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ANALYTICAL REPORT

Job Number: 280-134141-1

Job Description: Cornhusker (CHAAP)

For:
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Attention: Corey Schwabenlander

Approved for release.
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3/14/2020 2:17 PM

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The Lab Certification ID# is 4025.

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

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

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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
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
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)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
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)

CASE NARRATIVE

Client: Brice Environmental Services, Corp

Project: Cornhusker (CHAAP)

Report Number: 280-134141-1

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 2/28/2020 9:20 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 1.3º C and 5.8º C.

DISSOLVED GASES (GC)
Samples EW7-PM26A-2-25 (280-134141-1), EW7-PM27A-2-25 (280-134141-2), EW7-PM24A-2-25 (280-134141-3) and EW7-PM25A-2-25 (280-134141-4) were analyzed for Dissolved Gases (GC) in accordance with RSK_175. The samples were analyzed on 03/04/2020.

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

NITROAROMATICS AND NITRAMINES (HPLC)
Samples EW7-PM26A-2-25 (280-134141-1), EW7-PM27A-2-25 (280-134141-2), EW7-PM24A-2-25 (280-134141-3) and EW7-PM25A-2-25 (280-134141-4) were analyzed for Nitroaromatics and Nitramines (HPLC) in accordance with 8330A. The samples were prepared on 03/02/2020 and analyzed on 03/05/2020 and 03/06/2020.

1,2-Dinitrobenzene failed the surrogate recovery criteria high for EW7-PM26A-2-25 (280-134141-1). Refer to the QC report for details. Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

The %RPD between the primary and confirmation column exceeded 40% for HMX and RDX for the following sample: EW7-PM24A-2-25 (280-134141-3). The lower value has been reported and qualified in accordance with the laboratory's SOP , and DOD QSM.

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

ALKALINITY
Samples EW7-PM26A-2-25 (280-134141-1), EW7-PM27A-2-25 (280-134141-2), EW7-PM24A-2-25 (280-134141-3) and EW7-PM25A-2-25 (280-134141-4) were analyzed for Alkalinity in accordance with SM20 2320B. The samples were analyzed on 03/04/2020.

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

AMMONIA
Samples EW7-PM26A-2-25 (280-134141-1), EW7-PM27A-2-25 (280-134141-2), EW7-PM24A-2-25 (280-134141-3) and EW7-PM25A-2-25 (280-134141-4) were analyzed for ammonia in accordance with EPA Method 350.1. The samples were analyzed on 03/03/2020 and 03/05/2020.

Ammonia was detected in method blank MB 280-487646/20 at a level that was below half the LOQ. The value should be considered an estimate, and has been flagged J.

Samples EW7-PM26A-2-25 (280-134141-1)[5X] and EW7-PM25A-2-25 (280-134141-4)[10X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

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

TOTAL KJELDAHL NITROGEN

Samples EW7-PM26A-2-25 (280-134141-1), EW7-PM27A-2-25 (280-134141-2), EW7-PM24A-2-25 (280-134141-3) and EW7-PM25A-2-25 (280-134141-4) were analyzed for total kjeldahl nitrogen in accordance with EPA Method 351.2. The samples were prepared on 03/02/2020 and analyzed on 03/04/2020.

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

NITRATE-NITRITE AS NITROGEN

Samples EW7-PM26A-2-25 (280-134141-1), EW7-PM27A-2-25 (280-134141-2), EW7-PM24A-2-25 (280-134141-3) and EW7-PM25A-2-25 (280-134141-4) were analyzed for nitrate-nitrite as nitrogen in accordance with EPA Method 353.2. The samples were analyzed on 03/02/2020.

Samples EW7-PM27A-2-25 (280-134141-2)[5X] and EW7-PM24A-2-25 (280-134141-3)[2X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

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

SULFIDE

Samples EW7-PM26A-2-25 (280-134141-1), EW7-PM27A-2-25 (280-134141-2), EW7-PM24A-2-25 (280-134141-3) and EW7-PM25A-2-25 (280-134141-4) were analyzed for sulfide in accordance with EPA SW-846 Method 9034. The samples were prepared and analyzed on 03/04/2020.

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

ANIONS (28 DAYS)

Samples EW7-PM26A-2-25 (280-134141-1), EW7-PM27A-2-25 (280-134141-2), EW7-PM24A-2-25 (280-134141-3) and EW7-PM25A-2-25 (280-134141-4) were analyzed for anions (28 days) in accordance with 9056A. The samples were analyzed on 03/09/2020.

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

DISSOLVED ORGANIC CARBON

Samples EW7-PM26A-2-25 (280-134141-1), EW7-PM27A-2-25 (280-134141-2), EW7-PM24A-2-25 (280-134141-3) and EW7-PM25A-2-25 (280-134141-4) were analyzed for dissolved organic carbon in accordance with EPA SW-846 Method 9060A. The samples were analyzed on 03/04/2020.

Sample EW7-PM25A-2-25 (280-134141-4)[2.94X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

The following samples were received unpreserved with pH in the range 5-7. EW7-PM26A-2-25 (280-134141-1), EW7-PM27A-2-25 (280-134141-2), EW7-PM24A-2-25 (280-134141-3), EW7-PM25A-2-25 (280-134141-4), (280-134091-D-1-A), (280-134091-D-1-B MS) and (280-134091-D-1-C MSD). Sulfuric acid was added to reduce sample pH to less than 2 after filtration and before analysis for Dissolved Organic Carbon.

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: 280-134141-1

Client Sample ID: EW7-PM26A-2-25 — Lab Sample ID: 280-134141-1

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	Dil Fac	D	Method	Prep Type
Methane	1.3		0.0050	0.0020	0.00063	mg/L	1		RSK-175	Total/NA
2,4,6-Trinitrotoluene	0.73	M Q	0.41	0.41	0.16	ug/L	1		8330A	Total/NA
2-Nitrotoluene	0.15	J Q	0.41	0.20	0.087	ug/L	1		8330A	Total/NA
HMX	2.7	M Q	0.41	0.20	0.089	ug/L	1		8330A	Total/NA
Ammonia	1.0		0.50	0.25	0.11	mg/L	5		350.1	Total/NA
Nitrogen, Total Kjeldahl	2.0		1.0	1.0	0.69	mg/L	1		351.2	Total/NA
Nitrate Nitrite as N	2.1		0.10	0.050	0.019	mg/L	1		353.2	Total/NA
Sulfate	20		5.0	3.0	1.0	mg/L	1		9056A	Total/NA
Total Alkalinity as CaCO3	440		10	10	3.1	mg/L	1		SM 2320B	Total/NA
Dissolved Organic Carbon - Quad	27		1.0	1.0	0.35	mg/L	1		9060A	Dissolved

Client Sample ID: EW7-PM27A-2-25 — Lab Sample ID: 280-134141-2

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	Dil Fac	D	Method	Prep Type
Methane	0.17		0.0050	0.0020	0.00063	mg/L	1		RSK-175	Total/NA
1,3,5-Trinitrobenzene	5.9	M	1.0	0.40	0.20	ug/L	1		8330A	Total/NA
2,4,6-Trinitrotoluene	9.8		0.40	0.40	0.16	ug/L	1		8330A	Total/NA
2-Amino-4,6-dinitrotoluene	3.2		0.20	0.12	0.050	ug/L	1		8330A	Total/NA
4-Amino-2,6-dinitrotoluene	3.3		0.20	0.12	0.057	ug/L	1		8330A	Total/NA
HMX	1.0	M	0.40	0.20	0.087	ug/L	1		8330A	Total/NA
RDX	2.2	M	0.40	0.40	0.16	ug/L	1		8330A	Total/NA
Ammonia	0.21		0.10	0.050	0.022	mg/L	1		350.1	Total/NA
Nitrate Nitrite as N	22		0.50	0.25	0.095	mg/L	5		353.2	Total/NA
Sulfate	83		5.0	3.0	1.0	mg/L	1		9056A	Total/NA
Total Alkalinity as CaCO3	370		10	10	3.1	mg/L	1		SM 2320B	Total/NA
Dissolved Organic Carbon - Quad	13		1.0	1.0	0.35	mg/L	1		9060A	Dissolved

Client Sample ID: EW7-PM24A-2-25 — Lab Sample ID: 280-134141-3

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	Dil Fac	D	Method	Prep Type
Methane	0.76		0.0050	0.0020	0.00063	mg/L	1		RSK-175	Total/NA
2,4,6-Trinitrotoluene	0.53		0.42	0.42	0.17	ug/L	1		8330A	Total/NA
2-Amino-4,6-dinitrotoluene	1.3		0.21	0.13	0.054	ug/L	1		8330A	Total/NA
4-Amino-2,6-dinitrotoluene	1.4		0.21	0.13	0.061	ug/L	1		8330A	Total/NA
HMX	0.68	M J1	0.42	0.21	0.093	ug/L	1		8330A	Total/NA
RDX	0.19	J J1	0.42	0.42	0.17	ug/L	1		8330A	Total/NA
Ammonia	0.34		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
Nitrate Nitrite as N	10		0.20	0.10	0.038	mg/L	2		353.2	Total/NA
Sulfide	0.80	J	4.0	1.9	0.79	mg/L	1		9034	Total/NA
Sulfate	57		5.0	3.0	1.0	mg/L	1		9056A	Total/NA
Total Alkalinity as CaCO3	400		10	10	3.1	mg/L	1		SM 2320B	Total/NA
Dissolved Organic Carbon - Quad	14		1.0	1.0	0.35	mg/L	1		9060A	Dissolved

This Detection Summary does not include radiochemical test results.

Detection Summary

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

Job ID: 280-134141-1

Client Sample ID: EW7-PM25A-2-25 — Lab Sample ID: 280-134141-4

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	Dil Fac	D	Method	Prep Type
Methane	1.6		0.0050	0.0020	0.00063	mg/L	1		RSK-175	Total/NA
2,4,6-Trinitrotoluene	2.3	M	0.43	0.43	0.17	ug/L	1		8330A	Total/NA
2-Amino-4,6-dinitrotoluene	3.0	M	0.21	0.13	0.054	ug/L	1		8330A	Total/NA
4-Amino-2,6-dinitrotoluene	3.3	M	0.21	0.13	0.061	ug/L	1		8330A	Total/NA
Ammonia	1.2		1.0	0.50	0.22	mg/L	10		350.1	Total/NA
Nitrogen, Total Kjeldahl	3.8		1.0	1.0	0.69	mg/L	1		351.2	Total/NA
Nitrate Nitrite as N	6.8		0.10	0.050	0.019	mg/L	1		353.2	Total/NA
Sulfide	0.80	J	4.0	1.9	0.79	mg/L	1		9034	Total/NA
Sulfate	39		5.0	3.0	1.0	mg/L	1		9056A	Total/NA
Total Alkalinity as CaCO3	410		10	10	3.1	mg/L	1		SM 2320B	Total/NA
Dissolved Organic Carbon - Quad	100		2.9	2.9	1.0	mg/L	2.94		9060A	Dissolved

This Detection Summary does not include radiochemical test results.

Client Sample ID: EW7-PM26A-2-25

Lab Sample ID: 280-134141-1

Date Collected: 02/27/20 11:35

Matrix: Water

Date Received: 02/28/20 09:20

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Methane	**1.3**		0.0050	0.0020	0.00063	mg/L		03/04/20 22:14	1

Method: 8330A - Nitroaromatics and Nitramines (HPLC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.41	U M Q	1.0	0.41	0.20	ug/L		03/05/20 05:24	1
1,3-Dinitrobenzene	0.20	U Q	0.41	0.20	0.090	ug/L		03/05/20 05:24	1
2,4,6-Trinitrotoluene	**0.73**	**M Q**	0.41	0.41	0.16	ug/L		03/05/20 05:24	1
2,4-Dinitrotoluene	0.20	U	0.41	0.20	0.085	ug/L		03/05/20 23:30	1
2,6-Dinitrotoluene	0.20	U Q	0.20	0.20	0.065	ug/L		03/05/20 05:24	1
2-Amino-4,6-dinitrotoluene	0.12	U Q	0.20	0.12	0.051	ug/L		03/05/20 05:24	1
2-Nitrotoluene	**0.15**	**J Q**	0.41	0.20	0.087	ug/L		03/05/20 05:24	1
3-Nitrotoluene	0.41	U Q	0.41	0.41	0.20	ug/L		03/05/20 05:24	1
4-Amino-2,6-dinitrotoluene	0.12	U Q	0.20	0.12	0.059	ug/L		03/05/20 05:24	1
4-Nitrotoluene	0.41	U Q	1.0	0.41	0.20	ug/L		03/05/20 05:24	1
HMX	**2.7**	**M Q**	0.41	0.20	0.089	ug/L		03/05/20 05:24	1
MNX	0.41	U M Q	2.0	0.41	0.16	ug/L		03/05/20 05:24	1
Nitrobenzene	0.20	U M	0.41	0.20	0.092	ug/L		03/05/20 23:30	1
RDX	0.41	U	0.41	0.41	0.16	ug/L		03/05/20 23:30	1
Tetryl	0.20	U M Q	0.24	0.20	0.080	ug/L		03/05/20 05:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dinitrobenzene	*120*	*M Q*	*83 - 119*	*03/02/20 13:40*	*03/05/20 05:24*	*1*
1,2-Dinitrobenzene	*101*		*83 - 119*	*03/02/20 13:40*	*03/05/20 23:30*	*1*

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Ammonia	**1.0**		0.50	0.25	0.11	mg/L		03/03/20 15:28	5
Nitrogen, Total Kjeldahl	**2.0**		1.0	1.0	0.69	mg/L		03/04/20 17:46	1
Nitrate Nitrite as N	**2.1**		0.10	0.050	0.019	mg/L		03/02/20 17:40	1
Sulfide	1.9	U	4.0	1.9	0.79	mg/L		03/04/20 11:32	1
Sulfate	**20**		5.0	3.0	1.0	mg/L		03/09/20 16:57	1
Total Alkalinity as CaCO3	**440**		10	10	3.1	mg/L		03/04/20 12:57	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon - Quad	**27**		1.0	1.0	0.35	mg/L		03/04/20 22:26	1

Client Sample ID: EW7-PM27A-2-25

Lab Sample ID: 280-134141-2

Date Collected: 02/27/20 15:20

Matrix: Water

Date Received: 02/28/20 09:20

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Methane	**0.17**		0.0050	0.0020	0.00063	mg/L		03/04/20 22:27	1

Method: 8330A - Nitroaromatics and Nitramines (HPLC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	**5.9**	**M**	1.0	0.40	0.20	ug/L		03/05/20 05:47	1
1,3-Dinitrobenzene	0.20	U M	0.40	0.20	0.088	ug/L		03/05/20 05:47	1
2,4,6-Trinitrotoluene	**9.8**		0.40	0.40	0.16	ug/L		03/05/20 05:47	1
2,4-Dinitrotoluene	0.20	U	0.40	0.20	0.083	ug/L		03/06/20 00:05	1

Client Sample ID: EW7-PM27A-2-25

Lab Sample ID: 280-134141-2

Date Collected: 02/27/20 15:20

Matrix: Water

Date Received: 02/28/20 09:20

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

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
2,6-Dinitrotoluene	0.20	U	0.20	0.20	0.064	ug/L		03/05/20 05:47	1
2-Amino-4,6-dinitrotoluene	**3.2**		0.20	0.12	0.050	ug/L		03/05/20 05:47	1
2-Nitrotoluene	0.20	U M	0.40	0.20	0.085	ug/L		03/05/20 05:47	1
3-Nitrotoluene	0.40	U	0.40	0.40	0.19	ug/L		03/05/20 05:47	1
4-Amino-2,6-dinitrotoluene	**3.3**		0.20	0.12	0.057	ug/L		03/05/20 05:47	1
4-Nitrotoluene	0.40	U M	1.0	0.40	0.20	ug/L		03/05/20 05:47	1
HMX	**1.0**	**M**	0.40	0.20	0.087	ug/L		03/05/20 05:47	1
MNX	0.40	U	2.0	0.40	0.15	ug/L		03/06/20 00:05	1
Nitrobenzene	0.20	U	0.40	0.20	0.091	ug/L		03/05/20 05:47	1
RDX	**2.2**	**M**	0.40	0.40	0.16	ug/L		03/05/20 05:47	1
Tetryl	0.20	U M	0.24	0.20	0.079	ug/L		03/05/20 05:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dinitrobenzene	*83*	*M*	*83 - 119*	*03/02/20 13:40*	*03/05/20 05:47*	*1*
1,2-Dinitrobenzene	*119*		*83 - 119*	*03/02/20 13:40*	*03/06/20 00:05*	*1*

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Ammonia	**0.21**		0.10	0.050	0.022	mg/L		03/05/20 13:21	1
Nitrogen, Total Kjeldahl	1.0	U	1.0	1.0	0.69	mg/L		03/04/20 17:47	1
Nitrate Nitrite as N	**22**		0.50	0.25	0.095	mg/L		03/02/20 17:42	5
Sulfide	1.9	U	4.0	1.9	0.79	mg/L		03/04/20 11:32	1
Sulfate	**83**		5.0	3.0	1.0	mg/L		03/09/20 17:13	1
Total Alkalinity as CaCO3	**370**		10	10	3.1	mg/L		03/04/20 13:03	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon - Quad	**13**		1.0	1.0	0.35	mg/L		03/04/20 22:43	1

Client Sample ID: EW7-PM24A-2-25

Lab Sample ID: 280-134141-3

Date Collected: 02/27/20 09:40

Matrix: Water

Date Received: 02/28/20 09:20

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Methane	**0.76**		0.0050	0.0020	0.00063	mg/L		03/04/20 22:41	1

Method: 8330A - Nitroaromatics and Nitramines (HPLC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.42	U M	1.1	0.42	0.21	ug/L		03/05/20 06:10	1
1,3-Dinitrobenzene	0.21	U	0.42	0.21	0.094	ug/L		03/05/20 06:10	1
2,4,6-Trinitrotoluene	**0.53**		0.42	0.42	0.17	ug/L		03/05/20 06:10	1
2,4-Dinitrotoluene	0.21	U M	0.42	0.21	0.089	ug/L		03/05/20 06:10	1
2,6-Dinitrotoluene	0.21	U	0.21	0.21	0.068	ug/L		03/05/20 06:10	1
2-Amino-4,6-dinitrotoluene	**1.3**		0.21	0.13	0.054	ug/L		03/05/20 06:10	1
2-Nitrotoluene	0.21	U	0.42	0.21	0.091	ug/L		03/05/20 06:10	1
3-Nitrotoluene	0.42	U	0.42	0.42	0.21	ug/L		03/05/20 06:10	1
4-Amino-2,6-dinitrotoluene	**1.4**		0.21	0.13	0.061	ug/L		03/05/20 06:10	1
4-Nitrotoluene	0.42	U	1.1	0.42	0.21	ug/L		03/05/20 06:10	1
HMX	**0.68**	**M J1**	0.42	0.21	0.093	ug/L		03/06/20 00:40	1
MNX	0.42	U	2.1	0.42	0.16	ug/L		03/06/20 00:40	1

Client Sample ID: EW7-PM24A-2-25

Lab Sample ID: 280-134141-3

Date Collected: 02/27/20 09:40

Matrix: Water

Date Received: 02/28/20 09:20

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

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Nitrobenzene	0.21	U	0.42	0.21	0.097	ug/L		03/06/20 00:40	1
RDX	**0.19**	**J J1**	0.42	0.42	0.17	ug/L		03/06/20 00:40	1
Tetryl	0.21	U M	0.25	0.21	0.084	ug/L		03/05/20 06:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dinitrobenzene	*119*	*M*	*83 - 119*	*03/02/20 13:40*	*03/05/20 06:10*	*1*
1,2-Dinitrobenzene	*103*		*83 - 119*	*03/02/20 13:40*	*03/06/20 00:40*	*1*

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Ammonia	**0.34**		0.10	0.050	0.022	mg/L		03/05/20 13:27	1
Nitrogen, Total Kjeldahl	**1.3**		1.0	1.0	0.69	mg/L		03/04/20 17:49	1
Nitrate Nitrite as N	**10**		0.20	0.10	0.038	mg/L		03/02/20 17:44	2
Sulfide	**0.80**	**J**	4.0	1.9	0.79	mg/L		03/04/20 11:32	1
Sulfate	**57**		5.0	3.0	1.0	mg/L		03/09/20 17:30	1
Total Alkalinity as CaCO3	**400**		10	10	3.1	mg/L		03/04/20 13:10	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon - Quad	**14**		1.0	1.0	0.35	mg/L		03/04/20 22:59	1

Client Sample ID: EW7-PM25A-2-25

Lab Sample ID: 280-134141-4

Date Collected: 02/27/20 11:35

Matrix: Water

Date Received: 02/28/20 09:20

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Methane	**1.6**		0.0050	0.0020	0.00063	mg/L		03/04/20 22:54	1

Method: 8330A - Nitroaromatics and Nitramines (HPLC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.43	U M	1.1	0.43	0.21	ug/L		03/05/20 06:33	1
1,3-Dinitrobenzene	0.21	U M	0.43	0.21	0.094	ug/L		03/05/20 06:33	1
2,4,6-Trinitrotoluene	**2.3**	**M**	0.43	0.43	0.17	ug/L		03/05/20 06:33	1
2,4-Dinitrotoluene	0.21	U M	0.43	0.21	0.089	ug/L		03/05/20 06:33	1
2,6-Dinitrotoluene	0.21	U	0.21	0.21	0.069	ug/L		03/05/20 06:33	1
2-Amino-4,6-dinitrotoluene	**3.0**	**M**	0.21	0.13	0.054	ug/L		03/05/20 06:33	1
2-Nitrotoluene	0.21	U	0.43	0.21	0.091	ug/L		03/05/20 06:33	1
3-Nitrotoluene	0.43	U	0.43	0.43	0.21	ug/L		03/05/20 06:33	1
4-Amino-2,6-dinitrotoluene	**3.3**	**M**	0.21	0.13	0.061	ug/L		03/05/20 06:33	1
4-Nitrotoluene	0.43	U	1.1	0.43	0.21	ug/L		03/05/20 06:33	1
HMX	0.21	U	0.43	0.21	0.093	ug/L		03/06/20 01:15	1
MNX	0.43	U	2.1	0.43	0.16	ug/L		03/06/20 01:15	1
Nitrobenzene	0.21	U	0.43	0.21	0.097	ug/L		03/06/20 01:15	1
RDX	0.43	U	0.43	0.43	0.17	ug/L		03/06/20 01:15	1
Tetryl	0.21	U M	0.26	0.21	0.084	ug/L		03/05/20 06:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dinitrobenzene	*93*	*M*	*83 - 119*	*03/02/20 13:40*	*03/05/20 06:33*	*1*
1,2-Dinitrobenzene	*116*		*83 - 119*	*03/02/20 13:40*	*03/06/20 01:15*	*1*

Client Sample Results

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

Job ID: 280-134141-1

Client Sample ID: EW7-PM25A-2-25

Lab Sample ID: 280-134141-4

Date Collected: 02/27/20 11:35

Matrix: Water

Date Received: 02/28/20 09:20

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Ammonia	1.2		1.0	0.50	0.22	mg/L		03/03/20 15:39	10
Nitrogen, Total Kjeldahl	3.8		1.0	1.0	0.69	mg/L		03/04/20 17:50	1
Nitrate Nitrite as N	6.8		0.10	0.050	0.019	mg/L		03/02/20 17:46	1
Sulfide	0.80	J	4.0	1.9	0.79	mg/L		03/04/20 11:32	1
Sulfate	39		5.0	3.0	1.0	mg/L		03/09/20 17:46	1
Total Alkalinity as CaCO3	410		10	10	3.1	mg/L		03/04/20 13:17	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon - Quad	100		2.9	2.9	1.0	mg/L		03/04/20 23:56	2.94

Default Detection Limits

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

Job ID: 280-134141-1

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	1.0	0.20	ug/L
1,3-Dinitrobenzene	0.40	0.089	ug/L
2,4,6-Trinitrotoluene	0.40	0.16	ug/L
2,4-Dinitrotoluene	0.40	0.084	ug/L
2,6-Dinitrotoluene	0.20	0.065	ug/L
2-Amino-4,6-dinitrotoluene	0.20	0.051	ug/L
2-Nitrotoluene	0.40	0.086	ug/L
3-Nitrotoluene	0.40	0.20	ug/L
4-Amino-2,6-dinitrotoluene	0.20	0.058	ug/L
4-Nitrotoluene	1.0	0.20	ug/L
HMX	0.40	0.088	ug/L
MNX	2.0	0.15	ug/L
Nitrobenzene	0.40	0.091	ug/L
RDX	0.40	0.16	ug/L
Tetryl	0.24	0.079	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: 280-134141-1

Method: 8330A - Nitroaromatics and Nitramines (HPLC)

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

Lab Sample ID	Client Sample ID	12DNB1 (83-119)
280-134141-1	EW7-PM26A-2-25	120 M Q
280-134141-2	EW7-PM27A-2-25	83 M
280-134141-3	EW7-PM24A-2-25	119 M
280-134141-4	EW7-PM25A-2-25	93 M
LCS 280-487356/2-A	Lab Control Sample	94
LCS 280-487356/4-A	Lab Control Sample	88
LCSD 280-487356/3-A	Lab Control Sample Dup	95
LCSD 280-487356/5-A	Lab Control Sample Dup	89
MB 280-487356/1-A	Method Blank	92

Percent Surrogate Recovery (Acceptance Limits)

Surrogate Legend

12DNB = 1,2-Dinitrobenzene

Method: 8330A - Nitroaromatics and Nitramines (HPLC)

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

Lab Sample ID	Client Sample ID	12DNB2 (83-119)
280-134141-1	EW7-PM26A-2-25	101
280-134141-2	EW7-PM27A-2-25	119
280-134141-3	EW7-PM24A-2-25	103
280-134141-4	EW7-PM25A-2-25	116

Percent Surrogate Recovery (Acceptance Limits)

Surrogate Legend

12DNB = 1,2-Dinitrobenzene

Method: RSK-175 - Dissolved Gases (GC)

Lab Sample ID: MB 280-487693/39 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 487693

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		03/04/20 20:30	1

Lab Sample ID: LCS 280-487693/37 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 487693

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methane	0.0730	0.0764		mg/L		105	73 - 125

Lab Sample ID: LCSD 280-487693/38 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 487693

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Methane	0.0730	0.0758		mg/L		104	73 - 125	1	20

Method: 8330A - Nitroaromatics and Nitramines (HPLC)

Lab Sample ID: MB 280-487356/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 487659 — **Prep Batch: 487356**

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.40	U	1.0	0.40	0.20	ug/L		03/05/20 00:26	1
1,3-Dinitrobenzene	0.20	U	0.40	0.20	0.089	ug/L		03/05/20 00:26	1
2,4,6-Trinitrotoluene	0.40	U	0.40	0.40	0.16	ug/L		03/05/20 00:26	1
2,4-Dinitrotoluene	0.20	U	0.40	0.20	0.084	ug/L		03/05/20 00:26	1
2,6-Dinitrotoluene	0.20	U	0.20	0.20	0.065	ug/L		03/05/20 00:26	1
2-Amino-4,6-dinitrotoluene	0.12	U	0.20	0.12	0.051	ug/L		03/05/20 00:26	1
2-Nitrotoluene	0.20	U	0.40	0.20	0.086	ug/L		03/05/20 00:26	1
3-Nitrotoluene	0.40	U	0.40	0.40	0.20	ug/L		03/05/20 00:26	1
4-Amino-2,6-dinitrotoluene	0.12	U	0.20	0.12	0.058	ug/L		03/05/20 00:26	1
4-Nitrotoluene	0.40	U	1.0	0.40	0.20	ug/L		03/05/20 00:26	1
HMX	0.20	U	0.40	0.20	0.088	ug/L		03/05/20 00:26	1
MNX	0.40	U M	2.0	0.40	0.15	ug/L		03/05/20 00:26	1
Nitrobenzene	0.20	U	0.40	0.20	0.091	ug/L		03/05/20 00:26	1
RDX	0.40	U	0.40	0.40	0.16	ug/L		03/05/20 00:26	1
Tetryl	0.20	U	0.24	0.20	0.079	ug/L		03/05/20 00:26	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dinitrobenzene	*92*		*83 - 119*	*03/02/20 13:40*	*03/05/20 00:26*	*1*

Lab Sample ID: LCS 280-487356/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 487659 — **Prep Batch: 487356**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,3,5-Trinitrobenzene	2.00	2.06		ug/L		103	73 - 125
1,3-Dinitrobenzene	2.00	1.95		ug/L		98	78 - 120

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

Lab Sample ID: LCS 280-487356/2-A
Matrix: Water
Analysis Batch: 487659

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 487356

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2,4,6-Trinitrotoluene	2.00	1.95		ug/L		98	71 - 123
2,4-Dinitrotoluene	2.00	1.88		ug/L		94	78 - 120
2,6-Dinitrotoluene	2.00	1.95		ug/L		97	77 - 127
2-Amino-4,6-dinitrotoluene	2.00	1.80		ug/L		90	79 - 120
2-Nitrotoluene	2.00	1.41	M	ug/L		71	70 - 127
3-Nitrotoluene	2.00	1.56		ug/L		78	73 - 125
4-Amino-2,6-dinitrotoluene	2.00	1.72		ug/L		86	76 - 125
4-Nitrotoluene	2.00	1.58	M	ug/L		79	71 - 127
HMX	2.00	1.98	M	ug/L		99	65 - 135
Nitrobenzene	2.00	1.55		ug/L		77	65 - 134
RDX	2.00	1.94		ug/L		97	68 - 130
Tetryl	2.00	1.82		ug/L		91	64 - 128

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

Lab Sample ID: LCS 280-487356/4-A
Matrix: Water
Analysis Batch: 487659

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 487356

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
MNX	2.33	2.14		ug/L		92	57 - 132

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dinitrobenzene	*88*		*83 - 119*

Lab Sample ID: LCSD 280-487356/3-A
Matrix: Water
Analysis Batch: 487659

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 487356

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,3,5-Trinitrobenzene	2.00	2.08		ug/L		104	73 - 125	1	30
1,3-Dinitrobenzene	2.00	1.95		ug/L		97	78 - 120	0	30
2,4,6-Trinitrotoluene	2.00	1.94		ug/L		97	71 - 123	0	30
2,4-Dinitrotoluene	2.00	1.86		ug/L		93	78 - 120	1	30
2,6-Dinitrotoluene	2.00	1.95		ug/L		97	77 - 127	0	30
2-Amino-4,6-dinitrotoluene	2.00	1.84		ug/L		92	79 - 120	2	30
2-Nitrotoluene	2.00	1.41	M	ug/L		70	70 - 127	0	30
3-Nitrotoluene	2.00	1.55		ug/L		78	73 - 125	1	30
4-Amino-2,6-dinitrotoluene	2.00	1.76		ug/L		88	76 - 125	2	30
4-Nitrotoluene	2.00	1.55	M	ug/L		78	71 - 127	2	30
HMX	2.00	1.95	M	ug/L		97	65 - 135	1	30
Nitrobenzene	2.00	1.54		ug/L		77	65 - 134	0	30
RDX	2.00	1.95		ug/L		97	68 - 130	0	30
Tetryl	2.00	1.83		ug/L		91	64 - 128	1	30

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

Method: 8330A - Nitroaromatics and Nitramines (HPLC)

Lab Sample ID: LCSD 280-487356/5-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 487659 — **Prep Batch: 487356**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
MNX			2.33	2.13		ug/L		91	57 - 132	1	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dinitrobenzene	*89*		*83 - 119*

Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: MB 280-487646/20 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 487646

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Ammonia	0.0320	J	0.10	0.050	0.022	mg/L		03/03/20 14:42	1

Lab Sample ID: LCS 280-487646/18 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 487646

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ammonia			2.50	2.53		mg/L		101	90 - 110		

Lab Sample ID: LCSD 280-487646/19 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 487646

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ammonia			2.50	2.51		mg/L		100	90 - 110	1	10

Lab Sample ID: MB 280-487846/20 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 487846

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Ammonia	0.050	U	0.10	0.050	0.022	mg/L		03/05/20 12:43	1

Lab Sample ID: LCS 280-487846/18 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 487846

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ammonia			2.50	2.63		mg/L		105	90 - 110		

Lab Sample ID: LCSD 280-487846/19 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 487846

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ammonia			2.50	2.65		mg/L		106	90 - 110	1	10

Method: 350.1 - Nitrogen, Ammonia (Continued)

Lab Sample ID: 280-134141-2 MS — **Client Sample ID: EW7-PM27A-2-25**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 487846

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia	0.21		1.00	1.26		mg/L		106	90 - 110

Lab Sample ID: 280-134141-2 MSD — **Client Sample ID: EW7-PM27A-2-25**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 487846

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ammonia	0.21		1.00	1.28		mg/L		107	90 - 110	1	10

Method: 351.2 - Nitrogen, Total Kjeldahl

Lab Sample ID: MB 280-487438/2-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 487728 — **Prep Batch: 487438**

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		03/04/20 17:02	1

Lab Sample ID: LCS 280-487438/1-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 487728 — **Prep Batch: 487438**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrogen, Total Kjeldahl	6.00	6.25		mg/L		104	90 - 110

Method: 353.2 - Nitrogen, Nitrate-Nitrite

Lab Sample ID: MB 280-487437/22 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 487437

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Nitrate Nitrite as N	0.050	U	0.10	0.050	0.019	mg/L		03/02/20 16:54	1

Lab Sample ID: LCS 280-487437/21 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 487437

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate Nitrite as N	5.00	4.70		mg/L		94	90 - 110

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

Lab Sample ID: MB 280-487652/2-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 487657 — **Prep Batch: 487652**

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Sulfide	1.9	U	4.0	1.9	0.79	mg/L		03/04/20 11:32	1

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

Lab Sample ID: LCS 280-487652/1-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 487657 — **Prep Batch: 487652**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfide	20.2	18.4		mg/L		91	44 - 110

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 280-488019/6 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 488019

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		03/07/20 12:08	1

Lab Sample ID: LCS 280-488019/4 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 488019

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	100	94.5		mg/L		94	87 - 112

Lab Sample ID: LCSD 280-488019/5 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 488019

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	100	94.6		mg/L		95	87 - 112	0	10

Lab Sample ID: MRL 280-488019/3 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 488019

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	5.00	4.37	J	mg/L		87	50 - 150

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

Lab Sample ID: MB 280-487676/2-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 487860

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		03/04/20 19:53	1

Lab Sample ID: LCS 280-487676/1-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 487860

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dissolved Organic Carbon - Quad	25.0	23.5		mg/L		94	88 - 112

QC Sample Results

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

Job ID: 280-134141-1

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 280-487741/5
Matrix: Water
Analysis Batch: 487741

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

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3	10	U	10	10	3.1	mg/L		03/04/20 09:07	1

Lab Sample ID: LCS 280-487741/4
Matrix: Water
Analysis Batch: 487741

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	207		mg/L		103	89 - 109		

QC Association Summary

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

Job ID: 280-134141-1

GC VOA

Analysis Batch: 487693

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-134141-1	EW7-PM26A-2-25	Total/NA	Water	RSK-175	
280-134141-2	EW7-PM27A-2-25	Total/NA	Water	RSK-175	
280-134141-3	EW7-PM24A-2-25	Total/NA	Water	RSK-175	
280-134141-4	EW7-PM25A-2-25	Total/NA	Water	RSK-175	
MB 280-487693/39	Method Blank	Total/NA	Water	RSK-175	
LCS 280-487693/37	Lab Control Sample	Total/NA	Water	RSK-175	
LCSD 280-487693/38	Lab Control Sample Dup	Total/NA	Water	RSK-175	

HPLC/IC

Prep Batch: 487356

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-134141-1	EW7-PM26A-2-25	Total/NA	Water	3535	
280-134141-2	EW7-PM27A-2-25	Total/NA	Water	3535	
280-134141-3	EW7-PM24A-2-25	Total/NA	Water	3535	
280-134141-4	EW7-PM25A-2-25	Total/NA	Water	3535	
MB 280-487356/1-A	Method Blank	Total/NA	Water	3535	
LCS 280-487356/2-A	Lab Control Sample	Total/NA	Water	3535	
LCS 280-487356/4-A	Lab Control Sample	Total/NA	Water	3535	
LCSD 280-487356/3-A	Lab Control Sample Dup	Total/NA	Water	3535	
LCSD 280-487356/5-A	Lab Control Sample Dup	Total/NA	Water	3535	

Analysis Batch: 487659

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-134141-1	EW7-PM26A-2-25	Total/NA	Water	8330A	487356
280-134141-2	EW7-PM27A-2-25	Total/NA	Water	8330A	487356
280-134141-3	EW7-PM24A-2-25	Total/NA	Water	8330A	487356
280-134141-4	EW7-PM25A-2-25	Total/NA	Water	8330A	487356
MB 280-487356/1-A	Method Blank	Total/NA	Water	8330A	487356
LCS 280-487356/2-A	Lab Control Sample	Total/NA	Water	8330A	487356
LCS 280-487356/4-A	Lab Control Sample	Total/NA	Water	8330A	487356
LCSD 280-487356/3-A	Lab Control Sample Dup	Total/NA	Water	8330A	487356
LCSD 280-487356/5-A	Lab Control Sample Dup	Total/NA	Water	8330A	487356

Analysis Batch: 487814

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-134141-1	EW7-PM26A-2-25	Total/NA	Water	8330A	487356
280-134141-2	EW7-PM27A-2-25	Total/NA	Water	8330A	487356
280-134141-3	EW7-PM24A-2-25	Total/NA	Water	8330A	487356
280-134141-4	EW7-PM25A-2-25	Total/NA	Water	8330A	487356

General Chemistry

Analysis Batch: 487437

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-134141-1	EW7-PM26A-2-25	Total/NA	Water	353.2	
280-134141-2	EW7-PM27A-2-25	Total/NA	Water	353.2	
280-134141-3	EW7-PM24A-2-25	Total/NA	Water	353.2	
280-134141-4	EW7-PM25A-2-25	Total/NA	Water	353.2	
MB 280-487437/22	Method Blank	Total/NA	Water	353.2	
LCS 280-487437/21	Lab Control Sample	Total/NA	Water	353.2	

QC Association Summary

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

Job ID: 280-134141-1

General Chemistry

Prep Batch: 487438

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-134141-1	EW7-PM26A-2-25	Total/NA	Water	351.2	
280-134141-2	EW7-PM27A-2-25	Total/NA	Water	351.2	
280-134141-3	EW7-PM24A-2-25	Total/NA	Water	351.2	
280-134141-4	EW7-PM25A-2-25	Total/NA	Water	351.2	
MB 280-487438/2-A	Method Blank	Total/NA	Water	351.2	
LCS 280-487438/1-A	Lab Control Sample	Total/NA	Water	351.2	

Analysis Batch: 487646

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-134141-1	EW7-PM26A-2-25	Total/NA	Water	350.1	
280-134141-4	EW7-PM25A-2-25	Total/NA	Water	350.1	
MB 280-487646/20	Method Blank	Total/NA	Water	350.1	
LCS 280-487646/18	Lab Control Sample	Total/NA	Water	350.1	
LCSD 280-487646/19	Lab Control Sample Dup	Total/NA	Water	350.1	

Prep Batch: 487652

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-134141-1	EW7-PM26A-2-25	Total/NA	Water	9030B	
280-134141-2	EW7-PM27A-2-25	Total/NA	Water	9030B	
280-134141-3	EW7-PM24A-2-25	Total/NA	Water	9030B	
280-134141-4	EW7-PM25A-2-25	Total/NA	Water	9030B	
MB 280-487652/2-A	Method Blank	Total/NA	Water	9030B	
LCS 280-487652/1-A	Lab Control Sample	Total/NA	Water	9030B	

Analysis Batch: 487657

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-134141-1	EW7-PM26A-2-25	Total/NA	Water	9034	487652
280-134141-2	EW7-PM27A-2-25	Total/NA	Water	9034	487652
280-134141-3	EW7-PM24A-2-25	Total/NA	Water	9034	487652
280-134141-4	EW7-PM25A-2-25	Total/NA	Water	9034	487652
MB 280-487652/2-A	Method Blank	Total/NA	Water	9034	487652
LCS 280-487652/1-A	Lab Control Sample	Total/NA	Water	9034	487652

Filtration Batch: 487676

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-134141-1	EW7-PM26A-2-25	Dissolved	Water	FILTRATION	
280-134141-2	EW7-PM27A-2-25	Dissolved	Water	FILTRATION	
280-134141-3	EW7-PM24A-2-25	Dissolved	Water	FILTRATION	
280-134141-4	EW7-PM25A-2-25	Dissolved	Water	FILTRATION	
MB 280-487676/2-A	Method Blank	Dissolved	Water	FILTRATION	
LCS 280-487676/1-A	Lab Control Sample	Dissolved	Water	FILTRATION	

Analysis Batch: 487728

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-134141-1	EW7-PM26A-2-25	Total/NA	Water	351.2	487438
280-134141-2	EW7-PM27A-2-25	Total/NA	Water	351.2	487438
280-134141-3	EW7-PM24A-2-25	Total/NA	Water	351.2	487438
280-134141-4	EW7-PM25A-2-25	Total/NA	Water	351.2	487438
MB 280-487438/2-A	Method Blank	Total/NA	Water	351.2	487438
LCS 280-487438/1-A	Lab Control Sample	Total/NA	Water	351.2	487438

QC Association Summary

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

Job ID: 280-134141-1

General Chemistry

Analysis Batch: 487741

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-134141-1	EW7-PM26A-2-25	Total/NA	Water	SM 2320B	
280-134141-2	EW7-PM27A-2-25	Total/NA	Water	SM 2320B	
280-134141-3	EW7-PM24A-2-25	Total/NA	Water	SM 2320B	
280-134141-4	EW7-PM25A-2-25	Total/NA	Water	SM 2320B	
MB 280-487741/5	Method Blank	Total/NA	Water	SM 2320B	
LCS 280-487741/4	Lab Control Sample	Total/NA	Water	SM 2320B	

Analysis Batch: 487846

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-134141-2	EW7-PM27A-2-25	Total/NA	Water	350.1	
280-134141-3	EW7-PM24A-2-25	Total/NA	Water	350.1	
MB 280-487846/20	Method Blank	Total/NA	Water	350.1	
LCS 280-487846/18	Lab Control Sample	Total/NA	Water	350.1	
LCSD 280-487846/19	Lab Control Sample Dup	Total/NA	Water	350.1	
280-134141-2 MS	EW7-PM27A-2-25	Total/NA	Water	350.1	
280-134141-2 MSD	EW7-PM27A-2-25	Total/NA	Water	350.1	

Analysis Batch: 487860

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-134141-1	EW7-PM26A-2-25	Dissolved	Water	9060A	487676
280-134141-2	EW7-PM27A-2-25	Dissolved	Water	9060A	487676
280-134141-3	EW7-PM24A-2-25	Dissolved	Water	9060A	487676
280-134141-4	EW7-PM25A-2-25	Dissolved	Water	9060A	487676
MB 280-487676/2-A	Method Blank	Dissolved	Water	9060A	487676
LCS 280-487676/1-A	Lab Control Sample	Dissolved	Water	9060A	487676

Analysis Batch: 488019

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-134141-1	EW7-PM26A-2-25	Total/NA	Water	9056A	
280-134141-2	EW7-PM27A-2-25	Total/NA	Water	9056A	
280-134141-3	EW7-PM24A-2-25	Total/NA	Water	9056A	
280-134141-4	EW7-PM25A-2-25	Total/NA	Water	9056A	
MB 280-488019/6	Method Blank	Total/NA	Water	9056A	
LCS 280-488019/4	Lab Control Sample	Total/NA	Water	9056A	
LCSD 280-488019/5	Lab Control Sample Dup	Total/NA	Water	9056A	
MRL 280-488019/3	Lab Control Sample	Total/NA	Water	9056A	

Client Sample ID: EW7-PM26A-2-25

Lab Sample ID: 280-134141-1

Date Collected: 02/27/20 11:35

Matrix: Water

Date Received: 02/28/20 09:20

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	487693	03/04/20 22:14	CAS	TAL DEN
Total/NA	Prep	3535			492.6 mL	5 mL	487356	03/02/20 13:40	MLA	TAL DEN
Total/NA	Analysis	8330A		1			487814	03/05/20 23:30	CBB	TAL DEN
Total/NA	Prep	3535			492.6 mL	5 mL	487356	03/02/20 13:40	MLA	TAL DEN
Total/NA	Analysis	8330A		1			487659	03/05/20 05:24	CBB	TAL DEN
Total/NA	Analysis	350.1		5	10 mL	10 mL	487646	03/03/20 15:28	BWH	TAL DEN
Total/NA	Prep	351.2			25 mL	25 mL	487438	03/02/20 19:38	SVC	TAL DEN
Total/NA	Analysis	351.2		1			487728	03/04/20 17:46	SVC	TAL DEN
Total/NA	Analysis	353.2		1	100 mL	100 mL	487437	03/02/20 17:40	SVC	TAL DEN
Total/NA	Prep	9030B			50 mL	50 mL	487652	03/04/20 11:04	SAH	TAL DEN
Total/NA	Analysis	9034		1			487657	03/04/20 11:32	SAH	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	488019	03/09/20 16:57	JAP	TAL DEN
Dissolved	Filtration	FILTRATION			20 mL	20 mL	487676	03/04/20 13:40	SGB	TAL DEN
Dissolved	Analysis	9060A		1	20 mL	20 mL	487860	03/04/20 22:26	SGB	TAL DEN
Total/NA	Analysis	SM 2320B		1			487741	03/04/20 12:57	SPG	TAL DEN

Client Sample ID: EW7-PM27A-2-25

Lab Sample ID: 280-134141-2

Date Collected: 02/27/20 15:20

Matrix: Water

Date Received: 02/28/20 09:20

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	487693	03/04/20 22:27	CAS	TAL DEN
Total/NA	Prep	3535			502.2 mL	5 mL	487356	03/02/20 13:40	MLA	TAL DEN
Total/NA	Analysis	8330A		1			487814	03/06/20 00:05	CBB	TAL DEN
Total/NA	Prep	3535			502.2 mL	5 mL	487356	03/02/20 13:40	MLA	TAL DEN
Total/NA	Analysis	8330A		1			487659	03/05/20 05:47	CBB	TAL DEN
Total/NA	Analysis	350.1		1	10 mL	10 mL	487846	03/05/20 13:21	BWH	TAL DEN
Total/NA	Prep	351.2			25 mL	25 mL	487438	03/02/20 19:38	SVC	TAL DEN
Total/NA	Analysis	351.2		1			487728	03/04/20 17:47	SVC	TAL DEN
Total/NA	Analysis	353.2		5	100 mL	100 mL	487437	03/02/20 17:42	SVC	TAL DEN
Total/NA	Prep	9030B			50 mL	50 mL	487652	03/04/20 11:04	SAH	TAL DEN
Total/NA	Analysis	9034		1			487657	03/04/20 11:32	SAH	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	488019	03/09/20 17:13	JAP	TAL DEN
Dissolved	Filtration	FILTRATION			20 mL	20 mL	487676	03/04/20 13:40	SGB	TAL DEN
Dissolved	Analysis	9060A		1	20 mL	20 mL	487860	03/04/20 22:43	SGB	TAL DEN
Total/NA	Analysis	SM 2320B		1			487741	03/04/20 13:03	SPG	TAL DEN

Client Sample ID: EW7-PM24A-2-25

Lab Sample ID: 280-134141-3

Date Collected: 02/27/20 09:40

Matrix: Water

Date Received: 02/28/20 09:20

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	487693	03/04/20 22:41	CAS	TAL DEN

Lab Chronicle

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

Job ID: 280-134141-1

Client Sample ID: EW7-PM24A-2-25

Lab Sample ID: 280-134141-3

Date Collected: 02/27/20 09:40

Matrix: Water

Date Received: 02/28/20 09:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			471.3 mL	5 mL	487356	03/02/20 13:40	MLA	TAL DEN
Total/NA	Analysis	8330A		1			487814	03/06/20 00:40	CBB	TAL DEN
Total/NA	Prep	3535			471.3 mL	5 mL	487356	03/02/20 13:40	MLA	TAL DEN
Total/NA	Analysis	8330A		1			487659	03/05/20 06:10	CBB	TAL DEN
Total/NA	Analysis	350.1		1	10 mL	10 mL	487846	03/05/20 13:27	BWH	TAL DEN
Total/NA	Prep	351.2			25 mL	25 mL	487438	03/02/20 19:38	SVC	TAL DEN
Total/NA	Analysis	351.2		1			487728	03/04/20 17:49	SVC	TAL DEN
Total/NA	Analysis	353.2		2	100 mL	100 mL	487437	03/02/20 17:44	SVC	TAL DEN
Total/NA	Prep	9030B			50 mL	50 mL	487652	03/04/20 11:04	SAH	TAL DEN
Total/NA	Analysis	9034		1			487657	03/04/20 11:32	SAH	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	488019	03/09/20 17:30	JAP	TAL DEN
Dissolved	Filtration	FILTRATION			20 mL	20 mL	487676	03/04/20 13:40	SGB	TAL DEN
Dissolved	Analysis	9060A		1	20 mL	20 mL	487860	03/04/20 22:59	SGB	TAL DEN
Total/NA	Analysis	SM 2320B		1			487741	03/04/20 13:10	SPG	TAL DEN

Client Sample ID: EW7-PM25A-2-25

Lab Sample ID: 280-134141-4

Date Collected: 02/27/20 11:35

Matrix: Water

Date Received: 02/28/20 09:20

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	487693	03/04/20 22:54	CAS	TAL DEN
Total/NA	Prep	3535			469.5 mL	5 mL	487356	03/02/20 13:40	MLA	TAL DEN
Total/NA	Analysis	8330A		1			487814	03/06/20 01:15	CBB	TAL DEN
Total/NA	Prep	3535			469.5 mL	5 mL	487356	03/02/20 13:40	MLA	TAL DEN
Total/NA	Analysis	8330A		1			487659	03/05/20 06:33	CBB	TAL DEN
Total/NA	Analysis	350.1		10	10 mL	10 mL	487646	03/03/20 15:39	BWH	TAL DEN
Total/NA	Prep	351.2			25 mL	25 mL	487438	03/02/20 19:38	SVC	TAL DEN
Total/NA	Analysis	351.2		1			487728	03/04/20 17:50	SVC	TAL DEN
Total/NA	Analysis	353.2		1	100 mL	100 mL	487437	03/02/20 17:46	SVC	TAL DEN
Total/NA	Prep	9030B			50 mL	50 mL	487652	03/04/20 11:04	SAH	TAL DEN
Total/NA	Analysis	9034		1			487657	03/04/20 11:32	SAH	TAL DEN
Total/NA	Analysis	9056A		1	5 mL	5 mL	488019	03/09/20 17:46	JAP	TAL DEN
Dissolved	Filtration	FILTRATION			20 mL	20 mL	487676	03/04/20 13:40	SGB	TAL DEN
Dissolved	Analysis	9060A		2.94	20 mL	20 mL	487860	03/04/20 23:56	SGB	TAL DEN
Total/NA	Analysis	SM 2320B		1			487741	03/04/20 13:17	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: 280-134141-1

Laboratory: Eurofins TestAmerica, Denver

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

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

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8330A	3535	Water	2,4,6-Trinitrotoluene
8330A	3535	Water	2,6-Dinitrotoluene

Method Summary

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

Job ID: 280-134141-1

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: 280-134141-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
280-134141-1	EW7-PM26A-2-25	Water	02/27/20 11:35	02/28/20 09:20	
280-134141-2	EW7-PM27A-2-25	Water	02/27/20 15:20	02/28/20 09:20	
280-134141-3	EW7-PM24A-2-25	Water	02/27/20 09:40	02/28/20 09:20	
280-134141-4	EW7-PM25A-2-25	Water	02/27/20 11:35	02/28/20 09:20	

GC VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134141-1

SDG No.:

Instrument ID: VGC_J Analysis Batch Number: 454595

Lab Sample ID: IC 280-454595/6 Client Sample ID:

Date Analyzed: 04/15/19 11:30 Lab File ID: 04151906.D GC Column: Rt-Alumina KC ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Ethylene	1.87	Incomplete Integration	meierg	04/15/19 13:21

Lab Sample ID: IC 280-454595/7 Client Sample ID:

Date Analyzed: 04/15/19 11:44 Lab File ID: 04151907.D GC Column: Rt-Alumina KC ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Ethylene	1.87	Split Peak	meierg	04/15/19 13:20

RSK-175

GC VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134141-1

SDG No.:

Instrument ID: VGC_J Analysis Batch Number: 487693

Lab Sample ID: CCV 280-487693/36 Client Sample ID:

Date Analyzed: 03/04/20 19:50 Lab File ID: 036F2901.D GC Column: Rt-Alumina KC ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Ethane	1.54	Split Peak	sciannac	03/05/20 10:14

RSK-175

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134141-1

SDG No.:

Instrument ID: CHHPLC_G2_LUNA Analysis Batch Number: 487544

Lab Sample ID: IC 280-487544/7 Client Sample ID:

Date Analyzed: 03/03/20 18:01 Lab File ID: 03030007.D GC Column: Luna-phenylhe ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitroglycerin	15.73	Baseline	beckerc	03/04/20 08:29

Lab Sample ID: IC 280-487544/8 Client Sample ID:

Date Analyzed: 03/03/20 18:36 Lab File ID: 03030008.D GC Column: Luna-phenylhe ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitroglycerin	15.79	Baseline	beckerc	03/04/20 08:29

Lab Sample ID: IC 280-487544/9 Client Sample ID:

Date Analyzed: 03/03/20 19:11 Lab File ID: 03030009.D GC Column: Luna-phenylhe ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitroglycerin	15.81	Baseline	beckerc	03/04/20 08:22

Lab Sample ID: IC 280-487544/10 Client Sample ID:

Date Analyzed: 03/03/20 19:46 Lab File ID: 03030010.D GC Column: Luna-phenylhe ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitroglycerin	15.81	Baseline	beckerc	03/04/20 08:23

Lab Sample ID: IC 280-487544/11 Client Sample ID:

Date Analyzed: 03/03/20 20:21 Lab File ID: 03030011.D GC Column: Luna-phenylhe ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitroglycerin	15.82	Baseline	beckerc	03/04/20 08:23
PETN	25.29	Baseline	beckerc	03/04/20 08:23

8330A

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134141-1

SDG No.:

Instrument ID: CHHPLC_G2_LUNA Analysis Batch Number: 487544

Lab Sample ID: IC 280-487544/12 Client Sample ID:

Date Analyzed: 03/03/20 20:56 Lab File ID: 03030012.D GC Column: Luna-phenylhe ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PETN	25.29	Baseline	beckerc	03/04/20 08:24

Lab Sample ID: IC 280-487544/13 Client Sample ID:

Date Analyzed: 03/03/20 21:31 Lab File ID: 03030013.D GC Column: Luna-phenylhe ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PETN	25.30	Baseline	beckerc	03/04/20 08:24

Lab Sample ID: IC 280-487544/14 Client Sample ID:

Date Analyzed: 03/03/20 22:06 Lab File ID: 03030014.D GC Column: Luna-phenylhe ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,3-Dinitrobenzene	15.56	Baseline	beckerc	03/04/20 08:28
Nitroglycerin	15.81	Baseline	beckerc	03/04/20 08:27
2-Nitrotoluene	16.58	Baseline	beckerc	03/04/20 08:28
4-Nitrotoluene	16.85	Baseline	beckerc	03/04/20 08:28
4-Amino-2,6-dinitrotoluene	17.17	Baseline	beckerc	03/04/20 08:28
3-Nitrotoluene	17.77	Baseline	beckerc	03/04/20 08:28
2-Amino-4,6-dinitrotoluene	18.01	Baseline	beckerc	03/04/20 08:28
1,3,5-Trinitrobenzene	18.91	Baseline	beckerc	03/04/20 08:28
2,6-Dinitrotoluene	19.85	Baseline	beckerc	03/04/20 08:28
2,4-Dinitrotoluene	20.31	Baseline	beckerc	03/04/20 08:28
2,4,6-Trinitrotoluene	24.71	Baseline	beckerc	03/04/20 08:27
PETN	25.47	Baseline	beckerc	03/04/20 08:27

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134141-1

SDG No.:

Instrument ID: CHHPLC_G2_LUNA Analysis Batch Number: 487544

Lab Sample ID: ICV 280-487544/15 Client Sample ID:

Date Analyzed: 03/03/20 22:41 Lab File ID: 03030015.D GC Column: Luna-phenylhe ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitroglycerin	15.79	Baseline	beckerc	03/04/20 08:28

Lab Sample ID: IC 280-487544/19 Client Sample ID:

Date Analyzed: 03/04/20 01:01 Lab File ID: 03030019.D GC Column: Luna-phenylhe ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TNX	5.40	Baseline	beckerc	03/05/20 08:43

Lab Sample ID: IC 280-487544/20 Client Sample ID:

Date Analyzed: 03/04/20 01:36 Lab File ID: 03030020.D GC Column: Luna-phenylhe ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TNX	5.40	Baseline	beckerc	03/05/20 08:43

Lab Sample ID: IC 280-487544/21 Client Sample ID:

Date Analyzed: 03/04/20 02:11 Lab File ID: 03030021.D GC Column: Luna-phenylhe ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TNX	5.40	Baseline	beckerc	03/05/20 08:43

Lab Sample ID: IC 280-487544/22 Client Sample ID:

Date Analyzed: 03/04/20 02:46 Lab File ID: 03030022.D GC Column: Luna-phenylhe ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TNX	5.40	Baseline	beckerc	03/05/20 08:42

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134141-1

SDG No.:

Instrument ID: CHHPLC_G2_LUNA Analysis Batch Number: 487544

Lab Sample ID: IC 280-487544/23 Client Sample ID:

Date Analyzed: 03/04/20 03:21 Lab File ID: 03030023.D GC Column: Luna-phenylhe ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TNX	5.40	Baseline	beckerc	03/05/20 08:42

8330A

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134141-1

SDG No.:

Instrument ID: CHHPLC_G2_LUNA Analysis Batch Number: 487814

Lab Sample ID: CCV 280-487814/84 Client Sample ID:

Date Analyzed: 03/05/20 19:25 Lab File ID: 03050017.D GC Column: Luna-phenylhe ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitroglycerin	15.73	Baseline	beckerc	03/06/20 12:36

Lab Sample ID: 280-134141-1 Client Sample ID: EW7-PM26A-2-25

Date Analyzed: 03/05/20 23:30 Lab File ID: 03050024.D GC Column: Luna-phenylhe ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitrobenzene		Invalid Compound ID	beckerc	03/06/20 12:41

Lab Sample ID: 280-134141-3 Client Sample ID: EW7-PM24A-2-25

Date Analyzed: 03/06/20 00:40 Lab File ID: 03050026.D GC Column: Luna-phenylhe ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.88	Baseline	beckerc	03/06/20 12:43

Lab Sample ID: CCV 280-487814/100 Client Sample ID:

Date Analyzed: 03/06/20 02:25 Lab File ID: 03050029.D GC Column: Luna-phenylhe ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PETN	25.20	Baseline	beckerc	03/06/20 12:45

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134141-1

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.: 280-134141-1

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.: 280-134141-1

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

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134141-1

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

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134141-1

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

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134141-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 487659

Lab Sample ID: ICV 280-487659/33 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

Lab Sample ID: MB 280-487356/1-A Client Sample ID:

Date Analyzed: 03/05/20 00:26 Lab File ID: 03040034.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
MNX		Invalid Compound ID	beckerc	03/06/20 08:55

Lab Sample ID: LCS 280-487356/2-A Client Sample ID:

Date Analyzed: 03/05/20 00:49 Lab File ID: 03040035.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.69	Baseline	beckerc	03/06/20 08:51
2-Nitrotoluene	12.83	Baseline	beckerc	03/06/20 10:46
4-Nitrotoluene	13.27	Baseline	beckerc	03/06/20 10:46

Lab Sample ID: LCSD 280-487356/3-A Client Sample ID:

Date Analyzed: 03/05/20 01:12 Lab File ID: 03040036.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.68	Baseline	beckerc	03/06/20 08:52
2-Nitrotoluene	12.82	Baseline	beckerc	03/06/20 10:47
4-Nitrotoluene	13.26	Baseline	beckerc	03/06/20 10:46

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134141-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 487659

Lab Sample ID: CCV 280-487659/44 Client Sample ID:

Date Analyzed: 03/05/20 04:16 Lab File ID: 03040044.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.68	Baseline	beckerc	03/06/20 08:57

Lab Sample ID: CCV 280-487659/46 Client Sample ID:

Date Analyzed: 03/05/20 05:02 Lab File ID: 03040046.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TNX	6.59	Baseline	beckerc	03/06/20 09:00
DNX	6.91	Baseline	beckerc	03/06/20 09:00

Lab Sample ID: 280-134141-1 Client Sample ID: EW7-PM26A-2-25

Date Analyzed: 03/05/20 05:24 Lab File ID: 03040047.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.65	Baseline	beckerc	03/06/20 09:01
RDX	7.73	Baseline	beckerc	03/06/20 09:01
1,2-Dinitrobenzene	8.71	Baseline	beckerc	03/06/20 09:01
Nitrobenzene	9.91	Baseline	beckerc	03/06/20 09:02
1,3,5-Trinitrobenzene		Invalid Compound ID	beckerc	03/06/20 09:02
2-Amino-4,6-dinitrotoluene		Baseline	beckerc	03/06/20 09:02
4-Amino-2,6-dinitrotoluene		Baseline	beckerc	03/06/20 09:02
MNX		Invalid Compound ID	beckerc	03/06/20 09:01
Tetryl		Invalid Compound ID	beckerc	03/06/20 09:02
2,4,6-Trinitrotoluene	11.19	Baseline	beckerc	03/06/20 09:02

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134141-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 487659

Lab Sample ID: 280-134141-2 Client Sample ID: EW7-PM27A-2-25

Date Analyzed: 03/05/20 05:47 Lab File ID: 03040048.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.68	Baseline	beckerc	03/06/20 09:03
MNX	7.35	Baseline	beckerc	03/06/20 09:04
RDX	7.75	Baseline	beckerc	03/06/20 09:05
1,2-Dinitrobenzene	8.71	Baseline	beckerc	03/06/20 09:05
1,3,5-Trinitrobenzene	8.89	Baseline	beckerc	03/06/20 09:05
1,3-Dinitrobenzene		Invalid Compound ID	beckerc	03/06/20 09:05
2-Nitrotoluene		Invalid Compound ID	beckerc	03/06/20 09:06
4-Nitrotoluene		Invalid Compound ID	beckerc	03/06/20 09:06
Tetryl		Invalid Compound ID	beckerc	03/06/20 09:05

Lab Sample ID: 280-134141-3 Client Sample ID: EW7-PM24A-2-25

Date Analyzed: 03/05/20 06:10 Lab File ID: 03040049.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.69	Baseline	beckerc	03/06/20 09:06
MNX	7.27	Baseline	beckerc	03/06/20 09:07
RDX	7.73	Baseline	beckerc	03/06/20 09:07
1,2-Dinitrobenzene	8.72	Baseline	beckerc	03/06/20 09:08
1,3,5-Trinitrobenzene		Invalid Compound ID	beckerc	03/06/20 09:08
2,4-Dinitrotoluene		Invalid Compound ID	beckerc	03/06/20 09:09
Tetryl		Invalid Compound ID	beckerc	03/06/20 09:09

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134141-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 487659

Lab Sample ID: 280-134141-4 Client Sample ID: EW7-PM25A-2-25

Date Analyzed: 03/05/20 06:33 Lab File ID: 03040050.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.69	Baseline	beckerc	03/06/20 09:08
1,2-Dinitrobenzene	8.71	Baseline	beckerc	03/06/20 09:09
1,3,5-Trinitrobenzene		Invalid Compound ID	beckerc	03/06/20 09:09
1,3-Dinitrobenzene		Invalid Compound ID	beckerc	03/06/20 09:09
2,4-Dinitrotoluene		Invalid Compound ID	beckerc	03/06/20 09:10
Tetryl		Invalid Compound ID	beckerc	03/06/20 09:10
2,4,6-Trinitrotoluene	11.19	Baseline	beckerc	03/06/20 09:10
4-Amino-2,6-dinitrotoluene	11.35	Baseline	beckerc	03/06/20 09:10
2-Amino-4,6-dinitrotoluene	11.64	Baseline	beckerc	03/06/20 09:10

Lab Sample ID: CCV 280-487659/56 Client Sample ID:

Date Analyzed: 03/05/20 08:51 Lab File ID: 03040056.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.68	Baseline	beckerc	03/06/20 09:36

Lab Sample ID: CCV 280-487659/58 Client Sample ID:

Date Analyzed: 03/05/20 09:37 Lab File ID: 03040058.D GC Column: UltraCarb5uOD ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TNX	6.59	Baseline	beckerc	03/06/20 09:38
DNX	6.92	Baseline	beckerc	03/06/20 09:38

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134141-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
350.1 cal_00406	03/06/20	02/28/20	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_00391	03/06/20	02/28/20	na, Lot na	100 mL	NH3 ICV STD_00026	10 mL	Ammonia	99.6 mg/L
.NH3 ICV STD_00026	04/01/20		Inorganic Ventures, Lot M2-NH662533		(Purchased Reagent)		Ammonia	996 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 LCS_00094	04/03/20	10/03/19	Acetonitrile, Lot ACN_00039	100 mL	8330 LCSMix2_00105	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
					EXP-SS-MIX1_00008	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
.8330 LCSMix2_00105	08/07/23		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
.EXP-SS-MIX1_00008	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
8330 LCS_00095	07/24/20	01/24/20	Acetonitrile, Lot ACN_00231	100 mL	8330_NG_Stk_00081	1 mL	Nitroglycerin	100 ug/mL
					8330_NG_Stk_00082	1 mL	Nitroglycerin	100 ug/mL
					8330_PETN_Stk_00089	1 mL	PETN	100 ug/mL
					8330_PETN_Stk_00090	1 mL	PETN	100 ug/mL
					8330LCSMix1_00113	1 mL	1,3,5-Trinitrobenzene	10 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134141-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,3-Dinitrobenzene	10 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
					PicricARestek_00086	1 mL	2,4,6-Trinitrophenol	10 ug/mL
.8330_NG_Stk_00081	08/31/22		Restek, Lot A0151571		(Purchased Reagent)		Nitroglycerin	5000 ug/mL
.8330_NG_Stk_00082	08/31/22		Restek, Lot A0151571		(Purchased Reagent)		Nitroglycerin	5000 ug/mL
.8330_PETN_Stk_00089	11/30/22		Restek, Lot A0154763		(Purchased Reagent)		PETN	5000 ug/mL
.8330_PETN_Stk_00090	11/30/22		Restek, Lot A0154763		(Purchased Reagent)		PETN	5000 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
							Tetryl	1000 ug/mL
.PicricARestek_00086	11/30/23		Restek, Lot A0148431		(Purchased Reagent)		2,4,6-Trinitrophenol	1000 ug/mL
8330_OP_DMT_00005	03/31/20	01/21/20	Acetonitrile, Lot 00226	10 mL	MNX,TNX,DNX_00036	1 mL	MNX	11.67 ug/mL
.MNX,TNX,DNX_00036	12/31/19		ULTRA Scientific, Lot CS-5628		(Purchased Reagent)		MNX	116.7 ug/mL
8330_OP_DMT_00006	02/24/21	02/24/20	Acetonitrile, Lot 0000196715	10 mL	MNX,TNX,DNX_00042	1 mL	DNX	10.01 ug/mL
							MNX	11.67 ug/mL
							TNX	10.01 ug/mL
.MNX,TNX,DNX_00042	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

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134141-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2,4,6-Trinitrotoluene	10.04 ug/mL
							2,4-Dinitrotoluene	10.04 ug/mL
							2,6-Dinitrotoluene	10.04 ug/mL
							2-Amino-4,6-dinitrotoluene	10.04 ug/mL
							2-Nitrotoluene	10 ug/mL
							3-Nitrotoluene	10.01 ug/mL
							4-Amino-2,6-dinitrotoluene	10.01 ug/mL
							4-Nitrotoluene	10.02 ug/mL
							HMX	10 ug/mL
							Nitrobenzene	10.04 ug/mL
							RDX	10 ug/mL
							Tetryl	10.02 ug/mL
							1,2-Dinitrobenzene	10 ug/mL
					8330PAStkPS_00061	1 mL	2,4,6-Trinitrophenol	10 ug/mL
.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

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134141-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
8330Surrogate_00109	03/20/20	09/20/19	Acetonitrile, Lot ACN_00223	250 mL	8330SurrStkSS_00147	0.5 mL	1,2-Dinitrobenzene	10 ug/mL
					8330SurrStkSS_00155	1 mL	1,2-Dinitrobenzene	10 ug/mL
					8330SurrStkSS_00158	1 mL	1,2-Dinitrobenzene	10 ug/mL
.8330SurrStkSS_00147	03/31/23	Restek, Lot A0135839			(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
.8330SurrStkSS_00155	07/31/23	Restek, Lot A0139489			(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
.8330SurrStkSS_00158	07/31/24	Restek, Lot A0146866			(Purchased Reagent)		1,2-Dinitrobenzene	1000 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
							1,2-Dinitrobenzene (Surr)	10 ug/mL
					8330SurrStkSS_00158	0.25 mL	1,2-Dinitrobenzene	10 ug/mL
							1,2-Dinitrobenzene (Surr)	10 ug/mL
					8330SurrStkSS_00160	1 mL	1,2-Dinitrobenzene	10 ug/mL
							1,2-Dinitrobenzene (Surr)	10 ug/mL
					8330SurrStkSS_00161	1 mL	1,2-Dinitrobenzene	10 ug/mL
							1,2-Dinitrobenzene (Surr)	10 ug/mL
.8330SurrStkSS_00145	03/31/23	Restek, Lot A0135839			(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
							1,2-Dinitrobenzene (Surr)	1000 ug/mL
.8330SurrStkSS_00158	07/31/24	Restek, Lot A0146866			(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
							1,2-Dinitrobenzene (Surr)	1000 ug/mL
.8330SurrStkSS_00160	10/28/22	Restek, Lot A0150790			(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
							1,2-Dinitrobenzene (Surr)	1000 ug/mL
.8330SurrStkSS_00161	07/31/24	Restek, Lot A0150790			(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
							1,2-Dinitrobenzene (Surr)	1000 ug/mL
Alk daily lcs_00889	03/09/20	03/02/20	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_00298	02/24/20	02/17/20	Di Water, Lot na	100 mL	IC CL cal_00058	25 mL	Chloride	250 mg/L
					IC sulfatecal_00057	25 mL	Sulfate	250 mg/L
.IC CL cal_00058	04/30/20	SPEX CertiPrep, Lot 4-154CL-2X			(Purchased Reagent)		Chloride	1000 mg/L
.IC sulfatecal_00057	06/30/20	SPEX CertiPrep, Lot 4-197SO4-2X			(Purchased Reagent)		Sulfate	1000 mg/L
IC CAL cl/so4_00300	03/09/20	03/02/20	Di Water, Lot na	100 mL	IC sulfatecal_00057	25 mL	Sulfate	250 mg/L
.IC sulfatecal_00057	06/30/20	SPEX CertiPrep, Lot 4-197SO4-2X			(Purchased Reagent)		Sulfate	1000 mg/L
IC Cal low_00511	02/21/20	02/14/20	Di Water, Lot NA	100 mL	IC BR ICV_00018	5 mL	Bromide	50 mg/L
					IC FL cal_00015	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_00015	05/31/20	Ricca, Lot 4811621			(Purchased Reagent)		Fluoride	1000 mg/L
IC LCS_01729	03/13/20	03/06/20	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
NXN CAL INT_00524	03/05/20	02/27/20	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_00505	03/05/20	02/27/20	Di Water, Lot NA	100 mL	NOXT ICV STD_00023	10 mL	Nitrate Nitrite as N	100 mg/L
.NOXT ICV STD_00023	03/11/21	ERA, Lot 130319m			(Purchased Reagent)		Nitrate Nitrite as N	1000 mg/L
RSK175methane_00009	05/18/19	Supelco Analytical, Lot 403-191386			(Purchased Reagent)		Methane	650500 ug/L

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134141-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
RSK7gasMathes_00025	12/01/19	Matheson, Lot 9307628511			(Purchased Reagent)		Methane	6570.3 ug/L
RSK7gasMathes_00026	04/03/20	Matheson, Lot 9308630516			(Purchased Reagent)		Acetylene	10667 ug/L
							Ethane	12317 ug/L
							Ethylene	11490 ug/L
							Methane	6570.3 ug/L
RSK7gasMathes_00027	10/24/20	Matheson, Lot 9308634170			(Purchased Reagent)		Methane	6570.3 ug/L
SFD ICV INT_01661	05/25/20	03/04/20	Di Water, Lot N/A	500 mL	50% NaOH_00017	2 mL	Sodium Hydroxide	2000 mg/L
					SFD ICV STK_00007	3.7903 g	Sulfide	1012.01 mg/L
.50% NaOH_00017	10/01/20	Fisher, Lot 186215			(Purchased Reagent)		Sodium Hydroxide	50 %
.SFD ICV STK_00007	06/28/23	Acros, Lot B0132482A			(Purchased Reagent)		Sulfide	0.1335 g/g
TKN 25ppm_00804	03/16/20	02/16/20	Di Water, Lot 1	100 mL	TKN 100PPM_00117	25 mL	Nitrogen, Total Kjeldahl	25 mg/L
.TKN 100PPM_00117	03/16/20	02/16/20	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_00089	03/16/20	02/16/20	DI water, Lot 1	100 mL	TKN ICV 100_00079	25 mL	Nitrogen, Total Kjeldahl	25 mg/L
.TKN ICV 100_00079	03/16/20	02/16/20	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_00042	06/30/20	Ricca, Lot 1906D95			(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	1001 ppm
							Dissolved Organic Carbon - Duplicate	1001 ppm
							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
							TOC Result 1	1001 ppm
							TOC Result 2	1001 ppm
							TOC Result 3	1001 ppm
							TOC Result 4	1001 ppm
							Total Carbon	1001 ppm
							Total Carbon Res 1	1001 ppm
							Total Carbon Res 2	1001 ppm
							Total Carbon Res 3	1001 ppm
							Total Carbon Res 4	1001 ppm
							Total Organic Carbon	1001 ppm
							Total Organic Carbon - Duplicates	1001 ppm
							Total Organic Carbon - Quad	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

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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

8330 LCSMix2_00105

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

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 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)

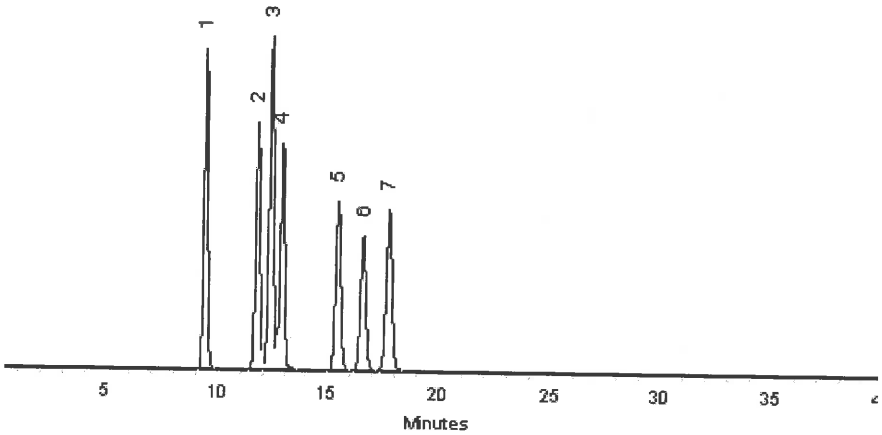
Flow Rate:
1.0 ml/min.

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_Stk_00075

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Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

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

Description : Custom Nitroglycerin Standard

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

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

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

CERTIFIED VALUES

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

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

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

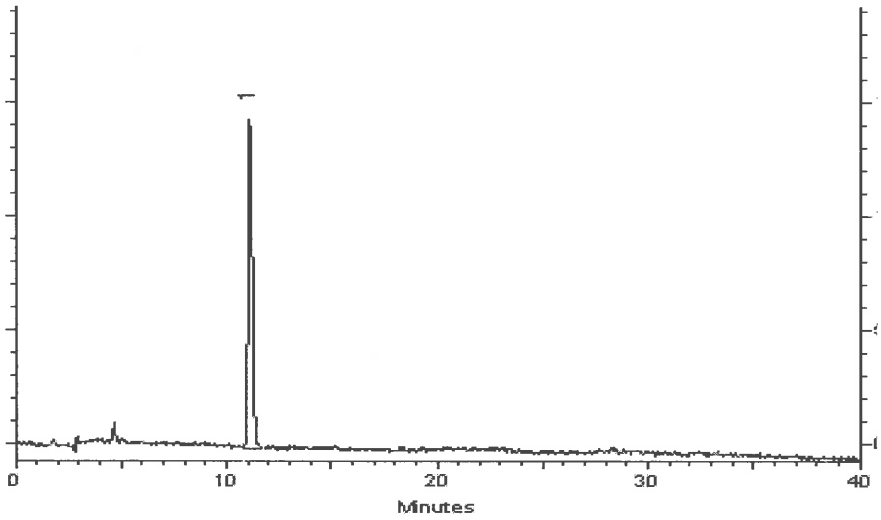
Flow Rate:
1.0 ml/min.

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

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210 nm



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

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

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

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

Reagent

8330_NG_Stk_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. : 568871 **Lot No.:** A0151571

Description : Custom Nitroglycerin Standard

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

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

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

CERTIFIED VALUES

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

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

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

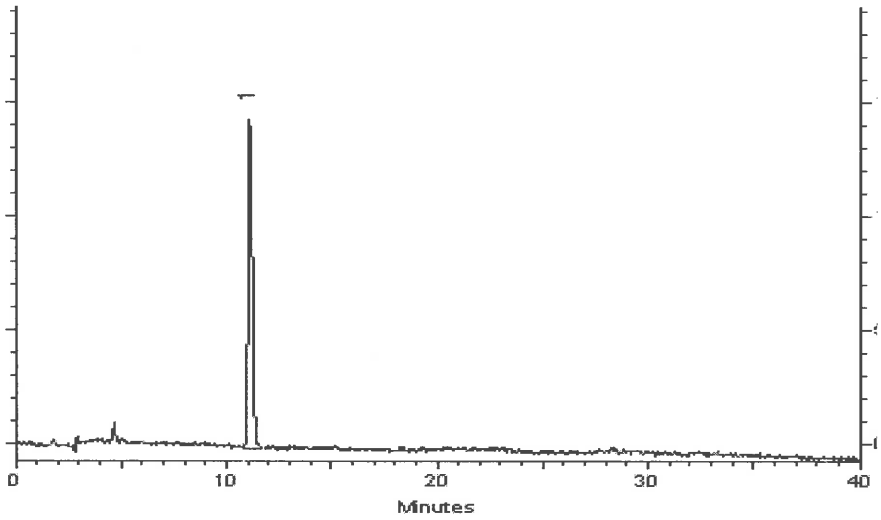
Flow Rate:
1.0 ml/min.

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

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210 nm



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

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

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

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

Reagent

8330_NG_Stk_00082

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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 568871 **Lot No.:** 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)

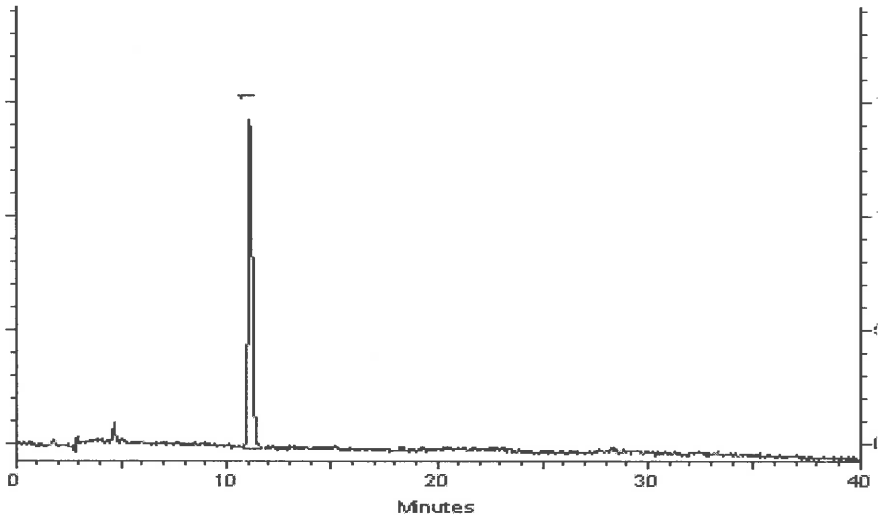
Flow Rate:
1.0 ml/min.

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_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)

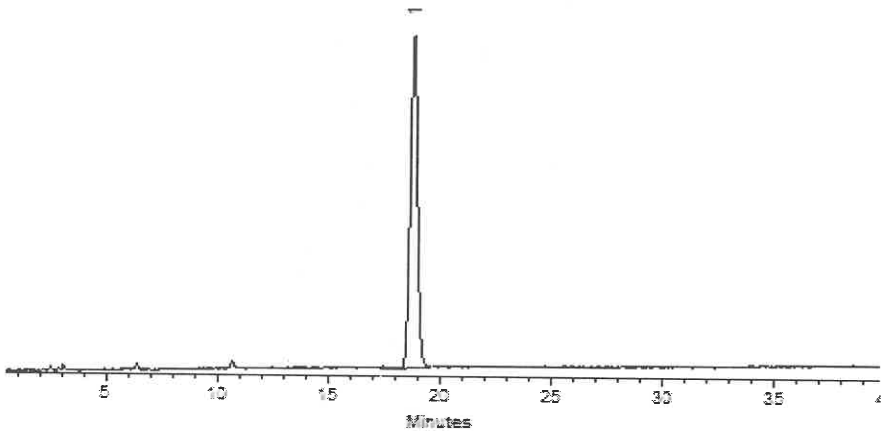
Flow Rate:
1.0 ml/min.

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

8330_PETN_Stk_00089

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Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 568872 **Lot No.:** 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)

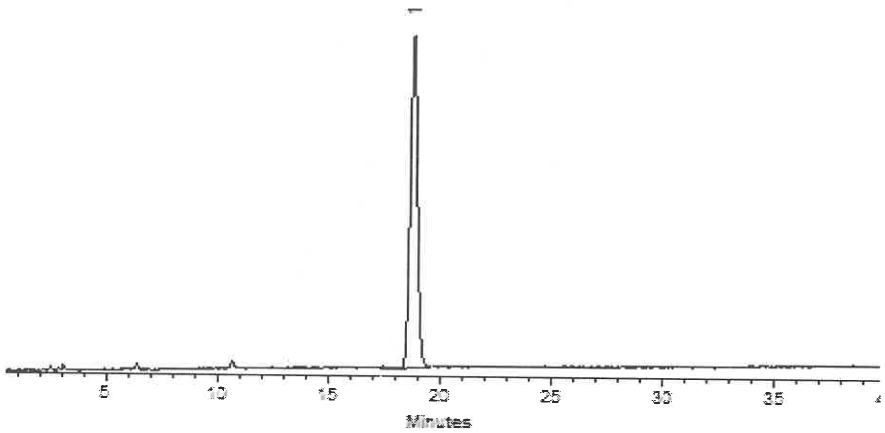
Flow Rate:
1.0 ml/min.

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

8330_PETN_Stk_00090

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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)

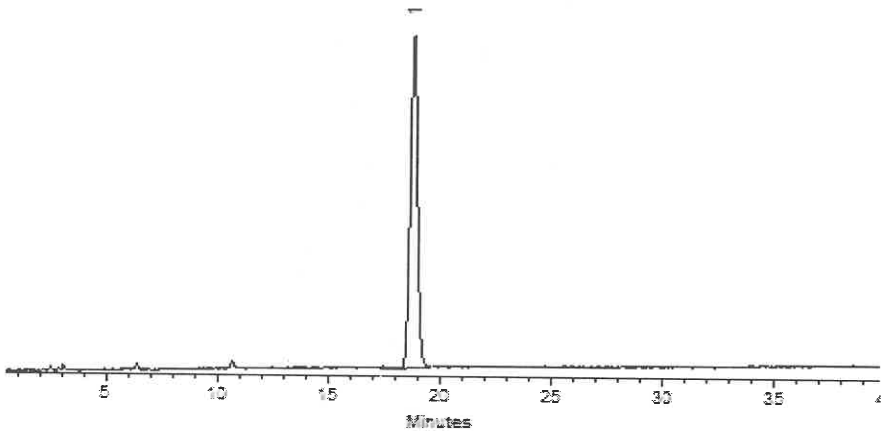
Flow Rate:
1.0 ml/min.

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_00113

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Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 31450 **Lot No.:** 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 +/- 55.0525 +/- 64.1967	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
2	RDX **CAS #** 121-82-4 **Purity** 99%	(Lot 080228JLM)	1,005.0 µg/mL	+/- 5.9694 +/- 55.0569 +/- 64.2018	µg/mL µg/mL 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 +/- 54.9463 +/- 64.0727	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
4	1,3-Dinitrobenzene **CAS #** 99-65-0 **Purity** 99%	(Lot BCBN4329V)	1,001.0 µg/mL	+/- 5.9456 +/- 54.8378 +/- 63.9463	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
5	Nitrobenzene **CAS #** 98-95-3 **Purity** 99%	(Lot SHBJ3622)	1,001.0 µg/mL	+/- 5.9456 +/- 54.8378 +/- 63.9463	µg/mL µg/mL 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 +/- 55.0569 +/- 64.2018	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
7	2,4-Dinitrotoluene **CAS #** 121-14-2 **Purity** 99%	(Lot MKAA0690)	1,001.0 µg/mL	+/- 5.9456 +/- 54.8378 +/- 63.9463	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

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

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

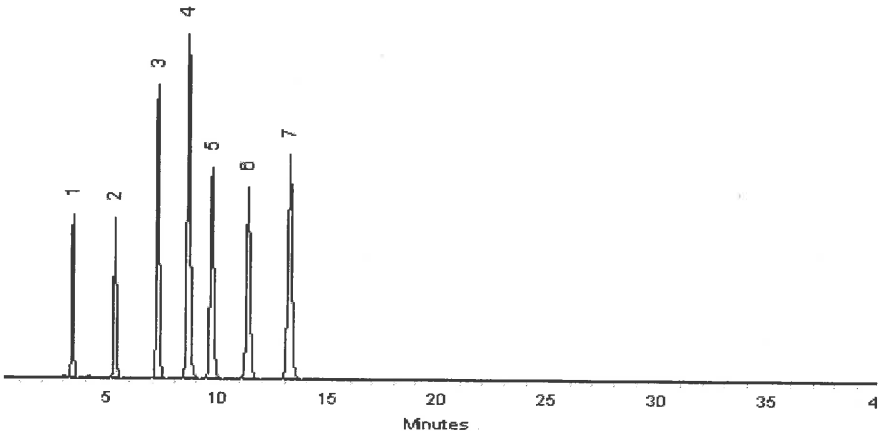
Flow Rate:
1.0 ml/min.

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

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 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

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. : 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)

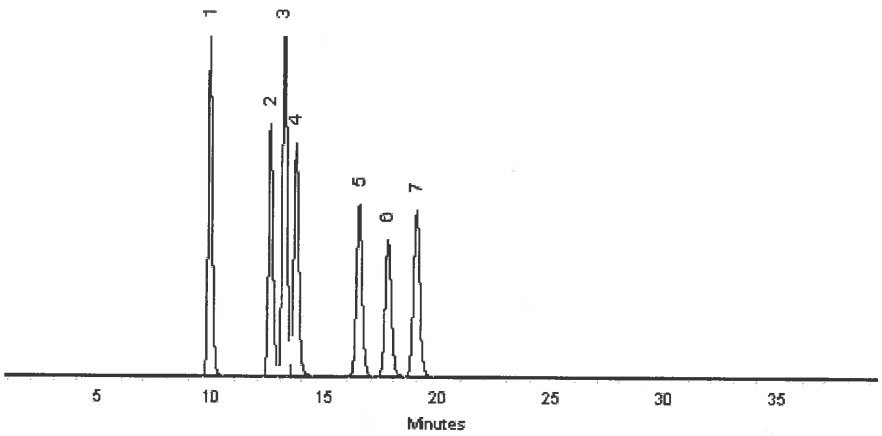
Flow Rate:
1.0 ml/min.

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

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 ****

03/14/2020

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

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)

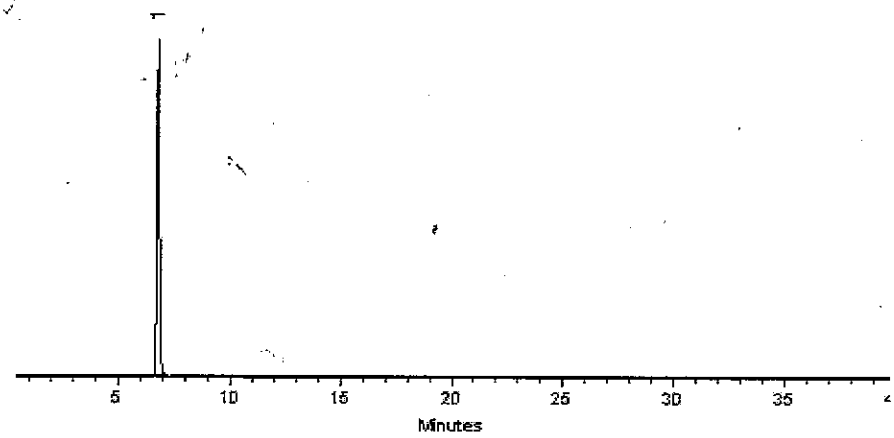
Flow Rate:
1.0 ml/min.

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_00147

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)

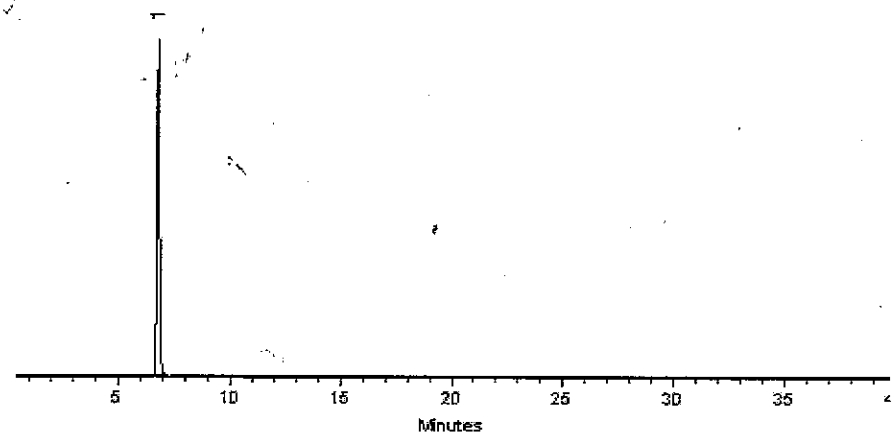
Flow Rate:
1.0 ml/min.

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_00155

110 Benner Circle
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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

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Certificate #3222.01

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ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 31453 **Lot No.:** A0139489

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, 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		1,001.0	µg/mL	+/-	5.9456	µg/mL	Gravimetric
	CAS # 528-29-0	(Lot MKBW2921V)			+/-	56.1383	µg/mL	Unstressed
	Purity 99%				+/-	57.4512	µg/mL	Stressed

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

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

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

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

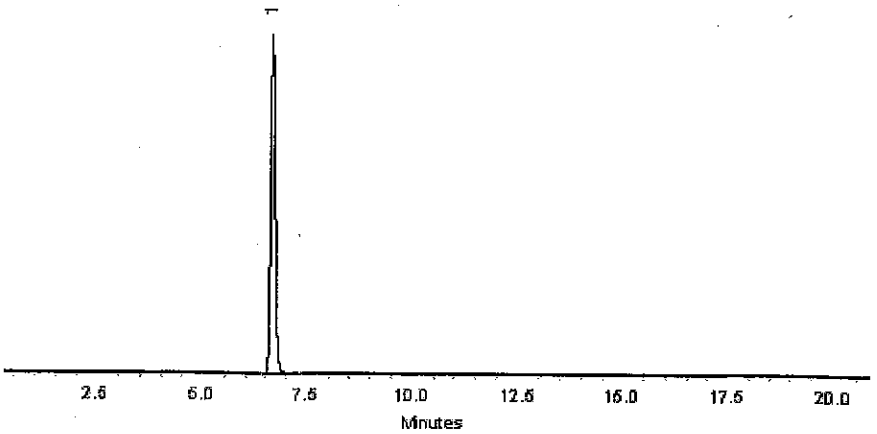
Flow Rate:
1.0 ml/min.

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:** 10-Jul-2018 **Balance:** B707717271

Jennifer Pollino - Operations Tech-ARM QC **Date Passed:** 17-Jul-2018

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

Reagent

8330SurrStkSS_00158

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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)

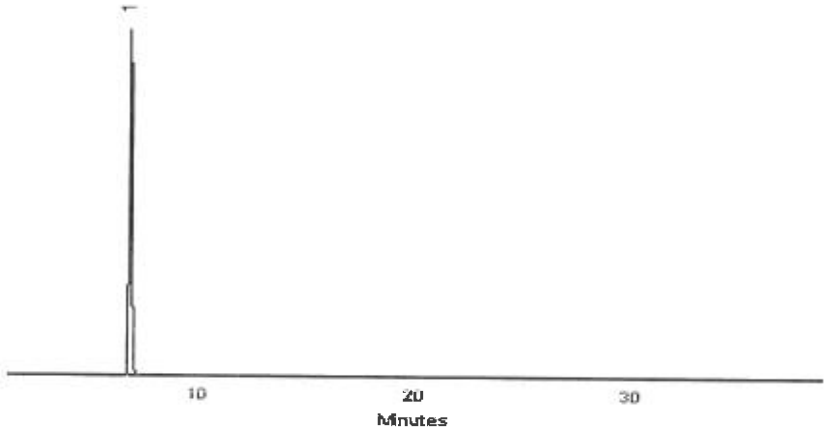
Flow Rate:
1.0 ml/min.

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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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)

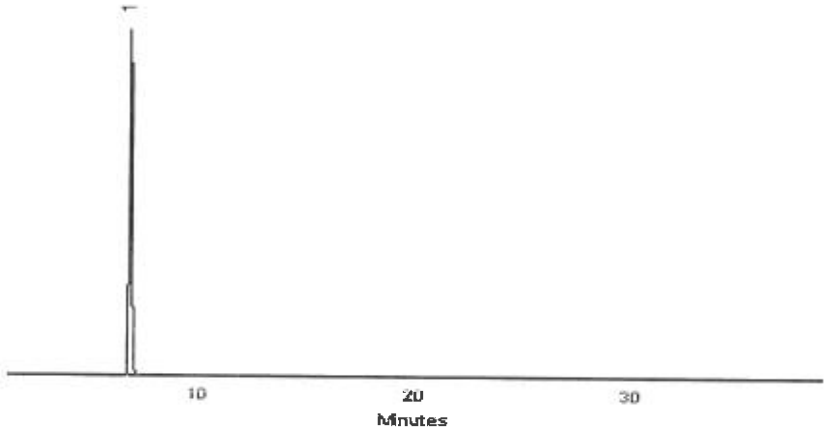
Flow Rate:
1.0 ml/min.

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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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)

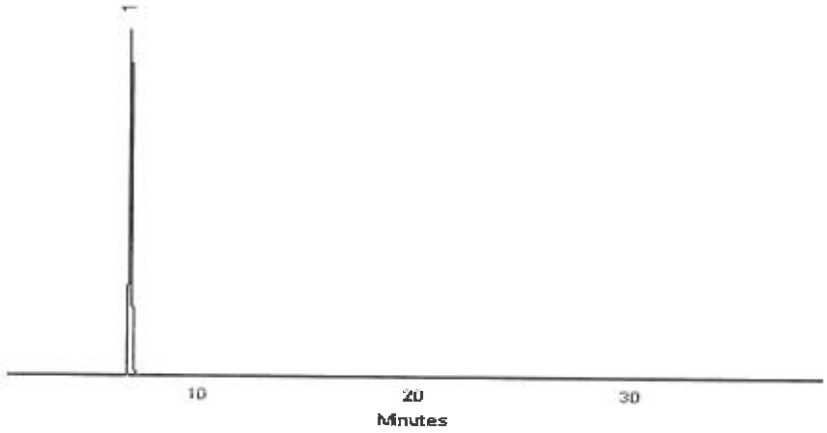
Flow Rate:
1.0 ml/min.

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

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

EXP-SS-MIX1_00008

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Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 31450 **Lot No.:** 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 +/- 55.0525 +/- 64.1967	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
2	RDX **CAS #** 121-82-4 **Purity** 99%	(Lot 080228JLM)	1,005.0 µg/mL	+/- 5.9694 +/- 55.0569 +/- 64.2018	µg/mL µg/mL 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 +/- 54.9463 +/- 64.0727	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
4	1,3-Dinitrobenzene **CAS #** 99-65-0 **Purity** 99%	(Lot BCBN4329V)	1,001.0 µg/mL	+/- 5.9456 +/- 54.8378 +/- 63.9463	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
5	Nitrobenzene **CAS #** 98-95-3 **Purity** 99%	(Lot SHBJ3622)	1,001.0 µg/mL	+/- 5.9456 +/- 54.8378 +/- 63.9463	µg/mL µg/mL 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 +/- 55.0569 +/- 64.2018	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
7	2,4-Dinitrotoluene **CAS #** 121-14-2 **Purity** 99%	(Lot MKAA0690)	1,001.0 µg/mL	+/- 5.9456 +/- 54.8378 +/- 63.9463	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

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

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

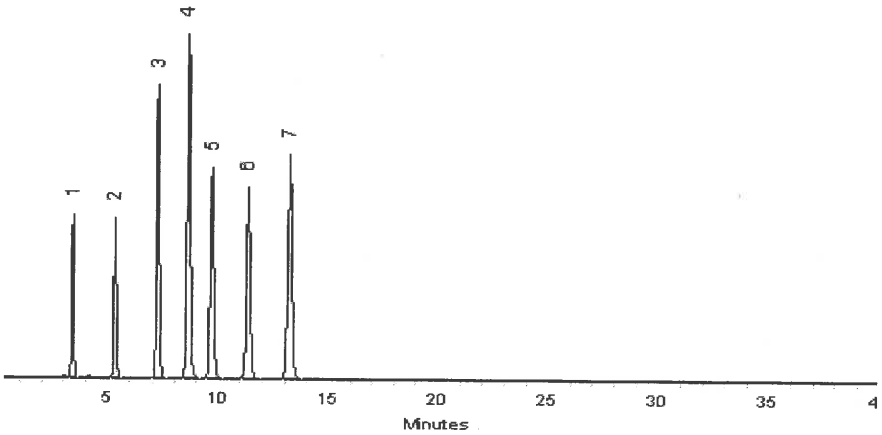
Flow Rate:
1.0 ml/min.

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

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 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

IC BR ICV_00018

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Pocomoke City, MD 21851
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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_00058

Reference Materials Producer
Cert #2495.01

SPEXertificate®

Certificate of Reference Material

Chemical Testing
Cert #2495.02

Catalog Number: AS-CL9-2X **Lot No.** 4-154CL-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: 997 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# 07131A. The certified value listed is the average of values obtained by classical wet assay and ion chromatography analysis.

Refer to side 2 for details of measurement uncertainties.

Classical Wet Assay: 998 µg/mL

Method: Precipitation using Silver Nitrate. Filter, dry and weigh as AgCl.

Instrumental Analysis by Ion Chromatography: 996 µg/mL

Uncertified Properties

Trace Ionic Impurities in the Actual Solution via IC Analysis:

Element	µg/mL	Element	µg/mL
Br^-	<0.05	NO_3^-	<0.04
F^-	<0.006	$PO4^{-3}$	<0.06
NO_2^-	<0.03	$SO4^{-2}$	<0.05

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: APR - - 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
- $U = ku_c$ 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: 1-800-1-SPEX-CP Fax: 732-603-9647

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
- $U = ku_c$ 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.

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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.

M Bourgeois

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_00036

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 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 TESTING LABORATORY
ISO17025 Cert No. AT-1937

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

Page: 2 of 2

www.agilent.com/quality/
CSD-QA-015.1

ISO 17025 Cert
No. AT-1937

Reagent

NH3 ICV STD_00026

INORGANIC VENTURES
[illegible] Drive
[illegible], VA 23075 USA
[illegible]

CERTIFICATE OF ANALYSIS

[illegible]
Fax: [illegible]
[illegible]

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:	M2-NH662533
Matrix:	H2O
Value / Analyte(s):	1 000 µg/mL ea: Ammonium as N
Starting Material:	Ammonium Chloride
Starting Material Lot#:	1736
Starting Material Purity:	99.8500%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value:	996 ± 3 µg/mL
Density:	0.999 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	**993 ± 3 µg/mL** Fajans NIST SRM 999c Lot Number: 999c
Assay Method #2	**997 ± 2 µg/mL** IC Assay NIST SRM 194a Lot Number: 194a

- 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/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 by one method

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.

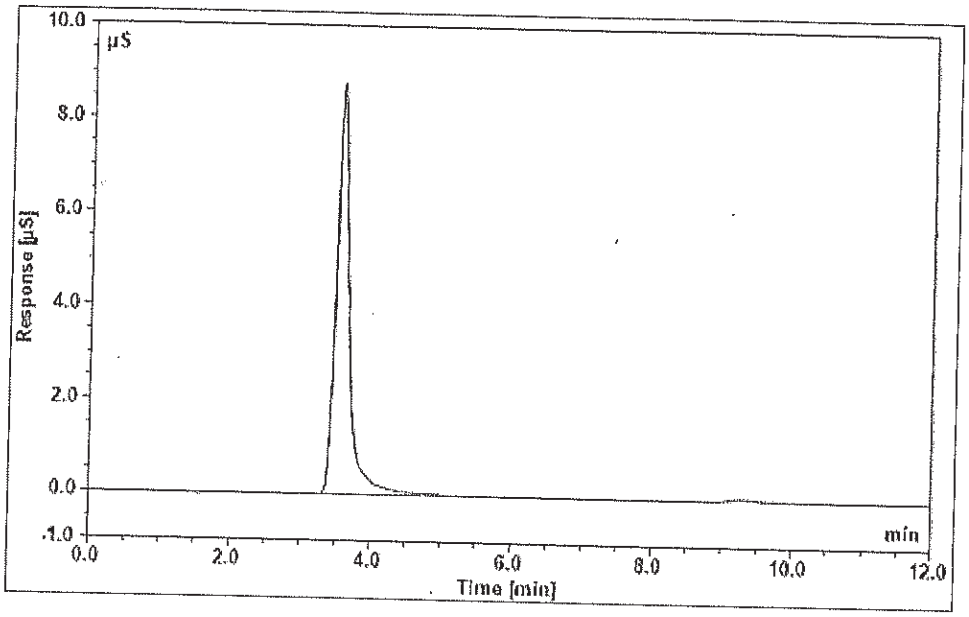
4.2 Balance Calibration

- 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 CS12A-5µm 3x150mm	**Eluent:**	20 mM MSA
Guard Column:	IonPac CG12A-5µm 3x30mm	**Eluent Flow Rate:**	0.50 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:	10 µS/cm
		Concentration:	10 µg/g
Suppressor Current/ Chemical Suppressant:	30 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 10CFR50 Appendix B - Nuclear Regulatory Commission

- Domestic Licensing of Production and Utilization Facilities

10.2 10CFR21 - Nuclear Regulatory Commission

- Reporting defects and Non-Compliance

10.3 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.4 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.5 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

November 03, 2017

- 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

- November 03, 2021

- 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:

Joseph Burns
Supervisor, Product Documentation

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_00086

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 31499 **Lot No.:** A0148431

Description : Picric Acid Standard

Picric Acid Standard 1000µg/mL, Methanol, 1mL/1000µg/mL *PGI BOX REQUIRED* SHIP FED EX GROUND ONLY

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

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

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Picric Acid	1,001.0 µg/mL	+/- 5.9459	µg/mL	Gravimetric
	CAS # 88-89-1 (Lot 06130CU)		+/- 54.8400	µg/mL	Unstressed
	Purity 97%		+/- 63.9488	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)

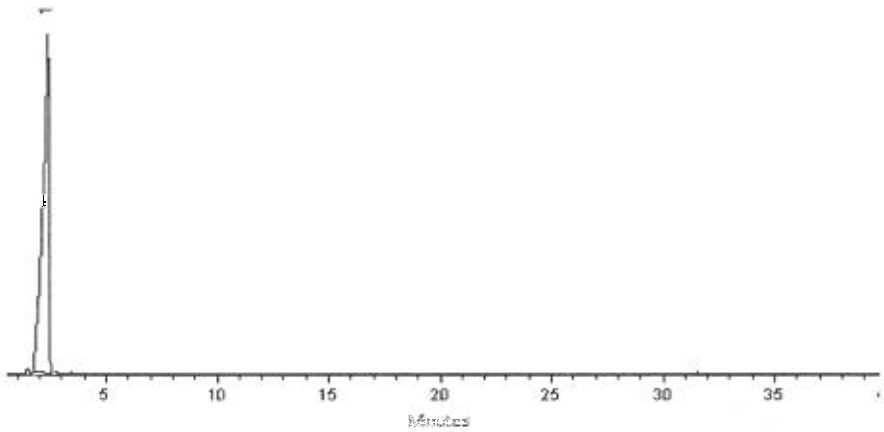
Flow Rate:
1.0 ml/min.

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.

Dustin J Lidgett

Dustin Lidgett - Mix Technician **Date Mixed:** 22-Apr-2019 **Balance:** 1127510105

Jennifer J Pollino

Jennifer Pollino - Operations Tech-ARM QC **Date Passed:** 25-Apr-2019

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

Reagent

RSK7gasMathes_00025

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)
*DM016894

	Requested Concentration	Certified Concentration	Units	Blend Tolerance	Certified Accuracy
Butane	1.00	1.00	%	±10%	±2%
Acetylene	1.00	1.00	%	±10%	±2%
Isobutylene	1.00	1.00	%	±10%	±2%
Propane	1.00	1.00	%	±10%	±2%
Ethane	1.00	0.995	%	±10%	±2%
Ethylene	1.00	0.973	%	±10%	±2%
Methane	1.00	1.00	%	±10%	±2%
Nitrogen	Balance	Balance			

TRACEABILITY

COMMENTS

*** Indicates the actual cylinder(s) analyzed.**

Lot No: 9307628511
Fill Date: 11/30/2017
Expiration Date: 12/01/2019

Analysis Date: 12/01/2017

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.

Andrew L. Couch — 12/01/2017
Andrew Couch - Analyst — Date

Jesse Hayes — 12/04/2017
Jesse Hayes - QA Approval — Date

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.

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 ICV Std_00042

RICCA CHEMICAL COMPANY®

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

Certificate of Analysis

Organic Carbon Standard, 1000 ppm C

Lot Number: 1906D95 **Product Number:** 1847

Manufacture Date: JUN 24, 2019
Expiration Date: JUN 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
Phosphoric Acid	7664-38-2	ACS
Potassium Acid Phthalate	877-24-7	ACS Acidimetric

Test	Specification	Result
Appearance	Colorless liquid	Passed
Carbon (C)	995-1005 ppm	1000 ppm

Specification	Reference
Organic Carbon Stock Solution	APHA (5310 B)
Potassium Hydrogen Phthalate, Stock Solution	EPA (SW-846) (9060)
Potassium Hydrogen Phthalate, Stock Solution, 1000 mg Carbon/liter	EPA (415.1)
Organic Carbon Solution, Standard (1 mL = 1 mg C)	ASTM (D 2579)

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

Part Number	Size / Package Type	Shelf Life (Unopened Container)
1847-16	500 mL amber glass	12 months
1847-32	1 L amber glass	12 months
1847-4	120 mL amber glass	12 months
1847-8	250 mL amber glass	12 months

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

Israel Alamudun (06/24/2019)
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

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 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

Page 2 of 2

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.: 280-134141-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 037F3001.D

Lab ID: LCS 280-487693/37 Client ID:

COMPOUND	SPIKE ADDED (mg/L)	LCS CONCENTRATION (mg/L)	LCS % REC	QC LIMITS REC	#
Methane	0.0730	0.0764	105	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.: 280-134141-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 038F3101.D

Lab ID: LCSD 280-487693/38 Client ID:

COMPOUND	SPIKE ADDED (mg/L)	LCSD CONCENTRATION (mg/L)	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Methane	0.0730	0.0758	104	1	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.: 280-134141-1

SDG No.:

Lab Sample ID: MB 280-487693/39

Matrix: Water Date Extracted:

Lab File ID:(1) 039F3201.D Lab File ID:(2) 039F3201.D

Date Analyzed:(1) 03/04/2020 20:30 Date Analyzed:(2) 03/04/2020 20:30

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 280-487693/37	03/04/2020 20:03	03/04/2020 20:03
	LCSD 280-487693/38	03/04/2020 20:16	03/04/2020 20:16
EW7-PM26A-2-25	280-134141-1	03/04/2020 22:14	03/04/2020 22:14
EW7-PM27A-2-25	280-134141-2	03/04/2020 22:27	03/04/2020 22:27
EW7-PM24A-2-25	280-134141-3	03/04/2020 22:41	03/04/2020 22:41
EW7-PM25A-2-25	280-134141-4	03/04/2020 22:54	03/04/2020 22:54

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134141-1

SDG No.:

Client Sample ID: EW7-PM26A-2-25 Lab Sample ID: 280-134141-1

Instrument ID (1): VGC_J Instrument ID (2): VGC_J

Date Analyzed (1): 03/04/2020 22:14 Date Analyzed (2): 03/04/2020 22:14

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		1.68	1.64	1.72	1.3		2.6
	2		1.26	1.22	1.30	1.3		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134141-1

SDG No.:

Client Sample ID: EW7-PM27A-2-25 Lab Sample ID: 280-134141-2

Instrument ID (1): VGC_J Instrument ID (2): VGC_J

Date Analyzed (1): 03/04/2020 22:27 Date Analyzed (2): 03/04/2020 22:27

GC Column (1): HP-Plot Q ID: 0.53(mm) GC Column (2): Rt-Alumina KC ID: 0.53(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
Methane	1		1.69	1.64	1.72	0.17		1.7
	2		1.26	1.22	1.30	0.17		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134141-1

SDG No.:

Client Sample ID: EW7-PM24A-2-25 Lab Sample ID: 280-134141-3

Instrument ID (1): VGC_J Instrument ID (2): VGC_J

Date Analyzed (1): 03/04/2020 22:41 Date Analyzed (2): 03/04/2020 22:41

GC Column (1): HP-Plot Q ID: 0.53(mm) GC Column (2): Rt-Alumina KC ID: 0.53(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
Methane	1		1.67	1.64	1.72	0.76		2.1
	2		1.26	1.22	1.30	0.78		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134141-1

SDG No.:

Client Sample ID: EW7-PM25A-2-25 Lab Sample ID: 280-134141-4

Instrument ID (1): VGC_J Instrument ID (2): VGC_J

Date Analyzed (1): 03/04/2020 22:54 Date Analyzed (2): 03/04/2020 22:54

GC Column (1): HP-Plot Q ID: 0.53(mm) GC Column (2): Rt-Alumina KC ID: 0.53(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
Methane	1		1.67	1.64	1.72	1.6		3.1
	2		1.26	1.22	1.30	1.6		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134141-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 280-487693/37

Instrument ID (1): VGC_J Instrument ID (2): VGC_J

Date Analyzed (1): 03/04/2020 20:03 Date Analyzed (2): 03/04/2020 20:03

GC Column (1): HP-Plot Q ID: 0.53(mm) GC Column (2): Rt-Alumina KC ID: 0.53(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
Methane	1		1.69	1.64	1.72	0.0764		0.5
	2		1.26	1.22	1.30	0.0760		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134141-1

SDG No.:

Client Sample ID: Lab Sample ID: LCSD 280-487693/38

Instrument ID (1): VGC_J Instrument ID (2): VGC_J

Date Analyzed (1): 03/04/2020 20:16 Date Analyzed (2): 03/04/2020 20:16

GC Column (1): HP-Plot Q ID: 0.53(mm) GC Column (2): Rt-Alumina KC ID: 0.53(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
Methane	1		1.68	1.64	1.72	0.0758		0.4
	2		1.26	1.22	1.30	0.0755		

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-134141-1
SDG No.:
Client Sample ID: EW7-PM26A-2-25
Lab Sample ID: 280-134141-1
Matrix: Water
Lab File ID: 047F4001.D
Analysis Method: RSK-175
Date Collected: 02/27/2020 11:35
Sample wt/vol: 18(mL)
Date Analyzed: 03/04/2020 22:14
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.: 487693
Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
74-82-8	Methane	1.3		0.0050	0.0020	0.00063

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\VGC_J\20200304-89777.b\047F4001.D				
Lims ID:	280-134141-G-1				
Client ID:	EW7-PM26A-2-25				
Sample Type:	Client				
Inject. Date:	04-Mar-2020 22:14:52	ALS Bottle#:	47	Worklist Smp#:	47
Purge Vol:	18.000 mL	Dil. Factor:	1.0000		
Sample Info:	280-134141-G-1				
Operator ID:	sciannac	Instrument ID:	VGC_J		
Method:	\\chromna\Denver\ChromData\VGC_J\20200304-89777.b\RSK_J.m				
Limit Group:	GCV - RSK 175				
Method Label:	DV-GC-0025: Dissolved Gases in Water by RSK-175				
Last Update:	05-Mar-2020 10:58:34	Calib Date:	15-Apr-2019 12:11:08		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\VGC_J\20190415-80933.b\04151909.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:	CTX0327				

First Level Reviewer: sciannac Date: 05-Mar-2020 10:53:15

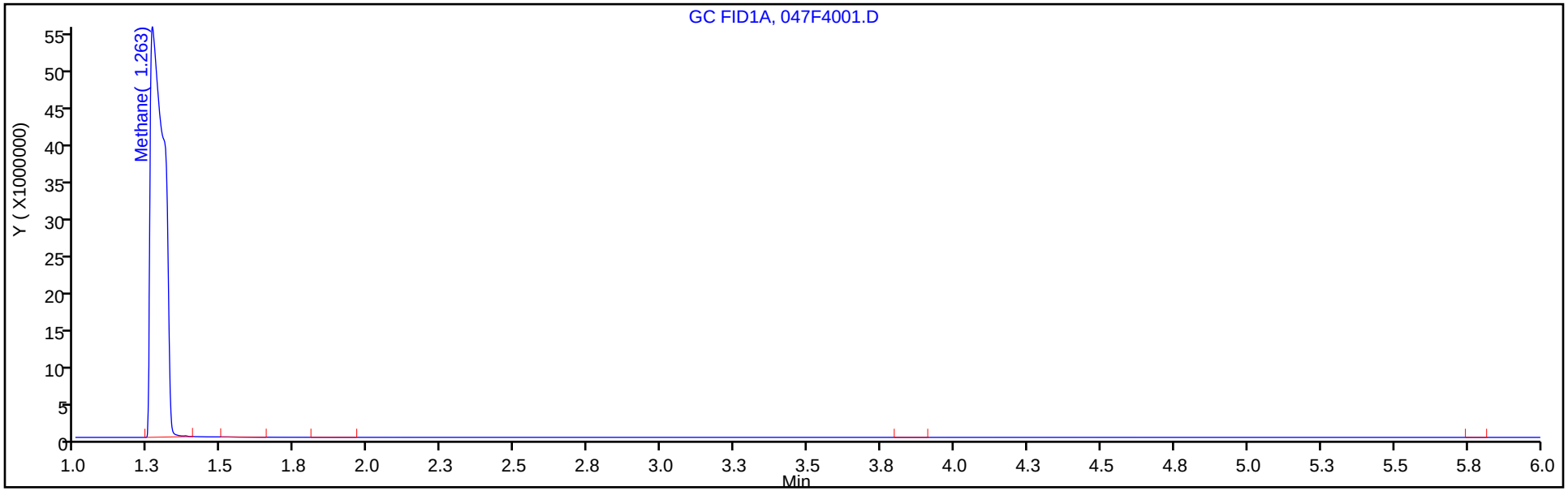
Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/l	Flags
1 Methane						
1	1.263	1.259	0.004	179152695	1337.3	
2	1.681	1.677	0.004	149301022	1303.1	
					RPD = 2.59	
2 Ethane						
1		1.534			ND	
2		2.870				
3 Ethylene						
1		1.850			ND	
2		2.493				
4 Propane						
1		2.582			ND	
2		4.679				
5 Acetylene						
1		4.043			ND	
2		2.645				
6 Butane						
1		4.345			ND	
2		6.139				
7 isobutylene						
1		5.284			ND	
2		5.990				

Report Date: 05-Mar-2020 10:58:44 Chrom Revision: 2.3 19-Feb-2020 16:45:46

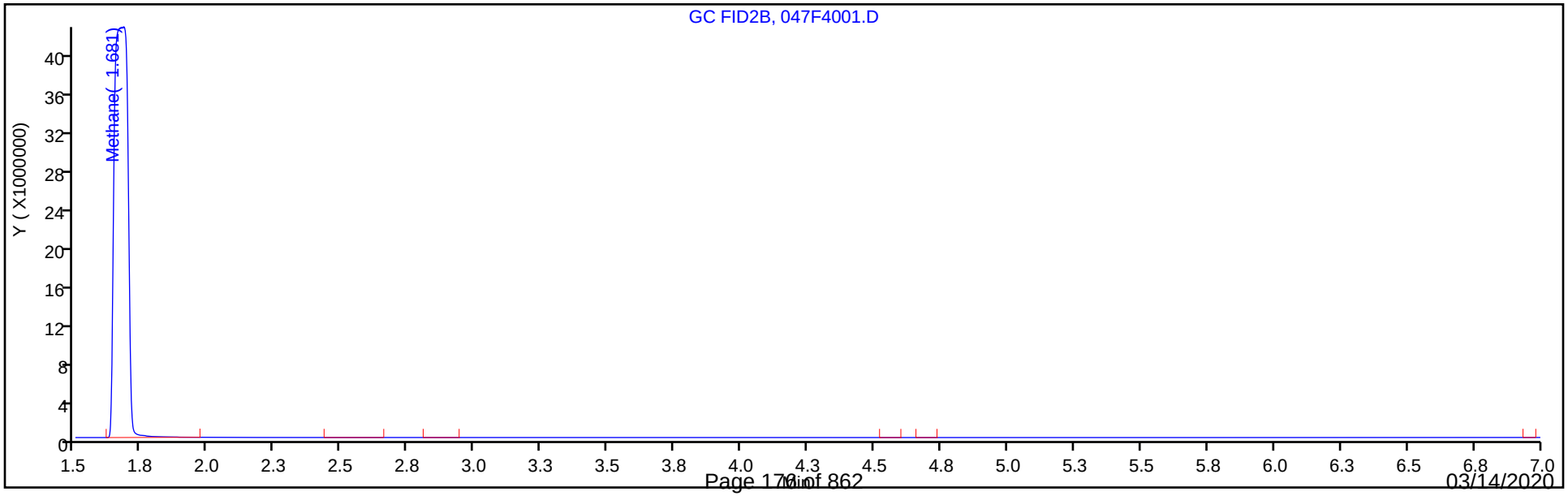
Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\VGC_J\20200304-89777.b\047F4001.D				
Injection Date:	04-Mar-2020 22:14:52	Instrument ID:	VGC_J	Operator ID:	sciannac
Lims ID:	280-134141-G-1	Lab Sample ID:	280-134141-1	Worklist Smp#:	47
Client ID:	EW7-PM26A-2-25				
Purge Vol:	18.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	47
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.: 280-134141-1
SDG No.:
Client Sample ID: EW7-PM27A-2-25
Lab Sample ID: 280-134141-2
Matrix: Water
Lab File ID: 048F4101.D
Analysis Method: RSK-175
Date Collected: 02/27/2020 15:20
Sample wt/vol: 18(mL)
Date Analyzed: 03/04/2020 22:27
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.: 487693
Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
74-82-8	Methane	0.17		0.0050	0.0020	0.00063

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\VGC_J\20200304-89777.b\048F4101.D				
Lims ID:	280-134141-G-2				
Client ID:	EW7-PM27A-2-25				
Sample Type:	Client				
Inject. Date:	04-Mar-2020 22:27:58	ALS Bottle#:	48	Worklist Smp#:	48
Purge Vol:	18.000 mL	Dil. Factor:	1.0000		
Sample Info:	280-134141-G-2				
Operator ID:	sciannac	Instrument ID:	VGC_J		
Method:	\\chromna\Denver\ChromData\VGC_J\20200304-89777.b\RSK_J.m				
Limit Group:	GCV - RSK 175				
Method Label:	DV-GC-0025: Dissolved Gases in Water by RSK-175				
Last Update:	05-Mar-2020 10:58:34	Calib Date:	15-Apr-2019 12:11:08		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\VGC_J\20190415-80933.b\04151909.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:	CTX0327				

First Level Reviewer: sciannac Date: 05-Mar-2020 10:53:21

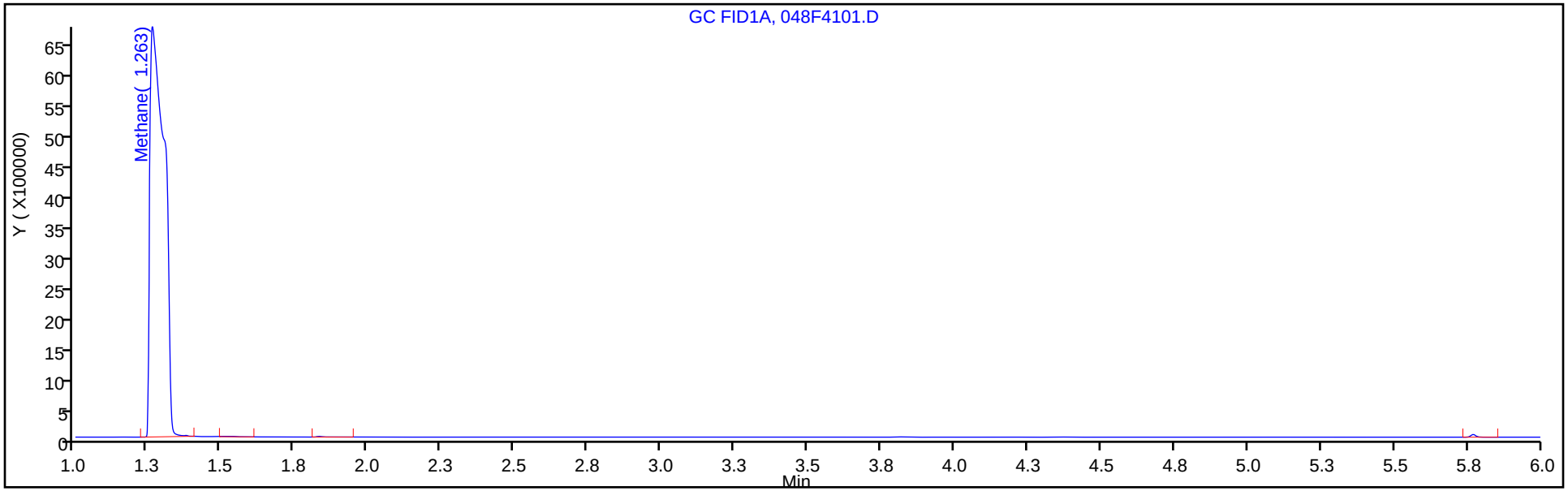
Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/l	Flags
1 Methane						
1	1.263	1.259	0.004	22837827	170.2	
2	1.686	1.677	0.009	19207015	167.4	
					RPD = 1.66	
2 Ethane						
1		1.534			ND	
2		2.870				
3 Ethylene						
1		1.850			ND	
2		2.493				
4 Propane						
1		2.582			ND	
2		4.679				
5 Acetylene						
1		4.043			ND	
2		2.645				
6 Butane						
1		4.345			ND	
2		6.139				
7 isobutylene						
1		5.284			ND	
2		5.990				

Report Date: 05-Mar-2020 10:58:44 Chrom Revision: 2.3 19-Feb-2020 16:45:46

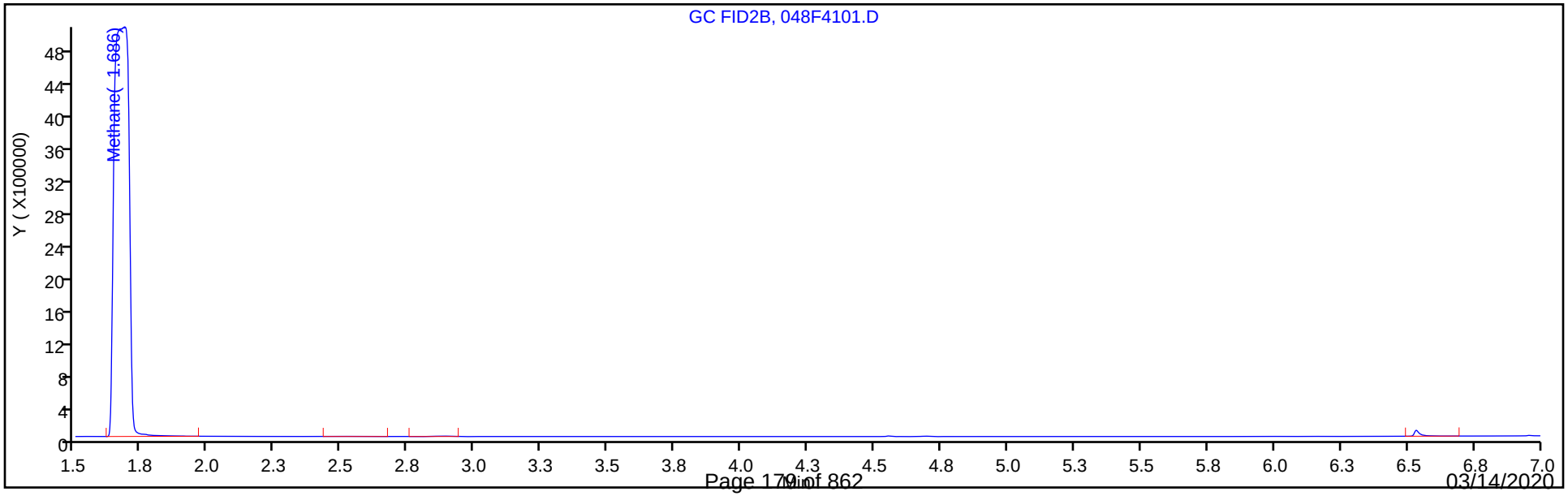
Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\VGC_J\20200304-89777.b\048F4101.D				
Injection Date:	04-Mar-2020 22:27:58	Instrument ID:	VGC_J	Operator ID:	sciannac
Lims ID:	280-134141-G-2	Lab Sample ID:	280-134141-2	Worklist Smp#:	48
Client ID:	EW7-PM27A-2-25				
Purge Vol:	18.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	48
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.: 280-134141-1
SDG No.:
Client Sample ID: EW7-PM24A-2-25
Lab Sample ID: 280-134141-3
Matrix: Water
Lab File ID: 049F4201.D
Analysis Method: RSK-175
Date Collected: 02/27/2020 09:40
Sample wt/vol: 18(mL)
Date Analyzed: 03/04/2020 22:41
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.: 487693
Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
74-82-8	Methane	0.76		0.0050	0.0020	0.00063

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\VGC_J\20200304-89777.b\049F4201.D				
Lims ID:	280-134141-H-3				
Client ID:	EW7-PM24A-2-25				
Sample Type:	Client				
Inject. Date:	04-Mar-2020 22:41:05	ALS Bottle#:	49	Worklist Smp#:	49
Purge Vol:	18.000 mL	Dil. Factor:	1.0000		
Sample Info:	280-134141-H-3				
Operator ID:	sciannac	Instrument ID:	VGC_J		
Method:	\\chromna\Denver\ChromData\VGC_J\20200304-89777.b\RSK_J.m				
Limit Group:	GCV - RSK 175				
Method Label:	DV-GC-0025: Dissolved Gases in Water by RSK-175				
Last Update:	05-Mar-2020 10:58:34	Calib Date:	15-Apr-2019 12:11:08		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\VGC_J\20190415-80933.b\04151909.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:	CTX0327				

First Level Reviewer: sciannac Date: 05-Mar-2020 10:53:26

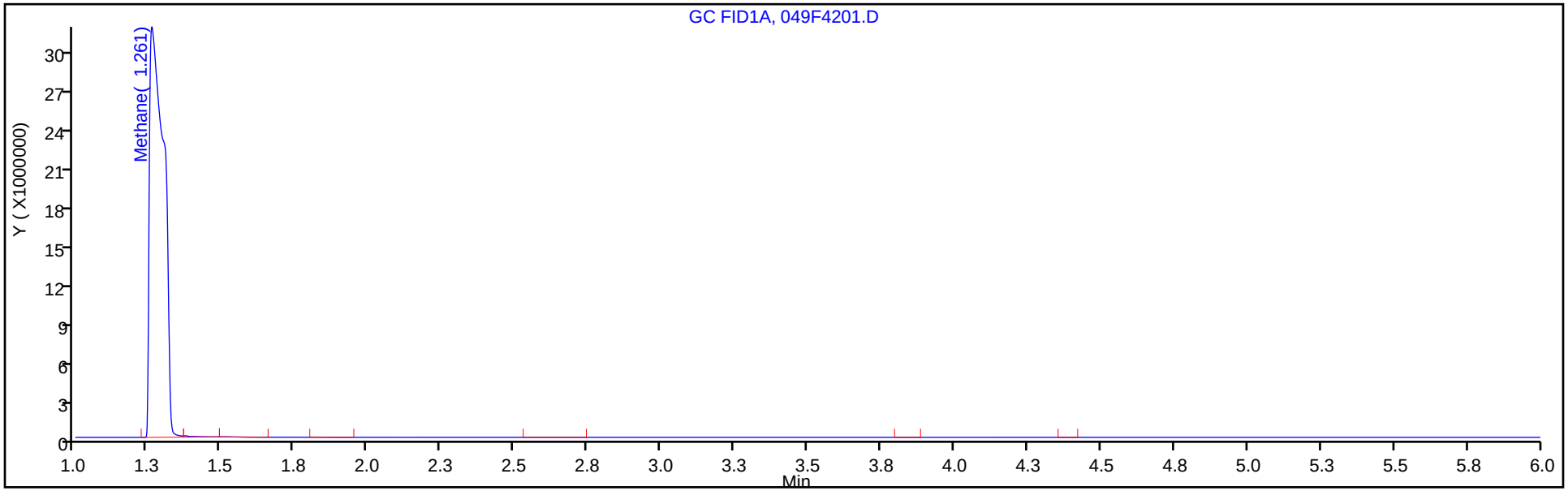
Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/l	Flags
1 Methane						
1	1.261	1.259	0.002	104283168	778.3	
2	1.674	1.677	-0.003	87321893	762.1	
					RPD = 2.11	
2 Ethane						
1		1.534			ND	
2		2.870				
3 Ethylene						
1		1.850			ND	
2		2.493				
4 Propane						
1		2.582			ND	
2		4.679				
5 Acetylene						
1		4.043			ND	
2		2.645				
6 Butane						
1		4.345			ND	
2		6.139				
7 isobutylene						
1		5.284			ND	
2		5.990				

Report Date: 05-Mar-2020 10:58:45 Chrom Revision: 2.3 19-Feb-2020 16:45:46

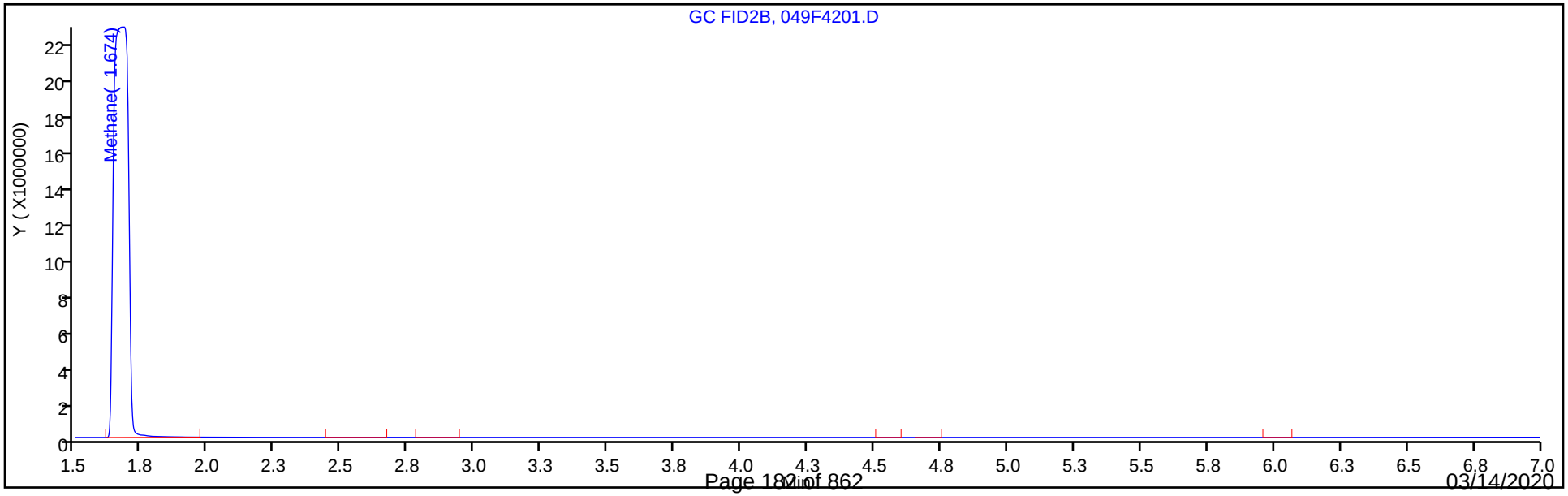
Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\VGC_J\20200304-89777.b\049F4201.D				
Injection Date:	04-Mar-2020 22:41:05	Instrument ID:	VGC_J	Operator ID:	sciannac
Lims ID:	280-134141-H-3	Lab Sample ID:	280-134141-3	Worklist Smp#:	49
Client ID:	EW7-PM24A-2-25				
Purge Vol:	18.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	49
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.: 280-134141-1
SDG No.:
Client Sample ID: EW7-PM25A-2-25
Lab Sample ID: 280-134141-4
Matrix: Water
Lab File ID: 050F4301.D
Analysis Method: RSK-175
Date Collected: 02/27/2020 11:35
Sample wt/vol: 18(mL)
Date Analyzed: 03/04/2020 22:54
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.: 487693
Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
74-82-8	Methane	1.6		0.0050	0.0020	0.00063

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\VGC_J\20200304-89777.b\050F4301.D				
Lims ID:	280-134141-G-4				
Client ID:	EW7-PM25A-2-25				
Sample Type:	Client				
Inject. Date:	04-Mar-2020 22:54:10	ALS Bottle#:	50	Worklist Smp#:	50
Purge Vol:	18.000 mL	Dil. Factor:	1.0000		
Sample Info:	280-134141-G-4				
Operator ID:	sciannac	Instrument ID:	VGC_J		
Method:	\\chromna\Denver\ChromData\VGC_J\20200304-89777.b\RSK_J.m				
Limit Group:	GCV - RSK 175				
Method Label:	DV-GC-0025: Dissolved Gases in Water by RSK-175				
Last Update:	05-Mar-2020 10:58:34	Calib Date:	15-Apr-2019 12:11:08		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\VGC_J\20190415-80933.b\04151909.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:	CTX0327				

First Level Reviewer: sciannac Date: 05-Mar-2020 10:53:32

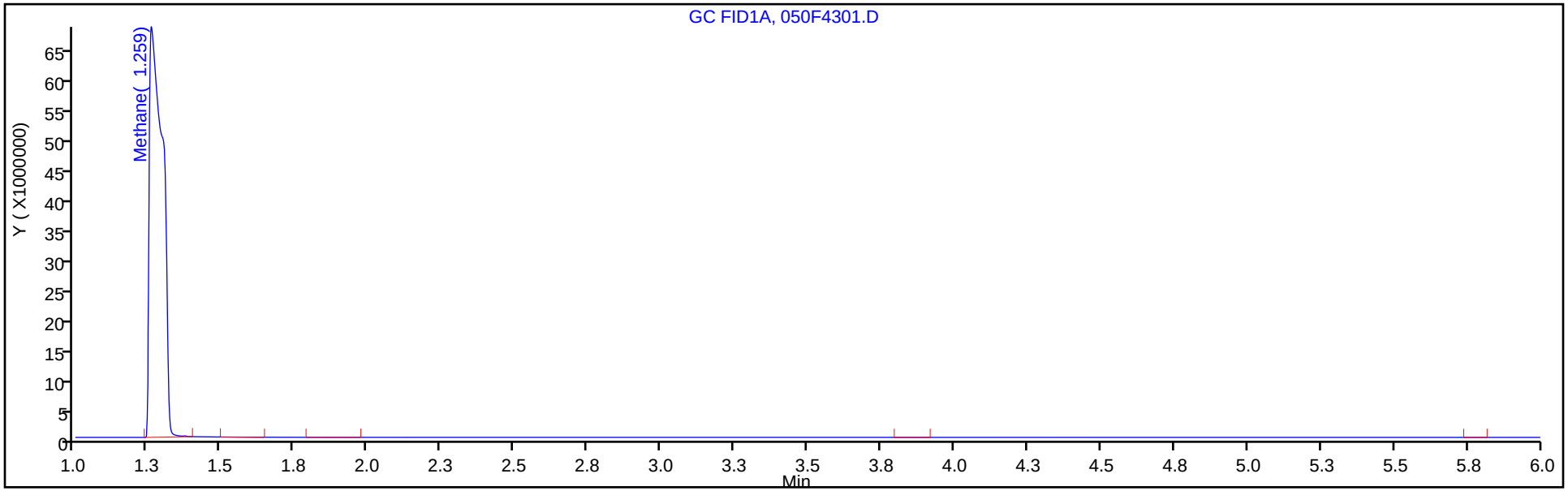
Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/l	Flags
1 Methane						
1	1.259	1.259	0.000	215240422	1606.8	
2	1.674	1.677	-0.003	178375486	1557.0	
					RPD = 3.15	
2 Ethane						
1		1.534			ND	
2		2.870				
3 Ethylene						
1		1.850			ND	
2		2.493				
4 Propane						
1		2.582			ND	
2		4.679				
5 Acetylene						
1		4.043			ND	
2		2.645				
6 Butane						
1		4.345			ND	
2		6.139				
7 isobutylene						
1		5.284			ND	
2		5.990				

Report Date: 05-Mar-2020 10:58:46 Chrom Revision: 2.3 19-Feb-2020 16:45:46

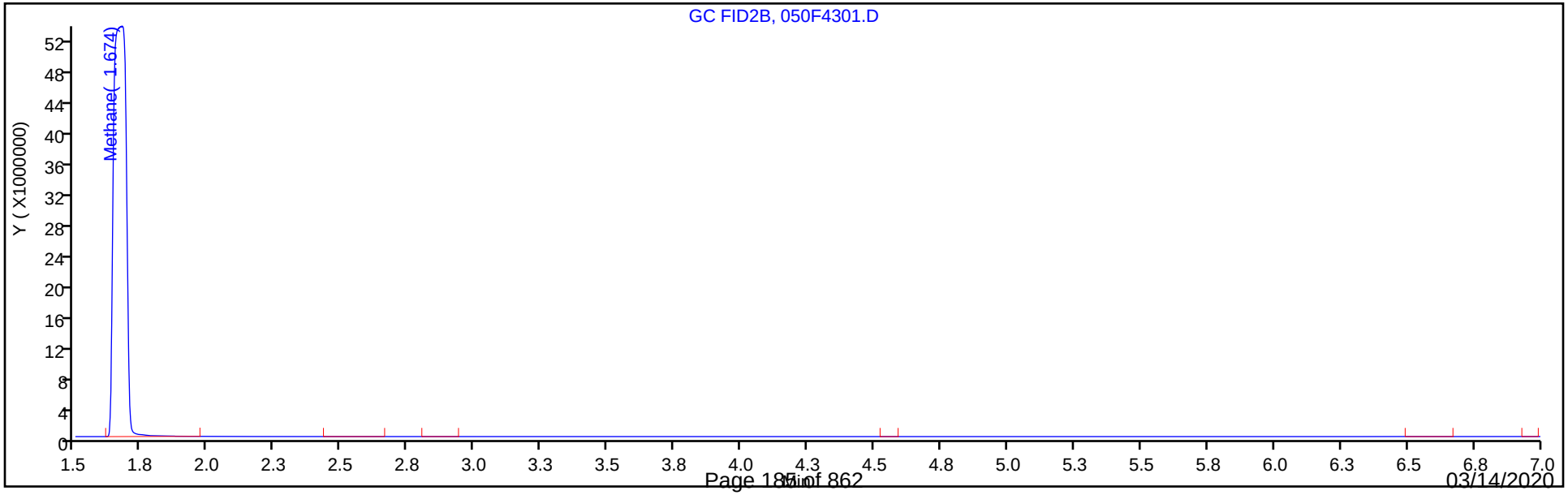
Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\VGC_J\20200304-89777.b\050F4301.D				
Injection Date:	04-Mar-2020 22:54:10	Instrument ID:	VGC_J	Operator ID:	sciannac
Lims ID:	280-134141-G-4	Lab Sample ID:	280-134141-4	Worklist Smp#:	50
Client ID:	EW7-PM25A-2-25				
Purge Vol:	18.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	50
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.: 280-134141-1 Analy Batch No.: 454595

SDG No.:

Instrument ID: VGC_J GC Column: Rt-Alumina ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/15/2019 10:23 Calibration End Date: 04/15/2019 12:11 Calibration ID: 36051

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-454595/1	04151901.D
Level 2	IC 280-454595/2	04151902.D
Level 3	IC 280-454595/3	04151903.D
Level 4	IC 280-454595/4	04151904.D
Level 5	ICRT 280-454595/5	04151905.D
Level 6	IC 280-454595/6	04151906.D
Level 7	IC 280-454595/7	04151907.D
Level 8	IC 280-454595/8	04151908.D
Level 9	IC 280-454595/9	04151909.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	1.278	1.279	1.278	1.275	1.271	1.267	1.263	1.265	1.263		1.231 - 1.311	1.271
Ethane	1.543	1.556	1.563	1.544	1.556	1.549	1.549				1.506 - 1.606	1.551
Ethylene	1.877	1.890	1.889	1.885	1.880	1.866	1.870				1.830 - 1.930	1.880
Acetylene	4.091	4.095	4.094	4.089	4.078	4.070	4.057				3.998 - 4.158	4.082

FORM VI
GC VOA BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134141-1 Analy Batch No.: 454595

SDG No.:

Instrument ID: VGC_J GC Column: Rt-Alumina ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/15/2019 10:23 Calibration End Date: 04/15/2019 12:11 Calibration ID: 36051

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-454595/1	04151901.D
Level 2	IC 280-454595/2	04151902.D
Level 3	IC 280-454595/3	04151903.D
Level 4	IC 280-454595/4	04151904.D
Level 5	ICRT 280-454595/5	04151905.D
Level 6	IC 280-454595/6	04151906.D
Level 7	IC 280-454595/7	04151907.D
Level 8	IC 280-454595/8	04151908.D
Level 9	IC 280-454595/9	04151909.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	204398 131881 131842	184432 123000	160460 138803	145282 125426	Lin2	35657.0530	133937.900							0.9950		0.9900
Ethane	106648 126474	133252 117971	131481 131045	137677	Ave		126364.118				8.4		20.0			
Ethylene	92446 106296	109949 99762	109227 107387	115582	Ave		105806.995				7.1		20.0			
Acetylene	26743 33864	32134 32487	32468 33051	34153	Ave		32128.5566				7.8		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.: 280-134141-1 Analy Batch No.: 454595

SDG No.:

Instrument ID: VGC_J GC Column: Rt-Alumina ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/15/2019 10:23 Calibration End Date: 04/15/2019 12:11 Calibration ID: 36051

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-454595/1	04151901.D
Level 2	IC 280-454595/2	04151902.D
Level 3	IC 280-454595/3	04151903.D
Level 4	IC 280-454595/4	04151904.D
Level 5	ICRT 280-454595/5	04151905.D
Level 6	IC 280-454595/6	04151906.D
Level 7	IC 280-454595/7	04151907.D
Level 8	IC 280-454595/8	04151908.D
Level 9	IC 280-454595/9	04151909.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	93261 17958876	168302 40532226	292852 226637342	2121207 952923785	9627756	0.456 146	0.913 292	1.83 1807	14.6 7228	73.0
Ethane	Ave	91221 32290083	227953 71736807	449849	3768385	17308693	0.855 274	1.71 547	3.42	27.4	137
Ethylene	Ave	73764 25472652	175461 54838846	348615	2951189	13570482	0.798 255	1.60 511	3.19	25.5	128
Acetylene	Ave	19810 7700889	47607 15668916	96205	809586	4013672	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: \\chromna\Denver\ChromData\VGC_J\20190415-80933.b\04151901.D
Lims ID: IC L1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 15-Apr-2019 10:23:57 ALS Bottle#: 1 Worklist Smp#: 1
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: IC L1
Misc. Info.: 280-0080933-001
Operator ID: ms Instrument ID: VGC_J
Sublist: chrom-RSK_J*sub5

Method: \\chromna\Denver\ChromData\VGC_J\20190415-80933.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 15-May-2019 11:57:50 Calib Date: 15-Apr-2019 12:11:08
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\VGC_J\20190415-80933.b\04151909.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: CTX0333

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Methane							
1	1.278	1.271	0.007	93261	0.4563	0.4301	
2	1.692	1.692	0.000	75515	0.4563	0.4314	
						RPD = 0.31	
2 Ethane							
1	1.543	1.556	-0.013	91221	0.8553	0.7219	
2	2.890	2.889	0.001	77042	0.8553	0.7173	
						RPD = 0.64	
3 Ethylene							
1	1.877	1.880	-0.003	73764	0.7979	0.6972	
2	2.514	2.512	0.002	61480	0.7979	0.6831	
						RPD = 2.04	
4 Propane							
1	2.651	2.632	0.019	147932	1.25	1.09	
2	4.691	4.687	0.004	125161	1.25	1.09	
						RPD = 0.25	
5 Acetylene							
1	4.091	4.078	0.013	19810	0.7408	0.6166	
2	2.667	2.652	0.015	18179	0.7408	0.6418	
						RPD = 4.01	
6 Butane							M
1	4.410	4.381	0.029	211953	1.65	1.51	
2	6.155	6.146	0.009	195662	1.65	1.63	M
						RPD = 7.68	
7 isobutylene							
1	5.333	5.311	0.022	147116	1.60	1.52	
2	6.003	5.998	0.005	121709	1.60	1.50	
						RPD = 1.22	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

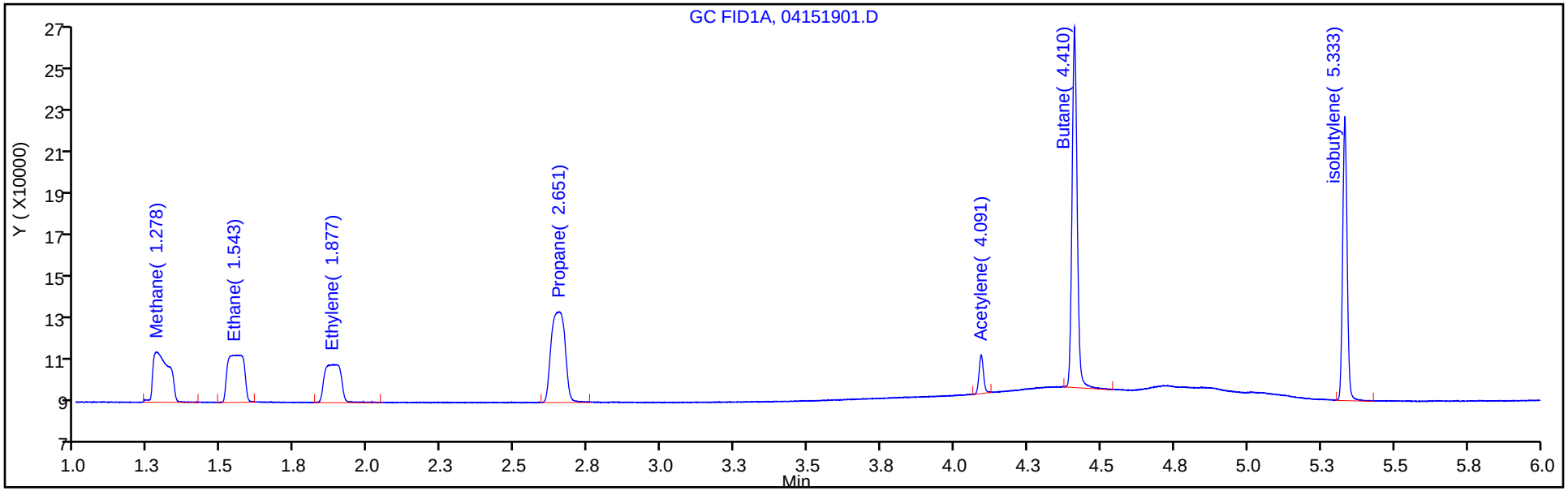
RSK7gasMathes_00026 Amount Added: 1.25 Units: uL

Report Date: 15-May-2019 11:57:50 Chrom Revision: 2.3 03-May-2019 15:52:00

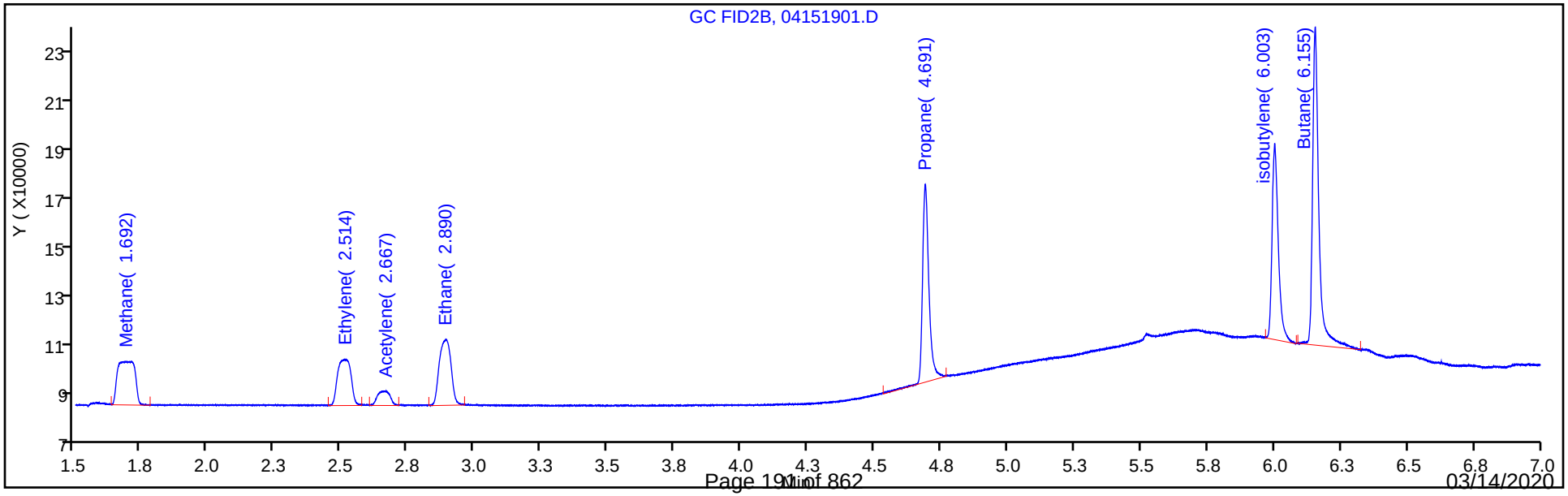
Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\VGC_J\20190415-80933.b\04151901.D				
Injection Date:	15-Apr-2019 10:23:57	Instrument ID:	VGC_J	Operator ID:	ms
Lims ID:	IC L1			Worklist Smp#:	1
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
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\VGC_J\20190415-80933.b\04151902.D
Lims ID: IC L2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 15-Apr-2019 10:37:05 ALS Bottle#: 2 Worklist Smp#: 2
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: IC L2
Misc. Info.: 280-0080933-002
Operator ID: ms Instrument ID: VGC_J
Sublist: chrom-RSK_J*sub5

Method: \\chromna\Denver\ChromData\VGC_J\20190415-80933.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 15-May-2019 11:57:51 Calib Date: 15-Apr-2019 12:11:08
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\VGC_J\20190415-80933.b\04151909.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: CTX0333

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Methane							
1	1.279	1.271	0.008	168302	0.9125	0.99	
2	1.699	1.692	0.007	139116	0.9125	0.9867	
						RPD = 0.37	
2 Ethane							
1	1.556	1.556	0.000	227953	1.71	1.80	
2	2.899	2.889	0.010	191594	1.71	1.78	
						RPD = 1.12	
3 Ethylene							
1	1.890	1.880	0.010	175461	1.60	1.66	
2	2.524	2.512	0.012	149728	1.60	1.66	
						RPD = 0.31	
4 Propane							
1	2.645	2.632	0.013	363474	2.51	2.69	
2	4.696	4.687	0.009	306879	2.51	2.67	
						RPD = 0.46	
5 Acetylene							
1	4.095	4.078	0.017	47607	1.48	1.48	
2	2.667	2.652	0.015	41972	1.48	1.48	
						RPD = 0.00	
6 Butane							
1	4.401	4.381	0.020	519750	3.31	3.69	
2	6.158	6.146	0.012	435009	3.31	3.61	
						RPD = 2.11	
7 isobutylene							
1	5.327	5.311	0.016	344778	3.19	3.56	
2	6.006	5.998	0.008	288028	3.19	3.55	
						RPD = 0.25	

Reagents:

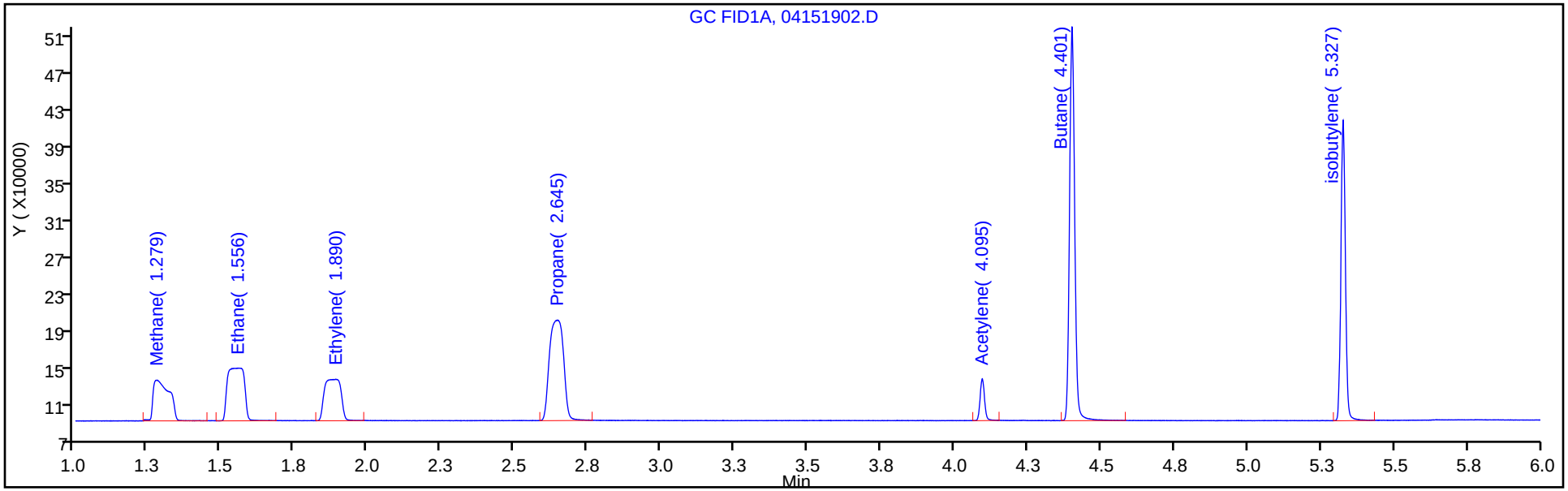
RSK7gasMathes_00026 Amount Added: 2.50 Units: uL

Report Date: 15-May-2019 11:57:51 Chrom Revision: 2.3 03-May-2019 15:52:00

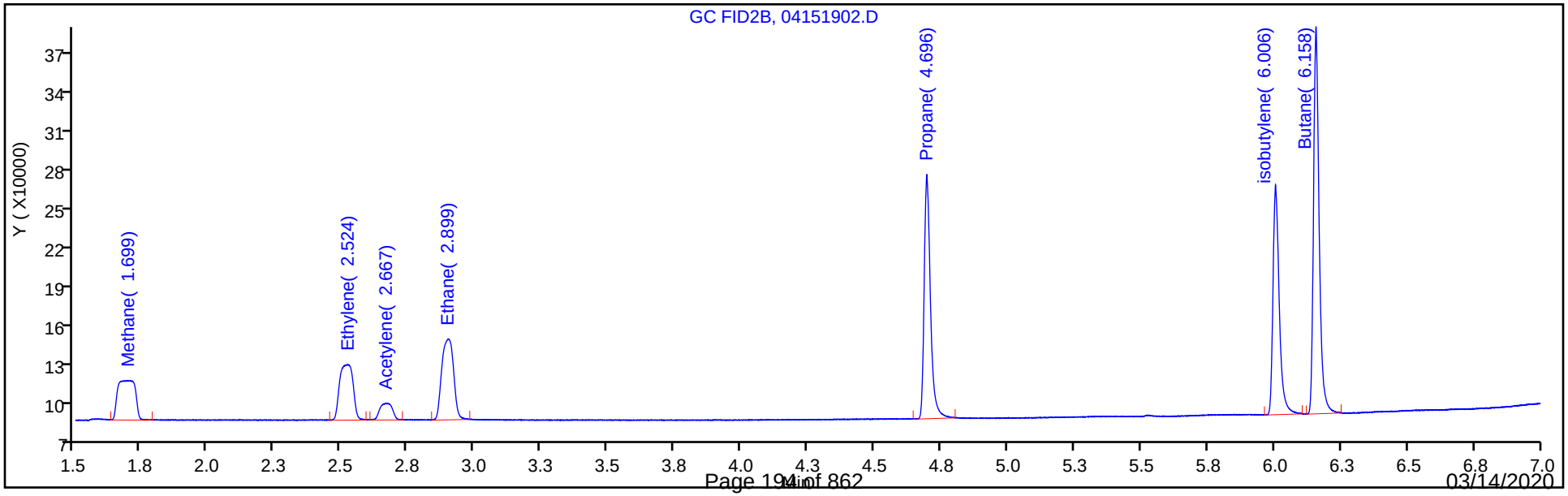
Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\VGC_J\20190415-80933.b\04151902.D				
Injection Date:	15-Apr-2019 10:37:05	Instrument ID:	VGC_J	Operator ID:	ms
Lims ID:	IC L2			Worklist Smp#:	2
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



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\VGC_J\20190415-80933.b\04151903.D
Lims ID: IC L3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 15-Apr-2019 10:50:22 ALS Bottle#: 3 Worklist Smp#: 3
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: IC L3
Misc. Info.: 280-0080933-003
Operator ID: ms Instrument ID: VGC_J
Sublist: chrom-RSK_J*sub5

Method: \\chromna\Denver\ChromData\VGC_J\20190415-80933.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 15-May-2019 11:57:52 Calib Date: 15-Apr-2019 12:11:08
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\VGC_J\20190415-80933.b\04151909.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: CTX0333

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Methane							
1	1.278	1.271	0.007	292852	1.83	1.92	
2	1.688	1.692	-0.004	245139	1.83	1.91	
						RPD = 0.42	
2 Ethane							
1	1.563	1.556	0.007	449849	3.42	3.56	
2	2.900	2.889	0.011	380840	3.42	3.55	
						RPD = 0.40	
3 Ethylene							
1	1.889	1.880	0.009	348615	3.19	3.29	
2	2.516	2.512	0.004	297902	3.19	3.31	
						RPD = 0.45	
4 Propane							
1	2.645	2.632	0.013	706582	5.02	5.22	
2	4.696	4.687	0.009	601744	5.02	5.24	
						RPD = 0.40	
5 Acetylene							
1	4.094	4.078	0.016	96205	2.96	2.99	
2	2.674	2.652	0.022	82868	2.96	2.93	
						RPD = 2.32	
6 Butane							
1	4.400	4.381	0.019	993917	6.61	7.06	
2	6.157	6.146	0.011	836646	6.61	6.95	
						RPD = 1.54	
7 isobutylene							
1	5.326	5.311	0.015	655607	6.38	6.78	
2	6.005	5.998	0.007	552886	6.38	6.82	
						RPD = 0.70	

Reagents:

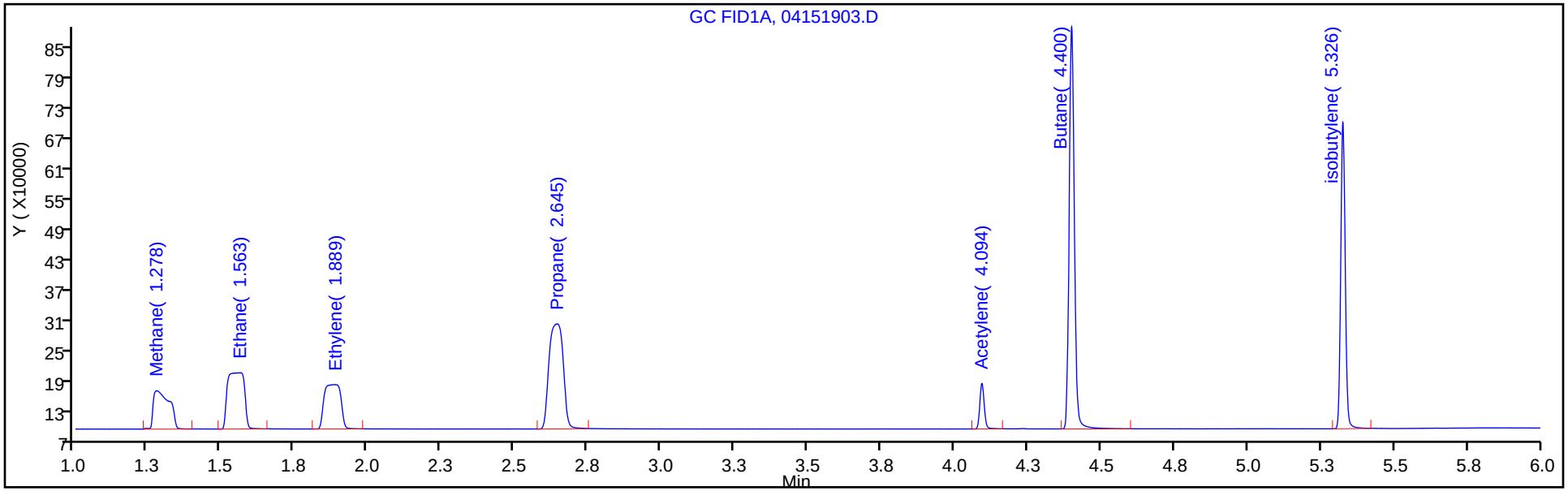
RSK7gasMathes_00026 Amount Added: 5.00 Units: uL

Report Date: 15-May-2019 11:57:53 Chrom Revision: 2.3 03-May-2019 15:52:00

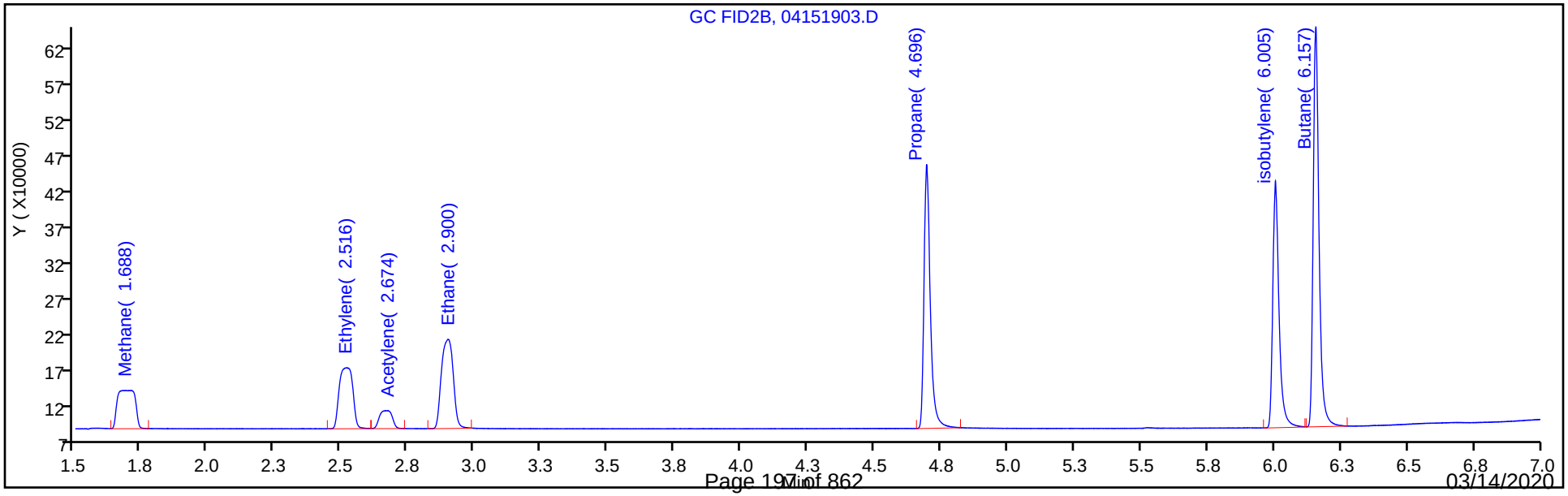
Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\VGC_J\20190415-80933.b\04151903.D				
Injection Date:	15-Apr-2019 10:50:22	Instrument ID:	VGC_J	Operator ID:	ms
Lims ID:	IC L3			Worklist Smp#:	3
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: \\chromna\Denver\ChromData\VGC_J\20190415-80933.b\04151904.D
Lims ID: IC L4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 15-Apr-2019 11:03:41 ALS Bottle#: 4 Worklist Smp#: 4
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: IC L4
Misc. Info.: 280-0080933-004
Operator ID: ms Instrument ID: VGC_J
Sublist: chrom-RSK_J*sub5

Method: \\chromna\Denver\ChromData\VGC_J\20190415-80933.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 15-May-2019 11:57:54 Calib Date: 15-Apr-2019 12:11:08
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\VGC_J\20190415-80933.b\04151909.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: CTX0333

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Methane							
1	1.275	1.271	0.004	2121207	14.6	15.6	
2	1.701	1.692	0.009	1817240	14.6	15.6	
						RPD = 0.42	
2 Ethane							
1	1.544	1.556	-0.012	3768385	27.4	29.8	
2	2.896	2.889	0.007	3198231	27.4	29.8	
						RPD = 0.15	
3 Ethylene							
1	1.885	1.880	0.005	2951189	25.5	27.9	
2	2.516	2.512	0.004	2513192	25.5	27.9	
						RPD = 0.11	
4 Propane							
1	2.641	2.632	0.009	5812465	40.1	43.0	
2	4.694	4.687	0.007	4940027	40.1	43.1	
						RPD = 0.20	
5 Acetylene							
1	4.089	4.078	0.011	809586	23.7	25.2	
2	2.668	2.652	0.016	709490	23.7	25.0	
						RPD = 0.60	
6 Butane							
1	4.395	4.381	0.014	7767068	52.9	55.2	
2	6.155	6.146	0.009	6590566	52.9	54.7	
						RPD = 0.74	
7 isobutylene							
1	5.322	5.311	0.011	5189017	51.1	53.6	
2	6.004	5.998	0.006	4363220	51.1	53.8	
						RPD = 0.40	

Reagents:

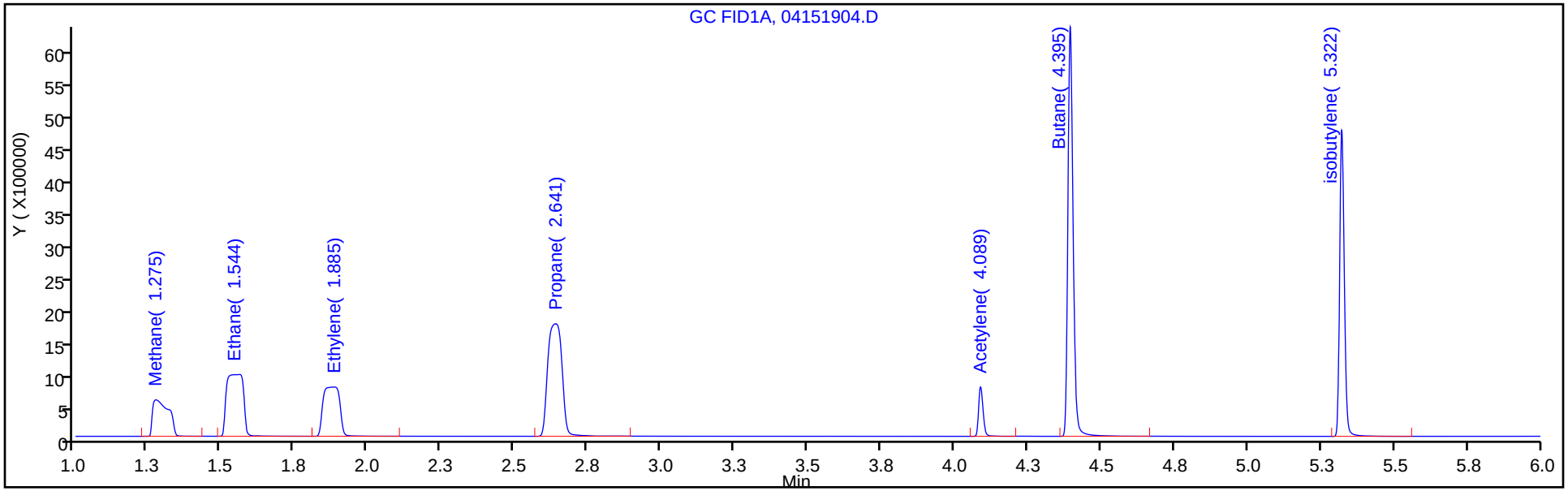
RSK7gasMathes_00026 Amount Added: 40.00 Units: uL

Report Date: 15-May-2019 11:57:55 Chrom Revision: 2.3 03-May-2019 15:52:00

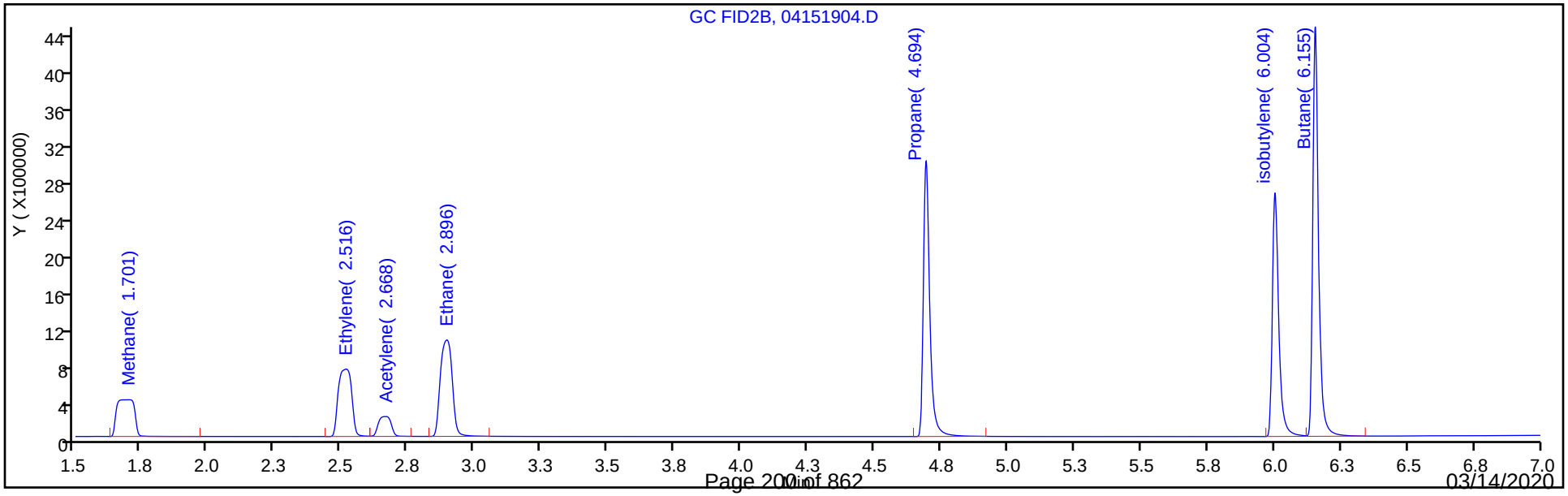
Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\VGC_J\20190415-80933.b\04151904.D				
Injection Date:	15-Apr-2019 11:03:41	Instrument ID:	VGC_J	Operator ID:	ms
Lims ID:	IC L4			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



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\VGC_J\20190415-80933.b\04151905.D
Lims ID: ICRT L5
Client ID:
Sample Type: ICRT Calib Level: 5
Inject. Date: 15-Apr-2019 11:17:11 ALS Bottle#: 5 Worklist Smp#: 5
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: ICRT L5
Misc. Info.: 280-0080933-005
Operator ID: ms Instrument ID: VGC_J
Sublist: chrom-RSK_J*sub5

Method: \\chromna\Denver\ChromData\VGC_J\20190415-80933.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 15-May-2019 11:57:56 Calib Date: 15-Apr-2019 12:11:08
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\VGC_J\20190415-80933.b\04151909.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: CTX0333

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Methane							
1	1.271	1.271	0.000	9627756	73.0	71.6	
2	1.692	1.692	0.000	8233442	73.0	71.6	
						RPD = 0.05	
2 Ethane							
1	1.556	1.556	0.000	17308693	136.9	137.0	
2	2.889	2.889	0.000	14756883	136.9	137.4	
						RPD = 0.30	
3 Ethylene							
1	1.880	1.880	0.000	13570482	127.7	128.3	
2	2.512	2.512	0.000	11530864	127.7	128.1	
						RPD = 0.11	
4 Propane							
1	2.632	2.632	0.000	26866377	200.7	198.6	
2	4.687	4.687	0.000	22779443	200.7	198.5	
						RPD = 0.04	
5 Acetylene							
1	4.078	4.078	0.000	4013672	118.5	124.9	
2	2.652	2.652	0.000	3536969	118.5	124.9	
						RPD = 0.04	
6 Butane							
1	4.381	4.381	0.000	35922157	264.5	255.1	
2	6.146	6.146	0.000	30367524	264.5	252.3	
						RPD = 1.11	
7 isobutylene							
1	5.311	5.311	0.000	23677727	255.4	244.7	
2	5.998	5.998	0.000	19852679	255.4	245.0	
						RPD = 0.12	

Reagents:

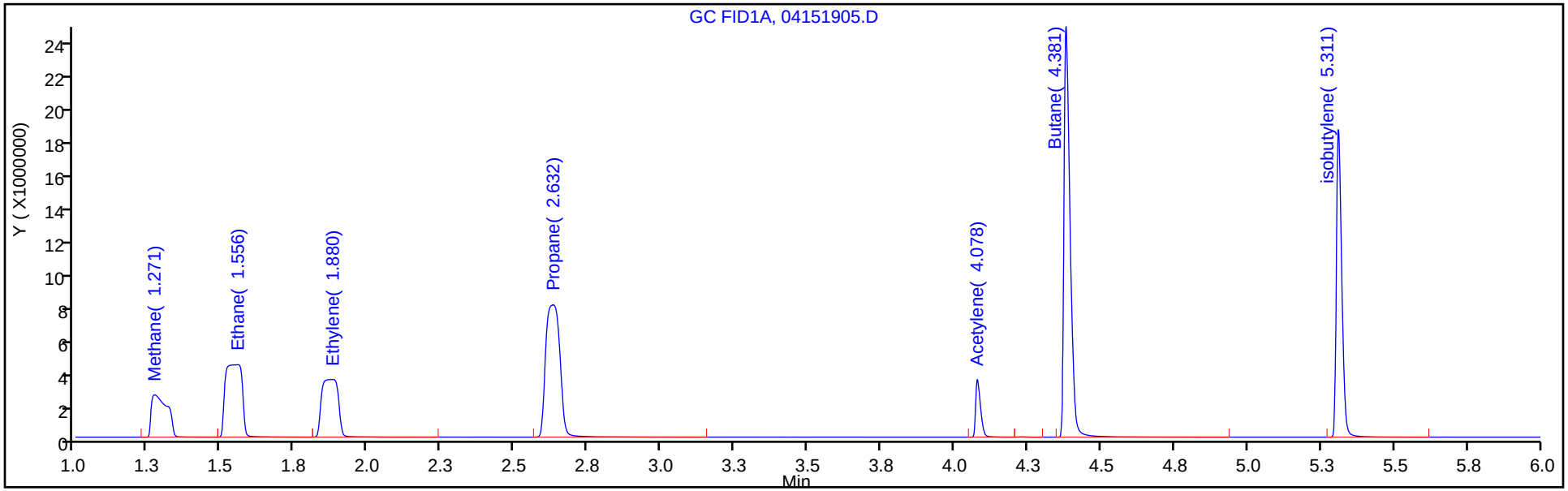
RSK7gasMathes_00026 Amount Added: 200.00 Units: uL

Report Date: 15-May-2019 11:57:56 Chrom Revision: 2.3 03-May-2019 15:52:00

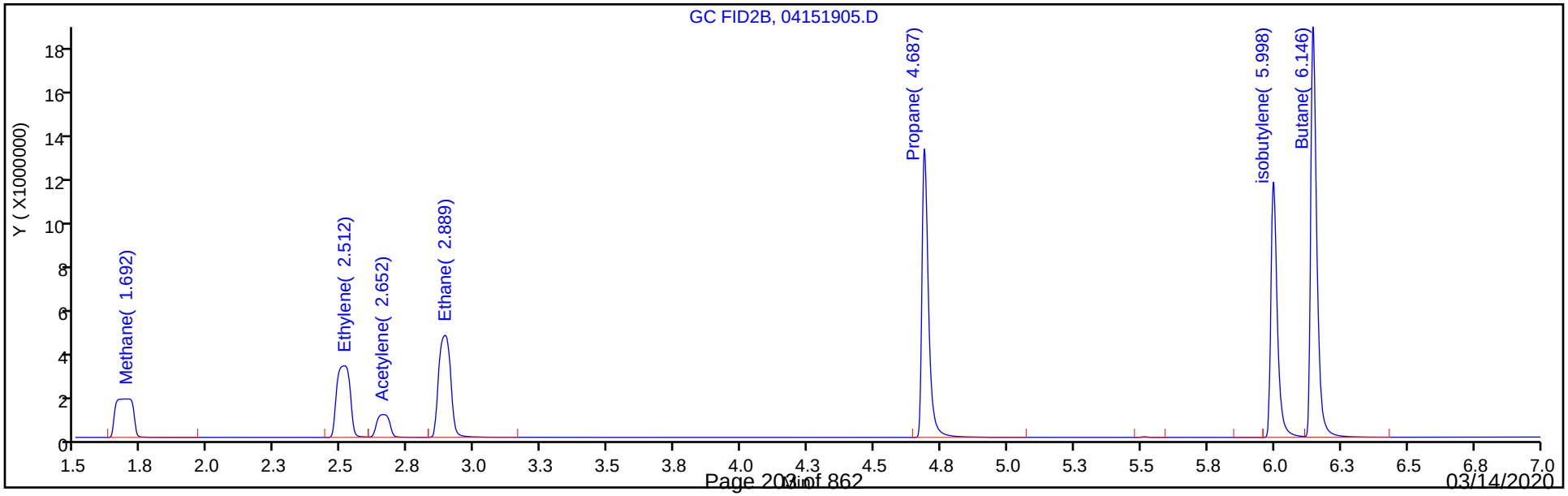
Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\VGC_J\20190415-80933.b\04151905.D				
Injection Date:	15-Apr-2019 11:17:11	Instrument ID:	VGC_J	Operator ID:	ms
Lims ID:	ICRT L5			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



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\VGC_J\20190415-80933.b\04151906.D
Lims ID: IC L6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 15-Apr-2019 11:30:32 ALS Bottle#: 6 Worklist Smp#: 6
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: IC L6
Misc. Info.: 280-0080933-006
Operator ID: ms Instrument ID: VGC_J
Sublist: chrom-RSK_J*sub5

Method: \\chromna\Denver\ChromData\VGC_J\20190415-80933.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 15-May-2019 11:57:57 Calib Date: 15-Apr-2019 12:11:08
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\VGC_J\20190415-80933.b\04151909.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: CTX0333

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Methane							
1	1.267	1.271	-0.004	17958876	146.0	133.8	
2	1.681	1.692	-0.011	15386436	146.0	134.1	
						RPD = 0.21	
2 Ethane							
1	1.549	1.556	-0.007	32290083	273.7	255.5	
2	2.882	2.889	-0.007	27708010	273.7	258.0	
						RPD = 0.95	
3 Ethylene							M
1	1.866	1.880	-0.014	25472652	255.3	240.7	M
2	2.503	2.512	-0.009	21746052	255.3	241.6	
						RPD = 0.36	
4 Propane							
1	2.625	2.632	-0.007	50278684	401.4	371.7	
2	4.683	4.687	-0.004	42698075	401.4	372.2	
						RPD = 0.12	
5 Acetylene							
1	4.070	4.078	-0.008	7700889	237.0	239.7	
2	2.656	2.652	0.004	6771875	237.0	239.1	
						RPD = 0.25	
6 Butane							
1	4.370	4.381	-0.011	67375523	529.0	478.5	
2	6.140	6.146	-0.006	57174968	529.0	475.0	
						RPD = 0.73	
7 isobutylene							
1	5.302	5.311	-0.009	44689590	510.8	461.9	
2	5.992	5.998	-0.006	37488004	510.8	462.6	
						RPD = 0.16	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

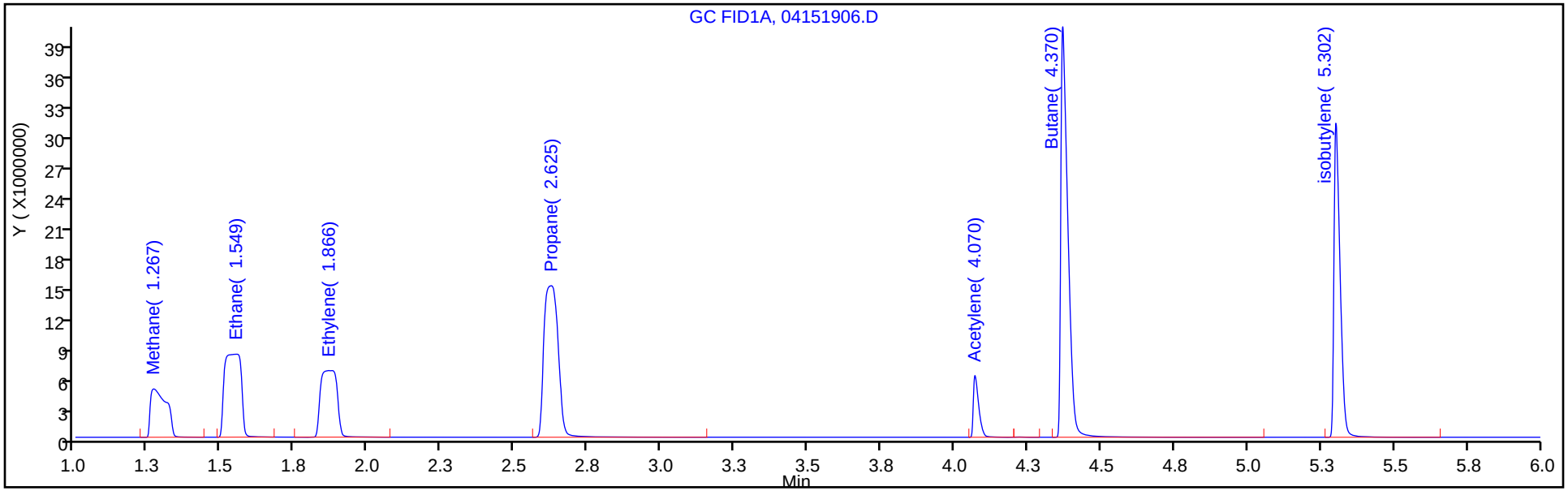
RSK7gasMathes_00026 Amount Added: 400.00 Units: uL

Report Date: 15-May-2019 11:57:57 Chrom Revision: 2.3 03-May-2019 15:52:00

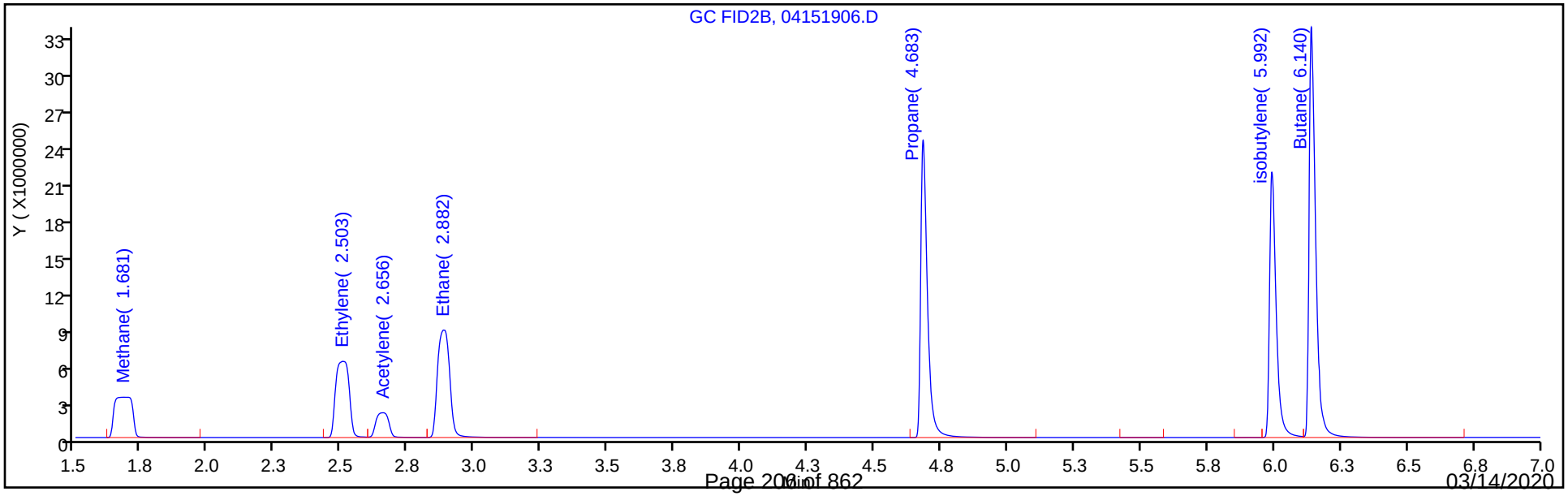
Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\VGC_J\20190415-80933.b\04151906.D				
Injection Date:	15-Apr-2019 11:30:32	Instrument ID:	VGC_J	Operator ID:	ms
Lims ID:	IC L6			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



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

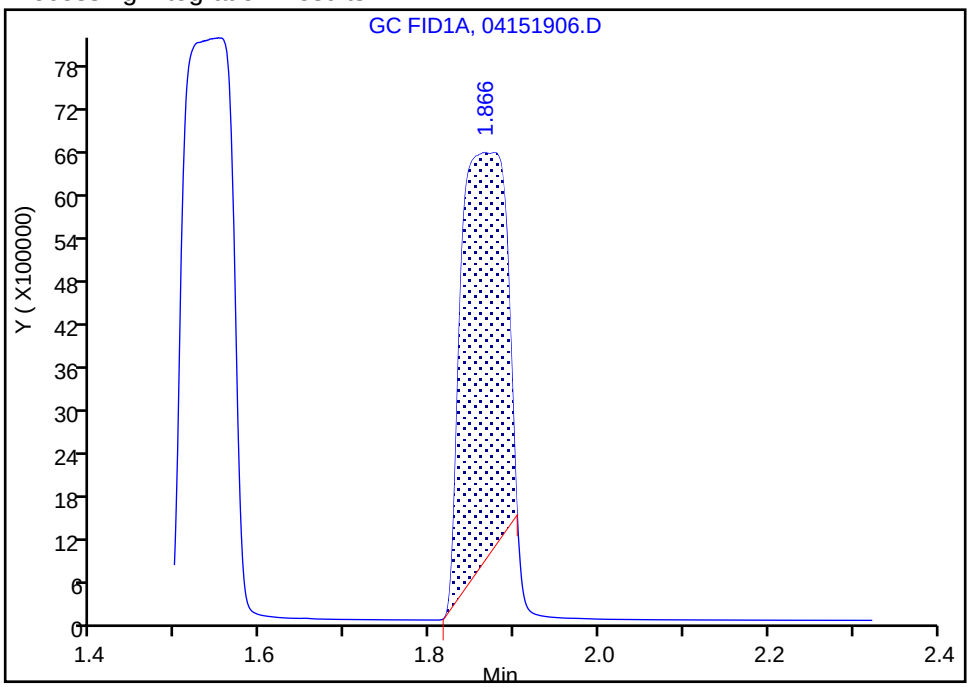
Data File:	\\chromna\Denver\ChromData\VGC_J\20190415-80933.b\04151906.D				
Injection Date:	15-Apr-2019 11:30:32	Instrument ID:	VGC_J		
Lims ID:	IC L6				
Client ID:					
Operator ID:	ms	ALS Bottle#:	6	Worklist Smp#:	6
Purge Vol:	18.000 mL	Dil. Factor:	1.0000		
Method:	RSK_J	Limit Group:	GCV - RSK 175		
Column:	Rt-Alumina BOND/KCl (0.53 mm)	Detector	GC FID1A		

3 Ethylene, CAS: 74-85-1

Signal: 1

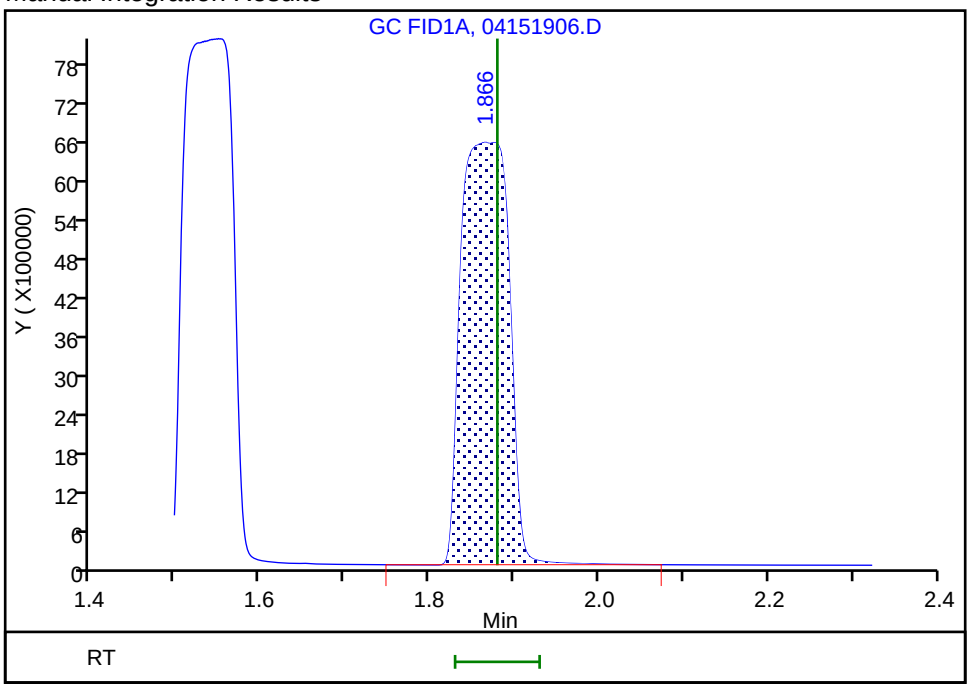
Processing Integration Results

RT: 1.87
Area: 21017489
Amount: 203.4324
Amount Units: ug/l



Manual Integration Results

RT: 1.87
Area: 25472652
Amount: 240.7464
Amount Units: ug/l



Reviewer: meierg, 15-Apr-2019 13:21:06

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\VGC_J\20190415-80933.b\04151907.D
Lims ID: IC L7
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 15-Apr-2019 11:44:06 ALS Bottle#: 7 Worklist Smp#: 7
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: IC L7
Misc. Info.: 280-0080933-007
Operator ID: ms Instrument ID: VGC_J
Sublist: chrom-RSK_J*sub5

Method: \\chromna\Denver\ChromData\VGC_J\20190415-80933.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 15-May-2019 11:57:58 Calib Date: 15-Apr-2019 12:11:08
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\VGC_J\20190415-80933.b\04151909.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: CTX0333

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Methane							
1	1.263	1.271	-0.008	40532226	292.0	302.4	
2	1.686	1.692	-0.006	34652624	292.0	302.3	
						RPD = 0.02	
2 Ethane							
1	1.549	1.556	-0.007	71736807	547.4	567.7	
2	2.876	2.889	-0.013	61621639	547.4	573.7	
						RPD = 1.05	
3 Ethylene							M
1	1.870	1.880	-0.010	54838846	510.7	518.3	M
2	2.503	2.512	-0.009	46940879	510.7	521.5	
						RPD = 0.62	
4 Propane							
1	2.611	2.632	-0.021	111846125	802.8	826.9	
2	4.672	4.687	-0.015	94884692	802.8	827.0	
						RPD = 0.02	
5 Acetylene							
1	4.057	4.078	-0.021	15668916	474.1	487.7	
2	2.651	2.652	-0.001	13791861	474.1	486.9	
						RPD = 0.16	
6 Butane							
1	4.350	4.381	-0.031	148225690	1058.1	1052.6	
2	6.128	6.146	-0.018	125686225	1058.1	1044.1	
						RPD = 0.81	
7 isobutylene							
1	5.288	5.311	-0.023	94615791	1021.5	977.9	
2	5.984	5.998	-0.014	79245111	1021.5	978.0	
						RPD = 0.01	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

RSK7gasMathes_00026 Amount Added: 800.00 Units: uL

Report Date: 15-May-2019 11:57:59 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\VGC_J\20190415-80933.b\04151907.D

Injection Date: 15-Apr-2019 11:44:06 Instrument ID: VGC_J Operator ID: ms

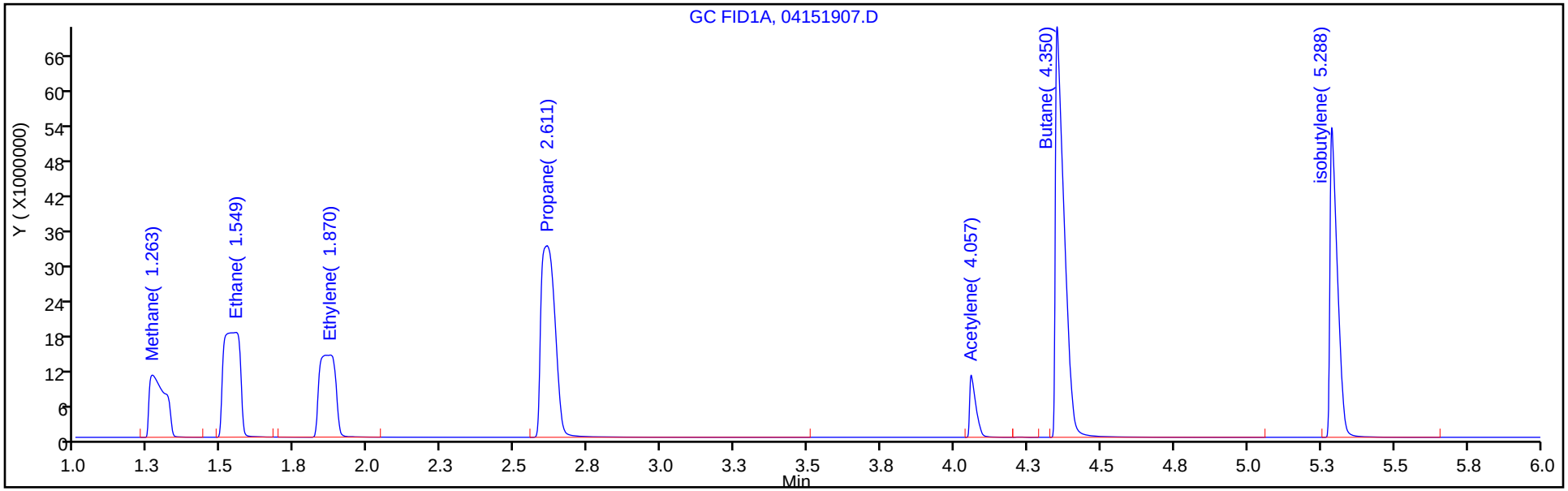
Lims ID: IC L7 Worklist Smp#: 7

Client ID:

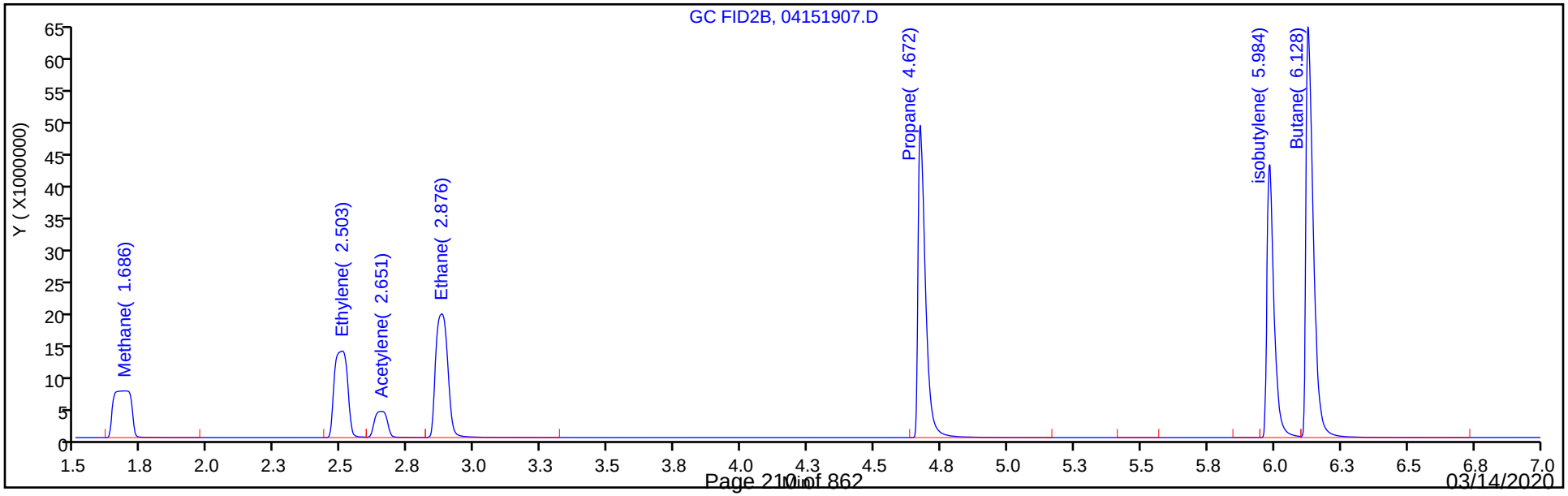
Purge Vol: 18.000 mL Dil. Factor: 1.0000 ALS Bottle#: 7

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



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

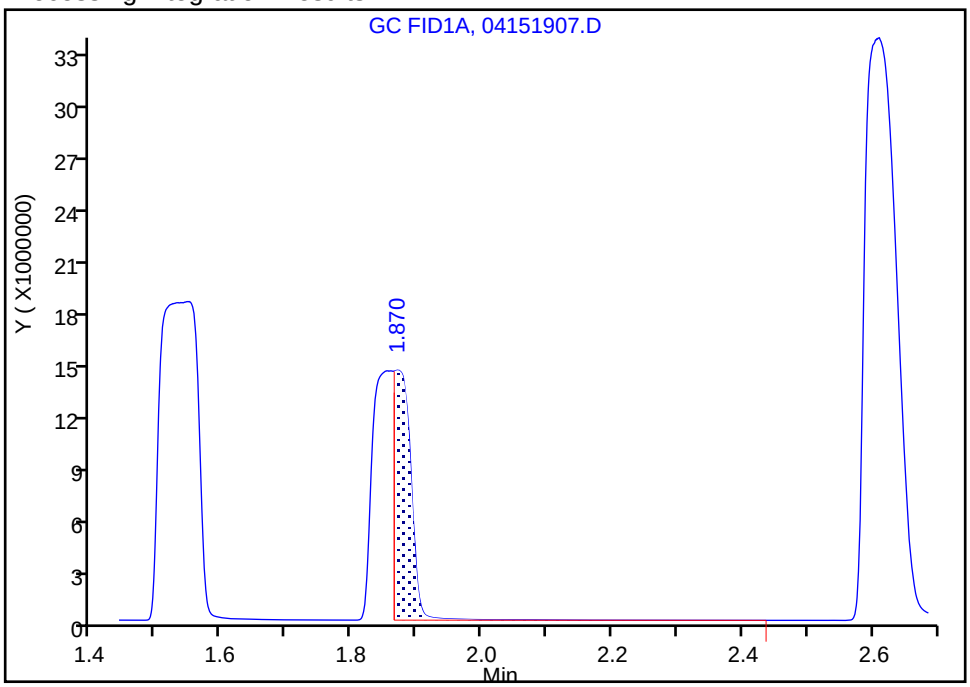
Data File:	\\chromna\Denver\ChromData\VGC_J\20190415-80933.b\04151907.D				
Injection Date:	15-Apr-2019 11:44:06	Instrument ID:	VGC_J		
Lims ID:	IC L7				
Client ID:					
Operator ID:	ms	ALS Bottle#:	7	Worklist Smp#:	7
Purge Vol:	18.000 mL	Dil. Factor:	1.0000		
Method:	RSK_J	Limit Group:	GCV - RSK 175		
Column:	Rt-Alumina BOND/KCl (0.53 mm)	Detector	GC FID1A		

3 Ethylene, CAS: 74-85-1

Signal: 1

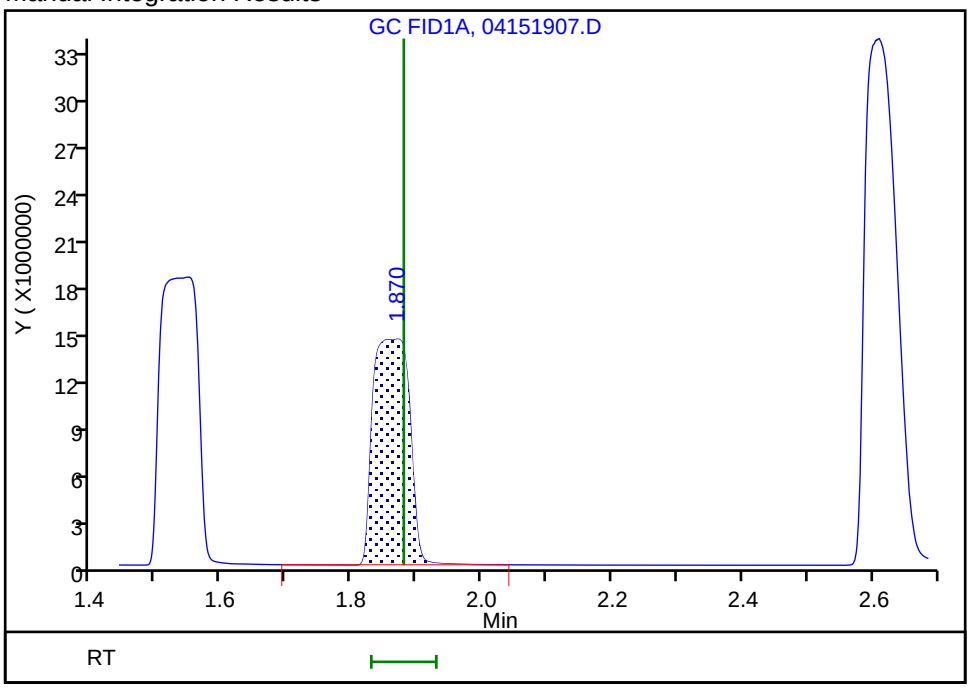
Processing Integration Results

RT: 1.87
Area: 24366908
Amount: 337.8607
Amount Units: ug/l



Manual Integration Results

RT: 1.87
Area: 54838846
Amount: 518.2913
Amount Units: ug/l



Reviewer: meierg, 15-Apr-2019 13:20:30

Audit Action: Manually Integrated Audit Reason: Split Peak

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\VGC_J\20190415-80933.b\04151908.D				
Lims ID:	IC L8				
Client ID:					
Sample Type:	IC	Calib Level:	8		
Inject. Date:	15-Apr-2019 11:57:32	ALS Bottle#:	8	Worklist Smp#:	8
Purge Vol:	18.000 mL	Dil. Factor:	1.0000		
Sample Info:	IC L8				
Misc. Info.:	280-0080933-008				
Operator ID:	ms	Instrument ID:	VGC_J		
Sublist:	chrom-RSK_J*sub5				
Method:	\\chromna\Denver\ChromData\VGC_J\20190415-80933.b\RSK_J.m				
Limit Group:	GCV - RSK 175				
Method Label:	DV-GC-0025: Dissolved Gases in Water by RSK-175				
Last Update:	15-May-2019 11:58:00	Calib Date:	15-Apr-2019 12:11:08		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\VGC_J\20190415-80933.b\04151909.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:	CTX0333				

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Methane							
1	1.265	1.271	-0.006	226637342	1806.9	1691.8	
2	1.692	1.692	0.000	193042781	1806.9	1685.0	
						RPD = 0.41	

Reagents:

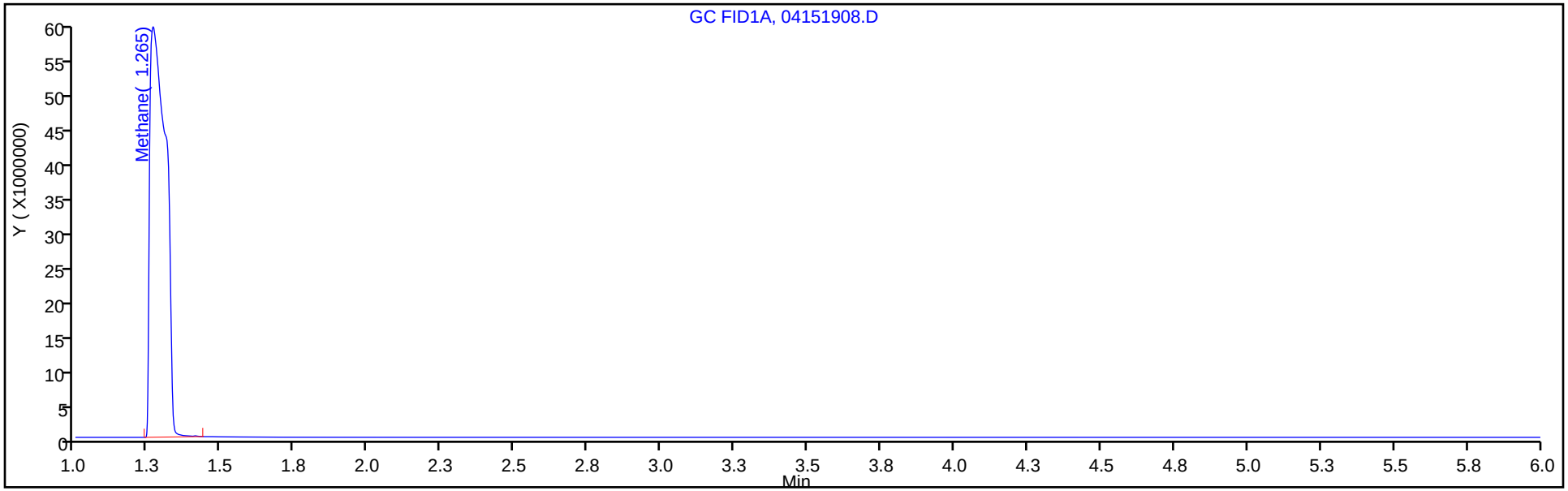
RSK175methane_00009 Amount Added: 50.00 Units: uL

Report Date: 15-May-2019 11:58:00 Chrom Revision: 2.3 03-May-2019 15:52:00

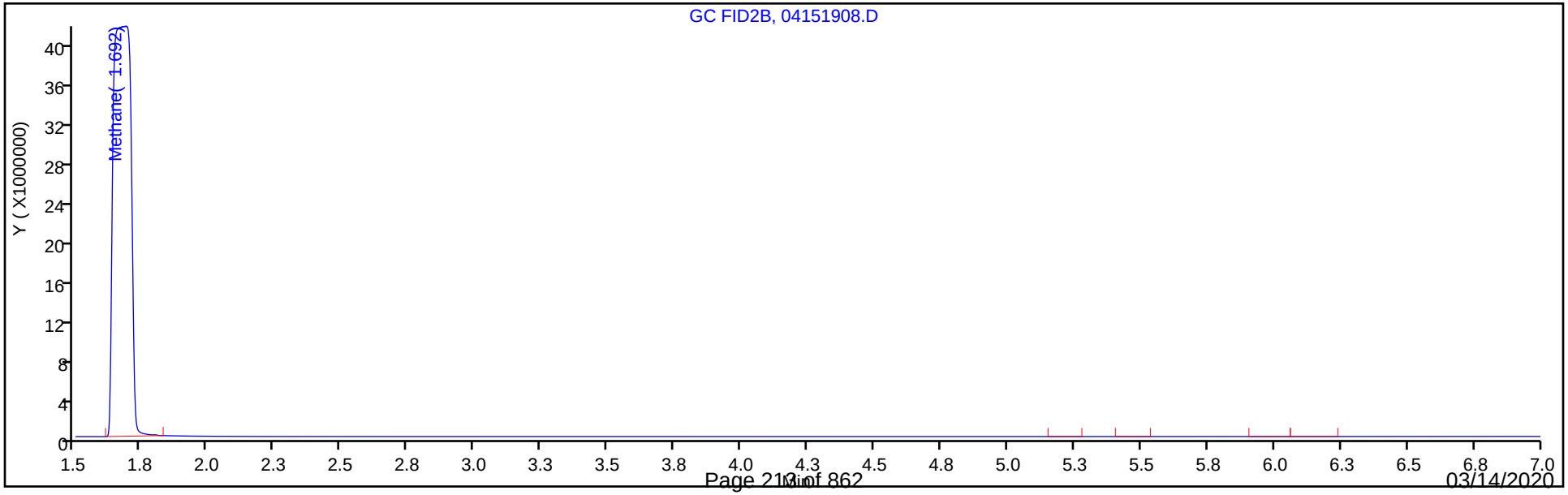
Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\VGC_J\20190415-80933.b\04151908.D				
Injection Date:	15-Apr-2019 11:57:32	Instrument ID:	VGC_J	Operator ID:	ms
Lims ID:	IC L8			Worklist Smp#:	8
Client ID:					
Purge Vol:	18.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	8
Method:	RSK_J	Limit Group:	GCV - RSK 175		

Column: Rt-Alumina BOND/KCl (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: HP-PLOT/Q (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\VGC_J\20190415-80933.b\04151909.D				
Lims ID:	IC L9				
Client ID:					
Sample Type:	IC	Calib Level:	9		
Inject. Date:	15-Apr-2019 12:11:08	ALS Bottle#:	9	Worklist Smp#:	9
Purge Vol:	18.000 mL	Dil. Factor:	1.0000		
Sample Info:	IC L9				
Misc. Info.:	280-0080933-009				
Operator ID:	ms	Instrument ID:	VGC_J		
Sublist:	chrom-RSK_J*sub5				
Method:	\\chromna\Denver\ChromData\VGC_J\20190415-80933.b\RSK_J.m				
Limit Group:	GCV - RSK 175				
Method Label:	DV-GC-0025: Dissolved Gases in Water by RSK-175				
Last Update:	15-May-2019 11:58:02	Calib Date:	15-Apr-2019 12:11:08		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\VGC_J\20190415-80933.b\04151909.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:	CTX0333				

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Methane							
1	1.263	1.271	-0.008	952923785	7227.8	7114.4	
2	1.668	1.692	-0.024	817202335	7227.8	7133.8	
						RPD = 0.27	

Reagents:

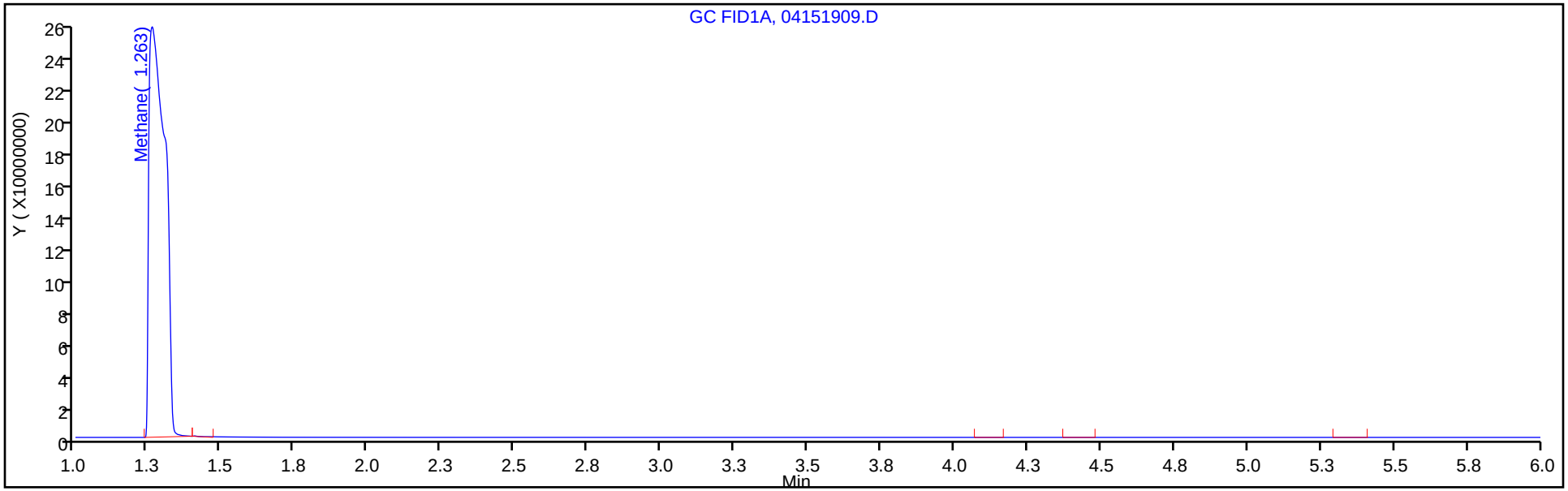
RSK175methane_00009 Amount Added: 200.00 Units: uL

Report Date: 15-May-2019 11:58:02 Chrom Revision: 2.3 03-May-2019 15:52:00

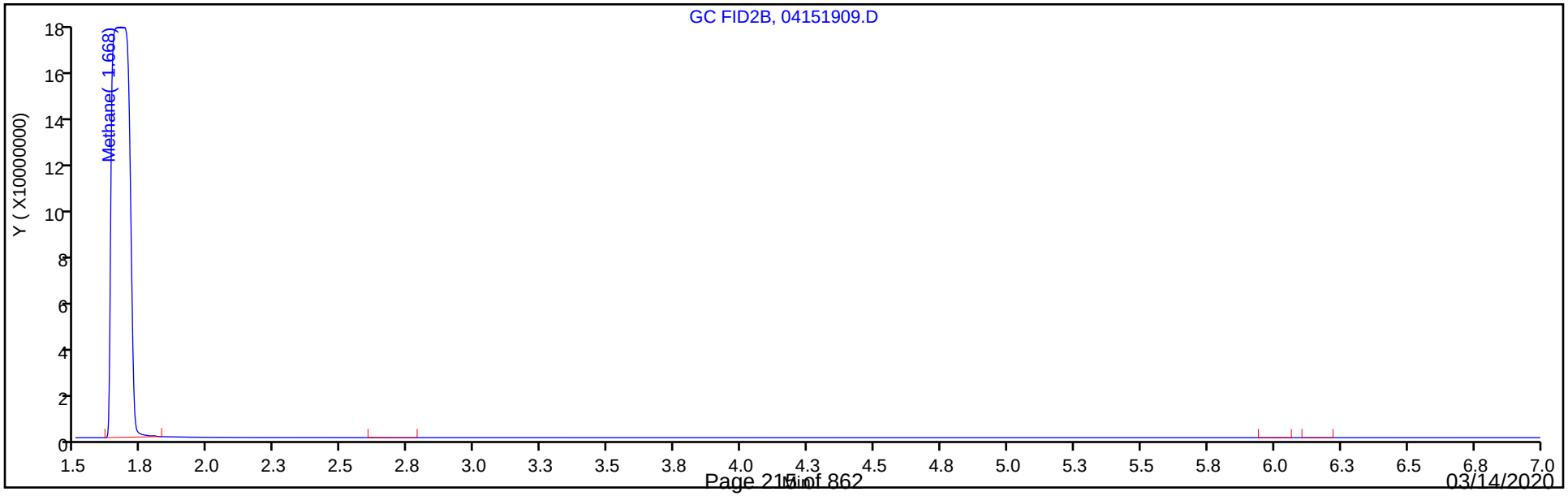
Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\VGC_J\20190415-80933.b\04151909.D				
Injection Date:	15-Apr-2019 12:11:08	Instrument ID:	VGC_J	Operator ID:	ms
Lims ID:	IC L9			Worklist Smp#:	9
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.: 280-134141-1 Analy Batch No.: 454595

SDG No.:

Instrument ID: VGC_J GC Column: HP-Plot Q ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/15/2019 10:23 Calibration End Date: 04/15/2019 12:11 Calibration ID: 36052

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-454595/1	04151901.D
Level 2	IC 280-454595/2	04151902.D
Level 3	IC 280-454595/3	04151903.D
Level 4	IC 280-454595/4	04151904.D
Level 5	ICRT 280-454595/5	04151905.D
Level 6	IC 280-454595/6	04151906.D
Level 7	IC 280-454595/7	04151907.D
Level 8	IC 280-454595/8	04151908.D
Level 9	IC 280-454595/9	04151909.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	1.692	1.699	1.688	1.701	1.692	1.681	1.686	1.692	1.668		1.652 - 1.732	1.689
Ethylene	2.514	2.524	2.516	2.516	2.512	2.503	2.503				2.462 - 2.562	2.513
Acetylene	2.667	2.667	2.674	2.668	2.652	2.656	2.651				2.572 - 2.732	2.662
Ethane	2.890	2.899	2.900	2.896	2.889	2.882	2.876				2.839 - 2.939	2.890

FORM VI
GC VOA BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134141-1 Analy Batch No.: 454595

SDG No.:

Instrument ID: VGC_J GC Column: HP-Plot Q ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/15/2019 10:23 Calibration End Date: 04/15/2019 12:11 Calibration ID: 36052

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-454595/1	04151901.D
Level 2	IC 280-454595/2	04151902.D
Level 3	IC 280-454595/3	04151903.D
Level 4	IC 280-454595/4	04151904.D
Level 5	ICRT 280-454595/5	04151905.D
Level 6	IC 280-454595/6	04151906.D
Level 7	IC 280-454595/7	04151907.D
Level 8	IC 280-454595/8	04151908.D
Level 9	IC 280-454595/9	04151909.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	165505 112782 113064	152449 105382	134317 118668	124463 106834	Lin2	26094.0563	114549.945							0.9950		0.9900
Ethylene	77051 90320	93824 85167	93337 91921	98428	Ave		90006.9262				7.7		20.0			
Acetylene	24541 29842	28330 28568	27967 29091	29931	Ave		28324.3348				6.4		20.0			
Ethane	90071 107828	111998 101231	111312 112567	116847	Ave		107407.606				8.4		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.: 280-134141-1 Analy Batch No.: 454595

SDG No.:

Instrument ID: VGC_J GC Column: HP-Plot Q ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/15/2019 10:23 Calibration End Date: 04/15/2019 12:11 Calibration ID: 36052

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-454595/1	04151901.D
Level 2	IC 280-454595/2	04151902.D
Level 3	IC 280-454595/3	04151903.D
Level 4	IC 280-454595/4	04151904.D
Level 5	ICRT 280-454595/5	04151905.D
Level 6	IC 280-454595/6	04151906.D
Level 7	IC 280-454595/7	04151907.D
Level 8	IC 280-454595/8	04151908.D
Level 9	IC 280-454595/9	04151909.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	75515 15386436	139116 34652624	245139 193042781	1817240 817202335	8233442	0.456 146	0.913 292	1.83 1807	14.6 7228	73.0
Ethylene	Ave	61480 21746052	149728 46940879	297902	2513192	11530864	0.798 255	1.60 511	3.19	25.5	128
Acetylene	Ave	18179 6771875	41972 13791861	82868	709490	3536969	0.741 237	1.48 474	2.96	23.7	119
Ethane	Ave	77042 27708010	191594 61621639	380840	3198231	14756883	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: \\chromna\Denver\ChromData\VGC_J\20190415-80933.b\04151901.D
Lims ID: IC L1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 15-Apr-2019 10:23:57 ALS Bottle#: 1 Worklist Smp#: 1
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: IC L1
Misc. Info.: 280-0080933-001
Operator ID: ms Instrument ID: VGC_J
Sublist: chrom-RSK_J*sub5

Method: \\chromna\Denver\ChromData\VGC_J\20190415-80933.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 15-May-2019 11:57:50 Calib Date: 15-Apr-2019 12:11:08
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\VGC_J\20190415-80933.b\04151909.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: CTX0333

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Methane							
1	1.278	1.271	0.007	93261	0.4563	0.4301	
2	1.692	1.692	0.000	75515	0.4563	0.4314	
						RPD = 0.31	
2 Ethane							
1	1.543	1.556	-0.013	91221	0.8553	0.7219	
2	2.890	2.889	0.001	77042	0.8553	0.7173	
						RPD = 0.64	
3 Ethylene							
1	1.877	1.880	-0.003	73764	0.7979	0.6972	
2	2.514	2.512	0.002	61480	0.7979	0.6831	
						RPD = 2.04	
4 Propane							
1	2.651	2.632	0.019	147932	1.25	1.09	
2	4.691	4.687	0.004	125161	1.25	1.09	
						RPD = 0.25	
5 Acetylene							
1	4.091	4.078	0.013	19810	0.7408	0.6166	
2	2.667	2.652	0.015	18179	0.7408	0.6418	
						RPD = 4.01	
6 Butane							M
1	4.410	4.381	0.029	211953	1.65	1.51	
2	6.155	6.146	0.009	195662	1.65	1.63	M
						RPD = 7.68	
7 isobutylene							
1	5.333	5.311	0.022	147116	1.60	1.52	
2	6.003	5.998	0.005	121709	1.60	1.50	
						RPD = 1.22	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

