mar-2020 16:47:48	Instrument ID:	CHHPLC_X3	Operator ID:	CB
Lims ID:	IC MAIN L1			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



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

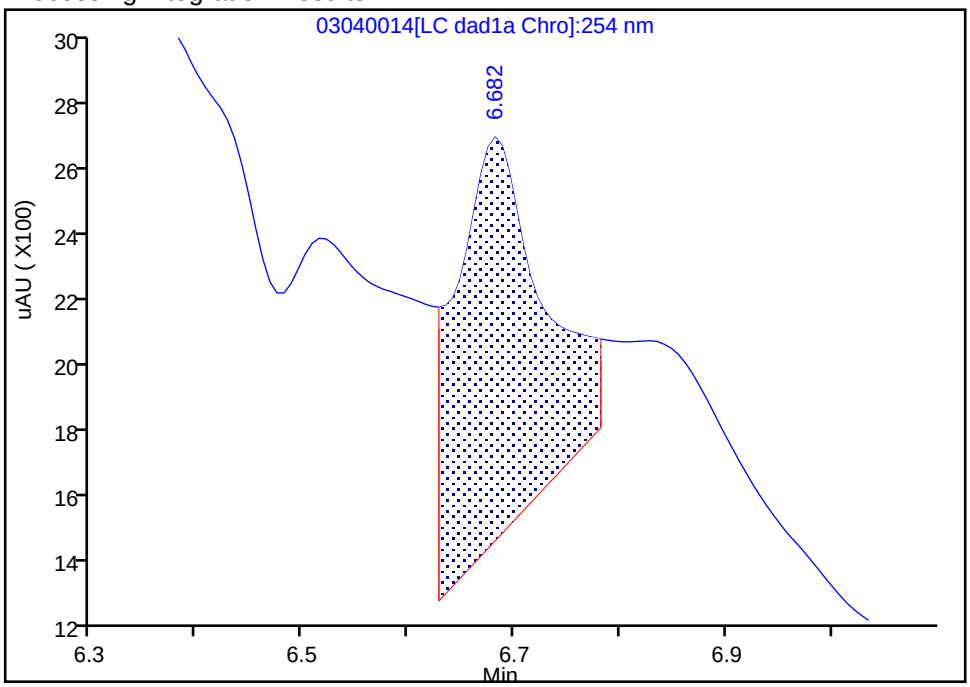
Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040014.d				
Injection Date:	04-Mar-2020 16:47:48	Instrument ID:	CHHPLC_X3		
Lims ID:	IC MAIN L1				
Client ID:					
Operator ID:	CB	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

3 HMX, CAS: 2691-41-0

Signal: 1

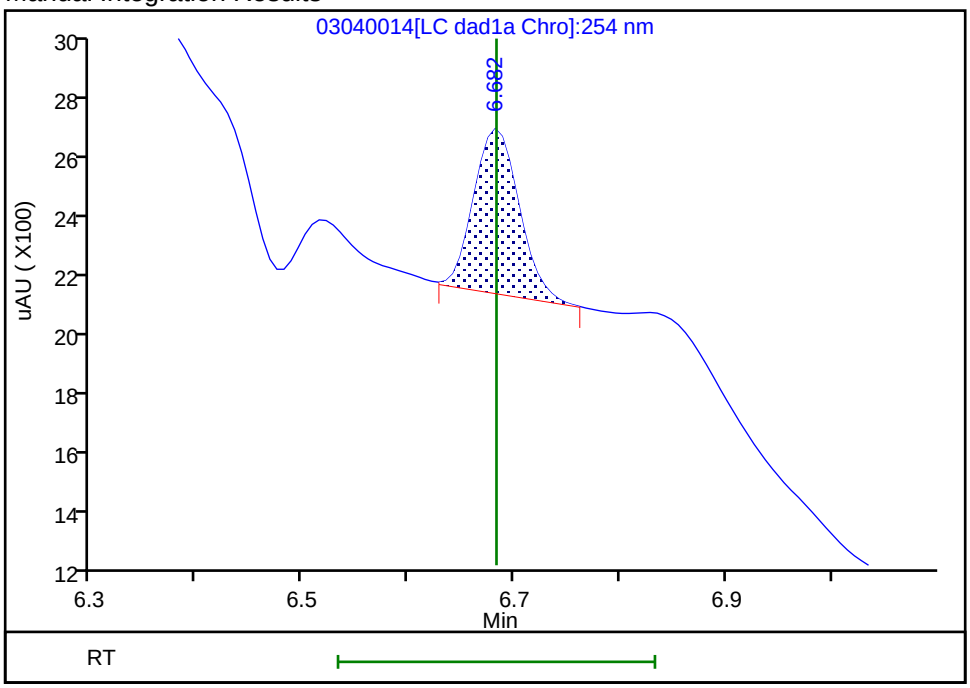
Processing Integration Results

RT: 6.68
Area: 6385
Amount: 0.053394
Amount Units: ug/mL



Manual Integration Results

RT: 6.68
Area: 1520
Amount: 0.017045
Amount Units: ug/mL



Reviewer: beckerc, 05-Mar-2020 08:23:15

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

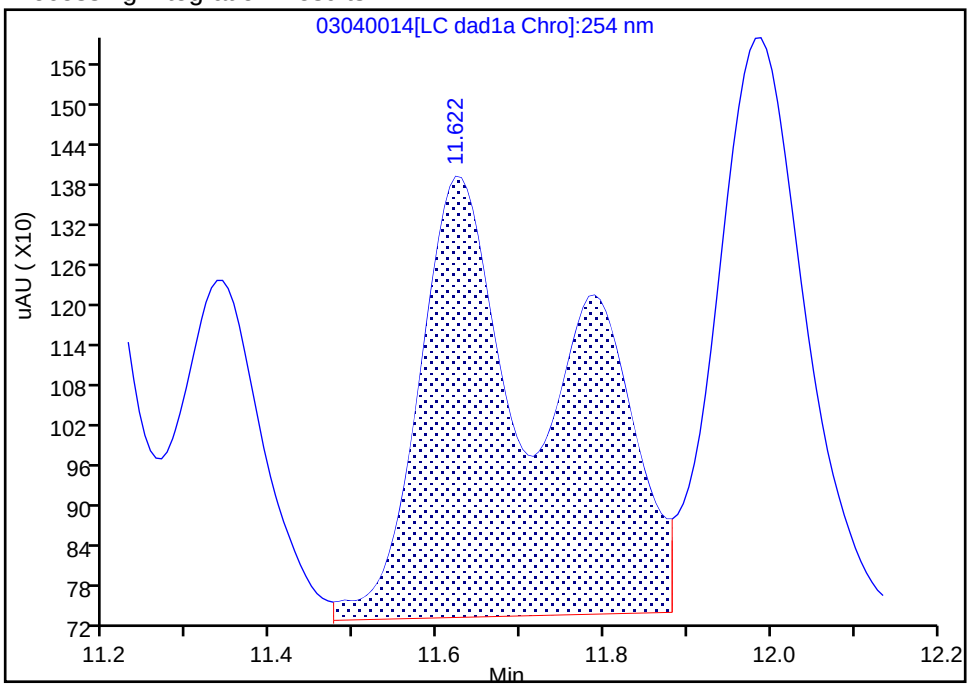
Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040014.d				
Injection Date:	04-Mar-2020 16:47:48	Instrument ID:	CHHPLC_X3		
Lims ID:	IC MAIN L1				
Client ID:					
Operator ID:	CB	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

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

Signal: 1

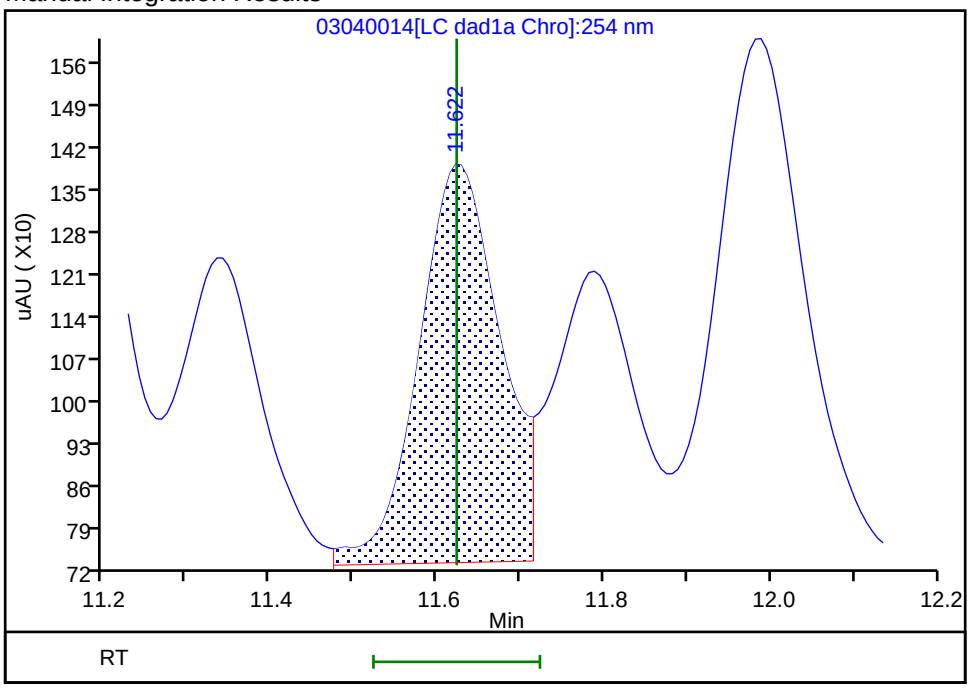
Processing Integration Results

RT: 11.62
Area: 7655
Amount: 0.026996
Amount Units: ug/mL



Manual Integration Results

RT: 11.62
Area: 4452
Amount: 0.020465
Amount Units: ug/mL



Reviewer: beckerc, 05-Mar-2020 08:23:29
Audit Action: Split an Integrated Peak Audit Reason: Baseline

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

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1 Analy Batch No.: 487658

SDG No.:

Instrument ID: CHHPLC_X3 GC Column: UltraCarb5u ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/04/2020 21:00 Calibration End Date: 03/04/2020 23:40 Calibration ID: 42564

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-487658/32	03040032.D
Level 2	IC 280-487658/31	03040031.D
Level 3	IC 280-487658/30	03040030.D
Level 4	IC 280-487658/29	03040029.D
Level 5	IC 280-487658/28	03040028.D
Level 6	IC 280-487658/27	03040027.D
Level 7	IC 280-487658/26	03040026.D
Level 8	IC 280-487658/25	03040025.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	LVL 7	LVL 8			RT WINDOW	AVG RT
TNX	6.592	6.588	6.589	6.591	6.591	6.591	6.591	6.590			6.491 - 6.691	6.590
DNX	6.912	6.914	6.915	6.918	6.917	6.918	6.918	6.916			6.818 - 7.018	6.916
MNX	7.359	7.354	7.355	7.358	7.357	7.358	7.358	7.356			7.208 - 7.508	7.357

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

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1 Analy Batch No.: 487658

SDG No.:

Instrument ID: CHHPLC_X3 GC Column: UltraCarb5u ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/04/2020 21:00 Calibration End Date: 03/04/2020 23:40 Calibration ID: 42564

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-487658/32	03040032.D
Level 2	IC 280-487658/31	03040031.D
Level 3	IC 280-487658/30	03040030.D
Level 4	IC 280-487658/29	03040029.D
Level 5	IC 280-487658/28	03040028.D
Level 6	IC 280-487658/27	03040027.D
Level 7	IC 280-487658/26	03040026.D
Level 8	IC 280-487658/25	03040025.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	216933 212722	213207 212002	209810 219067	231497 225632	Ave		217608.702				3.5		20.0			
DNX	117133 161214	137942 160624	149221 163997	167576 165720	Ave		152928.307				11.5		20.0			
MNX	175621 156707	161285 152355	156238 154895	157686 153564	Ave		158544.202				4.7		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 TestAmerica, Denver Job No.: 280-137225-1 Analy Batch No.: 487658

SDG No.:

Instrument ID: CHHPLC_X3 GC Column: UltraCarb5u ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/04/2020 21:00 Calibration End Date: 03/04/2020 23:40 Calibration ID: 42564

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-487658/32	03040032.D
Level 2	IC 280-487658/31	03040031.D
Level 3	IC 280-487658/30	03040030.D
Level 4	IC 280-487658/29	03040029.D
Level 5	IC 280-487658/28	03040028.D
Level 6	IC 280-487658/27	03040027.D
Level 7	IC 280-487658/26	03040026.D
Level 8	IC 280-487658/25	03040025.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	4343 148550	10671 219286	21002 564643	57932	85174	0.0200 0.701	0.0501 1.00	0.100 2.50	0.250	0.400
DNX	Ave	2345 112549	6904 164161	14937 414714	41936	64550	0.0200 0.701	0.0501 1.00	0.100 2.50	0.250	0.400
MNX	Ave	4099 124459	9411 180763	18233 448024	46005	73151	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:	\\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\03040025.D				
Lims ID:	IC DMT L8				
Client ID:					
Sample Type:	IC	Calib Level:	8		
Inject. Date:	04-Mar-2020 21:00:00	ALS Bottle#:	25	Worklist Smp#:	25
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	IC DMT L8				
Misc. Info.:	280-0089779-025				
Operator ID:	CB	Instrument ID:	CHHPLC_X3		
Sublist:	chrom-8330_X3*sub17				
Method:	\\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	06-Mar-2020 10:25:20	Calib Date:	04-Mar-2020 23:40:46		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\03040032.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX0308				

First Level Reviewer: beckerc Date: 05-Mar-2020 08:30:04

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
2 TNX	1	6.590	6.591	-0.001	564643	2.50	2.59	M
5 DNX	1	6.916	6.918	-0.002	414714	2.50	2.71	M
6 MNX	1	7.356	7.358	-0.002	448024	2.92	2.83	M

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

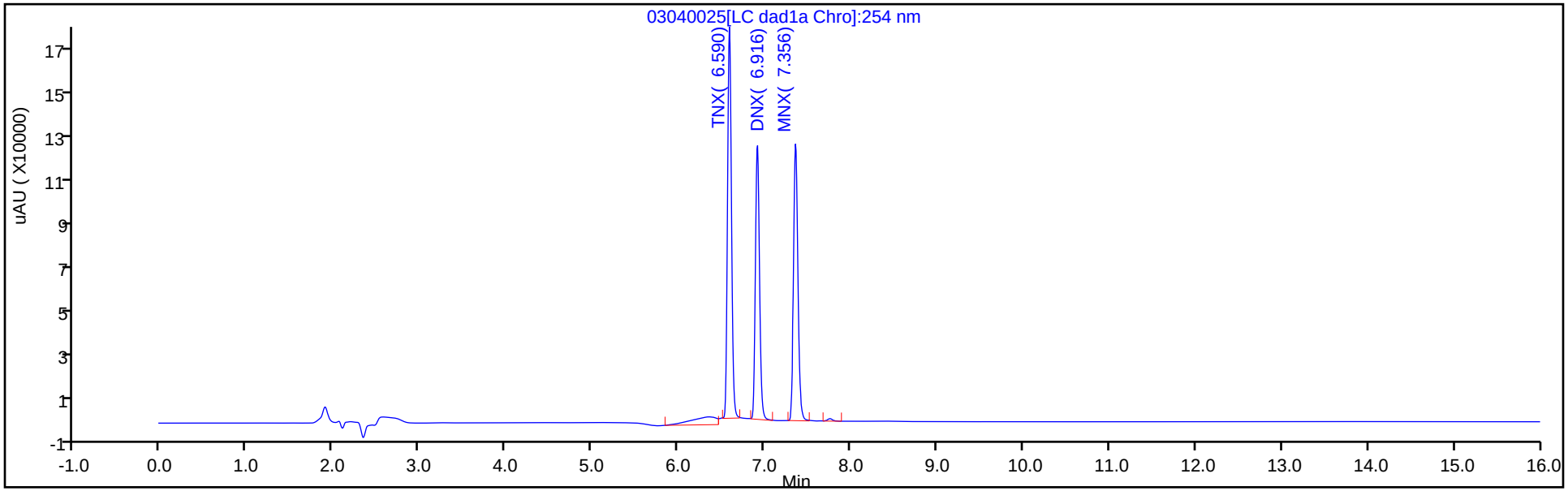
8330 DMT_00005 Amount Added: 125.00 Units: uL

Report Date: 06-Mar-2020 10:25:21 Chrom Revision: 2.3 19-Feb-2020 16:45:46

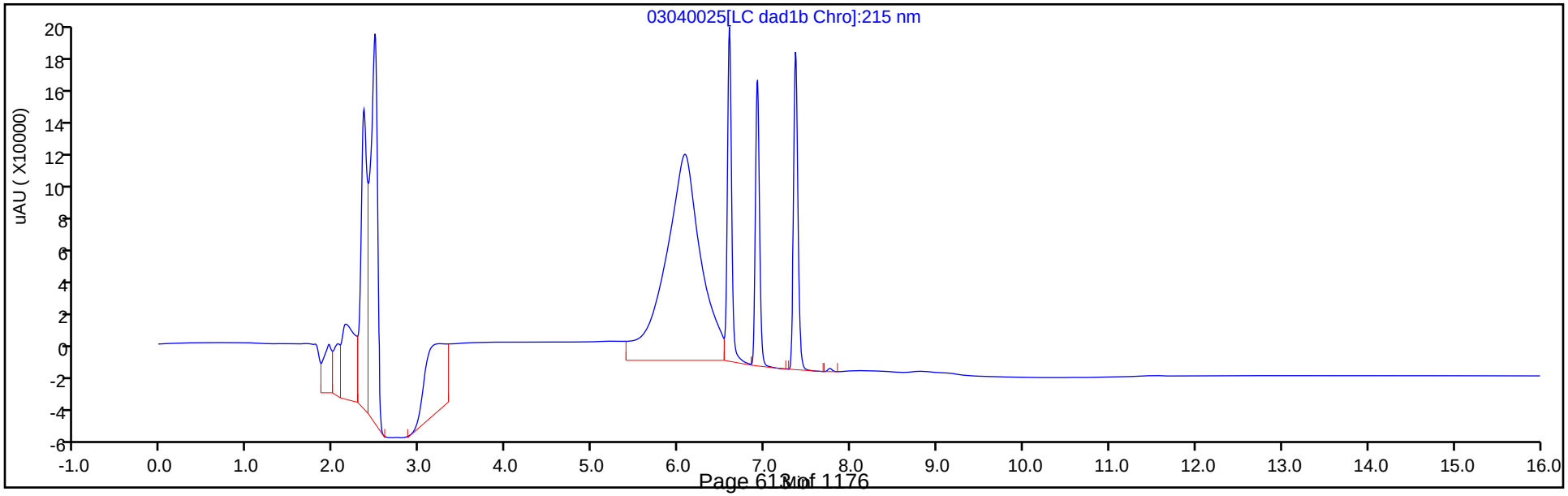
Eurofins TestAmerica, Denver

Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040025.d				
Injection Date:	04-Mar-2020 21:00:00	Instrument ID:	CHHPLC_X3	Operator ID:	CB
Lims ID:	IC DMT L8			Worklist Smp#:	25
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	25
Method:	8330_X3	Limit Group:	GCSV - 8330		

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



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



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

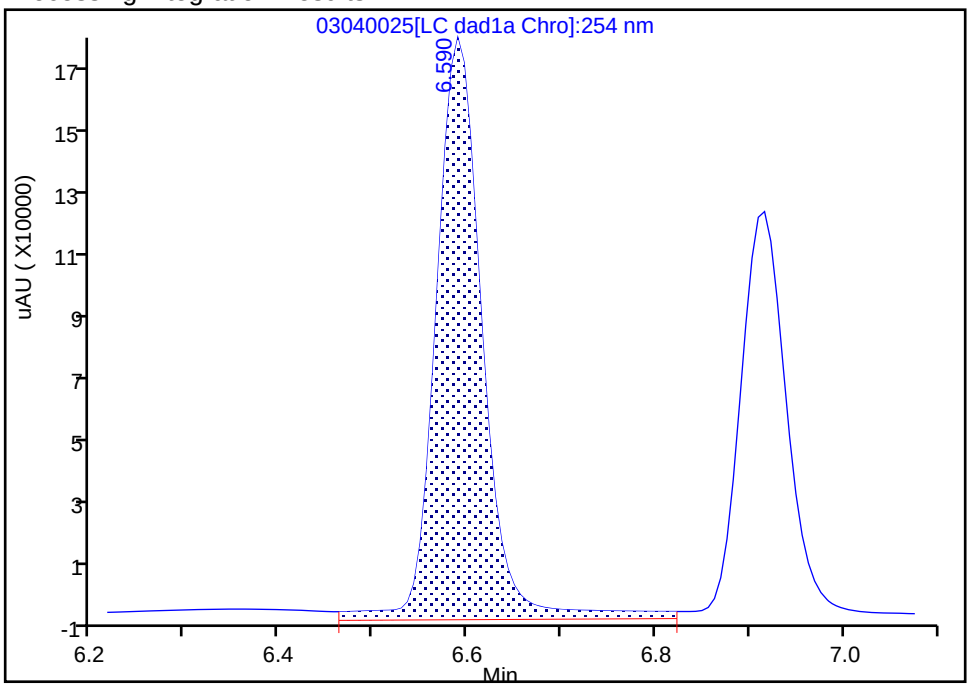
Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040025.d				
Injection Date:	04-Mar-2020 21:00:00	Instrument ID:	CHHPLC_X3		
Lims ID:	IC DMT L8				
Client ID:					
Operator ID:	CB	ALS Bottle#:	25	Worklist Smp#:	25
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

2 TNX, CAS: 13980-04-6

Signal: 1

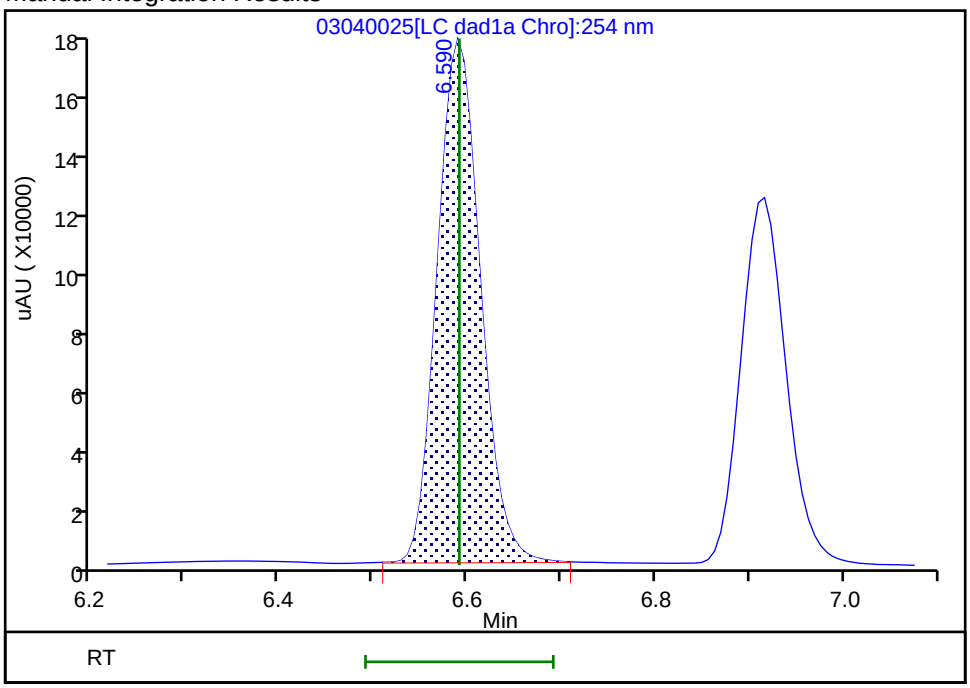
Processing Integration Results

RT: 6.59
Area: 620676
Amount: 2.450904
Amount Units: ug/mL



Manual Integration Results

RT: 6.59
Area: 564643
Amount: 2.594763
Amount Units: ug/mL



Reviewer: beckerc, 05-Mar-2020 08:29:45

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

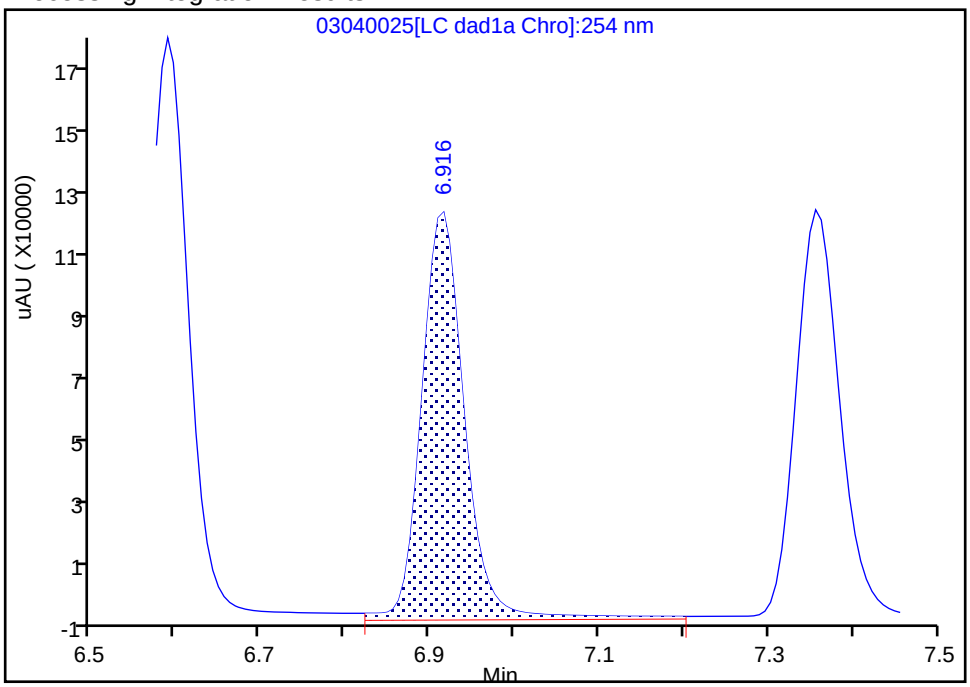
Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040025.d				
Injection Date:	04-Mar-2020 21:00:00	Instrument ID:	CHHPLC_X3		
Lims ID:	IC DMT L8				
Client ID:					
Operator ID:	CB	ALS Bottle#:	25	Worklist Smp#:	25
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

5 DNX, CAS: 80251-29-2

Signal: 1

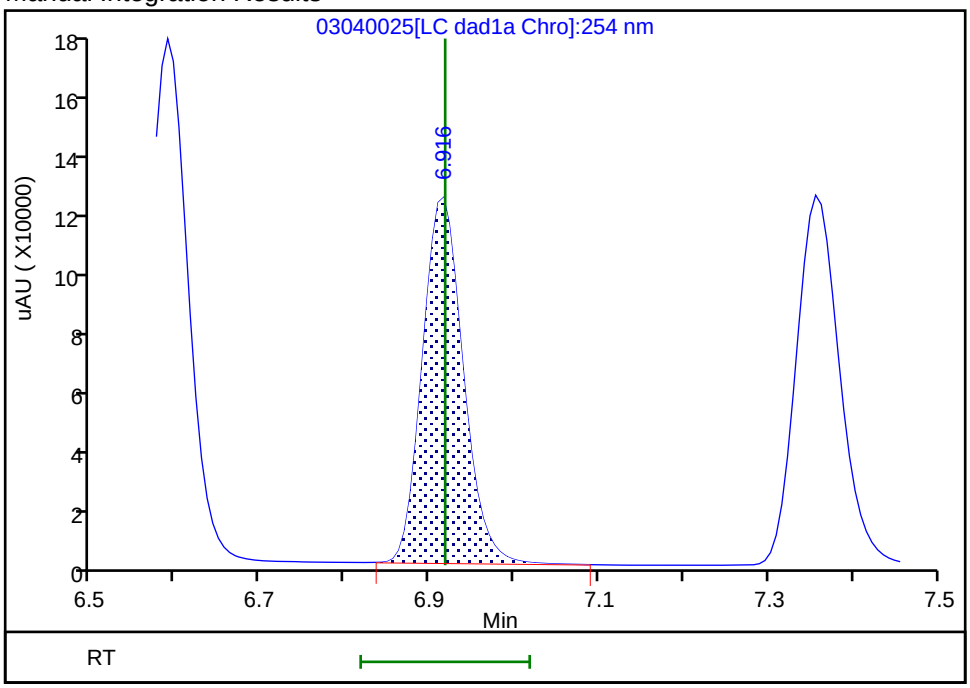
Processing Integration Results

RT: 6.92
Area: 445633
Amount: 2.254277
Amount Units: ug/mL



Manual Integration Results

RT: 6.92
Area: 414714
Amount: 2.711820
Amount Units: ug/mL



Reviewer: beckerc, 05-Mar-2020 08:29:52
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

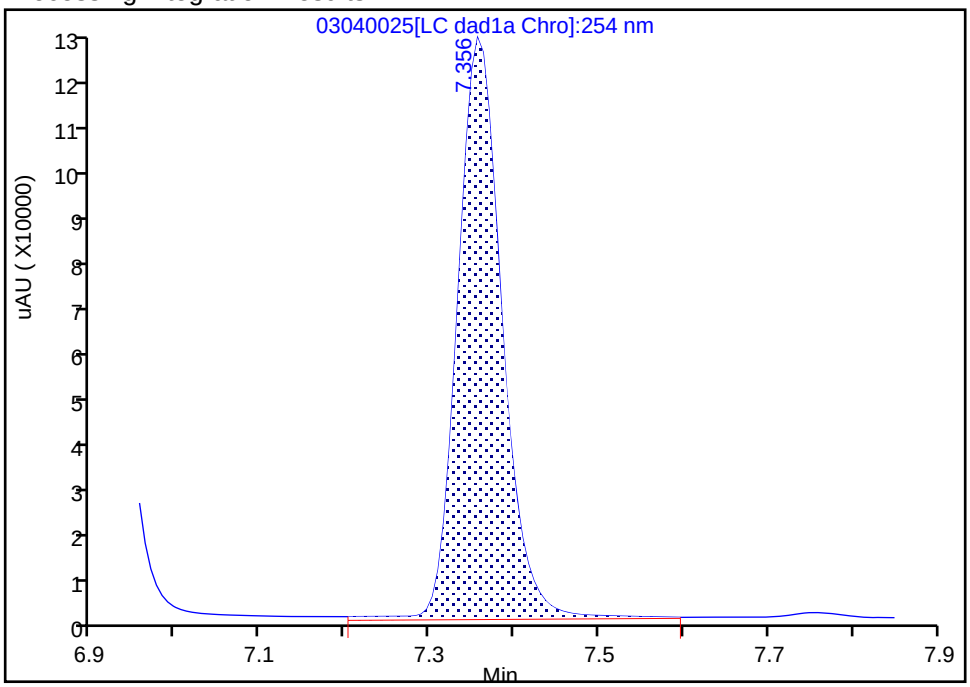
Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040025.d				
Injection Date:	04-Mar-2020 21:00:00	Instrument ID:	CHHPLC_X3		
Lims ID:	IC DMT L8				
Client ID:					
Operator ID:	CB	ALS Bottle#:	25	Worklist Smp#:	25
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

6 MNX, CAS: 5755-27-1

Signal: 1

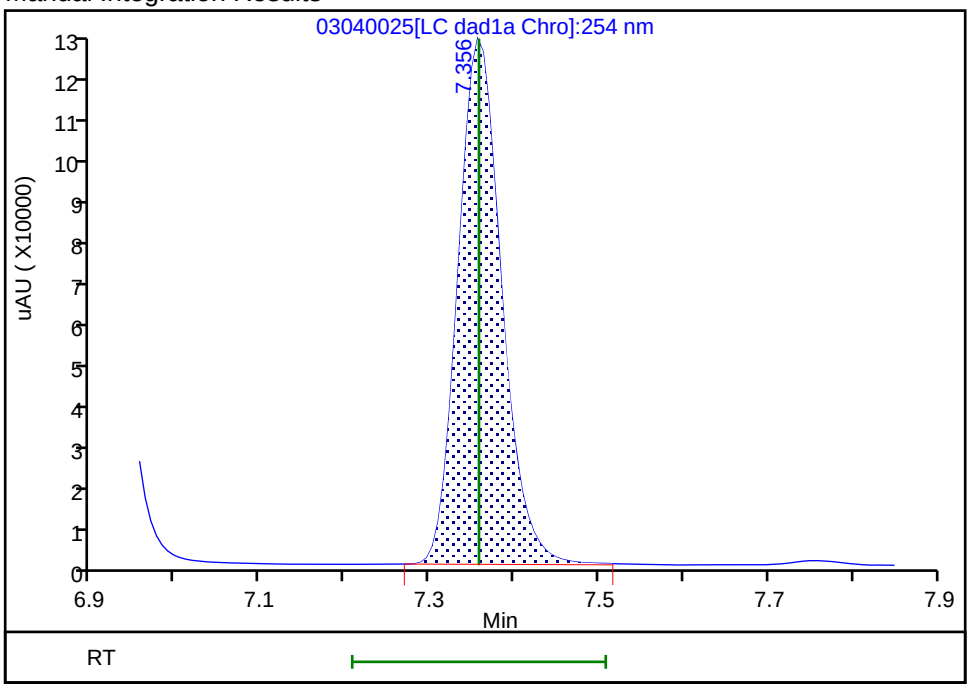
Processing Integration Results

RT: 7.36
Area: 461400
Amount: 2.899748
Amount Units: ug/mL



Manual Integration Results

RT: 7.36
Area: 448024
Amount: 2.825862
Amount Units: ug/mL



Reviewer: beckerc, 05-Mar-2020 08:30:00

Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\03040026.D				
Lims ID:	IC DMT L7				
Client ID:					
Sample Type:	IC	Calib Level:	7		
Inject. Date:	04-Mar-2020 21:23:03	ALS Bottle#:	26	Worklist Smp#:	26
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	IC DMT L7				
Misc. Info.:	280-0089779-026				
Operator ID:	CB	Instrument ID:	CHHPLC_X3		
Sublist:	chrom-8330_X3*sub17				
Method:	\\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	06-Mar-2020 10:25:21	Calib Date:	04-Mar-2020 23:40:46		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\03040032.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX0308				

First Level Reviewer: beckerc Date: 05-Mar-2020 08:30:32

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
2 TNX	1	6.591	6.591	0.000	219286	1.00	1.01	M
5 DNX	1	6.918	6.918	0.000	164161	1.00	1.07	M
6 MNX	1	7.358	7.358	0.000	180763	1.17	1.14	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

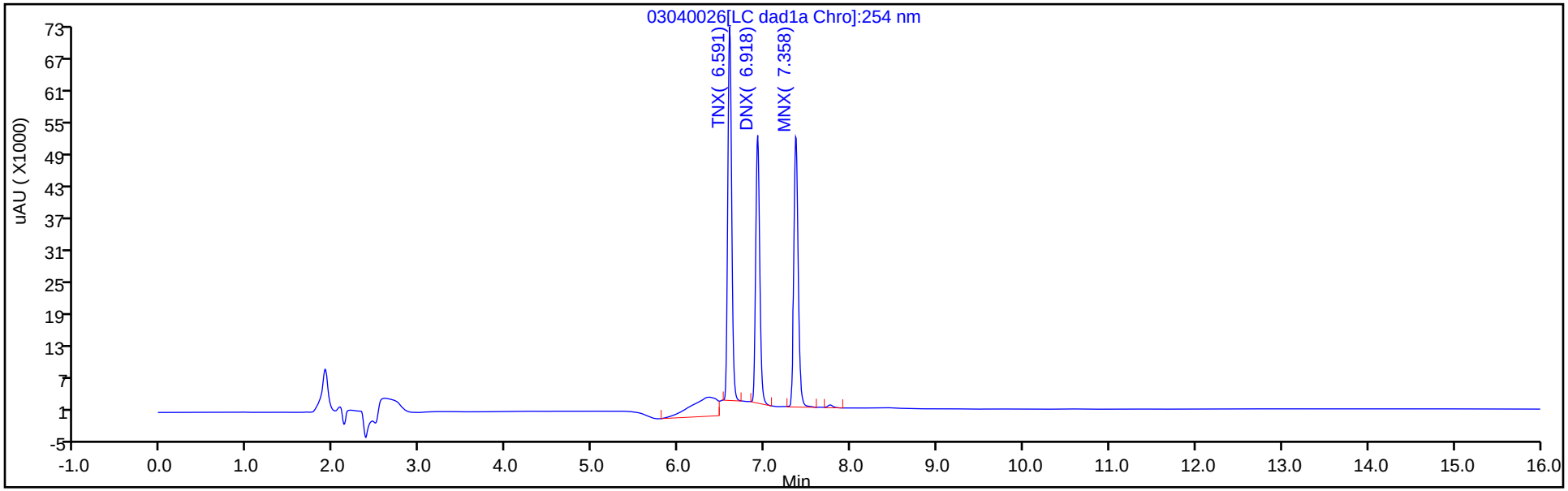
8330 DMT_00005 Amount Added: 50.00 Units: uL

Report Date: 06-Mar-2020 10:25:22 Chrom Revision: 2.3 19-Feb-2020 16:45:46

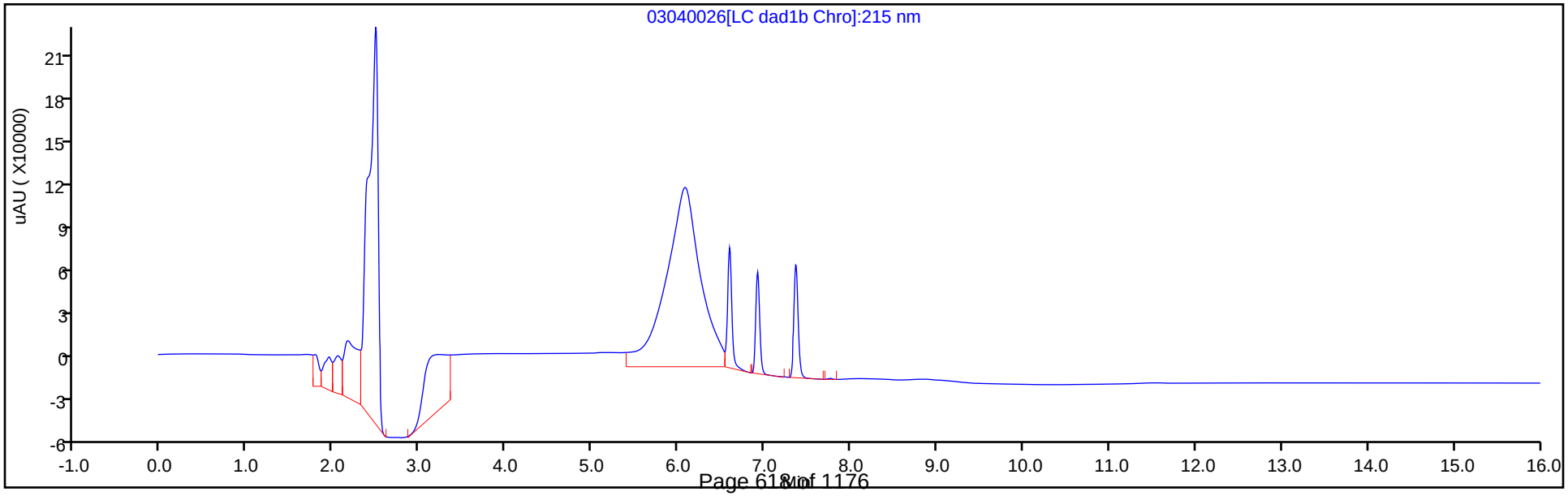
Eurofins TestAmerica, Denver

Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040026.d				
Injection Date:	04-Mar-2020 21:23:03	Instrument ID:	CHHPLC_X3	Operator ID:	CB
Lims ID:	IC DMT L7			Worklist Smp#:	26
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	26
Method:	8330_X3	Limit Group:	GCSV - 8330		

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



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



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

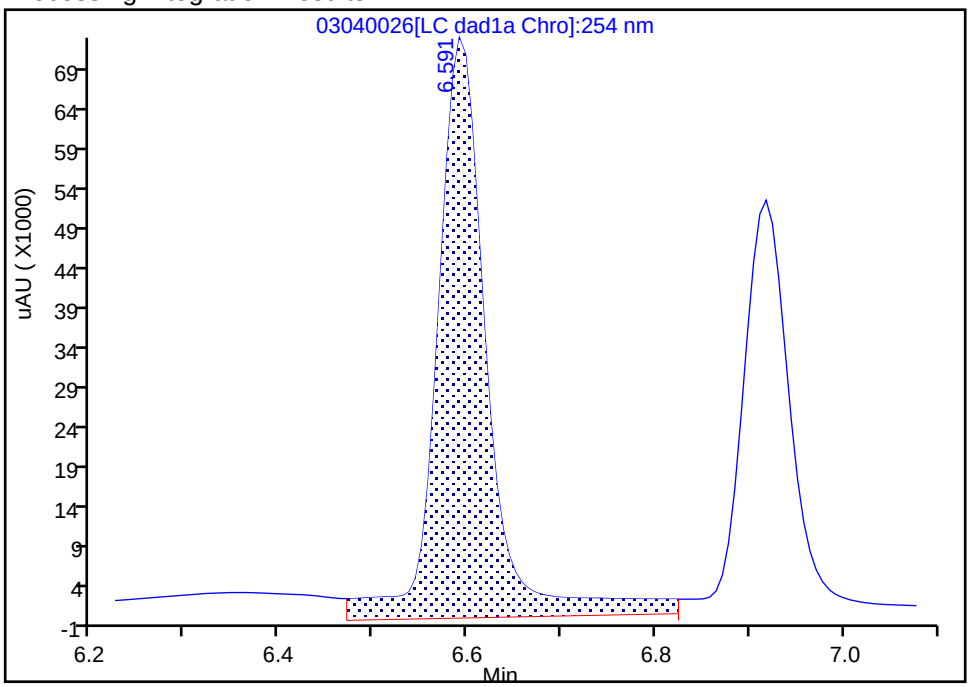
Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040026.d				
Injection Date:	04-Mar-2020 21:23:03	Instrument ID:	CHHPLC_X3		
Lims ID:	IC DMT L7				
Client ID:					
Operator ID:	CB	ALS Bottle#:	26	Worklist Smp#:	26
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

2 TNX, CAS: 13980-04-6

Signal: 1

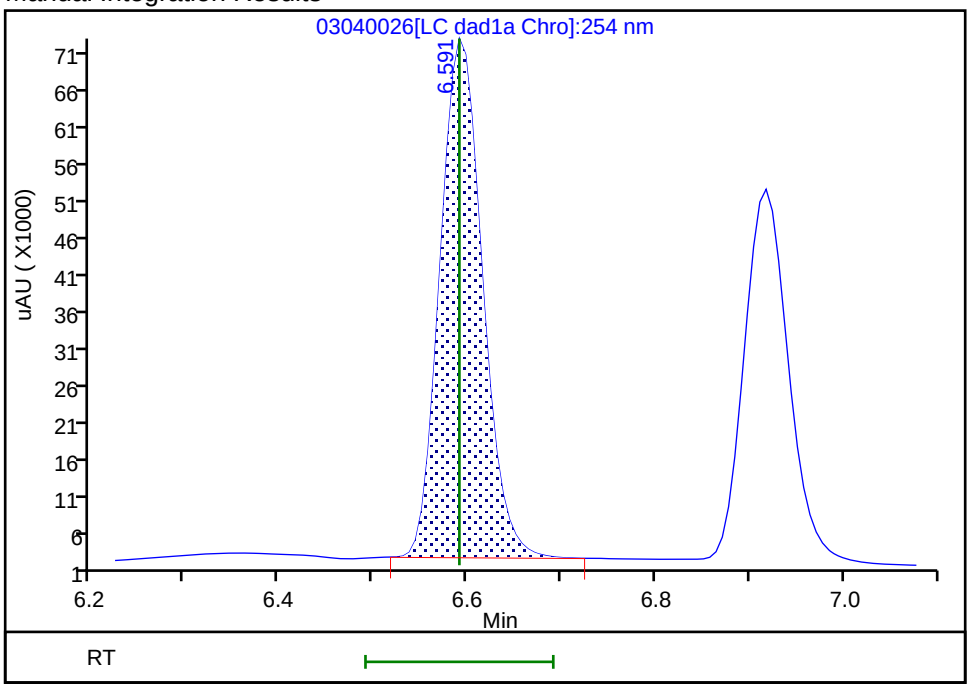
Processing Integration Results

RT: 6.59
Area: 269369
Amount: 1.068967
Amount Units: ug/mL



Manual Integration Results

RT: 6.59
Area: 219286
Amount: 1.007708
Amount Units: ug/mL



Reviewer: beckerc, 05-Mar-2020 08:30:20
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

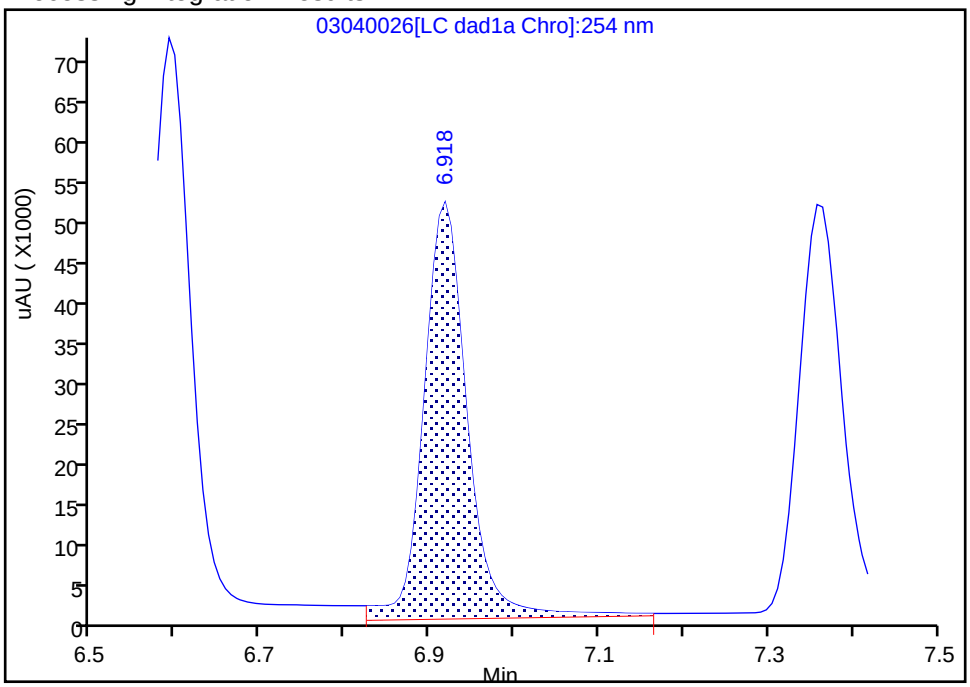
Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040026.d				
Injection Date:	04-Mar-2020 21:23:03	Instrument ID:	CHHPLC_X3		
Lims ID:	IC DMT L7				
Client ID:					
Operator ID:	CB	ALS Bottle#:	26	Worklist Smp#:	26
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

5 DNX, CAS: 80251-29-2

Signal: 1

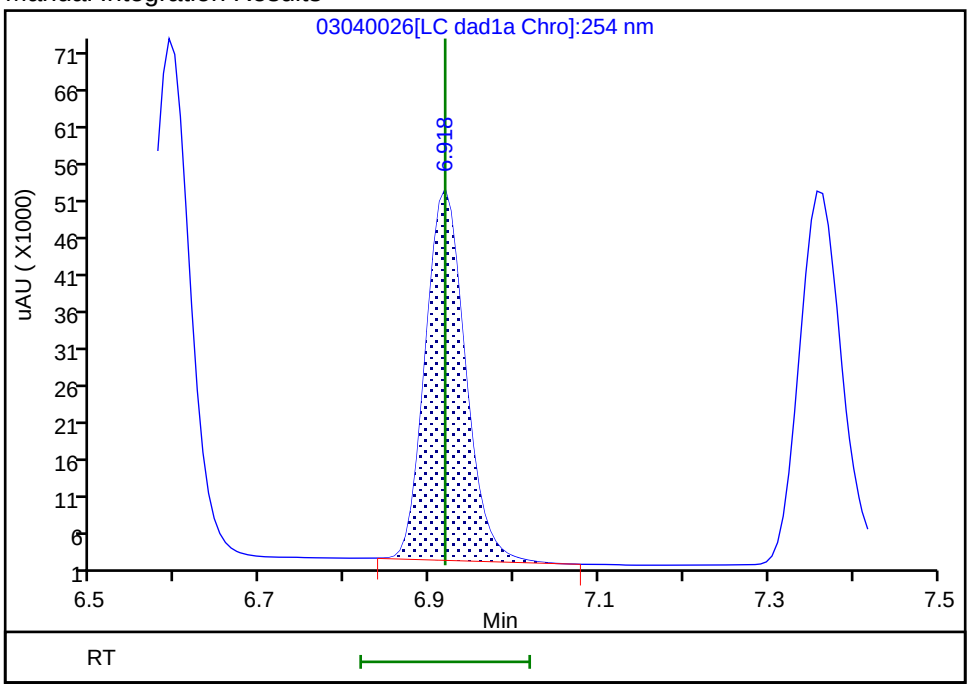
Processing Integration Results

RT: 6.92
Area: 184230
Amount: 0.939283
Amount Units: ug/mL



Manual Integration Results

RT: 6.92
Area: 164161
Amount: 1.073451
Amount Units: ug/mL



Reviewer: beckerc, 05-Mar-2020 08:30:26
Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\03040027.D				
Lims ID:	IC DMT L6				
Client ID:					
Sample Type:	IC	Calib Level:	6		
Inject. Date:	04-Mar-2020 21:45:58	ALS Bottle#:	27	Worklist Smp#:	27
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	IC DMT L6				
Misc. Info.:	280-0089779-027				
Operator ID:	CB	Instrument ID:	CHHPLC_X3		
Sublist:	chrom-8330_X3*sub17				
Method:	\\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	06-Mar-2020 10:25:23	Calib Date:	04-Mar-2020 23:40:46		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\03040032.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX0308				

First Level Reviewer: beckerc Date: 05-Mar-2020 08:30:53

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
2 TNX	1	6.591	6.591	0.000	148550	0.7007	0.6826	M
5 DNX	1	6.918	6.918	0.000	112549	0.7007	0.7360	M
6 MNX	1	7.358	7.358	0.000	124459	0.8169	0.7850	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

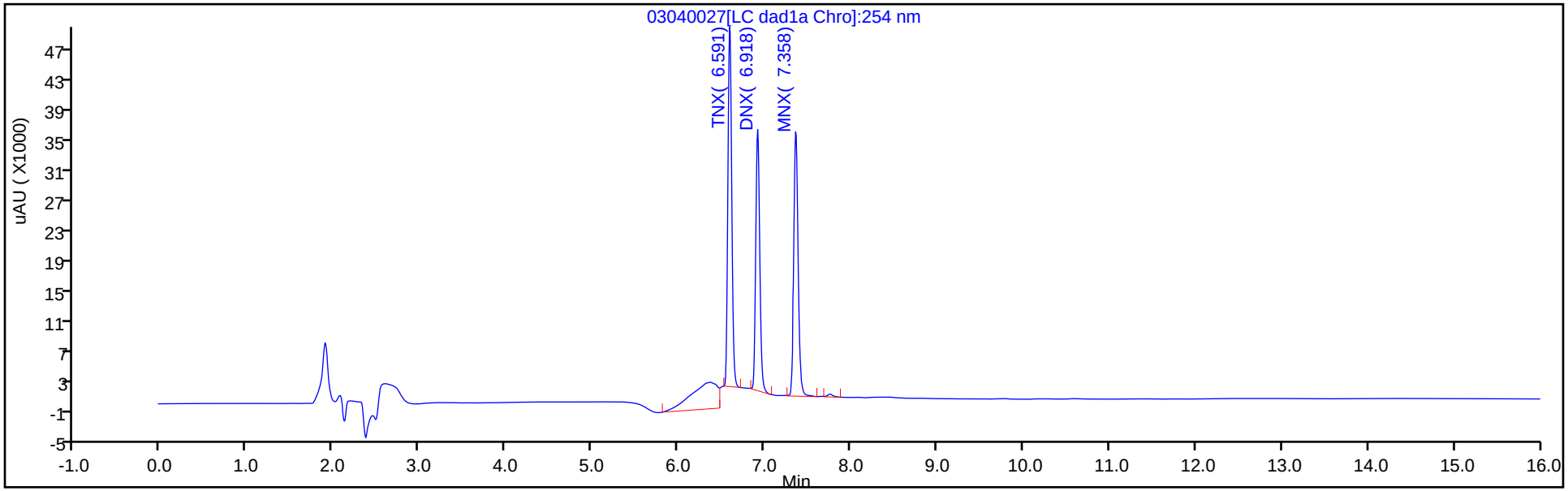
8330 DMT_00005 Amount Added: 35.00 Units: uL

Report Date: 06-Mar-2020 10:25:23 Chrom Revision: 2.3 19-Feb-2020 16:45:46

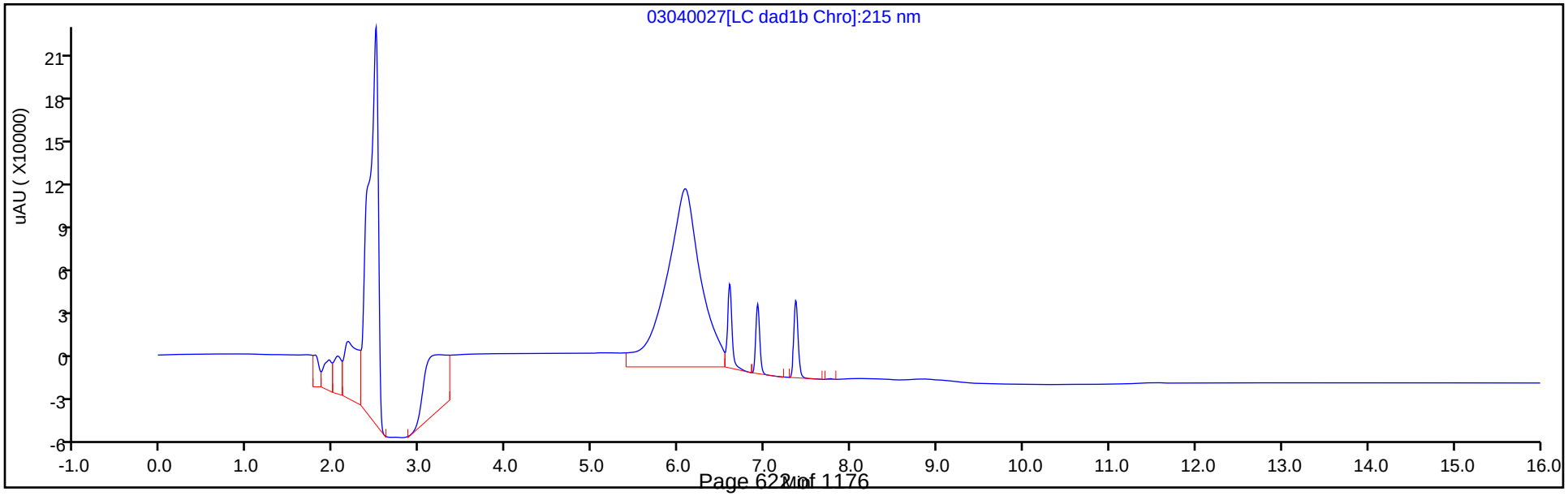
Eurofins TestAmerica, Denver

Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040027.d				
Injection Date:	04-Mar-2020 21:45:58	Instrument ID:	CHHPLC_X3	Operator ID:	CB
Lims ID:	IC DMT L6			Worklist Smp#:	27
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	27
Method:	8330_X3	Limit Group:	GCSV - 8330		

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



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



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

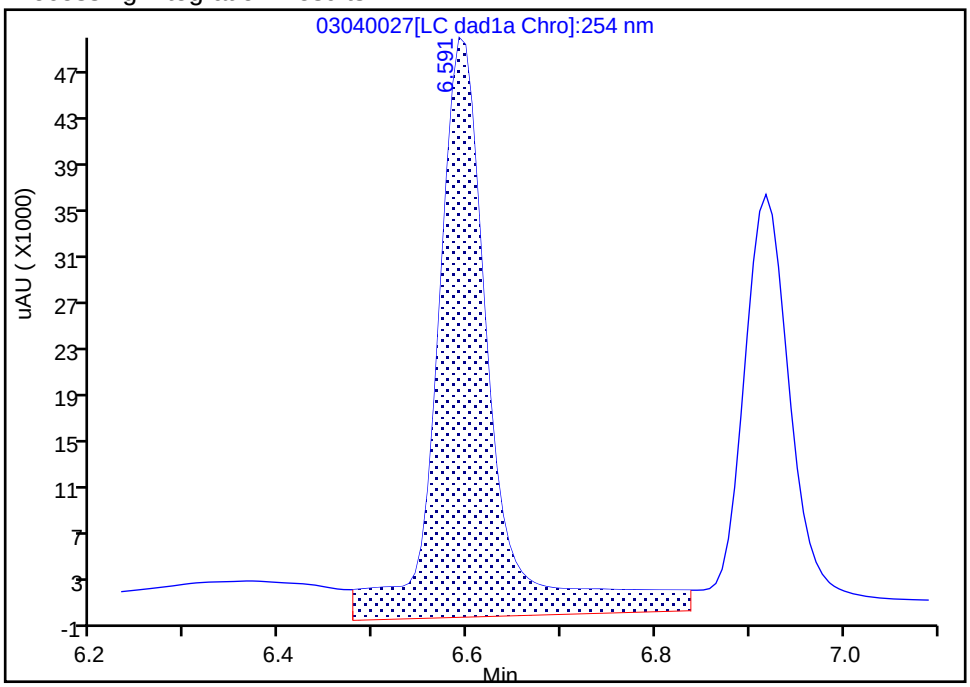
Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040027.d				
Injection Date:	04-Mar-2020 21:45:58	Instrument ID:	CHHPLC_X3		
Lims ID:	IC DMT L6				
Client ID:					
Operator ID:	CB	ALS Bottle#:	27	Worklist Smp#:	27
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

2 TNX, CAS: 13980-04-6

Signal: 1

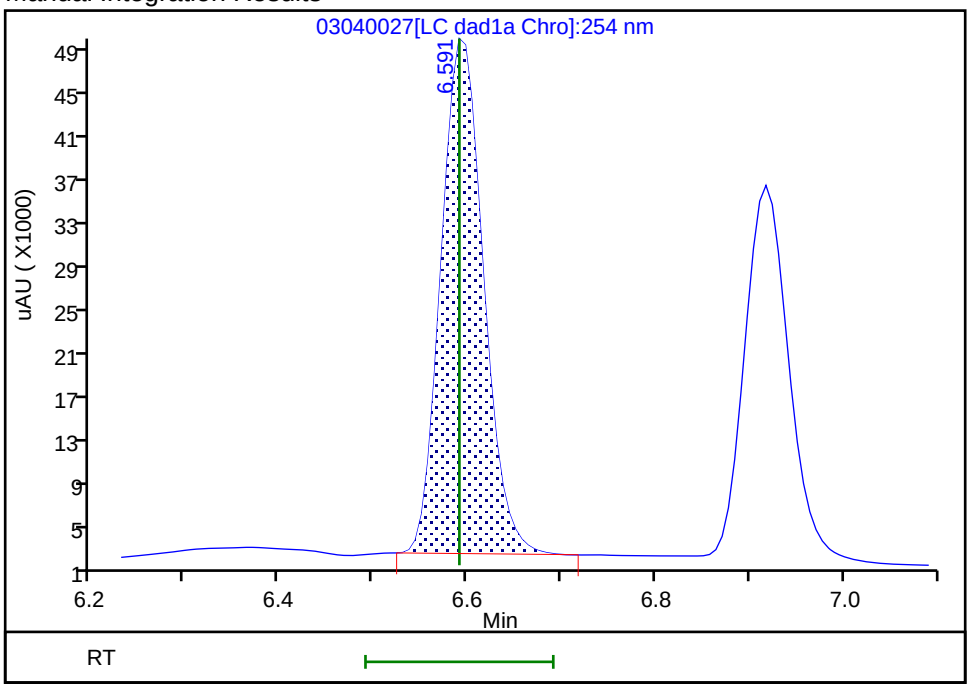
Processing Integration Results

RT: 6.59
Area: 198883
Amount: 0.812342
Amount Units: ug/mL



Manual Integration Results

RT: 6.59
Area: 148550
Amount: 0.682647
Amount Units: ug/mL



Reviewer: beckerc, 05-Mar-2020 08:30:45
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

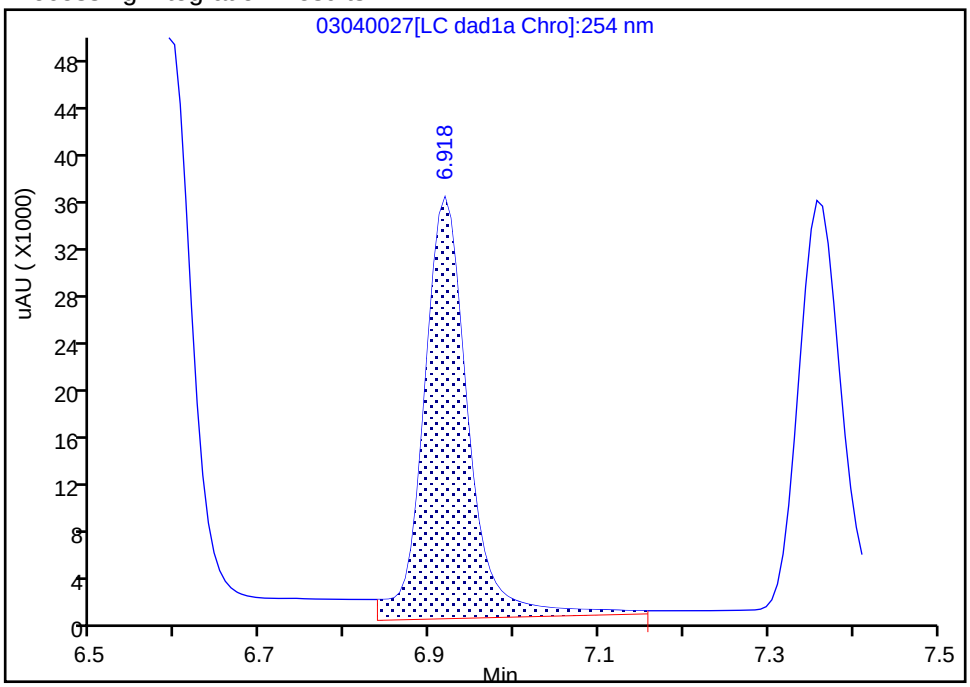
Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040027.d				
Injection Date:	04-Mar-2020 21:45:58	Instrument ID:	CHHPLC_X3		
Lims ID:	IC DMT L6				
Client ID:					
Operator ID:	CB	ALS Bottle#:	27	Worklist Smp#:	27
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

5 DNX, CAS: 80251-29-2

Signal: 1

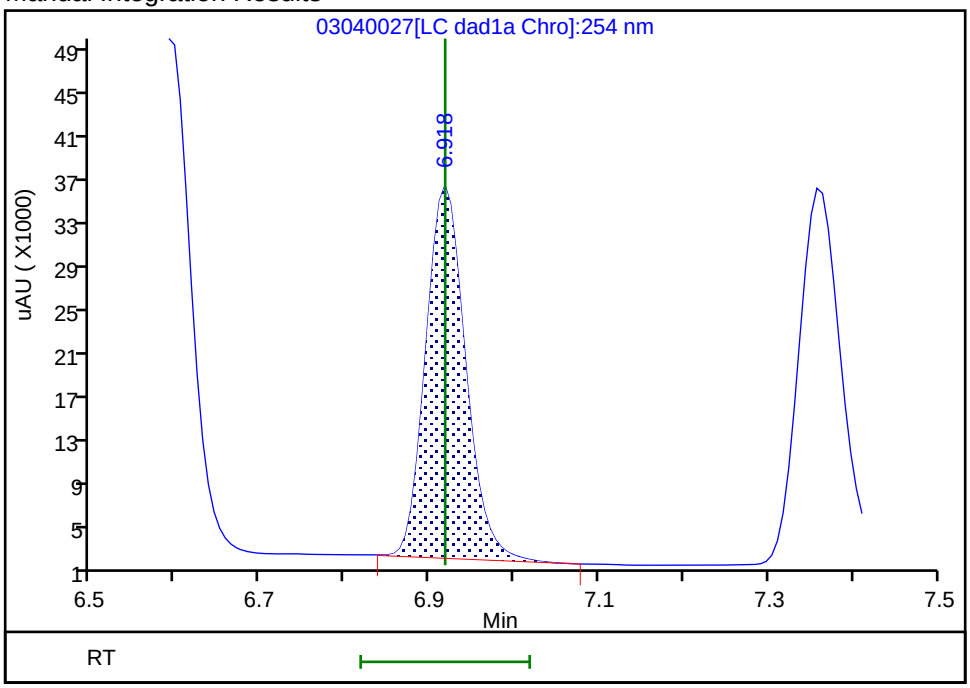
Processing Integration Results

RT: 6.92
Area: 130368
Amount: 0.673274
Amount Units: ug/mL



Manual Integration Results

RT: 6.92
Area: 112549
Amount: 0.735959
Amount Units: ug/mL



Reviewer: beckerc, 05-Mar-2020 08:30:49
Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\03040028.D				
Lims ID:	IC DMT L5				
Client ID:					
Sample Type:	IC	Calib Level:	5		
Inject. Date:	04-Mar-2020 22:09:00	ALS Bottle#:	28	Worklist Smp#:	28
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	IC DMT L5				
Misc. Info.:	280-0089779-028				
Operator ID:	CB	Instrument ID:	CHHPLC_X3		
Sublist:	chrom-8330_X3*sub17				
Method:	\\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	06-Mar-2020 10:25:24	Calib Date:	04-Mar-2020 23:40:46		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\03040032.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX0308				

First Level Reviewer: beckerc Date: 05-Mar-2020 08:31:18

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
2 TNX	1	6.591	6.591	0.000	85174	0.4004	0.3914	M
5 DNX	1	6.917	6.918	-0.001	64550	0.4004	0.4221	M
6 MNX	1	7.357	7.358	-0.001	73151	0.4668	0.4614	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

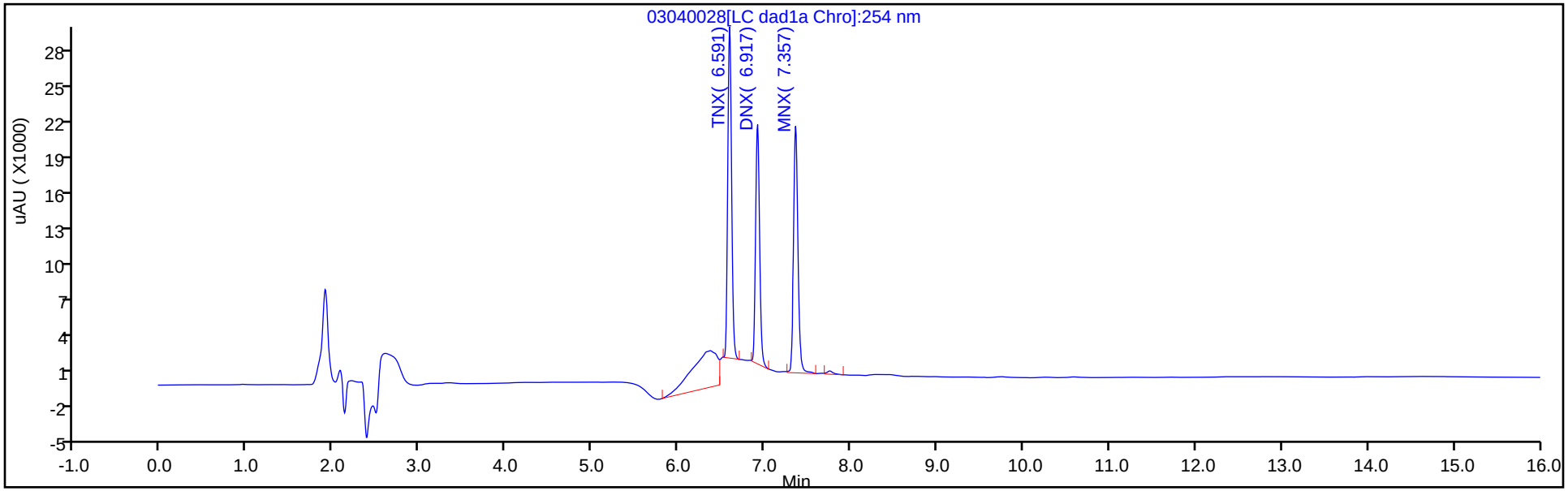
8330 DMT_00005 Amount Added: 20.00 Units: uL

Report Date: 06-Mar-2020 10:25:24 Chrom Revision: 2.3 19-Feb-2020 16:45:46

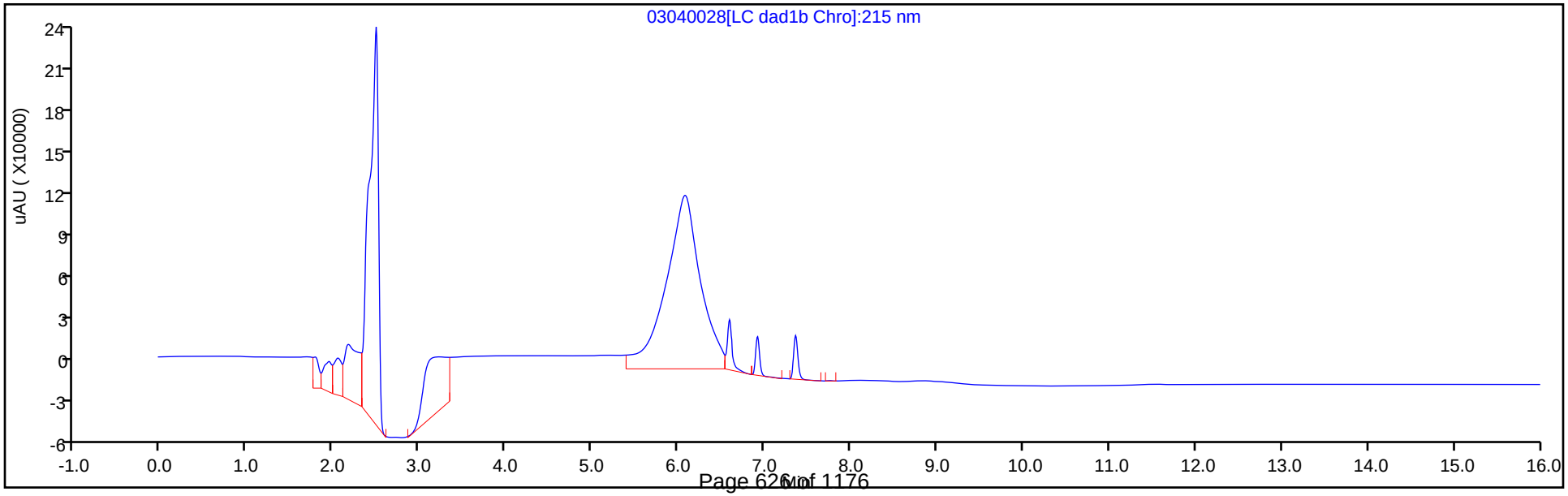
Eurofins TestAmerica, Denver

Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040028.d				
Injection Date:	04-Mar-2020 22:09:00	Instrument ID:	CHHPLC_X3	Operator ID:	CB
Lims ID:	IC DMT L5			Worklist Smp#:	28
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	28
Method:	8330_X3	Limit Group:	GCSV - 8330		

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



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



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

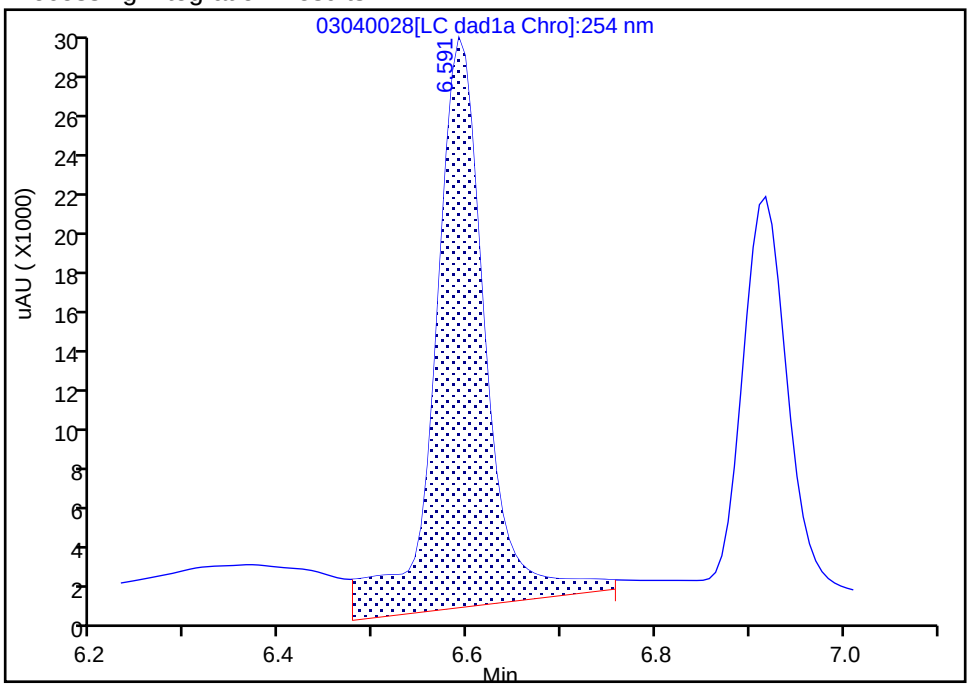
Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040028.d				
Injection Date:	04-Mar-2020 22:09:00	Instrument ID:	CHHPLC_X3		
Lims ID:	IC DMT L5				
Client ID:					
Operator ID:	CB	ALS Bottle#:	28	Worklist Smp#:	28
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

2 TNX, CAS: 13980-04-6

Signal: 1

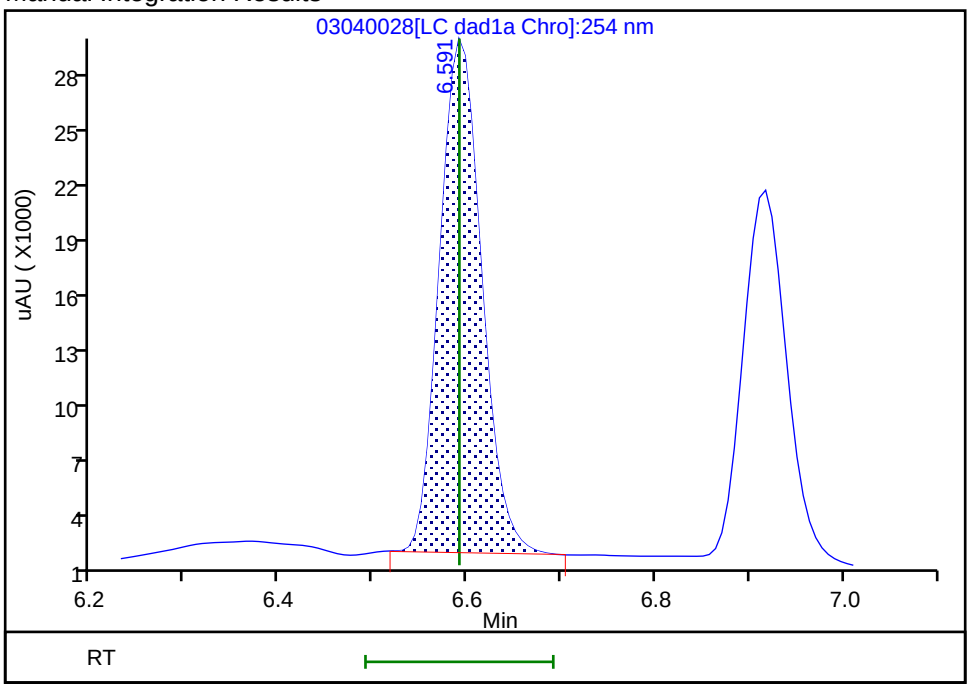
Processing Integration Results

RT: 6.59
Area: 108455
Amount: 0.455381
Amount Units: ug/mL



Manual Integration Results

RT: 6.59
Area: 85174
Amount: 0.391409
Amount Units: ug/mL



Reviewer: beckerc, 05-Mar-2020 08:31:08

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

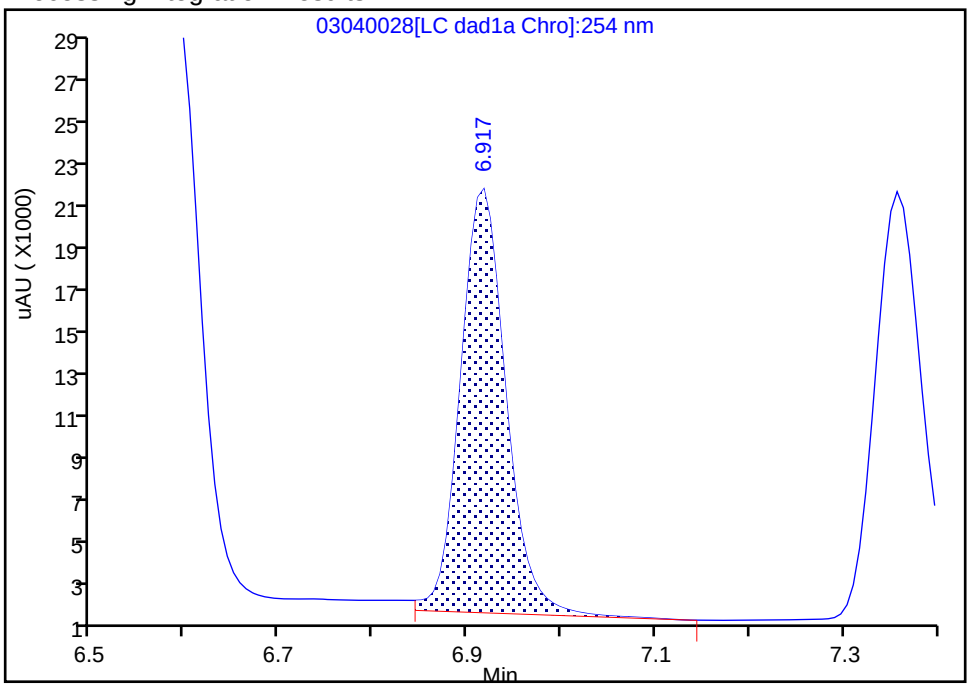
Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040028.d				
Injection Date:	04-Mar-2020 22:09:00	Instrument ID:	CHHPLC_X3		
Lims ID:	IC DMT L5				
Client ID:					
Operator ID:	CB	ALS Bottle#:	28	Worklist Smp#:	28
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

5 DNX, CAS: 80251-29-2

Signal: 1

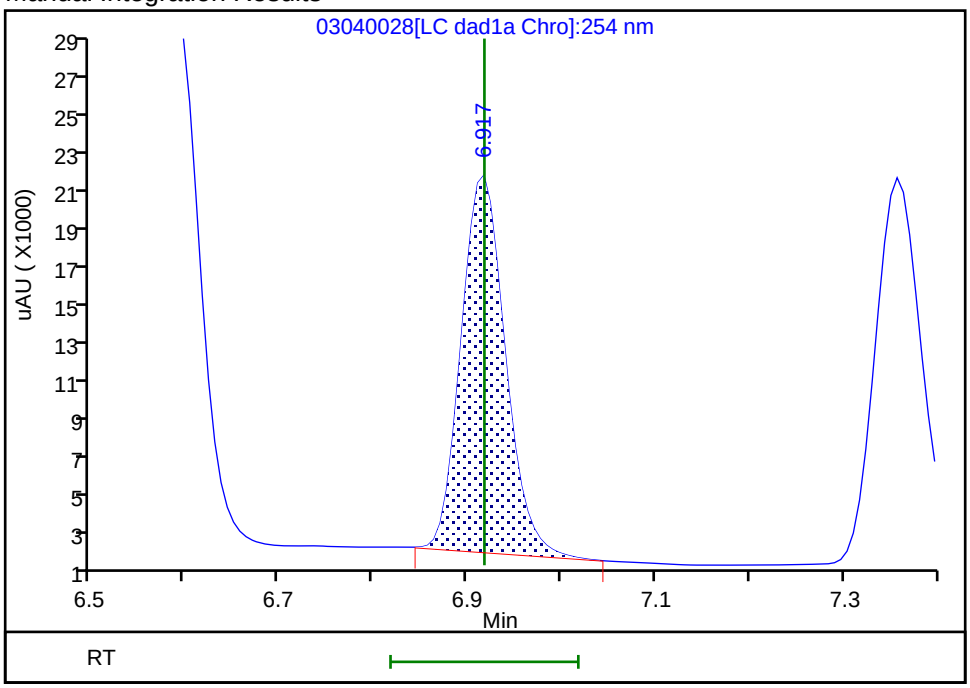
Processing Integration Results

RT: 6.92
Area: 67686
Amount: 0.396160
Amount Units: ug/mL



Manual Integration Results

RT: 6.92
Area: 64550
Amount: 0.422093
Amount Units: ug/mL



Reviewer: beckerc, 05-Mar-2020 08:31:13

Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\03040029.D				
Lims ID:	IC DMT L4				
Client ID:					
Sample Type:	IC	Calib Level:	4		
Inject. Date:	04-Mar-2020 22:31:57	ALS Bottle#:	29	Worklist Smp#:	29
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	IC DMT L4				
Misc. Info.:	280-0089779-029				
Operator ID:	CB	Instrument ID:	CHHPLC_X3		
Sublist:	chrom-8330_X3*sub17				
Method:	\\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	06-Mar-2020 10:25:24	Calib Date:	04-Mar-2020 23:40:46		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\03040032.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX0308				

First Level Reviewer: beckerc Date: 05-Mar-2020 08:31:44

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
2 TNX	1	6.591	6.591	0.000	57932	0.2503	0.2662	M
5 DNX	1	6.918	6.918	0.000	41936	0.2503	0.2742	M
6 MNX	1	7.358	7.358	0.000	46005	0.2918	0.2902	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

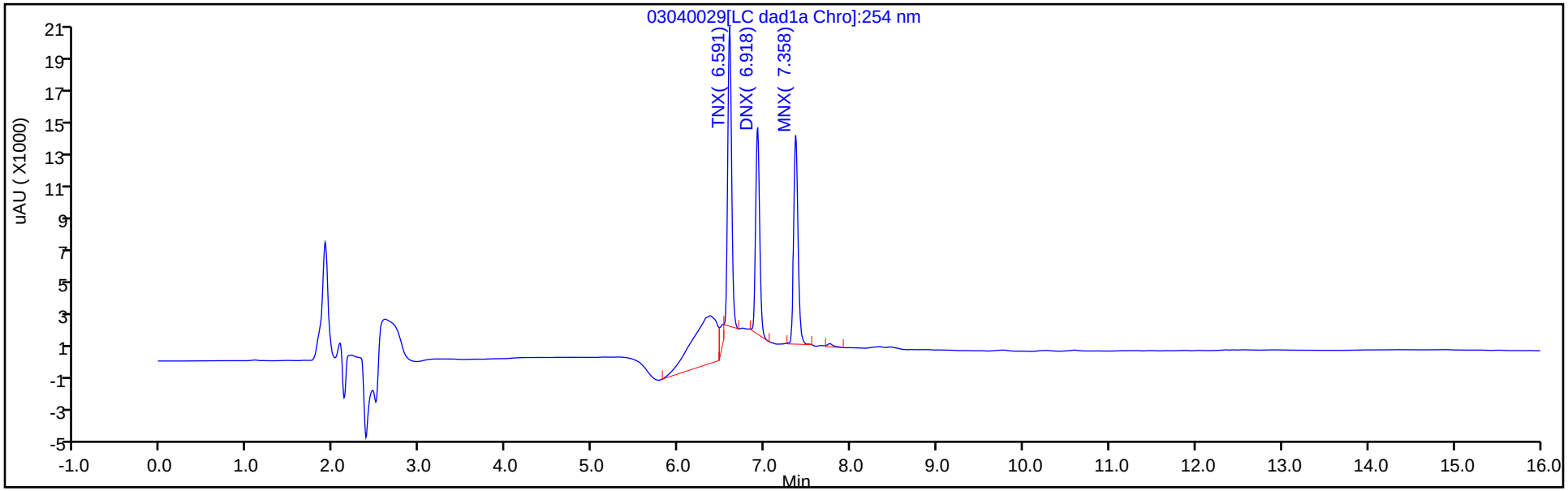
8330 DMT_00005 Amount Added: 12.50 Units: uL

Report Date: 06-Mar-2020 10:25:25 Chrom Revision: 2.3 19-Feb-2020 16:45:46

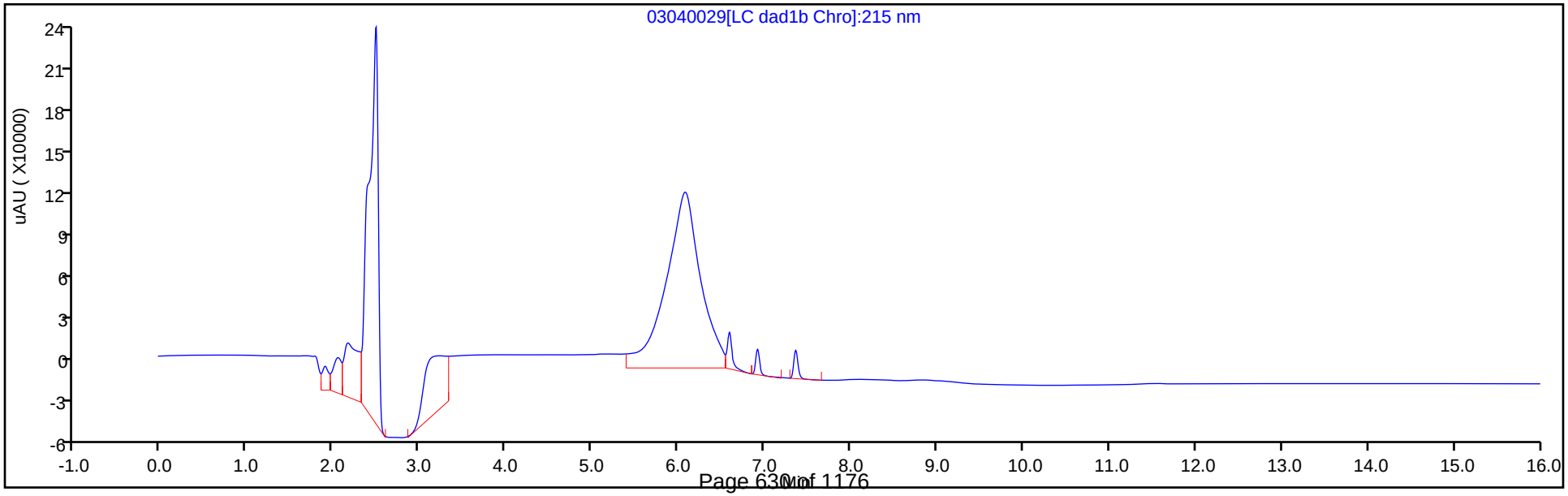
Eurofins TestAmerica, Denver

Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040029.d				
Injection Date:	04-Mar-2020 22:31:57	Instrument ID:	CHHPLC_X3	Operator ID:	CB
Lims ID:	IC DMT L4			Worklist Smp#:	29
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	29
Method:	8330_X3	Limit Group:	GCSV - 8330		

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



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



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

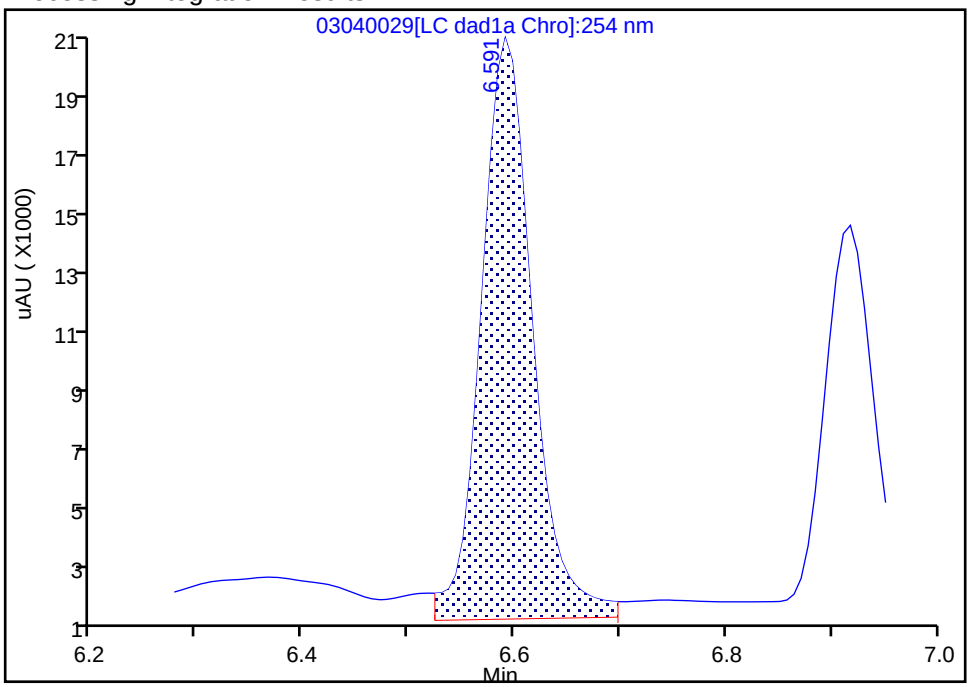
Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040029.d				
Injection Date:	04-Mar-2020 22:31:57	Instrument ID:	CHHPLC_X3		
Lims ID:	IC DMT L4				
Client ID:					
Operator ID:	CB	ALS Bottle#:	29	Worklist Smp#:	29
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

2 TNX, CAS: 13980-04-6

Signal: 1

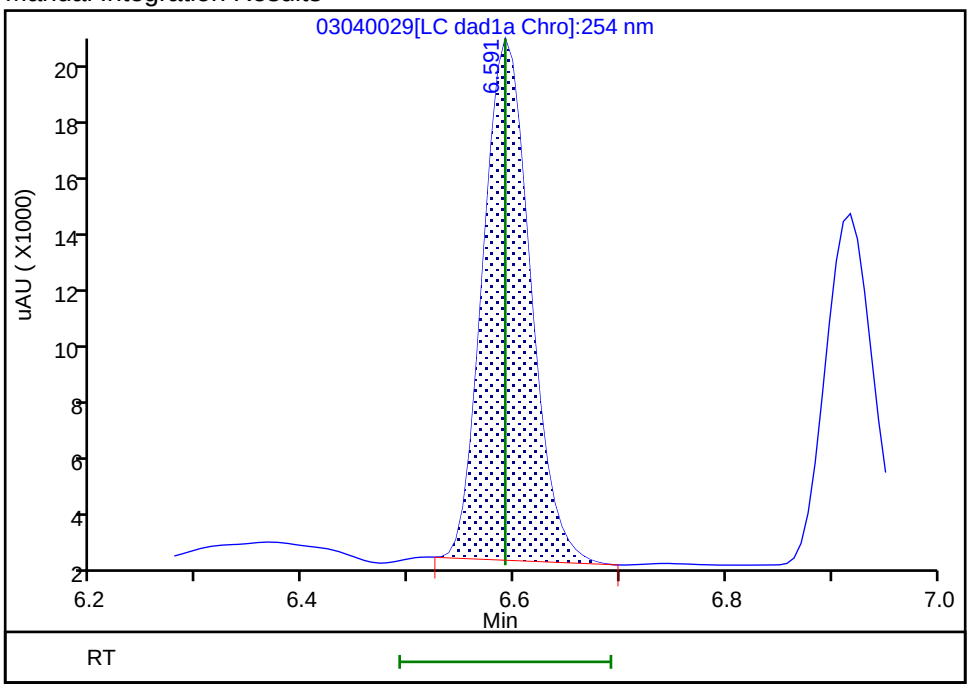
Processing Integration Results

RT: 6.59
Area: 65279
Amount: 0.274722
Amount Units: ug/mL



Manual Integration Results

RT: 6.59
Area: 57932
Amount: 0.266221
Amount Units: ug/mL



Reviewer: beckerc, 05-Mar-2020 08:31:35

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

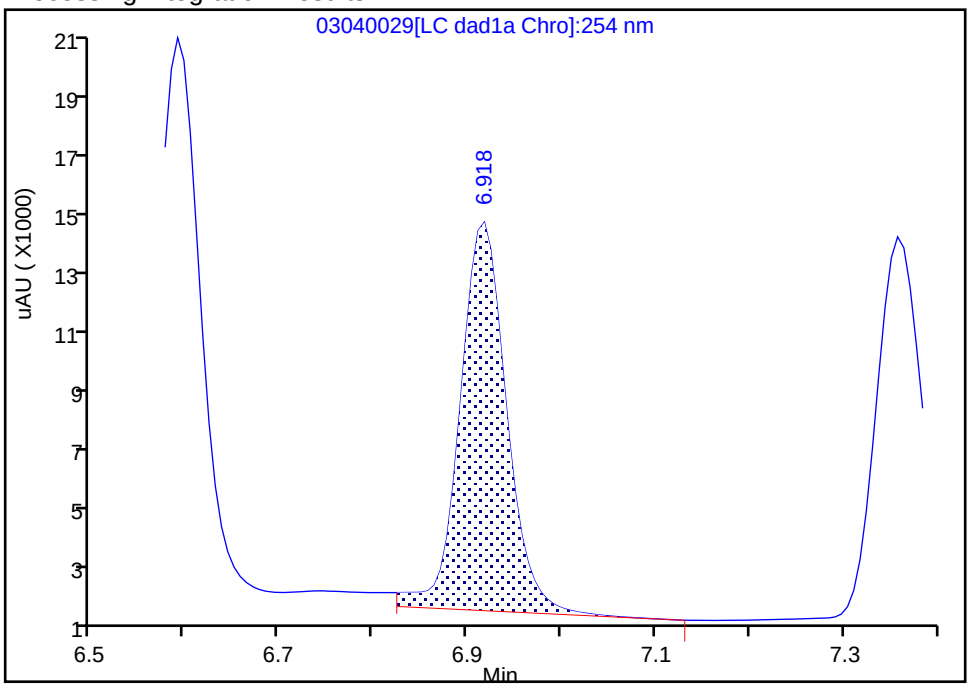
Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040029.d				
Injection Date:	04-Mar-2020 22:31:57	Instrument ID:	CHHPLC_X3		
Lims ID:	IC DMT L4				
Client ID:					
Operator ID:	CB	ALS Bottle#:	29	Worklist Smp#:	29
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

5 DNX, CAS: 80251-29-2

Signal: 1

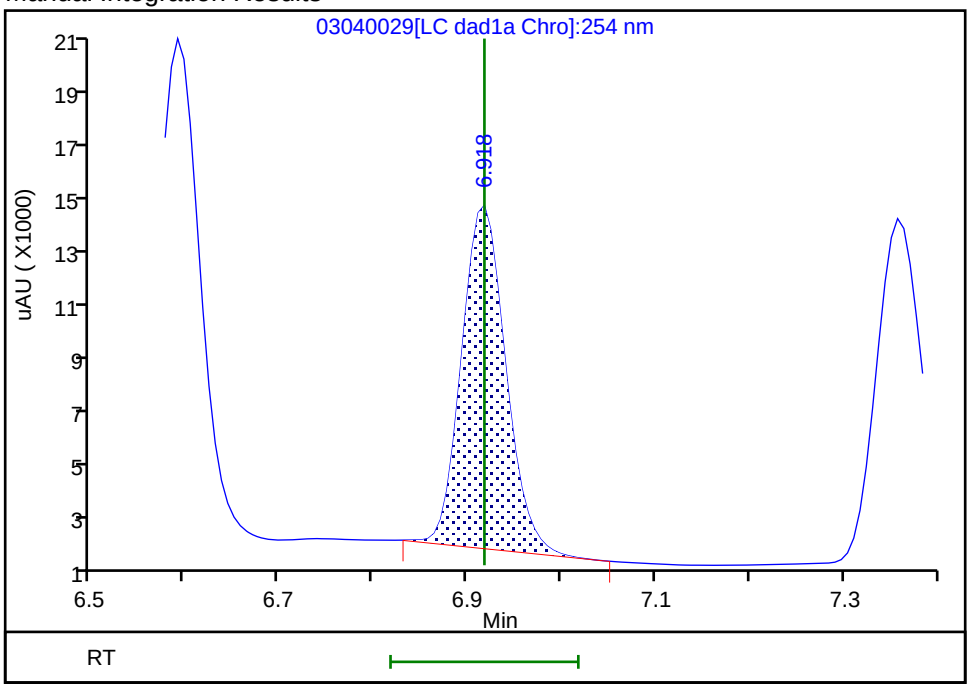
Processing Integration Results

RT: 6.92
Area: 45380
Amount: 0.263025
Amount Units: ug/mL



Manual Integration Results

RT: 6.92
Area: 41936
Amount: 0.274220
Amount Units: ug/mL



Reviewer: beckerc, 05-Mar-2020 08:31:40

Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\03040030.D				
Lims ID:	IC DMT L3				
Client ID:					
Sample Type:	IC	Calib Level:	3		
Inject. Date:	04-Mar-2020 22:54:53	ALS Bottle#:	30	Worklist Smp#:	30
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	IC DMT L3				
Misc. Info.:	280-0089779-030				
Operator ID:	CB	Instrument ID:	CHHPLC_X3		
Sublist:	chrom-8330_X3*sub17				
Method:	\\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	06-Mar-2020 10:25:25	Calib Date:	04-Mar-2020 23:40:46		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\03040032.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX0308				

First Level Reviewer: beckerc Date: 05-Mar-2020 08:32:08

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
2 TNX	1	6.589	6.591	-0.002	21002	0.1001	0.0965	M
5 DNX	1	6.915	6.918	-0.003	14937	0.1001	0.0977	M
6 MNX	1	7.355	7.358	-0.003	18233	0.1167	0.1150	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

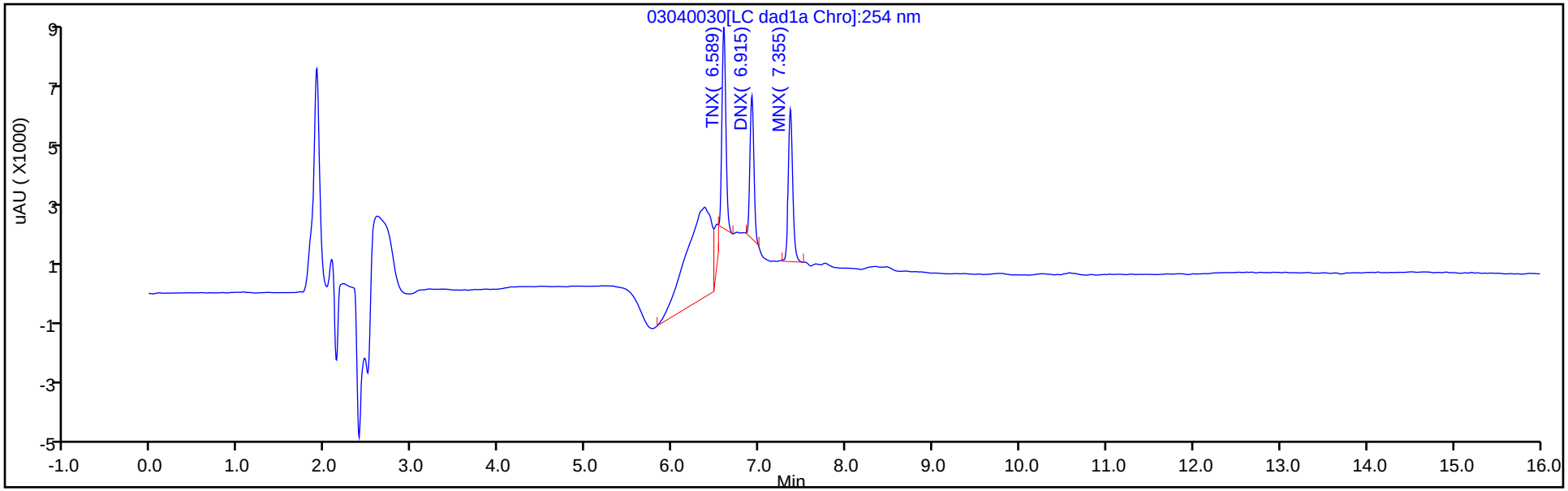
8330 DMT_00005 Amount Added: 5.00 Units: uL

Report Date: 06-Mar-2020 10:25:26 Chrom Revision: 2.3 19-Feb-2020 16:45:46

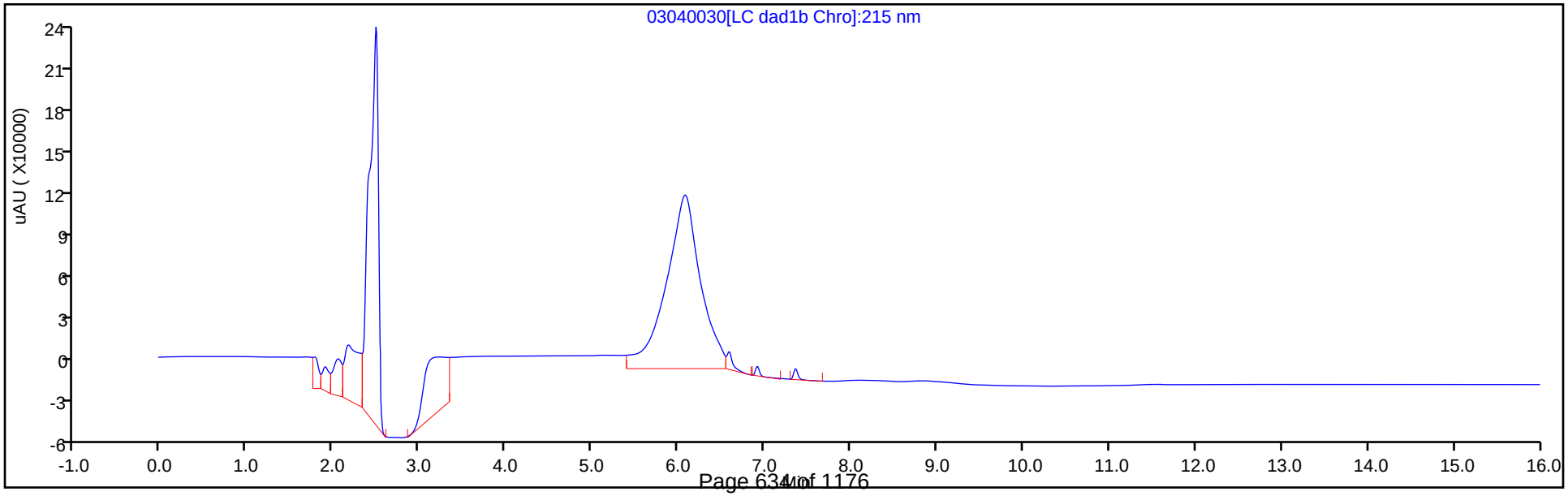
Eurofins TestAmerica, Denver

Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040030.d				
Injection Date:	04-Mar-2020 22:54:53	Instrument ID:	CHHPLC_X3	Operator ID:	CB
Lims ID:	IC DMT L3			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

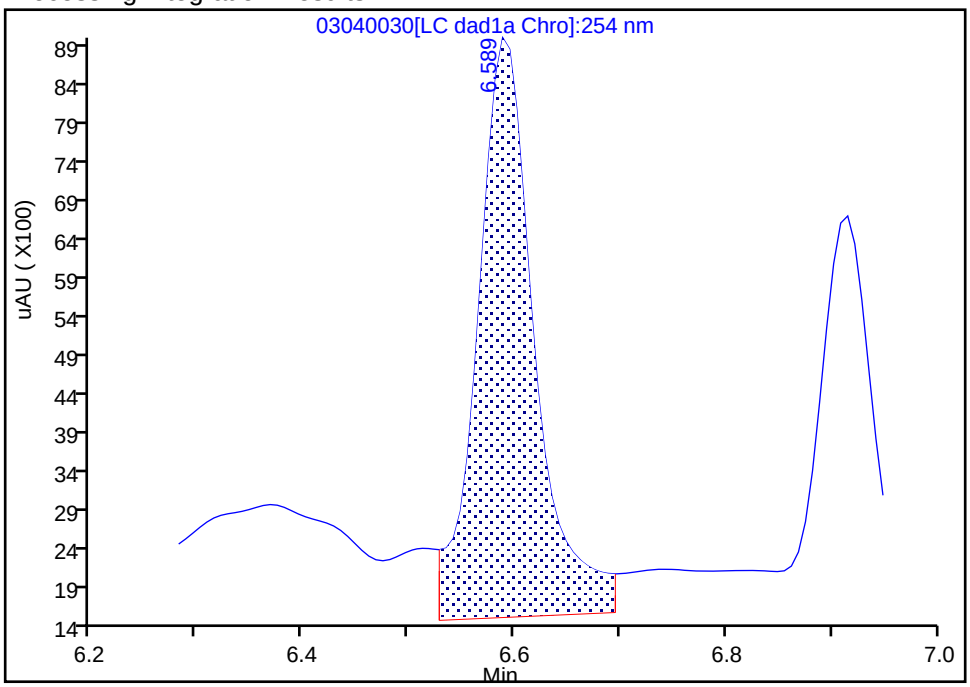
Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040030.d				
Injection Date:	04-Mar-2020 22:54:53	Instrument ID:	CHHPLC_X3		
Lims ID:	IC DMT L3				
Client ID:					
Operator ID:	CB	ALS Bottle#:	30	Worklist Smp#:	30
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

2 TNX, CAS: 13980-04-6

Signal: 1

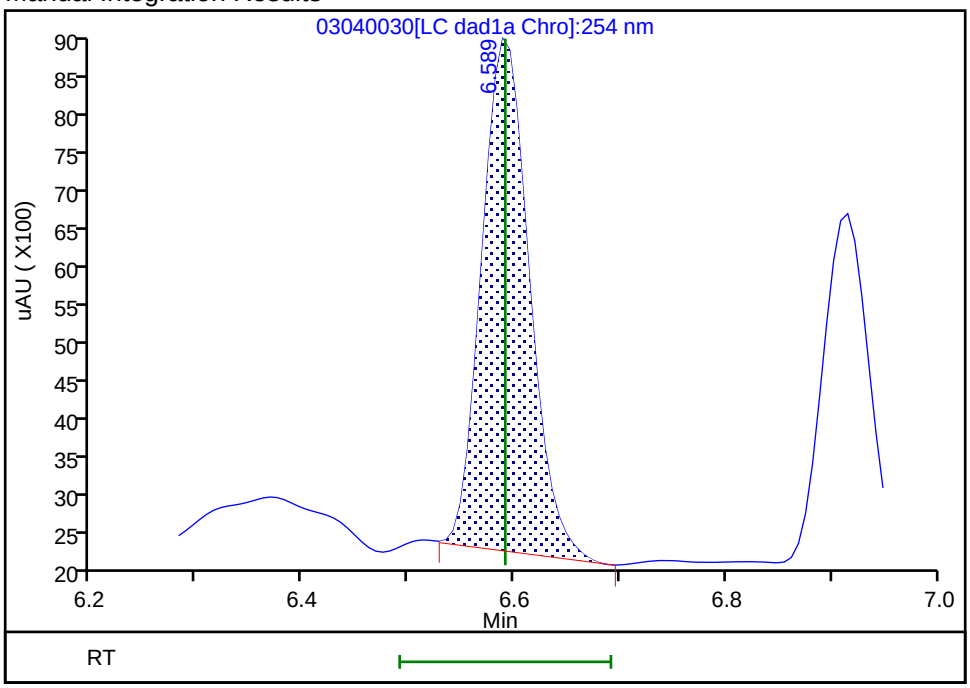
Processing Integration Results

RT: 6.59
Area: 27927
Amount: 0.102862
Amount Units: ug/mL



Manual Integration Results

RT: 6.59
Area: 21002
Amount: 0.096513
Amount Units: ug/mL



Reviewer: beckerc, 05-Mar-2020 08:31:59
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

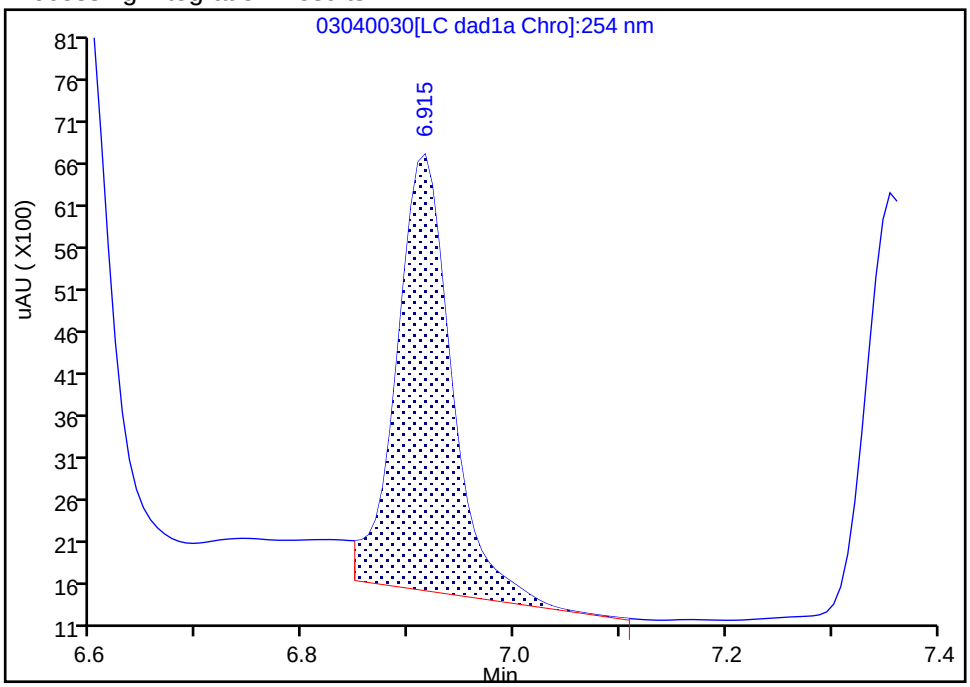
Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040030.d				
Injection Date:	04-Mar-2020 22:54:53	Instrument ID:	CHHPLC_X3		
Lims ID:	IC DMT L3				
Client ID:					
Operator ID:	CB	ALS Bottle#:	30	Worklist Smp#:	30
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

5 DNX, CAS: 80251-29-2

Signal: 1

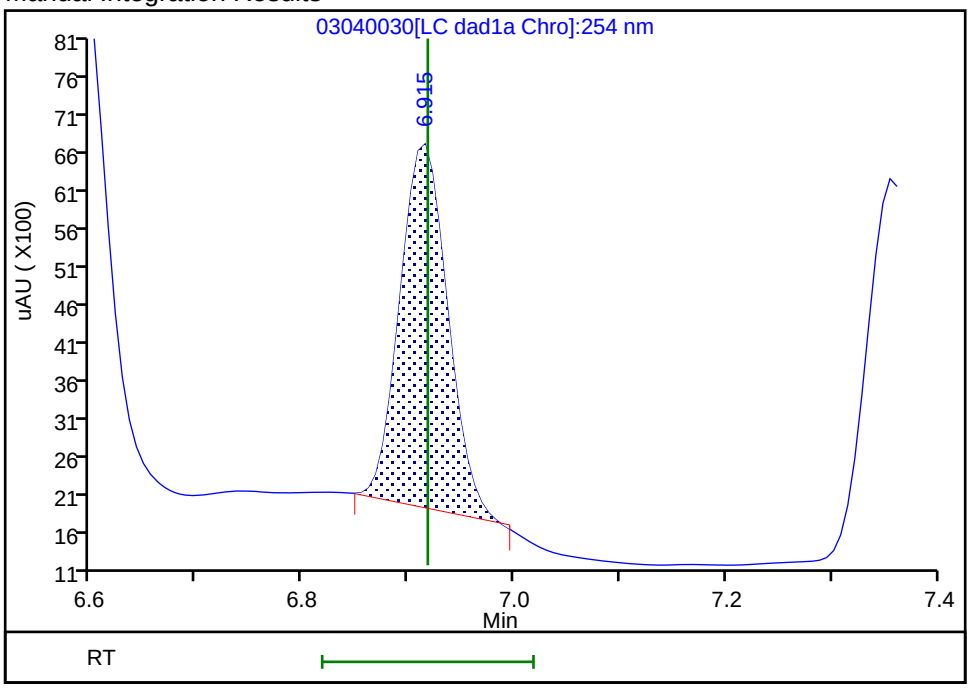
Processing Integration Results

RT: 6.92
Area: 18794
Amount: 0.101797
Amount Units: ug/mL



Manual Integration Results

RT: 6.92
Area: 14937
Amount: 0.097673
Amount Units: ug/mL



Reviewer: beckerc, 05-Mar-2020 08:32:04
Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\03040031.D				
Lims ID:	IC DMT L2				
Client ID:					
Sample Type:	IC	Calib Level:	2		
Inject. Date:	04-Mar-2020 23:17:52	ALS Bottle#:	31	Worklist Smp#:	31
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	IC DMT L2				
Misc. Info.:	280-0089779-031				
Operator ID:	CB	Instrument ID:	CHHPLC_X3		
Sublist:	chrom-8330_X3*sub17				
Method:	\\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	06-Mar-2020 10:25:26	Calib Date:	04-Mar-2020 23:40:46		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\03040032.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX0308				

First Level Reviewer: beckerc Date: 05-Mar-2020 08:32:31

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
2 TNX	1	6.588	6.591	-0.003	10671	0.0501	0.0490	M
5 DNX	1	6.914	6.918	-0.004	6904	0.0501	0.0451	M
6 MNX	1	7.354	7.358	-0.004	9411	0.0584	0.0594	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

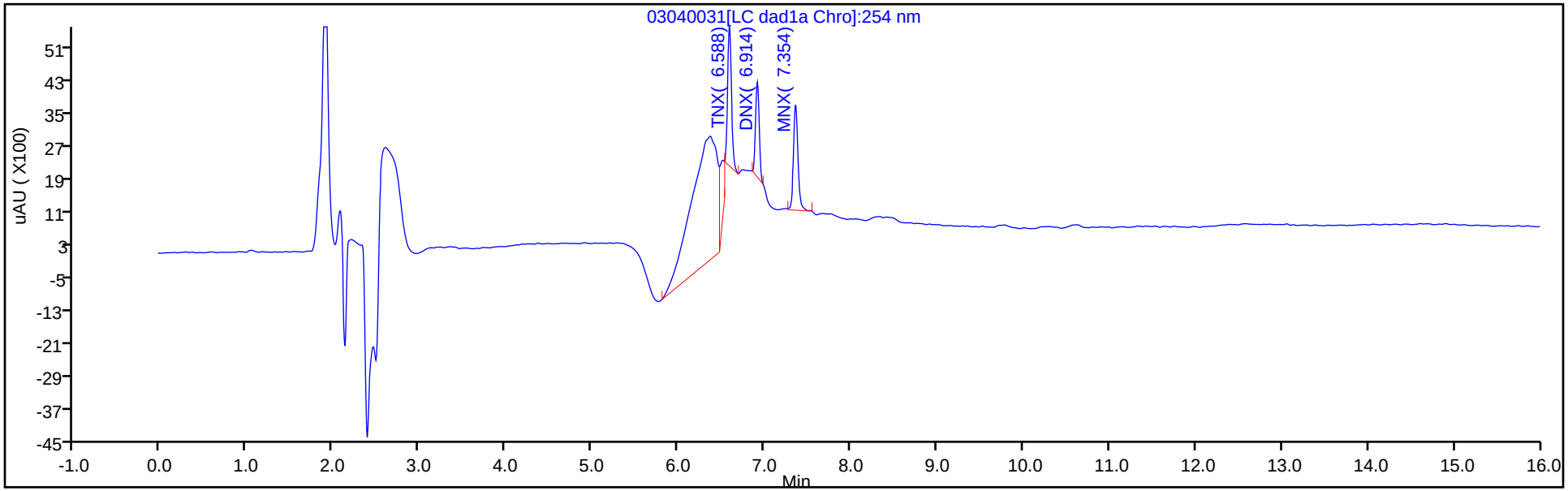
8330 DMT_00005 Amount Added: 2.50 Units: uL

Report Date: 06-Mar-2020 10:25:27 Chrom Revision: 2.3 19-Feb-2020 16:45:46

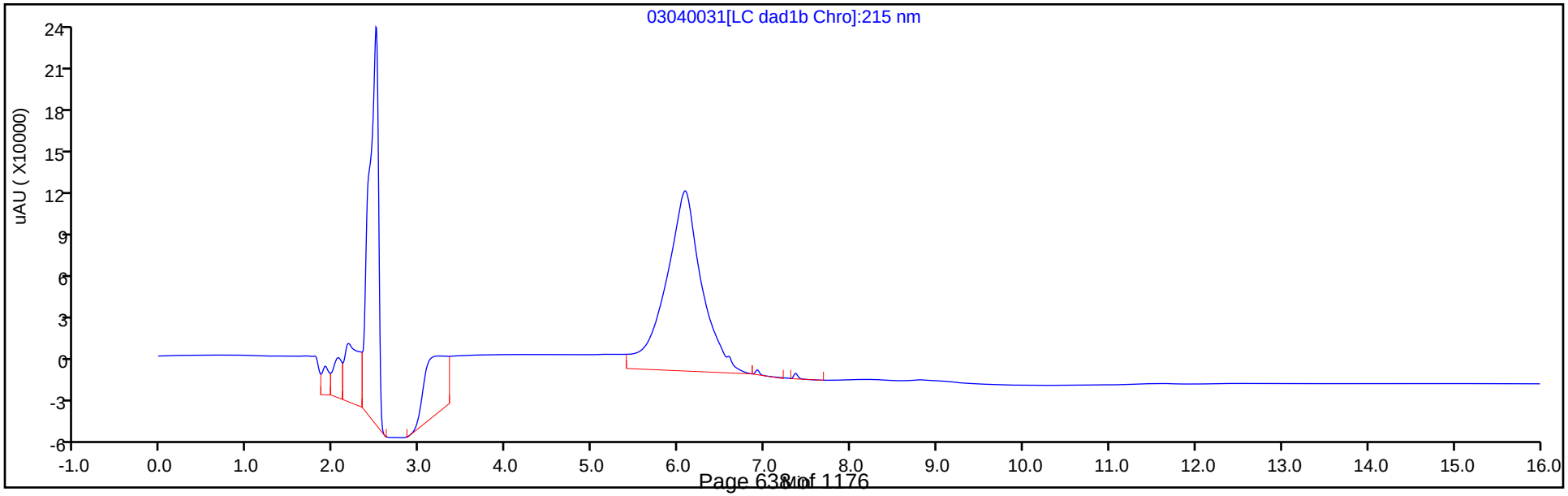
Eurofins TestAmerica, Denver

Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040031.d				
Injection Date:	04-Mar-2020 23:17:52	Instrument ID:	CHHPLC_X3	Operator ID:	CB
Lims ID:	IC DMT L2			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

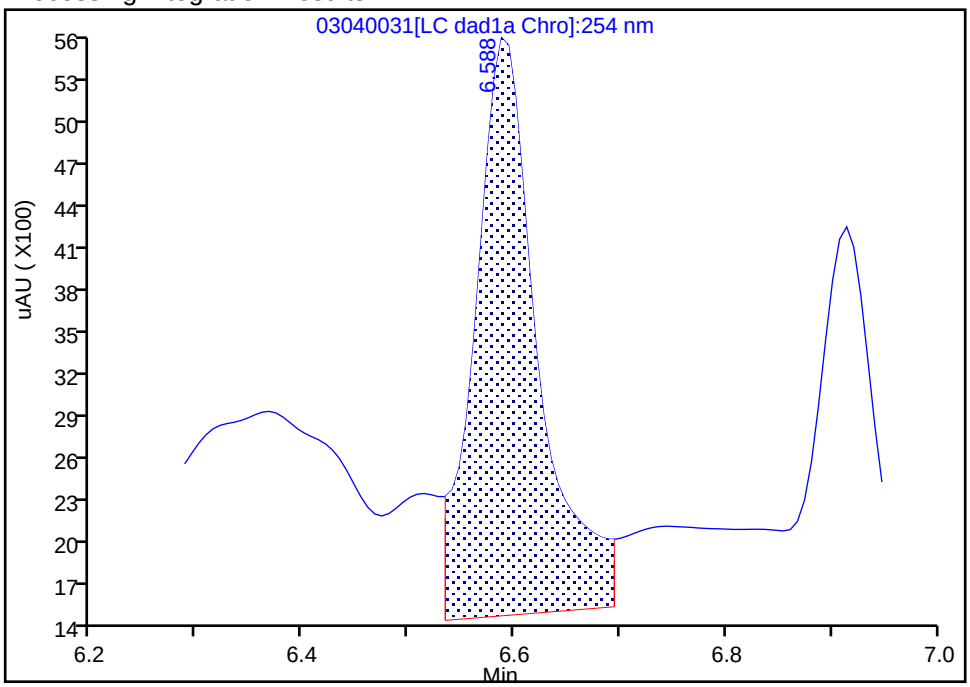
Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040031.d				
Injection Date:	04-Mar-2020 23:17:52	Instrument ID:	CHHPLC_X3		
Lims ID:	IC DMT L2				
Client ID:					
Operator ID:	CB	ALS Bottle#:	31	Worklist Smp#:	31
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

2 TNX, CAS: 13980-04-6

Signal: 1

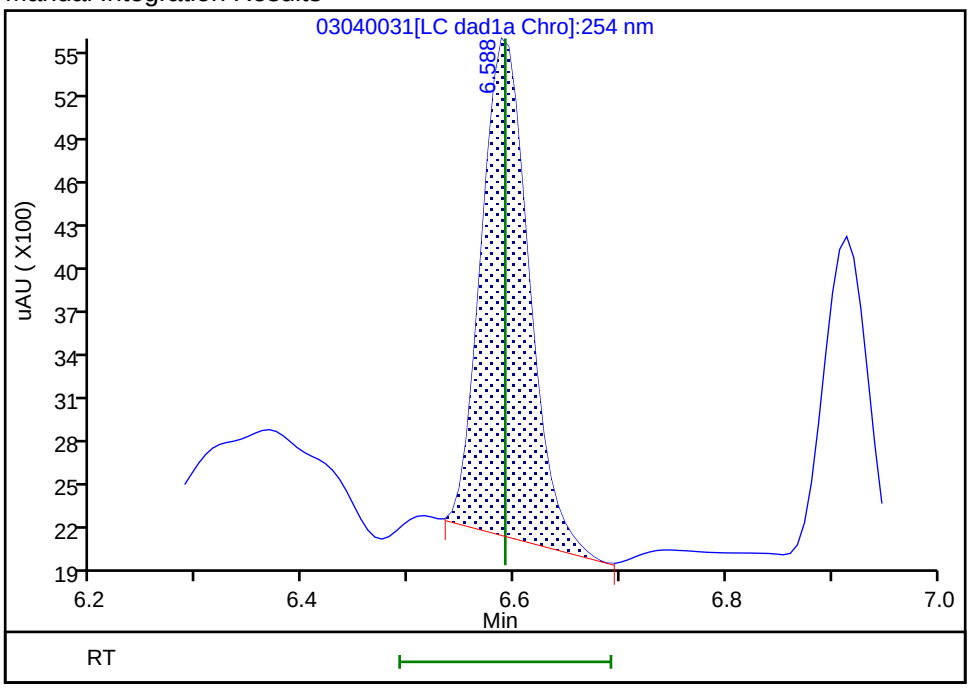
Processing Integration Results

RT: 6.59
Area: 17098
Amount: 0.055915
Amount Units: ug/mL



Manual Integration Results

RT: 6.59
Area: 10671
Amount: 0.049038
Amount Units: ug/mL



Reviewer: beckerc, 05-Mar-2020 08:32:24
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

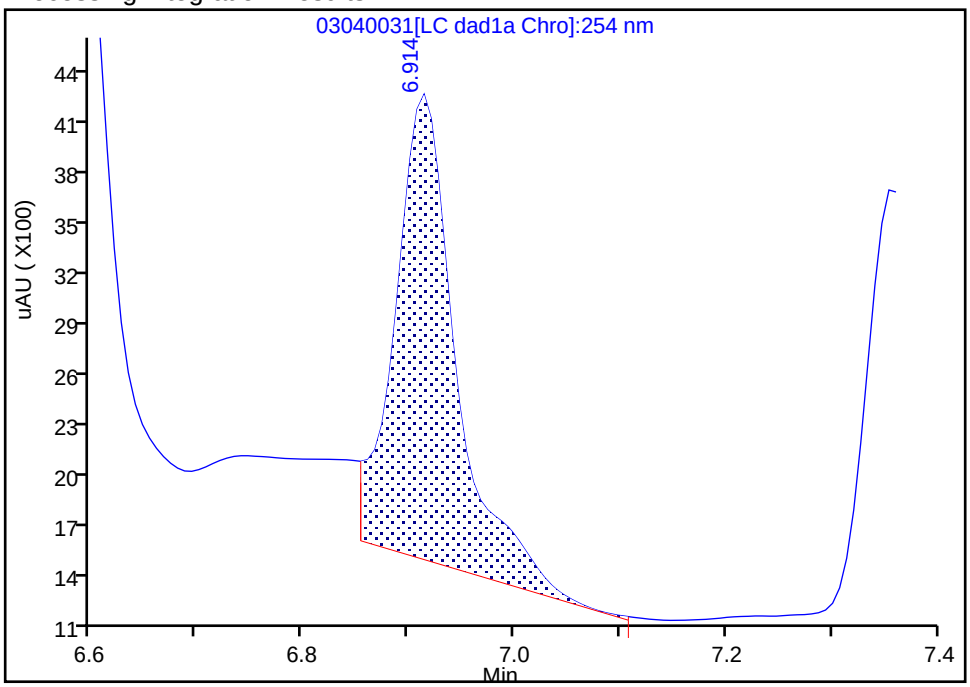
Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040031.d				
Injection Date:	04-Mar-2020 23:17:52	Instrument ID:	CHHPLC_X3		
Lims ID:	IC DMT L2				
Client ID:					
Operator ID:	CB	ALS Bottle#:	31	Worklist Smp#:	31
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

5 DNX, CAS: 80251-29-2

Signal: 1

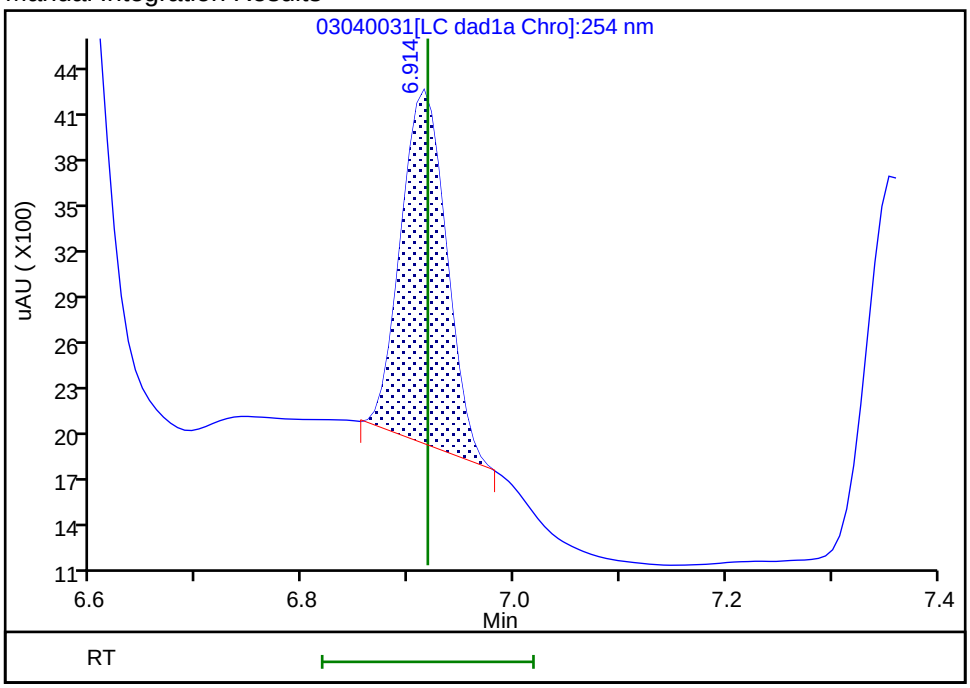
Processing Integration Results

RT: 6.91
Area: 11060
Amount: 0.055514
Amount Units: ug/mL



Manual Integration Results

RT: 6.91
Area: 6904
Amount: 0.045145
Amount Units: ug/mL



Reviewer: beckerc, 05-Mar-2020 08:32:28
Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\03040032.D				
Lims ID:	IC DMT L1				
Client ID:					
Sample Type:	IC	Calib Level:	1		
Inject. Date:	04-Mar-2020 23:40:46	ALS Bottle#:	32	Worklist Smp#:	32
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	IC DMT L1				
Misc. Info.:	280-0089779-032				
Operator ID:	CB	Instrument ID:	CHHPLC_X3		
Sublist:	chrom-8330_X3*sub17				
Method:	\\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	06-Mar-2020 10:25:27	Calib Date:	04-Mar-2020 23:40:46		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\03040032.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX0308				

First Level Reviewer: beckerc Date: 05-Mar-2020 08:32:54

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
2 TNX	1	6.592	6.591	0.001	4343	0.0200	0.0200	M
5 DNX	1	6.912	6.918	-0.006	2345	0.0200	0.0153	M
6 MNX	1	7.359	7.358	0.001	4099	0.0233	0.0259	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

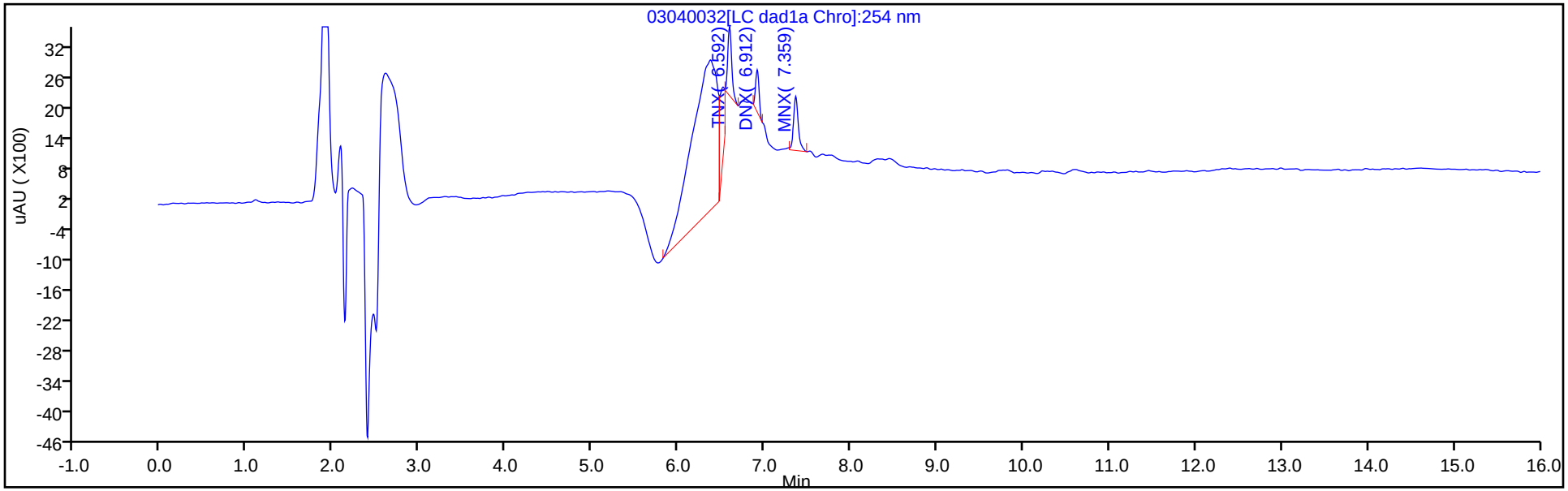
8330 DMT_00005 Amount Added: 1.00 Units: uL

Report Date: 06-Mar-2020 10:25:28 Chrom Revision: 2.3 19-Feb-2020 16:45:46

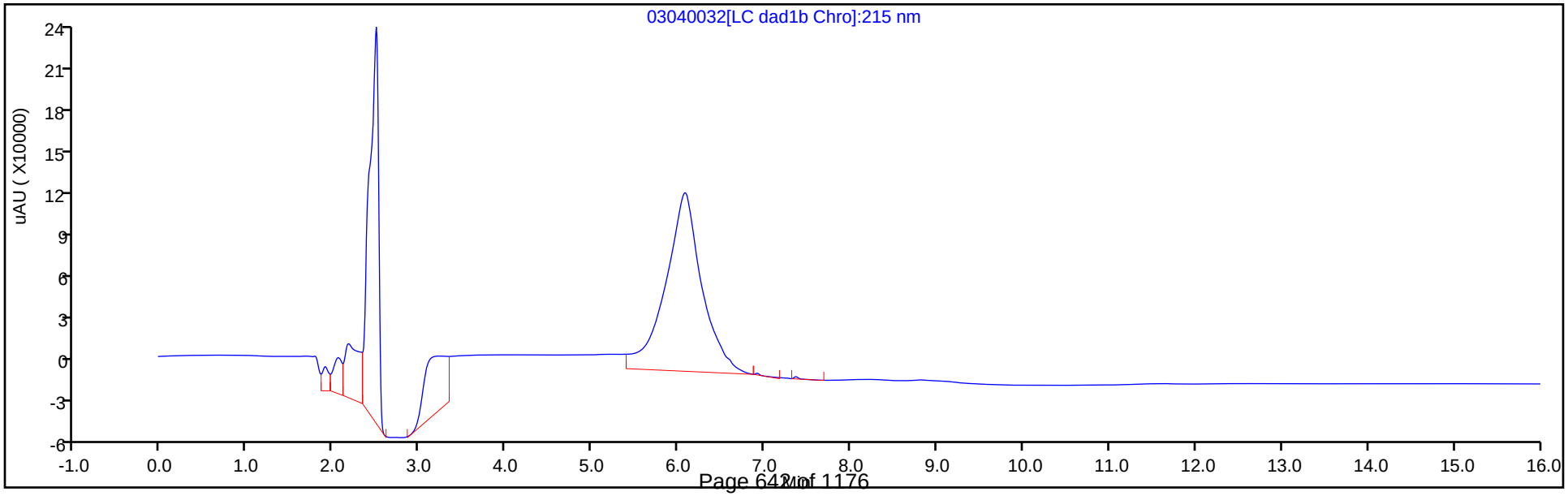
Eurofins TestAmerica, Denver

Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040032.d				
Injection Date:	04-Mar-2020 23:40:46	Instrument ID:	CHHPLC_X3	Operator ID:	CB
Lims ID:	IC DMT L1			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

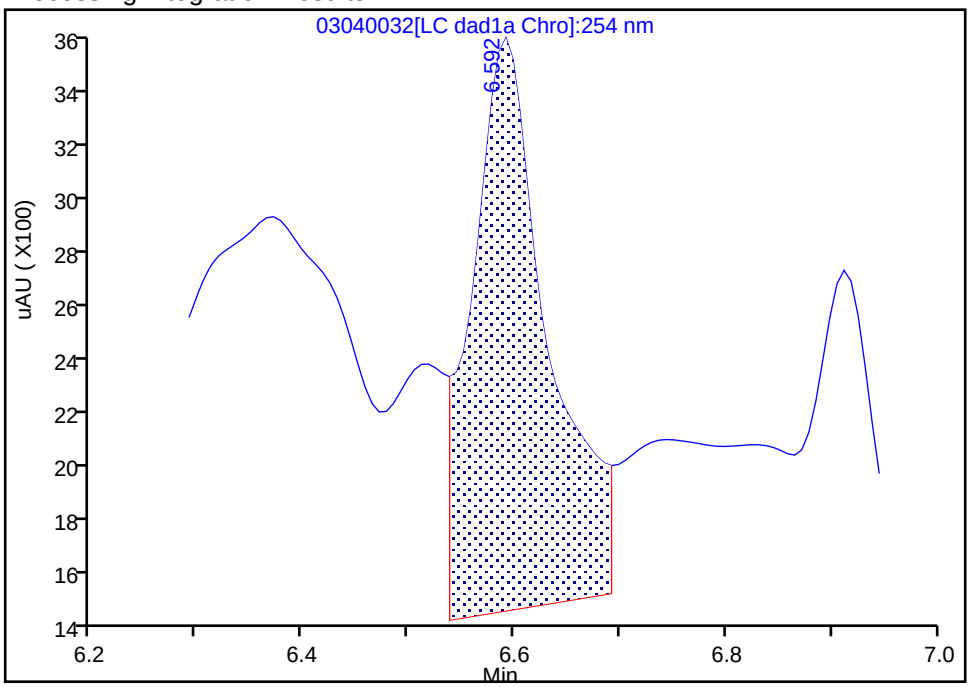
Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040032.d				
Injection Date:	04-Mar-2020 23:40:46	Instrument ID:	CHHPLC_X3		
Lims ID:	IC DMT L1				
Client ID:					
Operator ID:	CB	ALS Bottle#:	32	Worklist Smp#:	32
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

2 TNX, CAS: 13980-04-6

Signal: 1

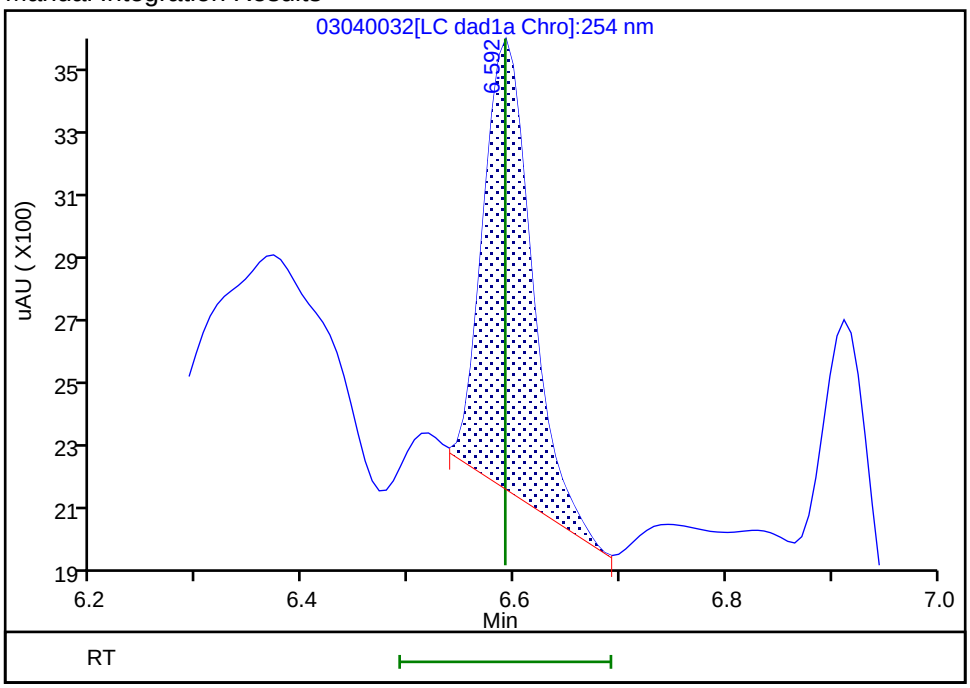
Processing Integration Results

RT: 6.59
Area: 10465
Amount: 0.032149
Amount Units: ug/mL



Manual Integration Results

RT: 6.59
Area: 4343
Amount: 0.019958
Amount Units: ug/mL



Reviewer: beckerc, 05-Mar-2020 08:32:43
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

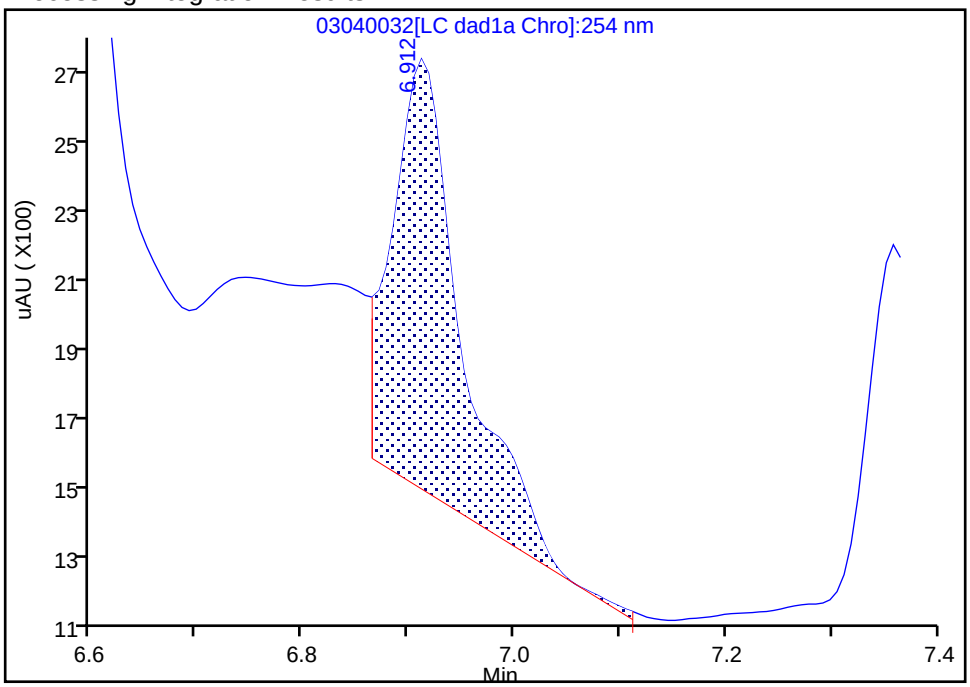
Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040032.d				
Injection Date:	04-Mar-2020 23:40:46	Instrument ID:	CHHPLC_X3		
Lims ID:	IC DMT L1				
Client ID:					
Operator ID:	CB	ALS Bottle#:	32	Worklist Smp#:	32
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

5 DNX, CAS: 80251-29-2

Signal: 1

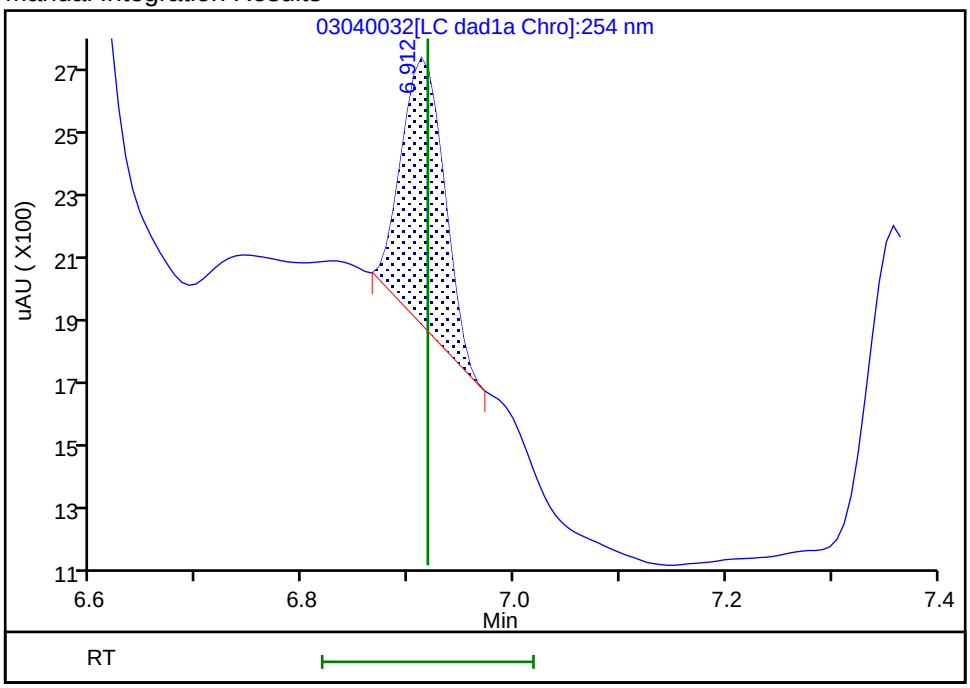
Processing Integration Results

RT: 6.91
Area: 5489
Amount: 0.028357
Amount Units: ug/mL



Manual Integration Results

RT: 6.91
Area: 2345
Amount: 0.015334
Amount Units: ug/mL



Reviewer: beckerc, 05-Mar-2020 08:32:46

Audit Action: Manually Integrated Audit Reason: Baseline

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

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1 Analy Batch No.: 489145

SDG No.:

Instrument ID: CHHPLC_X3 GC Column: UltraCarb5u ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/18/2020 11:35 Calibration End Date: 03/18/2020 14:39 Calibration ID: 42934

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-489145/15	03180015.D
Level 2	IC 280-489145/14	03180014.D
Level 3	IC 280-489145/13	03180013.D
Level 4	IC 280-489145/12	03180012.D
Level 5	IC 280-489145/11	03180011.D
Level 6	IC 280-489145/10	03180010.D
Level 7	IC 280-489145/9	03180009.D
Level 8	IC 280-489145/8	03180008.D
Level 9	IC 280-489145/7	03180007.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		6.689	6.687	6.689	6.688	6.687	6.687	6.687	6.678		6.539 - 6.839	6.687
RDX		7.755	7.753	7.749	7.754	7.754	7.754	7.754	7.745		7.599 - 7.899	7.752
Picric acid	8.082	8.082	8.080	8.076	8.068	8.054	8.041	8.034	7.978		7.926 - 8.226	8.055
1,3,5-Trinitrobenzene	8.888	8.889	8.887	8.883	8.888	8.887	8.881	8.887	8.878		8.733 - 9.033	8.885
1,3-Dinitrobenzene	9.535	9.535	9.533	9.529	9.534	9.527	9.527	9.534	9.525		9.379 - 9.679	9.531
Nitrobenzene	9.915	9.922	9.920	9.916	9.921	9.914	9.914	9.914	9.911		9.766 - 10.066	9.916
Tetryl	10.221	10.215	10.220	10.216	10.221	10.221	10.214	10.221	10.218		10.066 - 10.366	10.219
Nitroglycerin	10.735	10.735	10.733	10.729	10.734	10.734	10.727	10.727	10.725		10.579 - 10.879	10.731
2,4,6-Trinitrotoluene	11.195	11.189	11.186	11.183	11.194	11.187	11.181	11.187	11.185		11.083 - 11.283	11.187
4-Amino-2,6-dinitrotoluene	11.341	11.342	11.340	11.336	11.347	11.341	11.334	11.334	11.331		11.236 - 11.436	11.338
2-Amino-4,6-dinitrotoluene	11.635	11.629	11.633	11.623	11.634	11.627	11.621	11.621	11.618		11.523 - 11.723	11.627
2,6-Dinitrotoluene	11.795	11.789	11.793	11.783	11.794	11.787	11.781	11.787	11.785		11.683 - 11.883	11.788
2,4-Dinitrotoluene	11.995	11.989	11.986	11.983	11.987	11.987	11.981	11.981	11.978		11.883 - 12.083	11.985
2-Nitrotoluene	12.828	12.822	12.833	12.823	12.827	12.827	12.814	12.821	12.818		12.673 - 12.973	12.824
4-Nitrotoluene	13.268	13.269	13.260	13.256	13.261	13.261	13.254	13.254	13.251		13.106 - 13.406	13.259
3-Nitrotoluene	13.855	13.849	13.853	13.849	13.854	13.854	13.841	13.847	13.845		13.699 - 13.999	13.850
PETN		+++++	14.946	14.936	14.941	14.941	14.927	14.941	14.945		14.786 - 15.086	14.940
1,2-Dinitrobenzene	8.715	8.709	8.713	8.709	8.714	8.714	8.714	8.714	8.705		8.559 - 8.859	8.712

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

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1 Analy Batch No.: 489145

SDG No.:

Instrument ID: CHHPLC_X3 GC Column: UltraCarb5u ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/18/2020 11:35 Calibration End Date: 03/18/2020 14:39 Calibration ID: 42934

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-489145/15	03180015.D
Level 2	IC 280-489145/14	03180014.D
Level 3	IC 280-489145/13	03180013.D
Level 4	IC 280-489145/12	03180012.D
Level 5	IC 280-489145/11	03180011.D
Level 6	IC 280-489145/10	03180010.D
Level 7	IC 280-489145/9	03180009.D
Level 8	IC 280-489145/8	03180008.D
Level 9	IC 280-489145/7	03180007.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	91008 92308	61440 91473	86460 91820	90800 92351	Ave		85962.1667				12.3		20.0			
RDX	112944 111897	112680 113215	121400 111841	117010 112730	Ave		116613.070				6.7		20.0			
Picric acid	86560 86468 88192	70960 86698	86100 86851	86470 87876	Ave		85130.5476				6.3		20.0			
1,3,5-Trinitrobenzene	192016 239677 242392	193413 242552	239242 242052	236826 244610	Ave		230308.873				9.3		20.0			
1,3-Dinitrobenzene	254770 321218 326628	250299 322290	322275 320369	318333 323988	Ave		306685.717				10.0		20.0			
Nitrobenzene	173386 209084 210856	165538 209462	208865 209202	207759 209472	Ave		200402.631				8.8		20.0			
Tetryl	132854 188850 191963	139401 190152	182355 189763	184900 193048	Ave		177031.954				13.3		20.0			
Nitroglycerin	54320 73708 72647	54804 73682	66982 72630	71269 73160	Ave		68133.4679				11.7		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 TestAmerica, Denver Job No.: 280-137225-1 Analy Batch No.: 489145

SDG No.:

Instrument ID: CHHPLC_X3 GC Column: UltraCarb5u ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/18/2020 11:35 Calibration End Date: 03/18/2020 14:39 Calibration ID: 42934

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	143984 216888 217948	171594 215762	214622 218499	217430 219552	Ave		204030.971				13.3		20.0			
4-Amino-2,6-dinitrotoluene	78402 173379 171541	137582 174883	169630 168893	172757 173075	Lin2	-1163.6365	178372.945							0.9980		0.9900
2-Amino-4,6-dinitrotoluene	169163 213685 217128	161195 213177	209223 213799	209592 218387	Ave		202816.698				10.7		20.0			
2,6-Dinitrotoluene	120159 159558 155029	119004 160244	157012 158940	158576 156549	Ave		149452.337				11.4		20.0			
2,4-Dinitrotoluene	250359 318972 321972	249960 319980	313566 317703	316753 322992	Ave		303584.095				10.0		20.0			
2-Nitrotoluene	129200 138416 134514	122720 134575	151060 133944	137330 133699	Ave		135050.876				5.6		20.0			
4-Nitrotoluene	86228 119058 116822	100160 116285	128064 116245	117874 116311	Ave		113005.083				10.9		20.0			
3-Nitrotoluene	112128 149894 149503	125035 150095	155005 148550	148232 148816	Ave		143028.635				10.0		20.0			
PETN	 80472 82059	+++++ 82077	74814 81281	78947 82446	Ave		78604.5748				6.9		20.0			
1,2-Dinitrobenzene	122480 142220 143478	119840 142918	144780 142683	141270 144242	Ave		138212.217				7.1		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 TestAmerica, Denver Job No.: 280-137225-1 Analy Batch No.: 489145

SDG No.:

Instrument ID: CHHPLC_X3 GC Column: UltraCarb5u ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/18/2020 11:35 Calibration End Date: 03/18/2020 14:39 Calibration ID: 42934

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-489145/15	03180015.D
Level 2	IC 280-489145/14	03180014.D
Level 3	IC 280-489145/13	03180013.D
Level 4	IC 280-489145/12	03180012.D
Level 5	IC 280-489145/11	03180011.D
Level 6	IC 280-489145/10	03180010.D
Level 7	IC 280-489145/9	03180009.D
Level 8	IC 280-489145/8	03180008.D
Level 9	IC 280-489145/7	03180007.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
		LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
HMX	Ave	36589	1536 64274	4323 92351	9080 230770	22752	0.400	0.0250 0.700	0.0500 1.00	0.100 2.50	0.250
RDX	Ave	45286	2817 78289	6070 112730	11701 279743	28236	0.400	0.0250 0.700	0.0500 1.00	0.100 2.50	0.250
Picric acid	Ave	1082 34679	1774 60796	4305 87876	8647 220480	21617	0.0125 0.400	0.0250 0.700	0.0500 1.00	0.100 2.50	0.250
1,3,5-Trinitrobenzene	Ave	2405 97215	4845 169775	11986 245099	23730 607193	60039	0.0125 0.401	0.0251 0.701	0.0501 1.00	0.100 2.51	0.251
1,3-Dinitrobenzene	Ave	3191 129174	6270 224707	16146 324636	31897 818202	80465	0.0125 0.401	0.0251 0.701	0.0501 1.00	0.100 2.51	0.251
Nitrobenzene	Ave	2176 84120	4155 147027	10485 210310	20859 529249	52480	0.0126 0.402	0.0251 0.703	0.0502 1.00	0.100 2.51	0.251
Tetryl	Ave	1664 76213	3492 133100	9136 193434	18527 480867	47307	0.0125 0.401	0.0251 0.701	0.0501 1.00	0.100 2.51	0.251
Nitroglycerin	Ave	6790 294728	13701 508407	33491 731600	71269 1816166	184270	0.125 4.00	0.250 7.00	0.500 10.0	1.00 25.0	2.50
2,4,6-Trinitrotoluene	Ave	1807 86650	4307 153561	10774 220430	21830 547050	54439	0.0126 0.402	0.0251 0.703	0.0502 1.00	0.100 2.51	0.251
4-Amino-2,6-dinitrotoluene	Lin2	981 70023	3443 118343	8490 173248	17293 429281	43388	0.0125 0.400	0.0250 0.701	0.0501 1.00	0.100 2.50	0.250
2-Amino-4,6-dinitrotoluene	Ave	2123 85612	4046 150258	10503 219261	21043 544991	53635	0.0126 0.402	0.0251 0.703	0.0502 1.00	0.100 2.51	0.251
2,6-Dinitrotoluene	Ave	1508 64354	2987 111703	7882 157175	15921 389124	40049	0.0126 0.402	0.0251 0.703	0.0502 1.00	0.100 2.51	0.251
2,4-Dinitrotoluene	Ave	3142 128504	6274 223282	15741 324284	31802 808149	80062	0.0126 0.402	0.0251 0.703	0.0502 1.00	0.100 2.51	0.251
2-Nitrotoluene	Ave	1615 53830	3068 93761	7553 133699	13733 336284	34604	0.0125 0.400	0.0250 0.700	0.0500 1.00	0.100 2.50	0.250

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

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1 Analy Batch No.: 489145

SDG No.:

Instrument ID: CHHPLC_X3 GC Column: UltraCarb5u ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/18/2020 11:35 Calibration End Date: 03/18/2020 14:39 Calibration ID: 42934

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
4-Nitrotoluene	Ave	1080 46607	2509 81534	6416 116544	11811 292638	29824	0.0125 0.401	0.0251 0.701	0.0501 1.00	0.100 2.51	0.251
3-Nitrotoluene	Ave	1403 60098	3129 104089	7758 148965	14838 374131	37511	0.0125 0.400	0.0250 0.701	0.0501 1.00	0.100 2.50	0.250
PETN	Ave	 328307	+++++ 568970	37407 824461	78947 2051483	201180	 4.00	+++++ 7.00	0.500 10.0	1.00 25.0	2.50
1,2-Dinitrobenzene	Ave	1531 57167	2996 99878	7239 144242	14127 358694	35555	0.0125 0.400	0.0250 0.700	0.0500 1.00	0.100 2.50	0.250

Curve Type Legend:

Ave = Average
Lin2 = Linear 1/conc^2

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180007.D				
Lims ID:	IC MAIN L9				
Client ID:					
Sample Type:	IC	Calib Level:	9		
Inject. Date:	18-Mar-2020 11:35:53	ALS Bottle#:	7	Worklist Smp#:	7
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	IC MAIN L9				
Misc. Info.:	280-0090150-007				
Operator ID:	CB	Instrument ID:	CHHPLC_X3		
Sublist:	chrom-8330_X3*sub9				
Method:	\\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	26-Mar-2020 15:45:39	Calib Date:	18-Mar-2020 14:39:27		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180015.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX0308				
First Level Reviewer: beckerc		Date:	19-Mar-2020 08:41:44		

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 HMX	1	6.678	6.689	-0.011	230770	2.50	2.68	M
7 RDX	1	7.745	7.749	-0.004	279743	2.50	2.40	
8 2,4,6-Trinitrophenol	1	7.978	8.076	-0.098	220480	2.50	2.59	
$ 9 1,2-Dinitrobenzene	1	8.705	8.709	-0.004	358694	2.50	2.60	
10 1,3,5-Trinitrobenzene	1	8.878	8.883	-0.005	607193	2.51	2.64	
11 1,3-Dinitrobenzene	1	9.525	9.529	-0.004	818202	2.51	2.67	M
12 Nitrobenzene	1	9.911	9.916	-0.005	529249	2.51	2.64	
14 Tetryl	1	10.218	10.216	0.002	480867	2.51	2.72	
15 Nitroglycerin	2	10.725	10.729	-0.004	1816166	25.0	26.7	
16 2,4,6-Trinitrotoluene	1	11.185	11.183	0.002	547050	2.51	2.68	
17 4-Amino-2,6-dinitrotoluene	1	11.331	11.336	-0.005	429281	2.50	2.41	
18 2-Amino-4,6-dinitrotoluene	1	11.618	11.623	-0.005	544991	2.51	2.69	
19 2,6-Dinitrotoluene	1	11.785	11.783	0.002	389124	2.51	2.60	
20 2,4-Dinitrotoluene	1	11.978	11.983	-0.005	808149	2.51	2.66	
21 o-Nitrotoluene	1	12.818	12.823	-0.005	336284	2.50	2.49	
22 p-Nitrotoluene	1	13.251	13.256	-0.005	292638	2.51	2.59	
23 m-Nitrotoluene	1	13.845	13.849	-0.004	374131	2.50	2.62	
24 PETN	2	14.945	14.936	0.009	2051483	25.0	26.1	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

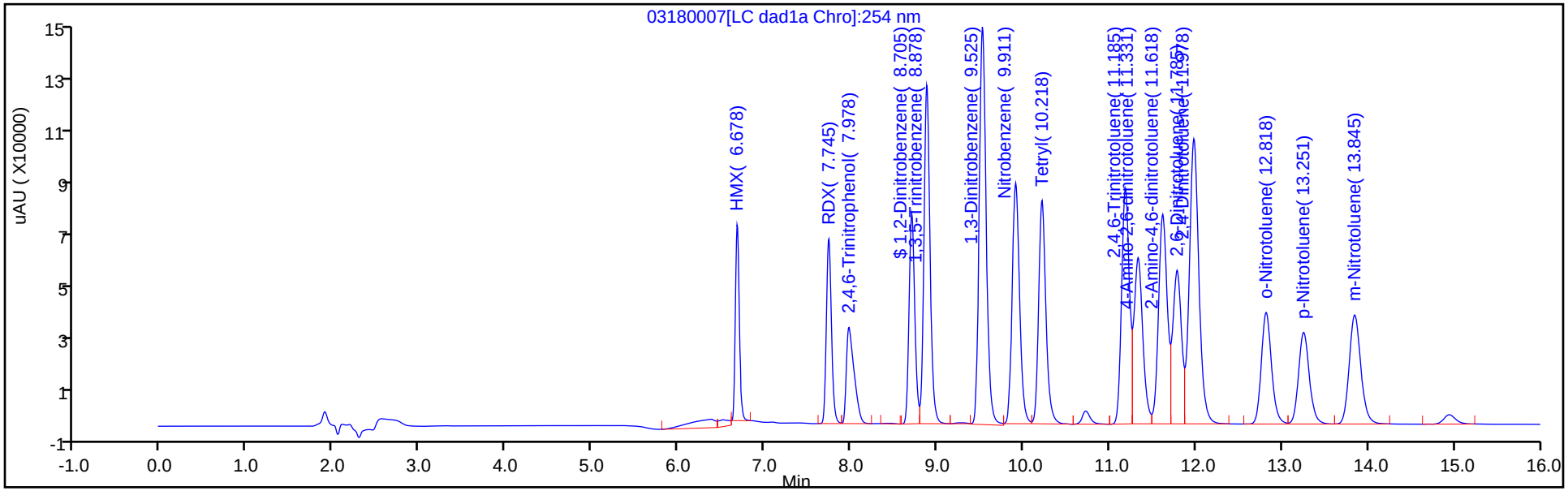
8330IntermStk_00061 Amount Added: 250.00 Units: uL

Report Date: 26-Mar-2020 15:45:39 Chrom Revision: 2.3 11-Mar-2020 18:53:20

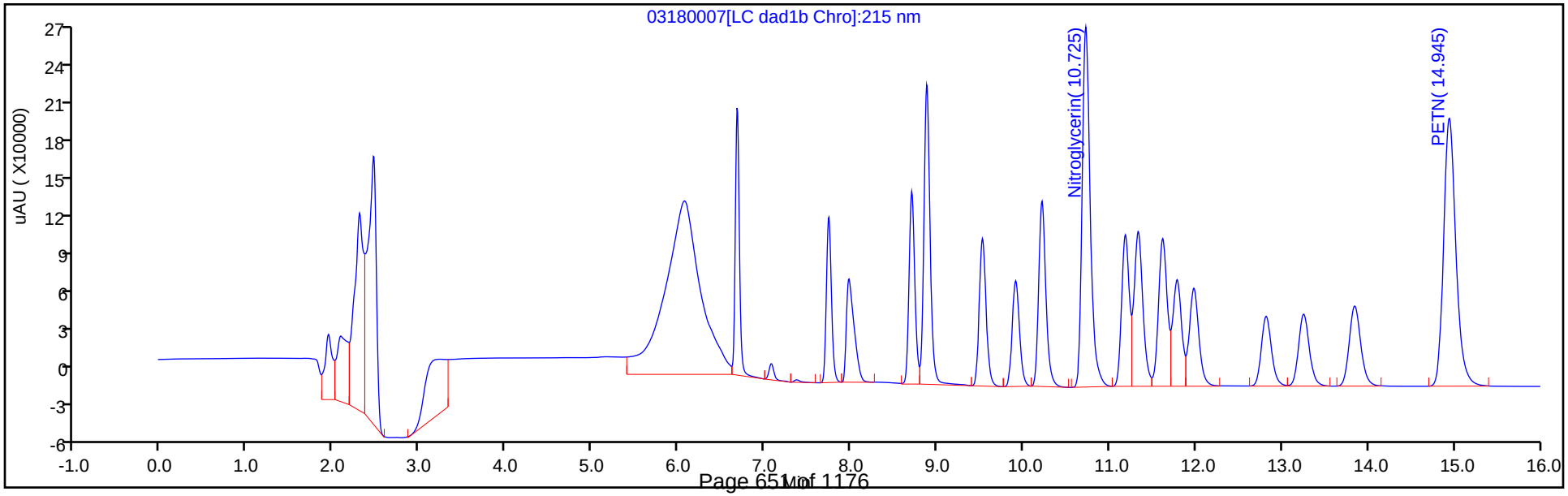
Eurofins TestAmerica, Denver

Data File:	\\chromna\denver\chromdata\chhplc_x\20200318-90159.b\03180007.d				
Injection Date:	18-Mar-2020 11:35:53	Instrument ID:	CHHPLC_X3	Operator ID:	CB
Lims ID:	IC MAIN L9			Worklist Smp#:	7
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	8330_X3	Limit Group:	GCSV - 8330		

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



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



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

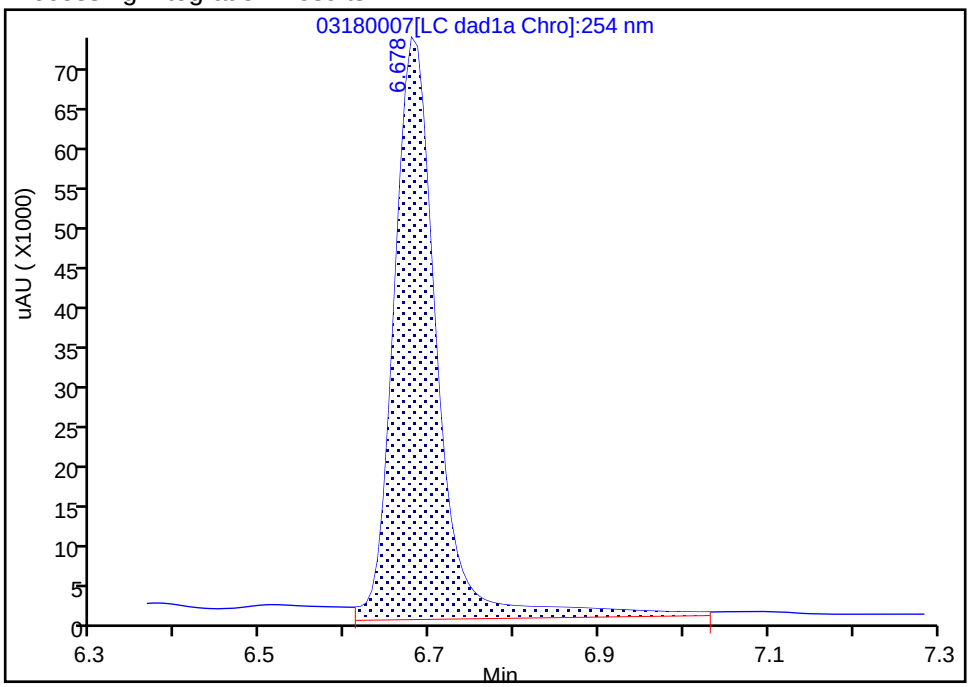
Data File:	\\chromna\denver\chromdata\chhplc_x\20200318-90159.b\03180007.d				
Injection Date:	18-Mar-2020 11:35:53	Instrument ID:	CHHPLC_X3		
Lims ID:	IC MAIN L9				
Client ID:					
Operator ID:	CB	ALS Bottle#:	7	Worklist Smp#:	7
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

3 HMX, CAS: 2691-41-0

Signal: 1

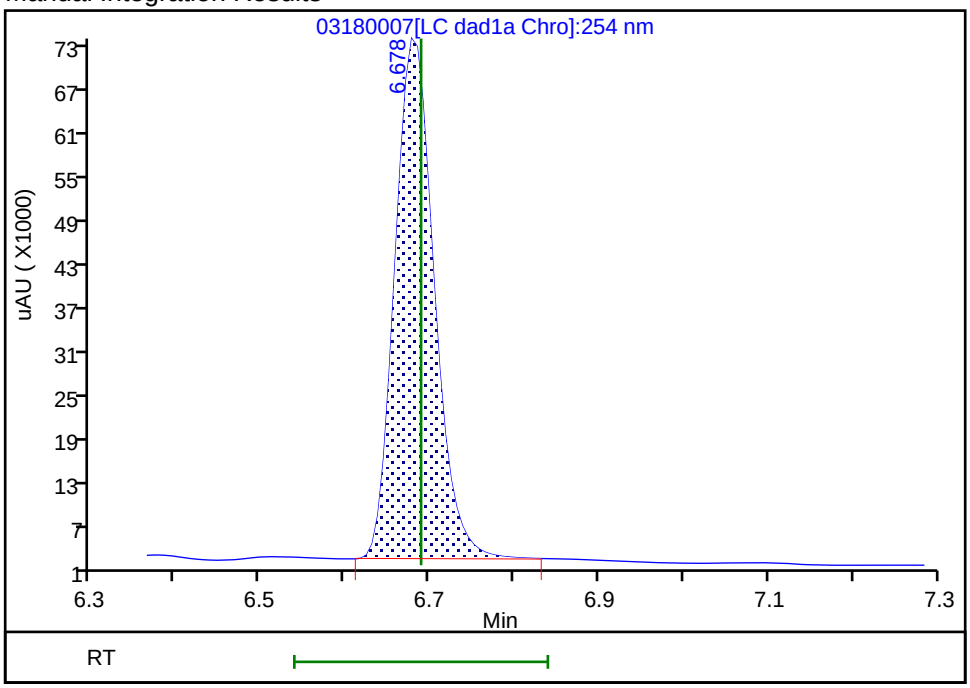
Processing Integration Results

RT: 6.68
Area: 261160
Amount: 2.488946
Amount Units: ug/mL



Manual Integration Results

RT: 6.68
Area: 230770
Amount: 2.684553
Amount Units: ug/mL



Reviewer: beckerc, 19-Mar-2020 08:41:25

Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Denver

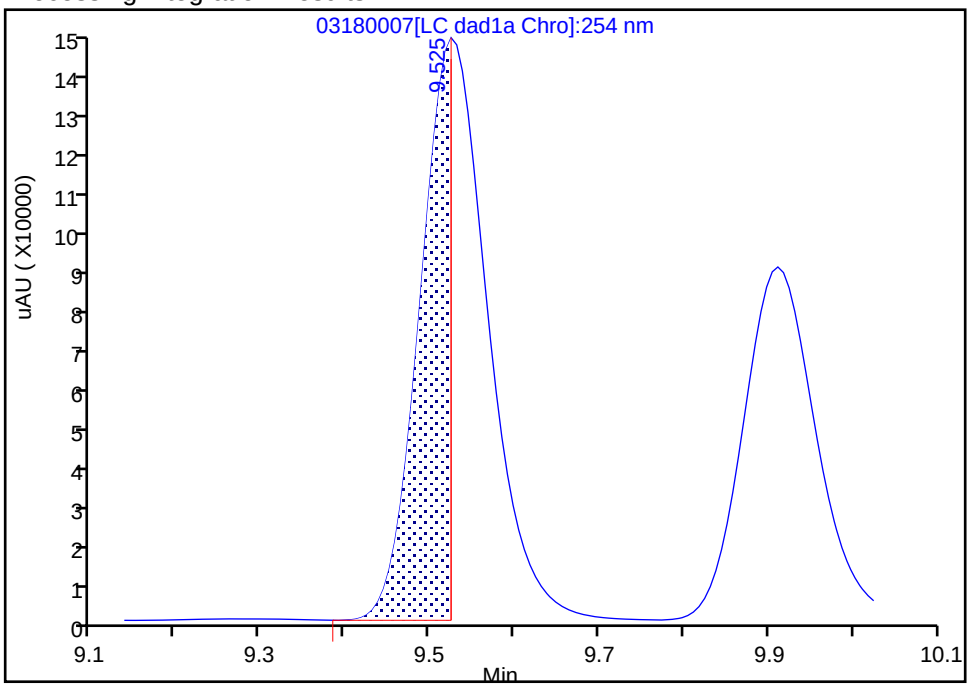
Data File:	\\chromna\denver\chromdata\chhplc_x\20200318-90159.b\03180007.d				
Injection Date:	18-Mar-2020 11:35:53	Instrument ID:	CHHPLC_X3		
Lims ID:	IC MAIN L9				
Client ID:					
Operator ID:	CB	ALS Bottle#:	7	Worklist Smp#:	7
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

11 1,3-Dinitrobenzene, CAS: 99-65-0

Signal: 1

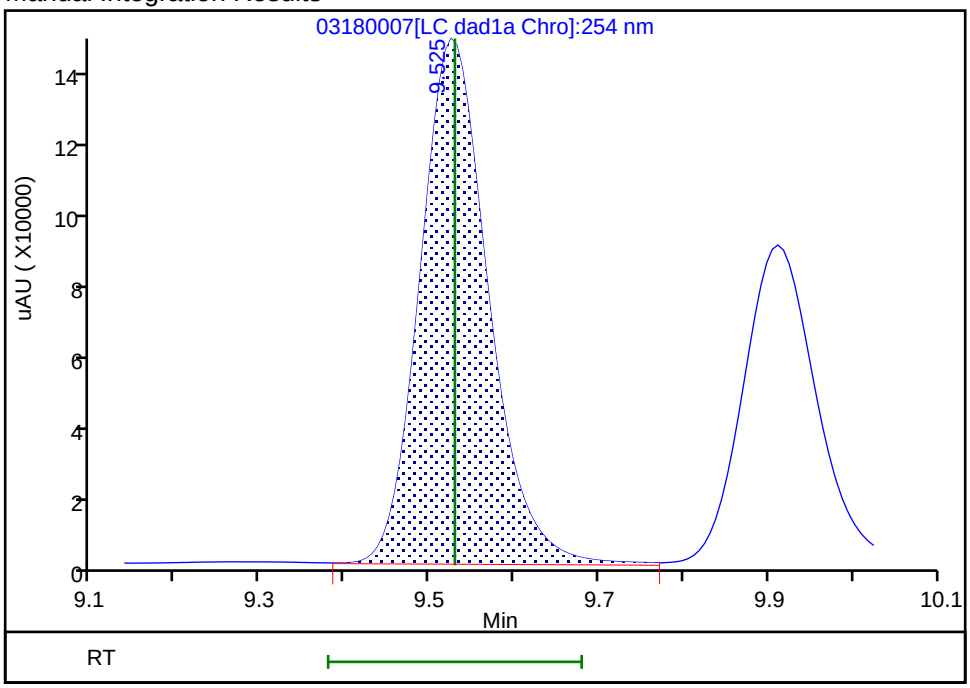
Processing Integration Results

RT: 9.52
Area: 362918
Amount: 1.345398
Amount Units: ug/mL



Manual Integration Results

RT: 9.52
Area: 818202
Amount: 2.667884
Amount Units: ug/mL



Reviewer: beckerc, 19-Mar-2020 08:41:39
Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180008.D				
Lims ID:	IC MAIN L8				
Client ID:					
Sample Type:	IC	Calib Level:	8		
Inject. Date:	18-Mar-2020 11:58:50	ALS Bottle#:	8	Worklist Smp#:	8
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	IC MAIN L8				
Misc. Info.:	280-0090150-008				
Operator ID:	CB	Instrument ID:	CHHPLC_X3		
Sublist:	chrom-8330_X3*sub9				
Method:	\\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	26-Mar-2020 15:45:40	Calib Date:	18-Mar-2020 14:39:27		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180015.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX0308				

First Level Reviewer: beckerc Date: 19-Mar-2020 08:42:12

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 HMX	1	6.687	6.689	-0.002	92351	1.00	1.07	M
7 RDX	1	7.754	7.749	0.005	112730	1.00	0.9667	
8 2,4,6-Trinitrophenol	1	8.034	8.076	-0.042	87876	1.00	1.03	
$ 9 1,2-Dinitrobenzene	1	8.714	8.709	0.005	144242	1.00	1.04	
10 1,3,5-Trinitrobenzene	1	8.887	8.883	0.004	245099	1.00	1.06	
11 1,3-Dinitrobenzene	1	9.534	9.529	0.005	324636	1.00	1.06	
12 Nitrobenzene	1	9.914	9.916	-0.002	210310	1.00	1.05	
14 Tetryl	1	10.221	10.216	0.005	193434	1.00	1.09	
15 Nitroglycerin	2	10.727	10.729	-0.002	731600	10.0	10.7	
16 2,4,6-Trinitrotoluene	1	11.187	11.183	0.004	220430	1.00	1.08	
17 4-Amino-2,6-dinitrotoluene	1	11.334	11.336	-0.002	173248	1.00	0.9778	
18 2-Amino-4,6-dinitrotoluene	1	11.621	11.623	-0.002	219261	1.00	1.08	
19 2,6-Dinitrotoluene	1	11.787	11.783	0.004	157175	1.00	1.05	
20 2,4-Dinitrotoluene	1	11.981	11.983	-0.002	324284	1.00	1.07	
21 o-Nitrotoluene	1	12.821	12.823	-0.002	133699	1.00	0.9900	
22 p-Nitrotoluene	1	13.254	13.256	-0.002	116544	1.00	1.03	
23 m-Nitrotoluene	1	13.847	13.849	-0.002	148965	1.00	1.04	
24 PETN	2	14.941	14.936	0.005	824461	10.0	10.5	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

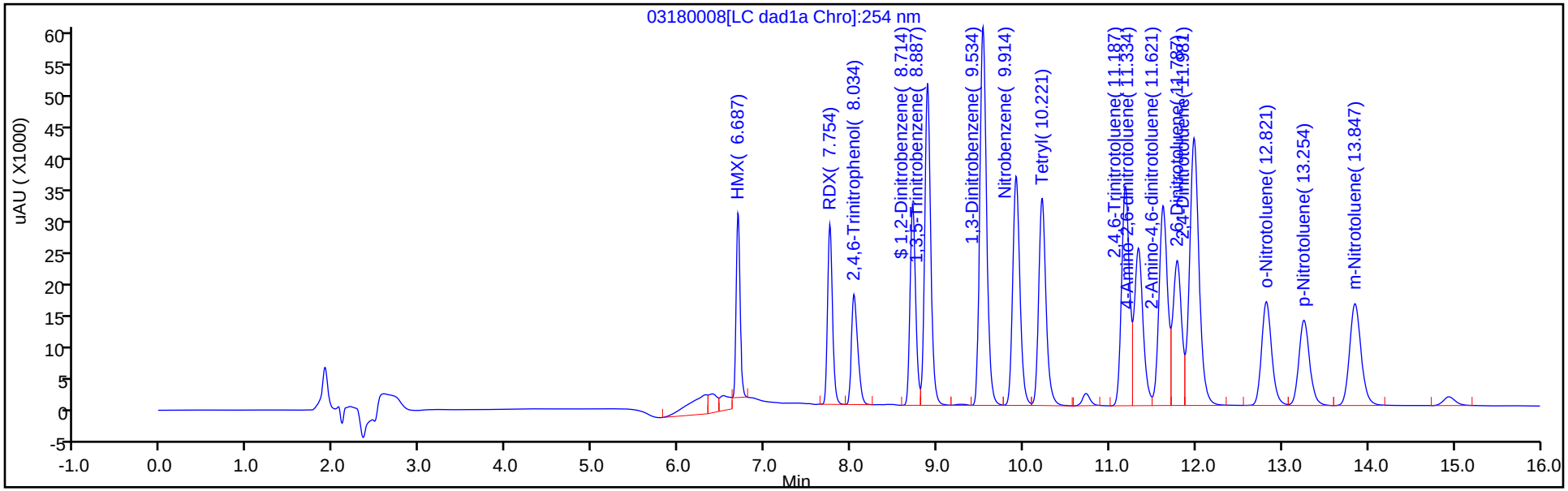
8330IntermStk_00061 Amount Added: 100.00 Units: uL

Report Date: 26-Mar-2020 15:45:40 Chrom Revision: 2.3 11-Mar-2020 18:53:20

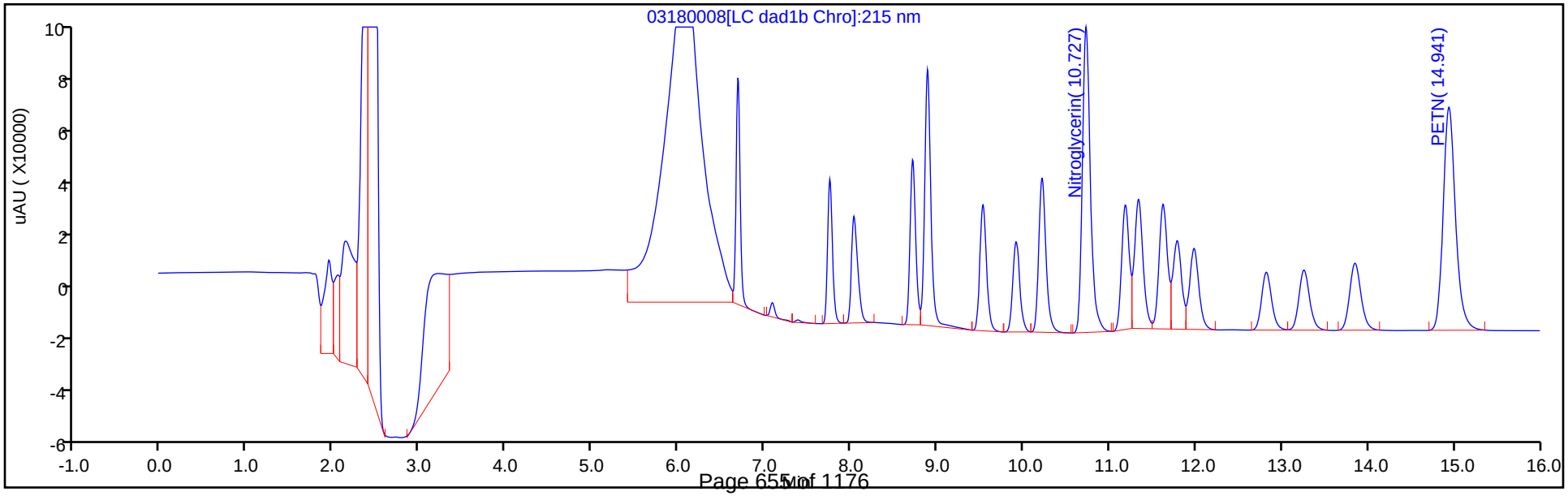
Eurofins TestAmerica, Denver

Data File:	\\chromna\denver\chromdata\chhplc_x\20200318-90159.b\03180008.d				
Injection Date:	18-Mar-2020 11:58:50	Instrument ID:	CHHPLC_X3	Operator ID:	CB
Lims ID:	IC MAIN L8			Worklist Smp#:	8
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	8
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

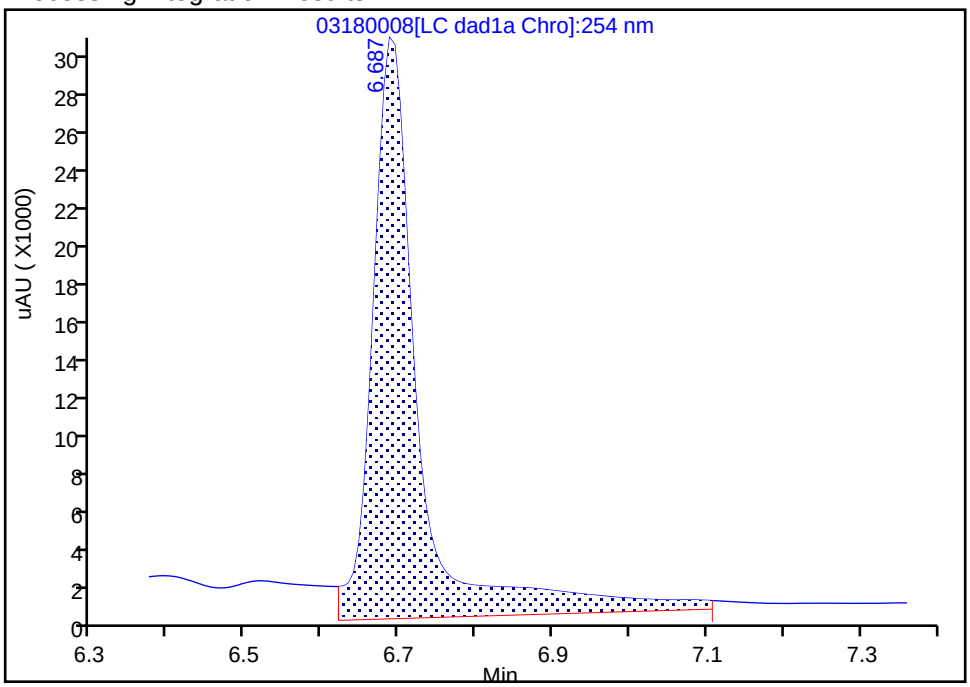
Data File:	\\chromna\denver\chromdata\chhplc_x\20200318-90159.b\03180008.d				
Injection Date:	18-Mar-2020 11:58:50	Instrument ID:	CHHPLC_X3		
Lims ID:	IC MAIN L8				
Client ID:					
Operator ID:	CB	ALS Bottle#:	8	Worklist Smp#:	8
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

3 HMX, CAS: 2691-41-0

Signal: 1

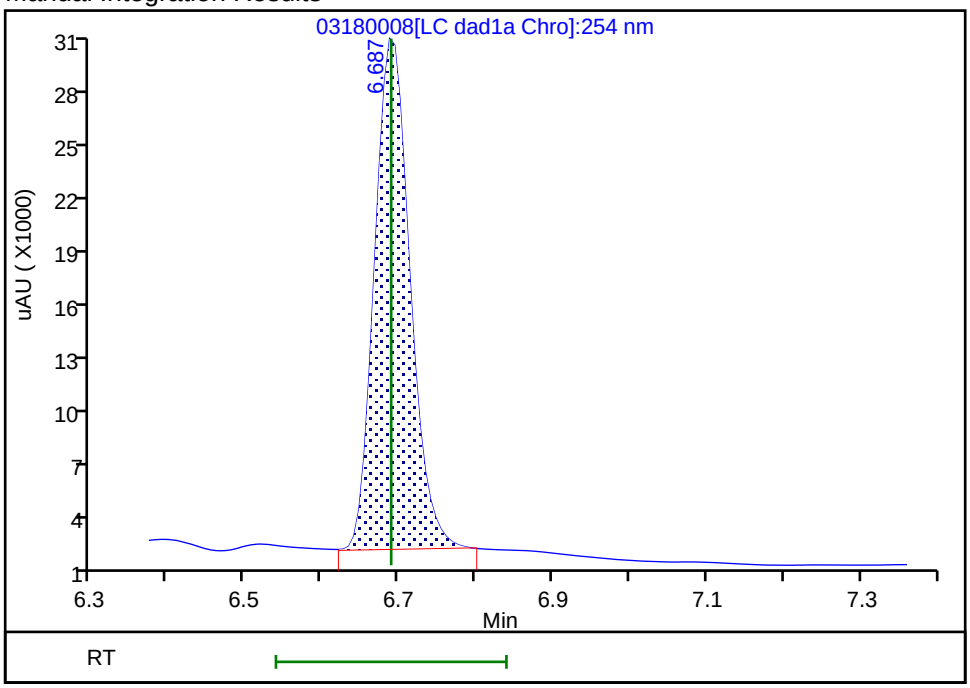
Processing Integration Results

RT: 6.69
Area: 128593
Amount: 1.149770
Amount Units: ug/mL



Manual Integration Results

RT: 6.69
Area: 92351
Amount: 1.074321
Amount Units: ug/mL



Reviewer: beckerc, 19-Mar-2020 08:41:59

Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180009.D
Lims ID: IC MAIN L7
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 18-Mar-2020 12:21:47 ALS Bottle#: 9 Worklist Smp#: 9
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC MAIN L7
Misc. Info.: 280-0090150-009
Operator ID: CB Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub9

