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# ANALYTICAL REPORT

Job Number: 280-134268-1

Job Description: Cornhusker (CHAAP)

For:
Brice Environmental Services, Corp
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Attention: Corey Schwabenlander

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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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# Definitions/Glossary

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

Job ID: 280-134268-1

## Qualifiers

### GC VOA

| 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. |
| 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 |
|---|---|
| B | Blank contamination: The analyte was detected above one-half the reporting limit in an associated blank. |
| J | Estimated: The analyte was positively identified; the quantitation is an estimation |
| J1 | Estimated: The quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria. |
| U | Undetected at the Limit of Detection. |

## Glossary

| Abbreviation | These commonly used abbreviations may or may not be present in this report. |
|---|---|
| ¤ | Listed under the "D" column to designate that the result is reported on a dry weight basis |
| %R | Percent Recovery |
| CFL | Contains Free Liquid |
| 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: 280-134268-1

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

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

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

**RECEIPT**

The samples were received on 3/4/2020 9:15 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 6 coolers at receipt time were 0.9º C, 1.0º C, 1.0º C, 1.3º C, 2.8º C and 3.4º C.

**Receipt Exceptions**

The container label for the following sample did not match the information listed on the Chain-of-Custody (COC): NW062-2 (280-134268-9). The container labels list the collection date as 3-3-20, while the COC lists 3-2-20. Logged per COC.

The container label for the following sample did not match the information listed on the Chain-of-Custody (COC): PZ019-2 (280-134268-6). The container labels list the collection time as 3-3-20, while the COC lists 3-2-20. Logged per COC.

Also, one 250mL plastic container preserved with zinc acetate and sodium hydroxide does not have the sample ID listed on the container. The ID was determined using the sample time.

The Chain-of-Custody (COC) was incomplete as received and/or improperly completed. Analyses were listed on COC, but individual samples were not designated for specific analyses. This only applies to the page listing the MS/MSD for sample "PZ019-2". MS/MSD logged per containers received.

The container label for the following sample did not match the information listed on the Chain-of-Custody (COC): NW071-2 (280-134268-2). For 1 of 3 HCL vials, the sample ID states NW071.

**DISSOLVED GASES (GC)**

Samples NW070-2 (280-134268-1), NW071-2 (280-134268-2), CA210-2 (280-134268-3), CA212-2 (280-134268-4), CA211-2 (280-134268-5), PZ019-2 (280-134268-6), NW080R-2 (280-134268-7), NW081R-2 (280-134268-8), NW062-2 (280-134268-9) and G0080-2 (280-134268-10) were analyzed for Dissolved Gases (GC) in accordance with RSK_175. The samples were analyzed on 03/09/2020 and 03/10/2020.

Methane failed the recovery criteria low for the MS of sample PZ019-2MS (280-134268-6) in batch 280-488165. Refer to the QC report for details.

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

**NITROAROMATICS AND NITRAMINES (HPLC)**

Samples NW070-2 (280-134268-1), NW071-2 (280-134268-2), CA210-2 (280-134268-3), CA212-2 (280-134268-4), CA211-2 (280-134268-5), PZ019-2 (280-134268-6), NW080R-2 (280-134268-7), NW081R-2 (280-134268-8), NW062-2 (280-134268-9) and G0080-2 (280-134268-10) were analyzed for Nitroaromatics and Nitramines (HPLC) in accordance with 8330A. The samples were prepared on 03/07/2020 and analyzed on 03/11/2020 and 03/17/2020.

The laboratory control sample (LCS) for preparation batch 280-488022 and analytical batch 280-488850 recovered outside control limits for the following analytes: 2-Nitrotoluene, 4-Nitrotoluene and Nitrobenzene. failure was on confirmation column. The LCS was in control on primary column; therefore data has been reported.

1,2-Dinitrobenzene failed the surrogate recovery criteria low for NW070-2 (280-134268-1). 1,2-Dinitrobenzene failed the surrogate recovery criteria low for CA210-2 (280-134268-3). Refer to the QC report for details. Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

2-Nitrotoluene, 3-Nitrotoluene, 4-Nitrotoluene and Nitrobenzene failed the recovery criteria low for the MS of sample PZ019-2MS (280-134268-6) in batch 280-488297. Several analytes failed the recovery criteria low for the MSD of sample PZ019-2MSD (280-134268-6) in batch 280-488297. Refer to the QC report for details. Due to analyst oversight, a MNX matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 280-488022 was not performed. A LCS and LCSD for MNX was performed for the batch.

The following sample: CA212-2 (280-134268-4) was decanted prior to preparation.

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

**ALKALINITY**

Samples NW070-2 (280-134268-1), NW071-2 (280-134268-2), CA210-2 (280-134268-3), CA212-2 (280-134268-4), CA211-2 (280-134268-5), PZ019-2 (280-134268-6), NW080R-2 (280-134268-7), NW081R-2 (280-134268-8), NW062-2 (280-134268-9) and G0080-2 (280-134268-10) were analyzed for Alkalinity in accordance with SM20 2320B. The samples were analyzed on 03/10/2020 and 03/12/2020.

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

**AMMONIA**

Samples NW070-2 (280-134268-1), NW071-2 (280-134268-2), CA210-2 (280-134268-3), CA212-2 (280-134268-4), CA211-2 (280-134268-5), PZ019-2 (280-134268-6), NW080R-2 (280-134268-7), NW081R-2 (280-134268-8), NW062-2 (280-134268-9) and G0080-2 (280-134268-10) were analyzed for ammonia in accordance with EPA Method 350.1. The samples were analyzed on 03/18/2020 and 03/20/2020.

Ammonia was detected in method blank MB 280-489439/20 at a level that was below half the LOQ. The value should be considered an estimate, and has been flagged J.

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

**TOTAL KJELDAHL NITROGEN**

Samples NW070-2 (280-134268-1), NW071-2 (280-134268-2), CA210-2 (280-134268-3), CA212-2 (280-134268-4), CA211-2 (280-134268-5), PZ019-2 (280-134268-6), NW080R-2 (280-134268-7), NW081R-2 (280-134268-8), NW062-2 (280-134268-9) and G0080-2 (280-134268-10) were analyzed for total kjeldahl nitrogen in accordance with EPA Method 351.2. The samples were prepared on 03/09/2020 and analyzed on 03/11/2020.

Nitrogen, Total Kjeldahl failed the recovery criteria low for the MS of sample PZ019-2MS (280-134268-6) in batch 280-488462. Nitrogen, Total Kjeldahl failed the recovery criteria low for the MSD of sample PZ019-2MSD (280-134268-6) in batch 280-488462. Refer to the QC report for details.

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

**NITRATE-NITRITE AS NITROGEN**

Samples NW070-2 (280-134268-1), NW071-2 (280-134268-2), CA210-2 (280-134268-3), CA212-2 (280-134268-4), CA211-2 (280-134268-5), PZ019-2 (280-134268-6), NW080R-2 (280-134268-7), NW081R-2 (280-134268-8), NW062-2 (280-134268-9) and G0080-2 (280-134268-10) were analyzed for nitrate-nitrite as nitrogen in accordance with EPA Method 353.2. The samples were analyzed on 03/10/2020.

Nitrate Nitrite as N was detected in method blank MB 280-488338/22 at a level that was below half the LOQ. The value should be considered an estimate, and has been flagged J.

Nitrate Nitrite as N failed the recovery criteria low for the MSD of sample G0080-2MSD (280-134268-10) in batch 280-488338. Nitrate Nitrite as N exceeded the RPD limit. Refer to the QC report for details.

Nitrate Nitrite as N failed the recovery criteria low for the MS of sample PZ019-2MS (280-134268-6) in batch 280-488338. Nitrate Nitrite as N failed the recovery criteria low for the MSD of sample PZ019-2MSD (280-134268-6) in batch 280-488338. Refer to the QC report for details.

Samples NW071-2 (280-134268-2)[5X], CA210-2 (280-134268-3)[2X], CA212-2 (280-134268-4)[2X], CA211-2 (280-134268-5)[5X], PZ019-2 (280-134268-6)[5X], NW080R-2 (280-134268-7)[5X] and NW081R-2 (280-134268-8)[5X] 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 NW070-2 (280-134268-1), NW071-2 (280-134268-2), CA210-2 (280-134268-3), CA212-2 (280-134268-4), CA211-2 (280-134268-5), PZ019-2 (280-134268-6), NW080R-2 (280-134268-7), NW081R-2 (280-134268-8), NW062-2 (280-134268-9) and G0080-2 (280-134268-10) were analyzed for sulfide in accordance with EPA SW-846 Method 9034. The samples were prepared and analyzed on 03/05/2020.

Sulfide was detected in method blank MB 280-487821/2-A at a level that was below half the LOQ. The value should be considered an estimate, and has been flagged J.

Sulfide exceeded the RPD limit for the MSD of sample CA212-2MSD (280-134268-4) in batch 280-487838. Refer to the QC report for details.

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

**ANIONS (28 DAYS)**

Samples NW070-2 (280-134268-1), NW071-2 (280-134268-2), CA210-2 (280-134268-3), CA212-2 (280-134268-4), CA211-2 (280-134268-5), PZ019-2 (280-134268-6), NW080R-2 (280-134268-7), NW081R-2 (280-134268-8), NW062-2 (280-134268-9) and G0080-2 (280-134268-10) were analyzed for anions (28 days) in accordance with 9056A. The samples were analyzed on 03/17/2020.

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

**DISSOLVED ORGANIC CARBON**

Samples NW070-2 (280-134268-1), NW071-2 (280-134268-2), CA210-2 (280-134268-3), CA212-2 (280-134268-4), CA211-2 (280-134268-5), PZ019-2 (280-134268-6), NW080R-2 (280-134268-7), NW081R-2 (280-134268-8), NW062-2 (280-134268-9) and G0080-2 (280-134268-10) were analyzed for dissolved organic carbon in accordance with EPA SW-846 Method 9060A. The samples were analyzed on 03/17/2020 and 03/19/2020.

Dissolved Organic Carbon - Quad was detected in method blank MB 280-488988/2-A at a level that was above half the LOQ but below the LOQ. The value should be considered an estimate, and has been flagged J. If the associated sample reported a result above the DL, the result has been flagged B. Refer to the QC report for details. Associated results were greater than 10x the MB; therefore, reanalysis was not required.

The following samples were received unpreserved at pH 7: NW070-2 (280-134268-1), NW071-2 (280-134268-2), CA210-2 (280-134268-3), CA212-2 (280-134268-4), CA211-2 (280-134268-5), PZ019-2 (280-134268-6), NW080R-2 (280-134268-7), NW081R-2 (280-134268-8), NW062-2 (280-134268-9) and G0080-2 (280-134268-10). These samples were filtered and acidified to pH<2 for analysis.

No additional 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: 280-134268-1

## Client Sample ID: NW070-2 — Lab Sample ID: 280-134268-1

| Analyte | Result | Qualifier | LOQ | LOD | DL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|---|
| Methane | 0.63 | | 0.0050 | 0.0020 | 0.00063 | mg/L | 1 | | RSK-175 | Total/NA |
| Ammonia | 0.059 | J | 0.10 | 0.050 | 0.022 | mg/L | 1 | | 350.1 | Total/NA |
| Nitrogen, Total Kjeldahl | 1.1 | | 1.0 | 1.0 | 0.69 | mg/L | 1 | | 351.2 | Total/NA |
| Sulfide | 0.80 | J | 4.0 | 1.9 | 0.79 | mg/L | 1 | | 9034 | Total/NA |
| Sulfate | 6.4 | | 5.0 | 3.0 | 1.0 | mg/L | 1 | | 9056A | Total/NA |
| Total Alkalinity as CaCO3 | 110 | | 10 | 10 | 3.1 | mg/L | 1 | | SM 2320B | Total/NA |
| Dissolved Organic Carbon - Quad | 9.3 | | 1.0 | 1.0 | 0.35 | mg/L | 1 | | 9060A | Dissolved |

## Client Sample ID: NW071-2 — Lab Sample ID: 280-134268-2

| Analyte | Result | Qualifier | LOQ | LOD | DL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|---|
| Nitrate Nitrite as N | 32 | | 0.50 | 0.25 | 0.095 | mg/L | 5 | | 353.2 | Total/NA |
| Sulfate | 54 | | 5.0 | 3.0 | 1.0 | mg/L | 1 | | 9056A | Total/NA |
| Total Alkalinity as CaCO3 | 100 | | 10 | 10 | 3.1 | mg/L | 1 | | SM 2320B | Total/NA |
| Dissolved Organic Carbon - Quad | 3.3 | | 1.0 | 1.0 | 0.35 | mg/L | 1 | | 9060A | Dissolved |

## Client Sample ID: CA210-2 — Lab Sample ID: 280-134268-3

| Analyte | Result | Qualifier | LOQ | LOD | DL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|---|
| Methane | 0.0066 | | 0.0050 | 0.0020 | 0.00063 | mg/L | 1 | | RSK-175 | Total/NA |
| Ammonia | 0.041 | J | 0.10 | 0.050 | 0.022 | mg/L | 1 | | 350.1 | Total/NA |
| Nitrogen, Total Kjeldahl | 1.5 | | 1.0 | 1.0 | 0.69 | mg/L | 1 | | 351.2 | Total/NA |
| Nitrate Nitrite as N | 13 | | 0.20 | 0.10 | 0.038 | mg/L | 2 | | 353.2 | Total/NA |
| Sulfate | 99 | | 5.0 | 3.0 | 1.0 | mg/L | 1 | | 9056A | Total/NA |
| Total Alkalinity as CaCO3 | 350 | | 10 | 10 | 3.1 | mg/L | 1 | | SM 2320B | Total/NA |
| Dissolved Organic Carbon - Quad | 14 | B | 1.0 | 1.0 | 0.35 | mg/L | 1 | | 9060A | Dissolved |

## Client Sample ID: CA212-2 — Lab Sample ID: 280-134268-4

| Analyte | Result | Qualifier | LOQ | LOD | DL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|---|
| Ammonia | 0.030 | J | 0.10 | 0.050 | 0.022 | mg/L | 1 | | 350.1 | Total/NA |
| Nitrate Nitrite as N | 17 | | 0.20 | 0.10 | 0.038 | mg/L | 2 | | 353.2 | Total/NA |
| Sulfate | 73 | | 5.0 | 3.0 | 1.0 | mg/L | 1 | | 9056A | Total/NA |
| Total Alkalinity as CaCO3 | 230 | | 10 | 10 | 3.1 | mg/L | 1 | | SM 2320B | Total/NA |
| Dissolved Organic Carbon - Quad | 2.7 | | 1.0 | 1.0 | 0.35 | mg/L | 1 | | 9060A | Dissolved |

## Client Sample ID: CA211-2 — Lab Sample ID: 280-134268-5

| Analyte | Result | Qualifier | LOQ | LOD | DL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|---|
| Ammonia | 0.043 | J | 0.10 | 0.050 | 0.022 | mg/L | 1 | | 350.1 | Total/NA |
| Nitrate Nitrite as N | 34 | | 0.50 | 0.25 | 0.095 | mg/L | 5 | | 353.2 | Total/NA |
| Sulfide | 0.80 | J | 4.0 | 1.9 | 0.79 | mg/L | 1 | | 9034 | Total/NA |
| Sulfate | 99 | | 5.0 | 3.0 | 1.0 | mg/L | 1 | | 9056A | Total/NA |
| Total Alkalinity as CaCO3 | 210 | | 10 | 10 | 3.1 | mg/L | 1 | | SM 2320B | Total/NA |
| Dissolved Organic Carbon - Quad | 4.9 | | 1.0 | 1.0 | 0.35 | mg/L | 1 | | 9060A | Dissolved |

## Client Sample ID: PZ019-2 — Lab Sample ID: 280-134268-6

| Analyte | Result | Qualifier | LOQ | LOD | DL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|---|
| Nitrate Nitrite as N | 31 | J1 | 0.50 | 0.25 | 0.095 | mg/L | 5 | | 353.2 | Total/NA |

This Detection Summary does not include radiochemical test results.

## Client Sample ID: PZ019-2 (Continued) — Lab Sample ID: 280-134268-6

| Analyte | Result | Qualifier | LOQ | LOD | DL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|---|
| 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 | 73 | | 10 | 10 | 3.1 | mg/L | 1 | | SM 2320B | Total/NA |
| Dissolved Organic Carbon - Quad | 2.1 | | 1.0 | 1.0 | 0.35 | mg/L | 1 | | 9060A | Dissolved |

## Client Sample ID: NW080R-2 — Lab Sample ID: 280-134268-7

| Analyte | Result | Qualifier | LOQ | LOD | DL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|---|
| Ammonia | 0.034 | J | 0.10 | 0.050 | 0.022 | mg/L | 1 | | 350.1 | Total/NA |
| Nitrate Nitrite as N | 32 | | 0.50 | 0.25 | 0.095 | mg/L | 5 | | 353.2 | Total/NA |
| Sulfide | 0.80 | J | 4.0 | 1.9 | 0.79 | mg/L | 1 | | 9034 | Total/NA |
| Sulfate | 160 | | 5.0 | 3.0 | 1.0 | mg/L | 1 | | 9056A | Total/NA |
| Total Alkalinity as CaCO3 | 260 | | 10 | 10 | 3.1 | mg/L | 1 | | SM 2320B | Total/NA |
| Dissolved Organic Carbon - Quad | 3.9 | | 1.0 | 1.0 | 0.35 | mg/L | 1 | | 9060A | Dissolved |

## Client Sample ID: NW081R-2 — Lab Sample ID: 280-134268-8

| Analyte | Result | Qualifier | LOQ | LOD | DL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|---|
| Ammonia | 0.030 | J | 0.10 | 0.050 | 0.022 | mg/L | 1 | | 350.1 | Total/NA |
| Nitrate Nitrite as N | 29 | | 0.50 | 0.25 | 0.095 | mg/L | 5 | | 353.2 | Total/NA |
| Sulfate | 91 | | 5.0 | 3.0 | 1.0 | mg/L | 1 | | 9056A | Total/NA |
| Total Alkalinity as CaCO3 | 250 | | 10 | 10 | 3.1 | mg/L | 1 | | SM 2320B | Total/NA |
| Dissolved Organic Carbon - Quad | 4.6 | | 1.0 | 1.0 | 0.35 | mg/L | 1 | | 9060A | Dissolved |

## Client Sample ID: NW062-2 — Lab Sample ID: 280-134268-9

| Analyte | Result | Qualifier | LOQ | LOD | DL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|---|
| Methane | 0.021 | | 0.0050 | 0.0020 | 0.00063 | mg/L | 1 | | RSK-175 | Total/NA |
| Ammonia | 0.63 | | 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 |
| Sulfide | 0.80 | J | 4.0 | 1.9 | 0.79 | mg/L | 1 | | 9034 | Total/NA |
| Sulfate | 180 | | 5.0 | 3.0 | 1.0 | mg/L | 1 | | 9056A | Total/NA |
| Total Alkalinity as CaCO3 | 270 | | 10 | 10 | 3.1 | mg/L | 1 | | SM 2320B | Total/NA |
| Dissolved Organic Carbon - Quad | 2.5 | | 1.0 | 1.0 | 0.35 | mg/L | 1 | | 9060A | Dissolved |

## Client Sample ID: G0080-2 — Lab Sample ID: 280-134268-10

| Analyte | Result | Qualifier | LOQ | LOD | DL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|---|
| Methane | 0.0046 | J | 0.0050 | 0.0020 | 0.00063 | mg/L | 1 | | RSK-175 | Total/NA |
| 4-Amino-2,6-dinitrotoluene | 0.078 | J M | 0.20 | 0.12 | 0.058 | ug/L | 1 | | 8330A | Total/NA |
| Ammonia | 0.41 | | 0.10 | 0.050 | 0.022 | mg/L | 1 | | 350.1 | Total/NA |
| Nitrogen, Total Kjeldahl | 0.70 | J | 1.0 | 1.0 | 0.69 | mg/L | 1 | | 351.2 | Total/NA |
| Nitrate Nitrite as N | 2.8 | J1 | 0.10 | 0.050 | 0.019 | mg/L | 1 | | 353.2 | Total/NA |
| Sulfate | 72 | | 5.0 | 3.0 | 1.0 | mg/L | 1 | | 9056A | Total/NA |
| Total Alkalinity as CaCO3 | 340 | | 10 | 10 | 3.1 | mg/L | 1 | | SM 2320B | Total/NA |
| Dissolved Organic Carbon - Quad | 2.7 | | 1.0 | 1.0 | 0.35 | mg/L | 1 | | 9060A | Dissolved |

This Detection Summary does not include radiochemical test results.

# Client Sample Results

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

Job ID: 280-134268-1

## Client Sample ID: NW070-2

**Lab Sample ID: 280-134268-1**

**Date Collected: 03/02/20 14:35**
**Matrix: Water**
**Date Received: 03/04/20 09:15**

### Method: RSK-175 - Dissolved Gases (GC)

| Analyte | Result | Qualifier | LOQ | LOD | DL | Unit | D | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Methane** | **0.63** | | 0.0050 | 0.0020 | 0.00063 | mg/L | | 03/10/20 01:09 | 1 |

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

| Analyte | Result | Qualifier | LOQ | LOD | DL | Unit | D | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,3,5-Trinitrobenzene | 0.40 | U Q | 0.99 | 0.40 | 0.20 | ug/L | | 03/11/20 17:54 | 1 |
| 1,3-Dinitrobenzene | 0.20 | U Q | 0.40 | 0.20 | 0.088 | ug/L | | 03/11/20 17:54 | 1 |
| 2,4,6-Trinitrotoluene | 0.40 | U Q | 0.40 | 0.40 | 0.16 | ug/L | | 03/11/20 17:54 | 1 |
| 2,4-Dinitrotoluene | 0.20 | U Q | 0.40 | 0.20 | 0.083 | ug/L | | 03/11/20 17:54 | 1 |
| 2,6-Dinitrotoluene | 0.20 | U Q | 0.20 | 0.20 | 0.064 | ug/L | | 03/11/20 17:54 | 1 |
| 2-Amino-4,6-dinitrotoluene | 0.12 | U Q | 0.20 | 0.12 | 0.050 | ug/L | | 03/11/20 17:54 | 1 |
| 2-Nitrotoluene | 0.20 | U M Q | 0.40 | 0.20 | 0.085 | ug/L | | 03/11/20 17:54 | 1 |
| 3-Nitrotoluene | 0.40 | U Q | 0.40 | 0.40 | 0.19 | ug/L | | 03/11/20 17:54 | 1 |
| 4-Amino-2,6-dinitrotoluene | 0.12 | U Q | 0.20 | 0.12 | 0.057 | ug/L | | 03/11/20 17:54 | 1 |
| 4-Nitrotoluene | 0.40 | U Q | 0.99 | 0.40 | 0.20 | ug/L | | 03/11/20 17:54 | 1 |
| HMX | 0.20 | U Q | 0.40 | 0.20 | 0.087 | ug/L | | 03/11/20 17:54 | 1 |
| MNX | 0.40 | U Q | 2.0 | 0.40 | 0.15 | ug/L | | 03/11/20 17:54 | 1 |
| Nitrobenzene | 0.20 | U Q | 0.40 | 0.20 | 0.090 | ug/L | | 03/11/20 17:54 | 1 |
| RDX | 0.40 | U Q | 0.40 | 0.40 | 0.16 | ug/L | | 03/11/20 17:54 | 1 |
| Tetryl | 0.20 | U Q | 0.24 | 0.20 | 0.079 | ug/L | | 03/11/20 17:54 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dinitrobenzene* | *57* | *Q M* | *83 - 119* | *03/07/20 16:07* | *03/11/20 17:54* | *1* |

### General Chemistry

| Analyte | Result | Qualifier | LOQ | LOD | DL | Unit | D | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Ammonia** | **0.059** | **J** | 0.10 | 0.050 | 0.022 | mg/L | | 03/18/20 12:47 | 1 |
| **Nitrogen, Total Kjeldahl** | **1.1** | | 1.0 | 1.0 | 0.69 | mg/L | | 03/11/20 18:35 | 1 |
| Nitrate Nitrite as N | 0.050 | U | 0.10 | 0.050 | 0.019 | mg/L | | 03/10/20 17:21 | 1 |
| **Sulfide** | **0.80** | **J** | 4.0 | 1.9 | 0.79 | mg/L | | 03/05/20 12:56 | 1 |
| **Sulfate** | **6.4** | | 5.0 | 3.0 | 1.0 | mg/L | | 03/17/20 17:55 | 1 |
| **Total Alkalinity as CaCO3** | **110** | | 10 | 10 | 3.1 | mg/L | | 03/10/20 15:18 | 1 |

### General Chemistry - Dissolved

| Analyte | Result | Qualifier | LOQ | LOD | DL | Unit | D | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Dissolved Organic Carbon - Quad** | **9.3** | | 1.0 | 1.0 | 0.35 | mg/L | | 03/19/20 19:03 | 1 |

## Client Sample ID: NW071-2

**Lab Sample ID: 280-134268-2**

**Date Collected: 03/02/20 15:40**
**Matrix: Water**
**Date Received: 03/04/20 09:15**

### Method: RSK-175 - Dissolved Gases (GC)

| Analyte | Result | Qualifier | LOQ | LOD | DL | Unit | D | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Methane | 0.0020 | U | 0.0050 | 0.0020 | 0.00063 | mg/L | | 03/10/20 01:22 | 1 |

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

| Analyte | Result | Qualifier | LOQ | LOD | DL | Unit | D | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,3,5-Trinitrobenzene | 0.40 | U | 1.0 | 0.40 | 0.20 | ug/L | | 03/11/20 18:16 | 1 |
| 1,3-Dinitrobenzene | 0.20 | U | 0.40 | 0.20 | 0.088 | ug/L | | 03/11/20 18:16 | 1 |
| 2,4,6-Trinitrotoluene | 0.40 | U | 0.40 | 0.40 | 0.16 | ug/L | | 03/11/20 18:16 | 1 |
| 2,4-Dinitrotoluene | 0.20 | U | 0.40 | 0.20 | 0.084 | ug/L | | 03/11/20 18:16 | 1 |
| 2,6-Dinitrotoluene | 0.20 | U | 0.20 | 0.20 | 0.064 | ug/L | | 03/11/20 18:16 | 1 |

## Client Sample ID: NW071-2

**Lab Sample ID: 280-134268-2**

**Date Collected: 03/02/20 15:40**
**Matrix: Water**
**Date Received: 03/04/20 09:15**

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

| Analyte | Result | Qualifier | LOQ | LOD | DL | Unit | D | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 2-Amino-4,6-dinitrotoluene | 0.12 | U | 0.20 | 0.12 | 0.051 | ug/L | | 03/11/20 18:16 | 1 |
| 2-Nitrotoluene | 0.20 | U | 0.40 | 0.20 | 0.085 | ug/L | | 03/11/20 18:16 | 1 |
| 3-Nitrotoluene | 0.40 | U M | 0.40 | 0.40 | 0.19 | ug/L | | 03/11/20 18:16 | 1 |
| 4-Amino-2,6-dinitrotoluene | 0.12 | U | 0.20 | 0.12 | 0.058 | ug/L | | 03/11/20 18:16 | 1 |
| 4-Nitrotoluene | 0.40 | U | 1.0 | 0.40 | 0.20 | ug/L | | 03/11/20 18:16 | 1 |
| HMX | 0.20 | U | 0.40 | 0.20 | 0.087 | ug/L | | 03/11/20 18:16 | 1 |
| MNX | 0.40 | U M | 2.0 | 0.40 | 0.15 | ug/L | | 03/11/20 18:16 | 1 |
| Nitrobenzene | 0.20 | U | 0.40 | 0.20 | 0.091 | ug/L | | 03/11/20 18:16 | 1 |
| RDX | 0.40 | U | 0.40 | 0.40 | 0.16 | ug/L | | 03/11/20 18:16 | 1 |
| Tetryl | 0.20 | U | 0.24 | 0.20 | 0.079 | ug/L | | 03/11/20 18:16 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dinitrobenzene* | *94* | *M* | *83 - 119* | *03/07/20 16:07* | *03/11/20 18:16* | *1* |

### General Chemistry

| Analyte | Result | Qualifier | LOQ | LOD | DL | Unit | D | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Ammonia | 0.050 | U | 0.10 | 0.050 | 0.022 | mg/L | | 03/18/20 12:49 | 1 |
| Nitrogen, Total Kjeldahl | 1.0 | U | 1.0 | 1.0 | 0.69 | mg/L | | 03/11/20 18:50 | 1 |
| **Nitrate Nitrite as N** | **32** | | 0.50 | 0.25 | 0.095 | mg/L | | 03/10/20 17:23 | 5 |
| Sulfide | 1.9 | U | 4.0 | 1.9 | 0.79 | mg/L | | 03/05/20 12:56 | 1 |
| **Sulfate** | **54** | | 5.0 | 3.0 | 1.0 | mg/L | | 03/17/20 18:11 | 1 |
| **Total Alkalinity as CaCO3** | **100** | | 10 | 10 | 3.1 | mg/L | | 03/10/20 15:23 | 1 |

### General Chemistry - Dissolved

| Analyte | Result | Qualifier | LOQ | LOD | DL | Unit | D | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Dissolved Organic Carbon - Quad** | **3.3** | | 1.0 | 1.0 | 0.35 | mg/L | | 03/19/20 19:20 | 1 |

## Client Sample ID: CA210-2

**Lab Sample ID: 280-134268-3**

**Date Collected: 03/03/20 09:00**
**Matrix: Water**
**Date Received: 03/04/20 09:15**

### Method: RSK-175 - Dissolved Gases (GC)

| Analyte | Result | Qualifier | LOQ | LOD | DL | Unit | D | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Methane** | **0.0066** | | 0.0050 | 0.0020 | 0.00063 | mg/L | | 03/10/20 21:50 | 1 |

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

| Analyte | Result | Qualifier | LOQ | LOD | DL | Unit | D | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,3,5-Trinitrobenzene | 0.39 | U Q | 0.96 | 0.39 | 0.19 | ug/L | | 03/11/20 18:39 | 1 |
| 1,3-Dinitrobenzene | 0.19 | U Q | 0.39 | 0.19 | 0.085 | ug/L | | 03/11/20 18:39 | 1 |
| 2,4,6-Trinitrotoluene | 0.39 | U Q | 0.39 | 0.39 | 0.15 | ug/L | | 03/11/20 18:39 | 1 |
| 2,4-Dinitrotoluene | 0.19 | U Q | 0.39 | 0.19 | 0.081 | ug/L | | 03/11/20 18:39 | 1 |
| 2,6-Dinitrotoluene | 0.19 | U Q | 0.19 | 0.19 | 0.062 | ug/L | | 03/11/20 18:39 | 1 |
| 2-Amino-4,6-dinitrotoluene | 0.12 | U Q | 0.19 | 0.12 | 0.049 | ug/L | | 03/11/20 18:39 | 1 |
| 2-Nitrotoluene | 0.19 | U Q | 0.39 | 0.19 | 0.082 | ug/L | | 03/11/20 18:39 | 1 |
| 3-Nitrotoluene | 0.39 | U Q | 0.39 | 0.39 | 0.19 | ug/L | | 03/11/20 18:39 | 1 |
| 4-Amino-2,6-dinitrotoluene | 0.12 | U Q | 0.19 | 0.12 | 0.056 | ug/L | | 03/11/20 18:39 | 1 |
| 4-Nitrotoluene | 0.39 | U Q | 0.96 | 0.39 | 0.19 | ug/L | | 03/11/20 18:39 | 1 |
| HMX | 0.19 | U Q | 0.39 | 0.19 | 0.084 | ug/L | | 03/11/20 18:39 | 1 |
| MNX | 0.39 | U M Q | 1.9 | 0.39 | 0.15 | ug/L | | 03/11/20 18:39 | 1 |
| Nitrobenzene | 0.19 | U Q | 0.39 | 0.19 | 0.088 | ug/L | | 03/11/20 18:39 | 1 |
| RDX | 0.39 | U Q | 0.39 | 0.39 | 0.15 | ug/L | | 03/11/20 18:39 | 1 |

## Client Sample ID: CA210-2

**Lab Sample ID: 280-134268-3**

**Date Collected: 03/03/20 09:00**

**Matrix: Water**

**Date Received: 03/04/20 09:15**

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

| Analyte | Result | Qualifier | LOQ | LOD | DL | Unit | D | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Tetryl | 0.19 | U Q | 0.23 | 0.19 | 0.076 | ug/L | | 03/11/20 18:39 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dinitrobenzene* | *73* | *Q M* | *83 - 119* | *03/07/20 16:07* | *03/11/20 18:39* | *1* |

### General Chemistry

| Analyte | Result | Qualifier | LOQ | LOD | DL | Unit | D | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Ammonia** | **0.041** | **J** | 0.10 | 0.050 | 0.022 | mg/L | | 03/20/20 14:07 | 1 |
| **Nitrogen, Total Kjeldahl** | **1.5** | | 1.0 | 1.0 | 0.69 | mg/L | | 03/11/20 18:51 | 1 |
| **Nitrate Nitrite as N** | **13** | | 0.20 | 0.10 | 0.038 | mg/L | | 03/10/20 17:25 | 2 |
| Sulfide | 1.9 | U | 4.0 | 1.9 | 0.79 | mg/L | | 03/05/20 12:56 | 1 |
| **Sulfate** | **99** | | 5.0 | 3.0 | 1.0 | mg/L | | 03/17/20 18:27 | 1 |
| **Total Alkalinity as CaCO3** | **350** | | 10 | 10 | 3.1 | mg/L | | 03/10/20 15:34 | 1 |

### General Chemistry - Dissolved

| Analyte | Result | Qualifier | LOQ | LOD | DL | Unit | D | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Dissolved Organic Carbon - Quad** | **14** | **B** | 1.0 | 1.0 | 0.35 | mg/L | | 03/17/20 20:47 | 1 |

## Client Sample ID: CA212-2

**Lab Sample ID: 280-134268-4**

**Date Collected: 03/03/20 11:20**

**Matrix: Water**

**Date Received: 03/04/20 09:15**

### Method: RSK-175 - Dissolved Gases (GC)

| Analyte | Result | Qualifier | LOQ | LOD | DL | Unit | D | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Methane | 0.0020 | U | 0.0050 | 0.0020 | 0.00063 | mg/L | | 03/10/20 22:04 | 1 |

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

| Analyte | Result | Qualifier | LOQ | LOD | DL | Unit | D | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,3,5-Trinitrobenzene | 0.39 | U | 0.98 | 0.39 | 0.20 | ug/L | | 03/11/20 19:02 | 1 |
| 1,3-Dinitrobenzene | 0.20 | U | 0.39 | 0.20 | 0.087 | ug/L | | 03/11/20 19:02 | 1 |
| 2,4,6-Trinitrotoluene | 0.39 | U | 0.39 | 0.39 | 0.16 | ug/L | | 03/11/20 19:02 | 1 |
| 2,4-Dinitrotoluene | 0.20 | U | 0.39 | 0.20 | 0.082 | ug/L | | 03/11/20 19:02 | 1 |
| 2,6-Dinitrotoluene | 0.20 | U | 0.20 | 0.20 | 0.063 | ug/L | | 03/11/20 19:02 | 1 |
| 2-Amino-4,6-dinitrotoluene | 0.12 | U | 0.20 | 0.12 | 0.050 | ug/L | | 03/11/20 19:02 | 1 |
| 2-Nitrotoluene | 0.20 | U | 0.39 | 0.20 | 0.084 | ug/L | | 03/11/20 19:02 | 1 |
| 3-Nitrotoluene | 0.39 | U M | 0.39 | 0.39 | 0.19 | ug/L | | 03/11/20 19:02 | 1 |
| 4-Amino-2,6-dinitrotoluene | 0.12 | U | 0.20 | 0.12 | 0.057 | ug/L | | 03/11/20 19:02 | 1 |
| 4-Nitrotoluene | 0.39 | U | 0.98 | 0.39 | 0.20 | ug/L | | 03/11/20 19:02 | 1 |
| HMX | 0.20 | U | 0.39 | 0.20 | 0.086 | ug/L | | 03/11/20 19:02 | 1 |
| MNX | 0.39 | U | 2.0 | 0.39 | 0.15 | ug/L | | 03/11/20 19:02 | 1 |
| Nitrobenzene | 0.20 | U | 0.39 | 0.20 | 0.089 | ug/L | | 03/11/20 19:02 | 1 |
| RDX | 0.39 | U | 0.39 | 0.39 | 0.15 | ug/L | | 03/11/20 19:02 | 1 |
| Tetryl | 0.20 | U | 0.24 | 0.20 | 0.078 | ug/L | | 03/11/20 19:02 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dinitrobenzene* | *108* | *M* | *83 - 119* | *03/07/20 16:07* | *03/11/20 19:02* | *1* |

### General Chemistry

| Analyte | Result | Qualifier | LOQ | LOD | DL | Unit | D | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Ammonia** | **0.030** | **J** | 0.10 | 0.050 | 0.022 | mg/L | | 03/20/20 14:05 | 1 |
| Nitrogen, Total Kjeldahl | 1.0 | U | 1.0 | 1.0 | 0.69 | mg/L | | 03/11/20 18:52 | 1 |

## Client Sample ID: CA212-2

**Lab Sample ID: 280-134268-4**

**Date Collected: 03/03/20 11:20**
**Date Received: 03/04/20 09:15**

**Matrix: Water**

### General Chemistry (Continued)

| Analyte | Result | Qualifier | LOQ | LOD | DL | Unit | D | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Nitrate Nitrite as N** | **17** | | 0.20 | 0.10 | 0.038 | mg/L | | 03/10/20 17:27 | 2 |
| Sulfide | 1.9 | U J1 | 4.0 | 1.9 | 0.79 | mg/L | | 03/05/20 13:00 | 1 |
| **Sulfate** | **73** | | 5.0 | 3.0 | 1.0 | mg/L | | 03/17/20 18:43 | 1 |
| **Total Alkalinity as CaCO3** | **230** | | 10 | 10 | 3.1 | mg/L | | 03/10/20 16:10 | 1 |

### General Chemistry - Dissolved

| Analyte | Result | Qualifier | LOQ | LOD | DL | Unit | D | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Dissolved Organic Carbon - Quad** | **2.7** | | 1.0 | 1.0 | 0.35 | mg/L | | 03/19/20 19:38 | 1 |

## Client Sample ID: CA211-2

**Lab Sample ID: 280-134268-5**

**Date Collected: 03/03/20 10:05**
**Date Received: 03/04/20 09:15**

**Matrix: Water**

### Method: RSK-175 - Dissolved Gases (GC)

| Analyte | Result | Qualifier | LOQ | LOD | DL | Unit | D | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Methane | 0.0020 | U | 0.0050 | 0.0020 | 0.00063 | mg/L | | 03/10/20 22:17 | 1 |

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

| Analyte | Result | Qualifier | LOQ | LOD | DL | Unit | D | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,3,5-Trinitrobenzene | 0.39 | U | 0.99 | 0.39 | 0.20 | ug/L | | 03/11/20 19:25 | 1 |
| 1,3-Dinitrobenzene | 0.20 | U | 0.39 | 0.20 | 0.087 | ug/L | | 03/11/20 19:25 | 1 |
| 2,4,6-Trinitrotoluene | 0.39 | U | 0.39 | 0.39 | 0.16 | ug/L | | 03/11/20 19:25 | 1 |
| 2,4-Dinitrotoluene | 0.20 | U | 0.39 | 0.20 | 0.083 | ug/L | | 03/11/20 19:25 | 1 |
| 2,6-Dinitrotoluene | 0.20 | U | 0.20 | 0.20 | 0.064 | ug/L | | 03/11/20 19:25 | 1 |
| 2-Amino-4,6-dinitrotoluene | 0.12 | U | 0.20 | 0.12 | 0.050 | ug/L | | 03/11/20 19:25 | 1 |
| 2-Nitrotoluene | 0.20 | U | 0.39 | 0.20 | 0.084 | ug/L | | 03/11/20 19:25 | 1 |
| 3-Nitrotoluene | 0.39 | U M | 0.39 | 0.39 | 0.19 | ug/L | | 03/11/20 19:25 | 1 |
| 4-Amino-2,6-dinitrotoluene | 0.12 | U | 0.20 | 0.12 | 0.057 | ug/L | | 03/11/20 19:25 | 1 |
| 4-Nitrotoluene | 0.39 | U | 0.99 | 0.39 | 0.20 | ug/L | | 03/11/20 19:25 | 1 |
| HMX | 0.20 | U | 0.39 | 0.20 | 0.086 | ug/L | | 03/11/20 19:25 | 1 |
| MNX | 0.39 | U | 2.0 | 0.39 | 0.15 | ug/L | | 03/11/20 19:25 | 1 |
| Nitrobenzene | 0.20 | U | 0.39 | 0.20 | 0.090 | ug/L | | 03/11/20 19:25 | 1 |
| RDX | 0.39 | U | 0.39 | 0.39 | 0.16 | ug/L | | 03/11/20 19:25 | 1 |
| Tetryl | 0.20 | U | 0.24 | 0.20 | 0.078 | ug/L | | 03/11/20 19:25 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dinitrobenzene* | *115* | *M* | *83 - 119* | *03/07/20 16:07* | *03/11/20 19:25* | *1* |

### General Chemistry

| Analyte | Result | Qualifier | LOQ | LOD | DL | Unit | D | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Ammonia** | **0.043** | **J** | 0.10 | 0.050 | 0.022 | mg/L | | 03/20/20 13:49 | 1 |
| Nitrogen, Total Kjeldahl | 1.0 | U | 1.0 | 1.0 | 0.69 | mg/L | | 03/11/20 18:53 | 1 |
| **Nitrate Nitrite as N** | **34** | | 0.50 | 0.25 | 0.095 | mg/L | | 03/10/20 17:29 | 5 |
| **Sulfide** | **0.80** | **J** | 4.0 | 1.9 | 0.79 | mg/L | | 03/05/20 13:00 | 1 |
| **Sulfate** | **99** | | 5.0 | 3.0 | 1.0 | mg/L | | 03/17/20 19:00 | 1 |
| **Total Alkalinity as CaCO3** | **210** | | 10 | 10 | 3.1 | mg/L | | 03/12/20 11:35 | 1 |

### General Chemistry - Dissolved

| Analyte | Result | Qualifier | LOQ | LOD | DL | Unit | D | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Dissolved Organic Carbon - Quad** | **4.9** | | 1.0 | 1.0 | 0.35 | mg/L | | 03/19/20 19:57 | 1 |

## Client Sample ID: PZ019-2

**Lab Sample ID: 280-134268-6**

**Date Collected: 03/02/20 15:10**

**Matrix: Water**

**Date Received: 03/04/20 09:15**

### Method: RSK-175 - Dissolved Gases (GC)

| Analyte | Result | Qualifier | LOQ | LOD | DL | Unit | D | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Methane | 0.0020 | U J1 | 0.0050 | 0.0020 | 0.00063 | mg/L | | 03/09/20 20:28 | 1 |

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

| Analyte | Result | Qualifier | LOQ | LOD | DL | Unit | D | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,3,5-Trinitrobenzene | 0.40 | U | 0.99 | 0.40 | 0.20 | ug/L | | 03/11/20 19:48 | 1 |
| 1,3-Dinitrobenzene | 0.20 | U | 0.40 | 0.20 | 0.088 | ug/L | | 03/11/20 19:48 | 1 |
| 2,4,6-Trinitrotoluene | 0.40 | U | 0.40 | 0.40 | 0.16 | ug/L | | 03/11/20 19:48 | 1 |
| 2,4-Dinitrotoluene | 0.20 | U | 0.40 | 0.20 | 0.083 | ug/L | | 03/11/20 19:48 | 1 |
| 2,6-Dinitrotoluene | 0.20 | U | 0.20 | 0.20 | 0.064 | ug/L | | 03/11/20 19:48 | 1 |
| 2-Amino-4,6-dinitrotoluene | 0.12 | U | 0.20 | 0.12 | 0.050 | ug/L | | 03/11/20 19:48 | 1 |
| 2-Nitrotoluene | 0.20 | U J1 | 0.40 | 0.20 | 0.085 | ug/L | | 03/11/20 19:48 | 1 |
| 3-Nitrotoluene | 0.40 | U M J1 | 0.40 | 0.40 | 0.19 | ug/L | | 03/11/20 19:48 | 1 |
| 4-Amino-2,6-dinitrotoluene | 0.12 | U J1 | 0.20 | 0.12 | 0.057 | ug/L | | 03/11/20 19:48 | 1 |
| 4-Nitrotoluene | 0.40 | U J1 | 0.99 | 0.40 | 0.20 | ug/L | | 03/11/20 19:48 | 1 |
| HMX | 0.20 | U | 0.40 | 0.20 | 0.087 | ug/L | | 03/11/20 19:48 | 1 |
| MNX | 0.40 | U M | 2.0 | 0.40 | 0.15 | ug/L | | 03/11/20 19:48 | 1 |
| Nitrobenzene | 0.20 | U J1 | 0.40 | 0.20 | 0.090 | ug/L | | 03/11/20 19:48 | 1 |
| RDX | 0.40 | U | 0.40 | 0.40 | 0.16 | ug/L | | 03/11/20 19:48 | 1 |
| Tetryl | 0.20 | U | 0.24 | 0.20 | 0.079 | ug/L | | 03/11/20 19:48 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dinitrobenzene* | *86* | *M* | *83 - 119* | *03/07/20 16:07* | *03/11/20 19:48* | *1* |

### General Chemistry

| Analyte | Result | Qualifier | LOQ | LOD | DL | Unit | D | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Ammonia | 0.050 | U | 0.10 | 0.050 | 0.022 | mg/L | | 03/18/20 12:31 | 1 |
| Nitrogen, Total Kjeldahl | 1.0 | U J1 | 1.0 | 1.0 | 0.69 | mg/L | | 03/11/20 18:40 | 1 |
| **Nitrate Nitrite as N** | **31** | **J1** | 0.50 | 0.25 | 0.095 | mg/L | | 03/10/20 17:15 | 5 |
| **Sulfide** | **0.80** | **J** | 4.0 | 1.9 | 0.79 | mg/L | | 03/05/20 12:56 | 1 |
| **Sulfate** | **57** | | 5.0 | 3.0 | 1.0 | mg/L | | 03/17/20 19:33 | 1 |
| **Total Alkalinity as CaCO3** | **73** | | 10 | 10 | 3.1 | mg/L | | 03/10/20 15:28 | 1 |

### General Chemistry - Dissolved

| Analyte | Result | Qualifier | LOQ | LOD | DL | Unit | D | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Dissolved Organic Carbon - Quad** | **2.1** | | 1.0 | 1.0 | 0.35 | mg/L | | 03/19/20 18:19 | 1 |

## Client Sample ID: NW080R-2

**Lab Sample ID: 280-134268-7**

**Date Collected: 03/03/20 08:50**

**Matrix: Water**

**Date Received: 03/04/20 09:15**

### Method: RSK-175 - Dissolved Gases (GC)

| Analyte | Result | Qualifier | LOQ | LOD | DL | Unit | D | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Methane | 0.0020 | U | 0.0050 | 0.0020 | 0.00063 | mg/L | | 03/10/20 22:31 | 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 | 1.0 | 0.42 | 0.21 | ug/L | | 03/11/20 20:57 | 1 |
| 1,3-Dinitrobenzene | 0.21 | U | 0.42 | 0.21 | 0.093 | ug/L | | 03/11/20 20:57 | 1 |
| 2,4,6-Trinitrotoluene | 0.42 | U | 0.42 | 0.42 | 0.17 | ug/L | | 03/11/20 20:57 | 1 |
| 2,4-Dinitrotoluene | 0.21 | U | 0.42 | 0.21 | 0.088 | ug/L | | 03/11/20 20:57 | 1 |
| 2,6-Dinitrotoluene | 0.21 | U | 0.21 | 0.21 | 0.067 | ug/L | | 03/11/20 20:57 | 1 |

## Client Sample ID: NW080R-2

**Lab Sample ID: 280-134268-7**

**Date Collected: 03/03/20 08:50**
**Date Received: 03/04/20 09:15**

**Matrix: Water**

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

| Analyte | Result | Qualifier | LOQ | LOD | DL | Unit | D | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 2-Amino-4,6-dinitrotoluene | 0.13 | U | 0.21 | 0.13 | 0.053 | ug/L | | 03/11/20 20:57 | 1 |
| 2-Nitrotoluene | 0.21 | U | 0.42 | 0.21 | 0.089 | ug/L | | 03/11/20 20:57 | 1 |
| 3-Nitrotoluene | 0.42 | U M | 0.42 | 0.42 | 0.20 | ug/L | | 03/11/20 20:57 | 1 |
| 4-Amino-2,6-dinitrotoluene | 0.13 | U | 0.21 | 0.13 | 0.060 | ug/L | | 03/11/20 20:57 | 1 |
| 4-Nitrotoluene | 0.42 | U | 1.0 | 0.42 | 0.21 | ug/L | | 03/11/20 20:57 | 1 |
| HMX | 0.21 | U | 0.42 | 0.21 | 0.092 | ug/L | | 03/11/20 20:57 | 1 |
| MNX | 0.42 | U M | 2.1 | 0.42 | 0.16 | ug/L | | 03/11/20 20:57 | 1 |
| Nitrobenzene | 0.21 | U M | 0.42 | 0.21 | 0.095 | ug/L | | 03/11/20 20:57 | 1 |
| RDX | 0.42 | U | 0.42 | 0.42 | 0.17 | ug/L | | 03/11/20 20:57 | 1 |
| Tetryl | 0.21 | U | 0.25 | 0.21 | 0.083 | ug/L | | 03/11/20 20:57 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dinitrobenzene* | *91* | *M* | *83 - 119* | *03/07/20 16:07* | *03/11/20 20:57* | *1* |

### General Chemistry

| Analyte | Result | Qualifier | LOQ | LOD | DL | Unit | D | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Ammonia** | **0.034** | **J** | 0.10 | 0.050 | 0.022 | mg/L | | 03/20/20 14:21 | 1 |
| Nitrogen, Total Kjeldahl | 1.0 | U | 1.0 | 1.0 | 0.69 | mg/L | | 03/11/20 18:55 | 1 |
| **Nitrate Nitrite as N** | **32** | | 0.50 | 0.25 | 0.095 | mg/L | | 03/10/20 17:31 | 5 |
| **Sulfide** | **0.80** | **J** | 4.0 | 1.9 | 0.79 | mg/L | | 03/05/20 13:00 | 1 |
| **Sulfate** | **160** | | 5.0 | 3.0 | 1.0 | mg/L | | 03/17/20 19:16 | 1 |
| **Total Alkalinity as CaCO3** | **260** | | 10 | 10 | 3.1 | mg/L | | 03/12/20 11:46 | 1 |

### General Chemistry - Dissolved

| Analyte | Result | Qualifier | LOQ | LOD | DL | Unit | D | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Dissolved Organic Carbon - Quad** | **3.9** | | 1.0 | 1.0 | 0.35 | mg/L | | 03/19/20 20:12 | 1 |

## Client Sample ID: NW081R-2

**Lab Sample ID: 280-134268-8**

**Date Collected: 03/03/20 10:00**
**Date Received: 03/04/20 09:15**

**Matrix: Water**

### Method: RSK-175 - Dissolved Gases (GC)

| Analyte | Result | Qualifier | LOQ | LOD | DL | Unit | D | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Methane | 0.0020 | U | 0.0050 | 0.0020 | 0.00063 | mg/L | | 03/10/20 22:44 | 1 |

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

| Analyte | Result | Qualifier | LOQ | LOD | DL | Unit | D | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,3,5-Trinitrobenzene | 0.40 | U | 1.0 | 0.40 | 0.20 | ug/L | | 03/11/20 21:20 | 1 |
| 1,3-Dinitrobenzene | 0.20 | U | 0.40 | 0.20 | 0.089 | ug/L | | 03/11/20 21:20 | 1 |
| 2,4,6-Trinitrotoluene | 0.40 | U | 0.40 | 0.40 | 0.16 | ug/L | | 03/11/20 21:20 | 1 |
| 2,4-Dinitrotoluene | 0.20 | U | 0.40 | 0.20 | 0.084 | ug/L | | 03/11/20 21:20 | 1 |
| 2,6-Dinitrotoluene | 0.20 | U | 0.20 | 0.20 | 0.064 | ug/L | | 03/11/20 21:20 | 1 |
| 2-Amino-4,6-dinitrotoluene | 0.12 | U | 0.20 | 0.12 | 0.051 | ug/L | | 03/11/20 21:20 | 1 |
| 2-Nitrotoluene | 0.20 | U | 0.40 | 0.20 | 0.085 | ug/L | | 03/11/20 21:20 | 1 |
| 3-Nitrotoluene | 0.40 | U M | 0.40 | 0.40 | 0.19 | ug/L | | 03/11/20 21:20 | 1 |
| 4-Amino-2,6-dinitrotoluene | 0.12 | U | 0.20 | 0.12 | 0.058 | ug/L | | 03/11/20 21:20 | 1 |
| 4-Nitrotoluene | 0.40 | U | 1.0 | 0.40 | 0.20 | ug/L | | 03/11/20 21:20 | 1 |
| HMX | 0.20 | U | 0.40 | 0.20 | 0.088 | ug/L | | 03/11/20 21:20 | 1 |
| MNX | 0.40 | U M | 2.0 | 0.40 | 0.15 | ug/L | | 03/11/20 21:20 | 1 |
| Nitrobenzene | 0.20 | U | 0.40 | 0.20 | 0.091 | ug/L | | 03/11/20 21:20 | 1 |
| RDX | 0.40 | U | 0.40 | 0.40 | 0.16 | ug/L | | 03/11/20 21:20 | 1 |

## Client Sample ID: NW081R-2

**Lab Sample ID: 280-134268-8**

**Date Collected: 03/03/20 10:00**
**Date Received: 03/04/20 09:15**

**Matrix: Water**

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

| Analyte | Result | Qualifier | LOQ | LOD | DL | Unit | D | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Tetryl | 0.20 | U | 0.24 | 0.20 | 0.079 | ug/L | | 03/11/20 21:20 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dinitrobenzene* | *106* | *M* | *83 - 119* | *03/07/20 16:07* | *03/11/20 21:20* | *1* |

### General Chemistry

| Analyte | Result | Qualifier | LOQ | LOD | DL | Unit | D | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Ammonia** | **0.030** | **J** | 0.10 | 0.050 | 0.022 | mg/L | | 03/20/20 14:23 | 1 |
| Nitrogen, Total Kjeldahl | 1.0 | U | 1.0 | 1.0 | 0.69 | mg/L | | 03/11/20 18:58 | 1 |
| **Nitrate Nitrite as N** | **29** | | 0.50 | 0.25 | 0.095 | mg/L | | 03/10/20 17:33 | 5 |
| Sulfide | 1.9 | U | 4.0 | 1.9 | 0.79 | mg/L | | 03/05/20 13:00 | 1 |
| **Sulfate** | **91** | | 5.0 | 3.0 | 1.0 | mg/L | | 03/17/20 21:11 | 1 |
| **Total Alkalinity as CaCO3** | **250** | | 10 | 10 | 3.1 | mg/L | | 03/12/20 11:52 | 1 |

### General Chemistry - Dissolved

| Analyte | Result | Qualifier | LOQ | LOD | DL | Unit | D | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Dissolved Organic Carbon - Quad** | **4.6** | | 1.0 | 1.0 | 0.35 | mg/L | | 03/19/20 20:29 | 1 |

## Client Sample ID: NW062-2

**Lab Sample ID: 280-134268-9**

**Date Collected: 03/02/20 13:55**
**Date Received: 03/04/20 09:15**

**Matrix: Water**

### Method: RSK-175 - Dissolved Gases (GC)

| Analyte | Result | Qualifier | LOQ | LOD | DL | Unit | D | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Methane** | **0.021** | | 0.0050 | 0.0020 | 0.00063 | mg/L | | 03/10/20 01:36 | 1 |

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

| Analyte | Result | Qualifier | LOQ | LOD | DL | Unit | D | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,3,5-Trinitrobenzene | 0.38 | U | 0.95 | 0.38 | 0.19 | ug/L | | 03/11/20 22:52 | 1 |
| 1,3-Dinitrobenzene | 0.19 | U | 0.38 | 0.19 | 0.084 | ug/L | | 03/11/20 22:52 | 1 |
| 2,4,6-Trinitrotoluene | 0.38 | U | 0.38 | 0.38 | 0.15 | ug/L | | 03/11/20 22:52 | 1 |
| 2,4-Dinitrotoluene | 0.19 | U | 0.38 | 0.19 | 0.080 | ug/L | | 03/11/20 22:52 | 1 |
| 2,6-Dinitrotoluene | 0.19 | U | 0.19 | 0.19 | 0.061 | ug/L | | 03/11/20 22:52 | 1 |
| 2-Amino-4,6-dinitrotoluene | 0.11 | U | 0.19 | 0.11 | 0.048 | ug/L | | 03/11/20 22:52 | 1 |
| 2-Nitrotoluene | 0.19 | U | 0.38 | 0.19 | 0.081 | ug/L | | 03/11/20 22:52 | 1 |
| 3-Nitrotoluene | 0.38 | U M | 0.38 | 0.38 | 0.19 | ug/L | | 03/11/20 22:52 | 1 |
| 4-Amino-2,6-dinitrotoluene | 0.11 | U | 0.19 | 0.11 | 0.055 | ug/L | | 03/11/20 22:52 | 1 |
| 4-Nitrotoluene | 0.38 | U | 0.95 | 0.38 | 0.19 | ug/L | | 03/11/20 22:52 | 1 |
| HMX | 0.19 | U | 0.38 | 0.19 | 0.083 | ug/L | | 03/11/20 22:52 | 1 |
| MNX | 0.38 | U | 1.9 | 0.38 | 0.15 | ug/L | | 03/11/20 22:52 | 1 |
| Nitrobenzene | 0.19 | U Q | 0.38 | 0.19 | 0.087 | ug/L | | 03/17/20 00:44 | 1 |
| RDX | 0.38 | U | 0.38 | 0.38 | 0.15 | ug/L | | 03/11/20 22:52 | 1 |
| Tetryl | 0.19 | U | 0.23 | 0.19 | 0.075 | ug/L | | 03/11/20 22:52 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dinitrobenzene* | *99* | *M* | *83 - 119* | *03/07/20 16:07* | *03/11/20 22:52* | *1* |
| *1,2-Dinitrobenzene* | *100* | | *83 - 119* | *03/07/20 16:07* | *03/17/20 00:44* | *1* |

### General Chemistry

| Analyte | Result | Qualifier | LOQ | LOD | DL | Unit | D | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Ammonia** | **0.63** | | 0.10 | 0.050 | 0.022 | mg/L | | 03/18/20 13:03 | 1 |

## Client Sample ID: NW062-2

**Lab Sample ID: 280-134268-9**

**Date Collected: 03/02/20 13:55**
**Date Received: 03/04/20 09:15**

**Matrix: Water**

### General Chemistry (Continued)

| Analyte | Result | Qualifier | LOQ | LOD | DL | Unit | D | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Nitrogen, Total Kjeldahl** | **1.3** | | 1.0 | 1.0 | 0.69 | mg/L | | 03/11/20 19:00 | 1 |
| Nitrate Nitrite as N | 0.050 | U | 0.10 | 0.050 | 0.019 | mg/L | | 03/10/20 17:47 | 1 |
| **Sulfide** | **0.80** | **J** | 4.0 | 1.9 | 0.79 | mg/L | | 03/05/20 13:00 | 1 |
| **Sulfate** | **180** | | 5.0 | 3.0 | 1.0 | mg/L | | 03/17/20 21:28 | 1 |
| **Total Alkalinity as CaCO3** | **270** | | 10 | 10 | 3.1 | mg/L | | 03/12/20 11:58 | 1 |

### General Chemistry - Dissolved

| Analyte | Result | Qualifier | LOQ | LOD | DL | Unit | D | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Dissolved Organic Carbon - Quad** | **2.5** | | 1.0 | 1.0 | 0.35 | mg/L | | 03/19/20 21:19 | 1 |

## Client Sample ID: G0080-2

**Lab Sample ID: 280-134268-10**

**Date Collected: 03/02/20 13:10**
**Date Received: 03/04/20 09:15**

**Matrix: Water**

### Method: RSK-175 - Dissolved Gases (GC)

| Analyte | Result | Qualifier | LOQ | LOD | DL | Unit | D | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Methane** | **0.0046** | **J** | 0.0050 | 0.0020 | 0.00063 | mg/L | | 03/10/20 01:49 | 1 |

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

| Analyte | Result | Qualifier | LOQ | LOD | DL | Unit | D | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,3,5-Trinitrobenzene | 0.40 | U | 1.0 | 0.40 | 0.20 | ug/L | | 03/11/20 23:15 | 1 |
| 1,3-Dinitrobenzene | 0.20 | U | 0.40 | 0.20 | 0.089 | ug/L | | 03/11/20 23:15 | 1 |
| 2,4,6-Trinitrotoluene | 0.40 | U | 0.40 | 0.40 | 0.16 | ug/L | | 03/11/20 23:15 | 1 |
| 2,4-Dinitrotoluene | 0.20 | U | 0.40 | 0.20 | 0.084 | ug/L | | 03/11/20 23:15 | 1 |
| 2,6-Dinitrotoluene | 0.20 | U | 0.20 | 0.20 | 0.065 | ug/L | | 03/11/20 23:15 | 1 |
| 2-Amino-4,6-dinitrotoluene | 0.12 | U M | 0.20 | 0.12 | 0.051 | ug/L | | 03/17/20 01:19 | 1 |
| 2-Nitrotoluene | 0.20 | U | 0.40 | 0.20 | 0.086 | ug/L | | 03/11/20 23:15 | 1 |
| 3-Nitrotoluene | 0.40 | U M | 0.40 | 0.40 | 0.20 | ug/L | | 03/11/20 23:15 | 1 |
| **4-Amino-2,6-dinitrotoluene** | **0.078** | **J M** | 0.20 | 0.12 | 0.058 | ug/L | | 03/11/20 23:15 | 1 |
| 4-Nitrotoluene | 0.40 | U | 1.0 | 0.40 | 0.20 | ug/L | | 03/11/20 23:15 | 1 |
| HMX | 0.20 | U | 0.40 | 0.20 | 0.088 | ug/L | | 03/11/20 23:15 | 1 |
| MNX | 0.40 | U | 2.0 | 0.40 | 0.15 | ug/L | | 03/11/20 23:15 | 1 |
| Nitrobenzene | 0.20 | U | 0.40 | 0.20 | 0.091 | ug/L | | 03/11/20 23:15 | 1 |
| RDX | 0.40 | U M | 0.40 | 0.40 | 0.16 | ug/L | | 03/17/20 01:19 | 1 |
| Tetryl | 0.20 | U | 0.24 | 0.20 | 0.080 | ug/L | | 03/11/20 23:15 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dinitrobenzene* | *93* | *M* | *83 - 119* | *03/07/20 16:07* | *03/11/20 23:15* | *1* |
| *1,2-Dinitrobenzene* | *100* | | *83 - 119* | *03/07/20 16:07* | *03/17/20 01:19* | *1* |

### General Chemistry

| Analyte | Result | Qualifier | LOQ | LOD | DL | Unit | D | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Ammonia** | **0.41** | | 0.10 | 0.050 | 0.022 | mg/L | | 03/18/20 13:05 | 1 |
| **Nitrogen, Total Kjeldahl** | **0.70** | **J** | 1.0 | 1.0 | 0.69 | mg/L | | 03/11/20 19:01 | 1 |
| **Nitrate Nitrite as N** | **2.8** | **J1** | 0.10 | 0.050 | 0.019 | mg/L | | 03/10/20 17:51 | 1 |
| Sulfide | 1.9 | U | 4.0 | 1.9 | 0.79 | mg/L | | 03/05/20 13:00 | 1 |
| **Sulfate** | **72** | | 5.0 | 3.0 | 1.0 | mg/L | | 03/17/20 21:44 | 1 |
| **Total Alkalinity as CaCO3** | **340** | | 10 | 10 | 3.1 | mg/L | | 03/12/20 12:04 | 1 |

# Client Sample Results

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

Job ID: 280-134268-1

## Client Sample ID: G0080-2

**Date Collected: 03/02/20 13:10**
**Date Received: 03/04/20 09:15**

## Lab Sample ID: 280-134268-10

**Matrix: Water**

### General Chemistry - Dissolved

| Analyte | Result | Qualifier | LOQ | LOD | DL | Unit | D | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Dissolved Organic Carbon - Quad | 2.7 | | 1.0 | 1.0 | 0.35 | mg/L | | 03/19/20 21:36 | 1 |

# Default Detection Limits

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

Job ID: 280-134268-1

## 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: 280-134268-1

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

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

| Lab Sample ID | Client Sample ID | 12DNB1 (83-119) |
|---|---|---|
| 280-134268-1 | NW070-2 | 57 Q M |
| 280-134268-2 | NW071-2 | 94 M |
| 280-134268-3 | CA210-2 | 73 Q M |
| 280-134268-4 | CA212-2 | 108 M |
| 280-134268-5 | CA211-2 | 115 M |
| 280-134268-6 | PZ019-2 | 86 M |
| 280-134268-6 MS | PZ019-2 | 88 M |
| 280-134268-6 MSD | PZ019-2 | 91 M |
| 280-134268-7 | NW080R-2 | 91 M |
| 280-134268-8 | NW081R-2 | 106 M |
| 280-134268-9 | NW062-2 | 99 M |
| 280-134268-10 | G0080-2 | 93 M |
| LCS 280-488022/2-A | Lab Control Sample | 87 |
| LCS 280-488022/3-A | Lab Control Sample | 87 |
| LCSD 280-488022/4-A | Lab Control Sample Dup | 102 |
| MB 280-488022/1-A | Method Blank | 86 |

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) |
|---|---|---|
| 280-134268-9 | NW062-2 | 100 |
| 280-134268-10 | G0080-2 | 100 |

Percent Surrogate Recovery (Acceptance Limits)

**Surrogate Legend**

12DNB = 1,2-Dinitrobenzene

## Method: RSK-175 - Dissolved Gases (GC)

**Lab Sample ID: MB 280-488165/37** — **Client Sample ID: Method Blank**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 488165**

| 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 | | 03/09/20 20:15 | 1 |

**Lab Sample ID: LCS 280-488165/35** — **Client Sample ID: Lab Control Sample**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 488165**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Methane | 0.0730 | 0.0790 | | mg/L | | 108 | 73 - 125 |

**Lab Sample ID: LCSD 280-488165/36** — **Client Sample ID: Lab Control Sample Dup**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 488165**

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|
| Methane | 0.0730 | 0.0772 | | mg/L | | 106 | 73 - 125 | 2 | 20 |

**Lab Sample ID: 280-134268-6 MS** — **Client Sample ID: PZ019-2**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 488165**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Methane | 0.0020 | U J1 | 0.0730 | 0.0478 | J1 | mg/L | | 66 | 73 - 125 |

**Lab Sample ID: 280-134268-6 MSD** — **Client Sample ID: PZ019-2**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 488165**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Methane | 0.0020 | U J1 | 0.0730 | 0.0565 | | mg/L | | 77 | 73 - 125 | 17 | 20 |

**Lab Sample ID: 280-134268-6 DU** — **Client Sample ID: PZ019-2**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 488165**

| Analyte | Sample Result | Sample Qualifier | DU Result | DU Qualifier | Unit | D | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|
| Methane | 0.0020 | U J1 | 0.0020 | U | mg/L | | NC | 20 |

**Lab Sample ID: MB 280-488254/50** — **Client Sample ID: Method Blank**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 488254**

| 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 | | 03/10/20 17:26 | 1 |

**Lab Sample ID: LCS 280-488254/48** — **Client Sample ID: Lab Control Sample**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 488254**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Methane | 0.0730 | 0.0813 | | mg/L | | 111 | 73 - 125 |

## Method: RSK-175 - Dissolved Gases (GC)

**Lab Sample ID: LCSD 280-488254/49**
**Matrix: Water**
**Analysis Batch: 488254**

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

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|
| Methane | 0.0730 | 0.0796 | | mg/L | | 109 | 73 - 125 | 2 | 20 |

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

**Lab Sample ID: MB 280-488022/1-A**
**Matrix: Water**
**Analysis Batch: 488297**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 488022**

| 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 | | 03/11/20 12:55 | 1 |
| 1,3-Dinitrobenzene | 0.20 | U | 0.40 | 0.20 | 0.089 | ug/L | | 03/11/20 12:55 | 1 |
| 2,4,6-Trinitrotoluene | 0.40 | U | 0.40 | 0.40 | 0.16 | ug/L | | 03/11/20 12:55 | 1 |
| 2,4-Dinitrotoluene | 0.20 | U | 0.40 | 0.20 | 0.084 | ug/L | | 03/11/20 12:55 | 1 |
| 2,6-Dinitrotoluene | 0.20 | U | 0.20 | 0.20 | 0.065 | ug/L | | 03/11/20 12:55 | 1 |
| 2-Amino-4,6-dinitrotoluene | 0.12 | U | 0.20 | 0.12 | 0.051 | ug/L | | 03/11/20 12:55 | 1 |
| 2-Nitrotoluene | 0.20 | U | 0.40 | 0.20 | 0.086 | ug/L | | 03/11/20 12:55 | 1 |
| 3-Nitrotoluene | 0.40 | U M | 0.40 | 0.40 | 0.20 | ug/L | | 03/11/20 12:55 | 1 |
| 4-Amino-2,6-dinitrotoluene | 0.12 | U | 0.20 | 0.12 | 0.058 | ug/L | | 03/11/20 12:55 | 1 |
| 4-Nitrotoluene | 0.40 | U | 1.0 | 0.40 | 0.20 | ug/L | | 03/11/20 12:55 | 1 |
| HMX | 0.20 | U | 0.40 | 0.20 | 0.088 | ug/L | | 03/11/20 12:55 | 1 |
| MNX | 0.40 | U | 2.0 | 0.40 | 0.15 | ug/L | | 03/11/20 12:55 | 1 |
| Nitrobenzene | 0.20 | U | 0.40 | 0.20 | 0.091 | ug/L | | 03/11/20 12:55 | 1 |
| RDX | 0.40 | U | 0.40 | 0.40 | 0.16 | ug/L | | 03/11/20 12:55 | 1 |
| Tetryl | 0.20 | U | 0.24 | 0.20 | 0.079 | ug/L | | 03/11/20 12:55 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dinitrobenzene* | *86* | | *83 - 119* | *03/07/20 16:07* | *03/11/20 12:55* | *1* |

**Lab Sample ID: LCS 280-488022/2-A**
**Matrix: Water**
**Analysis Batch: 488297**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 488022**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| 1,3,5-Trinitrobenzene | 2.00 | 2.08 | | ug/L | | 104 | 73 - 125 |
| 1,3-Dinitrobenzene | 2.00 | 1.93 | | ug/L | | 96 | 78 - 120 |
| 2,4,6-Trinitrotoluene | 2.00 | 1.96 | | ug/L | | 98 | 71 - 123 |
| 2,4-Dinitrotoluene | 2.00 | 1.78 | | ug/L | | 89 | 78 - 120 |
| 2,6-Dinitrotoluene | 2.00 | 1.89 | | ug/L | | 95 | 77 - 127 |
| 2-Amino-4,6-dinitrotoluene | 2.00 | 1.77 | | ug/L | | 88 | 79 - 120 |
| 2-Nitrotoluene | 2.00 | 1.44 | | ug/L | | 72 | 70 - 127 |
| 3-Nitrotoluene | 2.00 | 1.56 | | ug/L | | 78 | 73 - 125 |
| 4-Amino-2,6-dinitrotoluene | 2.00 | 1.67 | | ug/L | | 84 | 76 - 125 |
| 4-Nitrotoluene | 2.00 | 1.49 | | ug/L | | 74 | 71 - 127 |
| HMX | 2.00 | 2.12 | M | ug/L | | 106 | 65 - 135 |
| Nitrobenzene | 2.00 | 1.64 | | ug/L | | 82 | 65 - 134 |
| RDX | 2.00 | 1.99 | | ug/L | | 100 | 68 - 130 |
| Tetryl | 2.00 | 1.91 | | ug/L | | 96 | 64 - 128 |

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

**Lab Sample ID: LCS 280-488022/2-A**
**Matrix: Water**
**Analysis Batch: 488297**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 488022**

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *1,2-Dinitrobenzene* | *87* | | *83 - 119* |

**Lab Sample ID: LCS 280-488022/3-A**
**Matrix: Water**
**Analysis Batch: 488297**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 488022**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| MNX | | | 2.33 | 1.99 | J M | ug/L | | 85 | 57 - 132 | | |

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *1,2-Dinitrobenzene* | *87* | | *83 - 119* |

**Lab Sample ID: LCSD 280-488022/4-A**
**Matrix: Water**
**Analysis Batch: 488297**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 488022**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| MNX | | | 2.33 | 2.28 | | ug/L | | 98 | 57 - 132 | 14 | 30 |

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

**Lab Sample ID: 280-134268-6 MS**
**Matrix: Water**
**Analysis Batch: 488297**

**Client Sample ID: PZ019-2**
**Prep Type: Total/NA**
**Prep Batch: 488022**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,3,5-Trinitrobenzene | 0.40 | U | 1.92 | 1.90 | M | ug/L | | 99 | 73 - 125 | | |
| 1,3-Dinitrobenzene | 0.20 | U | 1.92 | 1.81 | | ug/L | | 94 | 78 - 120 | | |
| 2,4,6-Trinitrotoluene | 0.40 | U | 1.92 | 1.77 | | ug/L | | 92 | 71 - 123 | | |
| 2,4-Dinitrotoluene | 0.20 | U | 1.92 | 1.64 | | ug/L | | 85 | 78 - 120 | | |
| 2,6-Dinitrotoluene | 0.20 | U | 1.92 | 1.68 | | ug/L | | 87 | 77 - 127 | | |
| 2-Amino-4,6-dinitrotoluene | 0.12 | U | 1.92 | 1.65 | | ug/L | | 86 | 79 - 120 | | |
| 2-Nitrotoluene | 0.20 | U J1 | 1.92 | 0.797 | J1 | ug/L | | 41 | 70 - 127 | | |
| 3-Nitrotoluene | 0.40 | U M J1 | 1.92 | 0.969 | M J1 | ug/L | | 50 | 73 - 125 | | |
| 4-Amino-2,6-dinitrotoluene | 0.12 | U J1 | 1.92 | 1.54 | | ug/L | | 80 | 76 - 125 | | |
| 4-Nitrotoluene | 0.40 | U J1 | 1.92 | 1.16 | M J1 | ug/L | | 60 | 71 - 127 | | |
| HMX | 0.20 | U | 1.92 | 1.53 | M | ug/L | | 80 | 65 - 135 | | |
| Nitrobenzene | 0.20 | U J1 | 1.92 | 1.10 | J1 | ug/L | | 57 | 65 - 134 | | |
| RDX | 0.40 | U | 1.92 | 1.67 | M | ug/L | | 87 | 68 - 130 | | |
| Tetryl | 0.20 | U | 1.92 | 1.71 | | ug/L | | 89 | 64 - 128 | | |

| *Surrogate* | *MS %Recovery* | *MS Qualifier* | *Limits* |
|---|---|---|---|
| *1,2-Dinitrobenzene* | *88* | *M* | *83 - 119* |