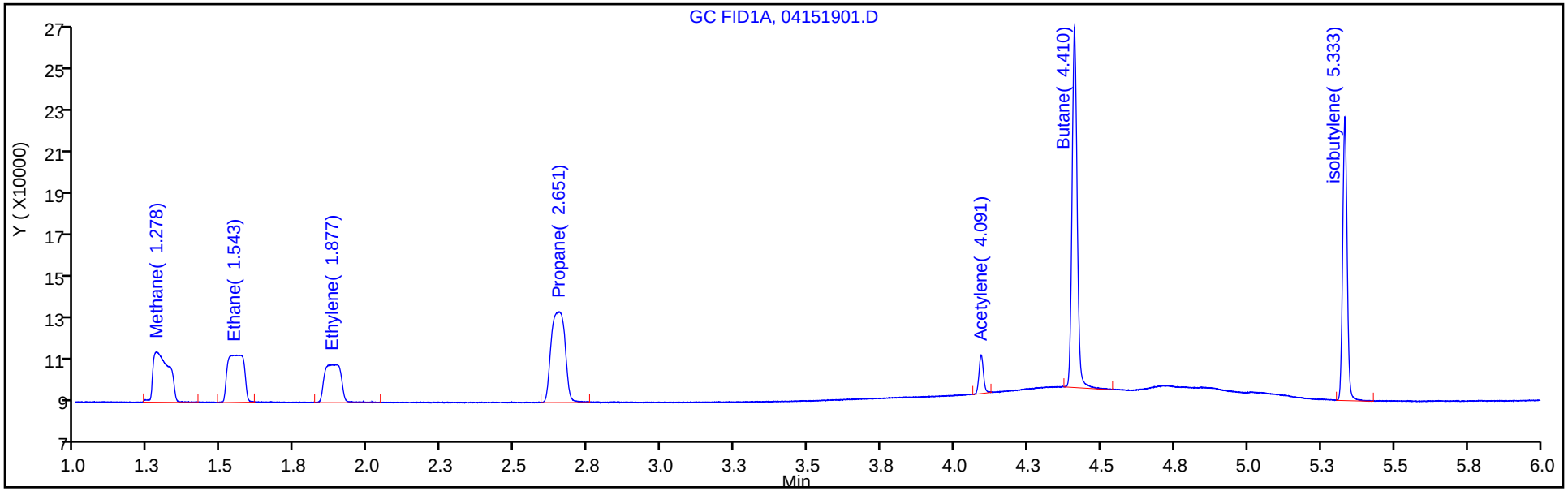
RSK7gasMathes_00026 Amount Added: 1.25 Units: uL

Report Date: 15-May-2019 11:57:50 Chrom Revision: 2.3 03-May-2019 15:52:00

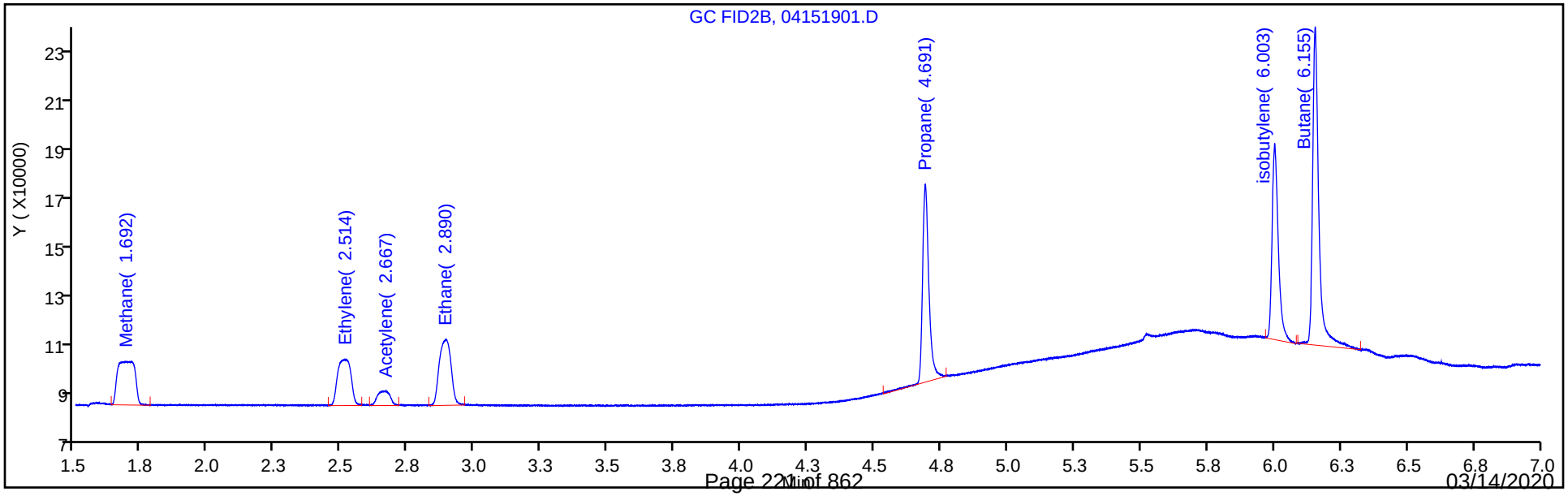
Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\VGC_J\20190415-80933.b\04151901.D				
Injection Date:	15-Apr-2019 10:23:57	Instrument ID:	VGC_J	Operator ID:	ms
Lims ID:	IC L1			Worklist Smp#:	1
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
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\VGC_J\20190415-80933.b\04151902.D
Lims ID: IC L2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 15-Apr-2019 10:37:05 ALS Bottle#: 2 Worklist Smp#: 2
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: IC L2
Misc. Info.: 280-0080933-002
Operator ID: ms Instrument ID: VGC_J
Sublist: chrom-RSK_J*sub5

Method: \\chromna\Denver\ChromData\VGC_J\20190415-80933.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 15-May-2019 11:57:51 Calib Date: 15-Apr-2019 12:11:08
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\VGC_J\20190415-80933.b\04151909.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: CTX0333

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Methane							
1	1.279	1.271	0.008	168302	0.9125	0.99	
2	1.699	1.692	0.007	139116	0.9125	0.9867	
						RPD = 0.37	
2 Ethane							
1	1.556	1.556	0.000	227953	1.71	1.80	
2	2.899	2.889	0.010	191594	1.71	1.78	
						RPD = 1.12	
3 Ethylene							
1	1.890	1.880	0.010	175461	1.60	1.66	
2	2.524	2.512	0.012	149728	1.60	1.66	
						RPD = 0.31	
4 Propane							
1	2.645	2.632	0.013	363474	2.51	2.69	
2	4.696	4.687	0.009	306879	2.51	2.67	
						RPD = 0.46	
5 Acetylene							
1	4.095	4.078	0.017	47607	1.48	1.48	
2	2.667	2.652	0.015	41972	1.48	1.48	
						RPD = 0.00	
6 Butane							
1	4.401	4.381	0.020	519750	3.31	3.69	
2	6.158	6.146	0.012	435009	3.31	3.61	
						RPD = 2.11	
7 isobutylene							
1	5.327	5.311	0.016	344778	3.19	3.56	
2	6.006	5.998	0.008	288028	3.19	3.55	
						RPD = 0.25	

Reagents:

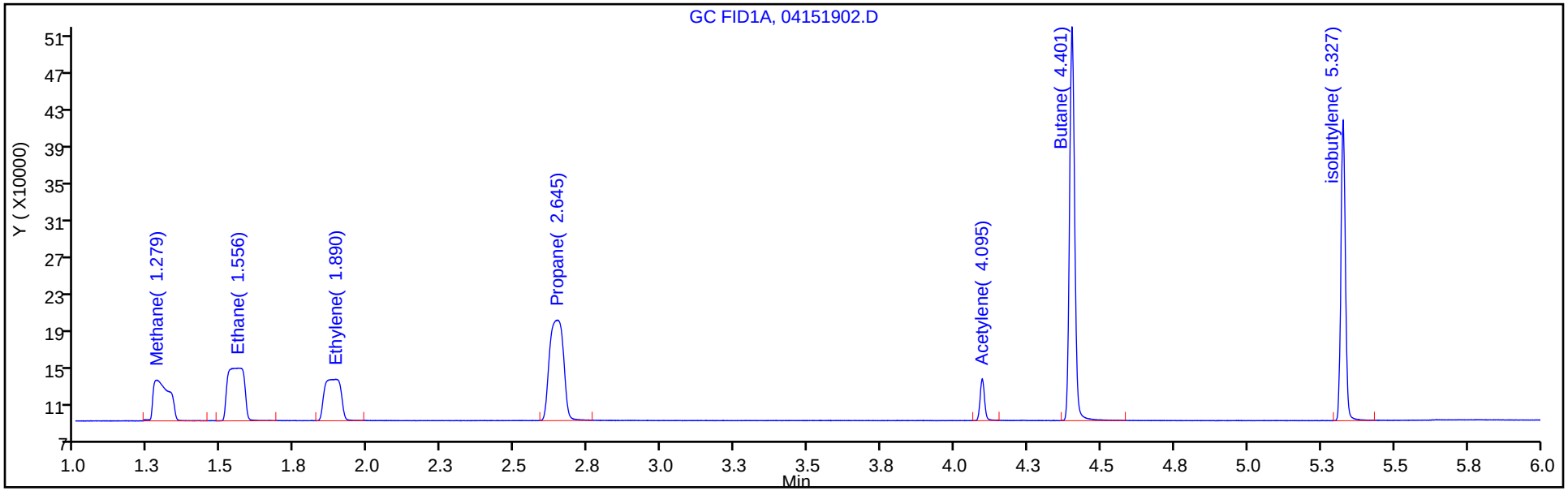
RSK7gasMathes_00026 Amount Added: 2.50 Units: uL

Report Date: 15-May-2019 11:57:52 Chrom Revision: 2.3 03-May-2019 15:52:00

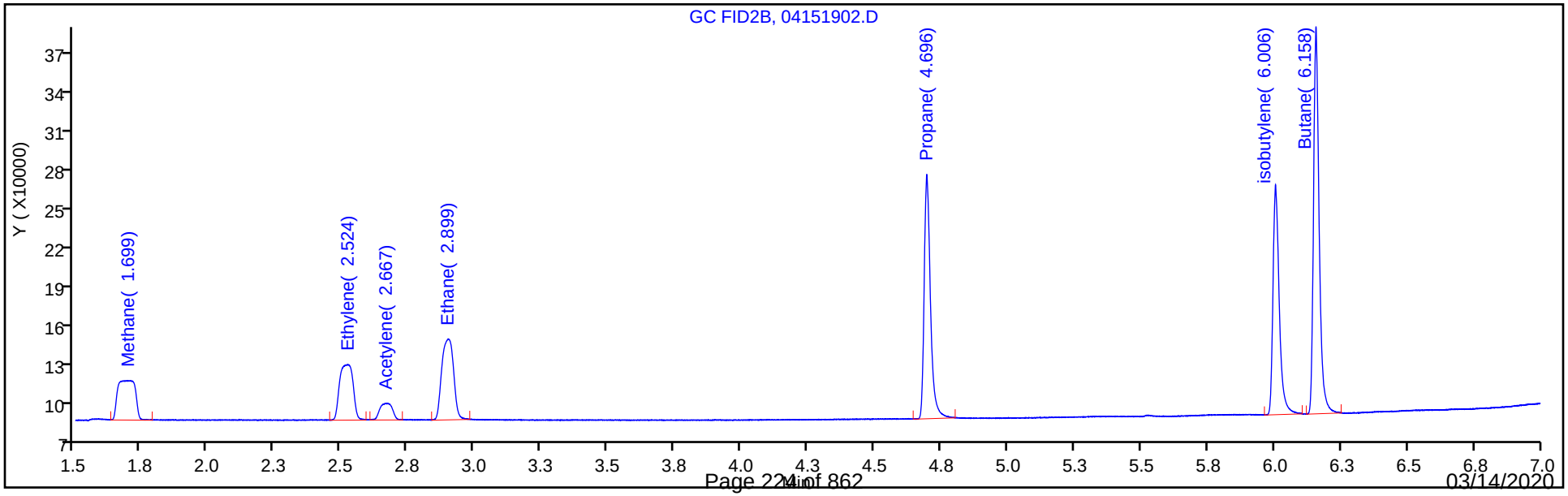
Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\VGC_J\20190415-80933.b\04151902.D				
Injection Date:	15-Apr-2019 10:37:05	Instrument ID:	VGC_J	Operator ID:	ms
Lims ID:	IC L2			Worklist Smp#:	2
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



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\VGC_J\20190415-80933.b\04151903.D
Lims ID: IC L3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 15-Apr-2019 10:50:22 ALS Bottle#: 3 Worklist Smp#: 3
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: IC L3
Misc. Info.: 280-0080933-003
Operator ID: ms Instrument ID: VGC_J
Sublist: chrom-RSK_J*sub5

Method: \\chromna\Denver\ChromData\VGC_J\20190415-80933.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 15-May-2019 11:57:52 Calib Date: 15-Apr-2019 12:11:08
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\VGC_J\20190415-80933.b\04151909.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: CTX0333

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Methane							
1	1.278	1.271	0.007	292852	1.83	1.92	
2	1.688	1.692	-0.004	245139	1.83	1.91	
						RPD = 0.42	
2 Ethane							
1	1.563	1.556	0.007	449849	3.42	3.56	
2	2.900	2.889	0.011	380840	3.42	3.55	
						RPD = 0.40	
3 Ethylene							
1	1.889	1.880	0.009	348615	3.19	3.29	
2	2.516	2.512	0.004	297902	3.19	3.31	
						RPD = 0.45	
4 Propane							
1	2.645	2.632	0.013	706582	5.02	5.22	
2	4.696	4.687	0.009	601744	5.02	5.24	
						RPD = 0.40	
5 Acetylene							
1	4.094	4.078	0.016	96205	2.96	2.99	
2	2.674	2.652	0.022	82868	2.96	2.93	
						RPD = 2.32	
6 Butane							
1	4.400	4.381	0.019	993917	6.61	7.06	
2	6.157	6.146	0.011	836646	6.61	6.95	
						RPD = 1.54	
7 isobutylene							
1	5.326	5.311	0.015	655607	6.38	6.78	
2	6.005	5.998	0.007	552886	6.38	6.82	
						RPD = 0.70	

Reagents:

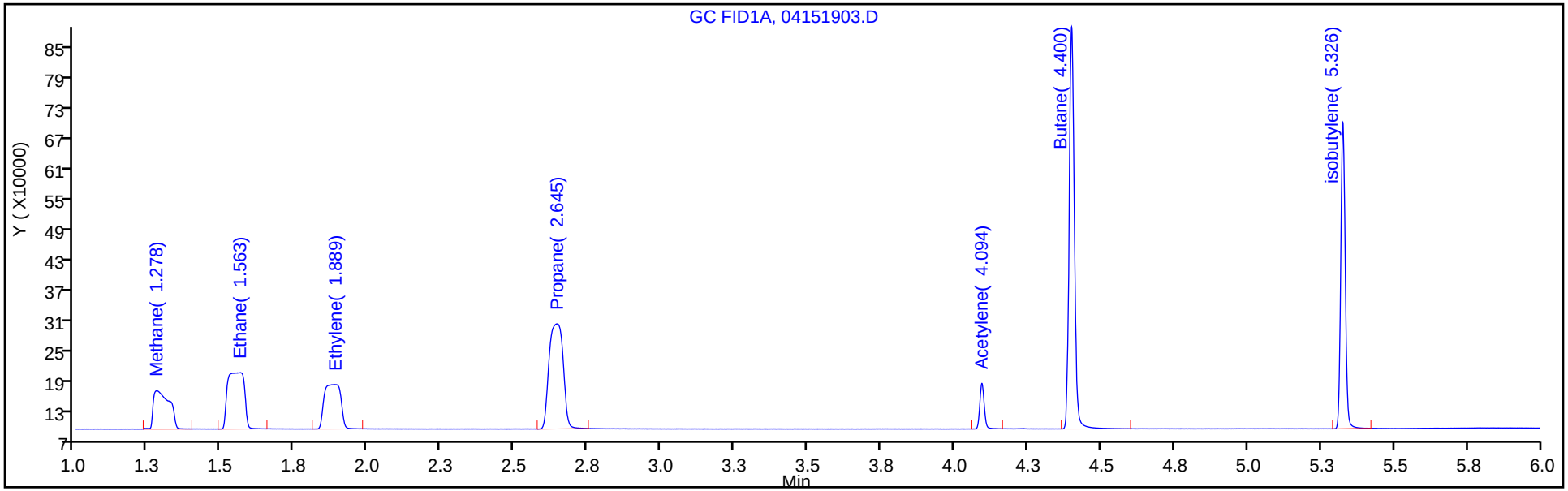
RSK7gasMathes_00026 Amount Added: 5.00 Units: uL

Report Date: 15-May-2019 11:57:53 Chrom Revision: 2.3 03-May-2019 15:52:00

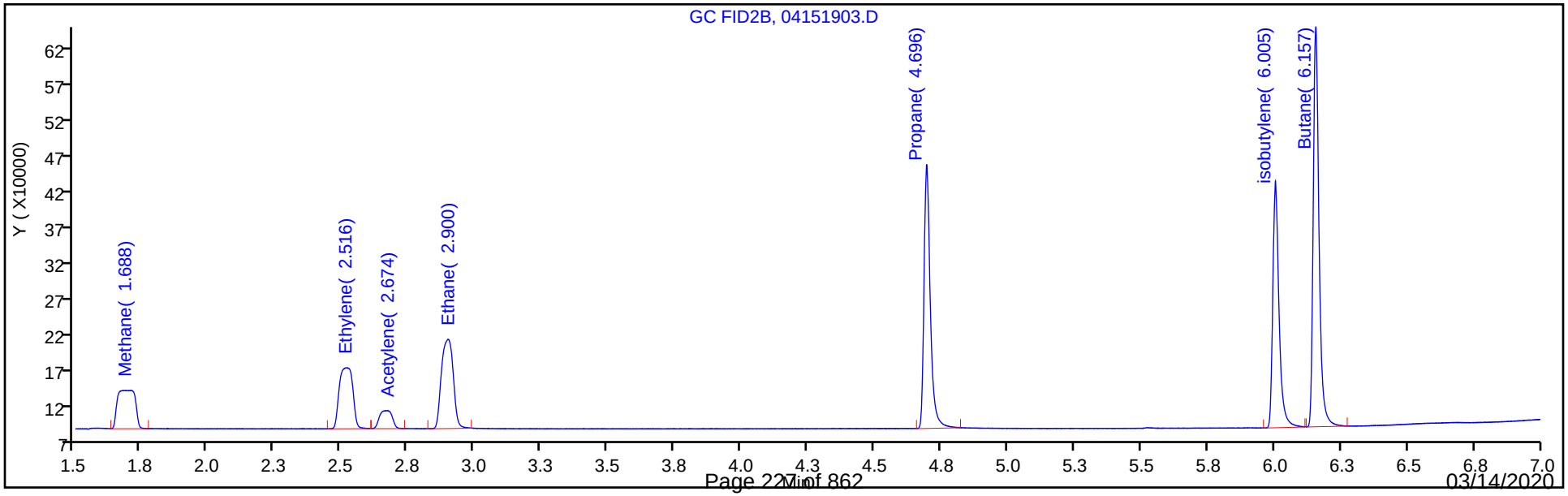
Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\VGC_J\20190415-80933.b\04151903.D				
Injection Date:	15-Apr-2019 10:50:22	Instrument ID:	VGC_J	Operator ID:	ms
Lims ID:	IC L3			Worklist Smp#:	3
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: \\chromna\Denver\ChromData\VGC_J\20190415-80933.b\04151904.D
Lims ID: IC L4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 15-Apr-2019 11:03:41 ALS Bottle#: 4 Worklist Smp#: 4
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: IC L4
Misc. Info.: 280-0080933-004
Operator ID: ms Instrument ID: VGC_J
Sublist: chrom-RSK_J*sub5

Method: \\chromna\Denver\ChromData\VGC_J\20190415-80933.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 15-May-2019 11:57:54 Calib Date: 15-Apr-2019 12:11:08
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\VGC_J\20190415-80933.b\04151909.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: CTX0333

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Methane							
1	1.275	1.271	0.004	2121207	14.6	15.6	
2	1.701	1.692	0.009	1817240	14.6	15.6	
						RPD = 0.42	
2 Ethane							
1	1.544	1.556	-0.012	3768385	27.4	29.8	
2	2.896	2.889	0.007	3198231	27.4	29.8	
						RPD = 0.15	
3 Ethylene							
1	1.885	1.880	0.005	2951189	25.5	27.9	
2	2.516	2.512	0.004	2513192	25.5	27.9	
						RPD = 0.11	
4 Propane							
1	2.641	2.632	0.009	5812465	40.1	43.0	
2	4.694	4.687	0.007	4940027	40.1	43.1	
						RPD = 0.20	
5 Acetylene							
1	4.089	4.078	0.011	809586	23.7	25.2	
2	2.668	2.652	0.016	709490	23.7	25.0	
						RPD = 0.60	
6 Butane							
1	4.395	4.381	0.014	7767068	52.9	55.2	
2	6.155	6.146	0.009	6590566	52.9	54.7	
						RPD = 0.74	
7 isobutylene							
1	5.322	5.311	0.011	5189017	51.1	53.6	
2	6.004	5.998	0.006	4363220	51.1	53.8	
						RPD = 0.40	

Reagents:

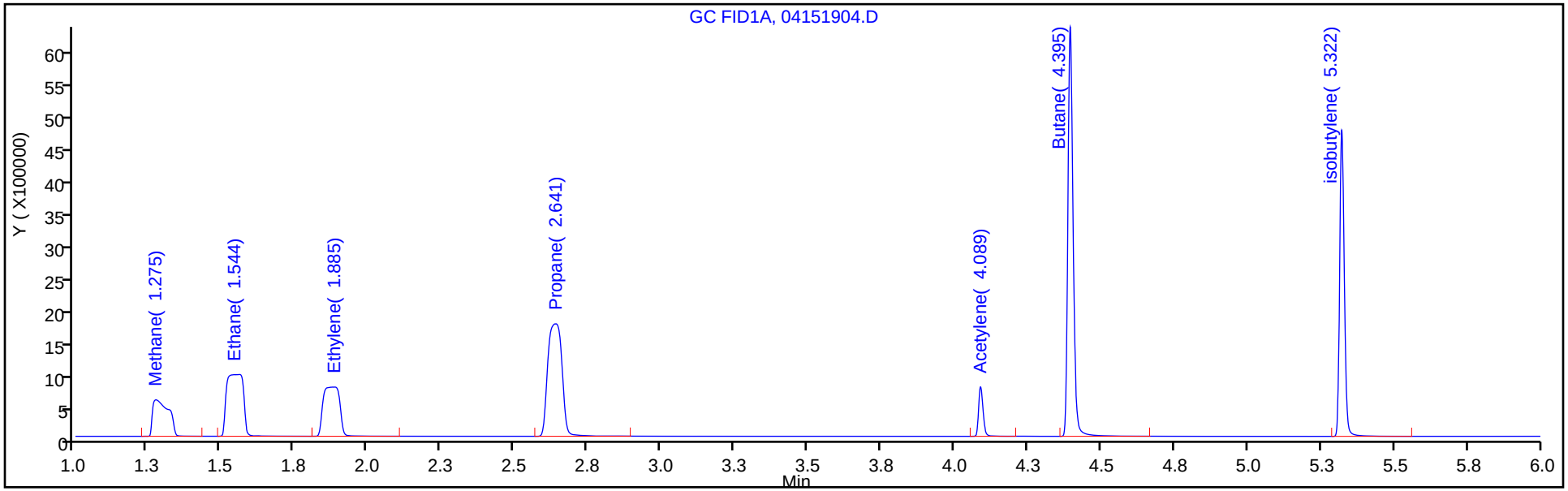
RSK7gasMathes_00026 Amount Added: 40.00 Units: uL

Report Date: 15-May-2019 11:57:55 Chrom Revision: 2.3 03-May-2019 15:52:00

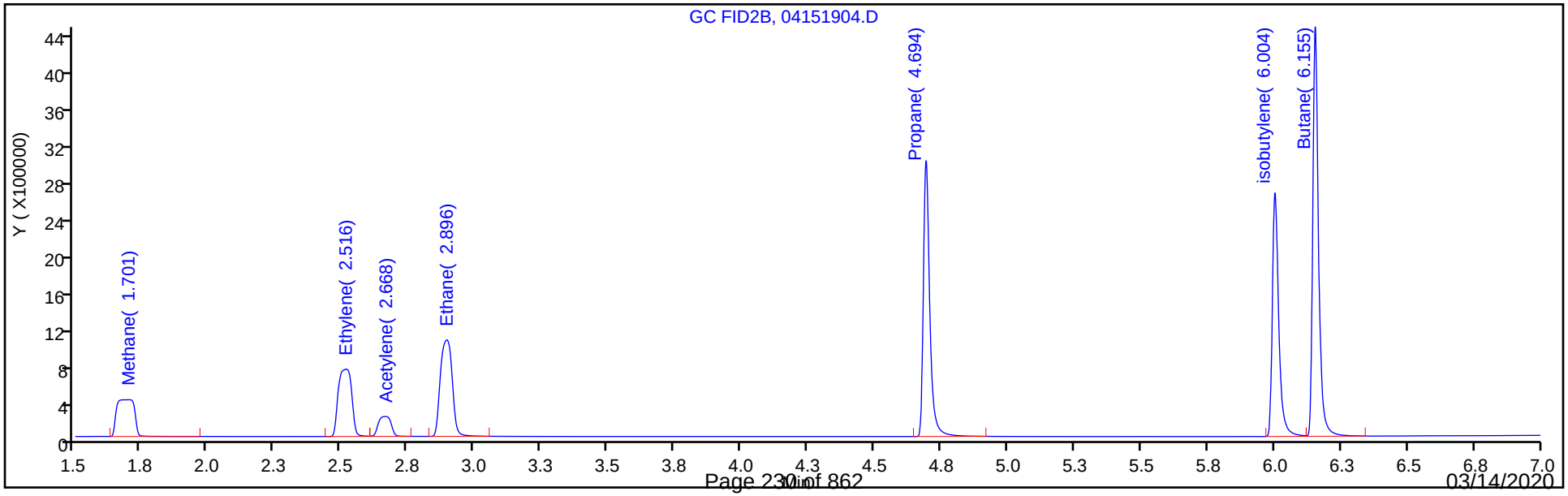
Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\VGC_J\20190415-80933.b\04151904.D				
Injection Date:	15-Apr-2019 11:03:41	Instrument ID:	VGC_J	Operator ID:	ms
Lims ID:	IC L4			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



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\VGC_J\20190415-80933.b\04151905.D
Lims ID: ICRT L5
Client ID:
Sample Type: ICRT Calib Level: 5
Inject. Date: 15-Apr-2019 11:17:11 ALS Bottle#: 5 Worklist Smp#: 5
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: ICRT L5
Misc. Info.: 280-0080933-005
Operator ID: ms Instrument ID: VGC_J
Sublist: chrom-RSK_J*sub5

Method: \\chromna\Denver\ChromData\VGC_J\20190415-80933.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 15-May-2019 11:57:56 Calib Date: 15-Apr-2019 12:11:08
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\VGC_J\20190415-80933.b\04151909.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: CTX0333

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Methane							
1	1.271	1.271	0.000	9627756	73.0	71.6	
2	1.692	1.692	0.000	8233442	73.0	71.6	
						RPD = 0.05	
2 Ethane							
1	1.556	1.556	0.000	17308693	136.9	137.0	
2	2.889	2.889	0.000	14756883	136.9	137.4	
						RPD = 0.30	
3 Ethylene							
1	1.880	1.880	0.000	13570482	127.7	128.3	
2	2.512	2.512	0.000	11530864	127.7	128.1	
						RPD = 0.11	
4 Propane							
1	2.632	2.632	0.000	26866377	200.7	198.6	
2	4.687	4.687	0.000	22779443	200.7	198.5	
						RPD = 0.04	
5 Acetylene							
1	4.078	4.078	0.000	4013672	118.5	124.9	
2	2.652	2.652	0.000	3536969	118.5	124.9	
						RPD = 0.04	
6 Butane							
1	4.381	4.381	0.000	35922157	264.5	255.1	
2	6.146	6.146	0.000	30367524	264.5	252.3	
						RPD = 1.11	
7 isobutylene							
1	5.311	5.311	0.000	23677727	255.4	244.7	
2	5.998	5.998	0.000	19852679	255.4	245.0	
						RPD = 0.12	

Reagents:

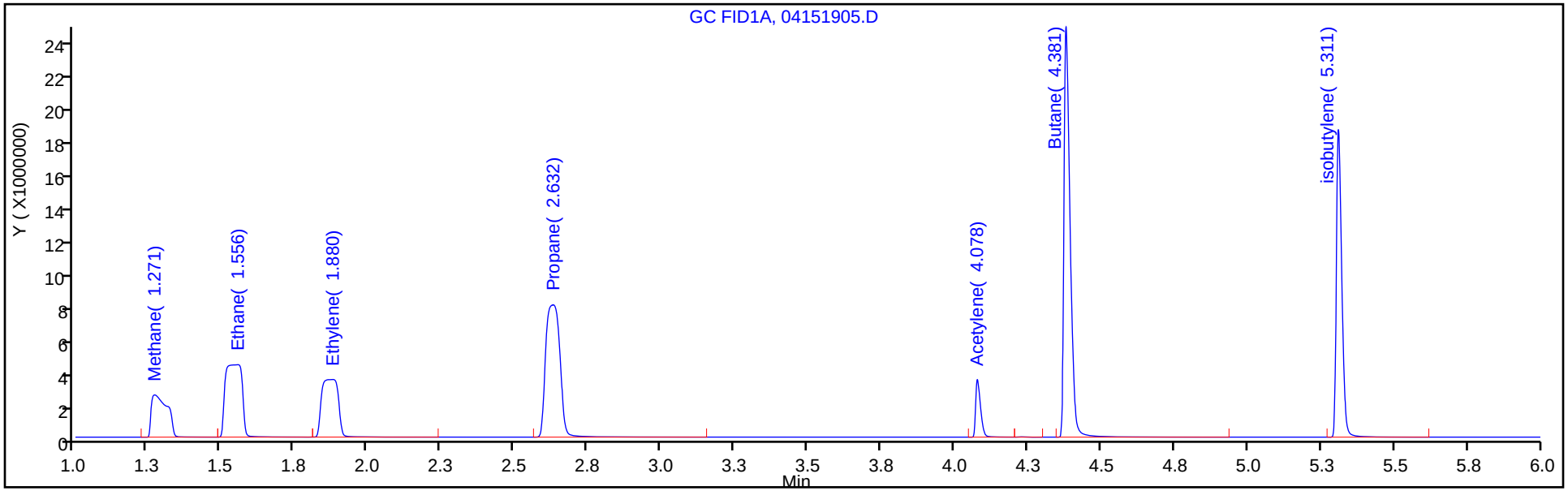
RSK7gasMathes_00026 Amount Added: 200.00 Units: uL

Report Date: 15-May-2019 11:57:56 Chrom Revision: 2.3 03-May-2019 15:52:00

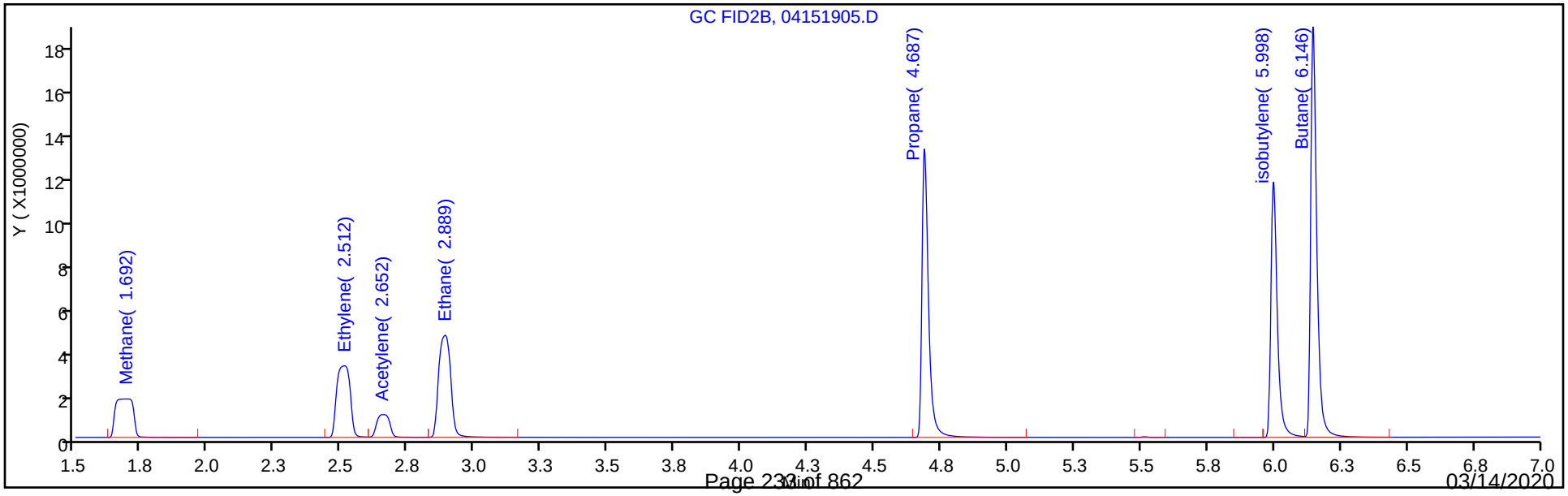
Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\VGC_J\20190415-80933.b\04151905.D				
Injection Date:	15-Apr-2019 11:17:11	Instrument ID:	VGC_J	Operator ID:	ms
Lims ID:	ICRT L5			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



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\VGC_J\20190415-80933.b\04151906.D
Lims ID: IC L6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 15-Apr-2019 11:30:32 ALS Bottle#: 6 Worklist Smp#: 6
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: IC L6
Misc. Info.: 280-0080933-006
Operator ID: ms Instrument ID: VGC_J
Sublist: chrom-RSK_J*sub5

Method: \\chromna\Denver\ChromData\VGC_J\20190415-80933.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 15-May-2019 11:57:57 Calib Date: 15-Apr-2019 12:11:08
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\VGC_J\20190415-80933.b\04151909.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: CTX0333

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Methane							
1	1.267	1.271	-0.004	17958876	146.0	133.8	
2	1.681	1.692	-0.011	15386436	146.0	134.1	
						RPD = 0.21	
2 Ethane							
1	1.549	1.556	-0.007	32290083	273.7	255.5	
2	2.882	2.889	-0.007	27708010	273.7	258.0	
						RPD = 0.95	
3 Ethylene							M
1	1.866	1.880	-0.014	25472652	255.3	240.7	M
2	2.503	2.512	-0.009	21746052	255.3	241.6	
						RPD = 0.36	
4 Propane							
1	2.625	2.632	-0.007	50278684	401.4	371.7	
2	4.683	4.687	-0.004	42698075	401.4	372.2	
						RPD = 0.12	
5 Acetylene							
1	4.070	4.078	-0.008	7700889	237.0	239.7	
2	2.656	2.652	0.004	6771875	237.0	239.1	
						RPD = 0.25	
6 Butane							
1	4.370	4.381	-0.011	67375523	529.0	478.5	
2	6.140	6.146	-0.006	57174968	529.0	475.0	
						RPD = 0.73	
7 isobutylene							
1	5.302	5.311	-0.009	44689590	510.8	461.9	
2	5.992	5.998	-0.006	37488004	510.8	462.6	
						RPD = 0.16	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

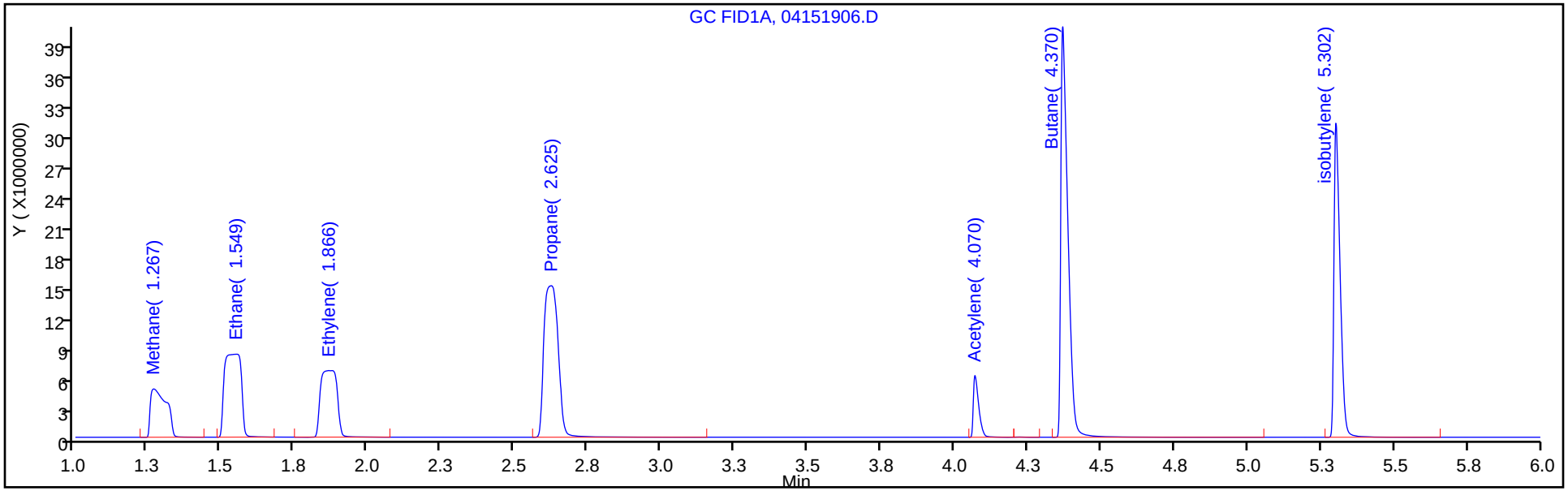
RSK7gasMathes_00026 Amount Added: 400.00 Units: uL

Report Date: 15-May-2019 11:57:58 Chrom Revision: 2.3 03-May-2019 15:52:00

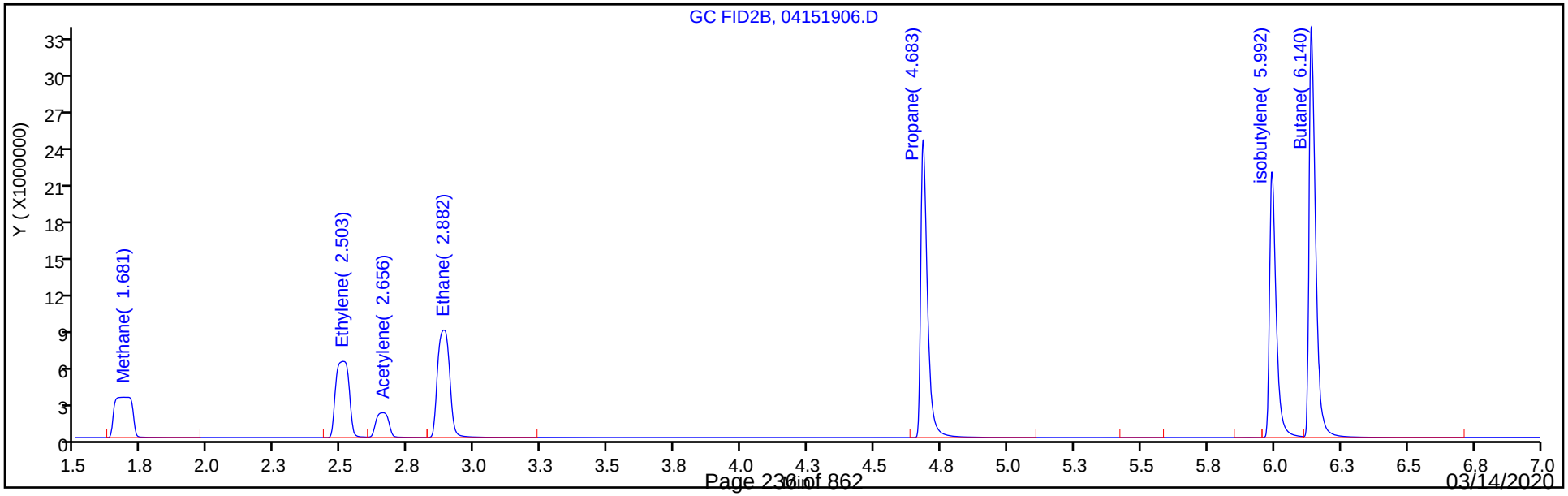
Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\VGC_J\20190415-80933.b\04151906.D				
Injection Date:	15-Apr-2019 11:30:32	Instrument ID:	VGC_J	Operator ID:	ms
Lims ID:	IC L6			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



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\VGC_J\20190415-80933.b\04151907.D
Lims ID: IC L7
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 15-Apr-2019 11:44:06 ALS Bottle#: 7 Worklist Smp#: 7
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: IC L7
Misc. Info.: 280-0080933-007
Operator ID: ms Instrument ID: VGC_J
Sublist: chrom-RSK_J*sub5

Method: \\chromna\Denver\ChromData\VGC_J\20190415-80933.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 15-May-2019 11:57:58 Calib Date: 15-Apr-2019 12:11:08
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\VGC_J\20190415-80933.b\04151909.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: CTX0333

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Methane							
1	1.263	1.271	-0.008	40532226	292.0	302.4	
2	1.686	1.692	-0.006	34652624	292.0	302.3	
						RPD = 0.02	
2 Ethane							
1	1.549	1.556	-0.007	71736807	547.4	567.7	
2	2.876	2.889	-0.013	61621639	547.4	573.7	
						RPD = 1.05	
3 Ethylene							M
1	1.870	1.880	-0.010	54838846	510.7	518.3	M
2	2.503	2.512	-0.009	46940879	510.7	521.5	
						RPD = 0.62	
4 Propane							
1	2.611	2.632	-0.021	111846125	802.8	826.9	
2	4.672	4.687	-0.015	94884692	802.8	827.0	
						RPD = 0.02	
5 Acetylene							
1	4.057	4.078	-0.021	15668916	474.1	487.7	
2	2.651	2.652	-0.001	13791861	474.1	486.9	
						RPD = 0.16	
6 Butane							
1	4.350	4.381	-0.031	148225690	1058.1	1052.6	
2	6.128	6.146	-0.018	125686225	1058.1	1044.1	
						RPD = 0.81	
7 isobutylene							
1	5.288	5.311	-0.023	94615791	1021.5	977.9	
2	5.984	5.998	-0.014	79245111	1021.5	978.0	
						RPD = 0.01	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

RSK7gasMathes_00026 Amount Added: 800.00 Units: uL

Report Date: 15-May-2019 11:57:59 Chrom Revision: 2.3 03-May-2019 15:52:00

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\VGC_J\20190415-80933.b\04151907.D

Injection Date: 15-Apr-2019 11:44:06 Instrument ID: VGC_J Operator ID: ms

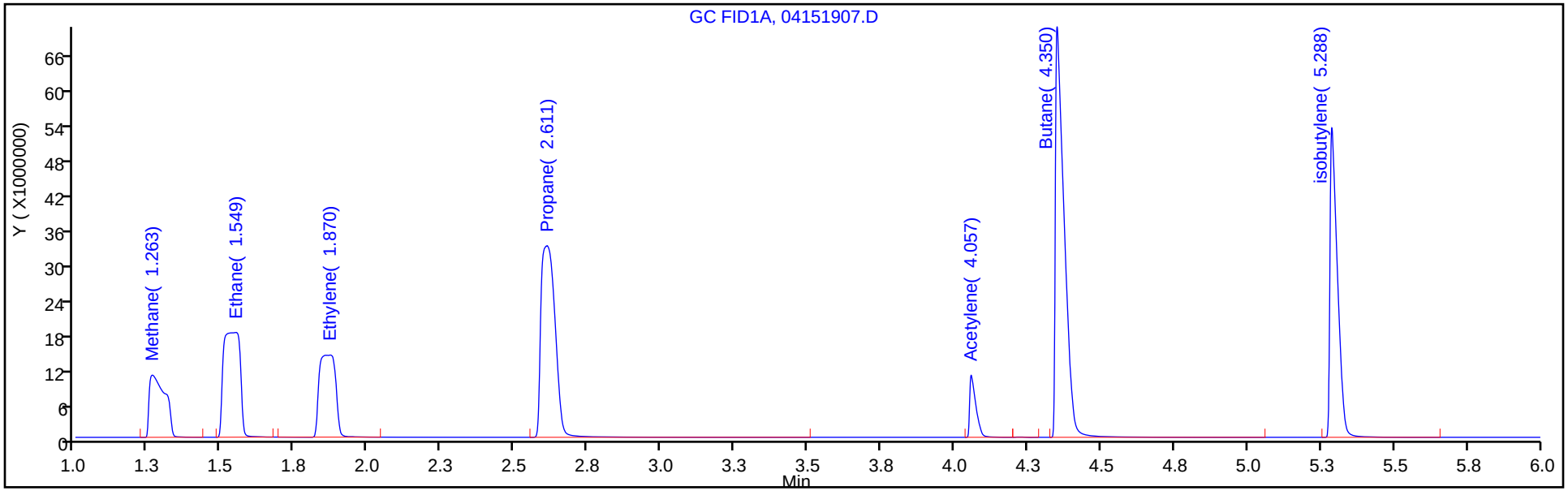
Lims ID: IC L7 Worklist Smp#: 7

Client ID:

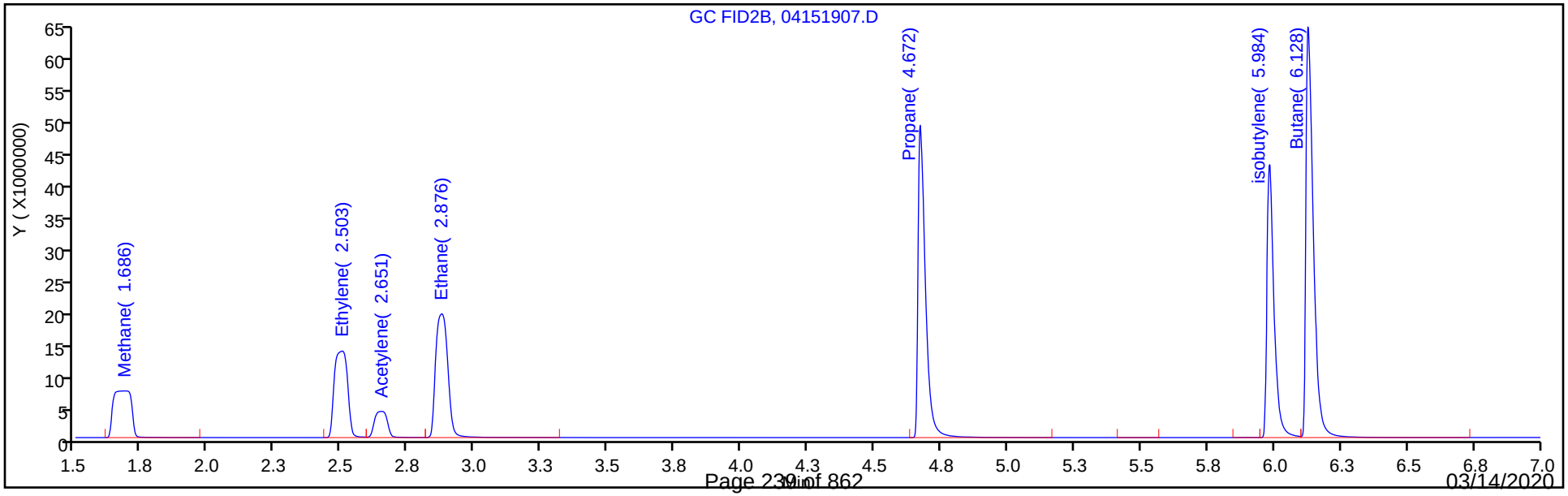
Purge Vol: 18.000 mL Dil. Factor: 1.0000 ALS Bottle#: 7

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



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\VGC_J\20190415-80933.b\04151908.D				
Lims ID:	IC L8				
Client ID:					
Sample Type:	IC	Calib Level:	8		
Inject. Date:	15-Apr-2019 11:57:32	ALS Bottle#:	8	Worklist Smp#:	8
Purge Vol:	18.000 mL	Dil. Factor:	1.0000		
Sample Info:	IC L8				
Misc. Info.:	280-0080933-008				
Operator ID:	ms	Instrument ID:	VGC_J		
Sublist:	chrom-RSK_J*sub5				
Method:	\\chromna\Denver\ChromData\VGC_J\20190415-80933.b\RSK_J.m				
Limit Group:	GCV - RSK 175				
Method Label:	DV-GC-0025: Dissolved Gases in Water by RSK-175				
Last Update:	15-May-2019 11:58:00	Calib Date:	15-Apr-2019 12:11:08		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\VGC_J\20190415-80933.b\04151909.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:	CTX0333				

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Methane							
1	1.265	1.271	-0.006	226637342	1806.9	1691.8	
2	1.692	1.692	0.000	193042781	1806.9	1685.0	
						RPD = 0.41	

Reagents:

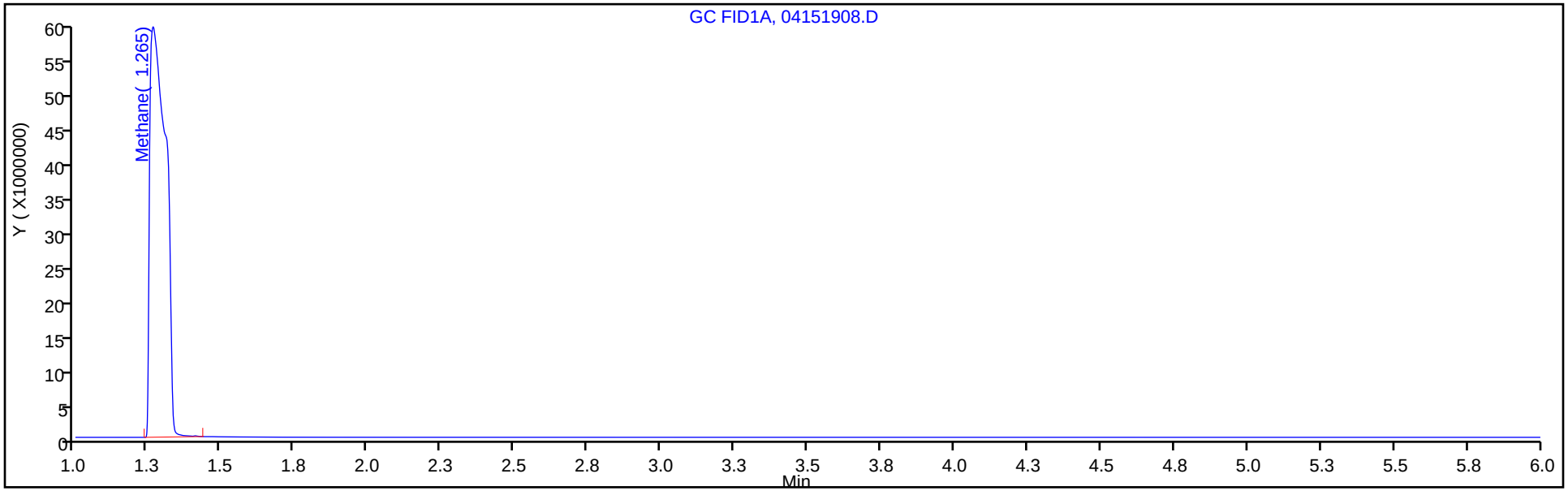
RSK175methane_00009 Amount Added: 50.00 Units: uL

Report Date: 15-May-2019 11:58:01 Chrom Revision: 2.3 03-May-2019 15:52:00

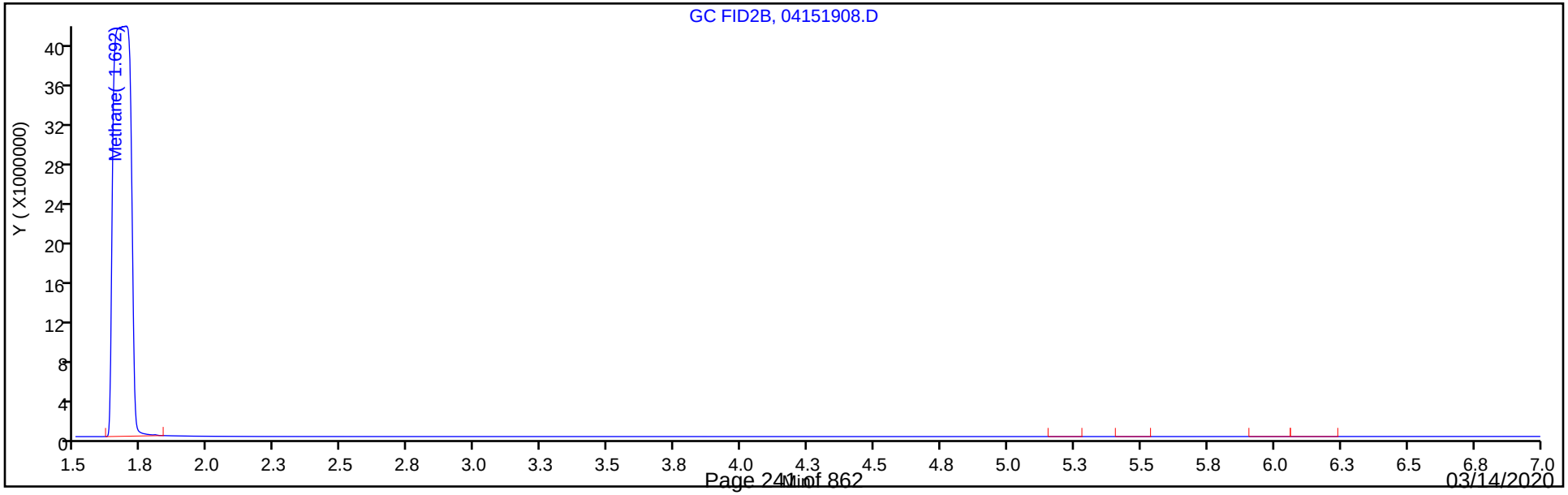
Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\VGC_J\20190415-80933.b\04151908.D				
Injection Date:	15-Apr-2019 11:57:32	Instrument ID:	VGC_J	Operator ID:	ms
Lims ID:	IC L8			Worklist Smp#:	8
Client ID:					
Purge Vol:	18.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	8
Method:	RSK_J	Limit Group:	GCV - RSK 175		

Column: Rt-Alumina BOND/KCl (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: HP-PLOT/Q (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\VGC_J\20190415-80933.b\04151909.D				
Lims ID:	IC L9				
Client ID:					
Sample Type:	IC	Calib Level:	9		
Inject. Date:	15-Apr-2019 12:11:08	ALS Bottle#:	9	Worklist Smp#:	9
Purge Vol:	18.000 mL	Dil. Factor:	1.0000		
Sample Info:	IC L9				
Misc. Info.:	280-0080933-009				
Operator ID:	ms	Instrument ID:	VGC_J		
Sublist:	chrom-RSK_J*sub5				
Method:	\\chromna\Denver\ChromData\VGC_J\20190415-80933.b\RSK_J.m				
Limit Group:	GCV - RSK 175				
Method Label:	DV-GC-0025: Dissolved Gases in Water by RSK-175				
Last Update:	15-May-2019 11:58:02	Calib Date:	15-Apr-2019 12:11:08		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\VGC_J\20190415-80933.b\04151909.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:	CTX0333				

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Methane							
1	1.263	1.271	-0.008	952923785	7227.8	7114.4	
2	1.668	1.692	-0.024	817202335	7227.8	7133.8	
						RPD = 0.27	

Reagents:

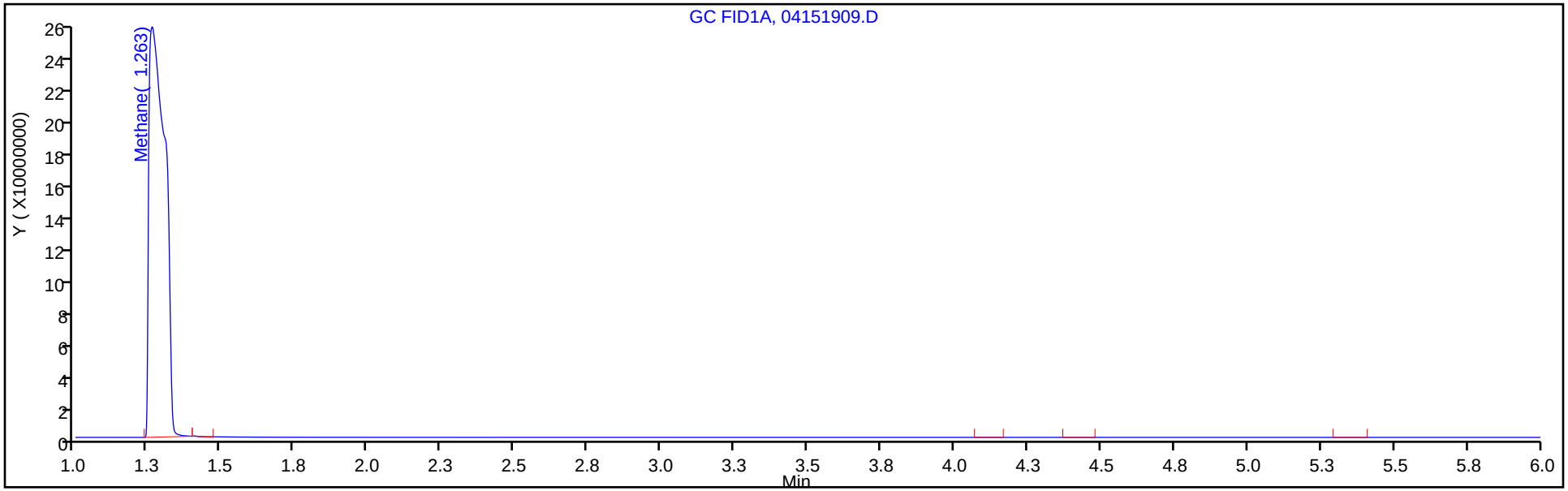
RSK175methane_00009 Amount Added: 200.00 Units: uL

Report Date: 15-May-2019 11:58:02 Chrom Revision: 2.3 03-May-2019 15:52:00

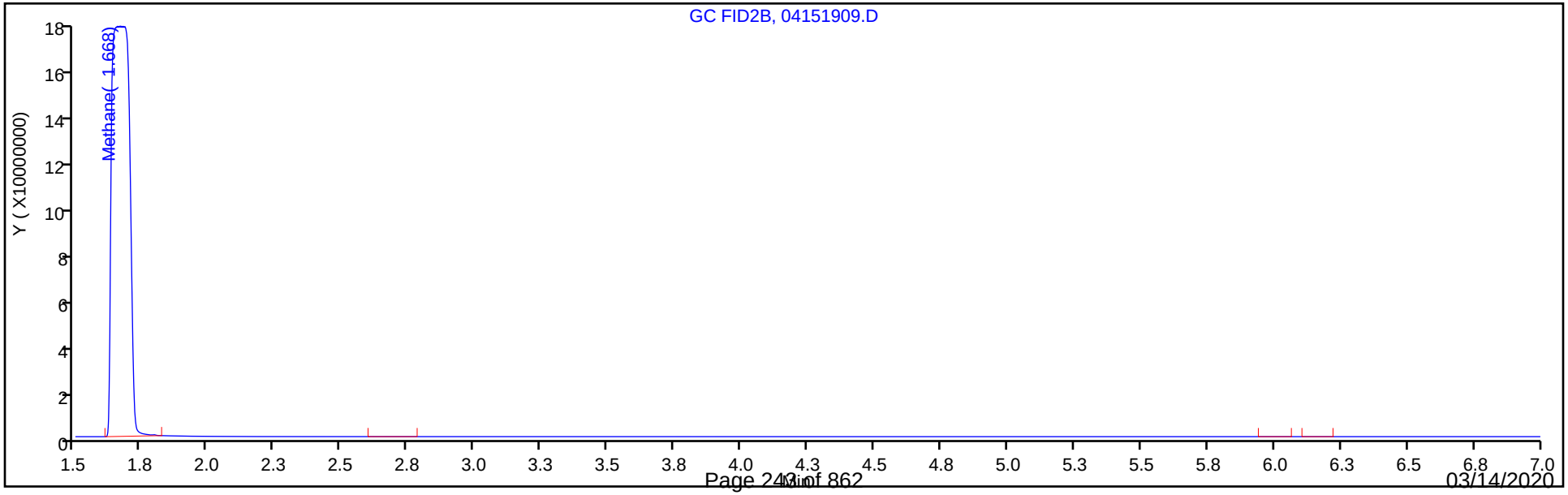
Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\VGC_J\20190415-80933.b\04151909.D				
Injection Date:	15-Apr-2019 12:11:08	Instrument ID:	VGC_J	Operator ID:	ms
Lims ID:	IC L9			Worklist Smp#:	9
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.: 280-134141-1

SDG No.:

Lab Sample ID: ICV 280-454595/11 Calibration Date: 04/15/2019 12:38

Instrument ID: VGC_J Calib Start Date: 04/15/2019 10:23

GC Column: Rt-Alumina KCl ID: 0.53(mm) Calib End Date: 04/15/2019 12:11

Lab File ID: 04151911.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		128138		139	146	-4.5	20.0
Ethane	Ave	126364	121882		264	274	-3.5	20.0
Ethylene	Ave	105807	101365		245	255	-4.2	20.0
Acetylene	Ave	32129	31404		232	237	-2.3	20.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134141-1

SDG No.:

Lab Sample ID: ICV 280-454595/11 Calibration Date: 04/15/2019 12:38

Instrument ID: VGC_J Calib Start Date: 04/15/2019 10:23

GC Column: Rt-Alumina KCl ID: 0.53(mm) Calib End Date: 04/15/2019 12:11

Lab File ID: 04151911.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Methane	1.26	1.23	1.31
Ethane	1.55	1.51	1.61
Ethylene	1.86	1.83	1.93
Acetylene	4.07	4.00	4.16

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\VGC_J\20190415-80933.b\04151911.D
Lims ID: ICV
Client ID:
Sample Type: ICV
Inject. Date: 15-Apr-2019 12:38:15 ALS Bottle#: 11 Worklist Smp#: 11
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: ICV
Misc. Info.: 280-0080933-011
Operator ID: ms Instrument ID: VGC_J
Sublist:

Method: \\chromna\Denver\ChromData\VGC_J\20190415-80933.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 15-May-2019 11:58:03 Calib Date: 15-Apr-2019 12:11:08
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\VGC_J\20190415-80933.b\04151909.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: CTX0333

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Methane							
1	1.264	1.271	-0.007	18709056	146.0	139.4	
2	1.678	1.692	-0.014	16025653	146.0	139.7	
						RPD = 0.18	
2 Ethane							
1	1.546	1.556	-0.010	33360415	273.7	264.0	
2	2.873	2.889	-0.016	28632577	273.7	266.6	
						RPD = 0.97	
3 Ethylene							
1	1.857	1.880	-0.023	25881738	255.3	244.6	
2	2.496	2.512	-0.016	21995109	255.3	244.4	
						RPD = 0.10	
4 Propane							
1	2.616	2.632	-0.016	51982286	401.4	384.3	
2	4.678	4.687	-0.009	44136454	401.4	384.7	
						RPD = 0.10	
5 Acetylene							
1	4.068	4.078	-0.010	7444173	237.0	231.7	
2	2.646	2.652	-0.006	6535820	237.0	230.7	
						RPD = 0.41	
6 Butane							
1	4.367	4.381	-0.014	69174084	529.0	491.2	
2	6.136	6.146	-0.010	58709409	529.0	487.7	
						RPD = 0.72	
7 isobutylene							
1	5.301	5.311	-0.010	44288925	510.8	457.7	
2	5.989	5.998	-0.009	37131909	510.8	458.2	
						RPD = 0.11	

Reagents:

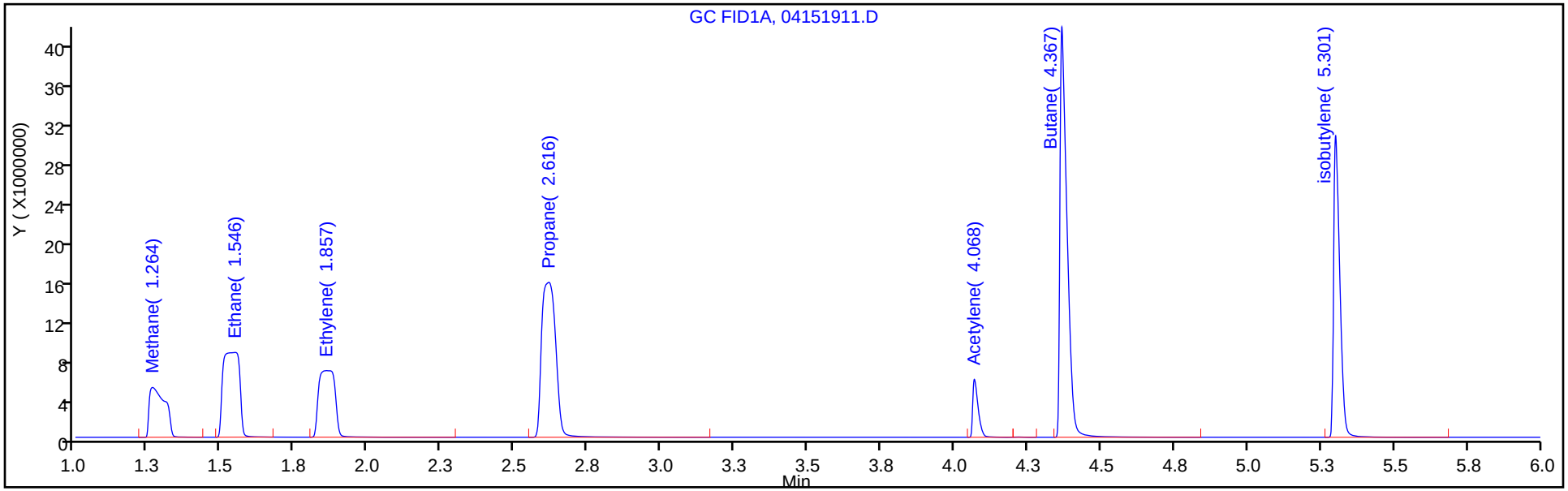
RSK7gasMathes_00025 Amount Added: 400.00 Units: uL

Report Date: 15-May-2019 11:58:04 Chrom Revision: 2.3 03-May-2019 15:52:00

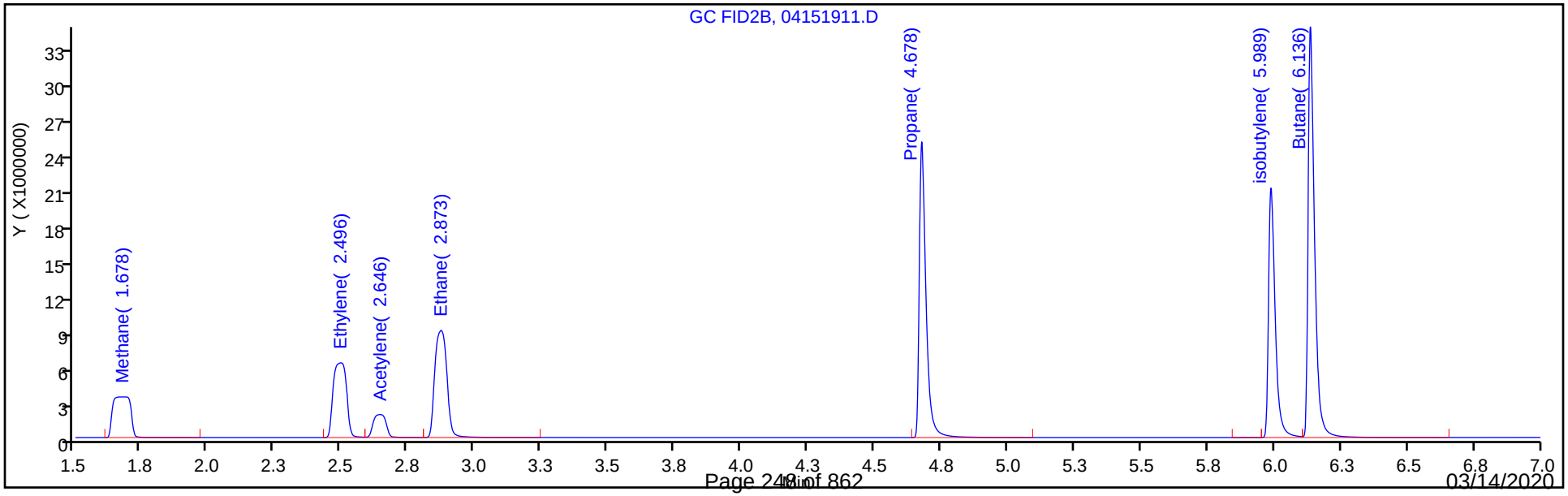
Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\VGC_J\20190415-80933.b\04151911.D				
Injection Date:	15-Apr-2019 12:38:15	Instrument ID:	VGC_J	Operator ID:	ms
Lims ID:	ICV			Worklist Smp#:	11
Client ID:					
Purge Vol:	18.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	11
Method:	RSK_J	Limit Group:	GCV - RSK 175		

Column: Rt-Alumina BOND/KCl (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: HP-PLOT/Q (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134141-1

SDG No.:

Lab Sample ID: ICV 280-454595/11 Calibration Date: 04/15/2019 12:38

Instrument ID: VGC_J Calib Start Date: 04/15/2019 10:23

GC Column: HP-Plot Q ID: 0.53(mm) Calib End Date: 04/15/2019 12:11

Lab File ID: 04151911.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		109760		140	146	-4.3	20.0
Ethylene	Ave	90007	86143		244	255	-4.3	20.0
Acetylene	Ave	28324	27572		231	237	-2.7	20.0
Ethane	Ave	107408	104609		267	274	-2.6	20.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134141-1

SDG No.:

Lab Sample ID: ICV 280-454595/11 Calibration Date: 04/15/2019 12:38

Instrument ID: VGC_J Calib Start Date: 04/15/2019 10:23

GC Column: HP-Plot Q ID: 0.53(mm) Calib End Date: 04/15/2019 12:11

Lab File ID: 04151911.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Methane	1.68	1.65	1.73
Ethylene	2.50	2.46	2.56
Acetylene	2.65	2.57	2.73
Ethane	2.87	2.84	2.94

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\VGC_J\20190415-80933.b\04151911.D
Lims ID: ICV
Client ID:
Sample Type: ICV
Inject. Date: 15-Apr-2019 12:38:15 ALS Bottle#: 11 Worklist Smp#: 11
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: ICV
Misc. Info.: 280-0080933-011
Operator ID: ms Instrument ID: VGC_J
Sublist:

Method: \\chromna\Denver\ChromData\VGC_J\20190415-80933.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 15-May-2019 11:58:03 Calib Date: 15-Apr-2019 12:11:08
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\VGC_J\20190415-80933.b\04151909.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: CTX0333

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Methane							
1	1.264	1.271	-0.007	18709056	146.0	139.4	
2	1.678	1.692	-0.014	16025653	146.0	139.7	
						RPD = 0.18	
2 Ethane							
1	1.546	1.556	-0.010	33360415	273.7	264.0	
2	2.873	2.889	-0.016	28632577	273.7	266.6	
						RPD = 0.97	
3 Ethylene							
1	1.857	1.880	-0.023	25881738	255.3	244.6	
2	2.496	2.512	-0.016	21995109	255.3	244.4	
						RPD = 0.10	
4 Propane							
1	2.616	2.632	-0.016	51982286	401.4	384.3	
2	4.678	4.687	-0.009	44136454	401.4	384.7	
						RPD = 0.10	
5 Acetylene							
1	4.068	4.078	-0.010	7444173	237.0	231.7	
2	2.646	2.652	-0.006	6535820	237.0	230.7	
						RPD = 0.41	
6 Butane							
1	4.367	4.381	-0.014	69174084	529.0	491.2	
2	6.136	6.146	-0.010	58709409	529.0	487.7	
						RPD = 0.72	
7 isobutylene							
1	5.301	5.311	-0.010	44288925	510.8	457.7	
2	5.989	5.998	-0.009	37131909	510.8	458.2	
						RPD = 0.11	

Reagents:

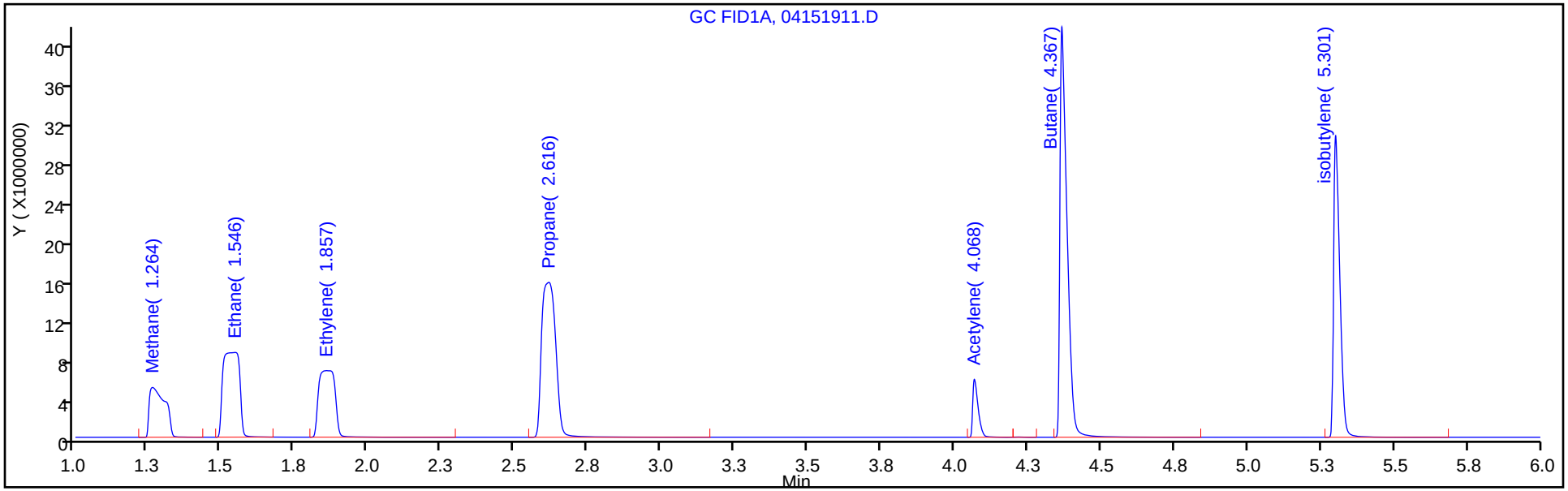
RSK7gasMathes_00025 Amount Added: 400.00 Units: uL

Report Date: 15-May-2019 11:58:04 Chrom Revision: 2.3 03-May-2019 15:52:00

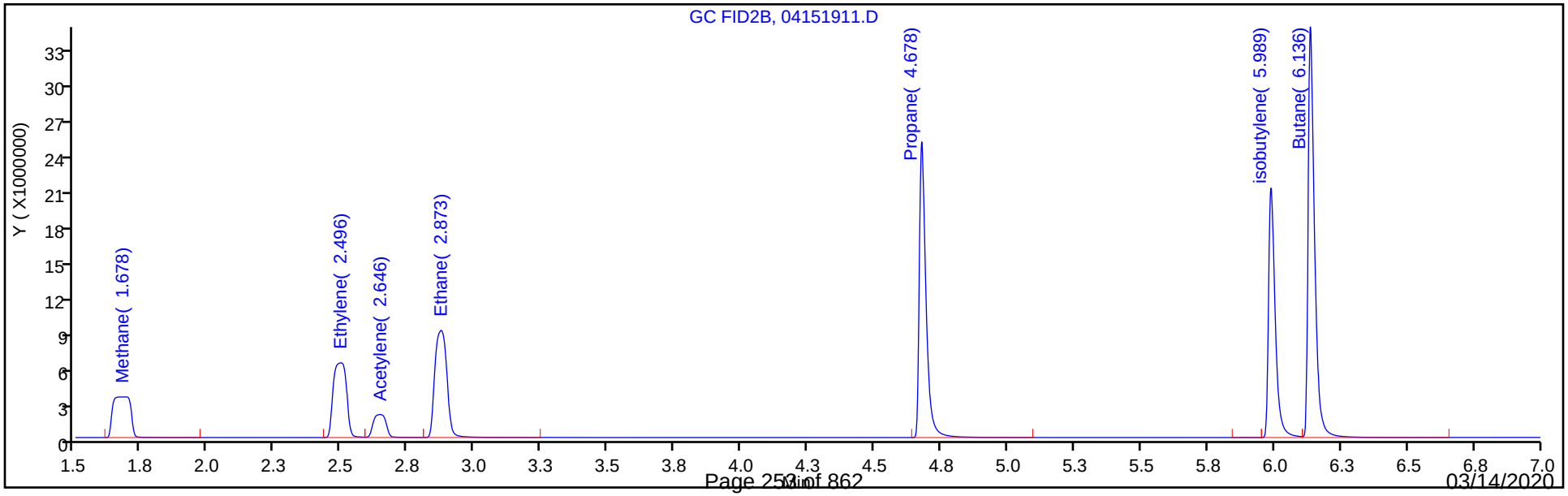
Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\VGC_J\20190415-80933.b\04151911.D				
Injection Date:	15-Apr-2019 12:38:15	Instrument ID:	VGC_J	Operator ID:	ms
Lims ID:	ICV			Worklist Smp#:	11
Client ID:					
Purge Vol:	18.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	11
Method:	RSK_J	Limit Group:	GCV - RSK 175		

Column: Rt-Alumina BOND/KCl (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: HP-PLOT/Q (0.53 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134141-1

SDG No.:

Lab Sample ID: CCVRT 280-487693/4 Calibration Date: 03/04/2020 11:00

Instrument ID: VGC_J Calib Start Date: 04/15/2019 10:23

GC Column: Rt-Alumina KCl ID: 0.53(mm) Calib End Date: 04/15/2019 12:11

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		136692		74.2	73.0	1.7	20.0
Ethane	Ave	126364	130604		141	137	3.4	20.0
Ethylene	Ave	105807	109538		132	128	3.5	20.0
Acetylene	Ave	32129	38470		142	119	19.7	20.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134141-1

SDG No.:

Lab Sample ID: CCVRT 280-487693/4 Calibration Date: 03/04/2020 11:00

Instrument ID: VGC_J Calib Start Date: 04/15/2019 10:23

GC Column: Rt-Alumina KCl ID: 0.53(mm) Calib End Date: 04/15/2019 12:11

Lab File ID: 004F0401.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Methane	1.26	1.22	1.30
Ethane	1.53	1.48	1.58
Ethylene	1.85	1.80	1.90
Acetylene	4.04	3.96	4.12

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\VGC_J\20200304-89777.b\004F0401.D
Lims ID: ccvrt
Client ID:
Sample Type: CCVRT
Inject. Date: 04-Mar-2020 11:00:27 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: \\chromna\Denver\ChromData\VGC_J\20200304-89777.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 05-Mar-2020 10:58:05 Calib Date: 15-Apr-2019 12:11:08
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\VGC_J\20190415-80933.b\04151909.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: CTX0327

First Level Reviewer: sciannac Date: 04-Mar-2020 12:13:02

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Methane							
1	1.259	1.259	0.000	9978973	73.0	74.2	
2	1.677	1.677	0.000	8576432	73.0	74.6	
						RPD = 0.54	
2 Ethane							
1	1.534	1.534	0.000	17873894	136.9	141.4	
2	2.870	2.870	0.000	15329356	136.9	142.7	
						RPD = 0.90	
3 Ethylene							
1	1.850	1.850	0.000	13984364	127.7	132.2	
2	2.493	2.493	0.000	11941488	127.7	132.7	
						RPD = 0.38	
4 Propane							
1	2.582	2.582	0.000	27978802	200.7	206.8	
2	4.679	4.679	0.000	23877681	200.7	208.1	
						RPD = 0.61	
5 Acetylene							
1	4.043	4.043	0.000	4559498	118.5	141.9	
2	2.645	2.645	0.000	4004014	118.5	141.4	
						RPD = 0.39	
6 Butane							
1	4.345	4.345	0.000	38099963	264.5	270.6	
2	6.139	6.139	0.000	32490543	264.5	269.9	
						RPD = 0.24	
7 isobutylene							
1	5.284	5.284	0.000	26515214	255.4	274.0	
2	5.990	5.990	0.000	22333499	255.4	275.6	
						RPD = 0.57	

Reagents:

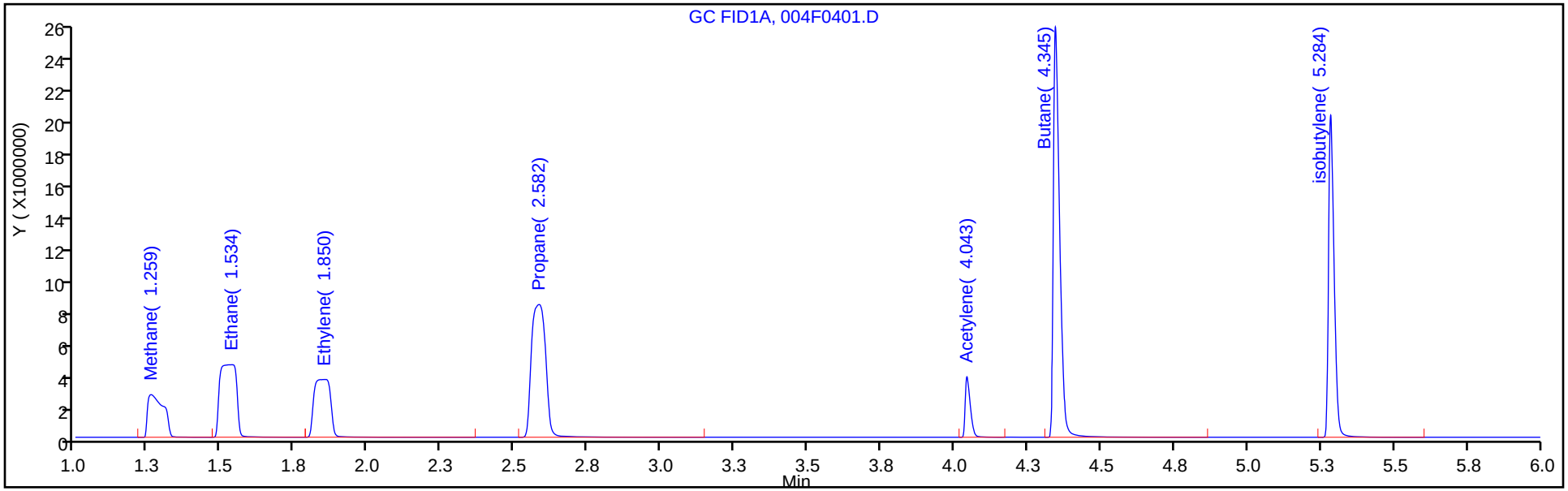
RSK7gasMathes_00027 Amount Added: 200.00 Units: uL

Report Date: 05-Mar-2020 10:58:05 Chrom Revision: 2.3 19-Feb-2020 16:45:46

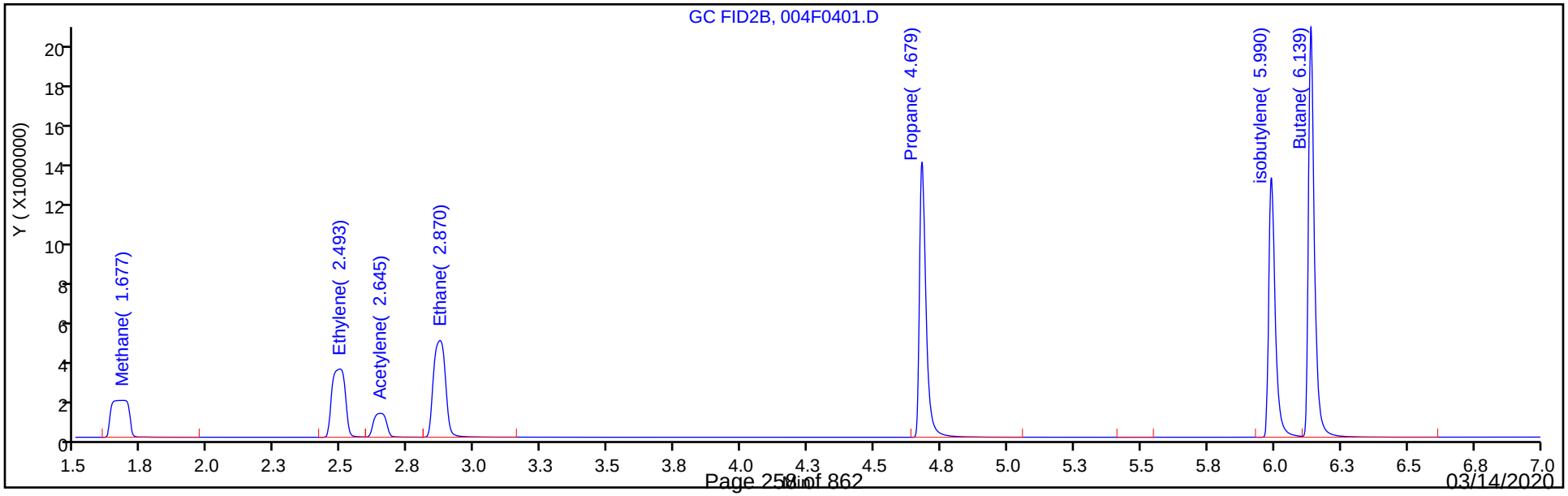
Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\VGC_J\20200304-89777.b\004F0401.D				
Injection Date:	04-Mar-2020 11:00:27	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



FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134141-1

SDG No.:

Lab Sample ID: CCVRT 280-487693/4 Calibration Date: 03/04/2020 11:00

Instrument ID: VGC_J Calib Start Date: 04/15/2019 10:23

GC Column: HP-Plot Q ID: 0.53(mm) Calib End Date: 04/15/2019 12:11

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		117480		74.6	73.0	2.2	20.0
Ethylene	Ave	90007	93536		133	128	3.9	20.0
Acetylene	Ave	28324	33783		141	119	19.3	20.0
Ethane	Ave	107408	112011		143	137	4.3	20.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134141-1

SDG No.:

Lab Sample ID: CCVRT 280-487693/4 Calibration Date: 03/04/2020 11:00

Instrument ID: VGC_J Calib Start Date: 04/15/2019 10:23

GC Column: HP-Plot Q ID: 0.53(mm) Calib End Date: 04/15/2019 12:11

Lab File ID: 004F0401.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Methane	1.68	1.64	1.72
Ethylene	2.49	2.44	2.54
Acetylene	2.65	2.57	2.73
Ethane	2.87	2.82	2.92

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\VGC_J\20200304-89777.b\004F0401.D
Lims ID: ccvrt
Client ID:
Sample Type: CCVRT
Inject. Date: 04-Mar-2020 11:00:27 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: \\chromna\Denver\ChromData\VGC_J\20200304-89777.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 05-Mar-2020 10:58:05 Calib Date: 15-Apr-2019 12:11:08
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\VGC_J\20190415-80933.b\04151909.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: CTX0327

First Level Reviewer: sciannac Date: 04-Mar-2020 12:13:02

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Methane							
1	1.259	1.259	0.000	9978973	73.0	74.2	
2	1.677	1.677	0.000	8576432	73.0	74.6	
						RPD = 0.54	
2 Ethane							
1	1.534	1.534	0.000	17873894	136.9	141.4	
2	2.870	2.870	0.000	15329356	136.9	142.7	
						RPD = 0.90	
3 Ethylene							
1	1.850	1.850	0.000	13984364	127.7	132.2	
2	2.493	2.493	0.000	11941488	127.7	132.7	
						RPD = 0.38	
4 Propane							
1	2.582	2.582	0.000	27978802	200.7	206.8	
2	4.679	4.679	0.000	23877681	200.7	208.1	
						RPD = 0.61	
5 Acetylene							
1	4.043	4.043	0.000	4559498	118.5	141.9	
2	2.645	2.645	0.000	4004014	118.5	141.4	
						RPD = 0.39	
6 Butane							
1	4.345	4.345	0.000	38099963	264.5	270.6	
2	6.139	6.139	0.000	32490543	264.5	269.9	
						RPD = 0.24	
7 isobutylene							
1	5.284	5.284	0.000	26515214	255.4	274.0	
2	5.990	5.990	0.000	22333499	255.4	275.6	
						RPD = 0.57	

Reagents:

RSK7gasMathes_00027 Amount Added: 200.00 Units: uL

Report Date: 05-Mar-2020 10:58:06 Chrom Revision: 2.3 19-Feb-2020 16:45:46

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\VGC_J\20200304-89777.b\004F0401.D

Injection Date: 04-Mar-2020 11:00:27 Instrument ID: VGC_J Operator ID: sciannac

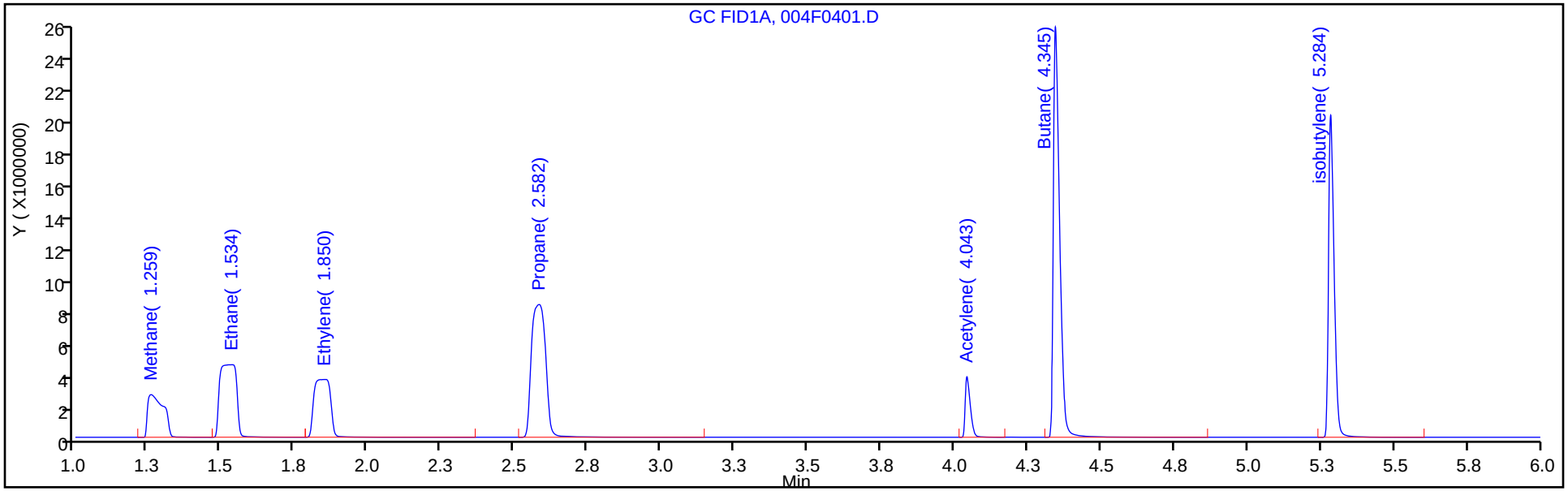
Lims ID: ccvrt Worklist Smp#: 4

Client ID:

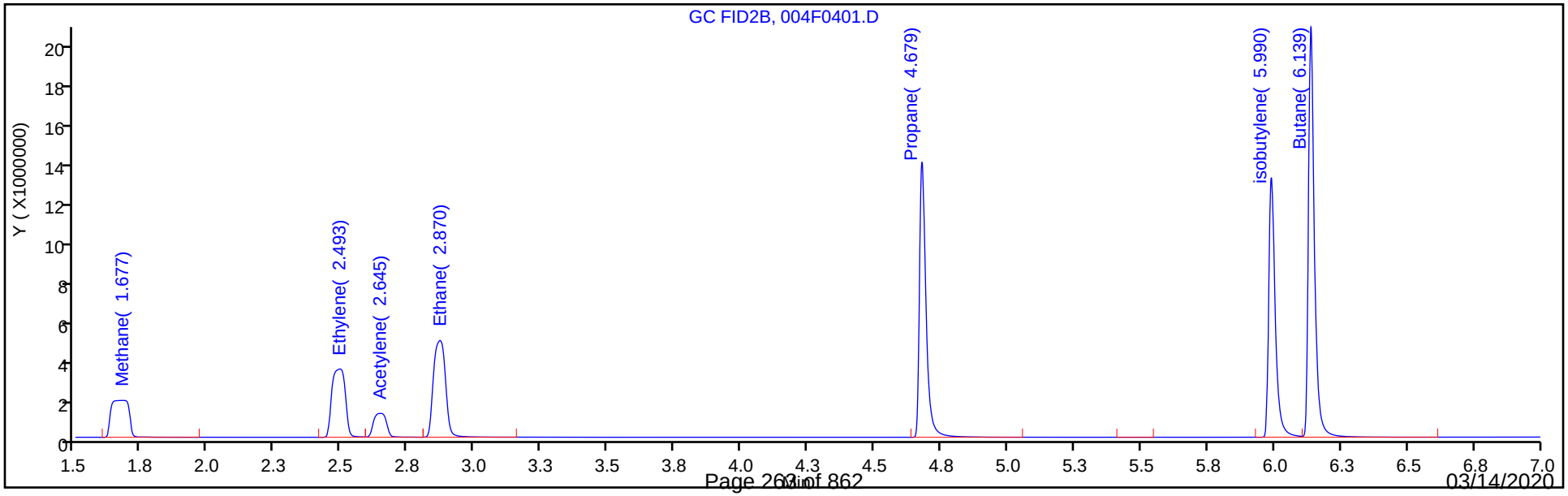
Purge Vol: 18.000 mL Dil. Factor: 1.0000 ALS Bottle#: 4

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



FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134141-1

SDG No.:

Lab Sample ID: CCV 280-487693/36 Calibration Date: 03/04/2020 19:50

Instrument ID: VGC_J Calib Start Date: 04/15/2019 10:23

GC Column: Rt-Alumina KCl ID: 0.53(mm) Calib End Date: 04/15/2019 12:11

Lab File ID: 036F2901.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		128848		70.0	73.0	-4.2	20.0
Ethane	Ave	126364	118238		128	137	-6.4	20.0
Ethylene	Ave	105807	101431		122	128	-4.1	20.0
Acetylene	Ave	32129	36816		136	119	14.6	20.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134141-1

SDG No.:

Lab Sample ID: CCV 280-487693/36 Calibration Date: 03/04/2020 19:50

Instrument ID: VGC_J Calib Start Date: 04/15/2019 10:23

GC Column: Rt-Alumina KCl ID: 0.53(mm) Calib End Date: 04/15/2019 12:11

Lab File ID: 036F2901.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Methane	1.26	1.22	1.30
Ethane	1.54	1.48	1.58
Ethylene	1.85	1.80	1.90
Acetylene	4.06	3.96	4.12

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\VGC_J\20200304-89777.b\036F2901.D
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 04-Mar-2020 19:50:44 ALS Bottle#: 36 Worklist Smp#: 36
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: \\chromna\Denver\ChromData\VGC_J\20200304-89777.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 05-Mar-2020 10:58:34 Calib Date: 15-Apr-2019 12:11:08
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\VGC_J\20190415-80933.b\04151909.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: CTX0327

First Level Reviewer: sciannac Date: 05-Mar-2020 10:15:12

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Methane							
1	1.261	1.259	0.002	9406323	73.0	70.0	
2	1.687	1.677	0.010	8096098	73.0	70.4	
						RPD = 0.69	
2 Ethane							M
1	1.540	1.534	0.006	16181477	136.9	128.1	M
2	2.873	2.870	0.003	14141033	136.9	131.7	
						RPD = 2.77	
3 Ethylene							
1	1.849	1.850	-0.001	12949398	127.7	122.4	
2	2.501	2.493	0.008	11074044	127.7	123.0	
						RPD = 0.53	
4 Propane							
1	2.600	2.582	0.018	25096250	200.7	185.5	
2	4.683	4.679	0.004	21426759	200.7	186.8	
						RPD = 0.65	
5 Acetylene							
1	4.060	4.043	0.017	4363513	118.5	135.8	
2	2.647	2.645	0.002	3828330	118.5	135.2	
						RPD = 0.48	
6 Butane							
1	4.363	4.345	0.018	31647543	264.5	224.7	
2	6.141	6.139	0.002	27043472	264.5	224.7	
						RPD = 0.04	
7 isobutylene							
1	5.299	5.284	0.015	22316886	255.4	230.6	
2	5.995	5.990	0.005	18804321	255.4	232.1	
						RPD = 0.61	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

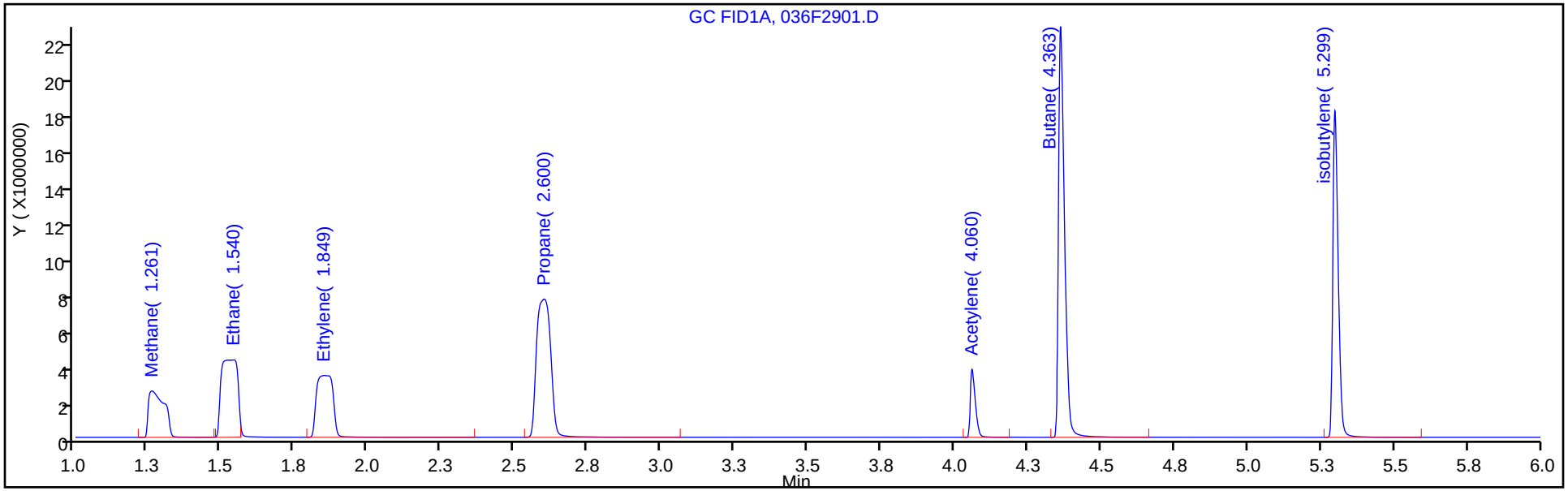
RSK7gasMathes_00027 Amount Added: 200.00 Units: uL

Report Date: 05-Mar-2020 10:58:35 Chrom Revision: 2.3 19-Feb-2020 16:45:46

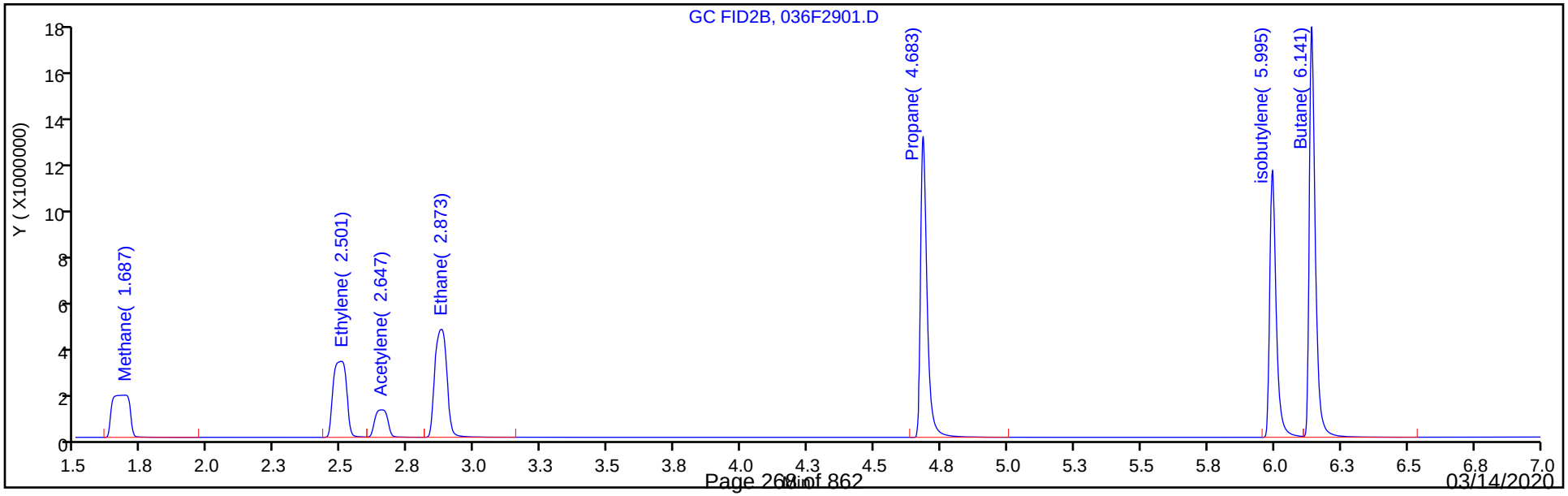
Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\VGC_J\20200304-89777.b\036F2901.D				
Injection Date:	04-Mar-2020 19:50:44	Instrument ID:	VGC_J	Operator ID:	sciannac
Lims ID:	ccv			Worklist Smp#:	36
Client ID:					
Purge Vol:	18.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	36
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

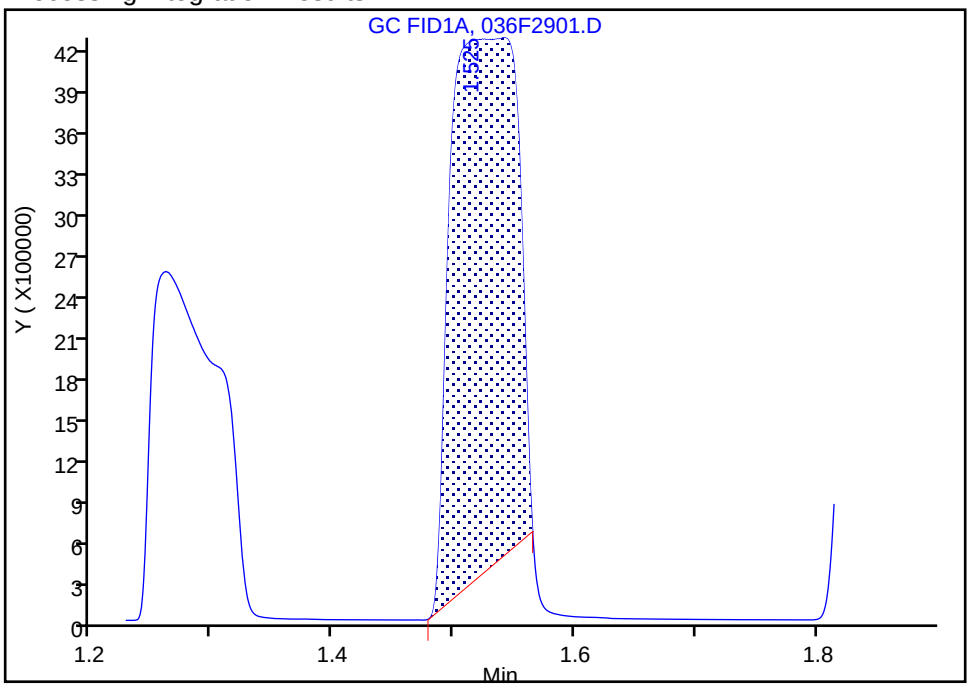
Data File:	\\chromna\Denver\ChromData\VGC_J\20200304-89777.b\036F2901.D				
Injection Date:	04-Mar-2020 19:50:44	Instrument ID:	VGC_J		
Lims ID:	ccv				
Client ID:					
Operator ID:	sciannac	ALS Bottle#:	36	Worklist Smp#:	36
Purge Vol:	18.000 mL	Dil. Factor:	1.0000		
Method:	RSK_J	Limit Group:	GCV - RSK 175		
Column:	Rt-Alumina BOND/KCl (0.53 mm)	Detector	GC FID1A		

2 Ethane, CAS: 74-84-0

Signal: 1

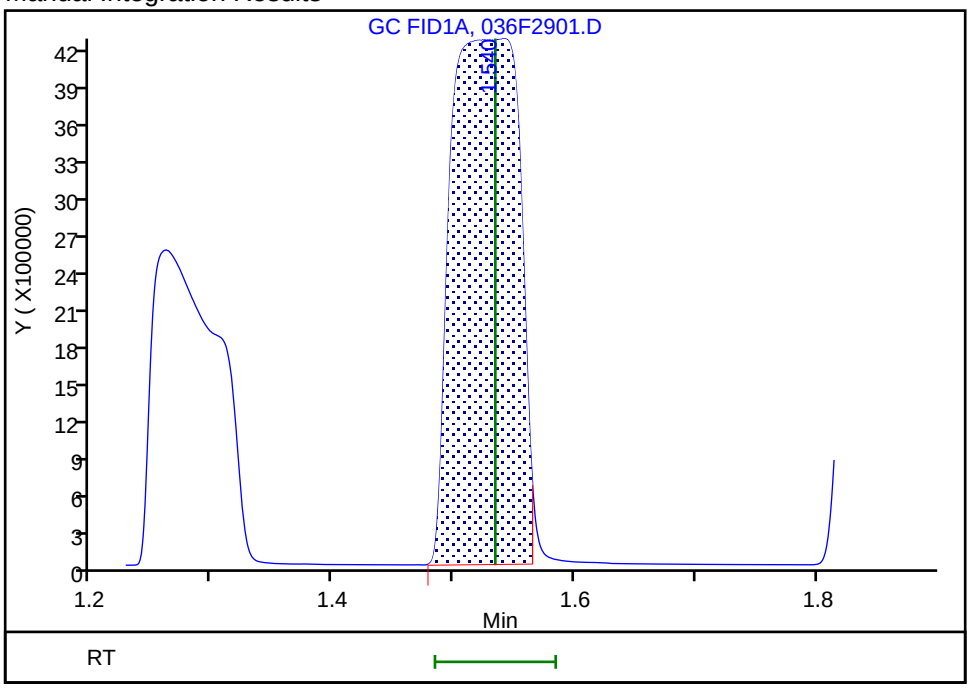
Processing Integration Results

RT: 1.53
Area: 14554493
Amount: 115.1790
Amount Units: ug/l



Manual Integration Results

RT: 1.54
Area: 16181477
Amount: 128.0544
Amount Units: ug/l



Reviewer: sciannac, 05-Mar-2020 10:14:22

Audit Action: Assigned New Baseline Audit Reason: Split Peak

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134141-1

SDG No.:

Lab Sample ID: CCV 280-487693/36 Calibration Date: 03/04/2020 19:50

Instrument ID: VGC_J Calib Start Date: 04/15/2019 10:23

GC Column: HP-Plot Q ID: 0.53(mm) Calib End Date: 04/15/2019 12:11

Lab File ID: 036F2901.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		110900		70.4	73.0	-3.5	20.0
Ethylene	Ave	90007	86742		123	128	-3.6	20.0
Acetylene	Ave	28324	32301		135	119	14.0	20.0
Ethane	Ave	107408	103328		132	137	-3.8	20.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134141-1

SDG No.:

Lab Sample ID: CCV 280-487693/36 Calibration Date: 03/04/2020 19:50

Instrument ID: VGC_J Calib Start Date: 04/15/2019 10:23

GC Column: HP-Plot Q ID: 0.53(mm) Calib End Date: 04/15/2019 12:11

Lab File ID: 036F2901.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Methane	1.69	1.64	1.72
Ethylene	2.50	2.44	2.54
Acetylene	2.65	2.57	2.73
Ethane	2.87	2.82	2.92

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\VGC_J\20200304-89777.b\036F2901.D
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 04-Mar-2020 19:50:44 ALS Bottle#: 36 Worklist Smp#: 36
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: \\chromna\Denver\ChromData\VGC_J\20200304-89777.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 05-Mar-2020 10:58:34 Calib Date: 15-Apr-2019 12:11:08
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\VGC_J\20190415-80933.b\04151909.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: CTX0327

First Level Reviewer: sciannac Date: 05-Mar-2020 10:15:12

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Methane							
1	1.261	1.259	0.002	9406323	73.0	70.0	
2	1.687	1.677	0.010	8096098	73.0	70.4	
						RPD = 0.69	
2 Ethane							M
1	1.540	1.534	0.006	16181477	136.9	128.1	M
2	2.873	2.870	0.003	14141033	136.9	131.7	
						RPD = 2.77	
3 Ethylene							
1	1.849	1.850	-0.001	12949398	127.7	122.4	
2	2.501	2.493	0.008	11074044	127.7	123.0	
						RPD = 0.53	
4 Propane							
1	2.600	2.582	0.018	25096250	200.7	185.5	
2	4.683	4.679	0.004	21426759	200.7	186.8	
						RPD = 0.65	
5 Acetylene							
1	4.060	4.043	0.017	4363513	118.5	135.8	
2	2.647	2.645	0.002	3828330	118.5	135.2	
						RPD = 0.48	
6 Butane							
1	4.363	4.345	0.018	31647543	264.5	224.7	
2	6.141	6.139	0.002	27043472	264.5	224.7	
						RPD = 0.04	
7 isobutylene							
1	5.299	5.284	0.015	22316886	255.4	230.6	
2	5.995	5.990	0.005	18804321	255.4	232.1	
						RPD = 0.61	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

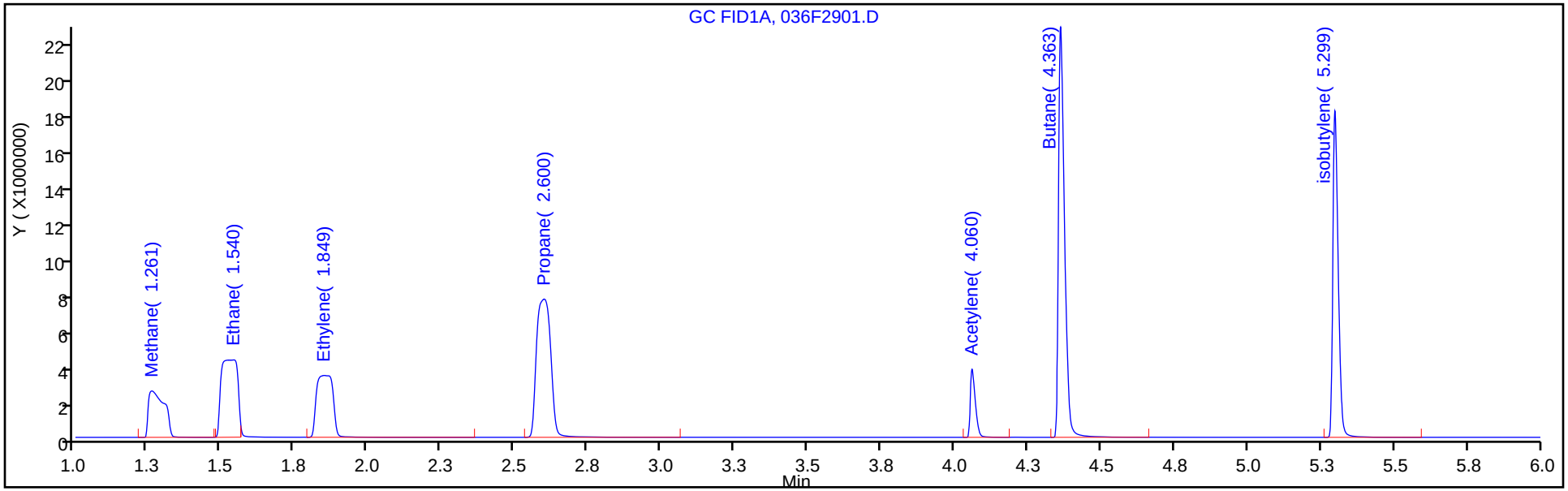
RSK7gasMathes_00027 Amount Added: 200.00 Units: uL

Report Date: 05-Mar-2020 10:58:35 Chrom Revision: 2.3 19-Feb-2020 16:45:46

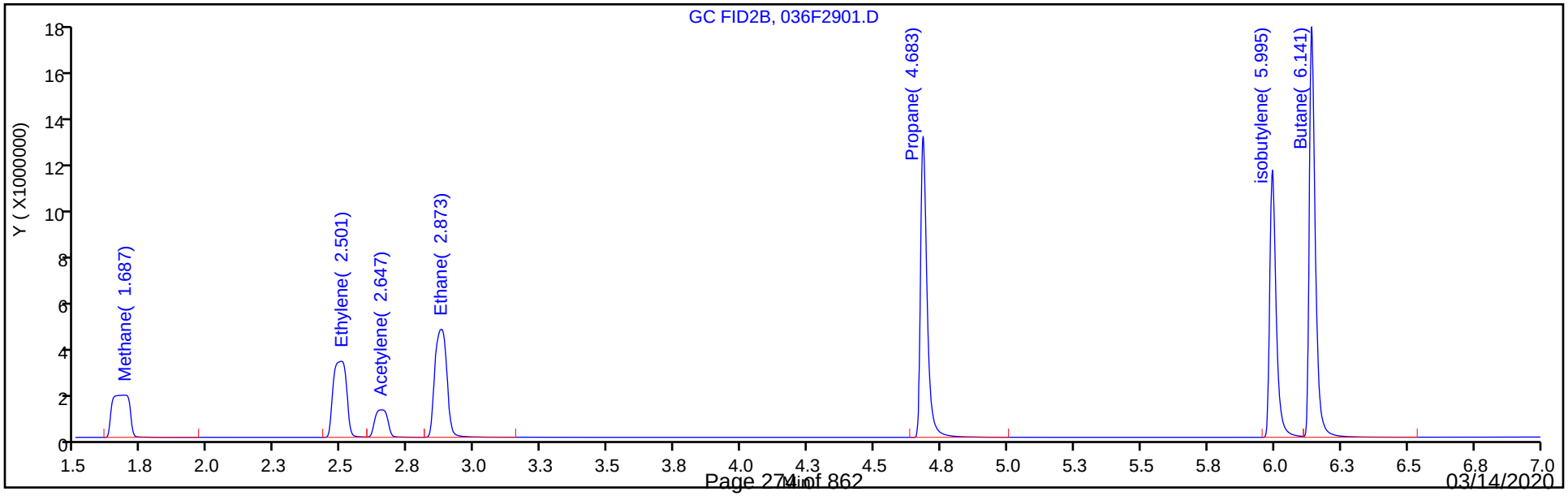
Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\VGC_J\20200304-89777.b\036F2901.D				
Injection Date:	04-Mar-2020 19:50:44	Instrument ID:	VGC_J	Operator ID:	sciannac
Lims ID:	ccv			Worklist Smp#:	36
Client ID:					
Purge Vol:	18.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	36
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.: 280-134141-1

SDG No.:

Lab Sample ID: CCV 280-487693/51 Calibration Date: 03/04/2020 23:07

Instrument ID: VGC_J Calib Start Date: 04/15/2019 10:23

GC Column: Rt-Alumina KCl ID: 0.53(mm) Calib End Date: 04/15/2019 12:11

Lab File ID: 051F4401.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		148466		80.7	73.0	10.5	20.0
Ethane	Ave	126364	137839		149	137	9.1	20.0
Ethylene	Ave	105807	110483		133	128	4.4	20.0
Acetylene	Ave	32129	36835		136	119	14.6	20.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134141-1

SDG No.:

Lab Sample ID: CCV 280-487693/51 Calibration Date: 03/04/2020 23:07

Instrument ID: VGC_J Calib Start Date: 04/15/2019 10:23

GC Column: Rt-Alumina KCl ID: 0.53(mm) Calib End Date: 04/15/2019 12:11

Lab File ID: 051F4401.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Methane	1.27	1.22	1.30
Ethane	1.54	1.48	1.58
Ethylene	1.87	1.80	1.90
Acetylene	4.06	3.96	4.12

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\VGC_J\20200304-89777.b\051F4401.D
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 04-Mar-2020 23:07:17 ALS Bottle#: 51 Worklist Smp#: 51
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: \\chromna\Denver\ChromData\VGC_J\20200304-89777.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 05-Mar-2020 10:58:46 Calib Date: 15-Apr-2019 12:11:08
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\VGC_J\20190415-80933.b\04151909.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: CTX0327

First Level Reviewer: sciannac Date: 05-Mar-2020 10:15:58

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Methane							
1	1.265	1.259	0.006	10838513	73.0	80.7	
2	1.686	1.677	0.009	9316243	73.0	81.1	
						RPD = 0.55	
2 Ethane							
1	1.537	1.534	0.003	18864042	136.9	149.3	
2	2.879	2.870	0.009	16185012	136.9	150.7	
						RPD = 0.94	
3 Ethylene							
1	1.867	1.850	0.017	14105043	127.7	133.3	
2	2.503	2.493	0.010	12055377	127.7	133.9	
						RPD = 0.47	
4 Propane							
1	2.608	2.582	0.026	29276442	200.7	216.4	
2	4.684	4.679	0.005	24946523	200.7	217.4	
						RPD = 0.46	
5 Acetylene							
1	4.064	4.043	0.021	4365759	118.5	135.9	
2	2.654	2.645	0.009	3836730	118.5	135.5	
						RPD = 0.31	
6 Butane							
1	4.364	4.345	0.019	37990612	264.5	269.8	
2	6.142	6.139	0.003	32396953	264.5	269.1	
						RPD = 0.24	
7 isobutylene							
1	5.300	5.284	0.016	24565344	255.4	253.9	
2	5.995	5.990	0.005	20666563	255.4	255.0	
						RPD = 0.45	

Reagents:

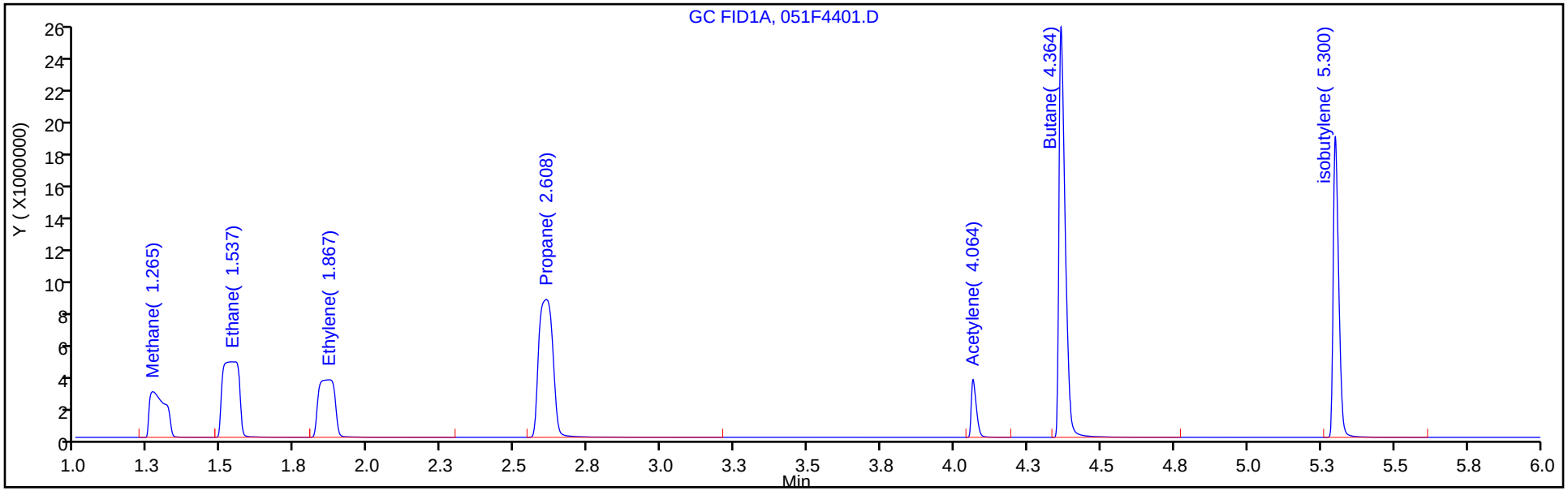
RSK7gasMathes_00027 Amount Added: 200.00 Units: uL

Report Date: 05-Mar-2020 10:58:46 Chrom Revision: 2.3 19-Feb-2020 16:45:46

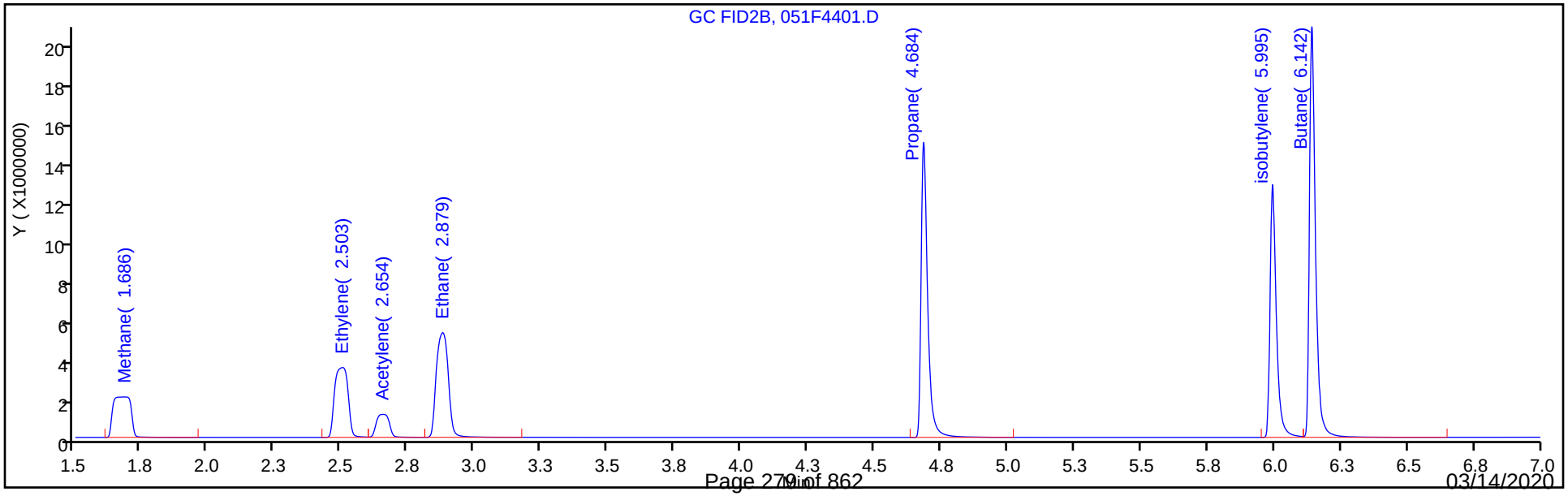
Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\VGC_J\20200304-89777.b\051F4401.D				
Injection Date:	04-Mar-2020 23:07:17	Instrument ID:	VGC_J	Operator ID:	sciannac
Lims ID:	ccv			Worklist Smp#:	51
Client ID:					
Purge Vol:	18.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	51
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.: 280-134141-1

SDG No.:

Lab Sample ID: CCV 280-487693/51 Calibration Date: 03/04/2020 23:07

Instrument ID: VGC_J Calib Start Date: 04/15/2019 10:23

GC Column: HP-Plot Q ID: 0.53(mm) Calib End Date: 04/15/2019 12:11

Lab File ID: 051F4401.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		127614		81.1	73.0	11.1	20.0
Ethylene	Ave	90007	94429		134	128	4.9	20.0
Acetylene	Ave	28324	32371		135	119	14.3	20.0
Ethane	Ave	107408	118263		151	137	10.1	20.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134141-1

SDG No.:

Lab Sample ID: CCV 280-487693/51 Calibration Date: 03/04/2020 23:07

Instrument ID: VGC_J Calib Start Date: 04/15/2019 10:23

GC Column: HP-Plot Q ID: 0.53(mm) Calib End Date: 04/15/2019 12:11

Lab File ID: 051F4401.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Methane	1.69	1.64	1.72
Ethylene	2.50	2.44	2.54
Acetylene	2.65	2.57	2.73
Ethane	2.88	2.82	2.92

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\VGC_J\20200304-89777.b\051F4401.D
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 04-Mar-2020 23:07:17 ALS Bottle#: 51 Worklist Smp#: 51
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: \\chromna\Denver\ChromData\VGC_J\20200304-89777.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 05-Mar-2020 10:58:46 Calib Date: 15-Apr-2019 12:11:08
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\VGC_J\20190415-80933.b\04151909.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: CTX0327

First Level Reviewer: sciannac Date: 05-Mar-2020 10:15:58

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Methane							
1	1.265	1.259	0.006	10838513	73.0	80.7	
2	1.686	1.677	0.009	9316243	73.0	81.1	
						RPD = 0.55	
2 Ethane							
1	1.537	1.534	0.003	18864042	136.9	149.3	
2	2.879	2.870	0.009	16185012	136.9	150.7	
						RPD = 0.94	
3 Ethylene							
1	1.867	1.850	0.017	14105043	127.7	133.3	
2	2.503	2.493	0.010	12055377	127.7	133.9	
						RPD = 0.47	
4 Propane							
1	2.608	2.582	0.026	29276442	200.7	216.4	
2	4.684	4.679	0.005	24946523	200.7	217.4	
						RPD = 0.46	
5 Acetylene							
1	4.064	4.043	0.021	4365759	118.5	135.9	
2	2.654	2.645	0.009	3836730	118.5	135.5	
						RPD = 0.31	
6 Butane							
1	4.364	4.345	0.019	37990612	264.5	269.8	
2	6.142	6.139	0.003	32396953	264.5	269.1	
						RPD = 0.24	
7 isobutylene							
1	5.300	5.284	0.016	24565344	255.4	253.9	
2	5.995	5.990	0.005	20666563	255.4	255.0	
						RPD = 0.45	

Reagents:

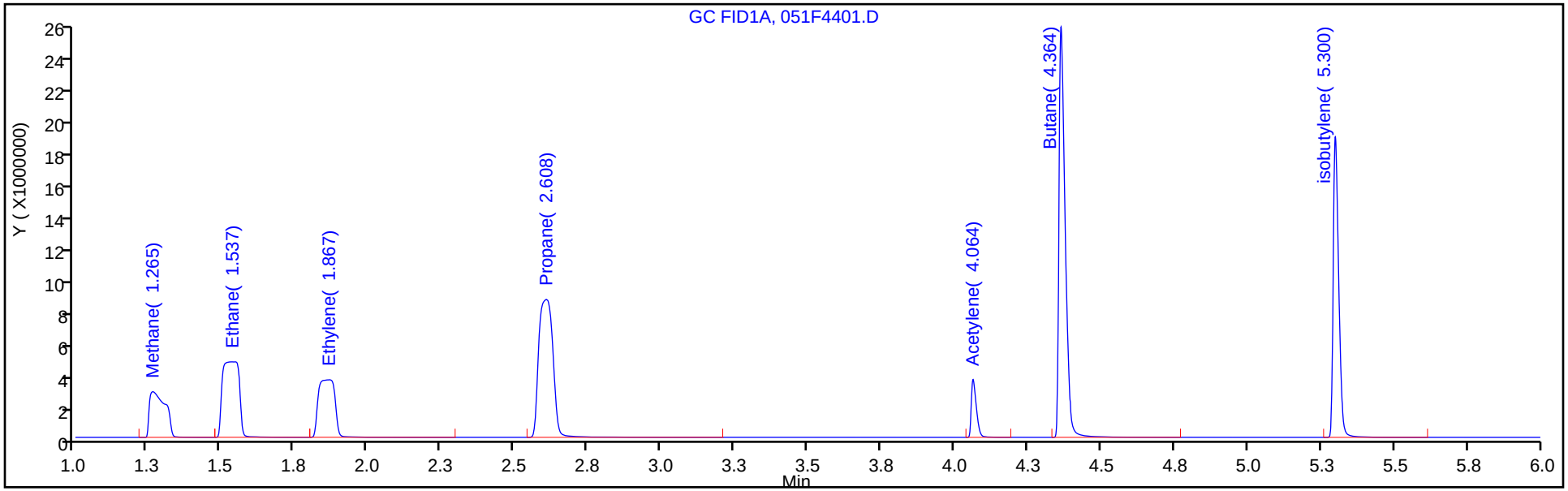
RSK7gasMathes_00027 Amount Added: 200.00 Units: uL

Report Date: 05-Mar-2020 10:58:47 Chrom Revision: 2.3 19-Feb-2020 16:45:46

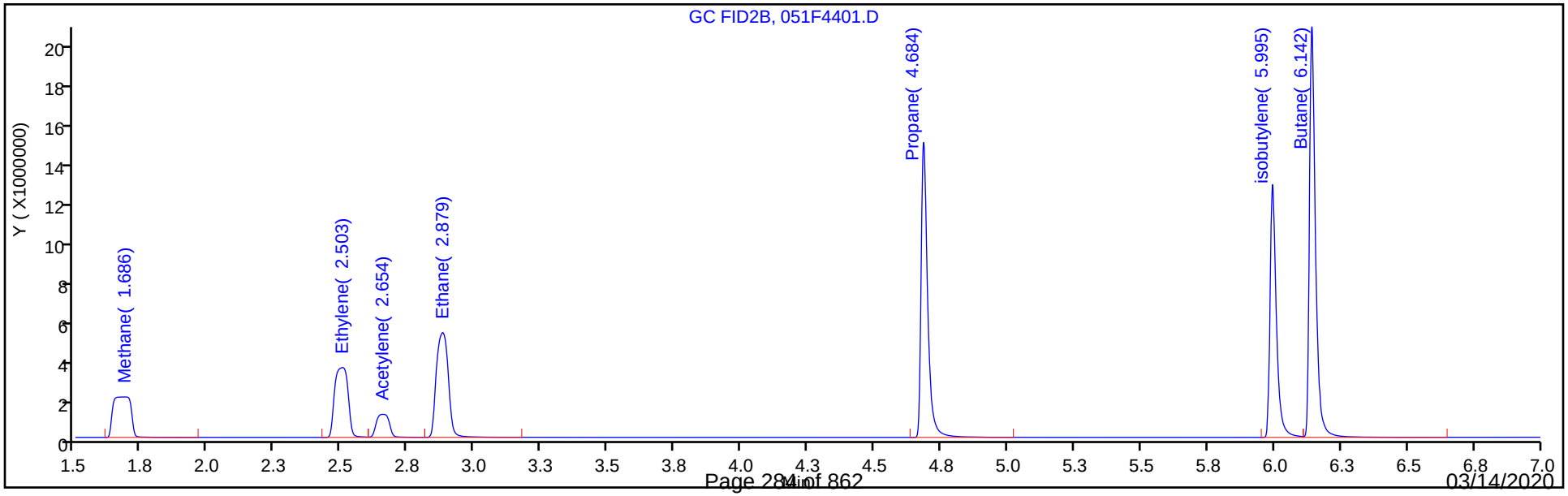
Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\VGC_J\20200304-89777.b\051F4401.D				
Injection Date:	04-Mar-2020 23:07:17	Instrument ID:	VGC_J	Operator ID:	sciannac
Lims ID:	ccv			Worklist Smp#:	51
Client ID:					
Purge Vol:	18.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	51
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.: 280-134141-1

SDG No.:

Lab Sample ID: CCV 280-487693/67 Calibration Date: 03/05/2020 02:39

Instrument ID: VGC_J Calib Start Date: 04/15/2019 10:23

GC Column: Rt-Alumina KCl ID: 0.53(mm) Calib End Date: 04/15/2019 12:11

Lab File ID: 067F6001.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		136000		73.9	73.0	1.2	20.0
Ethane	Ave	126364	121505		132	137	-3.8	20.0
Ethylene	Ave	105807	101212		122	128	-4.3	20.0
Acetylene	Ave	32129	37034		137	119	15.3	20.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134141-1

SDG No.:

Lab Sample ID: CCV 280-487693/67 Calibration Date: 03/05/2020 02:39

Instrument ID: VGC_J Calib Start Date: 04/15/2019 10:23

GC Column: Rt-Alumina KCl ID: 0.53(mm) Calib End Date: 04/15/2019 12:11

Lab File ID: 067F6001.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Methane	1.26	1.22	1.30
Ethane	1.53	1.48	1.58
Ethylene	1.86	1.80	1.90
Acetylene	4.06	3.96	4.12

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\VGC_J\20200304-89777.b\067F6001.D
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 05-Mar-2020 02:39:15 ALS Bottle#: 67 Worklist Smp#: 67
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: \\chromna\Denver\ChromData\VGC_J\20200304-89777.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 05-Mar-2020 10:58:58 Calib Date: 15-Apr-2019 12:11:08
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\VGC_J\20190415-80933.b\04151909.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: CTX0327

First Level Reviewer: sciannac Date: 05-Mar-2020 10:18:42

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Methane							
1	1.257	1.259	-0.002	9928472	73.0	73.9	
2	1.679	1.677	0.002	8531348	73.0	74.2	
						RPD = 0.52	
2 Ethane							
1	1.532	1.534	-0.002	16628582	136.9	131.6	
2	2.868	2.870	-0.002	14262908	136.9	132.8	
						RPD = 0.91	
3 Ethylene							
1	1.859	1.850	0.009	12921390	127.7	122.1	
2	2.487	2.493	-0.006	11035913	127.7	122.6	
						RPD = 0.40	
4 Propane							
1	2.597	2.582	0.015	24337262	200.7	179.9	
2	4.679	4.679	0.000	20755157	200.7	180.9	
						RPD = 0.54	
5 Acetylene							
1	4.062	4.043	0.019	4389383	118.5	136.6	
2	2.641	2.645	-0.004	3855076	118.5	136.1	
						RPD = 0.38	
6 Butane							
1	4.366	4.345	0.021	27091221	264.5	192.4	
2	6.139	6.139	0.000	22995922	264.5	191.0	
						RPD = 0.71	
7 isobutylene							
1	5.301	5.284	0.017	19410706	255.4	200.6	
2	5.991	5.990	0.001	16324401	255.4	201.5	
						RPD = 0.42	

Reagents:

RSK7gasMathes_00027 Amount Added: 200.00 Units: uL

Report Date: 05-Mar-2020 10:58:58 Chrom Revision: 2.3 19-Feb-2020 16:45:46

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\VGC_J\20200304-89777.b\067F6001.D

Injection Date: 05-Mar-2020 02:39:15 Instrument ID: VGC_J Operator ID: sciannac

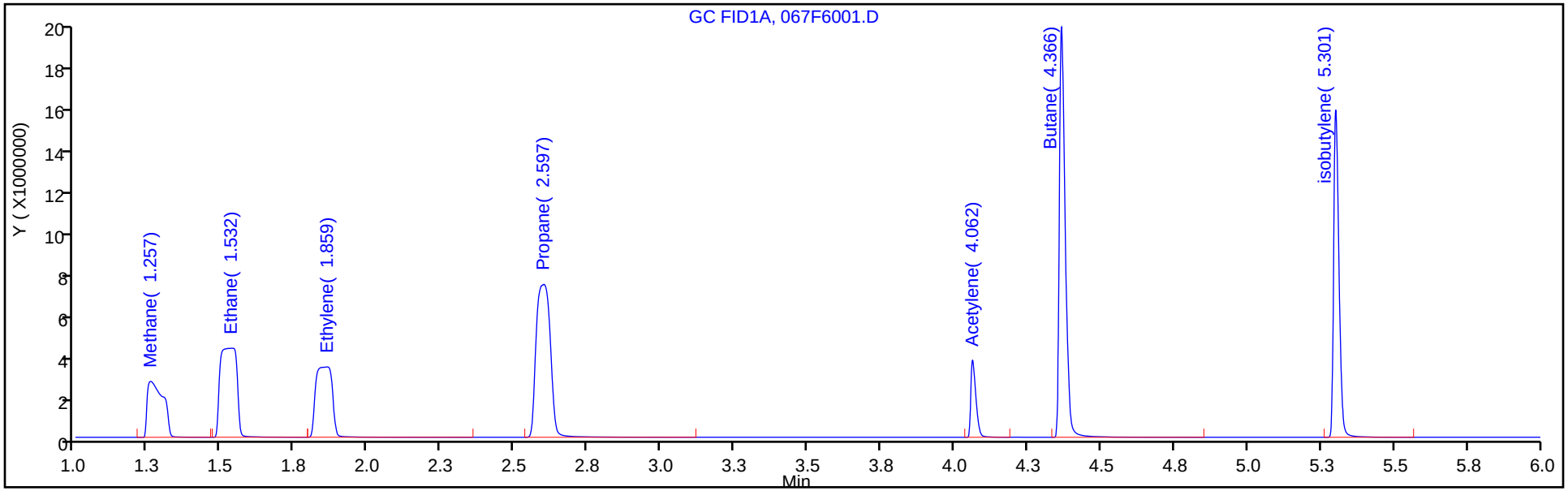
Lims ID: ccv Worklist Smp#: 67

Client ID:

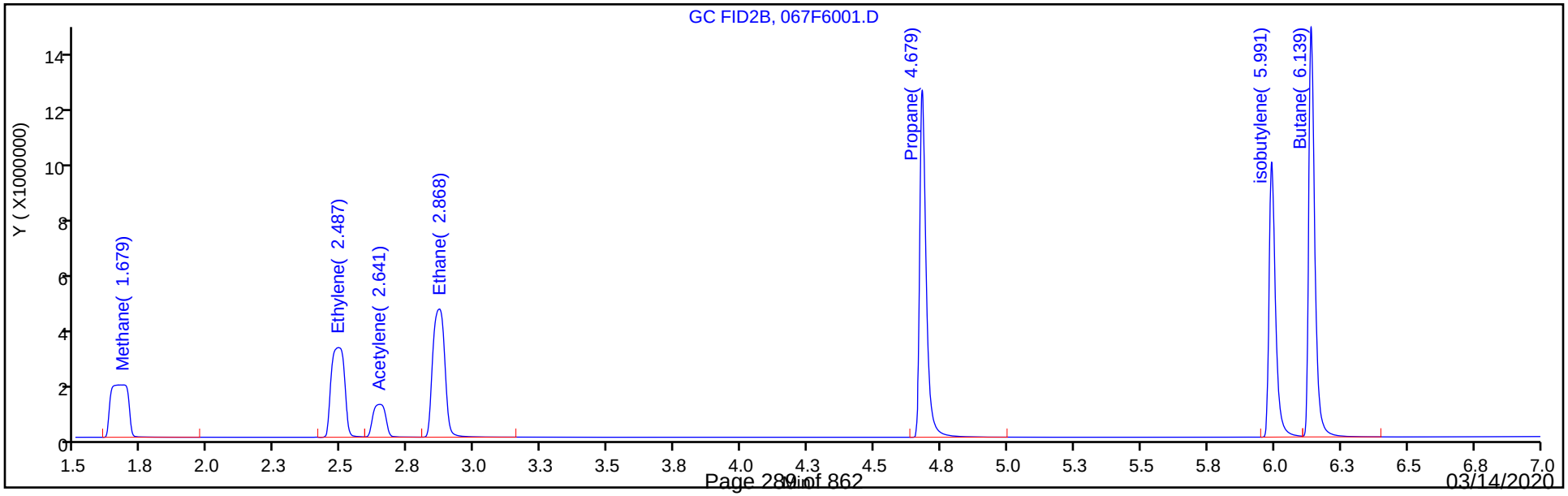
Purge Vol: 18.000 mL Dil. Factor: 1.0000 ALS Bottle#: 67

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.: 280-134141-1

SDG No.:

Lab Sample ID: CCV 280-487693/67 Calibration Date: 03/05/2020 02:39

Instrument ID: VGC_J Calib Start Date: 04/15/2019 10:23

GC Column: HP-Plot Q ID: 0.53(mm) Calib End Date: 04/15/2019 12:11

Lab File ID: 067F6001.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		116862		74.2	73.0	1.7	20.0
Ethylene	Ave	90007	86443		123	128	-4.0	20.0
Acetylene	Ave	28324	32526		136	119	14.8	20.0
Ethane	Ave	107408	104219		133	137	-3.0	20.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134141-1

SDG No.:

Lab Sample ID: CCV 280-487693/67 Calibration Date: 03/05/2020 02:39

Instrument ID: VGC_J Calib Start Date: 04/15/2019 10:23

GC Column: HP-Plot Q ID: 0.53(mm) Calib End Date: 04/15/2019 12:11

Lab File ID: 067F6001.D Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Methane	1.68	1.64	1.72
Ethylene	2.49	2.44	2.54
Acetylene	2.64	2.57	2.73
Ethane	2.87	2.82	2.92

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\VGC_J\20200304-89777.b\067F6001.D
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 05-Mar-2020 02:39:15 ALS Bottle#: 67 Worklist Smp#: 67
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: \\chromna\Denver\ChromData\VGC_J\20200304-89777.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 05-Mar-2020 10:58:58 Calib Date: 15-Apr-2019 12:11:08
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\VGC_J\20190415-80933.b\04151909.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: CTX0327

First Level Reviewer: sciannac Date: 05-Mar-2020 10:18:42

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Methane							
1	1.257	1.259	-0.002	9928472	73.0	73.9	
2	1.679	1.677	0.002	8531348	73.0	74.2	
						RPD = 0.52	
2 Ethane							
1	1.532	1.534	-0.002	16628582	136.9	131.6	
2	2.868	2.870	-0.002	14262908	136.9	132.8	
						RPD = 0.91	
3 Ethylene							
1	1.859	1.850	0.009	12921390	127.7	122.1	
2	2.487	2.493	-0.006	11035913	127.7	122.6	
						RPD = 0.40	
4 Propane							
1	2.597	2.582	0.015	24337262	200.7	179.9	
2	4.679	4.679	0.000	20755157	200.7	180.9	
						RPD = 0.54	
5 Acetylene							
1	4.062	4.043	0.019	4389383	118.5	136.6	
2	2.641	2.645	-0.004	3855076	118.5	136.1	
						RPD = 0.38	
6 Butane							
1	4.366	4.345	0.021	27091221	264.5	192.4	
2	6.139	6.139	0.000	22995922	264.5	191.0	
						RPD = 0.71	
7 isobutylene							
1	5.301	5.284	0.017	19410706	255.4	200.6	
2	5.991	5.990	0.001	16324401	255.4	201.5	
						RPD = 0.42	

Reagents:

RSK7gasMathes_00027 Amount Added: 200.00 Units: uL

Report Date: 05-Mar-2020 10:58:58 Chrom Revision: 2.3 19-Feb-2020 16:45:46

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\VGC_J\20200304-89777.b\067F6001.D

Injection Date: 05-Mar-2020 02:39:15 Instrument ID: VGC_J Operator ID: sciannac

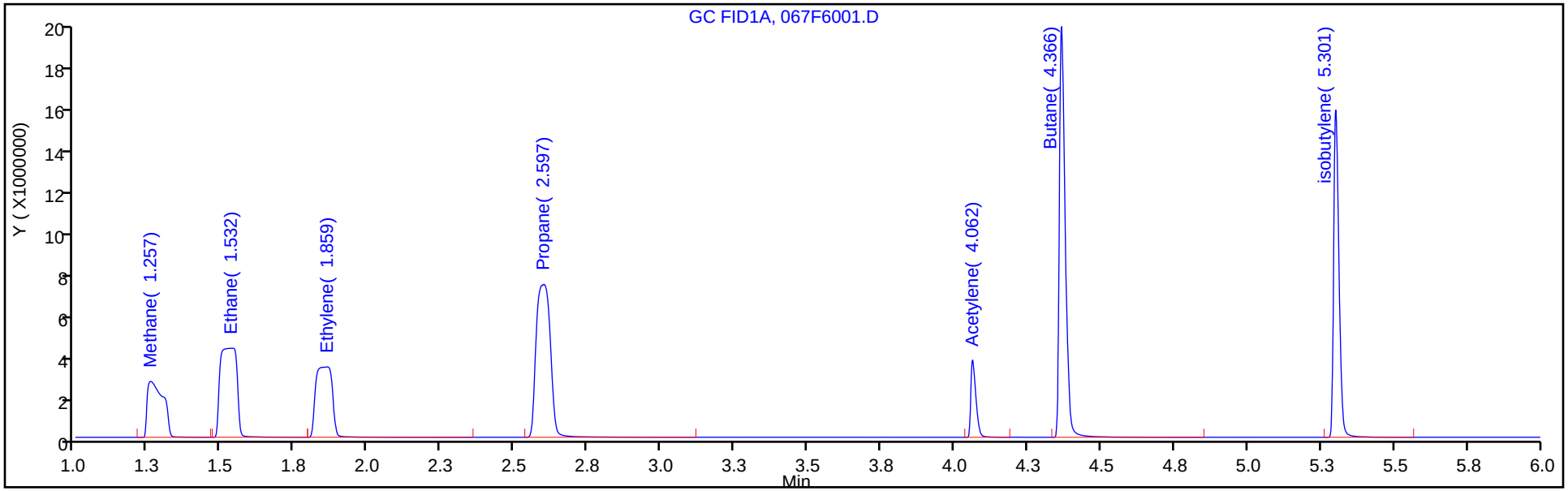
Lims ID: ccv Worklist Smp#: 67

Client ID:

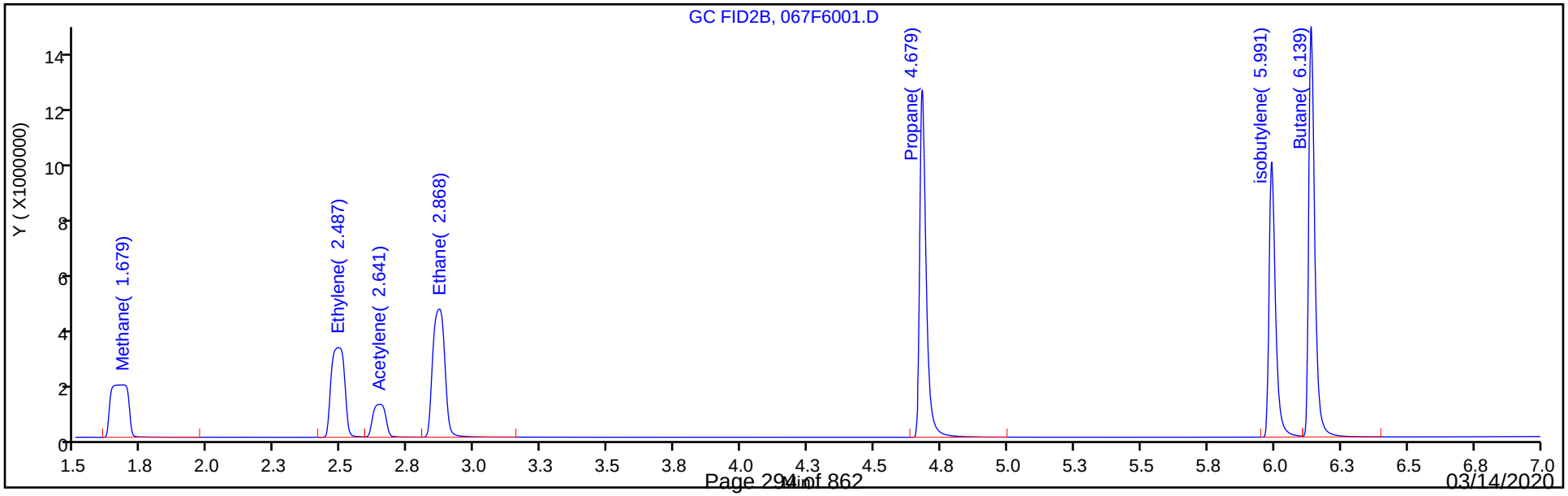
Purge Vol: 18.000 mL Dil. Factor: 1.0000 ALS Bottle#: 67

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.: 280-134141-1
SDG No.:
Client Sample ID:
Lab Sample ID: MB 280-487693/39
Matrix: Water
Lab File ID: 039F3201.D
Analysis Method: RSK-175
Date Collected:
Sample wt/vol: 18(mL)
Date Analyzed: 03/04/2020 20:30
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.: 487693
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:	\\chromna\Denver\ChromData\VGC_J\20200304-89777.b\039F3201.D				
Lims ID:	mb				
Client ID:					
Sample Type:	MB				
Inject. Date:	04-Mar-2020 20:30:01	ALS Bottle#:	39	Worklist Smp#:	39
Purge Vol:	18.000 mL	Dil. Factor:	1.0000		
Sample Info:	mb				
Operator ID:	sciannac	Instrument ID:	VGC_J		
Method:	\\chromna\Denver\ChromData\VGC_J\20200304-89777.b\RSK_J.m				
Limit Group:	GCV - RSK 175				
Method Label:	DV-GC-0025: Dissolved Gases in Water by RSK-175				
Last Update:	05-Mar-2020 10:58:34	Calib Date:	15-Apr-2019 12:11:08		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\VGC_J\20190415-80933.b\04151909.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:	CTX0327				

First Level Reviewer: sciannac Date: 05-Mar-2020 10:52:28

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Methane							
1		1.259				ND	
2		1.677					
2 Ethane							
1		1.534				ND	
2		2.870					
3 Ethylene							
1		1.850				ND	
2		2.493					
4 Propane							
1		2.582				ND	
2		4.679					
5 Acetylene							
1		4.043				ND	
2		2.645					
6 Butane							
1		4.345				ND	
2		6.139					
7 isobutylene							
1		5.284				ND	
2		5.990					

Report Date: 05-Mar-2020 10:58:38 Chrom Revision: 2.3 19-Feb-2020 16:45:46

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\VGC_J\20200304-89777.b\039F3201.D

Injection Date: 04-Mar-2020 20:30:01 Instrument ID: VGC_J Operator ID: sciannac

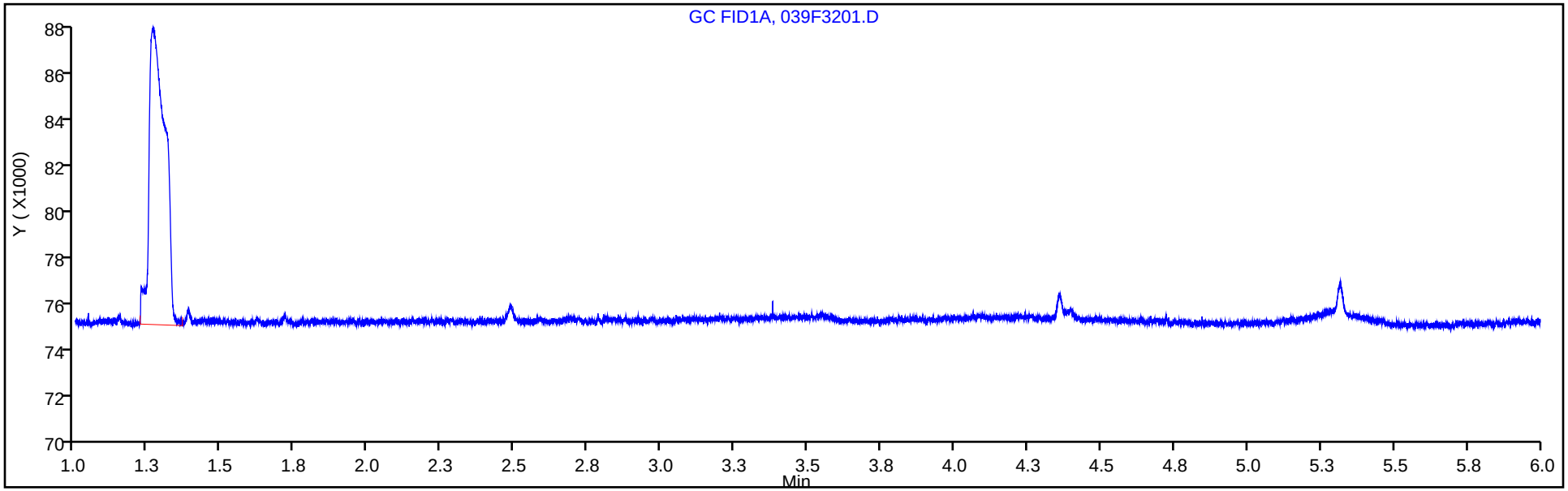
Lims ID: mb Worklist Smp#: 39

Client ID:

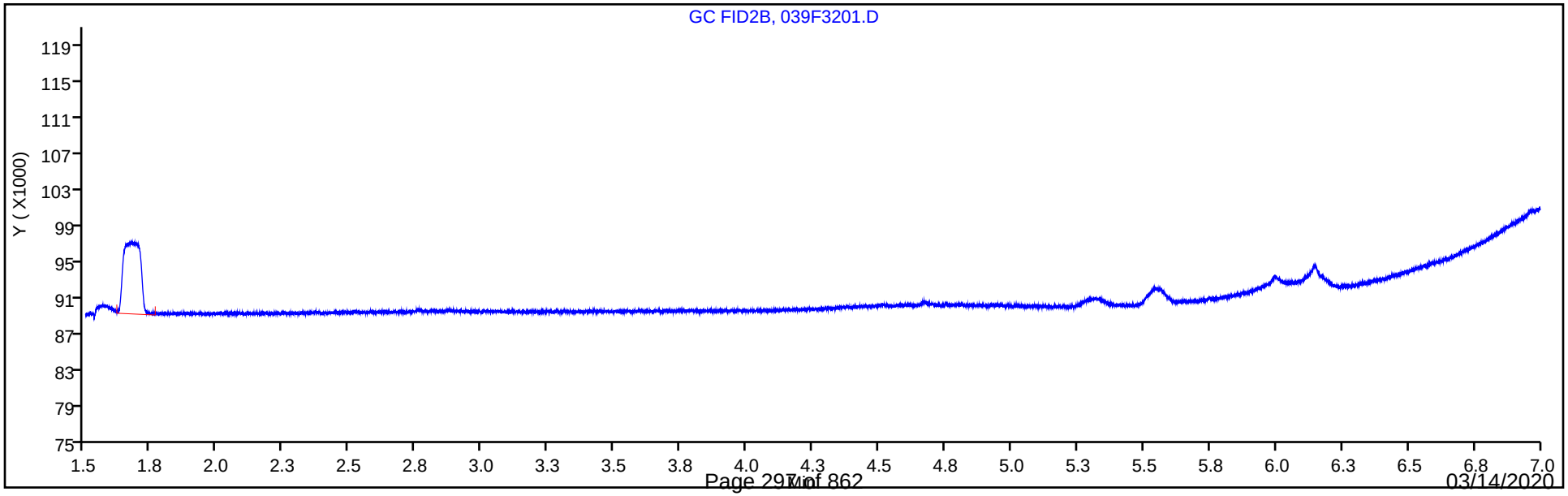
Purge Vol: 18.000 mL Dil. Factor: 1.0000 ALS Bottle#: 39

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.: 280-134141-1
SDG No.:
Client Sample ID:
Lab Sample ID: LCS 280-487693/37
Matrix: Water
Lab File ID: 037F3001.D
Analysis Method: RSK-175
Date Collected:
Sample wt/vol: 18(mL)
Date Analyzed: 03/04/2020 20:03
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.: 487693
Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
74-82-8	Methane	0.0764		0.0050	0.0020	0.00063

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\VGC_J\20200304-89777.b\037F3001.D
Lims ID: lcs
Client ID:
Sample Type: LCS
Inject. Date: 04-Mar-2020 20:03:51 ALS Bottle#: 37 Worklist Smp#: 37
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: lcs
Operator ID: sciannac Instrument ID: VGC_J

Method: \\chromna\Denver\ChromData\VGC_J\20200304-89777.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 05-Mar-2020 10:58:34 Calib Date: 15-Apr-2019 12:11:08
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\VGC_J\20190415-80933.b\04151909.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: CTX0327

First Level Reviewer: sciannac Date: 05-Mar-2020 10:52:14

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Methane							
1	1.262	1.259	0.003	10209959	73.0	76.0	
2	1.687	1.677	0.010	8772440	73.0	76.4	
						RPD = 0.51	
2 Ethane							M
1	1.543	1.534	0.009	17618601	136.9	139.4	M
2	2.877	2.870	0.007	15311097	136.9	142.6	
						RPD = 2.22	
3 Ethylene							
1	1.851	1.850	0.001	13607088	127.7	128.6	
2	2.503	2.493	0.010	11632430	127.7	129.2	
						RPD = 0.49	
4 Propane							
1	2.601	2.582	0.019	27902590	200.7	206.3	
2	4.684	4.679	0.005	23782180	200.7	207.3	
						RPD = 0.48	
5 Acetylene							
1	4.062	4.043	0.019	4440198	118.5	138.2	
2	2.655	2.645	0.010	3892584	118.5	137.4	
						RPD = 0.56	
6 Butane							
1	4.363	4.345	0.018	37069696	264.5	263.2	
2	6.141	6.139	0.002	31558197	264.5	262.2	
						RPD = 0.41	
7 isobutylene							
1	5.300	5.284	0.016	24532518	255.4	253.5	
2	5.994	5.990	0.004	20626964	255.4	254.6	
						RPD = 0.40	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

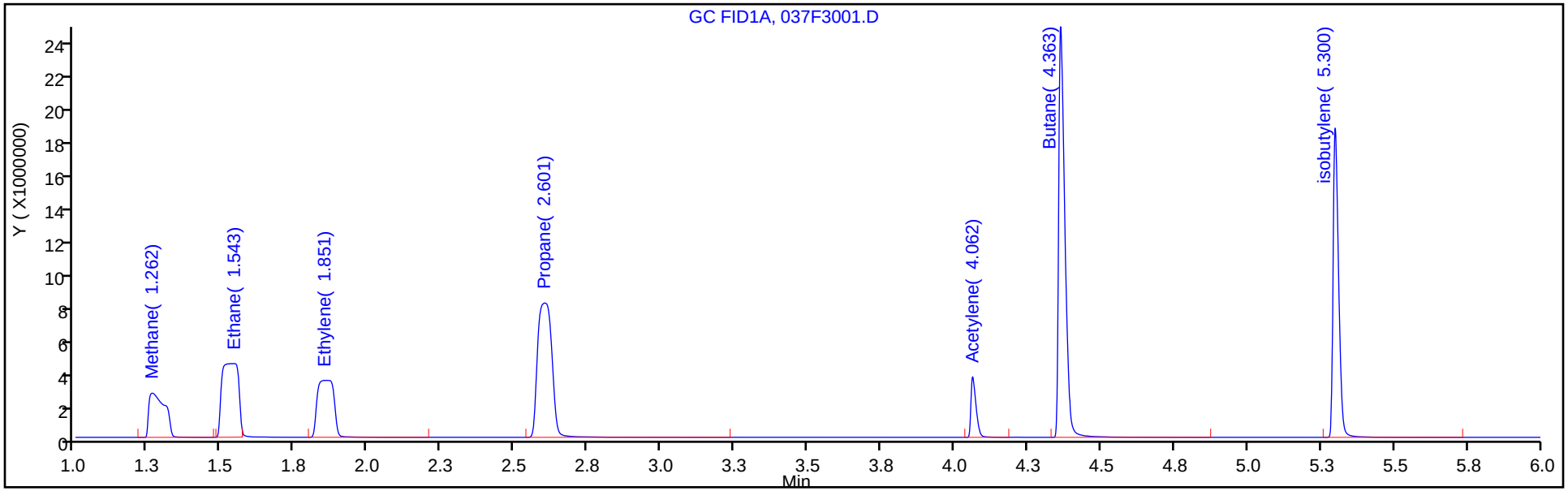
RSK7gasMathes_00027 Amount Added: 200.00 Units: uL

Report Date: 05-Mar-2020 10:58:36 Chrom Revision: 2.3 19-Feb-2020 16:45:46

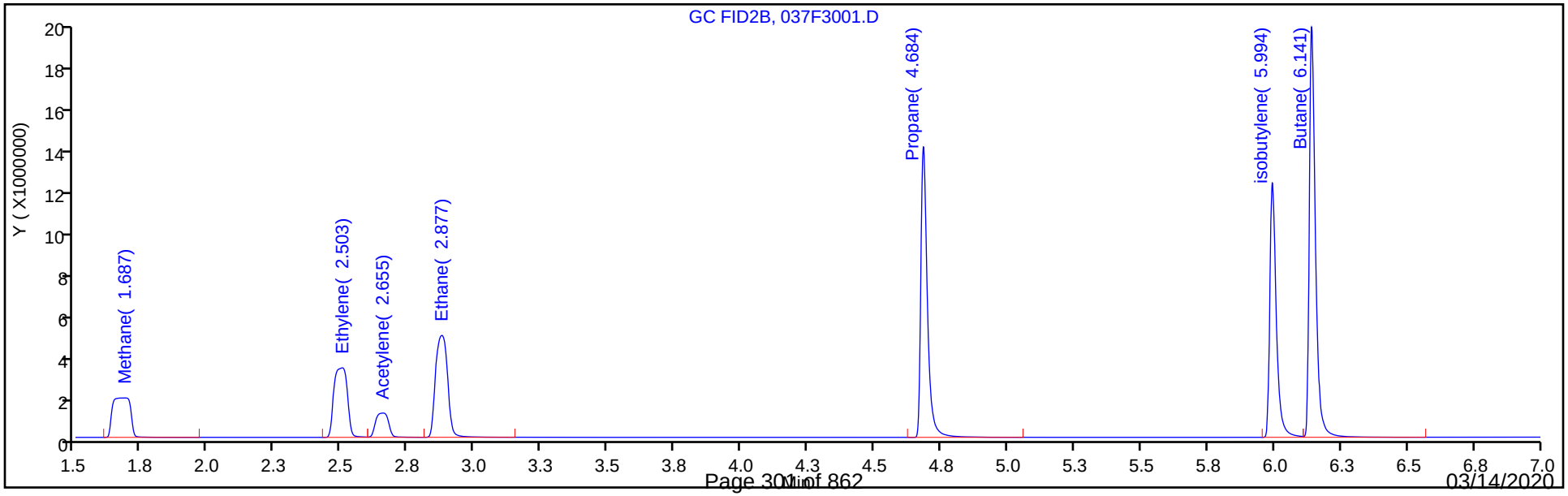
Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\VGC_J\20200304-89777.b\037F3001.D				
Injection Date:	04-Mar-2020 20:03:51	Instrument ID:	VGC_J	Operator ID:	sciannac
Lims ID:	lcs			Worklist Smp#:	37
Client ID:					
Purge Vol:	18.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	37
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.: 280-134141-1
SDG No.:
Client Sample ID:
Lab Sample ID: LCSD 280-487693/38
Matrix: Water
Lab File ID: 038F3101.D
Analysis Method: RSK-175
Date Collected:
Sample wt/vol: 18(mL)
Date Analyzed: 03/04/2020 20:16
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.: 487693
Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
74-82-8	Methane	0.0758		0.0050	0.0020	0.00063

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\VGC_J\20200304-89777.b\038F3101.D
Lims ID: lcsd
Client ID:
Sample Type: LCSD
Inject. Date: 04-Mar-2020 20:16:57 ALS Bottle#: 38 Worklist Smp#: 38
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: lcsd
Operator ID: sciannac Instrument ID: VGC_J

Method: \\chromna\Denver\ChromData\VGC_J\20200304-89777.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 05-Mar-2020 10:58:34 Calib Date: 15-Apr-2019 12:11:08
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\VGC_J\20190415-80933.b\04151909.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: CTX0327

First Level Reviewer: sciannac Date: 05-Mar-2020 10:52:22

Col	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Methane							
1	1.263	1.259	0.004	10146049	73.0	75.5	
2	1.675	1.677	-0.002	8709292	73.0	75.8	
						RPD = 0.42	
2 Ethane							
1	1.536	1.534	0.002	17802203	136.9	140.9	
2	2.875	2.870	0.005	15244709	136.9	141.9	
						RPD = 0.74	
3 Ethylene							
1	1.861	1.850	0.011	13664369	127.7	129.1	
2	2.502	2.493	0.009	11661498	127.7	129.6	
						RPD = 0.32	
4 Propane							
1	2.603	2.582	0.021	27551159	200.7	203.7	
2	4.683	4.679	0.004	23461170	200.7	204.5	
						RPD = 0.39	
5 Acetylene							
1	4.064	4.043	0.021	4512525	118.5	140.5	
2	2.651	2.645	0.006	3951204	118.5	139.5	
						RPD = 0.68	
6 Butane							
1	4.365	4.345	0.020	35814471	264.5	254.3	
2	6.142	6.139	0.003	30501216	264.5	253.4	
						RPD = 0.38	
7 isobutylene							
1	5.301	5.284	0.017	24172597	255.4	249.8	
2	5.994	5.990	0.004	20325830	255.4	250.8	
						RPD = 0.40	

Reagents:

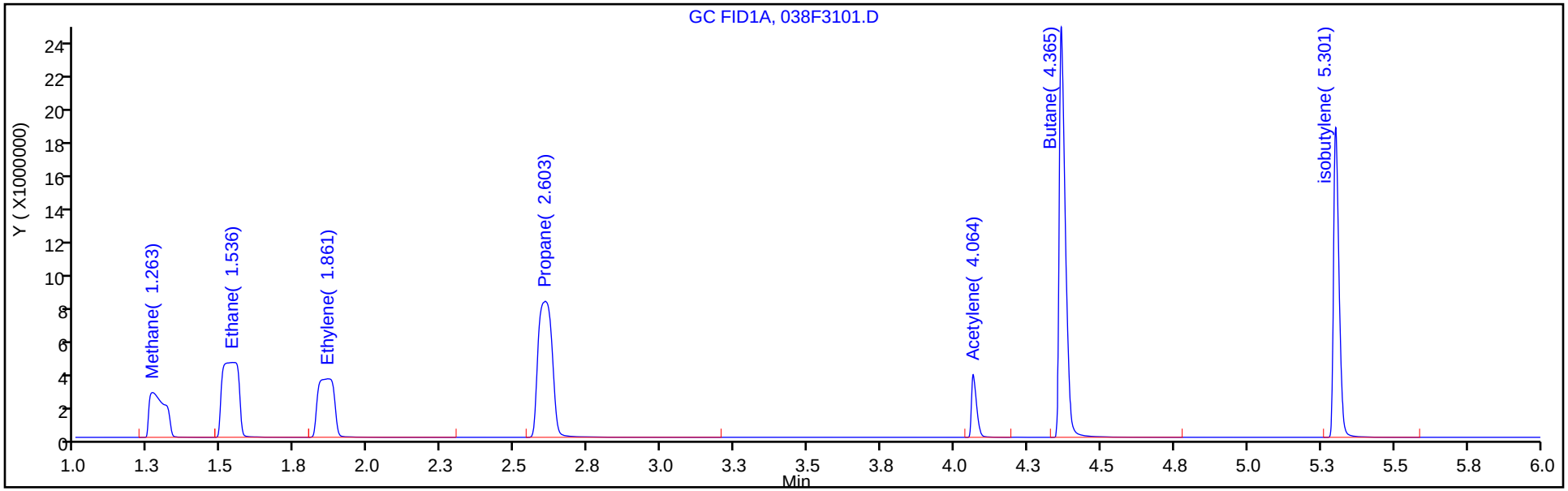
RSK7gasMathes_00027 Amount Added: 200.00 Units: uL

Report Date: 05-Mar-2020 10:58:37 Chrom Revision: 2.3 19-Feb-2020 16:45:46

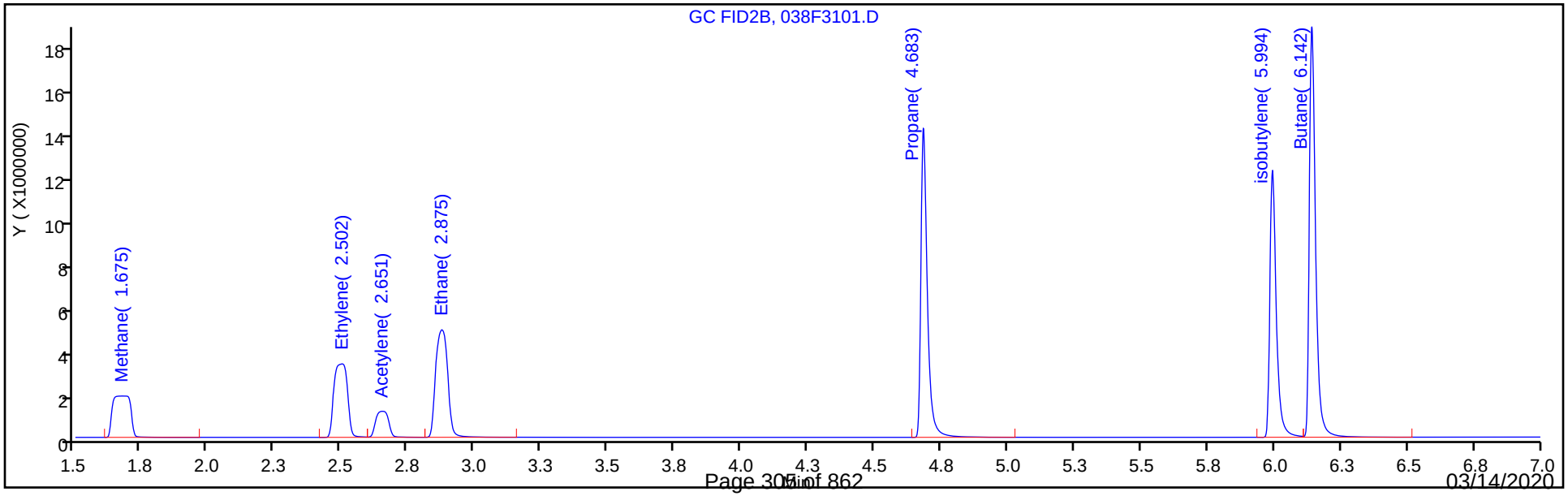
Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\VGC_J\20200304-89777.b\038F3101.D				
Injection Date:	04-Mar-2020 20:16:57	Instrument ID:	VGC_J	Operator ID:	sciannac
Lims ID:	lcsd			Worklist Smp#:	38
Client ID:					
Purge Vol:	18.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	38
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.: 280-134141-1

SDG No.:

Instrument ID: VGC_J Start Date: 04/15/2019 10:23

Analysis Batch Number: 454595 End Date: 04/15/2019 22:38

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
IC 280-454595/1		04/15/2019 10:23	1	04151901.D	Rt-Alumina KCl 0.53(mm)
IC 280-454595/1		04/15/2019 10:23	1	04151901.D	HP-Plot Q 0.53(mm)
IC 280-454595/2		04/15/2019 10:37	1	04151902.D	Rt-Alumina KCl 0.53(mm)
IC 280-454595/2		04/15/2019 10:37	1	04151902.D	HP-Plot Q 0.53(mm)
IC 280-454595/3		04/15/2019 10:50	1	04151903.D	Rt-Alumina KCl 0.53(mm)
IC 280-454595/3		04/15/2019 10:50	1	04151903.D	HP-Plot Q 0.53(mm)
IC 280-454595/4		04/15/2019 11:03	1	04151904.D	Rt-Alumina KCl 0.53(mm)
IC 280-454595/4		04/15/2019 11:03	1	04151904.D	HP-Plot Q 0.53(mm)
ICRT 280-454595/5		04/15/2019 11:17	1	04151905.D	Rt-Alumina KCl 0.53(mm)
ICRT 280-454595/5		04/15/2019 11:17	1	04151905.D	HP-Plot Q 0.53(mm)
IC 280-454595/6		04/15/2019 11:30	1	04151906.D	Rt-Alumina KCl 0.53(mm)
IC 280-454595/6		04/15/2019 11:30	1	04151906.D	HP-Plot Q 0.53(mm)
IC 280-454595/7		04/15/2019 11:44	1	04151907.D	Rt-Alumina KCl 0.53(mm)
IC 280-454595/7		04/15/2019 11:44	1	04151907.D	HP-Plot Q 0.53(mm)
IC 280-454595/8		04/15/2019 11:57	1	04151908.D	Rt-Alumina KCl 0.53(mm)
IC 280-454595/8		04/15/2019 11:57	1	04151908.D	HP-Plot Q 0.53(mm)
IC 280-454595/9		04/15/2019 12:11	1	04151909.D	Rt-Alumina KCl 0.53(mm)
IC 280-454595/9		04/15/2019 12:11	1	04151909.D	HP-Plot Q 0.53(mm)
ZZZZZ		04/15/2019 12:24	1		Rt-Alumina KCl 0.53(mm)
ZZZZZ		04/15/2019 12:24	1		HP-Plot Q 0.53(mm)
ICV 280-454595/11		04/15/2019 12:38	1	04151911.D	Rt-Alumina KCl 0.53(mm)
ICV 280-454595/11		04/15/2019 12:38	1	04151911.D	HP-Plot Q 0.53(mm)
ZZZZZ		04/15/2019 15:58	1		Rt-Alumina KCl 0.53(mm)
ZZZZZ		04/15/2019 15:58	1		HP-Plot Q 0.53(mm)
ZZZZZ		04/15/2019 16:11	1		Rt-Alumina KCl 0.53(mm)
ZZZZZ		04/15/2019 16:11	1		HP-Plot Q 0.53(mm)
ZZZZZ		04/15/2019 16:25	1		Rt-Alumina KCl 0.53(mm)
ZZZZZ		04/15/2019 16:25	1		HP-Plot Q 0.53(mm)
ZZZZZ		04/15/2019 16:38	3		Rt-Alumina KCl 0.53(mm)
ZZZZZ		04/15/2019 16:38	3		HP-Plot Q 0.53(mm)
ZZZZZ		04/15/2019 16:51	3		Rt-Alumina KCl 0.53(mm)
ZZZZZ		04/15/2019 16:51	3		HP-Plot Q 0.53(mm)
ZZZZZ		04/15/2019 17:05	3		Rt-Alumina KCl 0.53(mm)
ZZZZZ		04/15/2019 17:05	3		HP-Plot Q 0.53(mm)
ZZZZZ		04/15/2019 17:18	3		Rt-Alumina KCl 0.53(mm)
ZZZZZ		04/15/2019 17:18	3		HP-Plot Q 0.53(mm)
ZZZZZ		04/15/2019 17:32	3		Rt-Alumina KCl 0.53(mm)
ZZZZZ		04/15/2019 17:32	3		HP-Plot Q 0.53(mm)
ZZZZZ		04/15/2019 17:45	1		Rt-Alumina KCl 0.53(mm)
ZZZZZ		04/15/2019 17:45	1		HP-Plot Q 0.53(mm)
ZZZZZ		04/15/2019 17:59	1		Rt-Alumina KCl 0.53(mm)
ZZZZZ		04/15/2019 17:59	1		HP-Plot Q 0.53(mm)
ZZZZZ		04/15/2019 18:12	1		Rt-Alumina KCl 0.53(mm)
ZZZZZ		04/15/2019 18:12	1		HP-Plot Q 0.53(mm)
ZZZZZ		04/15/2019 18:26	1		Rt-Alumina KCl 0.53(mm)

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GC VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134141-1

SDG No.:

Instrument ID: VGC_J Start Date: 04/15/2019 10:23

Analysis Batch Number: 454595 End Date: 04/15/2019 22:38

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		04/15/2019 18:26	1		HP-Plot Q 0.53(mm)
ZZZZZ		04/15/2019 18:39	1		Rt-Alumina KCl 0.53(mm)
ZZZZZ		04/15/2019 18:39	1		HP-Plot Q 0.53(mm)
ZZZZZ		04/15/2019 18:52	1		Rt-Alumina KCl 0.53(mm)
ZZZZZ		04/15/2019 18:52	1		HP-Plot Q 0.53(mm)
ZZZZZ		04/15/2019 19:06	1		Rt-Alumina KCl 0.53(mm)
ZZZZZ		04/15/2019 19:06	1		HP-Plot Q 0.53(mm)
ZZZZZ		04/15/2019 19:19	1		Rt-Alumina KCl 0.53(mm)
ZZZZZ		04/15/2019 19:19	1		HP-Plot Q 0.53(mm)
ZZZZZ		04/15/2019 19:32	1		Rt-Alumina KCl 0.53(mm)
ZZZZZ		04/15/2019 19:32	1		HP-Plot Q 0.53(mm)
CCV 280-454595/29		04/15/2019 19:46	1		Rt-Alumina KCl 0.53(mm)
CCV 280-454595/29		04/15/2019 19:46	1		HP-Plot Q 0.53(mm)
ZZZZZ		04/15/2019 19:59	1		Rt-Alumina KCl 0.53(mm)
ZZZZZ		04/15/2019 19:59	1		HP-Plot Q 0.53(mm)
ZZZZZ		04/15/2019 20:13	1		Rt-Alumina KCl 0.53(mm)
ZZZZZ		04/15/2019 20:13	1		HP-Plot Q 0.53(mm)
ZZZZZ		04/15/2019 21:04	3		Rt-Alumina KCl 0.53(mm)
ZZZZZ		04/15/2019 21:04	3		HP-Plot Q 0.53(mm)
ZZZZZ		04/15/2019 21:17	3		Rt-Alumina KCl 0.53(mm)
ZZZZZ		04/15/2019 21:17	3		HP-Plot Q 0.53(mm)
ZZZZZ		04/15/2019 21:58	3		Rt-Alumina KCl 0.53(mm)
ZZZZZ		04/15/2019 21:58	3		HP-Plot Q 0.53(mm)
ZZZZZ		04/15/2019 22:12	3		Rt-Alumina KCl 0.53(mm)
ZZZZZ		04/15/2019 22:12	3		HP-Plot Q 0.53(mm)
ZZZZZ		04/15/2019 22:25	3		Rt-Alumina KCl 0.53(mm)
ZZZZZ		04/15/2019 22:25	3		HP-Plot Q 0.53(mm)
CCV 280-454595/37		04/15/2019 22:38	1		Rt-Alumina KCl 0.53(mm)
CCV 280-454595/37		04/15/2019 22:38	1		HP-Plot Q 0.53(mm)

RSK-175

GC VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134141-1

SDG No.:

Instrument ID: VGC_J Start Date: 03/04/2020 11:00

Analysis Batch Number: 487693 End Date: 03/05/2020 02:39

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCVRT 280-487693/4		03/04/2020 11:00	1	004F0401.D	Rt-Alumina KCl 0.53(mm)
CCVRT 280-487693/4		03/04/2020 11:00	1	004F0401.D	HP-Plot Q 0.53(mm)
CCV 280-487693/36		03/04/2020 19:50	1	036F2901.D	Rt-Alumina KCl 0.53(mm)
CCV 280-487693/36		03/04/2020 19:50	1	036F2901.D	HP-Plot Q 0.53(mm)
LCS 280-487693/37		03/04/2020 20:03	1	037F3001.D	Rt-Alumina KCl 0.53(mm)
LCS 280-487693/37		03/04/2020 20:03	1	037F3001.D	HP-Plot Q 0.53(mm)
LCSD 280-487693/38		03/04/2020 20:16	1	038F3101.D	Rt-Alumina KCl 0.53(mm)
LCSD 280-487693/38		03/04/2020 20:16	1	038F3101.D	HP-Plot Q 0.53(mm)
MB 280-487693/39		03/04/2020 20:30	1	039F3201.D	Rt-Alumina KCl 0.53(mm)
MB 280-487693/39		03/04/2020 20:30	1	039F3201.D	HP-Plot Q 0.53(mm)
ZZZZZ		03/04/2020 20:43	1		Rt-Alumina KCl 0.53(mm)
ZZZZZ		03/04/2020 20:43	1		HP-Plot Q 0.53(mm)
ZZZZZ		03/04/2020 20:56	1		Rt-Alumina KCl 0.53(mm)
ZZZZZ		03/04/2020 20:56	1		HP-Plot Q 0.53(mm)
ZZZZZ		03/04/2020 21:09	1		Rt-Alumina KCl 0.53(mm)
ZZZZZ		03/04/2020 21:09	1		HP-Plot Q 0.53(mm)
ZZZZZ		03/04/2020 21:22	1		Rt-Alumina KCl 0.53(mm)
ZZZZZ		03/04/2020 21:22	1		HP-Plot Q 0.53(mm)
ZZZZZ		03/04/2020 21:35	1		Rt-Alumina KCl 0.53(mm)
ZZZZZ		03/04/2020 21:35	1		HP-Plot Q 0.53(mm)
ZZZZZ		03/04/2020 21:48	1		Rt-Alumina KCl 0.53(mm)
ZZZZZ		03/04/2020 21:48	1		HP-Plot Q 0.53(mm)
ZZZZZ		03/04/2020 22:01	1		Rt-Alumina KCl 0.53(mm)
ZZZZZ		03/04/2020 22:01	1		HP-Plot Q 0.53(mm)
280-134141-1		03/04/2020 22:14	1	047F4001.D	Rt-Alumina KCl 0.53(mm)
280-134141-1		03/04/2020 22:14	1	047F4001.D	HP-Plot Q 0.53(mm)
280-134141-2		03/04/2020 22:27	1	048F4101.D	Rt-Alumina KCl 0.53(mm)
280-134141-2		03/04/2020 22:27	1	048F4101.D	HP-Plot Q 0.53(mm)
280-134141-3		03/04/2020 22:41	1	049F4201.D	Rt-Alumina KCl 0.53(mm)
280-134141-3		03/04/2020 22:41	1	049F4201.D	HP-Plot Q 0.53(mm)
280-134141-4		03/04/2020 22:54	1	050F4301.D	Rt-Alumina KCl 0.53(mm)
280-134141-4		03/04/2020 22:54	1	050F4301.D	HP-Plot Q 0.53(mm)
CCV 280-487693/51		03/04/2020 23:07	1	051F4401.D	Rt-Alumina KCl 0.53(mm)
CCV 280-487693/51		03/04/2020 23:07	1	051F4401.D	HP-Plot Q 0.53(mm)
ZZZZZ		03/04/2020 23:20	1		Rt-Alumina KCl 0.53(mm)
ZZZZZ		03/04/2020 23:20	1		HP-Plot Q 0.53(mm)
ZZZZZ		03/04/2020 23:33	1		Rt-Alumina KCl 0.53(mm)
ZZZZZ		03/04/2020 23:33	1		HP-Plot Q 0.53(mm)
ZZZZZ		03/04/2020 23:46	1		Rt-Alumina KCl 0.53(mm)
ZZZZZ		03/04/2020 23:46	1		HP-Plot Q 0.53(mm)
ZZZZZ		03/04/2020 23:59	1		Rt-Alumina KCl 0.53(mm)
ZZZZZ		03/04/2020 23:59	1		HP-Plot Q 0.53(mm)
ZZZZZ		03/05/2020 00:12	1		Rt-Alumina KCl 0.53(mm)
ZZZZZ		03/05/2020 00:12	1		HP-Plot Q 0.53(mm)
ZZZZZ		03/05/2020 00:25	1		Rt-Alumina KCl 0.53(mm)

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GC VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134141-1

SDG No.:

Instrument ID: VGC_J Start Date: 03/04/2020 11:00

Analysis Batch Number: 487693 End Date: 03/05/2020 02:39

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		03/05/2020 00:25	1		HP-Plot Q 0.53(mm)
ZZZZZ		03/05/2020 00:38	1		Rt-Alumina KCl 0.53(mm)
ZZZZZ		03/05/2020 00:38	1		HP-Plot Q 0.53(mm)
ZZZZZ		03/05/2020 00:52	1		Rt-Alumina KCl 0.53(mm)
ZZZZZ		03/05/2020 00:52	1		HP-Plot Q 0.53(mm)
ZZZZZ		03/05/2020 01:05	1		Rt-Alumina KCl 0.53(mm)
ZZZZZ		03/05/2020 01:05	1		HP-Plot Q 0.53(mm)
ZZZZZ		03/05/2020 01:18	1		Rt-Alumina KCl 0.53(mm)
ZZZZZ		03/05/2020 01:18	1		HP-Plot Q 0.53(mm)
ZZZZZ		03/05/2020 01:32	3		Rt-Alumina KCl 0.53(mm)
ZZZZZ		03/05/2020 01:32	3		HP-Plot Q 0.53(mm)
ZZZZZ		03/05/2020 01:45	1		Rt-Alumina KCl 0.53(mm)
ZZZZZ		03/05/2020 01:45	1		HP-Plot Q 0.53(mm)
ZZZZZ		03/05/2020 01:59	3		Rt-Alumina KCl 0.53(mm)
ZZZZZ		03/05/2020 01:59	3		HP-Plot Q 0.53(mm)
ZZZZZ		03/05/2020 02:12	1		Rt-Alumina KCl 0.53(mm)
ZZZZZ		03/05/2020 02:12	1		HP-Plot Q 0.53(mm)
ZZZZZ		03/05/2020 02:25	3		Rt-Alumina KCl 0.53(mm)
ZZZZZ		03/05/2020 02:25	3		HP-Plot Q 0.53(mm)
CCV 280-487693/67		03/05/2020 02:39	1	067F6001.D	Rt-Alumina KCl 0.53(mm)
CCV 280-487693/67		03/05/2020 02:39	1	067F6001.D	HP-Plot Q 0.53(mm)

RSK-175

GC VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134141-1

SDG No.:

Batch Number: 487693 Batch Start Date: 03/04/20 11:00 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 00027		
CCVRT 280-487693/4		RSK-175		18 mL	18 mL	5 SU	200 uL		
CCV 280-487693/36		RSK-175		18 mL	18 mL	5 SU	200 uL		
LCS 280-487693/37		RSK-175		18 mL	18 mL	5 SU	200 uL		
LCSD 280-487693/38		RSK-175		18 mL	18 mL	5 SU	200 uL		
MB 280-487693/39		RSK-175		18 mL	18 mL	5 SU			
280-134141-G-1	EW7-PM26A-2-25	RSK-175	T	18 mL	18 mL	< 2 SU			
280-134141-G-2	EW7-PM27A-2-25	RSK-175	T	18 mL	18 mL	< 2 SU			
280-134141-H-3	EW7-PM24A-2-25	RSK-175	T	18 mL	18 mL	< 2 SU			
280-134141-G-4	EW7-PM25A-2-25	RSK-175	T	18 mL	18 mL	< 2 SU			
CCV 280-487693/51		RSK-175		18 mL	18 mL	5 SU	200 uL		
CCV 280-487693/67		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.: 280-134141-1

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 #
EW7-PM26A-2-25	280-134141-1		101
EW7-PM26A-2-25	280-134141-1	120 M Q	
EW7-PM27A-2-25	280-134141-2		119
EW7-PM27A-2-25	280-134141-2	83 M	
EW7-PM24A-2-25	280-134141-3		103
EW7-PM24A-2-25	280-134141-3	119 M	
EW7-PM25A-2-25	280-134141-4		116
EW7-PM25A-2-25	280-134141-4	93 M	
	MB 280-487356/1-A	92	
	LCS 280-487356/2-A	94	
	LCS 280-487356/4-A	88	
	LCSD 280-487356/3-A	95	
	LCSD 280-487356/5-A	89	

	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.: 280-134141-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 03040035.D

Lab ID: LCS 280-487356/2-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,3,5-Trinitrobenzene	2.00	2.06	103	73-125	
1,3-Dinitrobenzene	2.00	1.95	98	78-120	
2,4,6-Trinitrotoluene	2.00	1.95	98	71-123	
2,4-Dinitrotoluene	2.00	1.88	94	78-120	
2,6-Dinitrotoluene	2.00	1.95	97	77-127	
2-Amino-4,6-dinitrotoluene	2.00	1.80	90	79-120	
2-Nitrotoluene	2.00	1.41	71	70-127	M
3-Nitrotoluene	2.00	1.56	78	73-125	
4-Amino-2,6-dinitrotoluene	2.00	1.72	86	76-125	
4-Nitrotoluene	2.00	1.58	79	71-127	M
HMX	2.00	1.98	99	65-135	M
Nitrobenzene	2.00	1.55	77	65-134	
RDX	2.00	1.94	97	68-130	
Tetryl	2.00	1.82	91	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.: 280-134141-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 03040037.D

Lab ID: LCS 280-487356/4-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
MNX	2.33	2.14	92	57-132	

Column to be used to flag recovery and RPD values

FORM III 8330A

FORM III
HPLC/IC LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134141-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 03040036.D

Lab ID: LCSD 280-487356/3-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,3,5-Trinitrobenzene	2.00	2.08	104	1	30	73-125	
1,3-Dinitrobenzene	2.00	1.95	97	0	30	78-120	
2,4,6-Trinitrotoluene	2.00	1.94	97	0	30	71-123	
2,4-Dinitrotoluene	2.00	1.86	93	1	30	78-120	
2,6-Dinitrotoluene	2.00	1.95	97	0	30	77-127	
2-Amino-4,6-dinitrotoluene	2.00	1.84	92	2	30	79-120	
2-Nitrotoluene	2.00	1.41	70	0	30	70-127	M
3-Nitrotoluene	2.00	1.55	78	1	30	73-125	
4-Amino-2,6-dinitrotoluene	2.00	1.76	88	2	30	76-125	
4-Nitrotoluene	2.00	1.55	78	2	30	71-127	M
HMX	2.00	1.95	97	1	30	65-135	M
Nitrobenzene	2.00	1.54	77	0	30	65-134	
RDX	2.00	1.95	97	0	30	68-130	
Tetryl	2.00	1.83	91	1	30	64-128	

Column to be used to flag recovery and RPD values

FORM III 8330A

FORM III
HPLC/IC LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134141-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 03040038.D

Lab ID: LCSD 280-487356/5-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC	% RPD	QC LIMITS		#
					RPD	REC	
MNX	2.33	2.13	91	1	30	57-132	

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.: 280-134141-1

SDG No.:

Lab Sample ID: MB 280-487356/1-A

Matrix: Water Date Extracted: 03/02/2020 13:40

Lab File ID:(1) 03040034.D Lab File ID:(2)

Date Analyzed:(1) 03/05/2020 00:26 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 280-487356/2-A	03/05/2020 00:49	
	LCSD 280-487356/3-A	03/05/2020 01:12	
	LCS 280-487356/4-A	03/05/2020 01:35	
	LCSD 280-487356/5-A	03/05/2020 01:58	
EW7-PM26A-2-25	280-134141-1	03/05/2020 05:24	03/05/2020 23:30
EW7-PM27A-2-25	280-134141-2	03/05/2020 05:47	03/06/2020 00:05
EW7-PM24A-2-25	280-134141-3	03/05/2020 06:10	03/06/2020 00:40
EW7-PM25A-2-25	280-134141-4	03/05/2020 06:33	03/06/2020 01:15

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134141-1

SDG No.:

Client Sample ID: EW7-PM26A-2-25 Lab Sample ID: 280-134141-1

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

Date Analyzed (1): 03/05/2020 05:24 Date Analyzed (2): 03/05/2020 23:30

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

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
HMX	1		6.65	6.53	6.83	2.7		13.2
	2		6.89	6.75	7.05	0.81		
2,4,6-Trinitrotoluene	1		11.19	11.08	11.28	0.73		14.7
	2		24.61	24.47	24.77	0.60		
2-Nitrotoluene	1		12.79	12.68	12.98	0.15		0.0
	2		16.48	16.35	16.65	6.8		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134141-1

SDG No.:

Client Sample ID: EW7-PM27A-2-25 Lab Sample ID: 280-134141-2

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

Date Analyzed (1): 03/05/2020 05:47 Date Analyzed (2): 03/06/2020 00:05

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

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
HMX	1		6.68	6.53	6.83	1.0		0.0
	2		6.88	6.75	7.05	1.8		
RDX	1		7.75	7.60	7.90	2.2		3.5
	2		9.03	8.90	9.20	2.6		
1,3,5-Trinitrobenzene	1		8.89	8.73	9.03	5.9		1.5
	2		18.80	18.67	18.97	6.3		
2,4,6-Trinitrotoluene	1		11.19	11.08	11.28	9.8		3.8
	2		24.60	24.47	24.77	10		
4-Amino-2,6-dinitrotoluene	1		11.35	11.24	11.44	3.3		0.9
	2		17.04	16.91	17.21	5.4		
2-Amino-4,6-dinitrotoluene	1		11.64	11.52	11.72	3.2		0.0
	2		17.89	17.76	18.06	3.4		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134141-1

SDG No.:

Client Sample ID: EW7-PM24A-2-25 Lab Sample ID: 280-134141-3

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

Date Analyzed (1): 03/05/2020 06:10 Date Analyzed (2): 03/06/2020 00:40

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

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
HMX	1		6.69	6.53	6.83	2.5		115.1
	2		6.88	6.75	7.05	0.68		
RDX	1		7.73	7.60	7.90	3.1		176.9
	2		9.04	8.90	9.20	0.19		
2,4,6-Trinitrotoluene	1		11.20	11.08	11.28	0.53		3.2
	2		24.62	24.47	24.77	0.52		
4-Amino-2,6-dinitrotoluene	1		11.36	11.24	11.44	1.4		17.2
	2		17.05	16.91	17.21	1.6		
2-Amino-4,6-dinitrotoluene	1		11.65	11.52	11.72	1.3		5.8
	2		17.90	17.76	18.06	1.2		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134141-1

SDG No.:

Client Sample ID: EW7-PM25A-2-25 Lab Sample ID: 280-134141-4

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

Date Analyzed (1): 03/05/2020 06:33 Date Analyzed (2): 03/06/2020 01:15

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

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
2,4,6-Trinitrotoluene	1		11.19	11.08	11.28	2.3		8.7
	2		24.60	24.47	24.77	2.3		
4-Amino-2,6-dinitrotoluene	1		11.35	11.24	11.44	3.3		7.1
	2		17.04	16.91	17.21	7.6		
2-Amino-4,6-dinitrotoluene	1		11.64	11.52	11.72	3.0		2.8
	2		17.90	17.76	18.06	3.0		

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-134141-1
SDG No.:
Client Sample ID: EW7-PM26A-2-25
Lab Sample ID: 280-134141-1
Matrix: Water
Lab File ID: 03040047.D
Analysis Method: 8330A
Date Collected: 02/27/2020 11:35
Extraction Method: 3535
Date Extracted: 03/02/2020 13:40
Sample wt/vol: 492.6(mL)
Date Analyzed: 03/05/2020 05:24
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.: 487659
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	0.41	U M Q	1.0	0.41	0.20
99-65-0	1,3-Dinitrobenzene	0.20	U Q	0.41	0.20	0.090
118-96-7	2,4,6-Trinitrotoluene	0.73	M Q	0.41	0.41	0.16
606-20-2	2,6-Dinitrotoluene	0.20	U Q	0.20	0.20	0.065
35572-78-2	2-Amino-4,6-dinitrotoluene	0.12	U Q	0.20	0.12	0.051
88-72-2	2-Nitrotoluene	0.15	J Q	0.41	0.20	0.087
99-08-1	3-Nitrotoluene	0.41	U Q	0.41	0.41	0.20
19406-51-0	4-Amino-2,6-dinitrotoluene	0.12	U Q	0.20	0.12	0.059
99-99-0	4-Nitrotoluene	0.41	U Q	1.0	0.41	0.20
2691-41-0	HMX	2.7	M Q	0.41	0.20	0.089
5755-27-1	MNX	0.41	U M Q	2.0	0.41	0.16
479-45-8	Tetryl	0.20	U M Q	0.24	0.20	0.080

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	120	M Q	83-119

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\03040047.D				
Lims ID:	280-134141-A-1-A				
Client ID:	EW7-PM26A-2-25				
Sample Type:	Client				
Inject. Date:	05-Mar-2020 05:24:59	ALS Bottle#:	47	Worklist Smp#:	47
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-134141-A-1-A				
Misc. Info.:	280-0089779-047				
Operator ID:	CB	Instrument ID:	CHHPLC_X3		
Method:	\\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	06-Mar-2020 10:25:41	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:	06-Mar-2020 09:02:57		

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/mL	Flags
3 HMX	1	6.649	6.683	-0.034	23484	0.2633	M
6 MNX	1		7.361			ND	U
7 RDX	1	7.729	7.750	-0.021	87315	0.7408	M
$ 9 1,2-Dinitrobenzene	1	8.709	8.710	-0.001	35194	0.2407	M
10 1,3,5-Trinitrobenzene	1		8.883			ND	U
11 1,3-Dinitrobenzene	1		9.529			ND	
12 Nitrobenzene	1	9.909	9.916	-0.007	8258	0.0388	M
14 Tetryl	1		10.216			ND	U
16 2,4,6-Trinitrotoluene	1	11.189	11.183	0.006	15790	0.0715	M
17 4-Amino-2,6-dinitrotoluene	1		11.336			ND	M
18 2-Amino-4,6-dinitrotoluene	1		11.623			ND	M
19 2,6-Dinitrotoluene	1		11.789			ND	
20 2,4-Dinitrotoluene	1	12.009	11.983	0.026	6844	0.0213	
21 o-Nitrotoluene	1	12.789	12.829	-0.040	2061	0.0143	
22 p-Nitrotoluene	1		13.269			ND	
23 m-Nitrotoluene	1		13.863			ND	

QC Flag Legend

Review Flags

M - Manually Integrated

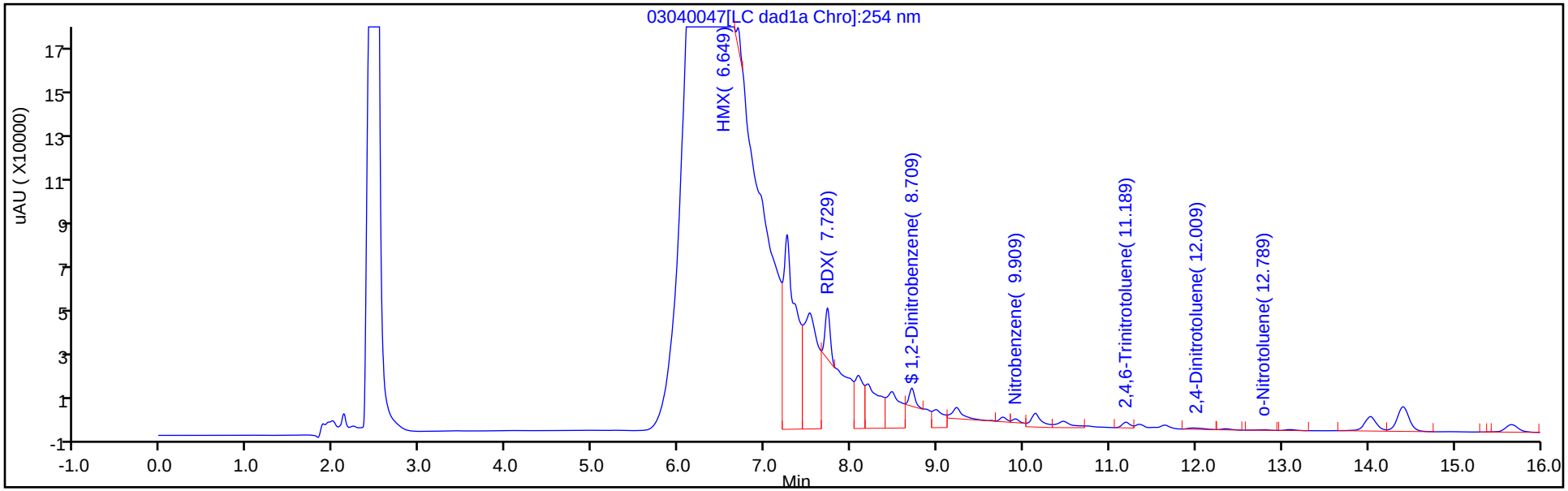
U - Marked Undetected

Report Date: 06-Mar-2020 10:25:42 Chrom Revision: 2.3 19-Feb-2020 16:45:46

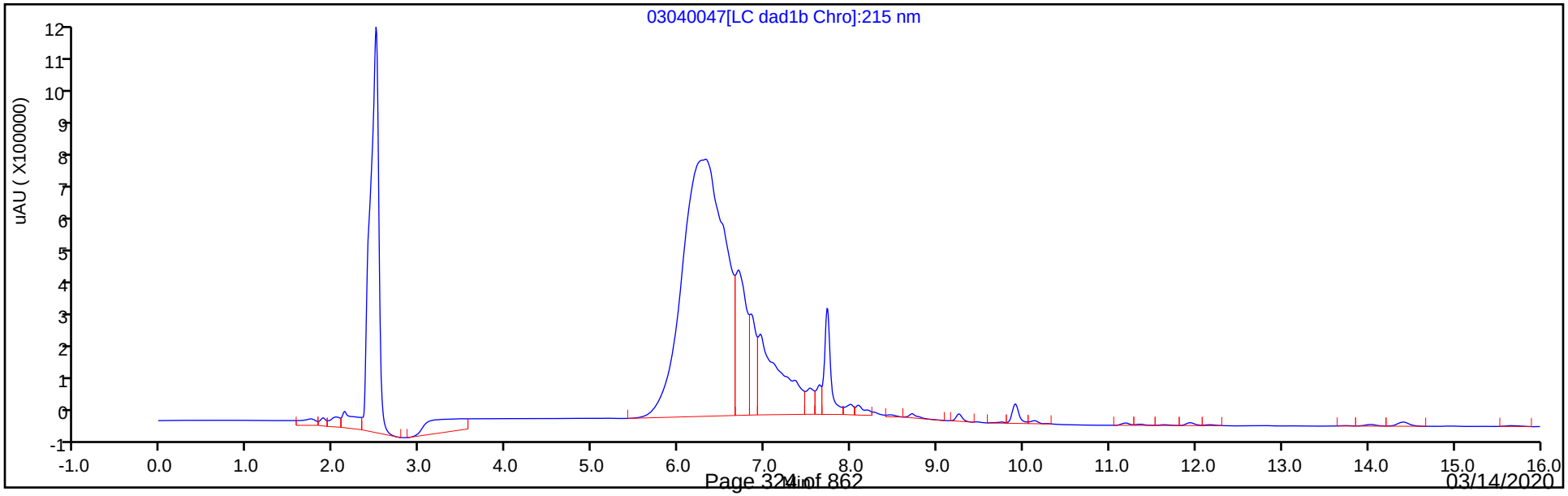
Eurofins TestAmerica, Denver

Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040047.d				
Injection Date:	05-Mar-2020 05:24:59	Instrument ID:	CHHPLC_X3	Operator ID:	CB
Lims ID:	280-134141-A-1-A	Lab Sample ID:	280-134141-1	Worklist Smp#:	47
Client ID:	EW7-PM26A-2-25				
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:	\\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\03040047.D				
Lims ID:	280-134141-A-1-A				
Client ID:	EW7-PM26A-2-25				
Sample Type:	Client				
Inject. Date:	05-Mar-2020 05:24:59	ALS Bottle#:	47	Worklist Smp#:	47
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-134141-A-1-A				
Misc. Info.:	280-0089779-047				
Operator ID:	CB	Instrument ID:	CHHPLC_X3		
Method:	\\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	06-Mar-2020 10:25:41	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: 06-Mar-2020 09:02:57

Compound	Amount Added	Amount Recovered	% Rec.
$ 9 1,2-Dinitrobenzene	0.2000	0.2407	120.35

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

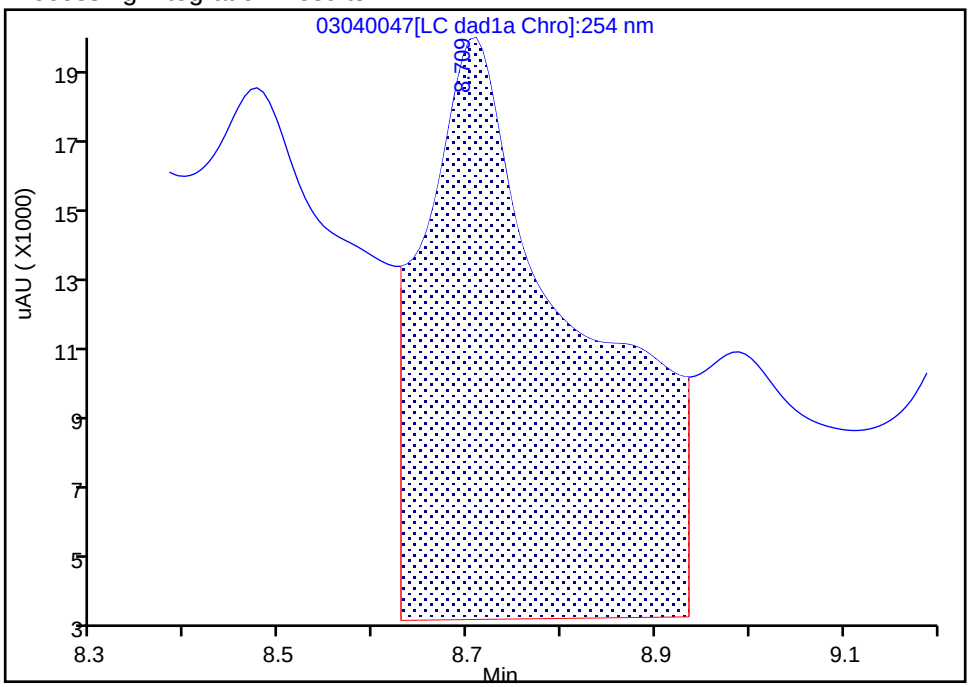
Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040047.d				
Injection Date:	05-Mar-2020 05:24:59	Instrument ID:	CHHPLC_X3		
Lims ID:	280-134141-A-1-A	Lab Sample ID:	280-134141-1		
Client ID:	EW7-PM26A-2-25				
Operator ID:	CB	ALS Bottle#:	47	Worklist Smp#:	47
Injection Vol:	100.0 ul	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

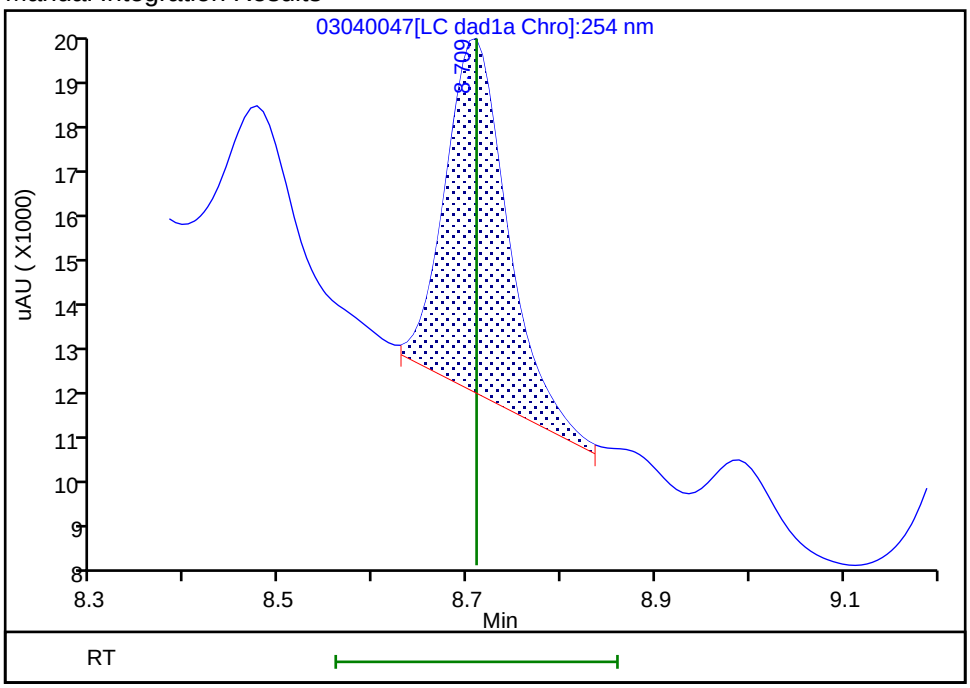
Processing Integration Results

RT: 8.71
Area: 190558
Amount: 1.303272
Amount Units: ug/mL



Manual Integration Results

RT: 8.71
Area: 35194
Amount: 0.240700
Amount Units: ug/mL



Reviewer: beckerc, 06-Mar-2020 09:01:55
Audit Action: Manually Integrated Audit Reason: Baseline

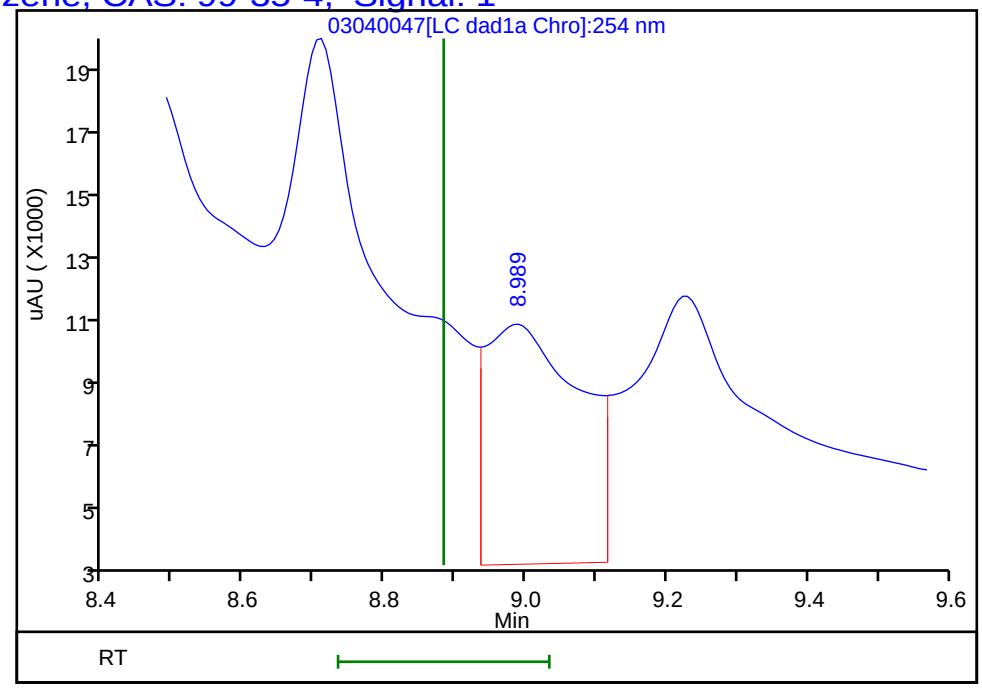
User Disabled Compound Report

Eurofins TestAmerica, Denver

Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040047.d				
Injection Date:	05-Mar-2020 05:24:59	Instrument ID:	CHHPLC_X3		
Lims ID:	280-134141-A-1-A	Lab Sample ID:	280-134141-1		
Client ID:	EW7-PM26A-2-25				
Operator ID:	CB	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		

10 1,3,5-Trinitrobenzene, CAS: 99-35-4, Signal: 1

RT: 8.99
Response: 69591
Amount: 0.285843



Reviewer: beckerc, 06-Mar-2020 09:02:57
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

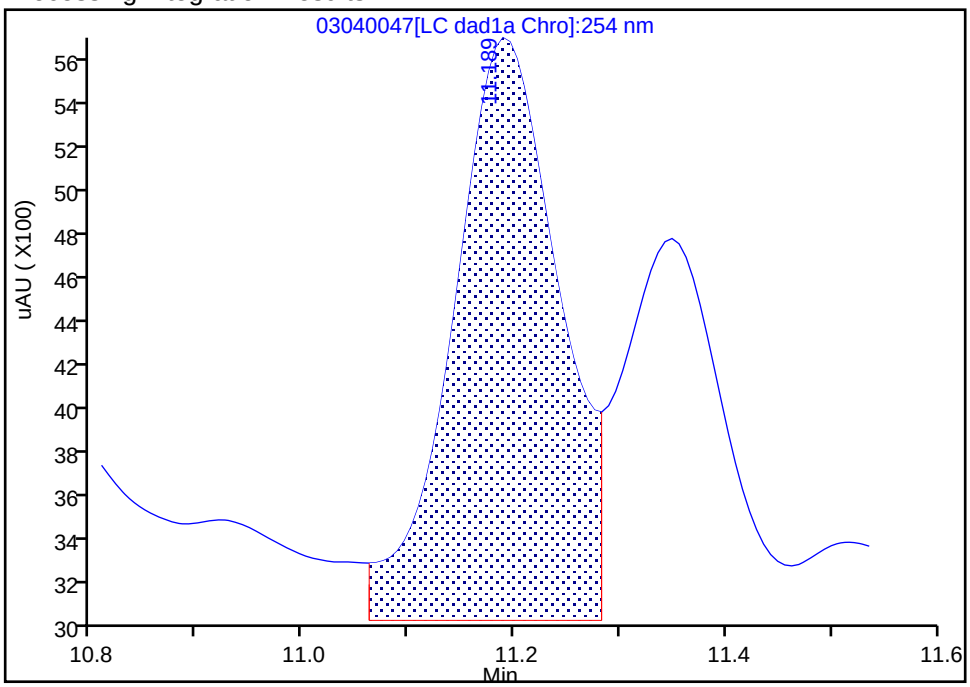
Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040047.d				
Injection Date:	05-Mar-2020 05:24:59	Instrument ID:	CHHPLC_X3		
Lims ID:	280-134141-A-1-A	Lab Sample ID:	280-134141-1		
Client ID:	EW7-PM26A-2-25				
Operator ID:	CB	ALS Bottle#:	47	Worklist Smp#:	47
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

16 2,4,6-Trinitrotoluene, CAS: 118-96-7

Signal: 1

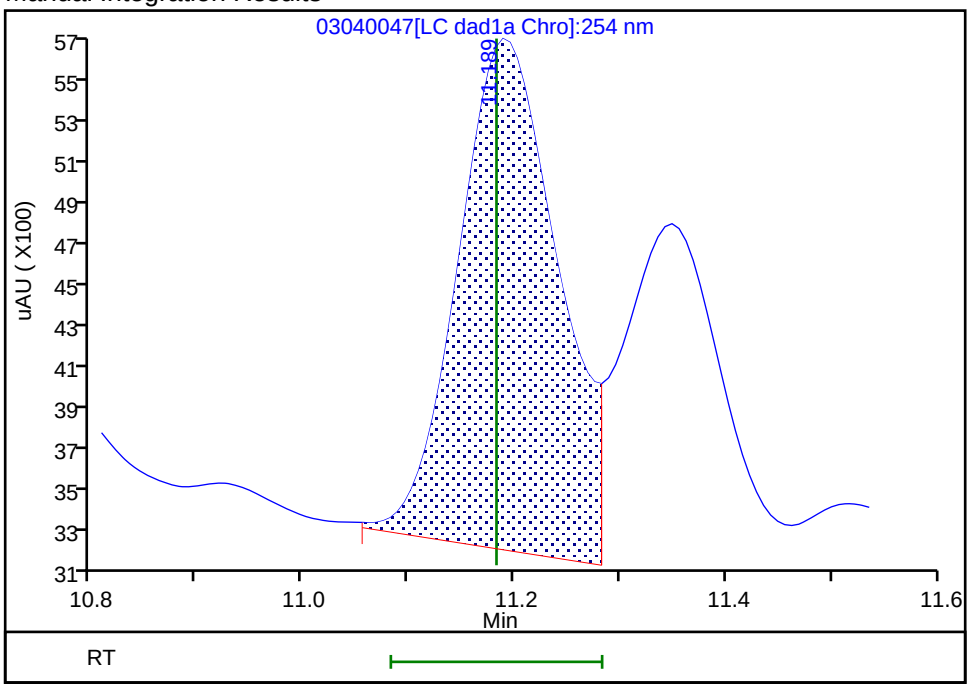
Processing Integration Results

RT: 11.19
Area: 17554
Amount: 0.079462
Amount Units: ug/mL



Manual Integration Results

RT: 11.19
Area: 15790
Amount: 0.071477
Amount Units: ug/mL



Reviewer: beckerc, 06-Mar-2020 09:02:47

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

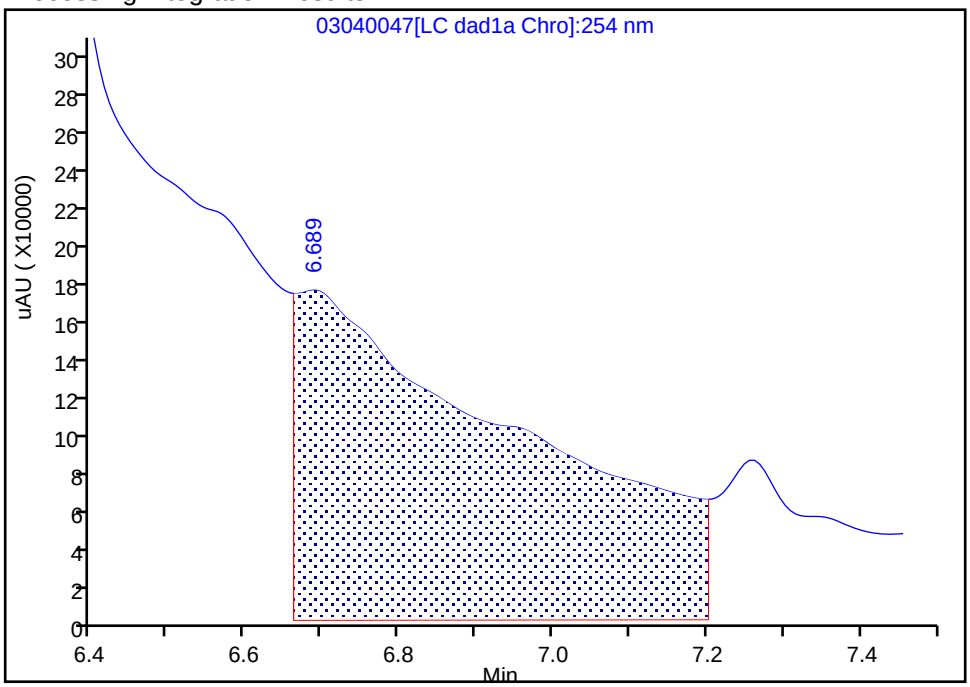
Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040047.d				
Injection Date:	05-Mar-2020 05:24:59	Instrument ID:	CHHPLC_X3		
Lims ID:	280-134141-A-1-A	Lab Sample ID:	280-134141-1		
Client ID:	EW7-PM26A-2-25				
Operator ID:	CB	ALS Bottle#:	47	Worklist Smp#:	47
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

3 HMX, CAS: 2691-41-0

Signal: 1

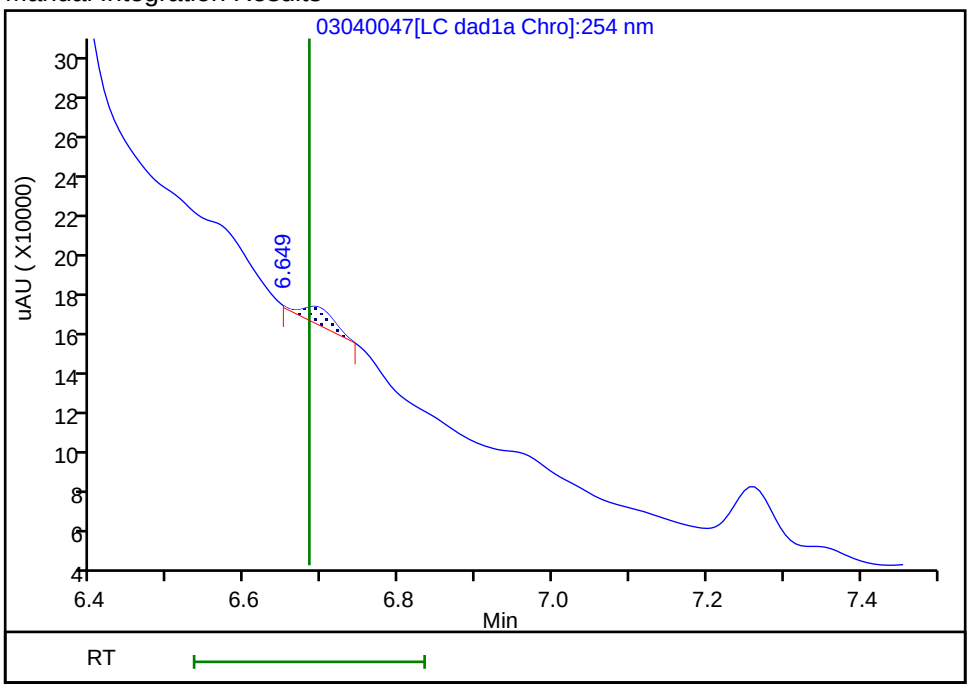
Processing Integration Results

RT: 6.69
Area: 3424535
Amount: 38.401311
Amount Units: ug/mL



Manual Integration Results

RT: 6.65
Area: 23484
Amount: 0.263340
Amount Units: ug/mL



Reviewer: beckerc, 06-Mar-2020 09:01:15
Audit Action: Manually Integrated Audit Reason: Baseline

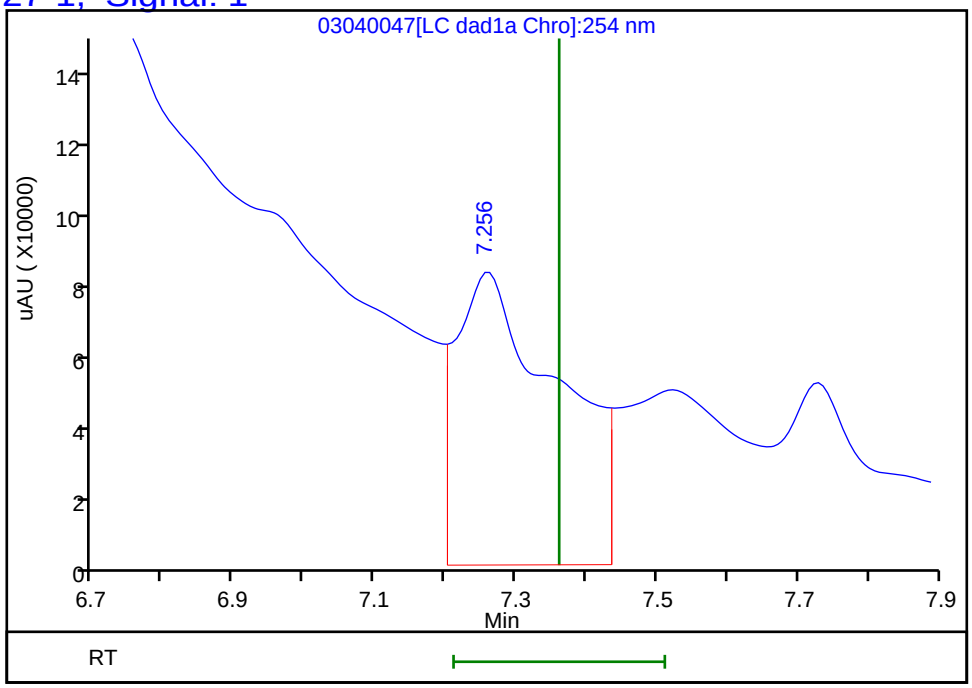
User Disabled Compound Report

Eurofins TestAmerica, Denver

Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040047.d				
Injection Date:	05-Mar-2020 05:24:59	Instrument ID:	CHHPLC_X3		
Lims ID:	280-134141-A-1-A	Lab Sample ID:	280-134141-1		
Client ID:	EW7-PM26A-2-25				
Operator ID:	CB	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		

6 MNX, CAS: 5755-27-1, Signal: 1

RT: 7.26
Response: 826576
Amount: 5.213537



Reviewer: beckerc, 06-Mar-2020 09:02:57
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