Method: \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 26-Mar-2020 15:45:41 Calib Date: 18-Mar-2020 14:39:27
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180015.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX0308

First Level Reviewer: beckerc Date: 19-Mar-2020 08:42:38

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 HMX	1	6.687	6.689	-0.002	64274	0.7000	0.7477	M
7 RDX	1	7.754	7.749	0.005	78289	0.7000	0.6714	
8 2,4,6-Trinitrophenol	1	8.041	8.076	-0.035	60796	0.7000	0.7142	
$ 9 1,2-Dinitrobenzene	1	8.714	8.709	0.005	99878	0.7000	0.7226	
10 1,3,5-Trinitrobenzene	1	8.881	8.883	-0.002	169775	0.7014	0.7372	
11 1,3-Dinitrobenzene	1	9.527	9.529	-0.002	224707	0.7014	0.7327	
12 Nitrobenzene	1	9.914	9.916	-0.002	147027	0.7028	0.7337	
14 Tetryl	1	10.214	10.216	-0.002	133100	0.7014	0.7518	
15 Nitroglycerin	2	10.727	10.729	-0.002	508407	7.00	7.46	
16 2,4,6-Trinitrotoluene	1	11.181	11.183	-0.002	153561	0.7028	0.7526	
17 4-Amino-2,6-dinitrotoluene	1	11.334	11.336	-0.002	118343	0.7007	0.6700	
18 2-Amino-4,6-dinitrotoluene	1	11.621	11.623	-0.002	150258	0.7028	0.7409	
19 2,6-Dinitrotoluene	1	11.781	11.783	-0.002	111703	0.7028	0.7474	
20 2,4-Dinitrotoluene	1	11.981	11.983	-0.002	223282	0.7028	0.7355	
21 o-Nitrotoluene	1	12.814	12.823	-0.009	93761	0.7000	0.6943	
22 p-Nitrotoluene	1	13.254	13.256	-0.002	81534	0.7014	0.7215	
23 m-Nitrotoluene	1	13.841	13.849	-0.008	104089	0.7007	0.7277	
24 PETN	2	14.927	14.936	-0.009	568970	7.00	7.24	

QC Flag Legend

Review Flags
M - Manually Integrated

Reagents:

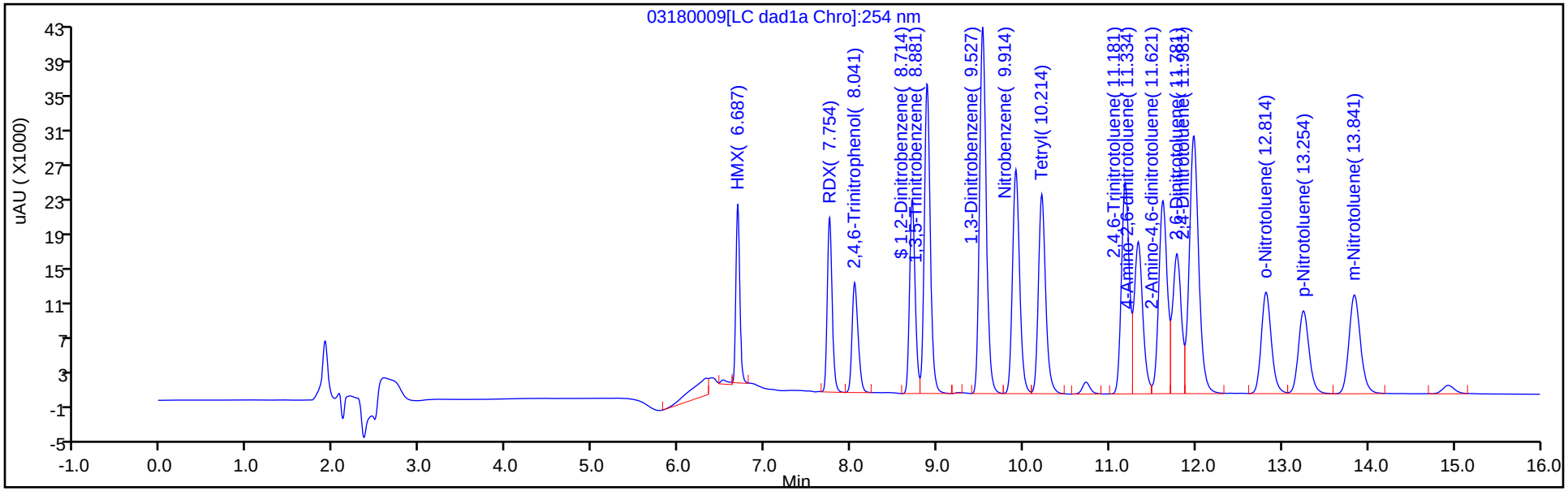
8330IntermStk_00061 Amount Added: 70.00 Units: uL

Report Date: 26-Mar-2020 15:45:41 Chrom Revision: 2.3 11-Mar-2020 18:53:20

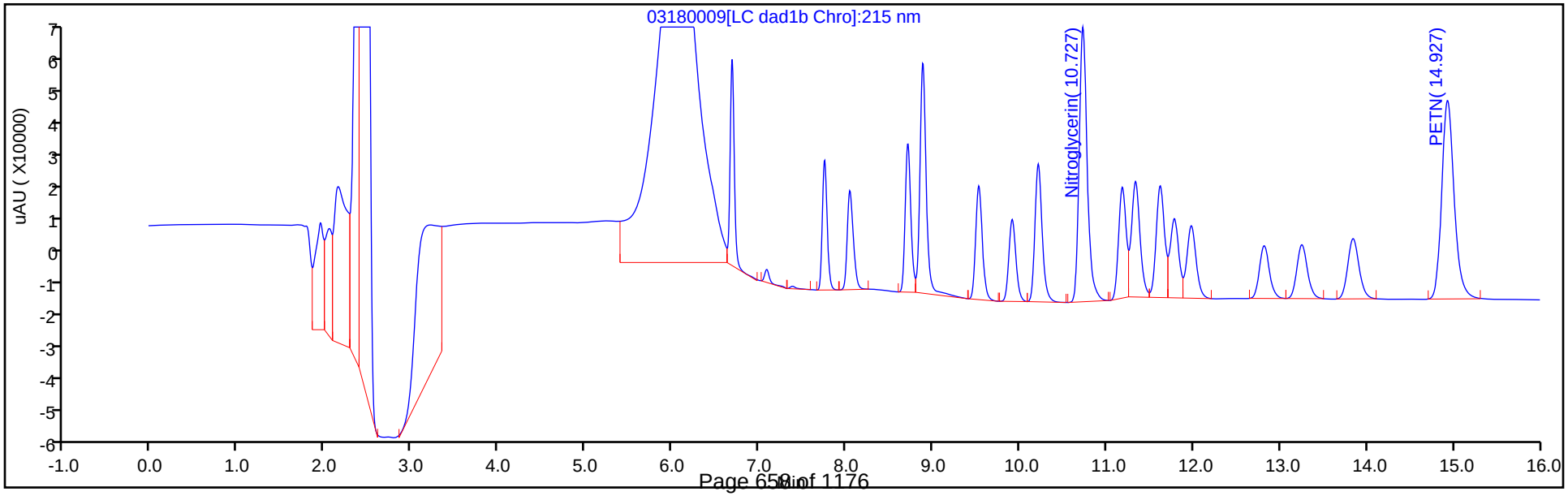
Eurofins TestAmerica, Denver

Data File:	\\chromna\denver\chromdata\chhplc_x\20200318-90159.b\03180009.d				
Injection Date:	18-Mar-2020 12:21:47	Instrument ID:	CHHPLC_X3	Operator ID:	CB
Lims ID:	IC MAIN L7			Worklist Smp#:	9
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 TestAmerica, Denver

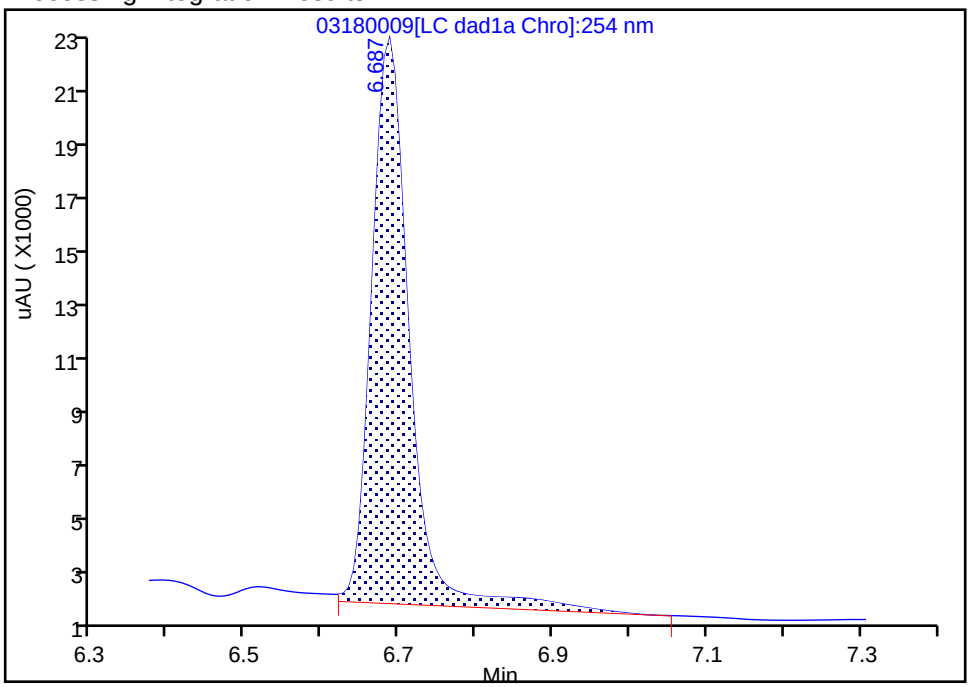
Data File:	\\chromna\denver\chromdata\chhplc_x\20200318-90159.b\03180009.d				
Injection Date:	18-Mar-2020 12:21:47	Instrument ID:	CHHPLC_X3		
Lims ID:	IC MAIN L7				
Client ID:					
Operator ID:	CB	ALS Bottle#:	9	Worklist Smp#:	9
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

3 HMX, CAS: 2691-41-0

Signal: 1

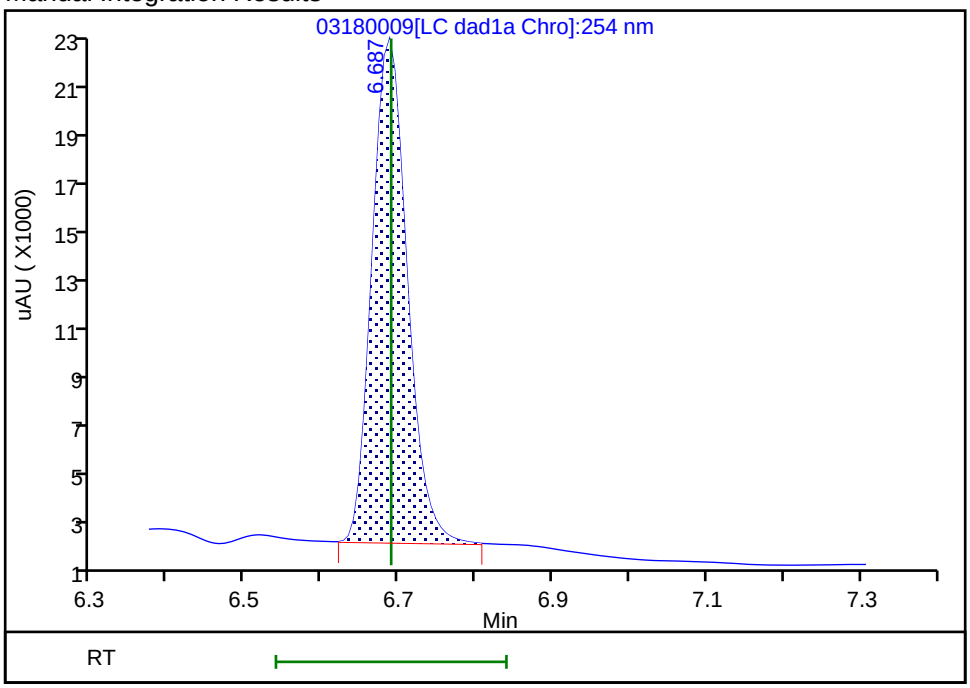
Processing Integration Results

RT: 6.69
Area: 70764
Amount: 0.364265
Amount Units: ug/mL



Manual Integration Results

RT: 6.69
Area: 64274
Amount: 0.747701
Amount Units: ug/mL



Reviewer: beckerc, 19-Mar-2020 08:42:26

Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180010.D
Lims ID: IC MAIN L6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 18-Mar-2020 12:44:45 ALS Bottle#: 10 Worklist Smp#: 10
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC MAIN L6
Misc. Info.: 280-0090150-010
Operator ID: CB Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub9

Method: \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 26-Mar-2020 15:45:41 Calib Date: 18-Mar-2020 14:39:27
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180015.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX0308

First Level Reviewer: beckerc Date: 19-Mar-2020 08:43:13

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 HMX	1	6.687	6.689	-0.002	36589	0.4000	0.4256	M
7 RDX	1	7.754	7.749	0.005	45286	0.4000	0.3883	
8 2,4,6-Trinitrophenol	1	8.054	8.076	-0.022	34679	0.4000	0.4074	
$ 9 1,2-Dinitrobenzene	1	8.714	8.709	0.005	57167	0.4000	0.4136	
10 1,3,5-Trinitrobenzene	1	8.887	8.883	0.004	97215	0.4008	0.4221	
11 1,3-Dinitrobenzene	1	9.527	9.529	-0.002	129174	0.4008	0.4212	
12 Nitrobenzene	1	9.914	9.916	-0.002	84120	0.4016	0.4198	
14 Tetryl	1	10.221	10.216	0.005	76213	0.4008	0.4305	
15 Nitroglycerin	2	10.734	10.729	0.005	294728	4.00	4.33	
16 2,4,6-Trinitrotoluene	1	11.187	11.183	0.004	86650	0.4016	0.4247	
17 4-Amino-2,6-dinitrotoluene	1	11.341	11.336	0.005	70023	0.4004	0.3991	
18 2-Amino-4,6-dinitrotoluene	1	11.627	11.623	0.004	85612	0.4016	0.4221	
19 2,6-Dinitrotoluene	1	11.787	11.783	0.004	64354	0.4016	0.4306	
20 2,4-Dinitrotoluene	1	11.987	11.983	0.004	128504	0.4016	0.4233	
21 o-Nitrotoluene	1	12.827	12.823	0.004	53830	0.4000	0.3986	
22 p-Nitrotoluene	1	13.261	13.256	0.005	46607	0.4008	0.4124	
23 m-Nitrotoluene	1	13.854	13.849	0.005	60098	0.4004	0.4202	
24 PETN	2	14.941	14.936	0.005	328307	4.00	4.18	

QC Flag Legend

Review Flags
M - Manually Integrated

Reagents:

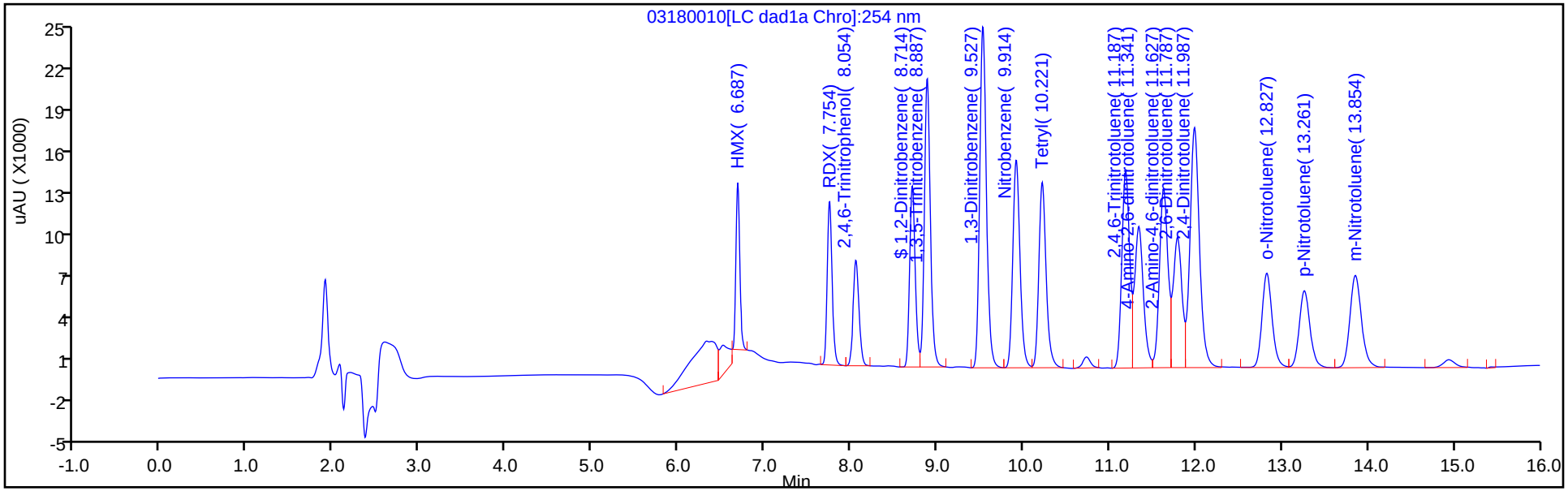
8330IntermStk_00061 Amount Added: 40.00 Units: uL

Report Date: 26-Mar-2020 15:45:42 Chrom Revision: 2.3 11-Mar-2020 18:53:20

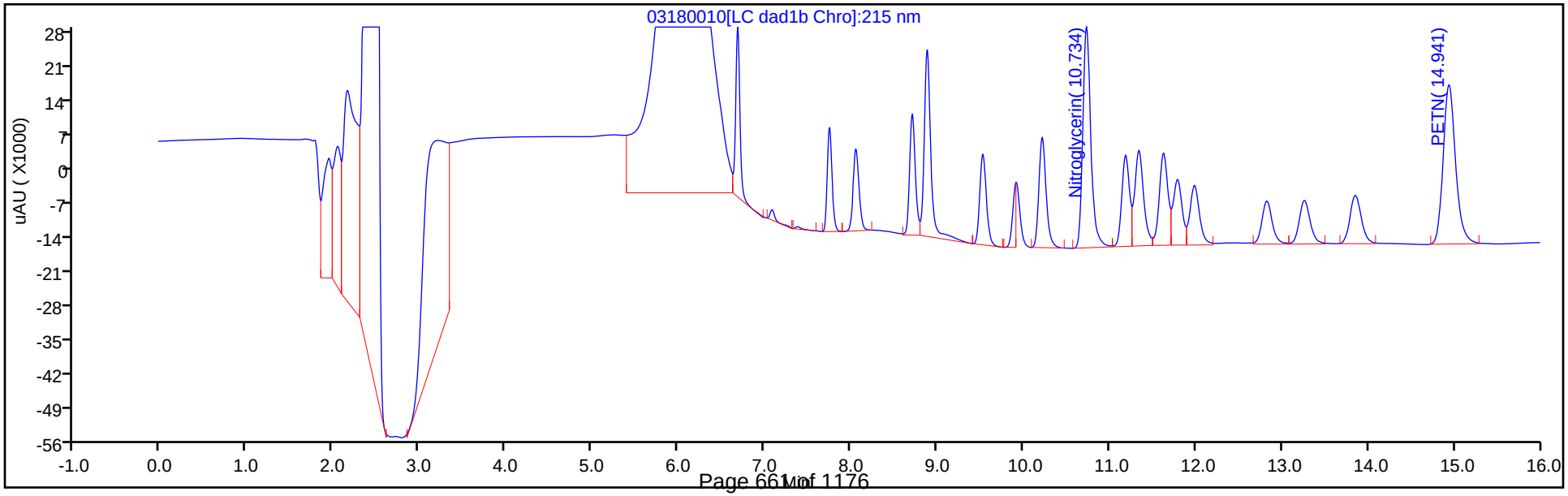
Eurofins TestAmerica, Denver

Data File:	\\chromna\denver\chromdata\chhplc_x\20200318-90159.b\03180010.d				
Injection Date:	18-Mar-2020 12:44:45	Instrument ID:	CHHPLC_X3	Operator ID:	CB
Lims ID:	IC MAIN L6			Worklist Smp#:	10
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	10
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

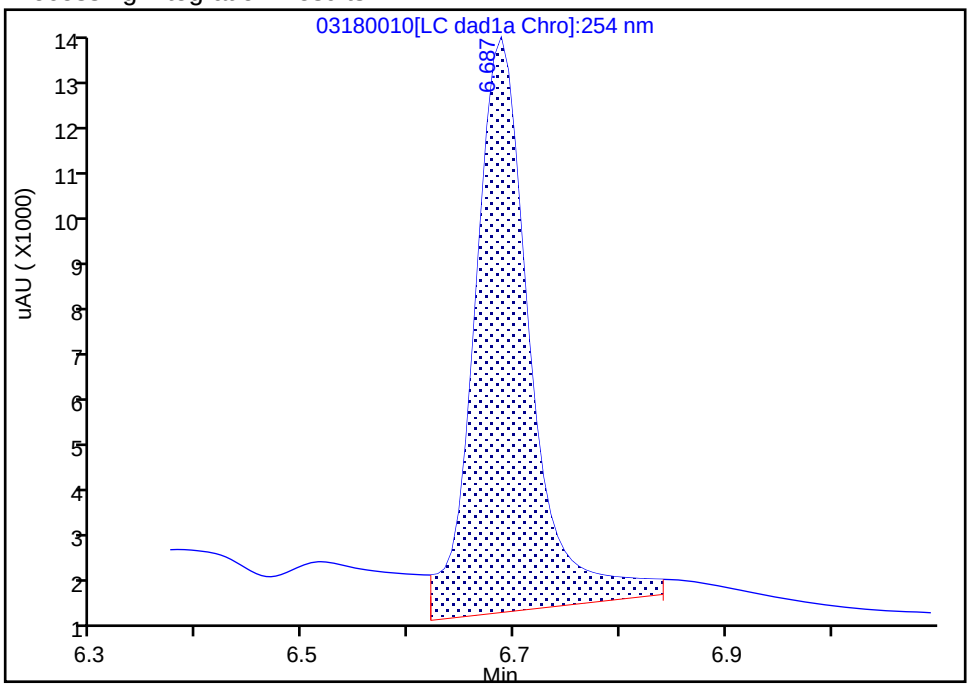
Data File:	\\chromna\denver\chromdata\chhplc_x\20200318-90159.b\03180010.d				
Injection Date:	18-Mar-2020 12:44:45	Instrument ID:	CHHPLC_X3		
Lims ID:	IC MAIN L6				
Client ID:					
Operator ID:	CB	ALS Bottle#:	10	Worklist Smp#:	10
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

3 HMX, CAS: 2691-41-0

Signal: 1

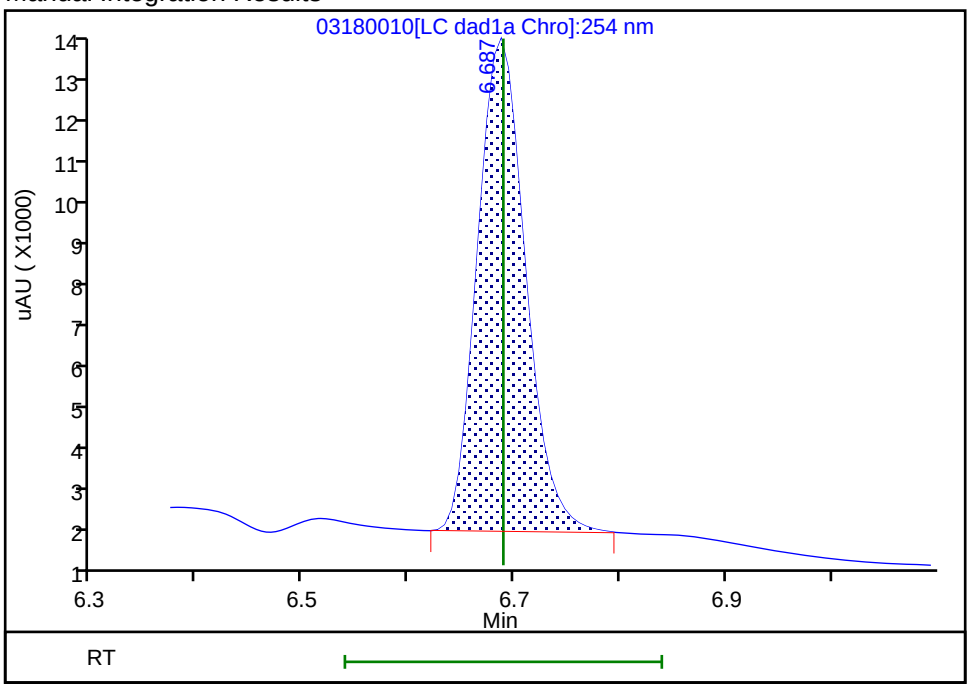
Processing Integration Results

RT: 6.69
Area: 45375
Amount: 0.234818
Amount Units: ug/mL



Manual Integration Results

RT: 6.69
Area: 36589
Amount: 0.425641
Amount Units: ug/mL



Reviewer: beckerc, 19-Mar-2020 08:42:54

Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180011.D
Lims ID: IC MAIN L5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 18-Mar-2020 13:07:42 ALS Bottle#: 11 Worklist Smp#: 11
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC MAIN L5
Misc. Info.: 280-0090150-011
Operator ID: CB Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub9

Method: \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 26-Mar-2020 15:45:42 Calib Date: 18-Mar-2020 14:39:27
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180015.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX0308

First Level Reviewer: beckerc Date: 19-Mar-2020 08:43:30

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 HMX	1	6.688	6.689	-0.001	22752	0.2500	0.2647	M
7 RDX	1	7.754	7.749	0.005	28236	0.2500	0.2421	
8 2,4,6-Trinitrophenol	1	8.068	8.076	-0.008	21617	0.2500	0.2539	
$ 9 1,2-Dinitrobenzene	1	8.714	8.709	0.005	35555	0.2500	0.2572	
10 1,3,5-Trinitrobenzene	1	8.888	8.883	0.005	60039	0.2505	0.2607	
11 1,3-Dinitrobenzene	1	9.534	9.529	0.005	80465	0.2505	0.2624	
12 Nitrobenzene	1	9.921	9.916	0.005	52480	0.2510	0.2619	
14 Tetryl	1	10.221	10.216	0.005	47307	0.2505	0.2672	
15 Nitroglycerin	2	10.734	10.729	0.005	184270	2.50	2.70	
16 2,4,6-Trinitrotoluene	1	11.194	11.183	0.011	54439	0.2510	0.2668	
17 4-Amino-2,6-dinitrotoluene	1	11.347	11.336	0.011	43388	0.2503	0.2498	
18 2-Amino-4,6-dinitrotoluene	1	11.634	11.623	0.011	53635	0.2510	0.2645	
19 2,6-Dinitrotoluene	1	11.794	11.783	0.011	40049	0.2510	0.2680	
20 2,4-Dinitrotoluene	1	11.987	11.983	0.004	80062	0.2510	0.2637	
21 o-Nitrotoluene	1	12.827	12.823	0.004	34604	0.2500	0.2562	
22 p-Nitrotoluene	1	13.261	13.256	0.005	29824	0.2505	0.2639	
23 m-Nitrotoluene	1	13.854	13.849	0.005	37511	0.2503	0.2623	
24 PETN	2	14.941	14.936	0.005	201180	2.50	2.56	

QC Flag Legend

Review Flags
M - Manually Integrated

Reagents:

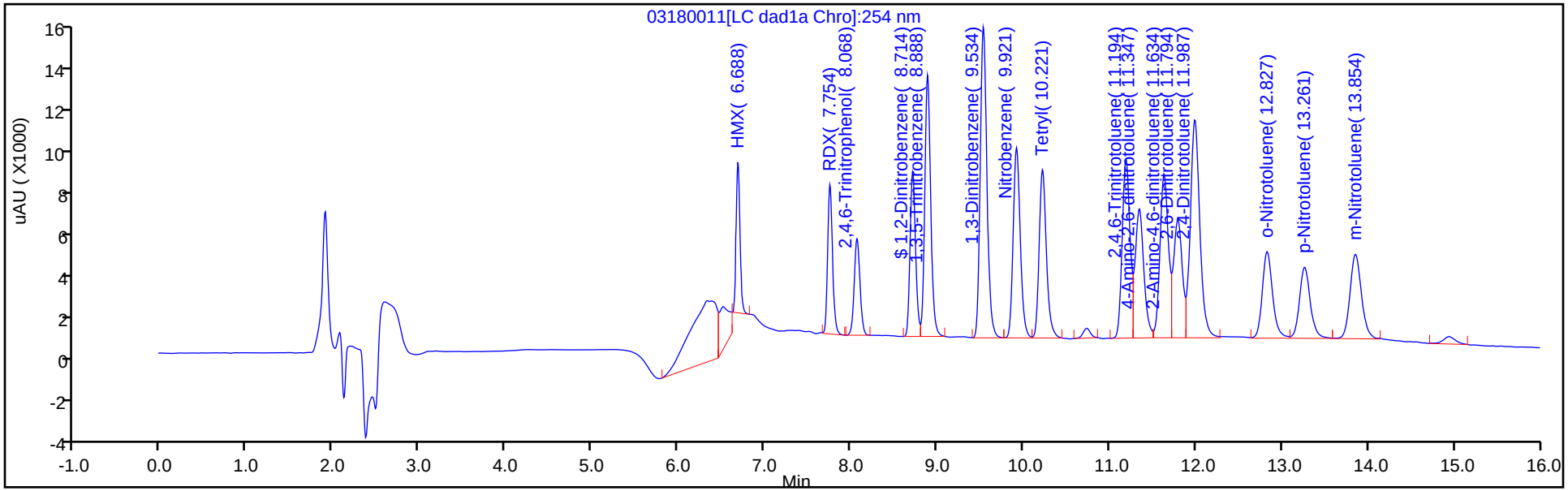
8330IntermStk_00061 Amount Added: 25.00 Units: uL

Report Date: 26-Mar-2020 15:45:42 Chrom Revision: 2.3 11-Mar-2020 18:53:20

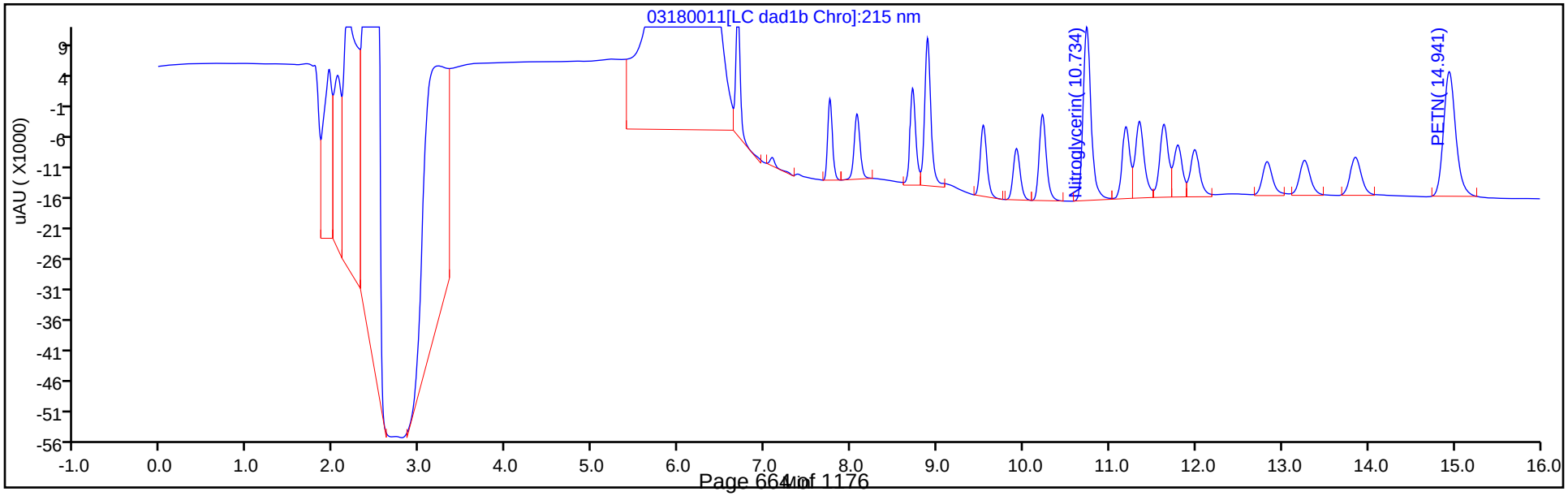
Eurofins TestAmerica, Denver

Data File:	\\chromna\denver\chromdata\chhplc_x\20200318-90159.b\03180011.d				
Injection Date:	18-Mar-2020 13:07:42	Instrument ID:	CHHPLC_X3	Operator ID:	CB
Lims ID:	IC MAIN L5			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

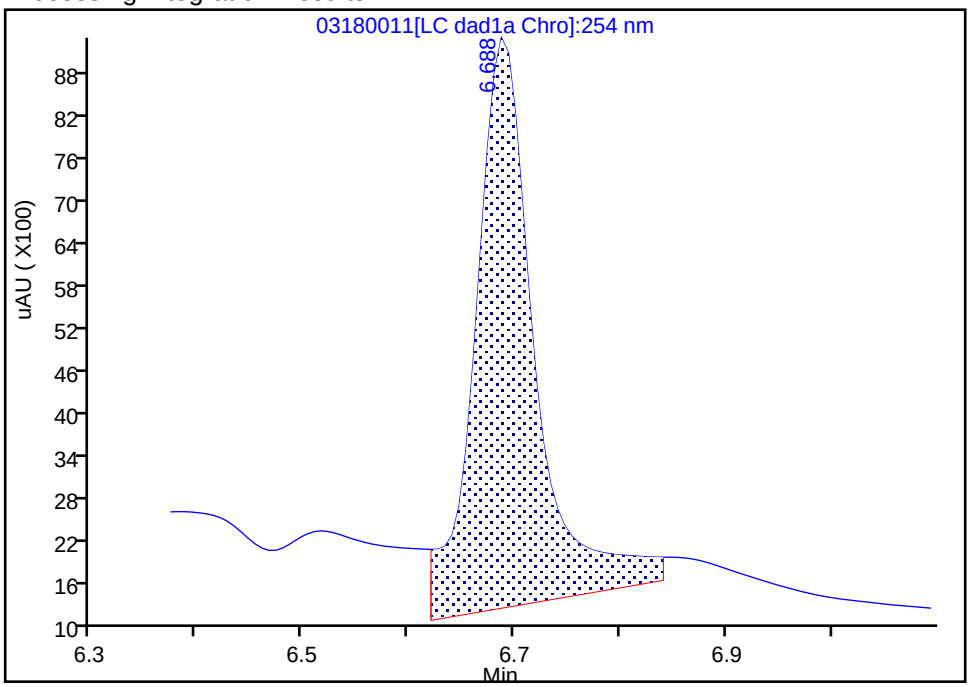
Data File:	\\chromna\denver\chromdata\chhplc_x\20200318-90159.b\03180011.d				
Injection Date:	18-Mar-2020 13:07:42	Instrument ID:	CHHPLC_X3		
Lims ID:	IC MAIN L5				
Client ID:					
Operator ID:	CB	ALS Bottle#:	11	Worklist Smp#:	11
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

3 HMX, CAS: 2691-41-0

Signal: 1

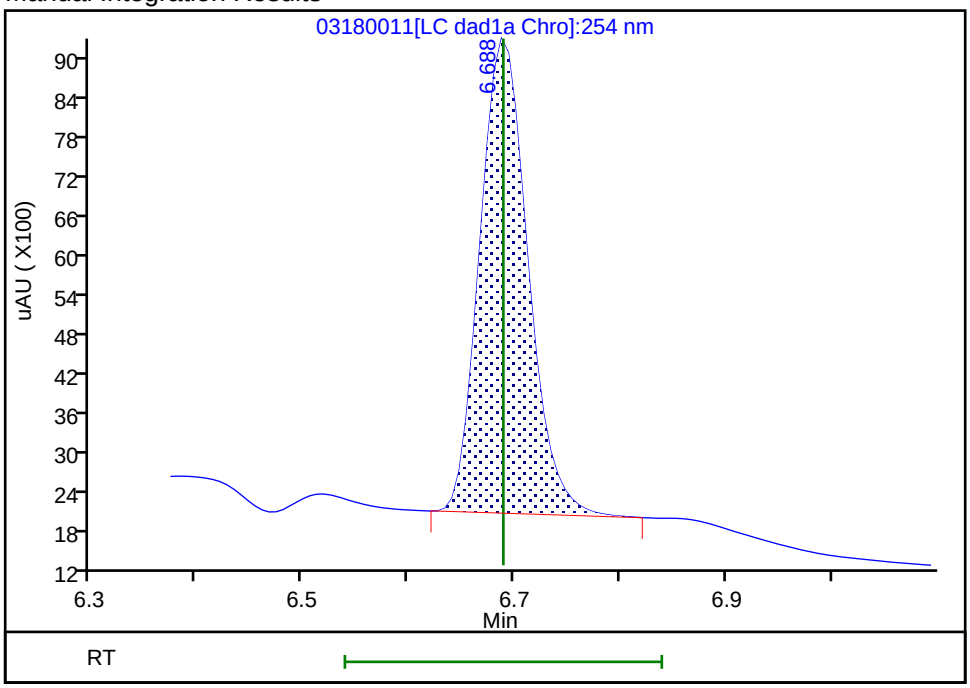
Processing Integration Results

RT: 6.69
Area: 31475
Amount: 0.164968
Amount Units: ug/mL



Manual Integration Results

RT: 6.69
Area: 22752
Amount: 0.264675
Amount Units: ug/mL



Reviewer: beckerc, 19-Mar-2020 08:43:23

Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180012.D
Lims ID: IC MAIN L4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 18-Mar-2020 13:30:35 ALS Bottle#: 12 Worklist Smp#: 12
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC MAIN L4
Misc. Info.: 280-0090150-012
Operator ID: CB Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub9

Method: \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 26-Mar-2020 15:45:43 Calib Date: 18-Mar-2020 14:39:27
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180015.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX0308

First Level Reviewer: beckerc Date: 19-Mar-2020 08:43:47

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 HMX	1	6.689	6.689	0.000	9080	0.1000	0.1056	M
7 RDX	1	7.749	7.749	0.000	11701	0.1000	0.1003	
8 2,4,6-Trinitrophenol	1	8.076	8.076	0.000	8647	0.1000	0.1016	
$ 9 1,2-Dinitrobenzene	1	8.709	8.709	0.000	14127	0.1000	0.1022	
10 1,3,5-Trinitrobenzene	1	8.883	8.883	0.000	23730	0.1002	0.1030	
11 1,3-Dinitrobenzene	1	9.529	9.529	0.000	31897	0.1002	0.1040	
12 Nitrobenzene	1	9.916	9.916	0.000	20859	0.1004	0.1041	
14 Tetryl	1	10.216	10.216	0.000	18527	0.1002	0.1047	
15 Nitroglycerin	2	10.729	10.729	0.000	71269	1.00	1.05	
16 2,4,6-Trinitrotoluene	1	11.183	11.183	0.000	21830	0.1004	0.1070	
17 4-Amino-2,6-dinitrotoluene	1	11.336	11.336	0.000	17293	0.1001	0.1035	
18 2-Amino-4,6-dinitrotoluene	1	11.623	11.623	0.000	21043	0.1004	0.1038	
19 2,6-Dinitrotoluene	1	11.783	11.783	0.000	15921	0.1004	0.1065	
20 2,4-Dinitrotoluene	1	11.983	11.983	0.000	31802	0.1004	0.1048	
21 o-Nitrotoluene	1	12.823	12.823	0.000	13733	0.1000	0.1017	
22 p-Nitrotoluene	1	13.256	13.256	0.000	11811	0.1002	0.1045	
23 m-Nitrotoluene	1	13.849	13.849	0.000	14838	0.1001	0.1037	
24 PETN	2	14.936	14.936	0.000	78947	1.00	1.00	

QC Flag Legend

Review Flags
M - Manually Integrated

Reagents:

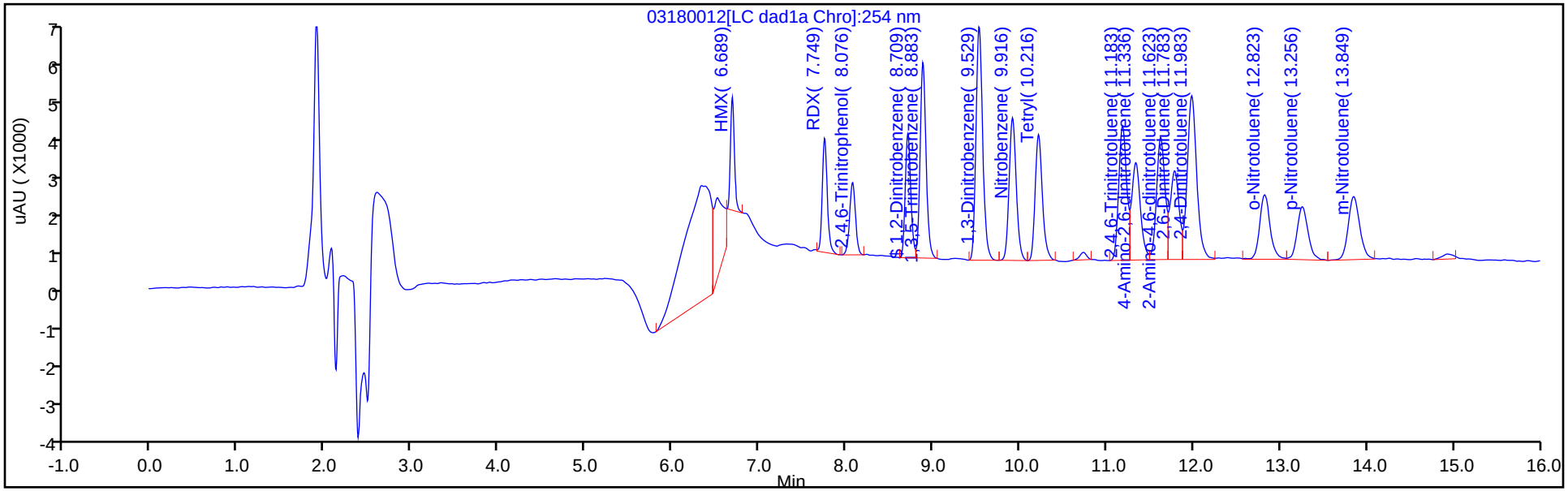
8330IntermStk_00061 Amount Added: 10.00 Units: uL

Report Date: 26-Mar-2020 15:45:43 Chrom Revision: 2.3 11-Mar-2020 18:53:20

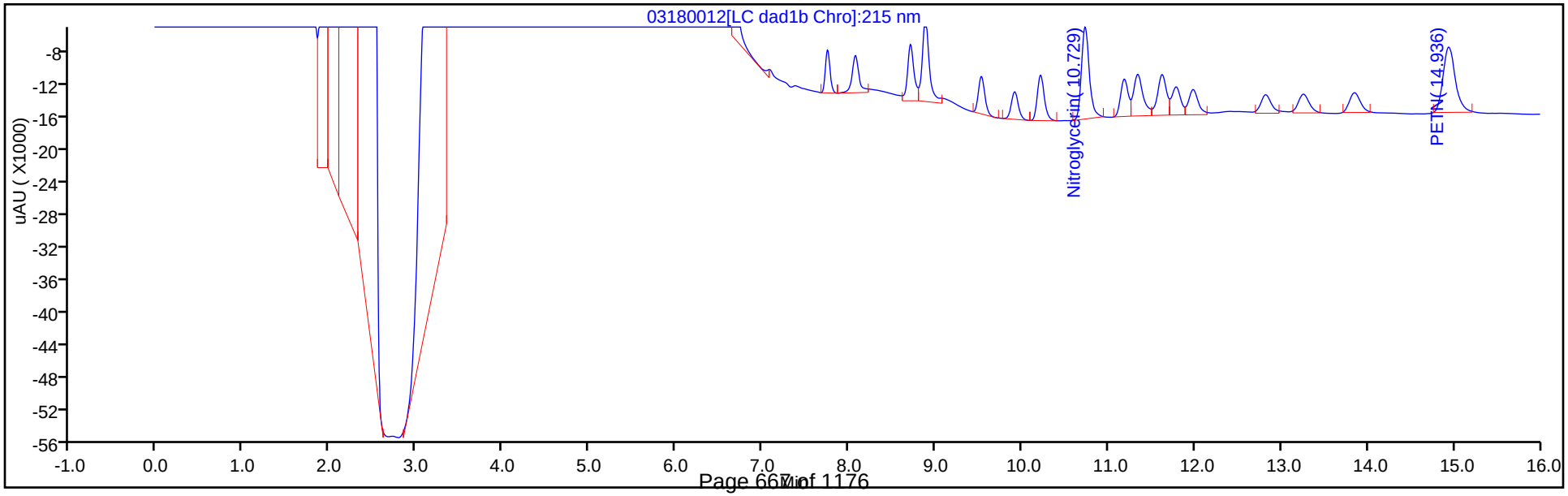
Eurofins TestAmerica, Denver

Data File:	\\chromna\denver\chromdata\chhplc_x\20200318-90159.b\03180012.d				
Injection Date:	18-Mar-2020 13:30:35	Instrument ID:	CHHPLC_X3	Operator ID:	CB
Lims ID:	IC MAIN L4			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

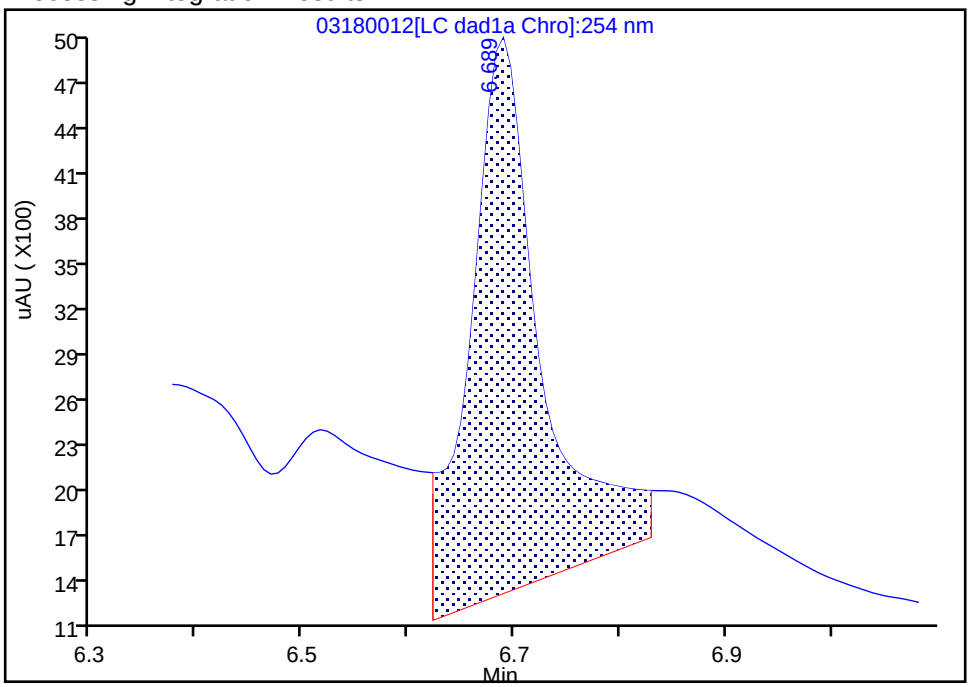
Data File:	\\chromna\denver\chromdata\chhplc_x\20200318-90159.b\03180012.d				
Injection Date:	18-Mar-2020 13:30:35	Instrument ID:	CHHPLC_X3		
Lims ID:	IC MAIN L4				
Client ID:					
Operator ID:	CB	ALS Bottle#:	12	Worklist Smp#:	12
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

3 HMX, CAS: 2691-41-0

Signal: 1

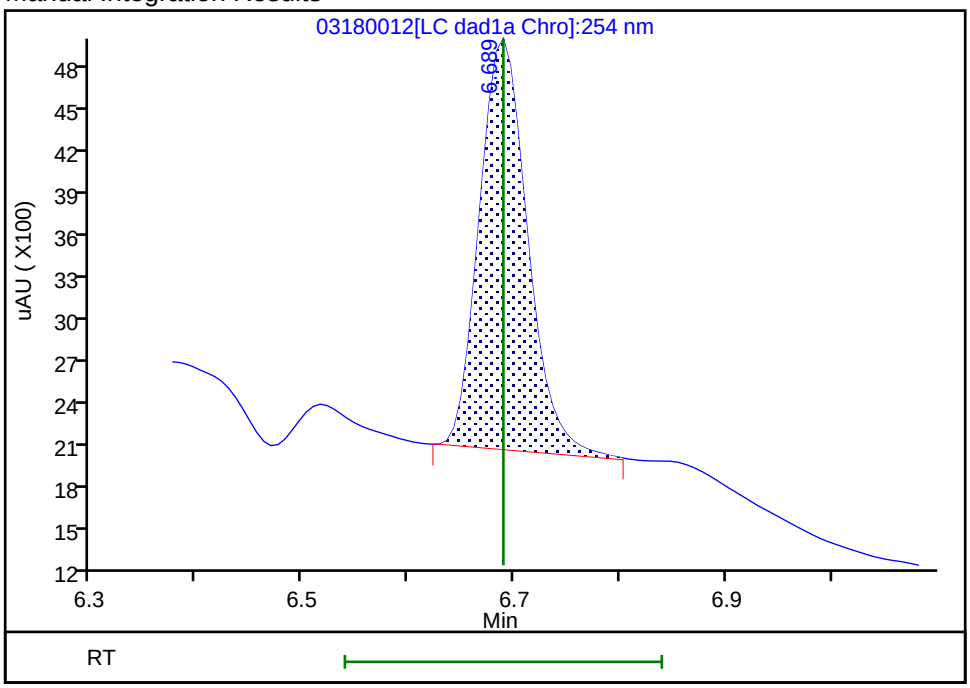
Processing Integration Results

RT: 6.69
Area: 16912
Amount: 0.090478
Amount Units: ug/mL



Manual Integration Results

RT: 6.69
Area: 9080
Amount: 0.105628
Amount Units: ug/mL



Reviewer: beckerc, 19-Mar-2020 08:43:42

Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180013.D
Lims ID: IC MAIN L3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 18-Mar-2020 13:53:37 ALS Bottle#: 13 Worklist Smp#: 13
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC MAIN L3
Misc. Info.: 280-0090150-013
Operator ID: CB Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub9

Method: \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 26-Mar-2020 15:45:44 Calib Date: 18-Mar-2020 14:39:27
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180015.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX0308

First Level Reviewer: beckerc Date: 19-Mar-2020 08:44:05

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 HMX	1	6.687	6.689	-0.002	4323	0.0500	0.0503	M
7 RDX	1	7.753	7.749	0.004	6070	0.0500	0.0521	
8 2,4,6-Trinitrophenol	1	8.080	8.076	0.004	4305	0.0500	0.0506	
$ 9 1,2-Dinitrobenzene	1	8.713	8.709	0.004	7239	0.0500	0.0524	
10 1,3,5-Trinitrobenzene	1	8.887	8.883	0.004	11986	0.0501	0.0520	
11 1,3-Dinitrobenzene	1	9.533	9.529	0.004	16146	0.0501	0.0526	
12 Nitrobenzene	1	9.920	9.916	0.004	10485	0.0502	0.0523	
14 Tetryl	1	10.220	10.216	0.004	9136	0.0501	0.0516	
15 Nitroglycerin	2	10.733	10.729	0.004	33491	0.5000	0.4915	
16 2,4,6-Trinitrotoluene	1	11.186	11.183	0.003	10774	0.0502	0.0528	
17 4-Amino-2,6-dinitrotoluene	1	11.340	11.336	0.004	8490	0.0501	0.0541	
18 2-Amino-4,6-dinitrotoluene	1	11.633	11.623	0.010	10503	0.0502	0.0518	
19 2,6-Dinitrotoluene	1	11.793	11.783	0.010	7882	0.0502	0.0527	
20 2,4-Dinitrotoluene	1	11.986	11.983	0.003	15741	0.0502	0.0519	
21 o-Nitrotoluene	1	12.833	12.823	0.010	7553	0.0500	0.0559	
22 p-Nitrotoluene	1	13.260	13.256	0.004	6416	0.0501	0.0568	
23 m-Nitrotoluene	1	13.853	13.849	0.004	7758	0.0501	0.0542	
24 PETN	2	14.946	14.936	0.010	37407	0.5000	0.4759	

QC Flag Legend

Review Flags
M - Manually Integrated

Reagents:

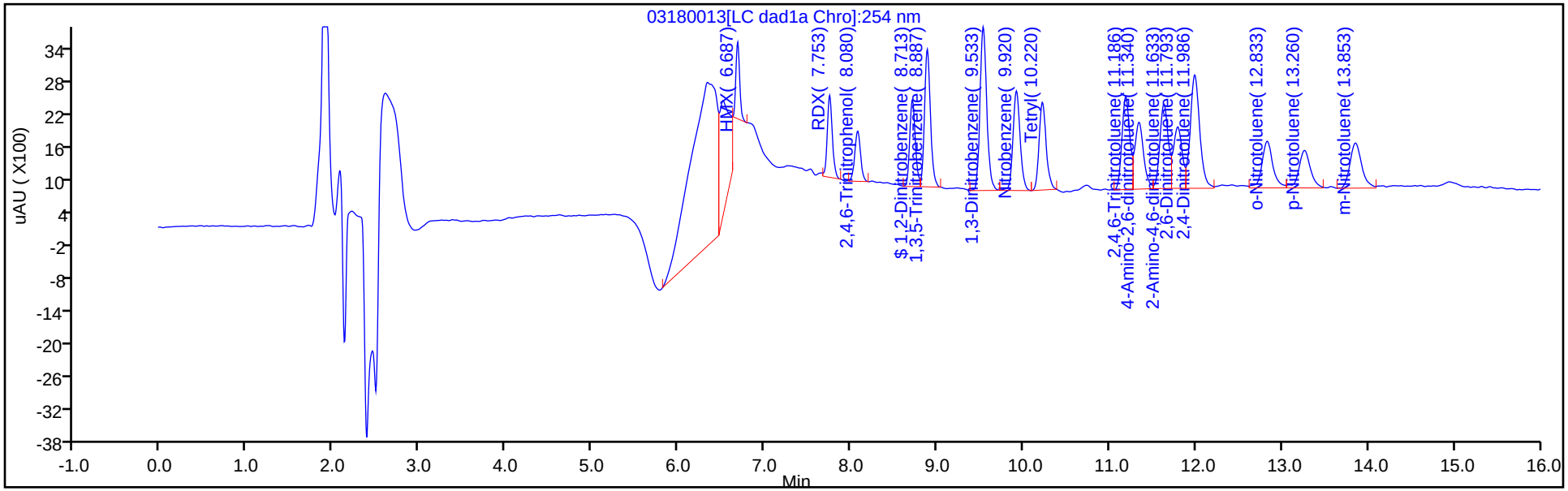
8330IntermStk_00061 Amount Added: 5.00 Units: uL

Report Date: 26-Mar-2020 15:45:44 Chrom Revision: 2.3 11-Mar-2020 18:53:20

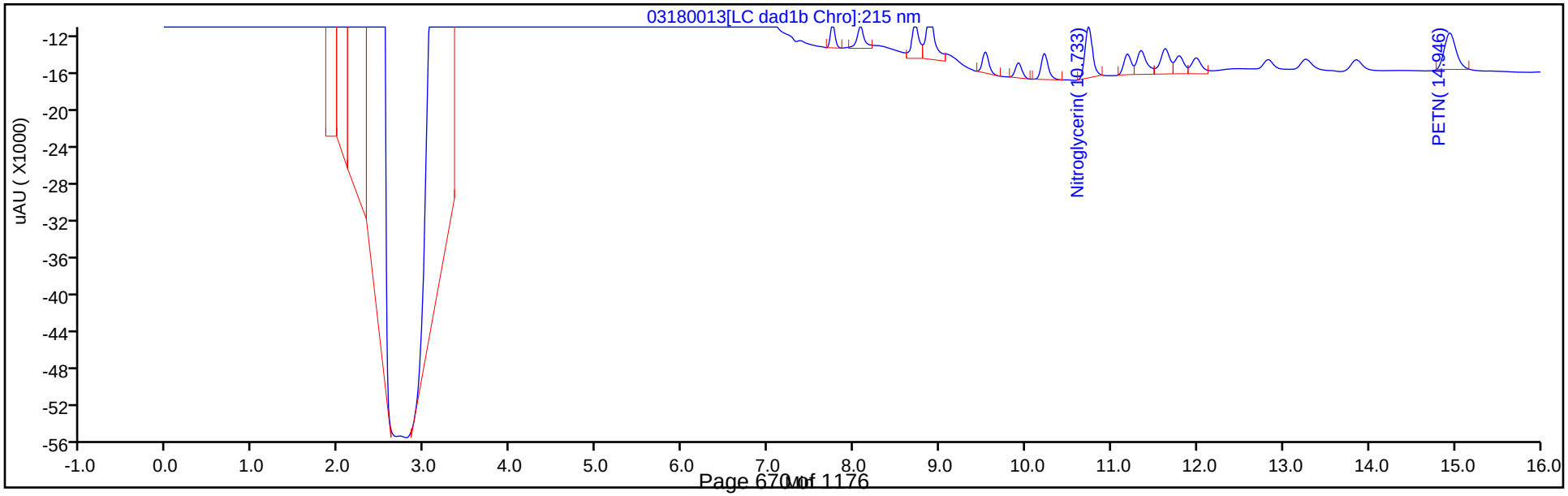
Eurofins TestAmerica, Denver

Data File:	\\chromna\denver\chromdata\chhplc_x\20200318-90159.b\03180013.d				
Injection Date:	18-Mar-2020 13:53:37	Instrument ID:	CHHPLC_X3	Operator ID:	CB
Lims ID:	IC MAIN L3			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



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

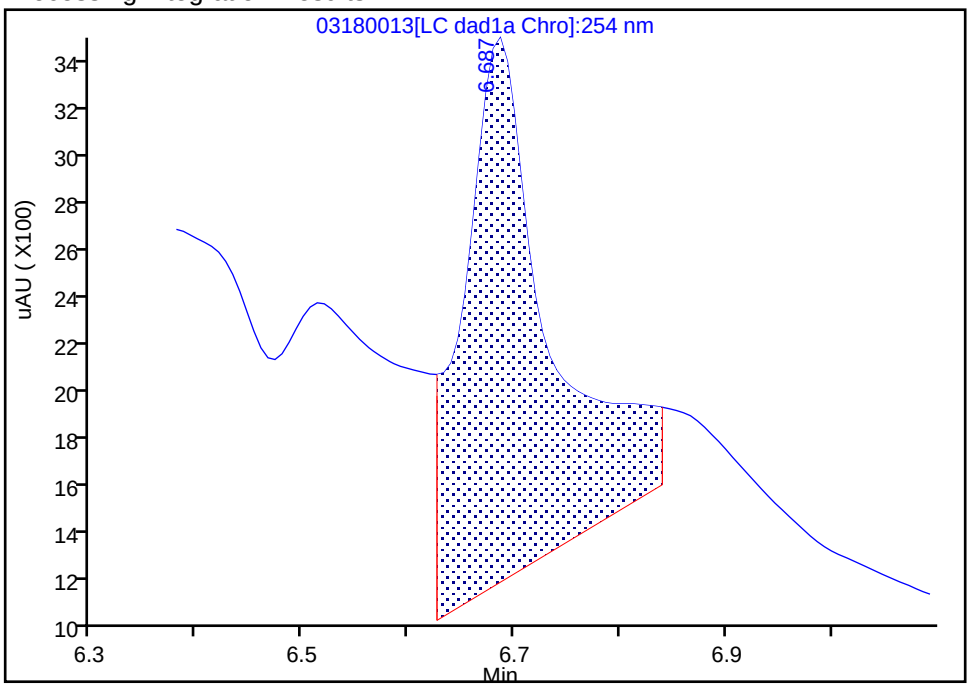
Data File:	\\chromna\denver\chromdata\chhplc_x\20200318-90159.b\03180013.d				
Injection Date:	18-Mar-2020 13:53:37	Instrument ID:	CHHPLC_X3		
Lims ID:	IC MAIN L3				
Client ID:					
Operator ID:	CB	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

3 HMX, CAS: 2691-41-0

Signal: 1

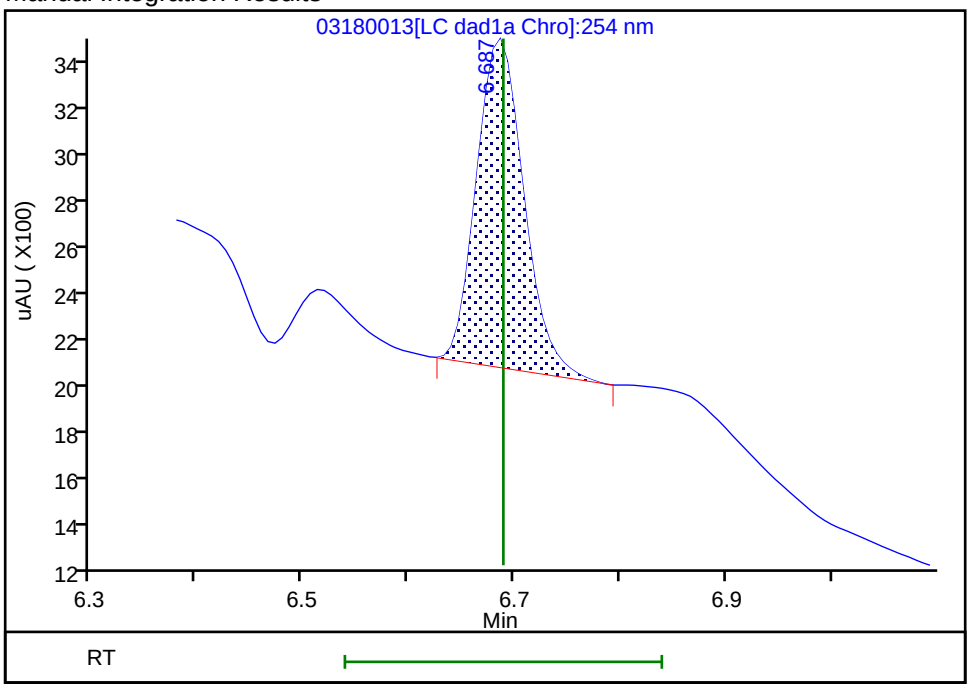
Processing Integration Results

RT: 6.69
Area: 12509
Amount: 0.070190
Amount Units: ug/mL



Manual Integration Results

RT: 6.69
Area: 4323
Amount: 0.050290
Amount Units: ug/mL



Reviewer: beckerc, 19-Mar-2020 08:44:00

Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180014.D
Lims ID: IC MAIN L2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 18-Mar-2020 14:16:32 ALS Bottle#: 14 Worklist Smp#: 14
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC MAIN L2
Misc. Info.: 280-0090150-014
Operator ID: CB Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub9

Method: \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 26-Mar-2020 15:45:44 Calib Date: 18-Mar-2020 14:39:27
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180015.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX0308

First Level Reviewer: beckerc Date: 19-Mar-2020 08:44:44

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 HMX	1	6.689	6.689	0.000	1536	0.0250	0.0179	M
7 RDX	1	7.755	7.749	0.006	2817	0.0250	0.0242	
8 2,4,6-Trinitrophenol	1	8.082	8.076	0.006	1774	0.0250	0.0208	
$ 9 1,2-Dinitrobenzene	1	8.709	8.709	0.000	2996	0.0250	0.0217	
10 1,3,5-Trinitrobenzene	1	8.889	8.883	0.006	4845	0.0251	0.0210	
11 1,3-Dinitrobenzene	1	9.535	9.529	0.006	6270	0.0251	0.0204	
12 Nitrobenzene	1	9.922	9.916	0.006	4155	0.0251	0.0207	
14 Tetryl	1	10.215	10.216	-0.001	3492	0.0251	0.0197	
15 Nitroglycerin	2	10.735	10.729	0.006	13701	0.2500	0.2011	
16 2,4,6-Trinitrotoluene	1	11.189	11.183	0.006	4307	0.0251	0.0211	
17 4-Amino-2,6-dinitrotoluene	1	11.342	11.336	0.006	3443	0.0250	0.0258	
18 2-Amino-4,6-dinitrotoluene	1	11.629	11.623	0.006	4046	0.0251	0.0199	M
19 2,6-Dinitrotoluene	1	11.789	11.783	0.006	2987	0.0251	0.0200	M
20 2,4-Dinitrotoluene	1	11.989	11.983	0.006	6274	0.0251	0.0207	
21 o-Nitrotoluene	1	12.822	12.823	-0.001	3068	0.0250	0.0227	
22 p-Nitrotoluene	1	13.269	13.256	0.013	2509	0.0251	0.0222	
23 m-Nitrotoluene	1	13.849	13.849	0.000	3129	0.0250	0.0219	
24 PETN	2	14.942	14.936	0.006	11624	0.2500	0.1479	

QC Flag Legend

Review Flags
M - Manually Integrated

Reagents:

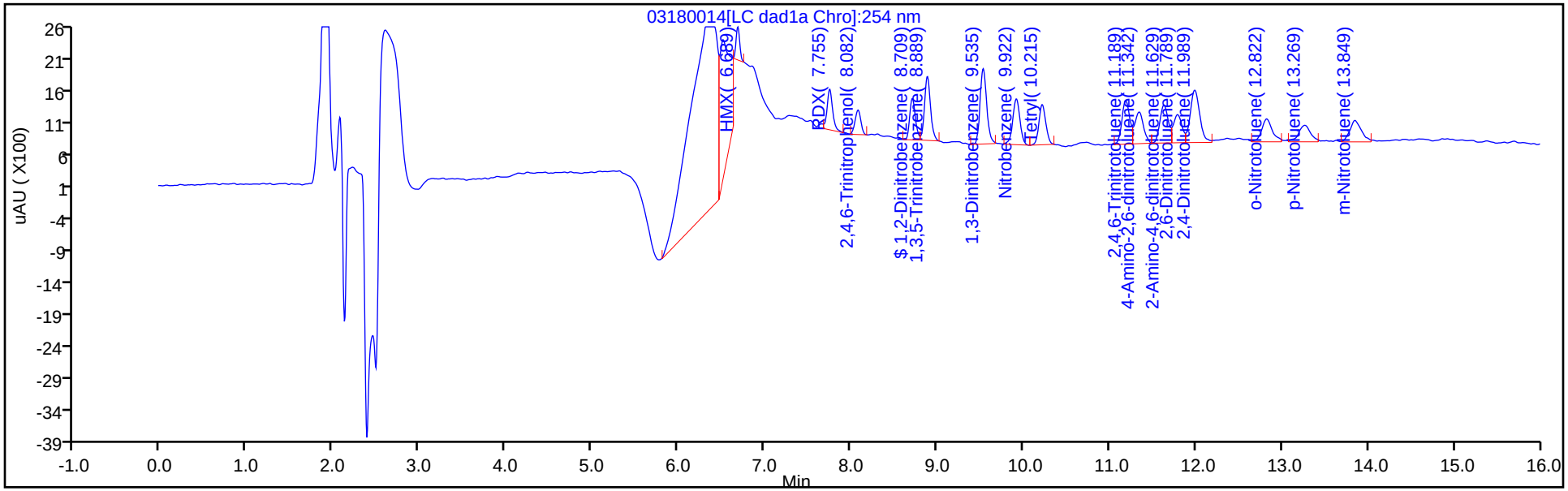
8330IntermStk_00061 Amount Added: 2.50 Units: uL

Report Date: 26-Mar-2020 15:45:45 Chrom Revision: 2.3 11-Mar-2020 18:53:20

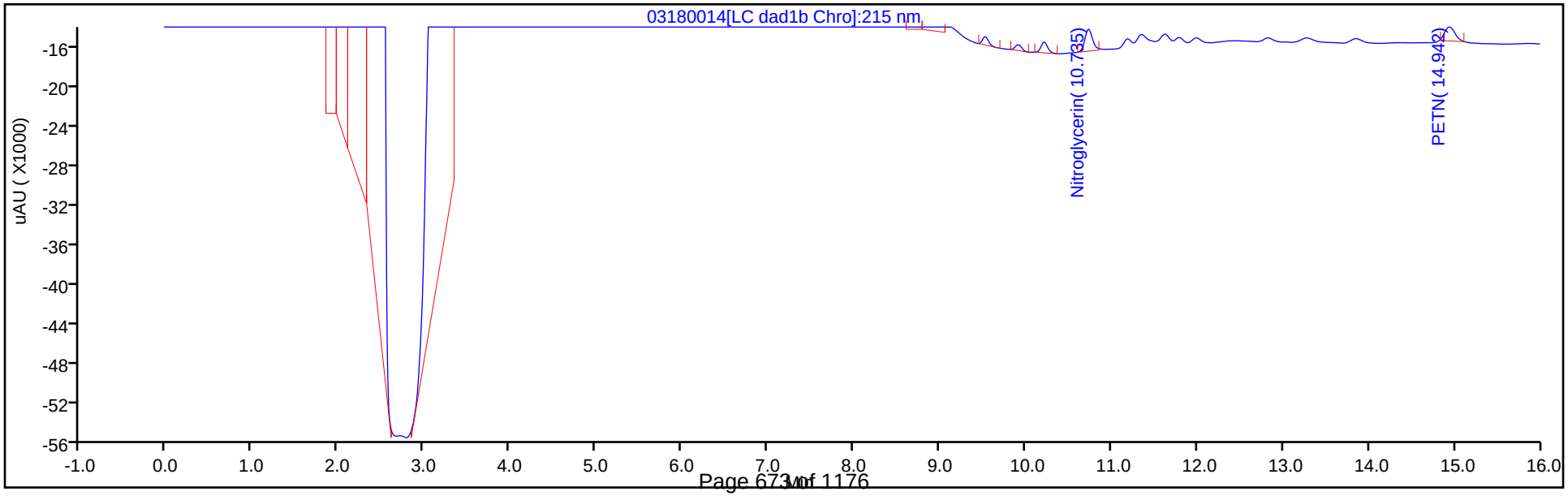
Eurofins TestAmerica, Denver

Data File:	\\chromna\denver\chromdata\chhplc_x\20200318-90159.b\03180014.d				
Injection Date:	18-Mar-2020 14:16:32	Instrument ID:	CHHPLC_X3	Operator ID:	CB
Lims ID:	IC MAIN L2			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



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

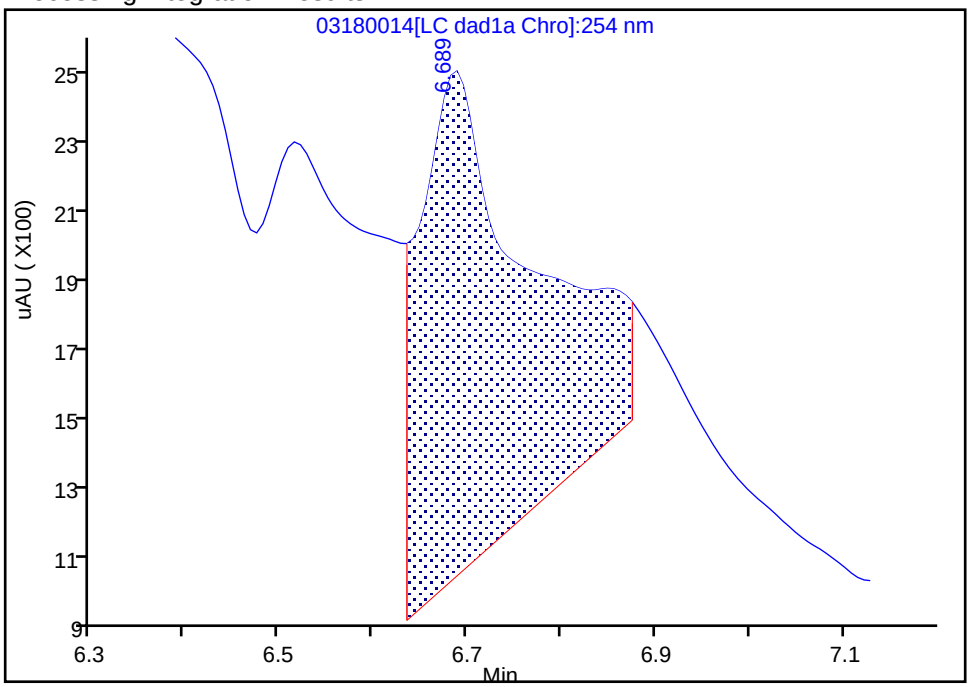
Data File:	\\chromna\denver\chromdata\chhplc_x\20200318-90159.b\03180014.d				
Injection Date:	18-Mar-2020 14:16:32	Instrument ID:	CHHPLC_X3		
Lims ID:	IC MAIN L2				
Client ID:					
Operator ID:	CB	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

3 HMX, CAS: 2691-41-0

Signal: 1

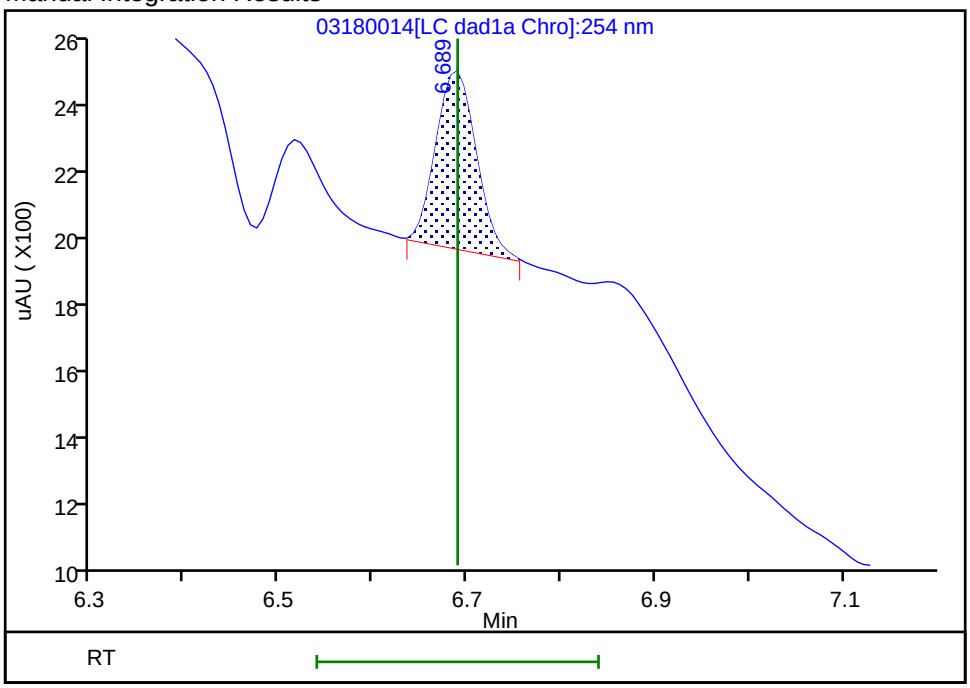
Processing Integration Results

RT: 6.69
Area: 11606
Amount: 0.072526
Amount Units: ug/mL



Manual Integration Results

RT: 6.69
Area: 1536
Amount: 0.017868
Amount Units: ug/mL



Reviewer: beckerc, 19-Mar-2020 08:44:20
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

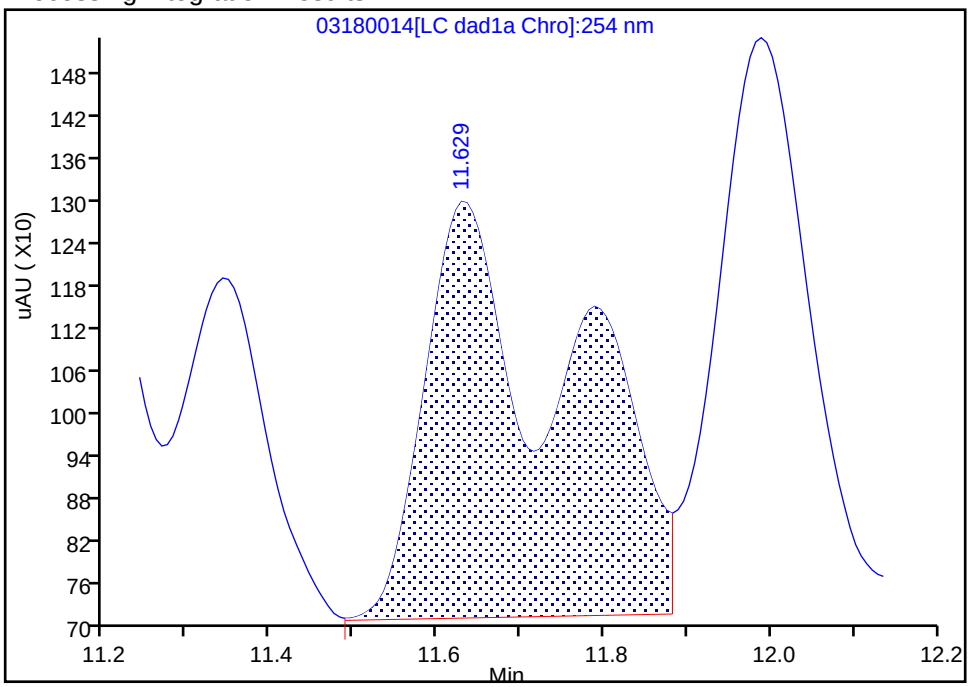
Data File:	\\chromna\denver\chromdata\chhplc_x\20200318-90159.b\03180014.d				
Injection Date:	18-Mar-2020 14:16:32	Instrument ID:	CHHPLC_X3		
Lims ID:	IC MAIN L2				
Client ID:					
Operator ID:	CB	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

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

Signal: 1

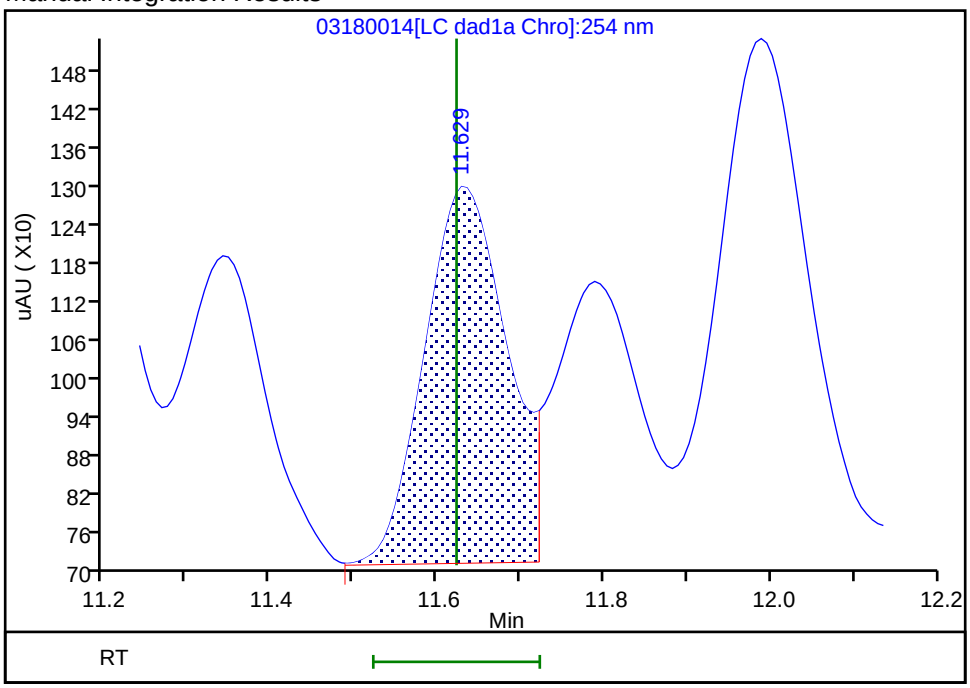
Processing Integration Results

RT: 11.63
Area: 7030
Amount: 0.030654
Amount Units: ug/mL



Manual Integration Results

RT: 11.63
Area: 4046
Amount: 0.019949
Amount Units: ug/mL



Reviewer: beckerc, 19-Mar-2020 08:44:36
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180015.D
Lims ID: IC MAIN L1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 18-Mar-2020 14:39:27 ALS Bottle#: 15 Worklist Smp#: 15
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC MAIN L1
Misc. Info.: 280-0090150-015
Operator ID: CB Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub9

Method: \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 26-Mar-2020 15:45:45 Calib Date: 18-Mar-2020 14:39:27
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180015.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX0308

First Level Reviewer: beckerc Date: 19-Mar-2020 08:46:42

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 HMX	1		6.689			ND	ND	MU
7 RDX	1		7.749			ND	ND	MU
8 2,4,6-Trinitrophenol	1	8.082	8.076	0.006	1082	0.0125	0.0127	M
$ 9 1,2-Dinitrobenzene	1	8.715	8.709	0.006	1531	0.0125	0.0111	
10 1,3,5-Trinitrobenzene	1	8.888	8.883	0.005	2405	0.0125	0.0104	
11 1,3-Dinitrobenzene	1	9.535	9.529	0.006	3191	0.0125	0.0104	
12 Nitrobenzene	1	9.915	9.916	-0.001	2176	0.0126	0.0109	
14 Tetryl	1	10.221	10.216	0.005	1664	0.0125	0.009399	
15 Nitroglycerin	2	10.735	10.729	0.006	6790	0.1250	0.0997	
16 2,4,6-Trinitrotoluene	1	11.195	11.183	0.012	1807	0.0126	0.008856	
17 4-Amino-2,6-dinitrotoluene	1	11.341	11.336	0.005	981	0.0125	0.0120	
18 2-Amino-4,6-dinitrotoluene	1	11.635	11.623	0.012	2123	0.0126	0.0105	M
19 2,6-Dinitrotoluene	1	11.795	11.783	0.012	1508	0.0126	0.0101	M
20 2,4-Dinitrotoluene	1	11.995	11.983	0.012	3142	0.0126	0.0103	
21 o-Nitrotoluene	1	12.828	12.823	0.005	1615	0.0125	0.0120	
22 p-Nitrotoluene	1	13.268	13.256	0.012	1080	0.0125	0.009557	
23 m-Nitrotoluene	1	13.855	13.849	0.006	1403	0.0125	0.009809	
24 PETN	2		14.936			ND	ND	MU

QC Flag Legend

Processing Flags
ND - Not Detected or Marked ND
Review Flags
M - Manually Integrated
U - Marked Undetected

Reagents:

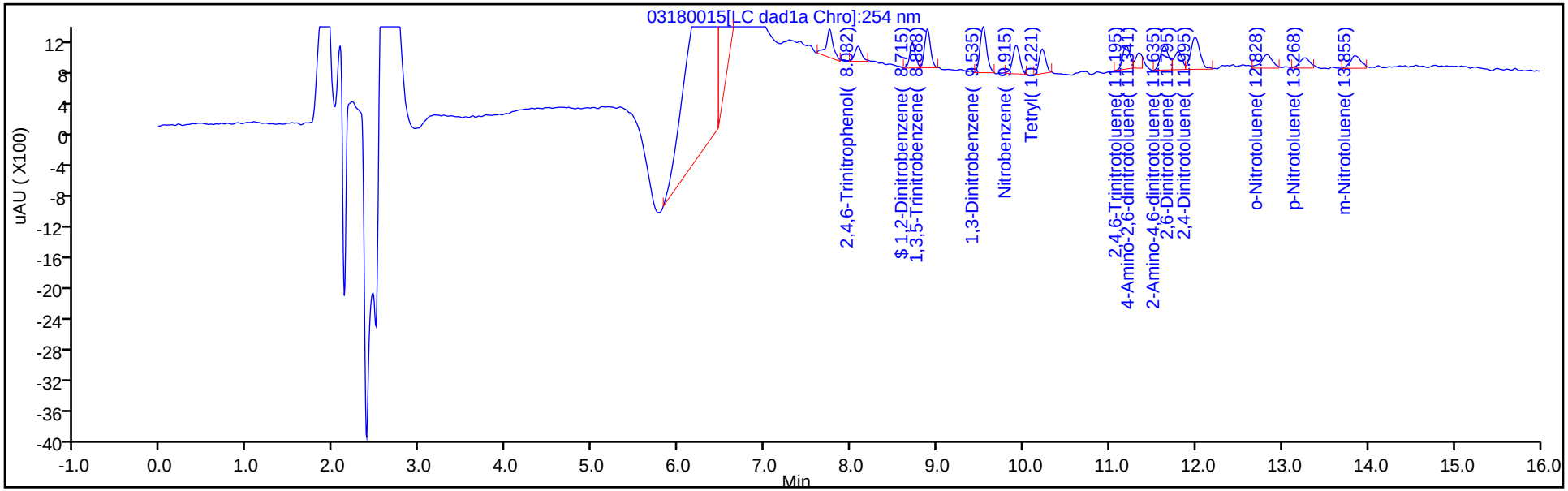
8330IntermStk_00061 Amount Added: 1.25 Units: uL

Report Date: 26-Mar-2020 15:45:46 Chrom Revision: 2.3 11-Mar-2020 18:53:20

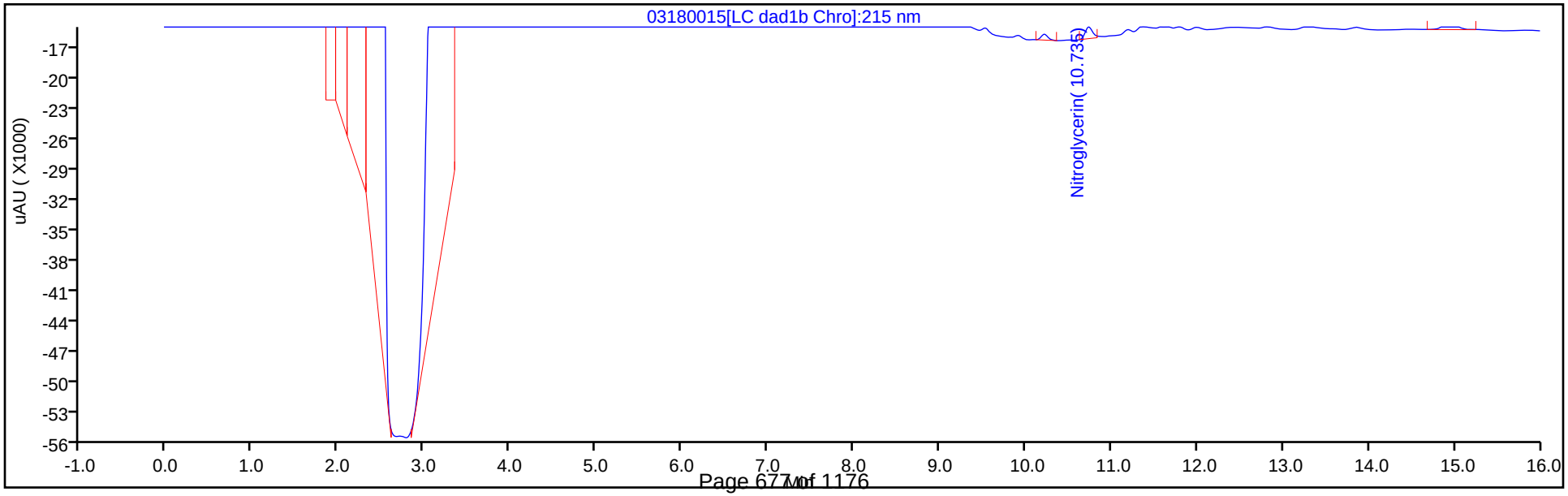
Eurofins TestAmerica, Denver

Data File:	\\chromna\denver\chromdata\chhplc_x\20200318-90159.b\03180015.d				
Injection Date:	18-Mar-2020 14:39:27	Instrument ID:	CHHPLC_X3	Operator ID:	CB
Lims ID:	IC MAIN L1			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



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

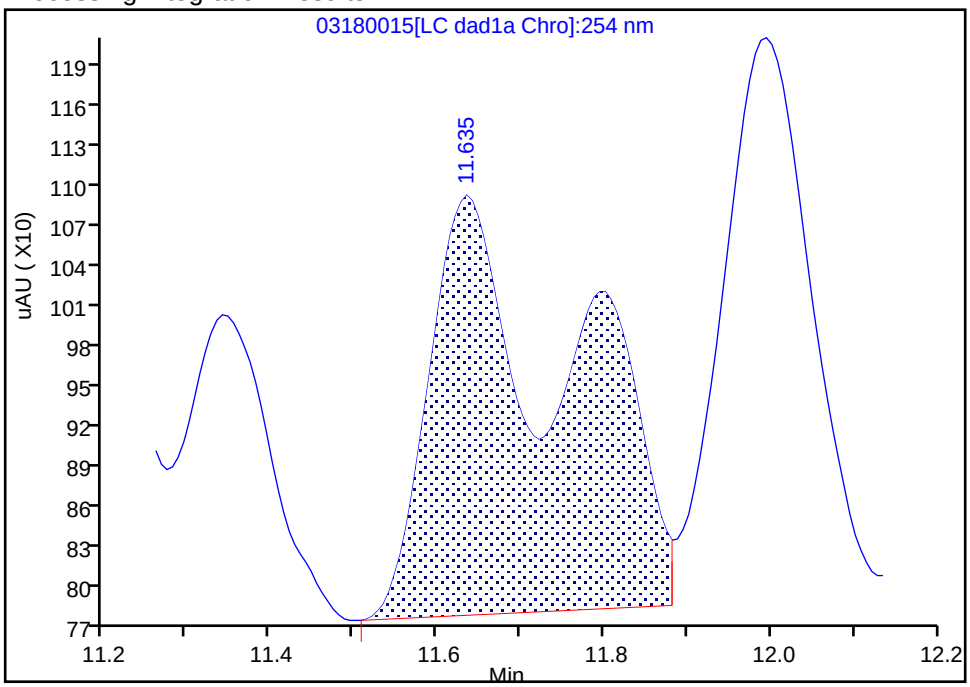
Data File:	\\chromna\denver\chromdata\chhplc_x\20200318-90159.b\03180015.d				
Injection Date:	18-Mar-2020 14:39:27	Instrument ID:	CHHPLC_X3		
Lims ID:	IC MAIN L1				
Client ID:					
Operator ID:	CB	ALS Bottle#:	15	Worklist Smp#:	15
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

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

Signal: 1

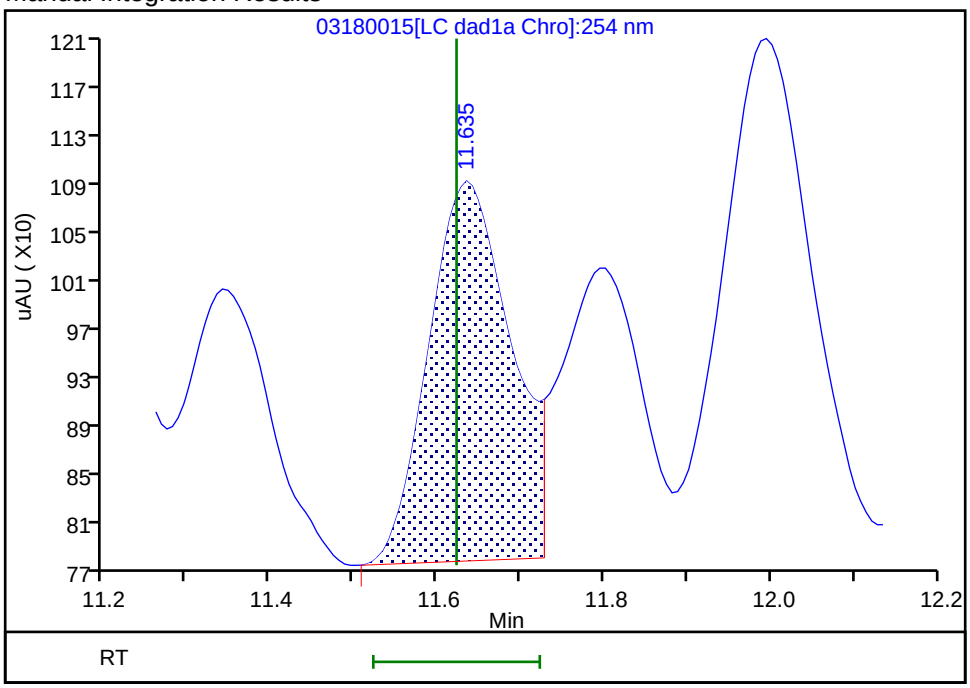
Processing Integration Results

RT: 11.63
Area: 3626
Amount: 0.016777
Amount Units: ug/mL



Manual Integration Results

RT: 11.63
Area: 2123
Amount: 0.010468
Amount Units: ug/mL



Reviewer: beckerc, 19-Mar-2020 08:46:18
Audit Action: Split an Integrated Peak Audit Reason: Baseline

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Lab Sample ID: ICV 280-494886/16 Calibration Date: 05/14/2020 21:31

Instrument ID: CHHPLC_G2_LUNA Calib Start Date: 05/14/2020 16:16

GC Column: Luna-phenylhex ID: 4.60(mm) Calib End Date: 05/14/2020 20:56

Lab File ID: 05140016.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Picric acid	Ave	193810	184585		381	400	-4.8	15.0
HMX	Lin2		178815		374	400	-6.5	15.0
RDX	Ave	244360	211628		346	400	-13.4	15.0
Nitrobenzene	Ave	439227	438053		399	400	-0.3	15.0
1,3-Dinitrobenzene	Ave	674189	636963		378	400	-5.5	15.0
Nitroglycerin	Ave	126803	122258		3860	4000	-3.6	15.0
2-Nitrotoluene	Ave	272965	263495		386	400	-3.5	15.0
4-Nitrotoluene	Ave	240881	229805		382	400	-4.6	15.0
4-Amino-2,6-dinitrotoluene	Ave	345235	318460		369	400	-7.8	15.0
3-Nitrotoluene	Ave	298327	286883		385	400	-3.8	15.0
2-Amino-4,6-dinitrotoluene	Ave	465211	446188		384	400	-4.1	15.0
1,3,5-Trinitrobenzene	Ave	472451	495920		420	400	5.0	15.0
2,6-Dinitrotoluene	Lin2		302720		403	400	0.8	15.0
2,4-Dinitrotoluene	Ave	640113	590383		369	400	-7.8	15.0
Tetryl	Ave	368678	347680		377	400	-5.7	15.0
2,4,6-Trinitrotoluene	Lin1		390228		381	400	-4.8	15.0
PETN	Lin1		124707		3650	4000	-8.8	15.0
1,2-Dinitrobenzene	Lin1		250760		355	400	-11.2	15.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Lab Sample ID: ICV 280-494886/16 Calibration Date: 05/14/2020 21:31

Instrument ID: CHHPLC_G2_LUNA Calib Start Date: 05/14/2020 16:16

GC Column: Luna-phenylhex ID: 4.60(mm) Calib End Date: 05/14/2020 20:56

Lab File ID: 05140016.D

Analyte	RT	RT WINDOW	
		FROM	TO
Picric acid	6.23	6.15	6.45
HMX	6.95	6.84	7.14
RDX	9.12	9.02	9.32
Nitrobenzene	12.05	11.96	12.26
1,3-Dinitrobenzene	15.50	15.40	15.70
Nitroglycerin	15.81	15.70	16.00
2-Nitrotoluene	16.49	16.38	16.68
4-Nitrotoluene	16.77	16.67	16.97
4-Amino-2,6-dinitrotoluene	17.10	17.00	17.30
3-Nitrotoluene	17.69	17.60	17.90
2-Amino-4,6-dinitrotoluene	17.99	17.90	18.20
1,3,5-Trinitrobenzene	18.83	18.74	19.04
2,6-Dinitrotoluene	19.75	19.66	19.96
2,4-Dinitrotoluene	20.24	20.14	20.44
Tetryl	23.51	23.40	23.70
2,4,6-Trinitrotoluene	24.61	24.50	24.80
PETN	25.25	25.13	25.43
1,2-Dinitrobenzene	12.99	12.89	13.19

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140016.D
Lims ID: ICV FULL
Client ID:
Sample Type: ICV
Inject. Date: 14-May-2020 21:31:26 ALS Bottle#: 16 Worklist Smp#: 16
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: ICV FULL
Misc. Info.: 280-0091518-016
Operator ID: CB Instrument ID: CHHPLC_G2_LUNA
Sublist:

Method: \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\G2_8330_Luna.m
Limit Group: GCSV - 8330
Last Update: 15-May-2020 12:00:59 Calib Date: 14-May-2020 20:56:30
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140015.D

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

First Level Reviewer: zhangji Date: 15-May-2020 11:55:09

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 2,6-diamino-4-nitrotoluene	1	4.307	4.366	-0.059	179307	0.4000	0.4177	M
2 2,4-diamino-6-nitrotoluene	1	4.840	4.880	-0.040	97723	0.4000	0.3877	M
5 2,4,6-Trinitrophenol	1	6.234	6.300	-0.066	73834	0.4000	0.3810	a
6 HMX	1	6.954	6.986	-0.032	71526	0.4000	0.3740	
8 RDX	1	9.120	9.173	-0.053	84651	0.4000	0.3464	
9 Nitrobenzene	1	12.053	12.106	-0.053	175221	0.4000	0.3989	
$ 10 1,2-Dinitrobenzene	1	12.987	13.040	-0.053	100304	0.4000	0.3552	
11 3,5-Dinitroaniline	1	14.827	14.886	-0.059	185478	0.4000	0.3767	
12 1,3-Dinitrobenzene	1	15.500	15.553	-0.053	254785	0.4000	0.3779	
13 Nitroglycerin	2	15.807	15.853	-0.046	489033	4.00	3.86	
14 o-Nitrotoluene	1	16.493	16.533	-0.040	105398	0.4000	0.3861	M
15 p-Nitrotoluene	1	16.767	16.820	-0.053	91922	0.4000	0.3816	M
16 4-Amino-2,6-dinitrotoluene	1	17.100	17.146	-0.046	127384	0.4000	0.3690	M
17 m-Nitrotoluene	1	17.693	17.753	-0.060	114753	0.4000	0.3847	M
18 2-Amino-4,6-dinitrotoluene	1	17.987	18.046	-0.059	178475	0.4000	0.3836	M
19 1,3,5-Trinitrobenzene	1	18.833	18.886	-0.053	198368	0.4000	0.4199	M
20 2,6-Dinitrotoluene	1	19.753	19.806	-0.053	121088	0.4000	0.4033	M
21 2,4-Dinitrotoluene	1	20.240	20.293	-0.053	236153	0.4000	0.3689	M
22 Tetryl	1	23.507	23.553	-0.046	139072	0.4000	0.3772	
23 2,4,6-Trinitrotoluene	1	24.607	24.653	-0.046	156091	0.4000	0.3808	
24 PETN	2	25.254	25.280	-0.026	498829	4.00	3.65	

QC Flag Legend

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

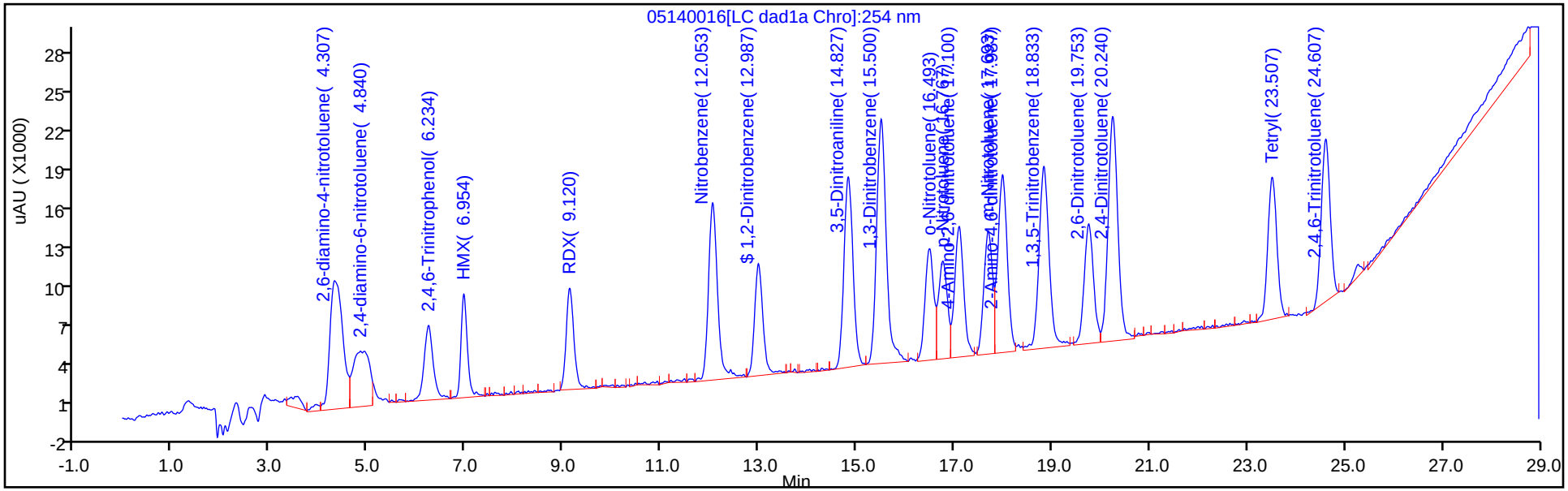
8330Surrogate_00114	Amount Added:	40.00	Units: uL
3,5-DNA LCS_00036	Amount Added:	40.00	Units: uL
8330 LCS_00098	Amount Added:	40.00	Units: uL
8330DiaminLCS_00038	Amount Added:	40.00	Units: uL

Report Date: 15-May-2020 12:01:01 Chrom Revision: 2.3 05-May-2020 17:48:18

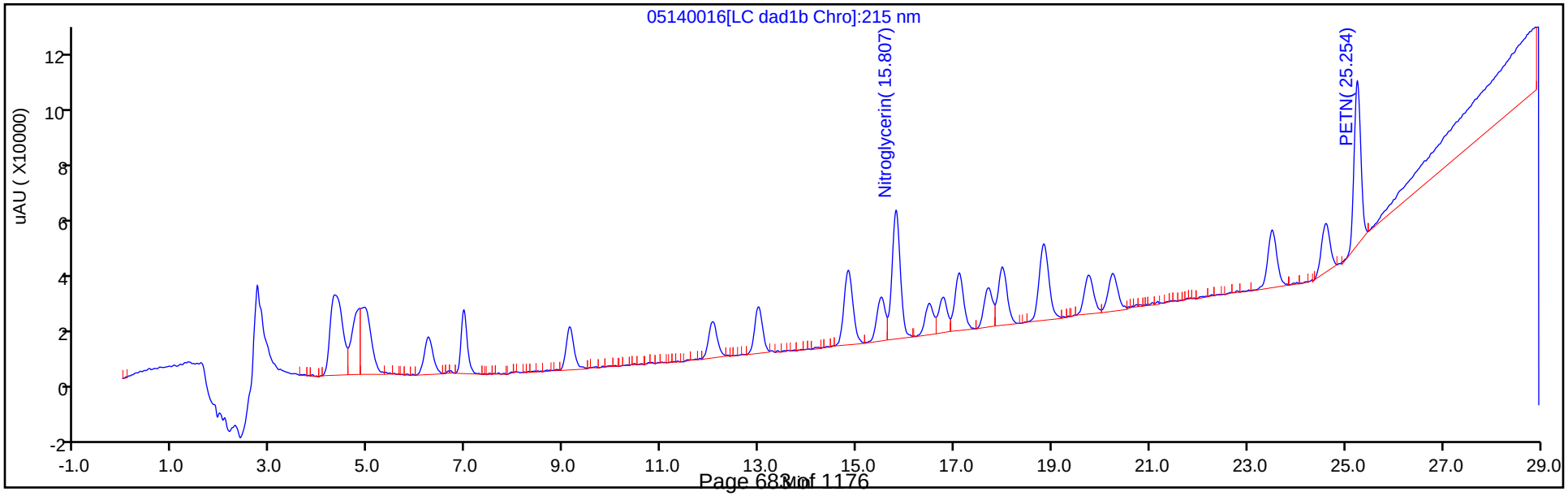
Eurofins TestAmerica, Denver

Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140016.d				
Injection Date:	14-May-2020 21:31:26	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	CB
Lims ID:	ICV FULL			Worklist Smp#:	16
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		

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



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



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

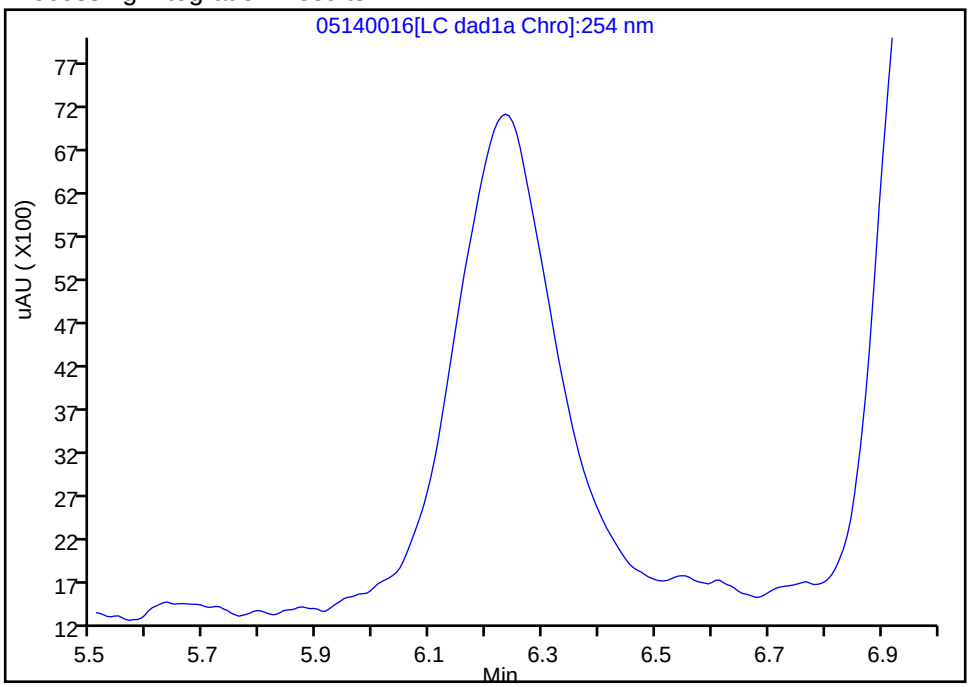
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140016.d				
Injection Date:	14-May-2020 21:31:26	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	ICV FULL				
Client ID:					
Operator ID:	CB	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

5 2,4,6-Trinitrophenol, CAS: 88-89-1

Signal: 1

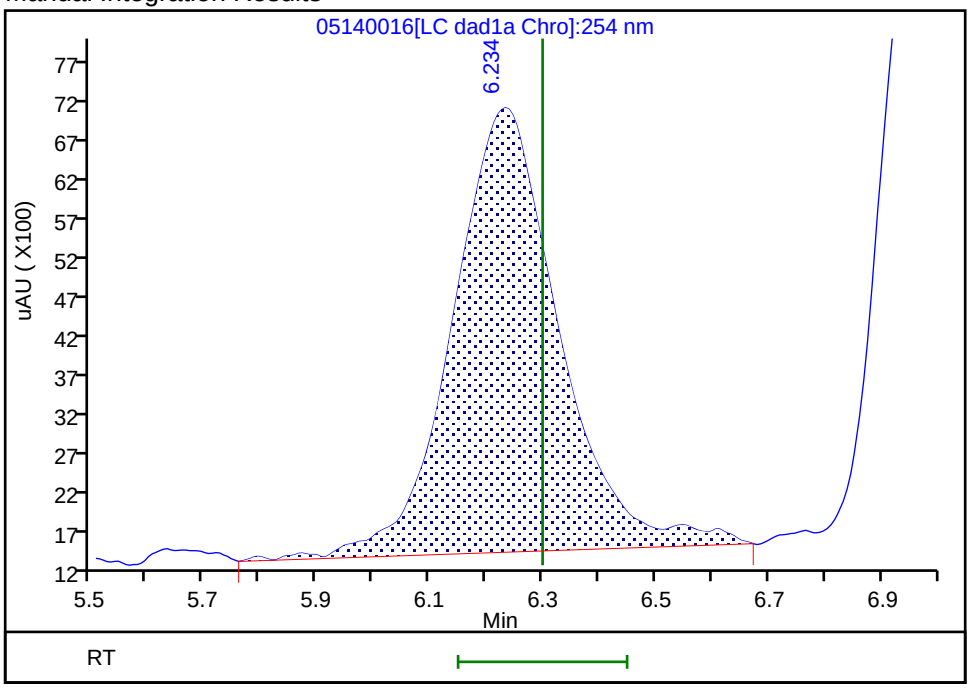
Not Detected
Expected RT: 6.30

Processing Integration Results



RT: 6.23
Area: 73834
Amount: 0.380960
Amount Units: ug/ml

Manual Integration Results



Reviewer: zhangji, 15-May-2020 11:14:55
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

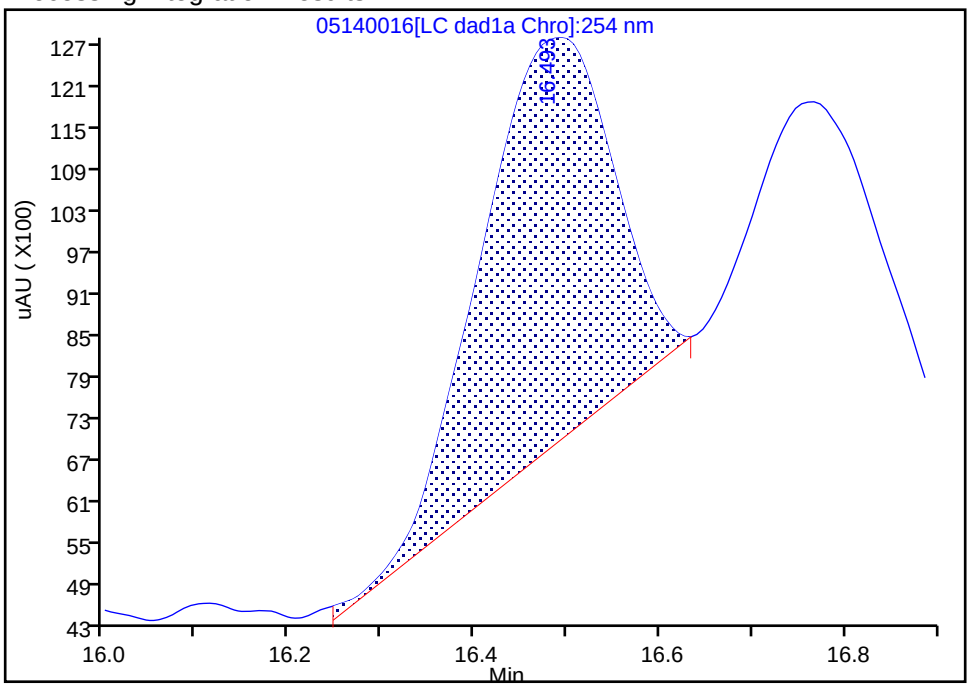
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140016.d				
Injection Date:	14-May-2020 21:31:26	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	ICV FULL				
Client ID:					
Operator ID:	CB	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

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

Signal: 1

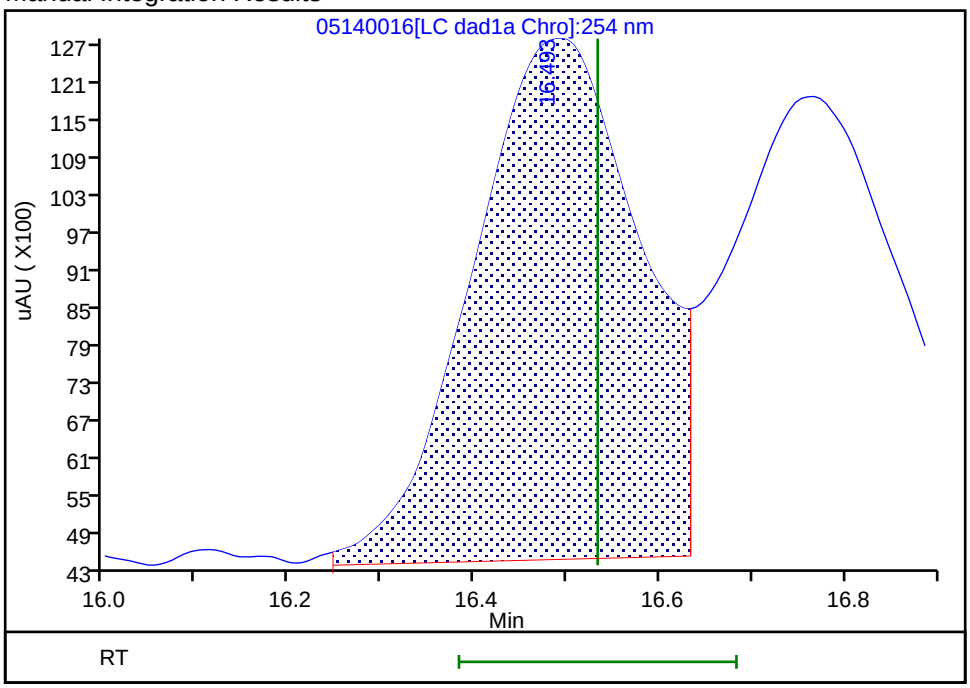
Processing Integration Results

RT: 16.49
Area: 59335
Amount: 0.217373
Amount Units: ug/ml



Manual Integration Results

RT: 16.49
Area: 105398
Amount: 0.386123
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:33:24
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

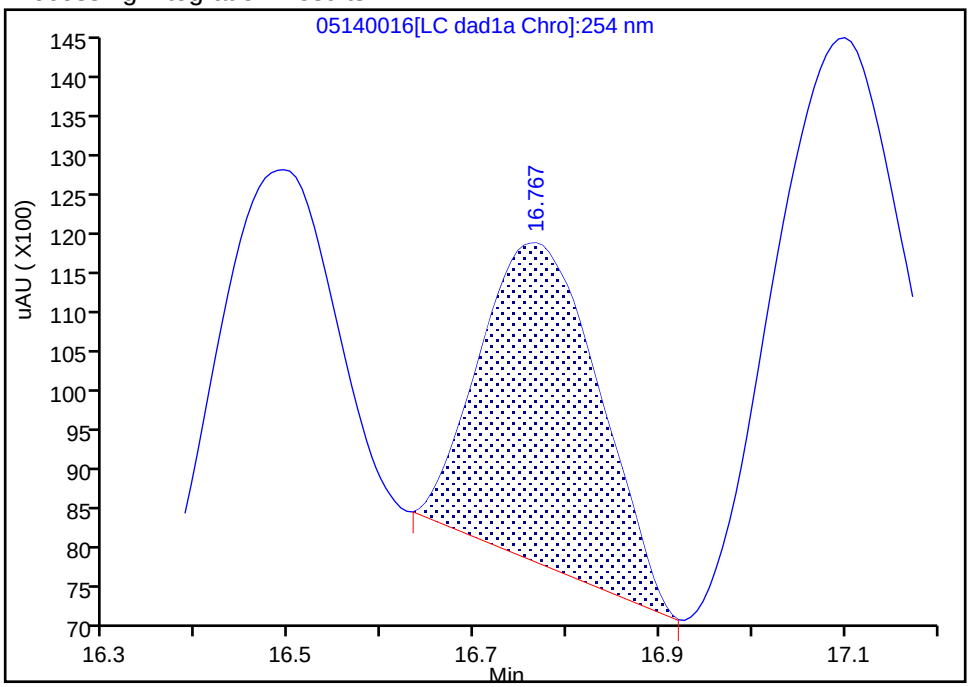
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140016.d				
Injection Date:	14-May-2020 21:31:26	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	ICV FULL				
Client ID:					
Operator ID:	CB	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

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

Signal: 1

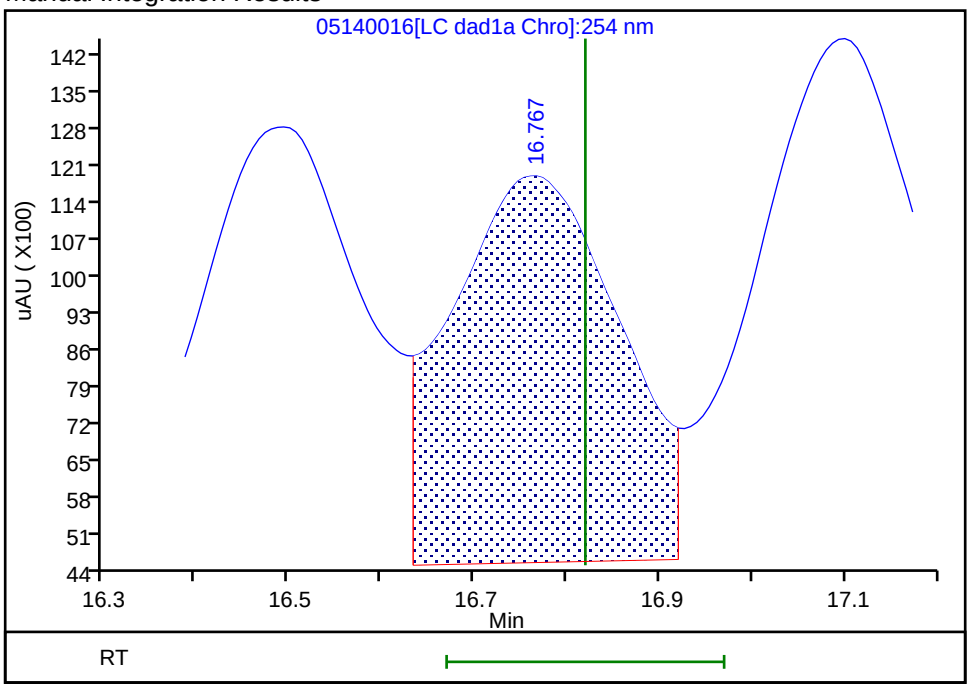
Processing Integration Results

RT: 16.77
Area: 36452
Amount: 0.151328
Amount Units: ug/ml



Manual Integration Results

RT: 16.77
Area: 91922
Amount: 0.381607
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:33:24
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

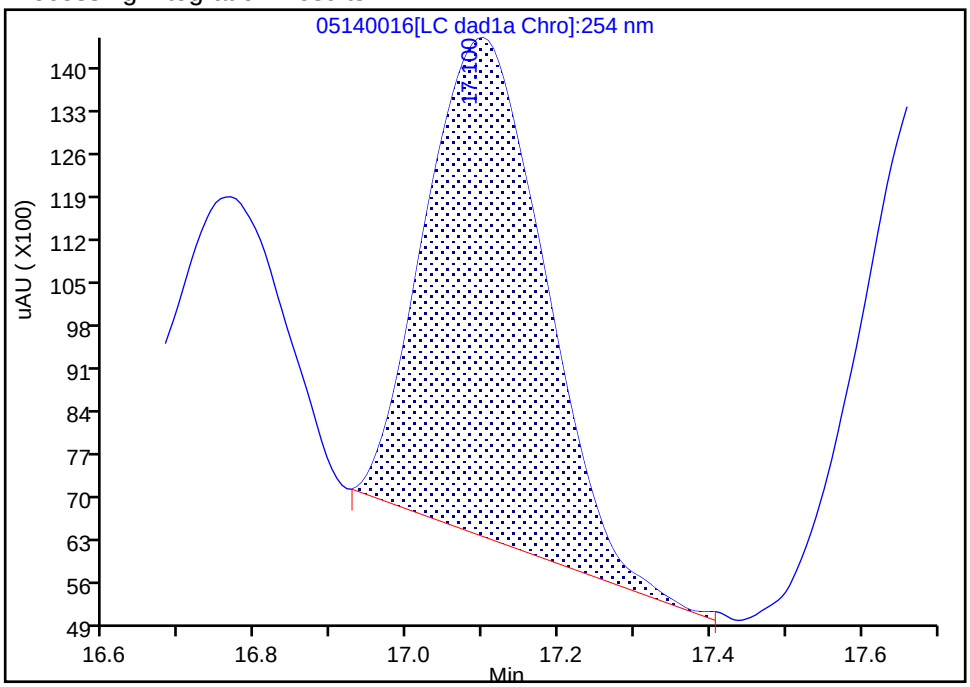
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140016.d				
Injection Date:	14-May-2020 21:31:26	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	ICV FULL				
Client ID:					
Operator ID:	CB	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

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

Signal: 1

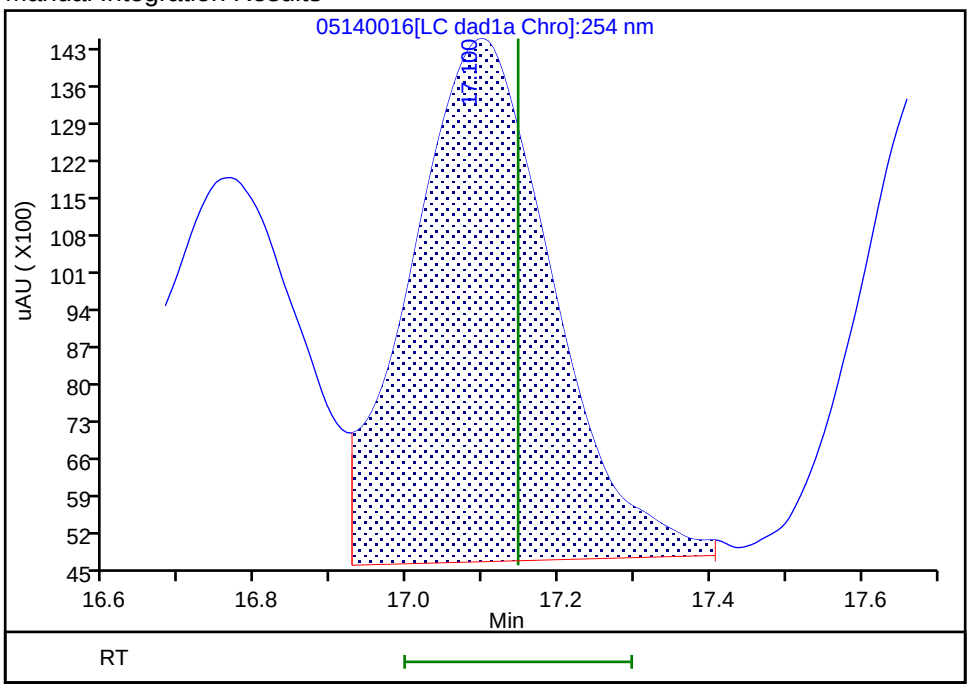
Processing Integration Results

RT: 17.10
Area: 89570
Amount: 0.259447
Amount Units: ug/ml



Manual Integration Results

RT: 17.10
Area: 127384
Amount: 0.368978
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:33:24
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

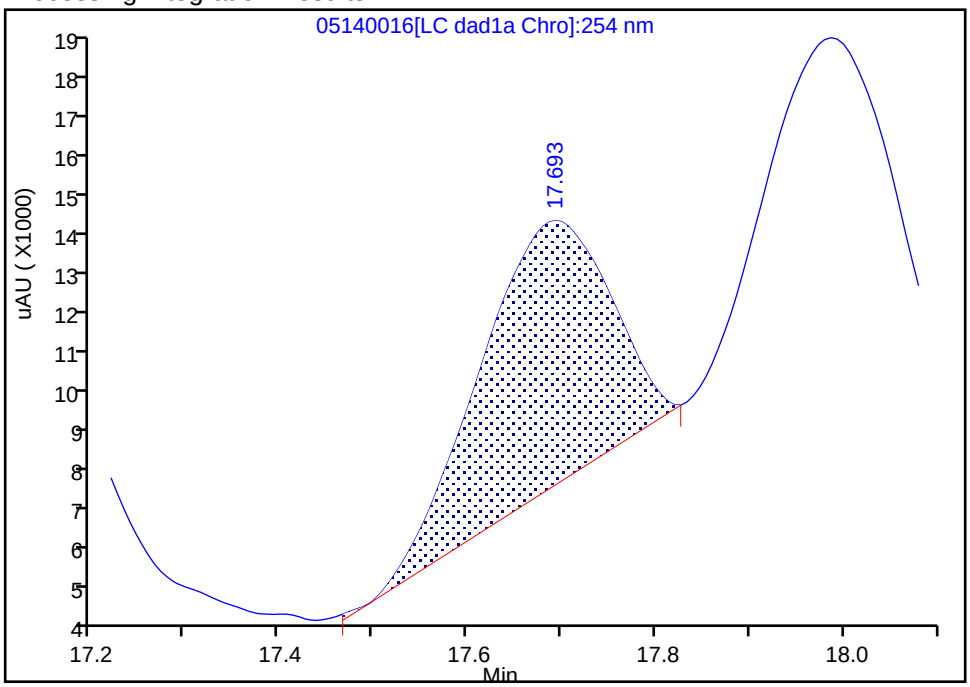
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140016.d				
Injection Date:	14-May-2020 21:31:26	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	ICV FULL				
Client ID:					
Operator ID:	CB	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

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

Signal: 1

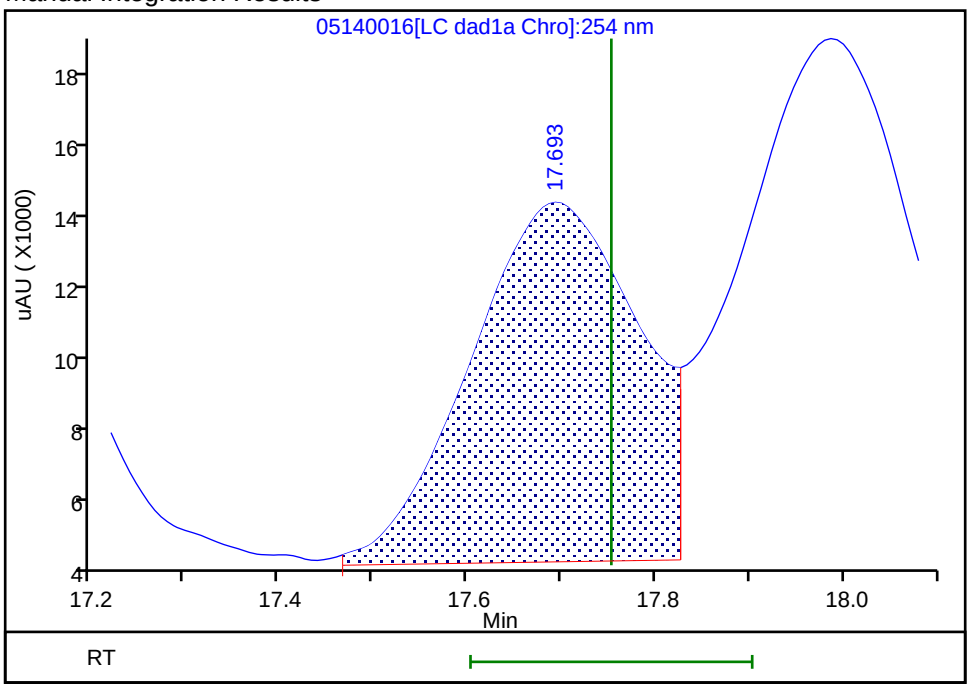
Processing Integration Results

RT: 17.69
Area: 60008
Amount: 0.201149
Amount Units: ug/ml



Manual Integration Results

RT: 17.69
Area: 114753
Amount: 0.384655
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:33:24
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

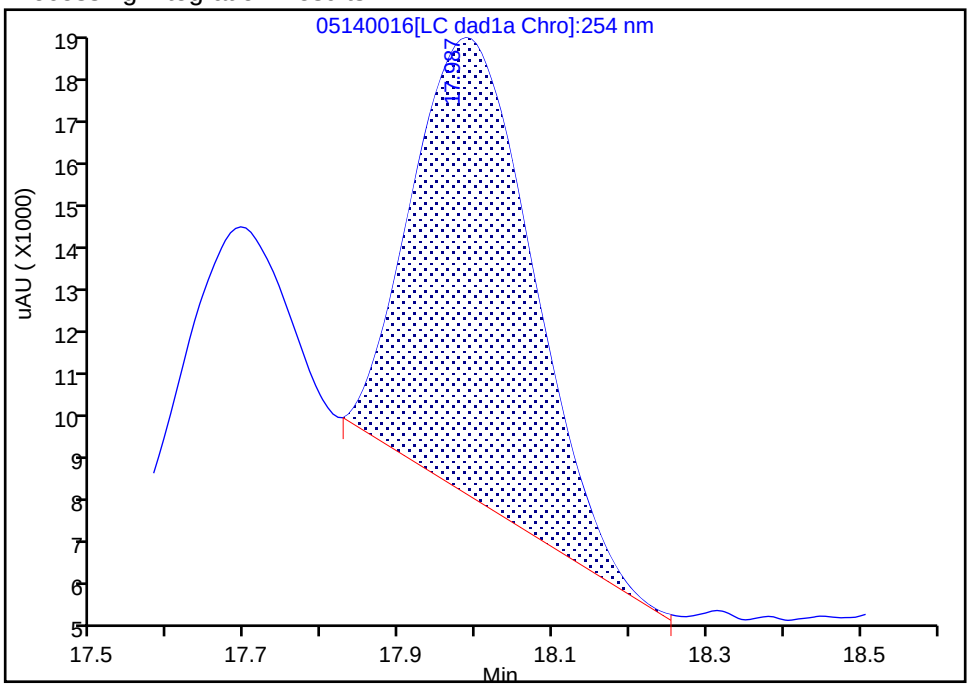
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140016.d				
Injection Date:	14-May-2020 21:31:26	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	ICV FULL				
Client ID:					
Operator ID:	CB	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

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

Signal: 1

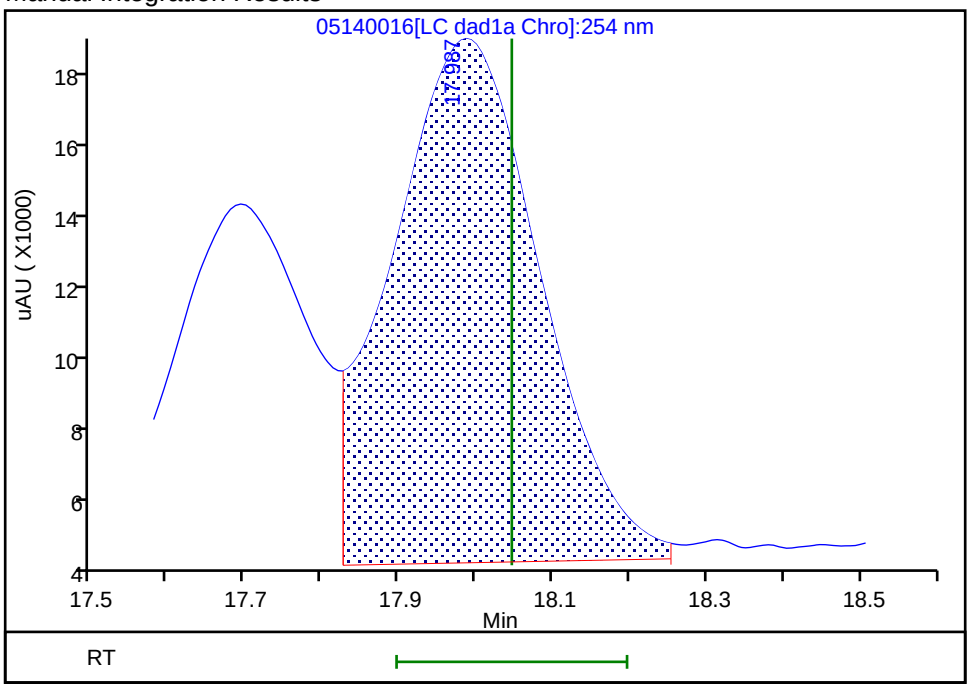
Processing Integration Results

RT: 17.99
Area: 111749
Amount: 0.240211
Amount Units: ug/ml



Manual Integration Results

RT: 17.99
Area: 178475
Amount: 0.383643
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:33:24
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

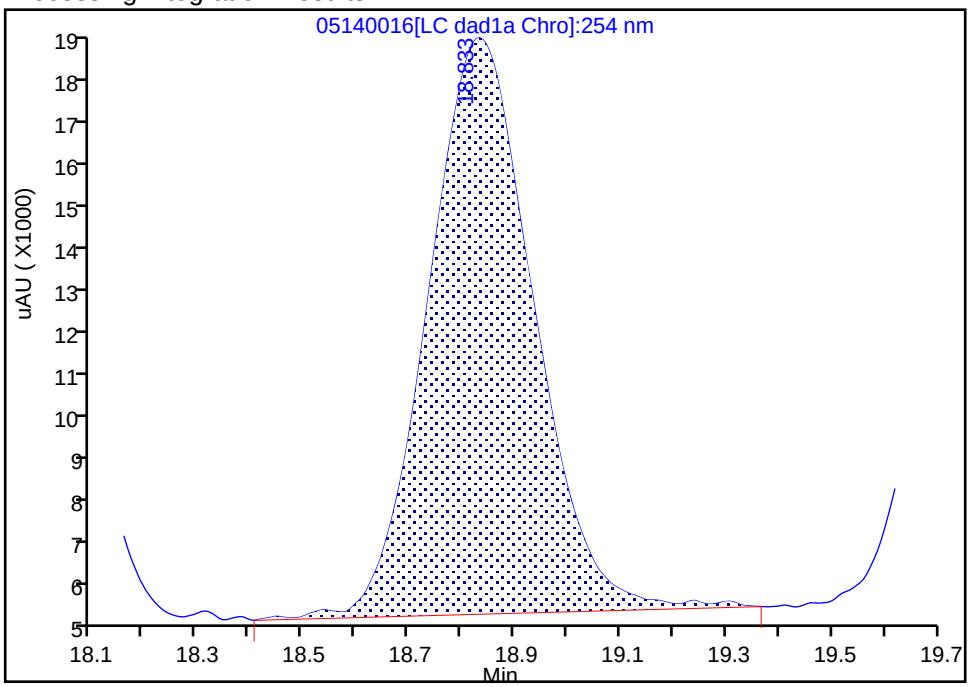
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140016.d				
Injection Date:	14-May-2020 21:31:26	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	ICV FULL				
Client ID:					
Operator ID:	CB	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

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

Signal: 1

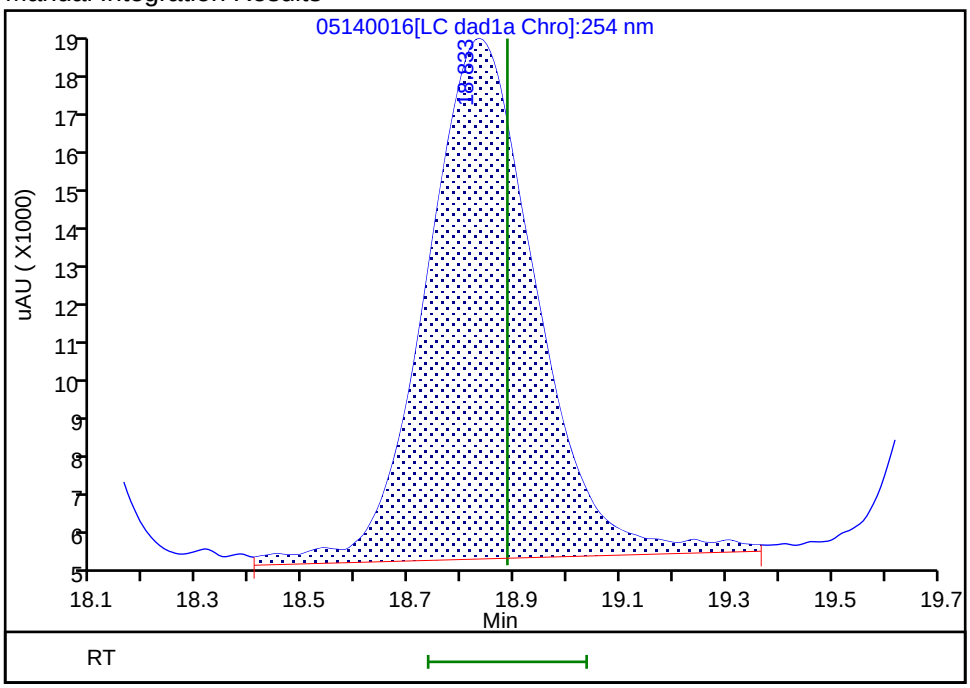
Processing Integration Results

RT: 18.83
Area: 187655
Amount: 0.397195
Amount Units: ug/ml



Manual Integration Results

RT: 18.83
Area: 198368
Amount: 0.419870
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:33:24
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

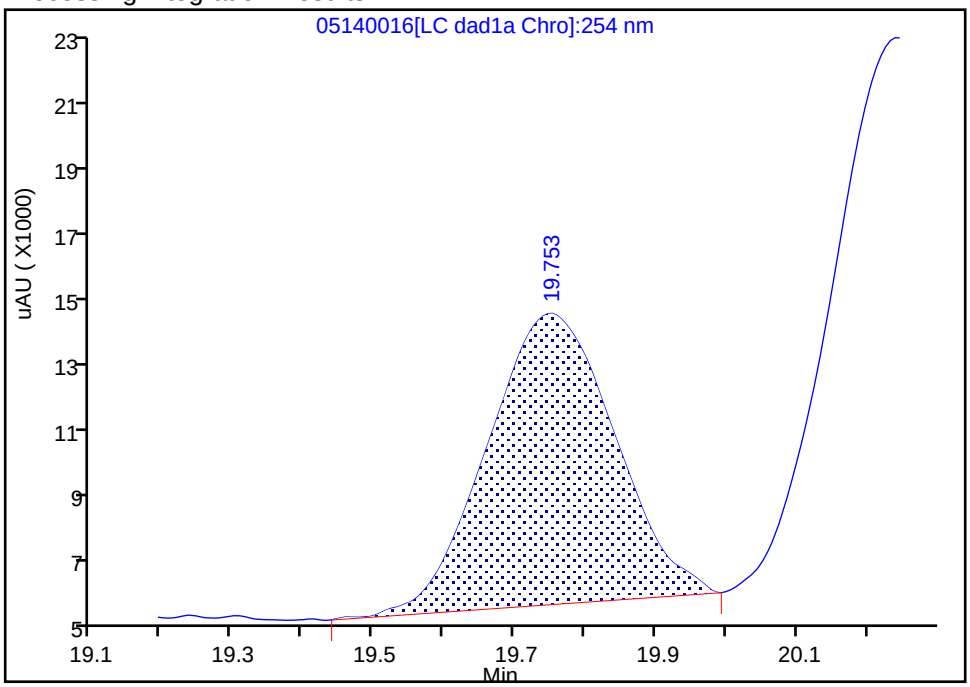
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140016.d				
Injection Date:	14-May-2020 21:31:26	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	ICV FULL				
Client ID:					
Operator ID:	CB	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

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

Signal: 1

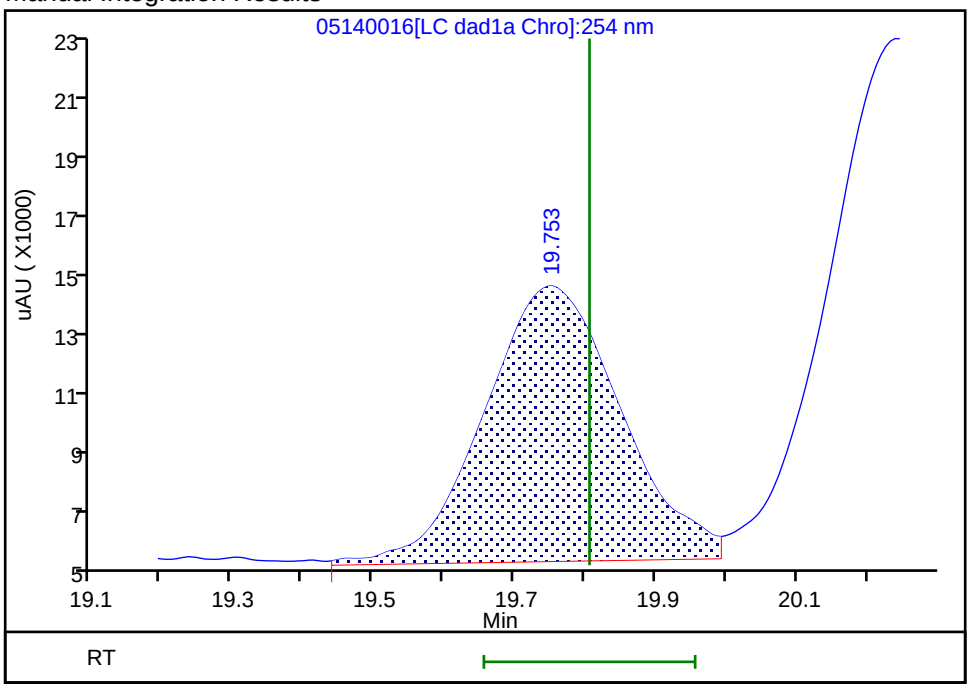
Processing Integration Results

RT: 19.75
Area: 106845
Amount: 0.315968
Amount Units: ug/ml



Manual Integration Results

RT: 19.75
Area: 121088
Amount: 0.403336
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:33:24
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

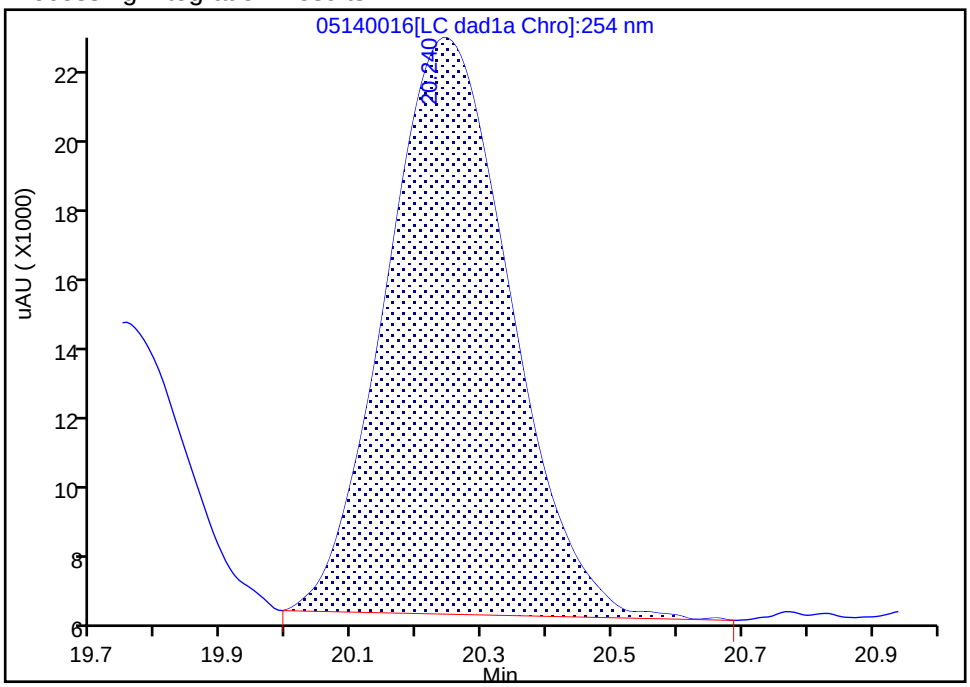
Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140016.d				
Injection Date:	14-May-2020 21:31:26	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	ICV FULL				
Client ID:					
Operator ID:	CB	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

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

Signal: 1

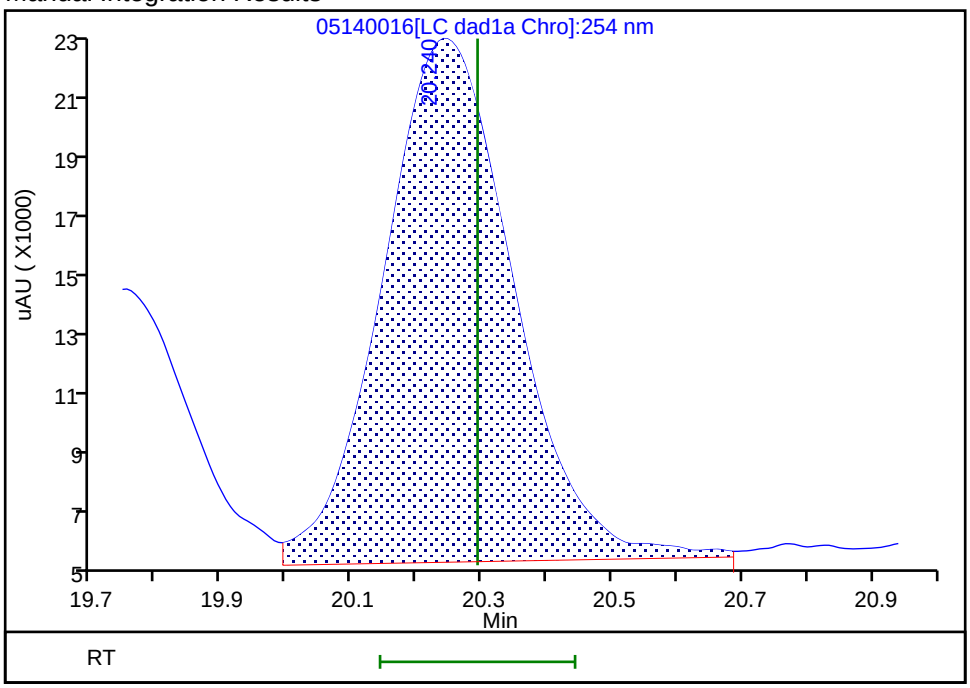
Processing Integration Results

RT: 20.24
Area: 217350
Amount: 0.339549
Amount Units: ug/ml



Manual Integration Results

RT: 20.24
Area: 236153
Amount: 0.368924
Amount Units: ug/ml



Reviewer: zhangji, 15-May-2020 11:33:24
Audit Action: Assigned New Baseline Audit Reason: Baseline

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Lab Sample ID: ICV 280-494886/26 Calibration Date: 05/15/2020 03:21

Instrument ID: CHHPLC_G2_LUNA Calib Start Date: 05/14/2020 22:06

GC Column: Luna-phenylhex ID: 4.60(mm) Calib End Date: 05/15/2020 02:46

Lab File ID: 05140026.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
TNX	Ave	435816	391496		360	400	-10.2	15.0
DNX	Ave	321206	289486		361	400	-9.9	15.0
MNX	Lin2		268209		449	467	-3.8	15.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Lab Sample ID: ICV 280-494886/26 Calibration Date: 05/15/2020 03:21

Instrument ID: CHHPLC_G2_LUNA Calib Start Date: 05/14/2020 22:06

GC Column: Luna-phenylhex ID: 4.60(mm) Calib End Date: 05/15/2020 02:46

Lab File ID: 05140026.D

Analyte	RT	RT WINDOW	
		FROM	TO
TNX	5.41	5.27	5.57
DNX	6.22	6.08	6.38
MNX	7.73	7.59	7.89

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140026.D				
Lims ID:	ICV DMT				
Client ID:					
Sample Type:	ICV				
Inject. Date:	15-May-2020 03:21:17	ALS Bottle#:	26	Worklist Smp#:	26
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	ICV DMT				
Misc. Info.:	280-0091518-026				
Operator ID:	CB	Instrument ID:	CHHPLC_G2_LUNA		
Sublist:					
Method:	\\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\G2_8330_Luna.m				
Limit Group:	GCSV - 8330				
Last Update:	15-May-2020 12:01:05	Calib Date:	15-May-2020 02:11:20		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140024.D				
Column 1 :	Luna-Phenyl hexyl (4.60 mm)		Det: LC DAD1A, 254 nm		
Process Host:	CTX0318				

First Level Reviewer: zhangji Date: 15-May-2020 11:38:34

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
3 TNX	1	5.408	5.417	-0.009	156755	0.4004	0.3597	
4 DNX	1	6.215	6.231	-0.016	115910	0.4004	0.3609	
7 MNX	1	7.728	7.744	-0.016	125200	0.4668	0.4488	

Reagents:

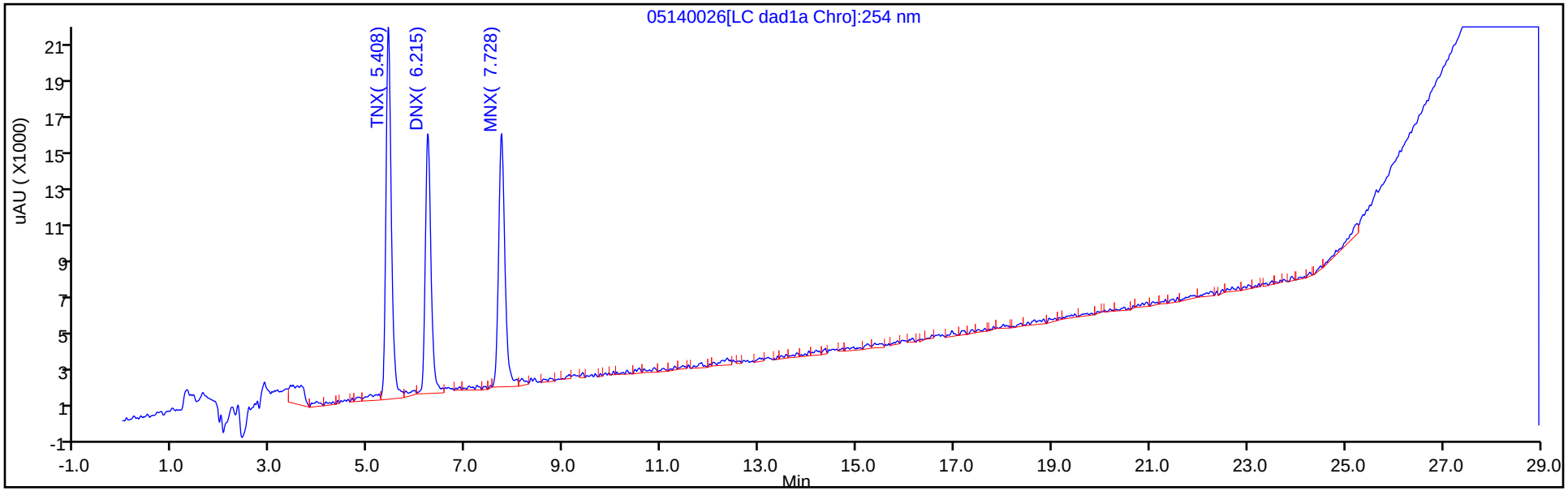
8330_OP_DMT_00008 Amount Added: 40.00 Units: uL

Report Date: 15-May-2020 12:01:06 Chrom Revision: 2.3 05-May-2020 17:48:18

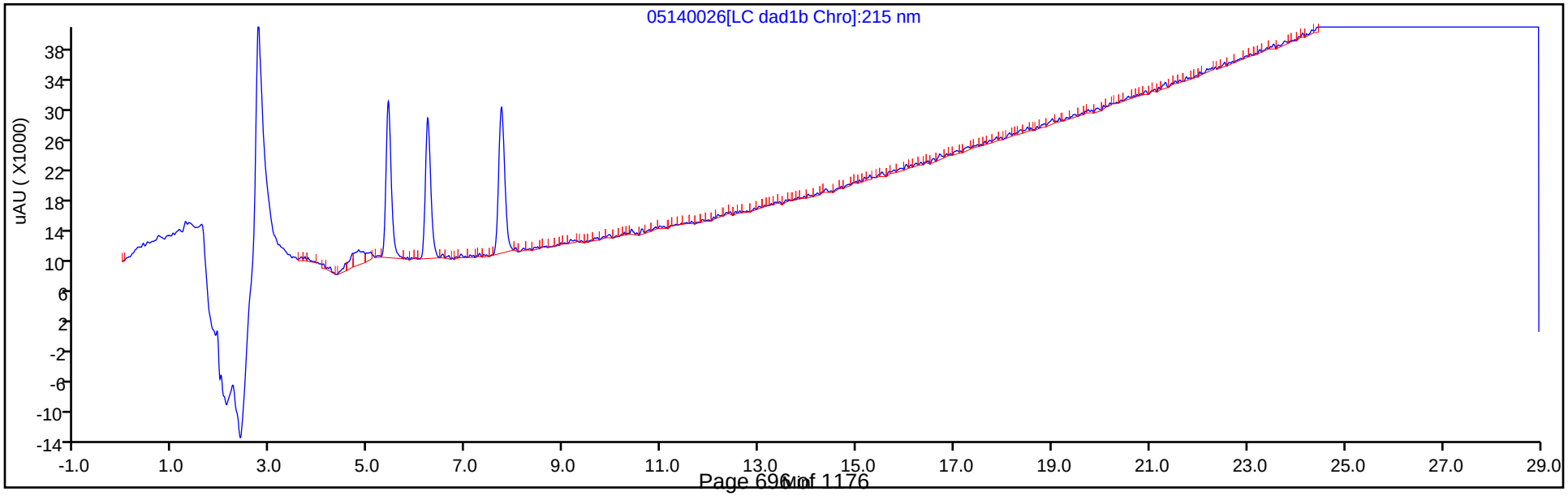
Eurofins TestAmerica, Denver

Data File:	\\chromfs\denver\chromdata\g2_luna\20200514-91518.b\05140026.d				
Injection Date:	15-May-2020 03:21:17	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	CB
Lims ID:	ICV DMT			Worklist Smp#:	26
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	26
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		

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



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



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Lab Sample ID: CCV 280-499503/7 Calibration Date: 06/20/2020 12:59

Instrument ID: CHHPLC_G2_LUNA Calib Start Date: 05/14/2020 16:16

GC Column: Luna-phenylhex ID: 4.60(mm) Calib End Date: 05/14/2020 20:56

Lab File ID: 06200007.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
HMX	Lin2		184144		230	250	-8.0	15.0
Picric acid	Ave	193810	198144		256	250	2.2	15.0
RDX	Ave	244360	238944		244	250	-2.2	15.0
Nitrobenzene	Ave	439227	428104		245	251	-2.5	15.0
1,3-Dinitrobenzene	Ave	674189	643541		239	251	-4.5	15.0
Nitroglycerin	Ave	126803	137191		2700	2500	8.2	15.0
2-Nitrotoluene	Ave	272965	264916		243	250	-2.9	15.0
4-Nitrotoluene	Ave	240881	238958		248	251	-0.8	15.0
4-Amino-2,6-dinitrotoluene	Ave	345235	319105		231	250	-7.6	15.0
3-Nitrotoluene	Ave	298327	305103		256	250	2.3	15.0
2-Amino-4,6-dinitrotoluene	Ave	465211	442223		239	251	-4.9	15.0
1,3,5-Trinitrobenzene	Ave	472451	459469		244	251	-2.7	15.0
2,6-Dinitrotoluene	Lin2		298263		244	251	-3.0	15.0
2,4-Dinitrotoluene	Ave	640113	608112		238	251	-5.0	15.0
Tetryl	Ave	368678	350471		238	251	-4.9	15.0
2,4,6-Trinitrotoluene	Lin1		394518		239	251	-4.9	15.0
PETN	Lin1		135967		2420	2500	-3.3	15.0
1,2-Dinitrobenzene	Lin1		304160		268	250	7.1	15.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Lab Sample ID: CCV 280-499503/7 Calibration Date: 06/20/2020 12:59

Instrument ID: CHHPLC_G2_LUNA Calib Start Date: 05/14/2020 16:16

GC Column: Luna-phenylhex ID: 4.60(mm) Calib End Date: 05/14/2020 20:56

Lab File ID: 06200007.D

Analyte	RT	RT WINDOW	
		FROM	TO
HMX	7.15	7.00	7.30
Picric acid	8.48	8.33	8.63
RDX	9.37	9.22	9.52
Nitrobenzene	12.26	12.11	12.41
1,3-Dinitrobenzene	15.79	15.64	15.94
Nitroglycerin	16.03	15.88	16.18
2-Nitrotoluene	16.73	16.58	16.88
4-Nitrotoluene	17.01	16.86	17.16
4-Amino-2,6-dinitrotoluene	17.45	17.30	17.60
3-Nitrotoluene	17.94	17.79	18.09
2-Amino-4,6-dinitrotoluene	18.38	18.23	18.53
1,3,5-Trinitrobenzene	19.12	18.97	19.27
2,6-Dinitrotoluene	20.05	19.90	20.20
2,4-Dinitrotoluene	20.56	20.41	20.71
Tetryl	23.86	23.71	24.01
2,4,6-Trinitrotoluene	24.88	24.73	25.03
PETN	25.42	25.27	25.57
1,2-Dinitrobenzene	13.27	13.12	13.42

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2_LUNA\20200619-92597.b\06200007.D
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 20-Jun-2020 12:59:34 ALS Bottle#: 7 Worklist Smp#: 7
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: CCV
Misc. Info.: 280-0092597-007
Operator ID: JZ Instrument ID: CHHPLC_G2_LUNA
Sublist: chrom-G2_8330_Luna*sub6

Method: \\chromfs\Denver\ChromData\G2_LUNA\20200619-92597.b\G2_8330_Luna.m
Limit Group: GCSV - 8330
Last Update: 23-Jun-2020 18:23:13 Calib Date: 15-May-2020 02:11:20
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140024.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC DAD1A, 254 nm
Process Host: CTX1017

First Level Reviewer: zhangji Date: 20-Jun-2020 13:46:41

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	4.386	4.386	0.000	105788	0.2500	0.2464	M
2 2,4-diamino-6-nitrotoluene	1	4.973	4.973	0.000	65138	0.2500	0.2507	M
6 HMX	1	7.153	7.153	0.000	46036	0.2500	0.2300	
5 2,4,6-Trinitrophenol	1	8.480	8.480	0.000	49536	0.2500	0.2556	
8 RDX	1	9.366	9.366	0.000	59736	0.2500	0.2445	
9 Nitrobenzene	1	12.259	12.259	0.000	107454	0.2510	0.2446	
$ 10 1,2-Dinitrobenzene	1	13.266	13.266	0.000	76040	0.2500	0.2677	
11 3,5-Dinitroaniline	1	15.199	15.199	0.000	119117	0.2500	0.2399	
12 1,3-Dinitrobenzene	1	15.793	15.793	0.000	161207	0.2505	0.2391	
13 Nitroglycerin	2	16.026	16.026	0.000	342978	2.50	2.70	M
14 o-Nitrotoluene	1	16.726	16.726	0.000	66229	0.2500	0.2426	M
15 p-Nitrotoluene	1	17.006	17.006	0.000	59859	0.2505	0.2485	M
16 4-Amino-2,6-dinitrotoluene	1	17.446	17.446	0.000	79856	0.2503	0.2313	M
17 m-Nitrotoluene	1	17.939	17.939	0.000	76352	0.2503	0.2559	M
18 2-Amino-4,6-dinitrotoluene	1	18.379	18.379	0.000	110998	0.2510	0.2386	M
19 1,3,5-Trinitrobenzene	1	19.119	19.119	0.000	115097	0.2505	0.2436	M
20 2,6-Dinitrotoluene	1	20.046	20.046	0.000	74864	0.2510	0.2435	M
21 2,4-Dinitrotoluene	1	20.560	20.560	0.000	152636	0.2510	0.2385	M
22 Tetryl	1	23.860	23.860	0.000	87793	0.2505	0.2381	
23 2,4,6-Trinitrotoluene	1	24.880	24.880	0.000	99024	0.2510	0.2387	
24 PETN	2	25.420	25.420	0.000	339917	2.50	2.42	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

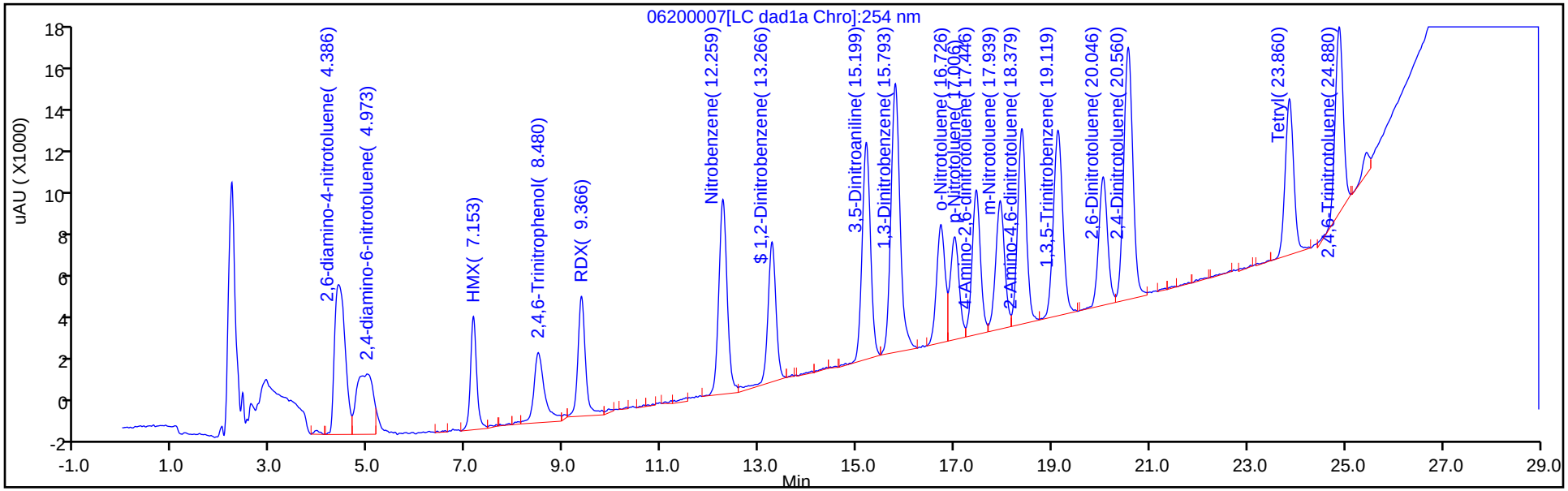
8330IntermStk_00064	Amount Added:	25.00	Units: uL
8330_ADDs_00027	Amount Added:	12.50	Units: uL

Report Date: 23-Jun-2020 18:23:13 Chrom Revision: 2.3 21-Jun-2020 18:30:46

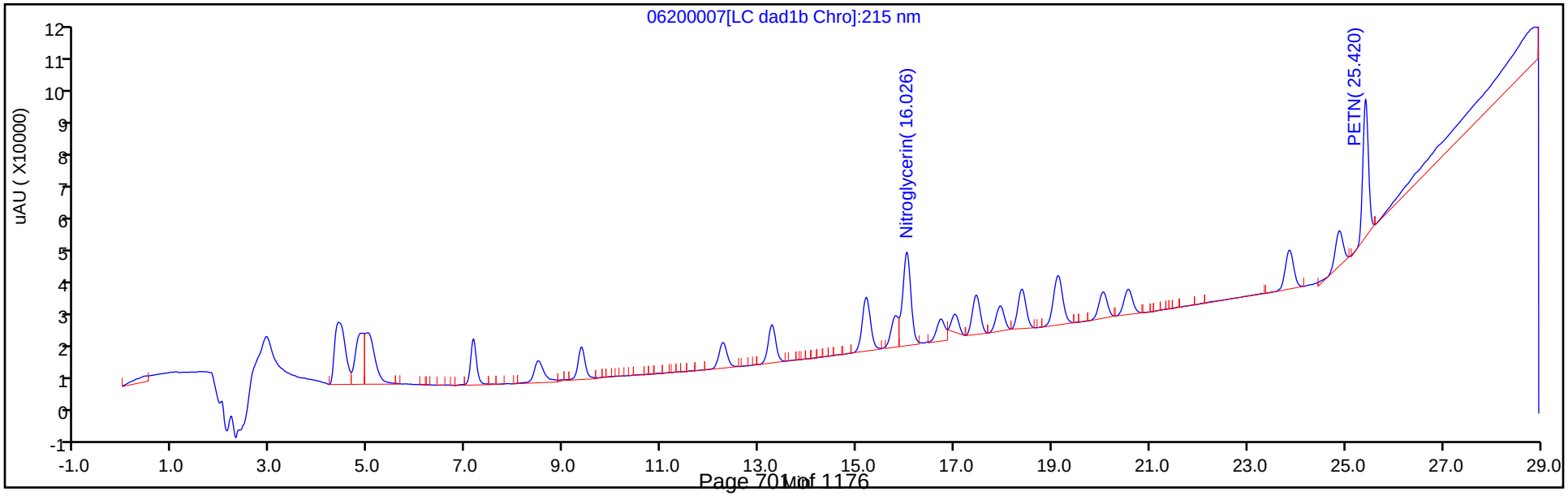
Eurofins TestAmerica, Denver

Data File:	\\chromfs\denver\chromdata\g2_luna\20200619-92597.b\06200007.d				
Injection Date:	20-Jun-2020 12:59:34	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	JZ
Lims ID:	CCV			Worklist Smp#:	7
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		

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



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



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

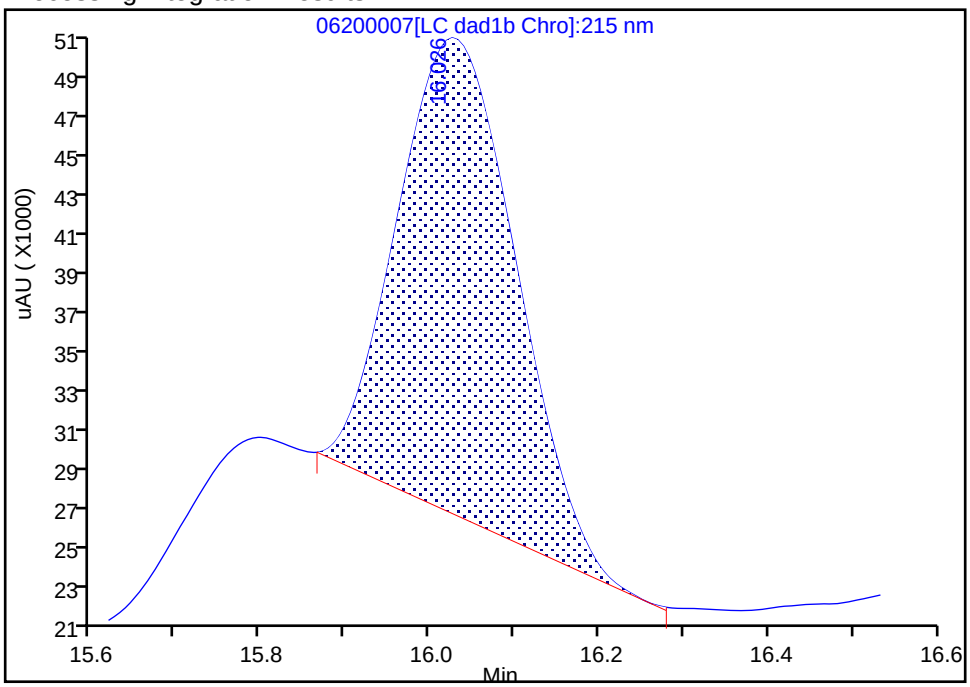
Data File:	\\chromfs\denver\chromdata\g2_luna\20200619-92597.b\06200007.d				
Injection Date:	20-Jun-2020 12:59:34	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	CCV				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	7	Worklist Smp#:	7
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:		Detector	LC DAD1B, 215 nm		

13 Nitroglycerin, CAS: 55-63-0

Signal: 1

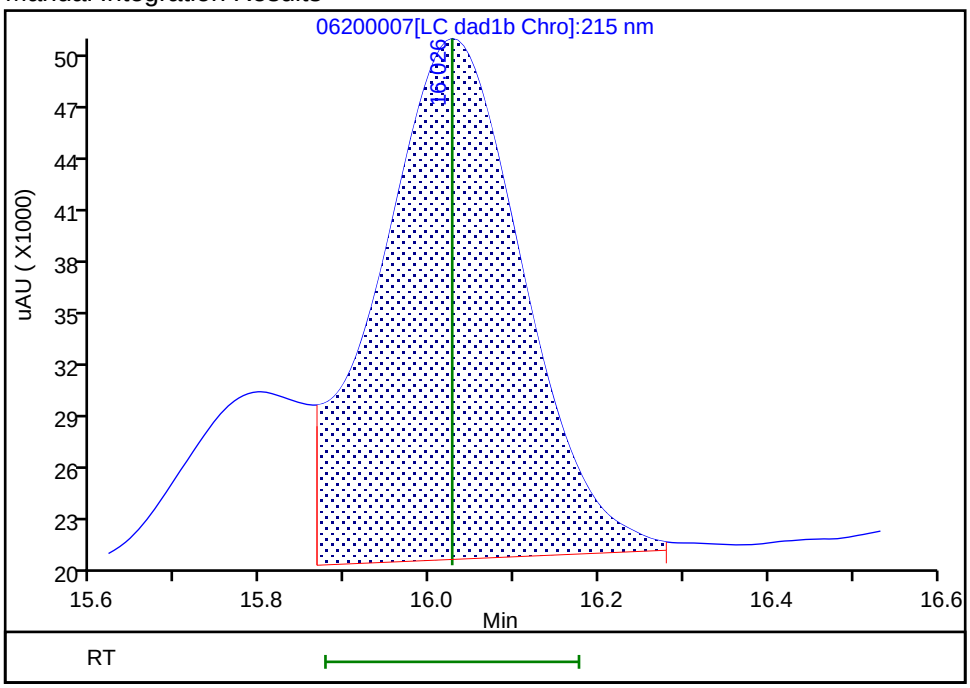
Processing Integration Results

RT: 16.03
Area: 228749
Amount: 1.803967
Amount Units: ug/ml



Manual Integration Results

RT: 16.03
Area: 342978
Amount: 2.704803
Amount Units: ug/ml



Reviewer: zhangji, 20-Jun-2020 13:46:28

Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

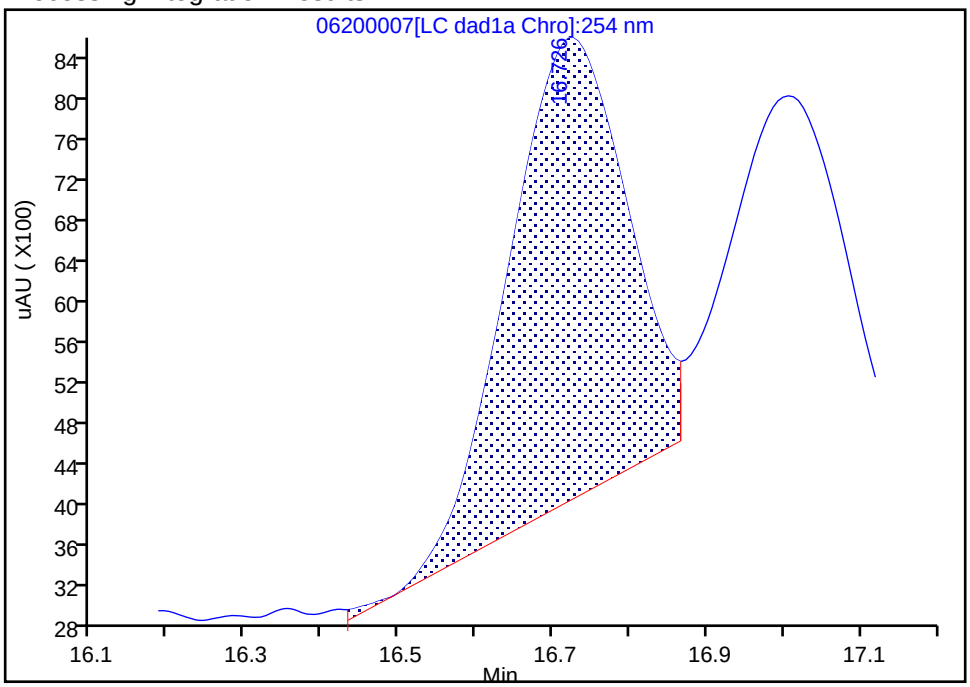
Data File:	\\chromfs\denver\chromdata\g2_luna\20200619-92597.b\06200007.d				
Injection Date:	20-Jun-2020 12:59:34	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	CCV				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	7	Worklist Smp#:	7
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

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

Signal: 1

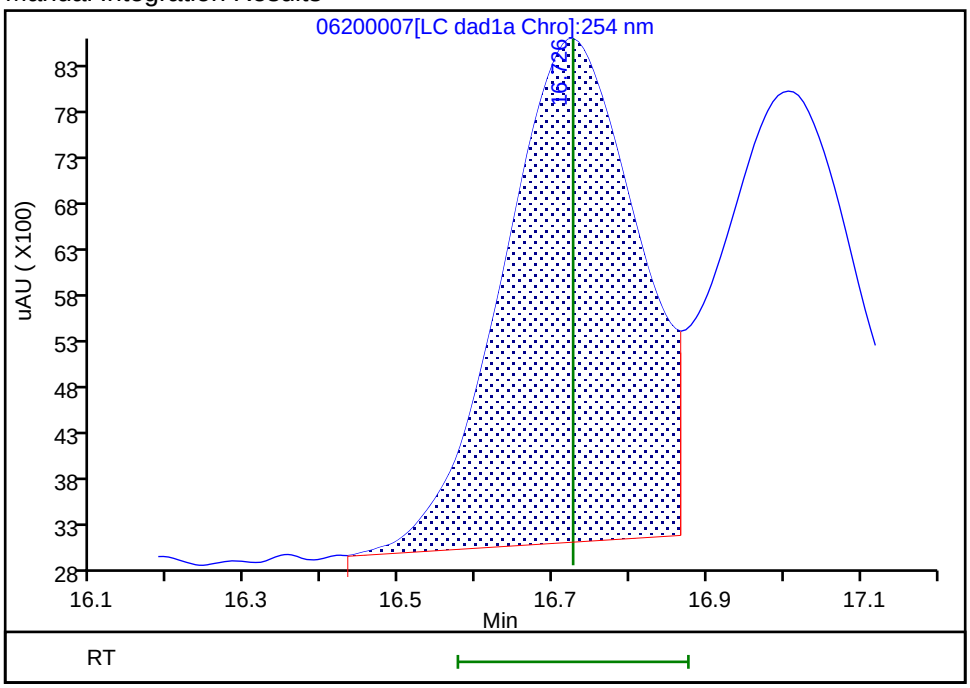
Processing Integration Results

RT: 16.73
Area: 48848
Amount: 0.178954
Amount Units: ug/ml



Manual Integration Results

RT: 16.73
Area: 66229
Amount: 0.242629
Amount Units: ug/ml



Reviewer: zhangji, 20-Jun-2020 13:46:24
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

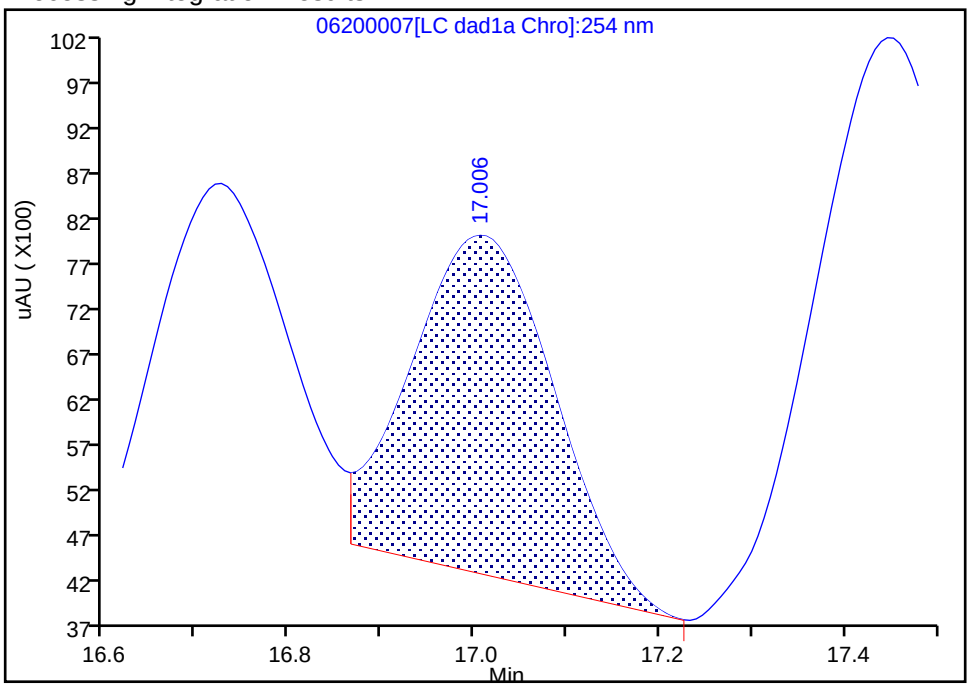
Data File:	\\chromfs\denver\chromdata\g2_luna\20200619-92597.b\06200007.d				
Injection Date:	20-Jun-2020 12:59:34	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	CCV				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	7	Worklist Smp#:	7
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

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

Signal: 1

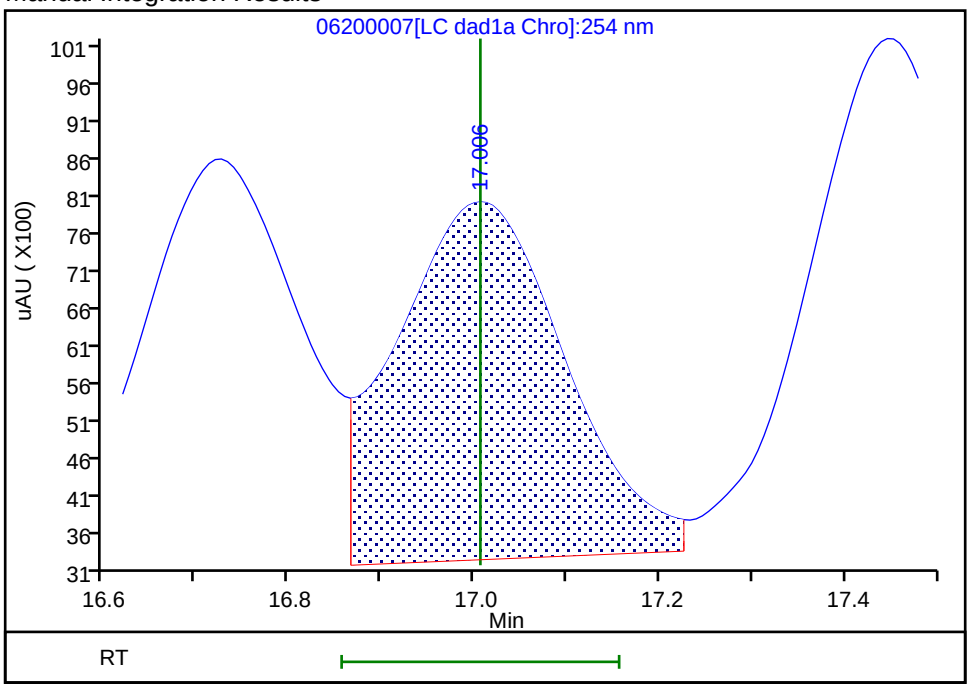
Processing Integration Results

RT: 17.01
Area: 39933
Amount: 0.165779
Amount Units: ug/ml



Manual Integration Results

RT: 17.01
Area: 59859
Amount: 0.248500
Amount Units: ug/ml



Reviewer: zhangji, 20-Jun-2020 13:46:24
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

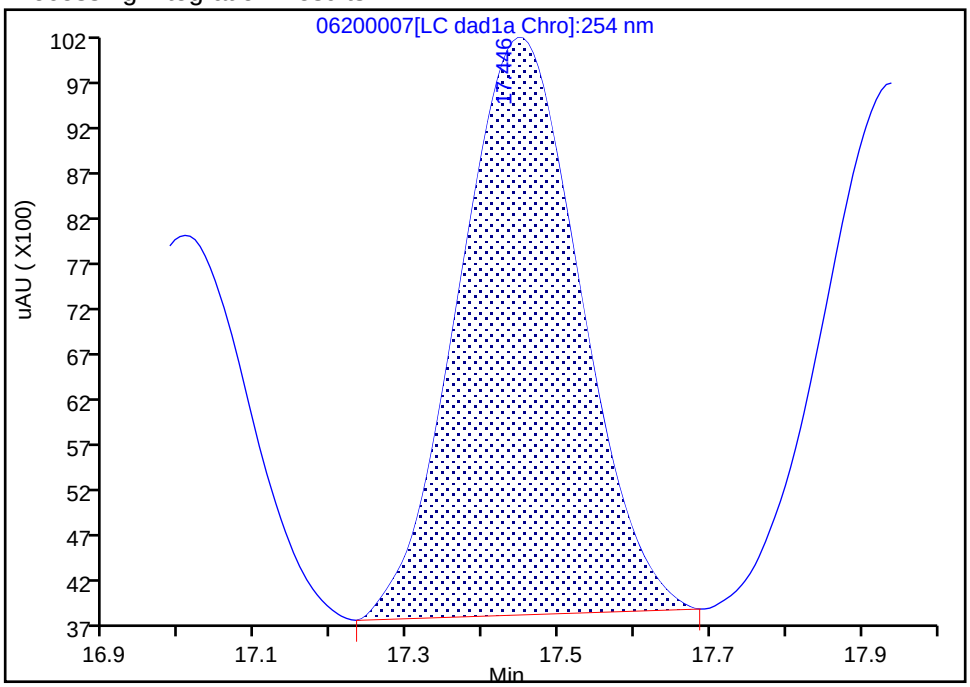
Data File:	\\chromfs\denver\chromdata\g2_luna\20200619-92597.b\06200007.d				
Injection Date:	20-Jun-2020 12:59:34	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	CCV				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	7	Worklist Smp#:	7
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

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

Signal: 1

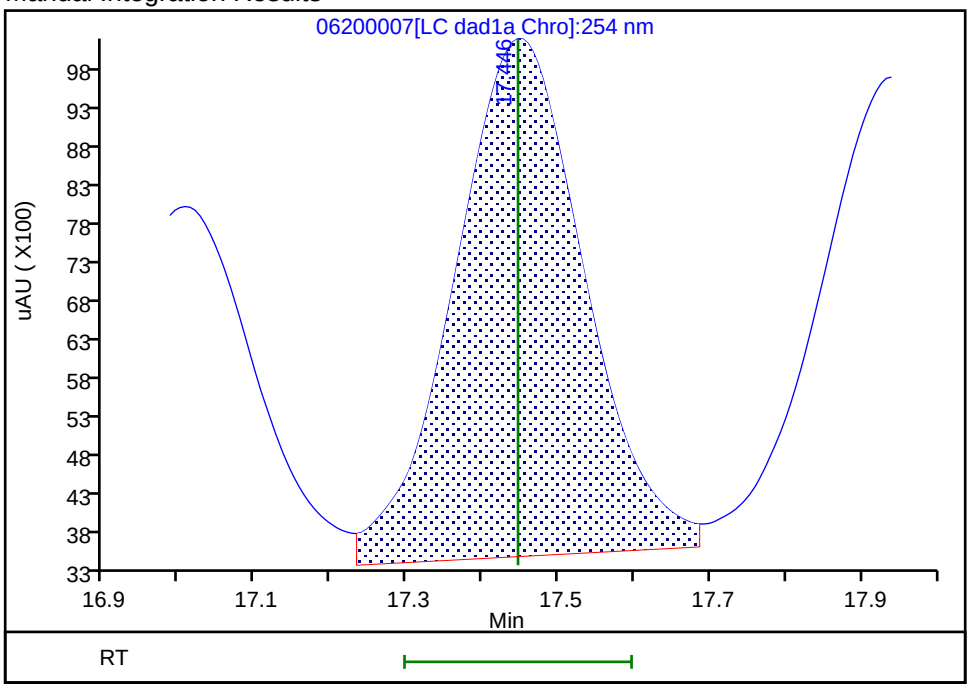
Processing Integration Results

RT: 17.45
Area: 70309
Amount: 0.203656
Amount Units: ug/ml



Manual Integration Results

RT: 17.45
Area: 79856
Amount: 0.231309
Amount Units: ug/ml



Reviewer: zhangji, 20-Jun-2020 13:46:24
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

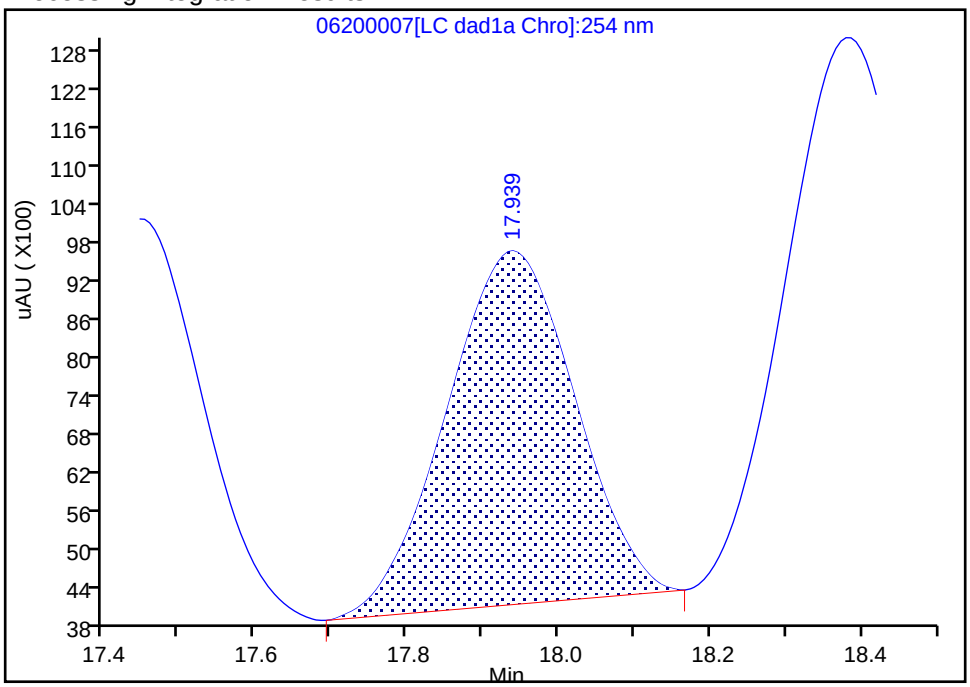
Data File:	\\chromfs\denver\chromdata\g2_luna\20200619-92597.b\06200007.d				
Injection Date:	20-Jun-2020 12:59:34	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	CCV				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	7	Worklist Smp#:	7
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