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

**Lab Sample ID: 280-134268-6 MSD** — **Client Sample ID: PZ019-2**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 488297** — **Prep Batch: 488022**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,3,5-Trinitrobenzene | 0.40 | U | 1.95 | 1.83 | M | ug/L | | 94 | 73 - 125 | 4 | 30 |
| 1,3-Dinitrobenzene | 0.20 | U | 1.95 | 1.72 | | ug/L | | 88 | 78 - 120 | 5 | 30 |
| 2,4,6-Trinitrotoluene | 0.40 | U | 1.95 | 1.73 | | ug/L | | 89 | 71 - 123 | 3 | 30 |
| 2,4-Dinitrotoluene | 0.20 | U | 1.95 | 1.55 | | ug/L | | 80 | 78 - 120 | 6 | 30 |
| 2,6-Dinitrotoluene | 0.20 | U | 1.95 | 1.60 | | ug/L | | 82 | 77 - 127 | 5 | 30 |
| 2-Amino-4,6-dinitrotoluene | 0.12 | U | 1.95 | 1.56 | | ug/L | | 80 | 79 - 120 | 6 | 30 |
| 2-Nitrotoluene | 0.20 | U J1 | 1.95 | 0.894 | J1 | ug/L | | 46 | 70 - 127 | 11 | 30 |
| 3-Nitrotoluene | 0.40 | U M J1 | 1.95 | 1.06 | J1 | ug/L | | 54 | 73 - 125 | 9 | 30 |
| 4-Amino-2,6-dinitrotoluene | 0.12 | U J1 | 1.95 | 1.43 | J1 | ug/L | | 73 | 76 - 125 | 7 | 30 |
| 4-Nitrotoluene | 0.40 | U J1 | 1.95 | 1.08 | J1 | ug/L | | 55 | 71 - 127 | 8 | 30 |
| HMX | 0.20 | U | 1.95 | 1.58 | M | ug/L | | 81 | 65 - 135 | 3 | 30 |
| Nitrobenzene | 0.20 | U J1 | 1.95 | 1.19 | J1 | ug/L | | 61 | 65 - 134 | 8 | 30 |
| RDX | 0.40 | U | 1.95 | 1.61 | M | ug/L | | 83 | 68 - 130 | 3 | 30 |
| Tetryl | 0.20 | U | 1.95 | 1.67 | | ug/L | | 86 | 64 - 128 | 2 | 30 |

| *Surrogate* | *MSD %Recovery* | *MSD Qualifier* | *Limits* |
|---|---|---|---|
| *1,2-Dinitrobenzene* | *91* | *M* | *83 - 119* |

## Method: 350.1 - Nitrogen, Ammonia

**Lab Sample ID: MB 280-489175/19** — **Client Sample ID: Method Blank**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 489175**

| 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 | | 03/18/20 12:29 | 1 |

**Lab Sample ID: LCS 280-489175/18** — **Client Sample ID: Lab Control Sample**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 489175**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Ammonia | 2.50 | 2.47 | | mg/L | | 99 | 90 - 110 |

**Lab Sample ID: 280-134268-6 MS** — **Client Sample ID: PZ019-2**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 489175**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Ammonia | 0.050 | U | 1.00 | 0.909 | | mg/L | | 91 | 90 - 110 |

**Lab Sample ID: 280-134268-6 MSD** — **Client Sample ID: PZ019-2**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 489175**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Ammonia | 0.050 | U | 1.00 | 0.897 | | mg/L | | 90 | 90 - 110 | 1 | 10 |

## Method: 350.1 - Nitrogen, Ammonia (Continued)

**Lab Sample ID: MB 280-489439/20** — **Client Sample ID: Method Blank**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 489439**

| 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 | | 03/20/20 13:47 | 1 |

**Lab Sample ID: LCS 280-489439/18** — **Client Sample ID: Lab Control Sample**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 489439**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Ammonia | 2.50 | 2.54 | | mg/L | | 101 | 90 - 110 |

**Lab Sample ID: LCSD 280-489439/19** — **Client Sample ID: Lab Control Sample Dup**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 489439**

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|
| Ammonia | 2.50 | 2.53 | | mg/L | | 101 | 90 - 110 | 0 | 10 |

**Lab Sample ID: 280-134268-5 MS** — **Client Sample ID: CA211-2**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 489439**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Ammonia | 0.043 | J | 1.00 | 0.995 | | mg/L | | 95 | 90 - 110 |

**Lab Sample ID: 280-134268-5 MSD** — **Client Sample ID: CA211-2**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 489439**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Ammonia | 0.043 | J | 1.00 | 0.982 | | mg/L | | 94 | 90 - 110 | 1 | 10 |

## Method: 351.2 - Nitrogen, Total Kjeldahl

**Lab Sample ID: MB 280-488202/28-A** — **Client Sample ID: Method Blank**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 488462** — **Prep Batch: 488202**

| 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 | | 03/11/20 18:38 | 1 |

**Lab Sample ID: MB 280-488202/2-A** — **Client Sample ID: Method Blank**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 488462** — **Prep Batch: 488202**

| 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 | | 03/11/20 17:47 | 1 |

## Method: 351.2 - Nitrogen, Total Kjeldahl (Continued)

**Lab Sample ID: LCS 280-488202/1-A** — **Client Sample ID: Lab Control Sample**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 488462** — **Prep Batch: 488202**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Nitrogen, Total Kjeldahl | | | 6.00 | 6.09 | | mg/L | | 101 | 90 - 110 | | |

**Lab Sample ID: LCS 280-488202/27-A** — **Client Sample ID: Lab Control Sample**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 488462** — **Prep Batch: 488202**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Nitrogen, Total Kjeldahl | | | 6.00 | 5.74 | | mg/L | | 96 | 90 - 110 | | |

**Lab Sample ID: 280-134268-6 MS** — **Client Sample ID: PZ019-2**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 488462** — **Prep Batch: 488202**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Nitrogen, Total Kjeldahl | 1.0 | U J1 | 3.00 | 1.0 | U J1 | mg/L | | 0 | 90 - 110 | | |

**Lab Sample ID: 280-134268-6 MSD** — **Client Sample ID: PZ019-2**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 488462** — **Prep Batch: 488202**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Nitrogen, Total Kjeldahl | 1.0 | U J1 | 3.00 | 1.0 | U J1 | mg/L | | 0 | 90 - 110 | NC | 25 |

## Method: 353.2 - Nitrogen, Nitrate-Nitrite

**Lab Sample ID: MB 280-488338/22** — **Client Sample ID: Method Blank**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 488338**

| Analyte | MB Result | MB Qualifier | LOQ | LOD | DL | Unit | D | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Nitrate Nitrite as N | 0.0478 | J | 0.10 | 0.050 | 0.019 | mg/L | | 03/10/20 17:13 | 1 |

**Lab Sample ID: LCS 280-488338/21** — **Client Sample ID: Lab Control Sample**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 488338**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Nitrate Nitrite as N | | | 5.00 | 5.41 | | mg/L | | 108 | 90 - 110 | | |

**Lab Sample ID: LCSD 280-488338/60** — **Client Sample ID: Lab Control Sample Dup**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 488338**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Nitrate Nitrite as N | | | 5.00 | 4.81 | | mg/L | | 96 | 90 - 110 | 1 | 10 |

## Method: 353.2 - Nitrogen, Nitrate-Nitrite (Continued)

**Lab Sample ID: 280-134268-6 MS** — **Client Sample ID: PZ019-2**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 488338**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Nitrate Nitrite as N | 31 | J1 | 20.0 | 44.8 | J1 | mg/L | | 68 | 90 - 110 |

**Lab Sample ID: 280-134268-6 MSD** — **Client Sample ID: PZ019-2**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 488338**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Nitrate Nitrite as N | 31 | J1 | 20.0 | 41.8 | J1 | mg/L | | 53 | 90 - 110 | 7 | 10 |

**Lab Sample ID: 280-134268-10 MS** — **Client Sample ID: G0080-2**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 488338**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Nitrate Nitrite as N | 2.8 | J1 | 4.00 | 7.16 | | mg/L | | 109 | 90 - 110 |

**Lab Sample ID: 280-134268-10 MSD** — **Client Sample ID: G0080-2**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 488338**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Nitrate Nitrite as N | 2.8 | J1 | 4.00 | 6.01 | J1 | mg/L | | 80 | 90 - 110 | 18 | 10 |

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

**Lab Sample ID: MB 280-487751/2-A** — **Client Sample ID: Method Blank**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 487837** — **Prep Batch: 487751**

| 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 | | 03/05/20 12:56 | 1 |

**Lab Sample ID: LCS 280-487751/1-A** — **Client Sample ID: Lab Control Sample**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 487837** — **Prep Batch: 487751**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Sulfide | 21.0 | 13.6 | | mg/L | | 65 | 44 - 110 |

**Lab Sample ID: 280-134268-6 MS** — **Client Sample ID: PZ019-2**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 487837** — **Prep Batch: 487751**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Sulfide | 0.80 | J | 21.0 | 20.0 | | mg/L | | 92 | 44 - 110 |

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

**Lab Sample ID: 280-134268-6 MSD** — **Client Sample ID: PZ019-2**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 487837** — **Prep Batch: 487751**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Sulfide | 0.80 | J | 21.0 | 20.0 | | mg/L | | 92 | 44 - 110 | 0 | 20 |

**Lab Sample ID: MB 280-487821/2-A** — **Client Sample ID: Method Blank**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 487838** — **Prep Batch: 487821**

| Analyte | MB Result | MB Qualifier | LOQ | LOD | DL | Unit | D | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Sulfide | 0.800 | J | 4.0 | 1.9 | 0.79 | mg/L | | 03/05/20 13:00 | 1 |

**Lab Sample ID: LCS 280-487821/1-A** — **Client Sample ID: Lab Control Sample**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 487838** — **Prep Batch: 487821**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Sulfide | 21.0 | 20.0 | | mg/L | | 95 | 44 - 110 |

**Lab Sample ID: 280-134268-4 MS** — **Client Sample ID: CA212-2**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 487838** — **Prep Batch: 487821**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Sulfide | 1.9 | U J1 | 21.0 | 12.8 | | mg/L | | 61 | 44 - 110 |

**Lab Sample ID: 280-134268-4 MSD** — **Client Sample ID: CA212-2**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 487838** — **Prep Batch: 487821**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Sulfide | 1.9 | U J1 | 21.0 | 19.2 | J1 | mg/L | | 92 | 44 - 110 | 40 | 20 |

## Method: 9056A - Anions, Ion Chromatography

**Lab Sample ID: MB 280-488952/6** — **Client Sample ID: Method Blank**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 488952**

| 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 | | 03/17/20 13:42 | 1 |

**Lab Sample ID: LCS 280-488952/4** — **Client Sample ID: Lab Control Sample**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 488952**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Sulfate | 100 | 92.7 | | mg/L | | 93 | 87 - 112 |

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

**Lab Sample ID: LCSD 280-488952/5** — **Client Sample ID: Lab Control Sample Dup**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 488952**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Sulfate | | | 100 | 92.5 | | mg/L | | 93 | 87 - 112 | 0 | 10 |

**Lab Sample ID: MRL 280-488952/3** — **Client Sample ID: Lab Control Sample**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 488952**

| Analyte | | | Spike Added | MRL Result | MRL Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Sulfate | | | 5.00 | 4.31 | J | mg/L | | 86 | 50 - 150 | | |

**Lab Sample ID: 280-134268-6 MS** — **Client Sample ID: PZ019-2**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 488952**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Sulfate | 57 | | 50.0 | 112 | | mg/L | | 109 | 87 - 112 | | |

**Lab Sample ID: 280-134268-6 MSD** — **Client Sample ID: PZ019-2**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 488952**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Sulfate | 57 | | 50.0 | 112 | | mg/L | | 109 | 87 - 112 | 0 | 10 |

**Lab Sample ID: 280-134268-6 DU** — **Client Sample ID: PZ019-2**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 488952**

| Analyte | Sample Result | Sample Qualifier | | DU Result | DU Qualifier | Unit | D | | | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Sulfate | 57 | | | 57.8 | | mg/L | | | | 1 | 10 |

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

**Lab Sample ID: MB 280-488988/2-A** — **Client Sample ID: Method Blank**
**Matrix: Water** — **Prep Type: Dissolved**
**Analysis Batch: 489142**

| Analyte | MB Result | MB Qualifier | LOQ | LOD | DL | Unit | D | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Dissolved Organic Carbon - Quad | 0.869 | J | 1.0 | 1.0 | 0.35 | mg/L | | 03/17/20 18:58 | 1 |

**Lab Sample ID: LCS 280-488988/1-A** — **Client Sample ID: Lab Control Sample**
**Matrix: Water** — **Prep Type: Dissolved**
**Analysis Batch: 489142**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Dissolved Organic Carbon - Quad | | | 25.0 | 24.4 | | mg/L | | 97 | 88 - 112 | | |

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

**Lab Sample ID: 280-134268-6 MS** — **Client Sample ID: PZ019-2**
**Matrix: Water** — **Prep Type: Dissolved**
**Analysis Batch: 489142**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Dissolved Organic Carbon - Quad | 2.0 | J1 B | 25.0 | 26.4 | | mg/L | | 97 | 88 - 112 | | |

**Lab Sample ID: 280-134268-6 MSD** — **Client Sample ID: PZ019-2**
**Matrix: Water** — **Prep Type: Dissolved**
**Analysis Batch: 489142**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Dissolved Organic Carbon - Quad | 2.0 | J1 B | 25.0 | 26.0 | | mg/L | | 96 | 88 - 112 | 2 | 15 |

**Lab Sample ID: MB 280-489286/2-A** — **Client Sample ID: Method Blank**
**Matrix: Water** — **Prep Type: Dissolved**
**Analysis Batch: 489347**

| 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 | | 03/19/20 17:43 | 1 |

**Lab Sample ID: LCS 280-489286/1-A** — **Client Sample ID: Lab Control Sample**
**Matrix: Water** — **Prep Type: Dissolved**
**Analysis Batch: 489347**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Dissolved Organic Carbon - Quad | | | 25.0 | 24.8 | | mg/L | | 99 | 88 - 112 | | |

**Lab Sample ID: 280-134268-6 MS** — **Client Sample ID: PZ019-2**
**Matrix: Water** — **Prep Type: Dissolved**
**Analysis Batch: 489347**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Dissolved Organic Carbon - Quad | 2.1 | | 25.0 | 26.5 | | mg/L | | 98 | 88 - 112 | | |

**Lab Sample ID: 280-134268-6 MSD** — **Client Sample ID: PZ019-2**
**Matrix: Water** — **Prep Type: Dissolved**
**Analysis Batch: 489347**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Dissolved Organic Carbon - Quad | 2.1 | | 25.0 | 26.6 | | mg/L | | 98 | 88 - 112 | 0 | 15 |

## Method: SM 2320B - Alkalinity

**Lab Sample ID: MB 280-488346/33** — **Client Sample ID: Method Blank**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 488346**

| 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 | | 03/10/20 13:21 | 1 |

## Method: SM 2320B - Alkalinity (Continued)

**Lab Sample ID: MB 280-488346/60** — **Client Sample ID: Method Blank**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 488346**

| 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 | | 03/10/20 16:04 | 1 |

**Lab Sample ID: LCS 280-488346/31** — **Client Sample ID: Lab Control Sample**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 488346**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Total Alkalinity as CaCO3 | 200 | 205 | | mg/L | | 103 | 89 - 109 |

**Lab Sample ID: LCS 280-488346/58** — **Client Sample ID: Lab Control Sample**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 488346**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Total Alkalinity as CaCO3 | 200 | 218 | | mg/L | | 109 | 89 - 109 |

**Lab Sample ID: LCSD 280-488346/32** — **Client Sample ID: Lab Control Sample Dup**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 488346**

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|
| Total Alkalinity as CaCO3 | 200 | 205 | | mg/L | | 102 | 89 - 109 | 0 | 10 |

**Lab Sample ID: LCSD 280-488346/59** — **Client Sample ID: Lab Control Sample Dup**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 488346**

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|
| Total Alkalinity as CaCO3 | 200 | 206 | | mg/L | | 103 | 89 - 109 | 6 | 10 |

**Lab Sample ID: 280-134268-4 DU** — **Client Sample ID: CA212-2**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 488346**

| Analyte | Sample Result | Sample Qualifier | DU Result | DU Qualifier | Unit | D | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|
| Total Alkalinity as CaCO3 | 230 | | 235 | | mg/L | | 1 | 10 |

**Lab Sample ID: MB 280-488607/5** — **Client Sample ID: Method Blank**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 488607**

| 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 | | 03/12/20 11:30 | 1 |

**Lab Sample ID: LCS 280-488607/4** — **Client Sample ID: Lab Control Sample**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 488607**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Total Alkalinity as CaCO3 | 200 | 204 | | mg/L | | 102 | 89 - 109 |

# QC Sample Results

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

Job ID: 280-134268-1

## Method: SM 2320B - Alkalinity

**Lab Sample ID: 280-134268-5 DU**
**Matrix: Water**
**Analysis Batch: 488607**

**Client Sample ID: CA211-2**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | | DU Result | DU Qualifier | Unit | D | | | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Alkalinity as CaCO3 | 210 | | | 217 | | mg/L | | | | 2 | 10 |

## GC VOA

### Analysis Batch: 488165

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 280-134268-1 | NW070-2 | Total/NA | Water | RSK-175 | |
| 280-134268-2 | NW071-2 | Total/NA | Water | RSK-175 | |
| 280-134268-6 | PZ019-2 | Total/NA | Water | RSK-175 | |
| 280-134268-9 | NW062-2 | Total/NA | Water | RSK-175 | |
| 280-134268-10 | G0080-2 | Total/NA | Water | RSK-175 | |
| MB 280-488165/37 | Method Blank | Total/NA | Water | RSK-175 | |
| LCS 280-488165/35 | Lab Control Sample | Total/NA | Water | RSK-175 | |
| LCSD 280-488165/36 | Lab Control Sample Dup | Total/NA | Water | RSK-175 | |
| 280-134268-6 MS | PZ019-2 | Total/NA | Water | RSK-175 | |
| 280-134268-6 MSD | PZ019-2 | Total/NA | Water | RSK-175 | |
| 280-134268-6 DU | PZ019-2 | Total/NA | Water | RSK-175 | |

### Analysis Batch: 488254

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 280-134268-3 | CA210-2 | Total/NA | Water | RSK-175 | |
| 280-134268-4 | CA212-2 | Total/NA | Water | RSK-175 | |
| 280-134268-5 | CA211-2 | Total/NA | Water | RSK-175 | |
| 280-134268-7 | NW080R-2 | Total/NA | Water | RSK-175 | |
| 280-134268-8 | NW081R-2 | Total/NA | Water | RSK-175 | |
| MB 280-488254/50 | Method Blank | Total/NA | Water | RSK-175 | |
| LCS 280-488254/48 | Lab Control Sample | Total/NA | Water | RSK-175 | |
| LCSD 280-488254/49 | Lab Control Sample Dup | Total/NA | Water | RSK-175 | |

## HPLC/IC

### Prep Batch: 488022

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 280-134268-1 | NW070-2 | Total/NA | Water | 3535 | |
| 280-134268-2 | NW071-2 | Total/NA | Water | 3535 | |
| 280-134268-3 | CA210-2 | Total/NA | Water | 3535 | |
| 280-134268-4 | CA212-2 | Total/NA | Water | 3535 | |
| 280-134268-5 | CA211-2 | Total/NA | Water | 3535 | |
| 280-134268-6 | PZ019-2 | Total/NA | Water | 3535 | |
| 280-134268-7 | NW080R-2 | Total/NA | Water | 3535 | |
| 280-134268-8 | NW081R-2 | Total/NA | Water | 3535 | |
| 280-134268-9 | NW062-2 | Total/NA | Water | 3535 | |
| 280-134268-10 | G0080-2 | Total/NA | Water | 3535 | |
| MB 280-488022/1-A | Method Blank | Total/NA | Water | 3535 | |
| LCS 280-488022/2-A | Lab Control Sample | Total/NA | Water | 3535 | |
| LCS 280-488022/3-A | Lab Control Sample | Total/NA | Water | 3535 | |
| LCSD 280-488022/4-A | Lab Control Sample Dup | Total/NA | Water | 3535 | |
| 280-134268-6 MS | PZ019-2 | Total/NA | Water | 3535 | |
| 280-134268-6 MSD | PZ019-2 | Total/NA | Water | 3535 | |

### Analysis Batch: 488297

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 280-134268-1 | NW070-2 | Total/NA | Water | 8330A | 488022 |
| 280-134268-2 | NW071-2 | Total/NA | Water | 8330A | 488022 |
| 280-134268-3 | CA210-2 | Total/NA | Water | 8330A | 488022 |
| 280-134268-4 | CA212-2 | Total/NA | Water | 8330A | 488022 |
| 280-134268-5 | CA211-2 | Total/NA | Water | 8330A | 488022 |

## HPLC/IC (Continued)

### Analysis Batch: 488297 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 280-134268-6 | PZ019-2 | Total/NA | Water | 8330A | 488022 |
| 280-134268-7 | NW080R-2 | Total/NA | Water | 8330A | 488022 |
| 280-134268-8 | NW081R-2 | Total/NA | Water | 8330A | 488022 |
| 280-134268-9 | NW062-2 | Total/NA | Water | 8330A | 488022 |
| 280-134268-10 | G0080-2 | Total/NA | Water | 8330A | 488022 |
| MB 280-488022/1-A | Method Blank | Total/NA | Water | 8330A | 488022 |
| LCS 280-488022/2-A | Lab Control Sample | Total/NA | Water | 8330A | 488022 |
| LCS 280-488022/3-A | Lab Control Sample | Total/NA | Water | 8330A | 488022 |
| LCSD 280-488022/4-A | Lab Control Sample Dup | Total/NA | Water | 8330A | 488022 |
| 280-134268-6 MS | PZ019-2 | Total/NA | Water | 8330A | 488022 |
| 280-134268-6 MSD | PZ019-2 | Total/NA | Water | 8330A | 488022 |

### Analysis Batch: 488850

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 280-134268-9 | NW062-2 | Total/NA | Water | 8330A | 488022 |
| 280-134268-10 | G0080-2 | Total/NA | Water | 8330A | 488022 |

## General Chemistry

### Prep Batch: 487751

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 280-134268-1 | NW070-2 | Total/NA | Water | 9030B | |
| 280-134268-2 | NW071-2 | Total/NA | Water | 9030B | |
| 280-134268-3 | CA210-2 | Total/NA | Water | 9030B | |
| 280-134268-6 | PZ019-2 | Total/NA | Water | 9030B | |
| MB 280-487751/2-A | Method Blank | Total/NA | Water | 9030B | |
| LCS 280-487751/1-A | Lab Control Sample | Total/NA | Water | 9030B | |
| 280-134268-6 MS | PZ019-2 | Total/NA | Water | 9030B | |
| 280-134268-6 MSD | PZ019-2 | Total/NA | Water | 9030B | |

### Prep Batch: 487821

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 280-134268-4 | CA212-2 | Total/NA | Water | 9030B | |
| 280-134268-5 | CA211-2 | Total/NA | Water | 9030B | |
| 280-134268-7 | NW080R-2 | Total/NA | Water | 9030B | |
| 280-134268-8 | NW081R-2 | Total/NA | Water | 9030B | |
| 280-134268-9 | NW062-2 | Total/NA | Water | 9030B | |
| 280-134268-10 | G0080-2 | Total/NA | Water | 9030B | |
| MB 280-487821/2-A | Method Blank | Total/NA | Water | 9030B | |
| LCS 280-487821/1-A | Lab Control Sample | Total/NA | Water | 9030B | |
| 280-134268-4 MS | CA212-2 | Total/NA | Water | 9030B | |
| 280-134268-4 MSD | CA212-2 | Total/NA | Water | 9030B | |

### Analysis Batch: 487837

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 280-134268-1 | NW070-2 | Total/NA | Water | 9034 | 487751 |
| 280-134268-2 | NW071-2 | Total/NA | Water | 9034 | 487751 |
| 280-134268-3 | CA210-2 | Total/NA | Water | 9034 | 487751 |
| 280-134268-6 | PZ019-2 | Total/NA | Water | 9034 | 487751 |
| MB 280-487751/2-A | Method Blank | Total/NA | Water | 9034 | 487751 |
| LCS 280-487751/1-A | Lab Control Sample | Total/NA | Water | 9034 | 487751 |

## General Chemistry (Continued)

### Analysis Batch: 487837 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 280-134268-6 MS | PZ019-2 | Total/NA | Water | 9034 | 487751 |
| 280-134268-6 MSD | PZ019-2 | Total/NA | Water | 9034 | 487751 |

### Analysis Batch: 487838

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 280-134268-4 | CA212-2 | Total/NA | Water | 9034 | 487821 |
| 280-134268-5 | CA211-2 | Total/NA | Water | 9034 | 487821 |
| 280-134268-7 | NW080R-2 | Total/NA | Water | 9034 | 487821 |
| 280-134268-8 | NW081R-2 | Total/NA | Water | 9034 | 487821 |
| 280-134268-9 | NW062-2 | Total/NA | Water | 9034 | 487821 |
| 280-134268-10 | G0080-2 | Total/NA | Water | 9034 | 487821 |
| MB 280-487821/2-A | Method Blank | Total/NA | Water | 9034 | 487821 |
| LCS 280-487821/1-A | Lab Control Sample | Total/NA | Water | 9034 | 487821 |
| 280-134268-4 MS | CA212-2 | Total/NA | Water | 9034 | 487821 |
| 280-134268-4 MSD | CA212-2 | Total/NA | Water | 9034 | 487821 |

### Prep Batch: 488202

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 280-134268-1 | NW070-2 | Total/NA | Water | 351.2 | |
| 280-134268-2 | NW071-2 | Total/NA | Water | 351.2 | |
| 280-134268-3 | CA210-2 | Total/NA | Water | 351.2 | |
| 280-134268-4 | CA212-2 | Total/NA | Water | 351.2 | |
| 280-134268-5 | CA211-2 | Total/NA | Water | 351.2 | |
| 280-134268-6 | PZ019-2 | Total/NA | Water | 351.2 | |
| 280-134268-7 | NW080R-2 | Total/NA | Water | 351.2 | |
| 280-134268-8 | NW081R-2 | Total/NA | Water | 351.2 | |
| 280-134268-9 | NW062-2 | Total/NA | Water | 351.2 | |
| 280-134268-10 | G0080-2 | Total/NA | Water | 351.2 | |
| MB 280-488202/28-A | Method Blank | Total/NA | Water | 351.2 | |
| MB 280-488202/2-A | Method Blank | Total/NA | Water | 351.2 | |
| LCS 280-488202/1-A | Lab Control Sample | Total/NA | Water | 351.2 | |
| LCS 280-488202/27-A | Lab Control Sample | Total/NA | Water | 351.2 | |
| 280-134268-6 MS | PZ019-2 | Total/NA | Water | 351.2 | |
| 280-134268-6 MSD | PZ019-2 | Total/NA | Water | 351.2 | |

### Analysis Batch: 488338

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 280-134268-1 | NW070-2 | Total/NA | Water | 353.2 | |
| 280-134268-2 | NW071-2 | Total/NA | Water | 353.2 | |
| 280-134268-3 | CA210-2 | Total/NA | Water | 353.2 | |
| 280-134268-4 | CA212-2 | Total/NA | Water | 353.2 | |
| 280-134268-5 | CA211-2 | Total/NA | Water | 353.2 | |
| 280-134268-6 | PZ019-2 | Total/NA | Water | 353.2 | |
| 280-134268-7 | NW080R-2 | Total/NA | Water | 353.2 | |
| 280-134268-8 | NW081R-2 | Total/NA | Water | 353.2 | |
| 280-134268-9 | NW062-2 | Total/NA | Water | 353.2 | |
| 280-134268-10 | G0080-2 | Total/NA | Water | 353.2 | |
| MB 280-488338/22 | Method Blank | Total/NA | Water | 353.2 | |
| LCS 280-488338/21 | Lab Control Sample | Total/NA | Water | 353.2 | |
| LCSD 280-488338/60 | Lab Control Sample Dup | Total/NA | Water | 353.2 | |
| 280-134268-6 MS | PZ019-2 | Total/NA | Water | 353.2 | |

## General Chemistry (Continued)

### Analysis Batch: 488338 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 280-134268-6 MSD | PZ019-2 | Total/NA | Water | 353.2 | |
| 280-134268-10 MS | G0080-2 | Total/NA | Water | 353.2 | |
| 280-134268-10 MSD | G0080-2 | Total/NA | Water | 353.2 | |

### Analysis Batch: 488346

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 280-134268-1 | NW070-2 | Total/NA | Water | SM 2320B | |
| 280-134268-2 | NW071-2 | Total/NA | Water | SM 2320B | |
| 280-134268-3 | CA210-2 | Total/NA | Water | SM 2320B | |
| 280-134268-4 | CA212-2 | Total/NA | Water | SM 2320B | |
| 280-134268-6 | PZ019-2 | Total/NA | Water | SM 2320B | |
| MB 280-488346/33 | Method Blank | Total/NA | Water | SM 2320B | |
| MB 280-488346/60 | Method Blank | Total/NA | Water | SM 2320B | |
| LCS 280-488346/31 | Lab Control Sample | Total/NA | Water | SM 2320B | |
| LCS 280-488346/58 | Lab Control Sample | Total/NA | Water | SM 2320B | |
| LCSD 280-488346/32 | Lab Control Sample Dup | Total/NA | Water | SM 2320B | |
| LCSD 280-488346/59 | Lab Control Sample Dup | Total/NA | Water | SM 2320B | |
| 280-134268-4 DU | CA212-2 | Total/NA | Water | SM 2320B | |

### Analysis Batch: 488462

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 280-134268-1 | NW070-2 | Total/NA | Water | 351.2 | 488202 |
| 280-134268-2 | NW071-2 | Total/NA | Water | 351.2 | 488202 |
| 280-134268-3 | CA210-2 | Total/NA | Water | 351.2 | 488202 |
| 280-134268-4 | CA212-2 | Total/NA | Water | 351.2 | 488202 |
| 280-134268-5 | CA211-2 | Total/NA | Water | 351.2 | 488202 |
| 280-134268-6 | PZ019-2 | Total/NA | Water | 351.2 | 488202 |
| 280-134268-7 | NW080R-2 | Total/NA | Water | 351.2 | 488202 |
| 280-134268-8 | NW081R-2 | Total/NA | Water | 351.2 | 488202 |
| 280-134268-9 | NW062-2 | Total/NA | Water | 351.2 | 488202 |
| 280-134268-10 | G0080-2 | Total/NA | Water | 351.2 | 488202 |
| MB 280-488202/28-A | Method Blank | Total/NA | Water | 351.2 | 488202 |
| MB 280-488202/2-A | Method Blank | Total/NA | Water | 351.2 | 488202 |
| LCS 280-488202/1-A | Lab Control Sample | Total/NA | Water | 351.2 | 488202 |
| LCS 280-488202/27-A | Lab Control Sample | Total/NA | Water | 351.2 | 488202 |
| 280-134268-6 MS | PZ019-2 | Total/NA | Water | 351.2 | 488202 |
| 280-134268-6 MSD | PZ019-2 | Total/NA | Water | 351.2 | 488202 |

### Analysis Batch: 488607

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 280-134268-5 | CA211-2 | Total/NA | Water | SM 2320B | |
| 280-134268-7 | NW080R-2 | Total/NA | Water | SM 2320B | |
| 280-134268-8 | NW081R-2 | Total/NA | Water | SM 2320B | |
| 280-134268-9 | NW062-2 | Total/NA | Water | SM 2320B | |
| 280-134268-10 | G0080-2 | Total/NA | Water | SM 2320B | |
| MB 280-488607/5 | Method Blank | Total/NA | Water | SM 2320B | |
| LCS 280-488607/4 | Lab Control Sample | Total/NA | Water | SM 2320B | |
| 280-134268-5 DU | CA211-2 | Total/NA | Water | SM 2320B | |

## General Chemistry

### Analysis Batch: 488952

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 280-134268-1 | NW070-2 | Total/NA | Water | 9056A | |
| 280-134268-2 | NW071-2 | Total/NA | Water | 9056A | |
| 280-134268-3 | CA210-2 | Total/NA | Water | 9056A | |
| 280-134268-4 | CA212-2 | Total/NA | Water | 9056A | |
| 280-134268-5 | CA211-2 | Total/NA | Water | 9056A | |
| 280-134268-6 | PZ019-2 | Total/NA | Water | 9056A | |
| 280-134268-7 | NW080R-2 | Total/NA | Water | 9056A | |
| 280-134268-8 | NW081R-2 | Total/NA | Water | 9056A | |
| 280-134268-9 | NW062-2 | Total/NA | Water | 9056A | |
| 280-134268-10 | G0080-2 | Total/NA | Water | 9056A | |
| MB 280-488952/6 | Method Blank | Total/NA | Water | 9056A | |
| LCS 280-488952/4 | Lab Control Sample | Total/NA | Water | 9056A | |
| LCSD 280-488952/5 | Lab Control Sample Dup | Total/NA | Water | 9056A | |
| MRL 280-488952/3 | Lab Control Sample | Total/NA | Water | 9056A | |
| 280-134268-6 MS | PZ019-2 | Total/NA | Water | 9056A | |
| 280-134268-6 MSD | PZ019-2 | Total/NA | Water | 9056A | |
| 280-134268-6 DU | PZ019-2 | Total/NA | Water | 9056A | |

### Filtration Batch: 488988

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 280-134268-3 | CA210-2 | Dissolved | Water | FILTRATION | |
| MB 280-488988/2-A | Method Blank | Dissolved | Water | FILTRATION | |
| LCS 280-488988/1-A | Lab Control Sample | Dissolved | Water | FILTRATION | |
| 280-134268-6 MS | PZ019-2 | Dissolved | Water | FILTRATION | |
| 280-134268-6 MSD | PZ019-2 | Dissolved | Water | FILTRATION | |

### Analysis Batch: 489142

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 280-134268-3 | CA210-2 | Dissolved | Water | 9060A | 488988 |
| MB 280-488988/2-A | Method Blank | Dissolved | Water | 9060A | 488988 |
| LCS 280-488988/1-A | Lab Control Sample | Dissolved | Water | 9060A | 488988 |
| 280-134268-6 MS | PZ019-2 | Dissolved | Water | 9060A | 488988 |
| 280-134268-6 MSD | PZ019-2 | Dissolved | Water | 9060A | 488988 |

### Analysis Batch: 489175

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 280-134268-1 | NW070-2 | Total/NA | Water | 350.1 | |
| 280-134268-2 | NW071-2 | Total/NA | Water | 350.1 | |
| 280-134268-6 | PZ019-2 | Total/NA | Water | 350.1 | |
| 280-134268-9 | NW062-2 | Total/NA | Water | 350.1 | |
| 280-134268-10 | G0080-2 | Total/NA | Water | 350.1 | |
| MB 280-489175/19 | Method Blank | Total/NA | Water | 350.1 | |
| LCS 280-489175/18 | Lab Control Sample | Total/NA | Water | 350.1 | |
| 280-134268-6 MS | PZ019-2 | Total/NA | Water | 350.1 | |
| 280-134268-6 MSD | PZ019-2 | Total/NA | Water | 350.1 | |

### Filtration Batch: 489286

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 280-134268-1 | NW070-2 | Dissolved | Water | FILTRATION | |
| 280-134268-2 | NW071-2 | Dissolved | Water | FILTRATION | |
| 280-134268-4 | CA212-2 | Dissolved | Water | FILTRATION | |

## General Chemistry (Continued)

### Filtration Batch: 489286 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 280-134268-5 | CA211-2 | Dissolved | Water | FILTRATION | |
| 280-134268-6 | PZ019-2 | Dissolved | Water | FILTRATION | |
| 280-134268-7 | NW080R-2 | Dissolved | Water | FILTRATION | |
| 280-134268-8 | NW081R-2 | Dissolved | Water | FILTRATION | |
| 280-134268-9 | NW062-2 | Dissolved | Water | FILTRATION | |
| 280-134268-10 | G0080-2 | Dissolved | Water | FILTRATION | |
| MB 280-489286/2-A | Method Blank | Dissolved | Water | FILTRATION | |
| LCS 280-489286/1-A | Lab Control Sample | Dissolved | Water | FILTRATION | |
| 280-134268-6 MS | PZ019-2 | Dissolved | Water | FILTRATION | |
| 280-134268-6 MSD | PZ019-2 | Dissolved | Water | FILTRATION | |

### Analysis Batch: 489347

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 280-134268-1 | NW070-2 | Dissolved | Water | 9060A | 489286 |
| 280-134268-2 | NW071-2 | Dissolved | Water | 9060A | 489286 |
| 280-134268-4 | CA212-2 | Dissolved | Water | 9060A | 489286 |
| 280-134268-5 | CA211-2 | Dissolved | Water | 9060A | 489286 |
| 280-134268-6 | PZ019-2 | Dissolved | Water | 9060A | 489286 |
| 280-134268-7 | NW080R-2 | Dissolved | Water | 9060A | 489286 |
| 280-134268-8 | NW081R-2 | Dissolved | Water | 9060A | 489286 |
| 280-134268-9 | NW062-2 | Dissolved | Water | 9060A | 489286 |
| 280-134268-10 | G0080-2 | Dissolved | Water | 9060A | 489286 |
| MB 280-489286/2-A | Method Blank | Dissolved | Water | 9060A | 489286 |
| LCS 280-489286/1-A | Lab Control Sample | Dissolved | Water | 9060A | 489286 |
| 280-134268-6 MS | PZ019-2 | Dissolved | Water | 9060A | 489286 |
| 280-134268-6 MSD | PZ019-2 | Dissolved | Water | 9060A | 489286 |

### Analysis Batch: 489439

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 280-134268-3 | CA210-2 | Total/NA | Water | 350.1 | |
| 280-134268-4 | CA212-2 | Total/NA | Water | 350.1 | |
| 280-134268-5 | CA211-2 | Total/NA | Water | 350.1 | |
| 280-134268-7 | NW080R-2 | Total/NA | Water | 350.1 | |
| 280-134268-8 | NW081R-2 | Total/NA | Water | 350.1 | |
| MB 280-489439/20 | Method Blank | Total/NA | Water | 350.1 | |
| LCS 280-489439/18 | Lab Control Sample | Total/NA | Water | 350.1 | |
| LCSD 280-489439/19 | Lab Control Sample Dup | Total/NA | Water | 350.1 | |
| 280-134268-5 MS | CA211-2 | Total/NA | Water | 350.1 | |
| 280-134268-5 MSD | CA211-2 | Total/NA | Water | 350.1 | |

## Client Sample ID: NW070-2
## Lab Sample ID: 280-134268-1

**Date Collected: 03/02/20 14:35**
**Matrix: Water**
**Date Received: 03/04/20 09:15**

| 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 | 488165 | 03/10/20 01:09 | CAS | TAL DEN |
| Total/NA | Prep | 3535 | | | 504.6 mL | 5 mL | 488022 | 03/07/20 16:07 | KSA | TAL DEN |
| Total/NA | Analysis | 8330A | | 1 | | | 488297 | 03/11/20 17:54 | CBB | TAL DEN |
| Total/NA | Analysis | 350.1 | | 1 | 10 mL | 10 mL | 489175 | 03/18/20 12:47 | BWH | TAL DEN |
| Total/NA | Prep | 351.2 | | | 25 mL | 25 mL | 488202 | 03/09/20 20:13 | SVC | TAL DEN |
| Total/NA | Analysis | 351.2 | | 1 | | | 488462 | 03/11/20 18:35 | SVC | TAL DEN |
| Total/NA | Analysis | 353.2 | | 1 | 100 mL | 100 mL | 488338 | 03/10/20 17:21 | SVC | TAL DEN |
| Total/NA | Prep | 9030B | | | 50 mL | 50 mL | 487751 | 03/05/20 08:33 | SAH | TAL DEN |
| Total/NA | Analysis | 9034 | | 1 | | | 487837 | 03/05/20 12:56 | SAH | TAL DEN |
| Total/NA | Analysis | 9056A | | 1 | 5 mL | 5 mL | 488952 | 03/17/20 17:55 | JAP | TAL DEN |
| Dissolved | Filtration | FILTRATION | | | 20 mL | 20 mL | 489286 | 03/19/20 11:55 | SGB | TAL DEN |
| Dissolved | Analysis | 9060A | | 1 | 20 mL | 20 mL | 489347 | 03/19/20 19:03 | SGB | TAL DEN |
| Total/NA | Analysis | SM 2320B | | 1 | | | 488346 | 03/10/20 15:18 | SPG | TAL DEN |

## Client Sample ID: NW071-2
## Lab Sample ID: 280-134268-2

**Date Collected: 03/02/20 15:40**
**Matrix: Water**
**Date Received: 03/04/20 09:15**

| 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 | 488165 | 03/10/20 01:22 | CAS | TAL DEN |
| Total/NA | Prep | 3535 | | | 501.2 mL | 5 mL | 488022 | 03/07/20 16:07 | KSA | TAL DEN |
| Total/NA | Analysis | 8330A | | 1 | | | 488297 | 03/11/20 18:16 | CBB | TAL DEN |
| Total/NA | Analysis | 350.1 | | 1 | 10 mL | 10 mL | 489175 | 03/18/20 12:49 | BWH | TAL DEN |
| Total/NA | Prep | 351.2 | | | 25 mL | 25 mL | 488202 | 03/09/20 20:13 | SVC | TAL DEN |
| Total/NA | Analysis | 351.2 | | 1 | | | 488462 | 03/11/20 18:50 | SVC | TAL DEN |
| Total/NA | Analysis | 353.2 | | 5 | 100 mL | 100 mL | 488338 | 03/10/20 17:23 | SVC | TAL DEN |
| Total/NA | Prep | 9030B | | | 50 mL | 50 mL | 487751 | 03/05/20 08:33 | SAH | TAL DEN |
| Total/NA | Analysis | 9034 | | 1 | | | 487837 | 03/05/20 12:56 | SAH | TAL DEN |
| Total/NA | Analysis | 9056A | | 1 | 5 mL | 5 mL | 488952 | 03/17/20 18:11 | JAP | TAL DEN |
| Dissolved | Filtration | FILTRATION | | | 20 mL | 20 mL | 489286 | 03/19/20 11:55 | SGB | TAL DEN |
| Dissolved | Analysis | 9060A | | 1 | 20 mL | 20 mL | 489347 | 03/19/20 19:20 | SGB | TAL DEN |
| Total/NA | Analysis | SM 2320B | | 1 | | | 488346 | 03/10/20 15:23 | SPG | TAL DEN |

## Client Sample ID: CA210-2
## Lab Sample ID: 280-134268-3

**Date Collected: 03/03/20 09:00**
**Matrix: Water**
**Date Received: 03/04/20 09:15**

| 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 | 488254 | 03/10/20 21:50 | CAS | TAL DEN |
| Total/NA | Prep | 3535 | | | 519.4 mL | 5 mL | 488022 | 03/07/20 16:07 | KSA | TAL DEN |
| Total/NA | Analysis | 8330A | | 1 | | | 488297 | 03/11/20 18:39 | CBB | TAL DEN |
| Total/NA | Analysis | 350.1 | | 1 | 10 mL | 10 mL | 489439 | 03/20/20 14:07 | BWH | TAL DEN |
| Total/NA | Prep | 351.2 | | | 25 mL | 25 mL | 488202 | 03/09/20 20:13 | SVC | TAL DEN |
| Total/NA | Analysis | 351.2 | | 1 | | | 488462 | 03/11/20 18:51 | SVC | TAL DEN |

## Client Sample ID: CA210-2
## Lab Sample ID: 280-134268-3

**Date Collected: 03/03/20 09:00**
**Matrix: Water**
**Date Received: 03/04/20 09:15**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 353.2 | | 2 | 100 mL | 100 mL | 488338 | 03/10/20 17:25 | SVC | TAL DEN |
| Total/NA | Prep | 9030B | | | 50 mL | 50 mL | 487751 | 03/05/20 08:33 | SAH | TAL DEN |
| Total/NA | Analysis | 9034 | | 1 | | | 487837 | 03/05/20 12:56 | SAH | TAL DEN |
| Total/NA | Analysis | 9056A | | 1 | 5 mL | 5 mL | 488952 | 03/17/20 18:27 | JAP | TAL DEN |
| Dissolved | Filtration | FILTRATION | | | 20 mL | 20 mL | 488988 | 03/17/20 12:50 | SGB | TAL DEN |
| Dissolved | Analysis | 9060A | | 1 | 20 mL | 20 mL | 489142 | 03/17/20 20:47 | SGB | TAL DEN |
| Total/NA | Analysis | SM 2320B | | 1 | | | 488346 | 03/10/20 15:34 | SPG | TAL DEN |

## Client Sample ID: CA212-2
## Lab Sample ID: 280-134268-4

**Date Collected: 03/03/20 11:20**
**Matrix: Water**
**Date Received: 03/04/20 09:15**

| 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 | 488254 | 03/10/20 22:04 | CAS | TAL DEN |
| Total/NA | Prep | 3535 | | | 510.5 mL | 5 mL | 488022 | 03/07/20 16:07 | KSA | TAL DEN |
| Total/NA | Analysis | 8330A | | 1 | | | 488297 | 03/11/20 19:02 | CBB | TAL DEN |
| Total/NA | Analysis | 350.1 | | 1 | 10 mL | 10 mL | 489439 | 03/20/20 14:05 | BWH | TAL DEN |
| Total/NA | Prep | 351.2 | | | 25 mL | 25 mL | 488202 | 03/09/20 20:13 | SVC | TAL DEN |
| Total/NA | Analysis | 351.2 | | 1 | | | 488462 | 03/11/20 18:52 | SVC | TAL DEN |
| Total/NA | Analysis | 353.2 | | 2 | 100 mL | 100 mL | 488338 | 03/10/20 17:27 | SVC | TAL DEN |
| Total/NA | Prep | 9030B | | | 50 mL | 50 mL | 487821 | 03/05/20 10:58 | SAH | TAL DEN |
| Total/NA | Analysis | 9034 | | 1 | | | 487838 | 03/05/20 13:00 | SAH | TAL DEN |
| Total/NA | Analysis | 9056A | | 1 | 5 mL | 5 mL | 488952 | 03/17/20 18:43 | JAP | TAL DEN |
| Dissolved | Filtration | FILTRATION | | | 20 mL | 20 mL | 489286 | 03/19/20 11:55 | SGB | TAL DEN |
| Dissolved | Analysis | 9060A | | 1 | 20 mL | 20 mL | 489347 | 03/19/20 19:38 | SGB | TAL DEN |
| Total/NA | Analysis | SM 2320B | | 1 | | | 488346 | 03/10/20 16:10 | SPG | TAL DEN |

## Client Sample ID: CA211-2
## Lab Sample ID: 280-134268-5

**Date Collected: 03/03/20 10:05**
**Matrix: Water**
**Date Received: 03/04/20 09:15**

| 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 | 488254 | 03/10/20 22:17 | CAS | TAL DEN |
| Total/NA | Prep | 3535 | | | 507 mL | 5 mL | 488022 | 03/07/20 16:07 | KSA | TAL DEN |
| Total/NA | Analysis | 8330A | | 1 | | | 488297 | 03/11/20 19:25 | CBB | TAL DEN |
| Total/NA | Analysis | 350.1 | | 1 | 10 mL | 10 mL | 489439 | 03/20/20 13:49 | BWH | TAL DEN |
| Total/NA | Prep | 351.2 | | | 25 mL | 25 mL | 488202 | 03/09/20 20:13 | SVC | TAL DEN |
| Total/NA | Analysis | 351.2 | | 1 | | | 488462 | 03/11/20 18:53 | SVC | TAL DEN |
| Total/NA | Analysis | 353.2 | | 5 | 100 mL | 100 mL | 488338 | 03/10/20 17:29 | SVC | TAL DEN |
| Total/NA | Prep | 9030B | | | 50 mL | 50 mL | 487821 | 03/05/20 10:58 | SAH | TAL DEN |
| Total/NA | Analysis | 9034 | | 1 | | | 487838 | 03/05/20 13:00 | SAH | TAL DEN |
| Total/NA | Analysis | 9056A | | 1 | 5 mL | 5 mL | 488952 | 03/17/20 19:00 | JAP | TAL DEN |
| Dissolved | Filtration | FILTRATION | | | 20 mL | 20 mL | 489286 | 03/19/20 11:55 | SGB | TAL DEN |
| Dissolved | Analysis | 9060A | | 1 | 20 mL | 20 mL | 489347 | 03/19/20 19:57 | SGB | TAL DEN |

# Lab Chronicle

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

Job ID: 280-134268-1

## Client Sample ID: CA211-2

**Lab Sample ID: 280-134268-5**

**Date Collected: 03/03/20 10:05**
**Date Received: 03/04/20 09:15**

**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | SM 2320B | | 1 | | | 488607 | 03/12/20 11:35 | SPG | TAL DEN |

## Client Sample ID: PZ019-2

**Lab Sample ID: 280-134268-6**

**Date Collected: 03/02/20 15:10**
**Date Received: 03/04/20 09:15**

**Matrix: Water**

| 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 | 488165 | 03/09/20 20:28 | CAS | TAL DEN |
| Total/NA | Prep | 3535 | | | 504.4 mL | 5 mL | 488022 | 03/07/20 16:07 | KSA | TAL DEN |
| Total/NA | Analysis | 8330A | | 1 | 1 mL | 1.0 mL | 488297 | 03/11/20 19:48 | CBB | TAL DEN |
| Total/NA | Analysis | 350.1 | | 1 | 10 mL | 10 mL | 489175 | 03/18/20 12:31 | BWH | TAL DEN |
| Total/NA | Prep | 351.2 | | | 25 mL | 25 mL | 488202 | 03/09/20 20:13 | SVC | TAL DEN |
| Total/NA | Analysis | 351.2 | | 1 | | | 488462 | 03/11/20 18:40 | SVC | TAL DEN |
| Total/NA | Analysis | 353.2 | | 5 | 100 mL | 100 mL | 488338 | 03/10/20 17:15 | SVC | TAL DEN |
| Total/NA | Prep | 9030B | | | 50 mL | 50 mL | 487751 | 03/05/20 08:33 | SAH | TAL DEN |
| Total/NA | Analysis | 9034 | | 1 | | | 487837 | 03/05/20 12:56 | SAH | TAL DEN |
| Total/NA | Analysis | 9056A | | 1 | 5 mL | 5 mL | 488952 | 03/17/20 19:33 | JAP | TAL DEN |
| Dissolved | Filtration | FILTRATION | | | 20 mL | 20 mL | 489286 | 03/19/20 11:55 | SGB | TAL DEN |
| Dissolved | Analysis | 9060A | | 1 | 20 mL | 20 mL | 489347 | 03/19/20 18:19 | SGB | TAL DEN |
| Total/NA | Analysis | SM 2320B | | 1 | | | 488346 | 03/10/20 15:28 | SPG | TAL DEN |

## Client Sample ID: NW080R-2

**Lab Sample ID: 280-134268-7**

**Date Collected: 03/03/20 08:50**
**Date Received: 03/04/20 09:15**

**Matrix: Water**

| 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 | 488254 | 03/10/20 22:31 | CAS | TAL DEN |
| Total/NA | Prep | 3535 | | | 478.5 mL | 5 mL | 488022 | 03/07/20 16:07 | KSA | TAL DEN |
| Total/NA | Analysis | 8330A | | 1 | | | 488297 | 03/11/20 20:57 | CBB | TAL DEN |
| Total/NA | Analysis | 350.1 | | 1 | 10 mL | 10 mL | 489439 | 03/20/20 14:21 | BWH | TAL DEN |
| Total/NA | Prep | 351.2 | | | 25 mL | 25 mL | 488202 | 03/09/20 20:13 | SVC | TAL DEN |
| Total/NA | Analysis | 351.2 | | 1 | | | 488462 | 03/11/20 18:55 | SVC | TAL DEN |
| Total/NA | Analysis | 353.2 | | 5 | 100 mL | 100 mL | 488338 | 03/10/20 17:31 | SVC | TAL DEN |
| Total/NA | Prep | 9030B | | | 50 mL | 50 mL | 487821 | 03/05/20 10:58 | SAH | TAL DEN |
| Total/NA | Analysis | 9034 | | 1 | | | 487838 | 03/05/20 13:00 | SAH | TAL DEN |
| Total/NA | Analysis | 9056A | | 1 | 5 mL | 5 mL | 488952 | 03/17/20 19:16 | JAP | TAL DEN |
| Dissolved | Filtration | FILTRATION | | | 20 mL | 20 mL | 489286 | 03/19/20 11:55 | SGB | TAL DEN |
| Dissolved | Analysis | 9060A | | 1 | 20 mL | 20 mL | 489347 | 03/19/20 20:12 | SGB | TAL DEN |
| Total/NA | Analysis | SM 2320B | | 1 | | | 488607 | 03/12/20 11:46 | SPG | TAL DEN |

## Client Sample ID: NW081R-2
## Lab Sample ID: 280-134268-8

**Date Collected: 03/03/20 10:00**
**Matrix: Water**
**Date Received: 03/04/20 09:15**

| 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 | 488254 | 03/10/20 22:44 | CAS | TAL DEN |
| Total/NA | Prep | 3535 | | | 500.5 mL | 5 mL | 488022 | 03/07/20 16:07 | KSA | TAL DEN |
| Total/NA | Analysis | 8330A | | 1 | | | 488297 | 03/11/20 21:20 | CBB | TAL DEN |
| Total/NA | Analysis | 350.1 | | 1 | 10 mL | 10 mL | 489439 | 03/20/20 14:23 | BWH | TAL DEN |
| Total/NA | Prep | 351.2 | | | 25 mL | 25 mL | 488202 | 03/09/20 20:13 | SVC | TAL DEN |
| Total/NA | Analysis | 351.2 | | 1 | | | 488462 | 03/11/20 18:58 | SVC | TAL DEN |
| Total/NA | Analysis | 353.2 | | 5 | 100 mL | 100 mL | 488338 | 03/10/20 17:33 | SVC | TAL DEN |
| Total/NA | Prep | 9030B | | | 50 mL | 50 mL | 487821 | 03/05/20 10:58 | SAH | TAL DEN |
| Total/NA | Analysis | 9034 | | 1 | | | 487838 | 03/05/20 13:00 | SAH | TAL DEN |
| Total/NA | Analysis | 9056A | | 1 | 5 mL | 5 mL | 488952 | 03/17/20 21:11 | JAP | TAL DEN |
| Dissolved | Filtration | FILTRATION | | | 20 mL | 20 mL | 489286 | 03/19/20 11:55 | SGB | TAL DEN |
| Dissolved | Analysis | 9060A | | 1 | 20 mL | 20 mL | 489347 | 03/19/20 20:29 | SGB | TAL DEN |
| Total/NA | Analysis | SM 2320B | | 1 | | | 488607 | 03/12/20 11:52 | SPG | TAL DEN |

## Client Sample ID: NW062-2
## Lab Sample ID: 280-134268-9

**Date Collected: 03/02/20 13:55**
**Matrix: Water**
**Date Received: 03/04/20 09:15**

| 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 | 488165 | 03/10/20 01:36 | CAS | TAL DEN |
| Total/NA | Prep | 3535 | | | 525.2 mL | 5 mL | 488022 | 03/07/20 16:07 | KSA | TAL DEN |
| Total/NA | Analysis | 8330A | | 1 | | | 488850 | 03/17/20 00:44 | CBB | TAL DEN |
| Total/NA | Prep | 3535 | | | 525.2 mL | 5 mL | 488022 | 03/07/20 16:07 | KSA | TAL DEN |
| Total/NA | Analysis | 8330A | | 1 | | | 488297 | 03/11/20 22:52 | CBB | TAL DEN |
| Total/NA | Analysis | 350.1 | | 1 | 10 mL | 10 mL | 489175 | 03/18/20 13:03 | BWH | TAL DEN |
| Total/NA | Prep | 351.2 | | | 25 mL | 25 mL | 488202 | 03/09/20 20:13 | SVC | TAL DEN |
| Total/NA | Analysis | 351.2 | | 1 | | | 488462 | 03/11/20 19:00 | SVC | TAL DEN |
| Total/NA | Analysis | 353.2 | | 1 | 100 mL | 100 mL | 488338 | 03/10/20 17:47 | SVC | TAL DEN |
| Total/NA | Prep | 9030B | | | 50 mL | 50 mL | 487821 | 03/05/20 10:58 | SAH | TAL DEN |
| Total/NA | Analysis | 9034 | | 1 | | | 487838 | 03/05/20 13:00 | SAH | TAL DEN |
| Total/NA | Analysis | 9056A | | 1 | 5 mL | 5 mL | 488952 | 03/17/20 21:28 | JAP | TAL DEN |
| Dissolved | Filtration | FILTRATION | | | 20 mL | 20 mL | 489286 | 03/19/20 11:55 | SGB | TAL DEN |
| Dissolved | Analysis | 9060A | | 1 | 20 mL | 20 mL | 489347 | 03/19/20 21:19 | SGB | TAL DEN |
| Total/NA | Analysis | SM 2320B | | 1 | | | 488607 | 03/12/20 11:58 | SPG | TAL DEN |

## Client Sample ID: G0080-2
## Lab Sample ID: 280-134268-10

**Date Collected: 03/02/20 13:10**
**Matrix: Water**
**Date Received: 03/04/20 09:15**

| 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 | 488165 | 03/10/20 01:49 | CAS | TAL DEN |
| Total/NA | Prep | 3535 | | | 497.8 mL | 5 mL | 488022 | 03/07/20 16:07 | KSA | TAL DEN |
| Total/NA | Analysis | 8330A | | 1 | | | 488850 | 03/17/20 01:19 | CBB | TAL DEN |

# Lab Chronicle

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

Job ID: 280-134268-1

## Client Sample ID: G0080-2

**Date Collected: 03/02/20 13:10**
**Date Received: 03/04/20 09:15**

## Lab Sample ID: 280-134268-10

**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 3535 | | | 497.8 mL | 5 mL | 488022 | 03/07/20 16:07 | KSA | TAL DEN |
| Total/NA | Analysis | 8330A | | 1 | | | 488297 | 03/11/20 23:15 | CBB | TAL DEN |
| Total/NA | Analysis | 350.1 | | 1 | 10 mL | 10 mL | 489175 | 03/18/20 13:05 | BWH | TAL DEN |
| Total/NA | Prep | 351.2 | | | 25 mL | 25 mL | 488202 | 03/09/20 20:13 | SVC | TAL DEN |
| Total/NA | Analysis | 351.2 | | 1 | | | 488462 | 03/11/20 19:01 | SVC | TAL DEN |
| Total/NA | Analysis | 353.2 | | 1 | 100 mL | 100 mL | 488338 | 03/10/20 17:51 | SVC | TAL DEN |
| Total/NA | Prep | 9030B | | | 50 mL | 50 mL | 487821 | 03/05/20 10:58 | SAH | TAL DEN |
| Total/NA | Analysis | 9034 | | 1 | | | 487838 | 03/05/20 13:00 | SAH | TAL DEN |
| Total/NA | Analysis | 9056A | | 1 | 5 mL | 5 mL | 488952 | 03/17/20 21:44 | JAP | TAL DEN |
| Dissolved | Filtration | FILTRATION | | | 20 mL | 20 mL | 489286 | 03/19/20 11:55 | SGB | TAL DEN |
| Dissolved | Analysis | 9060A | | 1 | 20 mL | 20 mL | 489347 | 03/19/20 21:36 | SGB | TAL DEN |
| Total/NA | Analysis | SM 2320B | | 1 | | | 488607 | 03/12/20 12:04 | 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: 280-134268-1

## Laboratory: Eurofins TestAmerica, Denver

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

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

# Method Summary

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

Job ID: 280-134268-1

| 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: 280-134268-1

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received | Asset ID |
|---|---|---|---|---|---|
| 280-134268-1 | NW070-2 | Water | 03/02/20 14:35 | 03/04/20 09:15 | |
| 280-134268-2 | NW071-2 | Water | 03/02/20 15:40 | 03/04/20 09:15 | |
| 280-134268-3 | CA210-2 | Water | 03/03/20 09:00 | 03/04/20 09:15 | |
| 280-134268-4 | CA212-2 | Water | 03/03/20 11:20 | 03/04/20 09:15 | |
| 280-134268-5 | CA211-2 | Water | 03/03/20 10:05 | 03/04/20 09:15 | |
| 280-134268-6 | PZ019-2 | Water | 03/02/20 15:10 | 03/04/20 09:15 | |
| 280-134268-7 | NW080R-2 | Water | 03/03/20 08:50 | 03/04/20 09:15 | |
| 280-134268-8 | NW081R-2 | Water | 03/03/20 10:00 | 03/04/20 09:15 | |
| 280-134268-9 | NW062-2 | Water | 03/02/20 13:55 | 03/04/20 09:15 | |
| 280-134268-10 | G0080-2 | Water | 03/02/20 13:10 | 03/04/20 09:15 | |

GC VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134268-1

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.: 280-134268-1

SDG No.:

Instrument ID: VGC_J Analysis Batch Number: 488165

Lab Sample ID: CCV 280-488165/63 Client Sample ID:

Date Analyzed: 03/10/20 02:02 Lab File ID: 063F5601.D GC Column: Rt-Alumina KC ID: 0.53(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Ethylene | 1.85 | Split Peak | sciannac | 03/10/20 07:13 |

RSK-175

GC VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134268-1

SDG No.:

Instrument ID: VGC_J Analysis Batch Number: 488254

Lab Sample ID: CCV 280-488254/47 Client Sample ID:

Date Analyzed: 03/10/20 20:31 Lab File ID: 047F4301.D GC Column: Rt-Alumina KC ID: 0.53(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Ethylene | 1.87 | Split Peak | sciannac | 03/11/20 09:26 |

RSK-175

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134268-1

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.: 280-134268-1

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.: 280-134268-1

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.: 280-134268-1

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.: 280-134268-1

SDG No.:

Instrument ID: CHHPLC_G2_LUNA Analysis Batch Number: 488850

Lab Sample ID: CCV 280-488850/19 Client Sample ID:

Date Analyzed: 03/16/20 21:49 Lab File ID: 03160019.D GC Column: Luna-phenylhe ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Nitroglycerin | 15.51 | Baseline | beckerc | 03/17/20 10:35 |
| 3-Nitrotoluene | 17.52 | Unspecified | | |
| 2-Amino-4,6-dinitrotoluene | 17.63 | Baseline | beckerc | 03/17/20 10:35 |
| PETN | 24.99 | Baseline | beckerc | 03/17/20 10:35 |

Lab Sample ID: 280-134268-9 Client Sample ID: NW062-2

Date Analyzed: 03/17/20 00:44 Lab File ID: 03160024.D GC Column: Luna-phenylhe ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| 2-Amino-4,6-dinitrotoluene | | Invalid Compound ID | beckerc | 03/17/20 10:40 |

Lab Sample ID: 280-134268-10 Client Sample ID: G0080-2

Date Analyzed: 03/17/20 01:19 Lab File ID: 03160025.D GC Column: Luna-phenylhe ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| RDX | 8.87 | Baseline | beckerc | 03/17/20 10:41 |
| 2-Amino-4,6-dinitrotoluene | | Invalid Compound ID | beckerc | 03/17/20 10:41 |

8330A

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134268-1

SDG No.:

Instrument ID: CHHPLC_G2_LUNA Analysis Batch Number: 488850

Lab Sample ID: CCV 280-488850/26 Client Sample ID:

Date Analyzed: 03/17/20 01:54 Lab File ID: 03160026.D GC Column: Luna-phenylhe ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| 1,3-Dinitrobenzene | 15.20 | Baseline | beckerc | 03/17/20 10:43 |
| Nitroglycerin | 15.44 | Baseline | beckerc | 03/17/20 10:42 |
| 2-Nitrotoluene | 16.21 | Baseline | beckerc | 03/17/20 10:43 |
| 4-Nitrotoluene | 16.49 | Baseline | beckerc | 03/17/20 12:33 |
| 4-Amino-2,6-dinitrotoluene | 16.70 | Baseline | beckerc | 03/17/20 12:34 |
| 3-Nitrotoluene | 17.41 | Baseline | beckerc | 03/17/20 10:43 |
| 2-Amino-4,6-dinitrotoluene | 17.53 | Baseline | beckerc | 03/17/20 10:43 |
| 1,3,5-Trinitrobenzene | 18.50 | Baseline | beckerc | 03/17/20 10:43 |
| 2,6-Dinitrotoluene | 19.43 | Baseline | beckerc | 03/17/20 10:43 |
| 2,4-Dinitrotoluene | 19.87 | Baseline | beckerc | 03/17/20 10:43 |
| PETN | 24.94 | Baseline | beckerc | 03/17/20 10:42 |

8330A

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134268-1

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.: 280-134268-1

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.: 280-134268-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 487658

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

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

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

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

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

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

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

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

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

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

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

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

8330A

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134268-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 487658

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

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

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

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

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

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

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

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

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

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

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

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

8330A

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134268-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 487658

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

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

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

8330A

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134268-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 488297

Lab Sample ID: CCV 280-488297/7 Client Sample ID:

Date Analyzed: 03/11/20 11:47 Lab File ID: 03100007.D GC Column: UltraCarb5uOD ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| HMX | 6.69 | Baseline | beckerc | 03/12/20 08:20 |
| Picric acid | 8.05 | Baseline | beckerc | 03/12/20 08:20 |

Lab Sample ID: CCV 280-488297/9 Client Sample ID:

Date Analyzed: 03/11/20 12:32 Lab File ID: 03100009.D GC Column: UltraCarb5uOD ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| TNX | 6.60 | Baseline | beckerc | 03/12/20 11:34 |
| DNX | 6.92 | Baseline | beckerc | 03/12/20 11:34 |

Lab Sample ID: MB 280-488022/1-A Client Sample ID:

Date Analyzed: 03/11/20 12:55 Lab File ID: 03100010.D GC Column: UltraCarb5uOD ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| 3-Nitrotoluene | | Invalid Compound ID | beckerc | 03/12/20 10:33 |

Lab Sample ID: LCS 280-488022/2-A Client Sample ID:

Date Analyzed: 03/11/20 13:18 Lab File ID: 03100011.D GC Column: UltraCarb5uOD ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| HMX | 6.69 | Baseline | beckerc | 03/12/20 10:33 |

Lab Sample ID: LCS 280-488022/3-A Client Sample ID:

Date Analyzed: 03/11/20 13:41 Lab File ID: 03100012.D GC Column: UltraCarb5uOD ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| MNX | 7.36 | Baseline | beckerc | 03/12/20 10:34 |

8330A

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134268-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 488297

Lab Sample ID: CCV 280-488297/22 Client Sample ID:

Date Analyzed: 03/11/20 17:31 Lab File ID: 03100022.D GC Column: UltraCarb5uOD ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| TNX | 6.59 | Baseline | beckerc | 03/12/20 08:23 |
| DNX | 6.92 | Baseline | beckerc | 03/12/20 08:23 |

Lab Sample ID: 280-134268-1 Client Sample ID: NW070-2

Date Analyzed: 03/11/20 17:54 Lab File ID: 03100023.D GC Column: UltraCarb5uOD ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| 1,2-Dinitrobenzene | 8.71 | Baseline | beckerc | 03/12/20 08:23 |
| 2-Nitrotoluene | | Invalid Compound ID | beckerc | 03/12/20 08:24 |

Lab Sample ID: 280-134268-2 Client Sample ID: NW071-2

Date Analyzed: 03/11/20 18:16 Lab File ID: 03100024.D GC Column: UltraCarb5uOD ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| 1,2-Dinitrobenzene | 8.71 | Baseline | beckerc | 03/12/20 08:24 |
| 3-Nitrotoluene | | Invalid Compound ID | beckerc | 03/12/20 08:24 |
| MNX | | Invalid Compound ID | beckerc | 03/12/20 08:24 |

Lab Sample ID: 280-134268-3 Client Sample ID: CA210-2

Date Analyzed: 03/11/20 18:39 Lab File ID: 03100025.D GC Column: UltraCarb5uOD ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| 1,2-Dinitrobenzene | 8.71 | Baseline | beckerc | 03/12/20 08:25 |
| MNX | | Invalid Compound ID | beckerc | 03/12/20 08:25 |

8330A

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134268-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 488297

Lab Sample ID: 280-134268-4 Client Sample ID: CA212-2

Date Analyzed: 03/11/20 19:02 Lab File ID: 03100026.D GC Column: UltraCarb5uOD ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| 1,2-Dinitrobenzene | 8.71 | Baseline | beckerc | 03/12/20 08:25 |
| 3-Nitrotoluene | | Invalid Compound ID | beckerc | 03/12/20 08:25 |

Lab Sample ID: 280-134268-5 Client Sample ID: CA211-2

Date Analyzed: 03/11/20 19:25 Lab File ID: 03100027.D GC Column: UltraCarb5uOD ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| 1,2-Dinitrobenzene | 8.71 | Baseline | beckerc | 03/12/20 08:25 |
| 3-Nitrotoluene | | Invalid Compound ID | beckerc | 03/12/20 08:25 |

Lab Sample ID: 280-134268-6 Client Sample ID: PZ019-2

Date Analyzed: 03/11/20 19:48 Lab File ID: 03100028.D GC Column: UltraCarb5uOD ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| 1,2-Dinitrobenzene | 8.71 | Baseline | beckerc | 03/12/20 08:26 |
| 3-Nitrotoluene | | Invalid Compound ID | beckerc | 03/12/20 08:26 |
| MNX | | Invalid Compound ID | beckerc | 03/12/20 08:26 |

8330A

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134268-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 488297

Lab Sample ID: 280-134268-6 MS Client Sample ID: PZ019-2 MS

Date Analyzed: 03/11/20 20:11 Lab File ID: 03100029.D GC Column: UltraCarb5uOD ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| HMX | 6.69 | Baseline | beckerc | 03/12/20 08:27 |
| RDX | 7.75 | Baseline | beckerc | 03/12/20 08:27 |
| 1,2-Dinitrobenzene | 8.71 | Baseline | beckerc | 03/12/20 08:28 |
| 1,3,5-Trinitrobenzene | 8.88 | Baseline | beckerc | 03/12/20 08:28 |
| 4-Nitrotoluene | 13.24 | Baseline | beckerc | 03/12/20 08:28 |
| 3-Nitrotoluene | 13.83 | Baseline | beckerc | 03/12/20 08:28 |

Lab Sample ID: 280-134268-6 MSD Client Sample ID: PZ019-2 MSD

Date Analyzed: 03/11/20 20:34 Lab File ID: 03100030.D GC Column: UltraCarb5uOD ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| HMX | 6.69 | Baseline | beckerc | 03/12/20 08:29 |
| RDX | 7.75 | Baseline | beckerc | 03/12/20 08:29 |
| 1,2-Dinitrobenzene | 8.71 | Baseline | beckerc | 03/12/20 08:29 |
| 1,3,5-Trinitrobenzene | 8.88 | Baseline | beckerc | 03/12/20 08:29 |

Lab Sample ID: 280-134268-7 Client Sample ID: NW080R-2

Date Analyzed: 03/11/20 20:57 Lab File ID: 03100031.D GC Column: UltraCarb5uOD ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| 1,2-Dinitrobenzene | 8.71 | Baseline | beckerc | 03/12/20 08:30 |
| 3-Nitrotoluene | | Invalid Compound ID | beckerc | 03/12/20 08:30 |
| MNX | | Invalid Compound ID | beckerc | 03/12/20 08:30 |
| Nitrobenzene | | Invalid Compound ID | beckerc | 03/12/20 08:30 |

8330A

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134268-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 488297

Lab Sample ID: 280-134268-8 Client Sample ID: NW081R-2

Date Analyzed: 03/11/20 21:20 Lab File ID: 03100032.D GC Column: UltraCarb5uOD ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| 1,2-Dinitrobenzene | 8.70 | Baseline | beckerc | 03/12/20 08:31 |
| 3-Nitrotoluene | | Invalid Compound ID | beckerc | 03/12/20 08:31 |
| MNX | | Invalid Compound ID | beckerc | 03/12/20 08:31 |

Lab Sample ID: CCV 280-488297/33 Client Sample ID:

Date Analyzed: 03/11/20 21:43 Lab File ID: 03100033.D GC Column: UltraCarb5uOD ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| HMX | 6.69 | Baseline | beckerc | 03/12/20 08:31 |

Lab Sample ID: CCV 280-488297/35 Client Sample ID:

Date Analyzed: 03/11/20 22:29 Lab File ID: 03100035.D GC Column: UltraCarb5uOD ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| TNX | 6.60 | Baseline | beckerc | 03/12/20 08:33 |
| DNX | 6.92 | Baseline | beckerc | 03/12/20 08:33 |

Lab Sample ID: 280-134268-9 Client Sample ID: NW062-2

Date Analyzed: 03/11/20 22:52 Lab File ID: 03100036.D GC Column: UltraCarb5uOD ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| 1,2-Dinitrobenzene | 8.71 | Baseline | beckerc | 03/12/20 08:33 |
| Nitrobenzene | 9.92 | Baseline | beckerc | 03/12/20 08:33 |
| 3-Nitrotoluene | | Invalid Compound ID | beckerc | 03/12/20 08:33 |

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134268-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 488297

Lab Sample ID: 280-134268-10 Client Sample ID: G0080-2

Date Analyzed: 03/11/20 23:15 Lab File ID: 03100037.D GC Column: UltraCarb5uOD ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| RDX | 7.75 | Baseline | beckerc | 03/12/20 08:34 |
| 1,2-Dinitrobenzene | 8.71 | Baseline | beckerc | 03/12/20 08:34 |
| 3-Nitrotoluene | | Invalid Compound ID | beckerc | 03/12/20 08:34 |
| 4-Amino-2,6-dinitrotoluene | 11.33 | Baseline | beckerc | 03/12/20 08:34 |
| 2-Amino-4,6-dinitrotoluene | 11.61 | Baseline | beckerc | 03/12/20 08:34 |

Lab Sample ID: CCV 280-488297/38 Client Sample ID:

Date Analyzed: 03/11/20 23:38 Lab File ID: 03100038.D GC Column: UltraCarb5uOD ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| HMX | 6.68 | Baseline | beckerc | 03/12/20 08:35 |

Lab Sample ID: CCV 280-488297/40 Client Sample ID:

Date Analyzed: 03/12/20 00:24 Lab File ID: 03100040.D GC Column: UltraCarb5uOD ID: 4.6(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| TNX | 6.59 | Baseline | beckerc | 03/12/20 08:36 |
| DNX | 6.91 | Baseline | beckerc | 03/12/20 08:36 |

GENERAL CHEMISTRY MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134268-1

SDG No.:

Instrument ID: WC_IonChrom11 Analysis Batch Number: 488952

Lab Sample ID: CCV 280-488952/1 Client Sample ID:

Date Analyzed: 03/17/20 12:20 Lab File ID: 0001.d GC Column: Ion PAC AS 14 ID:

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Sulfate | 8.02 | Peak assignment corrected | pedrickj | 03/17/20 13:43 |

9056A

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134268-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| **350.1 cal_00407** | 03/18/20 | 03/11/20 | 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 cal_00408** | 03/27/20 | 03/20/20 | 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_00392** | 03/18/20 | 03/11/20 | 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 |
| **350.1 ICV_00393** | 03/27/20 | 03/20/20 | 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 |

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134268-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | 8330_NG_Stk_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 |
| | | | | | | | 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 |

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134268-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| **8330IntermStk_00061** | 09/09/21 | 01/09/20 | Acetonitrile, Lot 130057 | 10 mL | 8330_NG_Stk_00075 | 200 uL | Nitroglycerin | 100 ug/mL |
| | | | | | 8330_PETN_Stk_00087 | 200 uL | PETN | 100 ug/mL |
| | | | | | 8330ICALStock_00030 | 1 mL | 1,3,5-Trinitrobenzene | 10.02 ug/mL |
| | | | | | | | 1,3-Dinitrobenzene | 10.02 ug/mL |
| | | | | | | | 2,4,6-Trinitrotoluene | 10.04 ug/mL |
| | | | | | | | 2,4-Dinitrotoluene | 10.04 ug/mL |
| | | | | | | | 2,6-Dinitrotoluene | 10.04 ug/mL |
| | | | | | | | 2-Amino-4,6-dinitrotoluene | 10.04 ug/mL |
| | | | | | | | 2-Nitrotoluene | 10 ug/mL |
| | | | | | | | 3-Nitrotoluene | 10.01 ug/mL |
| | | | | | | | 4-Amino-2,6-dinitrotoluene | 10.01 ug/mL |
| | | | | | | | 4-Nitrotoluene | 10.02 ug/mL |
| | | | | | | | HMX | 10 ug/mL |
| | | | | | | | Nitrobenzene | 10.04 ug/mL |
| | | | | | | | 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 |

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134268-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Nitrobenzene | 1004 ug/mL |
| | | | | | | | RDX | 1000 ug/mL |
| | | | | | | | Tetryl | 1002 ug/mL |
| ..8330SurrStock_00164 | 07/01/26 | AccuStandard, Lot 216071012 | | | (Purchased Reagent) | | 1,2-Dinitrobenzene | 1000 ug/mL |
| .8330PAStkPS_00061 | 09/09/21 | AccuStandard, Lot 214121302-02 | | | (Purchased Reagent) | | 2,4,6-Trinitrophenol | 100 ug/mL |
| **8330Surrogate_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_00891** | 03/13/20 | 03/06/20 | 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_00302** | 03/23/20 | 03/16/20 | 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_01730** | 03/20/20 | 03/13/20 | Di Water, Lot 27 | 200 mL | IC sulfatecal_00057 | 20 mL | Sulfate | 100 mg/L as N |
| .IC sulfatecal_00057 | 06/30/20 | SPEX CertiPrep, Lot 4-197SO4-2X | | | (Purchased Reagent) | | Sulfate | 1000 mg/L |
| **IC SO4 ICV_00021** | 08/31/21 | ERA, Lot 100819m | | | (Purchased Reagent) | | Sulfate | 1000 mg/L |
| **ICMS/MSD WEEK_00640** | 03/23/20 | 03/16/20 | Di Water, Lot NA | 10 mL | IC SPK 6 ANIO_00022 | 5 mL | Sulfate | 5000.51 mg/L |

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134268-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| .IC SPK 6 ANIO_00022 | 09/29/20 | 10/01/19 | Di Water, Lot NA | 1000 mL | IC MS/MSD S04_00005 | 18.1408 g | Sulfate | 10001 mg/L |
| ..IC MS/MSD S04_00005 | 09/29/20 | | FISHER, Lot 147276 | | (Purchased Reagent) | | Sulfate | 0.5513 g/g |
| **NXN CAL INT_00525** | 03/17/20 | 03/10/20 | 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_00506** | 03/17/20 | 03/10/20 | 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 |
| **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 CAL INT_01716** | 05/25/20 | 03/05/20 | Di Water, Lot NA | 500 mL | 50% NaOH_00017 | 2 mL | Sodium Hydroxide | 2000 mg/L |
| | | | | | SFD CAL STK_00006 | 3.9251 g | Sulfide | 1048 mg/L |
| .50% NaOH_00017 | 10/01/20 | | Fisher, Lot 186215 | | (Purchased Reagent) | | Sodium Hydroxide | 50 % |
| .SFD CAL STK_00006 | 10/01/23 | | ACROS, Lot A0390872 | | (Purchased Reagent) | | Sulfide | 0.1335 g/g |
| **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 |

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134268-1

SDG No.:

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

This is to certify that units of the lot number below were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. ThermoFisher Scientific expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Certain products (USP/FCC/NF/EP/BP/JP grades) are sold for use in food, drug, or medical device manufacturing.ThermoFisher does not maintain DMF's with the FDA. The following are the actual analytical results obtained:

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

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

Teresa Bailey-Wyche

Quality Assurance Specialist - Certificate of Analysis Bridgewater

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

# Reagent

# 8330 LCSMix2_00105

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.:** 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<br>**CAS #** 479-45-8<br>**Purity** 99% | (Lot 091120JLM) | 1,000.0 µg/mL | +/- 5.9397 µg/mL<br>+/- 54.7830 µg/mL<br>+/- 63.8824 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 2 | 4-Amino-2,6-dinitrotoluene<br>**CAS #** 19406-51-0<br>**Purity** 99% | (Lot ER070908-01) | 1,002.0 µg/mL | +/- 5.9516 µg/mL<br>+/- 54.8926 µg/mL<br>+/- 64.0101 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 3 | 2-Amino-4,6-dinitrotoluene<br>**CAS #** 35572-78-2<br>**Purity** 98% | (Lot 29550-55) | 1,007.4 µg/mL | +/- 5.9839 µg/mL<br>+/- 55.1906 µg/mL<br>+/- 64.3577 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 4 | 2,6-Dinitrotoluene<br>**CAS #** 606-20-2<br>**Purity** 99% | (Lot BCBB8606V) | 1,000.0 µg/mL | +/- 5.9397 µg/mL<br>+/- 54.7830 µg/mL<br>+/- 63.8824 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 5 | 2-Nitrotoluene<br>**CAS #** 88-72-2<br>**Purity** 99% | (Lot GA01) | 1,004.0 µg/mL | +/- 5.9635 µg/mL<br>+/- 55.0021 µg/mL<br>+/- 64.1379 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 6 | 4-Nitrotoluene<br>**CAS #** 99-99-0<br>**Purity** 99% | (Lot FAU01) | 1,002.0 µg/mL | +/- 5.9516 µg/mL<br>+/- 54.8926 µg/mL<br>+/- 64.0101 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 7 | 3-Nitrotoluene<br>**CAS #** 99-08-1<br>**Purity** 98% | (Lot FBO01) | 1,003.5 µg/mL | +/- 5.9606 µg/mL<br>+/- 54.9758 µg/mL<br>+/- 64.1072 µg/mL | Gravimetric<br>Unstressed<br>Stressed |

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

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

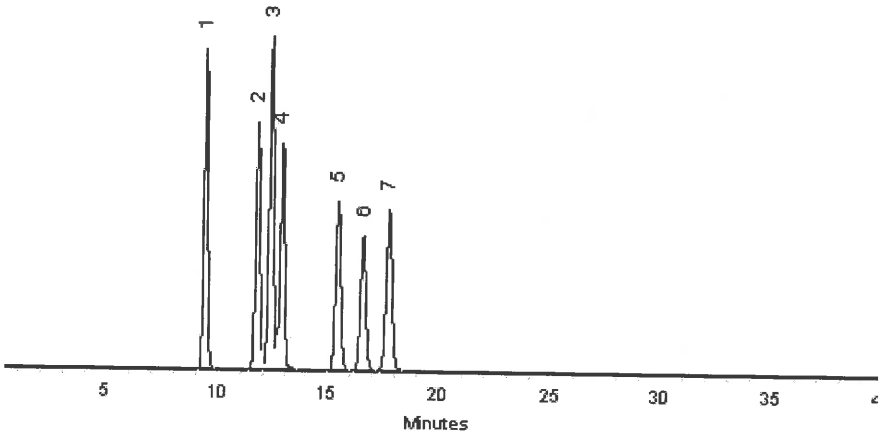
**Flow Rate:**
1.0 ml/min.