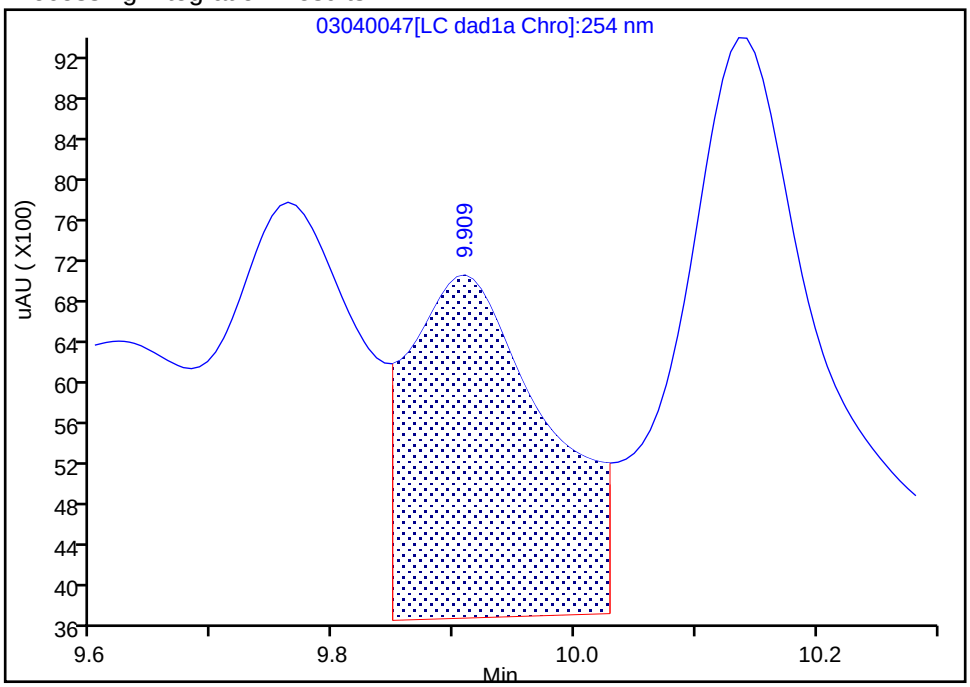
Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040047.d				
Injection Date:	05-Mar-2020 05:24:59	Instrument ID:	CHHPLC_X3		
Lims ID:	280-134141-A-1-A	Lab Sample ID:	280-134141-1		
Client ID:	EW7-PM26A-2-25				
Operator ID:	CB	ALS Bottle#:	47	Worklist Smp#:	47
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

12 Nitrobenzene, CAS: 98-95-3

Signal: 1

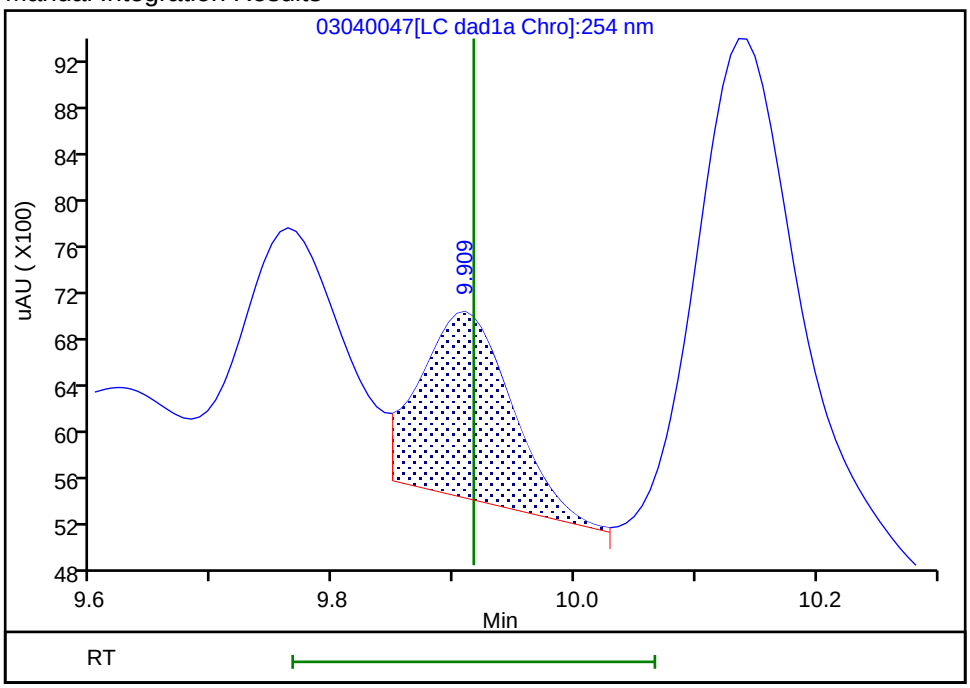
Processing Integration Results

RT: 9.91
Area: 26396
Amount: 0.124106
Amount Units: ug/mL



Manual Integration Results

RT: 9.91
Area: 8258
Amount: 0.038827
Amount Units: ug/mL



Reviewer: beckerc, 06-Mar-2020 09:02:11
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

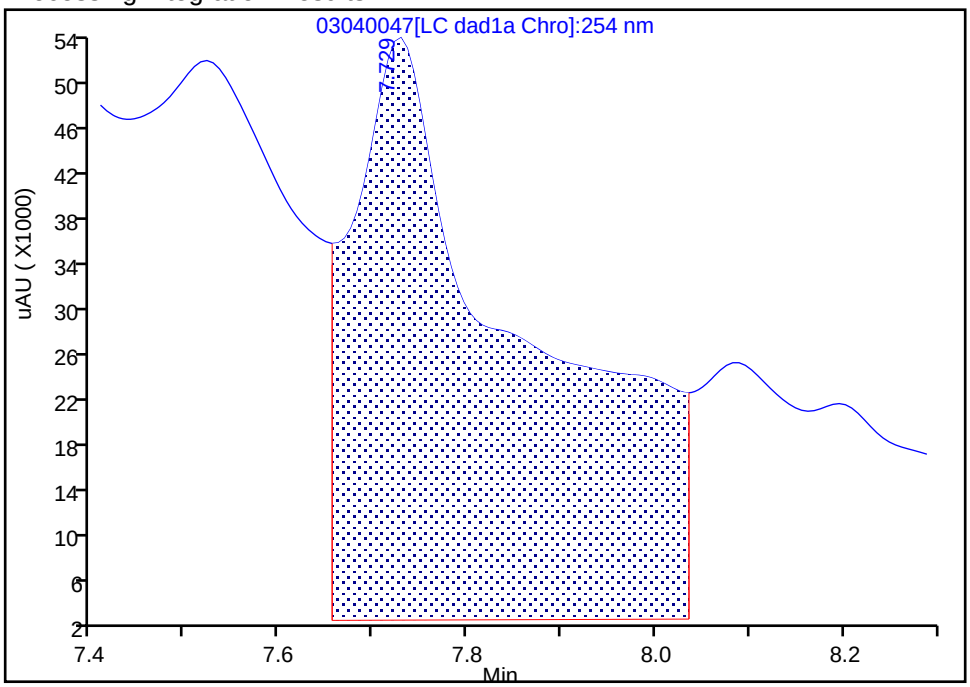
Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040047.d				
Injection Date:	05-Mar-2020 05:24:59	Instrument ID:	CHHPLC_X3		
Lims ID:	280-134141-A-1-A	Lab Sample ID:	280-134141-1		
Client ID:	EW7-PM26A-2-25				
Operator ID:	CB	ALS Bottle#:	47	Worklist Smp#:	47
Injection Vol:	100.0 ul	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

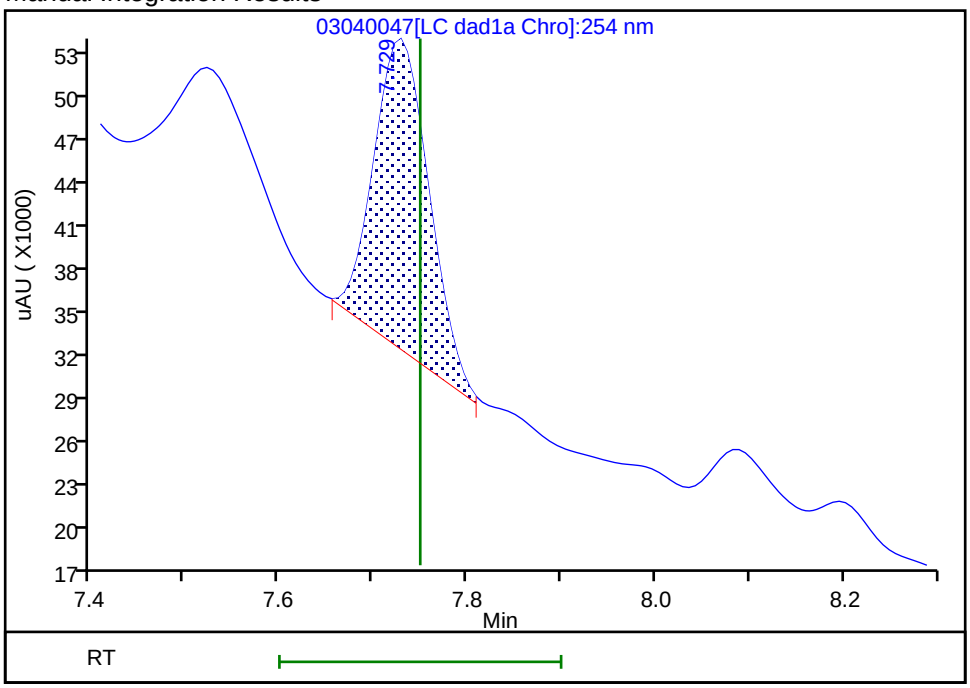
Processing Integration Results

RT: 7.73
Area: 662445
Amount: 5.620188
Amount Units: ug/mL



Manual Integration Results

RT: 7.73
Area: 87315
Amount: 0.740781
Amount Units: ug/mL



Reviewer: beckerc, 06-Mar-2020 09:01:44

Audit Action: Manually Integrated Audit Reason: Baseline

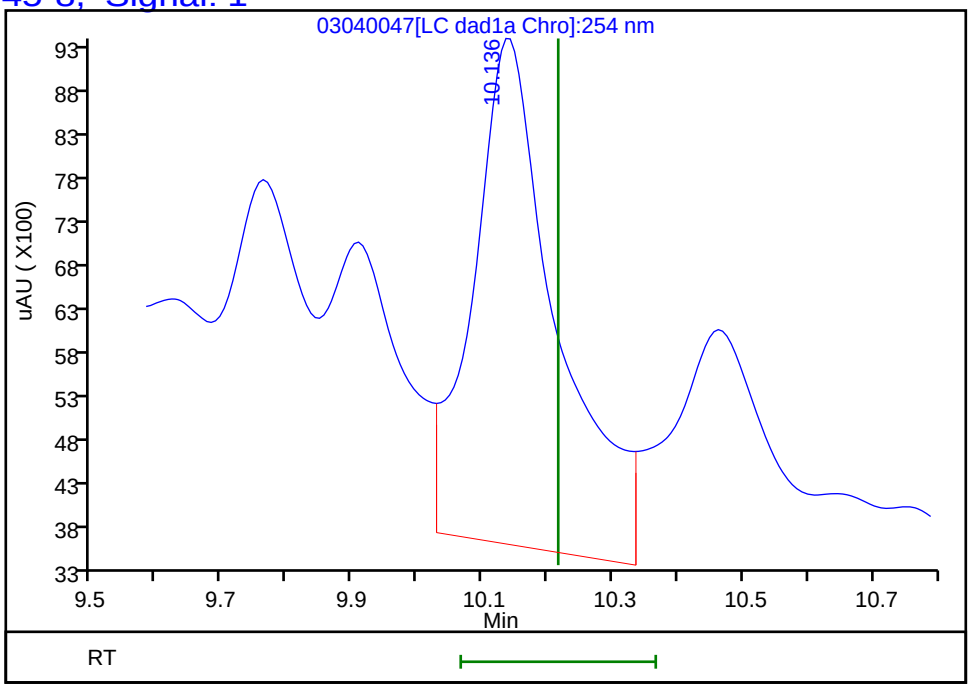
User Disabled Compound Report

Eurofins TestAmerica, Denver

Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040047.d				
Injection Date:	05-Mar-2020 05:24:59	Instrument ID:	CHHPLC_X3		
Lims ID:	280-134141-A-1-A	Lab Sample ID:	280-134141-1		
Client ID:	EW7-PM26A-2-25				
Operator ID:	CB	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: 10.14
Response: 51732
Amount: 0.266838



Reviewer: beckerc, 06-Mar-2020 09:02:57
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.: 280-134141-1
SDG No.:
Client Sample ID: EW7-PM26A-2-25
Lab Sample ID: 280-134141-1
Matrix: Water
Lab File ID: 03050024.D
Analysis Method: 8330A
Date Collected: 02/27/2020 11:35
Extraction Method: 3535
Date Extracted: 03/02/2020 13:40
Sample wt/vol: 492.6(mL)
Date Analyzed: 03/05/2020 23:30
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.: 487814
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
121-14-2	2,4-Dinitrotoluene	0.20	U	0.41	0.20	0.085
98-95-3	Nitrobenzene	0.20	U M	0.41	0.20	0.092
121-82-4	RDX	0.41	U	0.41	0.41	0.16

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

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\G2_LUNA\20200305-89813.b\03050024.D				
Lims ID:	280-134141-A-1-A				
Client ID:	EW7-PM26A-2-25				
Sample Type:	Client				
Inject. Date:	05-Mar-2020 23:30:32	ALS Bottle#:	24	Worklist Smp#:	90
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-134141-A-1-A				
Misc. Info.:	280-0089813-090				
Operator ID:	CB	Instrument ID:	CHHPLC_G2_LUNA		
Method:	\\chromna\Denver\ChromData\G2_LUNA\20200305-89813.b\G2_8330_Luna.m				
Limit Group:	GCSV - 8330				
Last Update:	06-Mar-2020 12:50:50	Calib Date:	04-Mar-2020 03:21:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\G2_LUNA\20200303-89749.b\03030023.D				
Column 1 :	Luna-Phenyl hexyl (4.60 mm)		Det: LC DAD1A, 254 nm		
Process Host:	CTX0308				

First Level Reviewer: beckerc Date: 06-Mar-2020 12:42:10

	Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
	6 HMX	1	6.885	6.896	-0.011	15680	0.0797	
	7 MNX	1		7.707			ND	
	8 RDX	1		9.050			ND	
	9 Nitrobenzene	1		12.049			ND	U
$	10 1,2-Dinitrobenzene	1	12.945	12.949	-0.004	58127	0.2011	
	12 1,3-Dinitrobenzene	1		15.476			ND	
	14 o-Nitrotoluene	1	16.478	16.503	-0.025	152161	0.6661	
	15 p-Nitrotoluene	1		16.769			ND	
	16 4-Amino-2,6-dinitrotoluene	1	17.065	17.063	0.002	240108	0.7447	
	17 m-Nitrotoluene	1		17.709			ND	
	18 2-Amino-4,6-dinitrotoluene	1	17.958	17.909	0.049	58631	0.1165	
	19 1,3,5-Trinitrobenzene	1		18.823			ND	
	20 2,6-Dinitrotoluene	1		19.763			ND	
	21 2,4-Dinitrotoluene	1		20.229			ND	
	22 Tetryl	1		23.476			ND	
	23 2,4,6-Trinitrotoluene	1	24.612	24.623	-0.011	27409	0.0593	

QC Flag Legend

Review Flags

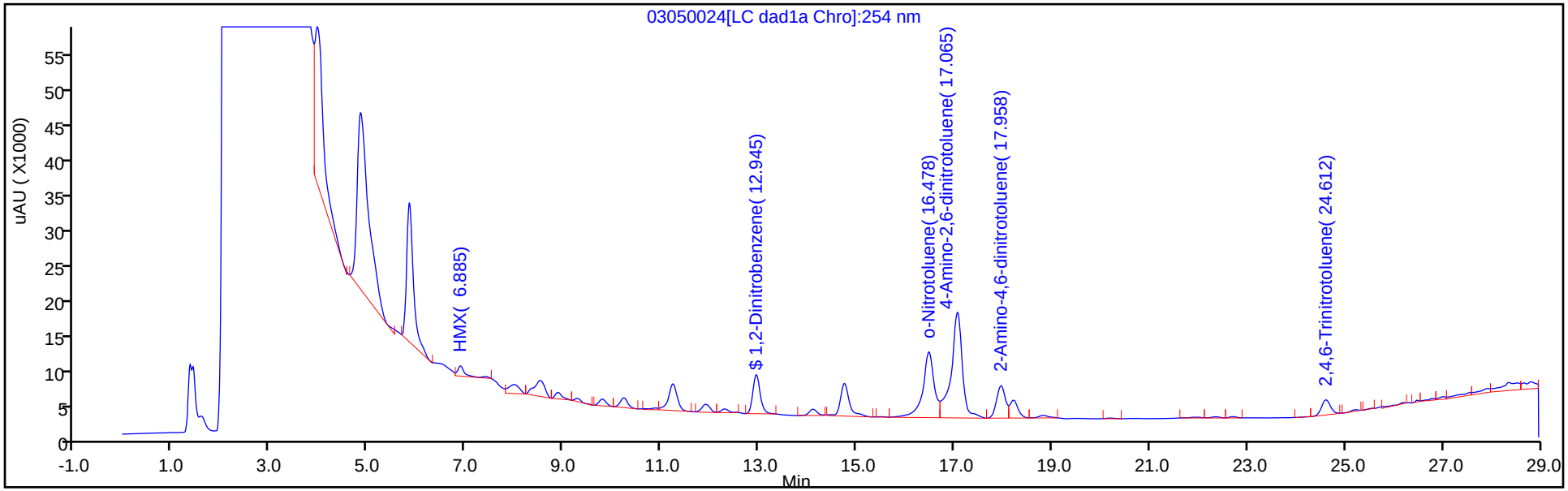
U - Marked Undetected

Report Date: 06-Mar-2020 12:50:59 Chrom Revision: 2.3 19-Feb-2020 16:45:46

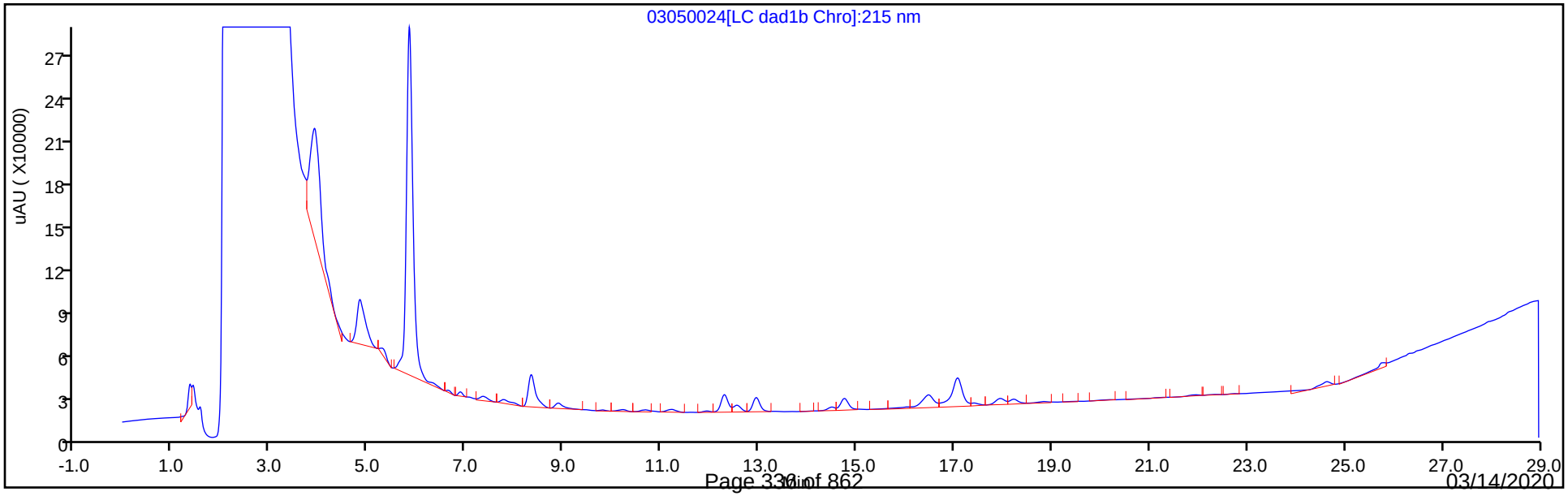
Eurofins TestAmerica, Denver

Data File:	\\chromna\denver\chromdata\g2_luna\20200305-89813.b\03050024.d				
Injection Date:	05-Mar-2020 23:30:32	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	CB
Lims ID:	280-134141-A-1-A	Lab Sample ID:	280-134141-1	Worklist Smp#:	90
Client ID:	EW7-PM26A-2-25				
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



Eurofins TestAmerica, Denver
Recovery Report

Data File:	\\chromna\Denver\ChromData\G2_LUNA\20200305-89813.b\03050024.D				
Lims ID:	280-134141-A-1-A				
Client ID:	EW7-PM26A-2-25				
Sample Type:	Client				
Inject. Date:	05-Mar-2020 23:30:32	ALS Bottle#:	24	Worklist Smp#:	90
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-134141-A-1-A				
Misc. Info.:	280-0089813-090				
Operator ID:	CB	Instrument ID:	CHHPLC_G2_LUNA		
Method:	\\chromna\Denver\ChromData\G2_LUNA\20200305-89813.b\G2_8330_Luna.m				
Limit Group:	GCSV - 8330				
Last Update:	06-Mar-2020 12:50:50	Calib Date:	04-Mar-2020 03:21:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\G2_LUNA\20200303-89749.b\03030023.D				
Column 1 :	Luna-Phenyl hexyl (4.60 mm)		Det: LC DAD1A, 254 nm		
Process Host:	CTX0308				

First Level Reviewer: beckerc Date: 06-Mar-2020 12:42:10

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.2011	100.55

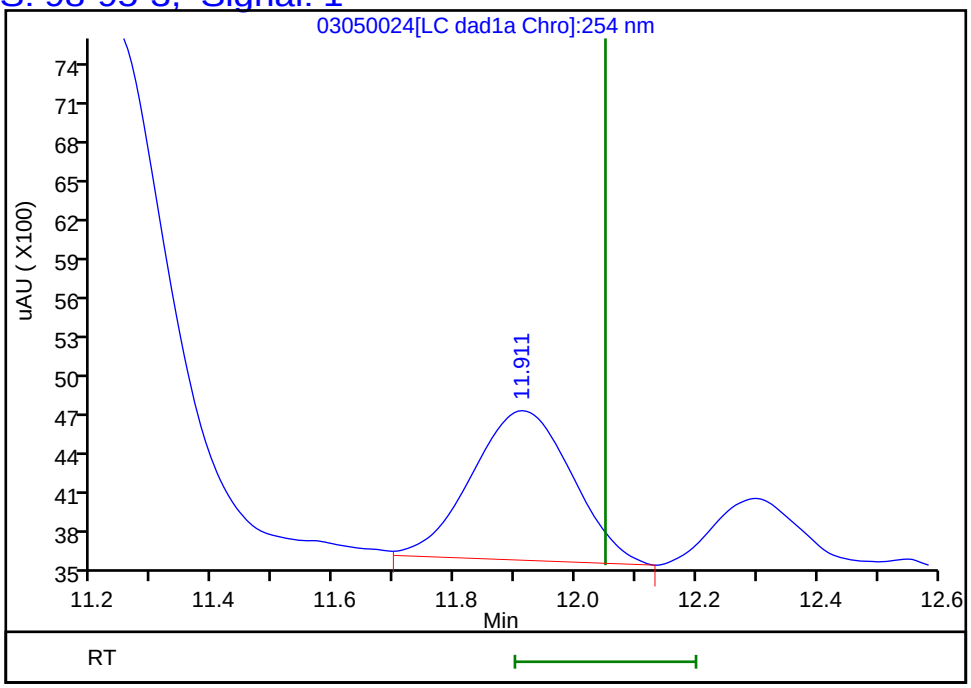
User Disabled Compound Report

Eurofins TestAmerica, Denver

Data File:	\\chromna\denver\chromdata\g2_luna\20200305-89813.b\03050024.d				
Injection Date:	05-Mar-2020 23:30:32	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	280-134141-A-1-A	Lab Sample ID:	280-134141-1		
Client ID:	EW7-PM26A-2-25				
Operator ID:	CB	ALS Bottle#:	24	Worklist Smp#:	90
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

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

RT: 11.91
Response: 13134
Amount: 0.024430



Reviewer: beckerc, 06-Mar-2020 12:42:10
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.: 280-134141-1
SDG No.:
Client Sample ID: EW7-PM27A-2-25
Lab Sample ID: 280-134141-2
Matrix: Water
Lab File ID: 03040048.D
Analysis Method: 8330A
Date Collected: 02/27/2020 15:20
Extraction Method: 3535
Date Extracted: 03/02/2020 13:40
Sample wt/vol: 502.2(mL)
Date Analyzed: 03/05/2020 05:47
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.: 487659
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	5.9	M	1.0	0.40	0.20
99-65-0	1,3-Dinitrobenzene	0.20	U M	0.40	0.20	0.088
118-96-7	2,4,6-Trinitrotoluene	9.8		0.40	0.40	0.16
606-20-2	2,6-Dinitrotoluene	0.20	U	0.20	0.20	0.064
35572-78-2	2-Amino-4,6-dinitrotoluene	3.2		0.20	0.12	0.050
88-72-2	2-Nitrotoluene	0.20	U M	0.40	0.20	0.085
99-08-1	3-Nitrotoluene	0.40	U	0.40	0.40	0.19
19406-51-0	4-Amino-2,6-dinitrotoluene	3.3		0.20	0.12	0.057
99-99-0	4-Nitrotoluene	0.40	U M	1.0	0.40	0.20
2691-41-0	HMX	1.0	M	0.40	0.20	0.087
98-95-3	Nitrobenzene	0.20	U	0.40	0.20	0.091
121-82-4	RDX	2.2	M	0.40	0.40	0.16
479-45-8	Tetryl	0.20	U M	0.24	0.20	0.079

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

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\03040048.D				
Lims ID:	280-134141-A-2-A				
Client ID:	EW7-PM27A-2-25				
Sample Type:	Client				
Inject. Date:	05-Mar-2020 05:47:55	ALS Bottle#:	48	Worklist Smp#:	48
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-134141-A-2-A				
Misc. Info.:	280-0089779-048				
Operator ID:	CB	Instrument ID:	CHHPLC_X3		
Method:	\\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	06-Mar-2020 10:25:41	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:	06-Mar-2020 09:06:16		

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/mL	Flags
3 HMX	1	6.680	6.683	-0.003	9088	0.1019	M
6 MNX	1	7.353	7.361	-0.008	16639	0.1049	M
7 RDX	1	7.746	7.750	-0.004	26149	0.2218	M
$ 9 1,2-Dinitrobenzene	1	8.706	8.710	-0.004	24311	0.1663	M
10 1,3,5-Trinitrobenzene	1	8.886	8.883	0.003	143062	0.5876	M
11 1,3-Dinitrobenzene	1		9.529			ND	U
12 Nitrobenzene	1	9.919	9.916	0.003	1772	0.008331	
14 Tetryl	1		10.216			ND	U
16 2,4,6-Trinitrotoluene	1	11.186	11.183	0.003	216465	0.9799	
17 4-Amino-2,6-dinitrotoluene	1	11.346	11.336	0.010	57189	0.3297	
18 2-Amino-4,6-dinitrotoluene	1	11.639	11.623	0.016	70319	0.3232	
19 2,6-Dinitrotoluene	1		11.789			ND	
20 2,4-Dinitrotoluene	1	11.999	11.983	0.016	4210	0.0131	
21 o-Nitrotoluene	1		12.829			ND	U
22 p-Nitrotoluene	1		13.269			ND	U
23 m-Nitrotoluene	1		13.863			ND	

QC Flag Legend

Review Flags

M - Manually Integrated

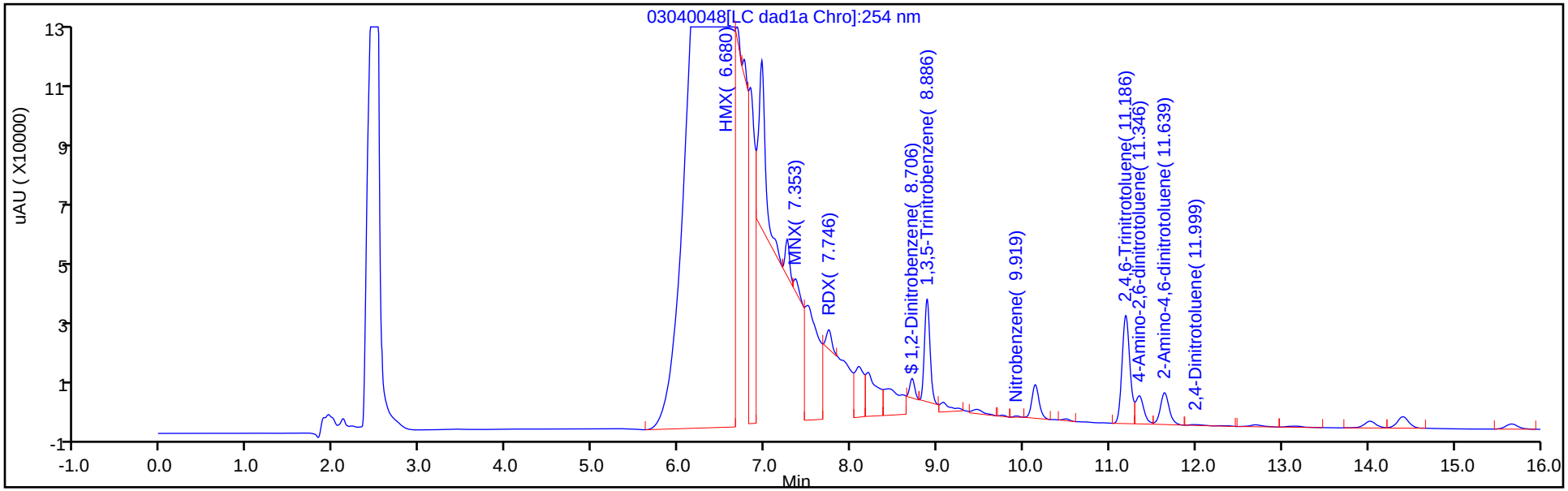
U - Marked Undetected

Report Date: 06-Mar-2020 10:25:43 Chrom Revision: 2.3 19-Feb-2020 16:45:46

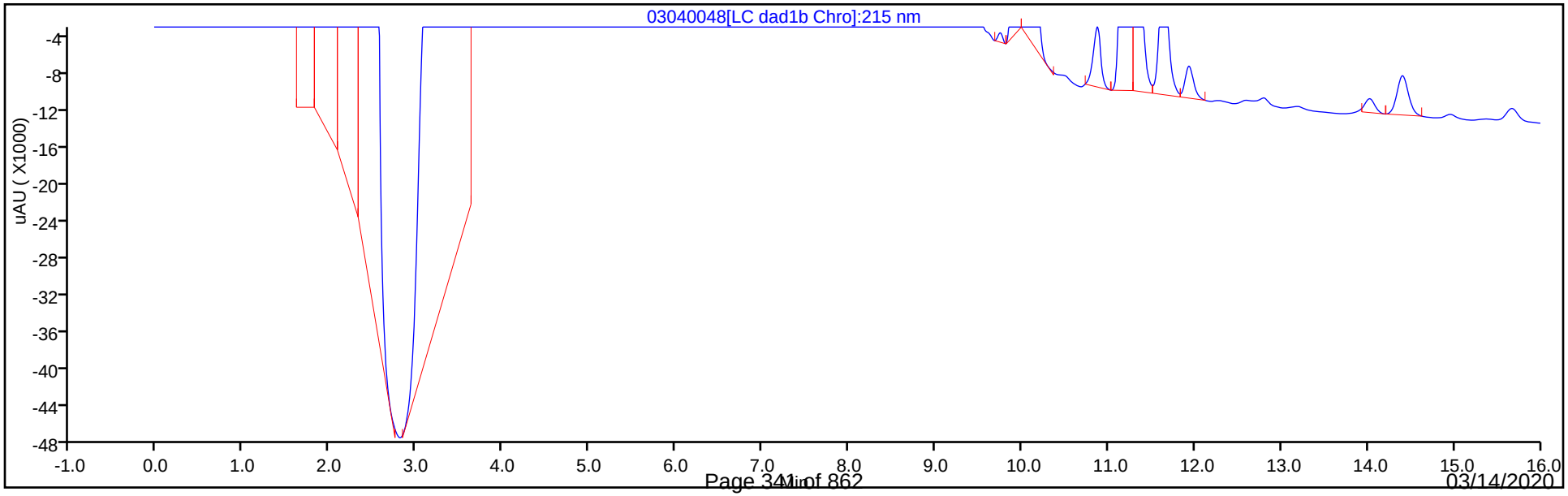
Eurofins TestAmerica, Denver

Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040048.d				
Injection Date:	05-Mar-2020 05:47:55	Instrument ID:	CHHPLC_X3	Operator ID:	CB
Lims ID:	280-134141-A-2-A	Lab Sample ID:	280-134141-2	Worklist Smp#:	48
Client ID:	EW7-PM27A-2-25				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	48
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:	\\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\03040048.D				
Lims ID:	280-134141-A-2-A				
Client ID:	EW7-PM27A-2-25				
Sample Type:	Client				
Inject. Date:	05-Mar-2020 05:47:55	ALS Bottle#:	48	Worklist Smp#:	48
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-134141-A-2-A				
Misc. Info.:	280-0089779-048				
Operator ID:	CB	Instrument ID:	CHHPLC_X3		
Method:	\\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	06-Mar-2020 10:25:41	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:	06-Mar-2020 09:06:16		

Compound	Amount Added	Amount Recovered	% Rec.
$ 9 1,2-Dinitrobenzene	0.2000	0.1663	83.13

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

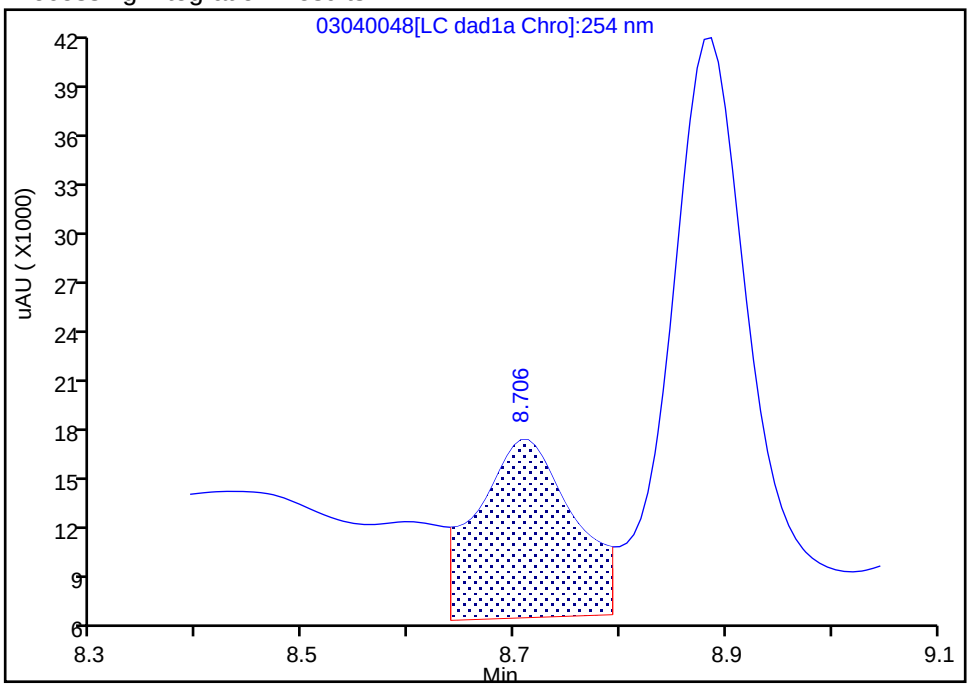
Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040048.d				
Injection Date:	05-Mar-2020 05:47:55	Instrument ID:	CHHPLC_X3		
Lims ID:	280-134141-A-2-A	Lab Sample ID:	280-134141-2		
Client ID:	EW7-PM27A-2-25				
Operator ID:	CB	ALS Bottle#:	48	Worklist Smp#:	48
Injection Vol:	100.0 ul	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

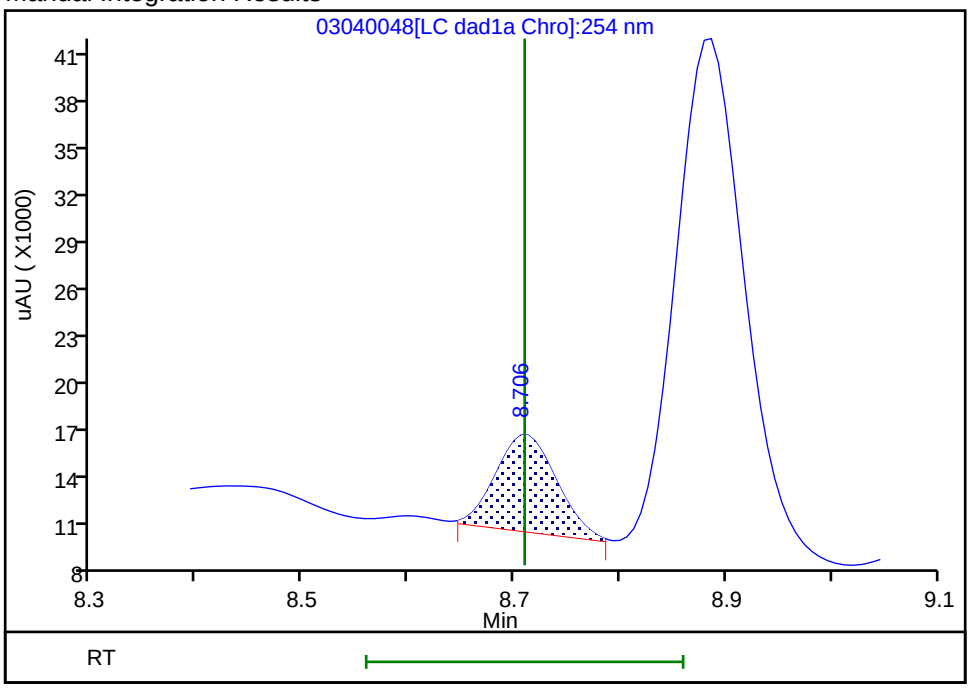
Processing Integration Results

RT: 8.71
Area: 68847
Amount: 0.470861
Amount Units: ug/mL



Manual Integration Results

RT: 8.71
Area: 24311
Amount: 0.166269
Amount Units: ug/mL



Reviewer: beckerc, 06-Mar-2020 09:05:13
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

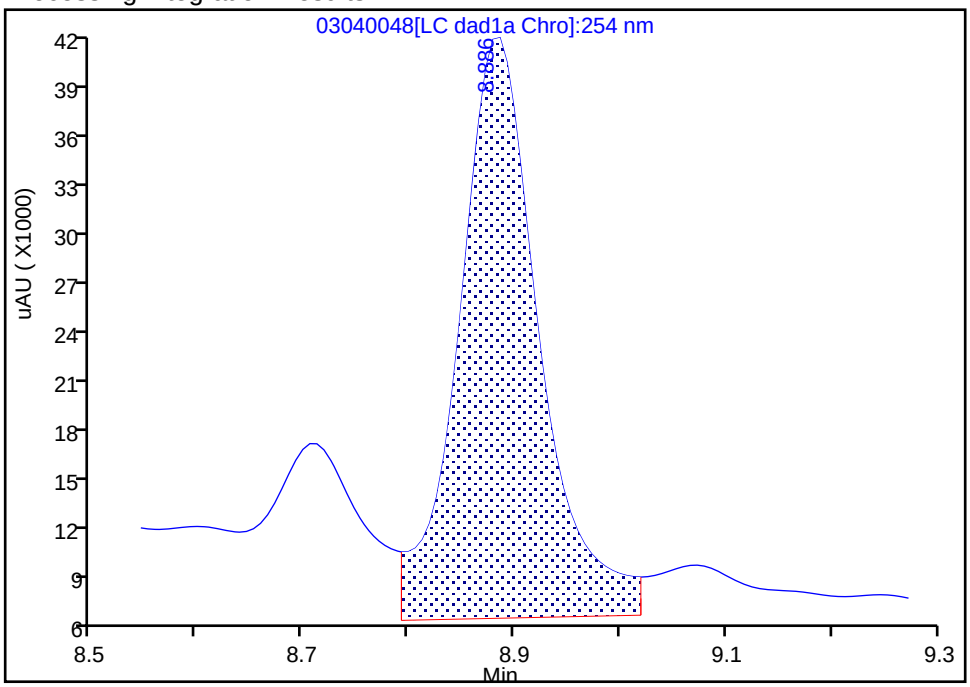
Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040048.d				
Injection Date:	05-Mar-2020 05:47:55	Instrument ID:	CHHPLC_X3		
Lims ID:	280-134141-A-2-A	Lab Sample ID:	280-134141-2		
Client ID:	EW7-PM27A-2-25				
Operator ID:	CB	ALS Bottle#:	48	Worklist Smp#:	48
Injection Vol:	100.0 ul	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

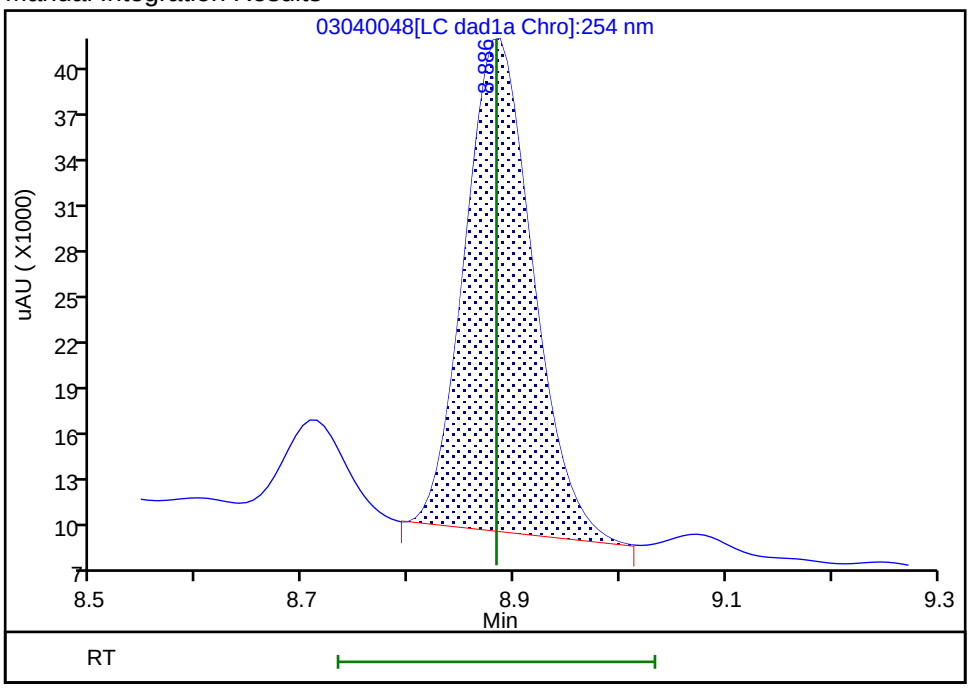
Processing Integration Results

RT: 8.89
Area: 186809
Amount: 0.767311
Amount Units: ug/mL



Manual Integration Results

RT: 8.89
Area: 143062
Amount: 0.587622
Amount Units: ug/mL



Reviewer: beckerc, 06-Mar-2020 09:05:35

Audit Action: Manually Integrated Audit Reason: Baseline

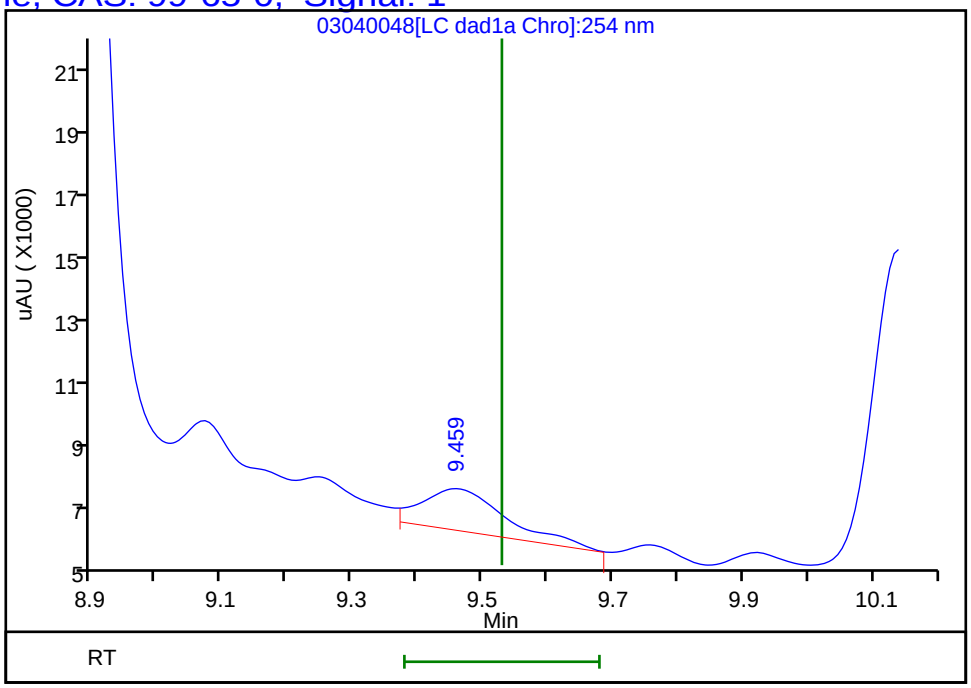
User Disabled Compound Report

Eurofins TestAmerica, Denver

Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040048.d				
Injection Date:	05-Mar-2020 05:47:55	Instrument ID:	CHHPLC_X3		
Lims ID:	280-134141-A-2-A	Lab Sample ID:	280-134141-2		
Client ID:	EW7-PM27A-2-25				
Operator ID:	CB	ALS Bottle#:	48	Worklist Smp#:	48
Injection Vol:	100.0 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

RT: 9.46
Response: 12040
Amount: 0.037132



Reviewer: beckerc, 06-Mar-2020 09:06:16
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

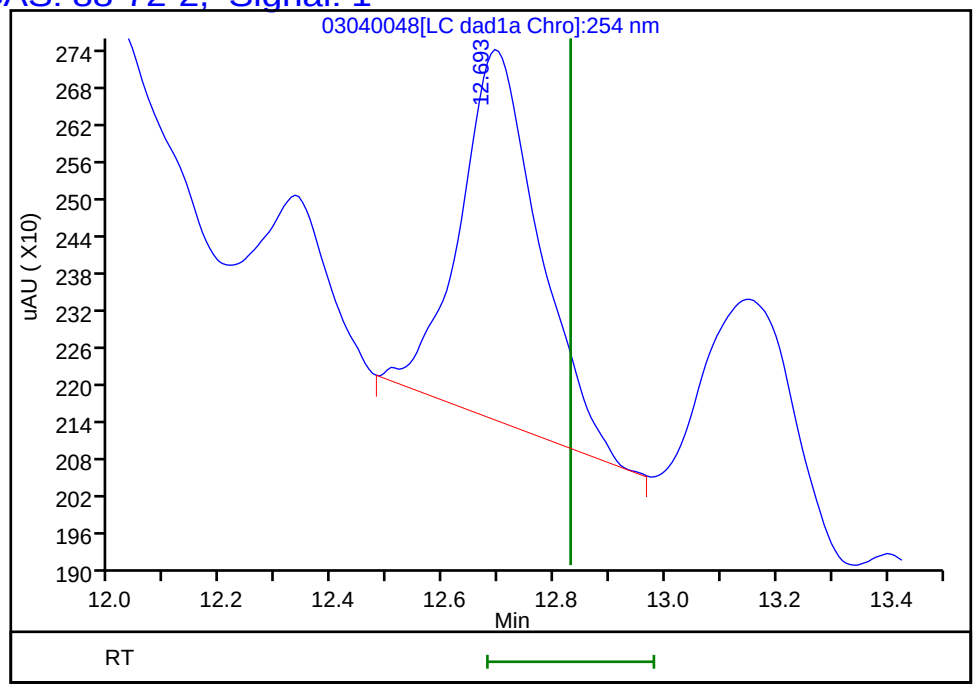
User Disabled Compound Report

Eurofins TestAmerica, Denver

Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040048.d				
Injection Date:	05-Mar-2020 05:47:55	Instrument ID:	CHHPLC_X3		
Lims ID:	280-134141-A-2-A	Lab Sample ID:	280-134141-2		
Client ID:	EW7-PM27A-2-25				
Operator ID:	CB	ALS Bottle#:	48	Worklist Smp#:	48
Injection Vol:	100.0 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: 12.69
Response: 6063
Amount: 0.042151



Reviewer: beckerc, 06-Mar-2020 09:06:16
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

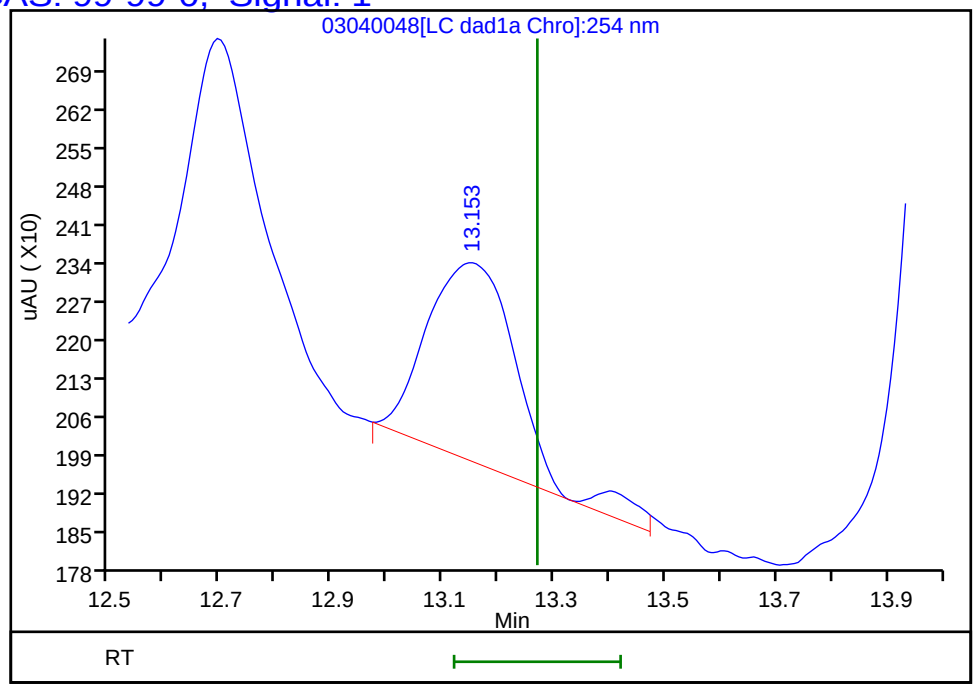
User Disabled Compound Report

Eurofins TestAmerica, Denver

Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040048.d				
Injection Date:	05-Mar-2020 05:47:55	Instrument ID:	CHHPLC_X3		
Lims ID:	280-134141-A-2-A	Lab Sample ID:	280-134141-2		
Client ID:	EW7-PM27A-2-25				
Operator ID:	CB	ALS Bottle#:	48	Worklist Smp#:	48
Injection Vol:	100.0 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: 13.15
Response: 4165
Amount: 0.034622



Reviewer: beckerc, 06-Mar-2020 09:06:16
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

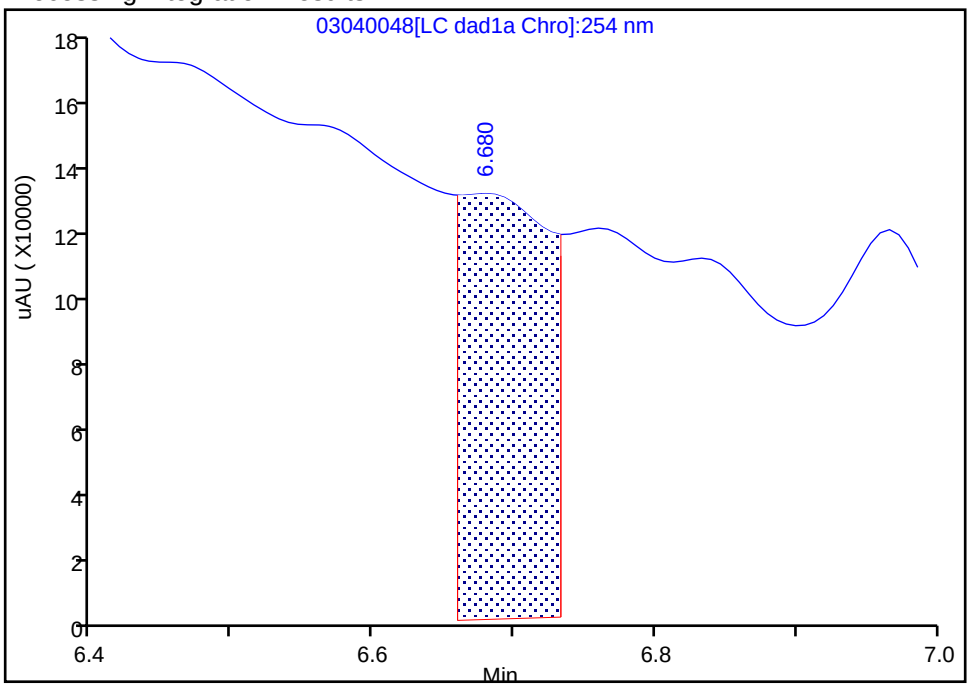
Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040048.d				
Injection Date:	05-Mar-2020 05:47:55	Instrument ID:	CHHPLC_X3		
Lims ID:	280-134141-A-2-A	Lab Sample ID:	280-134141-2		
Client ID:	EW7-PM27A-2-25				
Operator ID:	CB	ALS Bottle#:	48	Worklist Smp#:	48
Injection Vol:	100.0 ul	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

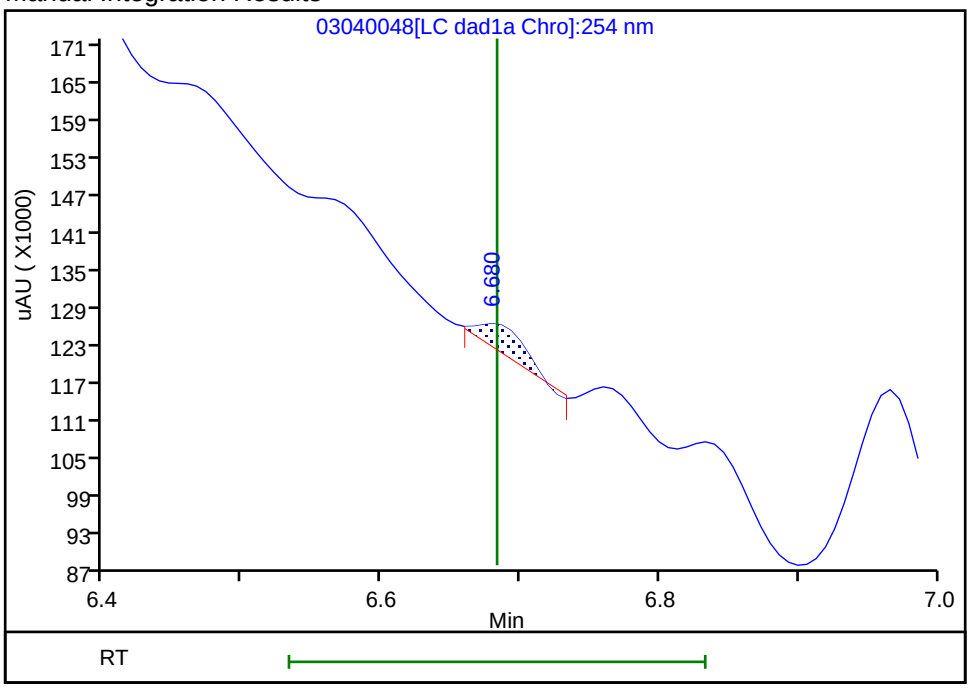
Processing Integration Results

RT: 6.68
Area: 526918
Amount: 5.908639
Amount Units: ug/mL



Manual Integration Results

RT: 6.68
Area: 9088
Amount: 0.101909
Amount Units: ug/mL



Reviewer: beckerc, 06-Mar-2020 09:03:17
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

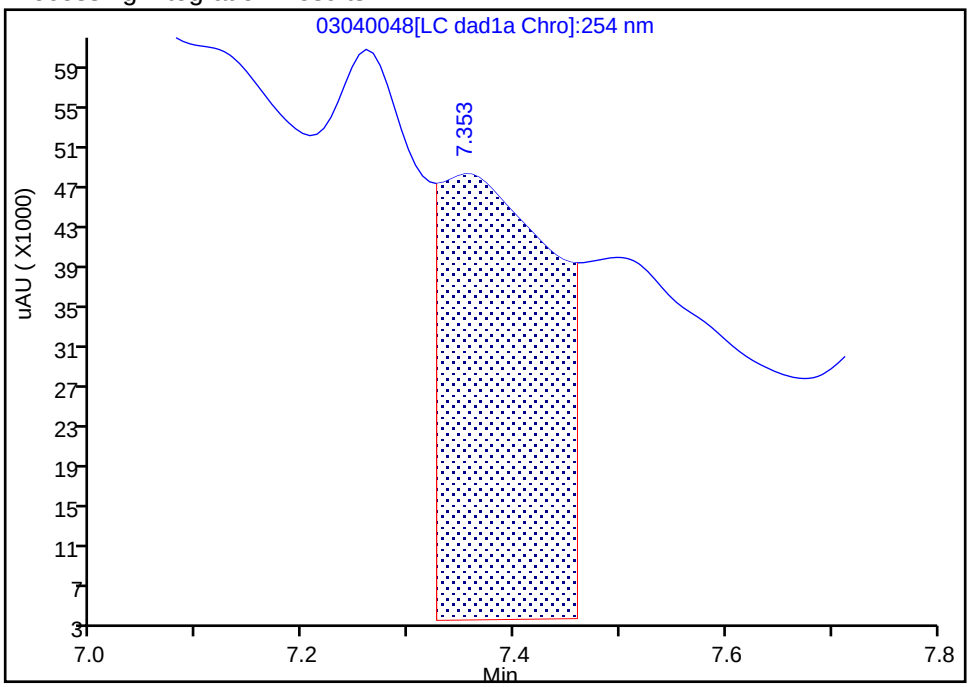
Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040048.d				
Injection Date:	05-Mar-2020 05:47:55	Instrument ID:	CHHPLC_X3		
Lims ID:	280-134141-A-2-A	Lab Sample ID:	280-134141-2		
Client ID:	EW7-PM27A-2-25				
Operator ID:	CB	ALS Bottle#:	48	Worklist Smp#:	48
Injection Vol:	100.0 ul	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

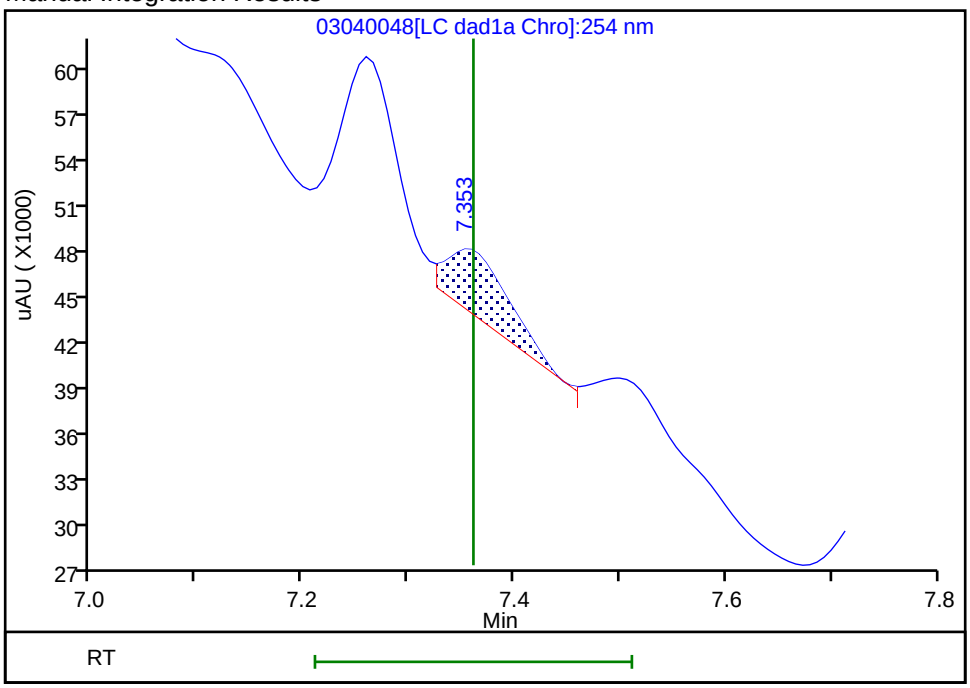
Processing Integration Results

RT: 7.35
Area: 322595
Amount: 2.034732
Amount Units: ug/mL



Manual Integration Results

RT: 7.35
Area: 16639
Amount: 0.104949
Amount Units: ug/mL



Reviewer: beckerc, 06-Mar-2020 09:04:18
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

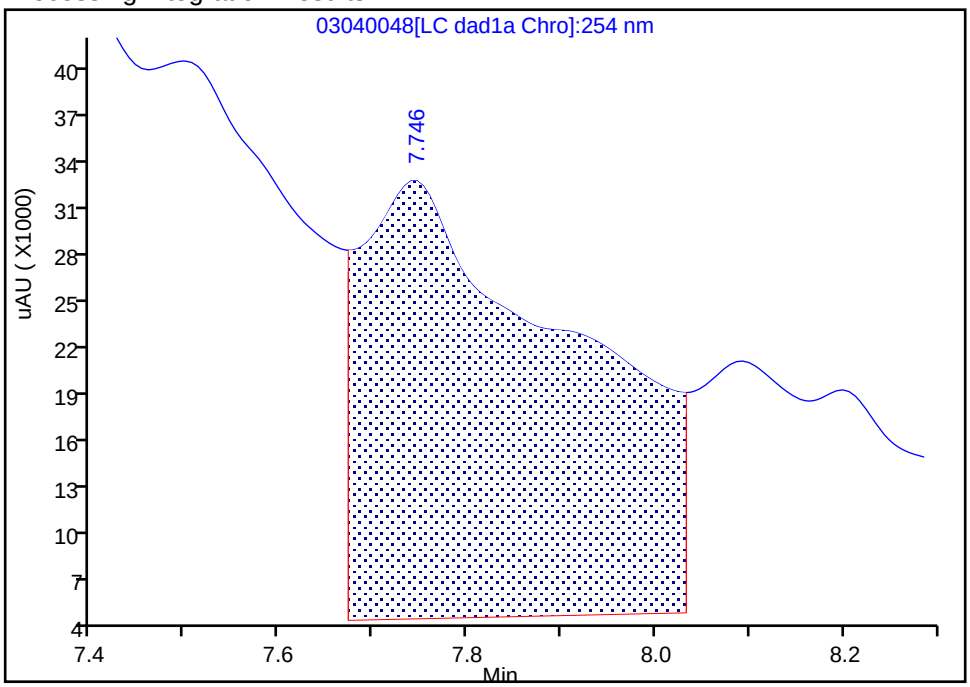
Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040048.d				
Injection Date:	05-Mar-2020 05:47:55	Instrument ID:	CHHPLC_X3		
Lims ID:	280-134141-A-2-A	Lab Sample ID:	280-134141-2		
Client ID:	EW7-PM27A-2-25				
Operator ID:	CB	ALS Bottle#:	48	Worklist Smp#:	48
Injection Vol:	100.0 ul	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

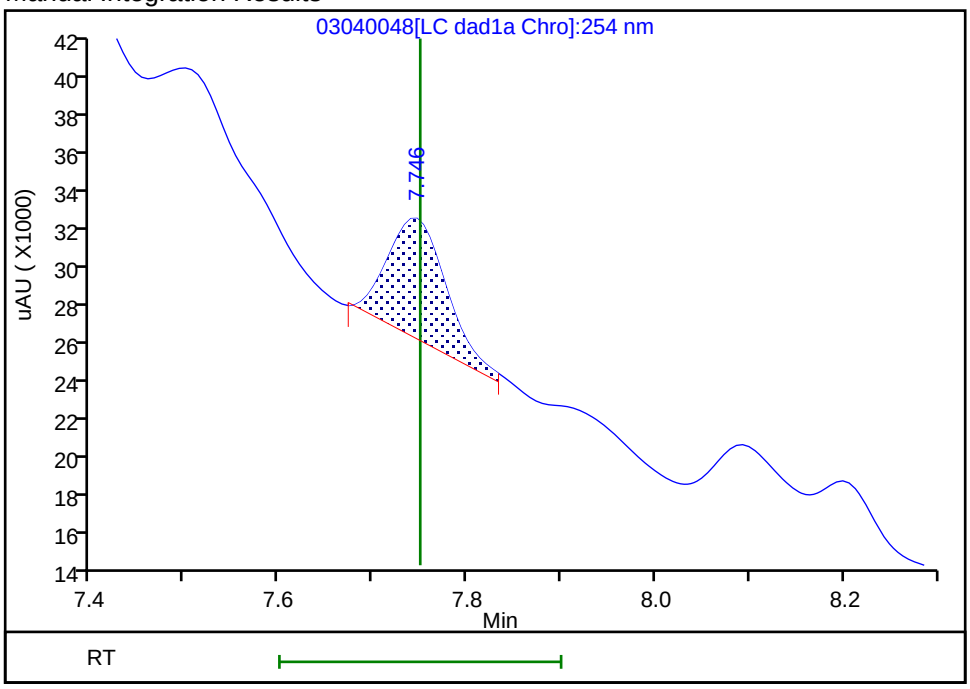
RT: 7.75
Area: 435142
Amount: 3.691748
Amount Units: ug/mL

Processing Integration Results



RT: 7.75
Area: 26149
Amount: 0.221848
Amount Units: ug/mL

Manual Integration Results



Reviewer: beckerc, 06-Mar-2020 09:05:05
Audit Action: Manually Integrated Audit Reason: Baseline

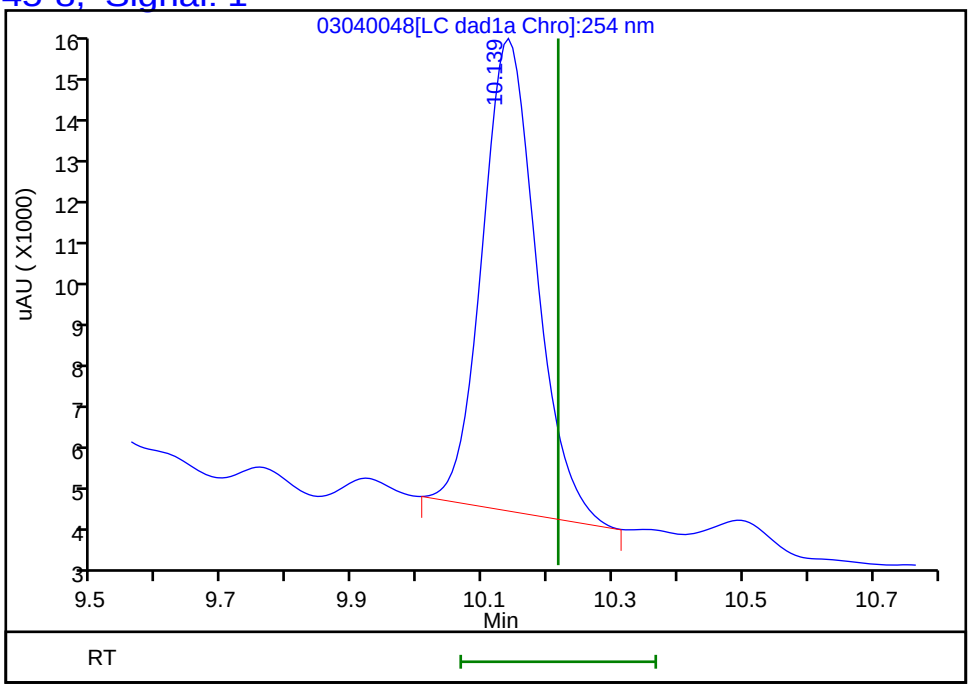
User Disabled Compound Report

Eurofins TestAmerica, Denver

Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040048.d				
Injection Date:	05-Mar-2020 05:47:55	Instrument ID:	CHHPLC_X3		
Lims ID:	280-134141-A-2-A	Lab Sample ID:	280-134141-2		
Client ID:	EW7-PM27A-2-25				
Operator ID:	CB	ALS Bottle#:	48	Worklist Smp#:	48
Injection Vol:	100.0 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: 10.14
Response: 60802
Amount: 0.313622



Reviewer: beckerc, 06-Mar-2020 09:06:16
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.: 280-134141-1
SDG No.:
Client Sample ID: EW7-PM27A-2-25
Lab Sample ID: 280-134141-2
Matrix: Water
Lab File ID: 03050025.D
Analysis Method: 8330A
Date Collected: 02/27/2020 15:20
Extraction Method: 3535
Date Extracted: 03/02/2020 13:40
Sample wt/vol: 502.2(mL)
Date Analyzed: 03/06/2020 00:05
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.: 487814
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
121-14-2	2,4-Dinitrotoluene	0.20	U	0.40	0.20	0.083
5755-27-1	MNX	0.40	U	2.0	0.40	0.15

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

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\G2_LUNA\20200305-89813.b\03050025.D				
Lims ID:	280-134141-A-2-A				
Client ID:	EW7-PM27A-2-25				
Sample Type:	Client				
Inject. Date:	06-Mar-2020 00:05:30	ALS Bottle#:	25	Worklist Smp#:	91
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-134141-A-2-A				
Misc. Info.:	280-0089813-091				
Operator ID:	CB	Instrument ID:	CHHPLC_G2_LUNA		
Method:	\\chromna\Denver\ChromData\G2_LUNA\20200305-89813.b\G2_8330_Luna.m				
Limit Group:	GCSV - 8330				
Last Update:	06-Mar-2020 12:50:50	Calib Date:	04-Mar-2020 03:21:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\G2_LUNA\20200303-89749.b\03030023.D				
Column 1 :	Luna-Phenyl hexyl (4.60 mm)		Det: LC DAD1A, 254 nm		
Process Host:	CTX0308				

First Level Reviewer: beckerc Date: 06-Mar-2020 12:42:37

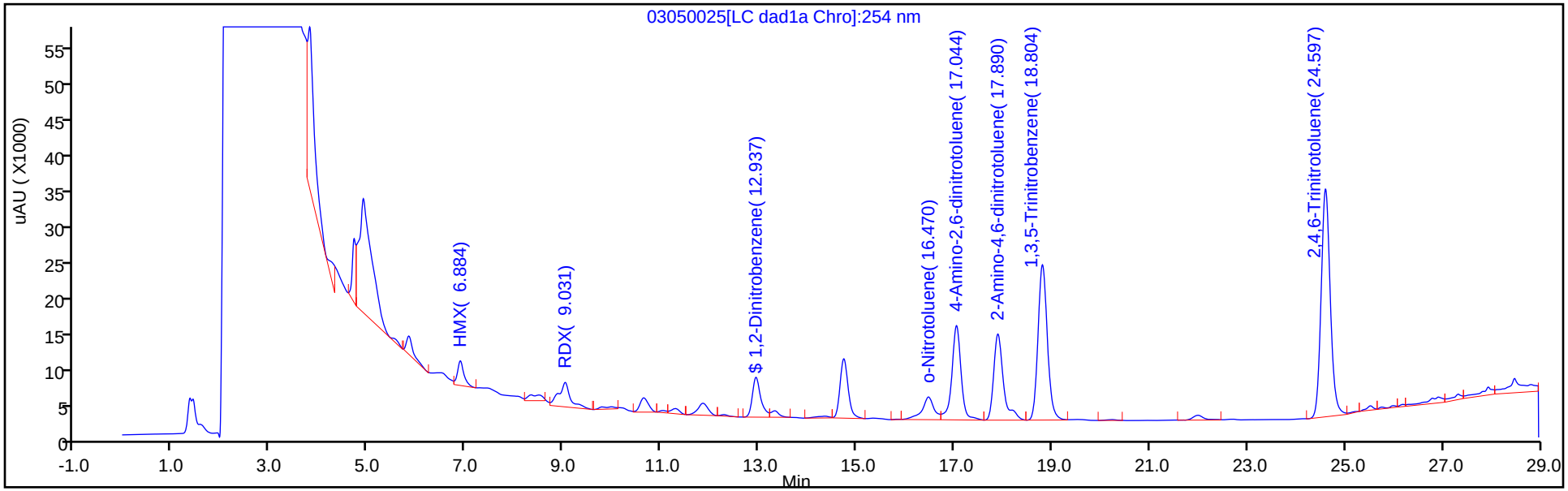
Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
6 HMX	1	6.884	6.896	-0.012	32340	0.1760	
7 MNX	1		7.707			ND	
8 RDX	1	9.031	9.050	-0.019	58100	0.2646	
9 Nitrobenzene	1		12.049			ND	
$ 10 1,2-Dinitrobenzene	1	12.937	12.949	-0.012	68056	0.2377	
12 1,3-Dinitrobenzene	1		15.476			ND	
14 o-Nitrotoluene	1	16.470	16.503	-0.033	54992	0.2348	
15 p-Nitrotoluene	1		16.769			ND	
16 4-Amino-2,6-dinitrotoluene	1	17.044	17.063	-0.019	176084	0.5437	
17 m-Nitrotoluene	1		17.709			ND	
18 2-Amino-4,6-dinitrotoluene	1	17.890	17.909	-0.019	169453	0.3453	
19 1,3,5-Trinitrobenzene	1	18.804	18.823	-0.019	293356	0.6295	
20 2,6-Dinitrotoluene	1		19.763			ND	
21 2,4-Dinitrotoluene	1		20.229			ND	
22 Tetryl	1		23.476			ND	
23 2,4,6-Trinitrotoluene	1	24.597	24.623	-0.026	419851	1.04	

Report Date: 06-Mar-2020 12:51:00 Chrom Revision: 2.3 19-Feb-2020 16:45:46

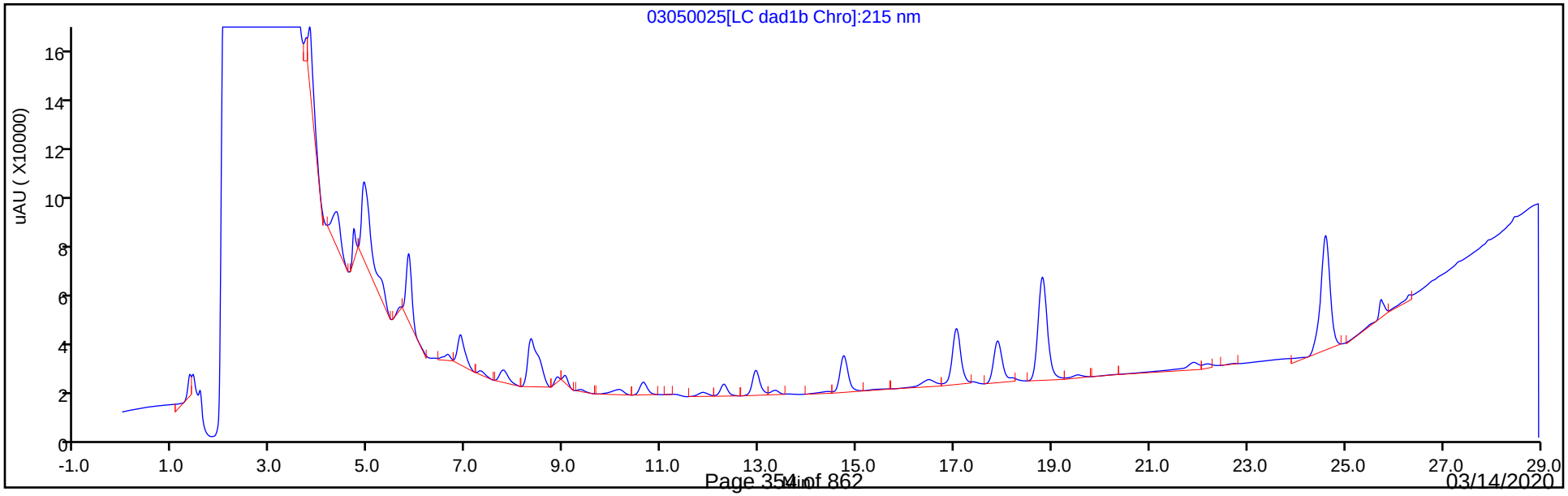
Eurofins TestAmerica, Denver

Data File:	\\chromna\denver\chromdata\g2_luna\20200305-89813.b\03050025.d				
Injection Date:	06-Mar-2020 00:05:30	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	CB
Lims ID:	280-134141-A-2-A	Lab Sample ID:	280-134141-2	Worklist Smp#:	91
Client ID:	EW7-PM27A-2-25				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	25
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:	\\chromna\Denver\ChromData\G2_LUNA\20200305-89813.b\03050025.D				
Lims ID:	280-134141-A-2-A				
Client ID:	EW7-PM27A-2-25				
Sample Type:	Client				
Inject. Date:	06-Mar-2020 00:05:30	ALS Bottle#:	25	Worklist Smp#:	91
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-134141-A-2-A				
Misc. Info.:	280-0089813-091				
Operator ID:	CB	Instrument ID:	CHHPLC_G2_LUNA		
Method:	\\chromna\Denver\ChromData\G2_LUNA\20200305-89813.b\G2_8330_Luna.m				
Limit Group:	GCSV - 8330				
Last Update:	06-Mar-2020 12:50:50	Calib Date:	04-Mar-2020 03:21:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\G2_LUNA\20200303-89749.b\03030023.D				
Column 1 :	Luna-Phenyl hexyl (4.60 mm)		Det: LC DAD1A, 254 nm		
Process Host:	CTX0308				

First Level Reviewer: beckerc Date: 06-Mar-2020 12:42:37

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.2377	118.86

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-134141-1
SDG No.:
Client Sample ID: EW7-PM24A-2-25
Lab Sample ID: 280-134141-3
Matrix: Water
Lab File ID: 03040049.D
Analysis Method: 8330A
Date Collected: 02/27/2020 09:40
Extraction Method: 3535
Date Extracted: 03/02/2020 13:40
Sample wt/vol: 471.3(mL)
Date Analyzed: 03/05/2020 06:10
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.: 487659
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	0.42	U M	1.1	0.42	0.21
99-65-0	1,3-Dinitrobenzene	0.21	U	0.42	0.21	0.094
118-96-7	2,4,6-Trinitrotoluene	0.53		0.42	0.42	0.17
121-14-2	2,4-Dinitrotoluene	0.21	U M	0.42	0.21	0.089
606-20-2	2,6-Dinitrotoluene	0.21	U	0.21	0.21	0.068
35572-78-2	2-Amino-4,6-dinitrotoluene	1.3		0.21	0.13	0.054
88-72-2	2-Nitrotoluene	0.21	U	0.42	0.21	0.091
99-08-1	3-Nitrotoluene	0.42	U	0.42	0.42	0.21
19406-51-0	4-Amino-2,6-dinitrotoluene	1.4		0.21	0.13	0.061
99-99-0	4-Nitrotoluene	0.42	U	1.1	0.42	0.21
479-45-8	Tetryl	0.21	U M	0.25	0.21	0.084

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

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\03040049.D				
Lims ID:	280-134141-A-3-A				
Client ID:	EW7-PM24A-2-25				
Sample Type:	Client				
Inject. Date:	05-Mar-2020 06:10:52	ALS Bottle#:	49	Worklist Smp#:	49
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-134141-A-3-A				
Misc. Info.:	280-0089779-049				
Operator ID:	CB	Instrument ID:	CHHPLC_X3		
Method:	\\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	06-Mar-2020 10:25:41	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:	06-Mar-2020 09:07:26		

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/mL	Flags
3 HMX	1	6.692	6.683	0.009	21112	0.2367	M
6 MNX	1	7.265	7.361	-0.096	48630	0.3067	M
7 RDX	1	7.732	7.750	-0.018	34252	0.2906	M
$ 9 1,2-Dinitrobenzene	1	8.718	8.710	0.008	34783	0.2379	M
10 1,3,5-Trinitrobenzene	1		8.883			ND	U
11 1,3-Dinitrobenzene	1		9.529			ND	
12 Nitrobenzene	1	9.911	9.916	-0.005	4379	0.0206	
14 Tetryl	1		10.216			ND	U
16 2,4,6-Trinitrotoluene	1	11.198	11.183	0.015	11098	0.0502	
17 4-Amino-2,6-dinitrotoluene	1	11.358	11.336	0.022	22467	0.1295	
18 2-Amino-4,6-dinitrotoluene	1	11.651	11.623	0.028	26249	0.1207	
19 2,6-Dinitrotoluene	1		11.789			ND	
20 2,4-Dinitrotoluene	1		11.983			ND	U
21 o-Nitrotoluene	1		12.829			ND	
22 p-Nitrotoluene	1		13.269			ND	
23 m-Nitrotoluene	1		13.863			ND	

QC Flag Legend

Review Flags

M - Manually Integrated

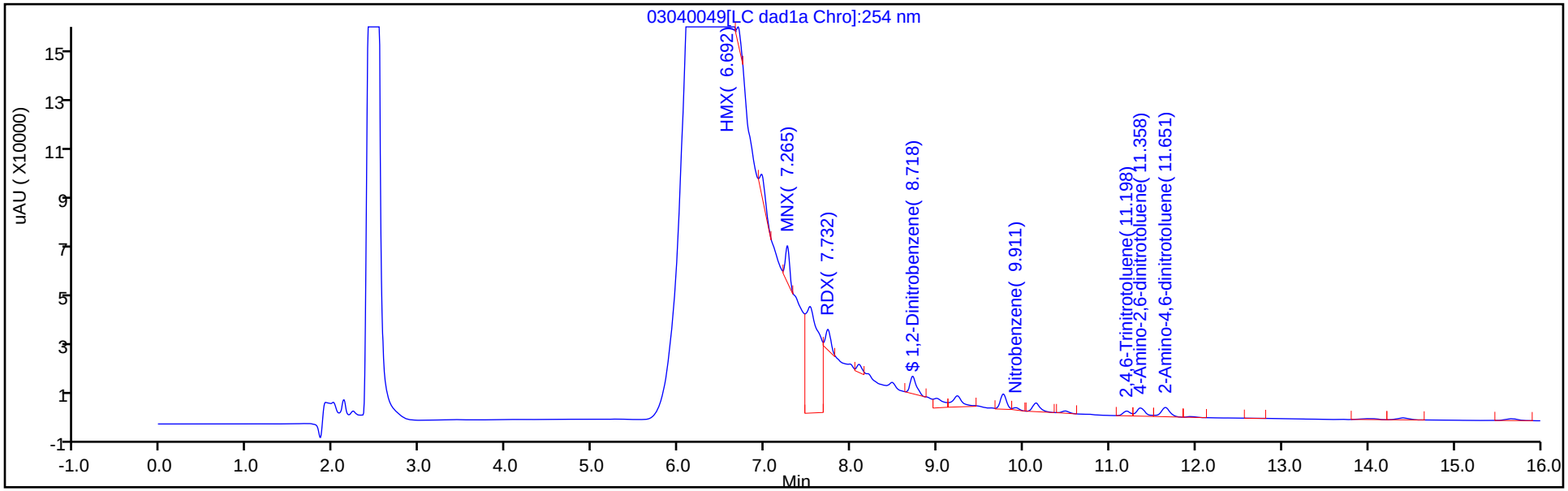
U - Marked Undetected

Report Date: 06-Mar-2020 10:25:44 Chrom Revision: 2.3 19-Feb-2020 16:45:46

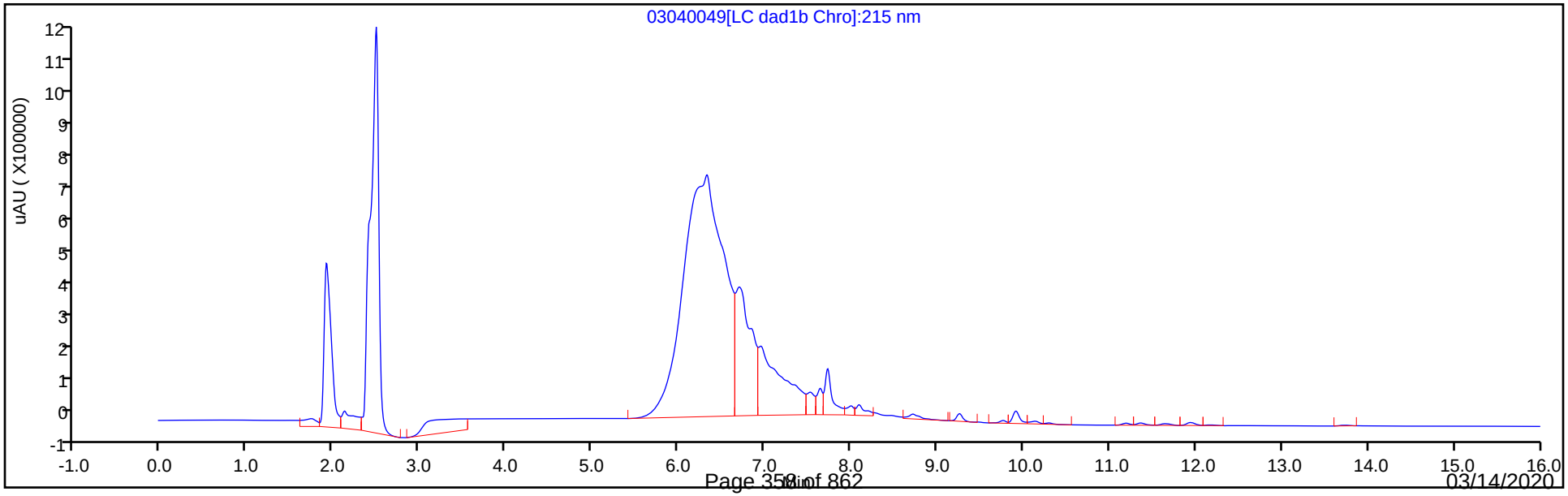
Eurofins TestAmerica, Denver

Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040049.d				
Injection Date:	05-Mar-2020 06:10:52	Instrument ID:	CHHPLC_X3	Operator ID:	CB
Lims ID:	280-134141-A-3-A	Lab Sample ID:	280-134141-3	Worklist Smp#:	49
Client ID:	EW7-PM24A-2-25				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	49
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:	\\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\03040049.D				
Lims ID:	280-134141-A-3-A				
Client ID:	EW7-PM24A-2-25				
Sample Type:	Client				
Inject. Date:	05-Mar-2020 06:10:52	ALS Bottle#:	49	Worklist Smp#:	49
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-134141-A-3-A				
Misc. Info.:	280-0089779-049				
Operator ID:	CB	Instrument ID:	CHHPLC_X3		
Method:	\\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	06-Mar-2020 10:25:41	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: 06-Mar-2020 09:07:26

Compound	Amount Added	Amount Recovered	% Rec.
$ 9 1,2-Dinitrobenzene	0.2000	0.2379	118.94

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

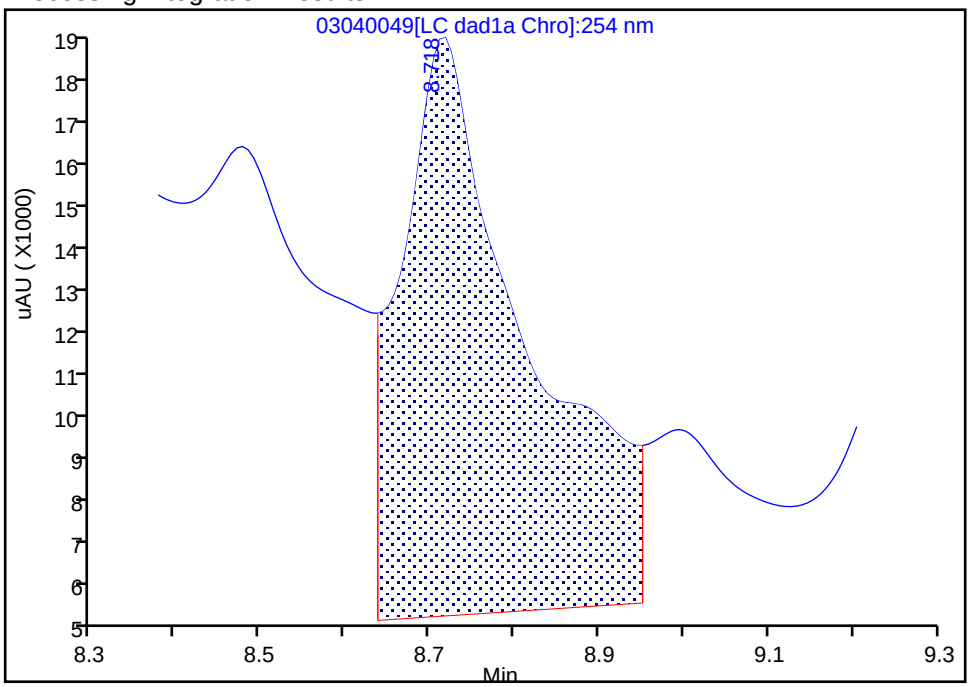
Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040049.d				
Injection Date:	05-Mar-2020 06:10:52	Instrument ID:	CHHPLC_X3		
Lims ID:	280-134141-A-3-A	Lab Sample ID:	280-134141-3		
Client ID:	EW7-PM24A-2-25				
Operator ID:	CB	ALS Bottle#:	49	Worklist Smp#:	49
Injection Vol:	100.0 ul	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

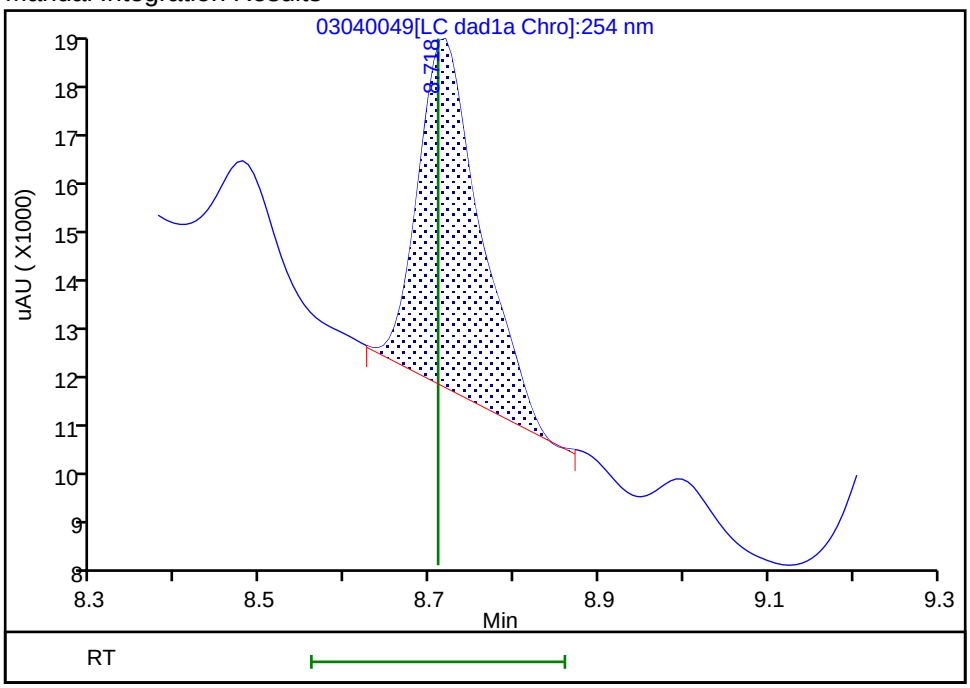
Processing Integration Results

RT: 8.72
Area: 130541
Amount: 0.892802
Amount Units: ug/mL



Manual Integration Results

RT: 8.72
Area: 34783
Amount: 0.237889
Amount Units: ug/mL



Reviewer: beckerc, 06-Mar-2020 09:08:47
Audit Action: Manually Integrated Audit Reason: Baseline

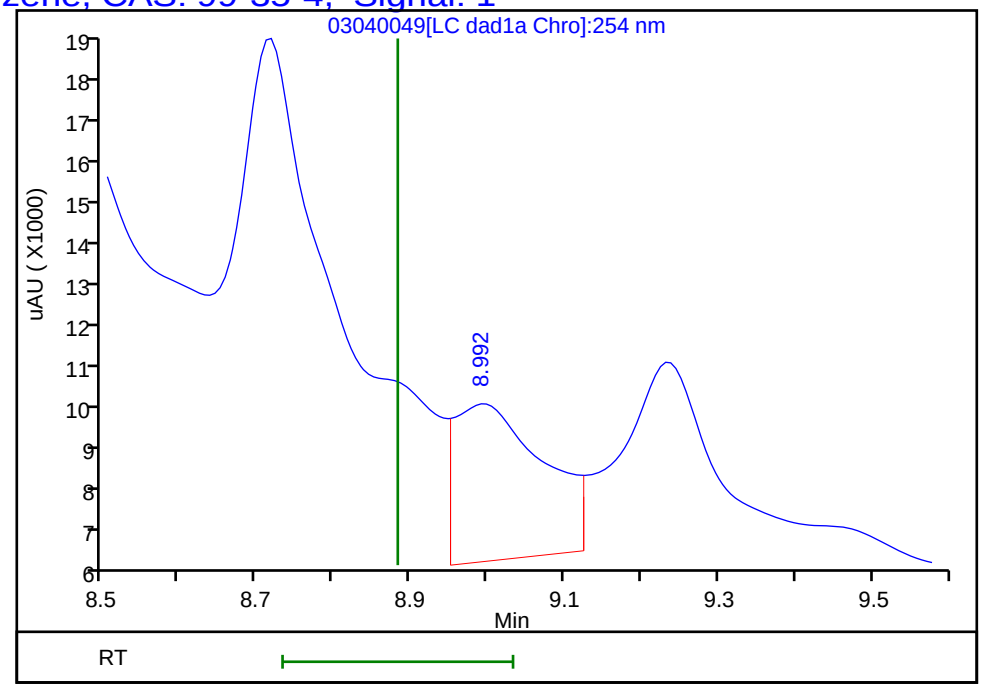
User Disabled Compound Report

Eurofins TestAmerica, Denver

Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040049.d				
Injection Date:	05-Mar-2020 06:10:52	Instrument ID:	CHHPLC_X3		
Lims ID:	280-134141-A-3-A	Lab Sample ID:	280-134141-3		
Client ID:	EW7-PM24A-2-25				
Operator ID:	CB	ALS Bottle#:	49	Worklist Smp#:	49
Injection Vol:	100.0 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

RT: 8.99
Response: 29225
Amount: 0.120041



Reviewer: beckerc, 06-Mar-2020 09:09:28
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

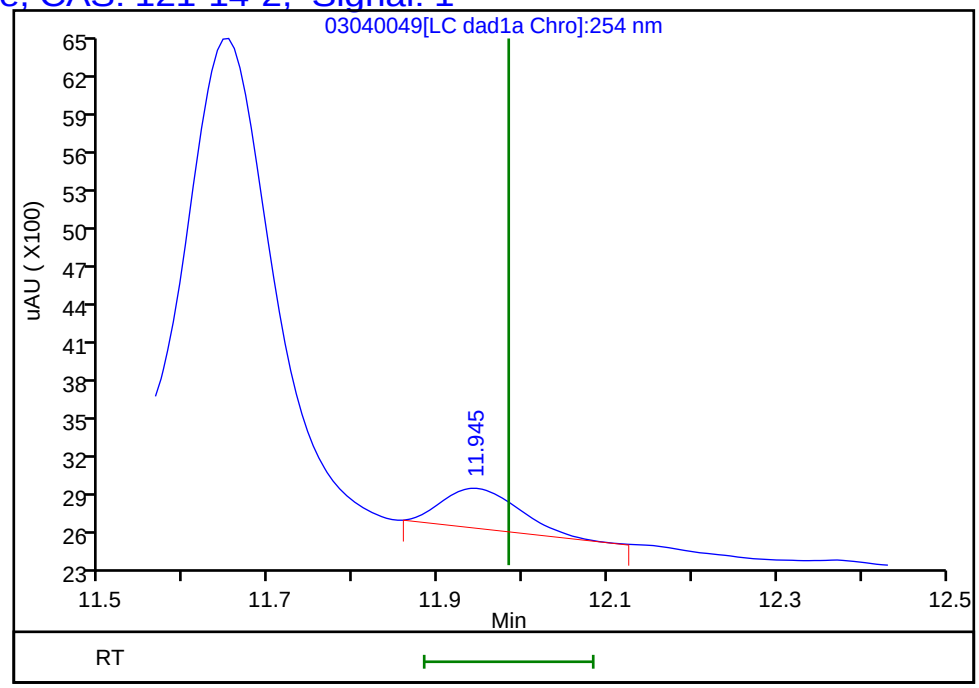
User Disabled Compound Report

Eurofins TestAmerica, Denver

Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040049.d				
Injection Date:	05-Mar-2020 06:10:52	Instrument ID:	CHHPLC_X3		
Lims ID:	280-134141-A-3-A	Lab Sample ID:	280-134141-3		
Client ID:	EW7-PM24A-2-25				
Operator ID:	CB	ALS Bottle#:	49	Worklist Smp#:	49
Injection Vol:	100.0 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: 11.94
Response: 2000
Amount: 0.006227



Reviewer: beckerc, 06-Mar-2020 09:09:28
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

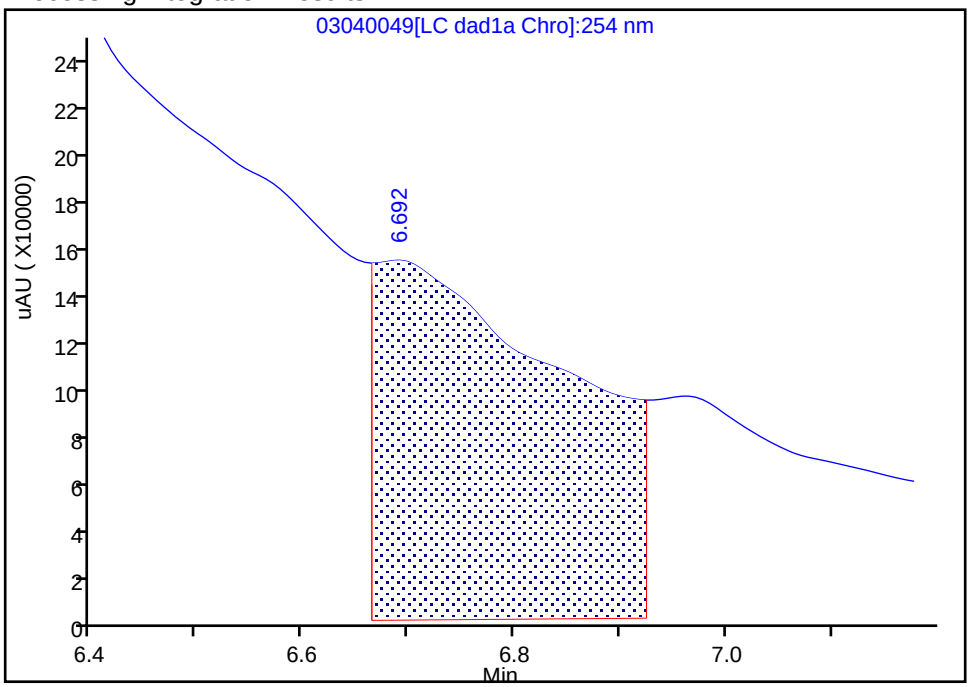
Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040049.d				
Injection Date:	05-Mar-2020 06:10:52	Instrument ID:	CHHPLC_X3		
Lims ID:	280-134141-A-3-A	Lab Sample ID:	280-134141-3		
Client ID:	EW7-PM24A-2-25				
Operator ID:	CB	ALS Bottle#:	49	Worklist Smp#:	49
Injection Vol:	100.0 ul	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

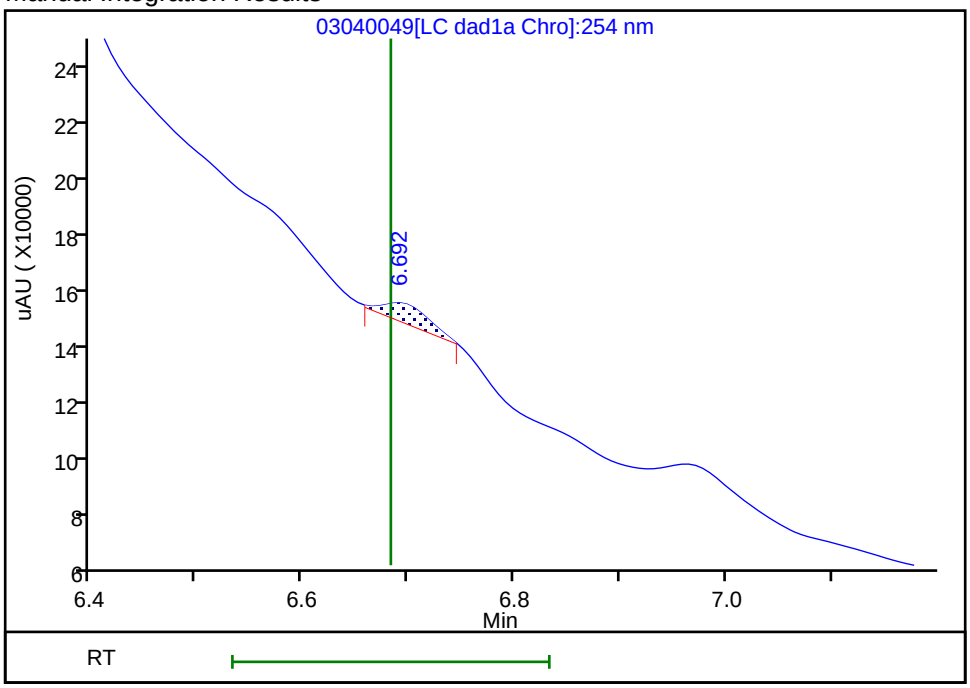
Processing Integration Results

RT: 6.69
Area: 1880633
Amount: 21.088636
Amount Units: ug/mL



Manual Integration Results

RT: 6.69
Area: 21112
Amount: 0.236741
Amount Units: ug/mL



Reviewer: beckerc, 06-Mar-2020 09:06:56

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

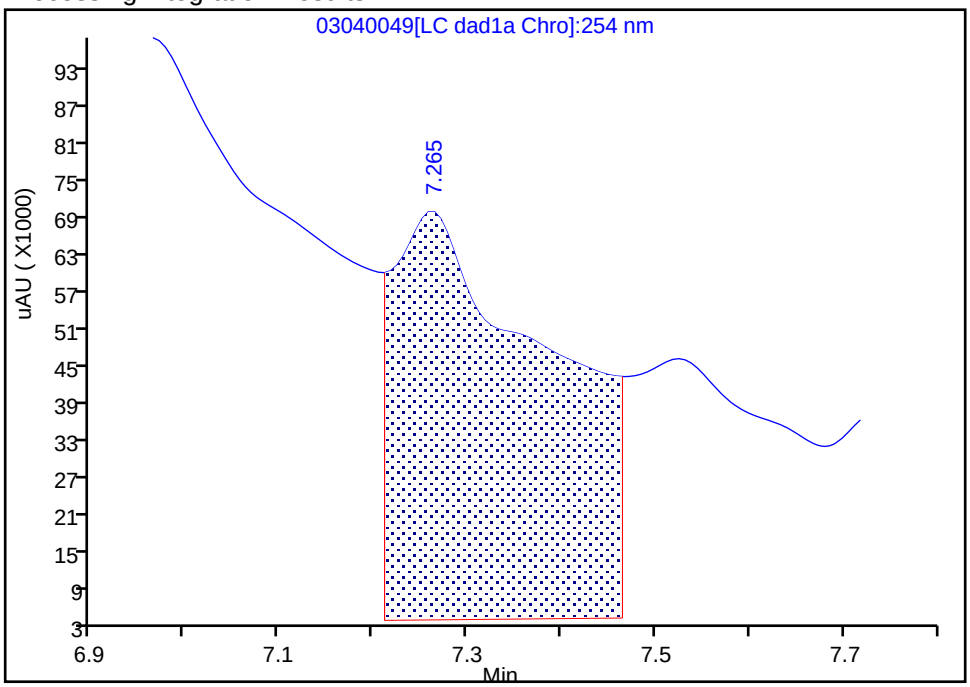
Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040049.d				
Injection Date:	05-Mar-2020 06:10:52	Instrument ID:	CHHPLC_X3		
Lims ID:	280-134141-A-3-A	Lab Sample ID:	280-134141-3		
Client ID:	EW7-PM24A-2-25				
Operator ID:	CB	ALS Bottle#:	49	Worklist Smp#:	49
Injection Vol:	100.0 ul	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

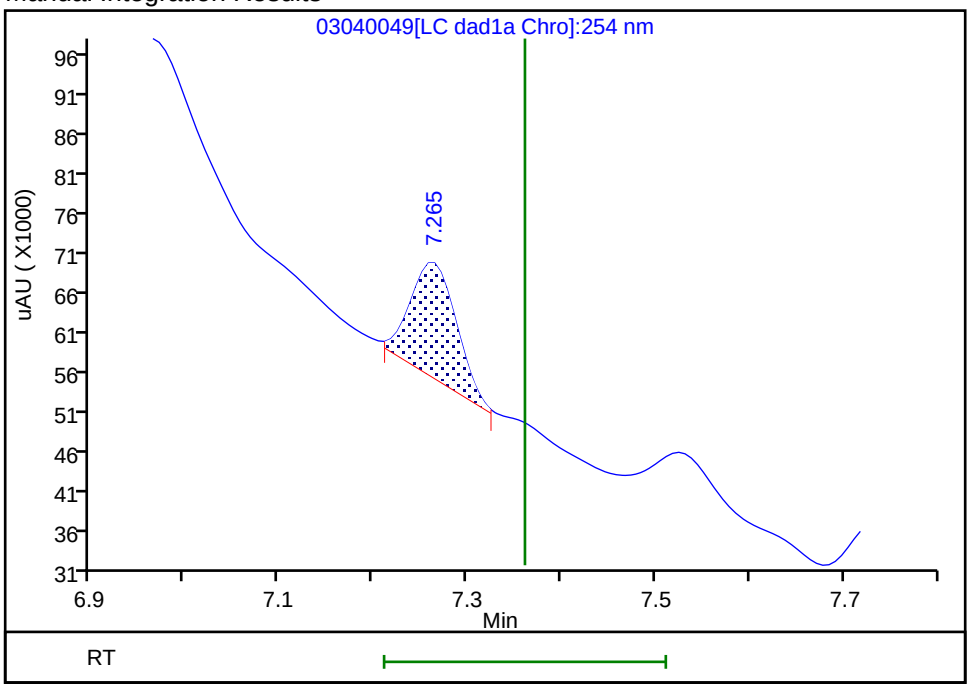
Processing Integration Results

RT: 7.26
Area: 751054
Amount: 4.737190
Amount Units: ug/mL



Manual Integration Results

RT: 7.26
Area: 48630
Amount: 0.306728
Amount Units: ug/mL



Reviewer: beckerc, 06-Mar-2020 09:07:04
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

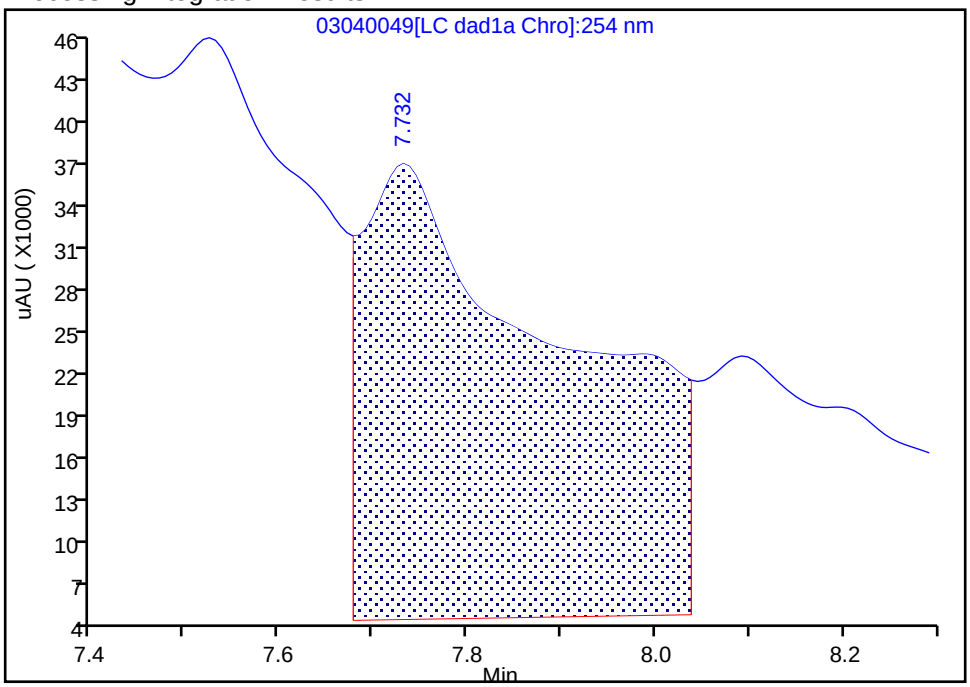
Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040049.d				
Injection Date:	05-Mar-2020 06:10:52	Instrument ID:	CHHPLC_X3		
Lims ID:	280-134141-A-3-A	Lab Sample ID:	280-134141-3		
Client ID:	EW7-PM24A-2-25				
Operator ID:	CB	ALS Bottle#:	49	Worklist Smp#:	49
Injection Vol:	100.0 ul	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

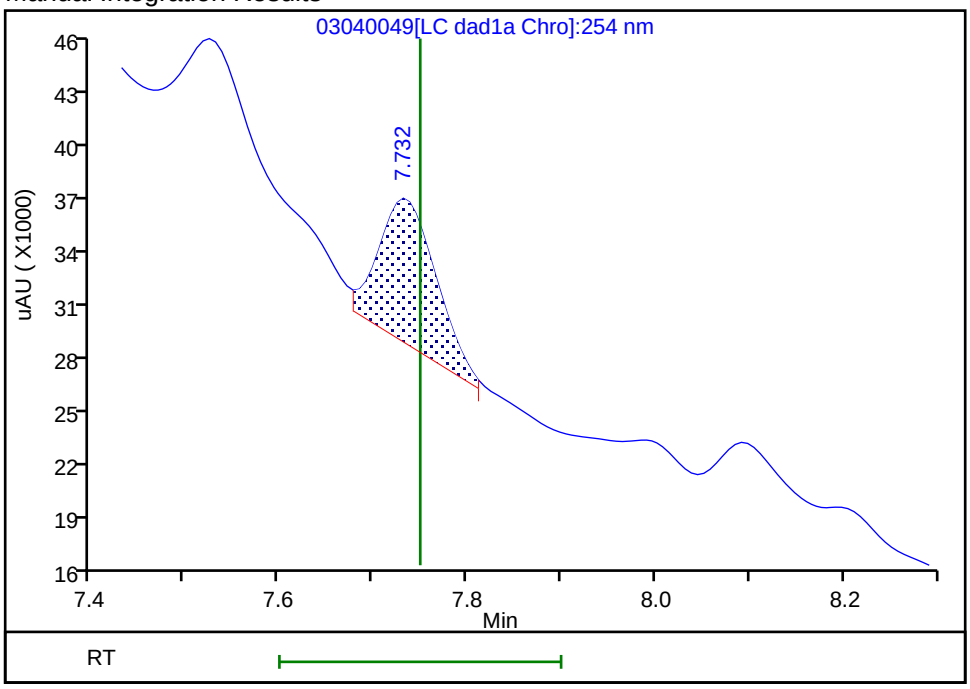
Processing Integration Results

RT: 7.73
Area: 483796
Amount: 4.104529
Amount Units: ug/mL



Manual Integration Results

RT: 7.73
Area: 34252
Amount: 0.290594
Amount Units: ug/mL



Reviewer: beckerc, 06-Mar-2020 09:07:08
Audit Action: Manually Integrated Audit Reason: Baseline

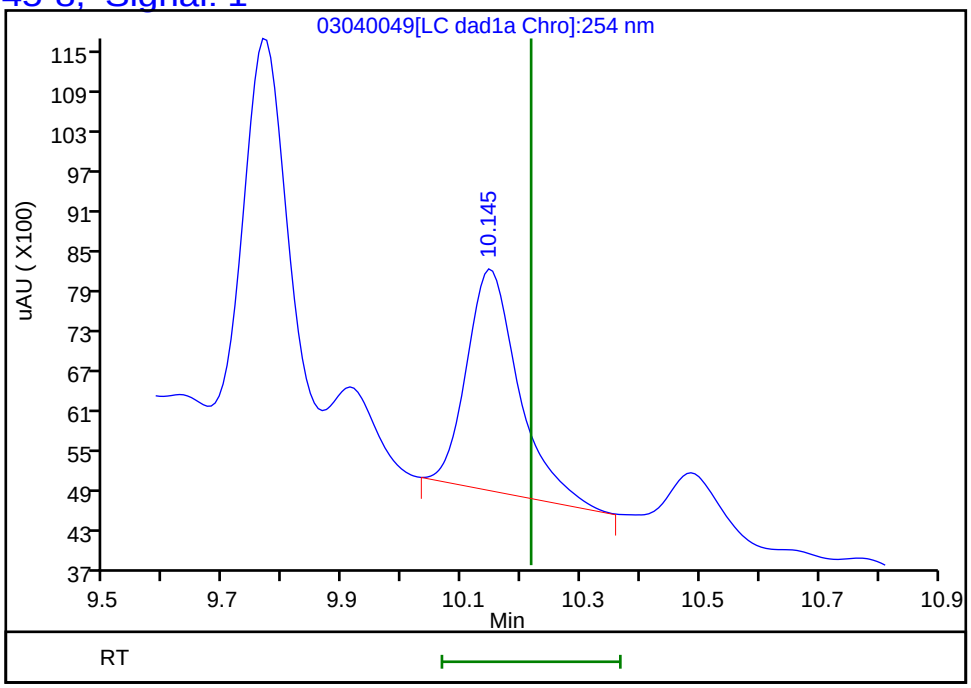
User Disabled Compound Report

Eurofins TestAmerica, Denver

Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040049.d				
Injection Date:	05-Mar-2020 06:10:52	Instrument ID:	CHHPLC_X3		
Lims ID:	280-134141-A-3-A	Lab Sample ID:	280-134141-3		
Client ID:	EW7-PM24A-2-25				
Operator ID:	CB	ALS Bottle#:	49	Worklist Smp#:	49
Injection Vol:	100.0 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: 10.14
Response: 20531
Amount: 0.105901



Reviewer: beckerc, 06-Mar-2020 09:09:28
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.: 280-134141-1
SDG No.:
Client Sample ID: EW7-PM24A-2-25
Lab Sample ID: 280-134141-3
Matrix: Water
Lab File ID: 03050026.D
Analysis Method: 8330A
Date Collected: 02/27/2020 09:40
Extraction Method: 3535
Date Extracted: 03/02/2020 13:40
Sample wt/vol: 471.3(mL)
Date Analyzed: 03/06/2020 00:40
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.: 487814
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
2691-41-0	HMX	0.68	M J1	0.42	0.21	0.093
5755-27-1	MNX	0.42	U	2.1	0.42	0.16
98-95-3	Nitrobenzene	0.21	U	0.42	0.21	0.097
121-82-4	RDX	0.19	J J1	0.42	0.42	0.17

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	103		83-119

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\G2_LUNA\20200305-89813.b\03050026.D
Lims ID: 2O0-134141-A-3-A
Client ID:
Sample Type: Client
Inject. Date: 06-Mar-2020 00:40:27 ALS Bottle#: 26 Worklist Smp#: 92
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 2O0-134141-A-3-A
Misc. Info.: 280-0089813-092
Operator ID: CB Instrument ID: CHHPLC_G2_LUNA

Method: \\chromna\Denver\ChromData\G2_LUNA\20200305-89813.b\G2_8330_Luna.m
Limit Group: GCSV - 8330
Last Update: 06-Mar-2020 12:50:50 Calib Date: 04-Mar-2020 03:21:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\G2_LUNA\20200303-89749.b\03030023.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC DAD1A, 254 nm
Process Host: CTX0308

First Level Reviewer: beckerc Date: 06-Mar-2020 12:43:56

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 2,6-diamino-4-nitrotoluene	1		4.343			ND	
2 2,4-diamino-6-nitrotoluene	1	4.808	4.883	-0.075	336046	1.16	E
3 TNX	1		5.400			ND	
5 2,4,6-Trinitrophenol	1		5.470			ND	
4 DNX	1		6.200			ND	
6 HMX	1	6.881	6.896	-0.015	12923	0.0638	M
7 MNX	1		7.707			ND	
8 RDX	1	9.035	9.050	-0.015	6504	0.0178	
9 Nitrobenzene	1		12.049			ND	
$ 10 1,2-Dinitrobenzene	1	12.941	12.949	-0.008	59623	0.2066	
11 3,5-Dinitroaniline	1	14.748	14.763	-0.015	37011	0.0673	
12 1,3-Dinitrobenzene	1		15.476			ND	
13 Nitroglycerin	2		15.716			ND	
14 o-Nitrotoluene	1	16.468	16.503	-0.035	9888	0.0345	
15 p-Nitrotoluene	1		16.769			ND	
16 4-Amino-2,6-dinitrotoluene	1	17.048	17.063	-0.015	51989	0.1540	
17 m-Nitrotoluene	1		17.709			ND	
18 2-Amino-4,6-dinitrotoluene	1	17.901	17.909	-0.008	57381	0.1139	
19 1,3,5-Trinitrobenzene	1		18.823			ND	
20 2,6-Dinitrotoluene	1		19.763			ND	
21 2,4-Dinitrotoluene	1		20.229			ND	
22 Tetryl	1		23.476			ND	
23 2,4,6-Trinitrotoluene	1	24.615	24.623	-0.008	23182	0.0487	
24 PETN	2		25.216			ND	
25 Ammonium Picrate	1		0.000			ND	

QC Flag Legend

Processing Flags

E - Exceeded Maximum Amount

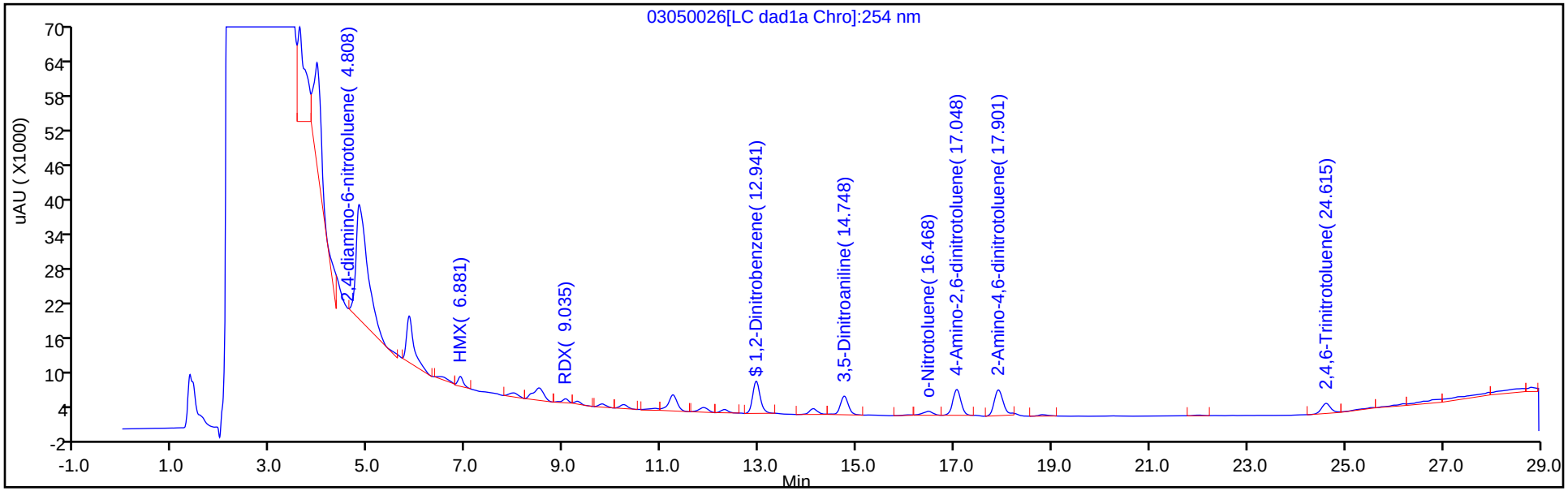
Review Flags
M - Manually Integrated

Report Date: 06-Mar-2020 12:51:02 Chrom Revision: 2.3 19-Feb-2020 16:45:46

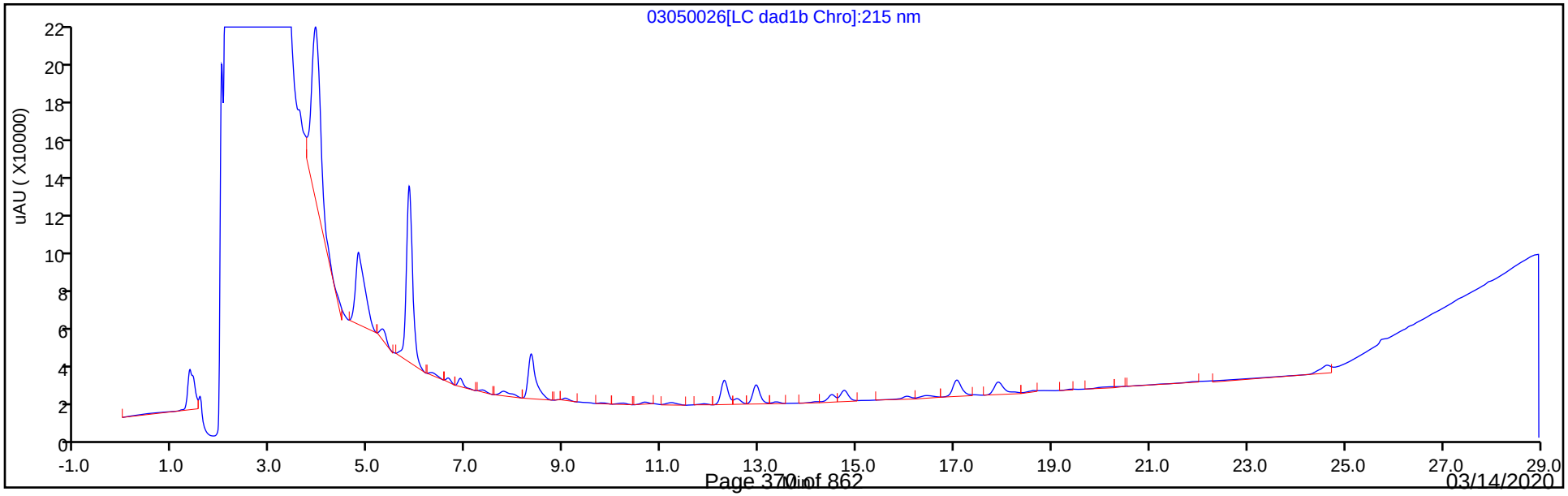
Eurofins TestAmerica, Denver

Data File:	\\chromna\denver\chromdata\g2_luna\20200305-89813.b\03050026.d				
Injection Date:	06-Mar-2020 00:40:27	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	CB
Lims ID:	2O0-134141-A-3-A	Lab Sample ID:	Client 280-487814/92-A	Worklist Smp#:	92
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



Eurofins TestAmerica, Denver
Recovery Report

Data File:	\\chromna\Denver\ChromData\G2_LUNA\20200305-89813.b\03050026.D				
Lims ID:	2O0-134141-A-3-A				
Client ID:					
Sample Type:	Client				
Inject. Date:	06-Mar-2020 00:40:27	ALS Bottle#:	26	Worklist Smp#:	92
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	2O0-134141-A-3-A				
Misc. Info.:	280-0089813-092				
Operator ID:	CB	Instrument ID:	CHHPLC_G2_LUNA		
Method:	\\chromna\Denver\ChromData\G2_LUNA\20200305-89813.b\G2_8330_Luna.m				
Limit Group:	GCSV - 8330				
Last Update:	06-Mar-2020 12:50:50	Calib Date:	04-Mar-2020 03:21:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\G2_LUNA\20200303-89749.b\03030023.D				
Column 1 :	Luna-Phenyl hexyl (4.60 mm)		Det: LC DAD1A, 254 nm		
Process Host:	CTX0308				

First Level Reviewer: beckerc Date: 06-Mar-2020 12:43:56

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0	0.2066	0.00

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

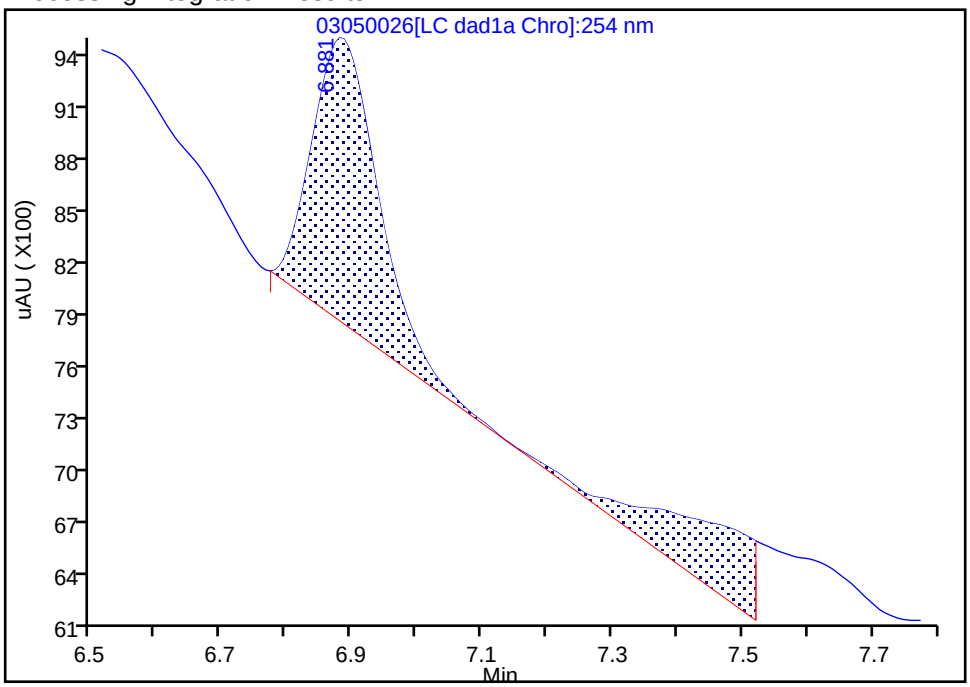
Data File:	\\chromna\denver\chromdata\g2_luna\20200305-89813.b\03050026.d				
Injection Date:	06-Mar-2020 00:40:27	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	2O0-134141-A-3-A	Lab Sample ID:	Client 280-487814/92-A		
Client ID:					
Operator ID:	CB	ALS Bottle#:	26	Worklist Smp#:	92
Injection Vol:	100.0 ul	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

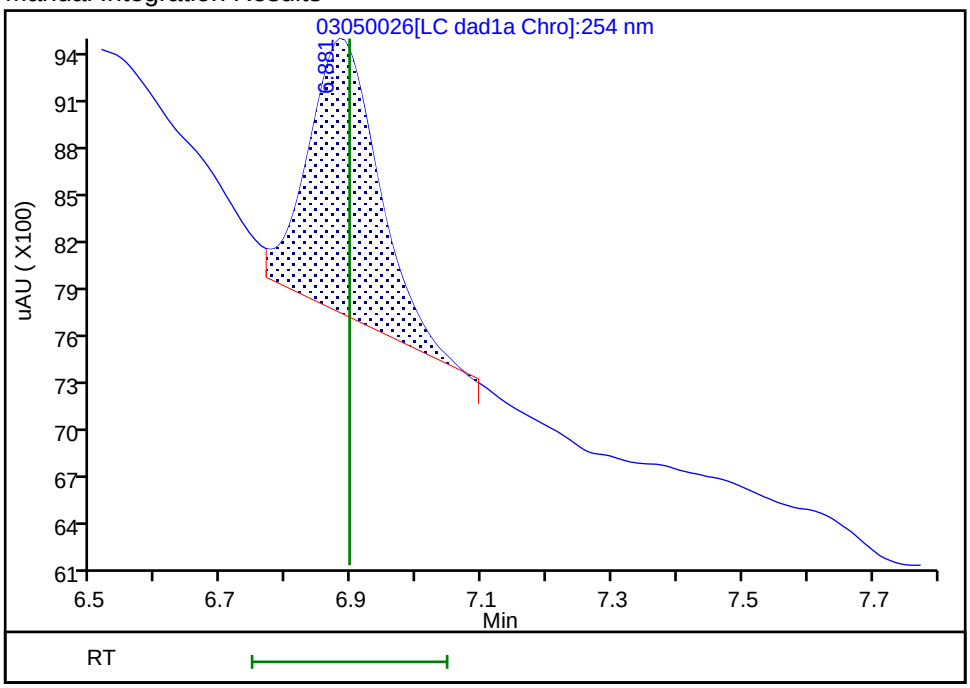
Processing Integration Results

RT: 6.88
Area: 15530
Amount: 0.078850
Amount Units: ug/ml



Manual Integration Results

RT: 6.88
Area: 12923
Amount: 0.063782
Amount Units: ug/ml



Reviewer: beckerc, 06-Mar-2020 12:43:07
Audit Action: Manually Integrated Audit Reason: Baseline

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-134141-1
SDG No.:
Client Sample ID: EW7-PM25A-2-25
Lab Sample ID: 280-134141-4
Matrix: Water
Lab File ID: 03040050.D
Analysis Method: 8330A
Date Collected: 02/27/2020 11:35
Extraction Method: 3535
Date Extracted: 03/02/2020 13:40
Sample wt/vol: 469.5(mL)
Date Analyzed: 03/05/2020 06:33
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.: 487659
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	0.43	U M	1.1	0.43	0.21
99-65-0	1,3-Dinitrobenzene	0.21	U M	0.43	0.21	0.094
118-96-7	2,4,6-Trinitrotoluene	2.3	M	0.43	0.43	0.17
121-14-2	2,4-Dinitrotoluene	0.21	U M	0.43	0.21	0.089
606-20-2	2,6-Dinitrotoluene	0.21	U	0.21	0.21	0.069
35572-78-2	2-Amino-4,6-dinitrotoluene	3.0	M	0.21	0.13	0.054
88-72-2	2-Nitrotoluene	0.21	U	0.43	0.21	0.091
99-08-1	3-Nitrotoluene	0.43	U	0.43	0.43	0.21
19406-51-0	4-Amino-2,6-dinitrotoluene	3.3	M	0.21	0.13	0.061
99-99-0	4-Nitrotoluene	0.43	U	1.1	0.43	0.21
479-45-8	Tetryl	0.21	U M	0.26	0.21	0.084

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:	\\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\03040050.D				
Lims ID:	280-134141-A-4-A				
Client ID:	EW7-PM25A-2-25				
Sample Type:	Client				
Inject. Date:	05-Mar-2020 06:33:48	ALS Bottle#:	50	Worklist Smp#:	50
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-134141-A-4-A				
Misc. Info.:	280-0089779-050				
Operator ID:	CB	Instrument ID:	CHHPLC_X3		
Method:	\\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	06-Mar-2020 10:25:41	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:	06-Mar-2020 09:08:20		

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/mL	Flags
3 HMX	1	6.694	6.683	0.011	74952	0.8405	M
6 MNX	1	7.354	7.361	-0.007	30344	0.1914	
7 RDX	1	7.727	7.750	-0.023	113220	0.9606	
$ 9 1,2-Dinitrobenzene	1	8.707	8.710	-0.003	27337	0.1870	M
10 1,3,5-Trinitrobenzene	1		8.883			ND	U
11 1,3-Dinitrobenzene	1		9.529			ND	U
12 Nitrobenzene	1	9.940	9.916	0.024	40596	0.1909	
14 Tetryl	1		10.216			ND	U
16 2,4,6-Trinitrotoluene	1	11.193	11.183	0.010	46770	0.2117	M
17 4-Amino-2,6-dinitrotoluene	1	11.353	11.336	0.017	54291	0.3130	M
18 2-Amino-4,6-dinitrotoluene	1	11.640	11.623	0.017	62145	0.2857	M
19 2,6-Dinitrotoluene	1		11.789			ND	
20 2,4-Dinitrotoluene	1		11.983			ND	U
21 o-Nitrotoluene	1		12.829			ND	
22 p-Nitrotoluene	1		13.269			ND	
23 m-Nitrotoluene	1		13.863			ND	

QC Flag Legend

Review Flags

M - Manually Integrated

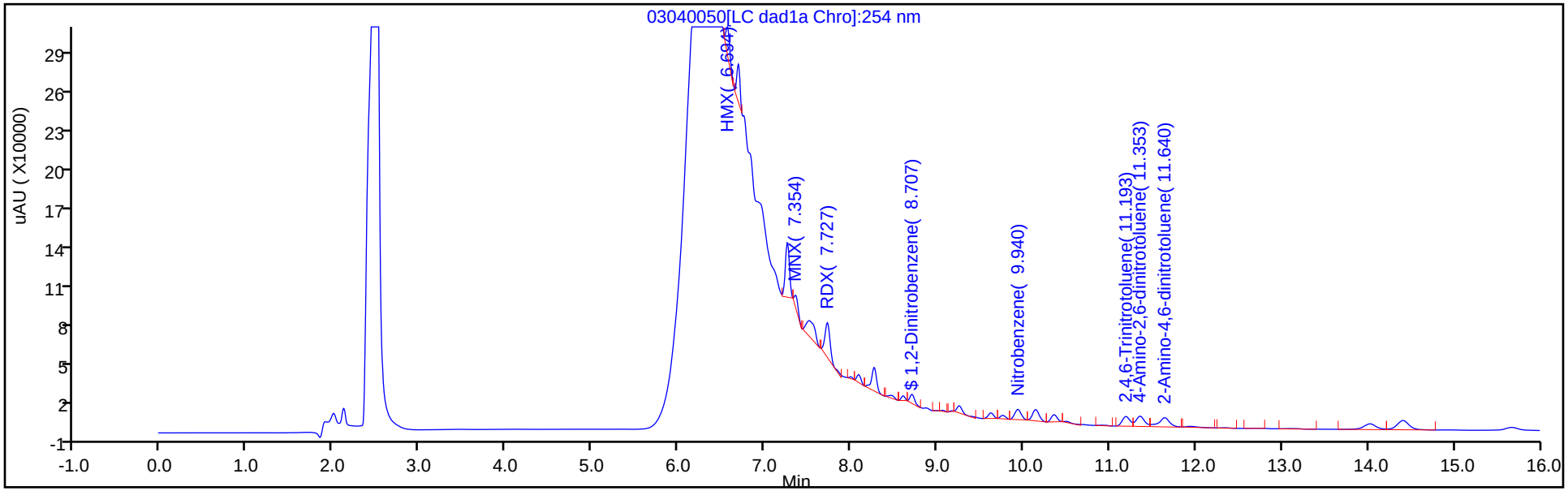
U - Marked Undetected

Report Date: 06-Mar-2020 10:25:45 Chrom Revision: 2.3 19-Feb-2020 16:45:46

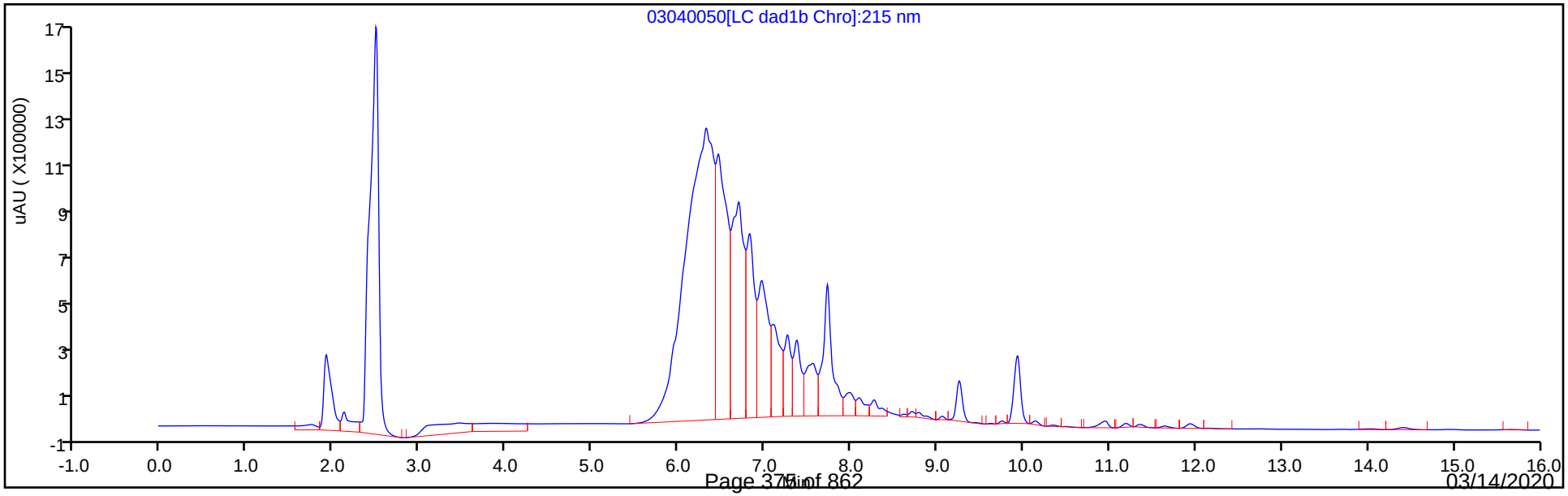
Eurofins TestAmerica, Denver

Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040050.d				
Injection Date:	05-Mar-2020 06:33:48	Instrument ID:	CHHPLC_X3	Operator ID:	CB
Lims ID:	280-134141-A-4-A	Lab Sample ID:	280-134141-4	Worklist Smp#:	50
Client ID:	EW7-PM25A-2-25				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	50
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:	\\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\03040050.D				
Lims ID:	280-134141-A-4-A				
Client ID:	EW7-PM25A-2-25				
Sample Type:	Client				
Inject. Date:	05-Mar-2020 06:33:48	ALS Bottle#:	50	Worklist Smp#:	50
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-134141-A-4-A				
Misc. Info.:	280-0089779-050				
Operator ID:	CB	Instrument ID:	CHHPLC_X3		
Method:	\\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	06-Mar-2020 10:25:41	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: 06-Mar-2020 09:08:20

Compound	Amount Added	Amount Recovered	% Rec.
$ 9 1,2-Dinitrobenzene	0.2000	0.1870	93.48

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

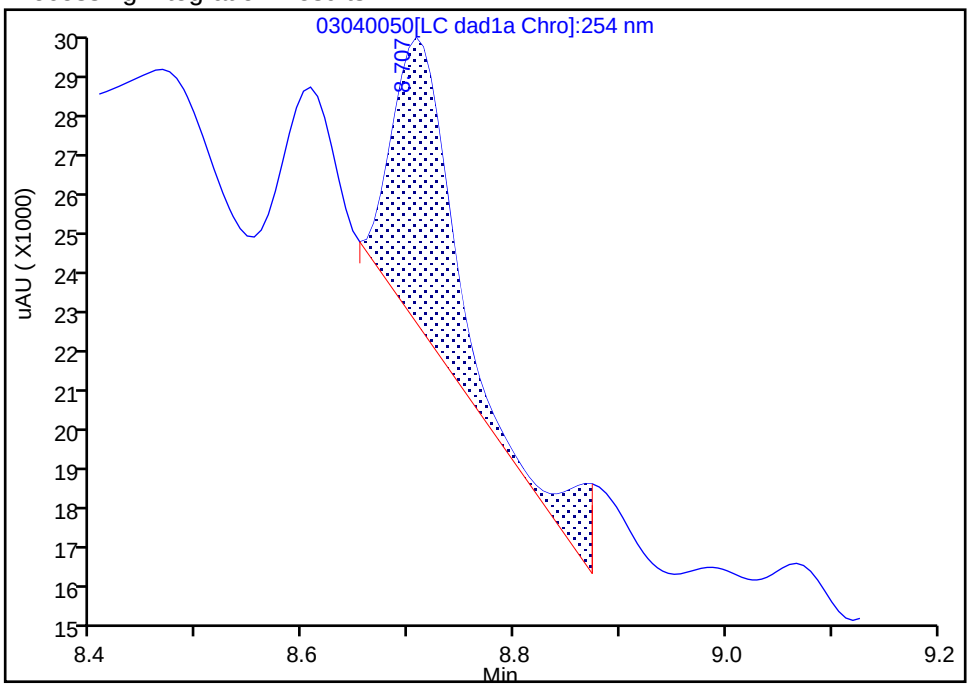
Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040050.d				
Injection Date:	05-Mar-2020 06:33:48	Instrument ID:	CHHPLC_X3		
Lims ID:	280-134141-A-4-A	Lab Sample ID:	280-134141-4		
Client ID:	EW7-PM25A-2-25				
Operator ID:	CB	ALS Bottle#:	50	Worklist Smp#:	50
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

$ 9 1,2-Dinitrobenzene, CAS: 528-29-0

Signal: 1

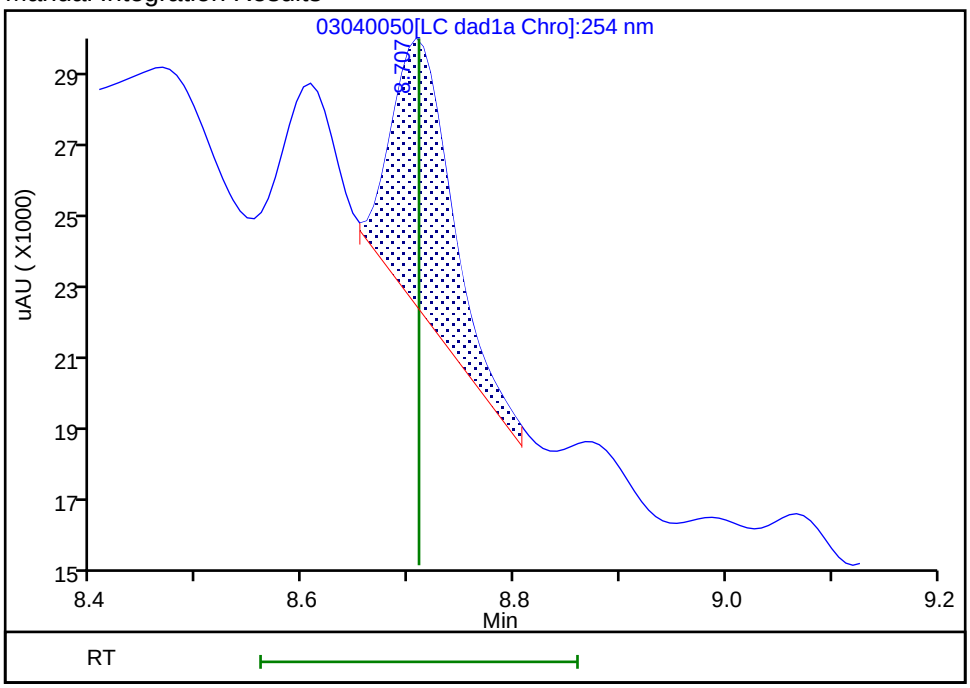
Processing Integration Results

RT: 8.71
Area: 28237
Amount: 0.193120
Amount Units: ug/mL



Manual Integration Results

RT: 8.71
Area: 27337
Amount: 0.186964
Amount Units: ug/mL



Reviewer: beckerc, 06-Mar-2020 09:09:52
Audit Action: Manually Integrated Audit Reason: Baseline

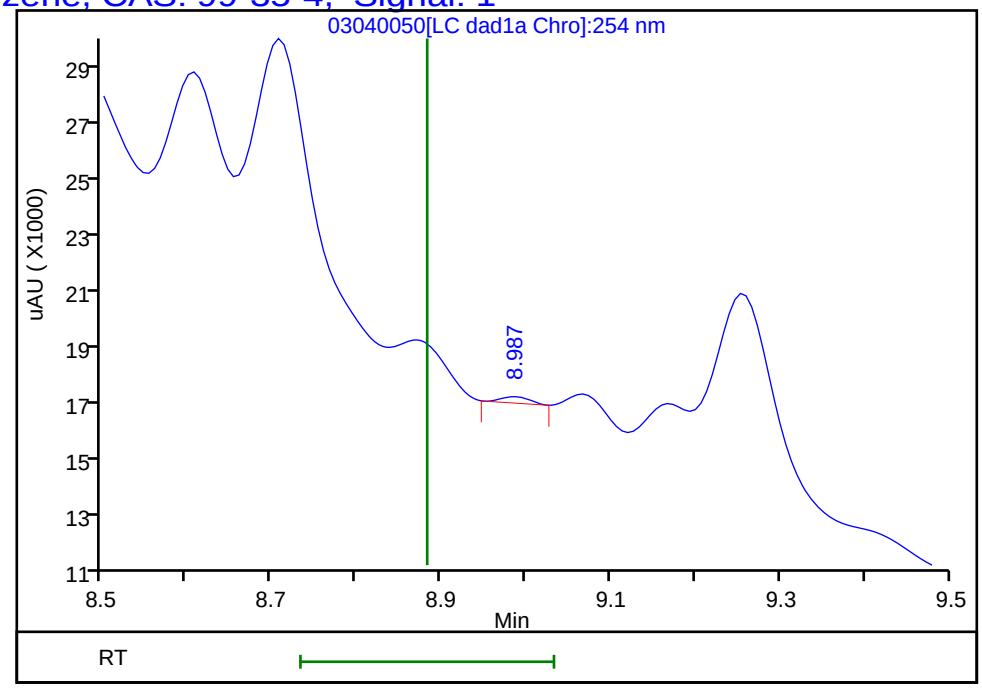
User Disabled Compound Report

Eurofins TestAmerica, Denver

Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040050.d				
Injection Date:	05-Mar-2020 06:33:48	Instrument ID:	CHHPLC_X3		
Lims ID:	280-134141-A-4-A	Lab Sample ID:	280-134141-4		
Client ID:	EW7-PM25A-2-25				
Operator ID:	CB	ALS Bottle#:	50	Worklist Smp#:	50
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

10 1,3,5-Trinitrobenzene, CAS: 99-35-4, Signal: 1

RT: 8.99
Response: 511
Amount: 0.002099



Reviewer: beckerc, 06-Mar-2020 09:12:22
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

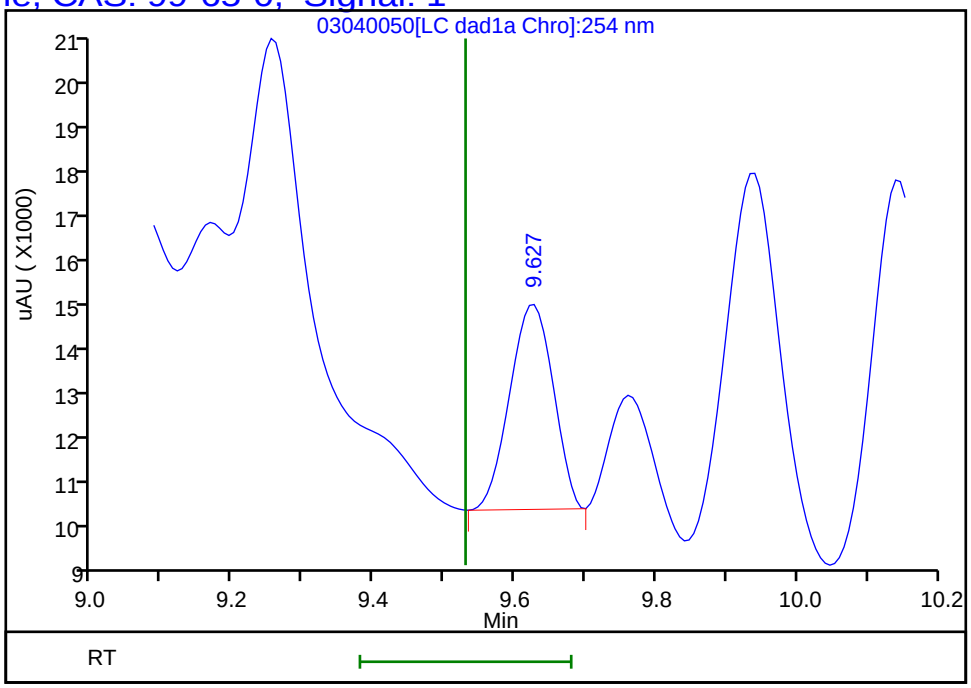
User Disabled Compound Report

Eurofins TestAmerica, Denver

Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040050.d				
Injection Date:	05-Mar-2020 06:33:48	Instrument ID:	CHHPLC_X3		
Lims ID:	280-134141-A-4-A	Lab Sample ID:	280-134141-4		
Client ID:	EW7-PM25A-2-25				
Operator ID:	CB	ALS Bottle#:	50	Worklist Smp#:	50
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

11 1,3-Dinitrobenzene, CAS: 99-65-0, Signal: 1

RT: 9.63
Response: 18048
Amount: 0.055661



Reviewer: beckerc, 06-Mar-2020 09:12:22
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

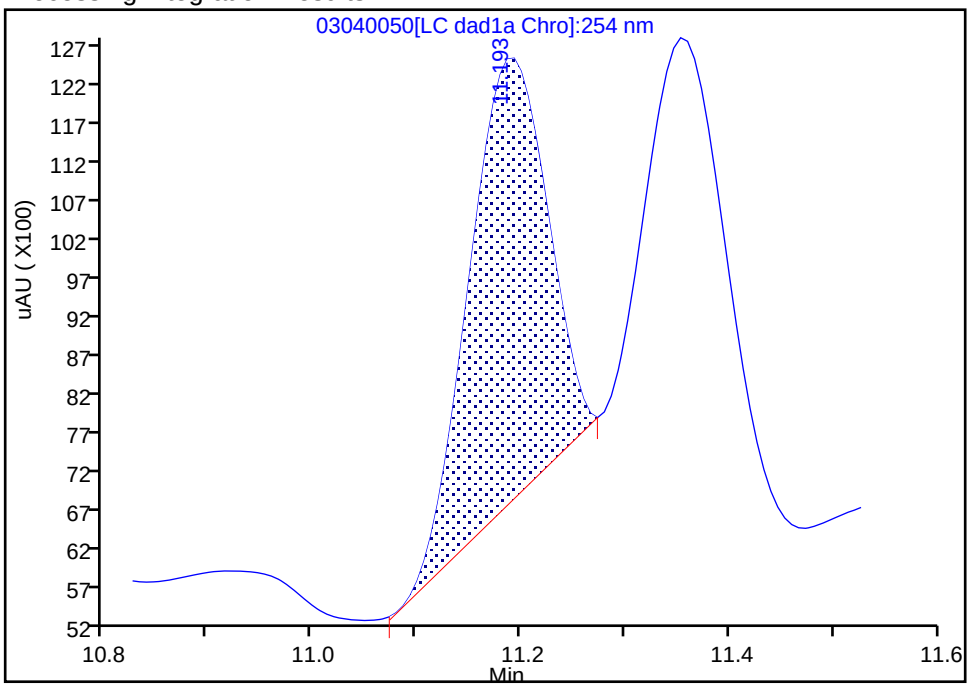
Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040050.d				
Injection Date:	05-Mar-2020 06:33:48	Instrument ID:	CHHPLC_X3		
Lims ID:	280-134141-A-4-A	Lab Sample ID:	280-134141-4		
Client ID:	EW7-PM25A-2-25				
Operator ID:	CB	ALS Bottle#:	50	Worklist Smp#:	50
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

16 2,4,6-Trinitrotoluene, CAS: 118-96-7

Signal: 1

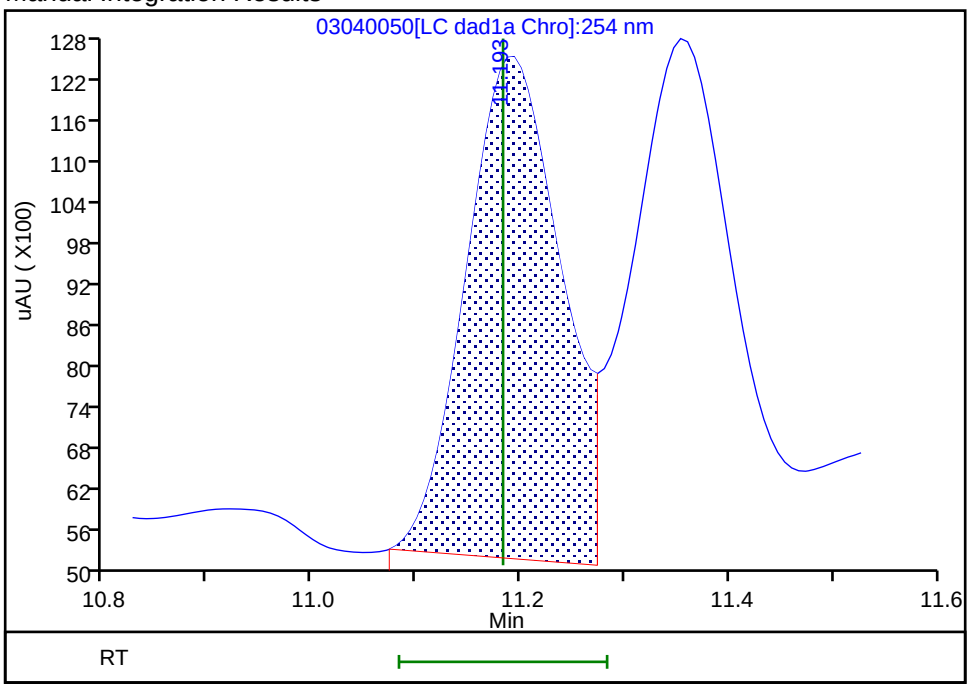
Processing Integration Results

RT: 11.19
Area: 30204
Amount: 0.136725
Amount Units: ug/mL



Manual Integration Results

RT: 11.19
Area: 46770
Amount: 0.211714
Amount Units: ug/mL



Reviewer: beckerc, 06-Mar-2020 09:10:29
Audit Action: Assigned New Baseline Audit Reason: Baseline

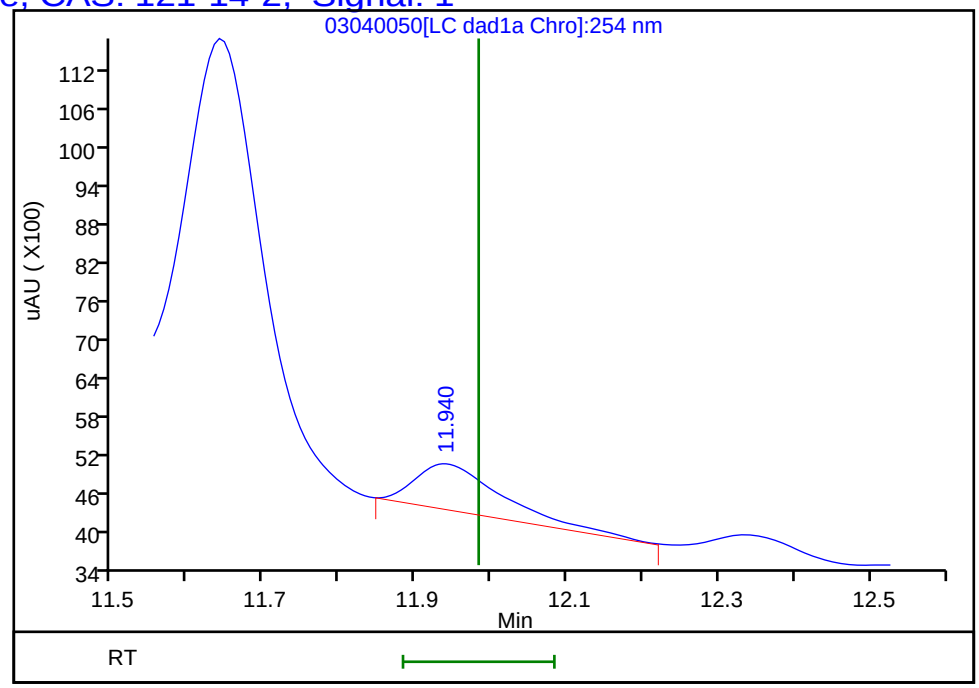
User Disabled Compound Report

Eurofins TestAmerica, Denver

Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040050.d				
Injection Date:	05-Mar-2020 06:33:48	Instrument ID:	CHHPLC_X3		
Lims ID:	280-134141-A-4-A	Lab Sample ID:	280-134141-4		
Client ID:	EW7-PM25A-2-25				
Operator ID:	CB	ALS Bottle#:	50	Worklist Smp#:	50
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

20 2,4-Dinitrotoluene, CAS: 121-14-2, Signal: 1

RT: 11.94
Response: 5897
Amount: 0.018361



Reviewer: beckerc, 06-Mar-2020 09:12:22
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

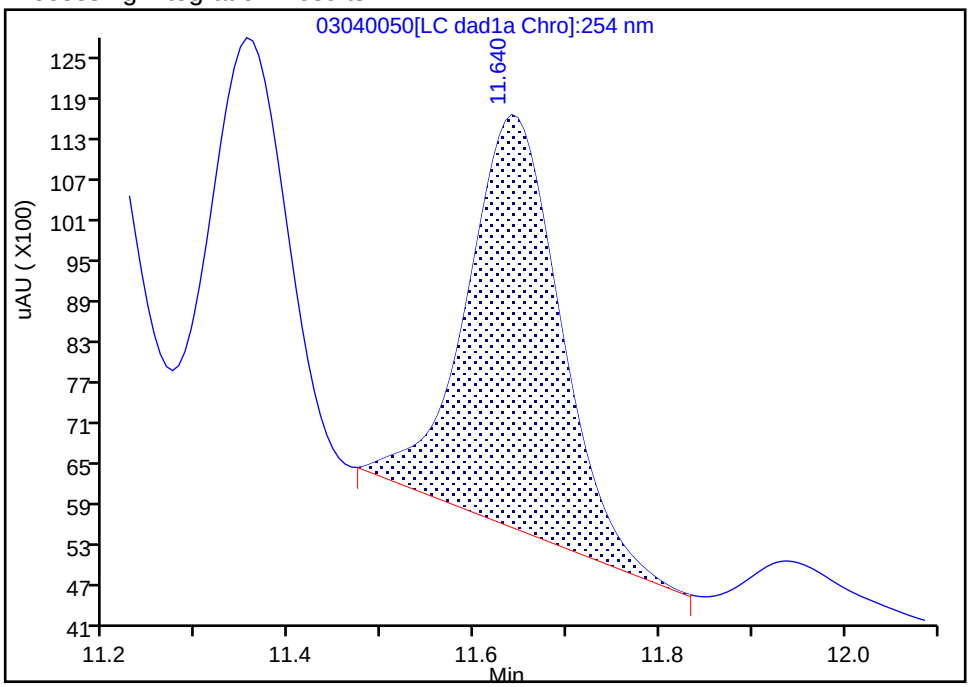
Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040050.d				
Injection Date:	05-Mar-2020 06:33:48	Instrument ID:	CHHPLC_X3		
Lims ID:	280-134141-A-4-A	Lab Sample ID:	280-134141-4		
Client ID:	EW7-PM25A-2-25				
Operator ID:	CB	ALS Bottle#:	50	Worklist Smp#:	50
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

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

Signal: 1

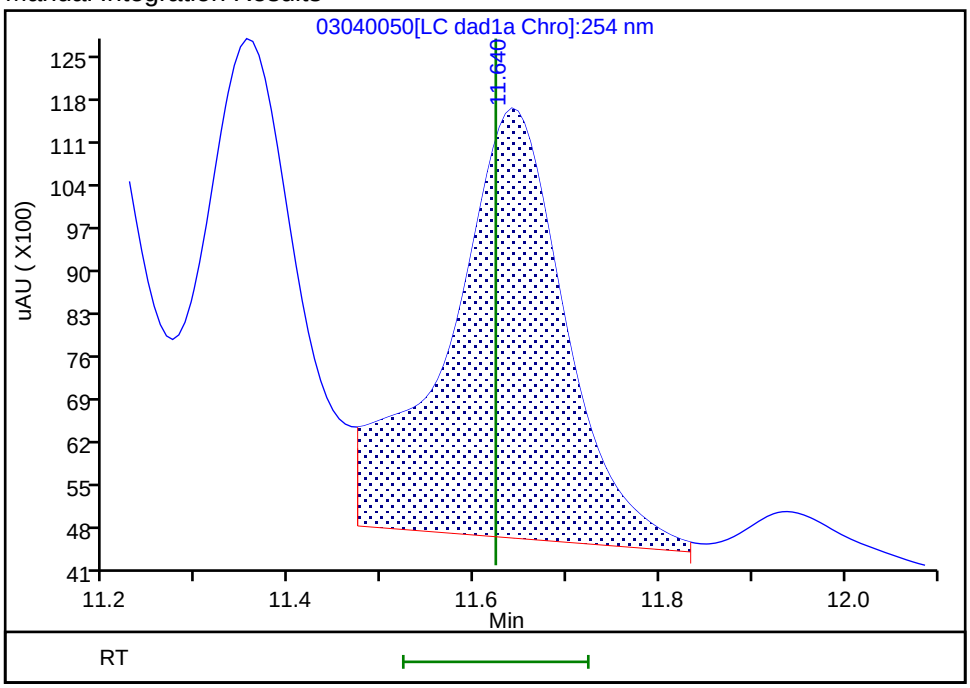
Processing Integration Results

RT: 11.64
Area: 43288
Amount: 0.198990
Amount Units: ug/mL



Manual Integration Results

RT: 11.64
Area: 62145
Amount: 0.285673
Amount Units: ug/mL



Reviewer: beckerc, 06-Mar-2020 09:10:29
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

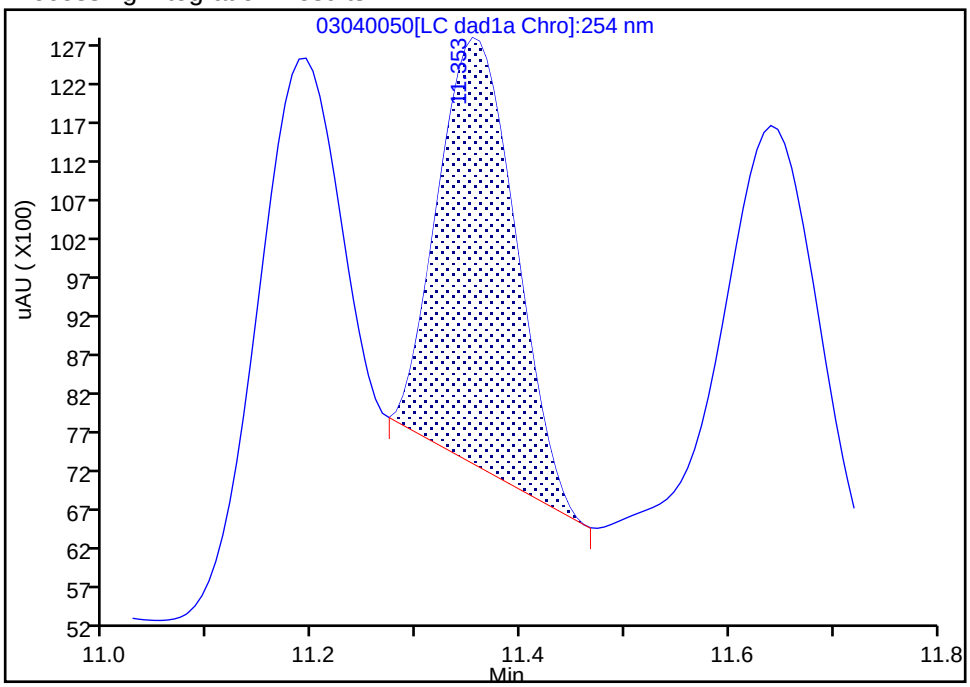
Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040050.d				
Injection Date:	05-Mar-2020 06:33:48	Instrument ID:	CHHPLC_X3		
Lims ID:	280-134141-A-4-A	Lab Sample ID:	280-134141-4		
Client ID:	EW7-PM25A-2-25				
Operator ID:	CB	ALS Bottle#:	50	Worklist Smp#:	50
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

17 4-Amino-2,6-dinitrotoluene, CAS: 19406-51-0

Signal: 1

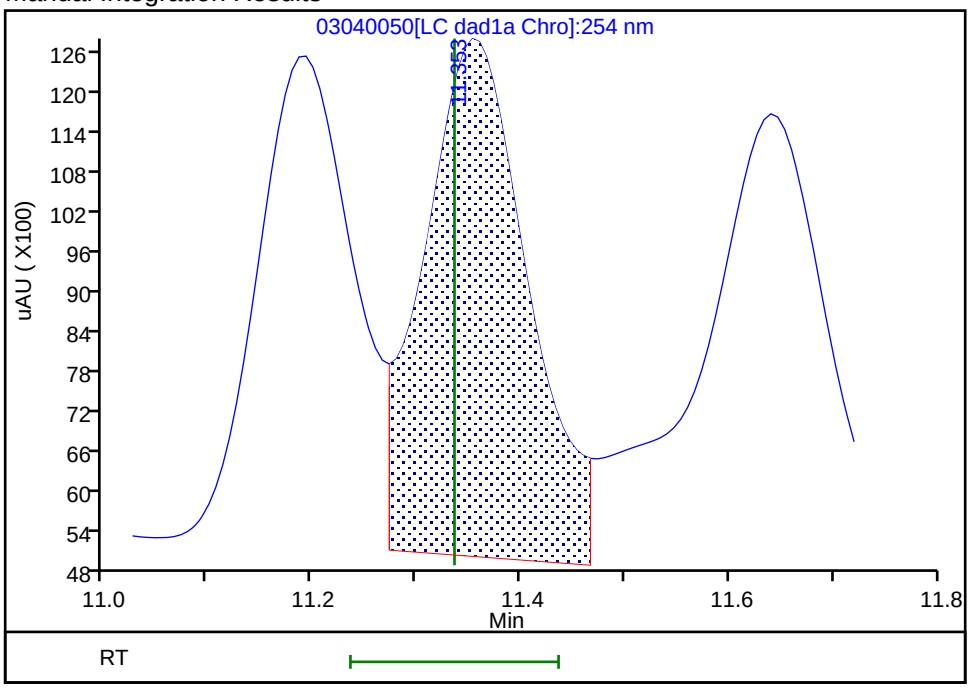
Processing Integration Results

RT: 11.35
Area: 28672
Amount: 0.165287
Amount Units: ug/mL



Manual Integration Results

RT: 11.35
Area: 54291
Amount: 0.312974
Amount Units: ug/mL



Reviewer: beckerc, 06-Mar-2020 09:10:29
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

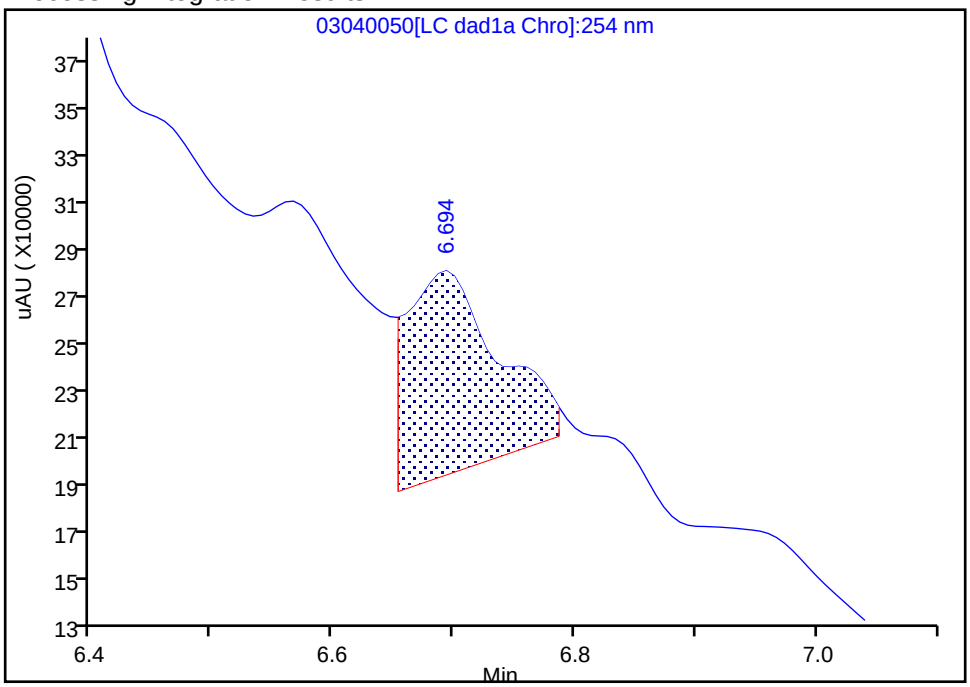
Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040050.d				
Injection Date:	05-Mar-2020 06:33:48	Instrument ID:	CHHPLC_X3		
Lims ID:	280-134141-A-4-A	Lab Sample ID:	280-134141-4		
Client ID:	EW7-PM25A-2-25				
Operator ID:	CB	ALS Bottle#:	50	Worklist Smp#:	50
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

3 HMX, CAS: 2691-41-0

Signal: 1

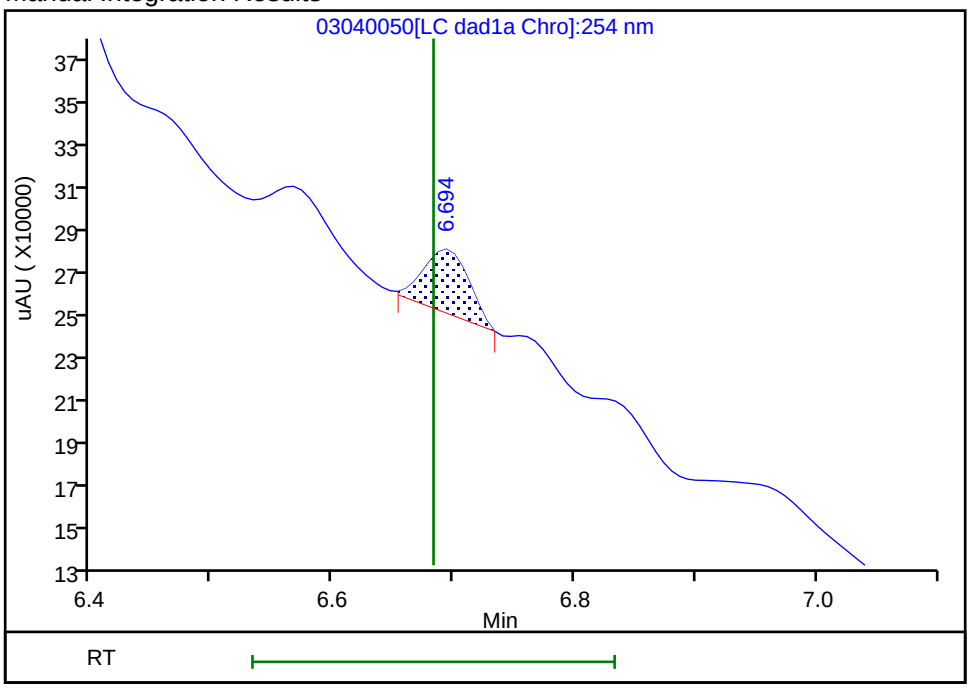
Processing Integration Results

RT: 6.69
Area: 432240
Amount: 4.846960
Amount Units: ug/mL



Manual Integration Results

RT: 6.69
Area: 74952
Amount: 0.840481
Amount Units: ug/mL



Reviewer: beckerc, 06-Mar-2020 09:08:00
Audit Action: Manually Integrated Audit Reason: Baseline

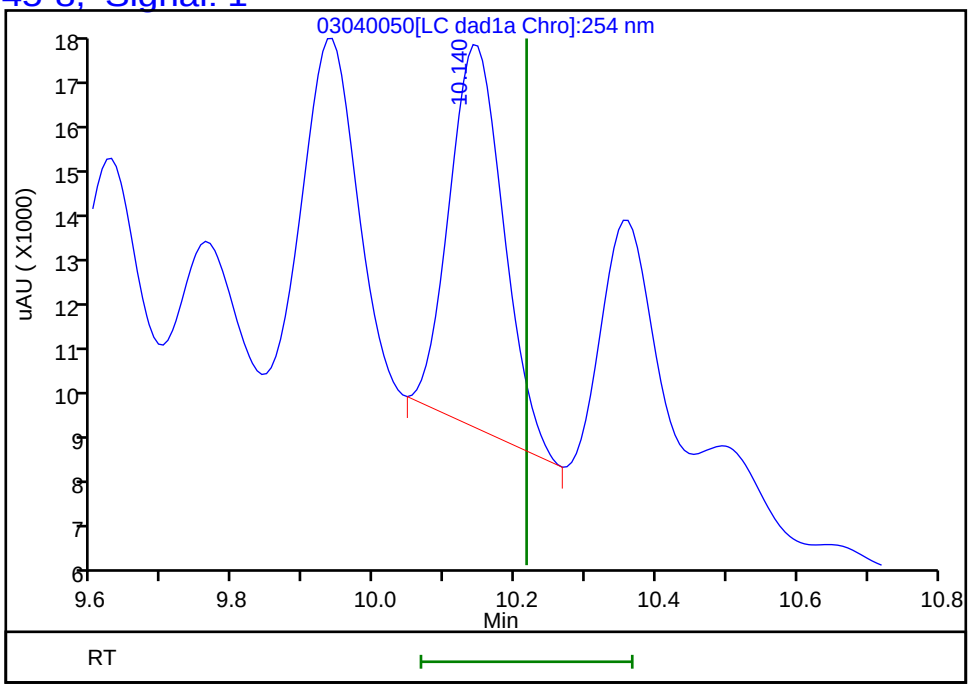
User Disabled Compound Report

Eurofins TestAmerica, Denver

Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040050.d				
Injection Date:	05-Mar-2020 06:33:48	Instrument ID:	CHHPLC_X3		
Lims ID:	280-134141-A-4-A	Lab Sample ID:	280-134141-4		
Client ID:	EW7-PM25A-2-25				
Operator ID:	CB	ALS Bottle#:	50	Worklist Smp#:	50
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

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

RT: 10.14
Response: 45973
Amount: 0.237133



Reviewer: beckerc, 06-Mar-2020 09:12:22
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.: 280-134141-1
SDG No.:
Client Sample ID: EW7-PM25A-2-25
Lab Sample ID: 280-134141-4
Matrix: Water
Lab File ID: 03050027.D
Analysis Method: 8330A
Date Collected: 02/27/2020 11:35
Extraction Method: 3535
Date Extracted: 03/02/2020 13:40
Sample wt/vol: 469.5(mL)
Date Analyzed: 03/06/2020 01:15
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.: 487814
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
2691-41-0	HMX	0.21	U	0.43	0.21	0.093
5755-27-1	MNX	0.43	U	2.1	0.43	0.16
98-95-3	Nitrobenzene	0.21	U	0.43	0.21	0.097
121-82-4	RDX	0.43	U	0.43	0.43	0.17

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	116		83-119

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\G2_LUNA\20200305-89813.b\03050027.D				
Lims ID:	280-134141-A-4-A				
Client ID:	EW7-PM25A-2-25				
Sample Type:	Client				
Inject. Date:	06-Mar-2020 01:15:28	ALS Bottle#:	27	Worklist Smp#:	93
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-134141-A-4-A				
Misc. Info.:	280-0089813-093				
Operator ID:	CB	Instrument ID:	CHHPLC_G2_LUNA		
Method:	\\chromna\Denver\ChromData\G2_LUNA\20200305-89813.b\G2_8330_Luna.m				
Limit Group:	GCSV - 8330				
Last Update:	06-Mar-2020 12:50:50	Calib Date:	04-Mar-2020 03:21:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\G2_LUNA\20200303-89749.b\03030023.D				
Column 1 :	Luna-Phenyl hexyl (4.60 mm)		Det: LC DAD1A, 254 nm		
Process Host:	CTX0308				

First Level Reviewer: beckerc Date: 06-Mar-2020 12:44:15

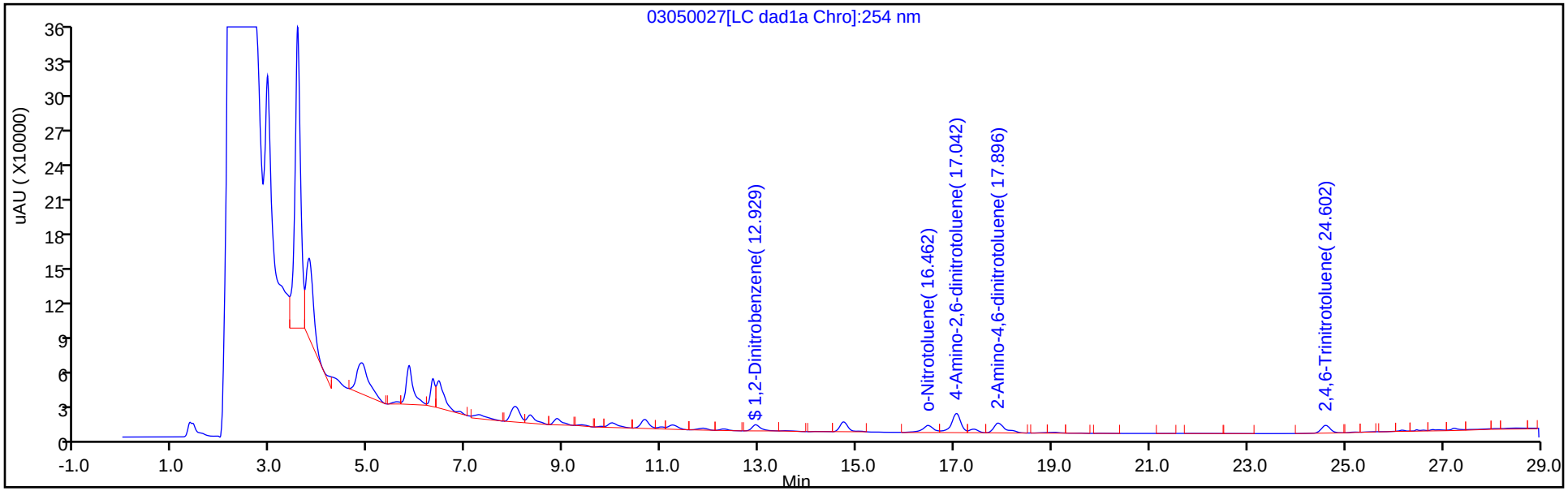
Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
6 HMX	1		6.896			ND	
7 MNX	1		7.707			ND	
8 RDX	1		9.050			ND	
9 Nitrobenzene	1		12.049			ND	
$ 10 1,2-Dinitrobenzene	1	12.929	12.949	-0.020	66638	0.2325	
12 1,3-Dinitrobenzene	1		15.476			ND	
14 o-Nitrotoluene	1	16.462	16.503	-0.041	101132	0.4396	
15 p-Nitrotoluene	1		16.769			ND	
16 4-Amino-2,6-dinitrotoluene	1	17.042	17.063	-0.021	231490	0.7176	
17 m-Nitrotoluene	1		17.709			ND	
18 2-Amino-4,6-dinitrotoluene	1	17.896	17.909	-0.013	140527	0.2864	
19 1,3,5-Trinitrobenzene	1		18.823			ND	
20 2,6-Dinitrotoluene	1		19.763			ND	
21 2,4-Dinitrotoluene	1		20.229			ND	
22 Tetryl	1		23.476			ND	
23 2,4,6-Trinitrotoluene	1	24.602	24.623	-0.021	88307	0.2120	

Report Date: 06-Mar-2020 12:51:03 Chrom Revision: 2.3 19-Feb-2020 16:45:46

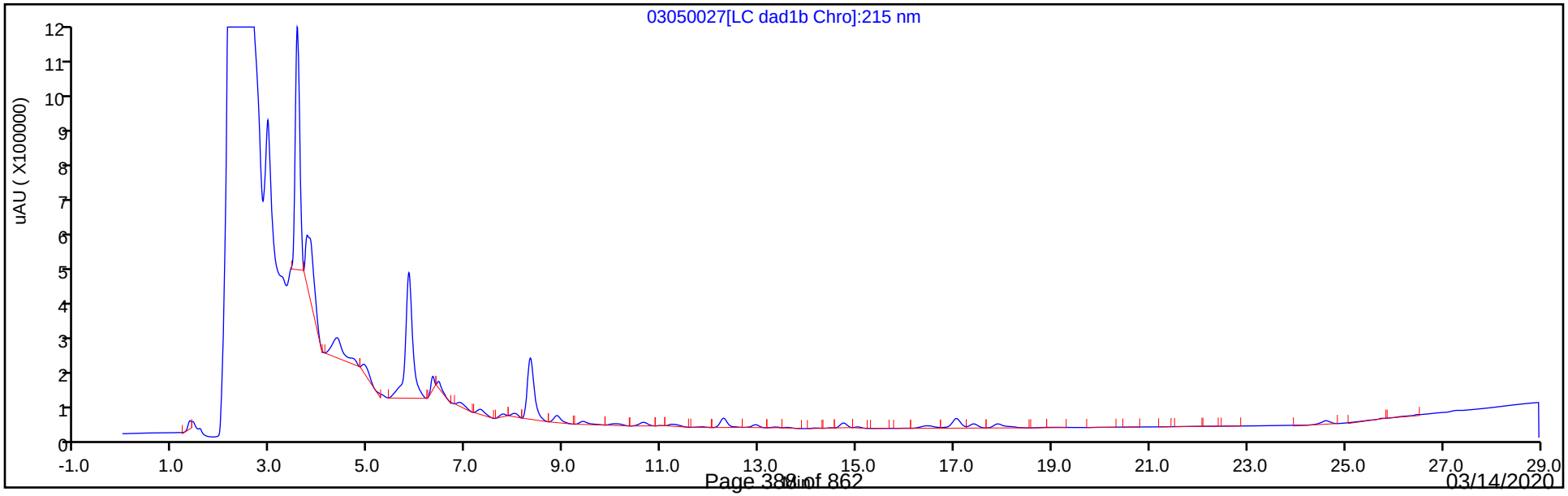
Eurofins TestAmerica, Denver

Data File:	\\chromna\denver\chromdata\g2_luna\20200305-89813.b\03050027.d				
Injection Date:	06-Mar-2020 01:15:28	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	CB
Lims ID:	280-134141-A-4-A	Lab Sample ID:	280-134141-4	Worklist Smp#:	93
Client ID:	EW7-PM25A-2-25				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	27
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:	\\chromna\Denver\ChromData\G2_LUNA\20200305-89813.b\03050027.D				
Lims ID:	280-134141-A-4-A				
Client ID:	EW7-PM25A-2-25				
Sample Type:	Client				
Inject. Date:	06-Mar-2020 01:15:28	ALS Bottle#:	27	Worklist Smp#:	93
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-134141-A-4-A				
Misc. Info.:	280-0089813-093				
Operator ID:	CB	Instrument ID:	CHHPLC_G2_LUNA		
Method:	\\chromna\Denver\ChromData\G2_LUNA\20200305-89813.b\G2_8330_Luna.m				
Limit Group:	GCSV - 8330				
Last Update:	06-Mar-2020 12:50:50	Calib Date:	04-Mar-2020 03:21:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\G2_LUNA\20200303-89749.b\03030023.D				
Column 1 :	Luna-Phenyl hexyl (4.60 mm)		Det: LC DAD1A, 254 nm		
Process Host:	CTX0308				

First Level Reviewer: beckerc Date: 06-Mar-2020 12:44:15

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.2325	116.25

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

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134141-1 Analy Batch No.: 487544

SDG No.:

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

Calibration Start Date: 03/03/2020 18:01 Calibration End Date: 03/03/2020 22:06 Calibration ID: 42492

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-487544/14	03030014.D
Level 2	IC 280-487544/13	03030013.D
Level 3	IC 280-487544/12	03030012.D
Level 4	IC 280-487544/11	03030011.D
Level 5	IC 280-487544/10	03030010.D
Level 6	IC 280-487544/9	03030009.D
Level 7	IC 280-487544/8	03030008.D
Level 8	IC 280-487544/7	03030007.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	LVL 7	LVL 8			RT WINDOW	AVG RT
Picric acid	5.672	5.669	5.639	5.617	5.587	5.558	5.510				5.437 - 5.737	5.607
HMX	6.945	6.963	6.953	6.957	6.947	6.945	6.936	6.869			6.797 - 7.097	6.939
RDX	9.125	9.143	9.126	9.130	9.120	9.112	9.096	9.029			8.970 - 9.270	9.110
Nitrobenzene	12.119	12.129	12.126	12.124	12.113	12.105	12.090	11.995			11.963 - 12.263	12.100
1,3-Dinitrobenzene	15.559	15.569	15.566	15.564	15.553	15.551	15.530	15.462			15.403 - 15.703	15.544
Nitroglycerin	15.812	15.816	15.819	15.817	15.813	15.811	15.790	15.729			15.663 - 15.963	15.801
2-Nitrotoluene	16.579	16.596	16.586	16.590	16.580	16.578	16.556				16.430 - 16.730	16.581
4-Nitrotoluene	16.852	16.856	16.859	16.864	16.853	16.851	16.830				16.703 - 17.003	16.852
4-Amino-2,6-dinitrotoluene	17.165	17.169	17.166	17.164	17.160	17.151	17.130				17.010 - 17.310	17.158
3-Nitrotoluene	17.772	17.796	17.792	17.790	17.787	17.785	17.763				17.637 - 17.937	17.784
2-Amino-4,6-dinitrotoluene	18.005	18.016	18.012	18.017	18.013	18.005	17.976				17.863 - 18.163	18.006
1,3,5-Trinitrobenzene	18.905	18.909	18.912	18.910	18.907	18.905	18.890	18.835			18.757 - 19.057	18.897
2,6-Dinitrotoluene	19.845	19.856	19.852	19.857	19.853	19.851	19.830	19.775			19.703 - 20.003	19.840
2,4-Dinitrotoluene	20.312	20.323	20.319	20.324	20.320	20.318	20.296	20.242			20.170 - 20.470	20.307
Tetryl	23.585	23.589	23.579	23.584	23.580	23.585	23.563	23.529			23.430 - 23.730	23.574
2,4,6-Trinitrotoluene	24.712	24.716	24.706	24.710	24.713	24.712	24.696	24.662			24.563 - 24.863	24.703
PETN	25.465	25.296	25.293	25.290	25.293	25.292	25.283	25.269			25.143 - 25.443	25.310
1,2-Dinitrobenzene	13.032	13.043	13.039	13.037	13.033	13.025	13.010	12.929			12.883 - 13.183	13.019

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

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134141-1 Analy Batch No.: 487544

SDG No.:

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

Calibration Start Date: 03/03/2020 18:01 Calibration End Date: 03/03/2020 22:06 Calibration ID: 42492

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-487544/14	03030014.D
Level 2	IC 280-487544/13	03030013.D
Level 3	IC 280-487544/12	03030012.D
Level 4	IC 280-487544/11	03030011.D
Level 5	IC 280-487544/10	03030010.D
Level 6	IC 280-487544/9	03030009.D
Level 7	IC 280-487544/8	03030008.D
Level 8	IC 280-487544/7	03030007.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								
Picric acid	307200 167250	165320 172741	162930 174722	160392	Lin2	1432.33755	158794.688							0.9920		0.9900
HMX	366400 181740	189580 181403	185550 182080	179496 180885	Lin2	1887.46964	173019.401							0.9960		0.9900
RDX	493500 221358	230640 220387	232290 221782	218996 220334	Lin2	2775.08934	209079.626							0.9940		0.9900
Nitrobenzene	772112 403551	398108 406357	400339 407363	384187 419445	Lin2	3759.78981	383712.763							0.9930		0.9900
1,3-Dinitrobenzene	1383832 669790	693852 668584	699750 674646	654607 669329	Lin2	7294.50627	637510.790							0.9960		0.9900
Nitroglycerin	326880 146487	157722 147329	156826 146085	148550 143395	Lin2	18358.0452	139686.787							0.9960		0.9900
2-Nitrotoluene	443400 239523	229680 243911	242010 244658	226236	Lin2	2104.57823	225290.269							0.9920		0.9900
4-Nitrotoluene	428044 229953	226467 229393	227275 231470	217333	Lin2	2074.83879	214608.004							0.9940		0.9900
4-Amino-2,6-dinitrotoluene	620480 333274	348372 333833	338082 336895	328923	Lin2	2959.42058	318445.921							0.9970		0.9900
3-Nitrotoluene	413986 240574	237043 240594	233946 233533	228575	Lin2	1841.01540	224676.844							0.9960		0.9900
2-Amino-4,6-dinitrotoluene	944622 495498	512351 497499	509014 510549	490641	Qua	3819.85650	465803.759	40313.2760						1.0000		0.9900
1,3,5-Trinitrobenzene	865968 474217	526567 472136	477375 475185	473816 471216	Lin2	4025.62451	459589.258							0.9990		0.9900
2,6-Dinitrotoluene	565139 292702	298825 291857	298466 295155	287697 289377	Lin2	2797.82260	278869.343							0.9960		0.9900
2,4-Dinitrotoluene	1210857 617861	633247 617665	637918 623179	611143 624629	Lin2	6043.87499	592221.333							0.9960		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
CURVE EVALUATION

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134141-1 Analy Batch No.: 487544

SDG No.:

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

Calibration Start Date: 03/03/2020 18:01 Calibration End Date: 03/03/2020 22:06 Calibration ID: 42492

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								
Tetryl	819561 365793	368323 367729	367335 369337	361509 369261	Lin2	4624.47319	343226.702							0.9910		0.9900
2,4,6-Trinitrotoluene	789044 419465	407390 420538	424960 422393	409669 421343	Lin2	3778.97123	398797.764							0.9940		0.9900
PETN	319690 143409	128678 143380	137231 145088	136140 144459	Lin1	11553.4593	142137.751							0.9980		0.9900
1,2-Dinitrobenzene	640500 291080	298100 286084	293310 290041	284160 286945	Lin2	3595.33024	271161.032							0.9930		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.: 280-134141-1 Analy Batch No.: 487544

SDG No.:

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

Calibration Start Date: 03/03/2020 18:01 Calibration End Date: 03/03/2020 22:06 Calibration ID: 42492

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-487544/14	03030014.D
Level 2	IC 280-487544/13	03030013.D
Level 3	IC 280-487544/12	03030012.D
Level 4	IC 280-487544/11	03030011.D
Level 5	IC 280-487544/10	03030010.D
Level 6	IC 280-487544/9	03030009.D
Level 7	IC 280-487544/8	03030008.D
Level 8	IC 280-487544/7	03030007.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
Picric acid	Lin2	3072 120919	8266 174722	16293	40098	66900	0.0100 0.700	0.0500 1.00	0.100	0.250	0.400
HMX	Lin2	3664 126982	9479 182080	18555 452212	44874	72696	0.0100 0.700	0.0500 1.00	0.100 2.50	0.250	0.400
RDX	Lin2	4935 154271	11532 221782	23229 550834	54749	88543	0.0100 0.700	0.0500 1.00	0.100 2.50	0.250	0.400
Nitrobenzene	Lin2	7752 285588	19985 408992	40194 1052808	96431	162066	0.0100 0.703	0.0502 1.00	0.100 2.51	0.251	0.402
1,3-Dinitrobenzene	Lin2	13866 468945	34762 675995	70115 1676668	163979	268452	0.0100 0.701	0.0501 1.00	0.100 2.51	0.251	0.401
Nitroglycerin	Lin2	32688 1031302	78861 1460853	156826 3584879	371375	585948	0.100 7.00	0.500 10.0	1.00 25.0	2.50	4.00
2-Nitrotoluene	Lin2	4434 170738	11484 244658	24201	56559	95809	0.0100 0.700	0.0500 1.00	0.100	0.250	0.400
4-Nitrotoluene	Lin2	4289 160896	11346 231933	22773	54442	92165	0.0100 0.701	0.0501 1.00	0.100	0.251	0.401
4-Amino-2,6-dinitrotoluene	Lin2	6211 233917	17436 337232	33842	82313	133443	0.0100 0.701	0.0501 1.00	0.100	0.250	0.400
3-Nitrotoluene	Lin2	4144 168584	11864 233767	23418	57201	96326	0.0100 0.701	0.0501 1.00	0.100	0.250	0.400
2-Amino-4,6-dinitrotoluene	Qua	9484 349642	25720 512591	51105	123151	198992	0.0100 0.703	0.0502 1.00	0.100	0.251	0.402
1,3,5-Trinitrobenzene	Lin2	8677 331156	26381 476135	47833 1180395	118691	190066	0.0100 0.701	0.0501 1.00	0.100 2.51	0.251	0.401
2,6-Dinitrotoluene	Lin2	5674 205117	15001 296336	29966 726336	72212	117549	0.0100 0.703	0.0502 1.00	0.100 2.51	0.251	0.402
2,4-Dinitrotoluene	Lin2	12157 434095	31789 625672	64047 1567820	153397	248133	0.0100 0.703	0.0502 1.00	0.100 2.51	0.251	0.402
Tetryl	Lin2	8212 257925	18453 370076	36807 924998	90558	146610	0.0100 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.: 280-134141-1 Analy Batch No.: 487544

SDG No.:

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

Calibration Start Date: 03/03/2020 18:01 Calibration End Date: 03/03/2020 22:06 Calibration ID: 42492

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
2,4,6-Trinitrotoluene	Lin2	7922 295554	20451 424083	42666 1057572	102827	168457	0.0100 0.703	0.0502 1.00	0.100 2.51	0.251	0.402
PETN	Lin1	31969 1003662	64339 1450880	137231 3611463	340351	573634	0.100 7.00	0.500 10.0	1.00 25.0	2.50	4.00
1,2-Dinitrobenzene	Lin2	6405 200259	14905 290041	29331 717363	71040	116432	0.0100 0.700	0.0500 1.00	0.100 2.50	0.250	0.400

Curve Type Legend:

Lin1 = Linear 1/conc
Lin2 = Linear 1/conc^2
Qua = Quadratic

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\G2_LUNA\20200303-89749.b\03030007.D				
Lims ID:	IC FULL 8				
Client ID:					
Sample Type:	IC	Calib Level:	8		
Inject. Date:	03-Mar-2020 18:01:29	ALS Bottle#:	7	Worklist Smp#:	7
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	IC FULL 8				
Misc. Info.:	280-0089749-007				
Operator ID:	CB	Instrument ID:	CHHPLC_G2_LUNA		
Sublist:	chrom-G2_8330_Luna*sub6				
Method:	\\chromna\Denver\ChromData\G2_LUNA\20200303-89749.b\G2_8330_Luna.m				
Limit Group:	GCSV - 8330				
Last Update:	05-Mar-2020 11:40:03	Calib Date:	04-Mar-2020 03:21:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\G2_LUNA\20200303-89749.b\03030023.D				
Column 1 :	Luna-Phenyl hexyl (4.60 mm)		Det: LC DAD1A, 254 nm		
Process Host:	CTX0319				

First Level Reviewer: beckerc Date: 04-Mar-2020 08:11:21

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	4.360	-0.058	1265338	2.50	2.66	
2 2,4-diamino-6-nitrotoluene	1		4.913			ND	ND	U
5 2,4,6-Trinitrophenol	1		5.587			ND	ND	U
6 HMX	1	6.869	6.947	-0.078	452212	2.50	2.60	
8 RDX	1	9.029	9.120	-0.091	550834	2.50	2.62	
9 Nitrobenzene	1	11.995	12.113	-0.118	1052808	2.51	2.73	
$ 10 1,2-Dinitrobenzene	1	12.929	13.033	-0.104	717363	2.50	2.63	
11 3,5-Dinitroaniline	1	14.762	14.853	-0.091	1377200	2.50	2.55	
12 1,3-Dinitrobenzene	1	15.462	15.553	-0.091	1676668	2.51	2.62	
13 Nitroglycerin	2	15.729	15.813	-0.084	3584879	25.0	25.5	M
14 o-Nitrotoluene	1		16.580			ND	ND	U
15 p-Nitrotoluene	1		16.853			ND	ND	
16 4-Amino-2,6-dinitrotoluene	1		17.160			ND	ND	U
17 m-Nitrotoluene	1		17.787			ND	ND	U
18 2-Amino-4,6-dinitrotoluene	1		18.013			ND	ND	
19 1,3,5-Trinitrobenzene	1	18.835	18.907	-0.072	1180395	2.51	2.56	
20 2,6-Dinitrotoluene	1	19.775	19.853	-0.078	726336	2.51	2.59	
21 2,4-Dinitrotoluene	1	20.242	20.320	-0.078	1567820	2.51	2.64	
22 Tetryl	1	23.529	23.580	-0.051	924998	2.51	2.68	
23 2,4,6-Trinitrotoluene	1	24.662	24.713	-0.051	1057572	2.51	2.64	
24 PETN	2	25.269	25.293	-0.024	3611463	25.0	25.3	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

U - Marked Undetected

Reagents:

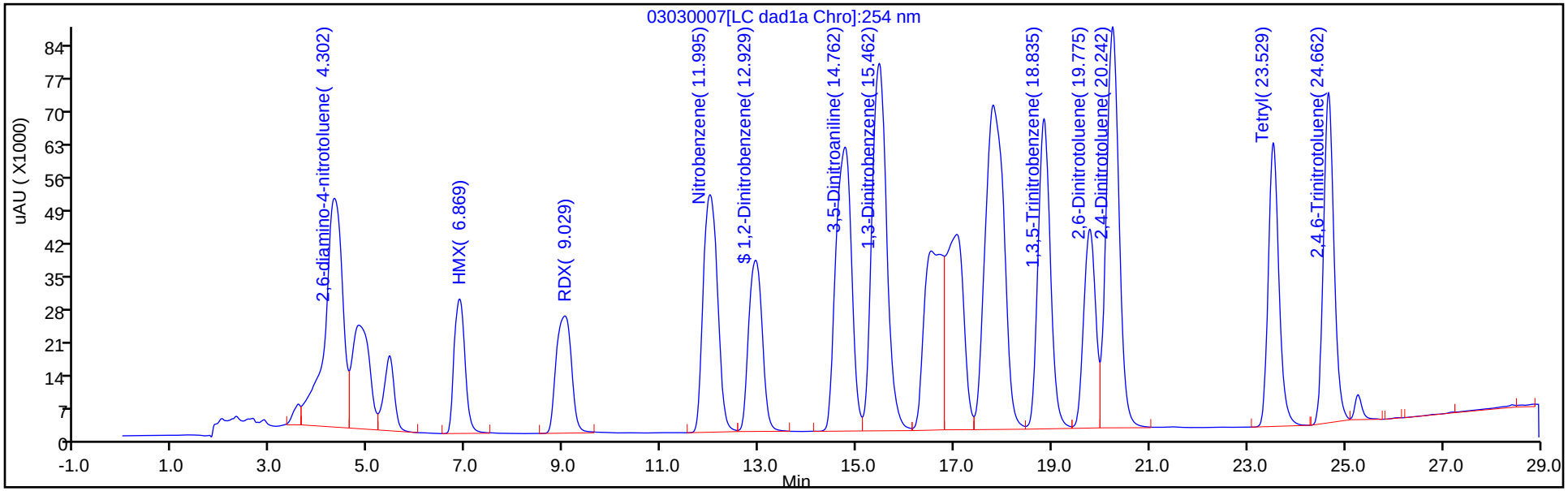
8330IntermStk_00061	Amount Added: 250.00	Units: uL
8330_ADDs_00023	Amount Added: 125.00	Units: uL

Report Date: 05-Mar-2020 11:40:04 Chrom Revision: 2.3 19-Feb-2020 16:45:46

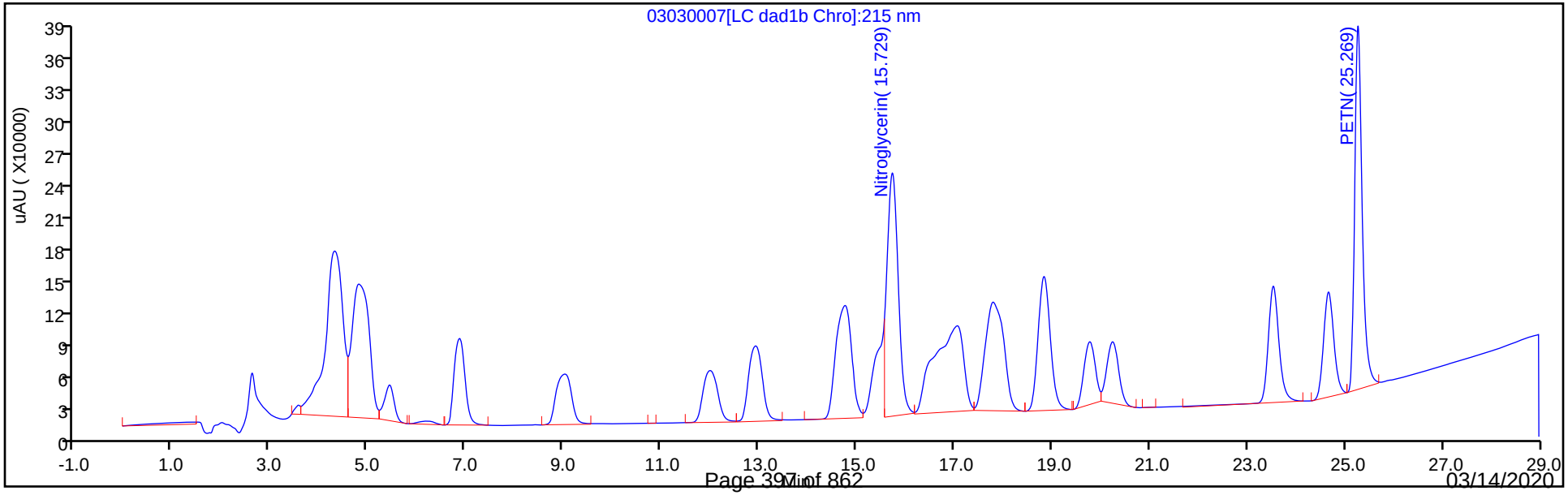
Eurofins TestAmerica, Denver

Data File:	\\chromna\denver\chromdata\g2_luna\20200303-89749.b\03030007.d				
Injection Date:	03-Mar-2020 18:01:29	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	CB
Lims ID:	IC FULL 8			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

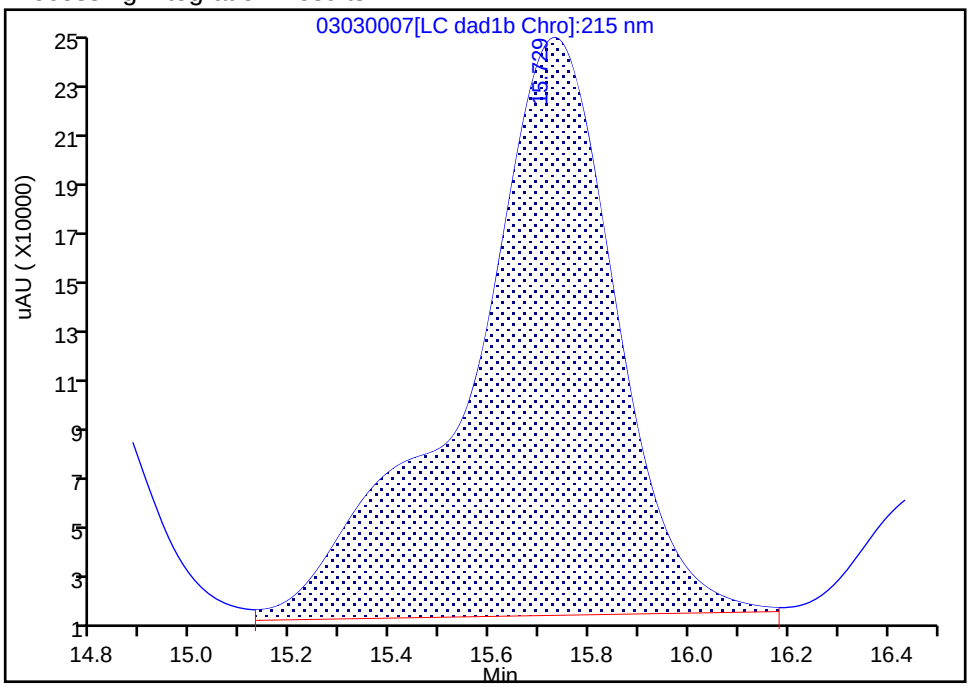
Data File:	\\chromna\denver\chromdata\g2_luna\20200303-89749.b\03030007.d				
Injection Date:	03-Mar-2020 18:01:29	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 8				
Client ID:					
Operator ID:	CB	ALS Bottle#:	7	Worklist Smp#:	7
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:		Detector	LC DAD1B, 215 nm		

13 Nitroglycerin, CAS: 55-63-0

Signal: 1

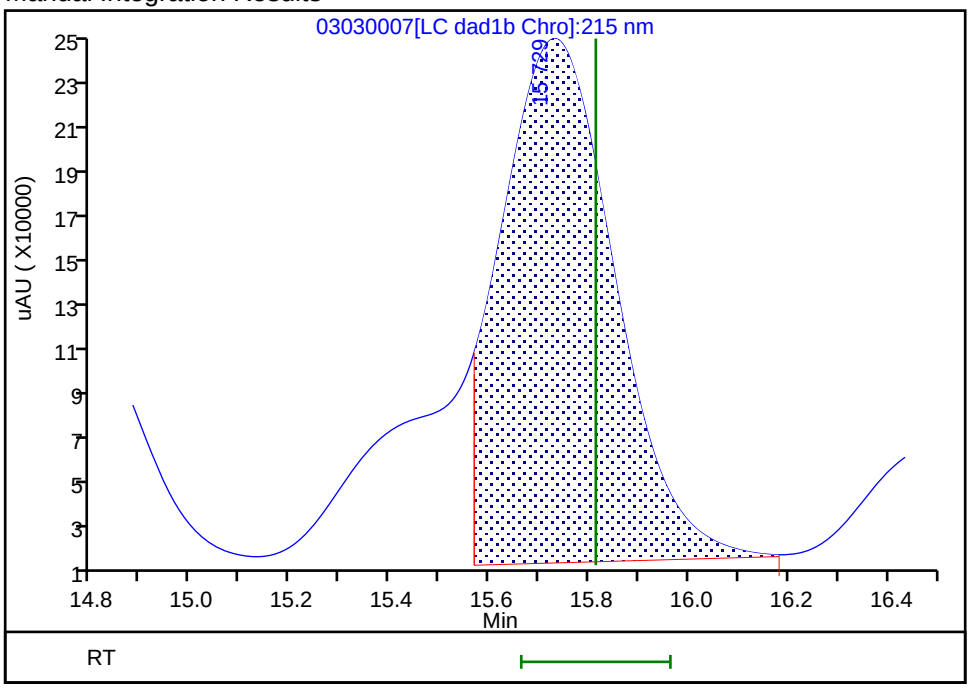
Processing Integration Results

RT: 15.73
Area: 4686578
Amount: 26.504305
Amount Units: ug/ml



Manual Integration Results

RT: 15.73
Area: 3584879
Amount: 25.532271
Amount Units: ug/ml



Reviewer: beckerc, 04-Mar-2020 08:29:36

Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\G2_LUNA\20200303-89749.b\03030008.D				
Lims ID:	IC FULL 7				
Client ID:					
Sample Type:	IC	Calib Level:	7		
Inject. Date:	03-Mar-2020 18:36:30	ALS Bottle#:	8	Worklist Smp#:	8
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	IC FULL 7				
Misc. Info.:	280-0089749-008				
Operator ID:	CB	Instrument ID:	CHHPLC_G2_LUNA		
Sublist:	chrom-G2_8330_Luna*sub6				
Method:	\\chromna\Denver\ChromData\G2_LUNA\20200303-89749.b\G2_8330_Luna.m				
Limit Group:	GCSV - 8330				
Last Update:	05-Mar-2020 11:40:04	Calib Date:	04-Mar-2020 03:21:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\G2_LUNA\20200303-89749.b\03030023.D				
Column 1 :	Luna-Phenyl hexyl (4.60 mm)		Det: LC DAD1A, 254 nm		
Process Host:	CTX0319				

First Level Reviewer: beckerc Date: 04-Mar-2020 08:12:04

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	4.343	4.360	-0.017	465813	1.00	0.9775	
2 2,4-diamino-6-nitrotoluene	1	4.910	4.913	-0.003	290042	1.00	1.00	
5 2,4,6-Trinitrophenol	1	5.510	5.587	-0.077	174722	1.00	1.09	
6 HMX	1	6.936	6.947	-0.011	182080	1.00	1.04	
8 RDX	1	9.096	9.120	-0.024	221782	1.00	1.05	
9 Nitrobenzene	1	12.090	12.113	-0.023	408992	1.00	1.06	
$ 10 1,2-Dinitrobenzene	1	13.010	13.033	-0.023	290041	1.00	1.06	
11 3,5-Dinitroaniline	1	14.823	14.853	-0.030	548705	1.00	1.01	
12 1,3-Dinitrobenzene	1	15.530	15.553	-0.023	675995	1.00	1.05	
13 Nitroglycerin	2	15.790	15.813	-0.023	1460853	10.0	10.3	M
14 o-Nitrotoluene	1	16.556	16.580	-0.024	244658	1.00	1.08	
15 p-Nitrotoluene	1	16.830	16.853	-0.023	231933	1.00	1.07	
16 4-Amino-2,6-dinitrotoluene	1	17.130	17.160	-0.030	337232	1.00	1.05	
17 m-Nitrotoluene	1	17.763	17.787	-0.024	233767	1.00	1.03	
18 2-Amino-4,6-dinitrotoluene	1	17.976	18.013	-0.037	512591	1.00	1.00	
19 1,3,5-Trinitrobenzene	1	18.890	18.907	-0.017	476135	1.00	1.03	
20 2,6-Dinitrotoluene	1	19.830	19.853	-0.023	296336	1.00	1.05	
21 2,4-Dinitrotoluene	1	20.296	20.320	-0.024	625672	1.00	1.05	
22 Tetryl	1	23.563	23.580	-0.017	370076	1.00	1.06	
23 2,4,6-Trinitrotoluene	1	24.696	24.713	-0.017	424083	1.00	1.05	
24 PETN	2	25.283	25.293	-0.010	1450880	10.0	10.1	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

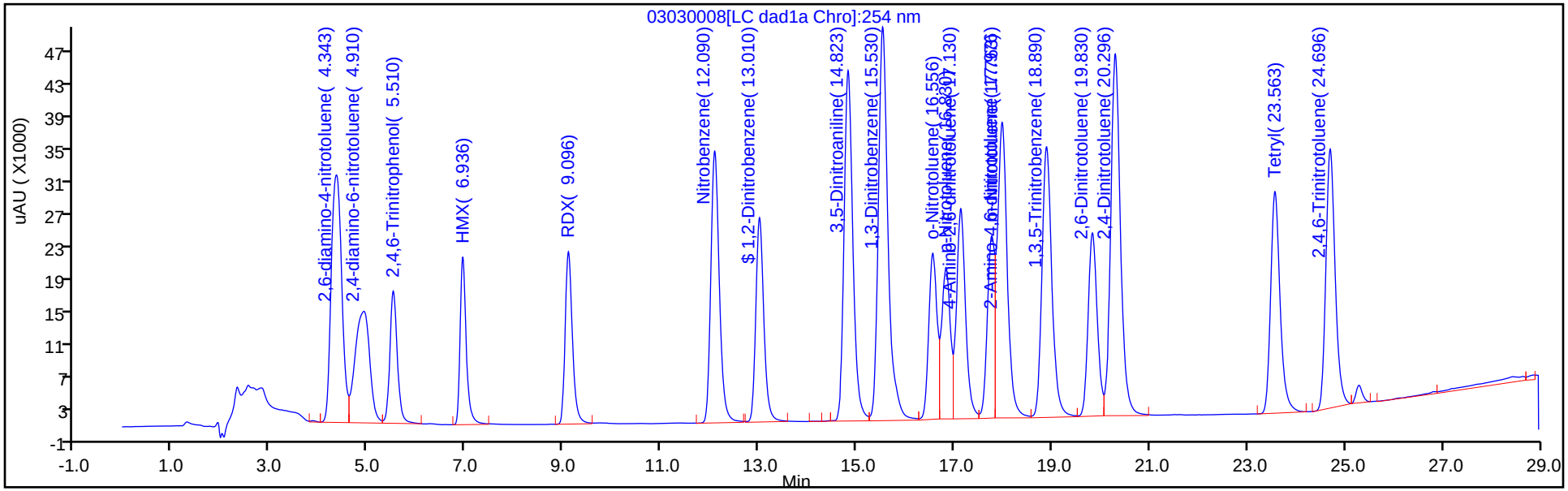
8330IntermStk_00061	Amount Added: 100.00	Units: uL
8330_ADDs_00023	Amount Added: 50.00	Units: uL

Report Date: 05-Mar-2020 11:40:05 Chrom Revision: 2.3 19-Feb-2020 16:45:46

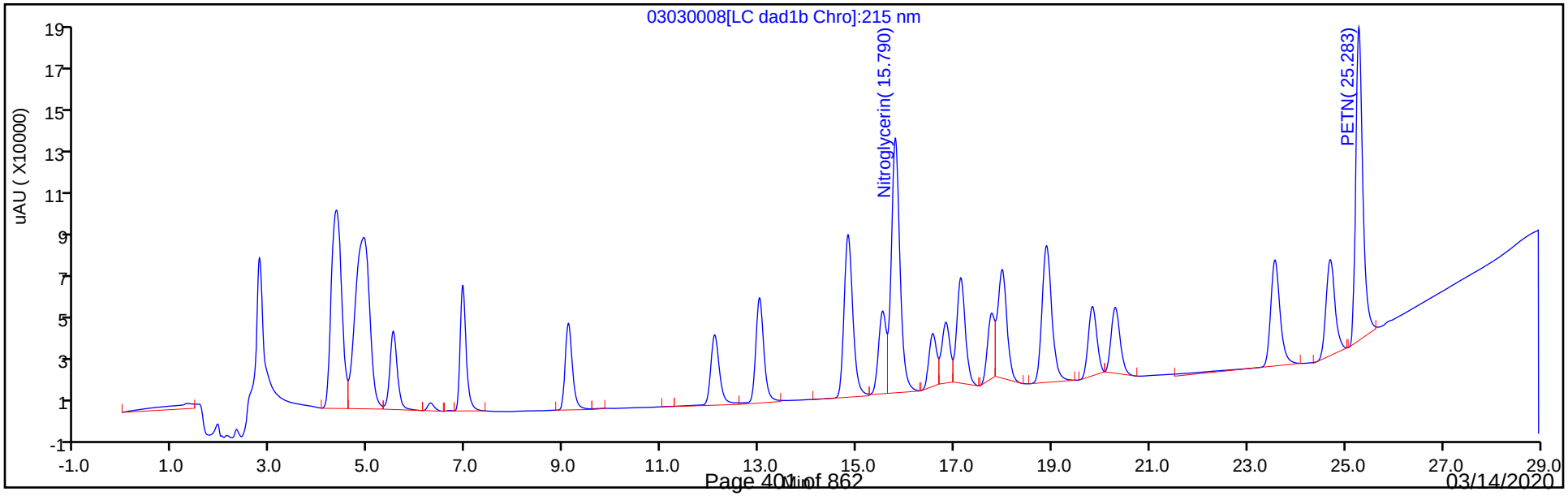
Eurofins TestAmerica, Denver

Data File:	\\chromna\denver\chromdata\g2_luna\20200303-89749.b\03030008.d				
Injection Date:	03-Mar-2020 18:36:30	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	CB
Lims ID:	IC FULL 7			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

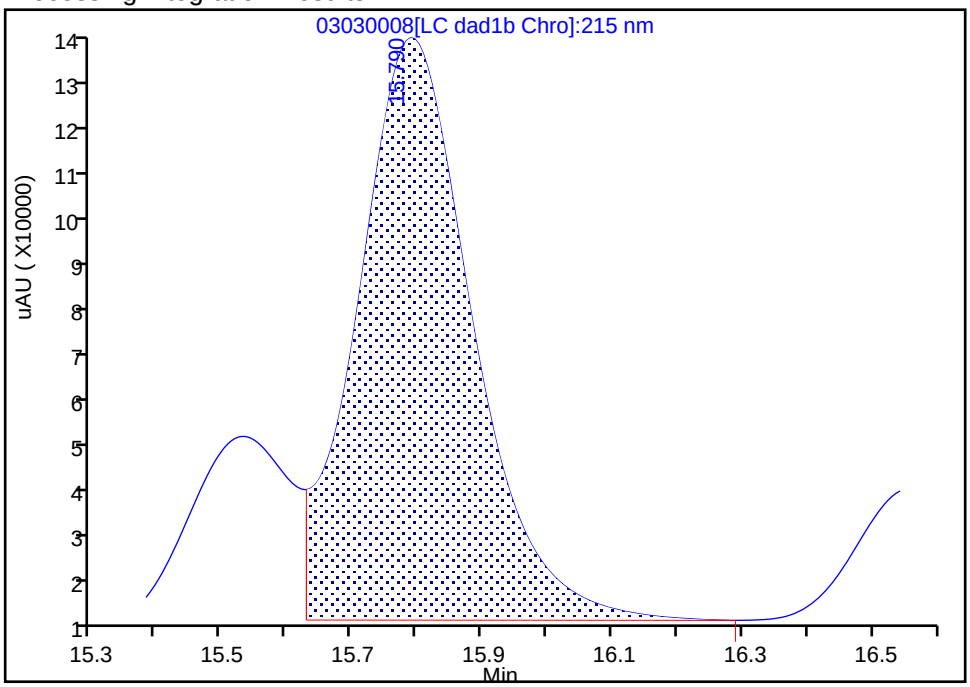
Data File:	\\chromna\denver\chromdata\g2_luna\20200303-89749.b\03030008.d				
Injection Date:	03-Mar-2020 18:36:30	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 7				
Client ID:					
Operator ID:	CB	ALS Bottle#:	8	Worklist Smp#:	8
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:		Detector	LC DAD1B, 215 nm		

13 Nitroglycerin, CAS: 55-63-0

Signal: 1

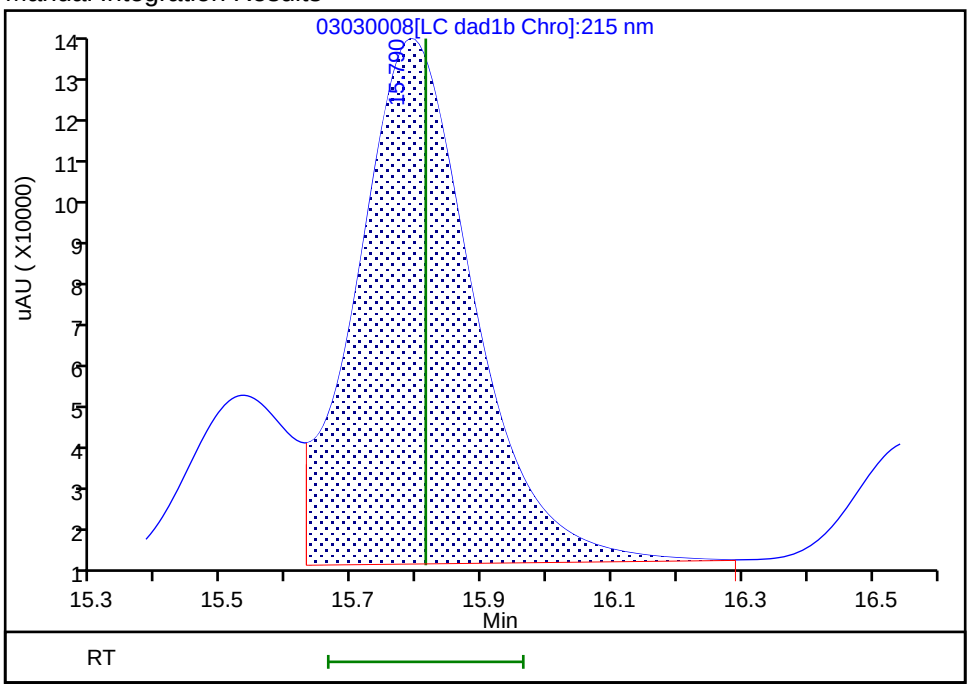
Processing Integration Results

RT: 15.79
Area: 1433292
Amount: 10.161071
Amount Units: ug/ml



Manual Integration Results

RT: 15.79
Area: 1460853
Amount: 10.326639
Amount Units: ug/ml



Reviewer: beckerc, 04-Mar-2020 08:29:55
Audit Action: Assigned New Baseline Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\G2_LUNA\20200303-89749.b\03030009.D				
Lims ID:	IC FULL 6				
Client ID:					
Sample Type:	IC	Calib Level:	6		
Inject. Date:	03-Mar-2020 19:11:30	ALS Bottle#:	9	Worklist Smp#:	9
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	IC FULL 6				
Misc. Info.:	280-0089749-009				
Operator ID:	CB	Instrument ID:	CHHPLC_G2_LUNA		
Sublist:	chrom-G2_8330_Luna*sub6				
Method:	\\chromna\Denver\ChromData\G2_LUNA\20200303-89749.b\G2_8330_Luna.m				
Limit Group:	GCSV - 8330				
Last Update:	05-Mar-2020 11:40:06	Calib Date:	04-Mar-2020 03:21:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\G2_LUNA\20200303-89749.b\03030023.D				
Column 1 :	Luna-Phenyl hexyl (4.60 mm)		Det: LC DAD1A, 254 nm		
Process Host:	CTX0319				

First Level Reviewer: beckerc Date: 04-Mar-2020 08:22:50

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	4.352	4.360	-0.008	320883	0.7000	0.6734	
2 2,4-diamino-6-nitrotoluene	1	4.918	4.913	0.005	201934	0.7000	0.6999	
5 2,4,6-Trinitrophenol	1	5.558	5.587	-0.029	120919	0.7000	0.7525	
6 HMX	1	6.945	6.947	-0.002	126982	0.7000	0.7230	
8 RDX	1	9.112	9.120	-0.008	154271	0.7000	0.7246	
9 Nitrobenzene	1	12.105	12.113	-0.008	285588	0.7028	0.7345	
$ 10 1,2-Dinitrobenzene	1	13.025	13.033	-0.008	200259	0.7000	0.7253	
11 3,5-Dinitroaniline	1	14.845	14.853	-0.008	377286	0.7000	0.6966	
12 1,3-Dinitrobenzene	1	15.551	15.553	-0.002	468945	0.7014	0.7241	
13 Nitroglycerin	2	15.811	15.813	-0.002	1031302	7.00	7.25	M
14 o-Nitrotoluene	1	16.578	16.580	-0.002	170738	0.7000	0.7485	
15 p-Nitrotoluene	1	16.851	16.853	-0.002	160896	0.7014	0.7401	
16 4-Amino-2,6-dinitrotoluene	1	17.151	17.160	-0.009	233917	0.7007	0.7253	
17 m-Nitrotoluene	1	17.785	17.787	-0.002	168584	0.7007	0.7421	
18 2-Amino-4,6-dinitrotoluene	1	18.005	18.013	-0.008	349642	0.7028	0.7000	
19 1,3,5-Trinitrobenzene	1	18.905	18.907	-0.002	331156	0.7014	0.7118	
20 2,6-Dinitrotoluene	1	19.851	19.853	-0.002	205117	0.7028	0.7255	
21 2,4-Dinitrotoluene	1	20.318	20.320	-0.002	434095	0.7028	0.7228	
22 Tetryl	1	23.585	23.580	0.005	257925	0.7014	0.7380	
23 2,4,6-Trinitrotoluene	1	24.712	24.713	-0.001	295554	0.7028	0.7316	
24 PETN	2	25.292	25.293	-0.001	1003662	7.00	6.98	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