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

Signal: 1

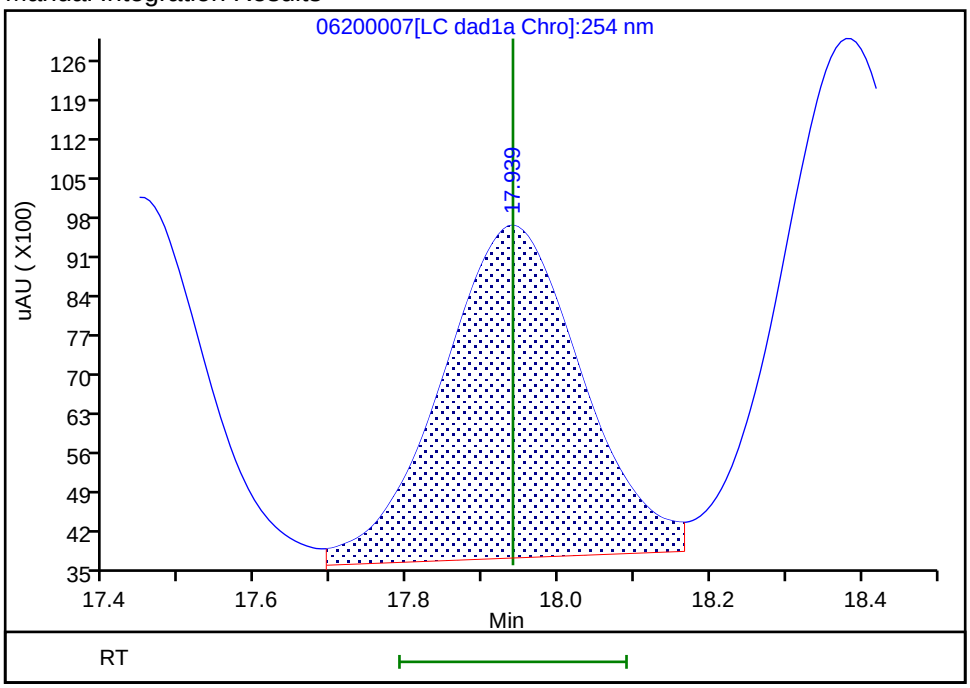
Processing Integration Results

RT: 17.94
Area: 64864
Amount: 0.217426
Amount Units: ug/ml



Manual Integration Results

RT: 17.94
Area: 76352
Amount: 0.255934
Amount Units: ug/ml



Reviewer: zhangji, 20-Jun-2020 13:46:24
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

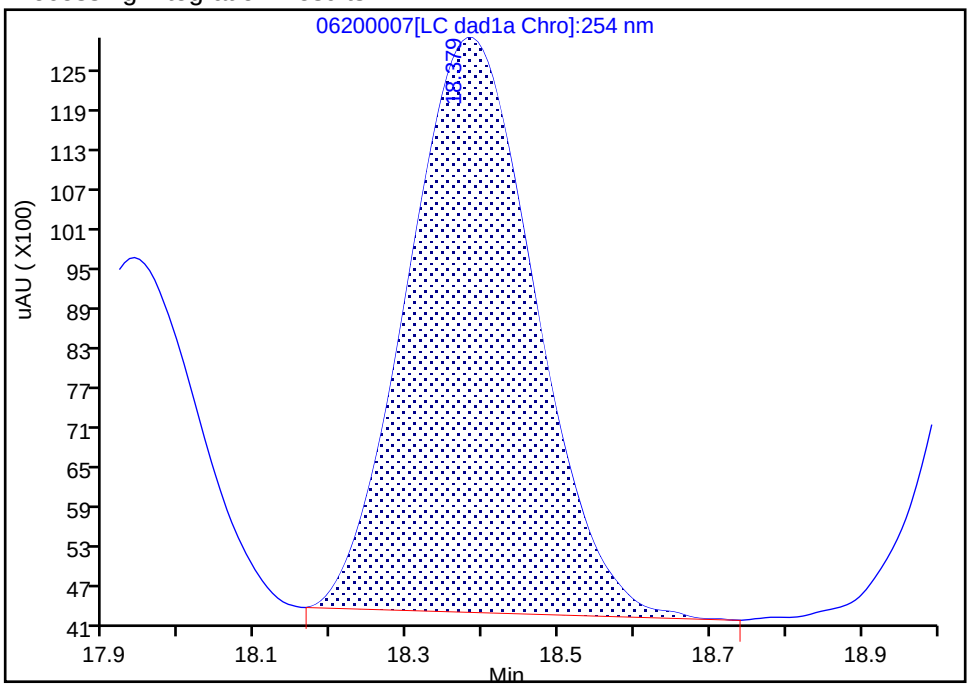
Data File:	\\chromfs\denver\chromdata\g2_luna\20200619-92597.b\06200007.d				
Injection Date:	20-Jun-2020 12:59:34	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	CCV				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	7	Worklist Smp#:	7
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

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

Signal: 1

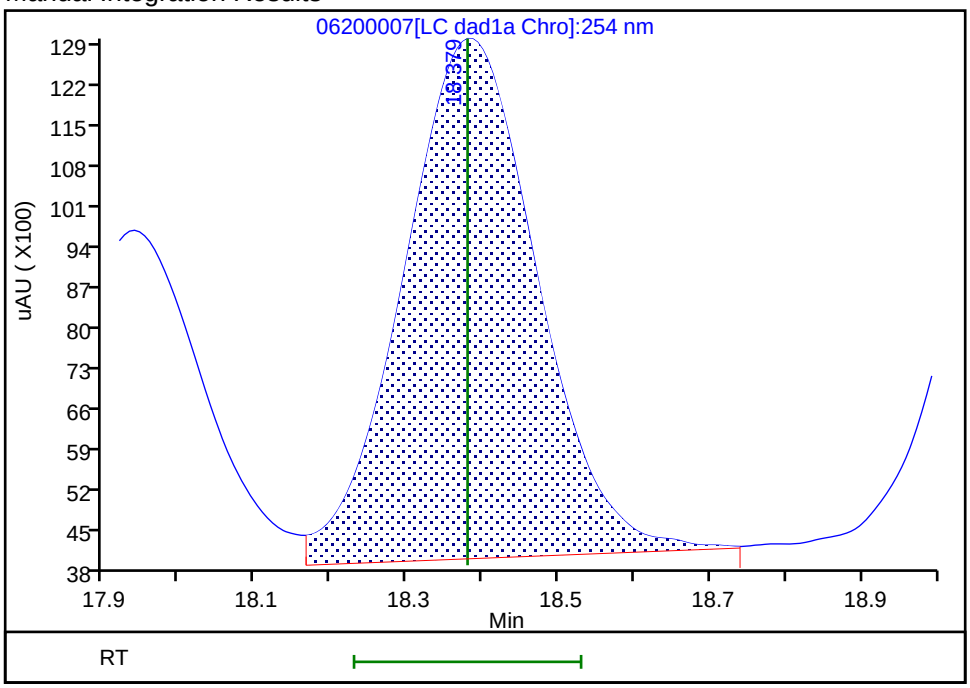
Processing Integration Results

RT: 18.38
Area: 101675
Amount: 0.218557
Amount Units: ug/ml



Manual Integration Results

RT: 18.38
Area: 110998
Amount: 0.238597
Amount Units: ug/ml



Reviewer: zhangji, 20-Jun-2020 13:46:24
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

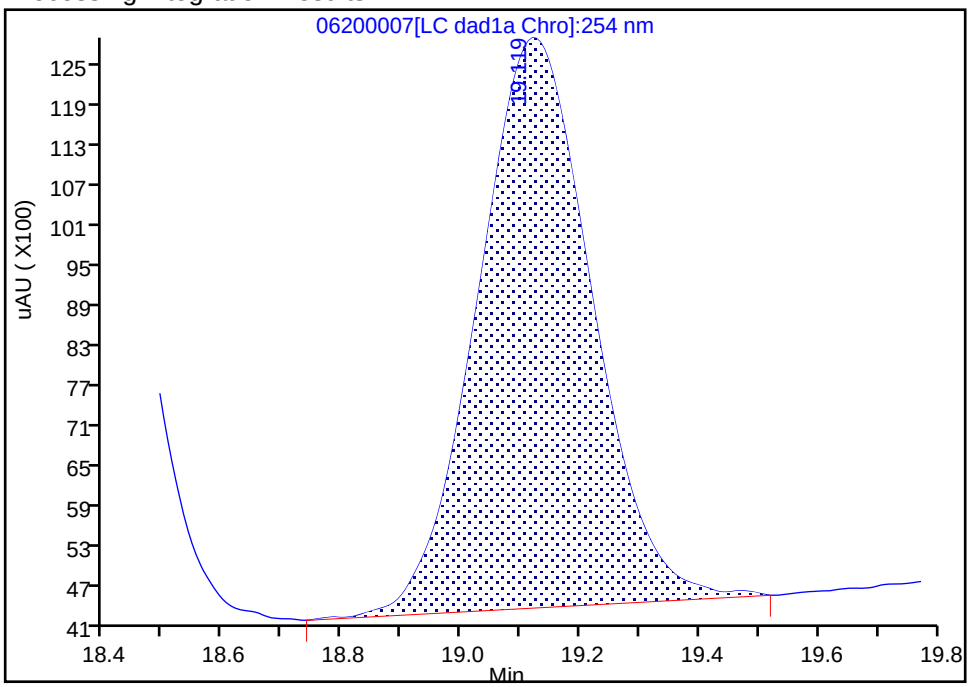
Data File:	\\chromfs\denver\chromdata\g2_luna\20200619-92597.b\06200007.d				
Injection Date:	20-Jun-2020 12:59:34	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	CCV				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	7	Worklist Smp#:	7
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

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

Signal: 1

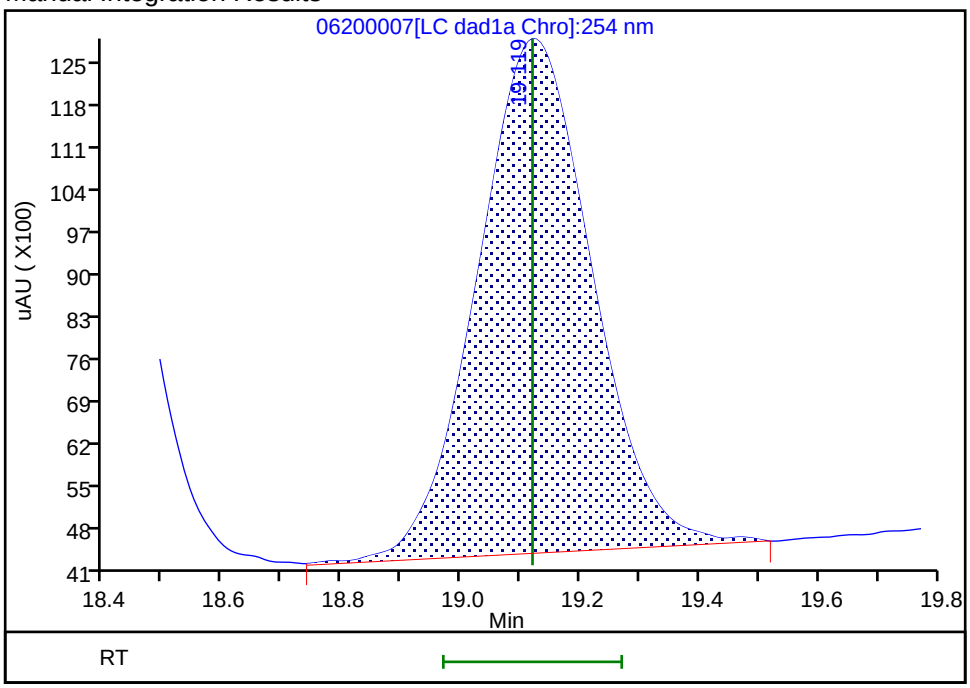
Processing Integration Results

RT: 19.12
Area: 114629
Amount: 0.242626
Amount Units: ug/ml



Manual Integration Results

RT: 19.12
Area: 115097
Amount: 0.243617
Amount Units: ug/ml



Reviewer: zhangji, 20-Jun-2020 13:46:24
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

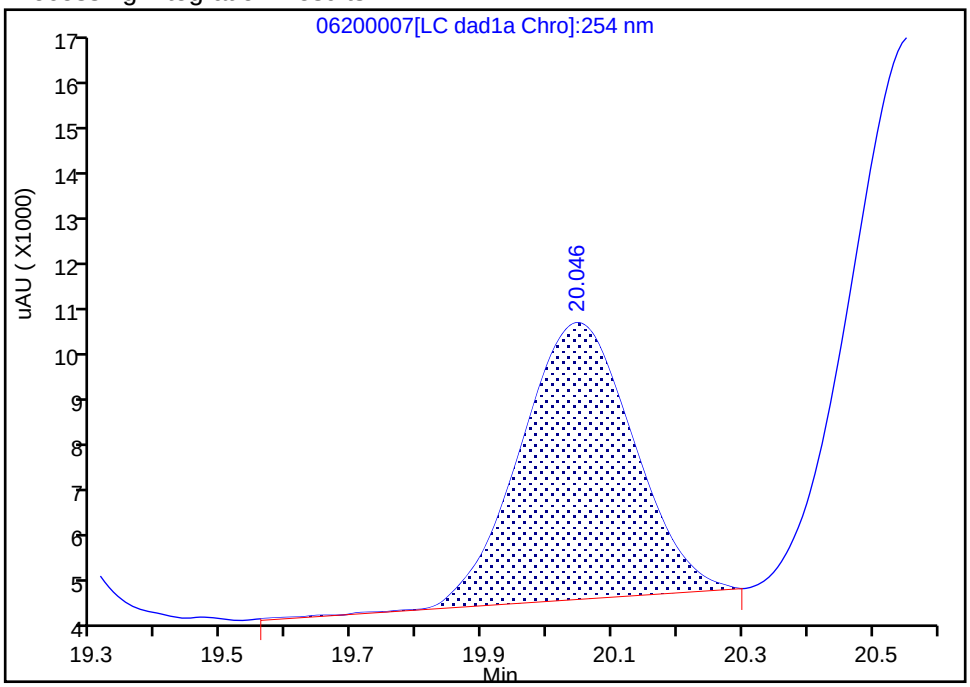
Data File:	\\chromfs\denver\chromdata\g2_luna\20200619-92597.b\06200007.d				
Injection Date:	20-Jun-2020 12:59:34	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	CCV				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	7	Worklist Smp#:	7
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

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

Signal: 1

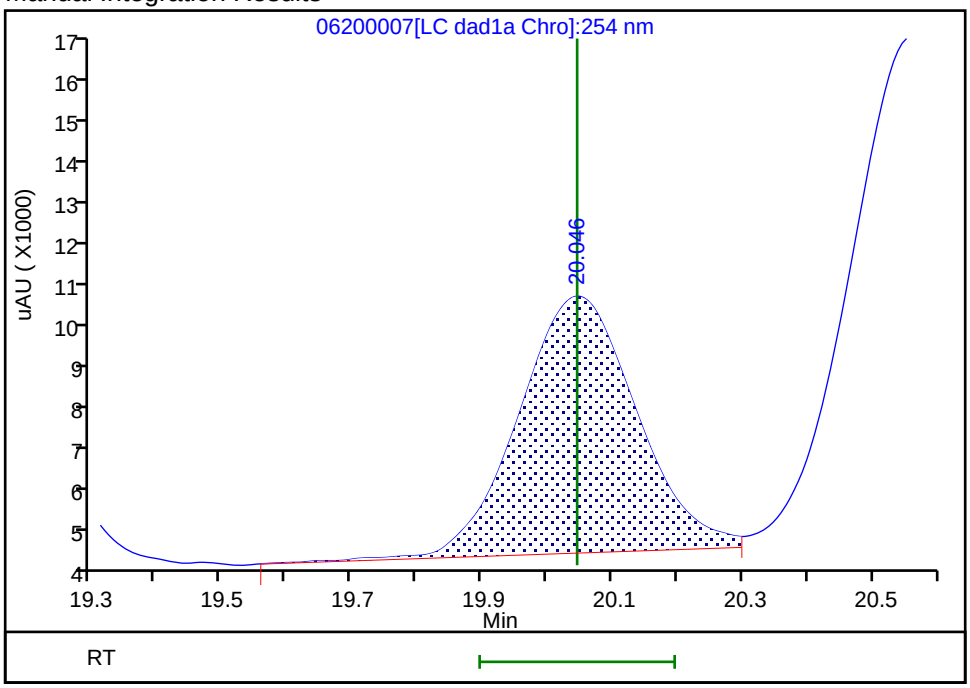
Processing Integration Results

RT: 20.05
Area: 69891
Amount: 0.226317
Amount Units: ug/ml



Manual Integration Results

RT: 20.05
Area: 74864
Amount: 0.243512
Amount Units: ug/ml



Reviewer: zhangji, 20-Jun-2020 13:46:24
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

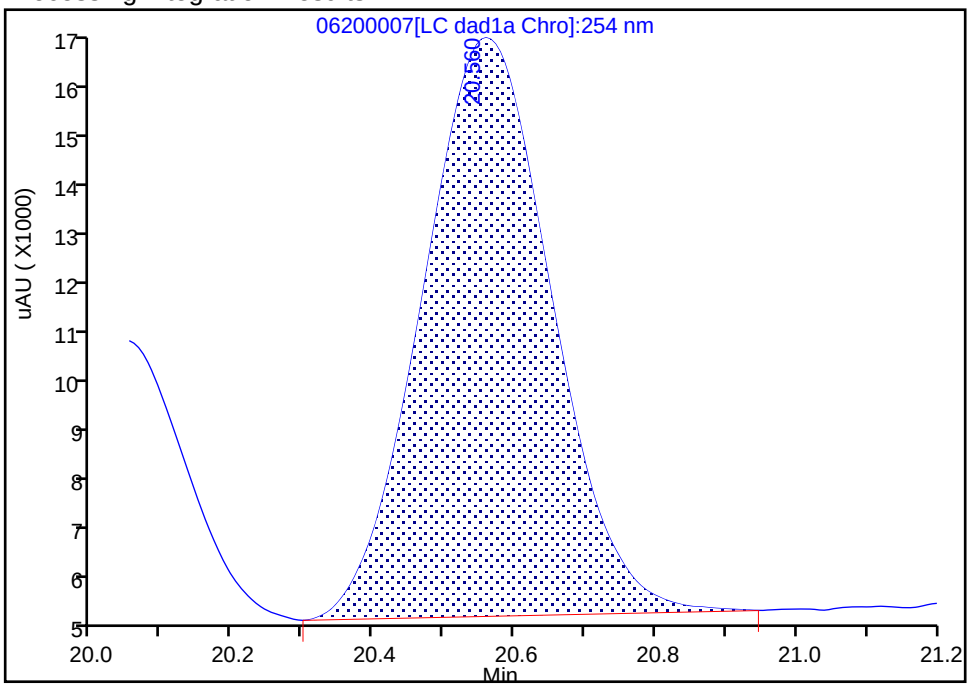
Data File:	\\chromfs\denver\chromdata\g2_luna\20200619-92597.b\06200007.d				
Injection Date:	20-Jun-2020 12:59:34	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	CCV				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	7	Worklist Smp#:	7
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

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

Signal: 1

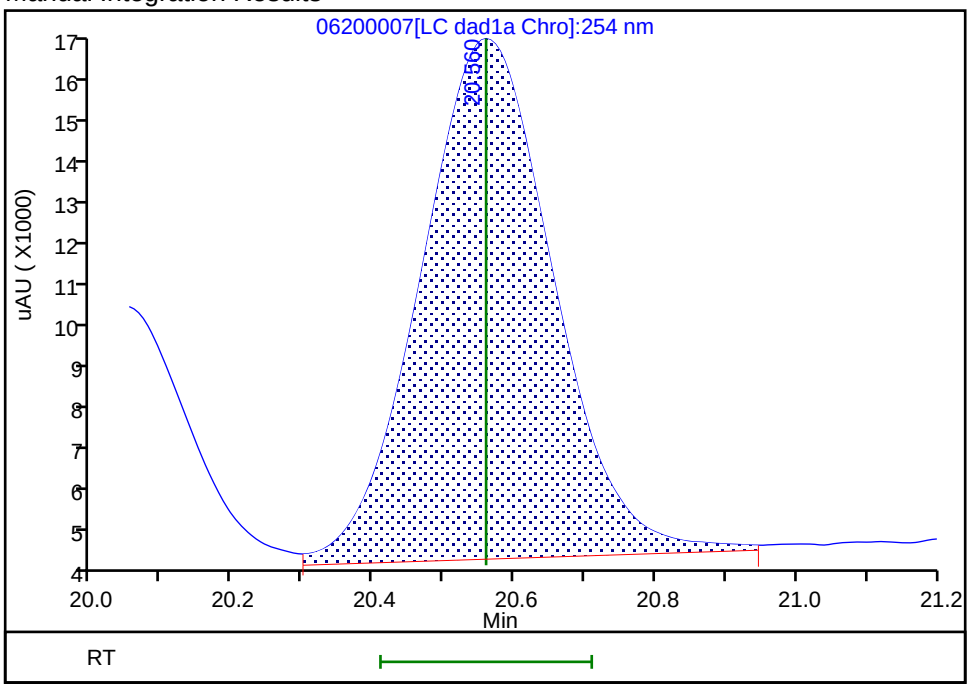
Processing Integration Results

RT: 20.56
Area: 145691
Amount: 0.227602
Amount Units: ug/ml



Manual Integration Results

RT: 20.56
Area: 152636
Amount: 0.238452
Amount Units: ug/ml



Reviewer: zhangji, 20-Jun-2020 13:46:24
Audit Action: Assigned New Baseline Audit Reason: Baseline

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Lab Sample ID: CCV 280-499503/8 Calibration Date: 06/20/2020 13:34

Instrument ID: CHHPLC_G2_LUNA Calib Start Date: 05/14/2020 22:06

GC Column: Luna-phenylhex ID: 4.60(mm) Calib End Date: 05/15/2020 02:46

Lab File ID: 06200008.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
TNX	Ave	435816	420468		241	250	-3.5	15.0
DNX	Ave	321206	309191		241	250	-3.7	15.0
MNX	Lin2		291787		299	292	2.4	15.0

FORM VII 8330A

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Lab Sample ID: CCV 280-499503/8 Calibration Date: 06/20/2020 13:34

Instrument ID: CHHPLC_G2_LUNA Calib Start Date: 05/14/2020 22:06

GC Column: Luna-phenylhex ID: 4.60(mm) Calib End Date: 05/15/2020 02:46

Lab File ID: 06200008.D

Analyte	RT	RT WINDOW	
		FROM	TO
TNX	5.51	5.36	5.66
DNX	6.35	6.19	6.49
MNX	7.90	7.73	8.03

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\G2_LUNA\20200619-92597.b\06200008.D				
Lims ID:	CCV DMT				
Client ID:					
Sample Type:	CCV				
Inject. Date:	20-Jun-2020 13:34:37	ALS Bottle#:	8	Worklist Smp#:	8
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	CCV DMT				
Misc. Info.:	280-0092597-008				
Operator ID:	JZ	Instrument ID:	CHHPLC_G2_LUNA		
Sublist:	chrom-G2_8330_Luna*sub13				
Method:	\\chromfs\Denver\ChromData\G2_LUNA\20200619-92597.b\G2_8330_Luna.m				
Limit Group:	GCSV - 8330				
Last Update:	23-Jun-2020 18:23:13	Calib Date:	15-May-2020 02:11:20		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140024.D				
Column 1 :	Luna-Phenyl hexyl (4.60 mm)		Det: LC DAD1A, 254 nm		
Process Host:	CTX1017				

First Level Reviewer: zhangji Date: 20-Jun-2020 15:52:00

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
3 TNX	1	5.509	5.509	0.000	105222	0.2503	0.2414	
4 DNX	1	6.349	6.336	0.013	77375	0.2503	0.2409	
7 MNX	1	7.903	7.876	0.027	85129	0.2918	0.2987	

Reagents:

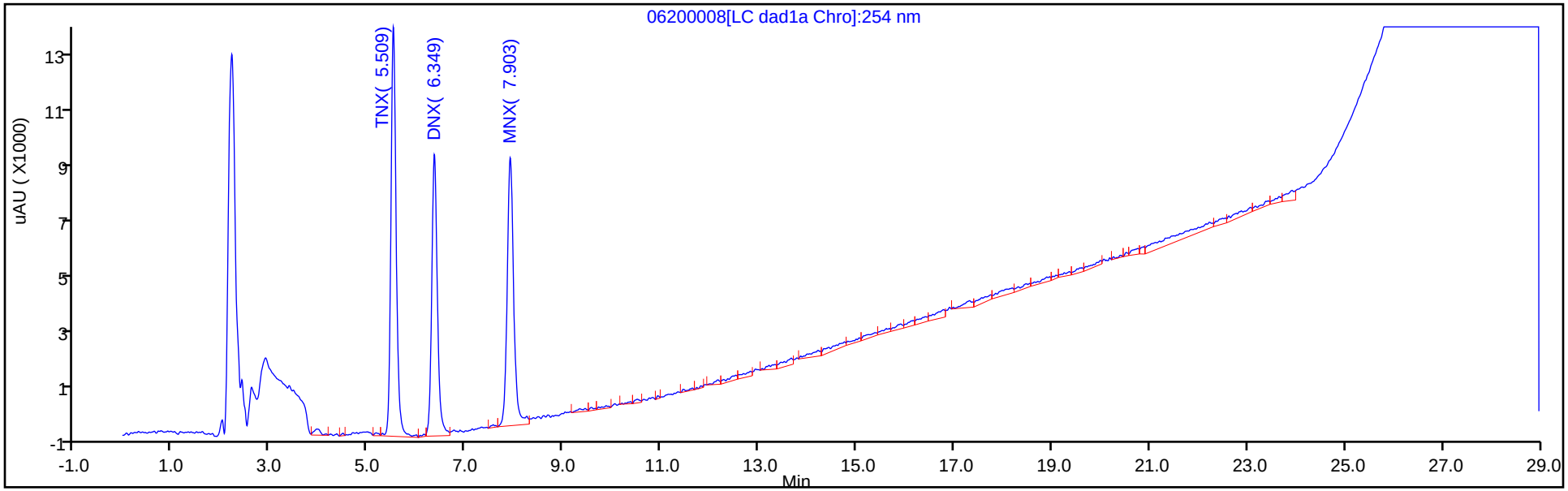
8330 DMT_00006 Amount Added: 12.50 Units: uL

Report Date: 23-Jun-2020 18:23:13 Chrom Revision: 2.3 21-Jun-2020 18:30:46

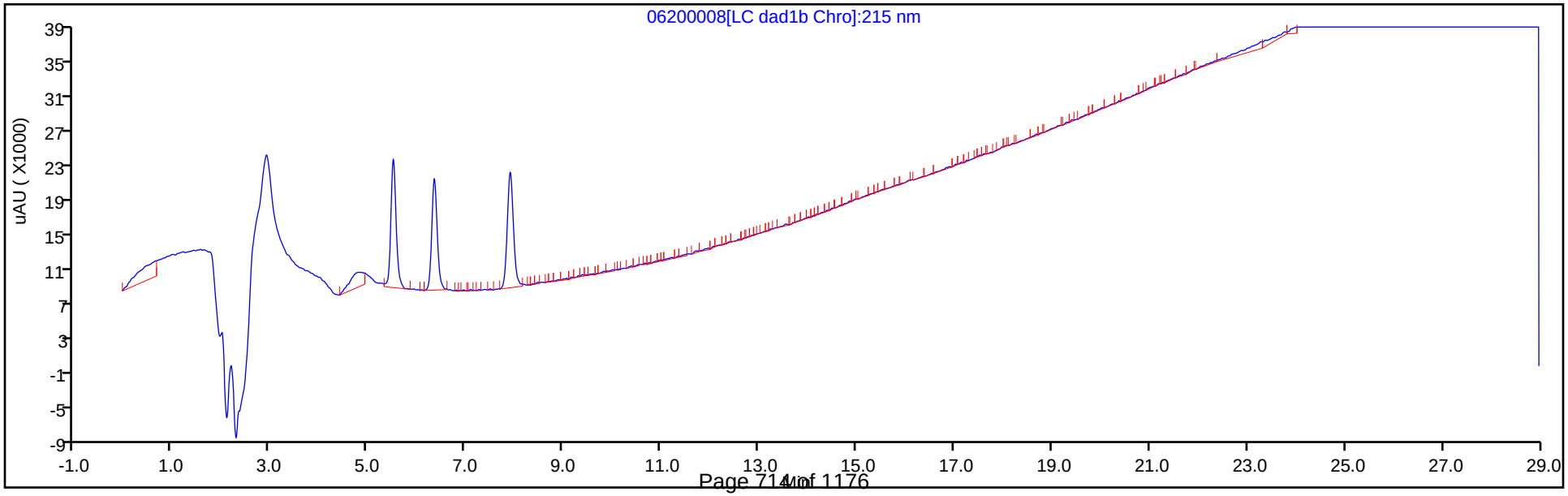
Eurofins TestAmerica, Denver

Data File:	\\chromfs\denver\chromdata\g2_luna\20200619-92597.b\06200008.d				
Injection Date:	20-Jun-2020 13:34:37	Instrument ID:	CHHPLC_G2_LUNA	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:	G2_8330_Luna	Limit Group:	GCSV - 8330		

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



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



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Lab Sample ID: CCV 280-499503/19 Calibration Date: 06/20/2020 19:59

Instrument ID: CHHPLC_G2_LUNA Calib Start Date: 05/14/2020 16:16

GC Column: Luna-phenylhex ID: 4.60(mm) Calib End Date: 05/14/2020 20:56

Lab File ID: 06200019.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
HMX	Lin2		182240		227	250	-9.1	15.0
Picric acid	Ave	193810	186764		241	250	-3.6	15.0
RDX	Ave	244360	233624		239	250	-4.4	15.0
Nitrobenzene	Ave	439227	427303		244	251	-2.7	15.0
1,3-Dinitrobenzene	Ave	674189	657677		244	251	-2.4	15.0
Nitroglycerin	Ave	126803	130306		2570	2500	2.8	15.0
2-Nitrotoluene	Ave	272965	264304		242	250	-3.2	15.0
4-Nitrotoluene	Ave	240881	233629		243	251	-3.0	15.0
4-Amino-2,6-dinitrotoluene	Ave	345235	324623		235	250	-6.0	15.0
3-Nitrotoluene	Ave	298327	297546		250	250	-0.3	15.0
2-Amino-4,6-dinitrotoluene	Ave	465211	445171		240	251	-4.3	15.0
1,3,5-Trinitrobenzene	Ave	472451	464451		246	251	-1.7	15.0
2,6-Dinitrotoluene	Lin2		296968		242	251	-3.4	15.0
2,4-Dinitrotoluene	Ave	640113	603641		237	251	-5.7	15.0
Tetryl	Ave	368678	348483		237	251	-5.5	15.0
2,4,6-Trinitrotoluene	Lin1		394976		239	251	-4.8	15.0
PETN	Lin1		141802		2530	2500	1.2	15.0
1,2-Dinitrobenzene	Lin1		295456		260	250	3.9	15.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Lab Sample ID: CCV 280-499503/19 Calibration Date: 06/20/2020 19:59

Instrument ID: CHHPLC_G2_LUNA Calib Start Date: 05/14/2020 16:16

GC Column: Luna-phenylhex ID: 4.60(mm) Calib End Date: 05/14/2020 20:56

Lab File ID: 06200019.D

Analyte	RT	RT WINDOW	
		FROM	TO
HMX	7.13	7.00	7.30
Picric acid	8.37	8.33	8.63
RDX	9.34	9.22	9.52
Nitrobenzene	12.24	12.11	12.41
1,3-Dinitrobenzene	15.78	15.64	15.94
Nitroglycerin	16.01	15.88	16.18
2-Nitrotoluene	16.71	16.58	16.88
4-Nitrotoluene	17.00	16.86	17.16
4-Amino-2,6-dinitrotoluene	17.43	17.30	17.60
3-Nitrotoluene	17.92	17.79	18.09
2-Amino-4,6-dinitrotoluene	18.36	18.23	18.53
1,3,5-Trinitrobenzene	19.10	18.97	19.27
2,6-Dinitrotoluene	20.03	19.90	20.20
2,4-Dinitrotoluene	20.54	20.41	20.71
Tetryl	23.85	23.71	24.01
2,4,6-Trinitrotoluene	24.87	24.73	25.03
PETN	25.42	25.27	25.57
1,2-Dinitrobenzene	13.25	13.12	13.42

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2_LUNA\20200619-92597.b\06200019.D
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 20-Jun-2020 19:59:24 ALS Bottle#: 7 Worklist Smp#: 19
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: CCV
Misc. Info.: 280-0092597-019
Operator ID: JZ Instrument ID: CHHPLC_G2_LUNA
Sublist: chrom-G2_8330_Luna*sub6

Method: \\chromfs\Denver\ChromData\G2_LUNA\20200619-92597.b\G2_8330_Luna.m
Limit Group: GCSV - 8330
Last Update: 23-Jun-2020 18:23:07 Calib Date: 15-May-2020 02:11:20
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140024.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC DAD1A, 254 nm
Process Host: CTX1017

First Level Reviewer: zhangji Date: 23-Jun-2020 14:02:26

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	4.389	4.386	0.003	107136	0.2500	0.2496	M
2 2,4-diamino-6-nitrotoluene	1	4.962	4.973	-0.011	64649	0.2500	0.2486	M
6 HMX	1	7.129	7.153	-0.024	45560	0.2500	0.2273	
5 2,4,6-Trinitrophenol	1	8.369	8.480	-0.111	46691	0.2500	0.2409	
8 RDX	1	9.342	9.366	-0.024	58406	0.2500	0.2390	
9 Nitrobenzene	1	12.242	12.259	-0.017	107253	0.2510	0.2442	
$ 10 1,2-Dinitrobenzene	1	13.248	13.266	-0.018	73864	0.2500	0.2598	
11 3,5-Dinitroaniline	1	15.168	15.199	-0.031	120238	0.2500	0.2422	
12 1,3-Dinitrobenzene	1	15.775	15.793	-0.018	164748	0.2505	0.2444	
13 Nitroglycerin	2	16.008	16.026	-0.018	325766	2.50	2.57	
14 o-Nitrotoluene	1	16.708	16.726	-0.018	66076	0.2500	0.2421	M
15 p-Nitrotoluene	1	16.995	17.006	-0.011	58524	0.2505	0.2430	M
16 4-Amino-2,6-dinitrotoluene	1	17.428	17.446	-0.018	81237	0.2503	0.2353	M
17 m-Nitrotoluene	1	17.922	17.939	-0.017	74461	0.2503	0.2496	M
18 2-Amino-4,6-dinitrotoluene	1	18.362	18.379	-0.017	111738	0.2510	0.2402	M
19 1,3,5-Trinitrobenzene	1	19.102	19.119	-0.017	116345	0.2505	0.2463	M
20 2,6-Dinitrotoluene	1	20.028	20.046	-0.018	74539	0.2510	0.2424	M
21 2,4-Dinitrotoluene	1	20.542	20.560	-0.017	151514	0.2510	0.2367	M
22 Tetryl	1	23.849	23.860	-0.011	87295	0.2505	0.2368	
23 2,4,6-Trinitrotoluene	1	24.869	24.880	-0.011	99139	0.2510	0.2390	
24 PETN	2	25.415	25.420	-0.005	354505	2.50	2.53	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

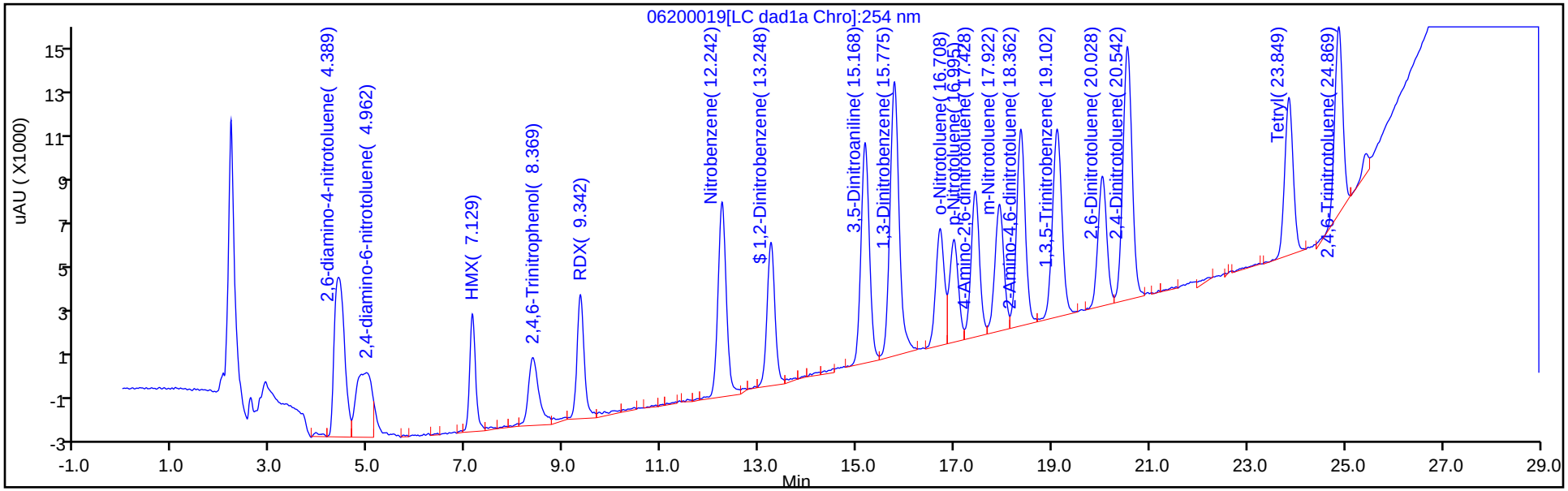
8330IntermStk_00064	Amount Added:	25.00	Units: uL
8330_ADDs_00027	Amount Added:	12.50	Units: uL

Report Date: 23-Jun-2020 18:23:07 Chrom Revision: 2.3 21-Jun-2020 18:30:46

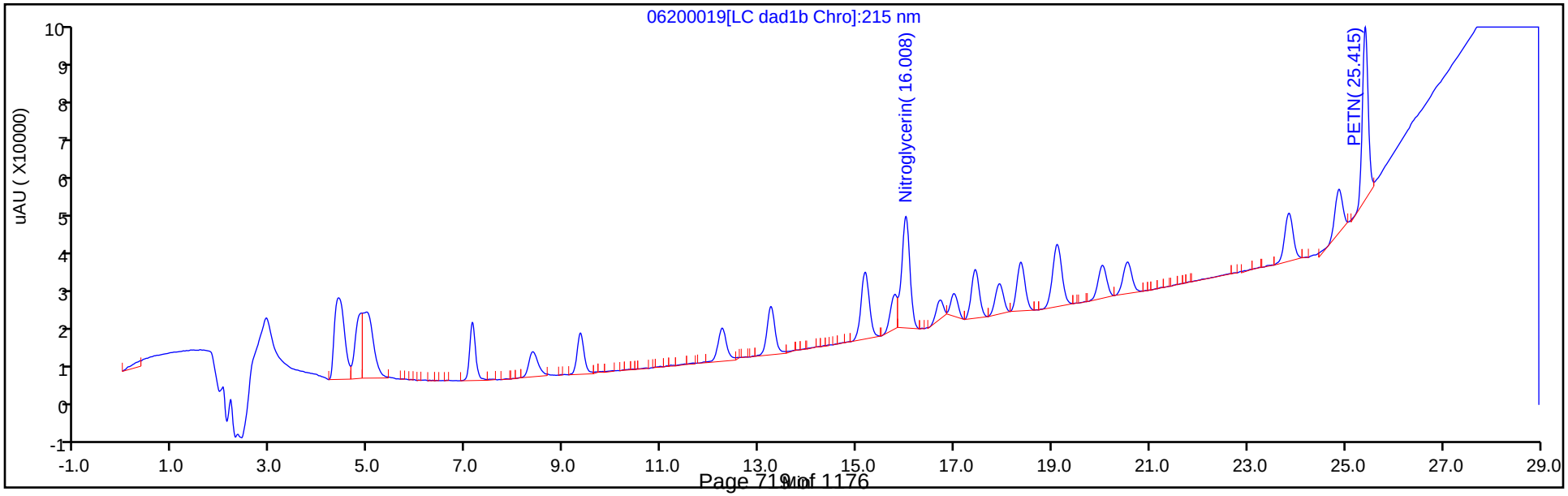
Eurofins TestAmerica, Denver

Data File:	\\chromfs\denver\chromdata\g2_luna\20200619-92597.b\06200019.d				
Injection Date:	20-Jun-2020 19:59:24	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	JZ
Lims ID:	CCV			Worklist Smp#:	19
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		

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



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



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

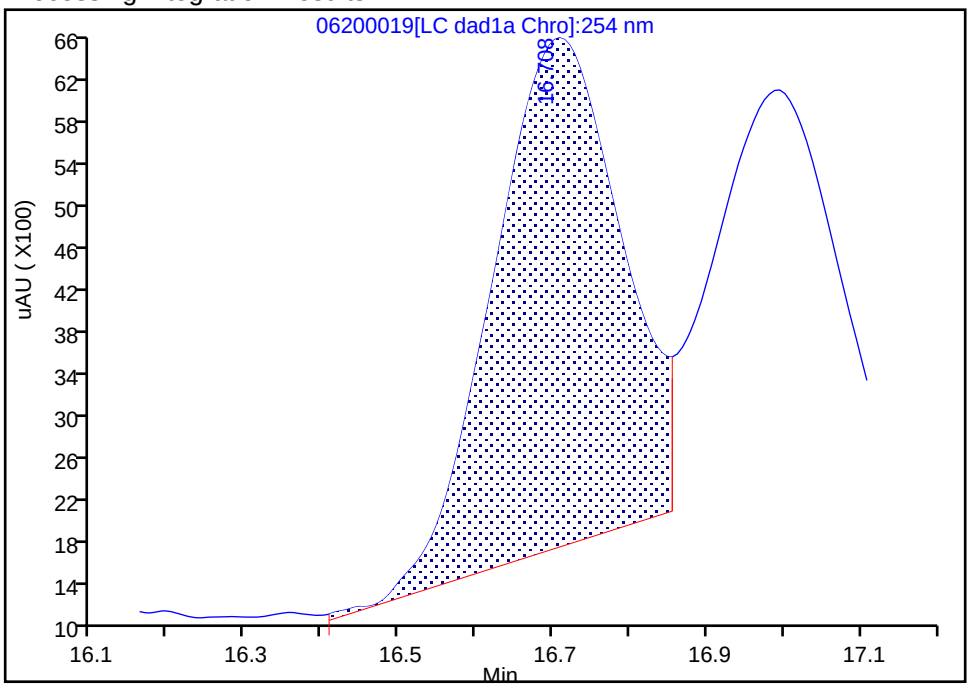
Data File:	\\chromfs\denver\chromdata\g2_luna\20200619-92597.b\06200019.d				
Injection Date:	20-Jun-2020 19:59:24	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	CCV				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	7	Worklist Smp#:	19
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

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

Signal: 1

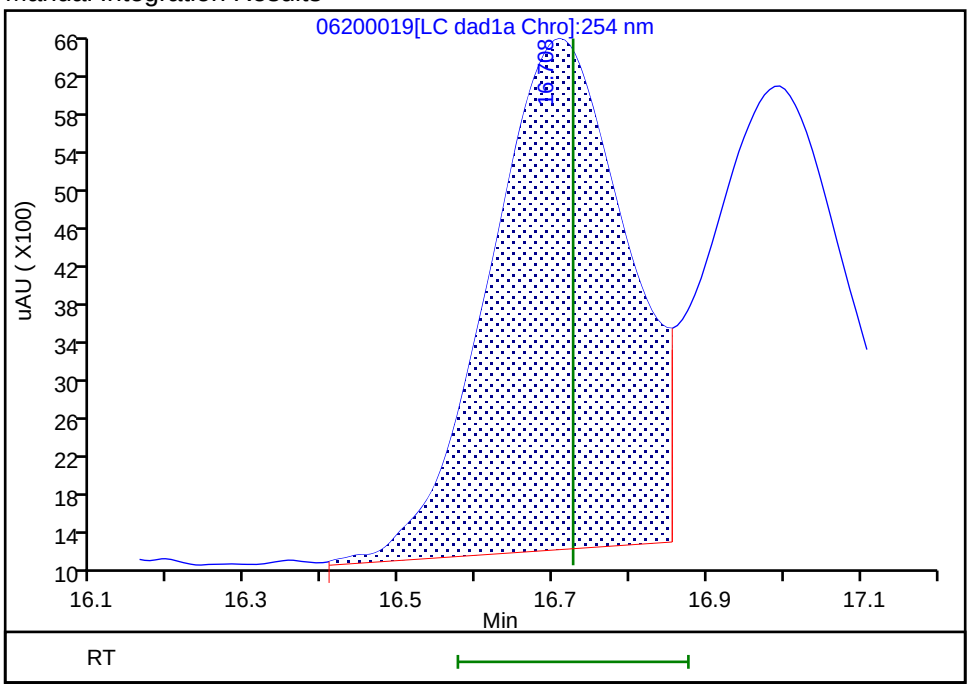
Processing Integration Results

RT: 16.71
Area: 56080
Amount: 0.205448
Amount Units: ug/ml



Manual Integration Results

RT: 16.71
Area: 66076
Amount: 0.242068
Amount Units: ug/ml



Reviewer: zhangji, 23-Jun-2020 14:02:15
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

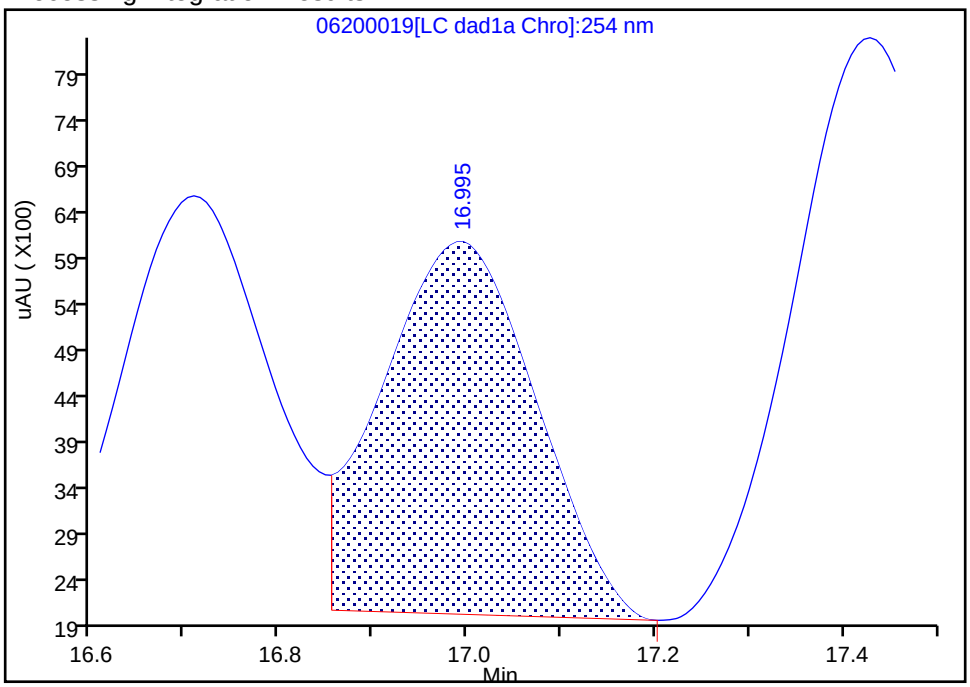
Data File:	\\chromfs\denver\chromdata\g2_luna\20200619-92597.b\06200019.d				
Injection Date:	20-Jun-2020 19:59:24	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	CCV				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	7	Worklist Smp#:	19
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

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

Signal: 1

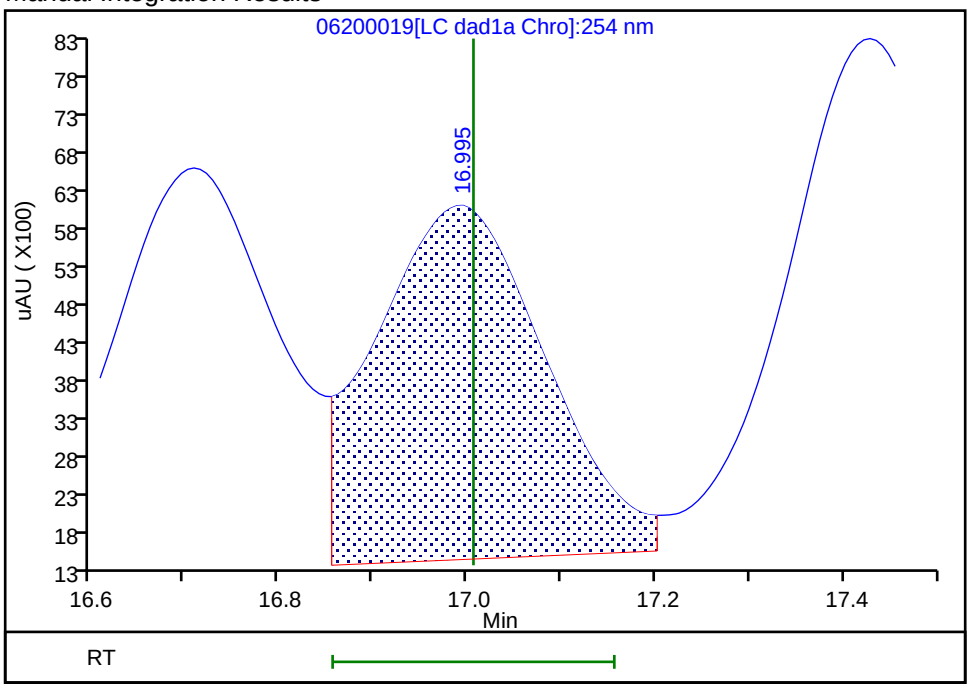
Processing Integration Results

RT: 17.00
Area: 45649
Amount: 0.189508
Amount Units: ug/ml



Manual Integration Results

RT: 17.00
Area: 58524
Amount: 0.242958
Amount Units: ug/ml



Reviewer: zhangji, 23-Jun-2020 14:02:15
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

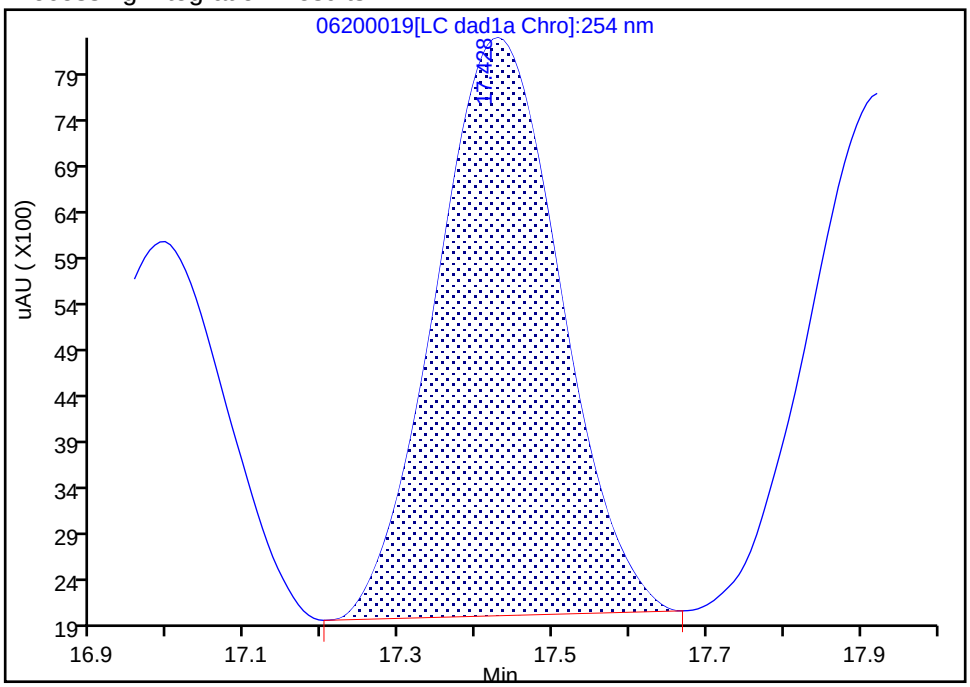
Data File:	\\chromfs\denver\chromdata\g2_luna\20200619-92597.b\06200019.d				
Injection Date:	20-Jun-2020 19:59:24	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	CCV				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	7	Worklist Smp#:	19
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

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

Signal: 1

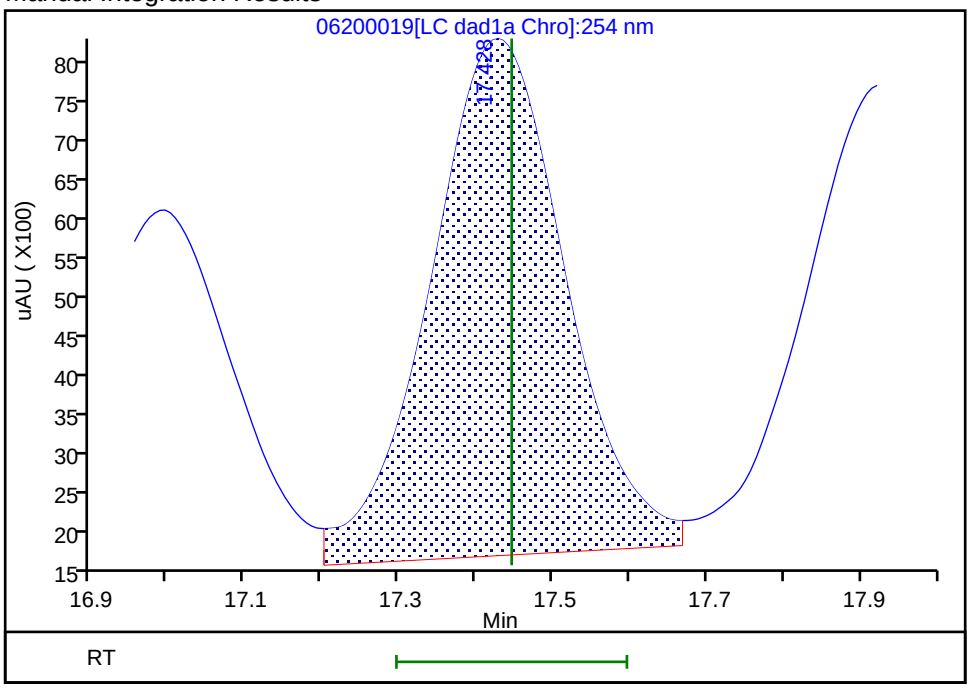
Processing Integration Results

RT: 17.43
Area: 70177
Amount: 0.203273
Amount Units: ug/ml



Manual Integration Results

RT: 17.43
Area: 81237
Amount: 0.235310
Amount Units: ug/ml



Reviewer: zhangji, 23-Jun-2020 14:02:15
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

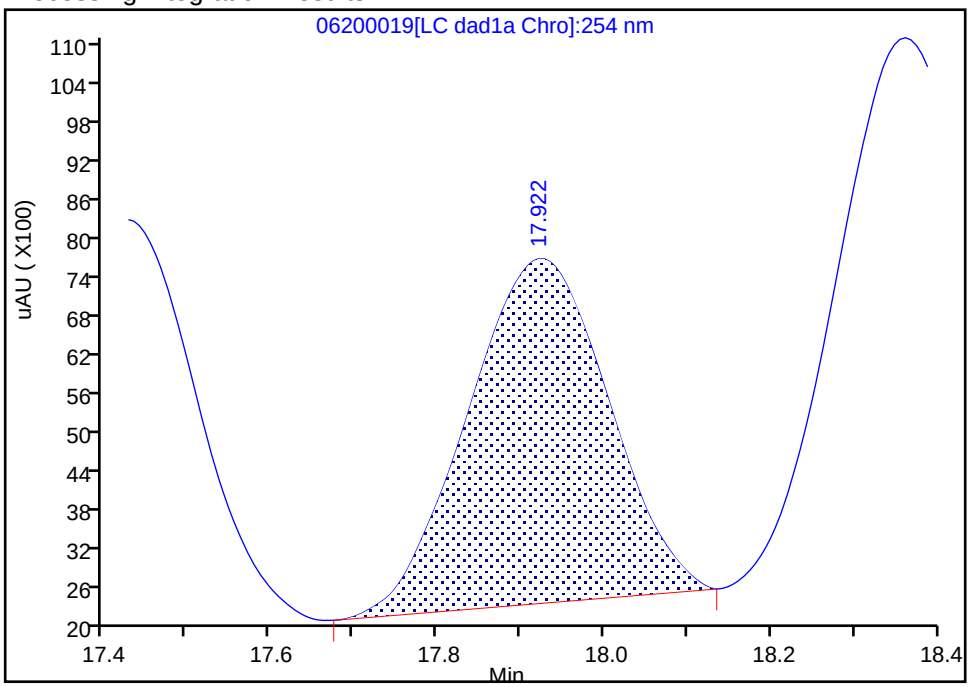
Data File:	\\chromfs\denver\chromdata\g2_luna\20200619-92597.b\06200019.d				
Injection Date:	20-Jun-2020 19:59:24	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	CCV				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	7	Worklist Smp#:	19
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

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

Signal: 1

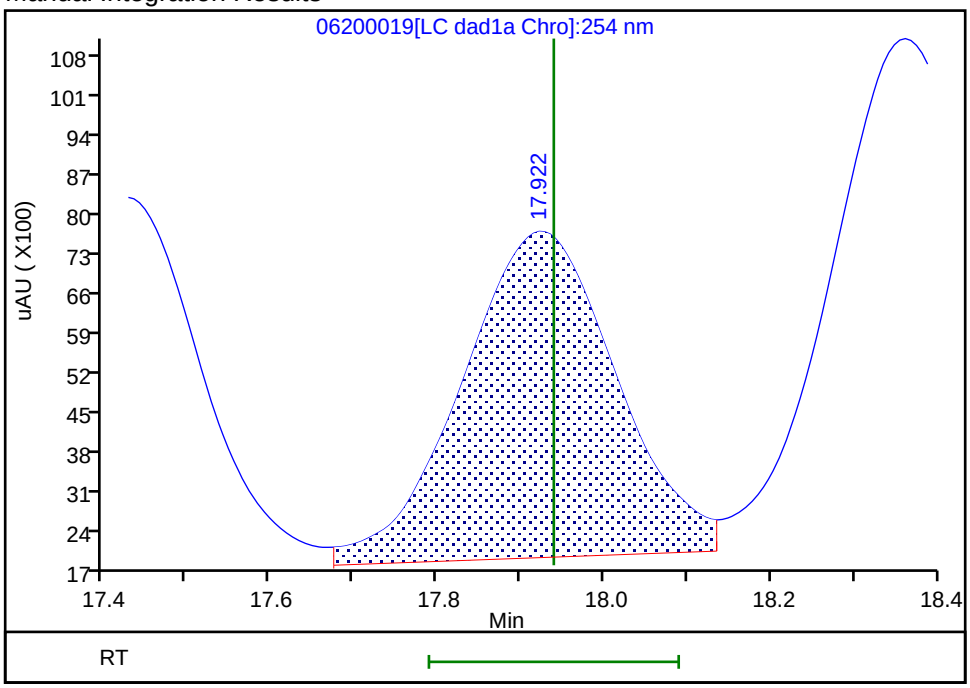
Processing Integration Results

RT: 17.92
Area: 62482
Amount: 0.209441
Amount Units: ug/ml



Manual Integration Results

RT: 17.92
Area: 74461
Amount: 0.249595
Amount Units: ug/ml



Reviewer: zhangji, 23-Jun-2020 14:02:15
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

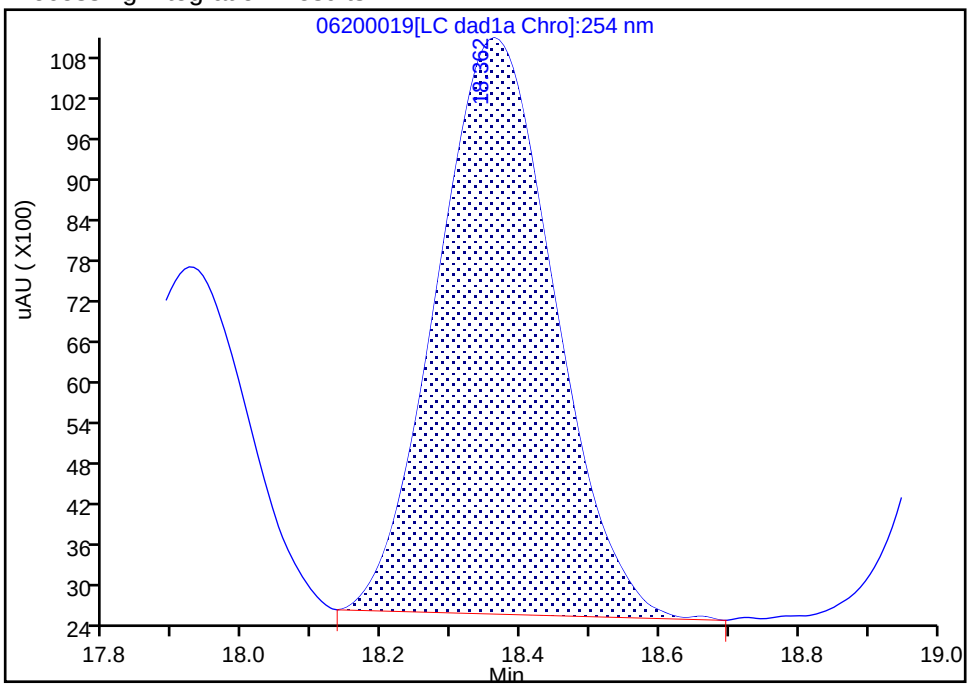
Data File:	\\chromfs\denver\chromdata\g2_luna\20200619-92597.b\06200019.d				
Injection Date:	20-Jun-2020 19:59:24	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	CCV				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	7	Worklist Smp#:	19
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

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

Signal: 1

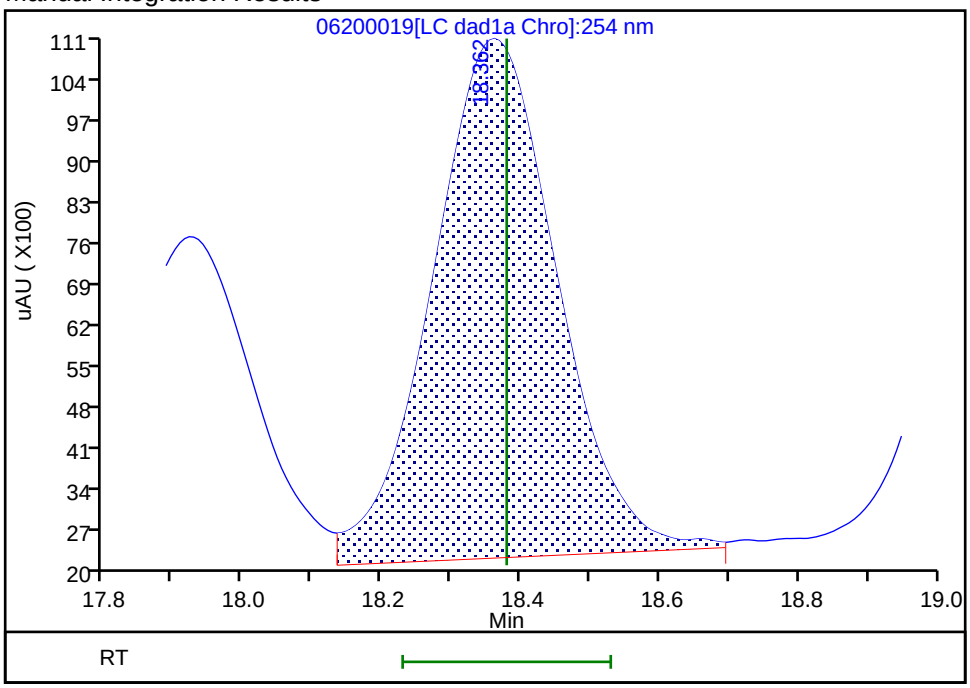
Processing Integration Results

RT: 18.36
Area: 100969
Amount: 0.217039
Amount Units: ug/ml



Manual Integration Results

RT: 18.36
Area: 111738
Amount: 0.240188
Amount Units: ug/ml



Reviewer: zhangji, 23-Jun-2020 14:02:15

Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

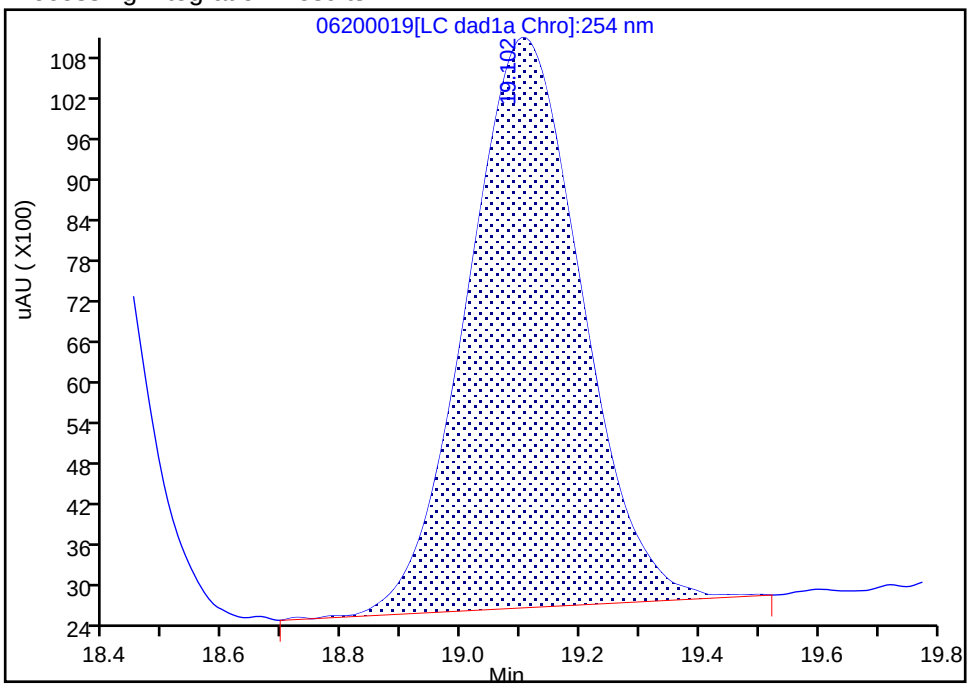
Data File:	\\chromfs\denver\chromdata\g2_luna\20200619-92597.b\06200019.d				
Injection Date:	20-Jun-2020 19:59:24	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	CCV				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	7	Worklist Smp#:	19
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

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

Signal: 1

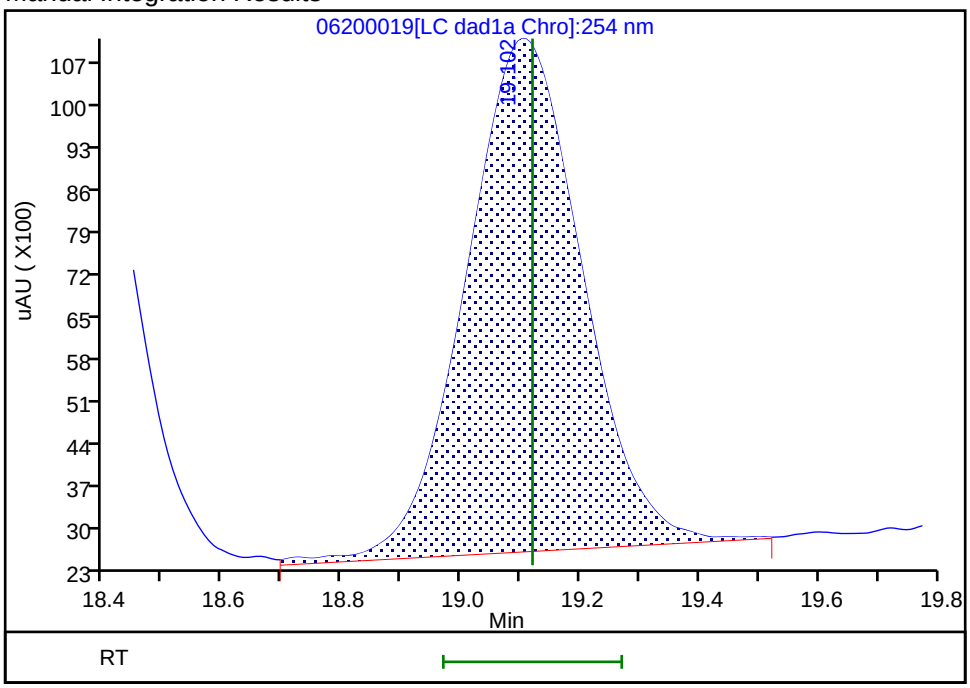
Processing Integration Results

RT: 19.10
Area: 113641
Amount: 0.240535
Amount Units: ug/ml



Manual Integration Results

RT: 19.10
Area: 116345
Amount: 0.246258
Amount Units: ug/ml



Reviewer: zhangji, 23-Jun-2020 14:02:15
Audit Action: Assigned New Baseline Audit Reason: Baseline

Eurofins TestAmerica, Denver

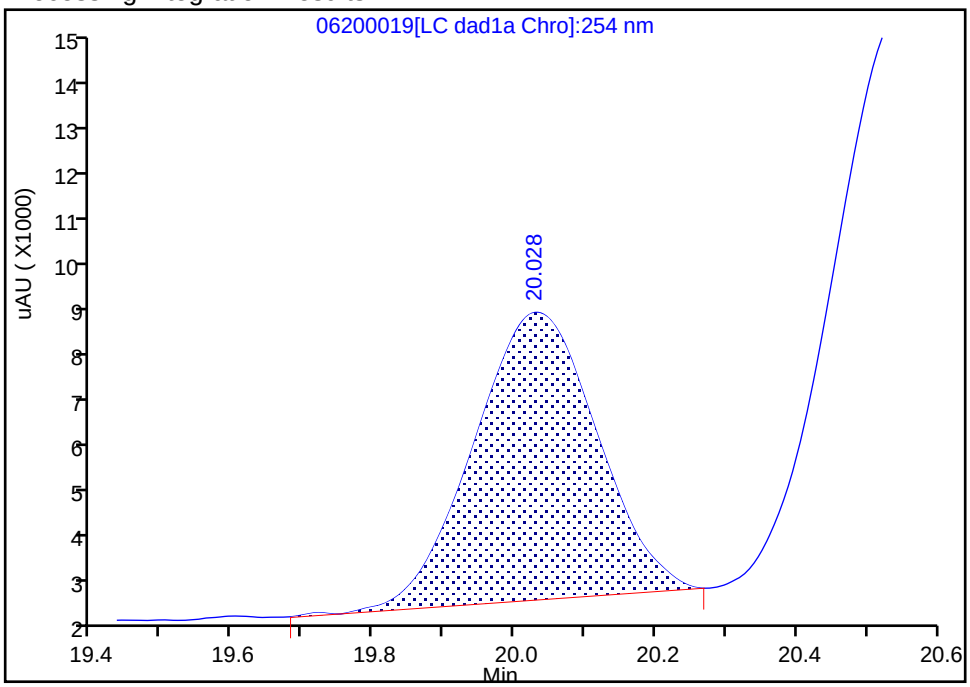
Data File:	\\chromfs\denver\chromdata\g2_luna\20200619-92597.b\06200019.d				
Injection Date:	20-Jun-2020 19:59:24	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	CCV				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	7	Worklist Smp#:	19
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

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

Signal: 1

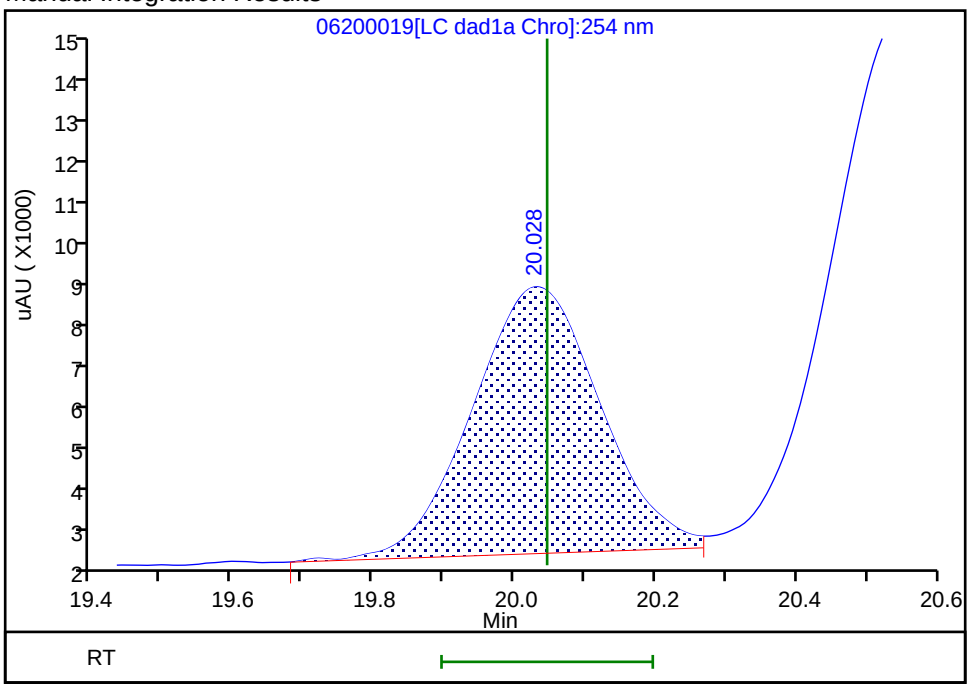
Processing Integration Results

RT: 20.03
Area: 70192
Amount: 0.227358
Amount Units: ug/ml



Manual Integration Results

RT: 20.03
Area: 74539
Amount: 0.242388
Amount Units: ug/ml



Reviewer: zhangji, 23-Jun-2020 14:02:15
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

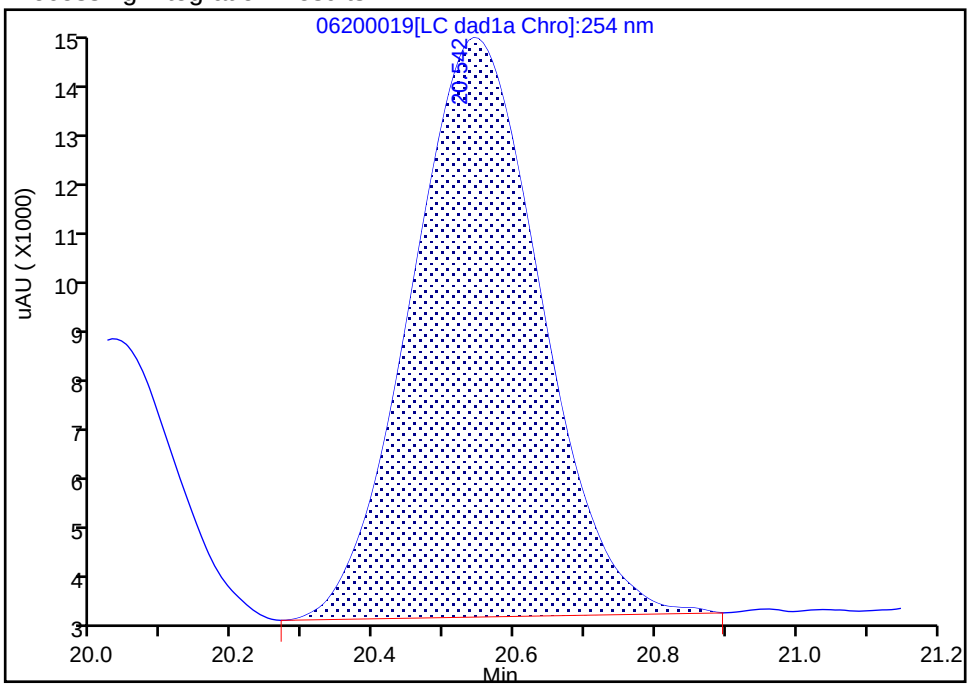
Data File:	\\chromfs\denver\chromdata\g2_luna\20200619-92597.b\06200019.d				
Injection Date:	20-Jun-2020 19:59:24	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	CCV				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	7	Worklist Smp#:	19
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

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

Signal: 1

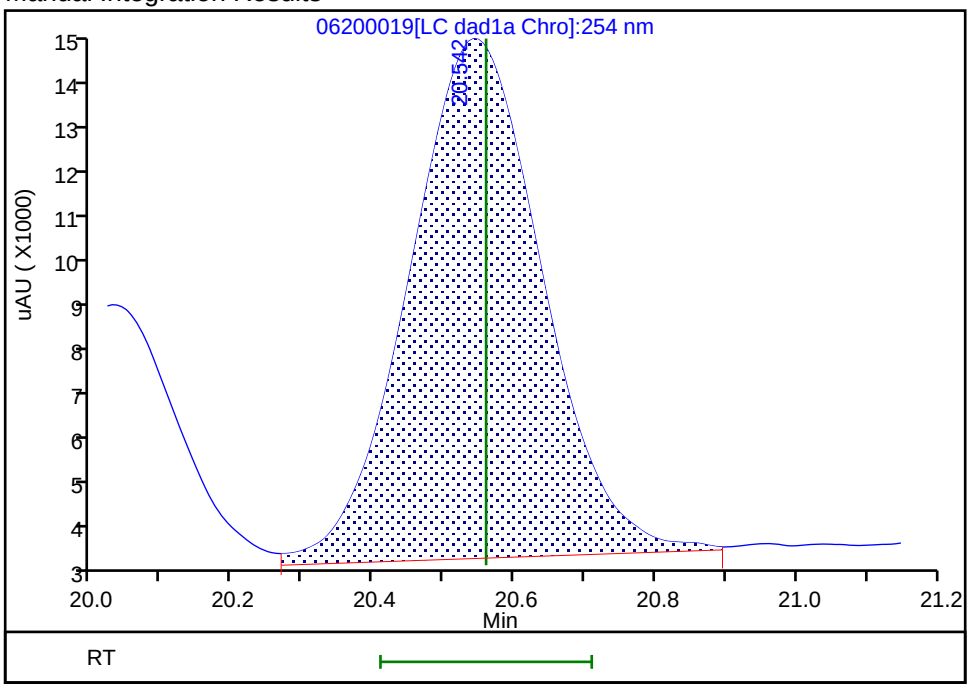
Processing Integration Results

RT: 20.54
Area: 145498
Amount: 0.227300
Amount Units: ug/ml



Manual Integration Results

RT: 20.54
Area: 151514
Amount: 0.236699
Amount Units: ug/ml



Reviewer: zhangji, 23-Jun-2020 14:02:15
Audit Action: Assigned New Baseline Audit Reason: Baseline

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Lab Sample ID: CCV 280-499503/20 Calibration Date: 06/20/2020 20:34

Instrument ID: CHHPLC_G2_LUNA Calib Start Date: 05/14/2020 22:06

GC Column: Luna-phenylhex ID: 4.60(mm) Calib End Date: 05/15/2020 02:46

Lab File ID: 06200020.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
TNX	Ave	435816	405219		233	250	-7.0	15.0
DNX	Ave	321206	303453		236	250	-5.5	15.0
MNX	Lin2		289114		296	292	1.4	15.0

FORM VII 8330A

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Lab Sample ID: CCV 280-499503/20 Calibration Date: 06/20/2020 20:34

Instrument ID: CHHPLC_G2_LUNA Calib Start Date: 05/14/2020 22:06

GC Column: Luna-phenylhex ID: 4.60(mm) Calib End Date: 05/15/2020 02:46

Lab File ID: 06200020.D

Analyte	RT	RT WINDOW	
		FROM	TO
TNX	5.52	5.36	5.66
DNX	6.36	6.19	6.49
MNX	7.91	7.73	8.03

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\G2_LUNA\20200619-92597.b\06200020.D				
Lims ID:	CCV DMT				
Client ID:					
Sample Type:	CCV				
Inject. Date:	20-Jun-2020 20:34:26	ALS Bottle#:	8	Worklist Smp#:	20
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	CCV DMT				
Misc. Info.:	280-0092597-020				
Operator ID:	JZ	Instrument ID:	CHHPLC_G2_LUNA		
Sublist:	chrom-G2_8330_Luna*sub13				
Method:	\\chromfs\Denver\ChromData\G2_LUNA\20200619-92597.b\G2_8330_Luna.m				
Limit Group:	GCSV - 8330				
Last Update:	23-Jun-2020 18:23:06	Calib Date:	15-May-2020 02:11:20		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140024.D				
Column 1 :	Luna-Phenyl hexyl (4.60 mm)		Det: LC DAD1A, 254 nm		
Process Host:	CTX1017				

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
3 TNX	1	5.518	5.509	0.009	101406	0.2503	0.2327	
4 DNX	1	6.358	6.336	0.022	75939	0.2503	0.2364	
7 MNX	1	7.911	7.876	0.035	84349	0.2918	0.2958	

Reagents:

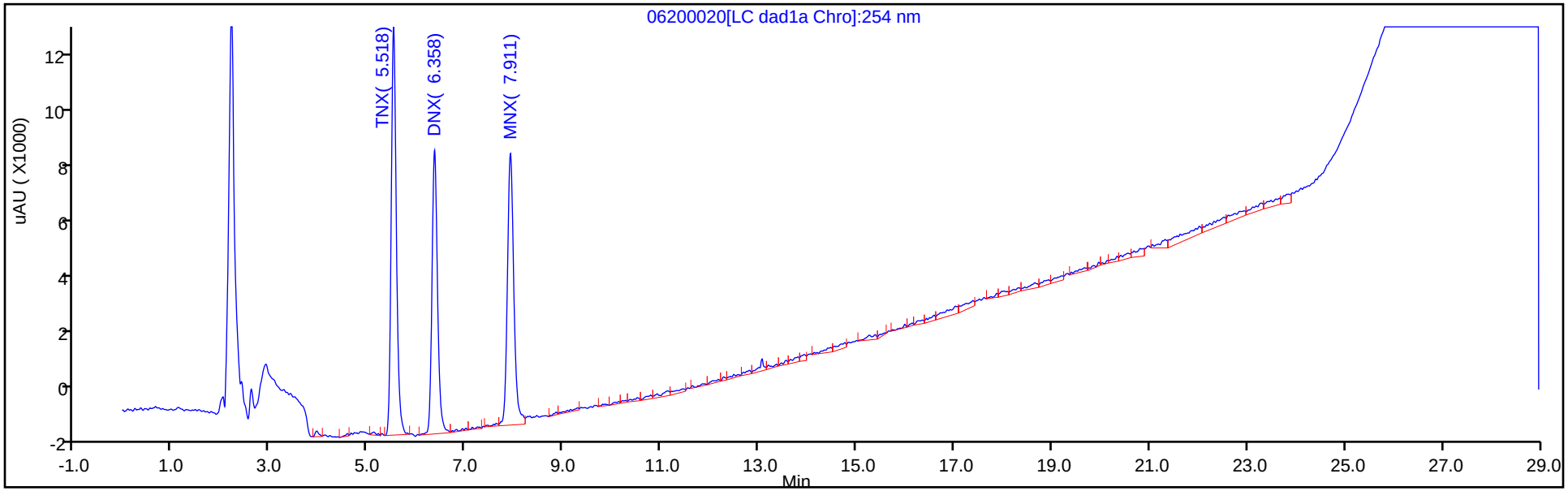
8330 DMT_00006 Amount Added: 12.50 Units: uL

Report Date: 23-Jun-2020 18:23:06 Chrom Revision: 2.3 21-Jun-2020 18:30:46

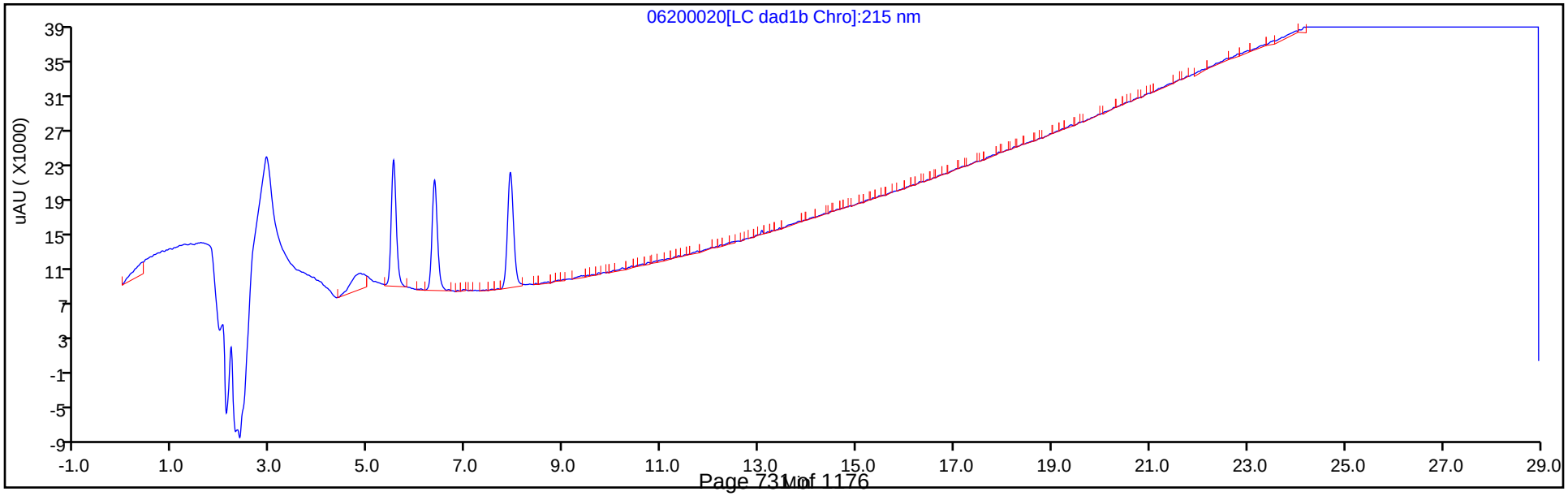
Eurofins TestAmerica, Denver

Data File:	\\chromfs\denver\chromdata\g2_luna\20200619-92597.b\06200020.d				
Injection Date:	20-Jun-2020 20:34:26	Instrument ID:	CHHPLC_G2_LUNA	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:	G2_8330_Luna	Limit Group:	GCSV - 8330		

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



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



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Lab Sample ID: CCV 280-499503/26 Calibration Date: 06/21/2020 00:04

Instrument ID: CHHPLC_G2_LUNA Calib Start Date: 05/14/2020 16:16

GC Column: Luna-phenylhex ID: 4.60(mm) Calib End Date: 05/14/2020 20:56

Lab File ID: 06200026.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
HMX	Lin2		180452		225	250	-10.1	15.0
Picric acid	Ave	193810	191396		247	250	-1.2	15.0
RDX	Ave	244360	250692		256	250	2.6	15.0
Nitrobenzene	Ave	439227	435040		249	251	-1.0	15.0
1,3-Dinitrobenzene	Ave	674189	654431		243	251	-2.9	15.0
Nitroglycerin	Ave	126803	141514		2790	2500	11.6	15.0
2-Nitrotoluene	Ave	272965	267780		245	250	-1.9	15.0
4-Nitrotoluene	Ave	240881	242092		252	251	0.5	15.0
4-Amino-2,6-dinitrotoluene	Ave	345235	334242		242	250	-3.2	15.0
3-Nitrotoluene	Ave	298327	308691		259	250	3.5	15.0
2-Amino-4,6-dinitrotoluene	Ave	465211	461586		249	251	-0.8	15.0
1,3,5-Trinitrobenzene	Ave	472451	478411		254	251	1.3	15.0
2,6-Dinitrotoluene	Lin2		309526		253	251	0.9	15.0
2,4-Dinitrotoluene	Ave	640113	620673		243	251	-3.0	15.0
Tetryl	Ave	368678	350220		238	251	-5.0	15.0
2,4,6-Trinitrotoluene	Lin1		396665		240	251	-4.4	15.0
PETN	Lin1		136788		2430	2500	-2.7	15.0
1,2-Dinitrobenzene	Lin1		319792		282	250	12.7	15.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Lab Sample ID: CCV 280-499503/26 Calibration Date: 06/21/2020 00:04

Instrument ID: CHHPLC_G2_LUNA Calib Start Date: 05/14/2020 16:16

GC Column: Luna-phenylhex ID: 4.60(mm) Calib End Date: 05/14/2020 20:56

Lab File ID: 06200026.D

Analyte	RT	RT WINDOW	
		FROM	TO
HMX	7.15	7.00	7.30
Picric acid	8.37	8.33	8.63
RDX	9.36	9.22	9.52
Nitrobenzene	12.25	12.11	12.41
1,3-Dinitrobenzene	15.78	15.64	15.94
Nitroglycerin	16.01	15.88	16.18
2-Nitrotoluene	16.71	16.58	16.88
4-Nitrotoluene	17.00	16.86	17.16
4-Amino-2,6-dinitrotoluene	17.43	17.30	17.60
3-Nitrotoluene	17.93	17.79	18.09
2-Amino-4,6-dinitrotoluene	18.37	18.23	18.53
1,3,5-Trinitrobenzene	19.11	18.97	19.27
2,6-Dinitrotoluene	20.03	19.90	20.20
2,4-Dinitrotoluene	20.55	20.41	20.71
Tetryl	23.85	23.71	24.01
2,4,6-Trinitrotoluene	24.87	24.73	25.03
PETN	25.41	25.27	25.57
1,2-Dinitrobenzene	13.25	13.12	13.42

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\G2_LUNA\20200619-92597.b\06200026.D
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 21-Jun-2020 00:04:02 ALS Bottle#: 7 Worklist Smp#: 26
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: CCV
Misc. Info.: 280-0092597-026
Operator ID: JZ Instrument ID: CHHPLC_G2_LUNA
Sublist: chrom-G2_8330_Luna*sub6

Method: \\chromfs\Denver\ChromData\G2_LUNA\20200619-92597.b\G2_8330_Luna.m
Limit Group: GCSV - 8330
Last Update: 23-Jun-2020 18:23:01 Calib Date: 15-May-2020 02:11:20
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140024.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC DAD1A, 254 nm
Process Host: CTX1017

First Level Reviewer: zhangji Date: 23-Jun-2020 14:01:54

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 2,6-diamino-4-nitrotoluene	1	4.386	4.386	0.000	107227	0.2500	0.2498	M
2 2,4-diamino-6-nitrotoluene	1	4.866	4.973	-0.107	66086	0.2500	0.2547	M
6 HMX	1	7.146	7.153	-0.007	45113	0.2500	0.2248	
5 2,4,6-Trinitrophenol	1	8.372	8.480	-0.108	47849	0.2500	0.2469	
8 RDX	1	9.359	9.366	-0.007	62673	0.2500	0.2565	
9 Nitrobenzene	1	12.246	12.259	-0.013	109195	0.2510	0.2486	
$ 10 1,2-Dinitrobenzene	1	13.252	13.266	-0.014	79948	0.2500	0.2817	
11 3,5-Dinitroaniline	1	15.186	15.199	-0.013	122483	0.2500	0.2468	
12 1,3-Dinitrobenzene	1	15.779	15.793	-0.014	163935	0.2505	0.2432	
13 Nitroglycerin	2	16.012	16.026	-0.014	353786	2.50	2.79	M
14 o-Nitrotoluene	1	16.712	16.726	-0.014	66945	0.2500	0.2453	M
15 p-Nitrotoluene	1	16.999	17.006	-0.007	60644	0.2505	0.2518	M
16 4-Amino-2,6-dinitrotoluene	1	17.432	17.446	-0.014	83644	0.2503	0.2423	M
17 m-Nitrotoluene	1	17.926	17.939	-0.013	77250	0.2503	0.2589	M
18 2-Amino-4,6-dinitrotoluene	1	18.366	18.379	-0.013	115858	0.2510	0.2490	M
19 1,3,5-Trinitrobenzene	1	19.106	19.119	-0.013	119842	0.2505	0.2537	M
20 2,6-Dinitrotoluene	1	20.032	20.046	-0.014	77691	0.2510	0.2533	M
21 2,4-Dinitrotoluene	1	20.546	20.560	-0.013	155789	0.2510	0.2434	M
22 Tetryl	1	23.852	23.860	-0.008	87730	0.2505	0.2380	
23 2,4,6-Trinitrotoluene	1	24.872	24.880	-0.008	99563	0.2510	0.2400	
24 PETN	2	25.412	25.420	-0.008	341971	2.50	2.43	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

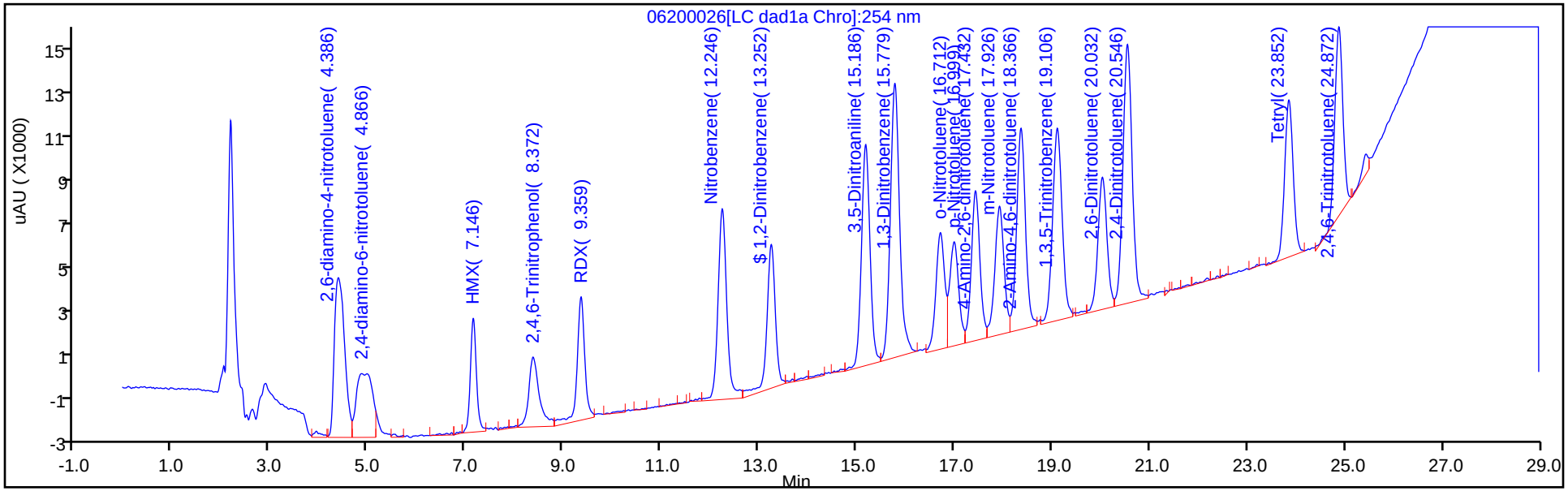
8330IntermStk_00064	Amount Added:	25.00	Units: uL
8330_ADDs_00027	Amount Added:	12.50	Units: uL

Report Date: 23-Jun-2020 18:23:01 Chrom Revision: 2.3 21-Jun-2020 18:30:46

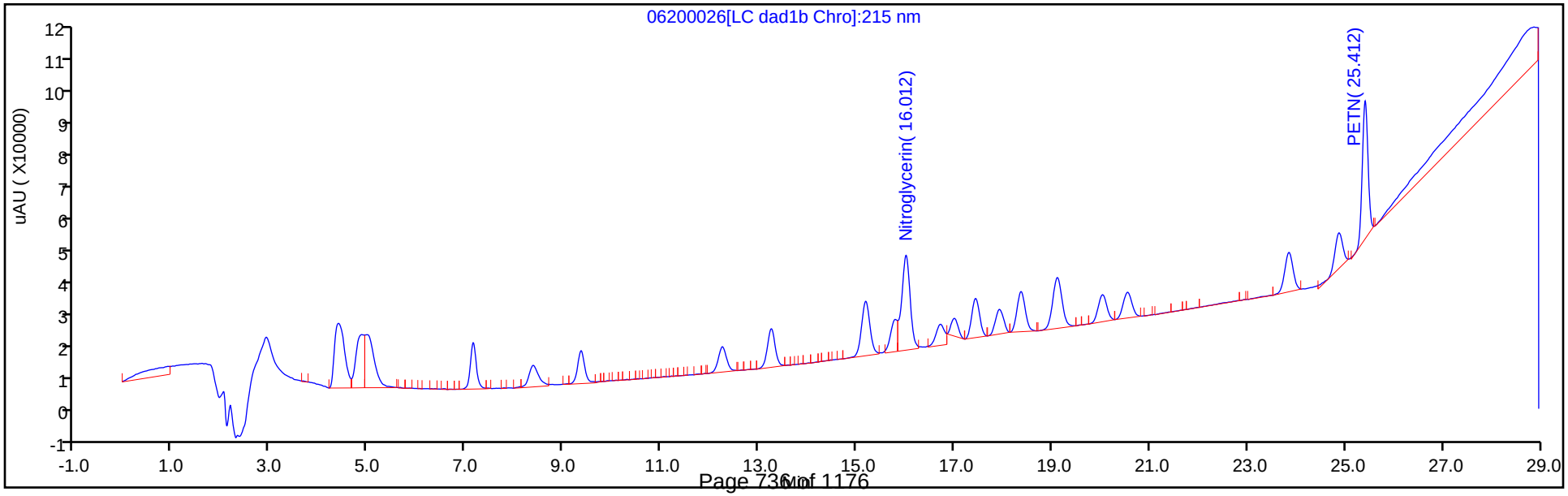
Eurofins TestAmerica, Denver

Data File:	\\chromfs\denver\chromdata\g2_luna\20200619-92597.b\06200026.d				
Injection Date:	21-Jun-2020 00:04:02	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	JZ
Lims ID:	CCV			Worklist Smp#:	26
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		

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



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



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

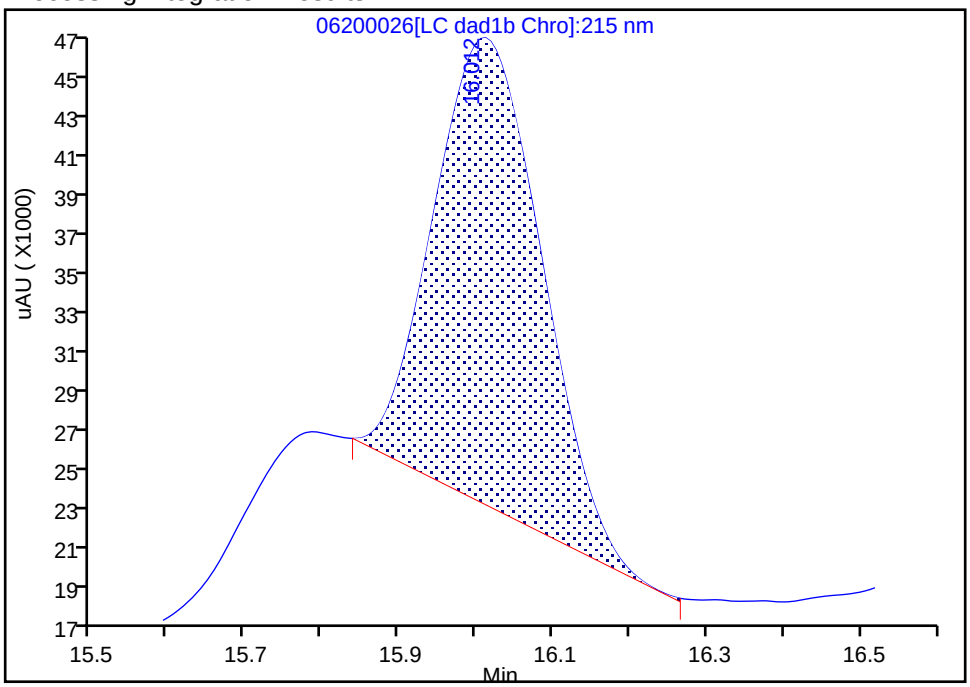
Data File:	\\chromfs\denver\chromdata\g2_luna\20200619-92597.b\06200026.d				
Injection Date:	21-Jun-2020 00:04:02	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	CCV				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	7	Worklist Smp#:	26
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:		Detector	LC DAD1B, 215 nm		

13 Nitroglycerin, CAS: 55-63-0

Signal: 1

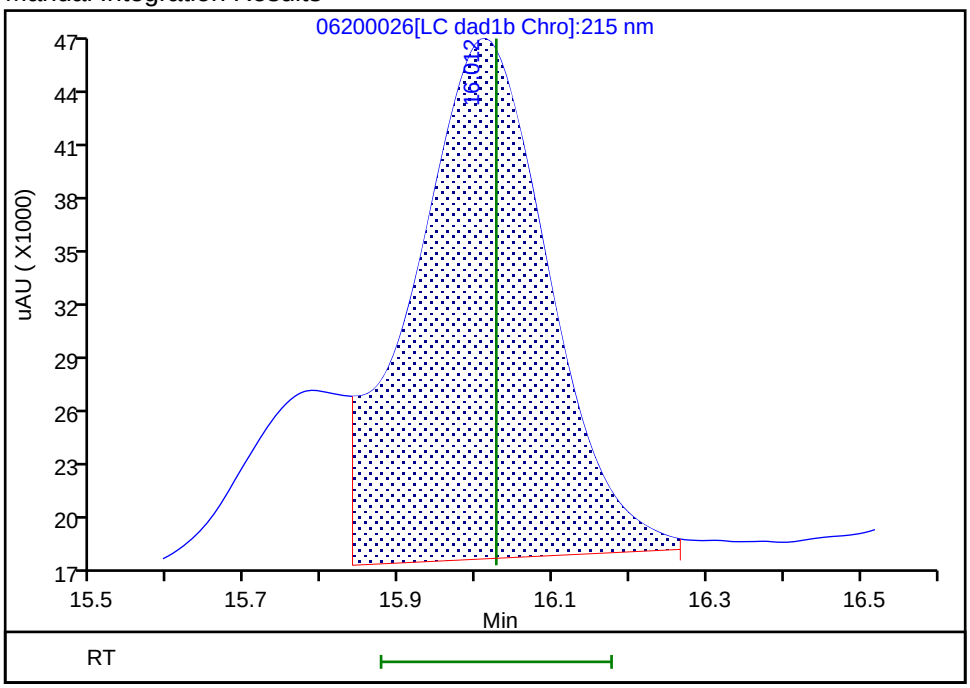
Processing Integration Results

RT: 16.01
Area: 228167
Amount: 1.799377
Amount Units: ug/ml



Manual Integration Results

RT: 16.01
Area: 353786
Amount: 2.790037
Amount Units: ug/ml



Reviewer: zhangji, 23-Jun-2020 14:01:44
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

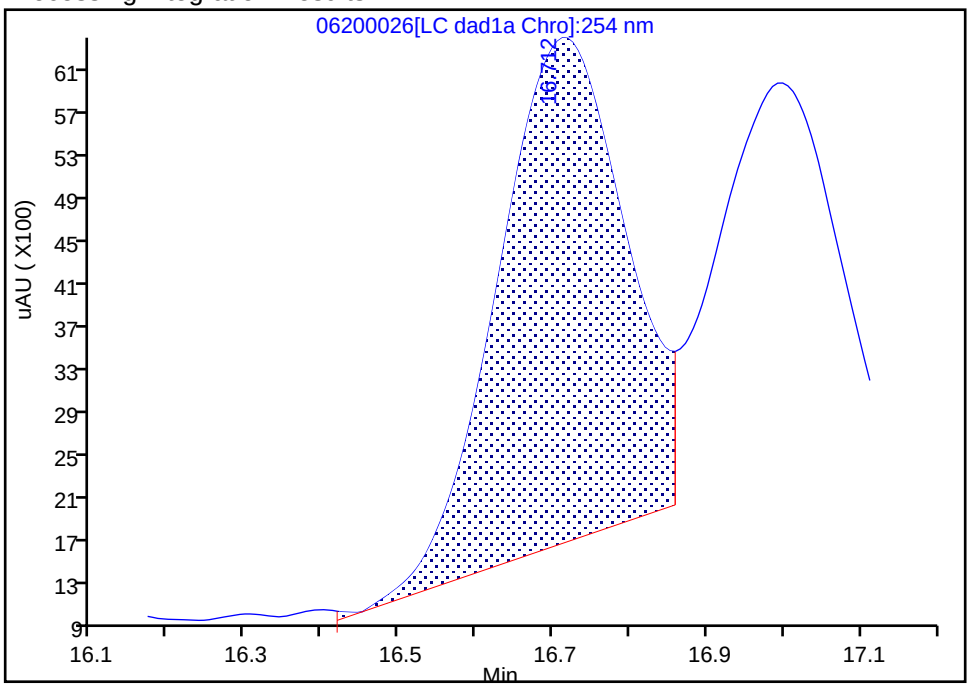
Data File:	\\chromfs\denver\chromdata\g2_luna\20200619-92597.b\06200026.d				
Injection Date:	21-Jun-2020 00:04:02	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	CCV				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	7	Worklist Smp#:	26
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

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

Signal: 1

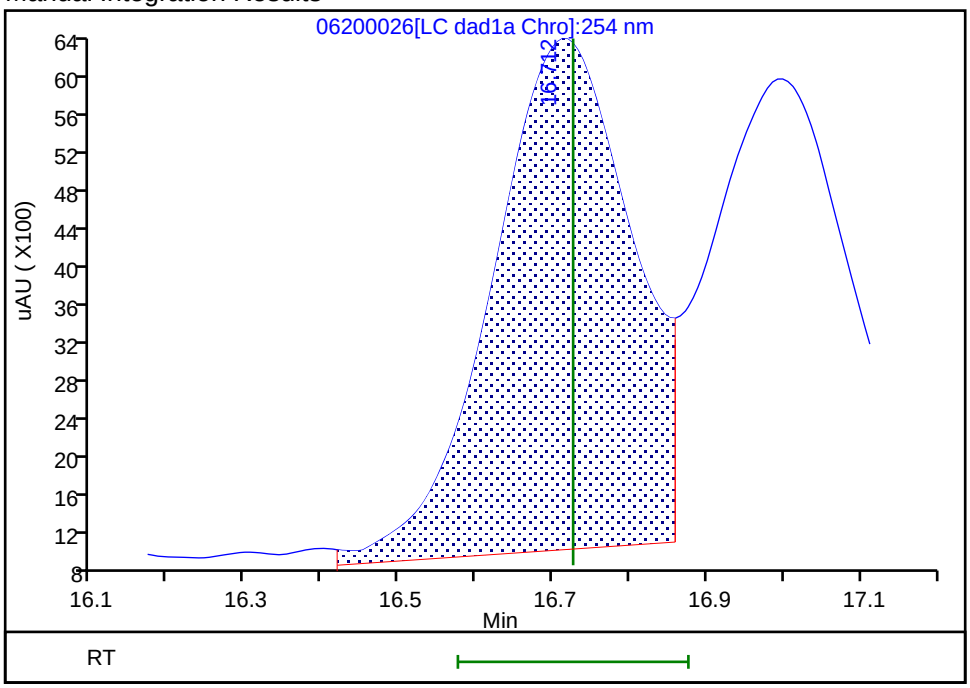
Processing Integration Results

RT: 16.71
Area: 54049
Amount: 0.198007
Amount Units: ug/ml



Manual Integration Results

RT: 16.71
Area: 66945
Amount: 0.245252
Amount Units: ug/ml



Reviewer: zhangji, 23-Jun-2020 14:01:49
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

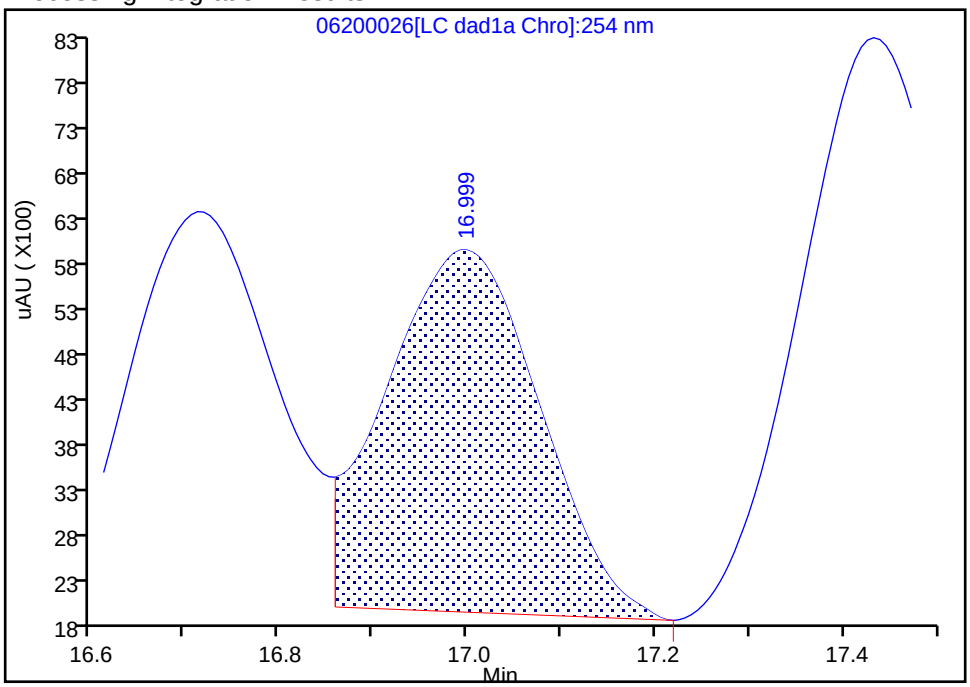
Data File:	\\chromfs\denver\chromdata\g2_luna\20200619-92597.b\06200026.d				
Injection Date:	21-Jun-2020 00:04:02	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	CCV				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	7	Worklist Smp#:	26
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

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

Signal: 1

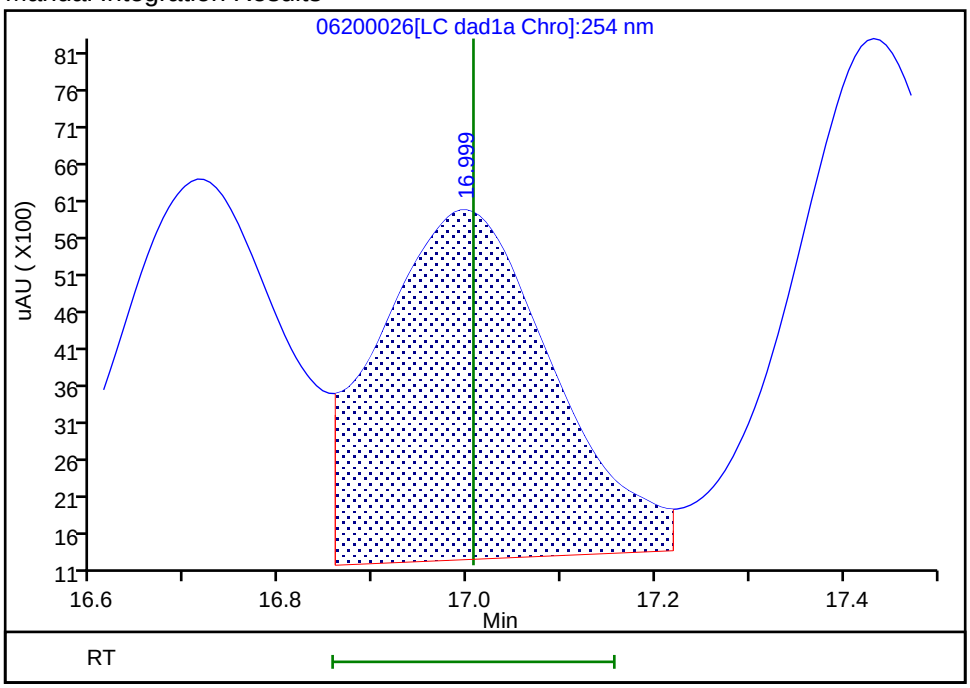
Processing Integration Results

RT: 17.00
Area: 44876
Amount: 0.186299
Amount Units: ug/ml



Manual Integration Results

RT: 17.00
Area: 60644
Amount: 0.251759
Amount Units: ug/ml



Reviewer: zhangji, 23-Jun-2020 14:01:49
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

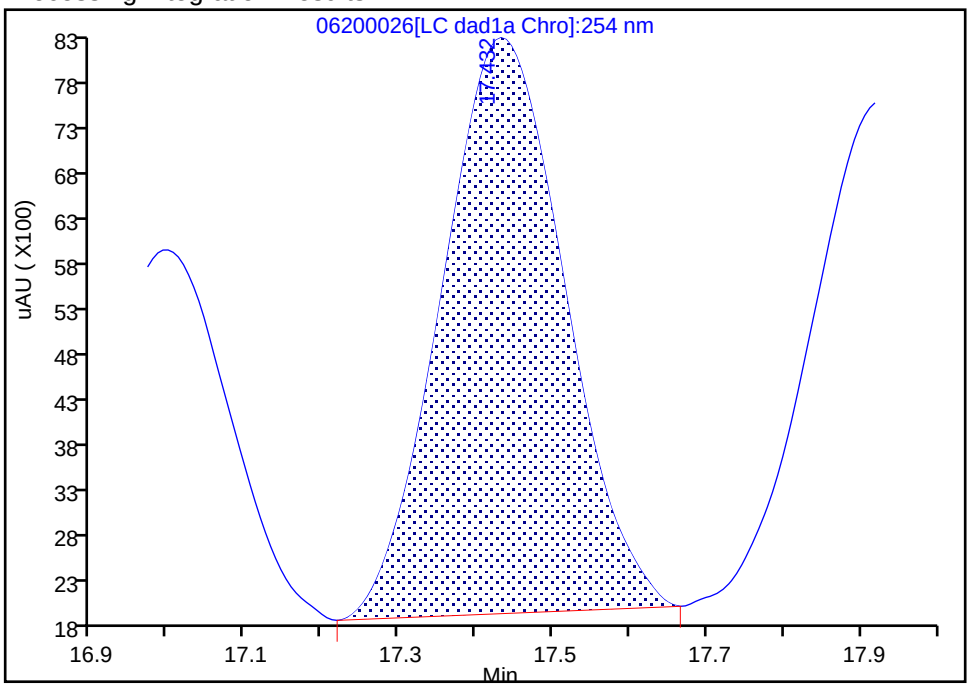
Data File:	\\chromfs\denver\chromdata\g2_luna\20200619-92597.b\06200026.d				
Injection Date:	21-Jun-2020 00:04:02	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	CCV				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	7	Worklist Smp#:	26
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

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

Signal: 1

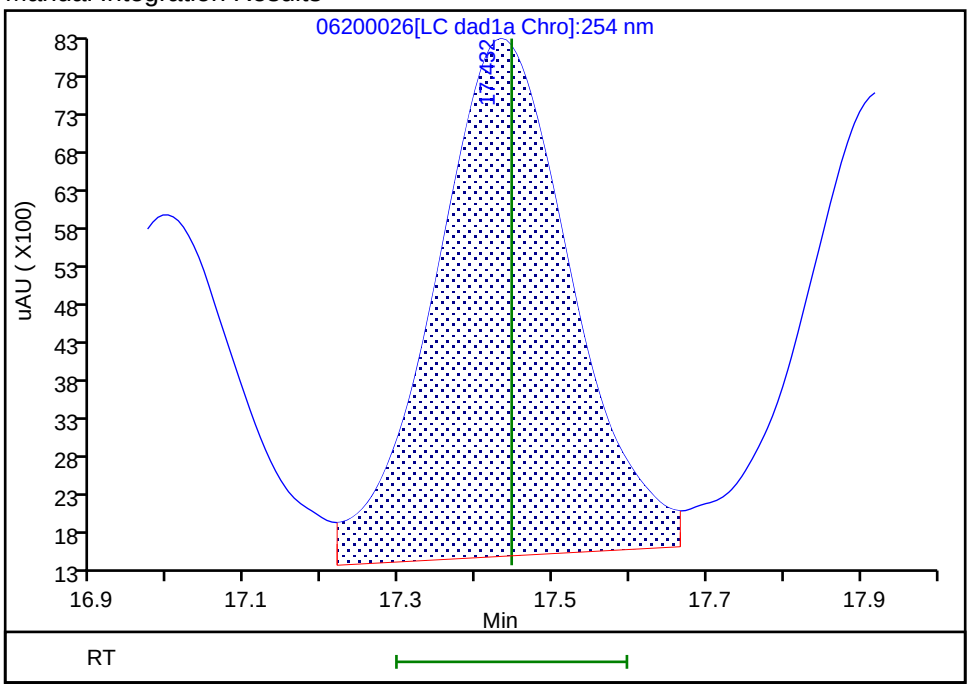
Processing Integration Results

RT: 17.43
Area: 69868
Amount: 0.202378
Amount Units: ug/ml



Manual Integration Results

RT: 17.43
Area: 83644
Amount: 0.242282
Amount Units: ug/ml



Reviewer: zhangji, 23-Jun-2020 14:01:49
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

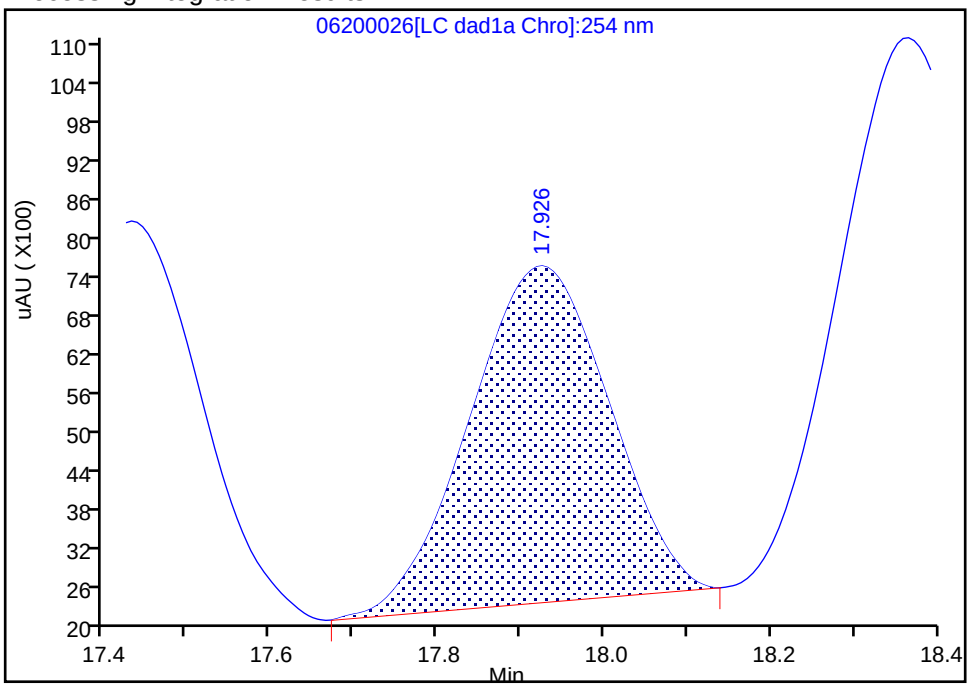
Data File:	\\chromfs\denver\chromdata\g2_luna\20200619-92597.b\06200026.d				
Injection Date:	21-Jun-2020 00:04:02	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	CCV				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	7	Worklist Smp#:	26
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

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

Signal: 1

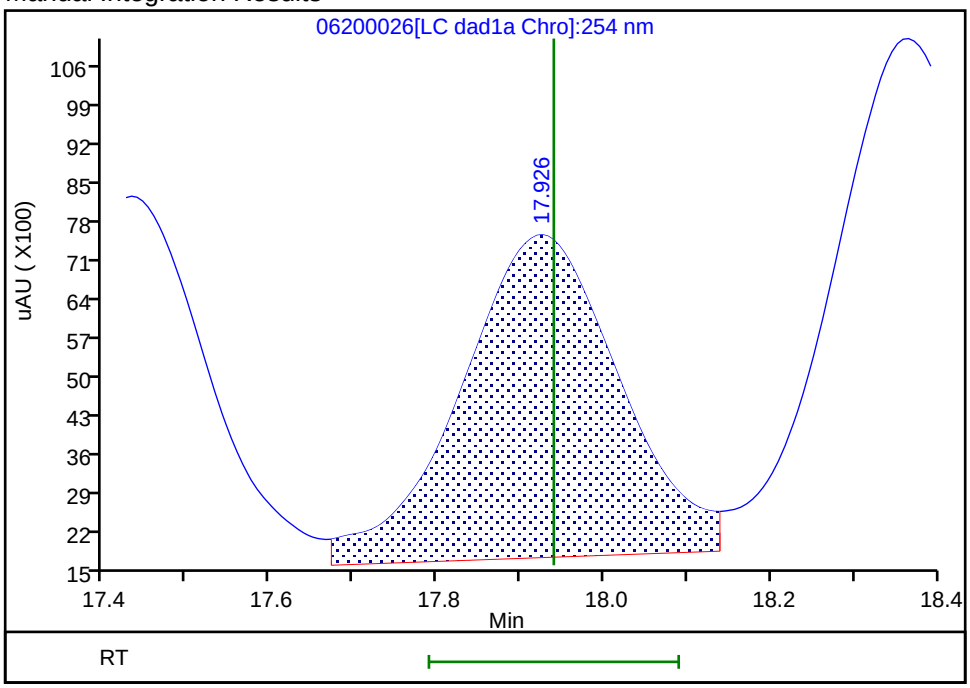
Processing Integration Results

RT: 17.93
Area: 60716
Amount: 0.203522
Amount Units: ug/ml



Manual Integration Results

RT: 17.93
Area: 77250
Amount: 0.258944
Amount Units: ug/ml



Reviewer: zhangji, 23-Jun-2020 14:01:49
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

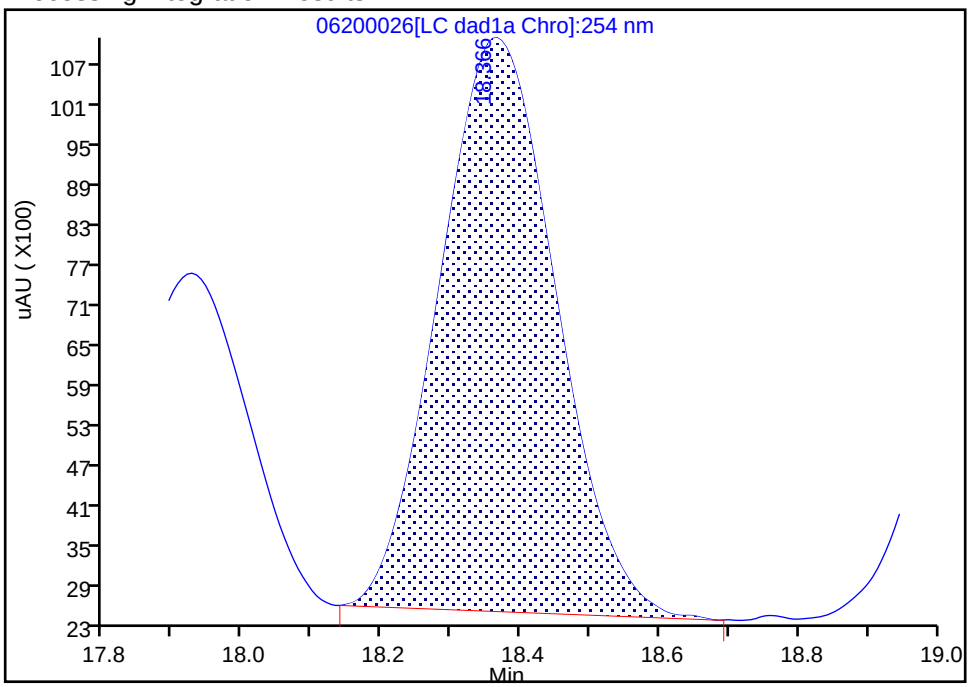
Data File:	\\chromfs\denver\chromdata\g2_luna\20200619-92597.b\06200026.d				
Injection Date:	21-Jun-2020 00:04:02	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	CCV				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	7	Worklist Smp#:	26
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

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

Signal: 1

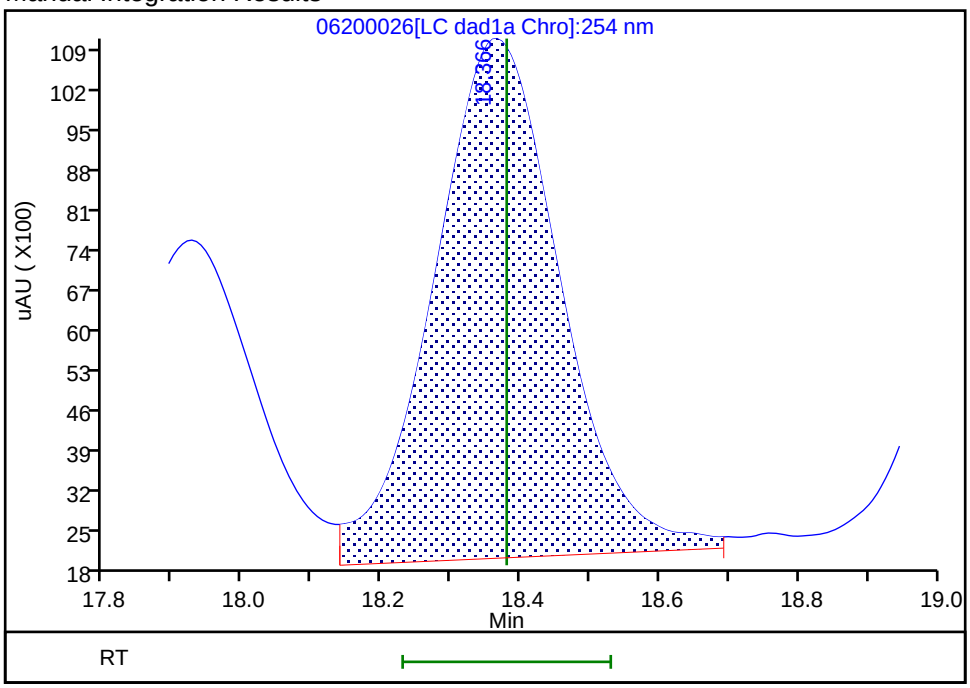
Processing Integration Results

RT: 18.37
Area: 100802
Amount: 0.216680
Amount Units: ug/ml



Manual Integration Results

RT: 18.37
Area: 115858
Amount: 0.249044
Amount Units: ug/ml



Reviewer: zhangji, 23-Jun-2020 14:01:49

Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

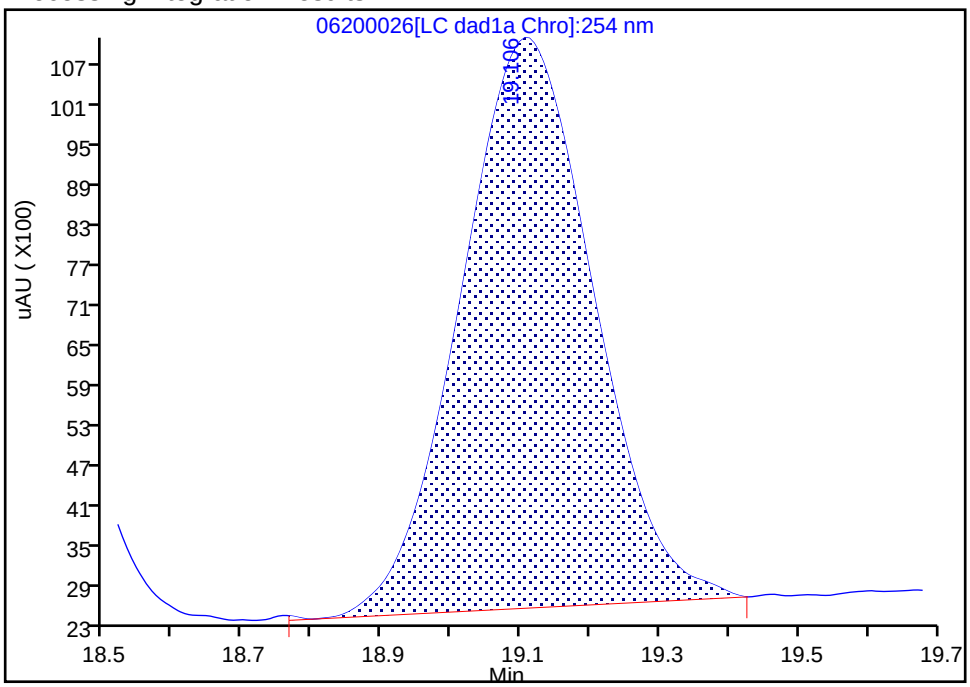
Data File:	\\chromfs\denver\chromdata\g2_luna\20200619-92597.b\06200026.d				
Injection Date:	21-Jun-2020 00:04:02	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	CCV				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	7	Worklist Smp#:	26
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

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

Signal: 1

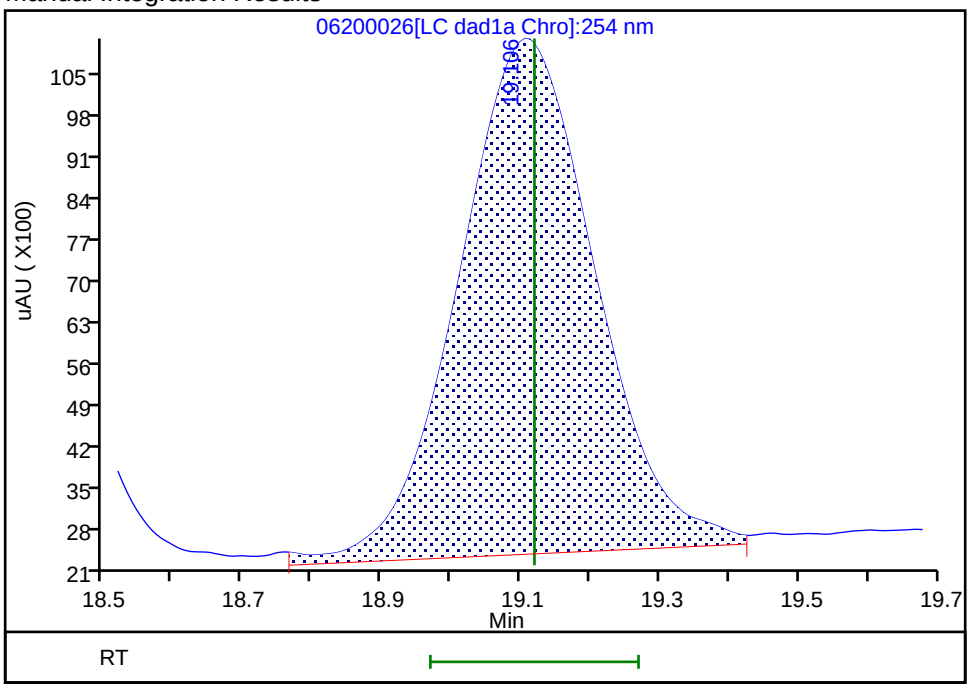
Processing Integration Results

RT: 19.11
Area: 113981
Amount: 0.241255
Amount Units: ug/ml



Manual Integration Results

RT: 19.11
Area: 119842
Amount: 0.253660
Amount Units: ug/ml



Reviewer: zhangji, 23-Jun-2020 14:01:49
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

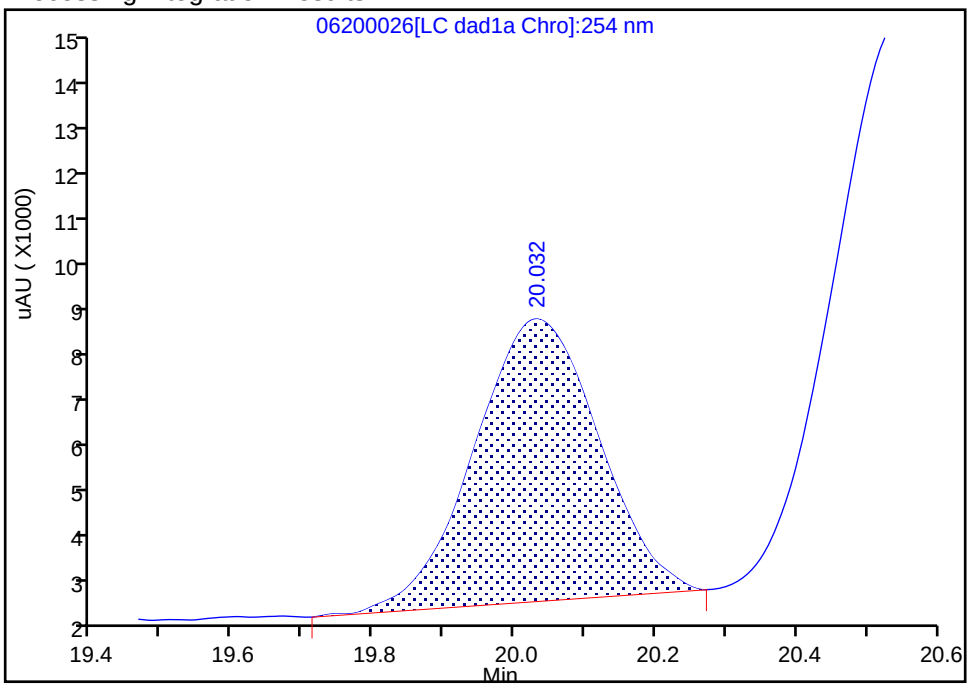
Data File:	\\chromfs\denver\chromdata\g2_luna\20200619-92597.b\06200026.d				
Injection Date:	21-Jun-2020 00:04:02	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	CCV				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	7	Worklist Smp#:	26
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

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

Signal: 1

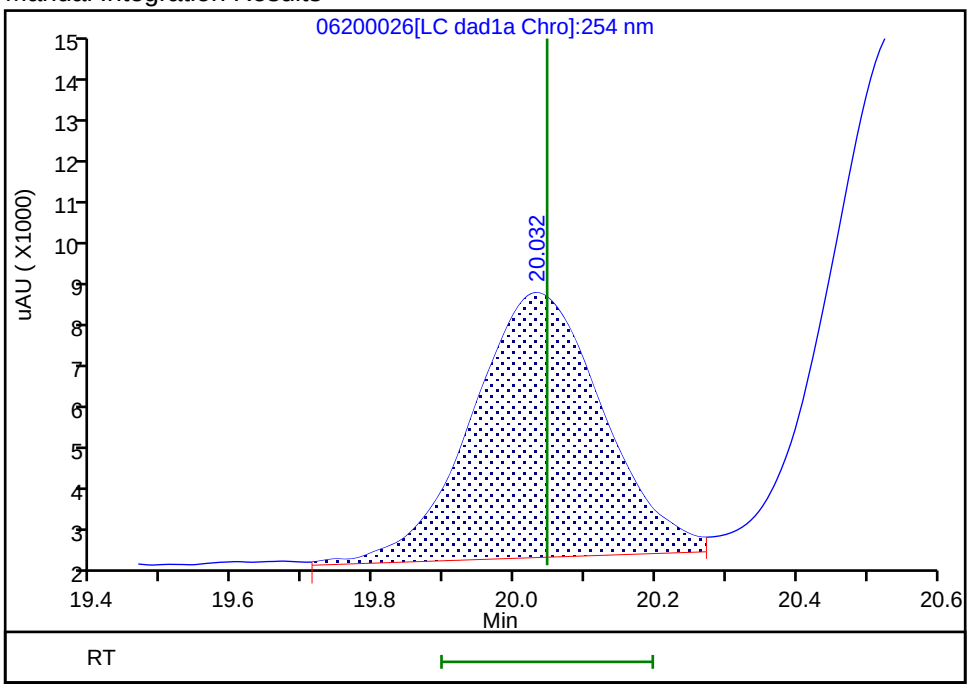
Processing Integration Results

RT: 20.03
Area: 71072
Amount: 0.230401
Amount Units: ug/ml



Manual Integration Results

RT: 20.03
Area: 77691
Amount: 0.253286
Amount Units: ug/ml



Reviewer: zhangji, 23-Jun-2020 14:01:49
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

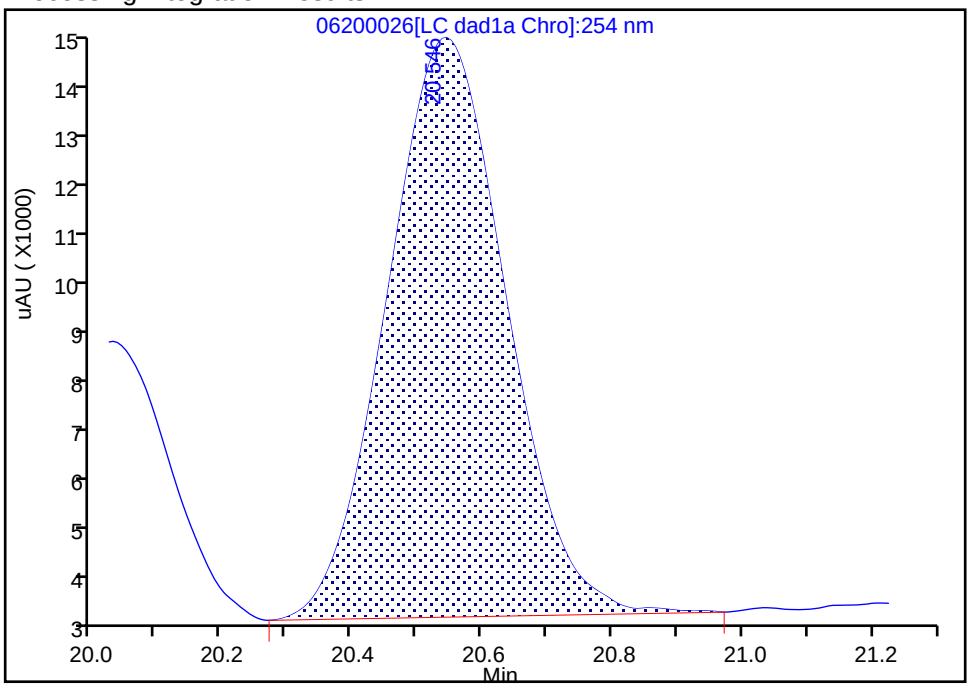
Data File:	\\chromfs\denver\chromdata\g2_luna\20200619-92597.b\06200026.d				
Injection Date:	21-Jun-2020 00:04:02	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	CCV				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	7	Worklist Smp#:	26
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

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

Signal: 1

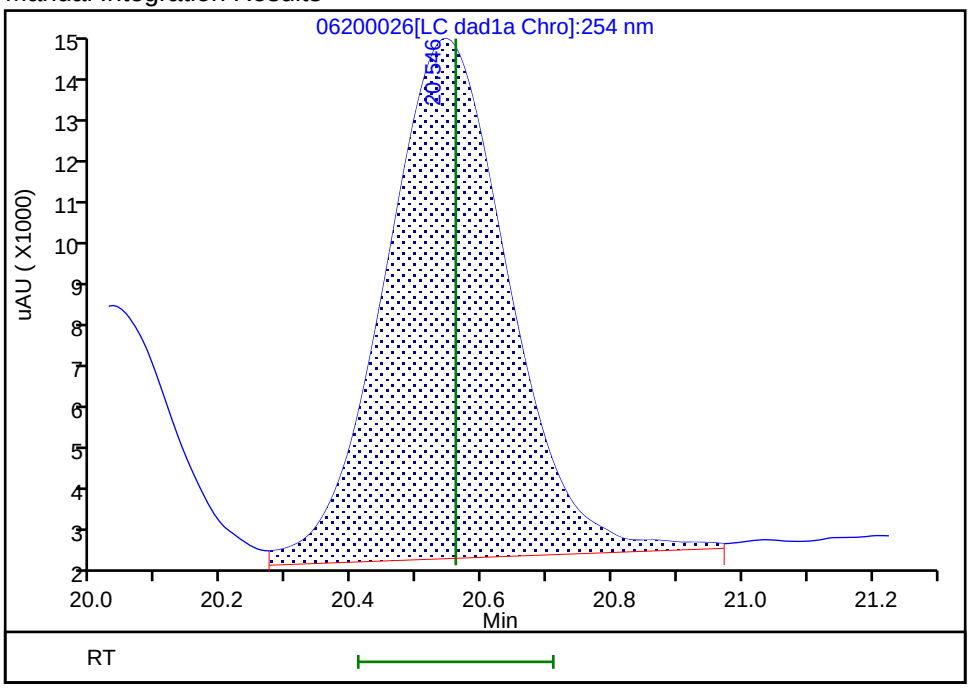
Processing Integration Results

RT: 20.55
Area: 146738
Amount: 0.229238
Amount Units: ug/ml



Manual Integration Results

RT: 20.55
Area: 155789
Amount: 0.243377
Amount Units: ug/ml



Reviewer: zhangji, 23-Jun-2020 14:01:49
Audit Action: Assigned New Baseline Audit Reason: Baseline

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Lab Sample ID: CCV 280-499503/27 Calibration Date: 06/21/2020 00:39

Instrument ID: CHHPLC_G2_LUNA Calib Start Date: 05/14/2020 22:06

GC Column: Luna-phenylhex ID: 4.60(mm) Calib End Date: 05/15/2020 02:46

Lab File ID: 06200027.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
TNX	Ave	435816	407425		234	250	-6.5	15.0
DNX	Ave	321206	305778		238	250	-4.8	15.0
MNX	Lin2		288291		295	292	1.1	15.0

FORM VII 8330A

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Lab Sample ID: CCV 280-499503/27 Calibration Date: 06/21/2020 00:39

Instrument ID: CHHPLC_G2_LUNA Calib Start Date: 05/14/2020 22:06

GC Column: Luna-phenylhex ID: 4.60(mm) Calib End Date: 05/15/2020 02:46

Lab File ID: 06200027.D

Analyte	RT	RT WINDOW	
		FROM	TO
TNX	5.51	5.36	5.66
DNX	6.35	6.19	6.49
MNX	7.89	7.73	8.03

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\G2_LUNA\20200619-92597.b\06200027.D				
Lims ID:	CCV DMT				
Client ID:					
Sample Type:	CCV				
Inject. Date:	21-Jun-2020 00:39:04	ALS Bottle#:	8	Worklist Smp#:	27
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	CCV DMT				
Misc. Info.:	280-0092597-027				
Operator ID:	JZ	Instrument ID:	CHHPLC_G2_LUNA		
Sublist:	chrom-G2_8330_Luna*sub13				
Method:	\\chromfs\Denver\ChromData\G2_LUNA\20200619-92597.b\G2_8330_Luna.m				
Limit Group:	GCSV - 8330				
Last Update:	23-Jun-2020 18:23:00	Calib Date:	15-May-2020 02:11:20		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\G2_LUNA\20200514-91518.b\05140024.D				
Column 1 :	Luna-Phenyl hexyl (4.60 mm)		Det: LC DAD1A, 254 nm		
Process Host:	CTX1017				

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
3 TNX	1	5.506	5.509	-0.003	101958	0.2503	0.2339	
4 DNX	1	6.346	6.336	0.010	76521	0.2503	0.2382	
7 MNX	1	7.892	7.876	0.016	84109	0.2918	0.2949	

Reagents:

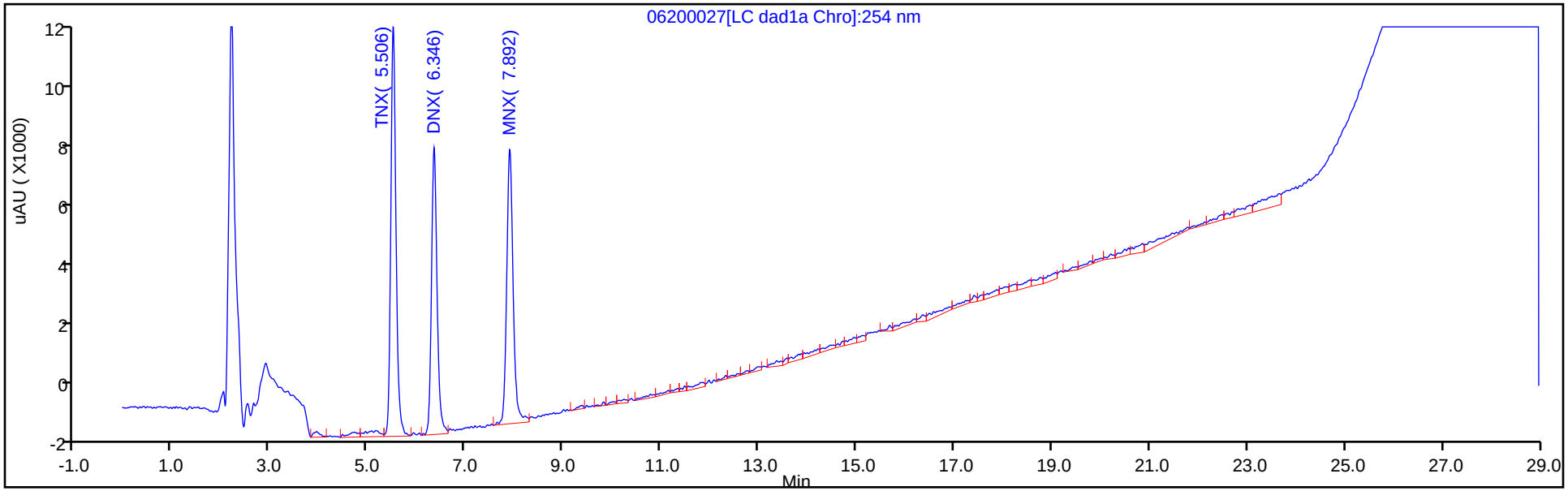
8330 DMT_00006 Amount Added: 12.50 Units: uL

Report Date: 23-Jun-2020 18:23:00 Chrom Revision: 2.3 21-Jun-2020 18:30:46

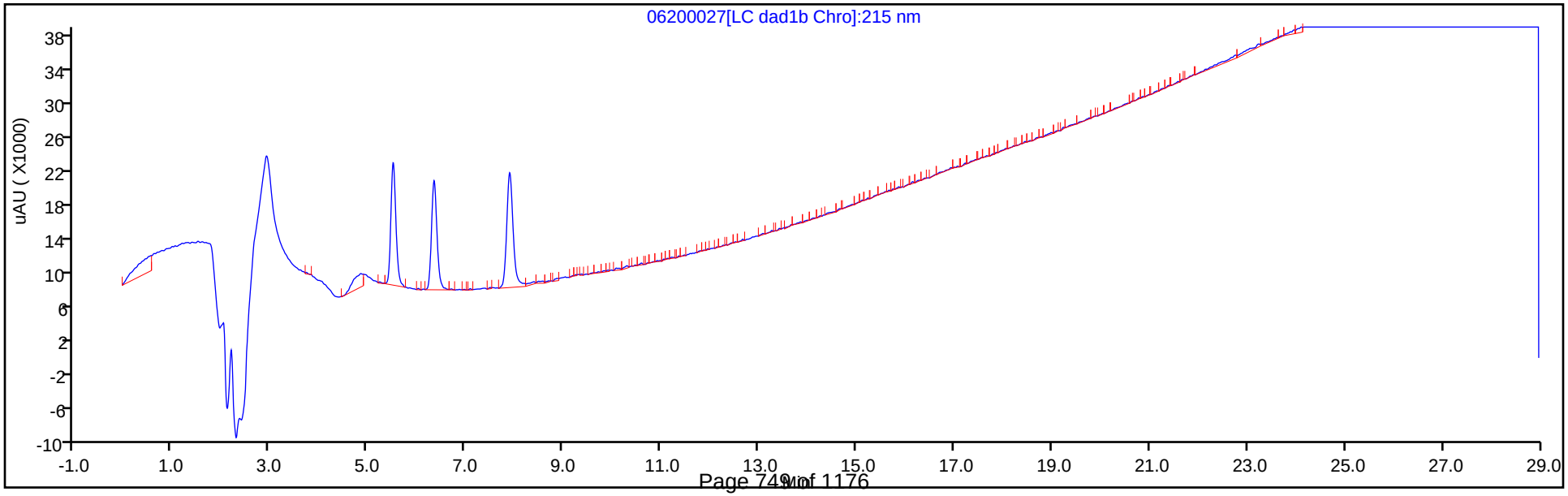
Eurofins TestAmerica, Denver

Data File:	\\chromfs\denver\chromdata\g2_luna\20200619-92597.b\06200027.d				
Injection Date:	21-Jun-2020 00:39:04	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	JZ
Lims ID:	CCV DMT			Worklist Smp#:	27
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	8
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		

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



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



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Lab Sample ID: ICV 280-487658/15 Calibration Date: 03/04/2020 17:10

Instrument ID: CHHPLC_X3 Calib Start Date: 03/04/2020 14:07

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 03/04/2020 16:47

Lab File ID: 03040015.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
HMX	Ave	89178	84438		379	400	-5.3	15.0
RDX	Ave	117869	105313		357	400	-10.7	15.0
Picric acid	Ave	87247	85318		391	400	-2.2	15.0
1,3,5-Trinitrobenzene	Ave	243459	237765		391	400	-2.3	15.0
1,3-Dinitrobenzene	Ave	324251	307115		379	400	-5.3	15.0
Nitrobenzene	Ave	212689	202485		381	400	-4.8	15.0
Tetryl	Ave	193870	175735		363	400	-9.4	15.0
Nitroglycerin	Ave	71797	66747		3720	4000	-7.0	15.0
2,4,6-Trinitrotoluene	Ave	220911	205103		371	400	-7.2	15.0
4-Amino-2,6-dinitrotoluene	Ave	173468	158943		367	400	-8.4	15.0
2-Amino-4,6-dinitrotoluene	Ave	217539	202095		372	400	-7.1	15.0
2,6-Dinitrotoluene	Ave	159404	150648		378	400	-5.5	15.0
2,4-Dinitrotoluene	Ave	321164	290578		362	400	-9.5	15.0
o-Nitrotoluene	Ave	143838	128300		357	400	-10.8	15.0
p-Nitrotoluene	Ave	120299	111828		372	400	-7.0	15.0
m-Nitrotoluene	Ave	154244	144728		375	400	-6.2	15.0
PETN	Ave	79456	76256		3840	4000	-4.0	15.0
1,2-Dinitrobenzene	Ave	146215	131020		358	400	-10.4	15.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Lab Sample ID: ICV 280-487658/15 Calibration Date: 03/04/2020 17:10

Instrument ID: CHHPLC_X3 Calib Start Date: 03/04/2020 14:07

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 03/04/2020 16:47

Lab File ID: 03040015.D

Analyte	RT	RT WINDOW	
		FROM	TO
HMX	6.68	6.53	6.83
RDX	7.75	7.60	7.90
Picric acid	8.06	7.91	8.21
1,3,5-Trinitrobenzene	8.88	8.73	9.03
1,3-Dinitrobenzene	9.53	9.38	9.68
Nitrobenzene	9.92	9.77	10.07
Tetryl	10.22	10.07	10.37
Nitroglycerin	10.73	10.58	10.88
2,4,6-Trinitrotoluene	11.18	11.08	11.28
4-Amino-2,6-dinitrotoluene	11.34	11.24	11.44
2-Amino-4,6-dinitrotoluene	11.62	11.52	11.72
2,6-Dinitrotoluene	11.79	11.69	11.89
2,4-Dinitrotoluene	11.98	11.88	12.08
o-Nitrotoluene	12.83	12.68	12.98
p-Nitrotoluene	13.27	13.12	13.42
m-Nitrotoluene	13.86	13.71	14.01
PETN	14.97	14.82	15.12
1,2-Dinitrobenzene	8.71	8.56	8.86

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\03040015.D
Lims ID: ICV MAIN
Client ID:
Sample Type: ICV
Inject. Date: 04-Mar-2020 17:10:41 ALS Bottle#: 15 Worklist Smp#: 15
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: ICV MAIN
Misc. Info.: 280-0089779-015
Operator ID: CB Instrument ID: CHHPLC_X3
Sublist:

Method: \\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 06-Mar-2020 10:25:10 Calib Date: 04-Mar-2020 16:47:48
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\03040014.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX0308

First Level Reviewer: beckerc Date: 05-Mar-2020 08:23:55

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 HMX	1	6.683	6.683	0.000	33775	0.4000	0.3787	M
7 RDX	1	7.750	7.750	0.000	42125	0.4000	0.3574	
8 2,4,6-Trinitrophenol	1	8.056	8.056	0.000	34127	0.4000	0.3912	
$ 9 1,2-Dinitrobenzene	1	8.710	8.710	0.000	52408	0.4000	0.3584	
10 1,3,5-Trinitrobenzene	1	8.883	8.883	0.000	95106	0.4000	0.3906	
11 1,3-Dinitrobenzene	1	9.529	9.529	0.000	122846	0.4000	0.3789	
12 Nitrobenzene	1	9.916	9.916	0.000	80994	0.4000	0.3808	
14 Tetryl	1	10.216	10.216	0.000	70294	0.4000	0.3626	
15 Nitroglycerin	2	10.729	10.729	0.000	266988	4.00	3.72	
16 2,4,6-Trinitrotoluene	1	11.183	11.183	0.000	82041	0.4000	0.3714	
17 4-Amino-2,6-dinitrotoluene	1	11.336	11.336	0.000	63577	0.4000	0.3665	
18 2-Amino-4,6-dinitrotoluene	1	11.623	11.623	0.000	80838	0.4000	0.3716	
19 2,6-Dinitrotoluene	1	11.789	11.789	0.000	60259	0.4000	0.3780	
20 2,4-Dinitrotoluene	1	11.983	11.983	0.000	116231	0.4000	0.3619	
21 o-Nitrotoluene	1	12.829	12.829	0.000	51320	0.4000	0.3568	
22 p-Nitrotoluene	1	13.269	13.269	0.000	44731	0.4000	0.3718	
23 m-Nitrotoluene	1	13.863	13.863	0.000	57891	0.4000	0.3753	
24 PETN	2	14.969	14.969	0.000	305025	4.00	3.84	

QC Flag Legend

Review Flags
M - Manually Integrated

Reagents:

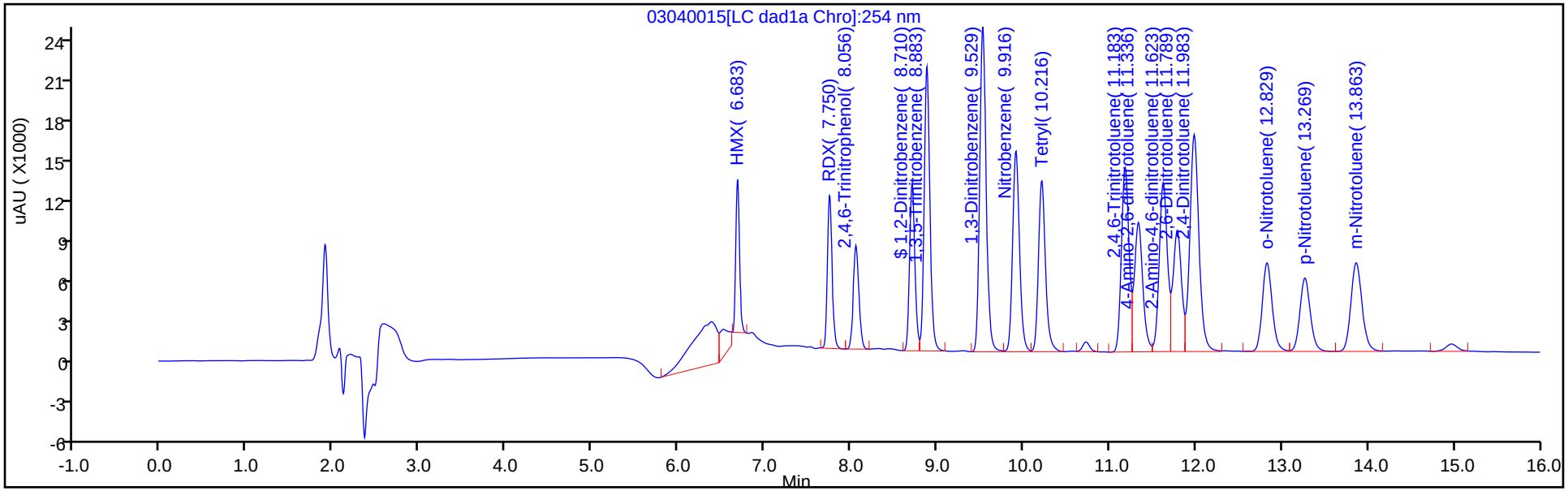
8330Surrogate_00110 Amount Added: 40.00 Units: uL
8330 LCS_00095 Amount Added: 40.00 Units: uL

Report Date: 06-Mar-2020 10:25:10 Chrom Revision: 2.3 19-Feb-2020 16:45:46

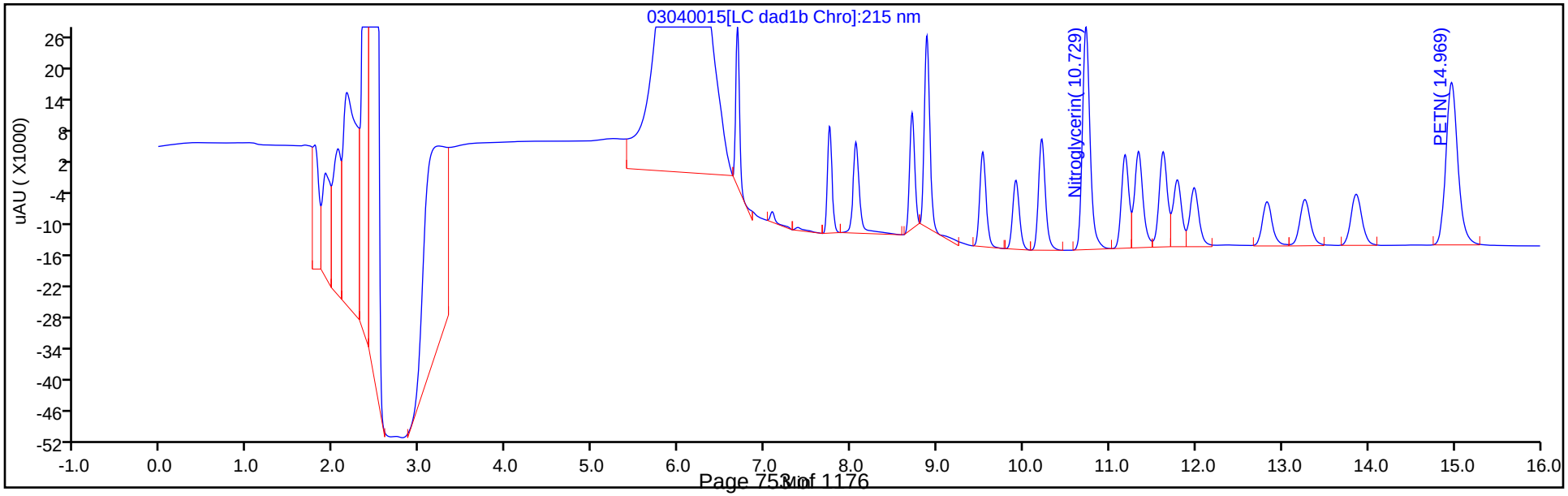
Eurofins TestAmerica, Denver

Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040015.d				
Injection Date:	04-Mar-2020 17:10:41	Instrument ID:	CHHPLC_X3	Operator ID:	CB
Lims ID:	ICV MAIN			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



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

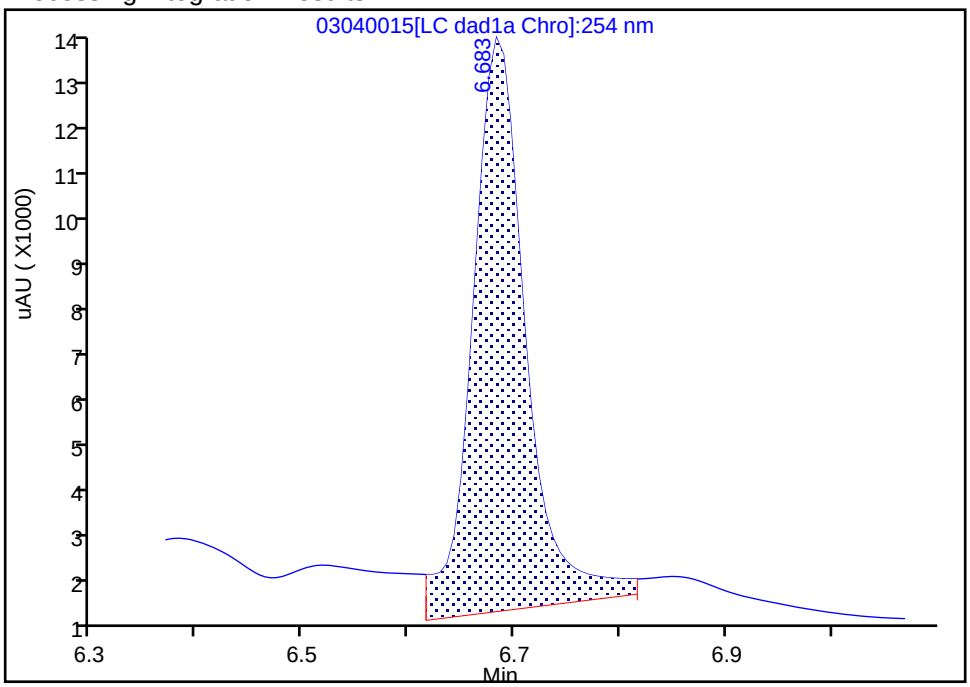
Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040015.d				
Injection Date:	04-Mar-2020 17:10:41	Instrument ID:	CHHPLC_X3		
Lims ID:	ICV MAIN				
Client ID:					
Operator ID:	CB	ALS Bottle#:	15	Worklist Smp#:	15
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

3 HMX, CAS: 2691-41-0

Signal: 1

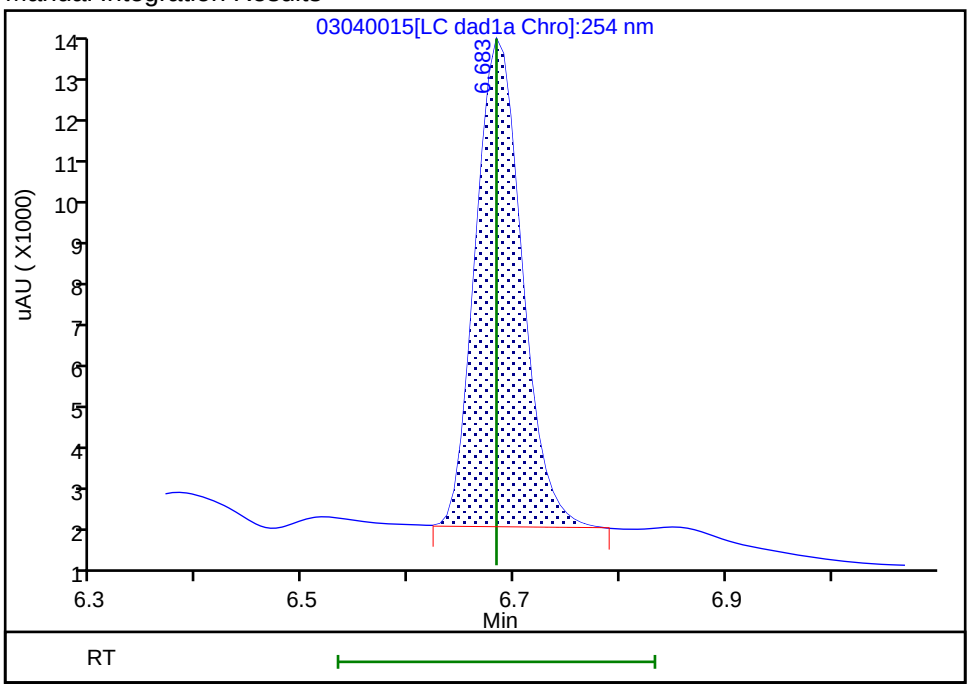
Processing Integration Results

RT: 6.68
Area: 41329
Amount: 0.463446
Amount Units: ug/mL



Manual Integration Results

RT: 6.68
Area: 33775
Amount: 0.378739
Amount Units: ug/mL



Reviewer: beckerc, 05-Mar-2020 08:23:51
Audit Action: Manually Integrated Audit Reason: Baseline

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Lab Sample ID: ICV 280-487658/33 Calibration Date: 03/05/2020 00:03

Instrument ID: CHHPLC_X3 Calib Start Date: 03/04/2020 21:00

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 03/04/2020 23:40

Lab File ID: 03040033.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
TNX	Ave	217609	189186		348	400	-13.1	15.0
DNX	Ave	152928	145270		380	400	-5.0	15.0
MNX	Ave	158544	136780		403	467	-13.7	15.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Lab Sample ID: ICV 280-487658/33 Calibration Date: 03/05/2020 00:03

Instrument ID: CHHPLC_X3 Calib Start Date: 03/04/2020 21:00

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 03/04/2020 23:40

Lab File ID: 03040033.D

Analyte	RT	RT WINDOW	
		FROM	TO
TNX	6.59	6.49	6.69
DNX	6.91	6.81	7.01
MNX	7.36	7.21	7.51

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\03040033.D				
Lims ID:	ICV DMT				
Client ID:					
Sample Type:	ICV				
Inject. Date:	05-Mar-2020 00:03:48	ALS Bottle#:	33	Worklist Smp#:	33
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	ICV DMT				
Misc. Info.:	280-0089779-033				
Operator ID:	CB	Instrument ID:	CHHPLC_X3		
Sublist:					
Method:	\\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	06-Mar-2020 10:25:28	Calib Date:	04-Mar-2020 23:40:46		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\03040032.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX0308				

First Level Reviewer: beckerc Date: 05-Mar-2020 08:37:53

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
2 TNX	1	6.594	6.594	0.000	75750	0.4004	0.3481	M
5 DNX	1	6.914	6.914	0.000	58166	0.4004	0.3803	M
6 MNX	1	7.361	7.361	0.000	63849	0.4668	0.4027	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

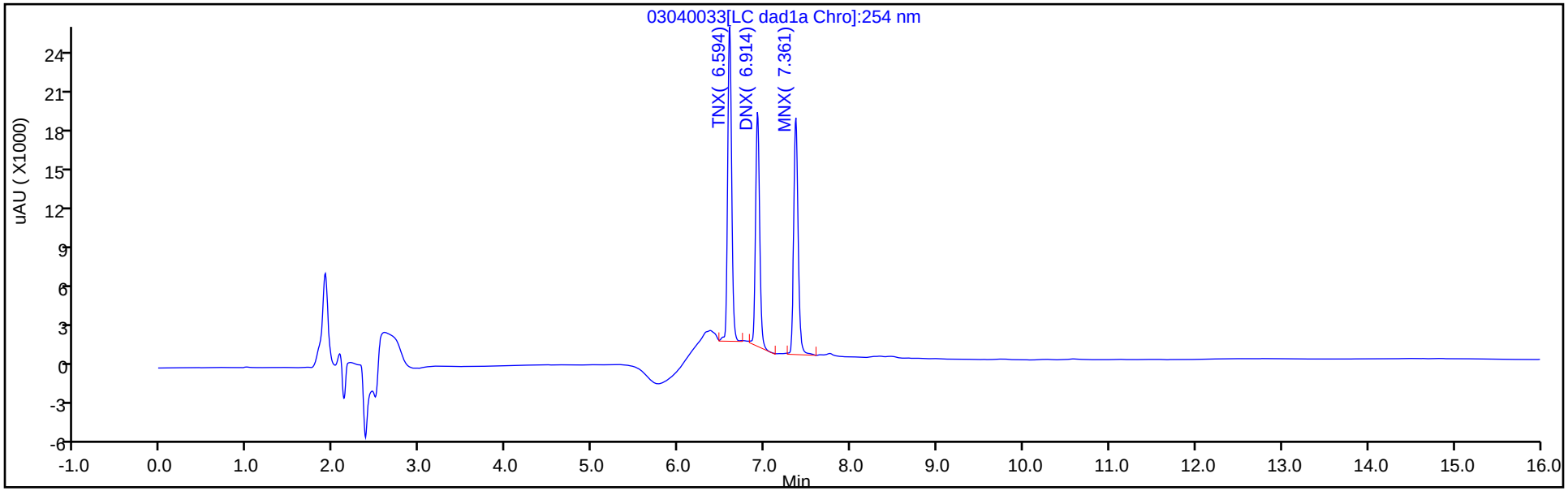
8330_OP_DMT_00006 Amount Added: 40.00 Units: uL

Report Date: 06-Mar-2020 10:25:29 Chrom Revision: 2.3 19-Feb-2020 16:45:46

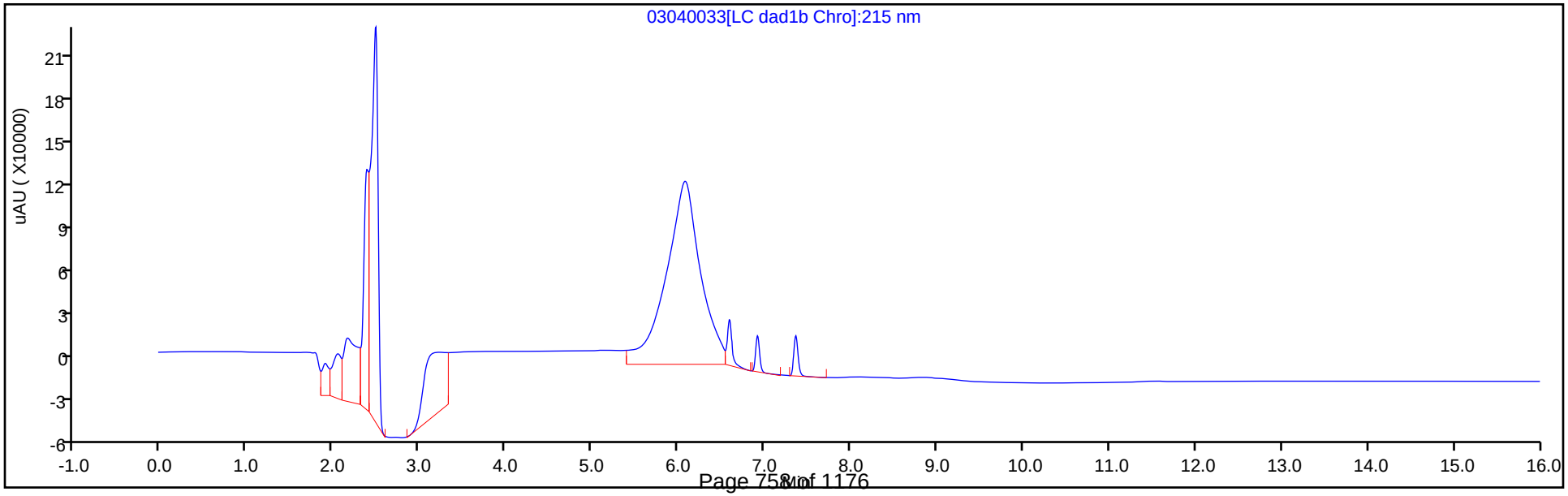
Eurofins TestAmerica, Denver

Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040033.d				
Injection Date:	05-Mar-2020 00:03:48	Instrument ID:	CHHPLC_X3	Operator ID:	CB
Lims ID:	ICV DMT			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

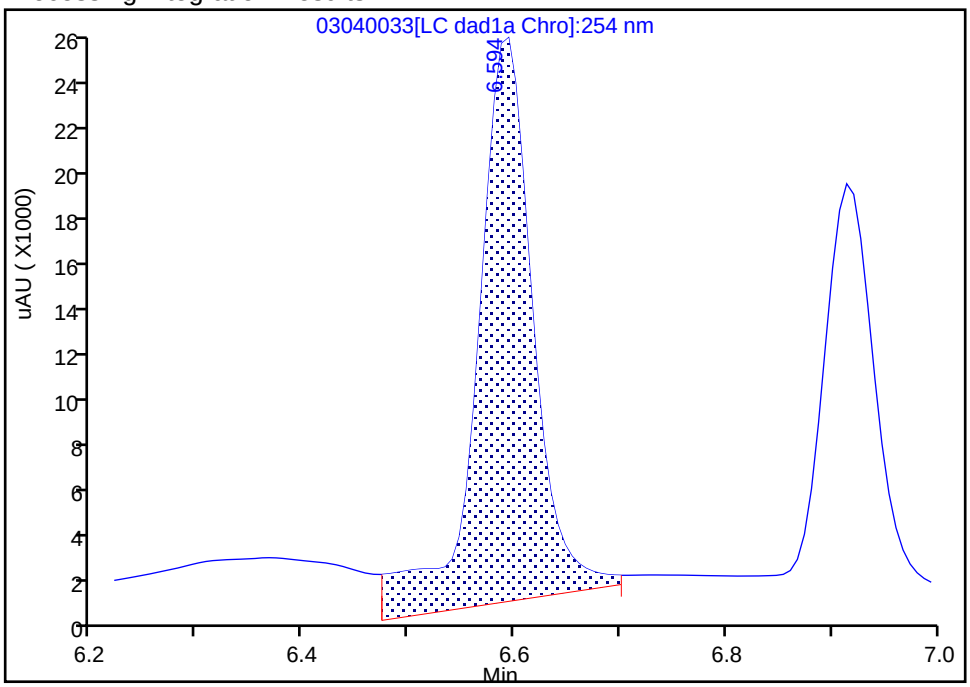
Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040033.d				
Injection Date:	05-Mar-2020 00:03:48	Instrument ID:	CHHPLC_X3		
Lims ID:	ICV DMT				
Client ID:					
Operator ID:	CB	ALS Bottle#:	33	Worklist Smp#:	33
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

2 TNX, CAS: 13980-04-6

Signal: 1

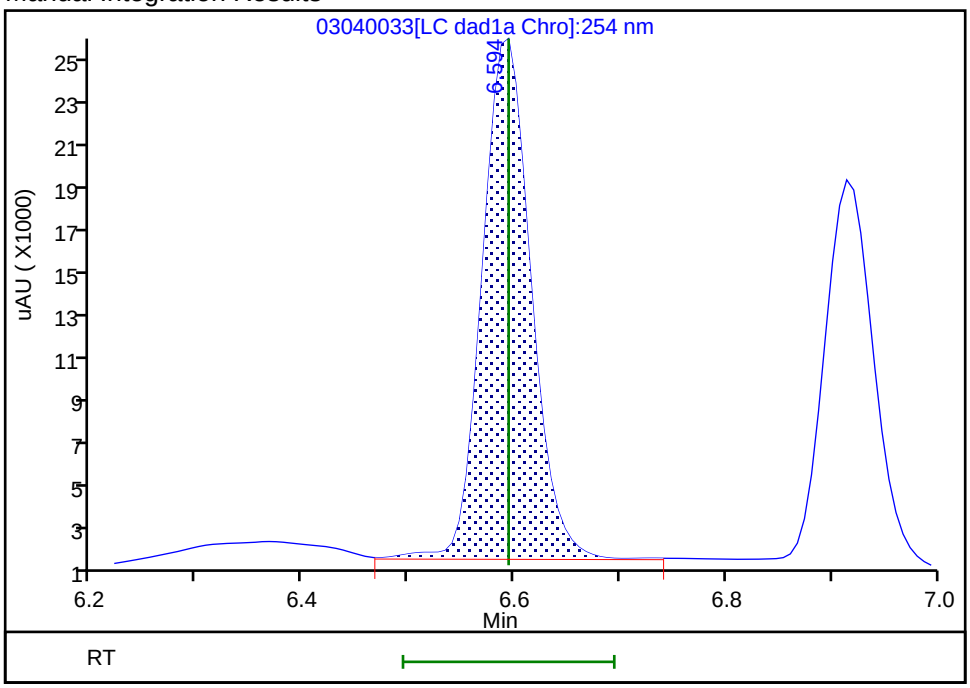
Processing Integration Results

RT: 6.59
Area: 91215
Amount: 0.419170
Amount Units: ug/mL



Manual Integration Results

RT: 6.59
Area: 75750
Amount: 0.348102
Amount Units: ug/mL



Reviewer: beckerc, 05-Mar-2020 08:37:32

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

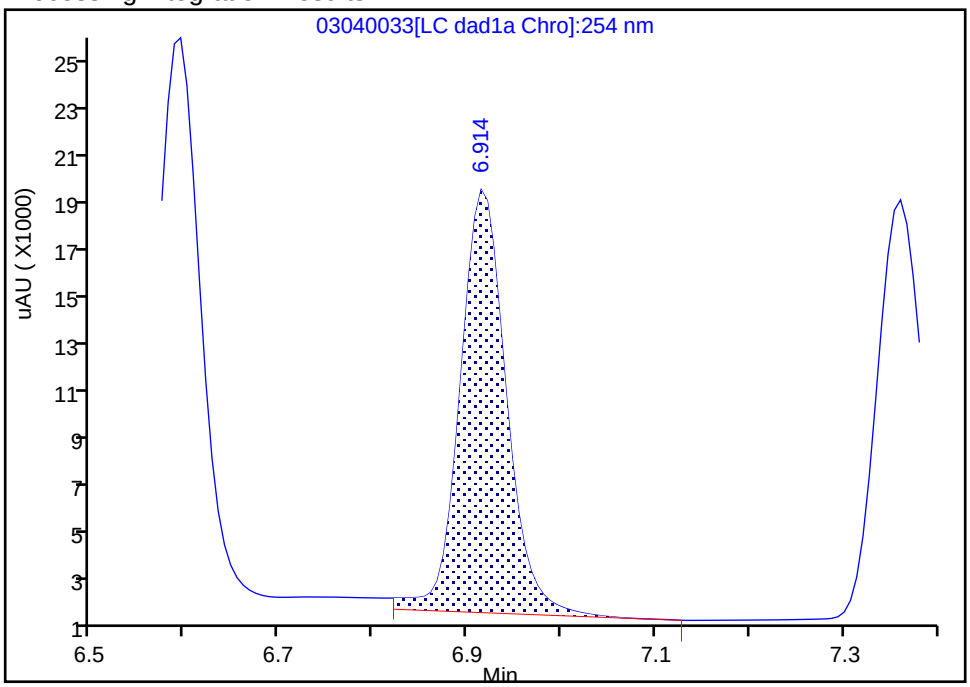
Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040033.d				
Injection Date:	05-Mar-2020 00:03:48	Instrument ID:	CHHPLC_X3		
Lims ID:	ICV DMT				
Client ID:					
Operator ID:	CB	ALS Bottle#:	33	Worklist Smp#:	33
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

5 DNX, CAS: 80251-29-2

Signal: 1

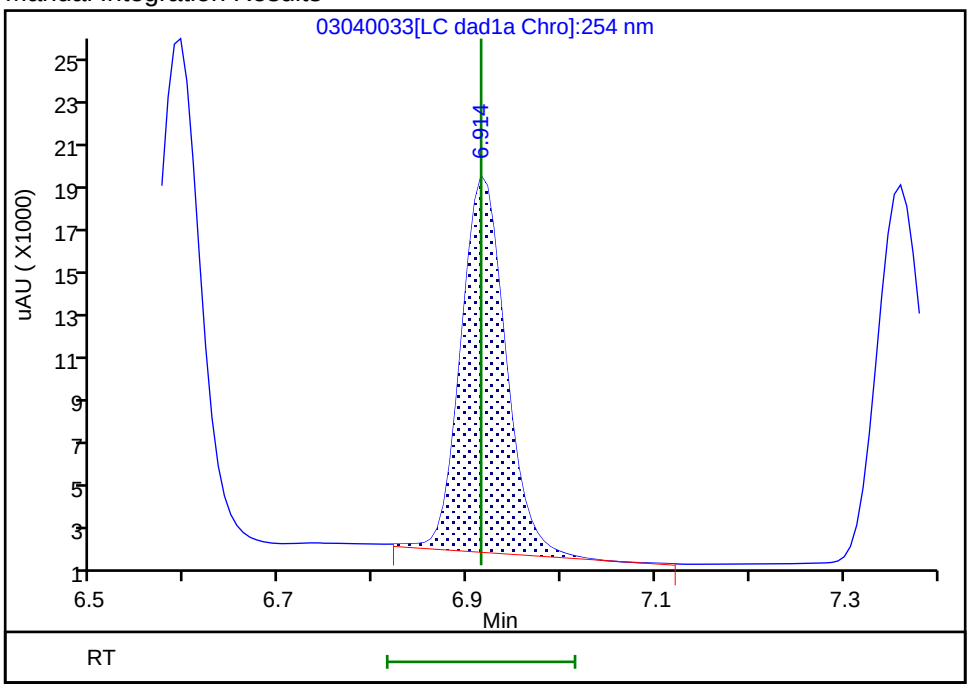
Processing Integration Results

RT: 6.91
Area: 60901
Amount: 0.398232
Amount Units: ug/mL



Manual Integration Results

RT: 6.91
Area: 58166
Amount: 0.380348
Amount Units: ug/mL



Reviewer: beckerc, 05-Mar-2020 08:37:39

Audit Action: Manually Integrated Audit Reason: Baseline

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Lab Sample ID: ICV 280-489145/16 Calibration Date: 03/18/2020 15:02

Instrument ID: CHHPLC_X3 Calib Start Date: 03/18/2020 11:35

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 03/18/2020 14:39

Lab File ID: 03180016.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
HMX	Ave	85962	85080		396	400	-1.0	15.0
RDX	Ave	116613	105640		362	400	-9.4	15.0
Picric acid	Ave	85131	85323		401	400	0.2	15.0
1,3,5-Trinitrobenzene	Ave	230309	238740		415	400	3.7	15.0
1,3-Dinitrobenzene	Ave	306686	307370		401	400	0.2	15.0
Nitrobenzene	Ave	200403	202493		404	400	1.0	15.0
Tetryl	Ave	177032	175175		396	400	-1.0	15.0
Nitroglycerin	Ave	68133	67461		3960	4000	-1.0	15.0
2,4,6-Trinitrotoluene	Ave	204031	204823		402	400	0.4	15.0
4-Amino-2,6-dinitrotoluene	Lin2		159183		363	400	-9.1	15.0
2-Amino-4,6-dinitrotoluene	Ave	202817	202785		400	400	-0.0	15.0
2,6-Dinitrotoluene	Ave	149452	151720		406	400	1.5	15.0
2,4-Dinitrotoluene	Ave	303584	291863		385	400	-3.9	15.0
2-Nitrotoluene	Ave	135051	128890		382	400	-4.6	15.0
4-Nitrotoluene	Ave	113005	112495		398	400	-0.5	15.0
3-Nitrotoluene	Ave	143029	145235		406	400	1.5	15.0
PETN	Ave	78605	75679		3850	4000	-3.7	15.0
1,2-Dinitrobenzene	Ave	138212	136648		395	400	-1.1	15.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Lab Sample ID: ICV 280-489145/16 Calibration Date: 03/18/2020 15:02

Instrument ID: CHHPLC_X3 Calib Start Date: 03/18/2020 11:35

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 03/18/2020 14:39

Lab File ID: 03180016.D

Analyte	RT	RT WINDOW	
		FROM	TO
HMX	6.69	6.54	6.84
RDX	7.75	7.60	7.90
Picric acid	8.06	7.91	8.21
1,3,5-Trinitrobenzene	8.89	8.74	9.04
1,3-Dinitrobenzene	9.53	9.38	9.68
Nitrobenzene	9.92	9.77	10.07
Tetryl	10.22	10.07	10.37
Nitroglycerin	10.73	10.58	10.88
2,4,6-Trinitrotoluene	11.18	11.08	11.28
4-Amino-2,6-dinitrotoluene	11.34	11.24	11.44
2-Amino-4,6-dinitrotoluene	11.63	11.53	11.73
2,6-Dinitrotoluene	11.79	11.69	11.89
2,4-Dinitrotoluene	11.98	11.88	12.08
2-Nitrotoluene	12.82	12.67	12.97
4-Nitrotoluene	13.26	13.11	13.41
3-Nitrotoluene	13.85	13.70	14.00
PETN	14.94	14.79	15.09
1,2-Dinitrobenzene	8.71	8.56	8.86

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180016.D
Lims ID: ICV MAIN
Client ID:
Sample Type: ICV
Inject. Date: 18-Mar-2020 15:02:22 ALS Bottle#: 16 Worklist Smp#: 16
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: ICV MAIN
Misc. Info.: 280-0090150-016
Operator ID: CB Instrument ID: CHHPLC_X3
Sublist:

Method: \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 26-Mar-2020 15:45:46 Calib Date: 18-Mar-2020 14:39:27
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180015.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX0308

First Level Reviewer: beckerc Date: 19-Mar-2020 08:47:14

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 HMX	1	6.685	6.685	0.000	34032	0.4000	0.3959	M
7 RDX	1	7.751	7.751	0.000	42256	0.4000	0.3624	
8 2,4,6-Trinitrophenol	1	8.058	8.058	0.000	34129	0.4000	0.4009	
$ 9 1,2-Dinitrobenzene	1	8.711	8.711	0.000	54659	0.4000	0.3955	
10 1,3,5-Trinitrobenzene	1	8.885	8.885	0.000	95496	0.4000	0.4146	
11 1,3-Dinitrobenzene	1	9.531	9.531	0.000	122948	0.4000	0.4009	
12 Nitrobenzene	1	9.918	9.918	0.000	80997	0.4000	0.4042	
14 Tetryl	1	10.218	10.218	0.000	70070	0.4000	0.3958	
15 Nitroglycerin	2	10.731	10.731	0.000	269842	4.00	3.96	
16 2,4,6-Trinitrotoluene	1	11.184	11.184	0.000	81929	0.4000	0.4016	
17 4-Amino-2,6-dinitrotoluene	1	11.344	11.344	0.000	63673	0.4000	0.3635	
18 2-Amino-4,6-dinitrotoluene	1	11.631	11.631	0.000	81114	0.4000	0.3999	
19 2,6-Dinitrotoluene	1	11.791	11.791	0.000	60688	0.4000	0.4061	
20 2,4-Dinitrotoluene	1	11.984	11.984	0.000	116745	0.4000	0.3846	
21 o-Nitrotoluene	1	12.824	12.824	0.000	51556	0.4000	0.3818	
22 p-Nitrotoluene	1	13.264	13.264	0.000	44998	0.4000	0.3982	
23 m-Nitrotoluene	1	13.851	13.851	0.000	58094	0.4000	0.4062	
24 PETN	2	14.938	14.938	0.000	302716	4.00	3.85	

QC Flag Legend

Review Flags
M - Manually Integrated

Reagents:

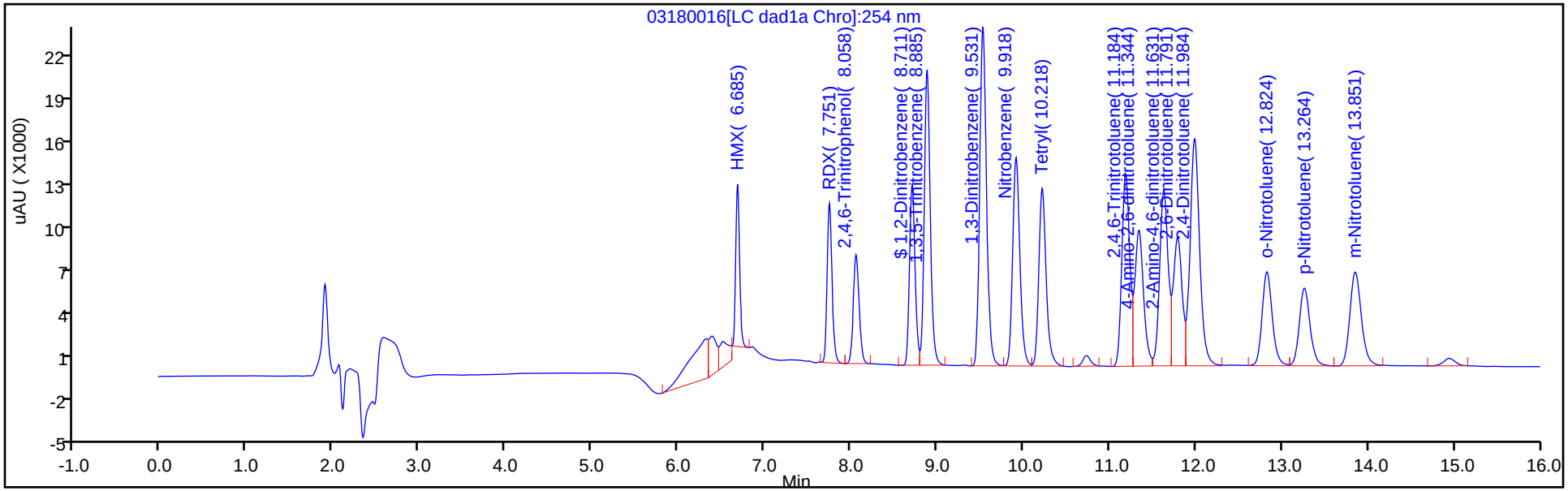
8330Surrogate_00110 Amount Added: 40.00 Units: uL
8330 LCS_00095 Amount Added: 40.00 Units: uL

Report Date: 26-Mar-2020 15:45:47 Chrom Revision: 2.3 11-Mar-2020 18:53:20

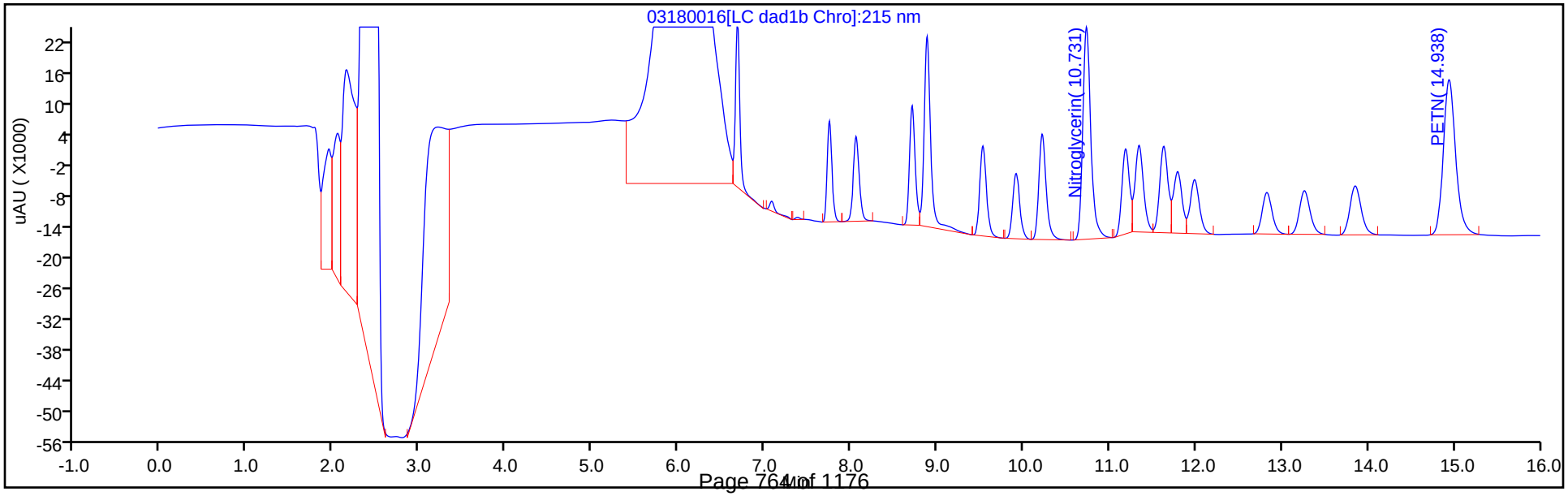
Eurofins TestAmerica, Denver

Data File:	\\chromna\denver\chromdata\chhplc_x\20200318-90159.b\03180016.d				
Injection Date:	18-Mar-2020 15:02:22	Instrument ID:	CHHPLC_X3	Operator ID:	CB
Lims ID:	ICV MAIN			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



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

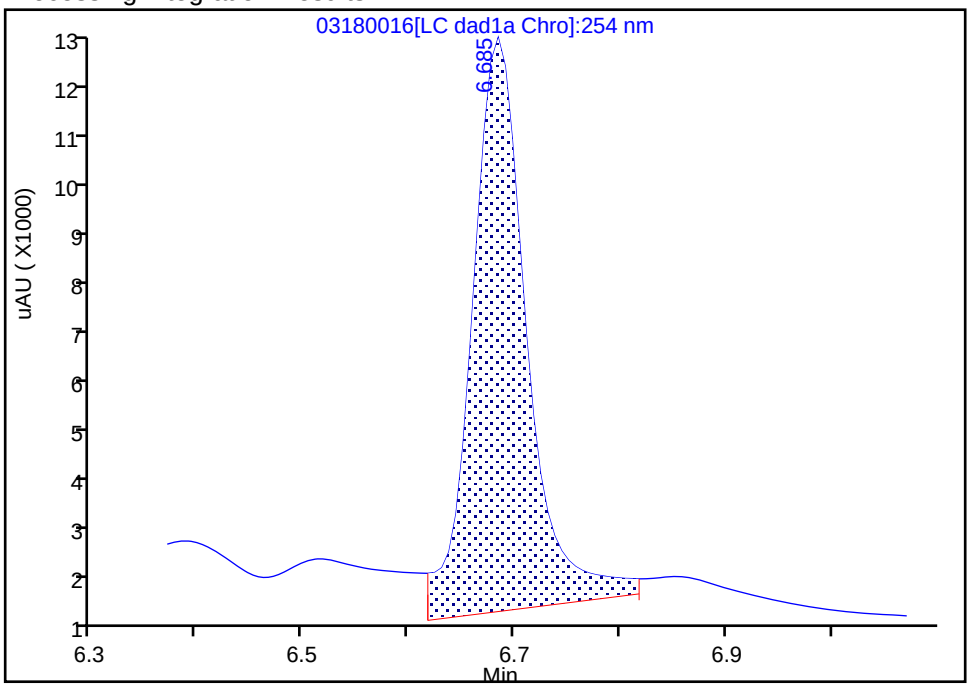
Data File:	\\chromna\denver\chromdata\chhplc_x\20200318-90159.b\03180016.d				
Injection Date:	18-Mar-2020 15:02:22	Instrument ID:	CHHPLC_X3		
Lims ID:	ICV MAIN				
Client ID:					
Operator ID:	CB	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

3 HMX, CAS: 2691-41-0

Signal: 1

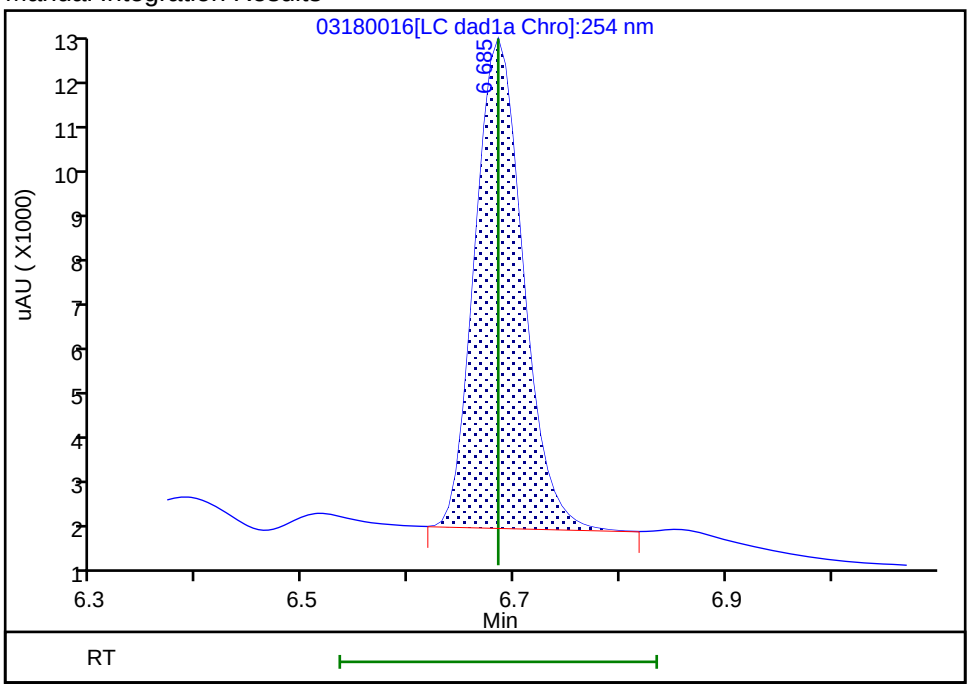
Processing Integration Results

RT: 6.68
Area: 41406
Amount: 0.494354
Amount Units: ug/mL



Manual Integration Results

RT: 6.68
Area: 34032
Amount: 0.395895
Amount Units: ug/mL



Reviewer: beckerc, 19-Mar-2020 08:47:09

Audit Action: Manually Integrated Audit Reason: Baseline

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Lab Sample ID: CCV 280-498992/29 Calibration Date: 06/17/2020 03:21

Instrument ID: CHHPLC_X3 Calib Start Date: 03/18/2020 11:35

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 03/18/2020 14:39

Lab File ID: 06160029.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
HMX	Ave	85962	89180		259	250	3.7	15.0
RDX	Ave	116613	108296		232	250	-7.1	15.0
Picric acid	Ave	85131	93032		273	250	9.3	15.0
1,3,5-Trinitrobenzene	Ave	230309	252343		274	251	9.6	15.0
1,3-Dinitrobenzene	Ave	306686	322707		264	251	5.2	15.0
Nitrobenzene	Ave	200403	203665		255	251	1.6	15.0
Tetryl	Ave	177032	189210		268	251	6.9	15.0
Nitroglycerin	Ave	68133	72248		2650	2500	6.0	15.0
2,4,6-Trinitrotoluene	Ave	204031	212251		261	251	4.0	15.0
4-Amino-2,6-dinitrotoluene	Lin2		170034		245	250	-2.1	15.0
2-Amino-4,6-dinitrotoluene	Ave	202817	203554		252	251	0.4	15.0
2,6-Dinitrotoluene	Ave	149452	160845		270	251	7.6	15.0
2,4-Dinitrotoluene	Ave	303584	325733		269	251	7.3	15.0
2-Nitrotoluene	Ave	135051	135152		250	250	0.0	15.0
4-Nitrotoluene	Ave	113005	117441		260	251	3.9	15.0
3-Nitrotoluene	Ave	143029	143760		252	250	0.5	15.0
PETN	Ave	78605	86120		2740	2500	9.6	15.0
1,2-Dinitrobenzene	Ave	138212	142632		258	250	3.2	15.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Lab Sample ID: CCV 280-498992/29 Calibration Date: 06/17/2020 03:21

Instrument ID: CHHPLC_X3 Calib Start Date: 03/18/2020 11:35

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 03/18/2020 14:39

Lab File ID: 06160029.D

Analyte	RT	RT WINDOW	
		FROM	TO
HMX	6.72	6.56	6.86
RDX	7.81	7.64	7.94
Picric acid	8.13	7.94	8.24
1,3,5-Trinitrobenzene	8.96	8.79	9.09
1,3-Dinitrobenzene	9.62	9.44	9.74
Nitrobenzene	10.00	9.82	10.12
Tetryl	10.32	10.13	10.43
Nitroglycerin	10.83	10.64	10.94
2,4,6-Trinitrotoluene	11.30	11.15	11.35
4-Amino-2,6-dinitrotoluene	11.48	11.32	11.52
2-Amino-4,6-dinitrotoluene	11.77	11.60	11.80
2,6-Dinitrotoluene	11.91	11.75	11.95
2,4-Dinitrotoluene	12.11	11.95	12.15
2-Nitrotoluene	12.95	12.73	13.03
4-Nitrotoluene	13.39	13.16	13.46
3-Nitrotoluene	13.98	13.75	14.05
PETN	15.10	14.85	15.15
1,2-Dinitrobenzene	8.78	8.61	8.91

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20200616-92483.b\06160029.D
Lims ID: CCV INT
Client ID:
Sample Type: CCV
Inject. Date: 17-Jun-2020 03:21:12 ALS Bottle#: 7 Worklist Smp#: 29
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: CCV INT
Misc. Info.: 280-0092483-029
Operator ID: JZ Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub9

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20200616-92483.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 17-Jun-2020 17:24:29 Calib Date: 18-Mar-2020 14:39:27
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180015.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1005

First Level Reviewer: zhangji Date: 17-Jun-2020 14:00:09

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 HMX	1	6.718	6.709	0.009	22295	0.2500	0.2594	M
7 RDX	1	7.805	7.789	0.016	27074	0.2500	0.2322	
8 2,4,6-Trinitrophenol	1	8.125	8.089	0.036	23258	0.2500	0.2732	
$ 9 1,2-Dinitrobenzene	1	8.778	8.763	0.015	35658	0.2500	0.2580	
10 1,3,5-Trinitrobenzene	1	8.958	8.936	0.022	63212	0.2505	0.2745	
11 1,3-Dinitrobenzene	1	9.618	9.589	0.029	80838	0.2505	0.2636	
12 Nitrobenzene	1	9.998	9.969	0.029	51120	0.2510	0.2551	M
14 Tetryl	1	10.318	10.282	0.036	47397	0.2505	0.2677	
15 Nitroglycerin	2	10.831	10.789	0.042	180619	2.50	2.65	
16 2,4,6-Trinitrotoluene	1	11.298	11.249	0.049	53275	0.2510	0.2611	
17 4-Amino-2,6-dinitrotoluene	1	11.478	11.416	0.062	42551	0.2503	0.2451	
18 2-Amino-4,6-dinitrotoluene	1	11.771	11.702	0.069	51092	0.2510	0.2519	
19 2,6-Dinitrotoluene	1	11.905	11.849	0.056	40372	0.2510	0.2701	
20 2,4-Dinitrotoluene	1	12.111	12.049	0.062	81759	0.2510	0.2693	
21 o-Nitrotoluene	1	12.945	12.876	0.069	33788	0.2500	0.2502	M
22 p-Nitrotoluene	1	13.385	13.309	0.076	29419	0.2505	0.2603	M
23 m-Nitrotoluene	1	13.978	13.902	0.076	35976	0.2503	0.2515	M
24 PETN	2	15.098	14.996	0.102	215300	2.50	2.74	

QC Flag Legend

Review Flags
M - Manually Integrated

Reagents:

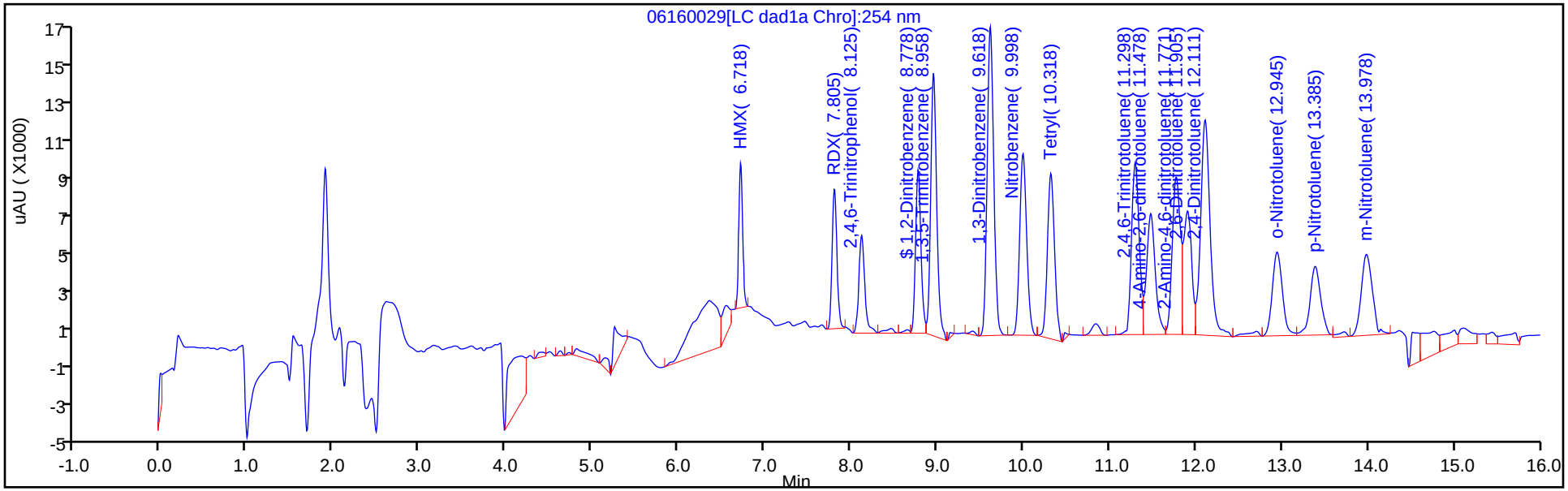
8330IntermStk_00061 Amount Added: 25.00 Units: uL

Report Date: 17-Jun-2020 17:24:29 Chrom Revision: 2.3 10-Jun-2020 22:46:48

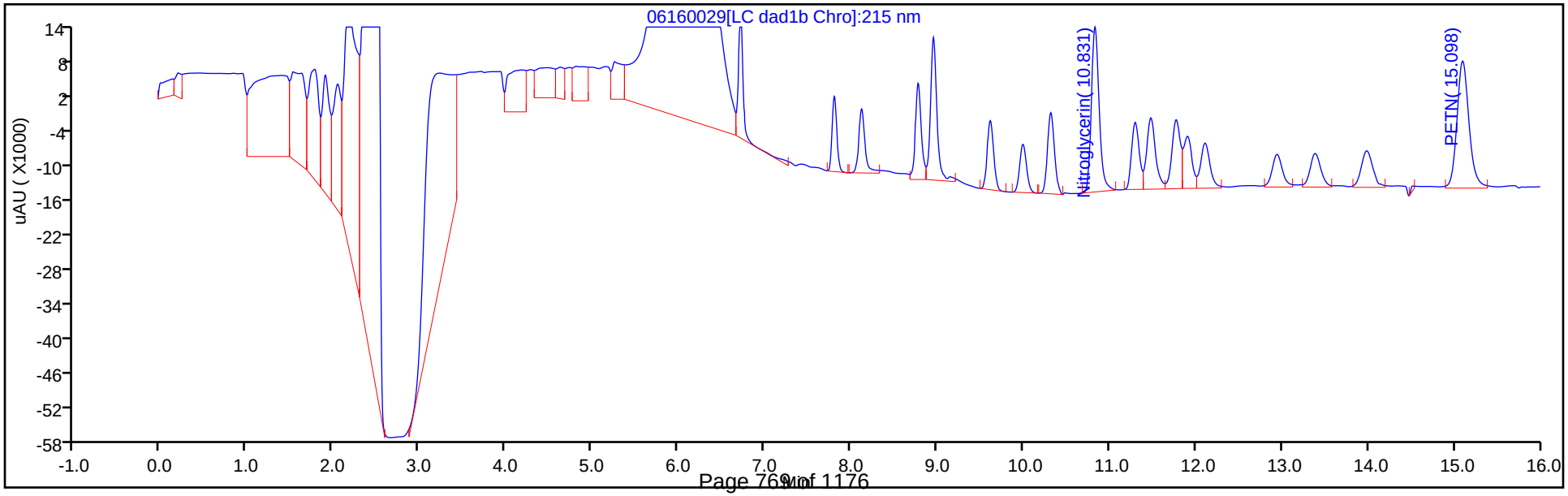
Eurofins TestAmerica, Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20200616-92483.b\06160029.d				
Injection Date:	17-Jun-2020 03:21:12	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	CCV INT			Worklist Smp#:	29
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 TestAmerica, Denver

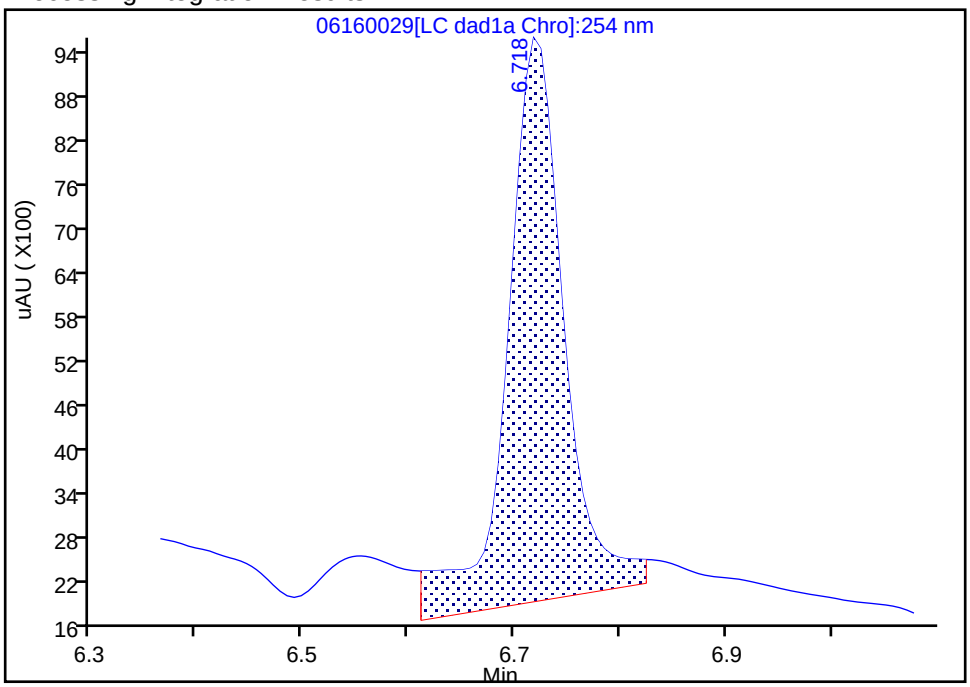
Data File:	\\chromfs\denver\chromdata\chhplc_x\20200616-92483.b\06160029.d				
Injection Date:	17-Jun-2020 03:21:12	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV INT				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	7	Worklist Smp#:	29
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

3 HMX, CAS: 2691-41-0

Signal: 1

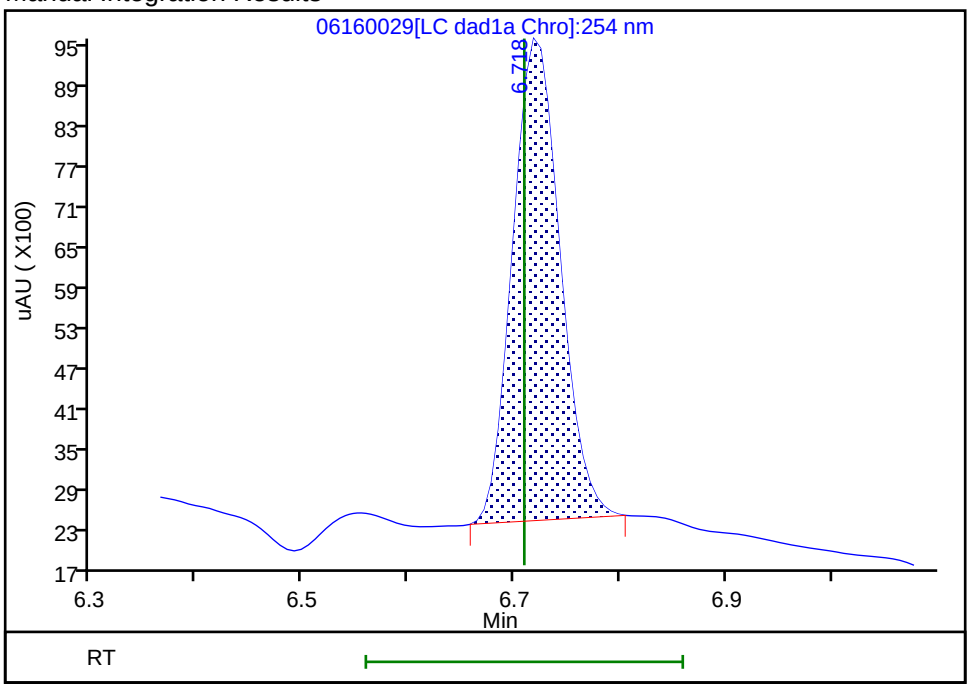
Processing Integration Results

RT: 6.72
Area: 28772
Amount: 0.334705
Amount Units: ug/mL



Manual Integration Results

RT: 6.72
Area: 22295
Amount: 0.259358
Amount Units: ug/mL



Reviewer: zhangji, 17-Jun-2020 13:59:35

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

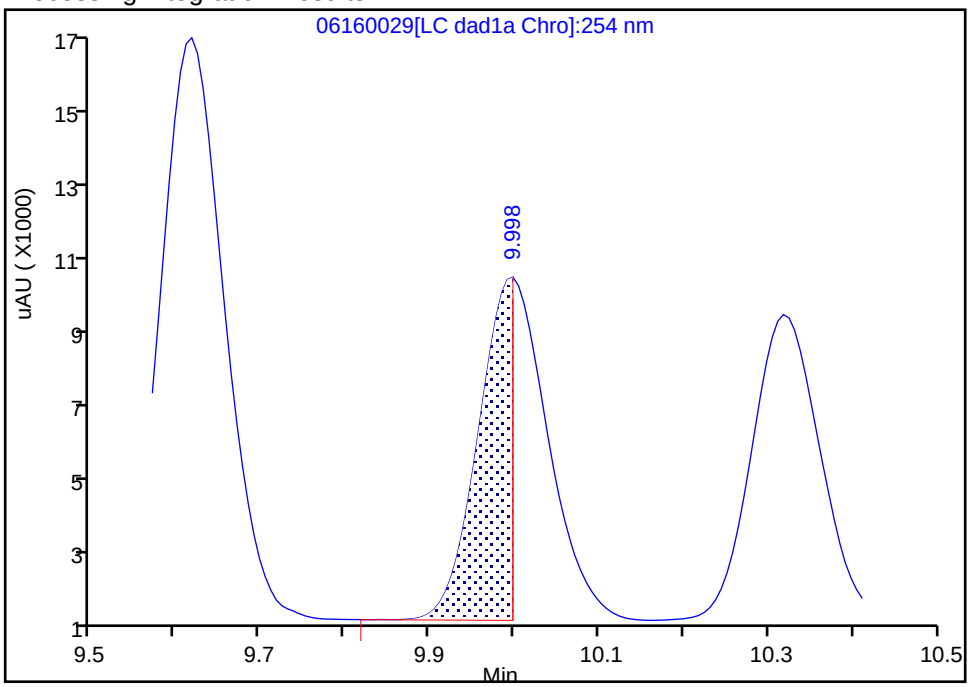
Data File:	\\chromfs\denver\chromdata\chhplc_x\20200616-92483.b\06160029.d				
Injection Date:	17-Jun-2020 03:21:12	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV INT				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	7	Worklist Smp#:	29
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

12 Nitrobenzene, CAS: 98-95-3

Signal: 1

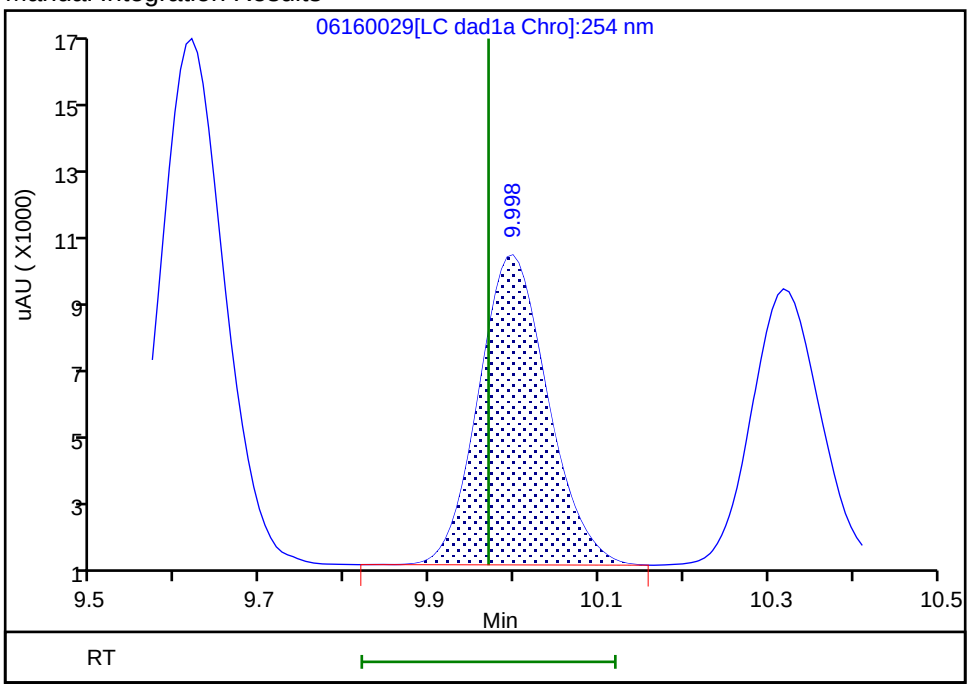
Processing Integration Results

RT: 10.00
Area: 24947
Amount: 0.124484
Amount Units: ug/mL



Manual Integration Results

RT: 10.00
Area: 51120
Amount: 0.255086
Amount Units: ug/mL



Reviewer: zhangji, 17-Jun-2020 13:59:43
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

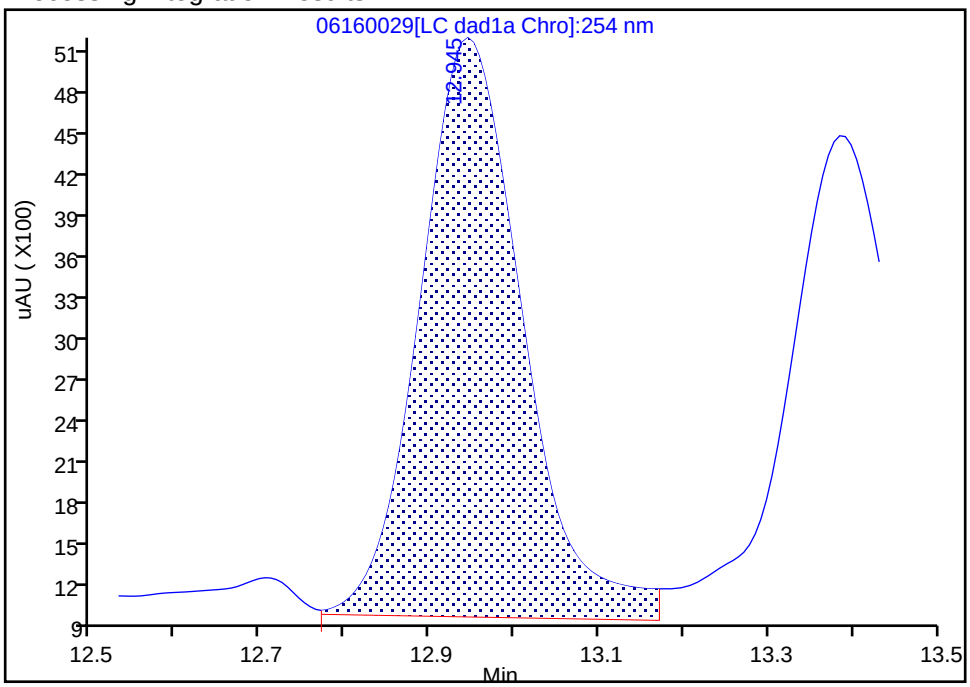
Data File:	\\chromfs\denver\chromdata\chhplc_x\20200616-92483.b\06160029.d				
Injection Date:	17-Jun-2020 03:21:12	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV INT				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	7	Worklist Smp#:	29
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

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

Signal: 1

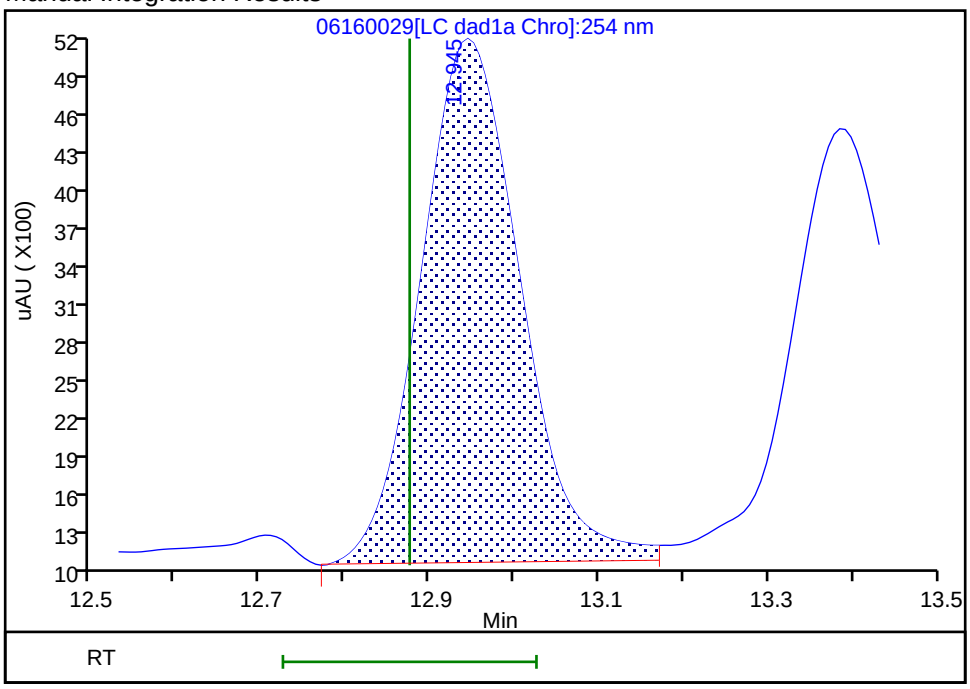
Processing Integration Results

RT: 12.94
Area: 35564
Amount: 0.263338
Amount Units: ug/mL



Manual Integration Results

RT: 12.94
Area: 33788
Amount: 0.250187
Amount Units: ug/mL



Reviewer: zhangji, 17-Jun-2020 13:59:52
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

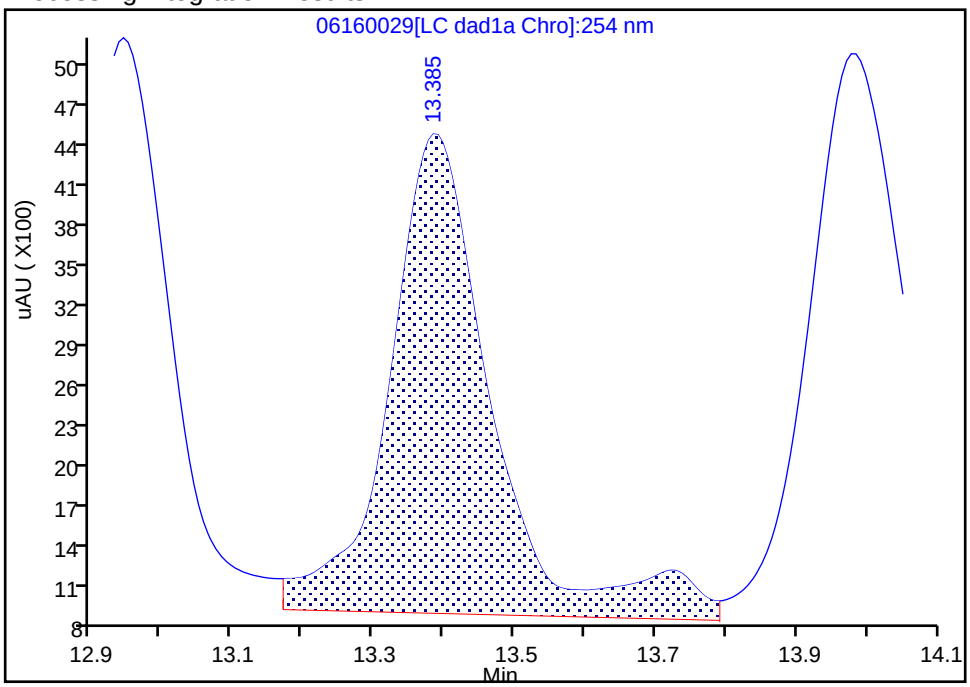
Data File:	\\chromfs\denver\chromdata\chhplc_x\20200616-92483.b\06160029.d				
Injection Date:	17-Jun-2020 03:21:12	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV INT				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	7	Worklist Smp#:	29
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

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

Signal: 1

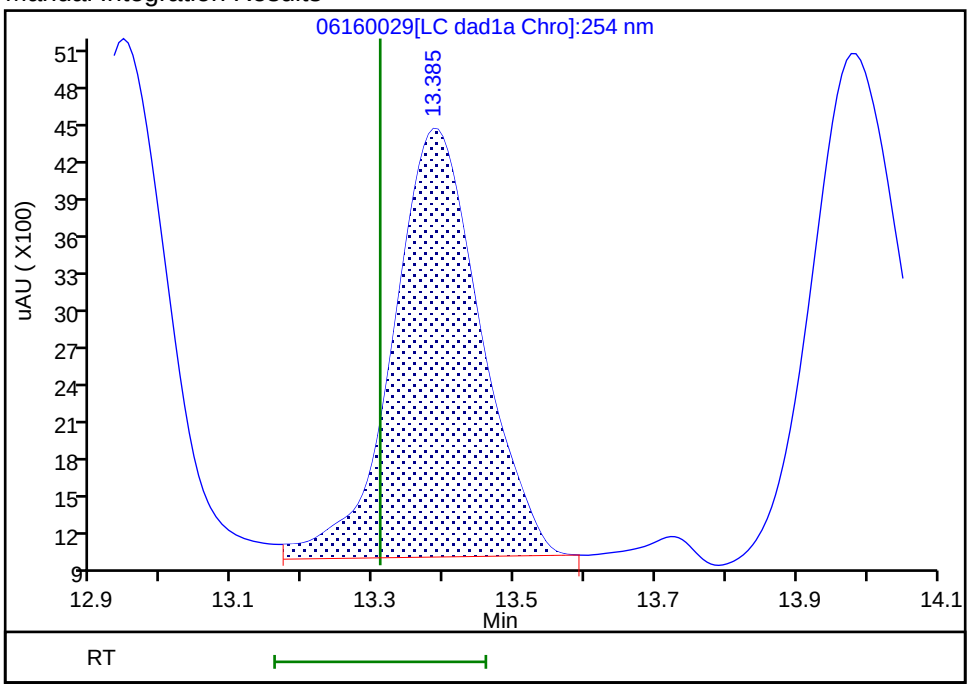
Processing Integration Results

RT: 13.38
Area: 36377
Amount: 0.321906
Amount Units: ug/mL



Manual Integration Results

RT: 13.38
Area: 29419
Amount: 0.260333
Amount Units: ug/mL



Reviewer: zhangji, 17-Jun-2020 13:59:57

Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

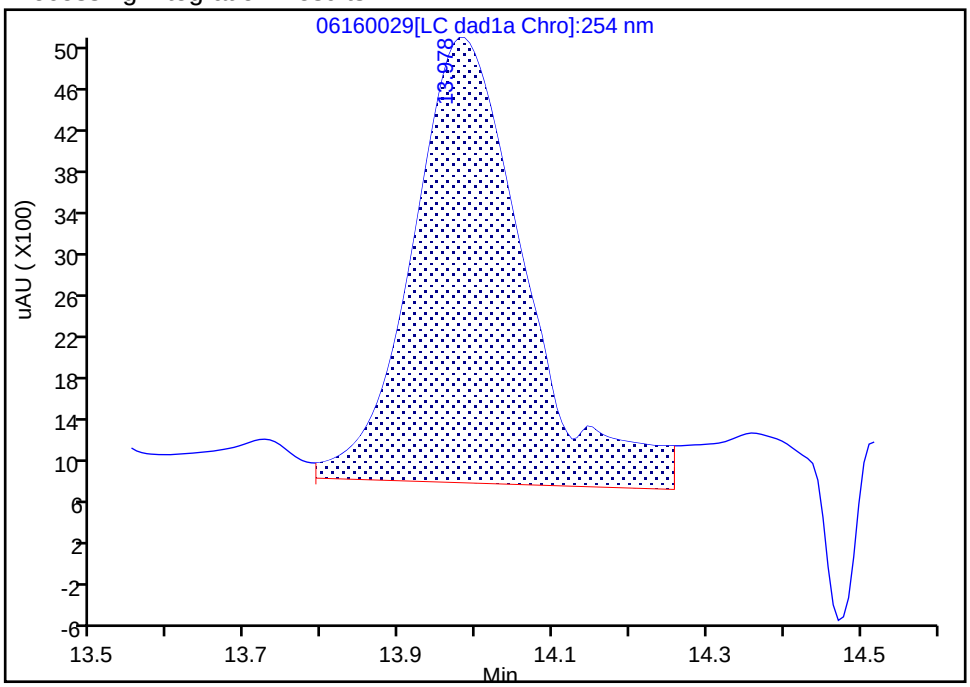
Data File:	\\chromfs\denver\chromdata\chhplc_x\20200616-92483.b\06160029.d				
Injection Date:	17-Jun-2020 03:21:12	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV INT				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	7	Worklist Smp#:	29
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

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

Signal: 1

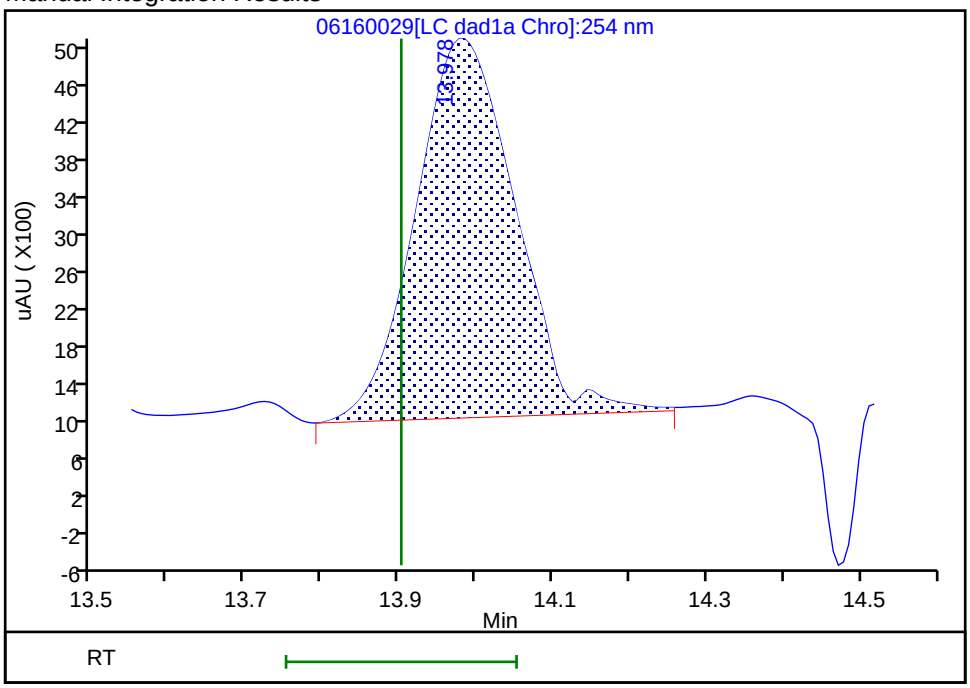
Processing Integration Results

RT: 13.98
Area: 43326
Amount: 0.302918
Amount Units: ug/mL



Manual Integration Results

RT: 13.98
Area: 35976
Amount: 0.251530
Amount Units: ug/mL



Reviewer: zhangji, 17-Jun-2020 14:00:05
Audit Action: Assigned New Baseline Audit Reason: Baseline

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Lab Sample ID: CCV 280-498992/31 Calibration Date: 06/17/2020 04:07

Instrument ID: CHHPLC_X3 Calib Start Date: 03/04/2020 21:00

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 03/04/2020 23:40

Lab File ID: 06160031.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
TNX	Ave	217609	243896		280	250	12.1	15.0
DNX	Ave	152928	130945		214	250	-14.4	15.0
MNX	Ave	158544	145673		268	292	-8.1	15.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Lab Sample ID: CCV 280-498992/31 Calibration Date: 06/17/2020 04:07

Instrument ID: CHHPLC_X3 Calib Start Date: 03/04/2020 21:00

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 03/04/2020 23:40

Lab File ID: 06160031.D

Analyte	RT	RT WINDOW	
		FROM	TO
TNX	6.63	6.52	6.72
DNX	6.96	6.85	7.05
MNX	7.41	7.24	7.54

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20200616-92483.b\06160031.D				
Lims ID:	CCV DMT				
Client ID:					
Sample Type:	CCV				
Inject. Date:	17-Jun-2020 04:07:34	ALS Bottle#:	9	Worklist Smp#:	31
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	CCV DMT				
Misc. Info.:	280-0092483-031				
Operator ID:	JZ	Instrument ID:	CHHPLC_X3		
Sublist:	chrom-8330_X3*sub17				
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20200616-92483.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	17-Jun-2020 17:24:30	Calib Date:	18-Mar-2020 14:39:27		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180015.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1005				

First Level Reviewer: zhangji Date: 17-Jun-2020 14:04:07

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
2 TNX	1	6.632	6.621	0.011	61035	0.2503	0.2805	M
5 DNX	1	6.959	6.947	0.012	32769	0.2503	0.2143	M
6 MNX	1	7.405	7.394	0.011	42500	0.2918	0.2681	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

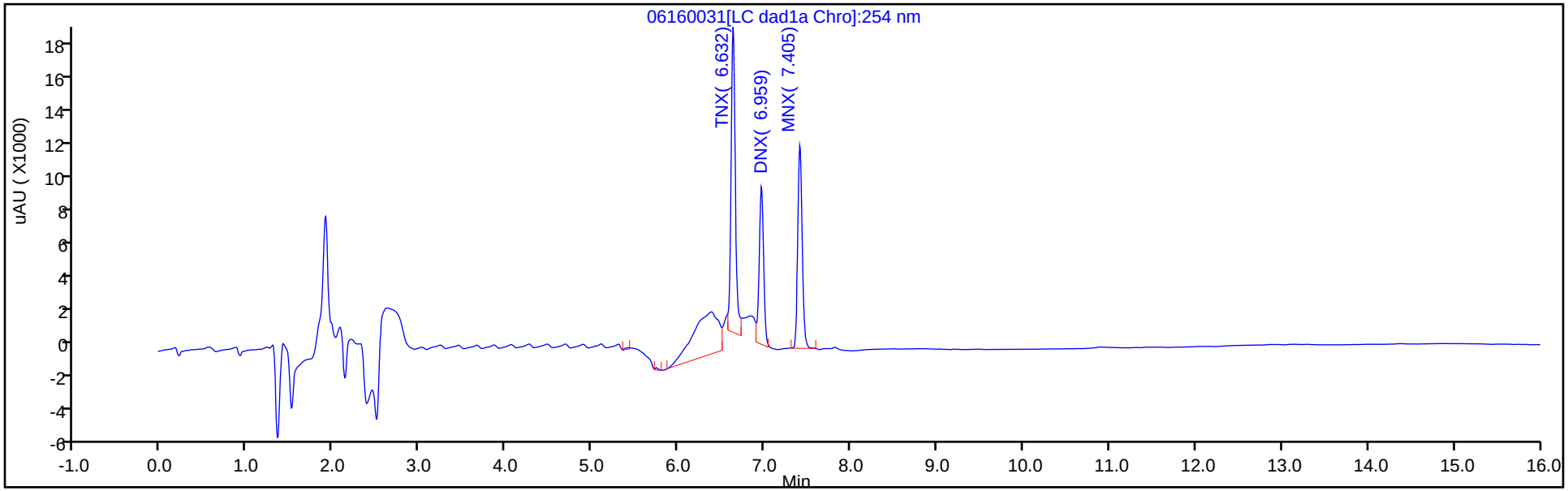
8330 DMT_00006 Amount Added: 12.50 Units: uL

Report Date: 17-Jun-2020 17:24:31 Chrom Revision: 2.3 10-Jun-2020 22:46:48

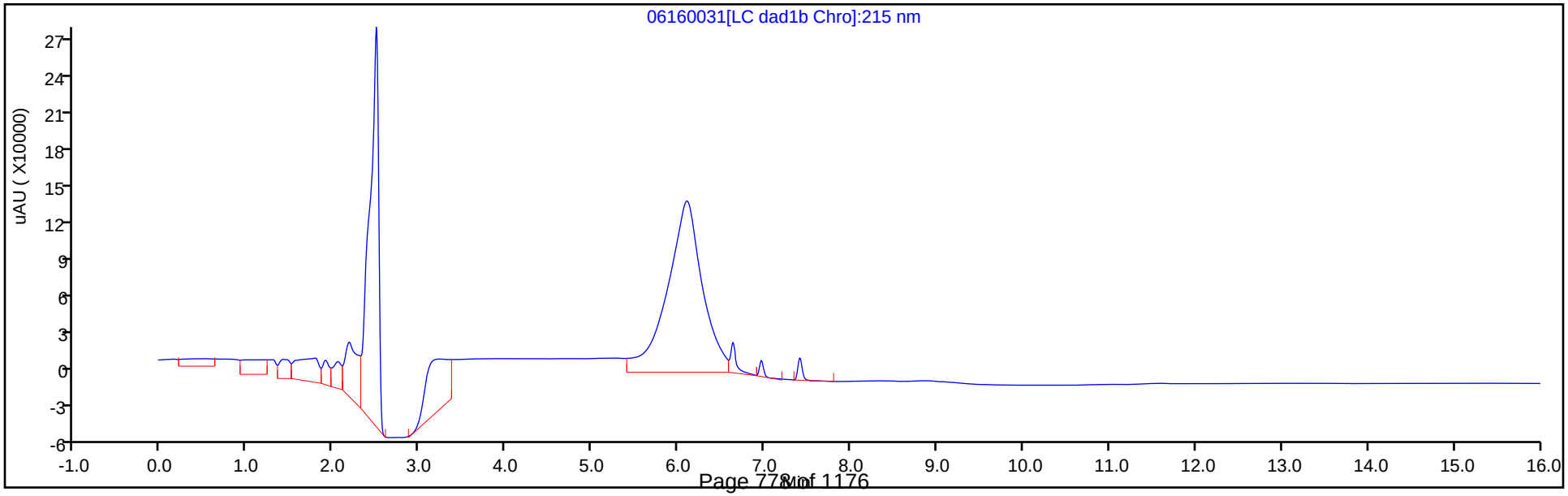
Eurofins TestAmerica, Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20200616-92483.b\06160031.d				
Injection Date:	17-Jun-2020 04:07:34	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	CCV DMT			Worklist Smp#:	31
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 TestAmerica, Denver

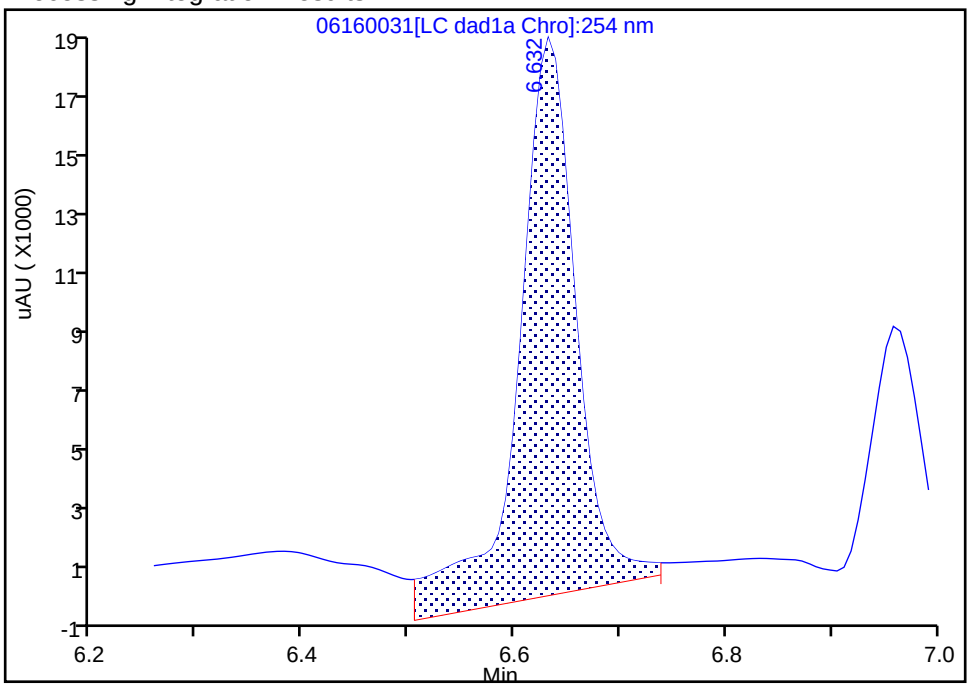
Data File:	\\chromfs\denver\chromdata\chhplc_x\20200616-92483.b\06160031.d				
Injection Date:	17-Jun-2020 04:07:34	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV DMT				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	9	Worklist Smp#:	31
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

2 TNX, CAS: 13980-04-6

Signal: 1

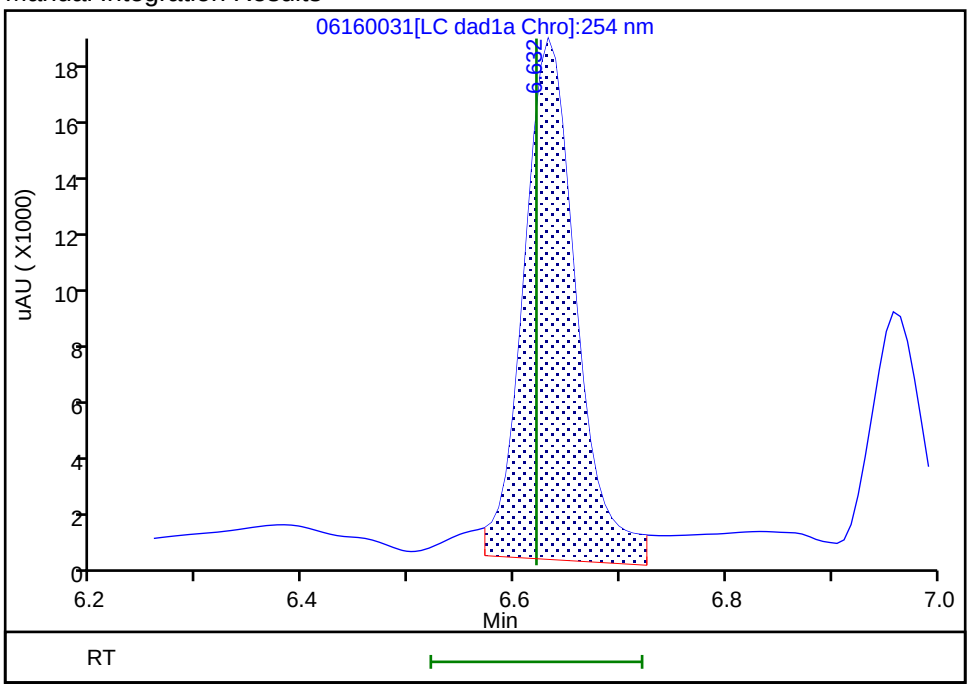
Processing Integration Results

RT: 6.63
Area: 68474
Amount: 0.314666
Amount Units: ug/mL



Manual Integration Results

RT: 6.63
Area: 61035
Amount: 0.280481
Amount Units: ug/mL



Reviewer: zhangji, 17-Jun-2020 14:04:03
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

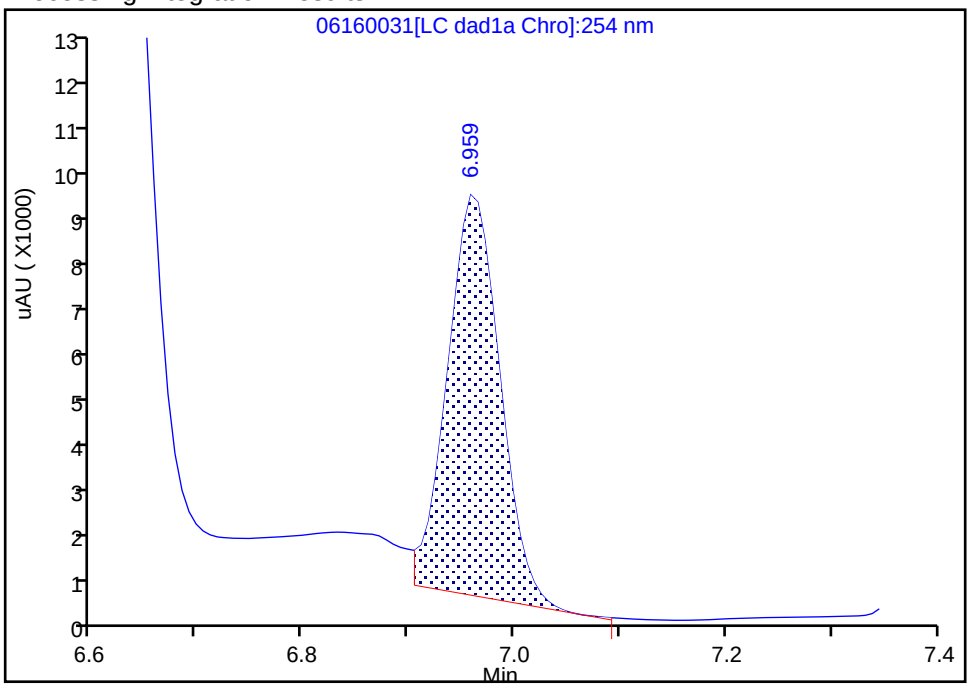
Data File:	\\chromfs\denver\chromdata\chhplc_x\20200616-92483.b\06160031.d				
Injection Date:	17-Jun-2020 04:07:34	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV DMT				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	9	Worklist Smp#:	31
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

5 DNX, CAS: 80251-29-2

Signal: 1

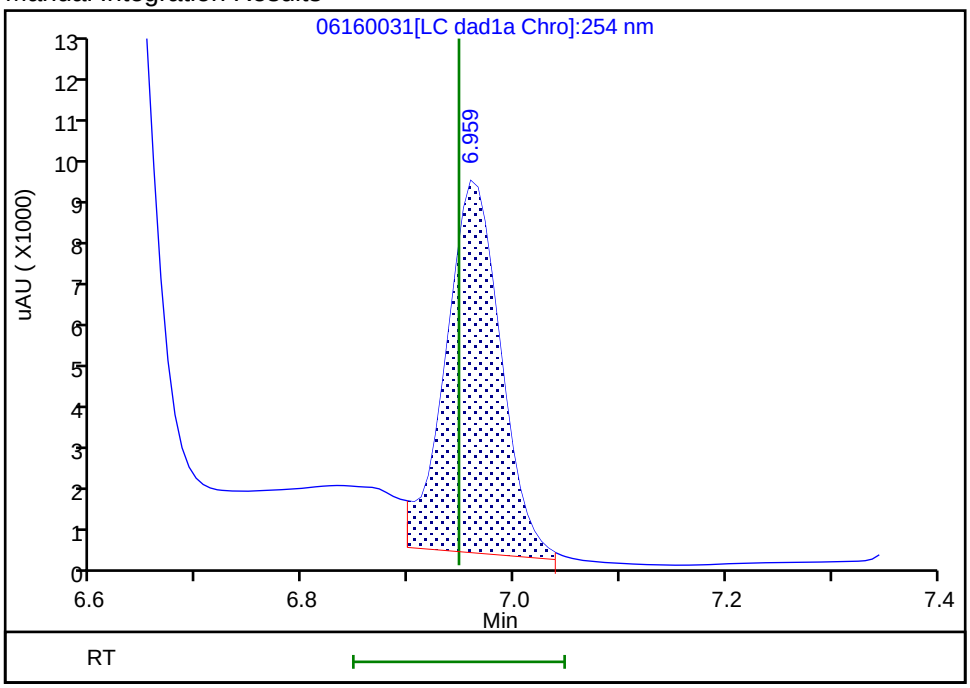
Processing Integration Results

RT: 6.96
Area: 30605
Amount: 0.200126
Amount Units: ug/mL



Manual Integration Results

RT: 6.96
Area: 32769
Amount: 0.214277
Amount Units: ug/mL



Reviewer: zhangji, 17-Jun-2020 14:04:03
Audit Action: Assigned New Baseline Audit Reason: Baseline

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Lab Sample ID: CCV 280-498992/42 Calibration Date: 06/17/2020 08:20

Instrument ID: CHHPLC_X3 Calib Start Date: 03/18/2020 11:35

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 03/18/2020 14:39

Lab File ID: 06160042.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
HMX	Ave	85962	90320		263	250	5.1	15.0
RDX	Ave	116613	112020		240	250	-3.9	15.0
Picric acid	Ave	85131	84524		248	250	-0.7	15.0
1,3,5-Trinitrobenzene	Ave	230309	240926		262	251	4.6	15.0
1,3-Dinitrobenzene	Ave	306686	329066		269	251	7.3	15.0
Nitrobenzene	Ave	200403	196131		246	251	-2.1	15.0
Tetryl	Ave	177032	197625		280	251	11.6	15.0
Nitroglycerin	Ave	68133	74783		2740	2500	9.8	15.0
2,4,6-Trinitrotoluene	Ave	204031	238239		293	251	16.8*	15.0
4-Amino-2,6-dinitrotoluene	Lin2		166254		240	250	-4.2	15.0
2-Amino-4,6-dinitrotoluene	Ave	202817	209733		260	251	3.4	15.0
2,6-Dinitrotoluene	Ave	149452	164454		276	251	10.0	15.0
2,4-Dinitrotoluene	Ave	303584	313068		259	251	3.1	15.0
2-Nitrotoluene	Ave	135051	119664		222	250	-11.4	15.0
4-Nitrotoluene	Ave	113005	106663		236	251	-5.6	15.0
3-Nitrotoluene	Ave	143029	142753		250	250	-0.2	15.0
PETN	Ave	78605	90725		2890	2500	15.4*	15.0
1,2-Dinitrobenzene	Ave	138212	158320		286	250	14.5	15.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Lab Sample ID: CCV 280-498992/42 Calibration Date: 06/17/2020 08:20

Instrument ID: CHHPLC_X3 Calib Start Date: 03/18/2020 11:35

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 03/18/2020 14:39

Lab File ID: 06160042.D

Analyte	RT	RT WINDOW	
		FROM	TO
HMX	6.73	6.56	6.86
RDX	7.81	7.64	7.94
Picric acid	8.12	7.94	8.24
1,3,5-Trinitrobenzene	8.96	8.79	9.09
1,3-Dinitrobenzene	9.61	9.44	9.74
Nitrobenzene	9.99	9.82	10.12
Tetryl	10.30	10.13	10.43
Nitroglycerin	10.82	10.64	10.94
2,4,6-Trinitrotoluene	11.28	11.15	11.35
4-Amino-2,6-dinitrotoluene	11.46	11.32	11.52
2-Amino-4,6-dinitrotoluene	11.76	11.60	11.80
2,6-Dinitrotoluene	11.89	11.75	11.95
2,4-Dinitrotoluene	12.09	11.95	12.15
2-Nitrotoluene	12.92	12.73	13.03
4-Nitrotoluene	13.36	13.16	13.46
3-Nitrotoluene	13.96	13.75	14.05
PETN	15.06	14.85	15.15
1,2-Dinitrobenzene	8.78	8.61	8.91

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20200616-92483.b\06160042.D
Lims ID: CCV INT
Client ID:
Sample Type: CCV
Inject. Date: 17-Jun-2020 08:20:32 ALS Bottle#: 7 Worklist Smp#: 42
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: CCV INT
Misc. Info.: 280-0092483-042
Operator ID: JZ Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub9

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20200616-92483.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 17-Jun-2020 20:30:30 Calib Date: 18-Mar-2020 14:39:27
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180015.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1005

First Level Reviewer: zhangji Date: 17-Jun-2020 19:00:25

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 HMX	1	6.725	6.709	0.016	22580	0.2500	0.2627	M
7 RDX	1	7.805	7.789	0.016	28005	0.2500	0.2402	
8 2,4,6-Trinitrophenol	1	8.118	8.089	0.029	21131	0.2500	0.2482	M
$ 9 1,2-Dinitrobenzene	1	8.778	8.763	0.015	39580	0.2500	0.2864	
10 1,3,5-Trinitrobenzene	1	8.958	8.936	0.022	60352	0.2505	0.2620	
11 1,3-Dinitrobenzene	1	9.611	9.589	0.022	82431	0.2505	0.2688	
12 Nitrobenzene	1	9.991	9.969	0.022	49229	0.2510	0.2457	
14 Tetryl	1	10.304	10.282	0.022	49505	0.2505	0.2796	
15 Nitroglycerin	2	10.818	10.789	0.029	186957	2.50	2.74	
16 2,4,6-Trinitrotoluene	1	11.284	11.249	0.035	59798	0.2510	0.2931	
17 4-Amino-2,6-dinitrotoluene	1	11.464	11.416	0.048	41605	0.2503	0.2398	
18 2-Amino-4,6-dinitrotoluene	1	11.758	11.702	0.056	52643	0.2510	0.2596	
19 2,6-Dinitrotoluene	1	11.891	11.849	0.042	41278	0.2510	0.2762	
20 2,4-Dinitrotoluene	1	12.091	12.049	0.042	78580	0.2510	0.2588	
21 o-Nitrotoluene	1	12.924	12.876	0.048	29916	0.2500	0.2215	M
22 p-Nitrotoluene	1	13.364	13.309	0.055	26719	0.2505	0.2364	M
23 m-Nitrotoluene	1	13.958	13.902	0.056	35724	0.2503	0.2498	M
24 PETN	2	15.064	14.996	0.068	226812	2.50	2.89	

QC Flag Legend

Review Flags
M - Manually Integrated

Reagents:

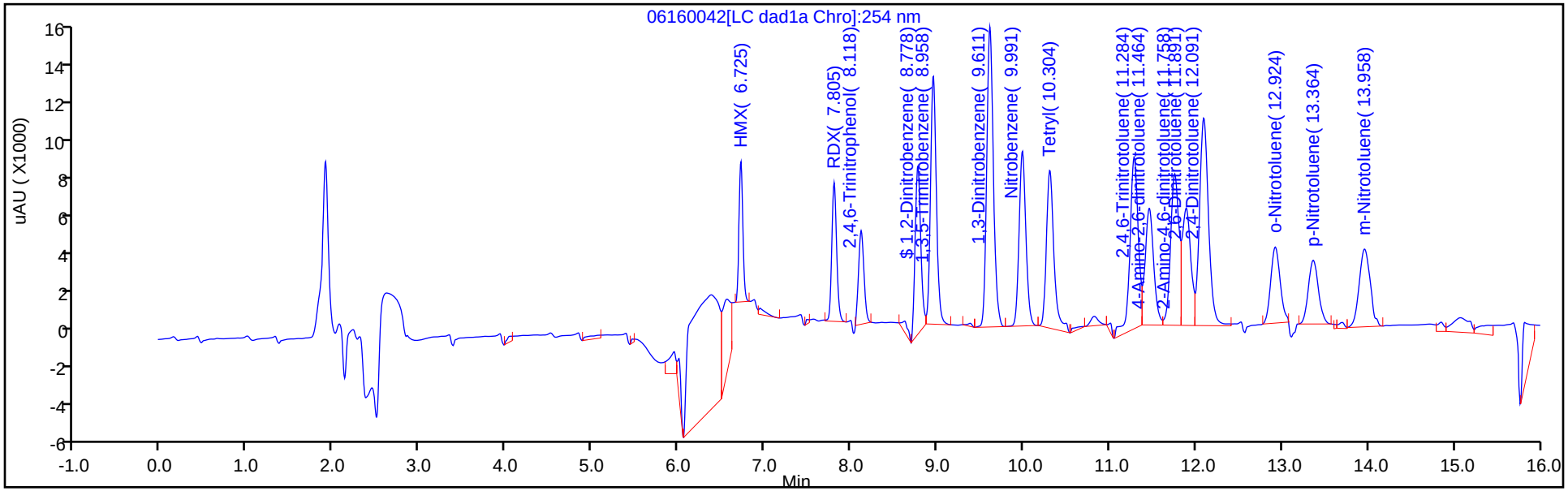
8330IntermStk_00061 Amount Added: 25.00 Units: uL

Report Date: 17-Jun-2020 20:30:30 Chrom Revision: 2.3 10-Jun-2020 22:46:48

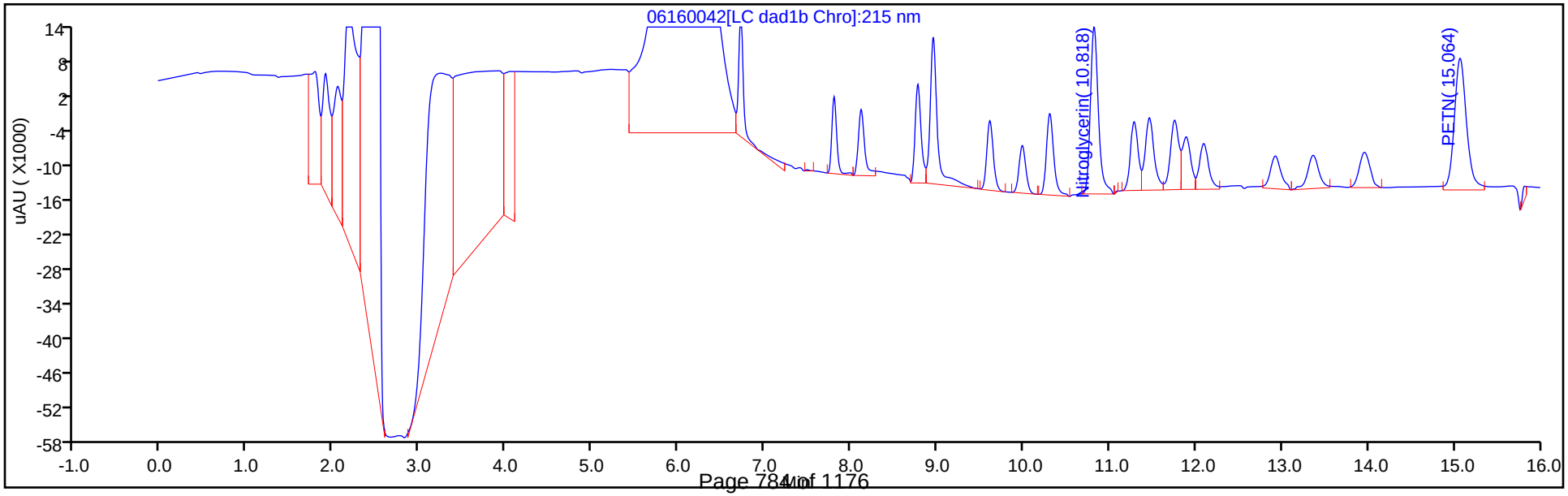
Eurofins TestAmerica, Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20200616-92483.b\06160042.d				
Injection Date:	17-Jun-2020 08:20:32	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	CCV INT			Worklist Smp#:	42
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 TestAmerica, Denver

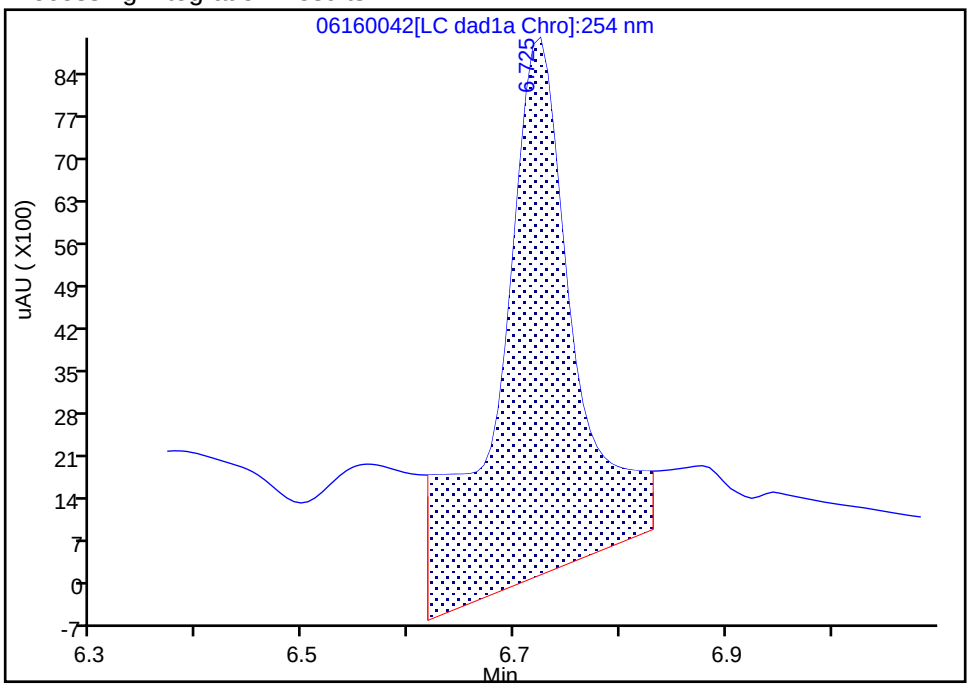
Data File:	\\chromfs\denver\chromdata\chhplc_x\20200616-92483.b\06160042.d				
Injection Date:	17-Jun-2020 08:20:32	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV INT				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	7	Worklist Smp#:	42
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

3 HMX, CAS: 2691-41-0

Signal: 1

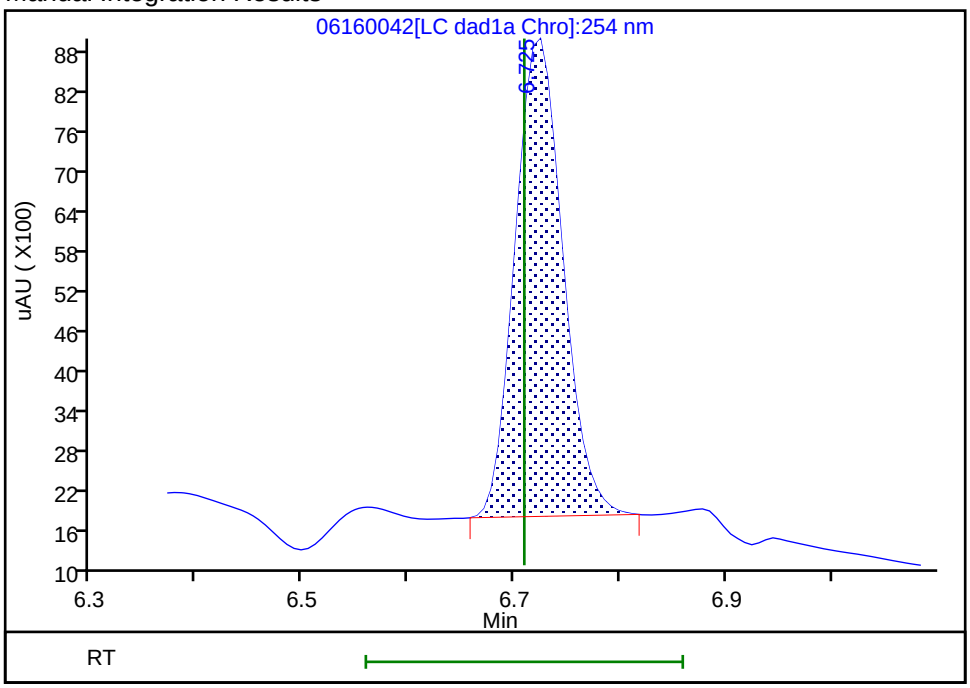
Processing Integration Results

RT: 6.72
Area: 44260
Amount: 0.514878
Amount Units: ug/mL



Manual Integration Results

RT: 6.72
Area: 22580
Amount: 0.262674
Amount Units: ug/mL



Reviewer: zhangji, 17-Jun-2020 18:59:23
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

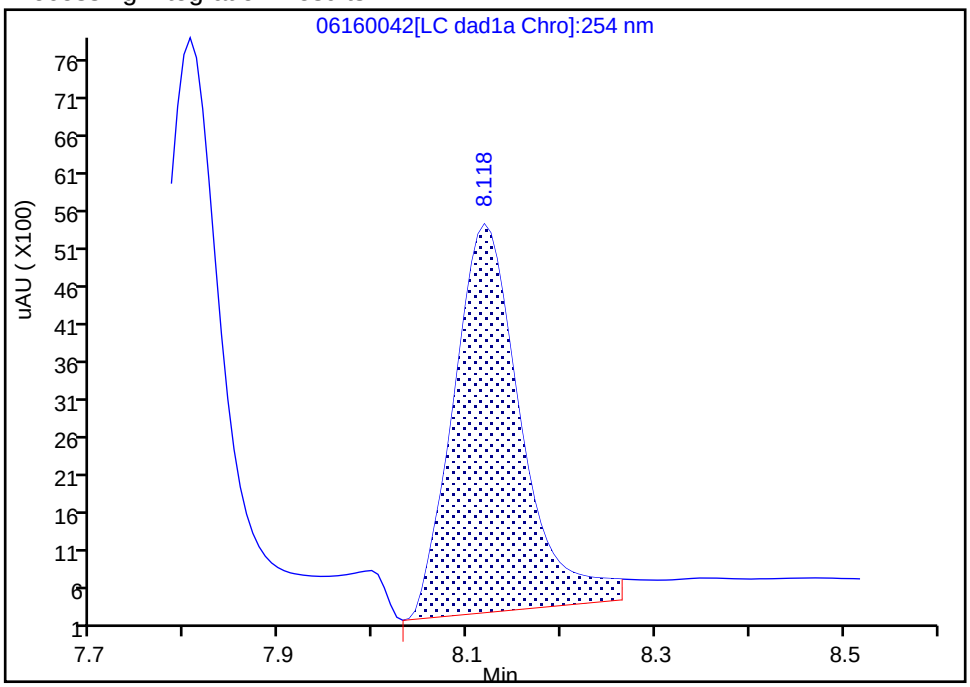
Data File:	\\chromfs\denver\chromdata\chhplc_x\20200616-92483.b\06160042.d				
Injection Date:	17-Jun-2020 08:20:32	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV INT				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	7	Worklist Smp#:	42
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

8 2,4,6-Trinitrophenol, CAS: 88-89-1

Signal: 1

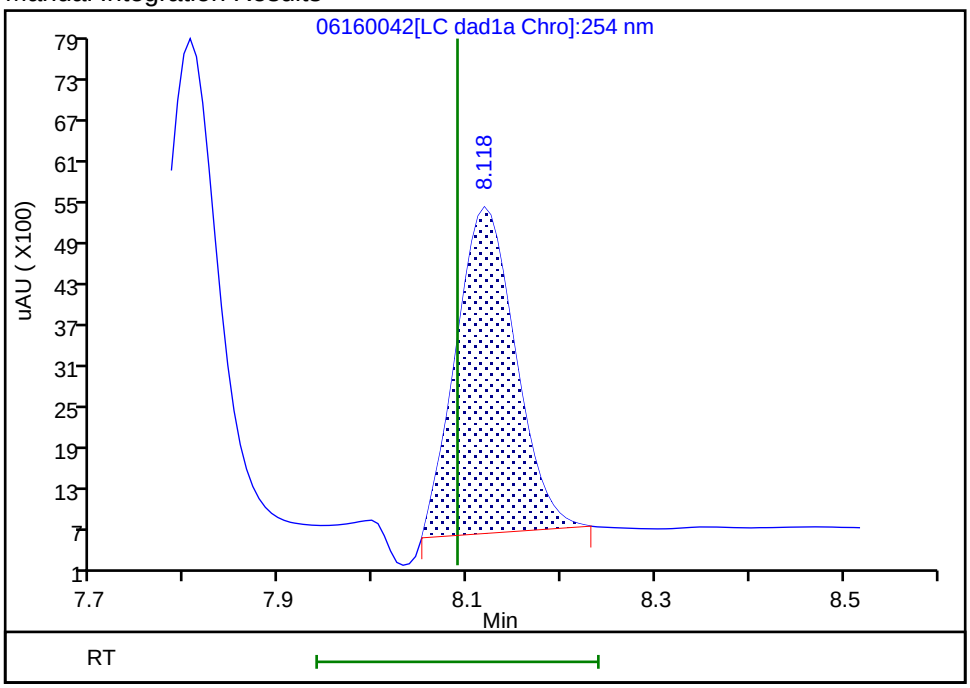
Processing Integration Results

RT: 8.12
Area: 25761
Amount: 0.302606
Amount Units: ug/mL



Manual Integration Results

RT: 8.12
Area: 21131
Amount: 0.248219
Amount Units: ug/mL



Reviewer: zhangji, 17-Jun-2020 18:59:34
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

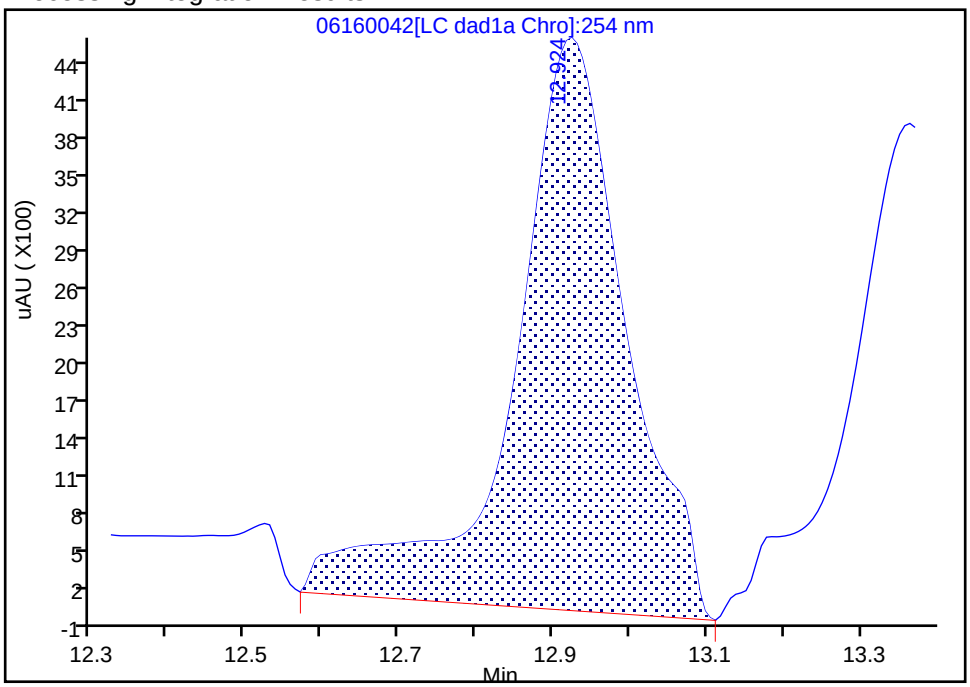
Data File:	\\chromfs\denver\chromdata\chhplc_x\20200616-92483.b\06160042.d				
Injection Date:	17-Jun-2020 08:20:32	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV INT				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	7	Worklist Smp#:	42
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

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

Signal: 1

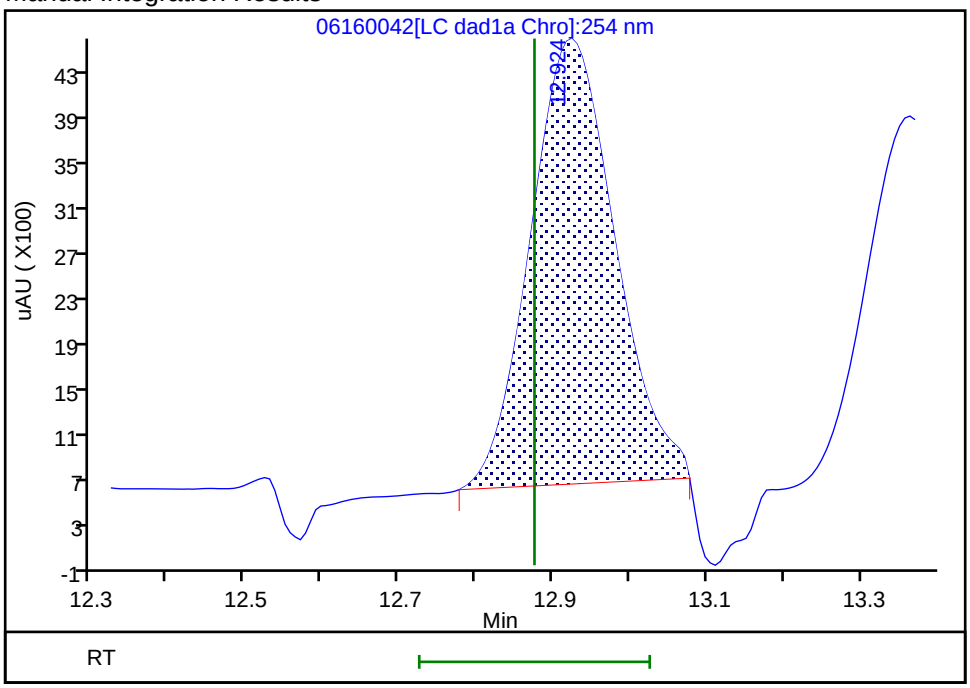
Processing Integration Results

RT: 12.92
Area: 46705
Amount: 0.345833
Amount Units: ug/mL



Manual Integration Results

RT: 12.92
Area: 29916
Amount: 0.221517
Amount Units: ug/mL



Reviewer: zhangji, 17-Jun-2020 19:00:10
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

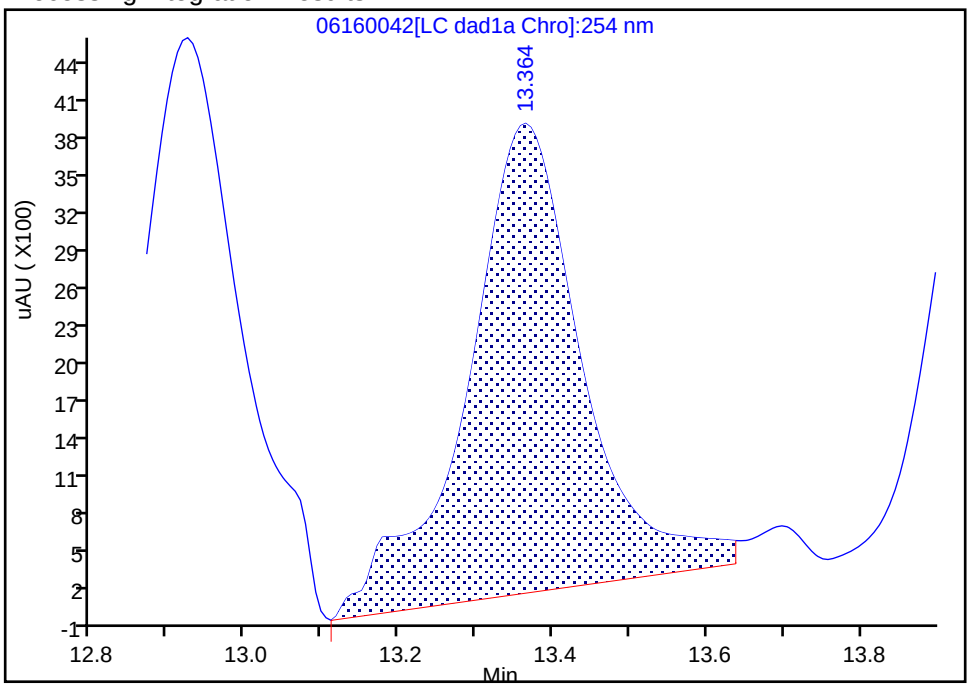
Data File:	\\chromfs\denver\chromdata\chhplc_x\20200616-92483.b\06160042.d				
Injection Date:	17-Jun-2020 08:20:32	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV INT				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	7	Worklist Smp#:	42
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

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

Signal: 1

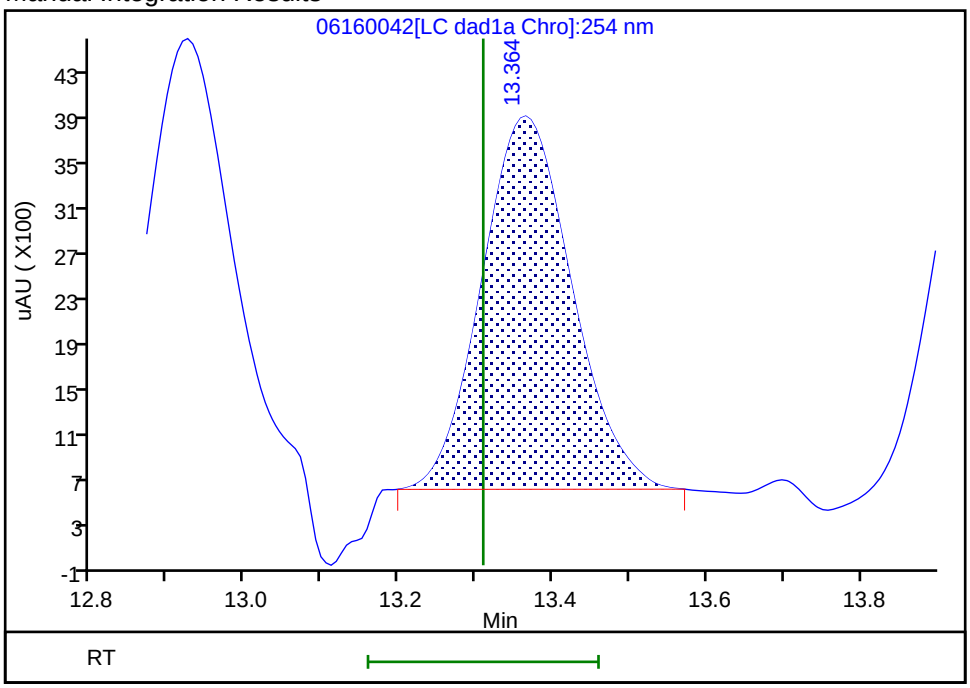
Processing Integration Results

RT: 13.36
Area: 39025
Amount: 0.345338
Amount Units: ug/mL



Manual Integration Results

RT: 13.36
Area: 26719
Amount: 0.236441
Amount Units: ug/mL



Reviewer: zhangji, 17-Jun-2020 19:00:14

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

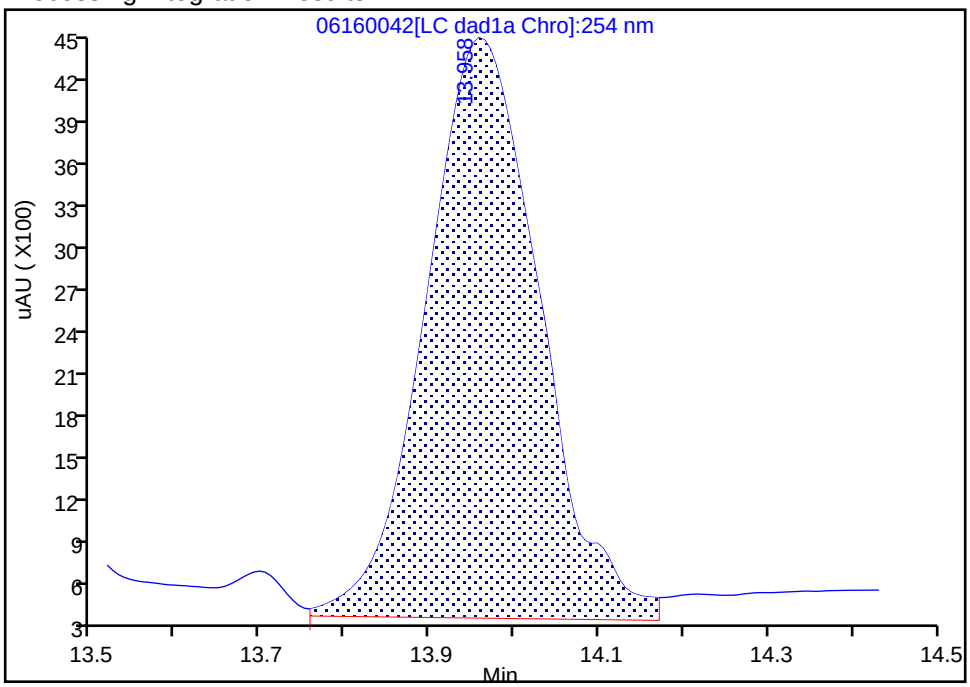
Data File:	\\chromfs\denver\chromdata\chhplc_x\20200616-92483.b\06160042.d				
Injection Date:	17-Jun-2020 08:20:32	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV INT				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	7	Worklist Smp#:	42
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

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

Signal: 1

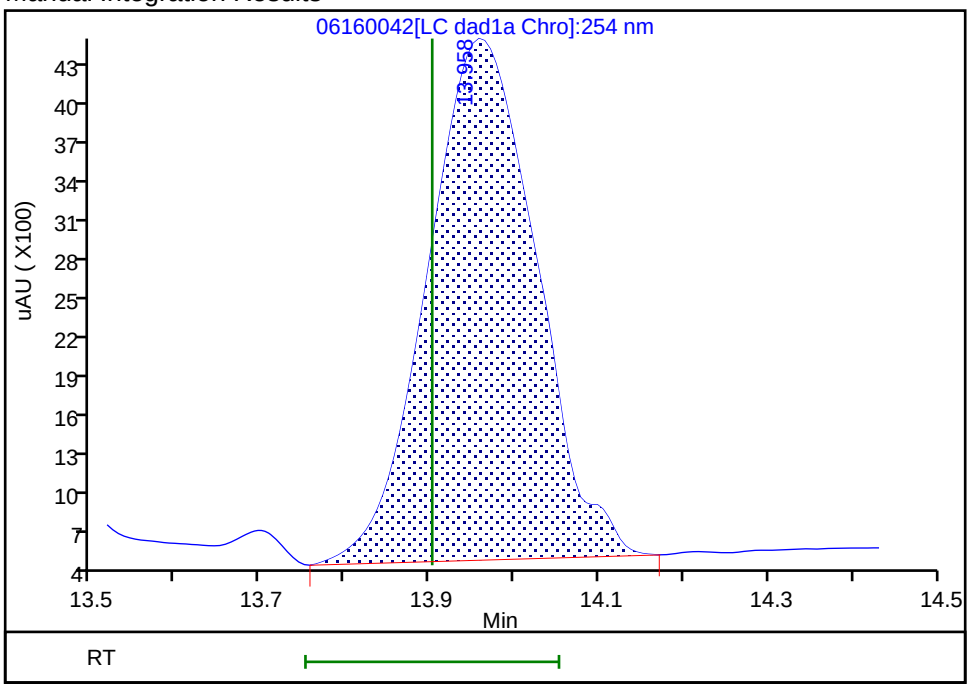
Processing Integration Results

RT: 13.96
Area: 38328
Amount: 0.267974
Amount Units: ug/mL



Manual Integration Results

RT: 13.96
Area: 35724
Amount: 0.249768
Amount Units: ug/mL



Reviewer: zhangji, 17-Jun-2020 19:00:22

Audit Action: Manually Integrated Audit Reason: Baseline

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Lab Sample ID: CCV 280-498992/44 Calibration Date: 06/17/2020 09:06

Instrument ID: CHHPLC_X3 Calib Start Date: 03/04/2020 21:00

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 03/04/2020 23:40

Lab File ID: 06160044.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
TNX	Ave	217609	199548		229	250	-8.3	15.0
DNX	Ave	152928	153746		252	250	0.5	15.0
MNX	Ave	158544	145813		268	292	-8.0	15.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Lab Sample ID: CCV 280-498992/44 Calibration Date: 06/17/2020 09:06

Instrument ID: CHHPLC_X3 Calib Start Date: 03/04/2020 21:00

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 03/04/2020 23:40

Lab File ID: 06160044.D

Analyte	RT	RT WINDOW	
		FROM	TO
TNX	6.63	6.52	6.72
DNX	6.95	6.85	7.05
MNX	7.40	7.24	7.54

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20200616-92483.b\06160044.D				
Lims ID:	CCV DMT				
Client ID:					
Sample Type:	CCV				
Inject. Date:	17-Jun-2020 09:06:54	ALS Bottle#:	9	Worklist Smp#:	44
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	CCV DMT				
Misc. Info.:	280-0092483-044				
Operator ID:	JZ	Instrument ID:	CHHPLC_X3		
Sublist:	chrom-8330_X3*sub17				
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20200616-92483.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	17-Jun-2020 20:30:31	Calib Date:	18-Mar-2020 14:39:27		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180015.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1005				

First Level Reviewer: zhangji Date: 17-Jun-2020 19:02:28

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
2 TNX	1	6.625	6.621	0.004	49937	0.2503	0.2295	M
5 DNX	1	6.951	6.947	0.004	38475	0.2503	0.2516	M
6 MNX	1	7.398	7.394	0.004	42541	0.2918	0.2683	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

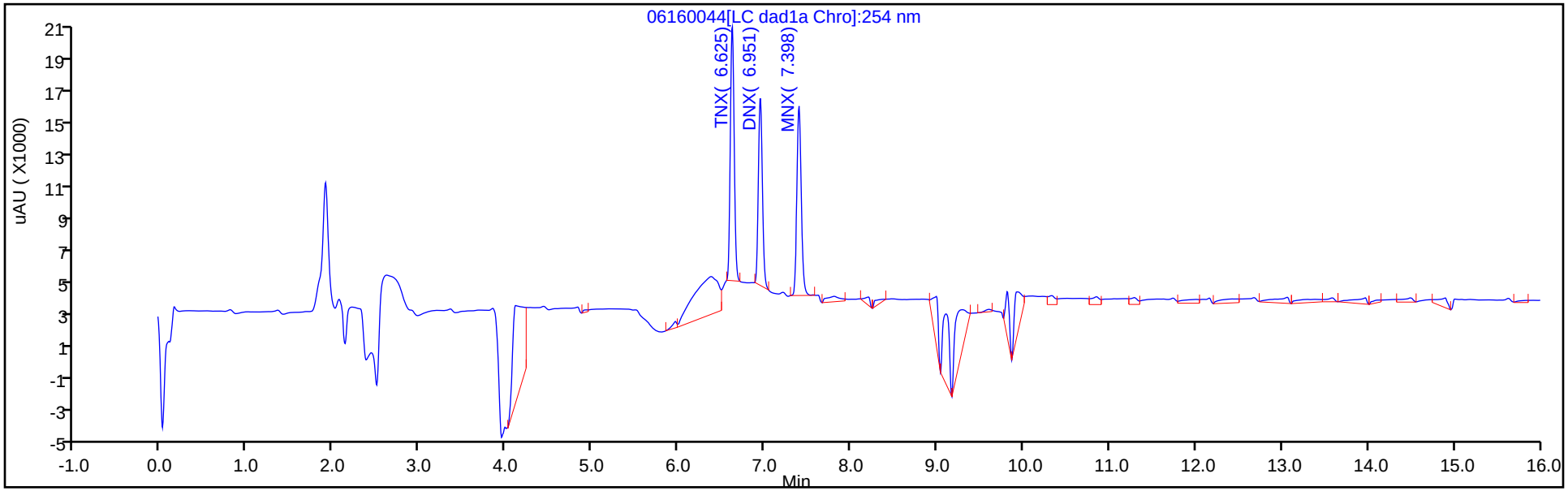
8330 DMT_00006 Amount Added: 12.50 Units: uL

Report Date: 17-Jun-2020 20:30:31 Chrom Revision: 2.3 10-Jun-2020 22:46:48

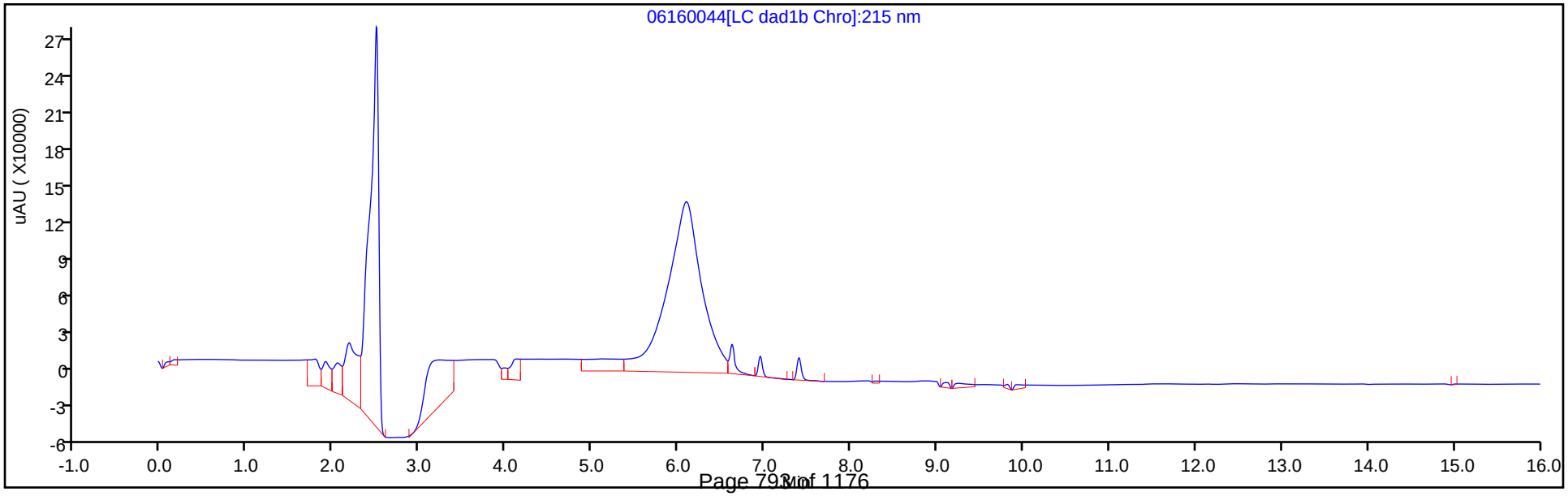
Eurofins TestAmerica, Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20200616-92483.b\06160044.d				
Injection Date:	17-Jun-2020 09:06:54	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	CCV DMT			Worklist Smp#:	44
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 TestAmerica, Denver

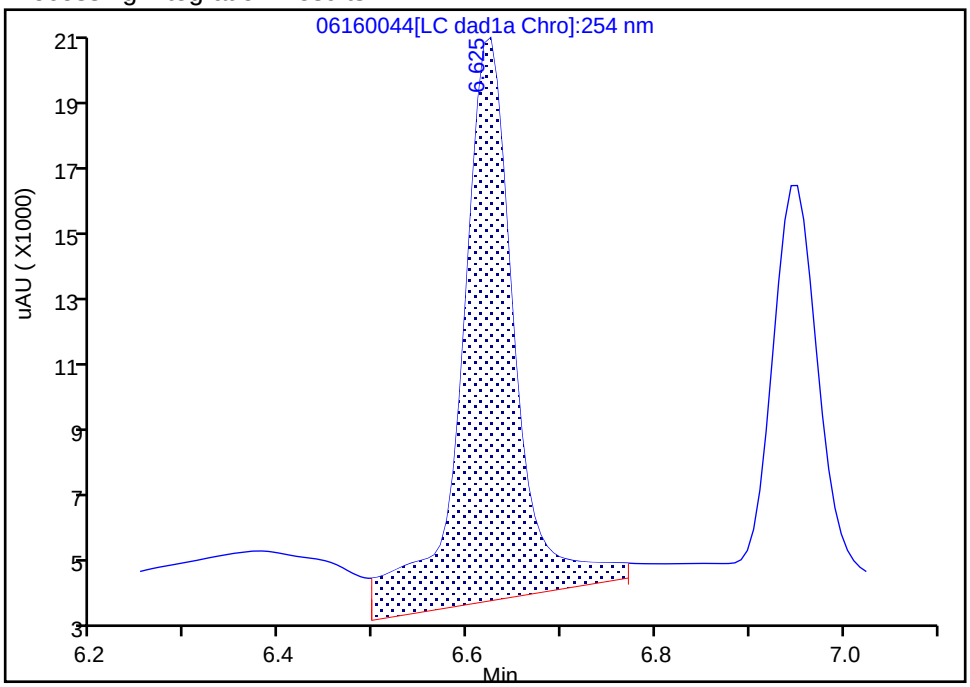
Data File:	\\chromfs\denver\chromdata\chhplc_x\20200616-92483.b\06160044.d				
Injection Date:	17-Jun-2020 09:06:54	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV DMT				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	9	Worklist Smp#:	44
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

2 TNX, CAS: 13980-04-6

Signal: 1

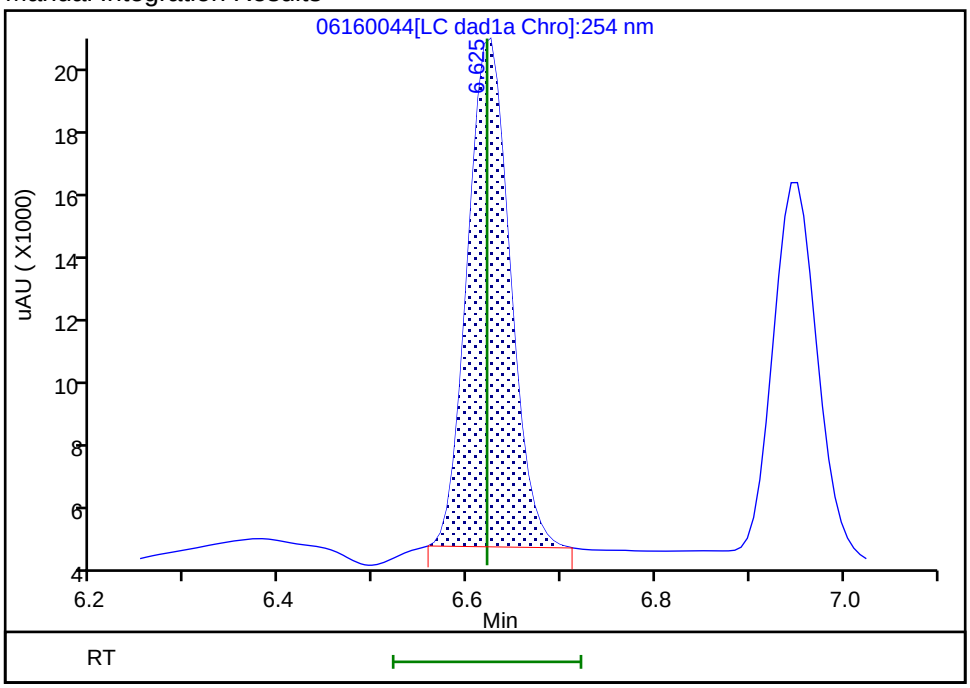
Processing Integration Results

RT: 6.62
Area: 68461
Amount: 0.314606
Amount Units: ug/mL



Manual Integration Results

RT: 6.62
Area: 49937
Amount: 0.229481
Amount Units: ug/mL



Reviewer: zhangji, 17-Jun-2020 19:02:21
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

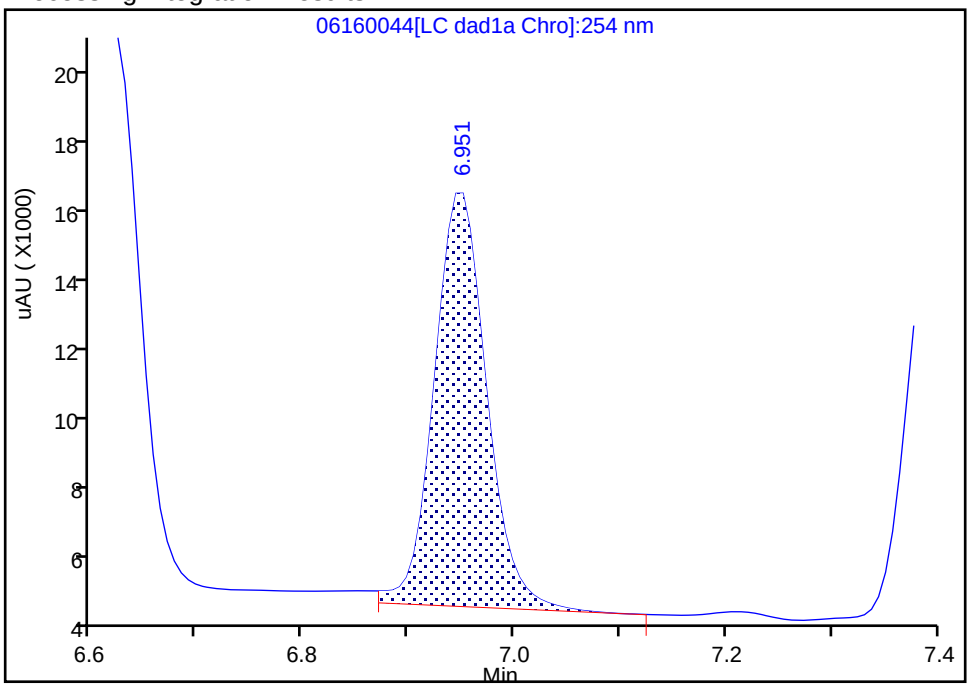
Data File:	\\chromfs\denver\chromdata\chhplc_x\20200616-92483.b\06160044.d				
Injection Date:	17-Jun-2020 09:06:54	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV DMT				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	9	Worklist Smp#:	44
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

5 DNX, CAS: 80251-29-2

Signal: 1

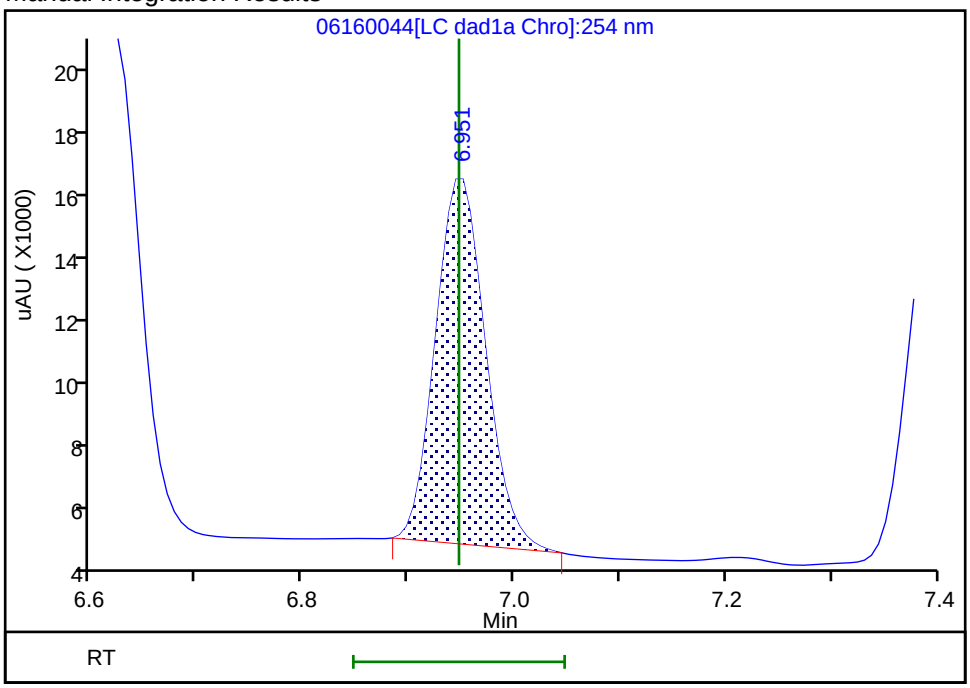
Processing Integration Results

RT: 6.95
Area: 41340
Amount: 0.270323
Amount Units: ug/mL



Manual Integration Results

RT: 6.95
Area: 38475
Amount: 0.251588
Amount Units: ug/mL



Reviewer: zhangji, 17-Jun-2020 19:02:25

Audit Action: Manually Integrated Audit Reason: Baseline

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Lab Sample ID: CCV 280-498992/52 Calibration Date: 06/17/2020 12:10

Instrument ID: CHHPLC_X3 Calib Start Date: 03/18/2020 11:35

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 03/18/2020 14:39

Lab File ID: 06160052.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
HMX	Ave	85962	89404		260	250	4.0	15.0
RDX	Ave	116613	110012		236	250	-5.7	15.0
Picric acid	Ave	85131	85028		250	250	-0.1	15.0
1,3,5-Trinitrobenzene	Ave	230309	241429		263	251	4.8	15.0
1,3-Dinitrobenzene	Ave	306686	325449		266	251	6.1	15.0
Nitrobenzene	Ave	200403	198139		248	251	-1.1	15.0
Tetryl	Ave	177032	188926		267	251	6.7	15.0
Nitroglycerin	Ave	68133	72383		2660	2500	6.2	15.0
2,4,6-Trinitrotoluene	Ave	204031	218833		269	251	7.3	15.0
4-Amino-2,6-dinitrotoluene	Lin2		167281		241	250	-3.6	15.0
2-Amino-4,6-dinitrotoluene	Ave	202817	200307		248	251	-1.2	15.0
2,6-Dinitrotoluene	Ave	149452	157625		265	251	5.5	15.0
2,4-Dinitrotoluene	Ave	303584	309586		256	251	2.0	15.0
2-Nitrotoluene	Ave	135051	126168		234	250	-6.6	15.0
4-Nitrotoluene	Ave	113005	117293		260	251	3.8	15.0
3-Nitrotoluene	Ave	143029	144691		253	250	1.2	15.0
PETN	Ave	78605	86083		2740	2500	9.5	15.0
1,2-Dinitrobenzene	Ave	138212	145348		263	250	5.2	15.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Lab Sample ID: CCV 280-498992/52 Calibration Date: 06/17/2020 12:10

Instrument ID: CHHPLC_X3 Calib Start Date: 03/18/2020 11:35

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 03/18/2020 14:39

Lab File ID: 06160052.D

Analyte	RT	RT WINDOW	
		FROM	TO
HMX	6.72	6.56	6.86
RDX	7.80	7.64	7.94
Picric acid	8.10	7.94	8.24
1,3,5-Trinitrobenzene	8.94	8.79	9.09
1,3-Dinitrobenzene	9.60	9.44	9.74
Nitrobenzene	9.98	9.82	10.12
Tetryl	10.29	10.13	10.43
Nitroglycerin	10.80	10.64	10.94
2,4,6-Trinitrotoluene	11.26	11.15	11.35
4-Amino-2,6-dinitrotoluene	11.43	11.32	11.52
2-Amino-4,6-dinitrotoluene	11.72	11.60	11.80
2,6-Dinitrotoluene	11.86	11.75	11.95
2,4-Dinitrotoluene	12.06	11.95	12.15
2-Nitrotoluene	12.88	12.73	13.03
4-Nitrotoluene	13.31	13.16	13.46
3-Nitrotoluene	13.89	13.75	14.05
PETN	14.96	14.85	15.15
1,2-Dinitrobenzene	8.76	8.61	8.91

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20200616-92483.b\06160052.D
Lims ID: CCV INT
Client ID:
Sample Type: CCV
Inject. Date: 17-Jun-2020 12:10:56 ALS Bottle#: 7 Worklist Smp#: 52
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: CCV INT
Misc. Info.: 280-0092483-052
Operator ID: JZ Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub9

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20200616-92483.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 17-Jun-2020 20:30:25 Calib Date: 18-Mar-2020 14:39:27
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180015.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1005

First Level Reviewer: zhangji Date: 17-Jun-2020 19:05:55

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 HMX	1	6.723	6.709	0.014	22351	0.2500	0.2600	M
7 RDX	1	7.797	7.789	0.008	27503	0.2500	0.2358	
8 2,4,6-Trinitrophenol	1	8.103	8.089	0.014	21257	0.2500	0.2497	
$ 9 1,2-Dinitrobenzene	1	8.763	8.763	0.000	36337	0.2500	0.2629	
10 1,3,5-Trinitrobenzene	1	8.943	8.936	0.007	60478	0.2505	0.2626	
11 1,3-Dinitrobenzene	1	9.597	9.589	0.008	81525	0.2505	0.2658	
12 Nitrobenzene	1	9.977	9.969	0.008	49733	0.2510	0.2482	
14 Tetryl	1	10.290	10.282	0.008	47326	0.2505	0.2673	
15 Nitroglycerin	2	10.797	10.789	0.008	180957	2.50	2.66	
16 2,4,6-Trinitrotoluene	1	11.263	11.249	0.014	54927	0.2510	0.2692	
17 4-Amino-2,6-dinitrotoluene	1	11.430	11.416	0.014	41862	0.2503	0.2412	
18 2-Amino-4,6-dinitrotoluene	1	11.723	11.702	0.021	50277	0.2510	0.2479	
19 2,6-Dinitrotoluene	1	11.863	11.849	0.014	39564	0.2510	0.2647	
20 2,4-Dinitrotoluene	1	12.057	12.049	0.008	77706	0.2510	0.2560	
21 o-Nitrotoluene	1	12.877	12.876	0.001	31542	0.2500	0.2336	
22 p-Nitrotoluene	1	13.310	13.309	0.001	29382	0.2505	0.2600	
23 m-Nitrotoluene	1	13.890	13.902	-0.012	36209	0.2503	0.2532	
24 PETN	2	14.957	14.996	-0.039	215208	2.50	2.74	

QC Flag Legend

Review Flags
M - Manually Integrated

Reagents:

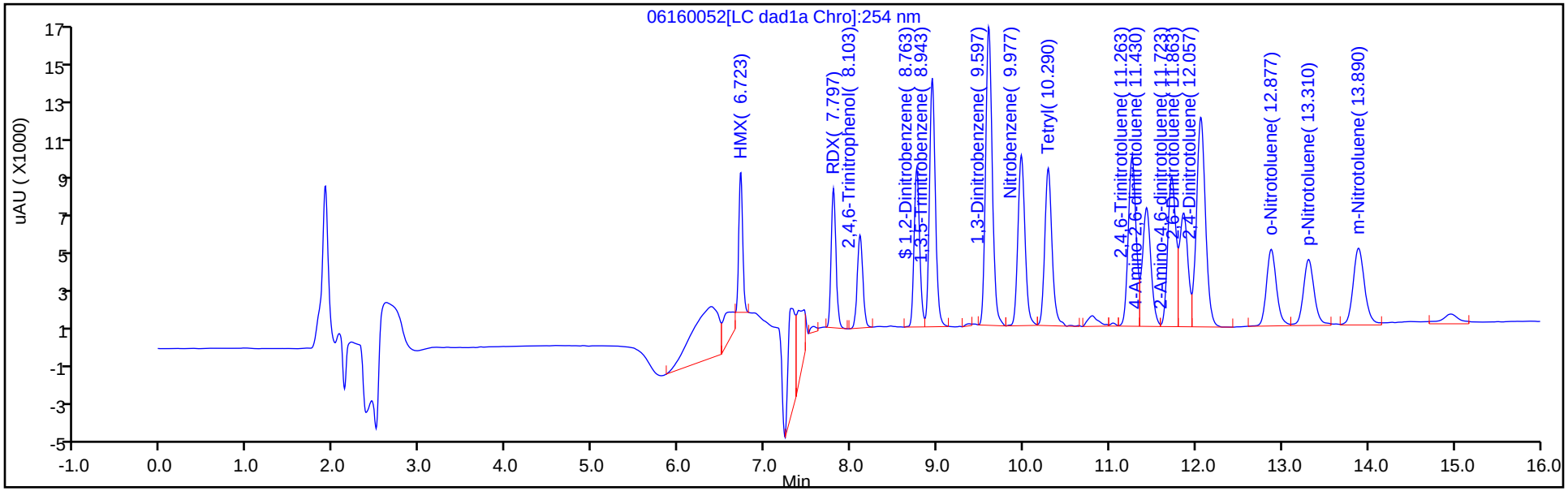
8330IntermStk_00061 Amount Added: 25.00 Units: uL

Report Date: 17-Jun-2020 20:30:25 Chrom Revision: 2.3 10-Jun-2020 22:46:48

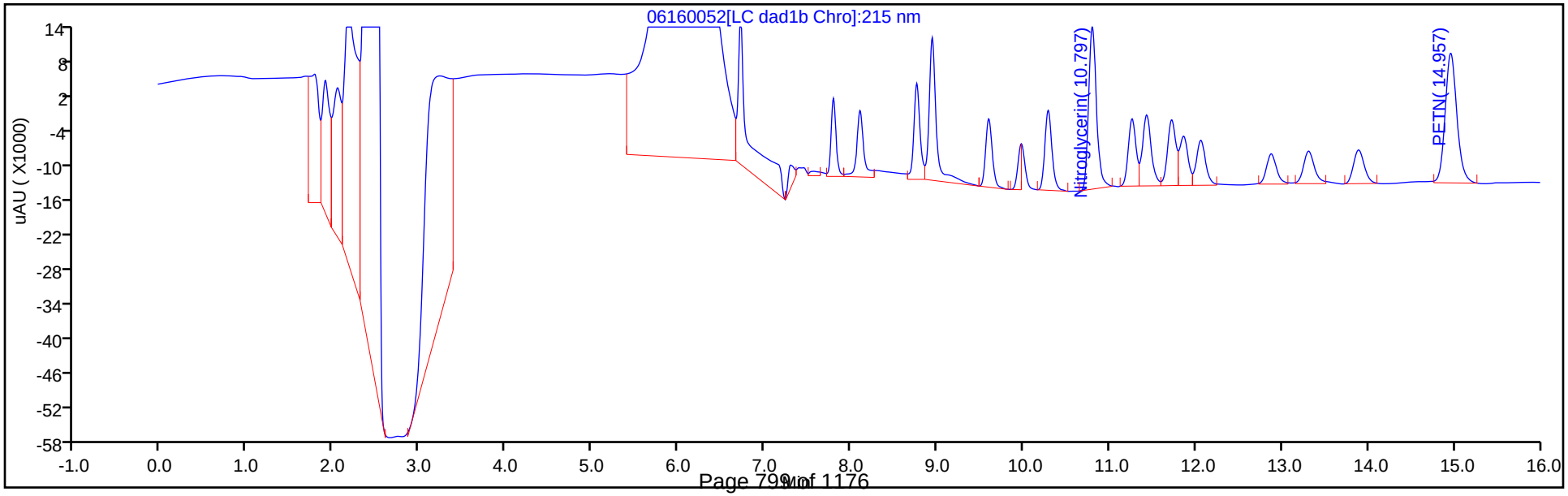
Eurofins TestAmerica, Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20200616-92483.b\06160052.d				
Injection Date:	17-Jun-2020 12:10:56	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	CCV INT			Worklist Smp#:	52
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 TestAmerica, Denver

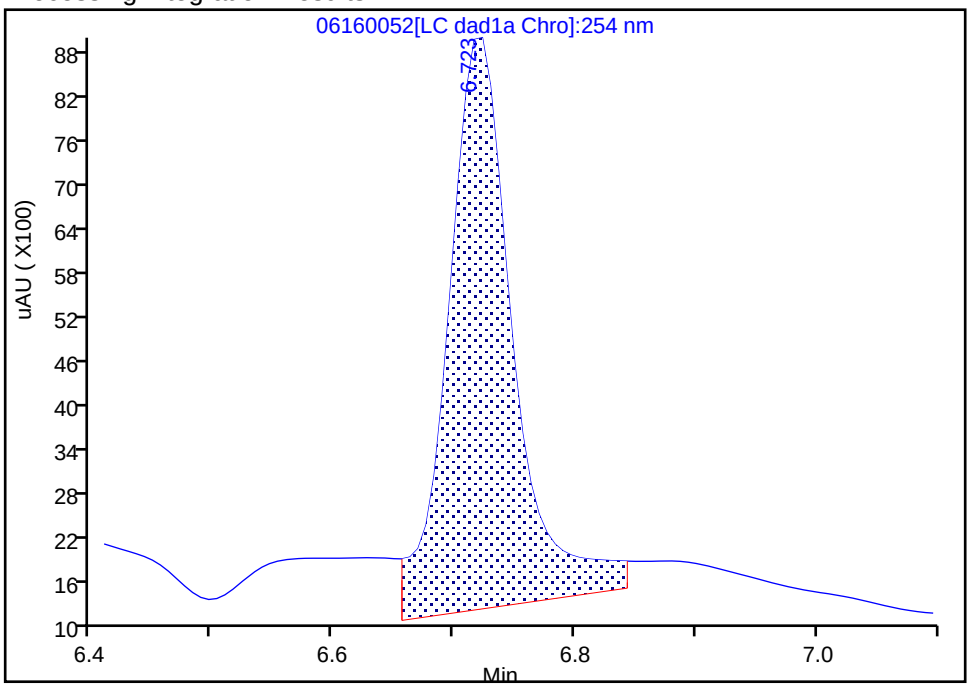
Data File:	\\chromfs\denver\chromdata\chhplc_x\20200616-92483.b\06160052.d				
Injection Date:	17-Jun-2020 12:10:56	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV INT				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	7	Worklist Smp#:	52
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

3 HMX, CAS: 2691-41-0

Signal: 1

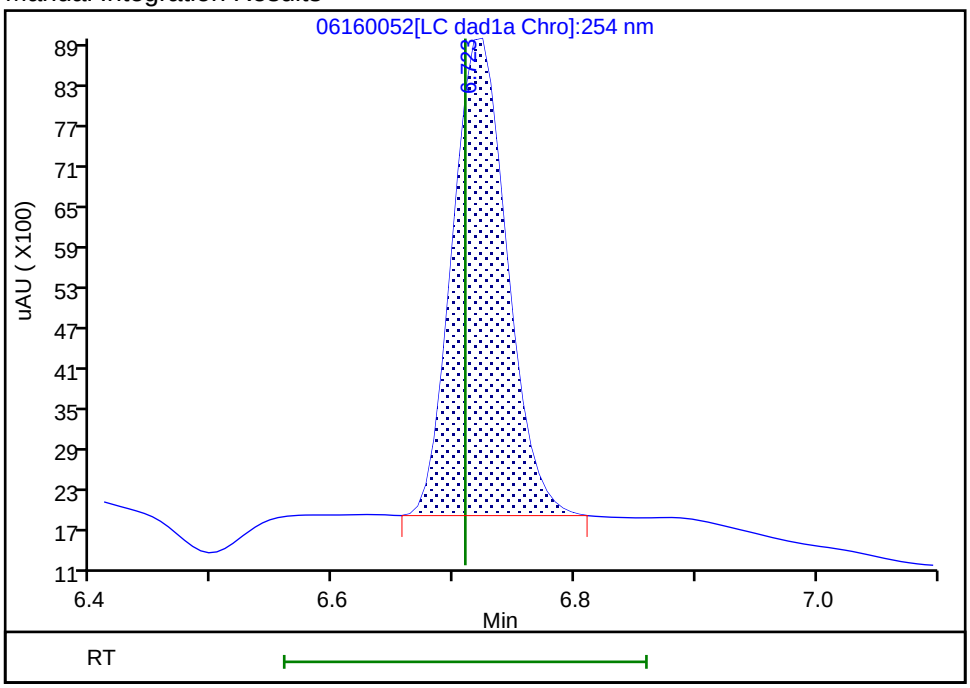
Processing Integration Results

RT: 6.72
Area: 29245
Amount: 0.340208
Amount Units: ug/mL



Manual Integration Results

RT: 6.72
Area: 22351
Amount: 0.260010
Amount Units: ug/mL



Reviewer: zhangji, 17-Jun-2020 19:05:52
Audit Action: Manually Integrated Audit Reason: Baseline

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Lab Sample ID: CCV 280-498992/54 Calibration Date: 06/17/2020 12:57

Instrument ID: CHHPLC_X3 Calib Start Date: 03/04/2020 21:00

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 03/04/2020 23:40

Lab File ID: 06160054.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
TNX	Ave	217609	202681		233	250	-6.9	15.0
DNX	Ave	152928	153147		251	250	0.1	15.0
MNX	Ave	158544	144593		266	292	-8.8	15.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Lab Sample ID: CCV 280-498992/54 Calibration Date: 06/17/2020 12:57

Instrument ID: CHHPLC_X3 Calib Start Date: 03/04/2020 21:00

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 03/04/2020 23:40

Lab File ID: 06160054.D

Analyte	RT	RT WINDOW	
		FROM	TO
TNX	6.62	6.52	6.72
DNX	6.95	6.85	7.05
MNX	7.40	7.24	7.54

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20200616-92483.b\06160054.D				
Lims ID:	CCV DMT				
Client ID:					
Sample Type:	CCV				
Inject. Date:	17-Jun-2020 12:57:15	ALS Bottle#:	9	Worklist Smp#:	54
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	CCV DMT				
Misc. Info.:	280-0092483-054				
Operator ID:	JZ	Instrument ID:	CHHPLC_X3		
Sublist:	chrom-8330_X3*sub17				
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20200616-92483.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	17-Jun-2020 20:30:26	Calib Date:	18-Mar-2020 14:39:27		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180015.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1005				

First Level Reviewer: zhangji Date: 17-Jun-2020 19:06:31

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
2 TNX	1	6.623	6.621	0.002	50721	0.2503	0.2331	M
5 DNX	1	6.950	6.947	0.003	38325	0.2503	0.2506	M
6 MNX	1	7.396	7.394	0.002	42185	0.2918	0.2661	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

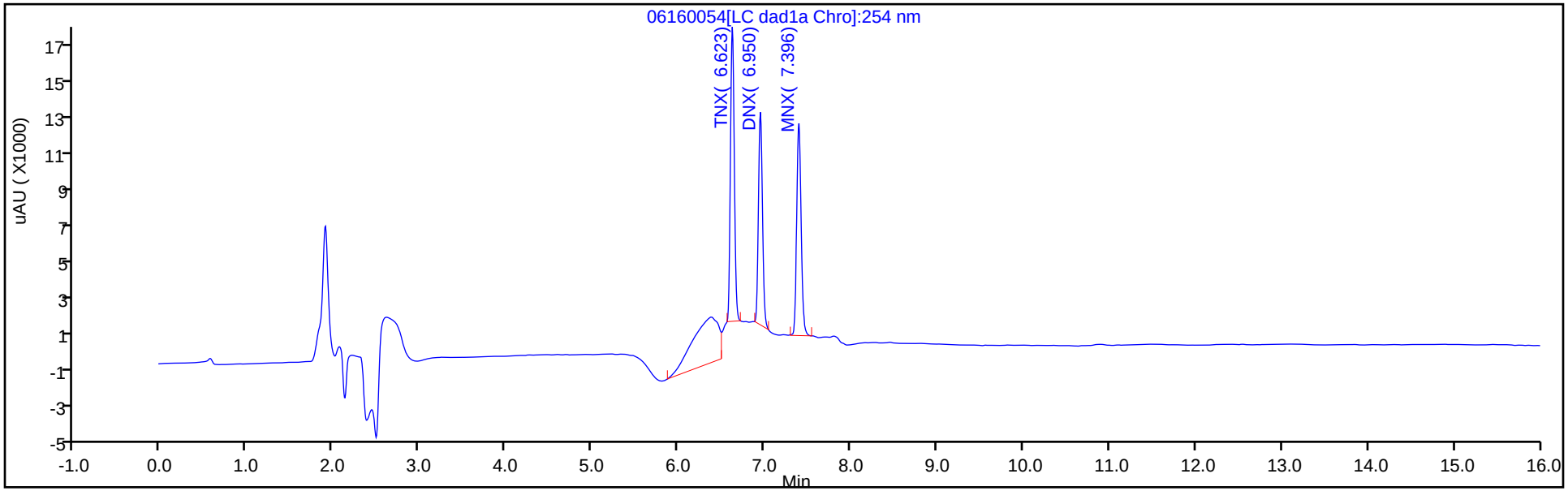
8330 DMT_00006 Amount Added: 12.50 Units: uL

Report Date: 17-Jun-2020 20:30:26 Chrom Revision: 2.3 10-Jun-2020 22:46:48

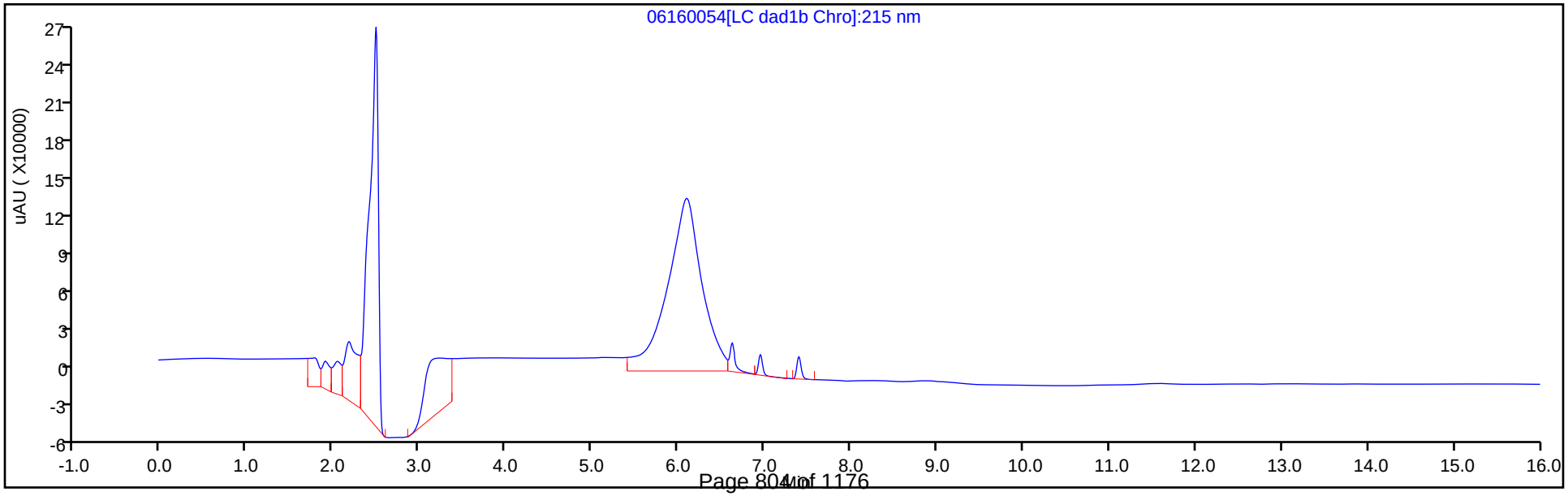
Eurofins TestAmerica, Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20200616-92483.b\06160054.d				
Injection Date:	17-Jun-2020 12:57:15	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	CCV DMT			Worklist Smp#:	54
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 TestAmerica, Denver

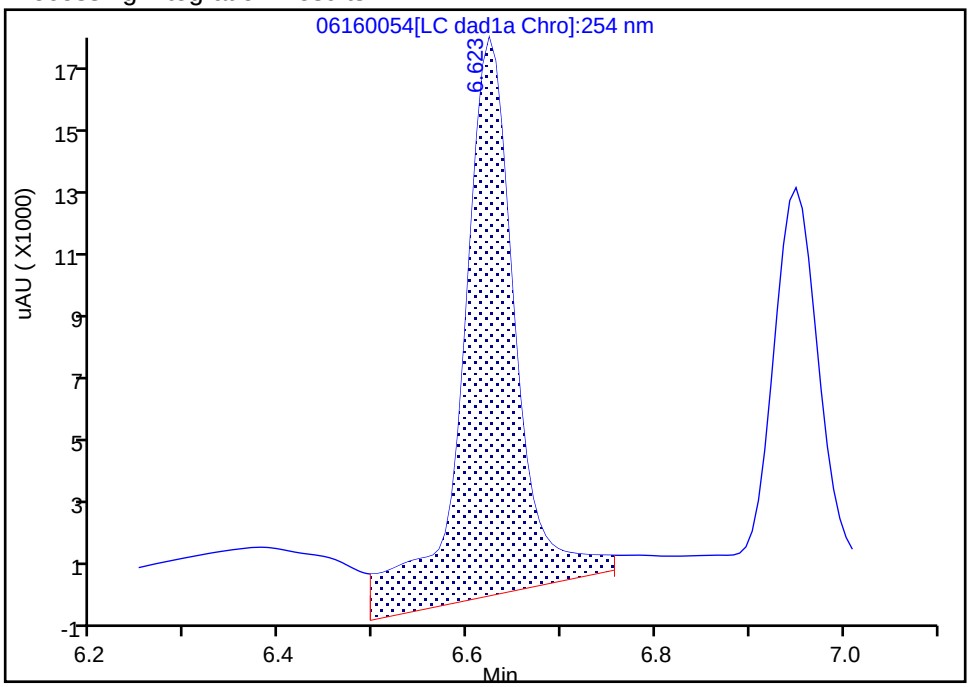
Data File:	\\chromfs\denver\chromdata\chhplc_x\20200616-92483.b\06160054.d				
Injection Date:	17-Jun-2020 12:57:15	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV DMT				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	9	Worklist Smp#:	54
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

2 TNX, CAS: 13980-04-6

Signal: 1

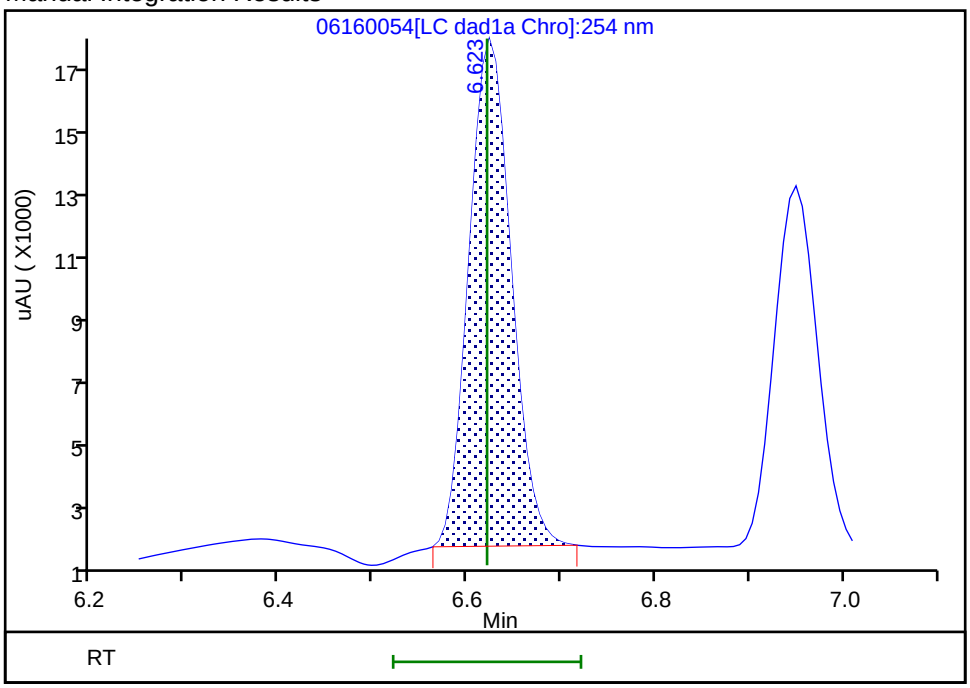
Processing Integration Results

RT: 6.62
Area: 69339
Amount: 0.318641
Amount Units: ug/mL



Manual Integration Results

RT: 6.62
Area: 50721
Amount: 0.233084
Amount Units: ug/mL



Reviewer: zhangji, 17-Jun-2020 19:06:23

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

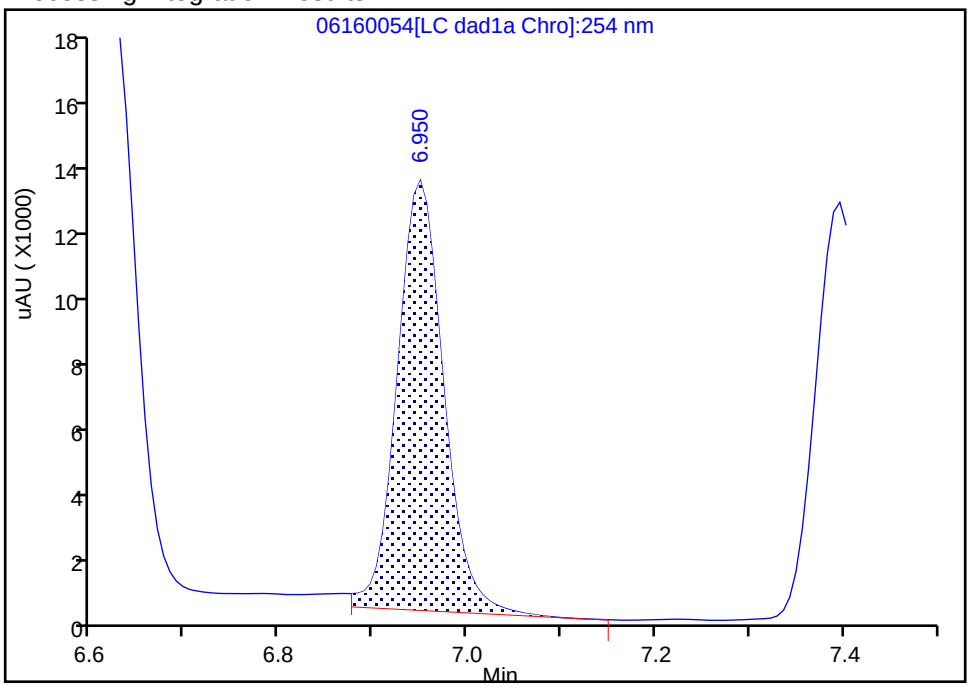
Data File:	\\chromfs\denver\chromdata\chhplc_x\20200616-92483.b\06160054.d				
Injection Date:	17-Jun-2020 12:57:15	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV DMT				
Client ID:					
Operator ID:	JZ	ALS Bottle#:	9	Worklist Smp#:	54
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

5 DNX, CAS: 80251-29-2

Signal: 1

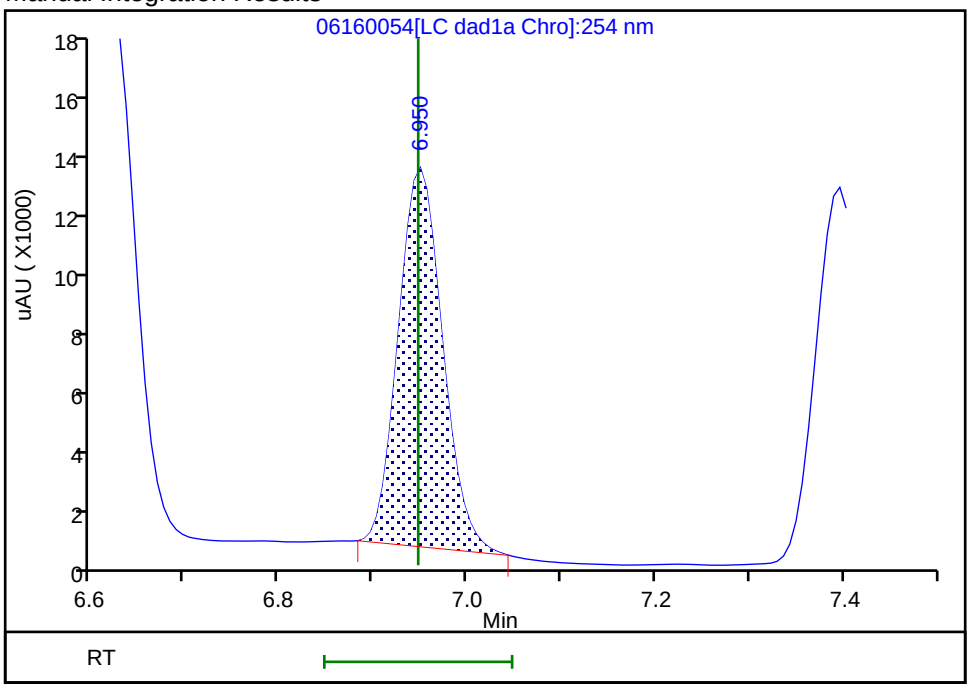
Processing Integration Results

RT: 6.95
Area: 41308
Amount: 0.270113
Amount Units: ug/mL



Manual Integration Results

RT: 6.95
Area: 38325
Amount: 0.250608
Amount Units: ug/mL



Reviewer: zhangji, 17-Jun-2020 19:06:27

Audit Action: Manually Integrated Audit Reason: Baseline

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-137225-1
SDG No.:
Client Sample ID:
Lab Sample ID: MB 280-497449/1-A
Matrix: Water
Lab File ID: 06160032.D
Analysis Method: 8330A
Date Collected:
Extraction Method: 3535
Date Extracted: 06/04/2020 17:15
Sample wt/vol: 500(mL)
Date Analyzed: 06/17/2020 04:30
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.: 498992
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	98		83-119

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20200616-92483.b\06160032.D
Lims ID: MB 280-497449/1-A
Client ID:
Sample Type: MB
Inject. Date: 17-Jun-2020 04:30:35 ALS Bottle#: 32 Worklist Smp#: 32
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: MB 280-497449/1-
Misc. Info.: 280-0092483-032
Operator ID: JZ Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20200616-92483.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 17-Jun-2020 20:30:26 Calib Date: 18-Mar-2020 14:39:27
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180015.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1005

First Level Reviewer: zhangji Date: 17-Jun-2020 14:04:14

	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		6.568				ND	U
	2 TNX	1		6.621				ND	
	3 HMX	1		6.709				ND	
	4 2,4-diamino-6-nitrotoluene	1		6.754				ND	
	5 DNX	1		6.947				ND	
	6 MNX	1		7.394				ND	U
	7 RDX	1		7.789				ND	
	8 2,4,6-Trinitrophenol	1		8.089				ND	
$	9 1,2-Dinitrobenzene	1	8.790	8.763	0.027	27012	0.2000	0.1954	
	10 1,3,5-Trinitrobenzene	1		8.936				ND	
	11 1,3-Dinitrobenzene	1		9.589				ND	
	12 Nitrobenzene	1		9.969				ND	
	13 3,5-Dinitroaniline	1		10.201				ND	
	14 Tetryl	1		10.282				ND	
	15 Nitroglycerin	2		10.789				ND	
	16 2,4,6-Trinitrotoluene	1		11.249				ND	
	17 4-Amino-2,6-dinitrotoluene	1		11.416				ND	
	18 2-Amino-4,6-dinitrotoluene	1		11.702				ND	
	19 2,6-Dinitrotoluene	1		11.849				ND	
	20 2,4-Dinitrotoluene	1		12.049				ND	
	21 o-Nitrotoluene	1		12.876				ND	
	22 p-Nitrotoluene	1		13.309				ND	
	23 m-Nitrotoluene	1		13.902				ND	
	24 PETN	2		14.996				ND	
	25 Ammonium Picrate	1		0.000				ND	

QC Flag Legend

Review Flags

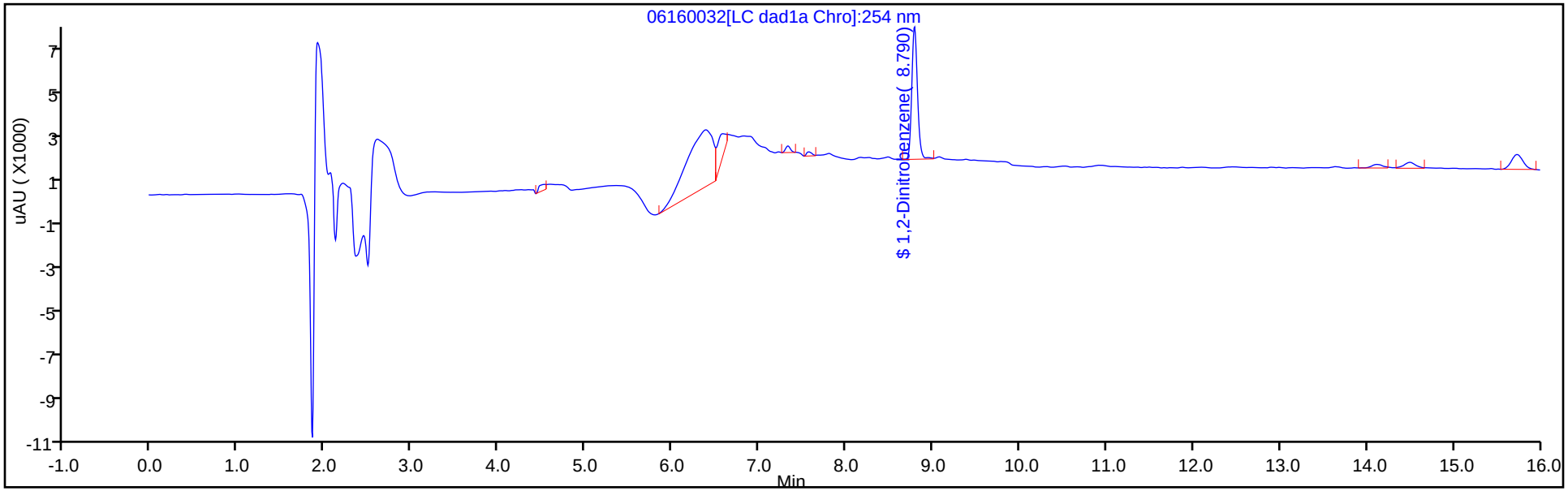
U - Marked Undetected

Report Date: 17-Jun-2020 20:30:26 Chrom Revision: 2.3 10-Jun-2020 22:46:48

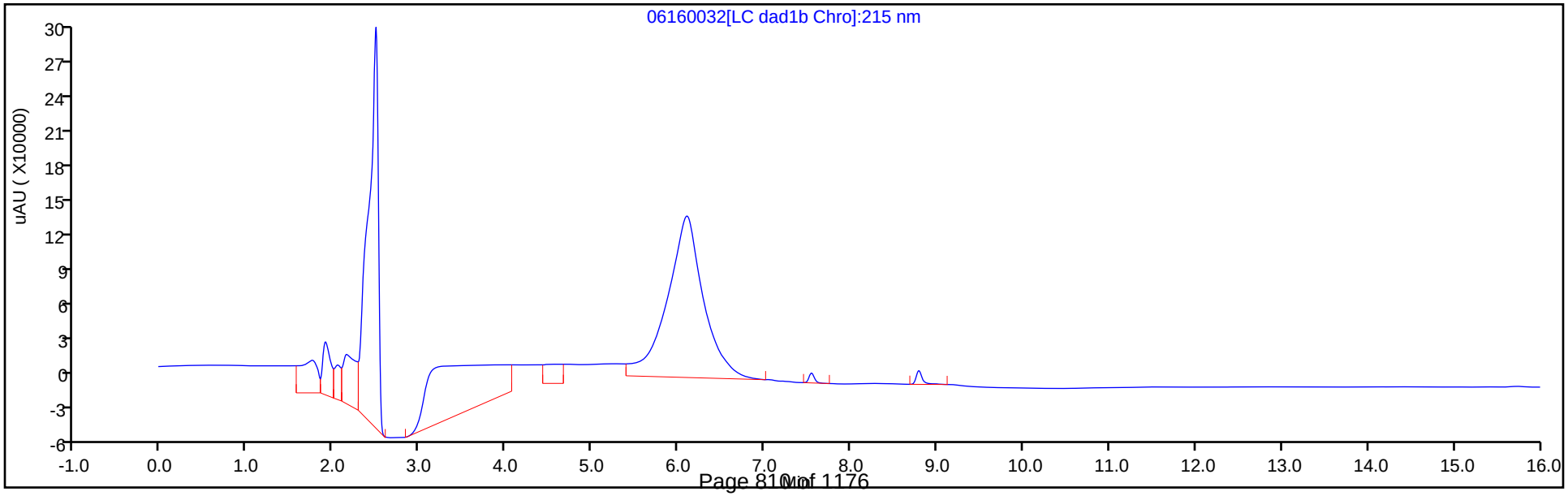
Eurofins TestAmerica, Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20200616-92483.b\06160032.d				
Injection Date:	17-Jun-2020 04:30:35	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	MB 280-497449/1-A			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



Eurofins TestAmerica, Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20200616-92483.b\06160032.D				
Lims ID:	MB 280-497449/1-A				
Client ID:					
Sample Type:	MB				
Inject. Date:	17-Jun-2020 04:30:35	ALS Bottle#:	32	Worklist Smp#:	32
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	MB 280-497449/1-				
Misc. Info.:	280-0092483-032				
Operator ID:	JZ	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20200616-92483.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	17-Jun-2020 20:30:26	Calib Date:	18-Mar-2020 14:39:27		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180015.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1005				
First Level Reviewer: zhangji		Date:	17-Jun-2020 14:04:14		

Compound	Amount Added	Amount Recovered	% Rec.
$ 9 1,2-Dinitrobenzene	0.2000	0.1954	97.72

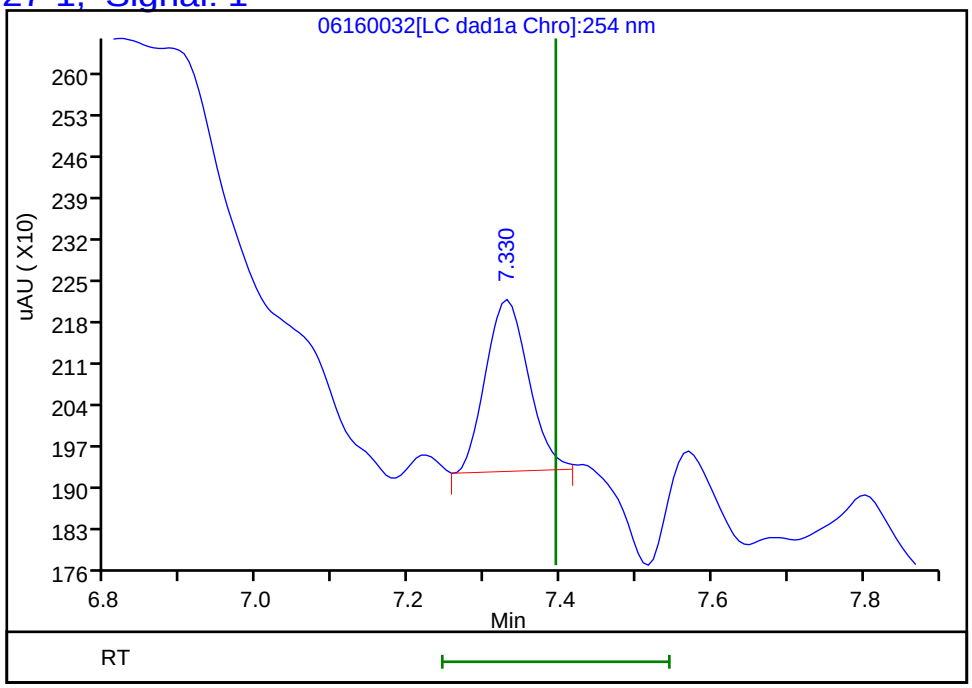
User Disabled Compound Report

Eurofins TestAmerica, Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20200616-92483.b\06160032.d				
Injection Date:	17-Jun-2020 04:30:35	Instrument ID:	CHHPLC_X3		
Lims ID:	MB 280-497449/1-A				
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 MNX, CAS: 5755-27-1, Signal: 1

RT: 7.33
Response: 1157
Amount: 0.007298



Reviewer: zhangji, 17-Jun-2020 14:04:14
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-137225-1
SDG No.:
Client Sample ID:
Lab Sample ID: LCS 280-497449/2-A
Matrix: Water
Lab File ID: 06160033.D
Analysis Method: 8330A
Date Collected:
Extraction Method: 3535
Date Extracted: 06/04/2020 17:15
Sample wt/vol: 500(mL)
Date Analyzed: 06/17/2020 04:53
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.: 498992
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	2.33		0.21	0.20	0.084
99-65-0	1,3-Dinitrobenzene	2.22		0.11	0.10	0.037
118-96-7	2,4,6-Trinitrotoluene	2.33		0.11	0.10	0.045
121-14-2	2,4-Dinitrotoluene	2.09		0.10	0.080	0.027
606-20-2	2,6-Dinitrotoluene	2.13		0.10	0.080	0.040
35572-78-2	2-Amino-4,6-dinitrotoluene	2.04		0.11	0.10	0.051
88-72-2	2-Nitrotoluene	1.83		0.21	0.20	0.086
99-08-1	3-Nitrotoluene	2.02		0.40	0.40	0.20
19406-51-0	4-Amino-2,6-dinitrotoluene	1.80		0.15	0.12	0.058
99-99-0	4-Nitrotoluene	1.90		0.41	0.40	0.10
2691-41-0	HMX	2.26		0.21	0.20	0.088
98-95-3	Nitrobenzene	2.09		0.21	0.20	0.091
121-82-4	RDX	2.10		0.21	0.20	0.052
479-45-8	Tetryl	2.06		0.11	0.10	0.032

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

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20200616-92483.b\06160033.D
Lims ID: LCS 280-497449/2-A
Client ID:
Sample Type: LCS
Inject. Date: 17-Jun-2020 04:53:32 ALS Bottle#: 33 Worklist Smp#: 33
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: LCS 280-497449/2
Misc. Info.: 280-0092483-033
Operator ID: JZ Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20200616-92483.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 17-Jun-2020 20:30:26 Calib Date: 18-Mar-2020 14:39:27
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180015.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1005

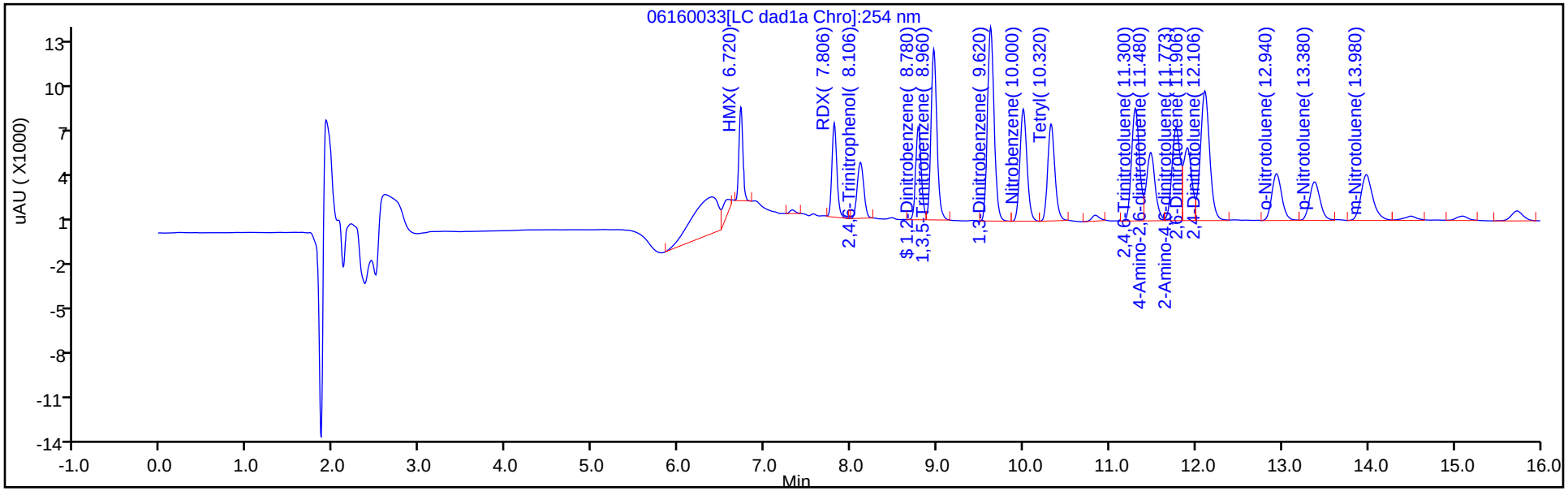
Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 HMX	1	6.720	6.709	0.011	19395	0.2000	0.2256	
7 RDX	1	7.806	7.789	0.017	24524	0.2000	0.2103	
8 2,4,6-Trinitrophenol	1	8.106	8.089	0.017	19400	0.2000	0.2279	
$ 9 1,2-Dinitrobenzene	1	8.780	8.763	0.017	27489	0.2000	0.1989	
10 1,3,5-Trinitrobenzene	1	8.960	8.936	0.024	53679	0.2000	0.2331	
11 1,3-Dinitrobenzene	1	9.620	9.589	0.031	68069	0.2000	0.2220	
12 Nitrobenzene	1	10.000	9.969	0.031	41818	0.2000	0.2087	
14 Tetryl	1	10.320	10.282	0.038	36544	0.2000	0.2064	
15 Nitroglycerin	2	10.833	10.789	0.044	140139	2.00	2.06	
16 2,4,6-Trinitrotoluene	1	11.300	11.249	0.051	47566	0.2000	0.2331	
17 4-Amino-2,6-dinitrotoluene	1	11.480	11.416	0.064	30971	0.2000	0.1802	
18 2-Amino-4,6-dinitrotoluene	1	11.773	11.702	0.071	41397	0.2000	0.2041	
19 2,6-Dinitrotoluene	1	11.906	11.849	0.057	31901	0.2000	0.2135	
20 2,4-Dinitrotoluene	1	12.106	12.049	0.057	63436	0.2000	0.2090	
21 o-Nitrotoluene	1	12.940	12.876	0.064	24675	0.2000	0.1827	
22 p-Nitrotoluene	1	13.380	13.309	0.071	21442	0.2000	0.1897	
23 m-Nitrotoluene	1	13.980	13.902	0.078	28952	0.2000	0.2024	
24 PETN	2	15.086	14.996	0.090	157550	2.00	2.00	

Report Date: 17-Jun-2020 20:30:26 Chrom Revision: 2.3 10-Jun-2020 22:46:48

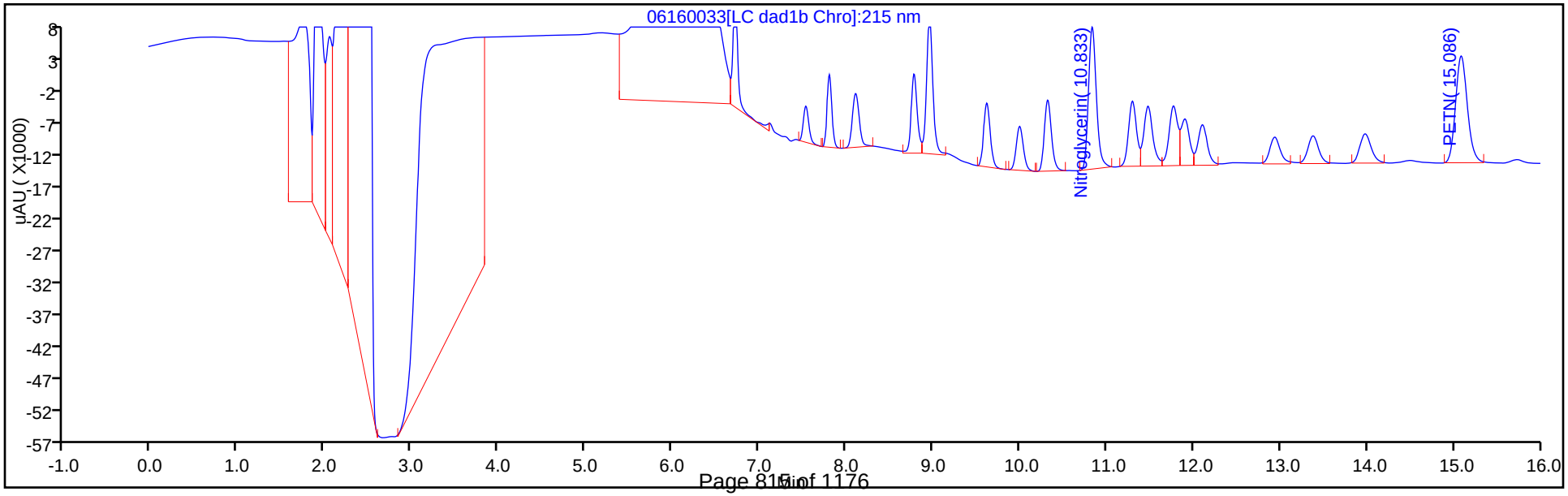
Eurofins TestAmerica, Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20200616-92483.b\06160033.d				
Injection Date:	17-Jun-2020 04:53:32	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	LCS 280-497449/2-A			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



Eurofins TestAmerica, Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20200616-92483.b\06160033.D				
Lims ID:	LCS 280-497449/2-A				
Client ID:					
Sample Type:	LCS				
Inject. Date:	17-Jun-2020 04:53:32	ALS Bottle#:	33	Worklist Smp#:	33
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	LCS 280-497449/2				
Misc. Info.:	280-0092483-033				
Operator ID:	JZ	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20200616-92483.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	17-Jun-2020 20:30:26	Calib Date:	18-Mar-2020 14:39:27		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180015.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1005				

Compound	Amount Added	Amount Recovered	% Rec.
$ 9 1,2-Dinitrobenzene	0.2000	0.1989	99.44

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-137225-1
SDG No.:
Client Sample ID:
Lab Sample ID: LCS 280-497449/3-A
Matrix: Water
Lab File ID: 06160034.D
Analysis Method: 8330A
Date Collected:
Extraction Method: 3535
Date Extracted: 06/04/2020 17:15
Sample wt/vol: 500(mL)
Date Analyzed: 06/17/2020 05:16
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.: 498992
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
5755-27-1	MNX	2.12		2.0	0.40	0.15

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	92		83-119

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20200616-92483.b\06160034.D				
Lims ID:	LCS 280-497449/3-A				
Client ID:					
Sample Type:	LCS				
Inject. Date:	17-Jun-2020 05:16:31	ALS Bottle#:	34	Worklist Smp#:	34
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	LCS 280-497449/3				
Misc. Info.:	280-0092483-034				
Operator ID:	JZ	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20200616-92483.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	17-Jun-2020 20:30:26	Calib Date:	18-Mar-2020 14:39:27		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180015.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1005				
First Level Reviewer: zhangji		Date:	17-Jun-2020 17:56:25		

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
2 TNX	1	6.629	6.621	0.008	36445	0.2002	0.1675	M
5 DNX	1	6.956	6.947	0.009	28580	0.2002	0.1869	M
6 MNX	1	7.402	7.394	0.008	33538	0.2334	0.2115	
$ 9 1,2-Dinitrobenzene	1	8.789	8.763	0.026	25549	0.2000	0.1849	

QC Flag Legend

Review Flags

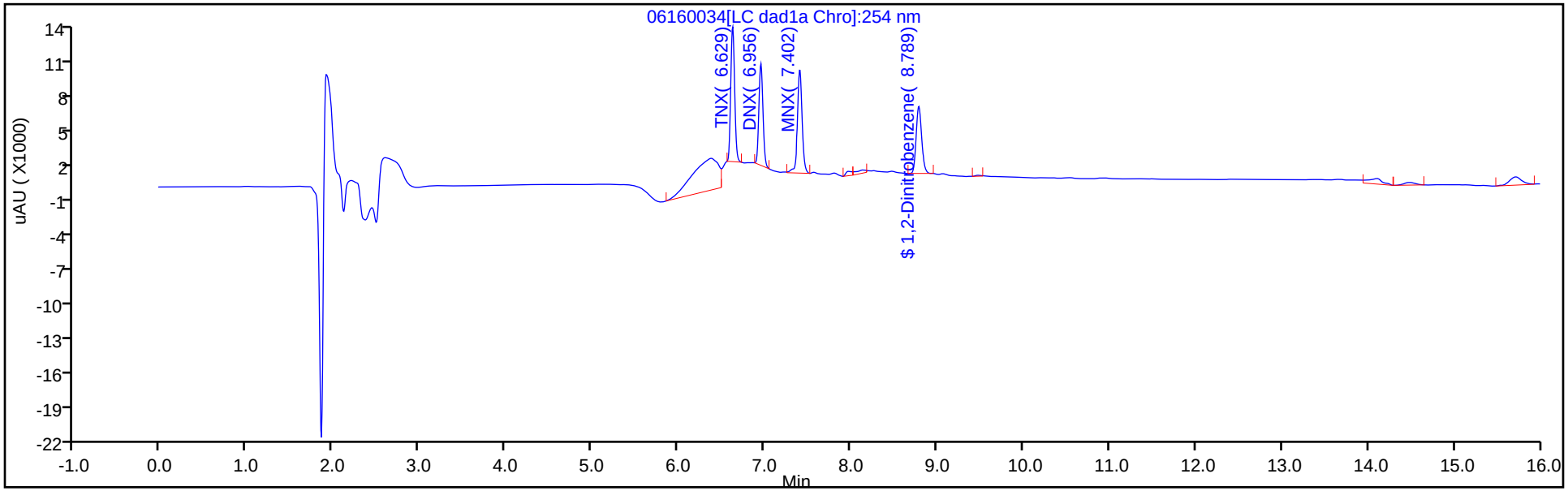
M - Manually Integrated

Report Date: 17-Jun-2020 20:30:27 Chrom Revision: 2.3 10-Jun-2020 22:46:48

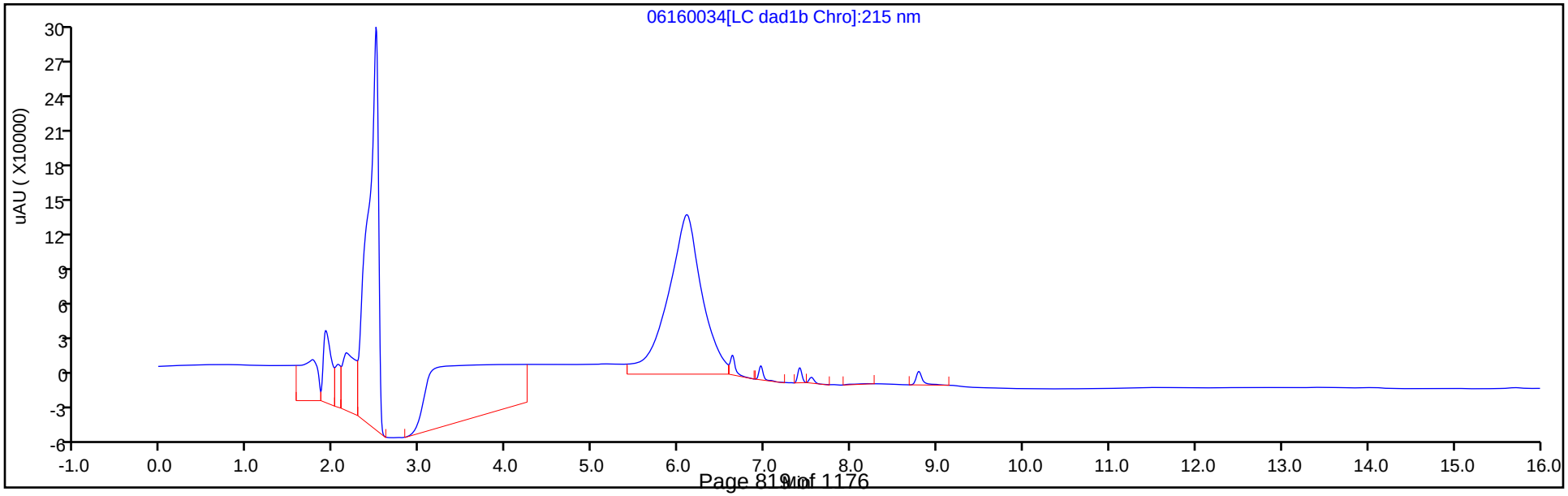
Eurofins TestAmerica, Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20200616-92483.b\06160034.d				
Injection Date:	17-Jun-2020 05:16:31	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	LCS 280-497449/3-A			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



Eurofins TestAmerica, Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20200616-92483.b\06160034.D				
Lims ID:	LCS 280-497449/3-A				
Client ID:					
Sample Type:	LCS				
Inject. Date:	17-Jun-2020 05:16:31	ALS Bottle#:	34	Worklist Smp#:	34
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	LCS 280-497449/3				
Misc. Info.:	280-0092483-034				
Operator ID:	JZ	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20200616-92483.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	17-Jun-2020 20:30:26	Calib Date:	18-Mar-2020 14:39:27		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180015.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1005				

First Level Reviewer: zhangji Date: 17-Jun-2020 17:56:25

Compound	Amount Added	Amount Recovered	% Rec.
$ 9 1,2-Dinitrobenzene	0.2000	0.1849	92.43

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-137225-1
SDG No.:
Client Sample ID: G0070-20A MS
Lab Sample ID: 280-137225-2 MS
Matrix: Water
Lab File ID: 06160039.D
Analysis Method: 8330A
Date Collected: 06/02/2020 08:25
Extraction Method: 3535
Date Extracted: 06/04/2020 17:15
Sample wt/vol: 475(mL)
Date Analyzed: 06/17/2020 07:11
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.: 498992
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	2.41		0.22	0.21	0.089
99-65-0	1,3-Dinitrobenzene	2.35		0.12	0.11	0.039
118-96-7	2,4,6-Trinitrotoluene	2.40		0.12	0.11	0.047
121-14-2	2,4-Dinitrotoluene	2.17		0.11	0.084	0.029
606-20-2	2,6-Dinitrotoluene	2.20		0.11	0.084	0.042
35572-78-2	2-Amino-4,6-dinitrotoluene	2.13		0.12	0.11	0.053
88-72-2	2-Nitrotoluene	1.90		0.22	0.21	0.090
99-08-1	3-Nitrotoluene	2.12		0.42	0.42	0.21
19406-51-0	4-Amino-2,6-dinitrotoluene	1.89		0.16	0.13	0.061
99-99-0	4-Nitrotoluene	2.06		0.43	0.42	0.11
2691-41-0	HMX	2.28	M	0.22	0.21	0.092
98-95-3	Nitrobenzene	2.03		0.22	0.21	0.096
121-82-4	RDX	2.45		0.22	0.21	0.054
479-45-8	Tetryl	1.66		0.12	0.11	0.033

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

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20200616-92483.b\06160039.D
Lims ID: 280-137225-A-2-B MS
Client ID: G0070-20A
Sample Type: MS
Inject. Date: 17-Jun-2020 07:11:30 ALS Bottle#: 39 Worklist Smp#: 39
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-137225-A-2-B
Misc. Info.: 280-0092483-039
Operator ID: JZ Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20200616-92483.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 17-Jun-2020 20:30:26 Calib Date: 18-Mar-2020 14:39:27
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180015.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1005

First Level Reviewer: zhangji Date: 17-Jun-2020 18:58:06

	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		6.568				ND	U
	2 TNX	1		6.621				ND	
	3 HMX	1	6.722	6.709	0.013	18634	0.2000	0.2168	M
	4 2,4-diamino-6-nitrotoluene	1		6.754				ND	
	5 DNX	1		6.947				ND	
	6 MNX	1		7.394				ND	
	7 RDX	1	7.816	7.789	0.027	27129	0.2000	0.2326	
	8 2,4,6-Trinitrophenol	1	8.122	8.089	0.033	32249	0.2000	0.3788	
$	9 1,2-Dinitrobenzene	1	8.789	8.763	0.026	28010	0.2000	0.2027	
	10 1,3,5-Trinitrobenzene	1	8.962	8.936	0.026	52780	0.2000	0.2292	
	11 1,3-Dinitrobenzene	1	9.622	9.589	0.033	68483	0.2000	0.2233	
	12 Nitrobenzene	1	10.002	9.969	0.033	38620	0.2000	0.1927	
	13 3,5-Dinitroaniline	1		10.201				ND	
	14 Tetryl	1	10.322	10.282	0.040	27888	0.2000	0.1575	
	15 Nitroglycerin	2	10.835	10.789	0.046	137714	2.00	2.02	
	16 2,4,6-Trinitrotoluene	1	11.302	11.249	0.053	46614	0.2000	0.2285	
	17 4-Amino-2,6-dinitrotoluene	1	11.475	11.416	0.059	30834	0.2000	0.1794	
	18 2-Amino-4,6-dinitrotoluene	1	11.775	11.702	0.073	41115	0.2000	0.2027	
	19 2,6-Dinitrotoluene	1	11.902	11.849	0.053	31213	0.2000	0.2088	
	20 2,4-Dinitrotoluene	1	12.109	12.049	0.060	62589	0.2000	0.2062	
	21 o-Nitrotoluene	1	12.935	12.876	0.059	24400	0.2000	0.1807	
	22 p-Nitrotoluene	1	13.382	13.309	0.073	22081	0.2000	0.1954	
	23 m-Nitrotoluene	1	13.982	13.902	0.080	28780	0.2000	0.2012	
	24 PETN	2	15.089	14.996	0.093	155151	2.00	1.97	
	25 Ammonium Picrate	1		0.000				ND	

QC Flag Legend

Review Flags

M - Manually Integrated

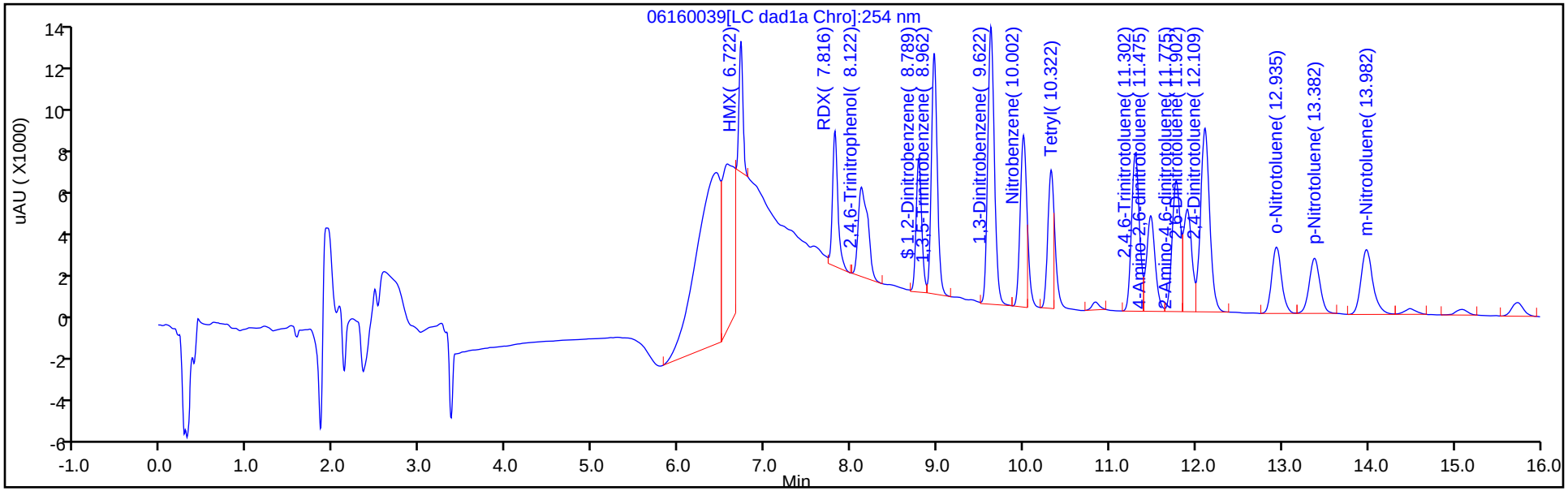
U - Marked Undetected

Report Date: 17-Jun-2020 20:30:29 Chrom Revision: 2.3 10-Jun-2020 22:46:48

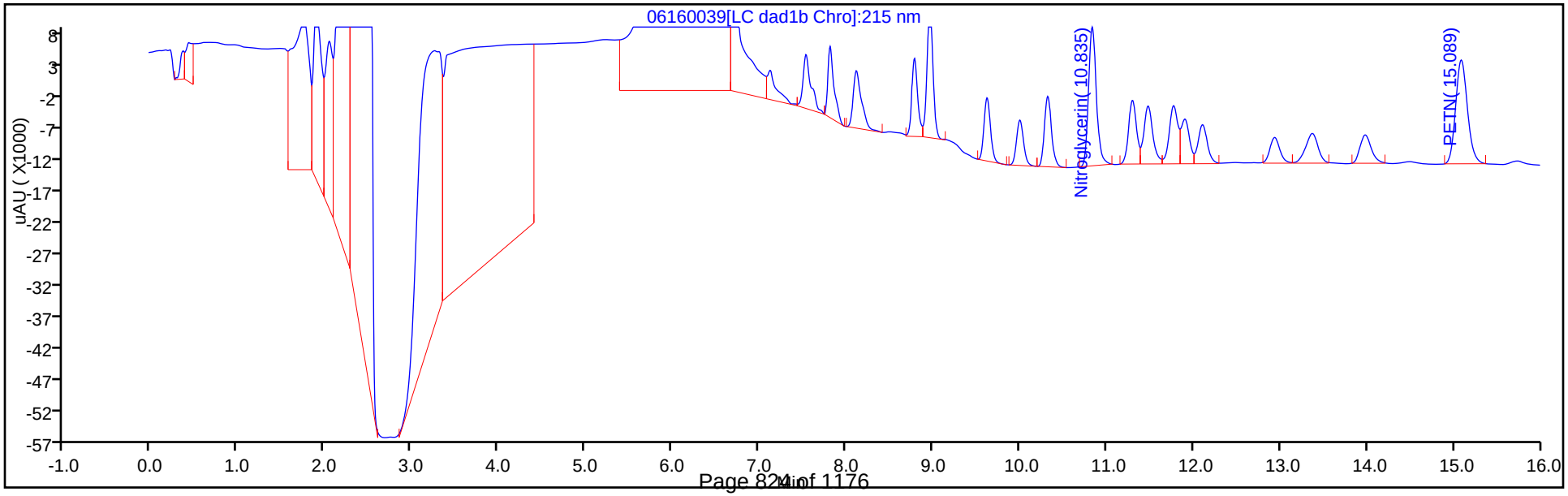
Eurofins TestAmerica, Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20200616-92483.b\06160039.d				
Injection Date:	17-Jun-2020 07:11:30	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	280-137225-A-2-B MS			Worklist Smp#:	39
Client ID:	G0070-20A				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	39
Method:	8330_X3	Limit Group:	GCSV - 8330		

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



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



Eurofins TestAmerica, Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20200616-92483.b\06160039.D				
Lims ID:	280-137225-A-2-B MS				
Client ID:	G0070-20A				
Sample Type:	MS				
Inject. Date:	17-Jun-2020 07:11:30	ALS Bottle#:	39	Worklist Smp#:	39
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-137225-A-2-B				
Misc. Info.:	280-0092483-039				
Operator ID:	JZ	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20200616-92483.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	17-Jun-2020 20:30:26	Calib Date:	18-Mar-2020 14:39:27		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180015.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1005				

First Level Reviewer: zhangji Date: 17-Jun-2020 18:58:06

Compound	Amount Added	Amount Recovered	% Rec.
$ 9 1,2-Dinitrobenzene	0.2000	0.2027	101.33

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

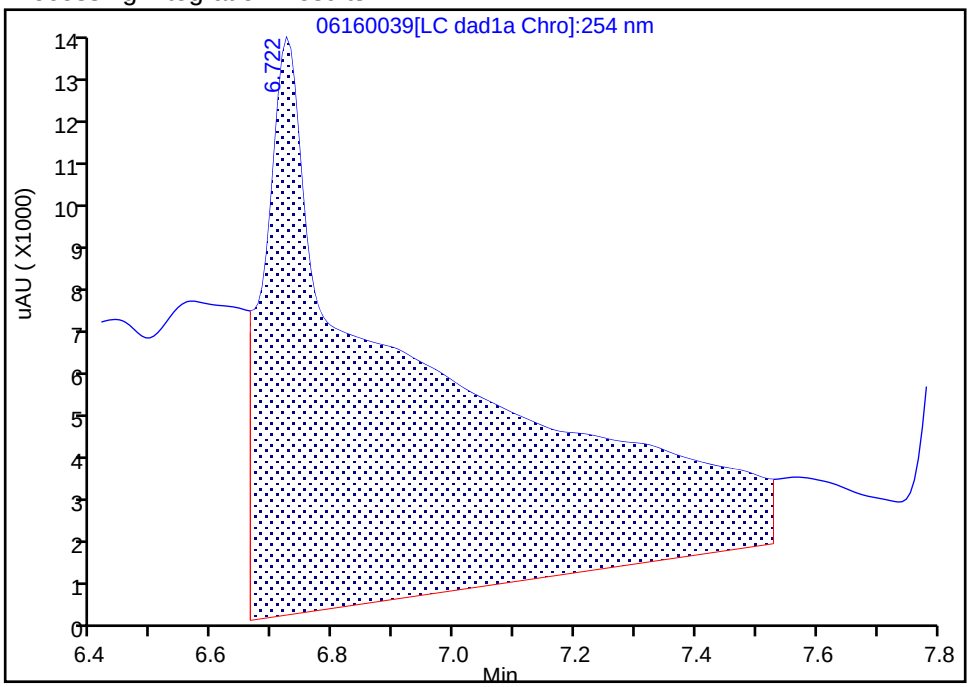
Data File:	\\chromfs\denver\chromdata\chhplc_x\20200616-92483.b\06160039.d				
Injection Date:	17-Jun-2020 07:11:30	Instrument ID:	CHHPLC_X3		
Lims ID:	280-137225-A-2-B MS				
Client ID:	G0070-20A				
Operator ID:	JZ	ALS Bottle#:	39	Worklist Smp#:	39
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

3 HMX, CAS: 2691-41-0

Signal: 1

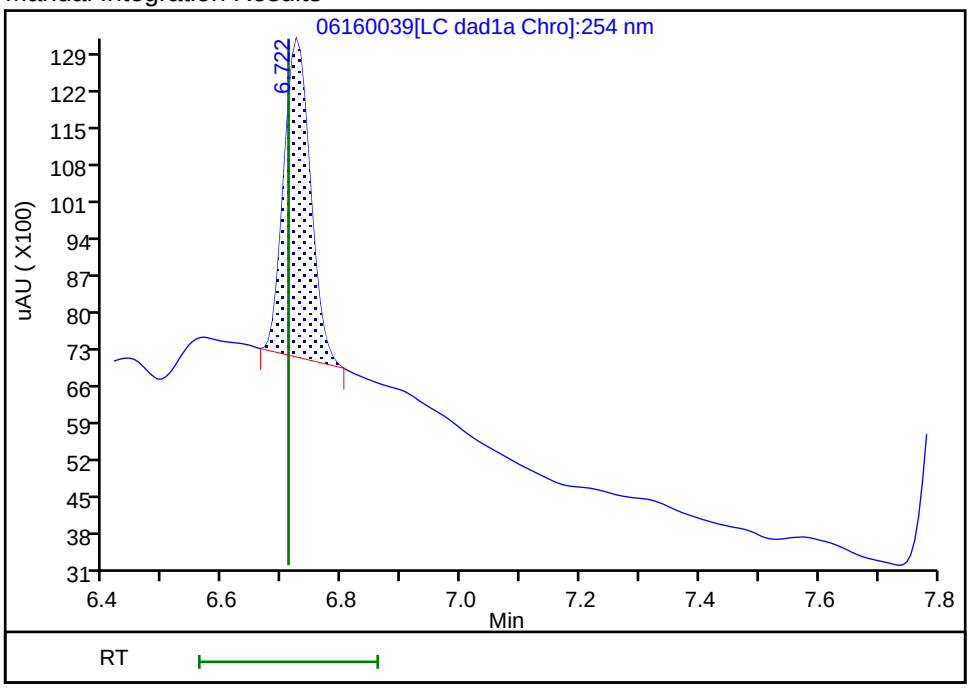
Processing Integration Results

RT: 6.72
Area: 222477
Amount: 2.588080
Amount Units: ug/mL



Manual Integration Results

RT: 6.72
Area: 18634
Amount: 0.216770
Amount Units: ug/mL



Reviewer: zhangji, 17-Jun-2020 18:57:50

Audit Action: Manually Integrated Audit Reason: Baseline

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-137225-1
SDG No.:
Client Sample ID: G0070-20A MS
Lab Sample ID: 280-137225-2 MS
Matrix: Water
Lab File ID: 06160041.D
Analysis Method: 8330A
Date Collected: 06/02/2020 08:25
Extraction Method: 3535
Date Extracted: 06/04/2020 17:15
Sample wt/vol: 444.9(mL)
Date Analyzed: 06/17/2020 07:57
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.: 498992
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
5755-27-1	MNX	2.33	M	2.2	0.45	0.17