**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

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

www.restek.com

# CERTIFIED REFERENCE MATERIAL

# Certificate of Composition

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Certificate #3222.01

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Testing Laboratory
Certificate #3222.02

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

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

**Catalog No. :** 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)

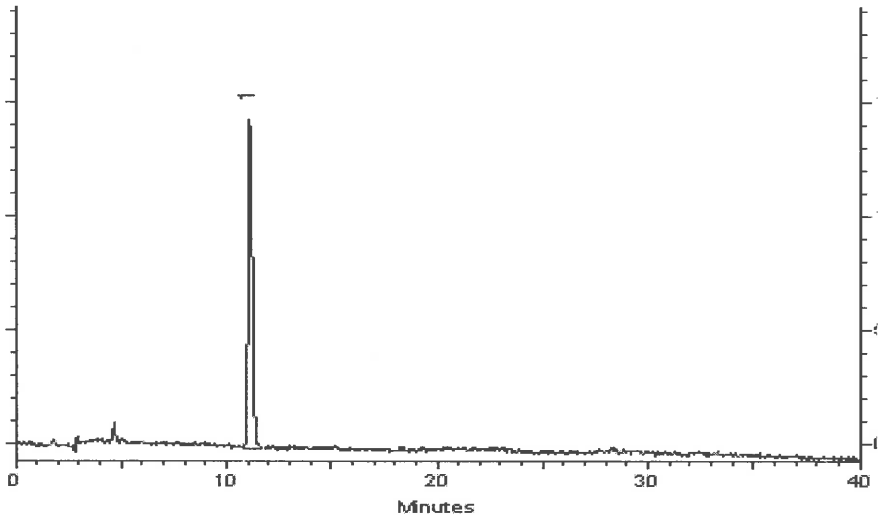
**Flow Rate:**
1.0 ml/min.

**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

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# 8330_NG_Stk_00081

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Certificate #3222.02

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

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

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

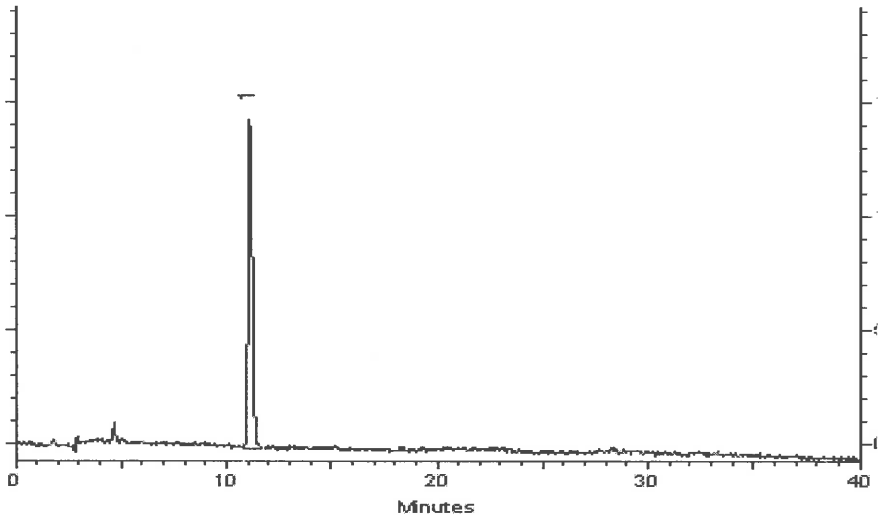
**Flow Rate:**
1.0 ml/min.

**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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# CERTIFIED REFERENCE MATERIAL

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Reference Material Producer
Certificate #3222.01

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ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

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

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

**Catalog No. :** 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)

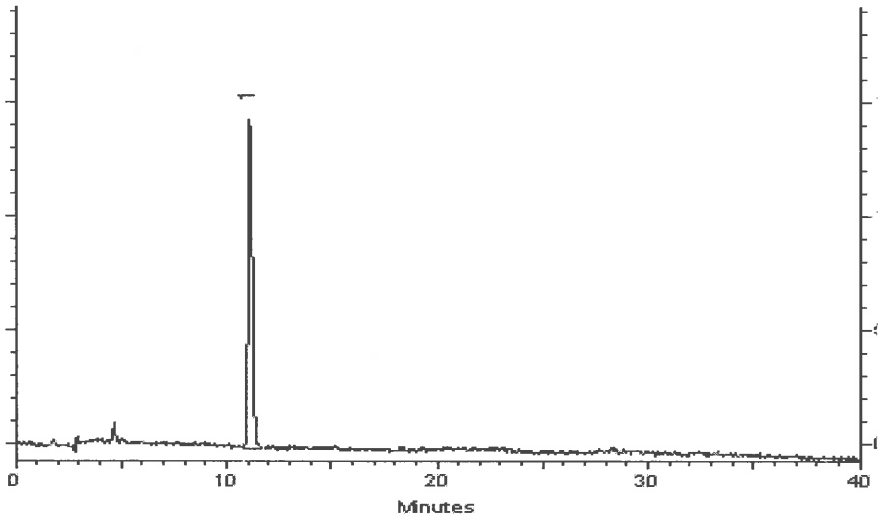
**Flow Rate:**
1.0 ml/min.

**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

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# 8330_PETN_Stk_00087

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

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# CERTIFIED REFERENCE MATERIAL

# Certificate of Composition

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Reference Material Producer
Certificate #3222.01

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ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

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

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

**Catalog No. :** 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)

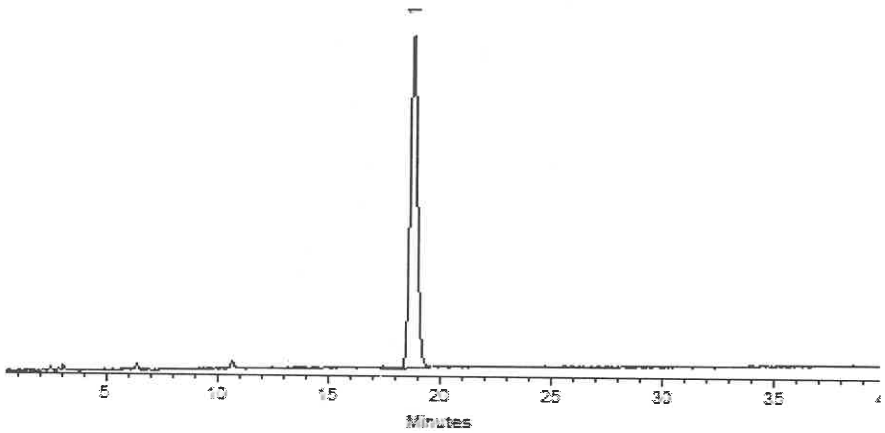
**Flow Rate:**
1.0 ml/min.

**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

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# 8330_PETN_Stk_00089

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

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# CERTIFIED REFERENCE MATERIAL

# Certificate of Composition

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Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

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

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

**Catalog No. :** 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)

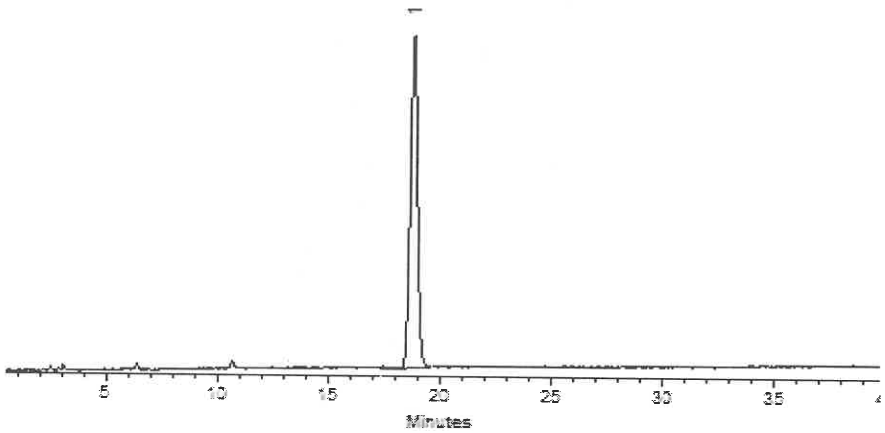
**Flow Rate:**
1.0 ml/min.

**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

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

www.restek.com

# CERTIFIED REFERENCE MATERIAL

# Certificate of Composition

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

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

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

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

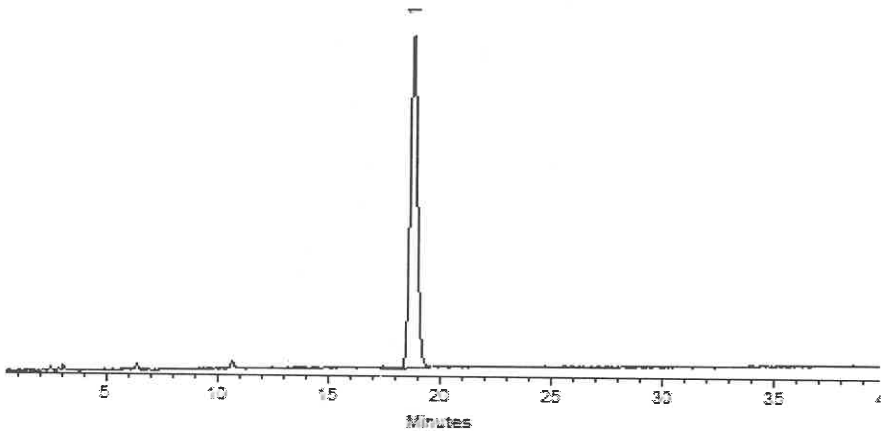
**Flow Rate:**
1.0 ml/min.

**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

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. :** 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<br>**CAS #** 2691-41-0<br>**Purity** 97% | (Lot 190402JLM) | 1,004.9 µg/mL | +/- 5.9689 µg/mL<br>+/- 55.0525 µg/mL<br>+/- 64.1967 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 2 | RDX<br>**CAS #** 121-82-4<br>**Purity** 99% | (Lot 080228JLM) | 1,005.0 µg/mL | +/- 5.9694 µg/mL<br>+/- 55.0569 µg/mL<br>+/- 64.2018 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 3 | 1,3,5-Trinitrobenzene<br>**CAS #** 99-35-4<br>**Purity** 97% | (Lot DJ5QO) | 1,003.0 µg/mL | +/- 5.9574 µg/mL<br>+/- 54.9463 µg/mL<br>+/- 64.0727 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 4 | 1,3-Dinitrobenzene<br>**CAS #** 99-65-0<br>**Purity** 99% | (Lot BCBN4329V) | 1,001.0 µg/mL | +/- 5.9456 µg/mL<br>+/- 54.8378 µg/mL<br>+/- 63.9463 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 5 | Nitrobenzene<br>**CAS #** 98-95-3<br>**Purity** 99% | (Lot SHBJ3622) | 1,001.0 µg/mL | +/- 5.9456 µg/mL<br>+/- 54.8378 µg/mL<br>+/- 63.9463 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 6 | 2,4,6-Trinitrotoluene<br>**CAS #** 118-96-7<br>**Purity** 99% | (Lot 5737200) | 1,005.0 µg/mL | +/- 5.9694 µg/mL<br>+/- 55.0569 µg/mL<br>+/- 64.2018 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 7 | 2,4-Dinitrotoluene<br>**CAS #** 121-14-2<br>**Purity** 99% | (Lot MKAA0690) | 1,001.0 µg/mL | +/- 5.9456 µg/mL<br>+/- 54.8378 µg/mL<br>+/- 63.9463 µg/mL | Gravimetric<br>Unstressed<br>Stressed |

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

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

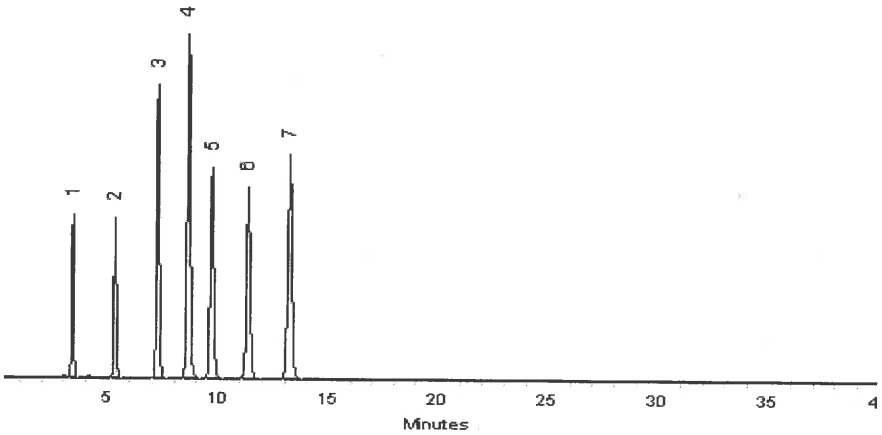
**Flow Rate:**
1.0 ml/min.

**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<br>**CAS #** 479-45-8<br>**Purity** 99% | (Lot 091120JLM) | 1,004.0 µg/mL | +/- 5.9635 µg/mL<br>+/- 55.0021 µg/mL<br>+/- 64.1379 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 2 | 4-Amino-2,6-dinitrotoluene<br>**CAS #** 19406-51-0<br>**Purity** 99% | (Lot ER070908-01) | 1,000.0 µg/mL | +/- 5.9397 µg/mL<br>+/- 54.7830 µg/mL<br>+/- 63.8824 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 3 | 2-Amino-4,6-dinitrotoluene<br>**CAS #** 35572-78-2<br>**Purity** 98% | (Lot 29550-55) | 999.6 µg/mL | +/- 5.9373 µg/mL<br>+/- 54.7611 µg/mL<br>+/- 63.8568 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 4 | 2,6-Dinitrotoluene<br>**CAS #** 606-20-2<br>**Purity** 99% | (Lot 1437483V) | 1,004.0 µg/mL | +/- 5.9635 µg/mL<br>+/- 55.0021 µg/mL<br>+/- 64.1379 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 5 | 2-Nitrotoluene<br>**CAS #** 88-72-2<br>**Purity** 99% | (Lot GA01) | 1,010.0 µg/mL | +/- 5.9991 µg/mL<br>+/- 55.3308 µg/mL<br>+/- 64.5212 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 6 | 4-Nitrotoluene<br>**CAS #** 99-99-0<br>**Purity** 99% | (Lot FAU01) | 1,006.0 µg/mL | +/- 5.9753 µg/mL<br>+/- 55.1117 µg/mL<br>+/- 64.2657 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 7 | 3-Nitrotoluene<br>**CAS #** 99-08-1<br>**Purity** 98% | (Lot 07329LG) | 1,007.4 µg/mL | +/- 5.9839 µg/mL<br>+/- 55.1906 µg/mL<br>+/- 64.3577 µg/mL | Gravimetric<br>Unstressed<br>Stressed |

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

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

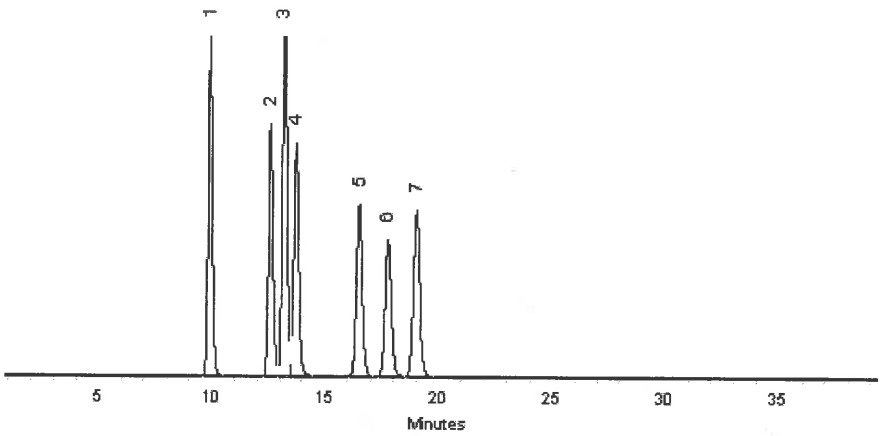
**Flow Rate:**
1.0 ml/min.

**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 ****

# 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 | | |

WL 88127 → C18

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.

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

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# CERTIFIED REFERENCE MATERIAL

# Certificate of Analysis

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Certificate #3222.01

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Testing Laboratory
Certificate #3222.02

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

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

**Catalog No. :** 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)

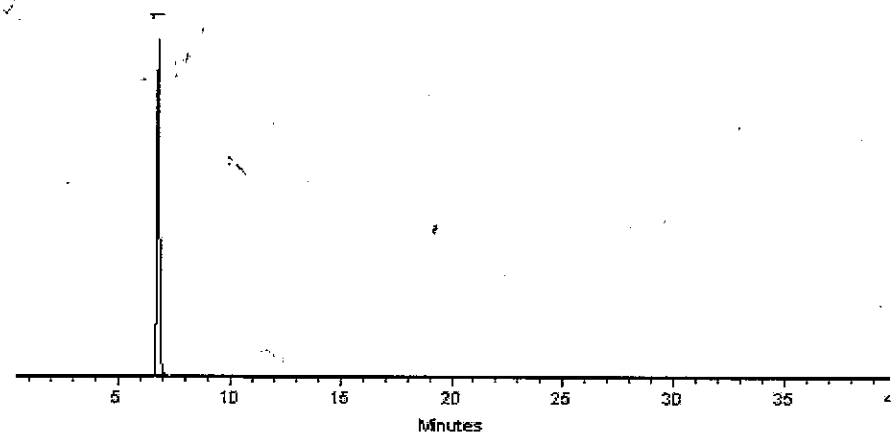
**Flow Rate:**
1.0 ml/min.

**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

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# CERTIFIED REFERENCE MATERIAL

# Certificate of Analysis

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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.:** 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)

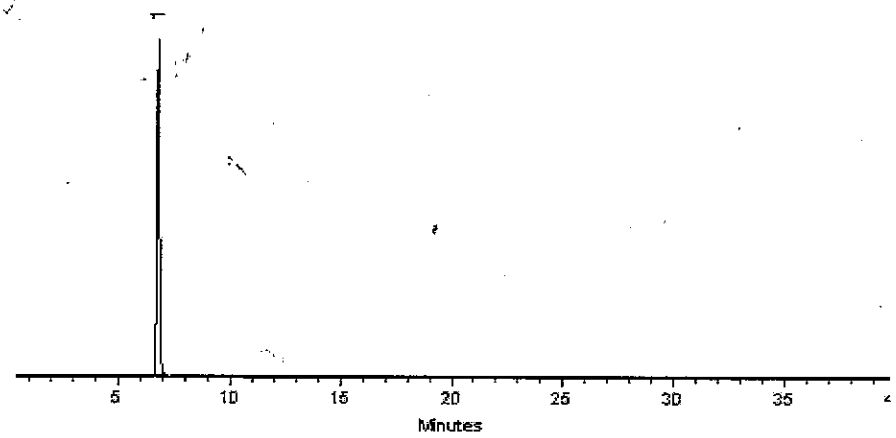
**Flow Rate:**
1.0 ml/min.

**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.
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| 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

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# CERTIFIED REFERENCE MATERIAL

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Testing Laboratory
Certificate #3222.02

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

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

**Catalog No. :** 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.
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| 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)

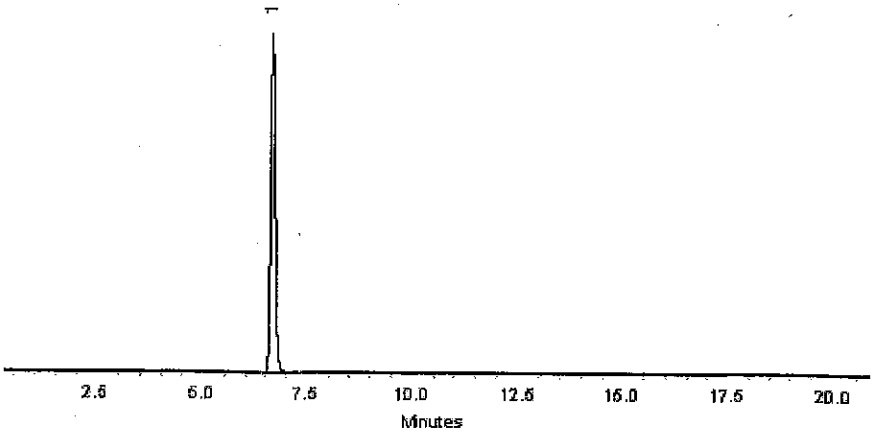
**Flow Rate:**
1.0 ml/min.

**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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Bellefonte, PA 16823-8812
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# Certificate of Analysis

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Testing Laboratory
Certificate #3222.02

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

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

**Catalog No. :** 31453 **Lot No.:** A0150790

**Description :** 8330 Surrogate Mix

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

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

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

## CERTIFIED VALUES

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

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

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

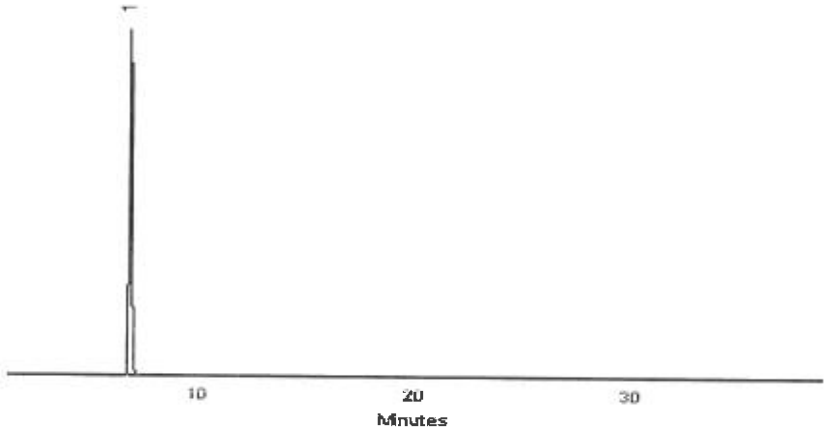
**Flow Rate:**
1.0 ml/min.

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

**Mobile Phase B:**

**Mobile Phase Composition:**
100%A

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




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

Walker Workman - Operations Technician I

**Date Mixed:** 12-Jul-2019 **Balance:** 1128360905

Jennifer Pollino - Operations Tech-ARM QC

**Date Passed:** 16-Jul-2019

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

# Reagent

# 8330SurrStkSS_00160

110 Benner Circle
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# CERTIFIED REFERENCE MATERIAL

# Certificate of Analysis

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Certificate #3222.01

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**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)

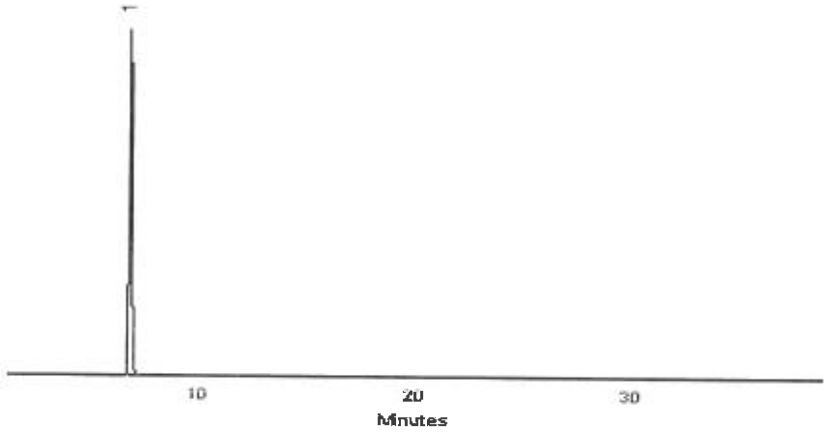
**Flow Rate:**
1.0 ml/min.

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

**Mobile Phase B:**

**Mobile Phase Composition:**
100%A

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

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Walker Workman - Operations Technician I

**Date Mixed:** 12-Jul-2019 **Balance:** 1128360905

Jennifer Pollino - Operations Tech-ARM QC

**Date Passed:** 16-Jul-2019

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

# Reagent

# 8330SurrStkSS_00161

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Bellefonte, PA 16823-8812
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# CERTIFIED REFERENCE MATERIAL

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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)

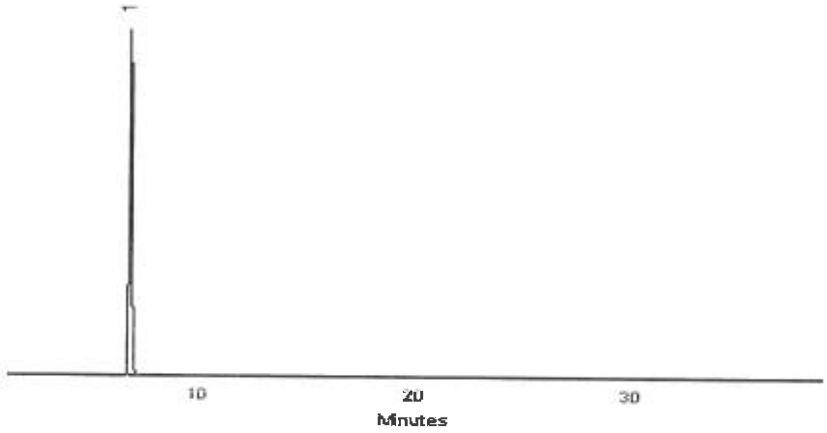
**Flow Rate:**
1.0 ml/min.

**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

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. :** 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<br>**CAS #** 2691-41-0<br>**Purity** 97% | (Lot 190402JLM) | 1,004.9 µg/mL | +/- 5.9689 µg/mL<br>+/- 55.0525 µg/mL<br>+/- 64.1967 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 2 | RDX<br>**CAS #** 121-82-4<br>**Purity** 99% | (Lot 080228JLM) | 1,005.0 µg/mL | +/- 5.9694 µg/mL<br>+/- 55.0569 µg/mL<br>+/- 64.2018 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 3 | 1,3,5-Trinitrobenzene<br>**CAS #** 99-35-4<br>**Purity** 97% | (Lot DJ5QO) | 1,003.0 µg/mL | +/- 5.9574 µg/mL<br>+/- 54.9463 µg/mL<br>+/- 64.0727 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 4 | 1,3-Dinitrobenzene<br>**CAS #** 99-65-0<br>**Purity** 99% | (Lot BCBN4329V) | 1,001.0 µg/mL | +/- 5.9456 µg/mL<br>+/- 54.8378 µg/mL<br>+/- 63.9463 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 5 | Nitrobenzene<br>**CAS #** 98-95-3<br>**Purity** 99% | (Lot SHBJ3622) | 1,001.0 µg/mL | +/- 5.9456 µg/mL<br>+/- 54.8378 µg/mL<br>+/- 63.9463 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 6 | 2,4,6-Trinitrotoluene<br>**CAS #** 118-96-7<br>**Purity** 99% | (Lot 5737200) | 1,005.0 µg/mL | +/- 5.9694 µg/mL<br>+/- 55.0569 µg/mL<br>+/- 64.2018 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 7 | 2,4-Dinitrotoluene<br>**CAS #** 121-14-2<br>**Purity** 99% | (Lot MKAA0690) | 1,001.0 µg/mL | +/- 5.9456 µg/mL<br>+/- 54.8378 µg/mL<br>+/- 63.9463 µg/mL | Gravimetric<br>Unstressed<br>Stressed |

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

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

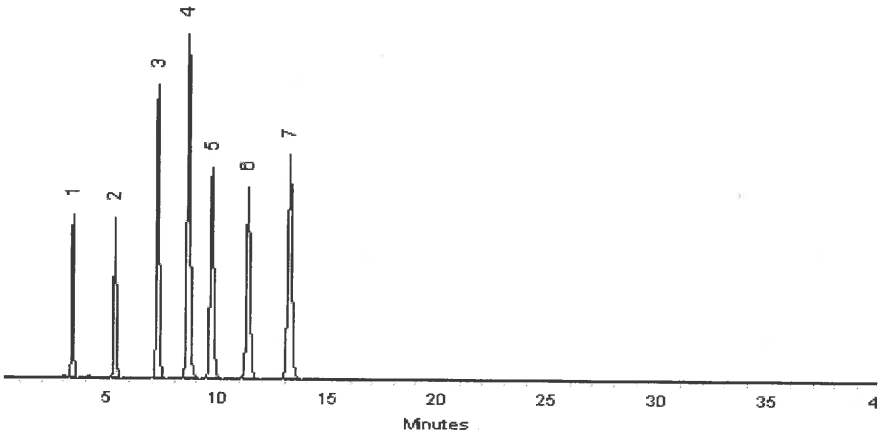
**Flow Rate:**
1.0 ml/min.

**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

RICCA CHEMICAL COMPANY®

1841 Broad Street
Pocomoke City, MD 21851
http://www.riccachemical.com
1-888-GO-RICCA
customerservice@riccachemical.com

# Certificate of Analysis

## Bromide Standard, 1000 ppm $Br^-$

**Lot Number:** 2907E22 **Product Number:** 1180

**Manufacture Date:** JUL 23, 2019
**Expiration Date:** JAN 2021

The certified value reported is the prepared value based upon the method of preparation of the material. The uncertainty in the prepared value is based upon the volumetric method of preparation.

| Name | CAS# | Grade |
|---|---|---|
| Water | 7732-18-5 | ACS/ASTM/USP/EP |
| Sodium Bromide | 7647-15-6 | High Purity |

| Test | Specification | Result |
|---|---|---|
| Appearance | Colorless liquid | Passed |
| Bromide (Br) | 995-1005 ppm | 1000 ppm |

| Specification | Reference |
|---|---|
| Bromide Solution, Standard (1 mL = 1 mg Br-) | ASTM (D 3869 D) |
| Standard Bromide Solution, 1000 mg/L | APHA (4110 B) |
| Bromide Stock Solution (1.00 mL = 1.00 mg Br-) | EPA (SW-846) (9056) |
| Sodium Bromide Standard Solution, 1000 mg/L | ASTM (D 1246) |
| Bromide Stock Solution (1.00 mL = 1.00 mg Br?) | ASTM (D 4327) |

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

| Part Number | Size / Package Type | Shelf Life (Unopened Container |
|---|---|---|
| 1180-16 | 500 mL natural poly | 18 months |
| 1180-4 | 120 mL natural poly | 18 months |
| 1180-8 | 250 mL natural poly | 18 months |

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

Sharon Travers (07/23/2019)
Quality Control Supervisor
This Certificate of Analysis is designed to comply with ISO Guide 31 "Reference Materials -- Contents of Certificates and Labels."

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

# Reagent

# IC CL cal_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: 1-800-152-SPEX • Fax: 732-603-9647

# Reagent

# IC MS/MSD S04_00005

Fisher Scientific

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

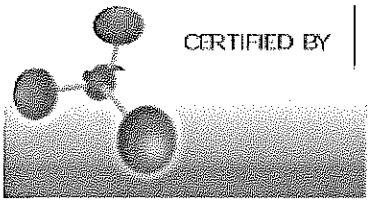
# Certificate of Analysis

Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2008 standard by SAI Global Certificate Number CERT - 0064970

This is to certify that units of the lot number below were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. Fisher Scientific expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Certain products (USP/FCC/NF/EP/BP/JP grades) are sold for use in food, drug, or medical device manufacturing. Fisher does not claim regulatory coverage under 21 CFR nor maintain DMF's with the FDA. The following are the actual analytical results obtained:

| | | | |
|---|---|---|---|
| **Catalog Number** | **P304** | **Quality Test / Release Date 3/2/2015** | |
| **Lot Number** | **147276** | | |
| **Description** | **POTASSIUM SULFATE, CRYSTAL, CERTIFIED, A.C.S.** | | |
| **Country of Origin** | **India** | *** Suggested Retest Date** | **Feb-2020** |
| **Chemical Origin** | **Inorganic-non animal** | | |
| **BSE/TSE Comment** | This product is not manufactured from, or with, any type of animal product, nor any derivative of an animal product. As such, this product should not be considered a vector for BSE or TSE. | | |

| Result name | Units | Specifications | Test Value |
|---|---|---|---|
| APPEARANCE | | REPORT | FINE WHITE CRYSTALS |
| ASSAY | % | >= 99 | 99.4 |
| CALCIUM | % | <= 0.01 | <0.010 |
| CHLORIDE | % | <= 0.001 | <0.0010 |
| HEAVY METALS (as Pb) | ppm | <= 5 | <5.0 |
| IDENTIFICATION | PASS/FAIL | = PASS TEST | PASS TEST |
| INSOLUBLE MATTER | % | <= 0.01 | <0.010 |
| IRON (Fe) | ppm | <= 5 | <5.0 |
| MAGNESIUM | % | <= 0.005 | <0.0050 |
| NITROGEN COMPOUNDS | ppm | <= 5 | <5 |
| PH 5% SOLUTION @ 25 DEG C | | Inclusive Between 5.5 - 8.5 | 5.5 |
| SODIUM (Na) | % | <= 0.02 | <0.020 |



CERTIFIED BY

Lab Manager Fair Lawn

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

# Reagent

# IC SO4 ICV_00021

ERA

A Waters Company

# Certificate of Analysis

| | |
|---|---|
| **PRODUCT:** | 1000 mg/L Sulfate ($SO_4$) |
| **CATALOG NUMBER:** | 062 -125 mL; 995 - 500 mL |
| **LOT NUMBER:** | 100819m |
| **ISSUE DATE:** | August 23, 2019 |
| **REVISION DATE:** | Original |
| **STARTING MATERIAL:** | Potassium Sulfate ($K_2SO_4$) |
| **CERTIFIED CONCENTRATION[1]:** | 1000 mg/L |
| **UNCERTAINTY[2]:** | 0.6% |
| **MATRIX:** | 18 megohm deionized water |
| **DENSITY:** | 0.9986 ± 0.0010 g/mL at 19.7°C and 757 mm Hg |
| **TRACEABILITY[3]:** | 97.6% |
| **NIST/SRM:** | 3181 Sulfate |
| **VERIFICATION METHOD:** | Ion Chromatography |
| **STORAGE:** | Store at 20-25°C |

1. The **Certified Concentration** is the actual made-to concentration confirmed by ERA analytical verification.

2. The stated **Uncertainty** is the total propagated uncertainty at the 95% confidence interval. The uncertainty is based on the preparation of the product and includes uncertainty related to the starting material used and the volumetric and gravimetric measurements made. The method of calculating uncertainty is taken from the ISO Guide to the Expression of Uncertainty in Measurement (current version). The uncertainty applies to the product as supplied and does not take into account any required or optional dilutions and/or preparations the laboratory may perform while using this product.

3. Traceability ((% Recovery Certified Standard)/(% Recovery NIST SRM))* 100.

   The traceability data shown were compiled by analyzing the ERA standards or their associated stock solutions against the applicable NIST SRMs. Where a NIST SRM is not available, the product is metrologically traceable through an unbroken chain of calibrations to NIST weights, each having stated uncertainties and utilizing measurement standards that are appropriate for the physical and/or chemical property being measured.

This standard **expires 08/06/2021**. The certified values are monitored and purchasers will be notified of any significant changes resulting in recertification or withdrawal of this certified reference material during the period of validity of this certificate.

This product is intended to be used as either a calibration standard or a quality control check of the entire analytical process for the analytes/matrix included in the standard.

If you have any questions or need technical assistance, please call ERA technical assistance at 1-800-372-0122 or email to info@eraqc.com

Certifying Officer: Brian Miller - Product Line Manager

ISO/IEC GUIDE 34:2009

ACCREDITED

REFERENCE MATERIAL PRODUCER CERTIFICATE NO. 1539.03

ISO/IEC 17025:2005

ACCREDITED

CHEMICAL TESTING LABORATORY CERTIFICATE NO. 1539.02

16341 Table Mtn Pkwy, Golden, CO 80403 800-372-0122 fax: 303-421-0159 www.eraqc.com

# Reagent

# IC sulfatecal_00057

Reference Materials Producer
Cert #2495.01

# SPEXertificate®

## Certificate of Reference Material

Chemical Testing
Cert #2495.02

**Catalog Number:** AS-SO49-2X **Lot No.** 4-197SO4-2X

**Description:** 1000 µg/mL Sulfate

EXPIRES JUN. 30, 2020

**Matrix:** $H_2O$

This **Ion Chromatography** Certified Reference Material, CRM, is intended primarily for use as a calibration standard or quality control standard for ion chromatography instrumentation. It can be employed in USEPA, ASTM and other methods relevant to the certified properties listed below.

**Certified Value:** 1001 µg/mL ±5 µg/mL

**Certified Value is Traceable to:** 3181*

* - indicates NIST SRM † - indicates SPEX CertiPrep CRM (when NIST SRM is not available) ‡ - prepared gravimetrically

The CRM is prepared gravimetrically using high purity Potassium Sulfate, Lot# MAN1018SO4. The certified value listed is the average of values obtained by classical wet assay and ion chromatography analysis.

Refer to side 2 for details of measurement uncertainties.

**Classical Wet Assay:** 1002 µg/mL

**Method:** Precipitation using Barium Chloride. Filter, ignite, and weigh as BaSO4.

**Instrumental Analysis by Ion Chromatography:** 999 µg/mL

**Uncertified Properties**

**Trace Ionic Impurities in the Actual Solution via IC Analysis:**

| Element | µg/mL | Element | µg/mL |
|---|---|---|---|
| $Br^-$ | <0.006 | $NO_2^-$ | <0.004 |
| $Cl^-$ | <0.01 | $NO_3^-$ | <0.006 |
| $F^-$ | <0.008 | $PO4^{-3}$ | <0.01 |

Balances are calibrated regularly with weight sets traceable to NIST #32856, #32867 and others. This CRM is guaranteed stable and accurate to +/- 0.5% of the certified value. This includes uncertainty components due to preparation, homogeneity by the most precise method, and short-term and long-term stability. This guarantee is valid for a period of one year from the date of certification only when the material is kept tightly capped and stored under ambient laboratory conditions.

Date of Certification: JUN -- 2019 Certifying Officer: Katherine Cullinan, QC Manager

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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.

# Reagent

---

# MNX,TNX,DNX_00032

Agilent

# Certificate of Analysis
# ISO Guide 34

## Custom Standard

| | | | | | |
|---|---|---|---|---|---|
| **Product Number:** | CUS-23984 | | | **Page:** | 1 of 1 |
| **Lot Number:** | CS-5628 | **Lot Issue Date:** | 16-Nov-2018 | **Expiration Date:** | 31-Dec-2019 |

This ISO Guide 34 Reference Material (RM) was manufactured and verified in accordance with Agilent Technologies ISO 9001 registered quality system. A review of the gravimetric preparation data by our ISO 17025 accredited laboratory serves to verify the concentration of each analyte. The true value and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

| Analyte | CAS# | Analyte Lot | True Value |
|---|---|---|---|
| 1,3,5-trinitroso-1,3,5-triazacyclohexane (TNX) | | RM12428 | 100.3 ± 0.5 µg/mL |
| 1-nitro-3,5-dinitroso-1,3,5-triazacyclohexane | | RM12428 | 100.1 ± 0.5 µg/mL |
| 1-nitroso-3,5-dinitro-1,3,5-triazacyclohexane | | RM12428 | 116.7 ± 0.6 µg/mL |

**Matrix:** acetonitrile

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

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

Monica Bourgeois
QMS Representative

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

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

ANAB ACCREDITED ISO/IEC 17025 TESTING LABORATORY
ISO17025 Cert No.
AT-1937

ORG ver 1.1


250 Smith Street North Kingstown, Rhode Island 02852 **www.ultrasci.com**

# Reagent

# MNX,TNX,DNX_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

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# 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



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

ANAB ACCREDITED TESTING LABORATORY

ISO 17025 Cert No. AT-1937



250 Smith Street North Kingstown, Rhode Island 02852 www.agilent.com/quality

# Certificate of Analysis

**Product Number:** CUS-23984 **Lot Number:** 0006516106

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

**Sample lot approver:**

Monica Bourgeois
QMS Representative

ISO 17034 Cert No.
AR-1936

RM was produced in accordance with TUV USA Inc registered ISO 9001 Quality Management System. Cert # 56 100 18560026



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

ISO 17025 Cert
No. AT-1937

# Reagent

# NH3 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:<br>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**<br>Fajans NIST SRM 999c Lot Number: 999c |
| **Assay Method #2** | **997 ± 2 µg/mL**<br>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.

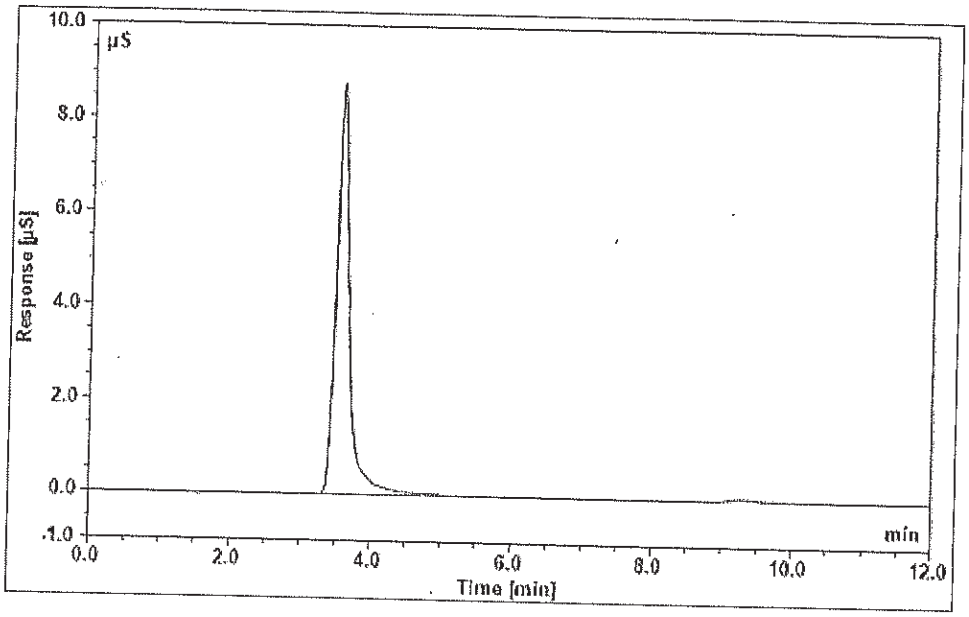
### 4.2 Balance Calibration

- 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

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# 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)

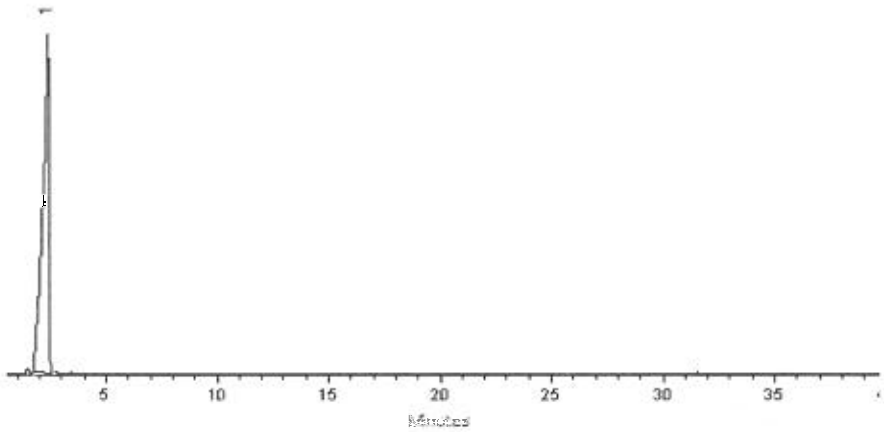
**Flow Rate:**
1.0 ml/min.

**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

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# 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

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# SFD CAL STK_00006

| | |
|---|---|
| Version | 02 |
| Molecular weight | 240.18 |
| Quality Test / Release Date | 09/06/2018 |
| Molecular Formula | Na2 S . 9 H2 O |
| CAS No | 1313-84-4 |
| Linear Formula | Na2S.9H2O |
| Flash Point (°C) | |

# Certificate of Analysis

This is to certify that units of the above mentioned lot number were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. Acros Organics expressly disclaims all warranties,expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Unless otherwise stated, these products are not intended for dialysis, parenteral, or injectable use without further processing. The following are the actual analytical results obtained:

| | | |
|---|---|---|
| **Catalog Number** | 38706 | **Quality Test / Release Date** 09/06/2018 |
| **Lot Number** | A0390872 | |
| **Description** | Sodium sulfide nonahydrate,98+%,extra pure | |
| **Country of Origin** | INDIA | |
| **Declaration of Origin** | synthetic | |

| | |
|---|---|
| **BSE/TSE comment** | |
| **Chemical Comment** | |

| Result name | Units | Specifications | Test Value |
|---|---|---|---|
| Appearance (Color) | | Colorless to light yellow | Light yellow |
| Appearance (Form) | | Adhering crystals and/or chunks | Adhering crystals and chunks |
| Titration Iodimetric | | 32.0 to 38.0 % (Na2S) | 35.9 % (Na2S) |
| Total nitrogen (as N) | | =<0.005 % | =<0.005 % |
| Sulfite (as SO2) | | =<2000 ppm | =<2000 ppm |
| Thiosulphate (S2O3) | | =<5000 ppm | =<5000 ppm |

CERTIFIED BY

L. Van den Broek, QA Manager

Issued: 09-06-2018

Acros Organics
ENA23, zone1, nr 1350, Janssen Pharmaceuticalaan 3a, B-2440 Geel, Belgium
Tel +32 14/57.52.11 - Fax +32 14/59.34.34 Internet: http://www.acros.com
1 Regent Lane, Fair Lawn, NJ 07410, USA Fax 201-796-1329

# Reagent

# TKN CAL STD_00017

nsi lab solutions
protect more. test more.
7212 ACC Blvd. | Raleigh, NC 27617 | 800.234.7837

# Certificate of Analysis

## TKN Calibration Standard - 1000 mg/L

**Catalog Number:** IS-009, IS-009-500
**Lot Number:** 010617
**Manufacture Date:** 01/06/17
**Certified Date:** 01/12/17

**Expiration:** 01/31/2021
**Matrix:** Water
**Hazards:** Irritant
(See MSDS)

| Bulk Number | Analyte | CAS # | Purity | Certified Concentration (mg/L TKN) |
|---|---|---|---|---|
| W-1477-25 | TKN from Glycine | 56-40-6 | 99.4% | 1000 ± 4.60 |

### Packaging, Storage, Instructions For Use

**Store at room temperature (15-30°C). After opening, this solution should be stored tightly capped at 2-8°C.**

This certified reference material (CRM) is packaged in low density polyethylene. Allow to equilibrate to room temperature before use. Small aliquots should be poured out of the bottle rather than directly pipetted out of bottle in order to prevent contamination or premature degradation. A 1 mL sample size is recommended. Smaller sample volumes may negatively affect estimated uncertainty.

### Traceability Information

**Analyte Source Materials:** The highest purity analyte source materials are used in the manufacture of this CRM. The actual purity is referenced above. Analyte source material purity and associated uncertainty has been analytically verified against appropriate NIST SRMs, if available.

**Method:** Certified concentration confirmed by HPLC analysis against an independent reference standard with n=3.

**Balance:** All analytical balances are calibrated on a semiannual basis by an ISO 17025 accredited calibration laboratory and are traceable to NIST. Traceable Calibration Certificate available upon request.

All balances are checked daily by an in-house standard operating procedure. The weights used for this daily verification are calibrated annually by an ISO 17025 accredited calibration laboratory and are certified traceable to NIST. Certificate of Calibration and Traceability available upon request.

**Thermometer:** All thermometers are NIST traceable through thermometers that are calibrated annually by an ISO 17025 accredited calibration laboratory.

**Glassware:** All glassware used in the manufacture of our CRMs is Class A. An in-house standard operating procedure is used to verify all glassware prior to it being placed into service. Volumetric pipetors are calibrated every four months by an ISO 17025 accredited calibration laboratory.

**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



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.: 280-134268-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 035F2801.D

Lab ID: LCS 280-488165/35 Client ID:

| COMPOUND | SPIKE ADDED (mg/L) | LCS CONCENTRATION (mg/L) | LCS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Methane | 0.0730 | 0.0790 | 108 | 73-125 | |

# Column to be used to flag recovery and RPD values

FORM III RSK-175

FORM III
GC VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134268-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 031F2701.D

Lab ID: LCS 280-488254/48 Client ID:

| COMPOUND | SPIKE ADDED (mg/L) | LCS CONCENTRATION (mg/L) | LCS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| Methane | 0.0730 | 0.0813 | 111 | 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.: 280-134268-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 036F2901.D

Lab ID: LCSD 280-488165/36 Client ID:

| COMPOUND | SPIKE ADDED (mg/L) | LCSD CONCENTRATION (mg/L) | LCSD % REC | % RPD | QC LIMITS | | # |
|---|---|---|---|---|---|---|---|
| | | | | | RPD | REC | |
| Methane | 0.0730 | 0.0772 | 106 | 2 | 20 | 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.: 280-134268-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 032F2801.D

Lab ID: LCSD 280-488254/49 Client ID:

| COMPOUND | SPIKE ADDED (mg/L) | LCSD CONCENTRATION (mg/L) | LCSD % REC | % RPD | QC LIMITS | | # |
|---|---|---|---|---|---|---|---|
| | | | | | RPD | REC | |
| Methane | 0.0730 | 0.0796 | 109 | 2 | 20 | 73-125 | |

# Column to be used to flag recovery and RPD values

FORM III RSK-175

FORM III
GC VOA MATRIX SPIKE RECOVERY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-134268-1

SDG No.:

Matrix: Water  Level: Low  Lab File ID: 040F3301.D

Lab ID: 280-134268-6 MS  Client ID: PZ019-2 MS

| COMPOUND | SPIKE ADDED (mg/L) | SAMPLE CONCENTRATION (mg/L) | MS CONCENTRATION (mg/L) | MS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|---|
| Methane | 0.0730 | 0.0020 U | 0.0478 | 66 | 73-125 | J1 |

# Column to be used to flag recovery and RPD values

FORM III RSK-175

FORM III
GC VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-134268-1

SDG No.:

Matrix: Water  Level: Low  Lab File ID: 041F3401.D

Lab ID: 280-134268-6 MSD  Client ID: PZ019-2 MSD

| COMPOUND | SPIKE ADDED (mg/L) | MSD CONCENTRATION (mg/L) | MSD % REC | % RPD | QC LIMITS RPD | QC LIMITS REC | # |
|---|---|---|---|---|---|---|---|
| Methane | 0.0730 | 0.0565 | 77 | 17 | 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.: 280-134268-1

SDG No.:

Lab Sample ID: MB 280-488165/37

Matrix: Water  Date Extracted:

Lab File ID:(1) 037F3001.D  Lab File ID:(2) 037F3001.D

Date Analyzed:(1) 03/09/2020 20:15  Date Analyzed:(2) 03/09/2020 20:15

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 280-488165/35 | 03/09/2020 19:49 | 03/09/2020 19:49 |
| | LCSD 280-488165/36 | 03/09/2020 20:02 | 03/09/2020 20:02 |
| PZ019-2 | 280-134268-6 | 03/09/2020 20:28 | 03/09/2020 20:28 |
| PZ019-2 DU | 280-134268-6 DU | 03/09/2020 20:42 | 03/09/2020 20:42 |
| PZ019-2 MS | 280-134268-6 MS | 03/09/2020 20:55 | 03/09/2020 20:55 |
| PZ019-2 MSD | 280-134268-6 MSD | 03/09/2020 21:09 | 03/09/2020 21:09 |
| NW070-2 | 280-134268-1 | 03/10/2020 01:09 | 03/10/2020 01:09 |
| NW071-2 | 280-134268-2 | 03/10/2020 01:22 | 03/10/2020 01:22 |
| NW062-2 | 280-134268-9 | 03/10/2020 01:36 | 03/10/2020 01:36 |
| G0080-2 | 280-134268-10 | 03/10/2020 01:49 | 03/10/2020 01:49 |

FORM IV
GC VOA METHOD BLANK SUMMARY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-134268-1

SDG No.:

Lab Sample ID: MB 280-488254/50

Matrix: Water  Date Extracted:

Lab File ID:(1) 033F2901.D  Lab File ID:(2) 033F2901.D

Date Analyzed:(1) 03/10/2020 17:26  Date Analyzed:(2) 03/10/2020 17:26

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 280-488254/48 | 03/10/2020 17:00 | 03/10/2020 17:00 |
| | LCSD 280-488254/49 | 03/10/2020 17:13 | 03/10/2020 17:13 |
| CA210-2 | 280-134268-3 | 03/10/2020 21:50 | 03/10/2020 21:50 |
| CA212-2 | 280-134268-4 | 03/10/2020 22:04 | 03/10/2020 22:04 |
| CA211-2 | 280-134268-5 | 03/10/2020 22:17 | 03/10/2020 22:17 |
| NW080R-2 | 280-134268-7 | 03/10/2020 22:31 | 03/10/2020 22:31 |
| NW081R-2 | 280-134268-8 | 03/10/2020 22:44 | 03/10/2020 22:44 |

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134268-1

SDG No.:

Client Sample ID: NW070-2 Lab Sample ID: 280-134268-1

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

Date Analyzed (1): 03/10/2020 01:09 Date Analyzed (2): 03/10/2020 01:09

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

| ANALYTE | COL | PEAK | RT | RT WINDOW | | CONCENTRATION | | RPD |
|---|---|---|---|---|---|---|---|---|
| | | | | FROM | TO | PEAK | MEAN | |
| Methane | 1 | | 1.66 | 1.64 | 1.72 | 0.63 | | 0.3 |
| | 2 | | 1.26 | 1.23 | 1.31 | 0.63 | | |

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134268-1

SDG No.:

Client Sample ID: CA210-2 Lab Sample ID: 280-134268-3

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

Date Analyzed (1): 03/10/2020 21:50 Date Analyzed (2): 03/10/2020 21:50

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 | 1.63 | 1.71 | 0.0066 | | 1.8 |
| | 2 | | 1.26 | 1.22 | 1.30 | 0.0068 | | |

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134268-1

SDG No.:

Client Sample ID: PZ019-2 MS Lab Sample ID: 280-134268-6 MS

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

Date Analyzed (1): 03/09/2020 20:55 Date Analyzed (2): 03/09/2020 20:55

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 | 0.0478 | | 0.3 |
| | 2 | | 1.26 | 1.23 | 1.31 | 0.0480 | | |

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134268-1

SDG No.:

Client Sample ID: PZ019-2 MSD Lab Sample ID: 280-134268-6 MSD

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

Date Analyzed (1): 03/09/2020 21:09 Date Analyzed (2): 03/09/2020 21:09

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 | 0.0565 | | 0.3 |
| | 2 | | 1.26 | 1.23 | 1.31 | 0.0567 | | |

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134268-1

SDG No.:

Client Sample ID: NW062-2 Lab Sample ID: 280-134268-9

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

Date Analyzed (1): 03/10/2020 01:36 Date Analyzed (2): 03/10/2020 01:36

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 | 0.021 | | 0.3 |
| | 2 | | 1.26 | 1.23 | 1.31 | 0.021 | | |

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134268-1

SDG No.:

Client Sample ID: G0080-2 Lab Sample ID: 280-134268-10

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

Date Analyzed (1): 03/10/2020 01:49 Date Analyzed (2): 03/10/2020 01:49

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 | 0.0046 | | 1.3 |
| | 2 | | 1.26 | 1.23 | 1.31 | 0.0046 | | |

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134268-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 280-488165/35

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

Date Analyzed (1): 03/09/2020 19:49 Date Analyzed (2): 03/09/2020 19:49

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 | 0.0790 | | 0.5 |
| | 2 | | 1.26 | 1.23 | 1.31 | 0.0786 | | |

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134268-1

SDG No.:

Client Sample ID: Lab Sample ID: LCSD 280-488165/36

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

Date Analyzed (1): 03/09/2020 20:02 Date Analyzed (2): 03/09/2020 20:02

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 | 0.0772 | | 0.6 |
| | 2 | | 1.26 | 1.23 | 1.31 | 0.0767 | | |

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134268-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 280-488254/48

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

Date Analyzed (1): 03/10/2020 17:00 Date Analyzed (2): 03/10/2020 17:00

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

| ANALYTE | COL | PEAK | RT | RT WINDOW | | CONCENTRATION | | RPD |
|---|---|---|---|---|---|---|---|---|
| | | | | FROM | TO | PEAK | MEAN | |
| Methane | 1 | | 1.67 | 1.63 | 1.71 | 0.0813 | | 0.5 |
| | 2 | | 1.26 | 1.22 | 1.30 | 0.0810 | | |

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134268-1

SDG No.:

Client Sample ID: Lab Sample ID: LCSD 280-488254/49

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

Date Analyzed (1): 03/10/2020 17:13 Date Analyzed (2): 03/10/2020 17:13

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 | 1.63 | 1.71 | 0.0796 | | 0.5 |
| | 2 | | 1.26 | 1.22 | 1.30 | 0.0792 | | |

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-134268-1

SDG No.:

Client Sample ID: NW070-2  Lab Sample ID: 280-134268-1

Matrix: Water  Lab File ID: 059F5201.D

Analysis Method: RSK-175  Date Collected: 03/02/2020 14:35

Sample wt/vol: 18(mL)  Date Analyzed: 03/10/2020 01:09

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.: 488165  Units: mg/L

| CAS NO. | COMPOUND NAME | RESULT | Q | LOQ | LOD | DL |
|---|---|---|---|---|---|---|
| 74-82-8 | Methane | 0.63 | | 0.0050 | 0.0020 | 0.00063 |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Denver\ChromData\VGC_J\20200309-89898.b\059F5201.D | | | | |
| Lims ID: | 280-134268-H-1 | | | | |
| Client ID: | NW070-2 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 10-Mar-2020 01:09:32 | ALS Bottle#: | 59 | Worklist Smp#: | 59 |
| Purge Vol: | 18.000 mL | Dil. Factor: | 1.0000 | | |
| Sample Info: | 280-134268-H-1 | | | | |
| Operator ID: | sciannac | Instrument ID: | VGC_J | | |

| | | | |
|---|---|---|---|
| Method: | \\chromna\Denver\ChromData\VGC_J\20200309-89898.b\RSK_J.m | | |
| Limit Group: | GCV - RSK 175 | | |
| Method Label: | DV-GC-0025: Dissolved Gases in Water by RSK-175 | | |
| Last Update: | 10-Mar-2020 08:20:49 | 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: | CTX0337 | |

First Level Reviewer: sciannac Date: 10-Mar-2020 08:19:02

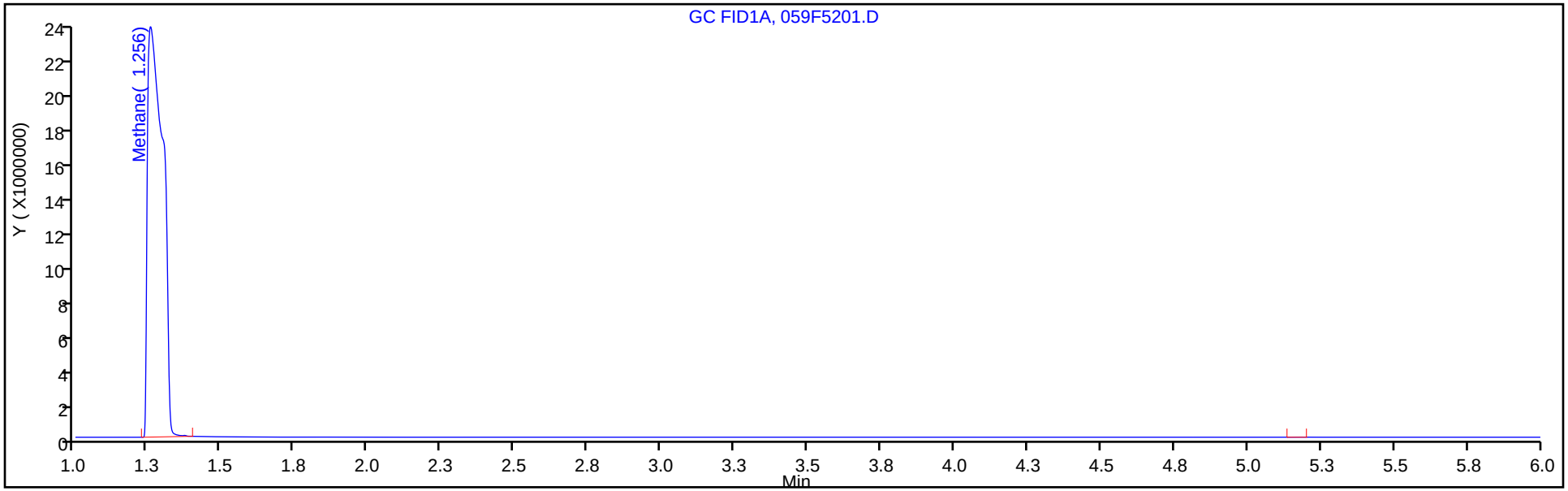
| Col | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|
| 1 Methane | | | | | | |
| 1 | 1.256 | 1.265 | -0.009 | 84441973 | 630.2 | |
| 2 | 1.662 | 1.683 | -0.021 | 71986507 | 628.2 | |
| | | | | | RPD = 0.32 | |
| 2 Ethane | | | | | | |
| 1 | | 1.544 | | | ND | |
| 2 | | 2.881 | | | | |
| 3 Ethylene | | | | | | |
| 1 | | 1.863 | | | ND | |
| 2 | | 2.506 | | | | |
| 4 Propane | | | | | | |
| 1 | | 2.601 | | | ND | |
| 2 | | 4.684 | | | | |
| 5 Acetylene | | | | | | |
| 1 | | 4.053 | | | ND | |
| 2 | | 2.659 | | | | |
| 6 Butane | | | | | | |
| 1 | | 4.358 | | | ND | |
| 2 | | 6.143 | | | | |
| 7 isobutylene | | | | | | |
| 1 | | 5.294 | | | ND | |
| 2 | | 5.996 | | | | |

Report Date: 10-Mar-2020 08:20:57 Chrom Revision: 2.3 19-Feb-2020 16:45:46

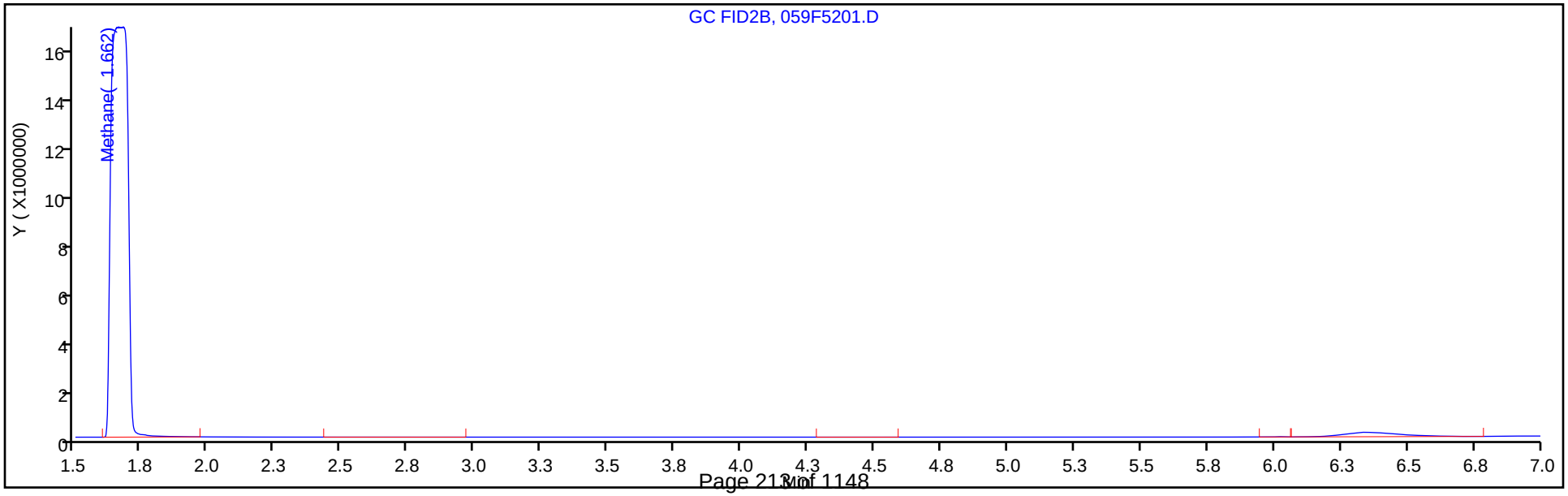
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Denver\ChromData\VGC_J\20200309-89898.b\059F5201.D | | | | |
| Injection Date: | 10-Mar-2020 01:09:32 | Instrument ID: | VGC_J | Operator ID: | sciannac |
| Lims ID: | 280-134268-H-1 | Lab Sample ID: | 280-134268-1 | Worklist Smp#: | 59 |
| Client ID: | NW070-2 | | | | |
| Purge Vol: | 18.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 59 |
| 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.: 280-134268-1
SDG No.:
Client Sample ID: NW071-2
Lab Sample ID: 280-134268-2
Matrix: Water
Lab File ID: 060F5301.D
Analysis Method: RSK-175
Date Collected: 03/02/2020 15:40
Sample wt/vol: 18(mL)
Date Analyzed: 03/10/2020 01:22
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.: 488165
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\20200309-89898.b\060F5301.D | | | | |
| Lims ID: | 280-134268-G-2 | | | | |
| Client ID: | NW071-2 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 10-Mar-2020 01:22:53 | ALS Bottle#: | 60 | Worklist Smp#: | 60 |
| Purge Vol: | 18.000 mL | Dil. Factor: | 1.0000 | | |
| Sample Info: | 280-134268-G-2 | | | | |
| Operator ID: | sciannac | Instrument ID: | VGC_J | | |

| | | | |
|---|---|---|---|
| Method: | \\chromna\Denver\ChromData\VGC_J\20200309-89898.b\RSK_J.m | | |
| Limit Group: | GCV - RSK 175 | | |
| Method Label: | DV-GC-0025: Dissolved Gases in Water by RSK-175 | | |
| Last Update: | 10-Mar-2020 08:20:49 | 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: | CTX0337 | |