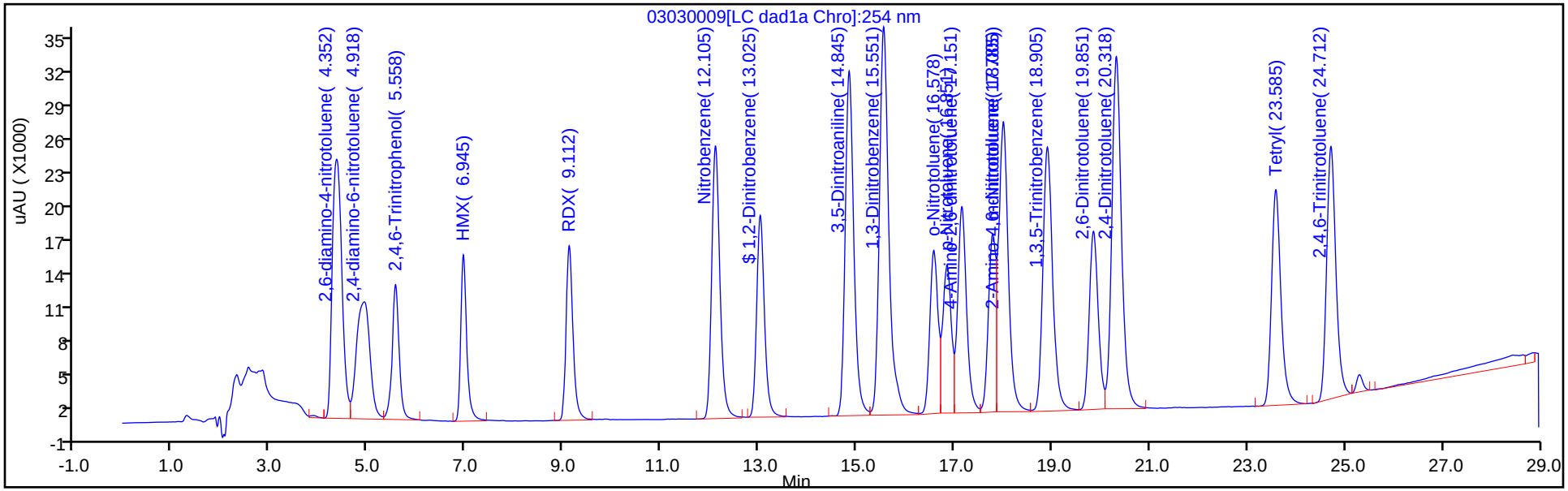
8330_ADDs_00023	Amount Added:	35.00	Units: uL
8330IntermStk_00061	Amount Added:	70.00	Units: uL

Report Date: 05-Mar-2020 11:40:06 Chrom Revision: 2.3 19-Feb-2020 16:45:46

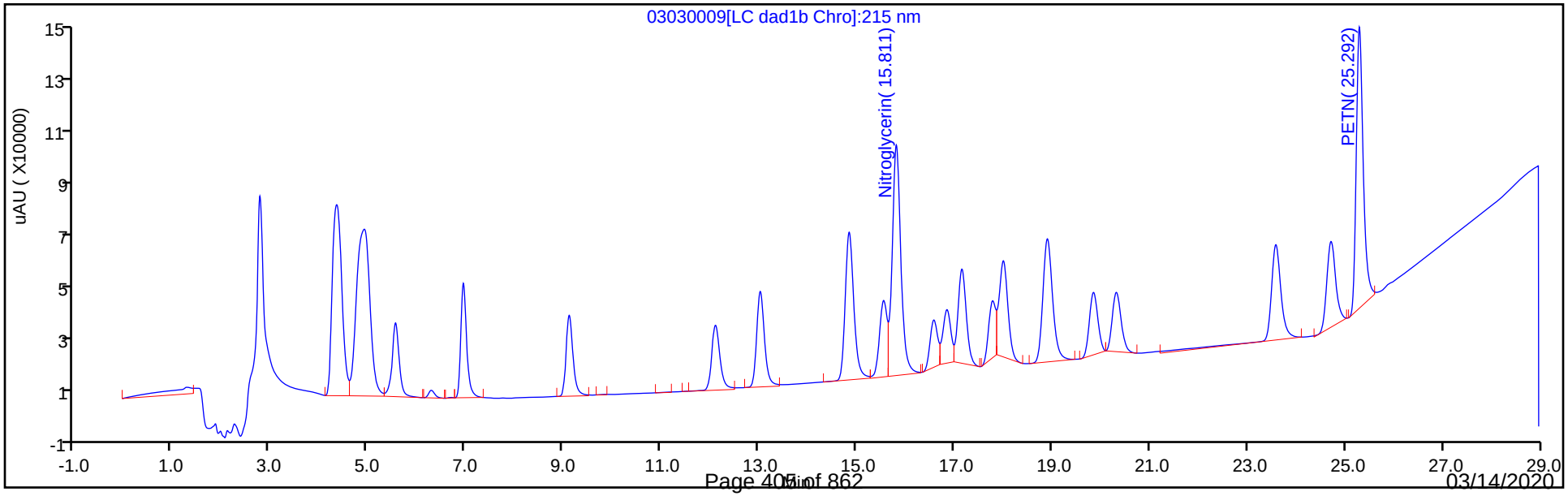
Eurofins TestAmerica, Denver

Data File:	\\chromna\denver\chromdata\g2_luna\20200303-89749.b\03030009.d				
Injection Date:	03-Mar-2020 19:11:30	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	CB
Lims ID:	IC FULL 6			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

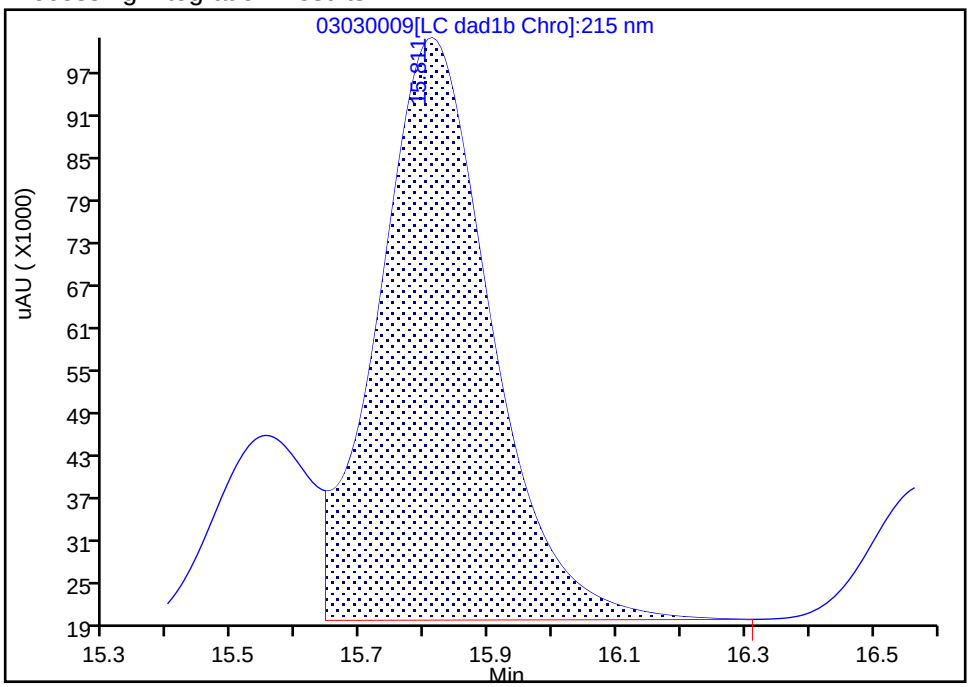
Data File:	\\chromna\denver\chromdata\g2_luna\20200303-89749.b\03030009.d				
Injection Date:	03-Mar-2020 19:11:30	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 6				
Client ID:					
Operator ID:	CB	ALS Bottle#:	9	Worklist Smp#:	9
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:		Detector	LC DAD1B, 215 nm		

13 Nitroglycerin, CAS: 55-63-0

Signal: 1

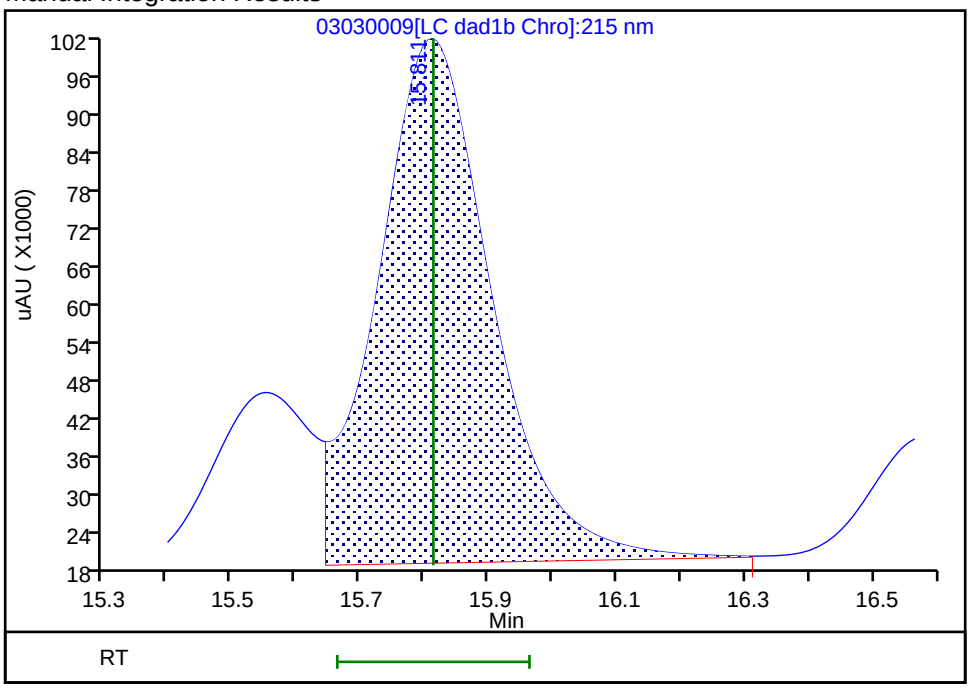
Processing Integration Results

RT: 15.81
Area: 1002262
Amount: 5.606804
Amount Units: ug/ml



Manual Integration Results

RT: 15.81
Area: 1031302
Amount: 7.251537
Amount Units: ug/ml



Reviewer: beckerc, 04-Mar-2020 08:22:41
Audit Action: Assigned New Baseline Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\G2_LUNA\20200303-89749.b\03030010.D				
Lims ID:	IC FULL 5				
Client ID:					
Sample Type:	IC	Calib Level:	5		
Inject. Date:	03-Mar-2020 19:46:29	ALS Bottle#:	10	Worklist Smp#:	10
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	IC FULL 5				
Misc. Info.:	280-0089749-010				
Operator ID:	CB	Instrument ID:	CHHPLC_G2_LUNA		
Sublist:	chrom-G2_8330_Luna*sub6				
Method:	\\chromna\Denver\ChromData\G2_LUNA\20200303-89749.b\G2_8330_Luna.m				
Limit Group:	GCSV - 8330				
Last Update:	05-Mar-2020 11:40:07	Calib Date:	04-Mar-2020 03:21:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\G2_LUNA\20200303-89749.b\03030023.D				
Column 1 :	Luna-Phenyl hexyl (4.60 mm)		Det: LC DAD1A, 254 nm		
Process Host:	CTX0319				

First Level Reviewer: beckerc Date: 04-Mar-2020 08:23:14

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	4.360	4.360	0.000	186279	0.4000	0.3909	
2 2,4-diamino-6-nitrotoluene	1	4.913	4.913	0.000	115169	0.4000	0.3995	
5 2,4,6-Trinitrophenol	1	5.587	5.587	0.000	66900	0.4000	0.4123	
6 HMX	1	6.947	6.947	0.000	72696	0.4000	0.4093	
8 RDX	1	9.120	9.120	0.000	88543	0.4000	0.4102	
9 Nitrobenzene	1	12.113	12.113	0.000	162066	0.4016	0.4126	
$ 10 1,2-Dinitrobenzene	1	13.033	13.033	0.000	116432	0.4000	0.4161	
11 3,5-Dinitroaniline	1	14.853	14.853	0.000	218697	0.4000	0.4033	
12 1,3-Dinitrobenzene	1	15.553	15.553	0.000	268452	0.4008	0.4097	
13 Nitroglycerin	2	15.813	15.813	0.000	585948	4.00	4.06	M
14 o-Nitrotoluene	1	16.580	16.580	0.000	95809	0.4000	0.4159	
15 p-Nitrotoluene	1	16.853	16.853	0.000	92165	0.4008	0.4198	
16 4-Amino-2,6-dinitrotoluene	1	17.160	17.160	0.000	133443	0.4004	0.4098	
17 m-Nitrotoluene	1	17.787	17.787	0.000	96326	0.4004	0.4205	
18 2-Amino-4,6-dinitrotoluene	1	18.013	18.013	0.000	198992	0.4016	0.4048	
19 1,3,5-Trinitrobenzene	1	18.907	18.907	0.000	190066	0.4008	0.4048	
20 2,6-Dinitrotoluene	1	19.853	19.853	0.000	117549	0.4016	0.4115	
21 2,4-Dinitrotoluene	1	20.320	20.320	0.000	248133	0.4016	0.4088	
22 Tetryl	1	23.580	23.580	0.000	146610	0.4008	0.4137	
23 2,4,6-Trinitrotoluene	1	24.713	24.713	0.000	168457	0.4016	0.4129	
24 PETN	2	25.293	25.293	0.000	573634	4.00	3.95	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

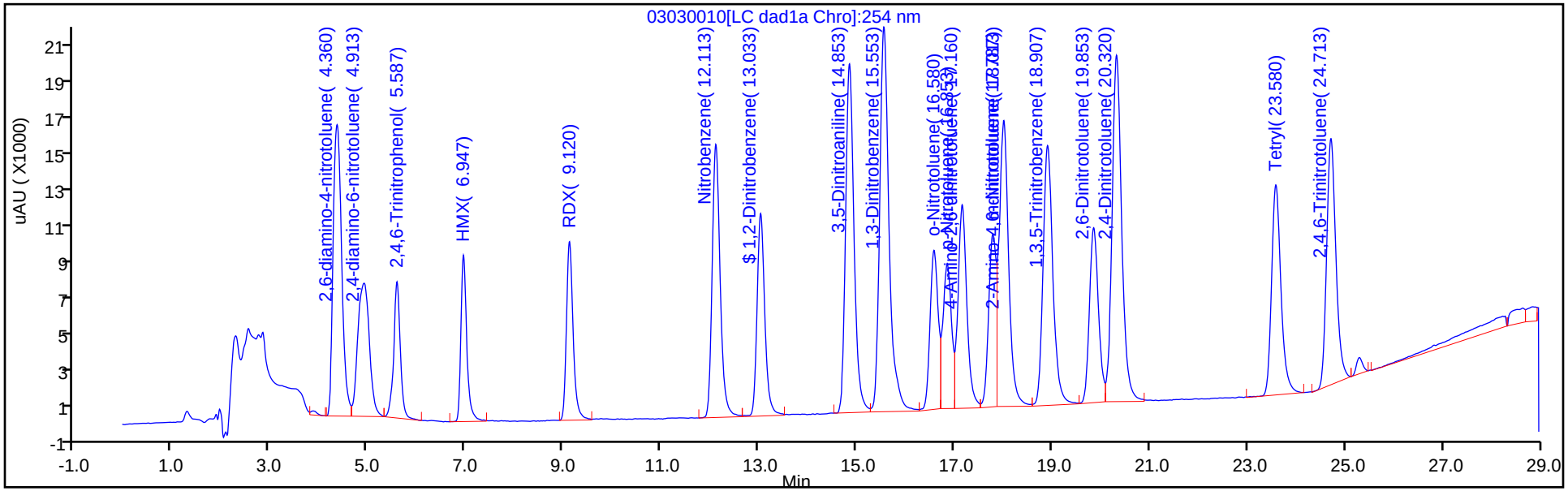
8330IntermStk_00061	Amount Added: 40.00	Units: uL
8330_ADDs_00023	Amount Added: 20.00	Units: uL

Report Date: 05-Mar-2020 11:40:07 Chrom Revision: 2.3 19-Feb-2020 16:45:46

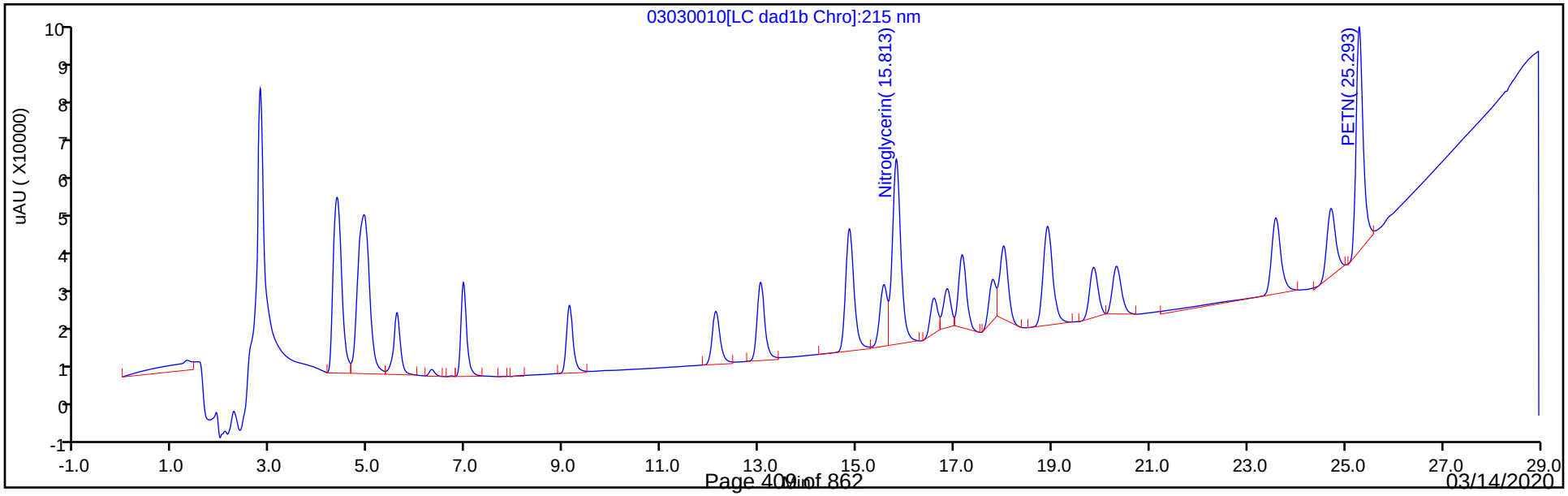
Eurofins TestAmerica, Denver

Data File:	\\chromna\denver\chromdata\g2_luna\20200303-89749.b\03030010.d				
Injection Date:	03-Mar-2020 19:46:29	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	CB
Lims ID:	IC FULL 5			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

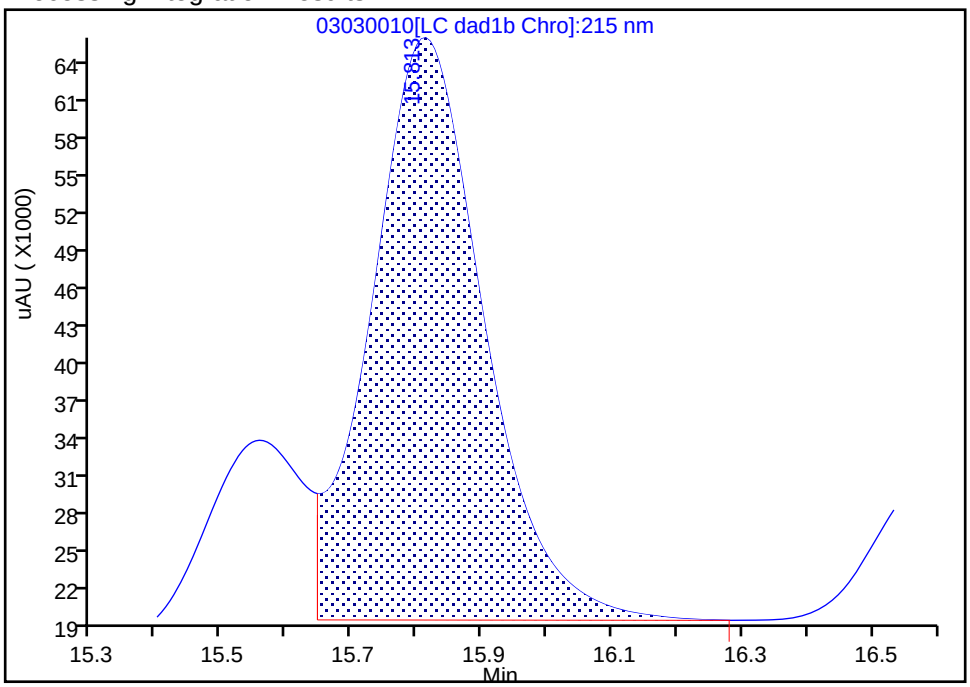
Data File:	\\chromna\denver\chromdata\g2_luna\20200303-89749.b\03030010.d				
Injection Date:	03-Mar-2020 19:46:29	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 5				
Client ID:					
Operator ID:	CB	ALS Bottle#:	10	Worklist Smp#:	10
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:		Detector	LC DAD1B, 215 nm		

13 Nitroglycerin, CAS: 55-63-0

Signal: 1

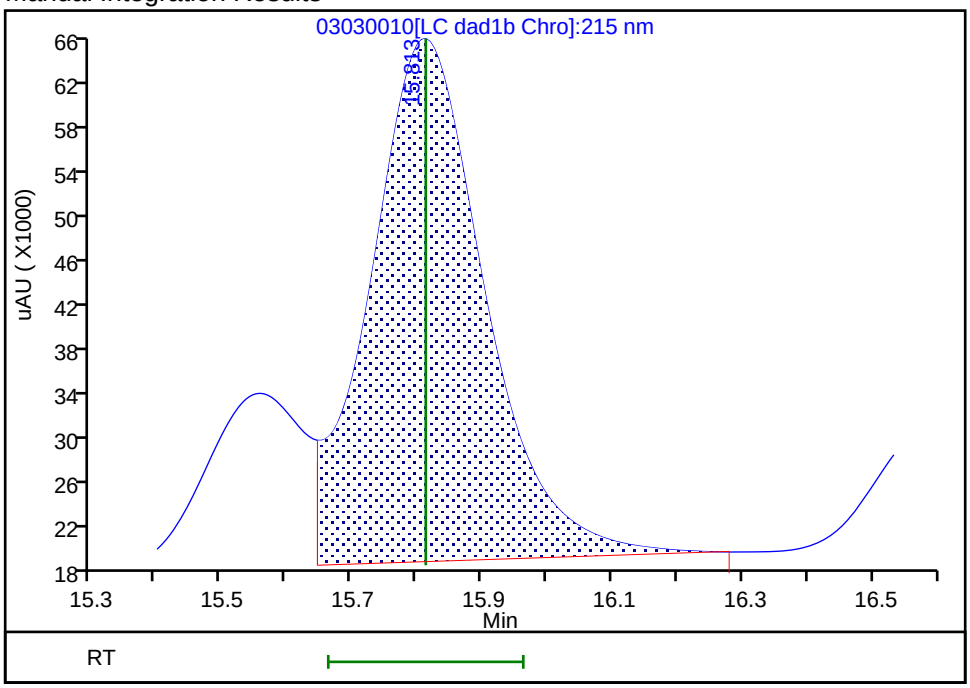
Processing Integration Results

RT: 15.81
Area: 563566
Amount: 3.143553
Amount Units: ug/ml



Manual Integration Results

RT: 15.81
Area: 585948
Amount: 4.063305
Amount Units: ug/ml



Reviewer: beckerc, 04-Mar-2020 08:23:09

Audit Action: Assigned New Baseline Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\G2_LUNA\20200303-89749.b\03030011.D				
Lims ID:	IC FULL 4				
Client ID:					
Sample Type:	IC	Calib Level:	4		
Inject. Date:	03-Mar-2020 20:21:37	ALS Bottle#:	11	Worklist Smp#:	11
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	IC FULL 4				
Misc. Info.:	280-0089749-011				
Operator ID:	CB	Instrument ID:	CHHPLC_G2_LUNA		
Sublist:	chrom-G2_8330_Luna*sub6				
Method:	\\chromna\Denver\ChromData\G2_LUNA\20200303-89749.b\G2_8330_Luna.m				
Limit Group:	GCSV - 8330				
Last Update:	05-Mar-2020 11:40:08	Calib Date:	04-Mar-2020 03:21:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\G2_LUNA\20200303-89749.b\03030023.D				
Column 1 :	Luna-Phenyl hexyl (4.60 mm)		Det: LC DAD1A, 254 nm		
Process Host:	CTX0319				

First Level Reviewer: beckerc Date: 05-Mar-2020 08:50:22

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 2,6-diamino-4-nitrotoluene	1	4.364	4.360	0.004	110706	0.2500	0.2323	
2 2,4-diamino-6-nitrotoluene	1	4.917	4.913	0.004	68062	0.2500	0.2365	
5 2,4,6-Trinitrophenol	1	5.617	5.587	0.030	40098	0.2500	0.2435	
6 HMX	1	6.957	6.947	0.010	44874	0.2500	0.2484	
8 RDX	1	9.130	9.120	0.010	54749	0.2500	0.2486	
9 Nitrobenzene	1	12.124	12.113	0.011	96431	0.2510	0.2415	
$ 10 1,2-Dinitrobenzene	1	13.037	13.033	0.004	71040	0.2500	0.2487	
11 3,5-Dinitroaniline	1	14.857	14.853	0.004	128545	0.2500	0.2366	
12 1,3-Dinitrobenzene	1	15.564	15.553	0.011	163979	0.2505	0.2458	
13 Nitroglycerin	2	15.817	15.813	0.004	371375	2.50	2.53	M
14 o-Nitrotoluene	1	16.590	16.580	0.010	56559	0.2500	0.2417	
15 p-Nitrotoluene	1	16.864	16.853	0.011	54442	0.2505	0.2440	
16 4-Amino-2,6-dinitrotoluene	1	17.164	17.160	0.004	82313	0.2503	0.2492	
17 m-Nitrotoluene	1	17.790	17.787	0.003	57201	0.2503	0.2464	
18 2-Amino-4,6-dinitrotoluene	1	18.017	18.013	0.004	123151	0.2510	0.2507	
19 1,3,5-Trinitrobenzene	1	18.910	18.907	0.003	118691	0.2505	0.2495	
20 2,6-Dinitrotoluene	1	19.857	19.853	0.004	72212	0.2510	0.2489	
21 2,4-Dinitrotoluene	1	20.324	20.320	0.004	153397	0.2510	0.2488	
22 Tetryl	1	23.584	23.580	0.004	90558	0.2505	0.2504	
23 2,4,6-Trinitrotoluene	1	24.710	24.713	-0.003	102827	0.2510	0.2484	
24 PETN	2	25.290	25.293	-0.003	340351	2.50	2.31	M

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

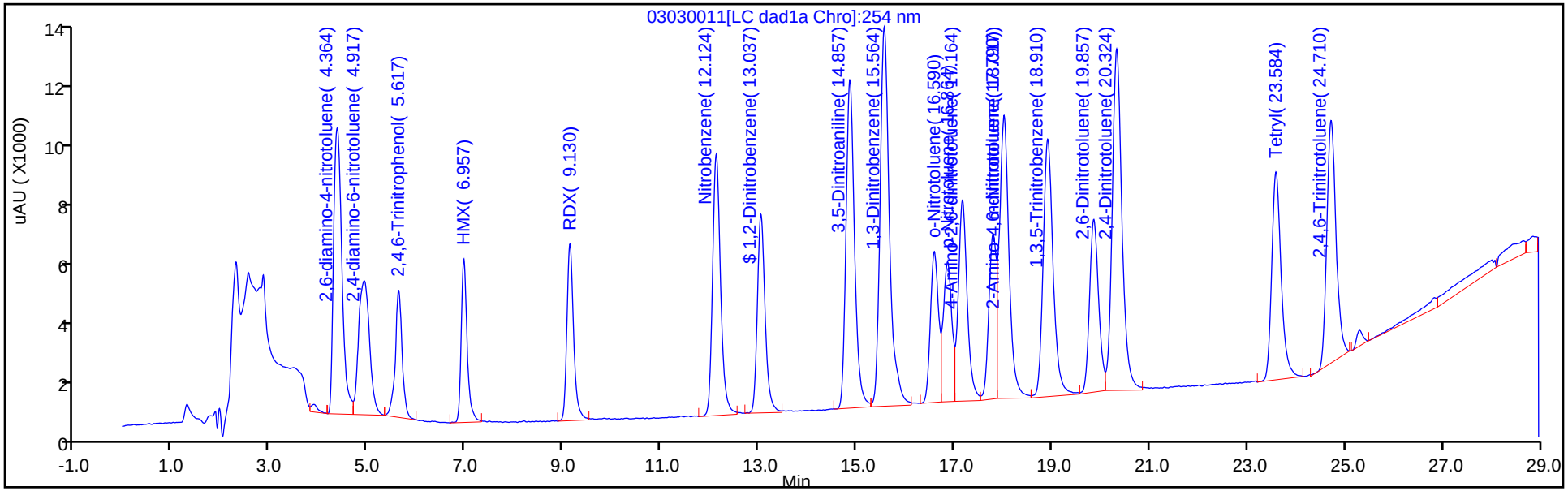
8330IntermStk_00061	Amount Added:	25.00	Units: uL
8330_ADDs_00023	Amount Added:	12.50	Units: uL

Report Date: 05-Mar-2020 11:40:08 Chrom Revision: 2.3 19-Feb-2020 16:45:46

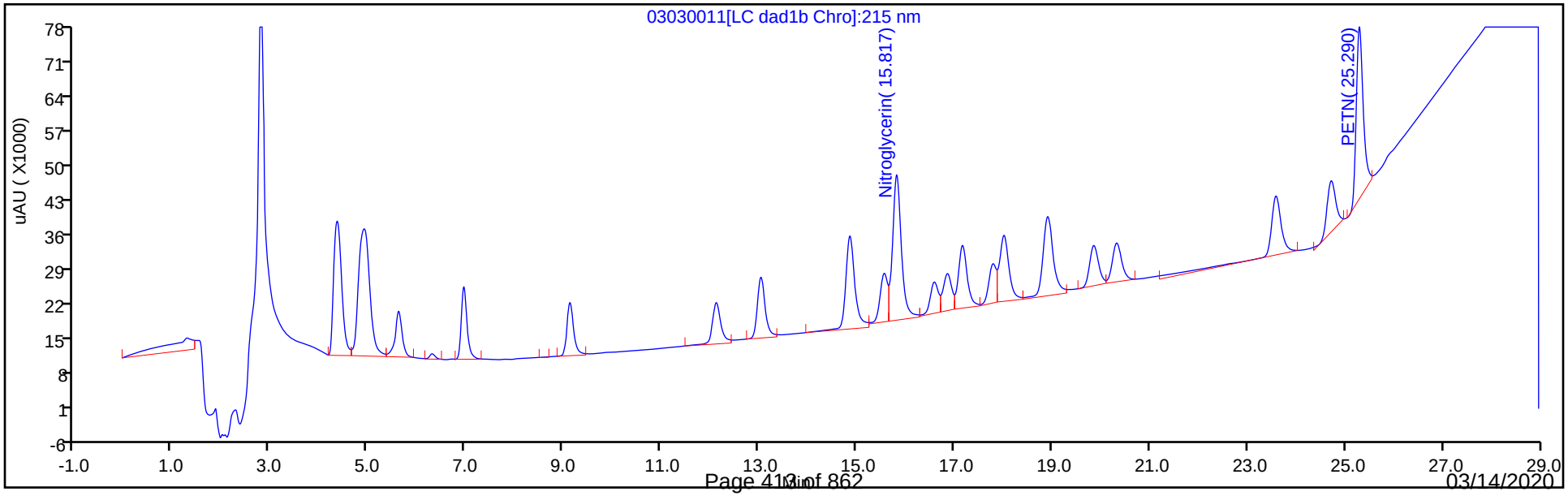
Eurofins TestAmerica, Denver

Data File:	\\chromna\denver\chromdata\g2_luna\20200303-89749.b\03030011.d				
Injection Date:	03-Mar-2020 20:21:37	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	CB
Lims ID:	IC FULL 4			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

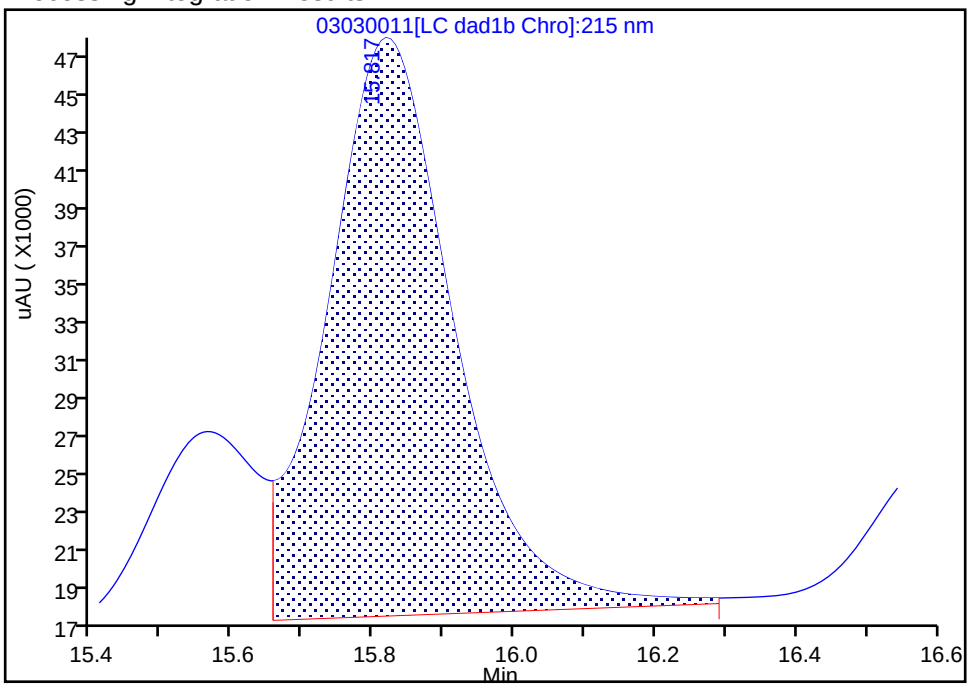
Data File:	\\chromna\denver\chromdata\g2_luna\20200303-89749.b\03030011.d				
Injection Date:	03-Mar-2020 20:21:37	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 4				
Client ID:					
Operator ID:	CB	ALS Bottle#:	11	Worklist Smp#:	11
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:		Detector	LC DAD1B, 215 nm		

13 Nitroglycerin, CAS: 55-63-0

Signal: 1

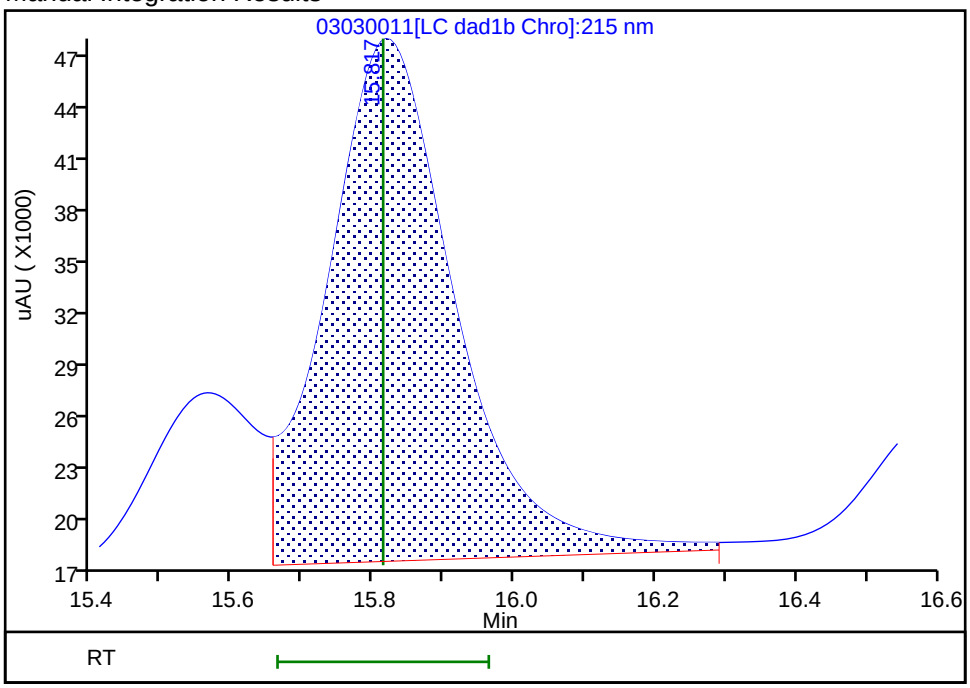
Processing Integration Results

RT: 15.82
Area: 365808
Amount: 2.032536
Amount Units: ug/ml



Manual Integration Results

RT: 15.82
Area: 371375
Amount: 2.527204
Amount Units: ug/ml



Reviewer: beckerc, 04-Mar-2020 08:23:53
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

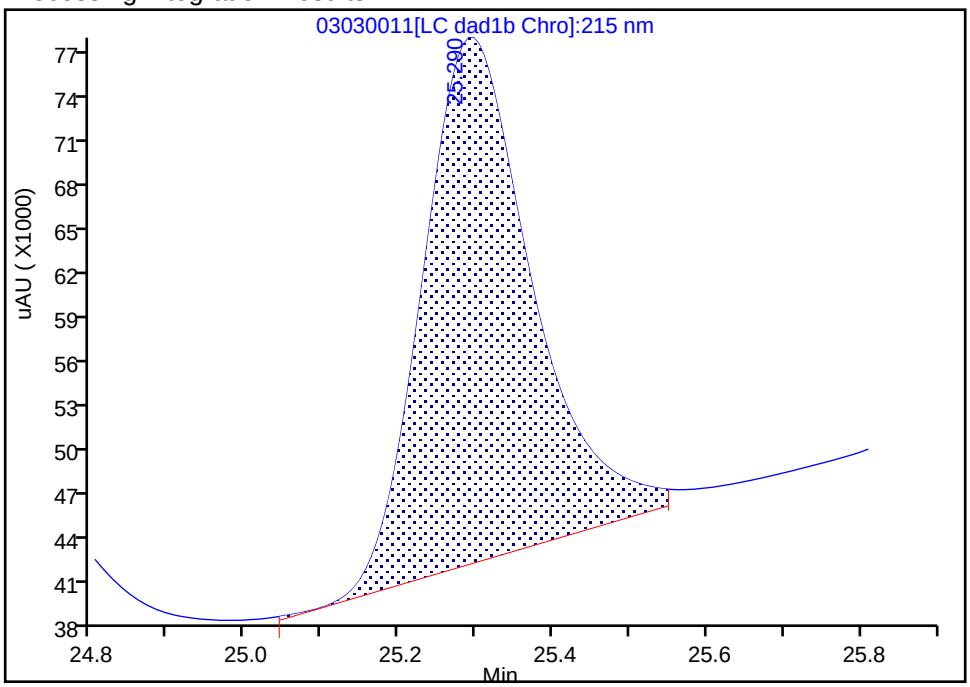
Data File:	\\chromna\denver\chromdata\g2_luna\20200303-89749.b\03030011.d				
Injection Date:	03-Mar-2020 20:21:37	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 4				
Client ID:					
Operator ID:	CB	ALS Bottle#:	11	Worklist Smp#:	11
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:		Detector	LC DAD1B, 215 nm		

24 PETN, CAS: 78-11-5

Signal: 1

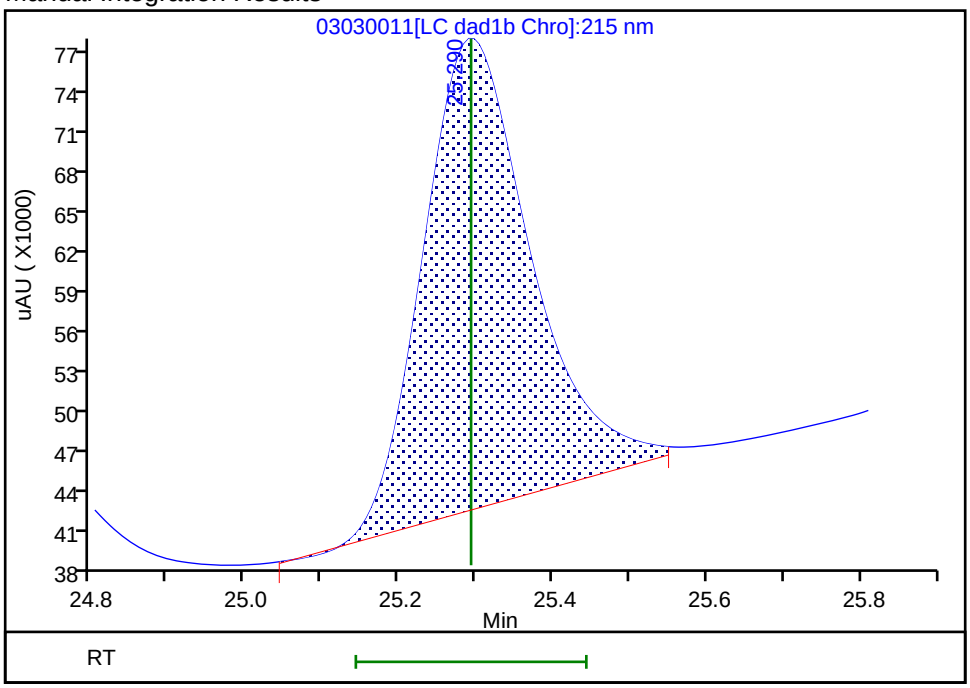
Processing Integration Results

RT: 25.29
Area: 349715
Amount: 2.284475
Amount Units: ug/ml



Manual Integration Results

RT: 25.29
Area: 340351
Amount: 2.313232
Amount Units: ug/ml



Reviewer: beckerc, 04-Mar-2020 08:23:43
Audit Action: Assigned New Baseline Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\G2_LUNA\20200303-89749.b\03030012.D
Lims ID: IC FULL 3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 03-Mar-2020 20:56:37 ALS Bottle#: 12 Worklist Smp#: 12
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC FULL 3
Misc. Info.: 280-0089749-012
Operator ID: CB Instrument ID: CHHPLC_G2_LUNA
Sublist: chrom-G2_8330_Luna*sub6

Method: \\chromna\Denver\ChromData\G2_LUNA\20200303-89749.b\G2_8330_Luna.m
Limit Group: GCSV - 8330
Last Update: 05-Mar-2020 11:40:09 Calib Date: 04-Mar-2020 03:21:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\G2_LUNA\20200303-89749.b\03030023.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC DAD1A, 254 nm
Process Host: CTX0319

First Level Reviewer: beckerc Date: 04-Mar-2020 08:24:34

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	4.359	4.360	-0.001	47982	0.1000	0.1007	
2 2,4-diamino-6-nitrotoluene	1	4.913	4.913	0.000	30408	0.1000	0.1061	
5 2,4,6-Trinitrophenol	1	5.639	5.587	0.052	16293	0.1000	0.0936	
6 HMX	1	6.953	6.947	0.006	18555	0.1000	0.0963	
8 RDX	1	9.126	9.120	0.006	23229	0.1000	0.0978	
9 Nitrobenzene	1	12.126	12.113	0.013	40194	0.1004	0.0950	
$ 10 1,2-Dinitrobenzene	1	13.039	13.033	0.006	29331	0.1000	0.0949	
11 3,5-Dinitroaniline	1	14.859	14.853	0.006	55437	0.1000	0.1014	
12 1,3-Dinitrobenzene	1	15.566	15.553	0.013	70115	0.1002	0.0985	
13 Nitroglycerin	2	15.819	15.813	0.006	156826	1.00	0.99	
14 o-Nitrotoluene	1	16.586	16.580	0.006	24201	0.1000	0.0981	
15 p-Nitrotoluene	1	16.859	16.853	0.006	22773	0.1002	0.0964	
16 4-Amino-2,6-dinitrotoluene	1	17.166	17.160	0.006	33842	0.1001	0.0970	
17 m-Nitrotoluene	1	17.792	17.787	0.005	23418	0.1001	0.0960	
18 2-Amino-4,6-dinitrotoluene	1	18.012	18.013	-0.001	51105	0.1004	0.1006	
19 1,3,5-Trinitrobenzene	1	18.912	18.907	0.005	47833	0.1002	0.0953	
20 2,6-Dinitrotoluene	1	19.852	19.853	-0.001	29966	0.1004	0.0974	
21 2,4-Dinitrotoluene	1	20.319	20.320	-0.001	64047	0.1004	0.0979	
22 Tetryl	1	23.579	23.580	-0.001	36807	0.1002	0.0938	
23 2,4,6-Trinitrotoluene	1	24.706	24.713	-0.007	42666	0.1004	0.0975	
24 PETN	2	25.293	25.293	0.000	137231	1.00	0.8842	M

QC Flag Legend

Review Flags
M - Manually Integrated

Reagents:

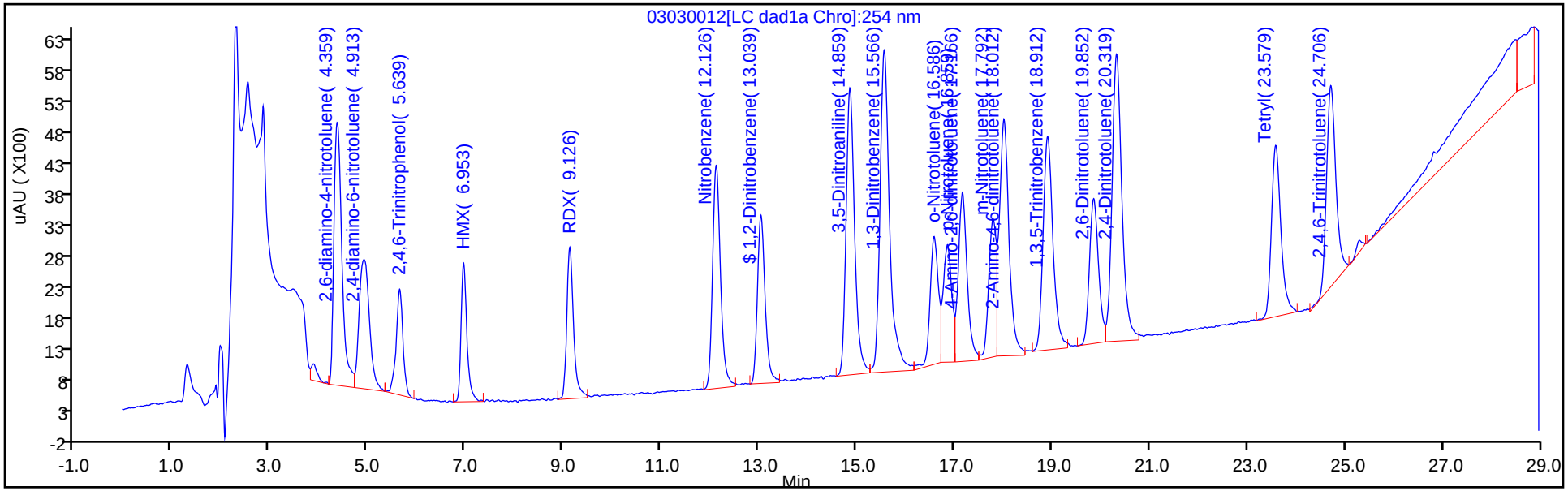
8330IntermStk_00061	Amount Added: 10.00	Units: uL
8330_ADDs_00023	Amount Added: 5.00	Units: uL

Report Date: 05-Mar-2020 11:40:09 Chrom Revision: 2.3 19-Feb-2020 16:45:46

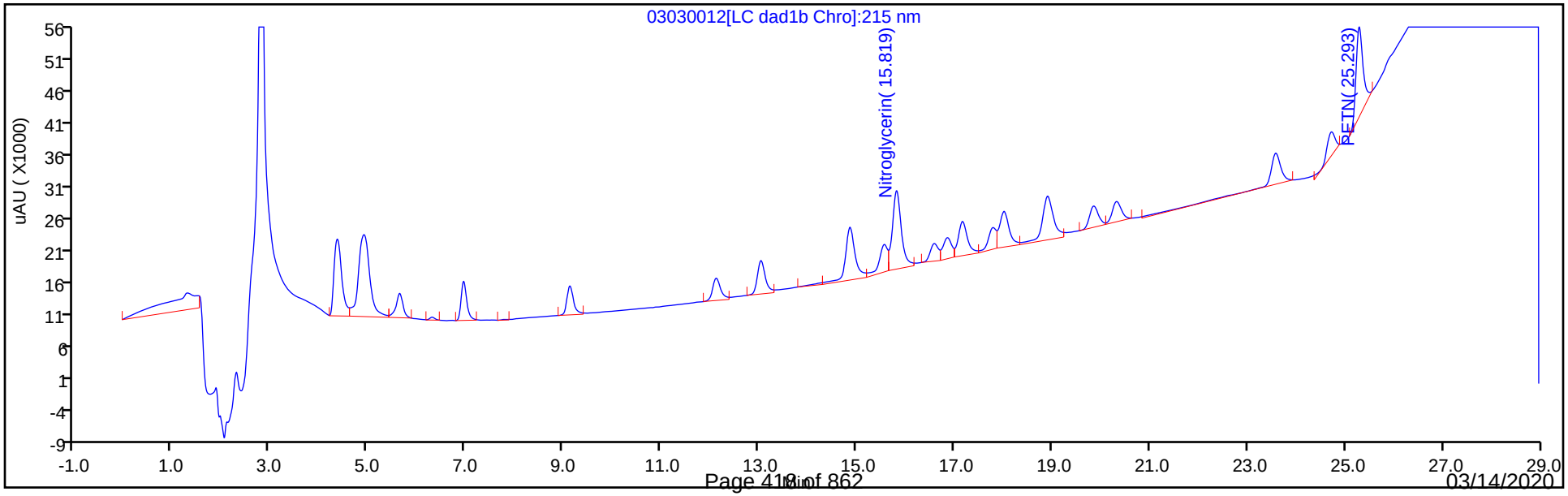
Eurofins TestAmerica, Denver

Data File:	\\chromna\denver\chromdata\g2_luna\20200303-89749.b\03030012.d				
Injection Date:	03-Mar-2020 20:56:37	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	CB
Lims ID:	IC FULL 3			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

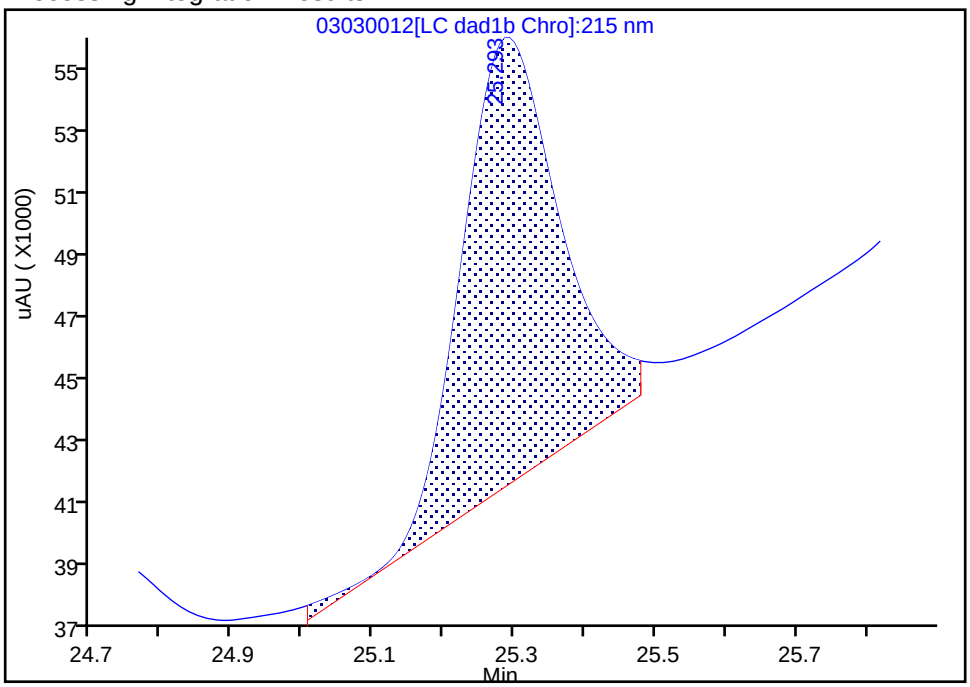
Data File:	\\chromna\denver\chromdata\g2_luna\20200303-89749.b\03030012.d				
Injection Date:	03-Mar-2020 20:56:37	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 3				
Client ID:					
Operator ID:	CB	ALS Bottle#:	12	Worklist Smp#:	12
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:		Detector	LC DAD1B, 215 nm		

24 PETN, CAS: 78-11-5

Signal: 1

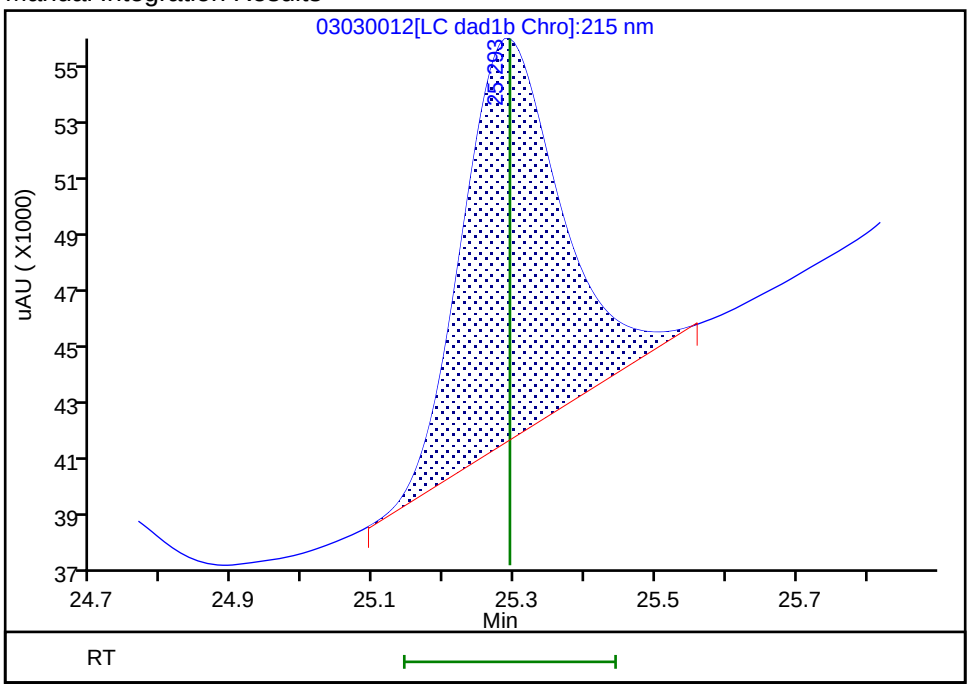
Processing Integration Results

RT: 25.29
Area: 137961
Amount: 0.771631
Amount Units: ug/ml



Manual Integration Results

RT: 25.29
Area: 137231
Amount: 0.884195
Amount Units: ug/ml



Reviewer: beckerc, 04-Mar-2020 08:24:16

Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\G2_LUNA\20200303-89749.b\03030013.D				
Lims ID:	IC FULL 2				
Client ID:					
Sample Type:	IC	Calib Level:	2		
Inject. Date:	03-Mar-2020 21:31:32	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	IC FULL 2				
Misc. Info.:	280-0089749-013				
Operator ID:	CB	Instrument ID:	CHHPLC_G2_LUNA		
Sublist:	chrom-G2_8330_Luna*sub6				
Method:	\\chromna\Denver\ChromData\G2_LUNA\20200303-89749.b\G2_8330_Luna.m				
Limit Group:	GCSV - 8330				
Last Update:	05-Mar-2020 11:40:09	Calib Date:	04-Mar-2020 03:21:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\G2_LUNA\20200303-89749.b\03030023.D				
Column 1 :	Luna-Phenyl hexyl (4.60 mm)		Det: LC DAD1A, 254 nm		
Process Host:	CTX0319				

First Level Reviewer: beckerc Date: 04-Mar-2020 08:25:34

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	4.369	4.360	0.009	24893	0.0500	0.0522	
2 2,4-diamino-6-nitrotoluene	1	4.916	4.913	0.003	15782	0.0500	0.0555	
5 2,4,6-Trinitrophenol	1	5.669	5.587	0.082	8266	0.0500	0.0430	
6 HMX	1	6.963	6.947	0.016	9479	0.0500	0.0439	
8 RDX	1	9.143	9.120	0.023	11532	0.0500	0.0419	
9 Nitrobenzene	1	12.129	12.113	0.016	19985	0.0502	0.0423	
$ 10 1,2-Dinitrobenzene	1	13.043	13.033	0.010	14905	0.0500	0.0417	
11 3,5-Dinitroaniline	1	14.863	14.853	0.010	27791	0.0500	0.0503	
12 1,3-Dinitrobenzene	1	15.569	15.553	0.016	34762	0.0501	0.0431	
13 Nitroglycerin	2	15.816	15.813	0.003	78861	0.5000	0.4331	
14 o-Nitrotoluene	1	16.596	16.580	0.016	11484	0.0500	0.0416	
15 p-Nitrotoluene	1	16.856	16.853	0.003	11346	0.0501	0.0432	
16 4-Amino-2,6-dinitrotoluene	1	17.169	17.160	0.009	17436	0.0501	0.0455	
17 m-Nitrotoluene	1	17.796	17.787	0.009	11864	0.0501	0.0446	
18 2-Amino-4,6-dinitrotoluene	1	18.016	18.013	0.003	25720	0.0502	0.0468	
19 1,3,5-Trinitrobenzene	1	18.909	18.907	0.002	26381	0.0501	0.0486	
20 2,6-Dinitrotoluene	1	19.856	19.853	0.003	15001	0.0502	0.0438	
21 2,4-Dinitrotoluene	1	20.323	20.320	0.003	31789	0.0502	0.0435	
22 Tetryl	1	23.589	23.580	0.009	18453	0.0501	0.0403	
23 2,4,6-Trinitrotoluene	1	24.716	24.713	0.003	20451	0.0502	0.0418	
24 PETN	2	25.296	25.293	0.003	64339	0.5000	0.3714	M

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

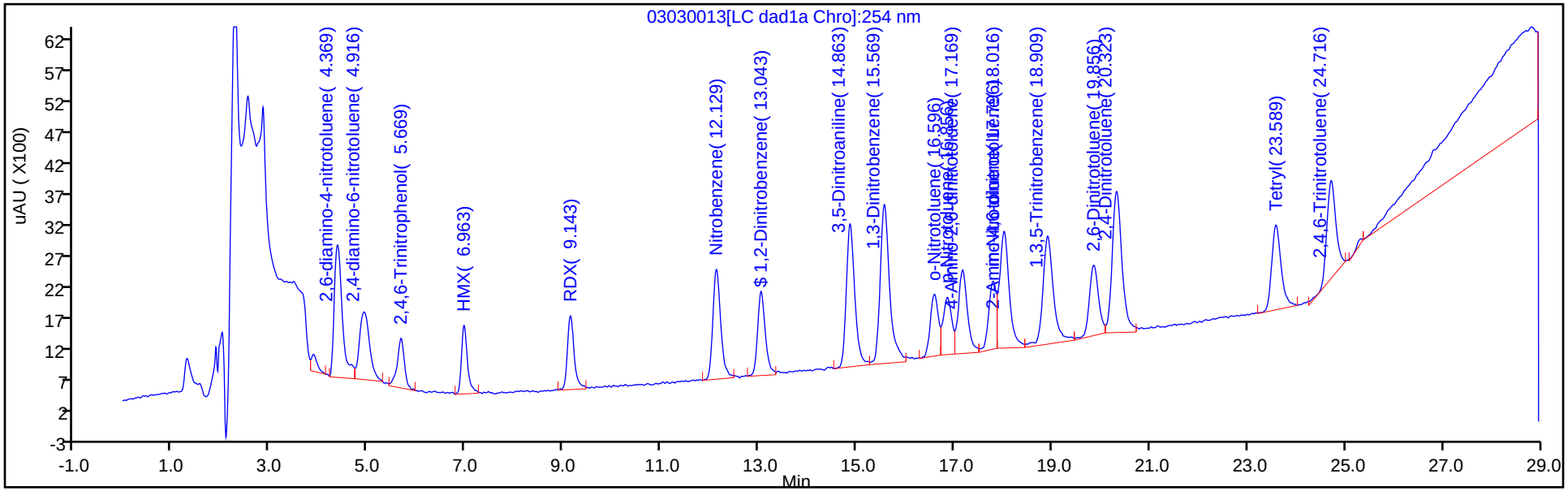
8330IntermStk_00061	Amount Added:	5.00	Units: uL
8330_ADDs_00023	Amount Added:	2.50	Units: uL

Report Date: 05-Mar-2020 11:40:10 Chrom Revision: 2.3 19-Feb-2020 16:45:46

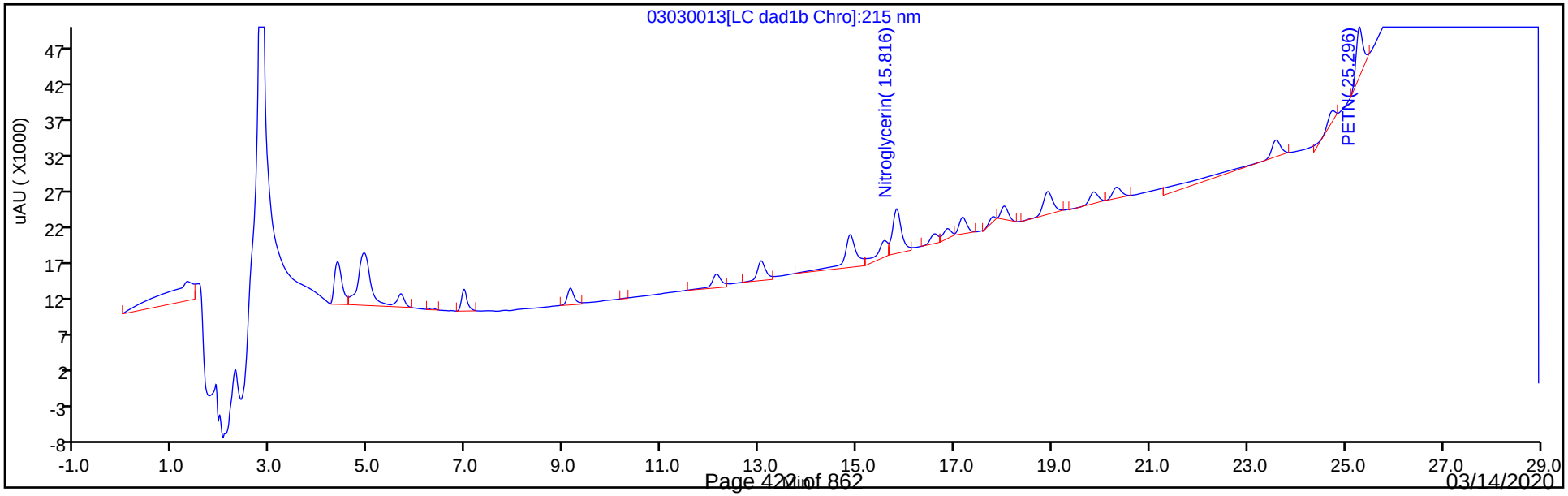
Eurofins TestAmerica, Denver

Data File:	\\chromna\denver\chromdata\g2_luna\20200303-89749.b\03030013.d				
Injection Date:	03-Mar-2020 21:31:32	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	CB
Lims ID:	IC FULL 2			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

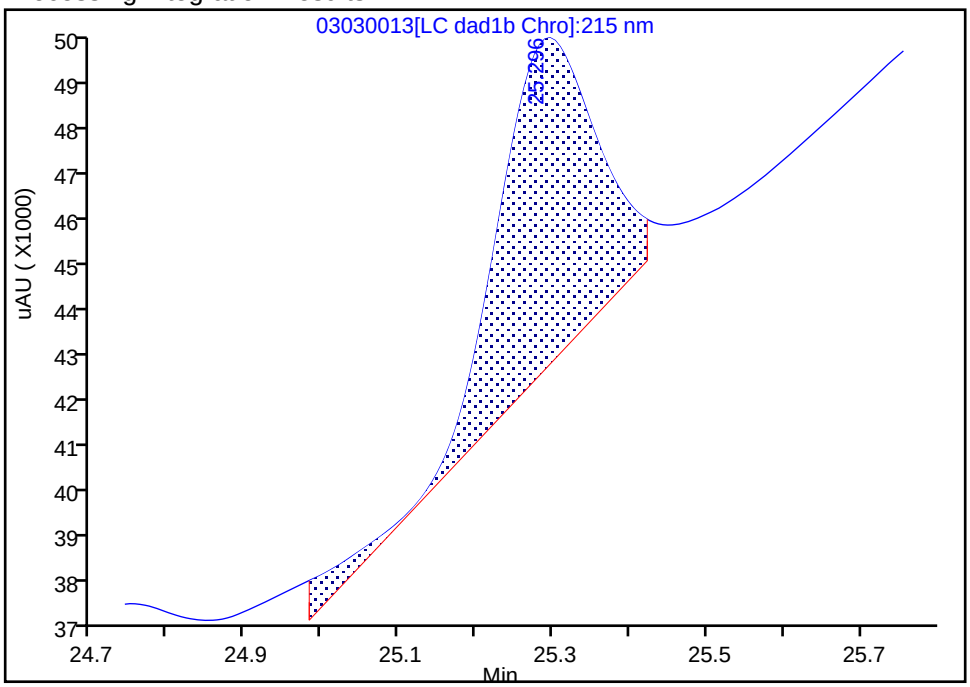
Data File:	\\chromna\denver\chromdata\g2_luna\20200303-89749.b\03030013.d				
Injection Date:	03-Mar-2020 21:31:32	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 2				
Client ID:					
Operator ID:	CB	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:		Detector	LC DAD1B, 215 nm		

24 PETN, CAS: 78-11-5

Signal: 1

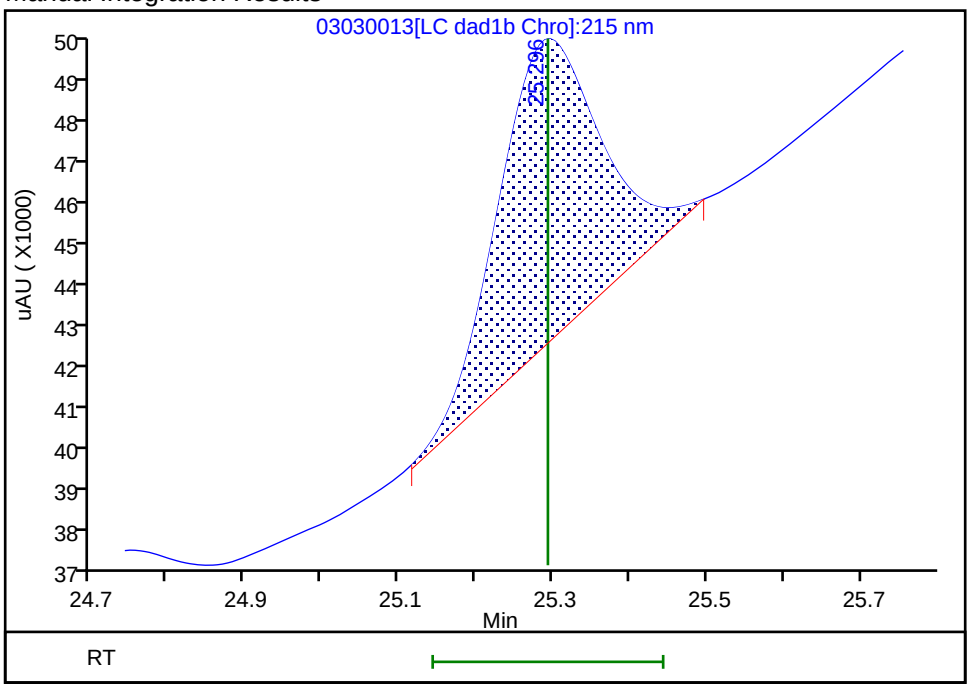
Processing Integration Results

RT: 25.30
Area: 62227
Amount: 0.229536
Amount Units: ug/ml



Manual Integration Results

RT: 25.30
Area: 64339
Amount: 0.371369
Amount Units: ug/ml



Reviewer: beckerc, 04-Mar-2020 08:24:58

Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\G2_LUNA\20200303-89749.b\03030014.D
Lims ID: IC FULL 1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 03-Mar-2020 22:06:26 ALS Bottle#: 14 Worklist Smp#: 14
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC FULL 1
Misc. Info.: 280-0089749-014
Operator ID: CB Instrument ID: CHHPLC_G2_LUNA
Sublist: chrom-G2_8330_Luna*sub6

Method: \\chromna\Denver\ChromData\G2_LUNA\20200303-89749.b\G2_8330_Luna.m
Limit Group: GCSV - 8330
Last Update: 05-Mar-2020 11:40:10 Calib Date: 04-Mar-2020 03:21:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\G2_LUNA\20200303-89749.b\03030023.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC DAD1A, 254 nm
Process Host: CTX0319

First Level Reviewer: beckerc Date: 04-Mar-2020 08:28:16

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	4.359	4.360	-0.001	9912	0.0200	0.0208	M
2 2,4-diamino-6-nitrotoluene	1	4.912	4.913	-0.001	4831	0.0200	0.0176	M
5 2,4,6-Trinitrophenol	1	5.672	5.587	0.085	3072	0.0100	0.0103	
6 HMX	1	6.945	6.947	-0.002	3664	0.0100	0.0103	
8 RDX	1	9.125	9.120	0.005	4935	0.0100	0.0103	
9 Nitrobenzene	1	12.119	12.113	0.006	7752	0.0100	0.0104	
$ 10 1,2-Dinitrobenzene	1	13.032	13.033	-0.001	6405	0.0100	0.0104	
11 3,5-Dinitroaniline	1	14.852	14.853	-0.001	11388	0.0200	0.0200	M
12 1,3-Dinitrobenzene	1	15.559	15.553	0.006	13866	0.0100	0.0103	M
13 Nitroglycerin	2	15.812	15.813	-0.001	32688	0.1000	0.1026	M
14 o-Nitrotoluene	1	16.579	16.580	-0.001	4434	0.0100	0.0103	M
15 p-Nitrotoluene	1	16.852	16.853	-0.001	4289	0.0100	0.0103	M
16 4-Amino-2,6-dinitrotoluene	1	17.165	17.160	0.005	6211	0.0100	0.0102	M
17 m-Nitrotoluene	1	17.772	17.787	-0.015	4144	0.0100	0.0103	M
18 2-Amino-4,6-dinitrotoluene	1	18.005	18.013	-0.008	9484	0.0100	0.0121	M
19 1,3,5-Trinitrobenzene	1	18.905	18.907	-0.002	8677	0.0100	0.0101	M
20 2,6-Dinitrotoluene	1	19.845	19.853	-0.008	5674	0.0100	0.0103	M
21 2,4-Dinitrotoluene	1	20.312	20.320	-0.008	12157	0.0100	0.0103	M
22 Tetryl	1	23.585	23.580	0.005	8212	0.0100	0.0105	
23 2,4,6-Trinitrotoluene	1	24.712	24.713	-0.001	7922	0.0100	0.0104	M
24 PETN	2	25.465	25.293	0.172	31969	0.1000	0.1436	M

QC Flag Legend

Review Flags
M - Manually Integrated

Reagents:

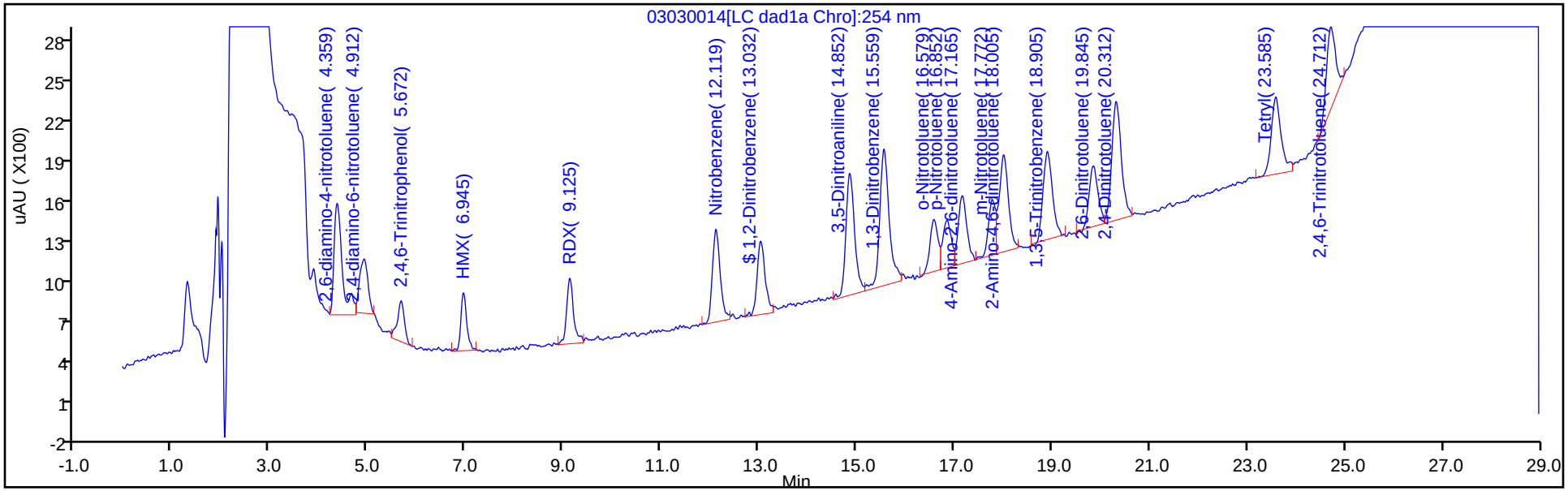
8330IntermStk_00061	Amount Added:	1.00	Units: uL
8330_ADDs_00023	Amount Added:	1.00	Units: uL

Report Date: 05-Mar-2020 11:40:10 Chrom Revision: 2.3 19-Feb-2020 16:45:46

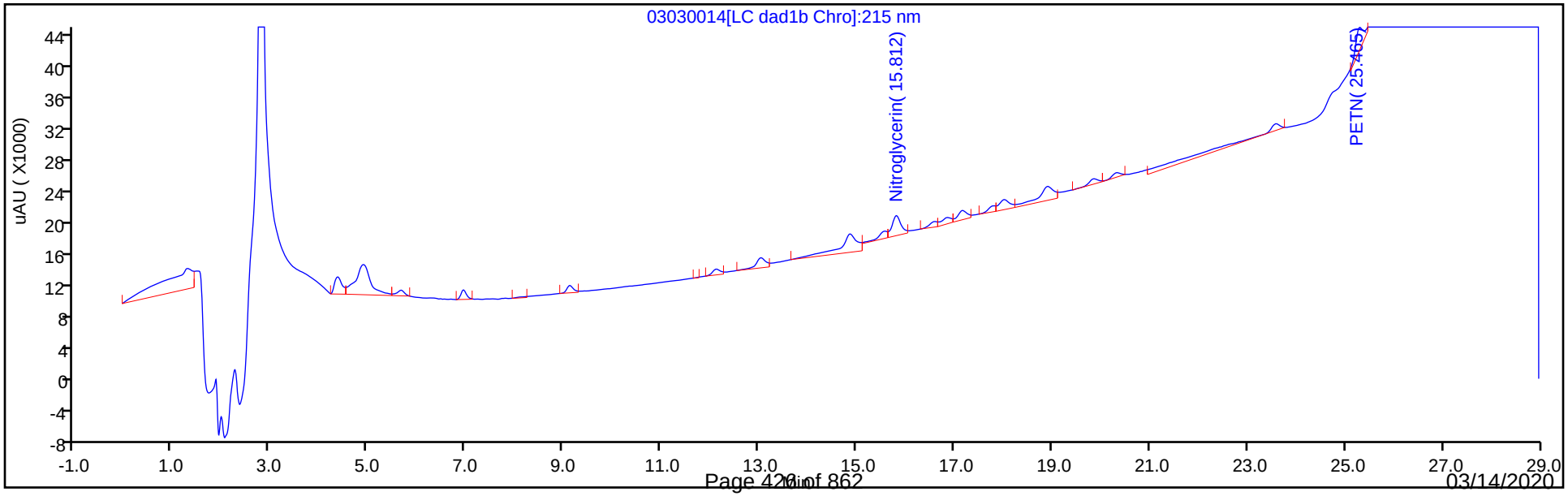
Eurofins TestAmerica, Denver

Data File:	\\chromna\denver\chromdata\g2_luna\20200303-89749.b\03030014.d				
Injection Date:	03-Mar-2020 22:06:26	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	CB
Lims ID:	IC FULL 1			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

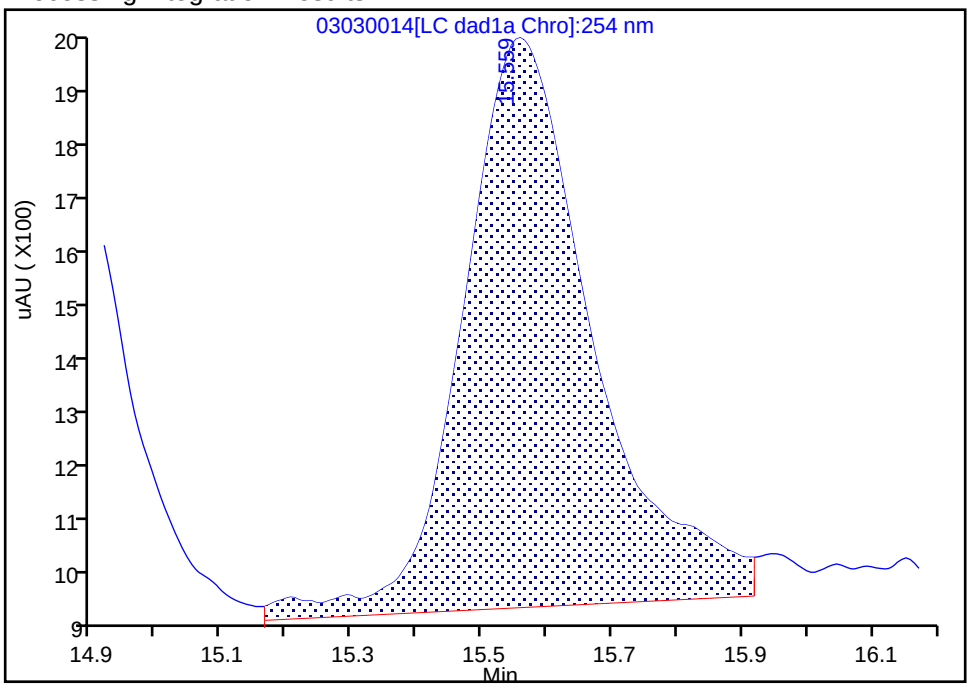
Data File:	\\chromna\denver\chromdata\g2_luna\20200303-89749.b\03030014.d				
Injection Date:	03-Mar-2020 22:06:26	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 1				
Client ID:					
Operator ID:	CB	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

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

Signal: 1

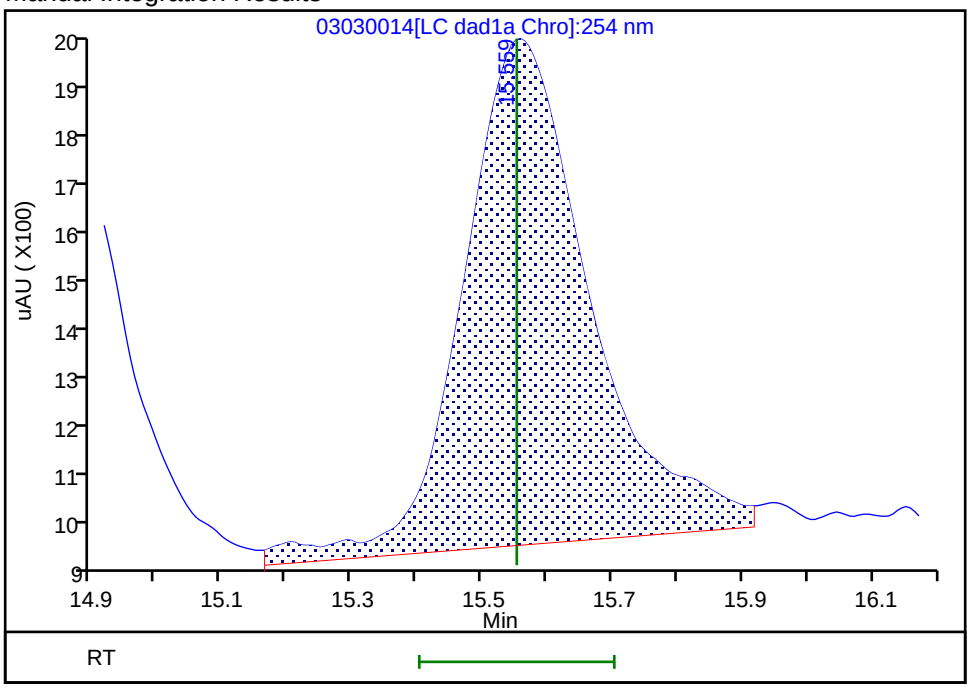
Processing Integration Results

RT: 15.56
Area: 14386
Amount: 0.010336
Amount Units: ug/ml



Manual Integration Results

RT: 15.56
Area: 13866
Amount: 0.010308
Amount Units: ug/ml



Reviewer: beckerc, 04-Mar-2020 08:28:10
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

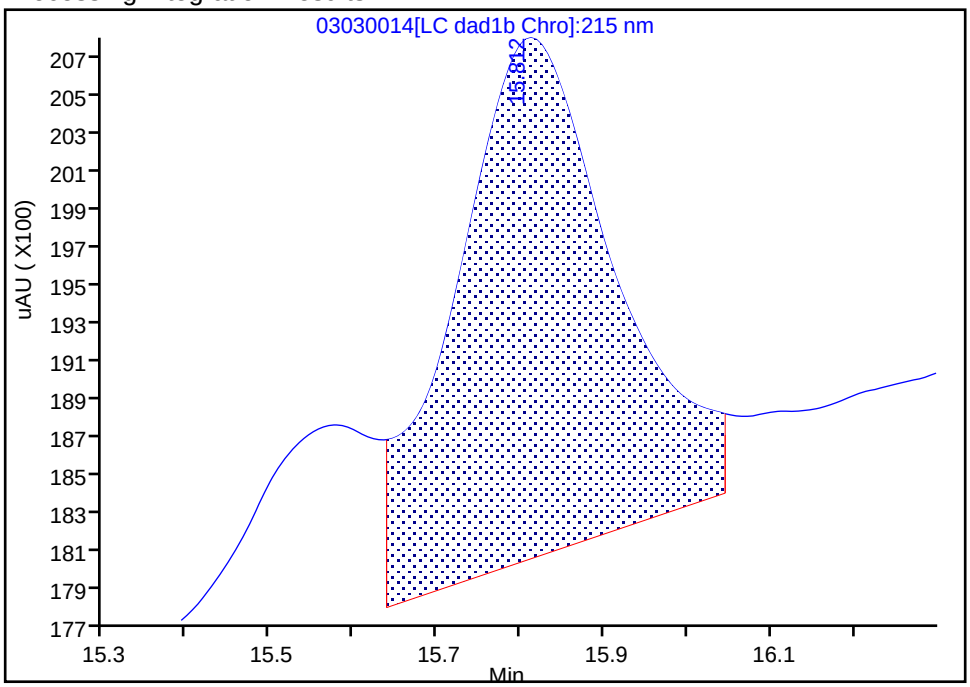
Data File:	\\chromna\denver\chromdata\g2_luna\20200303-89749.b\03030014.d				
Injection Date:	03-Mar-2020 22:06:26	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 1				
Client ID:					
Operator ID:	CB	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:		Detector	LC DAD1B, 215 nm		

13 Nitroglycerin, CAS: 55-63-0

Signal: 1

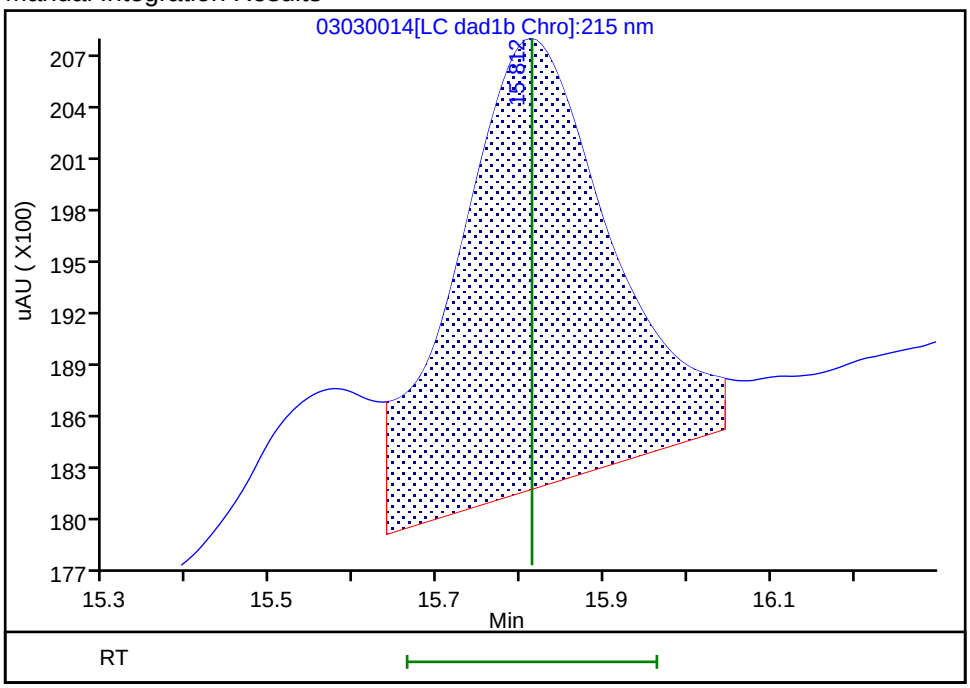
Processing Integration Results

RT: 15.81
Area: 35433
Amount: 0.196572
Amount Units: ug/ml



Manual Integration Results

RT: 15.81
Area: 32688
Amount: 0.102586
Amount Units: ug/ml



Reviewer: beckerc, 04-Mar-2020 08:27:58
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

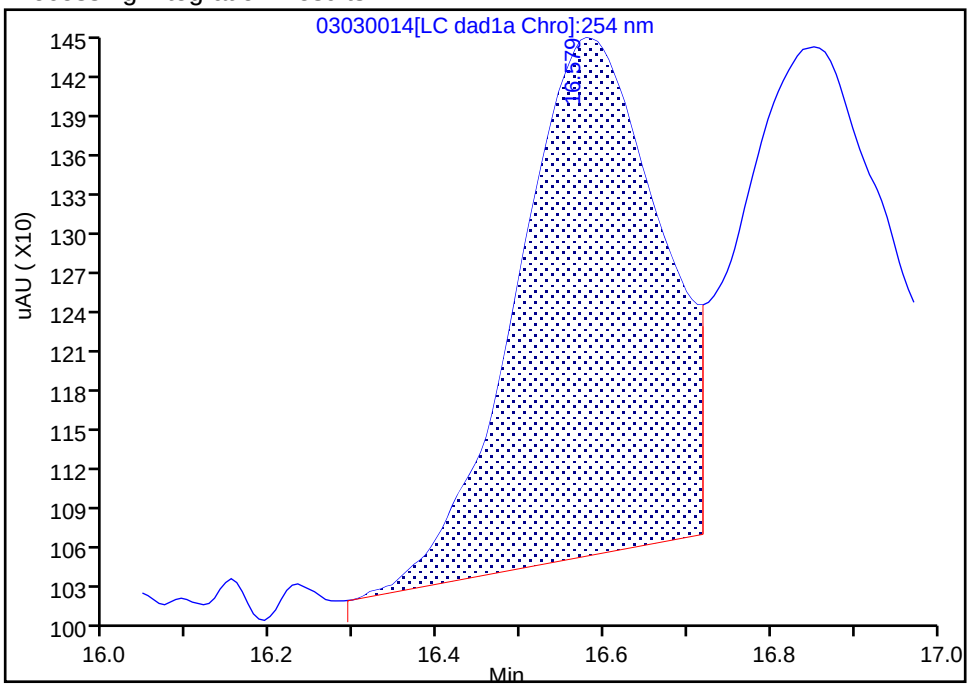
Data File:	\\chromna\denver\chromdata\g2_luna\20200303-89749.b\03030014.d				
Injection Date:	03-Mar-2020 22:06:26	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 1				
Client ID:					
Operator ID:	CB	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

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

Signal: 1

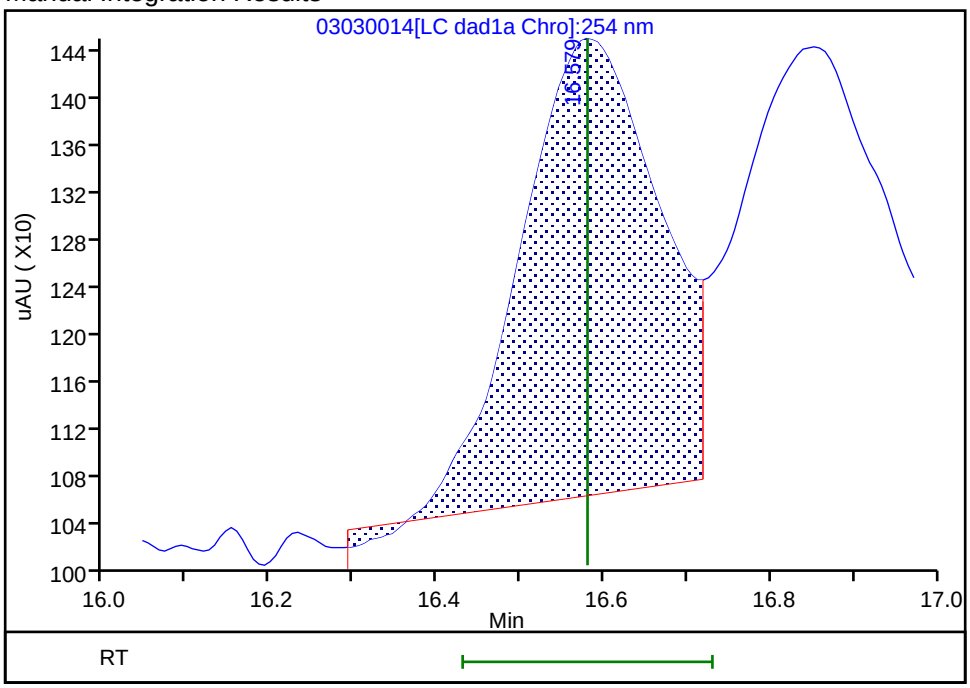
Processing Integration Results

RT: 16.58
Area: 4716
Amount: 0.010380
Amount Units: ug/ml



Manual Integration Results

RT: 16.58
Area: 4434
Amount: 0.010340
Amount Units: ug/ml



Reviewer: beckerc, 04-Mar-2020 08:28:10
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

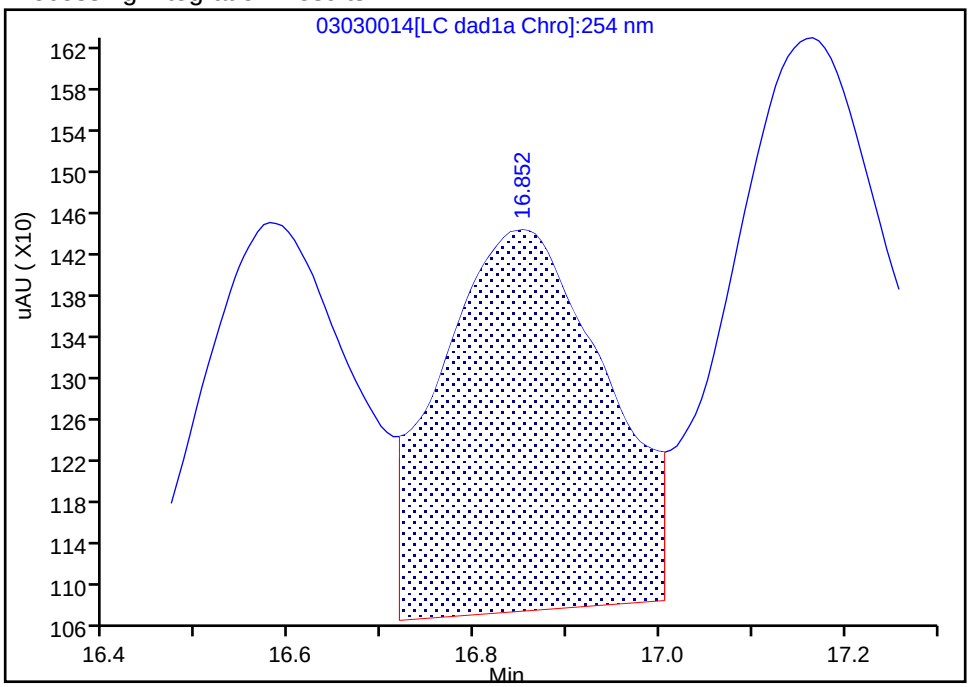
Data File:	\\chromna\denver\chromdata\g2_luna\20200303-89749.b\03030014.d				
Injection Date:	03-Mar-2020 22:06:26	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 1				
Client ID:					
Operator ID:	CB	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

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

Signal: 1

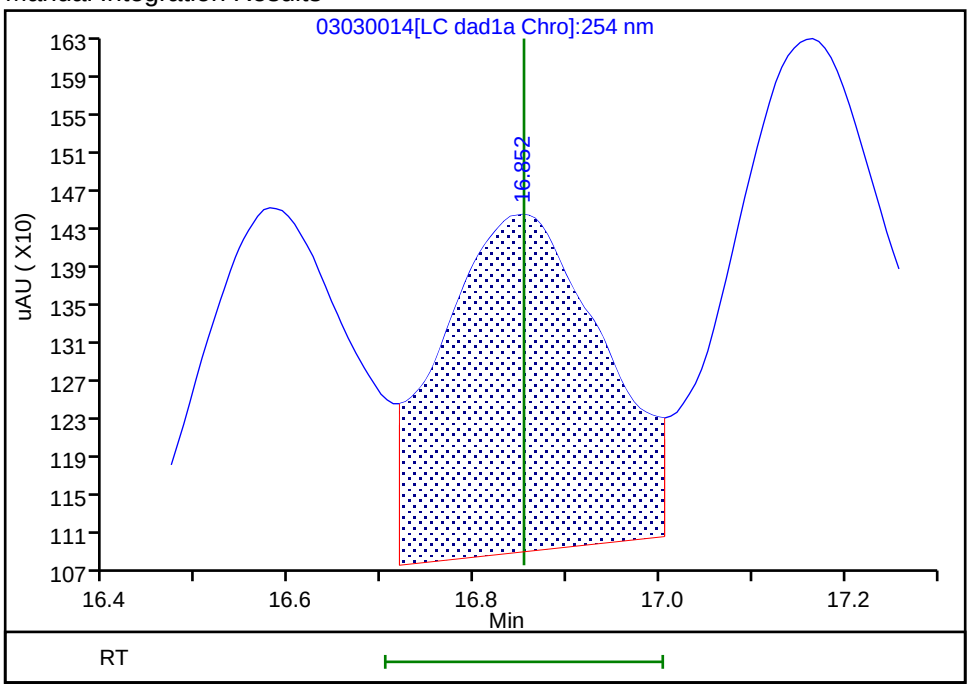
Processing Integration Results

RT: 16.85
Area: 4504
Amount: 0.010349
Amount Units: ug/ml



Manual Integration Results

RT: 16.85
Area: 4289
Amount: 0.010317
Amount Units: ug/ml



Reviewer: beckerc, 04-Mar-2020 08:28:10
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

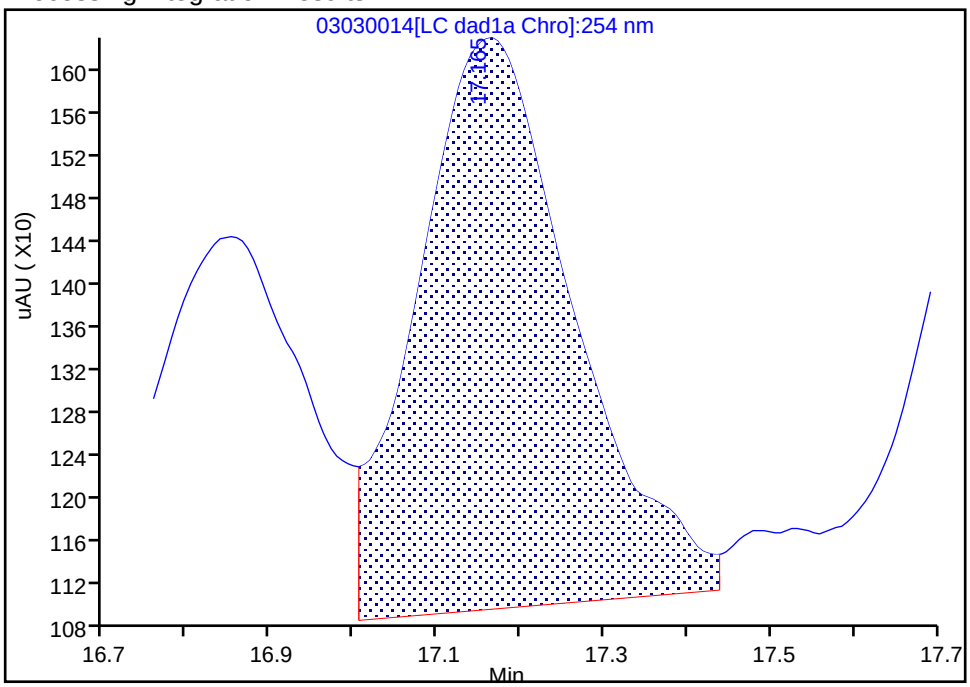
Data File:	\\chromna\denver\chromdata\g2_luna\20200303-89749.b\03030014.d				
Injection Date:	03-Mar-2020 22:06:26	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 1				
Client ID:					
Operator ID:	CB	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

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

Signal: 1

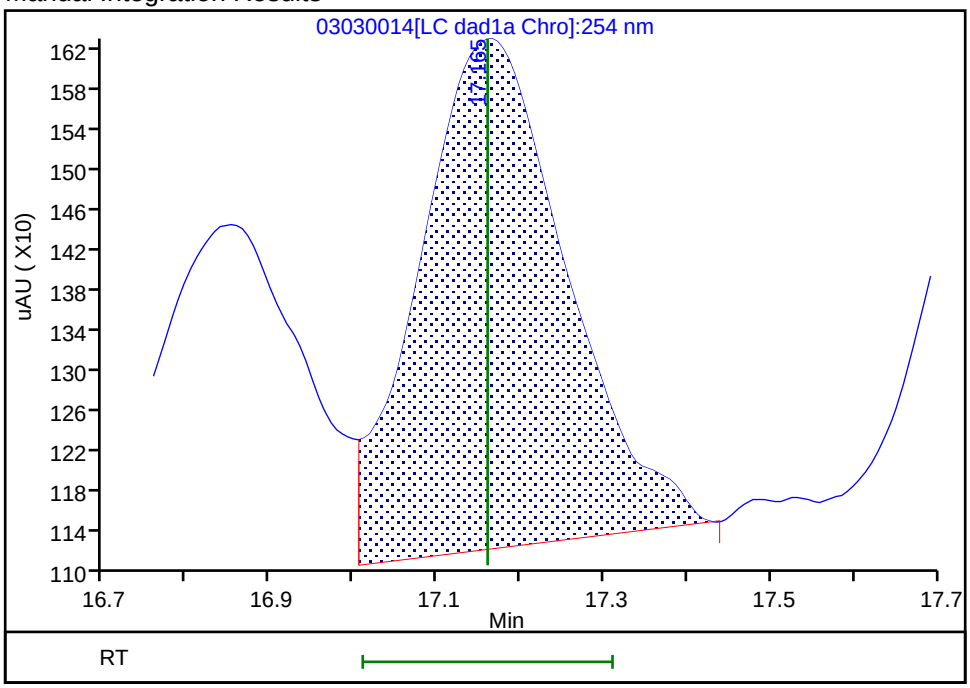
Processing Integration Results

RT: 17.17
Area: 6887
Amount: 0.073603
Amount Units: ug/ml



Manual Integration Results

RT: 17.17
Area: 6211
Amount: 0.010211
Amount Units: ug/ml



Reviewer: beckerc, 04-Mar-2020 08:28:10
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

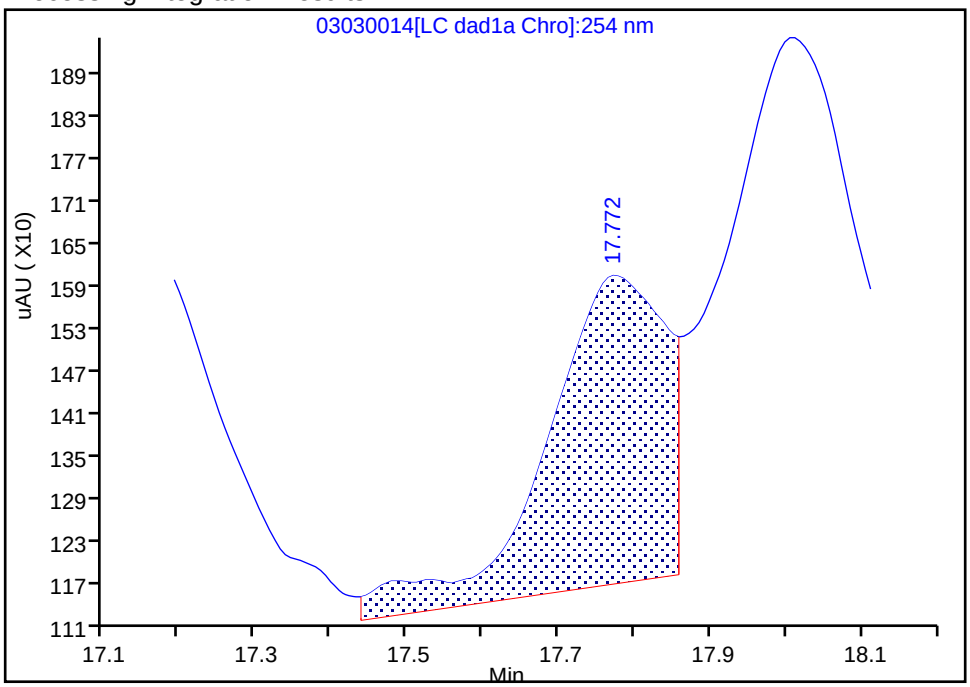
Data File:	\\chromna\denver\chromdata\g2_luna\20200303-89749.b\03030014.d				
Injection Date:	03-Mar-2020 22:06:26	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 1				
Client ID:					
Operator ID:	CB	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

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

Signal: 1

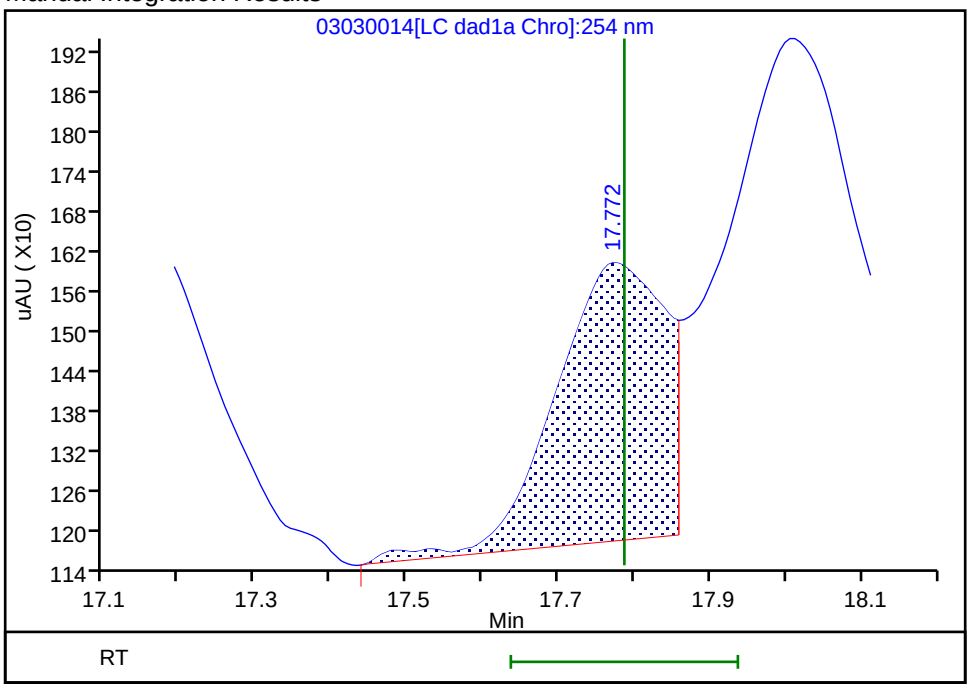
Processing Integration Results

RT: 17.77
Area: 4748
Amount: NaN
Amount Units: ug/ml



Manual Integration Results

RT: 17.77
Area: 4144
Amount: 0.010250
Amount Units: ug/ml



Reviewer: beckerc, 04-Mar-2020 08:28:10
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

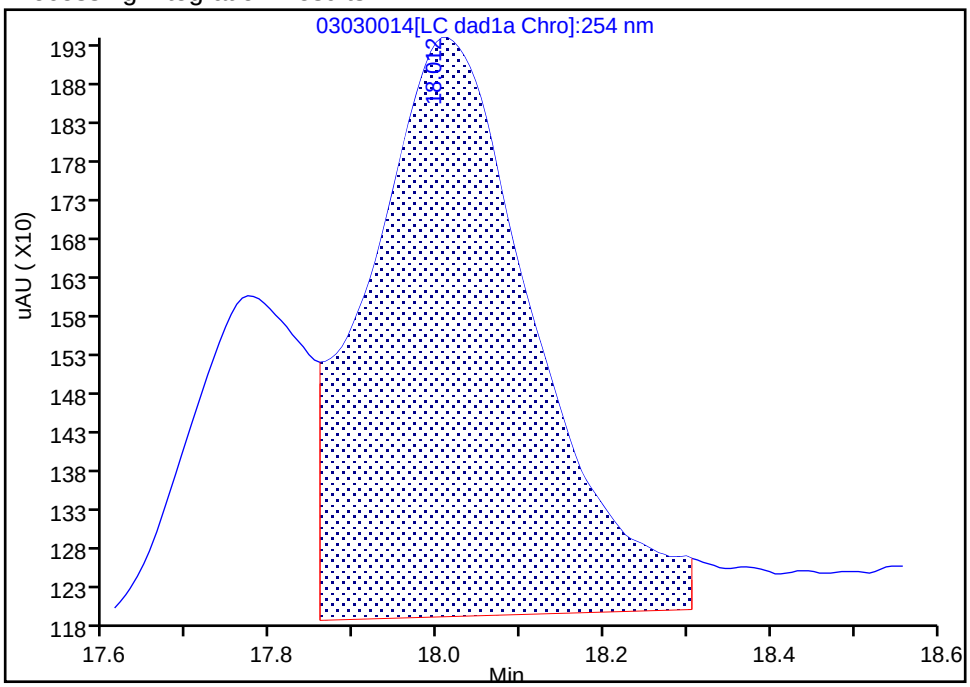
Data File:	\\chromna\denver\chromdata\g2_luna\20200303-89749.b\03030014.d				
Injection Date:	03-Mar-2020 22:06:26	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 1				
Client ID:					
Operator ID:	CB	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

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

Signal: 1

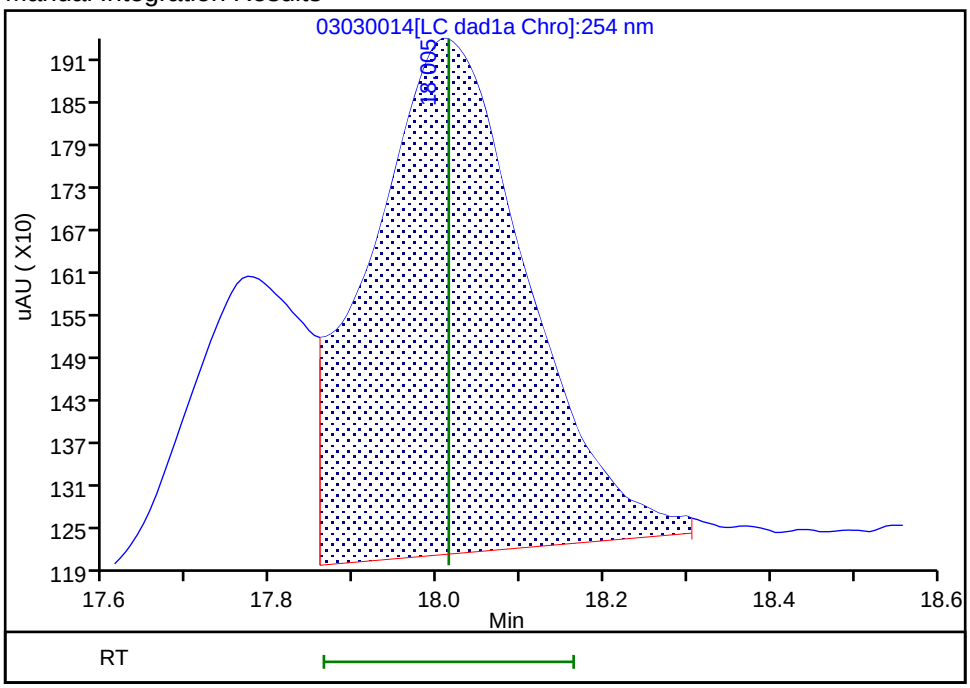
Processing Integration Results

RT: 18.01
Area: 10275
Amount: 0.013107
Amount Units: ug/ml



Manual Integration Results

RT: 18.01
Area: 9484
Amount: 0.012147
Amount Units: ug/ml



Reviewer: beckerc, 04-Mar-2020 08:28:10
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

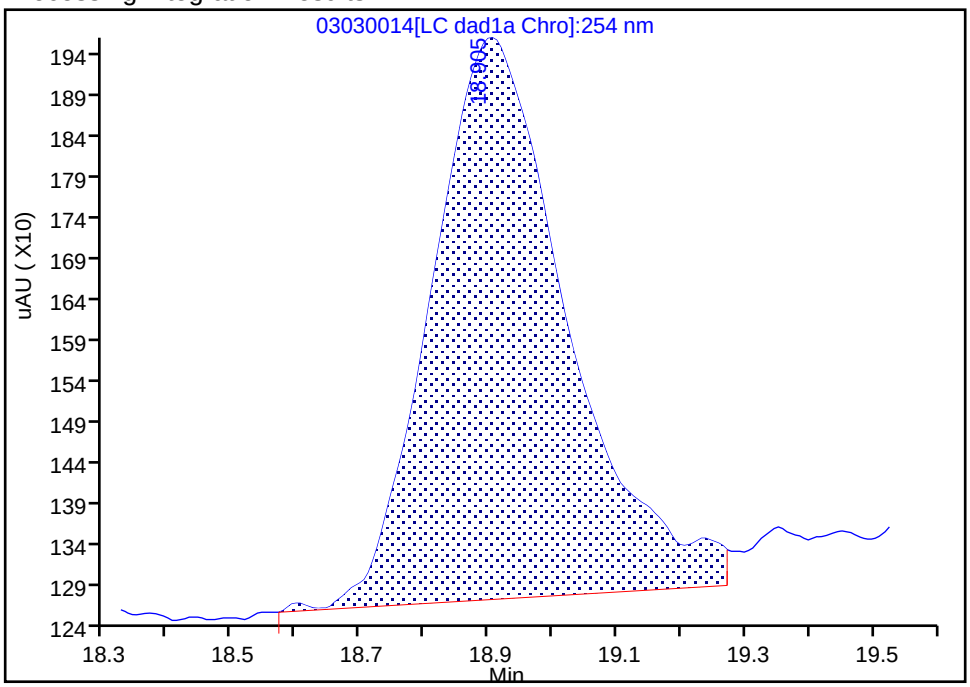
Data File:	\\chromna\denver\chromdata\g2_luna\20200303-89749.b\03030014.d				
Injection Date:	03-Mar-2020 22:06:26	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 1				
Client ID:					
Operator ID:	CB	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

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

Signal: 1

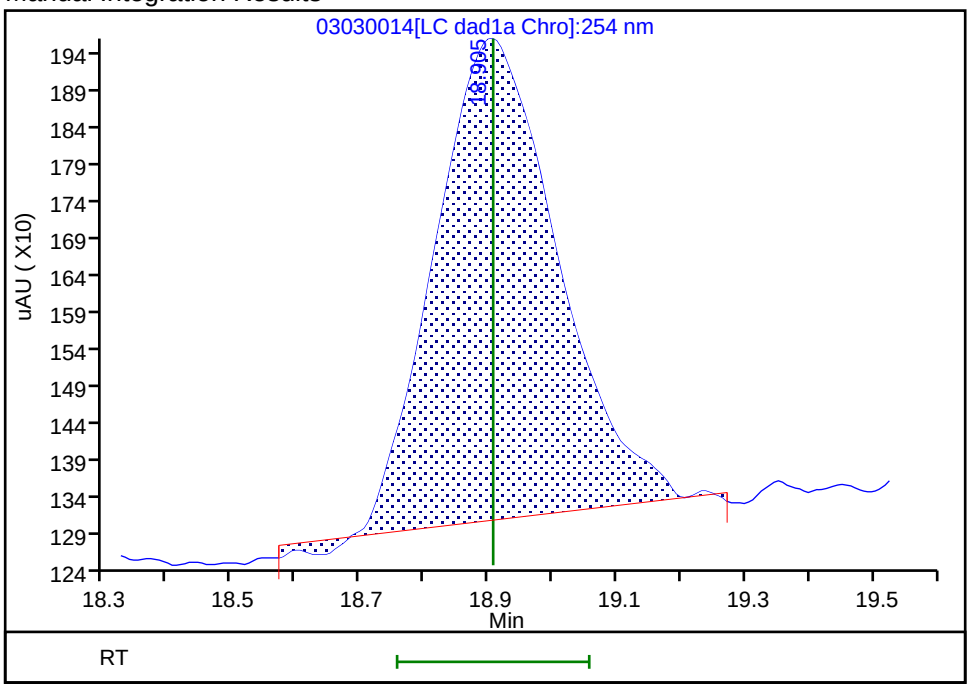
Processing Integration Results

RT: 18.91
Area: 10210
Amount: 0.010234
Amount Units: ug/ml



Manual Integration Results

RT: 18.91
Area: 8677
Amount: 0.010121
Amount Units: ug/ml



Reviewer: beckerc, 04-Mar-2020 08:28:10

Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

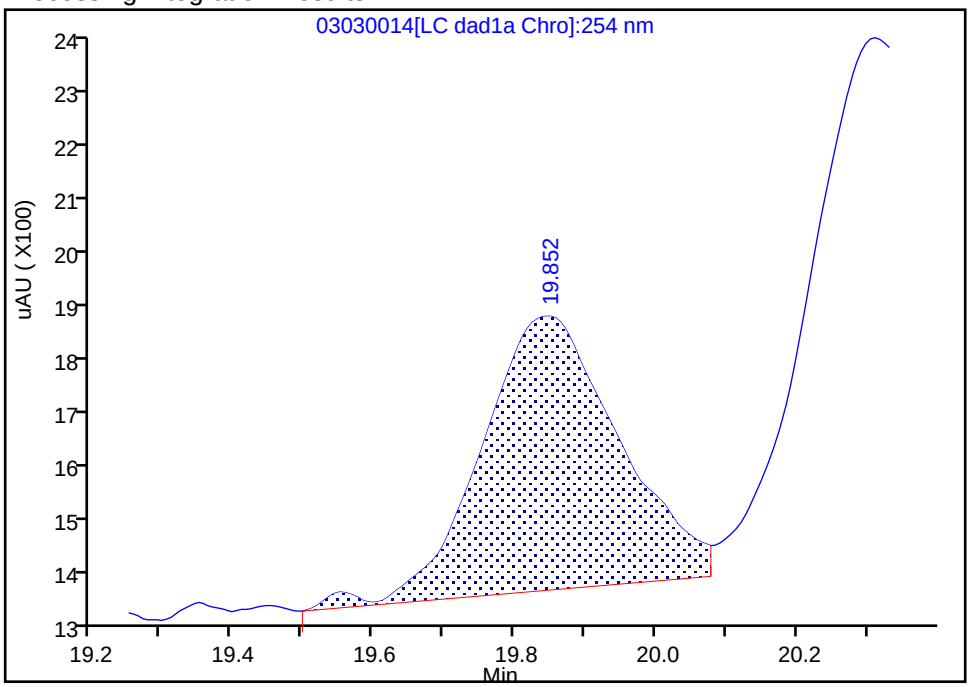
Data File:	\\chromna\denver\chromdata\g2_luna\20200303-89749.b\03030014.d				
Injection Date:	03-Mar-2020 22:06:26	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 1				
Client ID:					
Operator ID:	CB	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

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

Signal: 1

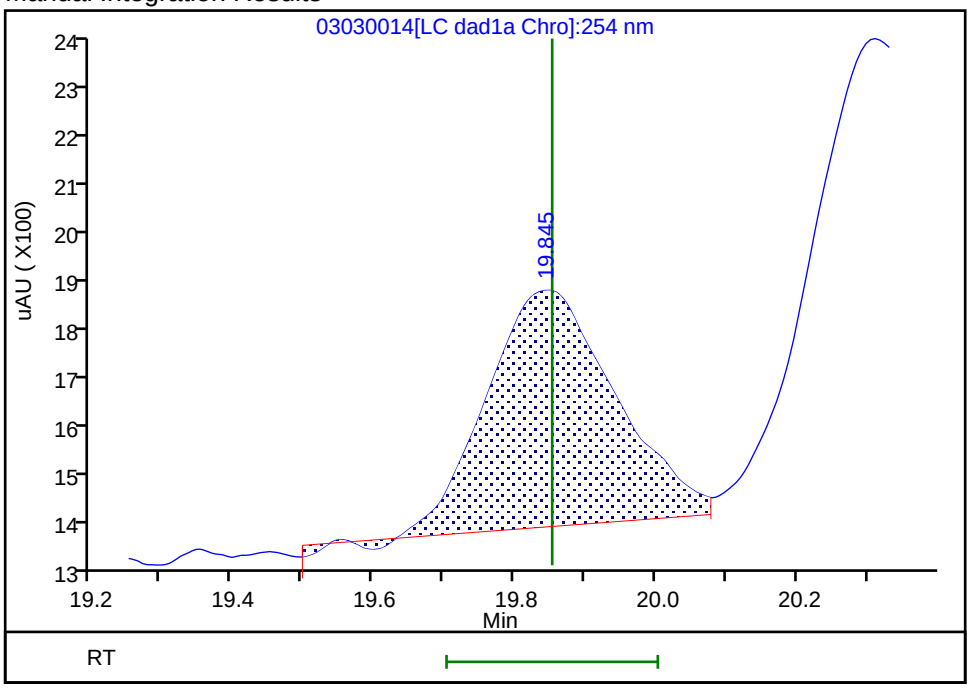
Processing Integration Results

RT: 19.85
Area: 6422
Amount: 0.010407
Amount Units: ug/ml



Manual Integration Results

RT: 19.85
Area: 5674
Amount: 0.010314
Amount Units: ug/ml



Reviewer: beckerc, 04-Mar-2020 08:28:10
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

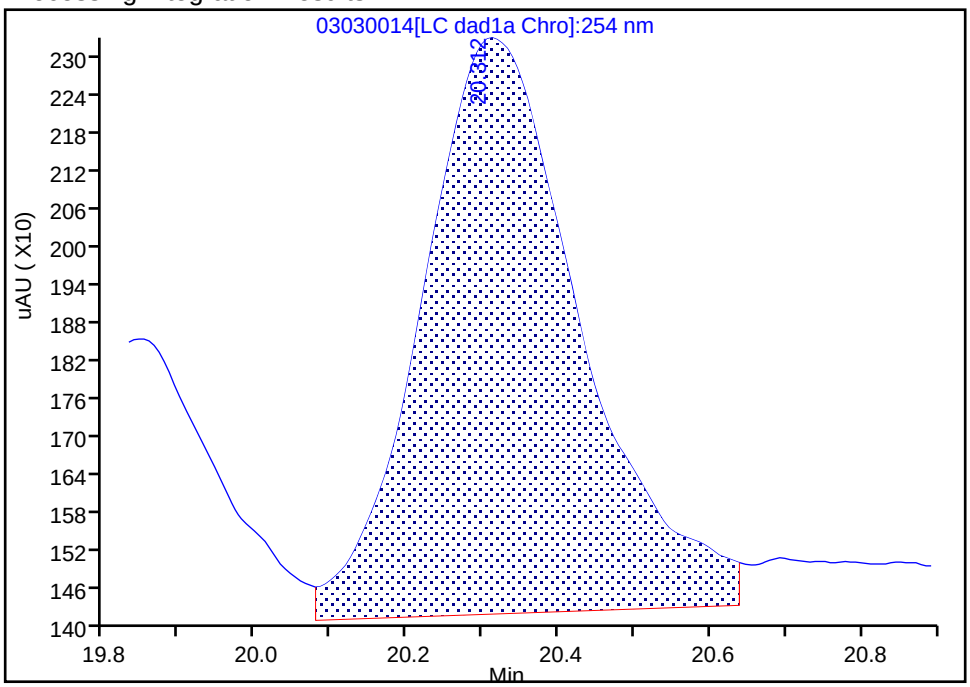
Data File:	\\chromna\denver\chromdata\g2_luna\20200303-89749.b\03030014.d				
Injection Date:	03-Mar-2020 22:06:26	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 1				
Client ID:					
Operator ID:	CB	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

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

Signal: 1

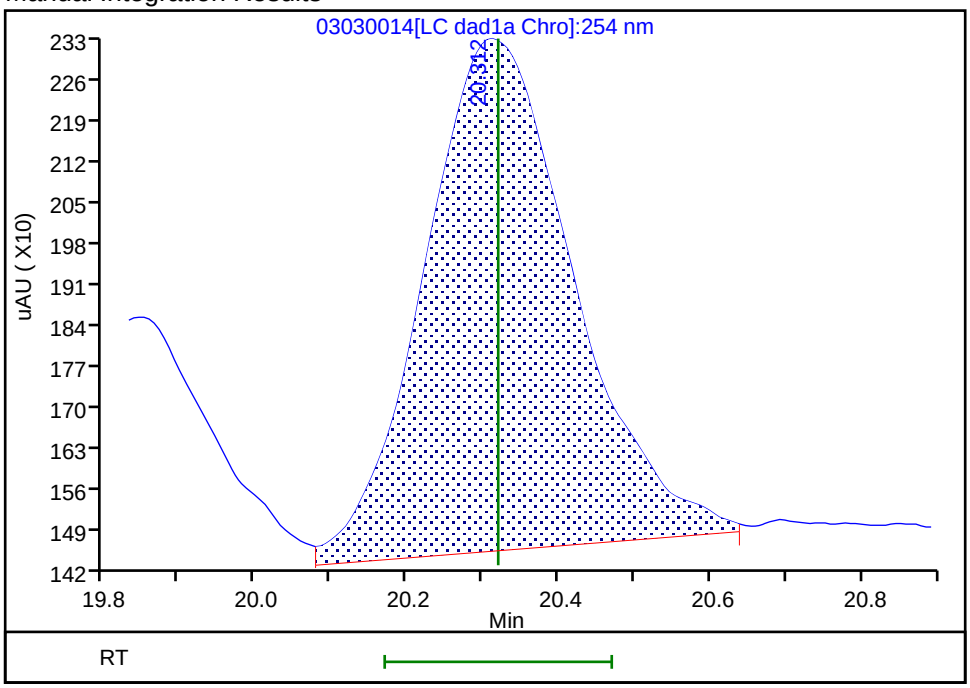
Processing Integration Results

RT: 20.31
Area: 13433
Amount: 0.010397
Amount Units: ug/ml



Manual Integration Results

RT: 20.31
Area: 12157
Amount: 0.010322
Amount Units: ug/ml



Reviewer: beckerc, 04-Mar-2020 08:28:10
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

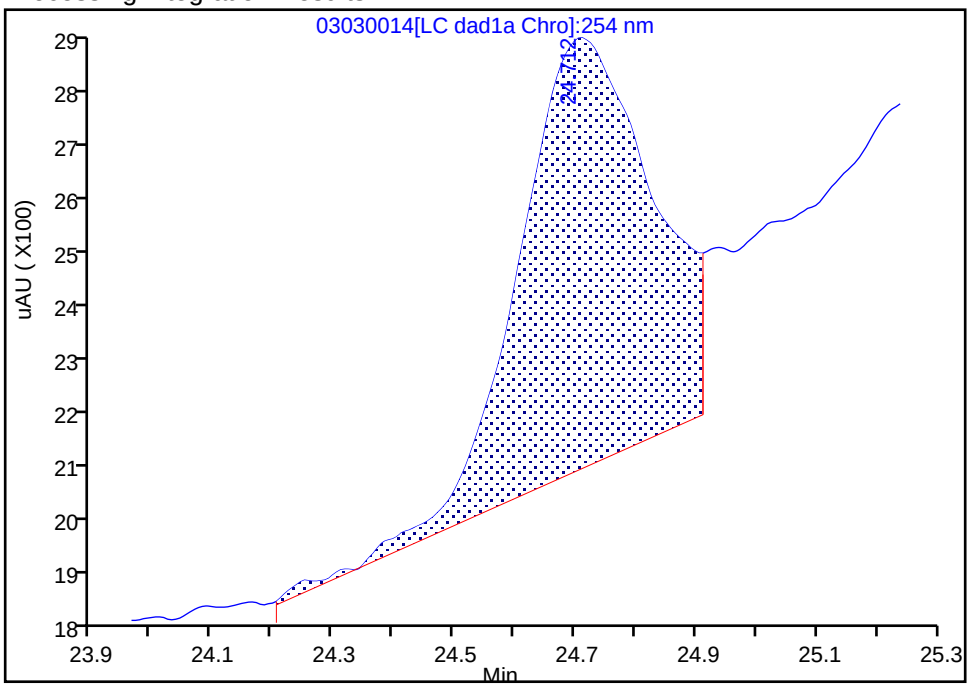
Data File:	\\chromna\denver\chromdata\g2_luna\20200303-89749.b\03030014.d				
Injection Date:	03-Mar-2020 22:06:26	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 1				
Client ID:					
Operator ID:	CB	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

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

Signal: 1

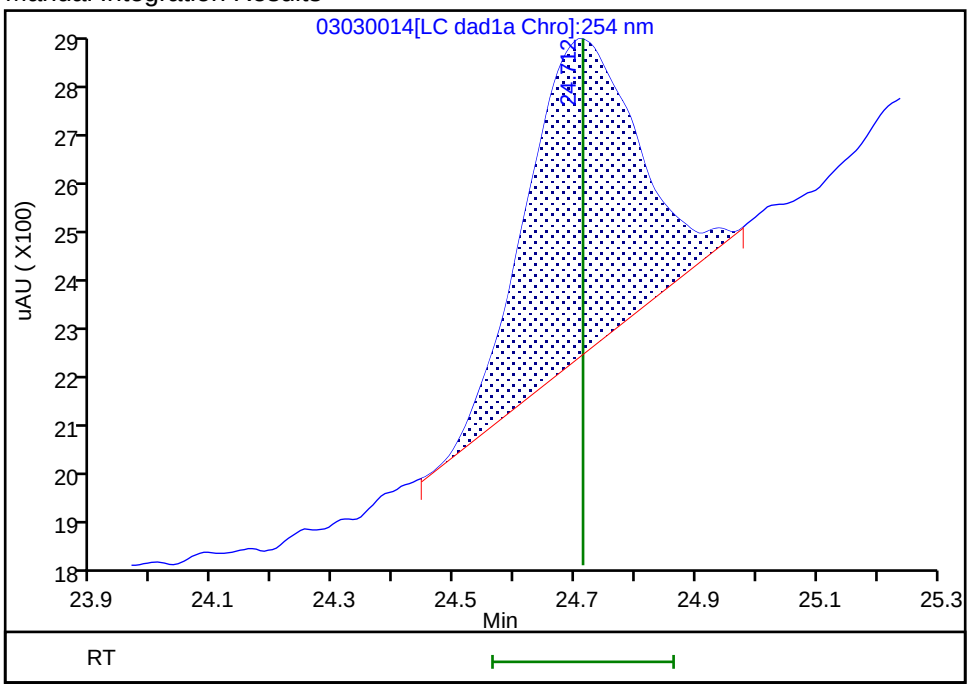
Processing Integration Results

RT: 24.71
Area: 11542
Amount: 0.014517
Amount Units: ug/ml



Manual Integration Results

RT: 24.71
Area: 7922
Amount: 0.010389
Amount Units: ug/ml



Reviewer: beckerc, 04-Mar-2020 08:27:29

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

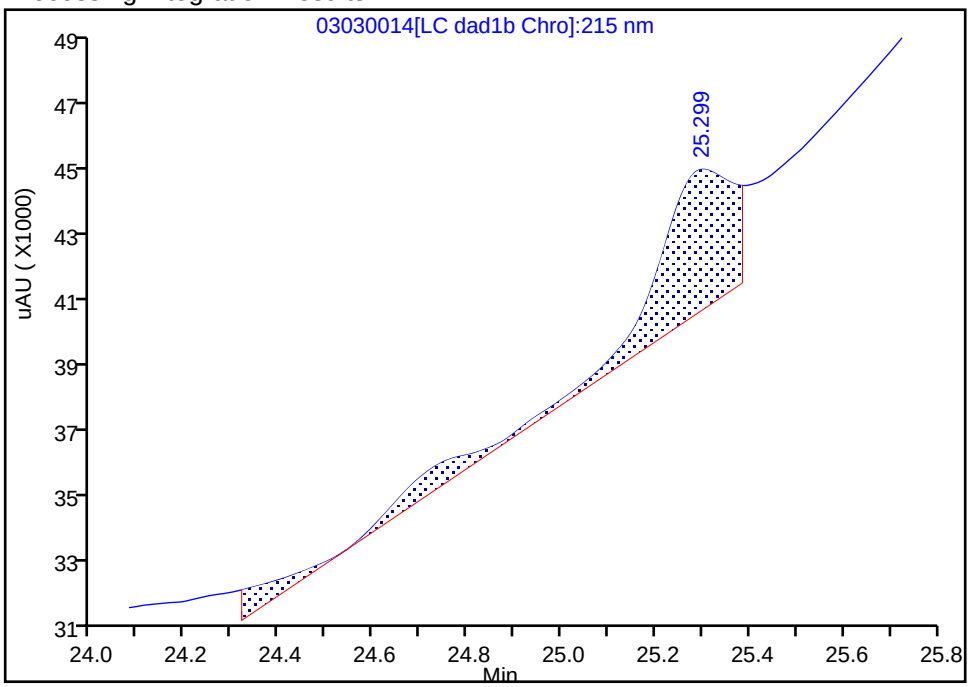
Data File:	\\chromna\denver\chromdata\g2_luna\20200303-89749.b\03030014.d				
Injection Date:	03-Mar-2020 22:06:26	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC FULL 1				
Client ID:					
Operator ID:	CB	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:		Detector	LC DAD1B, 215 nm		

24 PETN, CAS: 78-11-5

Signal: 1

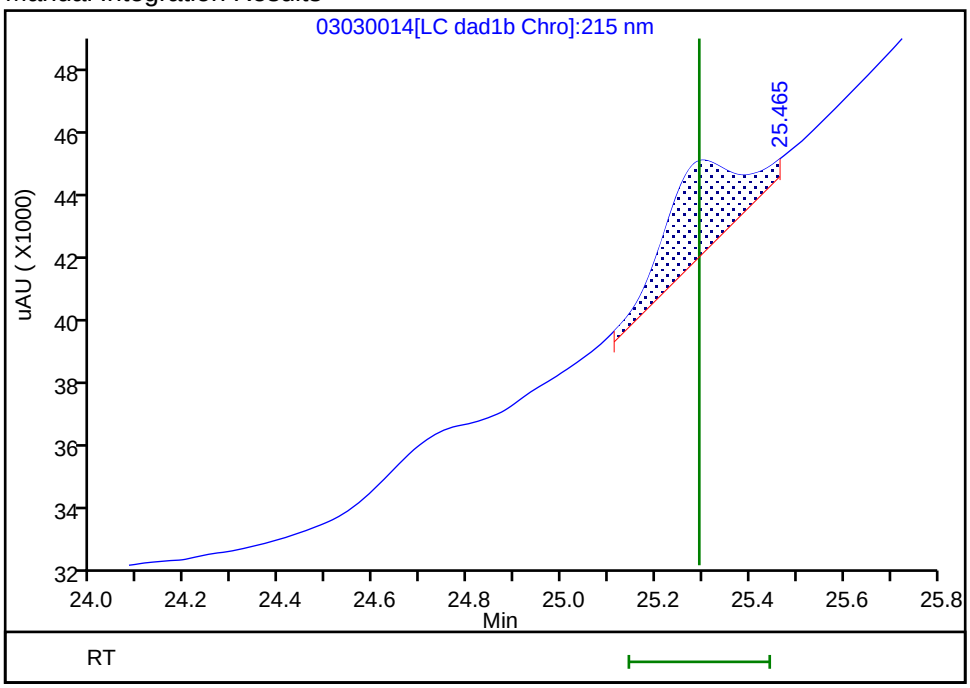
Processing Integration Results

RT: 25.30
Area: 56322
Amount: 0.185048
Amount Units: ug/ml



Manual Integration Results

RT: 25.47
Area: 31969
Amount: 0.143632
Amount Units: ug/ml



Reviewer: beckerc, 04-Mar-2020 08:27:41

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.: 280-134141-1 Analy Batch No.: 487544

SDG No.:

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

Calibration Start Date: 03/03/2020 23:16 Calibration End Date: 03/04/2020 03:21 Calibration ID: 42493

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-487544/23	03030023.D
Level 2	IC 280-487544/22	03030022.D
Level 3	IC 280-487544/21	03030021.D
Level 4	IC 280-487544/20	03030020.D
Level 5	IC 280-487544/19	03030019.D
Level 6	IC 280-487544/18	03030018.D
Level 7	IC 280-487544/17	03030017.D
Level 8	IC 280-487544/16	03030016.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	LVL 7	LVL 8			RT WINDOW	AVG RT
TNX	5.403	5.400	5.400	5.398	5.400	5.405	5.407	5.380			5.250 - 5.550	5.399
DNX	6.203	6.207	6.200	6.205	6.200	6.205	6.213	6.187			6.050 - 6.350	6.203
MNX	7.710	7.714	7.707	7.711	7.707	7.711	7.720	7.693			7.557 - 7.857	7.709

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

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134141-1 Analy Batch No.: 487544

SDG No.:

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

Calibration Start Date: 03/03/2020 23:16 Calibration End Date: 03/04/2020 03:21 Calibration ID: 42493

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-487544/23	03030023.D
Level 2	IC 280-487544/22	03030022.D
Level 3	IC 280-487544/21	03030021.D
Level 4	IC 280-487544/20	03030020.D
Level 5	IC 280-487544/19	03030019.D
Level 6	IC 280-487544/18	03030018.D
Level 7	IC 280-487544/17	03030017.D
Level 8	IC 280-487544/16	03030016.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	470380 456214	448112 450390	453067 460609	435297 462553	Ave		454577.672				2.3		20.0			
DNX	334765 329366	328172 324187	328432 331166	315828 330710	Ave		327828.250				1.7		20.0			
MNX	309254 308231	311380 302759	303033 307918	296586 306966	Ave		305765.831				1.5		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.: 280-134141-1 Analy Batch No.: 487544

SDG No.:

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

Calibration Start Date: 03/03/2020 23:16 Calibration End Date: 03/04/2020 03:21 Calibration ID: 42493

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-487544/23	03030023.D
Level 2	IC 280-487544/22	03030022.D
Level 3	IC 280-487544/21	03030021.D
Level 4	IC 280-487544/20	03030020.D
Level 5	IC 280-487544/19	03030019.D
Level 6	IC 280-487544/18	03030018.D
Level 7	IC 280-487544/17	03030017.D
Level 8	IC 280-487544/16	03030016.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	9417 315588	22428 461070	45352 1157540	108933	182668	0.0200 0.701	0.0501 1.00	0.100 2.50	0.250	0.400
DNX	Ave	6702 227158	16425 331497	32876 827603	79036	131878	0.0200 0.701	0.0501 1.00	0.100 2.50	0.250	0.400
MNX	Ave	7218 247324	18169 359340	35364 895572	86529	143882	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\G2_LUNA\20200303-89749.b\03030016.D				
Lims ID:	IC DMT 8				
Client ID:					
Sample Type:	IC	Calib Level:	8		
Inject. Date:	03-Mar-2020 23:16:19	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	IC DMT 8				
Misc. Info.:	280-0089749-016				
Operator ID:	CB	Instrument ID:	CHHPLC_G2_LUNA		
Sublist:	chrom-G2_8330_Luna*sub13				
Method:	\\chromna\Denver\ChromData\G2_LUNA\20200303-89749.b\G2_8330_Luna.m				
Limit Group:	GCSV - 8330				
Last Update:	05-Mar-2020 11:27:47	Calib Date:	04-Mar-2020 03:21:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\G2_LUNA\20200303-89749.b\03030023.D				
Column 1 :	Luna-Phenyl hexyl (4.60 mm)		Det: LC DAD1A, 254 nm		
Process Host:	CTX0319				

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
3 TNX	1	5.380	5.400	-0.020	1157540	2.50	2.55	
4 DNX	1	6.187	6.200	-0.013	827603	2.50	2.52	
7 MNX	1	7.693	7.707	-0.014	895572	2.92	2.93	

Reagents:

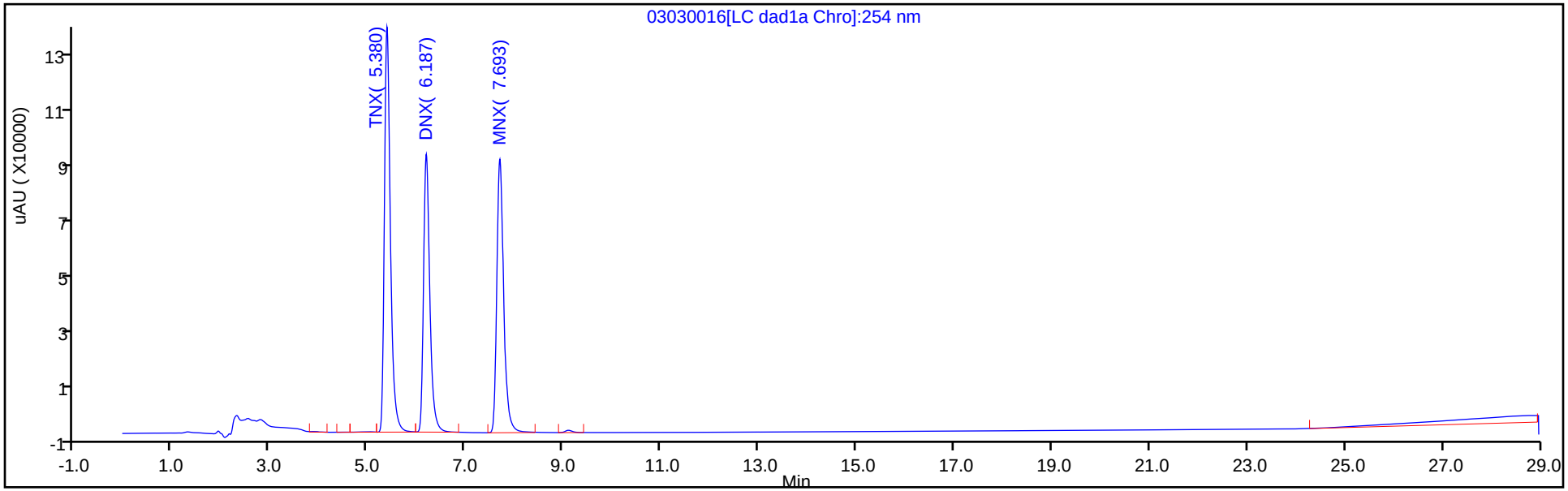
8330 DMT_00005 Amount Added: 125.00 Units: uL

Report Date: 05-Mar-2020 11:27:48 Chrom Revision: 2.3 19-Feb-2020 16:45:46

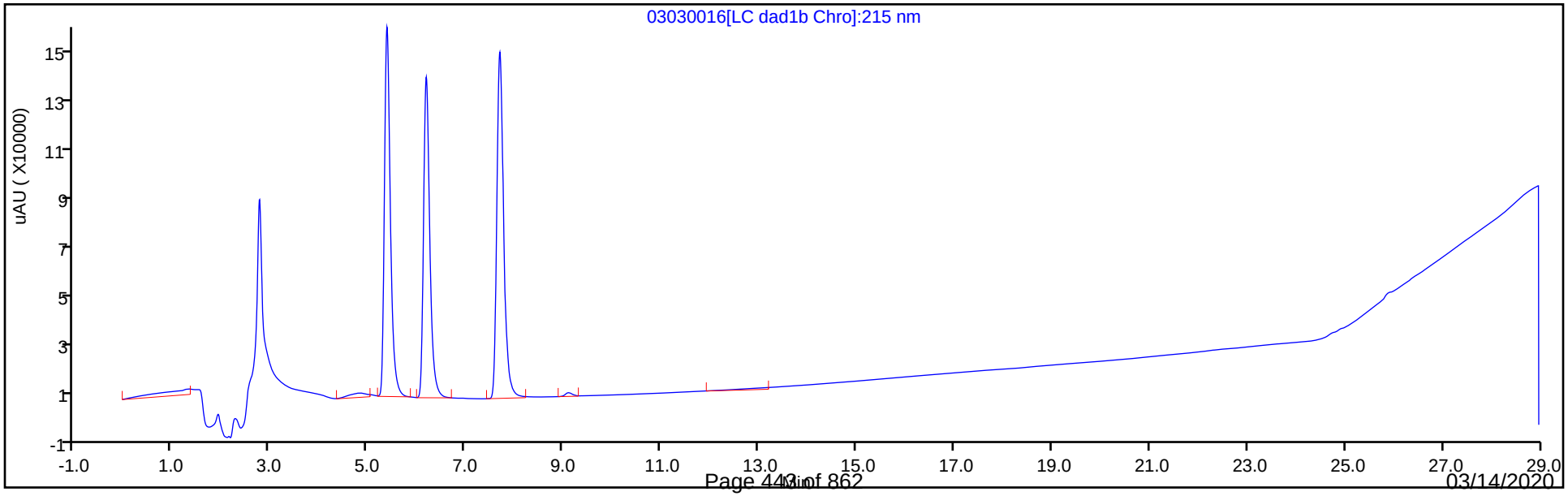
Eurofins TestAmerica, Denver

Data File:	\\chromna\denver\chromdata\g2_luna\20200303-89749.b\03030016.d				
Injection Date:	03-Mar-2020 23:16:19	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	CB
Lims ID:	IC DMT 8			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



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\G2_LUNA\20200303-89749.b\03030017.D				
Lims ID:	IC DMT 7				
Client ID:					
Sample Type:	IC	Calib Level:	7		
Inject. Date:	03-Mar-2020 23:51:15	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	IC DMT 7				
Misc. Info.:	280-0089749-017				
Operator ID:	CB	Instrument ID:	CHHPLC_G2_LUNA		
Sublist:	chrom-G2_8330_Luna*sub13				
Method:	\\chromna\Denver\ChromData\G2_LUNA\20200303-89749.b\G2_8330_Luna.m				
Limit Group:	GCSV - 8330				
Last Update:	05-Mar-2020 11:27:49	Calib Date:	04-Mar-2020 03:21:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\G2_LUNA\20200303-89749.b\03030023.D				
Column 1 :	Luna-Phenyl hexyl (4.60 mm)		Det: LC DAD1A, 254 nm		
Process Host:	CTX0319				

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
3 TNX	1	5.407	5.400	0.007	461070	1.00	1.01	
4 DNX	1	6.213	6.200	0.013	331497	1.00	1.01	
7 MNX	1	7.720	7.707	0.013	359340	1.17	1.18	

Reagents:

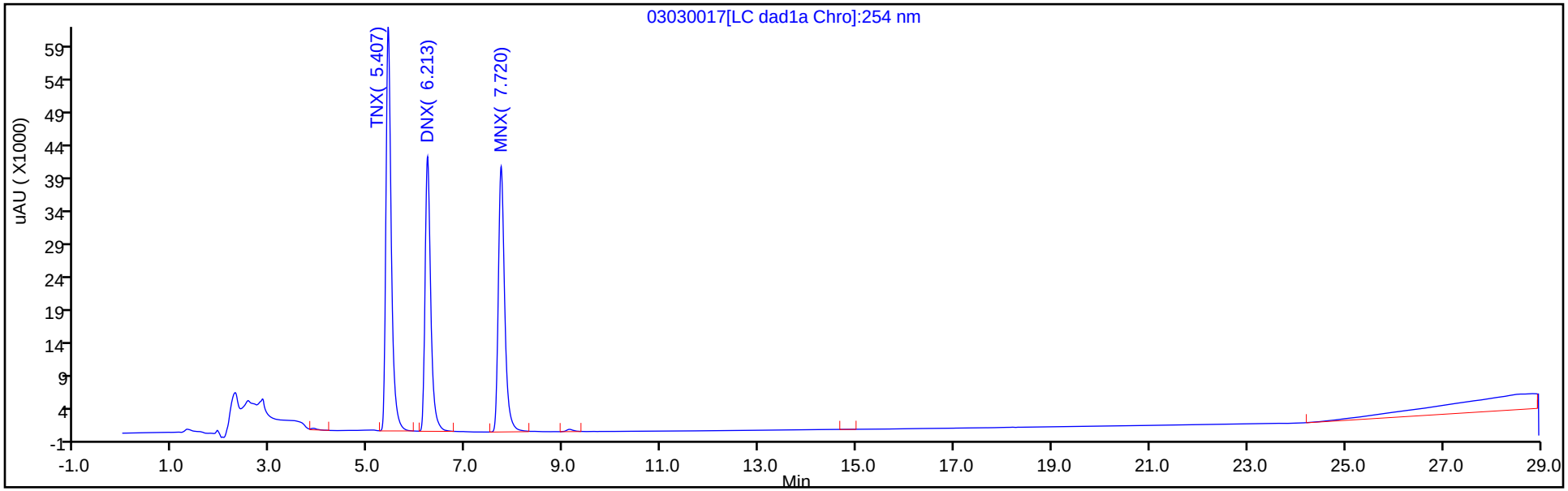
8330 DMT_00005 Amount Added: 50.00 Units: uL

Report Date: 05-Mar-2020 11:27:49 Chrom Revision: 2.3 19-Feb-2020 16:45:46

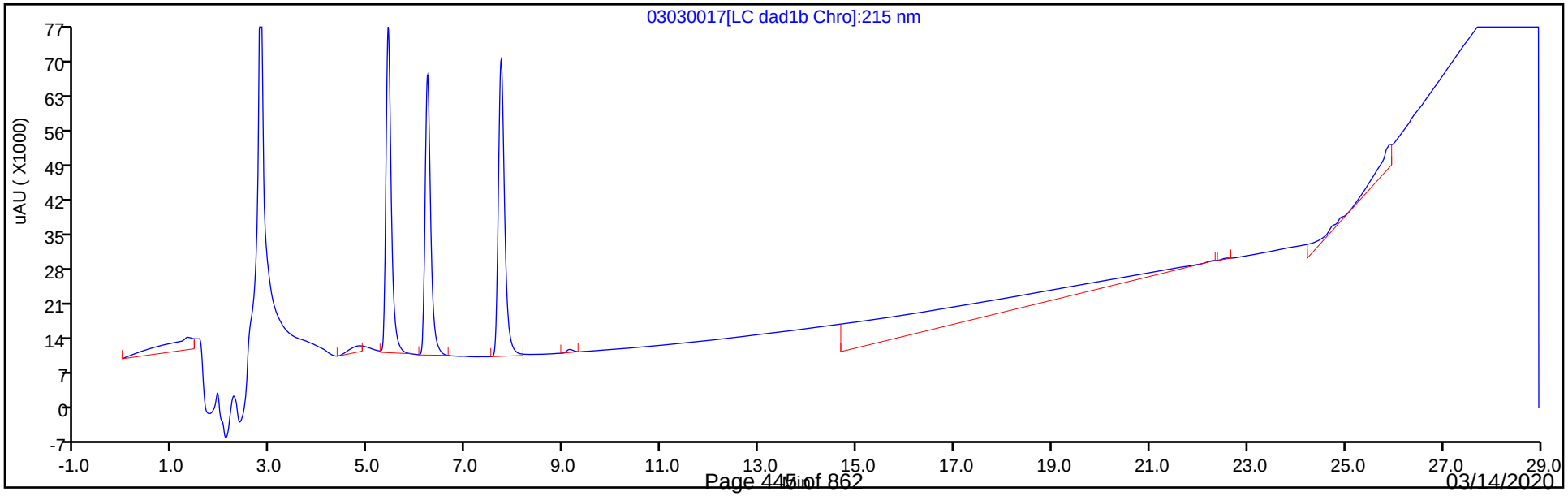
Eurofins TestAmerica, Denver

Data File:	\\chromna\denver\chromdata\g2_luna\20200303-89749.b\03030017.d				
Injection Date:	03-Mar-2020 23:51:15	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	CB
Lims ID:	IC DMT 7			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



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\G2_LUNA\20200303-89749.b\03030018.D				
Lims ID:	IC DMT 6				
Client ID:					
Sample Type:	IC	Calib Level:	6		
Inject. Date:	04-Mar-2020 00:26:10	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	IC DMT 6				
Misc. Info.:	280-0089749-018				
Operator ID:	CB	Instrument ID:	CHHPLC_G2_LUNA		
Sublist:	chrom-G2_8330_Luna*sub13				
Method:	\\chromna\Denver\ChromData\G2_LUNA\20200303-89749.b\G2_8330_Luna.m				
Limit Group:	GCSV - 8330				
Last Update:	05-Mar-2020 11:27:50	Calib Date:	04-Mar-2020 03:21:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\G2_LUNA\20200303-89749.b\03030023.D				
Column 1 :	Luna-Phenyl hexyl (4.60 mm)		Det: LC DAD1A, 254 nm		
Process Host:	CTX0319				

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
3 TNX	1	5.405	5.400	0.005	315588	0.7007	0.6942	
4 DNX	1	6.205	6.200	0.005	227158	0.7007	0.6929	
7 MNX	1	7.711	7.707	0.004	247324	0.8169	0.8089	

Reagents:

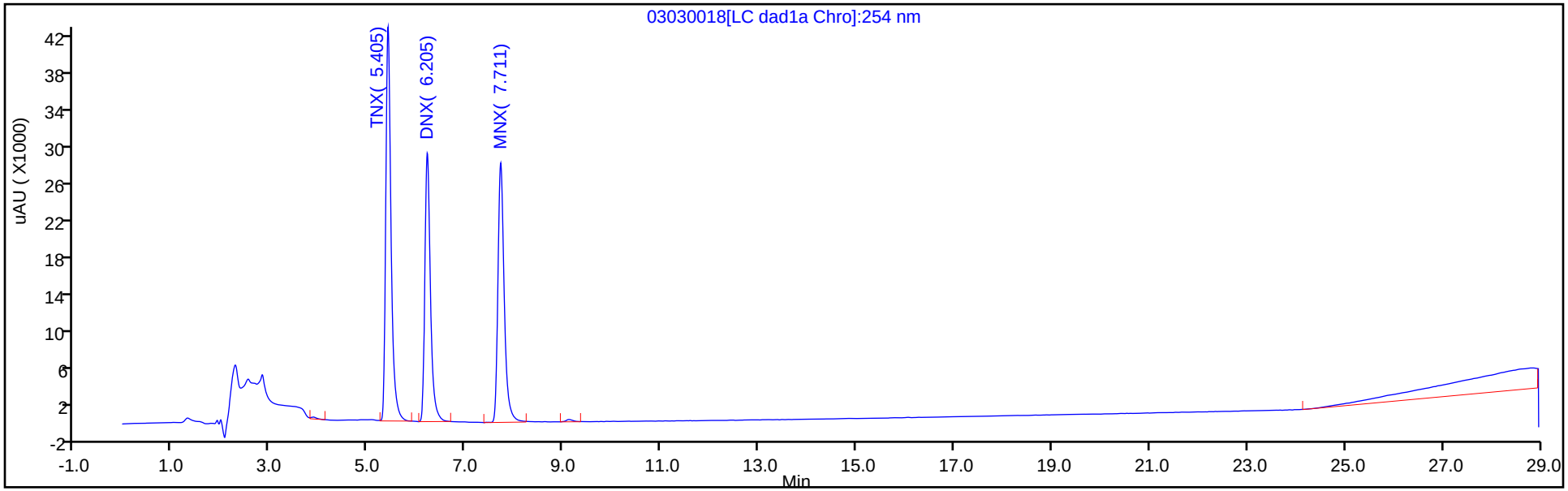
8330 DMT_00005 Amount Added: 35.00 Units: uL

Report Date: 05-Mar-2020 11:27:50 Chrom Revision: 2.3 19-Feb-2020 16:45:46

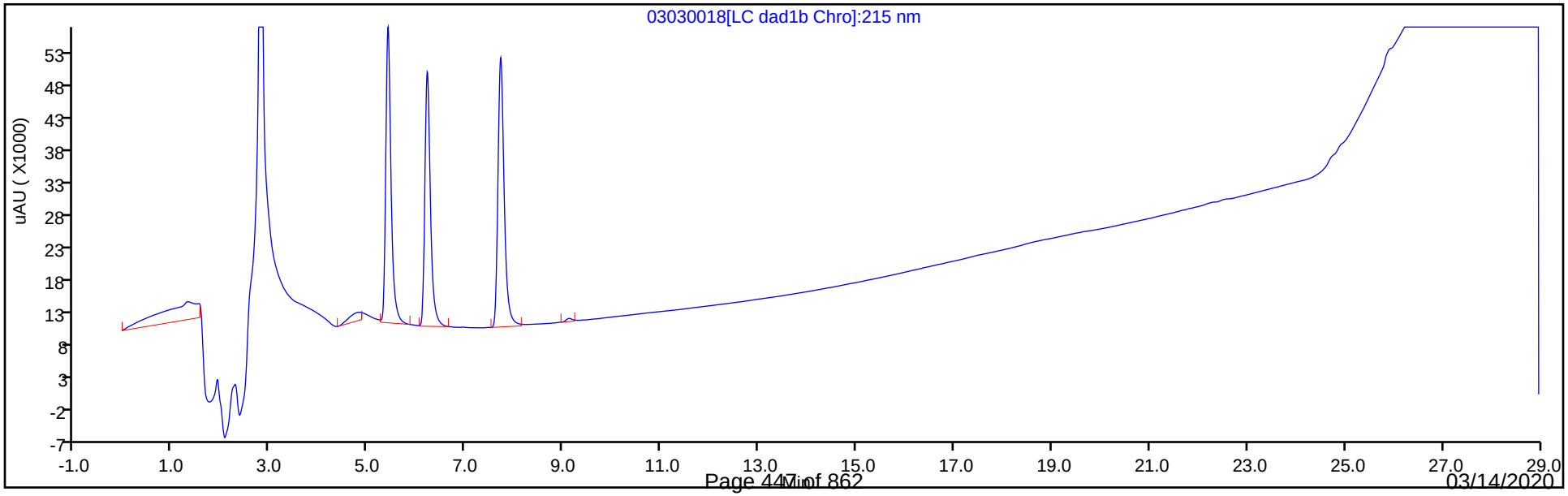
Eurofins TestAmerica, Denver

Data File:	\\chromna\denver\chromdata\g2_luna\20200303-89749.b\03030018.d				
Injection Date:	04-Mar-2020 00:26:10	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	CB
Lims ID:	IC DMT 6			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



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\G2_LUNA\20200303-89749.b\03030019.D				
Lims ID:	IC DMT 5				
Client ID:					
Sample Type:	IC	Calib Level:	5		
Inject. Date:	04-Mar-2020 01:01:09	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	IC DMT 5				
Misc. Info.:	280-0089749-019				
Operator ID:	CB	Instrument ID:	CHHPLC_G2_LUNA		
Sublist:	chrom-G2_8330_Luna*sub13				
Method:	\\chromna\Denver\ChromData\G2_LUNA\20200303-89749.b\G2_8330_Luna.m				
Limit Group:	GCSV - 8330				
Last Update:	05-Mar-2020 11:27:51	Calib Date:	04-Mar-2020 03:21:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\G2_LUNA\20200303-89749.b\03030023.D				
Column 1 :	Luna-Phenyl hexyl (4.60 mm)		Det: LC DAD1A, 254 nm		
Process Host:	CTX0319				

First Level Reviewer: beckerc Date: 05-Mar-2020 08:44:02

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
3 TNX	1	5.400	5.400	0.000	182668	0.4004	0.4018	M
4 DNX	1	6.200	6.200	0.000	131878	0.4004	0.4023	
7 MNX	1	7.707	7.707	0.000	143882	0.4668	0.4706	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

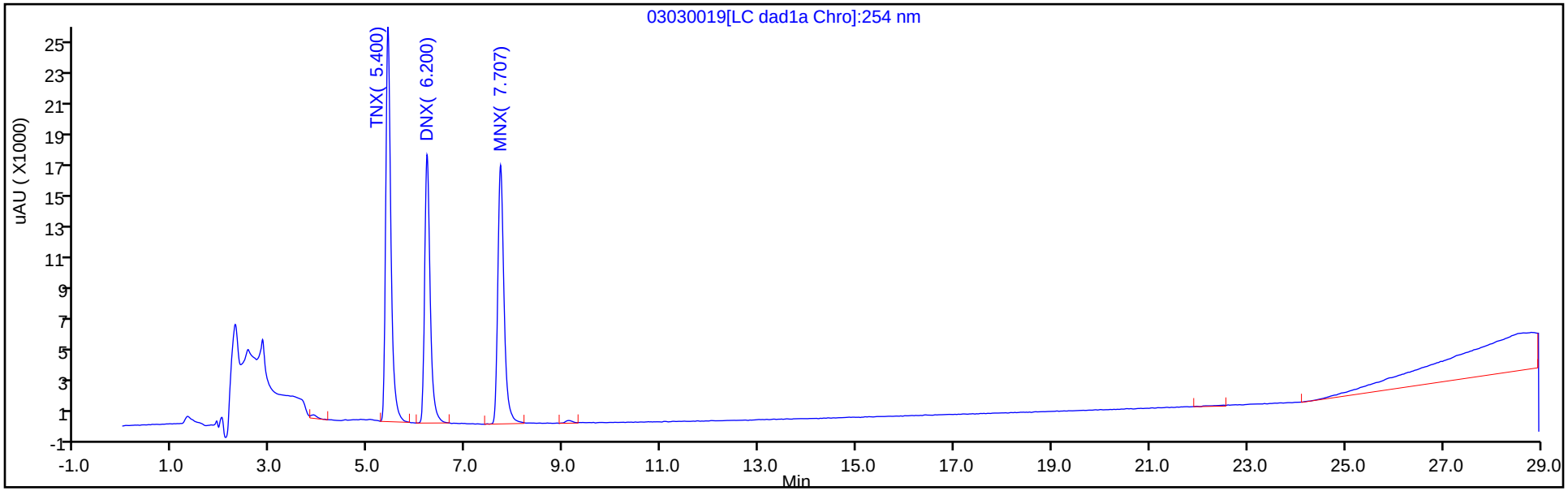
8330 DMT_00005 Amount Added: 20.00 Units: uL

Report Date: 05-Mar-2020 11:27:51 Chrom Revision: 2.3 19-Feb-2020 16:45:46

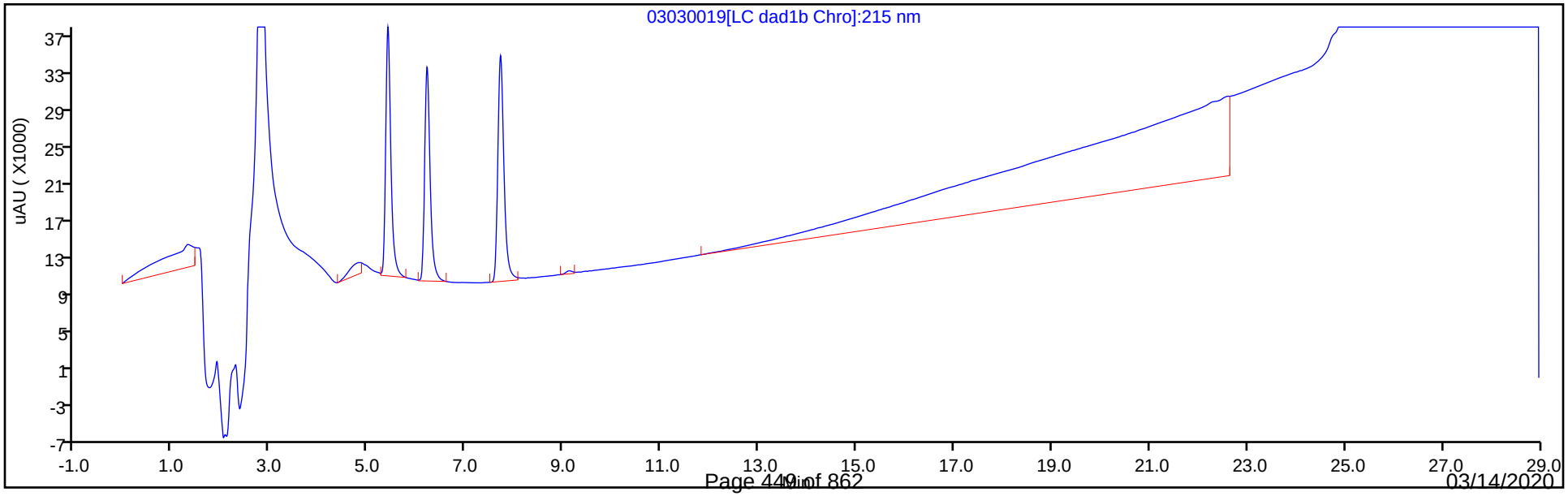
Eurofins TestAmerica, Denver

Data File:	\\chromna\denver\chromdata\g2_luna\20200303-89749.b\03030019.d				
Injection Date:	04-Mar-2020 01:01:09	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	CB
Lims ID:	IC DMT 5			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

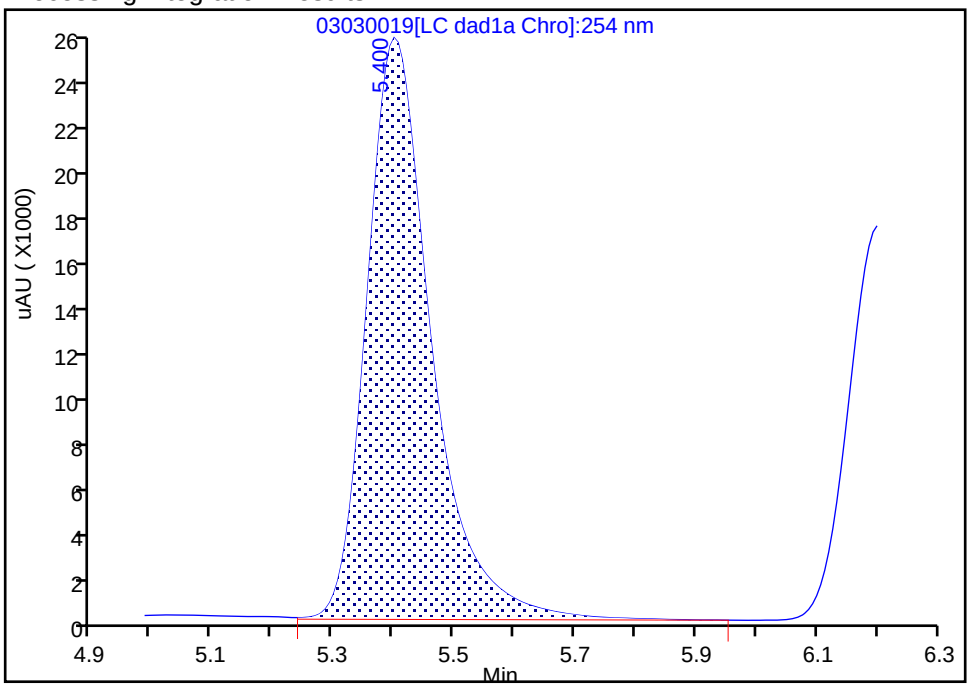
Data File:	\\chromna\denver\chromdata\g2_luna\20200303-89749.b\03030019.d				
Injection Date:	04-Mar-2020 01:01:09	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC DMT 5				
Client ID:					
Operator ID:	CB	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

3 TNX, CAS: 13980-04-6

Signal: 1

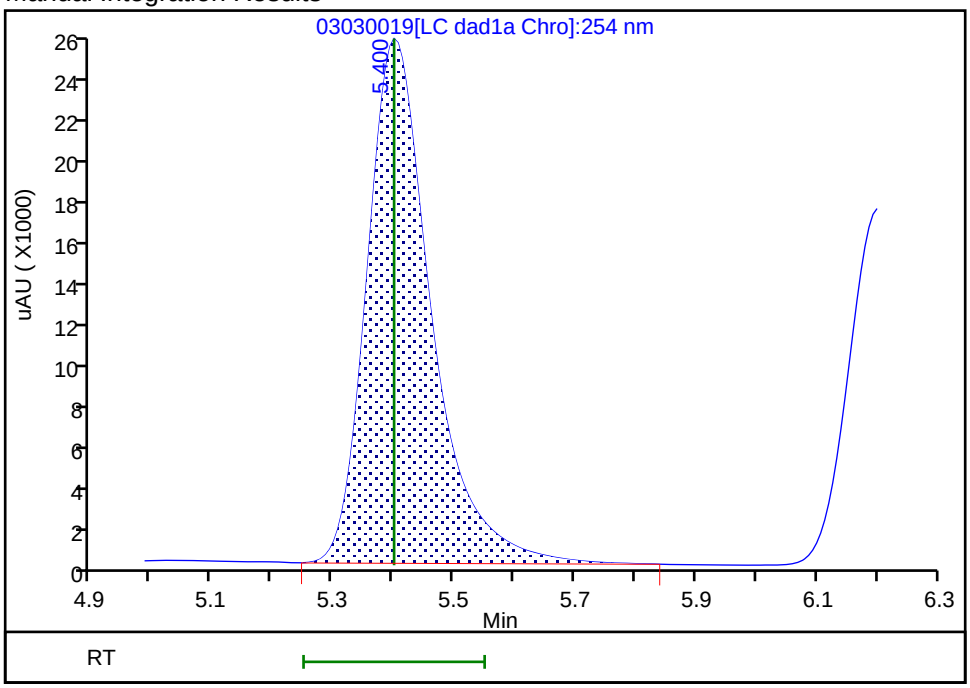
Processing Integration Results

RT: 5.40
Area: 184347
Amount: 0.405068
Amount Units: ug/ml



Manual Integration Results

RT: 5.40
Area: 182668
Amount: 0.401841
Amount Units: ug/ml



Reviewer: beckerc, 05-Mar-2020 08:43:57

Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\G2_LUNA\20200303-89749.b\03030020.D				
Lims ID:	IC DMT 4				
Client ID:					
Sample Type:	IC	Calib Level:	4		
Inject. Date:	04-Mar-2020 01:36:10	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	IC DMT 4				
Misc. Info.:	280-0089749-020				
Operator ID:	CB	Instrument ID:	CHHPLC_G2_LUNA		
Sublist:	chrom-G2_8330_Luna*sub13				
Method:	\\chromna\Denver\ChromData\G2_LUNA\20200303-89749.b\G2_8330_Luna.m				
Limit Group:	GCSV - 8330				
Last Update:	05-Mar-2020 11:27:52	Calib Date:	04-Mar-2020 03:21:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\G2_LUNA\20200303-89749.b\03030023.D				
Column 1 :	Luna-Phenyl hexyl (4.60 mm)		Det: LC DAD1A, 254 nm		
Process Host:	CTX0319				

First Level Reviewer: beckerc Date: 05-Mar-2020 08:43:41

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
3 TNX	1	5.398	5.400	-0.002	108933	0.2503	0.2396	M
4 DNX	1	6.205	6.200	0.005	79036	0.2503	0.2411	
7 MNX	1	7.711	7.707	0.004	86529	0.2918	0.2830	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

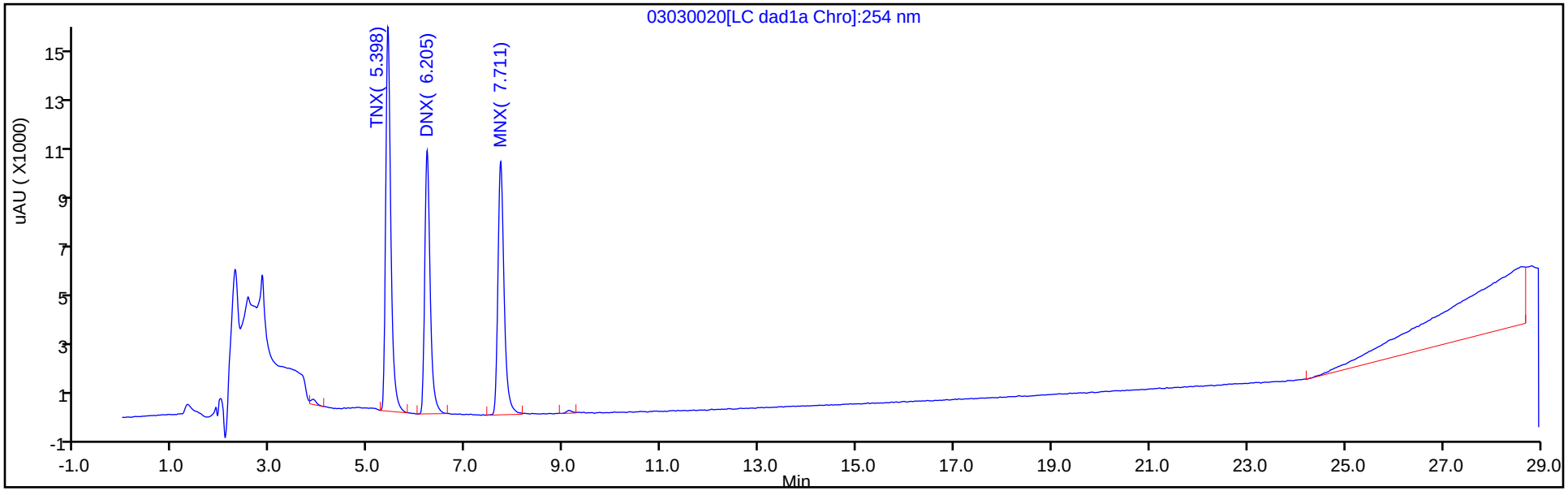
8330 DMT_00005 Amount Added: 12.50 Units: uL

Report Date: 05-Mar-2020 11:27:52 Chrom Revision: 2.3 19-Feb-2020 16:45:46

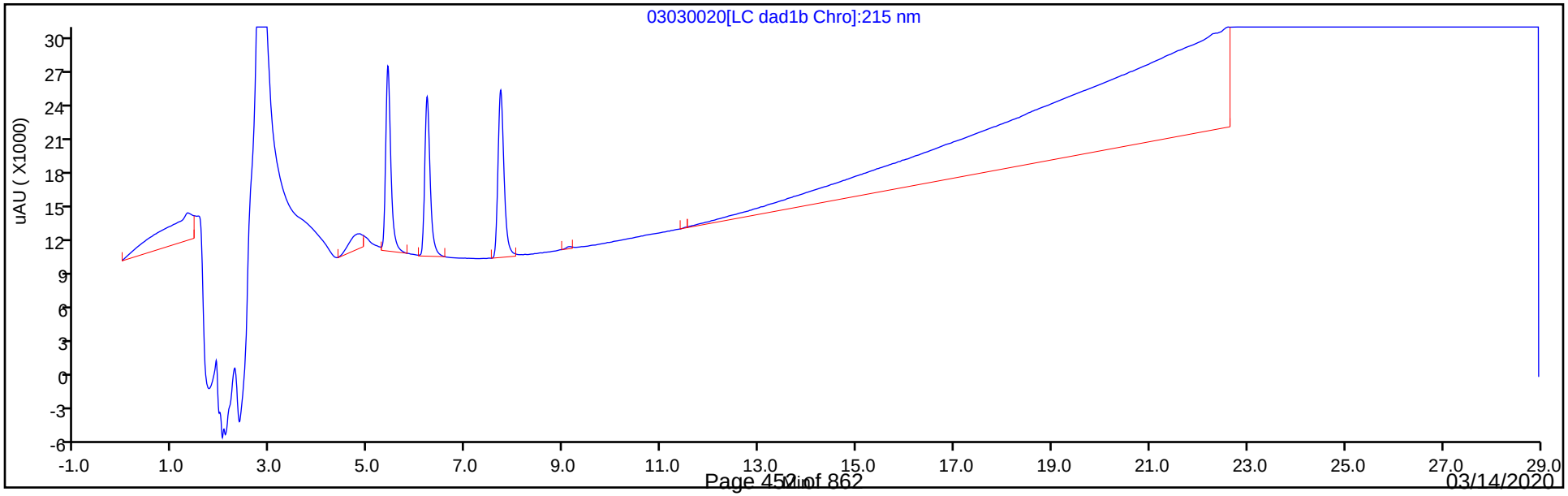
Eurofins TestAmerica, Denver

Data File:	\\chromna\denver\chromdata\g2_luna\20200303-89749.b\03030020.d				
Injection Date:	04-Mar-2020 01:36:10	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	CB
Lims ID:	IC DMT 4			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

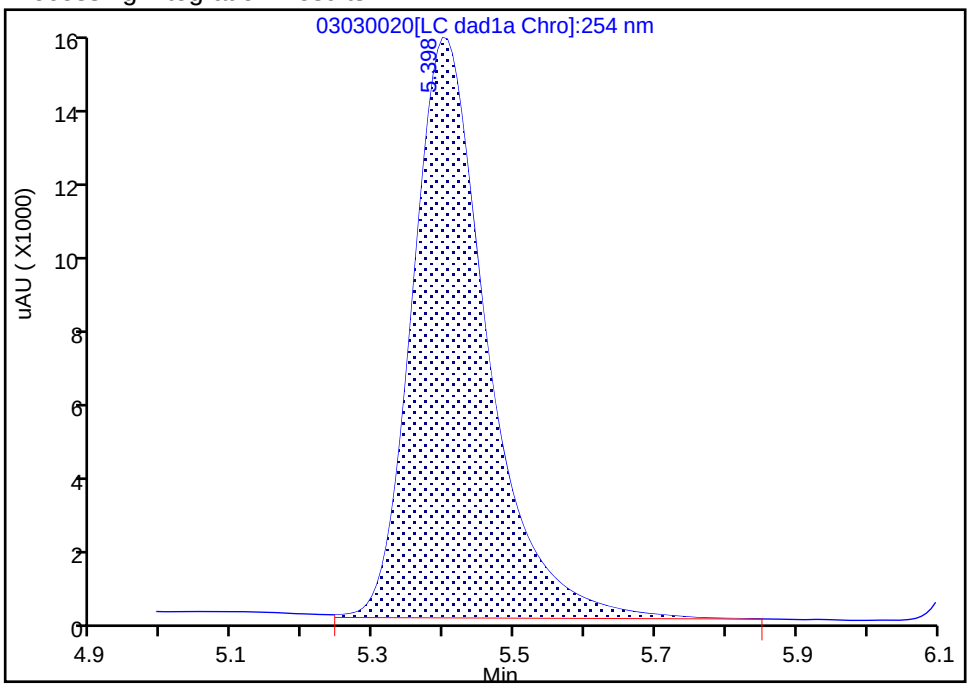
Data File:	\\chromna\denver\chromdata\g2_luna\20200303-89749.b\03030020.d				
Injection Date:	04-Mar-2020 01:36:10	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC DMT 4				
Client ID:					
Operator ID:	CB	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

3 TNX, CAS: 13980-04-6

Signal: 1

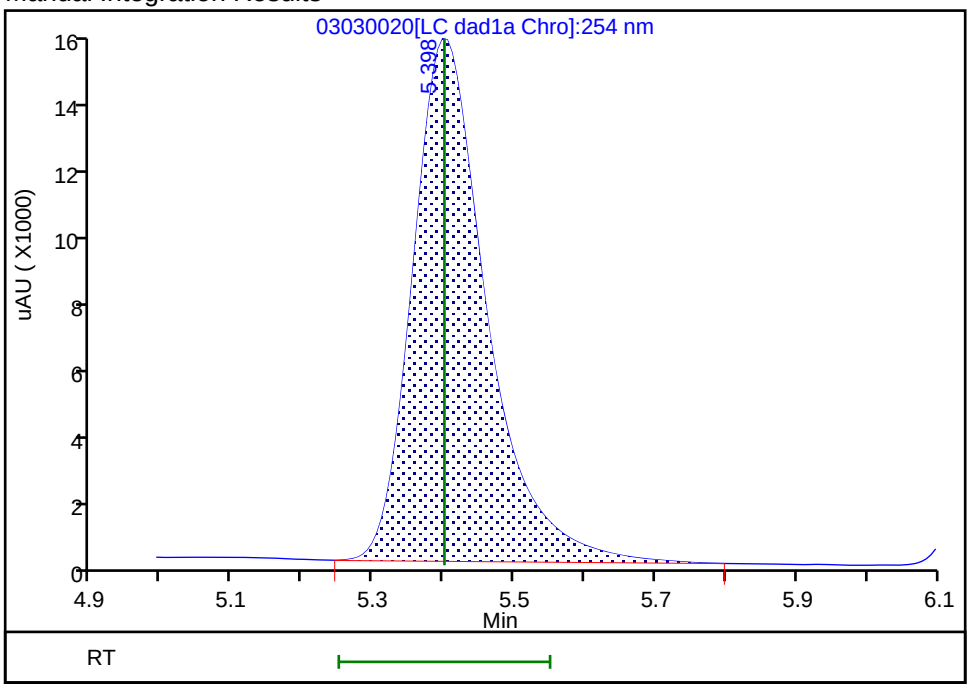
Processing Integration Results

RT: 5.40
Area: 110130
Amount: 0.241672
Amount Units: ug/ml



Manual Integration Results

RT: 5.40
Area: 108933
Amount: 0.239636
Amount Units: ug/ml



Reviewer: beckerc, 05-Mar-2020 08:43:37

Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\G2_LUNA\20200303-89749.b\03030021.D				
Lims ID:	IC DMT 3				
Client ID:					
Sample Type:	IC	Calib Level:	3		
Inject. Date:	04-Mar-2020 02:11:08	ALS Bottle#:	21	Worklist Smp#:	21
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	IC DMT 3				
Misc. Info.:	280-0089749-021				
Operator ID:	CB	Instrument ID:	CHHPLC_G2_LUNA		
Sublist:	chrom-G2_8330_Luna*sub13				
Method:	\\chromna\Denver\ChromData\G2_LUNA\20200303-89749.b\G2_8330_Luna.m				
Limit Group:	GCSV - 8330				
Last Update:	05-Mar-2020 11:27:53	Calib Date:	04-Mar-2020 03:21:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\G2_LUNA\20200303-89749.b\03030023.D				
Column 1 :	Luna-Phenyl hexyl (4.60 mm)		Det: LC DAD1A, 254 nm		
Process Host:	CTX0319				

First Level Reviewer: beckerc Date: 05-Mar-2020 08:43:22

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
3 TNX	1	5.400	5.400	0.000	45352	0.1001	0.0998	M
4 DNX	1	6.200	6.200	0.000	32876	0.1001	0.1003	
7 MNX	1	7.707	7.707	0.000	35364	0.1167	0.1157	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

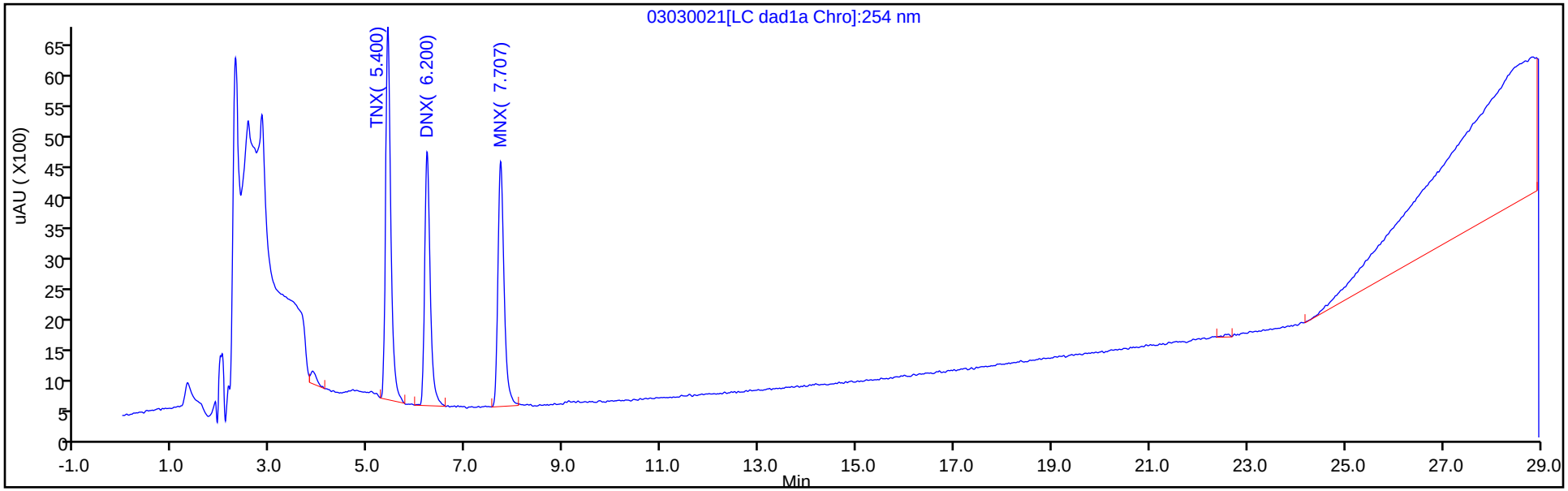
8330 DMT_00005 Amount Added: 5.00 Units: uL

Report Date: 05-Mar-2020 11:27:53 Chrom Revision: 2.3 19-Feb-2020 16:45:46

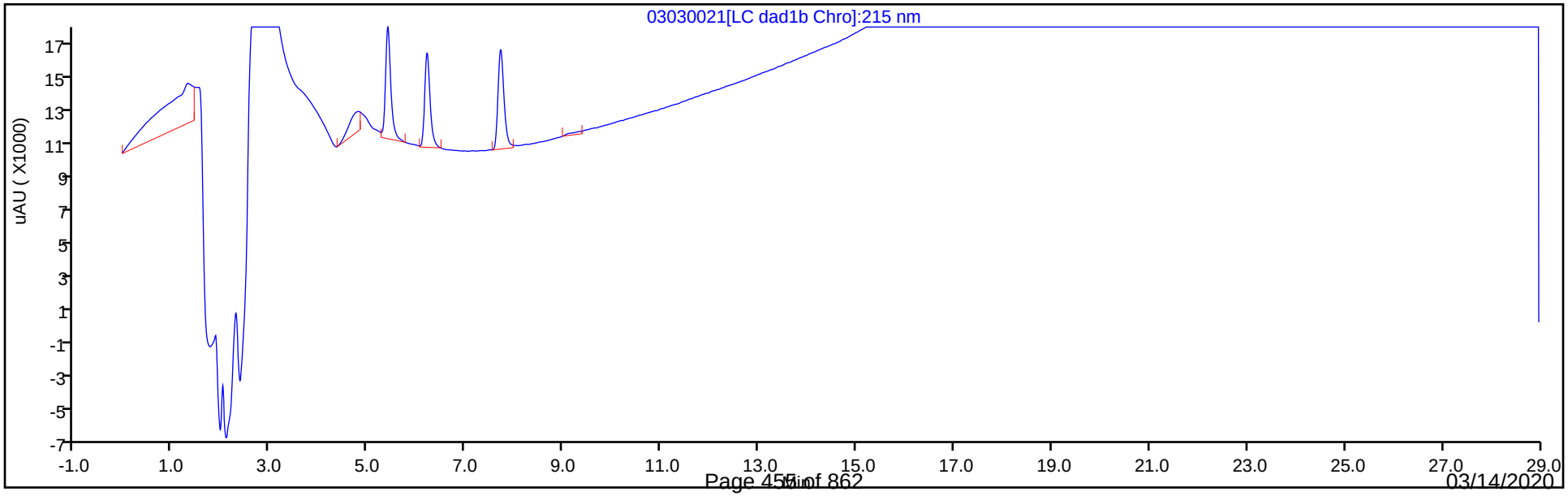
Eurofins TestAmerica, Denver

Data File:	\\chromna\denver\chromdata\g2_luna\20200303-89749.b\03030021.d				
Injection Date:	04-Mar-2020 02:11:08	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	CB
Lims ID:	IC DMT 3			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



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

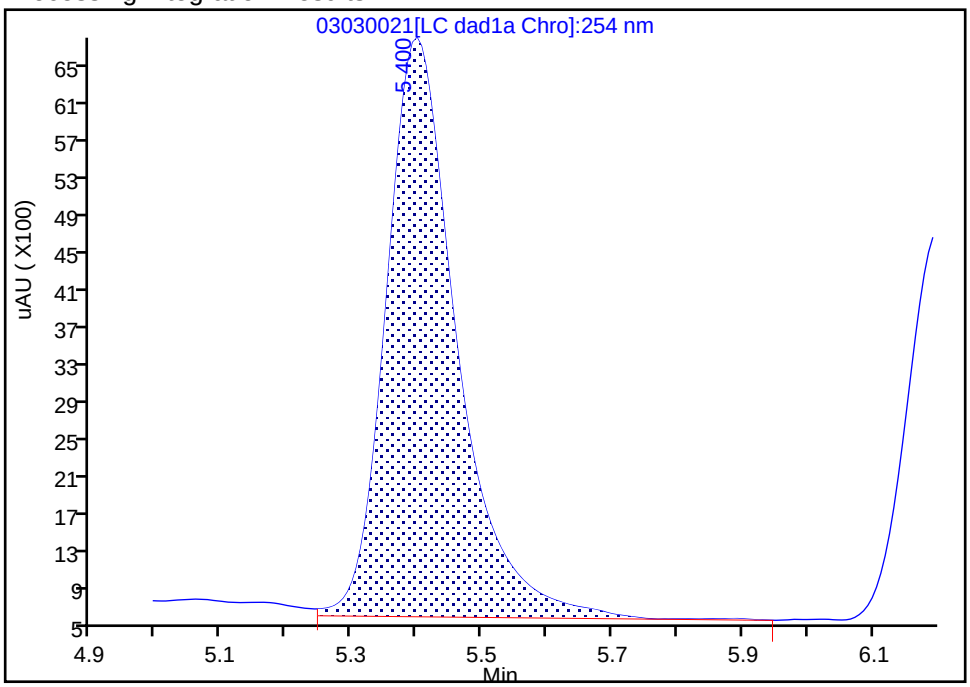
Data File:	\\chromna\denver\chromdata\g2_luna\20200303-89749.b\03030021.d				
Injection Date:	04-Mar-2020 02:11:08	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC DMT 3				
Client ID:					
Operator ID:	CB	ALS Bottle#:	21	Worklist Smp#:	21
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

3 TNX, CAS: 13980-04-6

Signal: 1

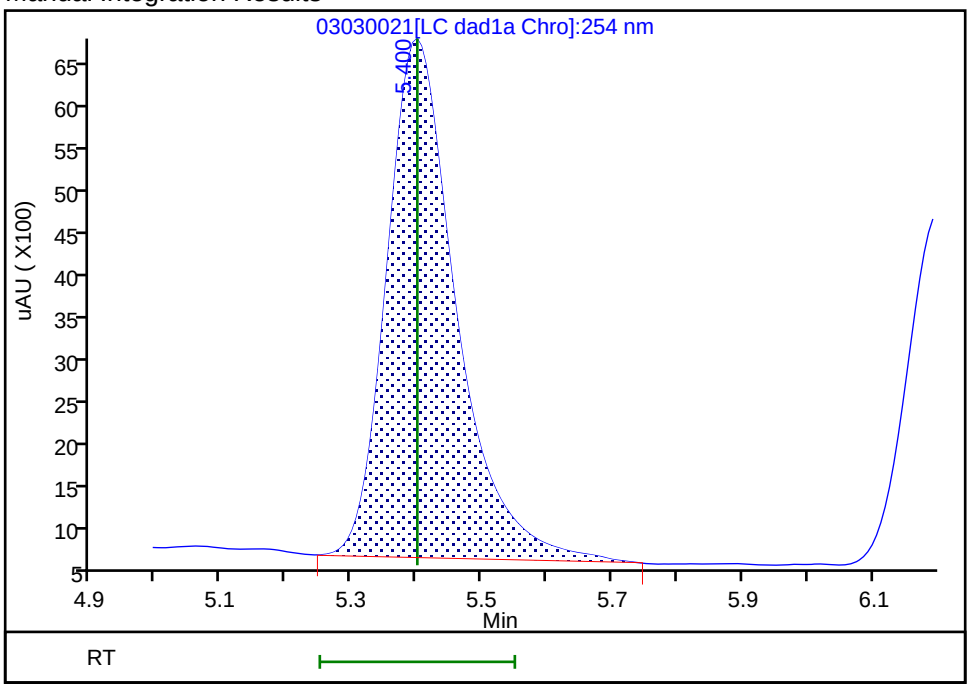
Processing Integration Results

RT: 5.40
Area: 46697
Amount: 0.102097
Amount Units: ug/ml



Manual Integration Results

RT: 5.40
Area: 45352
Amount: 0.099767
Amount Units: ug/ml



Reviewer: beckerc, 05-Mar-2020 08:43:18
Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\G2_LUNA\20200303-89749.b\03030022.D				
Lims ID:	IC DMT 2				
Client ID:					
Sample Type:	IC	Calib Level:	2		
Inject. Date:	04-Mar-2020 02:46:06	ALS Bottle#:	22	Worklist Smp#:	22
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	IC DMT 2				
Misc. Info.:	280-0089749-022				
Operator ID:	CB	Instrument ID:	CHHPLC_G2_LUNA		
Sublist:	chrom-G2_8330_Luna*sub13				
Method:	\\chromna\Denver\ChromData\G2_LUNA\20200303-89749.b\G2_8330_Luna.m				
Limit Group:	GCSV - 8330				
Last Update:	05-Mar-2020 11:27:54	Calib Date:	04-Mar-2020 03:21:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\G2_LUNA\20200303-89749.b\03030023.D				
Column 1 :	Luna-Phenyl hexyl (4.60 mm)		Det: LC DAD1A, 254 nm		
Process Host:	CTX0319				

First Level Reviewer: beckerc Date: 05-Mar-2020 08:42:59

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
3 TNX	1	5.400	5.400	0.000	22428	0.0501	0.0493	M
4 DNX	1	6.207	6.200	0.007	16425	0.0501	0.0501	
7 MNX	1	7.714	7.707	0.007	18169	0.0584	0.0594	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

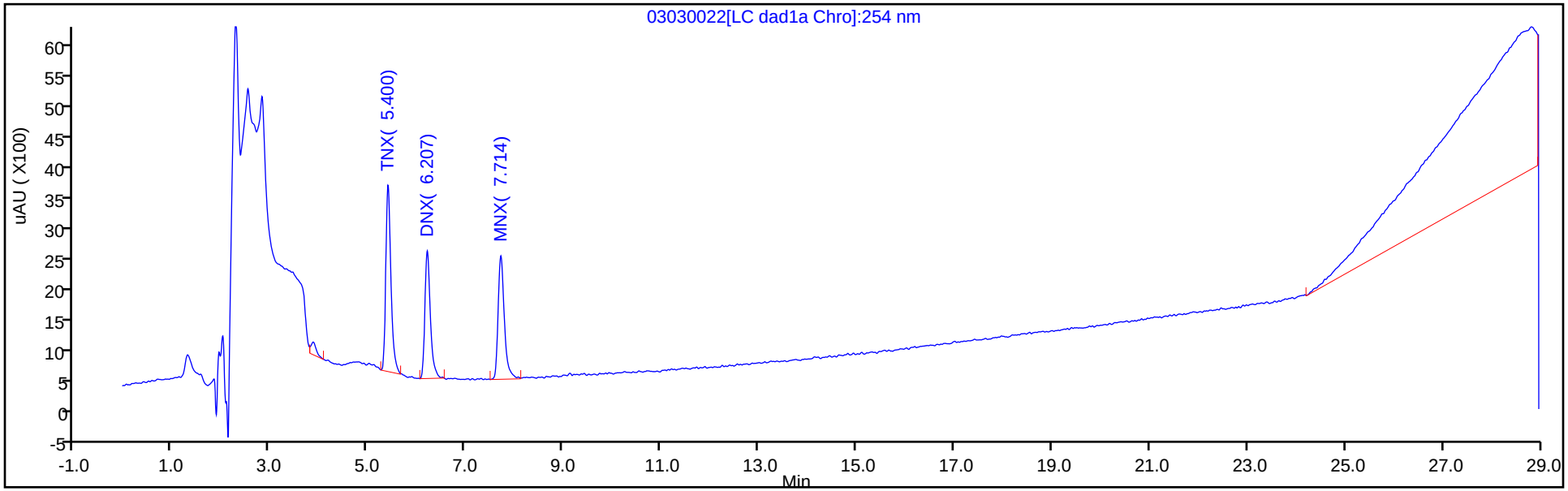
8330 DMT_00005 Amount Added: 2.50 Units: uL

Report Date: 05-Mar-2020 11:27:54 Chrom Revision: 2.3 19-Feb-2020 16:45:46

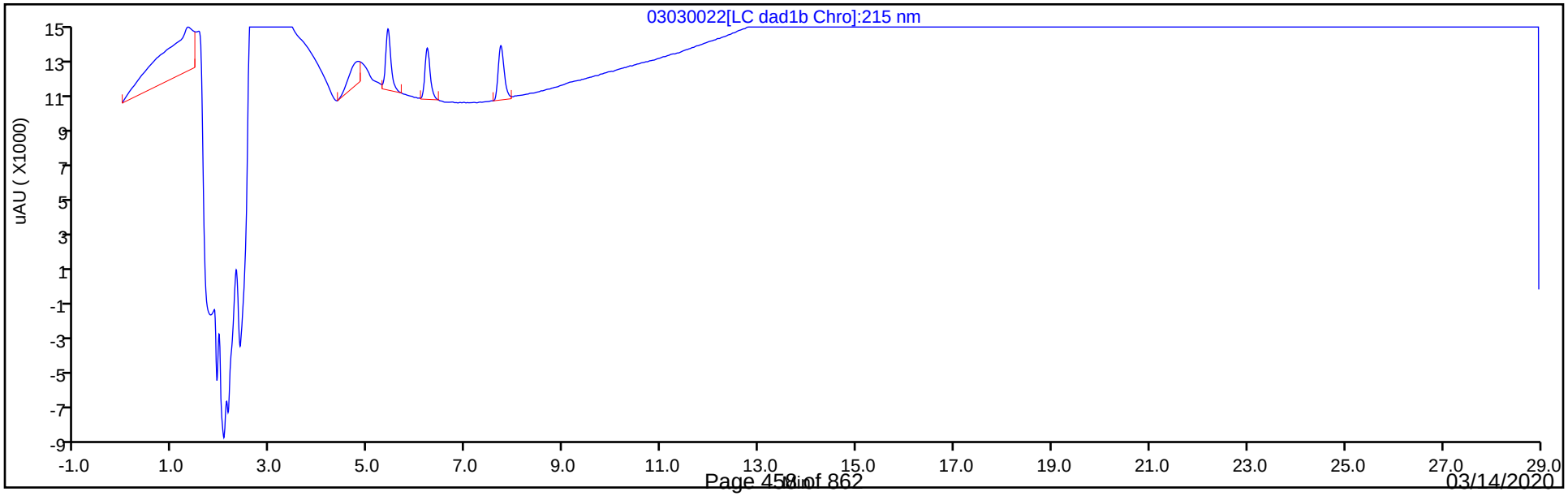
Eurofins TestAmerica, Denver

Data File:	\\chromna\denver\chromdata\g2_luna\20200303-89749.b\03030022.d				
Injection Date:	04-Mar-2020 02:46:06	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	CB
Lims ID:	IC DMT 2			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



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

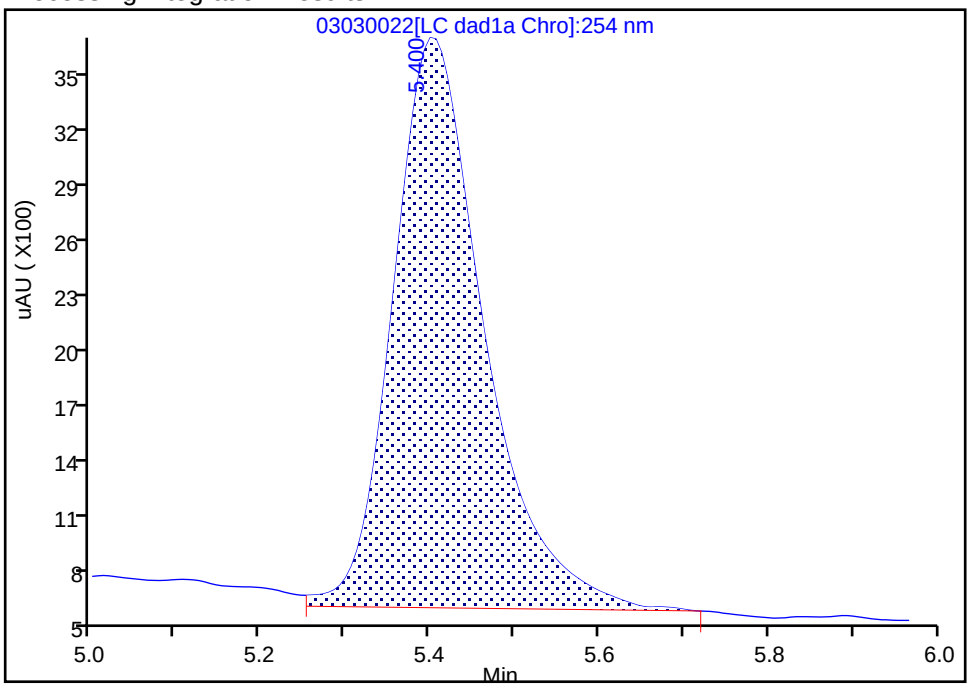
Data File:	\\chromna\denver\chromdata\g2_luna\20200303-89749.b\03030022.d				
Injection Date:	04-Mar-2020 02:46:06	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC DMT 2				
Client ID:					
Operator ID:	CB	ALS Bottle#:	22	Worklist Smp#:	22
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

3 TNX, CAS: 13980-04-6

Signal: 1

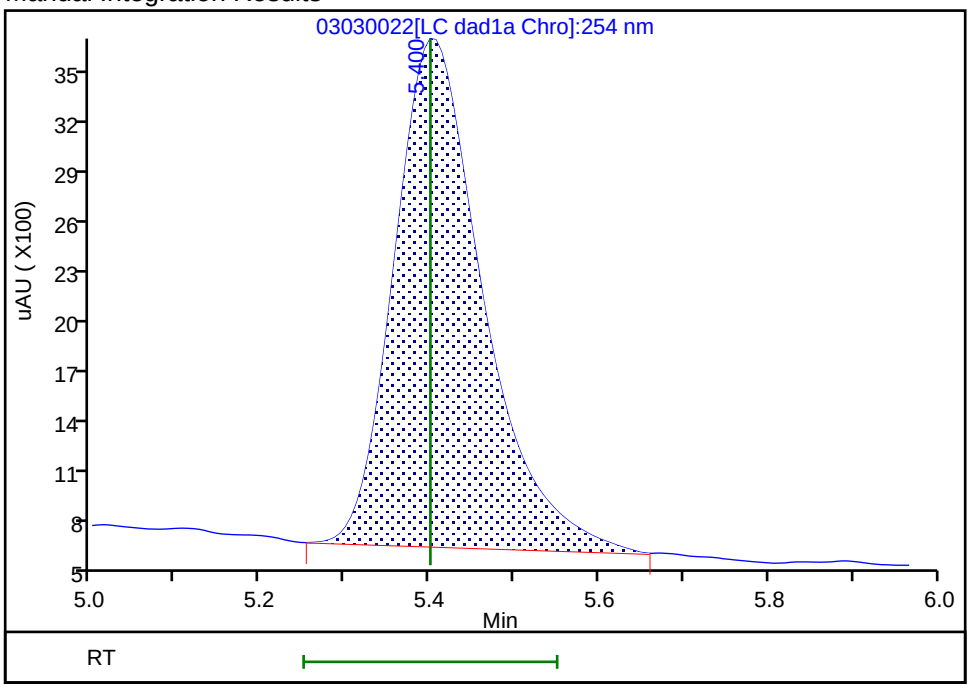
Processing Integration Results

RT: 5.40
Area: 23296
Amount: 0.050693
Amount Units: ug/ml



Manual Integration Results

RT: 5.40
Area: 22428
Amount: 0.049338
Amount Units: ug/ml



Reviewer: beckerc, 05-Mar-2020 08:42:55

Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\G2_LUNA\20200303-89749.b\03030023.D				
Lims ID:	IC DMT 1				
Client ID:					
Sample Type:	IC	Calib Level:	1		
Inject. Date:	04-Mar-2020 03:21:00	ALS Bottle#:	23	Worklist Smp#:	23
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	IC DMT 1				
Misc. Info.:	280-0089749-023				
Operator ID:	CB	Instrument ID:	CHHPLC_G2_LUNA		
Sublist:	chrom-G2_8330_Luna*sub13				
Method:	\\chromna\Denver\ChromData\G2_LUNA\20200303-89749.b\G2_8330_Luna.m				
Limit Group:	GCSV - 8330				
Last Update:	05-Mar-2020 11:27:55	Calib Date:	04-Mar-2020 03:21:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\G2_LUNA\20200303-89749.b\03030023.D				
Column 1 :	Luna-Phenyl hexyl (4.60 mm)		Det: LC DAD1A, 254 nm		
Process Host:	CTX0319				

First Level Reviewer: beckerc Date: 05-Mar-2020 08:42:41

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
3 TNX	1	5.403	5.400	0.003	9417	0.0200	0.0207	M
4 DNX	1	6.203	6.200	0.003	6702	0.0200	0.0204	
7 MNX	1	7.710	7.707	0.003	7218	0.0233	0.0236	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

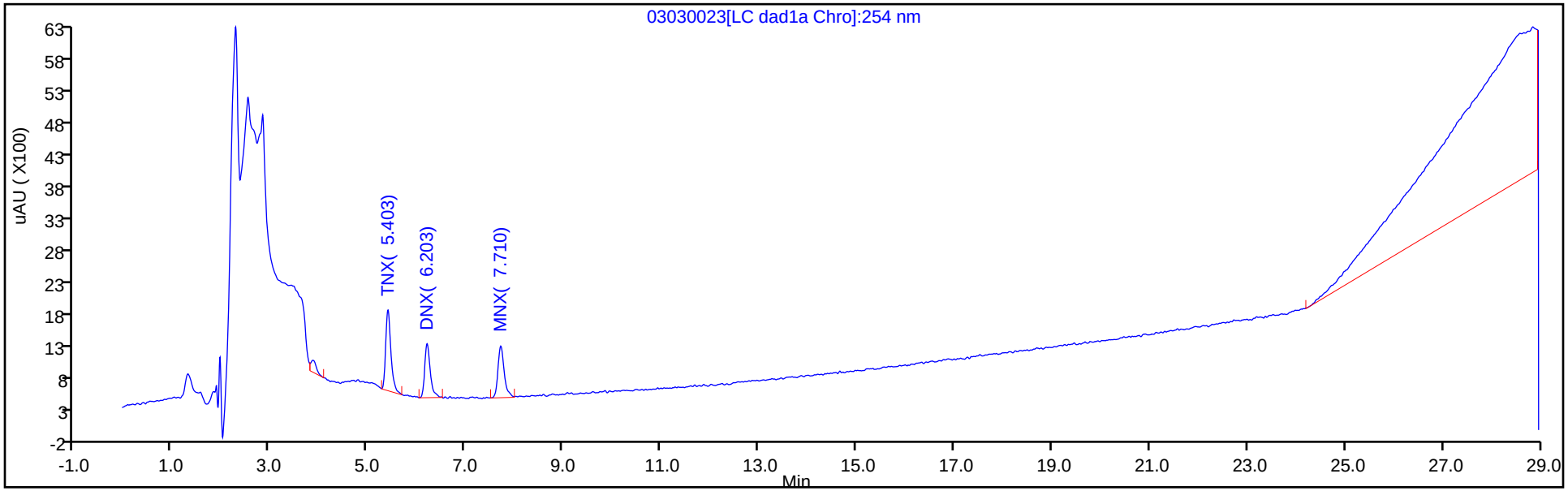
8330 DMT_00005 Amount Added: 1.00 Units: uL

Report Date: 05-Mar-2020 11:27:55 Chrom Revision: 2.3 19-Feb-2020 16:45:46

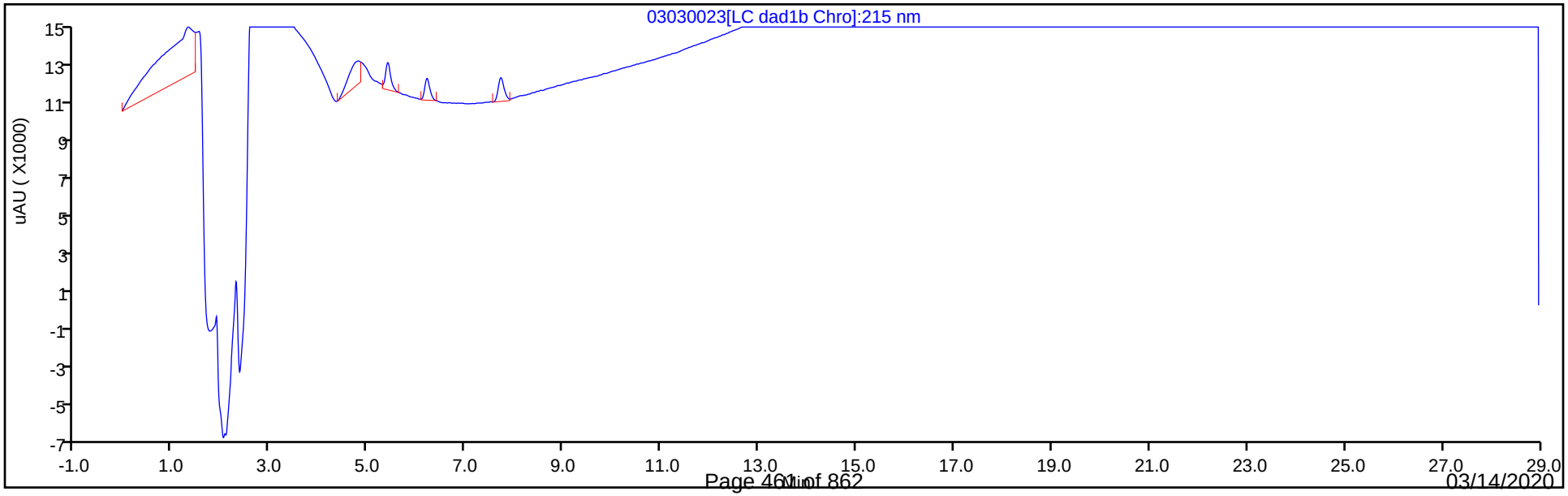
Eurofins TestAmerica, Denver

Data File:	\\chromna\denver\chromdata\g2_luna\20200303-89749.b\03030023.d				
Injection Date:	04-Mar-2020 03:21:00	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	CB
Lims ID:	IC DMT 1			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



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

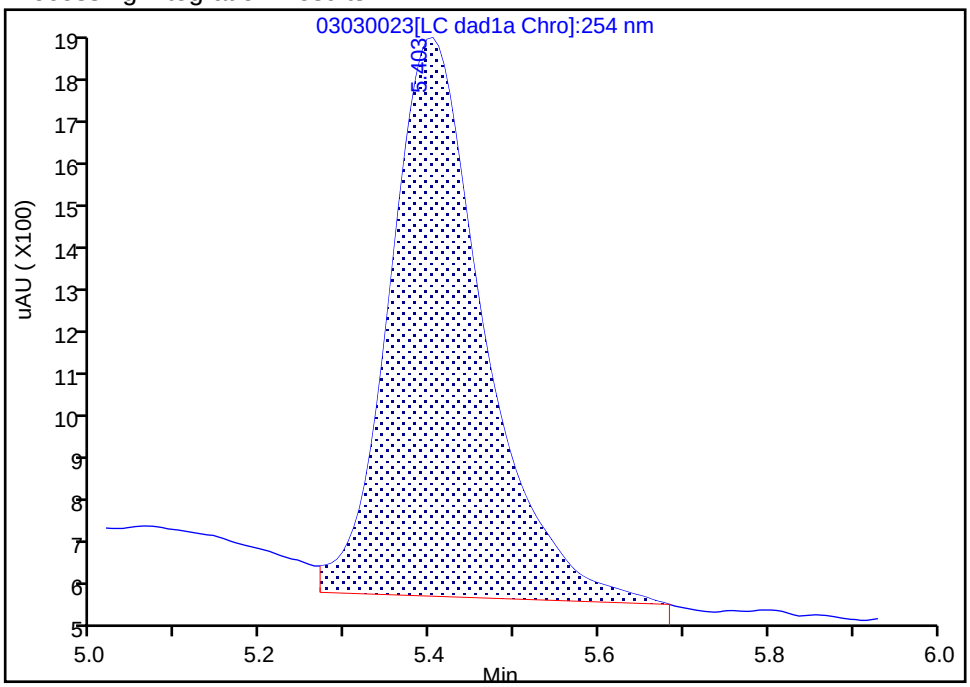
Data File:	\\chromna\denver\chromdata\g2_luna\20200303-89749.b\03030023.d				
Injection Date:	04-Mar-2020 03:21:00	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	IC DMT 1				
Client ID:					
Operator ID:	CB	ALS Bottle#:	23	Worklist Smp#:	23
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC DAD1A, 254 nm		

3 TNX, CAS: 13980-04-6

Signal: 1

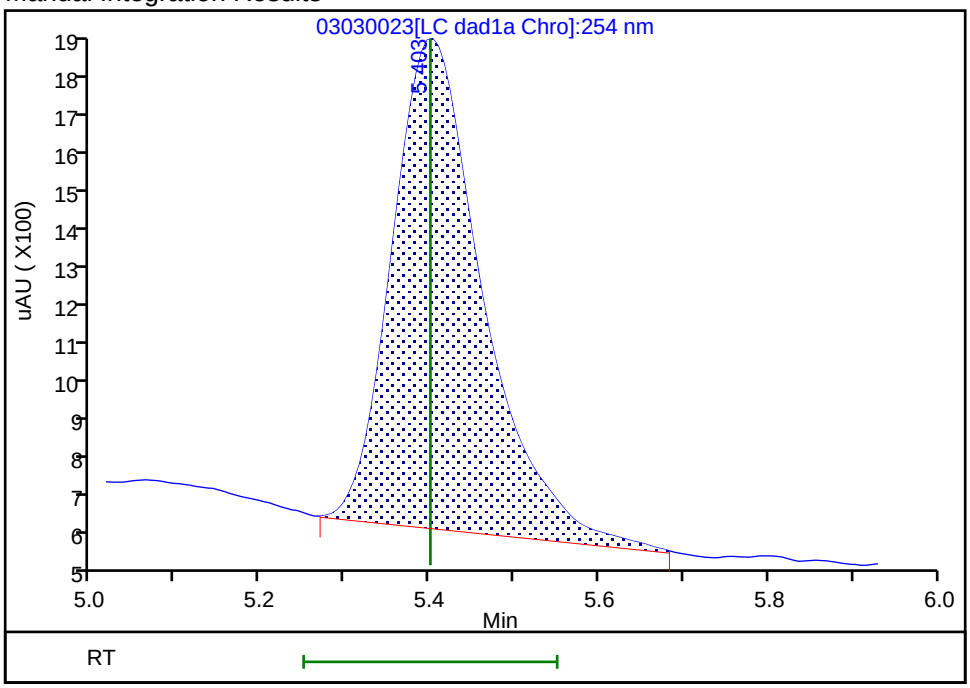
Processing Integration Results

RT: 5.40
Area: 10062
Amount: 0.021705
Amount Units: ug/ml



Manual Integration Results

RT: 5.40
Area: 9417
Amount: 0.020716
Amount Units: ug/ml



Reviewer: beckerc, 05-Mar-2020 08:42:37

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.: 280-134141-1 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
2-Nitrotoluene	12.828	12.830	12.822	12.830	12.831	12.822	12.819	12.815			12.679 - 12.979	12.825
4-Nitrotoluene	13.268	13.263	13.255	13.263	13.271	13.262	13.252	13.248			13.119 - 13.419	13.260
3-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.: 280-134141-1 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			
2-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.: 280-134141-1 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								
4-Nitrotoluene	127495 118346	123273 118529	119112 116856	118255 120524	Ave		120298.779				2.9		20.0			
3-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.: 280-134141-1 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
2-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
4-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.: 280-134141-1 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
3-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:

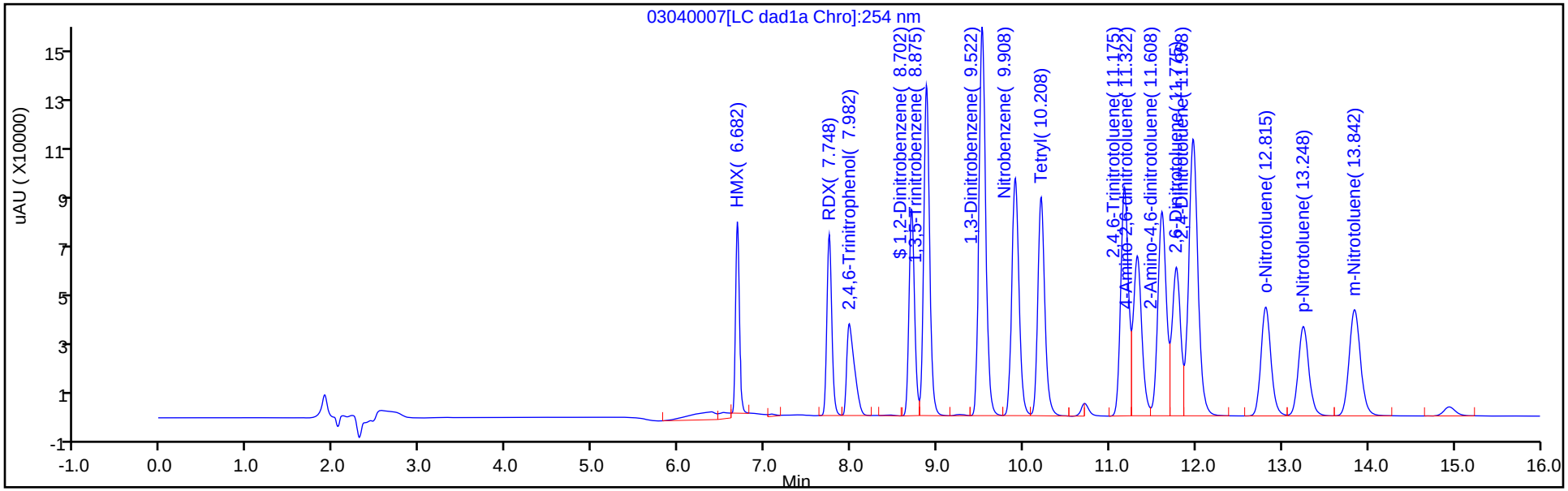
8330IntermStk_00061 Amount Added: 250.00 Units: uL

Report Date: 06-Mar-2020 10:24:59 Chrom Revision: 2.3 19-Feb-2020 16:45:46

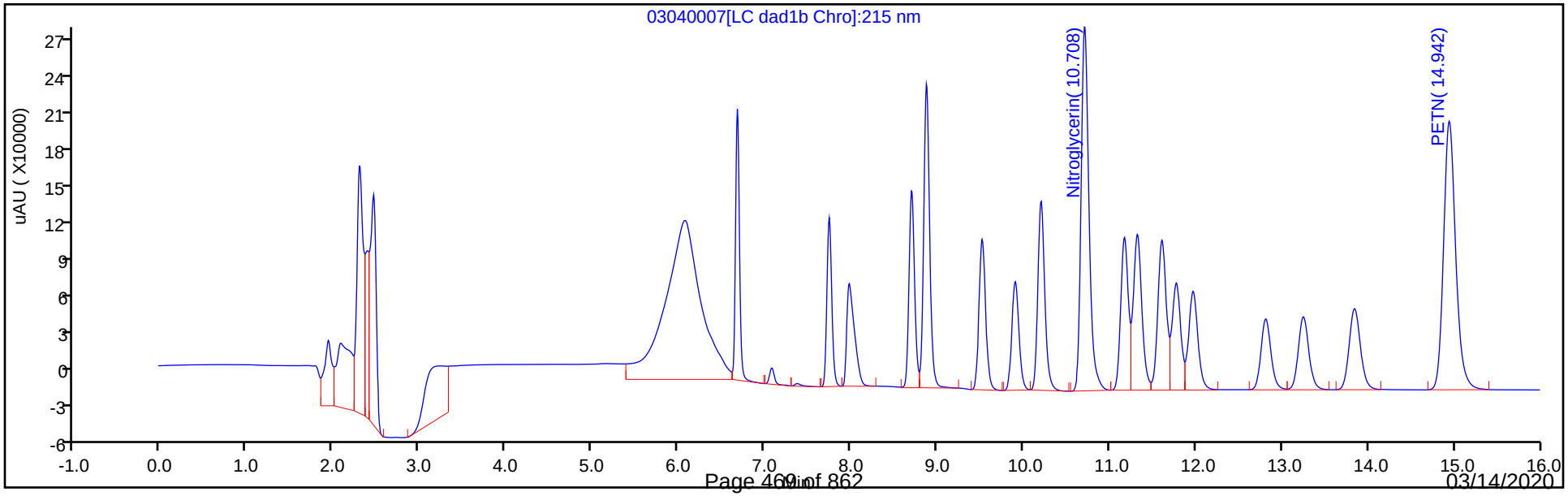
Eurofins TestAmerica, Denver

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

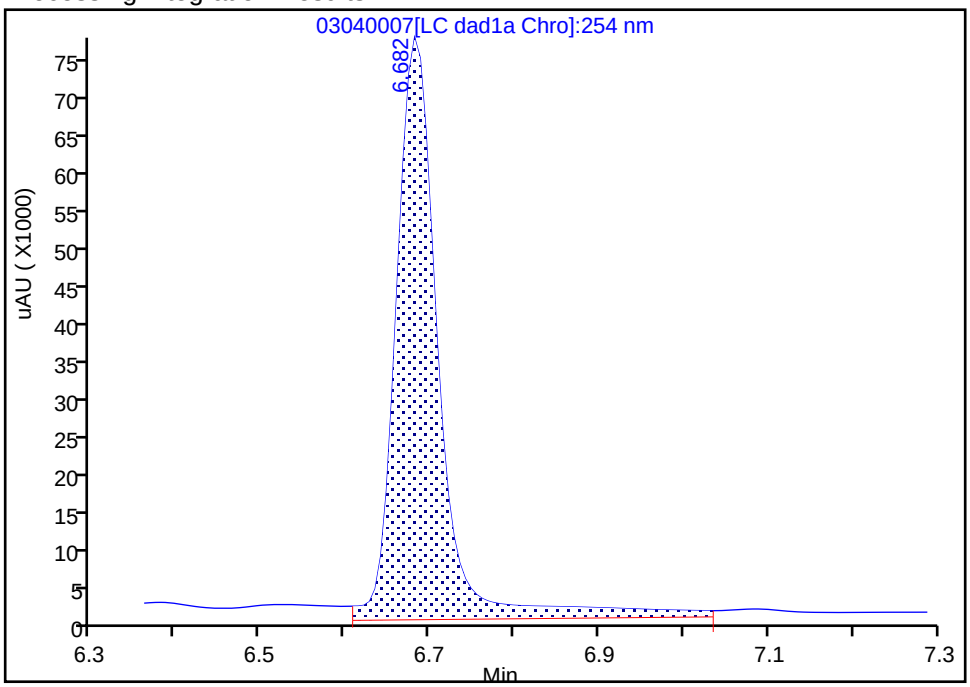
Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040007.d				
Injection Date:	04-Mar-2020 14:07:07	Instrument ID:	CHHPLC_X3		
Lims ID:	IC MAIN L8				
Client ID:					
Operator ID:	CB	ALS Bottle#:	7	Worklist Smp#:	7
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

3 HMX, CAS: 2691-41-0

Signal: 1

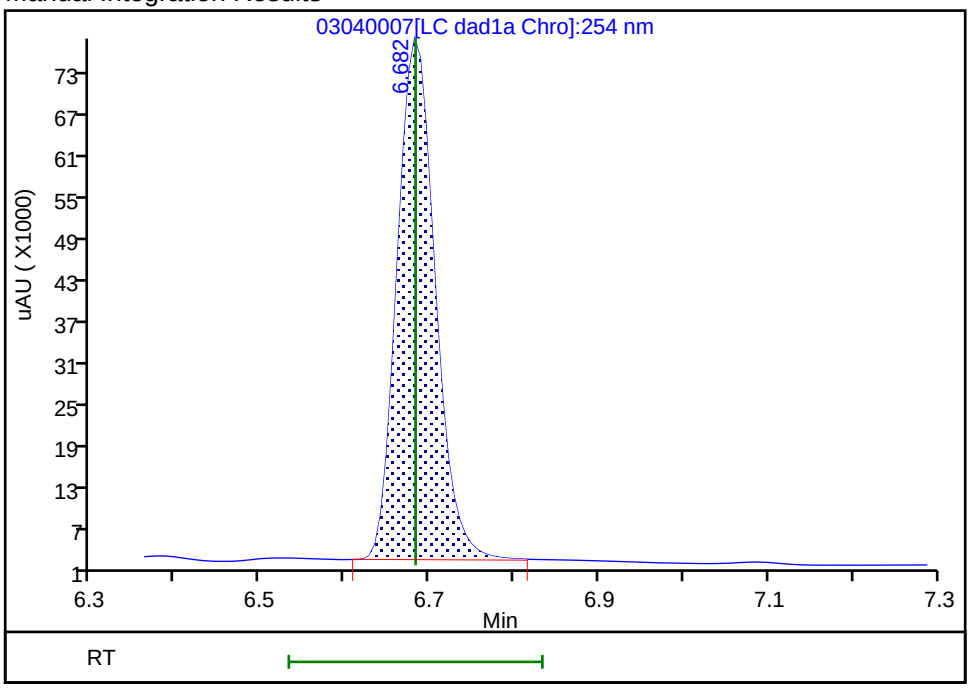
Processing Integration Results

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:

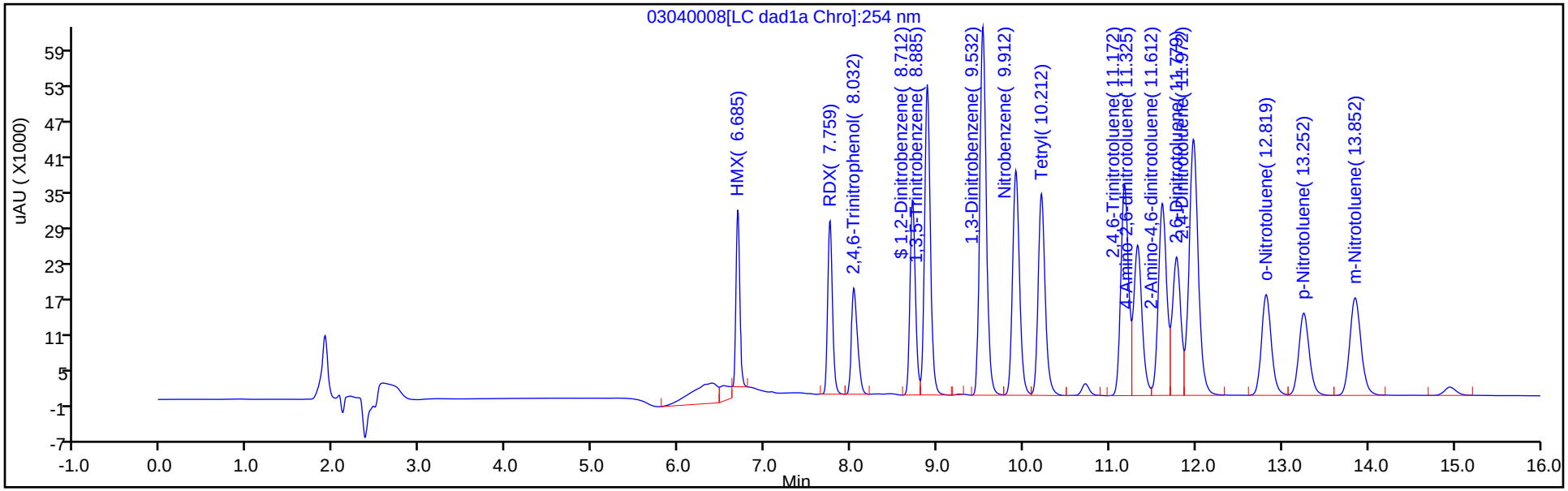
8330IntermStk_00061 Amount Added: 100.00 Units: uL

Report Date: 06-Mar-2020 10:25:02 Chrom Revision: 2.3 19-Feb-2020 16:45:46

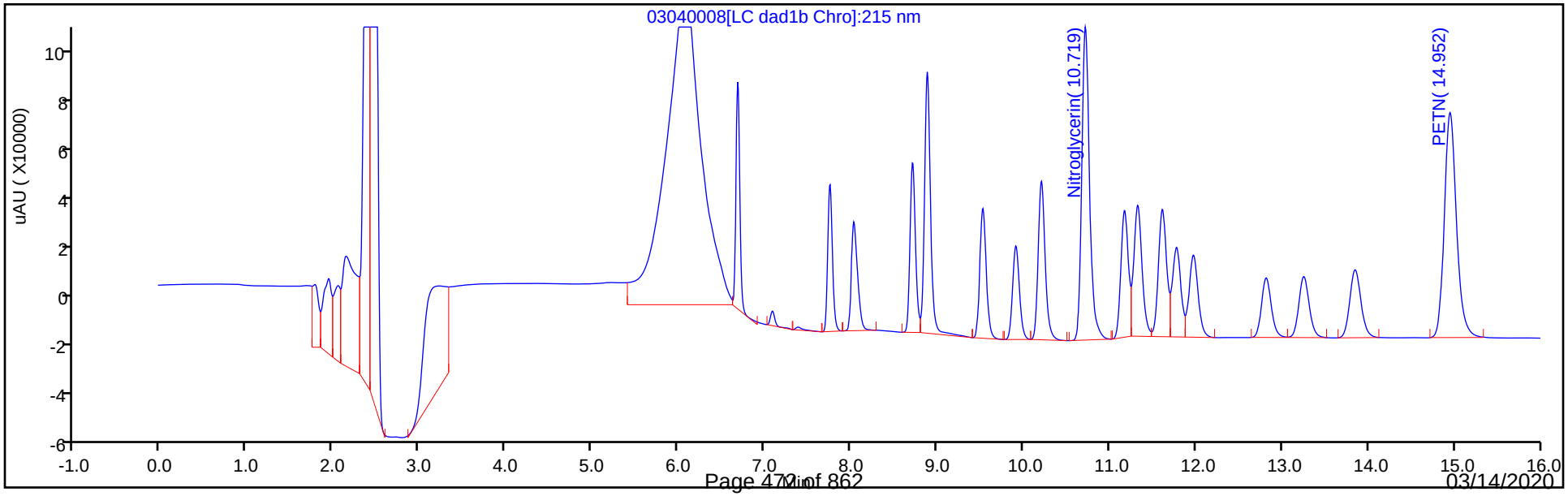
Eurofins TestAmerica, Denver

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

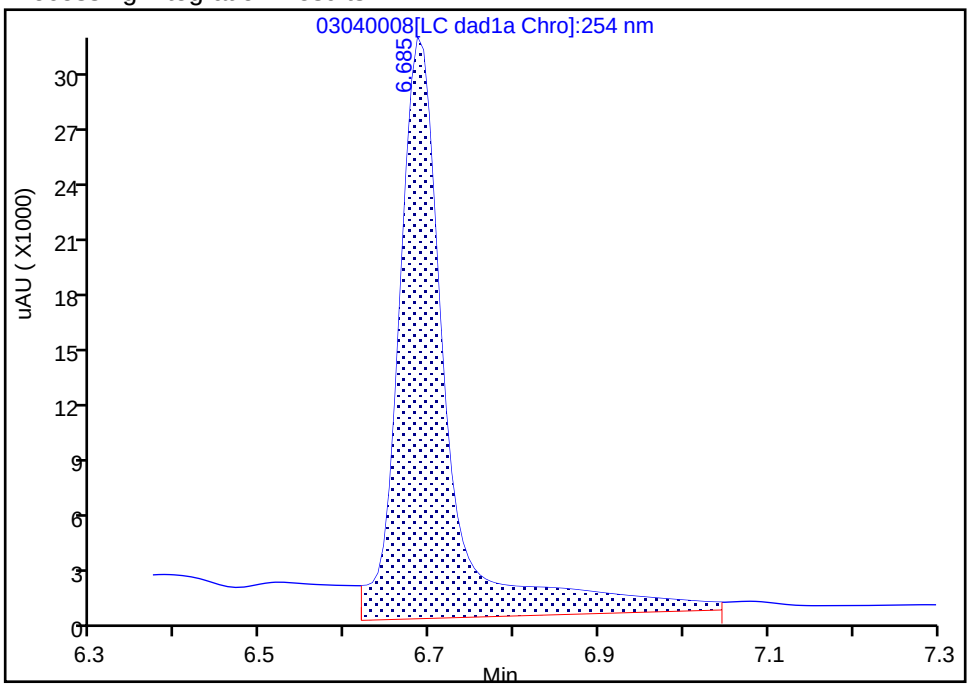
Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040008.d				
Injection Date:	04-Mar-2020 14:30:11	Instrument ID:	CHHPLC_X3		
Lims ID:	IC MAIN L7				
Client ID:					
Operator ID:	CB	ALS Bottle#:	8	Worklist Smp#:	8
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

3 HMX, CAS: 2691-41-0

Signal: 1

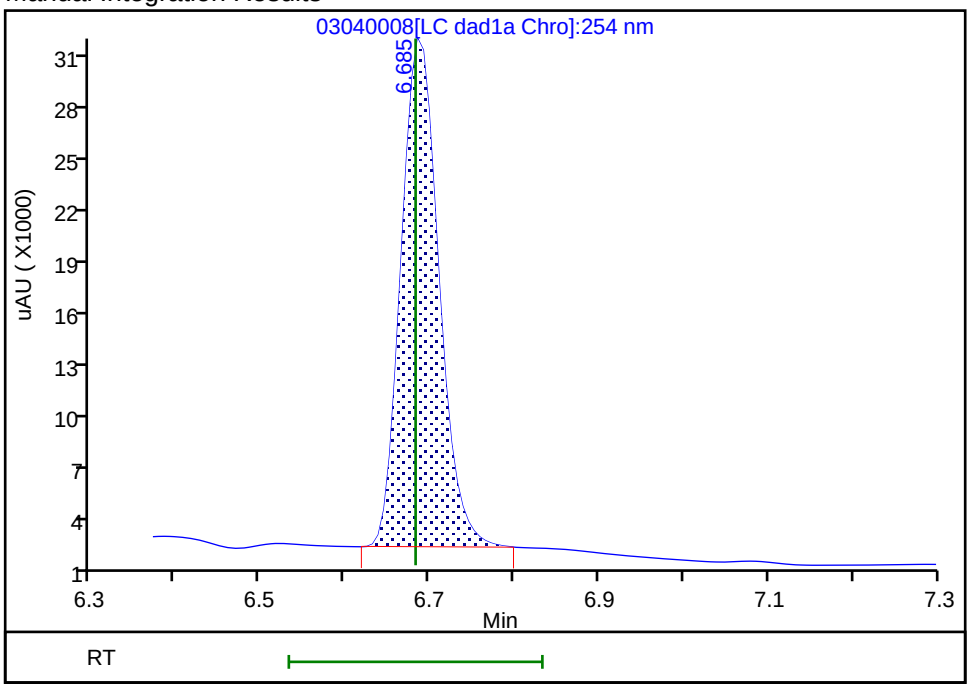
Processing Integration Results

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:

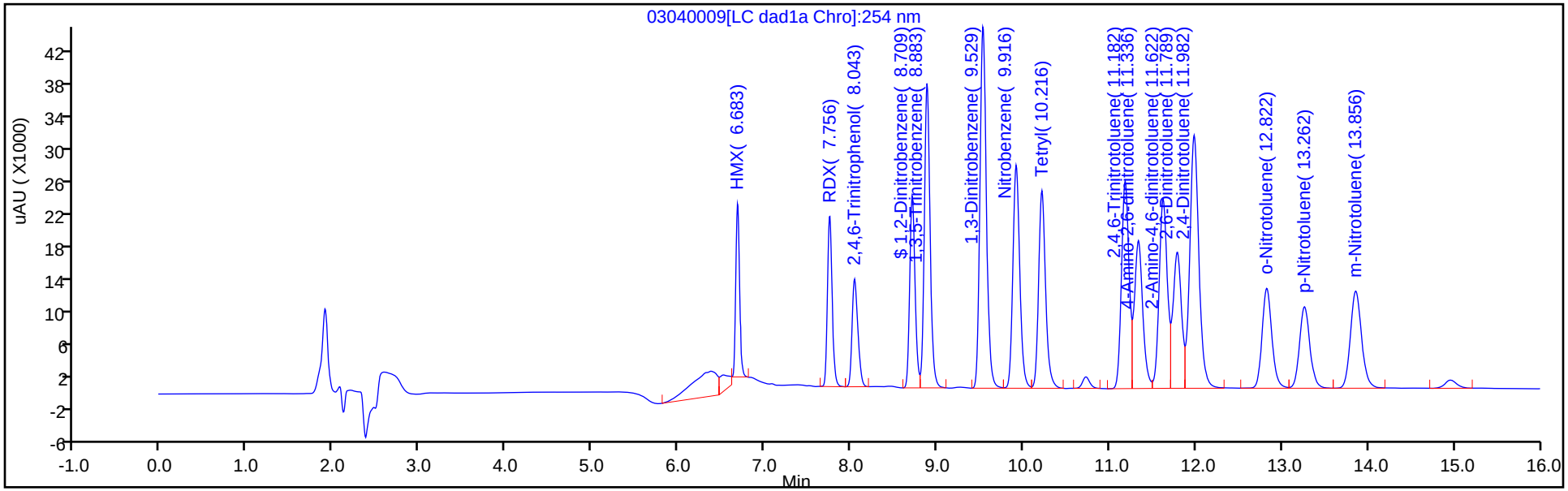
8330IntermStk_00061 Amount Added: 70.00 Units: uL

Report Date: 06-Mar-2020 10:25:02 Chrom Revision: 2.3 19-Feb-2020 16:45:46

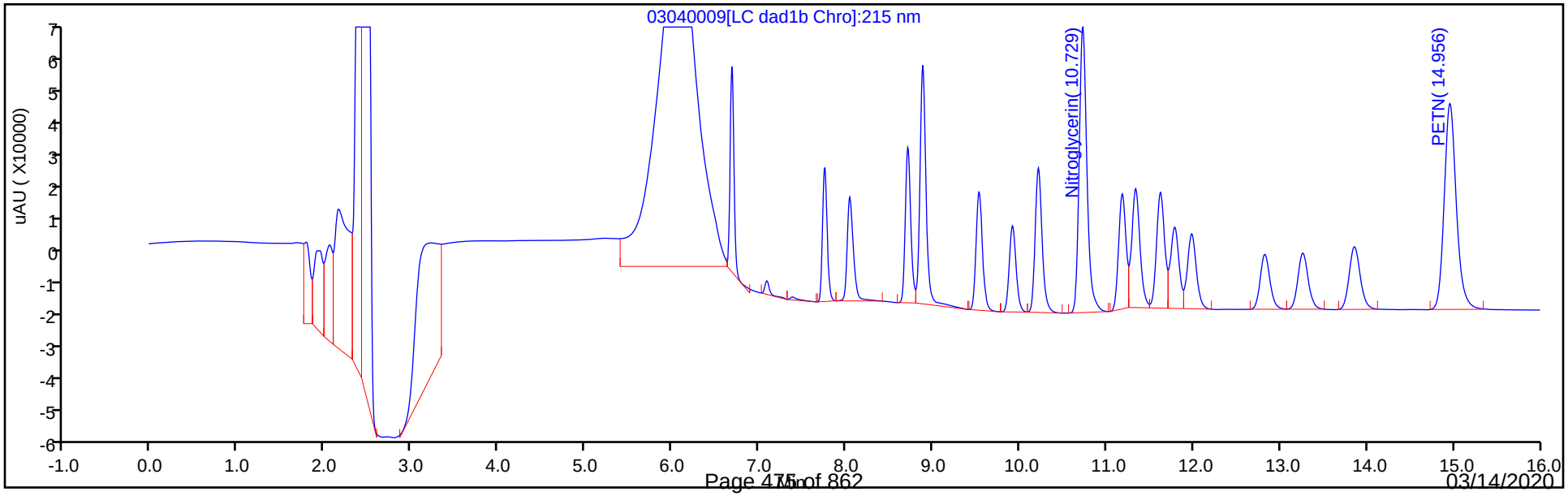
Eurofins TestAmerica, Denver

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

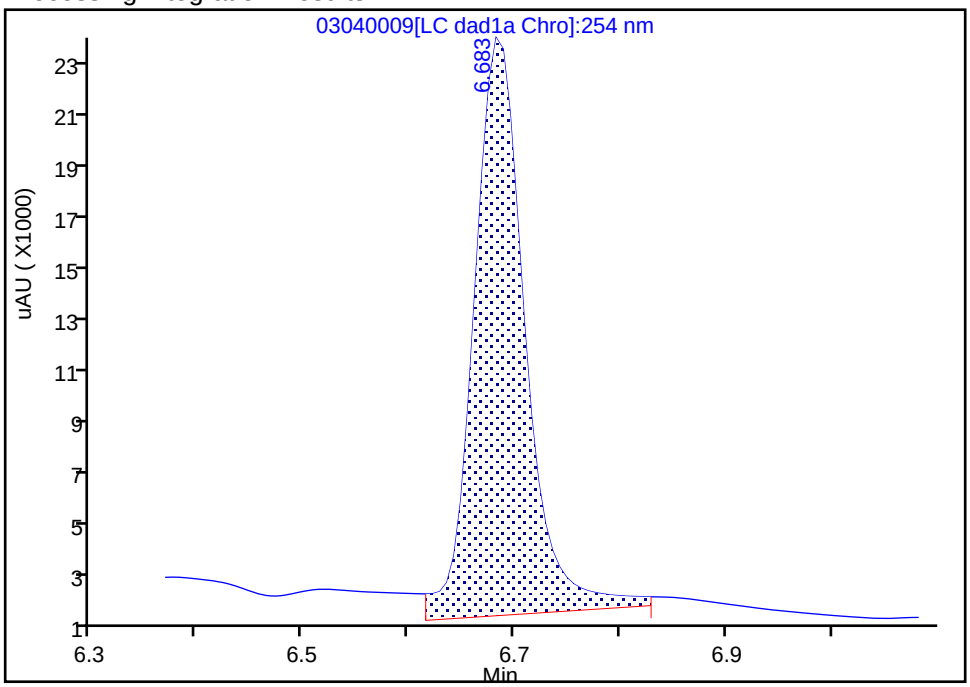
Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040009.d				
Injection Date:	04-Mar-2020 14:53:07	Instrument ID:	CHHPLC_X3		
Lims ID:	IC MAIN L6				
Client ID:					
Operator ID:	CB	ALS Bottle#:	9	Worklist Smp#:	9
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

3 HMX, CAS: 2691-41-0

Signal: 1

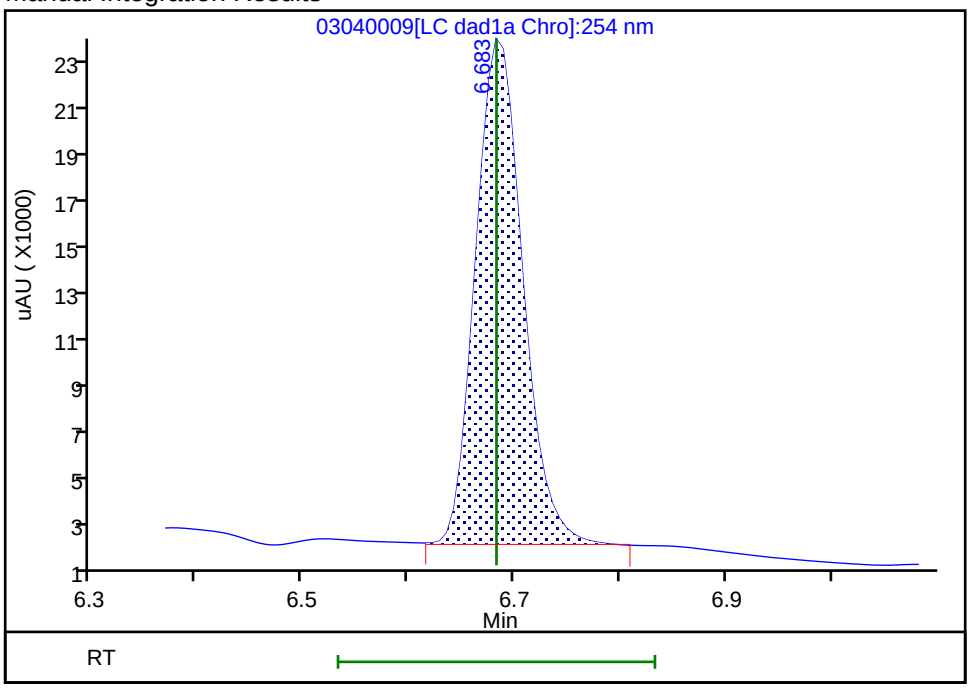
Processing Integration Results

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:

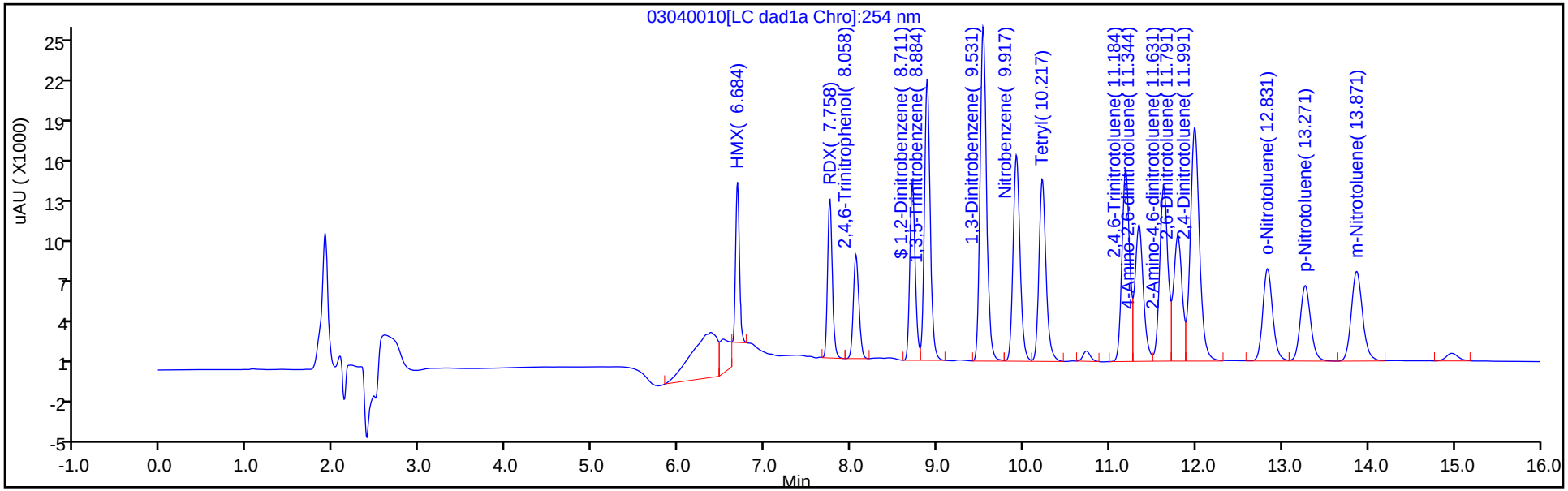
8330IntermStk_00061 Amount Added: 40.00 Units: uL

Report Date: 06-Mar-2020 10:25:04 Chrom Revision: 2.3 19-Feb-2020 16:45:46

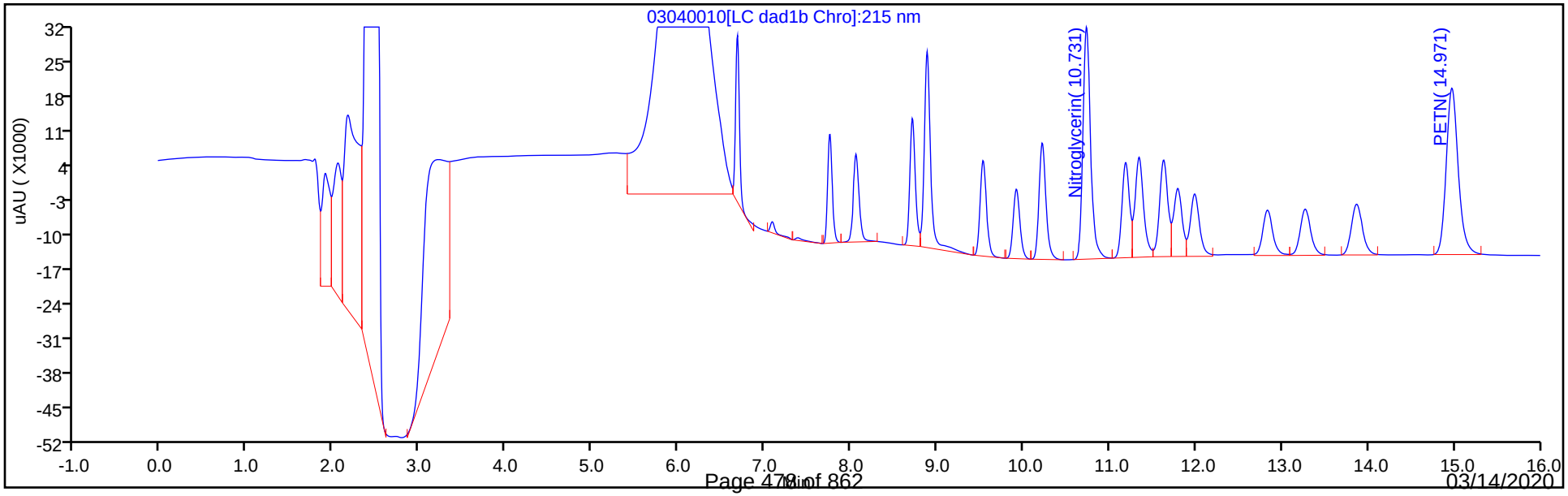
Eurofins TestAmerica, Denver

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

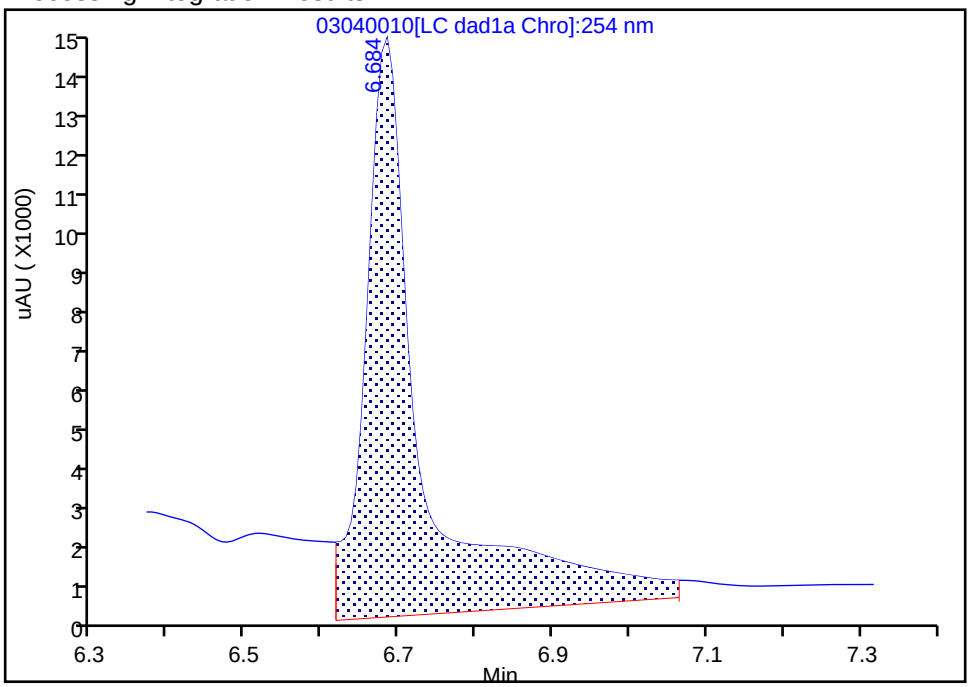
Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040010.d				
Injection Date:	04-Mar-2020 15:16:04	Instrument ID:	CHHPLC_X3		
Lims ID:	IC MAIN L5				
Client ID:					
Operator ID:	CB	ALS Bottle#:	10	Worklist Smp#:	10
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

3 HMX, CAS: 2691-41-0

Signal: 1

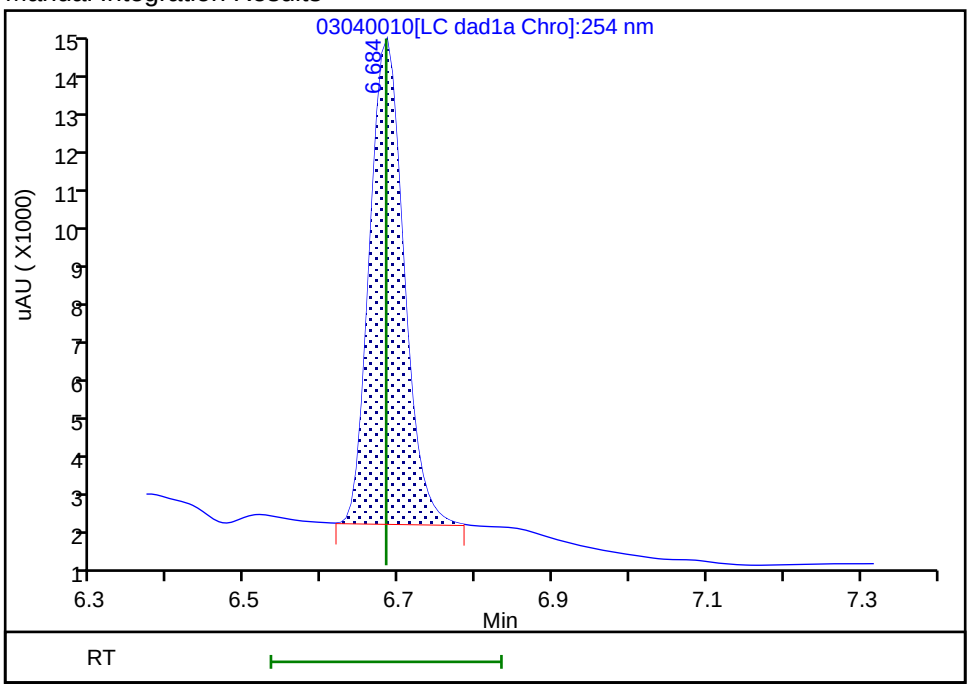
Processing Integration Results

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:

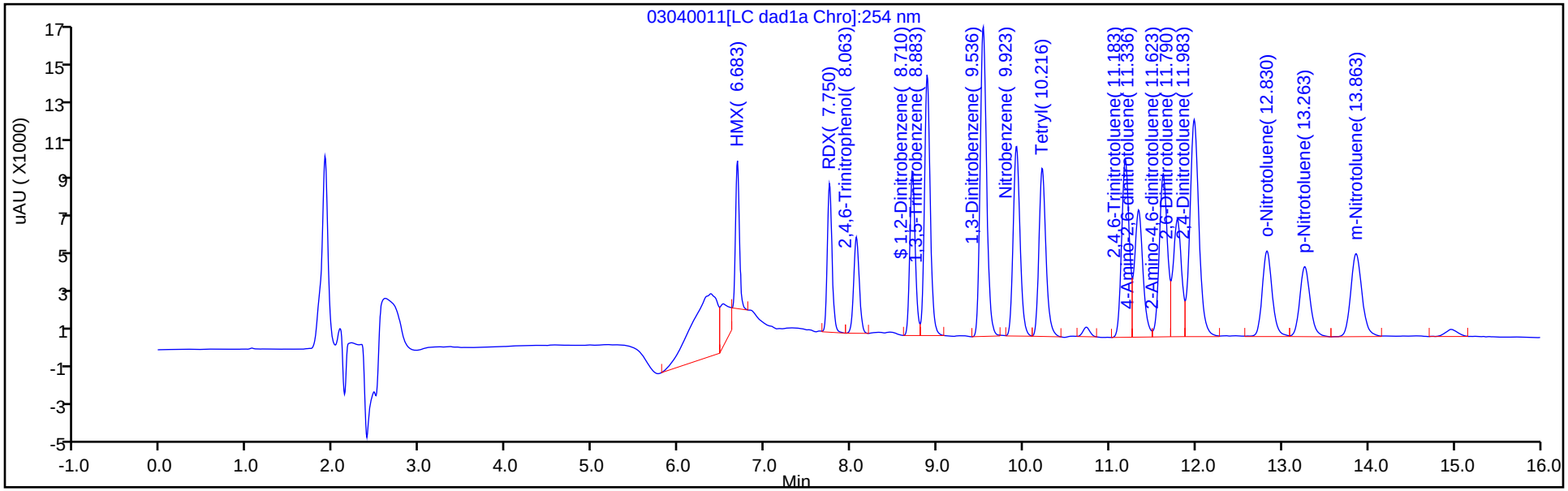
8330IntermStk_00061 Amount Added: 25.00 Units: uL

Report Date: 06-Mar-2020 10:25:05 Chrom Revision: 2.3 19-Feb-2020 16:45:46

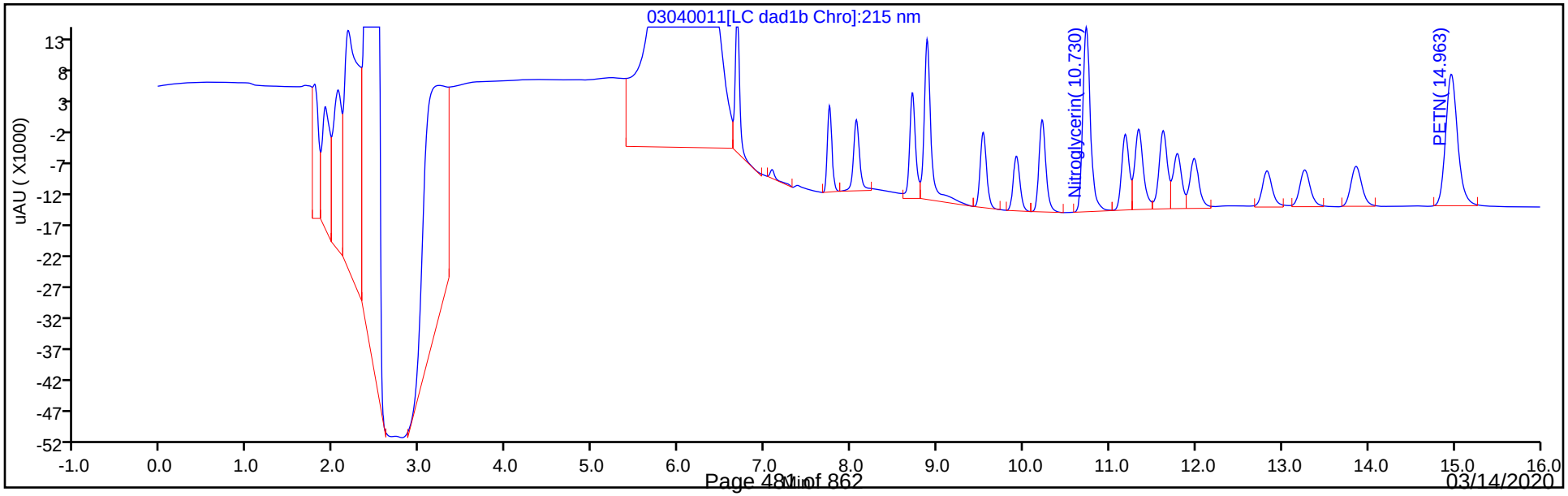
Eurofins TestAmerica, Denver

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

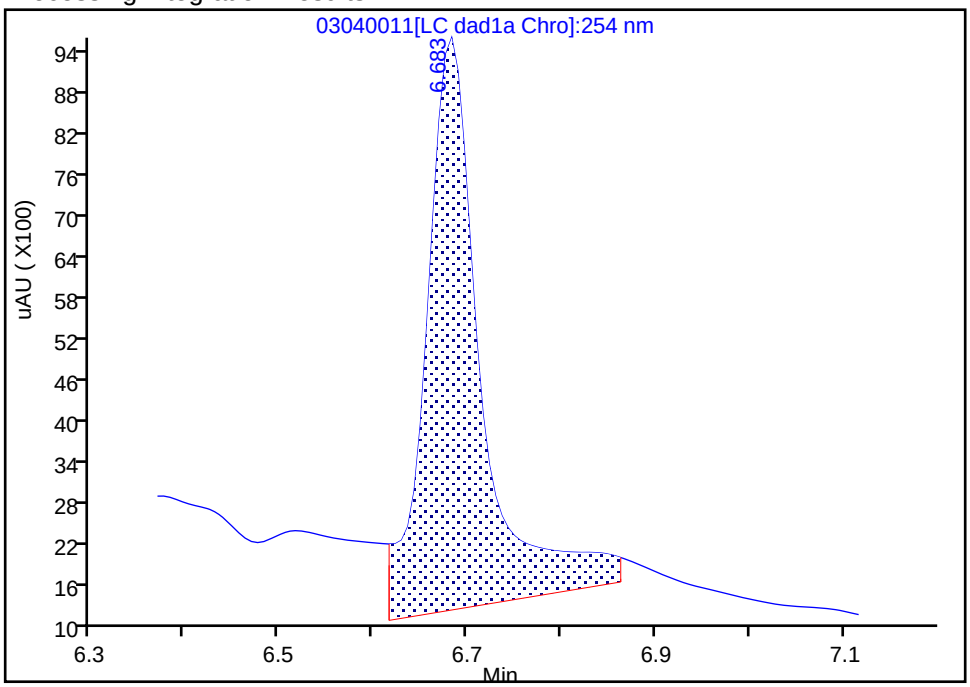
Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040011.d				
Injection Date:	04-Mar-2020 15:39:01	Instrument ID:	CHHPLC_X3		
Lims ID:	IC MAIN L4				
Client ID:					
Operator ID:	CB	ALS Bottle#:	11	Worklist Smp#:	11
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

3 HMX, CAS: 2691-41-0

Signal: 1

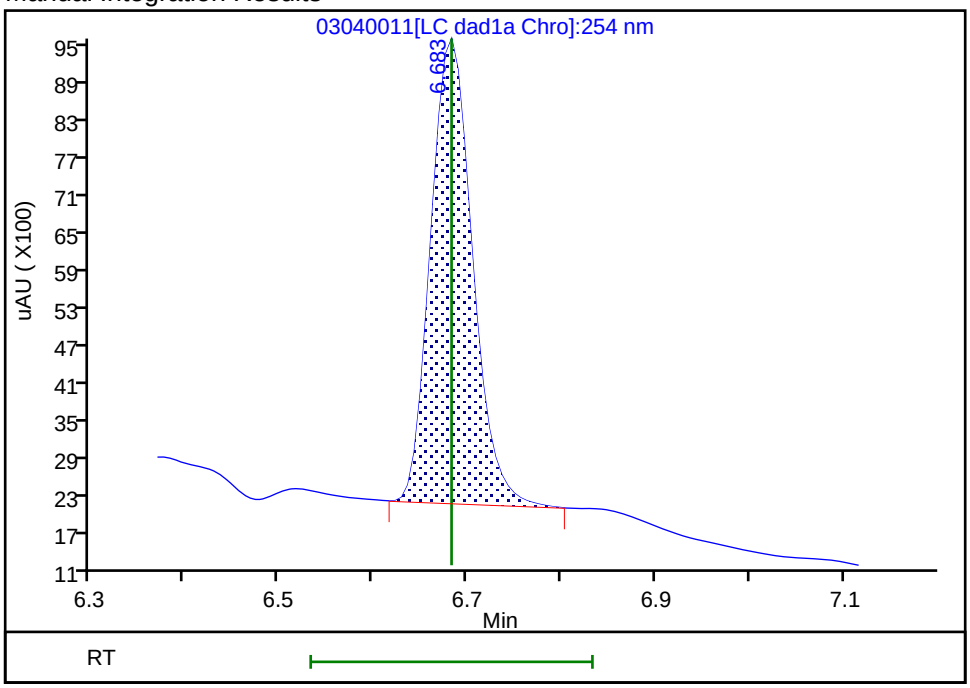
Processing Integration Results

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:

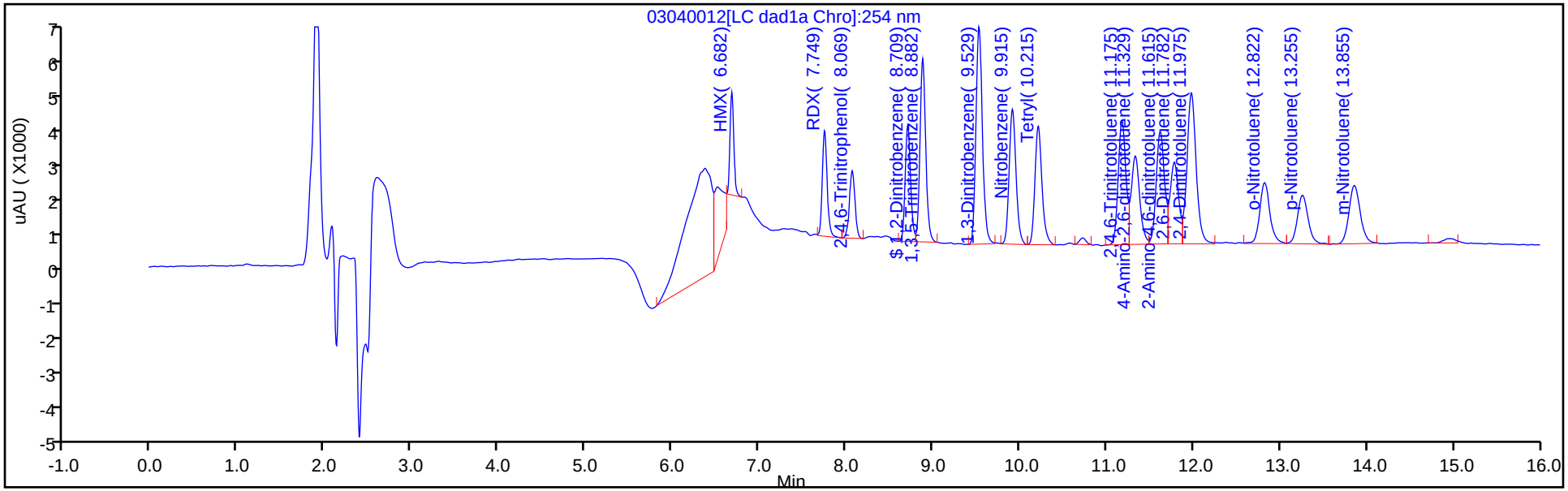
8330IntermStk_00061 Amount Added: 10.00 Units: uL

Report Date: 06-Mar-2020 10:25:06 Chrom Revision: 2.3 19-Feb-2020 16:45:46

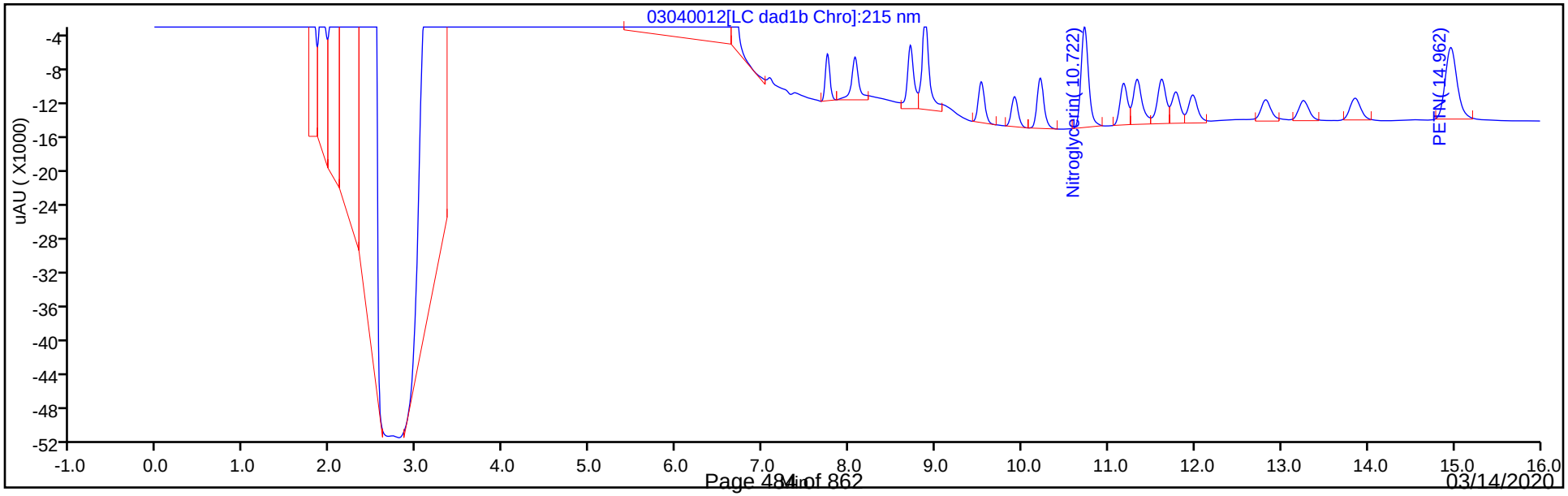
Eurofins TestAmerica, Denver

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

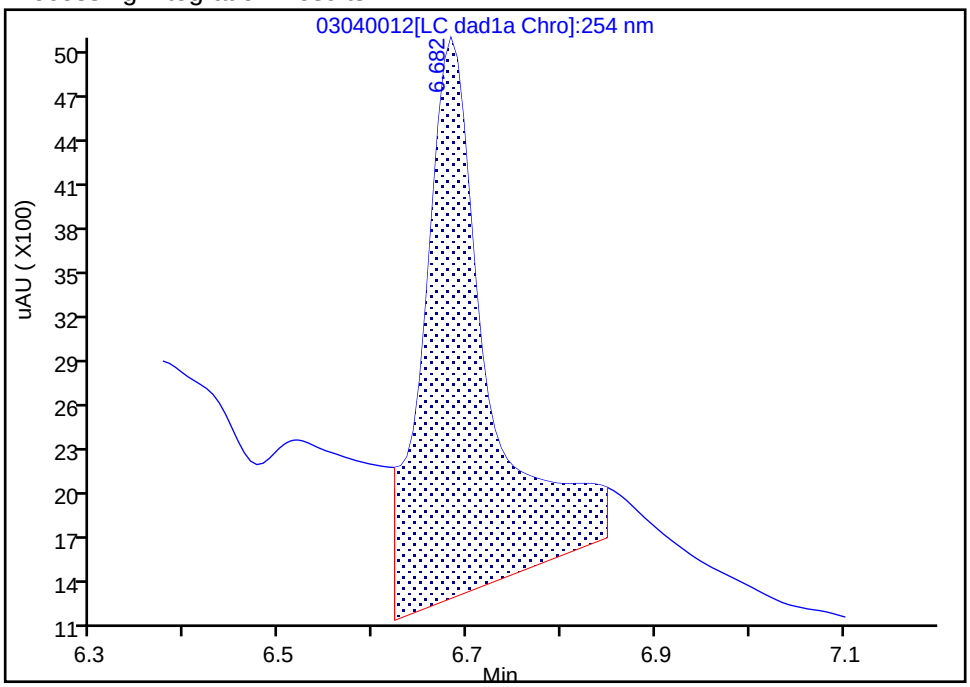
Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040012.d				
Injection Date:	04-Mar-2020 16:01:56	Instrument ID:	CHHPLC_X3		
Lims ID:	IC MAIN L3				
Client ID:					
Operator ID:	CB	ALS Bottle#:	12	Worklist Smp#:	12
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

3 HMX, CAS: 2691-41-0

Signal: 1

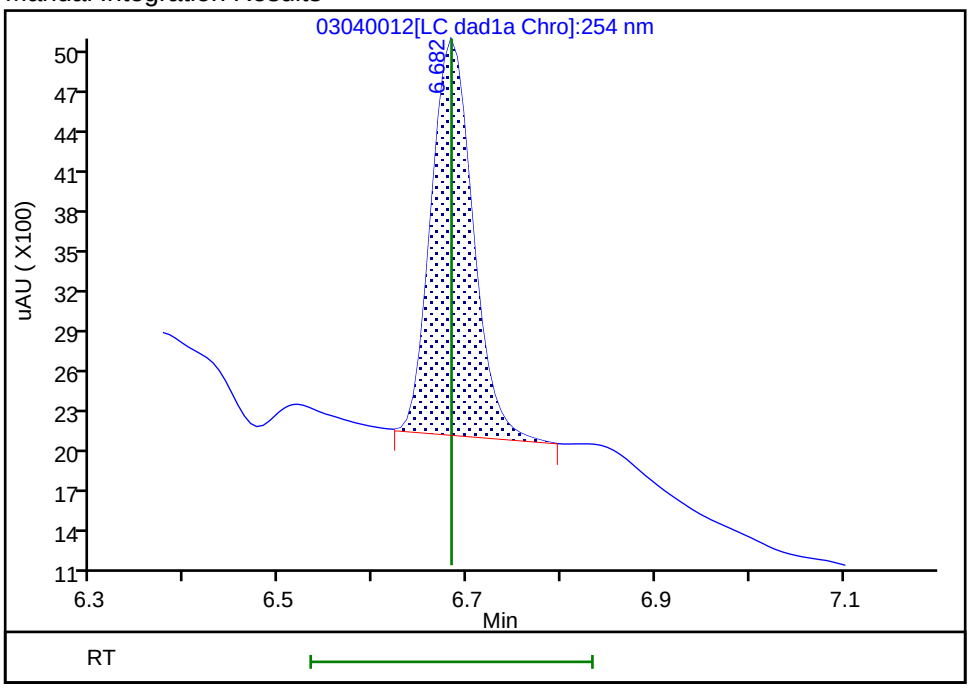
Processing Integration Results

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:

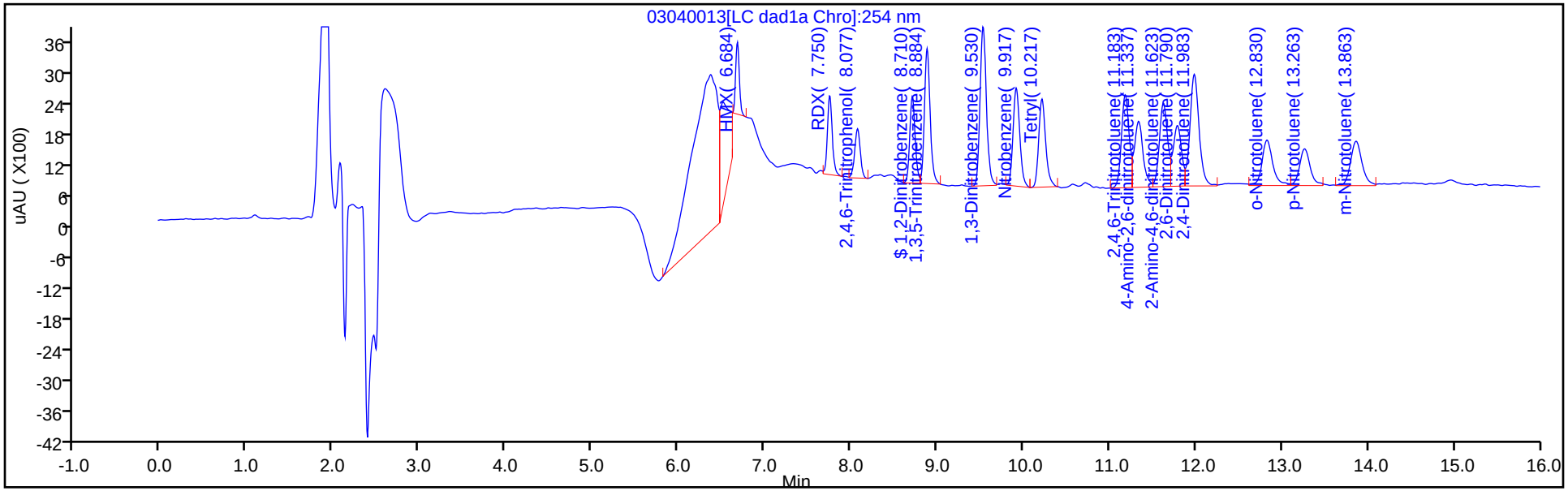
8330IntermStk_00061 Amount Added: 5.00 Units: uL

Report Date: 06-Mar-2020 10:25:07 Chrom Revision: 2.3 19-Feb-2020 16:45:46

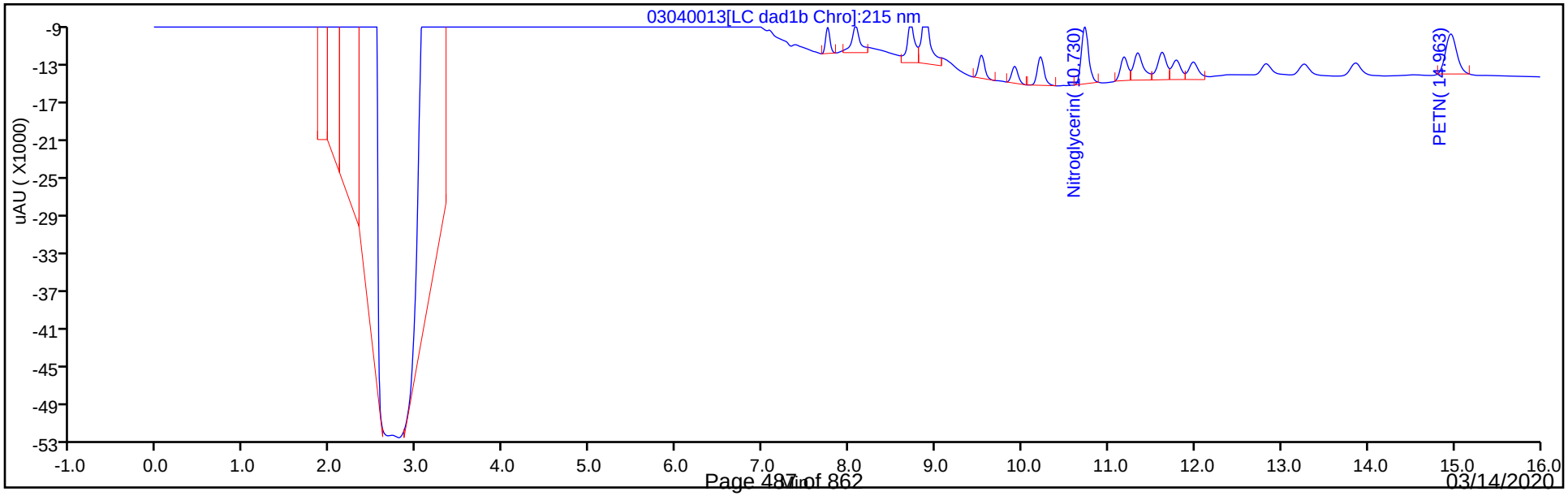
Eurofins TestAmerica, Denver

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

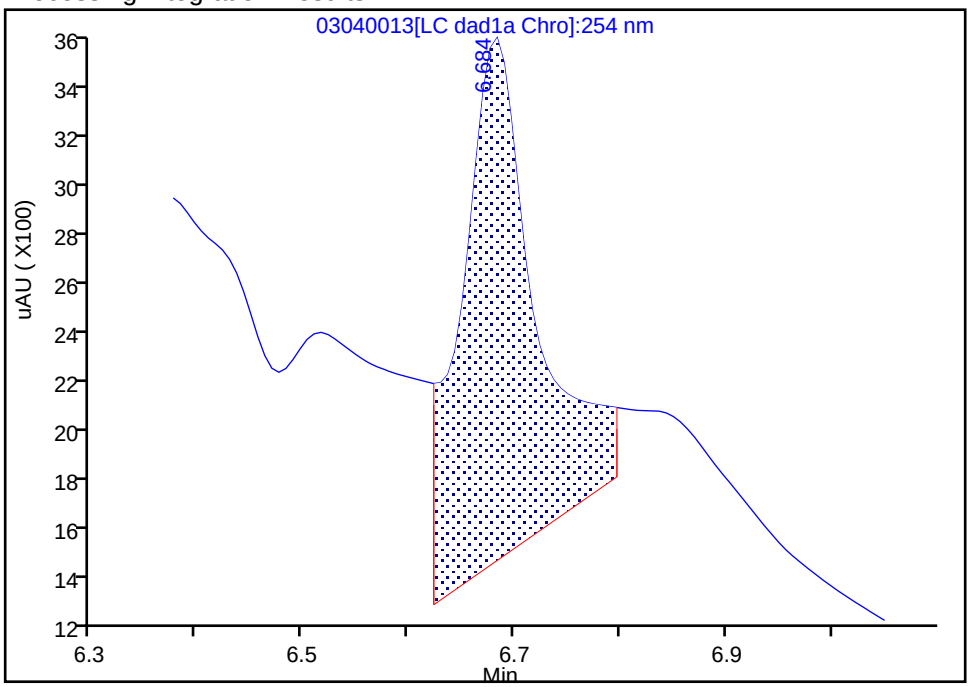
Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040013.d				
Injection Date:	04-Mar-2020 16:24:51	Instrument ID:	CHHPLC_X3		
Lims ID:	IC MAIN L2				
Client ID:					
Operator ID:	CB	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

3 HMX, CAS: 2691-41-0

Signal: 1

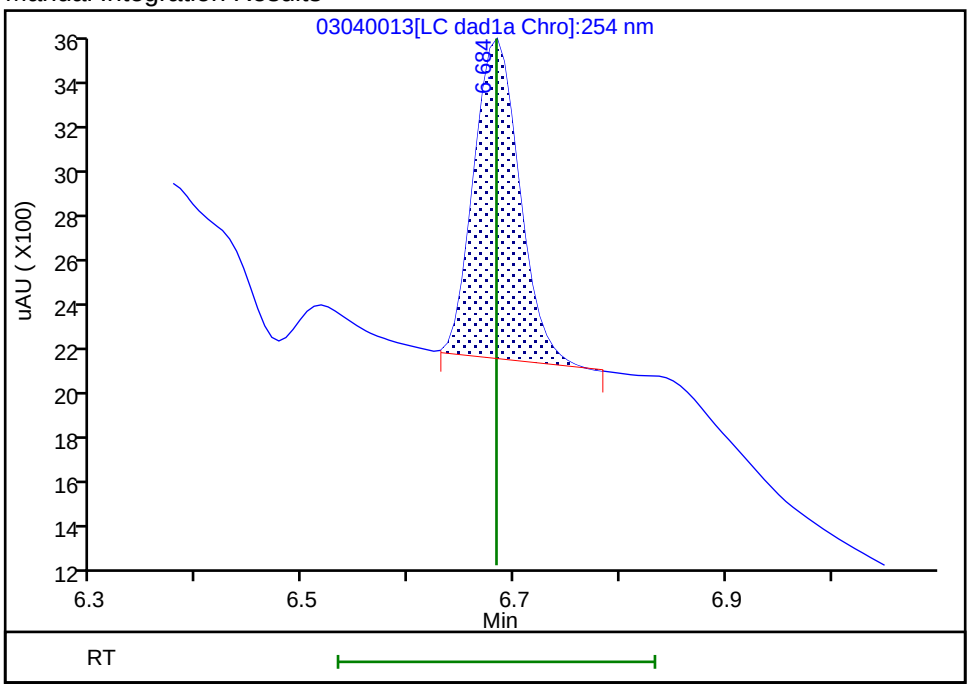
Processing Integration Results

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:

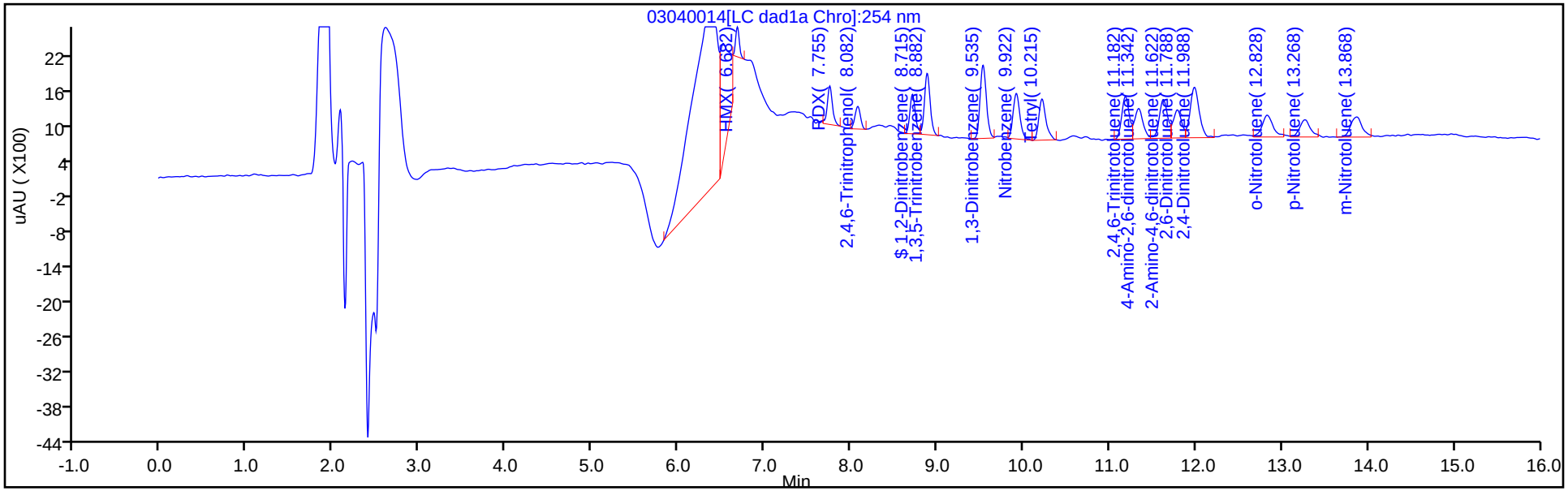
8330IntermStk_00061 Amount Added: 2.00 Units: uL

Report Date: 06-Mar-2020 10:25:09 Chrom Revision: 2.3 19-Feb-2020 16:45:46

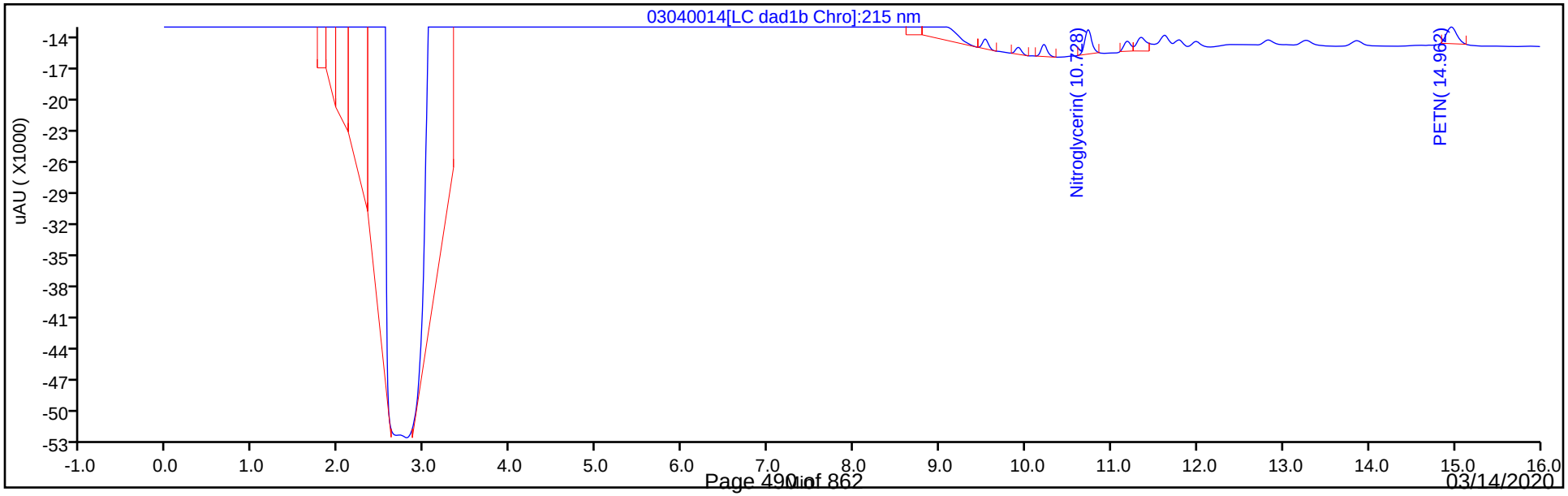
Eurofins TestAmerica, Denver

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

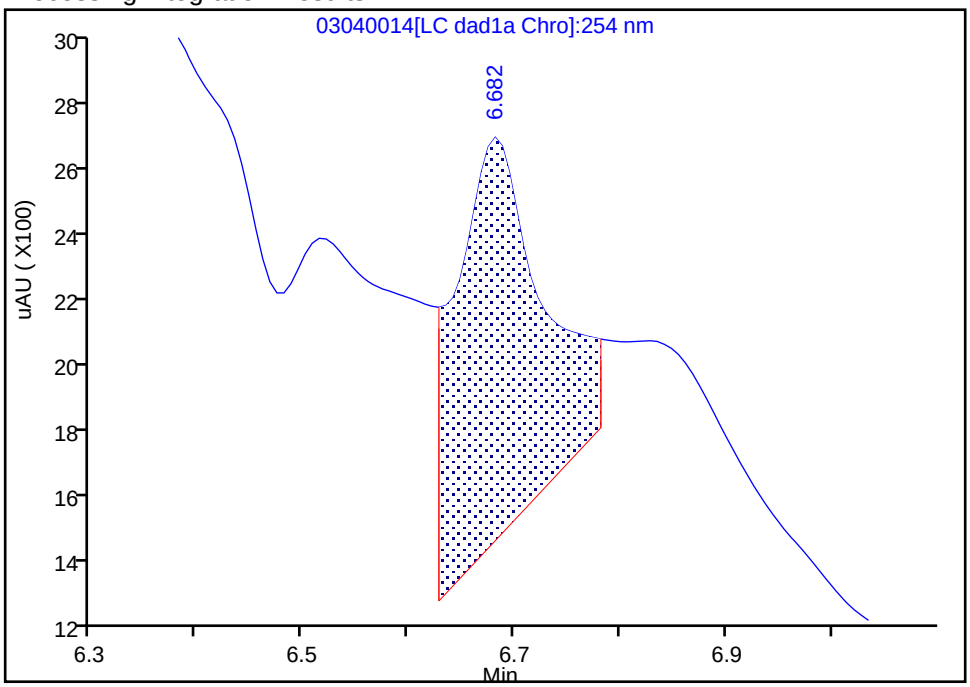
Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040014.d				
Injection Date:	04-Mar-2020 16:47:48	Instrument ID:	CHHPLC_X3		
Lims ID:	IC MAIN L1				
Client ID:					
Operator ID:	CB	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

3 HMX, CAS: 2691-41-0

Signal: 1

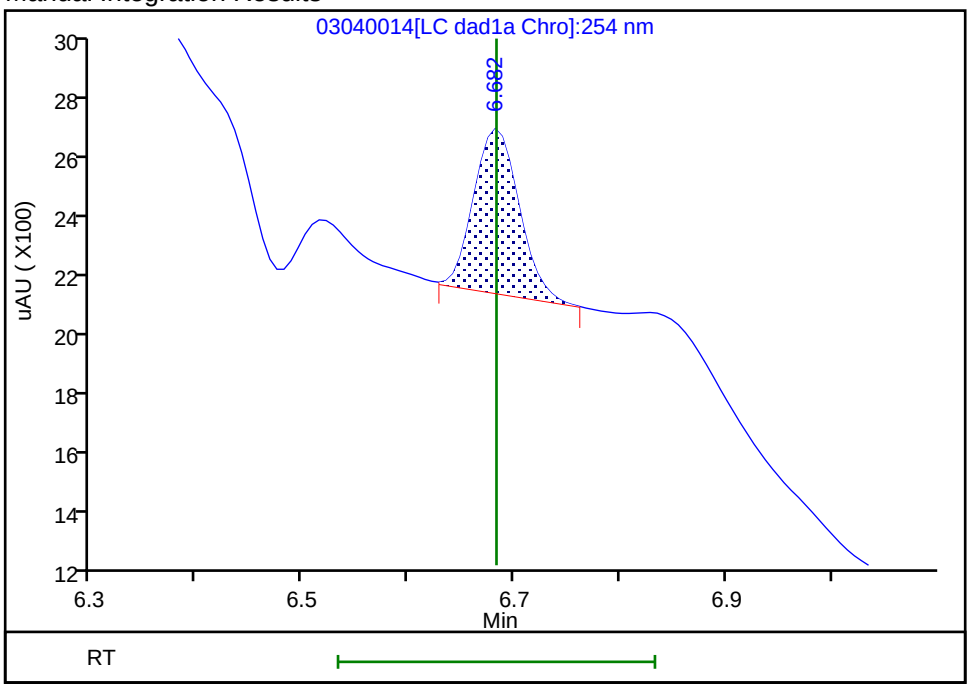
Processing Integration Results

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

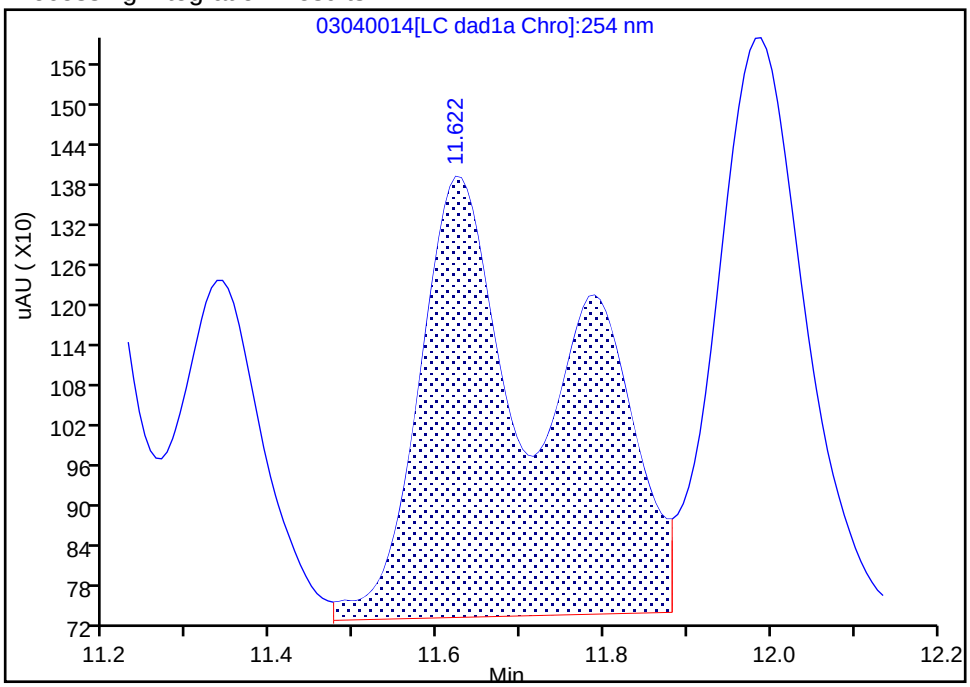
Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040014.d				
Injection Date:	04-Mar-2020 16:47:48	Instrument ID:	CHHPLC_X3		
Lims ID:	IC MAIN L1				
Client ID:					
Operator ID:	CB	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit 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

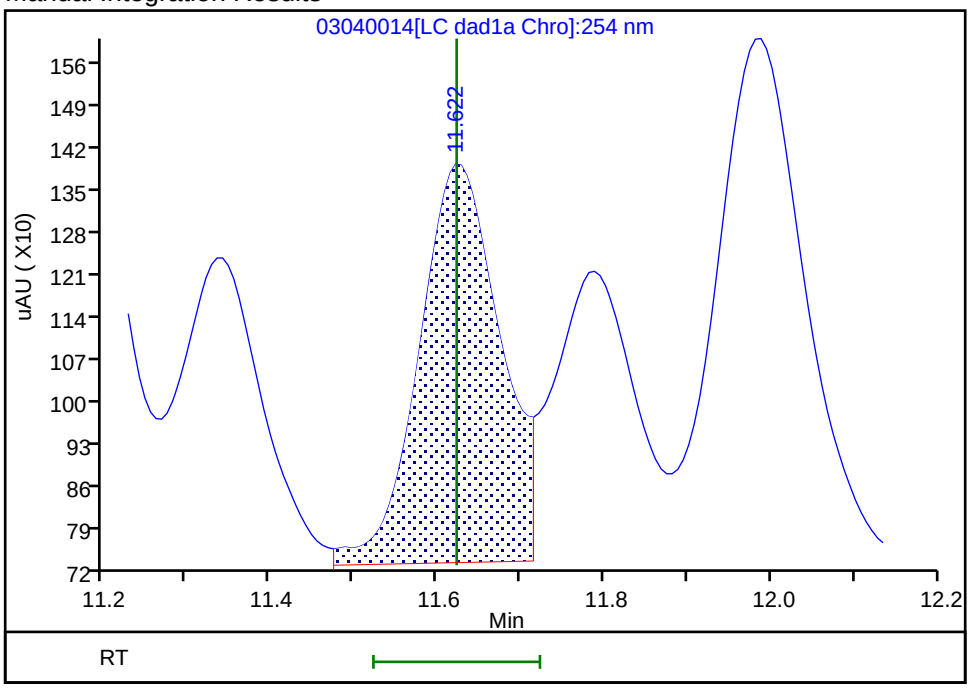
Processing Integration Results

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.: 280-134141-1 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.: 280-134141-1 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.: 280-134141-1 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:

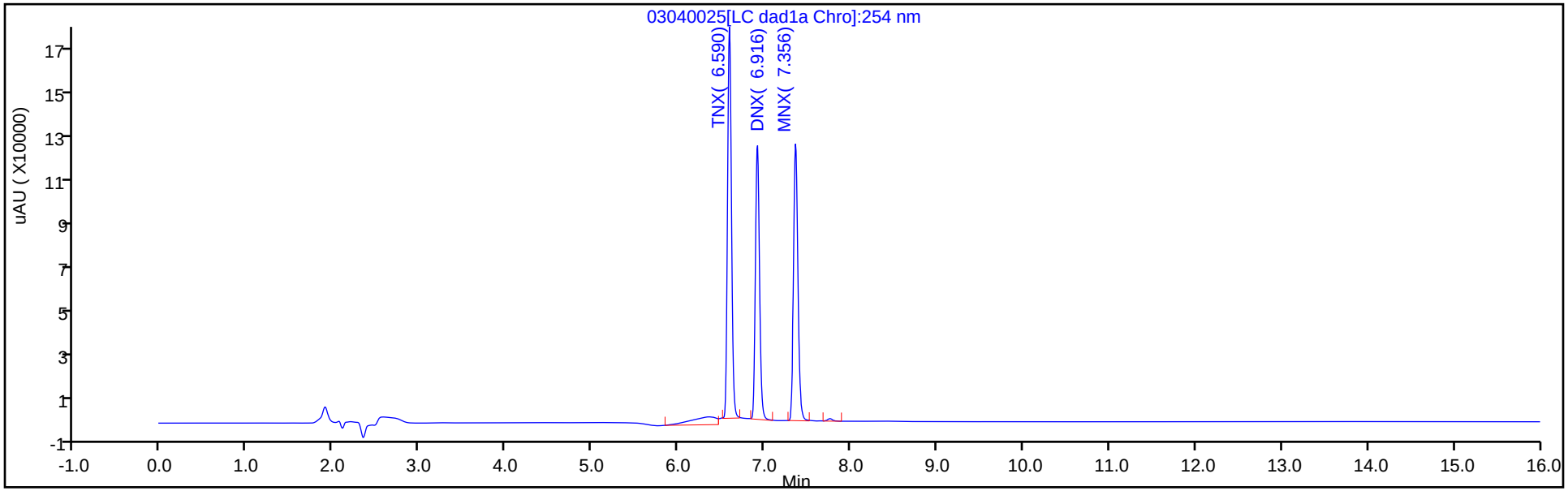
8330 DMT_00005 Amount Added: 125.00 Units: uL

Report Date: 06-Mar-2020 10:25:21 Chrom Revision: 2.3 19-Feb-2020 16:45:46

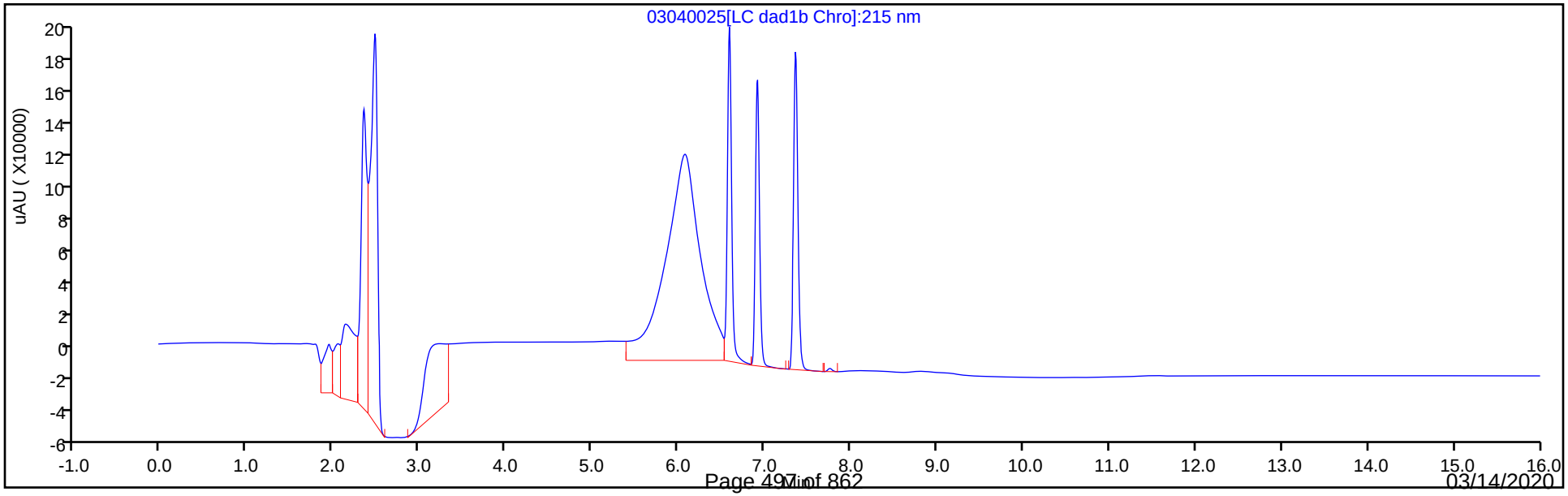
Eurofins TestAmerica, Denver

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

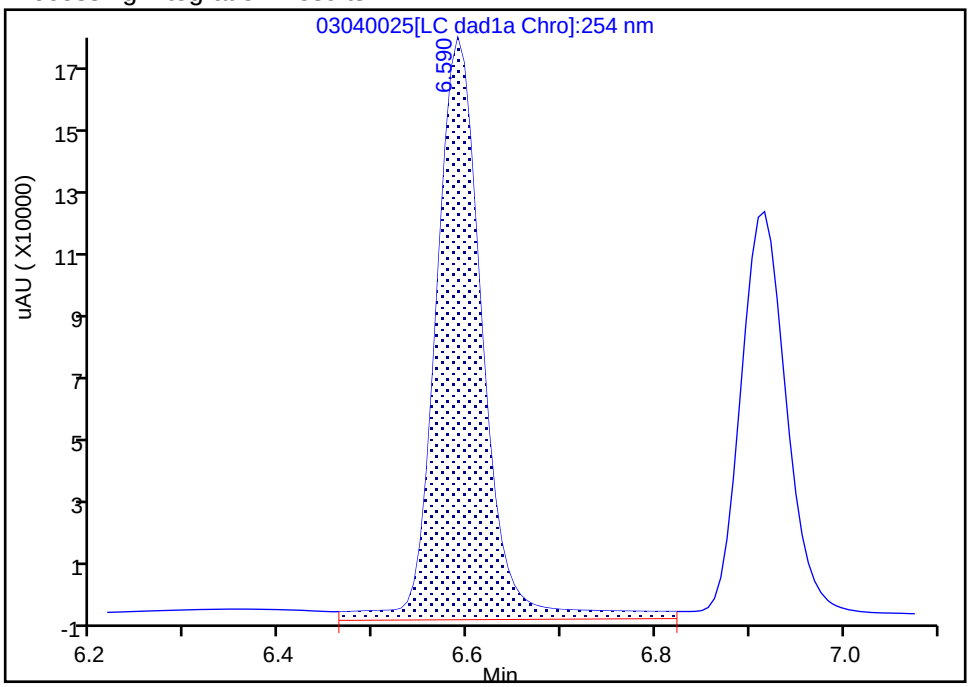
Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040025.d				
Injection Date:	04-Mar-2020 21:00:00	Instrument ID:	CHHPLC_X3		
Lims ID:	IC DMT L8				
Client ID:					
Operator ID:	CB	ALS Bottle#:	25	Worklist Smp#:	25
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

2 TNX, CAS: 13980-04-6

Signal: 1

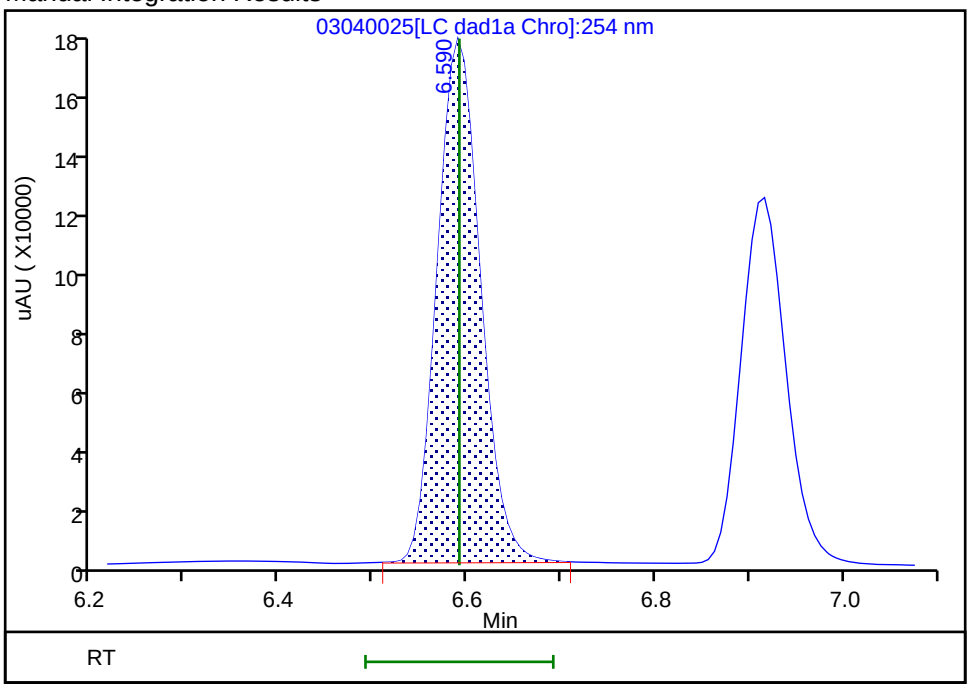
Processing Integration Results

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

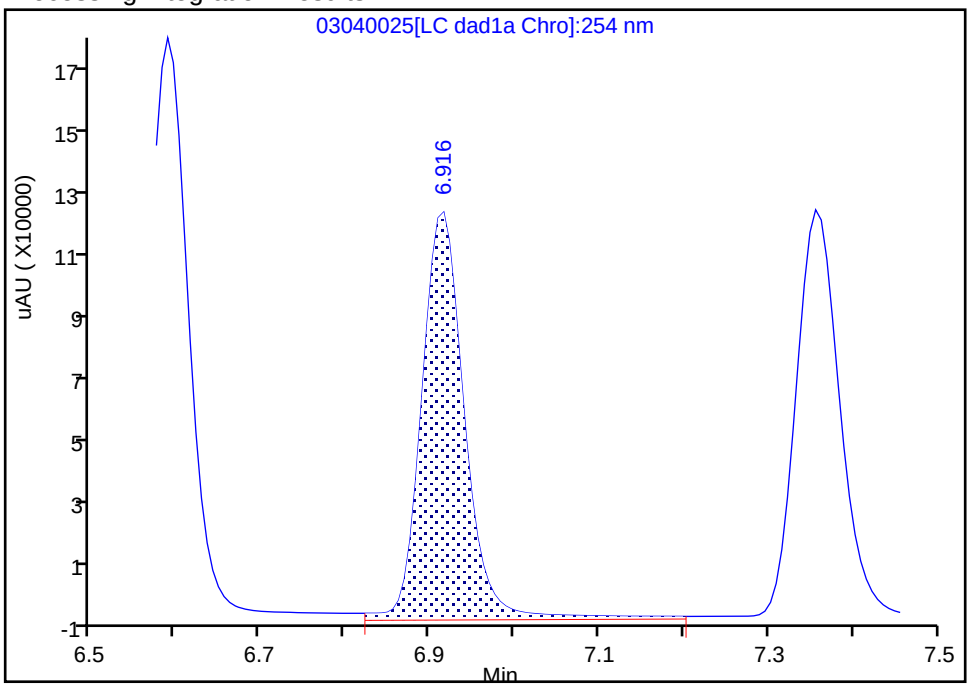
Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040025.d				
Injection Date:	04-Mar-2020 21:00:00	Instrument ID:	CHHPLC_X3		
Lims ID:	IC DMT L8				
Client ID:					
Operator ID:	CB	ALS Bottle#:	25	Worklist Smp#:	25
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

5 DNX, CAS: 80251-29-2

Signal: 1

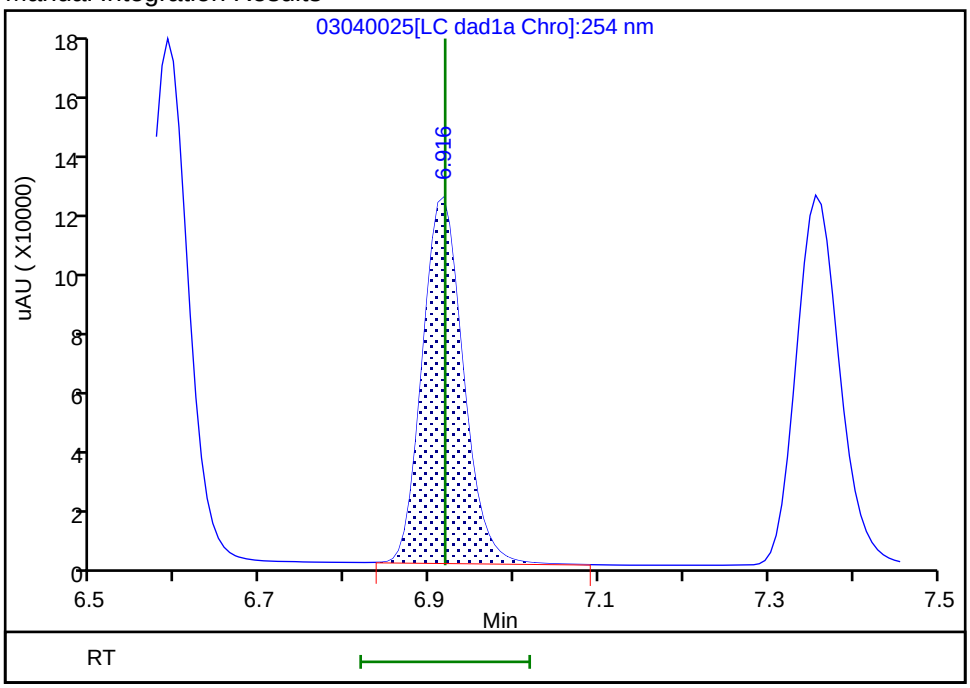
Processing Integration Results

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

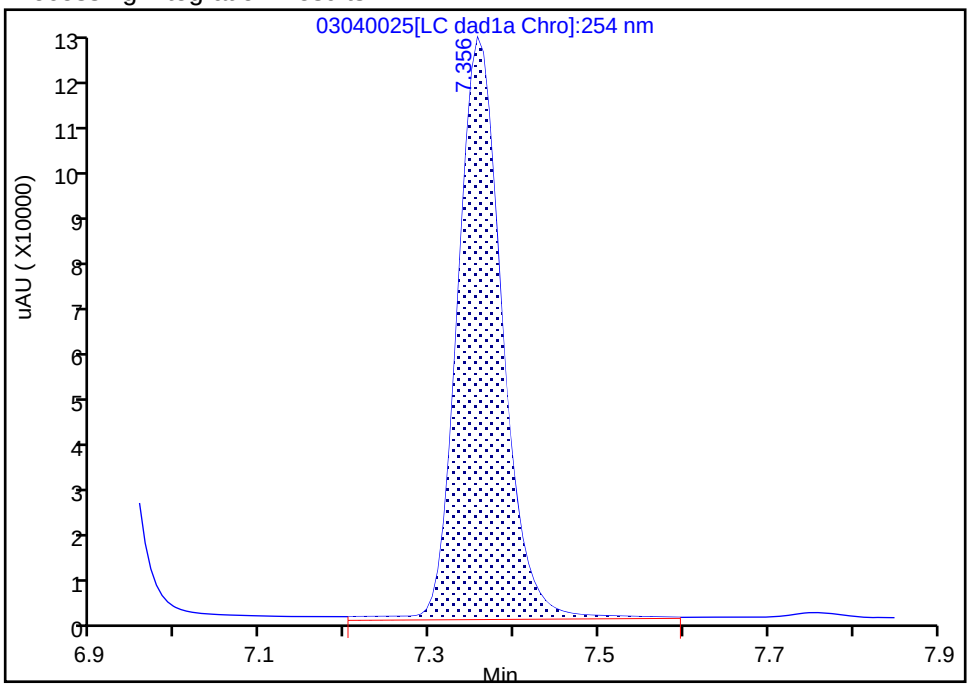
Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040025.d				
Injection Date:	04-Mar-2020 21:00:00	Instrument ID:	CHHPLC_X3		
Lims ID:	IC DMT L8				
Client ID:					
Operator ID:	CB	ALS Bottle#:	25	Worklist Smp#:	25
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

6 MNX, CAS: 5755-27-1

Signal: 1

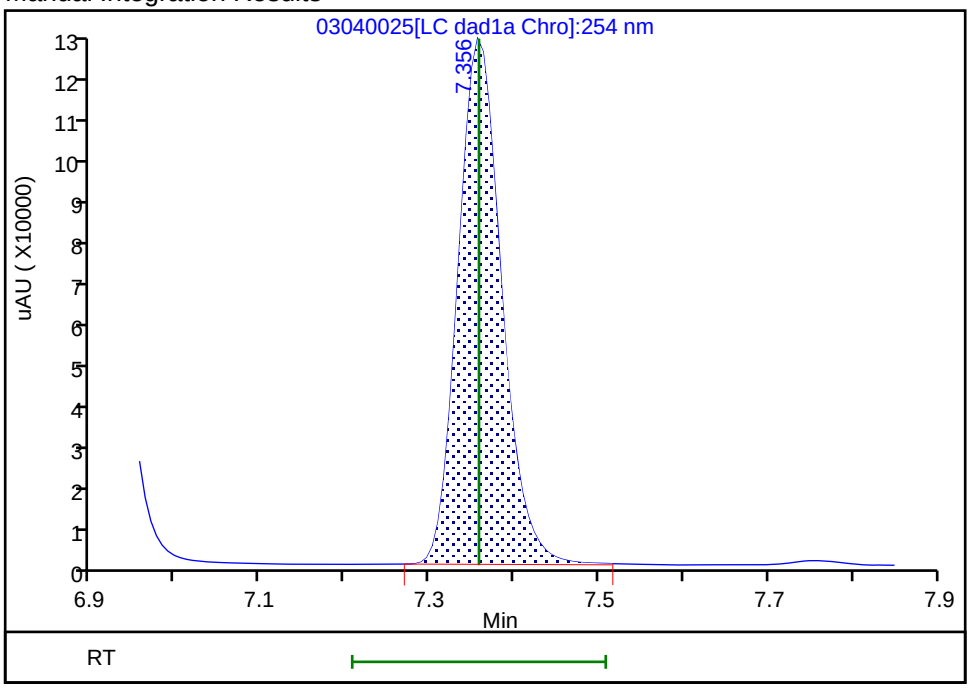
Processing Integration Results

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:

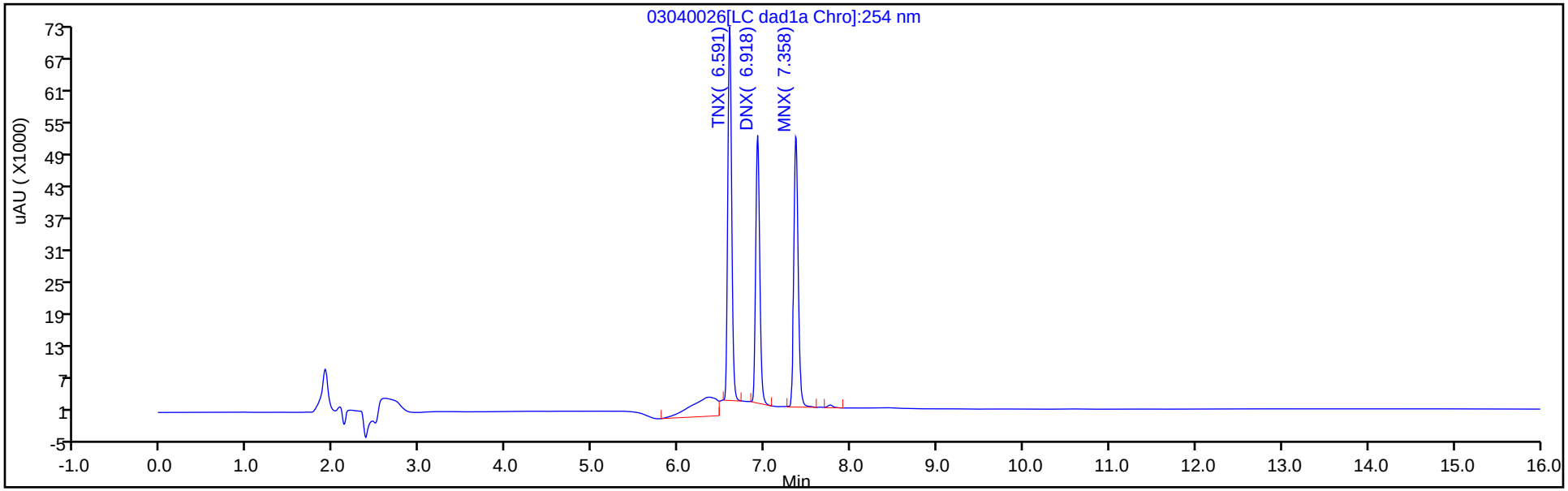
8330 DMT_00005 Amount Added: 50.00 Units: uL

Report Date: 06-Mar-2020 10:25:22 Chrom Revision: 2.3 19-Feb-2020 16:45:46

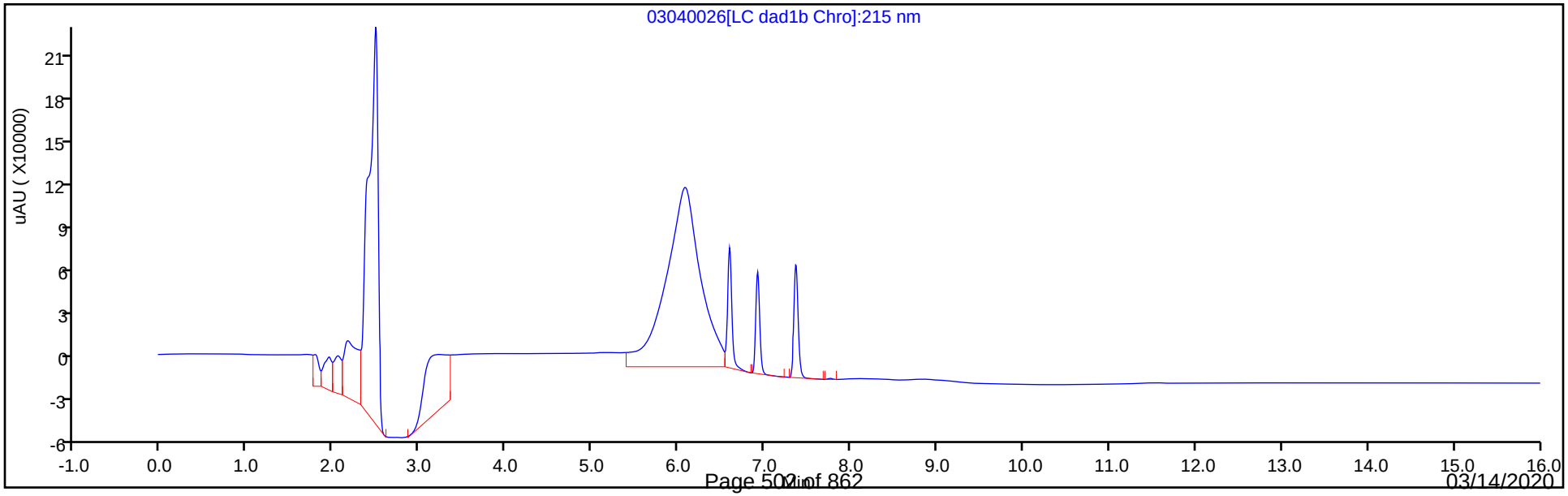
Eurofins TestAmerica, Denver

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

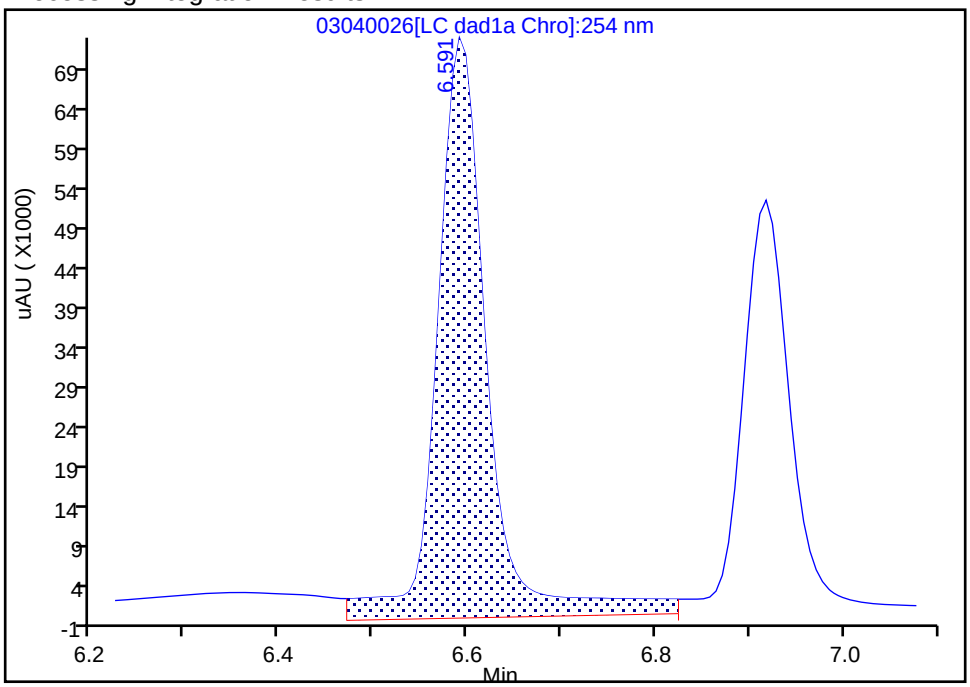
Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040026.d				
Injection Date:	04-Mar-2020 21:23:03	Instrument ID:	CHHPLC_X3		
Lims ID:	IC DMT L7				
Client ID:					
Operator ID:	CB	ALS Bottle#:	26	Worklist Smp#:	26
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

2 TNX, CAS: 13980-04-6

Signal: 1

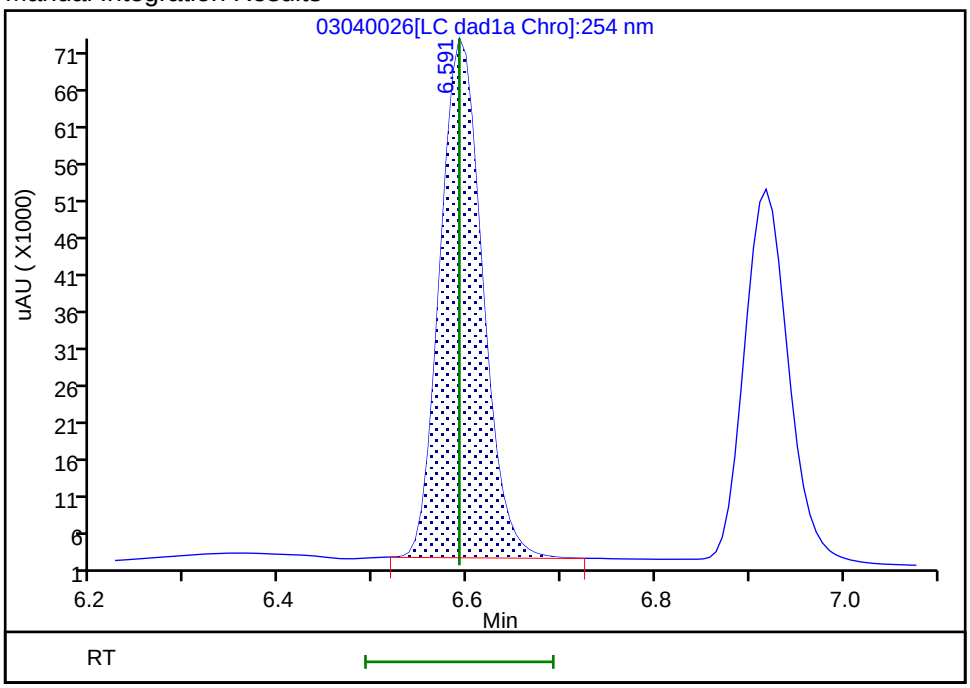
Processing Integration Results

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

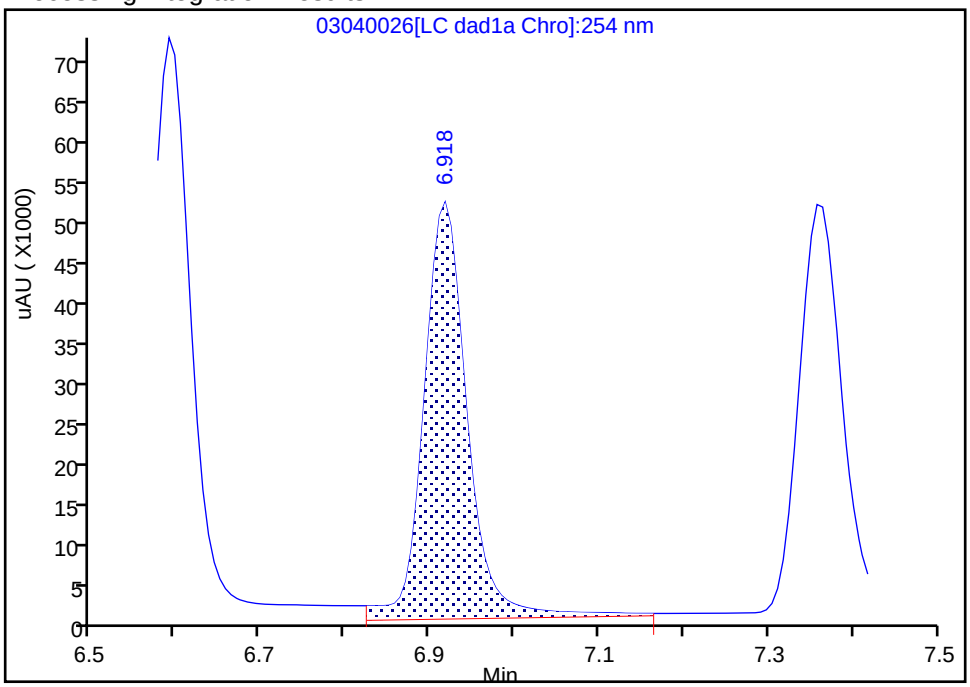
Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040026.d				
Injection Date:	04-Mar-2020 21:23:03	Instrument ID:	CHHPLC_X3		
Lims ID:	IC DMT L7				
Client ID:					
Operator ID:	CB	ALS Bottle#:	26	Worklist Smp#:	26
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

5 DNX, CAS: 80251-29-2

Signal: 1

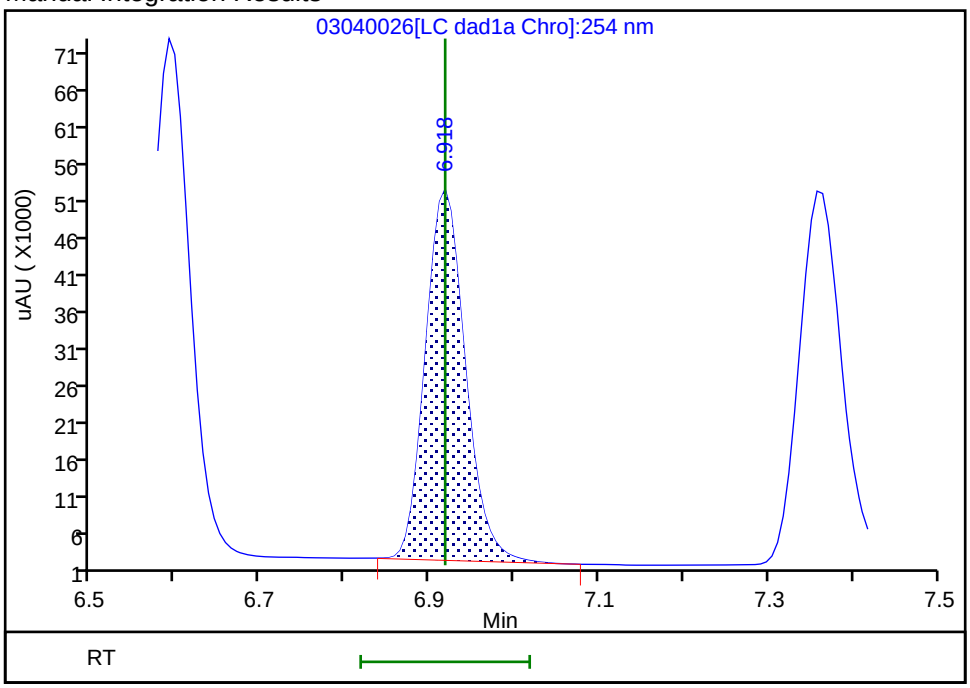
Processing Integration Results

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:

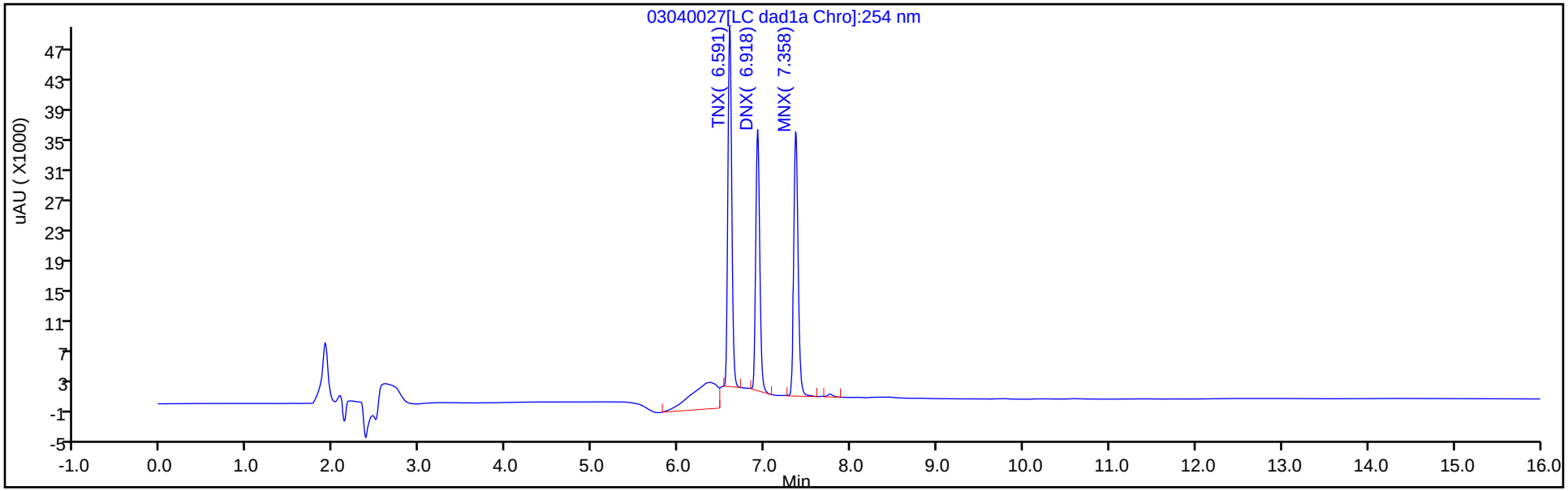
8330 DMT_00005 Amount Added: 35.00 Units: uL

Report Date: 06-Mar-2020 10:25:23 Chrom Revision: 2.3 19-Feb-2020 16:45:46

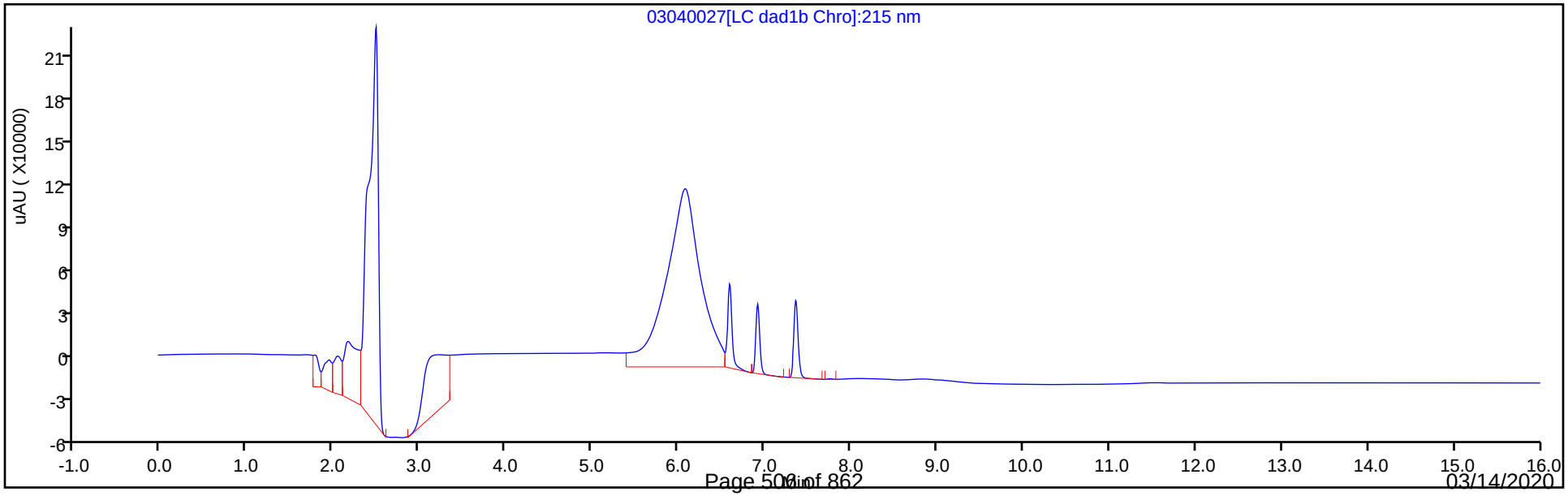
Eurofins TestAmerica, Denver

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

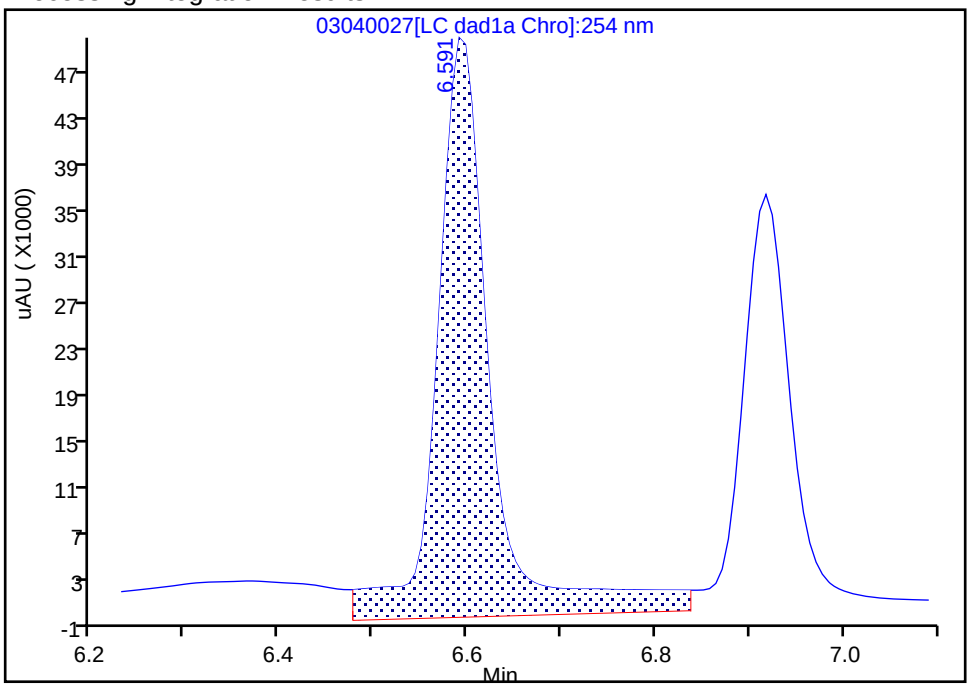
Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040027.d				
Injection Date:	04-Mar-2020 21:45:58	Instrument ID:	CHHPLC_X3		
Lims ID:	IC DMT L6				
Client ID:					
Operator ID:	CB	ALS Bottle#:	27	Worklist Smp#:	27
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

2 TNX, CAS: 13980-04-6

Signal: 1

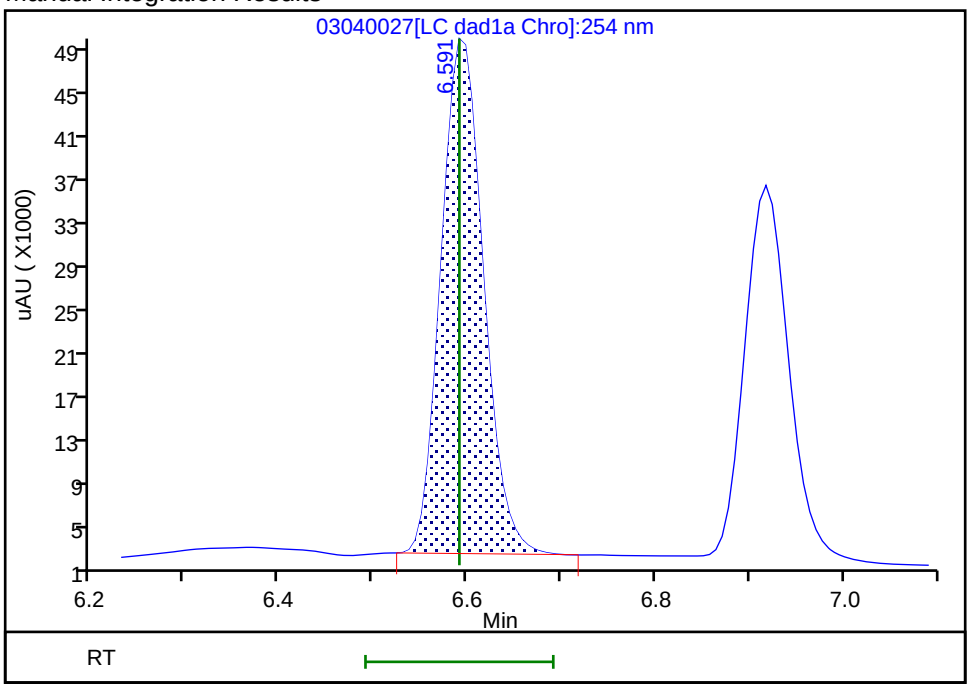
Processing Integration Results

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

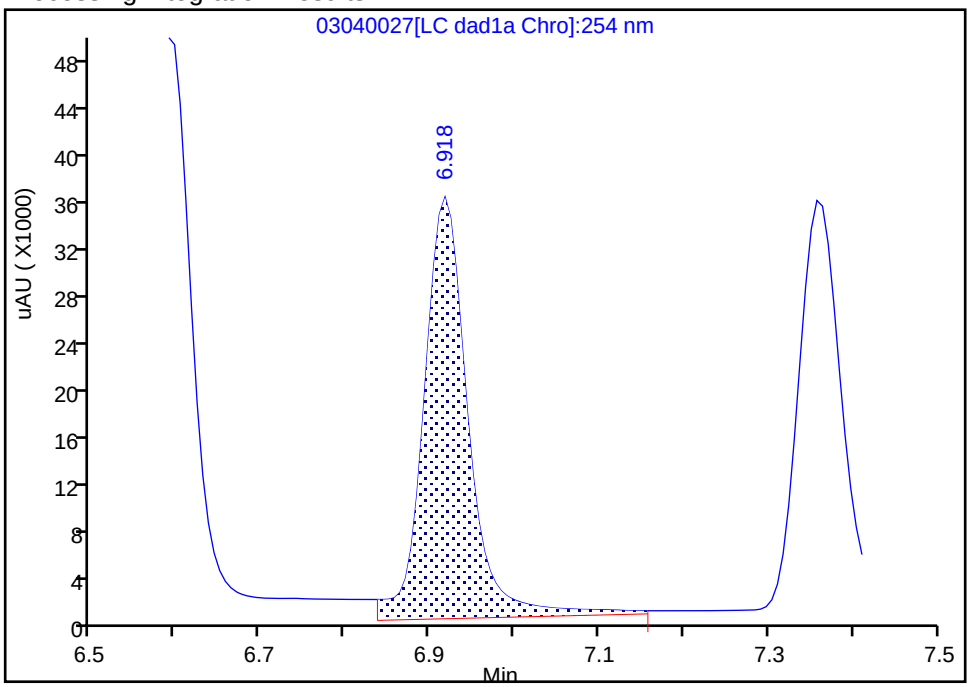
Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040027.d				
Injection Date:	04-Mar-2020 21:45:58	Instrument ID:	CHHPLC_X3		
Lims ID:	IC DMT L6				
Client ID:					
Operator ID:	CB	ALS Bottle#:	27	Worklist Smp#:	27
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

5 DNX, CAS: 80251-29-2

Signal: 1

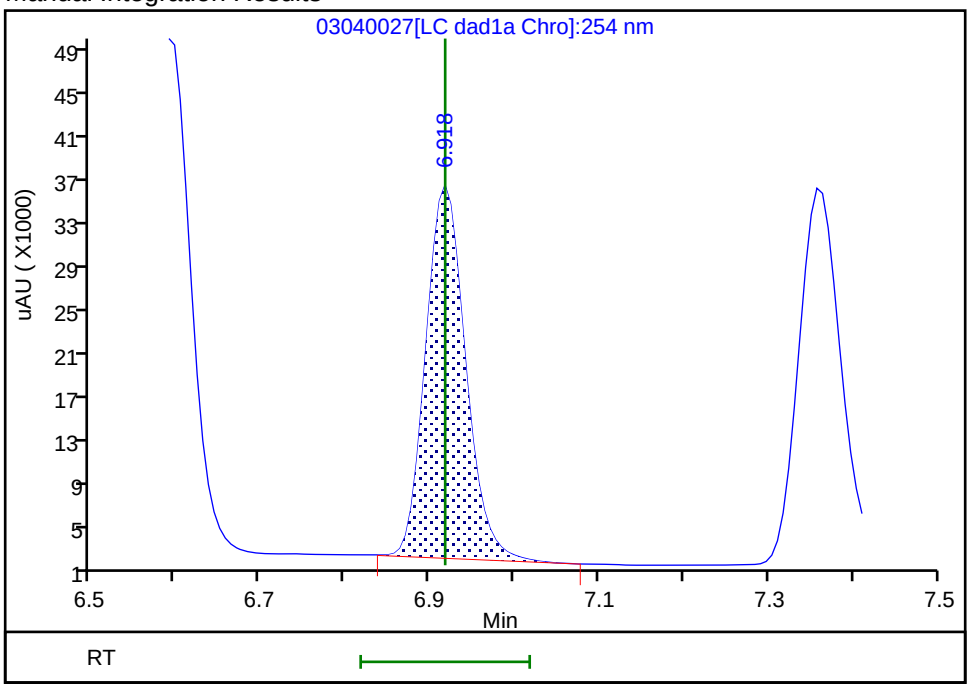
Processing Integration Results

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:

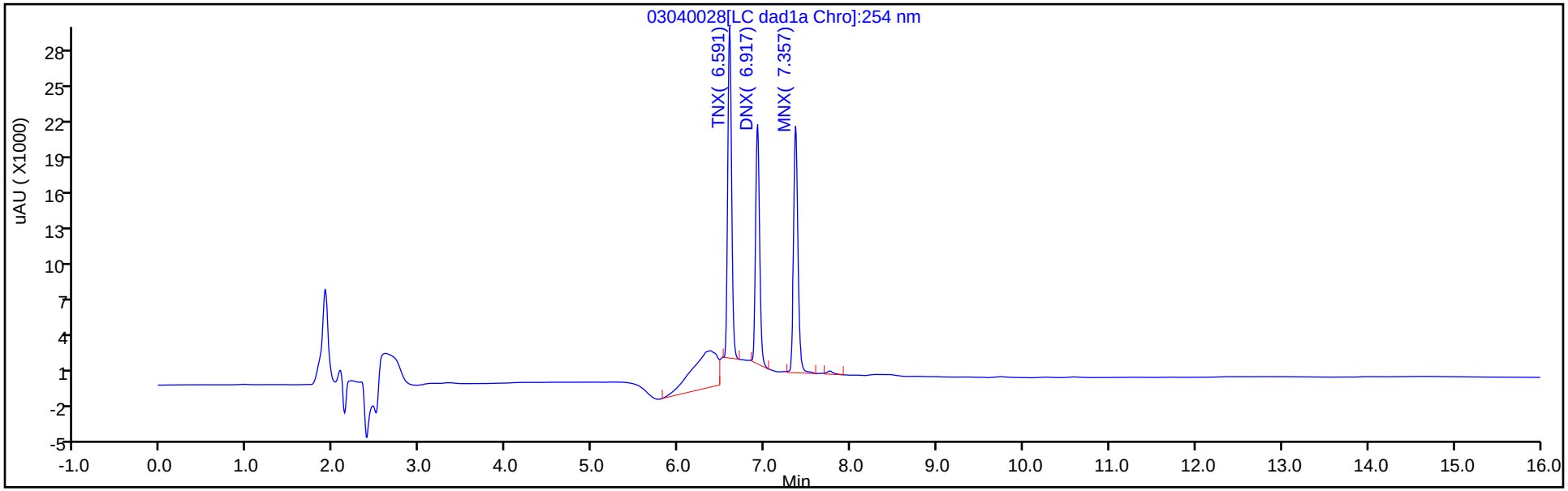
8330 DMT_00005 Amount Added: 20.00 Units: uL

Report Date: 06-Mar-2020 10:25:24 Chrom Revision: 2.3 19-Feb-2020 16:45:46

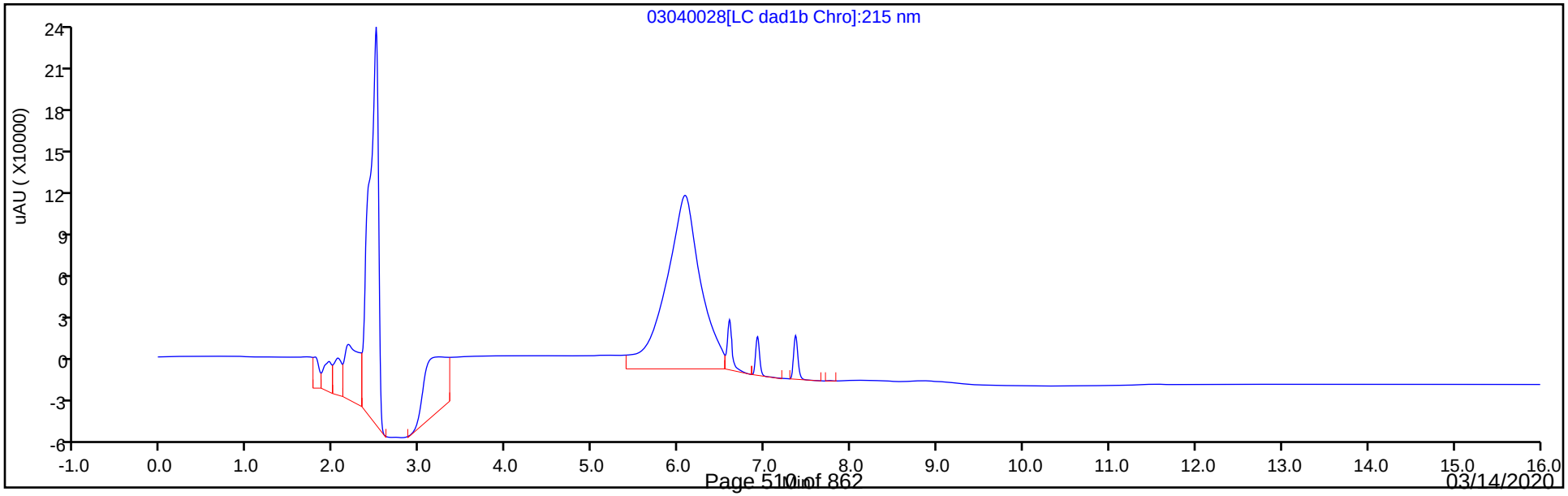
Eurofins TestAmerica, Denver

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

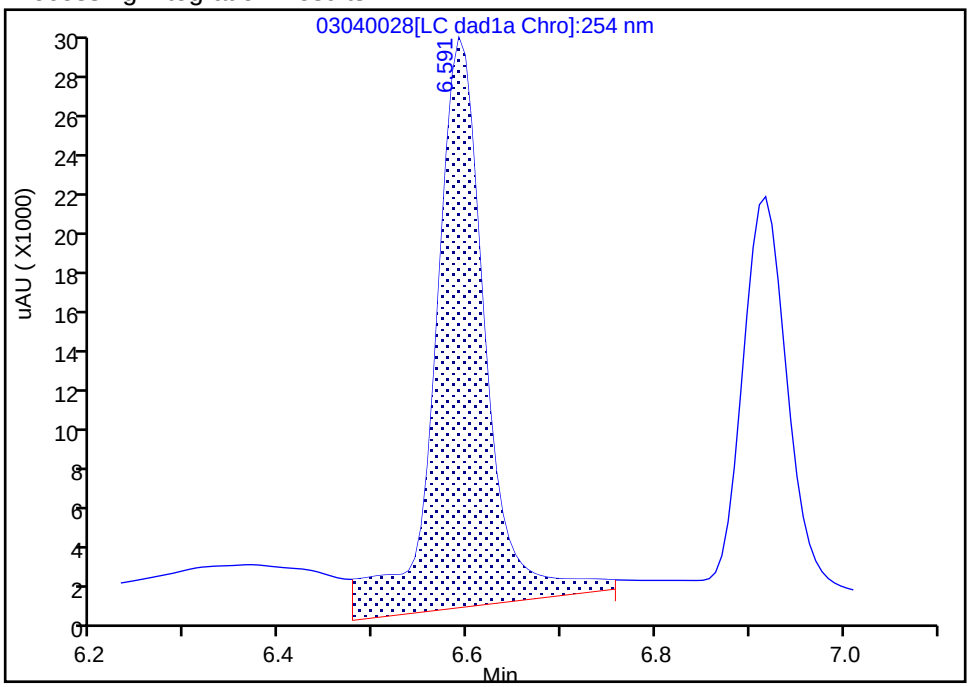
Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040028.d				
Injection Date:	04-Mar-2020 22:09:00	Instrument ID:	CHHPLC_X3		
Lims ID:	IC DMT L5				
Client ID:					
Operator ID:	CB	ALS Bottle#:	28	Worklist Smp#:	28
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

2 TNX, CAS: 13980-04-6

Signal: 1

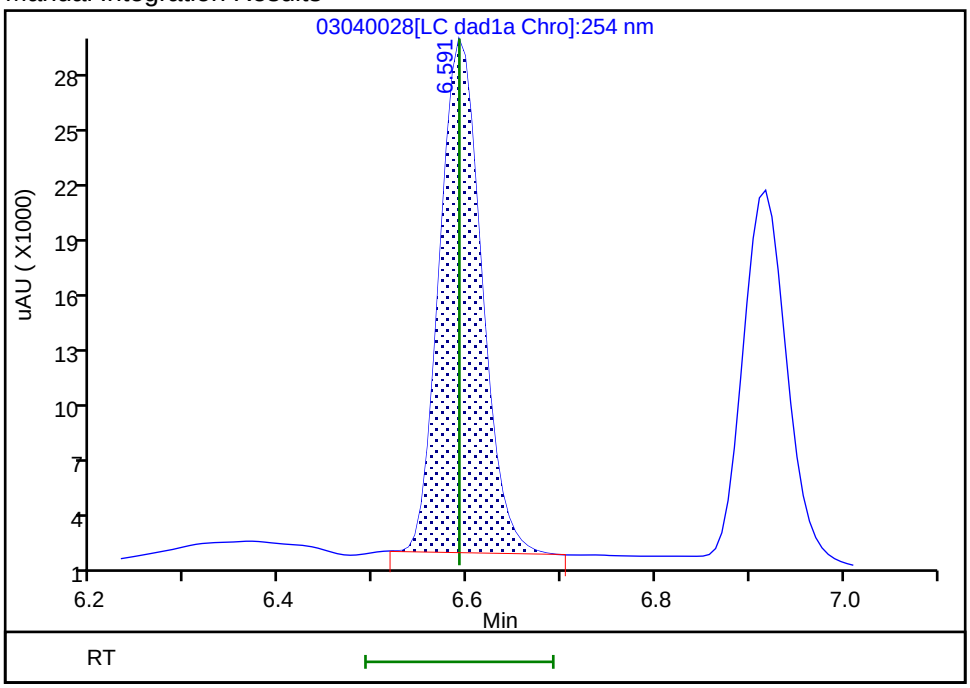
Processing Integration Results

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

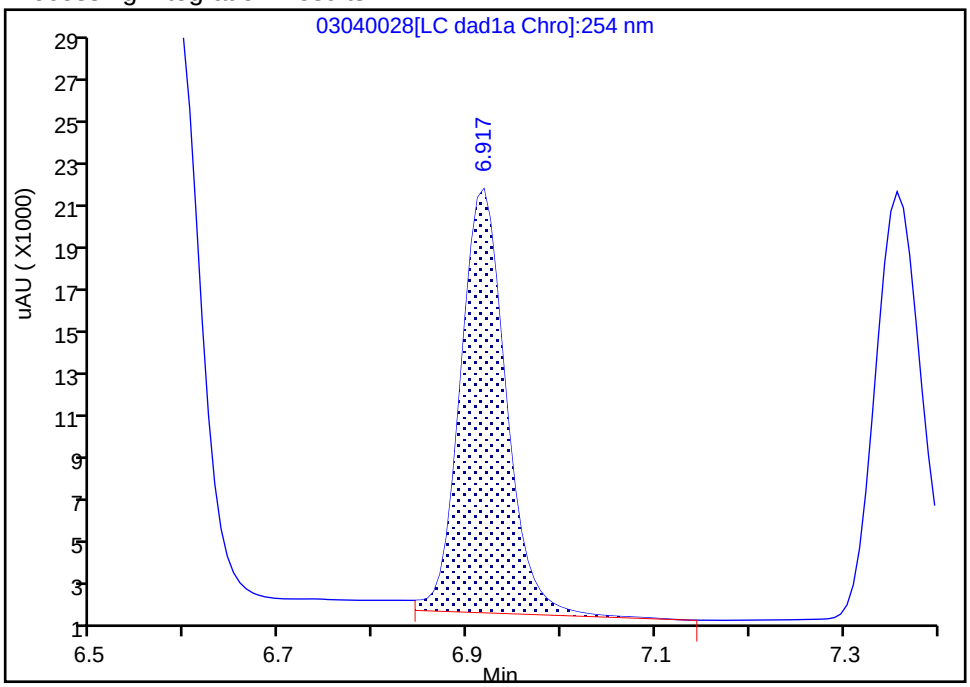
Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040028.d				
Injection Date:	04-Mar-2020 22:09:00	Instrument ID:	CHHPLC_X3		
Lims ID:	IC DMT L5				
Client ID:					
Operator ID:	CB	ALS Bottle#:	28	Worklist Smp#:	28
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

5 DNX, CAS: 80251-29-2

Signal: 1

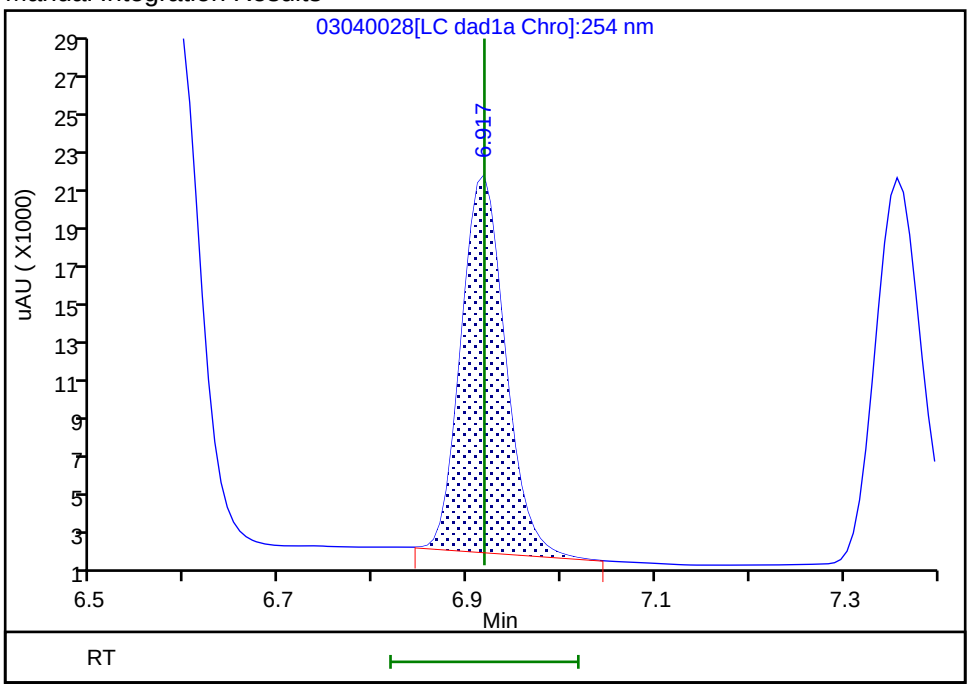
Processing Integration Results

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:

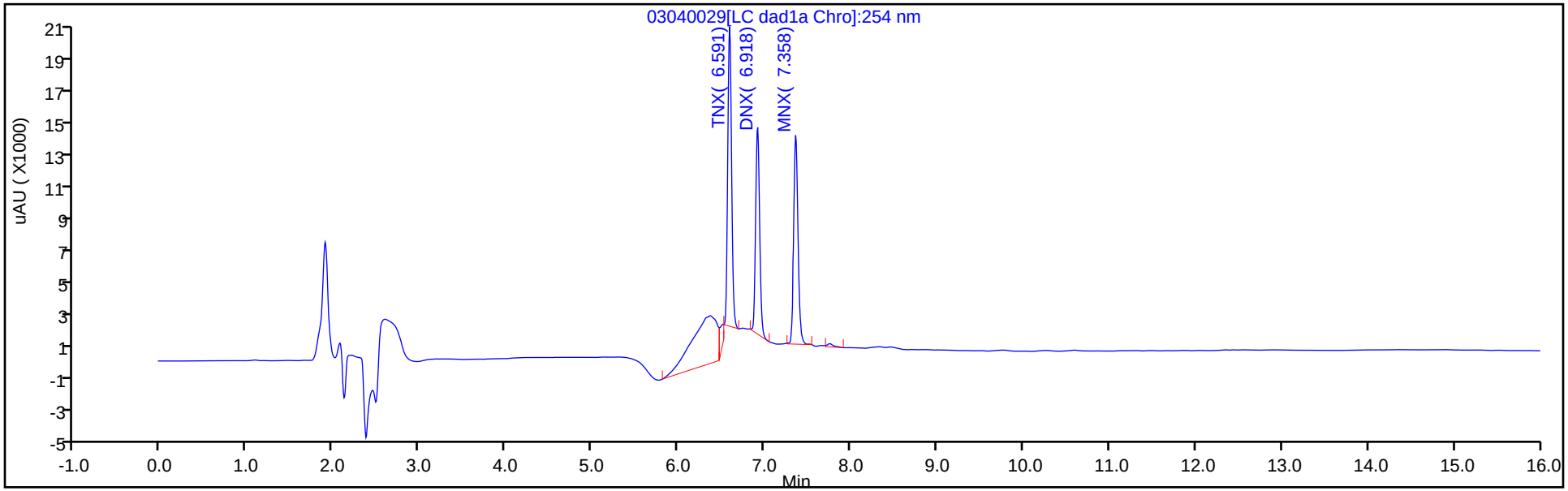
8330 DMT_00005 Amount Added: 12.50 Units: uL

Report Date: 06-Mar-2020 10:25:25 Chrom Revision: 2.3 19-Feb-2020 16:45:46

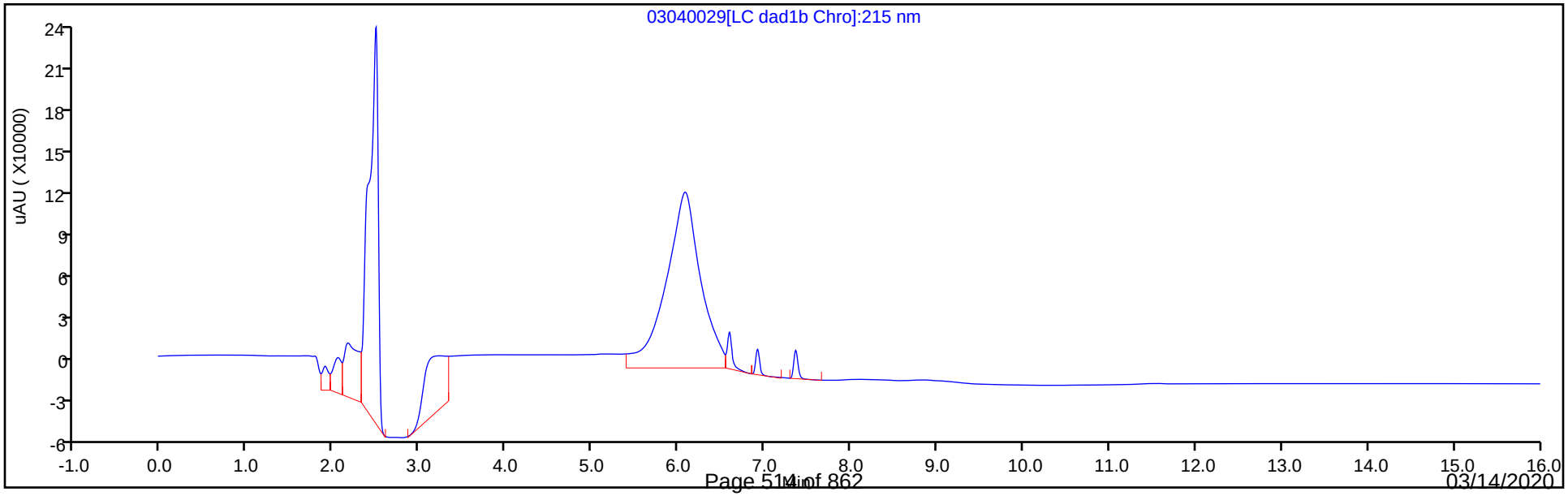
Eurofins TestAmerica, Denver

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

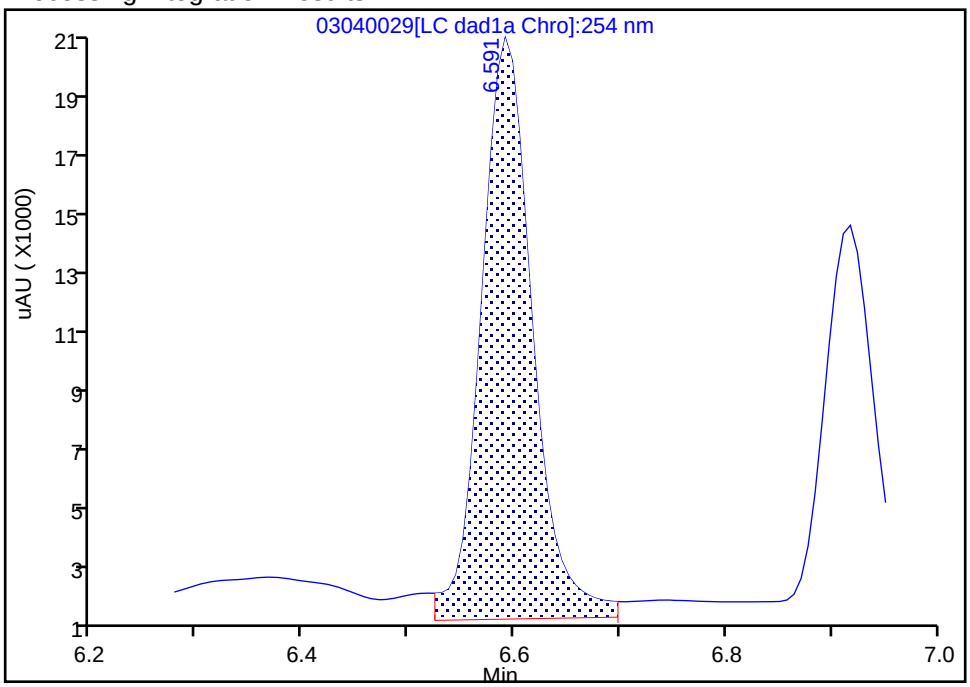
Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040029.d				
Injection Date:	04-Mar-2020 22:31:57	Instrument ID:	CHHPLC_X3		
Lims ID:	IC DMT L4				
Client ID:					
Operator ID:	CB	ALS Bottle#:	29	Worklist Smp#:	29
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

2 TNX, CAS: 13980-04-6

Signal: 1

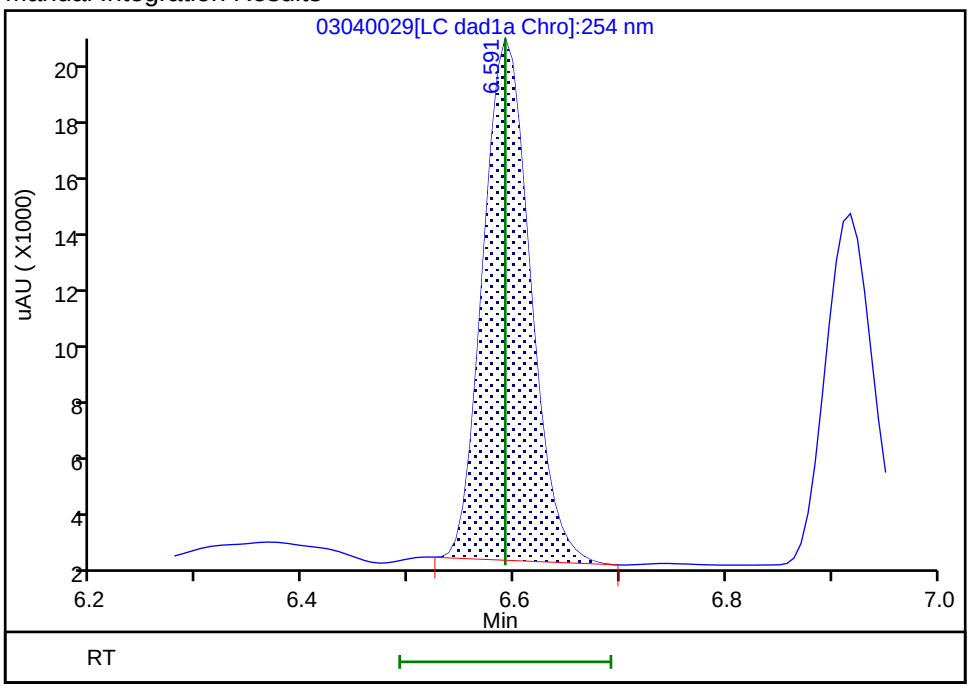
Processing Integration Results

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

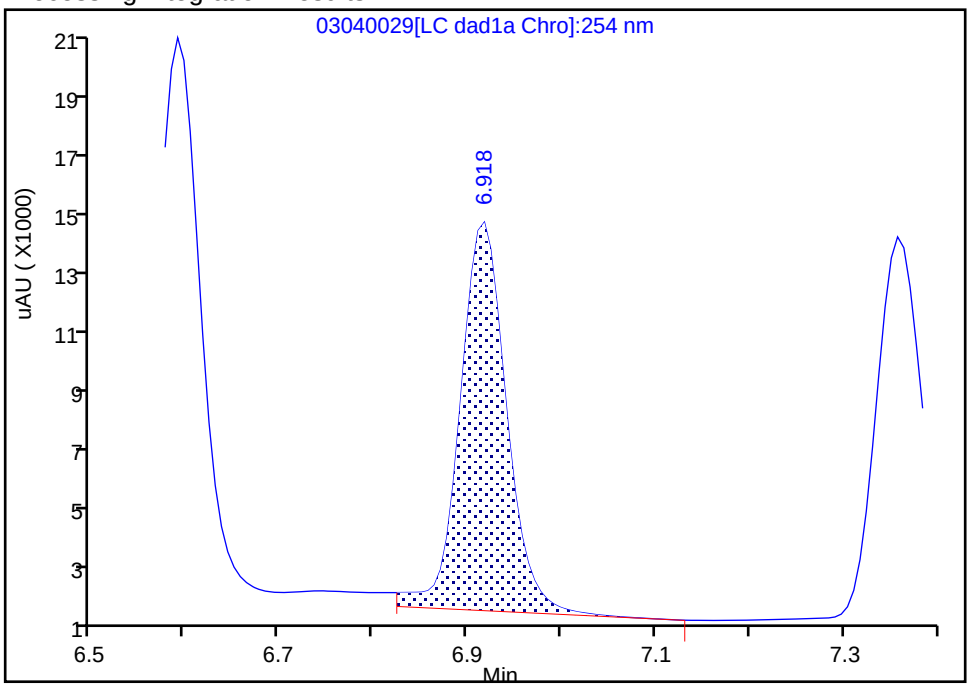
Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040029.d				
Injection Date:	04-Mar-2020 22:31:57	Instrument ID:	CHHPLC_X3		
Lims ID:	IC DMT L4				
Client ID:					
Operator ID:	CB	ALS Bottle#:	29	Worklist Smp#:	29
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

5 DNX, CAS: 80251-29-2

Signal: 1

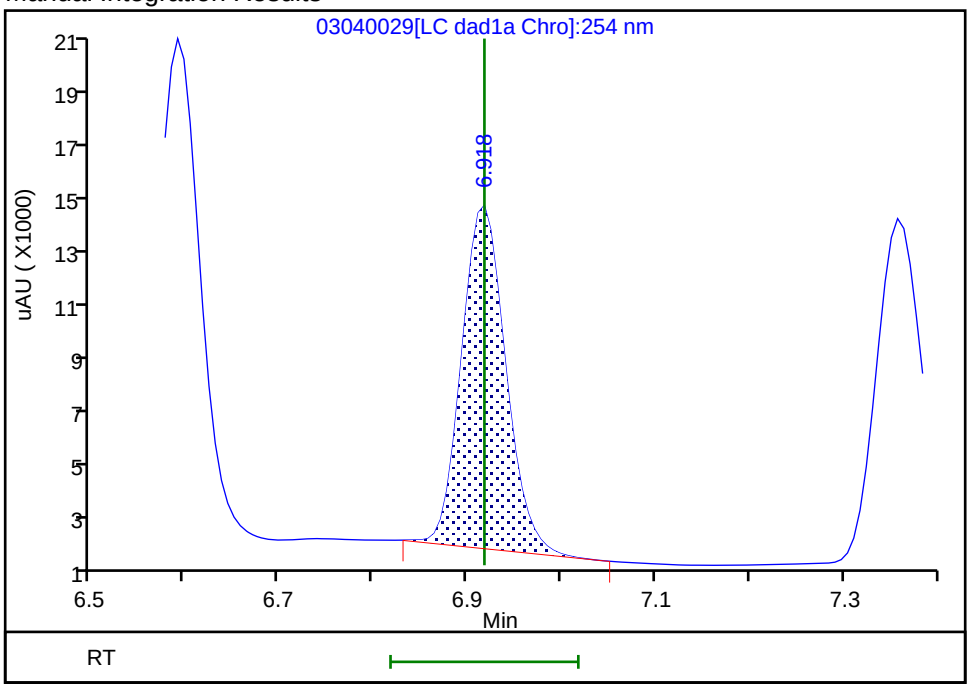
Processing Integration Results

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:

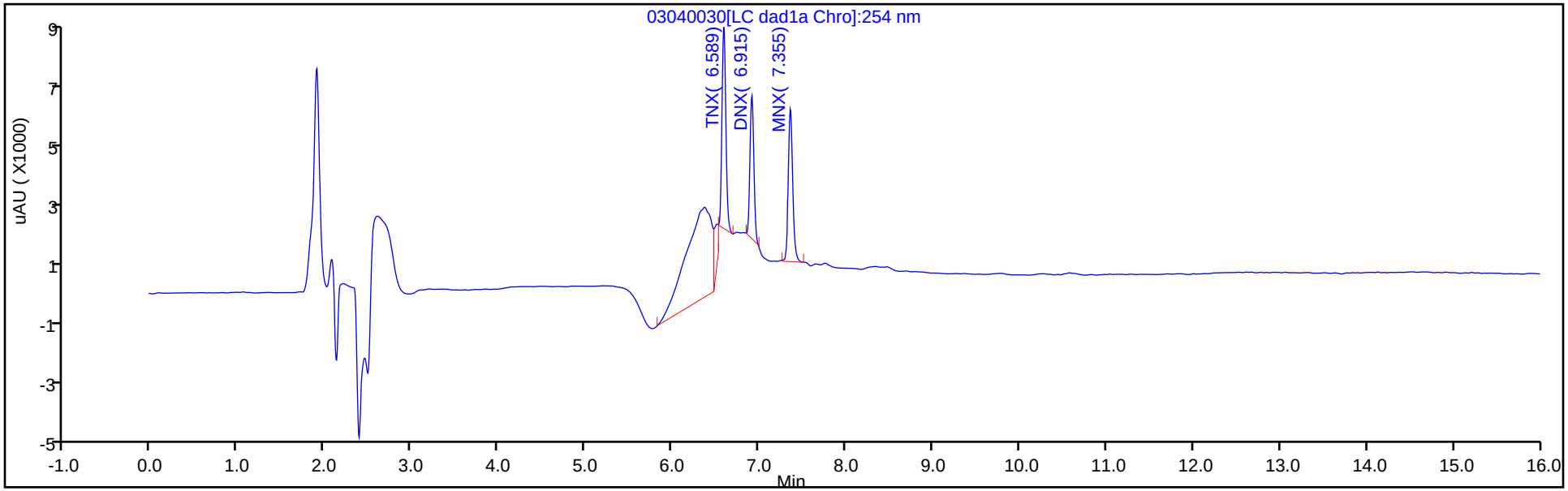
8330 DMT_00005 Amount Added: 5.00 Units: uL

Report Date: 06-Mar-2020 10:25:26 Chrom Revision: 2.3 19-Feb-2020 16:45:46

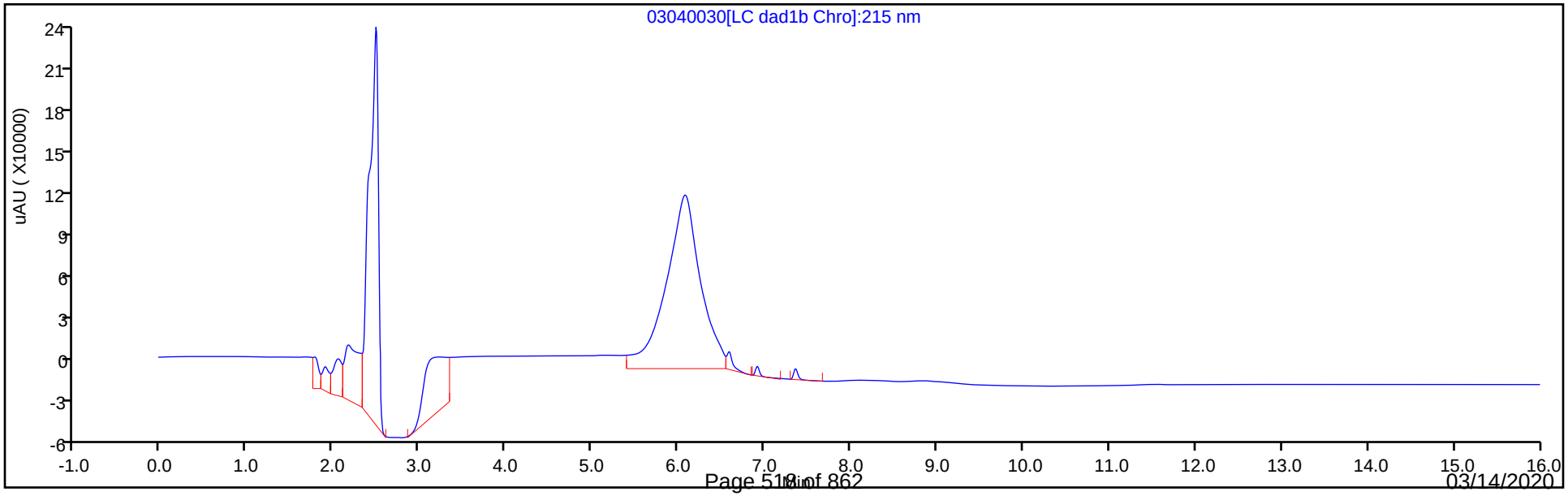
Eurofins TestAmerica, Denver

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

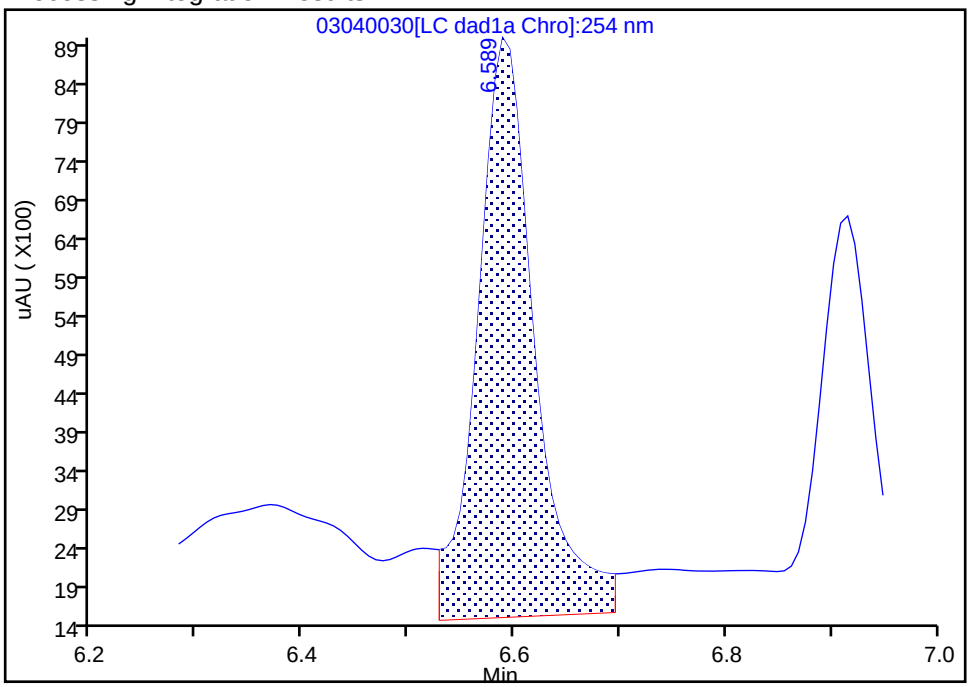
Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040030.d				
Injection Date:	04-Mar-2020 22:54:53	Instrument ID:	CHHPLC_X3		
Lims ID:	IC DMT L3				
Client ID:					
Operator ID:	CB	ALS Bottle#:	30	Worklist Smp#:	30
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

2 TNX, CAS: 13980-04-6

Signal: 1

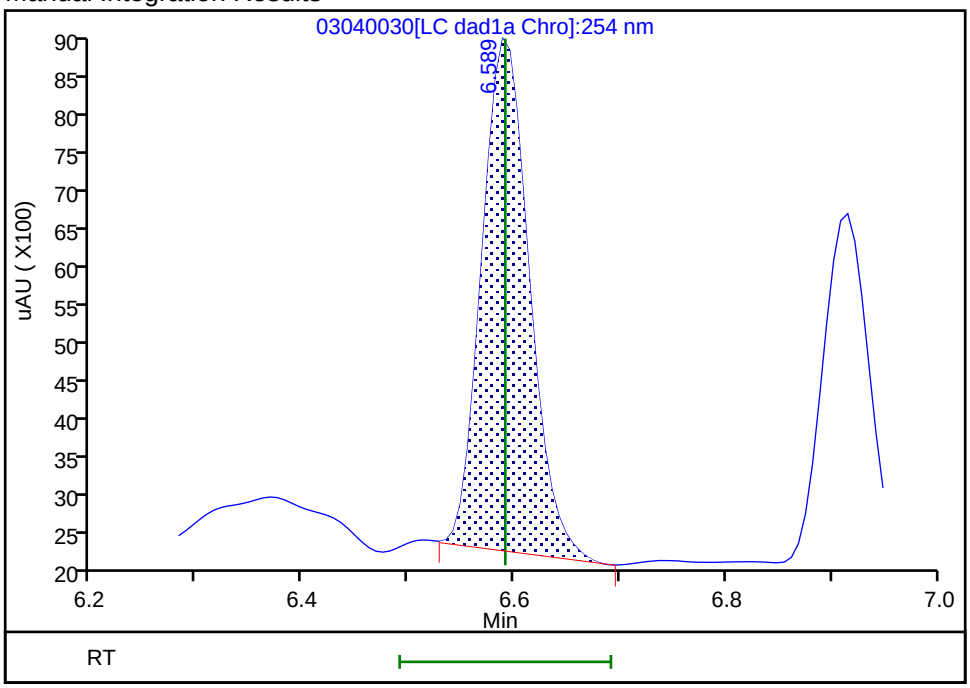
Processing Integration Results

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

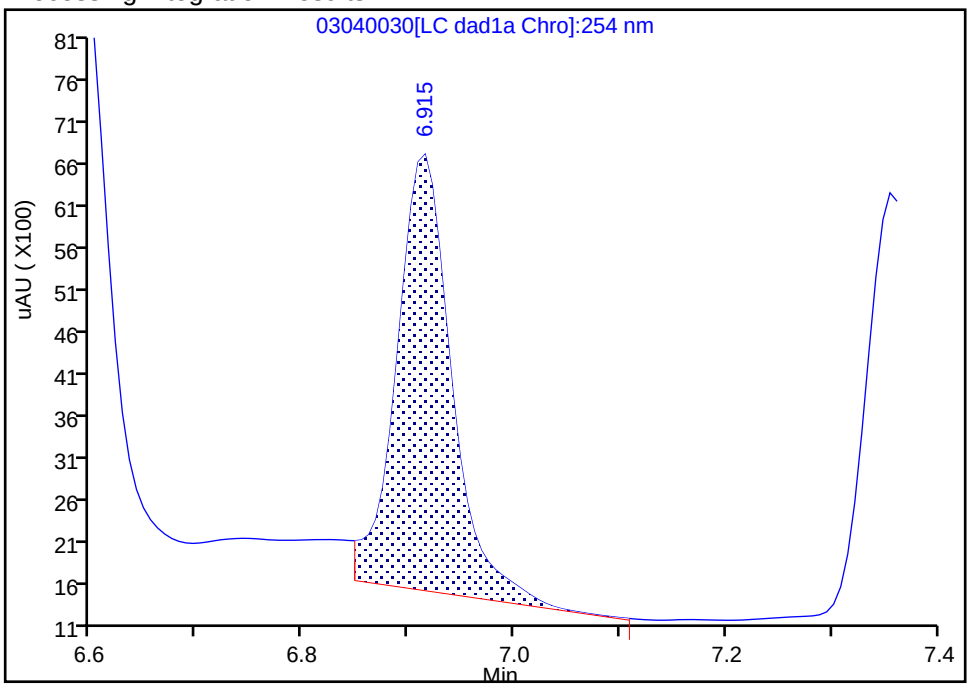
Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040030.d				
Injection Date:	04-Mar-2020 22:54:53	Instrument ID:	CHHPLC_X3		
Lims ID:	IC DMT L3				
Client ID:					
Operator ID:	CB	ALS Bottle#:	30	Worklist Smp#:	30
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

5 DNX, CAS: 80251-29-2

Signal: 1

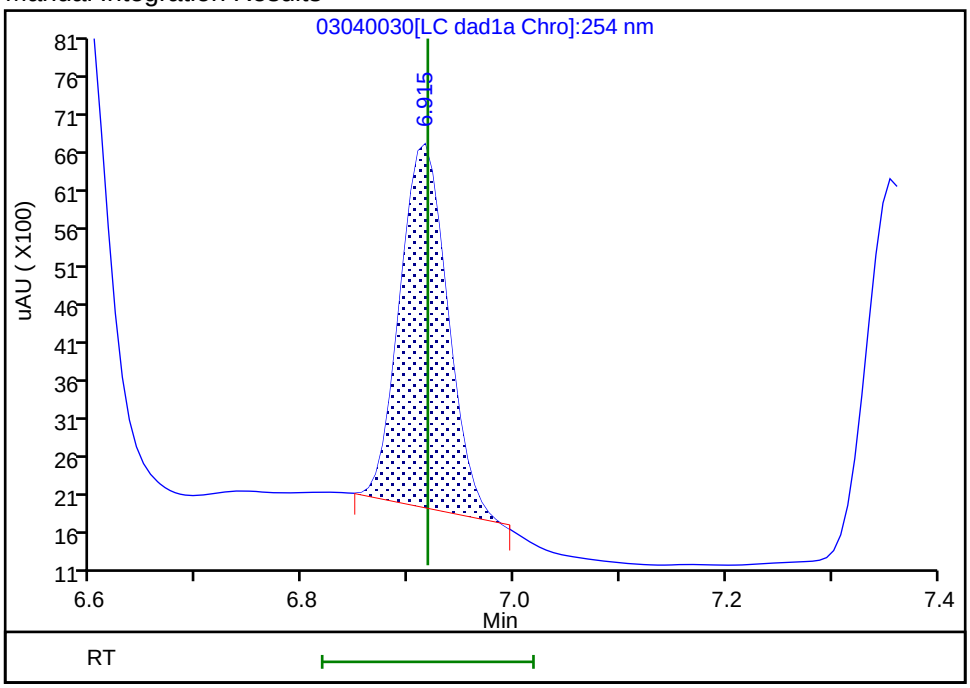
Processing Integration Results

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:

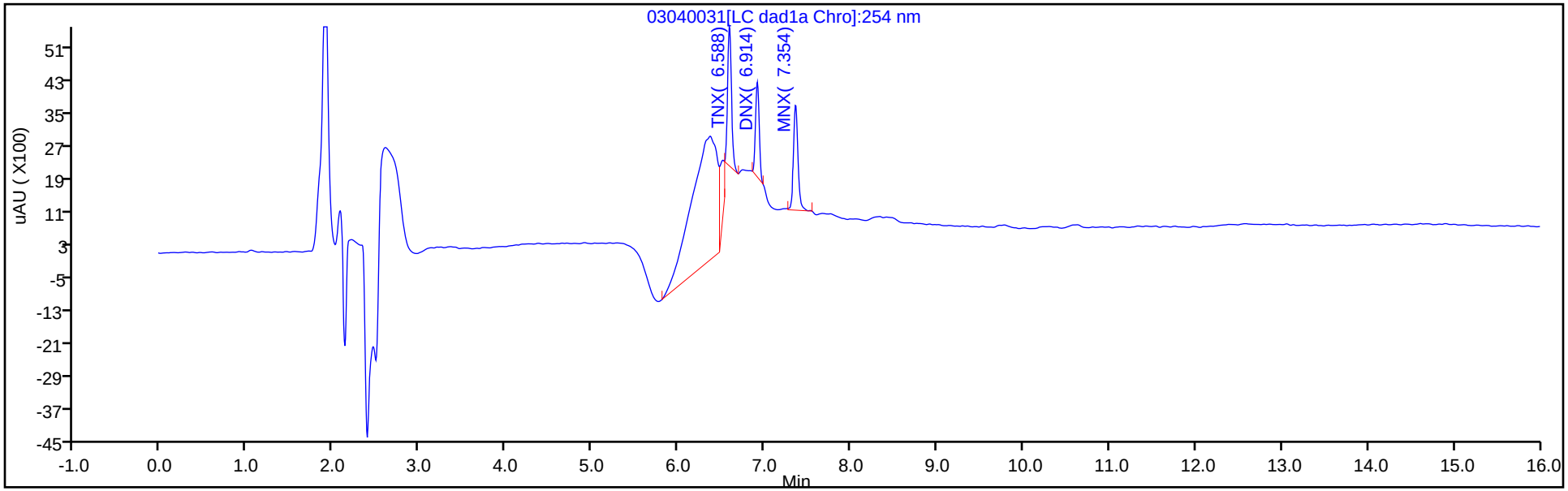
8330 DMT_00005 Amount Added: 2.50 Units: uL

Report Date: 06-Mar-2020 10:25:27 Chrom Revision: 2.3 19-Feb-2020 16:45:46

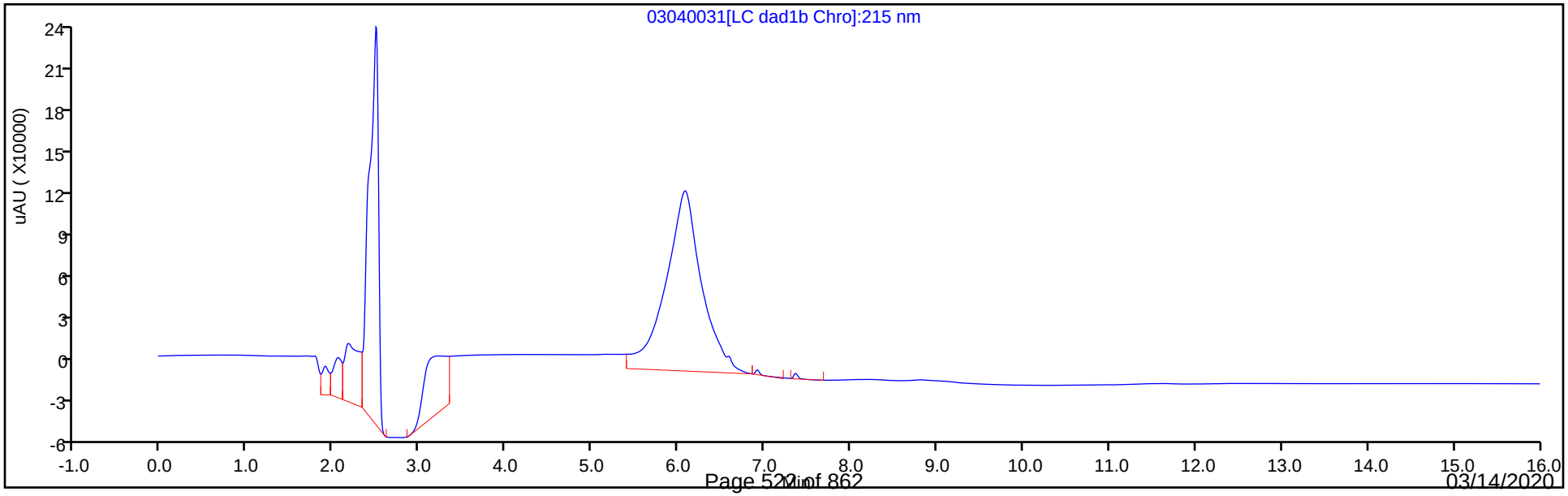
Eurofins TestAmerica, Denver

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

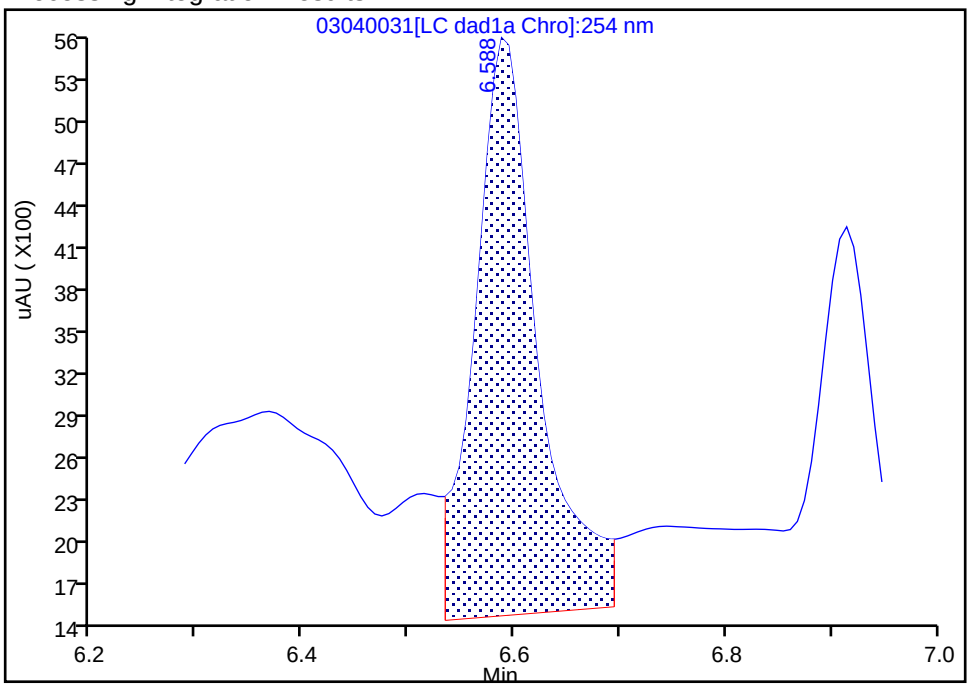
Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040031.d				
Injection Date:	04-Mar-2020 23:17:52	Instrument ID:	CHHPLC_X3		
Lims ID:	IC DMT L2				
Client ID:					
Operator ID:	CB	ALS Bottle#:	31	Worklist Smp#:	31
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

2 TNX, CAS: 13980-04-6

Signal: 1

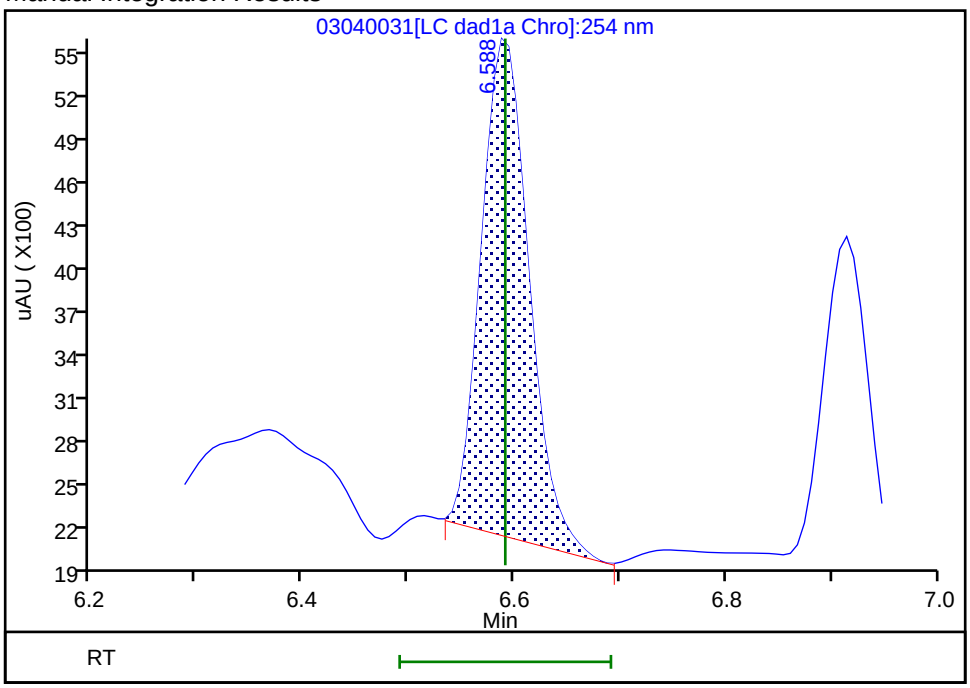
Processing Integration Results

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

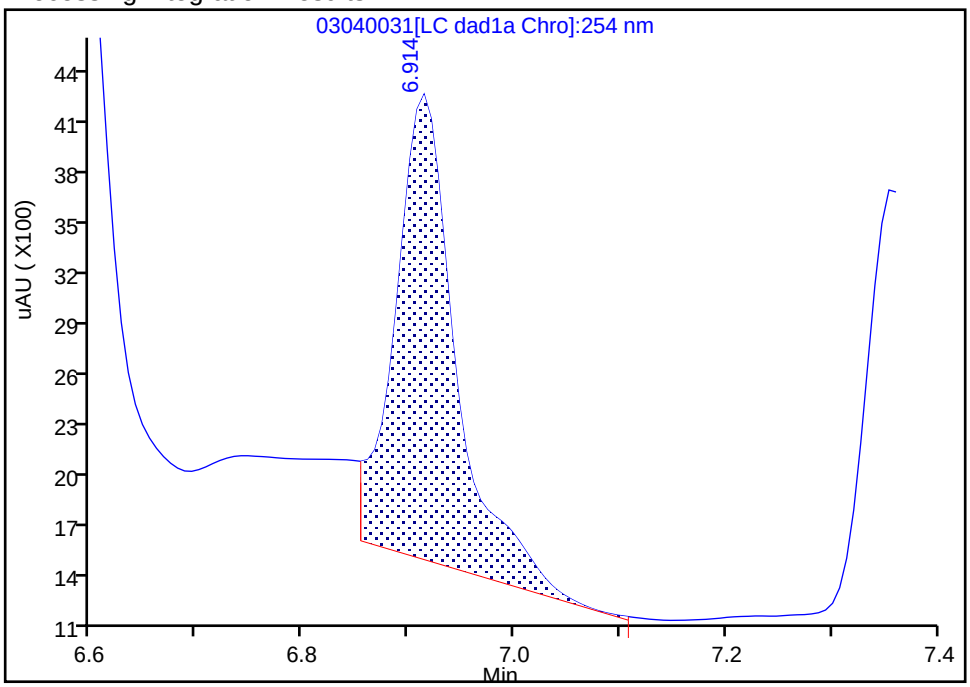
Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040031.d				
Injection Date:	04-Mar-2020 23:17:52	Instrument ID:	CHHPLC_X3		
Lims ID:	IC DMT L2				
Client ID:					
Operator ID:	CB	ALS Bottle#:	31	Worklist Smp#:	31
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

5 DNX, CAS: 80251-29-2

Signal: 1

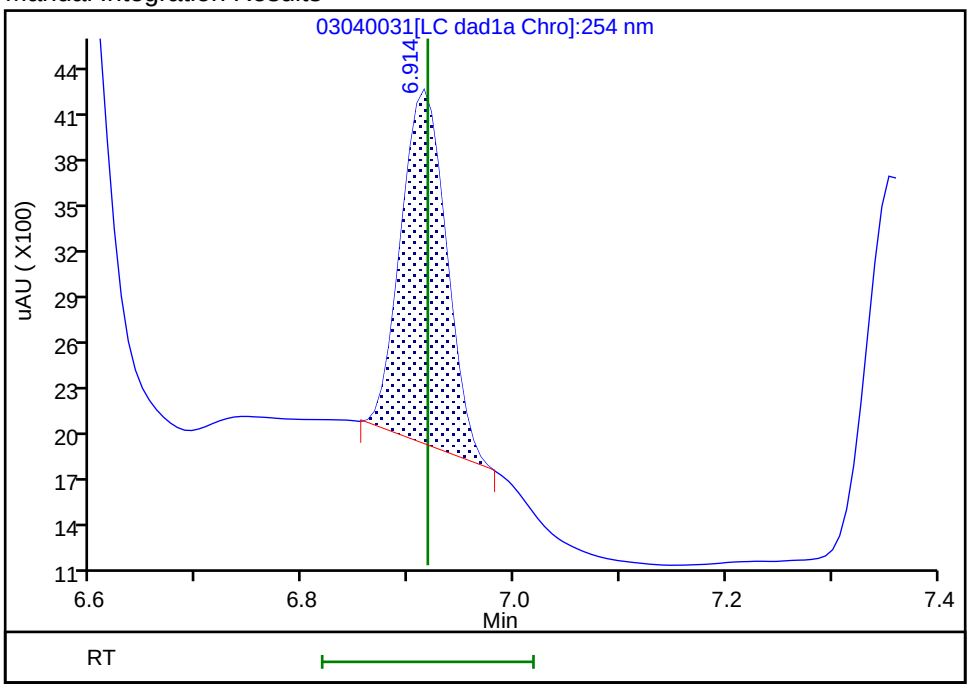
Processing Integration Results

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:

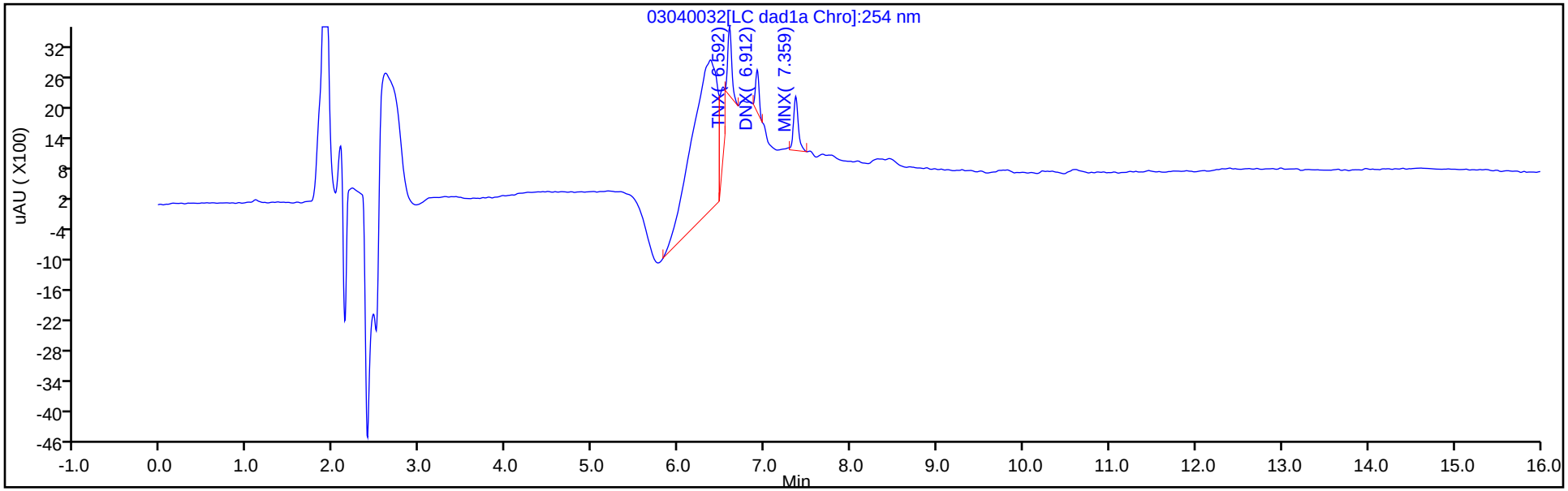
8330 DMT_00005 Amount Added: 1.00 Units: uL

Report Date: 06-Mar-2020 10:25:28 Chrom Revision: 2.3 19-Feb-2020 16:45:46

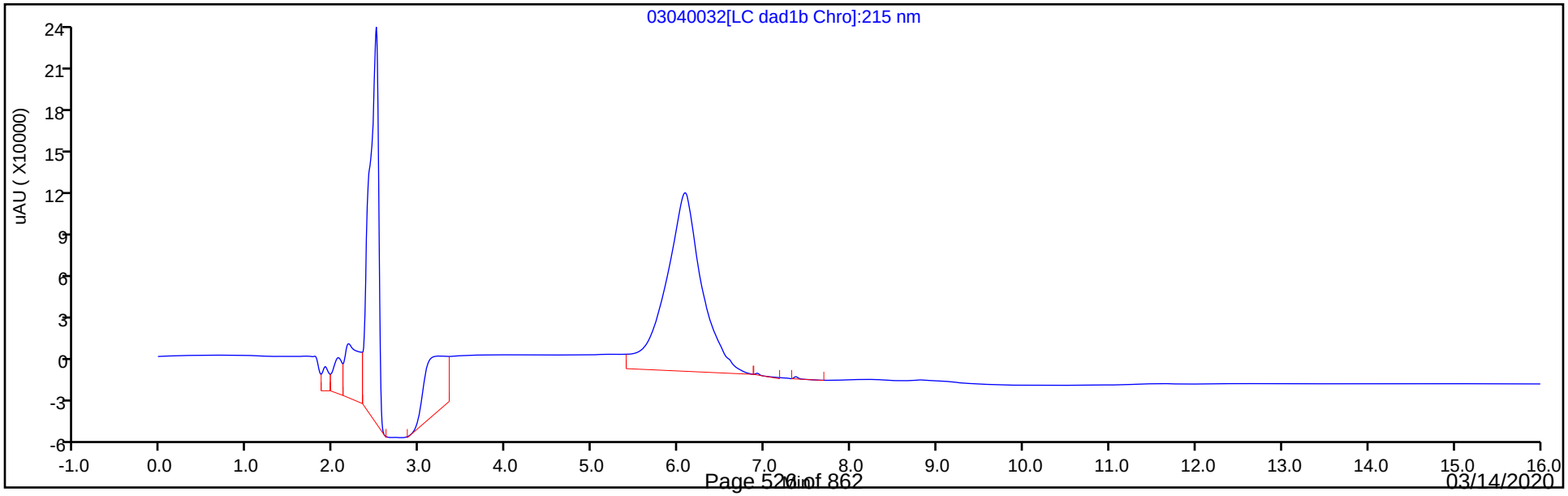
Eurofins TestAmerica, Denver

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

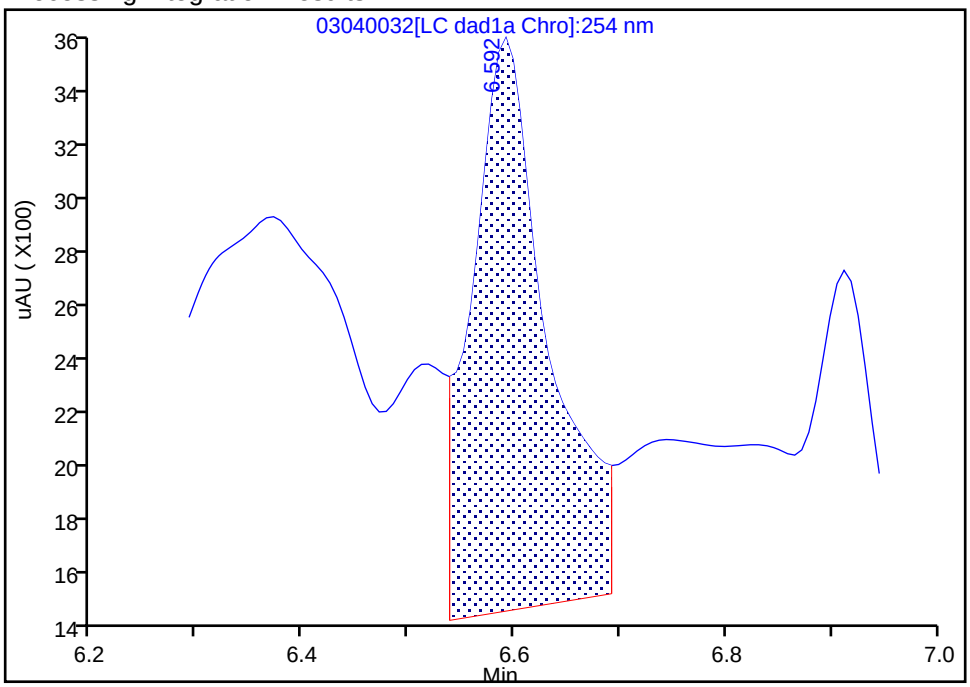
Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040032.d				
Injection Date:	04-Mar-2020 23:40:46	Instrument ID:	CHHPLC_X3		
Lims ID:	IC DMT L1				
Client ID:					
Operator ID:	CB	ALS Bottle#:	32	Worklist Smp#:	32
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

2 TNX, CAS: 13980-04-6

Signal: 1

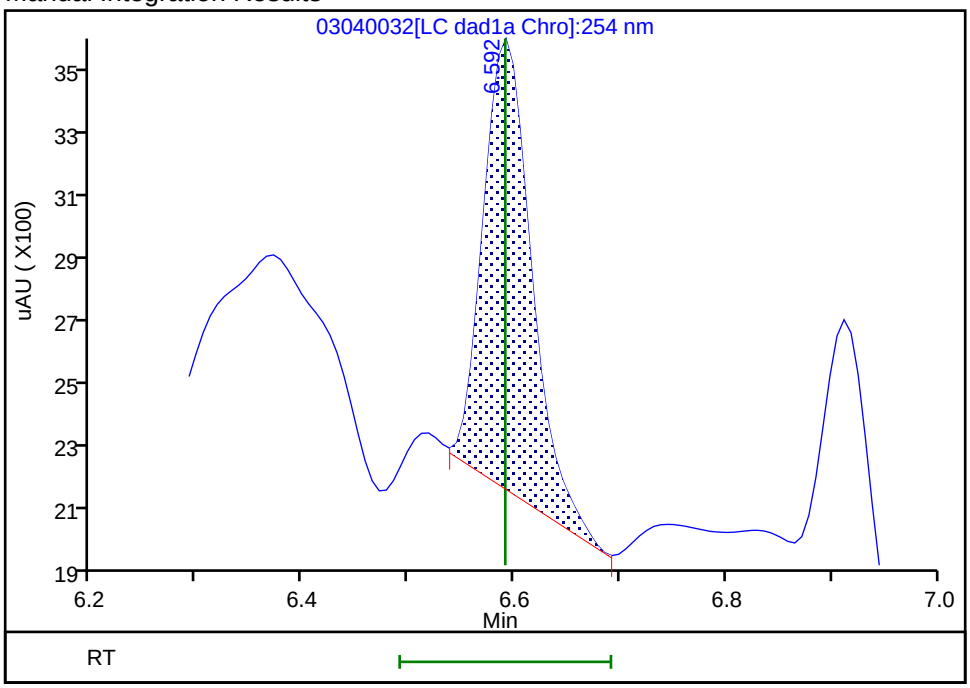
Processing Integration Results

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

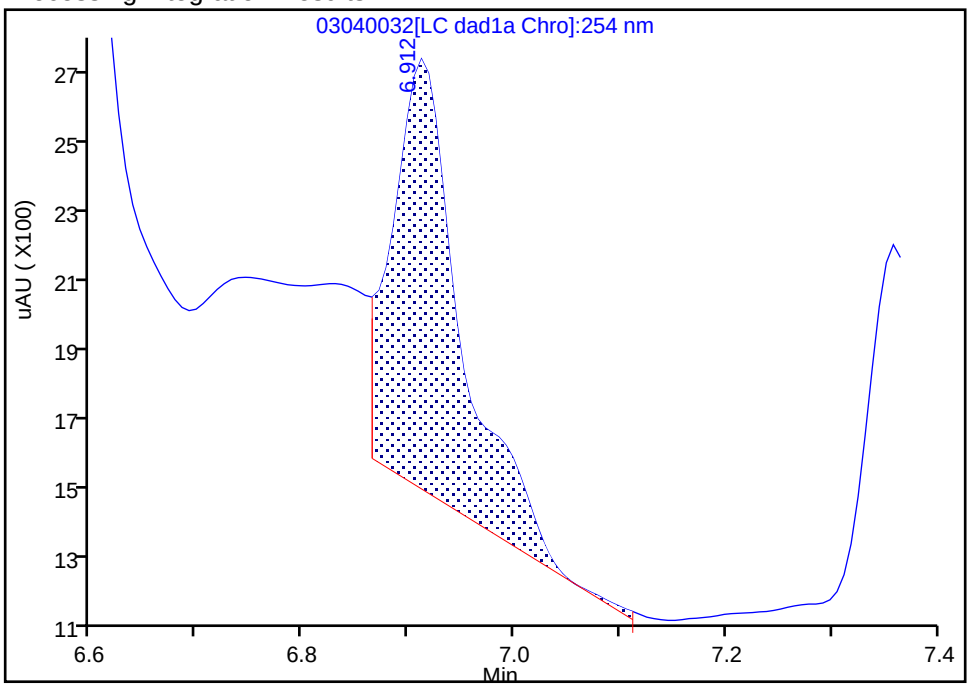
Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040032.d				
Injection Date:	04-Mar-2020 23:40:46	Instrument ID:	CHHPLC_X3		
Lims ID:	IC DMT L1				
Client ID:					
Operator ID:	CB	ALS Bottle#:	32	Worklist Smp#:	32
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

5 DNX, CAS: 80251-29-2

Signal: 1

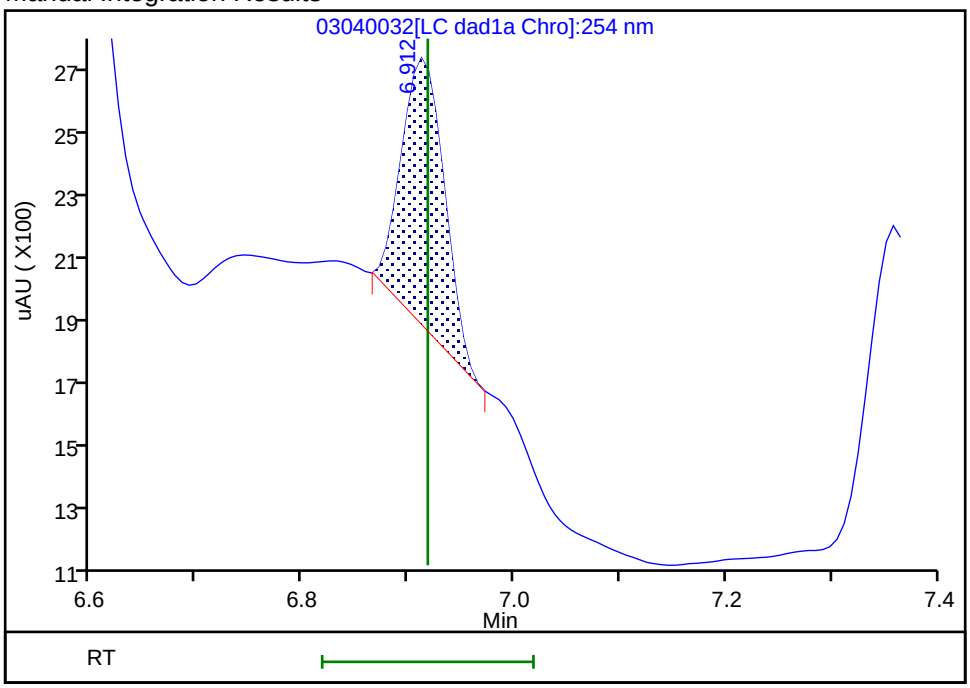
Processing Integration Results

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 VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134141-1

SDG No.:

Lab Sample ID: ICV 280-487544/15 Calibration Date: 03/03/2020 22:41

Instrument ID: CHHPLC_G2_LUNA Calib Start Date: 03/03/2020 18:01

GC Column: Luna-phenylhex ID: 4.60(mm) Calib End Date: 03/03/2020 22:06

Lab File ID: 03030015.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Picric acid	Lin2		176650		436	400	9.0	15.0
HMX	Lin2		182133		410	400	2.5	15.0
RDX	Lin2		224258		416	400	3.9	15.0
Nitrobenzene	Lin2		421965		430	400	7.5	15.0
1,3-Dinitrobenzene	Lin2		688550		421	400	5.1	15.0
Nitroglycerin	Lin2		146094		4050	4000	1.3	15.0
2-Nitrotoluene	Lin2		246105		428	400	6.9	15.0
4-Nitrotoluene	Lin2		240890		439	400	9.8	15.0
4-Amino-2,6-dinitrotoluene	Lin2		335405		412	400	3.0	15.0
3-Nitrotoluene	Lin2		251900		440	400	10.1	15.0
2-Amino-4,6-dinitrotoluene	Qua		511803		416	400	4.1	15.0
1,3,5-Trinitrobenzene	Lin2		502695		429	400	7.2	15.0
2,6-Dinitrotoluene	Lin2		298105		418	400	4.4	15.0
2,4-Dinitrotoluene	Lin2		606623		400	400	-0.1	15.0
Tetryl	Lin2		362515		409	400	2.3	15.0
2,4,6-Trinitrotoluene	Lin2		424075		416	400	4.0	15.0
PETN	Lin1		141085		3890	4000	-2.8	15.0
1,2-Dinitrobenzene	Lin2		289355		414	400	3.4	15.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134141-1

SDG No.:

Lab Sample ID: ICV 280-487544/15 Calibration Date: 03/03/2020 22:41

Instrument ID: CHHPLC_G2_LUNA Calib Start Date: 03/03/2020 18:01

GC Column: Luna-phenylhex ID: 4.60(mm) Calib End Date: 03/03/2020 22:06

Lab File ID: 03030015.D

Analyte	RT	RT WINDOW	
		FROM	TO
Picric acid	5.56	5.44	5.74
HMX	6.93	6.80	7.10
RDX	9.10	8.97	9.27
Nitrobenzene	12.08	11.96	12.26
1,3-Dinitrobenzene	15.53	15.40	15.70
Nitroglycerin	15.79	15.66	15.96
2-Nitrotoluene	16.56	16.43	16.73
4-Nitrotoluene	16.82	16.70	17.00
4-Amino-2,6-dinitrotoluene	17.14	17.01	17.31
3-Nitrotoluene	17.76	17.64	17.94
2-Amino-4,6-dinitrotoluene	17.98	17.86	18.16
1,3,5-Trinitrobenzene	18.88	18.76	19.06
2,6-Dinitrotoluene	19.82	19.70	20.00
2,4-Dinitrotoluene	20.29	20.17	20.47
Tetryl	23.56	23.43	23.73
2,4,6-Trinitrotoluene	24.69	24.56	24.86
PETN	25.27	25.14	25.44
1,2-Dinitrobenzene	13.01	12.88	13.18

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\G2_LUNA\20200303-89749.b\03030015.D
Lims ID: ICV FULL
Client ID:
Sample Type: ICV
Inject. Date: 03-Mar-2020 22:41:21 ALS Bottle#: 15 Worklist Smp#: 15
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: ICV FULL
Misc. Info.: 280-0089749-015
Operator ID: CB Instrument ID: CHHPLC_G2_LUNA
Sublist:

Method: \\chromna\Denver\ChromData\G2_LUNA\20200303-89749.b\G2_8330_Luna.m
Limit Group: GCSV - 8330
Last Update: 05-Mar-2020 11:40:10 Calib Date: 03-Mar-2020 22:06:26
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\G2_LUNA\20200303-89749.b\03030014.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC DAD1A, 254 nm
Process Host: CTX0319

First Level Reviewer: beckerc Date: 04-Mar-2020 08:28:56

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 2,6-diamino-4-nitrotoluene	1	4.337	4.360	-0.023	183371	0.4000	0.3848	
2 2,4-diamino-6-nitrotoluene	1	4.910	4.913	-0.003	112796	0.4000	0.3913	
5 2,4,6-Trinitrophenol	1	5.557	5.587	-0.030	70660	0.4000	0.4360	
6 HMX	1	6.930	6.947	-0.017	72853	0.4000	0.4102	
8 RDX	1	9.097	9.120	-0.023	89703	0.4000	0.4158	
9 Nitrobenzene	1	12.083	12.113	-0.030	168786	0.4000	0.4301	
$ 10 1,2-Dinitrobenzene	1	13.010	13.033	-0.023	115742	0.4000	0.4136	
11 3,5-Dinitroaniline	1	14.830	14.853	-0.023	209488	0.4000	0.3863	
12 1,3-Dinitrobenzene	1	15.530	15.553	-0.023	275420	0.4000	0.4206	
13 Nitroglycerin	2	15.790	15.813	-0.023	584375	4.00	4.05	M
14 o-Nitrotoluene	1	16.557	16.580	-0.023	98442	0.4000	0.4276	
15 p-Nitrotoluene	1	16.823	16.853	-0.030	96356	0.4000	0.4393	
16 4-Amino-2,6-dinitrotoluene	1	17.137	17.160	-0.023	134162	0.4000	0.4120	
17 m-Nitrotoluene	1	17.757	17.787	-0.030	100760	0.4000	0.4403	
18 2-Amino-4,6-dinitrotoluene	1	17.983	18.013	-0.030	204721	0.4000	0.4163	
19 1,3,5-Trinitrobenzene	1	18.883	18.907	-0.024	201078	0.4000	0.4288	
20 2,6-Dinitrotoluene	1	19.823	19.853	-0.030	119242	0.4000	0.4176	
21 2,4-Dinitrotoluene	1	20.290	20.320	-0.030	242649	0.4000	0.3995	
22 Tetryl	1	23.557	23.580	-0.023	145006	0.4000	0.4090	
23 2,4,6-Trinitrotoluene	1	24.690	24.713	-0.023	169630	0.4000	0.4159	
24 PETN	2	25.270	25.293	-0.023	564338	4.00	3.89	

QC Flag Legend

Review Flags
M - Manually Integrated

Reagents:

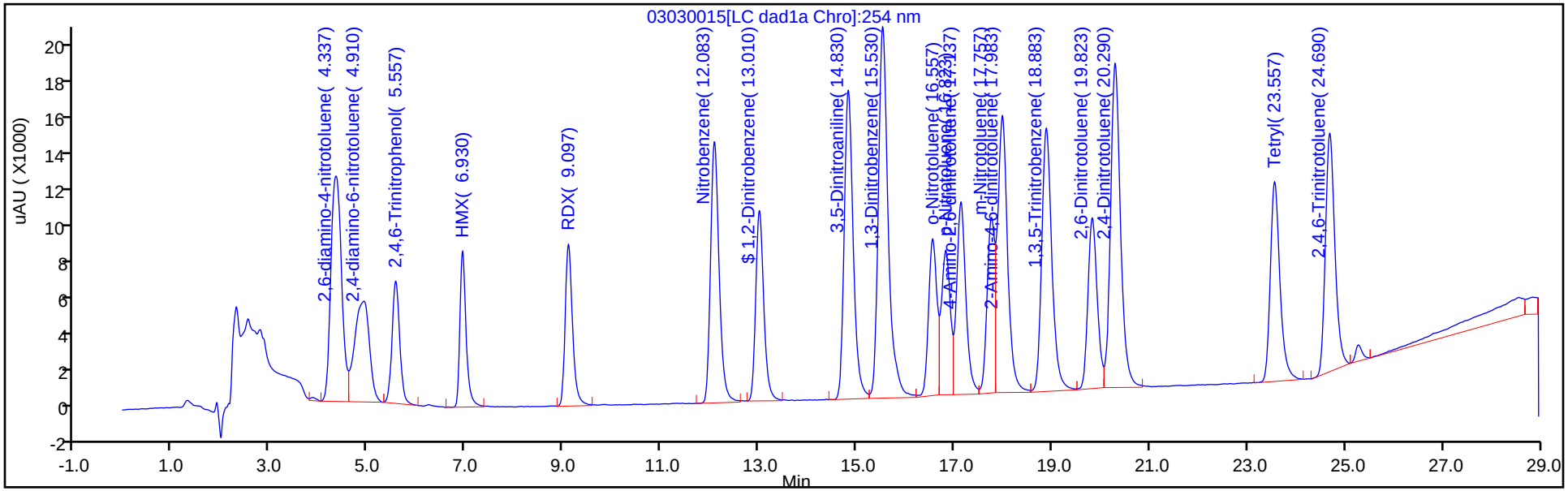
8330Surrogate_00109	Amount Added:	40.00	Units: uL
3,5-DNA LCS_00034	Amount Added:	40.00	Units: uL
8330 LCS_00094	Amount Added:	40.00	Units: uL
8330DiaminLCS_00036	Amount Added:	40.00	Units: uL

Report Date: 05-Mar-2020 11:40:11 Chrom Revision: 2.3 19-Feb-2020 16:45:46

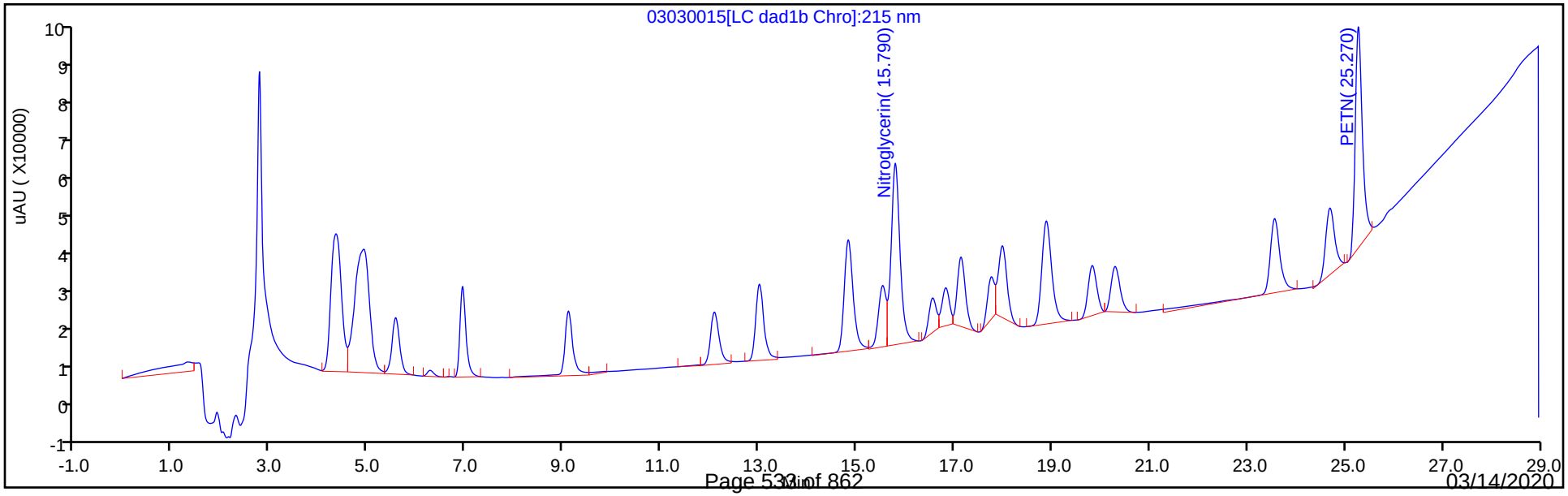
Eurofins TestAmerica, Denver

Data File:	\\chromna\denver\chromdata\g2_luna\20200303-89749.b\03030015.d				
Injection Date:	03-Mar-2020 22:41:21	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	CB
Lims ID:	ICV FULL			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

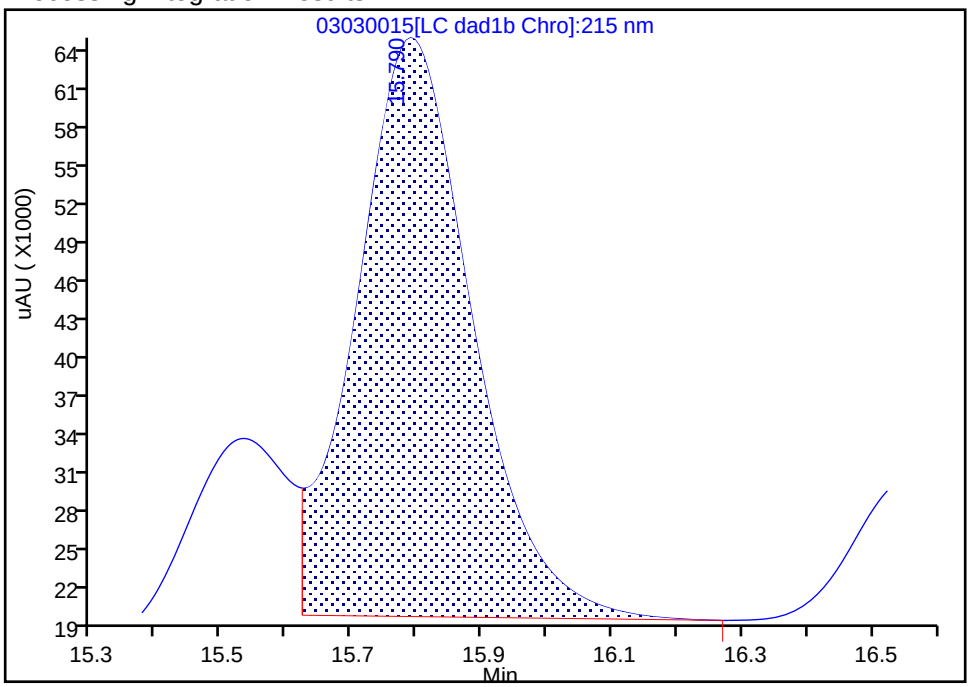
Data File:	\\chromna\denver\chromdata\g2_luna\20200303-89749.b\03030015.d				
Injection Date:	03-Mar-2020 22:41:21	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	ICV FULL				
Client ID:					
Operator ID:	CB	ALS Bottle#:	15	Worklist Smp#:	15
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:		Detector	LC DAD1B, 215 nm		

13 Nitroglycerin, CAS: 55-63-0

Signal: 1

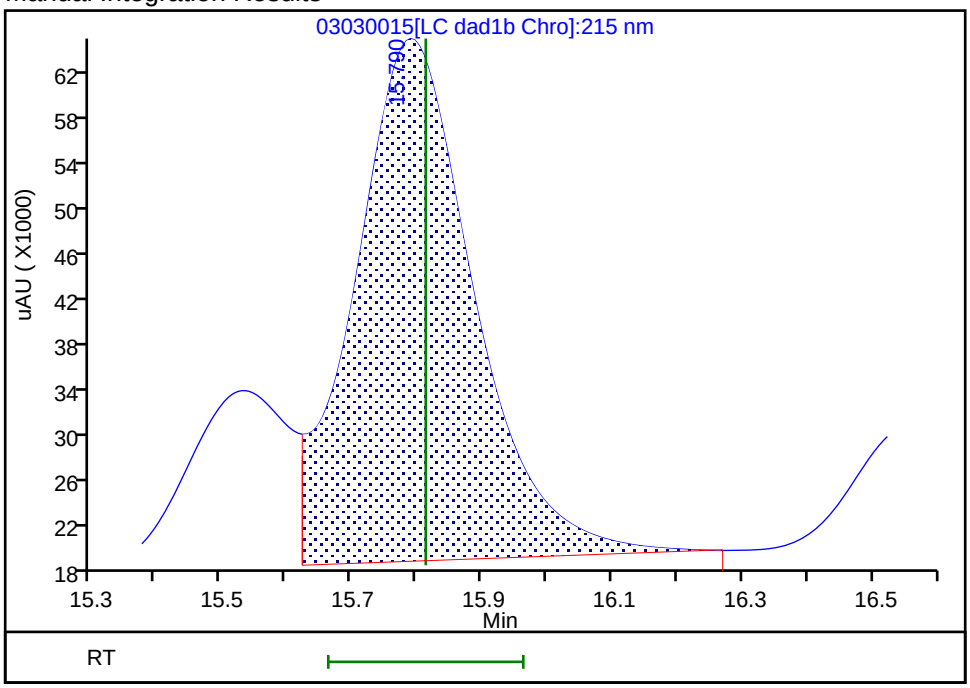
Processing Integration Results

RT: 15.79
Area: 552385
Amount: 3.123938
Amount Units: ug/ml



Manual Integration Results

RT: 15.79
Area: 584375
Amount: 4.052044
Amount Units: ug/ml



Reviewer: beckerc, 04-Mar-2020 08:28:40
Audit Action: Assigned New Baseline Audit Reason: Baseline

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134141-1

SDG No.:

Lab Sample ID: ICV 280-487544/24 Calibration Date: 03/04/2020 03:55

Instrument ID: CHHPLC_G2_LUNA Calib Start Date: 03/03/2020 23:16

GC Column: Luna-phenylhex ID: 4.60(mm) Calib End Date: 03/04/2020 03:21

Lab File ID: 03030024.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
TNX	Ave	454578	385944		340	400	-15.1*	15.0
DNX	Ave	327828	287023		351	400	-12.4	15.0
MNX	Ave	305766	266795		407	467	-12.7	15.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134141-1

SDG No.:

Lab Sample ID: ICV 280-487544/24 Calibration Date: 03/04/2020 03:55

Instrument ID: CHHPLC_G2_LUNA Calib Start Date: 03/03/2020 23:16

GC Column: Luna-phenylhex ID: 4.60(mm) Calib End Date: 03/04/2020 03:21

Lab File ID: 03030024.D

Analyte	RT	RT WINDOW	
		FROM	TO
TNX	5.39	5.25	5.55
DNX	6.19	6.05	6.35
MNX	7.70	7.56	7.86

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\G2_LUNA\20200303-89749.b\03030024.D				
Lims ID:	ICV DMT				
Client ID:					
Sample Type:	ICV				
Inject. Date:	04-Mar-2020 03:55:58	ALS Bottle#:	24	Worklist Smp#:	24
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	ICV DMT				
Misc. Info.:	280-0089749-024				
Operator ID:	CB	Instrument ID:	CHHPLC_G2_LUNA		
Sublist:					
Method:	\\chromna\Denver\ChromData\G2_LUNA\20200303-89749.b\G2_8330_Luna.m				
Limit Group:	GCSV - 8330				
Last Update:	05-Mar-2020 11:27:55	Calib Date:	04-Mar-2020 03:21:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\G2_LUNA\20200303-89749.b\03030023.D				
Column 1 :	Luna-Phenyl hexyl (4.60 mm)		Det: LC DAD1A, 254 nm		
Process Host:	CTX0319				

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
3 TNX	1	5.394	5.400	-0.006	154532	0.4004	0.3399	
4 DNX	1	6.194	6.200	-0.006	114924	0.4004	0.3506	
7 MNX	1	7.701	7.707	-0.006	124540	0.4668	0.4073	

Reagents:

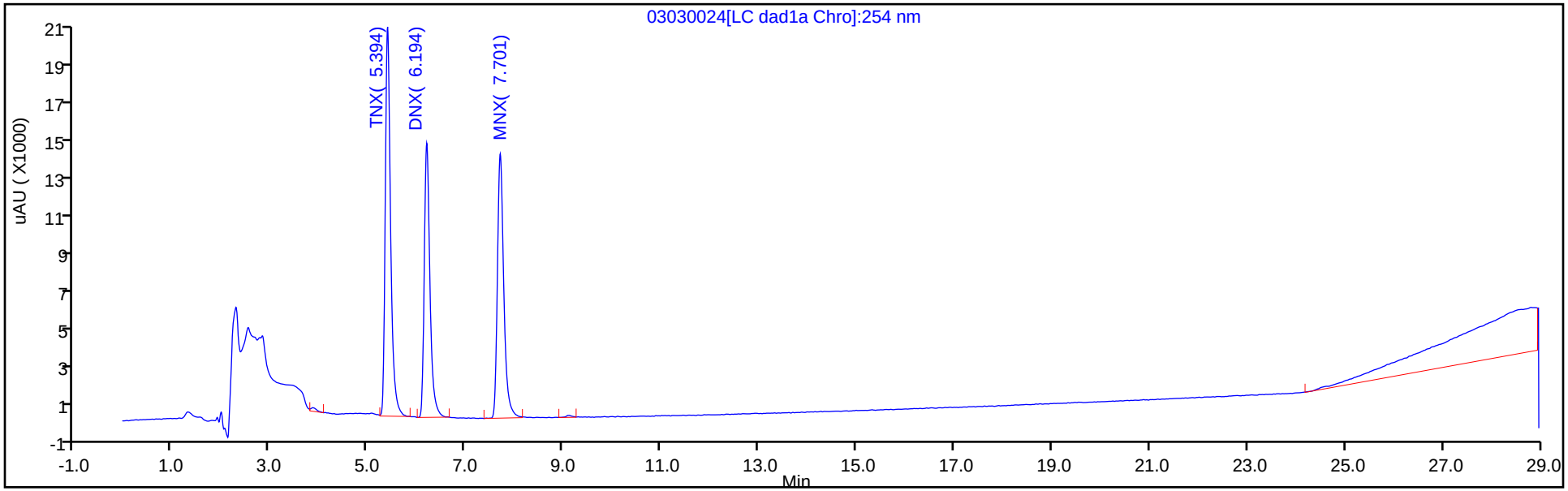
8330_OP_DMT_00005 Amount Added: 40.00 Units: uL

Report Date: 05-Mar-2020 11:27:57 Chrom Revision: 2.3 19-Feb-2020 16:45:46

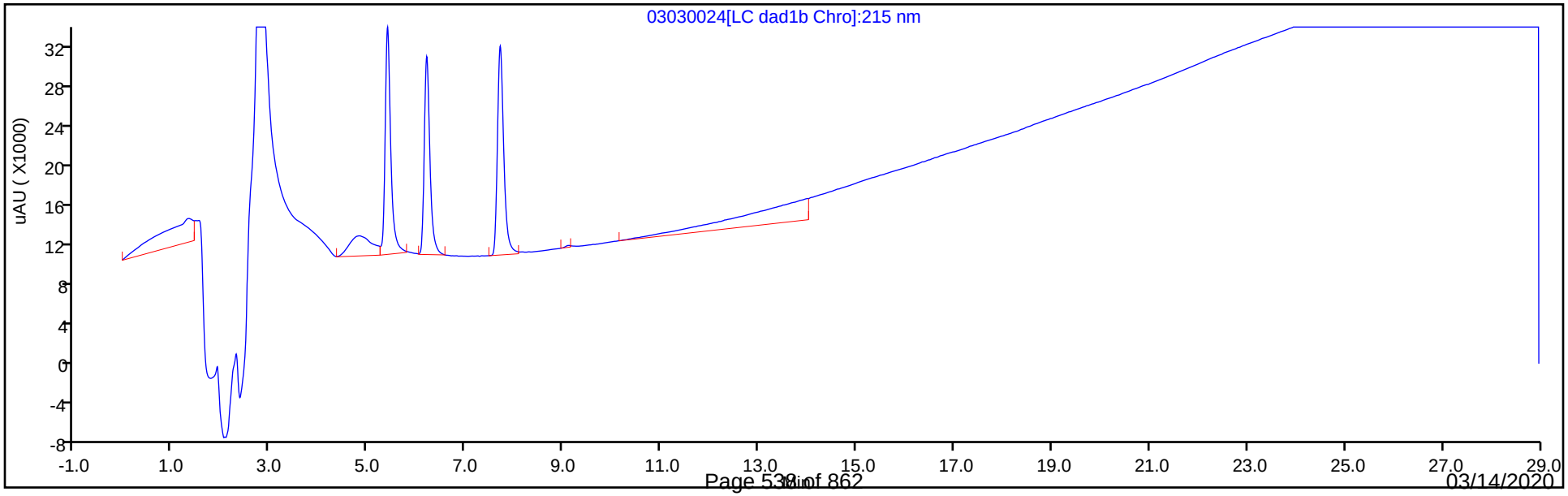
Eurofins TestAmerica, Denver

Data File:	\\chromna\denver\chromdata\g2_luna\20200303-89749.b\03030024.d				
Injection Date:	04-Mar-2020 03:55:58	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	CB
Lims ID:	ICV DMT			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 VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134141-1

SDG No.:

Lab Sample ID: CCV 280-487814/84 Calibration Date: 03/05/2020 19:25

Instrument ID: CHHPLC_G2_LUNA Calib Start Date: 03/03/2020 18:01

GC Column: Luna-phenylhex ID: 4.60(mm) Calib End Date: 03/03/2020 22:06

Lab File ID: 03050017.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Picric acid	Lin2		177260		270	250	8.0	15.0
HMX	Lin2		179896		249	250	-0.4	15.0
RDX	Lin2		219448		249	250	-0.4	15.0
Nitrobenzene	Lin2		406060		256	251	1.9	15.0
1,3-Dinitrobenzene	Lin2		664435		250	251	-0.3	15.0
Nitroglycerin	Lin2		147849		2510	2500	0.6	15.0
2-Nitrotoluene	Lin2		246748		264	250	5.8	15.0
4-Nitrotoluene	Lin2		221313		249	251	-0.7	15.0
4-Amino-2,6-dinitrotoluene	Lin2		330174		250	250	-0.0	15.0
3-Nitrotoluene	Lin2		220352		237	250	-5.2	15.0
2-Amino-4,6-dinitrotoluene	Qua		508884		260	251	3.6	15.0
1,3,5-Trinitrobenzene	Lin2		467425		246	251	-1.8	15.0
2,6-Dinitrotoluene	Lin2		293398		254	251	1.2	15.0
2,4-Dinitrotoluene	Lin2		607072		247	251	-1.6	15.0
Tetryl	Lin2		360100		249	251	-0.5	15.0
2,4,6-Trinitrotoluene	Lin2		417100		253	251	0.8	15.0
PETN	Lin1		140524		2390	2500	-4.4	15.0
1,2-Dinitrobenzene	Lin2		284456		249	250	-0.4	15.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134141-1

SDG No.:

Lab Sample ID: CCV 280-487814/84 Calibration Date: 03/05/2020 19:25

Instrument ID: CHHPLC_G2_LUNA Calib Start Date: 03/03/2020 18:01

GC Column: Luna-phenylhex ID: 4.60(mm) Calib End Date: 03/03/2020 22:06

Lab File ID: 03050017.D

Analyte	RT	RT WINDOW	
		FROM	TO
Picric acid	5.40	5.32	5.62
HMX	6.90	6.75	7.05
RDX	9.06	8.90	9.20
Nitrobenzene	12.06	11.90	12.20
1,3-Dinitrobenzene	15.49	15.33	15.63
Nitroglycerin	15.73	15.57	15.87
2-Nitrotoluene	16.52	16.35	16.65
4-Nitrotoluene	16.79	16.62	16.92
4-Amino-2,6-dinitrotoluene	17.08	16.91	17.21
3-Nitrotoluene	17.74	17.56	17.86
2-Amino-4,6-dinitrotoluene	17.92	17.76	18.06
1,3,5-Trinitrobenzene	18.84	18.67	18.97
2,6-Dinitrotoluene	19.78	19.61	19.91
2,4-Dinitrotoluene	20.24	20.08	20.38
Tetryl	23.49	23.33	23.63
2,4,6-Trinitrotoluene	24.64	24.47	24.77
PETN	25.23	25.07	25.37
1,2-Dinitrobenzene	12.96	12.80	13.10

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\G2_LUNA\20200305-89813.b\03050017.D
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 05-Mar-2020 19:25:33 ALS Bottle#: 7 Worklist Smp#: 84
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: CCV
Misc. Info.: 280-0089813-084
Operator ID: CB Instrument ID: CHHPLC_G2_LUNA
Sublist: chrom-G2_8330_Luna*sub6

Method: \\chromna\Denver\ChromData\G2_LUNA\20200305-89813.b\G2_8330_Luna.m
Limit Group: GCSV - 8330
Last Update: 06-Mar-2020 12:50:48 Calib Date: 04-Mar-2020 03:21:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\G2_LUNA\20200303-89749.b\03030023.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC DAD1A, 254 nm
Process Host: CTX0308

First Level Reviewer: beckerc Date: 06-Mar-2020 12:36:23

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	4.350	4.343	0.007	120155	0.2500	0.2522	
2 2,4-diamino-6-nitrotoluene	1	4.890	4.883	0.007	74997	0.2500	0.2605	
5 2,4,6-Trinitrophenol	1	5.404	5.470	-0.066	44315	0.2500	0.2701	
6 HMX	1	6.904	6.896	0.008	44974	0.2500	0.2490	
8 RDX	1	9.064	9.050	0.014	54862	0.2500	0.2491	
9 Nitrobenzene	1	12.063	12.049	0.014	101921	0.2510	0.2558	
$ 10 1,2-Dinitrobenzene	1	12.963	12.949	0.014	71114	0.2500	0.2490	
11 3,5-Dinitroaniline	1	14.770	14.763	0.007	138592	0.2500	0.2552	
12 1,3-Dinitrobenzene	1	15.490	15.476	0.014	166441	0.2505	0.2496	
13 Nitroglycerin	2	15.730	15.716	0.014	369623	2.50	2.51	M
14 o-Nitrotoluene	1	16.523	16.503	0.020	61687	0.2500	0.2645	
15 p-Nitrotoluene	1	16.790	16.769	0.021	55439	0.2505	0.2487	
16 4-Amino-2,6-dinitrotoluene	1	17.077	17.063	0.014	82626	0.2503	0.2502	
17 m-Nitrotoluene	1	17.737	17.709	0.028	55143	0.2503	0.2372	
18 2-Amino-4,6-dinitrotoluene	1	17.917	17.909	0.008	127730	0.2510	0.2602	
19 1,3,5-Trinitrobenzene	1	18.837	18.823	0.014	117090	0.2505	0.2460	
20 2,6-Dinitrotoluene	1	19.777	19.763	0.014	73643	0.2510	0.2540	
21 2,4-Dinitrotoluene	1	20.243	20.229	0.014	152375	0.2510	0.2471	
22 Tetryl	1	23.490	23.476	0.014	90205	0.2505	0.2493	
23 2,4,6-Trinitrotoluene	1	24.637	24.623	0.014	104692	0.2510	0.2530	
24 PETN	2	25.230	25.216	0.014	351311	2.50	2.39	

QC Flag Legend

Review Flags
M - Manually Integrated

Reagents:

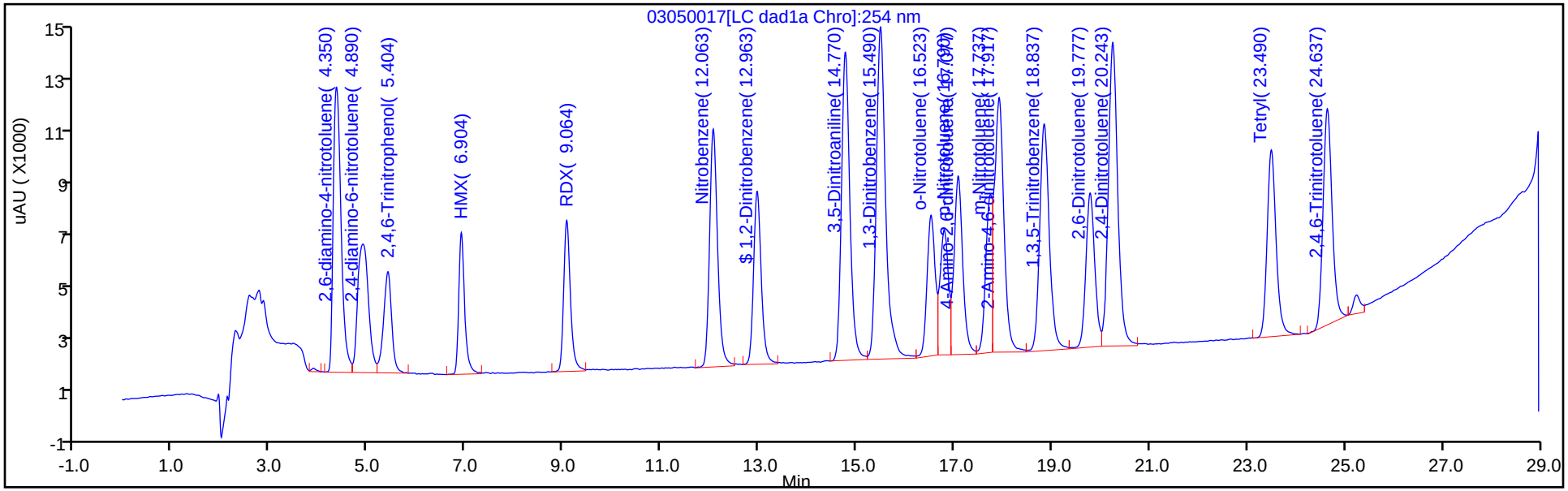
8330IntermStk_00061	Amount Added: 25.00	Units: uL
8330_ADDs_00023	Amount Added: 12.50	Units: uL