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	107		83-119

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20200616-92483.b\06160041.D
Lims ID: 280-137225-B-2-A MS
Client ID: G0070-20A
Sample Type: MS
Inject. Date: 17-Jun-2020 07:57:33 ALS Bottle#: 41 Worklist Smp#: 41
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-137225-B-2-A
Misc. Info.: 280-0092483-041
Operator ID: JZ Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20200616-92483.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 17-Jun-2020 20:30:26 Calib Date: 18-Mar-2020 14:39:27
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180015.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1005

First Level Reviewer: zhangji Date: 17-Jun-2020 18:59:15

	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		6.568				ND	U
	2 TNX	1	6.629	6.621	0.008	39040	0.2002	0.1794	M
	3 HMX	1		6.709				ND	
	4 2,4-diamino-6-nitrotoluene	1		6.754				ND	
	5 DNX	1	6.956	6.947	0.009	29841	0.2002	0.1951	M
	6 MNX	1	7.409	7.394	0.015	32939	0.2334	0.2078	M
	7 RDX	1		7.789				ND	
	8 2,4,6-Trinitrophenol	1		8.089				ND	U
$	9 1,2-Dinitrobenzene	1	8.782	8.763	0.019	29495	0.2000	0.2134	
	10 1,3,5-Trinitrobenzene	1		8.936				ND	
	11 1,3-Dinitrobenzene	1		9.589				ND	
	12 Nitrobenzene	1	9.995	9.969	0.026	2976		0.0149	
	13 3,5-Dinitroaniline	1		10.201				ND	
	14 Tetryl	1		10.282				ND	
	15 Nitroglycerin	2		10.789				ND	
	16 2,4,6-Trinitrotoluene	1		11.249				ND	
	17 4-Amino-2,6-dinitrotoluene	1		11.416				ND	
	18 2-Amino-4,6-dinitrotoluene	1		11.702				ND	
	19 2,6-Dinitrotoluene	1		11.849				ND	
	20 2,4-Dinitrotoluene	1		12.049				ND	
	21 o-Nitrotoluene	1		12.876				ND	U
	22 p-Nitrotoluene	1		13.309				ND	U
	23 m-Nitrotoluene	1		13.902				ND	
	24 PETN	2		14.996				ND	
	25 Ammonium Picrate	1		0.000				ND	

QC Flag Legend

Review Flags

M - Manually Integrated

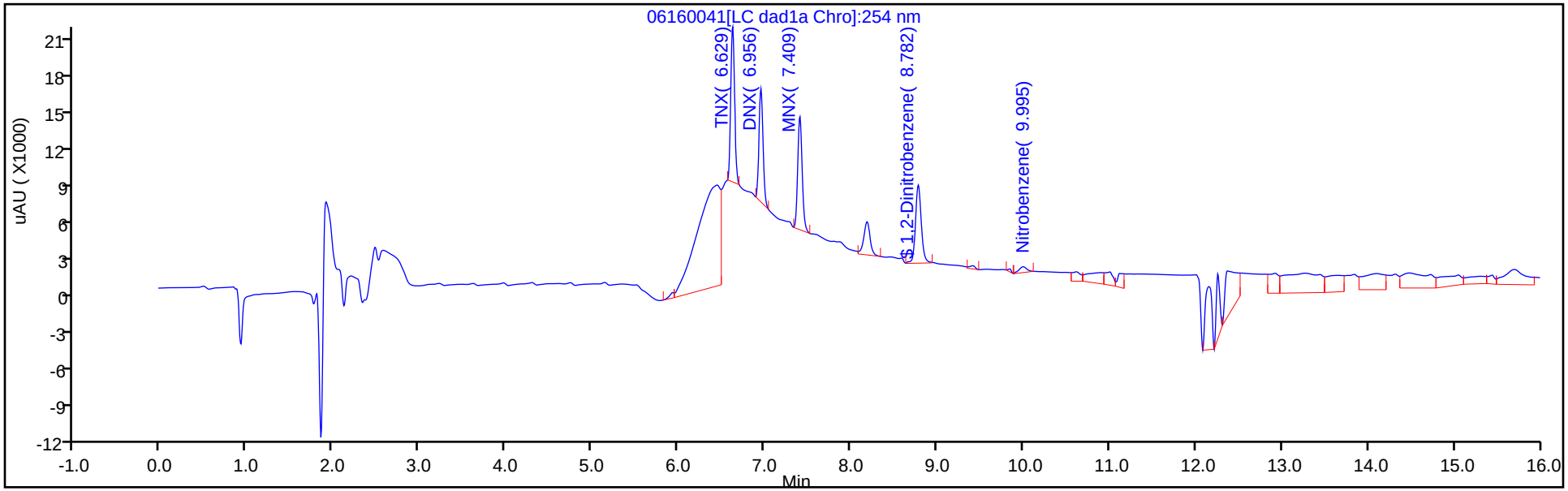
U - Marked Undetected

Report Date: 17-Jun-2020 20:30:30 Chrom Revision: 2.3 10-Jun-2020 22:46:48

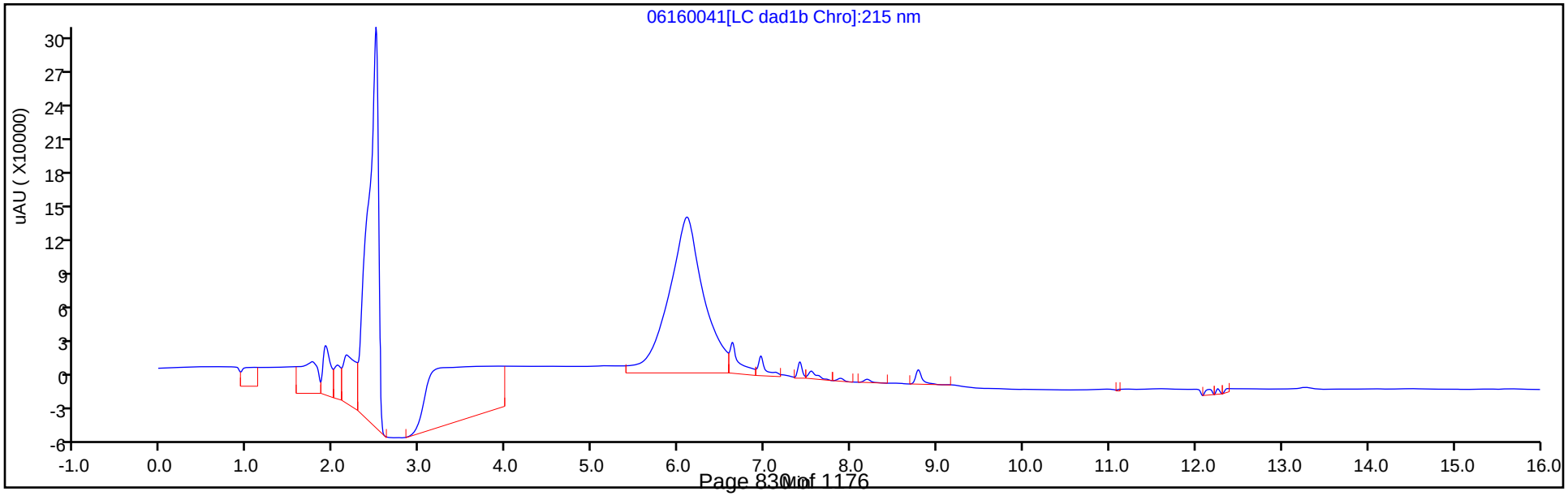
Eurofins TestAmerica, Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20200616-92483.b\06160041.d				
Injection Date:	17-Jun-2020 07:57:33	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	280-137225-B-2-A MS			Worklist Smp#:	41
Client ID:	G0070-20A				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	41
Method:	8330_X3	Limit Group:	GCSV - 8330		

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



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



Eurofins TestAmerica, Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20200616-92483.b\06160041.D				
Lims ID:	280-137225-B-2-A MS				
Client ID:	G0070-20A				
Sample Type:	MS				
Inject. Date:	17-Jun-2020 07:57:33	ALS Bottle#:	41	Worklist Smp#:	41
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-137225-B-2-A				
Misc. Info.:	280-0092483-041				
Operator ID:	JZ	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20200616-92483.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	17-Jun-2020 20:30:26	Calib Date:	18-Mar-2020 14:39:27		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180015.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1005				

First Level Reviewer: zhangji Date: 17-Jun-2020 18:59:15

Compound	Amount Added	Amount Recovered	% Rec.
$ 9 1,2-Dinitrobenzene	0.2000	0.2134	106.70

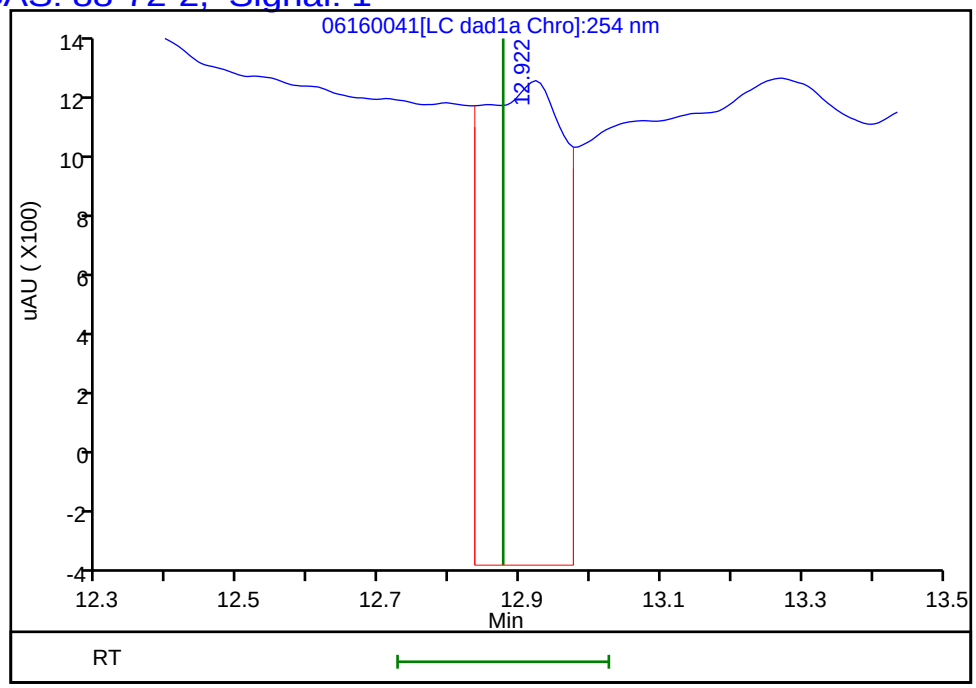
User Disabled Compound Report

Eurofins TestAmerica, Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20200616-92483.b\06160041.d				
Injection Date:	17-Jun-2020 07:57:33	Instrument ID:	CHHPLC_X3		
Lims ID:	280-137225-B-2-A MS				
Client ID:	G0070-20A				
Operator ID:	JZ	ALS Bottle#:	41	Worklist Smp#:	41
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

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

RT: 12.92
Response: 12763
Amount: 0.094505



Reviewer: zhangji, 17-Jun-2020 18:59:15
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

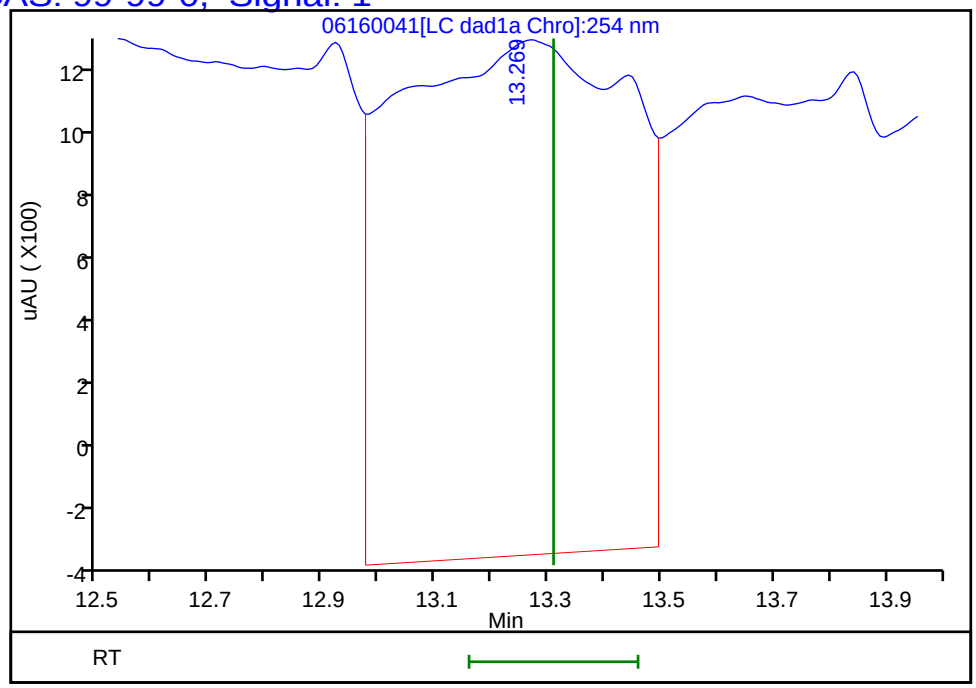
User Disabled Compound Report

Eurofins TestAmerica, Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20200616-92483.b\06160041.d				
Injection Date:	17-Jun-2020 07:57:33	Instrument ID:	CHHPLC_X3		
Lims ID:	280-137225-B-2-A MS				
Client ID:	G0070-20A				
Operator ID:	JZ	ALS Bottle#:	41	Worklist Smp#:	41
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

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

RT: 13.27
Response: 45599
Amount: 0.403513



Reviewer: zhangji, 17-Jun-2020 18:59:15
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

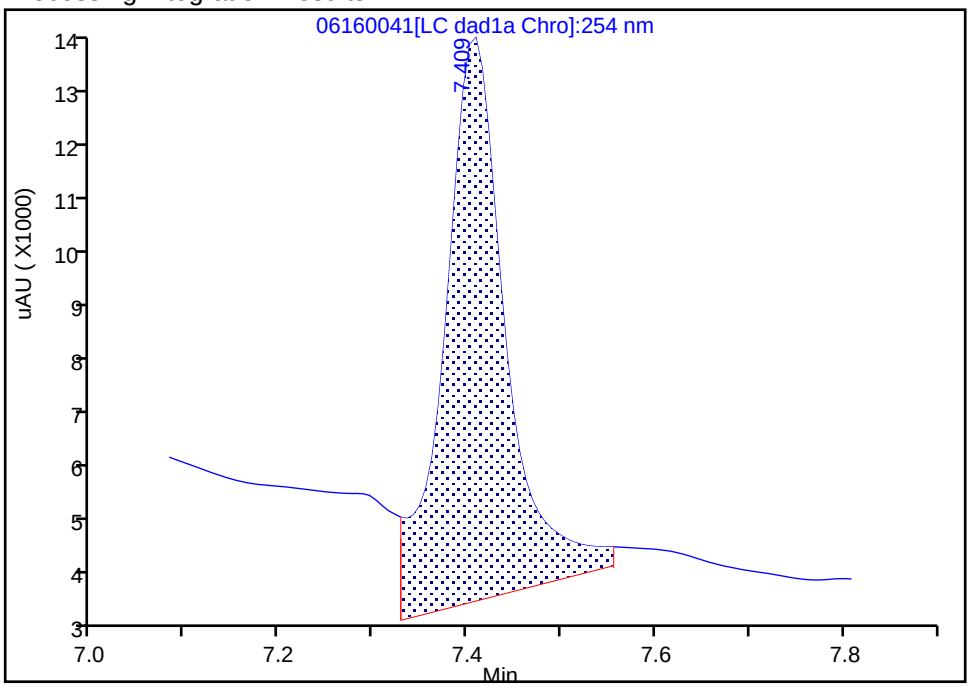
Data File:	\\chromfs\denver\chromdata\chhplc_x\20200616-92483.b\06160041.d				
Injection Date:	17-Jun-2020 07:57:33	Instrument ID:	CHHPLC_X3		
Lims ID:	280-137225-B-2-A MS				
Client ID:	G0070-20A				
Operator ID:	JZ	ALS Bottle#:	41	Worklist Smp#:	41
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

6 MNX, CAS: 5755-27-1

Signal: 1

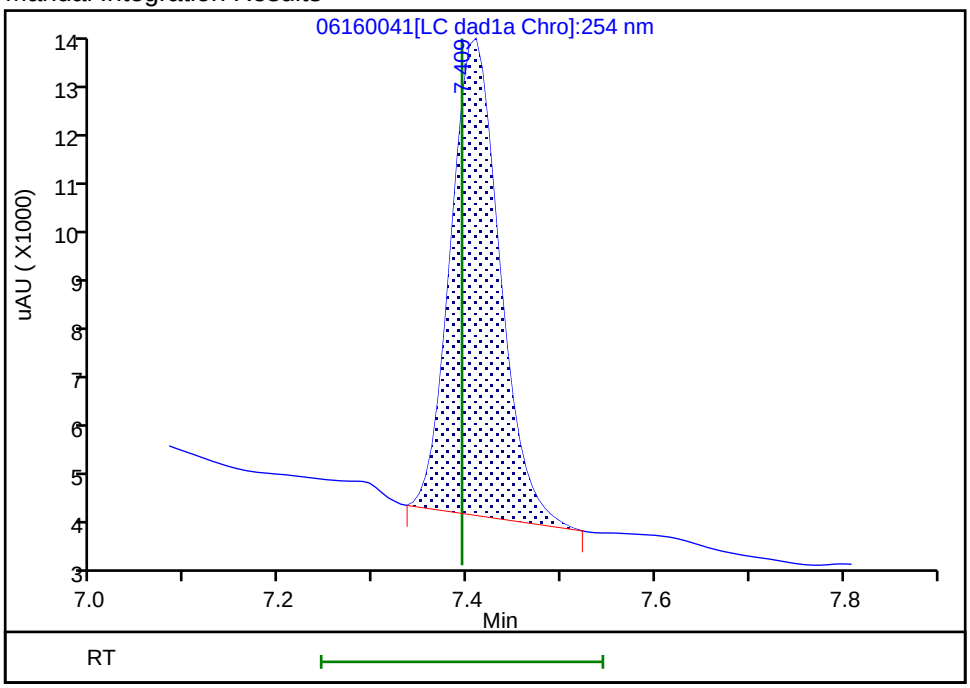
Processing Integration Results

RT: 7.41
Area: 47945
Amount: 0.302408
Amount Units: ug/mL



Manual Integration Results

RT: 7.41
Area: 32939
Amount: 0.207759
Amount Units: ug/mL



Reviewer: zhangji, 17-Jun-2020 18:59:00

Audit Action: Manually Integrated Audit Reason: Baseline

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-137225-1
SDG No.:
Client Sample ID: G0070-20A MSD
Lab Sample ID: 280-137225-2 MSD
Matrix: Water
Lab File ID: 06160040.D
Analysis Method: 8330A
Date Collected: 06/02/2020 08:25
Extraction Method: 3535
Date Extracted: 06/04/2020 17:15
Sample wt/vol: 472(mL)
Date Analyzed: 06/17/2020 07:34
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.: 498992
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	2.14	Q	0.22	0.21	0.089
99-65-0	1,3-Dinitrobenzene	2.11	Q	0.12	0.11	0.039
118-96-7	2,4,6-Trinitrotoluene	2.07	Q M	0.12	0.11	0.048
121-14-2	2,4-Dinitrotoluene	1.94	Q M	0.11	0.085	0.029
606-20-2	2,6-Dinitrotoluene	1.82	Q M	0.11	0.085	0.042
35572-78-2	2-Amino-4,6-dinitrotoluene	1.63	Q M J1	0.12	0.11	0.054
88-72-2	2-Nitrotoluene	1.85	Q	0.22	0.21	0.091
99-08-1	3-Nitrotoluene	1.85	Q	0.42	0.42	0.21
19406-51-0	4-Amino-2,6-dinitrotoluene	1.55	Q M J1	0.16	0.13	0.061
99-99-0	4-Nitrotoluene	1.77	Q	0.43	0.42	0.11
2691-41-0	HMX	2.20	Q M	0.22	0.21	0.093
98-95-3	Nitrobenzene	1.90	Q	0.22	0.21	0.096
121-82-4	RDX	2.32	Q	0.22	0.21	0.055
479-45-8	Tetryl	2.03	Q	0.12	0.11	0.034

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	66	Q	83-119

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20200616-92483.b\06160040.D
Lims ID: 280-137225-A-2-C MSD
Client ID: G0070-20A
Sample Type: MSD
Inject. Date: 17-Jun-2020 07:34:28 ALS Bottle#: 40 Worklist Smp#: 40
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-137225-A-2-C
Misc. Info.: 280-0092483-040
Operator ID: JZ Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20200616-92483.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 17-Jun-2020 20:30:26 Calib Date: 18-Mar-2020 14:39:27
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180015.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1005

First Level Reviewer: zhangji Date: 17-Jun-2020 18:58:41

	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		6.568				ND	U
	2 TNX	1		6.621				ND	
	3 HMX	1	6.720	6.709	0.011	17816	0.2000	0.2073	M
	4 2,4-diamino-6-nitrotoluene	1		6.754				ND	
	5 DNX	1		6.947				ND	
	6 MNX	1		7.394				ND	
	7 RDX	1	7.814	7.789	0.025	25570	0.2000	0.2193	
	8 2,4,6-Trinitrophenol	1	8.120	8.089	0.031	29057	0.2000	0.3413	
$	9 1,2-Dinitrobenzene	1	8.767	8.763	0.004	18110	0.2000	0.1310	
	10 1,3,5-Trinitrobenzene	1	8.967	8.936	0.031	46447	0.2000	0.2017	
	11 1,3-Dinitrobenzene	1	9.620	9.589	0.031	61191	0.2000	0.1995	
	12 Nitrobenzene	1	10.000	9.969	0.031	35941	0.2000	0.1793	
	13 3,5-Dinitroaniline	1		10.201				ND	
	14 Tetryl	1	10.320	10.282	0.038	33957	0.2000	0.1918	
	15 Nitroglycerin	2	10.834	10.789	0.045	138507	2.00	2.03	
	16 2,4,6-Trinitrotoluene	1	11.300	11.249	0.051	39956	0.2000	0.1958	M
	17 4-Amino-2,6-dinitrotoluene	1	11.480	11.416	0.064	25012	0.2000	0.1467	M
	18 2-Amino-4,6-dinitrotoluene	1	11.774	11.702	0.072	31262	0.2000	0.1541	M
	19 2,6-Dinitrotoluene	1	11.907	11.849	0.058	25675	0.2000	0.1718	M
	20 2,4-Dinitrotoluene	1	12.107	12.049	0.058	55639	0.2000	0.1833	M
	21 o-Nitrotoluene	1	12.947	12.876	0.071	23646	0.2000	0.1751	
	22 p-Nitrotoluene	1	13.387	13.309	0.078	18857	0.2000	0.1669	
	23 m-Nitrotoluene	1	13.987	13.902	0.085	25004	0.2000	0.1748	
	24 PETN	2	15.094	14.996	0.098	148777	2.00	1.89	
	25 Ammonium Picrate	1		0.000				ND	

QC Flag Legend

Review Flags

M - Manually Integrated

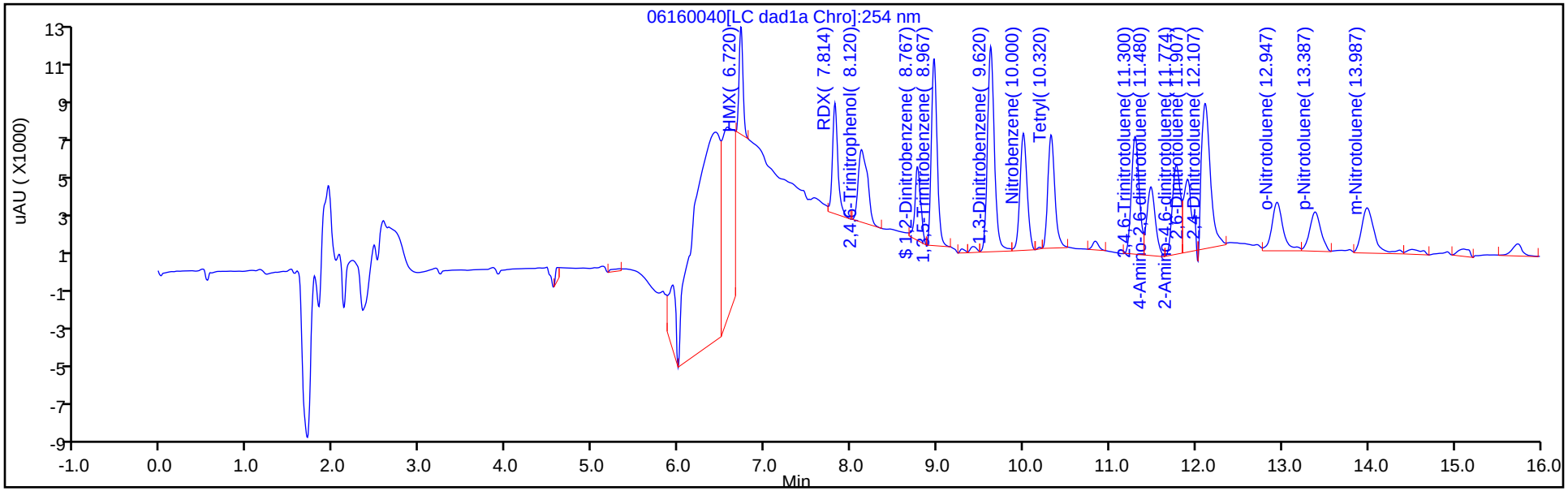
U - Marked Undetected

Report Date: 17-Jun-2020 20:30:29 Chrom Revision: 2.3 10-Jun-2020 22:46:48

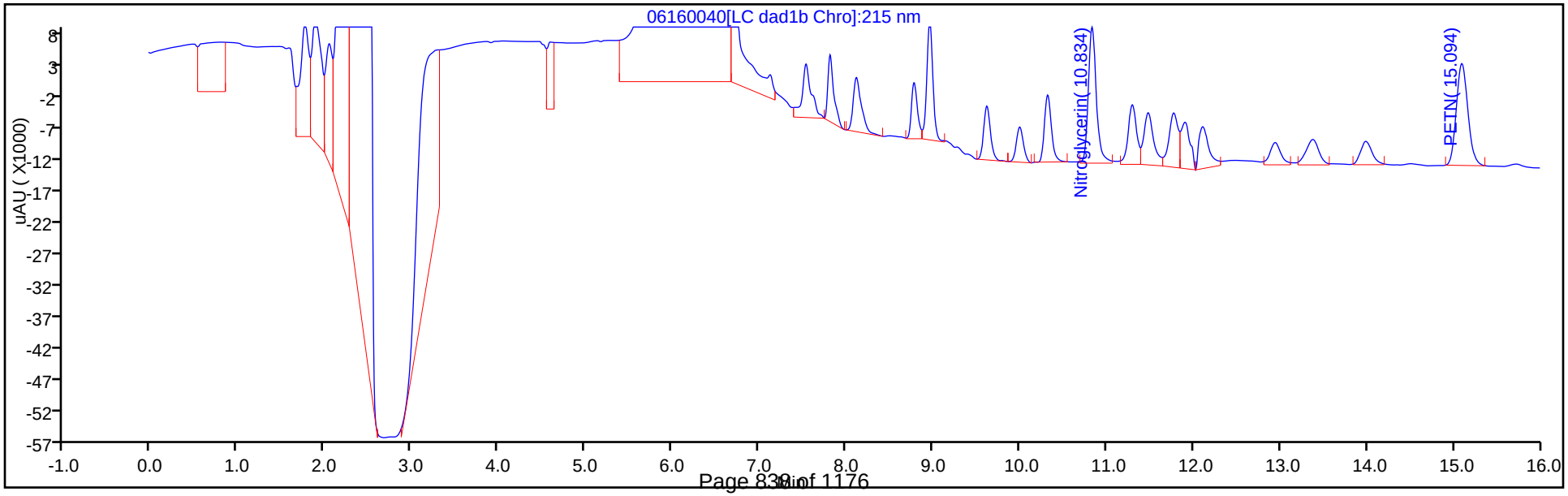
Eurofins TestAmerica, Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20200616-92483.b\06160040.d				
Injection Date:	17-Jun-2020 07:34:28	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	280-137225-A-2-C MSD			Worklist Smp#:	40
Client ID:	G0070-20A				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	40
Method:	8330_X3	Limit Group:	GCSV - 8330		

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



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



Eurofins TestAmerica, Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20200616-92483.b\06160040.D				
Lims ID:	280-137225-A-2-C MSD				
Client ID:	G0070-20A				
Sample Type:	MSD				
Inject. Date:	17-Jun-2020 07:34:28	ALS Bottle#:	40	Worklist Smp#:	40
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-137225-A-2-C				
Misc. Info.:	280-0092483-040				
Operator ID:	JZ	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20200616-92483.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	17-Jun-2020 20:30:26	Calib Date:	18-Mar-2020 14:39:27		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180015.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1005				
First Level Reviewer: zhangji		Date:	17-Jun-2020 18:58:41		

Compound	Amount Added	Amount Recovered	% Rec.
$ 9 1,2-Dinitrobenzene	0.2000	0.1310	65.52

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

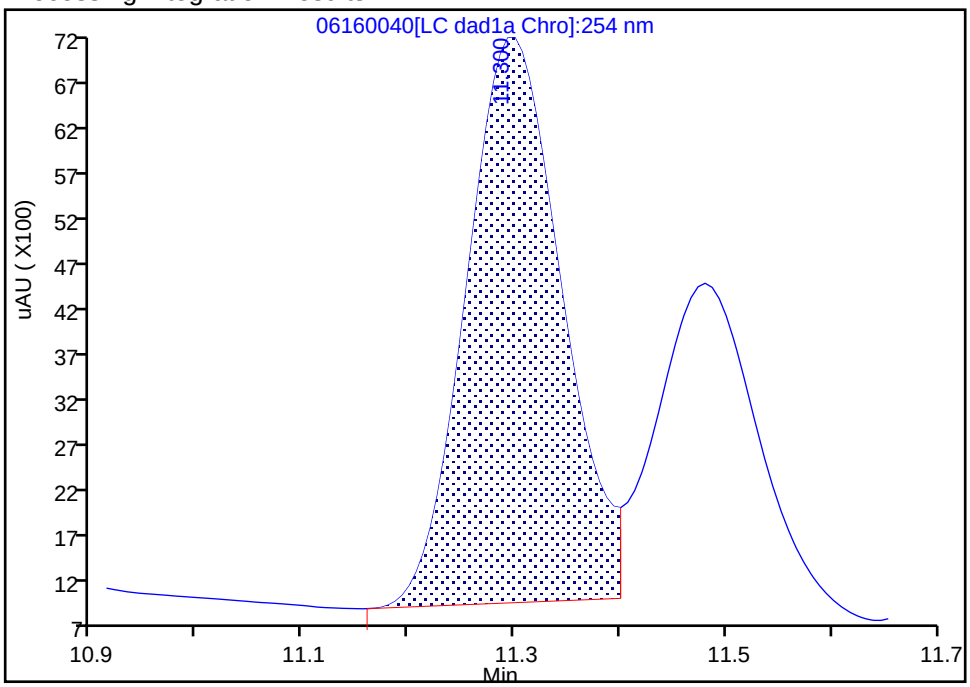
Data File:	\\chromfs\denver\chromdata\chhplc_x\20200616-92483.b\06160040.d				
Injection Date:	17-Jun-2020 07:34:28	Instrument ID:	CHHPLC_X3		
Lims ID:	280-137225-A-2-C MSD				
Client ID:	G0070-20A				
Operator ID:	JZ	ALS Bottle#:	40	Worklist Smp#:	40
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

16 2,4,6-Trinitrotoluene, CAS: 118-96-7

Signal: 1

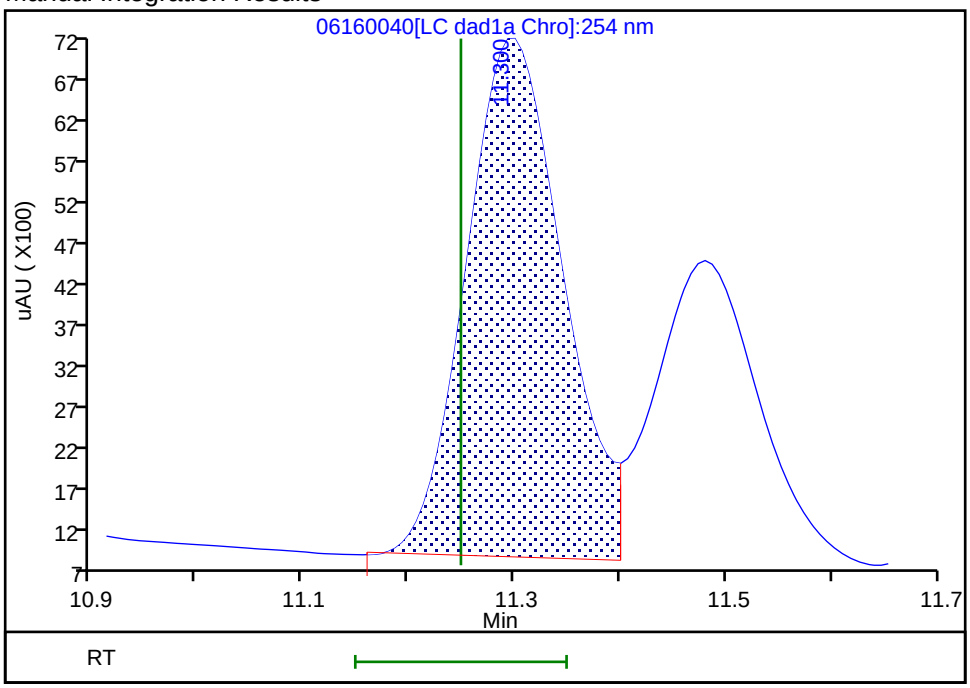
Processing Integration Results

RT: 11.30
Area: 38868
Amount: 0.190500
Amount Units: ug/mL



Manual Integration Results

RT: 11.30
Area: 39956
Amount: 0.195833
Amount Units: ug/mL



Reviewer: zhangji, 17-Jun-2020 18:58:30

Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

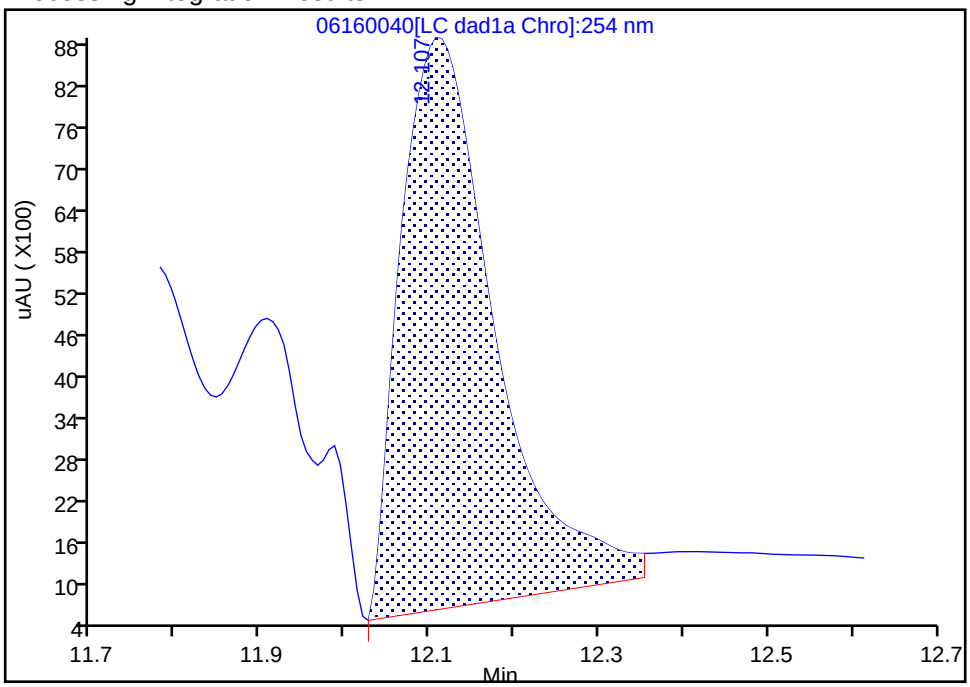
Data File:	\\chromfs\denver\chromdata\chhplc_x\20200616-92483.b\06160040.d				
Injection Date:	17-Jun-2020 07:34:28	Instrument ID:	CHHPLC_X3		
Lims ID:	280-137225-A-2-C MSD				
Client ID:	G0070-20A				
Operator ID:	JZ	ALS Bottle#:	40	Worklist Smp#:	40
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

20 2,4-Dinitrotoluene, CAS: 121-14-2

Signal: 1

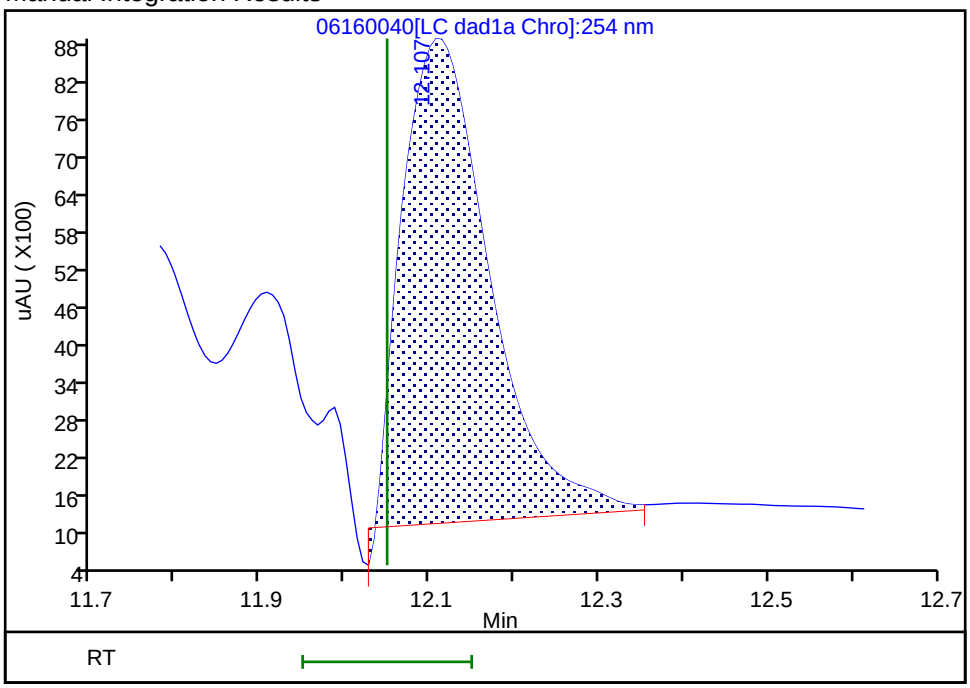
Processing Integration Results

RT: 12.11
Area: 64067
Amount: 0.211035
Amount Units: ug/mL



Manual Integration Results

RT: 12.11
Area: 55639
Amount: 0.183274
Amount Units: ug/mL



Reviewer: zhangji, 17-Jun-2020 18:58:33
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

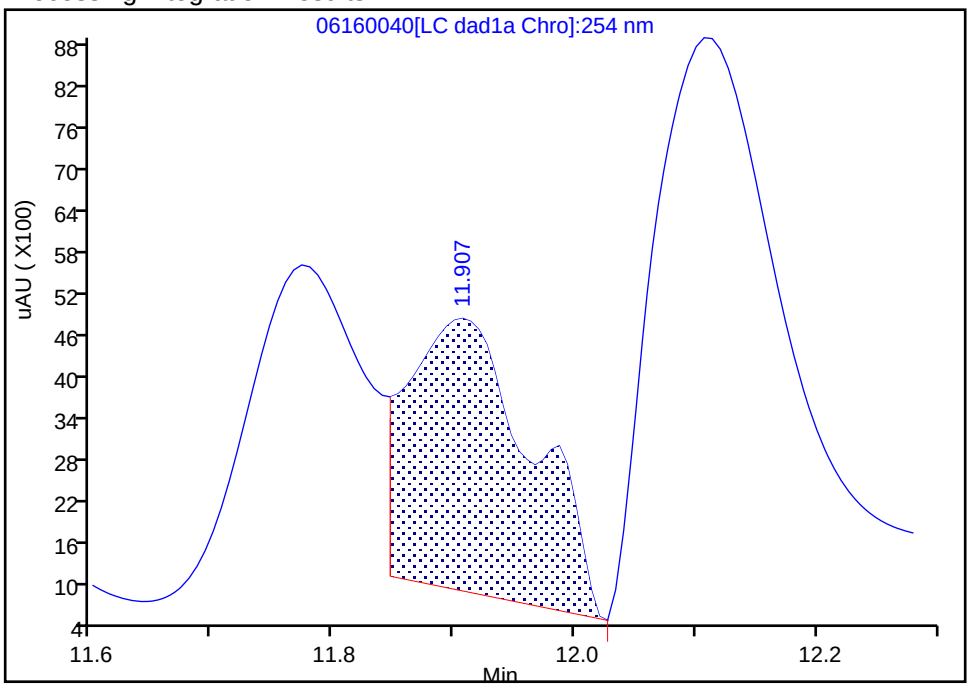
Data File:	\\chromfs\denver\chromdata\chhplc_x\20200616-92483.b\06160040.d				
Injection Date:	17-Jun-2020 07:34:28	Instrument ID:	CHHPLC_X3		
Lims ID:	280-137225-A-2-C MSD				
Client ID:	G0070-20A				
Operator ID:	JZ	ALS Bottle#:	40	Worklist Smp#:	40
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

19 2,6-Dinitrotoluene, CAS: 606-20-2

Signal: 1

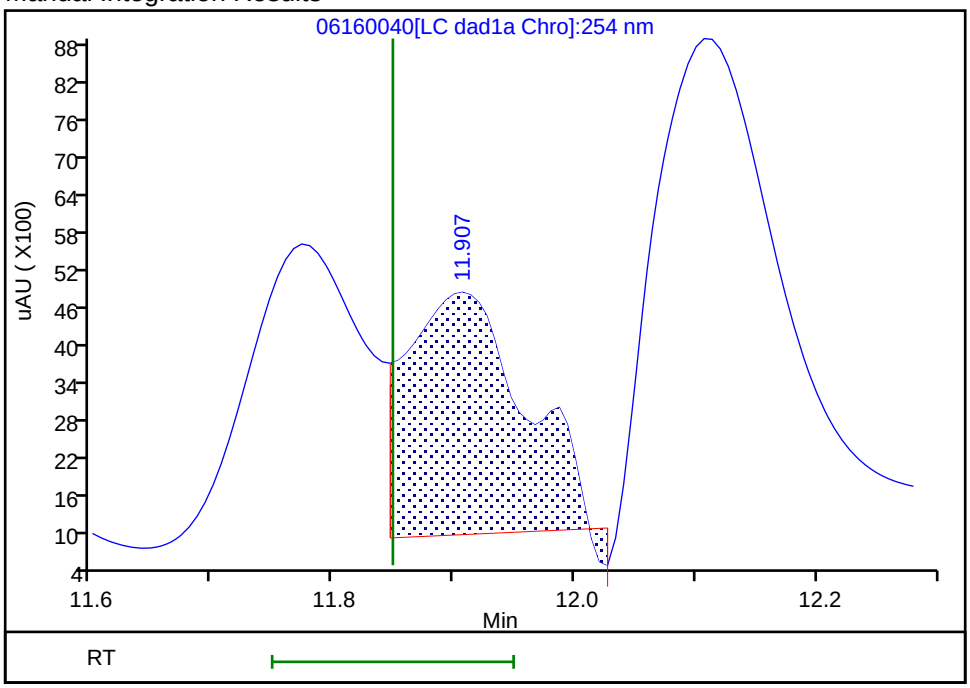
Processing Integration Results

RT: 11.91
Area: 27803
Amount: 0.186033
Amount Units: ug/mL



Manual Integration Results

RT: 11.91
Area: 25675
Amount: 0.171794
Amount Units: ug/mL



Reviewer: zhangji, 17-Jun-2020 18:58:33
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

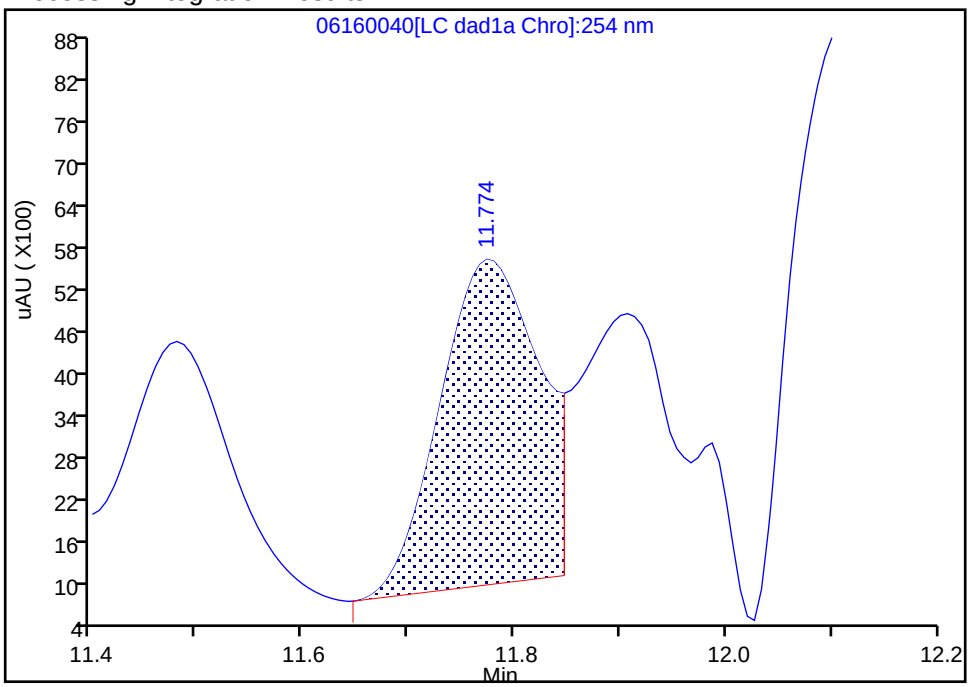
Data File:	\\chromfs\denver\chromdata\chhplc_x\20200616-92483.b\06160040.d				
Injection Date:	17-Jun-2020 07:34:28	Instrument ID:	CHHPLC_X3		
Lims ID:	280-137225-A-2-C MSD				
Client ID:	G0070-20A				
Operator ID:	JZ	ALS Bottle#:	40	Worklist Smp#:	40
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

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

Signal: 1

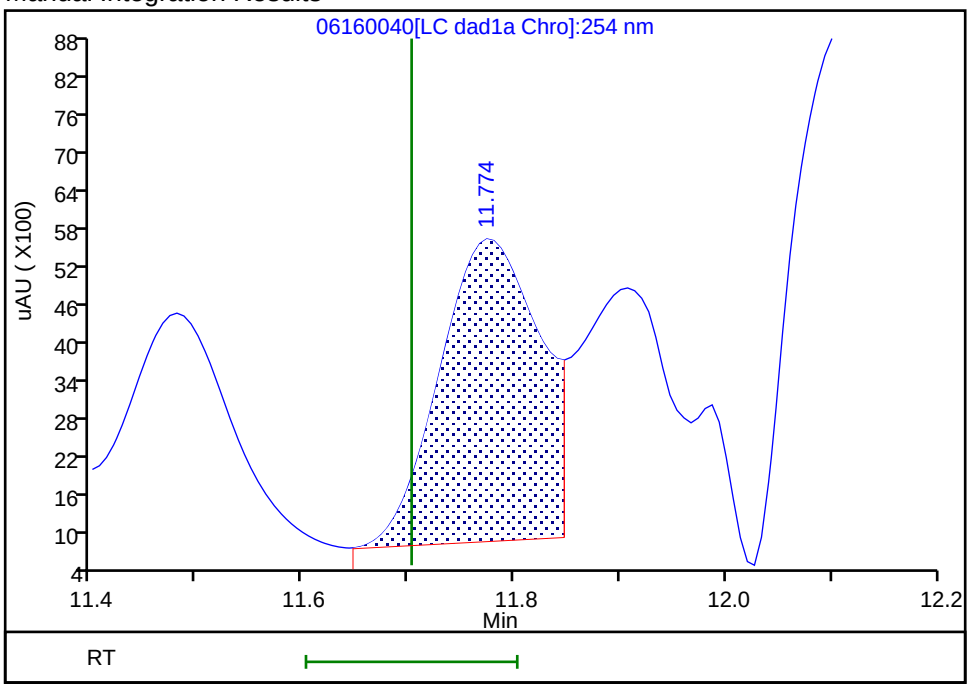
Processing Integration Results

RT: 11.77
Area: 29972
Amount: 0.147779
Amount Units: ug/mL



Manual Integration Results

RT: 11.77
Area: 31262
Amount: 0.154139
Amount Units: ug/mL



Reviewer: zhangji, 17-Jun-2020 18:58:33
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

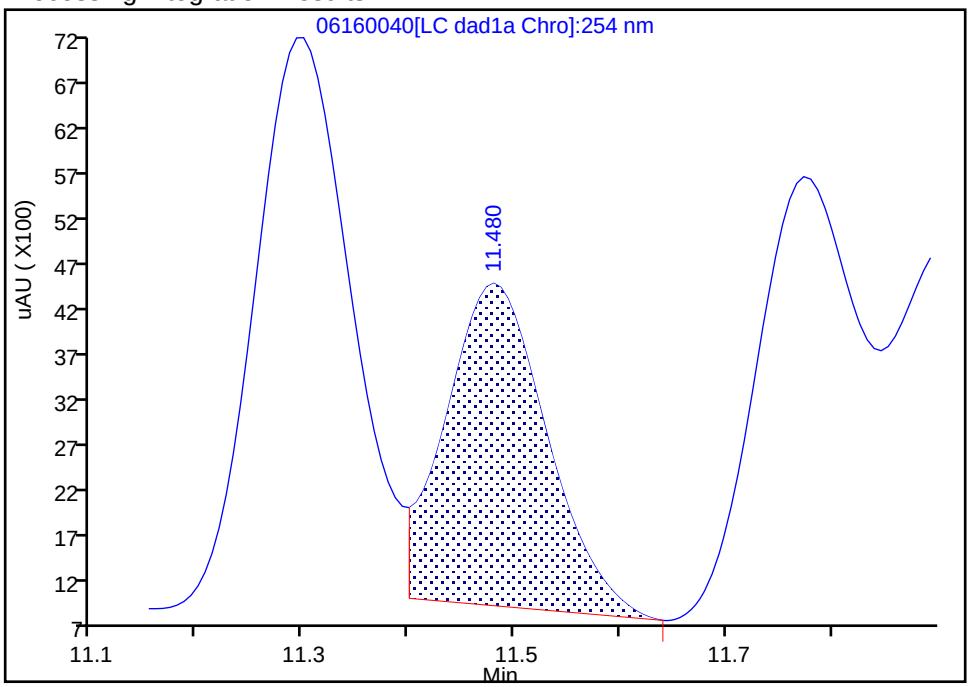
Data File:	\\chromfs\denver\chromdata\chhplc_x\20200616-92483.b\06160040.d				
Injection Date:	17-Jun-2020 07:34:28	Instrument ID:	CHHPLC_X3		
Lims ID:	280-137225-A-2-C MSD				
Client ID:	G0070-20A				
Operator ID:	JZ	ALS Bottle#:	40	Worklist Smp#:	40
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

17 4-Amino-2,6-dinitrotoluene, CAS: 19406-51-0

Signal: 1

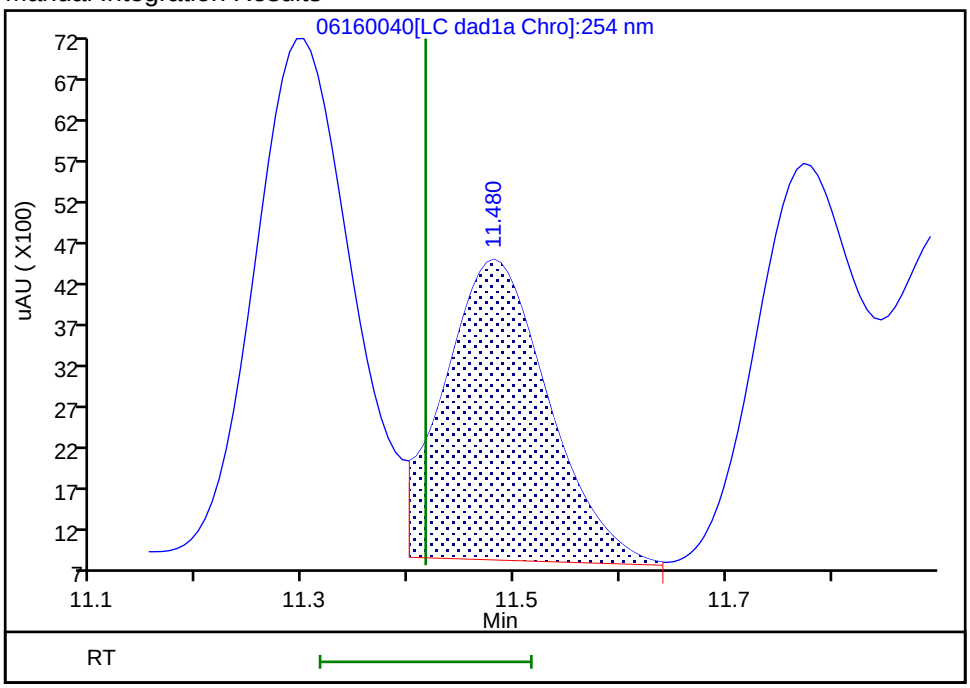
Processing Integration Results

RT: 11.48
Area: 23442
Amount: 0.137945
Amount Units: ug/mL



Manual Integration Results

RT: 11.48
Area: 25012
Amount: 0.146747
Amount Units: ug/mL



Reviewer: zhangji, 17-Jun-2020 18:58:30
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

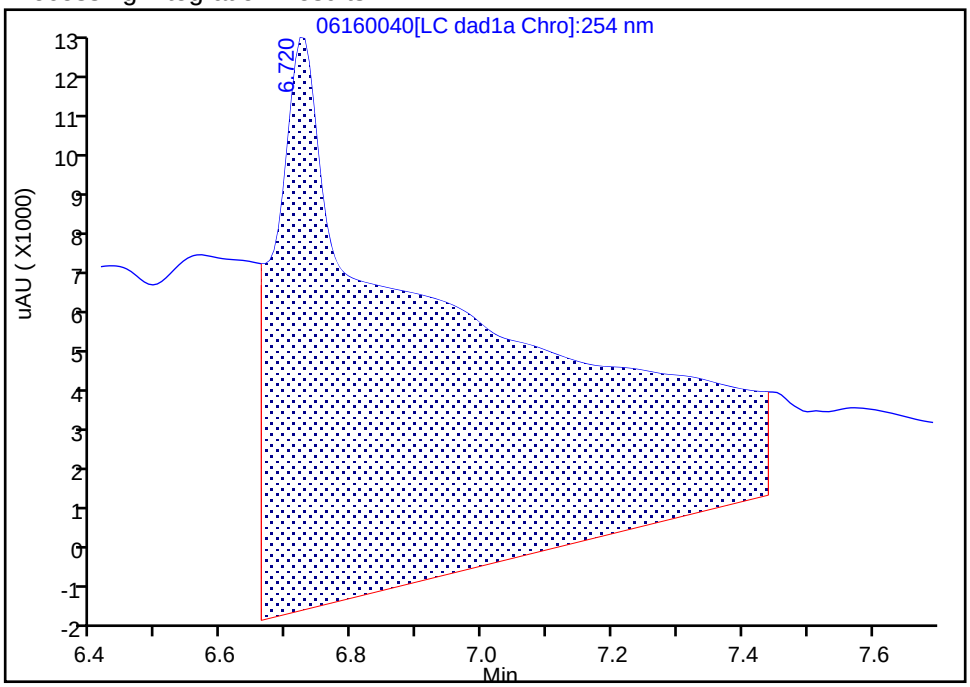
Data File:	\\chromfs\denver\chromdata\chhplc_x\20200616-92483.b\06160040.d				
Injection Date:	17-Jun-2020 07:34:28	Instrument ID:	CHHPLC_X3		
Lims ID:	280-137225-A-2-C MSD				
Client ID:	G0070-20A				
Operator ID:	JZ	ALS Bottle#:	40	Worklist Smp#:	40
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

3 HMX, CAS: 2691-41-0

Signal: 1

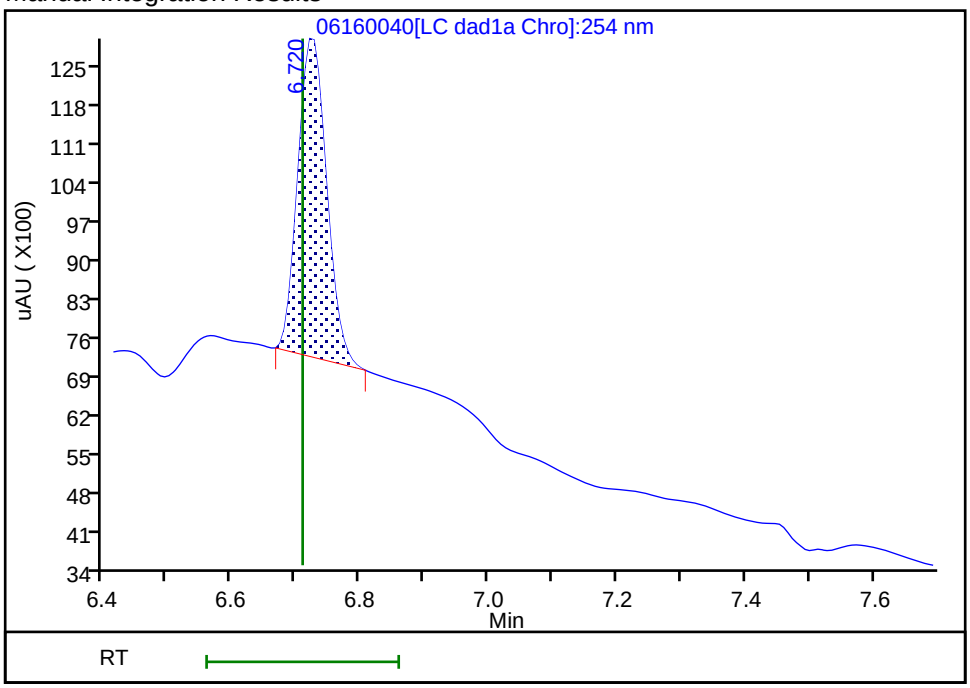
Processing Integration Results

RT: 6.72
Area: 278976
Amount: 3.245335
Amount Units: ug/mL



Manual Integration Results

RT: 6.72
Area: 17816
Amount: 0.207254
Amount Units: ug/mL



Reviewer: zhangji, 17-Jun-2020 18:58:13

Audit Action: Manually Integrated Audit Reason: Baseline

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-137225-1
SDG No.:
Client Sample ID: G0070-20A MSD
Lab Sample ID: 280-137225-2 MSD
Matrix: Water
Lab File ID: 06160045.D
Analysis Method: 8330A
Date Collected: 06/02/2020 08:25
Extraction Method: 3535
Date Extracted: 06/04/2020 17:15
Sample wt/vol: 471.7(mL)
Date Analyzed: 06/17/2020 09:29
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.: 498992
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
5755-27-1	MNX	1.79	J M	2.1	0.42	0.16

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

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20200616-92483.b\06160045.D
Lims ID: 280-137225-B-2-B MSD
Client ID: G0070-20A
Sample Type: MSD
Inject. Date: 17-Jun-2020 09:29:54 ALS Bottle#: 45 Worklist Smp#: 45
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-137225-B-2-B
Misc. Info.: 280-0092483-045
Operator ID: JZ Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20200616-92483.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 17-Jun-2020 20:30:31 Calib Date: 18-Mar-2020 14:39:27
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180015.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1005

First Level Reviewer: zhangji Date: 17-Jun-2020 19:03:11

	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		6.568				ND	U
	2 TNX	1	6.617	6.621	-0.004	39590	0.2002	0.1819	M
	3 HMX	1		6.709				ND	
	4 2,4-diamino-6-nitrotoluene	1		6.754				ND	
	5 DNX	1	6.944	6.947	-0.003	30474	0.2002	0.1993	M
	6 MNX	1	7.391	7.394	-0.003	26830	0.2334	0.1692	M
	7 RDX	1		7.789				ND	
	8 2,4,6-Trinitrophenol	1		8.089				ND	U
$	9 1,2-Dinitrobenzene	1	8.777	8.763	0.014	28713	0.2000	0.2077	M
	10 1,3,5-Trinitrobenzene	1		8.936				ND	
	11 1,3-Dinitrobenzene	1		9.589				ND	
	12 Nitrobenzene	1	10.004	9.969	0.035	2571		0.0128	
	13 3,5-Dinitroaniline	1		10.201				ND	
	14 Tetryl	1		10.282				ND	U
	15 Nitroglycerin	2		10.789				ND	
	16 2,4,6-Trinitrotoluene	1		11.249				ND	U
	17 4-Amino-2,6-dinitrotoluene	1		11.416				ND	
	18 2-Amino-4,6-dinitrotoluene	1		11.702				ND	U
	19 2,6-Dinitrotoluene	1		11.849				ND	
	20 2,4-Dinitrotoluene	1		12.049				ND	
	21 o-Nitrotoluene	1		12.876				ND	
	22 p-Nitrotoluene	1		13.309				ND	U
	23 m-Nitrotoluene	1		13.902				ND	
	24 PETN	2		14.996				ND	
	25 Ammonium Picrate	1		0.000				ND	

QC Flag Legend

Review Flags

M - Manually Integrated

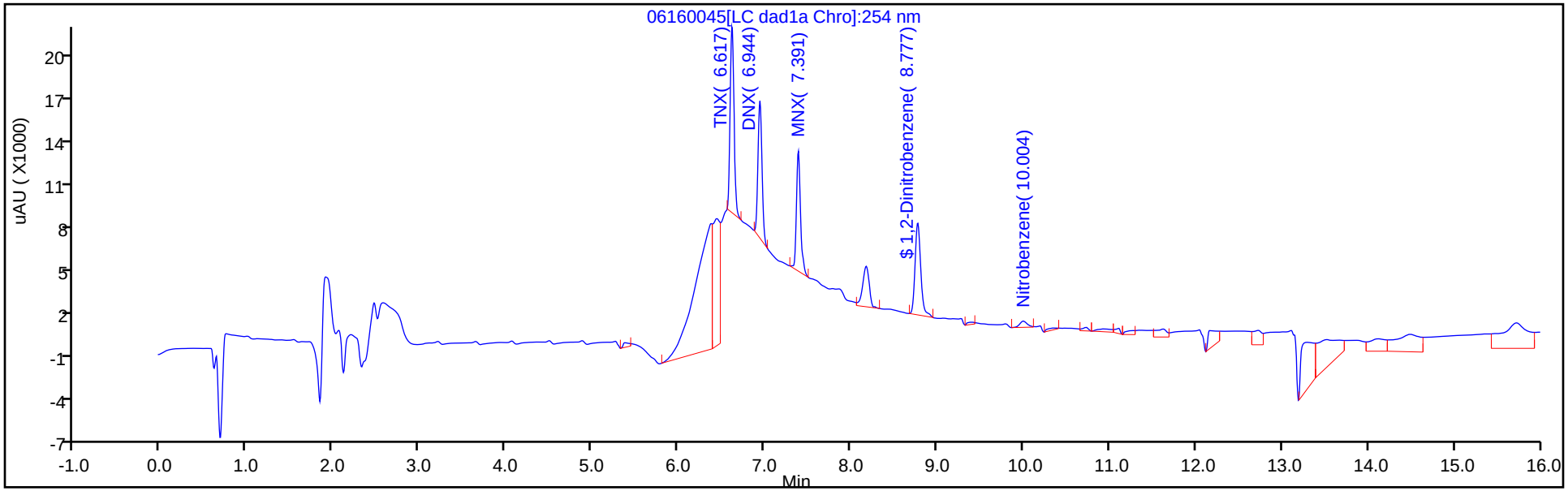
U - Marked Undetected

Report Date: 17-Jun-2020 20:30:31 Chrom Revision: 2.3 10-Jun-2020 22:46:48

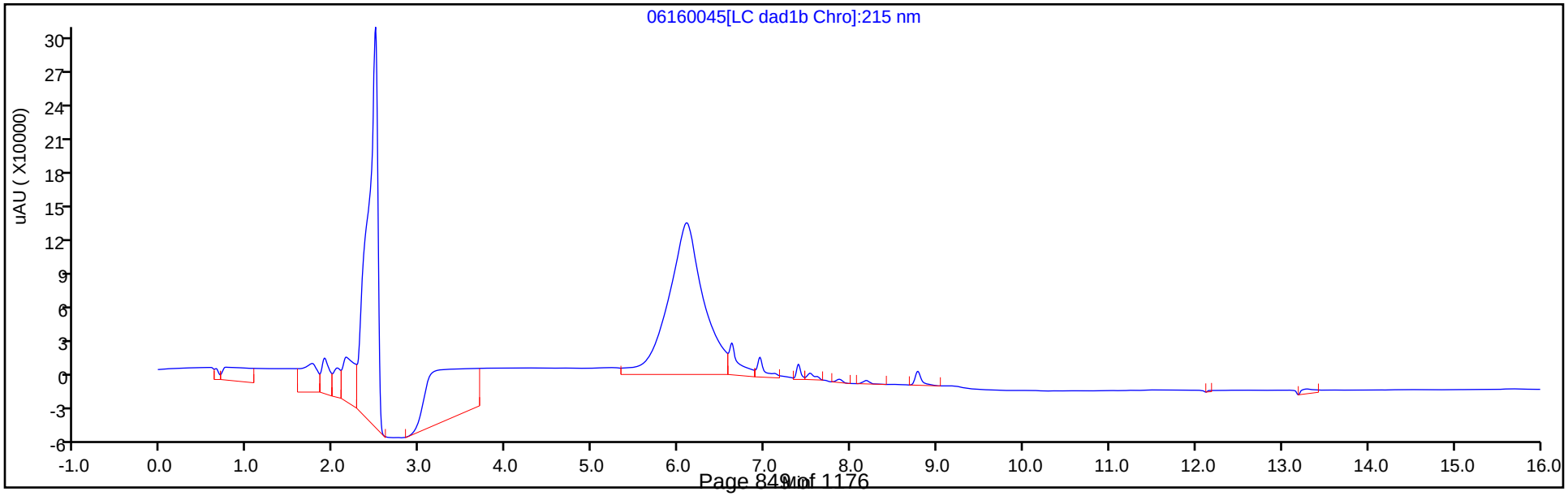
Eurofins TestAmerica, Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20200616-92483.b\06160045.d				
Injection Date:	17-Jun-2020 09:29:54	Instrument ID:	CHHPLC_X3	Operator ID:	JZ
Lims ID:	280-137225-B-2-B MSD			Worklist Smp#:	45
Client ID:	G0070-20A				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	45
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
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20200616-92483.b\06160045.D				
Lims ID:	280-137225-B-2-B MSD				
Client ID:	G0070-20A				
Sample Type:	MSD				
Inject. Date:	17-Jun-2020 09:29:54	ALS Bottle#:	45	Worklist Smp#:	45
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-137225-B-2-B				
Misc. Info.:	280-0092483-045				
Operator ID:	JZ	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20200616-92483.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	17-Jun-2020 20:30:31	Calib Date:	18-Mar-2020 14:39:27		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\CHHPLC_X\20200318-90159.b\03180015.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1005				

First Level Reviewer: zhangji Date: 17-Jun-2020 19:03:11

Compound	Amount Added	Amount Recovered	% Rec.
$ 9 1,2-Dinitrobenzene	0.2000	0.2077	103.87

Eurofins TestAmerica, Denver

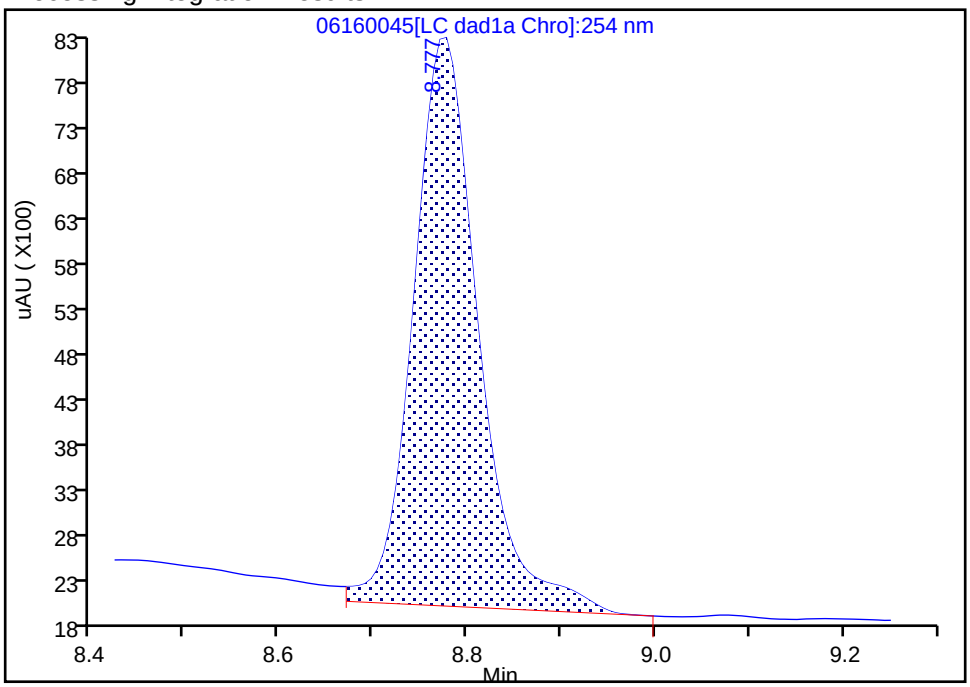
Data File:	\\chromfs\denver\chromdata\chhplc_x\20200616-92483.b\06160045.d				
Injection Date:	17-Jun-2020 09:29:54	Instrument ID:	CHHPLC_X3		
Lims ID:	280-137225-B-2-B MSD				
Client ID:	G0070-20A				
Operator ID:	JZ	ALS Bottle#:	45	Worklist Smp#:	45
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

$ 9 1,2-Dinitrobenzene, CAS: 528-29-0

Signal: 1

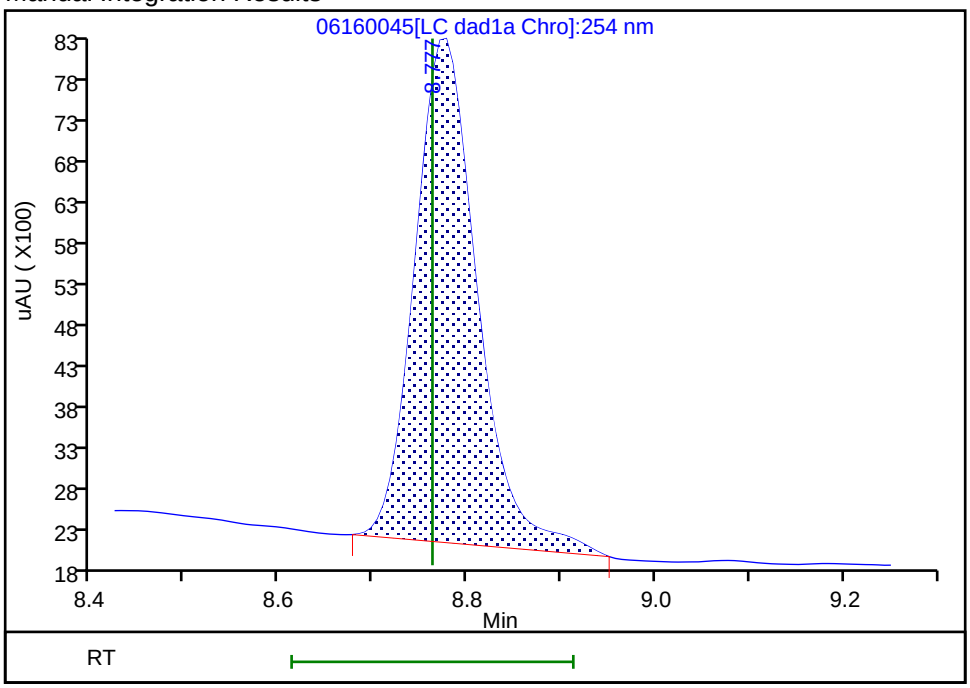
Processing Integration Results

RT: 8.78
Area: 30453
Amount: 0.220335
Amount Units: ug/mL



Manual Integration Results

RT: 8.78
Area: 28713
Amount: 0.207746
Amount Units: ug/mL



Reviewer: zhangji, 17-Jun-2020 19:02:59
Audit Action: Manually Integrated Audit Reason: Baseline

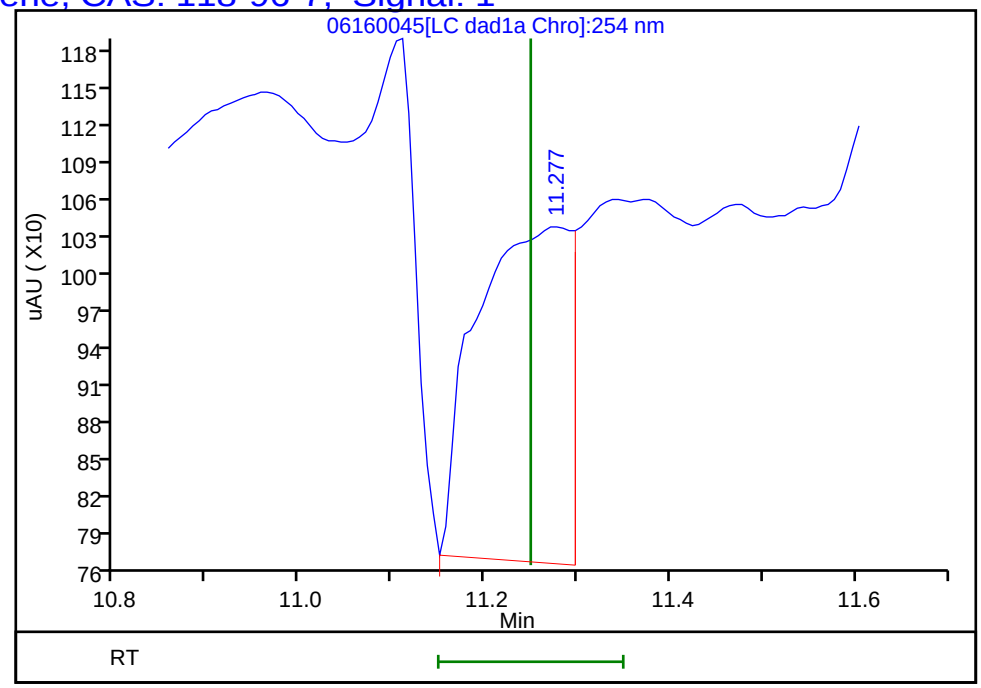
User Disabled Compound Report

Eurofins TestAmerica, Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20200616-92483.b\06160045.d				
Injection Date:	17-Jun-2020 09:29:54	Instrument ID:	CHHPLC_X3		
Lims ID:	280-137225-B-2-B MSD				
Client ID:	G0070-20A				
Operator ID:	JZ	ALS Bottle#:	45	Worklist Smp#:	45
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

16 2,4,6-Trinitrotoluene, CAS: 118-96-7, Signal: 1

RT: 11.28
Response: 1884
Amount: 0.009234



Reviewer: zhangji, 17-Jun-2020 19:03:11
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

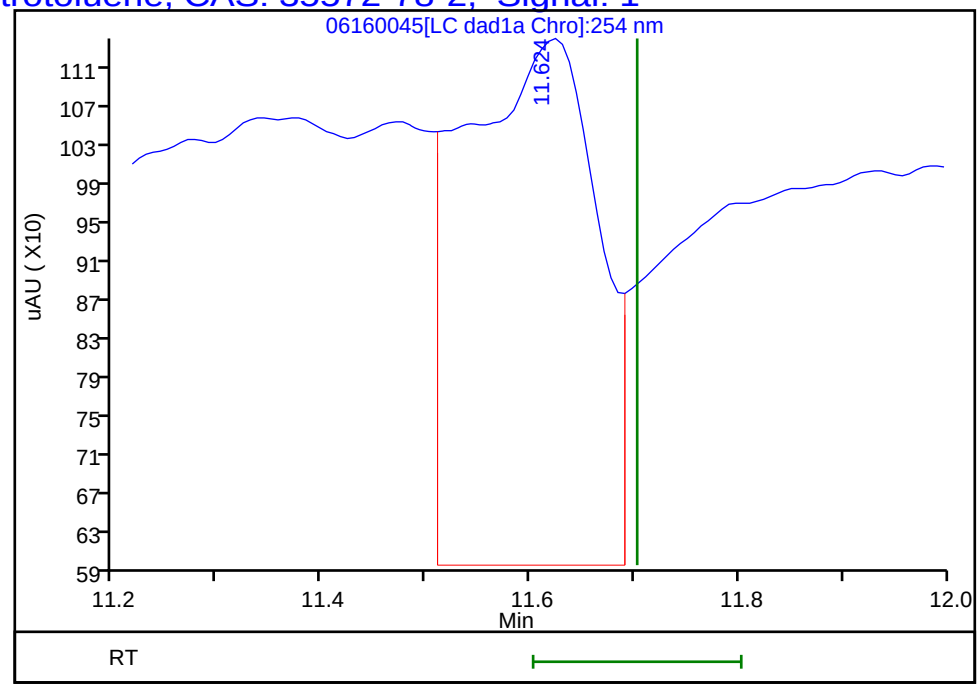
User Disabled Compound Report

Eurofins TestAmerica, Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20200616-92483.b\06160045.d				
Injection Date:	17-Jun-2020 09:29:54	Instrument ID:	CHHPLC_X3		
Lims ID:	280-137225-B-2-B MSD				
Client ID:	G0070-20A				
Operator ID:	JZ	ALS Bottle#:	45	Worklist Smp#:	45
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

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

RT: 11.62
Response: 4808
Amount: 0.023706



Reviewer: zhangji, 17-Jun-2020 19:03:11
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

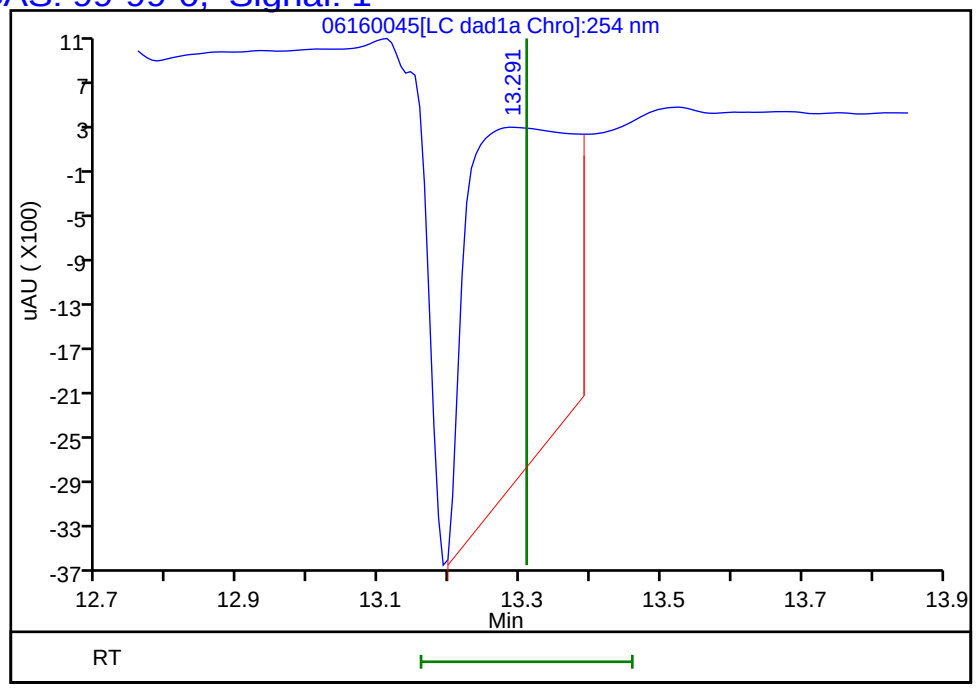
User Disabled Compound Report

Eurofins TestAmerica, Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20200616-92483.b\06160045.d				
Injection Date:	17-Jun-2020 09:29:54	Instrument ID:	CHHPLC_X3		
Lims ID:	280-137225-B-2-B MSD				
Client ID:	G0070-20A				
Operator ID:	JZ	ALS Bottle#:	45	Worklist Smp#:	45
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

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

RT: 13.29
Response: 32265
Amount: 0.285518



Reviewer: zhangji, 17-Jun-2020 19:03:11
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

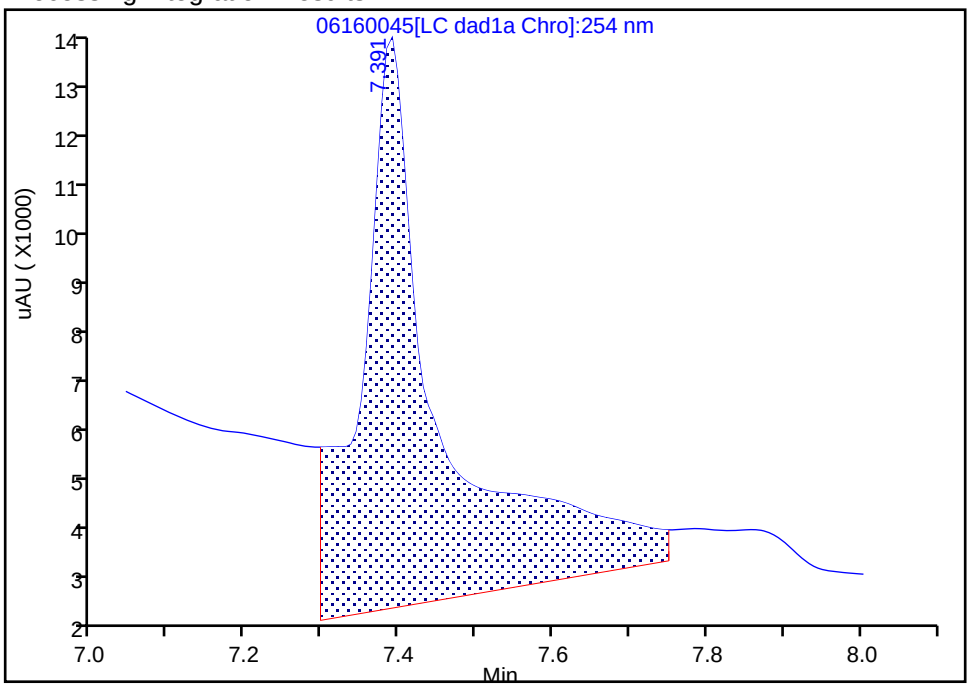
Data File:	\\chromfs\denver\chromdata\chhplc_x\20200616-92483.b\06160045.d				
Injection Date:	17-Jun-2020 09:29:54	Instrument ID:	CHHPLC_X3		
Lims ID:	280-137225-B-2-B MSD				
Client ID:	G0070-20A				
Operator ID:	JZ	ALS Bottle#:	45	Worklist Smp#:	45
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

6 MNX, CAS: 5755-27-1

Signal: 1

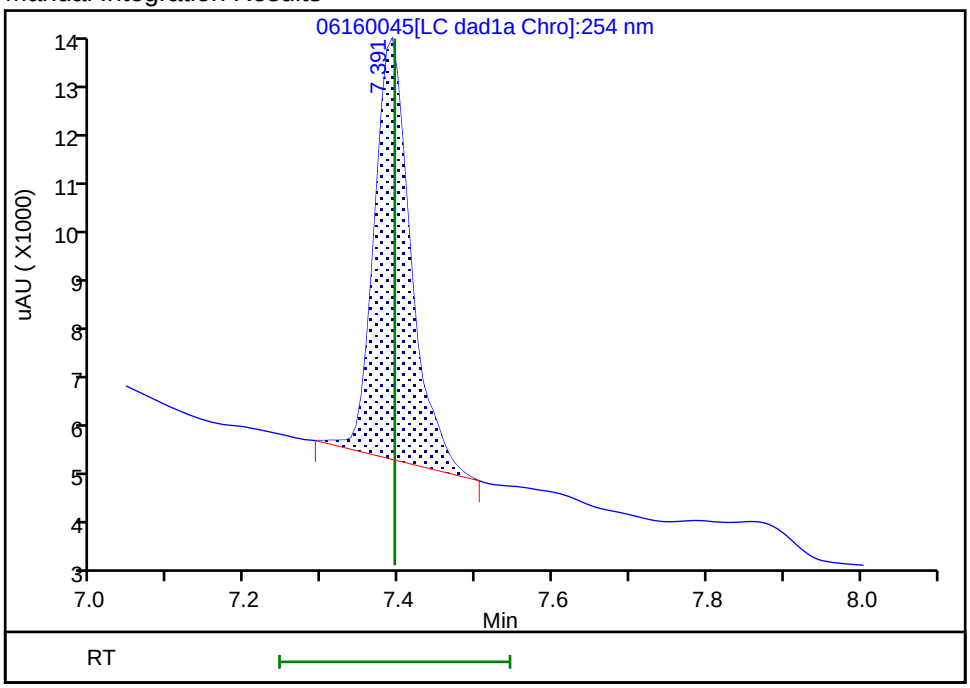
Processing Integration Results

RT: 7.39
Area: 78540
Amount: 0.495382
Amount Units: ug/mL



Manual Integration Results

RT: 7.39
Area: 26830
Amount: 0.169227
Amount Units: ug/mL



Reviewer: zhangji, 17-Jun-2020 19:02:53
Audit Action: Manually Integrated Audit Reason: Baseline

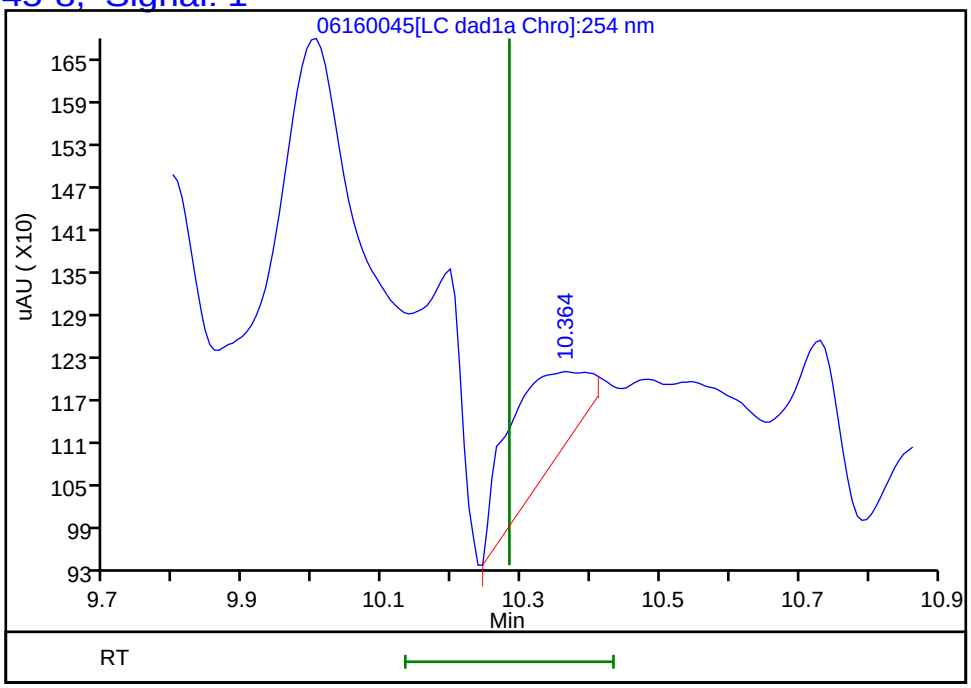
User Disabled Compound Report

Eurofins TestAmerica, Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20200616-92483.b\06160045.d				
Injection Date:	17-Jun-2020 09:29:54	Instrument ID:	CHHPLC_X3		
Lims ID:	280-137225-B-2-B MSD				
Client ID:	G0070-20A				
Operator ID:	JZ	ALS Bottle#:	45	Worklist Smp#:	45
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

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

RT: 10.36
Response: 1088
Amount: 0.006146



Reviewer: zhangji, 17-Jun-2020 19:03:11
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

HPLC/IC ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Instrument ID: CHHPLC_X3 Start Date: 03/04/2020 14:07

Analysis Batch Number: 487658 End Date: 03/05/2020 00:03

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
IC 280-487658/7		03/04/2020 14:07	1	03040007.D	UltraCarb5uODS 4.6(mm)
IC 280-487658/8		03/04/2020 14:30	1	03040008.D	UltraCarb5uODS 4.6(mm)
IC 280-487658/9		03/04/2020 14:53	1	03040009.D	UltraCarb5uODS 4.6(mm)
IC 280-487658/10		03/04/2020 15:16	1	03040010.D	UltraCarb5uODS 4.6(mm)
IC 280-487658/11		03/04/2020 15:39	1	03040011.D	UltraCarb5uODS 4.6(mm)
IC 280-487658/12		03/04/2020 16:01	1	03040012.D	UltraCarb5uODS 4.6(mm)
IC 280-487658/13		03/04/2020 16:24	1	03040013.D	UltraCarb5uODS 4.6(mm)
IC 280-487658/14		03/04/2020 16:47	1	03040014.D	UltraCarb5uODS 4.6(mm)
ICV 280-487658/15		03/04/2020 17:10	1	03040015.D	UltraCarb5uODS 4.6(mm)
IC 280-487658/16		03/04/2020 17:33	1		UltraCarb5uODS 4.6(mm)
IC 280-487658/17		03/04/2020 17:56	1		UltraCarb5uODS 4.6(mm)
IC 280-487658/18		03/04/2020 18:19	1		UltraCarb5uODS 4.6(mm)
IC 280-487658/19		03/04/2020 18:42	1		UltraCarb5uODS 4.6(mm)
IC 280-487658/20		03/04/2020 19:05	1		UltraCarb5uODS 4.6(mm)
IC 280-487658/21		03/04/2020 19:28	1		UltraCarb5uODS 4.6(mm)
IC 280-487658/22		03/04/2020 19:51	1		UltraCarb5uODS 4.6(mm)
IC 280-487658/23		03/04/2020 20:14	1		UltraCarb5uODS 4.6(mm)
ICV 280-487658/24		03/04/2020 20:37	1		UltraCarb5uODS 4.6(mm)
IC 280-487658/25		03/04/2020 21:00	1	03040025.D	UltraCarb5uODS 4.6(mm)
IC 280-487658/26		03/04/2020 21:23	1	03040026.D	UltraCarb5uODS 4.6(mm)
IC 280-487658/27		03/04/2020 21:45	1	03040027.D	UltraCarb5uODS 4.6(mm)
IC 280-487658/28		03/04/2020 22:09	1	03040028.D	UltraCarb5uODS 4.6(mm)
IC 280-487658/29		03/04/2020 22:31	1	03040029.D	UltraCarb5uODS 4.6(mm)
IC 280-487658/30		03/04/2020 22:54	1	03040030.D	UltraCarb5uODS 4.6(mm)
IC 280-487658/31		03/04/2020 23:17	1	03040031.D	UltraCarb5uODS 4.6(mm)
IC 280-487658/32		03/04/2020 23:40	1	03040032.D	UltraCarb5uODS 4.6(mm)
ICV 280-487658/33		03/05/2020 00:03	1	03040033.D	UltraCarb5uODS 4.6(mm)

8330A

HPLC/IC ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Instrument ID: CHHPLC_X3 Start Date: 03/18/2020 11:35

Analysis Batch Number: 489145 End Date: 03/18/2020 15:02

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
IC 280-489145/7		03/18/2020 11:35	1	03180007.D	UltraCarb5uODS 4.6(mm)
IC 280-489145/8		03/18/2020 11:58	1	03180008.D	UltraCarb5uODS 4.6(mm)
IC 280-489145/9		03/18/2020 12:21	1	03180009.D	UltraCarb5uODS 4.6(mm)
IC 280-489145/10		03/18/2020 12:44	1	03180010.D	UltraCarb5uODS 4.6(mm)
IC 280-489145/11		03/18/2020 13:07	1	03180011.D	UltraCarb5uODS 4.6(mm)
IC 280-489145/12		03/18/2020 13:30	1	03180012.D	UltraCarb5uODS 4.6(mm)
IC 280-489145/13		03/18/2020 13:53	1	03180013.D	UltraCarb5uODS 4.6(mm)
IC 280-489145/14		03/18/2020 14:16	1	03180014.D	UltraCarb5uODS 4.6(mm)
IC 280-489145/15		03/18/2020 14:39	1	03180015.D	UltraCarb5uODS 4.6(mm)
ICV 280-489145/16		03/18/2020 15:02	1	03180016.D	UltraCarb5uODS 4.6(mm)

8330A

HPLC/IC ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Instrument ID: CHHPLC_G2_LUNA Start Date: 05/14/2020 16:16

Analysis Batch Number: 494886 End Date: 05/15/2020 20:15

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
IC 280-494886/7		05/14/2020 16:16	1	05140007.D	Luna-phenylhex 4.6(mm)
IC 280-494886/8		05/14/2020 16:51	1	05140008.D	Luna-phenylhex 4.6(mm)
IC 280-494886/9		05/14/2020 17:26	1	05140009.D	Luna-phenylhex 4.6(mm)
IC 280-494886/10		05/14/2020 18:01	1	05140010.D	Luna-phenylhex 4.6(mm)
IC 280-494886/11		05/14/2020 18:36	1	05140011.D	Luna-phenylhex 4.6(mm)
IC 280-494886/12		05/14/2020 19:11	1	05140012.D	Luna-phenylhex 4.6(mm)
IC 280-494886/13		05/14/2020 19:46	1	05140013.D	Luna-phenylhex 4.6(mm)
IC 280-494886/14		05/14/2020 20:21	1	05140014.D	Luna-phenylhex 4.6(mm)
IC 280-494886/15		05/14/2020 20:56	1	05140015.D	Luna-phenylhex 4.6(mm)
ICV 280-494886/16		05/14/2020 21:31	1	05140016.D	Luna-phenylhex 4.6(mm)
IC 280-494886/17		05/14/2020 22:06	1	05140017.D	Luna-phenylhex 4.6(mm)
IC 280-494886/18		05/14/2020 22:41	1	05140018.D	Luna-phenylhex 4.6(mm)
IC 280-494886/19		05/14/2020 23:16	1	05140019.D	Luna-phenylhex 4.6(mm)
IC 280-494886/20		05/14/2020 23:51	1	05140020.D	Luna-phenylhex 4.6(mm)
IC 280-494886/21		05/15/2020 00:26	1	05140021.D	Luna-phenylhex 4.6(mm)
IC 280-494886/22		05/15/2020 01:01	1	05140022.D	Luna-phenylhex 4.6(mm)
IC 280-494886/23		05/15/2020 01:36	1	05140023.D	Luna-phenylhex 4.6(mm)
IC 280-494886/24		05/15/2020 02:11	1	05140024.D	Luna-phenylhex 4.6(mm)
IC 280-494886/25		05/15/2020 02:46	1		Luna-phenylhex 4.6(mm)
ICV 280-494886/26		05/15/2020 03:21	1	05140026.D	Luna-phenylhex 4.6(mm)
ZZZZZ		05/15/2020 03:56	50		Luna-phenylhex 4.6(mm)
ZZZZZ		05/15/2020 04:31	1		Luna-phenylhex 4.6(mm)
ZZZZZ		05/15/2020 05:06	1		Luna-phenylhex 4.6(mm)
CCV 280-494886/30		05/15/2020 05:41	1		Luna-phenylhex 4.6(mm)
CCV 280-494886/31		05/15/2020 06:16	1		Luna-phenylhex 4.6(mm)
ZZZZZ		05/15/2020 06:51	1		Luna-phenylhex 4.6(mm)
ZZZZZ		05/15/2020 07:26	1		Luna-phenylhex 4.6(mm)
ZZZZZ		05/15/2020 08:01	1		Luna-phenylhex 4.6(mm)
ZZZZZ		05/15/2020 08:36	1		Luna-phenylhex 4.6(mm)
ZZZZZ		05/15/2020 09:11	1		Luna-phenylhex 4.6(mm)
ZZZZZ		05/15/2020 09:46	1		Luna-phenylhex 4.6(mm)
ZZZZZ		05/15/2020 10:21	1		Luna-phenylhex 4.6(mm)
ZZZZZ		05/15/2020 10:56	1		Luna-phenylhex 4.6(mm)
ZZZZZ		05/15/2020 11:31	1		Luna-phenylhex 4.6(mm)
ZZZZZ		05/15/2020 12:06	1		Luna-phenylhex 4.6(mm)
CCV 280-494886/42		05/15/2020 12:40	1		Luna-phenylhex 4.6(mm)
CCV 280-494886/43		05/15/2020 13:15	1		Luna-phenylhex 4.6(mm)
ZZZZZ		05/15/2020 13:50	1		Luna-phenylhex 4.6(mm)
ZZZZZ		05/15/2020 14:25	1		Luna-phenylhex 4.6(mm)
ZZZZZ		05/15/2020 15:00	1		Luna-phenylhex 4.6(mm)
ZZZZZ		05/15/2020 15:35	1		Luna-phenylhex 4.6(mm)
ZZZZZ		05/15/2020 16:10	1		Luna-phenylhex 4.6(mm)
ZZZZZ		05/15/2020 16:45	1		Luna-phenylhex 4.6(mm)
ZZZZZ		05/15/2020 17:20	1		Luna-phenylhex 4.6(mm)
ZZZZZ		05/15/2020 17:55	1		Luna-phenylhex 4.6(mm)

8330A

HPLC/IC ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Instrument ID: CHHPLC_G2_LUNA Start Date: 05/14/2020 16:16

Analysis Batch Number: 494886 End Date: 05/15/2020 20:15

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		05/15/2020 18:30	1		Luna-phenylhex 4.6(mm)
ZZZZZ		05/15/2020 19:05	1		Luna-phenylhex 4.6(mm)
CCV 280-494886/54		05/15/2020 19:40	1		Luna-phenylhex 4.6(mm)
CCV 280-494886/55		05/15/2020 20:15	1		Luna-phenylhex 4.6(mm)

8330A

HPLC/IC ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Instrument ID: CHHPLC_X3 Start Date: 06/17/2020 03:21

Analysis Batch Number: 498992 End Date: 06/17/2020 12:57

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCV 280-498992/29		06/17/2020 03:21	1	06160029.D	UltraCarb5uODS 4.6(mm)
CCV 280-498992/30		06/17/2020 03:44	1		UltraCarb5uODS 4.6(mm)
CCV 280-498992/31		06/17/2020 04:07	1	06160031.D	UltraCarb5uODS 4.6(mm)
MB 280-497449/1-A		06/17/2020 04:30	1	06160032.D	UltraCarb5uODS 4.6(mm)
LCS 280-497449/2-A		06/17/2020 04:53	1	06160033.D	UltraCarb5uODS 4.6(mm)
LCS 280-497449/3-A		06/17/2020 05:16	1	06160034.D	UltraCarb5uODS 4.6(mm)
ZZZZZ		06/17/2020 05:39	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		06/17/2020 06:02	1		UltraCarb5uODS 4.6(mm)
280-137225-1		06/17/2020 06:25	1	06160037.D	UltraCarb5uODS 4.6(mm)
280-137225-2		06/17/2020 06:48	1	06160038.D	UltraCarb5uODS 4.6(mm)
280-137225-2 MS		06/17/2020 07:11	1	06160039.D	UltraCarb5uODS 4.6(mm)
280-137225-2 MSD		06/17/2020 07:34	1	06160040.D	UltraCarb5uODS 4.6(mm)
280-137225-2 MS		06/17/2020 07:57	1	06160041.D	UltraCarb5uODS 4.6(mm)
CCV 280-498992/42		06/17/2020 08:20	1	06160042.D	UltraCarb5uODS 4.6(mm)
CCV 280-498992/43		06/17/2020 08:43	1		UltraCarb5uODS 4.6(mm)
CCV 280-498992/44		06/17/2020 09:06	1	06160044.D	UltraCarb5uODS 4.6(mm)
280-137225-2 MSD		06/17/2020 09:29	1	06160045.D	UltraCarb5uODS 4.6(mm)
280-137225-3		06/17/2020 09:52	1	06160046.D	UltraCarb5uODS 4.6(mm)
280-137225-4		06/17/2020 10:15	1	06160047.D	UltraCarb5uODS 4.6(mm)
ZZZZZ		06/17/2020 11:01	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		06/17/2020 11:47	1		UltraCarb5uODS 4.6(mm)
CCV 280-498992/52		06/17/2020 12:10	1	06160052.D	UltraCarb5uODS 4.6(mm)
CCV 280-498992/53		06/17/2020 12:34	1		UltraCarb5uODS 4.6(mm)
CCV 280-498992/54		06/17/2020 12:57	1	06160054.D	UltraCarb5uODS 4.6(mm)

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HPLC/IC ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Instrument ID: CHHPLC_G2_LUNA Start Date: 06/20/2020 12:59

Analysis Batch Number: 499503 End Date: 06/21/2020 00:39

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCV 280-499503/7		06/20/2020 12:59	1	06200007.D	Luna-phenylhex 4.6(mm)
CCV 280-499503/8		06/20/2020 13:34	1	06200008.D	Luna-phenylhex 4.6(mm)
ZZZZZ		06/20/2020 14:09	1		Luna-phenylhex 4.6(mm)
ZZZZZ		06/20/2020 14:44	1		Luna-phenylhex 4.6(mm)
ZZZZZ		06/20/2020 15:19	1		Luna-phenylhex 4.6(mm)
ZZZZZ		06/20/2020 15:54	1		Luna-phenylhex 4.6(mm)
ZZZZZ		06/20/2020 16:29	1		Luna-phenylhex 4.6(mm)
280-137225-1		06/20/2020 17:04	1	06200014.D	Luna-phenylhex 4.6(mm)
280-137225-2		06/20/2020 17:39	1	06200015.D	Luna-phenylhex 4.6(mm)
ZZZZZ		06/20/2020 18:14	1		Luna-phenylhex 4.6(mm)
ZZZZZ		06/20/2020 18:49	1		Luna-phenylhex 4.6(mm)
ZZZZZ		06/20/2020 19:24	1		Luna-phenylhex 4.6(mm)
CCV 280-499503/19		06/20/2020 19:59	1	06200019.D	Luna-phenylhex 4.6(mm)
CCV 280-499503/20		06/20/2020 20:34	1	06200020.D	Luna-phenylhex 4.6(mm)
ZZZZZ		06/20/2020 21:09	1		Luna-phenylhex 4.6(mm)
280-137225-3		06/20/2020 21:44	1	06200022.D	Luna-phenylhex 4.6(mm)
280-137225-4		06/20/2020 22:19	1	06200023.D	Luna-phenylhex 4.6(mm)
ZZZZZ		06/20/2020 22:54	1		Luna-phenylhex 4.6(mm)
ZZZZZ		06/20/2020 23:29	1		Luna-phenylhex 4.6(mm)
CCV 280-499503/26		06/21/2020 00:04	1	06200026.D	Luna-phenylhex 4.6(mm)
CCV 280-499503/27		06/21/2020 00:39	1	06200027.D	Luna-phenylhex 4.6(mm)

8330A

HPLC/IC BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Batch Number: 497449 Batch Start Date: 06/04/20 17:15 Batch Analyst: Appenzeller, Kayla S

Batch Method: 3535 Batch End Date: 06/04/20 19:24

Lab Sample ID	Client Sample ID	Method Chain	Basis	GrossWeight	TareWeight	InitialAmount	FinalAmount	8330 LCS 00099	8330_OP_DMT 00008
MB 280-497449/1		3535, 8330A				500 mL	5 mL		
LCS 280-497449/2		3535, 8330A				500 mL	5 mL	0.1 mL	
LCS 280-497449/3		3535, 8330A				500 mL	5 mL		0.1 mL
280-137225-A-1	G0076-20A	3535, 8330A	T	715.3 g	256.8 g	458.5 mL	5 mL		
280-137225-A-2	G0070-20A	3535, 8330A	T	709.4 g	256.6 g	452.8 mL	5 mL		
280-137225-A-2 MS	G0070-20A	3535, 8330A	T	731.0 g	256.0 g	475 mL	5 mL	0.1 mL	
280-137225-A-2 MSD	G0070-20A	3535, 8330A	T	727.6 g	255.6 g	472 mL	5 mL	0.1 mL	
280-137225-B-2 MS	G0070-20A	3535, 8330A	T	699.2 g	254.3 g	444.9 mL	5 mL		0.1 mL
280-137225-B-2 MSD	G0070-20A	3535, 8330A	T	728.4 g	256.7 g	471.7 mL	5 mL		0.1 mL
280-137225-A-3	G0081-20A	3535, 8330A	T	729.2 g	255.5 g	473.7 mL	5 mL		
280-137225-A-4	G0082-20A	3535, 8330A	T	690.5 g	256.1 g	434.4 mL	5 mL		

Lab Sample ID	Client Sample ID	Method Chain	Basis	8330Surrogate 00116					
MB 280-497449/1		3535, 8330A		0.1 mL					
LCS 280-497449/2		3535, 8330A		0.1 mL					
LCS 280-497449/3		3535, 8330A		0.1 mL					
280-137225-A-1	G0076-20A	3535, 8330A	T	0.1 mL					
280-137225-A-2	G0070-20A	3535, 8330A	T	0.1 mL					
280-137225-A-2 MS	G0070-20A	3535, 8330A	T	0.1 mL					
280-137225-A-2 MSD	G0070-20A	3535, 8330A	T	0.1 mL					
280-137225-B-2 MS	G0070-20A	3535, 8330A	T	0.1 mL					
280-137225-B-2 MSD	G0070-20A	3535, 8330A	T	0.1 mL					
280-137225-A-3	G0081-20A	3535, 8330A	T	0.1 mL					
280-137225-A-4	G0082-20A	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 TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Batch Number: 497449 Batch Start Date: 06/04/20 17:15 Batch Analyst: Appenzeller, Kayla S

Batch Method: 3535 Batch End Date: 06/04/20 19:24

Batch Notes	
Acid ID	CaCl2_Sol_00070
Acid Name	CaCl2
Balance ID	24350888
Batch Comment	DV-OP-0017 Mantel:A
First End time	06/04/2020 19:01
Pipette/Syringe/Dispenser ID	Jiji, DOD, Soot
Rinse Solvent Lot	0.1%AAinACN_00138
Rinse Solvent Name	0.1%AAinACN
Solvent Lot #	ACN_00234
Solvent Name	Acetonitrile
SPE Cartridge Lot ID	005130024A
SPE Cartridge Type	Porapak RDX
Analyst ID - Spike Analyst	KA
Analyst ID - Spike Witness Analyst	Reviewer:DMB
First Start time	06/04/2020 17:24

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 TestAmerica, Denver Job Number: 280-137225-1

SDG No.:

Project: Cornhusker (CHAAP)

Client Sample ID	Lab Sample ID
G0076-20A	280-137225-1
G0070-20A	280-137225-2
G0081-20A	280-137225-3
G0082-20A	280-137225-4

Comments:

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: G0076-20A
Lab Sample ID: 280-137225-1
Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-137225-1
SDG ID.:
Matrix: Water
Date Sampled: 06/01/2020 13:45
Reporting Basis: WET
Date Received: 06/03/2020 09:10

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Ammonia	1.4	0.10	0.050	0.022	mg/L			1	350.1
Nitrogen, Total Kjeldahl	1.3	1.0	1.0	0.69	mg/L			1	351.2
Nitrate Nitrite as N	0.050	0.10	0.050	0.019	mg/L	U		1	353.2
Sulfide	1.9	4.0	1.9	0.79	mg/L	U		1	9034
Sulfate	310	25	15	5.2	mg/L		D	5	9056A
Total Alkalinity as CaCO3	320	10	10	3.1	mg/L			1	SM 2320B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY - DISSOLVED

Client Sample ID: G0076-20A
Lab Sample ID: 280-137225-1
Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-137225-1
SDG ID.:
Matrix: Water
Date Sampled: 06/01/2020 13:45
Reporting Basis: WET
Date Received: 06/03/2020 09:10

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Dissolved Organic Carbon - Quad	3.3	1.0	1.0	0.35	mg/L			1	9060A

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: G0070-20A
Lab Sample ID: 280-137225-2
Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-137225-1
SDG ID.:
Matrix: Water
Date Sampled: 06/02/2020 08:25
Reporting Basis: WET
Date Received: 06/03/2020 09:10

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Ammonia	0.039	0.10	0.050	0.022	mg/L	J		1	350.1
Nitrogen, Total Kjeldahl	1.0	1.0	1.0	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	1.9	4.0	1.9	0.79	mg/L	U		1	9034
Sulfate	39	5.0	3.0	1.0	mg/L			1	9056A
Total Alkalinity as CaCO3	200	10	10	3.1	mg/L			1	SM 2320B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY - DISSOLVED

Client Sample ID: G0070-20A
Lab Sample ID: 280-137225-2
Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-137225-1
SDG ID.:
Matrix: Water
Date Sampled: 06/02/2020 08:25
Reporting Basis: WET
Date Received: 06/03/2020 09:10

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Dissolved Organic Carbon - Quad	1.0	1.0	1.0	0.35	mg/L			1	9060A

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: G0081-20A
Lab Sample ID: 280-137225-3
Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-137225-1
SDG ID.:
Matrix: Water
Date Sampled: 06/02/2020 09:45
Reporting Basis: WET
Date Received: 06/03/2020 09:10

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Ammonia	0.31	0.10	0.050	0.022	mg/L			1	350.1
Nitrogen, Total Kjeldahl	1.1	1.0	1.0	0.69	mg/L			1	351.2
Nitrate Nitrite as N	0.050	0.10	0.050	0.019	mg/L	U		1	353.2
Sulfide	1.9	4.0	1.9	0.79	mg/L	U		1	9034
Sulfate	190	5.0	3.0	1.0	mg/L			1	9056A
Total Alkalinity as CaCO3	280	10	10	3.1	mg/L			1	SM 2320B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY - DISSOLVED

Client Sample ID: G0081-20A
Lab Sample ID: 280-137225-3
Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-137225-1
SDG ID.:
Matrix: Water
Date Sampled: 06/02/2020 09:45
Reporting Basis: WET
Date Received: 06/03/2020 09:10

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Dissolved Organic Carbon - Quad	6.6	1.0	1.0	0.35	mg/L			1	9060A

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: G0082-20A
Lab Sample ID: 280-137225-4
Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-137225-1
SDG ID.:
Matrix: Water
Date Sampled: 06/02/2020 10:55
Reporting Basis: WET
Date Received: 06/03/2020 09:10

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Ammonia	0.11	0.10	0.050	0.022	mg/L			1	350.1
Nitrogen, Total Kjeldahl	1.0	1.0	1.0	0.69	mg/L	U		1	351.2
Nitrate Nitrite as N	0.46	0.10	0.050	0.019	mg/L			1	353.2
Sulfide	1.9	4.0	1.9	0.79	mg/L	U		1	9034
Sulfate	130	5.0	3.0	1.0	mg/L			1	9056A
Total Alkalinity as CaCO3	260	10	10	3.1	mg/L			1	SM 2320B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY - DISSOLVED

Client Sample ID: G0082-20A
Lab Sample ID: 280-137225-4
Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-137225-1
SDG ID.:
Matrix: Water
Date Sampled: 06/02/2020 10:55
Reporting Basis: WET
Date Received: 06/03/2020 09:10

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Dissolved Organic Carbon - Quad	4.0	1.0	1.0	0.35	mg/L			1	9060A

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Analyst: BWH Batch Start Date: 06/04/2020

Reporting Units: mg/L Analytical Batch No.: 497478

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
14	ICVL	13:12	Ammonia	0.501	0.501	100	90-110		350.1 ICV_00406
15	ICV	13:14	Ammonia	2.64	2.51	105	90-110		350.1 ICV_00406
16	ICB	13:16	Ammonia	0.050				U	
32	CCVL	13:48	Ammonia	0.480	0.500	96	90-110		350.1 cal_00418
33	CCV	13:50	Ammonia	2.75	2.50	110	90-110		350.1 cal_00418
34	CCB	13:52	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 TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Analyst: SVC Batch Start Date: 06/10/2020

Reporting Units: mg/L Analytical Batch No.: 498270

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
13	ICV	17:36	Nitrogen, Total Kjeldahl	5.29	5.00	106	90-110		TKN ICV 25_00093
14	ICB	17:37	Nitrogen, Total Kjeldahl	1.0				U	
31	CCV	17:58	Nitrogen, Total Kjeldahl	4.83	5.00	97	90-110		TKN 25ppm_00808
32	CCB	18:00	Nitrogen, Total Kjeldahl	1.0				U	
49	CCV	18:21	Nitrogen, Total Kjeldahl	5.38	5.00	108	90-110		TKN 25ppm_00808
50	CCB	18:22	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 TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Analyst: SVC Batch Start Date: 06/09/2020

Reporting Units: mg/L Analytical Batch No.: 498113

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
17	ICV	16:53	Nitrate Nitrite as N	4.79	5.00	96	90-110		NXN ICV INT_00515
18	ICVL	16:55	Nitrate Nitrite as N	2.05	2.00	103	90-110		NXN ICV INT_00515
19	ICB	16:57	Nitrate Nitrite as N	0.050				U	
35	CCV	17:29	Nitrate Nitrite as N	5.07	5.00	101	90-110		NXN CAL INT_00534
36	CCVL	17:31	Nitrate Nitrite as N	1.02	1.00	102	90-110		NXN CAL INT_00534
37	CCB	17:33	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 TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Analyst: JAP Batch Start Date: 06/03/2020

Reporting Units: mg/L Analytical Batch No.: 497179

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	ICV	09:53	Sulfate	81.7	80.0	102	90-110		IC SO4 ICV_00021
2	ICB	10:10	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 TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Analyst: JAP Batch Start Date: 06/03/2020

Reporting Units: mg/L Analytical Batch No.: 497185

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
8	ICV	11:46	Sulfate	80.6	80.0	101	90-110		IC SO4 ICV_00021
9	ICB	12:03	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 TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Analyst: JAP Batch Start Date: 06/15/2020

Reporting Units: mg/L Analytical Batch No.: 498729

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	CCV	10:20	Sulfate	99.0	100	99	90-110		IC LCS_01745
2	CCB	10:36	Sulfate	2.5				U	
17	CCV	15:10	Sulfate	98.6	100	99	90-110		IC LCS_01745
18	CCB	15:26	Sulfate	2.5				U	
22	CCV	16:32	Sulfate	99.6	100	100	90-110		IC LCS_01745
23	CCB	16:48	Sulfate	2.5				U	
34	CCV	19:49	Sulfate	100	100	100	90-110		IC LCS_01745
35	CCB	20:06	Sulfate	2.5				U	
46	CCV	23:06	Sulfate	100	100	100	90-110		IC LCS_01745
47	CCB	23:23	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 TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Analyst: JAP Batch Start Date: 06/16/2020

Reporting Units: mg/L Analytical Batch No.: 498916

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	CCV	10:20	Sulfate	98.0	100	98	90-110		IC LCS_01745
2	CCB	10:36	Sulfate	2.5				U	
17	CCV	19:30	Sulfate	99.8	100	100	90-110		IC LCS_01745
18	CCB	19:47	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 TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Analyst: JMB Batch Start Date: 06/15/2020

Reporting Units: mg/L Analytical Batch No.: 498927

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	ICV	15:28	Dissolved Organic Carbon - Quad	19.3	20.0	97	90-110		TOC ICV Std_00043
2	ICB	15:44	Dissolved Organic Carbon - Quad	1.0				U	
51	CCV	05:06	Dissolved Organic Carbon - Quad	25.9	25.0	103	90-110		TOC LCS Std_00048
52	CCB	05:21	Dissolved Organic Carbon - Quad	1.0				U	
63	CCV	08:22	Dissolved Organic Carbon - Quad	26.0	25.0	104	90-110		TOC LCS Std_00048
64	CCB	08:42	Dissolved Organic Carbon - Quad	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 TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Analyst: SPG Batch Start Date: 06/05/2020

Reporting Units: mg/L Analytical Batch No.: 497742

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
28	CCV	13:18	Total Alkalinity as CaCO3	192	200	96	90-110		Alk daily lcs 00905
29	CCB	13:23	Total Alkalinity as CaCO3	10				U	
42	CCV	14:44	Total Alkalinity as CaCO3	192	200	96	90-110		Alk daily lcs 00905
43	CCB	14:50	Total Alkalinity as CaCO3	10				U	
54	CCV	15:55	Total Alkalinity as CaCO3	192	200	96	90-110		Alk daily lcs 00905
55	CCB	16:00	Total Alkalinity as CaCO3	10				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 TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Analyst: SPG Batch Start Date: 06/08/2020

Reporting Units: mg/L Analytical Batch No.: 497942

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
16	CCV	14:37	Total Alkalinity as CaCO3	190	200	95	90-110		Alk daily lcs 00906
17	CCB	14:43	Total Alkalinity as CaCO3	10				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 TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Method	Lab Sample ID	Analyte	Result	Qual	Units	LOQ	Dil
Batch ID: 497478 Date: 06/04/2020 13:22							
350.1	MB 280-497478/19	Ammonia	0.050	U	mg/L	0.10	1
Batch ID: 498270 Date: 06/10/2020 17:40 Prep Batch: 497896 Date: 06/08/2020 17:42							
351.2	MB 280-497896/2-A	Nitrogen, Total Kjeldahl	1.0	U	mg/L	1.0	1
Batch ID: 498113 Date: 06/09/2020 17:03							
353.2	MB 280-498113/22	Nitrate Nitrite as N	0.050	U	mg/L	0.10	1
Batch ID: 497568 Date: 06/05/2020 09:56 Prep Batch: 497566 Date: 06/05/2020 09:54							
9034	MB 280-497566/2-A	Sulfide	1.9	U	mg/L	4.0	1
Batch ID: 498013 Date: 06/09/2020 11:38 Prep Batch: 498010 Date: 06/09/2020 11:35							
9034	MB 280-498010/2-A	Sulfide	1.9	U	mg/L	4.0	1
Batch ID: 498729 Date: 06/15/2020 11:42							
9056A	MB 280-498729/6	Sulfate	3.0	U	mg/L	5.0	1
Batch ID: 498916 Date: 06/16/2020 11:41							
9056A	MB 280-498916/6	Sulfate	3.0	U	mg/L	5.0	1
Batch ID: 498927 Date: 06/16/2020 05:55							
9060A	MB 280-498750/3-A	Dissolved Organic Carbon - Quad	1.0	U	mg/L	1.0	1
Batch ID: 497742 Date: 06/05/2020 13:35							
SM 2320B	MB 280-497742/31	Total Alkalinity as CaCO3	10	U	mg/L	10	1
Batch ID: 497942 Date: 06/08/2020 13:30							
SM 2320B	MB 280-497942/5	Total Alkalinity as CaCO3	10	U	mg/L	10	1

FORM III-IN

5-IN
MATRIX SPIKE SAMPLE RECOVERY
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 497478	Date: 06/04/2020 13:26										
350.1	280-137225-2	Ammonia	0.039	J	mg/L						
350.1	280-137225-2 MS	Ammonia	1.12		mg/L	1.00	108	90-110			
Batch ID: 498270	Date: 06/10/2020 18:07	Prep Batch: 497896	Date: 06/08/2020 17:42								
351.2	280-137225-2	Nitrogen, Total Kjeldahl	1.0	U	mg/L						
351.2	280-137225-2 MS	Nitrogen, Total Kjeldahl	2.93		mg/L	3.00	98	90-110			
Batch ID: 498013	Date: 06/09/2020 11:38	Prep Batch: 498010	Date: 06/09/2020 11:35								
9034	280-137225-2	Sulfide	1.9	U	mg/L						
9034	280-137225-2 MS	Sulfide	20.8		mg/L	22.3	93	44-110			
Batch ID: 498729	Date: 06/15/2020 21:28										
9056A	280-137225-2	Sulfate	39		mg/L						
9056A	280-137225-2 MS	Sulfate	90.7		mg/L	50.0	103	87-112			
Batch ID: 498927	Date: 06/16/2020 06:47										
9060A	280-137225-2	Dissolved Organic Carbon - Quad	1.0		mg/L						
9060A	280-137225-2 MS	Dissolved Organic Carbon - Quad	26.8		mg/L	25.0	103	88-112			

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 TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 497478	Date: 06/04/2020 13:28										
350.1	280-137225-2 MSD	Ammonia	1.07		mg/L	1.00	103	90-110	4	10	
Batch ID: 498270	Date: 06/10/2020 18:08	Prep Batch: 497896	Date: 06/08/2020 17:42								
351.2	280-137225-2 MSD	Nitrogen, Total Kjeldahl	2.81		mg/L	3.00	94	90-110	4	25	
Batch ID: 498013	Date: 06/09/2020 11:38	Prep Batch: 498010	Date: 06/09/2020 11:35								
9034	280-137225-2 MSD	Sulfide	18.4		mg/L	22.3	82	44-110	12	20	
Batch ID: 498729	Date: 06/15/2020 21:44										
9056A	280-137225-2 MSD	Sulfate	89.2		mg/L	50.0	100	87-112	2	10	
Batch ID: 498927	Date: 06/16/2020 07:02										
9060A	280-137225-2 MSD	Dissolved Organic Carbon - Quad	26.6		mg/L	25.0	102	88-112	1	15	

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

FORM V-IN

6-IN
DUPLICATE
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Matrix: Water

Method	Client Sample ID	Lab Sample ID	Analyte	Result	Unit	RPD	RPD Limit	Qual
Batch ID: 498729 Date: 06/15/2020 21:11								
9056A	G0070-20A	280-137225-2	Sulfate	39	mg/L			
9056A	G0070-20A	280-137225-2 DU	Sulfate	39.3	mg/L	0.5	10	
Batch ID: 497942 Date: 06/08/2020 13:42								
SM 2320B	G0076-20A	280-137225-1	Total Alkalinity as CaCO3	320	mg/L			
SM 2320B	G0076-20A	280-137225-1 DU	Total Alkalinity as CaCO3	322	mg/L	0.07	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 TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 497478	Date: 06/04/2020 13:20										
						LCS Source: 350.1 cal_00418					
350.1	LCS 280-497478/18	Ammonia	2.66		mg/L	2.50	106	90-110			
Batch ID: 498270	Date: 06/10/2020 17:38	Prep Batch: 497896	Date: 06/08/2020 17:42								
						LCS Source: TKN 25ppm_00808					
351.2	LCS 280-497896/1-A	Nitrogen, Total Kjeldahl	5.80		mg/L	6.00	97	90-110			
Batch ID: 498113	Date: 06/09/2020 17:01										
						LCS Source: NXN CAL INT_00534					
353.2	LCS 280-498113/21	Nitrate Nitrite as N	5.26		mg/L	5.00	105	90-110			
Batch ID: 497568	Date: 06/05/2020 09:56	Prep Batch: 497566	Date: 06/05/2020 09:54								
						LCS Source: SFD CAL INT_01760					
9034	LCS 280-497566/1-A	Sulfide	12.0		mg/L	17.8	67	44-110			
Batch ID: 498013	Date: 06/09/2020 11:38	Prep Batch: 498010	Date: 06/09/2020 11:35								
						LCS Source: SFD CAL INT_01763					
9034	LCS 280-498010/1-A	Sulfide	20.0		mg/L	22.3	90	44-110			
Batch ID: 498729	Date: 06/15/2020 11:09										
						LCS Source: IC LCS_01745					
9056A	LCS 280-498729/4	Sulfate	98.5		mg/L	100	99	87-112	0	10	
Batch ID: 498916	Date: 06/16/2020 11:08										
						LCS Source: IC LCS_01745					
9056A	LCS 280-498916/4	Sulfate	99.5		mg/L	100	100	87-112	0	10	
Batch ID: 498927	Date: 06/16/2020 05:40										
						LCS Source: TOC LCS Std_00048					
9060A	LCS 280-498750/1-A	Dissolved Organic Carbon - Quad	26.4		mg/L	25.0	106	88-112			
Batch ID: 497742	Date: 06/05/2020 13:30										
						LCS Source: Alk daily lcs_00905					
SM 2320B	LCS 280-497742/30	Total Alkalinity as CaCO3	192		mg/L	200	96	89-109			
Batch ID: 497942	Date: 06/08/2020 13:24										
						LCS Source: Alk daily lcs_00906					
SM 2320B	LCS 280-497942/4	Total Alkalinity as CaCO3	187		mg/L	200	94	89-109			

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 TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 498729	Date: 06/15/2020 11:25										
						LCSD Source: IC LCS_01745					
9056A	LCSD 280-498729/5	Sulfate	98.4		mg/L	100	98	87-112	0	10	
Batch ID: 498916	Date: 06/16/2020 11:25										
						LCSD Source: IC LCS_01745					
9056A	LCSD 280-498916/5	Sulfate	99.5		mg/L	100	99	87-112	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 TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 498729	Date: 06/15/2020 10:52										
						LCS Source:	IC CAL cl/so4_00315				
9056A	MRL 280-498729/3	Sulfate	4.98	J	mg/L	5.00	100	50-150			
Batch ID: 498916	Date: 06/16/2020 10:52										
						LCS Source:	IC CAL cl/so4_00315				
9056A	MRL 280-498916/3	Sulfate	5.29		mg/L	5.00	106	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 TestAmerica, Denver Job Number: 280-137225-1

SDG Number:

Matrix: Water Instrument ID: WC_Alp 3

Method: 350.1 DL Date: 03/28/2011 13:26

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Ammonia		0.1	0.022

FORM IX - IN

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-137225-1

SDG Number:

Matrix: Water Instrument ID: WC_Alp 3

Method: 350.1 XMDL Date: 03/28/2011 13:26

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Ammonia		0.1	0.0225

FORM IX - IN

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-137225-1

SDG Number:

Matrix: Water Instrument ID: WC_Astoria

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

FORM IX - IN

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-137225-1

SDG Number:

Matrix: Water Instrument ID: WC_Astoria

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

FORM IX - IN

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-137225-1

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 TestAmerica, Denver Job Number: 280-137225-1

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

FORM IX - IN

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-137225-1

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

FORM IX - IN

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-137225-1

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

FORM IX - IN

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-137225-1

SDG Number:

Matrix: Water Instrument ID: WC_IonChrom7

Method: 9056A DL Date: 06/21/2019 00:00

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Sulfate		5	1.03

FORM IX - IN

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-137225-1

SDG Number:

Matrix: Water Instrument ID: WC_IonChrom7

Method: 9056A XMDL Date: 06/21/2019 00:00

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Sulfate		5	1.03

FORM IX - IN

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY - DISSOLVED

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-137225-1

SDG Number:

Matrix: Water Instrument ID: WC_SHI3

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

FORM IX - IN

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY - DISSOLVED

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-137225-1

SDG Number:

Matrix: Water Instrument ID: WC_SHI3

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

FORM IX - IN

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-137225-1

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

FORM IX - IN

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-137225-1

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

FORM IX - IN

12-IN
PREPARATION LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Prep Method: 351.2

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
LCS 280-497896/1-A	06/08/2020 17:42	497896		25	25
MB 280-497896/2-A	06/08/2020 17:42	497896		25	25
280-137225-1	06/08/2020 17:42	497896		25	25
280-137225-2	06/08/2020 17:42	497896		25	25
280-137225-2 MS	06/08/2020 17:42	497896		25	25
280-137225-2 MSD	06/08/2020 17:42	497896		25	25
280-137225-3	06/08/2020 17:42	497896		25	25
280-137225-4	06/08/2020 17:42	497896		25	25

FORM XII-IN

12-IN
PREPARATION LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Prep Method: 9030B

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
LCS 280-497566/1-A	06/05/2020 09:54	497566		50	50
MB 280-497566/2-A	06/05/2020 09:54	497566		50	50
280-137225-1	06/05/2020 09:54	497566		50	50
280-137225-3	06/05/2020 09:54	497566		50	50

FORM XII-IN

12-IN
PREPARATION LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Prep Method: 9030B

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
LCS 280-498010/1-A	06/09/2020 11:35	498010		50	50
MB 280-498010/2-A	06/09/2020 11:35	498010		50	50
280-137225-2	06/09/2020 11:35	498010		50	50
280-137225-2 MS	06/09/2020 11:35	498010		50	50
280-137225-2 MSD	06/09/2020 11:35	498010		50	50
280-137225-4	06/09/2020 11:35	498010		50	50

FORM XII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Instrument ID: WC_Alp 3 Analysis Method: 350.1

Start Date: 06/04/2020 12:46 End Date: 06/04/2020 14:34

Lab Sample Id	D/F	Type	Time	Analytes																							
				NH3																							
ZZZZZZ			12:46																								
ZZZZZZ			12:48																								
ZZZZZZ			12:50																								
IC 280-497478/4			12:52	X																							
IC 280-497478/5			12:54	X																							
IC 280-497478/6			12:56	X																							
IC 280-497478/7			12:58	X																							
IC 280-497478/8			13:00	X																							
IC 280-497478/9			13:02	X																							
IC 280-497478/10			13:04	X																							
IC 280-497478/11			13:06	X																							
ZZZZZZ			13:08																								
ZZZZZZ			13:10																								
ICVL 280-497478/14	1		13:12	X																							
ICV 280-497478/15	1		13:14	X																							
ICB 280-497478/16	1		13:16	X																							
ZZZZZZ			13:18																								
LCS 280-497478/18	1	T	13:20	X																							
MB 280-497478/19	1	T	13:22	X																							
280-137225-2	1	T	13:24	X																							
280-137225-2 MS	1	T	13:26	X																							
280-137225-2 MSD	1	T	13:28	X																							
280-137225-1	1	T	13:30	X																							
280-137225-3	1	T	13:32	X																							
280-137225-4	1	T	13:34	X																							
ZZZZZZ			13:36																								
ZZZZZZ			13:38																								
ZZZZZZ			13:40																								
ZZZZZZ			13:42																								
RINSE 280-497478/30			13:44																								
ZZZZZZ			13:46																								
CCVL 280-497478/32	1		13:48	X																							
CCV 280-497478/33	1		13:50	X																							
CCB 280-497478/34	1		13:52	X																							
ZZZZZZ			13:54																								
ZZZZZZ			13:56																								
RINSE 280-497478/37			14:09																								
ZZZZZZ			14:11																								
CCVL 280-497478/39			14:13																								
CCV 280-497478/40			14:15																								
CCB 280-497478/41			14:17																								

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Instrument ID: WC_Alp 3 Analysis Method: 350.1

Start Date: 06/04/2020 12:46 End Date: 06/04/2020 14:34

Lab Sample Id	D/F	Type	Time	Analytes																								
				NH3																								
ZZZZZZ			14:19																									
CCV 280-497478/43			14:32																									
ZZZZZZ			14:34																									

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Instrument ID: WC_Astoria Analysis Method: 351.2

Start Date: 06/10/2020 17:22 End Date: 06/10/2020 18:43

Lab Sample Id	D/F	Type	Time	Analytes																							
				TKN																							
ZZZZZZ			17:22																								
ZZZZZZ			17:22																								
ZZZZZZ			17:23																								
ZZZZZZ			17:25																								
IC 280-494603/27-A			17:26	X																							
IC 280-494603/28-A			17:27	X																							
IC 280-494603/29-A			17:28	X																							
IC 280-494603/30-A			17:30	X																							
IC 280-494603/31-A			17:31	X																							
IC 280-494603/32-A			17:32	X																							
ZZZZZZ			17:33																								
ZZZZZZ			17:35																								
ICV 280-494603/33-A	1		17:36	X																							
ICB 280-494603/34-A	1		17:37	X																							
LCS 280-497896/1-A	1	T	17:38	X																							
MB 280-497896/2-A	1	T	17:40	X																							
ZZZZZZ			17:41																								
ZZZZZZ			17:42																								
ZZZZZZ			17:43																								
ZZZZZZ			17:45																								
ZZZZZZ			17:46																								
ZZZZZZ			17:47																								
ZZZZZZ			17:48																								
ZZZZZZ			17:50																								
ZZZZZZ			17:51																								
ZZZZZZ			17:52																								
ZZZZZZ			17:53																								
ZZZZZZ			17:55																								
ZZZZZZ			17:56																								
ZZZZZZ			17:57																								
CCV 280-494603/35-A	1		17:58	X																							
CCB 280-494603/36-A	1		18:00	X																							
ZZZZZZ			18:01																								
280-137225-1	1	T	18:02	X																							
ZZZZZZ			18:03																								
ZZZZZZ			18:05																								
280-137225-2	1	T	18:06	X																							
280-137225-2 MS	1	T	18:07	X																							
280-137225-2 MSD	1	T	18:08	X																							
ZZZZZZ			18:10																								
280-137225-3	1	T	18:11	X																							

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13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Instrument ID: WC_Astoria Analysis Method: 351.2

Start Date: 06/10/2020 17:22 End Date: 06/10/2020 18:43

Lab Sample Id	D/F	Type	Time	Analytes																							
				TKN																							
280-137225-4	1	T	18:12	X																							
ZZZZZZ			18:13																								
ZZZZZZ			18:15																								
ZZZZZZ			18:16																								
ZZZZZZ			18:17																								
ZZZZZZ			18:18																								
ZZZZZZ			18:20																								
CCV 280-494603/35-A	1		18:21	X																							
CCB 280-494603/36-A	1		18:22	X																							
ZZZZZZ			18:23																								
ZZZZZZ			18:25																								
ZZZZZZ			18:26																								
ZZZZZZ			18:27																								
ZZZZZZ			18:28																								
ZZZZZZ			18:30																								
ZZZZZZ			18:31																								
ZZZZZZ			18:32																								
ZZZZZZ			18:33																								
ZZZZZZ			18:35																								
ZZZZZZ			18:36																								
ZZZZZZ			18:37																								
ZZZZZZ			18:38																								
CCV 280-494603/35-A			18:40																								
CCB 280-494603/36-A			18:41																								
ZZZZZZ			18:42																								
ZZZZZZ			18:43																								

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Instrument ID: WC_Alp 2 Analysis Method: 353.2

Start Date: 06/09/2020 16:21 End Date: 06/09/2020 19:43

Lab Sample Id	D/F	Type	Time	Analytes																							
				NNO32																							
ZZZZZZ			16:21																								
ZZZZZZ			16:23																								
ZZZZZZ			16:25																								
ZZZZZZ			16:27																								
IC 280-498113/5			16:29	X																							
IC 280-498113/6			16:31	X																							
IC 280-498113/7			16:33	X																							
IC 280-498113/8			16:35	X																							
IC 280-498113/9			16:37	X																							
IC 280-498113/10			16:39	X																							
IC 280-498113/11			16:41	X																							
IC 280-498113/12			16:43	X																							
IC 280-498113/13			16:45	X																							
ZZZZZZ			16:47																								
ZZZZZZ			16:49																								
ZZZZZZ			16:51																								
ICV 280-498113/17	1		16:53	X																							
ICVL 280-498113/18	1		16:55	X																							
ICB 280-498113/19	1		16:57	X																							
ZZZZZZ			16:59																								
LCS 280-498113/21	1	T	17:01	X																							
MB 280-498113/22	1	T	17:03	X																							
ZZZZZZ			17:05																								
ZZZZZZ			17:07																								
ZZZZZZ			17:09																								
ZZZZZZ			17:11																								
ZZZZZZ			17:13																								
ZZZZZZ			17:15																								
280-137225-1	1	T	17:17	X																							
280-137225-2	1	T	17:19	X																							
280-137225-3	1	T	17:21	X																							
280-137225-4	1	T	17:23	X																							
RINSE 280-498113/33			17:25																								
ZZZZZZ			17:27																								
CCV 280-498113/35	1		17:29	X																							
CCVL 280-498113/36	1		17:31	X																							
CCB 280-498113/37	1		17:33	X																							
ZZZZZZ			17:35																								
ZZZZZZ			17:37																								

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ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Instrument ID: WC_Alp 2 Analysis Method: 353.2

Start Date: 06/09/2020 16:21 End Date: 06/09/2020 19:43

Lab Sample Id	D/F	Type	Time	Analytes																							
				NNO32																							
ZZZZZZ			17:39																								
ZZZZZZ			17:41																								
ZZZZZZ			17:43																								
ZZZZZZ			17:45																								
ZZZZZZ			17:47																								
ZZZZZZ			17:49																								
ZZZZZZ			17:51																								
ZZZZZZ			17:53																								
ZZZZZZ			17:55																								
RINSE 280-498113/49			17:57																								
ZZZZZZ			17:59																								
CCV 280-498113/51			18:01																								
CCVL 280-498113/52			18:03																								
CCB 280-498113/53			18:05																								
ZZZZZZ			18:07																								
ZZZZZZ			18:09																								
ZZZZZZ			18:11																								
ZZZZZZ			18:13																								
ZZZZZZ			18:15																								
ZZZZZZ			18:17																								
ZZZZZZ			18:19																								
ZZZZZZ			18:21																								
ZZZZZZ			18:23																								
ZZZZZZ			18:25																								
ZZZZZZ			18:27																								
RINSE 280-498113/65			18:29																								
ZZZZZZ			18:31																								
CCV 280-498113/67			18:33																								
CCVL 280-498113/68			18:35																								
CCB 280-498113/69			18:37																								
ZZZZZZ			18:39																								
ZZZZZZ			18:41																								
ZZZZZZ			18:43																								
ZZZZZZ			18:45																								
ZZZZZZ			18:47																								
ZZZZZZ			18:49																								
ZZZZZZ			18:51																								
ZZZZZZ			18:53																								
ZZZZZZ			18:55																								

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ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Instrument ID: WC_Alp 2 Analysis Method: 353.2

Start Date: 06/09/2020 16:21 End Date: 06/09/2020 19:43

Lab Sample Id	D/F	Type	Time	Analytes																							
				NNO32																							
ZZZZZZ			18:57																								
ZZZZZZ			18:59																								
RINSE 280-498113/81			19:01																								
ZZZZZZ			19:03																								
CCV 280-498113/83			19:05																								
CCVL 280-498113/84			19:07																								
CCB 280-498113/85			19:09																								
ZZZZZZ			19:11																								
ZZZZZZ			19:13																								
ZZZZZZ			19:15																								
ZZZZZZ			19:17																								
ZZZZZZ			19:19																								
ZZZZZZ			19:21																								
ZZZZZZ			19:23																								
ZZZZZZ			19:25																								
ZZZZZZ			19:27																								
ZZZZZZ			19:29																								
ZZZZZZ			19:31																								
RINSE 280-498113/97			19:33																								
ZZZZZZ			19:35																								
CCV 280-498113/99			19:37																								
CCVL 280-498113/100			19:39																								
CCB 280-498113/101			19:41																								
ZZZZZZ			19:43																								

Prep Types:
T = Total/NA

FORM XIII-IN

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ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: 9034

Start Date: 06/05/2020 09:56 End Date: 06/05/2020 09:56

Lab Sample Id	D/F	Type	Time	Analytes																							
				S2																							
LCS 280-497566/1-A	1	T	09:56	X																							
MB 280-497566/2-A	1	T	09:56	X																							
ZZZZZZ			09:56																								
ZZZZZZ			09:56																								
ZZZZZZ			09:56																								
ZZZZZZ			09:56																								
ZZZZZZ			09:56																								
ZZZZZZ			09:56																								
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ZZZZZZ			09:56																								
ZZZZZZ			09:56																								
ZZZZZZ			09:56																								
ZZZZZZ			09:56																								
ZZZZZZ			09:56																								
280-137225-1	1	T	09:56	X																							
280-137225-3	1	T	09:56	X																							

Prep Types:
T = Total/NA

FORM XIII-IN

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ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: 9034

Start Date: 06/09/2020 11:38 End Date: 06/09/2020 11:38

Lab Sample Id	D/F	Type	Time	Analytes																							
				S2																							
LCS 280-498010/1-A	1	T	11:38	X																							
MB 280-498010/2-A	1	T	11:38	X																							
280-137225-2	1	T	11:38	X																							
280-137225-2 MS	1	T	11:38	X																							
280-137225-2 MSD	1	T	11:38	X																							
280-137225-4	1	T	11:38	X																							
ZZZZZZ			11:38																								
ZZZZZZ			11:38																								
ZZZZZZ			11:38																								
ZZZZZZ			11:38																								
ZZZZZZ			11:38																								
ZZZZZZ			11:38																								
ZZZZZZ			11:38																								

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Instrument ID: WC_IonChrom10 Analysis Method: 9056A

Start Date: 06/03/2020 09:53 End Date: 06/05/2020 08:36

Lab Sample Id	D/F	Type	Time	Analytes																							
				SO4																							
ICV 280-497179/1	1		09:53	X																							
ICB 280-497179/2	1		10:10	X																							
ZZZZZZ			10:28																								
ZZZZZZ			10:45																								
ZZZZZZ			11:02																								
ZZZZZZ			11:20																								
ZZZZZZ			12:48																								
ZZZZZZ			13:05																								
ZZZZZZ			13:23																								
ZZZZZZ			13:40																								
ZZZZZZ			13:58																								
ZZZZZZ			14:15																								
ZZZZZZ			15:25																								
CCV 280-497179/17			15:42																								
CCB 280-497179/18			16:00																								
ZZZZZZ			11:02																								
ZZZZZZ			11:20																								
ZZZZZZ			11:37																								
ZZZZZZ			11:55																								
ZZZZZZ			12:12																								
ZZZZZZ			12:29																								
ZZZZZZ			12:47																								
ZZZZZZ			13:04																								
ZZZZZZ			13:22																								
CCV 280-497179/28			13:39																								
CCB 280-497179/29			13:57																								
ZZZZZZ			14:14																								
ZZZZZZ			14:32																								
ZZZZZZ			14:49																								
ZZZZZZ			15:07																								
ZZZZZZ			15:24																								
ZZZZZZ			15:42																								
ZZZZZZ			15:59																								
ZZZZZZ			16:17																								
ZZZZZZ			16:34																								
ZZZZZZ			16:52																								
CCV 280-497179/40			17:09																								
CCB 280-497179/41			17:27																								
ZZZZZZ			17:44																								
ZZZZZZ			18:02																								
ZZZZZZ			18:19																								

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13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Instrument ID: WC_IonChrom10 Analysis Method: 9056A

Start Date: 06/03/2020 09:53 End Date: 06/05/2020 08:36

Lab Sample Id	D/F	Type	Time	Analytes																							
				SO4																							
ZZZZZZ			18:37																								
ZZZZZZ			18:54																								
ZZZZZZ			19:12																								
ZZZZZZ			19:30																								
ZZZZZZ			19:47																								
ZZZZZZ			20:05																								
ZZZZZZ			20:22																								
CCV 280-497179/52			20:40																								
CCB 280-497179/53			20:57																								
ZZZZZZ			21:15																								
ZZZZZZ			21:32																								
ZZZZZZ			21:50																								
ZZZZZZ			22:07																								
CCV 280-497179/58			22:24																								
CCB 280-497179/59			22:42																								
ZZZZZZ			22:59																								
ZZZZZZ			23:17																								
ZZZZZZ			23:34																								
ZZZZZZ			23:52																								
ZZZZZZ			00:09																								
ZZZZZZ			00:27																								
ZZZZZZ			00:44																								
ZZZZZZ			01:01																								
ZZZZZZ			01:19																								
ZZZZZZ			01:36																								
CCV 280-497179/70			01:54																								
CCB 280-497179/71			02:11																								
ZZZZZZ			02:29																								
ZZZZZZ			02:46																								
ZZZZZZ			03:04																								
ZZZZZZ			03:21																								
ZZZZZZ			03:39																								
ZZZZZZ			03:56																								
ZZZZZZ			04:13																								
ZZZZZZ			04:31																								
ZZZZZZ			04:48																								
ZZZZZZ			05:06																								
CCV 280-497179/82			05:24																								
CCB 280-497179/83			05:41																								
ZZZZZZ			05:59																								
ZZZZZZ			06:16																								

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13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Instrument ID: WC_IonChrom10 Analysis Method: 9056A

Start Date: 06/03/2020 09:53 End Date: 06/05/2020 08:36

Lab Sample Id	D/F	Type	Time	Analytes																							
				SO4																							
ZZZZZZ			06:34																								
ZZZZZZ			06:51																								
ZZZZZZ			07:09																								
ZZZZZZ			07:26																								
ZZZZZZ			07:44																								
ZZZZZZ			08:01																								
CCV 280-497179/92			08:19																								
CCB 280-497179/93			08:36																								

Prep Types:
=

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Instrument ID: WC_IonChrom7 Analysis Method: 9056A

Start Date: 06/03/2020 10:08 End Date: 06/03/2020 23:11

Lab Sample Id	D/F	Type	Time	Analytes																							
				SO4																							
STD 280-497185/2 IC	1		10:08	X																							
STD 280-497185/3 IC	1		10:24	X																							
STD 280-497185/4 IC	1		10:41	X																							
STD 280-497185/5 IC	1		10:57	X																							
STD 280-497185/6 IC	1		11:13	X																							
STD 280-497185/7 IC	1		11:30	X																							
ICV 280-497185/8	1		11:46	X																							
ICB 280-497185/9	1		12:03	X																							
ZZZZZZ			12:19																								
ZZZZZZ			12:36																								
ZZZZZZ			12:52																								
ZZZZZZ			13:08																								
ZZZZZZ			13:27																								
ZZZZZZ			13:43																								
ZZZZZZ			13:59																								
ZZZZZZ			14:16																								
ZZZZZZ			14:32																								
ZZZZZZ			14:49																								
ZZZZZZ			15:48																								
ZZZZZZ			16:04																								
ZZZZZZ			16:21																								
ZZZZZZ			16:37																								
CCV 280-497185/24			16:54																								
CCB 280-497185/25			17:10																								
ZZZZZZ			17:26																								
ZZZZZZ			17:43																								
ZZZZZZ			17:59																								
ZZZZZZ			18:16																								
ZZZZZZ			18:32																								
ZZZZZZ			18:48																								
ZZZZZZ			19:05																								
ZZZZZZ			19:21																								
ZZZZZZ			19:38																								
ZZZZZZ			19:54																								
CCV 280-497185/36			20:11																								
CCB 280-497185/37			20:27																								
ZZZZZZ			20:43																								
ZZZZZZ			21:00																								
ZZZZZZ			21:16																								
ZZZZZZ			21:33																								
ZZZZZZ			21:49																								

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Instrument ID: WC_IonChrom7 Analysis Method: 9056A

Start Date: 06/03/2020 10:08 End Date: 06/03/2020 23:11

Lab Sample Id	D/F	Type	Time	Analytes																							
				SO4																							
ZZZZZZ			22:06																								
ZZZZZZ			22:22																								
ZZZZZZ			22:38																								
CCV 280-497185/46			22:55																								
CCB 280-497185/47			23:11																								

Prep Types:
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FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Instrument ID: WC_IonChrom7 Analysis Method: 9056A

Start Date: 06/15/2020 10:20 End Date: 06/16/2020 01:01

Lab Sample Id	D/F	Type	Time	Analytes																							
				SO4																							
CCV 280-498729/1	1		10:20	X																							
CCB 280-498729/2	1		10:36	X																							
MRL 280-498729/3	1	T	10:52	X																							
LCS 280-498729/4	1	T	11:09	X																							
LCSD 280-498729/5	1	T	11:25	X																							
MB 280-498729/6	1	T	11:42	X																							
ZZZZZZ			12:25																								
ZZZZZZ			12:41																								
ZZZZZZ			12:58																								
ZZZZZZ			13:15																								
ZZZZZZ			13:31																								
ZZZZZZ			13:48																								
ZZZZZZ			14:04																								
ZZZZZZ			14:20																								
ZZZZZZ			14:37																								
ZZZZZZ			14:53																								
CCV 280-498729/17	1		15:10	X																							
CCB 280-498729/18	1		15:26	X																							
ZZZZZZ			15:43																								
ZZZZZZ			15:59																								
ZZZZZZ			16:15																								
CCV 280-498729/22	1		16:32	X																							
CCB 280-498729/23	1		16:48	X																							
ZZZZZZ			17:05																								
ZZZZZZ			17:21																								
ZZZZZZ			17:38																								
ZZZZZZ			17:54																								
ZZZZZZ			18:10																								
ZZZZZZ			18:27																								
ZZZZZZ			18:44																								
ZZZZZZ			19:00																								
ZZZZZZ			19:16																								
280-137225-3	1	T	19:33	X																							
CCV 280-498729/34	1		19:49	X																							
CCB 280-498729/35	1		20:06	X																							
ZZZZZZ			20:22																								
ZZZZZZ			20:38																								
280-137225-2	1	T	20:55	X																							
280-137225-2 DU	1	T	21:11	X																							
280-137225-2 MS	1	T	21:28	X																							
280-137225-2 MSD	1	T	21:44	X																							

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Instrument ID: WC_IonChrom7 Analysis Method: 9056A

Start Date: 06/15/2020 10:20 End Date: 06/16/2020 01:01

Lab Sample Id	D/F	Type	Time	Analytes																							
				SO4																							
ZZZZZZ			22:01																								
280-137225-4	1	T	22:17	X																							
ZZZZZZ			22:33																								
ZZZZZZ			22:50																								
CCV 280-498729/46	1		23:06	X																							
CCB 280-498729/47	1		23:23	X																							
ZZZZZZ			23:39																								
ZZZZZZ			23:56																								
ZZZZZZ			00:12																								
ZZZZZZ			00:28																								
CCV 280-498729/52			00:45																								
CCB 280-498729/53			01:01																								

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Instrument ID: WC_IonChrom7 Analysis Method: 9056A

Start Date: 06/16/2020 10:20 End Date: 06/17/2020 02:22

Lab Sample Id	D/F	Type	Time	Analytes																							
				SO4																							
CCV 280-498916/1	1		10:20	X																							
CCB 280-498916/2	1		10:36	X																							
MRL 280-498916/3	1	T	10:52	X																							
LCS 280-498916/4	1	T	11:08	X																							
LCSD 280-498916/5	1	T	11:25	X																							
MB 280-498916/6	1	T	11:41	X																							
ZZZZZZ			16:47																								
280-137225-1	5	T	17:02	X																							
ZZZZZZ			17:19																								
ZZZZZZ			17:35																								
ZZZZZZ			17:52																								
ZZZZZZ			18:08																								
ZZZZZZ			18:25																								
ZZZZZZ			18:41																								
ZZZZZZ			18:57																								
ZZZZZZ			19:14																								
CCV 280-498916/17	1		19:30	X																							
CCB 280-498916/18	1		19:47	X																							
ZZZZZZ			20:03																								
ZZZZZZ			20:20																								
ZZZZZZ			20:36																								
ZZZZZZ			20:52																								
ZZZZZZ			21:09																								
ZZZZZZ			21:25																								
ZZZZZZ			21:42																								
ZZZZZZ			21:58																								
ZZZZZZ			22:15																								
ZZZZZZ			22:31																								
CCV 280-498916/29			22:47																								
CCB 280-498916/30			23:04																								
ZZZZZZ			23:20																								
ZZZZZZ			23:37																								
ZZZZZZ			23:53																								
ZZZZZZ			00:09																								
ZZZZZZ			00:26																								
ZZZZZZ			00:42																								
ZZZZZZ			01:00																								
ZZZZZZ			01:16																								
ZZZZZZ			01:32																								
ZZZZZZ			01:49																								
CCV 280-498916/41			02:05																								

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Instrument ID: WC_IonChrom7 Analysis Method: 9056A

Start Date: 06/16/2020 10:20 End Date: 06/17/2020 02:22

Lab Sample Id	D/F	Type	Time	Analytes																								
				SO4																								
CCB 280-498916/42			02:22																									

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Instrument ID: WC_SHI3 Analysis Method: 9060A

Start Date: 06/15/2020 15:28 End Date: 06/16/2020 10:27

Lab Sample Id	D/F	Type	Time	Analytes																							
				DOCQ																							
ICV 280-498927/1	1		15:28	X																							
ICB 280-498927/2	1		15:44	X																							
ZZZZZZ			15:59																								
ZZZZZZ			16:14																								
ZZZZZZ			16:31																								
ZZZZZZ			16:45																								
ZZZZZZ			17:05																								
ZZZZZZ			17:19																								
ZZZZZZ			17:42																								
ZZZZZZ			17:57																								
ZZZZZZ			18:11																								
ZZZZZZ			18:28																								
ZZZZZZ			18:47																								
ZZZZZZ			19:02																								
CCV 280-498927/15			19:25																								
CCB 280-498927/16			19:39																								
ZZZZZZ			20:00																								
ZZZZZZ			20:17																								
ZZZZZZ			20:31																								
ZZZZZZ			20:46																								
ZZZZZZ			21:03																								
ZZZZZZ			21:22																								
ZZZZZZ			21:37																								
ZZZZZZ			21:51																								
ZZZZZZ			22:06																								
ZZZZZZ			22:21																								
CCV 280-498927/27			22:35																								
CCB 280-498927/28			22:50																								
ZZZZZZ			23:05																								
ZZZZZZ			23:20																								
ZZZZZZ			23:34																								
ZZZZZZ			23:49																								
ZZZZZZ			00:10																								
ZZZZZZ			00:25																								
ZZZZZZ			00:40																								
ZZZZZZ			00:54																								
ZZZZZZ			01:13																								
ZZZZZZ			01:32																								
CCV 280-498927/39			01:51																								
CCB 280-498927/40			02:06																								

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Instrument ID: WC_SHI3 Analysis Method: 9060A

Start Date: 06/15/2020 15:28 End Date: 06/16/2020 10:27

Lab Sample Id	D/F	Type	Time	Analytes																							
				DOCQ																							
ZZZZZZ			02:20																								
ZZZZZZ			02:39																								
ZZZZZZ			02:58																								
ZZZZZZ			03:13																								
ZZZZZZ			03:28																								
ZZZZZZ			03:42																								
ZZZZZZ			03:57																								
ZZZZZZ			04:14																								
ZZZZZZ			04:33																								
ZZZZZZ			04:51																								
CCV 280-498927/51	1		05:06	X																							
CCB 280-498927/52	1		05:21	X																							
LCS 280-498750/1-A	1	D	05:40	X																							
MB 280-498750/3-A	1	D	05:55	X																							
ZZZZZZ			06:12																								
280-137225-2	1	D	06:26	X																							
280-137225-2 MS	1	D	06:47	X																							
280-137225-2 MSD	1	D	07:02	X																							
280-137225-1	1	D	07:19	X																							
280-137225-3	1	D	07:38	X																							
280-137225-4	1	D	07:53	X																							
ZZZZZZ			08:08																								
CCV 280-498927/63	1		08:22	X																							
CCB 280-498927/64	1		08:42	X																							
ZZZZZZ			08:56																								
ZZZZZZ			09:11																								
ZZZZZZ			09:26																								
ZZZZZZ			09:41																								
ZZZZZZ			09:56																								
CCV 280-498927/70			10:10																								
CCB 280-498927/71			10:27																								

Prep Types:
D = Dissolved

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Instrument ID: WC_AT4 Analysis Method: SM 2320B

Start Date: 06/05/2020 10:29 End Date: 06/05/2020 16:42

Lab Sample Id	D/F	Type	Time	Analytes																							
				Alk																							
RINSE 280-497742/1			10:29																								
ZZZZZZ			10:35																								
ZZZZZZ			10:38																								
ZZZZZZ			10:45																								
ZZZZZZ			10:50																								
ZZZZZZ			10:56																								
ZZZZZZ			11:02																								
ZZZZZZ			11:08																								
ZZZZZZ			11:14																								
ZZZZZZ			11:21																								
ZZZZZZ			11:26																								
ZZZZZZ			11:34																								
ZZZZZZ			11:40																								
ZZZZZZ			11:46																								
ZZZZZZ			11:53																								
CCV 280-497742/16			11:59																								
CCB 280-497742/17			12:04																								
ZZZZZZ			12:10																								
ZZZZZZ			12:16																								
ZZZZZZ			12:24																								
ZZZZZZ			12:31																								
ZZZZZZ			12:38																								
ZZZZZZ			12:45																								
ZZZZZZ			12:52																								
ZZZZZZ			12:59																								
ZZZZZZ			13:05																								
ZZZZZZ			13:11																								
CCV 280-497742/28	1		13:18	X																							
CCB 280-497742/29	1		13:23	X																							
LCS 280-497742/30	1	T	13:30	X																							
MB 280-497742/31	1	T	13:35	X																							
ZZZZZZ			13:42																								
ZZZZZZ			13:50																								
ZZZZZZ			13:56																								
ZZZZZZ			14:02																								
ZZZZZZ			14:08																								
ZZZZZZ			14:14																								
ZZZZZZ			14:19																								
ZZZZZZ			14:25																								
ZZZZZZ			14:32																								
280-137225-2	1	T	14:38	X																							

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Instrument ID: WC_AT4 Analysis Method: SM 2320B

Start Date: 06/05/2020 10:29 End Date: 06/05/2020 16:42

Lab Sample Id	D/F	Type	Time	Analytes																							
				Alk																							
CCV 280-497742/42	1		14:44	X																							
CCB 280-497742/43	1		14:50	X																							
280-137225-3	1	T	14:55	X																							
280-137225-4	1	T	15:01	X																							
ZZZZZZ			15:07																								
ZZZZZZ			15:13																								
ZZZZZZ			15:19																								
ZZZZZZ			15:25																								
ZZZZZZ			15:31																								
ZZZZZZ			15:37																								
ZZZZZZ			15:42																								
ZZZZZZ			15:48																								
CCV 280-497742/54	1		15:55	X																							
CCB 280-497742/55	1		16:00	X																							
ZZZZZZ			16:07																								
ZZZZZZ			16:12																								
ZZZZZZ			16:18																								
ZZZZZZ			16:24																								
ZZZZZZ			16:30																								
ZZZZZZ			16:36																								
CCV 280-497742/62			16:42																								

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Instrument ID: WC_AT4 Analysis Method: SM 2320B

Start Date: 06/08/2020 13:09 End Date: 06/08/2020 19:53

Lab Sample Id	D/F	Type	Time	Analytes																							
				Alk																							
RINSE 280-497942/1			13:09																								
ZZZZZZ			13:15																								
ZZZZZZ			13:18																								
LCS 280-497942/4	1	T	13:24	X																							
MB 280-497942/5	1	T	13:30	X																							
280-137225-1	1	T	13:36	X																							
280-137225-1 DU	1	T	13:42	X																							
ZZZZZZ			13:48																								
ZZZZZZ			13:53																								
ZZZZZZ			13:59																								
ZZZZZZ			14:05																								
ZZZZZZ			14:12																								
ZZZZZZ			14:18																								
ZZZZZZ			14:25																								
ZZZZZZ			14:31																								
CCV 280-497942/16	1		14:37	X																							
CCB 280-497942/17	1		14:43	X																							
ZZZZZZ			14:49																								
ZZZZZZ			14:54																								
ZZZZZZ			15:01																								
ZZZZZZ			15:07																								
ZZZZZZ			15:13																								
ZZZZZZ			15:18																								
ZZZZZZ			15:23																								
ZZZZZZ			15:29																								
ZZZZZZ			15:35																								
ZZZZZZ			15:42																								
CCV 280-497942/28			15:49																								
CCB 280-497942/29			15:54																								
ZZZZZZ			16:00																								
ZZZZZZ			16:06																								
ZZZZZZ			16:13																								
ZZZZZZ			16:20																								
ZZZZZZ			16:26																								
ZZZZZZ			16:32																								
ZZZZZZ			16:39																								
ZZZZZZ			16:45																								
ZZZZZZ			16:50																								
ZZZZZZ			16:56																								
ZZZZZZ			17:01																								
ZZZZZZ			17:08																								

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Instrument ID: WC_AT4 Analysis Method: SM 2320B

Start Date: 06/08/2020 13:09 End Date: 06/08/2020 19:53

Lab Sample Id	D/F	Type	Time	Analytes																							
				Alk																							
CCV 280-497942/42			17:14																								
CCB 280-497942/43			17:19																								
ZZZZZZ			17:26																								
ZZZZZZ			17:32																								
ZZZZZZ			17:38																								
ZZZZZZ			17:44																								
ZZZZZZ			17:51																								
ZZZZZZ			17:58																								
ZZZZZZ			18:04																								
ZZZZZZ			18:10																								
ZZZZZZ			18:17																								
ZZZZZZ			18:22																								
CCV 280-497942/54			18:28																								
CCB 280-497942/55			18:34																								
ZZZZZZ			18:40																								
ZZZZZZ			18:46																								
ZZZZZZ			18:52																								
ZZZZZZ			18:57																								
ZZZZZZ			19:03																								
ZZZZZZ			19:08																								
ZZZZZZ			19:15																								
ZZZZZZ			19:21																								
ZZZZZZ			19:28																								
ZZZZZZ			19:34																								
ZZZZZZ			19:41																								
CCV 280-497942/67			19:47																								
CCB 280-497942/68			19:53																								

Prep Types:
T = Total/NA

FORM XIII-IN

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Batch Number: 497478 Batch Start Date: 06/04/20 12:46 Batch Analyst: Hunter, Brandon W

Batch Method: 350.1 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	ClResPres	InitialAmount	FinalAmount	Initial pH	350.1 cal 00418	350.1 ICV 00406
ICVL 280-497478/14		350.1			100 mL	100 mL			0.5 mL
ICV 280-497478/15		350.1			100 mL	100 mL			2.5 mL
ICB 280-497478/16		350.1			10 mL	10 mL			
LCS 280-497478/18		350.1			100 mL	100 mL		2.5 mL	
MB 280-497478/19		350.1			10 mL	10 mL			
280-137225-C-2	G0070-20A	350.1	T	No	10 mL	10 mL	<2 SU		
280-137225-C-2 MS	G0070-20A	350.1	T	No	10 mL	10 mL	<2 SU	0.1 mL	
280-137225-C-2 MSD	G0070-20A	350.1	T	No	10 mL	10 mL	<2 SU	0.1 mL	
280-137225-C-1	G0076-20A	350.1	T	No	10 mL	10 mL	<2 SU		
280-137225-C-3	G0081-20A	350.1	T	No	10 mL	10 mL	<2 SU		
280-137225-C-4	G0082-20A	350.1	T	No	10 mL	10 mL	<2 SU		
CCVL 280-497478/32		350.1			100 mL	100 mL		0.5 mL	
CCV 280-497478/33		350.1			100 mL	100 mL		2.5 mL	
CCB 280-497478/34		350.1			10 mL	10 mL			

Batch Notes	
Batch Comment	BWH
Carrier Identification	350.1 complex_00482
Hypochlorite ID	350.1 bleach_01255
Sodium Nitroprusside ID	350.1 color_00202
Pipette/Syringe/Dispenser ID	BWH100, BWH1000, BWH5000

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 TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Batch Number: 494603 Batch Start Date: 05/12/20 17:15 Batch Analyst: Cherry, Scott V

Batch Method: 351.2 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	TKN 25ppm 00808	TKN ICV 25 00093		
ICV 280-494603/33		351.2, 351.2		25 mL	25 mL		5 mL		
ICB 280-494603/34		351.2, 351.2		25 mL	25 mL				
CCV 280-494603/35		351.2, 351.2		25 mL	25 mL	5 mL			
CCB 280-494603/36		351.2, 351.2		25 mL	25 mL				

Batch Notes	
Block Digestion End time	05/12/20 2330
Block Digestion Start time	05/12/20 1830
Block Digestor ID	TKN Hotblock
Digestion Solution ID	TKN digestion_00135
Oven, Bath or Block Temperature 1	185 Degrees C
Oven, Bath or Block Temperature 2	380 Degrees C

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 TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Batch Number: 497896 Batch Start Date: 06/08/20 17:42 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 00808		
LCS 280-497896/1		351.2, 351.2			25 mL	25 mL	6 mL		
MB 280-497896/2		351.2, 351.2			25 mL	25 mL			
280-137225-C-1	G0076-20A	351.2, 351.2	T	<2	25 mL	25 mL			
280-137225-C-2	G0070-20A	351.2, 351.2	T	<2	25 mL	25 mL			
280-137225-C-2 MS	G0070-20A	351.2, 351.2	T	<2	25 mL	25 mL	3 mL		
280-137225-C-2 MSD	G0070-20A	351.2, 351.2	T	<2	25 mL	25 mL	3 mL		
280-137225-C-3	G0081-20A	351.2, 351.2	T	<2	25 mL	25 mL			
280-137225-C-4	G0082-20A	351.2, 351.2	T	<2	25 mL	25 mL			

Batch Notes	
Block Digestion End time	06/08/20 2330
Block Digestion Start time	06/08/20 1800
Block Digestor ID	TKN Hotblock
Digestion Solution ID	TKN digestion_00135
Oven, Bath or Block Temperature 1	165 Degrees C
Oven, Bath or Block Temperature 2	380 Degrees 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 BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Batch Number: 498270 Batch Start Date: 06/10/20 17:22 Batch Analyst: Cherry, Scott V

Batch Method: 351.2 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	FinalAmount					
ICV 280-494603/33-A		351.2		4 mL					
ICB 280-494603/34-A		351.2		4 mL					
LCS 280-497896/1-A		351.2		4 mL					
MB 280-497896/2-A		351.2		4 mL					
CCV 280-494603/35-A		351.2		4 mL					
CCB 280-494603/36-A		351.2		4 mL					
280-137225-C-1-A	G0076-20A	351.2	T	4 mL					
280-137225-C-2-A	G0070-20A	351.2	T	4 mL					
280-137225-C-2-B MS	G0070-20A	351.2	T	4 mL					
280-137225-C-2-C MSD	G0070-20A	351.2	T	4 mL					
280-137225-C-3-A	G0081-20A	351.2	T	4 mL					
280-137225-C-4-A	G0082-20A	351.2	T	4 mL					
CCV 280-494603/35-A		351.2		4 mL					
CCB 280-494603/36-A		351.2		4 mL					

Batch Notes	
Buffer Reagent ID	TKN buffer_00125
Hypochlorite ID	TKN hypo_00668
Sodium Nitroprusside ID	Sodium nitro_0099
Pipette/Syringe/Dispenser ID	5000ad, 1000ad

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 TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Batch Number: 498113 Batch Start Date: 06/09/20 16:21 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 00534	NXN ICV INT 00515		
ICV 280-498113/17		353.2		100 mL	100 mL		5 mL		
ICVL 280-498113/18		353.2		100 mL	100 mL		2 mL		
ICB 280-498113/19		353.2		100 mL	100 mL				
LCS 280-498113/21		353.2		100 mL	100 mL	5 mL			
MB 280-498113/22		353.2		100 mL	100 mL				
280-137225-C-1	G0076-20A	353.2	T	100 mL	100 mL				
280-137225-C-2	G0070-20A	353.2	T	100 mL	100 mL				
280-137225-C-3	G0081-20A	353.2	T	100 mL	100 mL				
280-137225-C-4	G0082-20A	353.2	T	100 mL	100 mL				
CCV 280-498113/35		353.2		100 mL	100 mL	5 mL			
CCVL 280-498113/36		353.2		100 mL	100 mL	1 mL			
CCB 280-498113/37		353.2		100 mL	100 mL				

Batch Notes	
Buffer Reagent ID	NOXT buffer_00208
Color Reagent ID	NOXT CR_00107
Copper Sulfate ID	CuSO4 NOXT_0008
Hydrochloric Acid ID	0.5N HCl_0076
pH Indicator ID	hc989495
Pipette/Syringe/Dispenser ID	5000ad, 1000ad

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 TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Batch Number: 497566 Batch Start Date: 06/05/20 09:53 Batch Analyst: David, Alexa A

Batch Method: 9030B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	DistillUnitPort	Initial pH	Final pH	AcidVolAdded
LCS 280-497566/1		9030B, 9034		50 mL	50 mL	1	7 SU	<2 SU	5 mL
MB 280-497566/2		9030B, 9034		50 mL	50 mL	3	7 SU	<2 SU	5 mL
280-137225-E-1	G0076-20A	9030B, 9034	T	50 mL	50 mL	18	>9 SU	<2 SU	5 mL
280-137225-E-3	G0081-20A	9030B, 9034	T	50 mL	50 mL	19	>9 SU	<2 SU	5 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	SFD CAL INT 01760					
LCS 280-497566/1		9030B, 9034		1 mL					
MB 280-497566/2		9030B, 9034							
280-137225-E-1	G0076-20A	9030B, 9034	T						
280-137225-E-3	G0081-20A	9030B, 9034	T						

Batch Notes	
Batch Comment	AD trained by SAH
Distillation End Time	02/17/2020 19:09
Distillation Start Time	02/17/2020 18:03
Formaldehyde ID	Form_00117
pH Indicator ID	HC989495 & HC 606169
Pipette/Syringe/Dispenser ID	AB8A1000 & 5000IX
Sulfuric Acid Reagent ID Number	H2SO4_00203
Zinc Acetate Buffer ID	Znac_00115

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 TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Batch Number: 497568 Batch Start Date: 06/05/20 09:56 Batch Analyst: David, Alexa A

Batch Method: 9034 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	BuretStart1	BuretStop1	IodineAmount	TitrantVolume1	FinalAmount	
LCS 280-497566/1-A		9034		0 mL	3.5 mL	5 mL	3.5 mL	50 mL	
MB 280-497566/2-A		9034		3.5 mL	4.6 mL	1 mL	1.1 mL	50 mL	
280-137225-E-1-B	G0076-20A	9034	T	1.1 mL	2.1 mL	1 mL	1 mL	50 mL	
280-137225-E-3-B	G0081-20A	9034	T	2.1 mL	3,1 mL	1 mL	28.9 mL	50 mL	

Batch Notes	
Batch Comment	AD trained by SAH
Hydrochloric Acid ID	HclSol_00181
Iodine ID	Iod_00257
Normality of Iodine Solution	.025 N
Sodium Thiosulfate ID	NaThio_00166
Pipette/Syringe/Dispenser ID	AB8A1000 & 5000IX
Starch Reagent ID	StarchInd_00062
Normality of First Titrant	.025 N
Zinc Acetate Buffer ID	Znac_00115

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 TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Batch Number: 498010 Batch Start Date: 06/09/20 11:35 Batch Analyst: David, Alexa A

Batch Method: 9030B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	DistillUnitPort	Initial pH	Final pH	AcidVolAdded
LCS 280-498010/1		9030B, 9034		50 mL	50 mL	1	>9 SU	<2 SU	5 mL
MB 280-498010/2		9030B, 9034		50 mL	50 mL	2	>9 SU	<2 SU	5 mL
280-137225-E-2	G0070-20A	9030B, 9034	T	50 mL	50 mL	3	>9 SU	<2 SU	5 mL
280-137225-E-2 MS	G0070-20A	9030B, 9034	T	50 mL	50 mL	4	>9 SU	<2 SU	5 mL
280-137225-E-2 MSD	G0070-20A	9030B, 9034	T	50 mL	50 mL	5	>9 SU	<2 SU	5 mL
280-137225-E-4	G0082-20A	9030B, 9034	T	50 mL	50 mL	6	>9 SU	<2 SU	5 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	SFD CAL INT 01763					
LCS 280-498010/1		9030B, 9034		1 mL					
MB 280-498010/2		9030B, 9034							
280-137225-E-2	G0070-20A	9030B, 9034	T						
280-137225-E-2 MS	G0070-20A	9030B, 9034	T	1 mL					
280-137225-E-2 MSD	G0070-20A	9030B, 9034	T	1 mL					
280-137225-E-4	G0082-20A	9030B, 9034	T						

Batch Notes	
Batch Comment	AD trained by SAH
Distillation End Time	02/17/2020 19:09
Distillation Start Time	02/17/2020 18:03
Formaldehyde ID	Form_00117
pH Indicator ID	HC989495 & HC 606169
Pipette/Syringe/Dispenser ID	AB8A1000 & 5000IX
Sulfuric Acid Reagent ID Number	H2SO4_00203
Zinc Acetate Buffer ID	Znac_00115

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 TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Batch Number: 498013 Batch Start Date: 06/09/20 11:38 Batch Analyst: David, Alexa A

Batch Method: 9034 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	BuretStart1	BuretStop1	IodineAmount	TitrantVolume1	FinalAmount	
LCS 280-498010/1-A		9034		0 mL	2.5 mL	5 mL	2.5 mL	50 mL	
MB 280-498010/2-A		9034		2.5 mL	3.5 mL	1 mL	1 mL	50 mL	
280-137225-E-2-A	G0070-20A	9034	T	3.5 mL	4.5 mL	1 mL	1 mL	50 mL	
280-137225-E-2-B MS	G0070-20A	9034	T	4.5 mL	6.9 mL	5 mL	2.4 mL	50 mL	
280-137225-E-2-C MSD	G0070-20A	9034	T	6.9 mL	9.6 mL	5 mL	2.7 mL	50 mL	
280-137225-E-4-A	G0082-20A	9034	T	9.6 mL	10.6 mL	1 mL	1 mL	50 mL	

Batch Notes	
Batch Comment	AD trained by SAH
Hydrochloric Acid ID	HCL Sol_00181
Iodine ID	Iod_00257
Normality of Iodine Solution	0.0250 N
Sodium Thiosulfate ID	Na Thio_00166
Pipette/Syringe/Dispenser ID	AB8A1000 & 5000IX
Starch Reagent ID	Starch Ind_00062
Normality of First Titrant	0.0250 N

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 TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Batch Number: 496903 Batch Start Date: 06/01/20 12:47 Batch Analyst: Pedrick, Joshua A

Batch Method: 9056A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	IC CAL cl/so4 00312	IC Cal low 00527		
STD1 280-496903/2 IC		9056A		5 mL	5 mL	0.04 mL	0.04 mL		
STD2 280-496903/3 IC		9056A		5 mL	5 mL	0.1 mL	0.1 mL		
STD3 280-496903/4 IC		9056A		5 mL	5 mL	0.2 mL	0.2 mL		
STD4 280-496903/5 IC		9056A		5 mL	5 mL	2.4 mL	0.8 mL		
STD5 280-496903/6 IC		9056A		5 mL	5 mL	4.8 mL	1.6 mL		
STD6 280-496903/7 IC		9056A		5 mL	5 mL	8 mL	2 mL		

Batch Notes	
Eluent 1 ID	Water
Filter ID	R7MA61819
Pipette/Syringe/Dispenser ID	ic100, wc-1000d, 5000ics
Regeneration Solution ID	ic10 H3PO4_00003
Sufficient Volume for Batch QC	Yes

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 TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Batch Number: 497179 Batch Start Date: 06/03/20 09:53 Batch Analyst: Pedrick, Joshua A

Batch Method: 9056A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	IC CL ICV 00018	IC ICV 5 00272	IC SO4 ICV 00021	
ICV 280-497179/1		9056A		5 mL	5 mL	0.8 mL	0.8 mL	0.8 mL	
ICB 280-497179/2		9056A		5 mL	5 mL				

Batch Notes	
Eluent 1 ID	Water
Filter ID	R7MA61819
Pipette/Syringe/Dispenser ID	ic100, wc-1000d, 5000ics
Regeneration Solution ID	ic10 H3PO4_00003
Sufficient Volume for Batch QC	Yes

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 TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Batch Number: 497185 Batch Start Date: 06/03/20 10:08 Batch Analyst: Pedrick, Joshua A

Batch Method: 9056A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	IC CAL cl/so4 00313	IC Cal low 00527	IC CL ICV 00018	IC ICV 5 00272
STD 280-497185/2 IC		9056A		5 mL	5 mL	0.02 mL	0.02 mL		
STD 280-497185/3 IC		9056A		5 mL	5 mL	0.05 mL	0.05 mL		
STD 280-497185/4 IC		9056A		5 mL	5 mL	0.1 mL	0.1 mL		
STD 280-497185/5 IC		9056A		5 mL	5 mL	1.2 mL	0.4 mL		
STD 280-497185/6 IC		9056A		5 mL	5 mL	2.4 mL	0.8 mL		
STD 280-497185/7 IC		9056A		5 mL	5 mL	4 mL	1 mL		
ICV 280-497185/8		9056A		5 mL	5 mL			0.4 mL	0.4 mL
ICB 280-497185/9		9056A		5 mL	5 mL				

Lab Sample ID	Client Sample ID	Method Chain	Basis	IC SO4 ICV 00021					
STD 280-497185/2 IC		9056A							
STD 280-497185/3 IC		9056A							
STD 280-497185/4 IC		9056A							
STD 280-497185/5 IC		9056A							
STD 280-497185/6 IC		9056A							
STD 280-497185/7 IC		9056A							
ICV 280-497185/8		9056A		0.4 mL					
ICB 280-497185/9		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 TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Batch Number: 497185 Batch Start Date: 06/03/20 10:08 Batch Analyst: Pedrick, Joshua A

Batch Method: 9056A Batch End Date:

Batch Notes	
Eluent 1 ID	Water
Filter ID	R7MA61819
Pipette/Syringe/Dispenser ID	ic100, wc-1000d, 5000ics
Regeneration Solution ID	191251298017
Sufficient Volume for Batch QC	Yes

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 TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Batch Number: 498729 Batch Start Date: 06/15/20 10:20 Batch Analyst: Pedrick, Joshua A

Batch Method: 9056A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	IC CAL cl/so4 00315	IC Cal low 00529	IC LCS 01745	ICMS/MSD WEEK 00653
CCV 280-498729/1		9056A		5 mL	5 mL			5 mL	
CCB 280-498729/2		9056A		5 mL	5 mL				
MRL 280-498729/3		9056A		5 mL	5 mL	0.1 mL	0.05 mL		
LCS 280-498729/4		9056A		5 mL	5 mL			5 mL	
LCSD 280-498729/5		9056A		5 mL	5 mL			5 mL	
MB 280-498729/6		9056A		5 mL	5 mL				
CCV 280-498729/17		9056A		5 mL	5 mL			5 mL	
CCB 280-498729/18		9056A		5 mL	5 mL				
CCV 280-498729/22		9056A		5 mL	5 mL			5 mL	
CCB 280-498729/23		9056A		5 mL	5 mL				
280-137225-F-3	G0081-20A	9056A	T	5 mL	5 mL				
CCV 280-498729/34		9056A		5 mL	5 mL			5 mL	
CCB 280-498729/35		9056A		5 mL	5 mL				
280-137225-F-2	G0070-20A	9056A	T	5 mL	5 mL				
280-137225-F-2 DU	G0070-20A	9056A	T	5 mL	5 mL				
280-137225-F-2 MS	G0070-20A	9056A	T	5 mL	5 mL				0.05 mL
280-137225-F-2 MSD	G0070-20A	9056A	T	5 mL	5 mL				0.05 mL
280-137225-F-1	G0076-20A	9056A	T	5 mL	5 mL				
280-137225-F-4	G0082-20A	9056A	T	5 mL	5 mL				
CCV 280-498729/46		9056A		5 mL	5 mL			5 mL	
CCB 280-498729/47		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 TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Batch Number: 498729 Batch Start Date: 06/15/20 10:20 Batch Analyst: Pedrick, Joshua A

Batch Method: 9056A Batch End Date:

Batch Notes	
Eluent 1 ID	Water
Filter ID	R7MA61819
Pipette/Syringe/Dispenser ID	ic100, wc-1000d, 5000ics
Regeneration Solution ID	191251298017
Sufficient Volume for Batch QC	Yes

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 TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Batch Number: 498731 Batch Start Date: 06/15/20 10:37 Batch Analyst: Pedrick, Joshua A

Batch Method: 9056A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	IC CAL cl/so4 00315	IC Cal low 00529	IC LCS 01745	ICMS/MSD WEEK 00653
MRL 280-498731/3		9056A		5 mL	5 mL	0.2 mL	0.1 mL		
LCS 280-498731/4		9056A		5 mL	5 mL			10 mL	
LCSD 280-498731/5		9056A		5 mL	5 mL			10 mL	
MB 280-498731/6		9056A		5 mL	5 mL				
280-137225-F-2	G0070-20A	9056A	T	5 mL	5 mL				
280-137225-F-2 DU	G0070-20A	9056A	T	5 mL	5 mL				
280-137225-F-2 MS	G0070-20A	9056A	T	5 mL	5 mL				0.1 mL
280-137225-F-2 MSD	G0070-20A	9056A	T	5 mL	5 mL				0.1 mL
280-137225-F-1	G0076-20A	9056A	T	5 mL	5 mL				
280-137225-F-3	G0081-20A	9056A	T	5 mL	5 mL				
280-137225-F-4	G0082-20A	9056A	T	5 mL	5 mL				

Batch Notes	
Eluent 1 ID	Water
Filter ID	R7MA61819
Pipette/Syringe/Dispenser ID	ic100, wc-1000d, 5000ics
Regeneration Solution ID	ic10 H3PO4_00003
Sufficient Volume for Batch QC	Yes

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 TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Batch Number: 498916 Batch Start Date: 06/16/20 10:20 Batch Analyst: Pedrick, Joshua A

Batch Method: 9056A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	IC CAL cl/so4 00315	IC Cal low 00529	IC LCS 01745	
CCV 280-498916/1		9056A		5 mL	5 mL			5 mL	
CCB 280-498916/2		9056A		5 mL	5 mL				
MRL 280-498916/3		9056A		5 mL	5 mL	0.1 mL	0.05 mL		
LCS 280-498916/4		9056A		5 mL	5 mL			5 mL	
LCSD 280-498916/5		9056A		5 mL	5 mL			5 mL	
MB 280-498916/6		9056A		5 mL	5 mL				
280-137225-F-1	G0076-20A	9056A	T	5 mL	5 mL				
CCV 280-498916/17		9056A		5 mL	5 mL			5 mL	
CCB 280-498916/18		9056A		5 mL	5 mL				

Batch Notes	
Eluent 1 ID	Water
Filter ID	R7MA61819
Pipette/Syringe/Dispenser ID	ic100, wc-1000d, 5000ics
Regeneration Solution ID	191251298017
Sufficient Volume for Batch QC	Yes

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 TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Batch Number: 498926 Batch Start Date: 06/15/20 15:28 Batch Analyst: Battillo, Jenna M

Batch Method: 9060A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Initial pH	TOC LCS Std 00048		
LCS 280-498750/1-A		9060A		200 mL	200 mL	<2 SU	5 mL		
MB 280-498750/3-A		9060A		20 mL	20 mL	<2 SU			
280-137225-D-2-A	G0070-20A	9060A	D	20 mL	20 mL	6 SU			
280-137225-D-2-B MS	G0070-20A	9060A	D	50 mL	50 mL	6 SU	1.25 mL		
280-137225-D-2-C MSD	G0070-20A	9060A	D	50 mL	50 mL	6 SU	1.25 mL		
280-137225-D-1-A	G0076-20A	9060A	D	20 mL	20 mL	5.5 SU			
280-137225-D-3-A	G0081-20A	9060A	D	20 mL	20 mL	6 SU			
280-137225-D-4-A	G0082-20A	9060A	D	20 mL	20 mL	6 SU			

Batch Notes	
Acid ID	H2SO4_00205; 0.2% H2SO4_00348, 0.2% H2SO4_00349
Combustion Catylyst ID	18003D-01
Pipette/Syringe/Dispenser ID	BMF 5000, BMF 1000

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 TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Batch Number: 498927 Batch Start Date: 06/15/20 15:28 Batch Analyst: Battillo, Jenna M

Batch Method: 9060A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Initial pH	TOC ICV Std 00043	TOC LCS Std 00048	
ICV 280-498927/1		9060A		50 mL	50 mL	<2 SU	1 mL		
ICB 280-498927/2		9060A		20 mL	20 mL	<2 SU			
CCV 280-498927/51		9060A		200 mL	200 mL	<2 SU		5 mL	
CCB 280-498927/52		9060A		20 mL	20 mL	<2 SU			
LCS 280-498750/1-A		9060A		200 mL	200 mL	<2 SU		5 mL	
MB 280-498750/3-A		9060A		20 mL	20 mL	<2 SU			
280-137225-D-2-A	G0070-20A	9060A	D	20 mL	20 mL	6 SU			
280-137225-D-2-B MS	G0070-20A	9060A	D	50 mL	50 mL	6 SU		1.25 mL	
280-137225-D-2-C MSD	G0070-20A	9060A	D	50 mL	50 mL	6 SU		1.25 mL	
280-137225-D-1-A	G0076-20A	9060A	D	20 mL	20 mL	5.5 SU			
280-137225-D-3-A	G0081-20A	9060A	D	20 mL	20 mL	6 SU			
280-137225-D-4-A	G0082-20A	9060A	D	20 mL	20 mL	6 SU			
CCV 280-498927/63		9060A		200 mL	200 mL	<2 SU		5 mL	
CCB 280-498927/64		9060A		20 mL	20 mL	<2 SU			

Batch Notes	
Acid ID	H2SO4_00205; 0.2% H2SO4_00348, 0.2% H2SO4_00349
Combustion Catylyst ID	18003D-01
Pipette/Syringe/Dispenser ID	BMF 5000, BMF 1000

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 TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Batch Number: 497742 Batch Start Date: 06/05/20 10:29 Batch Analyst: Gonzalez, Sofie P