First Level Reviewer: sciannac Date: 10-Mar-2020 08:19:08

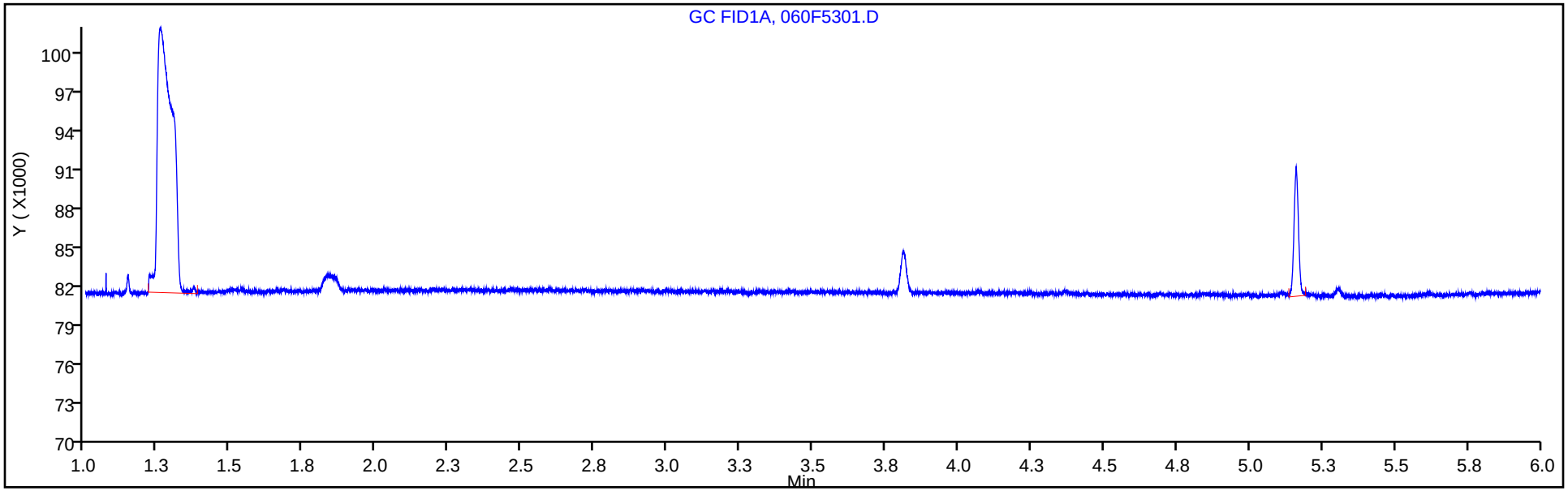
| Col | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|
| 1 Methane | | | | | | |
| 1 | | 1.265 | | | ND | |
| 2 | | 1.683 | | | | |
| 2 Ethane | | | | | | |
| 1 | | 1.544 | | | ND | |
| 2 | | 2.881 | | | | |
| 3 Ethylene | | | | | | |
| 1 | | 1.863 | | | ND | |
| 2 | | 2.506 | | | | |
| 4 Propane | | | | | | |
| 1 | | 2.601 | | | ND | |
| 2 | | 4.684 | | | | |
| 5 Acetylene | | | | | | |
| 1 | | 4.053 | | | ND | |
| 2 | | 2.659 | | | | |
| 6 Butane | | | | | | |
| 1 | | 4.358 | | | ND | |
| 2 | | 6.143 | | | | |
| 7 isobutylene | | | | | | |
| 1 | | 5.294 | | | ND | |
| 2 | | 5.996 | | | | |

Report Date: 10-Mar-2020 08:20:57 Chrom Revision: 2.3 19-Feb-2020 16:45:46

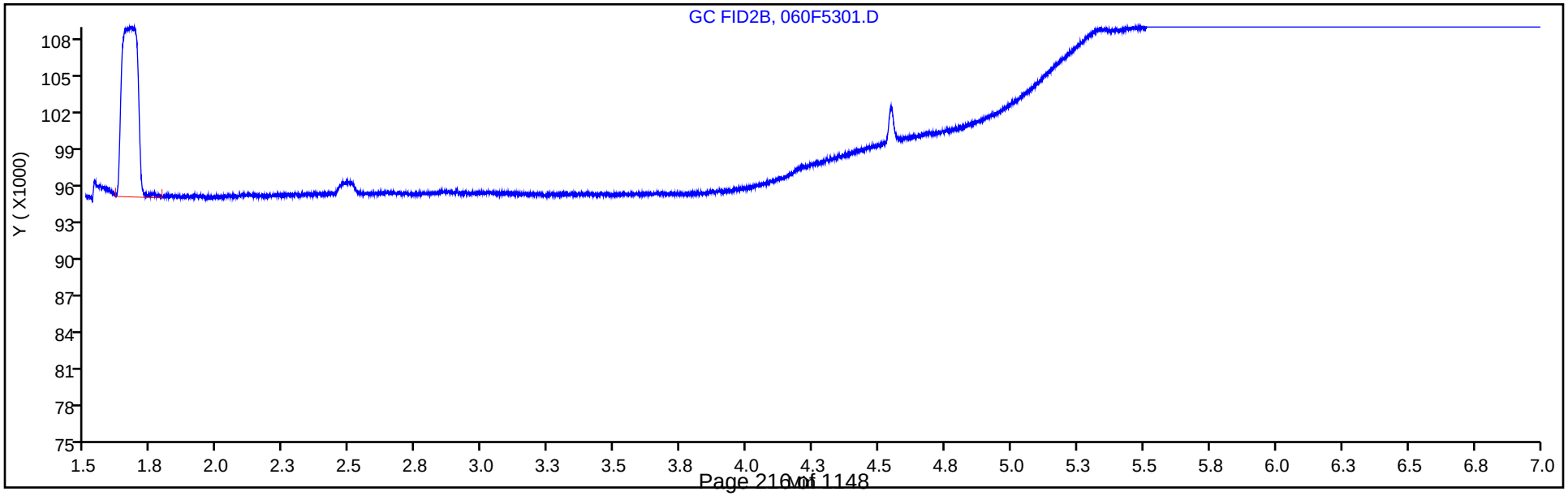
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Denver\ChromData\VGC_J\20200309-89898.b\060F5301.D | | | | |
| Injection Date: | 10-Mar-2020 01:22:53 | Instrument ID: | VGC_J | Operator ID: | sciannac |
| Lims ID: | 280-134268-G-2 | Lab Sample ID: | 280-134268-2 | Worklist Smp#: | 60 |
| Client ID: | NW071-2 | | | | |
| Purge Vol: | 18.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 60 |
| 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.: 280-134268-1
SDG No.:
Client Sample ID: CA210-2
Lab Sample ID: 280-134268-3
Matrix: Water
Lab File ID: 053F4901.D
Analysis Method: RSK-175
Date Collected: 03/03/2020 09:00
Sample wt/vol: 18(mL)
Date Analyzed: 03/10/2020 21:50
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.: 488254
Units: mg/L

| CAS NO. | COMPOUND NAME | RESULT | Q | LOQ | LOD | DL |
|---|---|---|---|---|---|---|
| 74-82-8 | Methane | 0.0066 | | 0.0050 | 0.0020 | 0.00063 |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Denver\ChromData\VGC_J\20200310-89932.b\053F4901.D | | | | |
| Lims ID: | 280-134268-H-3 | | | | |
| Client ID: | CA210-2 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 10-Mar-2020 21:50:51 | ALS Bottle#: | 53 | Worklist Smp#: | 56 |
| Purge Vol: | 18.000 mL | Dil. Factor: | 1.0000 | | |
| Sample Info: | 280-134268-H-3 | | | | |
| Operator ID: | sciannac | Instrument ID: | VGC_J | | |

| | | | |
|---|---|---|---|
| Method: | \\chromna\Denver\ChromData\VGC_J\20200310-89932.b\RSK_J.m | | |
| Limit Group: | GCV - RSK 175 | | |
| Method Label: | DV-GC-0025: Dissolved Gases in Water by RSK-175 | | |
| Last Update: | 11-Mar-2020 09:31:33 | 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: | CTX0303 | |

First Level Reviewer: sciannac Date: 11-Mar-2020 09:28:04

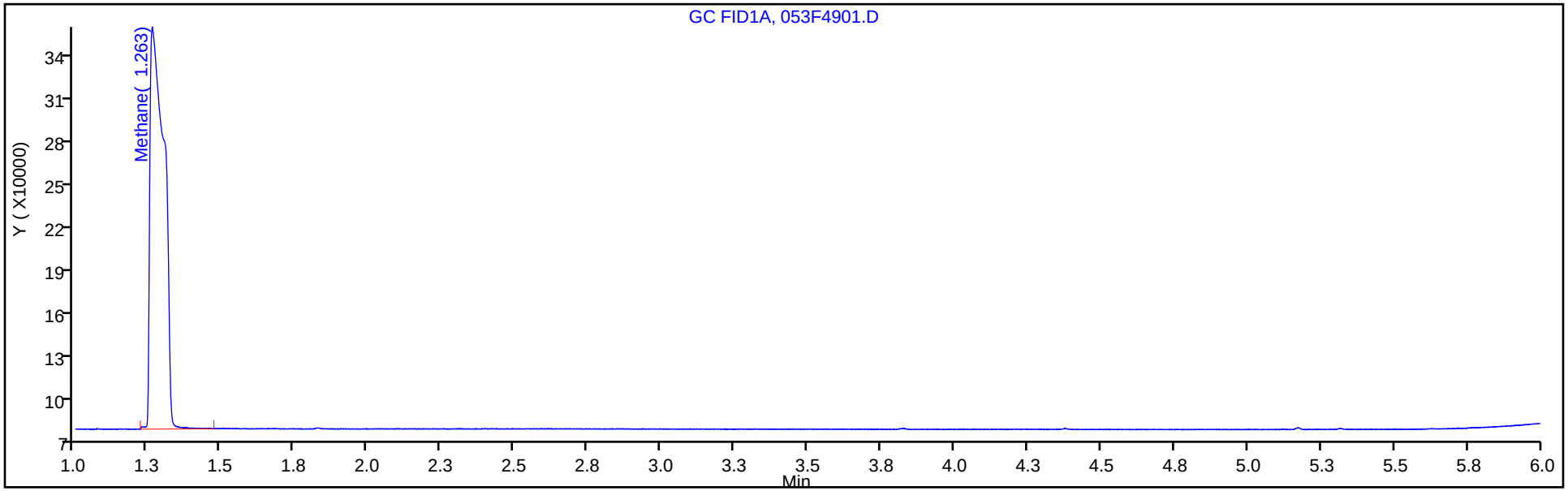
| Col | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|
| 1 Methane | | | | | | |
| 1 | 1.263 | 1.259 | 0.004 | 940898 | 6.76 | |
| 2 | 1.683 | 1.668 | 0.015 | 786817 | 6.64 | |
| | | | | | RPD = 1.76 | |
| 2 Ethane | | | | | | |
| 1 | | 1.537 | | | ND | |
| 2 | | 2.865 | | | | |
| 3 Ethylene | | | | | | |
| 1 | | 1.854 | | | ND | |
| 2 | | 2.490 | | | | |
| 4 Propane | | | | | | |
| 1 | | 2.598 | | | ND | |
| 2 | | 4.673 | | | | |
| 5 Acetylene | | | | | | |
| 1 | | 4.060 | | | ND | |
| 2 | | 2.644 | | | | |
| 6 Butane | | | | | | |
| 1 | | 4.362 | | | ND | |
| 2 | | 6.137 | | | | |
| 7 isobutylene | | | | | | |
| 1 | | 5.300 | | | ND | |
| 2 | | 5.987 | | | | |

Report Date: 11-Mar-2020 09:31:46 Chrom Revision: 2.3 19-Feb-2020 16:45:46

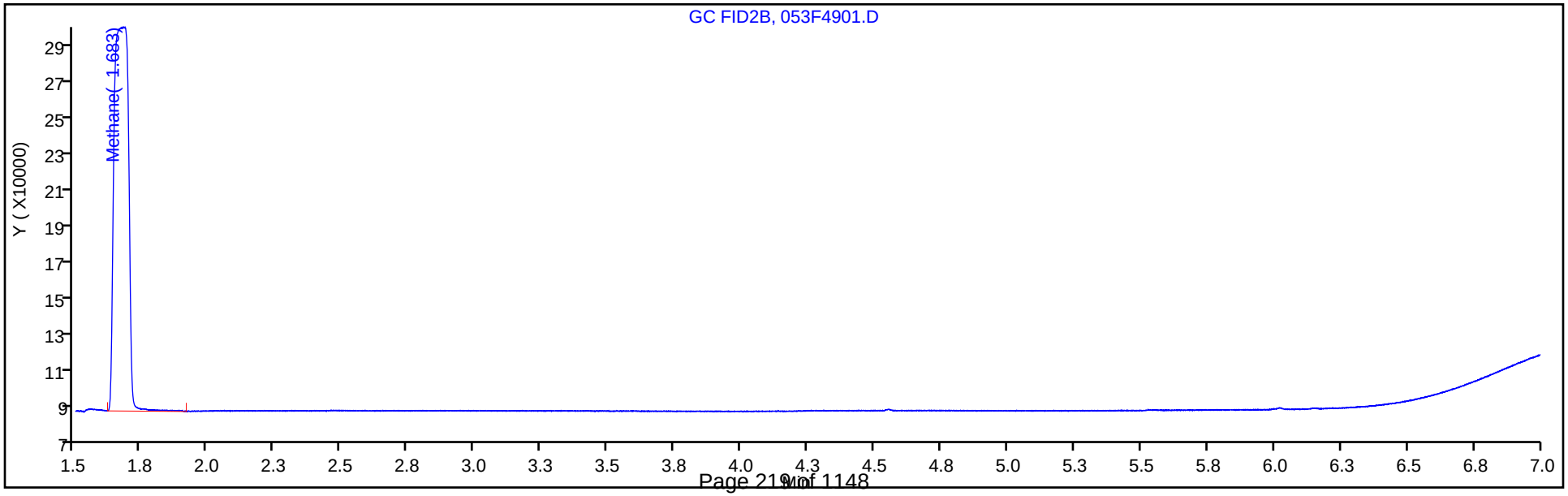
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Denver\ChromData\VGC_J\20200310-89932.b\053F4901.D | | | | |
| Injection Date: | 10-Mar-2020 21:50:51 | Instrument ID: | VGC_J | Operator ID: | sciannac |
| Lims ID: | 280-134268-H-3 | Lab Sample ID: | 280-134268-3 | Worklist Smp#: | 56 |
| Client ID: | CA210-2 | | | | |
| Purge Vol: | 18.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 53 |
| 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.: 280-134268-1

SDG No.:

Client Sample ID: CA212-2  Lab Sample ID: 280-134268-4

Matrix: Water  Lab File ID: 054F5001.D

Analysis Method: RSK-175  Date Collected: 03/03/2020 11:20

Sample wt/vol: 18(mL)  Date Analyzed: 03/10/2020 22:04

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.: 488254  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\20200310-89932.b\054F5001.D | | | | |
| Lims ID: | 280-134268-H-4 | | | | |
| Client ID: | CA212-2 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 10-Mar-2020 22:04:18 | ALS Bottle#: | 54 | Worklist Smp#: | 57 |
| Purge Vol: | 18.000 mL | Dil. Factor: | 1.0000 | | |
| Sample Info: | 280-134268-H-4 | | | | |
| Operator ID: | sciannac | Instrument ID: | VGC_J | | |
| Method: | \\chromna\Denver\ChromData\VGC_J\20200310-89932.b\RSK_J.m | | | | |
| Limit Group: | GCV - RSK 175 | | | | |
| Method Label: | DV-GC-0025: Dissolved Gases in Water by RSK-175 | | | | |
| Last Update: | 11-Mar-2020 09:31:33 | 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: | CTX0303 | | | | |

First Level Reviewer: sciannac Date: 11-Mar-2020 09:28:18

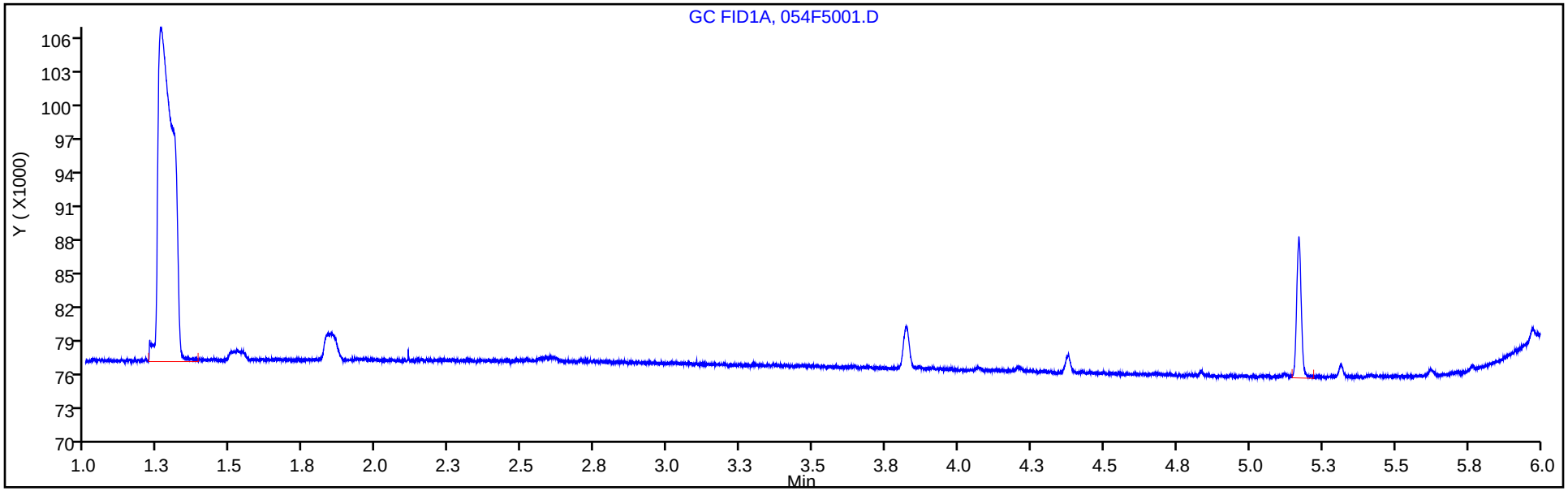
| Col | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|
| 1 Methane | | | | | | |
| 1 | | 1.259 | | | ND | |
| 2 | | 1.668 | | | | |
| 2 Ethane | | | | | | |
| 1 | | 1.537 | | | ND | |
| 2 | | 2.865 | | | | |
| 3 Ethylene | | | | | | |
| 1 | | 1.854 | | | ND | |
| 2 | | 2.490 | | | | |
| 4 Propane | | | | | | |
| 1 | | 2.598 | | | ND | |
| 2 | | 4.673 | | | | |
| 5 Acetylene | | | | | | |
| 1 | | 4.060 | | | ND | |
| 2 | | 2.644 | | | | |
| 6 Butane | | | | | | |
| 1 | | 4.362 | | | ND | |
| 2 | | 6.137 | | | | |
| 7 isobutylene | | | | | | |
| 1 | | 5.300 | | | ND | |
| 2 | | 5.987 | | | | |

Report Date: 11-Mar-2020 09:31:49 Chrom Revision: 2.3 19-Feb-2020 16:45:46

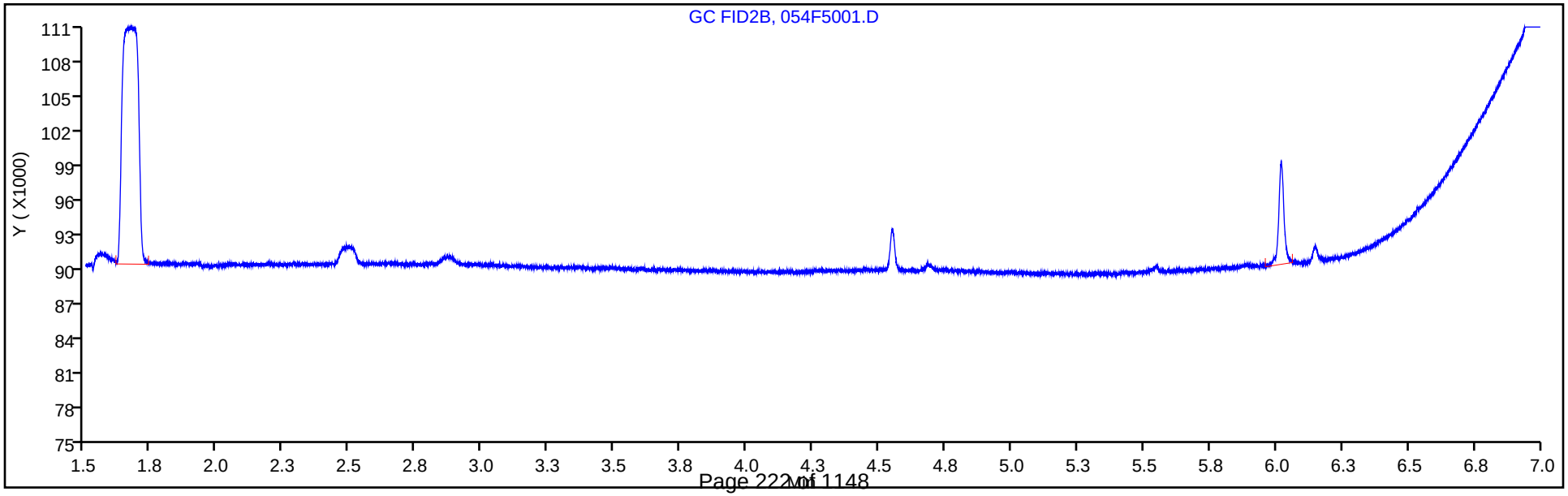
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Denver\ChromData\VGC_J\20200310-89932.b\054F5001.D | | | | |
| Injection Date: | 10-Mar-2020 22:04:18 | Instrument ID: | VGC_J | Operator ID: | sciannac |
| Lims ID: | 280-134268-H-4 | Lab Sample ID: | 280-134268-4 | Worklist Smp#: | 57 |
| Client ID: | CA212-2 | | | | |
| Purge Vol: | 18.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 54 |
| 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.: 280-134268-1
SDG No.:
Client Sample ID: CA211-2
Lab Sample ID: 280-134268-5
Matrix: Water
Lab File ID: 055F5101.D
Analysis Method: RSK-175
Date Collected: 03/03/2020 10:05
Sample wt/vol: 18(mL)
Date Analyzed: 03/10/2020 22:17
Soil Aliquot Vol:
Dilution Factor: 1
Soil Extract Vol.:
GC Column: HP-Plot Q ID: 0.53(mm)
% Moisture:
Level: (low/med) Low
Analysis Batch No.: 488254
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\20200310-89932.b\055F5101.D | | | | |
| Lims ID: | 280-134268-H-5 | | | | |
| Client ID: | CA211-2 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 10-Mar-2020 22:17:43 | ALS Bottle#: | 55 | Worklist Smp#: | 58 |
| Purge Vol: | 18.000 mL | Dil. Factor: | 1.0000 | | |
| Sample Info: | 280-134268-H-5 | | | | |
| Operator ID: | sciannac | Instrument ID: | VGC_J | | |

| | | | |
|---|---|---|---|
| Method: | \\chromna\Denver\ChromData\VGC_J\20200310-89932.b\RSK_J.m | | |
| Limit Group: | GCV - RSK 175 | | |
| Method Label: | DV-GC-0025: Dissolved Gases in Water by RSK-175 | | |
| Last Update: | 11-Mar-2020 09:31:33 | 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: | CTX0303 | |

First Level Reviewer: sciannac Date: 11-Mar-2020 09:28:28

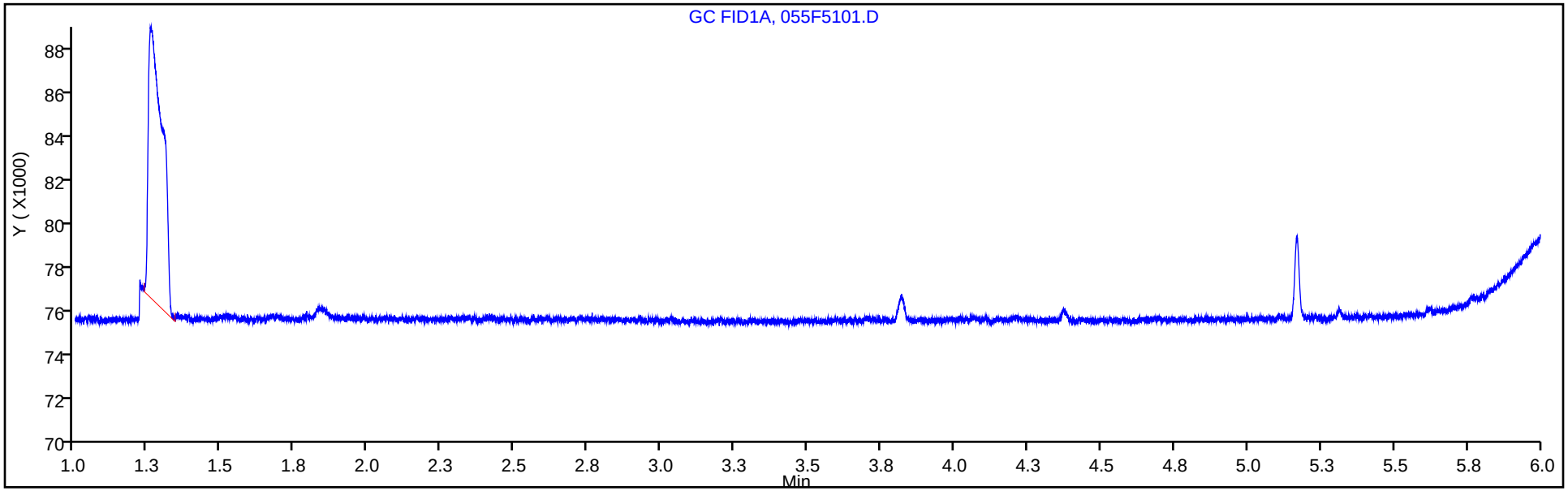
| Col | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|
| 1 Methane | | | | | | |
| 1 | | 1.259 | | | ND | |
| 2 | | 1.668 | | | | |
| 2 Ethane | | | | | | |
| 1 | | 1.537 | | | ND | |
| 2 | | 2.865 | | | | |
| 3 Ethylene | | | | | | |
| 1 | | 1.854 | | | ND | |
| 2 | | 2.490 | | | | |
| 4 Propane | | | | | | |
| 1 | | 2.598 | | | ND | |
| 2 | | 4.673 | | | | |
| 5 Acetylene | | | | | | |
| 1 | | 4.060 | | | ND | |
| 2 | | 2.644 | | | | |
| 6 Butane | | | | | | |
| 1 | | 4.362 | | | ND | |
| 2 | | 6.137 | | | | |
| 7 isobutylene | | | | | | |
| 1 | | 5.300 | | | ND | |
| 2 | | 5.987 | | | | |

Report Date: 11-Mar-2020 09:31:50 Chrom Revision: 2.3 19-Feb-2020 16:45:46

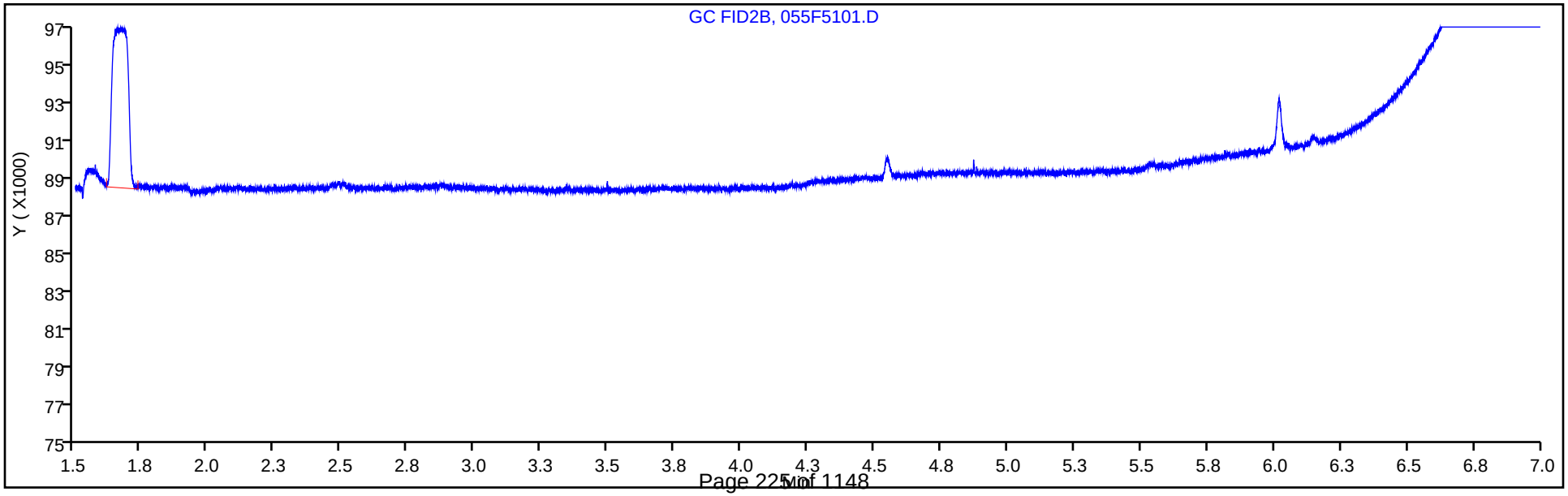
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Denver\ChromData\VGC_J\20200310-89932.b\055F5101.D | | | | |
| Injection Date: | 10-Mar-2020 22:17:43 | Instrument ID: | VGC_J | Operator ID: | sciannac |
| Lims ID: | 280-134268-H-5 | Lab Sample ID: | 280-134268-5 | Worklist Smp#: | 58 |
| Client ID: | CA211-2 | | | | |
| Purge Vol: | 18.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 55 |
| 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.: 280-134268-1

SDG No.:

Client Sample ID: PZ019-2  Lab Sample ID: 280-134268-6

Matrix: Water  Lab File ID: 038F3101.D

Analysis Method: RSK-175  Date Collected: 03/02/2020 15:10

Sample wt/vol: 18(mL)  Date Analyzed: 03/09/2020 20:28

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.: 488165  Units: mg/L

| CAS NO. | COMPOUND NAME | RESULT | Q | LOQ | LOD | DL |
|---|---|---|---|---|---|---|
| 74-82-8 | Methane | 0.0020 | U J1 | 0.0050 | 0.0020 | 0.00063 |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Denver\ChromData\VGC_J\20200309-89898.b\038F3101.D | | | | |
| Lims ID: | 280-134268-G-6 | | | | |
| Client ID: | PZ019-2 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 09-Mar-2020 20:28:54 | ALS Bottle#: | 38 | Worklist Smp#: | 38 |
| Purge Vol: | 18.000 mL | Dil. Factor: | 1.0000 | | |
| Sample Info: | 280-134268-G-6 | | | | |
| Operator ID: | sciannac | Instrument ID: | VGC_J | | |

| | | | |
|---|---|---|---|
| Method: | \\chromna\Denver\ChromData\VGC_J\20200309-89898.b\RSK_J.m | | |
| Limit Group: | GCV - RSK 175 | | |
| Method Label: | DV-GC-0025: Dissolved Gases in Water by RSK-175 | | |
| Last Update: | 10-Mar-2020 08:20:33 | 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: | CTX0337 | |

First Level Reviewer: sciannac Date: 10-Mar-2020 08:16:07

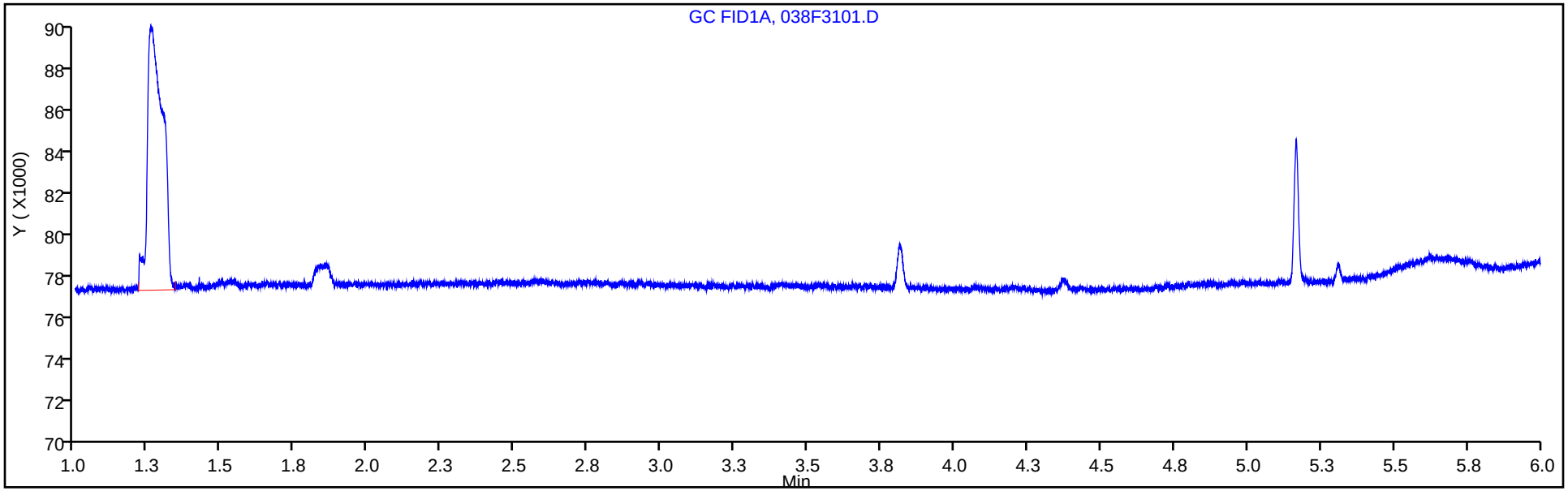
| Col | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|
| 1 Methane | | | | | | |
| 1 | | 1.265 | | | ND | |
| 2 | | 1.683 | | | | |
| 2 Ethane | | | | | | |
| 1 | | 1.544 | | | ND | |
| 2 | | 2.881 | | | | |
| 3 Ethylene | | | | | | |
| 1 | | 1.863 | | | ND | |
| 2 | | 2.506 | | | | |
| 4 Propane | | | | | | |
| 1 | | 2.601 | | | ND | |
| 2 | | 4.684 | | | | |
| 5 Acetylene | | | | | | |
| 1 | | 4.053 | | | ND | |
| 2 | | 2.659 | | | | |
| 6 Butane | | | | | | |
| 1 | | 4.358 | | | ND | |
| 2 | | 6.143 | | | | |
| 7 isobutylene | | | | | | |
| 1 | | 5.294 | | | ND | |
| 2 | | 5.996 | | | | |

Report Date: 10-Mar-2020 08:20:37 Chrom Revision: 2.3 19-Feb-2020 16:45:46

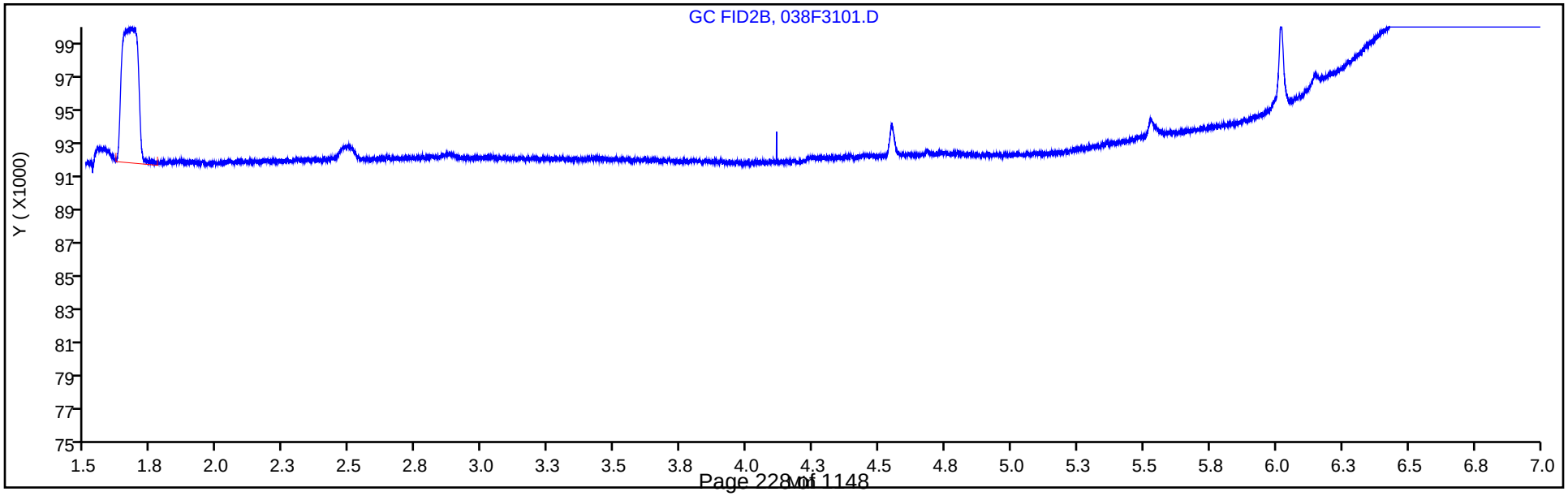
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Denver\ChromData\VGC_J\20200309-89898.b\038F3101.D | | | | |
| Injection Date: | 09-Mar-2020 20:28:54 | Instrument ID: | VGC_J | Operator ID: | sciannac |
| Lims ID: | 280-134268-G-6 | Lab Sample ID: | 280-134268-6 | Worklist Smp#: | 38 |
| Client ID: | PZ019-2 | | | | |
| 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



FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-134268-1
SDG No.:
Client Sample ID: NW080R-2
Lab Sample ID: 280-134268-7
Matrix: Water
Lab File ID: 056F5201.D
Analysis Method: RSK-175
Date Collected: 03/03/2020 08:50
Sample wt/vol: 18(mL)
Date Analyzed: 03/10/2020 22:31
Soil Aliquot Vol:
Dilution Factor: 1
Soil Extract Vol.:
GC Column: HP-Plot Q ID: 0.53(mm)
% Moisture:
Level: (low/med) Low
Analysis Batch No.: 488254
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\20200310-89932.b\056F5201.D | | | | |
| Lims ID: | 280-134268-I-7 | | | | |
| Client ID: | NW080R-2 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 10-Mar-2020 22:31:11 | ALS Bottle#: | 56 | Worklist Smp#: | 59 |
| Purge Vol: | 18.000 mL | Dil. Factor: | 1.0000 | | |
| Sample Info: | 280-134268-I-7 | | | | |
| Operator ID: | sciannac | Instrument ID: | VGC_J | | |

| | | | |
|---|---|---|---|
| Method: | \\chromna\Denver\ChromData\VGC_J\20200310-89932.b\RSK_J.m | | |
| Limit Group: | GCV - RSK 175 | | |
| Method Label: | DV-GC-0025: Dissolved Gases in Water by RSK-175 | | |
| Last Update: | 11-Mar-2020 09:31:33 | 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: | CTX0303 | |

First Level Reviewer: sciannac Date: 11-Mar-2020 09:28:36

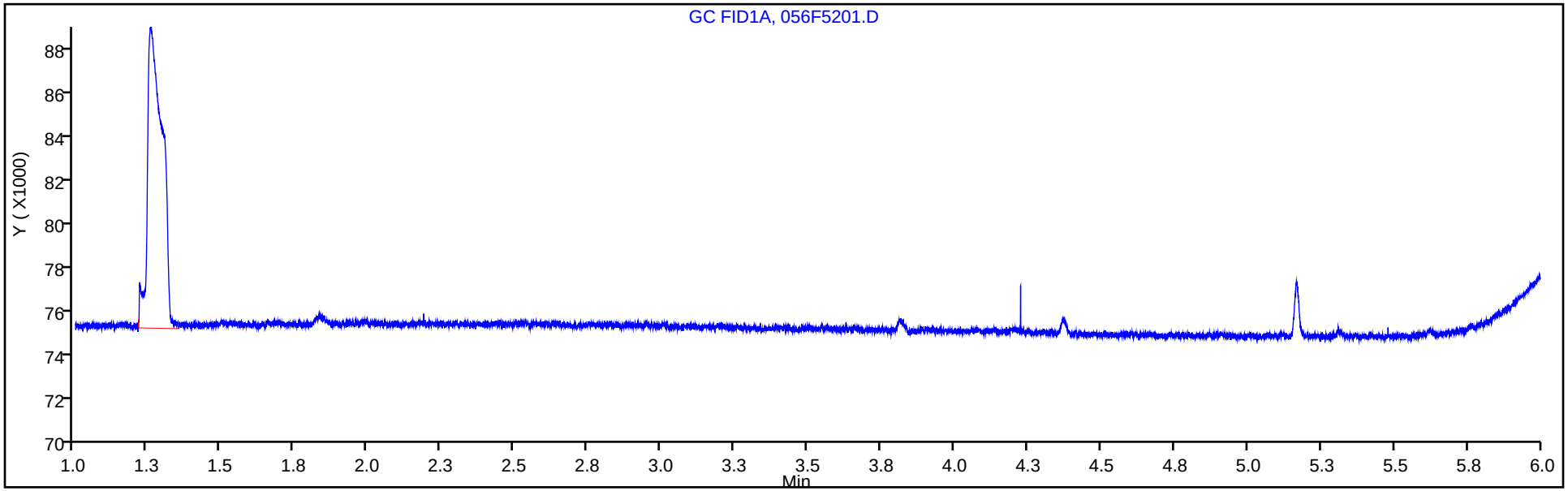
| Col | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|
| 1 Methane | | | | | | |
| 1 | | 1.259 | | | ND | |
| 2 | | 1.668 | | | | |
| 2 Ethane | | | | | | |
| 1 | | 1.537 | | | ND | |
| 2 | | 2.865 | | | | |
| 3 Ethylene | | | | | | |
| 1 | | 1.854 | | | ND | |
| 2 | | 2.490 | | | | |
| 4 Propane | | | | | | |
| 1 | | 2.598 | | | ND | |
| 2 | | 4.673 | | | | |
| 5 Acetylene | | | | | | |
| 1 | | 4.060 | | | ND | |
| 2 | | 2.644 | | | | |
| 6 Butane | | | | | | |
| 1 | | 4.362 | | | ND | |
| 2 | | 6.137 | | | | |
| 7 isobutylene | | | | | | |
| 1 | | 5.300 | | | ND | |
| 2 | | 5.987 | | | | |

Report Date: 11-Mar-2020 09:31:52 Chrom Revision: 2.3 19-Feb-2020 16:45:46

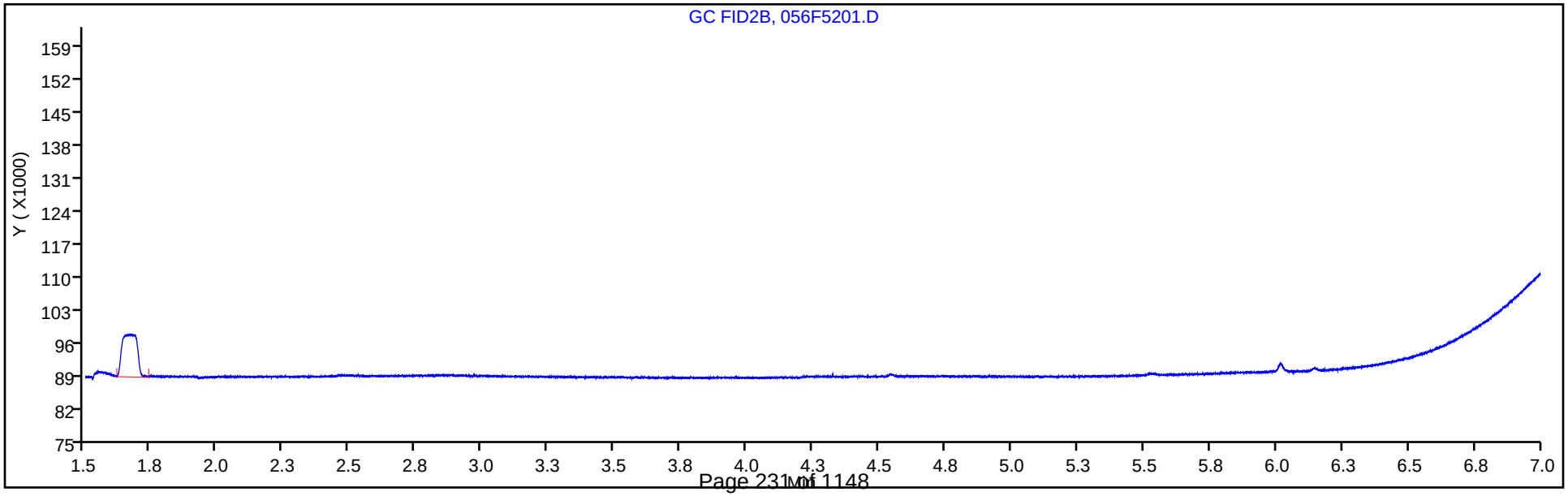
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Denver\ChromData\VGC_J\20200310-89932.b\056F5201.D | | | | |
| Injection Date: | 10-Mar-2020 22:31:11 | Instrument ID: | VGC_J | Operator ID: | sciannac |
| Lims ID: | 280-134268-I-7 | Lab Sample ID: | 280-134268-7 | Worklist Smp#: | 59 |
| Client ID: | NW080R-2 | | | | |
| Purge Vol: | 18.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 56 |
| 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.: 280-134268-1

SDG No.:

Client Sample ID: NW081R-2  Lab Sample ID: 280-134268-8

Matrix: Water  Lab File ID: 057F5301.D

Analysis Method: RSK-175  Date Collected: 03/03/2020 10:00

Sample wt/vol: 18(mL)  Date Analyzed: 03/10/2020 22:44

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.: 488254  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\20200310-89932.b\057F5301.D | | | | |
| Lims ID: | 280-134268-I-8 | | | | |
| Client ID: | NW081R-2 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 10-Mar-2020 22:44:37 | ALS Bottle#: | 57 | Worklist Smp#: | 60 |
| Purge Vol: | 18.000 mL | Dil. Factor: | 1.0000 | | |
| Sample Info: | 280-134268-I-8 | | | | |
| Operator ID: | sciannac | Instrument ID: | VGC_J | | |

| | | | |
|---|---|---|---|
| Method: | \\chromna\Denver\ChromData\VGC_J\20200310-89932.b\RSK_J.m | | |
| Limit Group: | GCV - RSK 175 | | |
| Method Label: | DV-GC-0025: Dissolved Gases in Water by RSK-175 | | |
| Last Update: | 11-Mar-2020 09:31:33 | 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: | CTX0303 | |

First Level Reviewer: sciannac Date: 11-Mar-2020 09:28:43

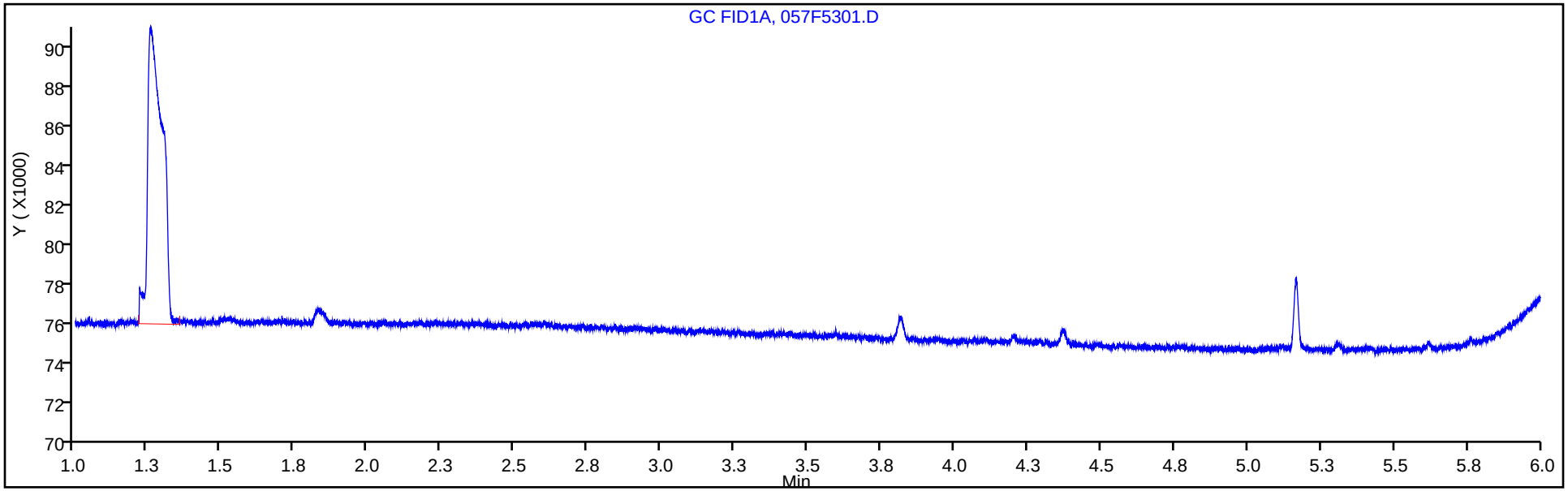
| Col | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|
| 1 Methane | | | | | | |
| 1 | | 1.259 | | | ND | |
| 2 | | 1.668 | | | | |
| 2 Ethane | | | | | | |
| 1 | | 1.537 | | | ND | |
| 2 | | 2.865 | | | | |
| 3 Ethylene | | | | | | |
| 1 | | 1.854 | | | ND | |
| 2 | | 2.490 | | | | |
| 4 Propane | | | | | | |
| 1 | | 2.598 | | | ND | |
| 2 | | 4.673 | | | | |
| 5 Acetylene | | | | | | |
| 1 | | 4.060 | | | ND | |
| 2 | | 2.644 | | | | |
| 6 Butane | | | | | | |
| 1 | | 4.362 | | | ND | |
| 2 | | 6.137 | | | | |
| 7 isobutylene | | | | | | |
| 1 | | 5.300 | | | ND | |
| 2 | | 5.987 | | | | |

Report Date: 11-Mar-2020 09:31:56 Chrom Revision: 2.3 19-Feb-2020 16:45:46

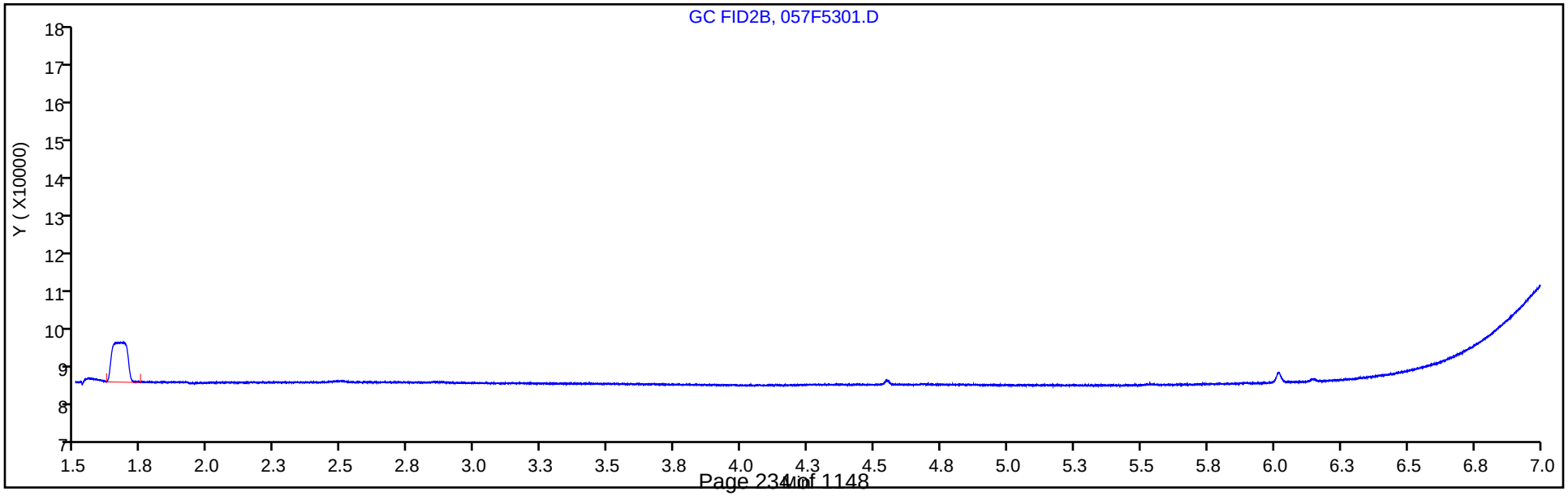
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Denver\ChromData\VGC_J\20200310-89932.b\057F5301.D | | | | |
| Injection Date: | 10-Mar-2020 22:44:37 | Instrument ID: | VGC_J | Operator ID: | sciannac |
| Lims ID: | 280-134268-I-8 | Lab Sample ID: | 280-134268-8 | Worklist Smp#: | 60 |
| Client ID: | NW081R-2 | | | | |
| Purge Vol: | 18.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 57 |
| 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.: 280-134268-1
SDG No.:
Client Sample ID: NW062-2
Lab Sample ID: 280-134268-9
Matrix: Water
Lab File ID: 061F5401.D
Analysis Method: RSK-175
Date Collected: 03/02/2020 13:55
Sample wt/vol: 18(mL)
Date Analyzed: 03/10/2020 01:36
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.: 488165
Units: mg/L

| CAS NO. | COMPOUND NAME | RESULT | Q | LOQ | LOD | DL |
|---|---|---|---|---|---|---|
| 74-82-8 | Methane | 0.021 | | 0.0050 | 0.0020 | 0.00063 |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Denver\ChromData\VGC_J\20200309-89898.b\061F5401.D | | | | |
| Lims ID: | 280-134268-H-9 | | | | |
| Client ID: | NW062-2 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 10-Mar-2020 01:36:08 | ALS Bottle#: | 61 | Worklist Smp#: | 61 |
| Purge Vol: | 18.000 mL | Dil. Factor: | 1.0000 | | |
| Sample Info: | 280-134268-H-9 | | | | |
| Operator ID: | sciannac | Instrument ID: | VGC_J | | |

| | | | |
|---|---|---|---|
| Method: | \\chromna\Denver\ChromData\VGC_J\20200309-89898.b\RSK_J.m | | |
| Limit Group: | GCV - RSK 175 | | |
| Method Label: | DV-GC-0025: Dissolved Gases in Water by RSK-175 | | |
| Last Update: | 10-Mar-2020 08:20:49 | 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: | CTX0337 | |

First Level Reviewer: sciannac Date: 10-Mar-2020 08:19:21

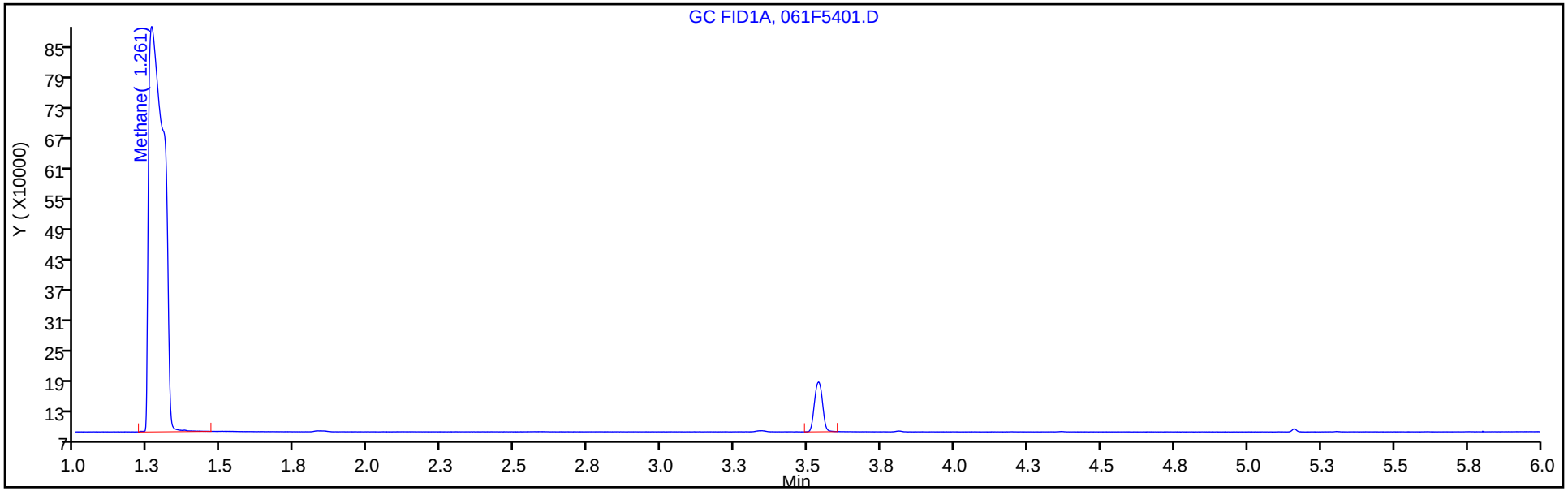
| Col | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|
| 1 Methane | | | | | | |
| 1 | 1.261 | 1.265 | -0.004 | 2856534 | 21.1 | |
| 2 | 1.679 | 1.683 | -0.004 | 2431379 | 21.0 | |
| | | | | | RPD = 0.30 | |
| 2 Ethane | | | | | | |
| 1 | | 1.544 | | | ND | |
| 2 | | 2.881 | | | | |
| 3 Ethylene | | | | | | |
| 1 | | 1.863 | | | ND | |
| 2 | | 2.506 | | | | |
| 4 Propane | | | | | | |
| 1 | | 2.601 | | | ND | |
| 2 | | 4.684 | | | | |
| 5 Acetylene | | | | | | |
| 1 | | 4.053 | | | ND | |
| 2 | | 2.659 | | | | |
| 6 Butane | | | | | | |
| 1 | | 4.358 | | | ND | |
| 2 | | 6.143 | | | | |
| 7 isobutylene | | | | | | |
| 1 | | 5.294 | | | ND | |
| 2 | | 5.996 | | | | |

Report Date: 10-Mar-2020 08:20:58 Chrom Revision: 2.3 19-Feb-2020 16:45:46

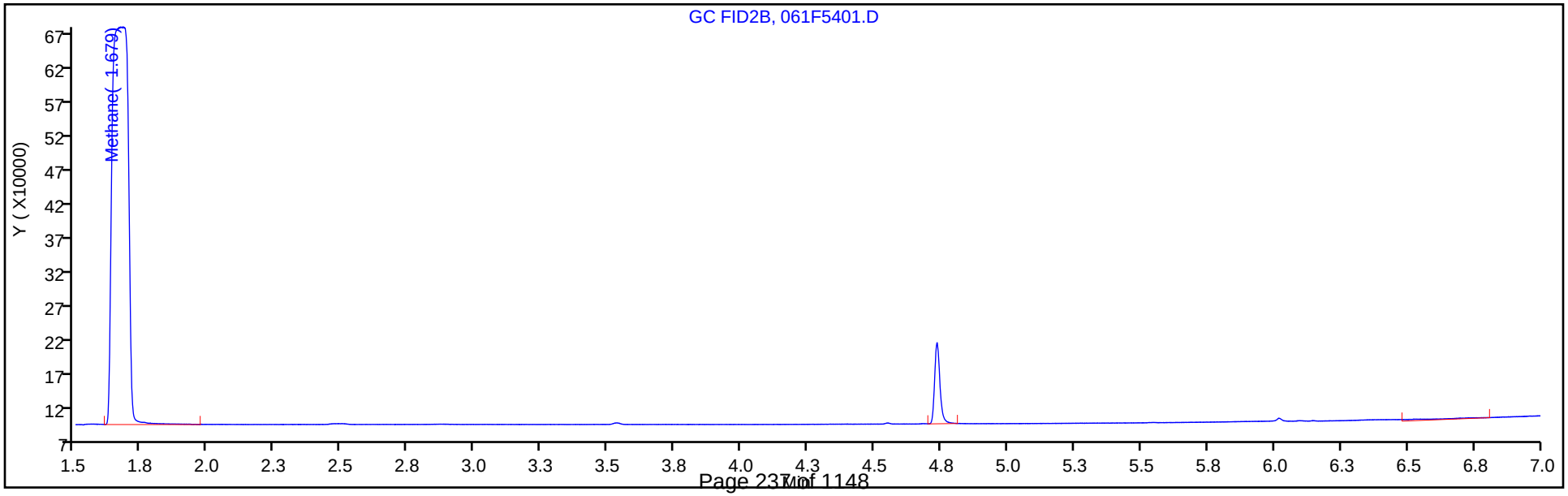
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Denver\ChromData\VGC_J\20200309-89898.b\061F5401.D | | | | |
| Injection Date: | 10-Mar-2020 01:36:08 | Instrument ID: | VGC_J | Operator ID: | sciannac |
| Lims ID: | 280-134268-H-9 | Lab Sample ID: | 280-134268-9 | Worklist Smp#: | 61 |
| Client ID: | NW062-2 | | | | |
| Purge Vol: | 18.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 61 |
| 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.: 280-134268-1

SDG No.:

Client Sample ID: G0080-2  Lab Sample ID: 280-134268-10

Matrix: Water  Lab File ID: 062F5501.D

Analysis Method: RSK-175  Date Collected: 03/02/2020 13:10

Sample wt/vol: 18(mL)  Date Analyzed: 03/10/2020 01:49

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.: 488165  Units: mg/L

| CAS NO. | COMPOUND NAME | RESULT | Q | LOQ | LOD | DL |
|---|---|---|---|---|---|---|
| 74-82-8 | Methane | 0.0046 | J | 0.0050 | 0.0020 | 0.00063 |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Denver\ChromData\VGC_J\20200309-89898.b\062F5501.D | | | | |
| Lims ID: | 280-134268-H-10 | | | | |
| Client ID: | G0080-2 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 10-Mar-2020 01:49:27 | ALS Bottle#: | 62 | Worklist Smp#: | 62 |
| Purge Vol: | 18.000 mL | Dil. Factor: | 1.0000 | | |
| Sample Info: | 280-134268-H-10 | | | | |
| Operator ID: | sciannac | Instrument ID: | VGC_J | | |

| | | | |
|---|---|---|---|
| Method: | \\chromna\Denver\ChromData\VGC_J\20200309-89898.b\RSK_J.m | | |
| Limit Group: | GCV - RSK 175 | | |
| Method Label: | DV-GC-0025: Dissolved Gases in Water by RSK-175 | | |
| Last Update: | 10-Mar-2020 08:20:49 | 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: | CTX0337 | |

First Level Reviewer: sciannac Date: 10-Mar-2020 08:19:28

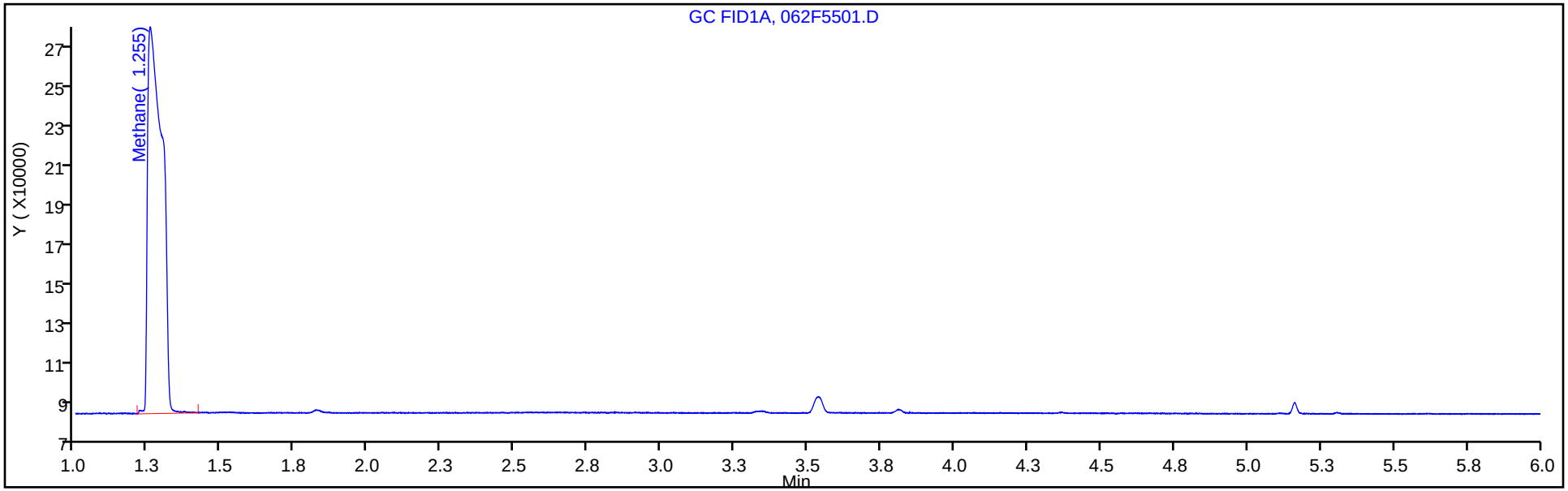
| Col | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|
| 1 Methane | | | | | | |
| 1 | 1.255 | 1.265 | -0.010 | 656383 | 4.63 | |
| 2 | 1.674 | 1.683 | -0.009 | 550089 | 4.57 | |
| | | | | | RPD = 1.30 | |
| 2 Ethane | | | | | | |
| 1 | | 1.544 | | | ND | |
| 2 | | 2.881 | | | | |
| 3 Ethylene | | | | | | |
| 1 | | 1.863 | | | ND | |
| 2 | | 2.506 | | | | |
| 4 Propane | | | | | | |
| 1 | | 2.601 | | | ND | |
| 2 | | 4.684 | | | | |
| 5 Acetylene | | | | | | |
| 1 | | 4.053 | | | ND | |
| 2 | | 2.659 | | | | |
| 6 Butane | | | | | | |
| 1 | | 4.358 | | | ND | |
| 2 | | 6.143 | | | | |
| 7 isobutylene | | | | | | |
| 1 | | 5.294 | | | ND | |
| 2 | | 5.996 | | | | |

Report Date: 10-Mar-2020 08:20:59 Chrom Revision: 2.3 19-Feb-2020 16:45:46

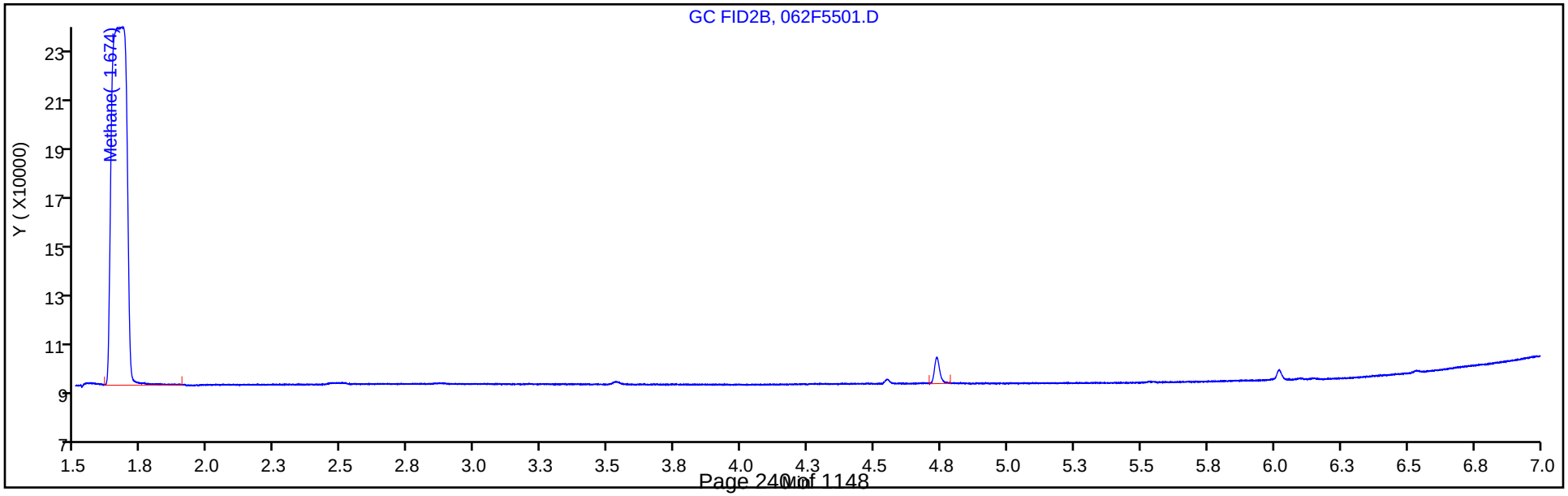
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Denver\ChromData\VGC_J\20200309-89898.b\062F5501.D | | | | |
| Injection Date: | 10-Mar-2020 01:49:27 | Instrument ID: | VGC_J | Operator ID: | sciannac |
| Lims ID: | 280-134268-H-10 | Lab Sample ID: | 280-134268-10 | Worklist Smp#: | 62 |
| Client ID: | G0080-2 | | | | |
| Purge Vol: | 18.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 62 |
| 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.: 280-134268-1 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.: 280-134268-1 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<br>LVL 5<br>LVL 9 | LVL 2<br>LVL 6 | LVL 3<br>LVL 7 | LVL 4<br>LVL 8 | | B | M1 | M2 | | | | | | | | |
| Methane | 204398<br>131881<br>131842 | 184432<br>123000 | 160460<br>138803 | 145282<br>125426 | Lin2 | 35657.0530 | 133937.900 | | | | | | | 0.9950 | | 0.9900 |
| Ethane | 106648<br>126474 | 133252<br>117971 | 131481<br>131045 | 137677 | Ave | | 126364.118 | | | | 8.4 | | 20.0 | | | |
| Ethylene | 92446<br>106296 | 109949<br>99762 | 109227<br>107387 | 115582 | Ave | | 105806.995 | | | | 7.1 | | 20.0 | | | |
| Acetylene | 26743<br>33864 | 32134<br>32487 | 32468<br>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.: 280-134268-1 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<br>LVL 6 | LVL 2<br>LVL 7 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5 | LVL 1<br>LVL 6 | LVL 2<br>LVL 7 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5 |
| Methane | Lin2 | 93261<br>17958876 | 168302<br>40532226 | 292852<br>226637342 | 2121207<br>952923785 | 9627756 | 0.456<br>146 | 0.913<br>292 | 1.83<br>1807 | 14.6<br>7228 | 73.0 |
| Ethane | Ave | 91221<br>32290083 | 227953<br>71736807 | 449849 | 3768385 | 17308693 | 0.855<br>274 | 1.71<br>547 | 3.42 | 27.4 | 137 |
| Ethylene | Ave | 73764<br>25472652 | 175461<br>54838846 | 348615 | 2951189 | 13570482 | 0.798<br>255 | 1.60<br>511 | 3.19 | 25.5 | 128 |
| Acetylene | Ave | 19810<br>7700889 | 47607<br>15668916 | 96205 | 809586 | 4013672 | 0.741<br>237 | 1.48<br>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:

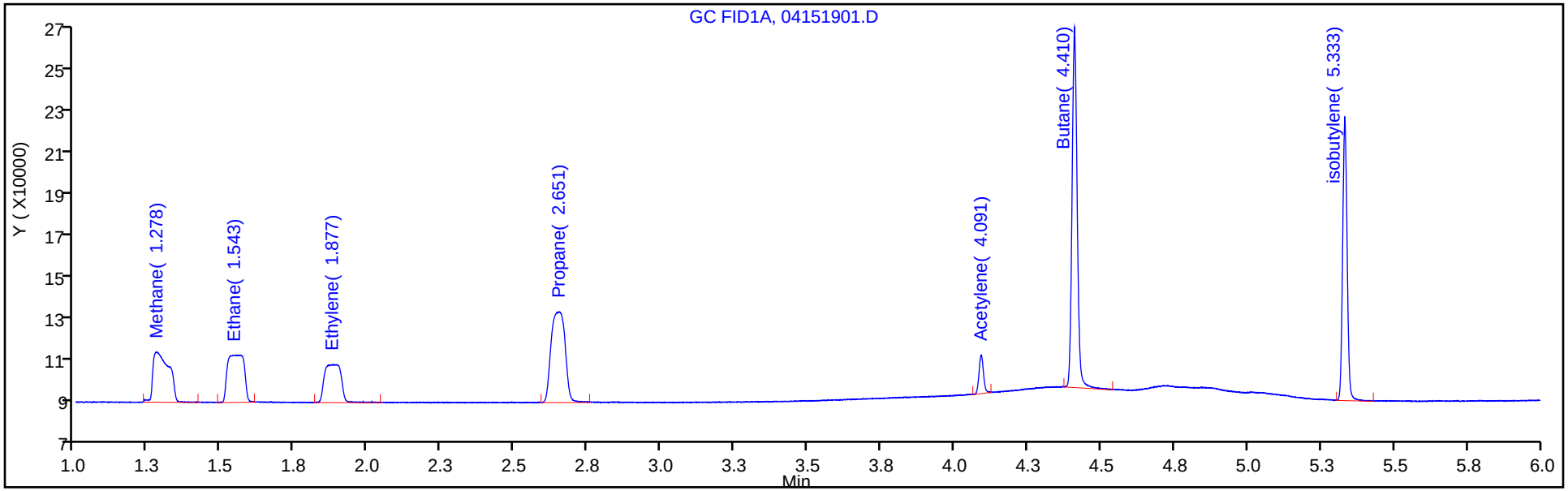
RSK7gasMathes_00026 Amount Added: 1.25 Units: uL

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

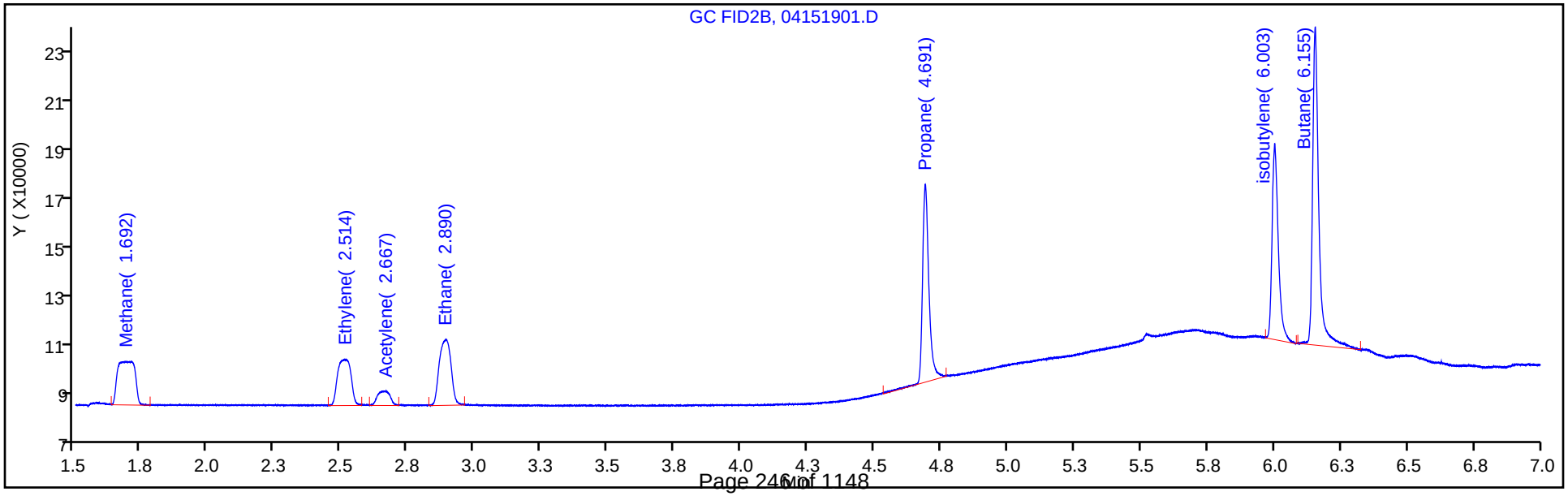
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| 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:

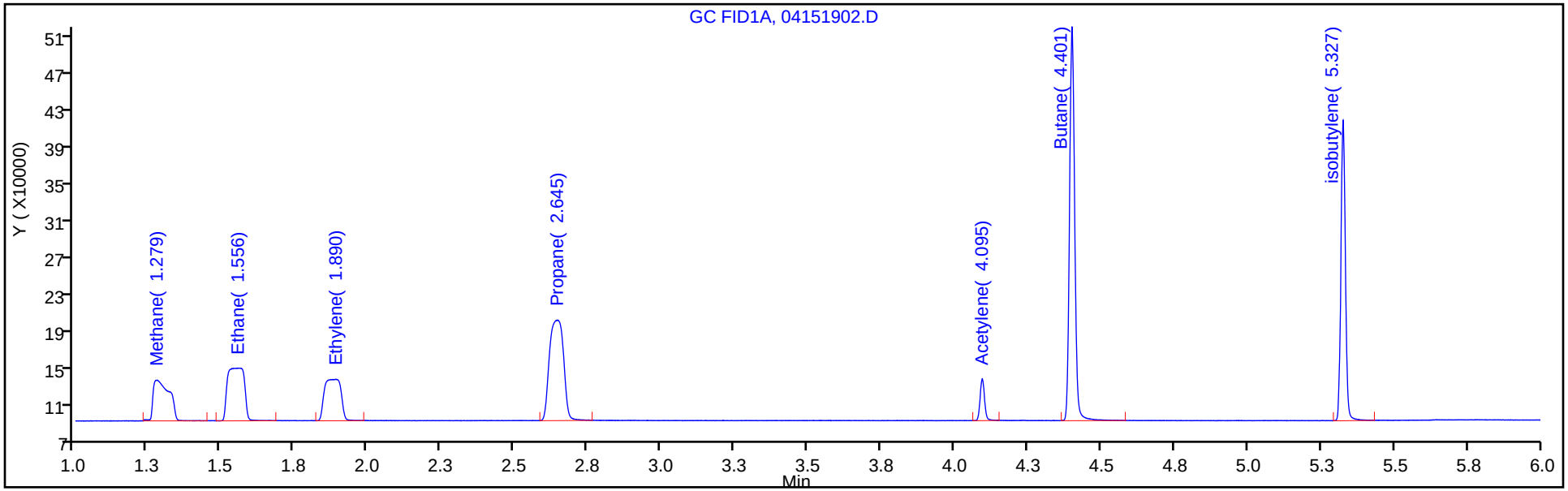
RSK7gasMathes_00026 Amount Added: 2.50 Units: uL

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

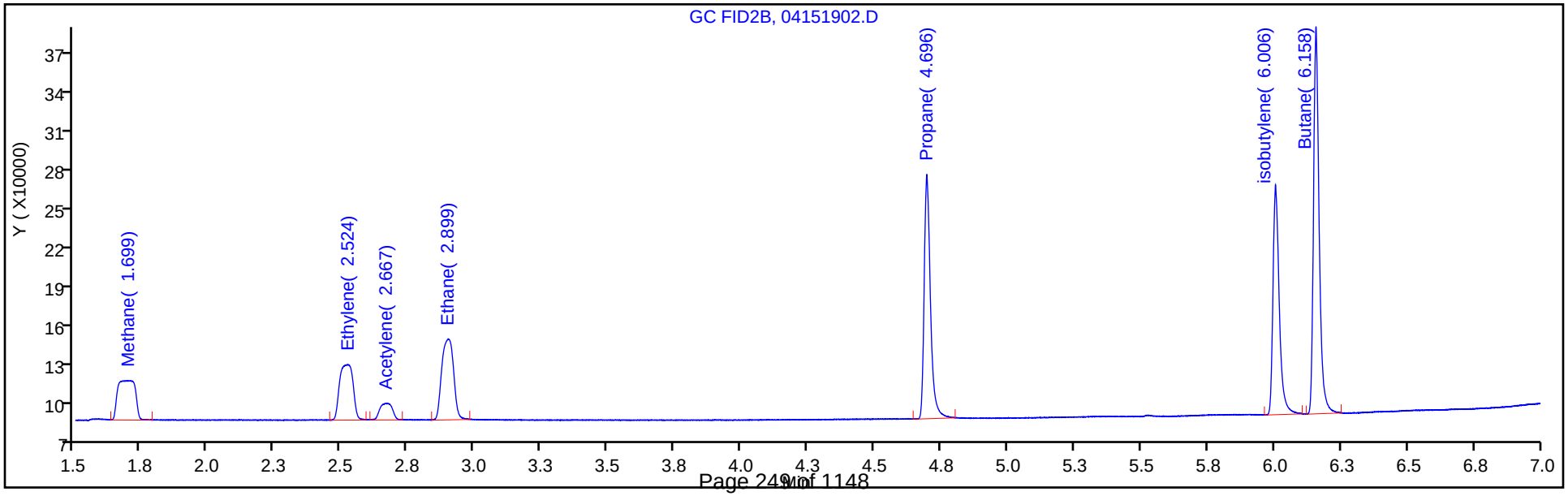
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| 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:

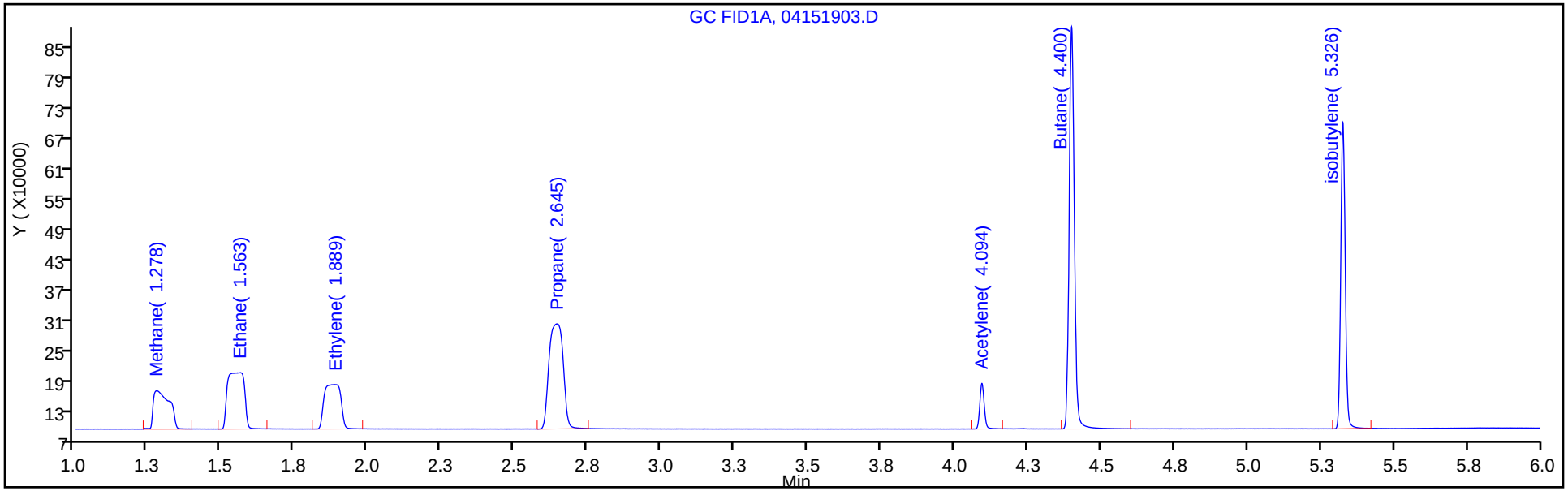
RSK7gasMathes_00026 Amount Added: 5.00 Units: uL

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

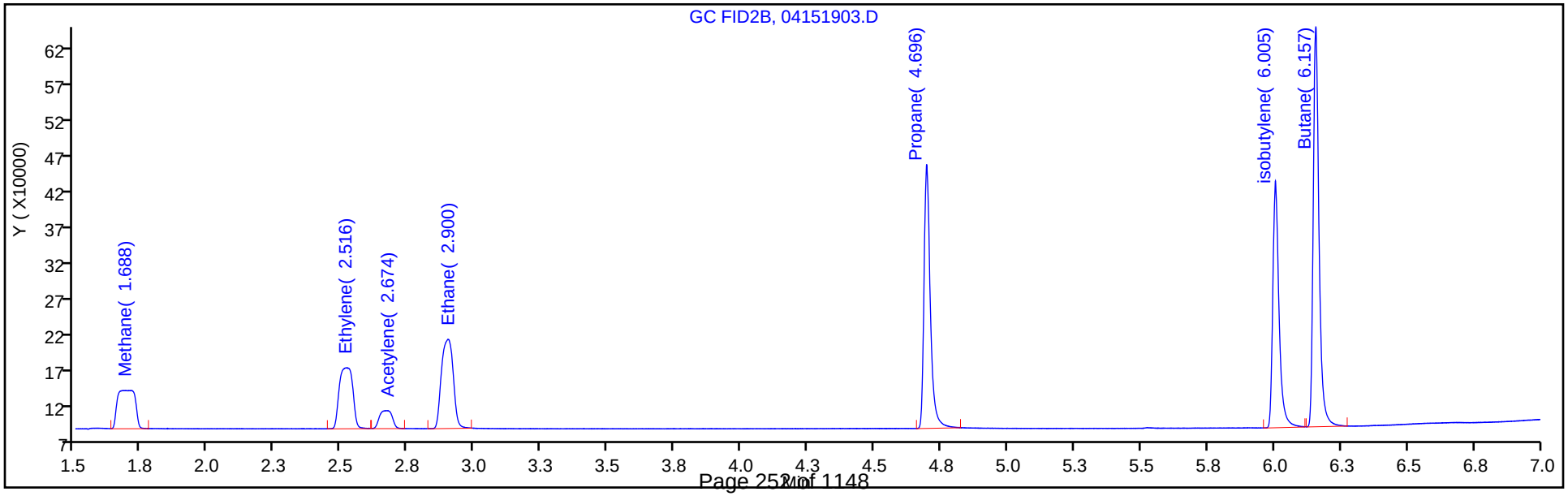
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| 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:

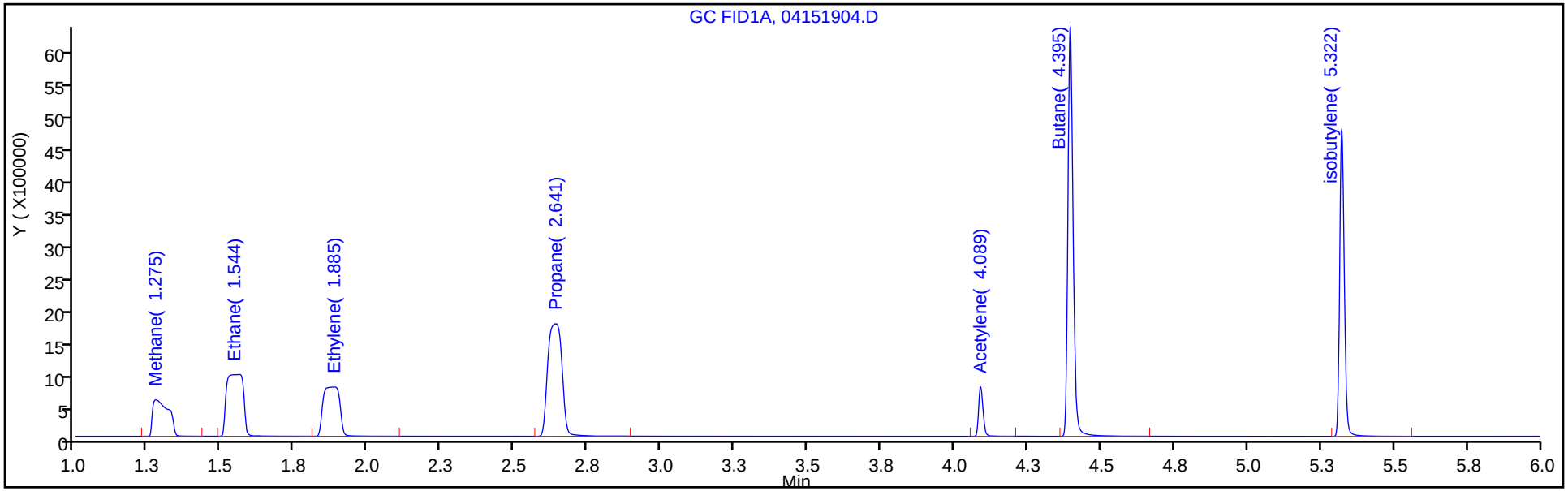
RSK7gasMathes_00026 Amount Added: 40.00 Units: uL

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

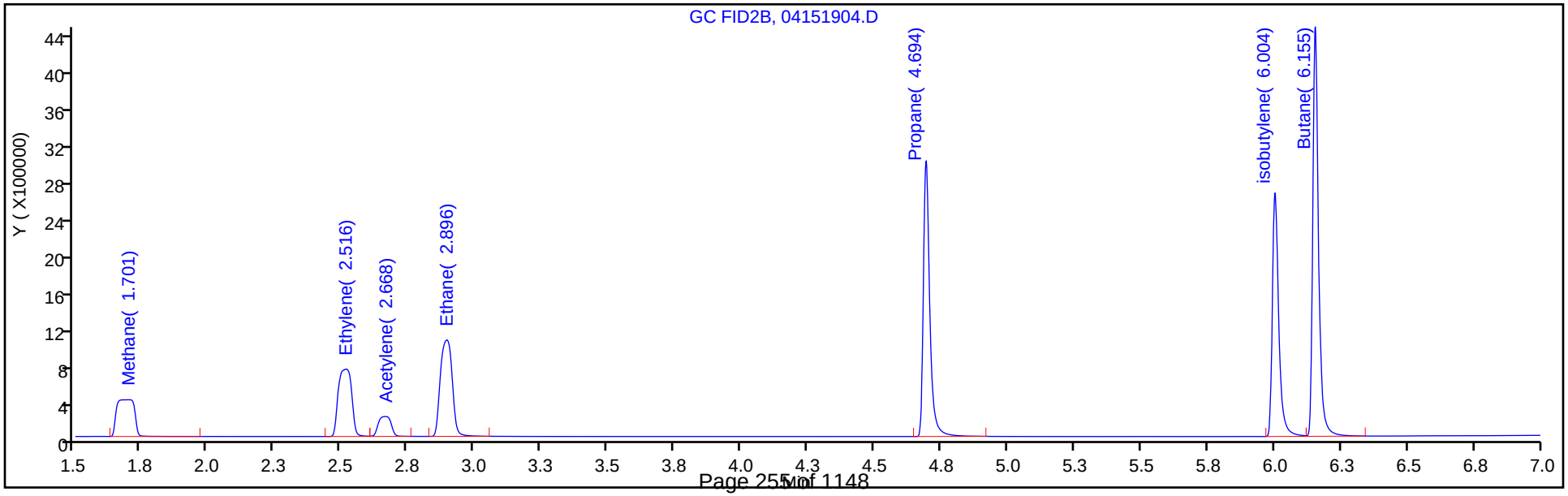
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| 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:

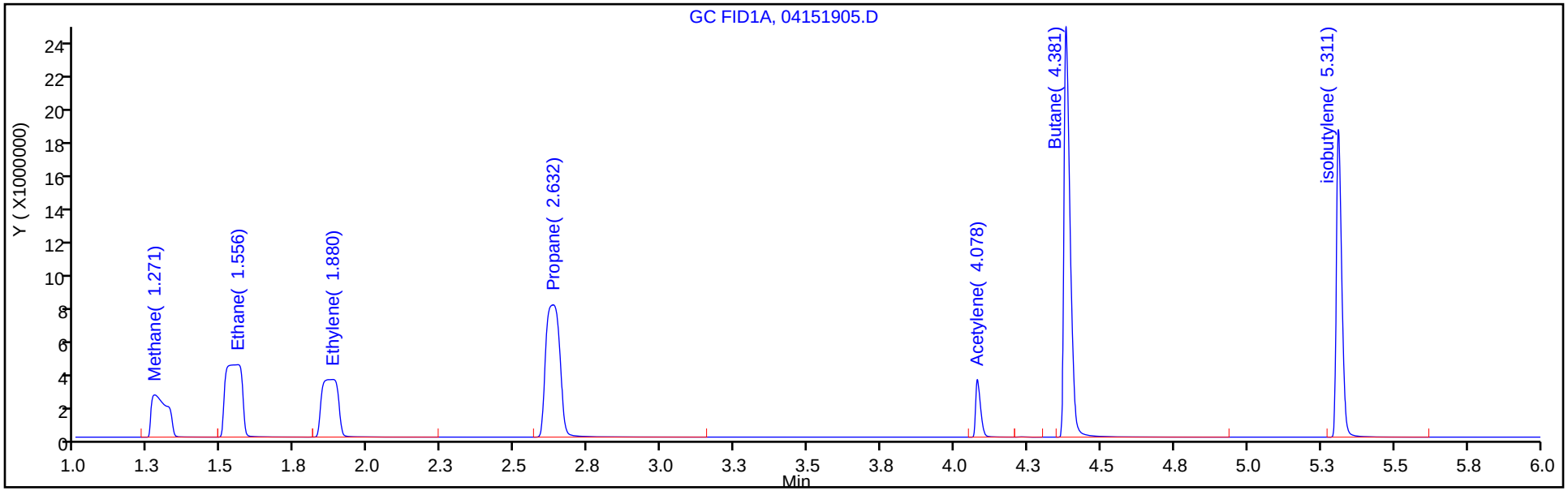
RSK7gasMathes_00026 Amount Added: 200.00 Units: uL

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

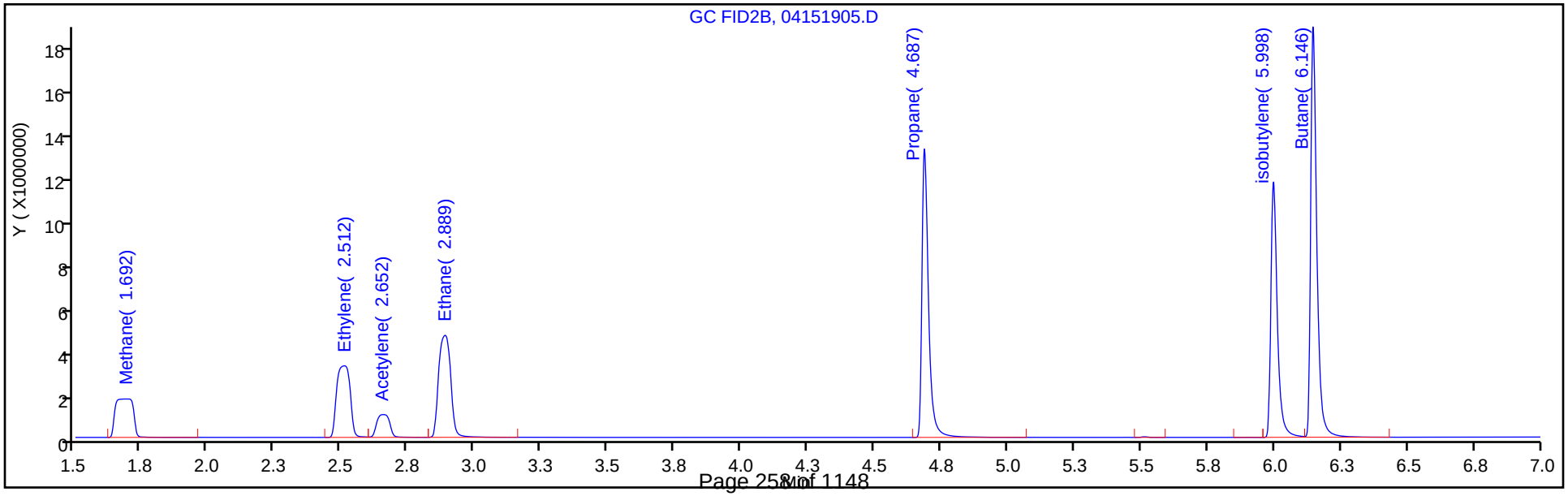
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| 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:

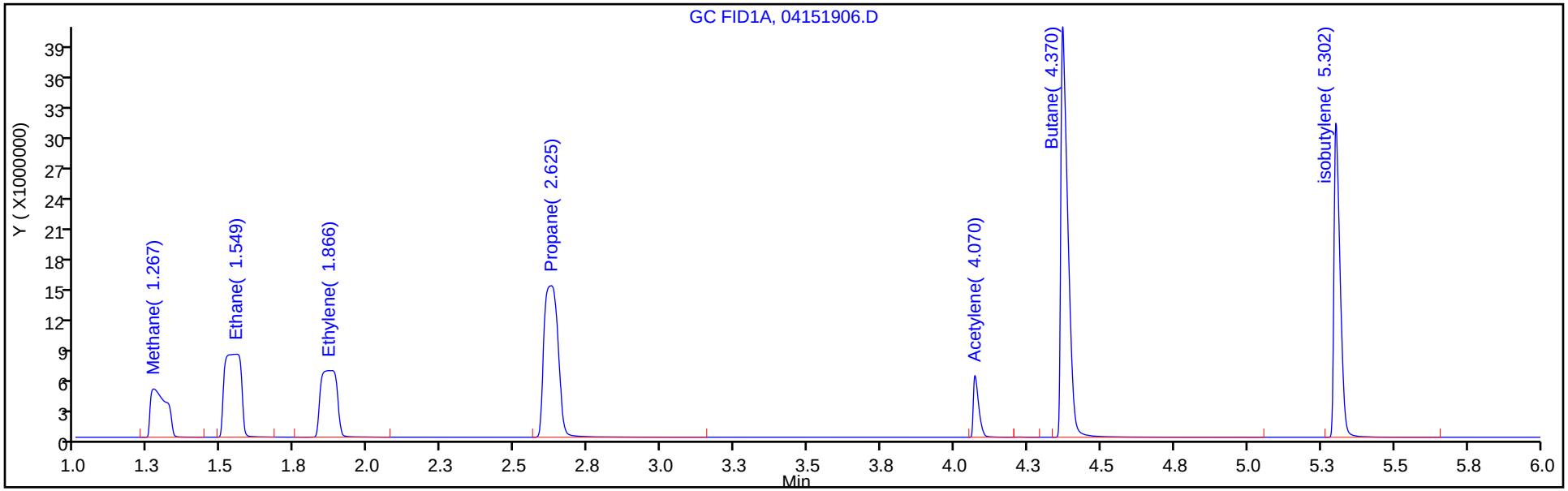
RSK7gasMathes_00026 Amount Added: 400.00 Units: uL

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

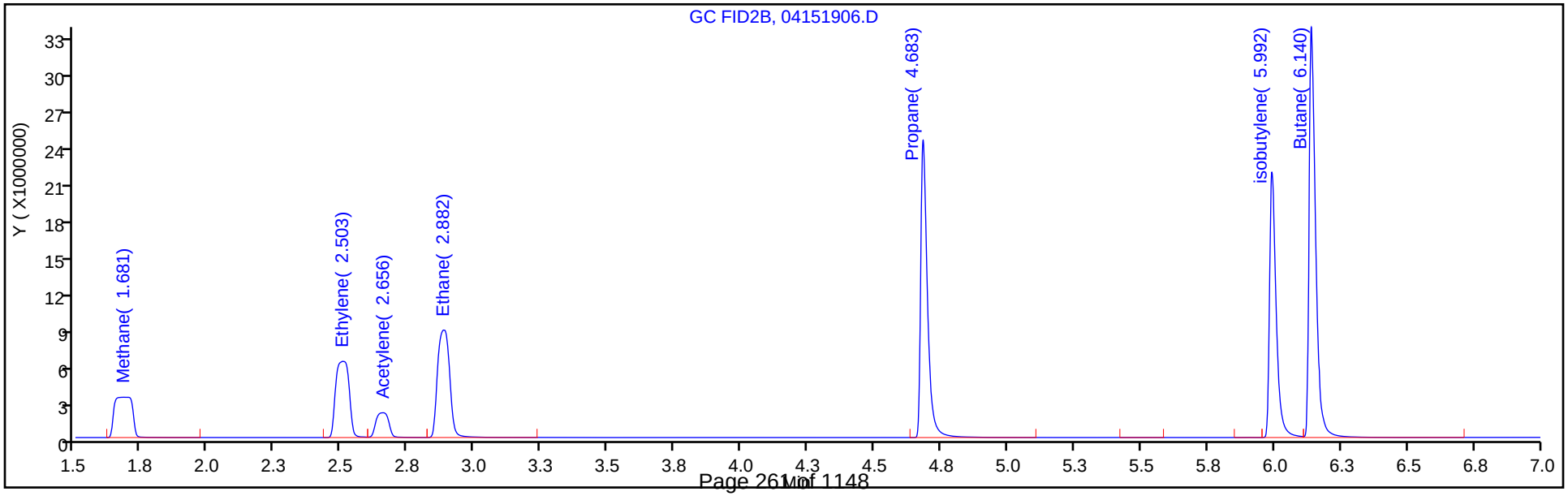
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| 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

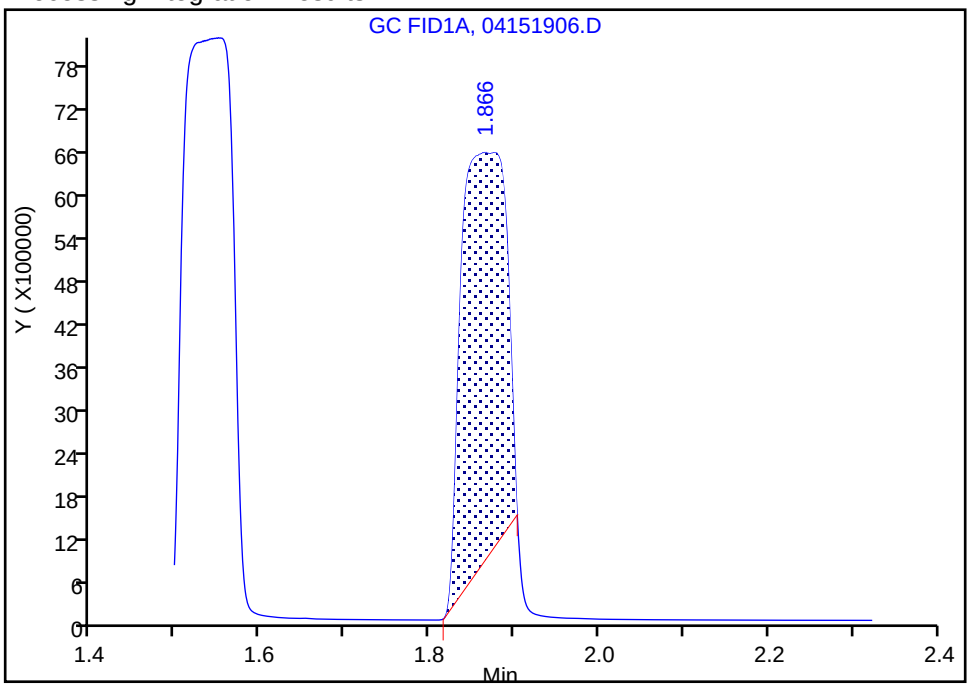
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Denver\ChromData\VGC_J\20190415-80933.b\04151906.D | | | | |
| Injection Date: | 15-Apr-2019 11:30:32 | Instrument ID: | VGC_J | | |
| Lims ID: | IC L6 | | | | |
| Client ID: | | | | | |
| Operator ID: | ms | ALS Bottle#: | 6 | Worklist 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

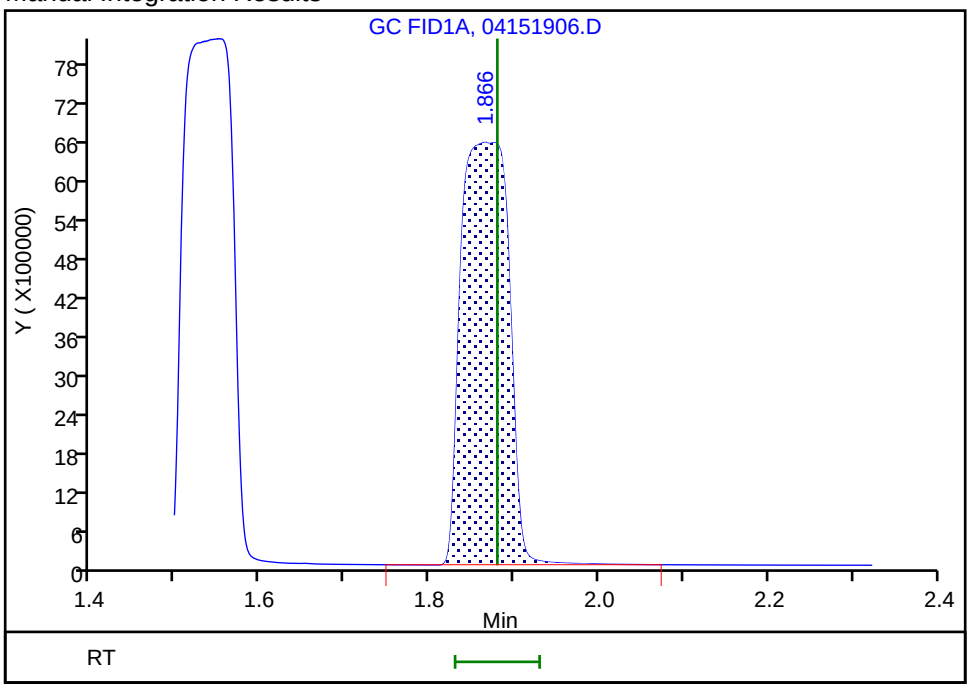
Processing Integration Results

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:

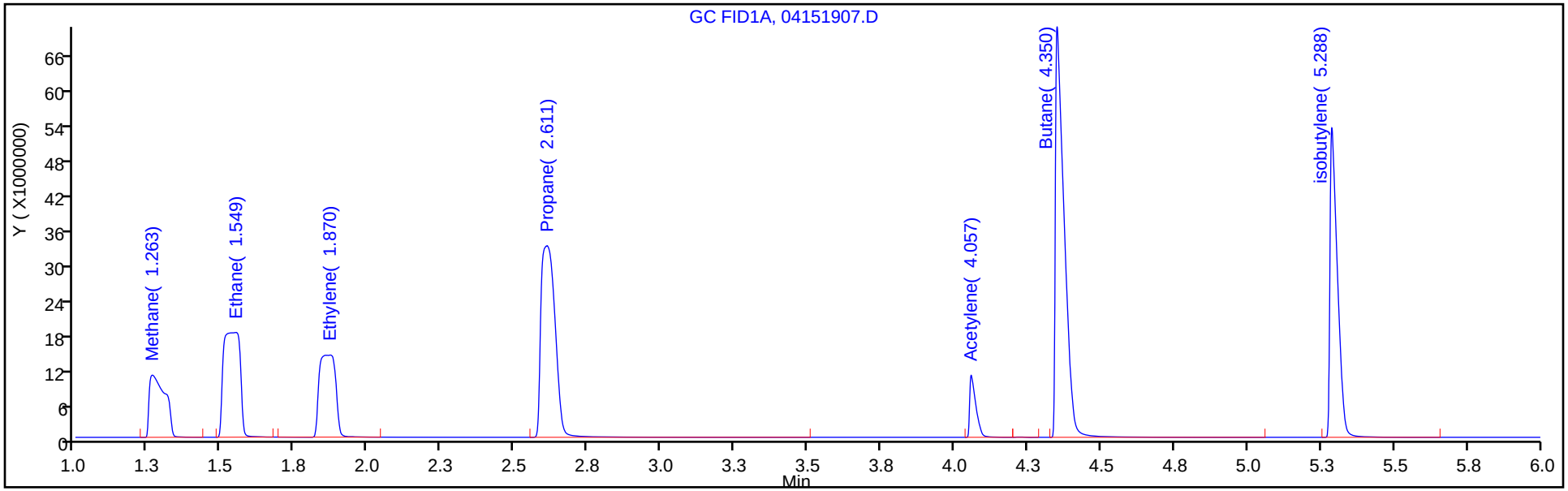
RSK7gasMathes_00026 Amount Added: 800.00 Units: uL

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

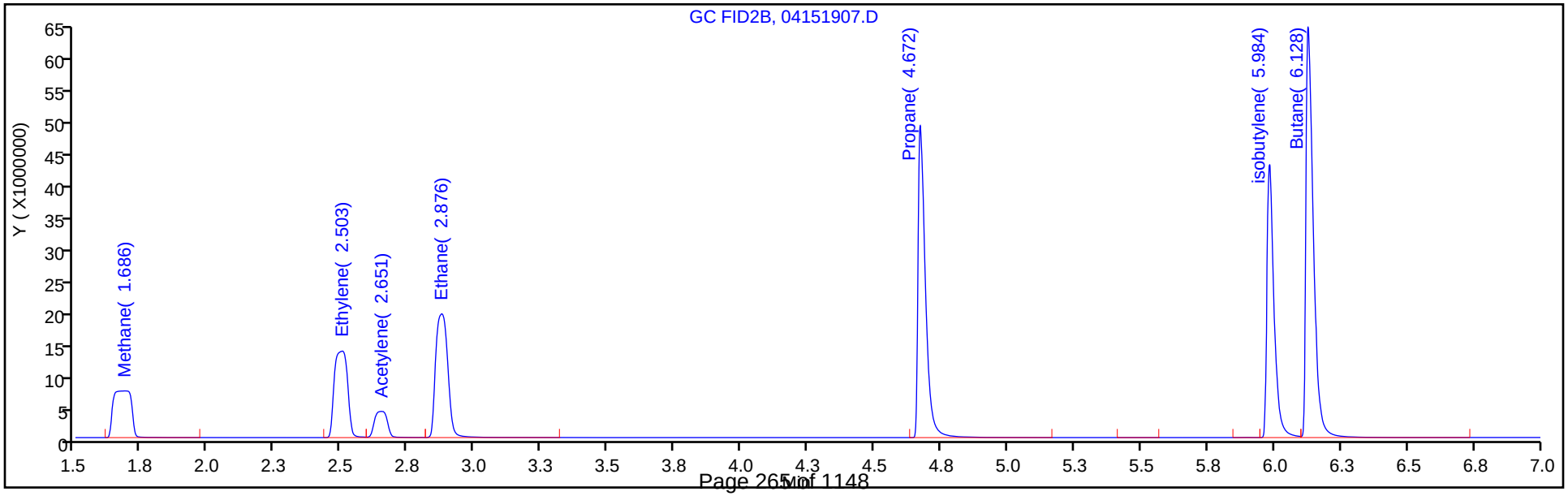
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| 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

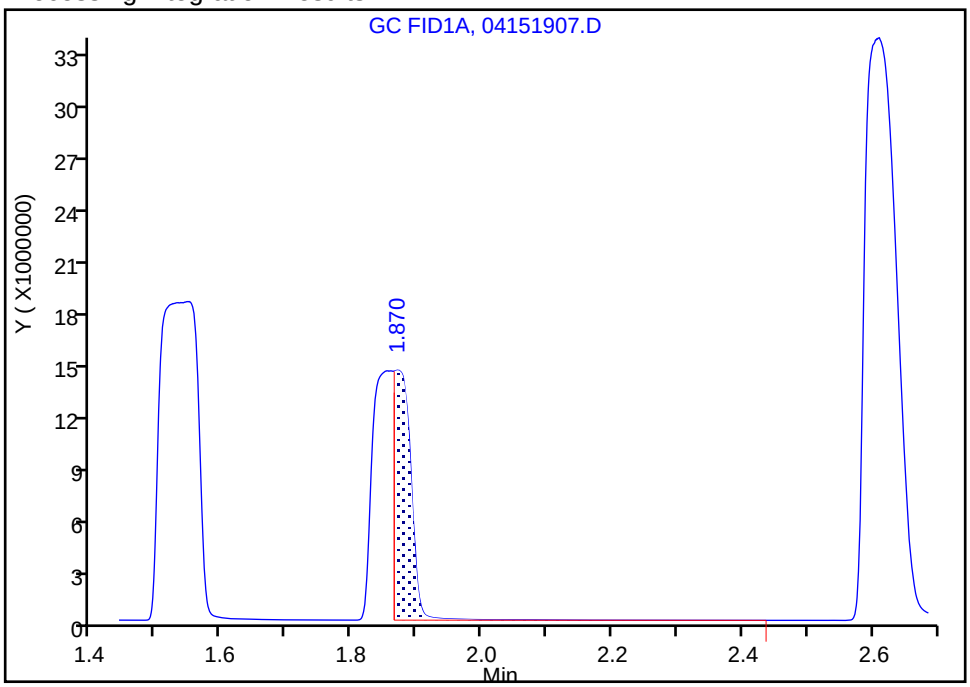
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Denver\ChromData\VGC_J\20190415-80933.b\04151907.D | | | | |
| Injection Date: | 15-Apr-2019 11:44:06 | Instrument ID: | VGC_J | | |
| Lims ID: | IC L7 | | | | |
| Client ID: | | | | | |
| Operator ID: | ms | ALS Bottle#: | 7 | Worklist 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

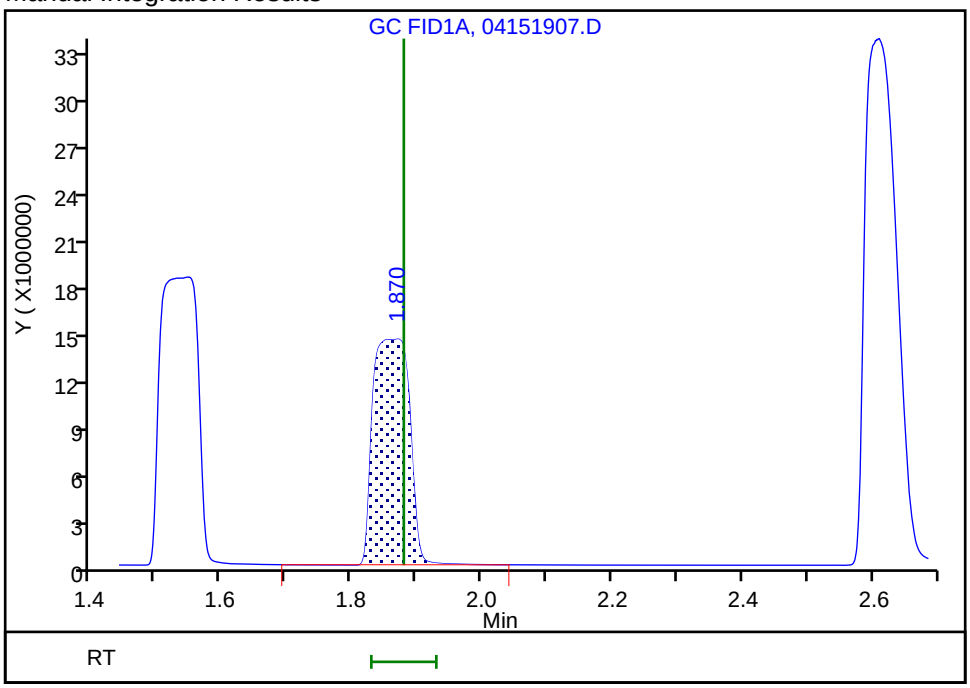
Processing Integration Results

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:

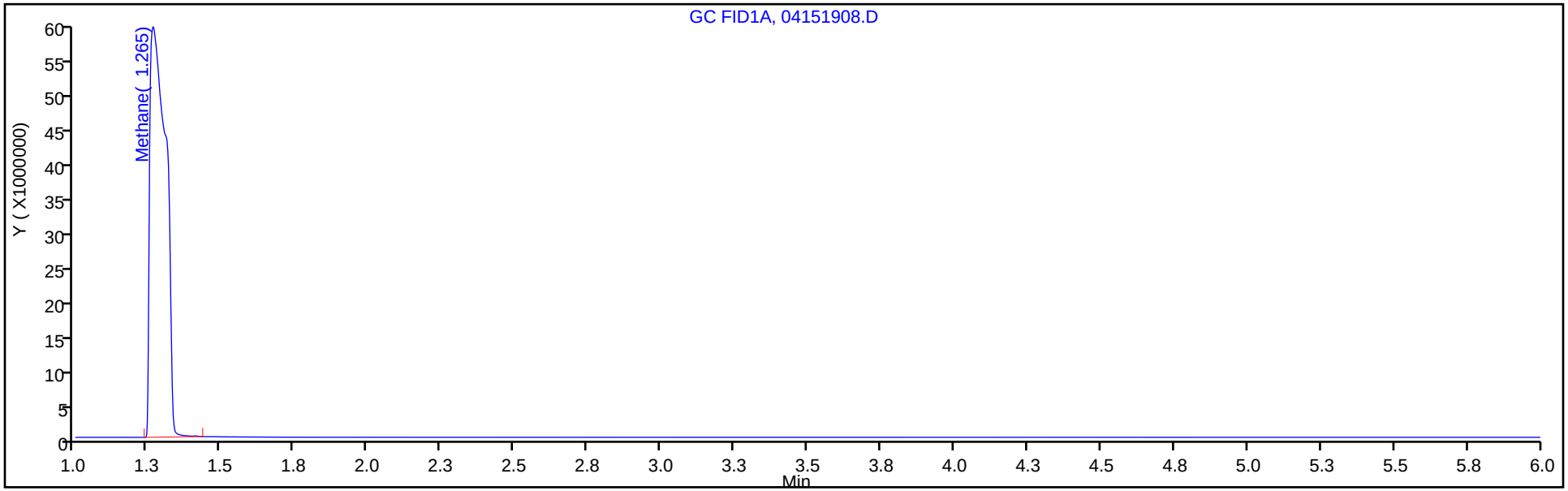
RSK175methane_00009 Amount Added: 50.00 Units: uL

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

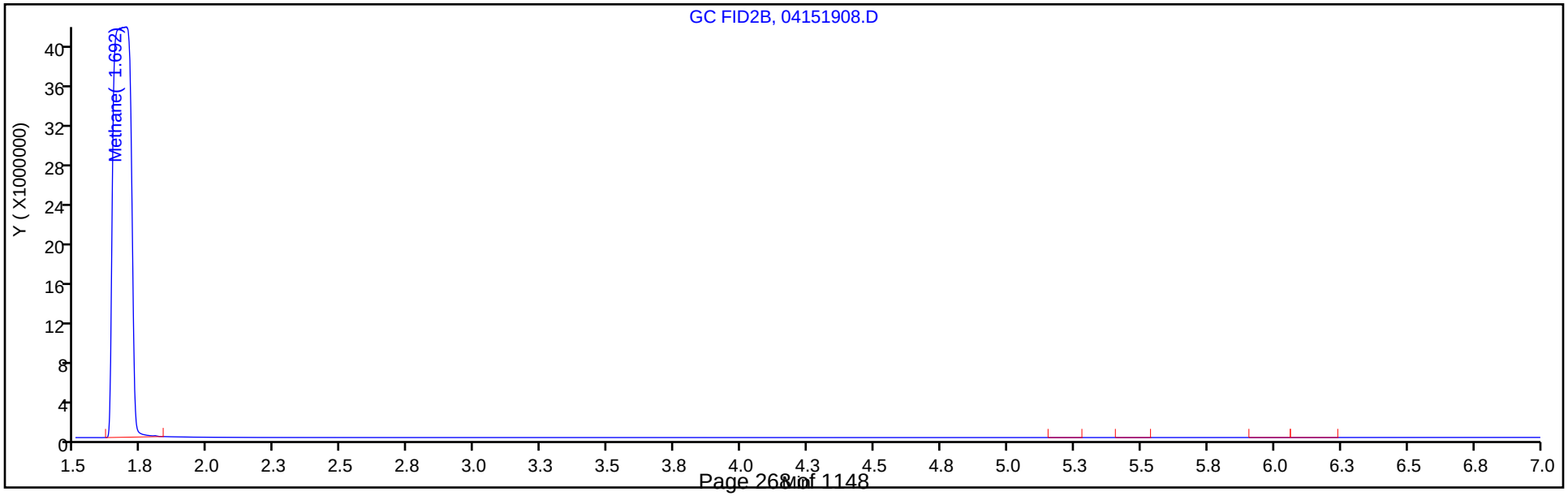
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| 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:

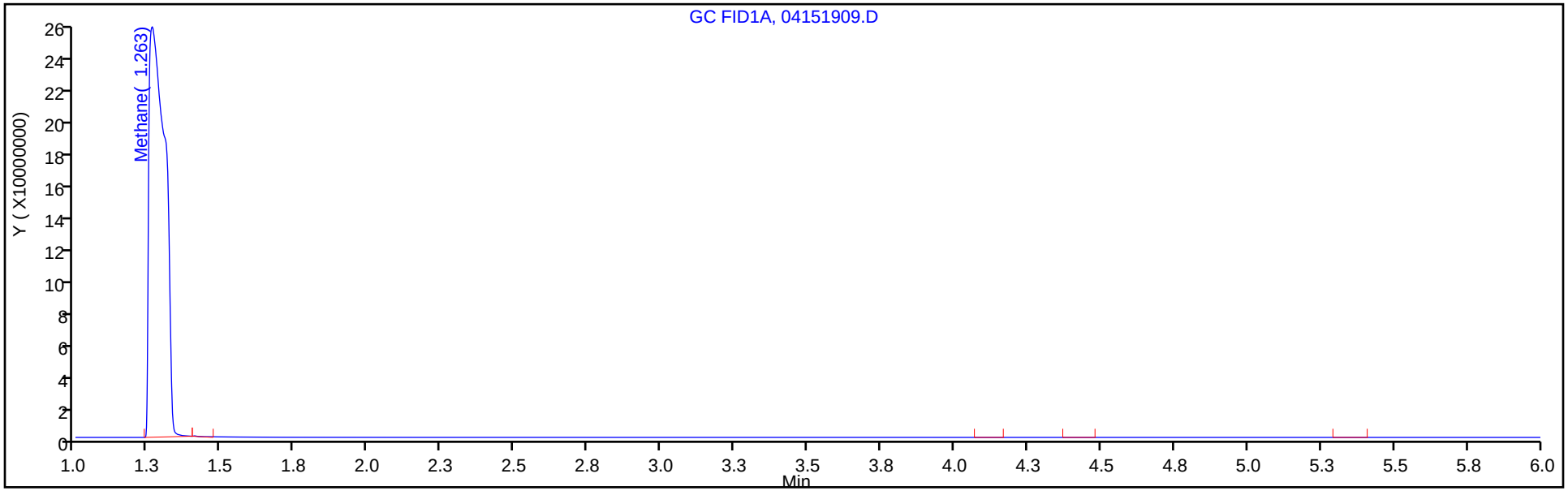
RSK175methane_00009 Amount Added: 200.00 Units: uL

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

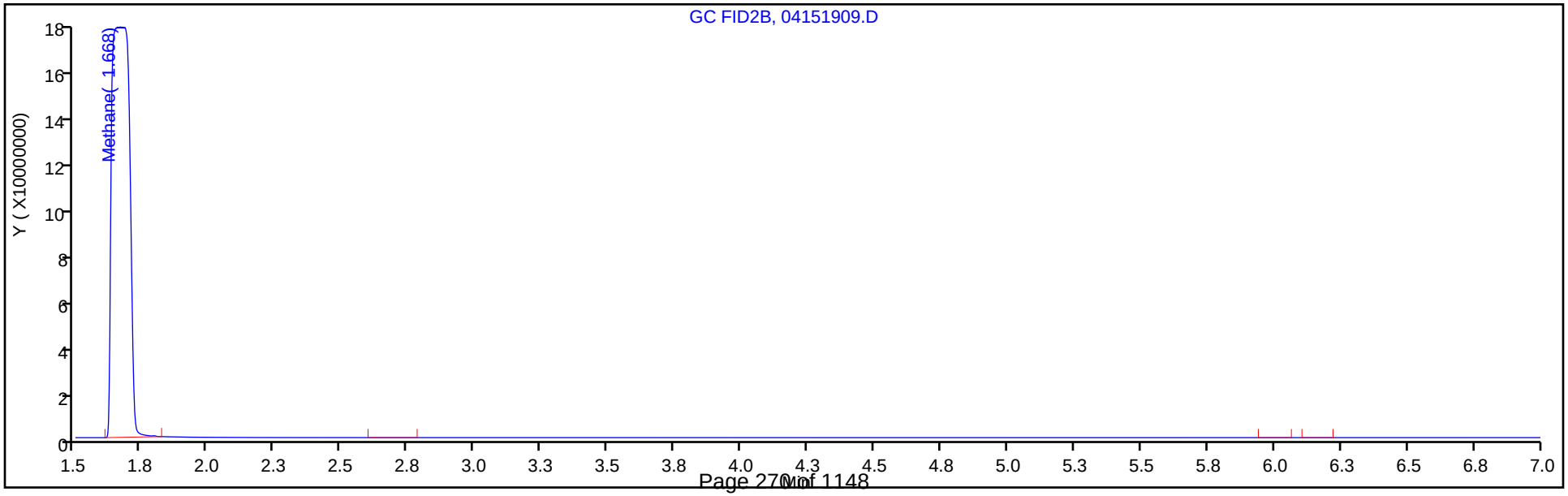
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| 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.: 280-134268-1 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.: 280-134268-1 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<br>LVL 5<br>LVL 9 | LVL 2<br>LVL 6 | LVL 3<br>LVL 7 | LVL 4<br>LVL 8 | | B | M1 | M2 | | | | | | | | |
| Methane | 165505<br>112782<br>113064 | 152449<br>105382 | 134317<br>118668 | 124463<br>106834 | Lin2 | 26094.0563 | 114549.945 | | | | | | | 0.9950 | | 0.9900 |
| Ethylene | 77051<br>90320 | 93824<br>85167 | 93337<br>91921 | 98428 | Ave | | 90006.9262 | | | | 7.7 | | 20.0 | | | |
| Acetylene | 24541<br>29842 | 28330<br>28568 | 27967<br>29091 | 29931 | Ave | | 28324.3348 | | | | 6.4 | | 20.0 | | | |
| Ethane | 90071<br>107828 | 111998<br>101231 | 111312<br>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.: 280-134268-1 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<br>LVL 6 | LVL 2<br>LVL 7 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5 | LVL 1<br>LVL 6 | LVL 2<br>LVL 7 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5 |
| Methane | Lin2 | 75515<br>15386436 | 139116<br>34652624 | 245139<br>193042781 | 1817240<br>817202335 | 8233442 | 0.456<br>146 | 0.913<br>292 | 1.83<br>1807 | 14.6<br>7228 | 73.0 |
| Ethylene | Ave | 61480<br>21746052 | 149728<br>46940879 | 297902 | 2513192 | 11530864 | 0.798<br>255 | 1.60<br>511 | 3.19 | 25.5 | 128 |
| Acetylene | Ave | 18179<br>6771875 | 41972<br>13791861 | 82868 | 709490 | 3536969 | 0.741<br>237 | 1.48<br>474 | 2.96 | 23.7 | 119 |
| Ethane | Ave | 77042<br>27708010 | 191594<br>61621639 | 380840 | 3198231 | 14756883 | 0.855<br>274 | 1.71<br>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:

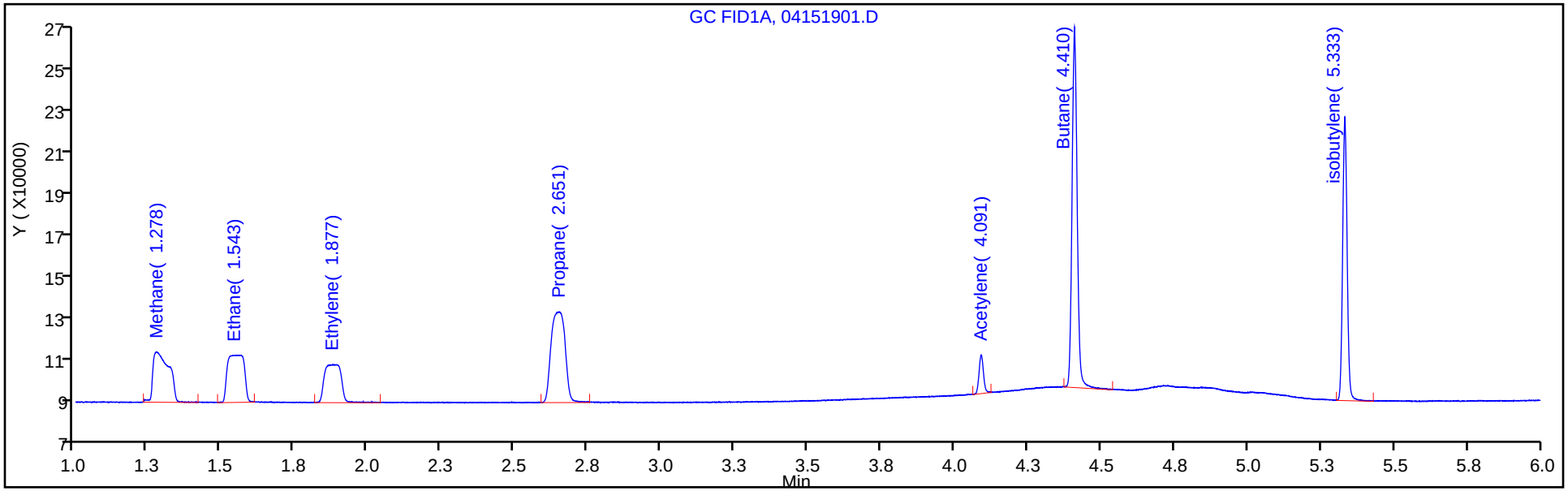
RSK7gasMathes_00026 Amount Added: 1.25 Units: uL

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

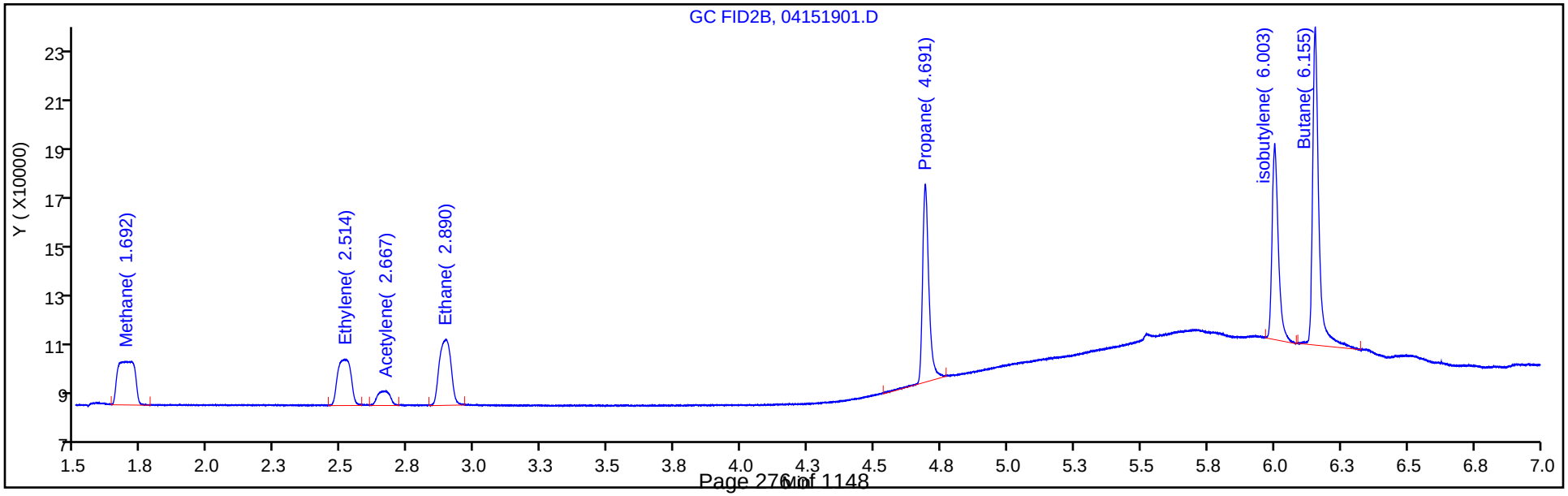
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| 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:

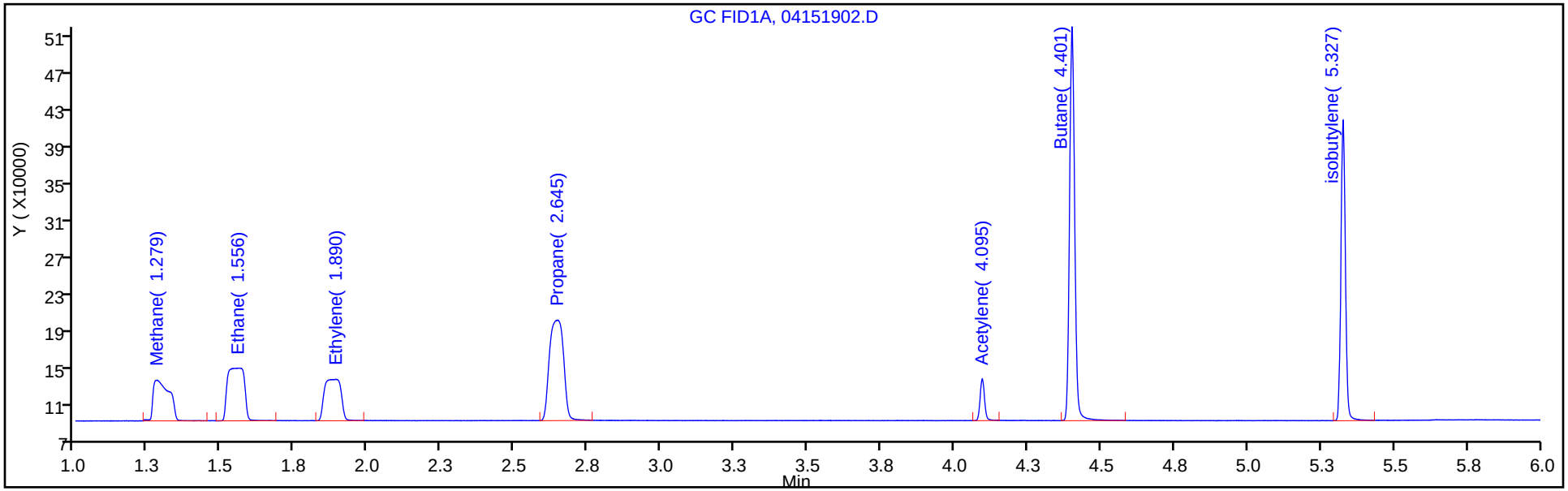
RSK7gasMathes_00026 Amount Added: 2.50 Units: uL

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

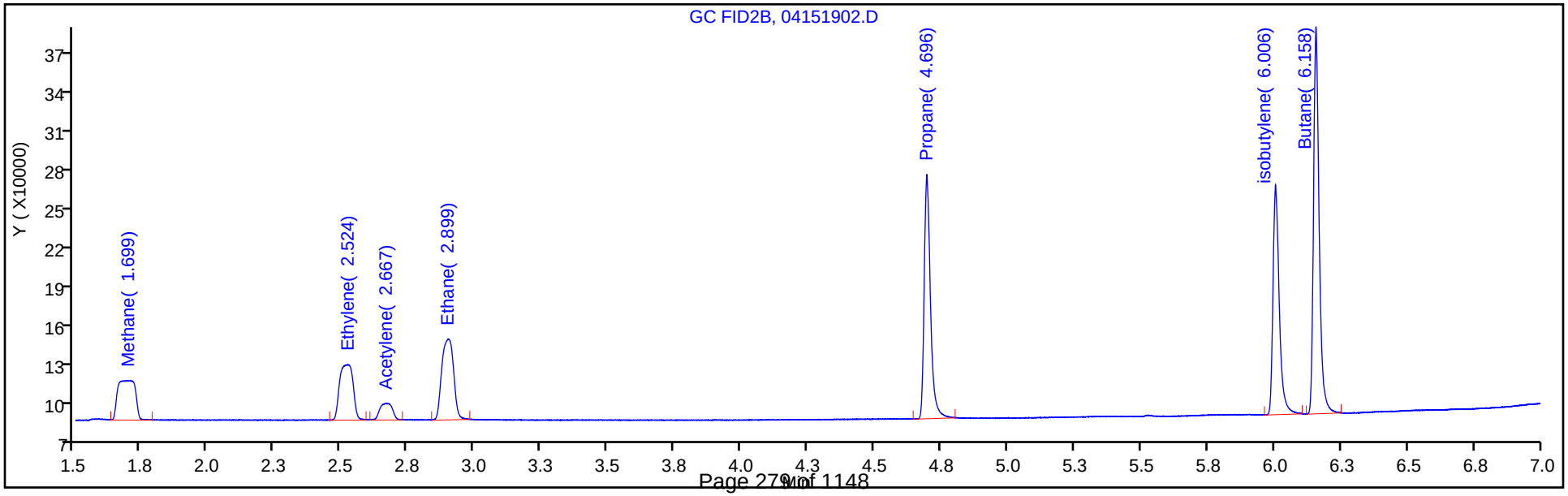
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| 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:

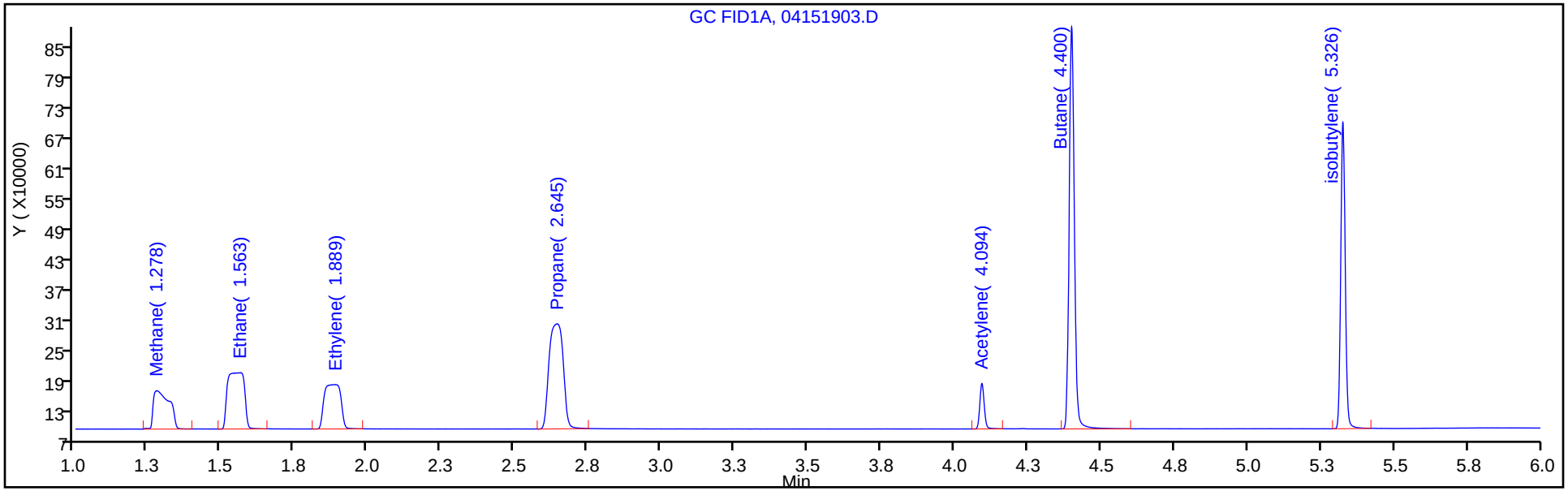
RSK7gasMathes_00026 Amount Added: 5.00 Units: uL

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

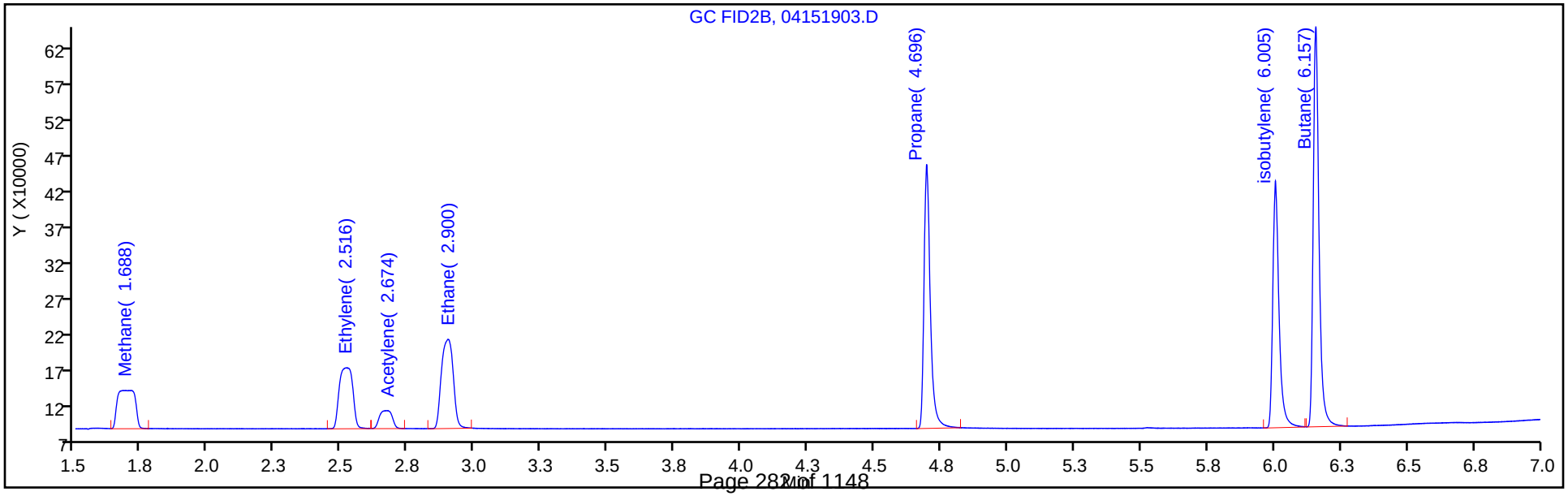
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| 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:

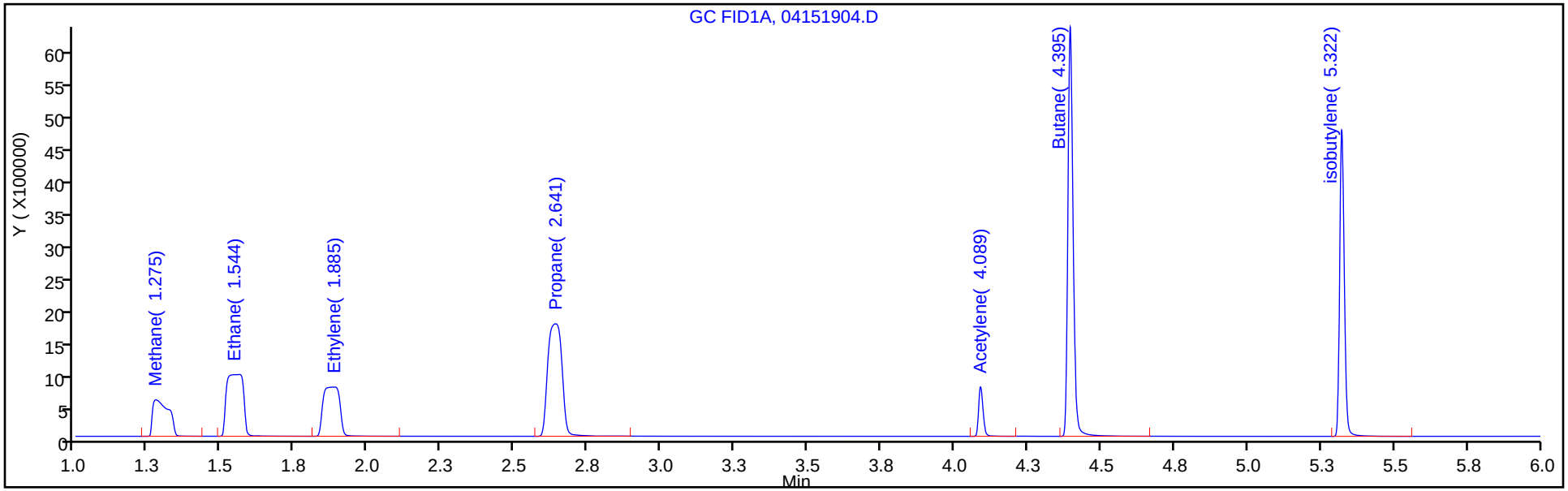
RSK7gasMathes_00026 Amount Added: 40.00 Units: uL

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

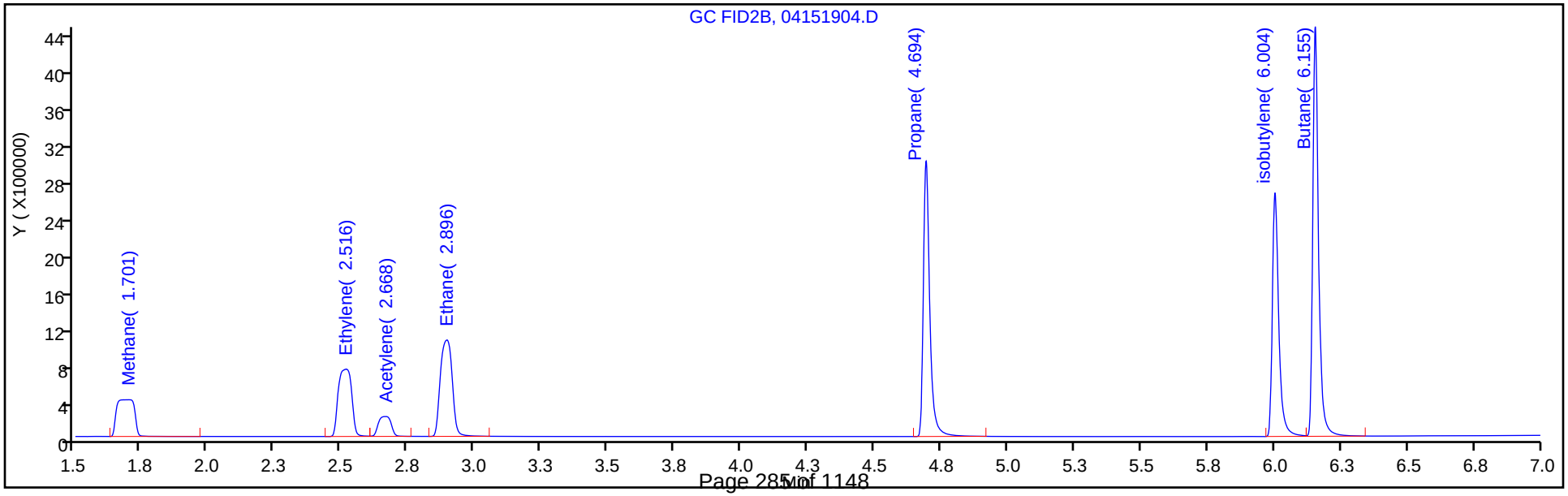
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| 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:

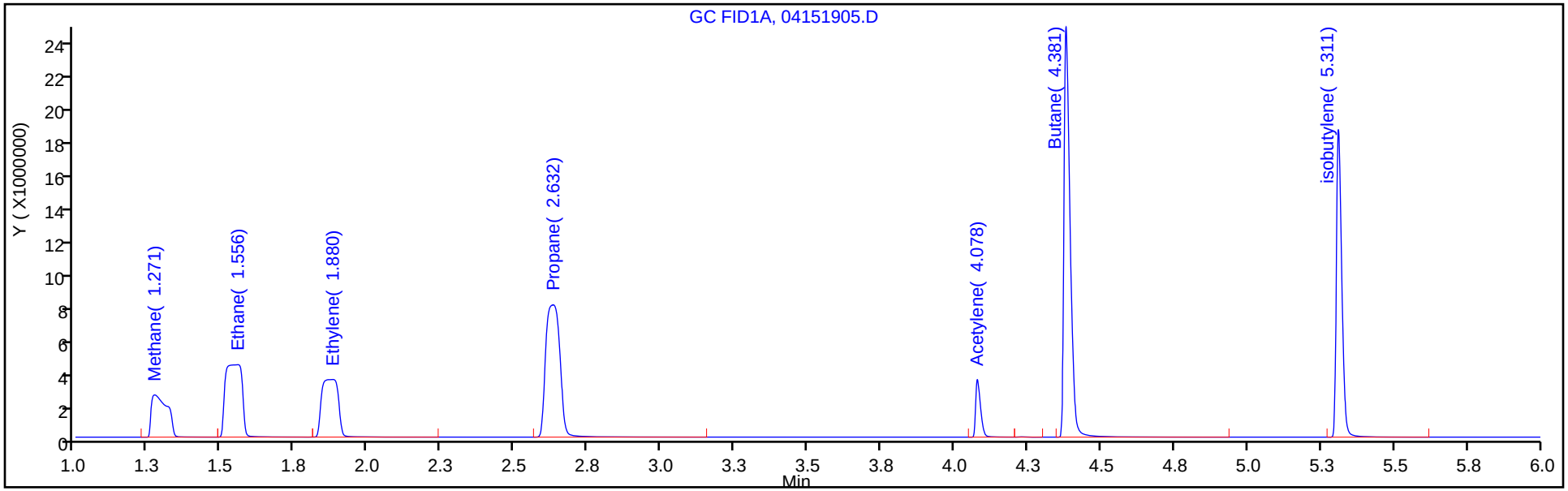
RSK7gasMathes_00026 Amount Added: 200.00 Units: uL

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

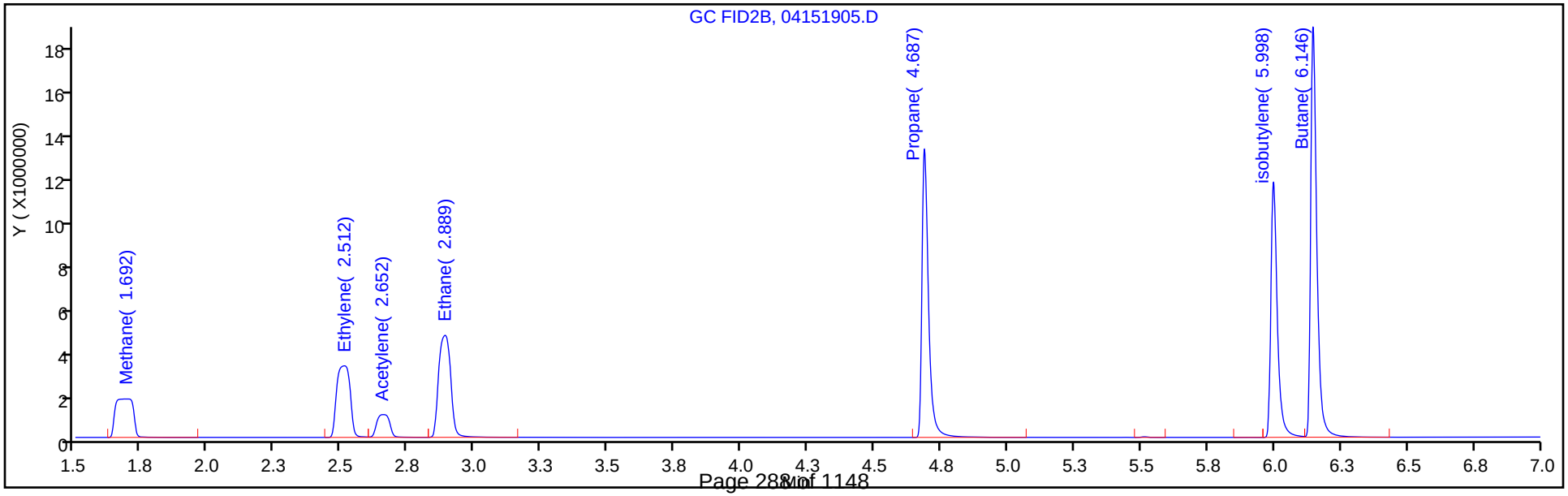
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| 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:

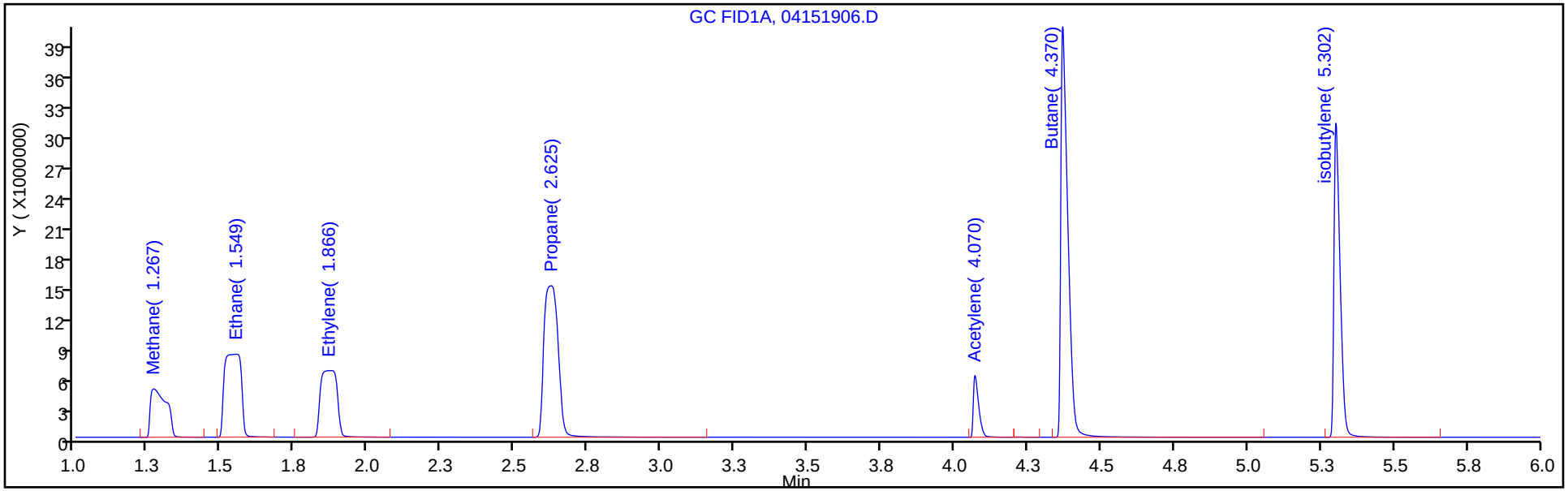
RSK7gasMathes_00026 Amount Added: 400.00 Units: uL

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

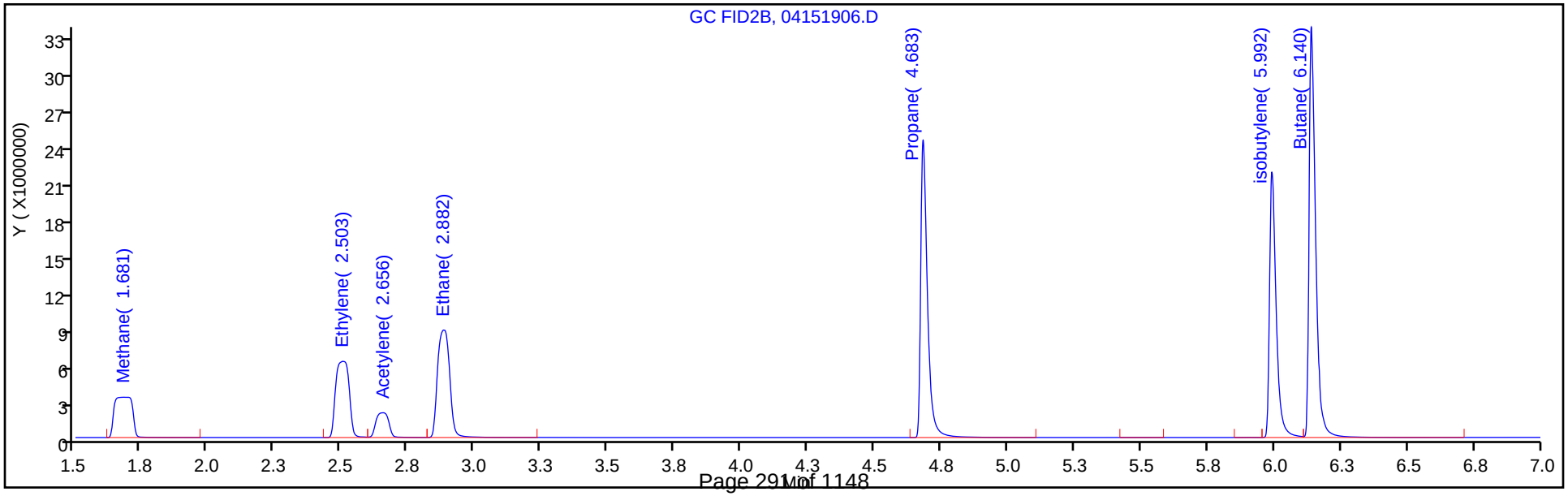
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| 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:

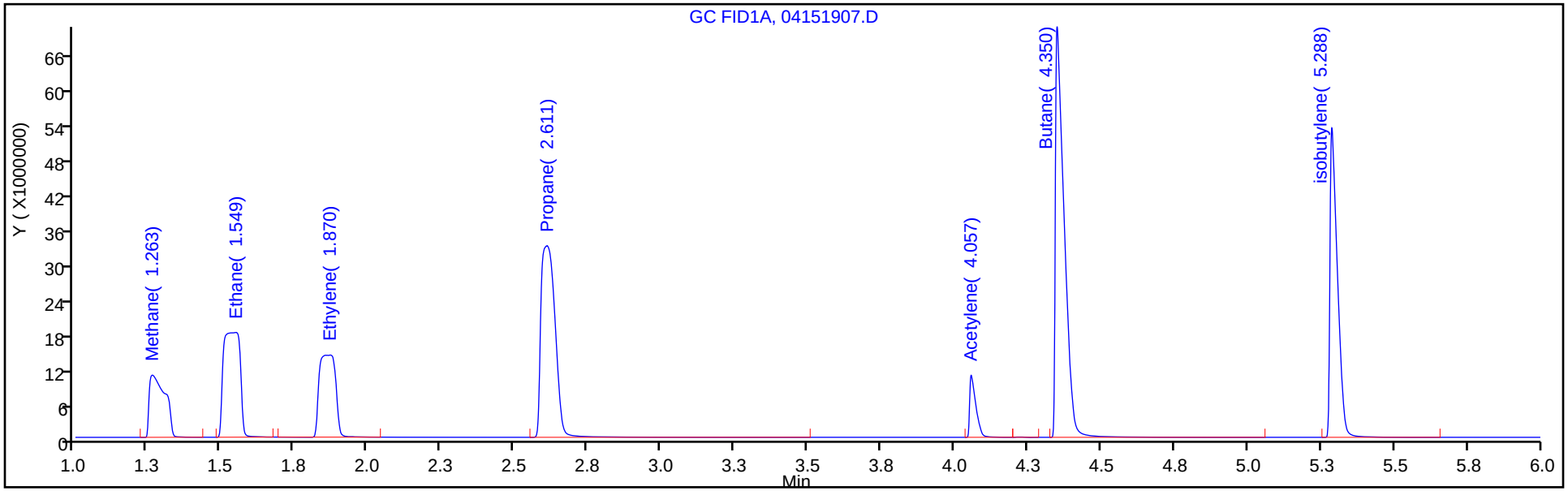
RSK7gasMathes_00026 Amount Added: 800.00 Units: uL

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

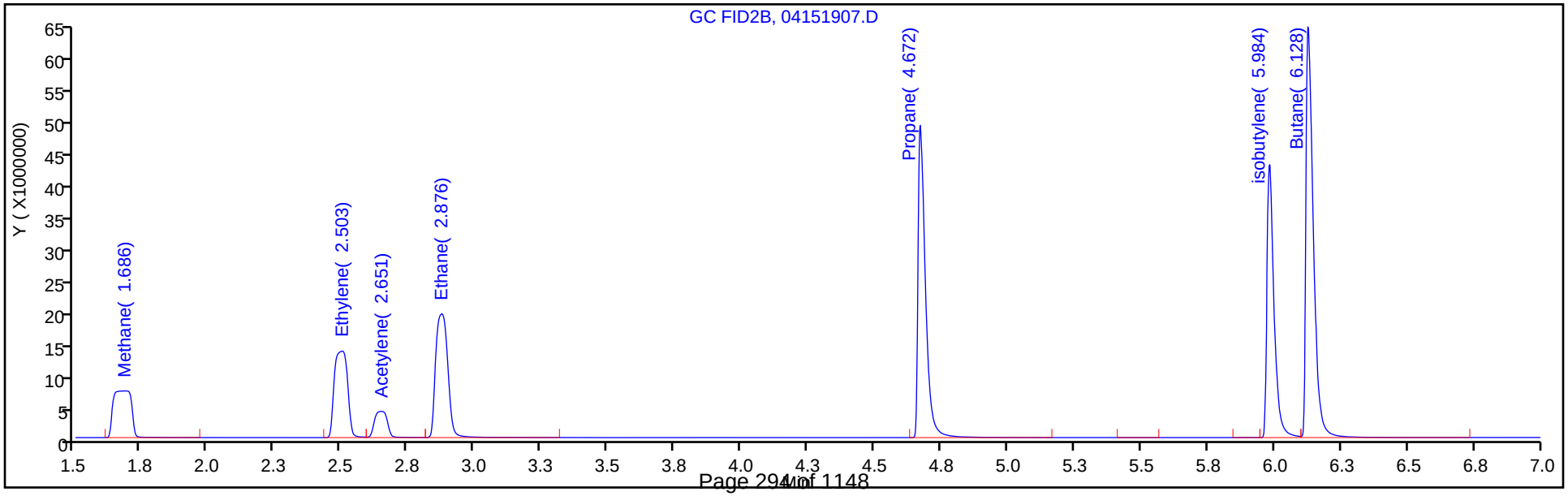
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| 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:

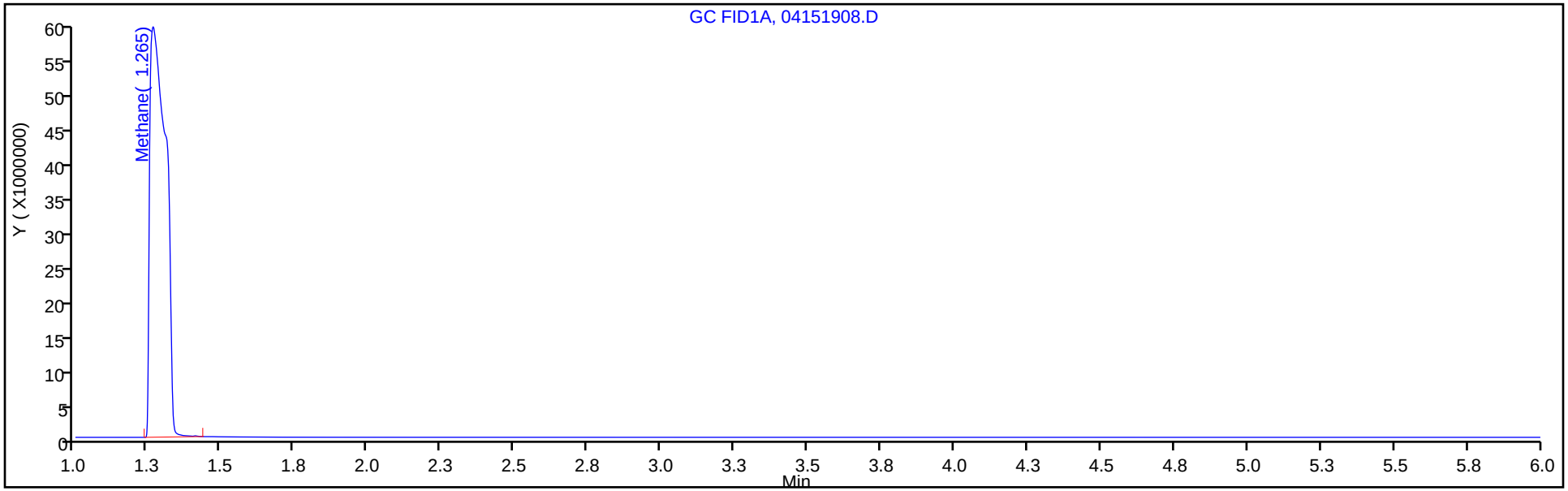
RSK175methane_00009 Amount Added: 50.00 Units: uL

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

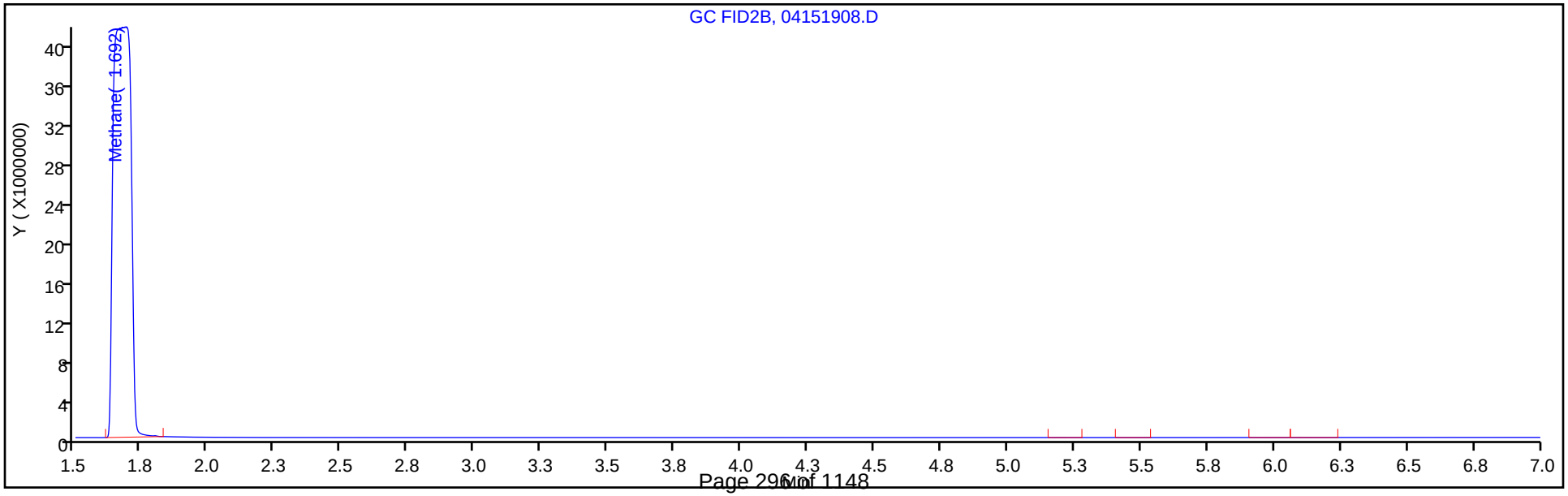
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| 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:

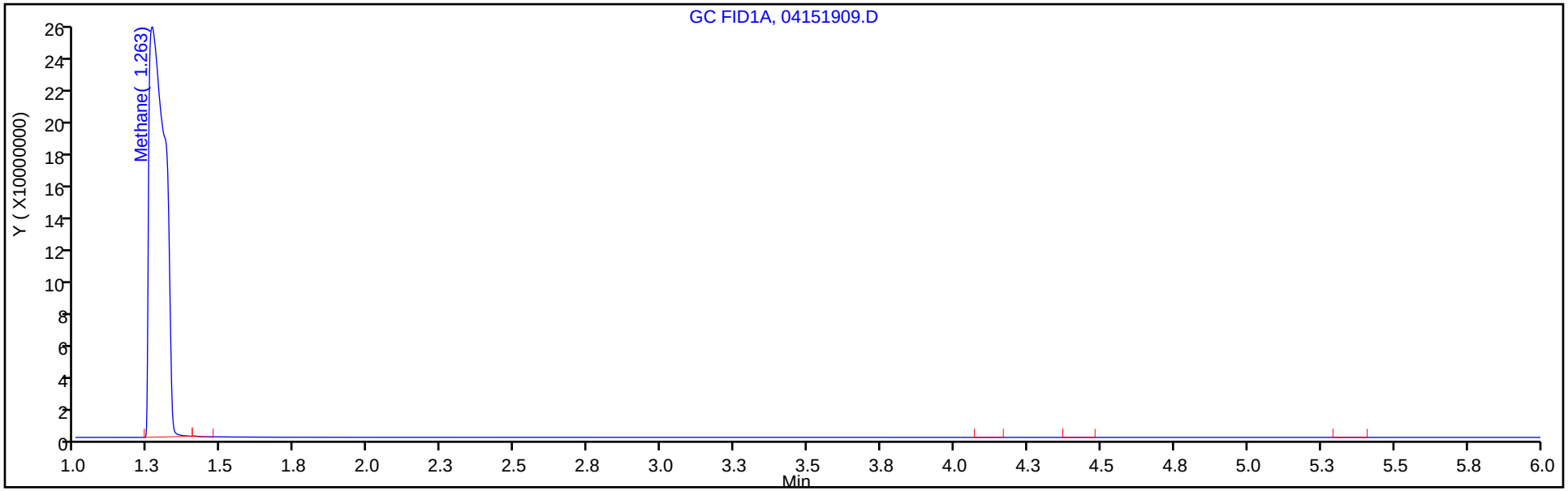
RSK175methane_00009 Amount Added: 200.00 Units: uL

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

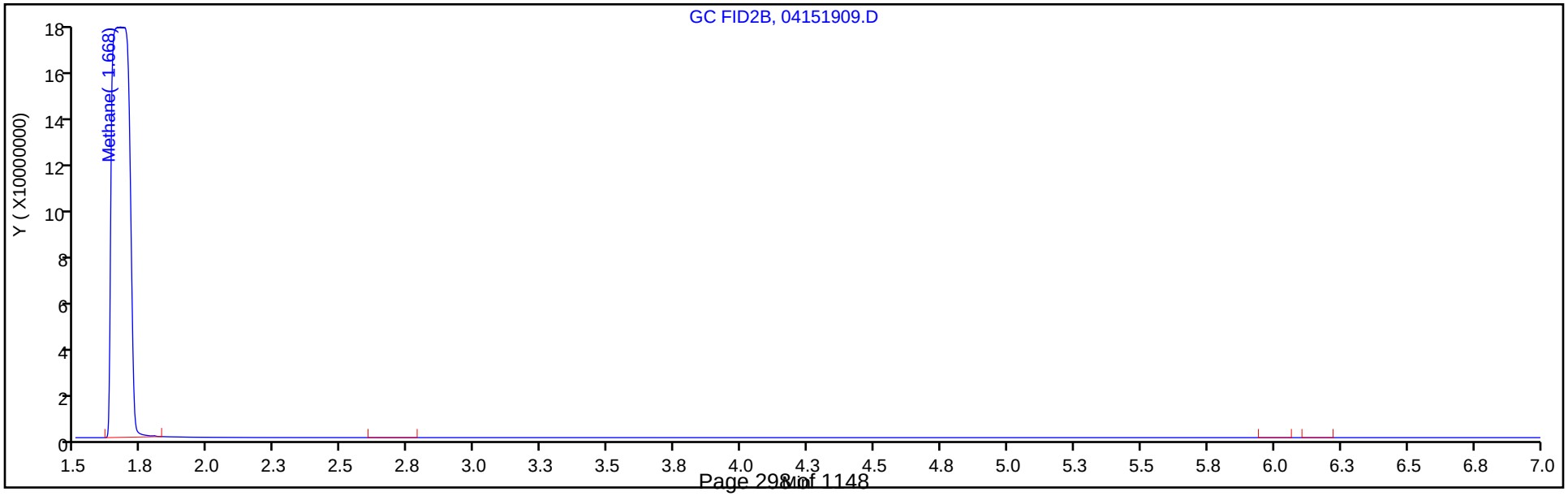
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| 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.: 280-134268-1

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.: 280-134268-1

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:

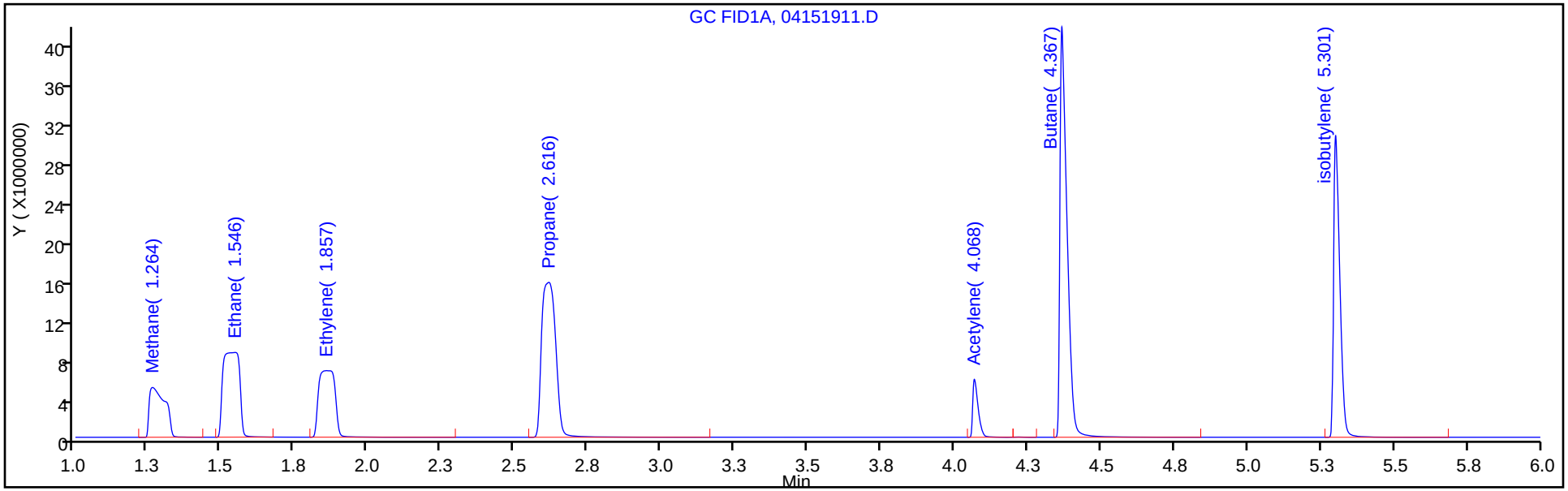
RSK7gasMathes_00025 Amount Added: 400.00 Units: uL

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

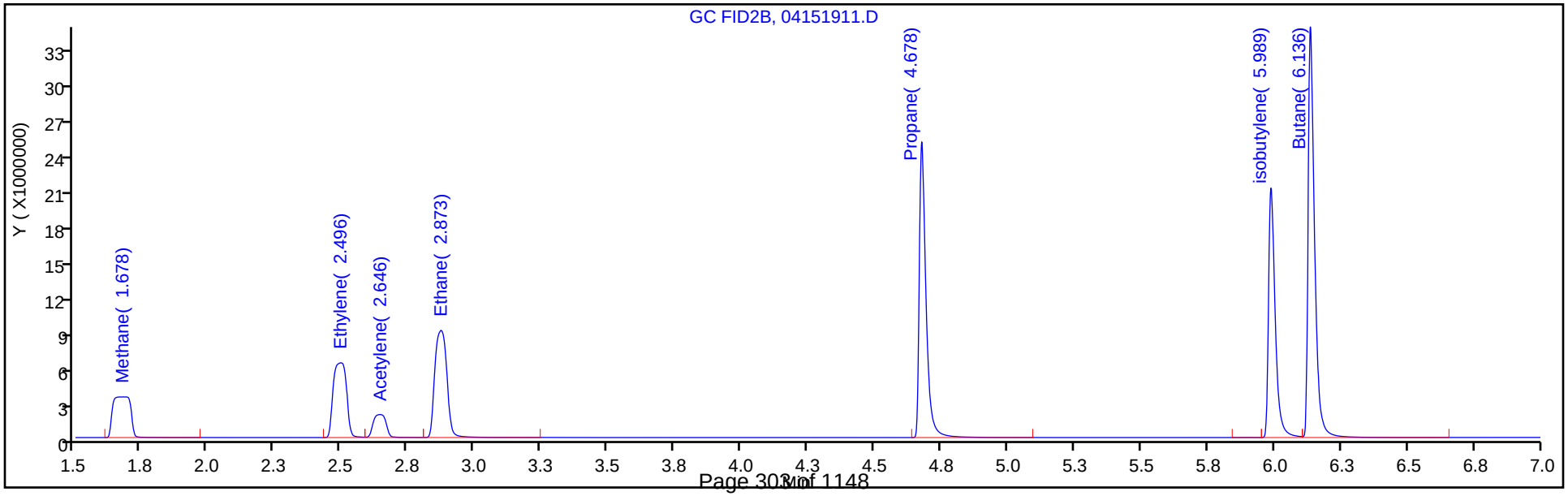
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| 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.: 280-134268-1

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.: 280-134268-1

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:

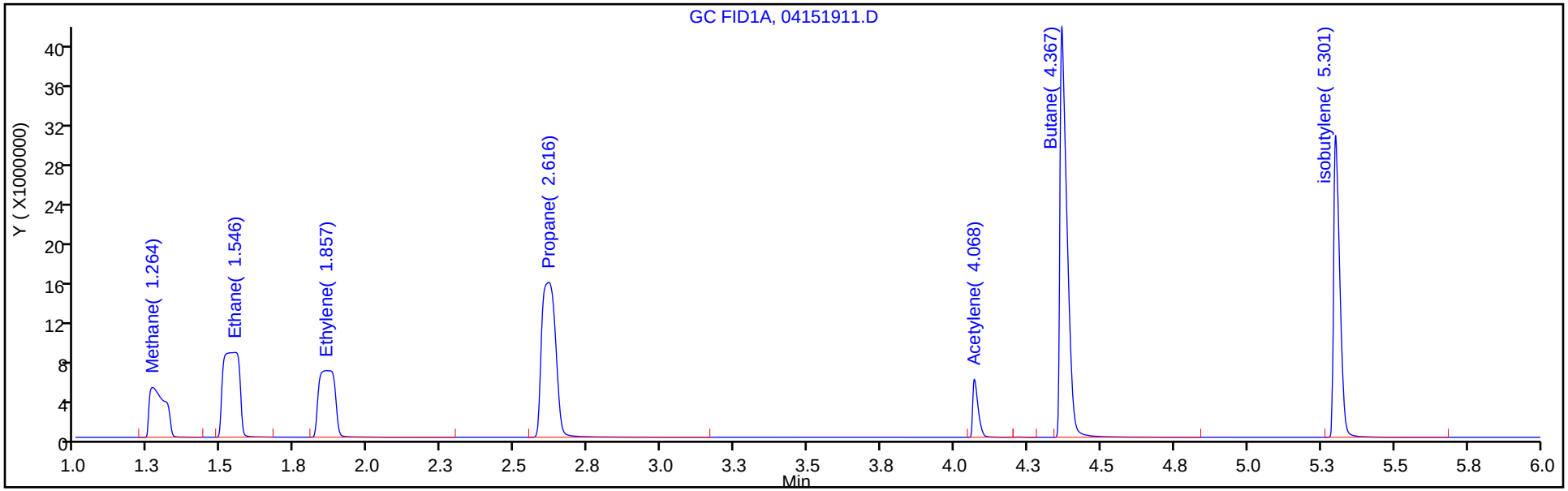
RSK7gasMathes_00025 Amount Added: 400.00 Units: uL

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

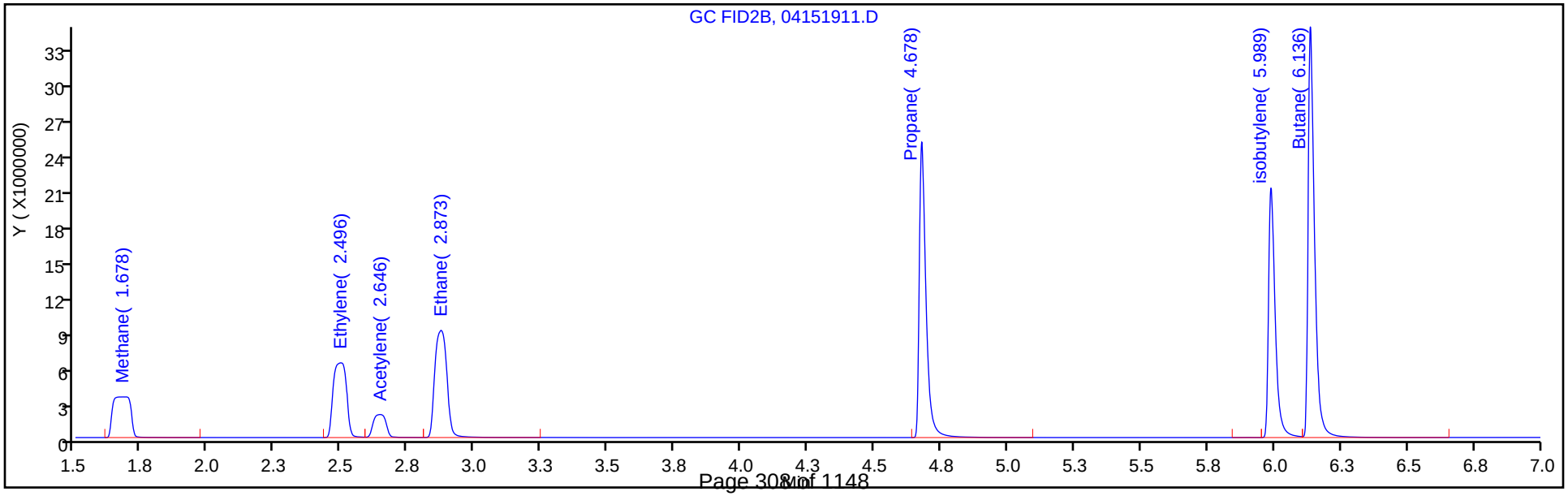
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| 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.: 280-134268-1

SDG No.:

Lab Sample ID: CCVRT 280-488165/4  Calibration Date: 03/09/2020 09:04

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 | | 145745 | | 79.2 | 73.0 | 8.5 | 20.0 |
| Ethane | Ave | 126364 | 124811 | | 135 | 137 | -1.2 | 20.0 |
| Ethylene | Ave | 105807 | 104814 | | 126 | 128 | -0.9 | 20.0 |
| Acetylene | Ave | 32129 | 33220 | | 123 | 119 | 3.4 | 20.0 |

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-134268-1

SDG No.:

Lab Sample ID: CCVRT 280-488165/4  Calibration Date: 03/09/2020 09:04

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 | 1.27 | 1.23 | 1.31 |
| Ethane | 1.54 | 1.49 | 1.59 |
| Ethylene | 1.86 | 1.81 | 1.91 |
| Acetylene | 4.05 | 3.97 | 4.13 |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\VGC_J\20200309-89898.b\004F0401.D
Lims ID: ccvrt
Client ID:
Sample Type: CCVRT
Inject. Date: 09-Mar-2020 09:04:26 ALS Bottle#: 4 Worklist Smp#: 4
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: ccvrt
Operator ID: sciannac Instrument ID: VGC_J
Sublist: chrom-RSK_J*sub5

Method: \\chromna\Denver\ChromData\VGC_J\20200309-89898.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 10-Mar-2020 08:19:56 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: CTX0337

First Level Reviewer: sciannac Date: 10-Mar-2020 07:19:52

| Col | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 1 Methane | | | | | | | |
| 1 | 1.265 | 1.265 | 0.000 | 10639856 | 73.0 | 79.2 | |
| 2 | 1.683 | 1.683 | 0.000 | 9136168 | 73.0 | 79.5 | |
| | | | | | | RPD = 0.45 | |
| 2 Ethane | | | | | | | |
| 1 | 1.544 | 1.544 | 0.000 | 17081099 | 136.9 | 135.2 | |
| 2 | 2.881 | 2.881 | 0.000 | 14631079 | 136.9 | 136.2 | |
| | | | | | | RPD = 0.77 | |
| 3 Ethylene | | | | | | | |
| 1 | 1.863 | 1.863 | 0.000 | 13381278 | 127.7 | 126.5 | |
| 2 | 2.506 | 2.506 | 0.000 | 11421749 | 127.7 | 126.9 | |
| | | | | | | RPD = 0.34 | |
| 4 Propane | | | | | | | |
| 1 | 2.601 | 2.601 | 0.000 | 23744542 | 200.7 | 175.5 | |
| 2 | 4.684 | 4.684 | 0.000 | 20256847 | 200.7 | 176.6 | |
| | | | | | | RPD = 0.58 | |
| 5 Acetylene | | | | | | | |
| 1 | 4.053 | 4.053 | 0.000 | 3937270 | 118.5 | 122.5 | |
| 2 | 2.659 | 2.659 | 0.000 | 3464103 | 118.5 | 122.3 | |
| | | | | | | RPD = 0.20 | |
| 6 Butane | | | | | | | |
| 1 | 4.358 | 4.358 | 0.000 | 25257369 | 264.5 | 179.4 | |
| 2 | 6.143 | 6.143 | 0.000 | 21526359 | 264.5 | 178.8 | |
| | | | | | | RPD = 0.30 | |
| 7 isobutylene | | | | | | | |
| 1 | 5.294 | 5.294 | 0.000 | 17602027 | 255.4 | 181.9 | |
| 2 | 5.996 | 5.996 | 0.000 | 14832704 | 255.4 | 183.0 | |
| | | | | | | RPD = 0.62 | |

## Reagents:

RSK7gasMathes_00027 Amount Added: 200.00 Units: uL

Report Date: 10-Mar-2020 08:19:57 Chrom Revision: 2.3 19-Feb-2020 16:45:46

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\VGC_J\20200309-89898.b\004F0401.D

Injection Date: 09-Mar-2020 09:04:26 Instrument ID: VGC_J Operator ID: sciannac

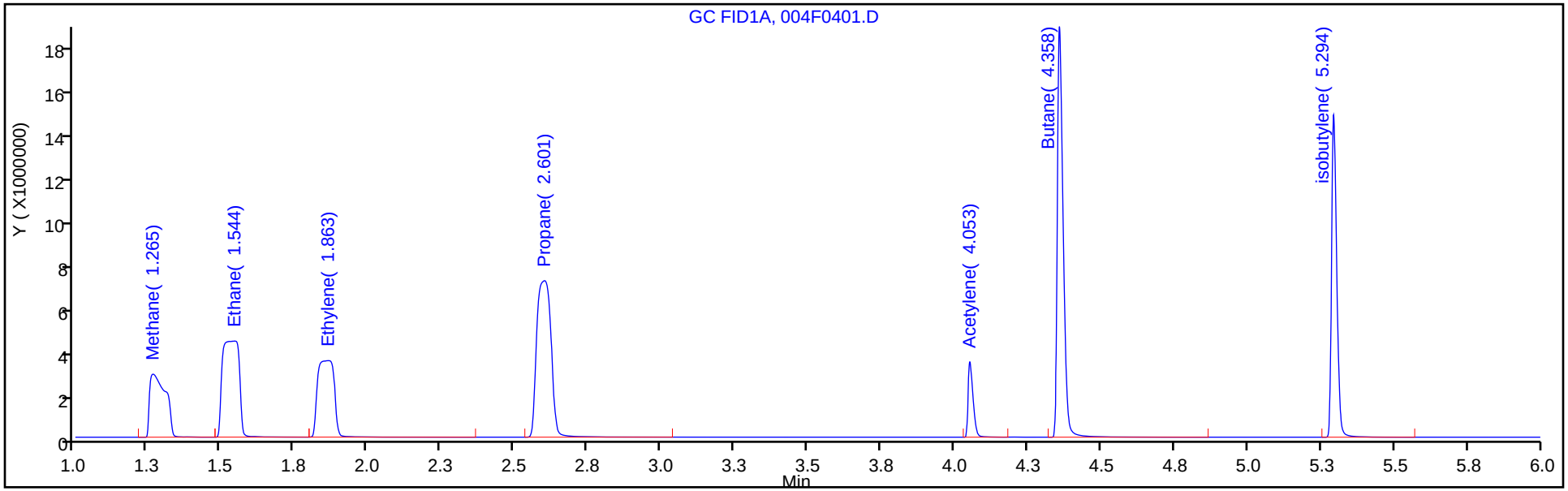
Lims ID: ccvrt Worklist Smp#: 4

Client ID:

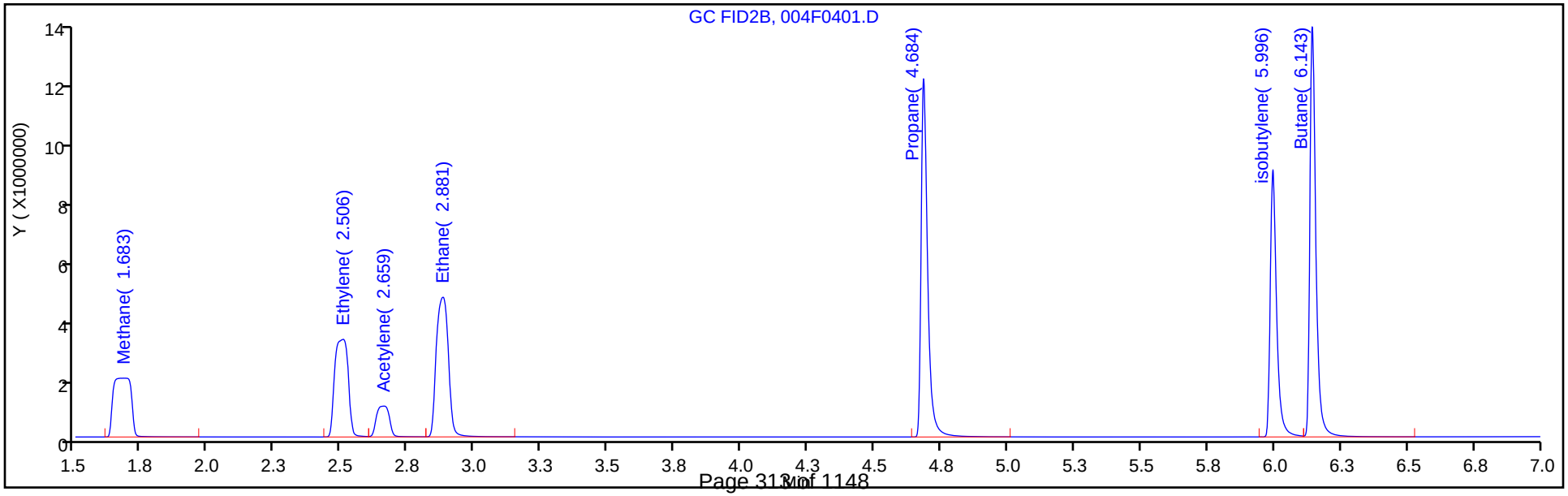
Purge Vol: 18.000 mL Dil. Factor: 1.0000 ALS Bottle#: 4

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.: 280-134268-1

SDG No.:

Lab Sample ID: CCVRT 280-488165/4  Calibration Date: 03/09/2020 09:04

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 | | 125147 | | 79.5 | 73.0 | 8.9 | 20.0 |
| Ethylene | Ave | 90007 | 89465 | | 127 | 128 | -0.6 | 20.0 |
| Acetylene | Ave | 28324 | 29227 | | 122 | 119 | 3.2 | 20.0 |
| Ethane | Ave | 107408 | 106909 | | 136 | 137 | -0.5 | 20.0 |

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-134268-1

SDG No.:

Lab Sample ID: CCVRT 280-488165/4  Calibration Date: 03/09/2020 09:04

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 | 2.51 | 2.46 | 2.56 |
| Acetylene | 2.66 | 2.58 | 2.74 |
| Ethane | 2.88 | 2.83 | 2.93 |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\VGC_J\20200309-89898.b\004F0401.D
Lims ID: ccvrt
Client ID:
Sample Type: CCVRT
Inject. Date: 09-Mar-2020 09:04:26 ALS Bottle#: 4 Worklist Smp#: 4
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: ccvrt
Operator ID: sciannac Instrument ID: VGC_J
Sublist: chrom-RSK_J*sub5

Method: \\chromna\Denver\ChromData\VGC_J\20200309-89898.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 10-Mar-2020 08:19:56 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: CTX0337

First Level Reviewer: sciannac Date: 10-Mar-2020 07:19:52

| Col | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 1 Methane | | | | | | | |
| 1 | 1.265 | 1.265 | 0.000 | 10639856 | 73.0 | 79.2 | |
| 2 | 1.683 | 1.683 | 0.000 | 9136168 | 73.0 | 79.5 | |
| | | | | | | RPD = 0.45 | |
| 2 Ethane | | | | | | | |
| 1 | 1.544 | 1.544 | 0.000 | 17081099 | 136.9 | 135.2 | |
| 2 | 2.881 | 2.881 | 0.000 | 14631079 | 136.9 | 136.2 | |
| | | | | | | RPD = 0.77 | |
| 3 Ethylene | | | | | | | |
| 1 | 1.863 | 1.863 | 0.000 | 13381278 | 127.7 | 126.5 | |
| 2 | 2.506 | 2.506 | 0.000 | 11421749 | 127.7 | 126.9 | |
| | | | | | | RPD = 0.34 | |
| 4 Propane | | | | | | | |
| 1 | 2.601 | 2.601 | 0.000 | 23744542 | 200.7 | 175.5 | |
| 2 | 4.684 | 4.684 | 0.000 | 20256847 | 200.7 | 176.6 | |
| | | | | | | RPD = 0.58 | |
| 5 Acetylene | | | | | | | |
| 1 | 4.053 | 4.053 | 0.000 | 3937270 | 118.5 | 122.5 | |
| 2 | 2.659 | 2.659 | 0.000 | 3464103 | 118.5 | 122.3 | |
| | | | | | | RPD = 0.20 | |
| 6 Butane | | | | | | | |
| 1 | 4.358 | 4.358 | 0.000 | 25257369 | 264.5 | 179.4 | |
| 2 | 6.143 | 6.143 | 0.000 | 21526359 | 264.5 | 178.8 | |
| | | | | | | RPD = 0.30 | |
| 7 isobutylene | | | | | | | |
| 1 | 5.294 | 5.294 | 0.000 | 17602027 | 255.4 | 181.9 | |
| 2 | 5.996 | 5.996 | 0.000 | 14832704 | 255.4 | 183.0 | |
| | | | | | | RPD = 0.62 | |

## Reagents:

RSK7gasMathes_00027 Amount Added: 200.00 Units: uL

Report Date: 10-Mar-2020 08:19:58 Chrom Revision: 2.3 19-Feb-2020 16:45:46

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\VGC_J\20200309-89898.b\004F0401.D

Injection Date: 09-Mar-2020 09:04:26 Instrument ID: VGC_J Operator ID: sciannac

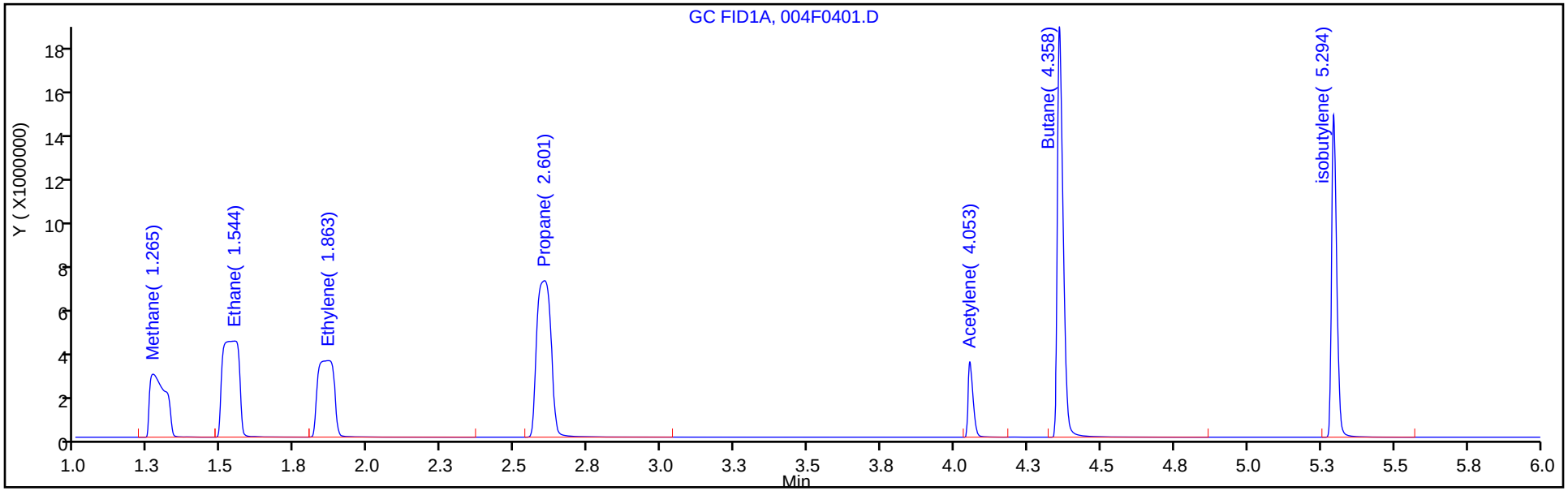
Lims ID: ccvrt Worklist Smp#: 4

Client ID:

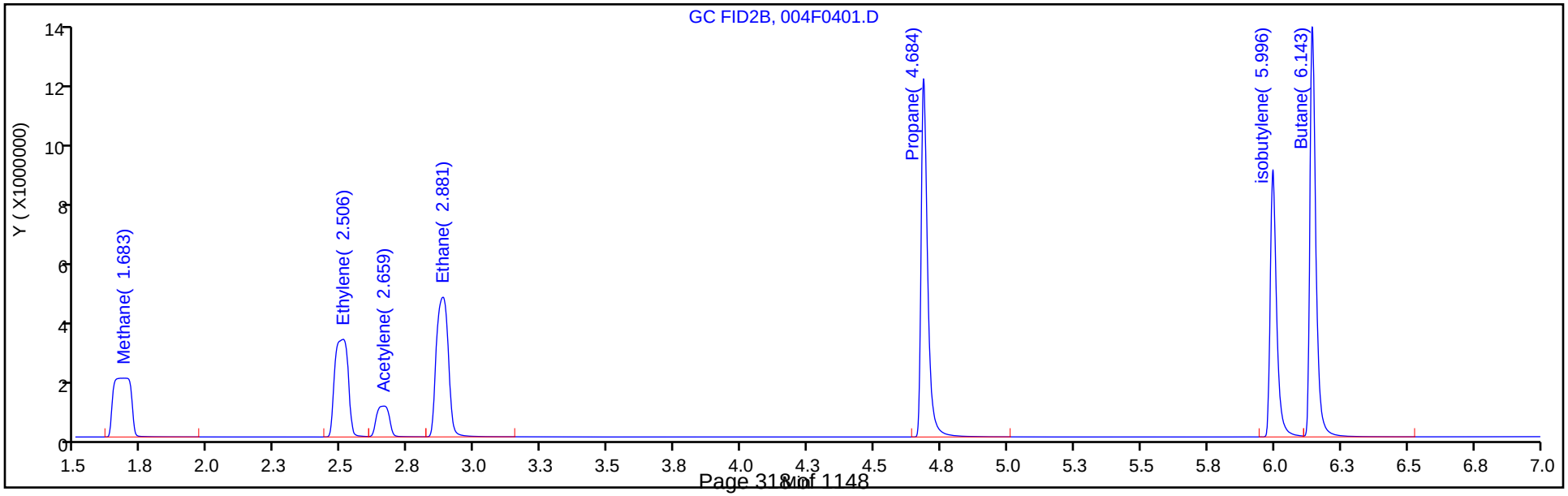
Purge Vol: 18.000 mL Dil. Factor: 1.0000 ALS Bottle#: 4

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.: 280-134268-1

SDG No.:

Lab Sample ID: CCV 280-488165/34  Calibration Date: 03/09/2020 19:36

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: 034F2701.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 | | 146534 | | 79.6 | 73.0 | 9.0 | 20.0 |
| Ethane | Ave | 126364 | 131673 | | 143 | 137 | 4.2 | 20.0 |
| Ethylene | Ave | 105807 | 107571 | | 130 | 128 | 1.7 | 20.0 |
| Acetylene | Ave | 32129 | 35273 | | 130 | 119 | 9.8 | 20.0 |

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-134268-1

SDG No.:

Lab Sample ID: CCV 280-488165/34  Calibration Date: 03/09/2020 19:36

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: 034F2701.D  Heated Purge: (Y/N) N

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Methane | 1.26 | 1.23 | 1.31 |
| Ethane | 1.53 | 1.49 | 1.59 |
| Ethylene | 1.86 | 1.81 | 1.91 |
| Acetylene | 4.05 | 3.97 | 4.13 |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\VGC_J\20200309-89898.b\034F2701.D
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 09-Mar-2020 19:36:00 ALS Bottle#: 34 Worklist Smp#: 34
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\20200309-89898.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 10-Mar-2020 08:20:33 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: CTX0337

First Level Reviewer: sciannac Date: 10-Mar-2020 08:15:06

| Col | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 1 Methane | | | | | | | |
| 1 | 1.258 | 1.265 | -0.007 | 10697478 | 73.0 | 79.6 | |
| 2 | 1.678 | 1.683 | -0.005 | 9196885 | 73.0 | 80.1 | |
| | | | | | | RPD = 0.57 | |
| 2 Ethane | | | | | | | |
| 1 | 1.534 | 1.544 | -0.010 | 18020151 | 136.9 | 142.6 | |
| 2 | 2.870 | 2.881 | -0.011 | 15464404 | 136.9 | 144.0 | |
| | | | | | | RPD = 0.96 | |
| 3 Ethylene | | | | | | | |
| 1 | 1.858 | 1.863 | -0.005 | 13733283 | 127.7 | 129.8 | |
| 2 | 2.492 | 2.506 | -0.014 | 11758661 | 127.7 | 130.6 | |
| | | | | | | RPD = 0.65 | |
| 4 Propane | | | | | | | |
| 1 | 2.588 | 2.601 | -0.013 | 26716275 | 200.7 | 197.5 | |
| 2 | 4.681 | 4.684 | -0.003 | 22807491 | 200.7 | 198.8 | |
| | | | | | | RPD = 0.64 | |
| 5 Acetylene | | | | | | | |
| 1 | 4.048 | 4.053 | -0.005 | 4180657 | 118.5 | 130.1 | |
| 2 | 2.647 | 2.659 | -0.012 | 3685972 | 118.5 | 130.1 | |
| | | | | | | RPD = 0.01 | |
| 6 Butane | | | | | | | |
| 1 | 4.351 | 4.358 | -0.007 | 32390900 | 264.5 | 230.0 | |
| 2 | 6.140 | 6.143 | -0.003 | 27511218 | 264.5 | 228.5 | |
| | | | | | | RPD = 0.64 | |
| 7 isobutylene | | | | | | | |
| 1 | 5.289 | 5.294 | -0.005 | 21619877 | 255.4 | 223.4 | |
| 2 | 5.993 | 5.996 | -0.003 | 18205401 | 255.4 | 224.7 | |
| | | | | | | RPD = 0.55 | |

## Reagents:

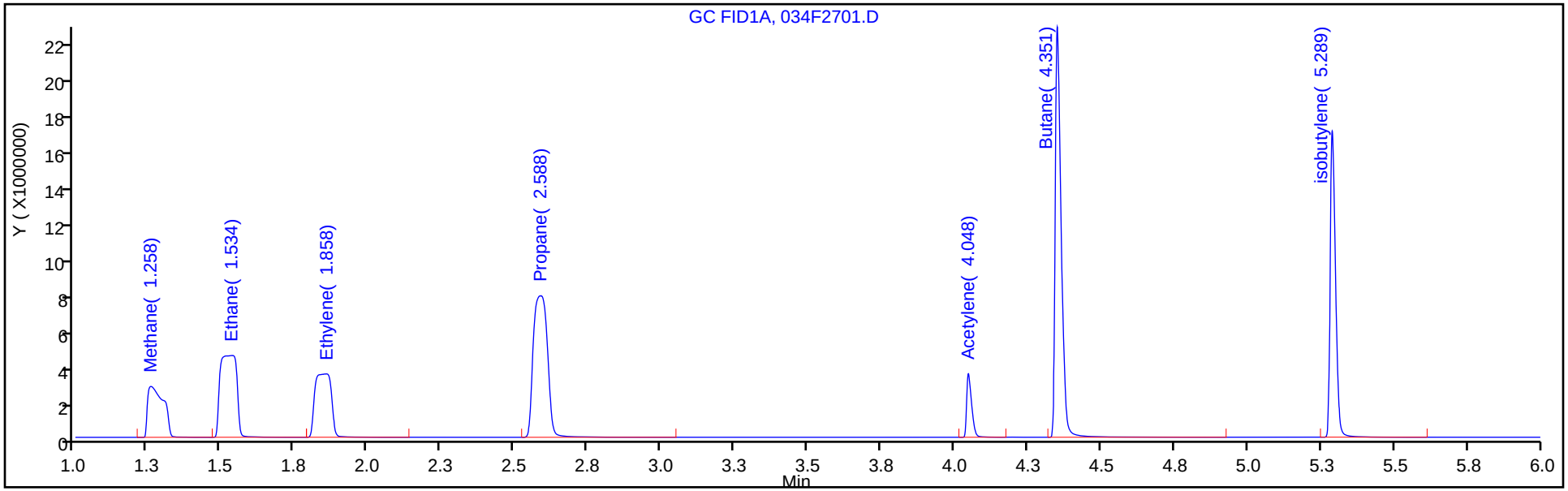
RSK7gasMathes_00027 Amount Added: 200.00 Units: uL

Report Date: 10-Mar-2020 08:20:33 Chrom Revision: 2.3 19-Feb-2020 16:45:46

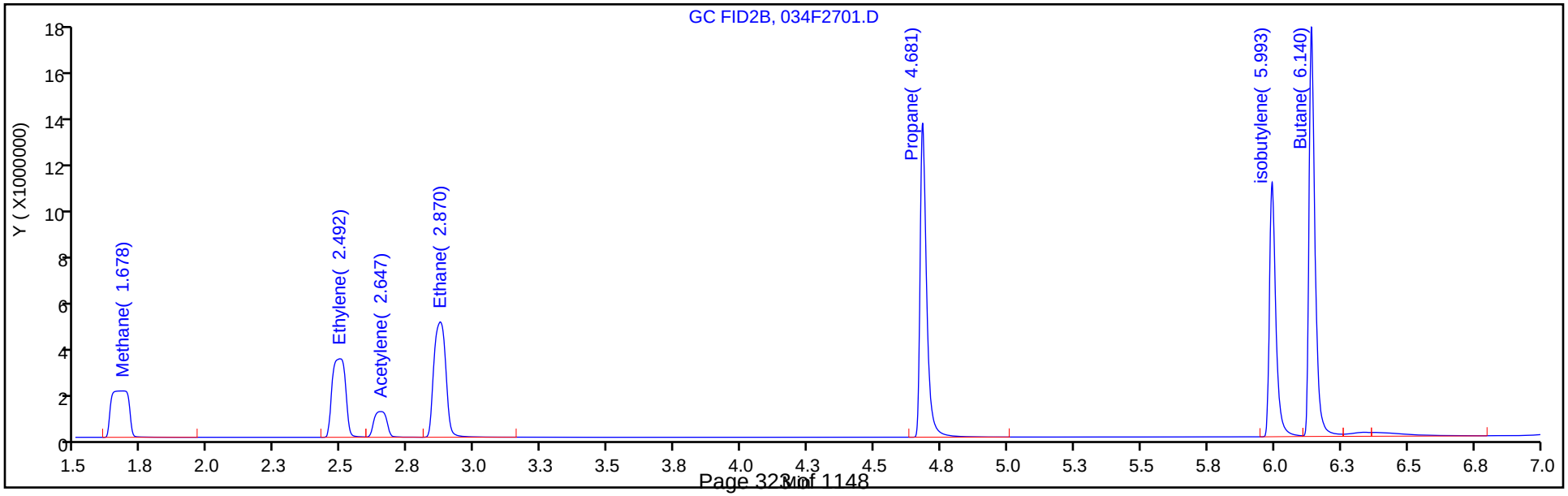
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Denver\ChromData\VGC_J\20200309-89898.b\034F2701.D | | | | |
| Injection Date: | 09-Mar-2020 19:36:00 | Instrument ID: | VGC_J | Operator ID: | sciannac |
| Lims ID: | ccv | | | Worklist Smp#: | 34 |
| Client ID: | | | | | |
| Purge Vol: | 18.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 34 |
| 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.: 280-134268-1

SDG No.:

Lab Sample ID: CCV 280-488165/34 Calibration Date: 03/09/2020 19:36

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: 034F2701.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 | | 125979 | | 80.1 | 73.0 | 9.7 | 20.0 |
| Ethylene | Ave | 90007 | 92104 | | 131 | 128 | 2.3 | 20.0 |
| Acetylene | Ave | 28324 | 31099 | | 130 | 119 | 9.8 | 20.0 |
| Ethane | Ave | 107408 | 112998 | | 144 | 137 | 5.2 | 20.0 |

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134268-1

SDG No.:

Lab Sample ID: CCV 280-488165/34 Calibration Date: 03/09/2020 19:36

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: 034F2701.D Heated Purge: (Y/N) N

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Methane | 1.68 | 1.64 | 1.72 |
| Ethylene | 2.49 | 2.46 | 2.56 |
| Acetylene | 2.65 | 2.58 | 2.74 |
| Ethane | 2.87 | 2.83 | 2.93 |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\VGC_J\20200309-89898.b\034F2701.D
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 09-Mar-2020 19:36:00 ALS Bottle#: 34 Worklist Smp#: 34
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\20200309-89898.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 10-Mar-2020 08:20:33 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: CTX0337

First Level Reviewer: sciannac Date: 10-Mar-2020 08:15:06

| Col | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 1 Methane | | | | | | | |
| 1 | 1.258 | 1.265 | -0.007 | 10697478 | 73.0 | 79.6 | |
| 2 | 1.678 | 1.683 | -0.005 | 9196885 | 73.0 | 80.1 | |
| | | | | | | RPD = 0.57 | |
| 2 Ethane | | | | | | | |
| 1 | 1.534 | 1.544 | -0.010 | 18020151 | 136.9 | 142.6 | |
| 2 | 2.870 | 2.881 | -0.011 | 15464404 | 136.9 | 144.0 | |
| | | | | | | RPD = 0.96 | |
| 3 Ethylene | | | | | | | |
| 1 | 1.858 | 1.863 | -0.005 | 13733283 | 127.7 | 129.8 | |
| 2 | 2.492 | 2.506 | -0.014 | 11758661 | 127.7 | 130.6 | |
| | | | | | | RPD = 0.65 | |
| 4 Propane | | | | | | | |
| 1 | 2.588 | 2.601 | -0.013 | 26716275 | 200.7 | 197.5 | |
| 2 | 4.681 | 4.684 | -0.003 | 22807491 | 200.7 | 198.8 | |
| | | | | | | RPD = 0.64 | |
| 5 Acetylene | | | | | | | |
| 1 | 4.048 | 4.053 | -0.005 | 4180657 | 118.5 | 130.1 | |
| 2 | 2.647 | 2.659 | -0.012 | 3685972 | 118.5 | 130.1 | |
| | | | | | | RPD = 0.01 | |
| 6 Butane | | | | | | | |
| 1 | 4.351 | 4.358 | -0.007 | 32390900 | 264.5 | 230.0 | |
| 2 | 6.140 | 6.143 | -0.003 | 27511218 | 264.5 | 228.5 | |
| | | | | | | RPD = 0.64 | |
| 7 isobutylene | | | | | | | |
| 1 | 5.289 | 5.294 | -0.005 | 21619877 | 255.4 | 223.4 | |
| 2 | 5.993 | 5.996 | -0.003 | 18205401 | 255.4 | 224.7 | |
| | | | | | | RPD = 0.55 | |

## Reagents:

RSK7gasMathes_00027 Amount Added: 200.00 Units: uL

Report Date: 10-Mar-2020 08:20:33 Chrom Revision: 2.3 19-Feb-2020 16:45:46

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\VGC_J\20200309-89898.b\034F2701.D

Injection Date: 09-Mar-2020 19:36:00 Instrument ID: VGC_J Operator ID: sciannac

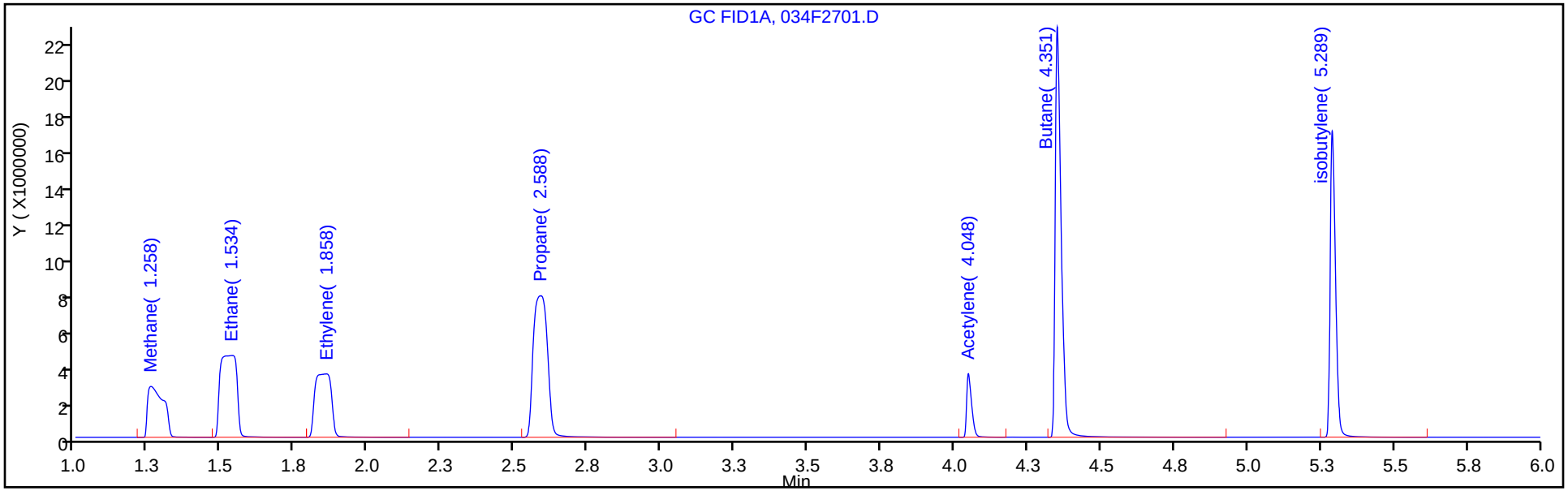
Lims ID: ccv Worklist Smp#: 34

Client ID:

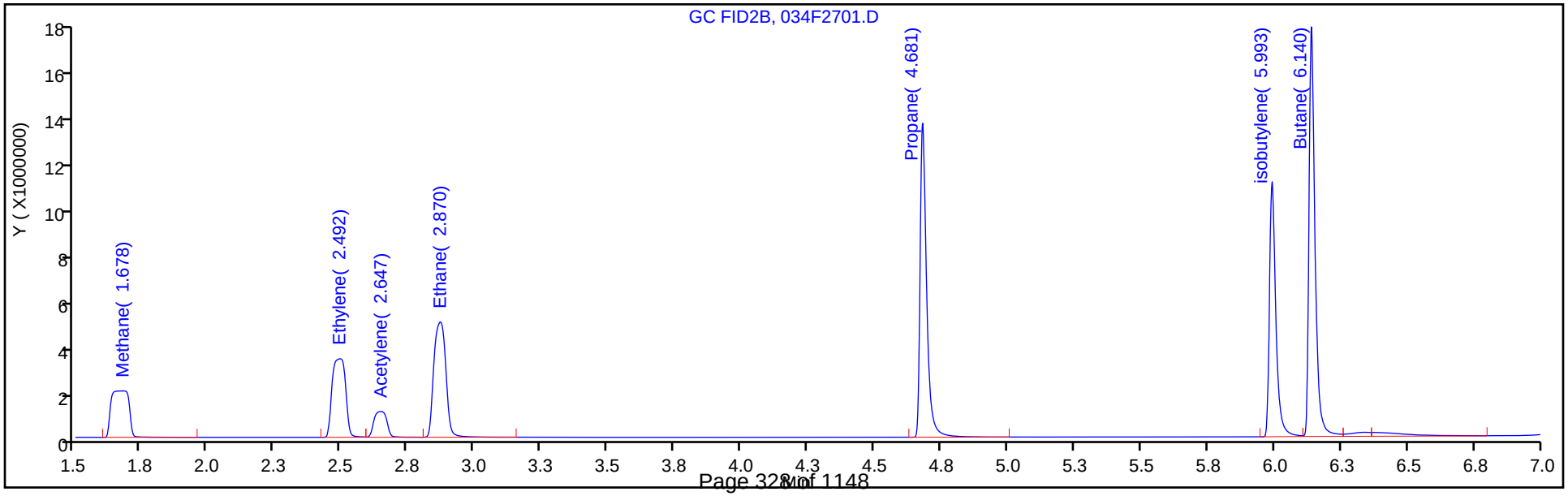
Purge Vol: 18.000 mL Dil. Factor: 1.0000 ALS Bottle#: 34

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.: 280-134268-1

SDG No.:

Lab Sample ID: CCV 280-488165/51  Calibration Date: 03/09/2020 23:23

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 | | 133878 | | 72.7 | 73.0 | -0.4 | 20.0 |
| Ethane | Ave | 126364 | 121584 | | 132 | 137 | -3.8 | 20.0 |
| Ethylene | Ave | 105807 | 100042 | | 121 | 128 | -5.4 | 20.0 |
| Acetylene | Ave | 32129 | 34438 | | 127 | 119 | 7.2 | 20.0 |

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-134268-1

SDG No.:

Lab Sample ID: CCV 280-488165/51  Calibration Date: 03/09/2020 23:23

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 | 1.26 | 1.23 | 1.31 |
| Ethane | 1.53 | 1.49 | 1.59 |
| Ethylene | 1.85 | 1.81 | 1.91 |
| Acetylene | 4.05 | 3.97 | 4.13 |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\VGC_J\20200309-89898.b\051F4401.D
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 09-Mar-2020 23:23:00 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\20200309-89898.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 10-Mar-2020 08:20:49 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: CTX0337

First Level Reviewer: sciannac Date: 10-Mar-2020 08:18:05

| Col | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 1 Methane | | | | | | | |
| 1 | 1.257 | 1.265 | -0.008 | 9773558 | 73.0 | 72.7 | |
| 2 | 1.670 | 1.683 | -0.013 | 8425406 | 73.0 | 73.3 | |
| | | | | | | RPD = 0.85 | |
| 2 Ethane | | | | | | | |
| 1 | 1.531 | 1.544 | -0.013 | 16639453 | 136.9 | 131.7 | |
| 2 | 2.865 | 2.881 | -0.016 | 14264596 | 136.9 | 132.8 | |
| | | | | | | RPD = 0.85 | |
| 3 Ethylene | | | | | | | |
| 1 | 1.853 | 1.863 | -0.010 | 12772086 | 127.7 | 120.7 | |
| 2 | 2.487 | 2.506 | -0.019 | 10921664 | 127.7 | 121.3 | |
| | | | | | | RPD = 0.52 | |
| 4 Propane | | | | | | | |
| 1 | 2.588 | 2.601 | -0.013 | 24983468 | 200.7 | 184.7 | |
| 2 | 4.678 | 4.684 | -0.006 | 21308691 | 200.7 | 185.7 | |
| | | | | | | RPD = 0.55 | |
| 5 Acetylene | | | | | | | |
| 1 | 4.049 | 4.053 | -0.004 | 4081663 | 118.5 | 127.0 | |
| 2 | 2.640 | 2.659 | -0.019 | 3583343 | 118.5 | 126.5 | |
| | | | | | | RPD = 0.42 | |
| 6 Butane | | | | | | | |
| 1 | 4.353 | 4.358 | -0.005 | 30926055 | 264.5 | 219.6 | |
| 2 | 6.138 | 6.143 | -0.005 | 26349097 | 264.5 | 218.9 | |
| | | | | | | RPD = 0.33 | |
| 7 isobutylene | | | | | | | |
| 1 | 5.291 | 5.294 | -0.003 | 20698836 | 255.4 | 213.9 | |
| 2 | 5.991 | 5.996 | -0.005 | 17417638 | 255.4 | 214.9 | |
| | | | | | | RPD = 0.48 | |

## Reagents:

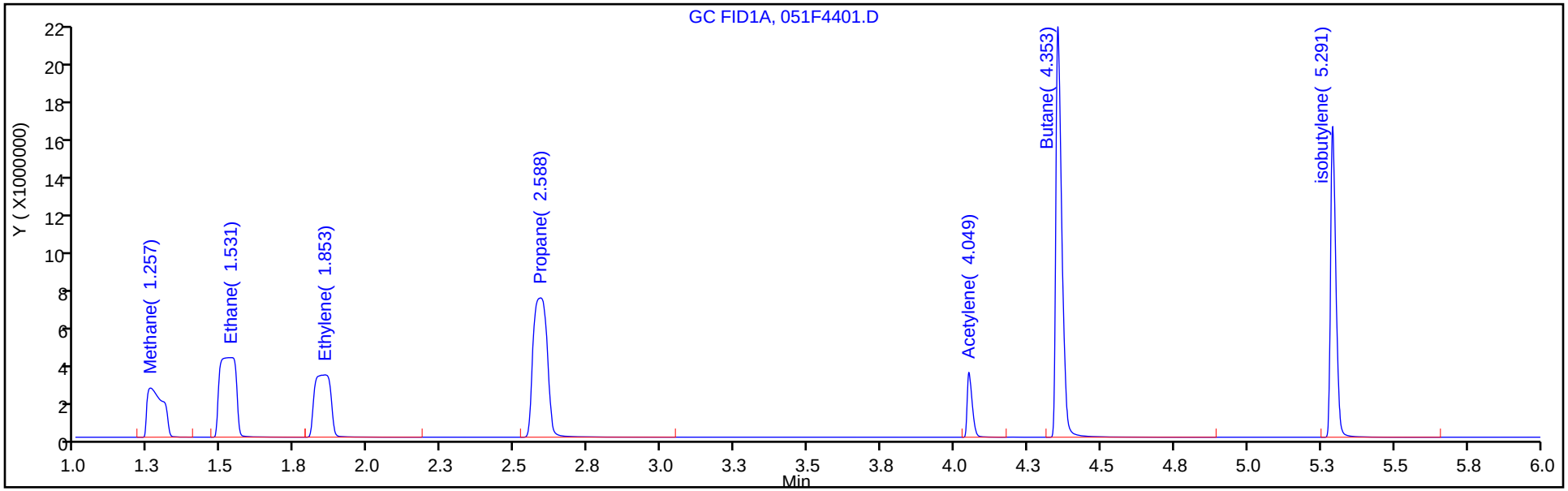
RSK7gasMathes_00027 Amount Added: 200.00 Units: uL

Report Date: 10-Mar-2020 08:20:49 Chrom Revision: 2.3 19-Feb-2020 16:45:46

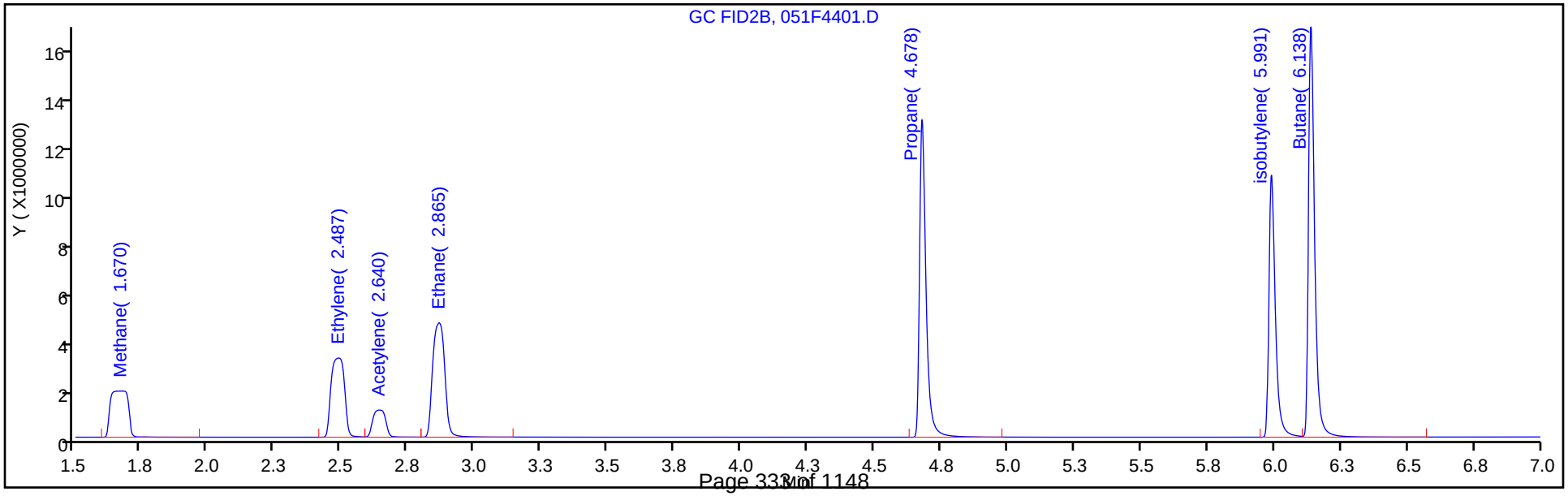
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Denver\ChromData\VGC_J\20200309-89898.b\051F4401.D | | | | |
| Injection Date: | 09-Mar-2020 23:23:00 | 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.: 280-134268-1

SDG No.:

Lab Sample ID: CCV 280-488165/51 Calibration Date: 03/09/2020 23:23

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 | | 115411 | | 73.3 | 73.0 | 0.4 | 20.0 |
| Ethylene | Ave | 90007 | 85548 | | 121 | 128 | -5.0 | 20.0 |
| Acetylene | Ave | 28324 | 30234 | | 127 | 119 | 6.7 | 20.0 |
| Ethane | Ave | 107408 | 104231 | | 133 | 137 | -3.0 | 20.0 |

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-134268-1

SDG No.:

Lab Sample ID: CCV 280-488165/51  Calibration Date: 03/09/2020 23:23

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 | 1.67 | 1.64 | 1.72 |
| Ethylene | 2.49 | 2.46 | 2.56 |
| Acetylene | 2.64 | 2.58 | 2.74 |
| Ethane | 2.87 | 2.83 | 2.93 |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\VGC_J\20200309-89898.b\051F4401.D
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 09-Mar-2020 23:23:00 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\20200309-89898.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 10-Mar-2020 08:20:49 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: CTX0337

First Level Reviewer: sciannac Date: 10-Mar-2020 08:18:05

| Col | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 1 Methane | | | | | | | |
| 1 | 1.257 | 1.265 | -0.008 | 9773558 | 73.0 | 72.7 | |
| 2 | 1.670 | 1.683 | -0.013 | 8425406 | 73.0 | 73.3 | |
| | | | | | | RPD = 0.85 | |
| 2 Ethane | | | | | | | |
| 1 | 1.531 | 1.544 | -0.013 | 16639453 | 136.9 | 131.7 | |
| 2 | 2.865 | 2.881 | -0.016 | 14264596 | 136.9 | 132.8 | |
| | | | | | | RPD = 0.85 | |
| 3 Ethylene | | | | | | | |
| 1 | 1.853 | 1.863 | -0.010 | 12772086 | 127.7 | 120.7 | |
| 2 | 2.487 | 2.506 | -0.019 | 10921664 | 127.7 | 121.3 | |
| | | | | | | RPD = 0.52 | |
| 4 Propane | | | | | | | |
| 1 | 2.588 | 2.601 | -0.013 | 24983468 | 200.7 | 184.7 | |
| 2 | 4.678 | 4.684 | -0.006 | 21308691 | 200.7 | 185.7 | |
| | | | | | | RPD = 0.55 | |
| 5 Acetylene | | | | | | | |
| 1 | 4.049 | 4.053 | -0.004 | 4081663 | 118.5 | 127.0 | |
| 2 | 2.640 | 2.659 | -0.019 | 3583343 | 118.5 | 126.5 | |
| | | | | | | RPD = 0.42 | |
| 6 Butane | | | | | | | |
| 1 | 4.353 | 4.358 | -0.005 | 30926055 | 264.5 | 219.6 | |
| 2 | 6.138 | 6.143 | -0.005 | 26349097 | 264.5 | 218.9 | |
| | | | | | | RPD = 0.33 | |
| 7 isobutylene | | | | | | | |
| 1 | 5.291 | 5.294 | -0.003 | 20698836 | 255.4 | 213.9 | |
| 2 | 5.991 | 5.996 | -0.005 | 17417638 | 255.4 | 214.9 | |
| | | | | | | RPD = 0.48 | |

## Reagents:

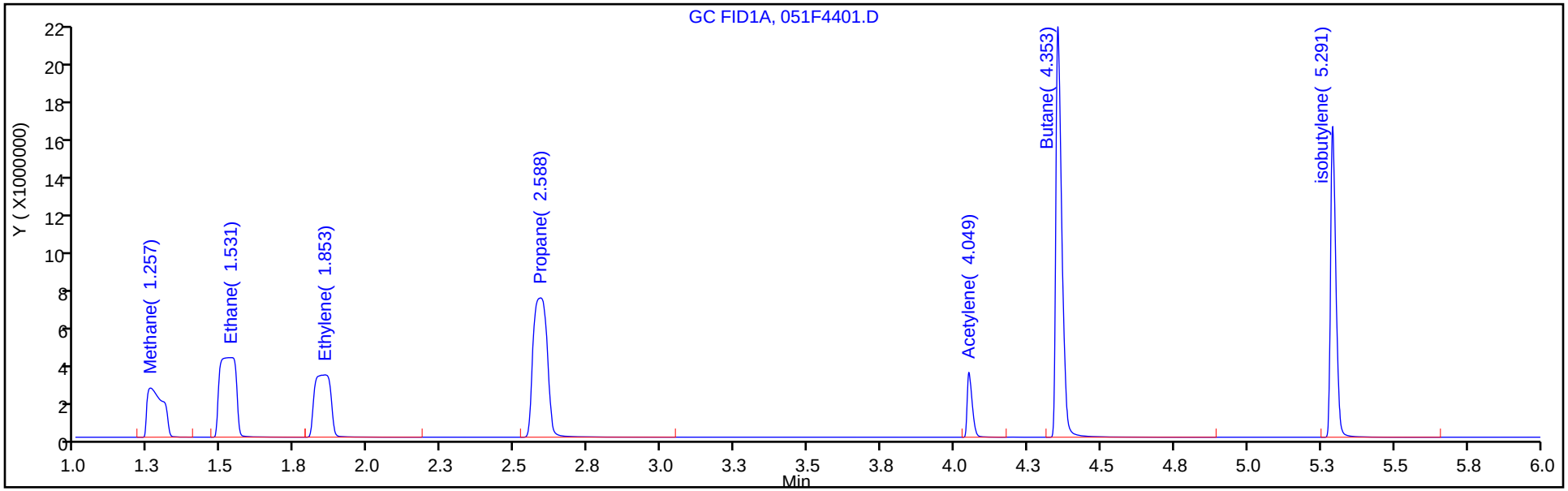
RSK7gasMathes_00027 Amount Added: 200.00 Units: uL

Report Date: 10-Mar-2020 08:20:49 Chrom Revision: 2.3 19-Feb-2020 16:45:46

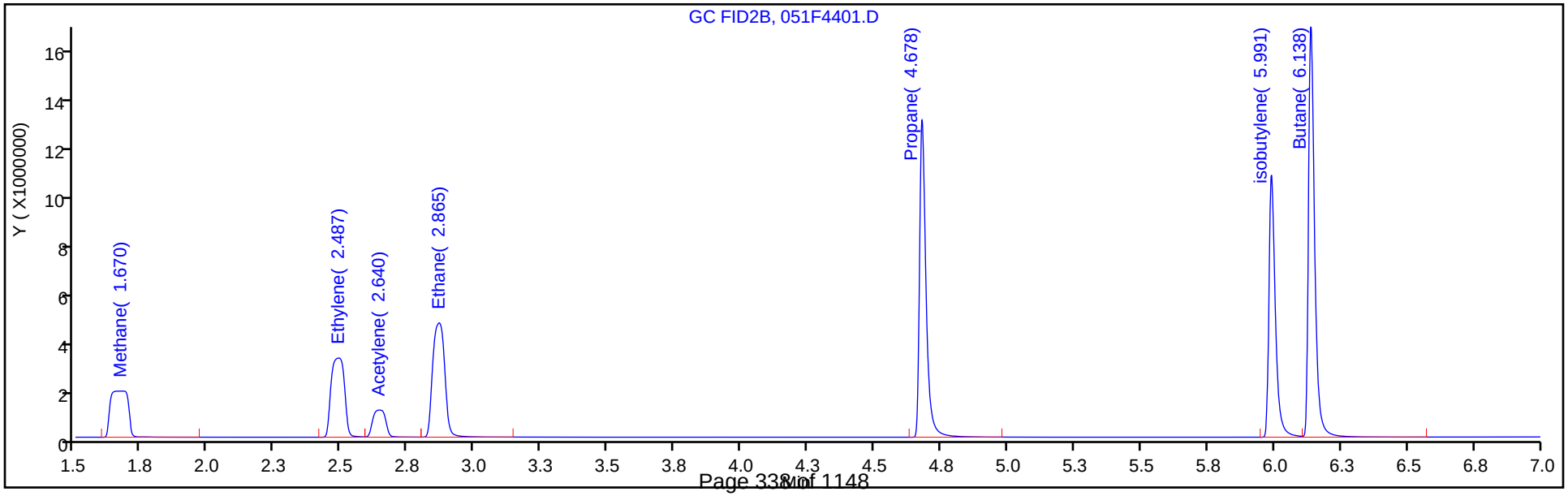
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Denver\ChromData\VGC_J\20200309-89898.b\051F4401.D | | | | |
| Injection Date: | 09-Mar-2020 23:23:00 | 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.: 280-134268-1

SDG No.:

Lab Sample ID: CCV 280-488165/63  Calibration Date: 03/10/2020 02:02

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: 063F5601.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 | | 137655 | | 74.8 | 73.0 | 2.4 | 20.0 |
| Ethane | Ave | 126364 | 123206 | | 133 | 137 | -2.5 | 20.0 |
| Ethylene | Ave | 105807 | 95882 | | 116 | 128 | -9.4 | 20.0 |
| Acetylene | Ave | 32129 | 33696 | | 124 | 119 | 4.9 | 20.0 |

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134268-1

SDG No.:

Lab Sample ID: CCV 280-488165/63 Calibration Date: 03/10/2020 02:02

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: 063F5601.D Heated Purge: (Y/N) N

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Methane | 1.26 | 1.23 | 1.31 |
| Ethane | 1.53 | 1.49 | 1.59 |
| Ethylene | 1.85 | 1.81 | 1.91 |
| Acetylene | 4.05 | 3.97 | 4.13 |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\VGC_J\20200309-89898.b\063F5601.D
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 10-Mar-2020 02:02:47 ALS Bottle#: 63 Worklist Smp#: 63
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\20200309-89898.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 10-Mar-2020 08:21:00 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: CTX0337

First Level Reviewer: sciannac Date: 10-Mar-2020 07:13:48

| Col | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 1 Methane | | | | | | | |
| 1 | 1.259 | 1.265 | -0.006 | 10049297 | 73.0 | 74.8 | |
| 2 | 1.675 | 1.683 | -0.008 | 8634045 | 73.0 | 75.1 | |
| | | | | | | RPD = 0.51 | |
| 2 Ethane | | | | | | | |
| 1 | 1.533 | 1.544 | -0.011 | 16861490 | 136.9 | 133.4 | |
| 2 | 2.868 | 2.881 | -0.013 | 14451349 | 136.9 | 134.5 | |
| | | | | | | RPD = 0.83 | |
| 3 Ethylene | | | | | | | M |
| 1 | 1.854 | 1.863 | -0.009 | 12240873 | 127.7 | 115.7 | M |
| 2 | 2.495 | 2.506 | -0.011 | 10960810 | 127.7 | 121.8 | |
| | | | | | | RPD = 5.13 | |
| 4 Propane | | | | | | | |
| 1 | 2.590 | 2.601 | -0.011 | 25063094 | 200.7 | 185.3 | |
| 2 | 4.680 | 4.684 | -0.004 | 21366199 | 200.7 | 186.2 | |
| | | | | | | RPD = 0.50 | |
| 5 Acetylene | | | | | | | |
| 1 | 4.048 | 4.053 | -0.005 | 3993764 | 118.5 | 124.3 | |
| 2 | 2.643 | 2.659 | -0.016 | 3509161 | 118.5 | 123.9 | |
| | | | | | | RPD = 0.33 | |
| 6 Butane | | | | | | | |
| 1 | 4.353 | 4.358 | -0.005 | 30132679 | 264.5 | 214.0 | |
| 2 | 6.139 | 6.143 | -0.004 | 25690098 | 264.5 | 213.4 | |
| | | | | | | RPD = 0.27 | |
| 7 isobutylene | | | | | | | |
| 1 | 5.291 | 5.294 | -0.003 | 20008316 | 255.4 | 206.8 | |
| 2 | 5.992 | 5.996 | -0.004 | 16843690 | 255.4 | 207.9 | |
| | | | | | | RPD = 0.52 | |

## QC Flag Legend

Review Flags

M - Manually Integrated

## Reagents:

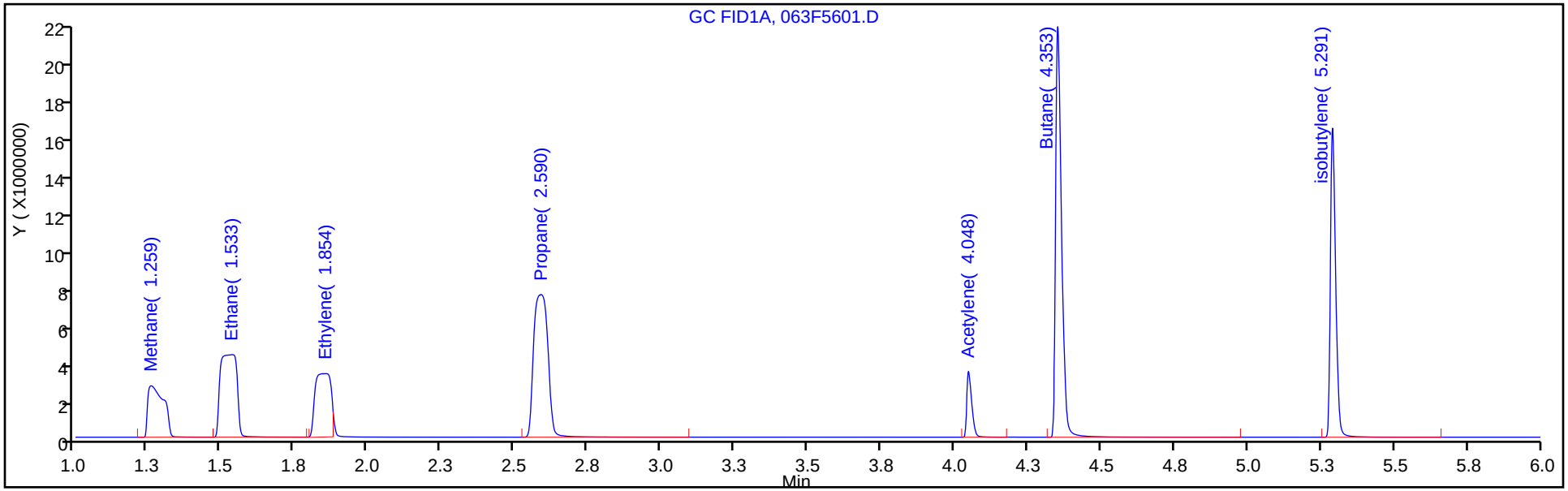
RSK7gasMathes_00027 Amount Added: 200.00 Units: uL

Report Date: 10-Mar-2020 08:21:00 Chrom Revision: 2.3 19-Feb-2020 16:45:46

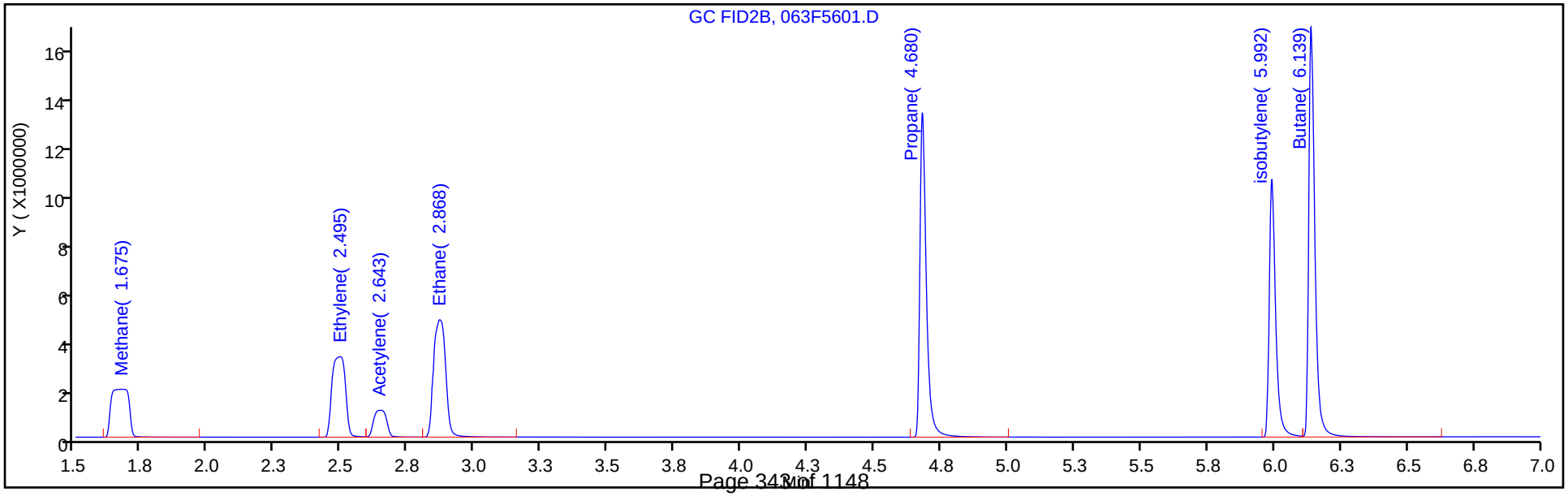
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Denver\ChromData\VGC_J\20200309-89898.b\063F5601.D | | | | |
| Injection Date: | 10-Mar-2020 02:02:47 | Instrument ID: | VGC_J | Operator ID: | sciannac |
| Lims ID: | ccv | | | Worklist Smp#: | 63 |
| Client ID: | | | | | |
| Purge Vol: | 18.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 63 |
| 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

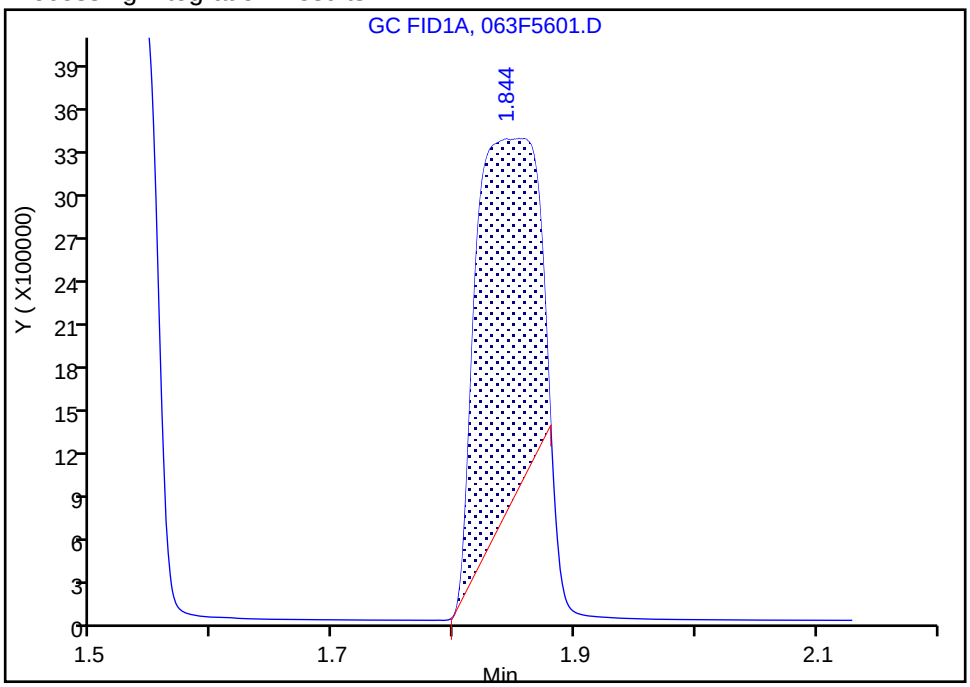
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Denver\ChromData\VGC_J\20200309-89898.b\063F5601.D | | | | |
| Injection Date: | 10-Mar-2020 02:02:47 | Instrument ID: | VGC_J | | |
| Lims ID: | ccv | | | | |
| Client ID: | | | | | |
| Operator ID: | sciannac | ALS Bottle#: | 63 | Worklist Smp#: | 63 |
| 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

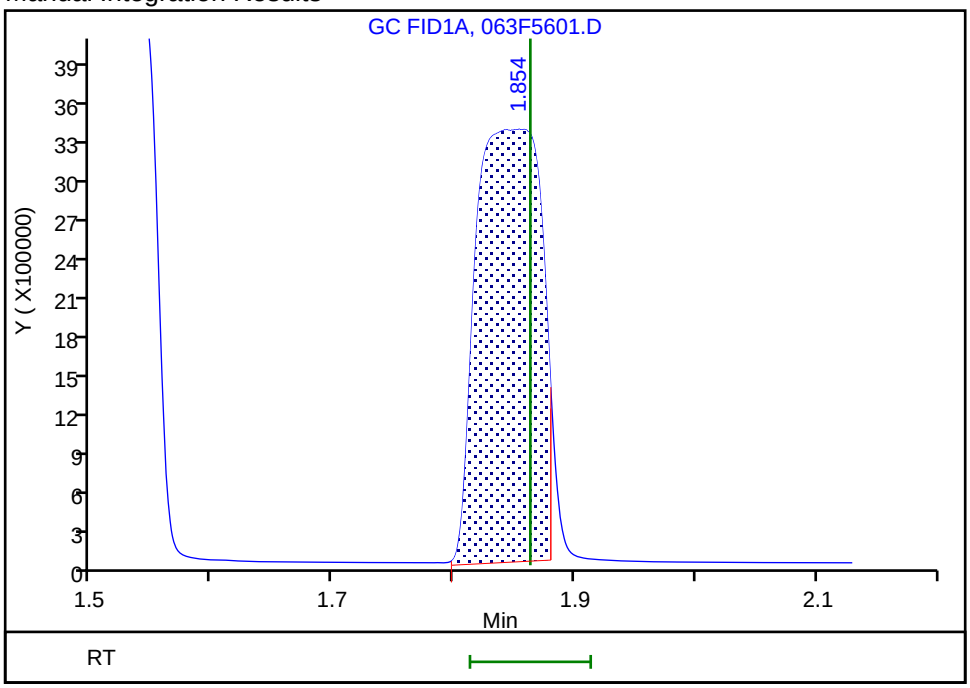
Processing Integration Results

RT: 1.84
Area: 8961987
Amount: 84.701271
Amount Units: ug/l




Manual Integration Results

RT: 1.85
Area: 12240873
Amount: 115.6906
Amount Units: ug/l




Reviewer: sciannac, 10-Mar-2020 07:13:32

Audit Action: Assigned New Baseline Audit Reason: Split Peak

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-134268-1

SDG No.:

Lab Sample ID: CCV 280-488165/63  Calibration Date: 03/10/2020 02:02

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: 063F5601.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 | | 118269 | | 75.1 | 73.0 | 2.9 | 20.0 |
| Ethylene | Ave | 90007 | 85855 | | 122 | 128 | -4.6 | 20.0 |
| Acetylene | Ave | 28324 | 29608 | | 124 | 119 | 4.5 | 20.0 |
| Ethane | Ave | 107408 | 105596 | | 135 | 137 | -1.7 | 20.0 |

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134268-1

SDG No.:

Lab Sample ID: CCV 280-488165/63 Calibration Date: 03/10/2020 02:02

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: 063F5601.D Heated Purge: (Y/N) N

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Methane | 1.68 | 1.64 | 1.72 |
| Ethylene | 2.50 | 2.46 | 2.56 |
| Acetylene | 2.64 | 2.58 | 2.74 |
| Ethane | 2.87 | 2.83 | 2.93 |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\VGC_J\20200309-89898.b\063F5601.D
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 10-Mar-2020 02:02:47 ALS Bottle#: 63 Worklist Smp#: 63
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\20200309-89898.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 10-Mar-2020 08:21:00 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: CTX0337

First Level Reviewer: sciannac Date: 10-Mar-2020 07:13:48

| Col | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 1 Methane | | | | | | | |
| 1 | 1.259 | 1.265 | -0.006 | 10049297 | 73.0 | 74.8 | |
| 2 | 1.675 | 1.683 | -0.008 | 8634045 | 73.0 | 75.1 | |
| | | | | | | RPD = 0.51 | |
| 2 Ethane | | | | | | | |
| 1 | 1.533 | 1.544 | -0.011 | 16861490 | 136.9 | 133.4 | |
| 2 | 2.868 | 2.881 | -0.013 | 14451349 | 136.9 | 134.5 | |
| | | | | | | RPD = 0.83 | |
| 3 Ethylene | | | | | | | M |
| 1 | 1.854 | 1.863 | -0.009 | 12240873 | 127.7 | 115.7 | M |
| 2 | 2.495 | 2.506 | -0.011 | 10960810 | 127.7 | 121.8 | |
| | | | | | | RPD = 5.13 | |
| 4 Propane | | | | | | | |
| 1 | 2.590 | 2.601 | -0.011 | 25063094 | 200.7 | 185.3 | |
| 2 | 4.680 | 4.684 | -0.004 | 21366199 | 200.7 | 186.2 | |
| | | | | | | RPD = 0.50 | |
| 5 Acetylene | | | | | | | |
| 1 | 4.048 | 4.053 | -0.005 | 3993764 | 118.5 | 124.3 | |
| 2 | 2.643 | 2.659 | -0.016 | 3509161 | 118.5 | 123.9 | |
| | | | | | | RPD = 0.33 | |
| 6 Butane | | | | | | | |
| 1 | 4.353 | 4.358 | -0.005 | 30132679 | 264.5 | 214.0 | |
| 2 | 6.139 | 6.143 | -0.004 | 25690098 | 264.5 | 213.4 | |
| | | | | | | RPD = 0.27 | |
| 7 isobutylene | | | | | | | |
| 1 | 5.291 | 5.294 | -0.003 | 20008316 | 255.4 | 206.8 | |
| 2 | 5.992 | 5.996 | -0.004 | 16843690 | 255.4 | 207.9 | |
| | | | | | | RPD = 0.52 | |

## QC Flag Legend

Review Flags

M - Manually Integrated

## Reagents:

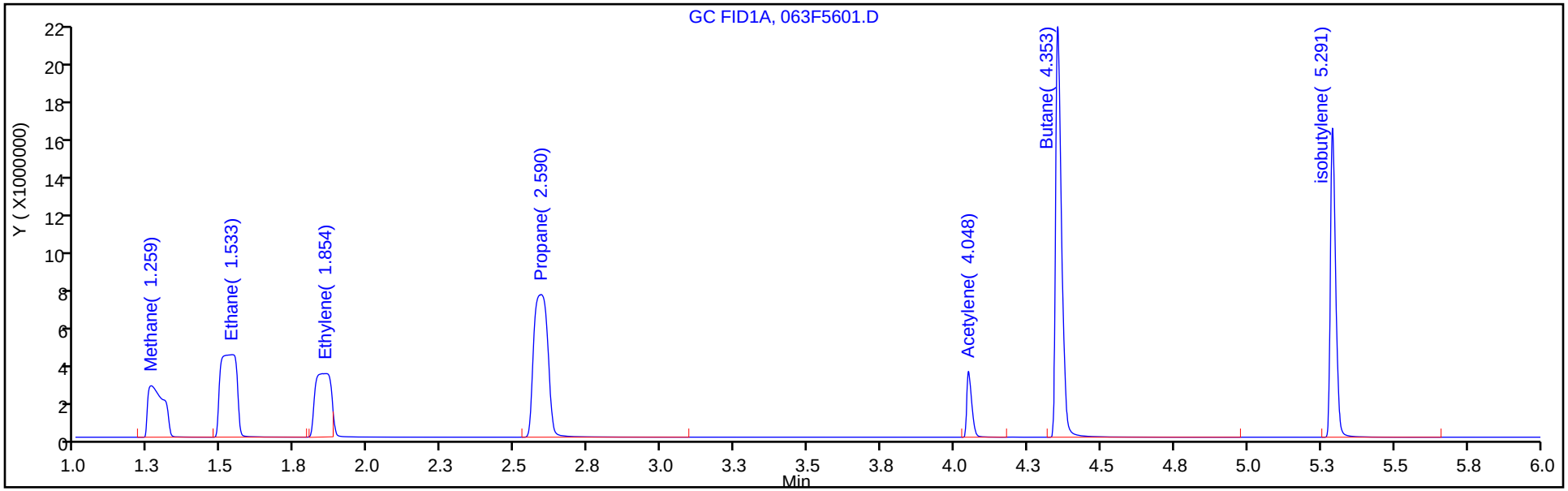
RSK7gasMathes_00027 Amount Added: 200.00 Units: uL

Report Date: 10-Mar-2020 08:21:01 Chrom Revision: 2.3 19-Feb-2020 16:45:46

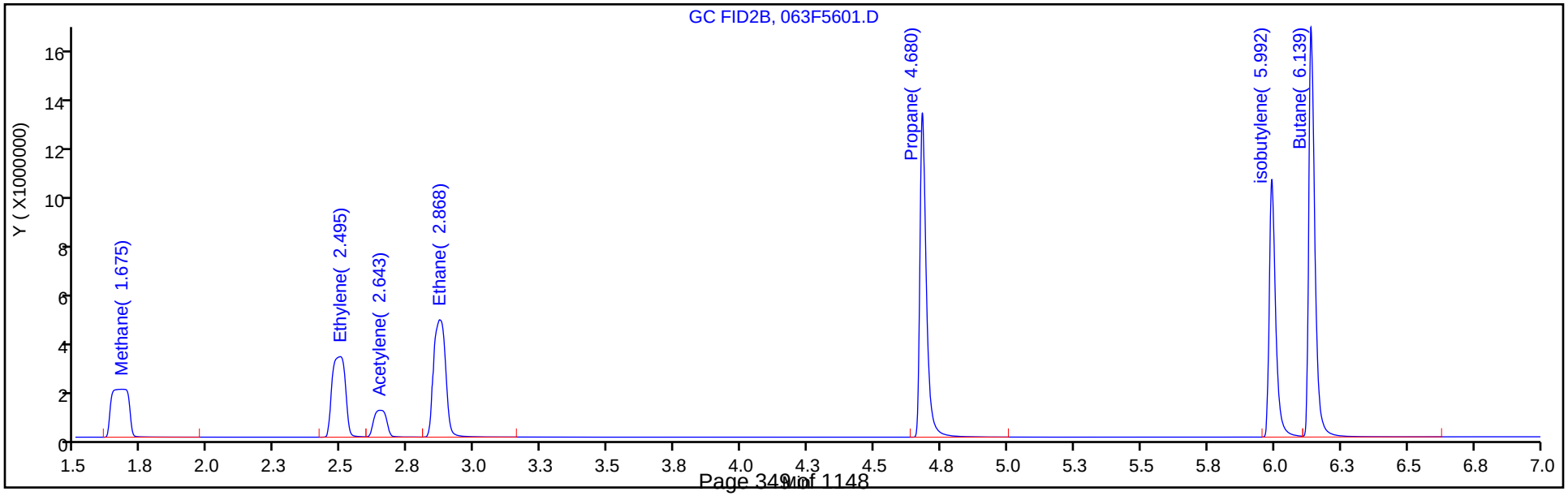
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Denver\ChromData\VGC_J\20200309-89898.b\063F5601.D | | | | |
| Injection Date: | 10-Mar-2020 02:02:47 | Instrument ID: | VGC_J | Operator ID: | sciannac |
| Lims ID: | ccv | | | Worklist Smp#: | 63 |
| Client ID: | | | | | |
| Purge Vol: | 18.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 63 |
| 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.: 280-134268-1

SDG No.:

Lab Sample ID: CCVRT 280-488254/4  Calibration Date: 03/10/2020 09:29

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: 001F0101.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 | | 140603 | | 76.4 | 73.0 | 4.6 | 20.0 |
| Ethane | Ave | 126364 | 131625 | | 143 | 137 | 4.2 | 20.0 |
| Ethylene | Ave | 105807 | 110316 | | 133 | 128 | 4.3 | 20.0 |
| Acetylene | Ave | 32129 | 36054 | | 133 | 119 | 12.2 | 20.0 |

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134268-1

SDG No.:

Lab Sample ID: CCVRT 280-488254/4 Calibration Date: 03/10/2020 09:29

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: 001F0101.D Heated Purge: (Y/N) N

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Methane | 1.26 | 1.22 | 1.30 |
| Ethane | 1.54 | 1.49 | 1.59 |
| Ethylene | 1.85 | 1.80 | 1.90 |
| Acetylene | 4.06 | 3.98 | 4.14 |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\VGC_J\20200310-89932.b\001F0101.D
Lims ID: ccvrt
Client ID:
Sample Type: CCVRT
Inject. Date: 10-Mar-2020 09:29:49 ALS Bottle#: 1 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\20200310-89932.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 11-Mar-2020 09:29:46 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: CTX0303

First Level Reviewer: sciannac Date: 11-Mar-2020 08:43:22

| 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 | 10264507 | 73.0 | 76.4 | |
| 2 | 1.668 | 1.668 | 0.000 | 8795540 | 73.0 | 76.6 | |
| | | | | | | RPD = 0.24 | |
| 2 Ethane | | | | | | | |
| 1 | 1.537 | 1.537 | 0.000 | 18013570 | 136.9 | 142.6 | |
| 2 | 2.865 | 2.865 | 0.000 | 15386322 | 136.9 | 143.3 | |
| | | | | | | RPD = 0.49 | |
| 3 Ethylene | | | | | | | |
| 1 | 1.854 | 1.854 | 0.000 | 14083641 | 127.7 | 133.1 | |
| 2 | 2.490 | 2.490 | 0.000 | 11986355 | 127.7 | 133.2 | |
| | | | | | | RPD = 0.05 | |
| 4 Propane | | | | | | | |
| 1 | 2.598 | 2.598 | 0.000 | 27462565 | 200.7 | 203.0 | |
| 2 | 4.673 | 4.673 | 0.000 | 23342496 | 200.7 | 203.5 | |
| | | | | | | RPD = 0.21 | |
| 5 Acetylene | | | | | | | |
| 1 | 4.060 | 4.060 | 0.000 | 4273247 | 118.5 | 133.0 | |
| 2 | 2.644 | 2.644 | 0.000 | 3740780 | 118.5 | 132.1 | |
| | | | | | | RPD = 0.71 | |
| 6 Butane | | | | | | | |
| 1 | 4.362 | 4.362 | 0.000 | 35358042 | 264.5 | 251.1 | |
| 2 | 6.137 | 6.137 | 0.000 | 29988991 | 264.5 | 249.1 | |
| | | | | | | RPD = 0.79 | |
| 7 isobutylene | | | | | | | |
| 1 | 5.300 | 5.300 | 0.000 | 24756563 | 255.4 | 255.9 | |
| 2 | 5.987 | 5.987 | 0.000 | 20738975 | 255.4 | 255.9 | |
| | | | | | | RPD = 0.03 | |

## Reagents:

RSK7gasMathes_00027 Amount Added: 200.00 Units: uL

Report Date: 11-Mar-2020 09:29:47 Chrom Revision: 2.3 19-Feb-2020 16:45:46

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\VGC_J\20200310-89932.b\001F0101.D

Injection Date: 10-Mar-2020 09:29:49 Instrument ID: VGC_J Operator ID: sciannac

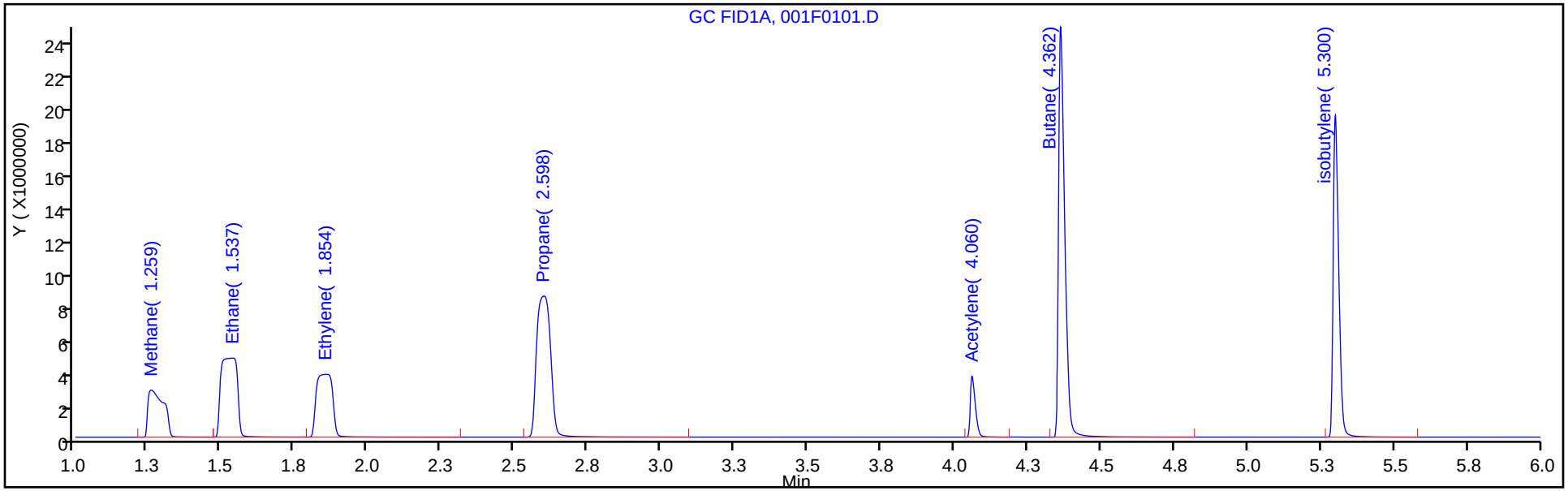
Lims ID: ccvrt Worklist Smp#: 4

Client ID:

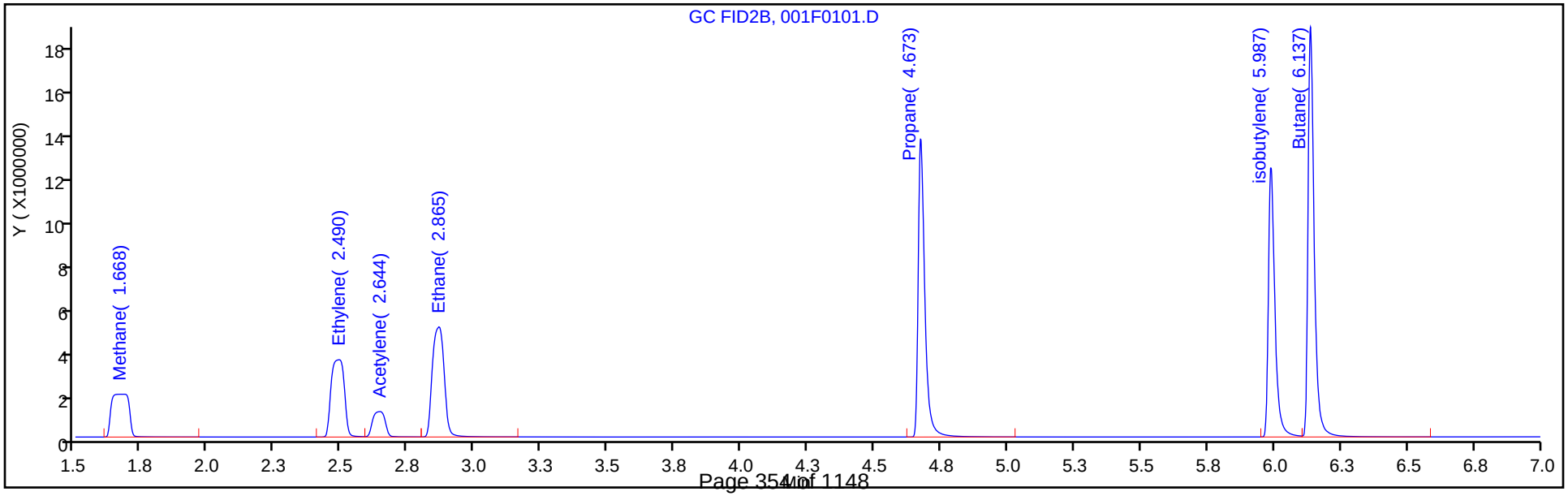
Purge Vol: 18.000 mL Dil. Factor: 1.0000 ALS Bottle#: 1

Method: RSK_J Limit Group: GCV - RSK 175

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




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



FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-134268-1

SDG No.:

Lab Sample ID: CCVRT 280-488254/4  Calibration Date: 03/10/2020 09:29

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: 001F0101.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 | | 120481 | | 76.6 | 73.0 | 4.9 | 20.0 |
| Ethylene | Ave | 90007 | 93888 | | 133 | 128 | 4.3 | 20.0 |
| Acetylene | Ave | 28324 | 31562 | | 132 | 119 | 11.4 | 20.0 |
| Ethane | Ave | 107408 | 112427 | | 143 | 137 | 4.7 | 20.0 |

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134268-1

SDG No.:

Lab Sample ID: CCVRT 280-488254/4 Calibration Date: 03/10/2020 09:29

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: 001F0101.D Heated Purge: (Y/N) N

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Methane | 1.67 | 1.63 | 1.71 |
| Ethylene | 2.49 | 2.44 | 2.54 |
| Acetylene | 2.64 | 2.56 | 2.72 |
| Ethane | 2.87 | 2.82 | 2.92 |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\VGC_J\20200310-89932.b\001F0101.D
Lims ID: ccvrt
Client ID:
Sample Type: CCVRT
Inject. Date: 10-Mar-2020 09:29:49 ALS Bottle#: 1 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\20200310-89932.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 11-Mar-2020 09:29:46 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: CTX0303

First Level Reviewer: sciannac Date: 11-Mar-2020 08:43:22

| 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 | 10264507 | 73.0 | 76.4 | |
| 2 | 1.668 | 1.668 | 0.000 | 8795540 | 73.0 | 76.6 | |
| | | | | | | RPD = 0.24 | |
| 2 Ethane | | | | | | | |
| 1 | 1.537 | 1.537 | 0.000 | 18013570 | 136.9 | 142.6 | |
| 2 | 2.865 | 2.865 | 0.000 | 15386322 | 136.9 | 143.3 | |
| | | | | | | RPD = 0.49 | |
| 3 Ethylene | | | | | | | |
| 1 | 1.854 | 1.854 | 0.000 | 14083641 | 127.7 | 133.1 | |
| 2 | 2.490 | 2.490 | 0.000 | 11986355 | 127.7 | 133.2 | |
| | | | | | | RPD = 0.05 | |
| 4 Propane | | | | | | | |
| 1 | 2.598 | 2.598 | 0.000 | 27462565 | 200.7 | 203.0 | |
| 2 | 4.673 | 4.673 | 0.000 | 23342496 | 200.7 | 203.5 | |
| | | | | | | RPD = 0.21 | |
| 5 Acetylene | | | | | | | |
| 1 | 4.060 | 4.060 | 0.000 | 4273247 | 118.5 | 133.0 | |
| 2 | 2.644 | 2.644 | 0.000 | 3740780 | 118.5 | 132.1 | |
| | | | | | | RPD = 0.71 | |
| 6 Butane | | | | | | | |
| 1 | 4.362 | 4.362 | 0.000 | 35358042 | 264.5 | 251.1 | |
| 2 | 6.137 | 6.137 | 0.000 | 29988991 | 264.5 | 249.1 | |
| | | | | | | RPD = 0.79 | |
| 7 isobutylene | | | | | | | |
| 1 | 5.300 | 5.300 | 0.000 | 24756563 | 255.4 | 255.9 | |
| 2 | 5.987 | 5.987 | 0.000 | 20738975 | 255.4 | 255.9 | |
| | | | | | | RPD = 0.03 | |

## Reagents:

RSK7gasMathes_00027 Amount Added: 200.00 Units: uL

Report Date: 11-Mar-2020 09:29:47 Chrom Revision: 2.3 19-Feb-2020 16:45:46

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\VGC_J\20200310-89932.b\001F0101.D

Injection Date: 10-Mar-2020 09:29:49 Instrument ID: VGC_J Operator ID: sciannac

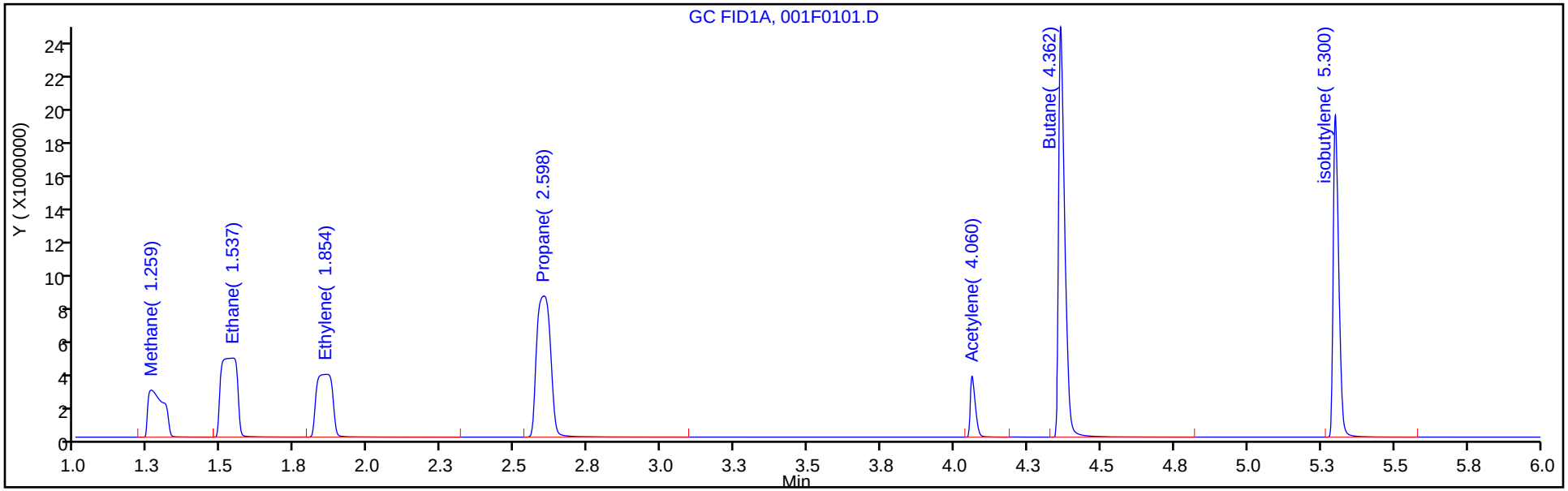
Lims ID: ccvrt Worklist Smp#: 4

Client ID:

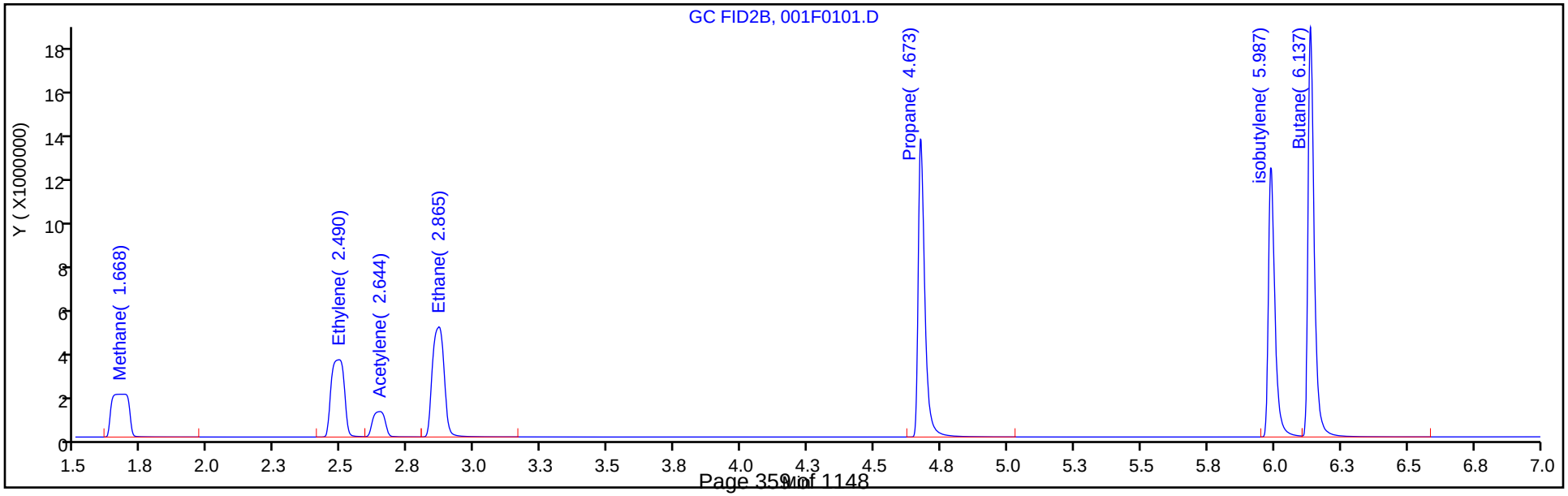
Purge Vol: 18.000 mL Dil. Factor: 1.0000 ALS Bottle#: 1

Method: RSK_J Limit Group: GCV - RSK 175

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




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



FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134268-1

SDG No.:

Lab Sample ID: CCV 280-488254/33 Calibration Date: 03/10/2020 16:46

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: 030F2601.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 | | 135919 | | 73.8 | 73.0 | 1.1 | 20.0 |
| Ethane | Ave | 126364 | 128167 | | 139 | 137 | 1.4 | 20.0 |
| Ethylene | Ave | 105807 | 106198 | | 128 | 128 | 0.4 | 20.0 |
| Acetylene | Ave | 32129 | 36129 | | 133 | 119 | 12.5 | 20.0 |

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134268-1

SDG No.:

Lab Sample ID: CCV 280-488254/33 Calibration Date: 03/10/2020 16:46

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: 030F2601.D Heated Purge: (Y/N) N

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Methane | 1.26 | 1.22 | 1.30 |
| Ethane | 1.53 | 1.49 | 1.59 |
| Ethylene | 1.86 | 1.80 | 1.90 |
| Acetylene | 4.06 | 3.98 | 4.14 |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\VGC_J\20200310-89932.b\030F2601.D
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 10-Mar-2020 16:46:46 ALS Bottle#: 30 Worklist Smp#: 33
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\20200310-89932.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 11-Mar-2020 09:30:44 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: CTX0303

First Level Reviewer: sciannac Date: 11-Mar-2020 09:20:40

| Col | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 1 Methane | | | | | | | |
| 1 | 1.256 | 1.259 | -0.003 | 9922554 | 73.0 | 73.8 | |
| 2 | 1.670 | 1.668 | 0.002 | 8523391 | 73.0 | 74.2 | |
| | | | | | | RPD = 0.49 | |
| 2 Ethane | | | | | | | |
| 1 | 1.528 | 1.537 | -0.009 | 17540411 | 136.9 | 138.8 | |
| 2 | 2.868 | 2.865 | 0.003 | 15024854 | 136.9 | 139.9 | |
| | | | | | | RPD = 0.77 | |
| 3 Ethylene | | | | | | | |
| 1 | 1.855 | 1.854 | 0.001 | 13557953 | 127.7 | 128.1 | |
| 2 | 2.494 | 2.490 | 0.004 | 11583348 | 127.7 | 128.7 | |
| | | | | | | RPD = 0.43 | |
| 4 Propane | | | | | | | |
| 1 | 2.590 | 2.598 | -0.008 | 27154294 | 200.7 | 200.8 | |
| 2 | 4.679 | 4.673 | 0.006 | 23152449 | 200.7 | 201.8 | |
| | | | | | | RPD = 0.52 | |
| 5 Acetylene | | | | | | | |
| 1 | 4.055 | 4.060 | -0.005 | 4282106 | 118.5 | 133.3 | |
| 2 | 2.644 | 2.644 | 0.000 | 3778472 | 118.5 | 133.4 | |
| | | | | | | RPD = 0.09 | |
| 6 Butane | | | | | | | |
| 1 | 4.354 | 4.362 | -0.008 | 35816825 | 264.5 | 254.3 | |
| 2 | 6.138 | 6.137 | 0.001 | 30150384 | 264.5 | 250.5 | |
| | | | | | | RPD = 1.54 | |
| 7 isobutylene | | | | | | | |
| 1 | 5.294 | 5.300 | -0.006 | 24545467 | 255.4 | 253.7 | |
| 2 | 5.989 | 5.987 | 0.002 | 20490576 | 255.4 | 252.9 | |
| | | | | | | RPD = 0.32 | |

## Reagents:

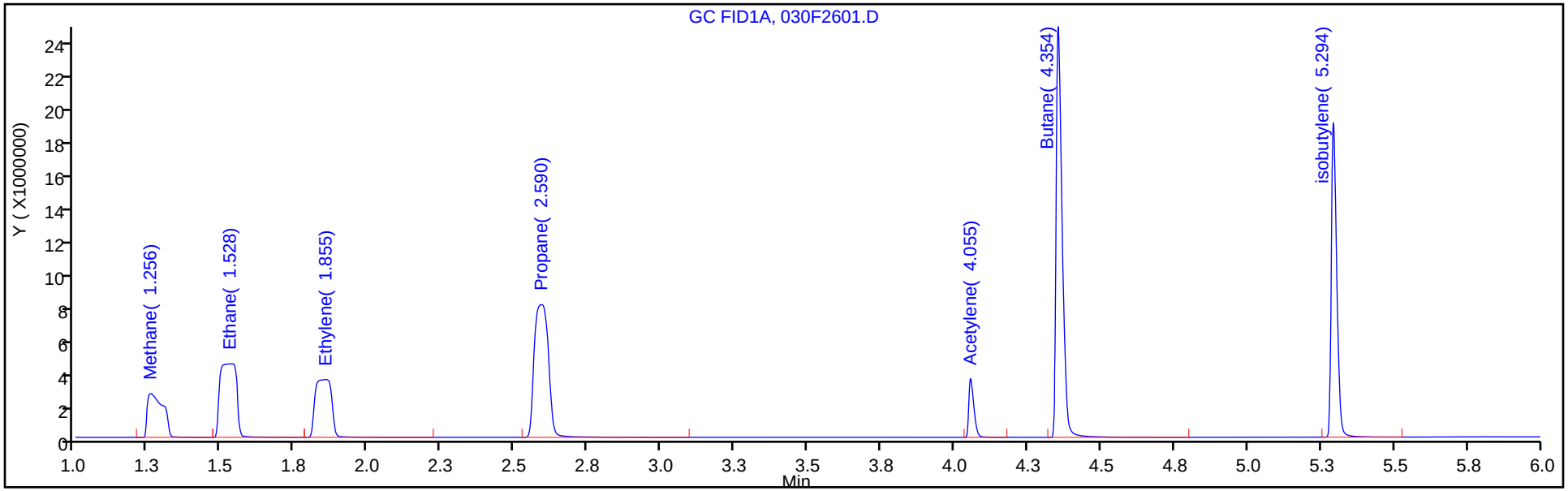
RSK7gasMathes_00027 Amount Added: 200.00 Units: uL

Report Date: 11-Mar-2020 09:30:46 Chrom Revision: 2.3 19-Feb-2020 16:45:46

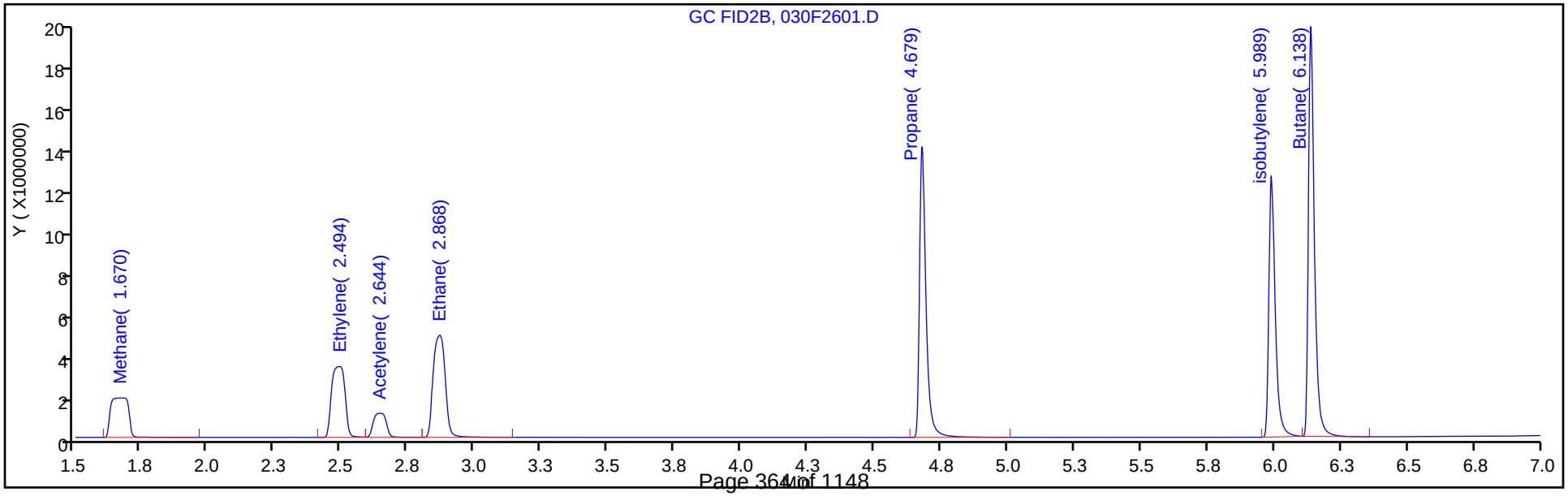
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Denver\ChromData\VGC_J\20200310-89932.b\030F2601.D | | | | |
| Injection Date: | 10-Mar-2020 16:46:46 | Instrument ID: | VGC_J | Operator ID: | sciannac |
| Lims ID: | ccv | | | Worklist Smp#: | 33 |
| Client ID: | | | | | |
| Purge Vol: | 18.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 30 |
| Method: | RSK_J | Limit Group: | GCV - RSK 175 | | |

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




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



FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134268-1

SDG No.:

Lab Sample ID: CCV 280-488254/33 Calibration Date: 03/10/2020 16:46

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: 030F2601.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 | | 116753 | | 74.2 | 73.0 | 1.6 | 20.0 |
| Ethylene | Ave | 90007 | 90731 | | 129 | 128 | 0.8 | 20.0 |
| Acetylene | Ave | 28324 | 31880 | | 133 | 119 | 12.6 | 20.0 |
| Ethane | Ave | 107408 | 109786 | | 140 | 137 | 2.2 | 20.0 |

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134268-1

SDG No.:

Lab Sample ID: CCV 280-488254/33 Calibration Date: 03/10/2020 16:46

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: 030F2601.D Heated Purge: (Y/N) N

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Methane | 1.67 | 1.63 | 1.71 |
| Ethylene | 2.49 | 2.44 | 2.54 |
| Acetylene | 2.64 | 2.56 | 2.72 |
| Ethane | 2.87 | 2.82 | 2.92 |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\VGC_J\20200310-89932.b\030F2601.D
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 10-Mar-2020 16:46:46 ALS Bottle#: 30 Worklist Smp#: 33
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\20200310-89932.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 11-Mar-2020 09:30:44 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: CTX0303

First Level Reviewer: sciannac Date: 11-Mar-2020 09:20:40

| Col | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 1 Methane | | | | | | | |
| 1 | 1.256 | 1.259 | -0.003 | 9922554 | 73.0 | 73.8 | |
| 2 | 1.670 | 1.668 | 0.002 | 8523391 | 73.0 | 74.2 | |
| | | | | | | RPD = 0.49 | |
| 2 Ethane | | | | | | | |
| 1 | 1.528 | 1.537 | -0.009 | 17540411 | 136.9 | 138.8 | |
| 2 | 2.868 | 2.865 | 0.003 | 15024854 | 136.9 | 139.9 | |
| | | | | | | RPD = 0.77 | |
| 3 Ethylene | | | | | | | |
| 1 | 1.855 | 1.854 | 0.001 | 13557953 | 127.7 | 128.1 | |
| 2 | 2.494 | 2.490 | 0.004 | 11583348 | 127.7 | 128.7 | |
| | | | | | | RPD = 0.43 | |
| 4 Propane | | | | | | | |
| 1 | 2.590 | 2.598 | -0.008 | 27154294 | 200.7 | 200.8 | |
| 2 | 4.679 | 4.673 | 0.006 | 23152449 | 200.7 | 201.8 | |
| | | | | | | RPD = 0.52 | |
| 5 Acetylene | | | | | | | |
| 1 | 4.055 | 4.060 | -0.005 | 4282106 | 118.5 | 133.3 | |
| 2 | 2.644 | 2.644 | 0.000 | 3778472 | 118.5 | 133.4 | |
| | | | | | | RPD = 0.09 | |
| 6 Butane | | | | | | | |
| 1 | 4.354 | 4.362 | -0.008 | 35816825 | 264.5 | 254.3 | |
| 2 | 6.138 | 6.137 | 0.001 | 30150384 | 264.5 | 250.5 | |
| | | | | | | RPD = 1.54 | |
| 7 isobutylene | | | | | | | |
| 1 | 5.294 | 5.300 | -0.006 | 24545467 | 255.4 | 253.7 | |
| 2 | 5.989 | 5.987 | 0.002 | 20490576 | 255.4 | 252.9 | |
| | | | | | | RPD = 0.32 | |

## Reagents:

RSK7gasMathes_00027 Amount Added: 200.00 Units: uL

Report Date: 11-Mar-2020 09:30:46 Chrom Revision: 2.3 19-Feb-2020 16:45:46

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\VGC_J\20200310-89932.b\030F2601.D

Injection Date: 10-Mar-2020 16:46:46 Instrument ID: VGC_J Operator ID: sciannac

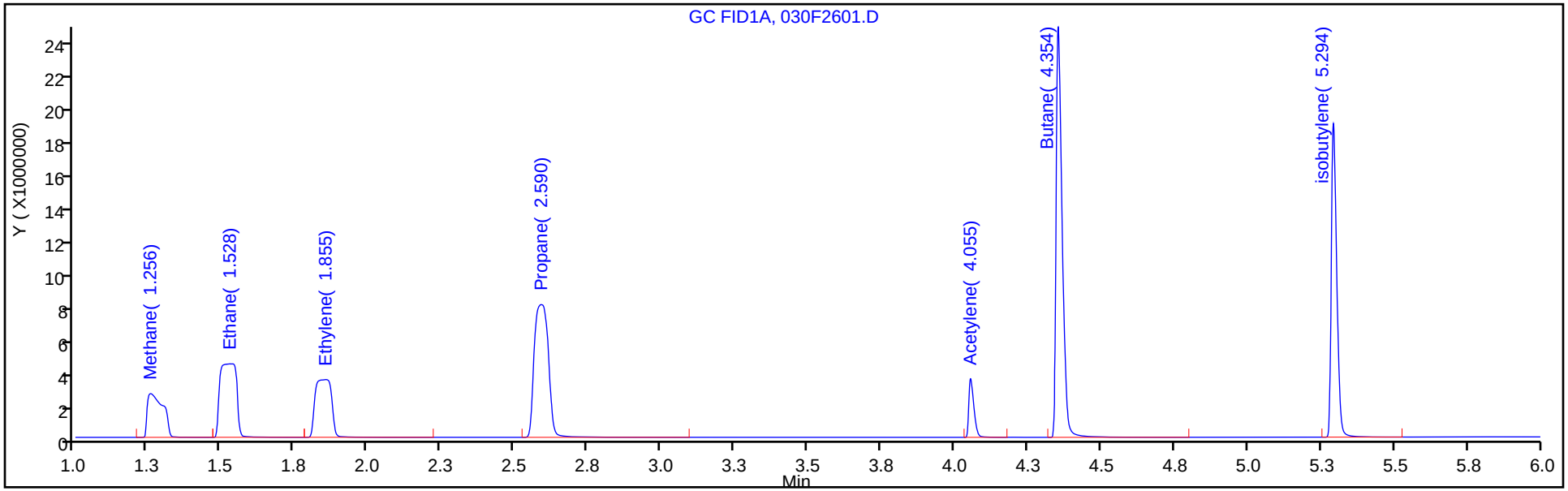
Lims ID: ccv Worklist Smp#: 33

Client ID:

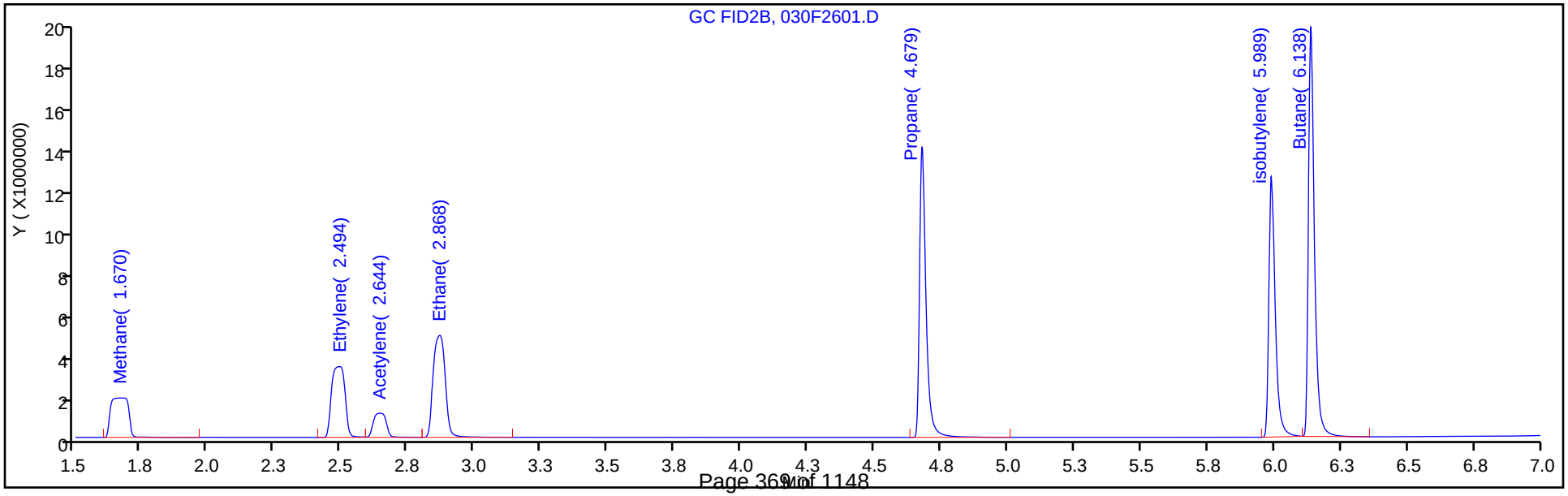
Purge Vol: 18.000 mL Dil. Factor: 1.0000 ALS Bottle#: 30

Method: RSK_J Limit Group: GCV - RSK 175

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




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



FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134268-1

SDG No.:

Lab Sample ID: CCV 280-488254/47 Calibration Date: 03/10/2020 20:31

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: 047F4301.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 | | 140779 | | 76.5 | 73.0 | 4.7 | 20.0 |
| Ethane | Ave | 126364 | 131480 | | 142 | 137 | 4.0 | 20.0 |
| Ethylene | Ave | 105807 | 103384 | | 125 | 128 | -2.3 | 20.0 |
| Acetylene | Ave | 32129 | 36752 | | 136 | 119 | 14.4 | 20.0 |

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-134268-1

SDG No.:

Lab Sample ID: CCV 280-488254/47  Calibration Date: 03/10/2020 20:31

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: 047F4301.D  Heated Purge: (Y/N) N

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Methane | 1.26 | 1.22 | 1.30 |
| Ethane | 1.54 | 1.49 | 1.59 |
| Ethylene | 1.87 | 1.80 | 1.90 |
| Acetylene | 4.06 | 3.98 | 4.14 |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\VGC_J\20200310-89932.b\047F4301.D
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 10-Mar-2020 20:31:50 ALS Bottle#: 47 Worklist Smp#: 47
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\20200310-89932.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 11-Mar-2020 09:31:33 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: CTX0303

First Level Reviewer: sciannac Date: 11-Mar-2020 09:26:43

| 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 | 10277300 | 73.0 | 76.5 | |
| 2 | 1.677 | 1.668 | 0.009 | 8825513 | 73.0 | 76.8 | |
| | | | | | | RPD = 0.46 | |
| 2 Ethane | | | | | | | |
| 1 | 1.543 | 1.537 | 0.006 | 17993826 | 136.9 | 142.4 | |
| 2 | 2.874 | 2.865 | 0.009 | 15412380 | 136.9 | 143.5 | |
| | | | | | | RPD = 0.77 | |
| 3 Ethylene | | | | | | | M |
| 1 | 1.865 | 1.854 | 0.011 | 13198751 | 127.7 | 124.7 | M |
| 2 | 2.499 | 2.490 | 0.009 | 11681126 | 127.7 | 129.8 | |
| | | | | | | RPD = 3.96 | |
| 4 Propane | | | | | | | |
| 1 | 2.602 | 2.598 | 0.004 | 27831720 | 200.7 | 205.8 | |
| 2 | 4.683 | 4.673 | 0.010 | 23721803 | 200.7 | 206.8 | |
| | | | | | | RPD = 0.48 | |
| 5 Acetylene | | | | | | | |
| 1 | 4.058 | 4.060 | -0.002 | 4355886 | 118.5 | 135.6 | |
| 2 | 2.652 | 2.644 | 0.008 | 3827687 | 118.5 | 135.1 | |
| | | | | | | RPD = 0.32 | |
| 6 Butane | | | | | | | |
| 1 | 4.359 | 4.362 | -0.003 | 36428141 | 264.5 | 258.7 | |
| 2 | 6.140 | 6.137 | 0.003 | 30889186 | 264.5 | 256.6 | |
| | | | | | | RPD = 0.81 | |
| 7 isobutylene | | | | | | | |
| 1 | 5.296 | 5.300 | -0.004 | 24188176 | 255.4 | 250.0 | |
| 2 | 5.993 | 5.987 | 0.006 | 20306846 | 255.4 | 250.6 | |
| | | | | | | RPD = 0.25 | |

## QC Flag Legend

Review Flags

M - Manually Integrated

## Reagents:

RSK7gasMathes_00027 Amount Added: 200.00 Units: uL

Report Date: 11-Mar-2020 09:31:33 Chrom Revision: 2.3 19-Feb-2020 16:45:46

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\VGC_J\20200310-89932.b\047F4301.D

Injection Date: 10-Mar-2020 20:31:50 Instrument ID: VGC_J Operator ID: sciannac

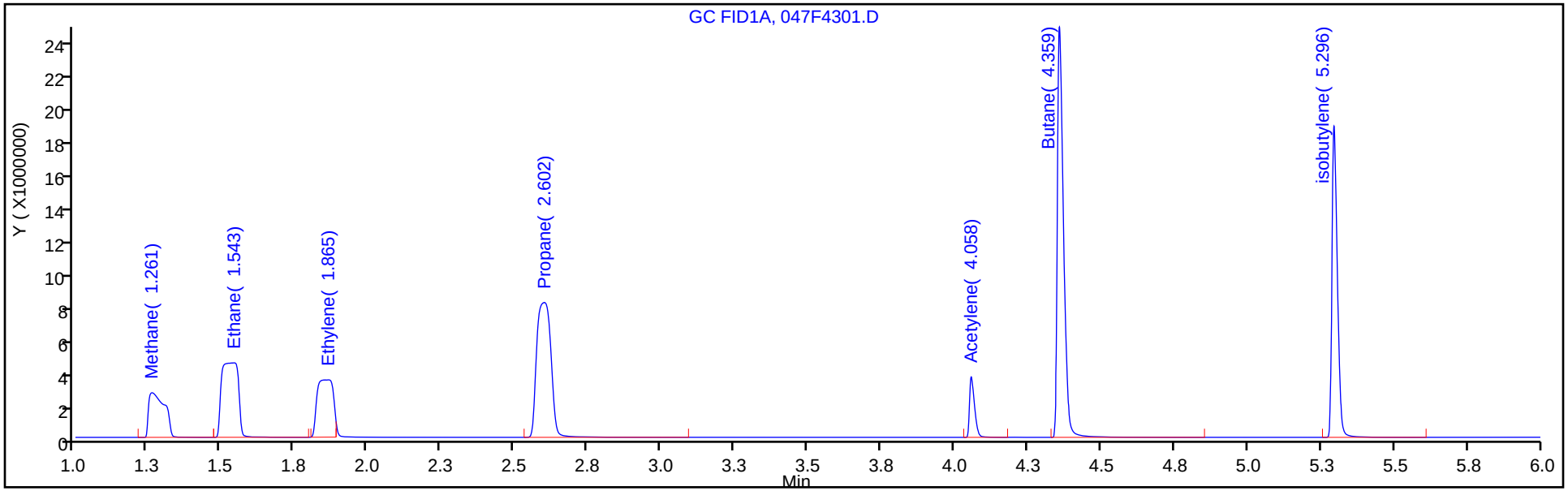
Lims ID: ccv Worklist Smp#: 47

Client ID:

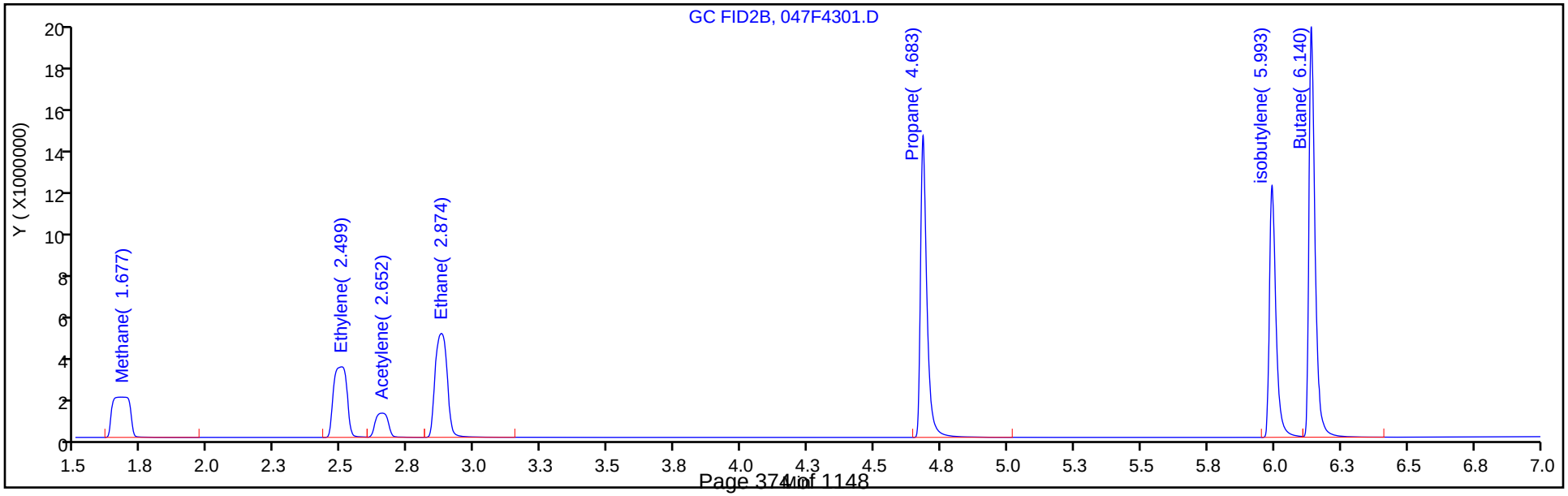
Purge Vol: 18.000 mL Dil. Factor: 1.0000 ALS Bottle#: 47