Report Date: 06-Mar-2020 12:50:48 Chrom Revision: 2.3 19-Feb-2020 16:45:46

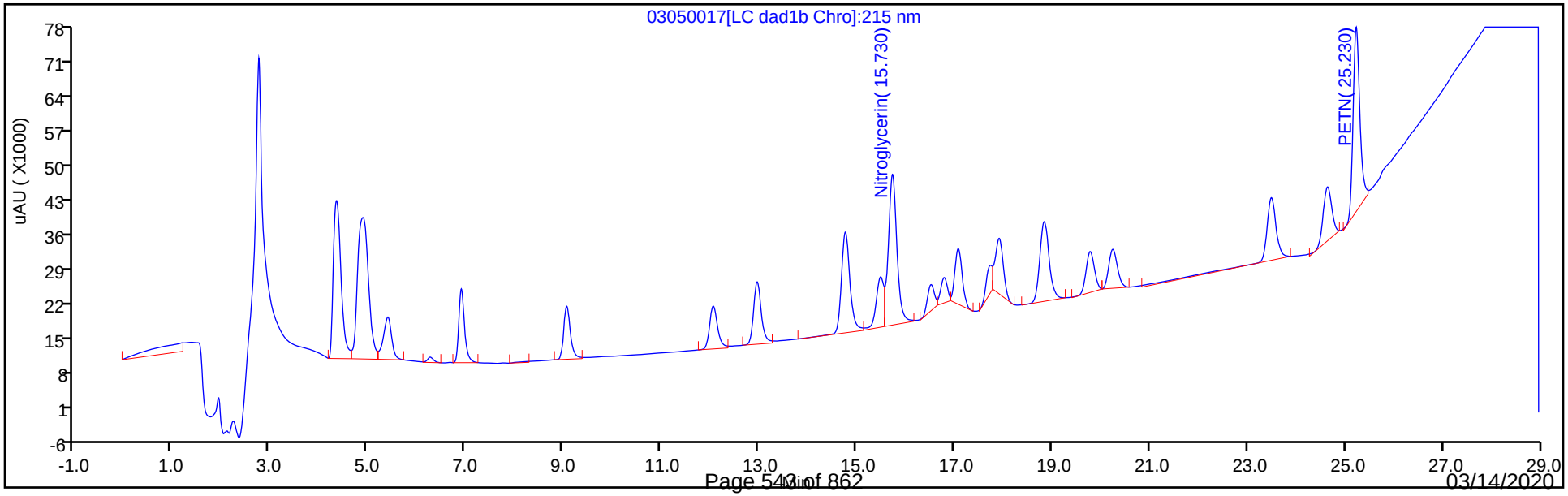
Eurofins TestAmerica, Denver

Data File:	\\chromna\denver\chromdata\g2_luna\20200305-89813.b\03050017.d				
Injection Date:	05-Mar-2020 19:25:33	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	CB
Lims ID:	CCV			Worklist Smp#:	84
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

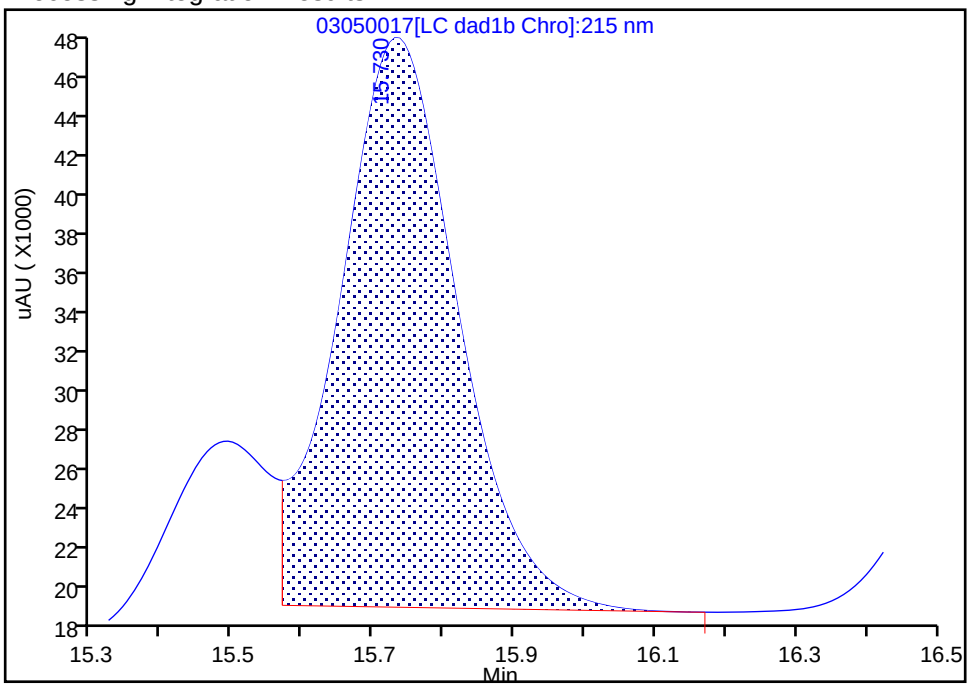
Data File:	\\chromna\denver\chromdata\g2_luna\20200305-89813.b\03050017.d				
Injection Date:	05-Mar-2020 19:25:33	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	CCV				
Client ID:					
Operator ID:	CB	ALS Bottle#:	7	Worklist Smp#:	84
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:		Detector	LC DAD1B, 215 nm		

13 Nitroglycerin, CAS: 55-63-0

Signal: 1

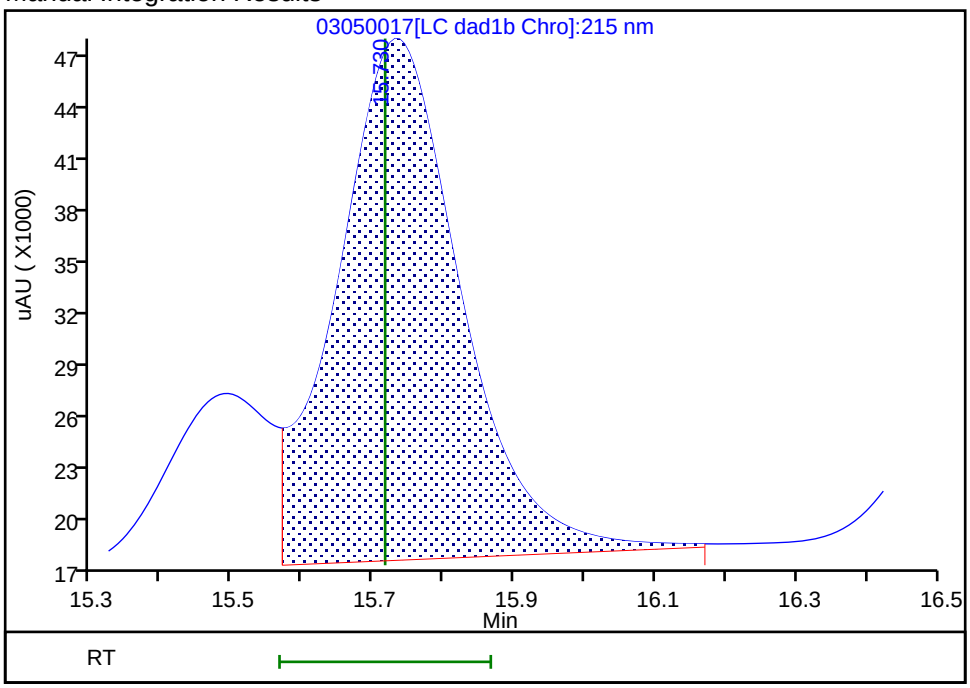
Processing Integration Results

RT: 15.73
Area: 337781
Amount: 2.286708
Amount Units: ug/ml



Manual Integration Results

RT: 15.73
Area: 369623
Amount: 2.514661
Amount Units: ug/ml



Reviewer: beckerc, 06-Mar-2020 12:36:16

Audit Action: Assigned New Baseline Audit Reason: Baseline

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134141-1

SDG No.:

Lab Sample ID: CCV 280-487814/85 Calibration Date: 03/05/2020 20:00

Instrument ID: CHHPLC_G2_LUNA Calib Start Date: 03/03/2020 23:16

GC Column: Luna-phenylhex ID: 4.60(mm) Calib End Date: 03/04/2020 03:21

Lab File ID: 03050018.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
TNX	Ave	454578	465542		256	250	2.4	15.0
DNX	Ave	327828	331325		253	250	1.1	15.0
MNX	Ave	305766	310094		296	292	1.4	15.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134141-1

SDG No.:

Lab Sample ID: CCV 280-487814/85 Calibration Date: 03/05/2020 20:00

Instrument ID: CHHPLC_G2_LUNA Calib Start Date: 03/03/2020 23:16

GC Column: Luna-phenylhex ID: 4.60(mm) Calib End Date: 03/04/2020 03:21

Lab File ID: 03050018.D

Analyte	RT	RT WINDOW	
		FROM	TO
TNX	5.38	5.25	5.55
DNX	6.18	6.05	6.35
MNX	7.67	7.56	7.86

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\G2_LUNA\20200305-89813.b\03050018.D				
Lims ID:	CCV DMT				
Client ID:					
Sample Type:	CCV				
Inject. Date:	05-Mar-2020 20:00:34	ALS Bottle#:	8	Worklist Smp#:	85
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	CCV DMT				
Misc. Info.:	280-0089813-085				
Operator ID:	CB	Instrument ID:	CHHPLC_G2_LUNA		
Sublist:	chrom-G2_8330_Luna*sub13				
Method:	\\chromna\Denver\ChromData\G2_LUNA\20200305-89813.b\G2_8330_Luna.m				
Limit Group:	GCSV - 8330				
Last Update:	06-Mar-2020 12:50:50	Calib Date:	04-Mar-2020 03:21:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\G2_LUNA\20200303-89749.b\03030023.D				
Column 1 :	Luna-Phenyl hexyl (4.60 mm)		Det: LC DAD1A, 254 nm		
Process Host:	CTX0308				

First Level Reviewer: beckerc Date: 06-Mar-2020 12:37:08

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
3 TNX	1	5.381	5.400	-0.019	116502	0.2503	0.2563	
4 DNX	1	6.181	6.200	-0.019	82914	0.2503	0.2529	
7 MNX	1	7.674	7.707	-0.033	90470	0.2918	0.2959	

Reagents:

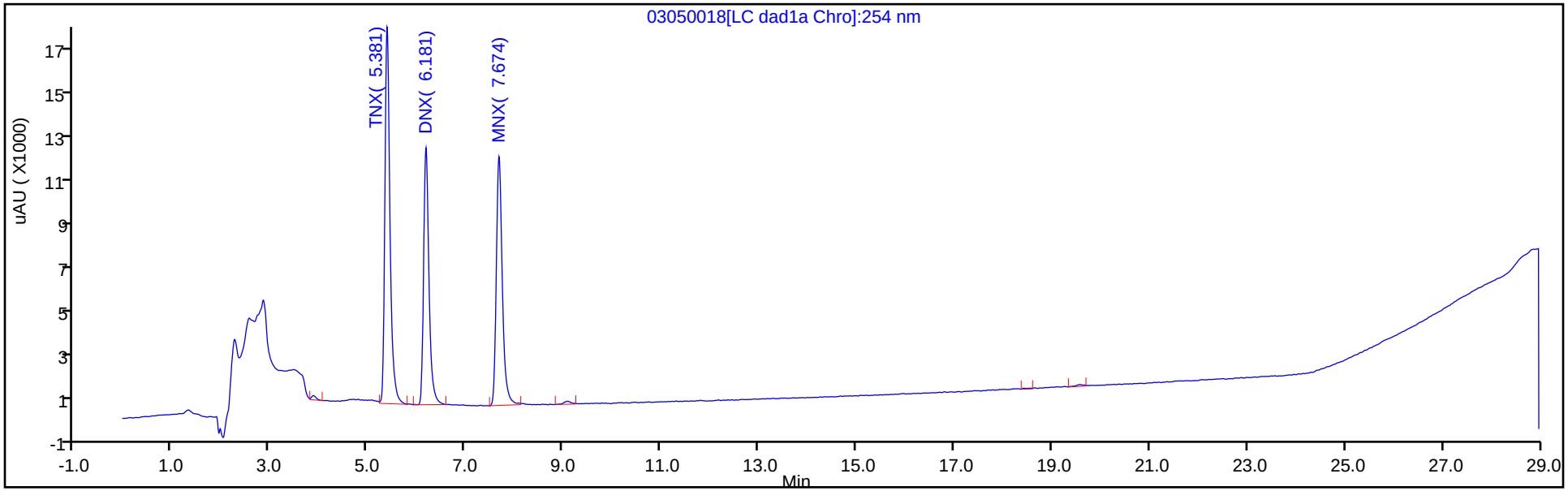
8330 DMT_00005 Amount Added: 12.50 Units: uL

Report Date: 06-Mar-2020 12:50:50 Chrom Revision: 2.3 19-Feb-2020 16:45:46

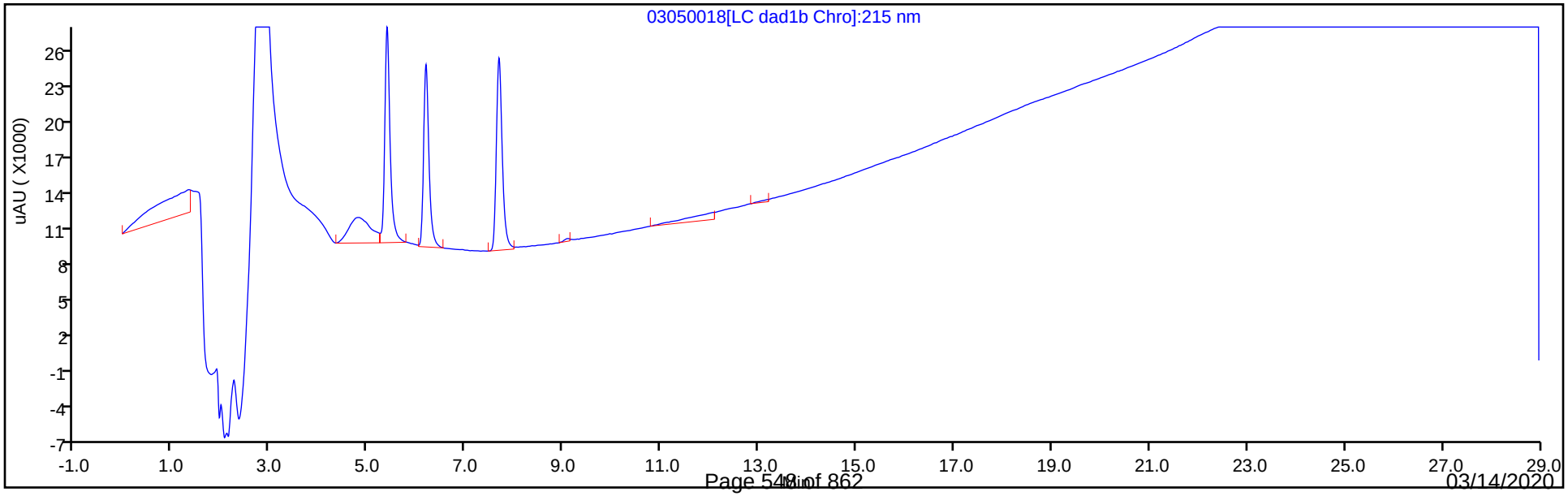
Eurofins TestAmerica, Denver

Data File:	\\chromna\denver\chromdata\g2_luna\20200305-89813.b\03050018.d				
Injection Date:	05-Mar-2020 20:00:34	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	CB
Lims ID:	CCV DMT			Worklist Smp#:	85
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.: 280-134141-1

SDG No.:

Lab Sample ID: CCV 280-487814/100 Calibration Date: 03/06/2020 02:25

Instrument ID: CHHPLC_G2_LUNA Calib Start Date: 03/03/2020 18:01

GC Column: Luna-phenylhex ID: 4.60(mm) Calib End Date: 03/03/2020 22:06

Lab File ID: 03050029.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Picric acid	Lin2		155632		236	250	-5.6	15.0
HMX	Lin2		176972		245	250	-2.1	15.0
RDX	Lin2		217380		247	250	-1.3	15.0
Nitrobenzene	Lin2		397737		250	251	-0.2	15.0
1,3-Dinitrobenzene	Lin2		665489		250	251	-0.2	15.0
Nitroglycerin	Lin2		149020		2540	2500	1.4	15.0
2-Nitrotoluene	Lin2		248012		266	250	6.3	15.0
4-Nitrotoluene	Lin2		218850		246	251	-1.9	15.0
4-Amino-2,6-dinitrotoluene	Lin2		326214		247	250	-1.3	15.0
3-Nitrotoluene	Lin2		215313		232	250	-7.4	15.0
2-Amino-4,6-dinitrotoluene	Qua		507307		259	251	3.3	15.0
1,3,5-Trinitrobenzene	Lin2		470922		248	251	-1.0	15.0
2,6-Dinitrotoluene	Lin2		294590		255	251	1.6	15.0
2,4-Dinitrotoluene	Lin2		607725		247	251	-1.4	15.0
Tetryl	Lin2		363537		252	251	0.5	15.0
2,4,6-Trinitrotoluene	Lin2		415645		252	251	0.4	15.0
PETN	Lin1		142991		2430	2500	-2.7	15.0
1,2-Dinitrobenzene	Lin2		284556		249	250	-0.4	15.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134141-1

SDG No.:

Lab Sample ID: CCV 280-487814/100 Calibration Date: 03/06/2020 02:25

Instrument ID: CHHPLC_G2_LUNA Calib Start Date: 03/03/2020 18:01

GC Column: Luna-phenylhex ID: 4.60(mm) Calib End Date: 03/03/2020 22:06

Lab File ID: 03050029.D

Analyte	RT	RT WINDOW	
		FROM	TO
Picric acid	5.38	5.32	5.62
HMX	6.88	6.75	7.05
RDX	9.04	8.90	9.20
Nitrobenzene	12.04	11.90	12.20
1,3-Dinitrobenzene	15.46	15.33	15.63
Nitroglycerin	15.70	15.57	15.87
2-Nitrotoluene	16.48	16.35	16.65
4-Nitrotoluene	16.76	16.62	16.92
4-Amino-2,6-dinitrotoluene	17.04	16.91	17.21
3-Nitrotoluene	17.70	17.56	17.86
2-Amino-4,6-dinitrotoluene	17.88	17.76	18.06
1,3,5-Trinitrobenzene	18.80	18.67	18.97
2,6-Dinitrotoluene	19.74	19.61	19.91
2,4-Dinitrotoluene	20.20	20.08	20.38
Tetryl	23.46	23.33	23.63
2,4,6-Trinitrotoluene	24.60	24.47	24.77
PETN	25.20	25.07	25.37
1,2-Dinitrobenzene	12.94	12.80	13.10

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\G2_LUNA\20200305-89813.b\03050029.D
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 06-Mar-2020 02:25:22 ALS Bottle#: 7 Worklist Smp#: 100
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: CCV
Misc. Info.: 280-0089813-100
Operator ID: CB Instrument ID: CHHPLC_G2_LUNA
Sublist: chrom-G2_8330_Luna*sub6

Method: \\chromna\Denver\ChromData\G2_LUNA\20200305-89813.b\G2_8330_Luna.m
Limit Group: GCSV - 8330
Last Update: 06-Mar-2020 12:51:07 Calib Date: 04-Mar-2020 03:21:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\G2_LUNA\20200303-89749.b\03030023.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC DAD1A, 254 nm
Process Host: CTX0308

First Level Reviewer: beckerc Date: 06-Mar-2020 12:45:31

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	4.330	4.343	-0.013	116314	0.2500	0.2441	
2 2,4-diamino-6-nitrotoluene	1	4.864	4.883	-0.019	66220	0.2500	0.2301	
5 2,4,6-Trinitrophenol	1	5.377	5.470	-0.093	38908	0.2500	0.2360	
6 HMX	1	6.884	6.896	-0.012	44243	0.2500	0.2448	
8 RDX	1	9.037	9.050	-0.013	54345	0.2500	0.2467	
9 Nitrobenzene	1	12.037	12.049	-0.012	99832	0.2510	0.2504	
$ 10 1,2-Dinitrobenzene	1	12.937	12.949	-0.012	71139	0.2500	0.2491	
11 3,5-Dinitroaniline	1	14.743	14.763	-0.020	139157	0.2500	0.2562	
12 1,3-Dinitrobenzene	1	15.457	15.476	-0.019	166705	0.2505	0.2501	
13 Nitroglycerin	2	15.697	15.716	-0.019	372551	2.50	2.54	
14 o-Nitrotoluene	1	16.483	16.503	-0.020	62003	0.2500	0.2659	
15 p-Nitrotoluene	1	16.757	16.769	-0.012	54822	0.2505	0.2458	
16 4-Amino-2,6-dinitrotoluene	1	17.043	17.063	-0.020	81635	0.2503	0.2471	
17 m-Nitrotoluene	1	17.703	17.709	-0.006	53882	0.2503	0.2316	
18 2-Amino-4,6-dinitrotoluene	1	17.877	17.909	-0.032	127334	0.2510	0.2593	
19 1,3,5-Trinitrobenzene	1	18.803	18.823	-0.020	117966	0.2505	0.2479	
20 2,6-Dinitrotoluene	1	19.743	19.763	-0.020	73942	0.2510	0.2551	
21 2,4-Dinitrotoluene	1	20.203	20.229	-0.026	152539	0.2510	0.2474	
22 Tetryl	1	23.457	23.476	-0.019	91066	0.2505	0.2518	
23 2,4,6-Trinitrotoluene	1	24.604	24.623	-0.019	104327	0.2510	0.2521	
24 PETN	2	25.197	25.216	-0.019	357478	2.50	2.43	M

QC Flag Legend

Review Flags
M - Manually Integrated

Reagents:

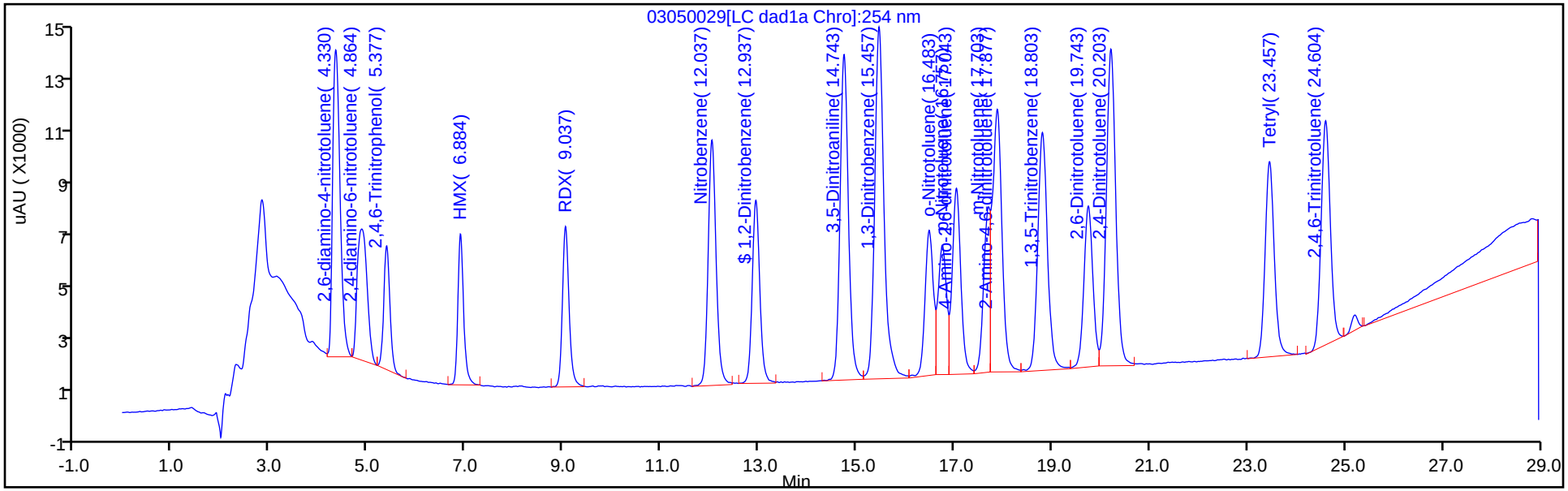
8330IntermStk_00061	Amount Added:	25.00	Units: uL
8330_ADDs_00023	Amount Added:	12.50	Units: uL

Report Date: 06-Mar-2020 12:51:07 Chrom Revision: 2.3 19-Feb-2020 16:45:46

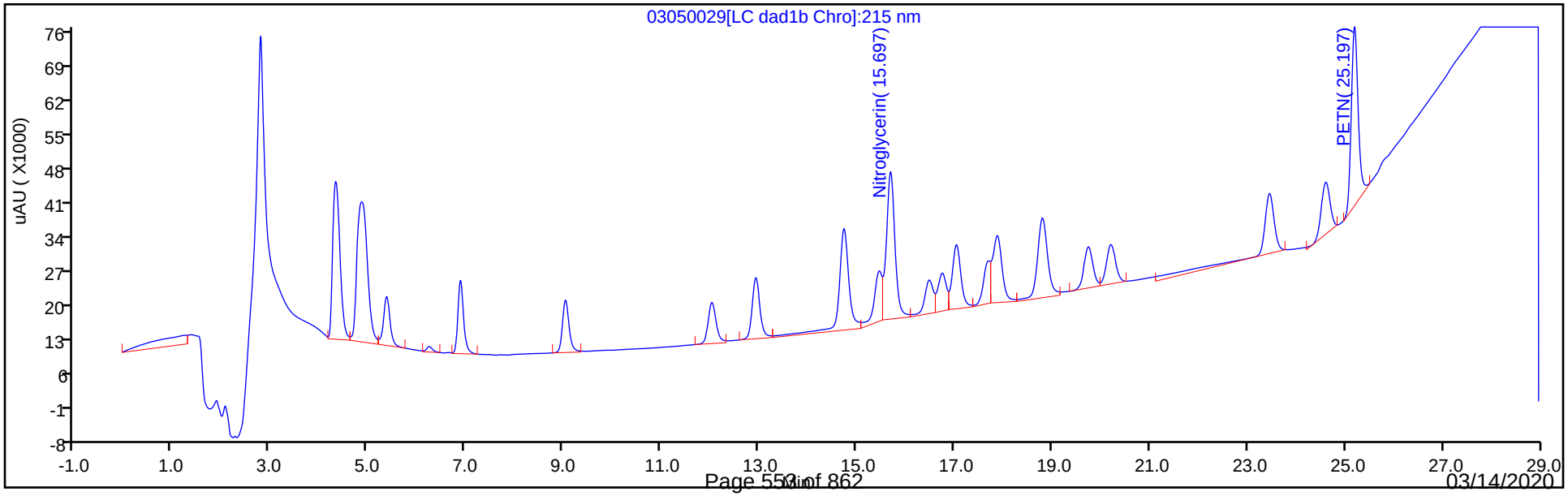
Eurofins TestAmerica, Denver

Data File:	\\chromna\denver\chromdata\g2_luna\20200305-89813.b\03050029.d				
Injection Date:	06-Mar-2020 02:25:22	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	CB
Lims ID:	CCV			Worklist Smp#:	100
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

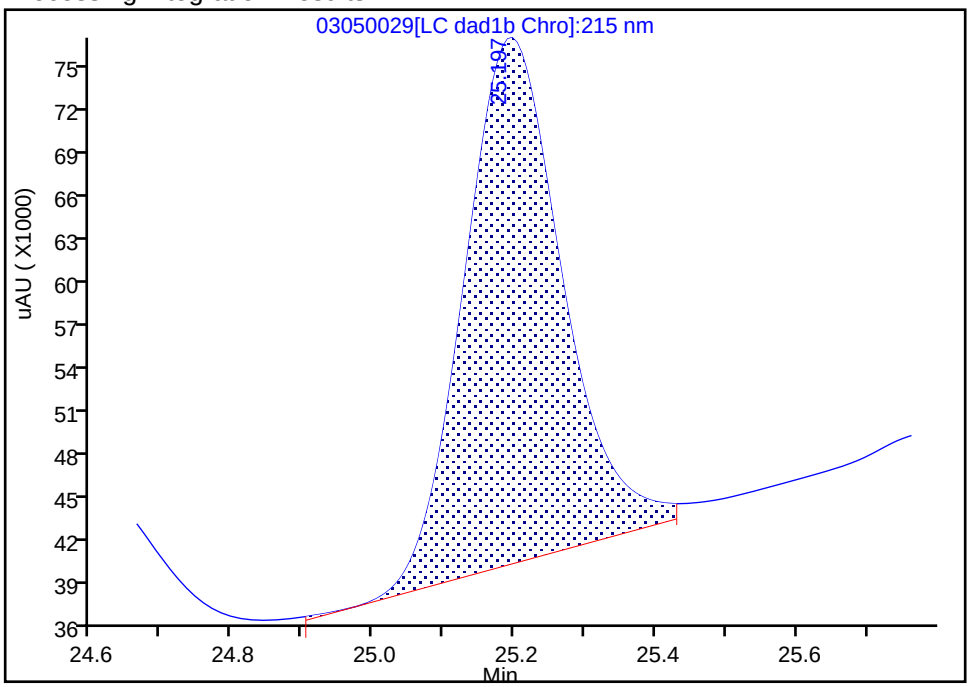
Data File:	\\chromna\denver\chromdata\g2_luna\20200305-89813.b\03050029.d				
Injection Date:	06-Mar-2020 02:25:22	Instrument ID:	CHHPLC_G2_LUNA		
Lims ID:	CCV				
Client ID:					
Operator ID:	CB	ALS Bottle#:	7	Worklist Smp#:	100
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	G2_8330_Luna	Limit Group:	GCSV - 8330		
Column:		Detector	LC DAD1B, 215 nm		

24 PETN, CAS: 78-11-5

Signal: 1

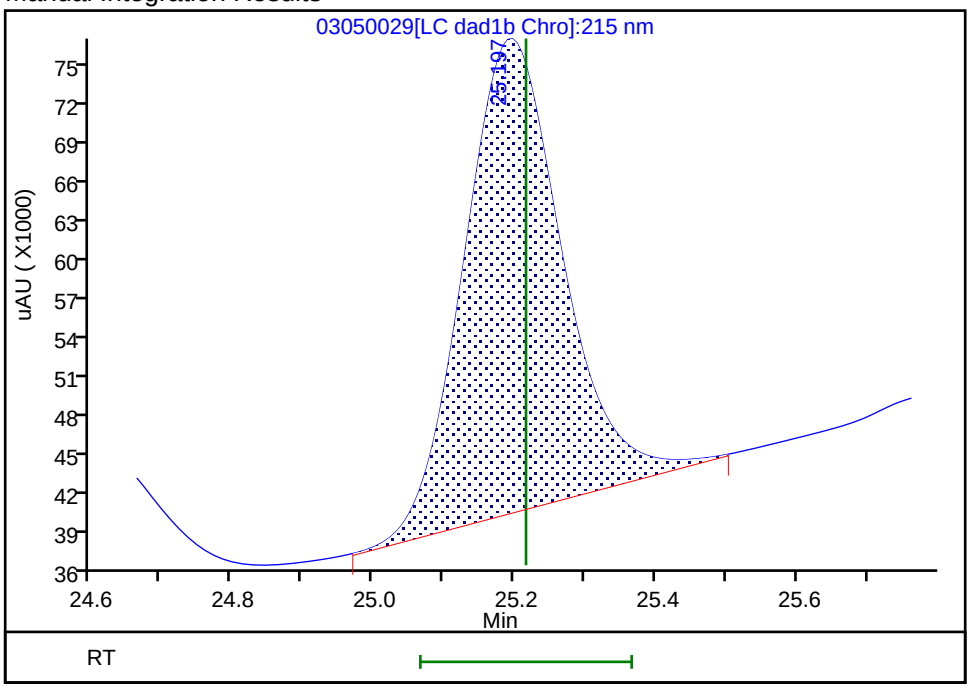
Processing Integration Results

RT: 25.20
Area: 358631
Amount: 2.441839
Amount Units: ug/ml



Manual Integration Results

RT: 25.20
Area: 357478
Amount: 2.433727
Amount Units: ug/ml



Reviewer: beckerc, 06-Mar-2020 12:45:15

Audit Action: Manually Integrated Audit Reason: Baseline

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134141-1

SDG No.:

Lab Sample ID: CCV 280-487814/101 Calibration Date: 03/06/2020 03:00

Instrument ID: CHHPLC_G2_LUNA Calib Start Date: 03/03/2020 23:16

GC Column: Luna-phenylhex ID: 4.60(mm) Calib End Date: 03/04/2020 03:21

Lab File ID: 03050030.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
TNX	Ave	454578	456404		251	250	0.4	15.0
DNX	Ave	327828	329894		252	250	0.6	15.0
MNX	Ave	305766	307376		293	292	0.5	15.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134141-1

SDG No.:

Lab Sample ID: CCV 280-487814/101 Calibration Date: 03/06/2020 03:00

Instrument ID: CHHPLC_G2_LUNA Calib Start Date: 03/03/2020 23:16

GC Column: Luna-phenylhex ID: 4.60(mm) Calib End Date: 03/04/2020 03:21

Lab File ID: 03050030.D

Analyte	RT	RT WINDOW	
		FROM	TO
TNX	5.37	5.25	5.55
DNX	6.17	6.05	6.35
MNX	7.66	7.56	7.86

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\G2_LUNA\20200305-89813.b\03050030.D				
Lims ID:	CCV DMT				
Client ID:					
Sample Type:	CCV				
Inject. Date:	06-Mar-2020 03:00:22	ALS Bottle#:	8	Worklist Smp#:	101
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	CCV DMT				
Misc. Info.:	280-0089813-101				
Operator ID:	CB	Instrument ID:	CHHPLC_G2_LUNA		
Sublist:	chrom-G2_8330_Luna*sub13				
Method:	\\chromna\Denver\ChromData\G2_LUNA\20200305-89813.b\G2_8330_Luna.m				
Limit Group:	GCSV - 8330				
Last Update:	06-Mar-2020 12:51:09	Calib Date:	04-Mar-2020 03:21:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\G2_LUNA\20200303-89749.b\03030023.D				
Column 1 :	Luna-Phenyl hexyl (4.60 mm)		Det: LC DAD1A, 254 nm		
Process Host:	CTX0308				

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
3 TNX	1	5.374	5.400	-0.026	114215	0.2503	0.2513	
4 DNX	1	6.167	6.200	-0.033	82556	0.2503	0.2518	
7 MNX	1	7.661	7.707	-0.046	89677	0.2918	0.2933	

Reagents:

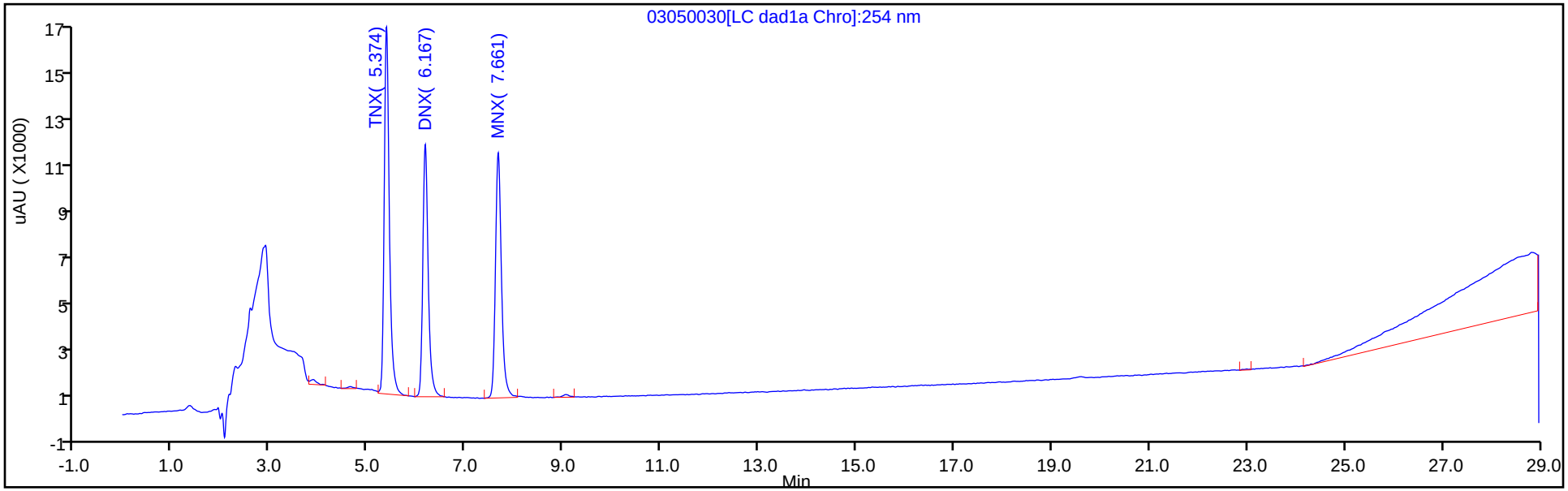
8330 DMT_00005 Amount Added: 12.50 Units: uL

Report Date: 06-Mar-2020 12:51:09 Chrom Revision: 2.3 19-Feb-2020 16:45:46

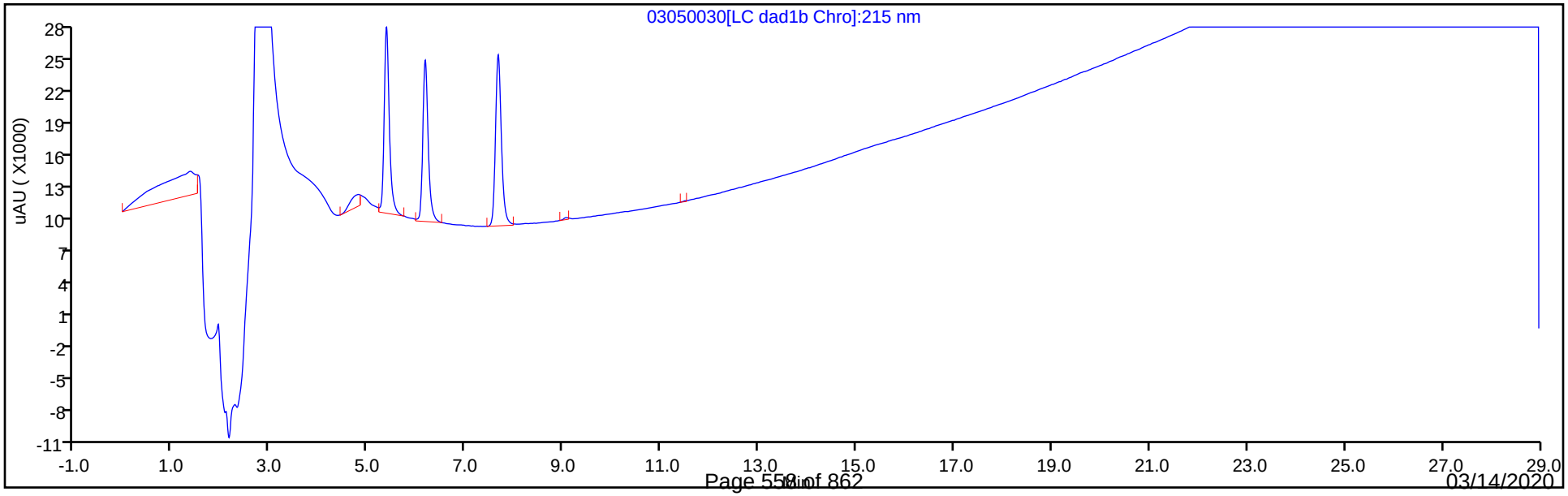
Eurofins TestAmerica, Denver

Data File:	\\chromna\denver\chromdata\g2_luna\20200305-89813.b\03050030.d				
Injection Date:	06-Mar-2020 03:00:22	Instrument ID:	CHHPLC_G2_LUNA	Operator ID:	CB
Lims ID:	CCV DMT			Worklist Smp#:	101
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.: 280-134141-1

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
2-Nitrotoluene	Ave	143838	128300		357	400	-10.8	15.0
4-Nitrotoluene	Ave	120299	111828		372	400	-7.0	15.0
3-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.: 280-134141-1

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
2-Nitrotoluene	12.83	12.68	12.98
4-Nitrotoluene	13.27	13.12	13.42
3-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:

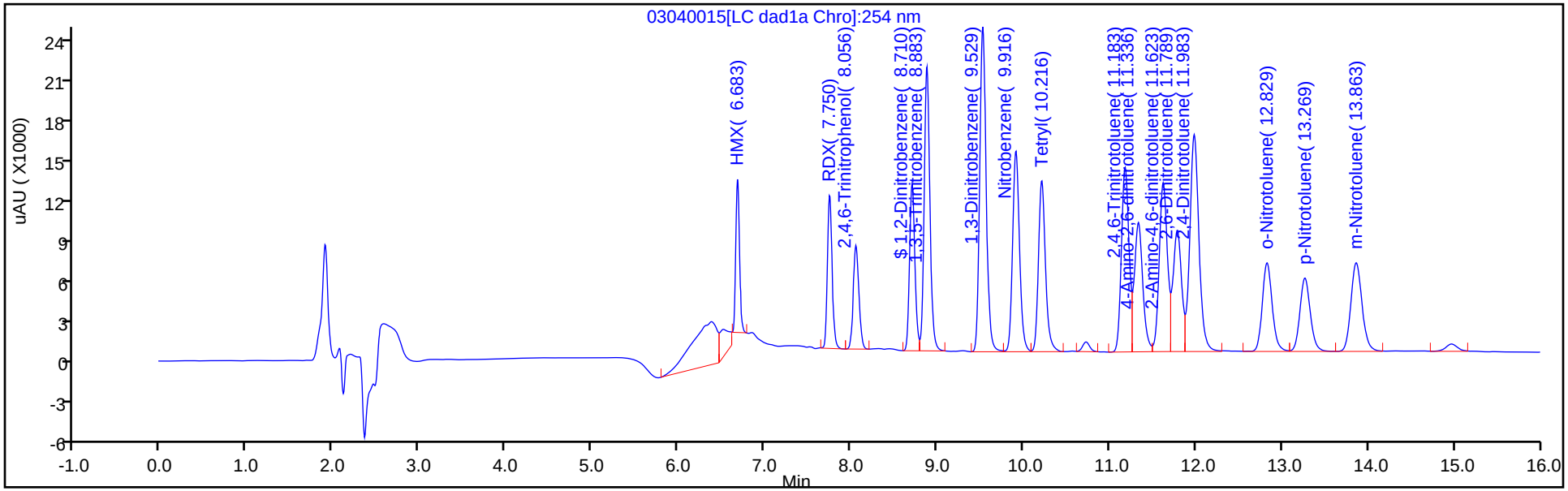
8330Surrogate_00110 Amount Added: 40.00 Units: uL
8330 LCS_00095 Amount Added: 40.00 Units: uL

Report Date: 06-Mar-2020 10:25:10 Chrom Revision: 2.3 19-Feb-2020 16:45:46

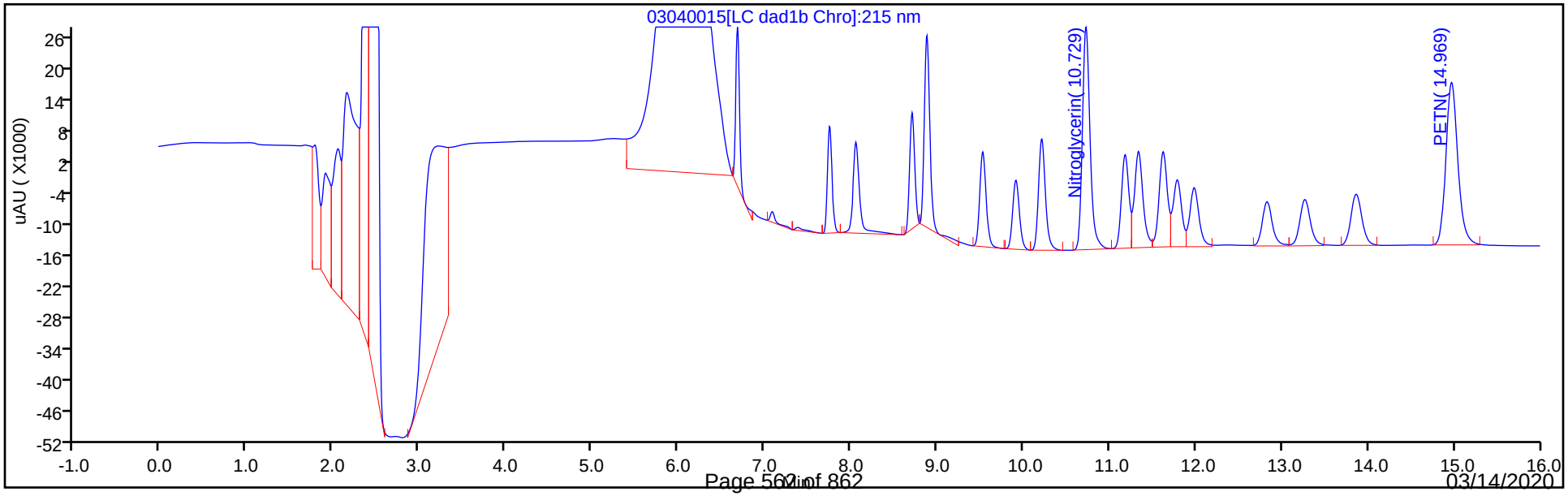
Eurofins TestAmerica, Denver

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

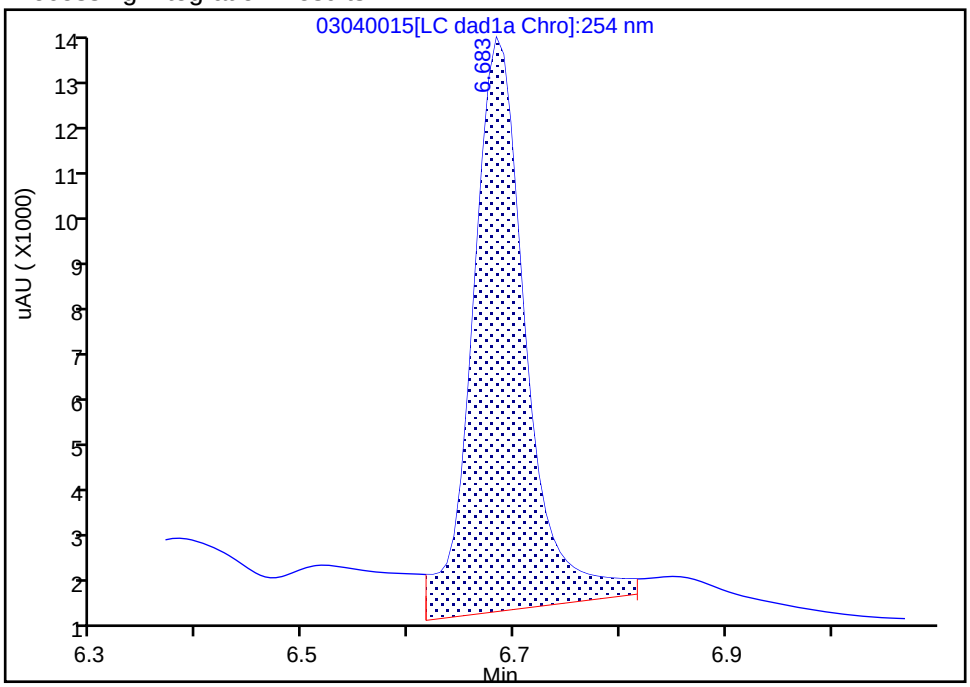
Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040015.d				
Injection Date:	04-Mar-2020 17:10:41	Instrument ID:	CHHPLC_X3		
Lims ID:	ICV MAIN				
Client ID:					
Operator ID:	CB	ALS Bottle#:	15	Worklist Smp#:	15
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

3 HMX, CAS: 2691-41-0

Signal: 1

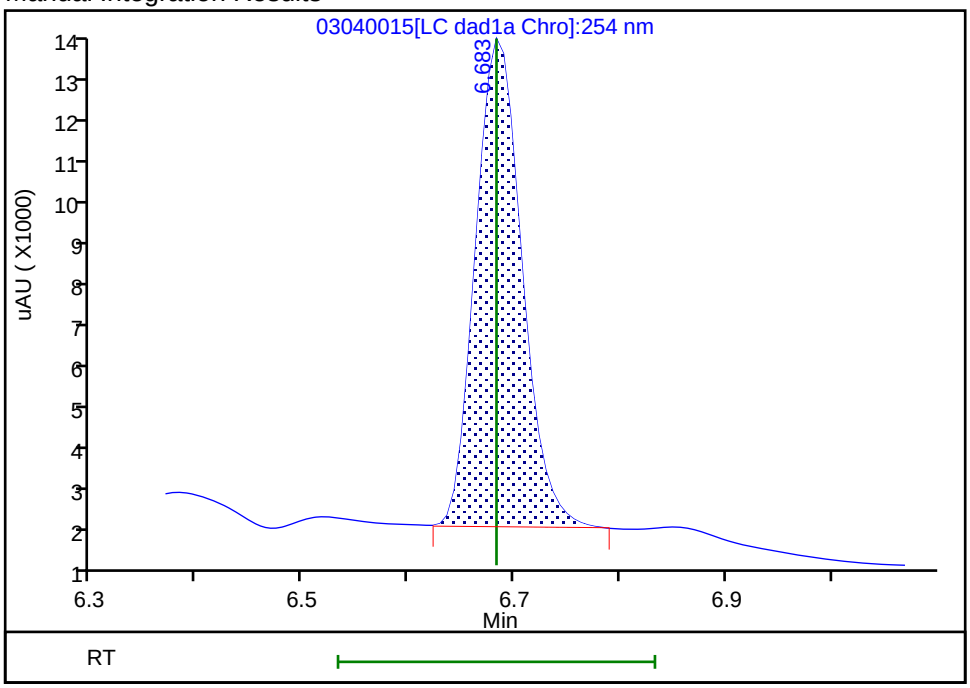
Processing Integration Results

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.: 280-134141-1

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 DATA

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134141-1

SDG No.:

Lab Sample ID: ICV 280-487659/33 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.: 280-134141-1

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

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134141-1

SDG No.:

Lab Sample ID: ICV 280-487659/33 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

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:

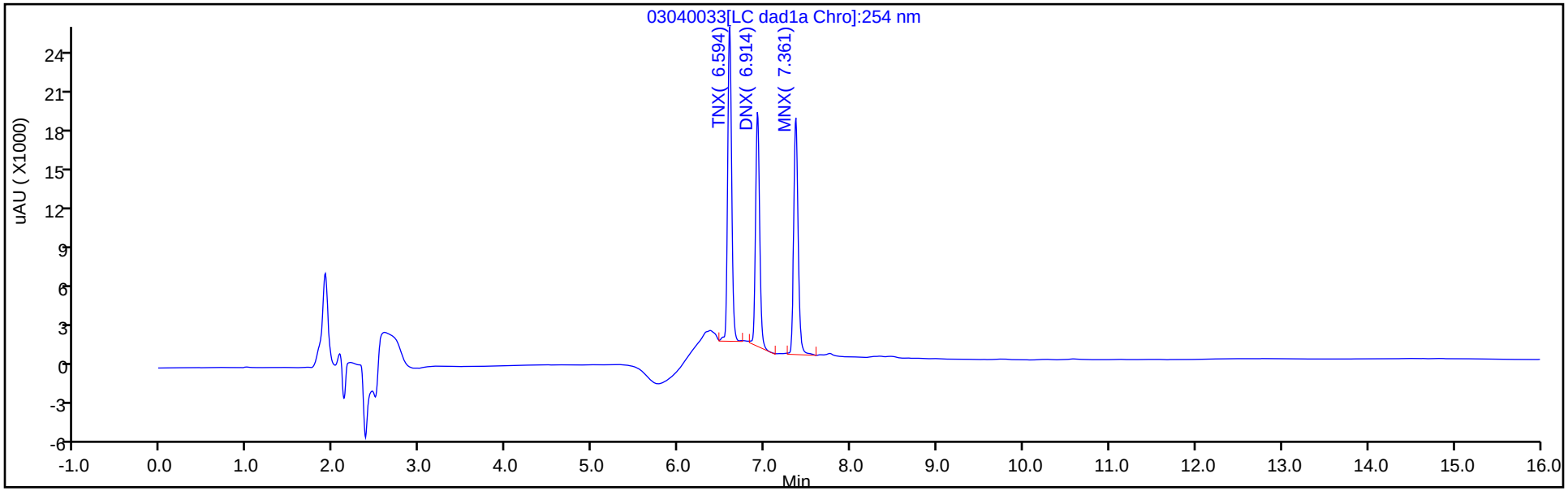
8330_OP_DMT_00006 Amount Added: 40.00 Units: uL

Report Date: 06-Mar-2020 10:25:29 Chrom Revision: 2.3 19-Feb-2020 16:45:46

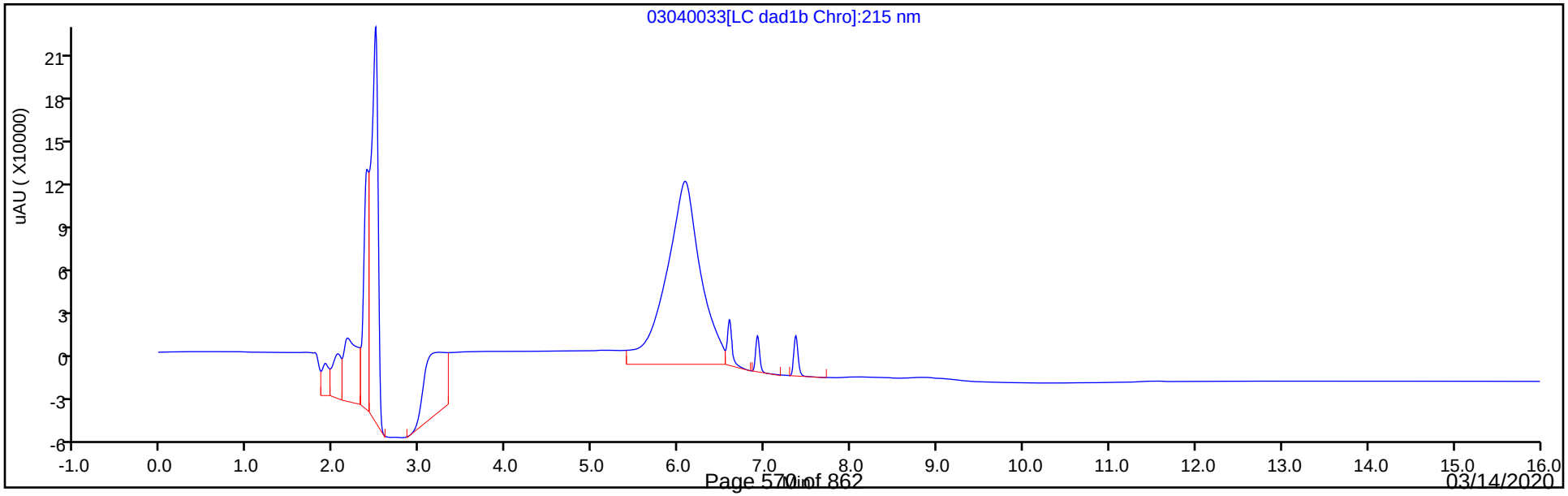
Eurofins TestAmerica, Denver

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

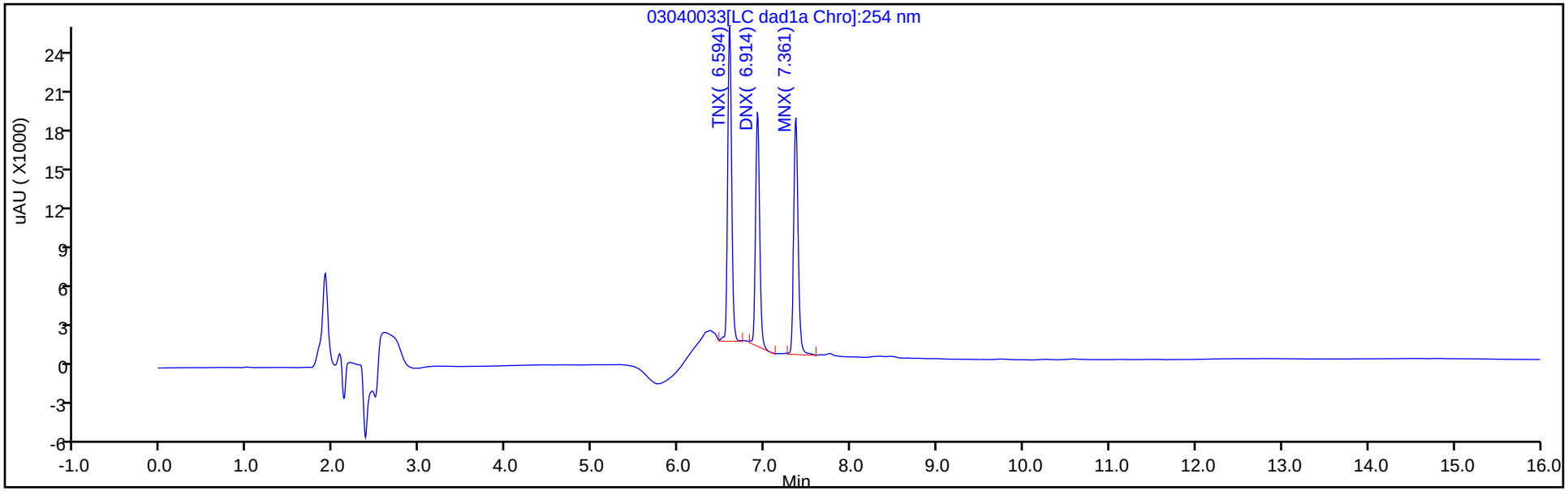


Report Date: 06-Mar-2020 10:25:29 Chrom Revision: 2.3 19-Feb-2020 16:45:46

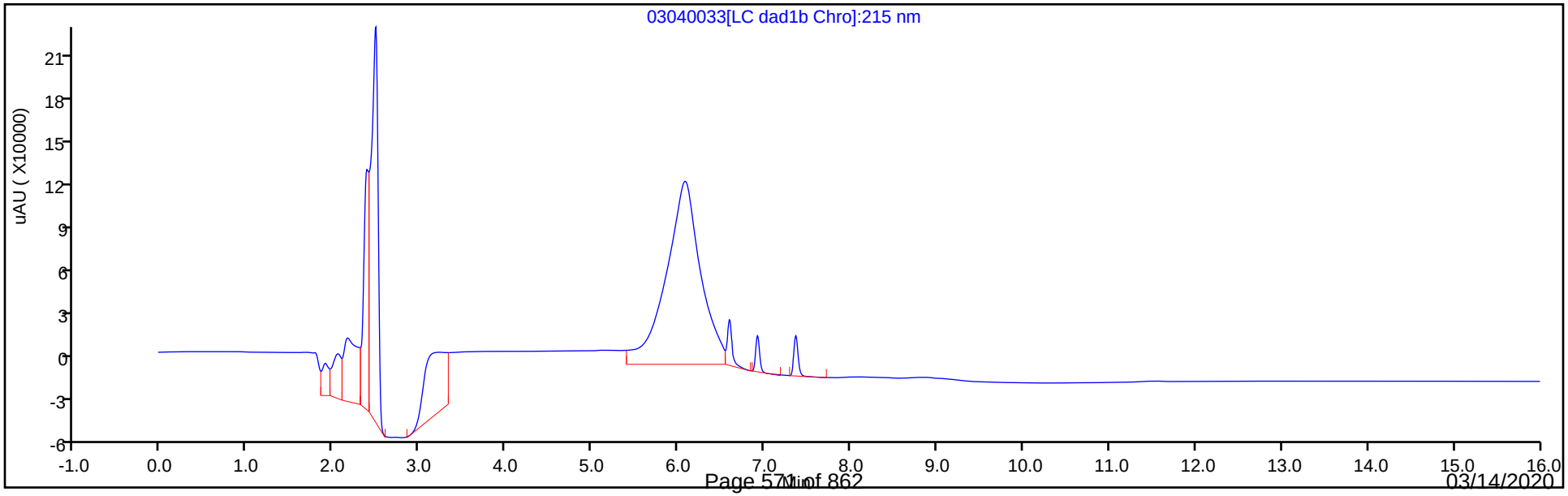
Eurofins TestAmerica, Denver

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

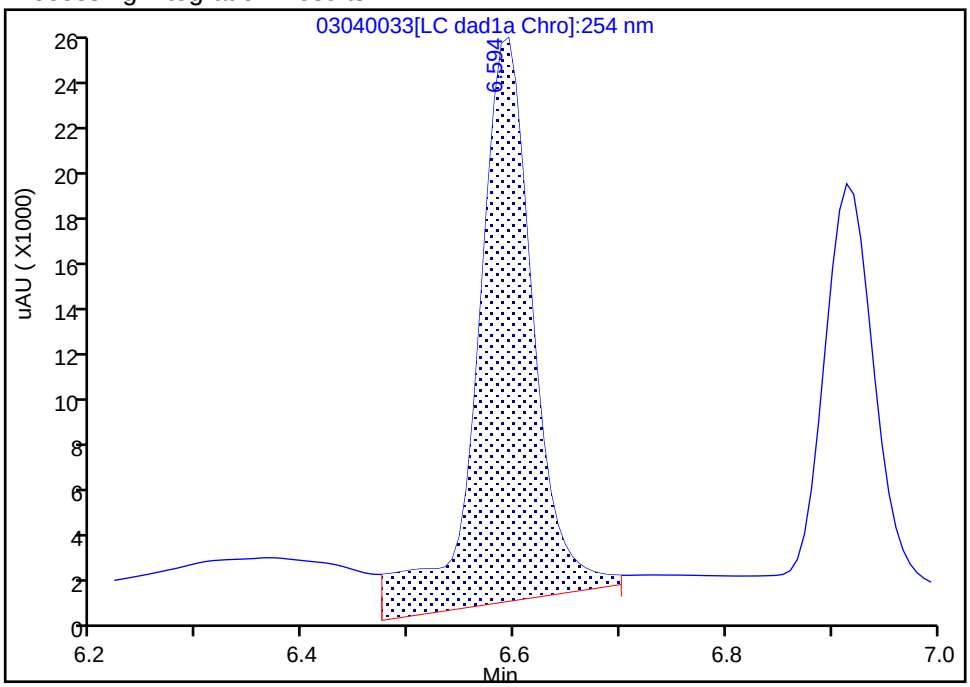
Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040033.d				
Injection Date:	05-Mar-2020 00:03:48	Instrument ID:	CHHPLC_X3		
Lims ID:	ICV DMT				
Client ID:					
Operator ID:	CB	ALS Bottle#:	33	Worklist Smp#:	33
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

2 TNX, CAS: 13980-04-6

Signal: 1

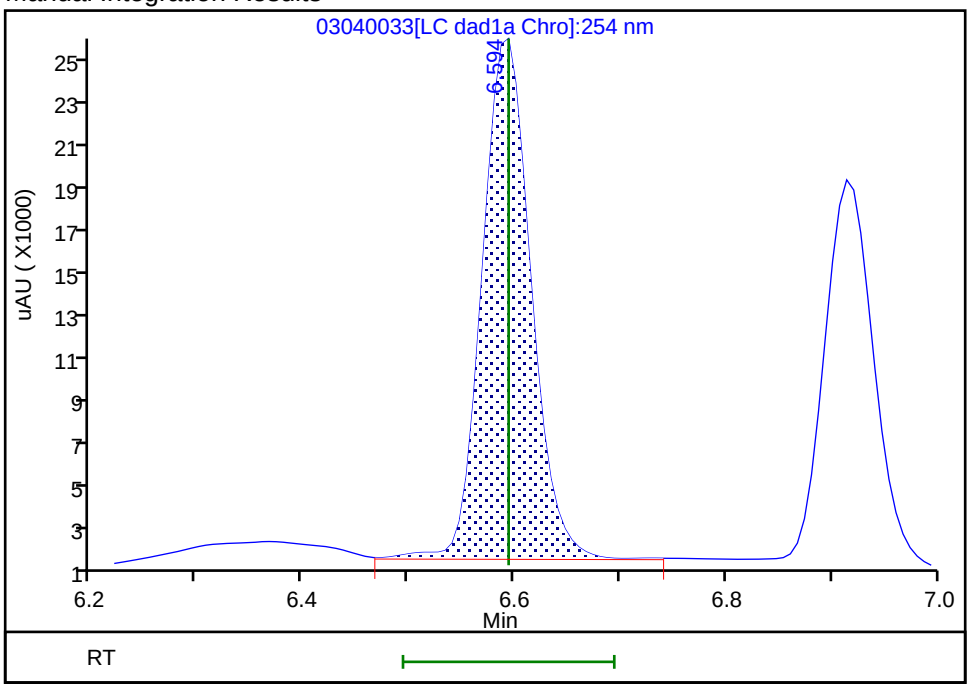
Processing Integration Results

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

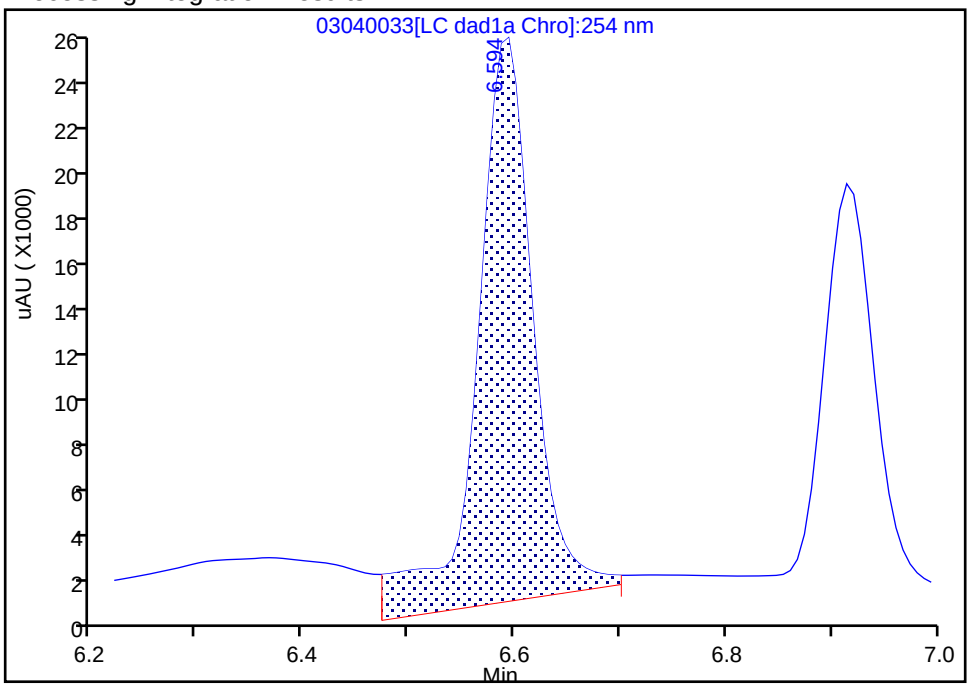
Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040033.d				
Injection Date:	05-Mar-2020 00:03:48	Instrument ID:	CHHPLC_X3		
Lims ID:	ICV DMT				
Client ID:					
Operator ID:	CB	ALS Bottle#:	33	Worklist Smp#:	33
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

2 TNX, CAS: 13980-04-6

Signal: 1

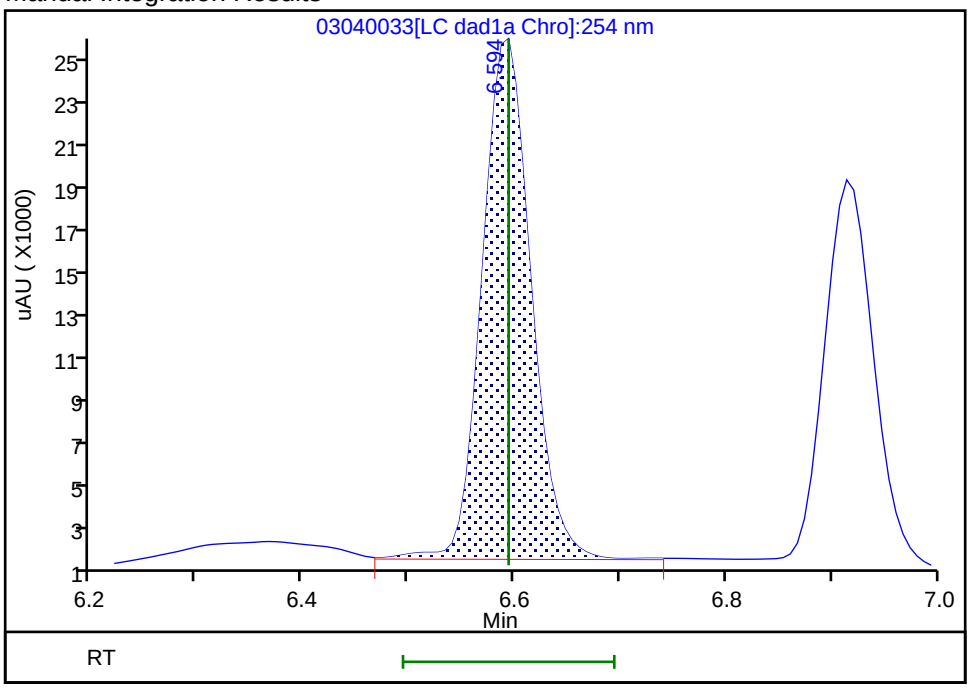
Processing Integration Results

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

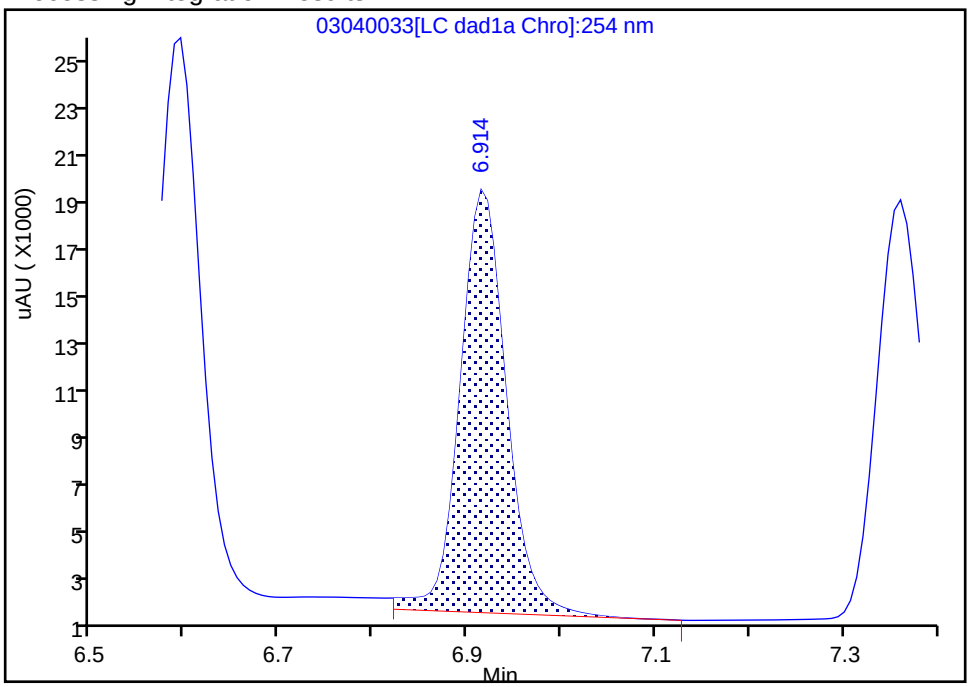
Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040033.d				
Injection Date:	05-Mar-2020 00:03:48	Instrument ID:	CHHPLC_X3		
Lims ID:	ICV DMT				
Client ID:					
Operator ID:	CB	ALS Bottle#:	33	Worklist Smp#:	33
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

5 DNX, CAS: 80251-29-2

Signal: 1

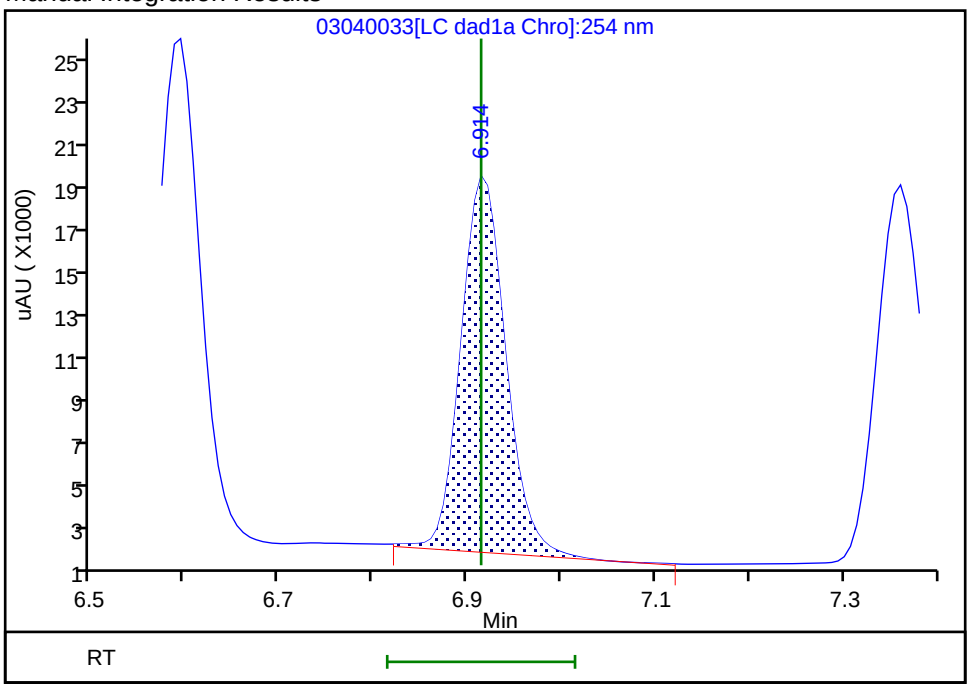
Processing Integration Results

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

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

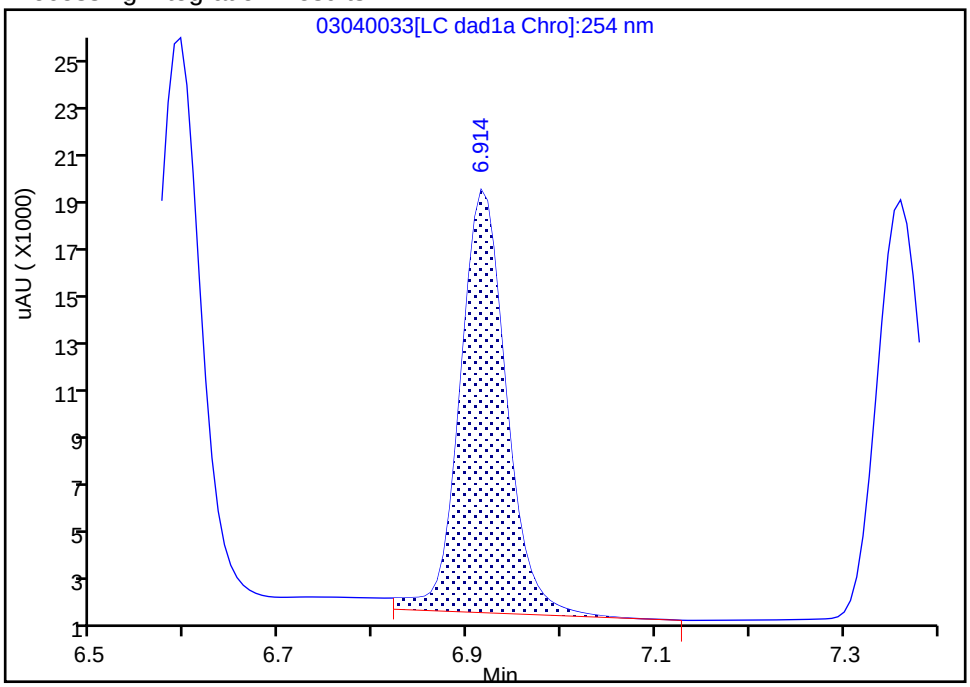
Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040033.d				
Injection Date:	05-Mar-2020 00:03:48	Instrument ID:	CHHPLC_X3		
Lims ID:	ICV DMT				
Client ID:					
Operator ID:	CB	ALS Bottle#:	33	Worklist Smp#:	33
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

5 DNX, CAS: 80251-29-2

Signal: 1

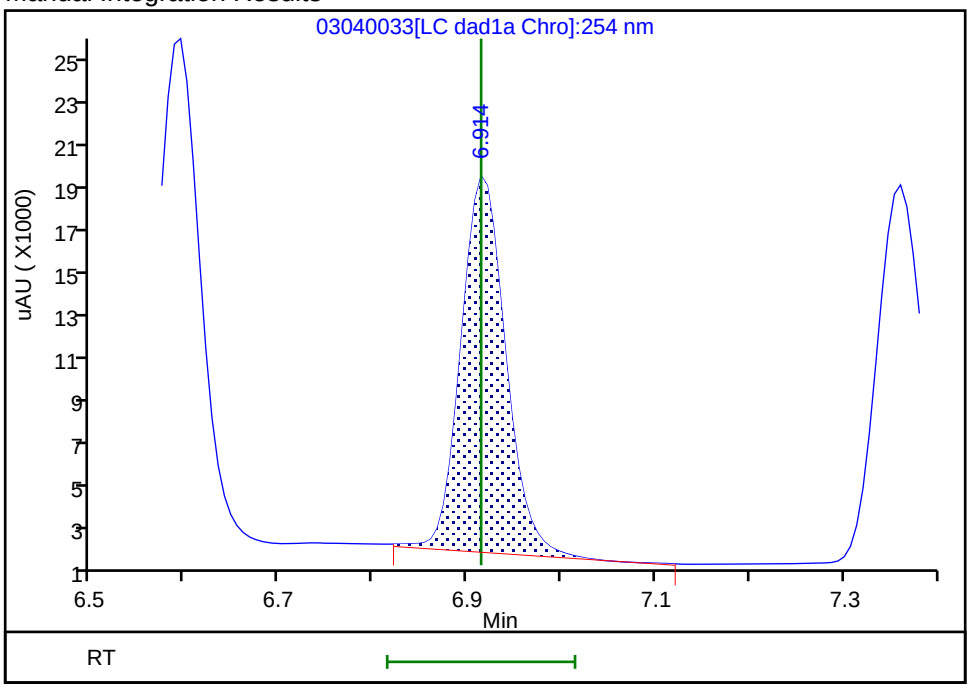
Processing Integration Results

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.: 280-134141-1

SDG No.:

Lab Sample ID: CCV 280-487659/44 Calibration Date: 03/05/2020 04:16

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: 03040044.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
HMX	Ave	89178	91592		257	250	2.7	15.0
RDX	Ave	117869	114644		243	250	-2.7	15.0
Picric acid	Ave	87247	86808		249	250	-0.5	15.0
1,3,5-Trinitrobenzene	Ave	243459	243289		250	251	-0.0	15.0
1,3-Dinitrobenzene	Ave	324251	326723		252	251	0.8	15.0
Nitrobenzene	Ave	212689	204753		242	251	-3.7	15.0
Tetryl	Ave	193870	190579		246	251	-1.7	15.0
Nitroglycerin	Ave	71797	72820		2540	2500	1.4	15.0
2,4,6-Trinitrotoluene	Ave	220911	221749		252	251	0.4	15.0
4-Amino-2,6-dinitrotoluene	Ave	173468	170038		245	250	-2.0	15.0
2-Amino-4,6-dinitrotoluene	Ave	217539	214602		248	251	-1.4	15.0
2,6-Dinitrotoluene	Ave	159404	160562		253	251	0.7	15.0
2,4-Dinitrotoluene	Ave	321164	320880		251	251	-0.0	15.0
2-Nitrotoluene	Ave	143838	133008		231	250	-7.5	15.0
4-Nitrotoluene	Ave	120299	115206		240	251	-4.2	15.0
3-Nitrotoluene	Ave	154244	147632		240	250	-4.3	15.0
PETN	Ave	79456	81494		2560	2500	2.6	15.0
1,2-Dinitrobenzene	Ave	146215	144676		247	250	-1.1	15.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134141-1

SDG No.:

Lab Sample ID: CCV 280-487659/44 Calibration Date: 03/05/2020 04:16

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: 03040044.D

Analyte	RT	RT WINDOW	
		FROM	TO
HMX	6.68	6.53	6.83
RDX	7.75	7.60	7.90
Picric acid	8.07	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	10.74	10.58	10.88
2,4,6-Trinitrotoluene	11.19	11.08	11.28
4-Amino-2,6-dinitrotoluene	11.35	11.24	11.44
2-Amino-4,6-dinitrotoluene	11.64	11.52	11.72
2,6-Dinitrotoluene	11.80	11.69	11.89
2,4-Dinitrotoluene	11.99	11.88	12.08
2-Nitrotoluene	12.84	12.68	12.98
4-Nitrotoluene	13.28	13.12	13.42
3-Nitrotoluene	13.87	13.71	14.01
PETN	14.98	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\03040044.D
Lims ID: CCV INT
Client ID:
Sample Type: CCV
Inject. Date: 05-Mar-2020 04:16:06 ALS Bottle#: 11 Worklist Smp#: 44
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: CCV INT
Misc. Info.: 280-0089779-044
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 10:25:39 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: 06-Mar-2020 08:59:25

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 HMX	1	6.684	6.683	0.001	22898	0.2500	0.2568	M
7 RDX	1	7.751	7.750	0.001	28661	0.2500	0.2432	
8 2,4,6-Trinitrophenol	1	8.071	8.056	0.015	21702	0.2500	0.2487	
$ 9 1,2-Dinitrobenzene	1	8.711	8.710	0.001	36169	0.2500	0.2474	
10 1,3,5-Trinitrobenzene	1	8.877	8.883	-0.006	60944	0.2505	0.2503	
11 1,3-Dinitrobenzene	1	9.531	9.529	0.002	81844	0.2505	0.2524	
12 Nitrobenzene	1	9.917	9.916	0.001	51393	0.2510	0.2416	
14 Tetryl	1	10.217	10.216	0.001	47740	0.2505	0.2462	
15 Nitroglycerin	2	10.737	10.729	0.008	182049	2.50	2.54	
16 2,4,6-Trinitrotoluene	1	11.191	11.183	0.008	55659	0.2510	0.2520	
17 4-Amino-2,6-dinitrotoluene	1	11.351	11.336	0.015	42552	0.2503	0.2453	
18 2-Amino-4,6-dinitrotoluene	1	11.637	11.623	0.014	53865	0.2510	0.2476	
19 2,6-Dinitrotoluene	1	11.797	11.789	0.008	40301	0.2510	0.2528	
20 2,4-Dinitrotoluene	1	11.991	11.983	0.008	80541	0.2510	0.2508	
21 o-Nitrotoluene	1	12.837	12.829	0.008	33252	0.2500	0.2312	
22 p-Nitrotoluene	1	13.277	13.269	0.008	28859	0.2505	0.2399	
23 m-Nitrotoluene	1	13.871	13.863	0.008	36945	0.2503	0.2395	
24 PETN	2	14.977	14.969	0.008	203734	2.50	2.56	

QC Flag Legend

Review Flags
M - Manually Integrated

Reagents:

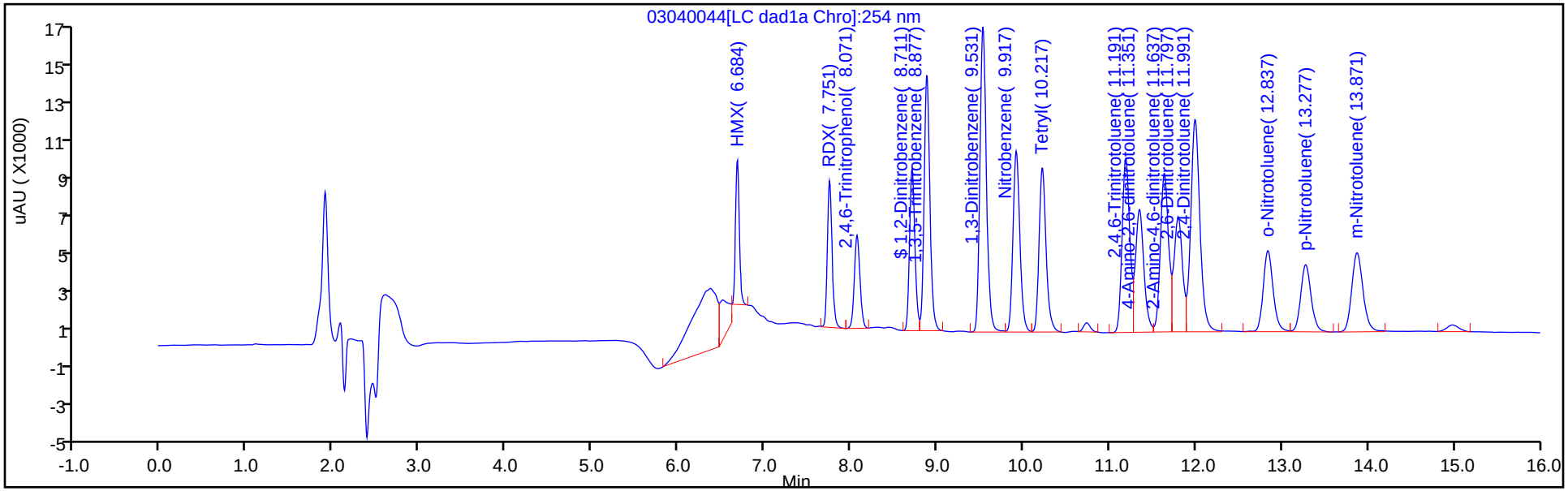
8330IntermStk_00061 Amount Added: 25.00 Units: uL

Report Date: 06-Mar-2020 10:25:39 Chrom Revision: 2.3 19-Feb-2020 16:45:46

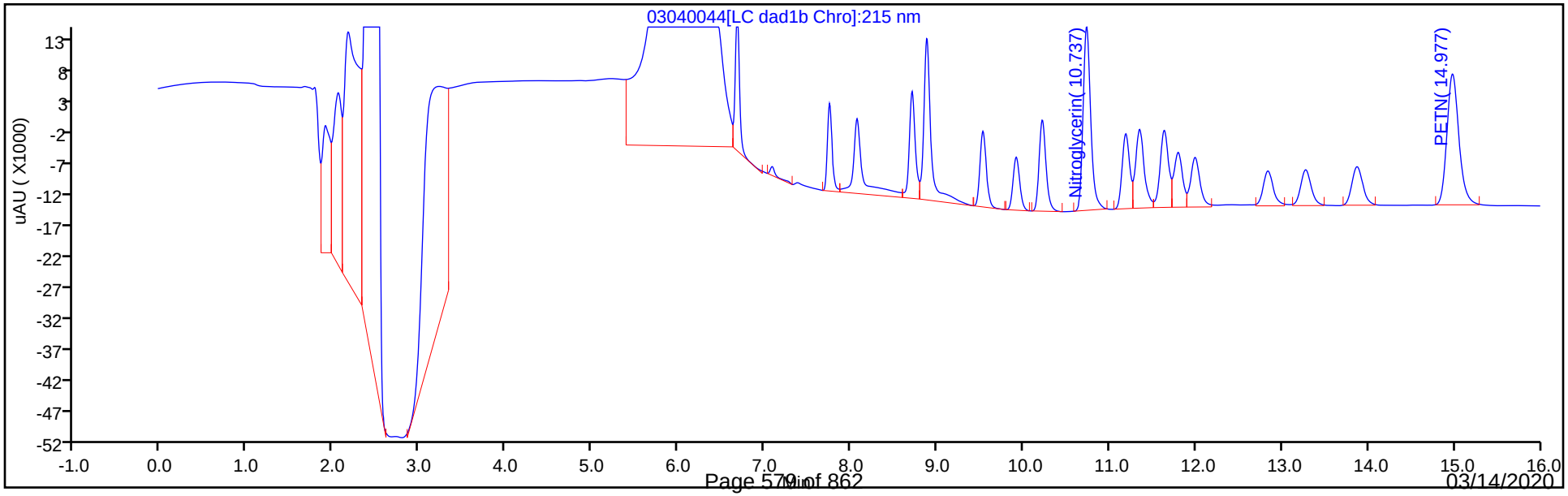
Eurofins TestAmerica, Denver

Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040044.d				
Injection Date:	05-Mar-2020 04:16:06	Instrument ID:	CHHPLC_X3	Operator ID:	CB
Lims ID:	CCV INT			Worklist Smp#:	44
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

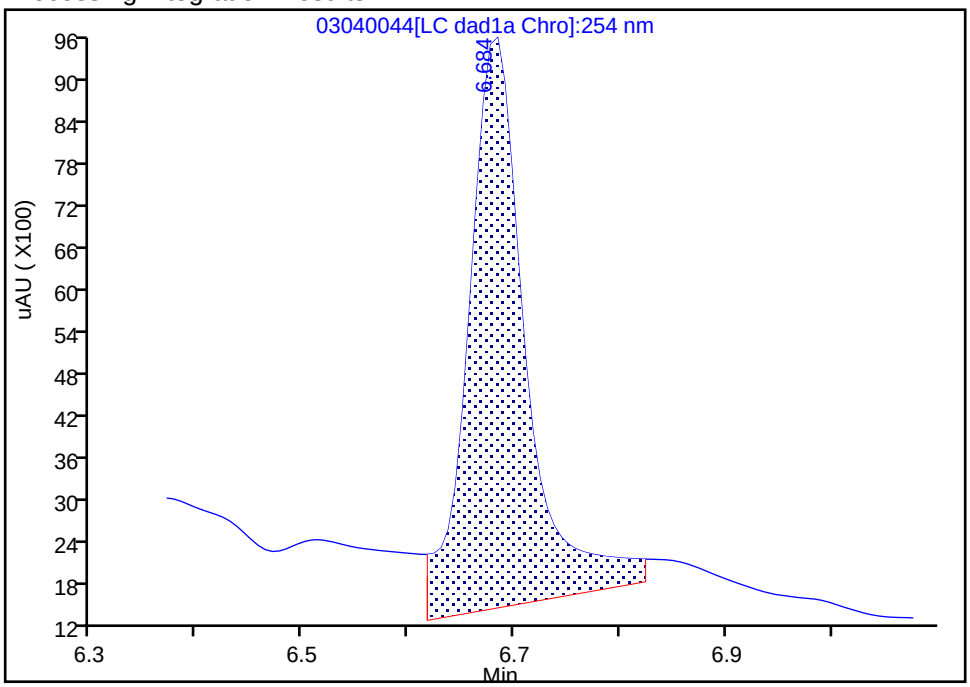
Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040044.d				
Injection Date:	05-Mar-2020 04:16:06	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV INT				
Client ID:					
Operator ID:	CB	ALS Bottle#:	11	Worklist Smp#:	44
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

3 HMX, CAS: 2691-41-0

Signal: 1

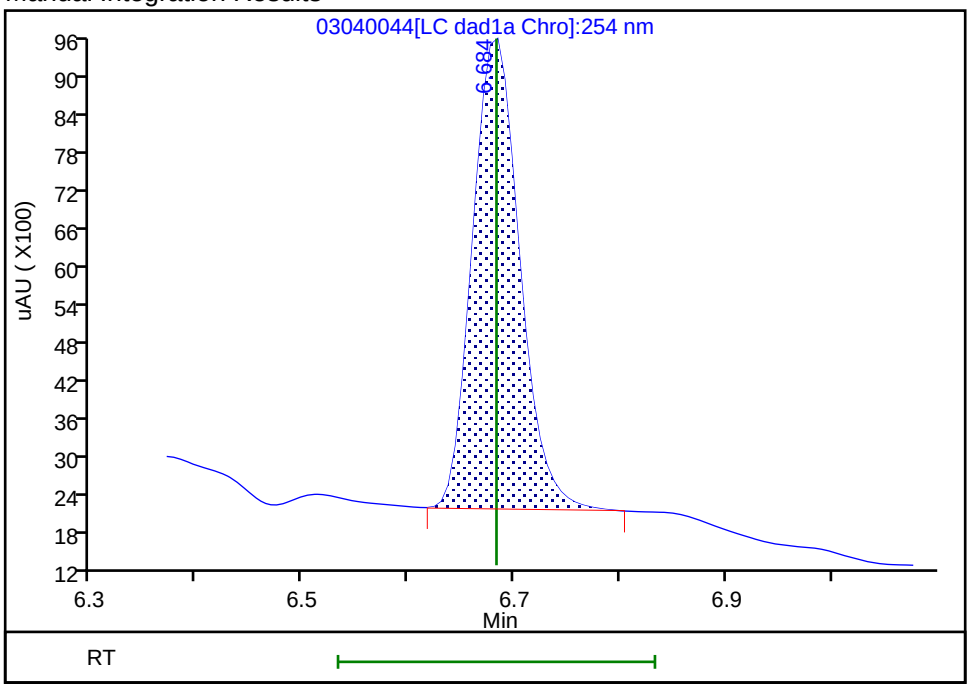
Processing Integration Results

RT: 6.68
Area: 30749
Amount: 0.344806
Amount Units: ug/mL



Manual Integration Results

RT: 6.68
Area: 22898
Amount: 0.256769
Amount Units: ug/mL



Reviewer: beckerc, 06-Mar-2020 08:57:46

Audit Action: Manually Integrated Audit Reason: Baseline

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134141-1

SDG No.:

Lab Sample ID: CCV 280-487659/46 Calibration Date: 03/05/2020 05:02

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: 03040046.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
TNX	Ave	217609	227465		262	250	4.5	15.0
DNX	Ave	152928	164939		270	250	7.9	15.0
MNX	Ave	158544	156305		288	292	-1.4	15.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134141-1

SDG No.:

Lab Sample ID: CCV 280-487659/46 Calibration Date: 03/05/2020 05:02

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: 03040046.D

Analyte	RT	RT WINDOW	
		FROM	TO
TNX	6.59	6.49	6.69
DNX	6.91	6.81	7.01
MNX	7.35	7.21	7.51

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\03040046.D				
Lims ID:	CCV DMT				
Client ID:					
Sample Type:	CCV				
Inject. Date:	05-Mar-2020 05:02:02	ALS Bottle#:	29	Worklist Smp#:	46
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	CCV DMT				
Misc. Info.:	280-0089779-046				
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 10:25:41	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: 06-Mar-2020 09:00:20

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	6.594	-0.006	56923	0.2503	0.2616	M
5 DNX	1	6.914	6.914	0.000	41276	0.2503	0.2699	M
6 MNX	1	7.354	7.361	-0.007	45602	0.2918	0.2876	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

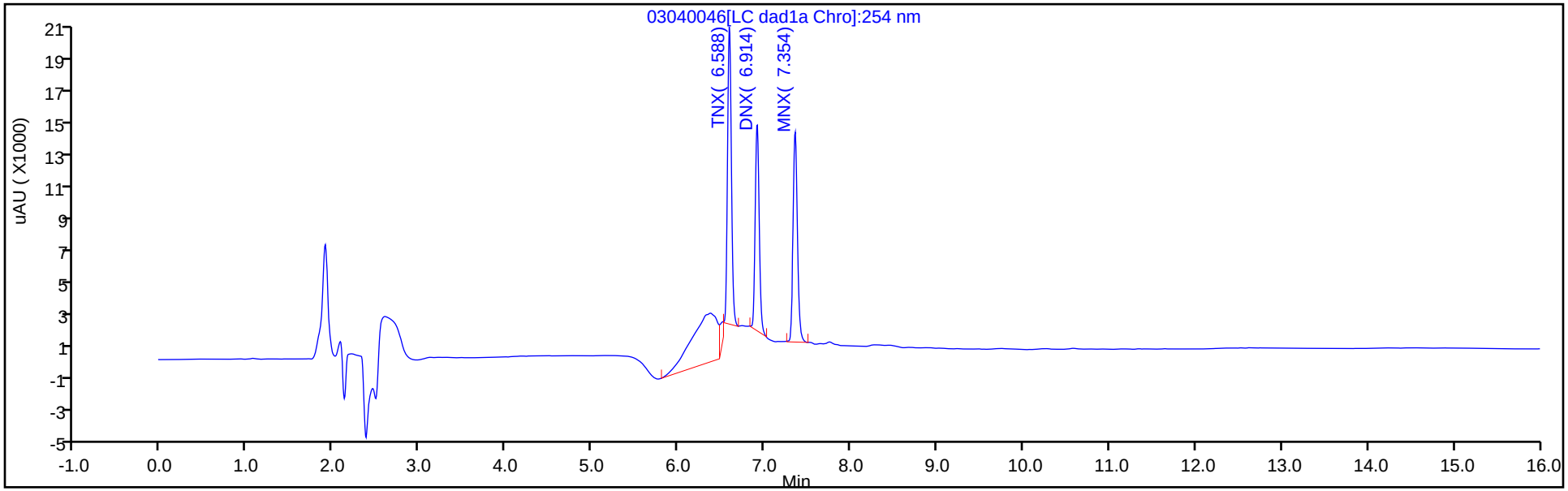
8330 DMT_00005 Amount Added: 12.50 Units: uL

Report Date: 06-Mar-2020 10:25:41 Chrom Revision: 2.3 19-Feb-2020 16:45:46

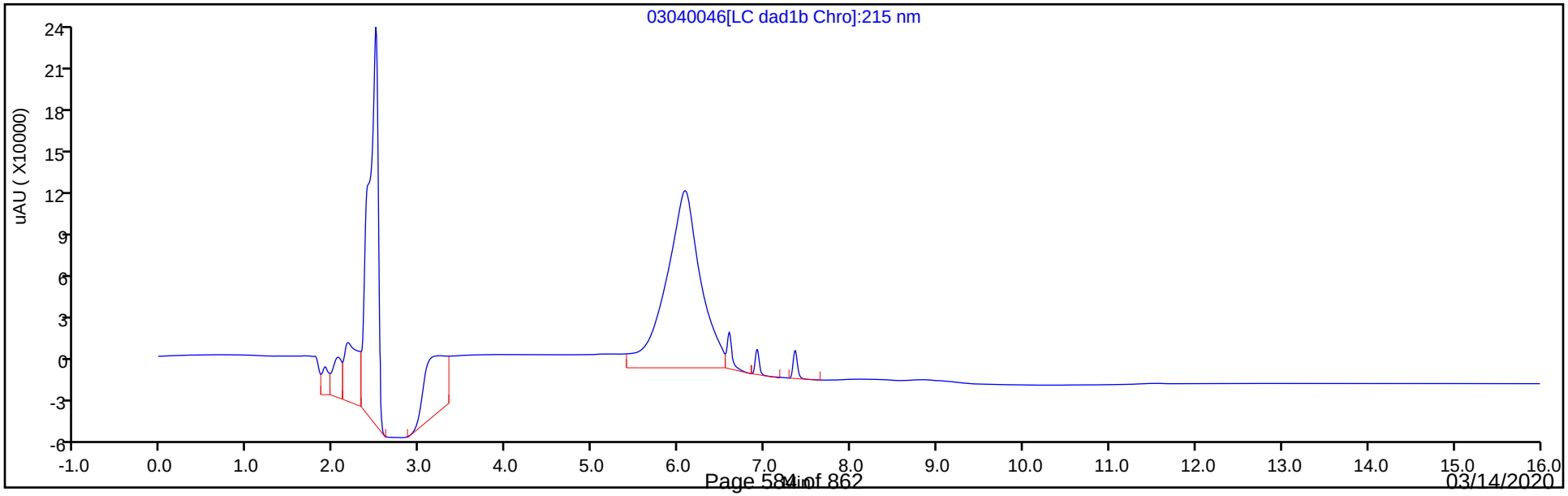
Eurofins TestAmerica, Denver

Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040046.d				
Injection Date:	05-Mar-2020 05:02:02	Instrument ID:	CHHPLC_X3	Operator ID:	CB
Lims ID:	CCV DMT			Worklist Smp#:	46
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

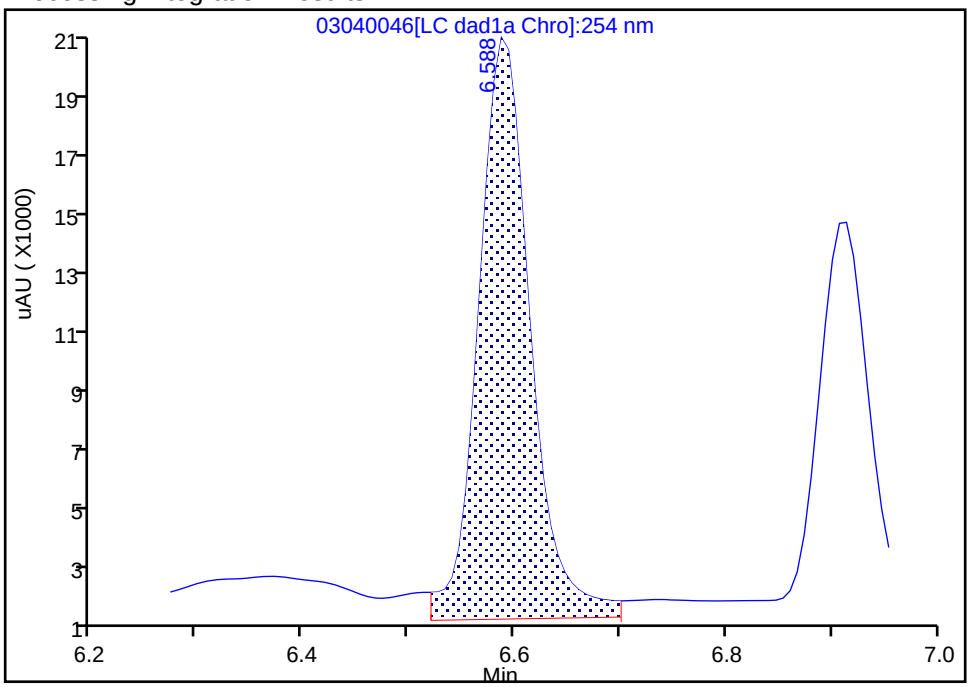
Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040046.d				
Injection Date:	05-Mar-2020 05:02:02	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV DMT				
Client ID:					
Operator ID:	CB	ALS Bottle#:	29	Worklist Smp#:	46
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

2 TNX, CAS: 13980-04-6

Signal: 1

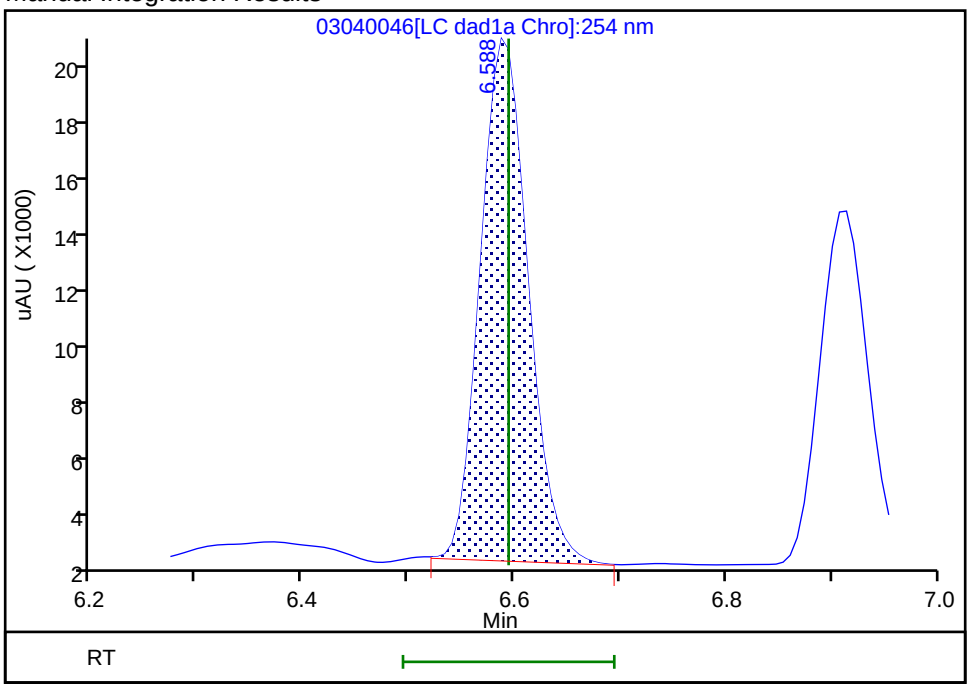
Processing Integration Results

RT: 6.59
Area: 64270
Amount: 0.295347
Amount Units: ug/mL



Manual Integration Results

RT: 6.59
Area: 56923
Amount: 0.261584
Amount Units: ug/mL



Reviewer: beckerc, 06-Mar-2020 09:00:12
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

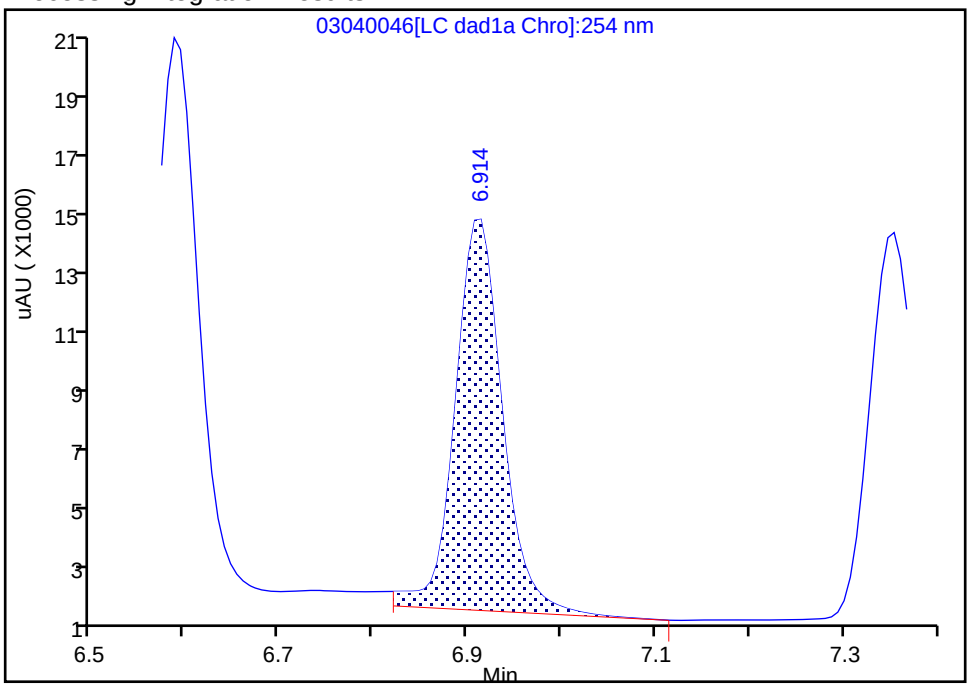
Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040046.d				
Injection Date:	05-Mar-2020 05:02:02	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV DMT				
Client ID:					
Operator ID:	CB	ALS Bottle#:	29	Worklist Smp#:	46
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

5 DNX, CAS: 80251-29-2

Signal: 1

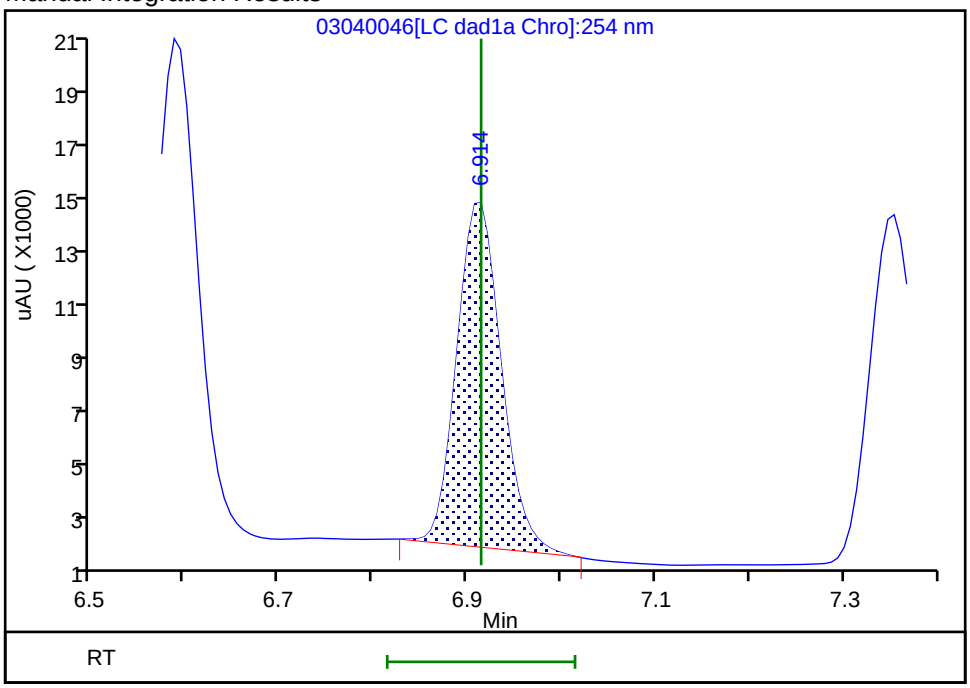
Processing Integration Results

RT: 6.91
Area: 45304
Amount: 0.296243
Amount Units: ug/mL



Manual Integration Results

RT: 6.91
Area: 41276
Amount: 0.269904
Amount Units: ug/mL



Reviewer: beckerc, 06-Mar-2020 09:00:16
Audit Action: Manually Integrated Audit Reason: Baseline

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134141-1

SDG No.:

Lab Sample ID: CCV 280-487659/56 Calibration Date: 03/05/2020 08:51

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: 03040056.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
HMX	Ave	89178	91712		257	250	2.8	15.0
RDX	Ave	117869	114308		242	250	-3.0	15.0
Picric acid	Ave	87247	86992		249	250	-0.3	15.0
1,3,5-Trinitrobenzene	Ave	243459	243090		250	251	-0.2	15.0
1,3-Dinitrobenzene	Ave	324251	327473		253	251	1.0	15.0
Nitrobenzene	Ave	212689	203422		240	251	-4.4	15.0
Tetryl	Ave	193870	191641		248	251	-1.1	15.0
Nitroglycerin	Ave	71797	73853		2570	2500	2.9	15.0
2,4,6-Trinitrotoluene	Ave	220911	220195		250	251	-0.3	15.0
4-Amino-2,6-dinitrotoluene	Ave	173468	172975		250	250	-0.3	15.0
2-Amino-4,6-dinitrotoluene	Ave	217539	217410		251	251	-0.0	15.0
2,6-Dinitrotoluene	Ave	159404	159490		251	251	0.0	15.0
2,4-Dinitrotoluene	Ave	321164	320681		251	251	-0.2	15.0
2-Nitrotoluene	Ave	143838	131452		228	250	-8.6	15.0
4-Nitrotoluene	Ave	120299	113988		237	251	-5.2	15.0
3-Nitrotoluene	Ave	154244	145411		236	250	-5.7	15.0
PETN	Ave	79456	81562		2570	2500	2.7	15.0
1,2-Dinitrobenzene	Ave	146215	145120		248	250	-0.7	15.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134141-1

SDG No.:

Lab Sample ID: CCV 280-487659/56 Calibration Date: 03/05/2020 08:51

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: 03040056.D

Analyte	RT	RT WINDOW	
		FROM	TO
HMX	6.68	6.53	6.83
RDX	7.76	7.60	7.90
Picric acid	8.08	7.91	8.21
1,3,5-Trinitrobenzene	8.88	8.73	9.03
1,3-Dinitrobenzene	9.54	9.38	9.68
Nitrobenzene	9.92	9.77	10.07
Tetryl	10.22	10.07	10.37
Nitroglycerin	10.74	10.58	10.88
2,4,6-Trinitrotoluene	11.20	11.08	11.28
4-Amino-2,6-dinitrotoluene	11.35	11.24	11.44
2-Amino-4,6-dinitrotoluene	11.64	11.52	11.72
2,6-Dinitrotoluene	11.80	11.69	11.89
2,4-Dinitrotoluene	12.00	11.88	12.08
2-Nitrotoluene	12.84	12.68	12.98
4-Nitrotoluene	13.28	13.12	13.42
3-Nitrotoluene	13.88	13.71	14.01
PETN	14.98	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\03040056.D				
Lims ID:	CCV INT				
Client ID:					
Sample Type:	CCV				
Inject. Date:	05-Mar-2020 08:51:40	ALS Bottle#:	11	Worklist Smp#:	56
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	CCV INT				
Misc. Info.:	280-0089779-056				
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 10:25:52	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: 06-Mar-2020 09:36:13

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 HMX	1	6.684	6.683	0.001	22928	0.2500	0.2571	M
7 RDX	1	7.757	7.750	0.007	28577	0.2500	0.2424	
8 2,4,6-Trinitrophenol	1	8.077	8.056	0.021	21748	0.2500	0.2493	
$ 9 1,2-Dinitrobenzene	1	8.710	8.710	0.000	36280	0.2500	0.2481	
10 1,3,5-Trinitrobenzene	1	8.884	8.883	0.001	60894	0.2505	0.2501	
11 1,3-Dinitrobenzene	1	9.537	9.529	0.008	82032	0.2505	0.2530	
12 Nitrobenzene	1	9.923	9.916	0.007	51059	0.2510	0.2401	
14 Tetryl	1	10.223	10.216	0.007	48006	0.2505	0.2476	
15 Nitroglycerin	2	10.737	10.729	0.008	184633	2.50	2.57	
16 2,4,6-Trinitrotoluene	1	11.197	11.183	0.014	55269	0.2510	0.2502	
17 4-Amino-2,6-dinitrotoluene	1	11.350	11.336	0.014	43287	0.2503	0.2495	
18 2-Amino-4,6-dinitrotoluene	1	11.637	11.623	0.014	54570	0.2510	0.2509	
19 2,6-Dinitrotoluene	1	11.803	11.789	0.014	40032	0.2510	0.2511	
20 2,4-Dinitrotoluene	1	11.997	11.983	0.014	80491	0.2510	0.2506	
21 o-Nitrotoluene	1	12.843	12.829	0.014	32863	0.2500	0.2285	
22 p-Nitrotoluene	1	13.277	13.269	0.008	28554	0.2505	0.2374	
23 m-Nitrotoluene	1	13.877	13.863	0.014	36389	0.2503	0.2359	
24 PETN	2	14.977	14.969	0.008	203904	2.50	2.57	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

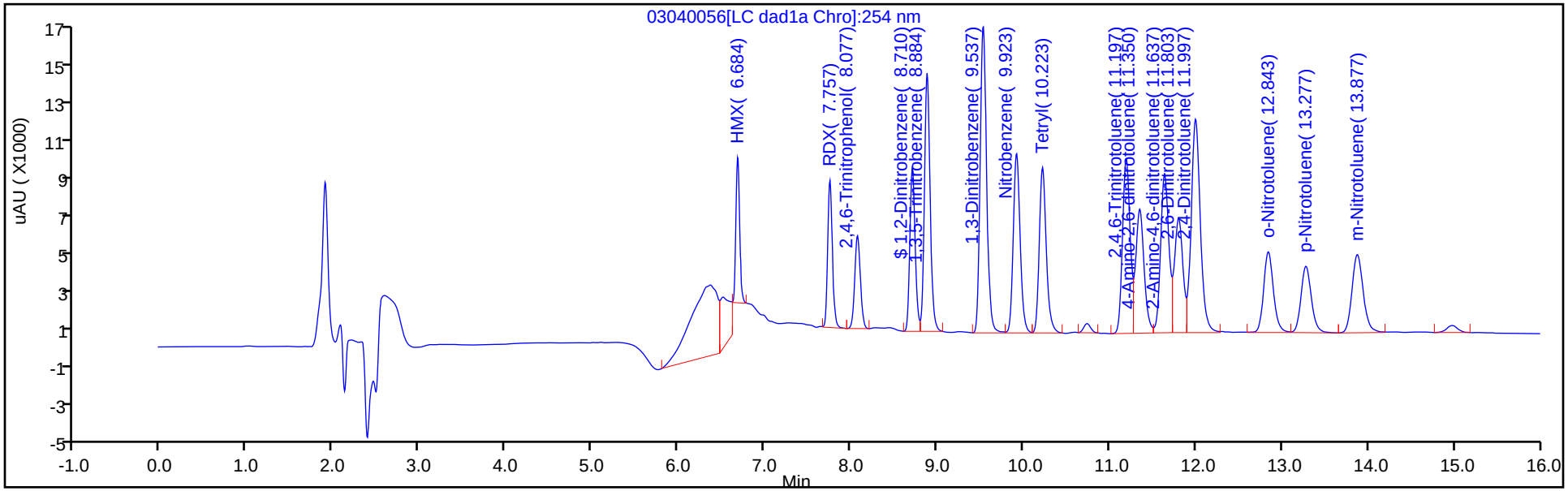
8330IntermStk_00061 Amount Added: 25.00 Units: uL

Report Date: 06-Mar-2020 10:25:52 Chrom Revision: 2.3 19-Feb-2020 16:45:46

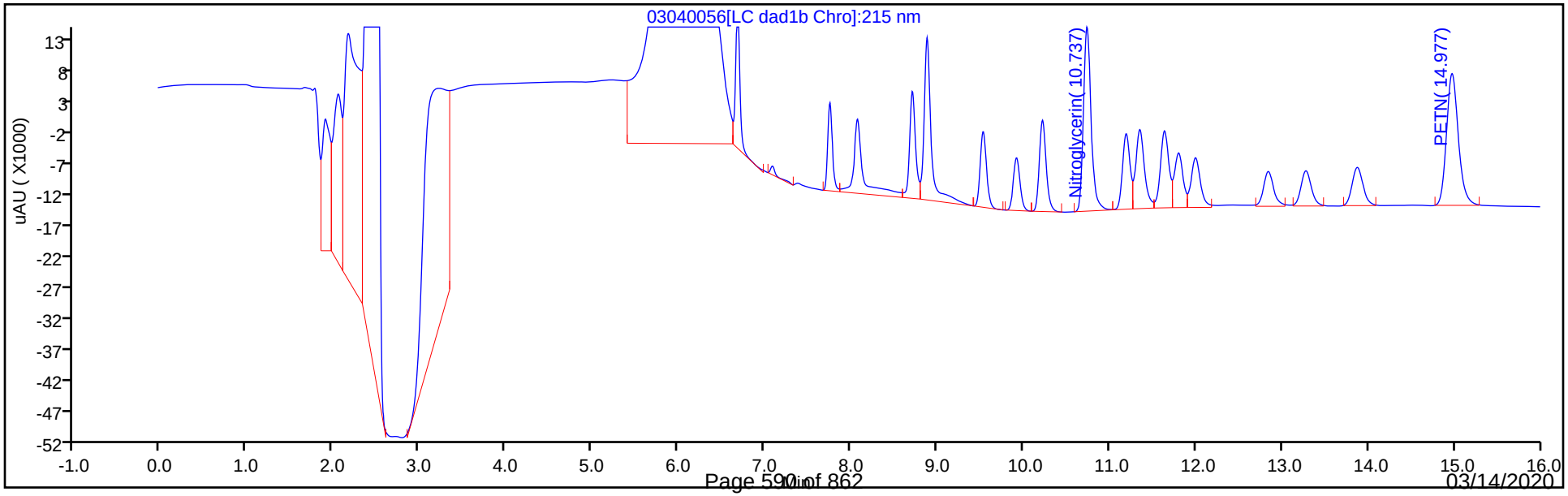
Eurofins TestAmerica, Denver

Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040056.d				
Injection Date:	05-Mar-2020 08:51:40	Instrument ID:	CHHPLC_X3	Operator ID:	CB
Lims ID:	CCV INT			Worklist Smp#:	56
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

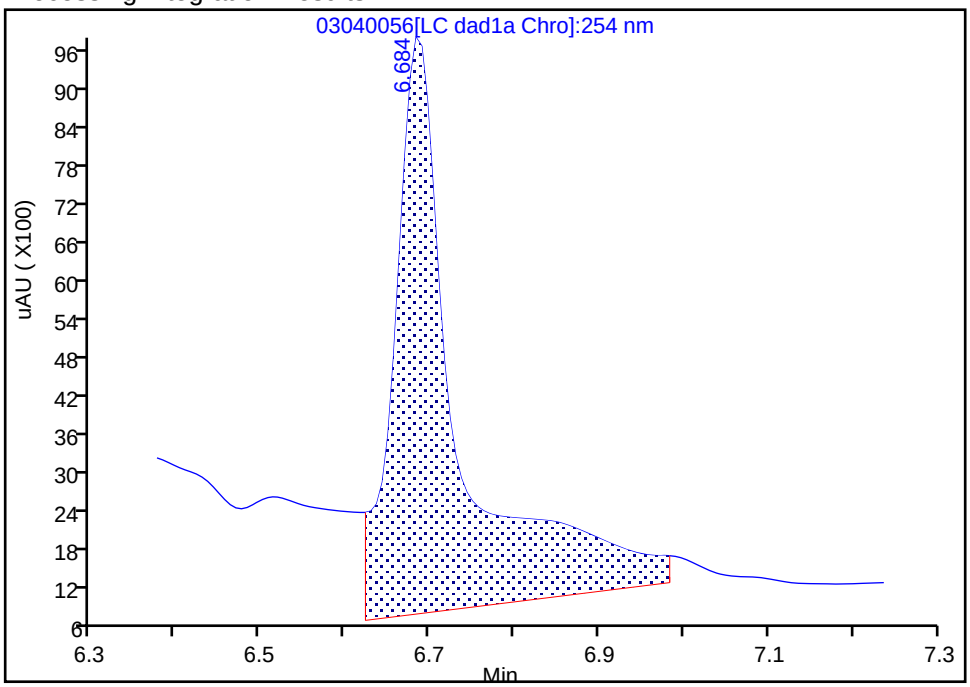
Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040056.d				
Injection Date:	05-Mar-2020 08:51:40	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV INT				
Client ID:					
Operator ID:	CB	ALS Bottle#:	11	Worklist Smp#:	56
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

3 HMX, CAS: 2691-41-0

Signal: 1

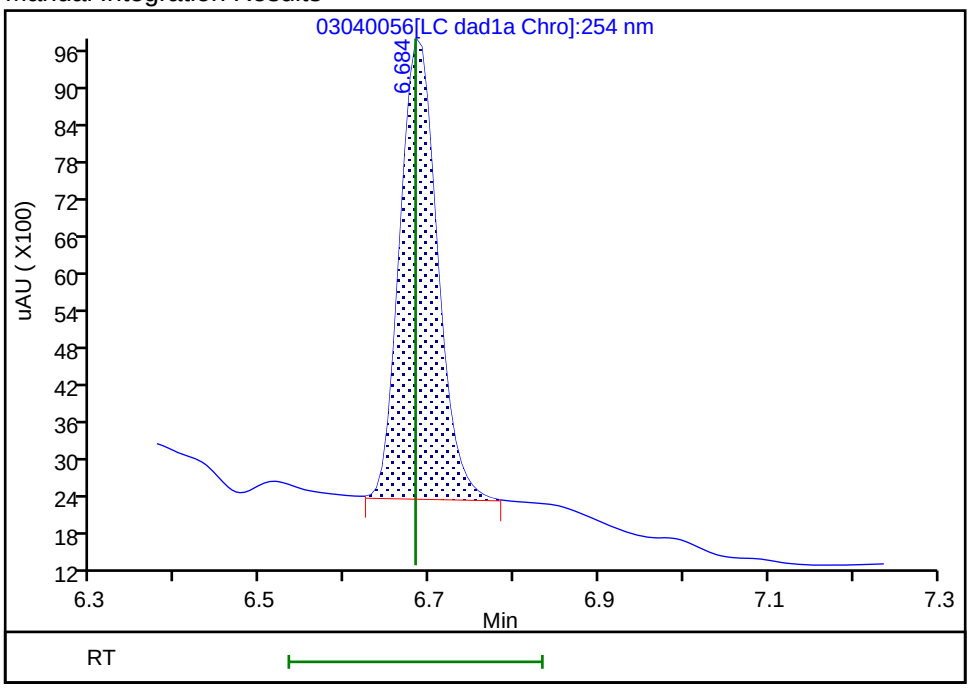
Processing Integration Results

RT: 6.68
Area: 48181
Amount: 0.540282
Amount Units: ug/mL



Manual Integration Results

RT: 6.68
Area: 22928
Amount: 0.257105
Amount Units: ug/mL



Reviewer: beckerc, 06-Mar-2020 09:36:09

Audit Action: Manually Integrated Audit Reason: Baseline

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134141-1

SDG No.:

Lab Sample ID: CCV 280-487659/58 Calibration Date: 03/05/2020 09:37

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: 03040058.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
TNX	Ave	217609	223213		257	250	2.6	15.0
DNX	Ave	152928	165491		271	250	8.2	15.0
MNX	Ave	158544	155578		286	292	-1.9	15.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134141-1

SDG No.:

Lab Sample ID: CCV 280-487659/58 Calibration Date: 03/05/2020 09:37

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: 03040058.D

Analyte	RT	RT WINDOW	
		FROM	TO
TNX	6.59	6.49	6.69
DNX	6.92	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\03040058.D				
Lims ID:	CCV DMT				
Client ID:					
Sample Type:	CCV				
Inject. Date:	05-Mar-2020 09:37:37	ALS Bottle#:	29	Worklist Smp#:	58
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	CCV DMT				
Misc. Info.:	280-0089779-058				
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 10:25:55	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: 06-Mar-2020 09:38:51

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	6.594	-0.004	55859	0.2503	0.2567	M
5 DNX	1	6.916	6.914	0.002	41414	0.2503	0.2708	M
6 MNX	1	7.356	7.361	-0.005	45390	0.2918	0.2863	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

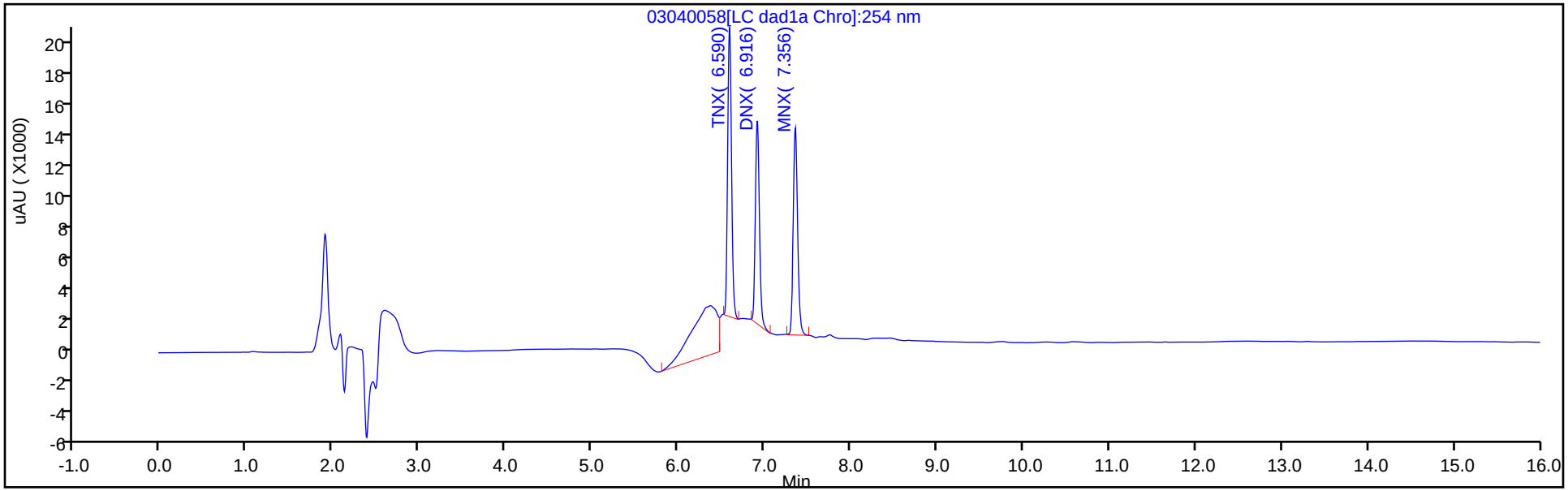
8330 DMT_00005 Amount Added: 12.50 Units: uL

Report Date: 06-Mar-2020 10:25:55 Chrom Revision: 2.3 19-Feb-2020 16:45:46

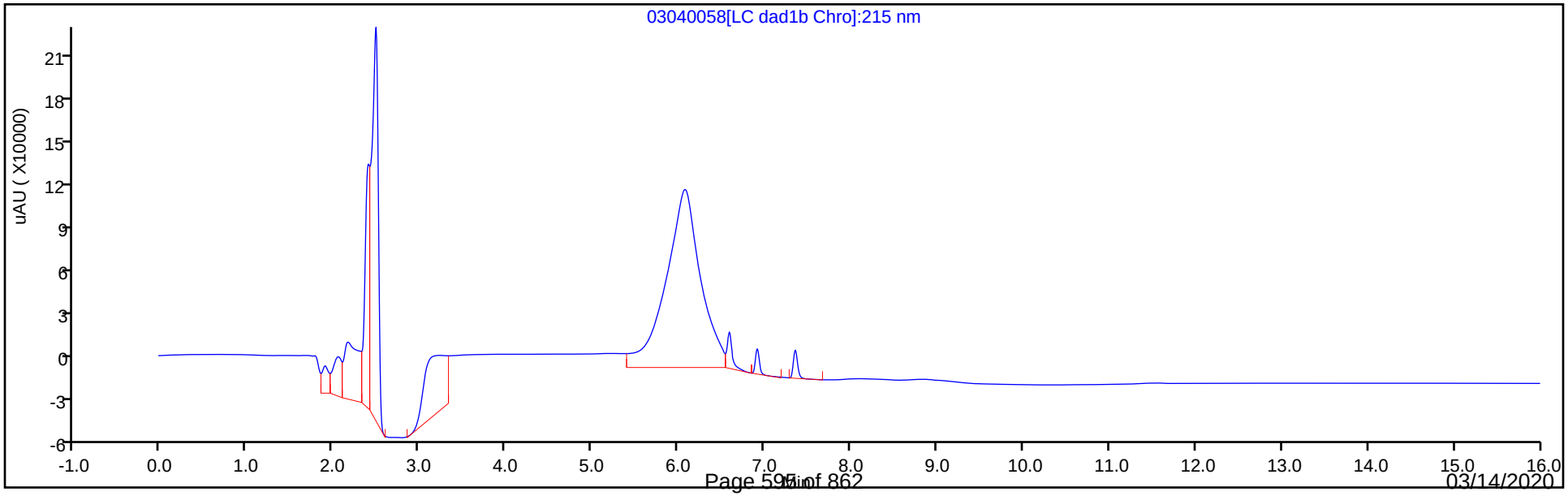
Eurofins TestAmerica, Denver

Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040058.d				
Injection Date:	05-Mar-2020 09:37:37	Instrument ID:	CHHPLC_X3	Operator ID:	CB
Lims ID:	CCV DMT			Worklist Smp#:	58
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

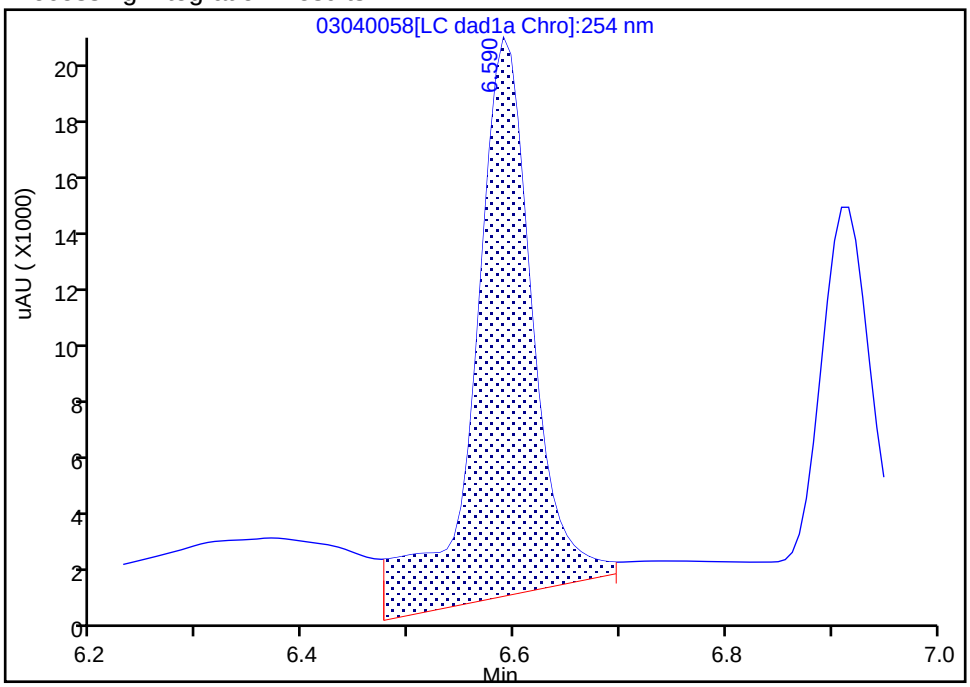
Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040058.d				
Injection Date:	05-Mar-2020 09:37:37	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV DMT				
Client ID:					
Operator ID:	CB	ALS Bottle#:	29	Worklist Smp#:	58
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

2 TNX, CAS: 13980-04-6

Signal: 1

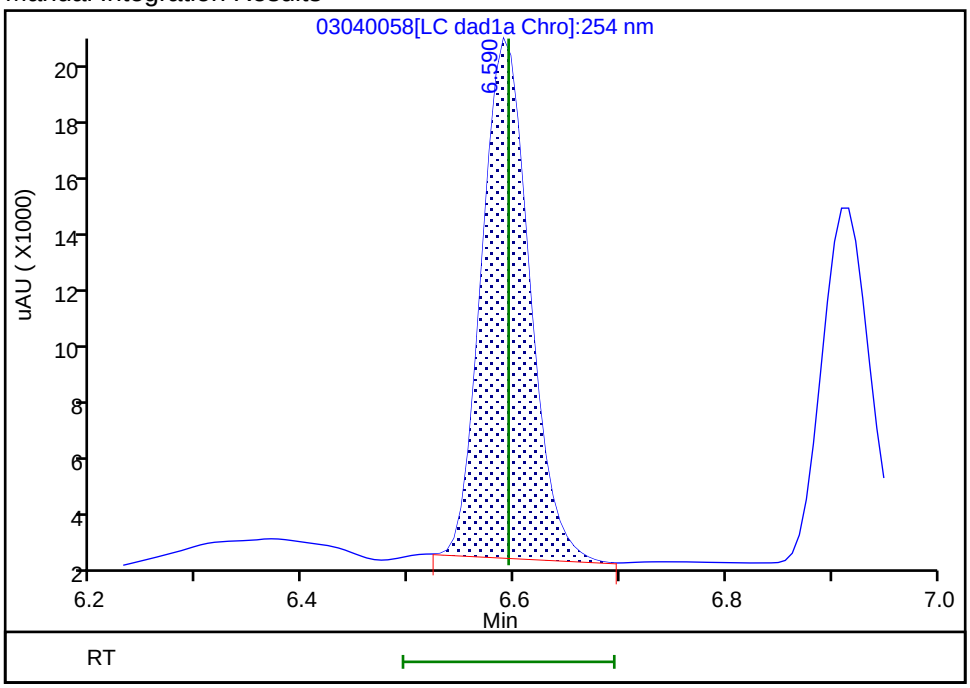
Processing Integration Results

RT: 6.59
Area: 73589
Amount: 0.338171
Amount Units: ug/mL



Manual Integration Results

RT: 6.59
Area: 55859
Amount: 0.256695
Amount Units: ug/mL



Reviewer: beckerc, 06-Mar-2020 09:38:45
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

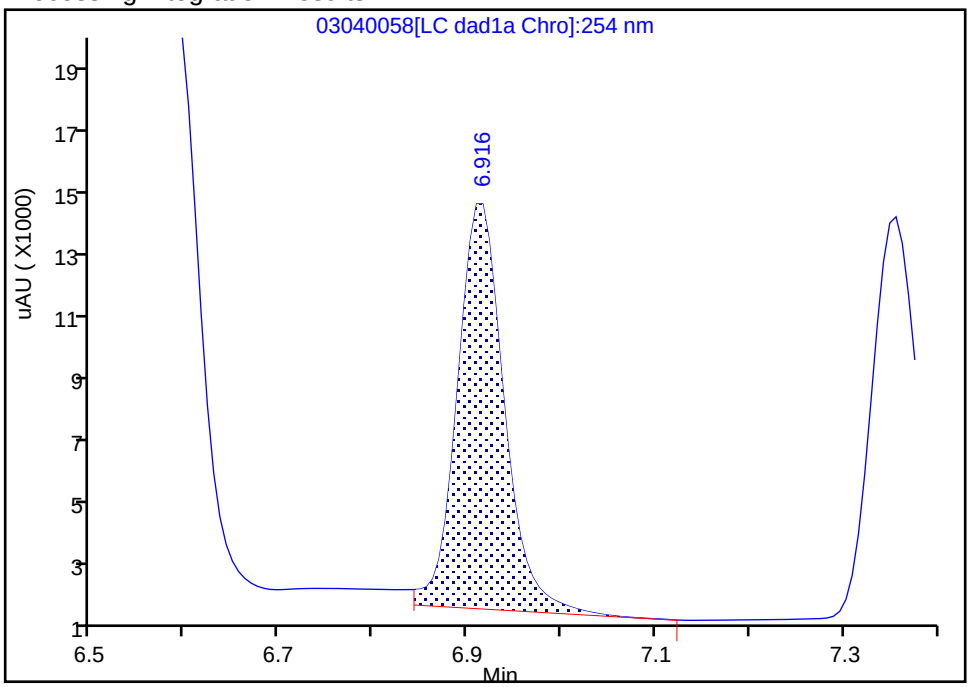
Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040058.d				
Injection Date:	05-Mar-2020 09:37:37	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV DMT				
Client ID:					
Operator ID:	CB	ALS Bottle#:	29	Worklist Smp#:	58
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

5 DNX, CAS: 80251-29-2

Signal: 1

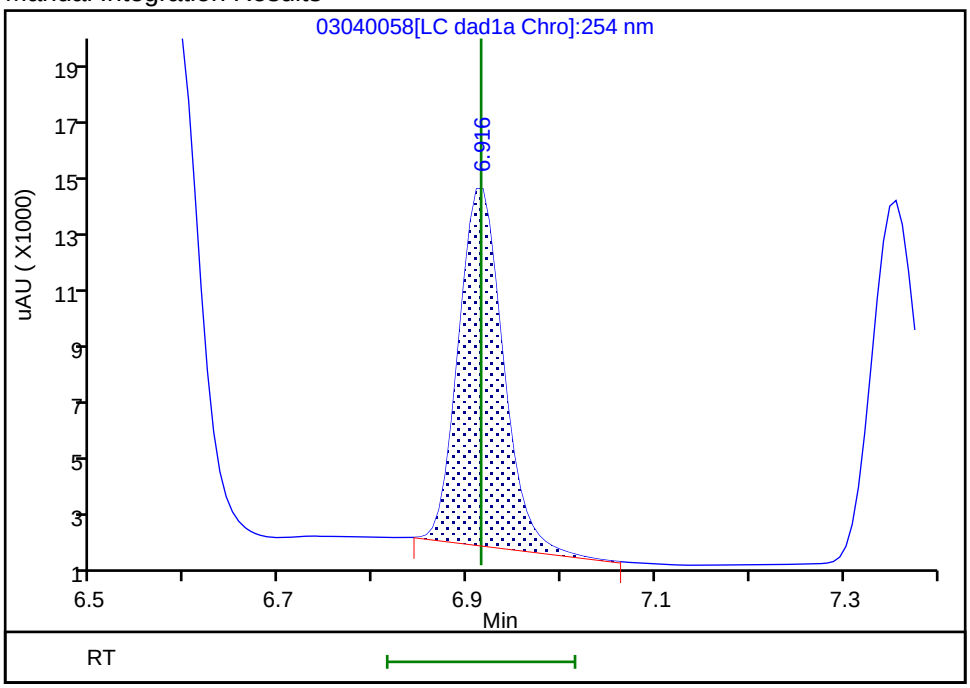
Processing Integration Results

RT: 6.92
Area: 44384
Amount: 0.290227
Amount Units: ug/mL



Manual Integration Results

RT: 6.92
Area: 41414
Amount: 0.270807
Amount Units: ug/mL



Reviewer: beckerc, 06-Mar-2020 09:38:48

Audit Action: Manually Integrated Audit Reason: Baseline

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-134141-1
SDG No.:
Client Sample ID:
Lab Sample ID: MB 280-487356/1-A
Matrix: Water
Lab File ID: 03040034.D
Analysis Method: 8330A
Date Collected:
Extraction Method: 3535
Date Extracted: 03/02/2020 13:40
Sample wt/vol: 500(mL)
Date Analyzed: 03/05/2020 00:26
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.: 487659
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	0.40	U	1.0	0.40	0.20
99-65-0	1,3-Dinitrobenzene	0.20	U	0.40	0.20	0.089
118-96-7	2,4,6-Trinitrotoluene	0.40	U	0.40	0.40	0.16
121-14-2	2,4-Dinitrotoluene	0.20	U	0.40	0.20	0.084
606-20-2	2,6-Dinitrotoluene	0.20	U	0.20	0.20	0.065
35572-78-2	2-Amino-4,6-dinitrotoluene	0.12	U	0.20	0.12	0.051
88-72-2	2-Nitrotoluene	0.20	U	0.40	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	0.20	0.12	0.058
99-99-0	4-Nitrotoluene	0.40	U	1.0	0.40	0.20
2691-41-0	HMX	0.20	U	0.40	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	0.40	0.20	0.091
121-82-4	RDX	0.40	U	0.40	0.40	0.16
479-45-8	Tetryl	0.20	U	0.24	0.20	0.079

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	92		83-119

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\03040034.D
Lims ID: MB 280-487356/1-A
Client ID:
Sample Type: MB
Inject. Date: 05-Mar-2020 00:26:45 ALS Bottle#: 34 Worklist Smp#: 34
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: MB 280-487356/1-
Misc. Info.: 280-0089779-034
Operator ID: CB Instrument ID: CHHPLC_X3

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: 06-Mar-2020 08:50:24

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		6.548				ND	U
2 TNX	1		6.594				ND	
3 HMX	1		6.683				ND	
4 2,4-diamino-6-nitrotoluene	1		6.735				ND	
5 DNX	1		6.914				ND	U
6 MNX	1		7.361				ND	U
7 RDX	1		7.750				ND	
8 2,4,6-Trinitrophenol	1		8.056				ND	
$ 9 1,2-Dinitrobenzene	1	8.714	8.710	0.004	26794	0.2000	0.1833	
10 1,3,5-Trinitrobenzene	1		8.883				ND	
11 1,3-Dinitrobenzene	1		9.529				ND	
12 Nitrobenzene	1		9.916				ND	
13 3,5-Dinitroaniline	1		10.142				ND	
14 Tetryl	1		10.216				ND	
15 Nitroglycerin	2		10.729				ND	
16 2,4,6-Trinitrotoluene	1		11.183				ND	
17 4-Amino-2,6-dinitrotoluene	1		11.336				ND	
18 2-Amino-4,6-dinitrotoluene	1		11.623				ND	
19 2,6-Dinitrotoluene	1		11.789				ND	
20 2,4-Dinitrotoluene	1		11.983				ND	
21 o-Nitrotoluene	1		12.829				ND	
22 p-Nitrotoluene	1		13.269				ND	
23 m-Nitrotoluene	1		13.863				ND	
24 PETN	2		14.969				ND	
25 Ammonium Picrate	1		0.000				ND	

QC Flag Legend

Review Flags

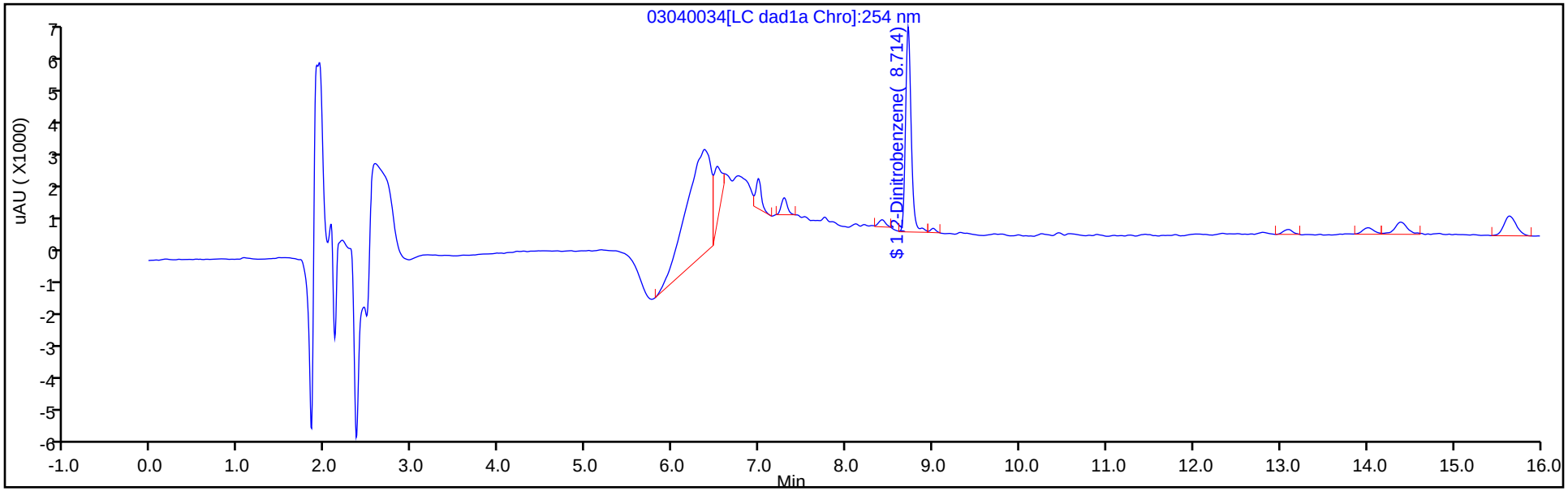
U - Marked Undetected

Report Date: 06-Mar-2020 10:25:30 Chrom Revision: 2.3 19-Feb-2020 16:45:46

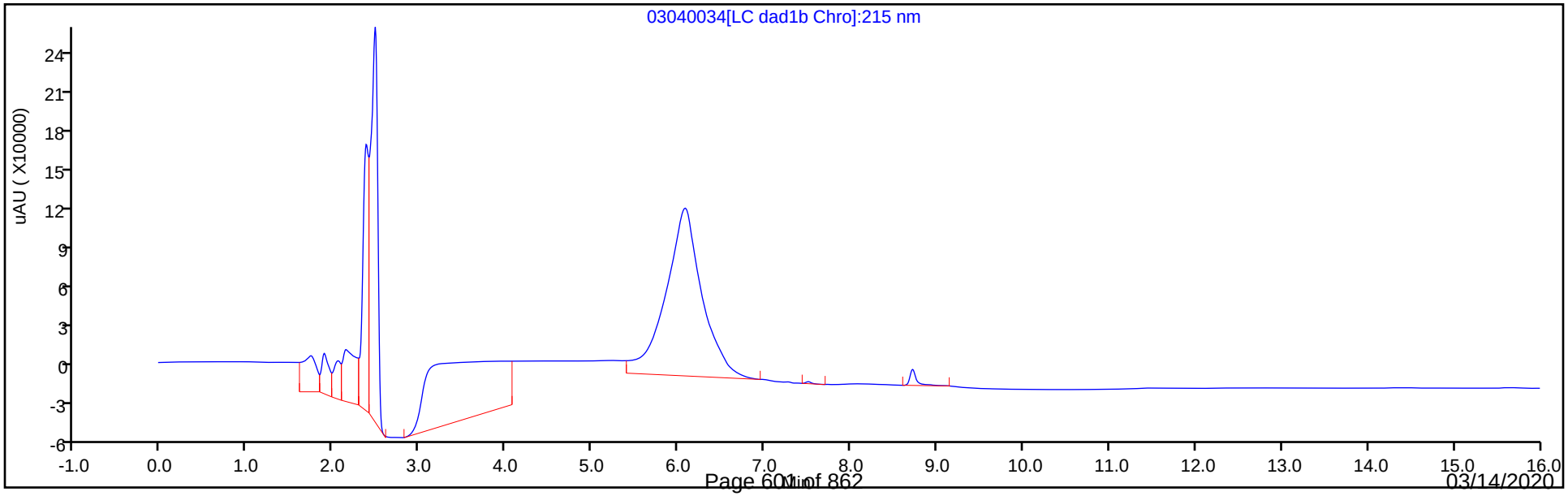
Eurofins TestAmerica, Denver

Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040034.d				
Injection Date:	05-Mar-2020 00:26:45	Instrument ID:	CHHPLC_X3	Operator ID:	CB
Lims ID:	MB 280-487356/1-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:	\\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\03040034.D				
Lims ID:	MB 280-487356/1-A				
Client ID:					
Sample Type:	MB				
Inject. Date:	05-Mar-2020 00:26:45	ALS Bottle#:	34	Worklist Smp#:	34
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	MB 280-487356/1-				
Misc. Info.:	280-0089779-034				
Operator ID:	CB	Instrument ID:	CHHPLC_X3		
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: 06-Mar-2020 08:50:24

Compound	Amount Added	Amount Recovered	% Rec.
$ 9 1,2-Dinitrobenzene	0.2000	0.1833	91.63

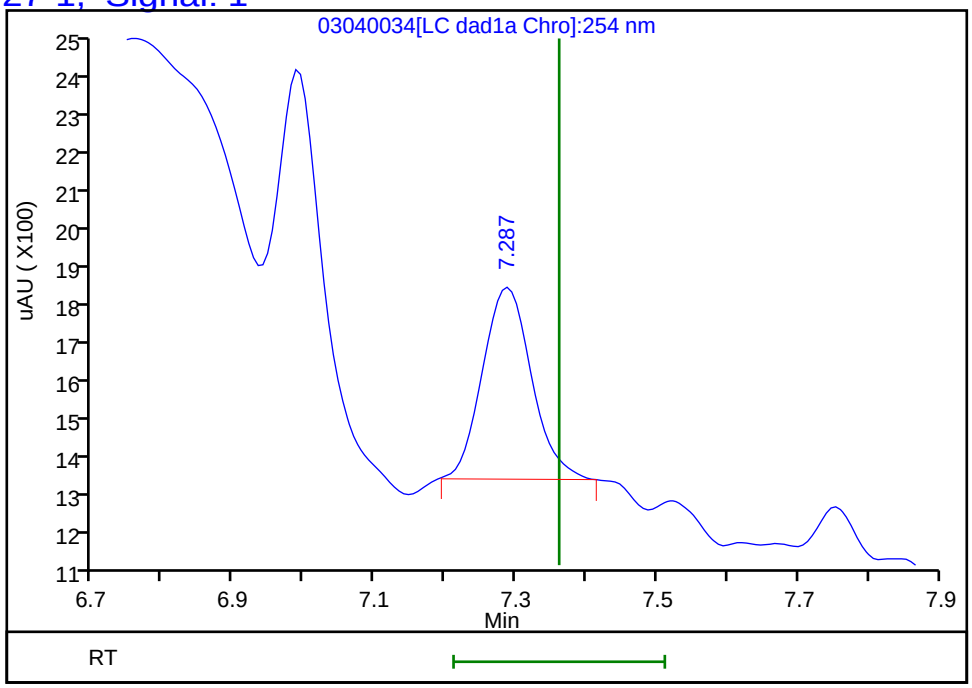
User Disabled Compound Report

Eurofins TestAmerica, Denver

Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040034.d				
Injection Date:	05-Mar-2020 00:26:45	Instrument ID:	CHHPLC_X3		
Lims ID:	MB 280-487356/1-A				
Client ID:					
Operator ID:	CB	ALS Bottle#:	34	Worklist Smp#:	34
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

6 MNX, CAS: 5755-27-1, Signal: 1

RT: 7.29
Response: 2360
Amount: 0.014885



Reviewer: beckerc, 06-Mar-2020 08:55:32
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.: 280-134141-1
SDG No.:
Client Sample ID:
Lab Sample ID: LCS 280-487356/2-A
Matrix: Water
Lab File ID: 03040035.D
Analysis Method: 8330A
Date Collected:
Extraction Method: 3535
Date Extracted: 03/02/2020 13:40
Sample wt/vol: 500(mL)
Date Analyzed: 03/05/2020 00:49
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.: 487659
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	2.06		1.0	0.40	0.20
99-65-0	1,3-Dinitrobenzene	1.95		0.40	0.20	0.089
118-96-7	2,4,6-Trinitrotoluene	1.95		0.40	0.40	0.16
121-14-2	2,4-Dinitrotoluene	1.88		0.40	0.20	0.084
606-20-2	2,6-Dinitrotoluene	1.95		0.20	0.20	0.065
35572-78-2	2-Amino-4,6-dinitrotoluene	1.80		0.20	0.12	0.051
88-72-2	2-Nitrotoluene	1.41	M	0.40	0.20	0.086
99-08-1	3-Nitrotoluene	1.56		0.40	0.40	0.20
19406-51-0	4-Amino-2,6-dinitrotoluene	1.72		0.20	0.12	0.058
99-99-0	4-Nitrotoluene	1.58	M	1.0	0.40	0.20
2691-41-0	HMX	1.98	M	0.40	0.20	0.088
98-95-3	Nitrobenzene	1.55		0.40	0.20	0.091
121-82-4	RDX	1.94		0.40	0.40	0.16
479-45-8	Tetryl	1.82		0.24	0.20	0.079

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	94		83-119

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\03040035.D				
Lims ID:	LCS 280-487356/2-A				
Client ID:					
Sample Type:	LCS				
Inject. Date:	05-Mar-2020 00:49:40	ALS Bottle#:	35	Worklist Smp#:	35
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	LCS 280-487356/2				
Misc. Info.:	280-0089779-035				
Operator ID:	CB	Instrument ID:	CHHPLC_X3		
Method:	\\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	06-Mar-2020 10:47:16	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: 06-Mar-2020 10:46:34

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	17626	0.2000	0.1977	M
7 RDX	1	7.759	7.750	0.009	22869	0.2000	0.1940	
8 2,4,6-Trinitrophenol	1	8.065	8.056	0.009	17566	0.2000	0.2013	
$ 9 1,2-Dinitrobenzene	1	8.712	8.710	0.002	27555	0.2000	0.1885	
10 1,3,5-Trinitrobenzene	1	8.885	8.883	0.002	50077	0.2000	0.2057	
11 1,3-Dinitrobenzene	1	9.532	9.529	0.003	63339	0.2000	0.1953	
12 Nitrobenzene	1	9.918	9.916	0.002	32864	0.2000	0.1545	
14 Tetryl	1	10.225	10.216	0.009	35219	0.2000	0.1817	
15 Nitroglycerin	2	10.738	10.729	0.009	138552	2.00	1.93	
16 2,4,6-Trinitrotoluene	1	11.192	11.183	0.009	43148	0.2000	0.1953	
17 4-Amino-2,6-dinitrotoluene	1	11.345	11.336	0.009	29914	0.2000	0.1724	
18 2-Amino-4,6-dinitrotoluene	1	11.632	11.623	0.009	39084	0.2000	0.1797	
19 2,6-Dinitrotoluene	1	11.798	11.789	0.009	31005	0.2000	0.1945	
20 2,4-Dinitrotoluene	1	11.992	11.983	0.009	60340	0.2000	0.1879	
21 o-Nitrotoluene	1	12.832	12.829	0.003	20301	0.2000	0.1411	M
22 p-Nitrotoluene	1	13.272	13.269	0.003	19006	0.2000	0.1580	M
23 m-Nitrotoluene	1	13.872	13.863	0.009	24089	0.2000	0.1562	
24 PETN	2	14.972	14.969	0.003	157040	2.00	1.98	

QC Flag Legend

Review Flags

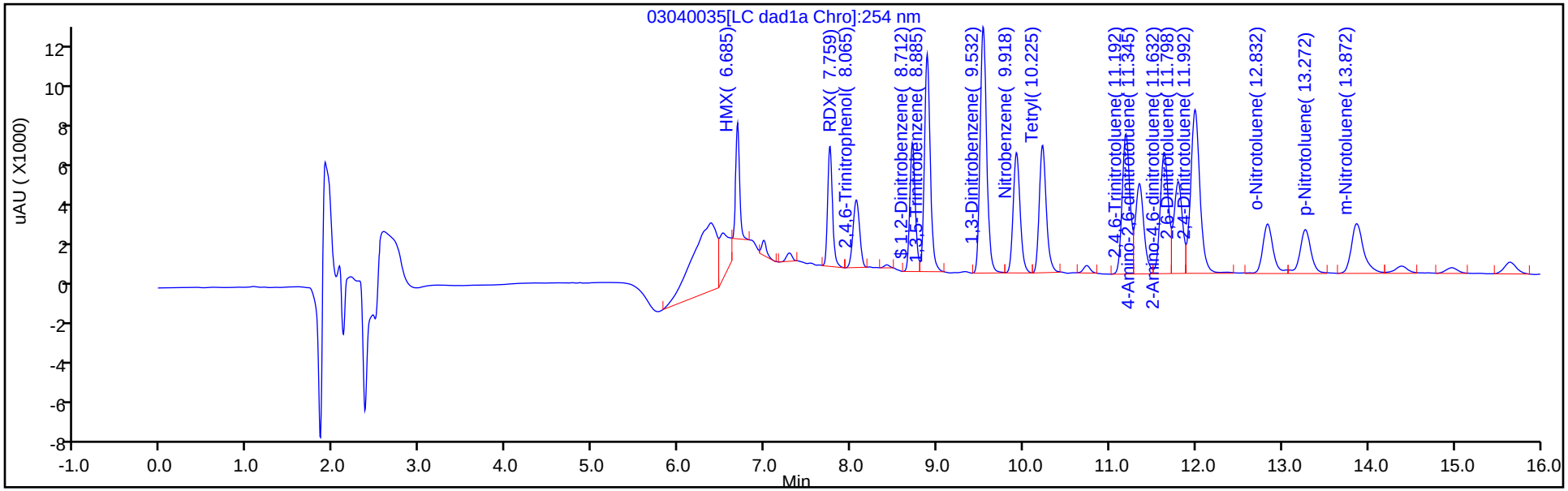
M - Manually Integrated

Report Date: 06-Mar-2020 10:47:32 Chrom Revision: 2.3 19-Feb-2020 16:45:46

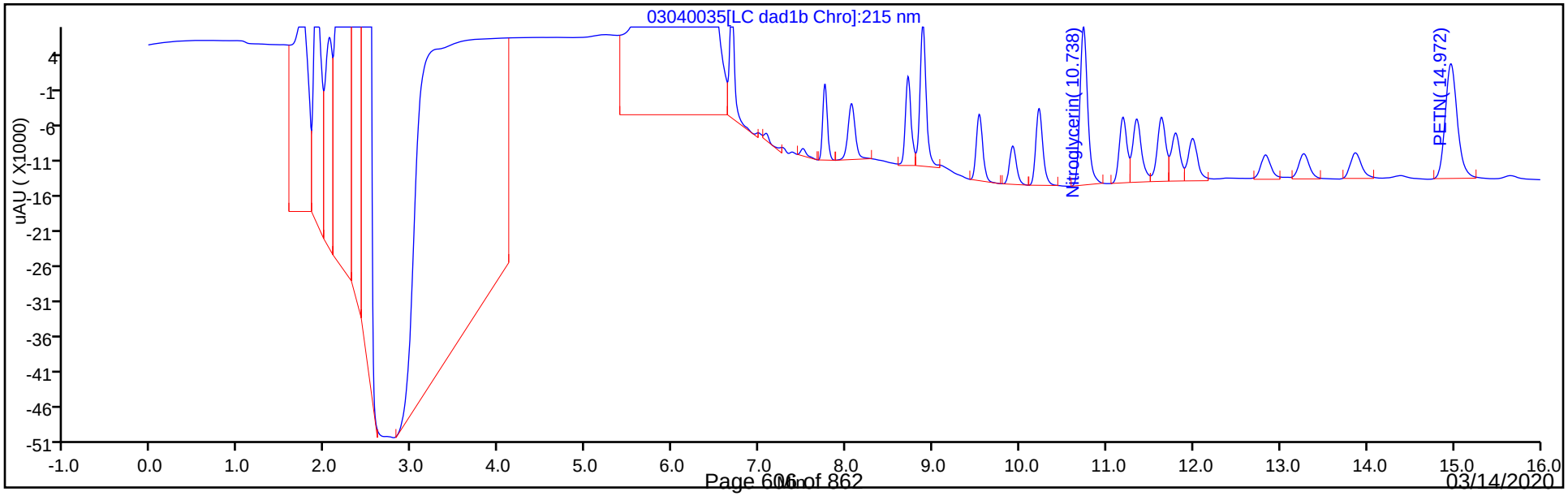
Eurofins TestAmerica, Denver

Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040035.d				
Injection Date:	05-Mar-2020 00:49:40	Instrument ID:	CHHPLC_X3	Operator ID:	CB
Lims ID:	LCS 280-487356/2-A			Worklist Smp#:	35
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	35
Method:	8330_X3	Limit Group:	GCSV - 8330		

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



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



Eurofins TestAmerica, Denver
Recovery Report

Data File:	\\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\03040035.D				
Lims ID:	LCS 280-487356/2-A				
Client ID:					
Sample Type:	LCS				
Inject. Date:	05-Mar-2020 00:49:40	ALS Bottle#:	35	Worklist Smp#:	35
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	LCS 280-487356/2				
Misc. Info.:	280-0089779-035				
Operator ID:	CB	Instrument ID:	CHHPLC_X3		
Method:	\\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	06-Mar-2020 10:47:16	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: 06-Mar-2020 10:46:34

Compound	Amount Added	Amount Recovered	% Rec.
$ 9 1,2-Dinitrobenzene	0.2000	0.1885	94.23

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

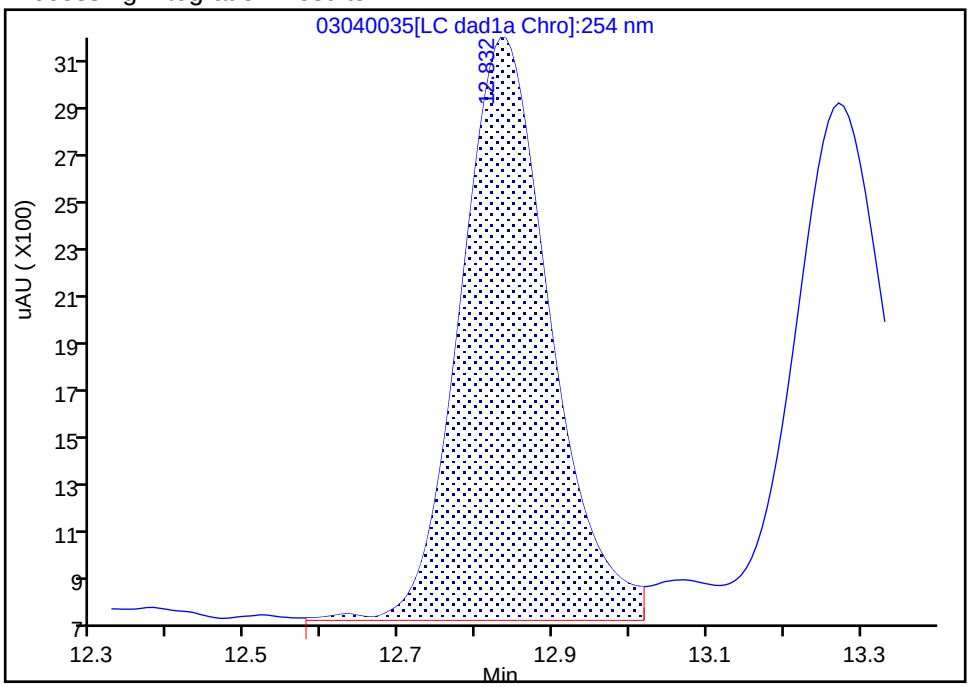
Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040035.d				
Injection Date:	05-Mar-2020 00:49:40	Instrument ID:	CHHPLC_X3		
Lims ID:	LCS 280-487356/2-A				
Client ID:					
Operator ID:	CB	ALS Bottle#:	35	Worklist Smp#:	35
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

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

Signal: 1

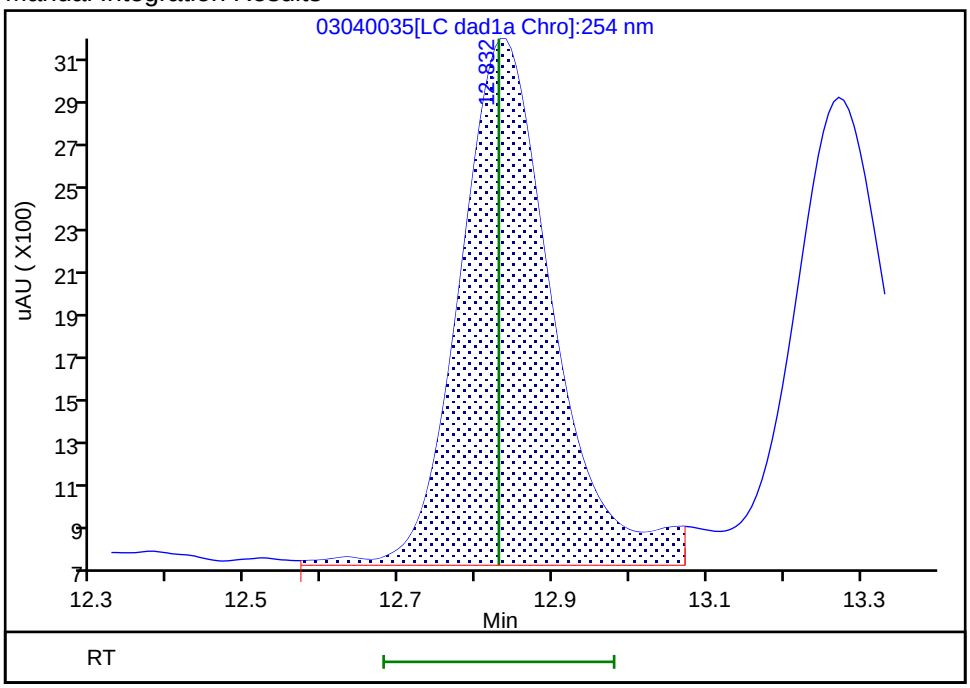
Processing Integration Results

RT: 12.83
Area: 19469
Amount: 0.135353
Amount Units: ug/mL



Manual Integration Results

RT: 12.83
Area: 20301
Amount: 0.141138
Amount Units: ug/mL



Reviewer: beckerc, 06-Mar-2020 10:46:27
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

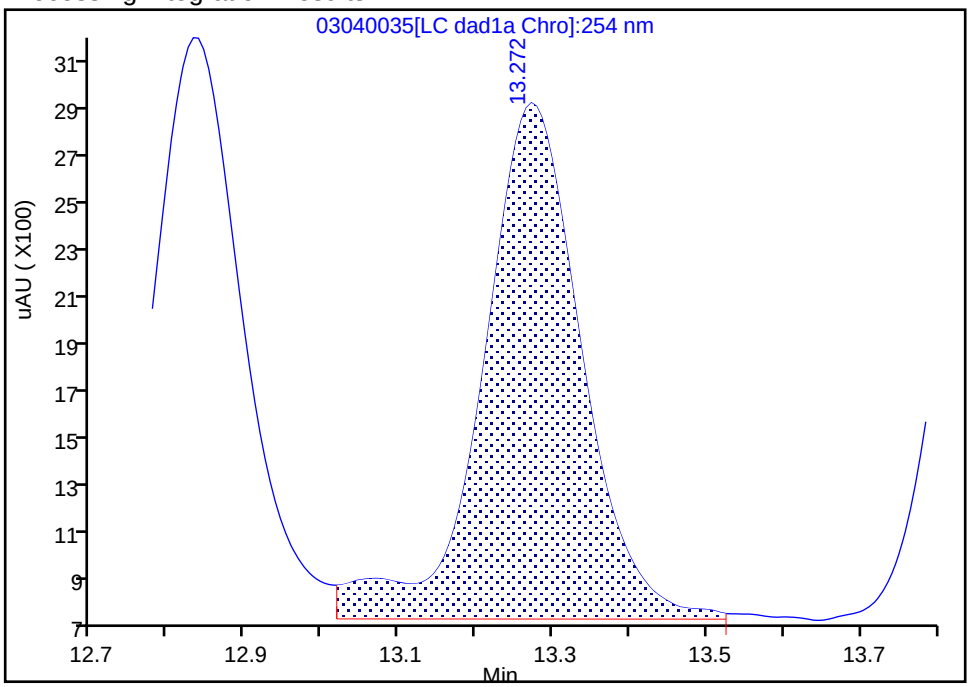
Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040035.d				
Injection Date:	05-Mar-2020 00:49:40	Instrument ID:	CHHPLC_X3		
Lims ID:	LCS 280-487356/2-A				
Client ID:					
Operator ID:	CB	ALS Bottle#:	35	Worklist Smp#:	35
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

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

Signal: 1

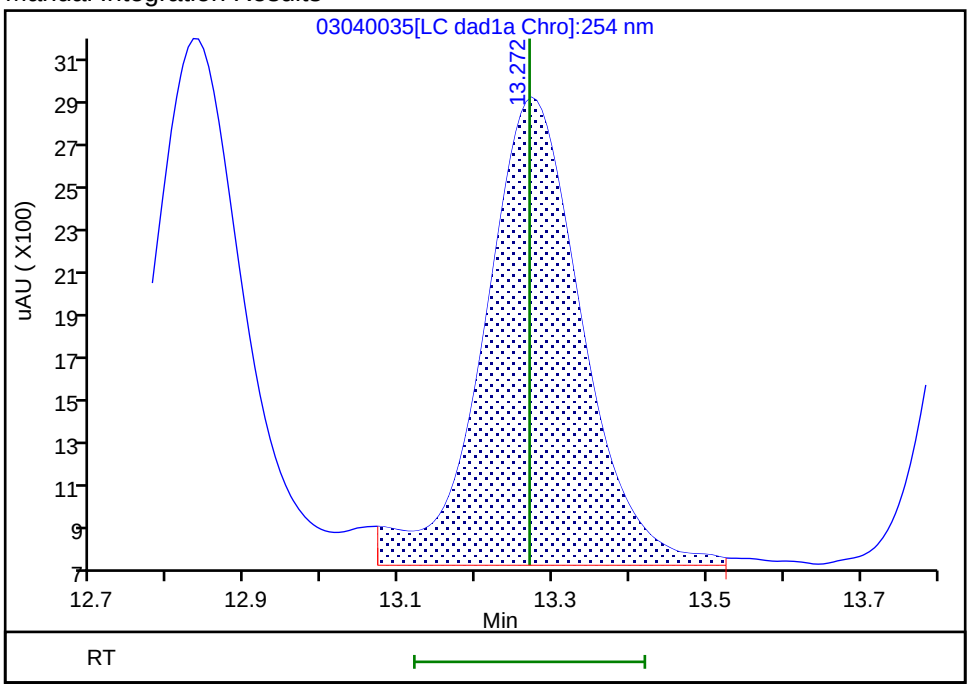
Processing Integration Results

RT: 13.27
Area: 19220
Amount: 0.159769
Amount Units: ug/mL



Manual Integration Results

RT: 13.27
Area: 19006
Amount: 0.157990
Amount Units: ug/mL



Reviewer: beckerc, 06-Mar-2020 10:46:19
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

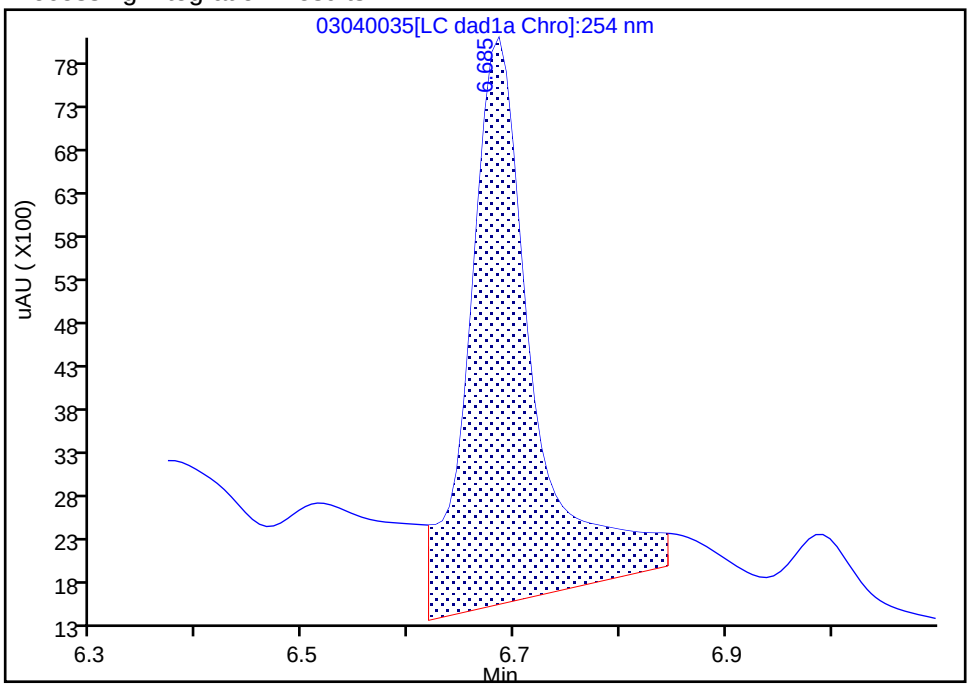
Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040035.d				
Injection Date:	05-Mar-2020 00:49:40	Instrument ID:	CHHPLC_X3		
Lims ID:	LCS 280-487356/2-A				
Client ID:					
Operator ID:	CB	ALS Bottle#:	35	Worklist Smp#:	35
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

3 HMX, CAS: 2691-41-0

Signal: 1

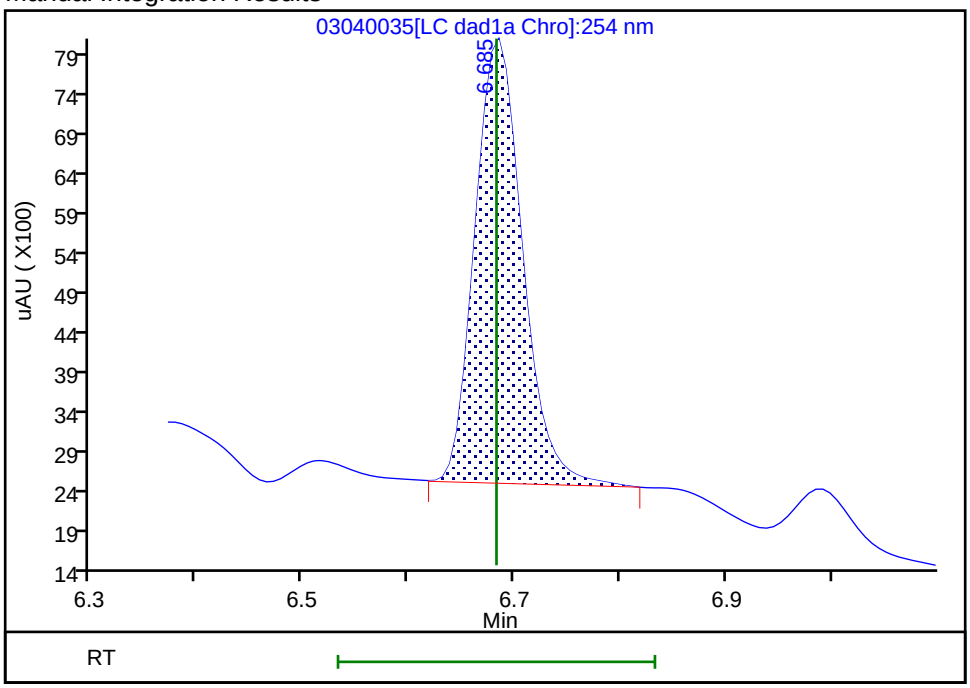
Processing Integration Results

RT: 6.69
Area: 27557
Amount: 0.309013
Amount Units: ug/mL



Manual Integration Results

RT: 6.69
Area: 17626
Amount: 0.197651
Amount Units: ug/mL



Reviewer: beckerc, 06-Mar-2020 08:51:16

Audit Action: Manually Integrated Audit Reason: Baseline

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-134141-1
SDG No.:
Client Sample ID:
Lab Sample ID: LCS 280-487356/4-A
Matrix: Water
Lab File ID: 03040037.D
Analysis Method: 8330A
Date Collected:
Extraction Method: 3535
Date Extracted: 03/02/2020 13:40
Sample wt/vol: 500(mL)
Date Analyzed: 03/05/2020 01:35
Con. Extract Vol.: 5(mL)
Dilution Factor: 1
Injection Volume: 100(uL)
GC Column: UltraCarb5uODS ID: 4.6(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 487659
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
5755-27-1	MNX	2.14		2.0	0.40	0.15

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	88		83-119

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\03040037.D				
Lims ID:	LCS 280-487356/4-A				
Client ID:					
Sample Type:	LCS				
Inject. Date:	05-Mar-2020 01:35:32	ALS Bottle#:	37	Worklist Smp#:	37
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	LCS 280-487356/4				
Misc. Info.:	280-0089779-037				
Operator ID:	CB	Instrument ID:	CHHPLC_X3		
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:	06-Mar-2020 08:53:30		

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
2 TNX	1	6.585	6.594	-0.009	33042	0.2002	0.1518	M
5 DNX	1	6.912	6.914	-0.002	29012	0.2002	0.1897	M
6 MNX	1	7.352	7.361	-0.009	33952	0.2334	0.2141	
$ 9 1,2-Dinitrobenzene	1	8.712	8.710	0.002	25713	0.2000	0.1759	

QC Flag Legend

Review Flags

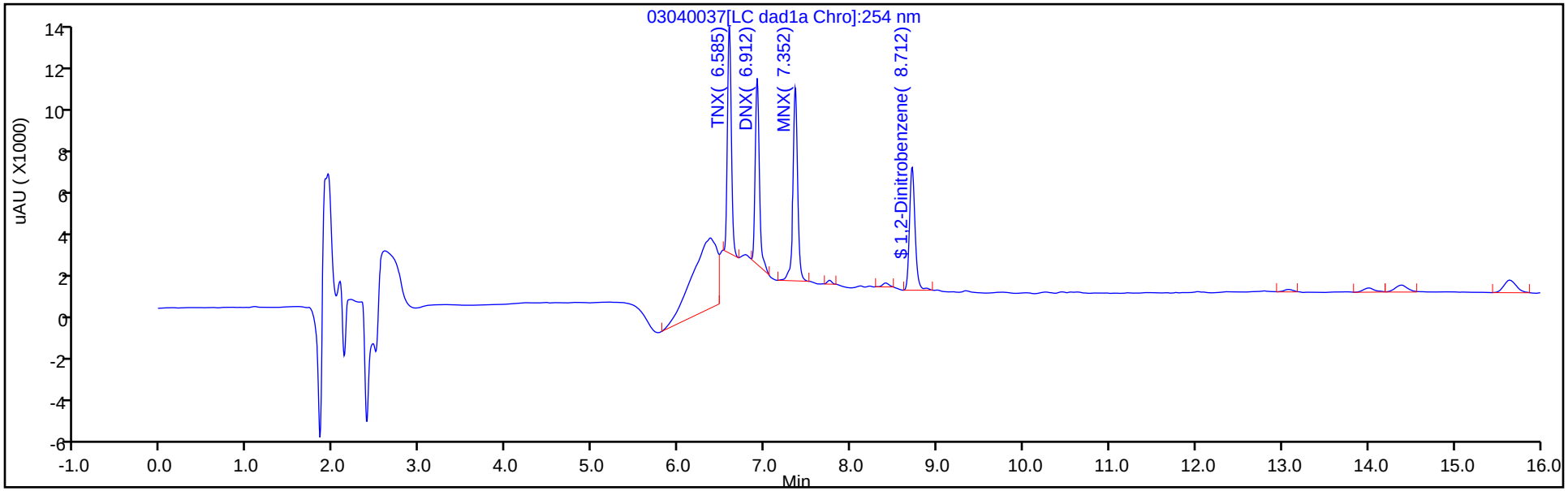
M - Manually Integrated

Report Date: 06-Mar-2020 10:25:33 Chrom Revision: 2.3 19-Feb-2020 16:45:46

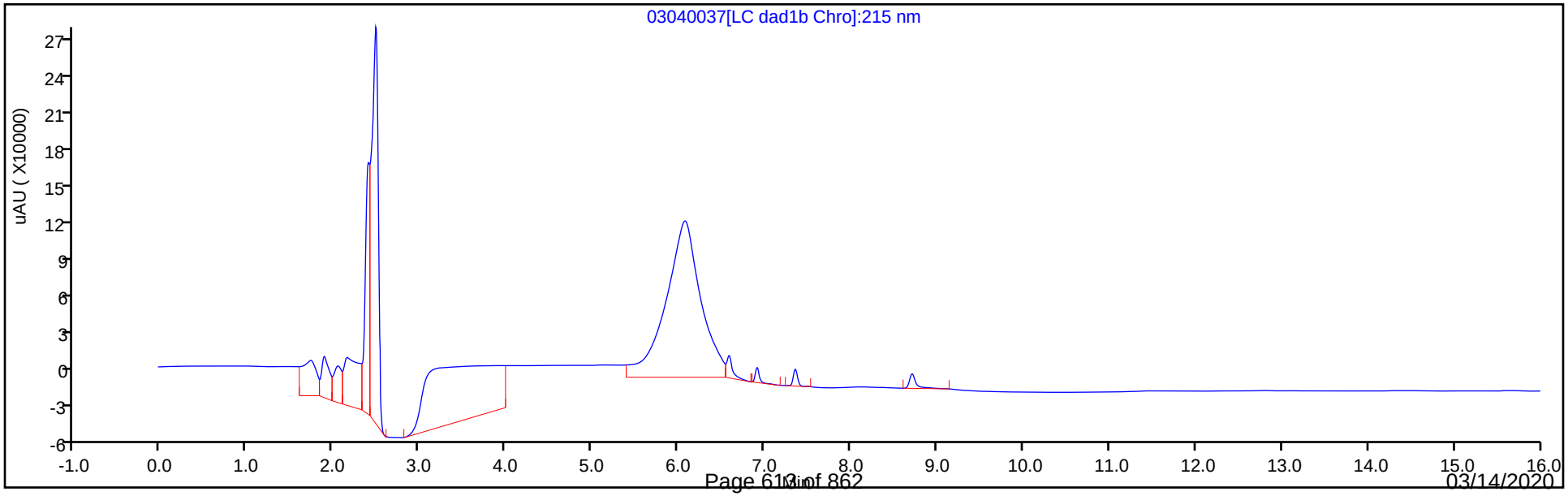
Eurofins TestAmerica, Denver

Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040037.d				
Injection Date:	05-Mar-2020 01:35:32	Instrument ID:	CHHPLC_X3	Operator ID:	CB
Lims ID:	LCS 280-487356/4-A			Worklist Smp#:	37
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	37
Method:	8330_X3	Limit Group:	GCSV - 8330		

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



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



Eurofins TestAmerica, Denver
Recovery Report

Data File:	\\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\03040037.D				
Lims ID:	LCS 280-487356/4-A				
Client ID:					
Sample Type:	LCS				
Inject. Date:	05-Mar-2020 01:35:32	ALS Bottle#:	37	Worklist Smp#:	37
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	LCS 280-487356/4				
Misc. Info.:	280-0089779-037				
Operator ID:	CB	Instrument ID:	CHHPLC_X3		
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: 06-Mar-2020 08:53:30

Compound	Amount Added	Amount Recovered	% Rec.
$ 9 1,2-Dinitrobenzene	0.2000	0.1759	87.93

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-134141-1
SDG No.:
Client Sample ID:
Lab Sample ID: LCSD 280-487356/3-A
Matrix: Water
Lab File ID: 03040036.D
Analysis Method: 8330A
Date Collected:
Extraction Method: 3535
Date Extracted: 03/02/2020 13:40
Sample wt/vol: 500(mL)
Date Analyzed: 03/05/2020 01:12
Con. Extract Vol.: 5(mL)
Dilution Factor: 1
Injection Volume: 100(uL)
GC Column: UltraCarb5uODS ID: 4.6(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 487659
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	2.08		1.0	0.40	0.20
99-65-0	1,3-Dinitrobenzene	1.95		0.40	0.20	0.089
118-96-7	2,4,6-Trinitrotoluene	1.94		0.40	0.40	0.16
121-14-2	2,4-Dinitrotoluene	1.86		0.40	0.20	0.084
606-20-2	2,6-Dinitrotoluene	1.95		0.20	0.20	0.065
35572-78-2	2-Amino-4,6-dinitrotoluene	1.84		0.20	0.12	0.051
88-72-2	2-Nitrotoluene	1.41	M	0.40	0.20	0.086
99-08-1	3-Nitrotoluene	1.55		0.40	0.40	0.20
19406-51-0	4-Amino-2,6-dinitrotoluene	1.76		0.20	0.12	0.058
99-99-0	4-Nitrotoluene	1.55	M	1.0	0.40	0.20
2691-41-0	HMX	1.95	M	0.40	0.20	0.088
98-95-3	Nitrobenzene	1.54		0.40	0.20	0.091
121-82-4	RDX	1.95		0.40	0.40	0.16
479-45-8	Tetryl	1.83		0.24	0.20	0.079

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	95		83-119

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\03040036.D
Lims ID: LCSD 280-487356/3-A
Client ID:
Sample Type: LCSD
Inject. Date: 05-Mar-2020 01:12:36 ALS Bottle#: 36 Worklist Smp#: 36
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: LCSD 280-487356/
Misc. Info.: 280-0089779-036
Operator ID: CB Instrument ID: CHHPLC_X3

Method: \\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 06-Mar-2020 10:47:16 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: 06-Mar-2020 08:52:59

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 HMX	1	6.677	6.683	-0.006	17375	0.2000	0.1948	M
7 RDX	1	7.751	7.750	0.001	22928	0.2000	0.1945	
8 2,4,6-Trinitrophenol	1	8.057	8.056	0.001	17534	0.2000	0.2010	
$ 9 1,2-Dinitrobenzene	1	8.711	8.710	0.001	27689	0.2000	0.1894	
10 1,3,5-Trinitrobenzene	1	8.884	8.883	0.001	50524	0.2000	0.2075	
11 1,3-Dinitrobenzene	1	9.530	9.529	0.001	63211	0.2000	0.1949	
12 Nitrobenzene	1	9.917	9.916	0.001	32821	0.2000	0.1543	
14 Tetryl	1	10.217	10.216	0.001	35476	0.2000	0.1830	
15 Nitroglycerin	2	10.730	10.729	0.001	139421	2.00	1.94	
16 2,4,6-Trinitrotoluene	1	11.184	11.183	0.001	42950	0.2000	0.1944	
17 4-Amino-2,6-dinitrotoluene	1	11.337	11.336	0.001	30476	0.2000	0.1757	
18 2-Amino-4,6-dinitrotoluene	1	11.624	11.623	0.001	39946	0.2000	0.1836	
19 2,6-Dinitrotoluene	1	11.790	11.789	0.001	31029	0.2000	0.1947	
20 2,4-Dinitrotoluene	1	11.984	11.983	0.001	59784	0.2000	0.1861	
21 o-Nitrotoluene	1	12.824	12.829	-0.005	20211	0.2000	0.1405	M
22 p-Nitrotoluene	1	13.264	13.269	-0.005	18681	0.2000	0.1553	M
23 m-Nitrotoluene	1	13.864	13.863	0.001	23947	0.2000	0.1553	
24 PETN	2	14.964	14.969	-0.005	157068	2.00	1.98	

QC Flag Legend

Review Flags

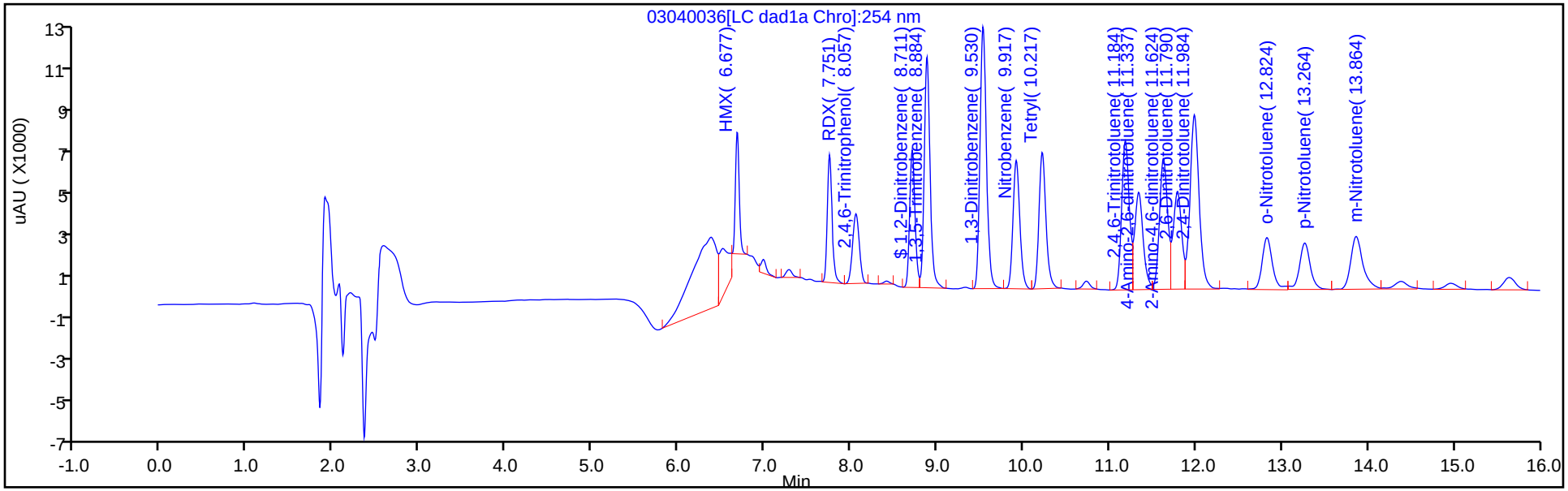
M - Manually Integrated

Report Date: 06-Mar-2020 10:47:36 Chrom Revision: 2.3 19-Feb-2020 16:45:46

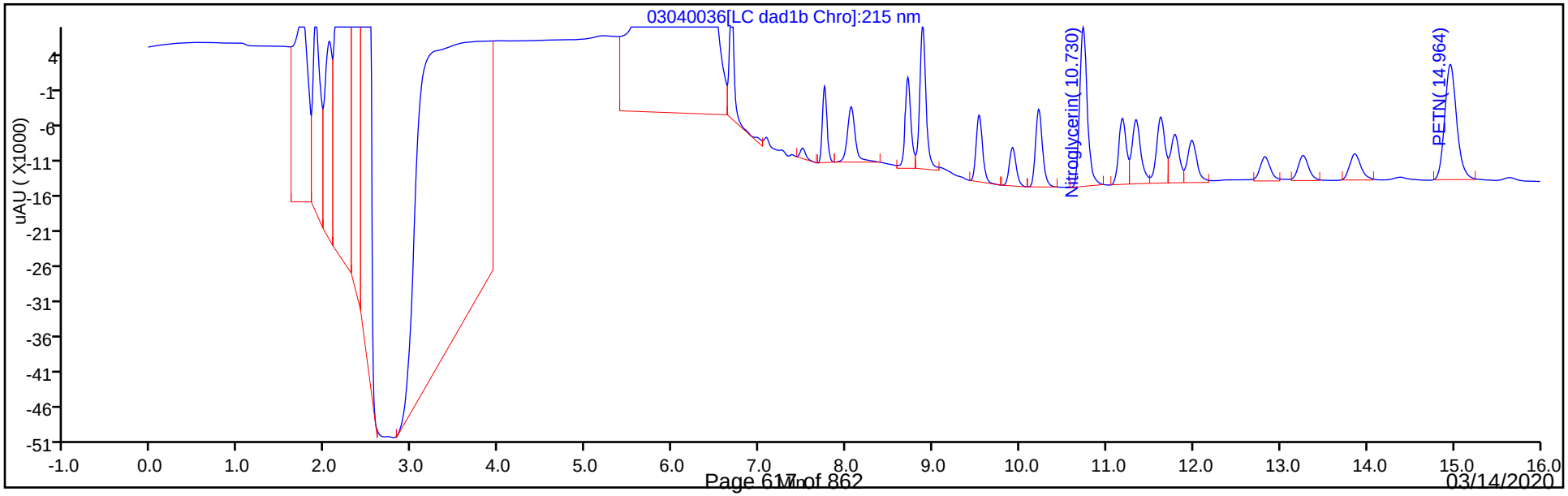
Eurofins TestAmerica, Denver

Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040036.d				
Injection Date:	05-Mar-2020 01:12:36	Instrument ID:	CHHPLC_X3	Operator ID:	CB
Lims ID:	LCSD 280-487356/3-A			Worklist Smp#:	36
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	36
Method:	8330_X3	Limit Group:	GCSV - 8330		

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



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



Eurofins TestAmerica, Denver
Recovery Report

Data File:	\\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\03040036.D				
Lims ID:	LCSD 280-487356/3-A				
Client ID:					
Sample Type:	LCSD				
Inject. Date:	05-Mar-2020 01:12:36	ALS Bottle#:	36	Worklist Smp#:	36
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	LCSD 280-487356/				
Misc. Info.:	280-0089779-036				
Operator ID:	CB	Instrument ID:	CHHPLC_X3		
Method:	\\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	06-Mar-2020 10:47:16	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: 06-Mar-2020 08:52:59

Compound	Amount Added	Amount Recovered	% Rec.
$ 9 1,2-Dinitrobenzene	0.2000	0.1894	94.69

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

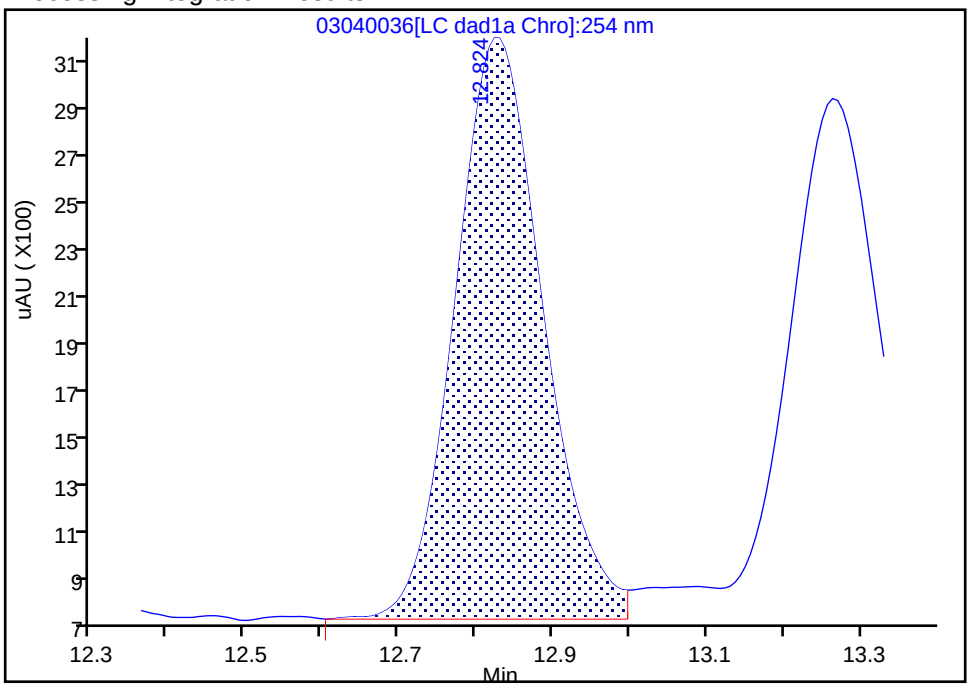
Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040036.d				
Injection Date:	05-Mar-2020 01:12:36	Instrument ID:	CHHPLC_X3		
Lims ID:	LCSD 280-487356/3-A				
Client ID:					
Operator ID:	CB	ALS Bottle#:	36	Worklist Smp#:	36
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

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

Signal: 1

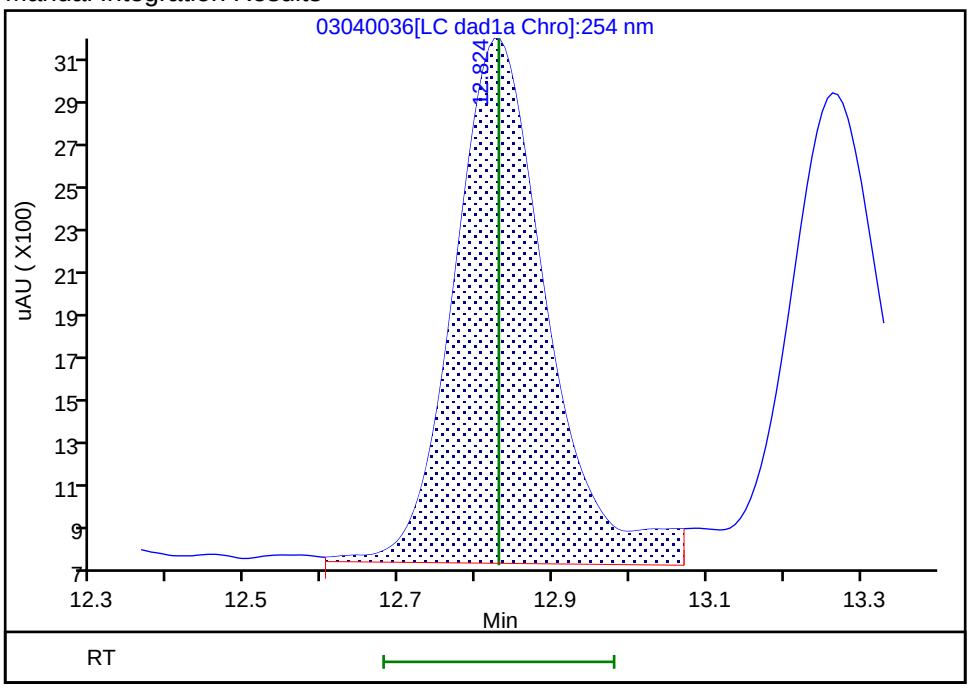
Processing Integration Results

RT: 12.82
Area: 18883
Amount: 0.131279
Amount Units: ug/mL



Manual Integration Results

RT: 12.82
Area: 20211
Amount: 0.140512
Amount Units: ug/mL



Reviewer: beckerc, 06-Mar-2020 10:47:01
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

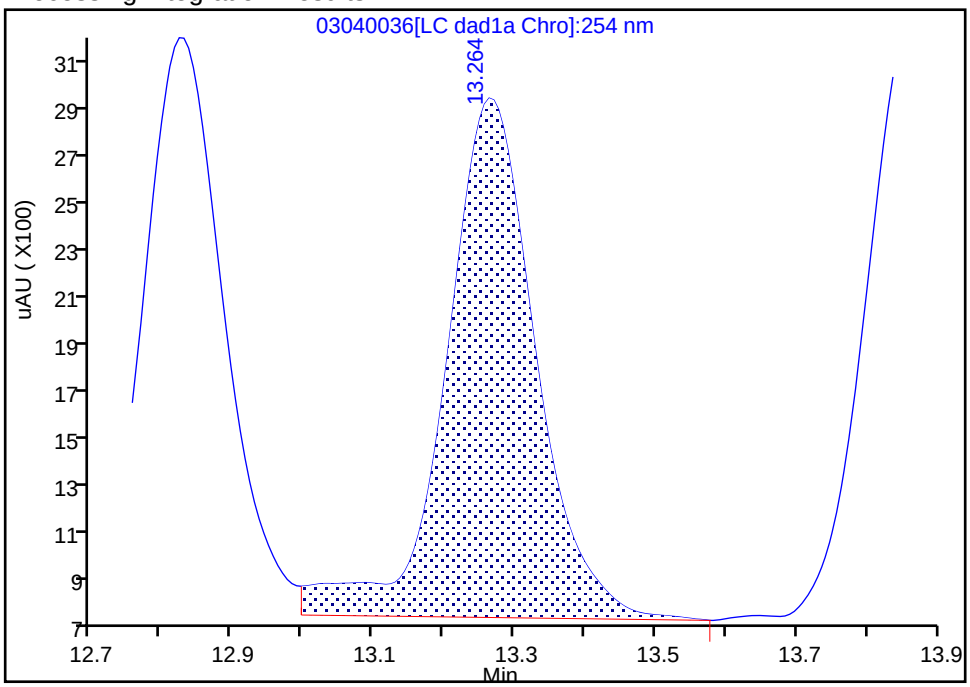
Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040036.d				
Injection Date:	05-Mar-2020 01:12:36	Instrument ID:	CHHPLC_X3		
Lims ID:	LCSD 280-487356/3-A				
Client ID:					
Operator ID:	CB	ALS Bottle#:	36	Worklist Smp#:	36
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

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

Signal: 1

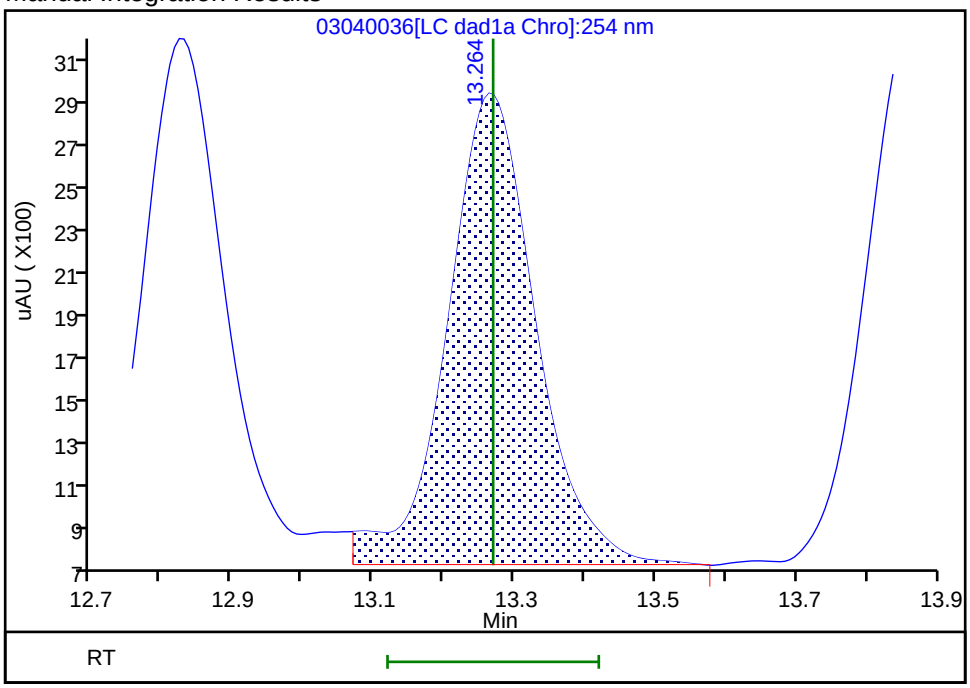
Processing Integration Results

RT: 13.26
Area: 19043
Amount: 0.158298
Amount Units: ug/mL



Manual Integration Results

RT: 13.26
Area: 18681
Amount: 0.155288
Amount Units: ug/mL



Reviewer: beckerc, 06-Mar-2020 10:46:54
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

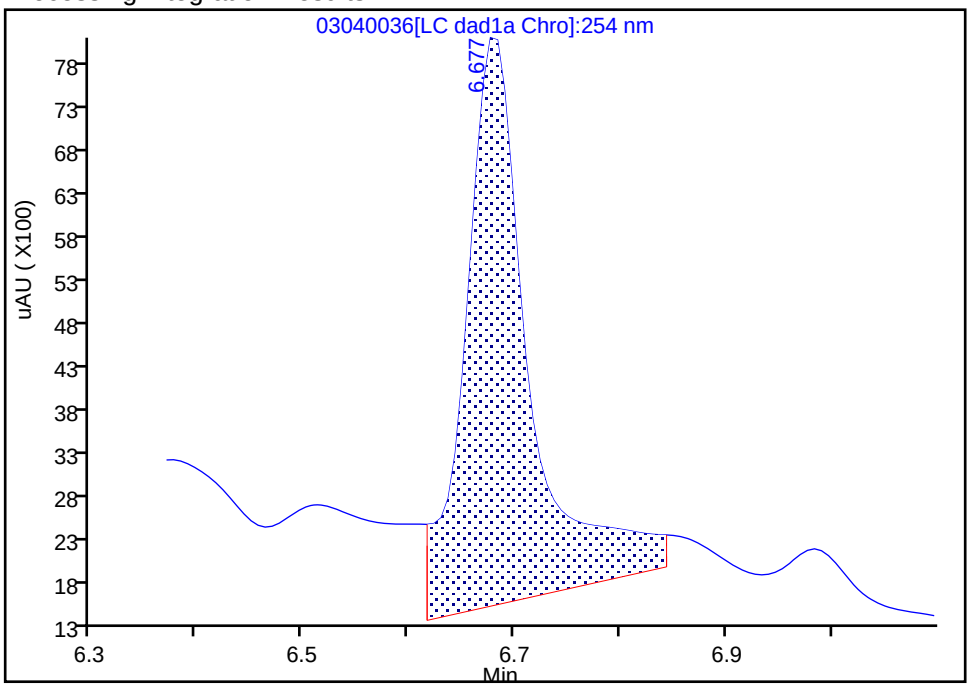
Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040036.d				
Injection Date:	05-Mar-2020 01:12:36	Instrument ID:	CHHPLC_X3		
Lims ID:	LCSD 280-487356/3-A				
Client ID:					
Operator ID:	CB	ALS Bottle#:	36	Worklist Smp#:	36
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

3 HMX, CAS: 2691-41-0

Signal: 1

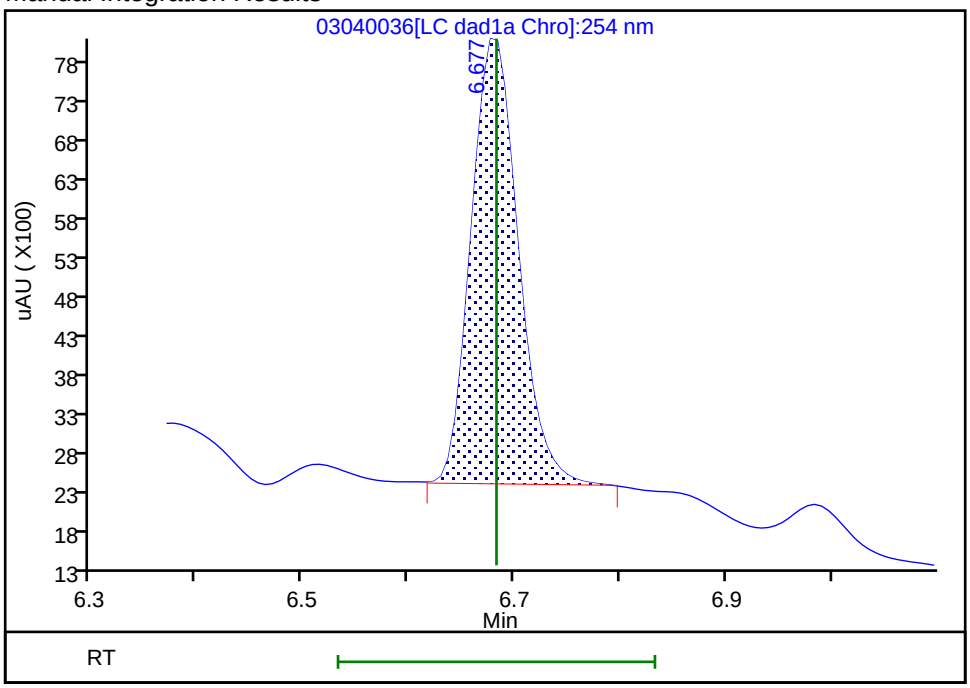
Processing Integration Results

RT: 6.68
Area: 27627
Amount: 0.309798
Amount Units: ug/mL



Manual Integration Results

RT: 6.68
Area: 17375
Amount: 0.194836
Amount Units: ug/mL



Reviewer: beckerc, 06-Mar-2020 08:52:19
Audit Action: Manually Integrated Audit Reason: Baseline

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-134141-1
SDG No.:
Client Sample ID:
Lab Sample ID: LCSD 280-487356/5-A
Matrix: Water
Lab File ID: 03040038.D
Analysis Method: 8330A
Date Collected:
Extraction Method: 3535
Date Extracted: 03/02/2020 13:40
Sample wt/vol: 500(mL)
Date Analyzed: 03/05/2020 01:58
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.: 487659
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
5755-27-1	MNX	2.13		2.0	0.40	0.15

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	89		83-119

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\03040038.D				
Lims ID:	LCSD 280-487356/5-A				
Client ID:					
Sample Type:	LCSD				
Inject. Date:	05-Mar-2020 01:58:29	ALS Bottle#:	38	Worklist Smp#:	38
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	LCSD 280-487356/				
Misc. Info.:	280-0089779-038				
Operator ID:	CB	Instrument ID:	CHHPLC_X3		
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:	06-Mar-2020 08:53:52		

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	6.594	-0.004	33725	0.2002	0.1550	M
5 DNX	1	6.910	6.914	-0.004	28395	0.2002	0.1857	M
6 MNX	1	7.350	7.361	-0.011	33706	0.2334	0.2126	
$ 9 1,2-Dinitrobenzene	1	8.703	8.710	-0.007	25924	0.2000	0.1773	

QC Flag Legend

Review Flags

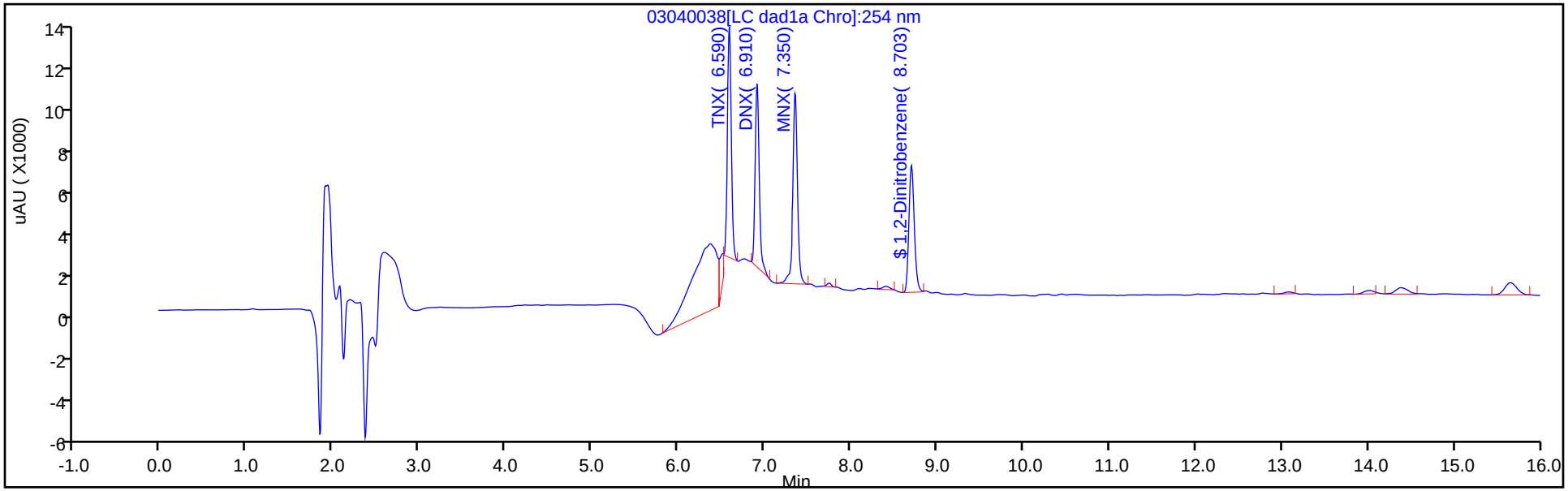
M - Manually Integrated

Report Date: 06-Mar-2020 10:25:34 Chrom Revision: 2.3 19-Feb-2020 16:45:46

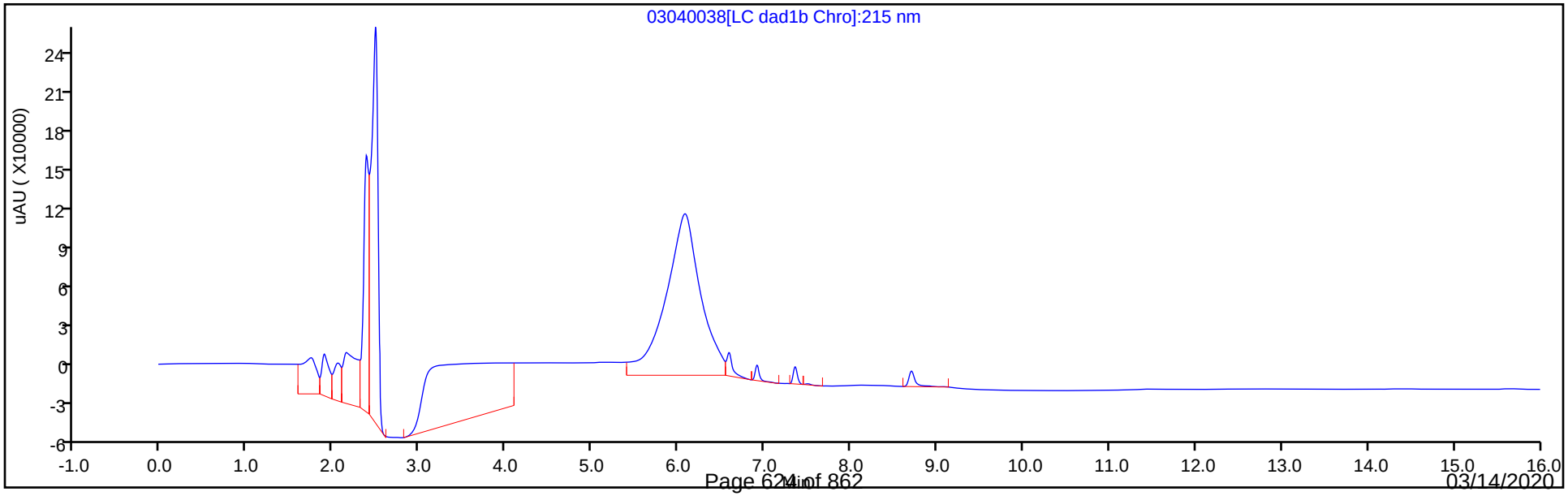
Eurofins TestAmerica, Denver

Data File:	\\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040038.d				
Injection Date:	05-Mar-2020 01:58:29	Instrument ID:	CHHPLC_X3	Operator ID:	CB
Lims ID:	LCSD 280-487356/5-A			Worklist Smp#:	38
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	38
Method:	8330_X3	Limit Group:	GCSV - 8330		

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



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



Eurofins TestAmerica, Denver
Recovery Report

Data File:	\\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\03040038.D				
Lims ID:	LCSD 280-487356/5-A				
Client ID:					
Sample Type:	LCSD				
Inject. Date:	05-Mar-2020 01:58:29	ALS Bottle#:	38	Worklist Smp#:	38
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	LCSD 280-487356/				
Misc. Info.:	280-0089779-038				
Operator ID:	CB	Instrument ID:	CHHPLC_X3		
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:	06-Mar-2020 08:53:52		

Compound	Amount Added	Amount Recovered	% Rec.
$ 9 1,2-Dinitrobenzene	0.2000	0.1773	88.65

HPLC/IC ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134141-1

SDG No.:

Instrument ID: CHHPLC_G2_LUNA Start Date: 03/03/2020 18:01

Analysis Batch Number: 487544 End Date: 03/04/2020 03:55

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
IC 280-487544/7		03/03/2020 18:01	1	03030007.D	Luna-phenylhex 4.6(mm)
IC 280-487544/8		03/03/2020 18:36	1	03030008.D	Luna-phenylhex 4.6(mm)
IC 280-487544/9		03/03/2020 19:11	1	03030009.D	Luna-phenylhex 4.6(mm)
IC 280-487544/10		03/03/2020 19:46	1	03030010.D	Luna-phenylhex 4.6(mm)
IC 280-487544/11		03/03/2020 20:21	1	03030011.D	Luna-phenylhex 4.6(mm)
IC 280-487544/12		03/03/2020 20:56	1	03030012.D	Luna-phenylhex 4.6(mm)
IC 280-487544/13		03/03/2020 21:31	1	03030013.D	Luna-phenylhex 4.6(mm)
IC 280-487544/14		03/03/2020 22:06	1	03030014.D	Luna-phenylhex 4.6(mm)
ICV 280-487544/15		03/03/2020 22:41	1	03030015.D	Luna-phenylhex 4.6(mm)
IC 280-487544/16		03/03/2020 23:16	1	03030016.D	Luna-phenylhex 4.6(mm)
IC 280-487544/17		03/03/2020 23:51	1	03030017.D	Luna-phenylhex 4.6(mm)
IC 280-487544/18		03/04/2020 00:26	1	03030018.D	Luna-phenylhex 4.6(mm)
IC 280-487544/19		03/04/2020 01:01	1	03030019.D	Luna-phenylhex 4.6(mm)
IC 280-487544/20		03/04/2020 01:36	1	03030020.D	Luna-phenylhex 4.6(mm)
IC 280-487544/21		03/04/2020 02:11	1	03030021.D	Luna-phenylhex 4.6(mm)
IC 280-487544/22		03/04/2020 02:46	1	03030022.D	Luna-phenylhex 4.6(mm)
IC 280-487544/23		03/04/2020 03:21	1	03030023.D	Luna-phenylhex 4.6(mm)
ICV 280-487544/24		03/04/2020 03:55	1	03030024.D	Luna-phenylhex 4.6(mm)

8330A

HPLC/IC ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134141-1

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)

HPLC/IC ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134141-1

SDG No.:

Instrument ID: CHHPLC_X3 Start Date: 03/05/2020 00:03

Analysis Batch Number: 487659 End Date: 03/05/2020 09:37

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ICV 280-487659/33		03/05/2020 00:03	1	03040033.D	UltraCarb5uODS 4.6(mm)
MB 280-487356/1-A		03/05/2020 00:26	1	03040034.D	UltraCarb5uODS 4.6(mm)
LCS 280-487356/2-A		03/05/2020 00:49	1	03040035.D	UltraCarb5uODS 4.6(mm)
LCSD 280-487356/3-A		03/05/2020 01:12	1	03040036.D	UltraCarb5uODS 4.6(mm)
LCS 280-487356/4-A		03/05/2020 01:35	1	03040037.D	UltraCarb5uODS 4.6(mm)
LCSD 280-487356/5-A		03/05/2020 01:58	1	03040038.D	UltraCarb5uODS 4.6(mm)
ZZZZZ		03/05/2020 02:21	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		03/05/2020 02:44	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		03/05/2020 03:07	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		03/05/2020 03:30	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		03/05/2020 03:53	1		UltraCarb5uODS 4.6(mm)
CCV 280-487659/44		03/05/2020 04:16	1	03040044.D	UltraCarb5uODS 4.6(mm)
CCV 280-487659/45		03/05/2020 04:39	1		UltraCarb5uODS 4.6(mm)
CCV 280-487659/46		03/05/2020 05:02	1	03040046.D	UltraCarb5uODS 4.6(mm)
280-134141-1		03/05/2020 05:24	1	03040047.D	UltraCarb5uODS 4.6(mm)
280-134141-2		03/05/2020 05:47	1	03040048.D	UltraCarb5uODS 4.6(mm)
280-134141-3		03/05/2020 06:10	1	03040049.D	UltraCarb5uODS 4.6(mm)
280-134141-4		03/05/2020 06:33	1	03040050.D	UltraCarb5uODS 4.6(mm)
ZZZZZ		03/05/2020 06:56	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		03/05/2020 07:19	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		03/05/2020 07:42	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		03/05/2020 08:05	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		03/05/2020 08:28	1		UltraCarb5uODS 4.6(mm)
CCV 280-487659/56		03/05/2020 08:51	1	03040056.D	UltraCarb5uODS 4.6(mm)
CCV 280-487659/57		03/05/2020 09:14	1		UltraCarb5uODS 4.6(mm)
CCV 280-487659/58		03/05/2020 09:37	1	03040058.D	UltraCarb5uODS 4.6(mm)

8330A

HPLC/IC ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134141-1

SDG No.:

Instrument ID: CHHPLC_G2_LUNA Start Date: 03/05/2020 15:20

Analysis Batch Number: 487814 End Date: 03/06/2020 06:30

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCV 280-487814/77		03/05/2020 15:20	1		Luna-phenylhex 4.6(mm)
CCV 280-487814/78		03/05/2020 15:55	1		Luna-phenylhex 4.6(mm)
ZZZZZ		03/05/2020 16:30	1		Luna-phenylhex 4.6(mm)
ZZZZZ		03/05/2020 17:05	1		Luna-phenylhex 4.6(mm)
ZZZZZ		03/05/2020 17:40	1		Luna-phenylhex 4.6(mm)
ZZZZZ		03/05/2020 18:15	1		Luna-phenylhex 4.6(mm)
ZZZZZ		03/05/2020 18:50	1		Luna-phenylhex 4.6(mm)
CCV 280-487814/84		03/05/2020 19:25	1	03050017.D	Luna-phenylhex 4.6(mm)
CCV 280-487814/85		03/05/2020 20:00	1	03050018.D	Luna-phenylhex 4.6(mm)
ZZZZZ		03/05/2020 20:35	1		Luna-phenylhex 4.6(mm)
ZZZZZ		03/05/2020 21:10	1		Luna-phenylhex 4.6(mm)
ZZZZZ		03/05/2020 21:45	1		Luna-phenylhex 4.6(mm)
ZZZZZ		03/05/2020 22:20	1		Luna-phenylhex 4.6(mm)
ZZZZZ		03/05/2020 22:55	1		Luna-phenylhex 4.6(mm)
280-134141-1		03/05/2020 23:30	1	03050024.D	Luna-phenylhex 4.6(mm)
280-134141-2		03/06/2020 00:05	1	03050025.D	Luna-phenylhex 4.6(mm)
280-134141-3		03/06/2020 00:40	1	03050026.D	Luna-phenylhex 4.6(mm)
280-134141-4		03/06/2020 01:15	1	03050027.D	Luna-phenylhex 4.6(mm)
ZZZZZ		03/06/2020 01:50	1		Luna-phenylhex 4.6(mm)
CCV 280-487814/100		03/06/2020 02:25	1	03050029.D	Luna-phenylhex 4.6(mm)
CCV 280-487814/101		03/06/2020 03:00	1	03050030.D	Luna-phenylhex 4.6(mm)
ZZZZZ		03/06/2020 03:35	1		Luna-phenylhex 4.6(mm)
ZZZZZ		03/06/2020 04:10	1		Luna-phenylhex 4.6(mm)
ZZZZZ		03/06/2020 04:45	1		Luna-phenylhex 4.6(mm)
ZZZZZ		03/06/2020 05:20	1		Luna-phenylhex 4.6(mm)
CCV 280-487814/102		03/06/2020 05:55	1		Luna-phenylhex 4.6(mm)
CCV 280-487814/103		03/06/2020 06:30	1		Luna-phenylhex 4.6(mm)

HPLC/IC BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134141-1

SDG No.:

Batch Number: 487356 Batch Start Date: 03/02/20 13:40 Batch Analyst: Adams, Marisa L