Batch Method: SM 2320B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	CalcMsg	Alk daily lcs 00905				
CCV 280-497742/28		SM 2320B		InitialAmount is blank	10 mL				
CCB 280-497742/29		SM 2320B		InitialAmount is blank					
LCS 280-497742/30		SM 2320B		InitialAmount is blank	10 mL				
MB 280-497742/31		SM 2320B		InitialAmount is blank					
280-137225-F-2	G0070-20A	SM 2320B	T	InitialAmount is blank					
CCV 280-497742/42		SM 2320B		InitialAmount is blank	10 mL				
CCB 280-497742/43		SM 2320B		InitialAmount is blank					
280-137225-F-3	G0081-20A	SM 2320B	T	InitialAmount is blank					
280-137225-F-4	G0082-20A	SM 2320B	T	InitialAmount is blank					
CCV 280-497742/54		SM 2320B		InitialAmount is blank	10 mL				
CCB 280-497742/55		SM 2320B		InitialAmount is blank					

Batch Notes	
Acid ID	0.02 H2SO4_00273
pH Buffer 1 ID	pH 2.0 Buffer_00085
pH Buffer 2 ID	pH 4.0 Buffer_00188
pH Buffer 3 ID	pH 7.0 Buffer_00280
pH Buffer 4 ID	pH 10 Buffer_00150
pH Buffer 5 ID	pH 12 Buffer_00163
pH Buffer 6 ID	pH 7.0 Buffer_00281
Sodium Carbonate ID	alk stk std_00017
Nominal Amount Used	10 mL
Pipette/Syringe/Dispenser ID	5000SM
Probe ID	PCE 80 pH 1200C_45506
Normality of First Titrant	0.02 N

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 TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Batch Number: 497742 Batch Start Date: 06/05/20 10:29 Batch Analyst: Gonzalez, Sofie P

Batch Method: SM 2320B 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 TestAmerica, Denver Job No.: 280-137225-1

SDG No.:

Batch Number: 497942 Batch Start Date: 06/08/20 13:09 Batch Analyst: Gonzalez, Sofie P

Batch Method: SM 2320B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	CalcMsg	Alk daily lcs 00906				
LCS 280-497942/4		SM 2320B		InitialAmount is blank	10 mL				
MB 280-497942/5		SM 2320B		InitialAmount is blank					
280-137225-F-1	G0076-20A	SM 2320B	T	InitialAmount is blank					
280-137225-F-1 DU	G0076-20A	SM 2320B	T	InitialAmount is blank					
CCV 280-497942/16		SM 2320B		InitialAmount is blank	10 mL				
CCB 280-497942/17		SM 2320B		InitialAmount is blank					

Batch Notes	
Acid ID	0.02 H2SO4_00273
pH Buffer 1 ID	pH 2.0 Buffer_00085
pH Buffer 2 ID	pH 4.0 Buffer_00188
pH Buffer 3 ID	pH 7.0 Buffer_00280
pH Buffer 4 ID	pH 10 Buffer_00150
pH Buffer 5 ID	pH 12 Buffer_00163
pH Buffer 6 ID	pH 7.0 Buffer_00281
Sodium Carbonate ID	alk stk std_00017
Nominal Amount Used	10 mL
Pipette/Syringe/Dispenser ID	5000SM
Probe ID	PCE 80 pH 1200C_45506
Normality of First Titrant	0.02 N

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: 04-Jun-20

BWH

350.1 color_00202 BWH 06/4/20
350.1 bleach_001255
350.1 complex_00482

Cup	Name	Type	R	Dil	Wt	Comment	pH	Cl⁻
5	Sync	SYNC	1	1	1			
~~0~~	~~blk~~	~~CO~~	~~1~~	~~1~~	~~1~~			
0	Read Baseline	RB	1	1	1			
1	Cal 0.0 PPB	C	1	1	1			
3	Cal 25.0 ppb	C	1	1	1			
4	Cal 50.0 ppb	C	1	1	1			
5	Cal 100.0 ppb	C	1	1	1			
6	Cal 500.0 ppb	C	1	1	1			
7	Cal 1000.0 ppb	C	1	1	1			
8	Cal 2500.0 ppb	C	1	1	1			
9	Cal 5000.0 ppb	C	1	1	1			
0	blank	BLNK	1	1	1			
0	read baseline	RB	1	1	1			
10	ICVL 500.0 ppb	U	1	1	1			
11	ICV 2500.0 ppb	U	1	1	1			
12	ICB	U	1	1	1			
0	read baseline	RB	1	1	1			
8	LCS	U	1	1	1			
12	MB	U	1	1	1			
13	280-137225-c-2	U	1	1	1		L2	n
14	MS 280-137225-c-2	U	1	1	1		L2	n
15	MSD 280-137225-c-2	U	1	1	1		L2	n
16	280-137225-c-1	U	1	1	1		L2	n
17	280-137225-c-3	U	1	1	1		L2	n
18	280-137225-c-4	U	1	1	1		L2	n
19	280-137222-j-1	U	1	1	1		L2	n
20	280-137113-e-1	U	1	1	1		L2	n
21	280-137240-a-1	U	1	5	1		L2	n
22	280-137220-a-1	U	1	1	1		L2	n
0	RINSE	U	1	1	1			
0	read baseline	RB	1	1	1			
6	CCVL 500.0 ppb	U	1	1	1			
8	CCV 2500.0 ppb	U	1	1	1			
12	CCB	U	1	1	1			
0	read baseline	RB	1	1	1			
23	280-137220-a-2	U	1	1	1		L2	n
0	RINSE	U	1	1	1			
0	read baseline	RB	1	1	1			
6	CCVL 500.0 ppb	U	1	1	1			
8	CCV 2500.0 ppb	U	1	1	1			
12	CCB	U	1	1	1			
0	read baseline	RB	1	1	1			
8	CCV 2500.0 ppb	U	1	1	1			
0	read baseline	RB	1	1	1			
23	280-137220-a-2	U	1	1	1		L2	n
0	RINSE	U	1	1	1			
0	read baseline	RB	1	1	1			
6	CCVL 500.0 ppb	U	1	1	1			
8	CCV 2500.0 ppb	U	1	1	1			
12	CCB	U	1	1	1			
0	read baseline	RB	1	1	1			

Run Results Report

Facility Name	
Facility Location	
Department	
Operator Name	BWH
Operator ID	BWH
Platform	FS 3000
Software Rev Code	222
Data system ID	57
Result path	C:\FLOW_4\060420.RST
Sample table path	C:\FLOW_4\060420.tbl
Method path	C:\FLOW_4\nh3.mth
Date acquired	04-Jun-20
Time acquired	14:39

				|---------- Ammonia ----------|		
Date	Time	Cup	Name	Response	Calc [ppb]	Flags
04-Jun-20	12:46	5	Sync	2042	85.611	UM
04-Jun-20	12:48	0	blk	100	18.761	
04-Jun-20	12:50	0	Read Baseline	0	15.325	BL UM
04-Jun-20	12:52	1	Cal 0.0 PPB	181	21.538	UM
04-Jun-20	12:54	3	Cal 25.0 ppb	280	24.952	UM
04-Jun-20	12:56	4	Cal 50.0 ppb	711	39.790	
04-Jun-20	12:58	5	Cal 100.0 ppb	2033	85.326	
04-Jun-20	13:00	6	Cal 500.0 ppb	13182	472.318	
04-Jun-20	13:02	7	Cal 1000.0 ppb	28595	1016.359	
04-Jun-20	13:04	8	Cal 2500.0 ppb	69206	2499.818	
04-Jun-20	13:06	9	Cal 5000.0 ppb	133576	4999.567	
04-Jun-20	13:08	0	blank	-6558	-209.184	LO
04-Jun-20	13:10	0	read baseline	0	15.325	BL UM
04-Jun-20	13:12	10	ICVL 500.0 ppb	13997	500.846	
04-Jun-20	13:14	11	ICV 2500.0 ppb	72877	2637.466	
04-Jun-20	13:16	12	ICB	-3506	-104.940	LO
04-Jun-20	13:18	0	read baseline	0	15.325	BL UM
04-Jun-20	13:20	8	LCS	73453	2659.118	
04-Jun-20	13:22	12	MB	-3815	-115.505	LO
04-Jun-20	13:24	13	280-137225-c-2	697	39.302	
04-Jun-20	13:26	14	MS 280-137225-c-2	31398	1116.427	
04-Jun-20	13:28	15	MSD 280-137225-c-2	30142	1071.556	
04-Jun-20	13:30	16	280-137225-c-1	39409	1404.314	
04-Jun-20	13:32	17	280-137225-c-3	8667	314.935	
04-Jun-20	13:34	18	280-137225-c-4	2777	110.966	
04-Jun-20	13:36	19	280-137222-j-1	1664	72.608	
04-Jun-20	13:38	20	280-137113-e-1	20129	716.267	
04-Jun-20	13:40	21	280-137240-a-1	91158	16659.230	
04-Jun-20	13:42	22	280-137220-a-1	6839	251.481	
04-Jun-20	13:44	0	RINSE	-405	1.401	
04-Jun-20	13:46	0	read baseline	0	15.325	BL
04-Jun-20	13:48	6	CCVL 500.0 ppb	13408	480.219	
04-Jun-20	13:50	8	CCV 2500.0 ppb	75782	2746.821	
04-Jun-20	13:52	12	CCB	-3643	-109.644	LO
04-Jun-20	13:54	0	read baseline	0	15.325	BL
04-Jun-20	13:56	23	280-137220-a-2	1492	66.675	
04-Jun-20	14:09	0	RINSE	133	19.891	
04-Jun-20	14:11	0	read baseline	0	15.325	BL UM
04-Jun-20	14:13	6	CCVL 500.0 ppb	14261	510.088	
04-Jun-20	14:15	8	CCV 2500.0 ppb	77622	2816.290	
04-Jun-20	14:17	12	CCB	-3941	-119.806	LO
04-Jun-20	14:19	0	read baseline	0	15.325	BL UM
04-Jun-20	14:32	8	CCV 2500.0 ppb	81084	2947.376	
04-Jun-20	14:34	0	read baseline	0	15.325	BL

Peak Table:Ammonia

File name: C:\FLOW_4\060420.RST
Date: 04-Jun-20
Operator: BWH

Peak	Cup	Name	R	Type	Dil	Wt	Height	Calc. (ppb)	Flags
1	5	Sync	1	SYNC	1	1	2042	85.610672	UM
2	0	blk	1	CO	1	1	100	18.761251	
B	0	Read Baseline	1	RB	1	1	0	15.325069	BL UM
4	1	Cal 0.0 PPB	1	C	1	1	181	21.537743	UM
5	3	Cal 25.0 ppb	1	C	1	1	280	24.951620	UM
6	4	Cal 50.0 ppb	1	C	1	1	711	39.789734	
7	5	Cal 100.0 ppb	1	C	1	1	2033	85.325661	
8	6	Cal 500.0 ppb	1	C	1	1	13182	472.317902	
9	7	Cal 1000.0 ppb	1	C	1	1	28595	1016.358582	
10	8	Cal 2500.0 ppb	1	C	1	1	69206	2499.817627	
11	9	Cal 5000.0 ppb	1	C	1	1	133576	4999.567383	
12	0	blank	1	BLNK	1	1	-6558	-209.184219	LO
B	0	read baseline	1	RB	1	1	0	15.325069	BL UM
14	10	ICVL 500.0 ppb	1	U	1	1	13997	500.846405	
15	11	ICV 2500.0 ppb	1	U	1	1	72877	2637.465820	
16	12	ICB	1	U	1	1	-3506	-104.940384	LO
B	0	read baseline	1	RB	1	1	0	15.325069	BL UM
18	8	LCS	1	U	1	1	73453	2659.118164	
19	12	MB	1	U	1	1	-3815	-115.504921	LO
20	13	280-137225-c-2	1	U	1	1	697	39.301991	
21	14	MS 280-137225-c-2	1	U	1	1	31398	1116.427002	
22	15	MSD 280-137225-c-2	1	U	1	1	30142	1071.556396	
23	16	280-137225-c-1	1	U	1	1	39409	1404.313843	
24	17	280-137225-c-3	1	U	1	1	8667	314.934814	
25	18	280-137225-c-4	1	U	1	1	2777	110.966263	
26	19	280-137222-j-1	1	U	1	1	1664	72.607658	
27	20	280-137113-e-1	1	U	1	1	20129	716.266541	
28	21	280-137240-a-1	1	U	5	1	91158	16659.230469	
29	22	280-137220-a-1	1	U	1	1	6839	251.481094	
30	0	RINSE	1	U	1	1	-405	1.400907	
B	0	read baseline	1	RB	1	1	0	15.325069	BL
32	6	CCVL 500.0 ppb	1	U	1	1	13408	480.218964	
33	8	CCV 2500.0 ppb	1	U	1	1	75782	2746.820557	
34	12	CCB	1	U	1	1	-3643	-109.644012	LO
B	0	read baseline	1	RB	1	1	0	15.325068	BL
36	23	280-137220-a-2	1	U	1	1	1492	66.675133	
37	0	RINSE	1	U	1	1	133	19.891125	
B	0	read baseline	1	RB	1	1	0	15.325069	BL UM
39	6	CCVL 500.0 ppb	1	U	1	1	14261	510.087860	
40	8	CCV 2500.0 ppb	1	U	1	1	77622	2816.290039	
41	12	CCB	1	U	1	1	-3941	-119.806366	LO
B	0	read baseline	1	RB	1	1	0	15.325069	BL UM
43	8	CCV 2500.0 ppb	1	U	1	1	81084	2947.375732	
B	0	read baseline	1	RB	1	1	0	15.325069	BL

Ammonia:Calibration 1: Peak 4-44

File name: C:\FLOW_4\060420.RST
Date: 04-Jun-20
Operator: BWH

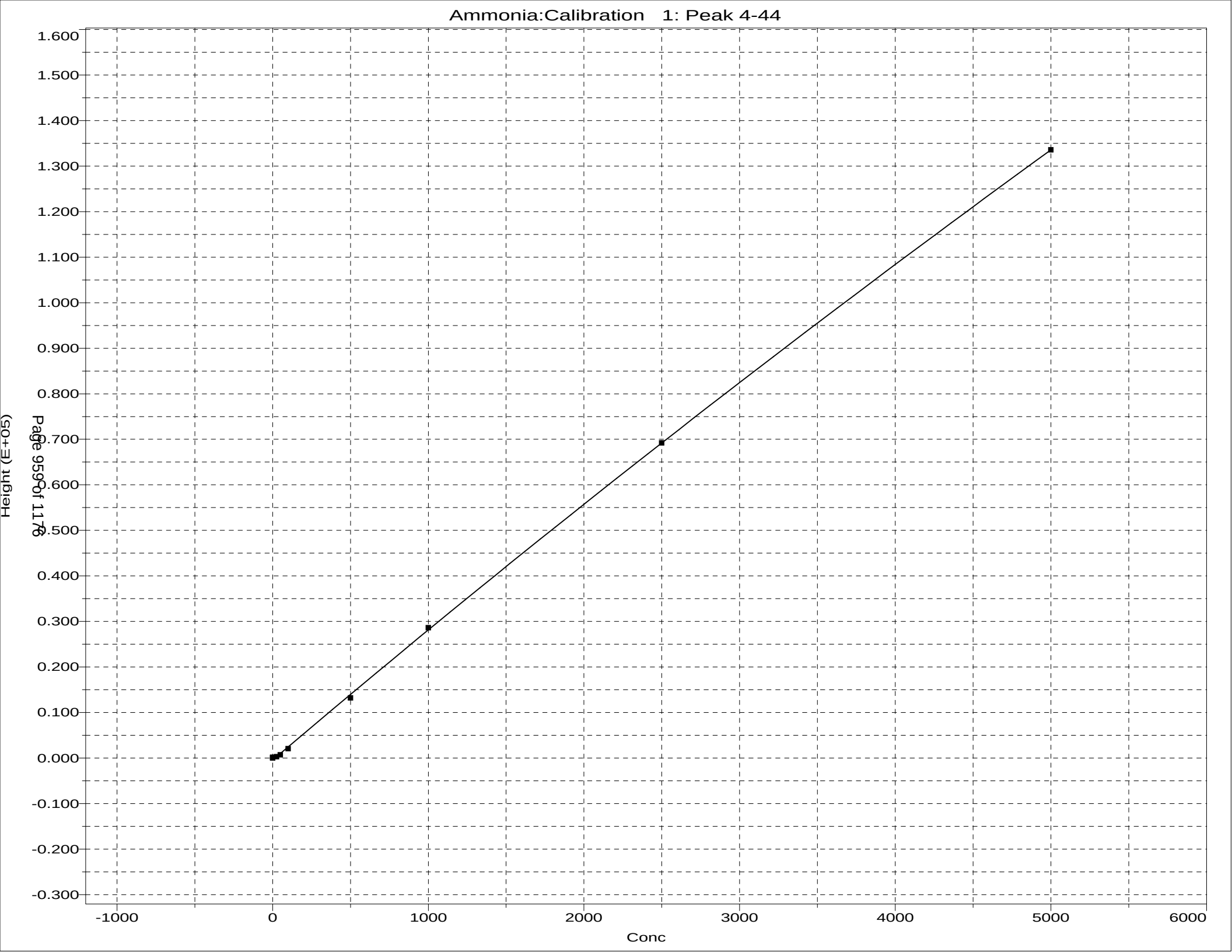
*	Name	Conc	Height
*	Cal 0.0 PPB	0.000000	180.687988
*	Cal 25.0 ppb	25.000000	279.958649
*	Cal 50.0 ppb	50.000000	711.283630
*	Cal 100.0 ppb	100.000000	2033.474243
*	Cal 500.0 ppb	500.000000	13181.586914
*	Cal 1000.0 ppb	1000.000000	28594.734375
*	Cal 2500.0 ppb	2500.000000	69206.398438
*	Cal 5000.0 ppb	5000.000000	133576.421875

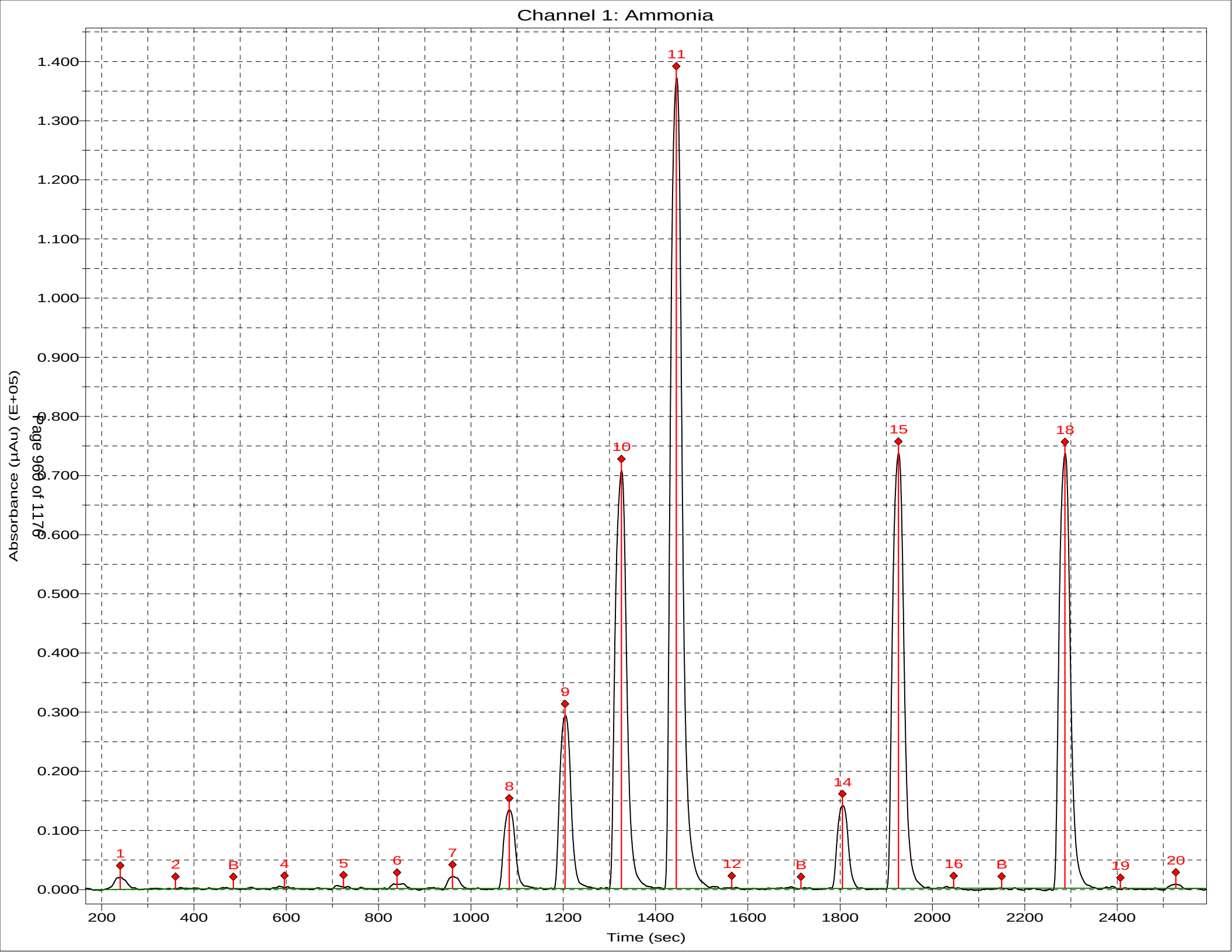
Calib Coef:
x=cyy+by+a
a: (intercept) 1.5325e+01
b: 3.4379e-02
c: 2.1967e-08

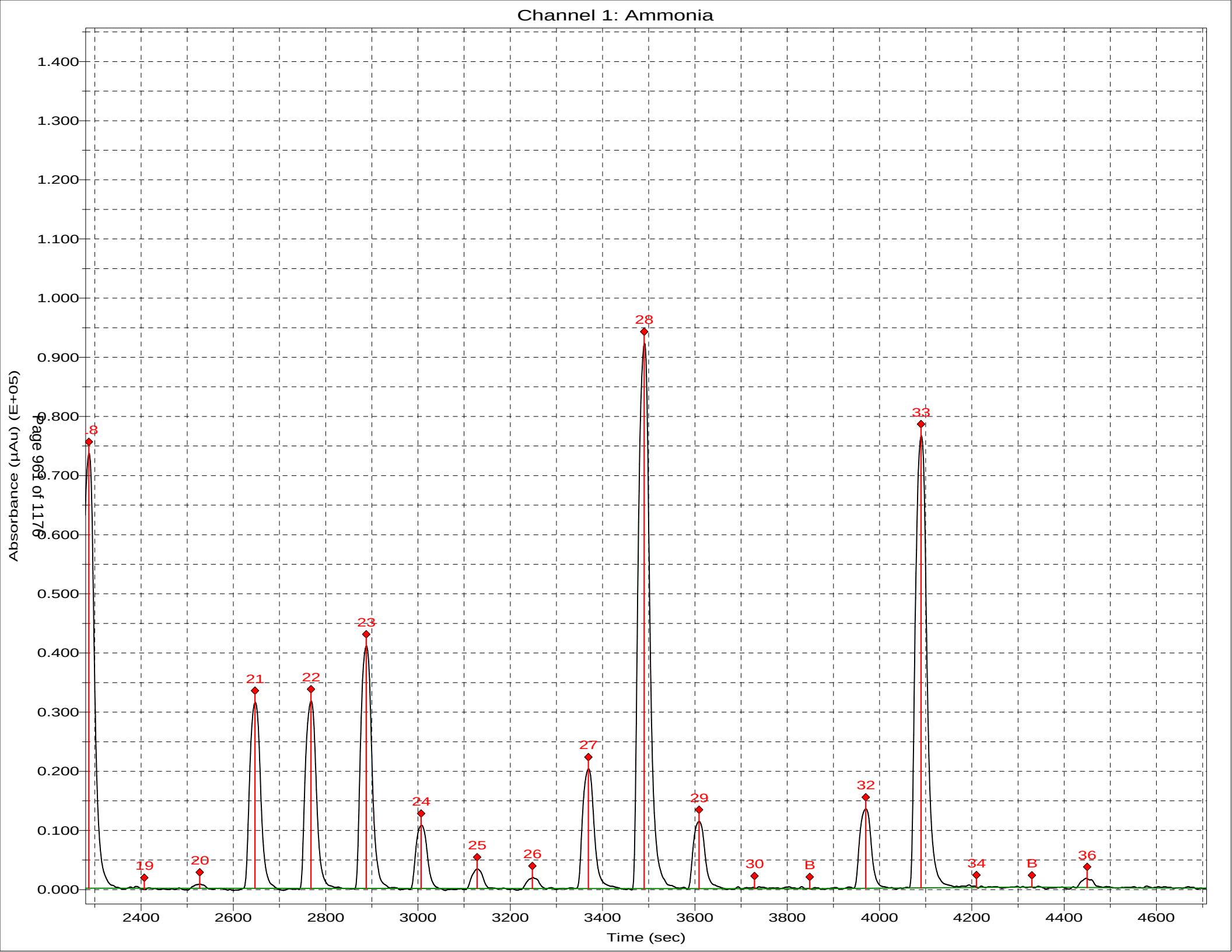
Corr Coef: 0.999956

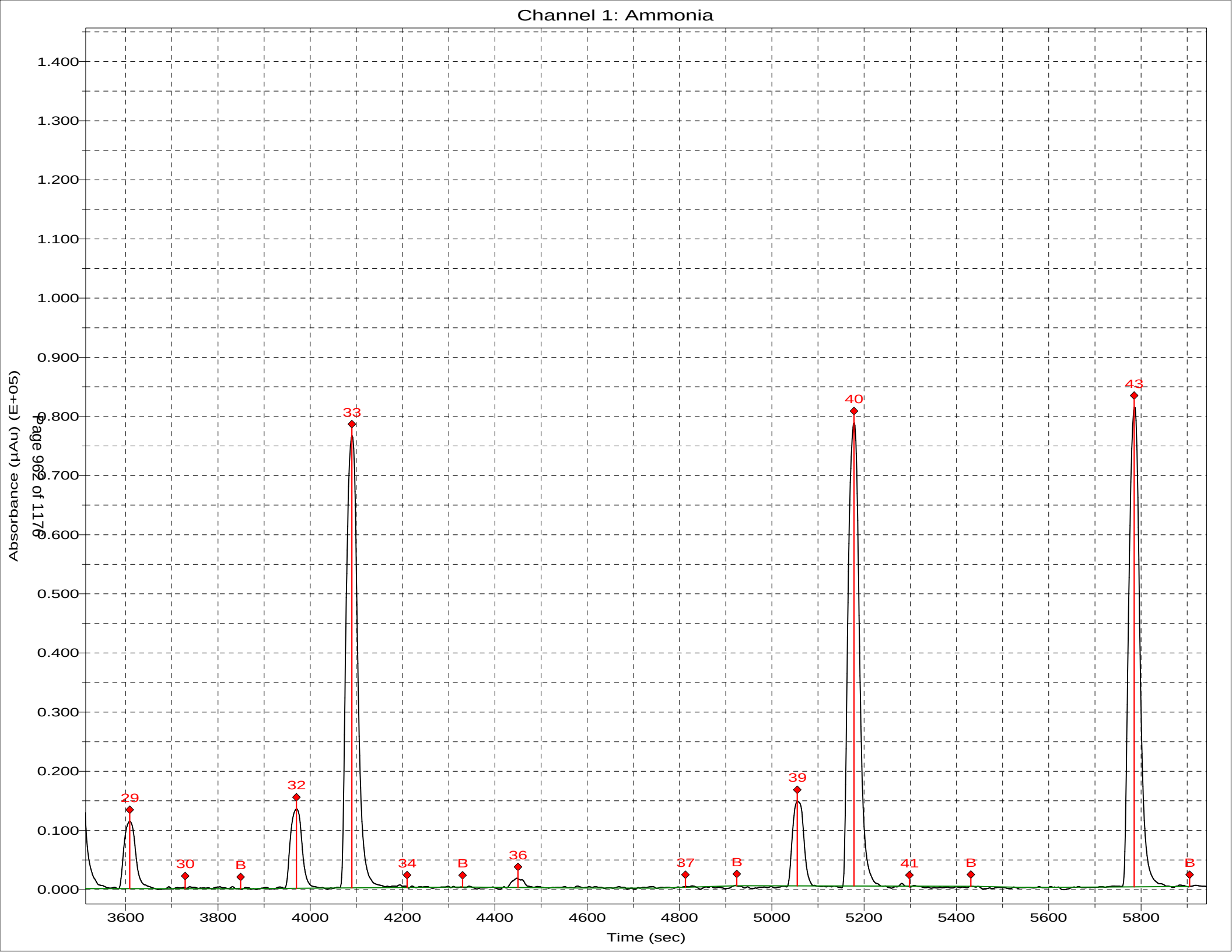
Carryover: 4.89%

No Drift Peaks


Ammonia:Calibration 1: Peak 4-44
Height (E+05)
1.600
1.500
1.400
1.300
1.200
1.100
1.000
0.900
0.800
0.700
0.600
0.500
0.400
0.300
0.200
0.100
0.000
-0.100
-0.200
-0.300
-1000
0
1000
2000
3000
4000
5000
6000
Conc


Channel 1: Ammonia
Absorbance (µAu) (E+05)
Time (sec)
1.400
1.300
1.200
1.100
1.000
0.900
0.800
0.700
0.600
0.500
0.400
0.300
0.200
0.100
0.000
200
400
600
800
1000
1200
1400
1600
1800
2000
2200
2400
1
2
B
4
5
6
7
8
9
10
11
12
B
14
15
16
B
18
19
20


Channel 1: Ammonia
Absorbance (µAu) (E+05)
Time (sec)
1.400
1.300
1.200
1.100
1.000
0.900
0.800
0.700
0.600
0.500
0.400
0.300
0.200
0.100
0.000
2400
2600
2800
3000
3200
3400
3600
3800
4000
4200
4400
4600
18
19
20
21
22
23
24
25
26
27
28
29
30
B
32
33
34
B
36


Channel 1: Ammonia
Absorbance (µAu) (E+05)
1.400
1.300
1.200
1.100
1.000
0.900
0.800
0.700
0.600
0.500
0.400
0.300
0.200
0.100
0.000
29
30
B
32
33
34
B
36
37
B
39
40
41
B
43
B
3600
3800
4000
4200
4400
4600
4800
5000
5200
5400
5600
5800
Time (sec)

Sample Table for 061020

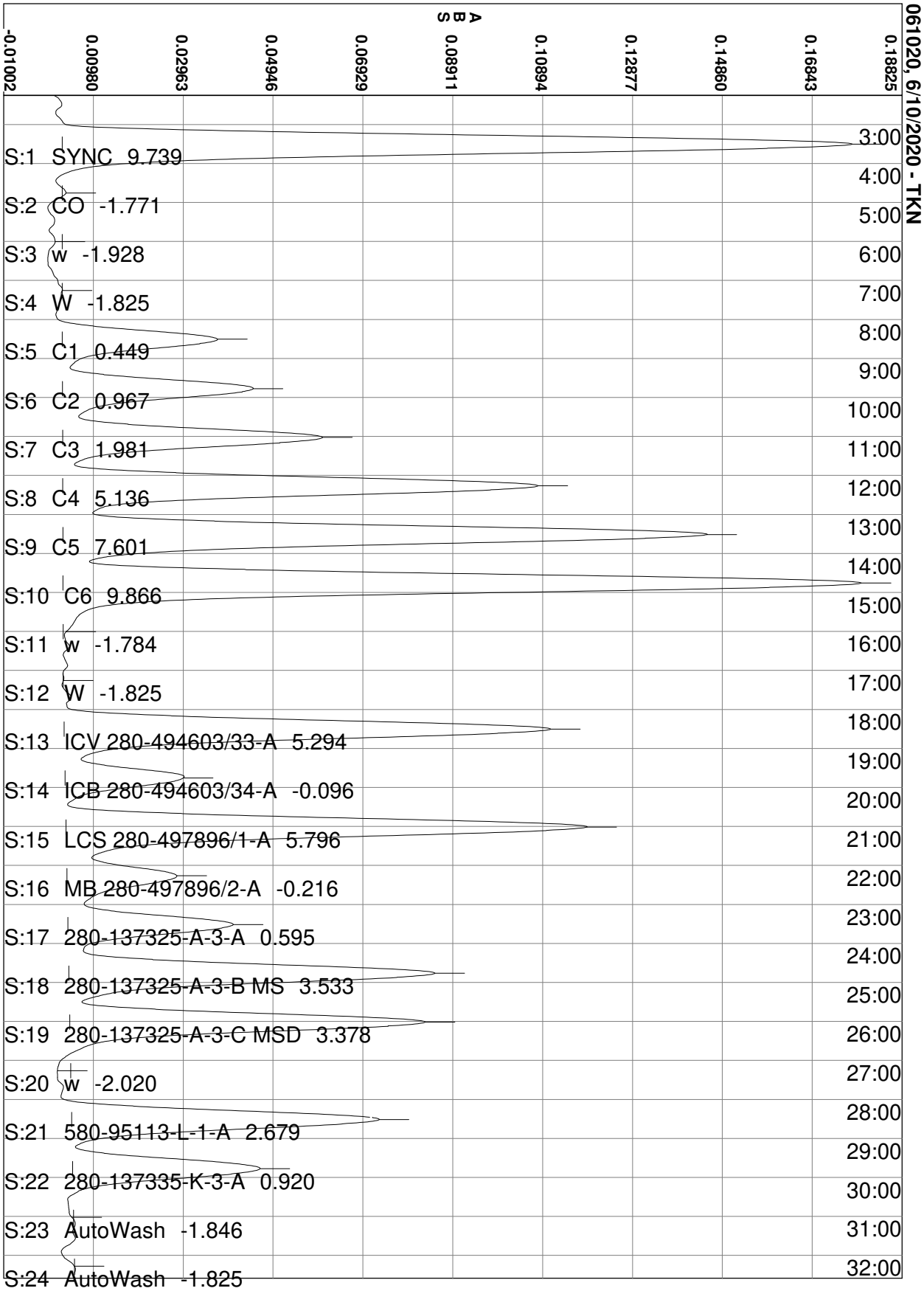
	Position	Identifier	Type	Cup Type
1	1:1	SYNC	SYNC	4 ml
2	1:2	CO	Carry over	4 ml
3	1:3	w	Blank	4 ml
4	1:4	W	Wash	4 ml
5	1:5	C1	Calibrant	4 ml
6	1:6	C2	Calibrant	4 ml
7	1:7	C3	Calibrant	4 ml
8	1:8	C4	Calibrant	4 ml
9	1:9	C5	Calibrant	4 ml
10	1:10	C6	Calibrant	4 ml
11	1:13	w	Blank	4 ml
12	1:14	W	Wash	4 ml
13	1:15	ICV 280-494603/33-A	Unknown	4 ml
14	1:16	ICB 280-494603/34-A	Unknown	4 ml
15	1:17	LCS 280-497896/1-A	Unknown	4 ml
16	1:18	MB 280-497896/2-A	Unknown	4 ml
17	1:19	280-137325-A-3-A	Unknown	4 ml
18	1:20	280-137325-A-3-B MS	Unknown	4 ml
19	1:21	280-137325-A-3-C MSD	Unknown	4 ml
20	1:22	w	Blank	4 ml
21	1:23	580-95113-L-1-A	Unknown	4 ml
22	1:24	280-137335-K-3-A	Unknown	4 ml
23	1:25	280-137335-J-4-A	Unknown	4 ml
24	1:26	280-137335-K-1-A	Unknown	4 ml
25	1:27	280-137335-J-2-A	Unknown	4 ml
26	1:28	280-137368-A-1-A	Unknown	4 ml
27	1:29	280-137368-A-3-A	Unknown	4 ml
28	1:30	w	Blank	4 ml
29	1:31	CCV 280-494603/35-A	Unknown	4 ml
30	1:32	CCB 280-494603/36-A	Unknown	4 ml
31	1:33	280-137260-C-1-A	Unknown	4 ml
32	1:34	280-137225-C-1-A	Unknown	4 ml
33	1:35	280-137225-C-2-A	Unknown	4 ml
34	1:36	280-137225-C-2-B MS	Unknown	4 ml
35	1:37	280-137225-C-2-C MSD	Unknown	4 ml
36	1:38	w	Blank	4 ml
37	1:39	280-137225-C-3-A	Unknown	4 ml
38	1:40	280-137225-C-4-A	Unknown	4 ml
39	1:41	280-137370-A-1-A	Unknown	4 ml
40	1:42	280-137370-A-3-A	Unknown	4 ml
41	1:43	280-137390-J-2-A	Unknown	4 ml
42	1:44	w	Blank	4 ml
43	1:45	CCV 280-494603/35-A	Unknown	4 ml
44	1:46	CCB 280-494603/36-A	Unknown	4 ml

	Position	Identifier	Type	Cup Type
45	1:47	280-137390-J-3-A	Unknown	4 ml
46	1:48	280-137390-J-4-A	Unknown	4 ml
47	1:49	280-137390-K-5-A	Unknown	4 ml
48	1:50	w	Blank	4 ml
49	1:51	w	Blank	4 ml
50	1:52	w	Blank	4 ml
51	1:53	w	Blank	4 ml
52	1:54	w	Blank	4 ml
53	1:55	w	Blank	4 ml
54	1:56	w	Blank	4 ml
55	1:57	w	Blank	4 ml
56	1:58	CCV 280-494603/35-A	Unknown	4 ml
57	1:59	CCB 280-494603/36-A	Unknown	4 ml

Run Name: 061020
Configuration: TKN
Run date: 6/10/2020

	Position	Identifier	Type	Comme	Date	Time	otal	TKN Cor Ht	mg/l
1	1:1	SYNC	SYNC	50;351.2	6/10/2020	5:22:13 PM	1	0.17402	9.739
2	1:2	CO	Carry over		6/10/2020	5:22:44 PM	1	0.00082	-1.771
3	1:3	w	Blank		6/10/2020	5:23:59 PM	1	-0.00155	-1.928
4	1:4	W	Wash		6/10/2020	5:25:14 PM	1	0.00000	-1.825
5	1:5	C1	Calibrant		6/10/2020	5:26:29 PM	1	0.03422	0.449
6	1:6	C2	Calibrant		6/10/2020	5:27:44 PM	1	0.04202	0.967
7	1:7	C3	Calibrant		6/10/2020	5:28:59 PM	1	0.05727	1.981
8	1:8	C4	Calibrant		6/10/2020	5:30:14 PM	1	0.10475	5.136
9	1:9	C5	Calibrant		6/10/2020	5:31:29 PM	1	0.14185	7.601
10	1:10	C6	Calibrant		6/10/2020	5:32:44 PM	1	0.17593	9.866
		Curve #:							1
		Curve Type:							Linear
		Correlation:							0.99966
		Intercept:							0.027462
		Linear coef:							0.015049
11	1:13	w	Blank		6/10/2020	5:33:59 PM	1	0.00061	-1.784
12	1:14	W	Wash		6/10/2020	5:35:13 PM	1	0.00000	-1.825
13	1:15	ICV 280-494603/33-A	Unknown		6/10/2020	5:36:28 PM	1	0.10712	5.294
14	1:16	ICB 280-494603/34-A	Unknown		6/10/2020	5:37:43 PM	1	0.02601	-0.096
15	1:17	LCS 280-497896/1-A	Unknown		6/10/2020	5:38:58 PM	1	0.11468	5.796
16	1:18	MB 280-497896/2-A	Unknown		6/10/2020	5:40:13 PM	1	0.02422	-0.216
17	1:19	280-137325-A-3-A	Unknown		6/10/2020	5:41:28 PM	1	0.03641	0.595
18	1:20	280-137325-A-3-B MS	Unknown		6/10/2020	5:42:43 PM	1	0.08063	3.533
19	1:21	280-137325-A-3-C MSD	Unknown		6/10/2020	5:43:58 PM	1	0.07829	3.378
20	1:22	w	Blank		6/10/2020	5:45:13 PM	1	-0.00294	-2.020
21	1:23	580-95113-L-1-A	Unknown		6/10/2020	5:46:28 PM	1	0.06778	2.679
22	1:24	280-137335-K-3-A	Unknown		6/10/2020	5:47:43 PM	1	0.04131	0.920
23	0	AutoWash	AutoWash		6/10/2020	5:48:58 PM	1	-0.00033	-1.846
24	0	AutoWash	AutoWash		6/10/2020	5:50:13 PM	1	0.00000	-1.825
25	1:25	280-137335-J-4-A	Unknown		6/10/2020	5:51:28 PM	1	0.05646	1.927
26	1:26	280-137335-K-1-A	Unknown		6/10/2020	5:52:43 PM	1	0.04822	1.380
27	1:27	280-137335-J-2-A	Unknown		6/10/2020	5:53:58 PM	1	0.06434	2.451
28	1:28	280-137368-A-1-A	Unknown		6/10/2020	5:55:14 PM	1	0.02963	0.144
29	1:29	280-137368-A-3-A	Unknown		6/10/2020	5:56:29 PM	1	0.03037	0.193
30	1:30	w	Blank		6/10/2020	5:57:44 PM	1	-0.00203	-1.960
31	1:31	CCV 280-494603/35-A	Unknown		6/10/2020	5:58:59 PM	1	0.10008	4.826
32	1:32	CCB 280-494603/36-A	Unknown		6/10/2020	6:00:14 PM	1	0.02371	-0.249
33	1:33	280-137260-C-1-A	Unknown		6/10/2020	6:01:29 PM	1	0.03994	0.829
34	1:34	280-137225-C-1-A	Unknown		6/10/2020	6:02:44 PM	1	0.04703	1.301
35	0	AutoWash	AutoWash		6/10/2020	6:03:59 PM	1	-0.00259	-1.997
36	0	AutoWash	AutoWash		6/10/2020	6:05:14 PM	1	0.00000	-1.825
37	1:35	280-137225-C-2-A	Unknown		6/10/2020	6:06:29 PM	1	0.02987	0.160
38	1:36	280-137225-C-2-B MS	Unknown		6/10/2020	6:07:44 PM	1	0.07162	2.934

	Position	Identifier	Type	Commei	Date	Time	otal	Cor Ht	TKN mg/l
39	1:37	280-137225-C-2-C MSD	Unknown		6/10/2020	6:08:58 PM	1	0.06967	2.805
40	1:38	w	Blank		6/10/2020	6:10:13 PM	1	-0.00015	-1.835
41	1:39	280-137225-C-3-A	Unknown		6/10/2020	6:11:28 PM	1	0.04474	1.148
42	1:40	280-137225-C-4-A	Unknown		6/10/2020	6:12:43 PM	1	0.03704	0.637
43	1:41	280-137370-A-1-A	Unknown		6/10/2020	6:13:58 PM	1	0.03046	0.199
44	1:42	280-137370-A-3-A	Unknown		6/10/2020	6:15:13 PM	1	0.03195	0.298
45	1:43	280-137390-J-2-A	Unknown		6/10/2020	6:16:28 PM	1	0.03402	0.436
46	1:44	w	Blank		6/10/2020	6:17:43 PM	1	0.00010	-1.818
47	0	AutoWash	AutoWash		6/10/2020	6:18:58 PM	1	0.00078	-1.773
48	0	AutoWash	AutoWash		6/10/2020	6:20:13 PM	1	0.00000	-1.825
49	1:45	CCV 280-494603/35-A	Unknown		6/10/2020	6:21:28 PM	1	0.10842	5.380
50	1:46	CCB 280-494603/36-A	Unknown		6/10/2020	6:22:43 PM	1	0.02496	-0.166
51	1:47	280-137390-J-3-A	Unknown		6/10/2020	6:23:58 PM	1	0.02951	0.136
52	1:48	280-137390-J-4-A	Unknown		6/10/2020	6:25:13 PM	1	0.02897	0.100
53	1:49	280-137390-K-5-A	Unknown		6/10/2020	6:26:28 PM	1	0.02716	-0.020
54	1:50	w	Blank		6/10/2020	6:27:43 PM	1	0.00454	-1.523
55	1:51	w	Blank		6/10/2020	6:28:58 PM	1	0.00385	-1.569
56	1:52	w	Blank		6/10/2020	6:30:14 PM	1	0.00209	-1.686
57	1:53	w	Blank		6/10/2020	6:31:29 PM	1	0.00054	-1.789
58	1:54	w	Blank		6/10/2020	6:32:44 PM	1	0.00339	-1.600
59	0	AutoWash	AutoWash		6/10/2020	6:33:59 PM	1	0.00000	-1.825
60	0	AutoWash	AutoWash		6/10/2020	6:35:14 PM	1	0.00000	-1.825
61	1:55	w	Blank		6/10/2020	6:36:29 PM	1	0.04118	0.911
62	1:56	w	Blank		6/10/2020	6:37:44 PM	1	0.10663	5.261
63	1:57	w	Blank		6/10/2020	6:38:59 PM	1	0.00010	-1.818
64	1:58	CCV 280-494603/35-A	Unknown		6/10/2020	6:40:14 PM	1	0.09966	4.798
65	1:59	CCB 280-494603/36-A	Unknown		6/10/2020	6:41:29 PM	1	0.02485	-0.174
66	0	AutoWash	AutoWash		6/10/2020	6:42:44 PM	1	-0.00008	-1.830
67	0	AutoWash	AutoWash		6/10/2020	6:43:58 PM	1	0.00000	-1.825


061020, 6/10/2020 - TKN
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0.04946
0.06929
0.08911
0.10894
0.12877
0.14860
0.16843
0.18825
S:1 SYNC 9.739
S:2 CO -1.771
S:3 w -1.928
S:4 W -1.825
S:5 C1 0.449
S:6 C2 0.967
S:7 C3 1.981
S:8 C4 5.136
S:9 C5 7.601
S:10 C6 9.866
S:11 w -1.784
S:12 W -1.825
S:13 ICV 280-494603/33-A 5.294
S:14 ICB 280-494603/34-A -0.096
S:15 LCS 280-497896/1-A 5.796
S:16 MB 280-497896/2-A -0.216
S:17 280-137325-A-3-A 0.595
S:18 280-137325-A-3-B MS 3.533
S:19 280-137325-A-3-C MSD 3.378
S:20 w -2.020
S:21 580-95113-L-1-A 2.679
S:22 280-137335-K-3-A 0.920
S:23 AutoWash -1.846
S:24 AutoWash -1.825
3:00
4:00
5:00
6:00
7:00
8:00
9:00
10:00
11:00
12:00
13:00
14:00
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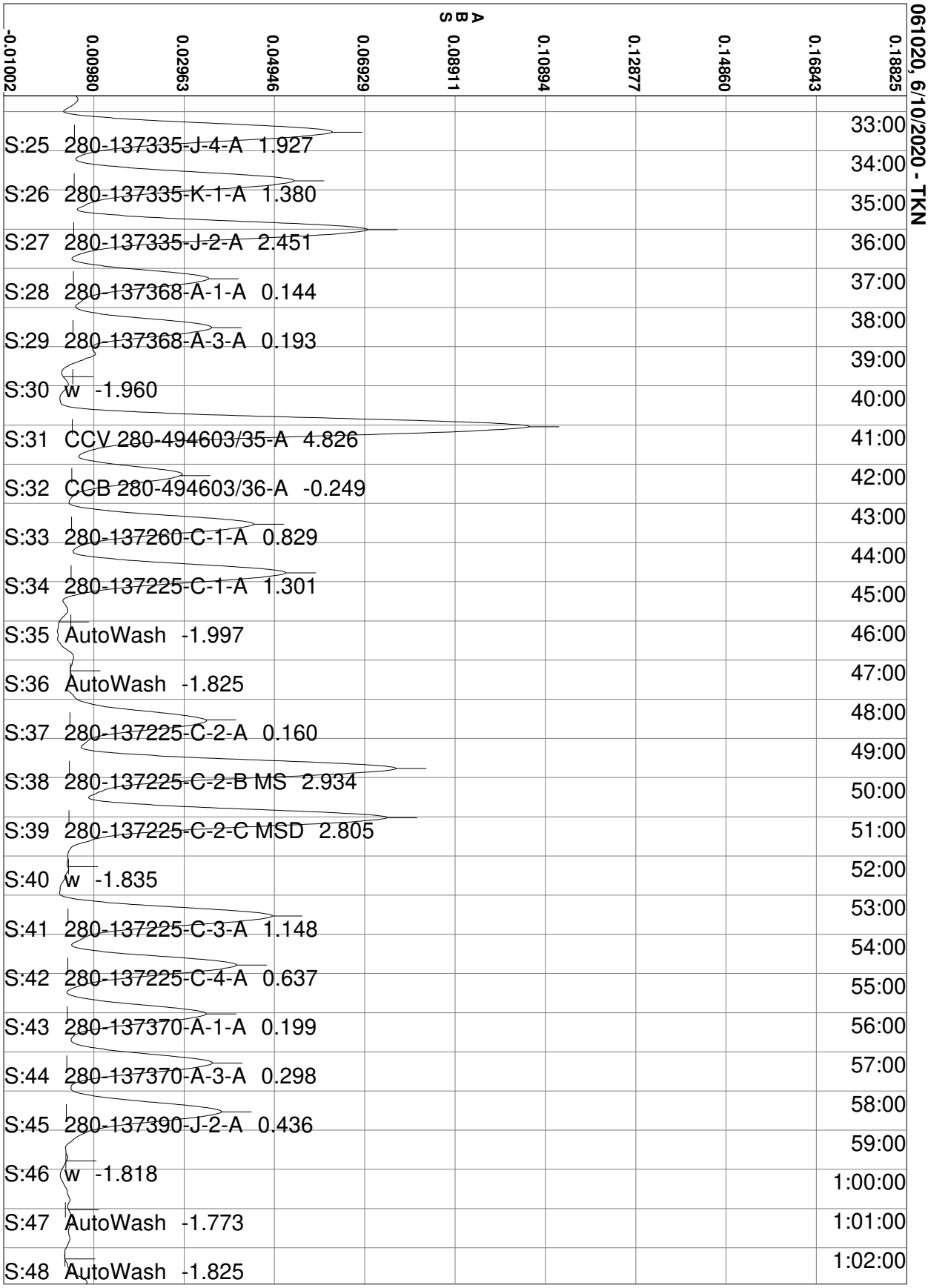
061020, 6/10/2020 - TKN
0.18825
0.16843
0.14860
0.12877
0.10894
0.08911
0.06929
0.04946
0.02963
0.00980
-0.01002
ABS
33:00
34:00
35:00
36:00
37:00
38:00
39:00
40:00
41:00
42:00
43:00
44:00
45:00
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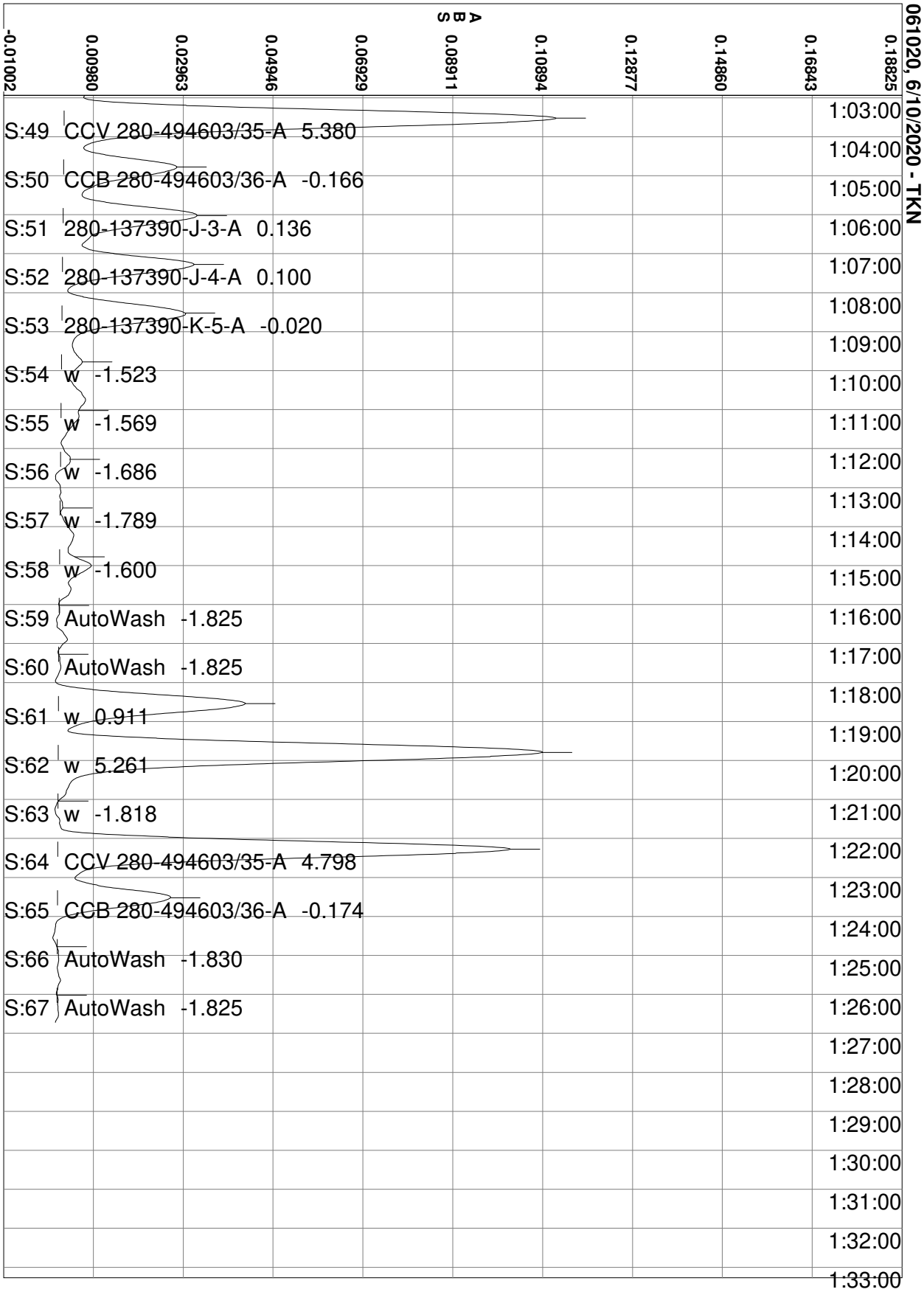
59:00
1:00:00
1:01:00
1:02:00
S:25 280-137335-J-4-A 1.927
S:26 280-137335-K-1-A 1.380
S:27 280-137335-J-2-A 2.451
S:28 280-137368-A-1-A 0.144
S:29 280-137368-A-3-A 0.193
S:30 w -1.960
S:31 CCV 280-494603/35-A 4.826
S:32 CCB 280-494603/36-A -0.249
S:33 280-137260-C-1-A 0.829
S:34 280-137225-C-1-A 1.301
S:35 AutoWash -1.997
S:36 AutoWash -1.825
S:37 280-137225-C-2-A 0.160
S:38 280-137225-C-2-B MS 2.934
S:39 280-137225-C-2-C MSD 2.805
S:40 w -1.835
S:41 280-137225-C-3-A 1.148
S:42 280-137225-C-4-A 0.637
S:43 280-137370-A-1-A 0.199
S:44 280-137370-A-3-A 0.298
S:45 280-137390-J-2-A 0.436
S:46 w -1.818
S:47 AutoWash -1.773
S:48 AutoWash -1.825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0.00980
0.02963
0.04946
0.06929
0.08911
0.10894
0.12877
0.14860
0.16843
0.18825
S:49 CCV 280-494603/35-A 5.380
S:50 CCB 280-494603/36-A -0.166
S:51 280-137390-J-3-A 0.136
S:52 280-137390-J-4-A 0.100
S:53 280-137390-K-5-A -0.020
S:54 w -1.523
S:55 w -1.569
S:56 w -1.686
S:57 w -1.789
S:58 w -1.600
S:59 AutoWash -1.825
S:60 AutoWash -1.825
S:61 w 0.911
S:62 w 5.261
S:63 w -1.818
S:64 CCV 280-494603/35-A 4.798
S:65 CCB 280-494603/36-A -0.174
S:66 AutoWash -1.830
S:67 AutoWash -1.825
1:03:00
1:04:00
1:05:00
1:06:00
1:07:00
1:08:00
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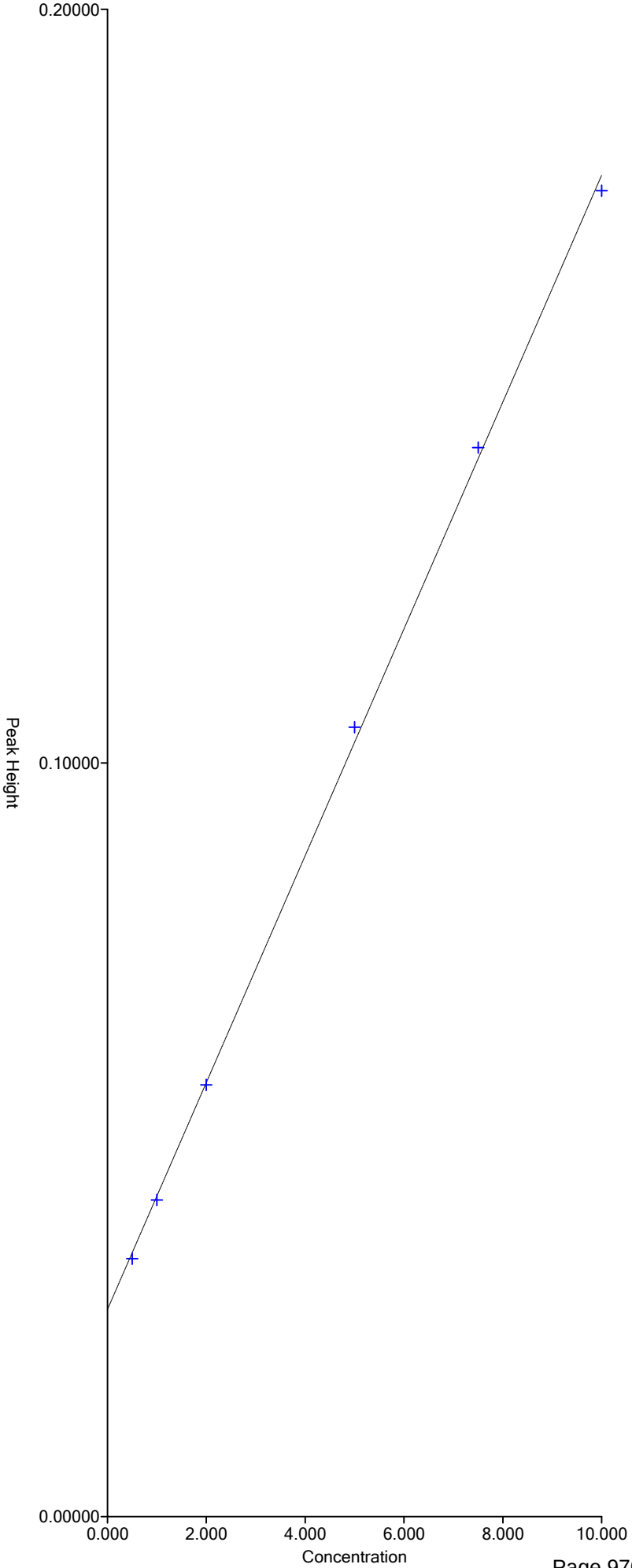
Calibration for TKN



Segment 1: Equation: y = 0.01505x + 0.02746
Correlation: 0.9997

X Range = 0.000 to 10.000
Y Range = 0.00000 to 7.20000

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\060920.RST
Sample table path	C:\FLOW_4\060920.tbl
Method path	C:\FLOW_4\nox.mth
Date acquired	09-Jun-20
Time acquired	19:50

Date	Time	Cup	Name
09-Jun-20	16:21	109	SYNC
09-Jun-20	16:23	0	Carryover
09-Jun-20	16:25	0	Carryover (Statistics)
09-Jun-20	16:27	0	read baseline
09-Jun-20	16:29	101	Cal 0.00 ppb
09-Jun-20	16:31	102	Cal 50.0 ppb
09-Jun-20	16:33	103	Cal 100 ppb
09-Jun-20	16:35	104	Cal 500 ppb
09-Jun-20	16:37	105	Cal 1000 ppb
09-Jun-20	16:39	106	Cal 2500 ppb
09-Jun-20	16:41	107	Cal 5000 ppb
09-Jun-20	16:43	108	Cal 7500 ppb
09-Jun-20	16:45	109	Cal 10000 ppb
09-Jun-20	16:47	0	Blank
09-Jun-20	16:49	0	Read Baseline
09-Jun-20	16:51	110	5000 PPB NO2
09-Jun-20	16:53	111	ICV 5000 PPB
09-Jun-20	16:55	112	ICV 2000 PPB
09-Jun-20	16:57	0	ICB
09-Jun-20	16:59	0	Read Baseline
09-Jun-20	17:01	107	LCS
09-Jun-20	17:03	0	MB
09-Jun-20	17:05	113	280-137242-B-2
09-Jun-20	17:07	114	ms 280-137242-B-2
09-Jun-20	17:09	115	msd 280-137242-B-2
09-Jun-20	17:11	116	280-137242-B-7
09-Jun-20	17:13	117	280-137222-I-1
09-Jun-20	17:15	118	280-137260-C-1
09-Jun-20	17:17	119	280-137225-C-1
09-Jun-20	17:19	120	280-137225-C-2
09-Jun-20	17:21	121	280-137225-C-3
09-Jun-20	17:23	122	280-137225-C-4
09-Jun-20	17:25	0	Rinse
09-Jun-20	17:27	0	Read Baseline
09-Jun-20	17:29	107	CCV 5000 ppb
09-Jun-20	17:31	105	CCVL 1000 ppb
09-Jun-20	17:33	0	CCB
09-Jun-20	17:35	0	Read Baseline
09-Jun-20	17:37	123	280-137331-B-12
09-Jun-20	17:39	124	280-137105-B-4
09-Jun-20	17:41	125	280-137105-B-3
09-Jun-20	17:43	126	ms 280-137105-B-3
09-Jun-20	17:45	127	msd 280-137105-B-3
09-Jun-20	17:47	128	280-137105-B-8

Result path	C:\FLOW_4\060920.RST
Sample table path	C:\FLOW_4\060920.tbl
Method path	C:\FLOW_4\nox.mth
Date acquired	09-Jun-20
Time acquired	19:50

Date	Time	Cup	Name
09-Jun-20	17:49	129	280-137105-B-9
09-Jun-20	17:51	130	280-137105-B-13
09-Jun-20	17:53	131	280-137106-B-5
09-Jun-20	17:55	132	280-137106-B-6
09-Jun-20	17:57	0	Rinse
09-Jun-20	17:59	0	Read Baseline
09-Jun-20	18:01	107	CCV 5000 ppb
09-Jun-20	18:03	105	CCVL 1000 ppb
09-Jun-20	18:05	0	CCB
09-Jun-20	18:07	0	Read Baseline
09-Jun-20	18:09	133	280-137106-B-7
09-Jun-20	18:11	134	280-137106-B-9
09-Jun-20	18:13	135	280-137106-B-10
09-Jun-20	18:15	136	280-137106-B-11
09-Jun-20	18:17	107	LCS
09-Jun-20	18:19	0	MB
09-Jun-20	18:21	137	280-137106-B-4
09-Jun-20	18:23	138	ms 280-137106-B-4
09-Jun-20	18:25	139	msd 280-137106-B-4
09-Jun-20	18:27	140	280-137106-B-13
09-Jun-20	18:29	0	Rinse
09-Jun-20	18:31	0	Read Baseline
09-Jun-20	18:33	107	CCV 5000 ppb
09-Jun-20	18:35	105	CCVL 1000 ppb
09-Jun-20	18:37	0	CCB
09-Jun-20	18:39	0	Read Baseline
09-Jun-20	18:41	141	280-137106-B-15
09-Jun-20	18:43	142	280-137352-B-1
09-Jun-20	18:45	143	280-137352-B-2
09-Jun-20	18:47	144	280-137352-B-3
09-Jun-20	18:49	145	280-137352-B-4
09-Jun-20	18:51	146	280-137352-B-5
09-Jun-20	18:53	147	280-137352-B-6
09-Jun-20	18:55	148	280-137352-B-7
09-Jun-20	18:57	149	280-137352-B-8
09-Jun-20	18:59	150	ms 280-137352-B-8
09-Jun-20	19:01	0	Rinse
09-Jun-20	19:03	0	Read Baseline
09-Jun-20	19:05	107	CCV 5000 ppb
09-Jun-20	19:07	105	CCVL 1000 ppb
09-Jun-20	19:09	0	CCB
09-Jun-20	19:11	0	Read Baseline
09-Jun-20	19:13	151	msd 280-137352-B-8
09-Jun-20	19:15	152	280-137352-B-9
09-Jun-20	19:17	153	280-137352-B-10
09-Jun-20	19:19	154	280-137352-B-11
09-Jun-20	19:21	155	280-137352-B-12
09-Jun-20	19:23	156	280-137352-B-13
09-Jun-20	19:25	157	280-137106-B-13
09-Jun-20	19:27	158	280-137106-B-4
09-Jun-20	19:29	159	ms 280-137106-B-4
09-Jun-20	19:31	160	msd 280-137106-B-4
09-Jun-20	19:33	0	Rinse
09-Jun-20	19:35	0	Read Baseline
09-Jun-20	19:37	107	CCV 5000 ppb
09-Jun-20	19:39	105	CCVL 1000 ppb
09-Jun-20	19:41	0	CCB

Result path	C:\FLOW_4\060920.RST
Sample table path	C:\FLOW_4\060920.tbl
Method path	C:\FLOW_4\nox.mth
Date acquired	09-Jun-20
Time acquired	19:50

Date	Time	Cup	Name
09-Jun-20	19:43	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\060920.RST
Sample table path	C:\FLOW_4\060920.tbl
Method path	C:\FLOW_4\nox.mth
Date acquired	09-Jun-20
Time acquired	19:50

	Nitrate as N					
Name	Response	Calc [ppb]	Flags	Mean Response	Mean Calc [ppb]	
SYNC	2425508	10255.569	HI			
Carryover	9185	12.212				
Carryover	1368	-29.806	LO			
(Statistics)				5277	-8.790	N
read baseline	0	-37.168	BL			
Cal 0.00 ppb	2047	-26.156	LO			
Cal 50.0 ppb	10415	18.821				
Cal 100 ppb	19476	67.445				
Cal 500 ppb	101900	506.248				
Cal 1000 ppb	202847	1034.984				
Cal 2500 ppb	520503	2636.448				
Cal 5000 ppb	1010538	4921.413				
Cal 7500 ppb	1624879	7467.940				
Cal 10000 ppb	2351432	10022.883	HI			
Blank	-3991	-58.651	LO			
Read Baseline	0	-37.168	BL			
5000 PPB NO2	993818	4847.160				
ICV 5000 PPB	979939	4785.324				
ICV 2000 PPB	402168	2050.917				
ICB	-653	-40.682	LO			
Read Baseline	0	-37.168	BL			
LCS	1087990	5261.956				
MB	-1070	-42.926	LO			
280-137242-B-2	29274	119.944				
ms 280-137242-B-2	842786	4164.552				
msd 280-137242-B-2	880298	4336.091				
280-137242-B-7	29328	120.230				
280-137222-I-1	463911	117903.148				
280-137260-C-1	3263	-19.618	LO			
280-137225-C-1	774	-33.005	LO			
280-137225-C-2	3104	-20.473	LO			
280-137225-C-3	2025	-26.276	LO			
280-137225-C-4	93725	463.013				
Rinse	111	-36.570	LO			
Read Baseline	0	-37.168	BL			
CCV 5000 ppb	1043114	5065.329				
CCVL 1000 ppb	200905	1024.901				
CCB	291	-35.603	LO			
Read Baseline	0	-37.168	BL			
280-137331-B-12	29981	123.725				
280-137105-B-4	-1241	-43.846	LO			
280-137105-B-3	458724	233239.922				
ms 280-137105-B-3	1170955	562050.062				
msd 280-137105-B-3	1162737	558527.312				
280-137105-B-8	95780	473.886				

Result path C:\FLOW_4\060920.RST
Sample table path C:\FLOW_4\060920.tbl
Method path C:\FLOW_4\nox.mth
Date acquired 09-Jun-20
Time acquired 19:50

	Nitrate as N				
Name	Response	Calc [ppb]	Flags	Mean Response	Mean Calc [ppb]
280-137105-B-9	229622	1173.623			
280-137105-B-13	83104	406.744			
280-137106-B-5	1837423	413328.562			
280-137106-B-6	4296	-14.060	LO		
Rinse	707	-33.366	LO		
Read Baseline	0	-37.168	BL		
CCV 5000 ppb	996864	4860.709			
CCVL 1000 ppb	187628	955.884			
CCB	47	-36.912	LO		
Read Baseline	0	-37.168	BL		
280-137106-B-7	257527	1317.392			
280-137106-B-9	-1006	-42.581	LO		
280-137106-B-10	5619	-6.947	LO		
280-137106-B-11	26487	105.017			
LCS	1076426	5211.469			
MB	-420	-39.427	LO		
280-137106-B-4	3815241	13667.313	HI		
ms 280-137106-B-4	3297584	12608.114	HI UM		
msd 280-137106-B-4	865708	4269.528	UM FL		
280-137106-B-13	-817	-41.562	LO UM		
Rinse	207	-36.053	LO UM		
Read Baseline	0	-37.168	BL UM		
CCV 5000 ppb	1140312	5488.823	UM		
CCVL 1000 ppb	206748	1055.227	UM		
CCB	1401	-29.628	LO		
Read Baseline	0	-37.168	BL		
280-137106-B-15	3383	-18.969	LO		
280-137352-B-1	695790	3479.650			
280-137352-B-2	4104	-15.092	LO		
280-137352-B-3	751044	3739.473			
280-137352-B-4	252498	1291.539			
280-137352-B-5	478104	2428.163			
280-137352-B-6	488342	2478.615			
280-137352-B-7	401849	2049.323			
280-137352-B-8	388	-35.079	LO		
ms 280-137352-B-8	866847	4274.733			
Rinse	-1393	-44.666	LO		
Read Baseline	0	-37.168	BL		
CCV 5000 ppb	1121644	5408.175			
CCVL 1000 ppb	213794	1091.748			
CCB	-144	-37.941	LO		
Read Baseline	0	-37.168	BL		
msd 280-137352-B-8	825120	4083.312			
280-137352-B-9	-164	-38.050	LO		
280-137352-B-10	-431	-39.487	LO		
280-137352-B-11	1567	-28.738	LO		
280-137352-B-12	32334	136.317			
280-137352-B-13	10825	21.025			
280-137106-B-13	-3620	-56.654	LO		
280-137106-B-4	3353903	127355.320	HI		
ms 280-137106-B-4	3644336	133454.000	HI		
msd 280-137106-B-4	3617596	132925.547	HI		
Rinse	1810	-27.428	LO FL		
Read Baseline	0	-37.168	BL		
CCV 5000 ppb	1098496	5307.716			
CCVL 1000 ppb	212666	1085.903			
CCB	443	34.785	LO		

Result path	C:\FLOW_4\060920.RST
Sample table path	C:\FLOW_4\060920.tbl
Method path	C:\FLOW_4\nox.mth
Date acquired	09-Jun-20
Time acquired	19:50

	Nitrate as N				
Name	Response	Calc [ppb]	Flags	Mean Response	Mean Calc [ppb]
Read Baseline	0	-37.168	BL		

Nitrate as N:Calibration 1: Peak 5-102

File name: C:\FLOW_4\060920.RST
Date: 09-Jun-20
Operator: svc

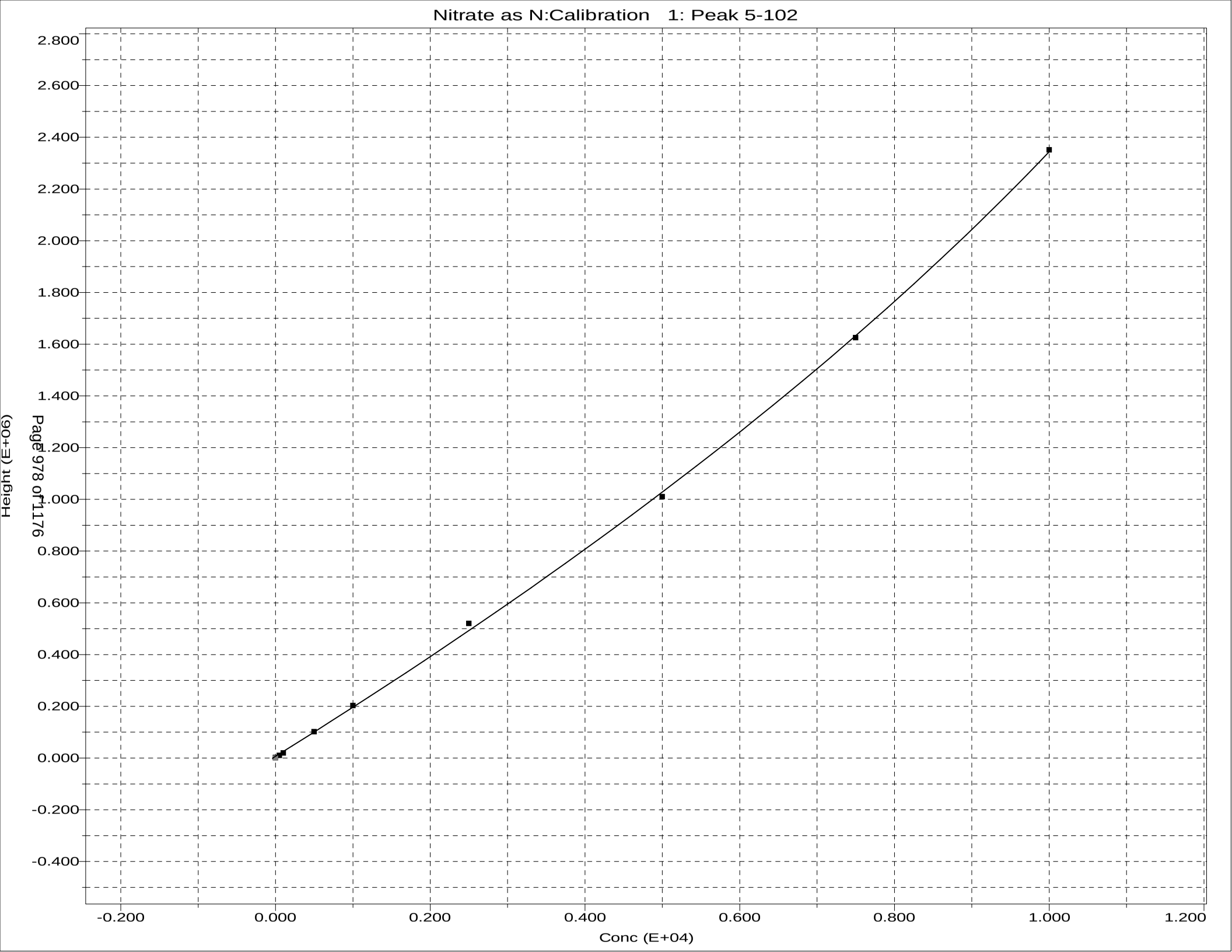
*	Name	Conc	Height
*	Cal 0.00 ppb	0.000000	2046.999268
*	Cal 50.0 ppb	50.000000	10415.020508
*	Cal 100 ppb	100.000000	19475.654297
*	Cal 500 ppb	500.000000	101899.929688
*	Cal 1000 ppb	1000.000000	202847.218750
*	Cal 2500 ppb	2500.000000	520502.968750
*	Cal 5000 ppb	5000.000000	1010537.750000
*	Cal 7500 ppb	7500.000000	1624879.375000
*	Cal 10000 ppb	10000.000000	2351432.500000

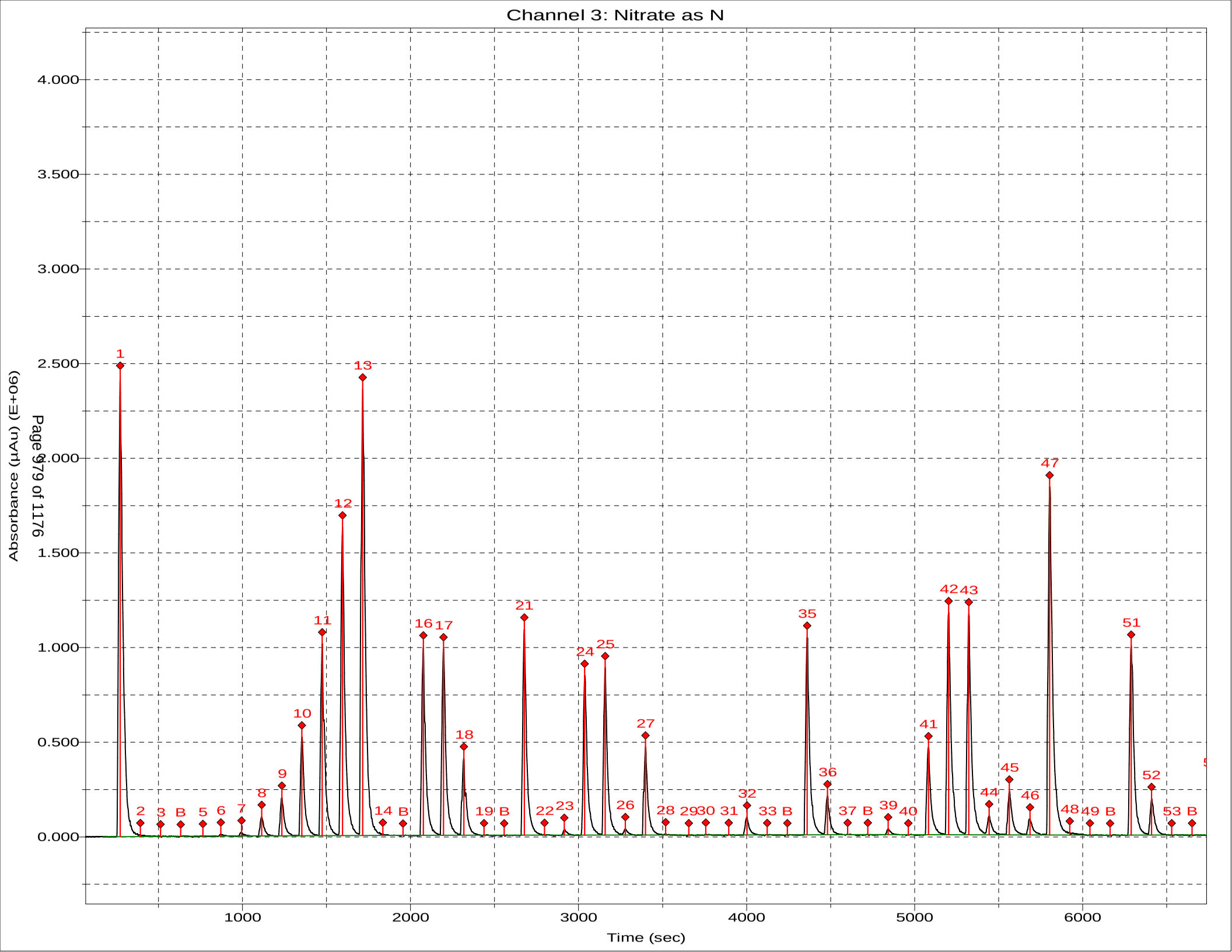
Calib Coef:
x=cyy+by+a
a: (intercept) -3.7168e+01
b: 5.3806e-03
c: -4.6880e-10

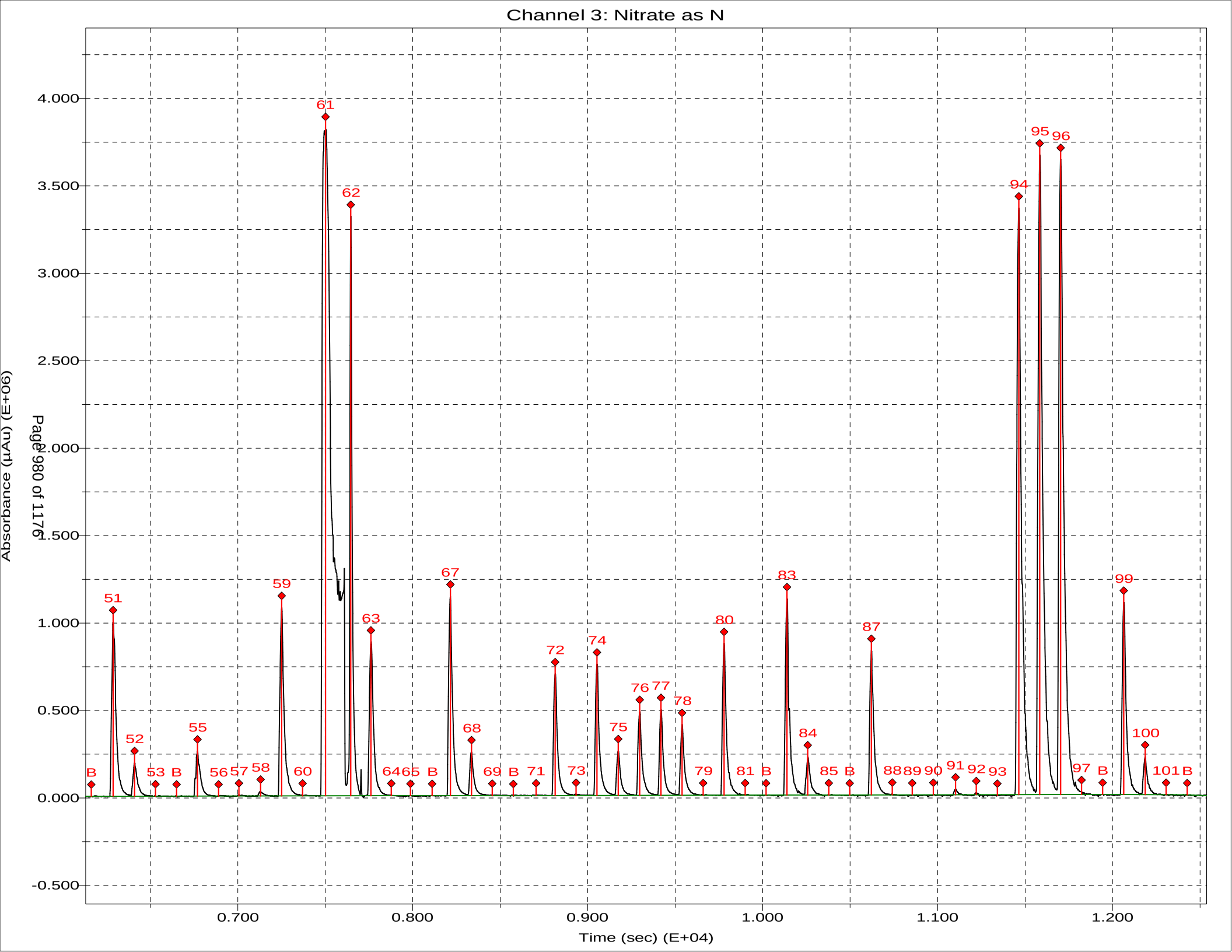
Corr Coef: 0.999862

Carryover: 0.379%

No Drift Peaks


Nitrate as N:Calibration 1: Peak 5-102
Height (E+06)
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
-0.200
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)
4.000
3.500
3.000
2.500
2.000
1.500
1.000
0.500
0.000
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)
4.000
3.500
3.000
2.500
2.000
1.500
1.000
0.500
0.000
-0.500
0.700
0.800
0.900
1.000
1.100
1.200
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 99 100 101 B

Sample Table - 060920.tbl

File name: C:\FLOW_4\060920.TBL
Date: 09-Jun-20

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		pH
0	Read Baseline	RB	1	1	1		
107	LCS	U	1	1	1		
0	MB	U	1	1	1		
113	280-137242-B-2	U	1	1	1		cl
114	ms 280-137242-B-2	U	1	1	1		cl
115	msd 280-137242-B-2	U	1	1	1		cl
116	280-137242-B-7	U	1	1	1		cl
117	280-137222-I-1	U	1	50 ~~1~~	1		cl
118	280-137260-C-1	U	1	1	1		cl
119	280-137225-C-1	U	1	1	1		cl
120	280-137225-C-2	U	1	1	1		cl
121	280-137225-C-3	U	1	1	1		cl
122	280-137225-C-4	U	1	1	1		cl
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	280-137331-B-12	U	1	1	1		
124	280-137105-B-4	U	1	1	1		cl
125	280-137105-B-3	U	1	100 ~~1~~	1		cl
126	ms 280-137105-B-3	U	1	100 ~~1~~	1		cl
127	msd 280-137105-B-3	U	1	100 ~~1~~	1		cl
128	280-137105-B-8	U	1	1	1		cl
129	280-137105-B-9	U	1	1	1		cl
130	280-137105-B-13	U	1	1	1		cl
131	280-137106-B-5	U	1	50 ~~1~~	1		cl
132	280-137106-B-6	U	1	1	1		cl
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	280-137106-B-7	U	1	1	1		cl
134	280-137106-B-9	U	1	1	1		cl

Cup	Name	Type	R	Dil	Wt	Vial	Comment
135	280-137106-B-10	U	1	1	1		<2
136	280-137106-B-11	U	1	1	1		<2
107	LCS	U	1	1	1		
0	MB	U	1	1	1		
137	280-137106-B-4	U	1	1	1		
~~138~~	~~ms 280-137106-B-4 U~~	~~1~~	~~1~~	~~1~~	~~1~~		~~<2~~
139	msd 280-137106-B-4 U	1	1	1	1		<2
140	280-137106-B-13	U	1	1	1		<2
0	Rinse	U	1	1	1		<2
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	280-137106-B-15	U	1	1	1		<2
142	280-137352-B-1	U	1	1	1		<2
143	280-137352-B-2	U	1	1	1		<2
144	280-137352-B-3	U	1	1	1		<2
145	280-137352-B-4	U	1	1	1		<2
146	280-137352-B-5	U	1	1	1		<2
147	280-137352-B-6	U	1	1	1		<2
148	280-137352-B-7	U	1	1	1		<2
149	280-137352-B-8	U	1	1	1		<2
150	ms 280-137352-B-8 U	1	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		
151	msd 280-137352-B-8 U	1	1	1	1		
152	280-137352-B-9	U	1	1	1		<2
153	280-137352-B-10	U	1	1	1		<2
154	280-137352-B-11	U	1	1	1		<2
155	280-137352-B-12	U	1	1	1		<2
156	280-137352-B-13	U	1	1	1		<2
157	280-137~~352~~106-B-1~~3~~1	U	1	1	1		<2
158	280-137~~352~~106-B-1~~5~~4	U	1	10 ~~1~~	1		<2
159	~~280~~-137106-B-4 MS		1	10 ~~1~~	1		<2
160	~~280~~-137106-B-4 MSD		1	10 ~~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		

Sulfide by Titration

Analyst:	**SAH**	**SOP Information:**	
Date:	6/5/2020	Number:	91
Titration Solutions		**Calibration Information**	
Solution 1:	Iodine	Source/Ver-Lot#:	INT_01738
TALS ID	Iod_00257	Prep Date:	4/20/2020
Normality:	0.025	Made By:	BB
Solution 2:	sodium thiosulfate	Concentration:	892
TALS ID	Na Thio_00166	Expiration Date:	7/20/2020
Normality:	0.025		
	Starch Indicator		
TALS ID	Starch Ind_00062		

	CAL Volume	Buret Start	Buret End	mL Iodine	Final mL	Conc mg/L
CAL	5	0.00	8.40	20	8.40	928.000
CAL	5	8.50	17.80	20	9.30	856.000

For SM4500 S2 D colorimetric

ICV Information	
Source/Ver-Lot#:	INT_01685
Prep Date:	4/20/2020
Made By:	BB
Concentration:	812
Expiration Date:	7/20/2020

	CAL Volume	Buret Start	Buret End	mL Iodine	Final mL	Conc mg/L
ICV	5	0.00	9.80	20	9.80	816.000
ICV	5	9.90	19.80	20	9.90	808.000

TALS Raw Data Report

Job Number: 280-137110-1
LIMS Batch: 497568
Equipment: NOEQUIP

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **LCS 280-497566/1-A** Inj Date: 6/5/2020 9:56:00AM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Sulfide		12 mg/L	mg/L	67	44	110		
Sulfide as H2S		12.75 mg/L	mg/L					

RS# 2 Lab ID: **MB 280-497566/2-A** Inj Date: 6/5/2020 9:56:00AM 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	1.9 U mg/L					
Sulfide as H2S		-0.85 mg/L	2.0 U mg/L					

RS# 3 Lab ID: **280-137114-C-1-D** Inj Date: 6/5/2020 9:56:00AM 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					

RS# 4 Lab ID: **280-137114-C-1-E MS** Inj Date: 6/5/2020 9:56:00AM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Sulfide		10.4 mg/L	mg/L	54	44	110		
Sulfide as H2S		11.05 mg/L	mg/L					

RS# 5 Lab ID: **280-137114-C-1-F MSD** Inj Date: 6/5/2020 9:56:00AM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Sulfide		8.8 mg/L	mg/L	45	44	110	17	20
Sulfide as H2S		9.35 mg/L	mg/L					

RS# 8 Lab ID: **280-137110-E-2-B** Inj Date: 6/5/2020 9:56:00AM 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					

RS# 9 Lab ID: **280-137110-E-3-B** Inj Date: 6/5/2020 9:56:00AM 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	1.9 U mg/L					
Sulfide as H2S		-0.85 mg/L	2.0 U mg/L					

RS# 10 Lab ID: **280-137110-E-4-B** Inj Date: 6/5/2020 9:56:00AM 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	1.9 U mg/L					
Sulfide as H2S		-1.7 mg/L	2.0 U mg/L					

RS# 11 Lab ID: **280-137110-E-5-B** Inj Date: 6/5/2020 9:56:00AM 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	1.9 U mg/L					
Sulfide as H2S		-0.85 mg/L	2.0 U mg/L					

RS# 12 Lab ID: **280-137110-E-6-B** Inj Date: 6/5/2020 9:56:00AM 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	1.9 U mg/L					
Sulfide as H2S		-0.85 mg/L	2.0 U mg/L					

TALS Raw Data Report

RS# 13 Lab ID: **280-137110-E-10-B** Inj Date: 6/5/2020 9:56:00AM 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				

TALS Raw Data Report

Job Number: 280-137114-1
LIMS Batch: 497568
Equipment: NOEQUIP

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **LCS 280-497566/1-A** Inj Date: 6/5/2020 9:56:00AM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		12 mg/L	mg/L	67	44 110		
Sulfide as H2S		12.75 mg/L	mg/L				

RS# 2 Lab ID: **MB 280-497566/2-A** Inj Date: 6/5/2020 9:56:00AM 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	1.9 U mg/L				
Sulfide as H2S		-0.85 mg/L	2.0 U mg/L				

RS# 3 Lab ID: **280-137114-C-1-D** Inj Date: 6/5/2020 9:56:00AM 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				

RS# 4 Lab ID: **280-137114-C-1-E MS** Inj Date: 6/5/2020 9:56:00AM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		10.4 mg/L	mg/L	54	44 110		
Sulfide as H2S		11.05 mg/L	mg/L				

RS# 5 Lab ID: **280-137114-C-1-F MSD** Inj Date: 6/5/2020 9:56:00AM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		8.8 mg/L	mg/L	45	44 110	17	20
Sulfide as H2S		9.35 mg/L	mg/L				

RS# 6 Lab ID: **280-137114-C-2-B** Inj Date: 6/5/2020 9:56:00AM 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# 7 Lab ID: **280-137114-C-4-B** Inj Date: 6/5/2020 9:56:00AM 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				

TALS Raw Data Report

Job Number: 280-137175-1
LIMS Batch: 497568
Equipment: NOEQUIP

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **LCS 280-497566/1-A** Inj Date: 6/5/2020 9:56:00AM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		12 mg/L	mg/L	67	44 110		
Sulfide as H2S		12.75 mg/L	mg/L				

RS# 2 Lab ID: **MB 280-497566/2-A** Inj Date: 6/5/2020 9:56:00AM 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	1.9 U mg/L				
Sulfide as H2S		-0.85 mg/L	2.0 U mg/L				

RS# 3 Lab ID: **280-137114-C-1-D** Inj Date: 6/5/2020 9:56:00AM 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				

RS# 4 Lab ID: **280-137114-C-1-E MS** Inj Date: 6/5/2020 9:56:00AM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		10.4 mg/L	mg/L	54	44 110		
Sulfide as H2S		11.05 mg/L	mg/L				

RS# 5 Lab ID: **280-137114-C-1-F MSD** Inj Date: 6/5/2020 9:56:00AM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		8.8 mg/L	mg/L	45	44 110	17	20
Sulfide as H2S		9.35 mg/L	mg/L				

RS# 14 Lab ID: **280-137175-C-1-B** Inj Date: 6/5/2020 9:56:00AM 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# 15 Lab ID: **280-137175-C-2-B** Inj Date: 6/5/2020 9:56:00AM 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				

RS# 16 Lab ID: **280-137175-C-3-B** Inj Date: 6/5/2020 9:56:00AM 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	1.9 U mg/L				
Sulfide as H2S		-0.85 mg/L	2.0 U mg/L				

TALS Raw Data Report

Job Number: 280-137225-1
LIMS Batch: 497568
Equipment: NOEQUIP

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **LCS 280-497566/1-A** Inj Date: 6/5/2020 9:56:00AM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		12 mg/L	mg/L	67	44 110		
Sulfide as H2S		12.75 mg/L	mg/L				

RS# 2 Lab ID: **MB 280-497566/2-A** Inj Date: 6/5/2020 9:56:00AM 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	1.9 U mg/L				
Sulfide as H2S		-0.85 mg/L	2.0 U mg/L				

RS# 3 Lab ID: **280-137114-C-1-D** Inj Date: 6/5/2020 9:56:00AM 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				

RS# 4 Lab ID: **280-137114-C-1-E MS** Inj Date: 6/5/2020 9:56:00AM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		10.4 mg/L	mg/L	54	44 110		
Sulfide as H2S		11.05 mg/L	mg/L				

RS# 5 Lab ID: **280-137114-C-1-F MSD** Inj Date: 6/5/2020 9:56:00AM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		8.8 mg/L	mg/L	45	44 110	17	20
Sulfide as H2S		9.35 mg/L	mg/L				

RS# 17 Lab ID: **280-137225-E-1-B** Inj Date: 6/5/2020 9:56:00AM 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# 18 Lab ID: **280-137225-E-3-B** Inj Date: 6/5/2020 9:56:00AM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		-223.2 mg/L	1.9 U mg/L				
Sulfide as H2S		-237.15 mg/L	2.0 U mg/L				

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Titration Data Review Checklist

LIMS Batch Number: 497568	**Method (circle one):**	**QC Type (circle):**
Analyst/1st Reviewer: Alexa David **Date:** 06/05/20	**2310B 2320B 2340C** **4500 S2 F 4500 SO3 B 9030B/9034**	**Standard DoD QAPP Other**
Matrix (circle): Water Solid	**Automated or Manual (circle one)**	**Instrument ID (circle one if applicable):** **AT2 AT3**

Review Items	Yes	No	2nd Rev	If No, why is data reportable?
A. Sample Storage and Pretreatment				
1. Is sample pH verified and documented prior to analysis? (if required)	✓		✓	
2. For samples requiring pH adjustment is the amount of acid/base used documented?	NA		✓	If no, list details:
3. Are samples analyzed within the required hold time?	✓		✓	NCM:
4. Pre-treatment reagents used to remove interferences are documented.	NA		✓	
B. Calibration / Instrument				
5. Was the normality of the titrant verified and found acceptable?	✓		✓	Comments:
6. For potentiometric titration, the pH meter is calibrated with 5 buffers bracketing range of samples and QC.	✓		✓	Comments:
7. Calibration standards are analyzed at the beginning and end of the analytical sequence and after every 10 sample analyses. (samples/dilutions/reanalyses).	~~✓~~ AD 6/05 NA		✓	Comments:
8. Calibrations standards (ICV/CCV) are within 90-110% recovery.	~~✓~~ AD 6/05 NA		✓	
C. Sample and Batch QC				
9. Blanks are analyzed at the beginning, end and after every 10 sample analyses in the sequence.	✓		✓	
10. Results of blank analyses (MB, ICB, CCB) are < ½ RL (<RL for alkalinity unless DoD)	✓		✓	□ No analyte > ½ RL in associated samples □ Sample results >10x blank
11. A standard from a second source (SRM, CRM, LCS) is included in the analytical sequence.	✓		✓	
12. The recovery of the 2nd source material falls within 90-110% or manufacturer's limits.	✓		✓	
13. Samples analyses are bracketing by acceptable CCV/CCBs.	NA		✓	□ No analyte > RL in associated samples □ Sample results >10x blank □ Sample results qualified
14. MS/MSD analyzed at required frequency and recoveries within limits. (If recoveries out of limits, verify not due to lab error) (Required for 2340C, 4500 S2 F, 9030B/9034)	✓		✓	□ Non-conformance (NCM) added □ Sample results >4X spike conc.
15. Duplicate analyzed at required frequency and RPD within limits. (Required for 2310B, 2320B, 4500 SO3 B)	NA		✓	□ Non-conformance (NCM) added □ Sample results ND or <2X RL

Sulfide by Titration

Analyst:	**SAH**	**SOP Information:**	
Date:	6/9/2020	Number:	91
Titration Solutions		**Calibration Information**	
Solution 1:	Iodine	Source/Ver-Lot#:	INT_01762
TALS ID	Iod_00257	Prep Date:	6/8/2020
Normality:	0.025	Made By:	SAH
Solution 2:	sodium thiosulfate	Concentration:	1116
TALS ID	Na Thio_00166	Expiration Date:	9/8/2020
Normality:	0.025		
	Starch Indicator		
TALS ID	Starch Ind_00062		

	CAL Volume	Buret Start	Buret End	mL Iodine	Final mL	Conc mg/L
CAL	5	0.00	5.90	20	5.90	1128.000
CAL	5	6.00	12.20	20	6.20	1104.000

For SM4500 S2 D colorimetric

ICV Information	
Source/Ver-Lot#:	INT_01709
Prep Date:	6/9/2020
Made By:	SAH
Concentration:	952
Expiration Date:	9/9/2020

	CAL Volume	Buret Start	Buret End	mL Iodine	Final mL	Conc mg/L
ICV	5	0.00	8.20	20	8.20	944.000
ICV	5	8.30	16.30	20	8.00	960.000

TALS Raw Data Report

Job Number: 280-137225-1
LIMS Batch: 498013
Equipment: NOEQUIP

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **LCS 280-498010/1-A** Inj Date: 6/9/2020 11:38:00AM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Sulfide		20 mg/L	mg/L	90	44	110		
Sulfide as H2S		21.25 mg/L	mg/L					

RS# 2 Lab ID: **MB 280-498010/2-A** Inj Date: 6/9/2020 11:38:00AM 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: **280-137225-E-2-A** Inj Date: 6/9/2020 11:38:00AM 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# 4 Lab ID: **280-137225-E-2-B MS** Inj Date: 6/9/2020 11:38:00AM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Sulfide		20.8 mg/L	mg/L	93	44	110		
Sulfide as H2S		22.1 mg/L	mg/L					

RS# 5 Lab ID: **280-137225-E-2-C MSD** Inj Date: 6/9/2020 11:38:00AM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Sulfide		18.4 mg/L	mg/L	82	44	110	12	20
Sulfide as H2S		19.55 mg/L	mg/L					

RS# 6 Lab ID: **280-137225-E-4-A** Inj Date: 6/9/2020 11:38:00AM 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					

TALS Raw Data Report

Job Number: 280-137328-1
LIMS Batch: 498013
Equipment: NOEQUIP

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **LCS 280-498010/1-A** Inj Date: 6/9/2020 11:38:00AM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		20 mg/L	mg/L	90	44 110		
Sulfide as H2S		21.25 mg/L	mg/L				

RS# 2 Lab ID: **MB 280-498010/2-A** Inj Date: 6/9/2020 11:38:00AM 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: **280-137225-E-2-A** Inj Date: 6/9/2020 11:38:00AM 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# 4 Lab ID: **280-137225-E-2-B MS** Inj Date: 6/9/2020 11:38:00AM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		20.8 mg/L	mg/L	93	44 110		
Sulfide as H2S		22.1 mg/L	mg/L				

RS# 5 Lab ID: **280-137225-E-2-C MSD** Inj Date: 6/9/2020 11:38:00AM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		18.4 mg/L	mg/L	82	44 110	12	20
Sulfide as H2S		19.55 mg/L	mg/L				

RS# 8 Lab ID: **280-137328-C-6-A** Inj Date: 6/9/2020 11:38:00AM 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				

TALS Raw Data Report

Job Number: 280-137332-1
LIMS Batch: 498013
Equipment: NOEQUIP

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **LCS 280-498010/1-A** Inj Date: 6/9/2020 11:38:00AM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		20 mg/L	mg/L	90	44 110		
Sulfide as H2S		21.25 mg/L	mg/L				

RS# 2 Lab ID: **MB 280-498010/2-A** Inj Date: 6/9/2020 11:38:00AM 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: **280-137225-E-2-A** Inj Date: 6/9/2020 11:38:00AM 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# 4 Lab ID: **280-137225-E-2-B MS** Inj Date: 6/9/2020 11:38:00AM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		20.8 mg/L	mg/L	93	44 110		
Sulfide as H2S		22.1 mg/L	mg/L				

RS# 5 Lab ID: **280-137225-E-2-C MSD** Inj Date: 6/9/2020 11:38:00AM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		18.4 mg/L	mg/L	82	44 110	12	20
Sulfide as H2S		19.55 mg/L	mg/L				

RS# 9 Lab ID: **280-137332-C-1-A** Inj Date: 6/9/2020 11:38:00AM 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				

RS# 10 Lab ID: **280-137332-C-2-A** Inj Date: 6/9/2020 11:38:00AM 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# 11 Lab ID: **280-137332-C-3-A** Inj Date: 6/9/2020 11:38:00AM 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				

RS# 12 Lab ID: **280-137332-C-5-A** Inj Date: 6/9/2020 11:38:00AM 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	1.9 U mg/L				
Sulfide as H2S		-0.85 mg/L	2.0 U mg/L				

TALS Raw Data Report

Job Number: 280-137335-1
LIMS Batch: 498013
Equipment: NOEQUIP

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **LCS 280-498010/1-A** Inj Date: 6/9/2020 11:38:00AM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Sulfide		20 mg/L	ug/L	90	44	110		
Sulfide as H2S		21.25 mg/L	ug/L					

RS# 2 Lab ID: **MB 280-498010/2-A** Inj Date: 6/9/2020 11:38:00AM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Sulfide		0 mg/L	ug/L					
Sulfide as H2S		0 mg/L	ug/L					

RS# 3 Lab ID: **280-137225-E-2-A** Inj Date: 6/9/2020 11:38:00AM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Sulfide		0 mg/L	ug/L					
Sulfide as H2S		0 mg/L	ug/L					

RS# 4 Lab ID: **280-137225-E-2-B MS** Inj Date: 6/9/2020 11:38:00AM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Sulfide		20.8 mg/L	ug/L	93	44	110		
Sulfide as H2S		22.1 mg/L	ug/L					

RS# 5 Lab ID: **280-137225-E-2-C MSD** Inj Date: 6/9/2020 11:38:00AM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Sulfide		18.4 mg/L	ug/L	82	44	110	12	20
Sulfide as H2S		19.55 mg/L	ug/L					

RS# 13 Lab ID: **280-137335-N-1-A** Inj Date: 6/9/2020 11:38:00AM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Sulfide		0 mg/L	ug/L					
Sulfide as H2S		0 mg/L	ug/L					

TALS Raw Data Report

Job Number: 280-137377-1
LIMS Batch: 498013
Equipment: NOEQUIP

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **LCS 280-498010/1-A** Inj Date: 6/9/2020 11:38:00AM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Sulfide		20 mg/L	mg/L	90	44	110		
Sulfide as H2S		21.25 mg/L	mg/L					

RS# 2 Lab ID: **MB 280-498010/2-A** Inj Date: 6/9/2020 11:38:00AM 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: **280-137225-E-2-A** Inj Date: 6/9/2020 11:38:00AM 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# 4 Lab ID: **280-137225-E-2-B MS** Inj Date: 6/9/2020 11:38:00AM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Sulfide		20.8 mg/L	mg/L	93	44	110		
Sulfide as H2S		22.1 mg/L	mg/L					

RS# 5 Lab ID: **280-137225-E-2-C MSD** Inj Date: 6/9/2020 11:38:00AM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Sulfide		18.4 mg/L	mg/L	82	44	110	12	20
Sulfide as H2S		19.55 mg/L	mg/L					

RS# 7 Lab ID: **280-137377-E-2-A** Inj Date: 6/9/2020 11:38:00AM 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					

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Titration Data Review Checklist

LIMS Batch Number: 498013	**Method (circle one):**	**QC Type (circle):**
Analyst/1st Reviewer: Alexa David **Date:** 06/10/20	**2310B 2320B 2340C** **4500 S2 F 4500 SO3-B 9030B/9034**	**Standard DoD QAPP Other**
Matrix (circle): Water Solid	**Automated or Manual (circle one)**	**Instrument ID (circle one if applicable):** **AT2 AT3**

Review Items	Yes	No	2nd Rev	If No, why is data reportable?
A. Sample Storage and Pretreatment				
1. Is sample pH verified and documented prior to analysis? (if required)	✓		✓	
2. For samples requiring pH adjustment is the amount of acid/base used documented?	NA		✓	If no, list details:
3. Are samples analyzed within the required hold time?	✓		✓	NCM:
4. Pre-treatment reagents used to remove interferences are documented.	NA		✓	
B. Calibration / Instrument				
5. Was the normality of the titrant verified and found acceptable?	✓		✓	Comments:
6. For potentiometric titration, the pH meter is calibrated with 5 buffers bracketing range of samples and QC.	NA		✓	Comments:
7. Calibration standards are analyzed at the beginning and end of the analytical sequence and after every 10 sample analyses. (samples/dilutions/reanalyses).	NA		✓	Comments:
8. Calibrations standards (ICV/CCV) are within 90-110% recovery.	✓		✓	
C. Sample and Batch QC				
9. Blanks are analyzed at the beginning, end and after every 10 sample analyses in the sequence.	NA		✓	
10. Results of blank analyses (MB, ICB, CCB) are < ½ RL (<RL for alkalinity unless DoD)	✓		✓	□ No analyte > ½ RL in associated samples □ Sample results >10x blank
11. A standard from a second source (SRM, CRM, LCS) is included in the analytical sequence.	✓		✓	
12. The recovery of the 2nd source material falls within 90-110% or manufacturer's limits.	✓		✓	
13. Samples analyses are bracketing by acceptable CCV/CCBs.	NA		✓	□ No analyte > RL in associated samples □ Sample results >10x blank □ Sample results qualified
14. MS/MSD analyzed at required frequency and recoveries within limits. (If recoveries out of limits, verify not due to lab error) (Required for 2340C, 4500 S2 F, 9030B/9034)	✓		✓	□ Non-conformance (NCM) added □ Sample results >4X spike conc.
15. Duplicate analyzed at required frequency and RPD within limits. (Required for 2310B, 2320B, 4500 SO3 B)	NA		✓	□ Non-conformance (NCM) added □ Sample results ND or <2X RL

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20200601-91996.b\Info 2_DENPC179_Anions_20200601-1304				
Lims ID:	STD1				
Client ID:					
Sample Type:	IC	Calib Level:	1		
Inject. Date:	01-Jun-2020 12:47:00	ALS Bottle#:	0	Worklist Smp#:	2
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0091996-002				
Misc. Info.:	280-0091996-002				
Operator ID:	wetchemd	Instrument ID:	WC_IonChrom10		
Sublist:	chrom-Anions_IC10*sub2				
Method:	\\chromfs\Denver\ChromData\WC_IonChrom10\20200601-91996.b\Anions_IC10.m				
Limit Group:	Wet - Anions 28D				
Last Update:	02-Jun-2020 12:14:46	Calib Date:	01-Jun-2020 14:14:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20200601-91996.b\Info 2_DENPC179_Anions_20200601-1432				
Column 1 :			Det: Info 2_091554_1		
Process Host:	CTX1039				
First Level Reviewer: pedrickj		Date:	01-Jun-2020 13:10:36		

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.308	3.310	-0.002	960724	0.2000	0.2639	
2 Chloride	4.480	4.477	0.003	3008859	1.00	1.19	
3 Nitrite as N	5.168	5.160	0.008	1169039	NC	NC	M
4 Bromide	6.222	6.210	0.012	262781	0.2000	0.2385	
5 Nitrate as N	6.995	6.957	0.038	1364325	NC	NC	
6 Orthophosphate as P	9.443	9.415	0.028	566668	NC	NC	
7 Sulfate	10.787	10.765	0.022	2086301	1.00	1.27	

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

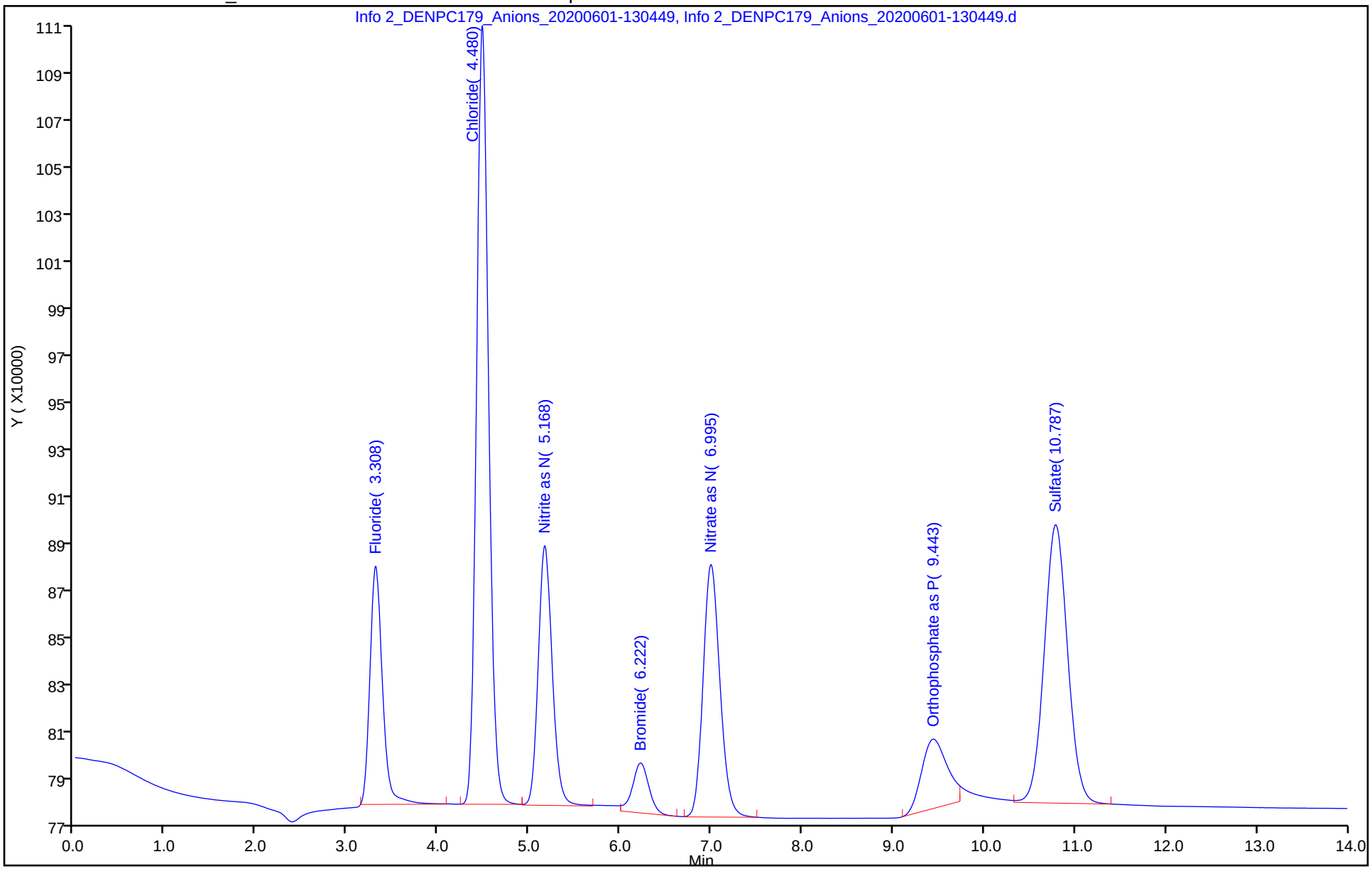
Reagents:

IC Cal low_00527	Amount Added:	0.04	Units: mL
IC CAL cl/so4_00312	Amount Added:	0.04	Units: mL

Report Date: 02-Jun-2020 12:14:47 Chrom Revision: 2.3 05-May-2020 17:48:18

Eurofins TestAmerica, Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20200601-91996.b\Info 2_DENPC179_Anions_20200601-130449.d				
Injection Date:	01-Jun-2020 12:47:00	Instrument ID:	WC_IonChrom10	Operator ID:	wetchemd
Lims ID:	STD1			Worklist Smp#:	2
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC10	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20200601-91996.b\Info 2_DENPC179_Anions_20200601-1322
Lims ID: STD2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 01-Jun-2020 13:04:00 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 280-0091996-003
Misc. Info.: 280-0091996-003
Operator ID: wetchemd Instrument ID: WC_IonChrom10
Sublist: chrom-Anions_IC10*sub2

Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20200601-91996.b\Anions_IC10.m
Limit Group: Wet - Anions 28D
Last Update: 02-Jun-2020 12:14:48 Calib Date: 01-Jun-2020 14:14:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom10\20200601-91996.b\Info 2_DENPC179_Anions_20200601-1432

Column 1 : Det: Info 2_091554_1
Process Host: CTX1039

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.313	3.310	0.003	2275066	0.5000	0.4122	
2 Chloride	4.487	4.477	0.010	7892240	2.50	2.35	
3 Nitrite as N	5.177	5.160	0.017	2864011	NC	NC	
4 Bromide	6.233	6.210	0.023	594319	0.5000	0.4808	
5 Nitrate as N	7.002	6.957	0.045	3539182	NC	NC	
6 Orthophosphate as P	9.447	9.415	0.032	1240422	NC	NC	
7 Sulfate	10.807	10.765	0.042	5269475	2.50	2.30	

QC Flag Legend

Processing Flags
NC - Not Calibrated

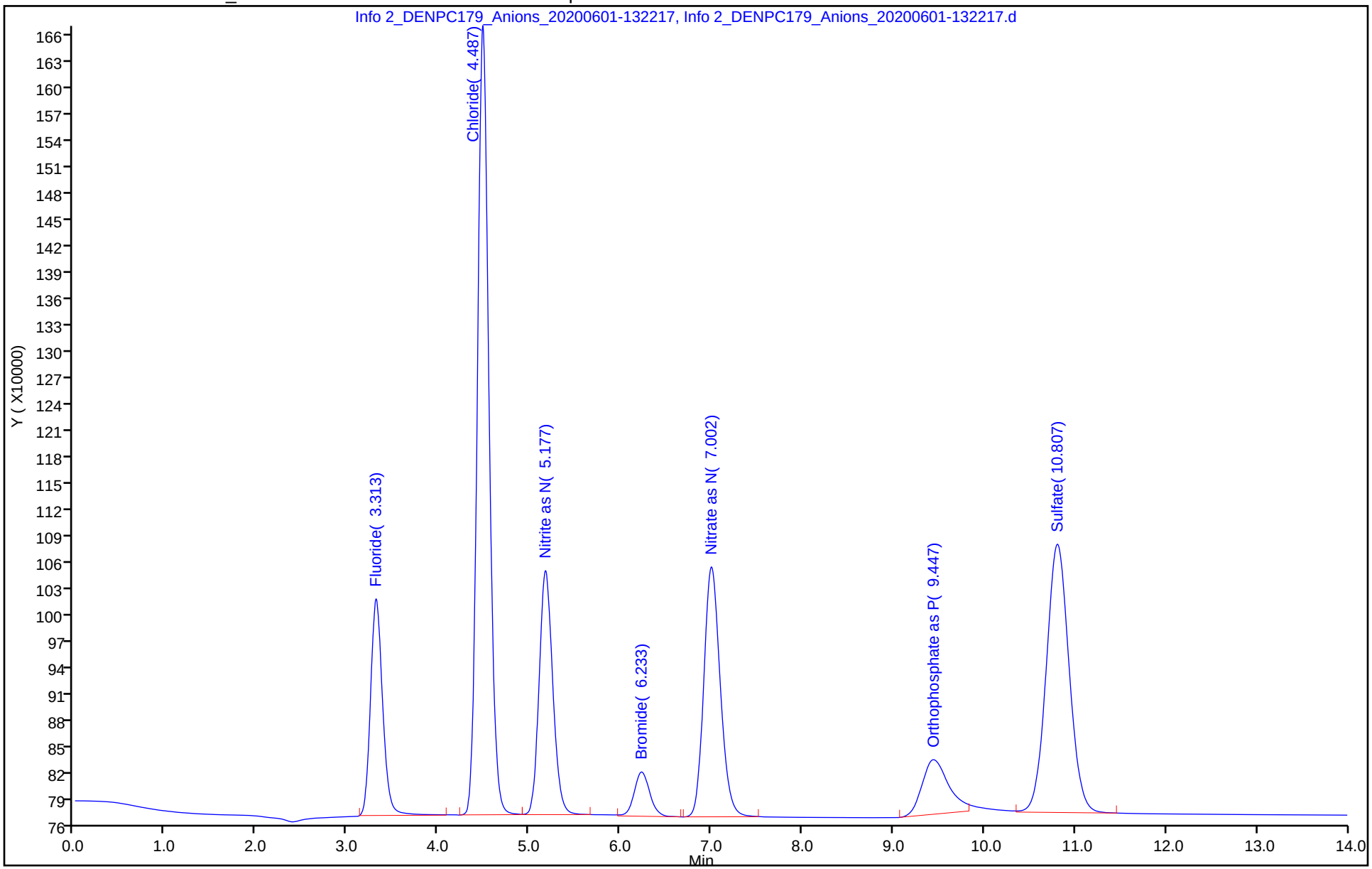
Reagents:

IC Cal low_00527 Amount Added: 0.10 Units: mL
IC CAL cl/so4_00312 Amount Added: 0.10 Units: mL

Report Date: 02-Jun-2020 12:14:48 Chrom Revision: 2.3 05-May-2020 17:48:18

Eurofins TestAmerica, Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20200601-91996.b\Info 2_DENPC179_Anions_20200601-132217.d				
Injection Date:	01-Jun-2020 13:04:00	Instrument ID:	WC_IonChrom10	Operator ID:	wetchemd
Lims ID:	STD2			Worklist Smp#:	3
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC10	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20200601-91996.b\Info 2_DENPC179_Anions_20200601-1339				
Lims ID:	STD3				
Client ID:					
Sample Type:	IC	Calib Level:	3		
Inject. Date:	01-Jun-2020 13:22:00	ALS Bottle#:	0	Worklist Smp#:	4
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0091996-004				
Misc. Info.:	280-0091996-004				
Operator ID:	wetchemd	Instrument ID:	WC_IonChrom10		
Sublist:	chrom-Anions_IC10*sub2				
Method:	\\chromfs\Denver\ChromData\WC_IonChrom10\20200601-91996.b\Anions_IC10.m				
Limit Group:	Wet - Anions 28D				
Last Update:	02-Jun-2020 12:14:48	Calib Date:	01-Jun-2020 14:14:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20200601-91996.b\Info 2_DENPC179_Anions_20200601-1432				
Column 1 :			Det: Info 2_091554_1		
Process Host:	CTX1039				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.312	3.310	0.002	5662439	1.00	0.7945	
2 Chloride	4.480	4.477	0.003	16828074	5.00	4.47	
3 Nitrite as N	5.168	5.160	0.008	6191792	NC	NC	
4 Bromide	6.223	6.210	0.013	1156053	1.00	0.8914	
5 Nitrate as N	6.983	6.957	0.026	7422076	NC	NC	
6 Orthophosphate as P	9.422	9.415	0.007	4528056	NC	NC	
7 Sulfate	10.787	10.765	0.022	11215027	5.00	4.22	

QC Flag Legend

Processing Flags

NC - Not Calibrated

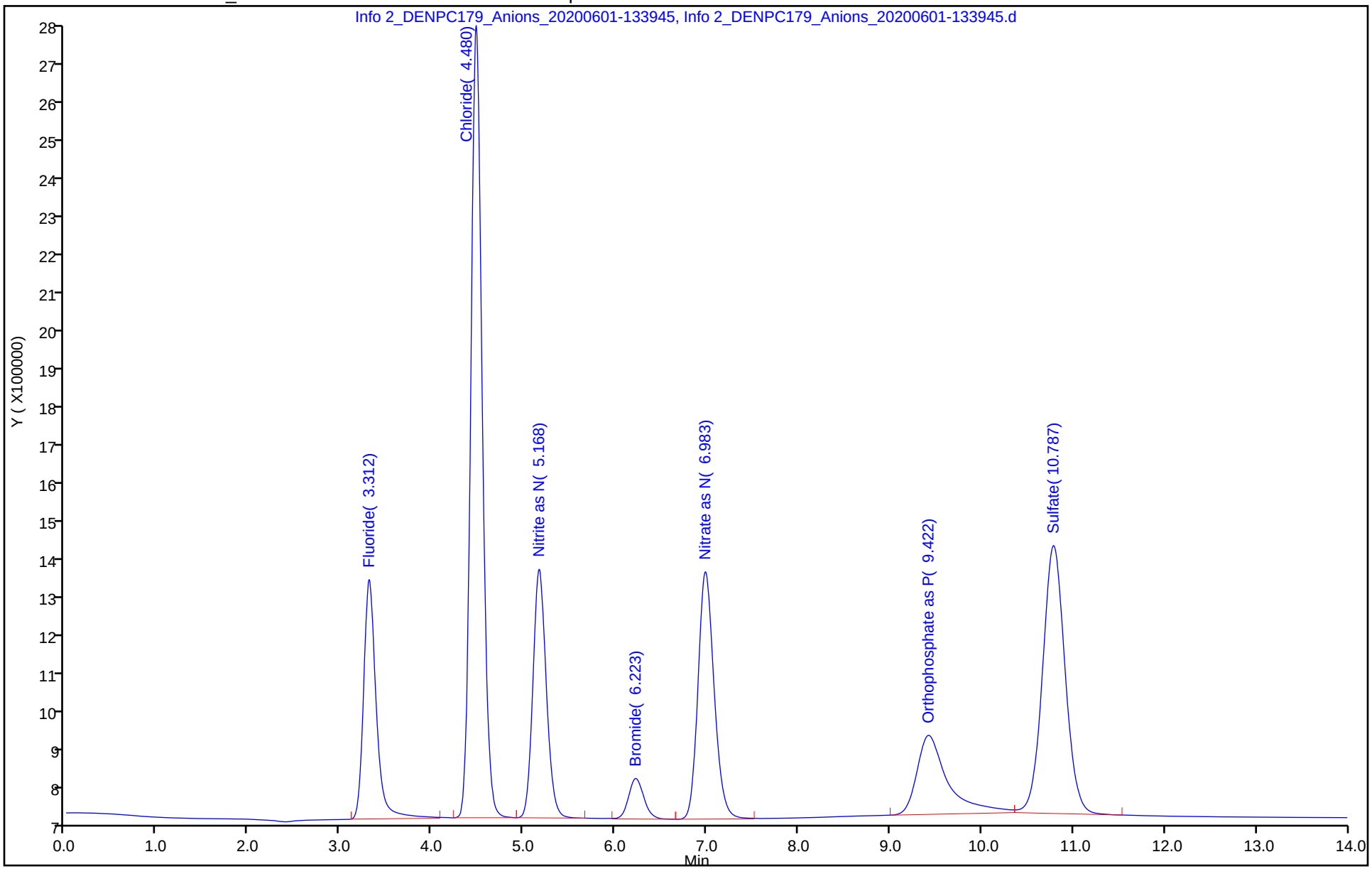
Reagents:

IC Cal low_00527	Amount Added:	0.20	Units: mL
IC CAL cl/so4_00312	Amount Added:	0.20	Units: mL

Report Date: 02-Jun-2020 12:14:49 Chrom Revision: 2.3 05-May-2020 17:48:18

Eurofins TestAmerica, Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20200601-91996.b\Info 2_DENPC179_Anions_20200601-133945.d				
Injection Date:	01-Jun-2020 13:22:00	Instrument ID:	WC_IonChrom10	Operator ID:	wetchemd
Lims ID:	STD3			Worklist Smp#:	4
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC10	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20200601-91996.b\Info 2_DENPC179_Anions_20200601-1357				
Lims ID:	STD4				
Client ID:					
Sample Type:	IC	Calib Level:	4		
Inject. Date:	01-Jun-2020 13:39:00	ALS Bottle#:	0	Worklist Smp#:	5
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0091996-005				
Misc. Info.:	280-0091996-005				
Operator ID:	wetchemd	Instrument ID:	WC_IonChrom10		
Sublist:	chrom-Anions_IC10*sub2				
Method:	\\chromfs\Denver\ChromData\WC_IonChrom10\20200601-91996.b\Anions_IC10.m				
Limit Group:	Wet - Anions 28D				
Last Update:	02-Jun-2020 12:14:49	Calib Date:	01-Jun-2020 14:14:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20200601-91996.b\Info 2_DENPC179_Anions_20200601-1432				
Column 1 :			Det: Info 2_091554_1		
Process Host:	CTX1039				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.315	3.315	0.000	36299181	4.00	4.25	
2 Chloride	4.478	4.478	0.000	245275024	60.0	58.7	
3 Nitrite as N	5.163	5.163	0.000	32433677	NC	NC	
4 Bromide	6.217	6.217	0.000	4939075	4.00	3.66	
5 Nitrate as N	6.963	6.963	0.000	35267803	NC	NC	
6 Orthophosphate as P	9.428	9.428	0.000	22273443	NC	NC	
7 Sulfate	10.777	10.777	0.000	177129224	60.0	57.9	

QC Flag Legend

Processing Flags

NC - Not Calibrated

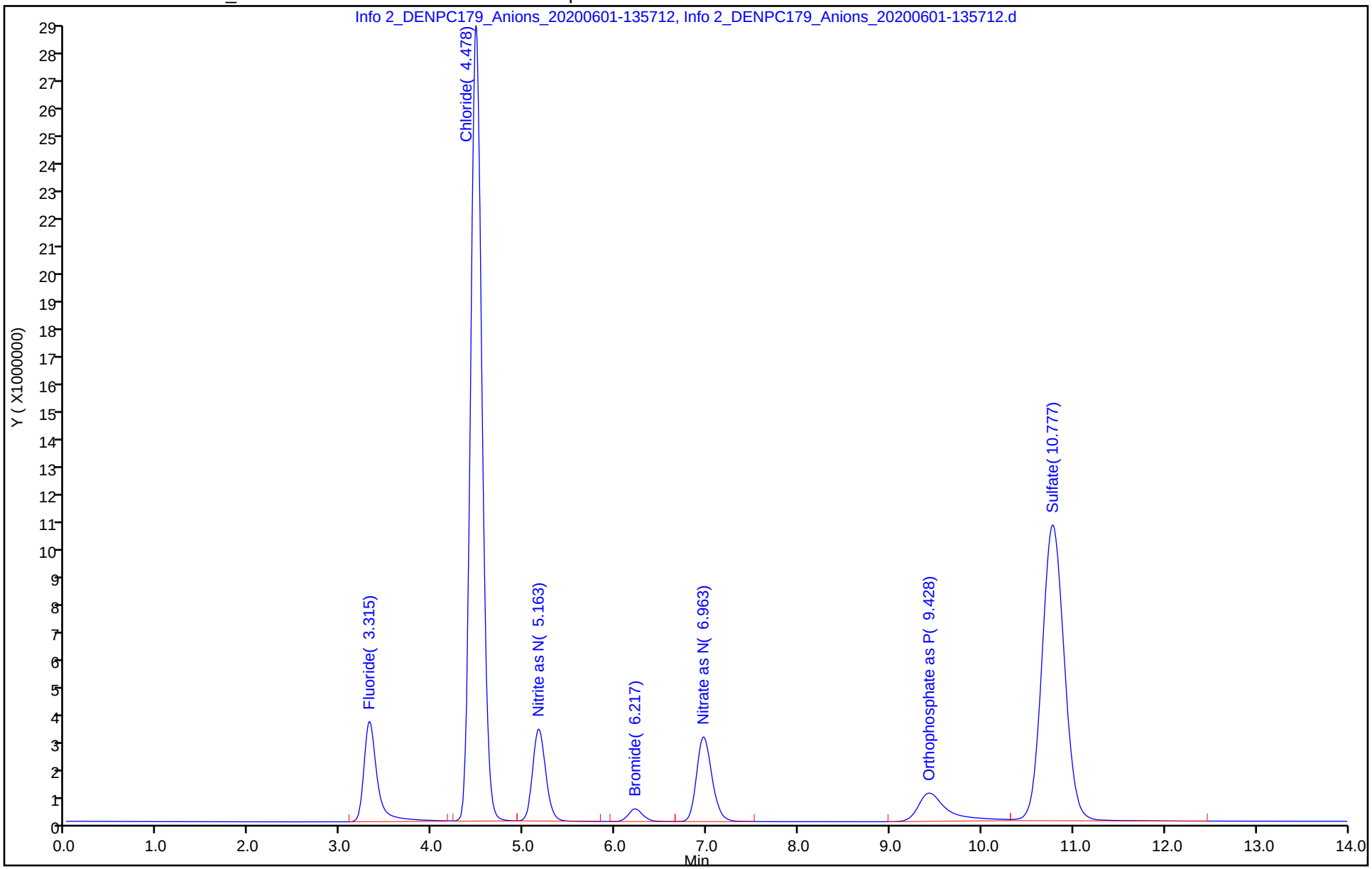
Reagents:

IC Cal low_00527	Amount Added:	0.80	Units: mL
IC CAL cl/so4_00312	Amount Added:	2.40	Units: mL

Report Date: 02-Jun-2020 12:14:49 Chrom Revision: 2.3 05-May-2020 17:48:18

Eurofins TestAmerica, Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20200601-91996.b\Info 2_DENPC179_Anions_20200601-135712.d				
Injection Date:	01-Jun-2020 13:39:00	Instrument ID:	WC_IonChrom10	Operator ID:	wetchemd
Lims ID:	STD4			Worklist Smp#:	5
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC10	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20200601-91996.b\Info 2_DENPC179_Anions_20200601-1414				
Lims ID:	STD5				
Client ID:					
Sample Type:	IC	Calib Level:	5		
Inject. Date:	01-Jun-2020 13:57:00	ALS Bottle#:	0	Worklist Smp#:	6
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0091996-006				
Misc. Info.:	280-0091996-006				
Operator ID:	wetchemd	Instrument ID:	WC_IonChrom10		
Sublist:	chrom-Anions_IC10*sub2				
Method:	\\chromfs\Denver\ChromData\WC_IonChrom10\20200601-91996.b\Anions_IC10.m				
Limit Group:	Wet - Anions 28D				
Last Update:	02-Jun-2020 12:14:49	Calib Date:	01-Jun-2020 14:14:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20200601-91996.b\Info 2_DENPC179_Anions_20200601-1432				
Column 1 :			Det: Info 2_091554_1		
Process Host:	CTX1039				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.318	3.315	0.003	69819024	8.00	8.04	
2 Chloride	4.485	4.478	0.007	492646370	120.0	117.5	
3 Nitrite as N	5.163	5.163	0.000	69818042	NC	NC	
4 Bromide	6.215	6.217	-0.002	10728140	8.00	7.89	
5 Nitrate as N	6.953	6.963	-0.010	76451046	NC	NC	
6 Orthophosphate as P	9.418	9.428	-0.010	43487286	NC	NC	
7 Sulfate	10.773	10.777	-0.004	360690780	120.0	117.4	

QC Flag Legend

Processing Flags

NC - Not Calibrated

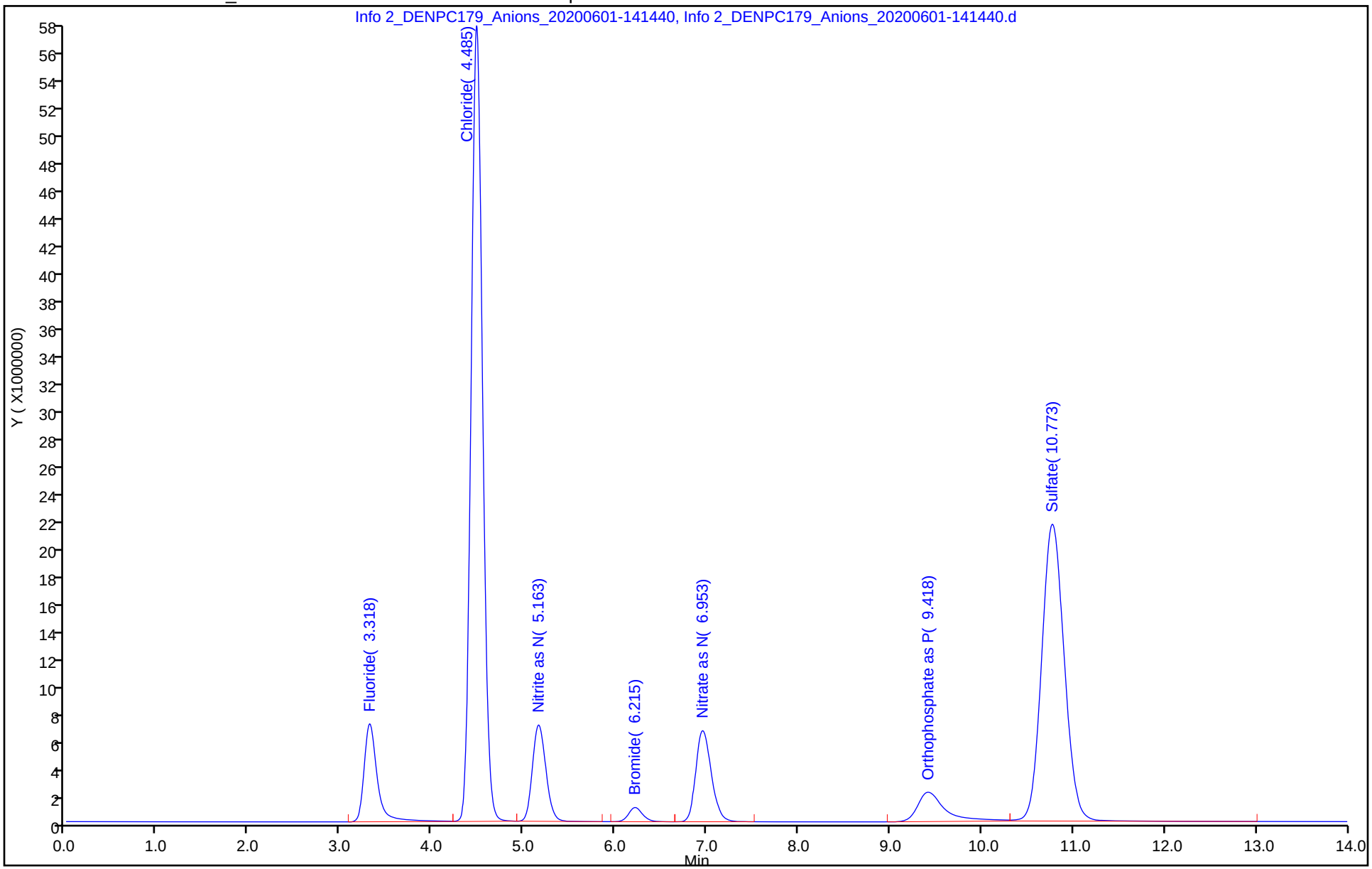
Reagents:

IC Cal low_00527	Amount Added:	1.60	Units: mL
IC CAL cl/so4_00312	Amount Added:	4.80	Units: mL

Report Date: 02-Jun-2020 12:14:50 Chrom Revision: 2.3 05-May-2020 17:48:18

Eurofins TestAmerica, Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20200601-91996.b\Info 2_DENPC179_Anions_20200601-141440.d				
Injection Date:	01-Jun-2020 13:57:00	Instrument ID:	WC_IonChrom10	Operator ID:	wetchemd
Lims ID:	STD5			Worklist Smp#:	6
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC10	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20200601-91996.b\Info 2_DENPC179_Anions_20200601-1432				
Lims ID:	STD6				
Client ID:					
Sample Type:	IC	Calib Level:	6		
Inject. Date:	01-Jun-2020 14:14:00	ALS Bottle#:	0	Worklist Smp#:	7
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0091996-007				
Misc. Info.:	280-0091996-007				
Operator ID:	wetchemd	Instrument ID:	WC_IonChrom10		
Sublist:	chrom-Anions_IC10*sub2				
Method:	\\chromfs\Denver\ChromData\WC_IonChrom10\20200601-91996.b\Anions_IC10.m				
Limit Group:	Wet - Anions 28D				
Last Update:	02-Jun-2020 12:14:50	Calib Date:	01-Jun-2020 14:14:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20200601-91996.b\Info 2_DENPC179_Anions_20200601-1432				
Column 1 :			Det: Info 2_091554_1		
Process Host:	CTX1039				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.317	3.315	0.002	86704208	10.0	9.94	
2 Chloride	4.492	4.478	0.014	858365825	200.0	204.3	
3 Nitrite as N	5.160	5.163	-0.003	90947997	NC	NC	
4 Bromide	6.212	6.217	-0.005	14364128	10.0	10.5	
5 Nitrate as N	6.945	6.963	-0.018	101279649	NC	NC	
6 Orthophosphate as P	9.402	9.428	-0.026	56378441	NC	NC	
7 Sulfate	10.755	10.777	-0.022	632451003	200.0	205.4	

QC Flag Legend

Processing Flags

NC - Not Calibrated

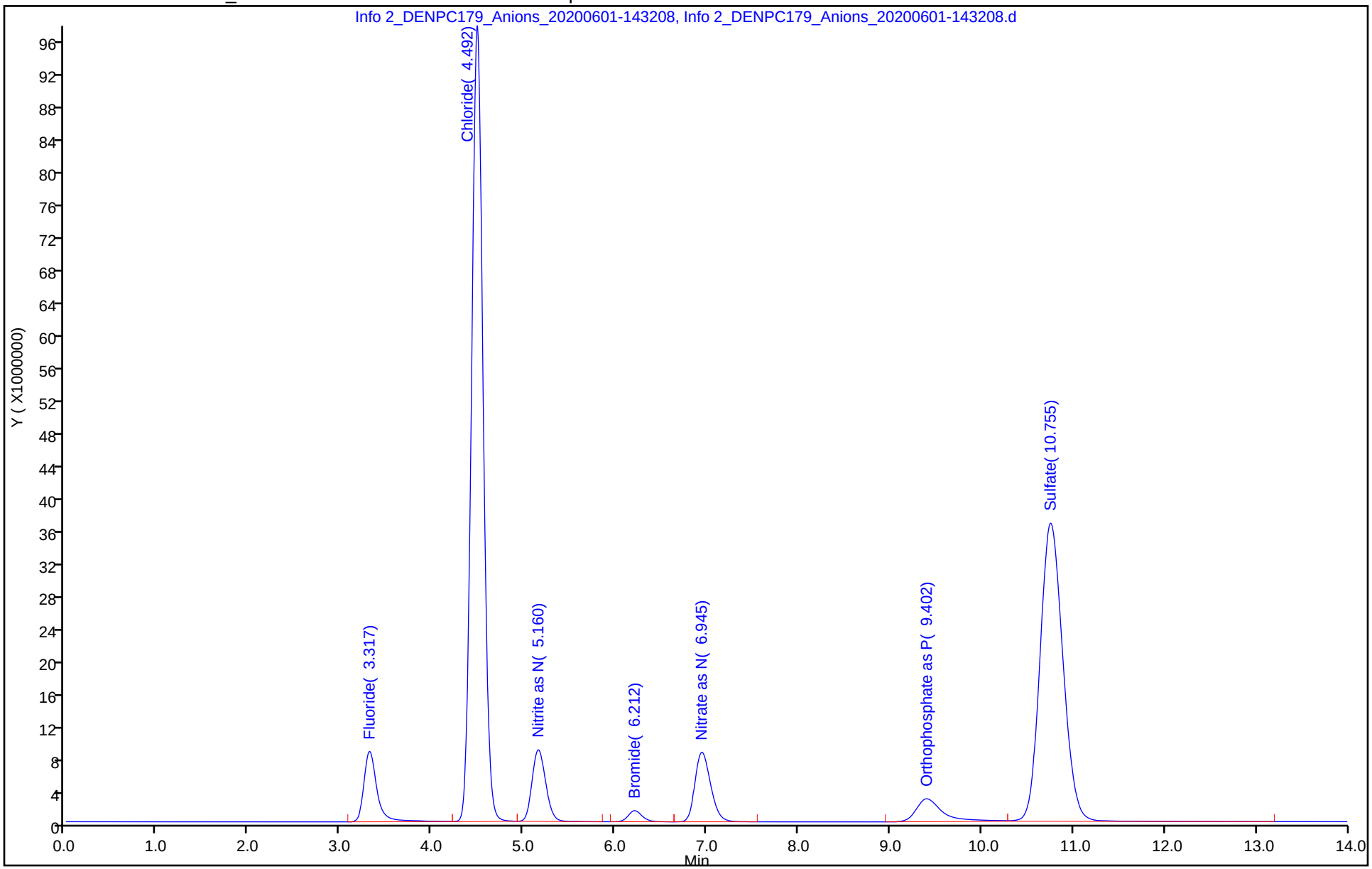
Reagents:

IC Cal low_00527	Amount Added:	2.00	Units: mL	
IC CAL cl/so4_00312	Amount Added:	8.00	Units: mL	

Report Date: 02-Jun-2020 12:14:50 Chrom Revision: 2.3 05-May-2020 17:48:18

Eurofins TestAmerica, Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20200601-91996.b\Info 2_DENPC179_Anions_20200601-143208.d				
Injection Date:	01-Jun-2020 14:14:00	Instrument ID:	WC_IonChrom10	Operator ID:	wetchemd
Lims ID:	STD6			Worklist Smp#:	7
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC10	Limit Group:	Wet - Anions 28D		



TestAmerica Denver

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

IC Instrument Information

WL: 92060 **Inst ID:** 10 **Analysis Date:** 6/3/2020 **Analyst:** JP

Rush	Job No.	Samples	Anions	QC Req	HT Exp
SOILS ☐	136560	4	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐	136663	1	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	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	

Dilutions

Job No.	Samples	Anions	Dilution	Reason
66B		F Cl NO2 Br NO3 PO4 SO4	100X	PURE
		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		
		F Cl NO2 Br NO3 PO4 SO4		

TestAmerica Laboratories
Initial Calibration Summary Report

Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20200601-91996.b\Anions_IC10.m

Instrument:	WC_IonChrom10	Lims Location:	280
Lock State:	Unlocked	Cpnd Order:	Retention Time
Integrator:	Falcon	Last Modified:	01-Jun-2020 16:18:43

No.Compounds:7

Initial Calibration Batches

Ical Batch: \\chromfs\Denver\ChromData\WC_IonChrom10\20200601-91996.b
Inj Date : 01-Jun-2020 12:47:00, Sublist: chrom-Anions_IC10*sub2

Detector 1: Info 2_091554_1

	Wet - Anions 28D				Wet - Anions			
Compound	b	M1	M2	Err	b	M1	M2	Err
1 Fluoride	-137718	8860074		0.995				
2 Chloride	-199359	4211012		0.999				
3 Nitrite as N					-112196	8867357		0.996
4 Bromide	-63504	1368165		0.996				
5 Nitrate as N					-103805	9770143		0.996
6 Orthophosphate as P					-868427	5640712		0.997
7 Sulfate	-182343	3088243		0.999				

TestAmerica Laboratories
Initial Calibration Report

Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20200601-91996.b\Anions_IC10.m

Instrument: WC_IonChrom10 Lims Location: 280
Lock State: Unlocked Cpnd Order: Retention Time
Integrator: Falcon Last Modified: 01-Jun-2020 16:18:43
No.Compounds:7
Sublist: chrom-Anions_IC10*sub2
Limit Group: Wet - Anions 28D

Detectors

Detector: 1, Info 2_091554_1
Data Type: ic Spec Type: none
Supports Extracted Chromatograms: False
Run Time: 0.000-17.350 No. Points: 7196

Calibration File Names

Level: 1 \\chromfs\Denver\ChromData\WC_IonChrom10\20200601-91996.b\Info 2_DENPC179_Anions_20200601-130449
Inj Date: 01-Jun-2020 12:47:00 Worklist: 91996 Sample#: 2
Level: 2 \\chromfs\Denver\ChromData\WC_IonChrom10\20200601-91996.b\Info 2_DENPC179_Anions_20200601-132217
Inj Date: 01-Jun-2020 13:04:00 Worklist: 91996 Sample#: 3
Level: 3 \\chromfs\Denver\ChromData\WC_IonChrom10\20200601-91996.b\Info 2_DENPC179_Anions_20200601-133945
Inj Date: 01-Jun-2020 13:22:00 Worklist: 91996 Sample#: 4
Level: 4 \\chromfs\Denver\ChromData\WC_IonChrom10\20200601-91996.b\Info 2_DENPC179_Anions_20200601-135712
Inj Date: 01-Jun-2020 13:39:00 Worklist: 91996 Sample#: 5
Level: 5 \\chromfs\Denver\ChromData\WC_IonChrom10\20200601-91996.b\Info 2_DENPC179_Anions_20200601-141440
Inj Date: 01-Jun-2020 13:57:00 Worklist: 91996 Sample#: 6
Level: 6 \\chromfs\Denver\ChromData\WC_IonChrom10\20200601-91996.b\Info 2_DENPC179_Anions_20200601-143208
Inj Date: 01-Jun-2020 14:14:00 Worklist: 91996 Sample#: 7

Start Cal Date: 01-Jun-2020 12:47:00 End Cal Date: 01-Jun-2020 14:14:00

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: 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

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
1 Fluoride				Signal: 1					
4803620	4550132	5662439	9074795	8727378	8670421	**-1377187**			**0.995**
0.200000(1)	0.500000(2)	1.0000 (3)	4.0000 (4)	8.0000 (5)	10.0 (6)		**8860074**		
960724	2275066	5662439	36299181	69819024	86704208				
91996(2)	91996(3)	91996(4)	91996(5)	91996(6)	91996(7)				
2 Chloride				Signal: 1					
3008859	3156896	3365615	4087917	4105386	4291829	**-1993599**			**0.999**
1.0000 (1)	2.5000 (2)	5.0000 (3)	60.0 (4)	120.0 (5)	200.0 (6)		**4211012**		
3008859	7892240	16828074	245275024	492646370	858365825				
91996(2)	91996(3)	91996(4)	91996(5)	91996(6)	91996(7)				
4 Bromide				Signal: 1					
1313905	1188638	1156053	1234769	1341018	1436413	**-63504**			**0.996**
0.200000(1)	0.500000(2)	1.0000 (3)	4.0000 (4)	8.0000 (5)	10.0 (6)		**1368165**		
262781	594319	1156053	4939075	10728140	14364128				
91996(2)	91996(3)	91996(4)	91996(5)	91996(6)	91996(7)				
7 Sulfate				Signal: 1					
2086301	2107790	2243005	2952154	3005757	3162255	**-1823433**			**0.999**
1.0000 (1)	2.5000 (2)	5.0000 (3)	60.0 (4)	120.0 (5)	200.0 (6)		**3088243**		
2086301	5269475	11215027	177129224	360690780	632451003				
91996(2)	91996(3)	91996(4)	91996(5)	91996(6)	91996(7)				

TestAmerica Laboratories
Initial Calibration Report

Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20200601-91996.b\Anions_IC10.m

Instrument: WC_IonChrom10 Lims Location: 280
Lock State: Unlocked Cpnd Order: Retention Time
Integrator: Falcon Last Modified: 01-Jun-2020 16:18:43
No.Compounds:7
Sublist: chrom-Anions_IC10*sub2
Limit Group: Wet - Anions

Detectors

Detector: 1, Info 2_091554_1
Data Type: ic Spec Type: none
Supports Extracted Chromatograms: False
Run Time: 0.000-17.350 No. Points: 7196

Calibration File Names

Level: 1 \\chromfs\Denver\ChromData\WC_IonChrom10\20200601-91996.b\Info 2_DENPC179_Anions_20200601-130449
Inj Date: 01-Jun-2020 12:47:00 Worklist: 91996 Sample#: 2
Level: 2 \\chromfs\Denver\ChromData\WC_IonChrom10\20200601-91996.b\Info 2_DENPC179_Anions_20200601-132217
Inj Date: 01-Jun-2020 13:04:00 Worklist: 91996 Sample#: 3
Level: 3 \\chromfs\Denver\ChromData\WC_IonChrom10\20200601-91996.b\Info 2_DENPC179_Anions_20200601-133945
Inj Date: 01-Jun-2020 13:22:00 Worklist: 91996 Sample#: 4
Level: 4 \\chromfs\Denver\ChromData\WC_IonChrom10\20200601-91996.b\Info 2_DENPC179_Anions_20200601-135712
Inj Date: 01-Jun-2020 13:39:00 Worklist: 91996 Sample#: 5
Level: 5 \\chromfs\Denver\ChromData\WC_IonChrom10\20200601-91996.b\Info 2_DENPC179_Anions_20200601-141440
Inj Date: 01-Jun-2020 13:57:00 Worklist: 91996 Sample#: 6
Level: 6 \\chromfs\Denver\ChromData\WC_IonChrom10\20200601-91996.b\Info 2_DENPC179_Anions_20200601-143208
Inj Date: 01-Jun-2020 14:14:00 Worklist: 91996 Sample#: 7

Start Cal Date: 01-Jun-2020 12:47:00 End Cal Date: 01-Jun-2020 14:14:00

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

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
3 Nitrite as N				Signal: 1					
5845195	5728022	6191792	8108419	8727255	9094800	**-1121965**			**0.996**
0.200000(1)	0.500000(2)	1.0000 (3)	4.0000 (4)	8.0000 (5)	10.0 (6)		**8867357**		
M1169039	2864011	6191792	32433677	69818042	90947997				
91996(2)	91996(3)	91996(4)	91996(5)	91996(6)	91996(7)				
5 Nitrate as N				Signal: 1					
6821625	7078364	7422076	8816951	9556381	10127965	**-1038053**			**0.996**
0.200000(1)	0.500000(2)	1.0000 (3)	4.0000 (4)	8.0000 (5)	10.0 (6)		**9770143**		
1364325	3539182	7422076	35267803	76451046	101279649				
91996(2)	91996(3)	91996(4)	91996(5)	91996(6)	91996(7)				
6 Orthophosphate as P				Signal: 1					
2833340	2480844	4528056	5568361	5435911	5637844	**-868427**			**0.997**
0.200000(1)	0.500000(2)	1.0000 (3)	4.0000 (4)	8.0000 (5)	10.0 (6)		**5640712**		
566668	1240422	4528056	22273443	43487286	56378441				
91996(2)	91996(3)	91996(4)	91996(5)	91996(6)	91996(7)				

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

IC Instrument Information

WL: 92106 **Inst ID:** 11 **Analysis Date:** 6/4/20 **Analyst:** CJ

Rush	Job No.	Samples	Anions	QC Req	HT Exp
☐	137254	3	F Cl NO2 Br NO3 PO4 SO4	MS/D 1	
☐	137249	3	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐	137253	1	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐	137257	4	F Cl NO2 Br NO3 PO4 SO4	MS/D 3	
☐	137266	4	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐	137264	1	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
253		F Cl NO2 Br NO3 PO4 SO4	2, 20x	Hist
		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		
		F Cl NO2 Br NO3 PO4 SO4		

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20200603-92060.b\Info 2_DENPC179_Anions_20200603-1010
Lims ID: ICV
Client ID:
Sample Type: ICV
Inject. Date: 03-Jun-2020 09:53:00 ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 280-0092060-001
Misc. Info.: 280-0092060-001
Operator ID: wetchemd Instrument ID: WC_IonChrom10
Sublist:

Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20200603-92060.b\Anions_IC10.m
Limit Group: Wet - Anions 28D
Last Update: 04-Jun-2020 08:19:19 Calib Date: 01-Jun-2020 14:14:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom10\20200601-91996.b\Info 2_DENPC179_Anions_20200601-1432

Column 1 : Det: Info 2_091554_1
Process Host: CTX1067

First Level Reviewer: pedrickj Date: 03-Jun-2020 10:18:58

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.305	3.305	0.000	36231268	4.00	4.24	
2 Chloride	4.468	4.468	0.000	345715357	80.0	82.6	
3 Nitrite as N	5.148	5.148	0.000	35178183	NC	NC	
4 Bromide	6.197	6.197	0.000	5526245	4.00	4.09	
5 Nitrate as N	6.942	6.942	0.000	39641832	NC	NC	
6 Orthophosphate as P	9.377	9.377	0.000	22874323	NC	NC	M
7 Sulfate	10.725	10.725	0.000	250525422	80.0	81.7	M

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated

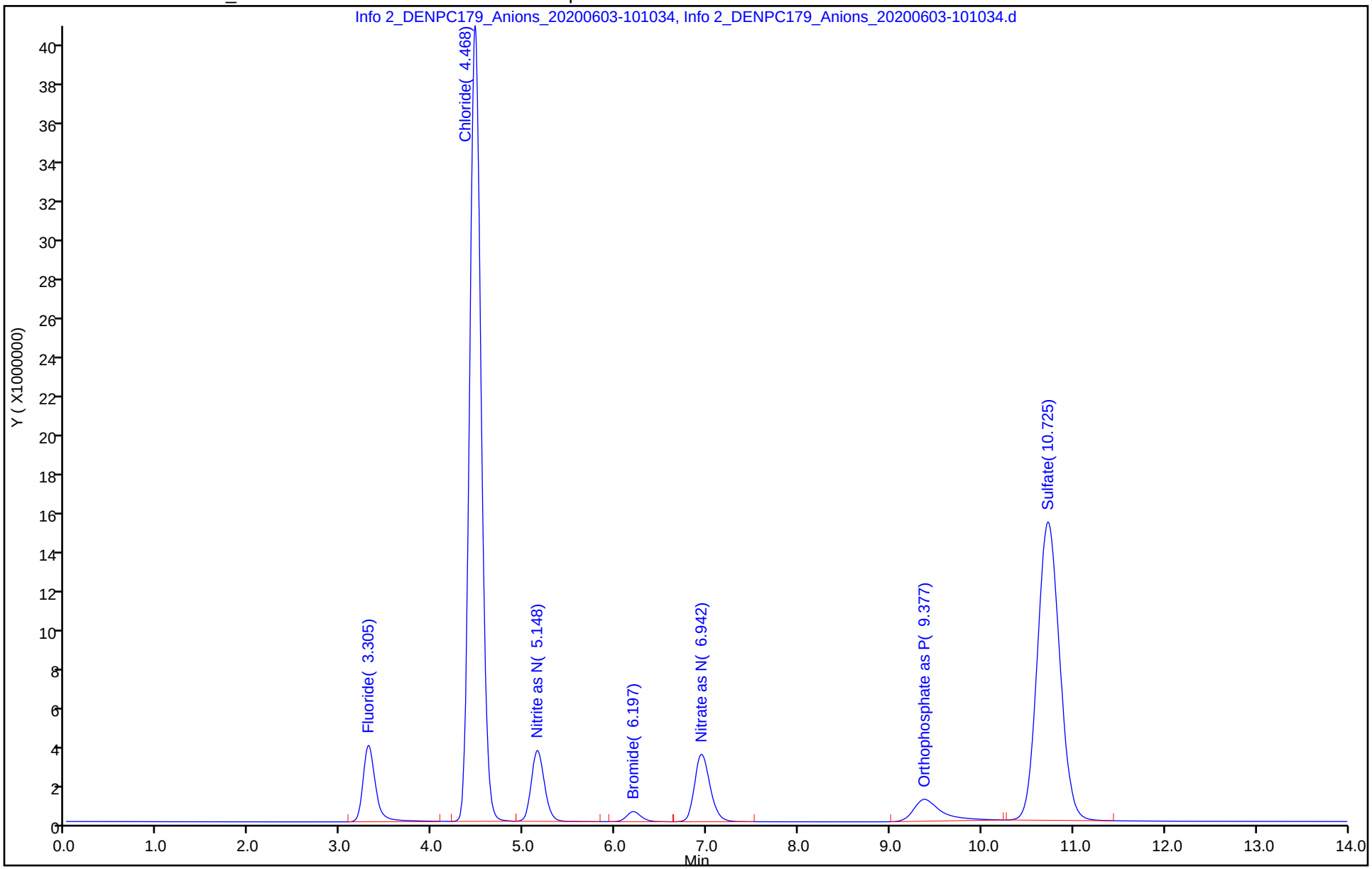
Reagents:

IC SO4 ICV_00021 Amount Added: 0.80 Units: mL
IC ICV 5_00272 Amount Added: 0.80 Units: mL
IC CL ICV_00018 Amount Added: 0.80 Units: mL

Report Date: 04-Jun-2020 08:19:20 Chrom Revision: 2.3 05-May-2020 17:48:18

Eurofins TestAmerica, Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20200603-92060.b\Info 2_DENPC179_Anions_20200603-101034.d				
Injection Date:	03-Jun-2020 09:53:00	Instrument ID:	WC_IonChrom10	Operator ID:	wetchemd
Lims ID:	ICV			Worklist Smp#:	1
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC10	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

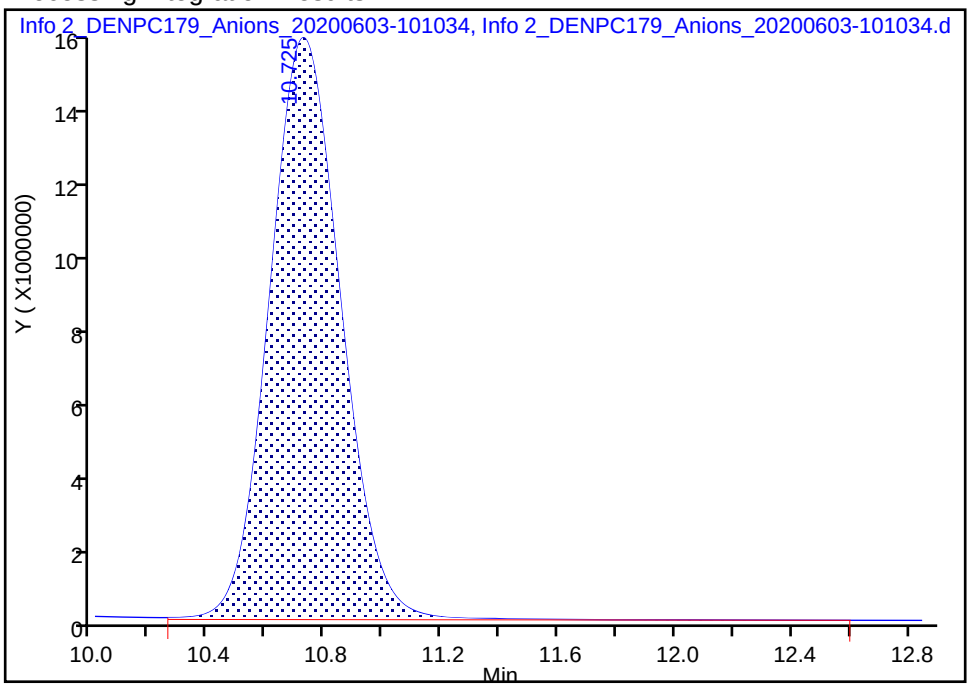
Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20200603-92060.b\Info 2_DENPC179_Anions_20200603-1010				
Injection Date:	03-Jun-2020 09:53:00	Instrument ID:	WC_IonChrom10		
Lims ID:	ICV				
Client ID:					
Operator ID:	wetchemd	ALS Bottle#:	0	Worklist Smp#:	1
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Method:	Anions_IC10	Limit Group:	Wet - Anions 28D		
Column:		Detector	Info 2_091554_1		

7 Sulfate, CAS: 14808-79-8

Signal: 1

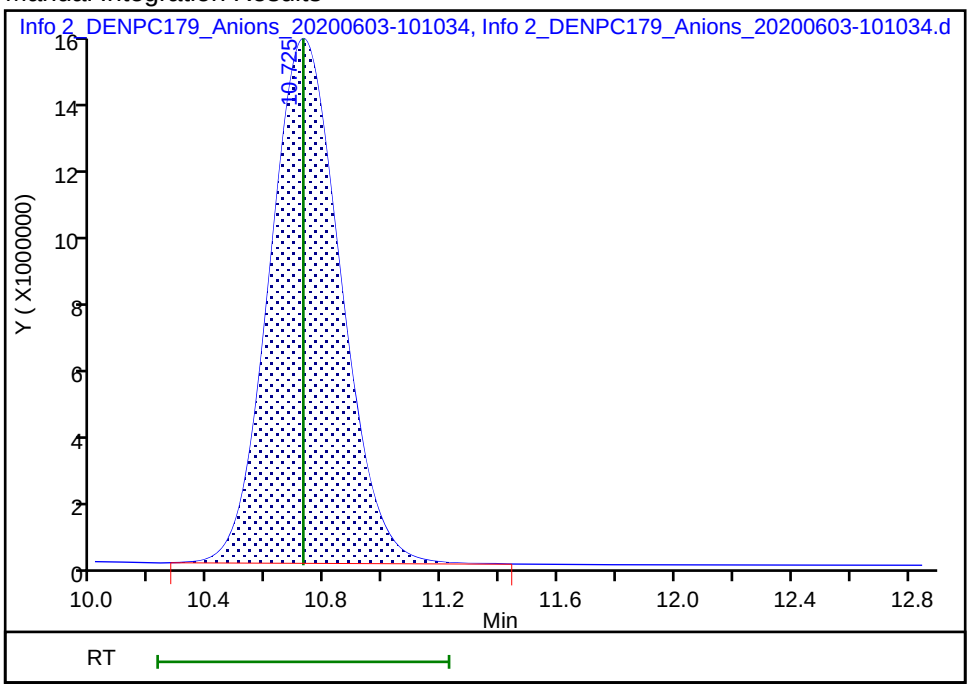
Processing Integration Results

RT:	10.73
Area:	253048113
Amount:	0
Amount Units:	ug/ml



Manual Integration Results

RT:	10.73
Area:	250525422
Amount:	81.712758
Amount Units:	ug/ml



Reviewer: pedrickj, 03-Jun-2020 10:18:56

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20200603-92060.b\Info 2_DENPC179_Anions_20200603-1027				
Lims ID:	ICB				
Client ID:					
Sample Type:	ICB				
Inject. Date:	03-Jun-2020 10:10:00	ALS Bottle#:	0	Worklist Smp#:	2
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0092060-002				
Misc. Info.:	280-0092060-002				
Operator ID:	wetchemd	Instrument ID:	WC_IonChrom10		
Method:	\\chromfs\Denver\ChromData\WC_IonChrom10\20200603-92060.b\Anions_IC10.m				
Limit Group:	Wet - Anions 28D				
Last Update:	04-Jun-2020 08:19:19	Calib Date:	01-Jun-2020 14:14:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20200601-91996.b\Info 2_DENPC179_Anions_20200601-1432				
Column 1 :			Det: Info 2_091554_1		
Process Host:	CTX1067				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride		3.305				ND	
2 Chloride	4.485	4.468	0.017	55165		0.4865	
3 Nitrite as N		5.148				ND	
4 Bromide		6.197				ND	
5 Nitrate as N		6.942				ND	
6 Orthophosphate as P	9.450	9.377	0.073	101388		NC	
7 Sulfate		10.725				ND	

QC Flag Legend

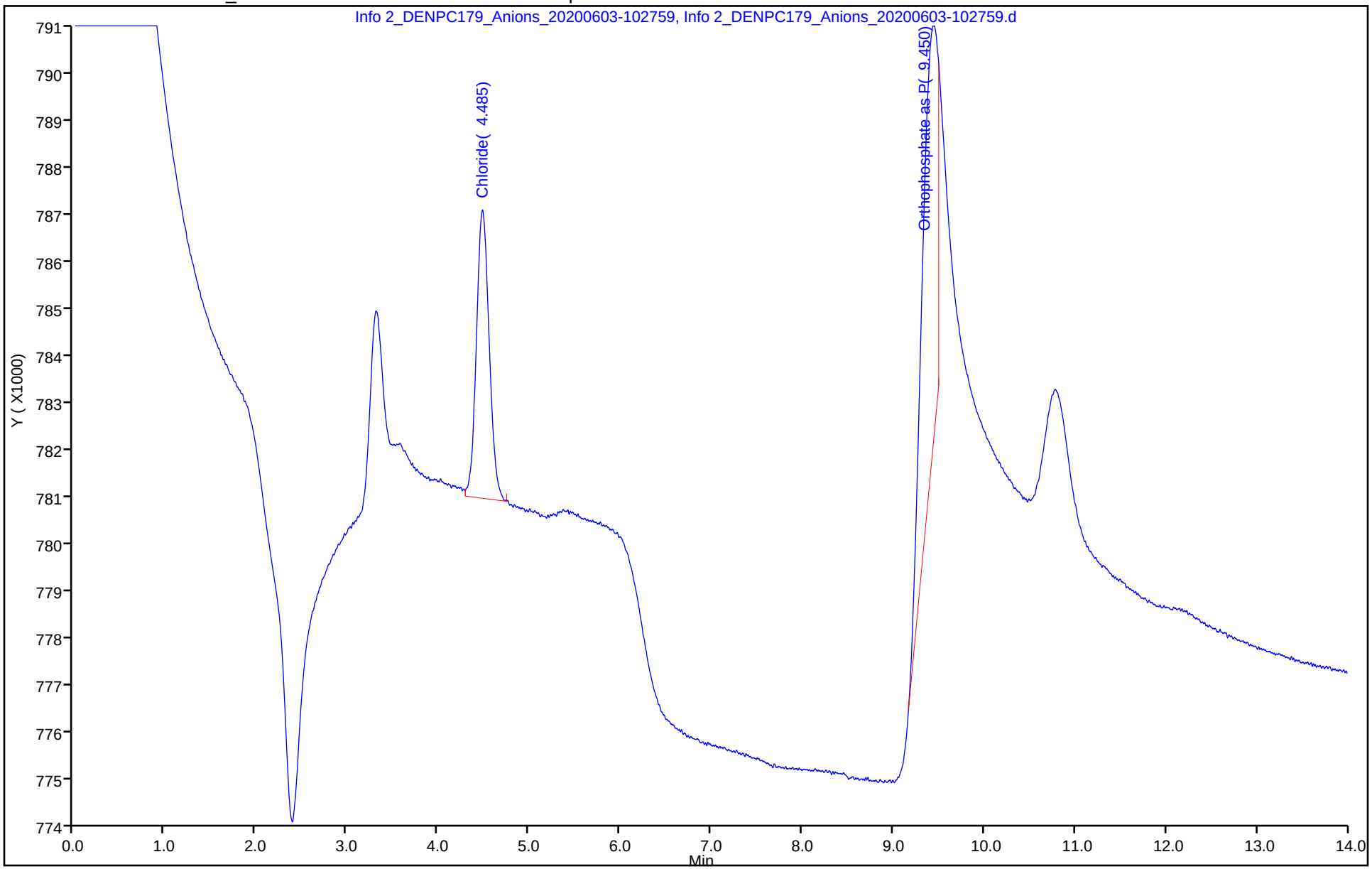
Processing Flags

NC - Not Calibrated

Report Date: 04-Jun-2020 08:19:22 Chrom Revision: 2.3 05-May-2020 17:48:18

Eurofins TestAmerica, Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20200603-92060.b\Info 2_DENPC179_Anions_20200603-102759.d				
Injection Date:	03-Jun-2020 10:10:00	Instrument ID:	WC_IonChrom10	Operator ID:	wetchemd
Lims ID:	ICB			Worklist Smp#:	2
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC10	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom7\20200603-92063.b\02.0000.d
Lims ID: std L1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 03-Jun-2020 10:08:00 ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 280-0092063-002
Operator ID: Instrument ID: WC_IonChrom7
Sublist: chrom-Anions_IC7*sub1

Method: \\chromfs\Denver\ChromData\WC_IonChrom7\20200603-92063.b\Anions_IC7.m
Limit Group: Wet - Anions 28D
Last Update: 04-Jun-2020 08:46:56 Calib Date: 03-Jun-2020 11:30:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom7\20200603-92063.b\07.0000.d

Column 1 : Det: 0005
Process Host: CTX1067

First Level Reviewer: pedrickj Date: 03-Jun-2020 11:51:09

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.009	2.009	0.000	5941232	0.2000	0.1826	
2 Chloride	3.075	2.959	0.116	19729950	1.00	1.00	
3 Nitrite as N	3.525	3.400	0.125	11336601	NC	NC	
4 Bromide	5.150	5.217	-0.067	1579259	0.2000	0.1911	
5 Nitrate as N	5.634	5.625	0.009	9242131	NC	NC	
6 Sulfate	9.409	9.184	0.225	13874566	1.00	0.9740	a
7 Orthophosphate as P	12.950	13.325	-0.375	300810	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
a - User Assigned ID

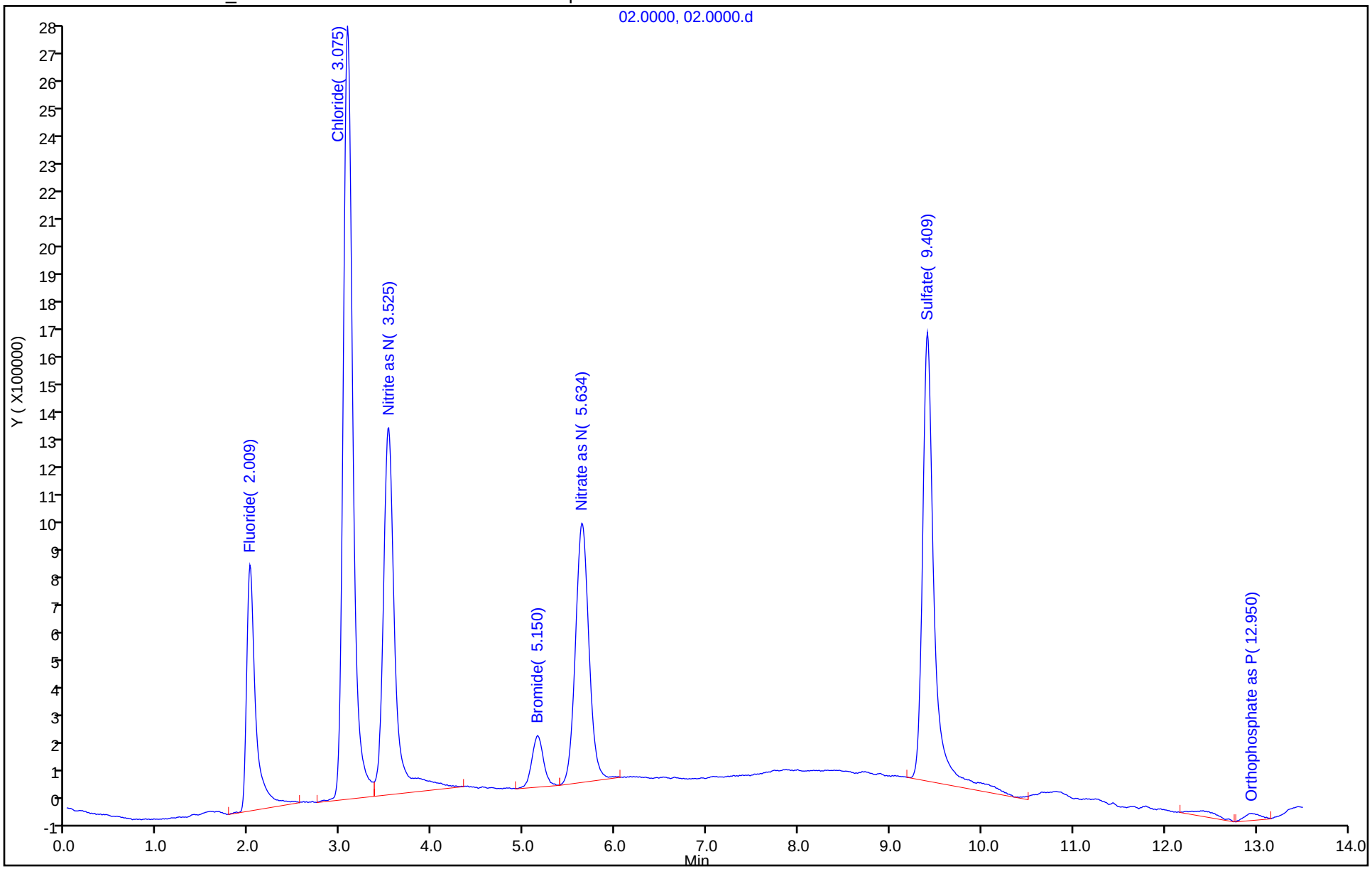
Reagents:

IC Cal low_00527 Amount Added: 0.02 Units: mL
IC CAL cl/so4_00313 Amount Added: 0.02 Units: mL

Report Date: 04-Jun-2020 08:46:56 Chrom Revision: 2.3 05-May-2020 17:48:18

Eurofins TestAmerica, Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom7\20200603-92063.b\02.0000.d				
Injection Date:	03-Jun-2020 10:08:00	Instrument ID:	WC_IonChrom7	Operator ID:	
Lims ID:	std L1			Worklist Smp#:	2
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC7	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

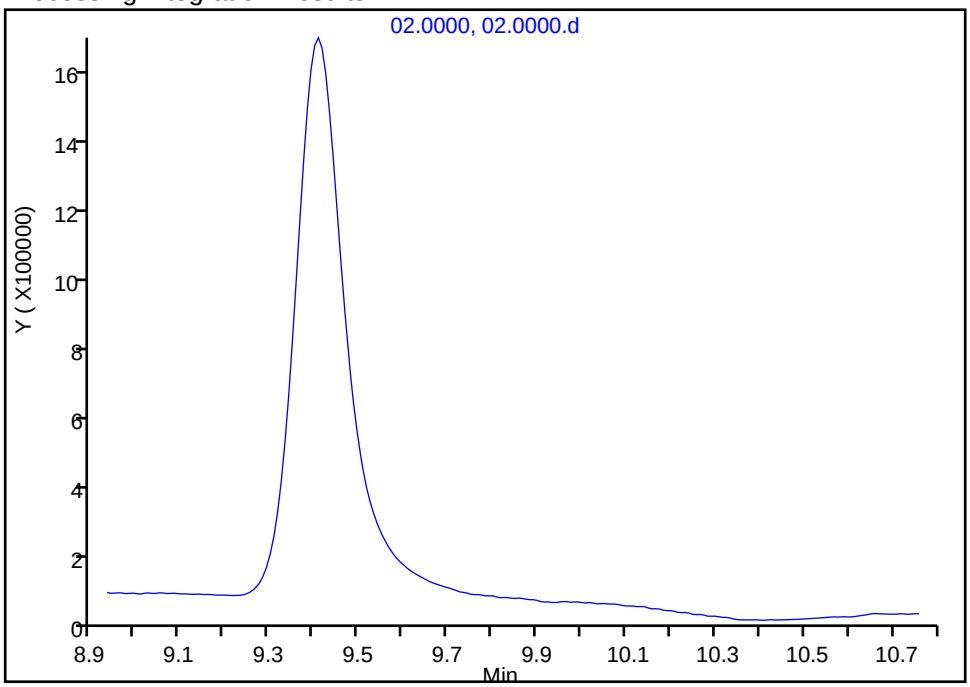
Data File:	\\chromfs\Denver\ChromData\WC_IonChrom7\20200603-92063.b\02.0000.d				
Injection Date:	03-Jun-2020 10:08:00	Instrument ID:	WC_IonChrom7		
Lims ID:	std L1				
Client ID:					
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	2
Injection Vol:	25.0 ul	Dil. Factor:	1.0000		
Method:	Anions_IC7	Limit Group:	Wet - Anions 28D		
Column:		Detector	0005		

6 Sulfate, CAS: 14808-79-8

Signal: 1

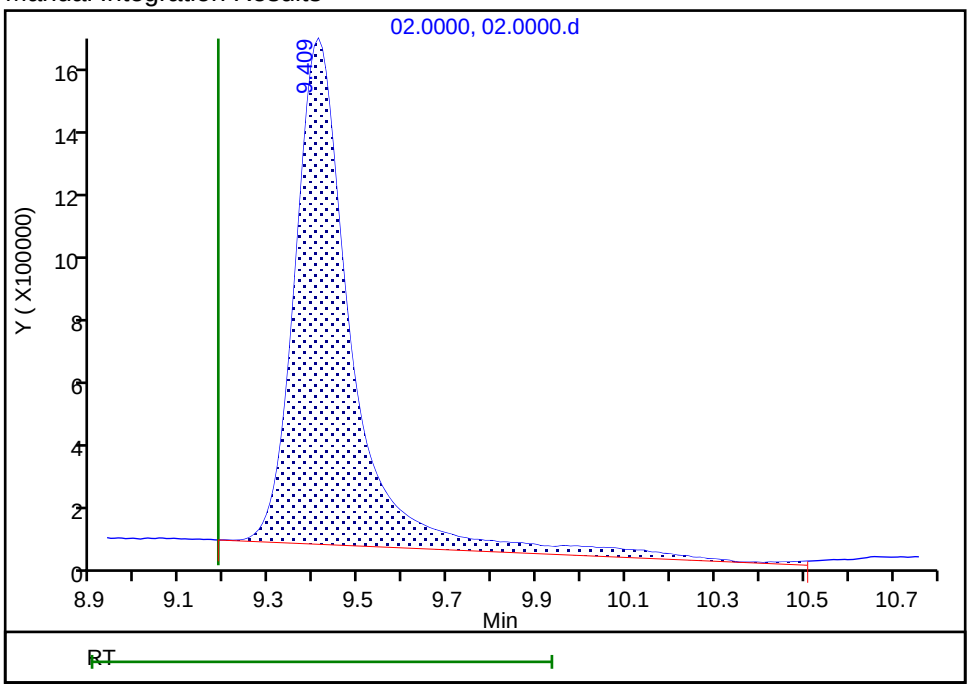
Processing Integration Results

Not Detected
Expected RT: 9.18



Manual Integration Results

RT: 9.41
Area: 13874566
Amount: 0.974033
Amount Units: ug/ml



Reviewer: pedrickj, 03-Jun-2020 11:51:07
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom7\20200603-92063.b\03.0000.d
Lims ID: std L2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 03-Jun-2020 10:24:00 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 280-0092063-003
Operator ID: Instrument ID: WC_IonChrom7
Sublist: chrom-Anions_IC7*sub1

Method: \\chromfs\Denver\ChromData\WC_IonChrom7\20200603-92063.b\Anions_IC7.m
Limit Group: Wet - Anions 28D
Last Update: 04-Jun-2020 08:46:57 Calib Date: 03-Jun-2020 11:30:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom7\20200603-92063.b\07.0000.d

Column 1 : Det: 0005
Process Host: CTX1067

First Level Reviewer: pedrickj Date: 03-Jun-2020 11:51:13

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.009	2.009	0.000	15158677	0.5000	0.5166	
2 Chloride	3.000	2.959	0.041	46699286	2.50	2.48	
3 Nitrite as N	3.434	3.400	0.034	23491960	NC	NC	
4 Bromide	5.334	5.217	0.117	4202966	0.5000	0.5179	
5 Nitrate as N	5.834	5.625	0.209	24382763	NC	NC	
6 Sulfate	9.550	9.184	0.366	34449105	2.50	2.50	a
7 Orthophosphate as P	13.259	13.325	-0.066	166140	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
a - User Assigned ID

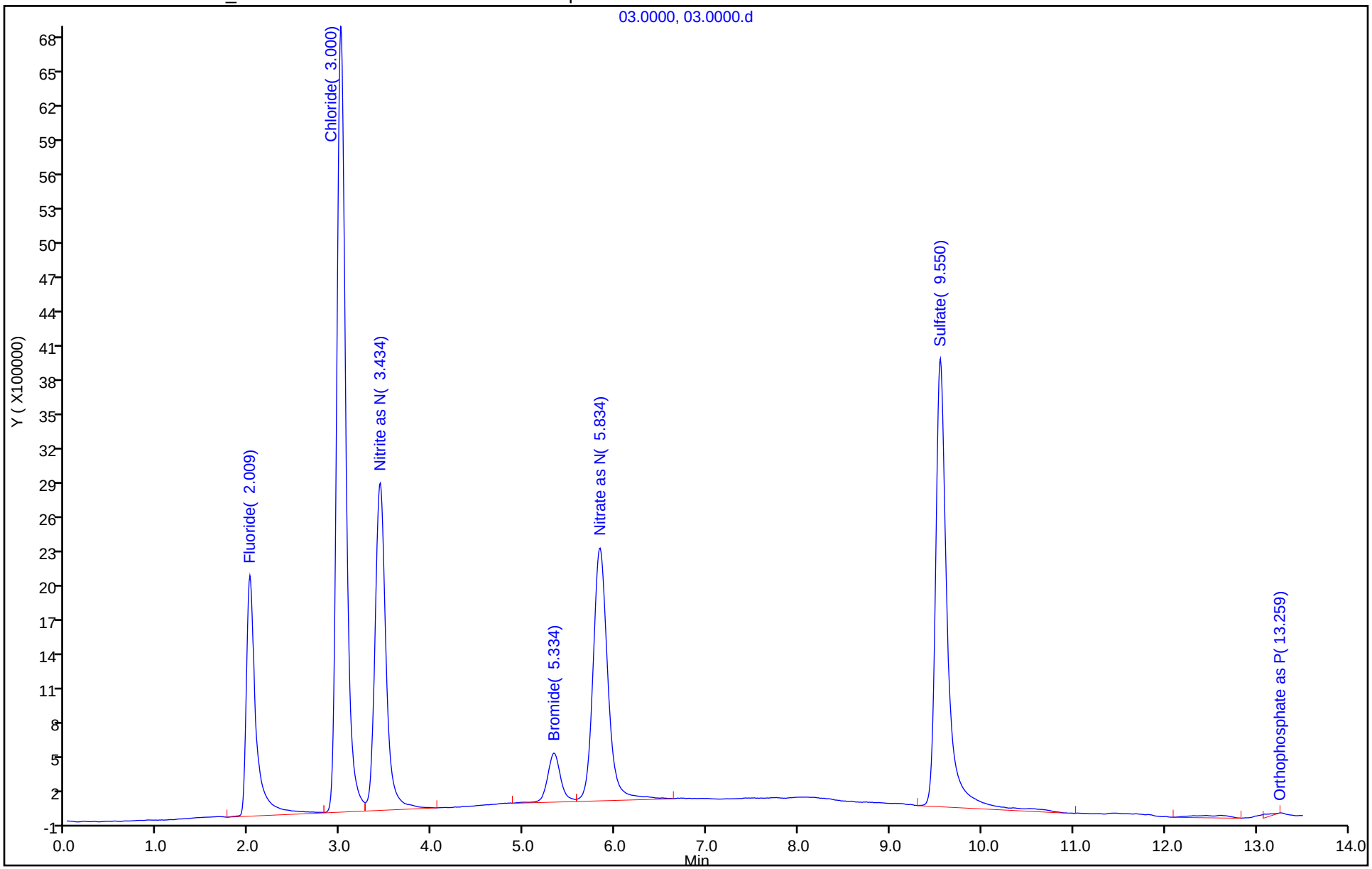
Reagents:

IC CAL cl/so4_00313 Amount Added: 0.05 Units: mL
IC Cal low_00527 Amount Added: 0.05 Units: mL

Report Date: 04-Jun-2020 08:46:57 Chrom Revision: 2.3 05-May-2020 17:48:18

Eurofins TestAmerica, Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom7\20200603-92063.b\03.0000.d				
Injection Date:	03-Jun-2020 10:24:00	Instrument ID:	WC_IonChrom7	Operator ID:	
Lims ID:	std L2			Worklist Smp#:	3
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC7	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

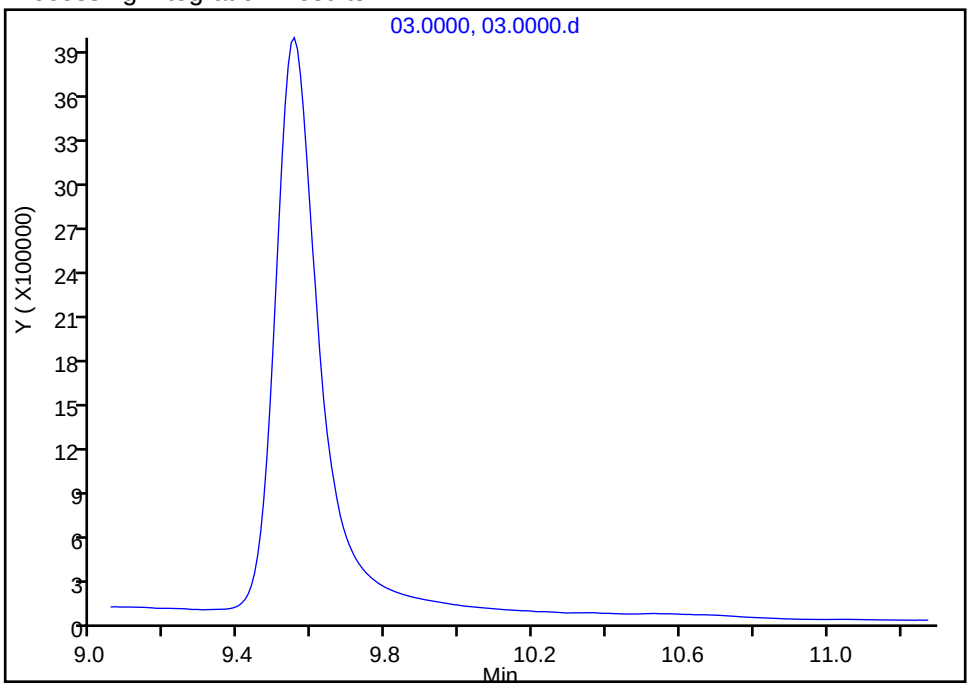
Data File:	\\chromfs\Denver\ChromData\WC_IonChrom7\20200603-92063.b\03.0000.d				
Injection Date:	03-Jun-2020 10:24:00	Instrument ID:	WC_IonChrom7		
Lims ID:	std L2				
Client ID:					
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	3
Injection Vol:	25.0 ul	Dil. Factor:	1.0000		
Method:	Anions_IC7	Limit Group:	Wet - Anions 28D		
Column:		Detector	0005		