Batch Method: 3535 Batch End Date: 03/02/20 18:01

Lab Sample ID	Client Sample ID	Method Chain	Basis	GrossWeight	TareWeight	InitialAmount	FinalAmount	8330 LCS 00095	8330_OP_DMT 00006
MB 280-487356/1		3535, 8330A				500 mL	5 mL		
LCS 280-487356/2		3535, 8330A				500 mL	5 mL	0.1 mL	
LCSD 280-487356/3		3535, 8330A				500 mL	5 mL	0.1 mL	
LCS 280-487356/4		3535, 8330A				500 mL	5 mL		0.1 mL
LCSD 280-487356/5		3535, 8330A				500 mL	5 mL		0.1 mL
280-134141-A-1	EW7-PM26A-2-25	3535, 8330A	T	779.7 g	287.1 g	492.6 mL	5 mL		
280-134141-A-2	EW7-PM27A-2-25	3535, 8330A	T	788.1 g	285.9 g	502.2 mL	5 mL		
280-134141-A-3	EW7-PM24A-2-25	3535, 8330A	T	757.6 g	286.3 g	471.3 mL	5 mL		
280-134141-A-4	EW7-PM25A-2-25	3535, 8330A	T	754.1 g	284.6 g	469.5 mL	5 mL		

Lab Sample ID	Client Sample ID	Method Chain	Basis	8330Surrogate 00110					
MB 280-487356/1		3535, 8330A		0.1 mL					
LCS 280-487356/2		3535, 8330A		0.1 mL					
LCSD 280-487356/3		3535, 8330A		0.1 mL					
LCS 280-487356/4		3535, 8330A		0.1 mL					
LCSD 280-487356/5		3535, 8330A		0.1 mL					
280-134141-A-1	EW7-PM26A-2-25	3535, 8330A	T	0.1 mL					
280-134141-A-2	EW7-PM27A-2-25	3535, 8330A	T	0.1 mL					
280-134141-A-3	EW7-PM24A-2-25	3535, 8330A	T	0.1 mL					
280-134141-A-4	EW7-PM25A-2-25	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.: 280-134141-1

SDG No.:

Batch Number: 487356 Batch Start Date: 03/02/20 13:40 Batch Analyst: Adams, Marisa L

Batch Method: 3535 Batch End Date: 03/02/20 18:01

Batch Notes	
Acid ID	CaCl2_Sol_00069
Acid Name	CaCl2
Balance ID	24350888
First End time	03/02/2020 16:22
Pipette/Syringe/Dispenser ID	Jiji, Soot
Rinse Solvent Lot	0.1%AAinACN_00138
Rinse Solvent Name	0.1%AAinACN
Solvent Lot #	ACN_00043
Solvent Name	Acetonitrile
SPE Cartridge Lot ID	005039204A
SPE Cartridge Type	Porapak RDX
Analyst ID - Spike Analyst	MA
Analyst ID - Spike Witness Analyst	Reviewer:AG
First Start time	03/02/2020 13:49

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: 280-134141-1

SDG No.:

Project: Cornhusker (CHAAP)

Client Sample ID	Lab Sample ID
EW7-PM26A-2-25	280-134141-1
EW7-PM27A-2-25	280-134141-2
EW7-PM24A-2-25	280-134141-3
EW7-PM25A-2-25	280-134141-4

Comments:

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: EW7-PM26A-2-25
Lab Sample ID: 280-134141-1
Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-134141-1
SDG ID.:
Matrix: Water
Date Sampled: 02/27/2020 11:35
Reporting Basis: WET
Date Received: 02/28/2020 09:20

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Ammonia	1.0	0.50	0.25	0.11	mg/L			5	350.1
Nitrogen, Total Kjeldahl	2.0	1.0	1.0	0.69	mg/L			1	351.2
Nitrate Nitrite as N	2.1	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	20	5.0	3.0	1.0	mg/L			1	9056A
Total Alkalinity as CaCO3	440	10	10	3.1	mg/L			1	SM 2320B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY - DISSOLVED

Client Sample ID: EW7-PM26A-2-25
Lab Sample ID: 280-134141-1
Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-134141-1
SDG ID.:
Matrix: Water
Date Sampled: 02/27/2020 11:35
Reporting Basis: WET
Date Received: 02/28/2020 09:20

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Dissolved Organic Carbon - Quad	27	1.0	1.0	0.35	mg/L			1	9060A

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: EW7-PM27A-2-25
Lab Sample ID: 280-134141-2
Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-134141-1
SDG ID.:
Matrix: Water
Date Sampled: 02/27/2020 15:20
Reporting Basis: WET
Date Received: 02/28/2020 09:20

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Ammonia	0.21	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	22	0.50	0.25	0.095	mg/L			5	353.2
Sulfide	1.9	4.0	1.9	0.79	mg/L	U		1	9034
Sulfate	83	5.0	3.0	1.0	mg/L			1	9056A
Total Alkalinity as CaCO3	370	10	10	3.1	mg/L			1	SM 2320B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY - DISSOLVED

Client Sample ID: EW7-PM27A-2-25
Lab Sample ID: 280-134141-2
Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-134141-1
SDG ID.:
Matrix: Water
Date Sampled: 02/27/2020 15:20
Reporting Basis: WET
Date Received: 02/28/2020 09:20

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Dissolved Organic Carbon - Quad	13	1.0	1.0	0.35	mg/L			1	9060A

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: EW7-PM24A-2-25
Lab Sample ID: 280-134141-3
Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-134141-1
SDG ID.:
Matrix: Water
Date Sampled: 02/27/2020 09:40
Reporting Basis: WET
Date Received: 02/28/2020 09:20

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Ammonia	0.34	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	10	0.20	0.10	0.038	mg/L			2	353.2
Sulfide	0.80	4.0	1.9	0.79	mg/L	J		1	9034
Sulfate	57	5.0	3.0	1.0	mg/L			1	9056A
Total Alkalinity as CaCO3	400	10	10	3.1	mg/L			1	SM 2320B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY - DISSOLVED

Client Sample ID: EW7-PM24A-2-25
Lab Sample ID: 280-134141-3
Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-134141-1
SDG ID.:
Matrix: Water
Date Sampled: 02/27/2020 09:40
Reporting Basis: WET
Date Received: 02/28/2020 09:20

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Dissolved Organic Carbon - Quad	14	1.0	1.0	0.35	mg/L			1	9060A

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: EW7-PM25A-2-25
Lab Sample ID: 280-134141-4
Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-134141-1
SDG ID.:
Matrix: Water
Date Sampled: 02/27/2020 11:35
Reporting Basis: WET
Date Received: 02/28/2020 09:20

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Ammonia	1.2	1.0	0.50	0.22	mg/L			10	350.1
Nitrogen, Total Kjeldahl	3.8	1.0	1.0	0.69	mg/L			1	351.2
Nitrate Nitrite as N	6.8	0.10	0.050	0.019	mg/L			1	353.2
Sulfide	0.80	4.0	1.9	0.79	mg/L	J		1	9034
Sulfate	39	5.0	3.0	1.0	mg/L			1	9056A
Total Alkalinity as CaCO3	410	10	10	3.1	mg/L			1	SM 2320B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY - DISSOLVED

Client Sample ID: EW7-PM25A-2-25
Lab Sample ID: 280-134141-4
Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-134141-1
SDG ID.:
Matrix: Water
Date Sampled: 02/27/2020 11:35
Reporting Basis: WET
Date Received: 02/28/2020 09:20

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Dissolved Organic Carbon - Quad	100	2.9	2.9	1.0	mg/L			2.94	9060A

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134141-1

SDG No.:

Analyst: BWH Batch Start Date: 03/03/2020

Reporting Units: mg/L Analytical Batch No.: 487646

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
14	ICVL	14:30	Ammonia	0.456	0.498	92	90-110		350.1 ICV_00391
15	ICV	14:32	Ammonia	2.47	2.49	99	90-110		350.1 ICV_00391
16	ICB	14:34	Ammonia	0.0295				J	
33	CCVL	15:08	Ammonia	0.471	0.500	94	90-110		350.1 cal_00406
34	CCV	15:10	Ammonia	2.52	2.50	101	90-110		350.1 cal_00406
35	CCB	15:12	Ammonia	0.050				U	
49	CCVL	15:45	Ammonia	0.468	0.500	94	90-110		350.1 cal_00406
50	CCV	15:47	Ammonia	2.47	2.50	99	90-110		350.1 cal_00406
51	CCB	15:49	Ammonia	0.0349				J	

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

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134141-1

SDG No.:

Analyst: BWH Batch Start Date: 03/05/2020

Reporting Units: mg/L Analytical Batch No.: 487846

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
14	ICVL	12:31	Ammonia	0.487	0.498	98	90-110		350.1 ICV_00391
15	ICV	12:33	Ammonia	2.55	2.49	102	90-110		350.1 ICV_00391
16	ICB	12:35	Ammonia	0.050				U	
33	CCVL	13:09	Ammonia	0.499	0.500	100	90-110		350.1 cal_00406
34	CCV	13:11	Ammonia	2.66	2.50	107	90-110		350.1 cal_00406
35	CCB	13:13	Ammonia	0.050				U	
49	CCVL	13:41	Ammonia	0.519	0.500	104	90-110		350.1 cal_00406
50	CCV	13:43	Ammonia	2.58	2.50	103	90-110		350.1 cal_00406
51	CCB	13:45	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.: 280-134141-1

SDG No.:

Analyst: SVC Batch Start Date: 03/04/2020

Reporting Units: mg/L Analytical Batch No.: 487728

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
13	ICV	16:59	Nitrogen, Total Kjeldahl	5.41	5.00	108	90-110		TKN ICV 25_00089
14	ICB	17:00	Nitrogen, Total Kjeldahl	1.0				U	
31	CCV	17:21	Nitrogen, Total Kjeldahl	5.26	5.00	105	90-110		TKN 25ppm_00804
32	CCB	17:22	Nitrogen, Total Kjeldahl	1.0				U	
49	CCV	17:44	Nitrogen, Total Kjeldahl	4.86	5.00	97	90-110		TKN 25ppm_00804
50	CCB	17:45	Nitrogen, Total Kjeldahl	1.0				U	
64	CCV	18:02	Nitrogen, Total Kjeldahl	5.00	5.00	100	90-110		TKN 25ppm_00804
65	CCB	18:04	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.: 280-134141-1

SDG No.:

Analyst: SVC Batch Start Date: 03/02/2020

Reporting Units: mg/L Analytical Batch No.: 487437

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
17	ICV	16:44	Nitrate Nitrite as N	4.91	5.00	98	90-110		NXN ICV INT_00505
18	ICVL	16:46	Nitrate Nitrite as N	2.19	2.00	110	90-110		NXN ICV INT_00505
19	ICB	16:48	Nitrate Nitrite as N	0.050				U	
35	CCV	17:20	Nitrate Nitrite as N	4.84	5.00	97	90-110		NXN CAL INT_00524
36	CCVL	17:22	Nitrate Nitrite as N	1.02	1.00	102	90-110		NXN CAL INT_00524
37	CCB	17:24	Nitrate Nitrite as N	0.0220				J	
51	CCV	17:52	Nitrate Nitrite as N	4.83	5.00	97	90-110		NXN CAL INT_00524
52	CCVL	17:54	Nitrate Nitrite as N	0.997	1.00	100	90-110		NXN CAL INT_00524
53	CCB	17:56	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.: 280-134141-1

SDG No.:

Analyst: CJ Batch Start Date: 02/20/2020

Reporting Units: mg/L Analytical Batch No.: 486534

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
8	ICV	16:17	Sulfate	73.0	80.0	91	90-110		IC SO4 ICV_00021
9	ICB	16:34	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.: 280-134141-1

SDG No.:

Analyst: JAP Batch Start Date: 03/07/2020

Reporting Units: mg/L Analytical Batch No.: 488019

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	CCV	10:46	Sulfate	94.4	100	94	90-110		IC LCS_01729
2	CCB	11:02	Sulfate	2.5				U	
17	CCV	19:41	Sulfate	94.5	100	94	90-110		IC LCS_01729
18	CCB	19:57	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.: 280-134141-1

SDG No.:

Analyst: SGB Batch Start Date: 03/04/2020

Reporting Units: mg/L Analytical Batch No.: 487860

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
3	ICV	18:59	Dissolved Organic Carbon - Quad	19.7	20.0	98	90-110		TOC ICV Std_00042
4	ICB	19:13	Dissolved Organic Carbon - Quad	1.0				U	
17	CCV	23:18	Dissolved Organic Carbon - Quad	24.8	25.0	99	90-110		TOC LCS Std_00048
18	CCB	23:35	Dissolved Organic Carbon - Quad	1.0				U	
29	CCV	03:08	Dissolved Organic Carbon - Quad	24.7	25.0	99	90-110		TOC LCS Std_00048
30	CCB	03:25	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.: 280-134141-1

SDG No.:

Analyst: SPG Batch Start Date: 03/04/2020

Reporting Units: mg/L Analytical Batch No.: 487741

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
16	CCV	11:43	Total Alkalinity as CaCO3	210	200	105	90-110		Alk daily lcs 00889
17	CCB	11:47	Total Alkalinity as CaCO3	10				U	
28	CCV	13:32	Total Alkalinity as CaCO3	208	200	104	90-110		Alk daily lcs 00889
29	CCB	13:37	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.: 280-134141-1

SDG No.:

Method	Lab Sample ID	Analyte	Result	Qual	Units	LOQ	Dil
Batch ID: 487646 Date: 03/03/2020 14:42							
350.1	MB 280-487646/20	Ammonia	0.0320	J	mg/L	0.10	1
Batch ID: 487846 Date: 03/05/2020 12:43							
350.1	MB 280-487846/20	Ammonia	0.050	U	mg/L	0.10	1
Batch ID: 487728 Date: 03/04/2020 17:02 Prep Batch: 487438 Date: 03/02/2020 19:38							
351.2	MB 280-487438/2-A	Nitrogen, Total Kjeldahl	1.0	U	mg/L	1.0	1
Batch ID: 487437 Date: 03/02/2020 16:54							
353.2	MB 280-487437/22	Nitrate Nitrite as N	0.050	U	mg/L	0.10	1
Batch ID: 487657 Date: 03/04/2020 11:32 Prep Batch: 487652 Date: 03/04/2020 11:04							
9034	MB 280-487652/2-A	Sulfide	1.9	U	mg/L	4.0	1
Batch ID: 488019 Date: 03/07/2020 12:08							
9056A	MB 280-488019/6	Sulfate	3.0	U	mg/L	5.0	1
Batch ID: 487860 Date: 03/04/2020 19:53							
9060A	MB 280-487676/2-A	Dissolved Organic Carbon - Quad	1.0	U	mg/L	1.0	1
Batch ID: 487741 Date: 03/04/2020 09:07							
SM 2320B	MB 280-487741/5	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.: 280-134141-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 487846 Date: 03/05/2020 13:23											
350.1	280-134141-2	Ammonia	0.21		mg/L						
350.1	280-134141-2 MS	Ammonia	1.26		mg/L	1.00	106	90-110			

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.: 280-134141-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 487846 Date: 03/05/2020 13:25											
350.1	280-134141-2 MSD	Ammonia	1.28		mg/L	1.00	107	90-110	1	10	

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

FORM V-IN

7A-IN
LAB CONTROL SAMPLE
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134141-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 487646	Date: 03/03/2020 14:38										
						LCS Source: 350.1 cal_00406					
350.1	LCS 280-487646/18	Ammonia	2.53		mg/L	2.50	101	90-110	1	10	
Batch ID: 487846	Date: 03/05/2020 12:39										
						LCS Source: 350.1 cal_00406					
350.1	LCS 280-487846/18	Ammonia	2.63		mg/L	2.50	105	90-110	1	10	
Batch ID: 487728	Date: 03/04/2020 17:01	Prep Batch: 487438	Date: 03/02/2020 19:38								
						LCS Source: TKN 25ppm_00804					
351.2	LCS 280-487438/1-A	Nitrogen, Total Kjeldahl	6.25		mg/L	6.00	104	90-110			
Batch ID: 487437	Date: 03/02/2020 16:52										
						LCS Source: NXN CAL INT_00524					
353.2	LCS 280-487437/21	Nitrate Nitrite as N	4.70		mg/L	5.00	94	90-110			
Batch ID: 487657	Date: 03/04/2020 11:32	Prep Batch: 487652	Date: 03/04/2020 11:04								
						LCS Source: SFD ICV INT_01661					
9034	LCS 280-487652/1-A	Sulfide	18.4		mg/L	20.2	91	44-110			
Batch ID: 488019	Date: 03/07/2020 11:35										
						LCS Source: IC LCS_01729					
9056A	LCS 280-488019/4	Sulfate	94.5		mg/L	100	94	87-112	0	10	
Batch ID: 487860	Date: 03/04/2020 19:36										
						LCS Source: TOC LCS Std_00048					
9060A	LCS 280-487676/1-A	Dissolved Organic Carbon - Quad	23.5		mg/L	25.0	94	88-112			
Batch ID: 487741	Date: 03/04/2020 09:02										
						LCS Source: Alk daily lcs_00889					
SM 2320B	LCS 280-487741/4	Total Alkalinity as CaCO3	207		mg/L	200	103	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.: 280-134141-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 487646	Date: 03/03/2020 14:40										
						LCSD Source: 350.1 cal_00406					
350.1	LCSD 280-487646/19	Ammonia	2.51		mg/L	2.50	100	90-110	1	10	
Batch ID: 487846	Date: 03/05/2020 12:41										
						LCSD Source: 350.1 cal_00406					
350.1	LCSD 280-487846/19	Ammonia	2.65		mg/L	2.50	106	90-110	1	10	
Batch ID: 488019	Date: 03/07/2020 11:51										
						LCSD Source: IC LCS_01729					
9056A	LCSD 280-488019/5	Sulfate	94.6		mg/L	100	95	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.: 280-134141-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 488019	Date: 03/07/2020 11:18										
						LCS Source: IC CAL cl/so4_00300					
9056A	MRL 280-488019/3	Sulfate	4.37	J	mg/L	5.00	87	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: 280-134141-1

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

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-134141-1

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

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-134141-1

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: 280-134141-1

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

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-134141-1

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: 280-134141-1

SDG Number:

Matrix: Water Instrument ID: WC_Alp 2

Method: 353.2 XMDL Date: 05/16/2011 11:21

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Nitrate Nitrite as N		0.1	0.0191

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-134141-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: 9034 DL Date: 03/28/2011 13:37

Prep Method: 9030B

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Sulfide		4	0.793

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-134141-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: 9034 XMDL Date: 03/28/2011 13:37

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Sulfide		4	0.793

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-134141-1

SDG Number:

Matrix: Water Instrument ID: WC_IonChrom11

Method: 9056A DL Date: 06/21/2019 00:00

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Sulfate		5	1.03

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-134141-1

SDG Number:

Matrix: Water Instrument ID: WC_IonChrom11

Method: 9056A XMDL Date: 06/21/2019 00:00

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Sulfate		5	1.03

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY - DISSOLVED

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-134141-1

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

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY - DISSOLVED

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-134141-1

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

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-134141-1

SDG Number:

Matrix: Water Instrument ID: WC-AT3

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: 280-134141-1

SDG Number:

Matrix: Water Instrument ID: WC-AT3

Method: SM 2320B XMDL Date: 02/03/2019 00:00

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Total Alkalinity as CaCO3		10	3.08

12-IN
PREPARATION LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134141-1

SDG No.:

Prep Method: 351.2

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
LCS 280-487438/1-A	03/02/2020 19:38	487438		25	25
MB 280-487438/2-A	03/02/2020 19:38	487438		25	25
280-134141-1	03/02/2020 19:38	487438		25	25
280-134141-2	03/02/2020 19:38	487438		25	25
280-134141-3	03/02/2020 19:38	487438		25	25
280-134141-4	03/02/2020 19:38	487438		25	25

FORM XII-IN

12-IN
PREPARATION LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134141-1

SDG No.:

Prep Method: 9030B

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
LCS 280-487652/1-A	03/04/2020 11:04	487652		50	50
MB 280-487652/2-A	03/04/2020 11:04	487652		50	50
280-134141-1	03/04/2020 11:04	487652		50	50
280-134141-2	03/04/2020 11:04	487652		50	50
280-134141-3	03/04/2020 11:04	487652		50	50
280-134141-4	03/04/2020 11:04	487652		50	50

FORM XII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134141-1

SDG No.:

Instrument ID: WC_Alp 3 Analysis Method: 350.1

Start Date: 03/03/2020 14:04 End Date: 03/03/2020 16:55

Lab Sample Id	D/F	Type	Time	Analytes																							
				NH3																							
ZZZZZZ			14:04																								
ZZZZZZ			14:06																								
ZZZZZZ			14:08																								
IC 280-487646/4			14:10	X																							
IC 280-487646/5			14:12	X																							
IC 280-487646/6			14:14	X																							
IC 280-487646/7			14:16	X																							
IC 280-487646/8			14:18	X																							
IC 280-487646/9			14:20	X																							
IC 280-487646/10			14:22	X																							
IC 280-487646/11			14:24	X																							
ZZZZZZ			14:26																								
ZZZZZZ			14:28																								
ICVL 280-487646/14	1		14:30	X																							
ICV 280-487646/15	1		14:32	X																							
ICB 280-487646/16	1		14:34	X																							
ZZZZZZ			14:36																								
LCS 280-487646/18	1	T	14:38	X																							
LCSD 280-487646/19	1	T	14:40	X																							
MB 280-487646/20	1	T	14:42	X																							
ZZZZZZ			14:44																								
ZZZZZZ			14:46																								
ZZZZZZ			14:48																								
ZZZZZZ			14:50																								
ZZZZZZ			14:52																								
ZZZZZZ			14:54																								
ZZZZZZ			14:56																								
ZZZZZZ			14:58																								
ZZZZZZ			15:00																								
ZZZZZZ			15:02																								
RINSE 280-487646/31			15:04																								
ZZZZZZ			15:06																								
CCVL 280-487646/33	1		15:08	X																							
CCV 280-487646/34	1		15:10	X																							
CCB 280-487646/35	1		15:12	X																							
ZZZZZZ			15:14																								
ZZZZZZ			15:16																								
ZZZZZZ			15:18																								
ZZZZZZ			15:20																								
ZZZZZZ			15:22																								
ZZZZZZ			15:24																								

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ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134141-1

SDG No.:

Instrument ID: WC_Alp 3 Analysis Method: 350.1

Start Date: 03/03/2020 14:04 End Date: 03/03/2020 16:55

Lab Sample Id	D/F	Type	Time	Analytes																							
				NH3																							
ZZZZZZ			15:26																								
280-134141-1	5	T	15:28	X																							
ZZZZZZ			15:30																								
ZZZZZZ			15:37																								
280-134141-4	10	T	15:39	X																							
RINSE 280-487646/47			15:41																								
ZZZZZZ			15:43																								
CCVL 280-487646/49	1		15:45	X																							
CCV 280-487646/50	1		15:47	X																							
CCB 280-487646/51	1		15:49	X																							
ZZZZZZ			15:51																								
ZZZZZZ			15:53																								
ZZZZZZ			15:55																								
ZZZZZZ			15:57																								
ZZZZZZ			15:59																								
ZZZZZZ			16:01																								
ZZZZZZ			16:03																								
ZZZZZZ			16:05																								
ZZZZZZ			16:07																								
ZZZZZZ			16:09																								
ZZZZZZ			16:11																								
RINSE 280-487646/63			16:13																								
ZZZZZZ			16:15																								
CCVL 280-487646/65			16:17																								
CCV 280-487646/66			16:19																								
CCB 280-487646/67			16:21																								
ZZZZZZ			16:23																								
ZZZZZZ			16:25																								
ZZZZZZ			16:27																								
ZZZZZZ			16:29																								
ZZZZZZ			16:31																								
ZZZZZZ			16:33																								
ZZZZZZ			16:35																								
ZZZZZZ			16:37																								
ZZZZZZ			16:39																								
ZZZZZZ			16:41																								
ZZZZZZ			16:43																								
RINSE 280-487646/79			16:45																								
ZZZZZZ			16:47																								
CCVL 280-487646/81			16:49																								
CCV 280-487646/82			16:51																								

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134141-1

SDG No.:

Instrument ID: WC_Alp 3 Analysis Method: 350.1

Start Date: 03/03/2020 14:04 End Date: 03/03/2020 16:55

Lab Sample Id	D/F	Type	Time	Analytes																							
				NH3																							
CCB 280-487646/83			16:53																								
ZZZZZZ			16:55																								

Prep Types:
T = Total/NA

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ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134141-1

SDG No.:

Instrument ID: WC_Alp 3 Analysis Method: 350.1

Start Date: 03/05/2020 12:05 End Date: 03/05/2020 14:13

Lab Sample Id	D/F	Type	Time	Analytes																							
				NH3																							
ZZZZZZ			12:05																								
ZZZZZZ			12:07																								
ZZZZZZ			12:09																								
IC 280-487846/4			12:11	X																							
IC 280-487846/5			12:13	X																							
IC 280-487846/6			12:15	X																							
IC 280-487846/7			12:17	X																							
IC 280-487846/8			12:19	X																							
IC 280-487846/9			12:21	X																							
IC 280-487846/10			12:23	X																							
IC 280-487846/11			12:25	X																							
ZZZZZZ			12:27																								
ZZZZZZ			12:29																								
ICVL 280-487846/14	1		12:31	X																							
ICV 280-487846/15	1		12:33	X																							
ICB 280-487846/16	1		12:35	X																							
ZZZZZZ			12:37																								
LCS 280-487846/18	1	T	12:39	X																							
LCSD 280-487846/19	1	T	12:41	X																							
MB 280-487846/20	1	T	12:43	X																							
ZZZZZZ			12:45																								
ZZZZZZ			12:47																								
ZZZZZZ			12:49																								
ZZZZZZ			12:51																								
ZZZZZZ			12:53																								
ZZZZZZ			12:55																								
ZZZZZZ			12:57																								
ZZZZZZ			12:59																								
ZZZZZZ			13:01																								
ZZZZZZ			13:03																								
RINSE 280-487846/31			13:05																								
ZZZZZZ			13:07																								
CCVL 280-487846/33	1		13:09	X																							
CCV 280-487846/34	1		13:11	X																							
CCB 280-487846/35	1		13:13	X																							
ZZZZZZ			13:15																								
ZZZZZZ			13:17																								
ZZZZZZ			13:19																								
280-134141-2	1	T	13:21	X																							
280-134141-2 MS	1	T	13:23	X																							
280-134141-2 MSD	1	T	13:25	X																							

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ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134141-1

SDG No.:

Instrument ID: WC_Alp 3 Analysis Method: 350.1

Start Date: 03/05/2020 12:05 End Date: 03/05/2020 14:13

Lab Sample Id	D/F	Type	Time	Analytes																							
				NH3																							
280-134141-3	1	T	13:27	X																							
ZZZZZZ			13:29																								
ZZZZZZ			13:31																								
ZZZZZZ			13:33																								
ZZZZZZ			13:35																								
RINSE 280-487846/47			13:37																								
ZZZZZZ			13:39																								
CCVL 280-487846/49	1		13:41	X																							
CCV 280-487846/50	1		13:43	X																							
CCB 280-487846/51	1		13:45	X																							
ZZZZZZ			13:47																								
ZZZZZZ			13:49																								
ZZZZZZ			13:51																								
ZZZZZZ			13:53																								
ZZZZZZ			13:55																								
ZZZZZZ			14:01																								
RINSE 280-487846/58			14:03																								
ZZZZZZ			14:05																								
CCVL 280-487846/60			14:07																								
CCV 280-487846/61			14:09																								
CCB 280-487846/62			14:11																								
ZZZZZZ			14:13																								

Prep Types:
T = Total/NA

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ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134141-1

SDG No.:

Instrument ID: WC_Astoria Analysis Method: 351.2

Start Date: 03/04/2020 16:44 End Date: 03/04/2020 18:34

Lab Sample Id	D/F	Type	Time	Analytes																							
				TKN																							
ZZZZZZ			16:44																								
ZZZZZZ			16:45																								
ZZZZZZ			16:46																								
ZZZZZZ			16:47																								
IC 280-486063/1-A			16:49	X																							
IC 280-486063/2-A			16:50	X																							
IC 280-486063/3-A			16:51	X																							
IC 280-486063/4-A			16:52	X																							
IC 280-486063/5-A			16:54	X																							
IC 280-486063/6-A			16:55	X																							
ZZZZZZ			16:56																								
ZZZZZZ			16:57																								
ICV 280-486063/7-A	1		16:59	X																							
ICB 280-486063/8-A	1		17:00	X																							
LCS 280-487438/1-A	1	T	17:01	X																							
MB 280-487438/2-A	1	T	17:02	X																							
ZZZZZZ			17:04																								
ZZZZZZ			17:05																								
ZZZZZZ			17:06																								
ZZZZZZ			17:07																								
ZZZZZZ			17:09																								
ZZZZZZ			17:10																								
ZZZZZZ			17:11																								
ZZZZZZ			17:12																								
ZZZZZZ			17:14																								
ZZZZZZ			17:15																								
ZZZZZZ			17:16																								
ZZZZZZ			17:17																								
ZZZZZZ			17:19																								
ZZZZZZ			17:20																								
CCV 280-486063/9-A	1		17:21	X																							
CCB 280-486063/10-A	1		17:22	X																							
ZZZZZZ			17:24																								
ZZZZZZ			17:25																								
ZZZZZZ			17:26																								
ZZZZZZ			17:27																								
ZZZZZZ			17:29																								
ZZZZZZ			17:30																								
ZZZZZZ			17:31																								
ZZZZZZ			17:32																								
ZZZZZZ			17:34																								

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ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134141-1

SDG No.:

Instrument ID: WC_Astoria Analysis Method: 351.2

Start Date: 03/04/2020 16:44 End Date: 03/04/2020 18:34

Lab Sample Id	D/F	Type	Time	Analytes																							
				TKN																							
ZZZZZZ			17:35																								
ZZZZZZ			17:36																								
ZZZZZZ			17:37																								
ZZZZZZ			17:39																								
ZZZZZZ			17:40																								
ZZZZZZ			17:41																								
ZZZZZZ			17:42																								
CCV 280-486063/9-A	1		17:44	X																							
CCB 280-486063/10-A	1		17:45	X																							
280-134141-1	1	T	17:46	X																							
280-134141-2	1	T	17:47	X																							
280-134141-3	1	T	17:49	X																							
280-134141-4	1	T	17:50	X																							
ZZZZZZ			17:51																								
ZZZZZZ			17:52																								
ZZZZZZ			17:54																								
ZZZZZZ			17:55																								
ZZZZZZ			17:56																								
ZZZZZZ			17:57																								
ZZZZZZ			17:59																								
ZZZZZZ			18:00																								
ZZZZZZ			18:01																								
CCV 280-486063/9-A	1		18:02	X																							
CCB 280-486063/10-A	1		18:04	X																							
ZZZZZZ			18:05																								
ZZZZZZ			18:06																								
ZZZZZZ			18:07																								
ZZZZZZ			18:09																								
ZZZZZZ			18:10																								
ZZZZZZ			18:11																								
ZZZZZZ			18:12																								
ZZZZZZ			18:14																								
ZZZZZZ			18:15																								
ZZZZZZ			18:16																								
ZZZZZZ			18:17																								
ZZZZZZ			18:19																								
ZZZZZZ			18:20																								
ZZZZZZ			18:21																								
ZZZZZZ			18:22																								
ZZZZZZ			18:24																								
ZZZZZZ			18:25																								

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13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134141-1

SDG No.:

Instrument ID: WC_Astoria Analysis Method: 351.2

Start Date: 03/04/2020 16:44 End Date: 03/04/2020 18:34

Lab Sample Id	D/F	Type	Time	Analytes																							
				TKN																							
ZZZZZZ			18:26																								
ZZZZZZ			18:27																								
ZZZZZZ			18:29																								
CCV 280-486063/9-A			18:30																								
CCB 280-486063/10-A			18:31																								
ZZZZZZ			18:32																								
ZZZZZZ			18:34																								

Prep Types:
T = Total/NA

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ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134141-1

SDG No.:

Instrument ID: WC_Alp 2 Analysis Method: 353.2

Start Date: 03/02/2020 16:12 End Date: 03/02/2020 19:07

Lab Sample Id	D/F	Type	Time	Analytes																							
				NNO32																							
ZZZZZZ			16:12																								
ZZZZZZ			16:14																								
ZZZZZZ			16:16																								
ZZZZZZ			16:18																								
IC 280-487437/5			16:20	X																							
IC 280-487437/6			16:22	X																							
IC 280-487437/7			16:24	X																							
IC 280-487437/8			16:26	X																							
IC 280-487437/9			16:28	X																							
IC 280-487437/10			16:30	X																							
IC 280-487437/11			16:32	X																							
IC 280-487437/12			16:34	X																							
IC 280-487437/13			16:36	X																							
ZZZZZZ			16:38																								
ZZZZZZ			16:40																								
ZZZZZZ			16:42																								
ICV 280-487437/17	1		16:44	X																							
ICVL 280-487437/18	1		16:46	X																							
ICB 280-487437/19	1		16:48	X																							
ZZZZZZ			16:50																								
LCS 280-487437/21	1	T	16:52	X																							
MB 280-487437/22	1	T	16:54	X																							
ZZZZZZ			16:56																								
ZZZZZZ			16:58																								
ZZZZZZ			17:00																								
ZZZZZZ			17:02																								
ZZZZZZ			17:04																								
ZZZZZZ			17:06																								
ZZZZZZ			17:08																								
ZZZZZZ			17:10																								
ZZZZZZ			17:12																								
ZZZZZZ			17:14																								
RINSE 280-487437/33			17:16																								
ZZZZZZ			17:18																								
CCV 280-487437/35	1		17:20	X																							
CCVL 280-487437/36	1		17:22	X																							
CCB 280-487437/37	1		17:24	X																							
ZZZZZZ			17:26																								
ZZZZZZ			17:28																								

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ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134141-1

SDG No.:

Instrument ID: WC_Alp 2 Analysis Method: 353.2

Start Date: 03/02/2020 16:12 End Date: 03/02/2020 19:07

Lab Sample Id	D/F	Type	Time	Analytes																							
				NNO32																							
ZZZZZZ			17:30																								
ZZZZZZ			17:32																								
ZZZZZZ			17:34																								
ZZZZZZ			17:36																								
ZZZZZZ			17:38																								
280-134141-1	1	T	17:40	X																							
280-134141-2	5	T	17:42	X																							
280-134141-3	2	T	17:44	X																							
280-134141-4	1	T	17:46	X																							
RINSE 280-487437/49			17:48																								
ZZZZZZ			17:50																								
CCV 280-487437/51	1		17:52	X																							
CCVL 280-487437/52	1		17:54	X																							
CCB 280-487437/53	1		17:56	X																							
ZZZZZZ			17:58																								
ZZZZZZ			18:00																								
ZZZZZZ			18:02																								
ZZZZZZ			18:04																								
ZZZZZZ			18:06																								
ZZZZZZ			18:08																								
ZZZZZZ			18:10																								
ZZZZZZ			18:12																								
ZZZZZZ			18:14																								
ZZZZZZ			18:16																								
ZZZZZZ			18:18																								
RINSE 280-487437/65			18:20																								
ZZZZZZ			18:22																								
CCV 280-487437/67			18:24																								
CCVL 280-487437/68			18:26																								
CCB 280-487437/69			18:28																								
ZZZZZZ			18:30																								
ZZZZZZ			18:32																								
ZZZZZZ			18:34																								
ZZZZZZ			18:36																								
ZZZZZZ			18:39																								
ZZZZZZ			18:41																								
ZZZZZZ			18:43																								
ZZZZZZ			18:45																								
ZZZZZZ			18:47																								

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134141-1

SDG No.:

Instrument ID: WC_Alp 2 Analysis Method: 353.2

Start Date: 03/02/2020 16:12 End Date: 03/02/2020 19:07

Lab Sample Id	D/F	Type	Time	Analytes																							
				NNO32																							
ZZZZZZ			18:49																								
ZZZZZZ			18:51																								
ZZZZZZ			18:53																								
ZZZZZZ			18:55																								
RINSE 280-487437/83			18:57																								
ZZZZZZ			18:59																								
CCV 280-487437/85			19:01																								
CCVL 280-487437/86			19:03																								
CCB 280-487437/87			19:05																								
ZZZZZZ			19:07																								

Prep Types:
T = Total/NA

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ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134141-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: 9034

Start Date: 03/04/2020 11:32 End Date: 03/04/2020 11:32

Lab Sample Id	D/F	Type	Time	Analytes																							
				S2																							
LCS 280-487652/1-A	1	T	11:32	X																							
MB 280-487652/2-A	1	T	11:32	X																							
ZZZZZZ			11:32																								
ZZZZZZ			11:32																								
ZZZZZZ			11:32																								
ZZZZZZ			11:32																								
280-134141-1	1	T	11:32	X																							
280-134141-2	1	T	11:32	X																							
280-134141-3	1	T	11:32	X																							
280-134141-4	1	T	11:32	X																							
ZZZZZZ			11:32																								
ZZZZZZ			11:32																								
ZZZZZZ			11:32																								
ZZZZZZ			11:32																								
ZZZZZZ			11:32																								
ZZZZZZ			11:32																								
ZZZZZZ			11:32																								
ZZZZZZ			11:32																								
ZZZZZZ			11:32																								

Prep Types:
T = Total/NA

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ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134141-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Method: 9056A

Start Date: 02/20/2020 14:39 End Date: 02/21/2020 05:58

Lab Sample Id	D/F	Type	Time	Analytes																							
				SO4																							
STD 280-486534/2 IC	1		14:39	X																							
STD 280-486534/3 IC	1		14:55	X																							
STD 280-486534/4 IC	1		15:12	X																							
STD 280-486534/5 IC	1		15:28	X																							
STD 280-486534/6 IC	1		15:45	X																							
STD 280-486534/7 IC	1		16:01	X																							
ICV 280-486534/8	1		16:17	X																							
ICB 280-486534/9	1		16:34	X																							
ZZZZZZ			16:50																								
ZZZZZZ			17:07																								
ZZZZZZ			17:23																								
ZZZZZZ			17:39																								
ZZZZZZ			21:46																								
ZZZZZZ			22:02																								
ZZZZZZ			22:18																								
ZZZZZZ			22:35																								
ZZZZZZ			22:51																								
ZZZZZZ			23:08																								
CCV 280-486534/24			00:30																								
CCB 280-486534/25			00:46																								
ZZZZZZ			01:02																								
ZZZZZZ			01:19																								
ZZZZZZ			01:35																								
ZZZZZZ			01:52																								
ZZZZZZ			02:08																								
ZZZZZZ			02:24																								
ZZZZZZ			03:14																								
ZZZZZZ			03:30																								
CCV 280-486534/36			03:47																								
CCB 280-486534/37			04:03																								
ZZZZZZ			04:19																								
ZZZZZZ			04:36																								
ZZZZZZ			04:52																								
ZZZZZZ			05:09																								
ZZZZZZ			05:25																								
CCV 280-486534/43			05:41																								
CCB 280-486534/44			05:58																								

Prep Types:
=

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13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134141-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Method: 9056A

Start Date: 03/07/2020 10:46 End Date: 03/09/2020 21:03

Lab Sample Id	D/F	Type	Time	Analytes																							
				SO4																							
CCV 280-488019/1	1		10:46	X																							
CCB 280-488019/2	1		11:02	X																							
MRL 280-488019/3	1	T	11:18	X																							
LCS 280-488019/4	1	T	11:35	X																							
LCSD 280-488019/5	1	T	11:51	X																							
MB 280-488019/6	1	T	12:08	X																							
280-134141-1	1	T	16:57	X																							
280-134141-2	1	T	17:13	X																							
280-134141-3	1	T	17:30	X																							
280-134141-4	1	T	17:46	X																							
ZZZZZZ			18:02																								
ZZZZZZ			18:19																								
ZZZZZZ			18:35																								
ZZZZZZ			18:52																								
ZZZZZZ			19:08																								
ZZZZZZ			19:24																								
CCV 280-488019/17	1		19:41	X																							
CCB 280-488019/18	1		19:57	X																							
ZZZZZZ			20:14																								
ZZZZZZ			20:30																								
CCV 280-488019/21			20:46																								
CCB 280-488019/22			21:03																								

Prep Types:
T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134141-1

SDG No.:

Instrument ID: WC_SHI3 Analysis Method: 9060A

Start Date: 03/04/2020 18:35 End Date: 03/05/2020 15:41

Lab Sample Id	D/F	Type	Time	Analytes																							
				DOCQ																							
ZZZZZZ			18:35																								
ZZZZZZ			18:46																								
ICV 280-487860/3	1		18:59	X																							
ICB 280-487860/4	1		19:13	X																							
LCS 280-487676/1-A	1	D	19:36	X																							
MB 280-487676/2-A	1	D	19:53	X																							
ZZZZZZ			20:12																								
ZZZZZZ			20:28																								
ZZZZZZ			20:47																								
ZZZZZZ			21:04																								
ZZZZZZ			21:23																								
ZZZZZZ			21:42																								
ZZZZZZ			22:04																								
280-134141-1	1	D	22:26	X																							
280-134141-2	1	D	22:43	X																							
280-134141-3	1	D	22:59	X																							
CCV 280-487860/17	1		23:18	X																							
CCB 280-487860/18	1		23:35	X																							
280-134141-4	2.94	D	23:56	X																							
ZZZZZZ			00:22																								
ZZZZZZ			00:41																								
ZZZZZZ			01:01																								
ZZZZZZ			01:22																								
ZZZZZZ			01:41																								
ZZZZZZ			01:59																								
ZZZZZZ			02:16																								
ZZZZZZ			02:35																								
ZZZZZZ			02:54																								
CCV 280-487860/29	1		03:08	X																							
CCB 280-487860/30	1		03:25	X																							
ZZZZZZ			03:42																								
ZZZZZZ			03:59																								
ZZZZZZ			04:15																								
ZZZZZZ			04:32																								
ZZZZZZ			04:49																								
ZZZZZZ			05:06																								
ZZZZZZ			05:22																								
ZZZZZZ			05:39																								
ZZZZZZ			05:54																								
CCV 280-487860/40			06:11																								

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134141-1

SDG No.:

Instrument ID: WC_SHI3 Analysis Method: 9060A

Start Date: 03/04/2020 18:35 End Date: 03/05/2020 15:41

Lab Sample Id	D/F	Type	Time	Analytes																								
				DOCQ																								
CCB 280-487860/41			06:28																									
ZZZZZZ			06:42																									
ZZZZZZ			06:59																									
ZZZZZZ			07:16																									
ZZZZZZ			07:33																									
ZZZZZZ			07:49																									
ZZZZZZ			08:08																									
ZZZZZZ			08:34																									
ZZZZZZ			08:53																									
ZZZZZZ			09:12																									
ZZZZZZ			09:36																									
CCV 280-487860/52			09:53																									
CCB 280-487860/53			10:10																									
ZZZZZZ			10:27																									
ZZZZZZ			10:52																									
ZZZZZZ			11:11																									
ZZZZZZ			11:27																									
ZZZZZZ			11:44																									
ZZZZZZ			11:59																									
ZZZZZZ			12:16																									
ZZZZZZ			12:30																									
ZZZZZZ			12:45																									
ZZZZZZ			13:12																									
CCV 280-487860/64			13:30																									
CCB 280-487860/65			13:47																									
ZZZZZZ			14:04																									
ZZZZZZ			14:21																									
ZZZZZZ			14:37																									
ZZZZZZ			14:54																									
CCV 280-487860/70			15:09																									
CCB 280-487860/71			15:26																									
EMPTY 280-487860/72			15:41																									

Prep Types:
D = Dissolved

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134141-1

SDG No.:

Instrument ID: WC-AT3 Analysis Method: SM 2320B

Start Date: 03/04/2020 08:47 End Date: 03/04/2020 17:48

Lab Sample Id	D/F	Type	Time	Analytes																							
				Alk																							
RINSE 280-487741/1			08:47																								
ZZZZZZ			08:54																								
ZZZZZZ			08:55																								
LCS 280-487741/4	1	T	09:02	X																							
MB 280-487741/5	1	T	09:07	X																							
ZZZZZZ			09:13																								
ZZZZZZ			09:19																								
ZZZZZZ			09:24																								
ZZZZZZ			09:29																								
ZZZZZZ			09:51																								
ZZZZZZ			10:12																								
ZZZZZZ			10:33																								
ZZZZZZ			10:55																								
ZZZZZZ			11:16																								
ZZZZZZ			11:37																								
CCV 280-487741/16	1		11:43	X																							
CCB 280-487741/17	1		11:47	X																							
ZZZZZZ			12:02																								
ZZZZZZ			12:21																								
ZZZZZZ			12:30																								
ZZZZZZ			12:49																								
280-134141-1	1	T	12:57	X																							
280-134141-2	1	T	13:03	X																							
280-134141-3	1	T	13:10	X																							
280-134141-4	1	T	13:17	X																							
ZZZZZZ			13:21																								
ZZZZZZ			13:26																								
CCV 280-487741/28	1		13:32	X																							
CCB 280-487741/29	1		13:37	X																							
ZZZZZZ			13:43																								
ZZZZZZ			13:48																								
ZZZZZZ			13:53																								
ZZZZZZ			13:59																								
ZZZZZZ			14:04																								
ZZZZZZ			14:10																								
ZZZZZZ			14:15																								
ZZZZZZ			14:20																								
ZZZZZZ			14:25																								
ZZZZZZ			14:32																								
ZZZZZZ			14:41																								
ZZZZZZ			14:45																								

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134141-1

SDG No.:

Instrument ID: WC-AT3 Analysis Method: SM 2320B

Start Date: 03/04/2020 08:47 End Date: 03/04/2020 17:48

Lab Sample Id	D/F	Type	Time	Analytes																							
				Alk																							
CCV 280-487741/42			14:52																								
CCB 280-487741/43			14:56																								
ZZZZZZ			15:04																								
ZZZZZZ			15:11																								
ZZZZZZ			15:20																								
ZZZZZZ			15:27																								
ZZZZZZ			15:34																								
ZZZZZZ			15:42																								
ZZZZZZ			15:49																								
ZZZZZZ			15:56																								
ZZZZZZ			16:03																								
ZZZZZZ			16:10																								
CCV 280-487741/54			16:16																								
CCB 280-487741/55			16:21																								
ZZZZZZ			16:28																								
ZZZZZZ			16:33																								
ZZZZZZ			16:39																								
ZZZZZZ			16:46																								
ZZZZZZ			16:53																								
ZZZZZZ			16:59																								
ZZZZZZ			17:04																								
ZZZZZZ			17:10																								
ZZZZZZ			17:19																								
ZZZZZZ			17:25																								
ZZZZZZ			17:30																								
ZZZZZZ			17:37																								
CCV 280-487741/68			17:43																								
CCB 280-487741/69			17:48																								

Prep Types:
T = Total/NA

FORM XIII-IN

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134141-1

SDG No.:

Batch Number: 487646 Batch Start Date: 03/03/20 14:04 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 00406	350.1 ICV 00391
ICVL 280-487646/14		350.1			100 mL	100 mL			0.5 mL
ICV 280-487646/15		350.1			100 mL	100 mL			2.5 mL
ICB 280-487646/16		350.1			10 mL	10 mL			
LCS 280-487646/18		350.1			100 mL	100 mL		2.5 mL	
LCSD 280-487646/19		350.1			100 mL	100 mL		2.5 mL	
MB 280-487646/20		350.1			10 mL	10 mL			
CCVL 280-487646/33		350.1			100 mL	100 mL		0.5 mL	
CCV 280-487646/34		350.1			100 mL	100 mL		2.5 mL	
CCB 280-487646/35		350.1			10 mL	10 mL			
280-134141-C-1	EW7-PM26A-2-25	350.1	T	No	10 mL	10 mL	<2 SU		
280-134141-C-4	EW7-PM25A-2-25	350.1	T	No	10 mL	10 mL	<2 SU		
CCVL 280-487646/49		350.1			100 mL	100 mL		0.5 mL	
CCV 280-487646/50		350.1			100 mL	100 mL		2.5 mL	
CCB 280-487646/51		350.1			10 mL	10 mL			

Batch Notes	
Batch Comment	BWH
Carrier Identification	350.1 complex_00473
Hypochlorite ID	350.1 bleach_01218
Sodium Nitroprusside ID	350.1 color_00188
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.: 280-134141-1

SDG No.:

Batch Number: 487846 Batch Start Date: 03/05/20 12:05 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 00406	350.1 ICV 00391
ICVL 280-487846/14		350.1			100 mL	100 mL			0.5 mL
ICV 280-487846/15		350.1			100 mL	100 mL			2.5 mL
ICB 280-487846/16		350.1			10 mL	10 mL			
LCS 280-487846/18		350.1			100 mL	100 mL		2.5 mL	
LCSD 280-487846/19		350.1			100 mL	100 mL		2.5 mL	
MB 280-487846/20		350.1			10 mL	10 mL			
CCVL 280-487846/33		350.1			100 mL	100 mL		0.5 mL	
CCV 280-487846/34		350.1			100 mL	100 mL		2.5 mL	
CCB 280-487846/35		350.1			10 mL	10 mL			
280-134141-C-2	EW7-PM27A-2-25	350.1	T	No	10 mL	10 mL	<2 SU		
280-134141-C-2 MS	EW7-PM27A-2-25	350.1	T	No	10 mL	10 mL	<2 SU	0.1 mL	
280-134141-C-2 MSD	EW7-PM27A-2-25	350.1	T	No	10 mL	10 mL	<2 SU	0.1 mL	
280-134141-C-3	EW7-PM24A-2-25	350.1	T	No	10 mL	10 mL	<2 SU		
CCVL 280-487846/49		350.1			100 mL	100 mL		0.5 mL	
CCV 280-487846/50		350.1			100 mL	100 mL		2.5 mL	
CCB 280-487846/51		350.1			10 mL	10 mL			

Batch Notes	
Batch Comment	BWH
Carrier Identification	350.1 complex_00478
Hypochlorite ID	350.1 bleach_01219
Sodium Nitroprusside ID	350. 1 color_00188
Pipette/Syringe/Dispenser ID	BWH100, BWH1000, BWH5000

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.: 280-134141-1

SDG No.:

Batch Number: 487846 Batch Start Date: 03/05/20 12:05 Batch Analyst: Hunter, Brandon W

Batch Method: 350.1 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.: 280-134141-1

SDG No.:

Batch Number: 486063 Batch Start Date: 02/16/20 16:06 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 00804	TKN ICV 25 00089		
ICV 280-486063/7		351.2, 351.2		25 mL	25 mL		5 mL		
ICB 280-486063/8		351.2, 351.2		25 mL	25 mL				
CCV 280-486063/9		351.2, 351.2		25 mL	25 mL	5 mL			
CCB 280-486063/10		351.2, 351.2		25 mL	25 mL				

Batch Notes	
Block Digestion End time	02/17/20 0005
Block Digestion Start time	02/16/20 1700
Block Digestor ID	TKN Hotblock
Digestion Solution ID	TKN digestion_00133
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.: 280-134141-1

SDG No.:

Batch Number: 487438 Batch Start Date: 03/02/20 19:37 Batch Analyst: Cherry, Scott V

Batch Method: 351.2 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	Initial pH	ResidualChloCheck	InitialAmount	FinalAmount	TKN 25ppm 00804	
LCS 280-487438/1		351.2, 351.2				25 mL	25 mL	6 mL	
MB 280-487438/2		351.2, 351.2				25 mL	25 mL		
280-134141-C-1	EW7-PM26A-2-25	351.2, 351.2	T	<2	n	25 mL	25 mL		
280-134141-C-2	EW7-PM27A-2-25	351.2, 351.2	T	<2	n	25 mL	25 mL		
280-134141-C-3	EW7-PM24A-2-25	351.2, 351.2	T	<2	n	25 mL	25 mL		
280-134141-C-4	EW7-PM25A-2-25	351.2, 351.2	T	<2	n	25 mL	25 mL		

Batch Notes	
Block Digestion End time	03/03/20 0500
Block Digestion Start time	03/02/20 2200
Block Digestor ID	TKN Hotblock
Digestion Solution ID	TKN digestion_00133
Oven, Bath or Block Temperature 1	185 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.: 280-134141-1

SDG No.:

Batch Number: 487728 Batch Start Date: 03/04/20 16:44 Batch Analyst: Cherry, Scott V

Batch Method: 351.2 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	FinalAmount					
ICV 280-486063/7-A		351.2		4 mL					
ICB 280-486063/8-A		351.2		4 mL					
LCS 280-487438/1-A		351.2		4 mL					
MB 280-487438/2-A		351.2		4 mL					
CCV 280-486063/9-A		351.2		4 mL					
CCB 280-486063/10-A		351.2		4 mL					
CCV 280-486063/9-A		351.2		4 mL					
CCB 280-486063/10-A		351.2		4 mL					
280-134141-C-1-A	EW7-PM26A-2-25	351.2	T	4 mL					
280-134141-C-2-A	EW7-PM27A-2-25	351.2	T	4 mL					
280-134141-C-3-A	EW7-PM24A-2-25	351.2	T	4 mL					
280-134141-C-4-A	EW7-PM25A-2-25	351.2	T	4 mL					
CCV 280-486063/9-A		351.2		4 mL					
CCB 280-486063/10-A		351.2		4 mL					

Batch Notes	
Buffer Reagent ID	TKN buffer_00124
Hypochlorite ID	TKN hypo_00667
Sodium Nitroprusside ID	sodium nitro_0098
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.: 280-134141-1

SDG No.:

Batch Number: 487437 Batch Start Date: 03/02/20 16:12 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 00524	NXN ICV INT 00505		
ICV 280-487437/17		353.2		100 mL	100 mL		5 mL		
ICVL 280-487437/18		353.2		100 mL	100 mL		2 mL		
ICB 280-487437/19		353.2		100 mL	100 mL				
LCS 280-487437/21		353.2		100 mL	100 mL	5 mL			
MB 280-487437/22		353.2		100 mL	100 mL				
CCV 280-487437/35		353.2		100 mL	100 mL	5 mL			
CCVL 280-487437/36		353.2		100 mL	100 mL	1 mL			
CCB 280-487437/37		353.2		100 mL	100 mL				
280-134141-C-1	EW7-PM26A-2-25	353.2	T	100 mL	100 mL				
280-134141-C-2	EW7-PM27A-2-25	353.2	T	100 mL	100 mL				
280-134141-C-3	EW7-PM24A-2-25	353.2	T	100 mL	100 mL				
280-134141-C-4	EW7-PM25A-2-25	353.2	T	100 mL	100 mL				
CCV 280-487437/51		353.2		100 mL	100 mL	5 mL			
CCVL 280-487437/52		353.2		100 mL	100 mL	1 mL			
CCB 280-487437/53		353.2		100 mL	100 mL				

Batch Notes	
Buffer Reagent ID	NOXT Buffer_00207
Color Reagent ID	NOXT CR_00107
Copper Sulfate ID	CuSO4 NOXT_0007
Hydrochloric Acid ID	0.5N HCl_0076
pH Indicator ID	hc989495
Pipette/Syringe/Dispenser ID	5000ad, 1000ad

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.: 280-134141-1

SDG No.:

Batch Number: 487437 Batch Start Date: 03/02/20 16:12 Batch Analyst: Cherry, Scott V

Batch Method: 353.2 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.: 280-134141-1

SDG No.:

Batch Number: 487652 Batch Start Date: 03/04/20 11:03 Batch Analyst: Hohulin, Sierra 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 280-487652/1		9030B, 9034		50 mL	50 mL	1	>9 SU	<2 SU	5 mL
MB 280-487652/2		9030B, 9034		50 mL	50 mL	2	>9 SU	<2 SU	5 mL
280-134141-E-1	EW7-PM26A-2-25	9030B, 9034	T	50 mL	50 mL	7	>9 SU	<2 SU	5 mL
280-134141-E-2	EW7-PM27A-2-25	9030B, 9034	T	50 mL	50 mL	8	>9 SU	<2 SU	5 mL
280-134141-E-3	EW7-PM24A-2-25	9030B, 9034	T	50 mL	50 mL	9	>9 SU	<2 SU	5 mL
280-134141-E-4	EW7-PM25A-2-25	9030B, 9034	T	50 mL	50 mL	10	>9 SU	<2 SU	5 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	SFD ICV INT 01661					
LCS 280-487652/1		9030B, 9034		1 mL					
MB 280-487652/2		9030B, 9034							
280-134141-E-1	EW7-PM26A-2-25	9030B, 9034	T						
280-134141-E-2	EW7-PM27A-2-25	9030B, 9034	T						
280-134141-E-3	EW7-PM24A-2-25	9030B, 9034	T						
280-134141-E-4	EW7-PM25A-2-25	9030B, 9034	T						

Batch Notes	
Batch Comment	JDR trained by BWH
Distillation End Time	02/22/2020 13:15
Distillation Start Time	02/22/2020 12:15
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_00112

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.: 280-134141-1

SDG No.:

Batch Number: 487657 Batch Start Date: 03/04/20 11:32 Batch Analyst: Hohulin, Sierra A

Batch Method: 9034 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	BuretStart1	BuretStop1	IodineAmount	TitrantVolume1	FinalAmount	
LCS 280-487652/1-A		9034		0 mL	2.7 mL	5 mL	2.7 mL	50 mL	
MB 280-487652/2-A		9034		2.7 mL	3.7 mL	1 mL	1 mL	50 mL	
280-134141-E-1-B	EW7-PM26A-2-25	9034	T	11.1 mL	12.2 mL	1 mL	1.1 mL	50 mL	
280-134141-E-2-B	EW7-PM27A-2-25	9034	T	12.2 mL	13.2 mL	1 mL	1 mL	50 mL	
280-134141-E-3-B	EW7-PM24A-2-25	9034	T	13.2 mL	14.1 mL	1 mL	0.9 mL	50 mL	
280-134141-E-4-B	EW7-PM25A-2-25	9034	T	14.1 mL	15.0 mL	1 mL	0.9 mL	50 mL	

Batch Notes	
Batch Comment	SAH
Hydrochloric Acid ID	HCL Sol_00175
Iodine ID	Iod_00252
Normality of Iodine Solution	0.0250 N
Sodium Thiosulfate ID	Na Starch_00165
Pipette/Syringe/Dispenser ID	SAH1000
Starch Reagent ID	Starch Ind_00061
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.: 280-134141-1

SDG No.:

Batch Number: 486534 Batch Start Date: 02/20/20 14:39 Batch Analyst: Jindarat, Chanida

Batch Method: 9056A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	IC CAL cl/so4 00298	IC Cal low 00511	IC CL ICV 00018	IC ICV 5 00263
STD 280-486534/2 IC		9056A		5 mL	5 mL	0.02 mL	0.02 mL		
STD 280-486534/3 IC		9056A		5 mL	5 mL	0.05 mL	0.05 mL		
STD 280-486534/4 IC		9056A		5 mL	5 mL	0.1 mL	0.1 mL		
STD 280-486534/5 IC		9056A		5 mL	5 mL	1.2 mL	0.4 mL		
STD 280-486534/6 IC		9056A		5 mL	5 mL	2.4 mL	0.8 mL		
STD 280-486534/7 IC		9056A		5 mL	5 mL	4 mL	1 mL		
ICV 280-486534/8		9056A		5 mL	5 mL			0.4 mL	0.4 mL
ICB 280-486534/9		9056A		5 mL	5 mL				

Lab Sample ID	Client Sample ID	Method Chain	Basis	IC SO4 ICV 00021					
STD 280-486534/2 IC		9056A							
STD 280-486534/3 IC		9056A							
STD 280-486534/4 IC		9056A							
STD 280-486534/5 IC		9056A							
STD 280-486534/6 IC		9056A							
STD 280-486534/7 IC		9056A							
ICV 280-486534/8		9056A		0.4 mL					
ICB 280-486534/9		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.: 280-134141-1

SDG No.:

Batch Number: 486534 Batch Start Date: 02/20/20 14:39 Batch Analyst: Jindarat, Chanida

Batch Method: 9056A Batch End Date:

Batch Notes	
Eluent 1 ID	IC11 Eluent_00606
Filter ID	R7MA61819
Pipette/Syringe/Dispenser ID	ic100, wc-1000d, 5000ics
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.: 280-134141-1

SDG No.:

Batch Number: 488019 Batch Start Date: 03/07/20 10:46 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 00300	IC Cal low 00514	IC LCS 01729	
CCV 280-488019/1		9056A		5 mL	5 mL			5 mL	
CCB 280-488019/2		9056A		5 mL	5 mL				
MRL 280-488019/3		9056A		5 mL	5 mL	0.1 mL	0.05 mL		
LCS 280-488019/4		9056A		5 mL	5 mL			5 mL	
LCSD 280-488019/5		9056A		5 mL	5 mL			5 mL	
MB 280-488019/6		9056A		5 mL	5 mL				
280-134141-F-1	EW7-PM26A-2-25	9056A	T	5 mL	5 mL				
280-134141-F-2	EW7-PM27A-2-25	9056A	T	5 mL	5 mL				
280-134141-F-3	EW7-PM24A-2-25	9056A	T	5 mL	5 mL				
280-134141-F-4	EW7-PM25A-2-25	9056A	T	5 mL	5 mL				
CCV 280-488019/17		9056A		5 mL	5 mL			5 mL	
CCB 280-488019/18		9056A		5 mL	5 mL				

Batch Notes	
Eluent 1 ID	ic11 eluent_00621
Filter ID	R7MA61819
Pipette/Syringe/Dispenser ID	ic100, wc-1000d, 5000ics
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.: 280-134141-1

SDG No.:

Batch Number: 487676 Batch Start Date: 03/04/20 13:40 Batch Analyst: Barker, Scott G

Batch Method: FILTRATION Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	TOC LCS Std 00048			
LCS 280-487676/1		FILTRATION, 9060A		200 mL	200 mL	5 mL			
MB 280-487676/2		FILTRATION, 9060A		20 mL	20 mL				
280-134141-D-1	EW7-PM26A-2-25	FILTRATION, 9060A	D	20 mL	20 mL				
280-134141-D-2	EW7-PM27A-2-25	FILTRATION, 9060A	D	20 mL	20 mL				
280-134141-D-3	EW7-PM24A-2-25	FILTRATION, 9060A	D	20 mL	20 mL				
280-134141-D-4	EW7-PM25A-2-25	FILTRATION, 9060A	D	20 mL	20 mL				

Batch Notes	
Filter ID	R9NA90610
Pipette/Syringe/Dispenser ID	8221539

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.: 280-134141-1

SDG No.:

Batch Number: 487860 Batch Start Date: 03/04/20 18:35 Batch Analyst: Barker, Scott G

Batch Method: 9060A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Initial pH	TOC ICV Std 00042	TOC LCS Std 00048	AnalysisComment
ICV 280-487860/3		9060A		50 mL	50 mL	<2 SU	1 mL		
ICB 280-487860/4		9060A		20 mL	20 mL	<2 SU			
LCS 280-487676/1-A		9060A		200 mL	200 mL	<2 SU			
MB 280-487676/2-A		9060A		20 mL	20 mL	<2 SU			
280-134141-D-1-A	EW7-PM26A-2-25	9060A	D	20 mL	20 mL	6 SU			
280-134141-D-2-A	EW7-PM27A-2-25	9060A	D	20 mL	20 mL	6 SU			
280-134141-D-3-A	EW7-PM24A-2-25	9060A	D	20 mL	20 mL	7 SU			
CCV 280-487860/17		9060A		200 mL	200 mL	<2 SU		5 mL	
CCB 280-487860/18		9060A		20 mL	20 mL	<2 SU			
280-134141-D-4-A	EW7-PM25A-2-25	9060A	D	20 mL	20 mL	7 SU			2.94x instrument dilutionn
CCV 280-487860/29		9060A		200 mL	200 mL	<2 SU		5 mL	
CCB 280-487860/30		9060A		20 mL	20 mL	<2 SU			

Batch Notes	
Acid ID	H2SO4_00205, 0.2% H2SO4_00342
Combustion Catylyst ID	18003D-01
Pipette/Syringe/Dispenser ID	5000 Condor, 1000 Intercessor

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.: 280-134141-1

SDG No.:

Batch Number: 487741 Batch Start Date: 03/04/20 08:47 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 00889				
LCS 280-487741/4		SM 2320B		InitialAmount is blank	10 mL				
MB 280-487741/5		SM 2320B		InitialAmount is blank					
CCV 280-487741/16		SM 2320B		InitialAmount is blank	10 mL				
CCB 280-487741/17		SM 2320B		InitialAmount is blank					
280-134141-F-1	EW7-PM26A-2-25	SM 2320B	T	InitialAmount is blank					
280-134141-F-2	EW7-PM27A-2-25	SM 2320B	T	InitialAmount is blank					
280-134141-F-3	EW7-PM24A-2-25	SM 2320B	T	InitialAmount is blank					
280-134141-F-4	EW7-PM25A-2-25	SM 2320B	T	InitialAmount is blank					
CCV 280-487741/28		SM 2320B		InitialAmount is blank	10 mL				
CCB 280-487741/29		SM 2320B		InitialAmount is blank					

Batch Notes	
Acid ID	0.02 H2SO4_00270
pH Buffer 1 ID	pH 2.0 Buffer_00083
pH Buffer 2 ID	pH 4.0 Buffer_00185
pH Buffer 3 ID	pH 7.0 Buffer_00276
pH Buffer 4 ID	pH 10 Buffer_00147
pH Buffer 5 ID	pH 12 Buffer_00160
pH Buffer 6 ID	pH 7.0 Buffer_00275
Sodium Carbonate ID	alk stk std_00017
Nominal Amount Used	10 mL
Pipette/Syringe/Dispenser ID	5000SM
Probe ID	PCE 80 pH 1200C_6949
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.: 280-134141-1

SDG No.:

Batch Number: 487741 Batch Start Date: 03/04/20 08:47 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.

*** Sample Table from Analysis ***

File name: *** Sample Table from Analysis ***
Date: 04-Mar-20

BWH

350.1 color_00188
350.1 bleach_01218
350.1 complex_00473

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			
8	LCSD	U	1	1	1			
12	MB	U	1	1	1			
13	280-134189-c-2	U	1	1	1		<2	n
14	MS 280-134189-c-2	U	1	1	1		<2	n
15	MSD 280-134189-c-2	U	1	1	1		<2	n
16	280-134070-h-1	U	1	50	1		<2	n
17	280-133924-j-5	U	1	200	1		<2	n
18	280-134044-g-1	U	1	200	1		<2	n
19	280-134044-g-2	U	1	500	1		<2	n
20	280-134044-g-3	U	1	500	1		<2	n
21	280-134091-c-1	U	1	1	1		<2	n
22	280-134091-c-2	U	1	1	1		<2	
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	280-134091-c-3	U	1	1	1		<2	
24	280-134091-c-4	U	1	5	1		<2	n
25	280-134075-c-1	U	1	1	1		<2	n
26	MS 280-134075-c-1	U	1	1	1		<2	n
27	MSD 280-134075-c-1	U	1	1	1		<2	n
28	280-134075-b-2	U	1	1	1		<2	n
29	280-134141-c-1	U	1	5	1		<2	n
30	280-134141-c-2	X U	1	5	1		<2	n
31	280-134141-c-3	X U	1	5	1		<2	n
32	280-134141-c-4	U	1	10	1		<2	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			
33	280-134069-g-1	U	1	500	1		<2	
34	280-134069-i-2	X U	1	1000	1		<2	n
35	280-134069-i-3	U	1	1000	1		<2	n
36	280-134069-g-4	U	1	1000	1		<2	n

Cup	Name	Type	R	Dil	Wt	Comment	pH	Cl-
8	LCS	U	1	1	1			
8	LCSD	U	1	1	1			
12	MB	U	1	1	1			
37	280-134082-c-1	U	1	1	1		L2	n
38	MS 280-134082-c-1	U	1	1	1		L2	n
~~39~~	~~MSD 280-134082-c-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			
40	280-134069-i-5	U	1	1000	1		L2	n
41	280-134082-c-2	U	1	1	1		L2	n
42	280-134082-c-3	U	1	1	1		L2	n
43	280-134082-c-4	U	1	1	1		L2	n
44	280-134125-j-1	U	1	100	1		L2	n
45	280-134125-k-2	U	1	100	1		L2	n
46	280-134125-k-3	U	1	50	1		L2	n
47	280-134125-j-5	U	1	50	1		L2	n
48	280-134103-i-1	U	1	200	1		L2	n
49	280-134141-c-2	U	1	1	1		L2	n
0	RINSE	U	1	1	1			n
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\032020.RST
Sample table path	C:\FLOW_4\032020.tbl
Method path	C:\FLOW_4\nh3.mth
Date acquired	03-Mar-20
Time acquired	17:01

				|------------ Ammonia ----------|		
Date	Time	Cup	Name	Response	Calc [ppb]	Flags
03-Mar-20	14:04	5	Sync	9457	100.325	
03-Mar-20	14:06	0	blk	-78	13.816	
03-Mar-20	14:08	0	Read Baseline	0	14.518	BL UM
03-Mar-20	14:10	1	Cal 0.0 PPB	-234	12.423	UM
03-Mar-20	14:12	3	Cal 25.0 ppb	2095	33.360	UM
03-Mar-20	14:14	4	Cal 50.0 ppb	4616	56.155	UM
03-Mar-20	14:16	5	Cal 100.0 ppb	9653	102.128	
03-Mar-20	14:18	6	Cal 500.0 ppb	47470	464.869	
03-Mar-20	14:20	7	Cal 1000.0 ppb	94219	956.265	
03-Mar-20	14:22	8	Cal 2500.0 ppb	222501	2548.808	
03-Mar-20	14:24	9	Cal 5000.0 ppb	379597	4986.471	
03-Mar-20	14:26	0	blank	39	14.865	
03-Mar-20	14:28	0	read baseline	0	14.518	BL
03-Mar-20	14:30	10	ICVL 500.0 ppb	46604	456.213	
03-Mar-20	14:32	11	ICV 2500.0 ppb	216498	2466.308	
03-Mar-20	14:34	12	ICB	1670	29.526	
03-Mar-20	14:36	0	read baseline	0	14.518	BL
03-Mar-20	14:38	8	LCS	220933	2527.184	
03-Mar-20	14:40	8	LCSD	219495	2507.392	
03-Mar-20	14:42	12	MB	1950	32.049	
03-Mar-20	14:44	13	280-134189-c-2	2383	35.956	
03-Mar-20	14:46	14	MS 280-134189-c-2	91369	924.951	
03-Mar-20	14:48	15	MSD 280-134189-c-2	91462	925.968	
03-Mar-20	14:50	16	280-134070-h-1	241761	140940.047	
03-Mar-20	14:52	17	280-133924-j-5	263163	625657.500	
03-Mar-20	14:54	18	280-134044-g-1	257618	609429.750	
03-Mar-20	14:56	19	280-134044-g-2	172834	944884.812	
03-Mar-20	14:58	20	280-134044-g-3	267881	1598928.000	
03-Mar-20	15:00	21	280-134091-c-1	115843	1199.639	
03-Mar-20	15:02	22	280-134091-c-2	111842	1153.836	
03-Mar-20	15:04	0	RINSE	-257	12.216	
03-Mar-20	15:06	0	read baseline	0	14.518	BL
03-Mar-20	15:08	6	CCVL 500.0 ppb	48038	470.556	
03-Mar-20	15:10	8	CCV 2500.0 ppb	220434	2520.307	
03-Mar-20	15:12	12	CCB	-46	14.102	UM
03-Mar-20	15:14	0	read baseline	0	14.518	BL UM
03-Mar-20	15:16	23	280-134091-c-3	77362	773.591	
03-Mar-20	15:18	24	280-134091-c-4	11307	586.709	
03-Mar-20	15:20	25	280-134075-c-1	3449	45.585	
03-Mar-20	15:22	26	MS 280-134075-c-1	86657	873.553	
03-Mar-20	15:24	27	MSD 280-134075-c-1	85455	860.526	
03-Mar-20	15:26	28	280-134075-b-2	15965	160.506	
03-Mar-20	15:28	29	280-134141-c-1	21140	1045.099	
03-Mar-20	15:30	30	280-134141-c-2 X	4455	273.498	
03-Mar-20	15:37	31	280-134141-c-3 X	6300	357.308	
03-Mar-20	15:39	32	280-134141-c-4	11170	1160.771	

Result path C:\FLOW_4\032020.RST
Sample table path C:\FLOW_4\032020.tbl
Method path C:\FLOW_4\nh3.mth
Date acquired 03-Mar-20
Time acquired 17:01

				Ammonia		
Date	Time	Cup	Name	Response	Calc [ppb]	Flags
03-Mar-20	15:41	0	RINSE	-13	14.406	
03-Mar-20	15:43	0	read baseline	0	14.518	BL
03-Mar-20	15:45	6	CCVL 500.0 ppb	47817	468.337	
03-Mar-20	15:47	8	CCV 2500.0 ppb	216485	2466.120	
03-Mar-20	15:49	12	CCB	2265	34.895	
03-Mar-20	15:51	0	read baseline	0	14.518	BL
03-Mar-20	15:53	33	280-134069-g-1	80989	406187.812	
03-Mar-20	15:55	34	280-134069-i-2 X	396123	5274116.000	
03-Mar-20	15:57	35	280-134069-i-3	182853	2018387.625	
03-Mar-20	15:59	36	280-134069-g-4	169778	1850975.875	
03-Mar-20	16:01	8	LCS	213640	2427.302	
03-Mar-20	16:03	8	LCSD	219054	2501.339	
03-Mar-20	16:05	12	MB	-264	12.153	UM
03-Mar-20	16:07	37	280-134082-c-1	10699	111.743	
03-Mar-20	16:09	38	MS 280-134082-c-1	95146	966.489	
03-Mar-20	16:11	39	MSD 280-134082-c-1	10579	110.634	
03-Mar-20	16:13	0	RINSE	-147	13.197	
03-Mar-20	16:15	0	read baseline	0	14.518	BL
03-Mar-20	16:17	6	CCVL 500.0 ppb	46483	455.007	
03-Mar-20	16:19	8	CCV 2500.0 ppb	215345	2450.544	
03-Mar-20	16:21	12	CCB	379	17.923	UM
03-Mar-20	16:23	0	read baseline	0	14.518	BL UM
03-Mar-20	16:25	40	280-134069-i-5	72544	722524.562	
03-Mar-20	16:27	41	280-134082-c-2	10740	112.122	
03-Mar-20	16:29	42	280-134082-c-3	2929	40.886	
03-Mar-20	16:31	43	280-134082-c-4	2959	41.159	
03-Mar-20	16:33	44	280-134125-j-1	184129	203493.094	
03-Mar-20	16:35	45	280-134125-k-2	85705	86322.867	
03-Mar-20	16:37	46	280-134125-k-3	102953	52666.906	
03-Mar-20	16:39	47	280-134125-j-5	1099	1219.524	
03-Mar-20	16:41	48	280-134103-i-1	240092	559015.812	
03-Mar-20	16:43	49	280-134141-c-2	19390	192.556	
03-Mar-20	16:45	0	RINSE	26	14.753	
03-Mar-20	16:47	0	read baseline	0	14.518	BL
03-Mar-20	16:49	6	CCVL 500.0 ppb	48179	471.961	
03-Mar-20	16:51	8	CCV 2500.0 ppb	208214	2353.733	
03-Mar-20	16:53	12	CCB	338	17.554	UM
03-Mar-20	16:55	0	read baseline	0	14.518	BL

Peak Table:Ammonia

File name: C:\FLOW_4\032020.RST
Date: 03-Mar-20
Operator: BWH

Peak	Cup	Name	R	Type	Dil	Wt	Height	Calc. (ppb)	Flags
1	5	Sync	1	SYNC	1	1	9457	100.325455	
2	0	blk	1	CO	1	1	-78	13.816178	
B	0	Read Baseline	1	RB	1	1	0	14.517747	BL UM
4	1	Cal 0.0 PPB	1	C	1	1	-234	12.422593	UM
5	3	Cal 25.0 ppb	1	C	1	1	2095	33.360104	UM
6	4	Cal 50.0 ppb	1	C	1	1	4616	56.155460	UM
7	5	Cal 100.0 ppb	1	C	1	1	9653	102.128494	
8	6	Cal 500.0 ppb	1	C	1	1	47470	464.868927	
9	7	Cal 1000.0 ppb	1	C	1	1	94219	956.265442	
10	8	Cal 2500.0 ppb	1	C	1	1	222501	2548.807617	
11	9	Cal 5000.0 ppb	1	C	1	1	379597	4986.471191	
12	0	blank	1	BLNK	1	1	39	14.865175	
B	0	read baseline	1	RB	1	1	0	14.517747	BL
14	10	ICVL 500.0 ppb	1	U	1	1	46604	456.213440	
15	11	ICV 2500.0 ppb	1	U	1	1	216498	2466.308350	
16	12	ICB	1	U	1	1	1670	29.525694	
B	0	read baseline	1	RB	1	1	0	14.517747	BL
18	8	LCS	1	U	1	1	220933	2527.183594	
19	8	LCSD	1	U	1	1	219495	2507.391846	
20	12	MB	1	U	1	1	1950	32.049088	
21	13	280-134189-c-2	1	U	1	1	2383	35.955982	
22	14	MS 280-134189-c-2	1	U	1	1	91369	924.950500	
23	15	MSD 280-134189-c-2	1	U	1	1	91462	925.968018	
24	16	280-134070-h-1	1	U	50	1	241761	140940.046875	
25	17	280-133924-j-5	1	U	200	1	263163	625657.500000	
26	18	280-134044-g-1	1	U	200	1	257618	609429.750000	
27	19	280-134044-g-2	1	U	500	1	172834	944884.812500	
28	20	280-134044-g-3	1	U	500	1	267881	1598928.000000	
29	21	280-134091-c-1	1	U	1	1	115843	1199.638672	
30	22	280-134091-c-2	1	U	1	1	111842	1153.836426	
31	0	RINSE	1	U	1	1	-257	12.216475	
B	0	read baseline	1	RB	1	1	0	14.517746	BL
33	6	CCVL 500.0 ppb	1	U	1	1	48038	470.555511	
34	8	CCV 2500.0 ppb	1	U	1	1	220434	2520.307129	
35	12	CCB	1	U	1	1	-46	14.102175	UM
B	0	read baseline	1	RB	1	1	0	14.517747	BL UM
37	23	280-134091-c-3	1	U	1	1	77362	773.590576	
38	24	280-134091-c-4	1	U	5	1	11307	586.708801	
39	25	280-134075-c-1	1	U	1	1	3449	45.584965	
40	26	MS 280-134075-c-1	1	U	1	1	86657	873.552551	
41	27	MSD 280-134075-c-1	1	U	1	1	85455	860.526428	
42	28	280-134075-b-2	1	U	1	1	15965	160.506241	
43	29	280-134141-c-1	1	U	5	1	21140	1045.099365	
44	30	280-134141-c-2 X	1	U	5	1	4455	273.497925	
45	31	280-134141-c-3 X	1	U	5	1	6300	357.308289	
46	32	280-134141-c-4	1	U	10	1	11170	1160.770508	
47	0	RINSE	1	U	1	1	-13	14.405518	
B	0	read baseline	1	RB	1	1	0	14.517747	BL
49	6	CCVL 500.0 ppb	1	U	1	1	47817	468.337433	
50	8	CCV 2500.0 ppb	1	U	1	1	216485	2466.120361	
51	12	CCB	1	U	1	1	2265	34.894657	
B	0	read baseline	1	RB	1	1	0	14.517747	BL
53	33	280-134069-g-1	1	U	500	1	80989	406187.812500	
54	34	280-134069-i-2 X	1	U	1000	1	396123	5274116.000000	
55	35	280-134069-i-3	1	U	1000	1	182853	2018387.625000	
56	36	280-134069-g-4	1	U	1000	1	169778	1850975.875000	
57	8	LCS	1	U	1	1	213640	2427.302002	
58	8	LCSD	1	U	1	1	219054	2501.339111	
59	12	MB	1	U	1	1	-264	12.152878	UM
60	37	280-134082-c-1	1	U	1	1	10699	111.743347	
61	38	MS 280-134082-c-1	1	U	1	1	95146	966.488708	
62	39	MSD 280-134082-c-1	1	U	1	1	10579	110.634064	
63	0	RINSE	1	U	1	1	-147	13.196816	
B	0	read baseline	1	RB	1	1	0	14.517747	BL
65	6	CCVL 500.0 ppb	1	U	1	1	46483	455.006989	
66	8	CCV 2500.0 ppb	1	U	1	1	215345	2450.544189	
67	12	CCB	1	U	1	1	379	17.922855	UM
B	0	read baseline	1	RB	1	1	0	14.517747	BL UM
69	40	280-134069-i-5	1	U	1000	1	72544	722524.562500	
70	41	280-134082-c-2	1	U	1	1	10740	112.121506	

Peak	Cup	Name	R	Type	Dil	Wt	Height	Calc. (ppb)	Flags
71	42	280-134082-c-3	1	U	1	1	2929	40.885803	
72	43	280-134082-c-4	1	U	1	1	2959	41.159069	
73	44	280-134125-j-1	1	U	100	1	184129	203493.093750	
74	45	280-134125-k-2	1	U	100	1	85705	86322.867188	
75	46	280-134125-k-3	1	U	50	1	102953	52666.906250	
76	47	280-134125-j-5	1	U	50	1	1099	1219.523560	
77	48	280-134103-i-1	1	U	200	1	240092	559015.812500	
78	49	280-134141-c-2	1	U	1	1	19390	192.556183	
79	0	RINSE	1	U	1	1	26	14.752538	
B	0	read baseline	1	RB	1	1	0	14.517747	BL
81	6	CCVL 500.0 ppb	1	U	1	1	48179	471.961395	
82	8	CCV 2500.0 ppb	1	U	1	1	208214	2353.733398	
83	12	CCB	1	U	1	1	338	17.553593	UM
B	0	read baseline	1	RB	1	1	0	14.517747	BL

Ammonia:Calibration 1: Peak 4-84

File name: C:\FLOW_4\032020.RST
Date: 03-Mar-20
Operator: BWH

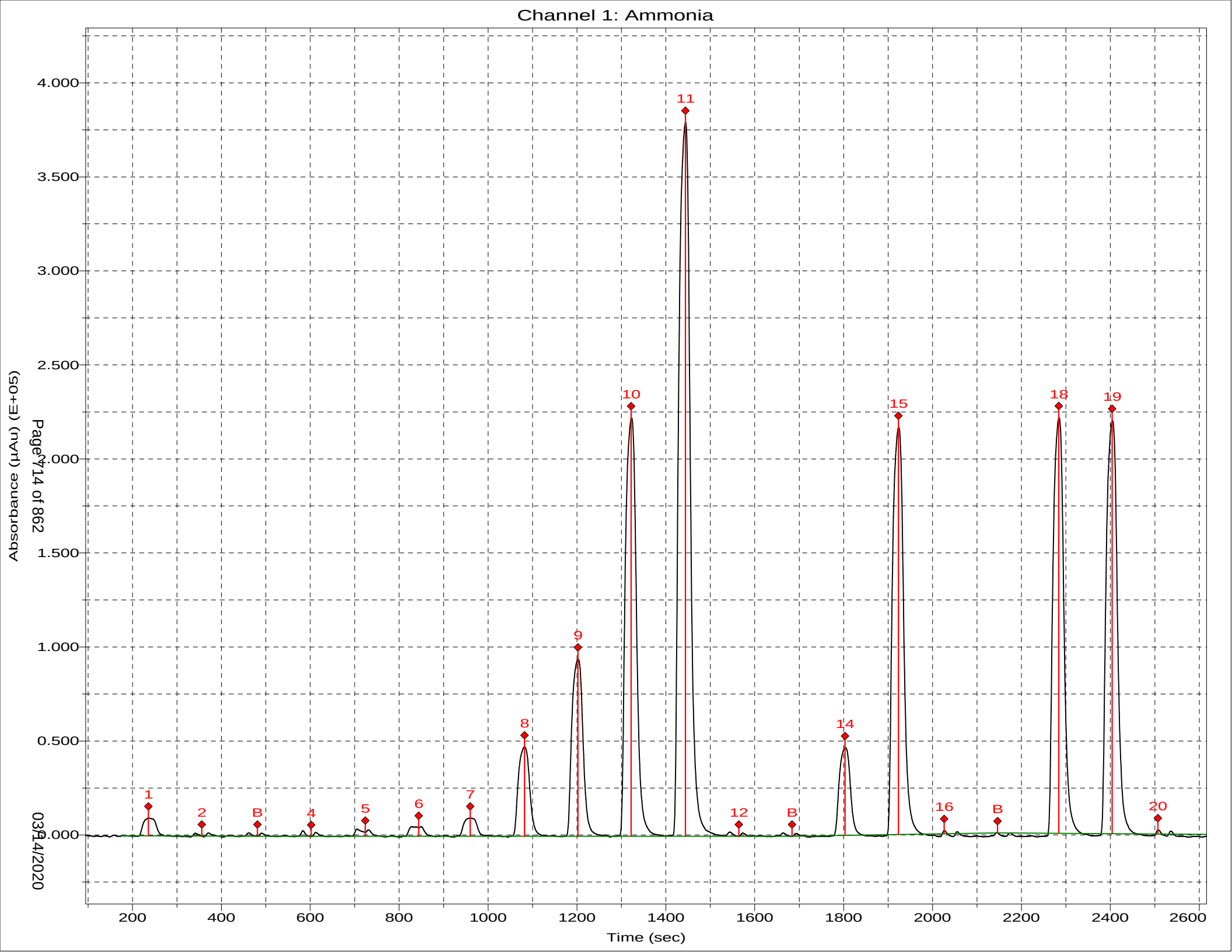
*	Name	Conc	Height
*	Cal 0.0 PPB	0.000000	-233.615662
*	Cal 25.0 ppb	25.000000	2095.062012
*	Cal 50.0 ppb	50.000000	4615.590820
*	Cal 100.0 ppb	100.000000	9653.150391
*	Cal 500.0 ppb	500.000000	47470.203125
*	Cal 1000.0 ppb	1000.000000	94219.109375
*	Cal 2500.0 ppb	2500.000000	222501.140625
*	Cal 5000.0 ppb	5000.000000	379596.656250

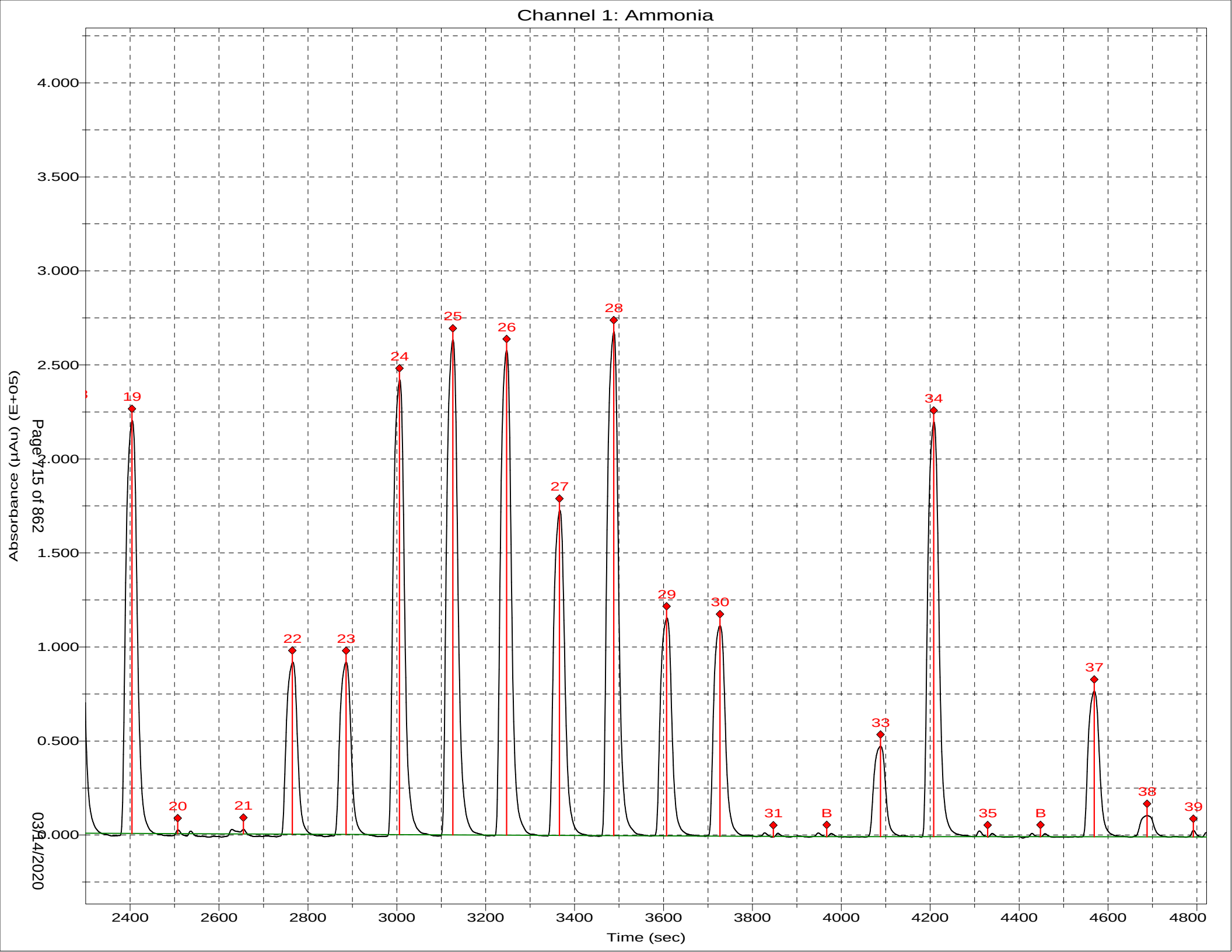
Calib Coef:
x=cyy+by+a
a: (intercept) 1.4518e+01
b: 8.9709e-03
c: 1.0872e-08

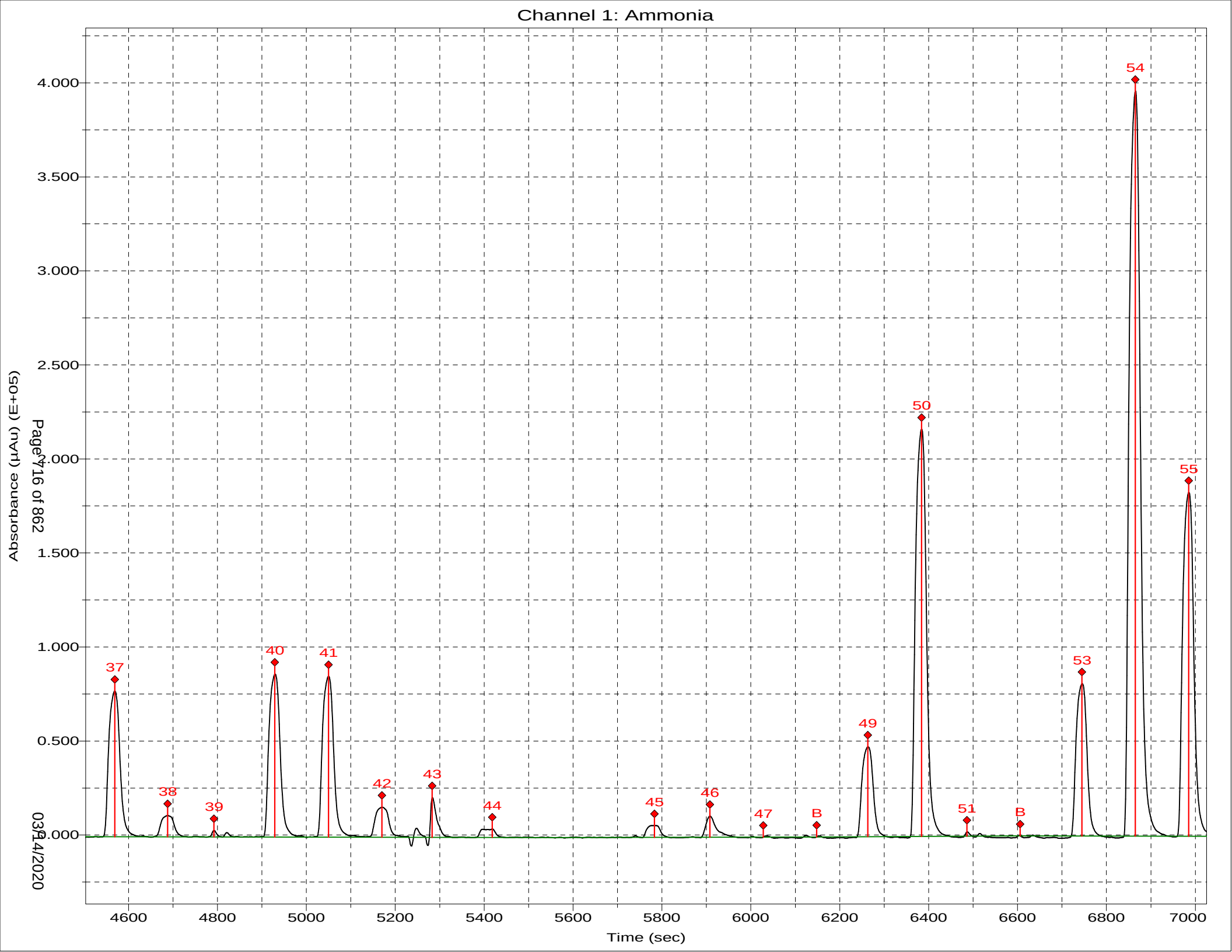
Corr Coef: 0.999866

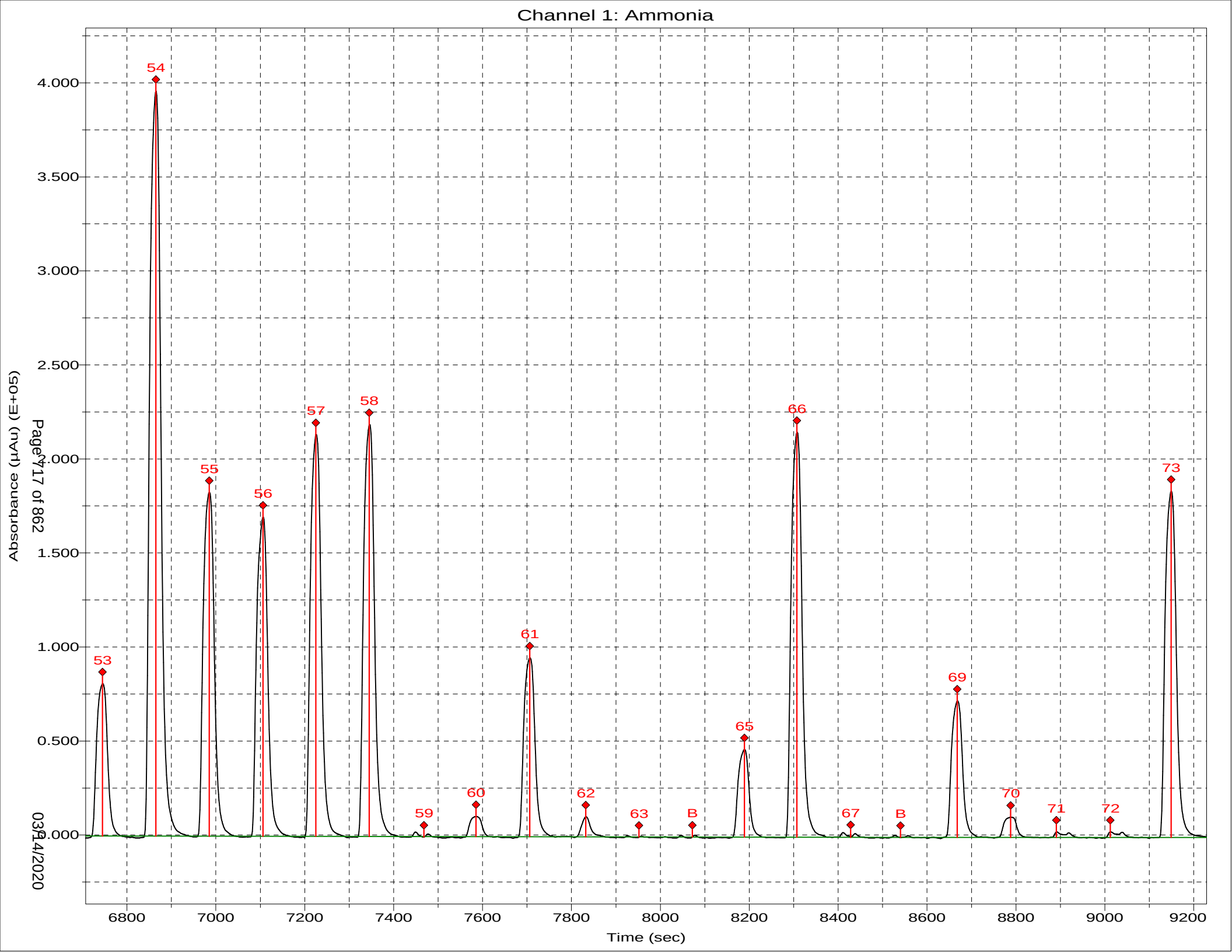
Carryover: 0%

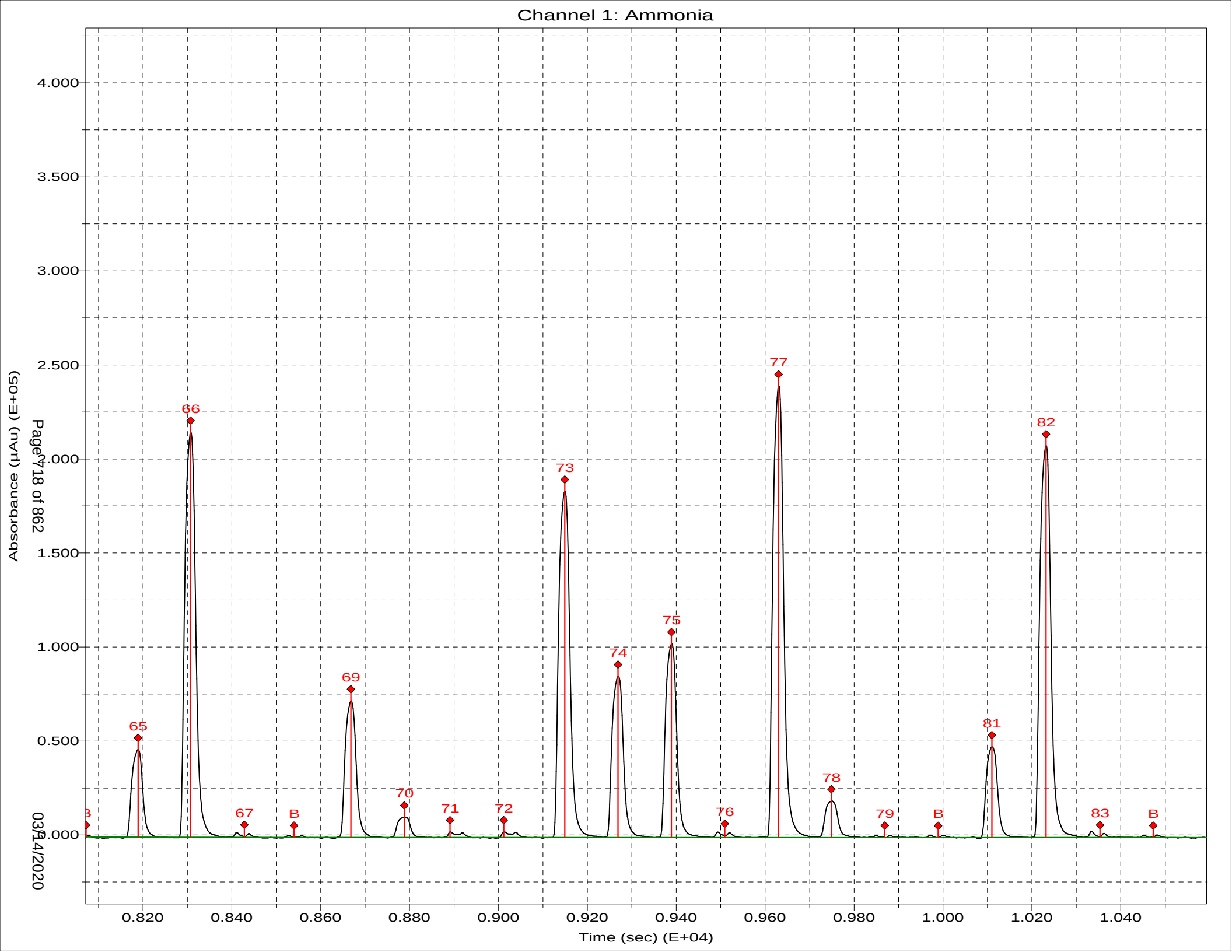
No Drift Peaks


Channel 1: Ammonia
Absorbance (µAu) (E+05)
4.000
3.500
3.000
2.500
2.000
1.500
1.000
0.500
0.000
1
2
B
4
5
6
7
8
9
10
11
12
B
14
15
16
B
18
19
20
200
400
600
800
1000
1200
1400
1600
1800
2000
2200
2400
2600
Time (sec)


Channel 1: Ammonia
Absorbance (µAu) (E+05)
4.000
3.500
3.000
2.500
2.000
1.500
1.000
0.500
0.000
19
20
21
22
23
24
25
26
27
28
29
30
31
B
33
34
35
B
37
38
39
2400
2600
2800
3000
3200
3400
3600
3800
4000
4200
4400
4600
4800
Time (sec)


Channel 1: Ammonia
Absorbance (µAu) (E+05)
4.000
3.500
3.000
2.500
2.000
1.500
1.000
0.500
0.000
37
38
39
40
41
42
43
44
45
46
47
B
49
50
51
B
53
54
55
4600
4800
5000
5200
5400
5600
5800
6000
6200
6400
6600
6800
7000
Time (sec)


Channel 1: Ammonia
Absorbance (µAu) (E+05)
4.000
3.500
3.000
2.500
2.000
1.500
1.000
0.500
0.000
53
54
55
56
57
58
59
60
61
62
63
B
65
66
67
B
69
70
71
72
73
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
9200
Time (sec)


Channel 1: Ammonia
Absorbance (µAu) (E+05)
4.000
3.500
3.000
2.500
2.000
1.500
1.000
0.500
0.000
Time (sec) (E+04)
0.820
0.840
0.860
0.880
0.900
0.920
0.940
0.960
0.980
1.000
1.020
1.040
65
66
67
B
69
70
71
72
73
74
75
76
77
78
79
B
81
82
83
B

*** Sample Table from Analysis ***

File name: *** Sample Table from Analysis ***
Date: 05-Mar-20

BWH

350.1 color_00188
350.1 bleach_01219
350.1 complex_00478

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			
8	LCSD	U	1	1	1			
12	MB	U	1	1	1			
13	280-134091-c-1	U	1	1	1		L2	n
14	MS 280-134091-c-1	U	1	1	1		L2	n
15	MSD 280-134091-c-1	U	1	1	1		L2	n
16	280-134091-c-2	U	1	1	1		L2	n
17	280-134044-g-3	U	1	500	1		L2	n
18	280-134069-g-1	U	1	500	1		L2	n
19	280-134069-i-2	U	1	1000	1		L2	n
20	280-134075-c-1	U	1	1	1		L2	n
21	280-134069-i-5	U	1	1000	1		L2	n
22	280-134103-f-2	U	1	200	1		L2	n
0	RINSE	U	1	1	1			n
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	280-134103-f-3	U	1	500	1		L2	n
24	280-134103-f-4	U	1	500	1		L2	n
25	280-134141-c-2	U	1	1	1		L2	n
26	MS 280-134141-c-2	U	1	1	1		L2	n
27	MSD 280-134141-c-2	U	1	1	1		L2	n
28	280-134141-c-3	U	1	1	1		L2	n
29	280-134103-i-5	U	1	1000	1		L2	n
30	280-134103-g-6	U	1	500	1		L2	n
31	280-134125-j-2	U	1	100	1		L2	n
32	280-134177-c-1	U	1	2	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			
33	280-134177-c-2	U	1	2	1		L2	n
34	280-134177-c-3	X U	1	2	1		L2	n
35	280-134177-c-4	U	1	2	1		L2	n
36	280-134177-c-5	U	1	2	1		L2	n

Cup	Name	Type	R	Dil	Wt	Comment	pH	Cl⁻
37	280-134177-c-3	U	1	1	1		<2	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\030520.RST
Sample table path	C:\FLOW_4\030520.tbl
Method path	C:\FLOW_4\nh3.mth
Date acquired	05-Mar-20
Time acquired	14:19

				Ammonia		
Date	Time	Cup	Name	Response	Calc [ppb]	Flags
05-Mar-20	12:05	5	Sync	7936	87.143	
05-Mar-20	12:07	0	blk	-94	-3.561	LO
05-Mar-20	12:09	0	Read Baseline	0	-2.505	BL
05-Mar-20	12:11	1	Cal 0.0 PPB	2262	22.934	
05-Mar-20	12:13	3	Cal 25.0 ppb	3389	35.633	
05-Mar-20	12:15	4	Cal 50.0 ppb	4557	48.832	
05-Mar-20	12:17	5	Cal 100.0 ppb	8306	91.351	
05-Mar-20	12:19	6	Cal 500.0 ppb	39677	457.167	
05-Mar-20	12:21	7	Cal 1000.0 ppb	85314	1021.359	
05-Mar-20	12:23	8	Cal 2500.0 ppb	192881	2501.386	
05-Mar-20	12:25	9	Cal 5000.0 ppb	347535	4998.854	
05-Mar-20	12:27	0	blank	203	-0.221	LO
05-Mar-20	12:29	0	read baseline	0	-2.505	BL
05-Mar-20	12:31	10	ICVL 500.0 ppb	42133	486.558	
05-Mar-20	12:33	11	ICV 2500.0 ppb	196306	2551.973	
05-Mar-20	12:35	12	ICB	1468	13.992	
05-Mar-20	12:37	0	read baseline	0	-2.505	BL
05-Mar-20	12:39	8	LCS	201795	2633.484	
05-Mar-20	12:41	8	LCSD	203223	2654.789	
05-Mar-20	12:43	12	MB	-1346	-17.590	LO UM
05-Mar-20	12:45	13	280-134091-c-1	109204	1331.850	
05-Mar-20	12:47	14	MS 280-134091-c-1	188027	2430.049	
05-Mar-20	12:49	15	MSD 280-134091-c-1	186858	2412.930	
05-Mar-20	12:51	16	280-134091-c-2	110491	1348.869	
05-Mar-20	12:53	17	280-134044-g-3	217081	1431702.250	
05-Mar-20	12:55	18	280-134069-g-1	173377	1108682.625	
05-Mar-20	12:57	19	280-134069-i-2	77268	919130.188	
05-Mar-20	12:59	20	280-134075-c-1	2542	26.079	
05-Mar-20	13:01	21	280-134069-i-5	70457	833521.500	
05-Mar-20	13:03	22	280-134103-f-2	285872	790163.500	
05-Mar-20	13:05	0	RINSE	332	1.219	
05-Mar-20	13:07	0	read baseline	0	-2.505	BL
05-Mar-20	13:09	6	CCVL 500.0 ppb	43181	499.136	
05-Mar-20	13:11	8	CCV 2500.0 ppb	203774	2663.023	
05-Mar-20	13:13	12	CCB	1021	8.964	
05-Mar-20	13:15	0	read baseline	0	-2.505	BL
05-Mar-20	13:17	23	280-134103-f-3	176675	1132451.750	
05-Mar-20	13:19	24	280-134103-f-4	105789	643415.375	
05-Mar-20	13:21	25	280-134141-c-2	18315	206.114	
05-Mar-20	13:23	26	MS 280-134141-c-2	104091	1264.522	
05-Mar-20	13:25	27	MSD 280-134141-c-2	105050	1277.111	
05-Mar-20	13:27	28	280-134141-c-3	29652	338.310	
05-Mar-20	13:29	29	280-134103-i-5	78325	932493.500	
05-Mar-20	13:31	30	280-134103-g-6	166780	1061439.625	
05-Mar-20	13:33	31	280-134125-j-2	84912	101622.539	
05-Mar-20	13:35	32	280-134177-c-1	14628	327.253	

Result path C:\FLOW_4\030520.RST
Sample table path C:\FLOW_4\030520.tbl
Method path C:\FLOW_4\nh3.mth
Date acquired 05-Mar-20
Time acquired 14:19

				Ammonia		
Date	Time	Cup	Name	Response	Calc [ppb]	Flags
05-Mar-20	13:37	0	RINSE	529	3.437	
05-Mar-20	13:39	0	read baseline	0	-2.505	BL
05-Mar-20	13:41	6	CCVL 500.0 ppb	44833	518.998	
05-Mar-20	13:43	8	CCV 2500.0 ppb	198012	2577.253	
05-Mar-20	13:45	12	CCB	-9	-2.600	LO UM
05-Mar-20	13:47	0	read baseline	0	-2.505	BL UM
05-Mar-20	13:49	33	280-134177-c-2	346019	9944.510	
05-Mar-20	13:51	34	280-134177-c-3 X	9544	210.877	
05-Mar-20	13:53	35	280-134177-c-4	98282	2377.215	
05-Mar-20	13:55	36	280-134177-c-5	74649	1772.226	
05-Mar-20	14:01	37	280-134177-c-3	16619	186.536	
05-Mar-20	14:03	0	RINSE	-157	-4.264	LO
05-Mar-20	14:05	0	read baseline	0	-2.505	BL
05-Mar-20	14:07	6	CCVL 500.0 ppb	44973	520.691	
05-Mar-20	14:09	8	CCV 2500.0 ppb	205650	2691.067	
05-Mar-20	14:11	12	CCB	25	-2.226	LO UM
05-Mar-20	14:13	0	read baseline	0	-2.505	BL UM

Peak Table:Ammonia

File name: C:\FLOW_4\030520.RST
Date: 05-Mar-20
Operator: BWH

Peak	Cup	Name	R	Type	Dil	Wt	Height	Calc. (ppb)	Flags
1	5	Sync	1	SYNC	1	1	7936	87.143211	
2	0	blk	1	CO	1	1	-94	-3.561365	LO
B	0	Read Baseline	1	RB	1	1	0	-2.504717	BL
4	1	Cal 0.0 PPB	1	C	1	1	2262	22.933588	
5	3	Cal 25.0 ppb	1	C	1	1	3389	35.632614	
6	4	Cal 50.0 ppb	1	C	1	1	4557	48.831760	
7	5	Cal 100.0 ppb	1	C	1	1	8306	91.350685	
8	6	Cal 500.0 ppb	1	C	1	1	39677	457.166504	
9	7	Cal 1000.0 ppb	1	C	1	1	85314	1021.359253	
10	8	Cal 2500.0 ppb	1	C	1	1	192881	2501.386475	
11	9	Cal 5000.0 ppb	1	C	1	1	347535	4998.854004	
12	0	blank	1	BLNK	1	1	203	-0.221176	LO
B	0	read baseline	1	RB	1	1	0	-2.504717	BL
14	10	ICVL 500.0 ppb	1	U	1	1	42133	486.558167	
15	11	ICV 2500.0 ppb	1	U	1	1	196306	2551.972656	
16	12	ICB	1	U	1	1	1468	13.992286	
B	0	read baseline	1	RB	1	1	0	-2.504717	BL
18	8	LCS	1	U	1	1	201795	2633.484131	
19	8	LCSD	1	U	1	1	203223	2654.788818	
20	12	MB	1	U	1	1	-1346	-17.590412	LO UM
21	13	280-134091-c-1	1	U	1	1	109204	1331.849731	
22	14	MS 280-134091-c-1	1	U	1	1	188027	2430.049316	
23	15	MSD 280-134091-c-1	1	U	1	1	186858	2412.930420	
24	16	280-134091-c-2	1	U	1	1	110491	1348.869141	
25	17	280-134044-g-3	1	U	500	1	217081	1431702.250000	
26	18	280-134069-g-1	1	U	500	1	173377	1108682.625000	
27	19	280-134069-i-2	1	U	1000	1	77268	919130.187500	
28	20	280-134075-c-1	1	U	1	1	2542	26.079193	
29	21	280-134069-i-5	1	U	1000	1	70457	833521.500000	
30	22	280-134103-f-2	1	U	200	1	285872	790163.500000	
31	0	RINSE	1	U	1	1	332	1.219322	
B	0	read baseline	1	RB	1	1	0	-2.504717	BL
33	6	CCVL 500.0 ppb	1	U	1	1	43181	499.135620	
34	8	CCV 2500.0 ppb	1	U	1	1	203774	2663.023193	
35	12	CCB	1	U	1	1	1021	8.964281	
B	0	read baseline	1	RB	1	1	0	-2.504717	BL
37	23	280-134103-f-3	1	U	500	1	176675	1132451.750000	
38	24	280-134103-f-4	1	U	500	1	105789	643415.375000	
39	25	280-134141-c-2	1	U	1	1	18315	206.113861	
40	26	MS 280-134141-c-2	1	U	1	1	104091	1264.522095	
41	27	MSD 280-134141-c-2	1	U	1	1	105050	1277.110718	
42	28	280-134141-c-3	1	U	1	1	29652	338.310394	
43	29	280-134103-i-5	1	U	1000	1	78325	932493.500000	
44	30	280-134103-g-6	1	U	500	1	166780	1061439.625000	
45	31	280-134125-j-2	1	U	100	1	84912	101622.539062	
46	32	280-134177-c-1	1	U	2	1	14628	327.253326	
47	0	RINSE	1	U	1	1	529	3.436514	
B	0	read baseline	1	RB	1	1	0	-2.504717	BL
49	6	CCVL 500.0 ppb	1	U	1	1	44833	518.998474	
50	8	CCV 2500.0 ppb	1	U	1	1	198012	2577.253418	
51	12	CCB	1	U	1	1	-9	-2.600223	LO UM
B	0	read baseline	1	RB	1	1	0	-2.504717	BL UM
53	33	280-134177-c-2	1	U	2	1	346019	9944.509766	
54	34	280-134177-c-3	X 1	U	2	1	9544	210.877136	
55	35	280-134177-c-4	1	U	2	1	98282	2377.215332	
56	36	280-134177-c-5	1	U	2	1	74649	1772.225708	
57	37	280-134177-c-3	1	U	1	1	16619	186.535538	
58	0	RINSE	1	U	1	1	-157	-4.263916	LO
B	0	read baseline	1	RB	1	1	0	-2.504717	BL
60	6	CCVL 500.0 ppb	1	U	1	1	44973	520.691406	
61	8	CCV 2500.0 ppb	1	U	1	1	205650	2691.067139	
62	12	CCB	1	U	1	1	25	-2.226500	LO UM
B	0	read baseline	1	RB	1	1	0	-2.504717	BL UM

Ammonia:Calibration 1: Peak 4-63

File name: C:\FLOW_4\030520.RST
Date: 05-Mar-20
Operator: BWH

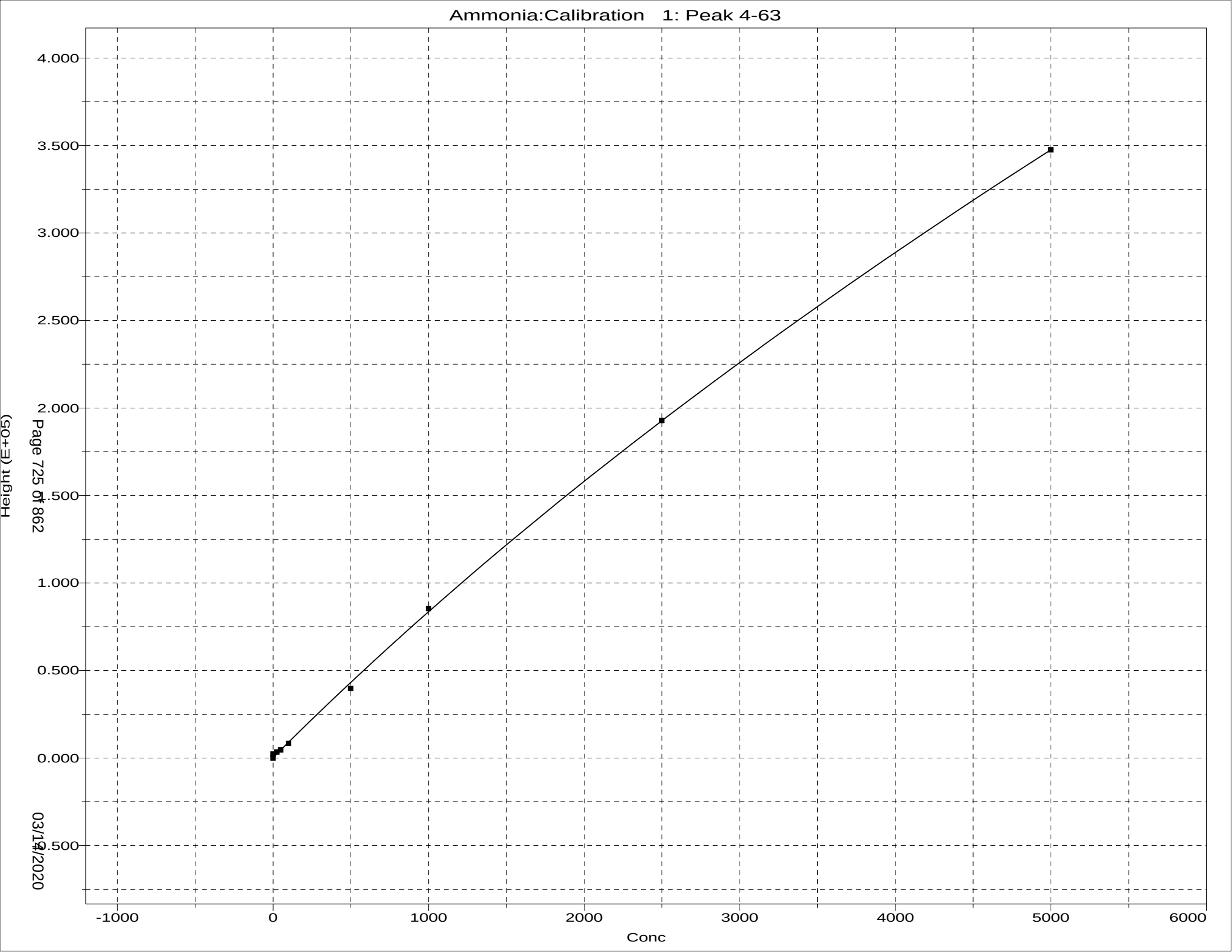
*	Name	Conc	Height
*	Cal 0.0 PPB	0.000000	2262.336670
*	Cal 25.0 ppb	25.000000	3388.621582
*	Cal 50.0 ppb	50.000000	4557.095215
*	Cal 100.0 ppb	100.000000	8306.269531
*	Cal 500.0 ppb	500.000000	39677.281250
*	Cal 1000.0 ppb	1000.000000	85313.710938
*	Cal 2500.0 ppb	2500.000000	192881.437500
*	Cal 5000.0 ppb	5000.000000	347534.625000

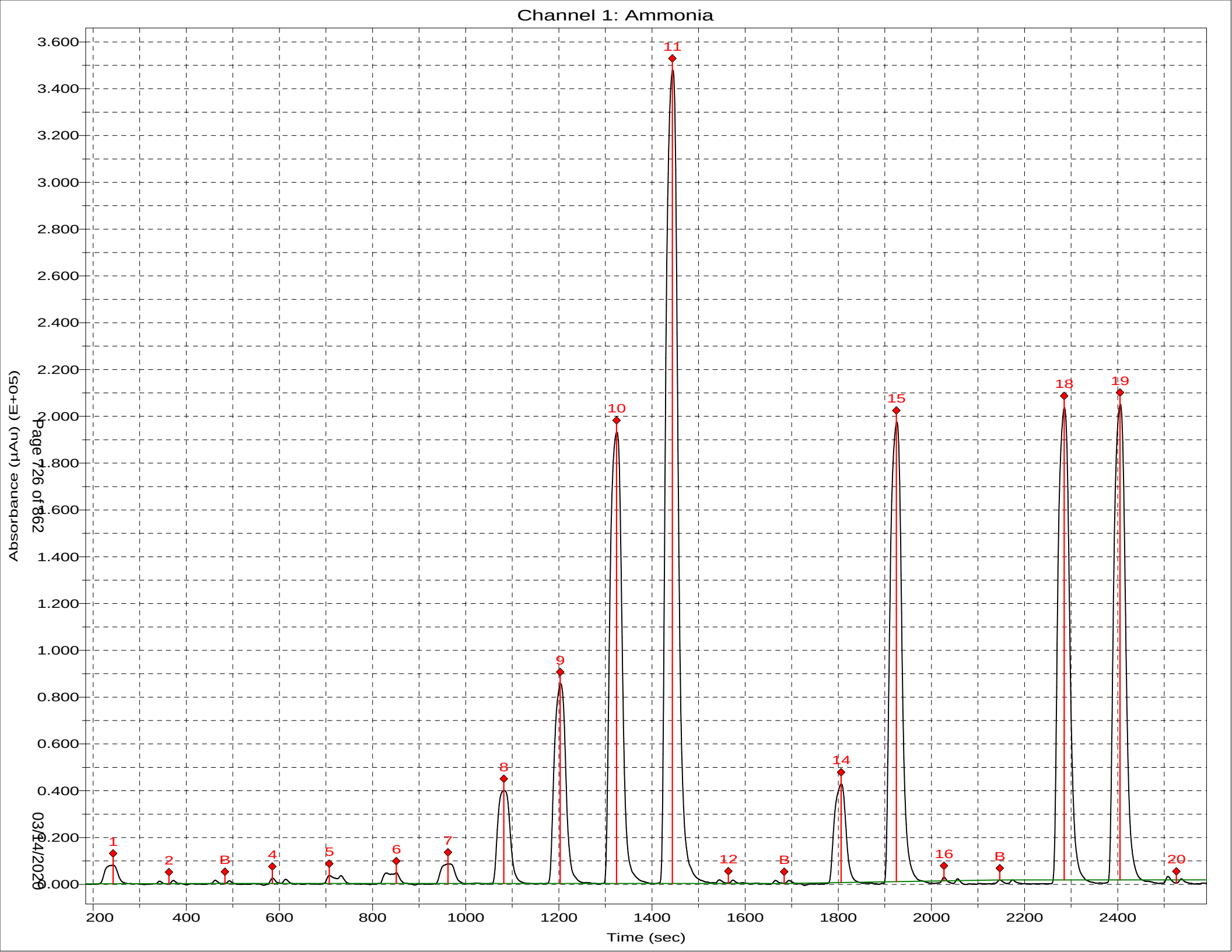
Calib Coef:
x=cyy+by+a
a: (intercept) -2.5047e+00
b: 1.1224e-02
c: 9.1137e-09

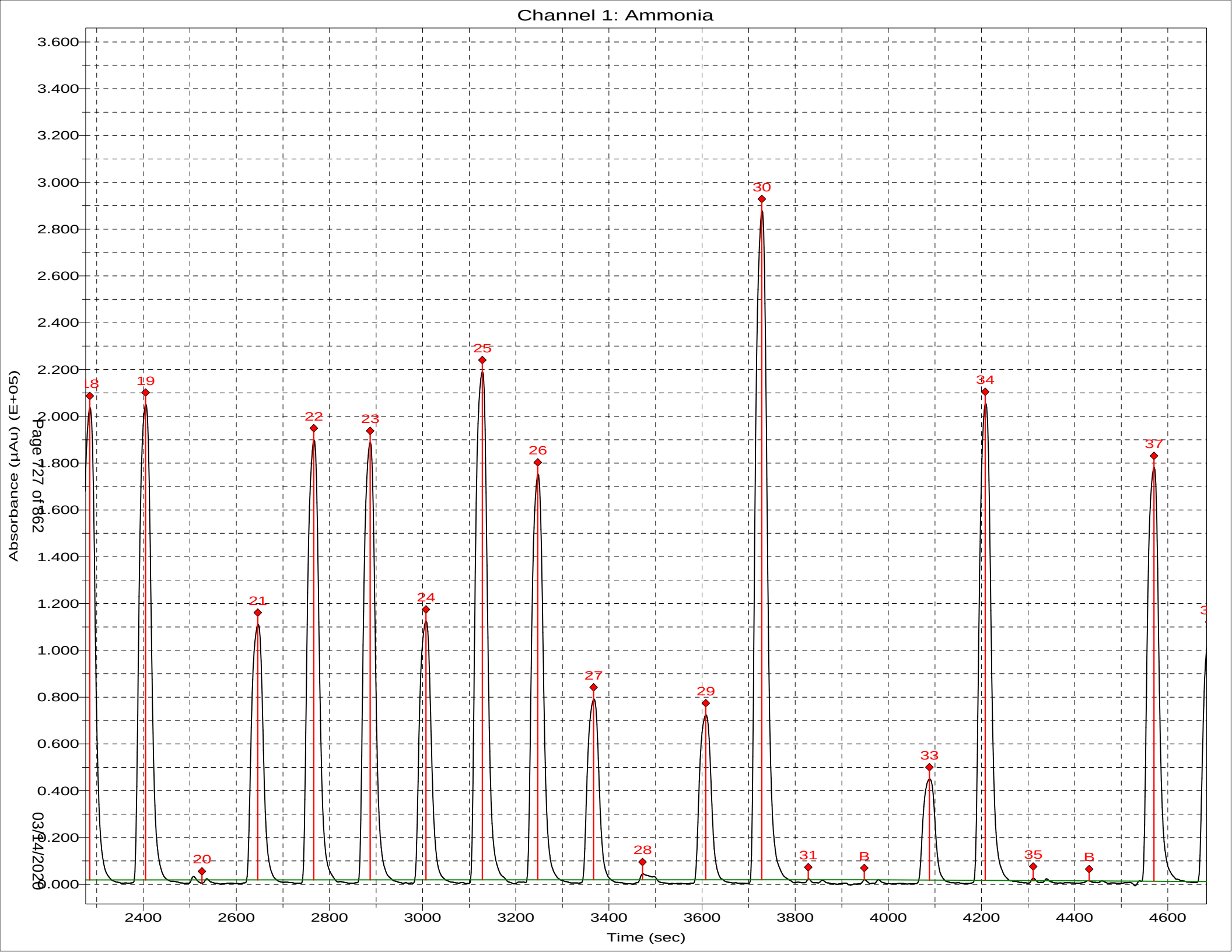
Corr Coef: 0.999935

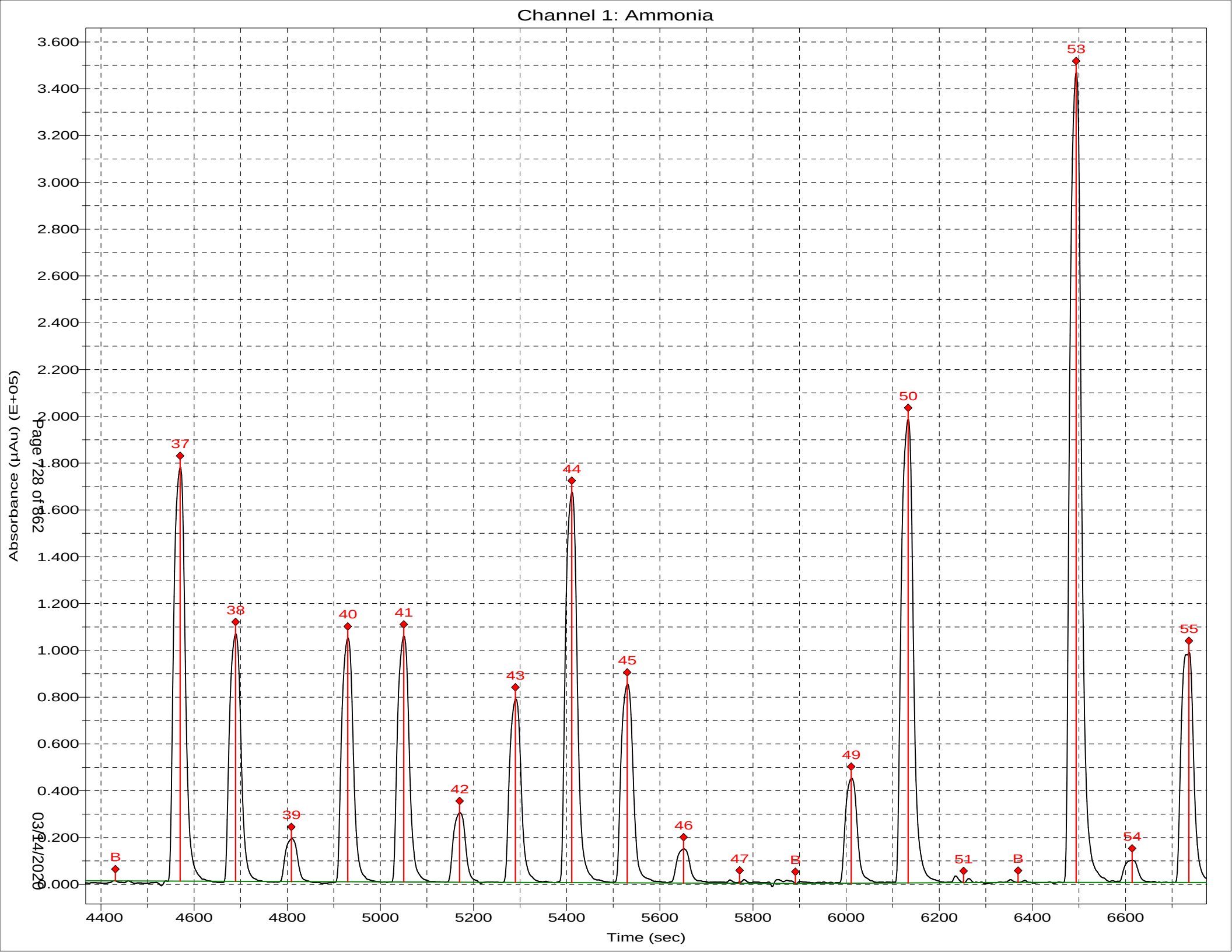
Carryover: 0%

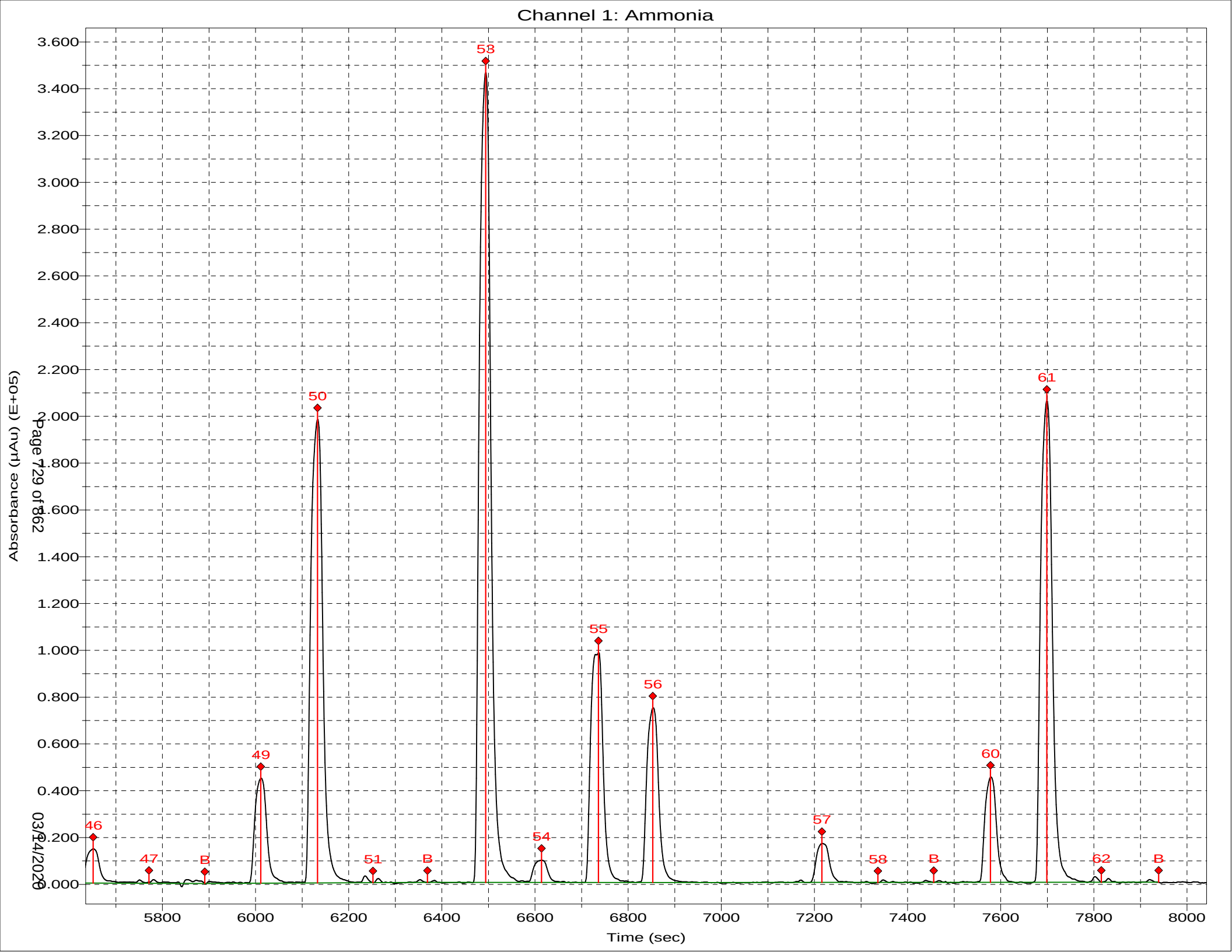
No Drift Peaks


Ammonia:Calibration 1: Peak 4-63
Height (E+05)
4.000
3.500
3.000
2.500
2.000
1.500
1.000
0.500
0.000
-0.500
-1000
0
1000
2000
3000
4000
5000
6000
Conc


Channel 1: Ammonia
Absorbance (µAu) (E+05)
Time (sec)
3.600
3.400
3.200
3.000
2.800
2.600
2.400
2.200
2.000
1.800
1.600
1.400
1.200
1.000
0.800
0.600
0.400
0.200
0.000
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)
3.600
3.400
3.200
3.000
2.800
2.600
2.400
2.200
2.000
1.800
1.600
1.400
1.200
1.000
0.800
0.600
0.400
0.200
0.000
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
31
B
33
34
35
B
37


Channel 1: Ammonia
Absorbance (µAu) (E+05)
Time (sec)
3.600
3.400
3.200
3.000
2.800
2.600
2.400
2.200
2.000
1.800
1.600
1.400
1.200
1.000
0.800
0.600
0.400
0.200
0.000
4400
4600
4800
5000
5200
5400
5600
5800
6000
6200
6400
6600
B
37
38
39
40
41
42
43
44
45
46
47
B
49
50
51
B
53
54
55


Channel 1: Ammonia
Absorbance (µAu) (E+05)
Time (sec)
3.600
3.400
3.200
3.000
2.800
2.600
2.400
2.200
2.000
1.800
1.600
1.400
1.200
1.000
0.800
0.600
0.400
0.200
0.000
5800
6000
6200
6400
6600
6800
7000
7200
7400
7600
7800
8000
46
47
B
49
50
51
B
53
54
55
56
57
58
B
60
61
62
B

Sample Table for 030420

	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 280-486063/7-A	Unknown	4 ml
14	1:16	ICB 280-486063/8-A	Unknown	4 ml
15	1:17	LCS 280-487438/1-A	Unknown	4 ml
16	1:18	MB 280-487438/2-A	Unknown	4 ml
17	1:19	280-134091-C-1-A	Unknown	4 ml
18	1:20	280-134091-C-1-B MS	Unknown	4 ml
19	1:21	280-134091-C-1-C MSD	Unknown	4 ml
20	1:22	w	Blank	4 ml
21	1:23	280-134091-C-2-A	Unknown	4 ml
22	1:24	280-134091-C-3-A	Unknown	4 ml
23	1:25	280-134091-C-4-A	Unknown	4 ml
24	1:26	580-93094-A-1-A	Unknown	4 ml
25	1:27	580-93094-A-2-A	Unknown	4 ml
26	1:28	580-93094-A-3-A	Unknown	4 ml
27	1:29	580-93094-A-4-A	Unknown	4 ml
28	1:30	w	Blank	4 ml
29	1:31	CCV 280-486063/9-A	Unknown	4 ml
30	1:32	CCB 280-486063/10-A	Unknown	4 ml
31	1:33	580-93094-A-5-A	Unknown	4 ml
32	1:34	580-93094-A-6-A	Unknown	4 ml
33	1:35	580-93094-A-7-A	Unknown	4 ml
34	1:36	580-93094-A-7-B MS	Unknown	4 ml
35	1:37	580-93094-A-7-C MSD	Unknown	4 ml
36	1:38	w	Blank	4 ml
37	1:39	580-93094-A-8-A	Unknown	4 ml
38	1:40	580-93094-A-9-A	Unknown	4 ml
39	1:41	580-93094-A-10-A	Unknown	4 ml
40	1:42	580-93094-A-11-A	Unknown	4 ml
41	1:43	580-93094-A-12-A	Unknown	4 ml
42	1:44	w	Blank	4 ml
43	1:45	CCV 280-486063/9-A	Unknown	4 ml
44	1:46	CCB 280-486063/10-A	Unknown	4 ml

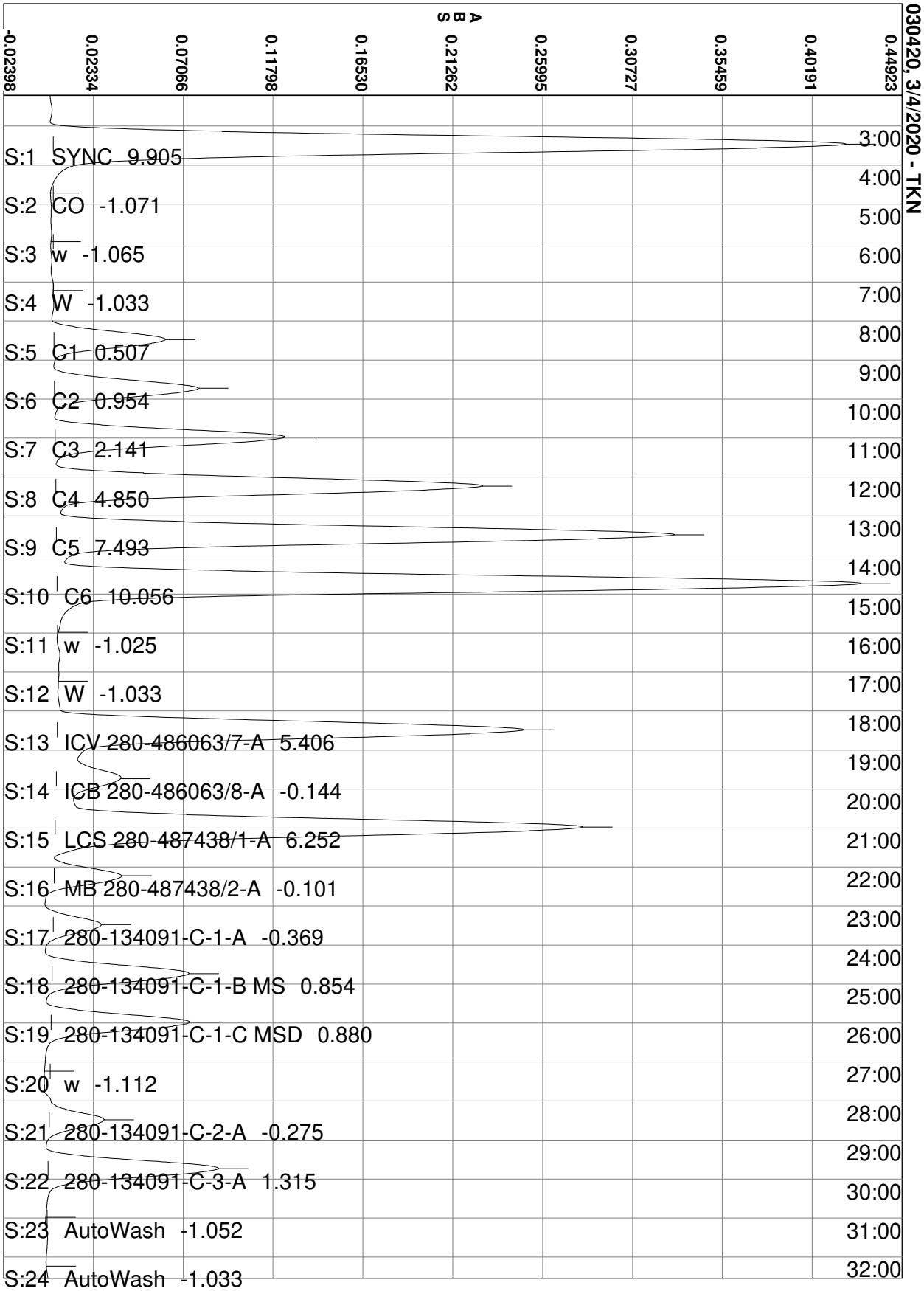
	Position	Identifier	Type	Cup Type
45	1:47	280-134141-C-1-A	Unknown	4 ml
46	1:48	280-134141-C-2-A	Unknown	4 ml
47	1:49	280-134141-C-3-A	Unknown	4 ml
48	1:50	280-134141-C-4-A	Unknown	4 ml
49	1:51	w	Blank	4 ml
50	1:52	LCS 280-487438/27-A	Unknown	4 ml
51	1:53	MB 280-487438/28-A	Unknown	4 ml
52	1:54	590-12717-E-1-A	Unknown	4 ml
53	1:55	590-12717-E-1-B MS	Unknown	4 ml
54	1:56	590-12717-E-1-C MSD	Unknown	4 ml
55	1:57	w	Blank	4 ml
56	1:58	CCV 280-486063/9-A	Unknown	4 ml
57	1:59	CCB 280-486063/10-A	Unknown	4 ml
58	1:60	590-12717-B-2-A	Unknown	4 ml
59	2:1	590-12717-B-3-A	Unknown	4 ml
60	2:2	w	Blank	4 ml
61	2:3	280-133981-A-5-A MDLV	Unknown	4 ml
62	2:4	280-133981-A-6-A MDLV	Unknown	4 ml
63	2:5	280-133981-A-7-A MDLV	Unknown	4 ml
64	2:6	LCS 280-487438/37-A	Unknown	4 ml
65	2:7	MB 280-487438/38-A	Unknown	4 ml
66	2:8	280-133981-A-2-A MDLV	Unknown	4 ml
67	2:9	280-133981-A-5-A MDLV	Unknown	4 ml
68	2:10	280-133981-A-6-A MDLV	Unknown	4 ml
69	2:11	w	Blank	4 ml
70	2:12	LCS 280-487438/37-A	Unknown	4 ml
71	2:13	LCS 280-487438/37-A	Unknown	4 ml
72	2:14	w	Blank	4 ml
73	2:15	w	Blank	4 ml
74	2:16	CCV 280-486063/9-A	Unknown	4 ml
75	2:17	CCB 280-486063/10-A	Unknown	4 ml

Run Name: 030420
Configuration: TKN
Run date: 3/4/2020

	Position	Identifier	Type	Comme	Date	Time	otal	Cor Ht	TKN mg/l
1	1:1	SYNC	SYNC	50;351.2	3/4/2020	4:44:52 PM	1	0.41634	9.905
2	1:2	CO	Carry over		3/4/2020	4:45:22 PM	1	-0.00147	-1.071
3	1:3	w	Blank		3/4/2020	4:46:37 PM	1	-0.00124	-1.065
4	1:4	W	Wash		3/4/2020	4:47:52 PM	1	0.00000	-1.033
5	1:5	C1	Calibrant		3/4/2020	4:49:07 PM	1	0.05859	0.507
6	1:6	C2	Calibrant		3/4/2020	4:50:22 PM	1	0.07560	0.954
7	1:7	C3	Calibrant		3/4/2020	4:51:38 PM	1	0.12079	2.141
8	1:8	C4	Calibrant		3/4/2020	4:52:53 PM	1	0.22391	4.850
9	1:9	C5	Calibrant		3/4/2020	4:54:07 PM	1	0.32455	7.493
10	1:10	C6	Calibrant		3/4/2020	4:55:22 PM	1	0.42211	10.056
		Curve #:							1
		Curve Type:							Linear
		Correlation:							0.99968
		Intercept:							0.039306
		Linear coef:							0.038066
11	1:13	w	Blank		3/4/2020	4:56:37 PM	1	0.00028	-1.025
12	1:14	W	Wash		3/4/2020	4:57:52 PM	1	0.00000	-1.033
13	1:15	ICV 280-486063/7-A	Unknown		3/4/2020	4:59:07 PM	1	0.24509	5.406
14	1:16	ICB 280-486063/8-A	Unknown		3/4/2020	5:00:22 PM	1	0.03381	-0.144
15	1:17	LCS 280-487438/1-A	Unknown		3/4/2020	5:01:37 PM	1	0.27728	6.252
16	1:18	MB 280-487438/2-A	Unknown		3/4/2020	5:02:52 PM	1	0.03546	-0.101
17	1:19	280-134091-C-1-A	Unknown		3/4/2020	5:04:07 PM	1	0.02527	-0.369
18	1:20	280-134091-C-1-B MS	Unknown		3/4/2020	5:05:22 PM	1	0.07183	0.854
19	1:21	280-134091-C-1-C MSD	Unknown		3/4/2020	5:06:37 PM	1	0.07280	0.880
20	1:22	w	Blank		3/4/2020	5:07:52 PM	1	-0.00301	-1.112
21	1:23	280-134091-C-2-A	Unknown		3/4/2020	5:09:07 PM	1	0.02884	-0.275
22	1:24	280-134091-C-3-A	Unknown		3/4/2020	5:10:22 PM	1	0.08938	1.315
23	0	AutoWash	AutoWash		3/4/2020	5:11:37 PM	1	-0.00073	-1.052
24	0	AutoWash	AutoWash		3/4/2020	5:12:52 PM	1	0.00000	-1.033
25	1:25	280-134091-C-4-A	Unknown		3/4/2020	5:14:07 PM	1	0.12892	2.354
26	1:26	580-93094-A-1-A	Unknown		3/4/2020	5:15:22 PM	1	0.27881	6.292
27	1:27	580-93094-A-2-A	Unknown		3/4/2020	5:16:37 PM	1	0.26896	6.033
28	1:28	580-93094-A-3-A	Unknown		3/4/2020	5:17:52 PM	1	0.23436	5.124
29	1:29	580-93094-A-4-A	Unknown		3/4/2020	5:19:07 PM	1	0.22677	4.925
30	1:30	w	Blank		3/4/2020	5:20:22 PM	1	0.01492	-0.641
31	1:31	CCV 280-486063/9-A	Unknown		3/4/2020	5:21:37 PM	1	0.23963	5.262
32	1:32	CCB 280-486063/10-A	Unknown		3/4/2020	5:22:52 PM	1	0.05259	0.349
33	1:33	580-93094-A-5-A	Unknown		3/4/2020	5:24:07 PM	1	0.23702	5.194
34	1:34	580-93094-A-6-A	Unknown		3/4/2020	5:25:22 PM	1	0.21601	4.642
35	0	AutoWash	AutoWash		3/4/2020	5:26:37 PM	1	0.00214	-0.976
36	0	AutoWash	AutoWash		3/4/2020	5:27:53 PM	1	0.00000	-1.033
37	1:35	580-93094-A-7-A	Unknown		3/4/2020	5:29:07 PM	1	0.16456	3.291
38	1:36	580-93094-A-7-B MS	Unknown		3/4/2020	5:30:22 PM	1	0.25509	5.669

	Position	Identifier	Type	Comme	Date	Time	otal	Cor Ht	TKN mg/l
39	1:37	580-93094-A-7-C MSD	Unknown		3/4/2020	5:31:37 PM	1	0.25617	5.697
40	1:38	w	Blank		3/4/2020	5:32:52 PM	1	-0.00092	-1.057
41	1:39	580-93094-A-8-A	Unknown		3/4/2020	5:34:07 PM	1	0.21517	4.620
42	1:40	580-93094-A-9-A	Unknown		3/4/2020	5:35:22 PM	1	0.22498	4.878
43	1:41	580-93094-A-10-A	Unknown		3/4/2020	5:36:37 PM	1	0.21336	4.572
44	1:42	580-93094-A-11-A	Unknown		3/4/2020	5:37:52 PM	1	0.24901	5.509
45	1:43	580-93094-A-12-A	Unknown		3/4/2020	5:39:07 PM	1	0.24009	5.275
46	1:44	w	Blank		3/4/2020	5:40:22 PM	1	0.01024	-0.764
47	0	AutoWash	AutoWash		3/4/2020	5:41:37 PM	1	0.00228	-0.973
48	0	AutoWash	AutoWash		3/4/2020	5:42:52 PM	1	0.00000	-1.033
49	1:45	CCV 280-486063/9-A	Unknown		3/4/2020	5:44:07 PM	1	0.22446	4.864
50	1:46	CCB 280-486063/10-A	Unknown		3/4/2020	5:45:22 PM	1	0.03840	-0.024
51	1:47	280-134141-C-1-A	Unknown		3/4/2020	5:46:37 PM	1	0.11498	1.988
52	1:48	280-134141-C-2-A	Unknown		3/4/2020	5:47:52 PM	1	0.05928	0.525
53	1:49	280-134141-C-3-A	Unknown		3/4/2020	5:49:07 PM	1	0.09021	1.337
54	1:50	280-134141-C-4-A	Unknown		3/4/2020	5:50:22 PM	1	0.18321	3.780
55	1:51	w	Blank		3/4/2020	5:51:37 PM	1	-0.00160	-1.075
56	1:52	LCS 280-487438/27-A	Unknown		3/4/2020	5:52:52 PM	1	0.25554	5.681
57	1:53	MB 280-487438/28-A	Unknown		3/4/2020	5:54:07 PM	1	0.03711	-0.058
58	1:54	590-12717-E-1-A	Unknown		3/4/2020	5:55:22 PM	1	0.08608	1.229
59	0	AutoWash	AutoWash		3/4/2020	5:56:37 PM	1	-0.00136	-1.068
60	0	AutoWash	AutoWash		3/4/2020	5:57:52 PM	1	0.00000	-1.033
61	1:55	590-12717-E-1-B MS	Unknown		3/4/2020	5:59:07 PM	1	0.19141	3.996
62	1:56	590-12717-E-1-C MSD	Unknown		3/4/2020	6:00:22 PM	1	0.19264	4.028
63	1:57	w	Blank		3/4/2020	6:01:38 PM	1	-0.00006	-1.034
64	1:58	CCV 280-486063/9-A	Unknown		3/4/2020	6:02:53 PM	1	0.22978	5.004
65	1:59	CCB 280-486063/10-A	Unknown		3/4/2020	6:04:07 PM	1	0.03896	-0.009
66	1:60	590-12717-B-2-A	Unknown		3/4/2020	6:05:22 PM	1	0.07763	1.007
67	2:1	590-12717-B-3-A	Unknown		3/4/2020	6:06:37 PM	1	0.06988	0.803
68	2:2	w	Blank		3/4/2020	6:07:52 PM	1	0.00254	-0.966
69	2:3	280-133981-A-5-A MDLV	Unknown		3/4/2020	6:09:07 PM	1	0.08325	1.155
70	2:4	280-133981-A-6-A MDLV	Unknown		3/4/2020	6:10:22 PM	1	0.08096	1.094
71	0	AutoWash	AutoWash		3/4/2020	6:11:37 PM	1	0.00068	-1.015
72	0	AutoWash	AutoWash		3/4/2020	6:12:52 PM	1	0.00000	-1.033
73	2:5	280-133981-A-7-A MDLV	Unknown		3/4/2020	6:14:07 PM	1	0.08279	1.142
74	2:6	LCS 280-487438/37-A	Unknown		3/4/2020	6:15:22 PM	1	0.24578	5.424
75	2:7	MB 280-487438/38-A	Unknown		3/4/2020	6:16:37 PM	1	0.03873	-0.015
76	2:8	280-133981-A-2-A MDLV	Unknown		3/4/2020	6:17:52 PM	1	0.05104	0.308
77	2:9	280-133981-A-5-A MDLV	Unknown		3/4/2020	6:19:07 PM	1	0.08352	1.162
78	2:10	280-133981-A-6-A MDLV	Unknown		3/4/2020	6:20:22 PM	1	0.08288	1.145
79	2:11	w	Blank		3/4/2020	6:21:37 PM	1	0.08716	1.257
80	2:12	LCS 280-487438/37-A	Unknown		3/4/2020	6:22:52 PM	1	0.25518	5.671
81	2:13	LCS 280-487438/37-A	Unknown		3/4/2020	6:24:07 PM	1	0.26055	5.812
82	2:14	w	Blank		3/4/2020	6:25:22 PM	1	0.00264	-0.963
83	0	AutoWash	AutoWash		3/4/2020	6:26:37 PM	1	0.00003	-1.032
84	0	AutoWash	AutoWash		3/4/2020	6:27:52 PM	1	0.00000	-1.033
85	2:15	w	Blank		3/4/2020	6:29:07 PM	1	0.00061	-1.017
86	2:16	CCV 280-486063/9-A	Unknown		3/4/2020	6:30:22 PM	1	0.22657	4.920

	Position	Identifier	Type	Commei	Date	Time	otal	Cor Ht	TKN mg/l
87	2:17	CCB 280-486063/10-A	Unknown		3/4/2020	6:31:37 PM	1	0.03991	0.016
88	0	AutoWash	AutoWash		3/4/2020	6:32:52 PM	1	-0.00021	-1.038
89	0	AutoWash	AutoWash		3/4/2020	6:34:07 PM	1	0.00000	-1.033


030420, 3/4/2020 - TKN
ABS
-0.02398
0.02334
0.07066
0.11798
0.16530
0.21262
0.25995
0.30727
0.35459
0.40191
0.44923
S:1 SYNC 9.905
S:2 CO -1.071
S:3 w -1.065
S:4 W -1.033
S:5 C1 0.507
S:6 C2 0.954
S:7 C3 2.141
S:8 C4 4.850
S:9 C5 7.493
S:10 C6 10.056
S:11 w -1.025
S:12 W -1.033
S:13 ICV 280-486063/7-A 5.406
S:14 ICB 280-486063/8-A -0.144
S:15 LCS 280-487438/1-A 6.252
S:16 MB 280-487438/2-A -0.101
S:17 280-134091-C-1-A -0.369
S:18 280-134091-C-1-B MS 0.854
S:19 280-134091-C-1-C MSD 0.880
S:20 w -1.112
S:21 280-134091-C-2-A -0.275
S:22 280-134091-C-3-A 1.315
S:23 AutoWash -1.052
S:24 AutoWash -1.033
3:00
4:00
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7:00
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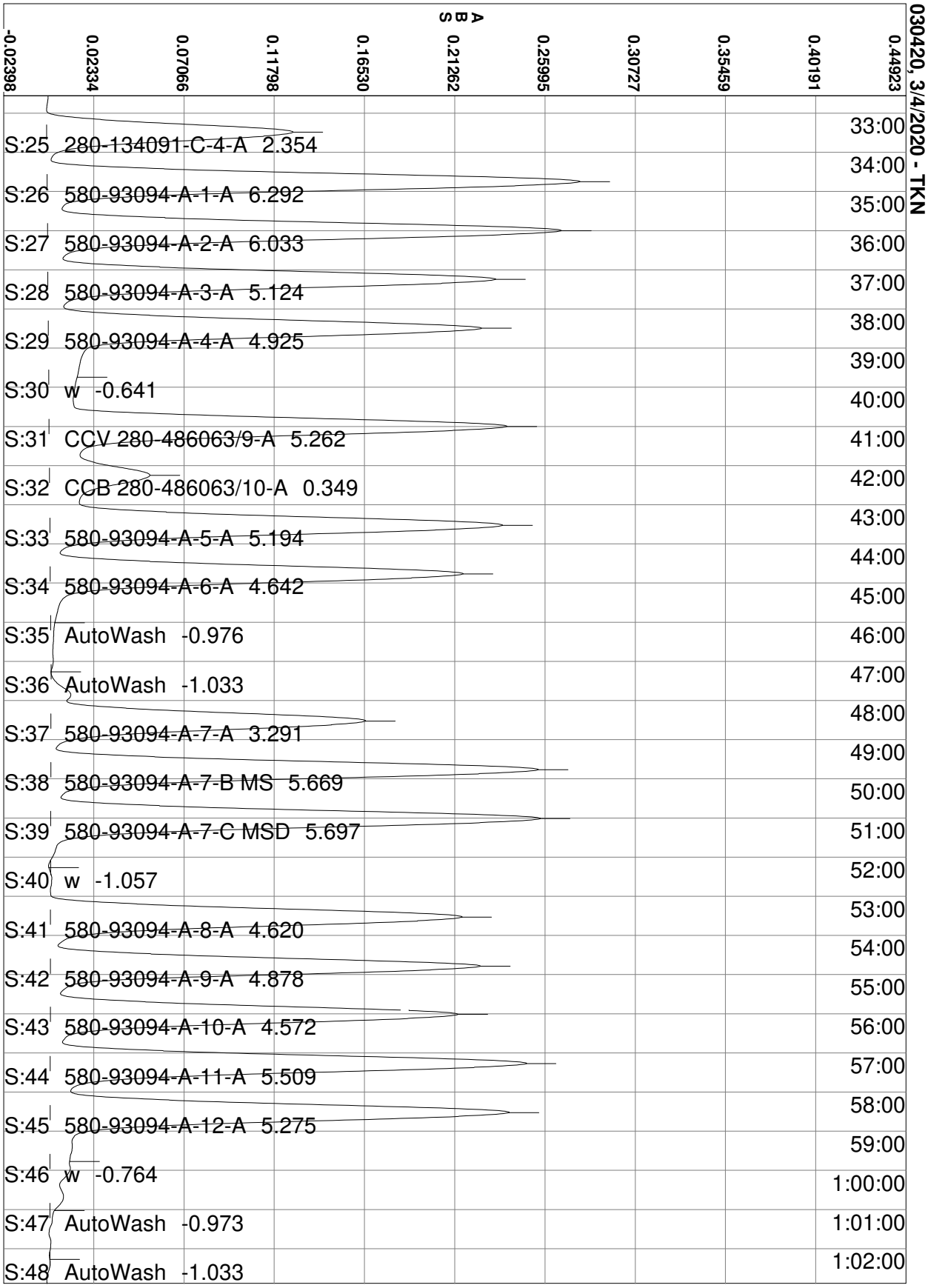
030420, 3/4/2020 - TKN
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0.02334
0.07066
0.11798
0.16530
0.21262
0.25995
0.30727
0.35459
0.40191
0.44923
S:25 280-134091-C-4-A 2.354
S:26 580-93094-A-1-A 6.292
S:27 580-93094-A-2-A 6.033
S:28 580-93094-A-3-A 5.124
S:29 580-93094-A-4-A 4.925
S:30 w -0.641
S:31 CCV 280-486063/9-A 5.262
S:32 CCB 280-486063/10-A 0.349
S:33 580-93094-A-5-A 5.194
S:34 580-93094-A-6-A 4.642
S:35 AutoWash -0.976
S:36 AutoWash -1.033
S:37 580-93094-A-7-A 3.291
S:38 580-93094-A-7-B MS 5.669
S:39 580-93094-A-7-C MSD 5.697
S:40 w -1.057
S:41 580-93094-A-8-A 4.620
S:42 580-93094-A-9-A 4.878
S:43 580-93094-A-10-A 4.572
S:44 580-93094-A-11-A 5.509
S:45 580-93094-A-12-A 5.275
S:46 w -0.764
S:47 AutoWash -0.973
S:48 AutoWash -1.033
33:00
34:00
35:00
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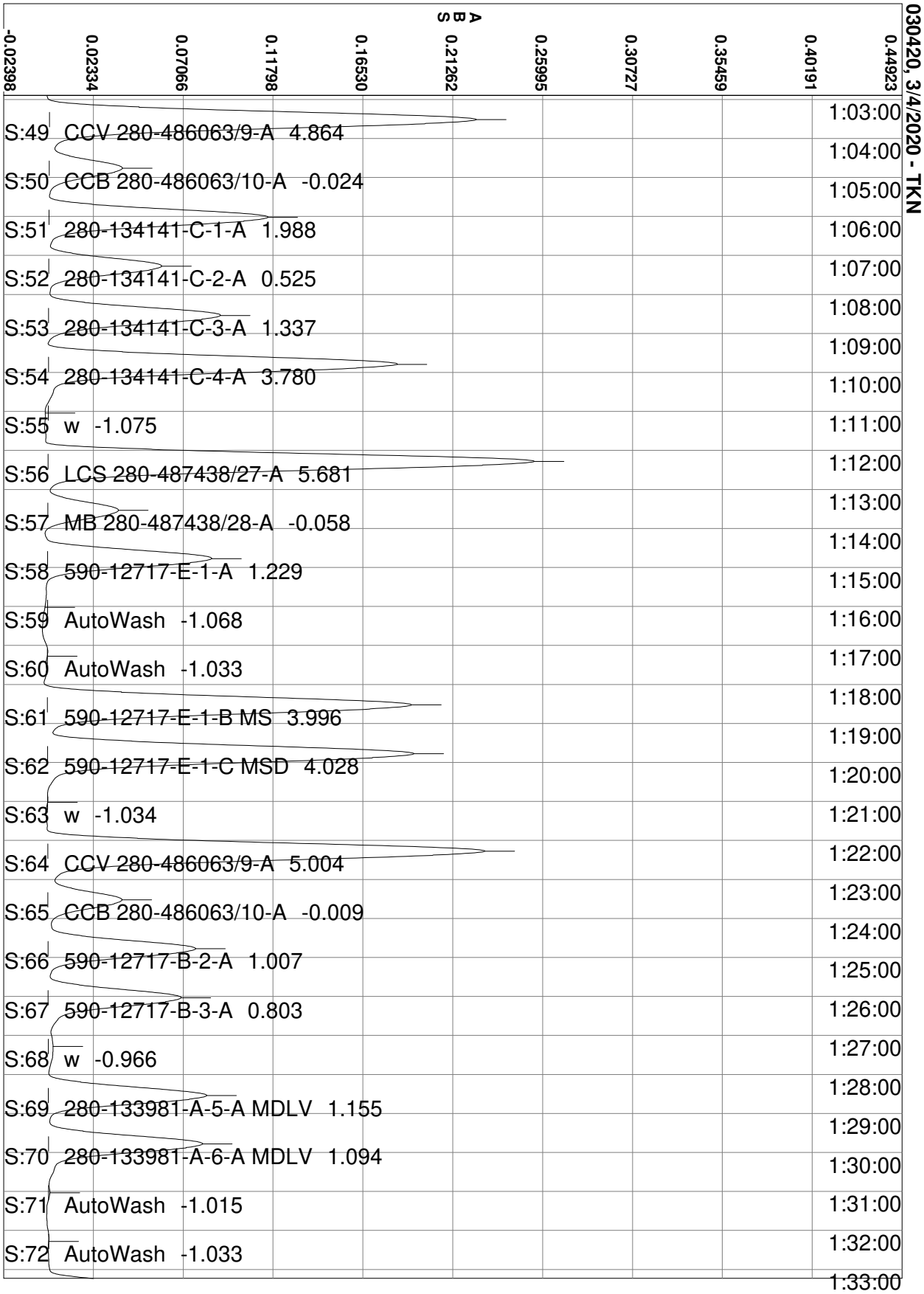
1:02:00


030420, 3/4/2020 - TKN
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0.11798
0.16530
0.21262
0.25995
0.30727
0.35459
0.40191
0.44923
S:49 CCV 280-486063/9-A 4.864
S:50 CCB 280-486063/10-A -0.024
S:51 280-134141-C-1-A 1.988
S:52 280-134141-C-2-A 0.525
S:53 280-134141-C-3-A 1.337
S:54 280-134141-C-4-A 3.780
S:55 w -1.075
S:56 LCS 280-487438/27-A 5.681
S:57 MB 280-487438/28-A -0.058
S:58 590-12717-E-1-A 1.229
S:59 AutoWash -1.068
S:60 AutoWash -1.033
S:61 590-12717-E-1-B MS 3.996
S:62 590-12717-E-1-C MSD 4.028
S:63 w -1.034
S:64 CCV 280-486063/9-A 5.004
S:65 CCB 280-486063/10-A -0.009
S:66 590-12717-B-2-A 1.007
S:67 590-12717-B-3-A 0.803
S:68 w -0.966
S:69 280-133981-A-5-A MDLV 1.155
S:70 280-133981-A-6-A MDLV 1.094
S:71 AutoWash -1.015
S:72 AutoWash -1.033
1:03:00
1:04:00
1:05:00
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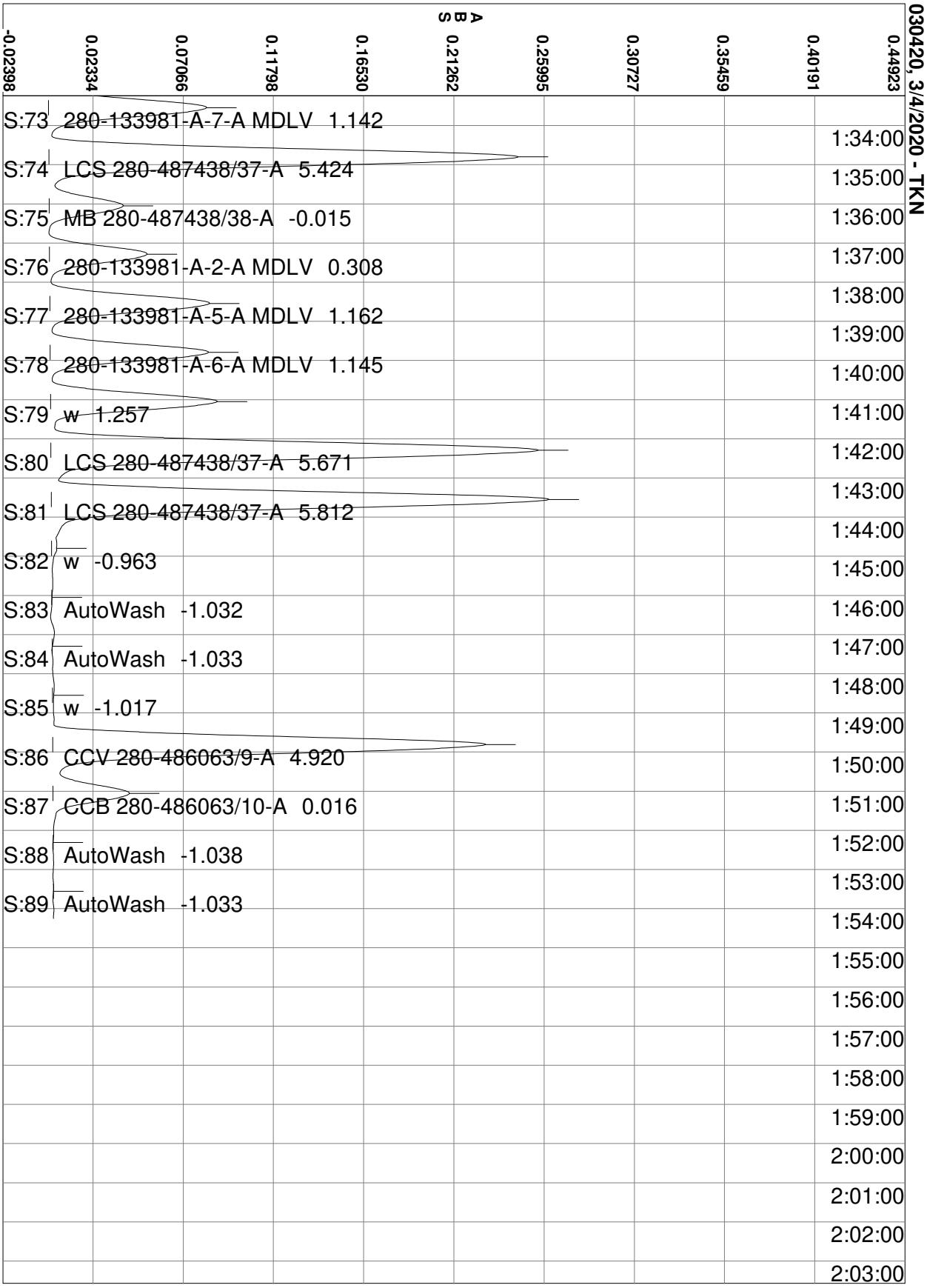
030420, 3/4/2020 - TKN
ABS
-0.02398
0.02334
0.07066
0.11798
0.16530
0.21262
0.25995
0.30727
0.35459
0.40191
0.44923
S:73 280-133981-A-7-A MDLV 1.142
S:74 LCS 280-487438/37-A 5.424
S:75 MB 280-487438/38-A -0.015
S:76 280-133981-A-2-A MDLV 0.308
S:77 280-133981-A-5-A MDLV 1.162
S:78 280-133981-A-6-A MDLV 1.145
S:79 w 1.257
S:80 LCS 280-487438/37-A 5.671
S:81 LCS 280-487438/37-A 5.812
S:82 w -0.963
S:83 AutoWash -1.032
S:84 AutoWash -1.033
S:85 w -1.017
S:86 CCV 280-486063/9-A 4.920
S:87 CCB 280-486063/10-A 0.016
S:88 AutoWash -1.038
S:89 AutoWash -1.033
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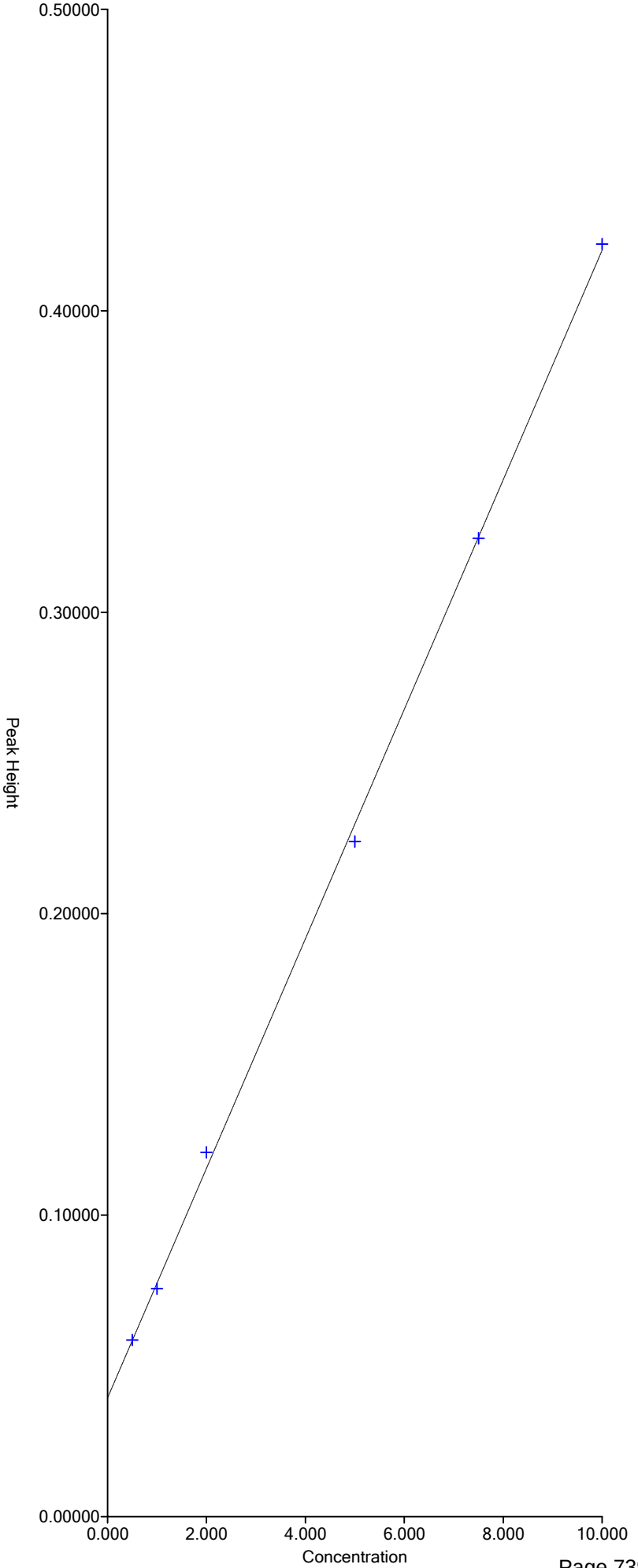
Calibration for TKN



Segment 1: Equation: y = 0.03807x + 0.03931
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\030220.RST
Sample table path	C:\FLOW_4\030220.tbl
Method path	C:\FLOW_4\nox.mth
Date acquired	02-Mar-20
Time acquired	19:13

Date	Time	Cup	Name
02-Mar-20	16:12	109	SYNC
02-Mar-20	16:14	0	Carryover
02-Mar-20	16:16	0	Carryover (Statistics)
02-Mar-20	16:18	0	read baseline
02-Mar-20	16:20	101	Cal 0.00 ppb
02-Mar-20	16:22	102	Cal 50.0 ppb
02-Mar-20	16:24	103	Cal 100 ppb
02-Mar-20	16:26	104	Cal 500 ppb
02-Mar-20	16:28	105	Cal 1000 ppb
02-Mar-20	16:30	106	Cal 2500 ppb
02-Mar-20	16:32	107	Cal 5000 ppb
02-Mar-20	16:34	108	Cal 7500 ppb
02-Mar-20	16:36	109	Cal 10000 ppb
02-Mar-20	16:38	0	Blank
02-Mar-20	16:40	0	Read Baseline
02-Mar-20	16:42	110	5000 PPB NO2
02-Mar-20	16:44	111	ICV 5000 PPB
02-Mar-20	16:46	112	ICV 2000 PPB
02-Mar-20	16:48	0	ICB
02-Mar-20	16:50	0	Read Baseline
02-Mar-20	16:52	107	LCS
02-Mar-20	16:54	0	MB
02-Mar-20	16:56	113	280-134125-J-1
02-Mar-20	16:58	114	ms 280-134125-J-1
02-Mar-20	17:00	115	msd 280-134125-J-1
02-Mar-20	17:02	116	280-134125-K-2
02-Mar-20	17:04	117	280-134125-K-3
02-Mar-20	17:06	118	280-134125-J-5
02-Mar-20	17:08	119	280-134038-C-5
02-Mar-20	17:10	120	280-134003-B-1
02-Mar-20	17:12	121	280-134091-C-1
02-Mar-20	17:14	122	280-134091-C-2
02-Mar-20	17:16	0	Rinse
02-Mar-20	17:18	0	Read Baseline
02-Mar-20	17:20	107	CCV 5000 ppb
02-Mar-20	17:22	105	CCVL 1000 ppb
02-Mar-20	17:24	0	CCB
02-Mar-20	17:26	0	Read Baseline
02-Mar-20	17:28	123	280-134091-C-3
02-Mar-20	17:30	124	280-134179-D-2
02-Mar-20	17:32	125	280-134179-D-1
02-Mar-20	17:34	126	ms 280-134179-D-1
02-Mar-20	17:36	127	msd 280-134179-D-1
02-Mar-20	17:38	128	280-134179-D-3

Result path	C:\FLOW_4\030220.RST
Sample table path	C:\FLOW_4\030220.tbl
Method path	C:\FLOW_4\nox.mth
Date acquired	02-Mar-20
Time acquired	19:13

Date	Time	Cup	Name
02-Mar-20	17:40	129	280-134141-C-1
02-Mar-20	17:42	130	280-134141-C-2
02-Mar-20	17:44	131	280-134141-C-3
02-Mar-20	17:46	132	280-134141-C-4
02-Mar-20	17:48	0	Rinse
02-Mar-20	17:50	0	Read Baseline
02-Mar-20	17:52	107	CCV 5000 ppb
02-Mar-20	17:54	105	CCVL 1000 ppb
02-Mar-20	17:56	0	CCB
02-Mar-20	17:58	0	Read Baseline
02-Mar-20	18:00	133	550-138618-G-1
02-Mar-20	18:02	134	280-134189-C-2
02-Mar-20	18:04	135	280-134110-D-1
02-Mar-20	18:06	136	280-134110-F-2
02-Mar-20	18:08	107	LCS
02-Mar-20	18:10	0	MB
02-Mar-20	18:12	137	280-134110-F-3
02-Mar-20	18:14	138	ms 280-134110-F-3
02-Mar-20	18:16	139	msd 280-134110-F-3
02-Mar-20	18:18	140	280-134177-C-1
02-Mar-20	18:20	0	Rinse
02-Mar-20	18:22	0	Read Baseline
02-Mar-20	18:24	107	CCV 5000 ppb
02-Mar-20	18:26	105	CCVL 1000 ppb
02-Mar-20	18:28	0	CCB
02-Mar-20	18:30	0	Read Baseline
02-Mar-20	18:32	141	280-134177-C-2
02-Mar-20	18:34	142	280-134177-C-3
02-Mar-20	18:36	143	280-134177-C-4
02-Mar-20	18:39	144	280-134177-C-5
02-Mar-20	18:41	145	LCS 280-487191/1-A
02-Mar-20	18:43	146	MB 280-487191/2-A
02-Mar-20	18:45	147	280-133293-A-7-B MDL
02-Mar-20	18:47	148	280-133293-A-8-B MDL
02-Mar-20	18:49	149	280-133293-A-9-B LOQ
02-Mar-20	18:51	150	280-134125-F-3
02-Mar-20	18:53	151	d
02-Mar-20	18:55	152	280-133293-A-9-B LOQ
02-Mar-20	18:57	0	Rinse
02-Mar-20	18:59	0	Read Baseline
02-Mar-20	19:01	107	CCV 5000 ppb
02-Mar-20	19:03	105	CCVL 1000 ppb
02-Mar-20	19:05	0	CCB
02-Mar-20	19:07	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\030220.RST
Sample table path	C:\FLOW_4\030220.tbl
Method path	C:\FLOW_4\nox.mth
Date acquired	02-Mar-20
Time acquired	19:13

	Nitrate as N					
Name	Response	Calc [ppb]	Flags	Mean Response	Mean Calc [ppb]	
SYNC	2141345	11326.984	HI			
Carryover	4137	33.064				
Carryover	-1838	1.490				
(Statistics)				1150	17.277	N
read baseline	0	11.203	BL			
Cal 0.00 ppb	145	11.967				
Cal 50.0 ppb	6900	47.664				
Cal 100 ppb	15645	93.875				
Cal 500 ppb	79700	432.369				
Cal 1000 ppb	196009	1046.996				
Cal 2500 ppb	470616	2498.139				
Cal 5000 ppb	923375	4890.709				
Cal 7500 ppb	1473473	7797.666				
Cal 10000 ppb	1858179	9830.614				
Blank	1295	18.048				
Read Baseline	0	11.203	BL			
5000 PPB NO2	919578	4870.646				
ICV 5000 PPB	926264	4905.977				
ICV 2000 PPB	412887	2193.074				
ICB	-1289	4.393				
Read Baseline	0	11.203	BL			
LCS	887998	4703.763				
MB	-1959	0.851				
280-134125-J-1	31095	175.524				
ms 280-134125-J-1	606333	3215.326				
msd 280-134125-J-1	599244	3177.864				
280-134125-K-2	-4571	-12.953	LO			
280-134125-K-3	3184257	16838.176	HI			
280-134125-J-5	-4368	-11.882	LO FL			
280-134038-C-5	-1422	3.689				
280-134003-B-1	7980	53.371				
280-134091-C-1	905554	23982.693				
280-134091-C-2	826878	21903.906				
Rinse	-81	10.776				
Read Baseline	0	11.203	BL			
CCV 5000 ppb	914701	4844.871				
CCVL 1000 ppb	190530	1018.044				
CCB	2048	22.024				
Read Baseline	0	11.203	BL			
280-134091-C-3	1004100	10634.592				
280-134179-D-2	623	14.494				
280-134179-D-1	756315	4007.895				
ms 280-134179-D-1	1328086	7029.376				
msd 280-134179-D-1	1394171	7378.597				
280-134179-D-3	721163	3822.138				

Result path	C:\FLOW_4\030220.RST
Sample table path	C:\FLOW_4\030220.tbl
Method path	C:\FLOW_4\nox.mth
Date acquired	02-Mar-20
Time acquired	19:13

	Nitrate as N				
Name	Response	Calc [ppb]	Flags	Mean Response	Mean Calc [ppb]
280-134141-C-1	392329	2084.439			
280-134141-C-2	816126	21619.803			
280-134141-C-3	988168	10466.204			
280-134141-C-4	1280463	6777.714			
Rinse	942	16.181			
Read Baseline	0	11.203	BL		
CCV 5000 ppb	910991	4825.267			
CCVL 1000 ppb	186604	997.298			
CCB	-547	8.314			
Read Baseline	0	11.203	BL		
550-138618-G-1	102584	553.303			
280-134189-C-2	103407	557.651			
280-134110-D-1	243432	1297.602			
280-134110-F-2	110891	597.199			
LCS	937575	4965.751			
MB	-754	7.216			
280-134110-F-3	66270	361.403			
ms 280-134110-F-3	799696	4237.138			
msd 280-134110-F-3	755280	4002.426			
280-134177-C-1	4893	37.060	UM		
Rinse	4392	34.411	UM		
Read Baseline	0	11.203	BL UM		
CCV 5000 ppb	853030	4518.978	UM		
CCVL 1000 ppb	175194	937.004	UM		
CCB	-1820	1.587	UM		
Read Baseline	0	11.203	BL UM		
280-134177-C-2	3785	31.206	UM		
280-134177-C-3	23146	133.517	UM		
280-134177-C-4	736525	3903.315	UM		
280-134177-C-5	8397	55.575	UM		
LCS 280-487191/1-A	905816	4797.922	UM		
MB 280-487191/2-A	274	12.649	UM		
280-133293-A-7-B MDL	17928	105.944	UM		
280-133293-A-8-B MDL	19521	114.359	UM		
280-133293-A-9-B LOQ	26776	152.699	UM		
280-134125-F-3	809579	21446.824	UM		
d	-1547	3.027	UM		
280-133293-A-9-B LOQ	27758	157.889	UM		
Rinse	3253	28.395	UM		
Read Baseline	0	11.203	BL UM		
CCV 5000 ppb	892475	4727.421	UM		
CCVL 1000 ppb	180534	965.219	UM		
CCB	-377	9.209	UM		
Read Baseline	0	11.203	BL UM		

Nitrate as N:Calibration 1: Peak 5-88

File name: C:\FLOW_4\030220.RST
Date: 02-Mar-20
Operator: svc

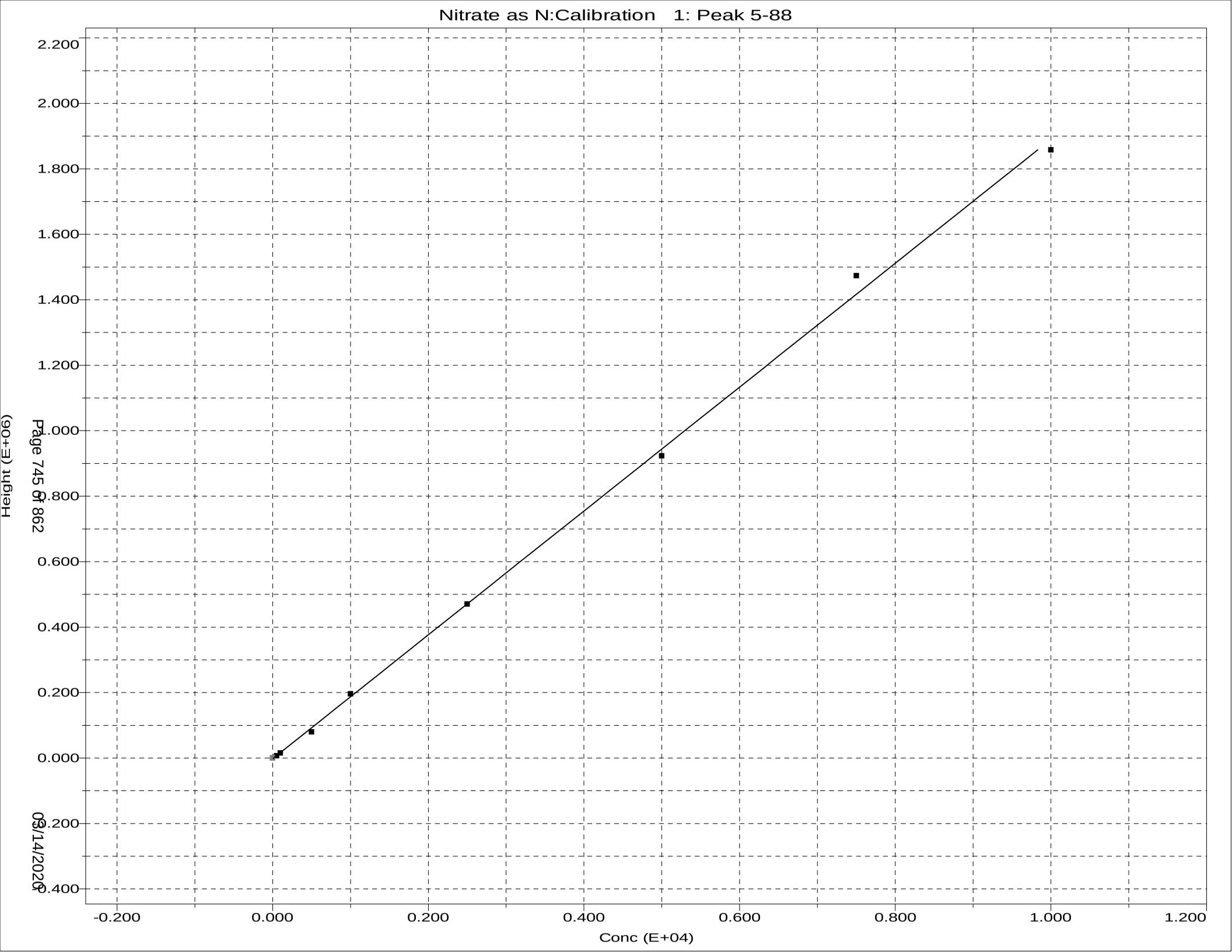
*	Name	Conc	Height
*	Cal 0.00 ppb	0.000000	144.697754
*	Cal 50.0 ppb	50.000000	6899.701660
*	Cal 100 ppb	100.000000	15644.583984
*	Cal 500 ppb	500.000000	79699.601562
*	Cal 1000 ppb	1000.000000	196008.593750
*	Cal 2500 ppb	2500.000000	470616.125000
*	Cal 5000 ppb	5000.000000	923374.812500
*	Cal 7500 ppb	7500.000000	1473473.375000
*	Cal 10000 ppb	10000.000000	1858179.000000

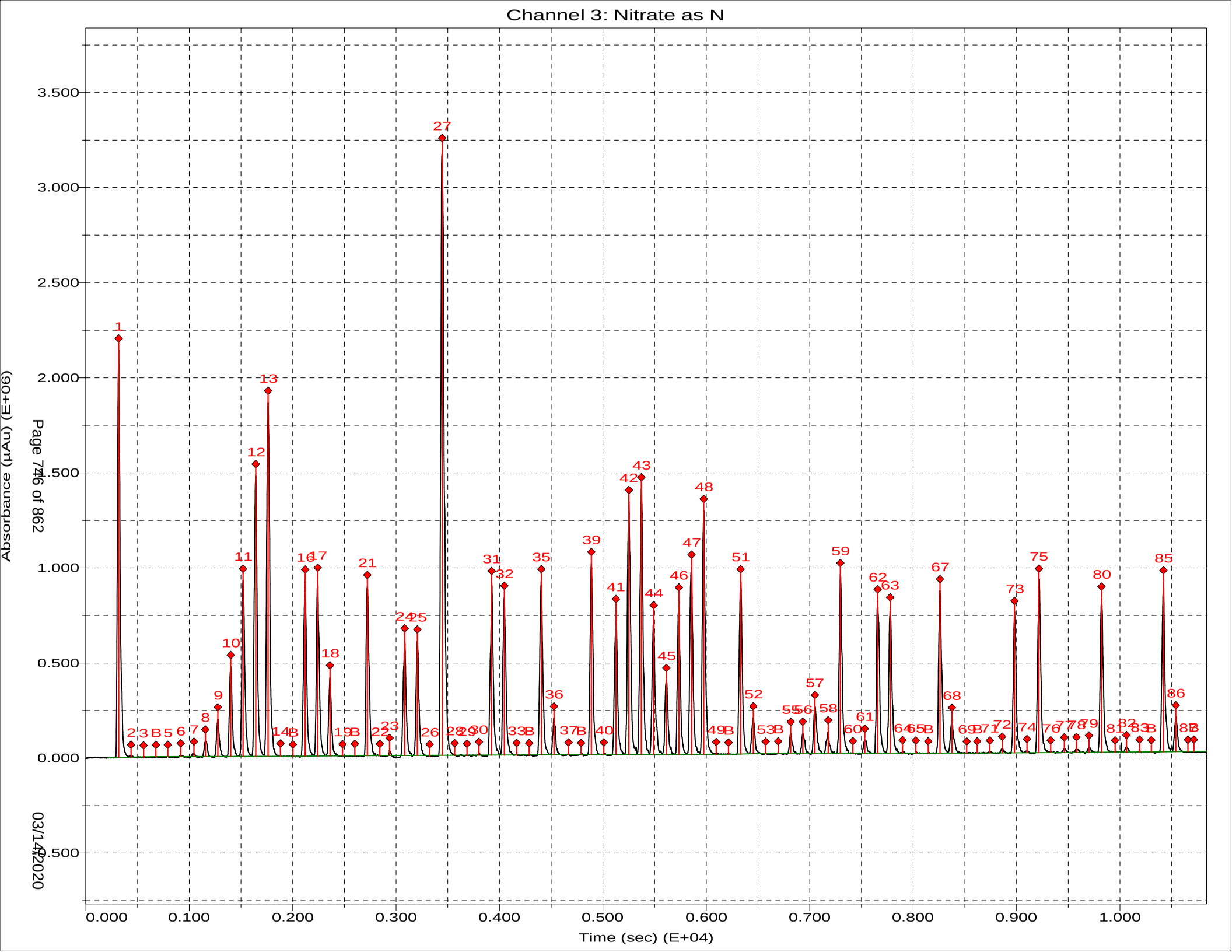
Calib Coef:
y=bx+a
a: (intercept) -2.1199e+03
b: 1.8924e+02

Corr Coef: 0.999381

Carryover: 0.193%

No Drift Peaks


Nitrate as N:Calibration 1: Peak 5-88
Height (E+06)
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) (E+04)
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03/14/2020

Sample Table - 030220.tbl

File name: C:\FLOW_4\030220.TBL
Date: 02-Mar-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		
0	Read Baseline	RB	1	1	1		
107	LCS	U	1	1	1		pH
0	MB	U	1	1	1		
113	280-134125-J-1	U	1	1	1		
114	ms 280-134125-J-1	U	1	1	1		
115	msd 280-134125-J-1	U	1	1	1		
116	280-134125-K-2	U	1	1	1		
117	280-134125-K-3	U	1	1	1		
118	280-134125-J-5	U	1	1	1		
119	280-134038-C-5	U	1	1	1		
120	280-134003-B-1	U	1	1	1		
121	280-134091-C-1	U	1	5	1		
122	280-134091-C-2	U	1	5	1		
0	Rinse	U	1	1	1		
0	Read Baseline	RB	1	1	1		
107	CCV 5000 ppb	CCV	1	1	1		
105	CCVL 1000 ppb	CCV	1	1	1		
0	CCB	U	1	1	1		
0	Read Baseline	RB	1	1	1		
123	280-134091-C-3	U	1	2	1		
124	280-134179-D-2	U	1	1	1		
125	280-134179-D-1	U	1	1	1		
126	ms 280-134179-D-1	U	1	1	1		
127	msd 280-134179-D-1	U	1	1	1		
128	280-134179-D-3	U	1	1	1		
129	280-134141-C-1	U	1	1	1		
130	280-134141-C-2	U	1	5 ~~1~~	1		
131	280-134141-C-3	U	1	2 ~~1~~	1		
132	280-134141-C-4	U	1	1	1		
0	Rinse	U	1	1	1		
0	Read Baseline	RB	1	1	1		
107	CCV 5000 ppb	CCV	1	1	1		
105	CCVL 1000 ppb	CCV	1	1	1		
0	CCB	U	1	1	1		
0	Read Baseline	RB	1	1	1		
133	550-138618-G-1	U	1	1	1		
134	280-134189-C-2	U	1	1	1		

Cup	Name	Type	R	Dil	Wt	Vial	Comment
135	280-134110-D-1	U	1	1	1		
136	280-134110-F-2	U	1	1	1		
107	LCS	U	1	1	1		
0	MB	U	1	1	1		
137	280-134110-F-3	U	1	1	1		
138	ms 280-134110-F-3	U	1	1	1		
139	msd 280-134110-F-3	U	1	1	1		
140	280-134177-C-1	U	1	1	1		
0	Rinse	U	1	1	1		
0	Read Baseline	RB	1	1	1		
107	CCV 5000 ppb	CCV	1	1	1		
105	CCVL 1000 ppb	CCV	1	1	1		
0	CCB	U	1	1	1		
0	Read Baseline	RB	1	1	1		
141	280-134177-C-2	U	1	1	1		
142	280-134177-C-3	U	1	1	1		
143	280-134177-C-4	U	1	1	1		
144	280-134177-C-5	U	1	1	1		
145	LCS 280-487191/1-A	U	1	1	1		
146	MB 280-487191/2-A	U	1	1	1		
147	280-133293-A-7-B MDLS	U	1	1	1		
148	280-133293-A-8-B MDLV	U	1	1	1		
149	280-133293-A-9-B LOQV	U	1	1	1		
150	~~d~~ 280-134125-K-3	U	1	5 ~~1~~	1		
151	d	U	1	1	1		
152	d	U	1	1	1		
0	Rinse	U	1	1	1		
0	Read Baseline	RB	1	1	1		
107	CCV 5000 ppb	CCV	1	1	1		
105	CCVL 1000 ppb	CCV	1	1	1		
0	CCB	U	1	1	1		
0	Read Baseline	RB	1	1	1		

Sulfide by Titration

Analyst:	SAH	SOP Information:	
Date:	3/4/2020	Number:	91
Titration Solutions		Calibration Information	
Solution 1:	Iodine	Source/Ver-Lot#:	INT_01709
TALS ID	Iod_00251	Prep Date:	2/25/2020
Normality:	0.025	Made By:	JDR
Solution 2:	sodium thiosulfate	Concentration:	1060
TALS ID	Na Thio_00165	Expiration Date:	5/25/2020
Normality:	0.025		
	Starch Indicator		
TALS ID	Starch Ind_00061		

ICV Information	
Source/Ver-Lot#:	INT_01656
Prep Date:	2/25/2020
Made By:	JDR
Concentration:	1012
Expiration Date:	5/25/2020

	CAL Volume	Buret Start	Buret End	mL Iodine	Final mL	Conc mg/L
CAL	5	0.00	6.80	20	6.80	1056.000
CAL	5	0.00	6.70	20	6.70	1064.000

For SM4500 S2 D colorimetric

	CAL Volume	Buret Start	Buret End	mL Iodine	Final mL	Conc mg/L
ICV	5	0.00	7.40	20	7.40	1008.000
ICV	5	0.00	7.30	20	7.30	1016.000

TALS Raw Data Report

Job Number: 280-134109-1
LIMS Batch: 487657
Equipment: NOEQUIP

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **LCS 280-487652/1-A** Inj Date: 3/4/2020 11:32:00AM 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	91	44	110		
Sulfide as H2S		19.55 mg/L	mg/L					

RS# 2 Lab ID: **MB 280-487652/2-A** Inj Date: 3/4/2020 11:32:00AM 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: **280-134109-B-9-D** Inj Date: 3/4/2020 11:32:00AM 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: **280-134109-B-9-E MS** Inj Date: 3/4/2020 11:32:00AM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Sulfide		19.2 mg/L	mg/L	91	44	110		
Sulfide as H2S		20.4 mg/L	mg/L					

RS# 5 Lab ID: **280-134109-B-9-F MSD** Inj Date: 3/4/2020 11:32:00AM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Sulfide		16.8 mg/L	mg/L	79	44	110	13	20
Sulfide as H2S		17.85 mg/L	mg/L					

RS# 11 Lab ID: **280-134109-B-2-B** Inj Date: 3/4/2020 11:32:00AM 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# 12 Lab ID: **280-134109-B-3-B** Inj Date: 3/4/2020 11:32:00AM 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# 13 Lab ID: **280-134109-B-4-B** Inj Date: 3/4/2020 11:32:00AM 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# 14 Lab ID: **280-134109-B-5-B** Inj Date: 3/4/2020 11:32:00AM 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# 15 Lab ID: **280-134109-B-6-B** Inj Date: 3/4/2020 11:32:00AM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Sulfide		999999968 mg/L	0.80 J mg/L					
Sulfide as H2S		999999966 mg/L	0.85 J mg/L					

TALS Raw Data Report

RS# 16 Lab ID: **280-134109-B-7-B** Inj Date: 3/4/2020 11:32:00AM 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# 17 Lab ID: **280-134109-B-8-B** Inj Date: 3/4/2020 11:32:00AM 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# 18 Lab ID: **280-134109-B-10-B** Inj Date: 3/4/2020 11:32:00AM 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: 280-134132-1
LIMS Batch: 487657
Equipment: NOEQUIP

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **LCS 280-487652/1-A** Inj Date: 3/4/2020 11:32:00AM 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	91	44	110		
Sulfide as H2S		19.55 mg/L	mg/L					

RS# 2 Lab ID: **MB 280-487652/2-A** Inj Date: 3/4/2020 11:32:00AM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Sulfide		0 mg/L	mg/L					
Sulfide as H2S		0 mg/L	mg/L					

RS# 3 Lab ID: **280-134109-B-9-D** Inj Date: 3/4/2020 11:32:00AM 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	mg/L					
Sulfide as H2S		0.85 mg/L	mg/L					

RS# 4 Lab ID: **280-134109-B-9-E MS** Inj Date: 3/4/2020 11:32:00AM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Sulfide		19.2 mg/L	mg/L	91	44	110		
Sulfide as H2S		20.4 mg/L	mg/L					

RS# 5 Lab ID: **280-134109-B-9-F MSD** Inj Date: 3/4/2020 11:32:00AM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Sulfide		16.8 mg/L	mg/L	79	44	110	13	20
Sulfide as H2S		17.85 mg/L	mg/L					

RS# 6 Lab ID: **280-134132-I-5-B** Inj Date: 3/4/2020 11:32:00AM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Sulfide		0 mg/L	mg/L					
Sulfide as H2S		0 mg/L	mg/L					

TALS Raw Data Report

Job Number: 280-134141-1
LIMS Batch: 487657
Equipment: NOEQUIP

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **LCS 280-487652/1-A** Inj Date: 3/4/2020 11:32:00AM 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	91	44 110		
Sulfide as H2S		19.55 mg/L	mg/L				

RS# 2 Lab ID: **MB 280-487652/2-A** Inj Date: 3/4/2020 11:32:00AM 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: **280-134109-B-9-D** Inj Date: 3/4/2020 11:32:00AM 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: **280-134109-B-9-E MS** Inj Date: 3/4/2020 11:32:00AM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		19.2 mg/L	mg/L	91	44 110		
Sulfide as H2S		20.4 mg/L	mg/L				

RS# 5 Lab ID: **280-134109-B-9-F MSD** Inj Date: 3/4/2020 11:32:00AM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		16.8 mg/L	mg/L	79	44 110	13	20
Sulfide as H2S		17.85 mg/L	mg/L				

RS# 7 Lab ID: **280-134141-E-1-B** Inj Date: 3/4/2020 11:32:00AM 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# 8 Lab ID: **280-134141-E-2-B** Inj Date: 3/4/2020 11:32:00AM 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# 9 Lab ID: **280-134141-E-3-B** Inj Date: 3/4/2020 11:32:00AM 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: **280-134141-E-4-B** Inj Date: 3/4/2020 11:32:00AM 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				

TALS Raw Data Report

Job Number: 280-134162-1
LIMS Batch: 487657
Equipment: NOEQUIP

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **LCS 280-487652/1-A** Inj Date: 3/4/2020 11:32:00AM 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	91	44	110		
Sulfide as H2S		19.55 mg/L	mg/L					

RS# 2 Lab ID: **MB 280-487652/2-A** Inj Date: 3/4/2020 11:32:00AM 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: **280-134109-B-9-D** Inj Date: 3/4/2020 11:32:00AM 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: **280-134109-B-9-E MS** Inj Date: 3/4/2020 11:32:00AM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Sulfide		19.2 mg/L	mg/L	91	44	110		
Sulfide as H2S		20.4 mg/L	mg/L					

RS# 5 Lab ID: **280-134109-B-9-F MSD** Inj Date: 3/4/2020 11:32:00AM Dil: 1.0 Meth: 9034

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt		% RPD	RPD Lmt
Sulfide		16.8 mg/L	mg/L	79	44	110	13	20
Sulfide as H2S		17.85 mg/L	mg/L					

RS# 19 Lab ID: **280-134162-B-6-A** Inj Date: 3/4/2020 11:32:00AM 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					

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Titration Data Review Checklist

LIMS Batch Number: 487657	Method (circle one):	QC Type (circle):
Analyst/1st Reviewer:	2310B 2320B 2340C	Standard DoD QAPP Other
Date:	4500 S2 F 4500 SO3 B 9030B/9034	
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?	N/A		✓	If no, list details:
3. Are samples analyzed within the required hold time?	✓		✓	NCM:
4. Pre-treatment reagents used to remove interferences are documented.	N/A		✓	
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.	N/A		✓	Comments:
7. Calibration standards are analyzed at the beginning and end of the analytical sequence and after every 10 sample analyses. (samples/dilutions/reanalyses).	N/A		✓	Comments:
8. Calibrations standards (ICV/CCV) are within 90-110% recovery.	N/A		✓	
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.	N/A		✓	□ 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)	✓		✓	□ Non-conformance (NCM) added □ Sample results ND or <2X RL

Review Items	Yes	No	2nd Rev	If No, why is data reportable?
16. Are all MS/MSD RPDs <50%? Note: Excessive RPDs (>50%) require evaluation, correction or explanation.	✓		✓	□ Non-conformance (NCM) added
D. Raw Data & TALS Data Entry				
17. Raw Data	✓			
a. Unused data is clearly identified with reason	✓		✓	
b. All crossed out data is initialed and dated	✓		✓	
c. Out of control QC is clearly identified	✓		✓	
d. Any data that has a qualifier is commented on with appropriate action taken	✓		✓	
e. The first page of the run includes the filename, instrument, and analyst initials/signature	✓		✓	
f. 100% of manual calculations are verified.	✓		✓	
18. TALS Samples Tab	✓			
a. LIMS Sample IDs / Containers are correct	✓		✓	
b. Method and matrix are correct	✓		✓	
c. Date and time match raw data	✓		✓	
d. Dilutions are correct	✓		✓	
e. Correct suffix designated (where applicable)	✓		✓	
19. TALS Worksheet Tab is complete and correct	✓		✓	
20. TALS Reagent Tab is complete and correct	✓		✓	
21. TALS QC Links Tab is correct	✓		✓	
22. TALS Sample Results Tab	✓			
a. All unused data are marked Rejected or Accepted	✓		✓	
b. All reported analytes are marked Primary or Secondary	✓		✓	
c. Data manually transcribed from benchsheet into TALS verified 100% including significant figures SM 4500 SO3 B).	✓		✓	
d. TALS Batch Information Screen documentation is complete	✓		✓	
e. TALS Status set to appropriate review level	✓		✓	
E. Final Report and NCMs (2nd level review only)				
f. Were all job/project requirements met?			✓	
g. Results for samples and QC correct on final report?			✓	
h. Are all necessary scanned documents in TALS?			✓	
i. NCMs reviewed for applicability, correct references to batches, grammar/typographical errors?			✓	

Comments: _____

2nd Reviewer: [signature] **Review Date:** 3·4·2020

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20200220-89496.b\0002.d				
Lims ID:	std L1				
Client ID:					
Sample Type:	IC	Calib Level:	1		
Inject. Date:	20-Feb-2020 14:39:00	ALS Bottle#:	0	Worklist Smp#:	2
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0089496-002				
Operator ID:		Instrument ID:	WC_IonChrom11		
Sublist:	chrom-Anions_IC11*sub1				
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20200220-89496.b\Anions_IC11.m				
Limit Group:	Wet - Anions 28D				
Last Update:	21-Feb-2020 07:03:10	Calib Date:	20-Feb-2020 16:01:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20200220-89496.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0336				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.417	2.434	-0.017	1629551	0.2000	0.2122	
2 Chloride	3.492	3.534	-0.042	5309361	1.00	1.31	
3 Nitrite as N	4.209	4.242	-0.033	2025077	NC	NC	
4 Bromide	5.050	5.076	-0.026	443293	0.2000	0.2056	
5 Nitrate as N	5.684	5.709	-0.025	2651377	NC	NC	
7 Orthophosphate as P	7.692	7.776	-0.084	1038696	NC	NC	
6 Sulfate	8.709	8.826	-0.117	4356337	1.00	1.27	

QC Flag Legend

Processing Flags

NC - Not Calibrated

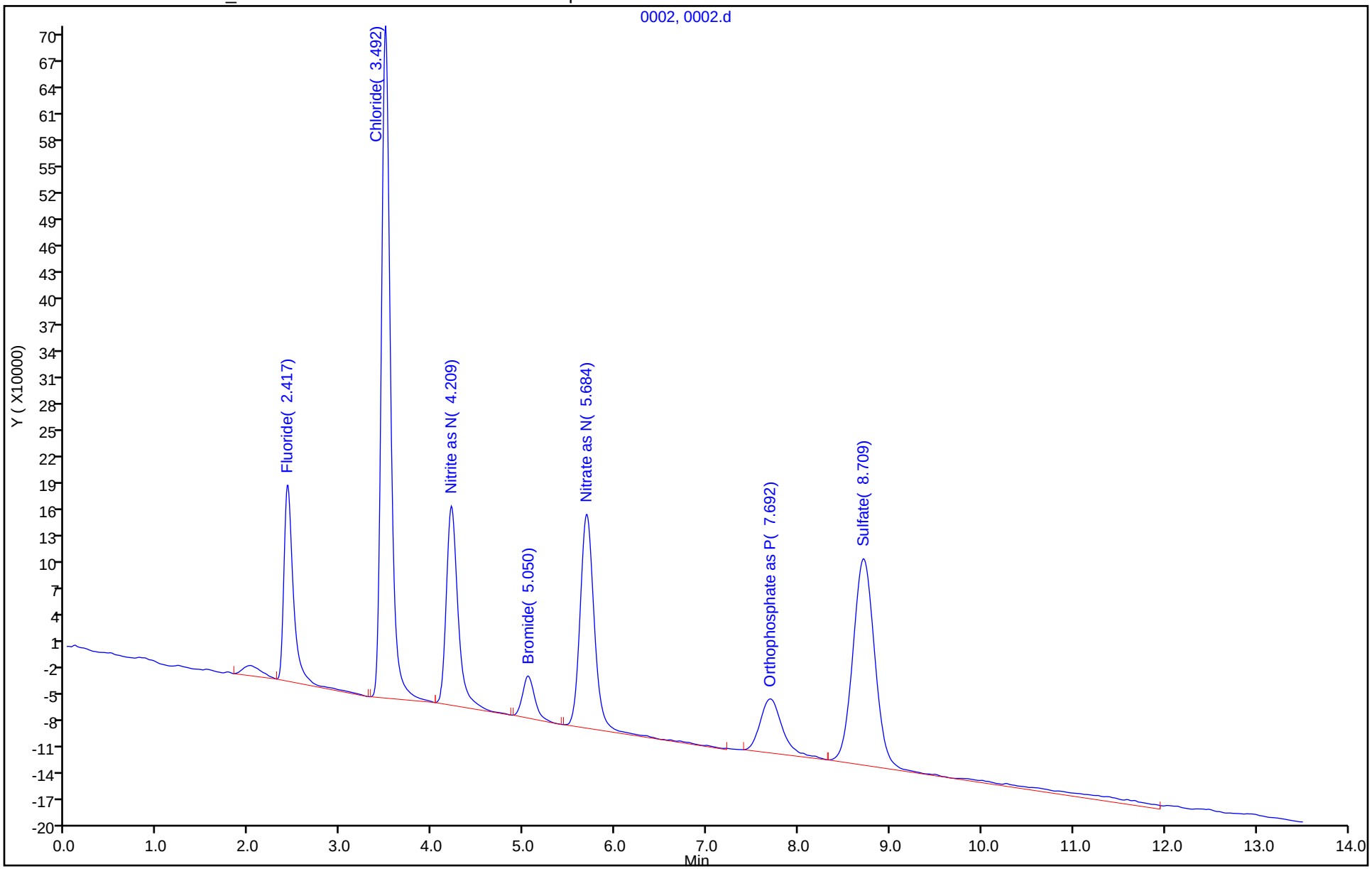
Reagents:

IC Cal low_00511	Amount Added:	0.02	Units: mL
IC CAL cl/so4_00298	Amount Added:	0.02	Units: mL

Report Date: 21-Feb-2020 07:03:11 Chrom Revision: 2.3 19-Feb-2020 16:45:46

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20200220-89496.b\0002.d				
Injection Date:	20-Feb-2020 14:39:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L1			Worklist Smp#:	2
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20200220-89496.b\0003.d				
Lims ID:	std L2				
Client ID:					
Sample Type:	IC	Calib Level:	2		
Inject. Date:	20-Feb-2020 14:55:00	ALS Bottle#:	0	Worklist Smp#:	3
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0089496-003				
Operator ID:		Instrument ID:	WC_IonChrom11		
Sublist:	chrom-Anions_IC11*sub1				
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20200220-89496.b\Anions_IC11.m				
Limit Group:	Wet - Anions 28D				
Last Update:	21-Feb-2020 07:03:14	Calib Date:	20-Feb-2020 16:01:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20200220-89496.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0336				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.425	2.434	-0.009	4072810	0.5000	0.4964	
2 Chloride	3.500	3.534	-0.034	13118013	2.50	2.32	
3 Nitrite as N	4.217	4.242	-0.025	5100591	NC	NC	
4 Bromide	5.059	5.076	-0.017	1095717	0.5000	0.4995	
5 Nitrate as N	5.700	5.709	-0.009	6603562	NC	NC	
7 Orthophosphate as P	7.725	7.776	-0.051	2464005	NC	NC	
6 Sulfate	8.742	8.826	-0.084	9778818	2.50	2.35	

QC Flag Legend

Processing Flags

NC - Not Calibrated

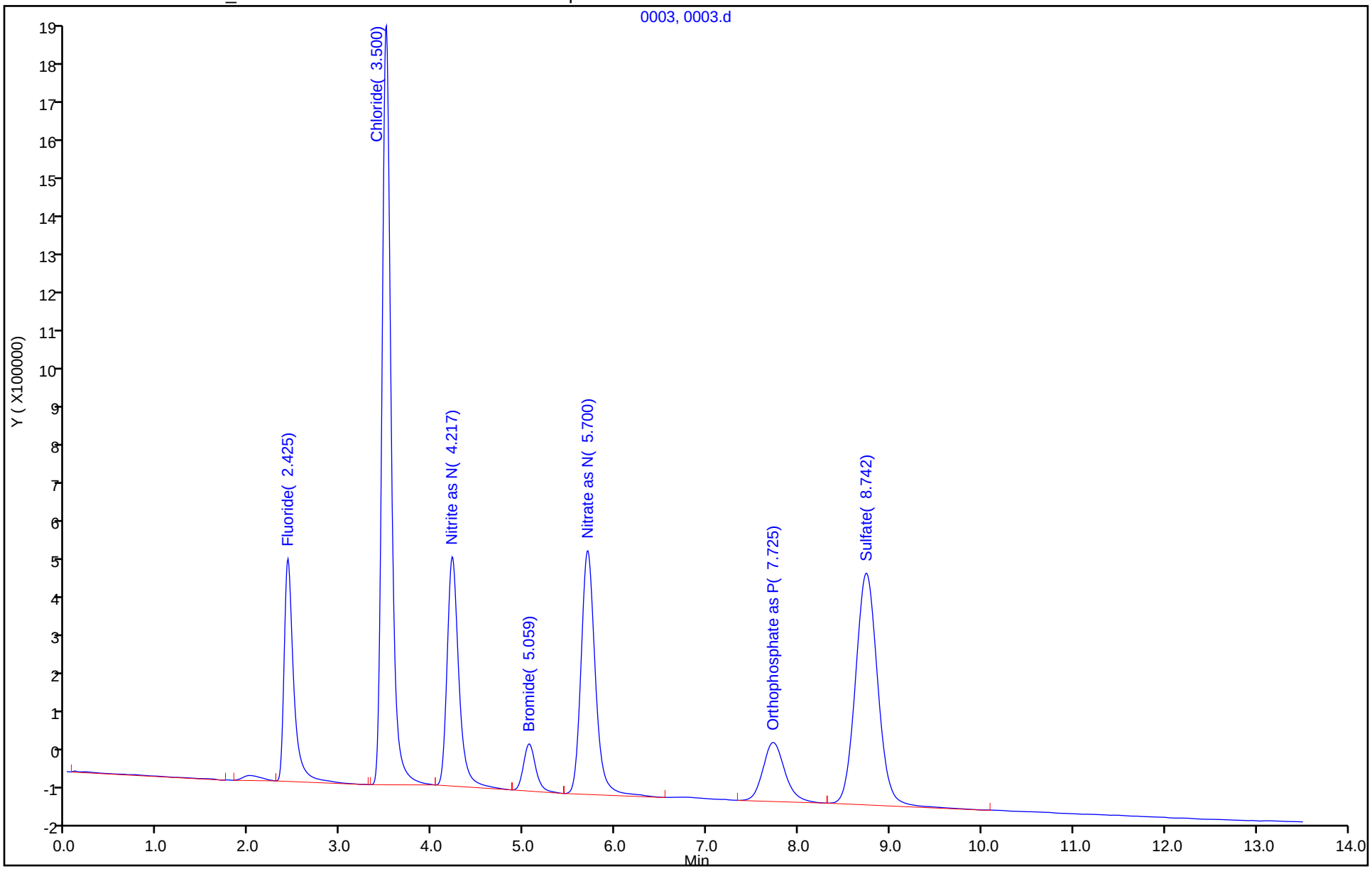
Reagents:

IC Cal low_00511	Amount Added:	0.05	Units: mL
IC CAL cl/so4_00298	Amount Added:	0.05	Units: mL

Report Date: 21-Feb-2020 07:03:15 Chrom Revision: 2.3 19-Feb-2020 16:45:46

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20200220-89496.b\0003.d				
Injection Date:	20-Feb-2020 14:55:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L2			Worklist Smp#:	3
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20200220-89496.b\0004.d				
Lims ID:	std L3				
Client ID:					
Sample Type:	IC	Calib Level:	3		
Inject. Date:	20-Feb-2020 15:12:00	ALS Bottle#:	0	Worklist Smp#:	4
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0089496-004				
Operator ID:		Instrument ID:	WC_IonChrom11		
Sublist:	chrom-Anions_IC11*sub1				
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20200220-89496.b\Anions_IC11.m				
Limit Group:	Wet - Anions 28D				
Last Update:	21-Feb-2020 07:03:17	Calib Date:	20-Feb-2020 16:01:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20200220-89496.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0336				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.425	2.434	-0.009	8093873	1.00	0.9641	
2 Chloride	3.500	3.534	-0.034	26870233	5.00	4.09	
3 Nitrite as N	4.225	4.242	-0.017	10392099	NC	NC	
4 Bromide	5.067	5.076	-0.009	2170460	1.00	0.9837	
5 Nitrate as N	5.709	5.709	0.000	13220571	NC	NC	
7 Orthophosphate as P	7.742	7.776	-0.034	4822044	NC	NC	
6 Sulfate	8.767	8.826	-0.059	19583640	5.00	4.31	

QC Flag Legend

Processing Flags

NC - Not Calibrated

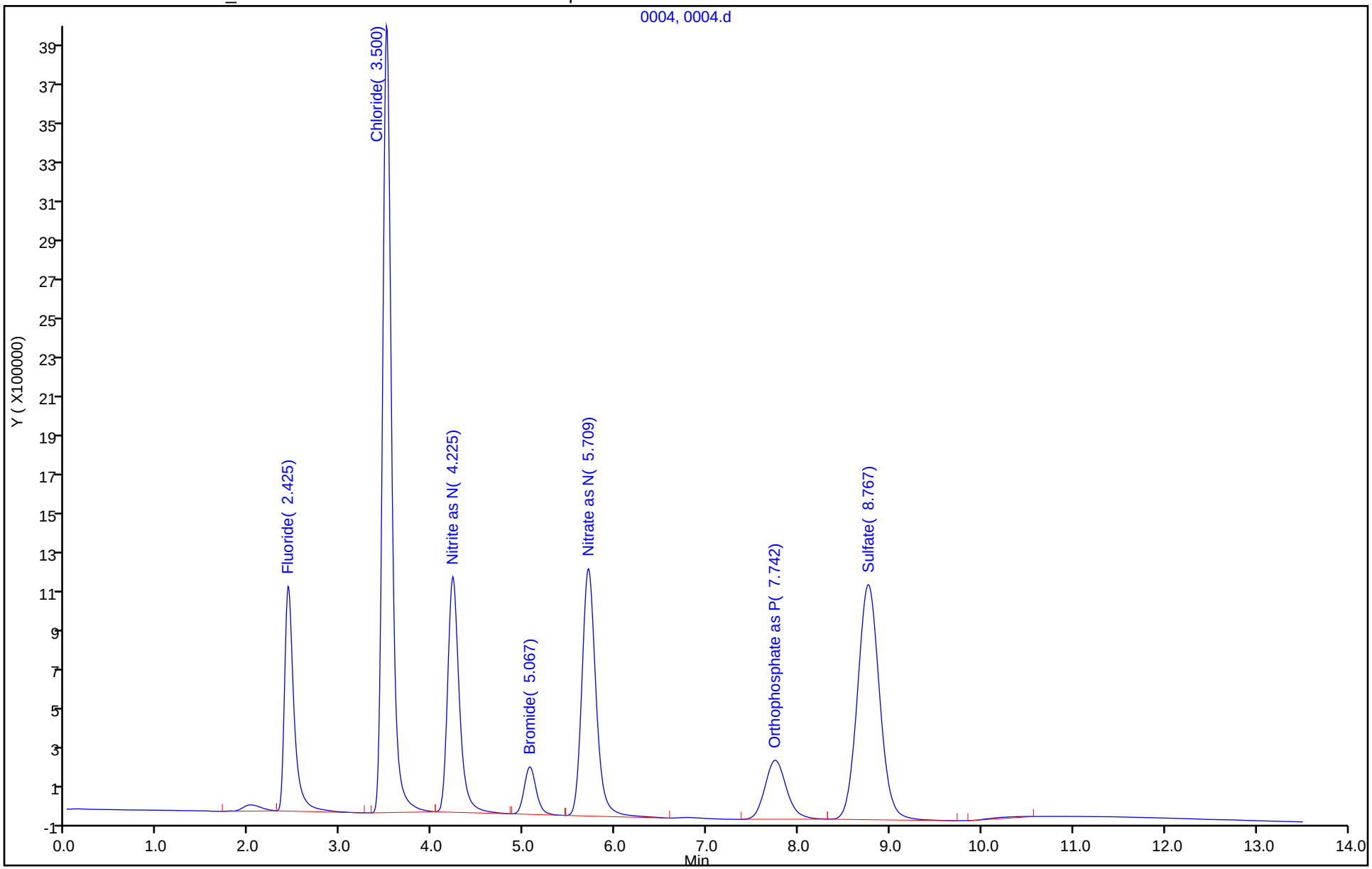
Reagents:

IC Cal low_00511	Amount Added:	0.10	Units: mL
IC CAL cl/so4_00298	Amount Added:	0.10	Units: mL

Report Date: 21-Feb-2020 07:03:19 Chrom Revision: 2.3 19-Feb-2020 16:45:46

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20200220-89496.b\0004.d				
Injection Date:	20-Feb-2020 15:12:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L3			Worklist Smp#:	4
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20200220-89496.b\0005.d				
Lims ID:	std L4				
Client ID:					
Sample Type:	IC	Calib Level:	4		
Inject. Date:	20-Feb-2020 15:28:00	ALS Bottle#:	0	Worklist Smp#:	5
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0089496-005				
Operator ID:		Instrument ID:	WC_IonChrom11		
Sublist:	chrom-Anions_IC11*sub1				
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20200220-89496.b\Anions_IC11.m				
Limit Group:	Wet - Anions 28D				
Last Update:	21-Feb-2020 07:03:21	Calib Date:	20-Feb-2020 16:01:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20200220-89496.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0336				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.425	2.425	0.000	33007618	4.00	3.86	
2 Chloride	3.525	3.525	0.000	421539821	60.0	55.0	
3 Nitrite as N	4.234	4.234	0.000	42595077	NC	NC	
4 Bromide	5.067	5.067	0.000	8697309	4.00	3.92	
5 Nitrate as N	5.700	5.700	0.000	54562423	NC	NC	
7 Orthophosphate as P	7.750	7.750	0.000	19292477	NC	NC	
6 Sulfate	8.800	8.800	0.000	269307803	60.0	54.1	

QC Flag Legend

Processing Flags

NC - Not Calibrated

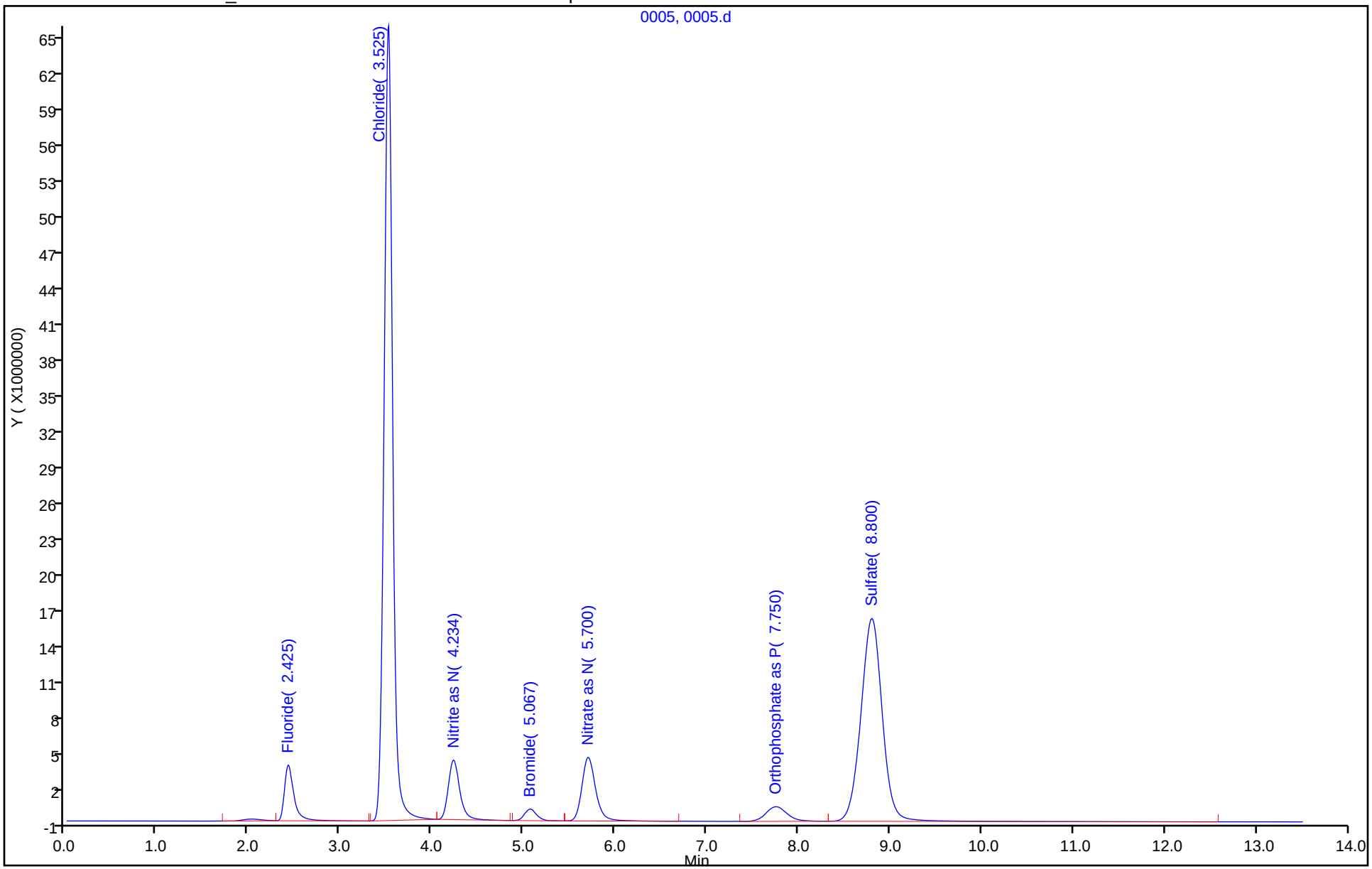
Reagents:

IC Cal low_00511	Amount Added:	0.40	Units: mL
IC CAL cl/so4_00298	Amount Added:	1.20	Units: mL

Report Date: 21-Feb-2020 07:03:23 Chrom Revision: 2.3 19-Feb-2020 16:45:46

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20200220-89496.b\0005.d				
Injection Date:	20-Feb-2020 15:28:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L4			Worklist Smp#:	5
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20200220-89496.b\0006.d				
Lims ID:	std L5				
Client ID:					
Sample Type:	IC	Calib Level:	5		
Inject. Date:	20-Feb-2020 15:45:00	ALS Bottle#:	0	Worklist Smp#:	6
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0089496-006				
Misc. Info.:	6 F				
Operator ID:		Instrument ID:	WC_IonChrom11		
Sublist:	chrom-Anions_IC11*sub1				
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20200220-89496.b\Anions_IC11.m				
Limit Group:	Wet - Anions 28D				
Last Update:	21-Feb-2020 07:03:28	Calib Date:	20-Feb-2020 16:01:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20200220-89496.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0336				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.434	2.425	0.009	68553083	8.00	8.00	
2 Chloride	3.542	3.525	0.017	916370030	120.0	118.9	
3 Nitrite as N	4.242	4.234	0.008	89288099	NC	NC	
4 Bromide	5.075	5.067	0.008	17718762	8.00	7.99	
5 Nitrate as N	5.700	5.700	0.000	115479202	NC	NC	
7 Orthophosphate as P	7.759	7.750	0.009	39288664	NC	NC	
6 Sulfate	8.834	8.800	0.034	585577606	120.0	117.2	

QC Flag Legend

Processing Flags

NC - Not Calibrated

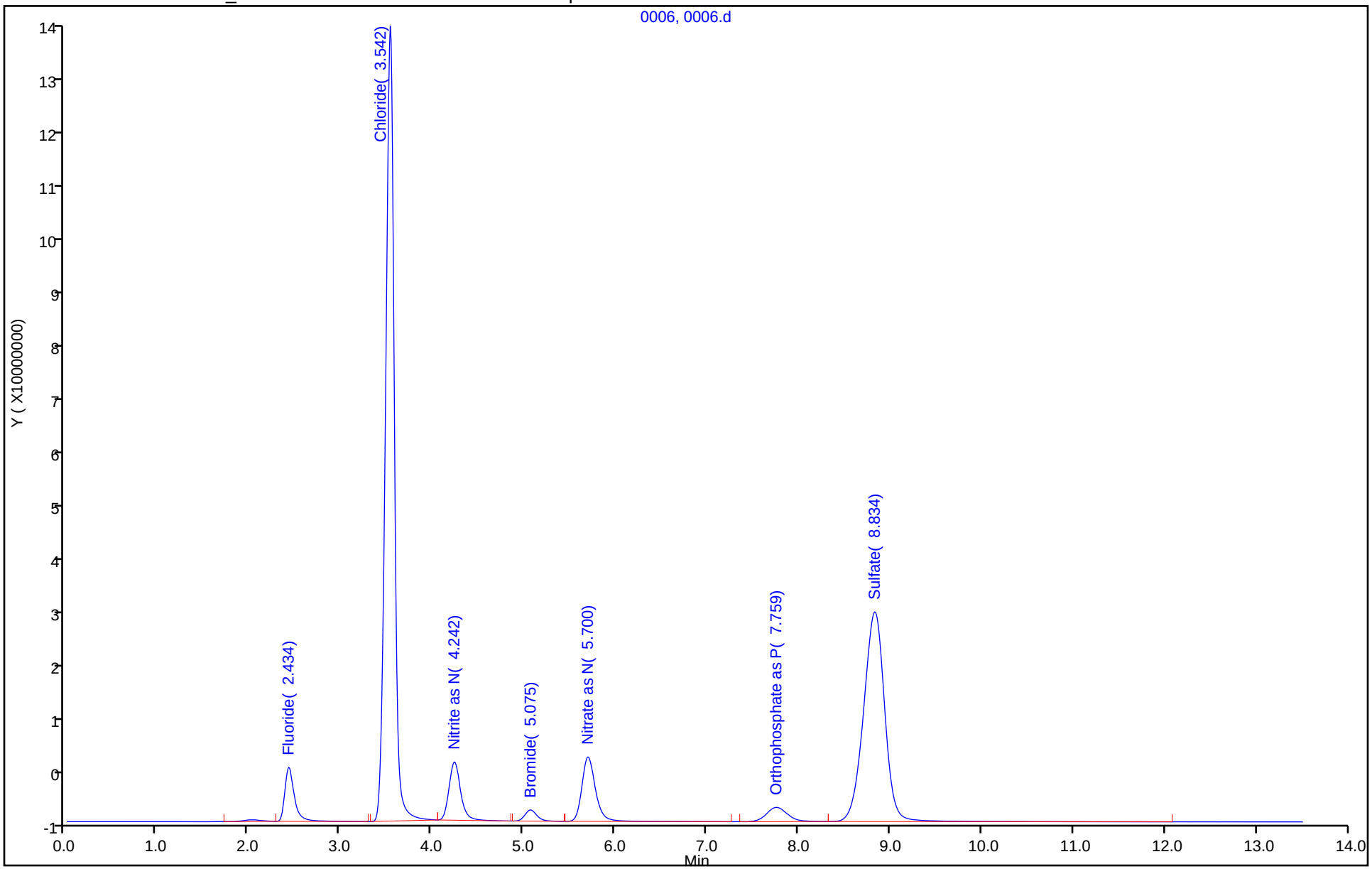
Reagents:

IC Cal low_00511	Amount Added:	0.80	Units: mL
IC CAL cl/so4_00298	Amount Added:	2.40	Units: mL

Report Date: 21-Feb-2020 07:03:29 Chrom Revision: 2.3 19-Feb-2020 16:45:46

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20200220-89496.b\0006.d				
Injection Date:	20-Feb-2020 15:45:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L5			Worklist Smp#:	6
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20200220-89496.b\0007.d				
Lims ID:	std L6				
Client ID:					
Sample Type:	IC	Calib Level:	6		
Inject. Date:	20-Feb-2020 16:01:00	ALS Bottle#:	0	Worklist Smp#:	7
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0089496-007				
Misc. Info.:	18404 F				
Operator ID:		Instrument ID:	WC_IonChrom11		
Sublist:	chrom-Anions_IC11*sub1				
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20200220-89496.b\Anions_IC11.m				
Limit Group:	Wet - Anions 28D				
Last Update:	21-Feb-2020 07:03:31	Calib Date:	20-Feb-2020 16:01:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20200220-89496.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0336				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.434	2.425	0.009	87245380	10.0	10.2	
2 Chloride	3.567	3.525	0.042	1598339812	200.0	206.9	
3 Nitrite as N	4.250	4.234	0.016	114259385	NC	NC	
4 Bromide	5.075	5.067	0.008	22399110	10.0	10.1	
5 Nitrate as N	5.700	5.700	0.000	149341198	NC	NC	
7 Orthophosphate as P	7.759	7.750	0.009	50113781	NC	NC	
6 Sulfate	8.875	8.800	0.075	1046338908	200.0	209.2	

QC Flag Legend

Processing Flags

NC - Not Calibrated

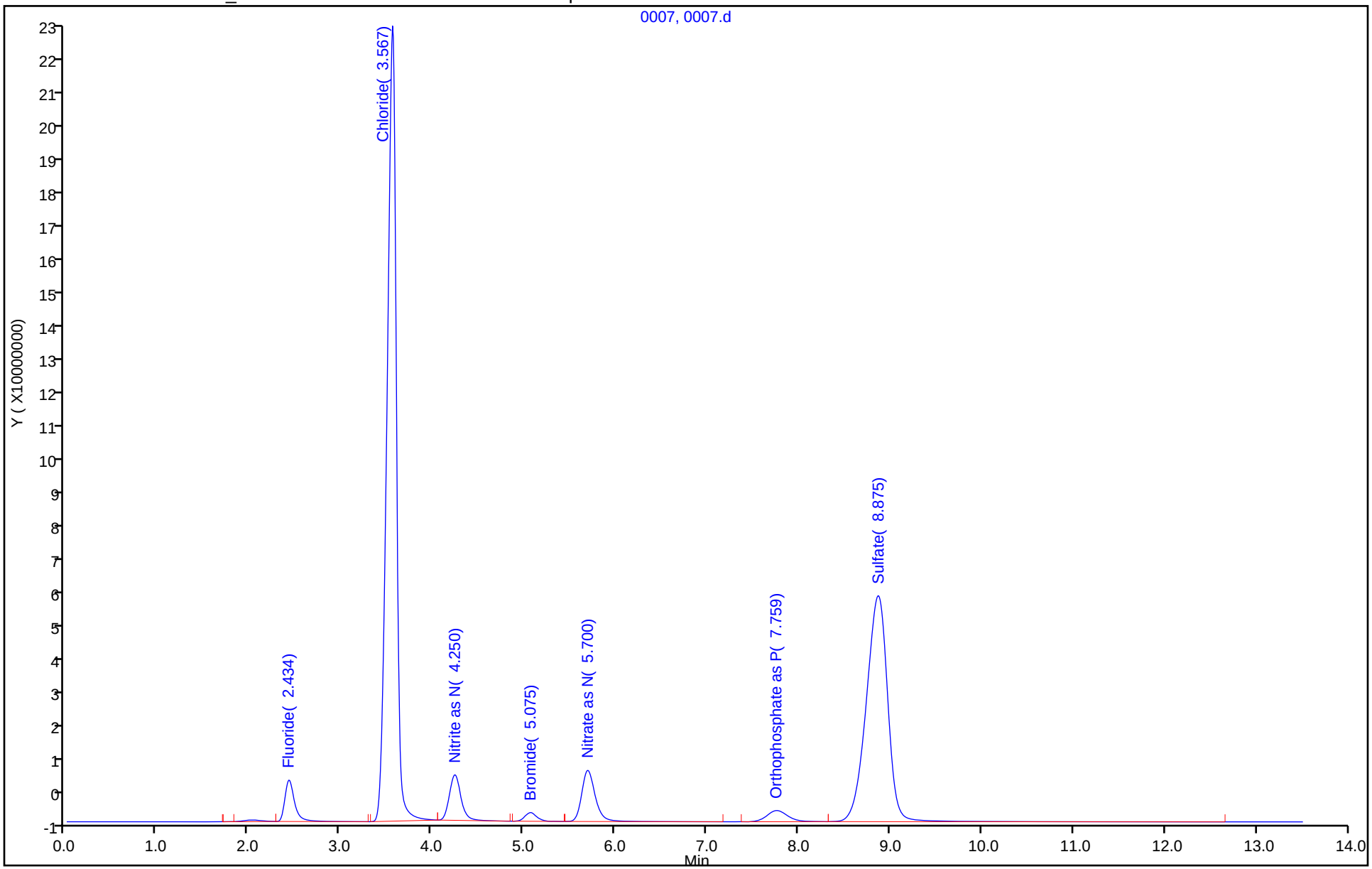
Reagents:

IC Cal low_00511	Amount Added:	1.00	Units: mL
IC CAL cl/so4_00298	Amount Added:	4.00	Units: mL

Report Date: 21-Feb-2020 07:03:33 Chrom Revision: 2.3 19-Feb-2020 16:45:46

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20200220-89496.b\0007.d				
Injection Date:	20-Feb-2020 16:01:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	std L6			Worklist Smp#:	7
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

IC Instrument Information

WL: 89369 **Inst ID:** 11 **Analysis Date:** 2/17/20 **Analyst:** CJ.