6 Sulfate, CAS: 14808-79-8

Signal: 1

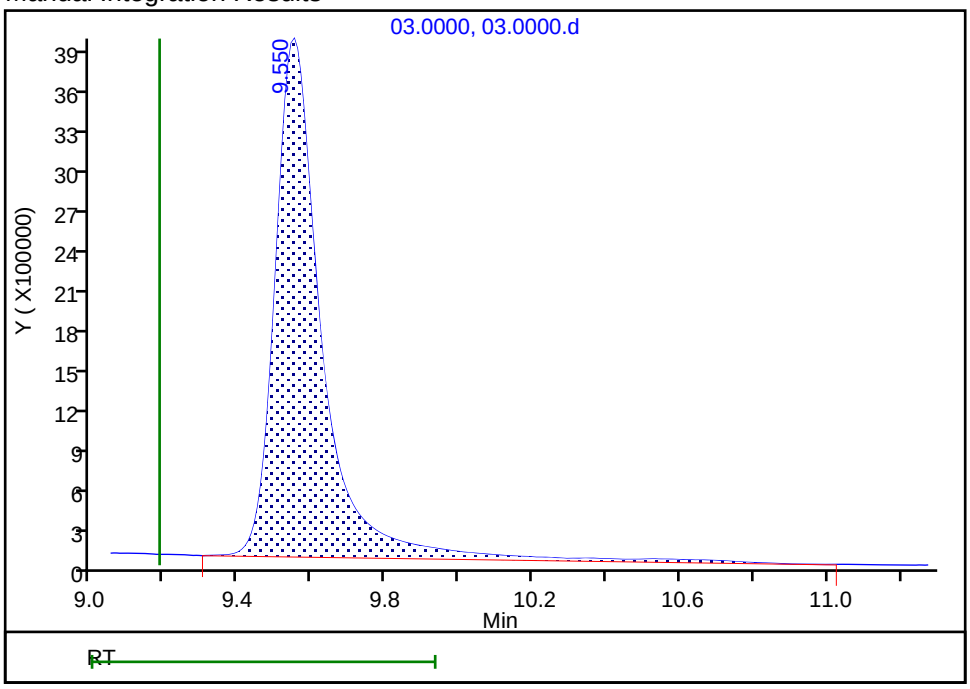
Not Detected
Expected RT: 9.18

Processing Integration Results



Manual Integration Results

RT: 9.55
Area: 34449105
Amount: 2.496407
Amount Units: ug/ml



Reviewer: pedrickj, 03-Jun-2020 11:51:11
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom7\20200603-92063.b\04.0000.d				
Lims ID:	std L3				
Client ID:					
Sample Type:	IC	Calib Level:	3		
Inject. Date:	03-Jun-2020 10:41:00	ALS Bottle#:	0	Worklist Smp#:	4
Injection Vol:	25.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0092063-004				
Misc. Info.:	4 F				
Operator ID:		Instrument ID:	WC_IonChrom7		
Sublist:	chrom-Anions_IC7*sub1				
Method:	\\chromfs\Denver\ChromData\WC_IonChrom7\20200603-92063.b\Anions_IC7.m				
Limit Group:	Wet - Anions 28D				
Last Update:	04-Jun-2020 08:46:57	Calib Date:	03-Jun-2020 11:30:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\WC_IonChrom7\20200603-92063.b\07.0000.d				
Column 1 :			Det: 0005		
Process Host:	CTX1067				
First Level Reviewer: pedrickj		Date:	03-Jun-2020 11:51:22		

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.017	2.009	0.008	29823269	1.00	1.05	
2 Chloride	2.900	2.959	-0.059	93096135	5.00	5.02	a
3 Nitrite as N	3.317	3.400	-0.083	46640922	NC	NC	a
4 Bromide	5.175	5.217	-0.042	8133508	1.00	1.01	
5 Nitrate as N	5.659	5.625	0.034	47797352	NC	NC	
6 Sulfate	9.500	9.184	0.316	69365381	5.00	5.08	a
7 Orthophosphate as P	13.134	13.325	-0.191	319853	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
a - User Assigned ID

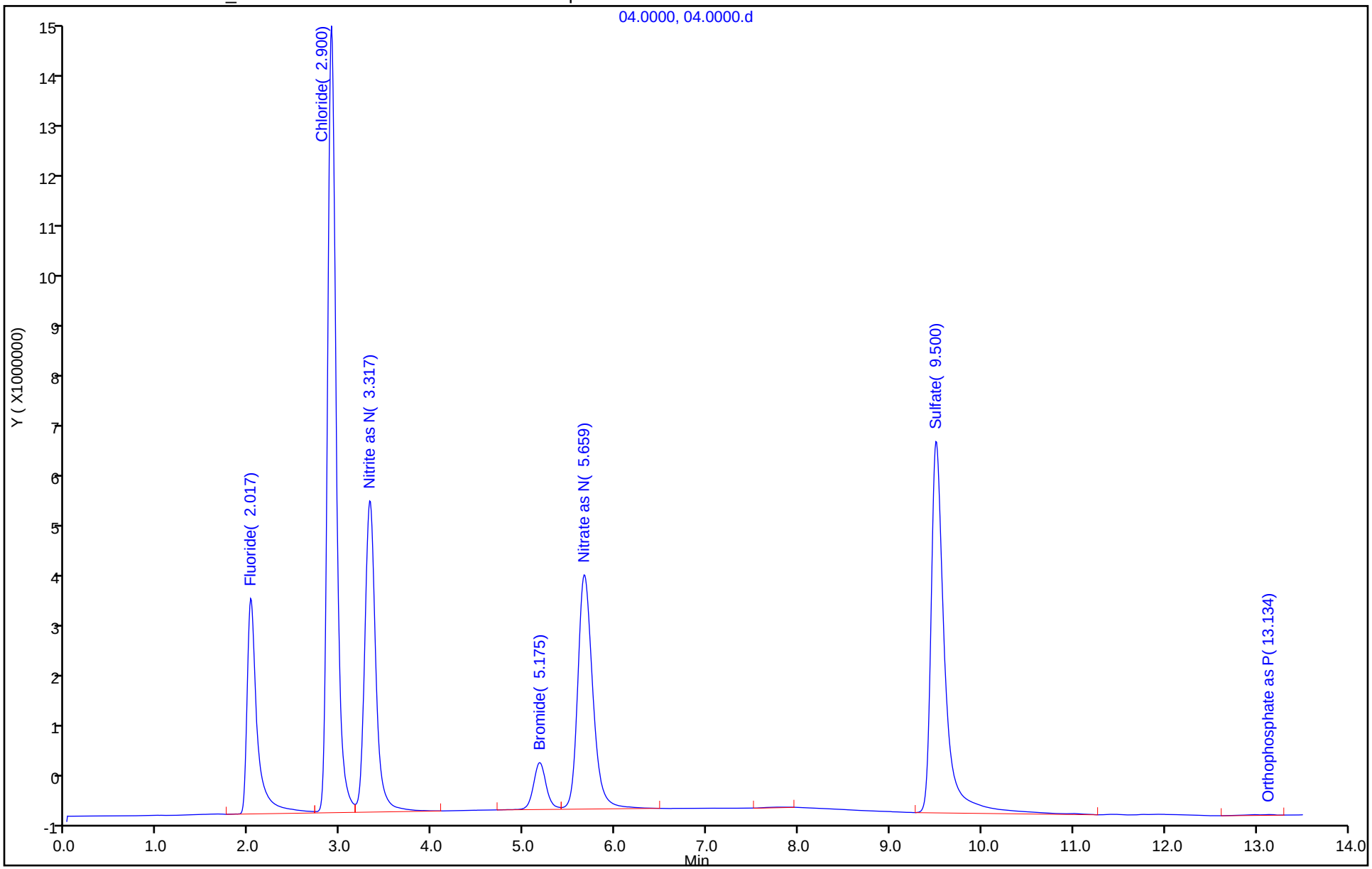
Reagents:

IC CAL cl/so4_00313	Amount Added:	0.10	Units: mL
IC Cal low_00527	Amount Added:	0.10	Units: mL

Report Date: 04-Jun-2020 08:46:57 Chrom Revision: 2.3 05-May-2020 17:48:18

Eurofins TestAmerica, Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom7\20200603-92063.b\04.0000.d				
Injection Date:	03-Jun-2020 10:41:00	Instrument ID:	WC_IonChrom7	Operator ID:	
Lims ID:	std L3			Worklist Smp#:	4
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC7	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

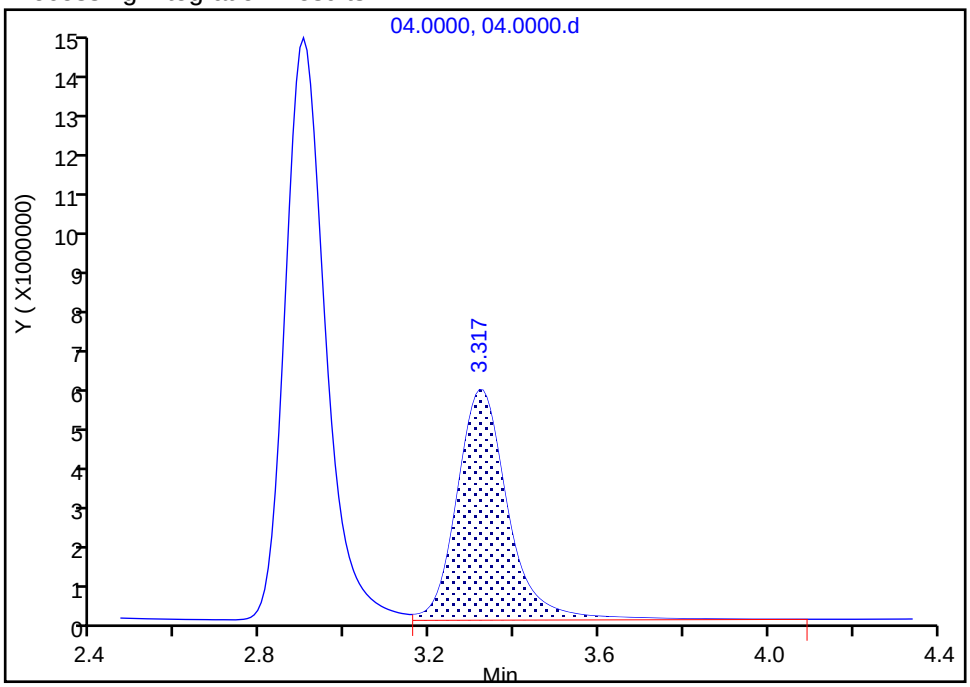
Data File:	\\chromfs\Denver\ChromData\WC_IonChrom7\20200603-92063.b\04.0000.d				
Injection Date:	03-Jun-2020 10:41:00	Instrument ID:	WC_IonChrom7		
Lims ID:	std L3				
Client ID:					
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	4
Injection Vol:	25.0 ul	Dil. Factor:	1.0000		
Method:	Anions_IC7	Limit Group:	Wet - Anions 28D		
Column:		Detector	0005		

2 Chloride, CAS: 16887-00-6

Signal: 1

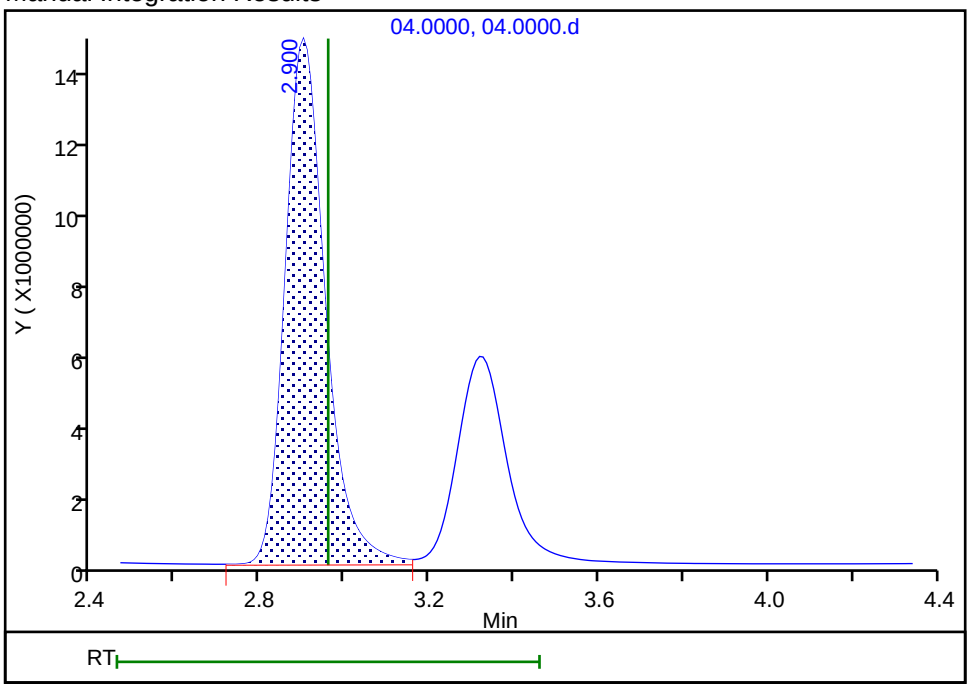
Processing Integration Results

RT: 3.32
Area: 46640922
Amount: 0
Amount Units: ug/ml



Manual Integration Results

RT: 2.90
Area: 93096135
Amount: 5.023129
Amount Units: ug/ml



Reviewer: pedrickj, 03-Jun-2020 11:51:16
Audit Action: Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

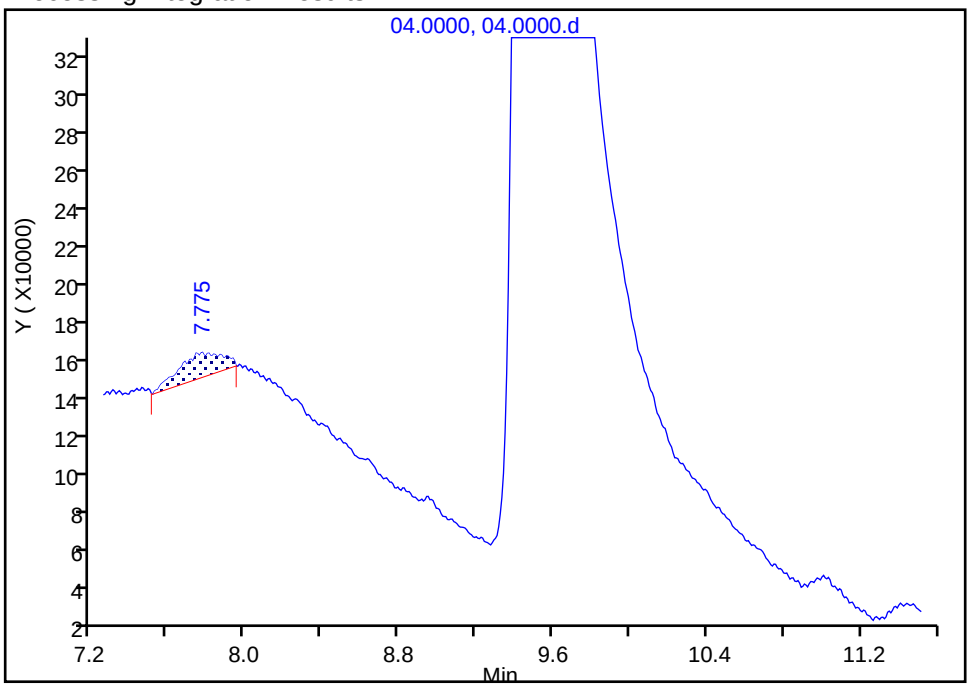
Data File:	\\chromfs\Denver\ChromData\WC_IonChrom7\20200603-92063.b\04.0000.d				
Injection Date:	03-Jun-2020 10:41:00	Instrument ID:	WC_IonChrom7		
Lims ID:	std L3				
Client ID:					
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	4
Injection Vol:	25.0 ul	Dil. Factor:	1.0000		
Method:	Anions_IC7	Limit Group:	Wet - Anions 28D		
Column:		Detector	0005		

6 Sulfate, CAS: 14808-79-8

Signal: 1

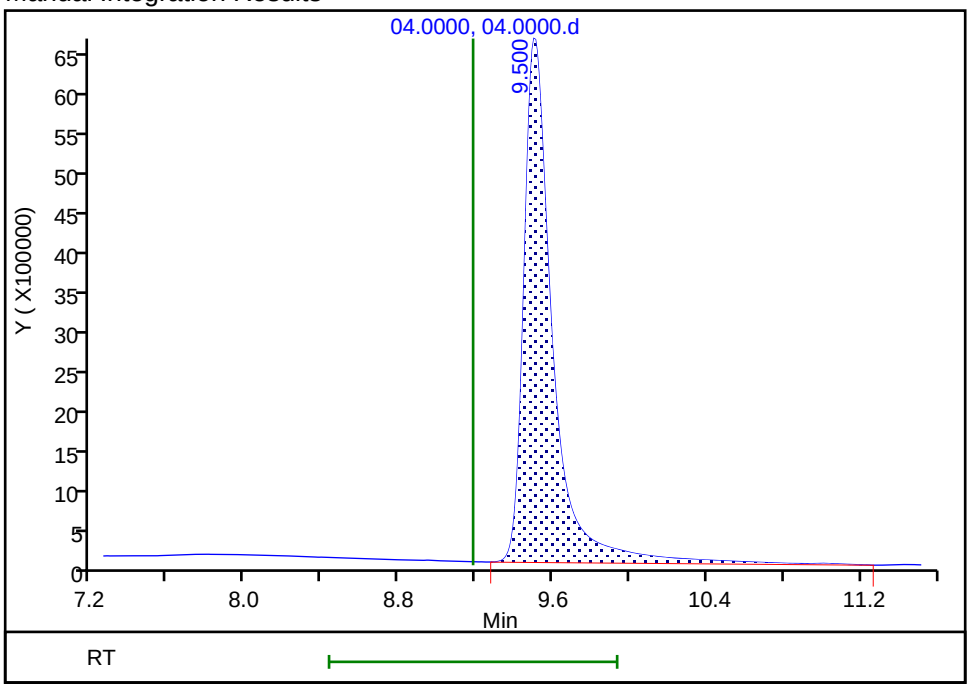
Processing Integration Results

RT: 7.78
Area: 201959
Amount: 0
Amount Units: ug/ml



Manual Integration Results

RT: 9.50
Area: 69365381
Amount: 5.079970
Amount Units: ug/ml



Reviewer: pedrickj, 03-Jun-2020 11:51:20
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom7\20200603-92063.b\05.0000.d				
Lims ID:	std L4				
Client ID:					
Sample Type:	IC	Calib Level:	4		
Inject. Date:	03-Jun-2020 10:57:00	ALS Bottle#:	0	Worklist Smp#:	5
Injection Vol:	25.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0092063-005				
Misc. Info.:	5 F				
Operator ID:		Instrument ID:	WC_IonChrom7		
Sublist:	chrom-Anions_IC7*sub1				
Method:	\\chromfs\Denver\ChromData\WC_IonChrom7\20200603-92063.b\Anions_IC7.m				
Limit Group:	Wet - Anions 28D				
Last Update:	04-Jun-2020 08:46:58	Calib Date:	03-Jun-2020 11:30:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\WC_IonChrom7\20200603-92063.b\07.0000.d				
Column 1 :			Det: 0005		
Process Host:	CTX1067				
First Level Reviewer: pedrickj		Date:	03-Jun-2020 11:51:26		

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.026	2.026	0.000	113431906	4.00	4.08	
2 Chloride	3.009	3.009	0.000	1106858638	60.0	60.7	
3 Nitrite as N	3.409	3.409	0.000	186749529	NC	NC	
4 Bromide	5.167	5.167	0.000	32351872	4.00	4.02	
5 Nitrate as N	5.576	5.576	0.000	191493196	NC	NC	
6 Sulfate	9.159	9.159	0.000	825247714	60.0	61.0	a
7 Orthophosphate as P	13.126	13.126	0.000	13640286	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
a - User Assigned ID

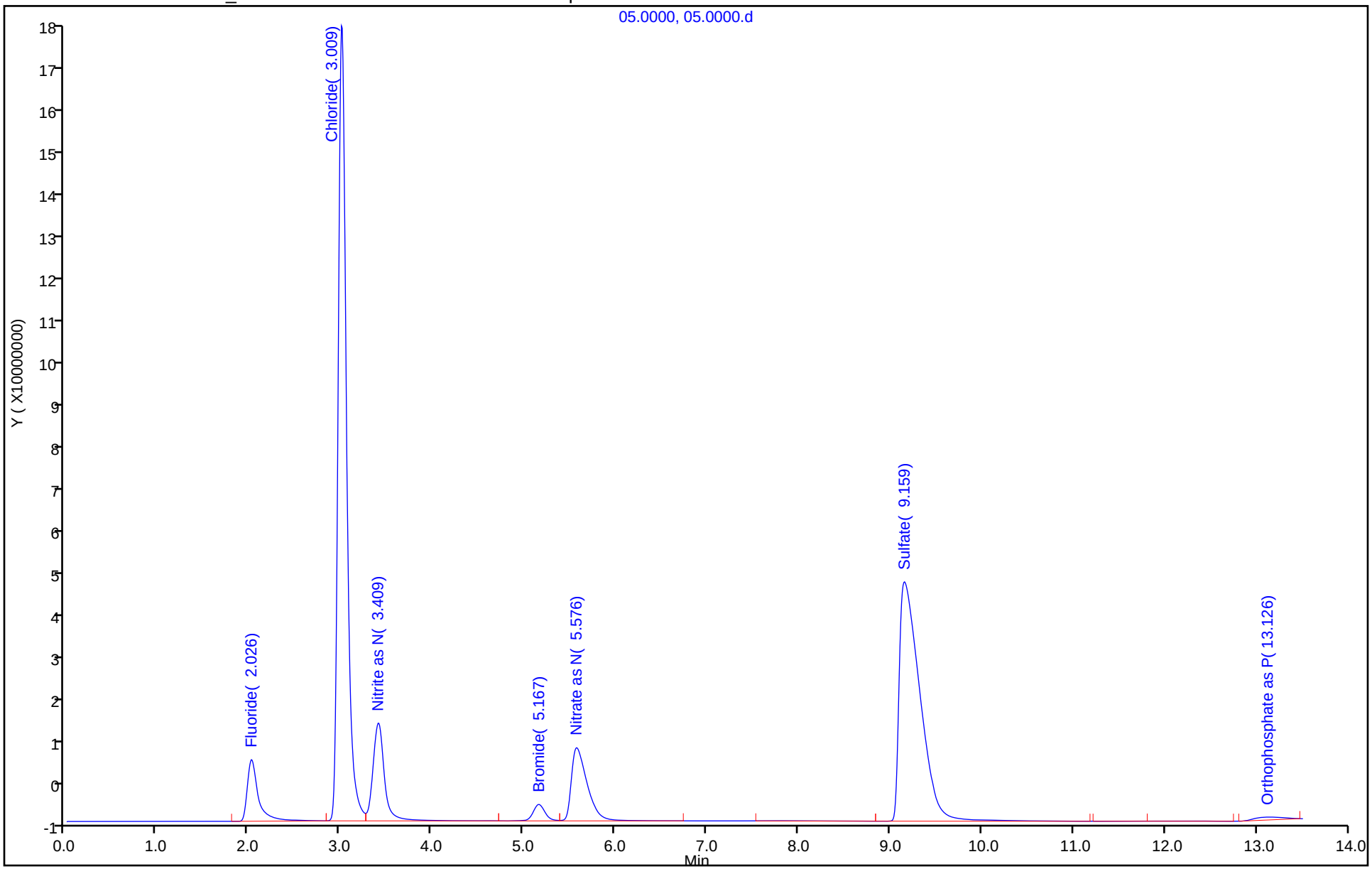
Reagents:

IC CAL cl/so4_00313	Amount Added:	1.20	Units: mL
IC Cal low_00527	Amount Added:	0.40	Units: mL

Report Date: 04-Jun-2020 08:46:58 Chrom Revision: 2.3 05-May-2020 17:48:18

Eurofins TestAmerica, Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom7\20200603-92063.b\05.0000.d				
Injection Date:	03-Jun-2020 10:57:00	Instrument ID:	WC_IonChrom7	Operator ID:	
Lims ID:	std L4			Worklist Smp#:	5
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC7	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

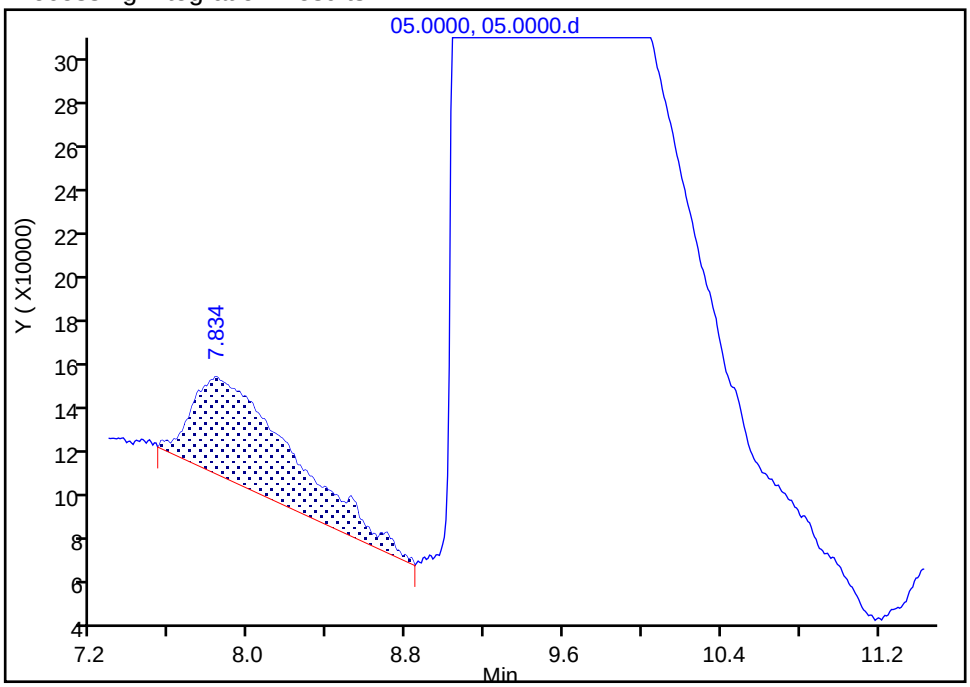
Data File:	\\chromfs\Denver\ChromData\WC_IonChrom7\20200603-92063.b\05.0000.d				
Injection Date:	03-Jun-2020 10:57:00	Instrument ID:	WC_IonChrom7		
Lims ID:	std L4				
Client ID:					
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	5
Injection Vol:	25.0 ul	Dil. Factor:	1.0000		
Method:	Anions_IC7	Limit Group:	Wet - Anions 28D		
Column:		Detector	0005		

6 Sulfate, CAS: 14808-79-8

Signal: 1

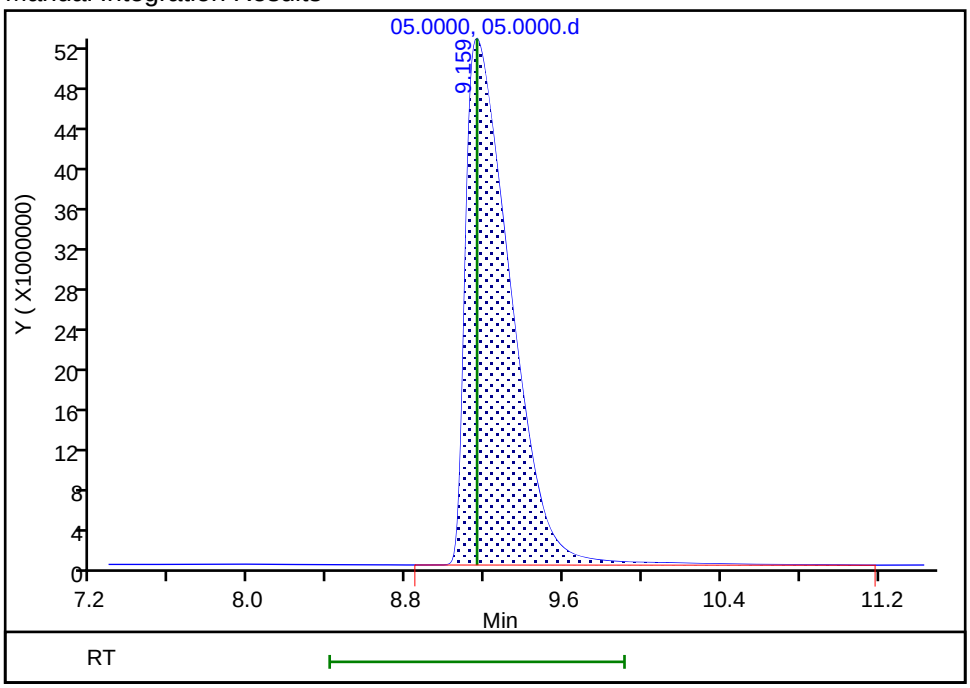
Processing Integration Results

RT: 7.83
Area: 1668987
Amount: 0
Amount Units: ug/ml



Manual Integration Results

RT: 9.16
Area: 825247714
Amount: 61.010028
Amount Units: ug/ml



Reviewer: pedrickj, 03-Jun-2020 11:51:24
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom7\20200603-92063.b\06.0000.d				
Lims ID:	std L5				
Client ID:					
Sample Type:	IC	Calib Level:	5		
Inject. Date:	03-Jun-2020 11:13:00	ALS Bottle#:	0	Worklist Smp#:	6
Injection Vol:	25.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0092063-006				
Misc. Info.:	6 F				
Operator ID:		Instrument ID:	WC_IonChrom7		
Sublist:	chrom-Anions_IC7*sub1				
Method:	\\chromfs\Denver\ChromData\WC_IonChrom7\20200603-92063.b\Anions_IC7.m				
Limit Group:	Wet - Anions 28D				
Last Update:	04-Jun-2020 08:46:58	Calib Date:	03-Jun-2020 11:30:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\WC_IonChrom7\20200603-92063.b\07.0000.d				
Column 1 :			Det: 0005		
Process Host:	CTX1067				
First Level Reviewer: pedrickj		Date:	03-Jun-2020 11:51:29		

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.034	2.026	0.008	220760198	8.00	7.97	
2 Chloride	3.059	3.009	0.050	2185921343	120.0	119.9	
3 Nitrite as N	3.492	3.409	0.083	359003922	NC	NC	
4 Bromide	5.217	5.167	0.050	64064086	8.00	7.97	
5 Nitrate as N	5.584	5.576	0.008	382561871	NC	NC	
6 Sulfate	9.059	9.159	-0.100	1621990341	120.0	120.0	a
7 Orthophosphate as P	13.059	13.126	-0.067	37869017	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
a - User Assigned ID

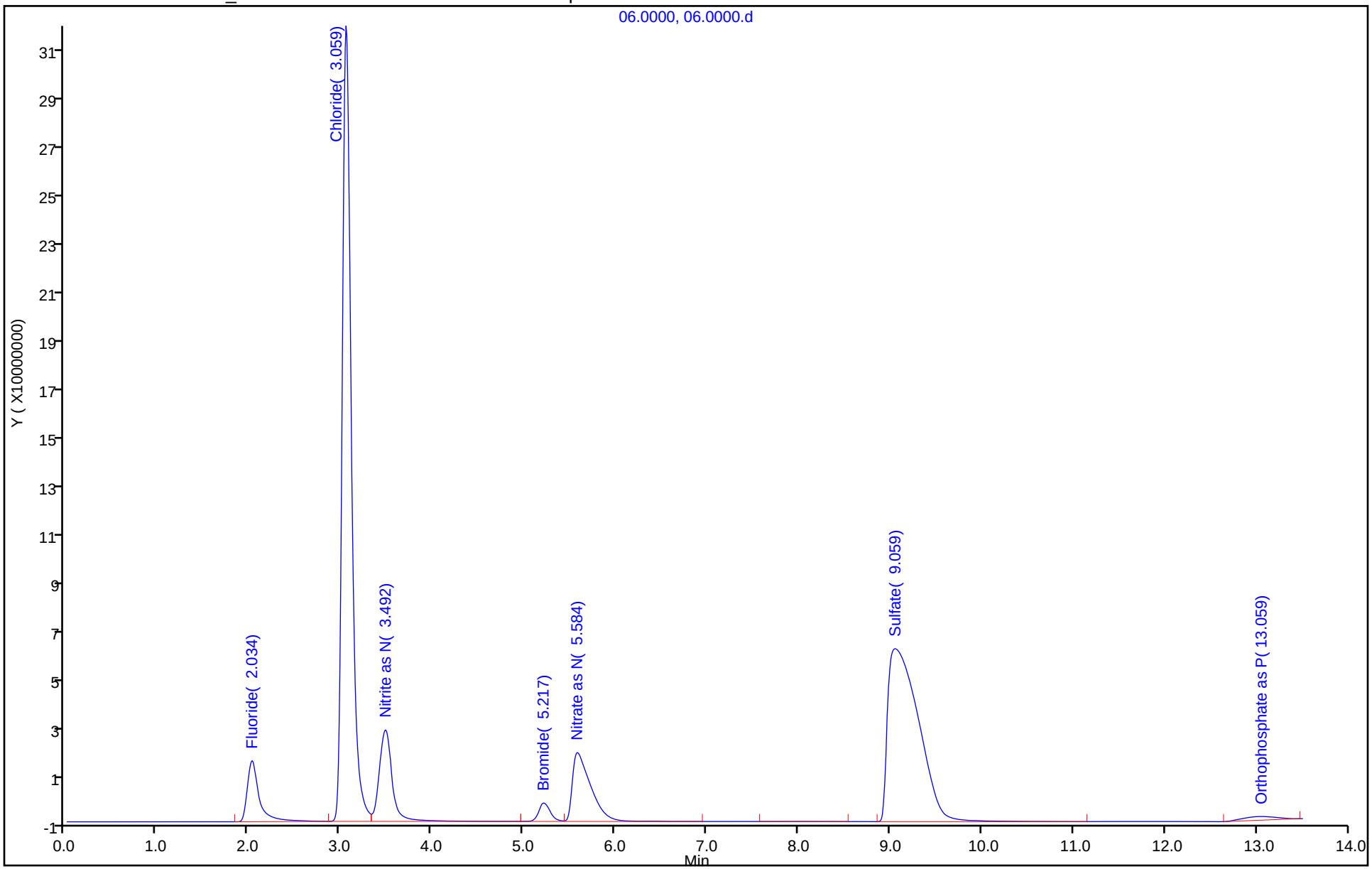
Reagents:

IC CAL cl/so4_00313	Amount Added:	2.40	Units: mL
IC Cal low_00527	Amount Added:	0.80	Units: mL

Report Date: 04-Jun-2020 08:46:58 Chrom Revision: 2.3 05-May-2020 17:48:18

Eurofins TestAmerica, Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom7\20200603-92063.b\06.0000.d				
Injection Date:	03-Jun-2020 11:13:00	Instrument ID:	WC_IonChrom7	Operator ID:	
Lims ID:	std L5			Worklist Smp#:	6
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC7	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

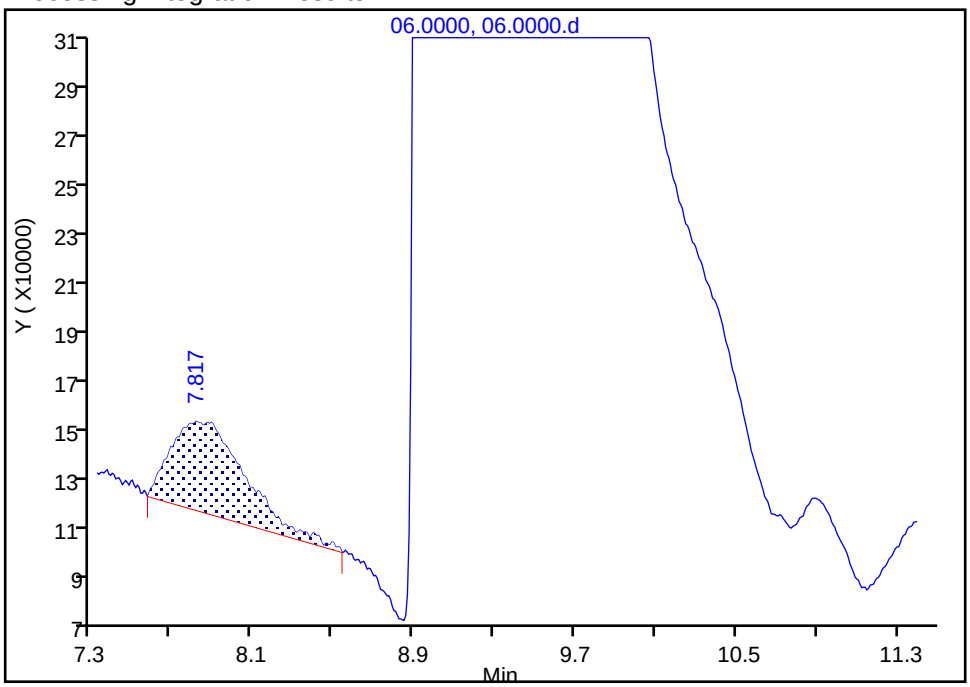
Data File:	\\chromfs\Denver\ChromData\WC_IonChrom7\20200603-92063.b\06.0000.d				
Injection Date:	03-Jun-2020 11:13:00	Instrument ID:	WC_IonChrom7		
Lims ID:	std L5				
Client ID:					
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	6
Injection Vol:	25.0 ul	Dil. Factor:	1.0000		
Method:	Anions_IC7	Limit Group:	Wet - Anions 28D		
Column:		Detector	0005		

6 Sulfate, CAS: 14808-79-8

Signal: 1

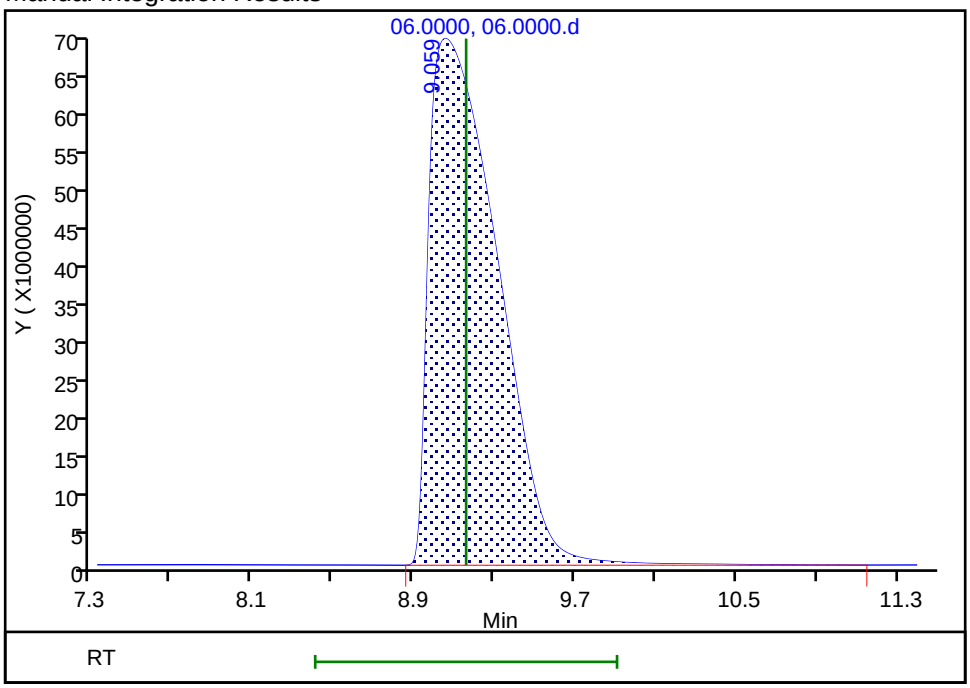
Processing Integration Results

RT: 7.82
Area: 938442
Amount: 0
Amount Units: ug/ml



Manual Integration Results

RT: 9.06
Area: 1621990341
Amount: 119.9635
Amount Units: ug/ml



Reviewer: pedrickj, 03-Jun-2020 11:51:28
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom7\20200603-92063.b\07.0000.d				
Lims ID:	std L6				
Client ID:					
Sample Type:	IC	Calib Level:	6		
Inject. Date:	03-Jun-2020 11:30:00	ALS Bottle#:	0	Worklist Smp#:	7
Injection Vol:	25.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0092063-007				
Misc. Info.:	7 F				
Operator ID:		Instrument ID:	WC_IonChrom7		
Sublist:	chrom-Anions_IC7*sub1				
Method:	\\chromfs\Denver\ChromData\WC_IonChrom7\20200603-92063.b\Anions_IC7.m				
Limit Group:	Wet - Anions 28D				
Last Update:	04-Jun-2020 08:46:59	Calib Date:	03-Jun-2020 11:30:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\WC_IonChrom7\20200603-92063.b\07.0000.d				
Column 1 :			Det: 0005		
Process Host:	CTX1067				
First Level Reviewer: pedrickj		Date:	03-Jun-2020 11:50:32		

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.034	2.026	0.008	274388580	10.0	9.91	
2 Chloride	3.092	3.009	0.083	3637071770	200.0	199.5	a
3 Nitrite as N	3.534	3.409	0.125	453480596	NC	NC	a
4 Bromide	5.267	5.167	0.100	80232699	10.0	9.99	
5 Nitrate as N	5.617	5.576	0.041	480059041	NC	NC	
6 Sulfate	9.076	9.159	-0.083	2689828489	200.0	199.0	
7 Orthophosphate as P	13.017	13.126	-0.109	55453916	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
a - User Assigned ID

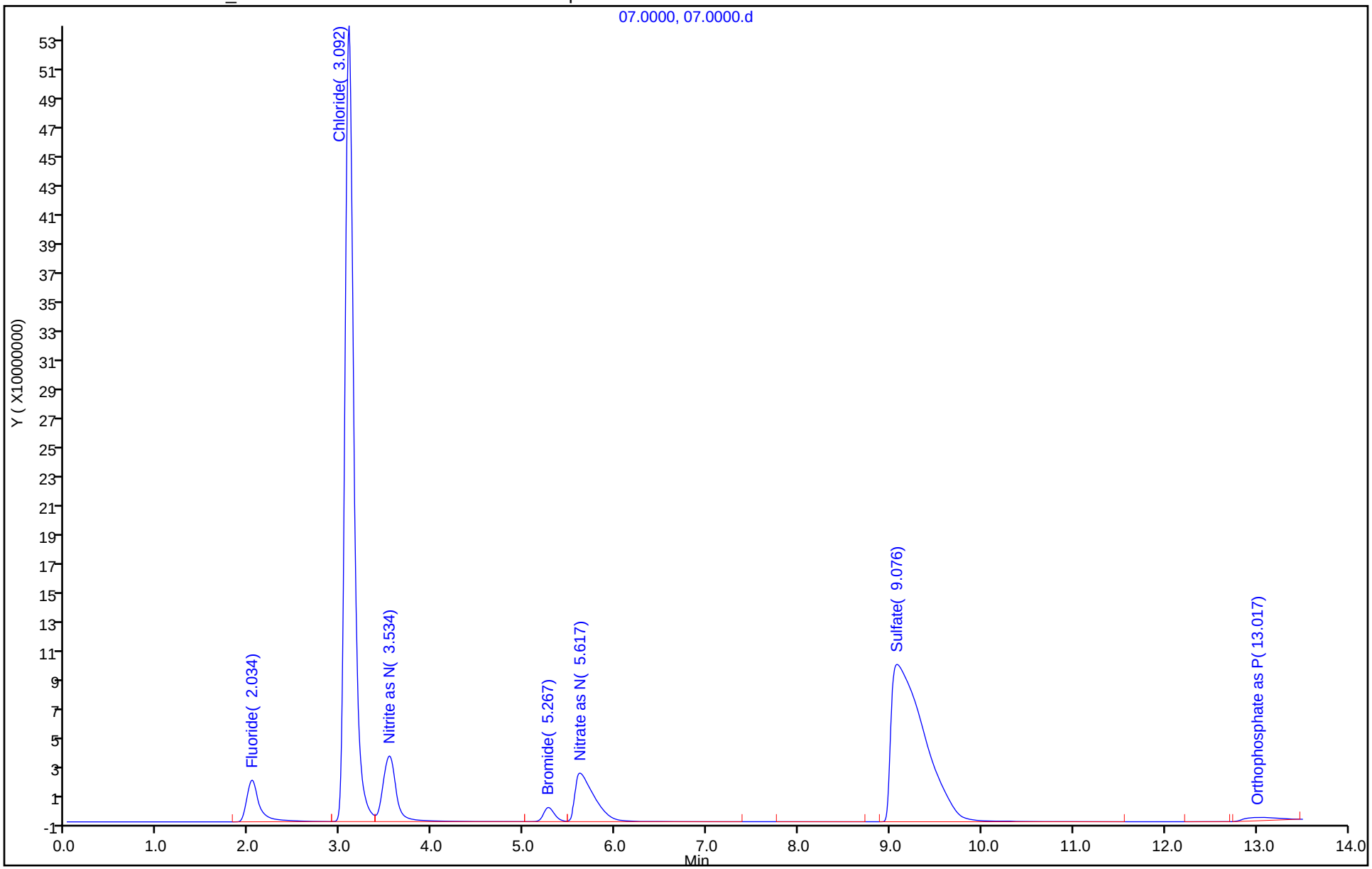
Reagents:

IC CAL cl/so4_00313	Amount Added:	4.00	Units: mL
IC Cal low_00527	Amount Added:	1.00	Units: mL

Report Date: 04-Jun-2020 08:46:59 Chrom Revision: 2.3 05-May-2020 17:48:18

Eurofins TestAmerica, Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom7\20200603-92063.b\07.0000.d				
Injection Date:	03-Jun-2020 11:30:00	Instrument ID:	WC_IonChrom7	Operator ID:	
Lims ID:	std L6			Worklist Smp#:	7
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC7	Limit Group:	Wet - Anions 28D		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

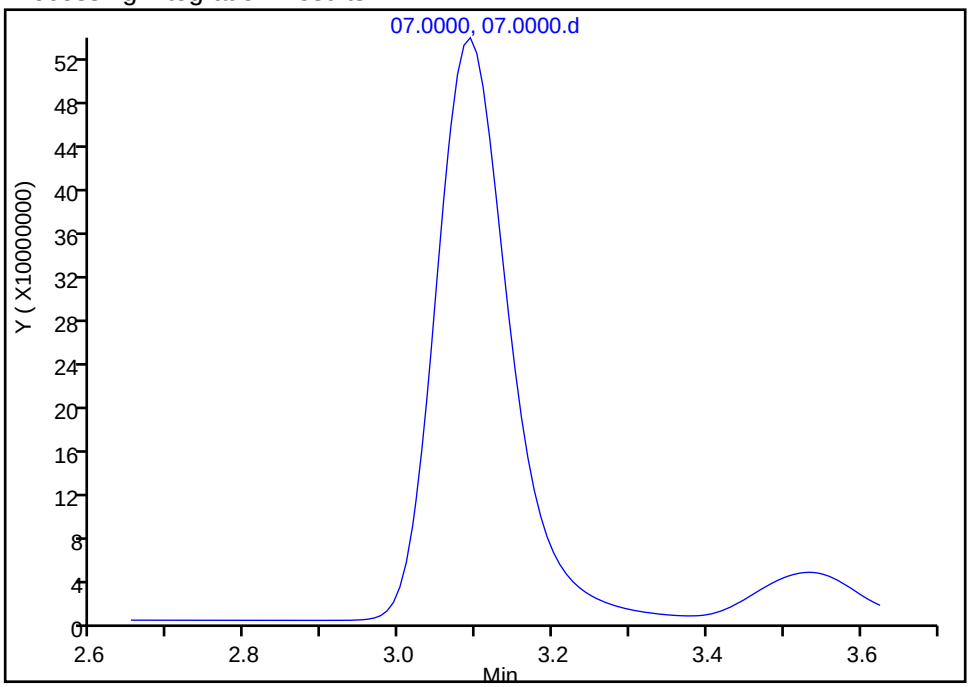
Data File:	\\chromfs\Denver\ChromData\WC_IonChrom7\20200603-92063.b\07.0000.d				
Injection Date:	03-Jun-2020 11:30:00	Instrument ID:	WC_IonChrom7		
Lims ID:	std L6				
Client ID:					
Operator ID:		ALS Bottle#:	0	Worklist Smp#:	7
Injection Vol:	25.0 ul	Dil. Factor:	1.0000		
Method:	Anions_IC7	Limit Group:	Wet - Anions 28D		
Column:		Detector	0005		

2 Chloride, CAS: 16887-00-6

Signal: 1

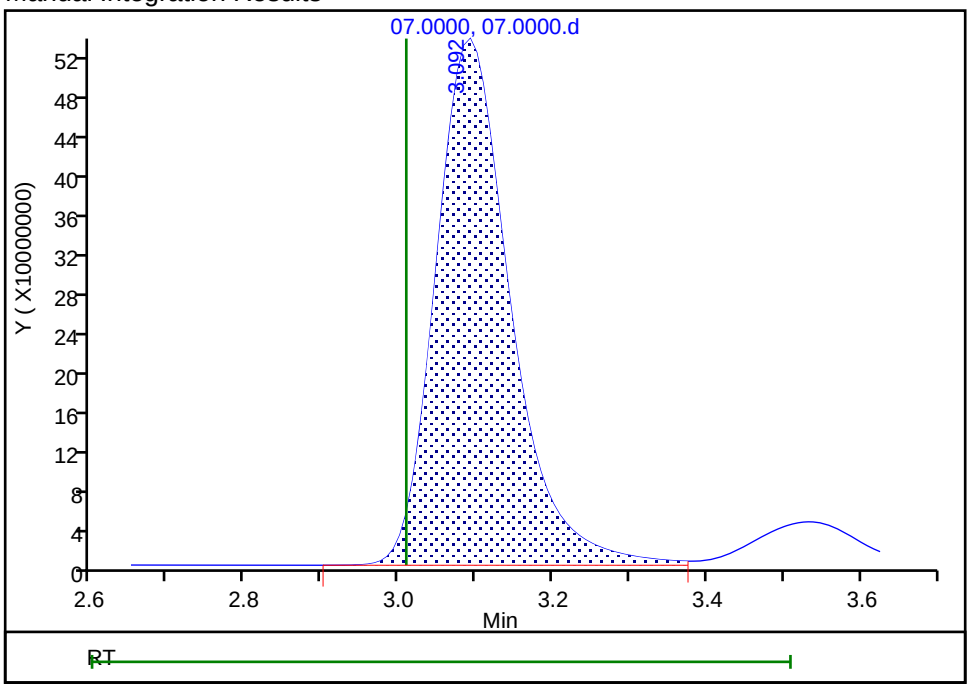
Not Detected
Expected RT: 3.01

Processing Integration Results



Manual Integration Results

RT: 3.09
Area: 3637071770
Amount: 199.4899
Amount Units: ug/ml



Reviewer: pedrickj, 03-Jun-2020 11:50:25
Audit Action: Assigned Compound ID Audit Reason:

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

IC Instrument Information

WL: 92063 **Inst ID:** 7 **Analysis Date:** 6 13 20 **Analyst:** CJ

Rush	Job No.	Samples	Anions	QC Req	HT Exp
☐	137172	16	F Cl NO2 Br NO3 PO4 SO4	MS/D 15	
☐	137173	3	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	
☐			F Cl NO2 Br NO3 PO4 SO4	MS/D	

Dilutions

Job No.	Samples	Anions	Dilution	Reason
		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		
		F Cl NO2 Br NO3 PO4 SO4		
		F Cl NO2 Br NO3 PO4 SO4		

TestAmerica Laboratories
Initial Calibration Report

Method: \\chromfs\Denver\ChromData\WC_IonChrom7\20200603-92063.b\Anions_IC7.m

Instrument: WC_IonChrom7 Lims Location: 280
Lock State: Unlocked Cpnd Order: Retention Time
Integrator: Falcon Last Modified: 04-Jun-2020 08:15:11
No.Compounds:7
Sublist: chrom-Anions_IC7*sub1
Limit Group: Wet - Anions

Detectors

Detector: 1, 0005
Data Type: ic Spec Type: none
Supports Extracted Chromatograms: False
Run Time: 0.000-13.500 No. Points: 1561

Calibration File Names

Level: 1 \\chromfs\Denver\ChromData\WC_IonChrom7\20200603-92063.b\02.0000.d
Inj Date: 03-Jun-2020 10:08:00 Worklist: 92063 Sample#: 2
Level: 2 \\chromfs\Denver\ChromData\WC_IonChrom7\20200603-92063.b\03.0000.d
Inj Date: 03-Jun-2020 10:24:00 Worklist: 92063 Sample#: 3
Level: 3 \\chromfs\Denver\ChromData\WC_IonChrom7\20200603-92063.b\04.0000.d
Inj Date: 03-Jun-2020 10:41:00 Worklist: 92063 Sample#: 4
Level: 4 \\chromfs\Denver\ChromData\WC_IonChrom7\20200603-92063.b\05.0000.d
Inj Date: 03-Jun-2020 10:57:00 Worklist: 92063 Sample#: 5
Level: 5 \\chromfs\Denver\ChromData\WC_IonChrom7\20200603-92063.b\06.0000.d
Inj Date: 03-Jun-2020 11:13:00 Worklist: 92063 Sample#: 6
Level: 6 \\chromfs\Denver\ChromData\WC_IonChrom7\20200603-92063.b\07.0000.d
Inj Date: 03-Jun-2020 11:30:00 Worklist: 92063 Sample#: 7

Start Cal Date: 03-Jun-2020 10:08:00 End Cal Date: 03-Jun-2020 11:30:00

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

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
3 Nitrite as N			Signal: 1						
56683005	46983920	46640922	46687382	44875490	45348060	**1958442**			**1.000**
0.200000(1)	0.500000(2)	1.0000 (3)	4.0000 (4)	8.0000 (5)	10.0 (6)		**45103497**		
11336601	23491960	M46640922	186749529	359003922	M453480596				
92063(2)	92063(3)	92063(4)	92063(5)	92063(6)	92063(7)				
5 Nitrate as N			Signal: 1						
46210655	48765526	47797352	47873299	47820234	48005904	**-144420**			**1.000**
0.200000(1)	0.500000(2)	1.0000 (3)	4.0000 (4)	8.0000 (5)	10.0 (6)		**47949488**		
9242131	24382763	47797352	191493196	382561871	480059041				
92063(2)	92063(3)	92063(4)	92063(5)	92063(6)	92063(7)				
7 Orthophosphate as P			Signal: 1				R1, R4, R5		
1504050	332280	319853	3410072	4733627	5545392	**-1643645**			***0.950**
0.200000(1)	0.500000(2)	1.0000 (3)	4.0000 (4)	8.0000 (5)	10.0 (6)		**4962527**		
300810	166140	319853	13640286	37869017	55453916				
92063(2)	92063(3)	92063(4)	92063(5)	92063(6)	92063(7)				

ICalib Error Legend
R1, Curve Fit Fail Error Limit Test
R4, Curve Zero Intercept is > Reporting Limit
R5, Curve is not Monotonic

TestAmerica Laboratories
Initial Calibration Summary Report

Method: \\chromfs\Denver\ChromData\WC_IonChrom7\20200603-92063.b\Anions_IC7.m

Instrument:	WC_IonChrom7	Lims Location:	280
Lock State:	Unlocked	Cpnd Order:	Retention Time
Integrator:	Falcon	Last Modified:	04-Jun-2020 08:15:11

No.Compounds:7

Initial Calibration Batches

Ical Batch: \\chromfs\Denver\ChromData\WC_IonChrom7\20200603-92063.b
Inj Date : 03-Jun-2020 10:08:00, Sublist: chrom-Anions_IC7*sub1

Detector 1: 0005

	Wet - Anions				Wet - Anions 28D			
Compound	b	M1	M2	Err	b	M1	M2	Err
1 Fluoride					902189	2759876		1.000
2 Chloride					1554283	1822407		1.000
3 Nitrite as N	1958442	4510349		1.000				
4 Bromide					44686	8029379		1.000
5 Nitrate as N	-144420	4794948		1.000				
6 Sulfate					710720	1351477		1.000
7 Orthophosphate as P	-164364	4962527	R1, R4, R5	).950*				

ICalib Error Legend

R1, Curve Fit Fail Error Limit Test
R4, Curve Zero Intercept is > Reporting Limit
R5, Curve is not Monotonic

TestAmerica Laboratories
Initial Calibration Report

Method: \\chromfs\Denver\ChromData\WC_IonChrom7\20200603-92063.b\Anions_IC7.m

Instrument: WC_IonChrom7 Lims Location: 280
Lock State: Unlocked Cpnd Order: Retention Time
Integrator: Falcon Last Modified: 04-Jun-2020 08:15:11
No.Compounds:7
Sublist: chrom-Anions_IC7*sub1
Limit Group: Wet - Anions 28D

Detectors

Detector: 1, 0005
Data Type: ic Spec Type: none
Supports Extracted Chromatograms: False
Run Time: 0.000-13.500 No. Points: 1561

Calibration File Names

Level: 1 \\chromfs\Denver\ChromData\WC_IonChrom7\20200603-92063.b\02.0000.d
Inj Date: 03-Jun-2020 10:08:00 Worklist: 92063 Sample#: 2
Level: 2 \\chromfs\Denver\ChromData\WC_IonChrom7\20200603-92063.b\03.0000.d
Inj Date: 03-Jun-2020 10:24:00 Worklist: 92063 Sample#: 3
Level: 3 \\chromfs\Denver\ChromData\WC_IonChrom7\20200603-92063.b\04.0000.d
Inj Date: 03-Jun-2020 10:41:00 Worklist: 92063 Sample#: 4
Level: 4 \\chromfs\Denver\ChromData\WC_IonChrom7\20200603-92063.b\05.0000.d
Inj Date: 03-Jun-2020 10:57:00 Worklist: 92063 Sample#: 5
Level: 5 \\chromfs\Denver\ChromData\WC_IonChrom7\20200603-92063.b\06.0000.d
Inj Date: 03-Jun-2020 11:13:00 Worklist: 92063 Sample#: 6
Level: 6 \\chromfs\Denver\ChromData\WC_IonChrom7\20200603-92063.b\07.0000.d
Inj Date: 03-Jun-2020 11:30:00 Worklist: 92063 Sample#: 7

Start Cal Date: 03-Jun-2020 10:08:00 End Cal Date: 03-Jun-2020 11:30:00

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: 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

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
1 Fluoride			Signal: 1						
29706160	30317354	29823269	28357977	27595025	27438858	**902189**			**1.000**
0.200000(1)	0.500000(2)	1.0000 (3)	4.0000 (4)	8.0000 (5)	10.0 (6)		**27598765**		
5941232	15158677	29823269	113431906	220760198	274388580				
92063(2)	92063(3)	92063(4)	92063(5)	92063(6)	92063(7)				
2 Chloride			Signal: 1						
19729950	18679714	18619227	18447644	18216011	18185359	**1554283**			**1.000**
1.0000 (1)	2.5000 (2)	5.0000 (3)	60.0 (4)	120.0 (5)	200.0 (6)		**18224071**		
19729950	46699286	M93096135	1106858638	2185921343	M3637071770				
92063(2)	92063(3)	92063(4)	92063(5)	92063(6)	92063(7)				
4 Bromide			Signal: 1						
7896295	8405932	8133508	8087968	8008011	8023270	**44686**			**1.000**
0.200000(1)	0.500000(2)	1.0000 (3)	4.0000 (4)	8.0000 (5)	10.0 (6)		**8029379**		
1579259	4202966	8133508	32351872	64064086	80232699				
92063(2)	92063(3)	92063(4)	92063(5)	92063(6)	92063(7)				
6 Sulfate			Signal: 1						
13874566	13779642	13873076	13754129	13516586	13449142	**710720**			**1.000**
1.0000 (1)	2.5000 (2)	5.0000 (3)	60.0 (4)	120.0 (5)	200.0 (6)		**13514778**		
M13874566	M34449105	M69365381	M825247714	M1621990341	2689828489				
92063(2)	92063(3)	92063(4)	92063(5)	92063(6)	92063(7)				

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom7\20200603-92063.b\08.0000.d
Lims ID: icv
Client ID:
Sample Type: ICV
Inject. Date: 03-Jun-2020 11:46:00 ALS Bottle#: 0 Worklist Smp#: 8
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 280-0092063-008
Misc. Info.: 8 F
Operator ID: Instrument ID: WC_IonChrom7
Sublist:

Method: \\chromfs\Denver\ChromData\WC_IonChrom7\20200603-92063.b\Anions_IC7.m
Limit Group: Wet - Anions 28D
Last Update: 04-Jun-2020 08:46:59 Calib Date: 03-Jun-2020 11:30:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom7\20200603-92063.b\07.0000.d

Column 1 : Det: 0005
Process Host: CTX1067

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.009	2.009	0.000	123589869	4.00	4.45	
2 Chloride	2.959	2.959	0.000	1469131323	80.0	80.5	
3 Nitrite as N	3.400	3.400	0.000	192603526	NC	NC	
4 Bromide	5.217	5.217	0.000	32419298	4.00	4.03	
5 Nitrate as N	5.625	5.625	0.000	192511943	NC	NC	
6 Sulfate	9.184	9.184	0.000	1090316764	80.0	80.6	
7 Orthophosphate as P	13.325	13.325	0.000	3527600	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated

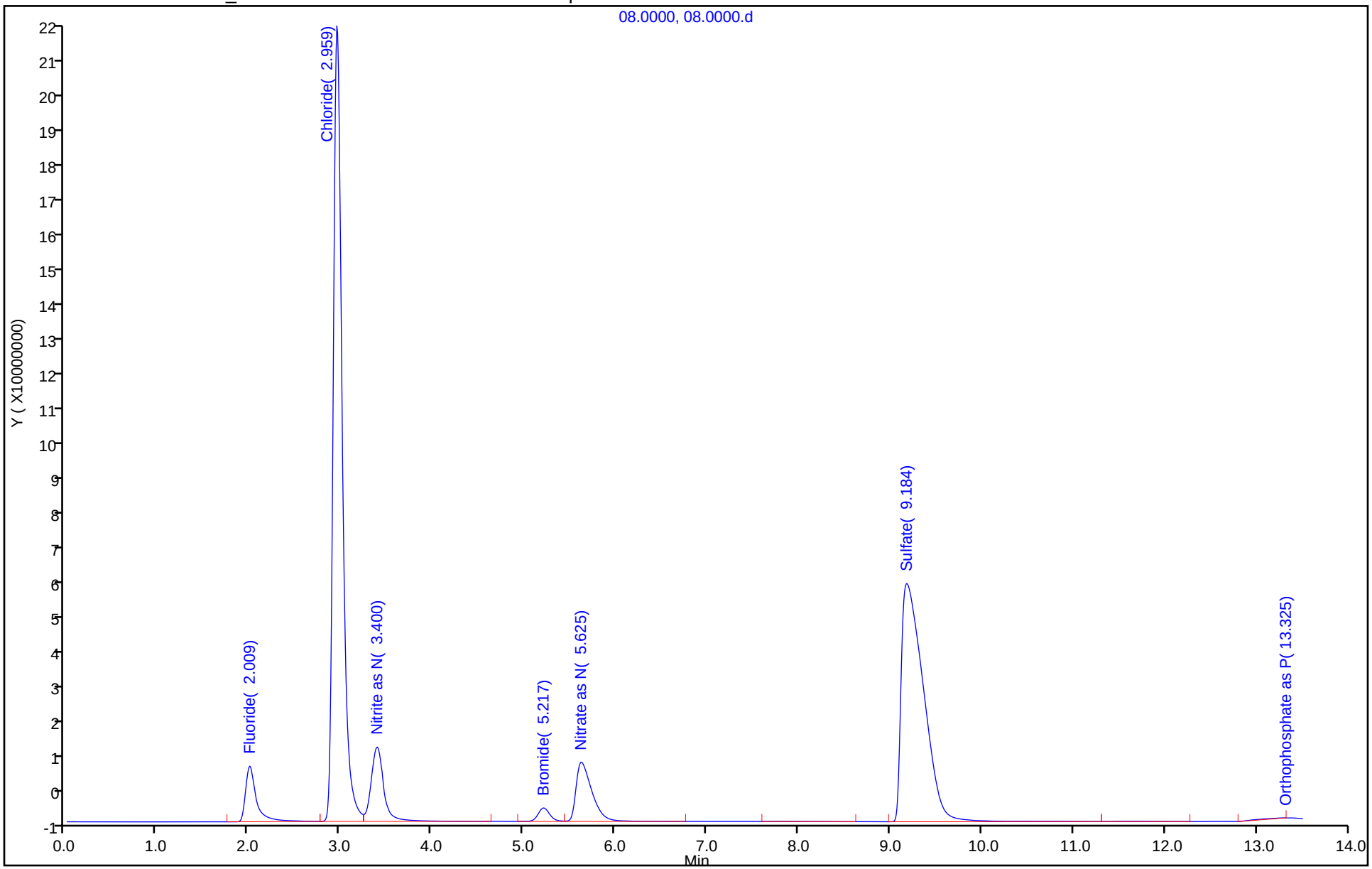
Reagents:

IC SO4 ICV_00021 Amount Added: 0.40 Units: mL
IC CL ICV_00018 Amount Added: 0.40 Units: mL
IC ICV 5_00272 Amount Added: 0.40 Units: mL

Report Date: 04-Jun-2020 08:46:59 Chrom Revision: 2.3 05-May-2020 17:48:18

Eurofins TestAmerica, Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom7\20200603-92063.b\08.0000.d				
Injection Date:	03-Jun-2020 11:46:00	Instrument ID:	WC_IonChrom7	Operator ID:	
Lims ID:	icv			Worklist Smp#:	8
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC7	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom7\20200603-92063.b\09.0000.d				
Lims ID:	icb				
Client ID:					
Sample Type:	ICB				
Inject. Date:	03-Jun-2020 12:03:00	ALS Bottle#:	0	Worklist Smp#:	9
Injection Vol:	25.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0092063-009				
Misc. Info.:	9 F				
Operator ID:		Instrument ID:	WC_IonChrom7		
Method:	\\chromfs\Denver\ChromData\WC_IonChrom7\20200603-92063.b\Anions_IC7.m				
Limit Group:	Wet - Anions 28D				
Last Update:	04-Jun-2020 08:46:59	Calib Date:	03-Jun-2020 11:30:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\WC_IonChrom7\20200603-92063.b\07.0000.d				
Column 1 :			Det: 0005		
Process Host:	CTX1067				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride		2.009				ND	
2 Chloride	3.075	2.959	0.116	377091		-0.0646	
3 Nitrite as N	3.775	3.400	0.375	117856		NC	
4 Bromide		5.217				ND	
5 Nitrate as N		5.625				ND	
6 Sulfate		9.184				ND	
7 Orthophosphate as P		13.325				ND	

QC Flag Legend

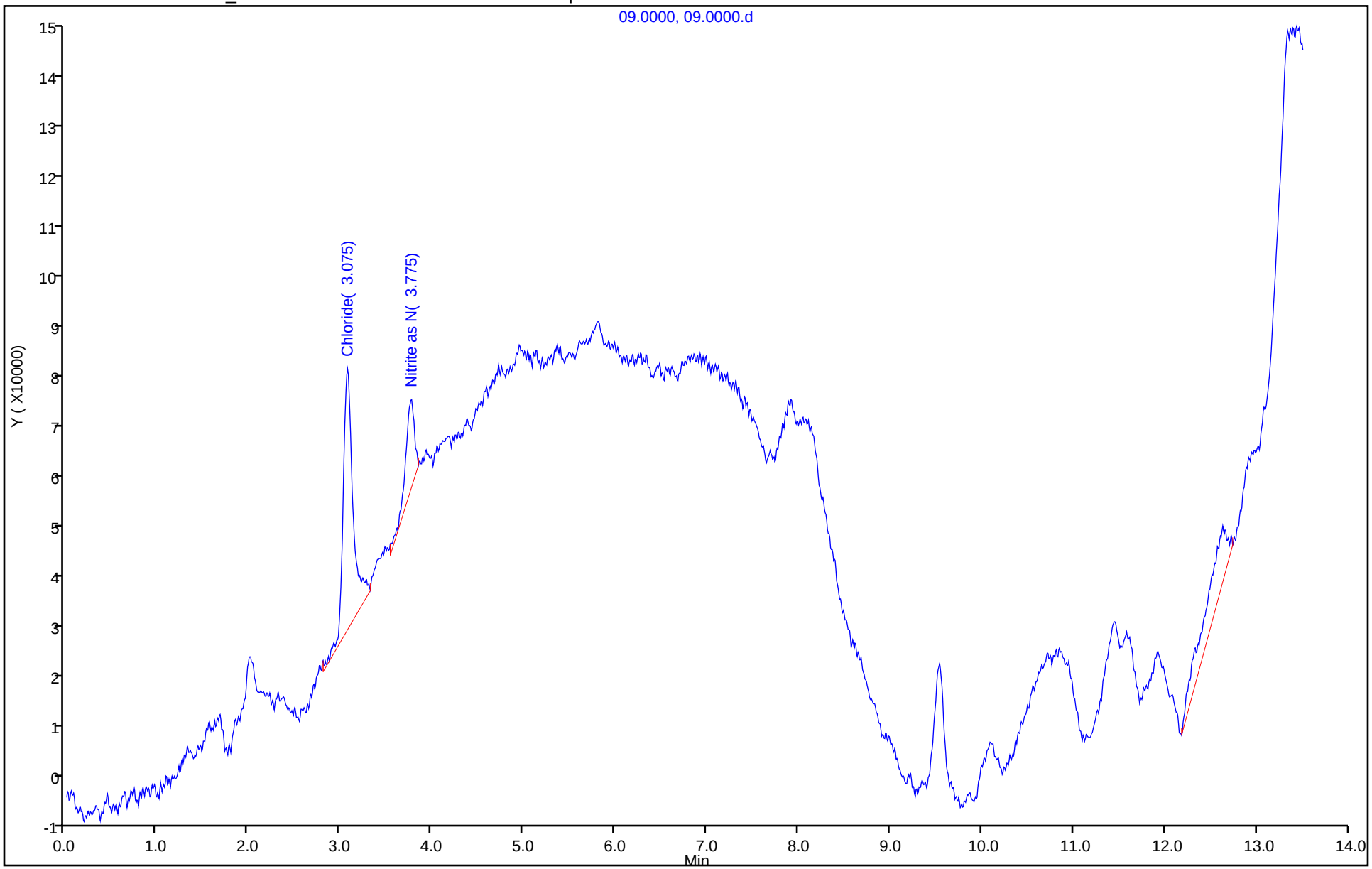
Processing Flags

NC - Not Calibrated

Report Date: 04-Jun-2020 08:47:00 Chrom Revision: 2.3 05-May-2020 17:48:18

Eurofins TestAmerica, Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom7\20200603-92063.b\09.0000.d				
Injection Date:	03-Jun-2020 12:03:00	Instrument ID:	WC_IonChrom7	Operator ID:	
Lims ID:	icb			Worklist Smp#:	9
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC7	Limit Group:	Wet - Anions 28D		



TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

IC Instrument Information

WL: 92430 **Inst ID:** 7 **Analysis Date:** 6/15/20 **Analyst:** CJ

Rush	Job No.	Samples	Anions	QC Req	HT Exp
☐	136707	5	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐	137127	1	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐	137128	1	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐	137148	1	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐	137156	1	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐	137225	4	F Cl NO2 Br NO3 PO4 SO4	MS/D 2	
☐			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
127		F Cl NO2 Br NO3 PO4 SO4	20X	coverage
128		F Cl NO2 Br NO3 PO4 SO4	20X	coverage.
156		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		

TestAmerica Laboratories
Initial Calibration Report

Method: \\chromfs\Denver\ChromData\WC_IonChrom7\20200603-92063.b\Anions_IC7.m

Instrument: WC_IonChrom7 Lims Location: 280
Lock State: Unlocked Cpnd Order: Retention Time
Integrator: Falcon Last Modified: 04-Jun-2020 08:15:11
No.Compounds:7
Sublist: chrom-Anions_IC7*sub1
Limit Group: Wet - Anions

Detectors

Detector: 1, 0005
Data Type: ic Spec Type: none
Supports Extracted Chromatograms: False
Run Time: 0.000-13.500 No. Points: 1561

Calibration File Names

Level: 1 \\chromfs\Denver\ChromData\WC_IonChrom7\20200603-92063.b\02.0000.d
Inj Date: 03-Jun-2020 10:08:00 Worklist: 92063 Sample#: 2
Level: 2 \\chromfs\Denver\ChromData\WC_IonChrom7\20200603-92063.b\03.0000.d
Inj Date: 03-Jun-2020 10:24:00 Worklist: 92063 Sample#: 3
Level: 3 \\chromfs\Denver\ChromData\WC_IonChrom7\20200603-92063.b\04.0000.d
Inj Date: 03-Jun-2020 10:41:00 Worklist: 92063 Sample#: 4
Level: 4 \\chromfs\Denver\ChromData\WC_IonChrom7\20200603-92063.b\05.0000.d
Inj Date: 03-Jun-2020 10:57:00 Worklist: 92063 Sample#: 5
Level: 5 \\chromfs\Denver\ChromData\WC_IonChrom7\20200603-92063.b\06.0000.d
Inj Date: 03-Jun-2020 11:13:00 Worklist: 92063 Sample#: 6
Level: 6 \\chromfs\Denver\ChromData\WC_IonChrom7\20200603-92063.b\07.0000.d
Inj Date: 03-Jun-2020 11:30:00 Worklist: 92063 Sample#: 7

Start Cal Date: 03-Jun-2020 10:08:00 End Cal Date: 03-Jun-2020 11:30:00

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

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
3 Nitrite as N			Signal: 1						
56683005	46983920	46640922	46687382	44875490	45348060	**1958442**			**1.000**
0.200000(1)	0.500000(2)	1.0000 (3)	4.0000 (4)	8.0000 (5)	10.0 (6)		**45103497**		
11336601	23491960	M46640922	186749529	359003922	M453480596				
92063(2)	92063(3)	92063(4)	92063(5)	92063(6)	92063(7)				
5 Nitrate as N			Signal: 1						
46210655	48765526	47797352	47873299	47820234	48005904	**-144420**			**1.000**
0.200000(1)	0.500000(2)	1.0000 (3)	4.0000 (4)	8.0000 (5)	10.0 (6)		**47949488**		
9242131	24382763	47797352	191493196	382561871	480059041				
92063(2)	92063(3)	92063(4)	92063(5)	92063(6)	92063(7)				
7 Orthophosphate as P			Signal: 1				R1, R4, R5		
1504050	332280	319853	3410072	4733627	5545392	**-1643645**			***0.950**
0.200000(1)	0.500000(2)	1.0000 (3)	4.0000 (4)	8.0000 (5)	10.0 (6)		**4962527**		
300810	166140	319853	13640286	37869017	55453916				
92063(2)	92063(3)	92063(4)	92063(5)	92063(6)	92063(7)				

ICalib Error Legend
R1, Curve Fit Fail Error Limit Test
R4, Curve Zero Intercept is > Reporting Limit
R5, Curve is not Monotonic

TestAmerica Laboratories
Initial Calibration Summary Report

Method: \\chromfs\Denver\ChromData\WC_IonChrom7\20200603-92063.b\Anions_IC7.m

Instrument:	WC_IonChrom7	Lims Location:	280
Lock State:	Unlocked	Cpnd Order:	Retention Time
Integrator:	Falcon	Last Modified:	04-Jun-2020 08:15:11

No.Compounds:7

Initial Calibration Batches

Ical Batch: \\chromfs\Denver\ChromData\WC_IonChrom7\20200603-92063.b
Inj Date : 03-Jun-2020 10:08:00, Sublist: chrom-Anions_IC7*sub1

Detector 1: 0005

	Wet - Anions				Wet - Anions 28D			
Compound	b	M1	M2	Err	b	M1	M2	Err
1 Fluoride					902189	2759876		1.000
2 Chloride					1554283	1822407		1.000
3 Nitrite as N	1958442	4510349		1.000				
4 Bromide					44686	8029379		1.000
5 Nitrate as N	-144420	4794948		1.000				
6 Sulfate					710720	1351477		1.000
7 Orthophosphate as P	-164364	4962527	R1, R4, R5	).950*				

ICalib Error Legend
R1, Curve Fit Fail Error Limit Test
R4, Curve Zero Intercept is > Reporting Limit
R5, Curve is not Monotonic

TestAmerica Laboratories
Initial Calibration Report

Method: \\chromfs\Denver\ChromData\WC_IonChrom7\20200603-92063.b\Anions_IC7.m

Instrument: WC_IonChrom7 Lims Location: 280
Lock State: Unlocked Cpnd Order: Retention Time
Integrator: Falcon Last Modified: 04-Jun-2020 08:15:11
No.Compounds:7
Sublist: chrom-Anions_IC7*sub1
Limit Group: Wet - Anions 28D

Detectors

Detector: 1, 0005
Data Type: ic Spec Type: none
Supports Extracted Chromatograms: False
Run Time: 0.000-13.500 No. Points: 1561

Calibration File Names

Level: 1 \\chromfs\Denver\ChromData\WC_IonChrom7\20200603-92063.b\02.0000.d
Inj Date: 03-Jun-2020 10:08:00 Worklist: 92063 Sample#: 2
Level: 2 \\chromfs\Denver\ChromData\WC_IonChrom7\20200603-92063.b\03.0000.d
Inj Date: 03-Jun-2020 10:24:00 Worklist: 92063 Sample#: 3
Level: 3 \\chromfs\Denver\ChromData\WC_IonChrom7\20200603-92063.b\04.0000.d
Inj Date: 03-Jun-2020 10:41:00 Worklist: 92063 Sample#: 4
Level: 4 \\chromfs\Denver\ChromData\WC_IonChrom7\20200603-92063.b\05.0000.d
Inj Date: 03-Jun-2020 10:57:00 Worklist: 92063 Sample#: 5
Level: 5 \\chromfs\Denver\ChromData\WC_IonChrom7\20200603-92063.b\06.0000.d
Inj Date: 03-Jun-2020 11:13:00 Worklist: 92063 Sample#: 6
Level: 6 \\chromfs\Denver\ChromData\WC_IonChrom7\20200603-92063.b\07.0000.d
Inj Date: 03-Jun-2020 11:30:00 Worklist: 92063 Sample#: 7

Start Cal Date: 03-Jun-2020 10:08:00 End Cal Date: 03-Jun-2020 11:30:00

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: 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

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
1 Fluoride				Signal: 1					
29706160	30317354	29823269	28357977	27595025	27438858	**902189**			**1.000**
0.200000(1)	0.500000(2)	1.0000 (3)	4.0000 (4)	8.0000 (5)	10.0 (6)		**27598765**		
5941232	15158677	29823269	113431906	220760198	274388580				
92063(2)	92063(3)	92063(4)	92063(5)	92063(6)	92063(7)				
2 Chloride				Signal: 1					
19729950	18679714	18619227	18447644	18216011	18185359	**1554283**			**1.000**
1.0000 (1)	2.5000 (2)	5.0000 (3)	60.0 (4)	120.0 (5)	200.0 (6)		**18224071**		
19729950	46699286	M93096135	1106858638	2185921343	M3637071770				
92063(2)	92063(3)	92063(4)	92063(5)	92063(6)	92063(7)				
4 Bromide				Signal: 1					
7896295	8405932	8133508	8087968	8008011	8023270	**44686**			**1.000**
0.200000(1)	0.500000(2)	1.0000 (3)	4.0000 (4)	8.0000 (5)	10.0 (6)		**8029379**		
1579259	4202966	8133508	32351872	64064086	80232699				
92063(2)	92063(3)	92063(4)	92063(5)	92063(6)	92063(7)				
6 Sulfate				Signal: 1					
13874566	13779642	13873076	13754129	13516586	13449142	**710720**			**1.000**
1.0000 (1)	2.5000 (2)	5.0000 (3)	60.0 (4)	120.0 (5)	200.0 (6)		**13514778**		
M13874566	M34449105	M69365381	M825247714	M1621990341	2689828489				
92063(2)	92063(3)	92063(4)	92063(5)	92063(6)	92063(7)				

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom7\20200615-92430.b\01.0000.d
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 15-Jun-2020 10:20:00 ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 280-0092430-001
Operator ID: Instrument ID: WC_IonChrom7
Sublist: chrom-Anions_IC7*sub1

Method: \\chromfs\Denver\ChromData\WC_IonChrom7\20200615-92430.b\Anions_IC7.m
Limit Group: Wet - Anions 28D
Last Update: 16-Jun-2020 07:59:59 Calib Date: 03-Jun-2020 11:30:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom7\20200603-92063.b\07.0000.d

Column 1 : Det: 0005
Process Host: CTX1061

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	1.984	1.992	-0.008	133969458	5.00	4.82	
2 Chloride	2.892	2.934	-0.042	1783859140	100.0	97.8	
3 Nitrite as N	3.334	3.384	-0.050	239007915	NC	NC	
4 Bromide	5.159	5.275	-0.116	39547329	5.00	4.92	
5 Nitrate as N	5.584	5.692	-0.108	238062682	NC	NC	
6 Sulfate	9.051	9.317	-0.266	1338331497	100.0	99.0	
7 Orthophosphate as P	13.242	13.175	0.067	47617	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated

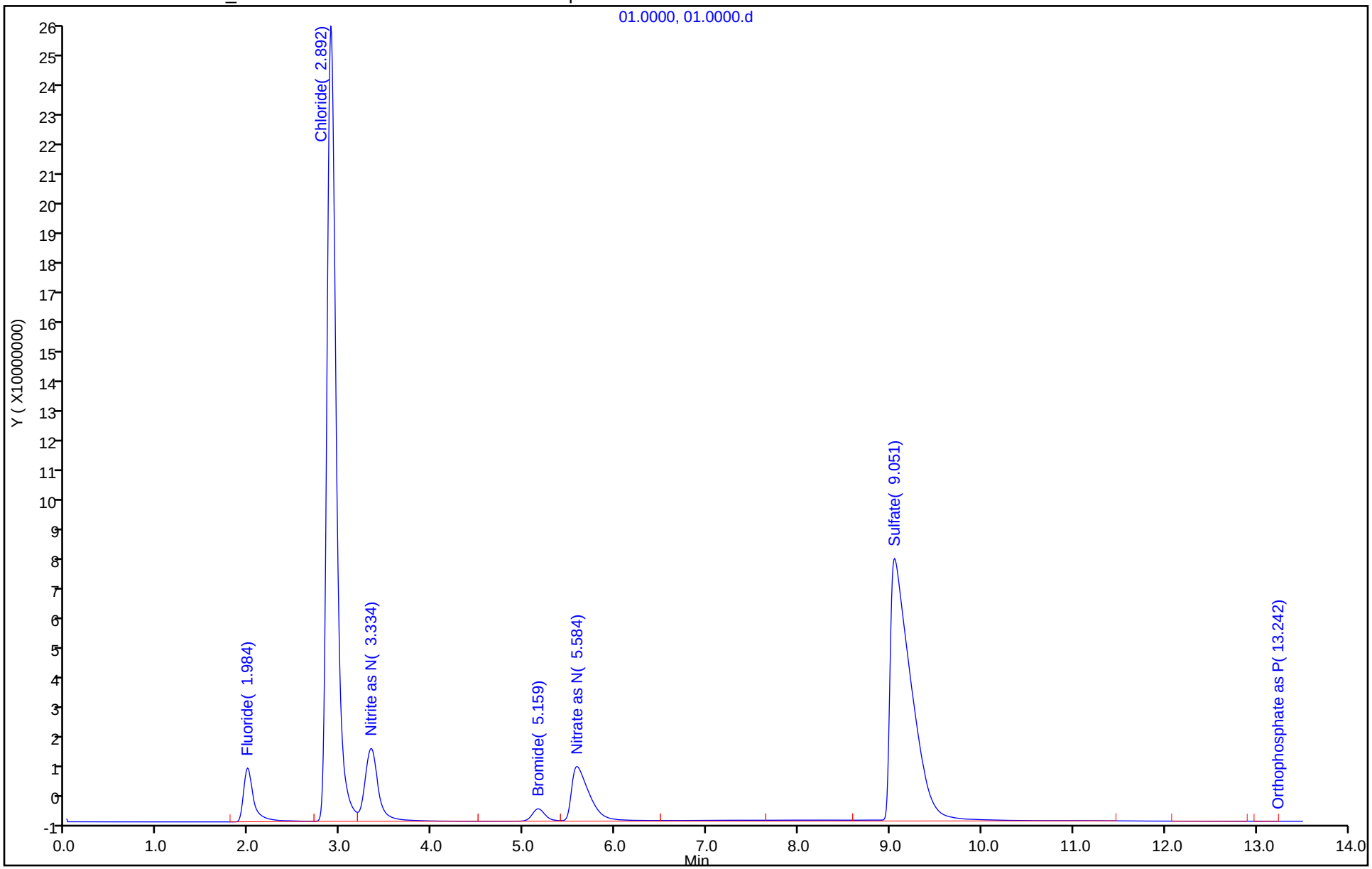
Reagents:

IC LCS_01745 Amount Added: 5.00 Units: mL

Report Date: 16-Jun-2020 07:59:59 Chrom Revision: 2.3 10-Jun-2020 22:46:48

Eurofins TestAmerica, Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom7\20200615-92430.b\01.0000.d				
Injection Date:	15-Jun-2020 10:20:00	Instrument ID:	WC_IonChrom7	Operator ID:	
Lims ID:	ccv			Worklist Smp#:	1
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC7	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom7\20200615-92430.b\02.0000.d				
Lims ID:	ccb				
Client ID:					
Sample Type:	CCB				
Inject. Date:	15-Jun-2020 10:36:00	ALS Bottle#:	0	Worklist Smp#:	2
Injection Vol:	25.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0092430-002				
Operator ID:		Instrument ID:	WC_IonChrom7		
Method:	\\chromfs\Denver\ChromData\WC_IonChrom7\20200615-92430.b\Anions_IC7.m				
Limit Group:	Wet - Anions 28D				
Last Update:	16-Jun-2020 07:59:59	Calib Date:	03-Jun-2020 11:30:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\WC_IonChrom7\20200603-92063.b\07.0000.d				
Column 1 :			Det: 0005		
Process Host:	CTX1061				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride		1.992				ND	
2 Chloride	2.925	2.934	-0.009	1025769		-0.0290	
3 Nitrite as N		3.384				ND	
4 Bromide		5.275				ND	
5 Nitrate as N		5.692				ND	
6 Sulfate	9.475	9.317	0.158	1474061		0.0565	
7 Orthophosphate as P	13.234	13.175	0.059	997905		NC	

QC Flag Legend

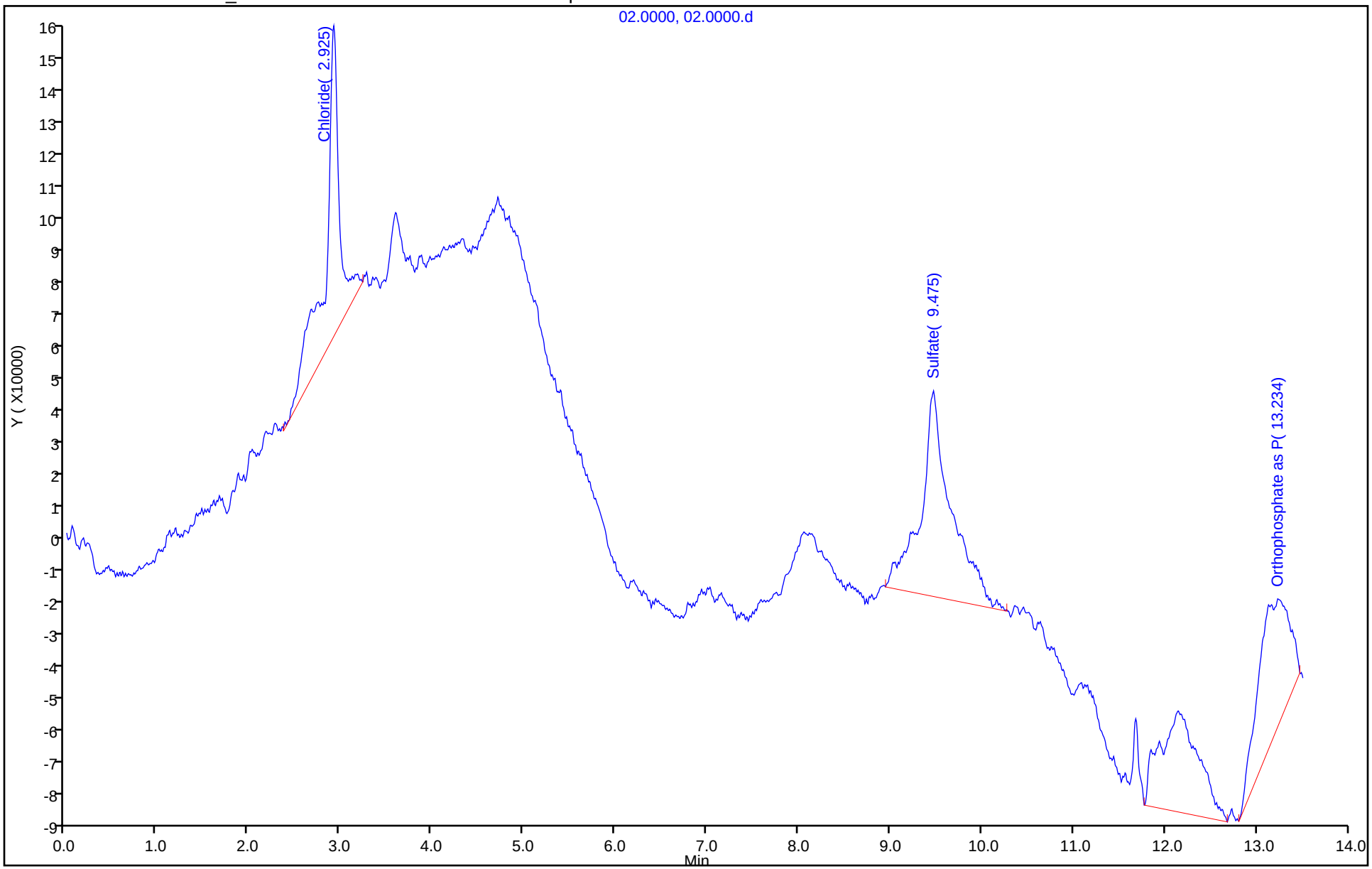
Processing Flags

NC - Not Calibrated

Report Date: 16-Jun-2020 08:00:00 Chrom Revision: 2.3 10-Jun-2020 22:46:48

Eurofins TestAmerica, Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom7\20200615-92430.b\02.0000.d				
Injection Date:	15-Jun-2020 10:36:00	Instrument ID:	WC_IonChrom7	Operator ID:	
Lims ID:	ccb			Worklist Smp#:	2
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC7	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom7\20200615-92430.b\03.0000.d				
Lims ID:	mrl				
Client ID:					
Sample Type:	MRL				
Inject. Date:	15-Jun-2020 10:52:00	ALS Bottle#:	0	Worklist Smp#:	3
Injection Vol:	25.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0092430-003				
Operator ID:		Instrument ID:	WC_IonChrom7		
Method:	\\chromfs\Denver\ChromData\WC_IonChrom7\20200615-92430.b\Anions_IC7.m				
Limit Group:	Wet - Anions 28D				
Last Update:	16-Jun-2020 07:59:59	Calib Date:	03-Jun-2020 11:30:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\WC_IonChrom7\20200603-92063.b\07.0000.d				
Column 1 :			Det: 0005		
Process Host:	CTX1061				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.009	1.992	0.017	14321155	0.5000	0.4862	
2 Chloride	3.025	2.934	0.091	91652407	5.00	4.94	
3 Nitrite as N	3.459	3.384	0.075	24343630	NC	NC	
4 Bromide	5.342	5.275	0.067	3752533	0.5000	0.4618	
5 Nitrate as N	5.867	5.692	0.175	23166657	NC	NC	
6 Sulfate	9.525	9.317	0.208	68020494	5.00	4.98	
7 Orthophosphate as P	13.192	13.175	0.017	116265	NC	NC	

QC Flag Legend

Processing Flags

NC - Not Calibrated

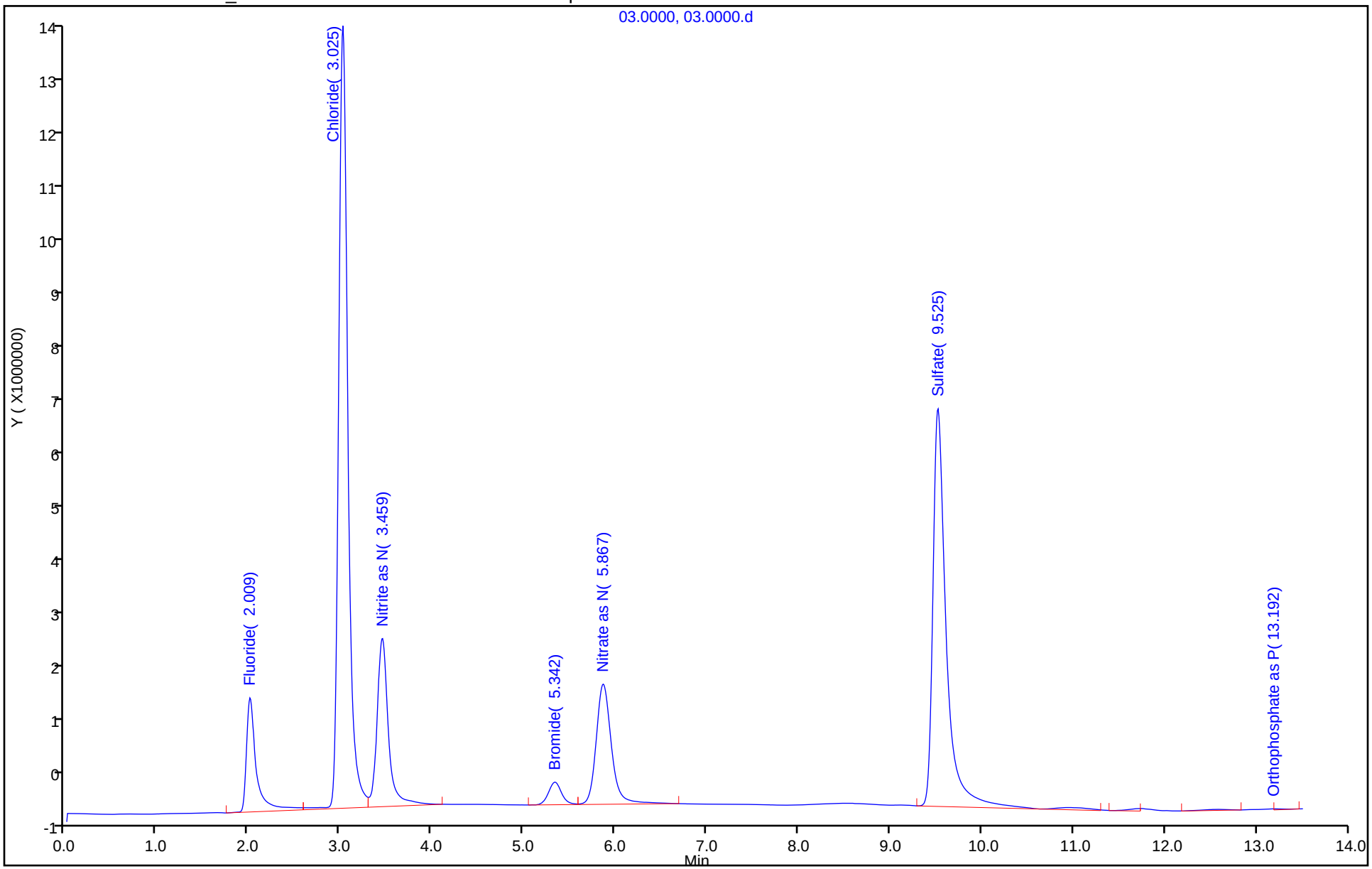
Reagents:

IC Cal low_00529	Amount Added:	0.05	Units: mL
IC CAL cl/so4_00315	Amount Added:	0.10	Units: mL

Report Date: 16-Jun-2020 08:00:01 Chrom Revision: 2.3 10-Jun-2020 22:46:48

Eurofins TestAmerica, Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom7\20200615-92430.b\03.0000.d				
Injection Date:	15-Jun-2020 10:52:00	Instrument ID:	WC_IonChrom7	Operator ID:	
Lims ID:	mrl			Worklist Smp#:	3
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC7	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom7\20200615-92430.b\04.0000.d				
Lims ID:	lcs				
Client ID:					
Sample Type:	LCS				
Inject. Date:	15-Jun-2020 11:09:00	ALS Bottle#:	0	Worklist Smp#:	4
Injection Vol:	25.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0092430-004				
Misc. Info.:	4 F				
Operator ID:		Instrument ID:	WC_IonChrom7		
Method:	\\chromfs\Denver\ChromData\WC_IonChrom7\20200615-92430.b\Anions_IC7.m				
Limit Group:	Wet - Anions 28D				
Last Update:	16-Jun-2020 07:59:59	Calib Date:	03-Jun-2020 11:30:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\WC_IonChrom7\20200603-92063.b\07.0000.d				
Column 1 :			Det: 0005		
Process Host:	CTX1061				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.025	1.992	0.033	137489851	5.00	4.95	
2 Chloride	3.025	2.934	0.091	1783710392	100.0	97.8	
3 Nitrite as N	3.484	3.384	0.100	238491901	NC	NC	
4 Bromide	5.367	5.275	0.092	39958736	5.00	4.97	
5 Nitrate as N	5.792	5.692	0.100	233279196	NC	NC	
6 Sulfate	9.067	9.317	-0.250	1332045841	100.0	98.5	
7 Orthophosphate as P	13.075	13.175	-0.100	631339	NC	NC	

QC Flag Legend

Processing Flags

NC - Not Calibrated

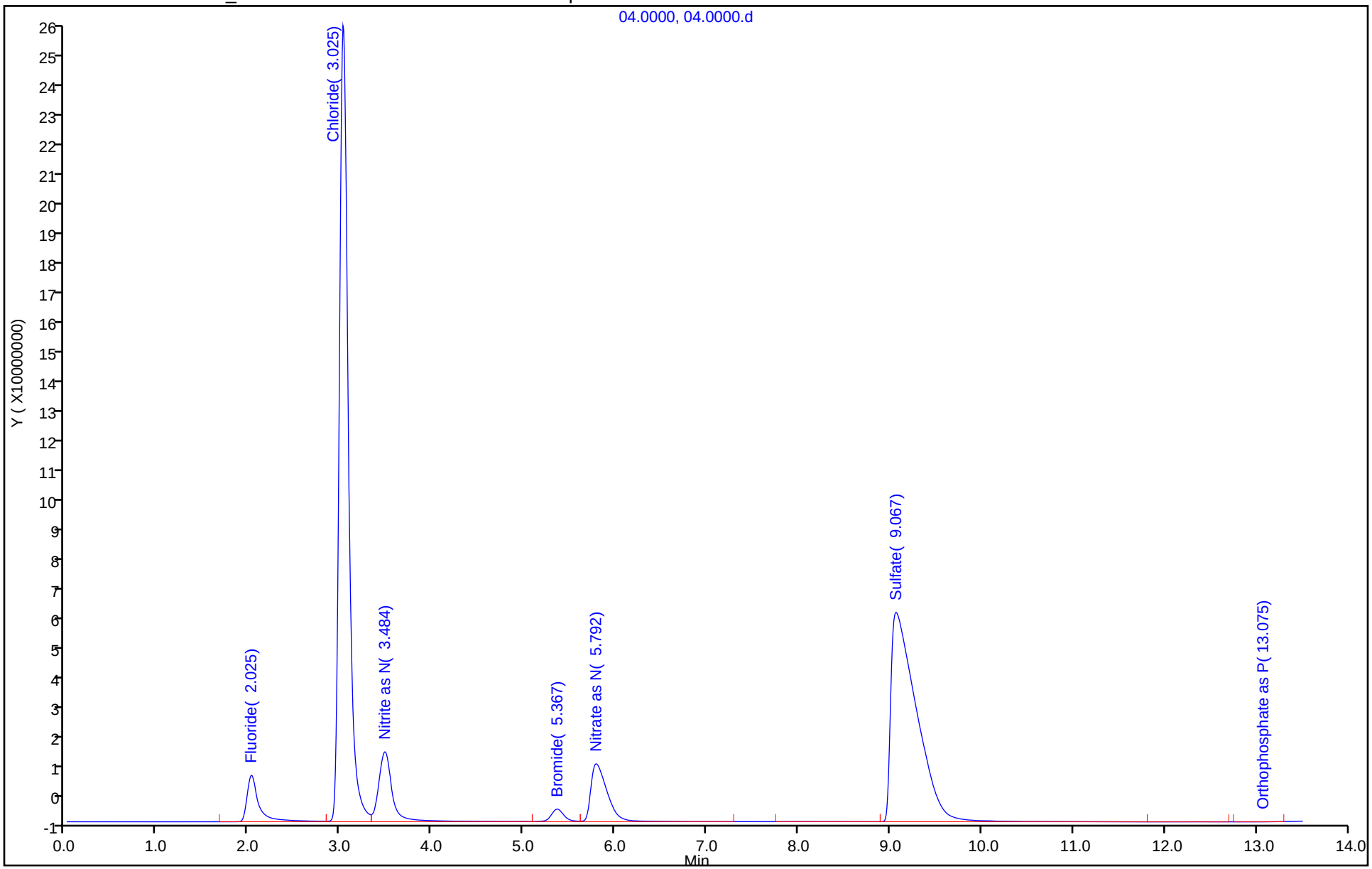
Reagents:

IC LCS_01745 Amount Added: 5.00 Units: mL

Report Date: 16-Jun-2020 08:00:01 Chrom Revision: 2.3 10-Jun-2020 22:46:48

Eurofins TestAmerica, Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom7\20200615-92430.b\04.0000.d				
Injection Date:	15-Jun-2020 11:09:00	Instrument ID:	WC_IonChrom7	Operator ID:	
Lims ID:	lcs			Worklist Smp#:	4
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC7	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom7\20200615-92430.b\05.0000.d				
Lims ID:	lcsd				
Client ID:					
Sample Type:	LCSD				
Inject. Date:	15-Jun-2020 11:25:00	ALS Bottle#:	0	Worklist Smp#:	5
Injection Vol:	25.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0092430-005				
Misc. Info.:	5 F				
Operator ID:		Instrument ID:	WC_IonChrom7		
Method:	\\chromfs\Denver\ChromData\WC_IonChrom7\20200615-92430.b\Anions_IC7.m				
Limit Group:	Wet - Anions 28D				
Last Update:	16-Jun-2020 07:59:59	Calib Date:	03-Jun-2020 11:30:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\WC_IonChrom7\20200603-92063.b\07.0000.d				
Column 1 :			Det: 0005		
Process Host:	CTX1061				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.017	1.992	0.025	138155829	5.00	4.97	
2 Chloride	2.967	2.934	0.033	1788037635	100.0	98.0	
3 Nitrite as N	3.384	3.384	0.000	239639687	NC	NC	
4 Bromide	5.175	5.275	-0.100	39911058	5.00	4.97	
5 Nitrate as N	5.584	5.692	-0.108	232360432	NC	NC	
6 Sulfate	9.100	9.317	-0.217	1330322135	100.0	98.4	
7 Orthophosphate as P		13.175			ND	ND	

QC Flag Legend

Processing Flags

NC - Not Calibrated

ND - Not Detected or Marked ND

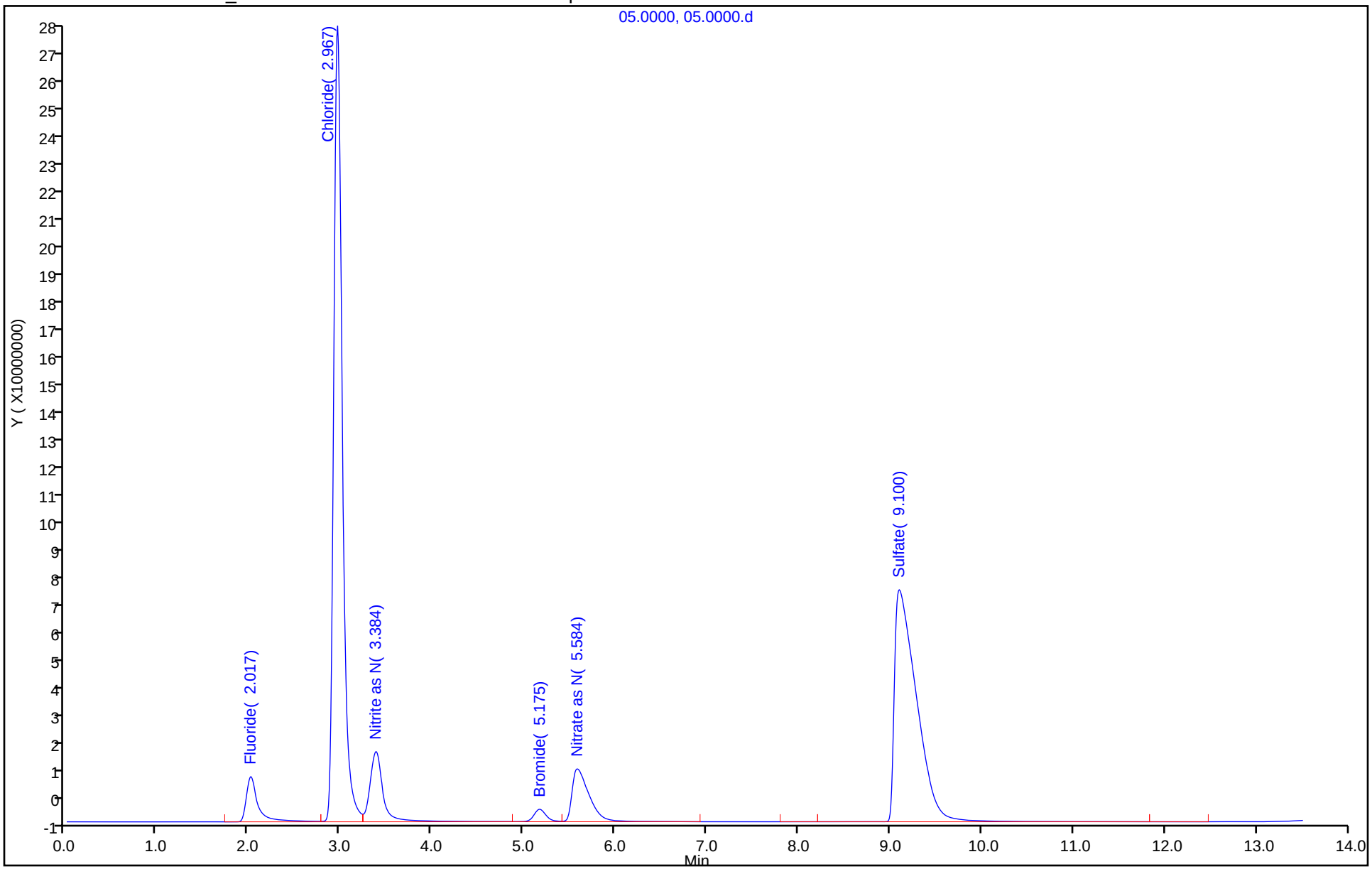
Reagents:

IC LCS_01745 Amount Added: 5.00 Units: mL

Report Date: 16-Jun-2020 08:00:02 Chrom Revision: 2.3 10-Jun-2020 22:46:48

Eurofins TestAmerica, Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom7\20200615-92430.b\05.0000.d				
Injection Date:	15-Jun-2020 11:25:00	Instrument ID:	WC_IonChrom7	Operator ID:	
Lims ID:	lcsd			Worklist Smp#:	5
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC7	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom7\20200615-92430.b\06.0000.d				
Lims ID:	mb				
Client ID:					
Sample Type:	MB				
Inject. Date:	15-Jun-2020 11:42:00	ALS Bottle#:	0	Worklist Smp#:	6
Injection Vol:	25.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0092430-006				
Misc. Info.:	6 F				
Operator ID:		Instrument ID:	WC_IonChrom7		
Method:	\\chromfs\Denver\ChromData\WC_IonChrom7\20200615-92430.b\Anions_IC7.m				
Limit Group:	Wet - Anions 28D				
Last Update:	16-Jun-2020 07:59:59	Calib Date:	03-Jun-2020 11:30:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\WC_IonChrom7\20200603-92063.b\07.0000.d				
Column 1 :			Det: 0005		
Process Host:	CTX1061				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride		1.992				ND	
2 Chloride	3.026	2.934	0.092	494973		-0.0581	
3 Nitrite as N		3.384				ND	
4 Bromide		5.275				ND	
5 Nitrate as N		5.692				ND	
6 Sulfate	9.584	9.317	0.267	552560		-0.0117	
7 Orthophosphate as P	13.142	13.175	-0.033	350485		NC	

QC Flag Legend

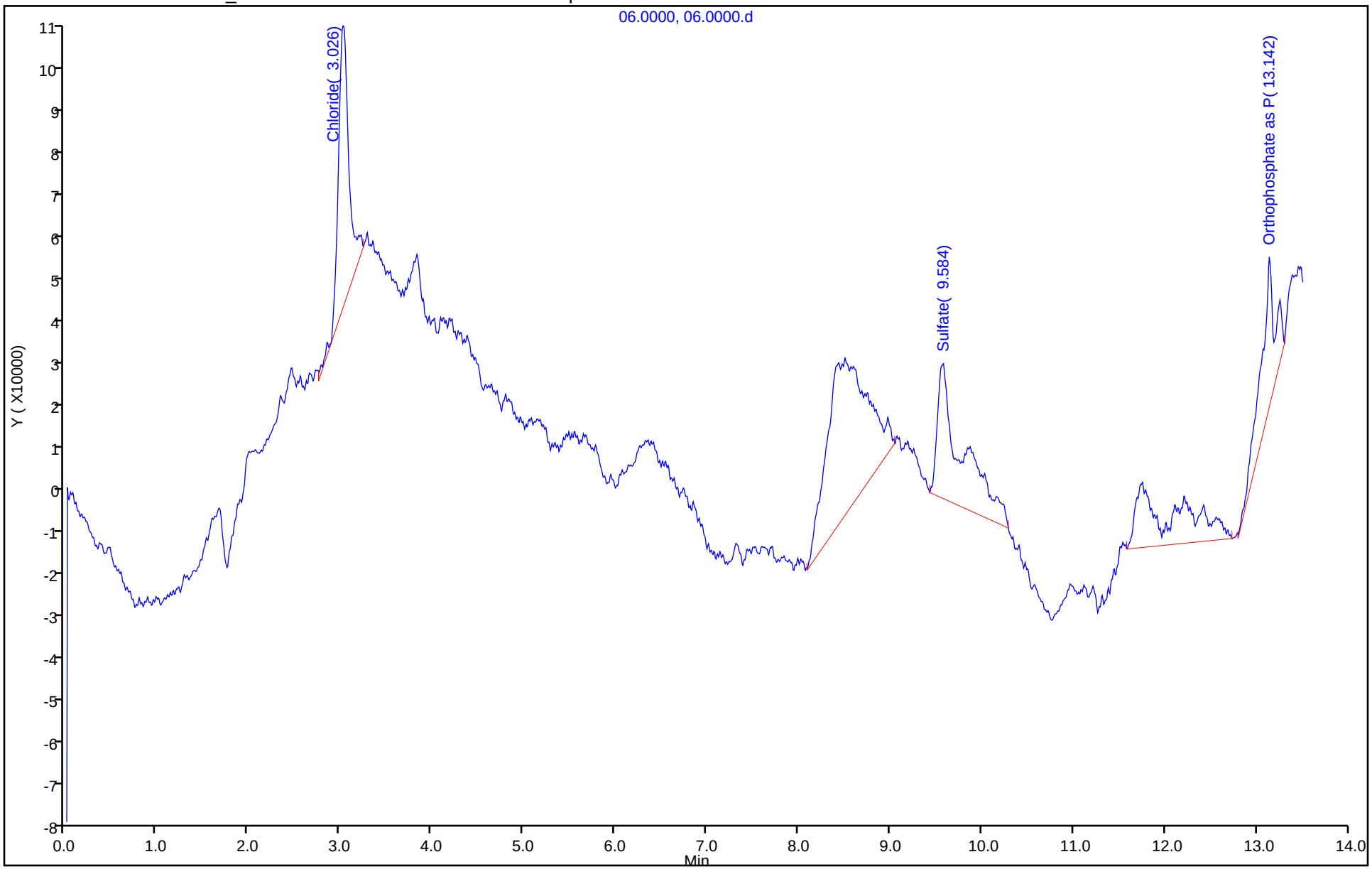
Processing Flags

NC - Not Calibrated

Report Date: 16-Jun-2020 08:00:02 Chrom Revision: 2.3 10-Jun-2020 22:46:48

Eurofins TestAmerica, Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom7\20200615-92430.b\06.0000.d				
Injection Date:	15-Jun-2020 11:42:00	Instrument ID:	WC_IonChrom7	Operator ID:	
Lims ID:	mb			Worklist Smp#:	6
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC7	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom7\20200615-92430.b\17.0000.d
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 15-Jun-2020 15:10:00 ALS Bottle#: 0 Worklist Smp#: 17
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 280-0092430-017
Misc. Info.: 18918 F
Operator ID: Instrument ID: WC_IonChrom7
Sublist: chrom-Anions_IC7*sub1

Method: \\chromfs\Denver\ChromData\WC_IonChrom7\20200615-92430.b\Anions_IC7.m
Limit Group: Wet - Anions 28D
Last Update: 16-Jun-2020 08:00:07 Calib Date: 03-Jun-2020 11:30:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom7\20200603-92063.b\07.0000.d

Column 1 : Det: 0005
Process Host: CTX1061

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.000	1.992	0.008	135691631	5.00	4.88	
2 Chloride	2.942	2.934	0.008	1791654137	100.0	98.2	
3 Nitrite as N	3.384	3.384	0.000	229149276	NC	NC	
4 Bromide	5.325	5.275	0.050	38562620	5.00	4.80	
5 Nitrate as N	5.759	5.692	0.067	231693387	NC	NC	
6 Sulfate	9.117	9.317	-0.200	1333402683	100.0	98.6	
7 Orthophosphate as P		13.175			ND	ND	

QC Flag Legend

Processing Flags
NC - Not Calibrated
ND - Not Detected or Marked ND

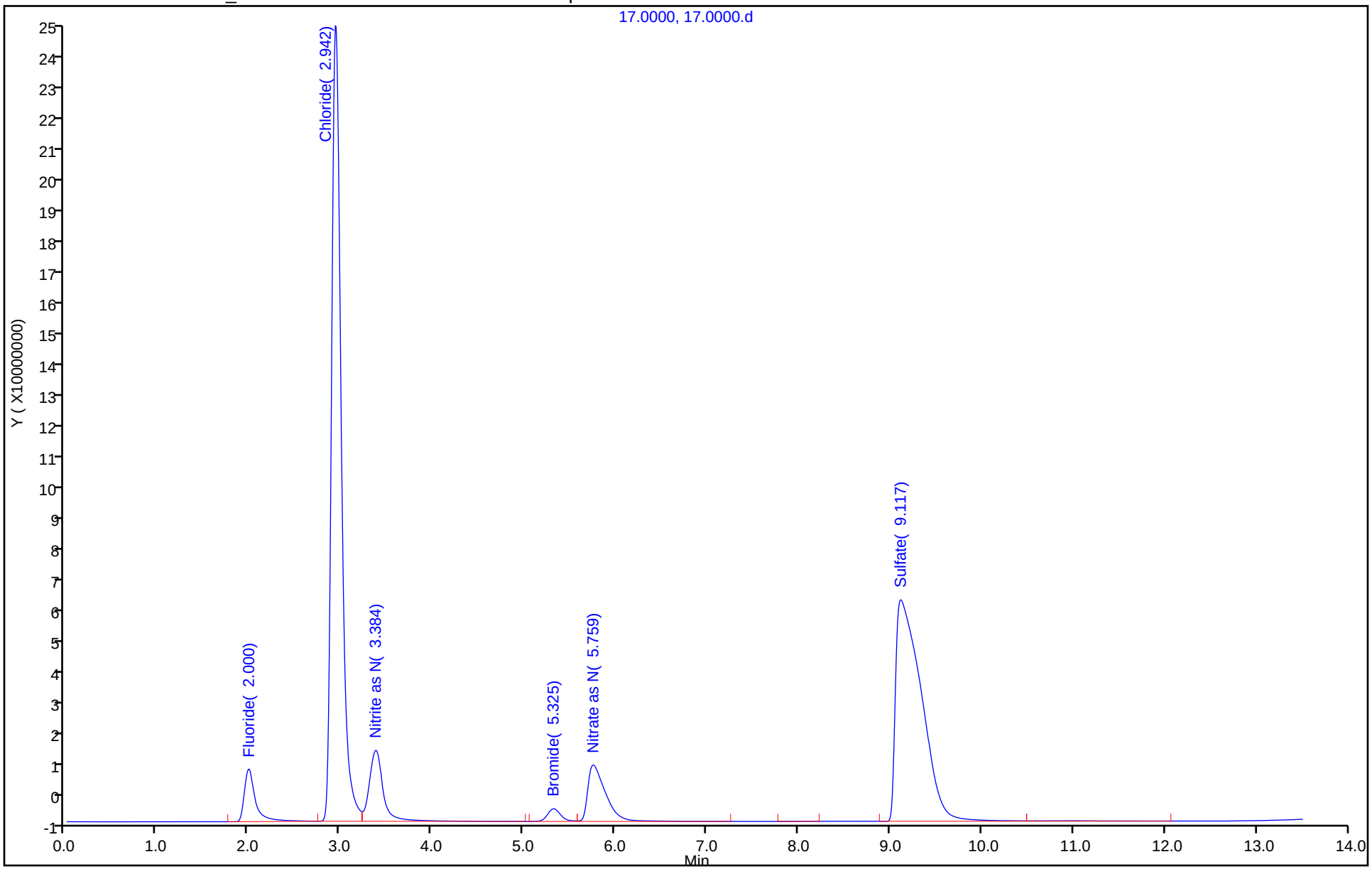
Reagents:

IC LCS_01745 Amount Added: 5.00 Units: mL

Report Date: 16-Jun-2020 08:00:07 Chrom Revision: 2.3 10-Jun-2020 22:46:48

Eurofins TestAmerica, Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom7\20200615-92430.b\17.0000.d				
Injection Date:	15-Jun-2020 15:10:00	Instrument ID:	WC_IonChrom7	Operator ID:	
Lims ID:	ccv			Worklist Smp#:	17
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC7	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom7\20200615-92430.b\18.0000.d				
Lims ID:	ccb				
Client ID:					
Sample Type:	CCB				
Inject. Date:	15-Jun-2020 15:26:00	ALS Bottle#:	0	Worklist Smp#:	18
Injection Vol:	25.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0092430-018				
Misc. Info.:	12215 F				
Operator ID:		Instrument ID:	WC_IonChrom7		
Method:	\\chromfs\Denver\ChromData\WC_IonChrom7\20200615-92430.b\Anions_IC7.m				
Limit Group:	Wet - Anions 28D				
Last Update:	16-Jun-2020 08:00:07	Calib Date:	03-Jun-2020 11:30:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\WC_IonChrom7\20200603-92063.b\07.0000.d				
Column 1 :			Det: 0005		
Process Host:	CTX1061				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	1.651	1.992	-0.341	119531		-0.0284	
2 Chloride	2.984	2.934	0.050	577444		-0.0536	
3 Nitrite as N	3.776	3.384	0.392	475987		NC	
4 Bromide		5.275				ND	
5 Nitrate as N		5.692				ND	
6 Sulfate	9.142	9.317	-0.175	406755		-0.0225	
7 Orthophosphate as P		13.175				ND	

QC Flag Legend

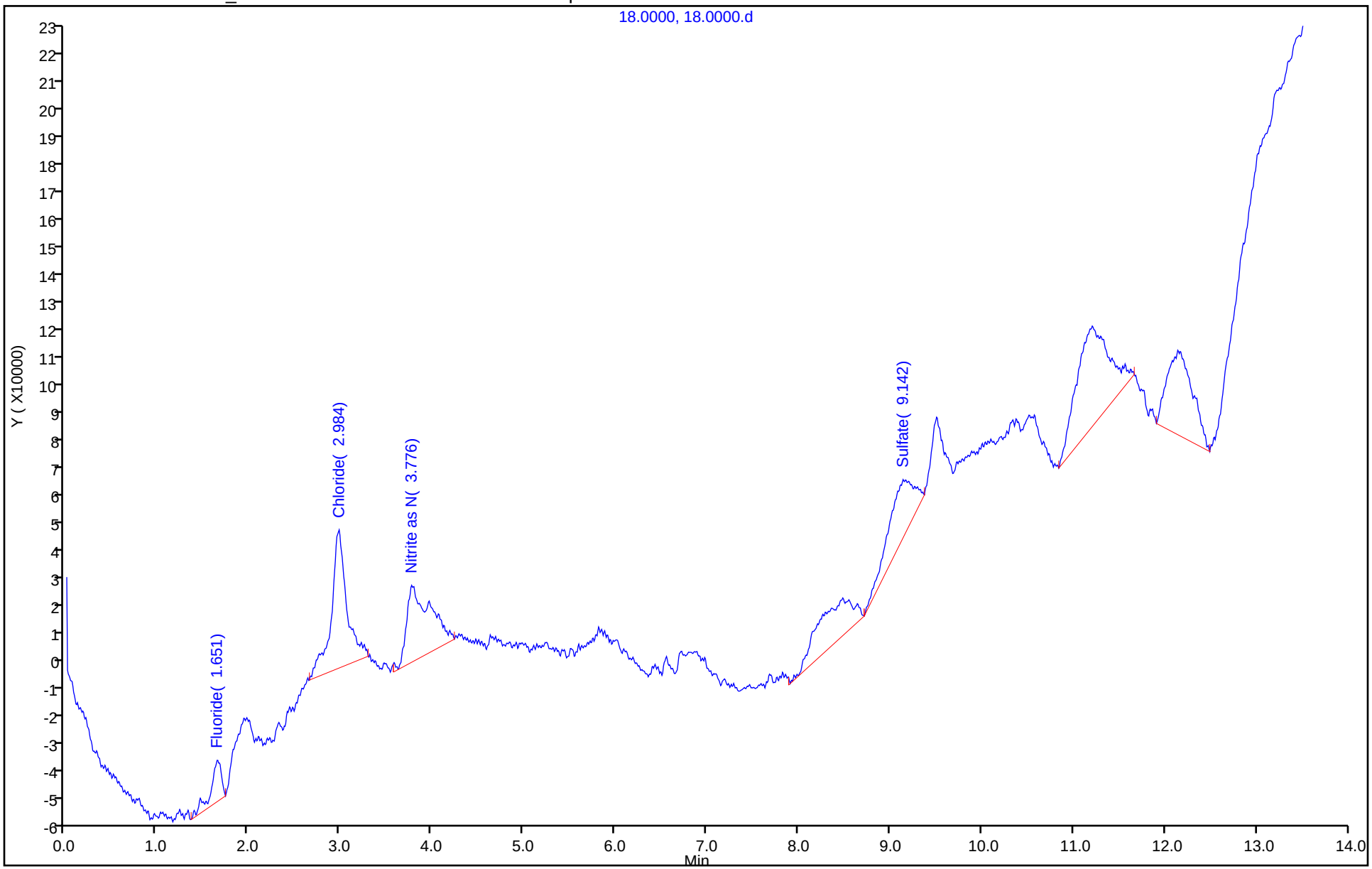
Processing Flags

NC - Not Calibrated

Report Date: 16-Jun-2020 08:00:08 Chrom Revision: 2.3 10-Jun-2020 22:46:48

Eurofins TestAmerica, Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom7\20200615-92430.b\18.0000.d				
Injection Date:	15-Jun-2020 15:26:00	Instrument ID:	WC_IonChrom7	Operator ID:	
Lims ID:	ccb			Worklist Smp#:	18
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC7	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom7\20200615-92430.b\22.0000.d
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 15-Jun-2020 16:32:00 ALS Bottle#: 0 Worklist Smp#: 22
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 280-0092430-022
Misc. Info.: 3639 F
Operator ID: Instrument ID: WC_IonChrom7
Sublist: chrom-Anions_IC7*sub1

Method: \\chromfs\Denver\ChromData\WC_IonChrom7\20200615-92430.b\Anions_IC7.m
Limit Group: Wet - Anions 28D
Last Update: 16-Jun-2020 08:00:09 Calib Date: 03-Jun-2020 11:30:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom7\20200603-92063.b\07.0000.d

Column 1 : Det: 0005
Process Host: CTX1061

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.017	1.992	0.025	135028253	5.00	4.86	
2 Chloride	3.009	2.934	0.075	1792100812	100.0	98.3	
3 Nitrite as N	3.459	3.384	0.075	223540118	NC	NC	
4 Bromide	5.184	5.275	-0.091	38453129	5.00	4.78	
5 Nitrate as N	5.592	5.692	-0.100	231133317	NC	NC	
6 Sulfate	9.101	9.317	-0.216	1346116727	100.0	99.6	
7 Orthophosphate as P		13.175			ND	ND	

QC Flag Legend

Processing Flags
NC - Not Calibrated
ND - Not Detected or Marked ND

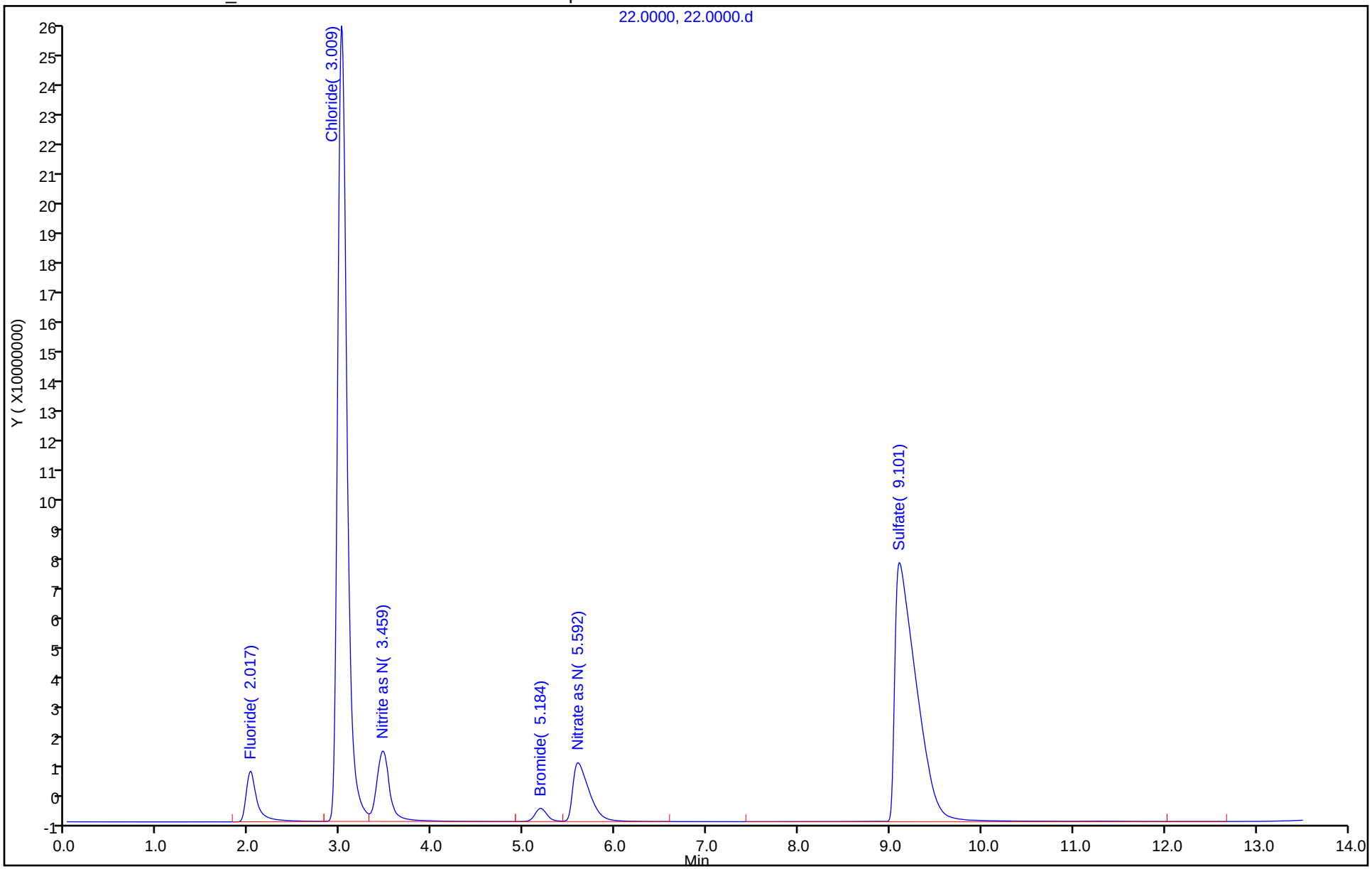
Reagents:

IC LCS_01745 Amount Added: 5.00 Units: mL

Report Date: 16-Jun-2020 08:00:09 Chrom Revision: 2.3 10-Jun-2020 22:46:48

Eurofins TestAmerica, Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom7\20200615-92430.b\22.0000.d				
Injection Date:	15-Jun-2020 16:32:00	Instrument ID:	WC_IonChrom7	Operator ID:	
Lims ID:	ccv			Worklist Smp#:	22
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC7	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom7\20200615-92430.b\23.0000.d				
Lims ID:	ccb				
Client ID:					
Sample Type:	CCB				
Inject. Date:	15-Jun-2020 16:48:00	ALS Bottle#:	0	Worklist Smp#:	23
Injection Vol:	25.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0092430-023				
Misc. Info.:	29934 F				
Operator ID:		Instrument ID:	WC_IonChrom7		
Method:	\\chromfs\Denver\ChromData\WC_IonChrom7\20200615-92430.b\Anions_IC7.m				
Limit Group:	Wet - Anions 28D				
Last Update:	16-Jun-2020 08:00:09	Calib Date:	03-Jun-2020 11:30:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\WC_IonChrom7\20200603-92063.b\07.0000.d				
Column 1 :			Det: 0005		
Process Host:	CTX1061				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.309	1.992	0.317	822714		-0.002880	
2 Chloride	2.876	2.934	-0.058	591143		-0.0528	
3 Nitrite as N		3.384				ND	
4 Bromide		5.275				ND	
5 Nitrate as N	5.976	5.692	0.284	457035		NC	
6 Sulfate	9.626	9.317	0.309	256852		-0.0336	
7 Orthophosphate as P		13.175				ND	

QC Flag Legend

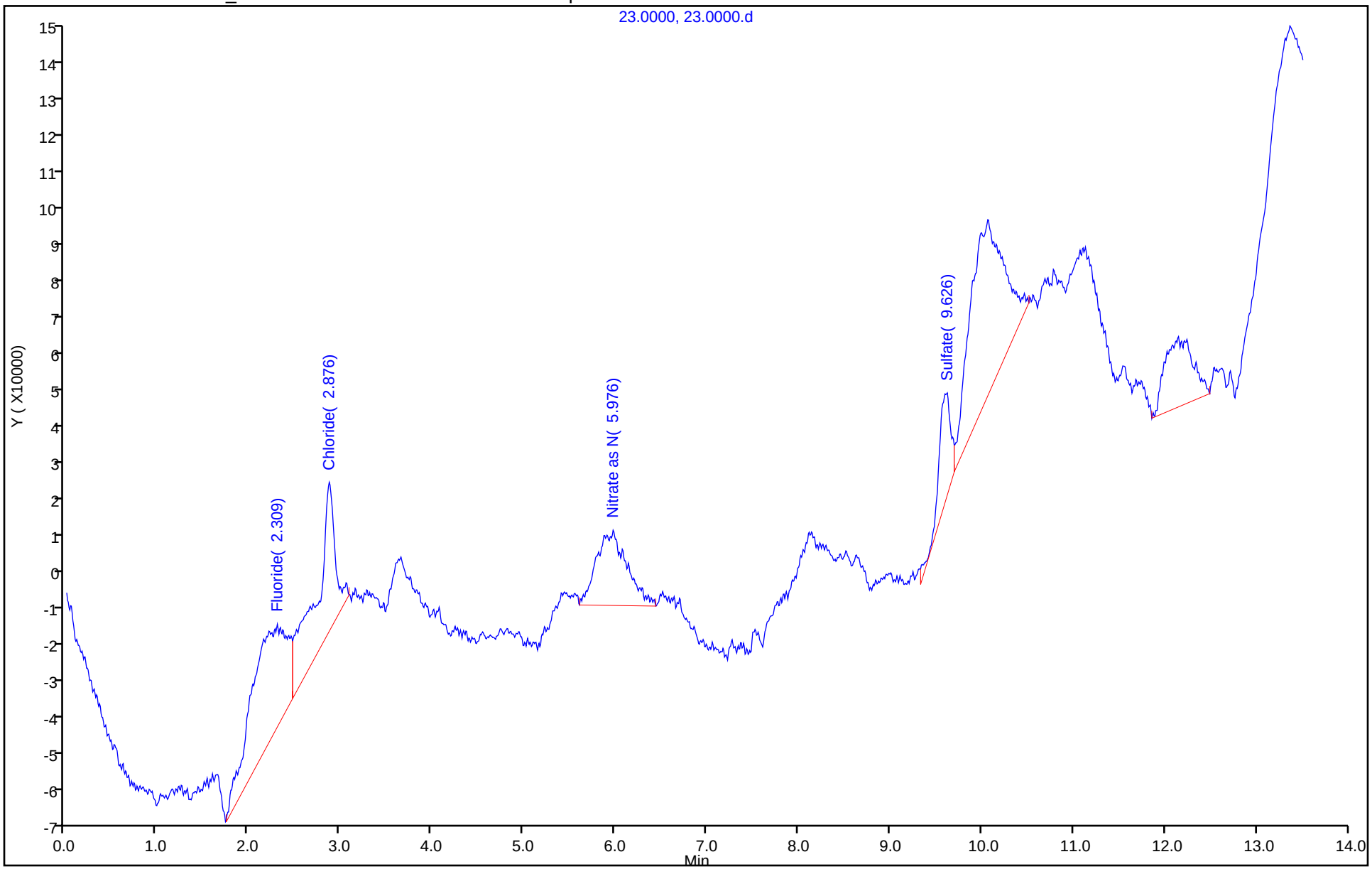
Processing Flags

NC - Not Calibrated

Report Date: 16-Jun-2020 08:00:10 Chrom Revision: 2.3 10-Jun-2020 22:46:48

Eurofins TestAmerica, Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom7\20200615-92430.b\23.0000.d				
Injection Date:	15-Jun-2020 16:48:00	Instrument ID:	WC_IonChrom7	Operator ID:	
Lims ID:	ccb			Worklist Smp#:	23
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC7	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom7\20200615-92430.b\33.0000.d				
Lims ID:	280-137225-F-3				
Client ID:	G0081-20A				
Sample Type:	Client				
Inject. Date:	15-Jun-2020 19:33:00	ALS Bottle#:	0	Worklist Smp#:	33
Injection Vol:	25.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0092430-033				
Misc. Info.:	9773 F				
Operator ID:		Instrument ID:	WC_IonChrom7		
Method:	\\chromfs\Denver\ChromData\WC_IonChrom7\20200615-92430.b\Anions_IC7.m				
Limit Group:	Wet - Anions 28D				
Last Update:	16-Jun-2020 08:00:09	Calib Date:	03-Jun-2020 11:30:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\WC_IonChrom7\20200603-92063.b\07.0000.d				
Column 1 :			Det: 0005		
Process Host:	CTX1061				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.017	1.992	0.025	9326918	0.3053	
2 Chloride	3.059	2.934	0.125	819893688	44.9	
3 Nitrite as N		3.384			ND	
4 Bromide	5.034	5.275	-0.241	2332894	0.2850	
5 Nitrate as N		5.692			ND	
6 Sulfate	9.075	9.317	-0.242	2506640459	185.4	
7 Orthophosphate as P	13.192	13.175	0.017	1024335	NC	

QC Flag Legend

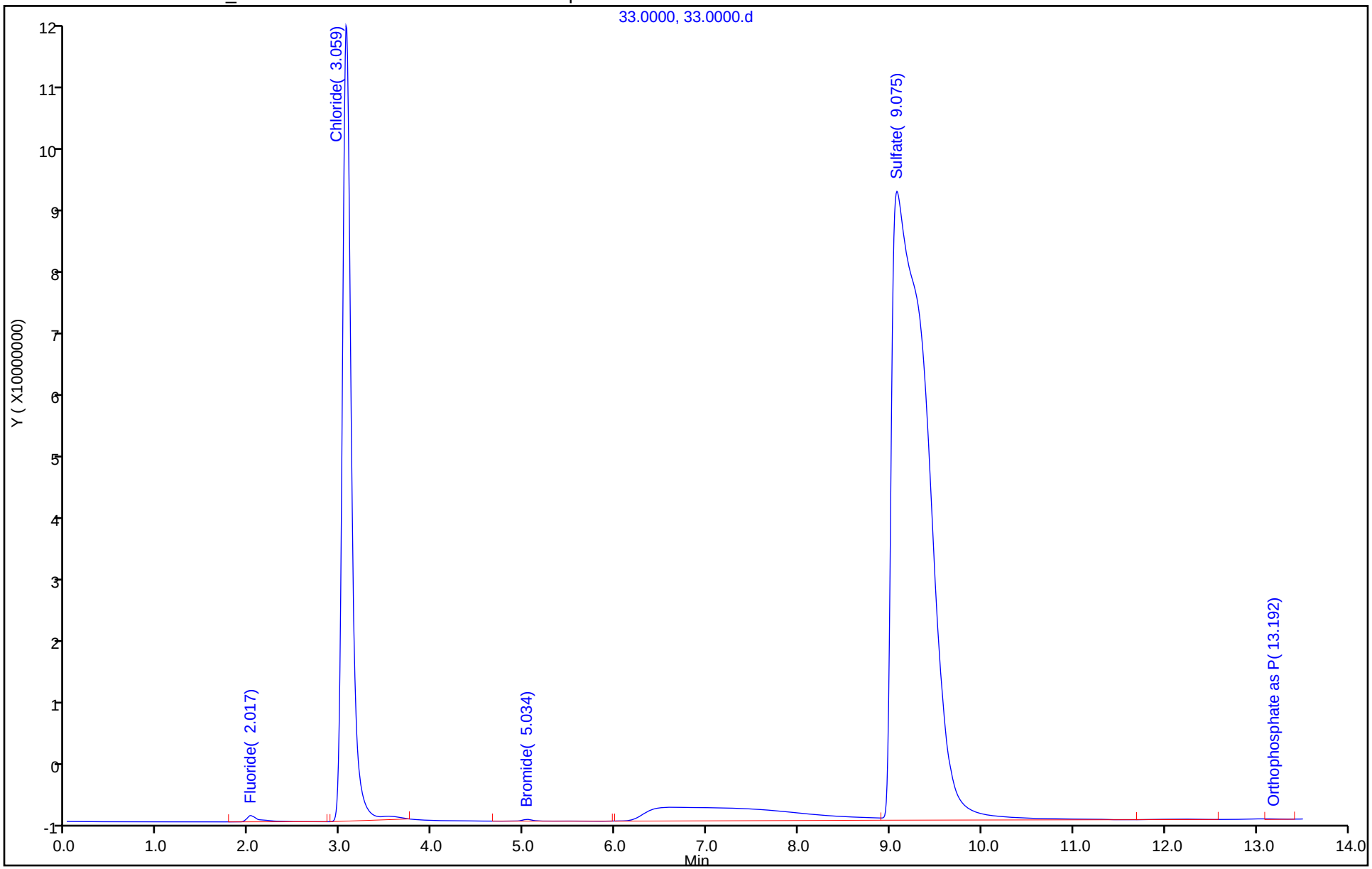
Processing Flags

NC - Not Calibrated

Report Date: 16-Jun-2020 08:00:14 Chrom Revision: 2.3 10-Jun-2020 22:46:48

Eurofins TestAmerica, Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom7\20200615-92430.b\33.0000.d				
Injection Date:	15-Jun-2020 19:33:00	Instrument ID:	WC_IonChrom7	Operator ID:	
Lims ID:	280-137225-F-3	Lab Sample ID:	280-137225-3	Worklist Smp#:	33
Client ID:	G0081-20A				
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC7	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom7\20200615-92430.b\34.0000.d
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 15-Jun-2020 19:49:00 ALS Bottle#: 0 Worklist Smp#: 34
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 280-0092430-034
Misc. Info.: 7953 F
Operator ID: Instrument ID: WC_IonChrom7
Sublist: chrom-Anions_IC7*sub1

Method: \\chromfs\Denver\ChromData\WC_IonChrom7\20200615-92430.b\Anions_IC7.m
Limit Group: Wet - Anions 28D
Last Update: 16-Jun-2020 08:00:14 Calib Date: 03-Jun-2020 11:30:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom7\20200603-92063.b\07.0000.d

Column 1 : Det: 0005
Process Host: CTX1061

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.051	1.992	0.059	132708077	5.00	4.78	
2 Chloride	3.109	2.934	0.175	1802470546	100.0	98.8	
3 Nitrite as N	3.509	3.384	0.125	247048013	NC	NC	
4 Bromide	5.317	5.275	0.042	38575112	5.00	4.80	
5 Nitrate as N	5.742	5.692	0.050	234399935	NC	NC	
6 Sulfate	9.217	9.317	-0.100	1357789128	100.0	100.4	
7 Orthophosphate as P	12.951	13.175	-0.224	1458561	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated

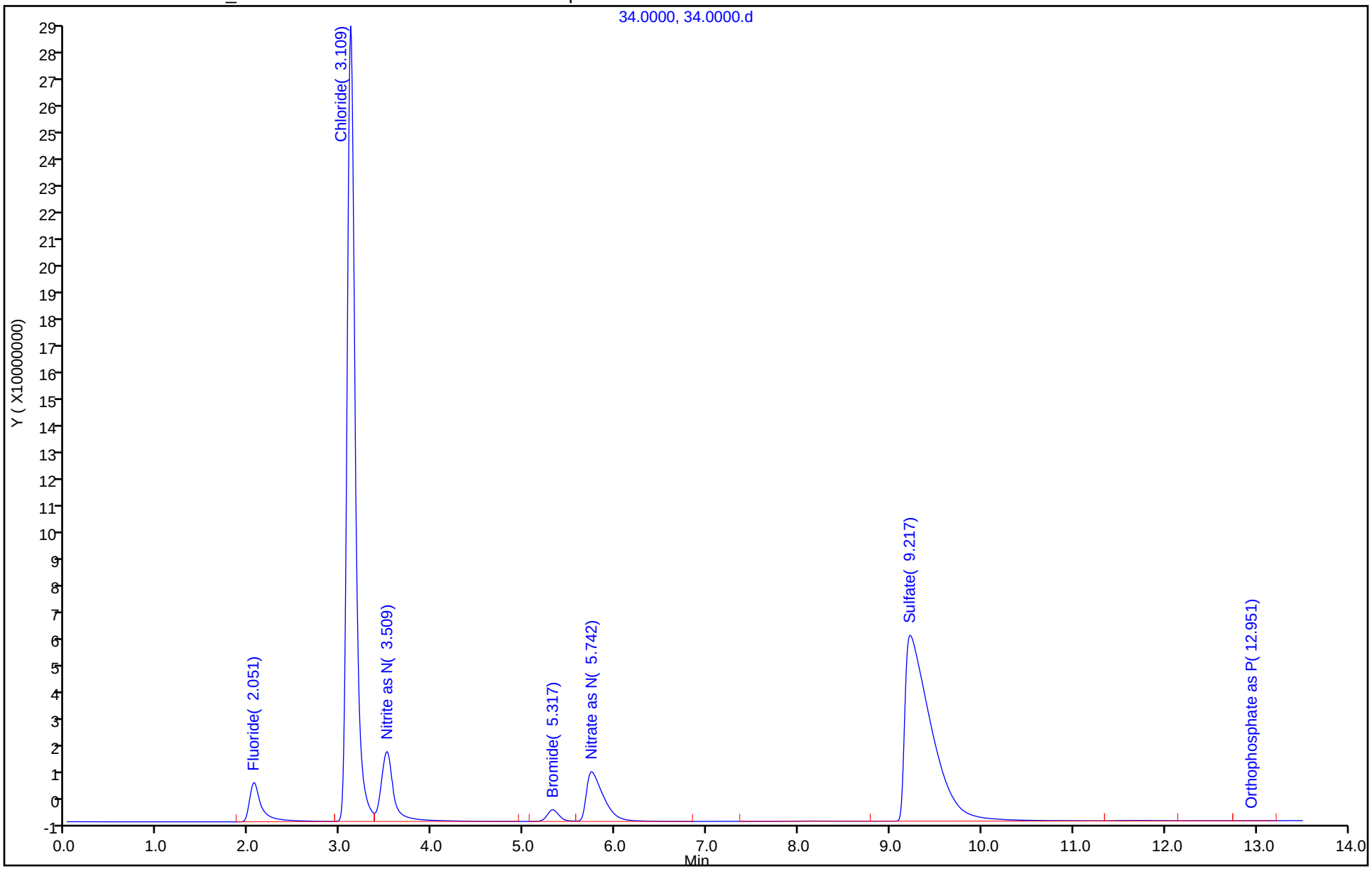
Reagents:

IC LCS_01745 Amount Added: 5.00 Units: mL

Report Date: 16-Jun-2020 08:00:14 Chrom Revision: 2.3 10-Jun-2020 22:46:48

Eurofins TestAmerica, Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom7\20200615-92430.b\34.0000.d				
Injection Date:	15-Jun-2020 19:49:00	Instrument ID:	WC_IonChrom7	Operator ID:	
Lims ID:	ccv			Worklist Smp#:	34
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC7	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom7\20200615-92430.b\35.0000.d				
Lims ID:	ccb				
Client ID:					
Sample Type:	CCB				
Inject. Date:	15-Jun-2020 20:06:00	ALS Bottle#:	0	Worklist Smp#:	35
Injection Vol:	25.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0092430-035				
Misc. Info.:	23819 F				
Operator ID:		Instrument ID:	WC_IonChrom7		
Method:	\\chromfs\Denver\ChromData\WC_IonChrom7\20200615-92430.b\Anions_IC7.m				
Limit Group:	Wet - Anions 28D				
Last Update:	16-Jun-2020 08:00:14	Calib Date:	03-Jun-2020 11:30:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\WC_IonChrom7\20200603-92063.b\07.0000.d				
Column 1 :			Det: 0005		
Process Host:	CTX1061				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.017	1.992	0.025	153380		-0.0271	
2 Chloride	3.134	2.934	0.200	307231		-0.0684	
3 Nitrite as N	3.825	3.384	0.441	357214		NC	
4 Bromide		5.275				ND	
5 Nitrate as N		5.692				ND	
6 Sulfate	9.775	9.317	0.458	891762		0.0134	
7 Orthophosphate as P		13.175				ND	

QC Flag Legend

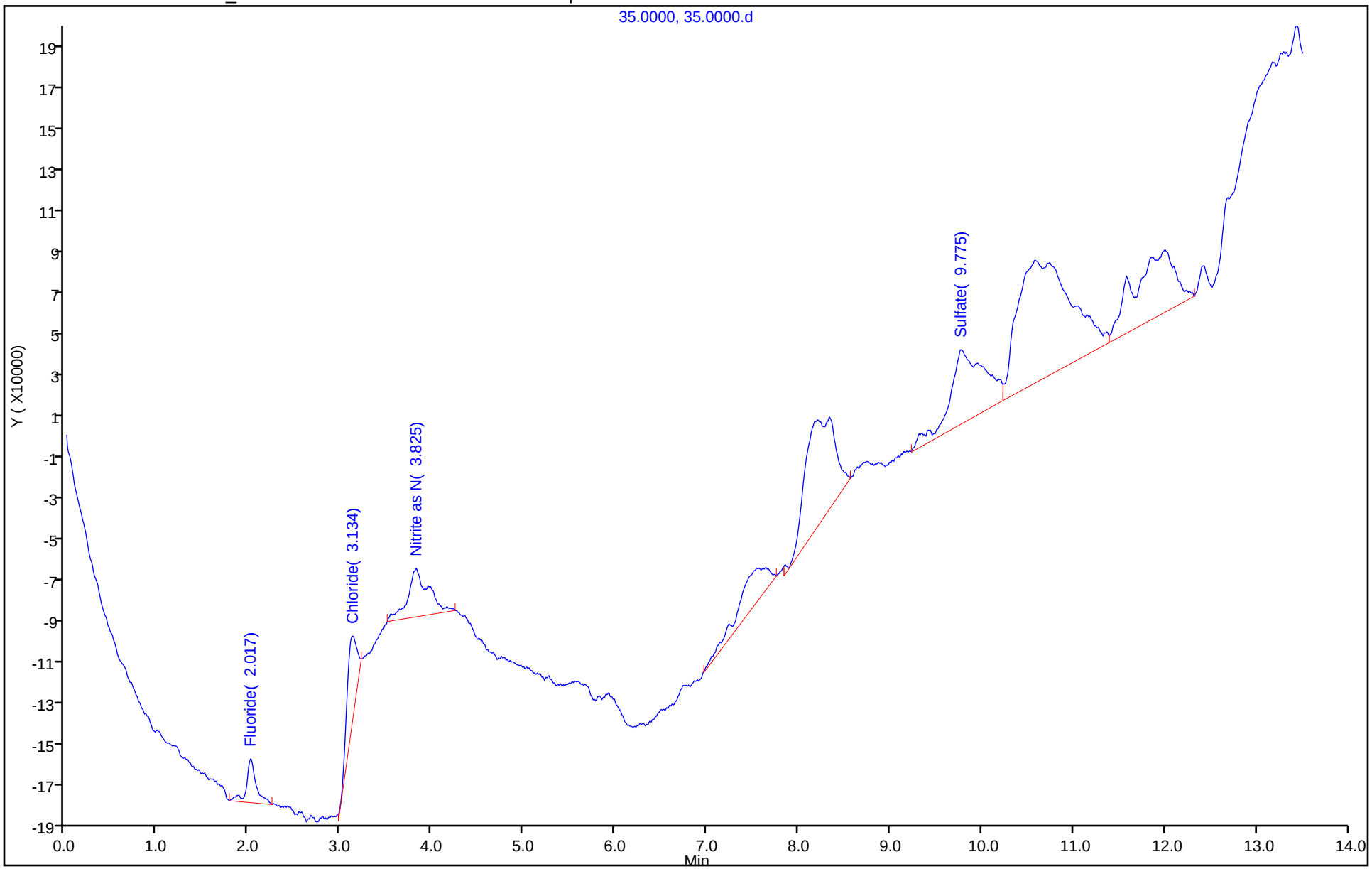
Processing Flags

NC - Not Calibrated

Report Date: 16-Jun-2020 08:00:14 Chrom Revision: 2.3 10-Jun-2020 22:46:48

Eurofins TestAmerica, Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom7\20200615-92430.b\35.0000.d				
Injection Date:	15-Jun-2020 20:06:00	Instrument ID:	WC_IonChrom7	Operator ID:	
Lims ID:	ccb			Worklist Smp#:	35
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC7	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom7\20200615-92430.b\38.0000.d				
Lims ID:	280-137225-F-2				
Client ID:	G0070-20A				
Sample Type:	Client				
Inject. Date:	15-Jun-2020 20:55:00	ALS Bottle#:	0	Worklist Smp#:	38
Injection Vol:	25.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0092430-038				
Misc. Info.:	8609 F				
Operator ID:		Instrument ID:	WC_IonChrom7		
Method:	\\chromfs\Denver\ChromData\WC_IonChrom7\20200615-92430.b\Anions_IC7.m				
Limit Group:	Wet - Anions 28D				
Last Update:	16-Jun-2020 08:00:14	Calib Date:	03-Jun-2020 11:30:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\WC_IonChrom7\20200603-92063.b\07.0000.d				
Column 1 :			Det: 0005		
Process Host:	CTX1061				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.017	1.992	0.025	5533486	0.1678	
2 Chloride	2.950	2.934	0.016	182219974	9.91	
3 Nitrite as N		3.384			ND	
4 Bromide	5.117	5.275	-0.158	832460	0.0981	
5 Nitrate as N	5.609	5.692	-0.083	653347	NC	
6 Sulfate	9.317	9.317	0.000	528711726	39.1	
7 Orthophosphate as P	13.025	13.175	-0.150	488940	NC	

QC Flag Legend

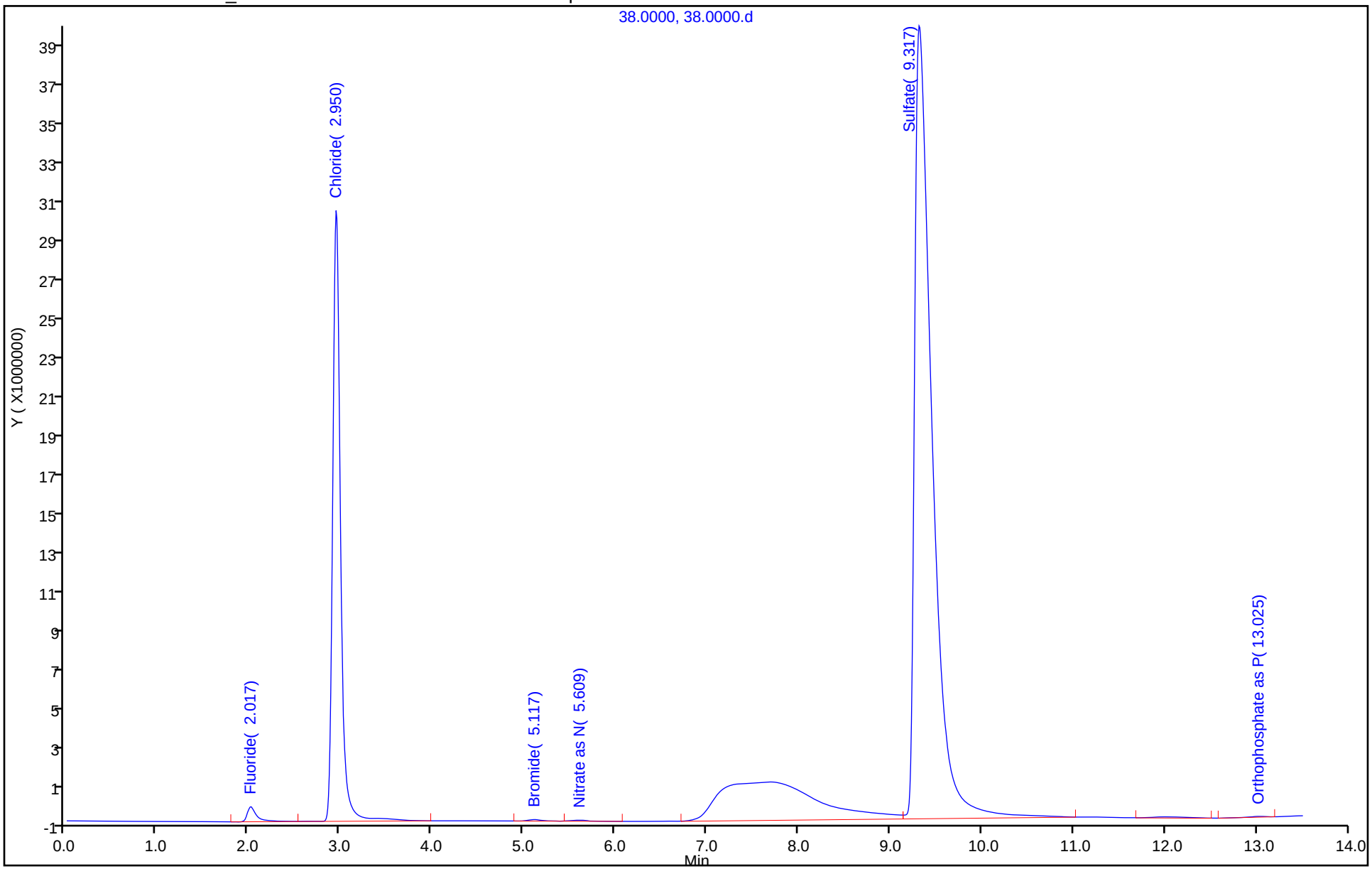
Processing Flags

NC - Not Calibrated

Report Date: 16-Jun-2020 08:00:16 Chrom Revision: 2.3 10-Jun-2020 22:46:48

Eurofins TestAmerica, Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom7\20200615-92430.b\38.0000.d				
Injection Date:	15-Jun-2020 20:55:00	Instrument ID:	WC_IonChrom7	Operator ID:	
Lims ID:	280-137225-F-2	Lab Sample ID:	280-137225-2	Worklist Smp#:	38
Client ID:	G0070-20A				
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC7	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom7\20200615-92430.b\39.0000.d				
Lims ID:	280-137225-F-2 DU				
Client ID:					
Sample Type:	DU				
Inject. Date:	15-Jun-2020 21:11:00	ALS Bottle#:	0	Worklist Smp#:	39
Injection Vol:	25.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0092430-039				
Misc. Info.:	12250 F				
Operator ID:		Instrument ID:	WC_IonChrom7		
Method:	\\chromfs\Denver\ChromData\WC_IonChrom7\20200615-92430.b\Anions_IC7.m				
Limit Group:	Wet - Anions 28D				
Last Update:	16-Jun-2020 08:00:14	Calib Date:	03-Jun-2020 11:30:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\WC_IonChrom7\20200603-92063.b\07.0000.d				
Column 1 :			Det: 0005		
Process Host:	CTX1061				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.000	1.992	0.008	6151110		0.1902	
2 Chloride	3.050	2.934	0.116	180385355		9.81	
3 Nitrite as N		3.384				ND	
4 Bromide	5.192	5.275	-0.083	1280398		0.1539	
5 Nitrate as N	5.625	5.692	-0.067	705782		NC	
6 Sulfate	9.317	9.317	0.000	531424721		39.3	
7 Orthophosphate as P	13.292	13.175	0.117	167558		NC	

QC Flag Legend

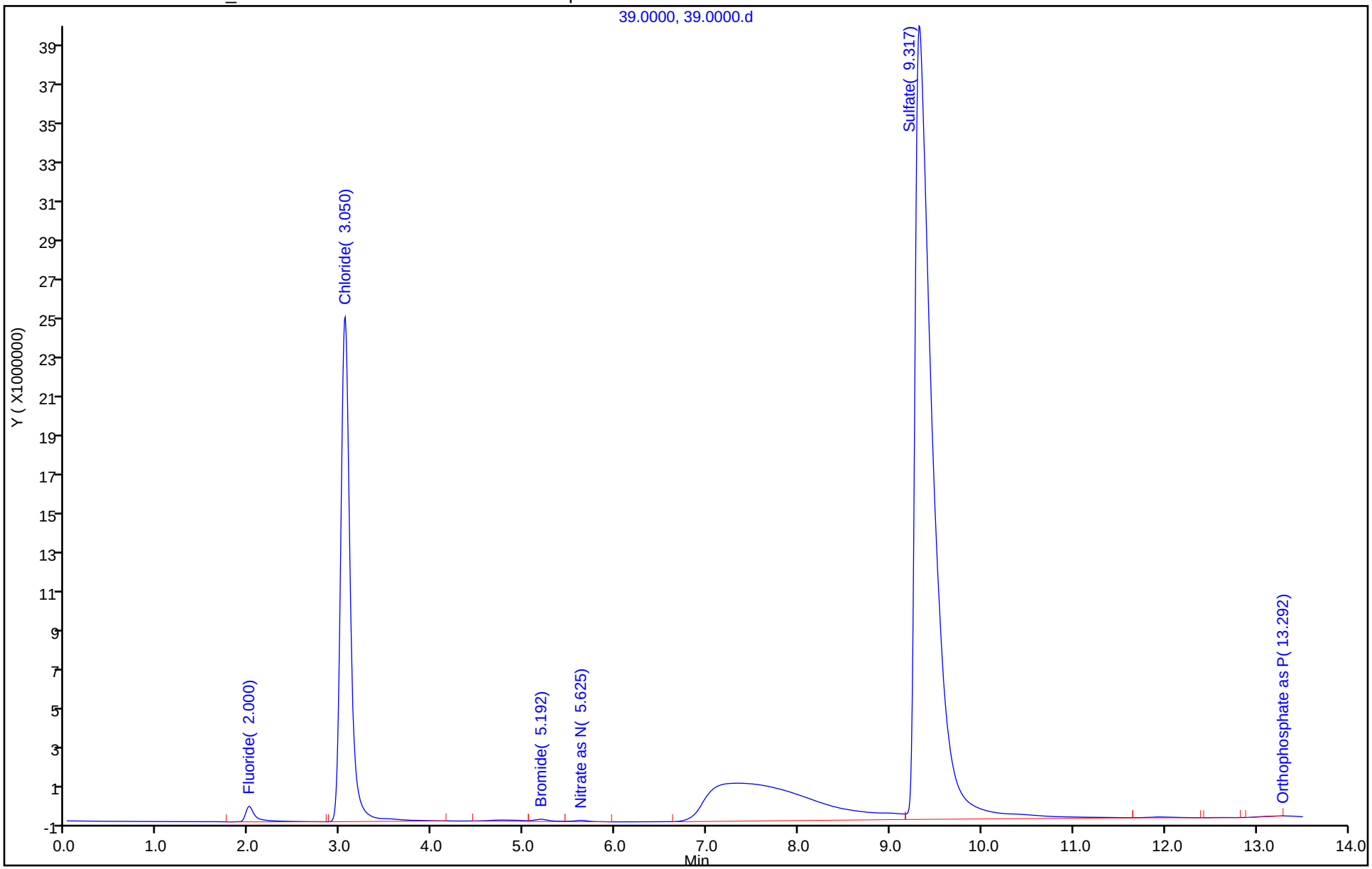
Processing Flags

NC - Not Calibrated

Report Date: 16-Jun-2020 08:00:16 Chrom Revision: 2.3 10-Jun-2020 22:46:48

Eurofins TestAmerica, Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom7\20200615-92430.b\39.0000.d				
Injection Date:	15-Jun-2020 21:11:00	Instrument ID:	WC_IonChrom7	Operator ID:	
Lims ID:	280-137225-F-2 DU			Worklist Smp#:	39
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC7	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom7\20200615-92430.b\40.0000.d
Lims ID: 280-137225-F-2 MS
Client ID: G0070-20A
Sample Type: MS
Inject. Date: 15-Jun-2020 21:28:00 ALS Bottle#: 0 Worklist Smp#: 40
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 280-0092430-040
Misc. Info.: 11955 F
Operator ID: Instrument ID: WC_IonChrom7

Method: \\chromfs\Denver\ChromData\WC_IonChrom7\20200615-92430.b\Anions_IC7.m
Limit Group: Wet - Anions 28D
Last Update: 16-Jun-2020 08:00:14 Calib Date: 03-Jun-2020 11:30:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom7\20200603-92063.b\07.0000.d

Column 1 : Det: 0005
Process Host: CTX1061

First Level Reviewer: pedrickj Date: 16-Jun-2020 07:58:49

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.025	1.992	0.033	137267659	5.00	4.94	
2 Chloride	3.042	2.934	0.108	1110334115	50.0	60.8	
3 Nitrite as N	3.484	3.384	0.100	230898231	NC	NC	
4 Bromide	5.050	5.275	-0.225	40861080	5.00	5.08	a
5 Nitrate as N	5.434	5.692	-0.258	238746531	NC	NC	a
6 Sulfate	9.084	9.317	-0.233	1226493474	50.0	90.7	
7 Orthophosphate as P	13.100	13.175	-0.075	554332	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
a - User Assigned ID

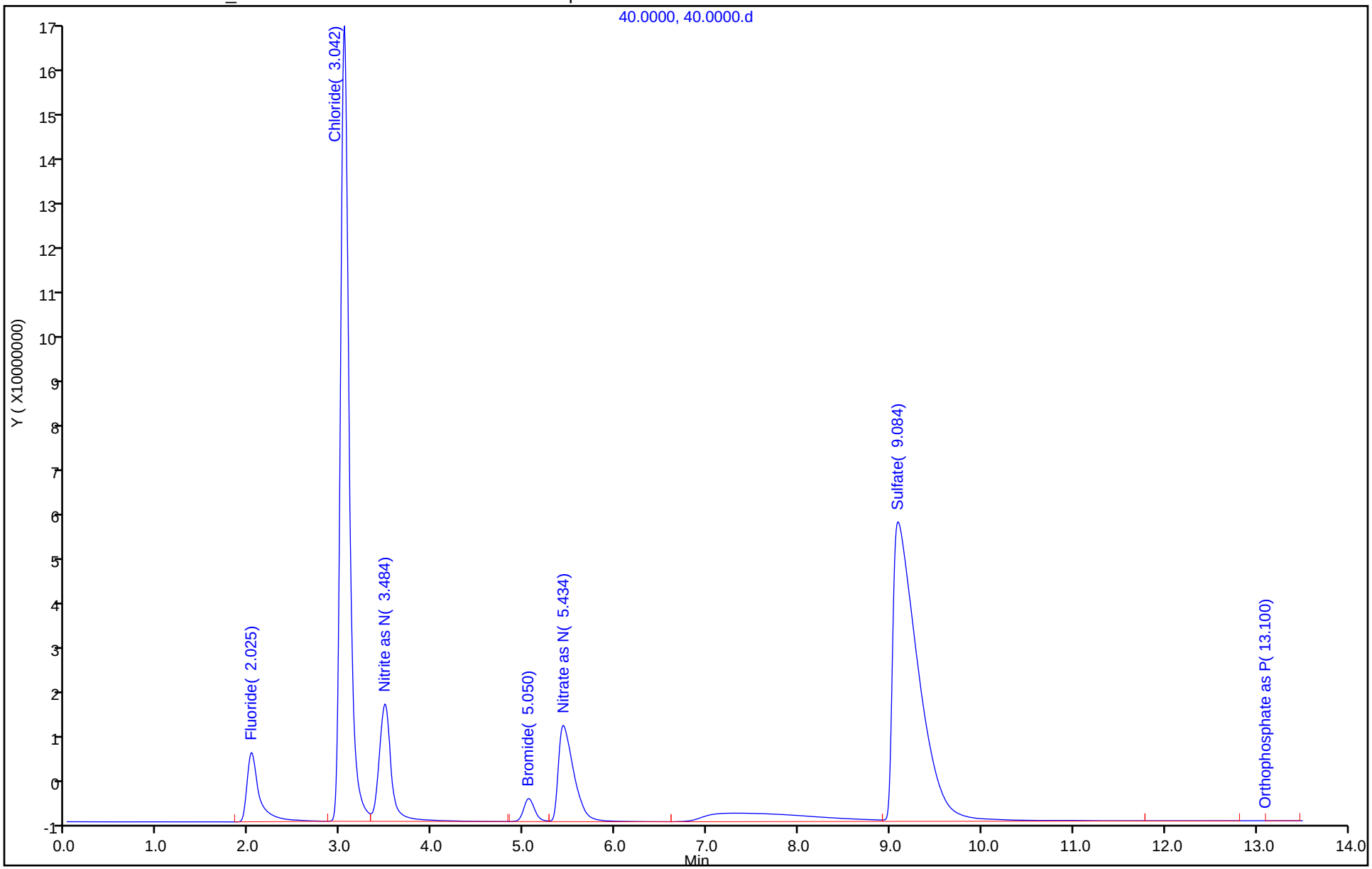
Reagents:

ICMS/MSD WEEK_00653 Amount Added: 0.05 Units: mL

Report Date: 16-Jun-2020 08:00:16 Chrom Revision: 2.3 10-Jun-2020 22:46:48

Eurofins TestAmerica, Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom7\20200615-92430.b\40.0000.d				
Injection Date:	15-Jun-2020 21:28:00	Instrument ID:	WC_IonChrom7	Operator ID:	
Lims ID:	280-137225-F-2 MS			Worklist Smp#:	40
Client ID:	G0070-20A				
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC7	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom7\20200615-92430.b\41.0000.d
Lims ID: 280-137225-F-2 MSD
Client ID: G0070-20A
Sample Type: MSD
Inject. Date: 15-Jun-2020 21:44:00 ALS Bottle#: 0 Worklist Smp#: 41
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 280-0092430-041
Misc. Info.: 27152 F
Operator ID: Instrument ID: WC_IonChrom7

Method: \\chromfs\Denver\ChromData\WC_IonChrom7\20200615-92430.b\Anions_IC7.m
Limit Group: Wet - Anions 28D
Last Update: 16-Jun-2020 08:00:14 Calib Date: 03-Jun-2020 11:30:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom7\20200603-92063.b\07.0000.d

Column 1 : Det: 0005
Process Host: CTX1061

First Level Reviewer: pedrickj Date: 16-Jun-2020 07:58:56

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.025	1.992	0.033	139981505	5.00	5.04	
2 Chloride	2.909	2.934	-0.025	1110766748	50.0	60.9	
3 Nitrite as N	3.325	3.384	-0.059	233282636	NC	NC	
4 Bromide	5.084	5.275	-0.191	40245740	5.00	5.01	a
5 Nitrate as N	5.409	5.692	-0.283	237068898	NC	NC	a
6 Sulfate	9.175	9.317	-0.142	1206683818	50.0	89.2	
7 Orthophosphate as P	13.167	13.175	-0.008	972028	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
a - User Assigned ID

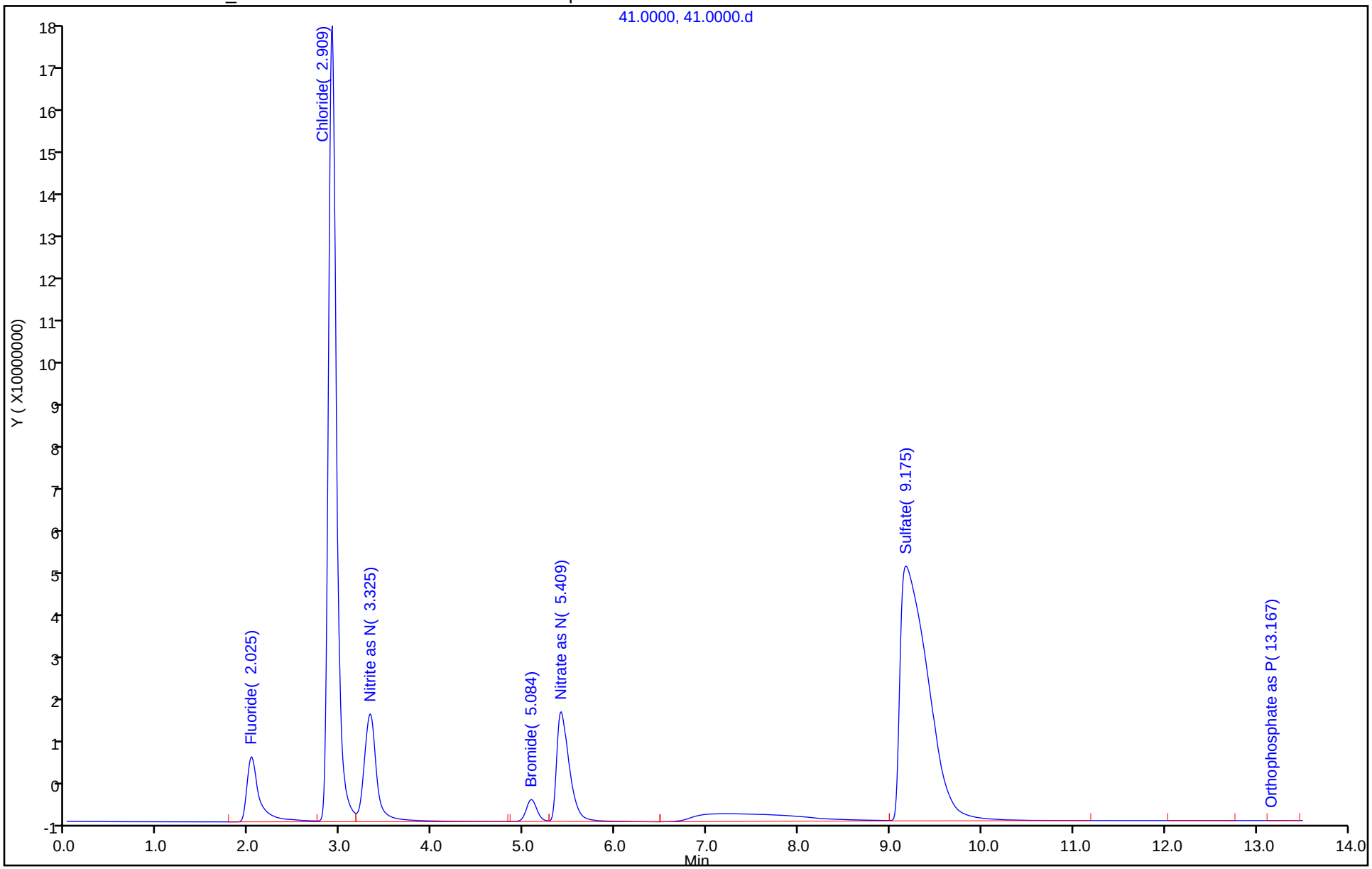
Reagents:

ICMS/MSD WEEK_00653 Amount Added: 0.05 Units: mL

Report Date: 16-Jun-2020 08:00:16 Chrom Revision: 2.3 10-Jun-2020 22:46:48

Eurofins TestAmerica, Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom7\20200615-92430.b\41.0000.d				
Injection Date:	15-Jun-2020 21:44:00	Instrument ID:	WC_IonChrom7	Operator ID:	
Lims ID:	280-137225-F-2 MSD			Worklist Smp#:	41
Client ID:	G0070-20A				
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC7	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom7\20200615-92430.b\43.0000.d				
Lims ID:	280-137225-F-4				
Client ID:	G0082-20A				
Sample Type:	Client				
Inject. Date:	15-Jun-2020 22:17:00	ALS Bottle#:	0	Worklist Smp#:	43
Injection Vol:	25.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0092430-043				
Misc. Info.:	16230 F				
Operator ID:		Instrument ID:	WC_IonChrom7		
Method:	\\chromfs\Denver\ChromData\WC_IonChrom7\20200615-92430.b\Anions_IC7.m				
Limit Group:	Wet - Anions 28D				
Last Update:	16-Jun-2020 08:00:14	Calib Date:	03-Jun-2020 11:30:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\WC_IonChrom7\20200603-92063.b\07.0000.d				
Column 1 :			Det: 0005		
Process Host:	CTX1061				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.009	1.992	0.017	6252492	0.1939	
2 Chloride	3.050	2.934	0.116	598636831	32.8	
3 Nitrite as N		3.384			ND	
4 Bromide	5.084	5.275	-0.191	1293636	0.1555	
5 Nitrate as N	5.525	5.692	-0.167	23635403	NC	
6 Sulfate	9.042	9.317	-0.275	1712184666	126.6	
7 Orthophosphate as P		13.175			ND	

QC Flag Legend

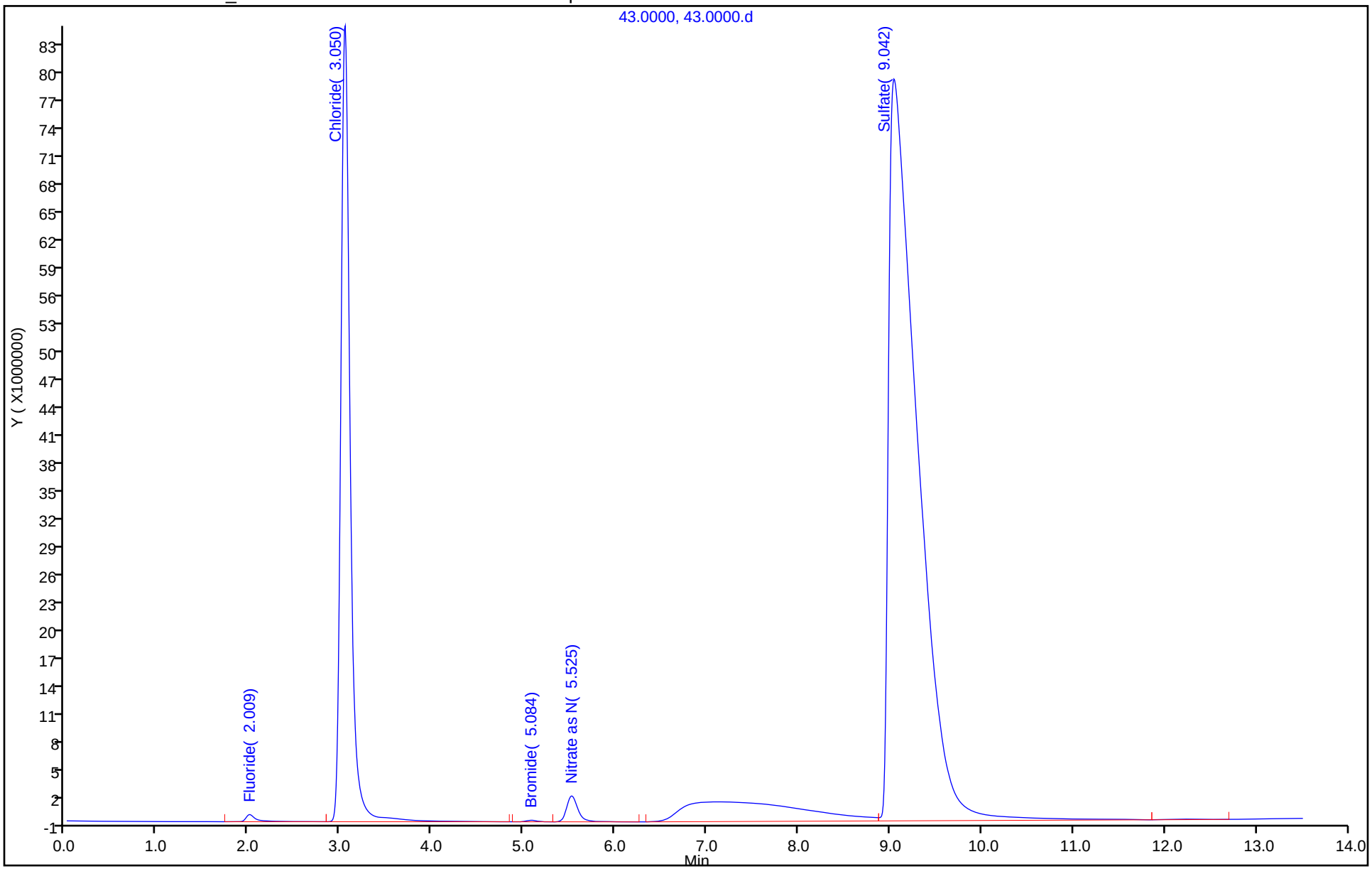
Processing Flags

NC - Not Calibrated

Report Date: 16-Jun-2020 08:00:18 Chrom Revision: 2.3 10-Jun-2020 22:46:48

Eurofins TestAmerica, Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom7\20200615-92430.b\43.0000.d				
Injection Date:	15-Jun-2020 22:17:00	Instrument ID:	WC_IonChrom7	Operator ID:	
Lims ID:	280-137225-F-4	Lab Sample ID:	280-137225-4	Worklist Smp#:	43
Client ID:	G0082-20A				
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC7	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom7\20200615-92430.b\46.0000.d
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 15-Jun-2020 23:06:00 ALS Bottle#: 0 Worklist Smp#: 46
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 280-0092430-046
Misc. Info.: 32739 F
Operator ID: Instrument ID: WC_IonChrom7
Sublist: chrom-Anions_IC7*sub1

Method: \\chromfs\Denver\ChromData\WC_IonChrom7\20200615-92430.b\Anions_IC7.m
Limit Group: Wet - Anions 28D
Last Update: 16-Jun-2020 08:00:19 Calib Date: 03-Jun-2020 11:30:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom7\20200603-92063.b\07.0000.d

Column 1 : Det: 0005
Process Host: CTX1061

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	1.992	1.992	0.000	134342300	5.00	4.84	
2 Chloride	2.992	2.934	0.058	1797921828	100.0	98.6	
3 Nitrite as N	3.459	3.384	0.075	241032197	NC	NC	
4 Bromide	5.209	5.275	-0.066	38325525	5.00	4.77	
5 Nitrate as N	5.642	5.692	-0.050	233458174	NC	NC	
6 Sulfate	9.159	9.317	-0.158	1354196588	100.0	100.1	
7 Orthophosphate as P		13.175			ND	ND	

QC Flag Legend

Processing Flags
NC - Not Calibrated
ND - Not Detected or Marked ND

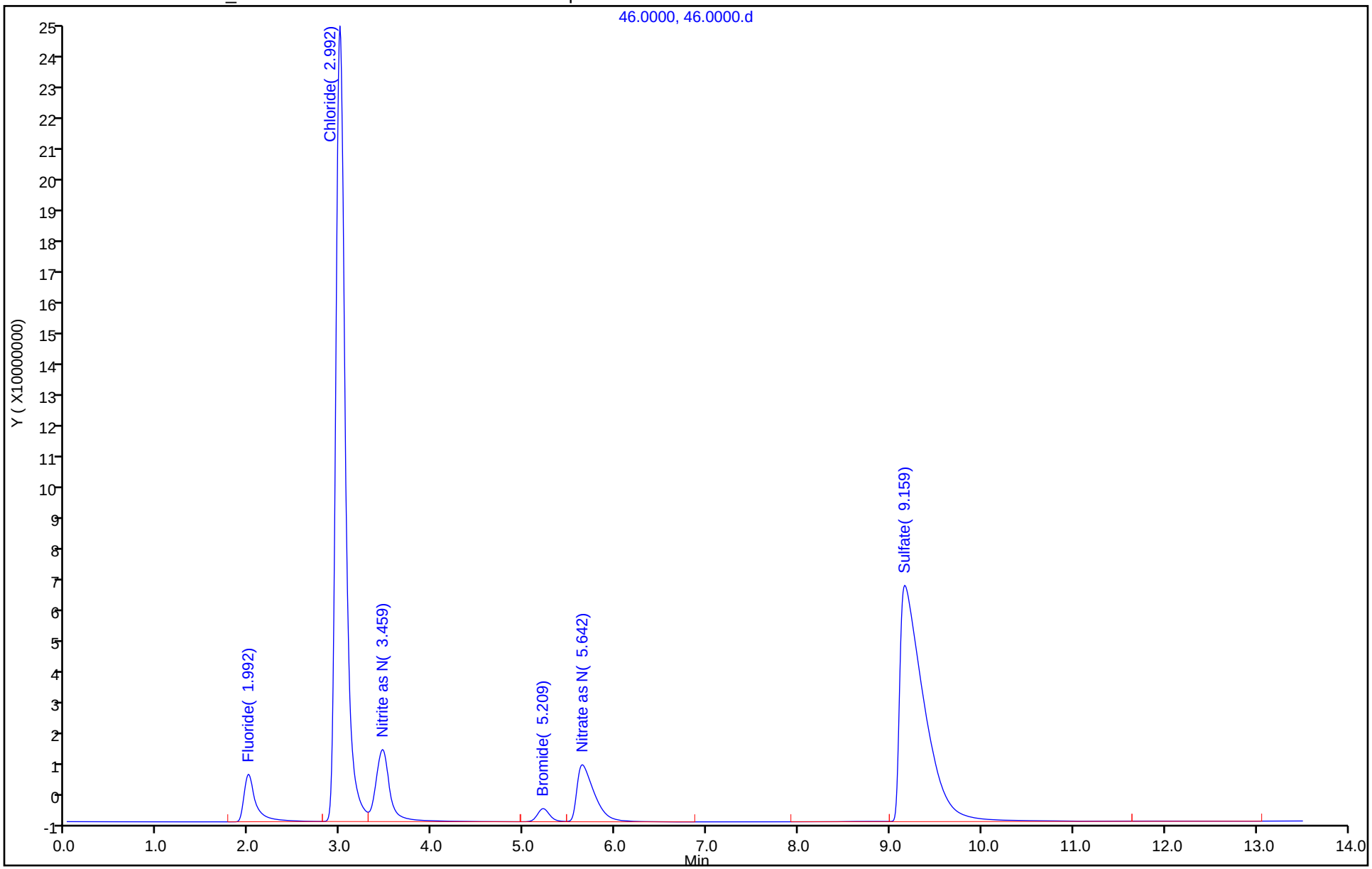
Reagents:

IC LCS_01745 Amount Added: 5.00 Units: mL

Report Date: 16-Jun-2020 08:00:19 Chrom Revision: 2.3 10-Jun-2020 22:46:48

Eurofins TestAmerica, Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom7\20200615-92430.b\46.0000.d				
Injection Date:	15-Jun-2020 23:06:00	Instrument ID:	WC_IonChrom7	Operator ID:	
Lims ID:	ccv			Worklist Smp#:	46
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC7	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