Rush	Job No.	Samples	Anions	QC Req	HT Exp
☐	133666	5	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐	133723	1	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐	133774	1	F Cl NO2 Br NO3 PO4 SO4	MS/D 1	
☐	133765	1	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐	133694	6	F Cl NO2 Br NO3 PO4 SO4	MS/D	
☐	133776	1	F Cl NO2 Br NO3 PO4 SO4	MS/D 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	

Dilutions

Job No.	Samples	Anions	Dilution	Reason
-666		F Cl NO2 Br NO3 PO4 SO4	5, 200X	Reruns.
-694		F Cl NO2 Br NO3 PO4 SO4	5, 20X	Reruns.
-723		F Cl NO2 Br NO3 PO4 SO4	50X	Reruns.
-765		F Cl NO2 Br NO3 PO4 SO4	10X	Reruns.
		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: \\chromna\Denver\ChromData\WC_IonChrom11\20200220-89496.b\Anions_IC11.m

Instrument:	WC_IonChrom11	Lims Location:	280
Lock State:	Unlocked	Cpnd Order:	Retention Time
Integrator:	Falcon	Last Modified:	21-Feb-2020 06:02:20

No.Compounds:7

Initial Calibration Batches

Ical Batch: \\chromna\Denver\ChromData\WC_IonChrom11\20200220-89496.b
Inj Date : 20-Feb-2020 14:39:00, Sublist: chrom-Anions_IC11*sub1

Detector 1: 0005

	Wet - Anions				Wet - Anions 28D			
Compound	b	M1	M2	Err	b	M1	M2	Err
1 Fluoride					-195356	8598078		0.999
2 Chloride					-485428	7749480		0.997
3 Nitrite as N	-401820	1122663		0.999				
4 Bromide					-12929	2219503		1.000
5 Nitrate as N	-553795	1456460		0.999				
7 Orthophosphate as P	9184	4935214		1.000				
6 Sulfate					-201564	5011678		0.997

TestAmerica Laboratories
Initial Calibration Report

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20200220-89496.b\Anions_IC11.m

Instrument: WC_IonChrom11 Lims Location: 280
Lock State: Unlocked Cpnd Order: Retention Time
Integrator: Falcon Last Modified: 21-Feb-2020 06:02:20
No.Compounds:7
Sublist: chrom-Anions_IC11*sub1
Limit Group: Wet - Anions 28D

Detectors

Detector: 1, 0005
Data Type: ic Spec Type: none
Supports Extracted Chromatograms: False
Run Time: 0.001-13.501 No. Points: 1561

Calibration File Names

Level: 1 \\chromna\Denver\ChromData\WC_IonChrom11\20200220-89496.b\0002.d
Inj Date: 20-Feb-2020 14:39:00 Worklist: 89496 Sample#: 2
Level: 2 \\chromna\Denver\ChromData\WC_IonChrom11\20200220-89496.b\0003.d
Inj Date: 20-Feb-2020 14:55:00 Worklist: 89496 Sample#: 3
Level: 3 \\chromna\Denver\ChromData\WC_IonChrom11\20200220-89496.b\0004.d
Inj Date: 20-Feb-2020 15:12:00 Worklist: 89496 Sample#: 4
Level: 4 \\chromna\Denver\ChromData\WC_IonChrom11\20200220-89496.b\0005.d
Inj Date: 20-Feb-2020 15:28:00 Worklist: 89496 Sample#: 5
Level: 5 \\chromna\Denver\ChromData\WC_IonChrom11\20200220-89496.b\0006.d
Inj Date: 20-Feb-2020 15:45:00 Worklist: 89496 Sample#: 6
Level: 6 \\chromna\Denver\ChromData\WC_IonChrom11\20200220-89496.b\0007.d
Inj Date: 20-Feb-2020 16:01:00 Worklist: 89496 Sample#: 7

Start Cal Date: 20-Feb-2020 14:39:00 End Cal Date: 20-Feb-2020 16:01:00

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					
8147755	8145620	8093873	8251905	8569135	8724538	**-195356**			**0.999**
0.200000(1)	0.500000(2)	1.0000 (3)	4.0000 (4)	8.0000 (5)	10.0 (6)		**8598078**		
1629551	4072810	8093873	33007618	68553083	87245380				
89496(2)	89496(3)	89496(4)	89496(5)	89496(6)	89496(7)				
2 Chloride				Signal: 1					
5309361	5247205	5374047	7025664	7636417	7991699	**-4854287**			**0.997**
1.0000 (1)	2.5000 (2)	5.0000 (3)	60.0 (4)	120.0 (5)	200.0 (6)		**7749480**		
5309361	13118013	26870233	421539821	916370030	1598339812				
89496(2)	89496(3)	89496(4)	89496(5)	89496(6)	89496(7)				
4 Bromide				Signal: 1					
2216465	2191434	2170460	2174327	2214845	2239911	**-12929**			**1.000**
0.200000(1)	0.500000(2)	1.0000 (3)	4.0000 (4)	8.0000 (5)	10.0 (6)		**2219503**		
443293	1095717	2170460	8697309	17718762	22399110				
89496(2)	89496(3)	89496(4)	89496(5)	89496(6)	89496(7)				
6 Sulfate				Signal: 1					
4356337	3911527	3916728	4488463	4879813	5231695	**-2015648**			**0.997**
1.0000 (1)	2.5000 (2)	5.0000 (3)	60.0 (4)	120.0 (5)	200.0 (6)		**5011678**		
4356337	9778818	19583640	269307803	585577606	1046338908				
89496(2)	89496(3)	89496(4)	89496(5)	89496(6)	89496(7)				

TestAmerica Laboratories
Initial Calibration Report

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20200220-89496.b\Anions_IC11.m

Instrument:	WC_IonChrom11	Lims Location:	280
Lock State:	Unlocked	Cpnd Order:	Retention Time
Integrator:	Falcon	Last Modified:	21-Feb-2020 06:02:20
No.Compounds:	7		
Sublist:	chrom-Anions_IC11*sub1		
Limit Group:	Wet - Anions		

Detectors

Detector: 1, 0005
Data Type: ic Spec Type: none
Supports Extracted Chromatograms: False
Run Time: 0.001-13.501 No. Points: 1561

Calibration File Names

Level: 1 \\chromna\Denver\ChromData\WC_IonChrom11\20200220-89496.b\0002.d
Inj Date: 20-Feb-2020 14:39:00 Worklist: 89496 Sample#: 2
Level: 2 \\chromna\Denver\ChromData\WC_IonChrom11\20200220-89496.b\0003.d
Inj Date: 20-Feb-2020 14:55:00 Worklist: 89496 Sample#: 3
Level: 3 \\chromna\Denver\ChromData\WC_IonChrom11\20200220-89496.b\0004.d
Inj Date: 20-Feb-2020 15:12:00 Worklist: 89496 Sample#: 4
Level: 4 \\chromna\Denver\ChromData\WC_IonChrom11\20200220-89496.b\0005.d
Inj Date: 20-Feb-2020 15:28:00 Worklist: 89496 Sample#: 5
Level: 5 \\chromna\Denver\ChromData\WC_IonChrom11\20200220-89496.b\0006.d
Inj Date: 20-Feb-2020 15:45:00 Worklist: 89496 Sample#: 6
Level: 6 \\chromna\Denver\ChromData\WC_IonChrom11\20200220-89496.b\0007.d
Inj Date: 20-Feb-2020 16:01:00 Worklist: 89496 Sample#: 7

Start Cal Date: 20-Feb-2020 14:39:00 End Cal Date: 20-Feb-2020 16:01:00

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					
10125385	10201182	10392099	10648769	11161012	11425939	**-401820**			**0.999**
0.200000(1)	0.500000(2)	1.0000 (3)	4.0000 (4)	8.0000 (5)	10.0 (6)		**11226635**		
2025077	5100591	10392099	42595077	89288099	114259385				
89496(2)	89496(3)	89496(4)	89496(5)	89496(6)	89496(7)				
5 Nitrate as N				Signal: 1					
13256885	13207124	13220571	13640606	14434900	14934120	**-553795**			**0.999**
0.200000(1)	0.500000(2)	1.0000 (3)	4.0000 (4)	8.0000 (5)	10.0 (6)		**14564604**		
2651377	6603562	13220571	54562423	115479202	149341198				
89496(2)	89496(3)	89496(4)	89496(5)	89496(6)	89496(7)				
7 Orthophosphate as P				Signal: 1					
5193480	4928010	4822044	4823119	4911083	5011378	**9183.7**			**1.000**
0.200000(1)	0.500000(2)	1.0000 (3)	4.0000 (4)	8.0000 (5)	10.0 (6)		**4935214**		
1038696	2464005	4822044	19292477	39288664	50113781				
89496(2)	89496(3)	89496(4)	89496(5)	89496(6)	89496(7)				

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20200220-89496.b\0008.d
Lims ID: ICV
Client ID:
Sample Type: ICV
Inject. Date: 20-Feb-2020 16:17:00 ALS Bottle#: 0 Worklist Smp#: 8
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0089496-008
Misc. Info.: 20175 F
Operator ID: Instrument ID: WC_IonChrom11
Sublist:

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20200220-89496.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 21-Feb-2020 07:03:36 Calib Date: 20-Feb-2020 16:01:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20200220-89496.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0336

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.434	2.434	0.000	35971193	4.00	4.21	
2 Chloride	3.534	3.534	0.000	577902344	80.0	75.2	
3 Nitrite as N	4.242	4.242	0.000	45276120	NC	NC	
4 Bromide	5.076	5.076	0.000	9919601	4.00	4.48	
5 Nitrate as N	5.709	5.709	0.000	61245919	NC	NC	
7 Orthophosphate as P	7.776	7.776	0.000	21252696	NC	NC	
6 Sulfate	8.826	8.826	0.000	363741486	80.0	73.0	

QC Flag Legend

Processing Flags
NC - Not Calibrated

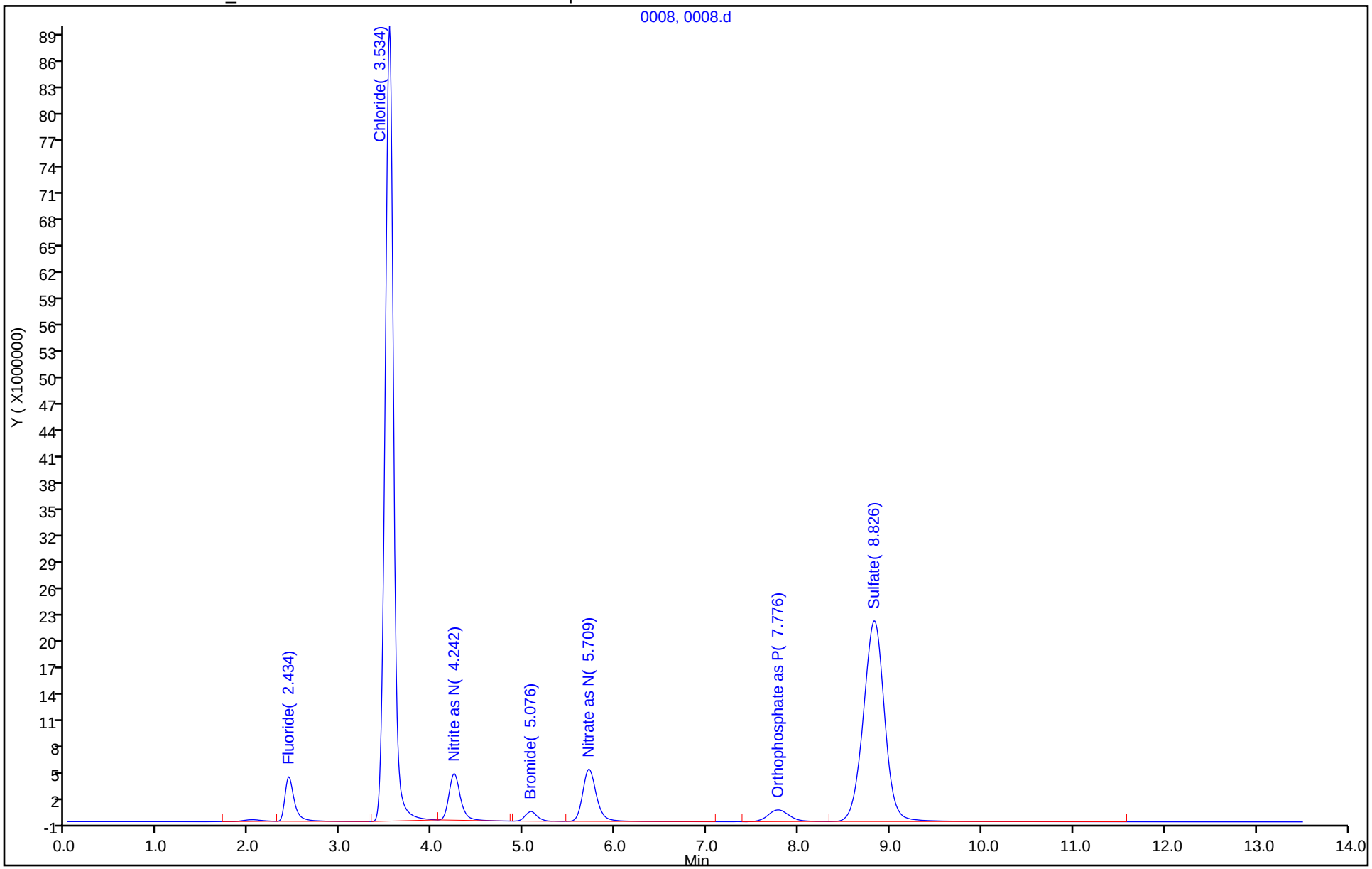
Reagents:

IC SO4 ICV_00021 Amount Added: 0.40 Units: mL
IC ICV 5_00263 Amount Added: 0.40 Units: mL
IC CL ICV_00018 Amount Added: 0.40 Units: mL

Report Date: 21-Feb-2020 07:03:36 Chrom Revision: 2.3 19-Feb-2020 16:45:46

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20200220-89496.b\0008.d				
Injection Date:	20-Feb-2020 16:17:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ICV			Worklist Smp#:	8
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

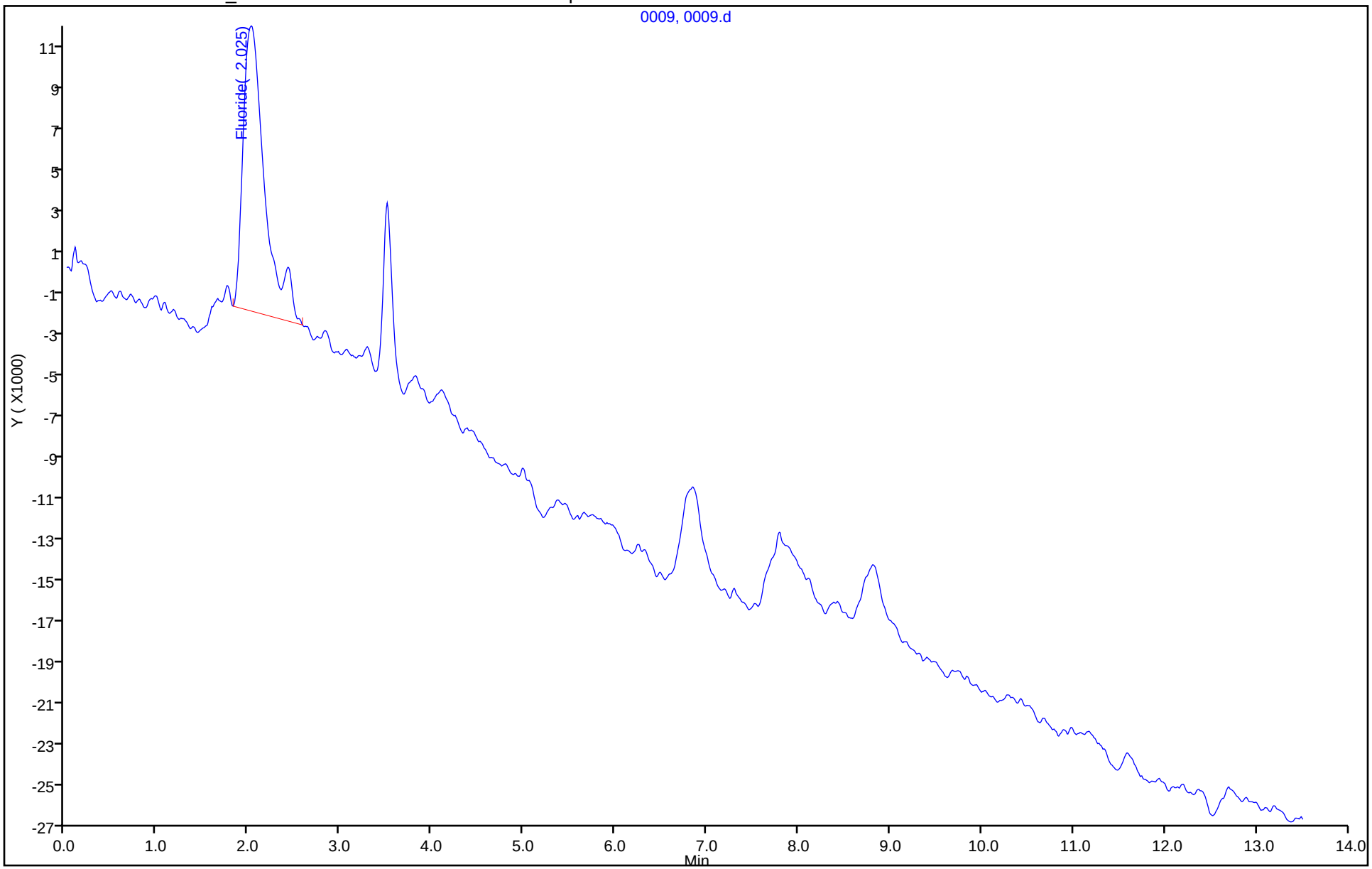
Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20200220-89496.b\0009.d				
Lims ID:	ICB				
Client ID:					
Sample Type:	ICB				
Inject. Date:	20-Feb-2020 16:34:00	ALS Bottle#:	0	Worklist Smp#:	9
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0089496-009				
Misc. Info.:	6588 F				
Operator ID:		Instrument ID:	WC_IonChrom11		
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20200220-89496.b\Anions_IC11.m				
Limit Group:	Wet - Anions 28D				
Last Update:	21-Feb-2020 07:03:36	Calib Date:	20-Feb-2020 16:01:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20200220-89496.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0336				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.025	2.434	-0.409	226948		0.0491	
2 Chloride		3.534				ND	
3 Nitrite as N		4.242				ND	
4 Bromide		5.076				ND	
5 Nitrate as N		5.709				ND	
7 Orthophosphate as P		7.776				ND	
6 Sulfate		8.826				ND	

Report Date: 21-Feb-2020 07:03:39 Chrom Revision: 2.3 19-Feb-2020 16:45:46

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20200220-89496.b\0009.d				
Injection Date:	20-Feb-2020 16:34:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ICB			Worklist Smp#:	9
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



IC Instrument Information

WL: 89866 **Inst ID:** 11 **Analysis Date:** 3/9/20 **Analyst:** CJ.

Rush	Job No.	Samples	Anions	QC Req	HT Exp
☐	134141	4	F Cl NO2 Br NO3 PO4 (SO4)	MS/D	
☐	134166	3 ~~1~~ 3/9/20	F (Cl) NO2 Br NO3 PO4 (SO4)	MS/D	
☐	134317	1	F Cl NO2 Br NO3 PO4 (SO4)	MS/D	
☐	134098	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	

Dilutions

Job No.	Samples	Anions	Dilution	Reason
317		F Cl NO2 Br NO3 PO4 SO4	50x	Hist.
098		F Cl NO2 Br NO3 PO4 SO4	5X	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		

TestAmerica Laboratories
Initial Calibration Summary Report

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20200220-89496.b\Anions_IC11.m

Instrument:	WC_IonChrom11	Lims Location:	280
Lock State:	Unlocked	Cpnd Order:	Retention Time
Integrator:	Falcon	Last Modified:	21-Feb-2020 06:02:20

No.Compounds:7

Initial Calibration Batches

Ical Batch: \\chromna\Denver\ChromData\WC_IonChrom11\20200220-89496.b
Inj Date : 20-Feb-2020 14:39:00, Sublist: chrom-Anions_IC11*sub1

Detector 1: 0005

	Wet - Anions				Wet - Anions 28D			
Compound	b	M1	M2	Err	b	M1	M2	Err
1 Fluoride					-195356	8598078		0.999
2 Chloride					-485428	7749480		0.997
3 Nitrite as N	-401820	1122663		0.999				
4 Bromide					-12929	2219503		1.000
5 Nitrate as N	-553795	1456460		0.999				
7 Orthophosphate as P	9184	4935214		1.000				
6 Sulfate					-201564	5011678		0.997

TestAmerica Laboratories
Initial Calibration Report

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20200220-89496.b\Anions_IC11.m

Instrument: WC_IonChrom11 Lims Location: 280
Lock State: Unlocked Cpnd Order: Retention Time
Integrator: Falcon Last Modified: 21-Feb-2020 06:02:20
No.Compounds:7
Sublist: chrom-Anions_IC11*sub1
Limit Group: Wet - Anions 28D

Detectors

Detector: 1, 0005
Data Type: ic Spec Type: none
Supports Extracted Chromatograms: False
Run Time: 0.001-13.501 No. Points: 1561

Calibration File Names

Level: 1 \\chromna\Denver\ChromData\WC_IonChrom11\20200220-89496.b\0002.d
Inj Date: 20-Feb-2020 14:39:00 Worklist: 89496 Sample#: 2
Level: 2 \\chromna\Denver\ChromData\WC_IonChrom11\20200220-89496.b\0003.d
Inj Date: 20-Feb-2020 14:55:00 Worklist: 89496 Sample#: 3
Level: 3 \\chromna\Denver\ChromData\WC_IonChrom11\20200220-89496.b\0004.d
Inj Date: 20-Feb-2020 15:12:00 Worklist: 89496 Sample#: 4
Level: 4 \\chromna\Denver\ChromData\WC_IonChrom11\20200220-89496.b\0005.d
Inj Date: 20-Feb-2020 15:28:00 Worklist: 89496 Sample#: 5
Level: 5 \\chromna\Denver\ChromData\WC_IonChrom11\20200220-89496.b\0006.d
Inj Date: 20-Feb-2020 15:45:00 Worklist: 89496 Sample#: 6
Level: 6 \\chromna\Denver\ChromData\WC_IonChrom11\20200220-89496.b\0007.d
Inj Date: 20-Feb-2020 16:01:00 Worklist: 89496 Sample#: 7

Start Cal Date: 20-Feb-2020 14:39:00 End Cal Date: 20-Feb-2020 16:01:00

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					
8147755	8145620	8093873	8251905	8569135	8724538	**-195356**			**0.999**
0.200000(1)	0.500000(2)	1.0000 (3)	4.0000 (4)	8.0000 (5)	10.0 (6)		**8598078**		
1629551	4072810	8093873	33007618	68553083	87245380				
89496(2)	89496(3)	89496(4)	89496(5)	89496(6)	89496(7)				
2 Chloride				Signal: 1					
5309361	5247205	5374047	7025664	7636417	7991699	**-4854287**			**0.997**
1.0000 (1)	2.5000 (2)	5.0000 (3)	60.0 (4)	120.0 (5)	200.0 (6)		**7749480**		
5309361	13118013	26870233	421539821	916370030	1598339812				
89496(2)	89496(3)	89496(4)	89496(5)	89496(6)	89496(7)				
4 Bromide				Signal: 1					
2216465	2191434	2170460	2174327	2214845	2239911	**-12929**			**1.000**
0.200000(1)	0.500000(2)	1.0000 (3)	4.0000 (4)	8.0000 (5)	10.0 (6)		**2219503**		
443293	1095717	2170460	8697309	17718762	22399110				
89496(2)	89496(3)	89496(4)	89496(5)	89496(6)	89496(7)				
6 Sulfate				Signal: 1					
4356337	3911527	3916728	4488463	4879813	5231695	**-2015648**			**0.997**
1.0000 (1)	2.5000 (2)	5.0000 (3)	60.0 (4)	120.0 (5)	200.0 (6)		**5011678**		
4356337	9778818	19583640	269307803	585577606	1046338908				
89496(2)	89496(3)	89496(4)	89496(5)	89496(6)	89496(7)				

TestAmerica Laboratories
Initial Calibration Report

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20200220-89496.b\Anions_IC11.m

Instrument: WC_IonChrom11 Lims Location: 280
Lock State: Unlocked Cpnd Order: Retention Time
Integrator: Falcon Last Modified: 21-Feb-2020 06:02:20
No.Compounds:7
Sublist: chrom-Anions_IC11*sub1
Limit Group: Wet - Anions

Detectors

Detector: 1, 0005
Data Type: ic Spec Type: none
Supports Extracted Chromatograms: False
Run Time: 0.001-13.501 No. Points: 1561

Calibration File Names

Level: 1 \\chromna\Denver\ChromData\WC_IonChrom11\20200220-89496.b\0002.d
Inj Date: 20-Feb-2020 14:39:00 Worklist: 89496 Sample#: 2
Level: 2 \\chromna\Denver\ChromData\WC_IonChrom11\20200220-89496.b\0003.d
Inj Date: 20-Feb-2020 14:55:00 Worklist: 89496 Sample#: 3
Level: 3 \\chromna\Denver\ChromData\WC_IonChrom11\20200220-89496.b\0004.d
Inj Date: 20-Feb-2020 15:12:00 Worklist: 89496 Sample#: 4
Level: 4 \\chromna\Denver\ChromData\WC_IonChrom11\20200220-89496.b\0005.d
Inj Date: 20-Feb-2020 15:28:00 Worklist: 89496 Sample#: 5
Level: 5 \\chromna\Denver\ChromData\WC_IonChrom11\20200220-89496.b\0006.d
Inj Date: 20-Feb-2020 15:45:00 Worklist: 89496 Sample#: 6
Level: 6 \\chromna\Denver\ChromData\WC_IonChrom11\20200220-89496.b\0007.d
Inj Date: 20-Feb-2020 16:01:00 Worklist: 89496 Sample#: 7

Start Cal Date: 20-Feb-2020 14:39:00 End Cal Date: 20-Feb-2020 16:01:00

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						
10125385	10201182	10392099	10648769	11161012	11425939	**-401820**			**0.999**
0.200000(1)	0.500000(2)	1.0000 (3)	4.0000 (4)	8.0000 (5)	10.0 (6)		**11226635**		
2025077	5100591	10392099	42595077	89288099	114259385				
89496(2)	89496(3)	89496(4)	89496(5)	89496(6)	89496(7)				
5 Nitrate as N			Signal: 1						
13256885	13207124	13220571	13640606	14434900	14934120	**-553795**			**0.999**
0.200000(1)	0.500000(2)	1.0000 (3)	4.0000 (4)	8.0000 (5)	10.0 (6)		**14564604**		
2651377	6603562	13220571	54562423	115479202	149341198				
89496(2)	89496(3)	89496(4)	89496(5)	89496(6)	89496(7)				
7 Orthophosphate as P			Signal: 1						
5193480	4928010	4822044	4823119	4911083	5011378	**9183.7**			**1.000**
0.200000(1)	0.500000(2)	1.0000 (3)	4.0000 (4)	8.0000 (5)	10.0 (6)		**4935214**		
1038696	2464005	4822044	19292477	39288664	50113781				
89496(2)	89496(3)	89496(4)	89496(5)	89496(6)	89496(7)				

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20200307-89866.b\0001.d
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 07-Mar-2020 10:46:00 ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0089866-001
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20200307-89866.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 10-Mar-2020 13:58:07 Calib Date: 20-Feb-2020 16:01:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20200220-89496.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0306

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.417	2.434	-0.017	41440862	5.00	4.84	
2 Chloride	3.476	3.534	-0.058	741908698	100.0	96.4	
3 Nitrite as N	4.151	4.242	-0.091	55266869	NC	NC	
4 Bromide	4.934	5.076	-0.142	10812014	5.00	4.88	
5 Nitrate as N	5.534	5.709	-0.175	70079026	NC	NC	
7 Orthophosphate as P	7.442	7.776	-0.334	25006144	NC	NC	
6 Sulfate	8.409	8.826	-0.417	471008543	100.0	94.4	

QC Flag Legend

Processing Flags
NC - Not Calibrated

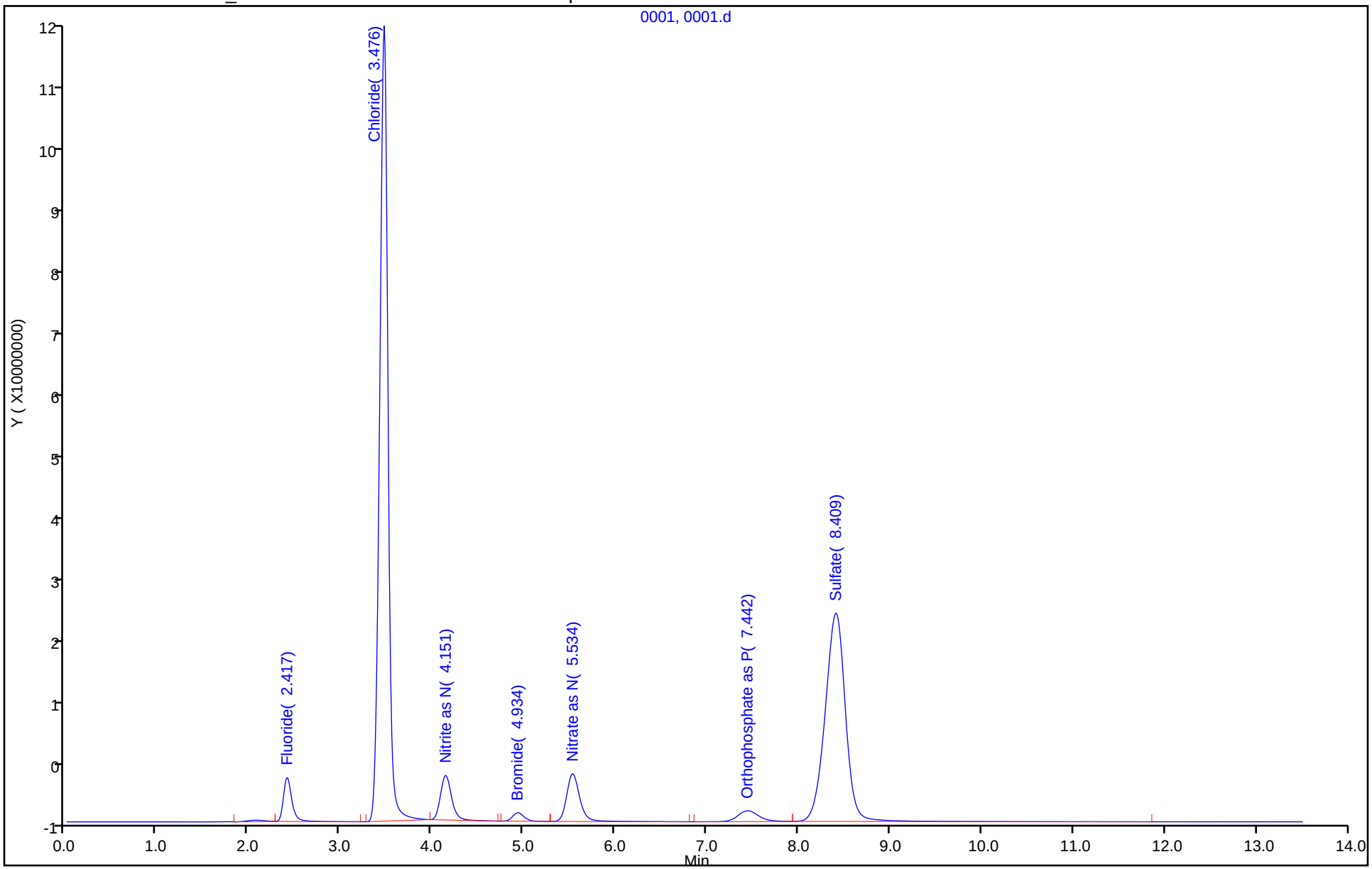
Reagents:

IC LCS_01729 Amount Added: 5.00 Units: mL

Report Date: 10-Mar-2020 13:58:07 Chrom Revision: 2.3 19-Feb-2020 16:45:46

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20200307-89866.b\0001.d				
Injection Date:	07-Mar-2020 10:46:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	CCV			Worklist Smp#:	1
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20200307-89866.b\0002.d				
Lims ID:	CCB				
Client ID:					
Sample Type:	CCB				
Inject. Date:	07-Mar-2020 11:02:00	ALS Bottle#:	0	Worklist Smp#:	2
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0089866-002				
Operator ID:		Instrument ID:	WC_IonChrom11		
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20200307-89866.b\Anions_IC11.m				
Limit Group:	Wet - Anions 28D				
Last Update:	10-Mar-2020 13:58:07	Calib Date:	20-Feb-2020 16:01:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20200220-89496.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0306				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.067	2.434	-0.367	229465		0.0494	
2 Chloride		3.534				ND	
3 Nitrite as N		4.242				ND	
4 Bromide		5.076				ND	
5 Nitrate as N		5.709				ND	
7 Orthophosphate as P	7.492	7.776	-0.284	169461			NC
6 Sulfate		8.826				ND	

QC Flag Legend

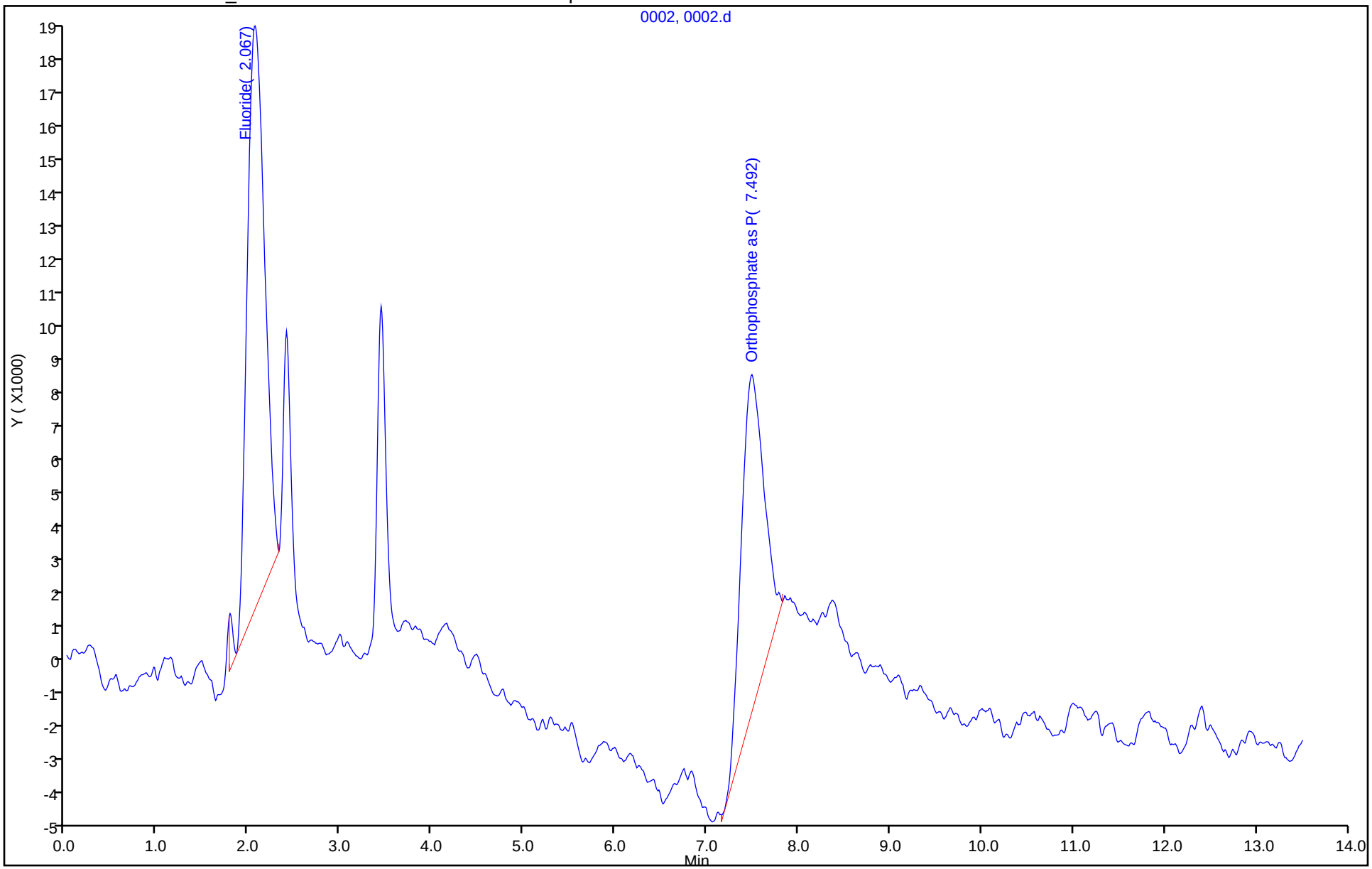
Processing Flags

NC - Not Calibrated

Report Date: 10-Mar-2020 13:58:08 Chrom Revision: 2.3 19-Feb-2020 16:45:46

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20200307-89866.b\0002.d				
Injection Date:	07-Mar-2020 11:02:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	CCB			Worklist Smp#:	2
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\WC_IonChrom11\20200307-89866.b\0003.d
Lims ID: MRL
Client ID:
Sample Type: MRL
Inject. Date: 07-Mar-2020 11:18:00 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0089866-003
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20200307-89866.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 10-Mar-2020 13:58:07 Calib Date: 20-Feb-2020 16:01:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromna\Denver\ChromData\WC_IonChrom11\20200220-89496.b\0007.d

Column 1 : Det: 0005
Process Host: CTX0306

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.409	2.434	-0.025	4039655	0.5000	0.4926	
2 Chloride	3.442	3.534	-0.092	27153114	5.00	4.13	
3 Nitrite as N	4.142	4.242	-0.100	5347076	NC	NC	
4 Bromide	4.942	5.076	-0.134	1066807	0.5000	0.4865	
5 Nitrate as N	5.542	5.709	-0.167	6529371	NC	NC	
7 Orthophosphate as P	7.450	7.776	-0.326	2629593	NC	NC	
6 Sulfate	8.350	8.826	-0.476	19900857	5.00	4.37	

QC Flag Legend

Processing Flags
NC - Not Calibrated

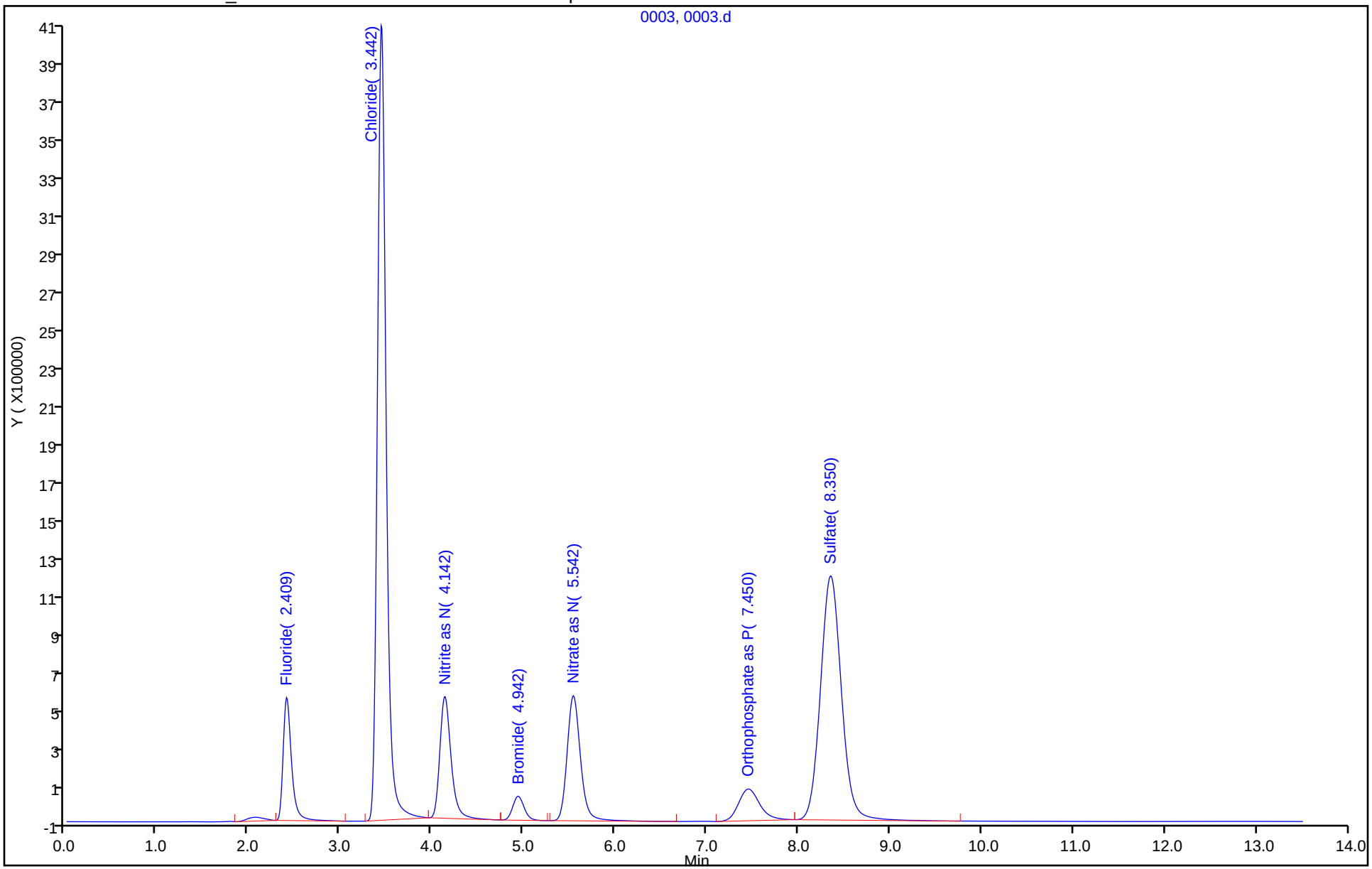
Reagents:

IC CAL cl/so4_00300 Amount Added: 0.10 Units: mL
IC Cal low_00514 Amount Added: 0.05 Units: mL

Report Date: 10-Mar-2020 13:58:09 Chrom Revision: 2.3 19-Feb-2020 16:45:46

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20200307-89866.b\0003.d				
Injection Date:	07-Mar-2020 11:18:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	MRL			Worklist Smp#:	3
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20200307-89866.b\0004.d				
Lims ID:	LCS				
Client ID:					
Sample Type:	LCS				
Inject. Date:	07-Mar-2020 11:35:00	ALS Bottle#:	0	Worklist Smp#:	4
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0089866-004				
Operator ID:		Instrument ID:	WC_IonChrom11		
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20200307-89866.b\Anions_IC11.m				
Limit Group:	Wet - Anions 28D				
Last Update:	10-Mar-2020 13:58:07	Calib Date:	20-Feb-2020 16:01:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20200220-89496.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0306				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.417	2.434	-0.017	41394161	5.00	4.84	
2 Chloride	3.475	3.534	-0.059	742089374	100.0	96.4	
3 Nitrite as N	4.150	4.242	-0.092	55496532	NC	NC	
4 Bromide	4.942	5.076	-0.134	10813079	5.00	4.88	
5 Nitrate as N	5.534	5.709	-0.175	69998672	NC	NC	
7 Orthophosphate as P	7.442	7.776	-0.334	25080227	NC	NC	
6 Sulfate	8.400	8.826	-0.426	471520616	100.0	94.5	

QC Flag Legend

Processing Flags

NC - Not Calibrated

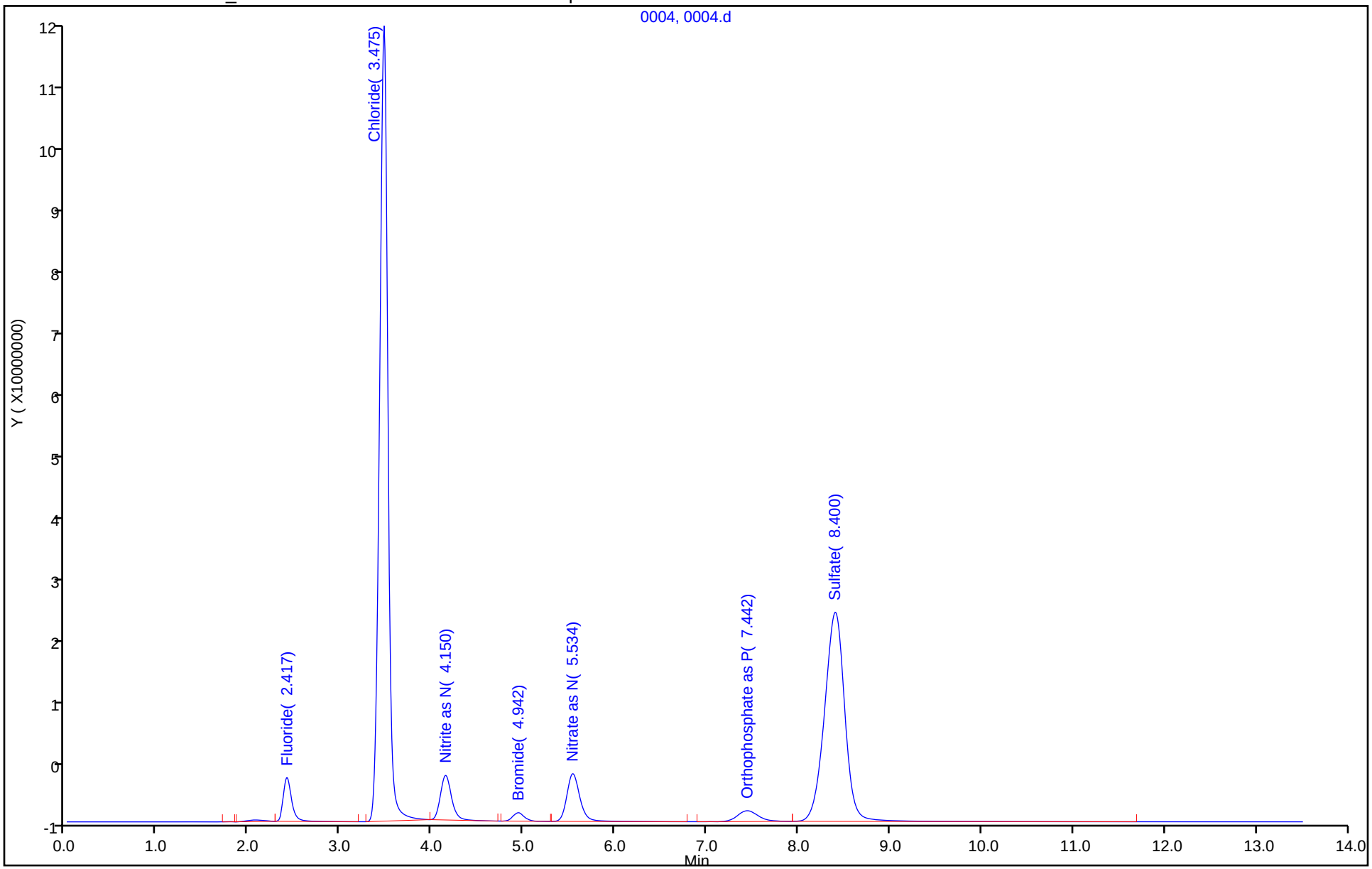
Reagents:

IC LCS_01729 Amount Added: 5.00 Units: mL

Report Date: 10-Mar-2020 13:58:09 Chrom Revision: 2.3 19-Feb-2020 16:45:46

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20200307-89866.b\0004.d				
Injection Date:	07-Mar-2020 11:35:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	LCS			Worklist Smp#:	4
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20200307-89866.b\0005.d				
Lims ID:	LCSD				
Client ID:					
Sample Type:	LCSD				
Inject. Date:	07-Mar-2020 11:51:00	ALS Bottle#:	0	Worklist Smp#:	5
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0089866-005				
Operator ID:		Instrument ID:	WC_IonChrom11		
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20200307-89866.b\Anions_IC11.m				
Limit Group:	Wet - Anions 28D				
Last Update:	10-Mar-2020 13:58:07	Calib Date:	20-Feb-2020 16:01:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20200220-89496.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0306				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.417	2.434	-0.017	41291042	5.00	4.83	
2 Chloride	3.475	3.534	-0.059	745844978	100.0	96.9	
3 Nitrite as N	4.150	4.242	-0.092	55550067	NC	NC	
4 Bromide	4.942	5.076	-0.134	10816461	5.00	4.88	
5 Nitrate as N	5.534	5.709	-0.175	69991871	NC	NC	
7 Orthophosphate as P	7.442	7.776	-0.334	25243428	NC	NC	
6 Sulfate	8.409	8.826	-0.417	472209070	100.0	94.6	

QC Flag Legend

Processing Flags

NC - Not Calibrated

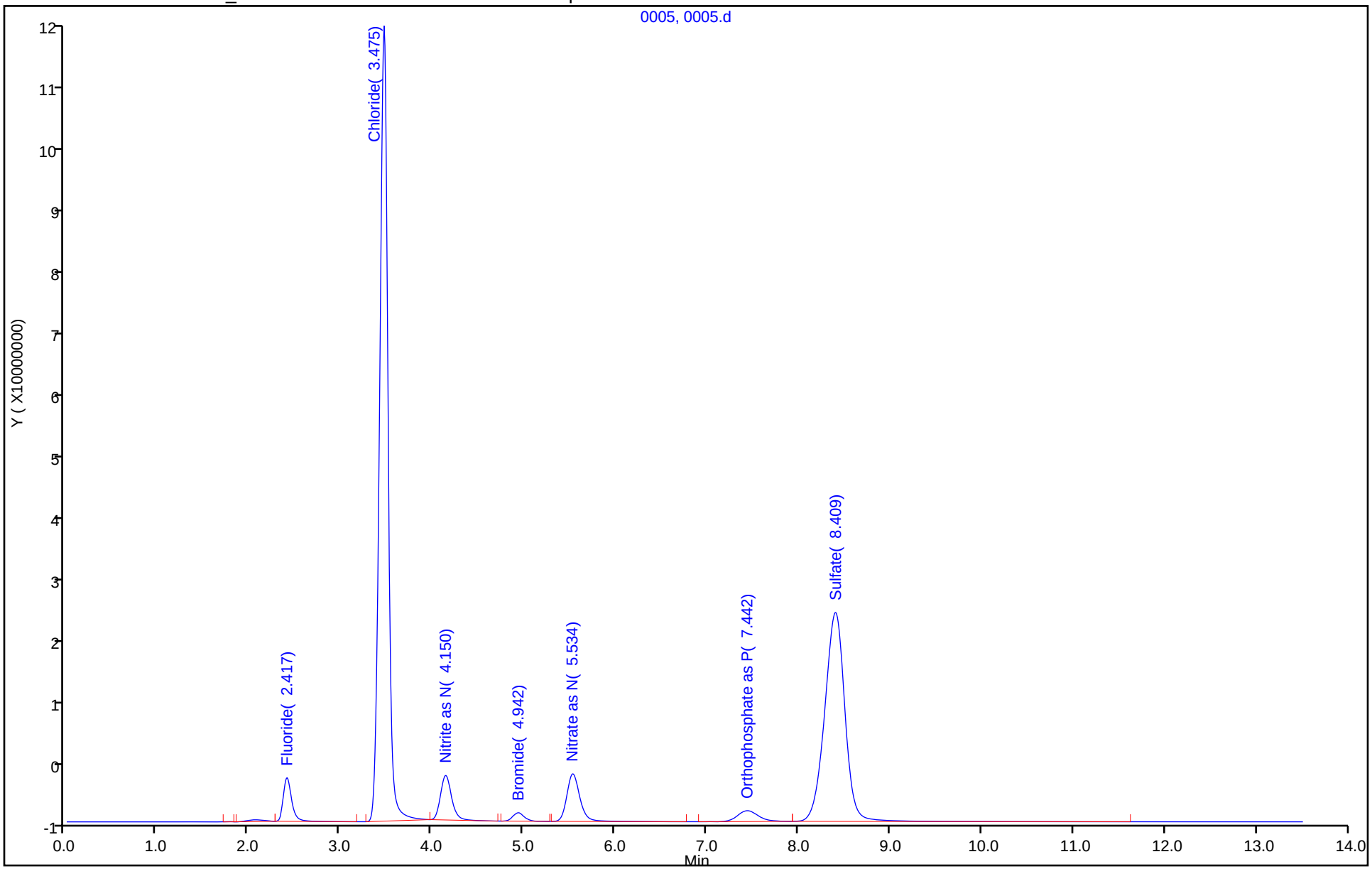
Reagents:

IC LCS_01729 Amount Added: 5.00 Units: mL

Report Date: 10-Mar-2020 13:58:10 Chrom Revision: 2.3 19-Feb-2020 16:45:46

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20200307-89866.b\0005.d				
Injection Date:	07-Mar-2020 11:51:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	LCSD			Worklist Smp#:	5
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20200307-89866.b\0006.d				
Lims ID:	MB				
Client ID:					
Sample Type:	MB				
Inject. Date:	07-Mar-2020 12:08:00	ALS Bottle#:	0	Worklist Smp#:	6
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0089866-006				
Misc. Info.:	6 F				
Operator ID:		Instrument ID:	WC_IonChrom11		
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20200307-89866.b\Anions_IC11.m				
Limit Group:	Wet - Anions 28D				
Last Update:	10-Mar-2020 13:58:07	Calib Date:	20-Feb-2020 16:01:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20200220-89496.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0306				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.067	2.434	-0.367	370715		0.0658	
2 Chloride		3.534				ND	
3 Nitrite as N		4.242				ND	
4 Bromide		5.076				ND	
5 Nitrate as N		5.709				ND	
7 Orthophosphate as P	7.484	7.776	-0.292	242689		NC	
6 Sulfate		8.826				ND	

QC Flag Legend

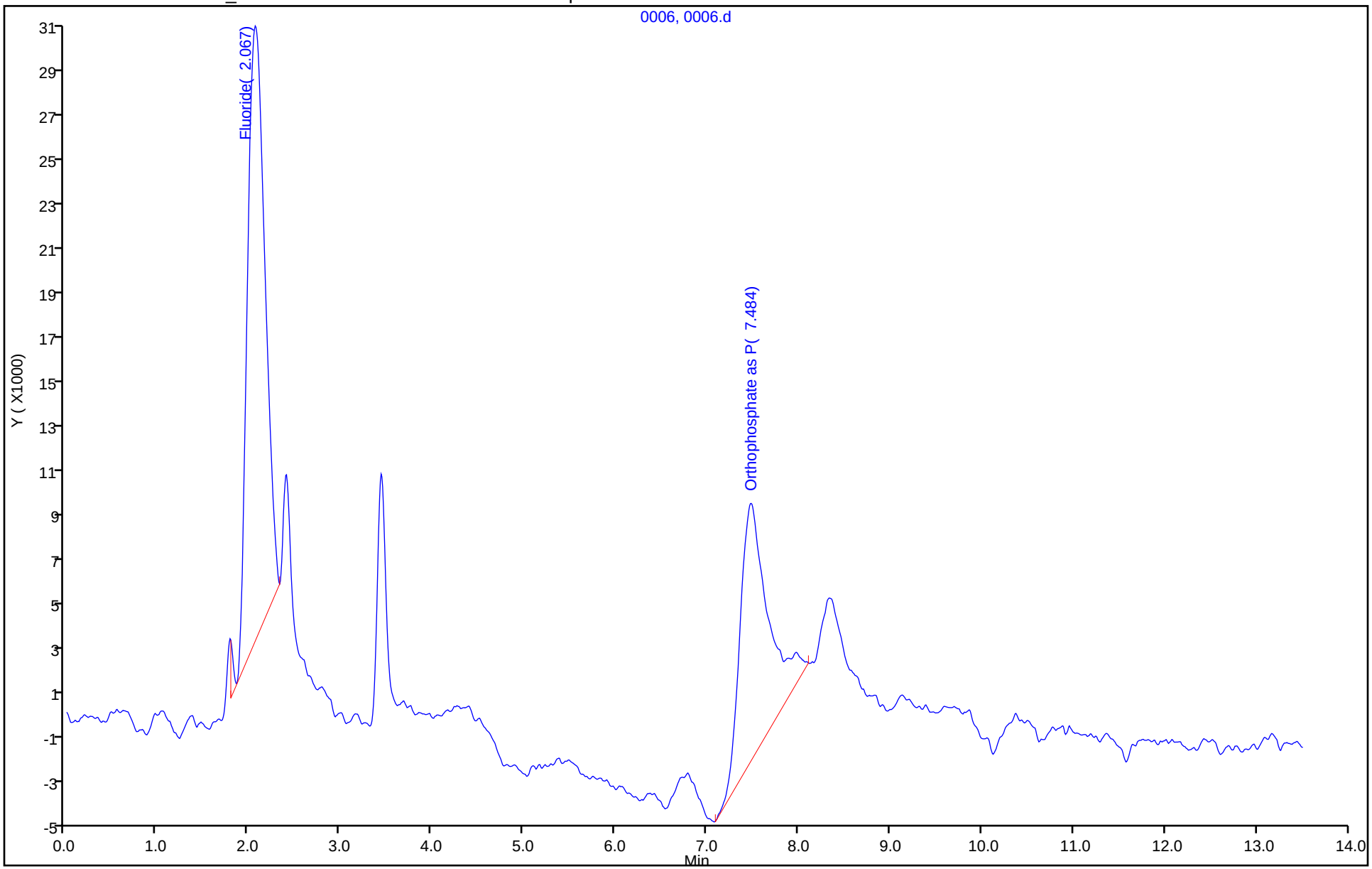
Processing Flags

NC - Not Calibrated

Report Date: 10-Mar-2020 13:58:11 Chrom Revision: 2.3 19-Feb-2020 16:45:46

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20200307-89866.b\0006.d				
Injection Date:	07-Mar-2020 12:08:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	MB			Worklist Smp#:	6
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20200307-89866.b\0007.d				
Lims ID:	280-134141-F-1				
Client ID:	EW7-PM26A-2-25				
Sample Type:	Client				
Inject. Date:	09-Mar-2020 16:57:00	ALS Bottle#:	0	Worklist Smp#:	7
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0089866-007				
Misc. Info.:	1258 F				
Operator ID:		Instrument ID:	WC_IonChrom11		
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20200307-89866.b\Anions_IC11.m				
Limit Group:	Wet - Anions 28D				
Last Update:	10-Mar-2020 13:58:07	Calib Date:	20-Feb-2020 16:01:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20200220-89496.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0306				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.417	2.434	-0.017	1218634	0.1645	
2 Chloride	3.467	3.534	-0.067	240151732	31.6	
3 Nitrite as N		4.242			ND	
4 Bromide	5.075	5.076	-0.001	501430	0.2317	
5 Nitrate as N		5.709			ND	
7 Orthophosphate as P	7.492	7.776	-0.284	808244	NC	
6 Sulfate	8.442	8.826	-0.384	95950323	19.5	

QC Flag Legend

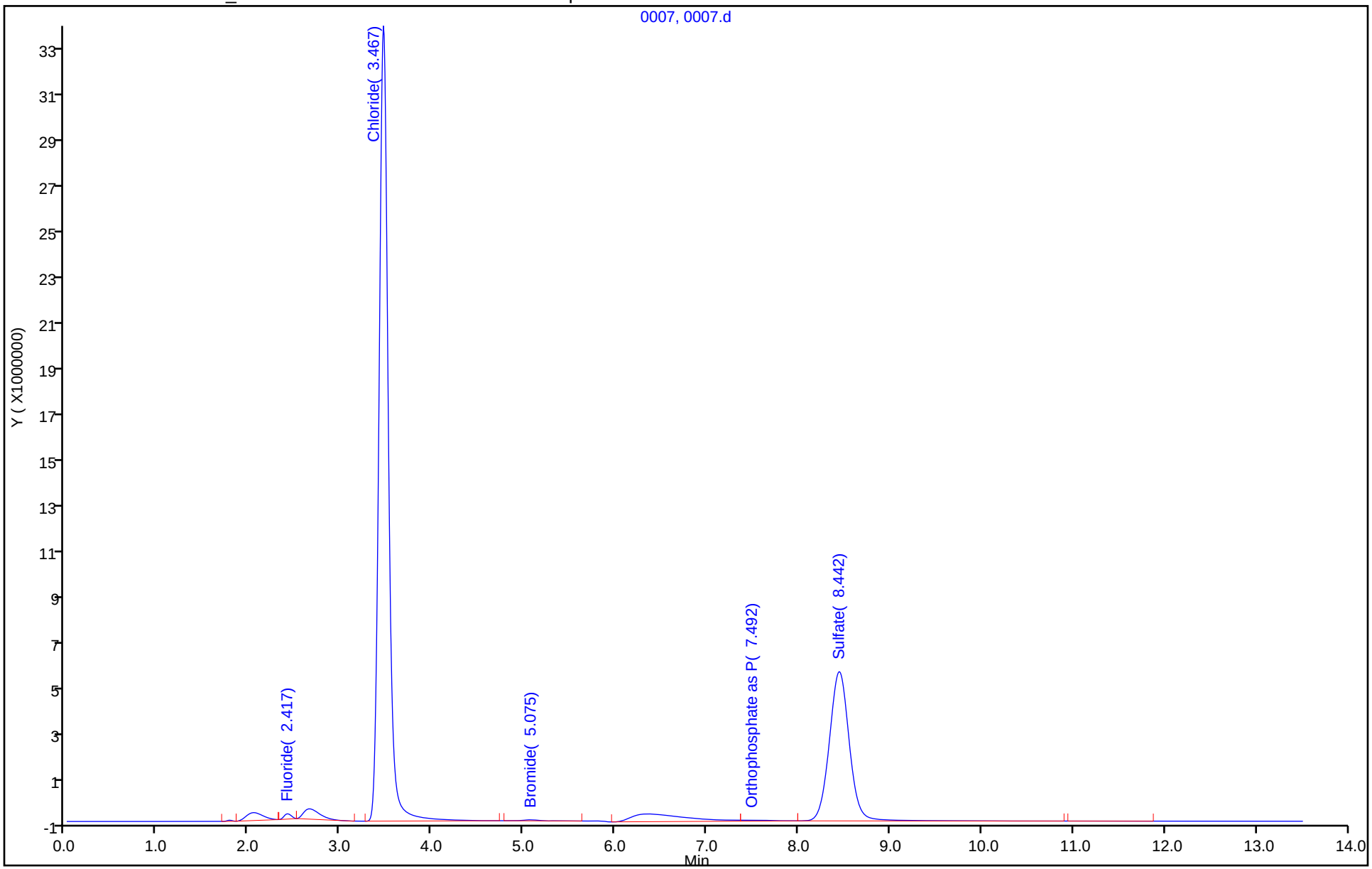
Processing Flags

NC - Not Calibrated

Report Date: 10-Mar-2020 13:58:12 Chrom Revision: 2.3 19-Feb-2020 16:45:46

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20200307-89866.b\0007.d				
Injection Date:	09-Mar-2020 16:57:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-134141-F-1	Lab Sample ID:	280-134141-1	Worklist Smp#:	7
Client ID:	EW7-PM26A-2-25				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20200307-89866.b\0008.d				
Lims ID:	280-134141-F-2				
Client ID:	EW7-PM27A-2-25				
Sample Type:	Client				
Inject. Date:	09-Mar-2020 17:13:00	ALS Bottle#:	0	Worklist Smp#:	8
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0089866-008				
Misc. Info.:	16637 F				
Operator ID:		Instrument ID:	WC_IonChrom11		
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20200307-89866.b\Anions_IC11.m				
Limit Group:	Wet - Anions 28D				
Last Update:	10-Mar-2020 13:58:07	Calib Date:	20-Feb-2020 16:01:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20200220-89496.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0306				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.417	2.434	-0.017	1605453	0.2094	
2 Chloride	3.467	3.534	-0.067	196326118	26.0	
3 Nitrite as N	4.176	4.242	-0.066	65330075	NC	
4 Bromide	5.001	5.076	-0.075	321466	0.1507	
5 Nitrate as N	5.676	5.709	-0.033	177062954	NC	
7 Orthophosphate as P		7.776			ND	
6 Sulfate	8.467	8.826	-0.359	415735430	83.4	

QC Flag Legend

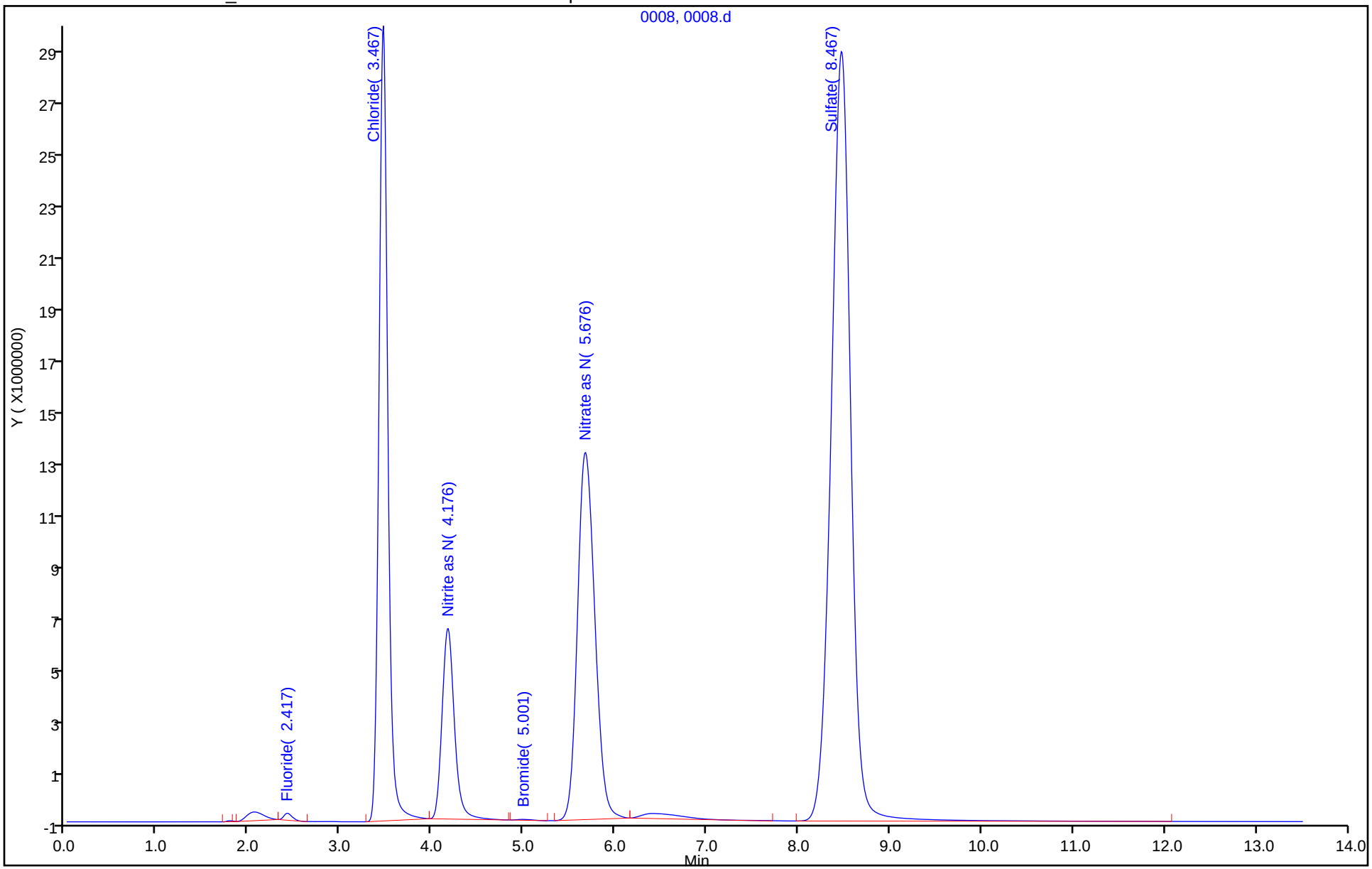
Processing Flags

NC - Not Calibrated

Report Date: 10-Mar-2020 13:58:12 Chrom Revision: 2.3 19-Feb-2020 16:45:46

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20200307-89866.b\0008.d				
Injection Date:	09-Mar-2020 17:13:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-134141-F-2	Lab Sample ID:	280-134141-2	Worklist Smp#:	8
Client ID:	EW7-PM27A-2-25				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20200307-89866.b\0009.d				
Lims ID:	280-134141-F-3				
Client ID:	EW7-PM24A-2-25				
Sample Type:	Client				
Inject. Date:	09-Mar-2020 17:30:00	ALS Bottle#:	0	Worklist Smp#:	9
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0089866-009				
Misc. Info.:	25664 F				
Operator ID:		Instrument ID:	WC_IonChrom11		
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20200307-89866.b\Anions_IC11.m				
Limit Group:	Wet - Anions 28D				
Last Update:	10-Mar-2020 13:58:07	Calib Date:	20-Feb-2020 16:01:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20200220-89496.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0306				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.417	2.434	-0.017	1659473	0.2157	
2 Chloride	3.467	3.534	-0.067	208309301	27.5	
3 Nitrite as N	4.159	4.242	-0.083	5170677	NC	
4 Bromide	5.017	5.076	-0.059	349075	0.1631	
5 Nitrate as N	5.684	5.709	-0.025	122190162	NC	
7 Orthophosphate as P		7.776			ND	
6 Sulfate	8.450	8.826	-0.376	282744650	56.8	

QC Flag Legend

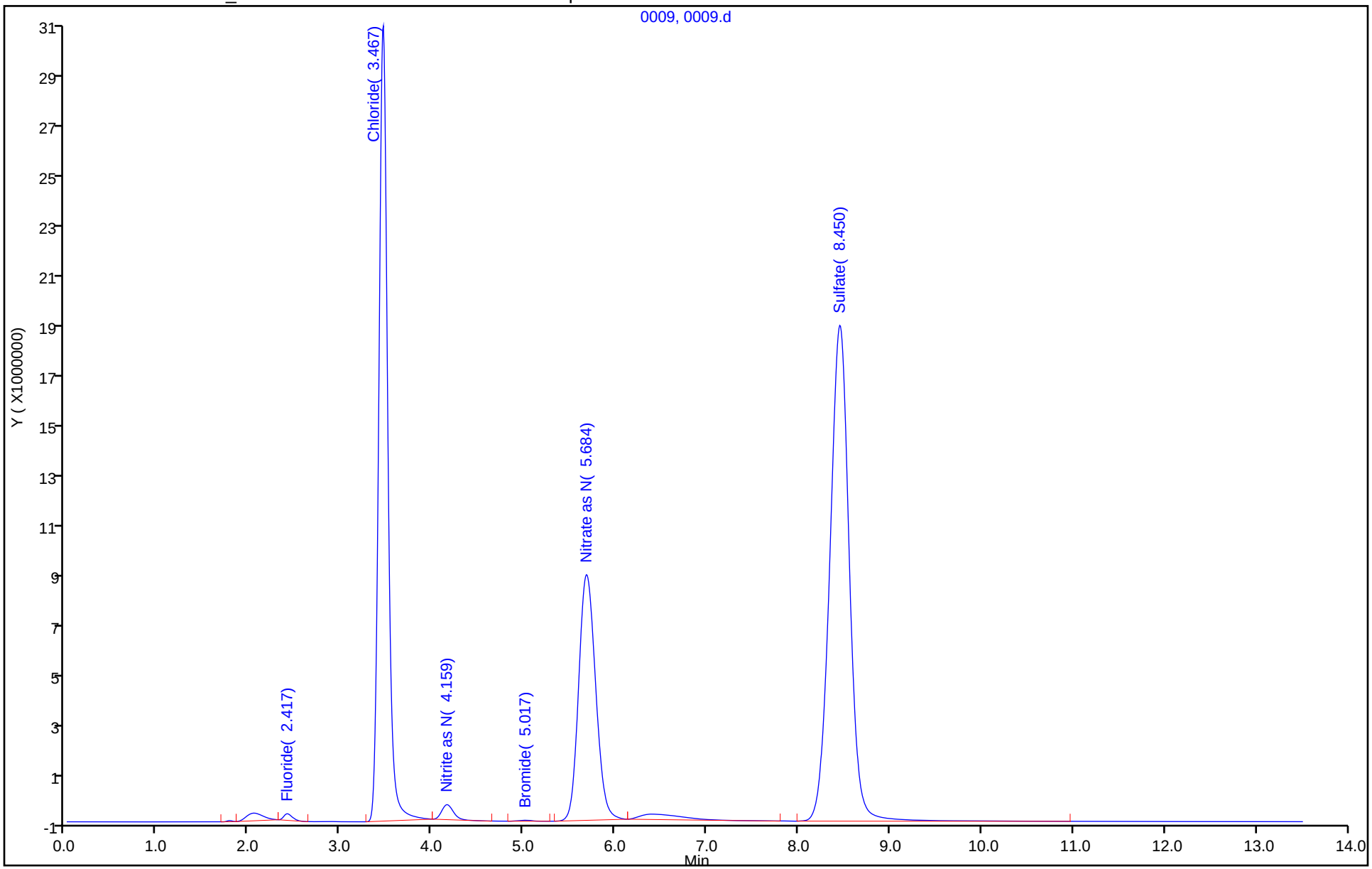
Processing Flags

NC - Not Calibrated

Report Date: 10-Mar-2020 13:58:13 Chrom Revision: 2.3 19-Feb-2020 16:45:46

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20200307-89866.b\0009.d				
Injection Date:	09-Mar-2020 17:30:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-134141-F-3	Lab Sample ID:	280-134141-3	Worklist Smp#:	9
Client ID:	EW7-PM24A-2-25				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20200307-89866.b\0010.d				
Lims ID:	280-134141-F-4				
Client ID:	EW7-PM25A-2-25				
Sample Type:	Client				
Inject. Date:	09-Mar-2020 17:46:00	ALS Bottle#:	0	Worklist Smp#:	10
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0089866-010				
Misc. Info.:	181 F				
Operator ID:		Instrument ID:	WC_IonChrom11		
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20200307-89866.b\Anions_IC11.m				
Limit Group:	Wet - Anions 28D				
Last Update:	10-Mar-2020 13:58:07	Calib Date:	20-Feb-2020 16:01:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20200220-89496.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0306				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	2.475	2.434	0.041	3168689	0.3913	
2 Chloride	3.475	3.534	-0.059	364345242	47.6	
3 Nitrite as N	4.192	4.242	-0.050	19960192	NC	
4 Bromide	5.125	5.076	0.049	422205	0.1961	
5 Nitrate as N	5.775	5.709	0.066	146183	NC	
7 Orthophosphate as P		7.776			ND	
6 Sulfate	8.475	8.826	-0.351	194635847	39.2	

QC Flag Legend

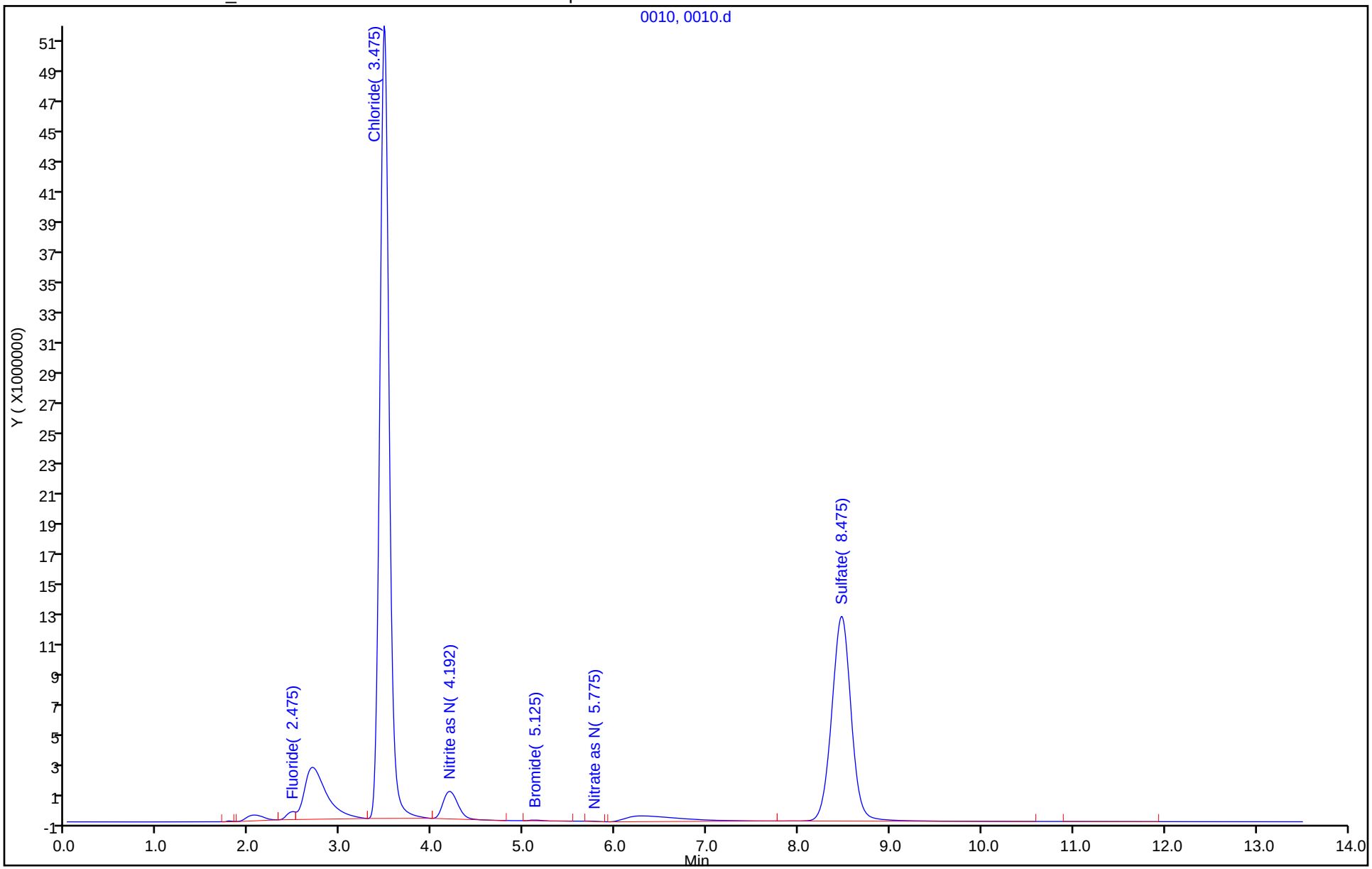
Processing Flags

NC - Not Calibrated

Report Date: 10-Mar-2020 13:58:13 Chrom Revision: 2.3 19-Feb-2020 16:45:46

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20200307-89866.b\0010.d				
Injection Date:	09-Mar-2020 17:46:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	280-134141-F-4	Lab Sample ID:	280-134141-4	Worklist Smp#:	10
Client ID:	EW7-PM25A-2-25				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20200307-89866.b\0017.d				
Lims ID:	ccv				
Client ID:					
Sample Type:	CCV				
Inject. Date:	09-Mar-2020 19:41:00	ALS Bottle#:	0	Worklist Smp#:	17
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0089866-017				
Misc. Info.:	8813 F				
Operator ID:		Instrument ID:	WC_IonChrom11		
Sublist:	chrom-Anions_IC11*sub1				
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20200307-89866.b\Anions_IC11.m				
Limit Group:	Wet - Anions 28D				
Last Update:	10-Mar-2020 13:58:16	Calib Date:	20-Feb-2020 16:01:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20200220-89496.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0306				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.417	2.434	-0.017	40539246	5.00	4.74	
2 Chloride	3.476	3.534	-0.058	745986372	100.0	96.9	
3 Nitrite as N	4.151	4.242	-0.091	54349879	NC	NC	
4 Bromide	4.951	5.076	-0.125	10924715	5.00	4.93	
5 Nitrate as N	5.542	5.709	-0.167	70325796	NC	NC	
7 Orthophosphate as P	7.417	7.776	-0.359	28114236	NC	NC	
6 Sulfate	8.376	8.826	-0.450	471547952	100.0	94.5	

QC Flag Legend

Processing Flags

NC - Not Calibrated

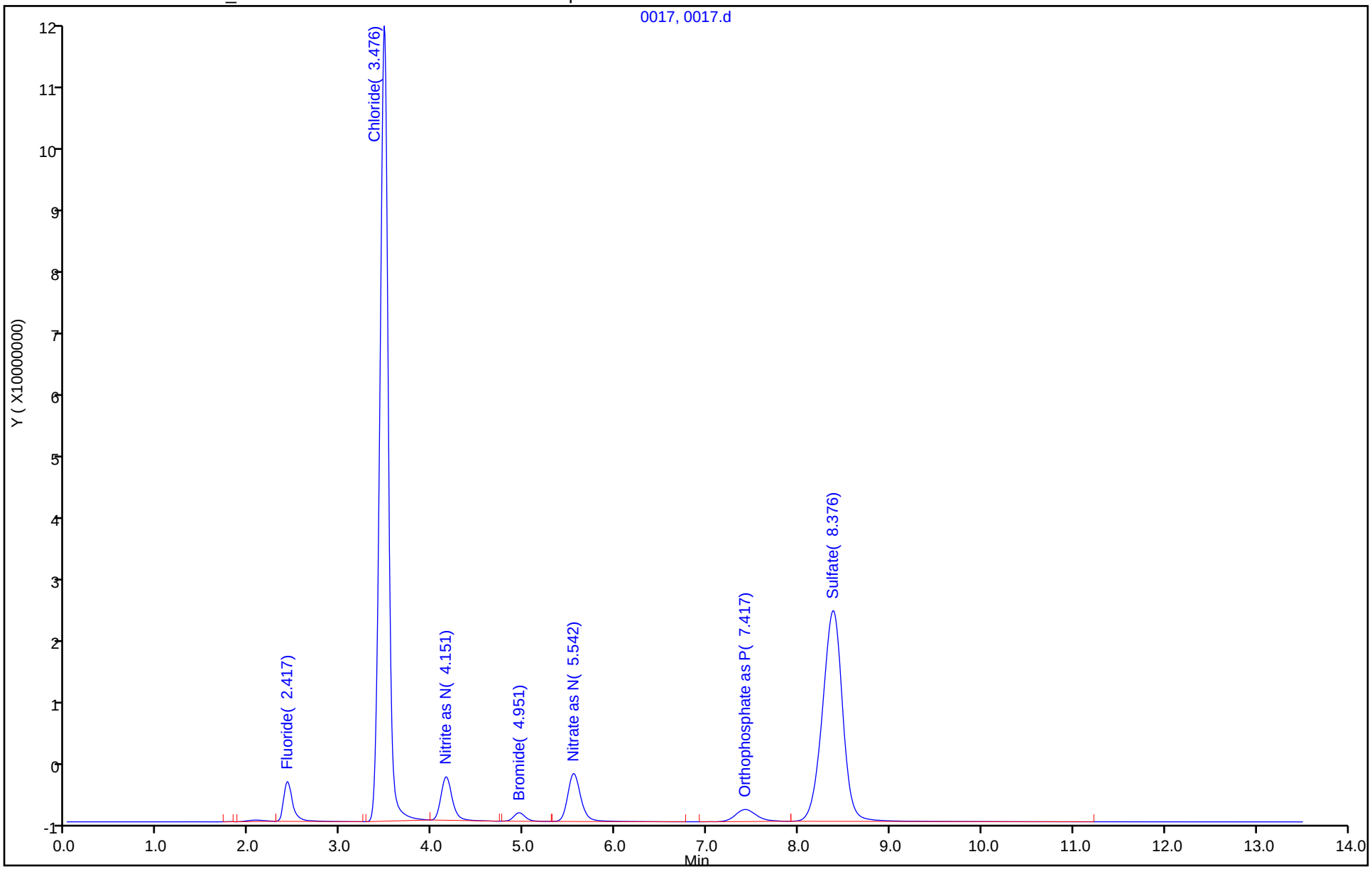
Reagents:

IC LCS_01729 Amount Added: 5.00 Units: mL

Report Date: 10-Mar-2020 13:58:16 Chrom Revision: 2.3 19-Feb-2020 16:45:46

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20200307-89866.b\0017.d				
Injection Date:	09-Mar-2020 19:41:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccv			Worklist Smp#:	17
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20200307-89866.b\0018.d				
Lims ID:	ccb				
Client ID:					
Sample Type:	CCB				
Inject. Date:	09-Mar-2020 19:57:00	ALS Bottle#:	0	Worklist Smp#:	18
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0089866-018				
Misc. Info.:	11875 F				
Operator ID:		Instrument ID:	WC_IonChrom11		
Method:	\\chromna\Denver\ChromData\WC_IonChrom11\20200307-89866.b\Anions_IC11.m				
Limit Group:	Wet - Anions 28D				
Last Update:	10-Mar-2020 13:58:16	Calib Date:	20-Feb-2020 16:01:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromna\Denver\ChromData\WC_IonChrom11\20200220-89496.b\0007.d				
Column 1 :			Det: 0005		
Process Host:	CTX0306				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	2.067	2.434	-0.367	250618		0.0519	
2 Chloride	3.450	3.534	-0.084	140555		0.6445	
3 Nitrite as N		4.242				ND	
4 Bromide		5.076				ND	
5 Nitrate as N		5.709				ND	
7 Orthophosphate as P	7.459	7.776	-0.317	576042		NC	
6 Sulfate	8.325	8.826	-0.501	111175		0.4244	

QC Flag Legend

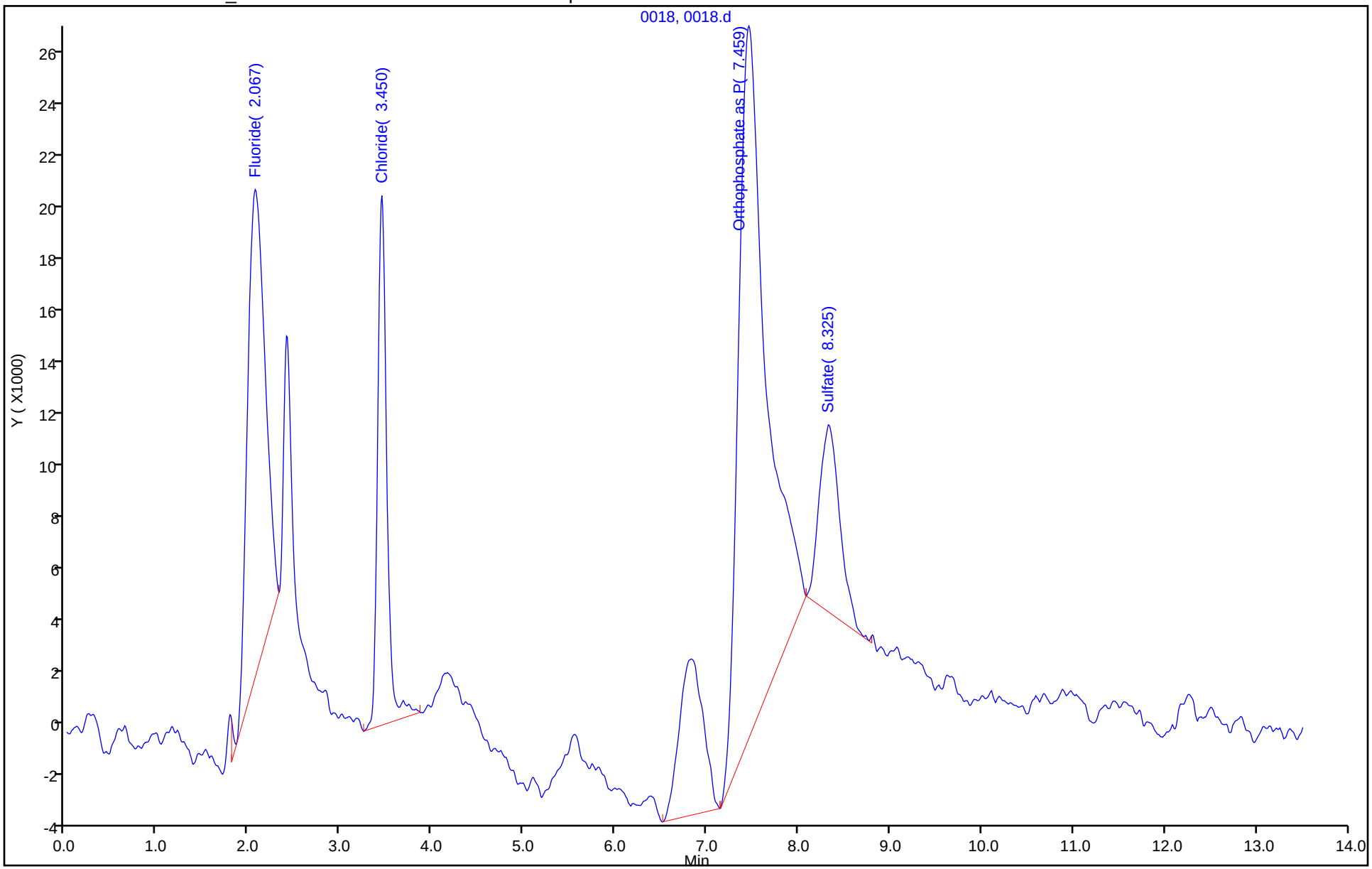
Processing Flags

NC - Not Calibrated

Report Date: 10-Mar-2020 13:58:16 Chrom Revision: 2.3 19-Feb-2020 16:45:46

Eurofins TestAmerica, Denver

Data File:	\\chromna\Denver\ChromData\WC_IonChrom11\20200307-89866.b\0018.d				
Injection Date:	09-Mar-2020 19:57:00	Instrument ID:	WC_IonChrom11	Operator ID:	
Lims ID:	ccb			Worklist Smp#:	18
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC11	Limit Group:	Wet - Anions 28D		



	Analysis	Sample Name	Sample I	Manual	Result	Notes	Status	Date / Time	Vial
1	NPOC	check ccv		1.000	NPOC:24.67		Completed	3/4/2020 6:37:46	90
2	NPOC	check lcs		1.000	NPOC:24.35		Completed	3/4/2020 6:48:31	91
3	NPOC	icv		1.000	NPOC:19.69		Completed	3/4/2020 7:05:20	1
4	NPOC	icb		1.000	NPOC:0.036		Completed	3/4/2020 7:24:10	2
5	NPOC	LCS 280-487676/1-A		1.000	NPOC:23.46		Completed	3/4/2020 7:42:55	3
6	NPOC	MB 280-487676/2-A		1.000	NPOC:0.349		Completed	3/4/2020 8:01:40	4
7	NPOC	tic		1.000	NPOC:0.102		Completed	3/4/2020 8:18:21	5
8	NPOC	280-134091-D-1-A		1.000	NPOC:3.871		Completed	3/4/2020 8:37:11	6
9	NPOC	280-134091-D-1-B M		1.000	NPOC:26.96		Completed	3/4/2020 8:53:52	7
10	NPOC	280-134091-D-1-C M		1.000	NPOC:27.35		Completed	3/4/2020 9:10:38	8
11	NPOC	280-134091-D-2-A		1.000	NPOC:3.838		Completed	3/4/2020 9:29:28	9
12	NPOC	280-134091-D-3-A		1.000	NPOC:7.553		Completed	3/4/2020 9:48:13	10
13	NPOC	280-134091-D-4-A		1.000	NPOC:84.45		Completed	3/4/2020 10:15:4	11
14	NPOC	280-134141-D-1-A		1.000	NPOC:26.73		Completed	3/4/2020 10:32:2	12
15	NPOC	280-134141-D-2-A		1.000	NPOC:13.19		Completed	3/4/2020 10:49:1	13
16	NPOC	280-134141-D-3-A		1.000	NPOC:13.52		Completed	3/4/2020 11:08:0	14
17	NPOC	ccv		1.000	NPOC:24.82		Completed	3/4/2020 11:24:4	15
18	NPOC	ccb		1.000	NPOC:0.069		Completed	3/4/2020 11:41:2	16
19	NPOC	280-134141-D-4-A		1.000	NPOC:101.1		Completed	3/5/2020 12:04:4	17
20	NPOC	280-134177-D-1-A		1.000	NPOC:280.5		Completed	3/5/2020 12:28:5	18
21	NPOC	280-134177-D-2-A		1.000	NPOC:56.87		Completed	3/5/2020 12:47:5	19
22	NPOC	280-134202-D-2-B		5.000	NPOC:476.7		Completed	3/5/2020 1:11:47	20
23	NPOC	280-134202-D-2-C M		5.000	NPOC:579.0		Completed	3/5/2020 1:30:32	21
24	NPOC	280-134202-D-2-D M		5.000	NPOC:553.4		Completed	3/5/2020 1:49:16	22
25	NPOC	280-134177-D-3-A		1.000	NPOC:92.99		Completed	3/5/2020 2:05:56	23
26	NPOC	280-134177-D-4-A		1.000	NPOC:28.51		Completed	3/5/2020 2:22:42	24
27	NPOC	280-134177-D-5-A		1.000	NPOC:117.8		Completed	3/5/2020 2:41:32	25
28	NPOC	280-134202-D-1-A		1.000	NPOC:1.169		Completed	3/5/2020 3:00:16	26
29	NPOC	ccv		1.000	NPOC:24.67		Completed	3/5/2020 3:14:53	27
30	NPOC	ccb		1.000	NPOC:0.081		Completed	3/5/2020 3:31:40	28
31	NPOC	280-134202-D-3-A		1.000	NPOC:3.056		Completed	3/5/2020 3:48:26	30
32	NPOC	280-134202-D-4-A		1.000	NPOC:2.552		Completed	3/5/2020 4:05:12	31
33	NPOC	280-134202-D-6-A		1.000	NPOC:2.941		Completed	3/5/2020 4:21:59	32
34	NPOC	280-134202-D-7-A		1.000	NPOC:43.13		Completed	3/5/2020 4:38:46	33
35	NPOC	LCS 280-487676/27-		1.000	NPOC:24.12		Completed	3/5/2020 4:55:33	34
36	NPOC	MB 280-487676/28-A		1.000	NPOC:0.130		Completed	3/5/2020 5:12:20	35
37	NPOC	tic		1.000	NPOC:0.092		Completed	3/5/2020 5:29:07	36
38	NPOC	280-134202-D-18-A		1.000	NPOC:0.891		Completed	3/5/2020 5:45:54	37
39	NPOC	280-134202-D-18-B		1.000	NPOC:24.77		Completed	3/5/2020 6:02:41	38
40	NPOC	ccv		1.000	NPOC:25.12		Completed	3/5/2020 6:17:24	39
41	NPOC	ccb		1.000	NPOC:0.101		Completed	3/5/2020 6:34:12	40
42	NPOC	280-134202-D-18-C		1.000	NPOC:25.29		Completed	3/5/2020 6:48:55	41
43	NPOC	280-134202-D-8-A		1.000	NPOC:3.412		Completed	3/5/2020 7:05:43	42
44	NPOC	280-134202-D-9-A		1.000	NPOC:2.773		Completed	3/5/2020 7:22:30	43
45	NPOC	280-134202-D-10-A		1.000	NPOC:4.199		Completed	3/5/2020 7:39:17	44
46	NPOC	280-134202-D-11-A		1.000	NPOC:1.556		Completed	3/5/2020 7:56:04	45
47	NPOC	280-134202-D-12-A		1.000	NPOC:69.04		Completed	3/5/2020 8:14:55	46
48	NPOC	280-134202-D-13-A		1.000	NPOC:491.6		Completed	3/5/2020 8:41:10	47
49	NPOC	280-134202-D-14-A		1.000	NPOC:4.462		Completed	3/5/2020 9:00:01	48
50	NPOC	280-134202-D-15-A		1.000	NPOC:6.549		Completed	3/5/2020 9:18:46	49
51	NPOC	280-134202-D-16-A		1.000	NPOC:267.4		Completed	3/5/2020 9:42:57	50
52	NPOC	ccv		1.000	NPOC:25.38		Completed	3/5/2020 9:59:45	51
53	NPOC	ccb		1.000	NPOC:0.100		Completed	3/5/2020 10:16:3	52

	Analysis	Sample Name	Sample I	Manual	Result	Notes	Status	Date / Time	Vial
54	NPOC	280-134202-D-17-A		1.000	NPOC:136.5		Completed	3/5/2020 10:39:4	53
55	NPOC	280-134202-D-17-B		1.000	NPOC:149.6		Completed	3/5/2020 10:58:3	54
56	NPOC	280-134202-D-17-C		1.000	NPOC:149.8		Completed	3/5/2020 11:17:1	55
57	NPOC	lcs		1.000	NPOC:24.85		Completed	3/5/2020 11:34:0	56
58	NPOC	mb		1.000	NPOC:0.136		Completed	3/5/2020 11:50:4	57
59	NPOC	tic		1.000	NPOC:0.151		Completed	3/5/2020 12:05:3	58
60	NPOC	280-134102-B-6		1.000	NPOC:2.557		Completed	3/5/2020 12:22:2	59
61	NPOC	ms 280-134102-B-6		1.000	NPOC:26.54		Completed	3/5/2020 12:37:0	60
62	NPOC	msd 280-134102-B-6		1.000	NPOC:27.19		Completed	3/5/2020 12:51:5	61
63	NPOC	280-134101-C-1		1.000	NPOC:366.1		Completed	3/5/2020 1:18:14	62
64	NPOC	ccv		1.000	NPOC:25.92		Completed	3/5/2020 1:37:00	63
65	NPOC	ccb		1.000	NPOC:0.146		Completed	3/5/2020 1:55:46	64
66	NPOC	280-134102-B-1		1.000	NPOC:3.652		Completed	3/5/2020 2:10:24	65
67	NPOC	280-134102-B-2		1.000	NPOC:0.634		Completed	3/5/2020 2:27:13	66
68	NPOC	280-134102-B-5		1.000	NPOC:0.891		Completed	3/5/2020 2:44:01	67
69	NPOC	280-134102-B-7		1.000	NPOC:0.545		Completed	3/5/2020 3:00:49	68
70	NPOC	ccv		1.000	NPOC:25.66		Completed	3/5/2020 3:15:41	69
71	NPOC	ccb		1.000	NPOC:0.102		Completed	3/5/2020 3:32:30	70

TOC-V Cal Curve Information
C:¥TOC3201¥CalCurves¥TOC3.2020_01_06_16_39_25.cal

Date of Creation 5:44:53 PM 1/6/2020
User SGB
System TOC-V cpn 3

Cal. Curve

Sample Name: CAL 110716
Sample ID: Untitled
Object ID 0A-103108-04335027-1343AAA27FEE-0000
Cal. Curve: TOC3.2020_01_06_16_39_25.cal
Status Completed
Comment:

Type	Anal.
Standard	NPOC

Conc: 0.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	0.1921	50uL	1	*******		1/6/2020 4:47:22 PM
2	1.028	50uL	1	*******	E	1/6/2020 4:49:26 PM
3	0.2726	50uL	1	*******		1/6/2020 4:51:30 PM

Acid Add. 0.000%
Sp. Time 90.00sec
Mean Area 0.2324
SD Area 0.05692
CV Area 24.50%
Vial 86

Conc: 1.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	2.767	50uL	1	*******		1/6/2020 5:00:02 PM
2	2.799	50uL	1	*******		1/6/2020 5:02:06 PM

Acid Add. 0.000%
Sp. Time 90.00sec
Mean Area 2.783
SD Area 0.02263
CV Area 0.81%
Vial 87

Conc: 5.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	12.53	50uL	1	*******		1/6/2020 5:10:44 PM
2	12.62	50uL	1	*******		1/6/2020 5:12:48 PM

Acid Add. 0.000%
Sp. Time 90.00sec
Mean Area 12.58
SD Area 0.06364
CV Area 0.51%
Vial 88

Conc: 10.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	24.69	50uL	1	*******		1/6/2020 5:21:26 PM
2	24.83	50uL	1	*******		1/6/2020 5:23:30 PM

Acid Add. 0.000%
Sp. Time 90.00sec
Mean Area 24.76
SD Area 0.09899
CV Area 0.40%
Vial 89

Conc: 25.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	60.59	50uL	1	*******		1/6/2020 5:32:07 PM
2	61.05	50uL	1	*******		1/6/2020 5:34:11 PM

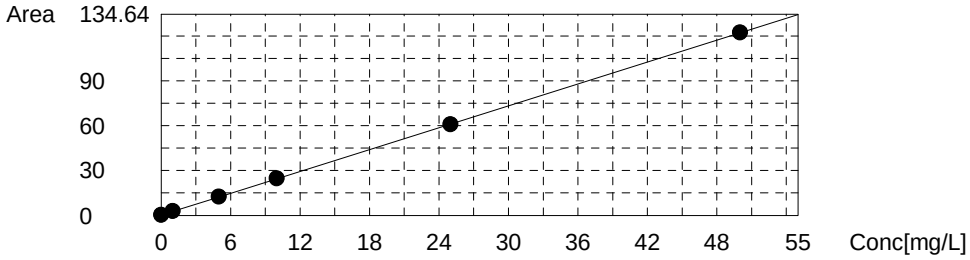
Acid Add. 0.000%
Sp. Time 90.00sec
Mean Area 60.82
SD Area 0.3253
CV Area 0.53%
Vial 90

Conc: 50.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	121.8	50uL	1	*******		1/6/2020 5:42:49 PM
2	123.0	50uL	1	*******		1/6/2020 5:44:53 PM

Acid Add. 0.000%
Sp. Time 90.00sec
Mean Area 122.4
SD Area 0.8485
CV Area 0.69%
Vial 91

Slope: 2.439
Intercept 0.2704
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:	check ccv
Sample ID:	
Origin:	NPOC.met
Status	Completed
Chk. Result	

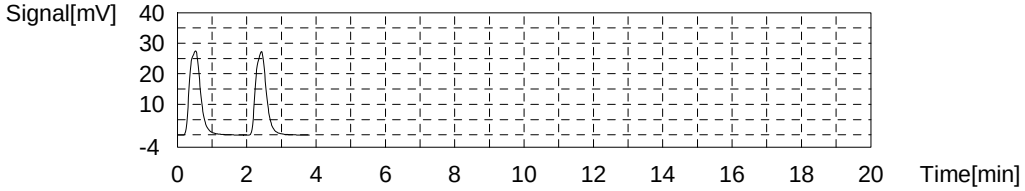
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:24.67mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	61.87	25.26mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/4/2020 6:35:42 PM
2	59.03	24.09mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/4/2020 6:37:46 PM

Mean Area 60.45
Mean Conc. 24.67mg/L



Sample

Sample Name:	check lcs
Sample ID:	
Origin:	NPOC.met
Status	Completed
Chk. Result	

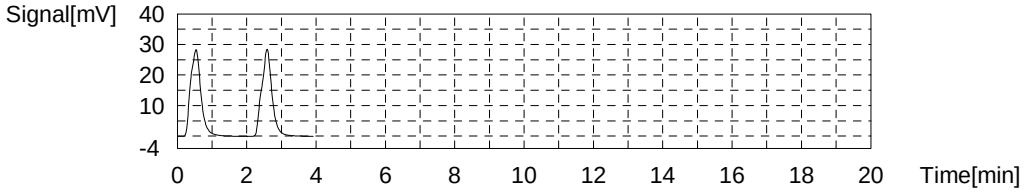
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:24.35mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	60.19	24.57mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/4/2020 6:46:27 PM
2	59.15	24.14mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/4/2020 6:48:31 PM

Mean Area 59.67
Mean Conc. 24.35mg/L



Sample

Sample Name: icv
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

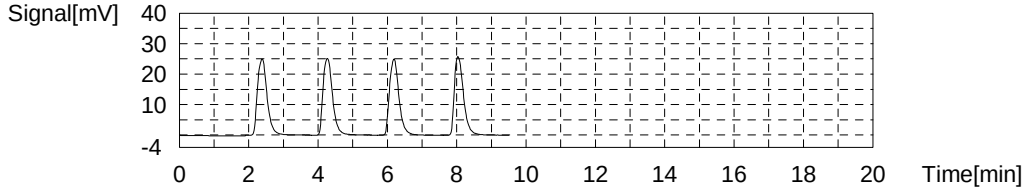
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:19.69mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.000	-0.1109mg/L	50uL	1	E	TOC3.2020_01_06_16_39_25.cal	3/4/2020 6:57:05 PM
2	48.76	19.88mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/4/2020 6:59:09 PM
3	48.55	19.79mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/4/2020 7:01:13 PM
4	48.03	19.58mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/4/2020 7:03:16 PM
5	47.82	19.50mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/4/2020 7:05:20 PM

Mean Area 48.29
Mean Conc. 19.69mg/L



Sample

Sample Name: icb
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

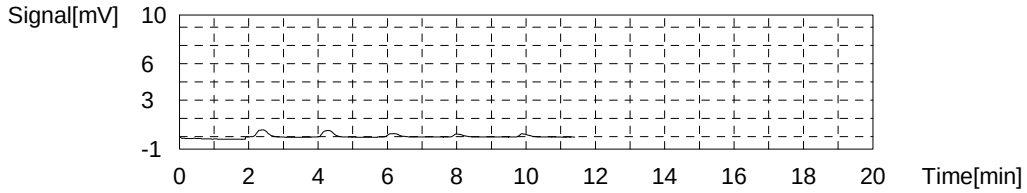
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.03653mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.000	-0.1109mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/4/2020 7:13:51 PM
2	1.208	0.3844mg/L	50uL	1	E	TOC3.2020_01_06_16_39_25.cal	3/4/2020 7:15:55 PM
3	1.169	0.3684mg/L	50uL	1	E	TOC3.2020_01_06_16_39_25.cal	3/4/2020 7:17:58 PM
4	0.5793	0.1267mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/4/2020 7:20:02 PM
5	0.4255	0.06359mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/4/2020 7:22:06 PM
6	0.4332	0.06675mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/4/2020 7:24:10 PM

Mean Area 0.3595
Mean Conc. 0.03653mg/L



Sample

Sample Name: LCS 280-487676/1-A
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

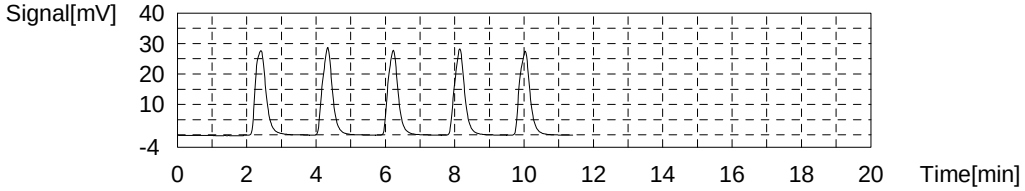
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:23.46mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.000	-0.1109mg/L	50uL	1	E	TOC3.2020_01_06_16_39_25.cal	3/4/2020 7:32:36 PM
2	59.47	24.27mg/L	50uL	1	E	TOC3.2020_01_06_16_39_25.cal	3/4/2020 7:34:40 PM
3	57.82	23.60mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/4/2020 7:36:44 PM
4	56.55	23.07mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/4/2020 7:38:47 PM
5	57.83	23.60mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/4/2020 7:40:51 PM
6	57.71	23.55mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/4/2020 7:42:55 PM

Mean Area 57.48
Mean Conc. 23.46mg/L



Sample

Sample Name: MB 280-487676/2-A
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

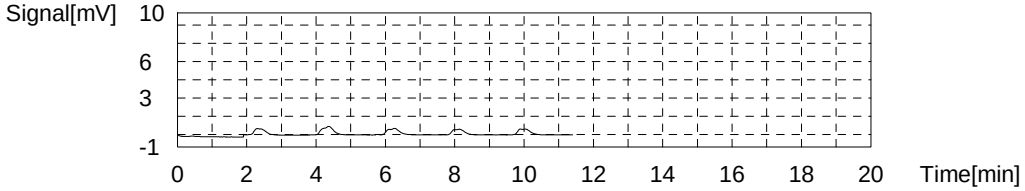
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.3495mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.000	-0.1109mg/L	50uL	1	E	TOC3.2020_01_06_16_39_25.cal	3/4/2020 7:51:21 PM
2	1.106	0.3426mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/4/2020 7:53:25 PM
3	1.553	0.5259mg/L	50uL	1	E	TOC3.2020_01_06_16_39_25.cal	3/4/2020 7:55:29 PM
4	1.192	0.3779mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/4/2020 7:57:32 PM
5	1.080	0.3319mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/4/2020 7:59:36 PM
6	1.113	0.3455mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/4/2020 8:01:40 PM

Mean Area 1.123
Mean Conc. 0.3495mg/L



Sample

Sample Name: tic
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

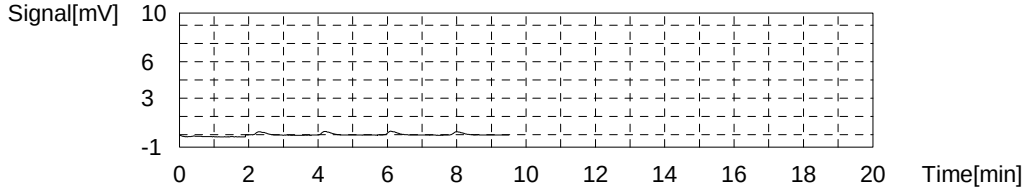
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1023mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.000	-0.1109mg/L	50uL	1	E	TOC3.2020_01_06_16_39_25.cal	3/4/2020 8:10:06 PM
2	0.4932	0.09135mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/4/2020 8:12:10 PM
3	0.5145	0.1001mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/4/2020 8:14:14 PM
4	0.5655	0.1210mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/4/2020 8:16:17 PM
5	0.5060	0.09660mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/4/2020 8:18:21 PM

Mean Area 0.5198
Mean Conc. 0.1023mg/L



Sample

Sample Name: 280-134091-D-1-A
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

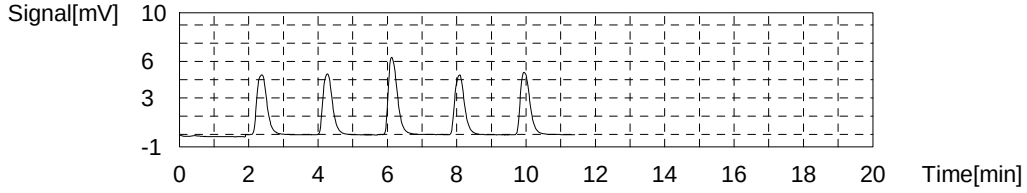
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:3.871mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.000	-0.1109mg/L	50uL	1	E	TOC3.2020_01_06_16_39_25.cal	3/4/2020 8:26:52 PM
2	9.974	3.979mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/4/2020 8:28:56 PM
3	9.573	3.814mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/4/2020 8:30:59 PM
4	11.47	4.592mg/L	50uL	1	E	TOC3.2020_01_06_16_39_25.cal	3/4/2020 8:33:03 PM
5	9.522	3.793mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/4/2020 8:35:07 PM
6	9.778	3.898mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/4/2020 8:37:11 PM

Mean Area 9.712
Mean Conc. 3.871mg/L



Sample

Sample Name: 280-134091-D-1-B MS
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

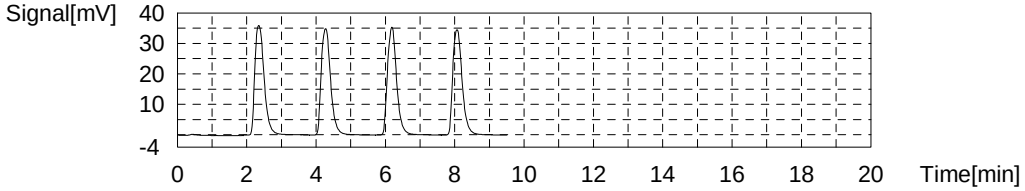
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:26.96mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.5066	0.09684mg/L	50uL	1	E	TOC3.2020_01_06_16_39_25.cal	3/4/2020 8:45:37 PM
2	67.20	27.44mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/4/2020 8:47:41 PM
3	65.81	26.87mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/4/2020 8:49:45 PM
4	65.53	26.76mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/4/2020 8:51:48 PM
5	65.52	26.75mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/4/2020 8:53:52 PM

Mean Area 66.02
Mean Conc. 26.96mg/L



Sample

Sample Name: 280-134091-D-1-C MSD
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

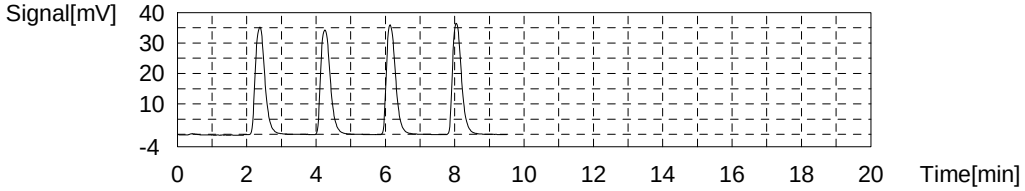
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:27.35mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.5458	0.1129mg/L	50uL	1	E	TOC3.2020_01_06_16_39_25.cal	3/4/2020 9:02:23 PM
2	68.09	27.81mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/4/2020 9:04:27 PM
3	66.70	27.24mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/4/2020 9:06:31 PM
4	66.35	27.09mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/4/2020 9:08:34 PM
5	66.73	27.25mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/4/2020 9:10:38 PM

Mean Area 66.97
Mean Conc. 27.35mg/L



Sample

Sample Name: 280-134091-D-2-A
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

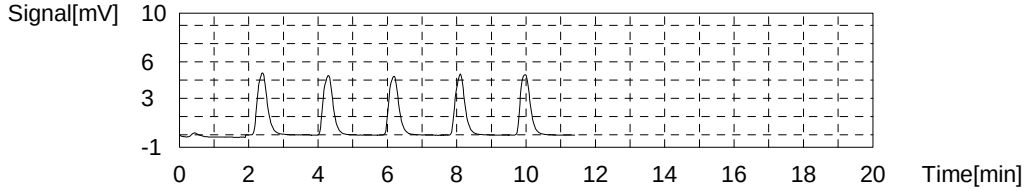
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:3.838mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.4910	0.09045mg/L	50uL	1	E	TOC3.2020_01_06_16_39_25.cal	3/4/2020 9:19:09 PM
2	10.11	4.034mg/L	50uL	1	E	TOC3.2020_01_06_16_39_25.cal	3/4/2020 9:21:13 PM
3	9.566	3.811mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/4/2020 9:23:16 PM
4	9.536	3.799mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/4/2020 9:25:20 PM
5	9.609	3.829mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/4/2020 9:27:24 PM
6	9.812	3.912mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/4/2020 9:29:28 PM

Mean Area 9.631
Mean Conc. 3.838mg/L



Sample

Sample Name: 280-134091-D-3-A
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

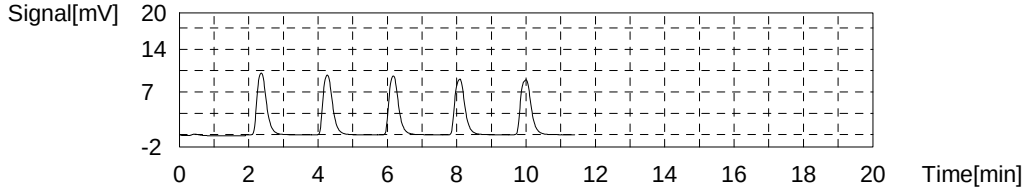
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:7.553mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.3598	0.03665mg/L	50uL	1	E	TOC3.2020_01_06_16_39_25.cal	3/4/2020 9:37:54 PM
2	19.38	7.835mg/L	50uL	1	E	TOC3.2020_01_06_16_39_25.cal	3/4/2020 9:39:58 PM
3	18.73	7.569mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/4/2020 9:42:02 PM
4	18.50	7.474mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/4/2020 9:44:05 PM
5	18.57	7.503mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/4/2020 9:46:09 PM
6	18.97	7.667mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/4/2020 9:48:13 PM

Mean Area 18.69
Mean Conc. 7.553mg/L



Sample

Sample Name: 280-134091-D-4-A
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

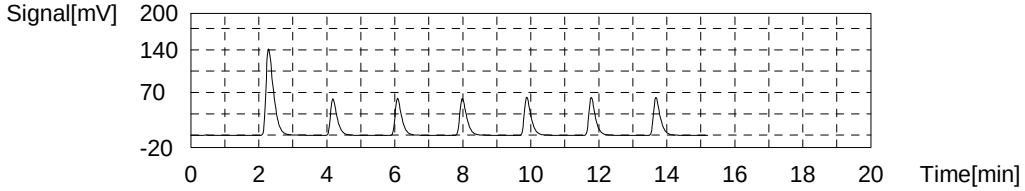
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:84.45mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.6358	0.1498mg/L	50uL	1	R	TOC3.2020_01_06_16_39_25.cal	3/4/2020 9:56:39 PM
2	224.2	91.81mg/L	50uL	1	R	TOC3.2020_01_06_16_39_25.cal	3/4/2020 9:58:43 PM
3	82.46	80.39mg/L	21uL	1	E	TOC3.2020_01_06_16_39_25.cal	3/4/2020 10:00:46 PM
4	83.90	81.79mg/L	21uL	1	E	TOC3.2020_01_06_16_39_25.cal	3/4/2020 10:02:50 PM
5	87.16	84.98mg/L	21uL	1		TOC3.2020_01_06_16_39_25.cal	3/4/2020 10:04:54 PM
6	87.65	85.45mg/L	21uL	1		TOC3.2020_01_06_16_39_25.cal	3/4/2020 10:06:58 PM
7	83.95	81.84mg/L	21uL	1		TOC3.2020_01_06_16_39_25.cal	3/4/2020 10:11:21 PM
8	87.74	85.54mg/L	21uL	1		TOC3.2020_01_06_16_39_25.cal	3/4/2020 10:15:45 PM

Mean Area 86.63
Mean Conc. 84.45mg/L



Sample

Sample Name: 280-134141-D-1-A
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

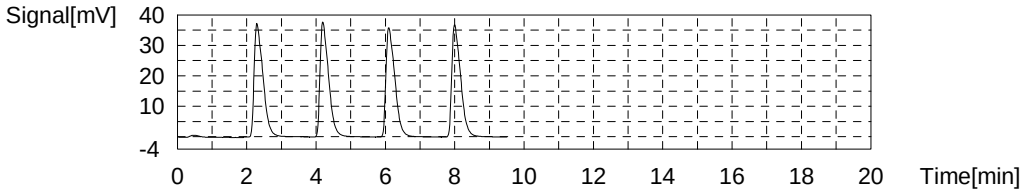
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:26.73mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.211	0.3857mg/L	50uL	1	E	TOC3.2020_01_06_16_39_25.cal	3/4/2020 10:24:11 PM
2	66.55	27.18mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/4/2020 10:26:15 PM
3	64.89	26.49mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/4/2020 10:28:19 PM
4	64.45	26.31mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/4/2020 10:30:22 PM
5	65.93	26.92mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/4/2020 10:32:26 PM

Mean Area 65.45
Mean Conc. 26.73mg/L



Sample

Sample Name: 280-134141-D-2-A
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

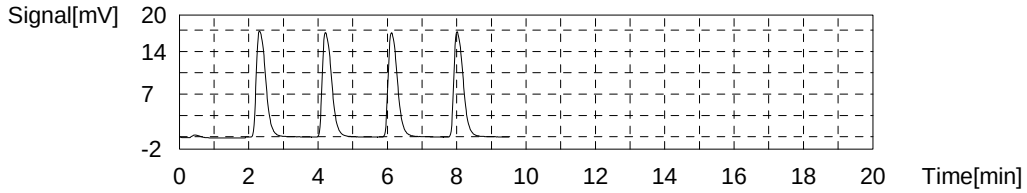
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:13.19mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.6846	0.1698mg/L	50uL	1	E	TOC3.2020_01_06_16_39_25.cal	3/4/2020 10:40:57 PM
2	33.16	13.48mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/4/2020 10:43:01 PM
3	32.31	13.14mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/4/2020 10:45:04 PM
4	31.93	12.98mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/4/2020 10:47:08 PM
5	32.36	13.16mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/4/2020 10:49:12 PM

Mean Area 32.44
Mean Conc. 13.19mg/L



Sample

Sample Name: 280-134141-D-3-A
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

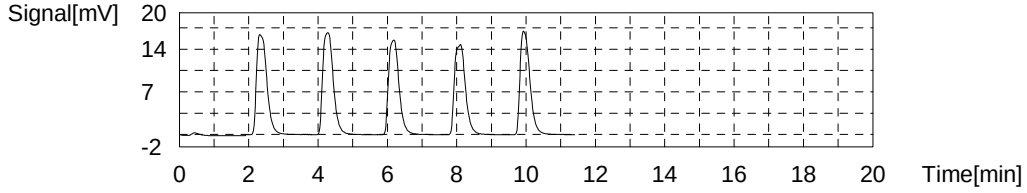
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:13.52mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.6738	0.1654mg/L	50uL	1	E	TOC3.2020_01_06_16_39_25.cal	3/4/2020 10:57:43 PM
2	34.09	13.87mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/4/2020 10:59:47 PM
3	35.54	14.46mg/L	50uL	1	E	TOC3.2020_01_06_16_39_25.cal	3/4/2020 11:01:51 PM
4	32.61	13.26mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/4/2020 11:03:55 PM
5	32.74	13.31mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/4/2020 11:05:58 PM
6	33.58	13.66mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/4/2020 11:08:02 PM

Mean Area 33.25
Mean Conc. 13.52mg/L



Sample

Sample Name: ccv
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

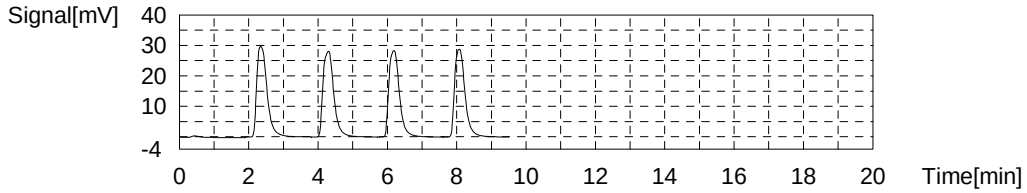
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:24.82mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.7662	0.2033mg/L	50uL	1	E	TOC3.2020_01_06_16_39_25.cal	3/4/2020 11:16:28 PM
2	61.77	25.22mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/4/2020 11:18:32 PM
3	61.09	24.94mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/4/2020 11:20:36 PM
4	60.20	24.57mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/4/2020 11:22:39 PM
5	60.19	24.57mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/4/2020 11:24:43 PM

Mean Area 60.81
Mean Conc. 24.82mg/L



Sample

Sample Name: ccb
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

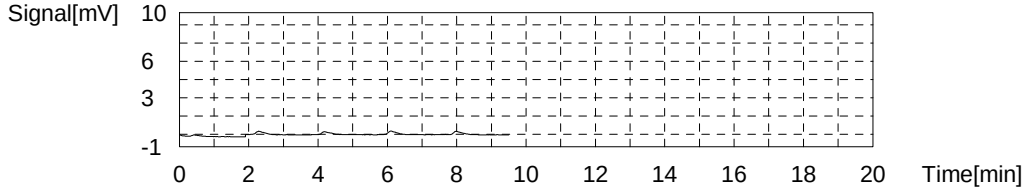
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.06913mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.1391	-0.05383mg/L	50uL	1	E	TOC3.2020_01_06_16_39_25.cal	3/4/2020 11:33:14 PM
2	0.4328	0.06659mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/4/2020 11:35:18 PM
3	0.3737	0.04235mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/4/2020 11:37:21 PM
4	0.4840	0.08758mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/4/2020 11:39:25 PM
5	0.4655	0.07999mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/4/2020 11:41:29 PM

Mean Area 0.4390
Mean Conc. 0.06913mg/L



Sample

Sample Name: 280-134141-D-4-A
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

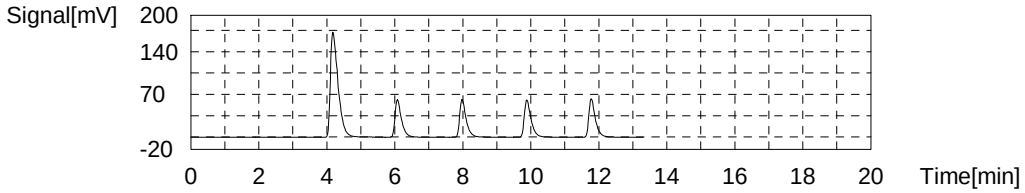
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:101.1mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.000	-0.1109mg/L	50uL	1	R	TOC3.2020_01_06_16_39_25.cal	3/4/2020 11:50:00 PM
2	0.2216	-0.02001mg/L	50uL	1	R	TOC3.2020_01_06_16_39_25.cal	3/4/2020 11:52:04 PM
3	274.0	112.2mg/L	50uL	1	R	TOC3.2020_01_06_16_39_25.cal	3/4/2020 11:54:07 PM
4	82.48	99.35mg/L	17uL	1		TOC3.2020_01_06_16_39_25.cal	3/4/2020 11:56:11 PM
5	83.19	100.2mg/L	17uL	1		TOC3.2020_01_06_16_39_25.cal	3/4/2020 11:58:15 PM
6	84.99	102.4mg/L	17uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 12:00:19 AM
7	84.97	102.4mg/L	17uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 12:04:42 AM

Mean Area 83.91
Mean Conc. 101.1mg/L



Sample

Sample Name: 280-134177-D-1-A
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

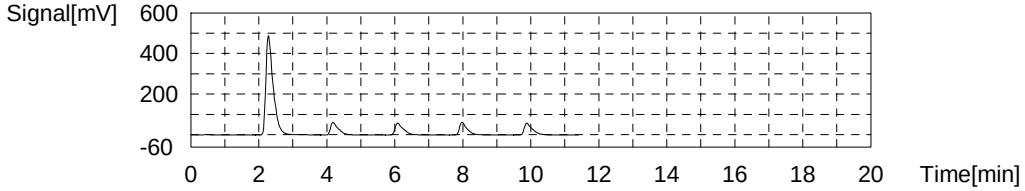
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:280.5mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.893	0.6653mg/L	50uL	1	R	TOC3.2020_01_06_16_39_25.cal	3/5/2020 12:13:08 AM
2	739.9	303.3mg/L	50uL	1	R	TOC3.2020_01_06_16_39_25.cal	3/5/2020 12:15:12 AM
3	98.95	283.2mg/L	50uL	7		TOC3.2020_01_06_16_39_25.cal	3/5/2020 12:22:41 AM
4	99.65	285.2mg/L	50uL	7		TOC3.2020_01_06_16_39_25.cal	3/5/2020 12:24:45 AM
5	97.20	278.2mg/L	50uL	7		TOC3.2020_01_06_16_39_25.cal	3/5/2020 12:26:48 AM
6	96.25	275.5mg/L	50uL	7		TOC3.2020_01_06_16_39_25.cal	3/5/2020 12:28:52 AM

Mean Area 98.01
Mean Conc. 280.5mg/L



Sample

Sample Name: 280-134177-D-2-A
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

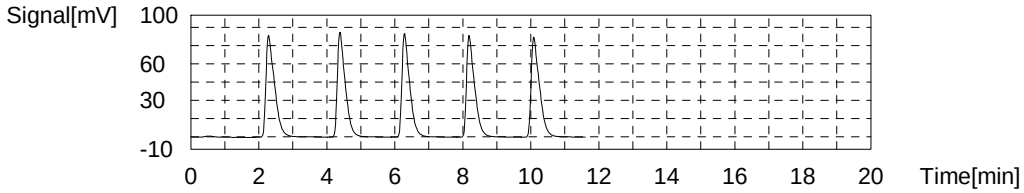
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:56.87mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.852	0.6485mg/L	50uL	1	E	TOC3.2020_01_06_16_39_25.cal	3/5/2020 12:37:24 AM
2	147.9	60.53mg/L	50uL	1	E	TOC3.2020_01_06_16_39_25.cal	3/5/2020 12:39:40 AM
3	140.4	57.45mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 12:41:43 AM
4	136.8	55.98mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 12:43:47 AM
5	137.7	56.35mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 12:45:51 AM
6	141.0	57.70mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 12:47:55 AM

Mean Area 139.0
Mean Conc. 56.87mg/L



Sample

Sample Name: 280-134202-D-2-B
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

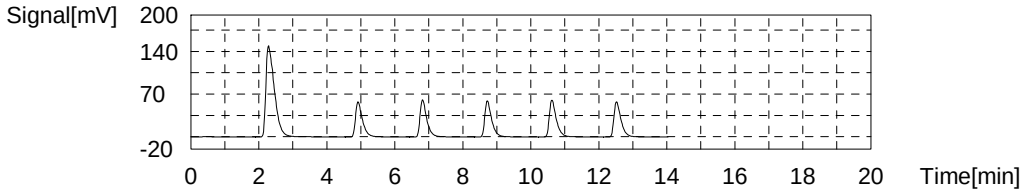
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	5.000	NPOC:476.7mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.221	1.949mg/L	50uL	1	R	TOC3.2020_01_06_16_39_25.cal	3/5/2020 12:56:21 AM
2	262.8	538.2mg/L	50uL	1	R	TOC3.2020_01_06_16_39_25.cal	3/5/2020 12:59:09 AM
3	82.72	470.5mg/L	18uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 1:01:12 AM
4	84.65	481.5mg/L	18uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 1:03:16 AM
5	84.05	478.1mg/L	18uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 1:05:20 AM
6	86.92	494.4mg/L	18uL	1	E	TOC3.2020_01_06_16_39_25.cal	3/5/2020 1:07:24 AM
7	83.83	476.8mg/L	18uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 1:11:47 AM

Mean Area 83.81
Mean Conc. 476.7mg/L



Sample

Sample Name: 280-134202-D-2-C MS
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

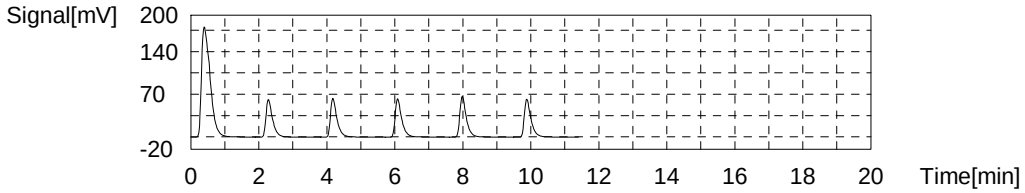
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	5.000	NPOC:579.0mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	322.8	661.2mg/L	50uL	1	R	TOC3.2020_01_06_16_39_25.cal	3/5/2020 1:20:13 AM
2	84.01	573.5mg/L	15uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 1:22:16 AM
3	84.80	578.9mg/L	15uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 1:24:20 AM
4	85.28	582.2mg/L	15uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 1:26:24 AM
5	89.58	611.6mg/L	15uL	1	E	TOC3.2020_01_06_16_39_25.cal	3/5/2020 1:28:28 AM
6	85.18	581.5mg/L	15uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 1:30:32 AM

Mean Area 84.82
Mean Conc. 579.0mg/L



Sample

Sample Name: 280-134202-D-2-D MSD
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

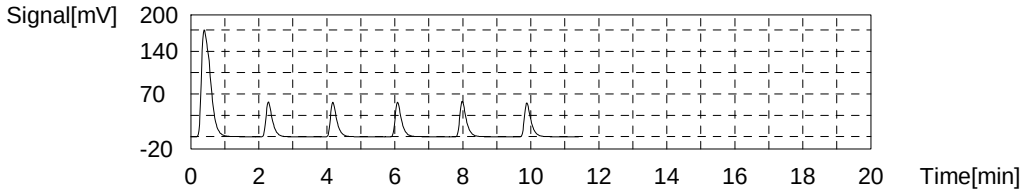
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	5.000	NPOC:553.4mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	325.7	667.1mg/L	50uL	1	R	TOC3.2020_01_06_16_39_25.cal	3/5/2020 1:38:57 AM
2	76.18	557.2mg/L	14uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 1:41:00 AM
3	74.90	547.8mg/L	14uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 1:43:04 AM
4	75.62	553.1mg/L	14uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 1:45:08 AM
5	79.16	579.0mg/L	14uL	1	E	TOC3.2020_01_06_16_39_25.cal	3/5/2020 1:47:12 AM
6	75.96	555.6mg/L	14uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 1:49:16 AM

Mean Area 75.67
Mean Conc. 553.4mg/L



Sample

Sample Name: 280-134177-D-3-A
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

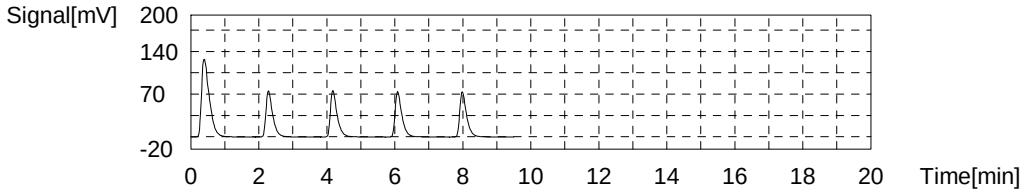
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:92.99mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	206.0	84.35mg/L	50uL	1	R	TOC3.2020_01_06_16_39_25.cal	3/5/2020 1:57:41 AM
2	105.0	93.48mg/L	23uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 1:59:45 AM
3	105.2	93.66mg/L	23uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 2:01:48 AM
4	103.6	92.23mg/L	23uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 2:03:52 AM
5	104.0	92.59mg/L	23uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 2:05:56 AM

Mean Area 104.5
Mean Conc. 92.99mg/L



Sample

Sample Name: 280-134177-D-4-A
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

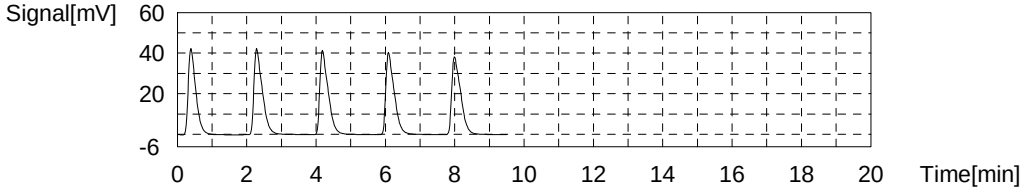
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:28.51mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	65.40	26.70mg/L	50uL	1	E	TOC3.2020_01_06_16_39_25.cal	3/5/2020 2:14:27 AM
2	71.74	29.30mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 2:16:31 AM
3	69.76	28.49mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 2:18:35 AM
4	68.45	27.95mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 2:20:38 AM
5	69.32	28.31mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 2:22:42 AM

Mean Area 69.82
Mean Conc. 28.51mg/L



Sample

Sample Name: 280-134177-D-5-A
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

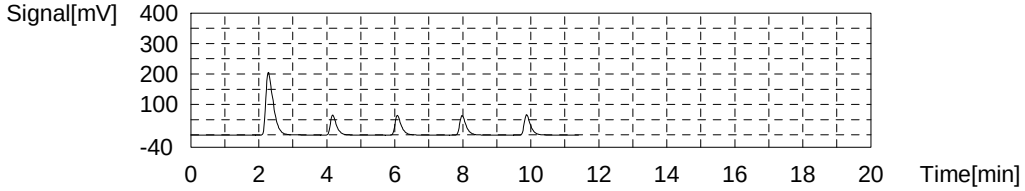
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:117.8mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.7432	0.1939mg/L	50uL	1	R	TOC3.2020_01_06_16_39_25.cal	3/5/2020 2:31:13 AM
2	320.2	131.2mg/L	50uL	1	R	TOC3.2020_01_06_16_39_25.cal	3/5/2020 2:33:16 AM
3	84.65	115.6mg/L	15uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 2:35:20 AM
4	86.21	117.7mg/L	15uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 2:37:24 AM
5	86.13	117.6mg/L	15uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 2:39:28 AM
6	88.10	120.3mg/L	15uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 2:41:32 AM

Mean Area 86.27
Mean Conc. 117.8mg/L



Sample

Sample Name: 280-134202-D-1-A
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

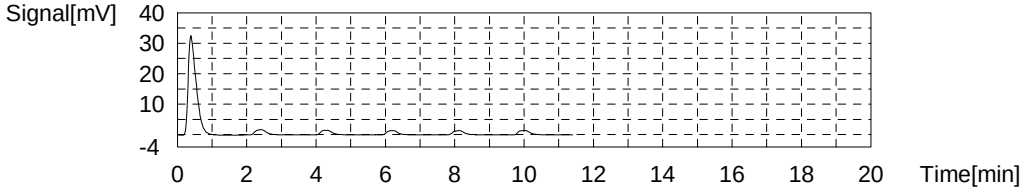
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.169mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	52.93	21.59mg/L	50uL	1	E	TOC3.2020_01_06_16_39_25.cal	3/5/2020 2:49:57 AM
2	3.741	1.423mg/L	50uL	1	E	TOC3.2020_01_06_16_39_25.cal	3/5/2020 2:52:01 AM
3	3.256	1.224mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 2:54:04 AM
4	3.080	1.152mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 2:56:08 AM
5	2.953	1.100mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 2:58:12 AM
6	3.196	1.200mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 3:00:16 AM

Mean Area 3.121
Mean Conc. 1.169mg/L



Sample

Sample Name: ccv
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

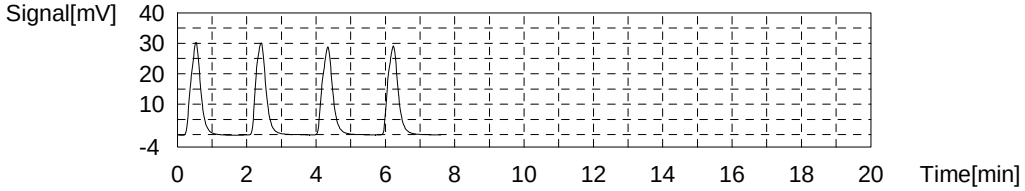
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:24.67mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	60.60	24.74mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 3:08:42 AM
2	61.15	24.96mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 3:10:46 AM
3	59.97	24.48mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 3:12:49 AM
4	60.04	24.51mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 3:14:53 AM

Mean Area 60.44
Mean Conc. 24.67mg/L



Sample

Sample Name: ccb
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

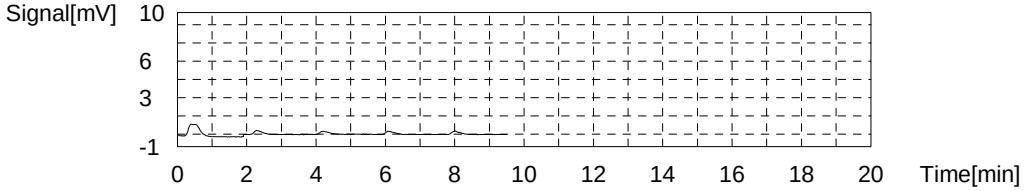
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.08194mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.218	0.7985mg/L	50uL	1	E	TOC3.2020_01_06_16_39_25.cal	3/5/2020 3:23:25 AM
2	0.5158	0.1006mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 3:25:29 AM
3	0.4610	0.07815mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 3:27:32 AM
4	0.4477	0.07269mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 3:29:36 AM
5	0.4565	0.07630mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 3:31:40 AM

Mean Area 0.4703
Mean Conc. 0.08194mg/L



Sample

Sample Name: 280-134202-D-3-A
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

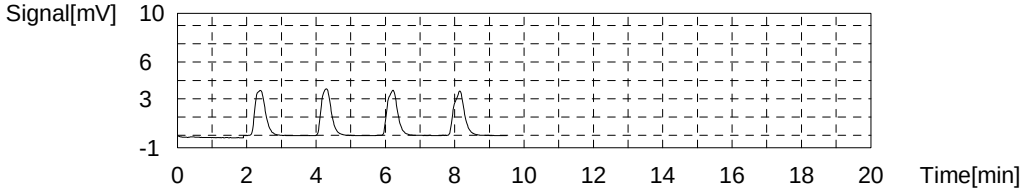
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:3.056mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.000	-0.1109mg/L	50uL	1	E	TOC3.2020_01_06_16_39_25.cal	3/5/2020 3:40:11 AM
2	7.744	3.064mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 3:42:14 AM
3	7.725	3.056mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 3:44:18 AM
4	7.684	3.040mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 3:46:22 AM
5	7.747	3.065mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 3:48:26 AM

Mean Area 7.725
Mean Conc. 3.056mg/L



Sample

Sample Name: 280-134202-D-4-A
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

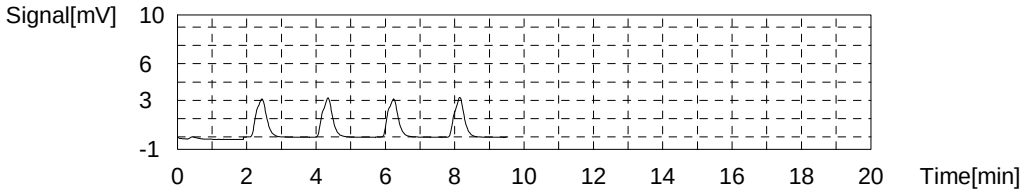
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:2.552mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.2292	-0.01689mg/L	50uL	1	E	TOC3.2020_01_06_16_39_25.cal	3/5/2020 3:56:57 AM
2	6.517	2.561mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 3:59:00 AM
3	6.541	2.571mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 4:01:04 AM
4	6.459	2.537mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 4:03:08 AM
5	6.459	2.537mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 4:05:12 AM

Mean Area 6.494
Mean Conc. 2.552mg/L



Sample

Sample Name: 280-134202-D-6-A
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

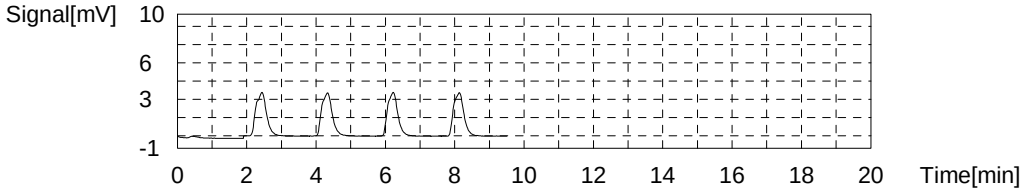
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:2.941mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.1940	-0.03132mg/L	50uL	1	E	TOC3.2020_01_06_16_39_25.cal	3/5/2020 4:13:44 AM
2	7.579	2.997mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 4:15:48 AM
3	7.432	2.936mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 4:17:51 AM
4	7.332	2.895mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 4:19:55 AM
5	7.429	2.935mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 4:21:59 AM

Mean Area 7.443
Mean Conc. 2.941mg/L



Sample

Sample Name: 280-134202-D-7-A
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

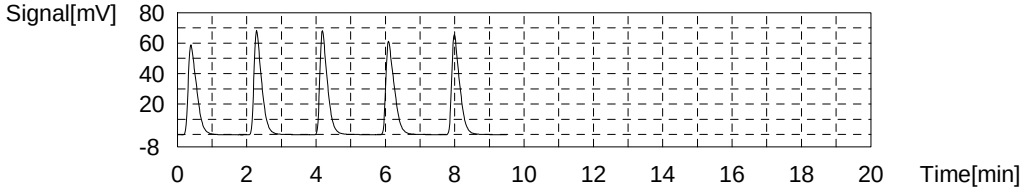
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:43.13mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	101.1	41.34mg/L	50uL	1	E	TOC3.2020_01_06_16_39_25.cal	3/5/2020 4:30:31 AM
2	106.7	43.64mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 4:32:35 AM
3	104.5	42.73mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 4:34:38 AM
4	104.6	42.78mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 4:36:42 AM
5	106.1	43.39mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 4:38:46 AM

Mean Area 105.5
Mean Conc. 43.13mg/L



Sample

Sample Name: LCS 280-487676/27-A
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

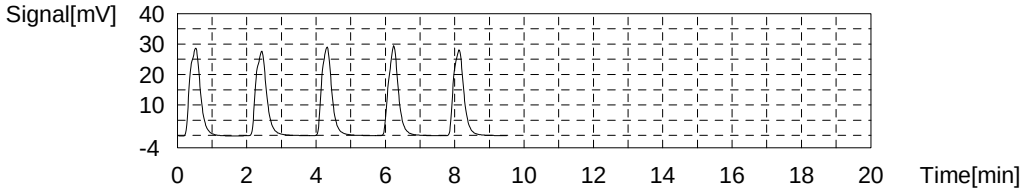
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:24.12mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	62.15	25.37mg/L	50uL	1	E	TOC3.2020_01_06_16_39_25.cal	3/5/2020 4:47:18 AM
2	59.91	24.45mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 4:49:22 AM
3	58.97	24.07mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 4:51:25 AM
4	58.63	23.93mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 4:53:29 AM
5	58.87	24.03mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 4:55:33 AM

Mean Area 59.10
Mean Conc. 24.12mg/L



Sample

Sample Name: MB 280-487676/28-A
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

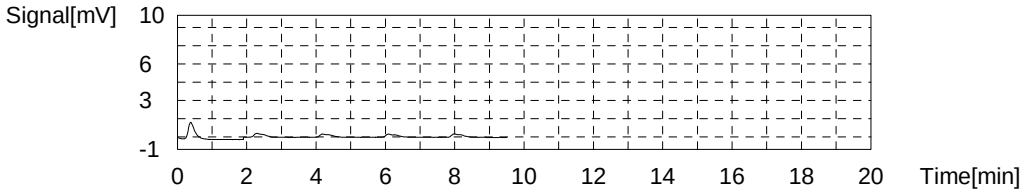
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1305mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.772	0.6157mg/L	50uL	1	E	TOC3.2020_01_06_16_39_25.cal	3/5/2020 5:04:05 AM
2	0.6148	0.1412mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 5:06:08 AM
3	0.5911	0.1315mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 5:08:12 AM
4	0.5460	0.1130mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 5:10:16 AM
5	0.6026	0.1362mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 5:12:20 AM

Mean Area 0.5886
Mean Conc. 0.1305mg/L



Sample

Sample Name: tic
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

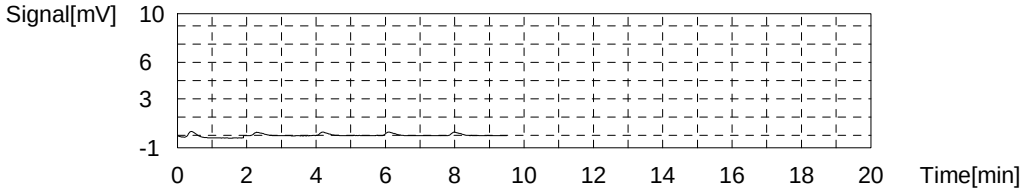
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.09203mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.7330	0.1897mg/L	50uL	1	E	TOC3.2020_01_06_16_39_25.cal	3/5/2020 5:20:52 AM
2	0.5165	0.1009mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 5:22:56 AM
3	0.4648	0.07971mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 5:24:59 AM
4	0.5061	0.09664mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 5:27:03 AM
5	0.4920	0.09086mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 5:29:07 AM

Mean Area 0.4949
Mean Conc. 0.09203mg/L



Sample

Sample Name: 280-134202-D-18-A
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

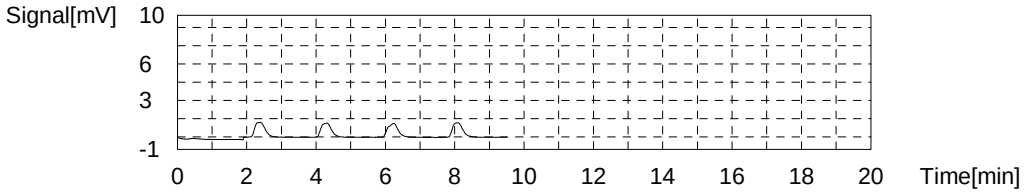
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.8918mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.000	-0.1109mg/L	50uL	1	E	TOC3.2020_01_06_16_39_25.cal	3/5/2020 5:37:39 AM
2	2.490	0.9100mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 5:39:42 AM
3	2.412	0.8781mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 5:41:46 AM
4	2.419	0.8809mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 5:43:50 AM
5	2.461	0.8982mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 5:45:54 AM

Mean Area 2.446
Mean Conc. 0.8918mg/L



Sample

Sample Name: 280-134202-D-18-B MS
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

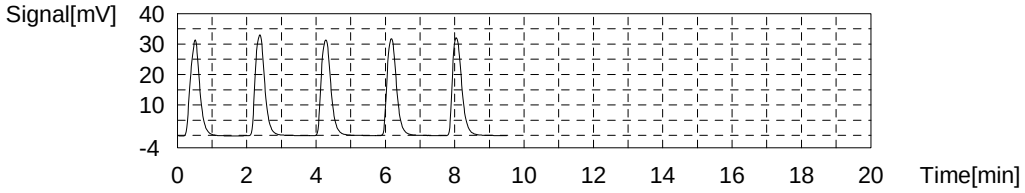
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:24.77mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	59.99	24.49mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 5:54:26 AM
2	63.21	25.81mg/L	50uL	1	E	TOC3.2020_01_06_16_39_25.cal	3/5/2020 5:56:30 AM
3	61.06	24.92mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 5:58:33 AM
4	60.76	24.80mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 6:00:37 AM
5	60.89	24.85mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 6:02:41 AM

Mean Area 60.67
Mean Conc. 24.77mg/L



Sample

Sample Name: ccv
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

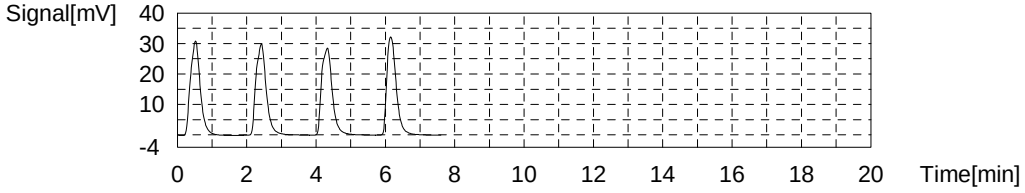
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:25.12mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	62.03	25.32mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 6:11:13 AM
2	61.97	25.30mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 6:13:17 AM
3	61.14	24.96mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 6:15:20 AM
4	60.97	24.89mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 6:17:24 AM

Mean Area 61.53
Mean Conc. 25.12mg/L



Sample

Sample Name: ccb
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

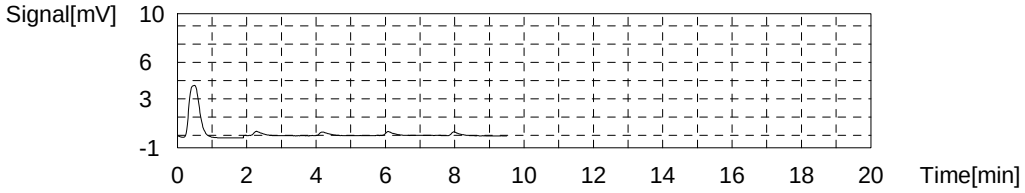
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1013mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	8.937	3.553mg/L	50uL	1	E	TOC3.2020_01_06_16_39_25.cal	3/5/2020 6:25:57 AM
2	0.5711	0.1233mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 6:28:00 AM
3	0.5286	0.1059mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 6:30:04 AM
4	0.4997	0.09401mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 6:32:08 AM
5	0.4706	0.08208mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 6:34:12 AM

Mean Area 0.5175
Mean Conc. 0.1013mg/L



Sample

Sample Name: 280-134202-D-18-C MSD
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

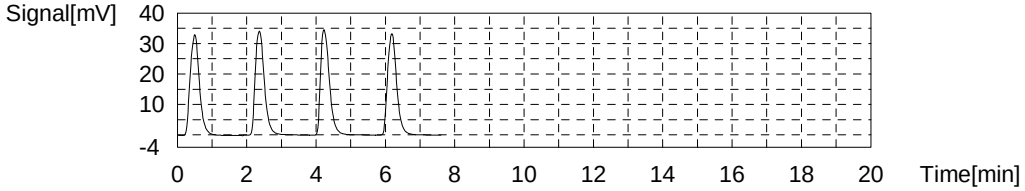
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:25.29mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	62.26	25.42mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 6:42:44 AM
2	62.50	25.51mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 6:44:47 AM
3	61.51	25.11mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 6:46:51 AM
4	61.51	25.11mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 6:48:55 AM

Mean Area 61.95
Mean Conc. 25.29mg/L



Sample

Sample Name: 280-134202-D-8-A
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

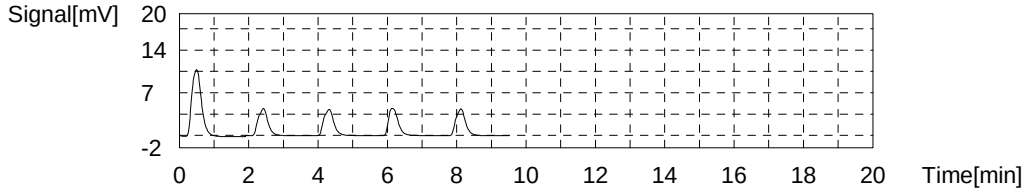
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:3.412mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	21.44	8.680mg/L	50uL	1	E	TOC3.2020_01_06_16_39_25.cal	3/5/2020 6:57:28 AM
2	8.711	3.461mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 6:59:31 AM
3	8.563	3.400mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 7:01:35 AM
4	8.508	3.377mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 7:03:39 AM
5	8.587	3.410mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 7:05:43 AM

Mean Area 8.592
Mean Conc. 3.412mg/L



Sample

Sample Name: 280-134202-D-9-A
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

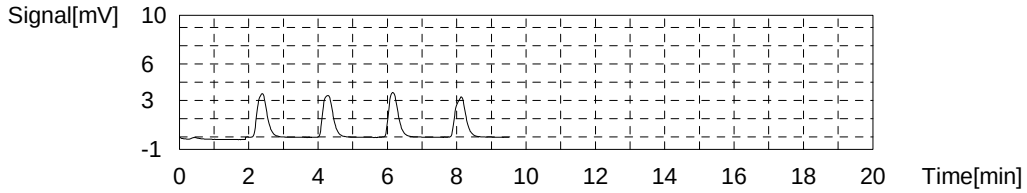
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:2.773mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.1776	-0.03805mg/L	50uL	1	E	TOC3.2020_01_06_16_39_25.cal	3/5/2020 7:14:15 AM
2	7.129	2.812mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 7:16:18 AM
3	7.049	2.779mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 7:18:22 AM
4	6.953	2.740mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 7:20:26 AM
5	7.004	2.761mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 7:22:30 AM

Mean Area 7.034
Mean Conc. 2.773mg/L



Sample

Sample Name: 280-134202-D-10-A
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

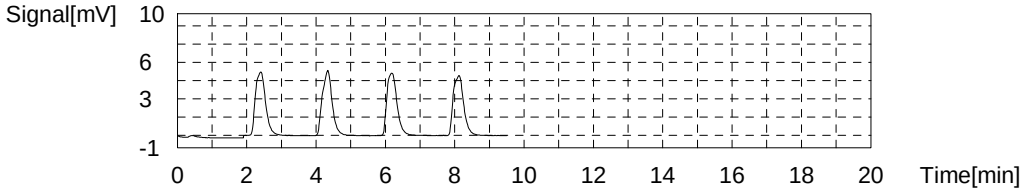
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:4.199mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.2034	-0.02747mg/L	50uL	1	E	TOC3.2020_01_06_16_39_25.cal	3/5/2020 7:31:02 AM
2	10.69	4.272mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 7:33:06 AM
3	10.52	4.202mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 7:35:09 AM
4	10.40	4.153mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 7:37:13 AM
5	10.44	4.170mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 7:39:17 AM

Mean Area 10.51
Mean Conc. 4.199mg/L



Sample

Sample Name: 280-134202-D-11-A
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

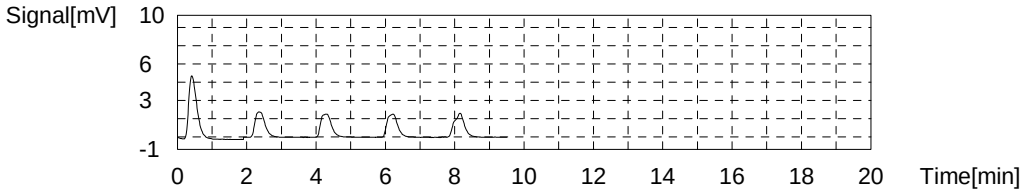
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.556mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	8.498	3.373mg/L	50uL	1	E	TOC3.2020_01_06_16_39_25.cal	3/5/2020 7:47:49 AM
2	4.181	1.603mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 7:49:52 AM
3	4.036	1.544mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 7:51:56 AM
4	3.993	1.526mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 7:54:00 AM
5	4.051	1.550mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 7:56:04 AM

Mean Area 4.065
Mean Conc. 1.556mg/L



Sample

Sample Name: 280-134202-D-12-A
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

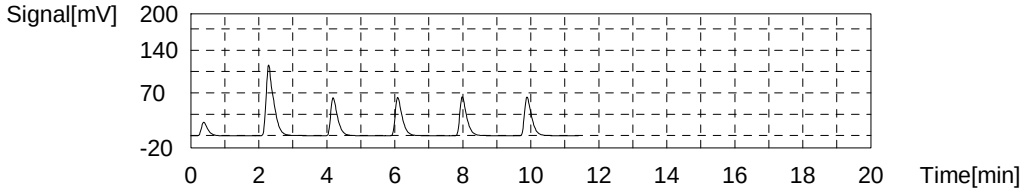
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:69.04mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	29.55	12.00mg/L	50uL	1	R	TOC3.2020_01_06_16_39_25.cal	3/5/2020 8:04:36 AM
2	179.7	73.57mg/L	50uL	1	R	TOC3.2020_01_06_16_39_25.cal	3/5/2020 8:06:39 AM
3	88.79	67.30mg/L	27uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 8:08:43 AM
4	91.28	69.20mg/L	27uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 8:10:47 AM
5	91.15	69.10mg/L	27uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 8:12:51 AM
6	93.07	70.55mg/L	27uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 8:14:55 AM

Mean Area 91.07
Mean Conc. 69.04mg/L



Sample

Sample Name: 280-134202-D-13-A
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

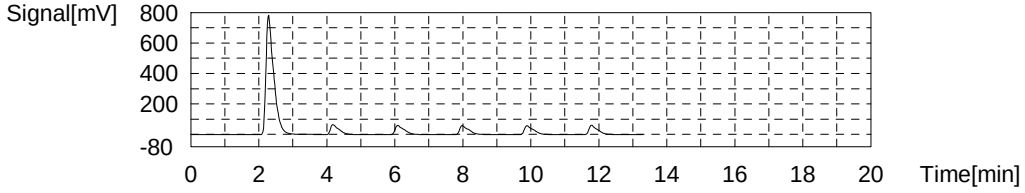
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:491.6mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.8037	0.2187mg/L	50uL	1	R	TOC3.2020_01_06_16_39_25.cal	3/5/2020 8:23:20 AM
2	1254	514.0mg/L	50uL	1	R	TOC3.2020_01_06_16_39_25.cal	3/5/2020 8:25:24 AM
3	113.9	512.5mg/L	50uL	11	E	TOC3.2020_01_06_16_39_25.cal	3/5/2020 8:32:55 AM
4	111.0	499.4mg/L	50uL	11		TOC3.2020_01_06_16_39_25.cal	3/5/2020 8:34:58 AM
5	109.2	491.3mg/L	50uL	11		TOC3.2020_01_06_16_39_25.cal	3/5/2020 8:37:02 AM
6	108.4	487.7mg/L	50uL	11		TOC3.2020_01_06_16_39_25.cal	3/5/2020 8:39:06 AM
7	108.5	488.1mg/L	50uL	11		TOC3.2020_01_06_16_39_25.cal	3/5/2020 8:41:10 AM

Mean Area 109.3
Mean Conc. 491.6mg/L



Sample

Sample Name: 280-134202-D-14-A
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

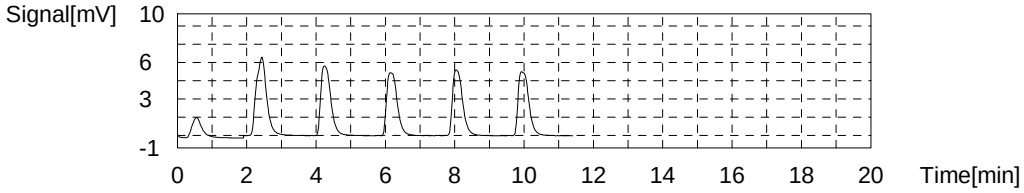
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:4.462mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3.327	1.253mg/L	50uL	1	E	TOC3.2020_01_06_16_39_25.cal	3/5/2020 8:49:42 AM
2	13.52	5.432mg/L	50uL	1	E	TOC3.2020_01_06_16_39_25.cal	3/5/2020 8:51:45 AM
3	11.51	4.608mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 8:53:49 AM
4	10.94	4.375mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 8:55:53 AM
5	10.94	4.375mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 8:57:57 AM
6	11.22	4.489mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 9:00:01 AM

Mean Area 11.15
Mean Conc. 4.462mg/L



Sample

Sample Name: 280-134202-D-15-A
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

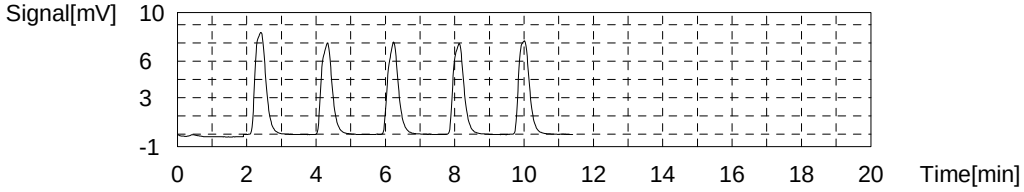
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:6.549mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.1940	-0.03132mg/L	50uL	1	E	TOC3.2020_01_06_16_39_25.cal	3/5/2020 9:08:26 AM
2	18.05	7.290mg/L	50uL	1	E	TOC3.2020_01_06_16_39_25.cal	3/5/2020 9:10:30 AM
3	16.19	6.527mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 9:12:34 AM
4	16.14	6.507mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 9:14:38 AM
5	16.17	6.519mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 9:16:42 AM
6	16.47	6.642mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 9:18:46 AM

Mean Area 16.24
Mean Conc. 6.549mg/L



Sample

Sample Name: 280-134202-D-16-A
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

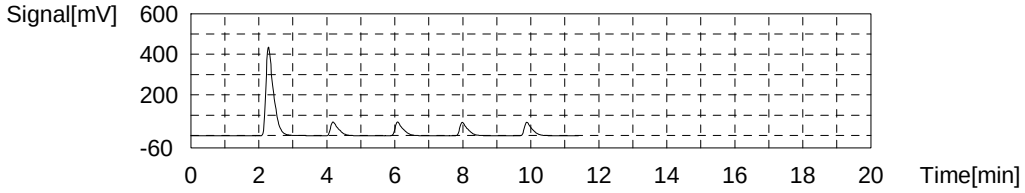
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:267.4mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.000	-0.1109mg/L	50uL	1	R	TOC3.2020_01_06_16_39_25.cal	3/5/2020 9:27:12 AM
2	684.7	280.6mg/L	50uL	1	R	TOC3.2020_01_06_16_39_25.cal	3/5/2020 9:29:15 AM
3	110.7	271.7mg/L	50uL	6		TOC3.2020_01_06_16_39_25.cal	3/5/2020 9:36:46 AM
4	110.4	270.9mg/L	50uL	6		TOC3.2020_01_06_16_39_25.cal	3/5/2020 9:38:49 AM
5	107.9	264.8mg/L	50uL	6		TOC3.2020_01_06_16_39_25.cal	3/5/2020 9:40:53 AM
6	106.9	262.3mg/L	50uL	6		TOC3.2020_01_06_16_39_25.cal	3/5/2020 9:42:57 AM

Mean Area 109.0
Mean Conc. 267.4mg/L



Sample

Sample Name: ccv
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

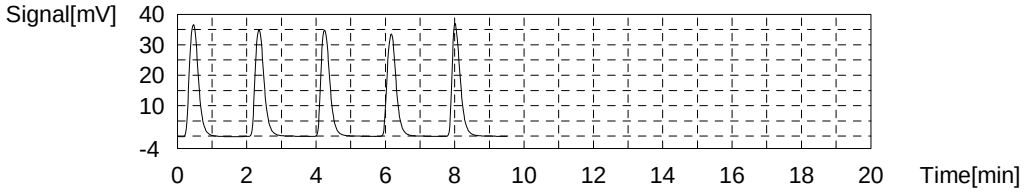
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:25.38mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	67.65	27.63mg/L	50uL	1	E	TOC3.2020_01_06_16_39_25.cal	3/5/2020 9:51:30 AM
2	63.49	25.92mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 9:53:33 AM
3	62.34	25.45mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 9:55:37 AM
4	61.60	25.15mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 9:57:41 AM
5	61.23	24.99mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 9:59:45 AM

Mean Area 62.17
Mean Conc. 25.38mg/L



Sample

Sample Name: ccb
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

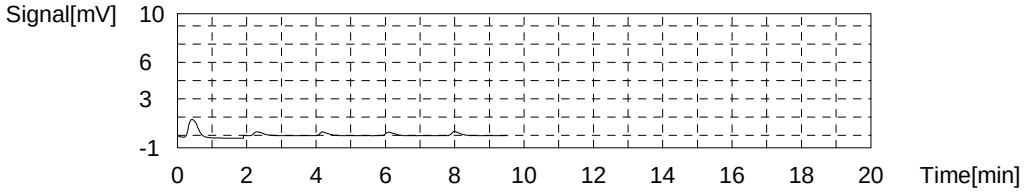
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1006mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.720	1.004mg/L	50uL	1	E	TOC3.2020_01_06_16_39_25.cal	3/5/2020 10:08:17 AM
2	0.5390	0.1101mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 10:10:20 AM
3	0.4989	0.09369mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 10:12:24 AM
4	0.4699	0.08180mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 10:14:28 AM
5	0.5557	0.1170mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 10:16:32 AM

Mean Area 0.5159
Mean Conc. 0.1006mg/L



Sample

Sample Name: 280-134202-D-17-A
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

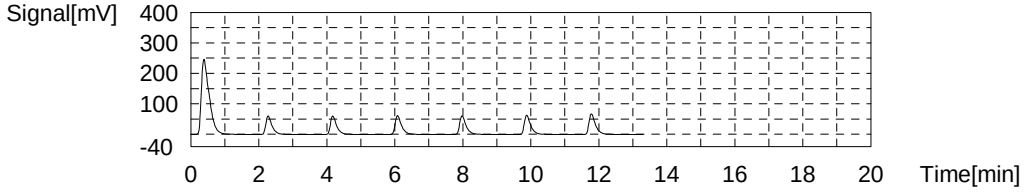
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:136.5mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	400.3	164.0mg/L	50uL	1	R	TOC3.2020_01_06_16_39_25.cal	3/5/2020 10:25:03 AM
2	78.23	133.5mg/L	12uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 10:27:07 AM
3	78.05	133.2mg/L	12uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 10:29:11 AM
4	82.18	140.3mg/L	12uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 10:31:15 AM
5	81.34	138.8mg/L	12uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 10:33:19 AM
6	83.36	142.3mg/L	12uL	1	E	TOC3.2020_01_06_16_39_25.cal	3/5/2020 10:35:22 AM
7	90.63	154.7mg/L	12uL	1	E	TOC3.2020_01_06_16_39_25.cal	3/5/2020 10:39:46 AM

Mean Area 79.95
Mean Conc. 136.5mg/L



Sample

Sample Name: 280-134202-D-17-B MS
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

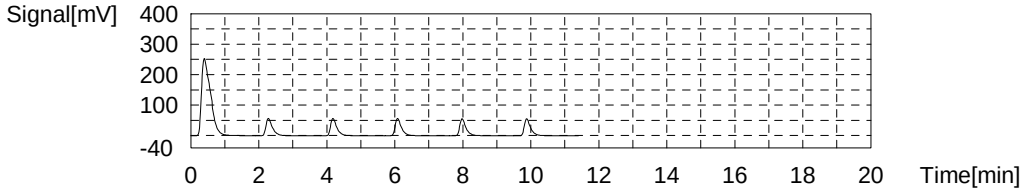
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:149.6mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	470.6	192.8mg/L	50uL	1	R	TOC3.2020_01_06_16_39_25.cal	3/5/2020 10:48:13 AM
2	76.80	157.3mg/L	10uL	1	E	TOC3.2020_01_06_16_39_25.cal	3/5/2020 10:50:16 AM
3	74.15	151.9mg/L	10uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 10:52:20 AM
4	73.87	151.3mg/L	10uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 10:54:24 AM
5	72.05	147.6mg/L	10uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 10:56:28 AM
6	71.95	147.4mg/L	10uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 10:58:31 AM

Mean Area 73.00
Mean Conc. 149.6mg/L



Sample

Sample Name: 280-134202-D-17-C MSD
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

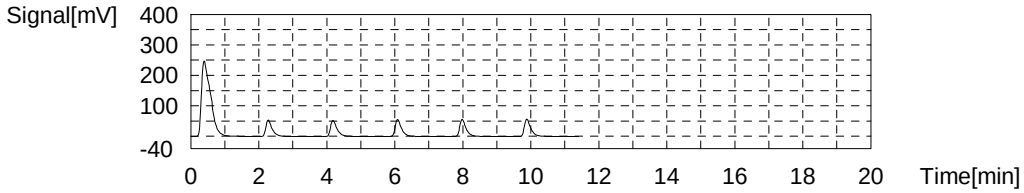
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:149.8mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	465.3	190.7mg/L	50uL	1	R	TOC3.2020_01_06_16_39_25.cal	3/5/2020 11:06:58 AM
2	70.24	143.9mg/L	10uL	1	E	TOC3.2020_01_06_16_39_25.cal	3/5/2020 11:09:01 AM
3	71.38	146.2mg/L	10uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 11:11:05 AM
4	73.44	150.4mg/L	10uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 11:13:09 AM
5	73.18	149.9mg/L	10uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 11:15:13 AM
6	74.57	152.8mg/L	10uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 11:17:17 AM

Mean Area 73.14
Mean Conc. 149.8mg/L



Sample

Sample Name: lcs
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

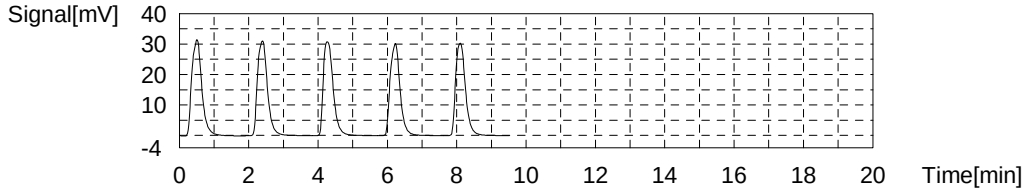
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:24.85mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	64.76	26.44mg/L	50uL	1	E	TOC3.2020_01_06_16_39_25.cal	3/5/2020 11:25:44 AM
2	62.43	25.49mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 11:27:48 AM
3	61.06	24.92mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 11:29:52 AM
4	59.97	24.48mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 11:31:56 AM
5	60.03	24.50mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 11:34:00 AM

Mean Area 60.87
Mean Conc. 24.85mg/L



Sample

Sample Name: mb
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

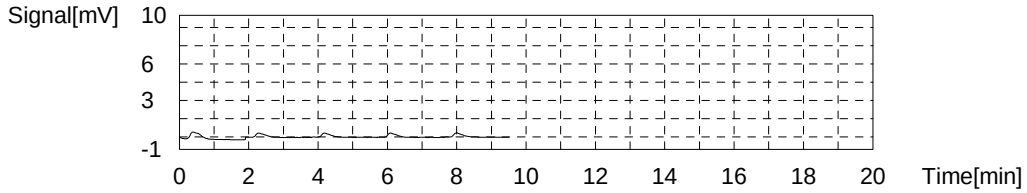
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1362mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.112	0.3451mg/L	50uL	1	E	TOC3.2020_01_06_16_39_25.cal	3/5/2020 11:42:32 AM
2	0.6423	0.1525mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 11:44:36 AM
3	0.5730	0.1241mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 11:46:40 AM
4	0.6135	0.1407mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 11:48:44 AM
5	0.5812	0.1274mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 11:50:48 AM

Mean Area 0.6025
Mean Conc. 0.1362mg/L



Sample

Sample Name: tic
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

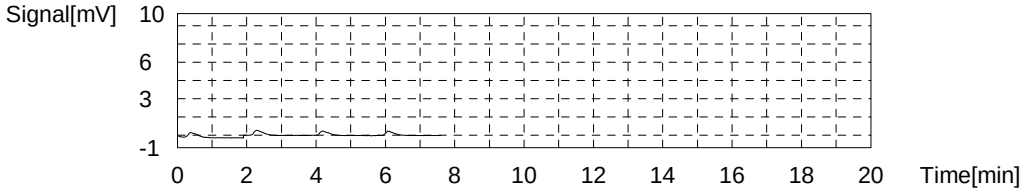
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1516mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.6533	0.1570mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 11:59:21 AM
2	0.7217	0.1850mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 12:01:24 PM
3	0.6052	0.1373mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 12:03:28 PM
4	0.5804	0.1271mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 12:05:32 PM

Mean Area 0.6402
Mean Conc. 0.1516mg/L



Sample

Sample Name: 280-134102-B-6
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

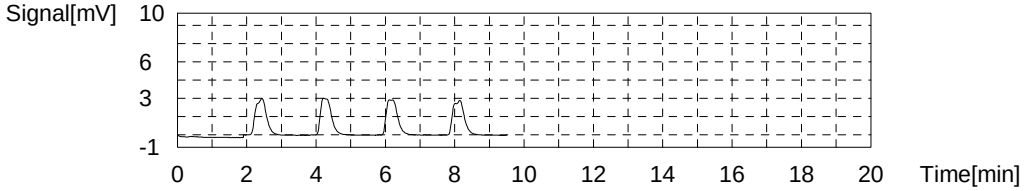
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:2.557mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.000	-0.1109mg/L	50uL	1	E	TOC3.2020_01_06_16_39_25.cal	3/5/2020 12:14:05 PM
2	6.548	2.574mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 12:16:09 PM
3	6.517	2.561mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 12:18:13 PM
4	6.430	2.525mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 12:20:17 PM
5	6.534	2.568mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 12:22:21 PM

Mean Area 6.507
Mean Conc. 2.557mg/L



Sample

Sample Name: ms 280-134102-B-6
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

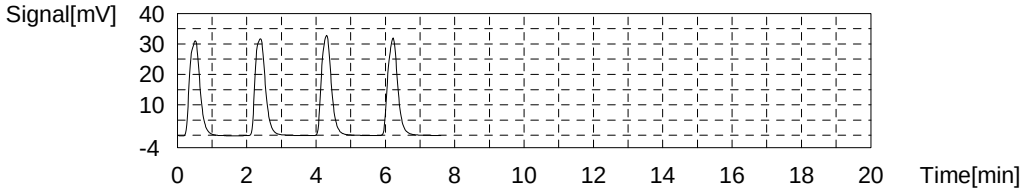
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:26.54mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	65.22	26.63mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 12:30:54 PM
2	65.64	26.80mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 12:32:57 PM
3	65.05	26.56mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 12:35:01 PM
4	64.05	26.15mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 12:37:05 PM

Mean Area 64.99
Mean Conc. 26.54mg/L



Sample

Sample Name: msd 280-134102-B-6
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

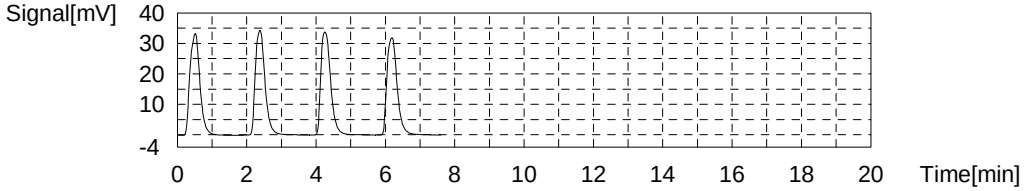
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:27.19mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	67.30	27.48mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 12:45:38 PM
2	66.77	27.27mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 12:47:42 PM
3	66.77	27.27mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 12:49:46 PM
4	65.49	26.74mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 12:51:50 PM

Mean Area 66.58
Mean Conc. 27.19mg/L



Sample

Sample Name: 280-134101-C-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

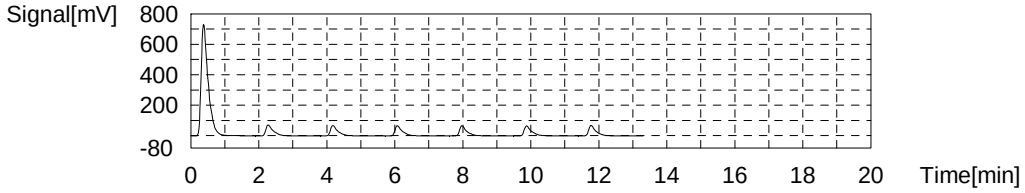
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:366.1mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1051	430.8mg/L	50uL	1	R	TOC3.2020_01_06_16_39_25.cal	3/5/2020 1:00:23 PM
2	109.1	401.6mg/L	50uL	9	E	TOC3.2020_01_06_16_39_25.cal	3/5/2020 1:07:54 PM
3	103.1	379.4mg/L	50uL	9	E	TOC3.2020_01_06_16_39_25.cal	3/5/2020 1:09:58 PM
4	99.19	365.0mg/L	50uL	9		TOC3.2020_01_06_16_39_25.cal	3/5/2020 1:12:02 PM
5	98.78	363.5mg/L	50uL	9		TOC3.2020_01_06_16_39_25.cal	3/5/2020 1:14:06 PM
6	98.82	363.7mg/L	50uL	9		TOC3.2020_01_06_16_39_25.cal	3/5/2020 1:16:10 PM
7	101.1	372.1mg/L	50uL	9		TOC3.2020_01_06_16_39_25.cal	3/5/2020 1:18:14 PM

Mean Area 99.47
Mean Conc. 366.1mg/L



Sample

Sample Name: ccv
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

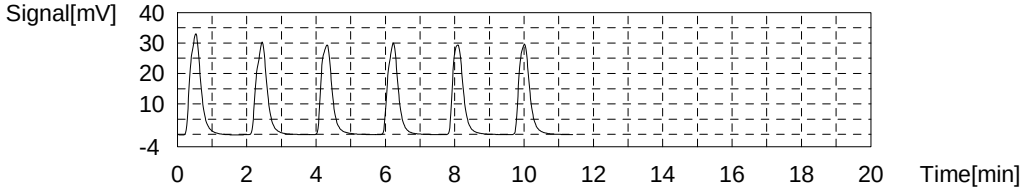
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:25.92mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	72.30	29.53mg/L	50uL	1	E	TOC3.2020_01_06_16_39_25.cal	3/5/2020 1:26:40 PM
2	65.85	26.89mg/L	50uL	1	E	TOC3.2020_01_06_16_39_25.cal	3/5/2020 1:28:44 PM
3	64.09	26.17mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 1:30:48 PM
4	63.10	25.76mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 1:32:52 PM
5	62.85	25.66mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 1:34:56 PM
6	63.90	26.09mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 1:37:00 PM

Mean Area 63.48
Mean Conc. 25.92mg/L



Sample

Sample Name: ccb
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

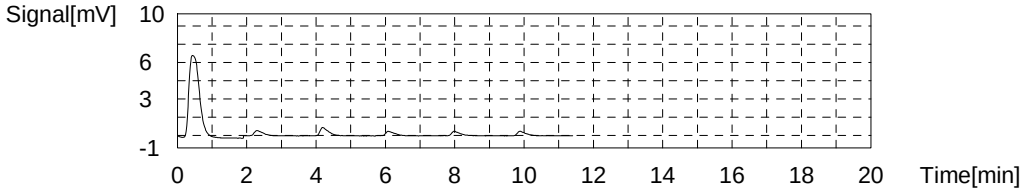
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1462mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	14.21	5.715mg/L	50uL	1	E	TOC3.2020_01_06_16_39_25.cal	3/5/2020 1:45:27 PM
2	0.7204	0.1845mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 1:47:30 PM
3	1.122	0.3492mg/L	50uL	1	E	TOC3.2020_01_06_16_39_25.cal	3/5/2020 1:49:34 PM
4	0.6054	0.1374mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 1:51:38 PM
5	0.5891	0.1307mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 1:53:42 PM
6	0.5926	0.1321mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 1:55:46 PM

Mean Area 0.6269
Mean Conc. 0.1462mg/L



Sample

Sample Name: 280-134102-B-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

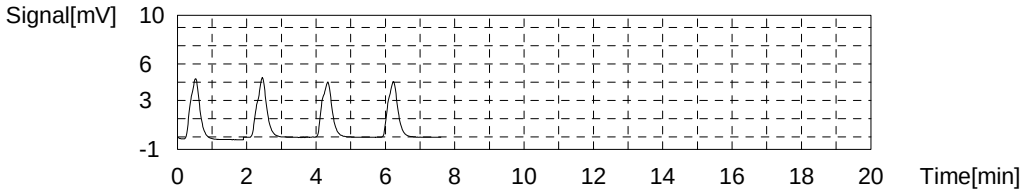
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:3.652mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	9.342	3.719mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 2:04:12 PM
2	9.323	3.712mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 2:06:16 PM
3	9.062	3.605mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 2:08:20 PM
4	8.979	3.571mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 2:10:24 PM

Mean Area 9.177
Mean Conc. 3.652mg/L



Sample

Sample Name: 280-134102-B-2
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

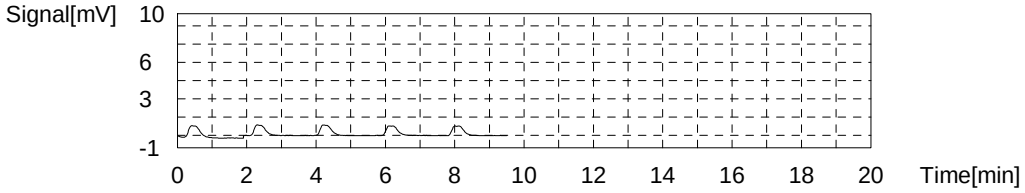
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.6340mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.114	0.7559mg/L	50uL	1	E	TOC3.2020_01_06_16_39_25.cal	3/5/2020 2:18:57 PM
2	1.863	0.6530mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 2:21:01 PM
3	1.881	0.6604mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 2:23:05 PM
4	1.770	0.6148mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 2:25:09 PM
5	1.753	0.6079mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 2:27:13 PM

Mean Area 1.817
Mean Conc. 0.6340mg/L



Sample

Sample Name: 280-134102-B-5
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

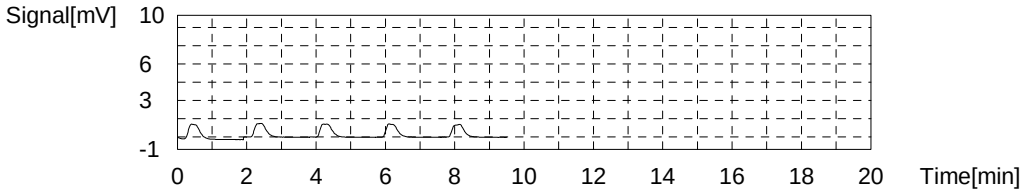
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.8913mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.643	0.9728mg/L	50uL	1	E	TOC3.2020_01_06_16_39_25.cal	3/5/2020 2:35:45 PM
2	2.499	0.9137mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 2:37:49 PM
3	2.447	0.8924mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 2:39:53 PM
4	2.392	0.8699mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 2:41:57 PM
5	2.439	0.8891mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 2:44:01 PM

Mean Area 2.444
Mean Conc. 0.8913mg/L



Sample

Sample Name: 280-134102-B-7
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

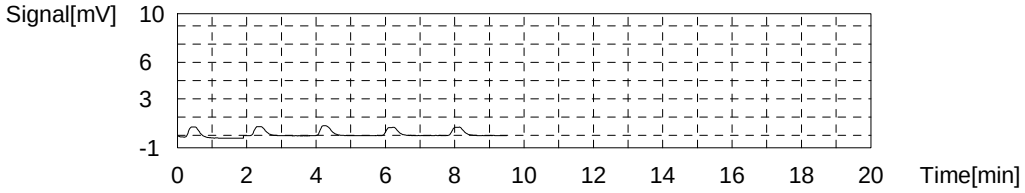
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.5456mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.783	0.6202mg/L	50uL	1	E	TOC3.2020_01_06_16_39_25.cal	3/5/2020 2:52:33 PM
2	1.614	0.5509mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 2:54:37 PM
3	1.701	0.5866mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 2:56:41 PM
4	1.543	0.5218mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 2:58:45 PM
5	1.546	0.5230mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 3:00:49 PM

Mean Area 1.601
Mean Conc. 0.5456mg/L



Sample

Sample Name: ccv
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

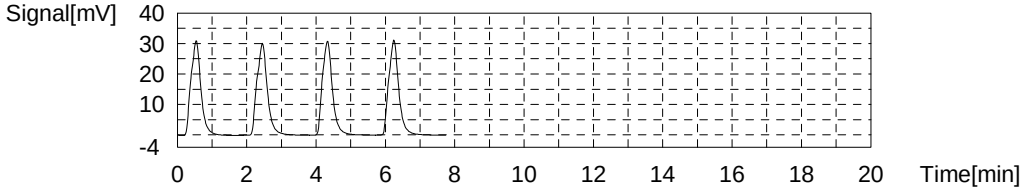
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:25.66mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	63.01	25.72mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 3:09:21 PM
2	63.08	25.75mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 3:11:25 PM
3	62.21	25.40mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 3:13:29 PM
4	63.11	25.76mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 3:15:41 PM

Mean Area 62.85
Mean Conc. 25.66mg/L



Sample

Sample Name: ccb
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

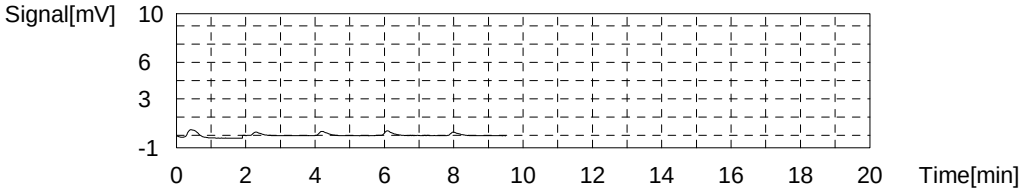
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1020mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.260	0.4057mg/L	50uL	1	E	TOC3.2020_01_06_16_39_25.cal	3/5/2020 3:24:14 PM
2	0.4374	0.06847mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 3:26:18 PM
3	0.5738	0.1244mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 3:28:22 PM
4	0.6193	0.1431mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 3:30:26 PM
5	0.4462	0.07208mg/L	50uL	1		TOC3.2020_01_06_16_39_25.cal	3/5/2020 3:32:30 PM

Mean Area 0.5192
Mean Conc. 0.1020mg/L



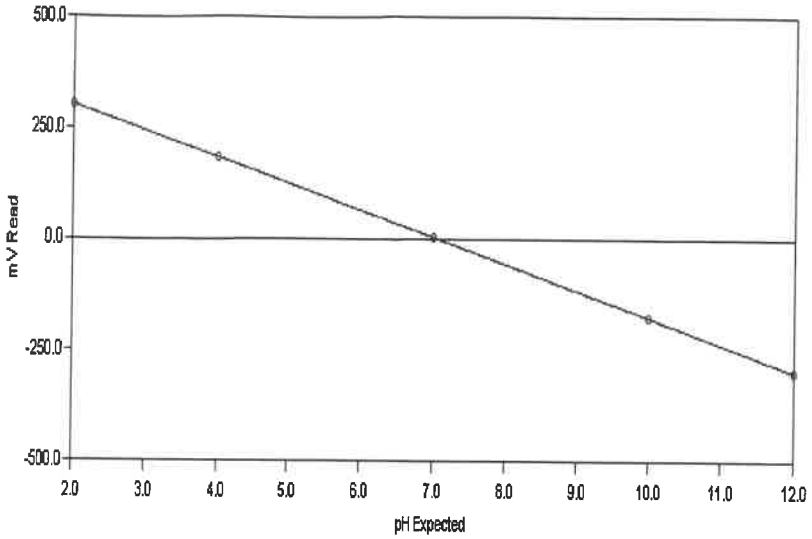
	Analysis	Sample Name	Sample I	Manual	pH Result cl ?	Notes	Status	Date / Time	Vial
1*	NPOC	icv		1.000	✓		Defined		1
2*	NPOC	icb		1.000	✓		Defined		2
3*	NPOC	lcs		1.000	✓		Defined		3
4*	NPOC	mb		1.000	✓		Defined		4
5*	NPOC	tic		1.000	✓		Defined		5
6*	NPOC	280-134091-D-1		1.000	7		Defined		6
7*	NPOC	ms 280-134091-D-1		1.000	✓		Defined		7
8*	NPOC	msd 280-134091-D-1		1.000	✓ SCB 3/6/20		Defined		8
9*	NPOC	280-134091-D-2		1.000	7		Defined		9
10*	NPOC	280-134091-D-3		1.000	7		Defined		10
11*	NPOC	280-134091-D-4		1.000	6		Defined		11
12*	NPOC	280-134141-D-1		1.000	6		Defined		12
13*	NPOC	280-134141-D-2		1.000	6		Defined		13
14*	NPOC	280-134141-D-3		1.000	7		Defined		14
15*	NPOC	ccv		1.000	✓		Defined		15
16*	NPOC	ccb		1.000	✓		Defined		16
17*	NPOC	280-134141-D-4		1.000	7		Defined		17
18*	NPOC	280-134177-D-1		1.000	6		Defined		18
19*	NPOC	280-134177-D-2 SCB 3/9/20		1.000	7		Defined		19
20*	NPOC	280-134202-D-5 2	5x	1.000	5	brown	Defined		20
21*	NPOC	ms 280-134202-D-5 2	5x	1.000	5		Defined		21
22*	NPOC	msd 280-134202-D-5 2	5x	1.000	5		Defined		22
23*	NPOC	280-134177-D-3		1.000	7		Defined		23
24*	NPOC	280-134177-D-4		1.000	7		Defined		24
25*	NPOC	280-134177-D-5		1.000	6		Defined		25
26*	NPOC	280-134202-D-1		1.000	7		Defined		26
27*	NPOC	ccv		1.000	✓		Defined		27
28*	NPOC	ccb		1.000	✓		Defined		28
29*	NPOC	~~280-134202-D-2~~ SCB		1.000	5		Defined		29
30*	NPOC	280-134202-D-3	3/9/20	1.000	7		Defined		30
31*	NPOC	280-134202-D-4		1.000	7		Defined		31
32*	NPOC	280-134202-D-6		1.000	7		Defined		32
33*	NPOC	280-134202-D-7		1.000	7		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	280-134202-D-18		1.000	7		Defined		37
38*	NPOC	ms 280-134202-D-18		1.000	7		Defined		38
39*	NPOC	ccv		1.000	✓		Defined		39
40*	NPOC	ccb		1.000	✓		Defined		40
41*	NPOC	msd 280-134202-D-1		1.000	7		Defined		41
42*	NPOC	280-134202-D-8		1.000	7		Defined		42
43*	NPOC	280-134202-D-9		1.000	7		Defined		43
44*	NPOC	280-134202-D-10		1.000	7		Defined		44
45*	NPOC	280-134202-D-11		1.000	✗ 7 SCB 3/4/20		Defined		45
46*	NPOC	280-134202-D-12		1.000	7		Defined		46
47*	NPOC	280-134202-D-13		1.000	6		Defined		47
48*	NPOC	280-134202-D-14		1.000	6		Defined		48
49*	NPOC	280-134202-D-15		1.000	7		Defined		49
50*	NPOC	280-134202-D-16		1.000	7		Defined		50
51*	NPOC	ccv		1.000	✓		Defined		51

	Analysis	Sample Name	Sample I	Manual	pH Result<2	Notes	Status	Date / Time	Vial
52*	NPOC	ccb		1.000	✓		Defined		52
53*	NPOC	280-134202-D-17		1.000	6		Defined		53
54*	NPOC	ms 280-134202-D-17		1.000	6		Defined		54
55*	NPOC	msd 280-134202-D-1		1.000	6		Defined		55
56*	NPOC	lcs		1.000	✓		Defined		56
57*	NPOC	mb		1.000	✓		Defined		57
58*	NPOC	tic		1.000	✓		Defined		58
59*	NPOC	280-134102-B-6		1.000	✓		Defined		59
60*	NPOC	ms 280-134102-B-6		1.000	✓		Defined		60
61*	NPOC	msd 280-134102-B-6		1.000	✓		Defined		61
62*	NPOC	280-134101-C-1		1.000	✓		Defined		62
63*	NPOC	ccv		1.000	✓		Defined		63
64*	NPOC	ccb		1.000	✓		Defined		64
65*	NPOC	~~280-134069-G-5~~	3/5/20 SAB	1.000	✓		Defined		65
66*	NPOC	280-134102-B-1		1.000	✓		Defined		66
67*	NPOC	280-134102-B-2		1.000	✓		Defined		67
68*	NPOC	280-134102-B-5		1.000	✓		Defined		68
69*	NPOC	280-134102-B-7		1.000	✓		Defined		69
70*	NPOC	ccv		1.000	✓		Defined		70
71*	NPOC	ccb		1.000	✓		Defined		71

MANTECH INC.
Calibration Report

Report Date: 3/4/2020 : 8:08 AM

Calibration Record # 641



Calibration Settings

Calibration ID	PH	Date	3/4/2020	
Channel	1	Time	7:50 AM	
Probe Type	pH	Temperature	297.17 K	24.02 C
Probe ID	PH ELECTRODE	Analysis Type	Single Line Fit	

Calibration Results

Slope	-60.129	CorrCoeff	1.0000
Intercept	2.076	Equation: Y = (-60.129) X + (2.076)	

Calibration Validity **True** Operator

	Result	Minimum	Maximum
Slope	-60.129	-65.00	-54.00
Intercept	2.076	-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	302.12
	4.00	182.98
	7.00	2.07
	10.00	-177.36
	12.00	-299.43

Report Date: 3/4/2020 : 5:49 PM

Test America
Water Analysis Report

Analyst:_____

Run Number 2472 **Order Number** 20200304-2

SampleID	RunDate	RunTime	Temp	cond (uS)	pH	pH2	pH3	Acid	palk-ppm	talk-ppm	bcarb-ppm	carb-ppm	hydr-ppm	(mL) @ 8.3	(mL) @ 4.5	(mL) @ 4.2	Conc (N)
RINSE	3/4/2020	8:47 AM	23.76	-1.00	5.50	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00
INITIAL CHECK	3/4/2020	8:54 AM	23.38	-1.00	10.56	-1.00	-1.00	-1.00	113.50	204.29	.00	181.57	22.71	1.13	2.04	-1.00	.02
BUFFER 7	3/4/2020	8:55 AM	22.77	-1.00	6.99	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00
LCS	3/4/2020	9:02 AM	22.84	-1.00	10.57	-1.00	-1.00	-1.00	114.02	206.56	.00	185.09	21.47	1.14	2.07	-1.00	.02
MB	3/4/2020	9:07 AM	22.90	-1.00	7.66	-1.00	-1.00	-1.00	.00	2.08	2.08	.00	.00	.00	.04	.05	.02
160-37387-a-32	3/4/2020	9:13 AM	22.78	-1.00	7.82	-1.00	-1.00	-1.00	.00	266.46	266.46	.00	.00	.00	2.66	-1.00	.02
DU 160-37387-a-32	3/4/2020	9:19 AM	22.61	-1.00	7.83	-1.00	-1.00	-1.00	.00	278.26	278.26	.00	.00	.00	2.78	-1.00	.02
160-37387-a-35	3/4/2020	9:24 AM	22.55	-1.00	7.47	-1.00	-1.00	-1.00	.00	105.48	105.48	.00	.00	.00	1.05	-1.00	.02
280-134102-a-7	3/4/2020	9:29 AM	22.74	-1.00	7.03	-1.00	-1.00	-1.00	.00	113.58	113.58	.00	.00	.00	1.14	-1.00	.02
280-134103-e-1	3/4/2020	9:51 AM	23.19	-1.00	7.65	-1.00	-1.00	-1.00	.00	.00	.00	.00	.00	.00	.00	.00	.02
280-134103-c-2	3/4/2020	10:12 AM	23.62	-1.00	7.56	-1.00	-1.00	-1.00	.00	.00	.00	.00	.00	.00	.00	.00	.02
280-134103-d-3	3/4/2020	10:33 AM	23.33	-1.00	7.75	-1.00	-1.00	-1.00	.00	.00	.00	.00	.00	.00	.00	.00	.02
280-134103-e-4	3/4/2020	10:55 AM	23.56	-1.00	7.62	-1.00	-1.00	-1.00	.00	.00	.00	.00	.00	.00	.00	.00	.02
280-134103-e-5	3/4/2020	11:16 AM	23.56	-1.00	7.85	-1.00	-1.00	-1.00	.00	.00	.00	.00	.00	.00	.00	.00	.02
280-134103-c-6	3/4/2020	11:37 AM	23.62	-1.00	7.76	-1.00	-1.00	-1.00	.00	.00	.00	.00	.00	.00	.00	.00	.02
CCV	3/4/2020	11:43 AM	23.57	-1.00	10.50	-1.00	-1.00	-1.00	108.50	210.36	.00	203.71	6.64	1.09	2.10	-1.00	.02
CCB	3/4/2020	11:47 AM	23.59	-1.00	7.57	-1.00	-1.00	-1.00	.00	1.62	1.62	.00	.00	.00	.03	.05	.02
280-134125-i-1	3/4/2020	12:02 PM	23.62	-1.00	7.51	-1.00	-1.00	-1.00	.00	1,578.90	1,578.90	.00	.00	.00	15.79	-1.00	.02
280-134125-i-2	3/4/2020	12:21 PM	23.96	-1.00	7.41	-1.00	-1.00	-1.00	.00	2,226.59	2,226.59	.00	.00	.00	22.27	-1.00	.02
280-134125-i-3	3/4/2020	12:30 PM	24.19	-1.00	7.66	-1.00	-1.00	-1.00	.00	597.40	597.40	.00	.00	.00	5.97	-1.00	.02
280-134125-i-5	3/4/2020	12:49 PM	24.00	-1.00	7.34	-1.00	-1.00	-1.00	.00	2,198.60	2,198.60	.00	.00	.00	21.99	-1.00	.02
280-134141-f-1	3/4/2020	12:57 PM	23.88	-1.00	7.00	-1.00	-1.00	-1.00	.00	441.60	441.60	.00	.00	.00	4.42	-1.00	.02
280-134141-f-2	3/4/2020	1:03 PM	23.65	-1.00	7.13	-1.00	-1.00	-1.00	.00	366.92	366.92	.00	.00	.00	3.67	-1.00	.02
280-134141-f-3	3/4/2020	1:10 PM	23.52	-1.00	7.16	-1.00	-1.00	-1.00	.00	400.42	400.42	.00	.00	.00	4.00	-1.00	.02
280-134141-f-4	3/4/2020	1:17 PM	23.46	-1.00	6.67	-1.00	-1.00	-1.00	.00	414.11	414.11	.00	.00	.00	4.14	-1.00	.02
280-134148-e-1	3/4/2020	1:21 PM	23.46	-1.00	7.04	-1.00	-1.00	-1.00	.00	56.14	56.14	.00	.00	.00	.56	-1.00	.02
280-134148-e-2	3/4/2020	1:26 PM	23.41	-1.00	7.10	-1.00	-1.00	-1.00	.00	68.54	68.54	.00	.00	.00	.69	-1.00	.02

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Run Number 2472 **Order Number** 20200304-2

SampleID	RunDate	RunTime	Temp	cond (uS)	pH	pH2	pH3	Acid	palk-ppm	talk-ppm	bcarb-ppm	carb-ppm	hydr-ppm	(mL) @ 8.3	(mL) @ 4.5	(mL) @ 4.2	Conc (N)
CCV	3/4/2020	1:32 PM	23.49	-1.00	10.45	-1.00	-1.00	-1.00	108.06	207.95	.00	199.78	8.17	1.08	2.08	-1.00	.02
CCB	3/4/2020	1:37 PM	23.60	-1.00	7.58	-1.00	-1.00	-1.00	.00	1.26	1.26	.00	.00	.00	.03	.05	.02
LCS	3/4/2020	1:43 PM	23.73	-1.00	10.43	-1.00	-1.00	-1.00	108.24	206.82	.00	197.15	9.67	1.08	2.07	-1.00	.02
MB	3/4/2020	1:48 PM	23.84	-1.00	7.57	-1.00	-1.00	-1.00	.00	1.53	1.53	.00	.00	.00	.03	.05	.02
280-134164-a-1	3/4/2020	1:53 PM	23.60	-1.00	7.59	-1.00	-1.00	-1.00	.00	166.02	166.02	.00	.00	.00	1.66	-1.00	.02
DU 280-134164-a-1	3/4/2020	1:59 PM	23.47	-1.00	7.67	-1.00	-1.00	-1.00	.00	178.40	178.40	.00	.00	.00	1.78	-1.00	.02
280-134164-a-2	3/4/2020	2:04 PM	23.38	-1.00	7.91	-1.00	-1.00	-1.00	.00	134.01	134.01	.00	.00	.00	1.34	-1.00	.02
280-134164-a-5	3/4/2020	2:10 PM	23.31	-1.00	7.72	-1.00	-1.00	-1.00	.00	166.45	166.45	.00	.00	.00	1.66	-1.00	.02
280-134166-a-1	3/4/2020	2:15 PM	23.28	-1.00	7.93	-1.00	-1.00	-1.00	.00	135.87	135.87	.00	.00	.00	1.36	-1.00	.02
280-134166-a-2	3/4/2020	2:20 PM	23.28	-1.00	7.95	-1.00	-1.00	-1.00	.00	133.66	133.66	.00	.00	.00	1.34	-1.00	.02
280-134166-a-3	3/4/2020	2:25 PM	23.35	-1.00	8.02	-1.00	-1.00	-1.00	.00	170.27	170.27	.00	.00	.00	1.70	-1.00	.02
280-134162-c-2	3/4/2020	2:32 PM	23.44	-1.00	7.66	-1.00	-1.00	-1.00	.00	377.46	377.46	.00	.00	.00	3.77	-1.00	.02
280-134162-c-3	3/4/2020	2:41 PM	23.60	-1.00	7.53	-1.00	-1.00	-1.00	.00	746.13	746.13	.00	.00	.00	7.46	-1.00	.02
280-134162-c-4	3/4/2020	2:45 PM	23.86	-1.00	6.87	-1.00	-1.00	-1.00	.00	3.05	3.05	.00	.00	.00	.04	.06	.02
CCV	3/4/2020	2:52 PM	23.65	-1.00	10.42	-1.00	-1.00	-1.00	106.86	207.52	.00	201.34	6.19	1.07	2.08	-1.00	.02
CCB	3/4/2020	2:56 PM	23.57	-1.00	7.50	-1.00	-1.00	-1.00	.00	1.23	1.23	.00	.00	.00	.03	.05	.02
280-134162-c-5	3/4/2020	3:04 PM	23.47	-1.00	7.51	-1.00	-1.00	-1.00	.00	471.18	471.18	.00	.00	.00	4.71	-1.00	.02
280-134162-c-6	3/4/2020	3:11 PM	23.49	-1.00	7.55	-1.00	-1.00	-1.00	.00	452.62	452.62	.00	.00	.00	4.53	-1.00	.02
280-134162-c-7	3/4/2020	3:20 PM	23.49	-1.00	7.51	-1.00	-1.00	-1.00	.00	656.86	656.86	.00	.00	.00	6.57	-1.00	.02
280-134162-c-8	3/4/2020	3:27 PM	23.57	-1.00	7.60	-1.00	-1.00	-1.00	.00	477.68	477.68	.00	.00	.00	4.78	-1.00	.02
280-134162-c-9	3/4/2020	3:34 PM	23.57	-1.00	7.66	-1.00	-1.00	-1.00	.00	442.27	442.27	.00	.00	.00	4.42	-1.00	.02
280-134109-c-2	3/4/2020	3:42 PM	23.62	-1.00	7.67	-1.00	-1.00	-1.00	.00	569.62	569.62	.00	.00	.00	5.70	-1.00	.02
280-134109-c-3	3/4/2020	3:49 PM	23.75	-1.00	7.72	-1.00	-1.00	-1.00	.00	448.77	448.77	.00	.00	.00	4.49	-1.00	.02
280-134109-c-4	3/4/2020	3:56 PM	23.83	-1.00	7.78	-1.00	-1.00	-1.00	.00	416.80	416.80	.00	.00	.00	4.17	-1.00	.02
280-134109-c-5	3/4/2020	4:03 PM	24.07	-1.00	7.79	-1.00	-1.00	-1.00	.00	463.84	463.84	.00	.00	.00	4.64	-1.00	.02
280-134109-c-6	3/4/2020	4:10 PM	24.02	-1.00	7.69	-1.00	-1.00	-1.00	.00	385.15	385.15	.00	.00	.00	3.85	-1.00	.02
CCV	3/4/2020	4:16 PM	23.89	-1.00	10.39	-1.00	-1.00	-1.00	103.77	209.54	2.01	207.53	.00	1.04	2.10	-1.00	.02
CCB	3/4/2020	4:21 PM	23.78	-1.00	7.41	-1.00	-1.00	-1.00	.00	1.12	1.12	.00	.00	.00	.03	.05	.02
LCS	3/4/2020	4:28 PM	23.62	-1.00	10.40	-1.00	-1.00	-1.00	105.86	219.30	7.59	211.71	.00	1.06	2.19	-1.00	.02
MB	3/4/2020	4:33 PM	23.49	-1.00	7.41	-1.00	-1.00	-1.00	.00	1.00	1.00	.00	.00	.00	.03	.04	.02

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Run Number 2472 **Order Number** 20200304-2

SampleID	RunDate	RunTime	Temp	cond (uS)	pH	pH2	pH3	Acid	palk-ppm	talk-ppm	bcarb-ppm	carb-ppm	hydr-ppm	(mL) @ 8.3	(mL) @ 4.5	(mL) @ 4.2	Conc (N)
280-134109-c-7	3/4/2020	4:39 PM	23.39	-1.00	7.71	-1.00	-1.00	-1.00	.00	415.47	415.47	.00	.00	.00	4.15	-1.00	.02
DU 280-134109-c-7	3/4/2020	4:46 PM	23.43	-1.00	7.74	-1.00	-1.00	-1.00	.00	418.01	418.01	.00	.00	.00	4.18	-1.00	.02
280-134109-c-8	3/4/2020	4:53 PM	23.43	-1.00	7.76	-1.00	-1.00	-1.00	.00	418.07	418.07	.00	.00	.00	4.18	-1.00	.02
280-134109-c-9	3/4/2020	4:59 PM	23.39	-1.00	7.91	-1.00	-1.00	-1.00	.00	326.98	326.98	.00	.00	.00	3.27	-1.00	.02
280-134109-c-10	3/4/2020	5:04 PM	23.36	-1.00	6.56	-1.00	-1.00	-1.00	.00	2.37	2.37	.00	.00	.00	.04	.05	.02
280-134116-a-1	3/4/2020	5:10 PM	23.67	-1.00	8.00	-1.00	-1.00	-1.00	.00	364.05	364.05	.00	.00	.00	3.64	-1.00	.02
280-134116-a-2	3/4/2020	5:19 PM	23.70	-1.00	7.72	-1.00	-1.00	-1.00	.00	587.23	587.23	.00	.00	.00	5.87	-1.00	.02
280-134116-a-3	3/4/2020	5:25 PM	23.72	-1.00	7.81	-1.00	-1.00	-1.00	.00	216.64	216.64	.00	.00	.00	2.17	-1.00	.02
280-134116-a-4	3/4/2020	5:30 PM	23.65	-1.00	7.85	-1.00	-1.00	-1.00	.00	220.33	220.33	.00	.00	.00	2.20	-1.00	.02
280-134116-a-5	3/4/2020	5:37 PM	23.60	-1.00	7.56	-1.00	-1.00	-1.00	.00	378.71	378.71	.00	.00	.00	3.79	-1.00	.02
CCV	3/4/2020	5:43 PM	23.57	-1.00	10.36	-1.00	-1.00	-1.00	103.93	211.36	3.50	207.86	.00	1.04	2.11	-1.00	.02
CCB	3/4/2020	5:48 PM	23.59	-1.00	7.45	-1.00	-1.00	-1.00	.00	.94	.94	.00	.00	.00	.03	.04	.02

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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): RE RH

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
2-27-20	1135		X	EW7-PM26A-2-25	AQ	2	A	X							6°C
			X			1	B		X						
			X			1	C			X					
			X			1	D				X				
			X			1	E					X			
			X			3	F						X		
	1520		X	EW7-PM27A-2-25	AQ	2	A	X							
			X			1	B		X						
			X			1	C			X					
			X			1	D				X				
			X			1	E					X			
			X			3	F						X		

280-134141 Chain of Custody

Signatures	Date	Time
Relinquished by:	2-27-20	1200
Received by: Julian Fab	2-28-20	0920
Relinquished by:		
Received for Laboratory by:		

Shipping Details
Method of Shipment: Federal Express
Airbill Number: 7778 7619 3670

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

4.9, 0.4°C +0.9 IR 9 JL 2-28-20

2020004

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): RERH

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
2-27-20	0940		X	EW7-PM24A-2-25	AQ	2	A	X							6°C
			X			1	B		X						
			X			1	C			X					
			X			1	D				X				
			X			1	E					X			
			X			3	F						X		
	1135		X	EW7-PM25A-2-25	AQ	2	A	X							standard TAT
			X			1	B		X						
			X			1	C			X					
			X			1	D				X				
			X			1	E					X			
			X			3	F						X		

Signatures	Date	Time
Relinquished by:	2-27-20	1700
Received by:	2-28-20	0970
Relinquished by:		
Received for Laboratory by:		

Shipping Details
Method of Shipment: Federal Express
Airbill Number: 777876163552

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

ORIGIN ID:OMAA (402) 612-2647
RYAN HEROLD
URS
12120 SHAMROCK PLAZA

OMAHA, NE 68154
UNITED STATES US

SHIP DATE: 27FEB20
ACTWGT: 60.00 LB
CAD: 2737823/INET4220

BILL RECIPIENT

TO **SAMPLE CUSTODIAN**
TA-DENVER
4955 YARROW STREET

ARVADA CO 80002
(303) 736-0100 REF 60565355
INV
PO DEPT

568.0/049E/FE4A

FedEx Express

J291020011381uv

FRI - 28 FEB 10:30A
PRIORITY OVERNIGHT

TRK# 0201 **7778 7616 3552**

XH WHHA

80002
CO-US **DEN**

After printing this label:
1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
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TO SAMPLE CUSTODIAN
TA-DENVER
4955 YARROW STREET
ARVADA CO 80002
(303) 736-0100
INV
PO
REF PROJECT# COST_TYPE 00000
DEPT

56BJ2049E/FE4A

J201828011301/rv

FedEx Express

FRI - 28 FEB 10:30A
PRIORITY OVERNIGHT

TRK# 0201 7778 7619 3670

XH WHHA

80002
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280-13414 1 Waybill

Login Sample Receipt Checklist

Client: Brice Environmental Services, Corp

Job Number: 280-134141-1

Login Number: 134141
List Number: 1
Creator: Lubin, Julius C

List Source: Eurofins TestAmerica, Denver

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	