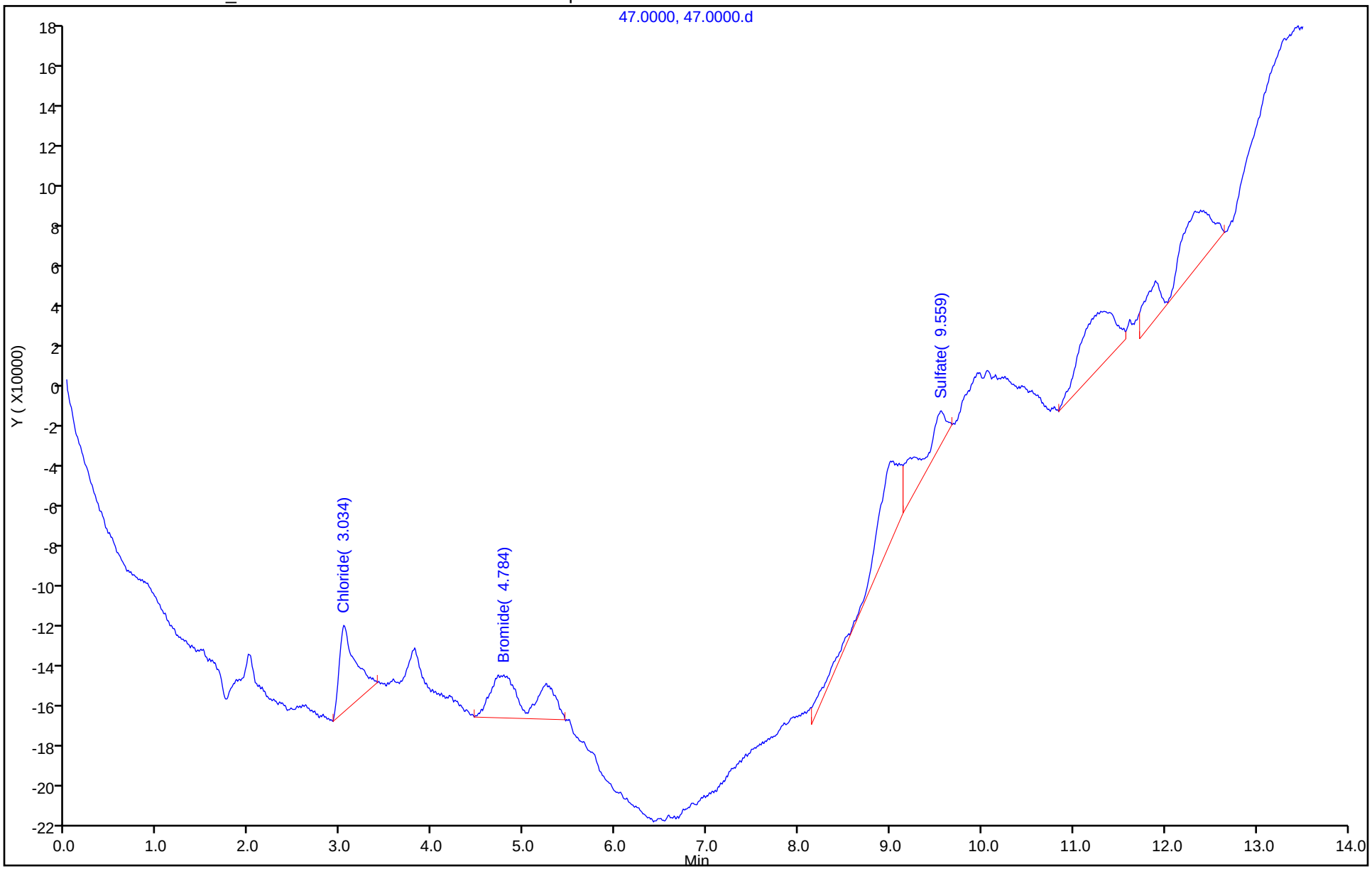
Data File:	\\chromfs\Denver\ChromData\WC_IonChrom7\20200615-92430.b\47.0000.d				
Lims ID:	ccb				
Client ID:					
Sample Type:	CCB				
Inject. Date:	15-Jun-2020 23:23:00	ALS Bottle#:	0	Worklist Smp#:	47
Injection Vol:	25.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0092430-047				
Misc. Info.:	8246 F				
Operator ID:		Instrument ID:	WC_IonChrom7		
Method:	\\chromfs\Denver\ChromData\WC_IonChrom7\20200615-92430.b\Anions_IC7.m				
Limit Group:	Wet - Anions 28D				
Last Update:	16-Jun-2020 08:00:19	Calib Date:	03-Jun-2020 11:30:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\WC_IonChrom7\20200603-92063.b\07.0000.d				
Column 1 :			Det: 0005		
Process Host:	CTX1061				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride		1.992				ND	
2 Chloride	3.034	2.934	0.100	504781		-0.0576	
3 Nitrite as N		3.384				ND	
4 Bromide	4.784	5.275	-0.491	646433		0.0749	
5 Nitrate as N		5.692				ND	
6 Sulfate	9.559	9.317	0.242	408431		-0.0224	
7 Orthophosphate as P		13.175				ND	

Report Date: 16-Jun-2020 08:00:20 Chrom Revision: 2.3 10-Jun-2020 22:46:48

Eurofins TestAmerica, Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom7\20200615-92430.b\47.0000.d				
Injection Date:	15-Jun-2020 23:23:00	Instrument ID:	WC_IonChrom7	Operator ID:	
Lims ID:	ccb			Worklist Smp#:	47
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC7	Limit Group:	Wet - Anions 28D		



TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

IC Instrument Information

WL: 92468 **Inst ID:** 7 **Analysis Date:** 6/16/20 **Analyst:** CJ

Rush	Job No.	Samples	Anions	QC Req	HT Exp
☐	137121	1	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐	137225	1	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐	137307	21	F Cl NO2 Br NO3 PO4 SO4	MS/D 6,21	
☐			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
121		F Cl NO2 Br NO3 PO4 SO4	2000X	Rerun
225		F Cl NO2 Br NO3 PO4 SO4	5X	Rerun
307		F Cl NO2 Br NO3 PO4 SO4	5,10X	Rerun
		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		

TestAmerica Laboratories
Initial Calibration Report

Method: \\chromfs\Denver\ChromData\WC_IonChrom7\20200603-92063.b\Anions_IC7.m

Instrument: WC_IonChrom7 Lims Location: 280
Lock State: Unlocked Cpnd Order: Retention Time
Integrator: Falcon Last Modified: 04-Jun-2020 08:15:11
No.Compounds:7
Sublist: chrom-Anions_IC7*sub1
Limit Group: Wet - Anions

Detectors

Detector: 1, 0005
Data Type: ic Spec Type: none
Supports Extracted Chromatograms: False
Run Time: 0.000-13.500 No. Points: 1561

Calibration File Names

Level: 1 \\chromfs\Denver\ChromData\WC_IonChrom7\20200603-92063.b\02.0000.d
Inj Date: 03-Jun-2020 10:08:00 Worklist: 92063 Sample#: 2
Level: 2 \\chromfs\Denver\ChromData\WC_IonChrom7\20200603-92063.b\03.0000.d
Inj Date: 03-Jun-2020 10:24:00 Worklist: 92063 Sample#: 3
Level: 3 \\chromfs\Denver\ChromData\WC_IonChrom7\20200603-92063.b\04.0000.d
Inj Date: 03-Jun-2020 10:41:00 Worklist: 92063 Sample#: 4
Level: 4 \\chromfs\Denver\ChromData\WC_IonChrom7\20200603-92063.b\05.0000.d
Inj Date: 03-Jun-2020 10:57:00 Worklist: 92063 Sample#: 5
Level: 5 \\chromfs\Denver\ChromData\WC_IonChrom7\20200603-92063.b\06.0000.d
Inj Date: 03-Jun-2020 11:13:00 Worklist: 92063 Sample#: 6
Level: 6 \\chromfs\Denver\ChromData\WC_IonChrom7\20200603-92063.b\07.0000.d
Inj Date: 03-Jun-2020 11:30:00 Worklist: 92063 Sample#: 7

Start Cal Date: 03-Jun-2020 10:08:00 End Cal Date: 03-Jun-2020 11:30:00

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

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
3 Nitrite as N			Signal: 1						
56683005	46983920	46640922	46687382	44875490	45348060	**1958442**			**1.000**
0.200000(1)	0.500000(2)	1.0000 (3)	4.0000 (4)	8.0000 (5)	10.0 (6)		**45103497**		
11336601	23491960	M46640922	186749529	359003922	M453480596				
92063(2)	92063(3)	92063(4)	92063(5)	92063(6)	92063(7)				
5 Nitrate as N			Signal: 1						
46210655	48765526	47797352	47873299	47820234	48005904	**-144420**			**1.000**
0.200000(1)	0.500000(2)	1.0000 (3)	4.0000 (4)	8.0000 (5)	10.0 (6)		**47949488**		
9242131	24382763	47797352	191493196	382561871	480059041				
92063(2)	92063(3)	92063(4)	92063(5)	92063(6)	92063(7)				
7 Orthophosphate as P			Signal: 1				R1, R4, R5		
1504050	332280	319853	3410072	4733627	5545392	**-1643645**			***0.950**
0.200000(1)	0.500000(2)	1.0000 (3)	4.0000 (4)	8.0000 (5)	10.0 (6)		**4962527**		
300810	166140	319853	13640286	37869017	55453916				
92063(2)	92063(3)	92063(4)	92063(5)	92063(6)	92063(7)				

ICalib Error Legend
R1, Curve Fit Fail Error Limit Test
R4, Curve Zero Intercept is > Reporting Limit
R5, Curve is not Monotonic

TestAmerica Laboratories
Initial Calibration Summary Report

Method: \\chromfs\Denver\ChromData\WC_IonChrom7\20200603-92063.b\Anions_IC7.m

Instrument:	WC_IonChrom7	Lims Location:	280
Lock State:	Unlocked	Cpnd Order:	Retention Time
Integrator:	Falcon	Last Modified:	04-Jun-2020 08:15:11

No.Compounds:7

Initial Calibration Batches

Ical Batch: \\chromfs\Denver\ChromData\WC_IonChrom7\20200603-92063.b
Inj Date : 03-Jun-2020 10:08:00, Sublist: chrom-Anions_IC7*sub1

Detector 1: 0005

	Wet - Anions				Wet - Anions 28D			
Compound	b	M1	M2	Err	b	M1	M2	Err
1 Fluoride					902189	2759876		1.000
2 Chloride					1554283	1822407		1.000
3 Nitrite as N	1958442	4510349		1.000				
4 Bromide					44686	8029379		1.000
5 Nitrate as N	-144420	4794948		1.000				
6 Sulfate					710720	1351477		1.000
7 Orthophosphate as P	-164364	4962527	R1, R4, R5	).950*				

ICalib Error Legend

R1, Curve Fit Fail Error Limit Test
R4, Curve Zero Intercept is > Reporting Limit
R5, Curve is not Monotonic

TestAmerica Laboratories
Initial Calibration Report

Method: \\chromfs\Denver\ChromData\WC_IonChrom7\20200603-92063.b\Anions_IC7.m

Instrument: WC_IonChrom7 Lims Location: 280
Lock State: Unlocked Cpnd Order: Retention Time
Integrator: Falcon Last Modified: 04-Jun-2020 08:15:11
No.Compounds:7
Sublist: chrom-Anions_IC7*sub1
Limit Group: Wet - Anions 28D

Detectors

Detector: 1, 0005
Data Type: ic Spec Type: none
Supports Extracted Chromatograms: False
Run Time: 0.000-13.500 No. Points: 1561

Calibration File Names

Level: 1 \\chromfs\Denver\ChromData\WC_IonChrom7\20200603-92063.b\02.0000.d
Inj Date: 03-Jun-2020 10:08:00 Worklist: 92063 Sample#: 2
Level: 2 \\chromfs\Denver\ChromData\WC_IonChrom7\20200603-92063.b\03.0000.d
Inj Date: 03-Jun-2020 10:24:00 Worklist: 92063 Sample#: 3
Level: 3 \\chromfs\Denver\ChromData\WC_IonChrom7\20200603-92063.b\04.0000.d
Inj Date: 03-Jun-2020 10:41:00 Worklist: 92063 Sample#: 4
Level: 4 \\chromfs\Denver\ChromData\WC_IonChrom7\20200603-92063.b\05.0000.d
Inj Date: 03-Jun-2020 10:57:00 Worklist: 92063 Sample#: 5
Level: 5 \\chromfs\Denver\ChromData\WC_IonChrom7\20200603-92063.b\06.0000.d
Inj Date: 03-Jun-2020 11:13:00 Worklist: 92063 Sample#: 6
Level: 6 \\chromfs\Denver\ChromData\WC_IonChrom7\20200603-92063.b\07.0000.d
Inj Date: 03-Jun-2020 11:30:00 Worklist: 92063 Sample#: 7

Start Cal Date: 03-Jun-2020 10:08:00 End Cal Date: 03-Jun-2020 11:30:00

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: 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

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
1 Fluoride			Signal: 1						
29706160	30317354	29823269	28357977	27595025	27438858	**902189**			**1.000**
0.200000(1)	0.500000(2)	1.0000 (3)	4.0000 (4)	8.0000 (5)	10.0 (6)		**27598765**		
5941232	15158677	29823269	113431906	220760198	274388580				
92063(2)	92063(3)	92063(4)	92063(5)	92063(6)	92063(7)				
2 Chloride			Signal: 1						
19729950	18679714	18619227	18447644	18216011	18185359	**1554283**			**1.000**
1.0000 (1)	2.5000 (2)	5.0000 (3)	60.0 (4)	120.0 (5)	200.0 (6)		**18224071**		
19729950	46699286	M93096135	1106858638	2185921343	M3637071770				
92063(2)	92063(3)	92063(4)	92063(5)	92063(6)	92063(7)				
4 Bromide			Signal: 1						
7896295	8405932	8133508	8087968	8008011	8023270	**44686**			**1.000**
0.200000(1)	0.500000(2)	1.0000 (3)	4.0000 (4)	8.0000 (5)	10.0 (6)		**8029379**		
1579259	4202966	8133508	32351872	64064086	80232699				
92063(2)	92063(3)	92063(4)	92063(5)	92063(6)	92063(7)				
6 Sulfate			Signal: 1						
13874566	13779642	13873076	13754129	13516586	13449142	**710720**			**1.000**
1.0000 (1)	2.5000 (2)	5.0000 (3)	60.0 (4)	120.0 (5)	200.0 (6)		**13514778**		
M13874566	M34449105	M69365381	M825247714	M1621990341	2689828489				
92063(2)	92063(3)	92063(4)	92063(5)	92063(6)	92063(7)				

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom7\20200616-92468.b\01.0000.d
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 16-Jun-2020 10:20:00 ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 280-0092468-001
Operator ID: Instrument ID: WC_IonChrom7
Sublist: chrom-Anions_IC7*sub1

Method: \\chromfs\Denver\ChromData\WC_IonChrom7\20200616-92468.b\Anions_IC7.m
Limit Group: Wet - Anions 28D
Last Update: 17-Jun-2020 12:11:29 Calib Date: 03-Jun-2020 11:30:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom7\20200603-92063.b\07.0000.d

Column 1 : Det: 0005
Process Host: CTX1036

First Level Reviewer: jindaratc Date: 16-Jun-2020 14:07:02

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.000	1.992	0.008	136004100	5.00	4.90	
2 Chloride	2.842	2.934	-0.092	1792235437	100.0	98.3	
3 Nitrite as N	3.209	3.384	-0.175	243663602	NC	NC	
4 Bromide	4.934	5.275	-0.341	38861358	5.00	4.83	a
5 Nitrate as N	5.334	5.692	-0.358	247021608	NC	NC	a
6 Sulfate	8.792	9.317	-0.525	1325495567	100.0	98.0	
7 Orthophosphate as P		13.175			ND	ND	

QC Flag Legend

Processing Flags
NC - Not Calibrated
ND - Not Detected or Marked ND
Review Flags
a - User Assigned ID

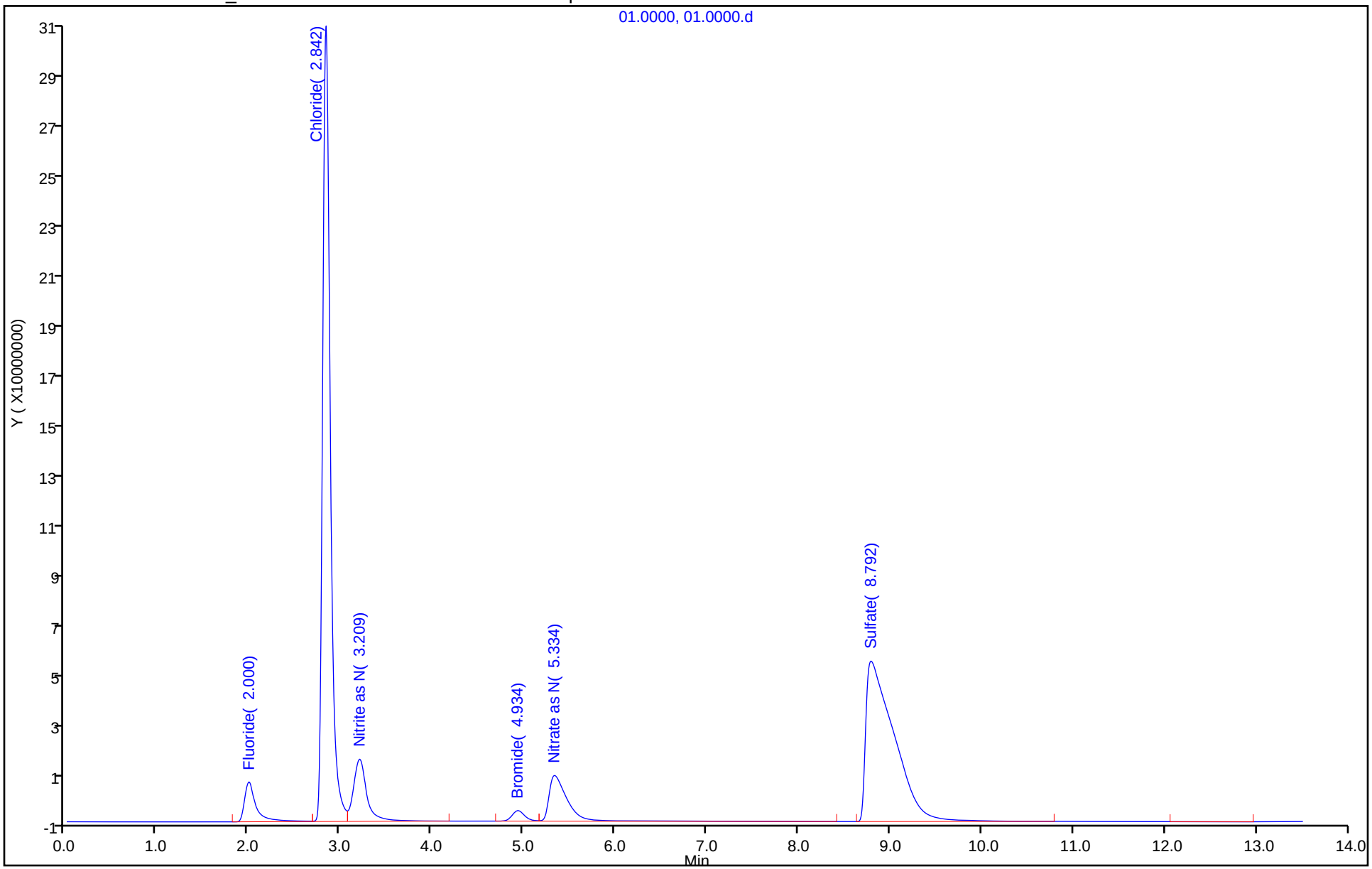
Reagents:

IC LCS_01745 Amount Added: 5.00 Units: mL

Report Date: 17-Jun-2020 12:11:29 Chrom Revision: 2.3 10-Jun-2020 22:46:48

Eurofins TestAmerica, Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom7\20200616-92468.b\01.0000.d				
Injection Date:	16-Jun-2020 10:20:00	Instrument ID:	WC_IonChrom7	Operator ID:	
Lims ID:	ccv			Worklist Smp#:	1
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC7	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom7\20200616-92468.b\02.0000.d				
Lims ID:	ccb				
Client ID:					
Sample Type:	CCB				
Inject. Date:	16-Jun-2020 10:36:00	ALS Bottle#:	0	Worklist Smp#:	2
Injection Vol:	25.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0092468-002				
Operator ID:		Instrument ID:	WC_IonChrom7		
Method:	\\chromfs\Denver\ChromData\WC_IonChrom7\20200616-92468.b\Anions_IC7.m				
Limit Group:	Wet - Anions 28D				
Last Update:	17-Jun-2020 12:11:29	Calib Date:	03-Jun-2020 11:30:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\WC_IonChrom7\20200603-92063.b\07.0000.d				
Column 1 :			Det: 0005		
Process Host:	CTX1036				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride		1.992				ND	
2 Chloride	2.917	2.934	-0.017	305981		-0.0685	
3 Nitrite as N		3.384				ND	
4 Bromide		5.275				ND	
5 Nitrate as N		5.692				ND	
6 Sulfate	9.450	9.317	0.133	613203		-0.007216	
7 Orthophosphate as P	13.317	13.175	0.142	102306		NC	

QC Flag Legend

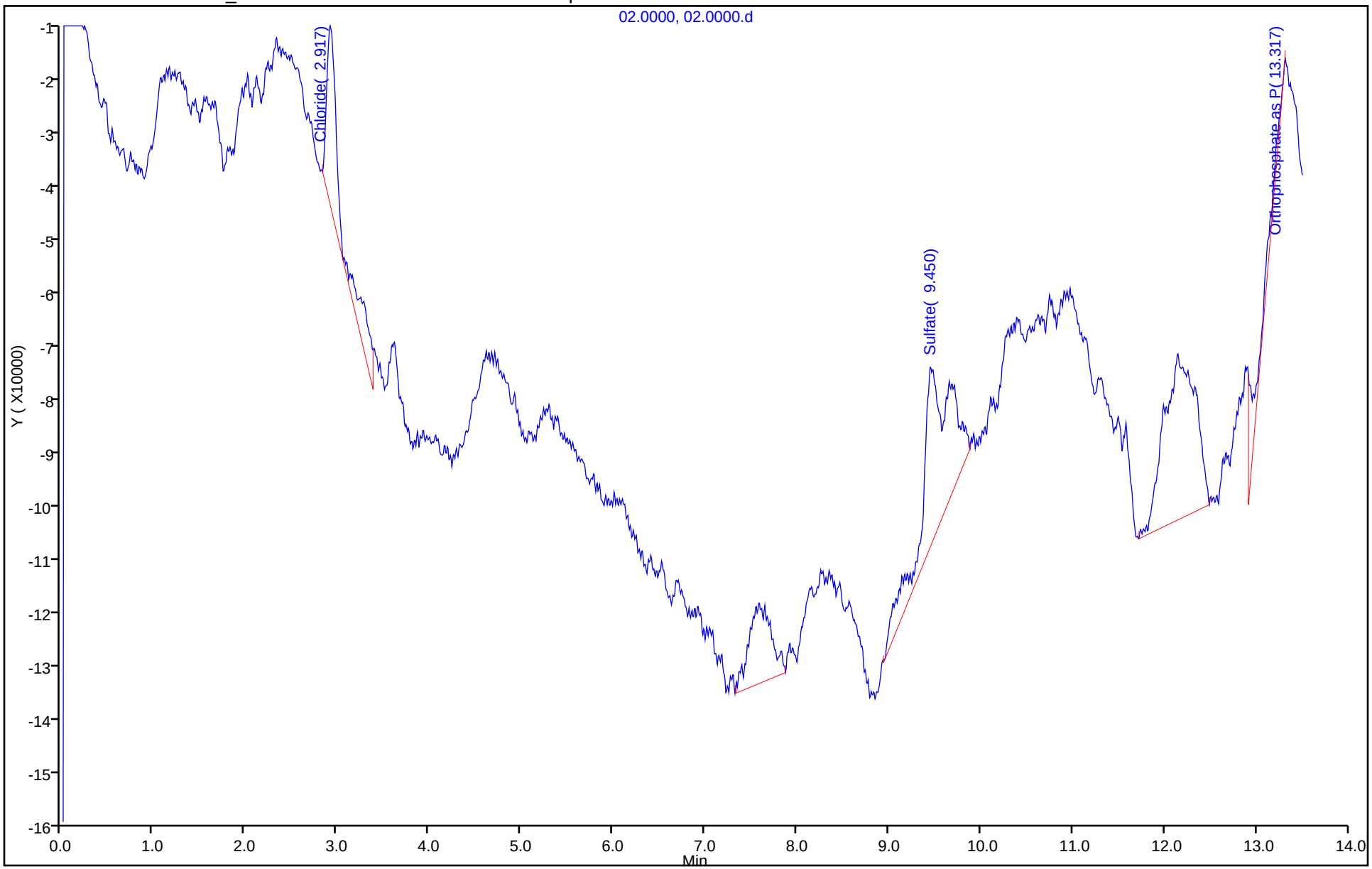
Processing Flags

NC - Not Calibrated

Report Date: 17-Jun-2020 12:11:30 Chrom Revision: 2.3 10-Jun-2020 22:46:48

Eurofins TestAmerica, Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom7\20200616-92468.b\02.0000.d				
Injection Date:	16-Jun-2020 10:36:00	Instrument ID:	WC_IonChrom7	Operator ID:	
Lims ID:	ccb			Worklist Smp#:	2
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC7	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom7\20200616-92468.b\03.0000.d
Lims ID: mrl
Client ID:
Sample Type: MRL
Inject. Date: 16-Jun-2020 10:52:00 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 280-0092468-003
Operator ID: Instrument ID: WC_IonChrom7

Method: \\chromfs\Denver\ChromData\WC_IonChrom7\20200616-92468.b\Anions_IC7.m
Limit Group: Wet - Anions 28D
Last Update: 17-Jun-2020 12:11:29 Calib Date: 03-Jun-2020 11:30:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom7\20200603-92063.b\07.0000.d

Column 1 : Det: 0005
Process Host: CTX1036

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.034	1.992	0.042	14844503	0.5000	0.5052	
2 Chloride	3.109	2.934	0.175	91212505	5.00	4.92	
3 Nitrite as N	3.542	3.384	0.158	23394429	NC	NC	
4 Bromide	5.342	5.275	0.067	3642761	0.5000	0.4481	
5 Nitrate as N	5.859	5.692	0.167	22427770	NC	NC	
6 Sulfate	9.417	9.317	0.100	72193036	5.00	5.29	
7 Orthophosphate as P	13.001	13.175	-0.174	359477	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated

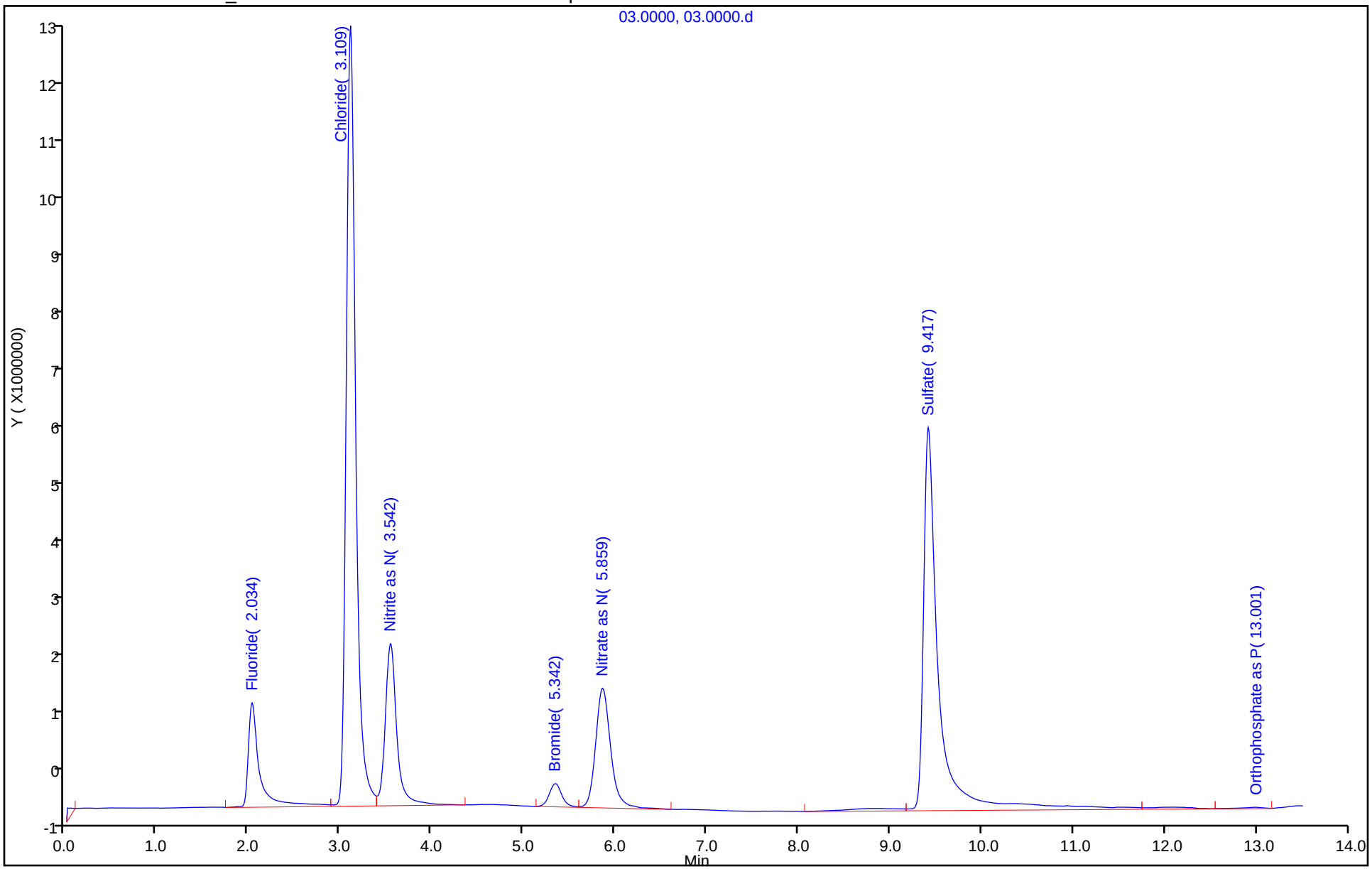
Reagents:

IC Cal low_00529 Amount Added: 0.05 Units: mL
IC CAL cl/so4_00315 Amount Added: 0.10 Units: mL

Report Date: 17-Jun-2020 12:11:30 Chrom Revision: 2.3 10-Jun-2020 22:46:48

Eurofins TestAmerica, Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom7\20200616-92468.b\03.0000.d				
Injection Date:	16-Jun-2020 10:52:00	Instrument ID:	WC_IonChrom7	Operator ID:	
Lims ID:	mrl			Worklist Smp#:	3
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC7	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom7\20200616-92468.b\04.0000.d
Lims ID: lcs
Client ID:
Sample Type: LCS
Inject. Date: 16-Jun-2020 11:08:00 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 280-0092468-004
Misc. Info.: 4 F
Operator ID: Instrument ID: WC_IonChrom7

Method: \\chromfs\Denver\ChromData\WC_IonChrom7\20200616-92468.b\Anions_IC7.m
Limit Group: Wet - Anions 28D
Last Update: 17-Jun-2020 12:11:29 Calib Date: 03-Jun-2020 11:30:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom7\20200603-92063.b\07.0000.d

Column 1 : Det: 0005
Process Host: CTX1036

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.017	1.992	0.025	137419440	5.00	4.95	
2 Chloride	2.975	2.934	0.041	1789396707	100.0	98.1	
3 Nitrite as N	3.409	3.384	0.025	244743819	NC	NC	
4 Bromide	5.259	5.275	-0.016	40593946	5.00	5.05	
5 Nitrate as N	5.692	5.692	0.000	235893007	NC	NC	
6 Sulfate	9.209	9.317	-0.108	1345490982	100.0	99.5	
7 Orthophosphate as P	13.242	13.175	0.067	415662	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated

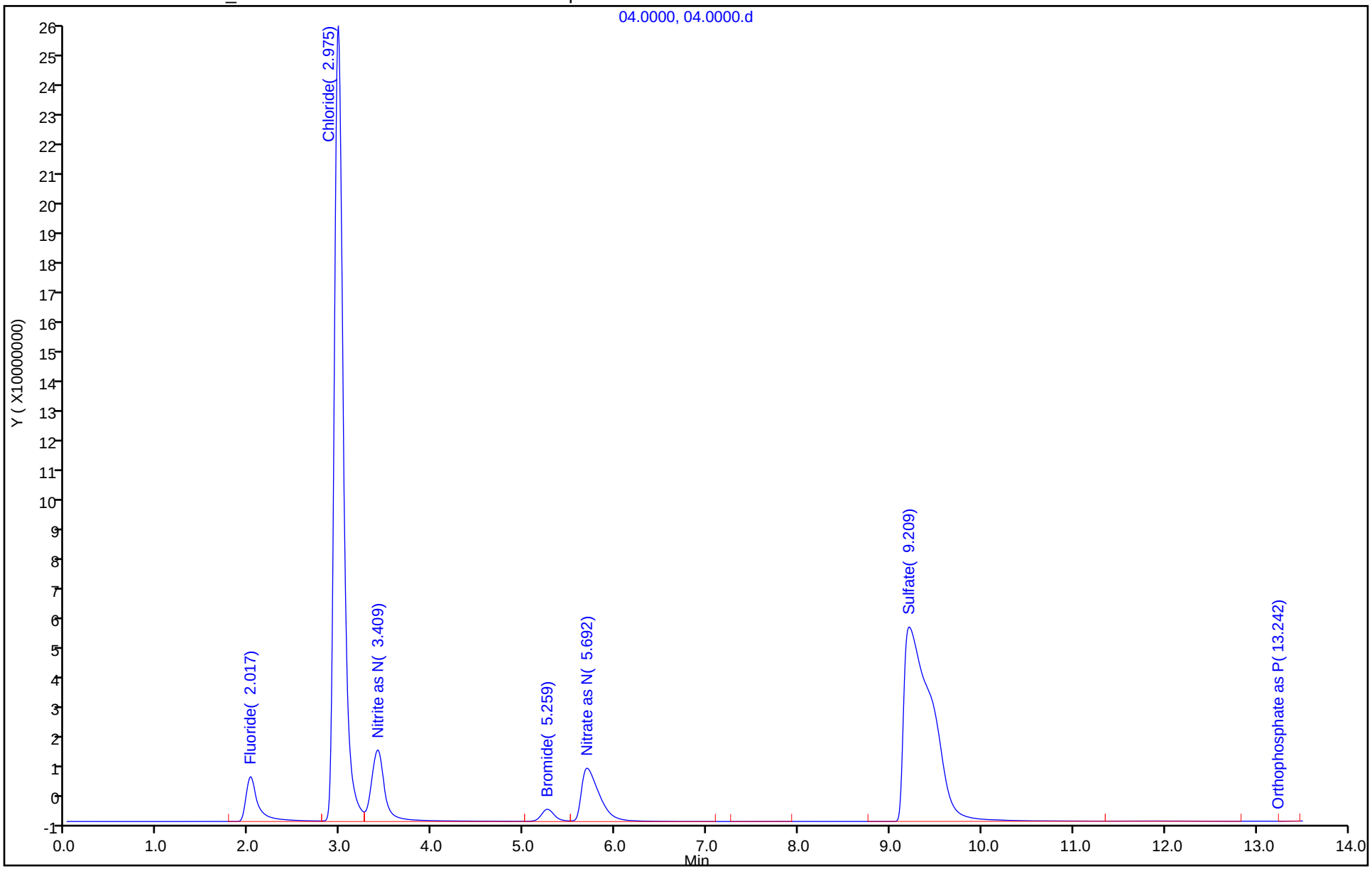
Reagents:

IC LCS_01745 Amount Added: 5.00 Units: mL

Report Date: 17-Jun-2020 12:11:31 Chrom Revision: 2.3 10-Jun-2020 22:46:48

Eurofins TestAmerica, Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom7\20200616-92468.b\04.0000.d				
Injection Date:	16-Jun-2020 11:08:00	Instrument ID:	WC_IonChrom7	Operator ID:	
Lims ID:	lcs			Worklist Smp#:	4
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC7	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom7\20200616-92468.b\05.0000.d
Lims ID: lcsd
Client ID:
Sample Type: LCSD
Inject. Date: 16-Jun-2020 11:25:00 ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 280-0092468-005
Misc. Info.: 5 F
Operator ID: Instrument ID: WC_IonChrom7

Method: \\chromfs\Denver\ChromData\WC_IonChrom7\20200616-92468.b\Anions_IC7.m
Limit Group: Wet - Anions 28D
Last Update: 17-Jun-2020 12:11:29 Calib Date: 03-Jun-2020 11:30:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom7\20200603-92063.b\07.0000.d

Column 1 : Det: 0005
Process Host: CTX1036

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.025	1.992	0.033	138021060	5.00	4.97	
2 Chloride	3.034	2.934	0.100	1799407527	100.0	98.7	
3 Nitrite as N	3.492	3.384	0.108	244418177	NC	NC	
4 Bromide	5.359	5.275	0.084	41031975	5.00	5.10	
5 Nitrate as N	5.742	5.692	0.050	236587061	NC	NC	
6 Sulfate	9.117	9.317	-0.200	1345066968	100.0	99.5	
7 Orthophosphate as P	12.950	13.175	-0.225	891445	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated

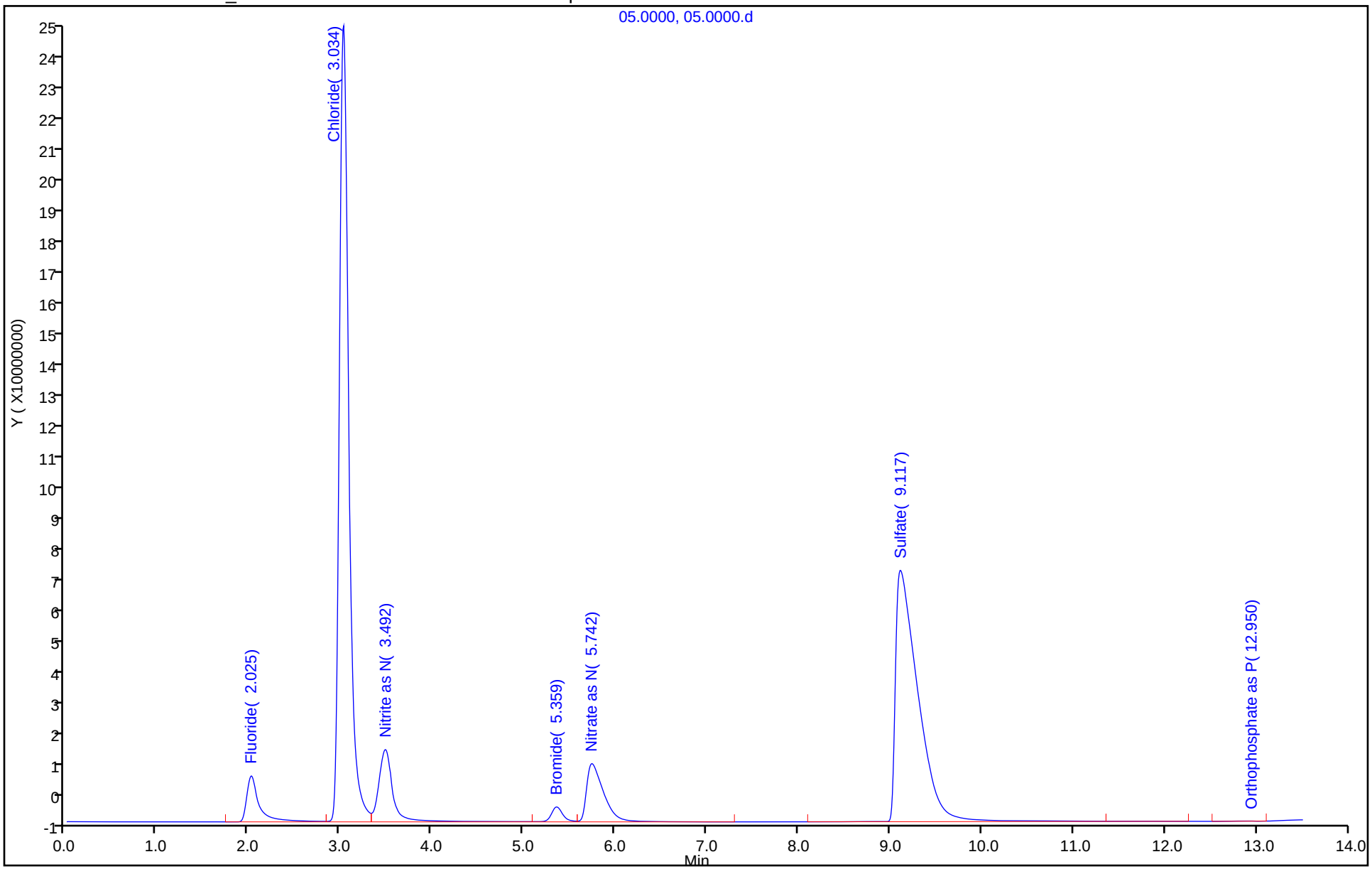
Reagents:

IC LCS_01745 Amount Added: 5.00 Units: mL

Report Date: 17-Jun-2020 12:11:31 Chrom Revision: 2.3 10-Jun-2020 22:46:48

Eurofins TestAmerica, Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom7\20200616-92468.b\05.0000.d				
Injection Date:	16-Jun-2020 11:25:00	Instrument ID:	WC_IonChrom7	Operator ID:	
Lims ID:	lcsd			Worklist Smp#:	5
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC7	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom7\20200616-92468.b\06.0000.d				
Lims ID:	mb				
Client ID:					
Sample Type:	MB				
Inject. Date:	16-Jun-2020 11:41:00	ALS Bottle#:	0	Worklist Smp#:	6
Injection Vol:	25.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0092468-006				
Misc. Info.:	6 F				
Operator ID:		Instrument ID:	WC_IonChrom7		
Method:	\\chromfs\Denver\ChromData\WC_IonChrom7\20200616-92468.b\Anions_IC7.m				
Limit Group:	Wet - Anions 28D				
Last Update:	17-Jun-2020 12:11:29	Calib Date:	03-Jun-2020 11:30:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\WC_IonChrom7\20200603-92063.b\07.0000.d				
Column 1 :			Det: 0005		
Process Host:	CTX1036				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride		1.992				ND	
2 Chloride	3.117	2.934	0.183	290048		-0.0694	
3 Nitrite as N		3.384				ND	
4 Bromide		5.275				ND	
5 Nitrate as N		5.692				ND	
6 Sulfate	9.726	9.317	0.409	576714		-0.0099	
7 Orthophosphate as P	13.076	13.175	-0.099	895360		NC	

QC Flag Legend

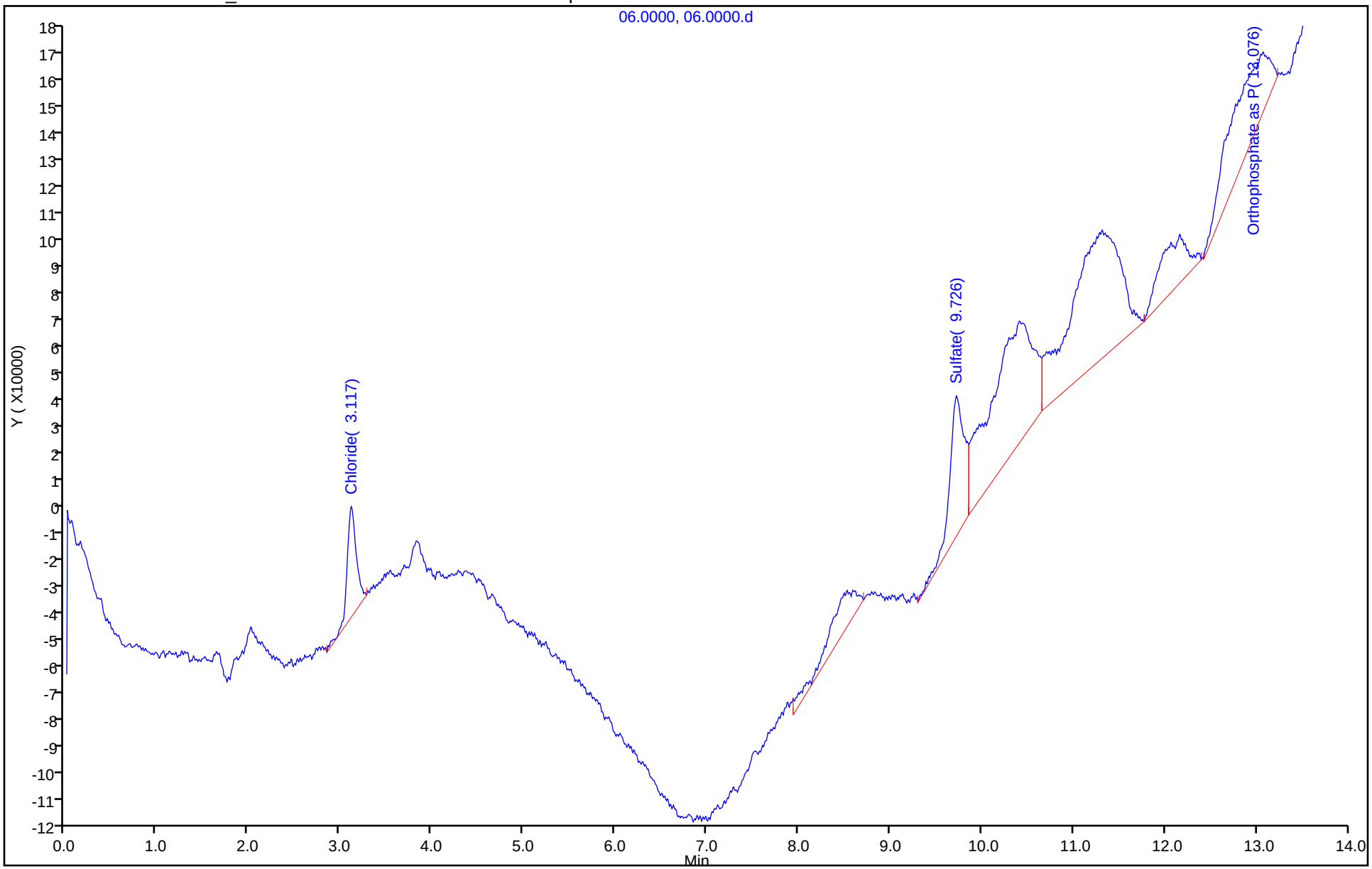
Processing Flags

NC - Not Calibrated

Report Date: 17-Jun-2020 12:11:31 Chrom Revision: 2.3 10-Jun-2020 22:46:48

Eurofins TestAmerica, Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom7\20200616-92468.b\06.0000.d				
Injection Date:	16-Jun-2020 11:41:00	Instrument ID:	WC_IonChrom7	Operator ID:	
Lims ID:	mb			Worklist Smp#:	6
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC7	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom7\20200616-92468.b\08.0000.d				
Lims ID:	280-137225-F-1				
Client ID:	G0076-20A				
Sample Type:	Client				
Inject. Date:	16-Jun-2020 17:02:00	ALS Bottle#:	0	Worklist Smp#:	8
Injection Vol:	25.0 ul	Dil. Factor:	5.0000		
Sample Info:	280-0092468-008				
Misc. Info.:	30758 F				
Operator ID:		Instrument ID:	WC_IonChrom7		
Method:	\\chromfs\Denver\ChromData\WC_IonChrom7\20200616-92468.b\Anions_IC7.m				
Limit Group:	Wet - Anions 28D				
Last Update:	17-Jun-2020 12:11:29	Calib Date:	03-Jun-2020 11:30:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\WC_IonChrom7\20200603-92063.b\07.0000.d				
Column 1 :			Det: 0005		
Process Host:	CTX1036				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.000	1.992	0.008	1369316	0.0169	
2 Chloride	3.025	2.934	0.091	190675297	10.4	
3 Nitrite as N		3.384			ND	
4 Bromide	5.217	5.275	-0.058	663836	0.0771	
5 Nitrate as N		5.692			ND	
6 Sulfate	9.225	9.317	-0.092	847824779	62.7	
7 Orthophosphate as P	13.050	13.175	-0.125	697178	NC	

QC Flag Legend

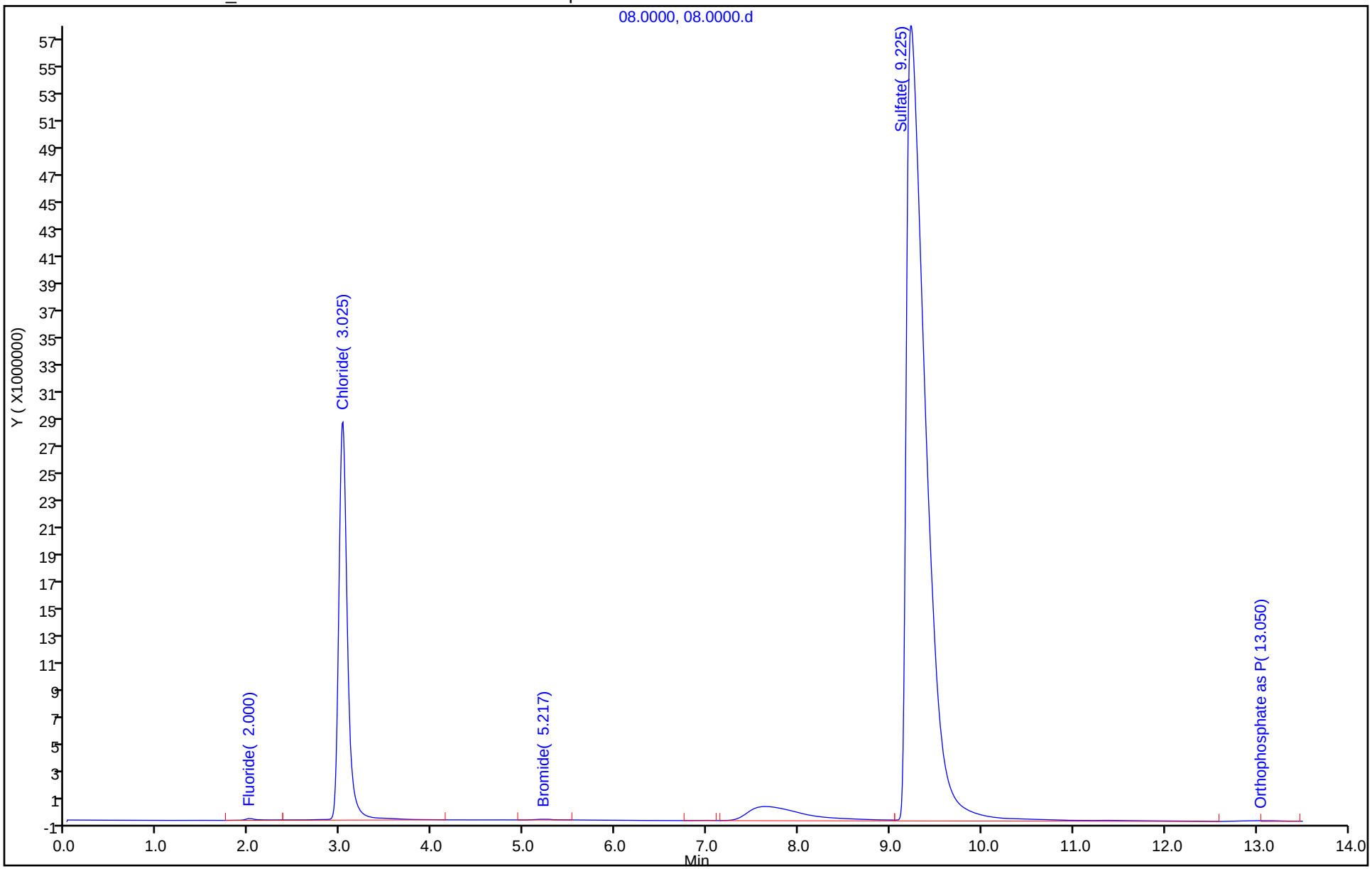
Processing Flags

NC - Not Calibrated

Report Date: 17-Jun-2020 12:11:32 Chrom Revision: 2.3 10-Jun-2020 22:46:48

Eurofins TestAmerica, Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom7\20200616-92468.b\08.0000.d				
Injection Date:	16-Jun-2020 17:02:00	Instrument ID:	WC_IonChrom7	Operator ID:	
Lims ID:	280-137225-F-1	Lab Sample ID:	280-137225-1	Worklist Smp#:	8
Client ID:	G0076-20A				
Injection Vol:	25.0 ul	Dil. Factor:	5.0000	ALS Bottle#:	0
Method:	Anions_IC7	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom7\20200616-92468.b\17.0000.d
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 16-Jun-2020 19:30:00 ALS Bottle#: 0 Worklist Smp#: 17
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 280-0092468-017
Misc. Info.: 28662 F
Operator ID: Instrument ID: WC_IonChrom7
Sublist: chrom-Anions_IC7*sub1

Method: \\chromfs\Denver\ChromData\WC_IonChrom7\20200616-92468.b\Anions_IC7.m
Limit Group: Wet - Anions 28D
Last Update: 17-Jun-2020 12:11:35 Calib Date: 03-Jun-2020 11:30:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom7\20200603-92063.b\07.0000.d

Column 1 : Det: 0005
Process Host: CTX1036

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.026	1.992	0.034	138028285	5.00	4.97	
2 Chloride	2.909	2.934	-0.025	1798330605	100.0	98.6	
3 Nitrite as N	3.351	3.384	-0.033	243936260	NC	NC	
4 Bromide	5.151	5.275	-0.124	41210076	5.00	5.13	
5 Nitrate as N	5.551	5.692	-0.141	236983910	NC	NC	
6 Sulfate	9.109	9.317	-0.208	1348969334	100.0	99.8	
7 Orthophosphate as P		13.175			ND	ND	

QC Flag Legend

Processing Flags
NC - Not Calibrated
ND - Not Detected or Marked ND

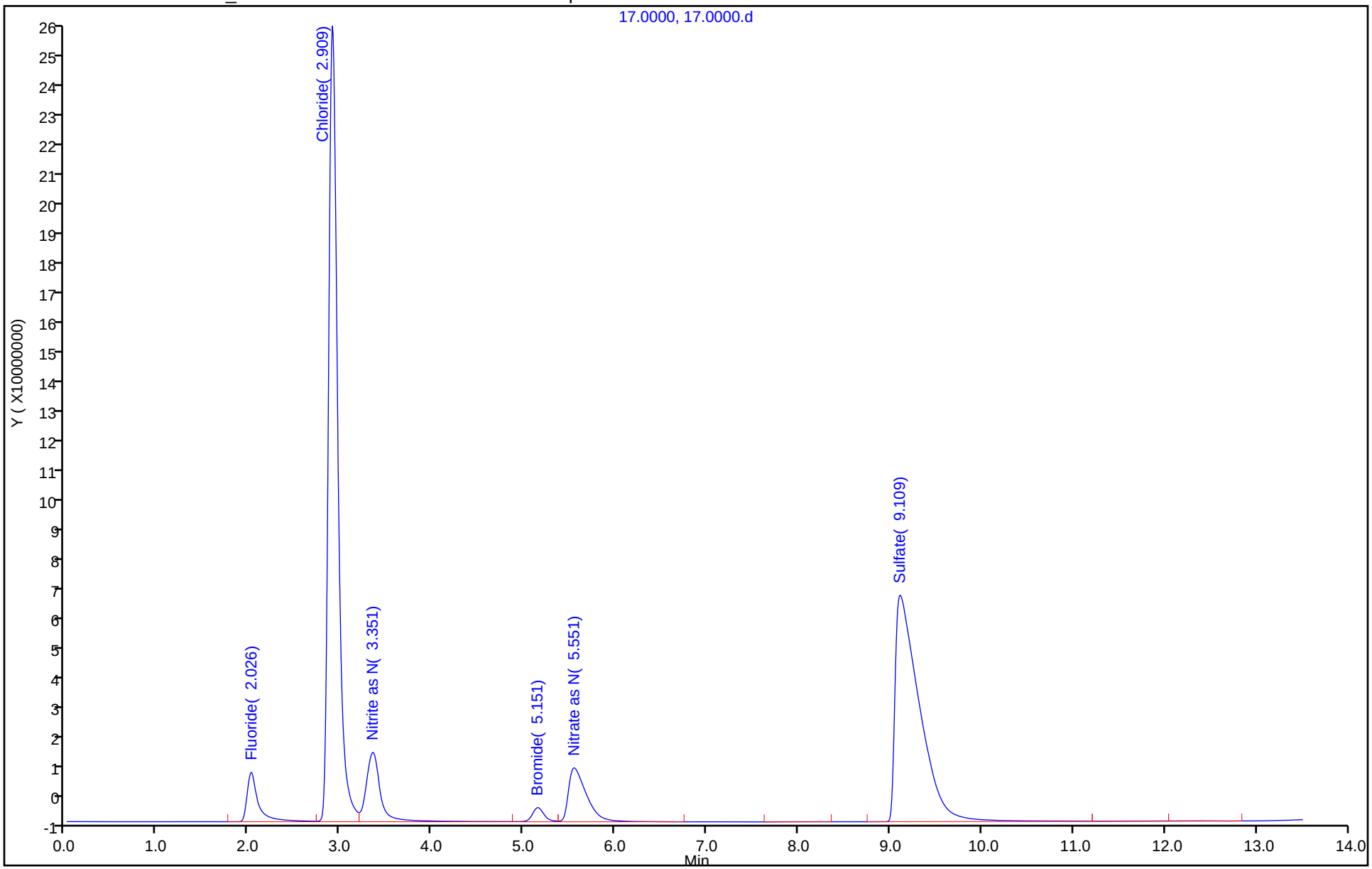
Reagents:

IC LCS_01745 Amount Added: 5.00 Units: mL

Report Date: 17-Jun-2020 12:11:35 Chrom Revision: 2.3 10-Jun-2020 22:46:48

Eurofins TestAmerica, Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom7\20200616-92468.b\17.0000.d				
Injection Date:	16-Jun-2020 19:30:00	Instrument ID:	WC_IonChrom7	Operator ID:	
Lims ID:	ccv			Worklist Smp#:	17
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC7	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom7\20200616-92468.b\18.0000.d				
Lims ID:	ccb				
Client ID:					
Sample Type:	CCB				
Inject. Date:	16-Jun-2020 19:47:00	ALS Bottle#:	0	Worklist Smp#:	18
Injection Vol:	25.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0092468-018				
Misc. Info.:	13983 F				
Operator ID:		Instrument ID:	WC_IonChrom7		
Method:	\\chromfs\Denver\ChromData\WC_IonChrom7\20200616-92468.b\Anions_IC7.m				
Limit Group:	Wet - Anions 28D				
Last Update:	17-Jun-2020 12:11:35	Calib Date:	03-Jun-2020 11:30:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\WC_IonChrom7\20200603-92063.b\07.0000.d				
Column 1 :			Det: 0005		
Process Host:	CTX1036				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride		1.992				ND	
2 Chloride	3.075	2.934	0.141	223510		-0.0730	
3 Nitrite as N		3.384				ND	
4 Bromide		5.275				ND	
5 Nitrate as N		5.692				ND	
6 Sulfate	8.775	9.317	-0.542	1094359		0.0284	
7 Orthophosphate as P	12.717	13.175	-0.458	370744		NC	

QC Flag Legend

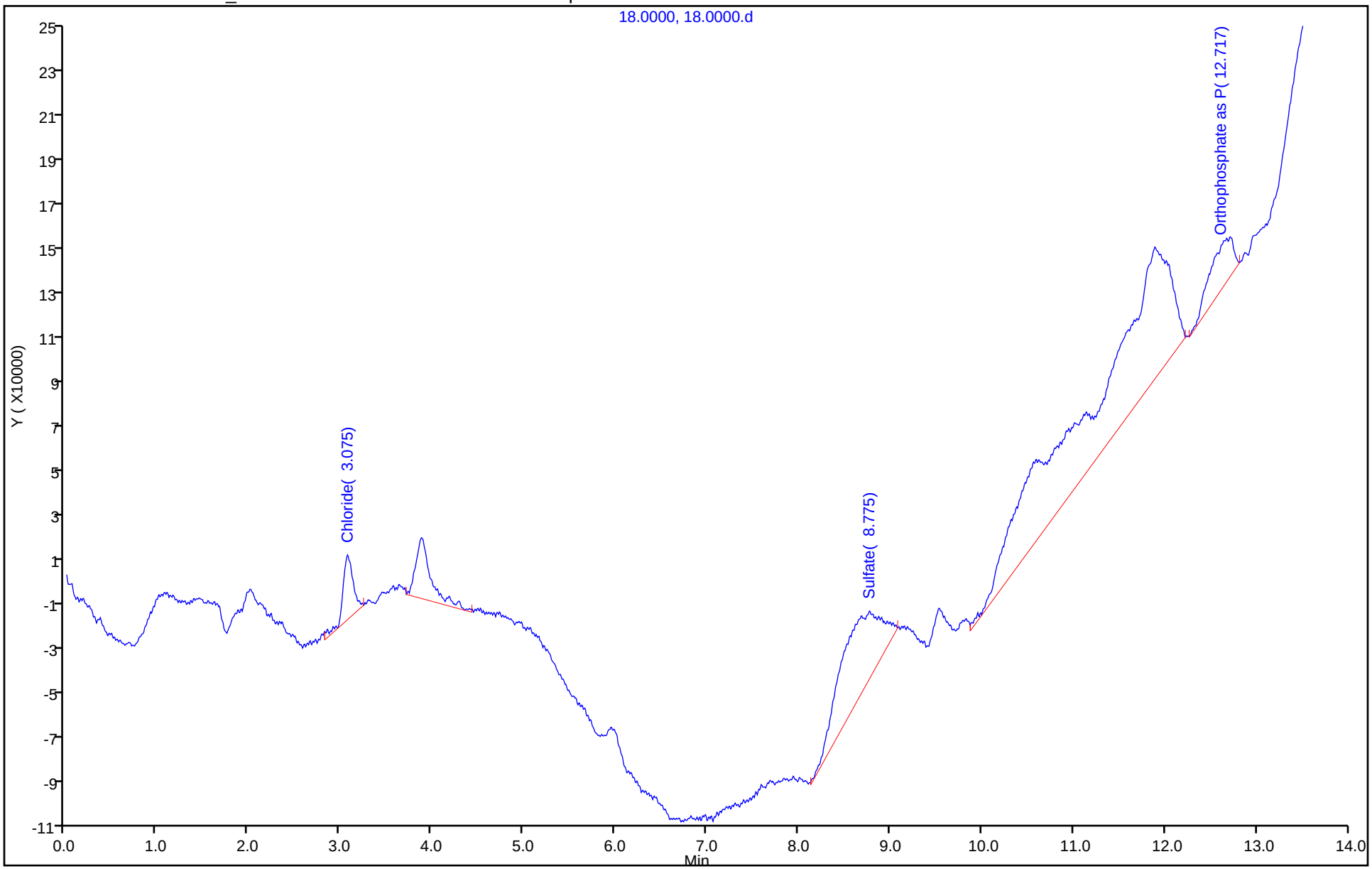
Processing Flags

NC - Not Calibrated

Report Date: 17-Jun-2020 12:11:35 Chrom Revision: 2.3 10-Jun-2020 22:46:48

Eurofins TestAmerica, Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom7\20200616-92468.b\18.0000.d				
Injection Date:	16-Jun-2020 19:47:00	Instrument ID:	WC_IonChrom7	Operator ID:	
Lims ID:	ccb			Worklist Smp#:	18
Client ID:					
Injection Vol:	25.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC7	Limit Group:	Wet - Anions 28D		



	Analysis	Sample Name	Manua	Result	Notes	Status	Date /	Vial
1	NPOC	icv	1.000	NPOC:19.34mg/L		Complet	6/15/	1
2	NPOC	icb	1.000	NPOC:-0.04246m		Complet	6/15/	2
3	NPOC	lcs	1.000	NPOC:24.62mg/L		Complet	6/15/	3
4	NPOC	mb	1.000	NPOC:-0.01930m		Complet	6/15/	4
5	NPOC	tic	1.000	NPOC:0.01336mg		Complet	6/15/	5
6	NPOC	280-137164-D-1	1.000	NPOC:1.709mg/L		Complet	6/15/	6
7	NPOC	ms 280-137164-D-1	1.000	NPOC:26.66mg/L		Complet	6/15/	7
8	NPOC	msd 280-137164-D-1	1.000	NPOC:26.26mg/L		Complet	6/15/	8
9	NPOC	280-137164-D-2	1.000	NPOC:0.6462mg/		Complet	6/15/	9
10	NPOC	280-137164-D-3	1.000	NPOC:1.200mg/L		Complet	6/15/	10
11	NPOC	280-137164-D-4	1.000	NPOC:0.7902mg/		Complet	6/15/	11
12	NPOC	280-137164-D-5	1.000	NPOC:0.9304mg/		Complet	6/15/	12
13	NPOC	280-137164-D-6	1.000	NPOC:0.8335mg/		Complet	6/15/	13
14	NPOC	280-137164-D-7	1.000	NPOC:0.7426mg/		Complet	6/15/	14
15	NPOC	ccv	1.000	NPOC:25.18mg/L		Complet	6/15/	15
16	NPOC	ccb	1.000	NPOC:-0.03806m		Complet	6/15/	16
17	NPOC	280-137164-D-8	1.000	NPOC:1.051mg/L		Complet	6/15/	17
18	NPOC	280-137164-D-9	1.000	NPOC:0.9396mg/		Complet	6/15/	18
19	NPOC	280-137164-D-10	1.000	NPOC:0.6881mg/		Complet	6/15/	19
20	NPOC	280-137164-D-12	1.000	NPOC:0.9164mg/		Complet	6/15/	20
21	NPOC	ms 280-137164-D-12	1.000	NPOC:25.48mg/L		Complet	6/15/	21
22	NPOC	msd 280-137164-D-12	1.000	NPOC:26.41mg/L		Complet	6/15/	22
23	NPOC	280-137164-D-13	1.000	NPOC:0.9230mg/		Complet	6/15/	23
24	NPOC	280-137164-D-14	1.000	NPOC:0.8536mg/		Complet	6/15/	24
25	NPOC	280-137164-D-15	1.000	NPOC:0.8320mg/		Complet	6/15/	25
26	NPOC	280-137164-D-16	1.000	NPOC:0.7316mg/		Complet	6/15/	26
27	NPOC	ccv	1.000	NPOC:25.31mg/L		Complet	6/15/	27
28	NPOC	ccb	1.000	NPOC:0.00179mg		Complet	6/15/	28
29	NPOC	280-137166-B-1	1.000	NPOC:2.807mg/L		Complet	6/15/	29
30	NPOC	280-137166-B-2	1.000	NPOC:0.9770mg/		Complet	6/15/	30
31	NPOC	280-137166-B-3	1.000	NPOC:5.943mg/L		Complet	6/15/	31
32	NPOC	280-137166-B-4	1.000	NPOC:3.391mg/L		Complet	6/15/	32
33	NPOC	280-137166-B-5	1.000	NPOC:0.7191mg/		Complet	6/16/	33
34	NPOC	lcs	1.000	NPOC:25.36mg/L		Complet	6/16/	34
35	NPOC	mb	1.000	NPOC:0.02178mg		Complet	6/16/	35
36	NPOC	tic	1.000	NPOC:0.05744mg		Complet	6/16/	36
37	NPOC	280-137166-B-6	1.000	NPOC:2.286mg/L		Complet	6/16/	37
38	NPOC	ms 280-137166-B-6	1.000	NPOC:28.17mg/L		Complet	6/16/	38
39	NPOC	ccv	1.000	NPOC:25.97mg/L		Complet	6/16/	39
40	NPOC	ccb	1.000	NPOC:0.03701mg		Complet	6/16/	40
41	NPOC	msd 280-137166-B-6	1.000	NPOC:27.36mg/L		Complet	6/16/	41
42	NPOC	280-137166-B-7	1.000	NPOC:5.296mg/L		Complet	6/16/	42
43	NPOC	280-137166-B-8	1.000	NPOC:5.027mg/L		Complet	6/16/	43
44	NPOC	280-137166-B-9	1.000	NPOC:0.4024mg/		Complet	6/16/	44
45	NPOC	280-137166-B-10	1.000	NPOC:0.4410mg/		Complet	6/16/	45
46	NPOC	280-137166-B-11	1.000	NPOC:1.972mg/L		Complet	6/16/	46
47	NPOC	280-136982-D-1	2.000	NPOC:74.78mg/L		Complet	6/16/	47
48	NPOC	240-131663-A-1	1.000	NPOC:11.27mg/L		Complet	6/16/	48
49	NPOC	280-137264-F-1	1.000	NPOC:5.755mg/L		Complet	6/16/	49
50	NPOC	280-137077-M-1	20.00	NPOC:2192mg/L		Complet	6/16/	50
51	NPOC	ccv	1.000	NPOC:25.85mg/L		Complet	6/16/	51
52	NPOC	ccb	1.000	NPOC:0.03211mg		Complet	6/16/	52
53	NPOC	LCS 280-498750/1-A	1.000	NPOC:26.42mg/L		Complet	6/16/	53

	Analysis	Sample Name	Manua	Result	Notes	Status	Date /	Vial
54	NPOC	MB 280-498750/3-A	1.000	NPOC:0.1772mg/		Complet	6/16/	54
55	NPOC	tic	1.000	NPOC:0.07423mg		Complet	6/16/	55
56	NPOC	280-137225-D-2-A	1.000	NPOC:1.018mg/L		Complet	6/16/	56
57	NPOC	280-137225-D-2-B MS	1.000	NPOC:26.76mg/L		Complet	6/16/	57
58	NPOC	280-137225-D-2-C MS	1.000	NPOC:26.62mg/L		Complet	6/16/	58
59	NPOC	280-137225-D-1-A	1.000	NPOC:3.304mg/L		Complet	6/16/	59
60	NPOC	280-137225-D-3-A	1.000	NPOC:6.632mg/L		Complet	6/16/	60
61	NPOC	280-137225-D-4-A	1.000	NPOC:4.032mg/L		Complet	6/16/	61
62	NPOC	LCS 280-498750/2-A	1.000	NPOC:25.81mg/L		Complet	6/16/	62
63	NPOC	ccv	1.000	NPOC:26.00mg/L		Complet	6/16/	63
64	NPOC	ccb	1.000	NPOC:0.02854mg		Complet	6/16/	64
65	NPOC	280-137199-B-4-A	1.000	NPOC:6.055mg/L		Complet	6/16/	65
66	NPOC	280-137199-B-4-B MS	1.000	NPOC:32.04mg/L		Complet	6/16/	66
67	NPOC	280-137199-B-4-C MS	1.000	NPOC:31.94mg/L		Complet	6/16/	67
68	NPOC	280-137220-A-1-C	1.000	NPOC:6.502mg/L		Complet	6/16/	68
69	NPOC	280-137220-A-2	1.000	NPOC:6.282mg/L		Complet	6/16/	69
70	NPOC	ccv	1.000	NPOC:26.16mg/L		Complet	6/16/	70
71	NPOC	ccb	1.000	NPOC:0.06734mg		Complet	6/16/	71

TOC-V Cal Curve Information
C:¥TOC3201¥CalCurves¥TOC3.2020_06_11_17_47_35.cal

Date of Creation 6:55:21 PM 6/11/2020
User jmb
System TOC-V cpn 3

Cal. Curve

Sample Name: CAL 110716
Sample ID: Untitled
Object ID 0A-103108-04335027-1343CA32A814-0000
Cal. Curve: TOC3.2020_06_11_17_47_35.cal
Status Completed
Comment:

Type	Anal.
Standard	NPOC

Conc: 0.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	0.2252	50uL	1	*******	E	6/11/2020 5:55:32 PM
2	0.6226	50uL	1	*******		6/11/2020 5:57:36 PM
3	0.5474	50uL	1	*******		6/11/2020 5:59:40 PM

Acid Add. 0.000%
Sp. Time 90.00sec
Mean Area 0.5850
SD Area 0.05317
CV Area 9.09%
Vial 86

Conc: 1.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	5.134	50uL	1	*******	E	6/11/2020 6:08:12 PM
2	3.842	50uL	1	*******		6/11/2020 6:10:16 PM
3	3.845	50uL	1	*******		6/11/2020 6:12:20 PM

Acid Add. 0.000%
Sp. Time 90.00sec
Mean Area 3.844
SD Area 0.00212
CV Area 0.06%
Vial 87

Conc: 5.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	17.65	50uL	1	*******		6/11/2020 6:20:53 PM
2	17.70	50uL	1	*******		6/11/2020 6:22:56 PM

Acid Add. 0.000%
Sp. Time 90.00sec
Mean Area 17.68
SD Area 0.03536
CV Area 0.20%
Vial 88

Conc: 10.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	35.40	50uL	1	*******		6/11/2020 6:31:33 PM
2	35.38	50uL	1	*******		6/11/2020 6:33:37 PM

Acid Add. 0.000%
Sp. Time 90.00sec
Mean Area 35.39
SD Area 0.01414
CV Area 0.04%
Vial 89

Conc: 25.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	87.83	50uL	1	*******		6/11/2020 6:42:16 PM
2	87.27	50uL	1	*******		6/11/2020 6:44:24 PM

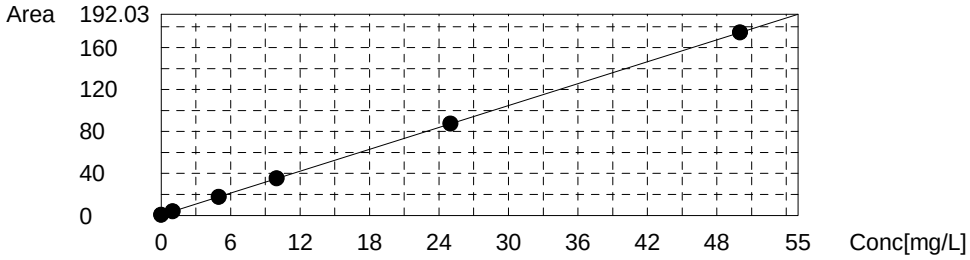
Acid Add. 0.000%
Sp. Time 90.00sec
Mean Area 87.55
SD Area 0.3960
CV Area 0.45%
Vial 90

Conc: 50.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	174.9	50uL	1	*******		6/11/2020 6:53:09 PM
2	174.2	50uL	1	*******		6/11/2020 6:55:21 PM

Acid Add. 0.000%
Sp. Time 90.00sec
Mean Area 174.6
SD Area 0.4950
CV Area 0.28%
Vial 91

Slope: 3.483
Intercept 0.4475
r^2 1.0000
r 1.0000
Zero Shift No



Instr.Information

System	TOC-V cpn 3
Instrument Options	TOC/ASI/
Catalyst	Regular Sensitivity

Sample

Sample Name:	icv
Sample ID:	
Origin:	NPOC.met
Status	Completed
Chk. Result	

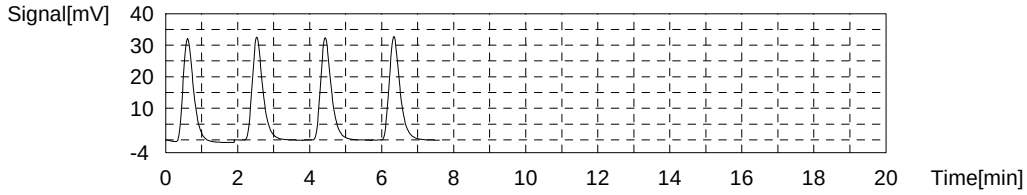
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:19.34mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	66.67	19.02mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/15/2020 3:28:06 PM
2	67.26	19.19mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/15/2020 3:30:10 PM
3	68.02	19.40mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/15/2020 3:32:14 PM
4	69.30	19.77mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/15/2020 3:34:18 PM

Mean Area 67.81
Mean Conc. 19.34mg/L



Sample

Sample Name:	icb
Sample ID:	
Origin:	NPOC.met
Status	Completed
Chk. Result	

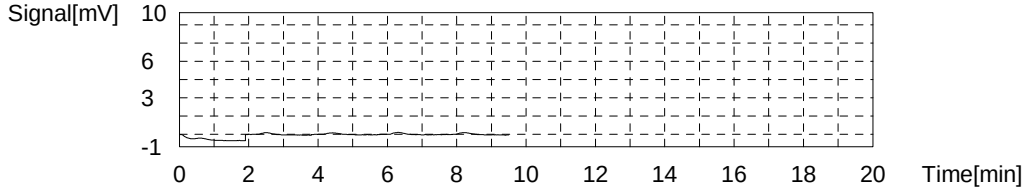
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:-0.04246mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.000	-0.1285mg/L	50uL	1	E	TOC3.2020_06_11_17_47_35.cal	6/15/2020 3:42:49 PM
2	0.2726	-0.05022mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/15/2020 3:44:53 PM
3	0.2677	-0.05162mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/15/2020 3:46:57 PM
4	0.3300	-0.03373mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/15/2020 3:49:00 PM
5	0.3281	-0.03428mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/15/2020 3:51:04 PM

Mean Area 0.2996
Mean Conc. -0.04246mg/L



Sample

Sample Name: lcs
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

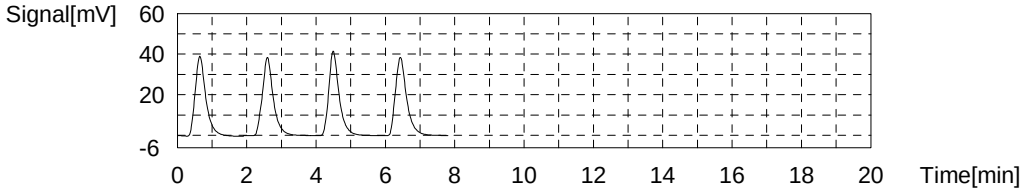
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:24.62mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	85.08	24.30mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/15/2020 3:59:35 PM
2	84.73	24.20mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/15/2020 4:01:41 PM
3	87.31	24.94mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/15/2020 4:03:48 PM
4	87.58	25.02mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/15/2020 4:05:59 PM

Mean Area 86.17
Mean Conc. 24.62mg/L



Sample

Sample Name: mb
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

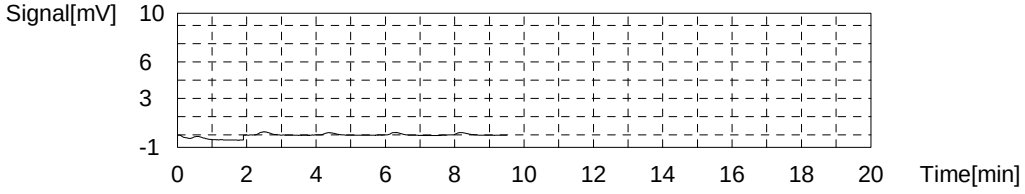
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:-0.01930mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.3048	-0.04097mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/15/2020 4:14:30 PM
2	0.5616	0.03277mg/L	50uL	1	E	TOC3.2020_06_11_17_47_35.cal	6/15/2020 4:16:34 PM
3	0.3903	-0.01642mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/15/2020 4:18:38 PM
4	0.4076	-0.01145mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/15/2020 4:20:42 PM
5	0.4184	-0.00835mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/15/2020 4:22:45 PM

Mean Area 0.3803
Mean Conc. -0.01930mg/L



Sample

Sample Name: tic
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

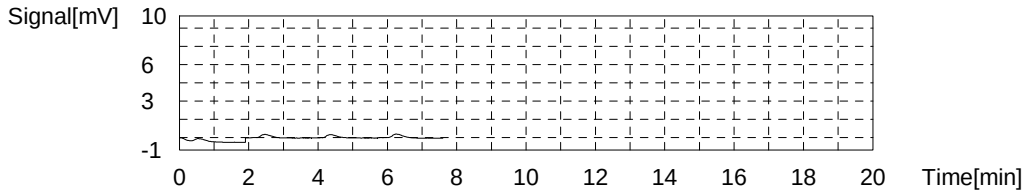
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.01336mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.3604	-0.02500mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/15/2020 4:31:16 PM
2	0.5069	0.01706mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/15/2020 4:33:20 PM
3	0.5070	0.01709mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/15/2020 4:35:24 PM
4	0.6017	0.04428mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/15/2020 4:37:28 PM

Mean Area 0.4940
Mean Conc. 0.01336mg/L



Sample

Sample Name: 280-137164-D-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

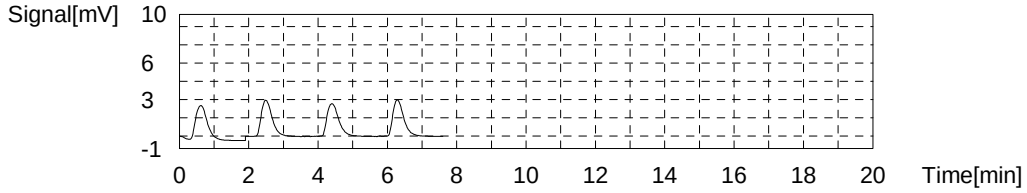
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.709mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.374	1.702mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/15/2020 4:45:59 PM
2	6.453	1.724mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/15/2020 4:48:03 PM
3	6.280	1.675mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/15/2020 4:50:07 PM
4	6.489	1.735mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/15/2020 4:52:10 PM

Mean Area 6.399
Mean Conc. 1.709mg/L



Sample

Sample Name: ms 280-137164-D-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

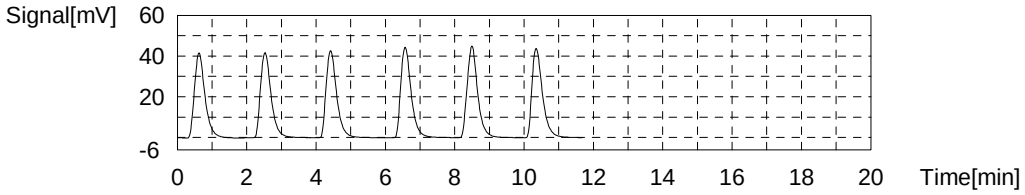
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:26.66mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	89.38	25.54mg/L	50uL	1	E	TOC3.2020_06_11_17_47_35.cal	6/15/2020 5:00:43 PM
2	89.09	25.45mg/L	50uL	1	E	TOC3.2020_06_11_17_47_35.cal	6/15/2020 5:02:47 PM
3	91.21	26.06mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/15/2020 5:05:06 PM
4	93.18	26.63mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/15/2020 5:07:09 PM
5	95.55	27.31mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/15/2020 5:09:13 PM
6	93.28	26.66mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/15/2020 5:11:17 PM

Mean Area 93.31
Mean Conc. 26.66mg/L



Sample

Sample Name: msd 280-137164-D-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

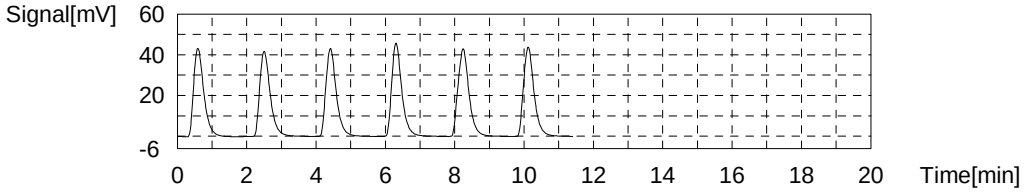
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:26.26mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	90.07	25.74mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/15/2020 5:19:43 PM
2	88.31	25.23mg/L	50uL	1	E	TOC3.2020_06_11_17_47_35.cal	6/15/2020 5:21:47 PM
3	90.69	25.91mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/15/2020 5:23:51 PM
4	93.46	26.71mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/15/2020 5:25:54 PM
5	95.25	27.22mg/L	50uL	1	E	TOC3.2020_06_11_17_47_35.cal	6/15/2020 5:27:58 PM
6	93.32	26.67mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/15/2020 5:30:02 PM

Mean Area 91.89
Mean Conc. 26.26mg/L



Sample

Sample Name: 280-137164-D-2
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

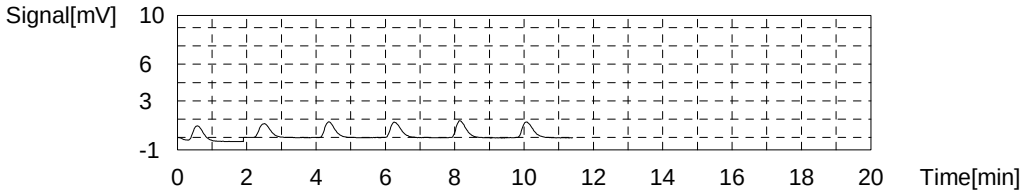
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.6462mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.324	0.5388mg/L	50uL	1	E	TOC3.2020_06_11_17_47_35.cal	6/15/2020 5:38:28 PM
2	2.500	0.5894mg/L	50uL	1	E	TOC3.2020_06_11_17_47_35.cal	6/15/2020 5:40:32 PM
3	2.589	0.6149mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/15/2020 5:42:36 PM
4	2.659	0.6350mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/15/2020 5:44:39 PM
5	2.792	0.6732mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/15/2020 5:46:43 PM
6	2.751	0.6615mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/15/2020 5:48:47 PM

Mean Area 2.698
Mean Conc. 0.6462mg/L



Sample

Sample Name: 280-137164-D-3
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

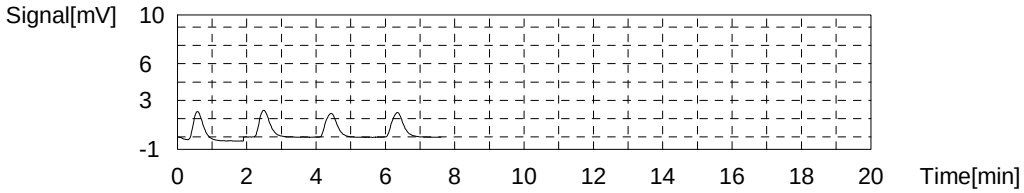
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.200mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	4.599	1.192mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/15/2020 5:57:13 PM
2	4.678	1.215mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/15/2020 5:59:17 PM
3	4.526	1.171mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/15/2020 6:01:21 PM
4	4.705	1.223mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/15/2020 6:03:24 PM

Mean Area 4.627
Mean Conc. 1.200mg/L



Sample

Sample Name: 280-137164-D-4
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

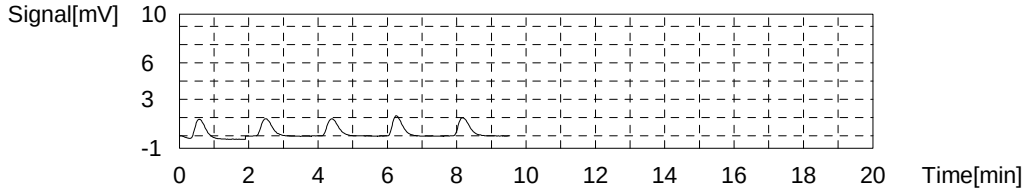
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.7902mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3.232	0.7996mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/15/2020 6:11:56 PM
2	3.126	0.7691mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/15/2020 6:14:00 PM
3	3.126	0.7691mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/15/2020 6:16:04 PM
4	3.346	0.8323mg/L	50uL	1	E	TOC3.2020_06_11_17_47_35.cal	6/15/2020 6:18:07 PM
5	3.313	0.8228mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/15/2020 6:20:11 PM

Mean Area 3.199
Mean Conc. 0.7902mg/L



Sample

Sample Name: 280-137164-D-5
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

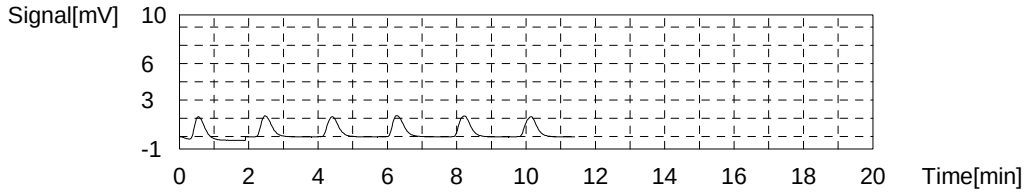
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.9304mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3.692	0.9317mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/15/2020 6:28:42 PM
2	3.681	0.9285mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/15/2020 6:30:46 PM
3	3.588	0.9018mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/15/2020 6:32:50 PM
4	3.923	0.9980mg/L	50uL	1	E	TOC3.2020_06_11_17_47_35.cal	6/15/2020 6:34:53 PM
5	3.966	1.010mg/L	50uL	1	E	TOC3.2020_06_11_17_47_35.cal	6/15/2020 6:36:57 PM
6	3.790	0.9598mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/15/2020 6:39:01 PM

Mean Area 3.688
Mean Conc. 0.9304mg/L



Sample

Sample Name: 280-137164-D-6
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

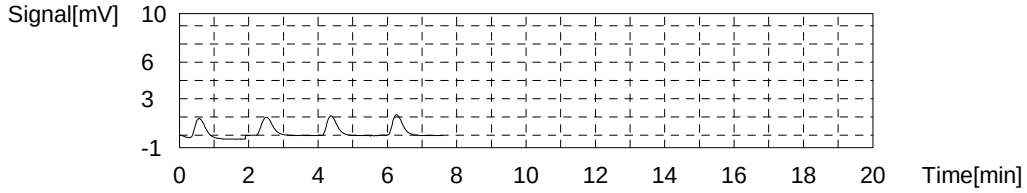
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.8335mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3.323	0.8257mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/15/2020 6:47:27 PM
2	3.315	0.8234mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/15/2020 6:49:31 PM
3	3.275	0.8119mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/15/2020 6:51:35 PM
4	3.487	0.8728mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/15/2020 6:53:38 PM

Mean Area 3.350
Mean Conc. 0.8335mg/L



Sample

Sample Name: 280-137164-D-7
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

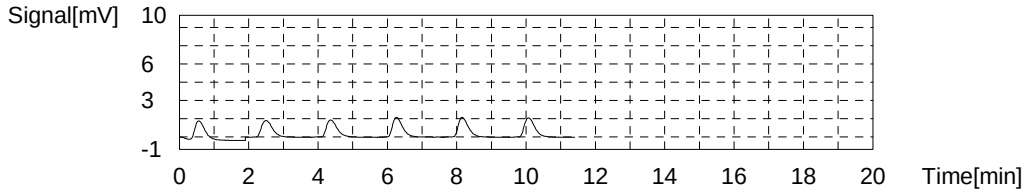
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.7426mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.968	0.7238mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/15/2020 7:02:10 PM
2	2.942	0.7163mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/15/2020 7:04:14 PM
3	2.981	0.7275mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/15/2020 7:06:18 PM
4	3.257	0.8068mg/L	50uL	1	E	TOC3.2020_06_11_17_47_35.cal	6/15/2020 7:08:21 PM
5	3.244	0.8030mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/15/2020 7:10:25 PM
6	3.313	0.8228mg/L	50uL	1	E	TOC3.2020_06_11_17_47_35.cal	6/15/2020 7:12:29 PM

Mean Area 3.034
Mean Conc. 0.7426mg/L



Sample

Sample Name: ccv
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

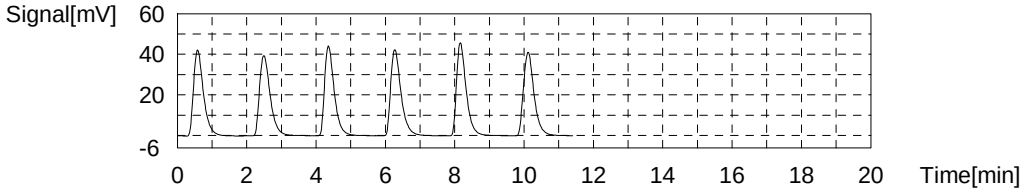
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:25.18mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	85.45	24.41mg/L	50uL	1	E	TOC3.2020_06_11_17_47_35.cal	6/15/2020 7:20:55 PM
2	84.78	24.22mg/L	50uL	1	E	TOC3.2020_06_11_17_47_35.cal	6/15/2020 7:22:59 PM
3	86.23	24.63mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/15/2020 7:25:03 PM
4	89.10	25.46mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/15/2020 7:27:06 PM
5	88.83	25.38mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/15/2020 7:29:10 PM
6	88.34	25.24mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/15/2020 7:31:14 PM

Mean Area 88.13
Mean Conc. 25.18mg/L



Sample

Sample Name: ccb
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

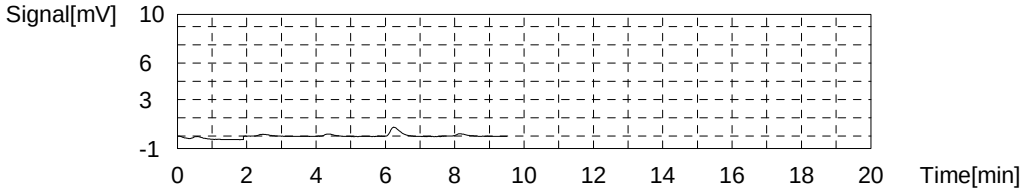
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:-0.03806mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.3140	-0.03833mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/15/2020 7:39:40 PM
2	0.2758	-0.04930mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/15/2020 7:41:44 PM
3	0.3262	-0.03482mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/15/2020 7:43:47 PM
4	1.443	0.2859mg/L	50uL	1	E	TOC3.2020_06_11_17_47_35.cal	6/15/2020 7:45:51 PM
5	0.3437	-0.02980mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/15/2020 7:47:55 PM

Mean Area 0.3149
Mean Conc. -0.03806mg/L



Sample

Sample Name: 280-137164-D-8
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

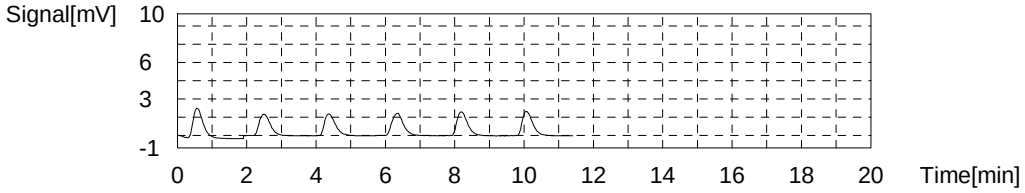
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.051mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	4.760	1.238mg/L	50uL	1	E	TOC3.2020_06_11_17_47_35.cal	6/15/2020 7:56:26 PM
2	3.867	0.9819mg/L	50uL	1	E	TOC3.2020_06_11_17_47_35.cal	6/15/2020 7:58:30 PM
3	3.899	0.9911mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/15/2020 8:00:34 PM
4	4.165	1.067mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/15/2020 8:02:37 PM
5	4.202	1.078mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/15/2020 8:04:41 PM
6	4.160	1.066mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/15/2020 8:06:45 PM

Mean Area 4.107
Mean Conc. 1.051mg/L



Sample

Sample Name: 280-137164-D-9
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

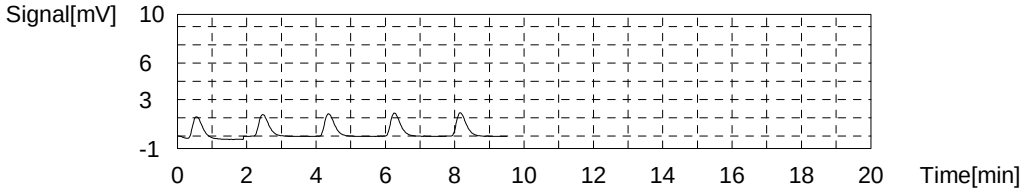
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.9396mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3.515	0.8808mg/L	50uL	1	E	TOC3.2020_06_11_17_47_35.cal	6/15/2020 8:15:11 PM
2	3.598	0.9047mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/15/2020 8:17:15 PM
3	3.707	0.9360mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/15/2020 8:19:19 PM
4	3.779	0.9566mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/15/2020 8:21:22 PM
5	3.795	0.9612mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/15/2020 8:23:26 PM

Mean Area 3.720
Mean Conc. 0.9396mg/L



Sample

Sample Name: 280-137164-D-10
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

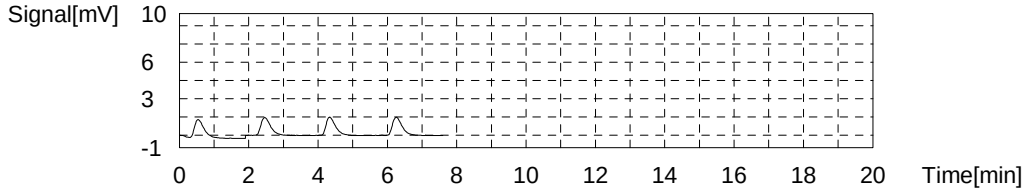
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.6881mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.790	0.6727mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/15/2020 8:31:57 PM
2	2.846	0.6887mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/15/2020 8:34:01 PM
3	2.812	0.6790mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/15/2020 8:36:04 PM
4	2.927	0.7120mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/15/2020 8:38:08 PM

Mean Area 2.844
Mean Conc. 0.6881mg/L



Sample

Sample Name: 280-137164-D-12
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

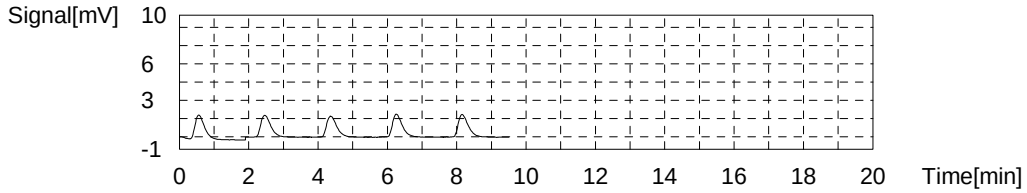
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.9164mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3.570	0.8966mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/15/2020 8:46:40 PM
2	3.607	0.9073mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/15/2020 8:48:44 PM
3	3.459	0.8648mg/L	50uL	1	E	TOC3.2020_06_11_17_47_35.cal	6/15/2020 8:50:48 PM
4	3.713	0.9377mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/15/2020 8:52:51 PM
5	3.666	0.9242mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/15/2020 8:54:55 PM

Mean Area 3.639
Mean Conc. 0.9164mg/L



Sample

Sample Name: ms 280-137164-D-12
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

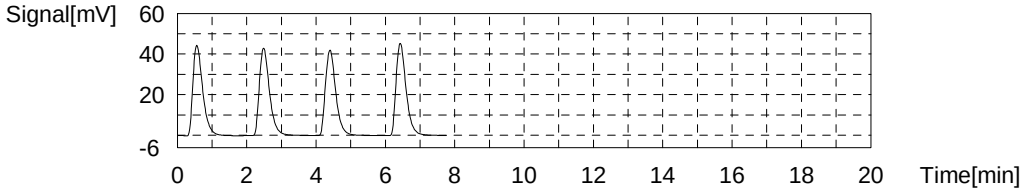
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:25.48mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	88.87	25.39mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/15/2020 9:03:26 PM
2	88.10	25.17mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/15/2020 9:05:30 PM
3	88.05	25.15mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/15/2020 9:07:43 PM
4	91.65	26.19mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/15/2020 9:09:46 PM

Mean Area 89.17
Mean Conc. 25.48mg/L



Sample

Sample Name: msd 280-137164-D-12
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

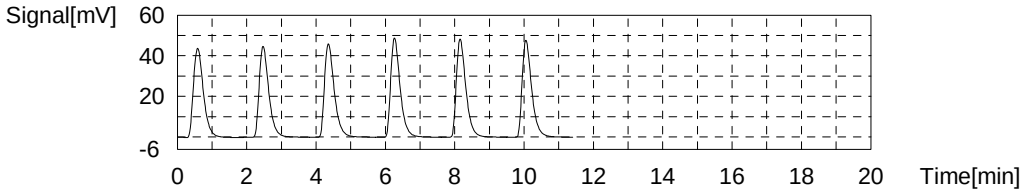
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:26.41mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	89.25	25.50mg/L	50uL	1	E	TOC3.2020_06_11_17_47_35.cal	6/15/2020 9:18:18 PM
2	86.72	24.77mg/L	50uL	1	E	TOC3.2020_06_11_17_47_35.cal	6/15/2020 9:20:22 PM
3	90.97	25.99mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/15/2020 9:22:26 PM
4	93.59	26.75mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/15/2020 9:24:29 PM
5	92.90	26.55mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/15/2020 9:26:33 PM
6	92.18	26.34mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/15/2020 9:28:37 PM

Mean Area 92.41
Mean Conc. 26.41mg/L



Sample

Sample Name: 280-137164-D-13
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

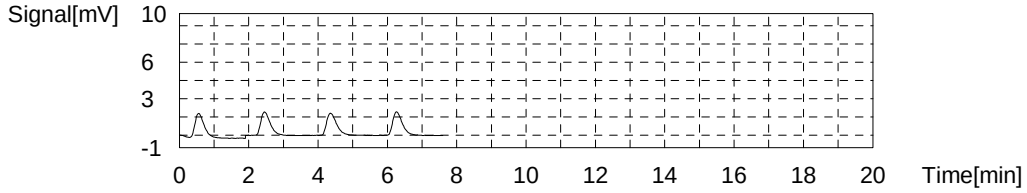
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.9230mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3.590	0.9024mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/15/2020 9:37:03 PM
2	3.677	0.9274mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/15/2020 9:39:07 PM
3	3.655	0.9210mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/15/2020 9:41:11 PM
4	3.726	0.9414mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/15/2020 9:43:14 PM

Mean Area 3.662
Mean Conc. 0.9230mg/L



Sample

Sample Name: 280-137164-D-14
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

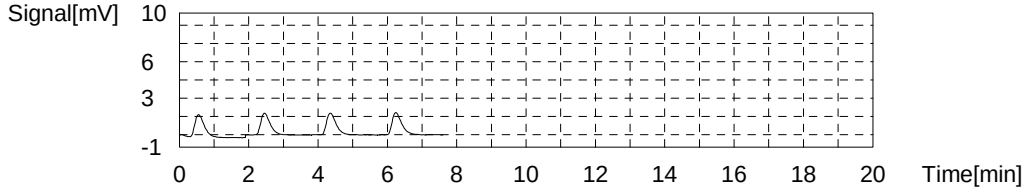
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.8536mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3.422	0.8541mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/15/2020 9:51:46 PM
2	3.345	0.8320mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/15/2020 9:53:50 PM
3	3.378	0.8415mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/15/2020 9:55:53 PM
4	3.536	0.8869mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/15/2020 9:57:57 PM

Mean Area 3.420
Mean Conc. 0.8536mg/L



Sample

Sample Name: 280-137164-D-15
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

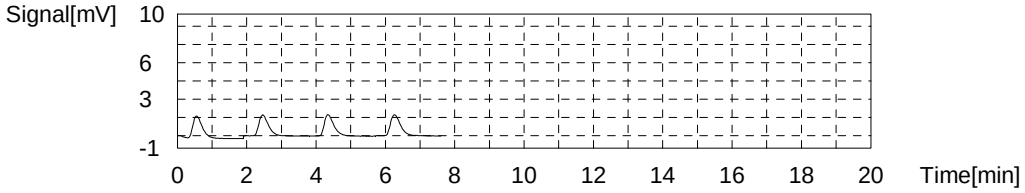
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.8320mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3.330	0.8277mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/15/2020 10:06:29 PM
2	3.262	0.8082mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/15/2020 10:08:33 PM
3	3.370	0.8392mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/15/2020 10:10:36 PM
4	3.418	0.8530mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/15/2020 10:12:40 PM

Mean Area 3.345
Mean Conc. 0.8320mg/L



Sample

Sample Name: 280-137164-D-16
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

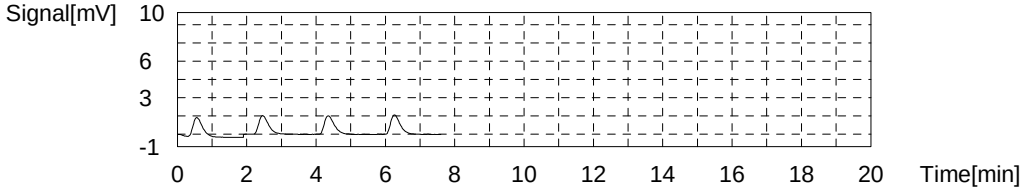
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.7316mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.902	0.7048mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/15/2020 10:21:12 PM
2	2.954	0.7197mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/15/2020 10:23:16 PM
3	3.024	0.7398mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/15/2020 10:25:19 PM
4	3.101	0.7620mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/15/2020 10:27:23 PM

Mean Area 2.995
Mean Conc. 0.7316mg/L



Sample

Sample Name: ccv
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

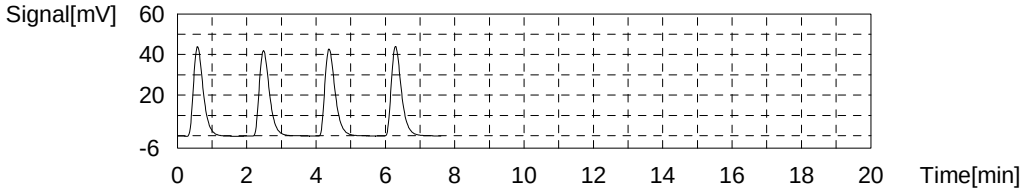
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:25.31mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	87.76	25.07mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/15/2020 10:35:55 PM
2	86.66	24.76mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/15/2020 10:37:59 PM
3	89.13	25.47mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/15/2020 10:40:02 PM
4	90.75	25.93mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/15/2020 10:42:06 PM

Mean Area 88.58
Mean Conc. 25.31mg/L



Sample

Sample Name: ccb
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

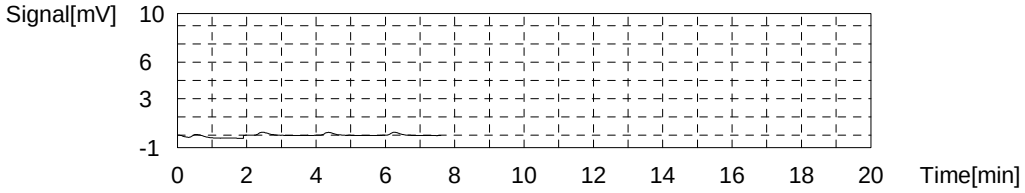
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.00179mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.4706	0.00664mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/15/2020 10:50:38 PM
2	0.4451	-0.00068mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/15/2020 10:52:42 PM
3	0.4458	-0.00048mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/15/2020 10:54:46 PM
4	0.4533	0.00167mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/15/2020 10:56:49 PM

Mean Area 0.4537
Mean Conc. 0.00179mg/L



Sample

Sample Name: 280-137166-B-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

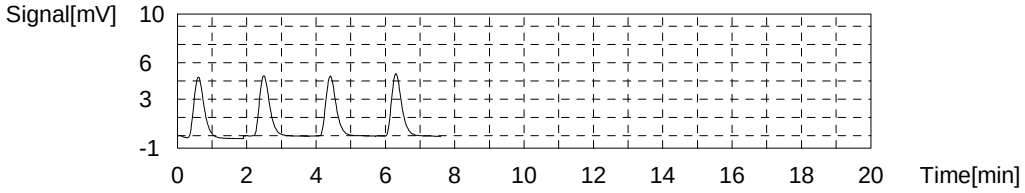
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:2.807mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	10.11	2.775mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/15/2020 11:05:21 PM
2	10.10	2.772mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/15/2020 11:07:25 PM
3	10.16	2.789mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/15/2020 11:09:28 PM
4	10.52	2.892mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/15/2020 11:11:32 PM

Mean Area 10.22
Mean Conc. 2.807mg/L



Sample

Sample Name: 280-137166-B-2
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

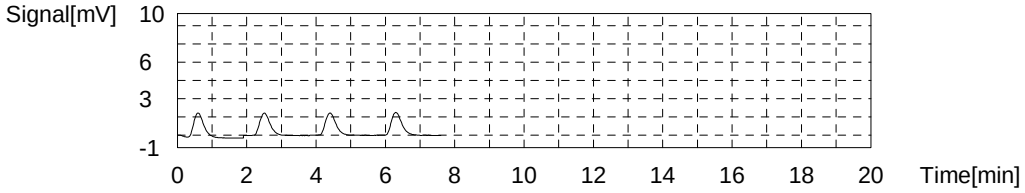
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.9770mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3.905	0.9928mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/15/2020 11:20:04 PM
2	3.782	0.9575mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/15/2020 11:22:08 PM
3	3.767	0.9532mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/15/2020 11:24:11 PM
4	3.945	1.004mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/15/2020 11:26:15 PM

Mean Area 3.850
Mean Conc. 0.9770mg/L



Sample

Sample Name: 280-137166-B-3
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

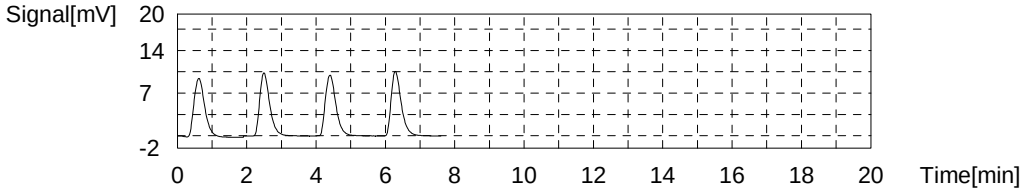
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:5.943mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	20.82	5.850mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/15/2020 11:34:48 PM
2	20.81	5.847mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/15/2020 11:36:52 PM
3	21.26	5.976mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/15/2020 11:38:55 PM
4	21.69	6.100mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/15/2020 11:40:59 PM

Mean Area 21.15
Mean Conc. 5.943mg/L



Sample

Sample Name: 280-137166-B-4
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

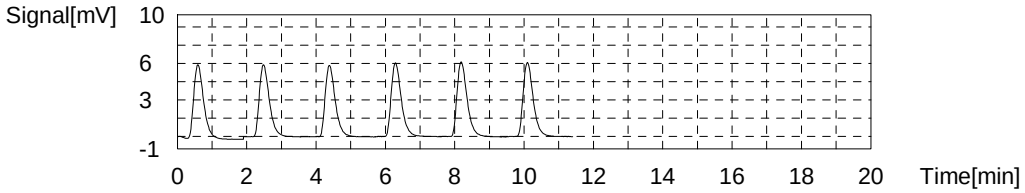
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:3.391mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	11.93	3.297mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/15/2020 11:49:32 PM
2	11.89	3.286mg/L	50uL	1	E	TOC3.2020_06_11_17_47_35.cal	6/15/2020 11:51:36 PM
3	11.70	3.231mg/L	50uL	1	E	TOC3.2020_06_11_17_47_35.cal	6/15/2020 11:53:39 PM
4	12.32	3.409mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/15/2020 11:55:43 PM
5	12.43	3.441mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/15/2020 11:57:47 PM
6	12.35	3.418mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/15/2020 11:59:51 PM

Mean Area 12.26
Mean Conc. 3.391mg/L



Sample

Sample Name: 280-137166-B-5
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

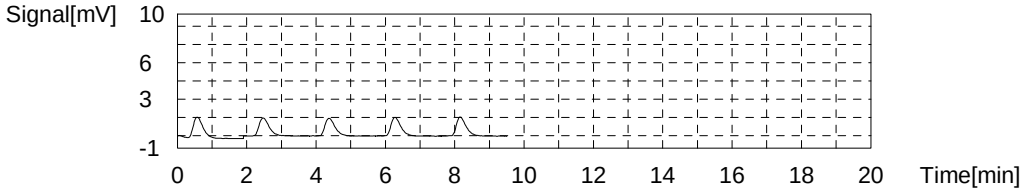
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.7191mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3.195	0.7889mg/L	50uL	1	E	TOC3.2020_06_11_17_47_35.cal	6/16/2020 12:08:17 AM
2	2.912	0.7077mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 12:10:21 AM
3	2.899	0.7040mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 12:12:25 AM
4	3.003	0.7338mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 12:14:28 AM
5	2.993	0.7309mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 12:16:32 AM

Mean Area 2.952
Mean Conc. 0.7191mg/L



Sample

Sample Name: lcs
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

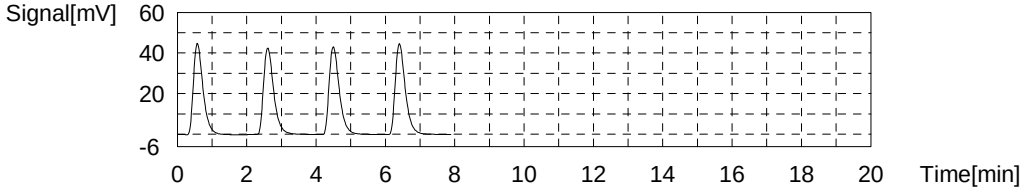
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:25.36mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	87.88	25.11mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 12:25:11 AM
2	87.11	24.89mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 12:27:14 AM
3	89.20	25.49mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 12:29:18 AM
4	90.93	25.98mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 12:31:32 AM

Mean Area 88.78
Mean Conc. 25.36mg/L



Sample

Sample Name: mb
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

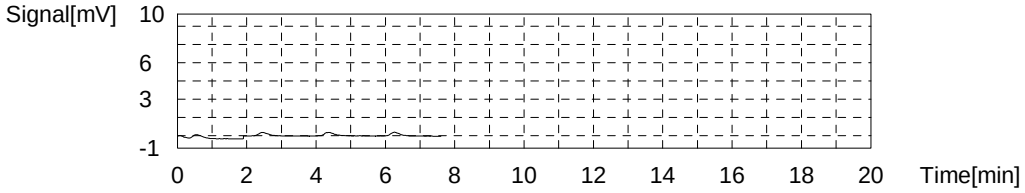
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.02178mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.5182	0.02031mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 12:40:05 AM
2	0.5169	0.01993mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 12:42:09 AM
3	0.5260	0.02255mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 12:44:12 AM
4	0.5322	0.02433mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 12:46:16 AM

Mean Area 0.5233
Mean Conc. 0.02178mg/L



Sample

Sample Name: tic
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

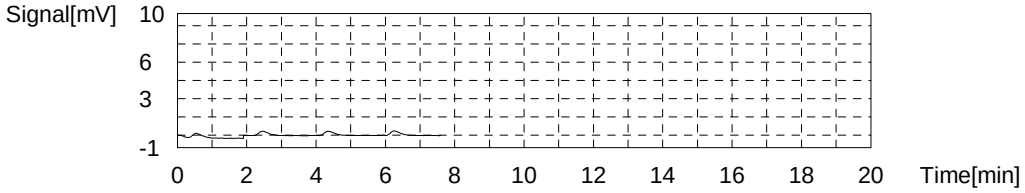
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.05744mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.5952	0.04242mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 12:54:49 AM
2	0.6484	0.05769mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 12:56:53 AM
3	0.6594	0.06085mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 12:58:56 AM
4	0.6871	0.06881mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 1:01:00 AM

Mean Area 0.6475
Mean Conc. 0.05744mg/L



Sample

Sample Name: 280-137166-B-6
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

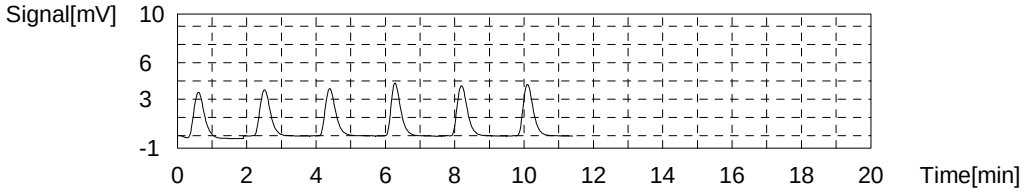
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:2.286mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.816	2.116mg/L	50uL	1	E	TOC3.2020_06_11_17_47_35.cal	6/16/2020 1:09:33 AM
2	7.940	2.151mg/L	50uL	1	E	TOC3.2020_06_11_17_47_35.cal	6/16/2020 1:11:37 AM
3	8.134	2.207mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 1:13:41 AM
4	8.401	2.284mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 1:15:44 AM
5	8.563	2.330mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 1:17:48 AM
6	8.540	2.324mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 1:19:52 AM

Mean Area 8.409
Mean Conc. 2.286mg/L



Sample

Sample Name: ms 280-137166-B-6
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

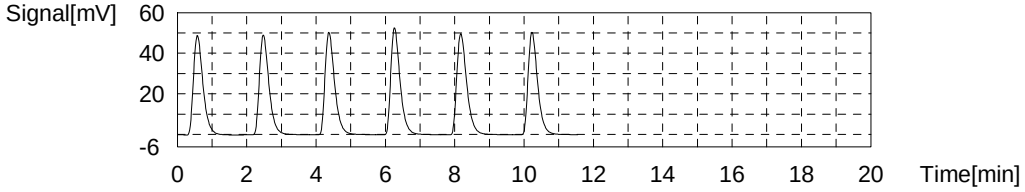
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:28.17mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	94.85	27.11mg/L	50uL	1	E	TOC3.2020_06_11_17_47_35.cal	6/16/2020 1:28:18 AM
2	94.28	26.94mg/L	50uL	1	E	TOC3.2020_06_11_17_47_35.cal	6/16/2020 1:30:22 AM
3	97.57	27.89mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 1:32:26 AM
4	99.11	28.33mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 1:34:29 AM
5	100.3	28.67mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 1:36:42 AM
6	97.24	27.79mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 1:38:46 AM

Mean Area 98.56
Mean Conc. 28.17mg/L



Sample

Sample Name: ccv
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

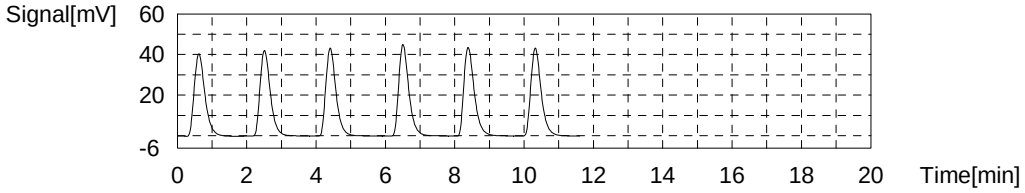
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:25.97mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	87.86	25.10mg/L	50uL	1	E	TOC3.2020_06_11_17_47_35.cal	6/16/2020 1:47:13 AM
2	87.24	24.92mg/L	50uL	1	E	TOC3.2020_06_11_17_47_35.cal	6/16/2020 1:49:16 AM
3	88.84	25.38mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 1:51:32 AM
4	91.70	26.20mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 1:53:36 AM
5	91.90	26.26mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 1:55:40 AM
6	91.13	26.04mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 1:57:44 AM

Mean Area 90.89
Mean Conc. 25.97mg/L



Sample

Sample Name: ccb
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

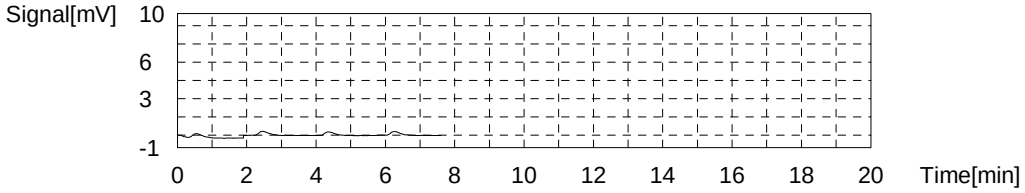
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.03701mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.5527	0.03021mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 2:06:10 AM
2	0.6186	0.04914mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 2:08:14 AM
3	0.5428	0.02737mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 2:10:17 AM
4	0.5913	0.04130mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 2:12:21 AM

Mean Area 0.5764
Mean Conc. 0.03701mg/L



Sample

Sample Name: msd 280-137166-B-6
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

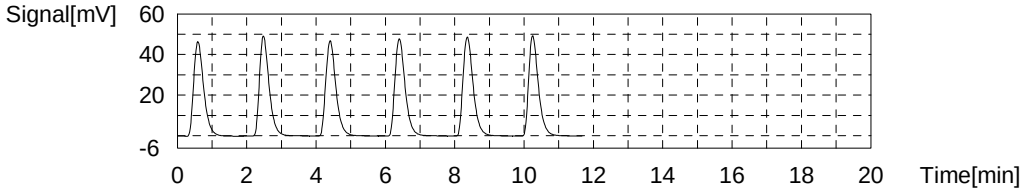
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:27.36mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	94.40	26.98mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 2:20:54 AM
2	95.17	27.20mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 2:22:58 AM
3	96.35	27.54mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 2:25:07 AM
4	98.81	28.24mg/L	50uL	1	E	TOC3.2020_06_11_17_47_35.cal	6/16/2020 2:27:15 AM
5	100.0	28.59mg/L	50uL	1	E	TOC3.2020_06_11_17_47_35.cal	6/16/2020 2:29:19 AM
6	96.94	27.71mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 2:31:29 AM

Mean Area 95.72
Mean Conc. 27.36mg/L



Sample

Sample Name: 280-137166-B-7
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

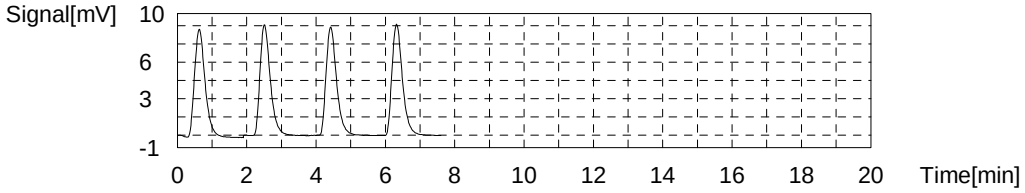
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:5.296mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	18.64	5.224mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 2:39:55 AM
2	18.80	5.270mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 2:41:59 AM
3	18.75	5.256mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 2:44:02 AM
4	19.38	5.436mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 2:46:06 AM

Mean Area 18.89
Mean Conc. 5.296mg/L



Sample

Sample Name: 280-137166-B-8
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

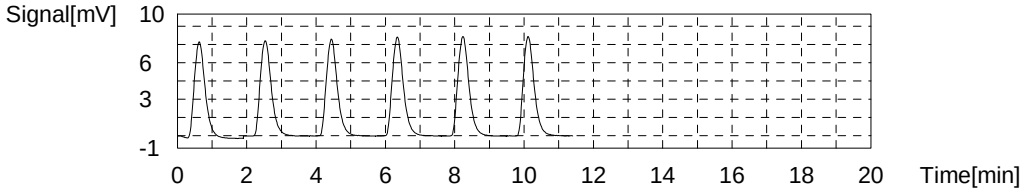
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:5.027mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	16.94	4.736mg/L	50uL	1	E	TOC3.2020_06_11_17_47_35.cal	6/16/2020 2:54:39 AM
2	17.41	4.871mg/L	50uL	1	E	TOC3.2020_06_11_17_47_35.cal	6/16/2020 2:56:42 AM
3	17.60	4.925mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 2:58:46 AM
4	18.19	5.095mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 3:00:50 AM
5	18.26	5.115mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 3:02:54 AM
6	17.77	4.974mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 3:04:58 AM

Mean Area 17.96
Mean Conc. 5.027mg/L



Sample

Sample Name: 280-137166-B-9
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

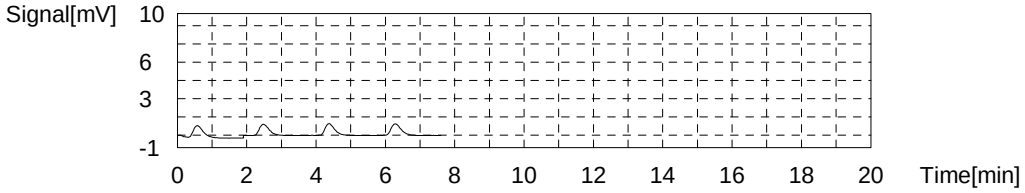
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.4024mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.859	0.4053mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 3:13:24 AM
2	1.813	0.3921mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 3:15:28 AM
3	1.832	0.3976mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 3:17:31 AM
4	1.891	0.4145mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 3:19:35 AM

Mean Area 1.849
Mean Conc. 0.4024mg/L



Sample

Sample Name: 280-137166-B-10
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

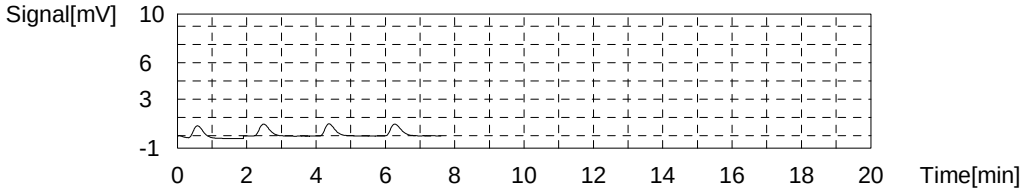
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.4410mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.920	0.4228mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 3:28:08 AM
2	2.007	0.4478mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 3:30:11 AM
3	1.965	0.4358mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 3:32:15 AM
4	2.041	0.4576mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 3:34:19 AM

Mean Area 1.983
Mean Conc. 0.4410mg/L



Sample

Sample Name: 280-137166-B-11
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

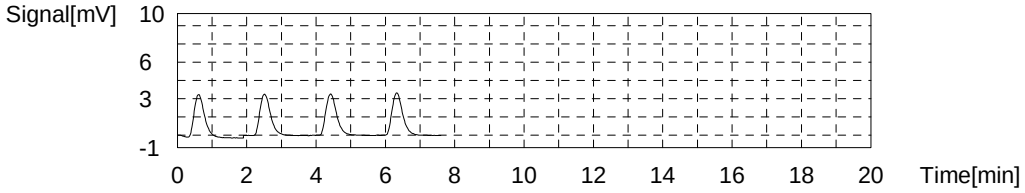
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.972mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.286	1.964mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 3:42:52 AM
2	7.211	1.942mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 3:44:56 AM
3	7.337	1.978mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 3:46:59 AM
4	7.429	2.005mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 3:49:03 AM

Mean Area 7.316
Mean Conc. 1.972mg/L



Sample

Sample Name: 280-136982-D-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

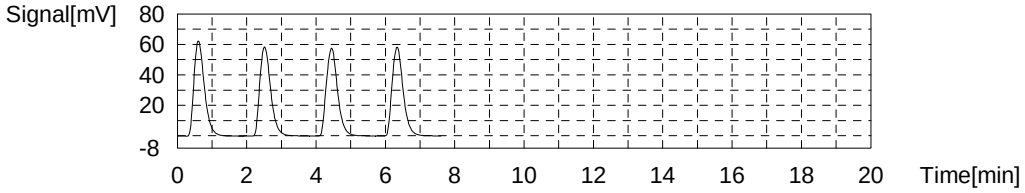
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	2.000	NPOC:74.78mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	132.5	75.84mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 3:57:36 AM
2	128.7	73.66mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 3:59:39 AM
3	131.1	75.03mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 4:01:43 AM
4	130.3	74.57mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 4:03:47 AM

Mean Area 130.7
Mean Conc. 74.78mg/L



Sample

Sample Name: 240-131663-A-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

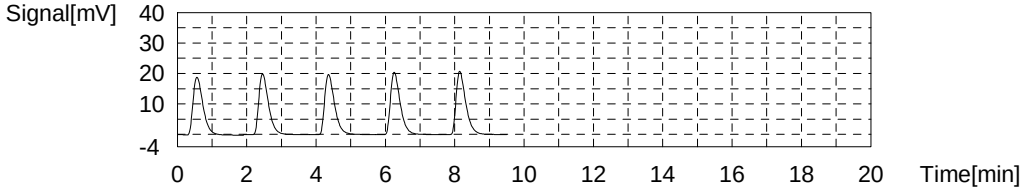
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:11.27mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	37.76	10.71mg/L	50uL	1	E	TOC3.2020_06_11_17_47_35.cal	6/16/2020 4:12:20 AM
2	38.86	11.03mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 4:14:23 AM
3	39.20	11.13mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 4:16:27 AM
4	40.12	11.39mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 4:18:31 AM
5	40.57	11.52mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 4:20:35 AM

Mean Area 39.69
Mean Conc. 11.27mg/L



Sample

Sample Name: 280-137264-F-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

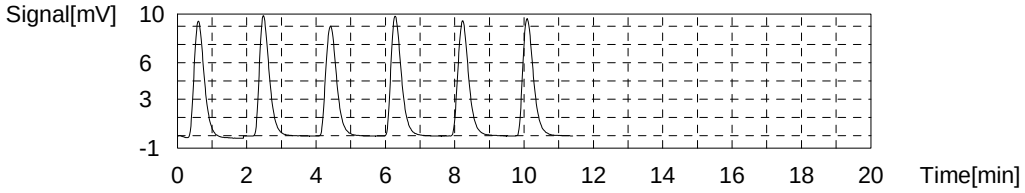
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:5.755mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	19.63	5.508mg/L	50uL	1	E	TOC3.2020_06_11_17_47_35.cal	6/16/2020 4:29:07 AM
2	19.79	5.554mg/L	50uL	1	E	TOC3.2020_06_11_17_47_35.cal	6/16/2020 4:31:10 AM
3	19.90	5.586mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 4:33:14 AM
4	20.81	5.847mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 4:35:18 AM
5	20.64	5.798mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 4:37:22 AM
6	20.61	5.790mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 4:39:26 AM

Mean Area 20.49
Mean Conc. 5.755mg/L



Sample

Sample Name: 280-137077-M-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

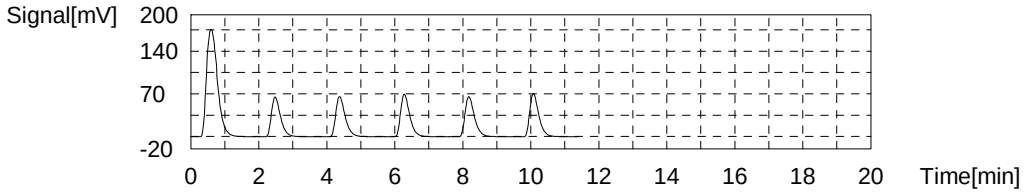
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	20.00	NPOC:2192mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	398.4	2285mg/L	50uL	1	R	TOC3.2020_06_11_17_47_35.cal	6/16/2020 4:47:52 AM
2	122.8	2072mg/L	17uL	1	E	TOC3.2020_06_11_17_47_35.cal	6/16/2020 4:49:55 AM
3	128.0	2159mg/L	17uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 4:51:59 AM
4	130.9	2208mg/L	17uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 4:54:03 AM
5	127.7	2154mg/L	17uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 4:56:07 AM
6	133.0	2244mg/L	17uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 4:58:11 AM

Mean Area 129.9
Mean Conc. 2192mg/L



Sample

Sample Name: ccv
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

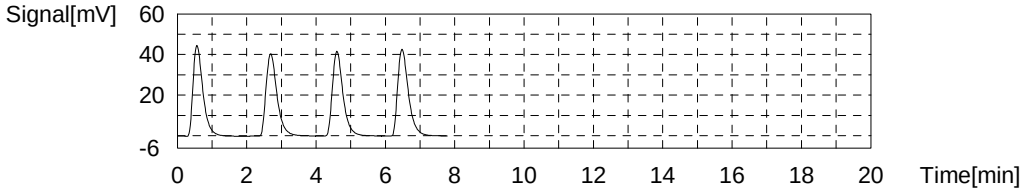
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:25.85mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	89.40	25.54mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 5:06:48 AM
2	89.91	25.69mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 5:08:51 AM
3	89.60	25.60mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 5:10:55 AM
4	92.97	26.57mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 5:12:59 AM

Mean Area 90.47
Mean Conc. 25.85mg/L



Sample

Sample Name: ccb
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

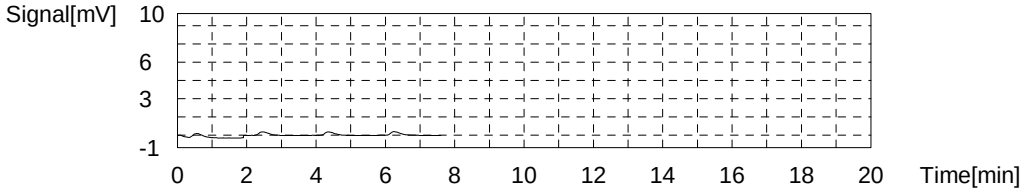
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.03211mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.5530	0.03030mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 5:21:32 AM
2	0.5501	0.02947mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 5:23:36 AM
3	0.5591	0.03205mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 5:25:39 AM
4	0.5750	0.03662mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 5:27:43 AM

Mean Area 0.5593
Mean Conc. 0.03211mg/L



Sample

Sample Name: LCS 280-498750/1-A
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

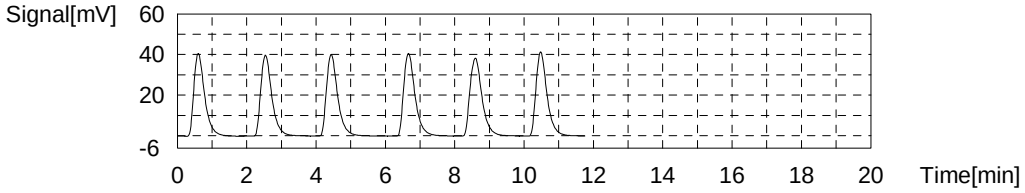
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:26.42mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	89.13	25.47mg/L	50uL	1	E	TOC3.2020_06_11_17_47_35.cal	6/16/2020 5:36:17 AM
2	88.77	25.36mg/L	50uL	1	E	TOC3.2020_06_11_17_47_35.cal	6/16/2020 5:38:20 AM
3	90.93	25.98mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 5:40:44 AM
4	92.87	26.54mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 5:42:48 AM
5	93.60	26.75mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 5:44:52 AM
6	92.48	26.43mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 5:46:56 AM

Mean Area 92.47
Mean Conc. 26.42mg/L



Sample

Sample Name: MB 280-498750/3-A
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

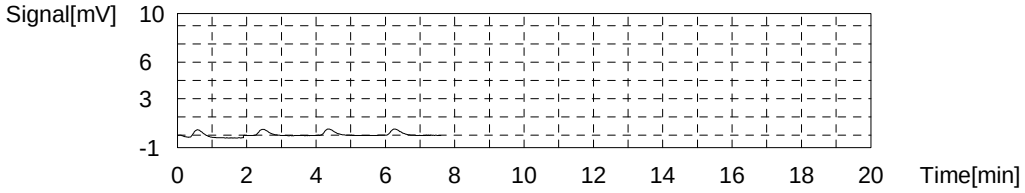
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1772mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.185	0.2118mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 5:55:22 AM
2	0.9979	0.1581mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 5:57:25 AM
3	1.026	0.1661mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 5:59:29 AM
4	1.050	0.1730mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 6:01:33 AM

Mean Area 1.065
Mean Conc. 0.1772mg/L



Sample

Sample Name: tic
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

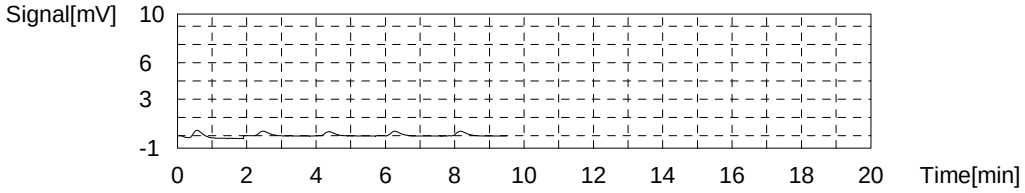
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.07423mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.112	0.1908mg/L	50uL	1	E	TOC3.2020_06_11_17_47_35.cal	6/16/2020 6:10:07 AM
2	0.7525	0.08759mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 6:12:11 AM
3	0.6261	0.05129mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 6:14:14 AM
4	0.7098	0.07533mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 6:16:18 AM
5	0.7355	0.08271mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 6:18:22 AM

Mean Area 0.7060
Mean Conc. 0.07423mg/L



Sample

Sample Name: 280-137225-D-2-A
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

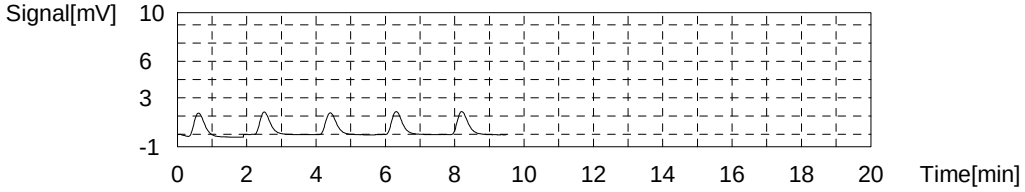
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.018mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	4.013	1.024mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 6:26:55 AM
2	3.792	0.9604mg/L	50uL	1	E	TOC3.2020_06_11_17_47_35.cal	6/16/2020 6:28:58 AM
3	3.877	0.9848mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 6:31:02 AM
4	3.988	1.017mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 6:33:06 AM
5	4.088	1.045mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 6:35:10 AM

Mean Area 3.992
Mean Conc. 1.018mg/L



Sample

Sample Name: 280-137225-D-2-B MS
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

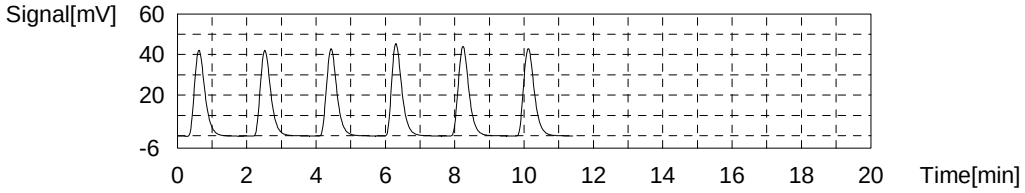
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:26.76mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	90.15	25.76mg/L	50uL	1	E	TOC3.2020_06_11_17_47_35.cal	6/16/2020 6:43:43 AM
2	89.57	25.59mg/L	50uL	1	E	TOC3.2020_06_11_17_47_35.cal	6/16/2020 6:45:46 AM
3	90.82	25.95mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 6:47:50 AM
4	94.11	26.90mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 6:49:54 AM
5	95.50	27.29mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 6:51:58 AM
6	94.18	26.92mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 6:54:02 AM

Mean Area 93.65
Mean Conc. 26.76mg/L



Sample

Sample Name: 280-137225-D-2-C MSD
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

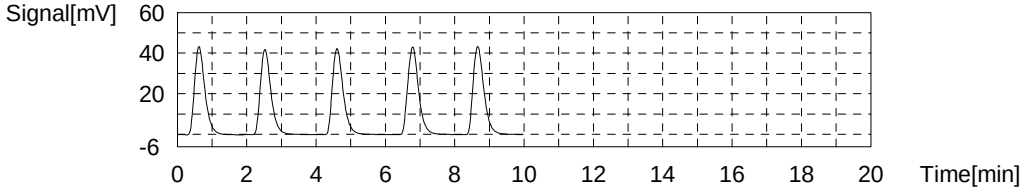
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:26.62mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	91.06	26.02mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 7:02:28 AM
2	89.31	25.52mg/L	50uL	1	E	TOC3.2020_06_11_17_47_35.cal	6/16/2020 7:04:43 AM
3	92.30	26.38mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 7:07:03 AM
4	94.53	27.02mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 7:09:07 AM
5	94.78	27.09mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 7:11:11 AM

Mean Area 93.17
Mean Conc. 26.62mg/L



Sample

Sample Name: 280-137225-D-1-A
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

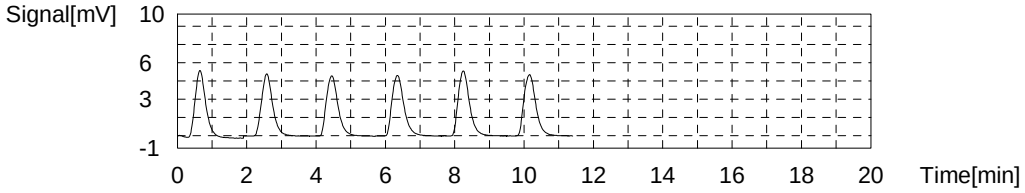
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:3.304mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	11.73	3.240mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 7:19:44 AM
2	11.31	3.119mg/L	50uL	1	E	TOC3.2020_06_11_17_47_35.cal	6/16/2020 7:21:47 AM
3	11.56	3.191mg/L	50uL	1	E	TOC3.2020_06_11_17_47_35.cal	6/16/2020 7:23:51 AM
4	11.93	3.297mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 7:25:55 AM
5	12.12	3.352mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 7:27:59 AM
6	12.04	3.329mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 7:30:03 AM

Mean Area 11.96
Mean Conc. 3.304mg/L



Sample

Sample Name: 280-137225-D-3-A
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

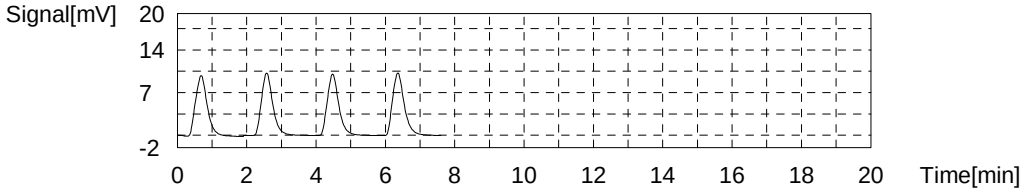
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:6.632mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	23.41	6.594mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 7:38:30 AM
2	23.28	6.556mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 7:40:33 AM
3	23.24	6.545mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 7:42:37 AM
4	24.24	6.832mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 7:44:41 AM

Mean Area 23.54
Mean Conc. 6.632mg/L



Sample

Sample Name: 280-137225-D-4-A
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

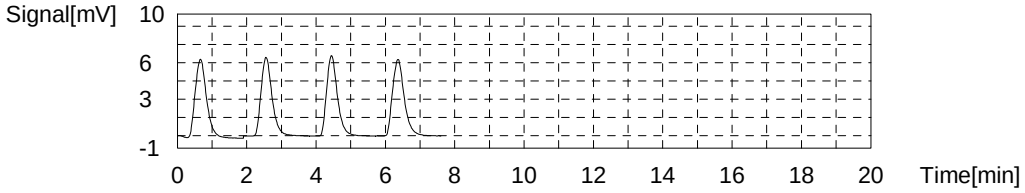
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:4.032mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	14.62	4.070mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 7:53:15 AM
2	14.20	3.949mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 7:55:18 AM
3	14.31	3.981mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 7:57:22 AM
4	14.83	4.130mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 7:59:26 AM

Mean Area 14.49
Mean Conc. 4.032mg/L



Sample

Sample Name: LCS 280-498750/2-A
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

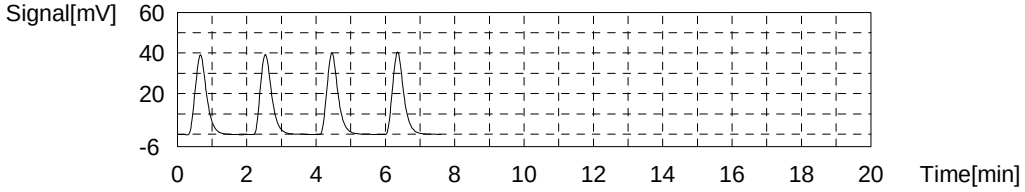
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:25.81mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	90.22	25.78mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 8:08:00 AM
2	89.64	25.61mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 8:10:03 AM
3	89.97	25.71mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 8:12:07 AM
4	91.45	26.13mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 8:14:11 AM

Mean Area 90.32
Mean Conc. 25.81mg/L



Sample

Sample Name: ccv
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

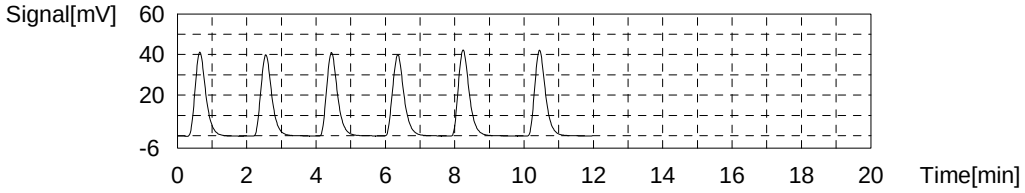
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:26.00mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	89.50	25.57mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 8:22:44 AM
2	87.77	25.07mg/L	50uL	1	E	TOC3.2020_06_11_17_47_35.cal	6/16/2020 8:24:48 AM
3	90.26	25.79mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 8:26:52 AM
4	92.25	26.36mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 8:28:56 AM
5	93.98	26.86mg/L	50uL	1	E	TOC3.2020_06_11_17_47_35.cal	6/16/2020 8:31:18 AM
6	91.96	26.28mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 8:33:37 AM

Mean Area 90.99
Mean Conc. 26.00mg/L



Sample

Sample Name: ccb
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

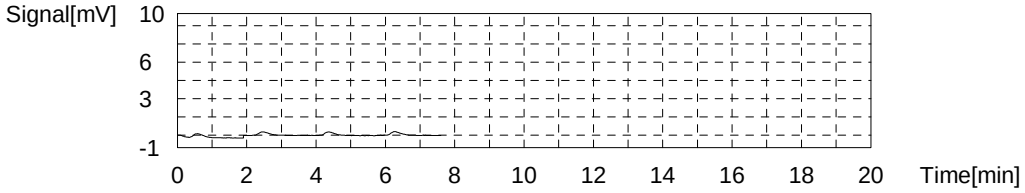
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.02854mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.5319	0.02424mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 8:42:04 AM
2	0.5442	0.02777mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 8:44:07 AM
3	0.5335	0.02470mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 8:46:11 AM
4	0.5779	0.03745mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 8:48:15 AM

Mean Area 0.5469
Mean Conc. 0.02854mg/L



Sample

Sample Name: 280-137199-B-4-A
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

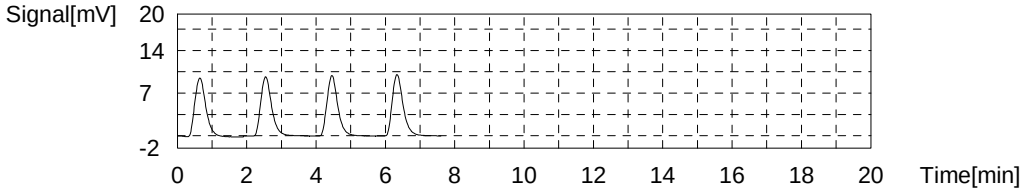
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:6.055mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	21.34	5.999mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 8:56:49 AM
2	21.21	5.962mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 8:58:52 AM
3	21.48	6.039mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 9:00:56 AM
4	22.10	6.218mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 9:03:00 AM

Mean Area 21.53
Mean Conc. 6.055mg/L



Sample

Sample Name: 280-137199-B-4-B MS
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

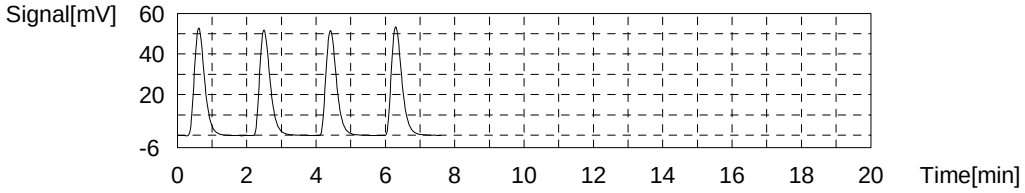
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:32.04mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	110.6	31.63mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 9:11:33 AM
2	110.6	31.63mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 9:13:37 AM
3	111.7	31.95mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 9:15:41 AM
4	115.2	32.95mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 9:17:45 AM

Mean Area 112.0
Mean Conc. 32.04mg/L



Sample

Sample Name: 280-137199-B-4-C MSD
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

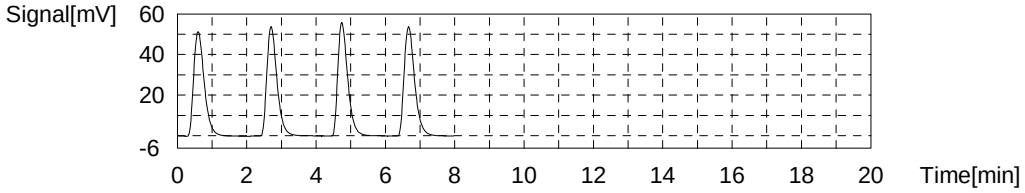
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:31.94mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	110.2	31.52mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 9:26:30 AM
2	110.4	31.57mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 9:28:44 AM
3	111.7	31.95mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 9:30:48 AM
4	114.4	32.72mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 9:32:52 AM

Mean Area 111.7
Mean Conc. 31.94mg/L



Sample

Sample Name: 280-137220-A-1-C
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

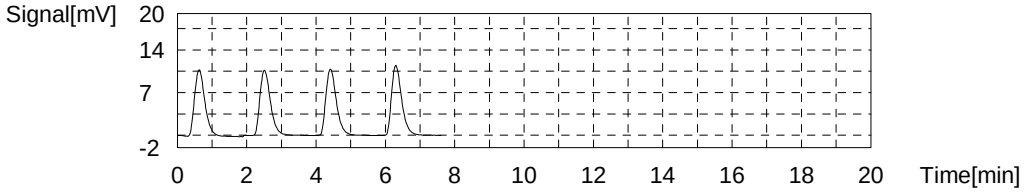
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:6.502mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	22.87	6.439mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 9:41:25 AM
2	22.68	6.384mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 9:43:29 AM
3	23.08	6.499mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 9:45:33 AM
4	23.73	6.686mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 9:47:37 AM

Mean Area 23.09
Mean Conc. 6.502mg/L



Sample

Sample Name: 280-137220-A-2
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

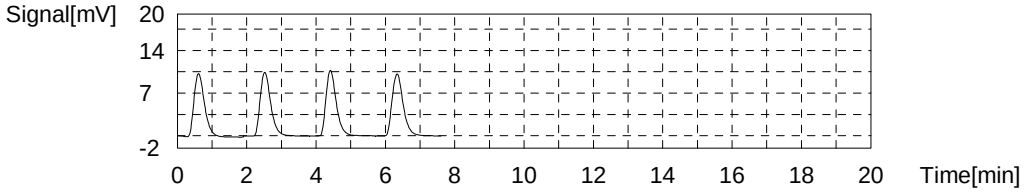
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:6.282mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	22.05	6.203mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 9:56:11 AM
2	22.22	6.252mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 9:58:14 AM
3	22.28	6.269mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 10:00:18 AM
4	22.75	6.404mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 10:02:22 AM

Mean Area 22.33
Mean Conc. 6.282mg/L



Sample

Sample Name: ccv
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

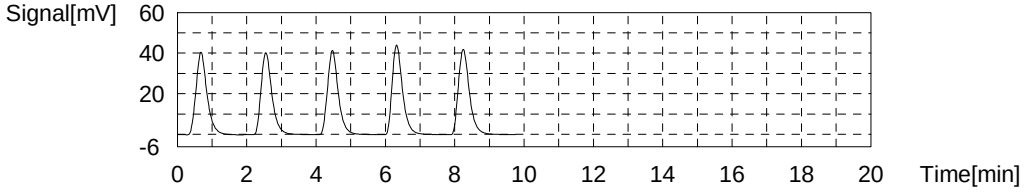
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:26.16mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	90.24	25.78mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 10:10:55 AM
2	87.90	25.11mg/L	50uL	1	E	TOC3.2020_06_11_17_47_35.cal	6/16/2020 10:12:59 AM
3	89.73	25.64mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 10:15:03 AM
4	92.75	26.50mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 10:17:07 AM
5	93.43	26.70mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 10:19:26 AM

Mean Area 91.54
Mean Conc. 26.16mg/L



Sample

Sample Name: ccb
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

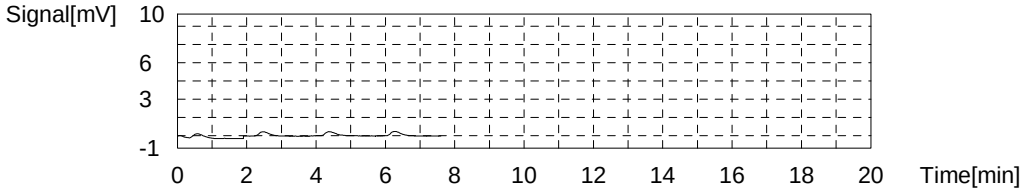
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.06734mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.6222	0.05017mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 10:27:58 AM
2	0.6712	0.06424mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 10:30:02 AM
3	0.6777	0.06611mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 10:32:06 AM
4	0.7569	0.08885mg/L	50uL	1		TOC3.2020_06_11_17_47_35.cal	6/16/2020 10:34:10 AM

Mean Area	0.6820
Mean Conc.	0.06734mg/L



53108

	Analysis	Sample Name	Manua	Result	Notes	Status	Date /	Vial
1*	NPOC	icv	1.000	✓		Defined		1
2*	NPOC	icb	1.000	✓		Defined		2
3*	NPOC	lcs	1.000	✓		Defined		3
4*	NPOC	mb	1.000	✓		Defined		4
5*	NPOC	tic	1.000	✓		Defined		5
6*	NPOC	280-137164-D-1	1.000	✓		Defined		6
7*	NPOC	ms 280-137164-D-1	1.000	✓		Defined		7
8*	NPOC	msd 280-137164-D-1	1.000	✓		Defined		8
9*	NPOC	280-137164-D-2	1.000	✓		Defined		9
10*	NPOC	280-137164-D-3	1.000	✓		Defined		10
11*	NPOC	280-137164-D-4	1.000	✓		Defined		11
12*	NPOC	280-137164-D-5	1.000	✓		Defined		12
13*	NPOC	280-137164-D-6	1.000	✓		Defined		13
14*	NPOC	280-137164-D-7	1.000	✓		Defined		14
15*	NPOC	ccv	1.000	✓		Defined		15
16*	NPOC	ccb	1.000	✓		Defined		16
17*	NPOC	280-137164-D-8	1.000	✓		Defined		17
18*	NPOC	280-137164-D-9	1.000	✓		Defined		18
19*	NPOC	280-137164-D-10	1.000	✓		Defined		19
20*	NPOC	280-137164-D-12	1.000	✓		Defined		20
21*	NPOC	ms 280-137164-D-12	1.000	✓		Defined		21
22*	NPOC	msd 280-137164-D-12	1.000	✓		Defined		22
23*	NPOC	280-137164-D-13	1.000	✓		Defined		23
24*	NPOC	280-137164-D-14	1.000	✓		Defined		24
25*	NPOC	280-137164-D-15	1.000	✓		Defined		25
26*	NPOC	280-137164-D-16	1.000	✓		Defined		26
27*	NPOC	ccv	1.000	✓		Defined		27
28*	NPOC	ccb	1.000	✓		Defined		28
29*	NPOC	280-137166-B-1	1.000	✓		Defined		29
30*	NPOC	280-137166-B-2	1.000	✓		Defined		30
31*	NPOC	280-137166-B-3	1.000	✓		Defined		31
32*	NPOC	280-137166-B-4	1.000	✓		Defined		32
33*	NPOC	280-137166-B-5	1.000	✓		Defined		33
34*	NPOC	lcs	1.000	✓		Defined		34
35*	NPOC	mb	1.000	✓		Defined		35
36*	NPOC	tic	1.000	✓		Defined		36
37*	NPOC	280-137166-B-6	1.000	✓		Defined		37
38*	NPOC	ms 280-137166-B-6	1.000	✓		Defined		38
39*	NPOC	ccv	1.000	✓		Defined		39
40*	NPOC	ccb	1.000	✓		Defined		40
41*	NPOC	msd 280-137166-B-6	1.000	✓		Defined		41
42*	NPOC	280-137166-B-7	1.000	✓		Defined		42
43*	NPOC	280-137166-B-8	1.000	✓		Defined		43
44*	NPOC	280-137166-B-9	1.000	✓		Defined		44
45*	NPOC	280-137166-B-10	1.000	✓		Defined		45
46*	NPOC	280-137166-B-11	1.000	✓		Defined		46
47*	NPOC	280-136982-D-1	2.000	✓		Defined		47
48*	NPOC	240-131663-A-1	1.000	✓		Defined		48
49*	NPOC	280-137264-F-1	1.000	✓		Defined		49
50*	NPOC	280-137077-M-1	1.000	4.5	20XDil color	Defined		50
51*	NPOC	ccv	1.000	✓		Defined		51

	Analysis	Sample Name	Manua	Result	Notes	Status	Date /	Vial
52*	NPOC	ccb	1.000	✓		Defined		52
53*	NPOC	LCS 280-498750/1-A	1.000	✓		Defined		53
54*	NPOC	MB 280-498750/3-A	1.000	✓		Defined		54
55*	NPOC	tic	1.000	✓		Defined		55
56*	NPOC	280-137225-D-2-A	1.000	6		Defined		56
57*	NPOC	280-137225-D-2-B MS	1.000	6		Defined		57
58*	NPOC	280-137225-D-2-C MS	1.000	6		Defined		58
59*	NPOC	280-137225-D-1-A	1.000	5.5		Defined		59
60*	NPOC	280-137225-D-3-A	1.000	6		Defined		60
61*	NPOC	280-137225-D-4-A	1.000	6		Defined		61
62*	NPOC	LCS 280-498750/2-A	1.000	✓		Defined		62
63*	NPOC	ccv	1.000	✓		Defined		63
64*	NPOC	ccb	1.000	✓		Defined		64
65*	NPOC	280-137199-B-4-A	1.000	✓		Defined		65
66*	NPOC	280-137199-B-4-B MS	1.000	✓		Defined		66
67*	NPOC	280-137199-B-4-C MS	1.000	✓		Defined		67
68*	NPOC	280-137220-A-1-C	1.000	✓		Defined		68
69*	NPOC	280-137220-A-2	1.000	✓		Defined		69
70*	NPOC	ccv	1.000	✓		Defined		70
71*	NPOC	ccb	1.000	✓		Defined		71

9060

5310B

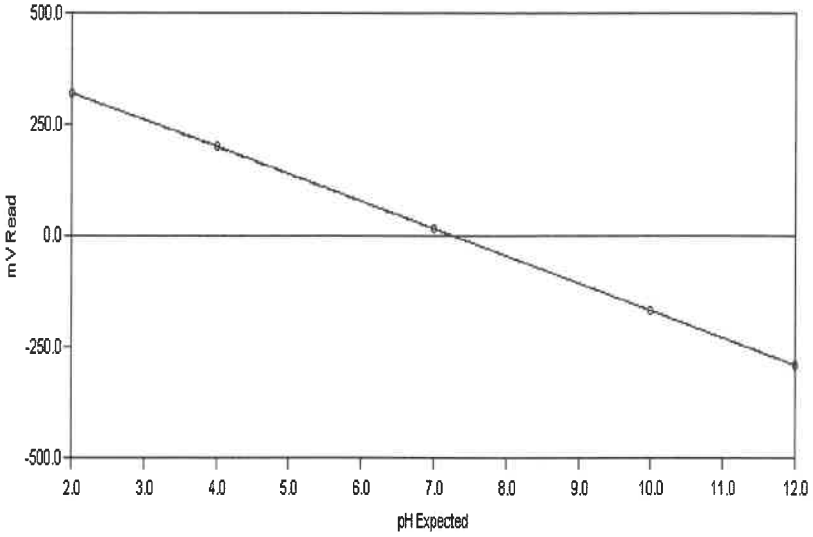
MANTECH

MANTECH INC.

Calibration Report

Report Date: 6/5/2020 : 9:48 AM

Calibration Record # 129



Calibration Settings

Calibration ID	PH	Date	6/5/2020	
Channel	1	Time	9:30 AM	
Probe Type	pH	Temperature	296.07 K	22.92 C
Probe ID	PH ELECTRODE	Analysis Type	Single Line Fit	

Calibration Results

Slope	-61.138	CorrCoeff	1.0000
Intercept	15.500	Equation:	Y = (-61.138) X + (15.500)

Calibration Validity **True** Operator

	Result	Minimum	Maximum
Slope	-61.138	-65.00	-53.00
Intercept	15.500	-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	321.28
	4.00	199.09
	7.00	15.25
	10.00	-168.45
	12.00	-289.67

Test America

AT4

Water Analysis Historical Data Report

Run Number 402 **Order Number** 20200605-2

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	tcon
RINSE	06/05/2020	10:29 AM	22.86	-1.00	5.34	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00
INITIAL CHECK	06/05/2020	10:35 AM	22.63	-1.00	10.62	98.71	189.59	.00	181.78	7.82	.99	1.90	-1.00	.02
BUFFER 7	06/05/2020	10:38 AM	22.49	-1.00	7.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00
LCS	06/05/2020	10:45 AM	22.45	-1.00	10.62	97.97	191.77	.00	187.61	4.16	.98	1.92	-1.00	.02
MB	06/05/2020	10:50 AM	22.42	-1.00	6.70	.00	.50	.50	.00	.00	.00	.02	.04	.02
280-137234-a-1	06/05/2020	10:56 AM	21.73	-1.00	8.15	.00	132.18	132.18	.00	.00	.00	1.32	-1.00	.02
DU 280-137234-a-1	06/05/2020	11:02 AM	21.56	-1.00	8.16	.00	132.98	132.98	.00	.00	.00	1.33	-1.00	.02
280-137234-c-2	06/05/2020	11:08 AM	21.61	-1.00	8.10	.00	119.27	119.27	.00	.00	.00	1.19	-1.00	.02
280-137234-c-3	06/05/2020	11:14 AM	21.71	-1.00	8.19	.00	120.35	120.35	.00	.00	.00	1.20	-1.00	.02
280-137234-c-4	06/05/2020	11:21 AM	21.90	-1.00	8.33	.85	119.04	117.35	1.69	.00	.01	1.19	-1.00	.02
280-137234-c-5	06/05/2020	11:26 AM	22.39	-1.00	8.33	1.05	121.57	119.48	2.10	.00	.01	1.22	-1.00	.02
280-137112-b-1	06/05/2020	11:34 AM	22.28	-1.00	8.54	16.11	685.93	653.72	32.22	.00	.16	6.86	-1.00	.02
280-137236-c-1	06/05/2020	11:40 AM	21.99	-1.00	7.66	.00	201.39	201.39	.00	.00	.00	2.01	-1.00	.02
280-137236-c-2	06/05/2020	11:46 AM	21.83	-1.00	7.63	.00	175.99	175.99	.00	.00	.00	1.76	-1.00	.02
280-137222-e-1	06/05/2020	11:53 AM	21.89	-1.00	7.92	.00	215.01	215.01	.00	.00	.00	2.15	-1.00	.02
CCV	06/05/2020	11:59 AM	21.79	-1.00	10.60	99.01	190.52	.00	183.02	7.50	.99	1.91	-1.00	.02
CCB	06/05/2020	12:04 PM	21.99	-1.00	6.49	.00	.52	.52	.00	.00	.00	.02	.04	.02
280-137166-g-1	06/05/2020	12:10 PM	21.90	-1.00	6.89	.00	275.58	275.58	.00	.00	.00	2.76	-1.00	.02
280-137166-h-2	06/05/2020	12:16 PM	21.96	-1.00	7.21	.00	385.26	385.26	.00	.00	.00	3.85	-1.00	.02
280-137166-h-3	06/05/2020	12:24 PM	21.98	-1.00	7.22	.00	741.99	741.99	.00	.00	.00	7.42	-1.00	.02
280-137166-g-4	06/05/2020	12:31 PM	22.14	-1.00	7.18	.00	700.36	700.36	.00	.00	.00	7.00	-1.00	.02
280-137166-h-5	06/05/2020	12:38 PM	22.39	-1.00	7.58	.00	334.95	334.95	.00	.00	.00	3.35	-1.00	.02
280-137166-g-6	06/05/2020	12:45 PM	22.57	-1.00	7.32	.00	538.59	538.59	.00	.00	.00	5.39	-1.00	.02
280-137166-h-7	06/05/2020	12:52 PM	22.45	-1.00	7.43	.00	654.18	654.18	.00	.00	.00	6.54	-1.00	.02
280-137166-h-8	06/05/2020	12:59 PM	22.28	-1.00	7.10	.00	497.32	497.32	.00	.00	.00	4.97	-1.00	.02
280-137166-g-9	06/05/2020	1:05 PM	22.22	-1.00	7.66	.00	346.83	346.83	.00	.00	.00	3.47	-1.00	.02
280-137166-g-10	06/05/2020	1:11 PM	22.22	-1.00	7.61	.00	344.72	344.72	.00	.00	.00	3.45	-1.00	.02
CCV	06/05/2020	1:18 PM	22.07	-1.00	10.56	97.63	191.50	.00	187.75	3.76	.98	1.92	-1.00	.02
CCB	06/05/2020	1:23 PM	22.32	-1.00	6.77	.00	.72	.72	.00	.00	.00	.02	.04	.02
LCS	06/05/2020	1:30 PM	22.19	-1.00	10.56	96.55	191.60	.00	190.10	1.50	.97	1.92	-1.00	.02

Run Number 402 **Order Number** 20200605-2

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	tcon
MB	06/05/2020	1:35 PM	22.49	-1.00	6.69	.00	.57	.57	.00	.00	.00	.02	.04	.02
280-137166-g-11	06/05/2020	1:42 PM	22.58	-1.00	7.43	.00	706.58	706.58	.00	.00	.00	7.07	-1.00	.02
DU	06/05/2020	1:50 PM	22.77	-1.00	7.44	.00	708.85	708.85	.00	.00	.00	7.09	-1.00	.02
280-137248-i-1	06/05/2020	1:56 PM	22.95	-1.00	8.02	.00	135.08	135.08	.00	.00	.00	1.35	-1.00	.02
280-137248-i-2	06/05/2020	2:02 PM	22.98	-1.00	8.03	.00	130.78	130.78	.00	.00	.00	1.31	-1.00	.02
280-137248-i-3	06/05/2020	2:08 PM	22.75	-1.00	8.02	.00	134.36	134.36	.00	.00	.00	1.34	-1.00	.02
280-137248-i-4	06/05/2020	2:14 PM	22.57	-1.00	8.13	.00	125.77	125.77	.00	.00	.00	1.26	-1.00	.02
280-137248-i-5	06/05/2020	2:19 PM	22.49	-1.00	8.04	.00	132.75	132.75	.00	.00	.00	1.33	-1.00	.02
280-137248-i-6	06/05/2020	2:25 PM	22.49	-1.00	8.03	.00	122.79	122.79	.00	.00	.00	1.23	-1.00	.02
280-137164-g-1	06/05/2020	2:32 PM	22.49	-1.00	7.84	.00	326.28	326.28	.00	.00	.00	3.26	-1.00	.02
280-137225-f-2	06/05/2020	2:38 PM	22.51	-1.00	7.72	.00	203.77	203.77	.00	.00	.00	2.04	-1.00	.02
CCV	06/05/2020	2:44 PM	22.48	-1.00	10.53	95.42	192.29	1.46	190.84	.00	.95	1.92	-1.00	.02
CCB	06/05/2020	2:50 PM	22.64	-1.00	6.79	.00	.69	.69	.00	.00	.00	.02	.04	.02
280-137225-f-3	06/05/2020	2:55 PM	22.69	-1.00	7.12	.00	280.08	280.08	.00	.00	.00	2.80	-1.00	.02
280-137225-f-4	06/05/2020	3:01 PM	22.78	-1.00	7.16	.00	256.21	256.21	.00	.00	.00	2.56	-1.00	.02
280-137249-a-1	06/05/2020	3:07 PM	23.06	-1.00	7.50	.00	146.48	146.48	.00	.00	.00	1.46	-1.00	.02
280-137249-a-2	06/05/2020	3:13 PM	22.96	-1.00	8.00	.00	121.21	121.21	.00	.00	.00	1.21	-1.00	.02
280-137249-a-3	06/05/2020	3:19 PM	22.74	-1.00	8.06	.00	118.92	118.92	.00	.00	.00	1.19	-1.00	.02
280-137268-e-1	06/05/2020	3:25 PM	22.60	-1.00	7.67	.00	153.55	153.55	.00	.00	.00	1.54	-1.00	.02
280-137268-e-2	06/05/2020	3:31 PM	22.48	-1.00	7.61	.00	171.58	171.58	.00	.00	.00	1.72	-1.00	.02
280-137268-e-3	06/05/2020	3:37 PM	22.58	-1.00	7.76	.00	135.38	135.38	.00	.00	.00	1.35	-1.00	.02
280-137268-e-4	06/05/2020	3:42 PM	22.57	-1.00	7.77	.00	151.07	151.07	.00	.00	.00	1.51	-1.00	.02
280-137268-e-5	06/05/2020	3:48 PM	22.61	-1.00	7.71	.00	154.65	154.65	.00	.00	.00	1.55	-1.00	.02
CCV	06/05/2020	3:55 PM	22.63	-1.00	10.50	94.85	191.72	2.02	189.70	.00	.95	1.92	-1.00	.02
CCB	06/05/2020	4:00 PM	22.72	-1.00	6.48	.00	.61	.61	.00	.00	.00	.02	.04	.02
LCS	06/05/2020	4:07 PM	22.70	-1.00	10.50	94.51	193.83	4.81	189.02	.00	.95	1.94	-1.00	.02
MB	06/05/2020	4:12 PM	22.86	-1.00	6.49	.00	.59	.59	.00	.00	.00	.02	.04	.02
280-137254-i-1	06/05/2020	4:18 PM	23.07	-1.00	8.07	.00	119.70	119.70	.00	.00	.00	1.20	-1.00	.02
DU 280-137254-i-1	06/05/2020	4:24 PM	23.06	-1.00	8.08	.00	119.97	119.97	.00	.00	.00	1.20	-1.00	.02
280-137254-i-2	06/05/2020	4:30 PM	23.03	-1.00	8.12	.00	140.40	140.40	.00	.00	.00	1.40	-1.00	.02
280-137254-i-3	06/05/2020	4:36 PM	22.98	-1.00	8.12	.00	133.69	133.69	.00	.00	.00	1.34	-1.00	.02
CCV	06/05/2020	4:42 PM	22.89	-1.00	10.48	92.86	192.76	7.04	185.73	.00	.93	1.93	-1.00	.02

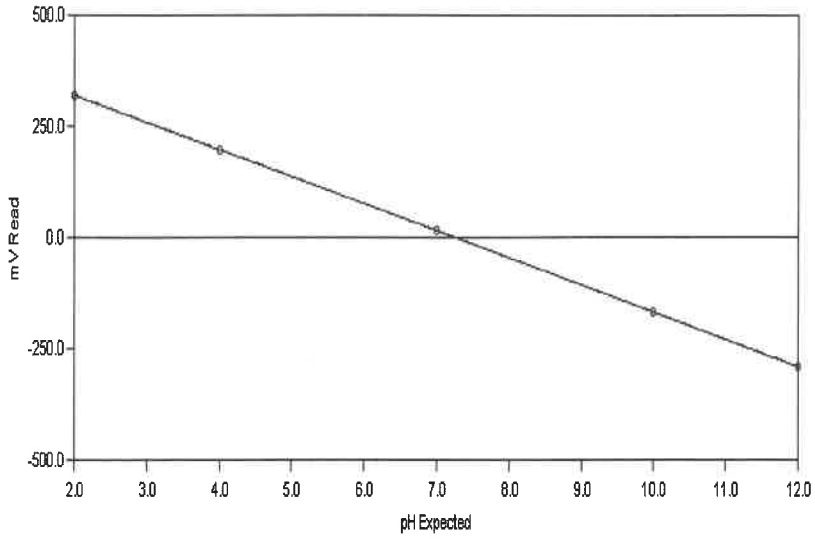
MANTECH

MANTECH INC.

Calibration Report

Report Date: 6/8/2020 : 12:03 PM

Calibration Record # 130



Calibration Settings

Calibration ID	PH	Date	6/8/2020	
Channel	1	Time	11:59 AM	
Probe Type	pH	Temperature	295.20 K	22.05 C
Probe ID	PH ELECTRODE	Analysis Type	Single Line Fit	

Calibration Results

Slope	-61.055	CorrCoeff	1.0000
Intercept	14.964	Equation:	Y = (-61.055) X + (14.964)

Calibration Validity **True** Operator

	Result	Minimum	Maximum
Slope	-61.055	-65.00	-53.00
Intercept	14.964	-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	320.06
	4.00	198.36
	7.00	15.01
	10.00	-168.33
	12.00	-290.28

Test America
Water Analysis Report

AT4 Analyst:_____

Run Number 405 **Order Number** 20200608-3

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	6/8/2020	1:09 PM	21.60	-1.00	5.32	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00
INITIAL CHECK	6/8/2020	1:15 PM	21.37	-1.00	10.59	77.62	149.36	.00	143.47	5.89	.78	1.49	-1.00	.02
BUFFER 7	6/8/2020	1:18 PM	21.31	-1.00	7.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00
LCS	6/8/2020	1:24 PM	21.34	-1.00	10.64	96.55	187.32	.00	181.55	5.77	.97	1.87	-1.00	.02
MB	6/8/2020	1:30 PM	21.50	-1.00	6.90	.00	.42	.42	.00	.00	.00	.02	.04	.02
280-137225-F-1	6/8/2020	1:36 PM	21.21	-1.00	7.41	.00	321.75	321.75	.00	.00	.00	3.22	-1.00	.02
DU 280-137225-F-1	6/8/2020	1:42 PM	21.11	-1.00	7.44	.00	321.51	321.51	.00	.00	.00	3.22	-1.00	.02
280-137254-I-1	6/8/2020	1:48 PM	21.03	-1.00	7.99	.00	119.11	119.11	.00	.00	.00	1.19	-1.00	.02
280-137254-I-2	6/8/2020	1:53 PM	21.09	-1.00	8.02	.00	139.43	139.43	.00	.00	.00	1.39	-1.00	.02
280-137254-I-3	6/8/2020	1:59 PM	21.28	-1.00	8.03	.00	132.82	132.82	.00	.00	.00	1.33	-1.00	.02
280-137278-A-1	6/8/2020	2:05 PM	21.54	-1.00	7.30	.00	393.70	393.70	.00	.00	.00	3.94	-1.00	.02
280-137278-A-2	6/8/2020	2:12 PM	21.35	-1.00	7.60	.00	353.23	353.23	.00	.00	.00	3.53	-1.00	.02
280-137278-A-3	6/8/2020	2:18 PM	21.05	-1.00	7.04	.00	557.60	557.60	.00	.00	.00	5.58	-1.00	.02
280-137278-A-4	6/8/2020	2:25 PM	20.98	-1.00	7.54	.00	334.93	334.93	.00	.00	.00	3.35	-1.00	.02
280-137278-A-5	6/8/2020	2:31 PM	20.99	-1.00	7.82	.00	272.08	272.08	.00	.00	.00	2.72	-1.00	.02
CCV	6/8/2020	2:37 PM	20.85	-1.00	10.63	99.34	189.99	.00	181.31	8.68	.99	1.90	-1.00	.02
CCB	6/8/2020	2:43 PM	21.11	-1.00	6.80	.00	.50	.50	.00	.00	.00	.02	.04	.02
280-137278-A-6	6/8/2020	2:49 PM	21.02	-1.00	7.78	.00	273.48	273.48	.00	.00	.00	2.73	-1.00	.02
280-137278-A-7	6/8/2020	2:54 PM	21.12	-1.00	7.56	.00	73.07	73.07	.00	.00	.00	.73	-1.00	.02
280-137278-A-8	6/8/2020	3:01 PM	21.12	-1.00	7.55	.00	403.62	403.62	.00	.00	.00	4.04	-1.00	.02
280-137278-A-9	6/8/2020	3:07 PM	21.18	-1.00	7.51	.00	387.07	387.07	.00	.00	.00	3.87	-1.00	.02
280-137296-J-1	6/8/2020	3:13 PM	21.43	-1.00	5.30	.00	2.73	2.73	.00	.00	.00	.05	.06	.02
280-137296-J-2	6/8/2020	3:18 PM	21.63	-1.00	6.32	.00	58.12	58.12	.00	.00	.00	.58	-1.00	.02
280-137296-J-3	6/8/2020	3:23 PM	21.37	-1.00	6.72	.00	99.40	99.40	.00	.00	.00	.99	-1.00	.02
280-137296-J-5	6/8/2020	3:29 PM	21.15	-1.00	5.55	.00	4.29	4.29	.00	.00	.00	.06	.08	.02
280-137299-C-1	6/8/2020	3:35 PM	20.95	-1.00	8.76	41.25	790.69	708.20	82.49	.00	.41	7.91	-1.00	.02
280-137299-D-2	6/8/2020	3:42 PM	21.06	-1.00	7.84	.00	373.72	373.72	.00	.00	.00	3.74	-1.00	.02

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GENERAL RESULTS REPORT.SRW

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Run Number 405 **Order Number** 20200608-3

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)
CCV	6/8/2020	3:49 PM	20.92	-1.00	10.60	100.06	191.68	.00	183.25	8.44	1.00	1.92	-1.00	.02
CCB	6/8/2020	3:54 PM	21.11	-1.00	6.83	.00	.71	.71	.00	.00	.00	.02	.04	.02
LCS	6/8/2020	4:00 PM	21.01	-1.00	10.60	97.70	189.43	.00	183.46	5.97	.98	1.89	-1.00	.02
MB	6/8/2020	4:06 PM	21.21	-1.00	6.70	.00	.49	.49	.00	.00	.00	.02	.04	.02
280-137299-C-3	6/8/2020	4:13 PM	21.24	-1.00	8.25	.00	505.59	505.59	.00	.00	.00	5.06	-1.00	.02
DU 280-137299-C-3	6/8/2020	4:20 PM	21.38	-1.00	8.26	.00	506.06	506.06	.00	.00	.00	5.06	-1.00	.02
280-137299-D-4	6/8/2020	4:26 PM	21.51	-1.00	8.09	.00	441.11	441.11	.00	.00	.00	4.41	-1.00	.02
280-137335-I-1	6/8/2020	4:32 PM	21.54	-1.00	9.37	90.79	386.28	204.71	181.58	.00	.91	3.86	-1.00	.02
280-137335-I-2	6/8/2020	4:39 PM	21.40	-1.00	8.19	.00	171.94	171.94	.00	.00	.00	1.72	-1.00	.02
280-137335-I-3	6/8/2020	4:45 PM	21.18	-1.00	9.34	42.52	193.95	108.91	85.04	.00	.43	1.94	-1.00	.02
280-137335-I-4	6/8/2020	4:50 PM	21.05	-1.00	9.19	64.41	334.72	205.90	128.82	.00	.64	3.35	-1.00	.02
280-137386-J-1	6/8/2020	4:56 PM	21.14	-1.00	6.06	.00	54.31	54.31	.00	.00	.00	.54	-1.00	.02
280-137352-H-1	6/8/2020	5:01 PM	21.19	-1.00	7.70	.00	134.97	134.97	.00	.00	.00	1.35	-1.00	.02
280-137352-H-2	6/8/2020	5:08 PM	21.25	-1.00	7.67	.00	366.86	366.86	.00	.00	.00	3.67	-1.00	.02
CCV	6/8/2020	5:14 PM	21.18	-1.00	10.57	97.87	191.14	.00	186.54	4.60	.98	1.91	-1.00	.02
CCB	6/8/2020	5:19 PM	21.30	-1.00	6.66	.00	.52	.52	.00	.00	.00	.02	.04	.02
280-137352-H-3	6/8/2020	5:26 PM	21.41	-1.00	7.64	.00	294.05	294.05	.00	.00	.00	2.94	-1.00	.02
280-137352-H-4	6/8/2020	5:32 PM	21.57	-1.00	7.81	.00	306.83	306.83	.00	.00	.00	3.07	-1.00	.02
280-137352-G-5	6/8/2020	5:38 PM	21.92	-1.00	7.75	.00	348.84	348.84	.00	.00	.00	3.49	-1.00	.02
280-137352-G-6	6/8/2020	5:44 PM	21.80	-1.00	7.70	.00	344.87	344.87	.00	.00	.00	3.45	-1.00	.02
280-137352-H-7	6/8/2020	5:51 PM	21.66	-1.00	7.68	.00	309.43	309.43	.00	.00	.00	3.09	-1.00	.02
280-137352-H-8	6/8/2020	5:58 PM	21.53	-1.00	9.58	6.35	17.29	4.59	12.70	.00	.06	.20	.22	.02
280-137352-G-9	6/8/2020	6:04 PM	21.53	-1.00	6.78	.00	7.95	7.95	.00	.00	.00	.10	.12	.02
280-137352-G-10	6/8/2020	6:10 PM	21.53	-1.00	9.26	6.31	39.58	26.96	12.63	.00	.06	.40	-1.00	.02
280-137352-G-11	6/8/2020	6:17 PM	21.60	-1.00	7.24	.00	10.36	10.36	.00	.00	.00	.12	.14	.02
280-137352-G-12	6/8/2020	6:22 PM	21.60	-1.00	8.62	6.65	103.33	90.04	13.29	.00	.07	1.03	-1.00	.02
CCV	6/8/2020	6:28 PM	21.48	-1.00	10.54	95.55	192.16	1.05	191.11	.00	.96	1.92	-1.00	.02
CCB	6/8/2020	6:34 PM	21.58	-1.00	6.67	.00	.48	.48	.00	.00	.00	.02	.04	.02
LCS	6/8/2020	6:40 PM	21.47	-1.00	10.54	95.42	192.32	1.48	190.84	.00	.95	1.92	-1.00	.02
MB	6/8/2020	6:46 PM	21.69	-1.00	6.56	.00	.45	.45	.00	.00	.00	.02	.04	.02

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Run Number 405 **Order Number** 20200608-3

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)
280-137352-H-13	6/8/2020	6:52 PM	21.90	-1.00	8.89	5.98	54.81	42.85	11.96	.00	.06	.55	-1.00	.02
DU 280-137352-H-13	6/8/2020	6:57 PM	21.77	-1.00	8.92	6.18	55.44	43.07	12.37	.00	.06	.55	-1.00	.02
280-137352-H-14	6/8/2020	7:03 PM	21.76	-1.00	5.99	.00	.31	.31	.00	.00	.00	.02	.04	.02
280-137352-I-15	6/8/2020	7:08 PM	21.69	-1.00	5.64	.00	.13	.13	.00	.00	.00	.02	.03	.02
280-137390-I-2	6/8/2020	7:15 PM	21.61	-1.00	8.13	.00	456.81	456.81	.00	.00	.00	4.57	-1.00	.02
280-137390-I-3	6/8/2020	7:21 PM	21.56	-1.00	7.97	.00	304.05	304.05	.00	.00	.00	3.04	-1.00	.02
280-137390-I-4	6/8/2020	7:28 PM	21.66	-1.00	7.80	.00	314.75	314.75	.00	.00	.00	3.15	-1.00	.02
280-137390-I-5	6/8/2020	7:34 PM	21.69	-1.00	8.05	.00	287.48	287.48	.00	.00	.00	2.87	-1.00	.02
280-137398-C-1	6/8/2020	7:41 PM	21.71	-1.00	7.79	.00	444.82	444.82	.00	.00	.00	4.45	-1.00	.02
CCV	6/8/2020	7:47 PM	21.76	-1.00	10.50	96.64	192.68	.00	192.08	.60	.97	1.93	-1.00	.02
CCB	6/8/2020	7:53 PM	21.83	-1.00	6.70	.00	.56	.56	.00	.00	.00	.02	.04	.02

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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
AECOM Project Number: 60565355
Project Location: Grand Island, Nebraska
AECOM Project Manager: Dean Converse
Sampler(s): TY JO

Bill to: Brice Engineering

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
6-2-20	0945		X	G0081-20A	AQ	9	ABCDEF	X	X	X	X	X	X		6°C
6-2-20	1055		X	G0082-20A	AQ	9	ABCDEF	X	X	X	X	X	X		6°

Analytical Parameters

Remarks: standard TAT

280-137225 Chain of Custody

Signatures	Date	Time
Relinquished by:	6-2-20	1700
Received by: ETADec	6/3/20	0910
Relinquished by:		
Received for Laboratory by:		

Shipping Details
Method of Shipment: Federal Express
Airbill Number: 1103 6129 0946

Lab Address:
TestAmerica Lab, Inc.
Attn: Patrick McEntee
4955 Yarrow St.
Arvada, CO 80002
(303) 736-0107

Special Instructions
* Filter groundwater sample before analyzing for DOC
(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)

TAL/Brice Project #: 28017805

-0.1, 1.1, 0.9 IR 8 +0.6 B/S 6/3/20

White copy - Laboratory Yellow copy - Laboratory Pink copy - Sampler

2020056

AECOM

12120 Shamrock Plaza Suite 300, Omaha, NE 68154 (402) 334-8181 Fax (402) 334-1984

CHAIN OF CUSTODY RECORD

Project Name: CHAAP

AECOM Project Number: 60565355

Project Location: Grand Island, Nebraska

AECOM Project Manager: Dean Converse

Sampler(s): TY JO

Bill to: Brice Engineering

Remarks: 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
6-2-20	0825		X	GO030-20A (MS)	AQ	9	A,B,C,D,E,F	X	X	X	X	X	X		6°C (MS)
6-2-20	0825		X	GO070-20A (MSD)	AQ	9	A,B,C,D,E,F	X	X	X	X	X	X		6°C (MSD)

Signatures	Date	Time
Relinquished by:	6-2-20	1700
Received by: ETADen	6/3/20	0910
Relinquished by:		
Received for Laboratory by:		

Shipping Details

Method of Shipment: Federal Express

Airbill Number: 1103 6129 0935

Lab Address:

TestAmerica Lab, Inc.
Attn: Patrick McEntee
4955 Yarrow St.
Arvada, CO 80002
(303) 736-0107

Special Instructions

* Filter groundwater sample before analyzing for DOC

(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)

TAL/Brice Project #: 28017805

White copy - Laboratory Yellow copy - Laboratory Pink copy - Sampler

2020055

AECOM

12120 Shamrock Plaza Suite 300, Omaha, NE 68154 (402) 334-8181 Fax (402) 334-1984

CHAIN OF CUSTODY RECORD

Project Name: CHAAP

AECOM Project Number: 60565355

Project Location: Grand Island, Nebraska

AECOM Project Manager: Dean Converse

Sampler(s): TY JO

Bill to: Brice Engineering

Remarks: 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
6-1-20	1345		X	G0076-20A	AQ	9	A,B,C,D,E,F	X	X	X	X	X	X		6°C
6-2-20	0825		X	G0070-20A	AQ	9	A,B,C,D,E,F	X	X	X	X	X	X		

Signatures	Date	Time
Relinquished by:	6-2-20	1700
Received by: ETADen	6/3/20	0910
Relinquished by:		
Received for Laboratory by:		

Shipping Details

Method of Shipment: Federal Express

Airbill Number: 1103 6129 0924

Lab Address:

TestAmerica Lab, Inc.
Attn: Patrick McEntee
4955 Yarrow St.
Arvada, CO 80002
(303) 736-0107

Special Instructions

* Filter groundwater sample before analyzing for DOC

(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)

TAL/Brice Project #: 28017805

White copy - Laboratory Yellow copy - Laboratory Pink copy - Sampler

2020054

eurofins | Environment Testing
TestAmerica

ORIGIN ID:PHDA (308) 379-7542
GARY CARSON
BRICE ENGINEERING (WATER TREATMENT
7502 WEST 13TH STREET

GRAND ISLAND, NE 68803
UNITED STATES US

SHIP DATE: 22MAY20
ACTWGT: 10.00 LB MAN
CAD: 0562057/CAFE3313

TO

EUROFINS TESTAMERICA, DENVER
4955 YARROW STREET

ARVADA CO 800024517
(303) 736-0100
REF: S280-99203

RMA:

FedEx Express

FedEx
TRK# 0221 1103 6129 0946

WED - 03 JUN 10:30A
PRIORITY OVERNIGHT

XH LAAA

80002
CO-US DEN

FedEx
TRK# 0221 1103 6129 0935

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CO-US DEN

#3676756 06/02 S68J1/C70D/FE4A

280-137225 Waybill

nent Testing
rica

ORIGIN ID:PHDA (308) 379-7542
GARY CARSON
BRICE ENGINEERING (WATER TREATMENT
7502 WEST 13TH STREET

GRAND ISLAND, NE 68803
UNITED STATES US

SHIP DATE: 22MAY20
ACTWGT: 10.00 LB MAN
CAD: 0562057/CAFE3313

TO

EUROFINS TESTAMERICA DENVER
4955 YARROW STREET

ARVADA CO 800024517
(303) 736-0100
REF: S280-99203

RMA:

FedEx Express

FedEx
TRK# 0221 1103 6129 0924

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PRIORITY OVERNIGHT

XH LAAA

80002
CO-US DEN

Login Sample Receipt Checklist

Client: Brice Environmental Services, Corp

Job Number: 280-137225-1

Login Number: 137225
List Number: 1
Creator: Bentley, Beau J

List Source: Eurofins TestAmerica, Denver

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	False	Refer to Job Narrative for details.
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	