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



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

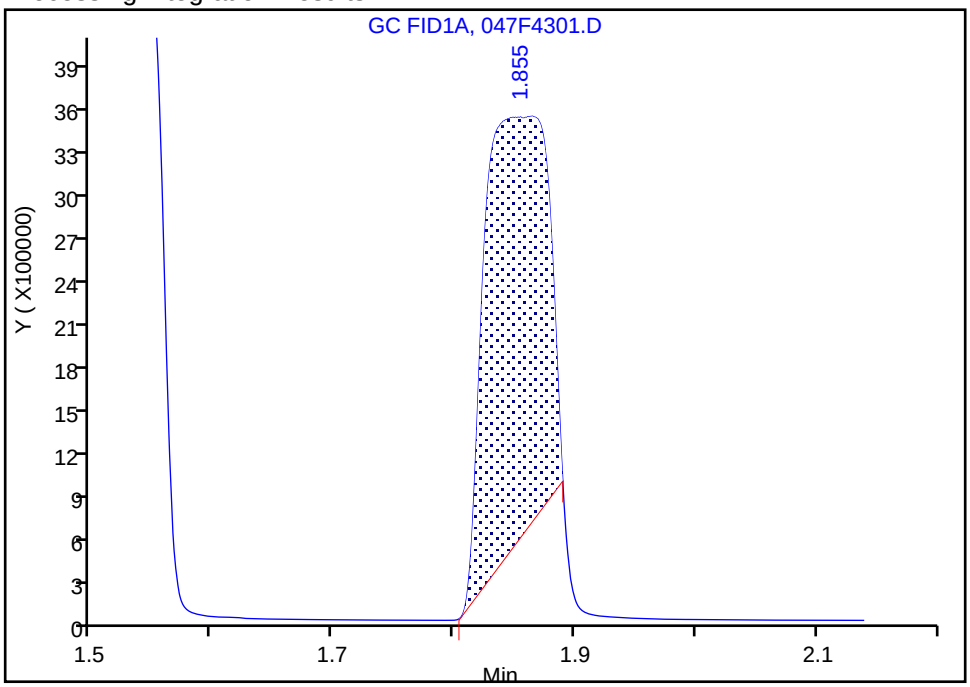
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Denver\ChromData\VGC_J\20200310-89932.b\047F4301.D | | | | |
| Injection Date: | 10-Mar-2020 20:31:50 | Instrument ID: | VGC_J | | |
| Lims ID: | ccv | | | | |
| Client ID: | | | | | |
| Operator ID: | sciannac | ALS Bottle#: | 47 | Worklist Smp#: | 47 |
| 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

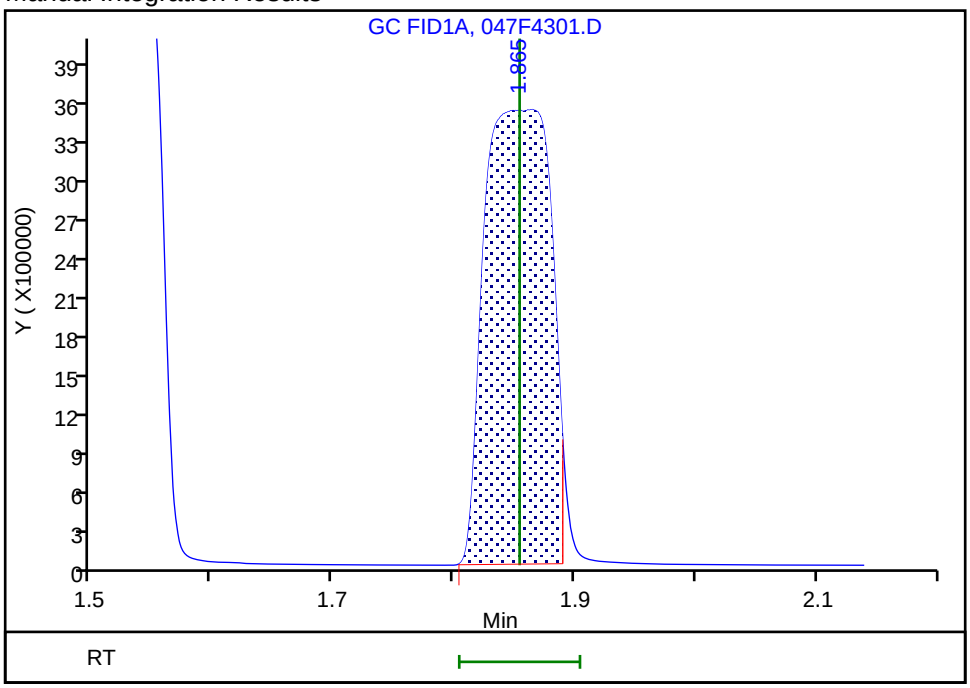
Processing Integration Results

RT: 1.85
Area: 10760462
Amount: 101.6990
Amount Units: ug/l




Manual Integration Results

RT: 1.86
Area: 13198751
Amount: 124.7437
Amount Units: ug/l




Reviewer: sciannac, 11-Mar-2020 09:26:36

Audit Action: Assigned New Baseline Audit Reason: Split Peak

FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134268-1

SDG No.:

Lab Sample ID: CCV 280-488254/47 Calibration Date: 03/10/2020 20:31

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: 047F4301.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 | | 120892 | | 76.8 | 73.0 | 5.2 | 20.0 |
| Ethylene | Ave | 90007 | 91497 | | 130 | 128 | 1.7 | 20.0 |
| Acetylene | Ave | 28324 | 32295 | | 135 | 119 | 14.0 | 20.0 |
| Ethane | Ave | 107408 | 112618 | | 143 | 137 | 4.9 | 20.0 |

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-134268-1

SDG No.:

Lab Sample ID: CCV 280-488254/47  Calibration Date: 03/10/2020 20:31

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: 047F4301.D  Heated Purge: (Y/N) N

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Methane | 1.68 | 1.63 | 1.71 |
| Ethylene | 2.50 | 2.44 | 2.54 |
| Acetylene | 2.65 | 2.56 | 2.72 |
| Ethane | 2.87 | 2.82 | 2.92 |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\VGC_J\20200310-89932.b\047F4301.D
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 10-Mar-2020 20:31:50 ALS Bottle#: 47 Worklist Smp#: 47
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\20200310-89932.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 11-Mar-2020 09:31:33 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: CTX0303

First Level Reviewer: sciannac Date: 11-Mar-2020 09:26:43

| 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 | 10277300 | 73.0 | 76.5 | |
| 2 | 1.677 | 1.668 | 0.009 | 8825513 | 73.0 | 76.8 | |
| | | | | | | RPD = 0.46 | |
| 2 Ethane | | | | | | | |
| 1 | 1.543 | 1.537 | 0.006 | 17993826 | 136.9 | 142.4 | |
| 2 | 2.874 | 2.865 | 0.009 | 15412380 | 136.9 | 143.5 | |
| | | | | | | RPD = 0.77 | |
| 3 Ethylene | | | | | | | M |
| 1 | 1.865 | 1.854 | 0.011 | 13198751 | 127.7 | 124.7 | M |
| 2 | 2.499 | 2.490 | 0.009 | 11681126 | 127.7 | 129.8 | |
| | | | | | | RPD = 3.96 | |
| 4 Propane | | | | | | | |
| 1 | 2.602 | 2.598 | 0.004 | 27831720 | 200.7 | 205.8 | |
| 2 | 4.683 | 4.673 | 0.010 | 23721803 | 200.7 | 206.8 | |
| | | | | | | RPD = 0.48 | |
| 5 Acetylene | | | | | | | |
| 1 | 4.058 | 4.060 | -0.002 | 4355886 | 118.5 | 135.6 | |
| 2 | 2.652 | 2.644 | 0.008 | 3827687 | 118.5 | 135.1 | |
| | | | | | | RPD = 0.32 | |
| 6 Butane | | | | | | | |
| 1 | 4.359 | 4.362 | -0.003 | 36428141 | 264.5 | 258.7 | |
| 2 | 6.140 | 6.137 | 0.003 | 30889186 | 264.5 | 256.6 | |
| | | | | | | RPD = 0.81 | |
| 7 isobutylene | | | | | | | |
| 1 | 5.296 | 5.300 | -0.004 | 24188176 | 255.4 | 250.0 | |
| 2 | 5.993 | 5.987 | 0.006 | 20306846 | 255.4 | 250.6 | |
| | | | | | | RPD = 0.25 | |

## QC Flag Legend

Review Flags

M - Manually Integrated

## Reagents:

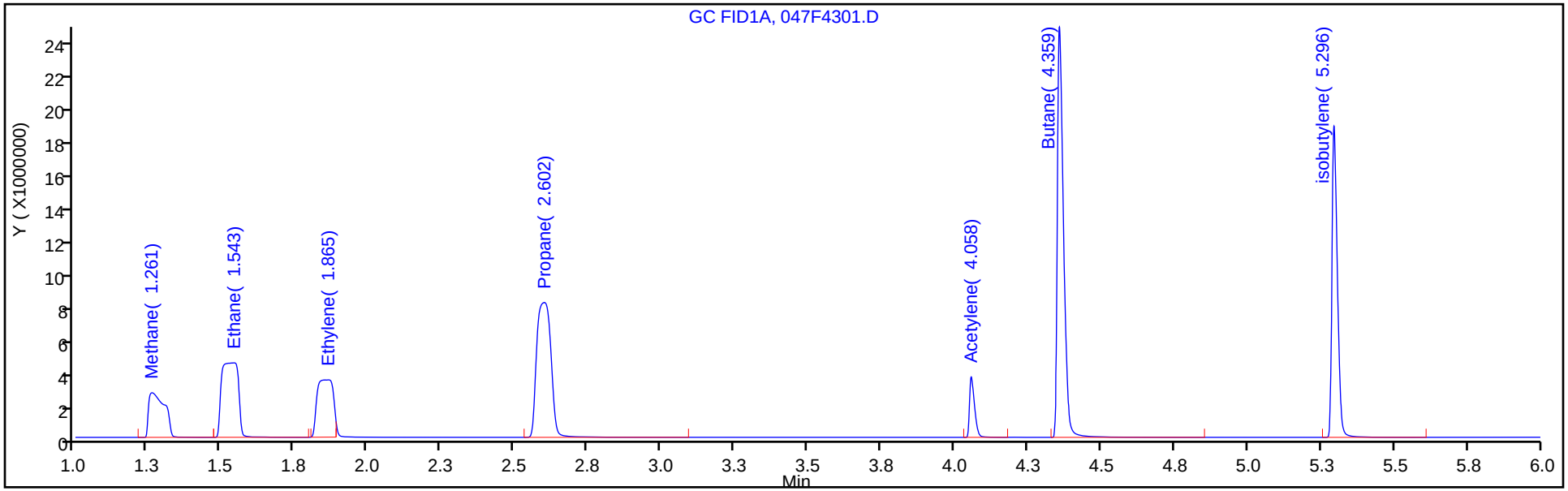
RSK7gasMathes_00027 Amount Added: 200.00 Units: uL

Report Date: 11-Mar-2020 09:31:33 Chrom Revision: 2.3 19-Feb-2020 16:45:46

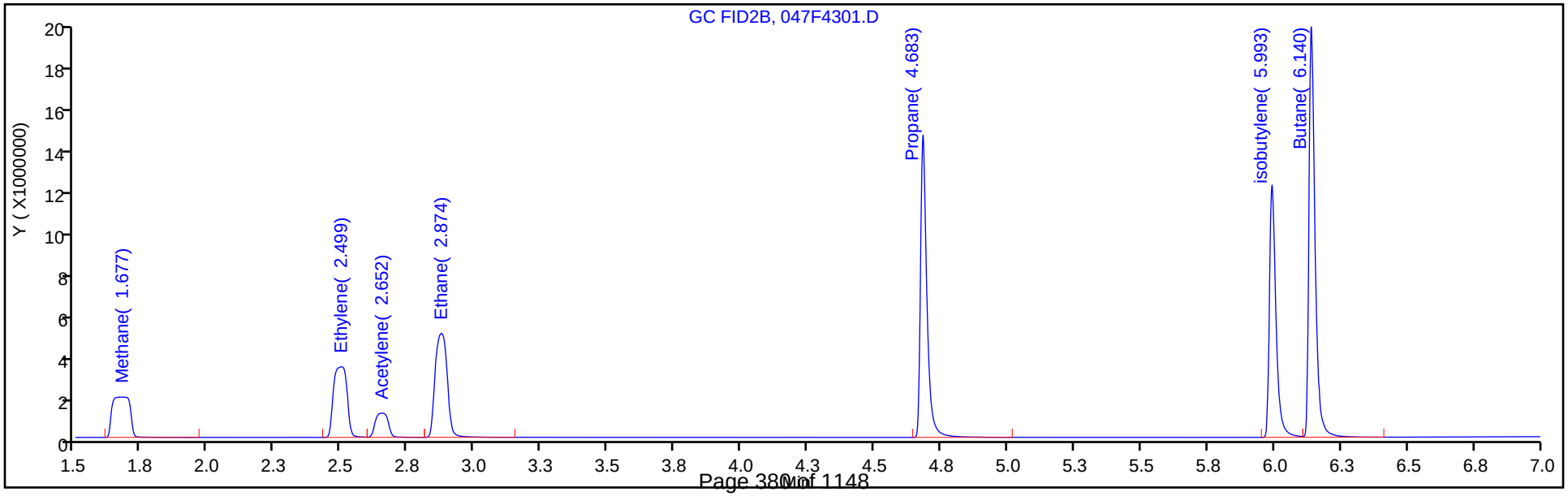
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Denver\ChromData\VGC_J\20200310-89932.b\047F4301.D | | | | |
| Injection Date: | 10-Mar-2020 20:31:50 | Instrument ID: | VGC_J | Operator ID: | sciannac |
| Lims ID: | ccv | | | Worklist Smp#: | 47 |
| Client ID: | | | | | |
| 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 VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134268-1

SDG No.:

Lab Sample ID: CCV 280-488254/62 Calibration Date: 03/10/2020 23:11

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: 059F5501.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 | | 133684 | | 72.6 | 73.0 | -0.6 | 20.0 |
| Ethane | Ave | 126364 | 123371 | | 134 | 137 | -2.4 | 20.0 |
| Ethylene | Ave | 105807 | 101885 | | 123 | 128 | -3.7 | 20.0 |
| Acetylene | Ave | 32129 | 36639 | | 135 | 119 | 14.0 | 20.0 |

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134268-1

SDG No.:

Lab Sample ID: CCV 280-488254/62 Calibration Date: 03/10/2020 23:11

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: 059F5501.D Heated Purge: (Y/N) N

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Methane | 1.26 | 1.22 | 1.30 |
| Ethane | 1.53 | 1.49 | 1.59 |
| Ethylene | 1.85 | 1.80 | 1.90 |
| Acetylene | 4.05 | 3.98 | 4.14 |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\VGC_J\20200310-89932.b\059F5501.D
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 10-Mar-2020 23:11:27 ALS Bottle#: 59 Worklist Smp#: 62
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\20200310-89932.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 11-Mar-2020 09:31:59 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: CTX0303

First Level Reviewer: sciannac Date: 11-Mar-2020 09:29:15

| Col | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 1 Methane | | | | | | | |
| 1 | 1.256 | 1.259 | -0.003 | 9759386 | 73.0 | 72.6 | |
| 2 | 1.676 | 1.668 | 0.008 | 8395923 | 73.0 | 73.1 | |
| | | | | | | RPD = 0.64 | |
| 2 Ethane | | | | | | | |
| 1 | 1.530 | 1.537 | -0.007 | 16884061 | 136.9 | 133.6 | |
| 2 | 2.865 | 2.865 | 0.000 | 14491961 | 136.9 | 134.9 | |
| | | | | | | RPD = 0.98 | |
| 3 Ethylene | | | | | | | |
| 1 | 1.852 | 1.854 | -0.002 | 13007366 | 127.7 | 122.9 | |
| 2 | 2.485 | 2.490 | -0.005 | 11116278 | 127.7 | 123.5 | |
| | | | | | | RPD = 0.46 | |
| 4 Propane | | | | | | | |
| 1 | 2.592 | 2.598 | -0.006 | 25713671 | 200.7 | 190.1 | |
| 2 | 4.677 | 4.673 | 0.004 | 21966271 | 200.7 | 191.5 | |
| | | | | | | RPD = 0.71 | |
| 5 Acetylene | | | | | | | |
| 1 | 4.053 | 4.060 | -0.007 | 4342548 | 118.5 | 135.2 | |
| 2 | 2.641 | 2.644 | -0.003 | 3814331 | 118.5 | 134.7 | |
| | | | | | | RPD = 0.37 | |
| 6 Butane | | | | | | | |
| 1 | 4.356 | 4.362 | -0.006 | 32238886 | 264.5 | 228.9 | |
| 2 | 6.137 | 6.137 | 0.000 | 27376297 | 264.5 | 227.4 | |
| | | | | | | RPD = 0.67 | |
| 7 isobutylene | | | | | | | |
| 1 | 5.293 | 5.300 | -0.007 | 21924066 | 255.4 | 226.6 | |
| 2 | 5.989 | 5.987 | 0.002 | 18431469 | 255.4 | 227.5 | |
| | | | | | | RPD = 0.38 | |

## Reagents:

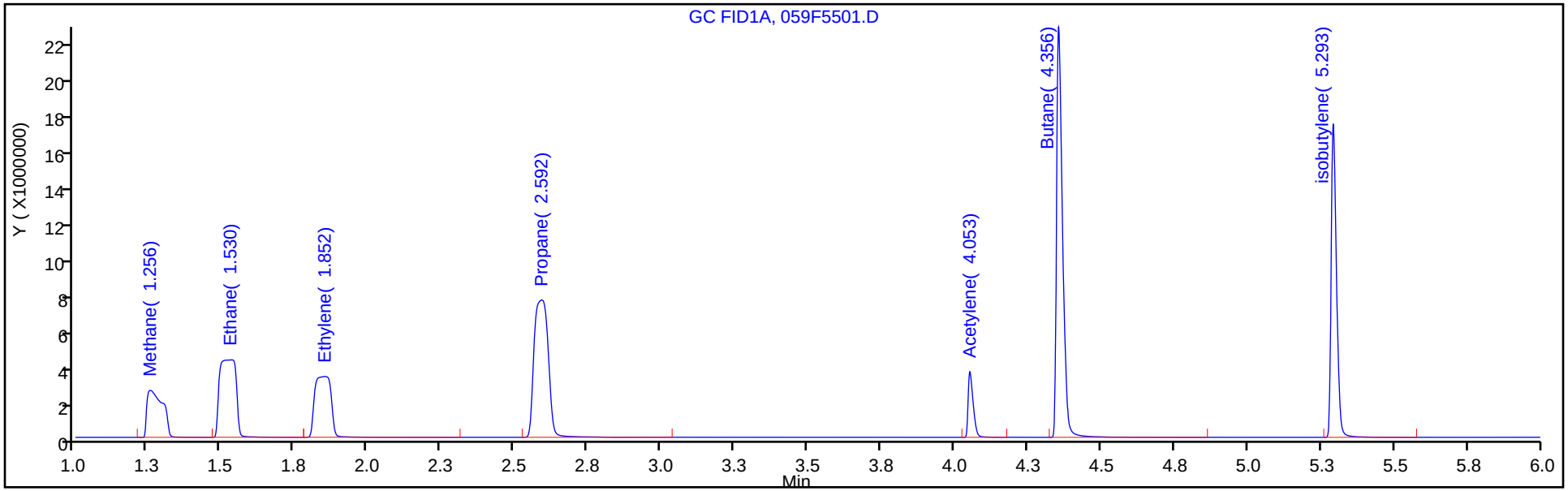
RSK7gasMathes_00027 Amount Added: 200.00 Units: uL

Report Date: 11-Mar-2020 09:31:59 Chrom Revision: 2.3 19-Feb-2020 16:45:46

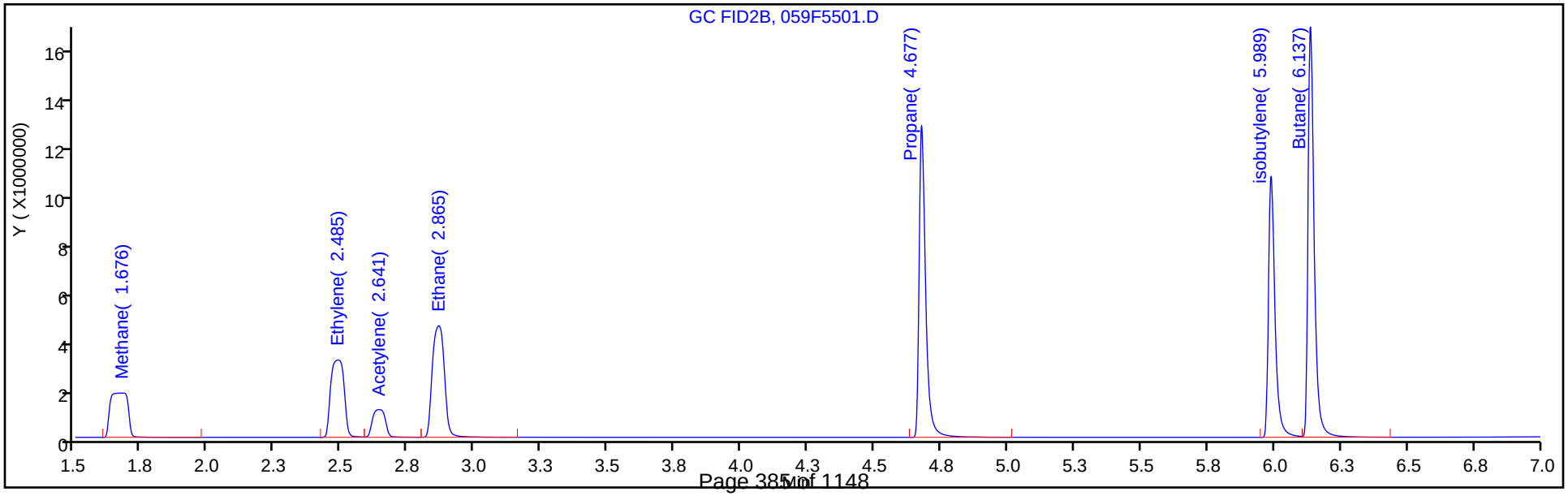
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Denver\ChromData\VGC_J\20200310-89932.b\059F5501.D | | | | |
| Injection Date: | 10-Mar-2020 23:11:27 | Instrument ID: | VGC_J | Operator ID: | sciannac |
| Lims ID: | ccv | | | Worklist Smp#: | 62 |
| Client ID: | | | | | |
| Purge Vol: | 18.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 59 |
| 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.: 280-134268-1

SDG No.:

Lab Sample ID: CCV 280-488254/62  Calibration Date: 03/10/2020 23:11

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: 059F5501.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 | | 115007 | | 73.1 | 73.0 | 0.0 | 20.0 |
| Ethylene | Ave | 90007 | 87073 | | 124 | 128 | -3.3 | 20.0 |
| Acetylene | Ave | 28324 | 32182 | | 135 | 119 | 13.6 | 20.0 |
| Ethane | Ave | 107408 | 105892 | | 135 | 137 | -1.4 | 20.0 |

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-134268-1

SDG No.:

Lab Sample ID: CCV 280-488254/62  Calibration Date: 03/10/2020 23:11

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: 059F5501.D  Heated Purge: (Y/N) N

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Methane | 1.68 | 1.63 | 1.71 |
| Ethylene | 2.49 | 2.44 | 2.54 |
| Acetylene | 2.64 | 2.56 | 2.72 |
| Ethane | 2.87 | 2.82 | 2.92 |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\VGC_J\20200310-89932.b\059F5501.D
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 10-Mar-2020 23:11:27 ALS Bottle#: 59 Worklist Smp#: 62
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\20200310-89932.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 11-Mar-2020 09:31:59 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: CTX0303

First Level Reviewer: sciannac Date: 11-Mar-2020 09:29:15

| Col | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 1 Methane | | | | | | | |
| 1 | 1.256 | 1.259 | -0.003 | 9759386 | 73.0 | 72.6 | |
| 2 | 1.676 | 1.668 | 0.008 | 8395923 | 73.0 | 73.1 | |
| | | | | | | RPD = 0.64 | |
| 2 Ethane | | | | | | | |
| 1 | 1.530 | 1.537 | -0.007 | 16884061 | 136.9 | 133.6 | |
| 2 | 2.865 | 2.865 | 0.000 | 14491961 | 136.9 | 134.9 | |
| | | | | | | RPD = 0.98 | |
| 3 Ethylene | | | | | | | |
| 1 | 1.852 | 1.854 | -0.002 | 13007366 | 127.7 | 122.9 | |
| 2 | 2.485 | 2.490 | -0.005 | 11116278 | 127.7 | 123.5 | |
| | | | | | | RPD = 0.46 | |
| 4 Propane | | | | | | | |
| 1 | 2.592 | 2.598 | -0.006 | 25713671 | 200.7 | 190.1 | |
| 2 | 4.677 | 4.673 | 0.004 | 21966271 | 200.7 | 191.5 | |
| | | | | | | RPD = 0.71 | |
| 5 Acetylene | | | | | | | |
| 1 | 4.053 | 4.060 | -0.007 | 4342548 | 118.5 | 135.2 | |
| 2 | 2.641 | 2.644 | -0.003 | 3814331 | 118.5 | 134.7 | |
| | | | | | | RPD = 0.37 | |
| 6 Butane | | | | | | | |
| 1 | 4.356 | 4.362 | -0.006 | 32238886 | 264.5 | 228.9 | |
| 2 | 6.137 | 6.137 | 0.000 | 27376297 | 264.5 | 227.4 | |
| | | | | | | RPD = 0.67 | |
| 7 isobutylene | | | | | | | |
| 1 | 5.293 | 5.300 | -0.007 | 21924066 | 255.4 | 226.6 | |
| 2 | 5.989 | 5.987 | 0.002 | 18431469 | 255.4 | 227.5 | |
| | | | | | | RPD = 0.38 | |

## Reagents:

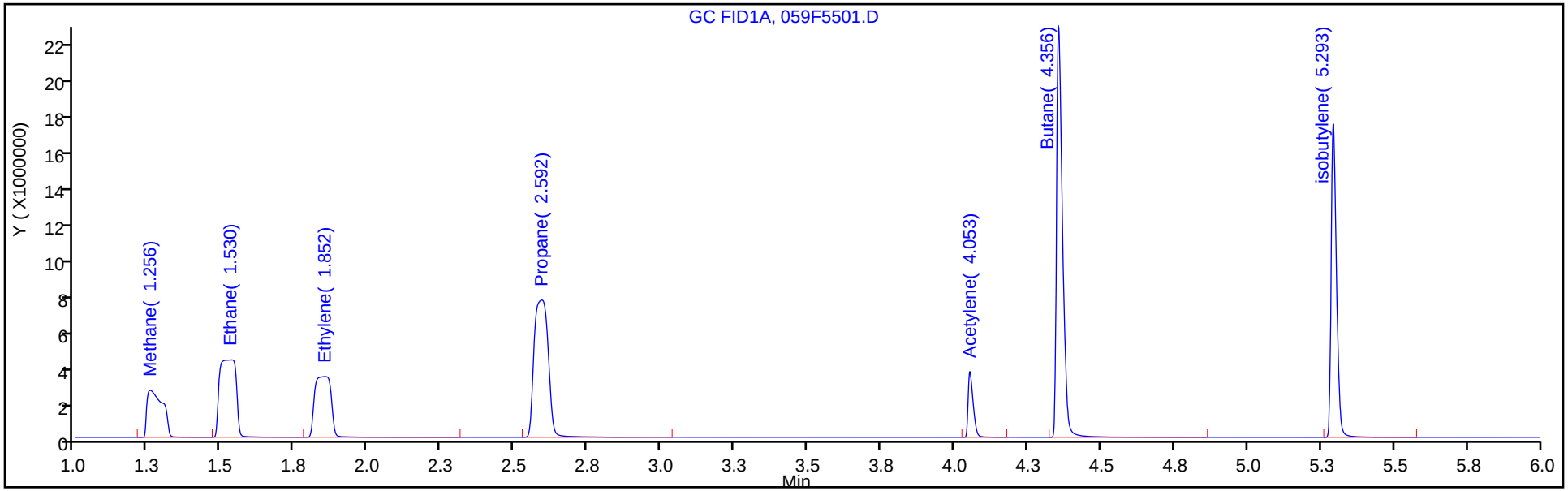
RSK7gasMathes_00027 Amount Added: 200.00 Units: uL

Report Date: 11-Mar-2020 09:31:59 Chrom Revision: 2.3 19-Feb-2020 16:45:46

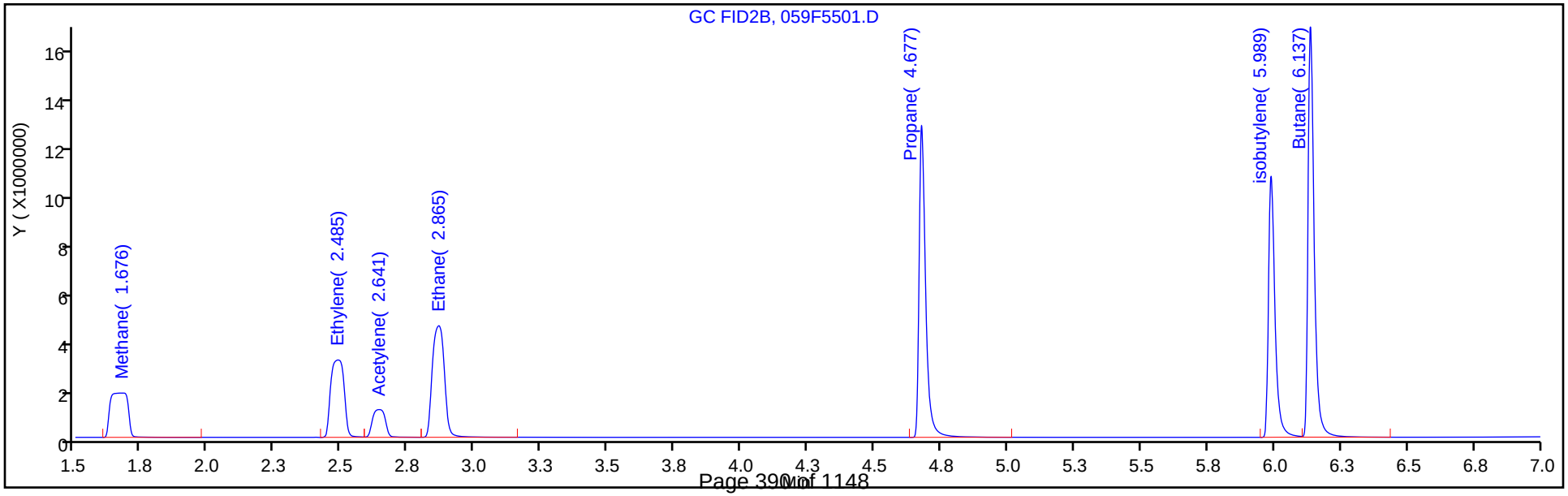
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Denver\ChromData\VGC_J\20200310-89932.b\059F5501.D | | | | |
| Injection Date: | 10-Mar-2020 23:11:27 | Instrument ID: | VGC_J | Operator ID: | sciannac |
| Lims ID: | ccv | | | Worklist Smp#: | 62 |
| Client ID: | | | | | |
| Purge Vol: | 18.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 59 |
| 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.: 280-134268-1
SDG No.:
Client Sample ID:
Lab Sample ID: MB 280-488165/37
Matrix: Water
Lab File ID: 037F3001.D
Analysis Method: RSK-175
Date Collected:
Sample wt/vol: 18(mL)
Date Analyzed: 03/09/2020 20:15
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.: 488165
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\20200309-89898.b\037F3001.D | | | | |
| Lims ID: | mb | | | | |
| Client ID: | | | | | |
| Sample Type: | MB | | | | |
| Inject. Date: | 09-Mar-2020 20:15:35 | ALS Bottle#: | 37 | Worklist Smp#: | 37 |
| 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\20200309-89898.b\RSK_J.m | | | | |
| Limit Group: | GCV - RSK 175 | | | | |
| Method Label: | DV-GC-0025: Dissolved Gases in Water by RSK-175 | | | | |
| Last Update: | 10-Mar-2020 08:20:33 | 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: | CTX0337 | | | | |

First Level Reviewer: sciannac Date: 10-Mar-2020 08:15:55

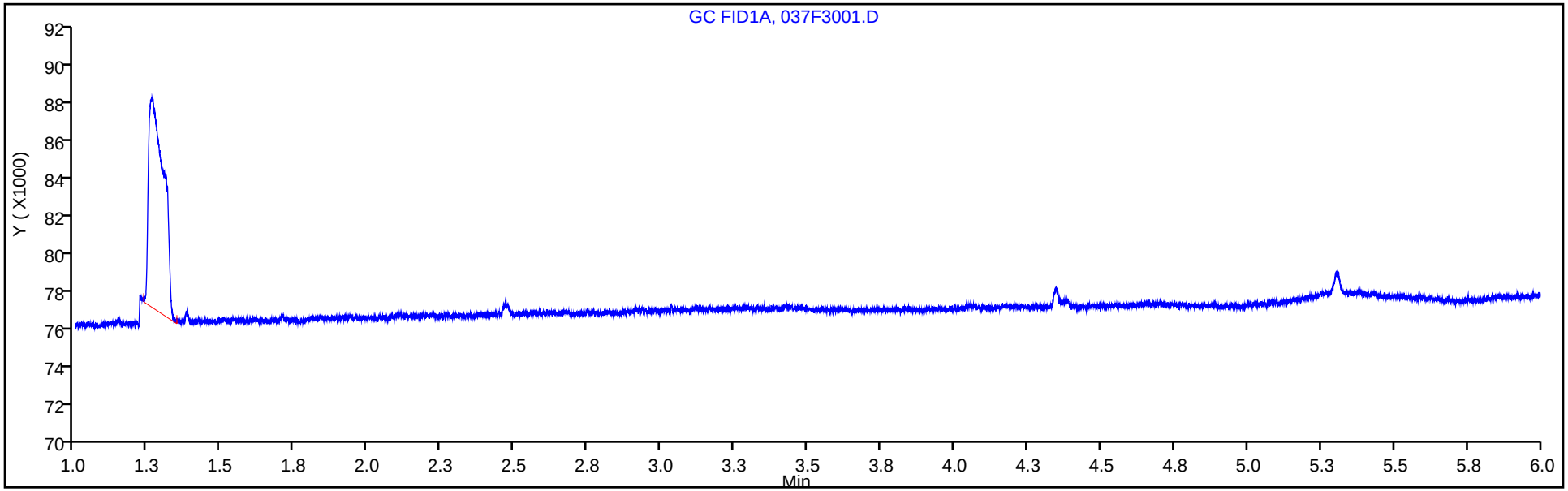
| Col | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 1 Methane | | | | | | | |
| 1 | | 1.265 | | | | ND | |
| 2 | | 1.683 | | | | | |
| 2 Ethane | | | | | | | |
| 1 | | 1.544 | | | | ND | |
| 2 | | 2.881 | | | | | |
| 3 Ethylene | | | | | | | |
| 1 | | 1.863 | | | | ND | |
| 2 | | 2.506 | | | | | |
| 4 Propane | | | | | | | |
| 1 | | 2.601 | | | | ND | |
| 2 | | 4.684 | | | | | |
| 5 Acetylene | | | | | | | |
| 1 | | 4.053 | | | | ND | |
| 2 | | 2.659 | | | | | |
| 6 Butane | | | | | | | |
| 1 | | 4.358 | | | | ND | |
| 2 | | 6.143 | | | | | |
| 7 isobutylene | | | | | | | |
| 1 | | 5.294 | | | | ND | |
| 2 | | 5.996 | | | | | |

Report Date: 10-Mar-2020 08:20:36 Chrom Revision: 2.3 19-Feb-2020 16:45:46

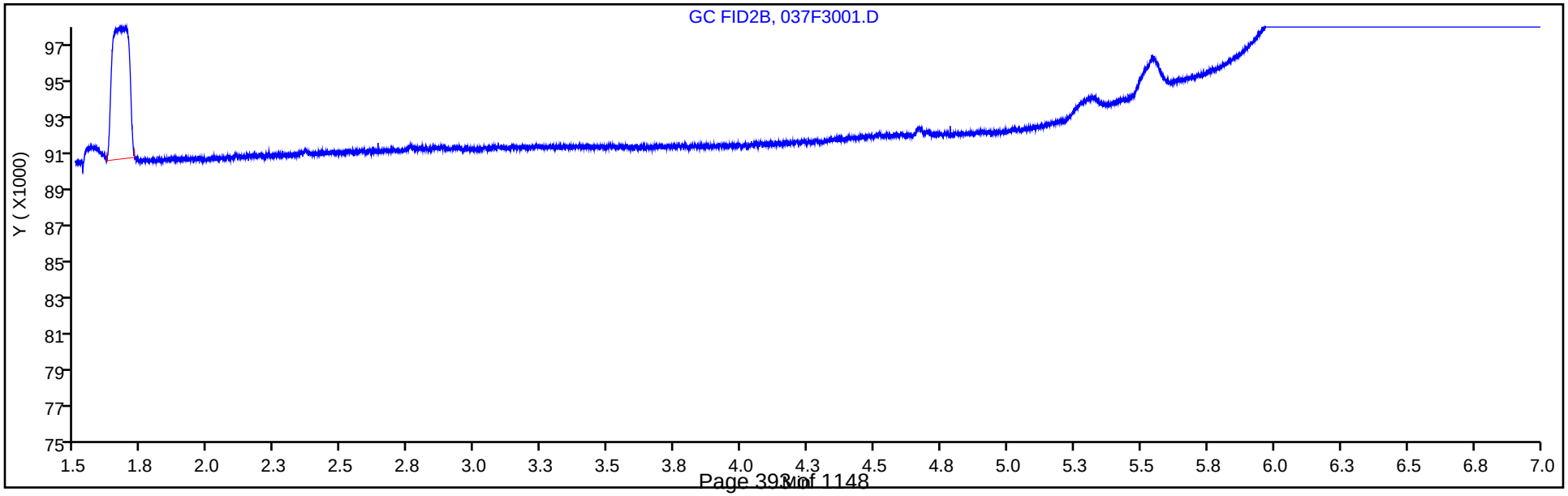
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Denver\ChromData\VGC_J\20200309-89898.b\037F3001.D | | | | |
| Injection Date: | 09-Mar-2020 20:15:35 | Instrument ID: | VGC_J | Operator ID: | sciannac |
| Lims ID: | mb | | | 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.: 280-134268-1

SDG No.:

Client Sample ID:  Lab Sample ID: MB 280-488254/50

Matrix: Water  Lab File ID: 033F2901.D

Analysis Method: RSK-175  Date Collected:

Sample wt/vol: 18(mL)  Date Analyzed: 03/10/2020 17:26

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.: 488254  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\20200310-89932.b\033F2901.D | | | | |
| Lims ID: | mb | | | | |
| Client ID: | | | | | |
| Sample Type: | MB | | | | |
| Inject. Date: | 10-Mar-2020 17:26:39 | ALS Bottle#: | 33 | Worklist Smp#: | 50 |
| 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\20200310-89932.b\RSK_J.m | | | | |
| Limit Group: | GCV - RSK 175 | | | | |
| Method Label: | DV-GC-0025: Dissolved Gases in Water by RSK-175 | | | | |
| Last Update: | 11-Mar-2020 09:30:44 | 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: | CTX0303 | | | | |

First Level Reviewer: sciannac Date: 11-Mar-2020 09:22:50

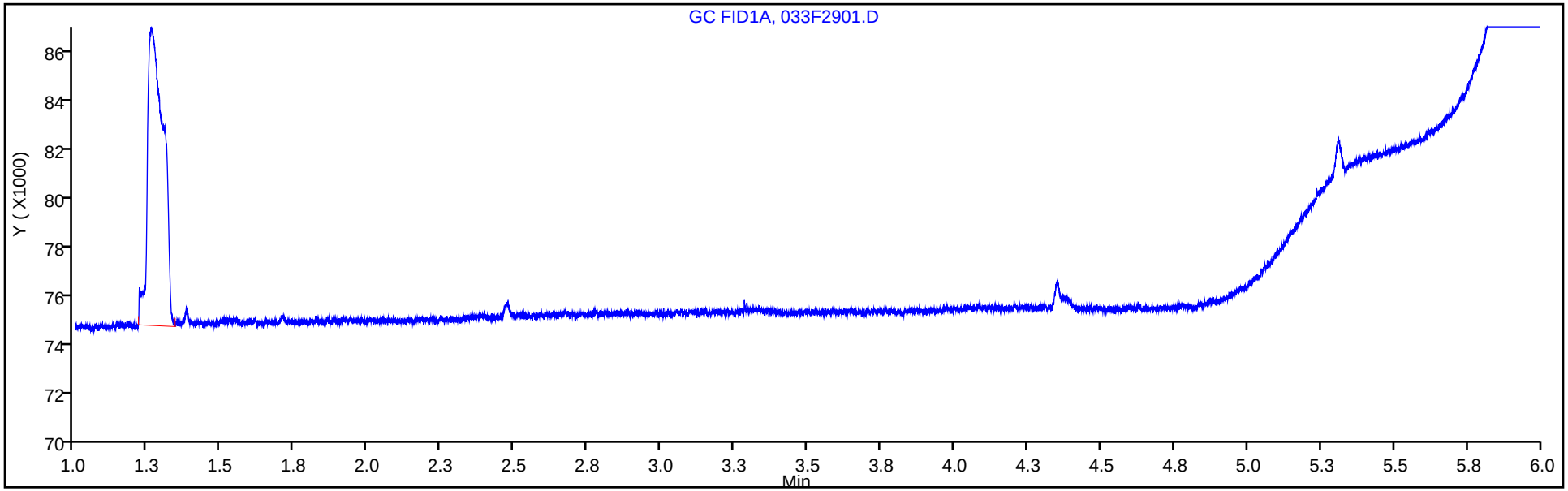
| Col | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 1 Methane | | | | | | | |
| 1 | | 1.259 | | | | ND | |
| 2 | | 1.668 | | | | | |
| 2 Ethane | | | | | | | |
| 1 | | 1.537 | | | | ND | |
| 2 | | 2.865 | | | | | |
| 3 Ethylene | | | | | | | |
| 1 | | 1.854 | | | | ND | |
| 2 | | 2.490 | | | | | |
| 4 Propane | | | | | | | |
| 1 | | 2.598 | | | | ND | |
| 2 | | 4.673 | | | | | |
| 5 Acetylene | | | | | | | |
| 1 | | 4.060 | | | | ND | |
| 2 | | 2.644 | | | | | |
| 6 Butane | | | | | | | |
| 1 | | 4.362 | | | | ND | |
| 2 | | 6.137 | | | | | |
| 7 isobutylene | | | | | | | |
| 1 | | 5.300 | | | | ND | |
| 2 | | 5.987 | | | | | |

Report Date: 11-Mar-2020 09:31:01 Chrom Revision: 2.3 19-Feb-2020 16:45:46

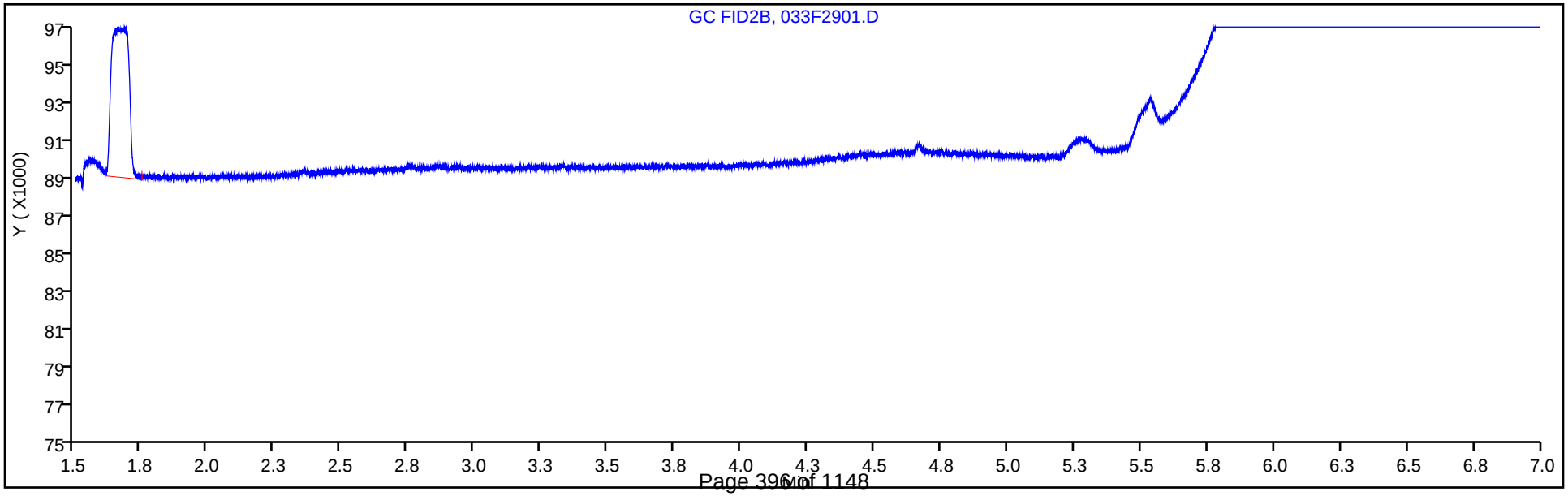
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Denver\ChromData\VGC_J\20200310-89932.b\033F2901.D | | | | |
| Injection Date: | 10-Mar-2020 17:26:39 | Instrument ID: | VGC_J | Operator ID: | sciannac |
| Lims ID: | mb | | | Worklist Smp#: | 50 |
| Client ID: | | | | | |
| Purge Vol: | 18.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 33 |
| 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.: 280-134268-1
SDG No.:
Client Sample ID:
Lab Sample ID: LCS 280-488165/35
Matrix: Water
Lab File ID: 035F2801.D
Analysis Method: RSK-175
Date Collected:
Sample wt/vol: 18(mL)
Date Analyzed: 03/09/2020 19:49
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.: 488165
Units: mg/L

| CAS NO. | COMPOUND NAME | RESULT | Q | LOQ | LOD | DL |
|---|---|---|---|---|---|---|
| 74-82-8 | Methane | 0.0790 | | 0.0050 | 0.0020 | 0.00063 |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\VGC_J\20200309-89898.b\035F2801.D
Lims ID: lcs
Client ID:
Sample Type: LCS
Inject. Date: 09-Mar-2020 19:49:14 ALS Bottle#: 35 Worklist Smp#: 35
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\20200309-89898.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 10-Mar-2020 08:20:33 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: CTX0337

First Level Reviewer: sciannac Date: 10-Mar-2020 08:15:15

| Col | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 1 Methane | | | | | | | |
| 1 | 1.261 | 1.265 | -0.004 | 10568789 | 73.0 | 78.6 | |
| 2 | 1.679 | 1.683 | -0.004 | 9078870 | 73.0 | 79.0 | |
| | | | | | | RPD = 0.49 | |
| 2 Ethane | | | | | | | |
| 1 | 1.532 | 1.544 | -0.012 | 18071893 | 136.9 | 143.0 | |
| 2 | 2.874 | 2.881 | -0.007 | 15487697 | 136.9 | 144.2 | |
| | | | | | | RPD = 0.82 | |
| 3 Ethylene | | | | | | | |
| 1 | 1.857 | 1.863 | -0.006 | 13679283 | 127.7 | 129.3 | |
| 2 | 2.499 | 2.506 | -0.007 | 11685682 | 127.7 | 129.8 | |
| | | | | | | RPD = 0.42 | |
| 4 Propane | | | | | | | |
| 1 | 2.594 | 2.601 | -0.007 | 27410831 | 200.7 | 202.7 | |
| 2 | 4.681 | 4.684 | -0.003 | 23357083 | 200.7 | 203.6 | |
| | | | | | | RPD = 0.46 | |
| 5 Acetylene | | | | | | | |
| 1 | 4.050 | 4.053 | -0.003 | 4261537 | 118.5 | 132.6 | |
| 2 | 2.650 | 2.659 | -0.009 | 3753524 | 118.5 | 132.5 | |
| | | | | | | RPD = 0.09 | |
| 6 Butane | | | | | | | |
| 1 | 4.352 | 4.358 | -0.006 | 34744459 | 264.5 | 246.7 | |
| 2 | 6.139 | 6.143 | -0.004 | 29493268 | 264.5 | 245.0 | |
| | | | | | | RPD = 0.70 | |
| 7 isobutylene | | | | | | | |
| 1 | 5.291 | 5.294 | -0.003 | 22791312 | 255.4 | 235.6 | |
| 2 | 5.991 | 5.996 | -0.005 | 19188517 | 255.4 | 236.8 | |
| | | | | | | RPD = 0.53 | |

## Reagents:

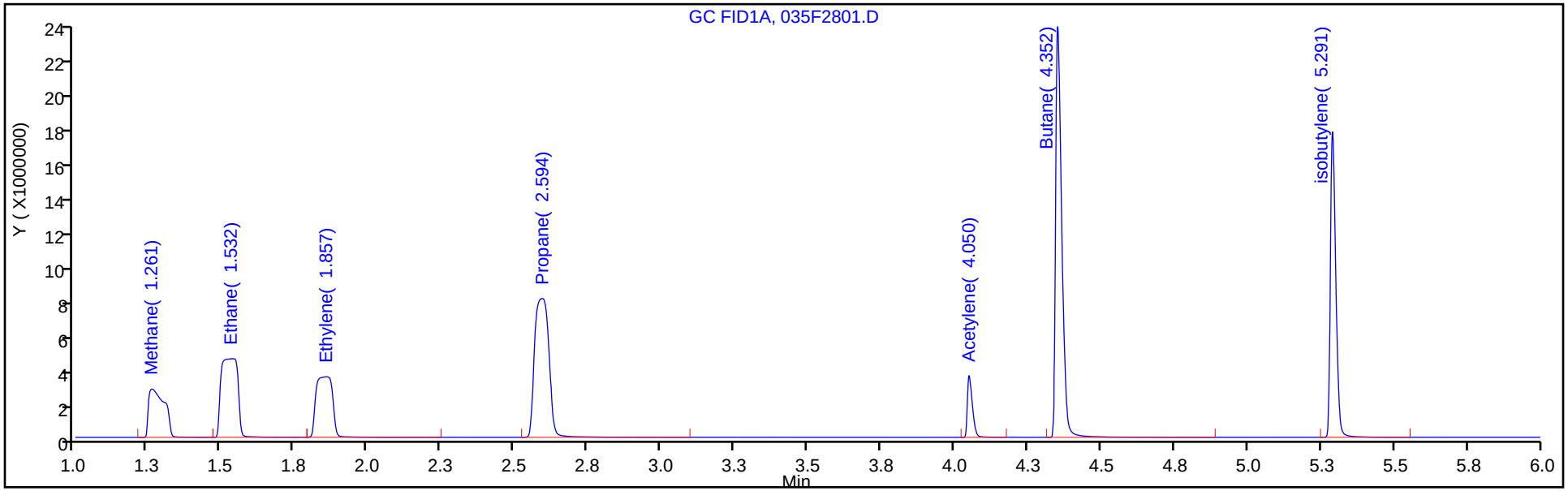
RSK7gasMathes_00027 Amount Added: 200.00 Units: uL

Report Date: 10-Mar-2020 08:20:34 Chrom Revision: 2.3 19-Feb-2020 16:45:46

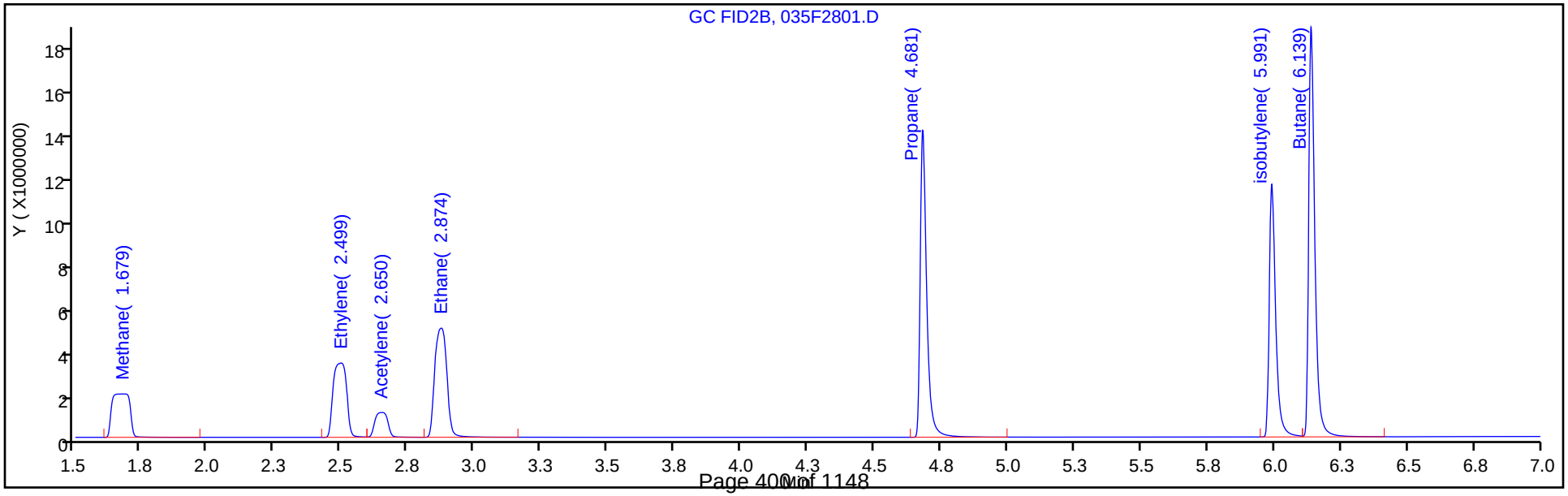
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Denver\ChromData\VGC_J\20200309-89898.b\035F2801.D | | | | |
| Injection Date: | 09-Mar-2020 19:49:14 | Instrument ID: | VGC_J | Operator ID: | sciannac |
| Lims ID: | lcs | | | Worklist Smp#: | 35 |
| Client ID: | | | | | |
| Purge Vol: | 18.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 35 |
| 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.: 280-134268-1
SDG No.:
Client Sample ID:
Lab Sample ID: LCS 280-488254/48
Matrix: Water
Lab File ID: 031F2701.D
Analysis Method: RSK-175
Date Collected:
Sample wt/vol: 18(mL)
Date Analyzed: 03/10/2020 17:00
Soil Aliquot Vol:
Dilution Factor: 1
Soil Extract Vol.:
GC Column: HP-Plot Q ID: 0.53(mm)
% Moisture:
Level: (low/med) Low
Analysis Batch No.: 488254
Units: mg/L

| CAS NO. | COMPOUND NAME | RESULT | Q | LOQ | LOD | DL |
|---|---|---|---|---|---|---|
| 74-82-8 | Methane | 0.0813 | | 0.0050 | 0.0020 | 0.00063 |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\VGC_J\20200310-89932.b\031F2701.D
Lims ID: lcs
Client ID:
Sample Type: LCS
Inject. Date: 10-Mar-2020 17:00:04 ALS Bottle#: 31 Worklist Smp#: 48
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\20200310-89932.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 11-Mar-2020 09:30:44 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: CTX0303

First Level Reviewer: sciannac Date: 11-Mar-2020 09:21:12

| Col | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 1 Methane | | | | | | | |
| 1 | 1.258 | 1.259 | -0.001 | 10879068 | 73.0 | 81.0 | |
| 2 | 1.672 | 1.668 | 0.004 | 9344485 | 73.0 | 81.3 | |
| | | | | | | RPD = 0.48 | |
| 2 Ethane | | | | | | | |
| 1 | 1.528 | 1.537 | -0.009 | 18069261 | 136.9 | 143.0 | |
| 2 | 2.868 | 2.865 | 0.003 | 16421761 | 136.9 | 152.9 | |
| | | | | | | RPD = 6.69 | |
| 3 Ethylene | | | | | | | |
| 1 | 1.857 | 1.854 | 0.003 | 14491190 | 127.7 | 137.0 | |
| 2 | 2.494 | 2.490 | 0.004 | 12382622 | 127.7 | 137.6 | |
| | | | | | | RPD = 0.45 | |
| 4 Propane | | | | | | | |
| 1 | 2.592 | 2.598 | -0.006 | 29713918 | 200.7 | 219.7 | |
| 2 | 4.678 | 4.673 | 0.005 | 25362244 | 200.7 | 221.1 | |
| | | | | | | RPD = 0.63 | |
| 5 Acetylene | | | | | | | |
| 1 | 4.056 | 4.060 | -0.004 | 4406467 | 118.5 | 137.2 | |
| 2 | 2.645 | 2.644 | 0.001 | 3889777 | 118.5 | 137.3 | |
| | | | | | | RPD = 0.13 | |
| 6 Butane | | | | | | | |
| 1 | 4.354 | 4.362 | -0.008 | 39070257 | 264.5 | 277.4 | |
| 2 | 6.137 | 6.137 | 0.000 | 32995245 | 264.5 | 274.1 | |
| | | | | | | RPD = 1.22 | |
| 7 isobutylene | | | | | | | |
| 1 | 5.294 | 5.300 | -0.006 | 26024905 | 255.4 | 269.0 | |
| 2 | 5.991 | 5.987 | 0.004 | 21781104 | 255.4 | 268.8 | |
| | | | | | | RPD = 0.06 | |

## Reagents:

RSK7gasMathes_00027 Amount Added: 200.00 Units: uL

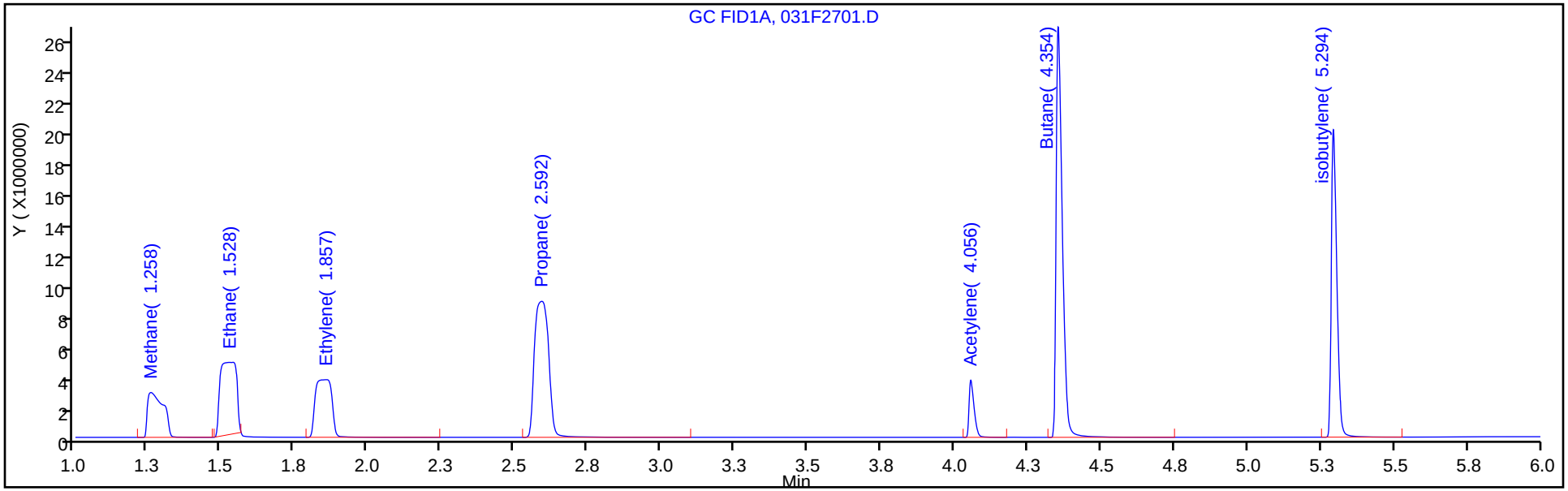
Report Date: 11-Mar-2020 09:30:52 Chrom Revision: 2.3 19-Feb-2020 16:45:46

Eurofins TestAmerica, Denver

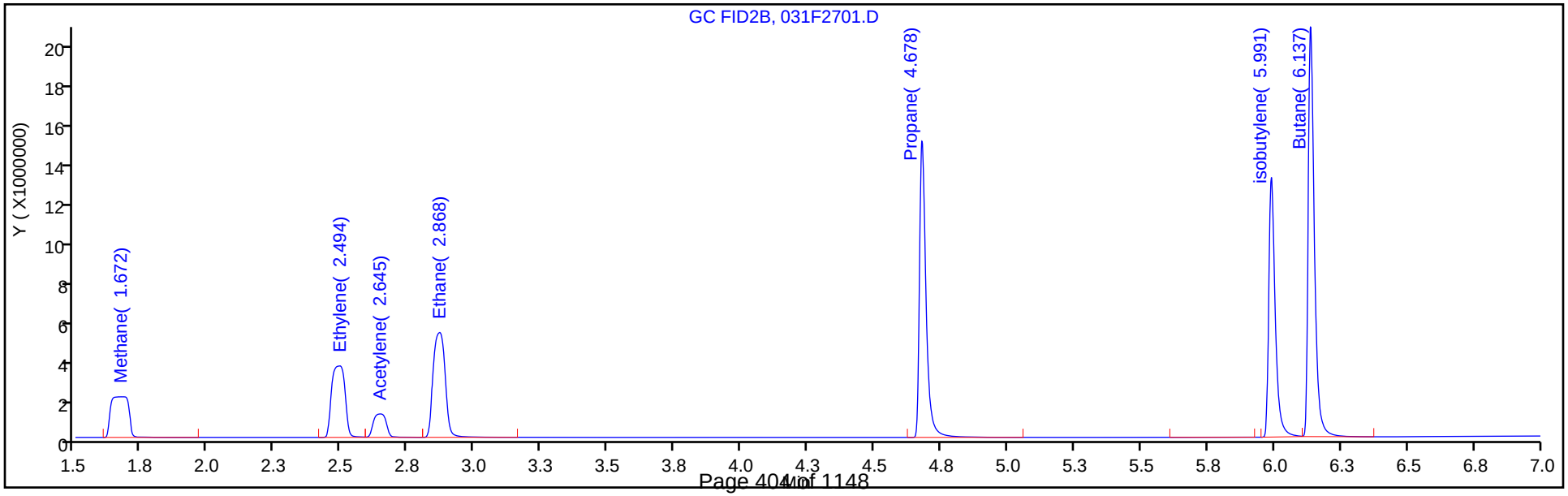
Data File: \\chromna\Denver\ChromData\VGC_J\20200310-89932.b\031F2701.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 10-Mar-2020 17:00:04 | Instrument ID: | VGC_J | Operator ID: | sciannac |
| Lims ID: | lcs | | | Worklist Smp#: | 48 |
| Client ID: | | | | | |
| Purge Vol: | 18.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 31 |
| Method: | RSK_J | Limit Group: | GCV - RSK 175 | | |

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




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



FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-134268-1
SDG No.:
Client Sample ID:
Lab Sample ID: LCSD 280-488165/36
Matrix: Water
Lab File ID: 036F2901.D
Analysis Method: RSK-175
Date Collected:
Sample wt/vol: 18(mL)
Date Analyzed: 03/09/2020 20:02
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.: 488165
Units: mg/L

| CAS NO. | COMPOUND NAME | RESULT | Q | LOQ | LOD | DL |
|---|---|---|---|---|---|---|
| 74-82-8 | Methane | 0.0772 | | 0.0050 | 0.0020 | 0.00063 |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\VGC_J\20200309-89898.b\036F2901.D
Lims ID: lcsd
Client ID:
Sample Type: LCSD
Inject. Date: 09-Mar-2020 20:02:26 ALS Bottle#: 36 Worklist Smp#: 36
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\20200309-89898.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 10-Mar-2020 08:20:33 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: CTX0337

First Level Reviewer: sciannac Date: 10-Mar-2020 08:15:45

| Col | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 1 Methane | | | | | | | |
| 1 | 1.259 | 1.265 | -0.006 | 10309398 | 73.0 | 76.7 | |
| 2 | 1.665 | 1.683 | -0.018 | 8864344 | 73.0 | 77.2 | |
| | | | | | | RPD = 0.59 | |
| 2 Ethane | | | | | | | |
| 1 | 1.524 | 1.544 | -0.020 | 14482960 | 136.9 | 114.6 | |
| 2 | 2.872 | 2.881 | -0.009 | 15256731 | 136.9 | 142.0 | |
| | | | | | | RPD = 21.38 | |
| 3 Ethylene | | | | | | | M |
| 1 | 1.847 | 1.863 | -0.016 | 13226372 | 127.7 | 125.0 | M |
| 2 | 2.492 | 2.506 | -0.014 | 11598627 | 127.7 | 128.9 | |
| | | | | | | RPD = 3.04 | |
| 4 Propane | | | | | | | |
| 1 | 2.591 | 2.601 | -0.010 | 27045565 | 200.7 | 199.9 | |
| 2 | 4.681 | 4.684 | -0.003 | 23073853 | 200.7 | 201.1 | |
| | | | | | | RPD = 0.58 | |
| 5 Acetylene | | | | | | | |
| 1 | 4.052 | 4.053 | -0.001 | 4144896 | 118.5 | 129.0 | |
| 2 | 2.647 | 2.659 | -0.012 | 3659173 | 118.5 | 129.2 | |
| | | | | | | RPD = 0.14 | |
| 6 Butane | | | | | | | |
| 1 | 4.353 | 4.358 | -0.005 | 34402547 | 264.5 | 244.3 | |
| 2 | 6.140 | 6.143 | -0.003 | 29368940 | 264.5 | 244.0 | |
| | | | | | | RPD = 0.14 | |
| 7 isobutylene | | | | | | | |
| 1 | 5.292 | 5.294 | -0.002 | 23013361 | 255.4 | 237.8 | |
| 2 | 5.992 | 5.996 | -0.004 | 19399141 | 255.4 | 239.4 | |
| | | | | | | RPD = 0.65 | |

## QC Flag Legend

Review Flags

M - Manually Integrated

## Reagents:

RSK7gasMathes_00027 Amount Added: 200.00 Units: uL

Report Date: 10-Mar-2020 08:20:35 Chrom Revision: 2.3 19-Feb-2020 16:45:46

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\VGC_J\20200309-89898.b\036F2901.D

Injection Date: 09-Mar-2020 20:02:26 Instrument ID: VGC_J Operator ID: sciannac

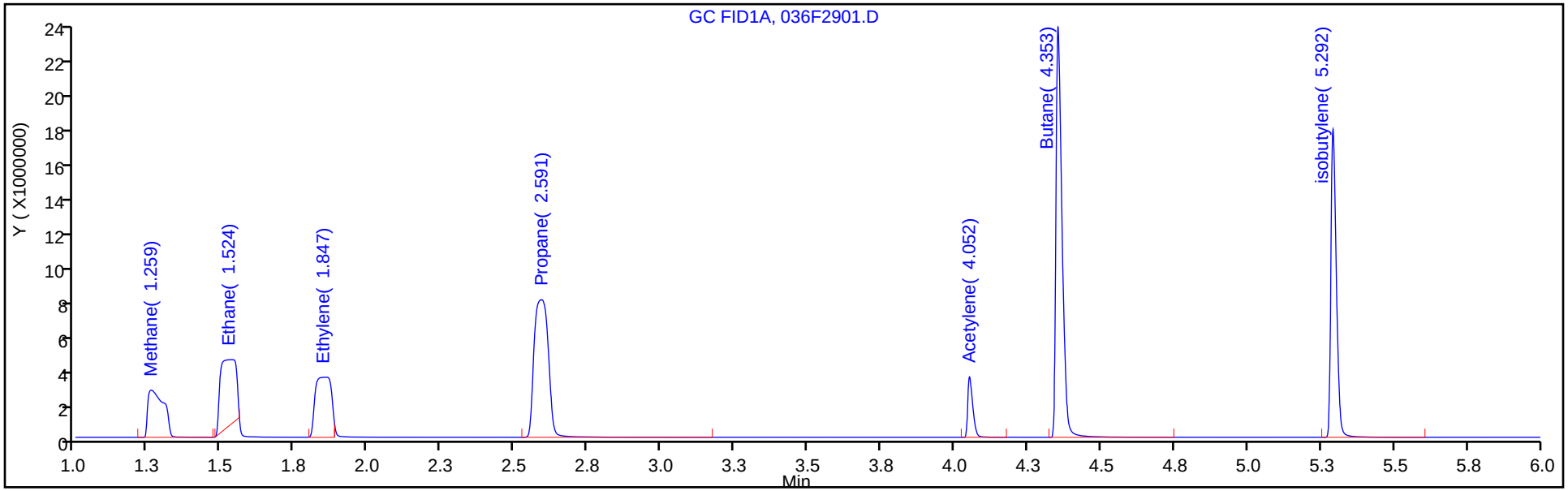
Lims ID: lcsd Worklist Smp#: 36

Client ID:

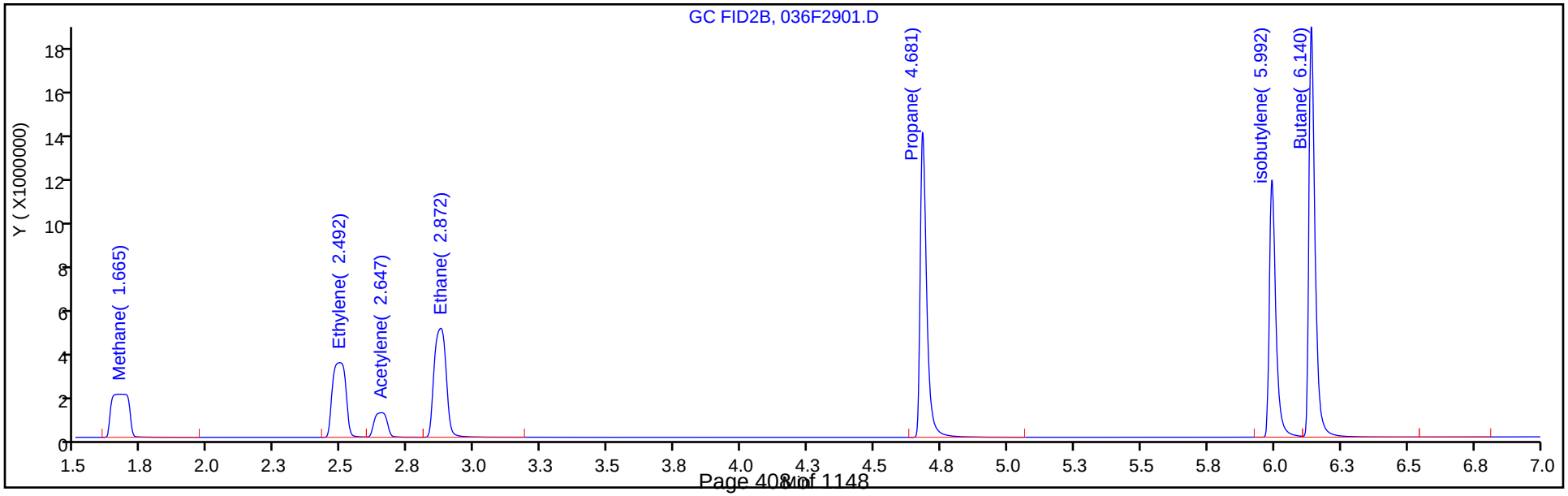
Purge Vol: 18.000 mL Dil. Factor: 1.0000 ALS Bottle#: 36

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 I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-134268-1
SDG No.:
Client Sample ID:
Lab Sample ID: LCSD 280-488254/49
Matrix: Water
Lab File ID: 032F2801.D
Analysis Method: RSK-175
Date Collected:
Sample wt/vol: 18(mL)
Date Analyzed: 03/10/2020 17:13
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.: 488254
Units: mg/L

| CAS NO. | COMPOUND NAME | RESULT | Q | LOQ | LOD | DL |
|---|---|---|---|---|---|---|
| 74-82-8 | Methane | 0.0796 | | 0.0050 | 0.0020 | 0.00063 |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\VGC_J\20200310-89932.b\032F2801.D
Lims ID: lcsd
Client ID:
Sample Type: LCSD
Inject. Date: 10-Mar-2020 17:13:22 ALS Bottle#: 32 Worklist Smp#: 49
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\20200310-89932.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 11-Mar-2020 09:30:44 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: CTX0303

First Level Reviewer: sciannac Date: 11-Mar-2020 09:22:43

| Col | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 1 Methane | | | | | | | |
| 1 | 1.260 | 1.259 | 0.001 | 10645479 | 73.0 | 79.2 | |
| 2 | 1.683 | 1.668 | 0.015 | 9141942 | 73.0 | 79.6 | |
| | | | | | | RPD = 0.46 | |
| 2 Ethane | | | | | | | |
| 1 | 1.538 | 1.537 | 0.001 | 18765918 | 136.9 | 148.5 | |
| 2 | 2.870 | 2.865 | 0.005 | 16082519 | 136.9 | 149.7 | |
| | | | | | | RPD = 0.82 | |
| 3 Ethylene | | | | | | | |
| 1 | 1.860 | 1.854 | 0.006 | 14303373 | 127.7 | 135.2 | |
| 2 | 2.493 | 2.490 | 0.003 | 12234099 | 127.7 | 135.9 | |
| | | | | | | RPD = 0.55 | |
| 4 Propane | | | | | | | |
| 1 | 2.596 | 2.598 | -0.002 | 29029781 | 200.7 | 214.6 | |
| 2 | 4.679 | 4.673 | 0.006 | 24769280 | 200.7 | 215.9 | |
| | | | | | | RPD = 0.59 | |
| 5 Acetylene | | | | | | | |
| 1 | 4.058 | 4.060 | -0.002 | 4471695 | 118.5 | 139.2 | |
| 2 | 2.647 | 2.644 | 0.003 | 3941806 | 118.5 | 139.2 | |
| | | | | | | RPD = 0.01 | |
| 6 Butane | | | | | | | |
| 1 | 4.356 | 4.362 | -0.006 | 37844314 | 264.5 | 268.7 | |
| 2 | 6.137 | 6.137 | 0.000 | 31903682 | 264.5 | 265.0 | |
| | | | | | | RPD = 1.39 | |
| 7 isobutylene | | | | | | | |
| 1 | 5.295 | 5.300 | -0.005 | 25686247 | 255.4 | 265.5 | |
| 2 | 5.990 | 5.987 | 0.003 | 21455021 | 255.4 | 264.8 | |
| | | | | | | RPD = 0.26 | |

## Reagents:

RSK7gasMathes_00027 Amount Added: 200.00 Units: uL

Report Date: 11-Mar-2020 09:30:57 Chrom Revision: 2.3 19-Feb-2020 16:45:46

Eurofins TestAmerica, Denver

Data File: \\chromna\Denver\ChromData\VGC_J\20200310-89932.b\032F2801.D

Injection Date: 10-Mar-2020 17:13:22 Instrument ID: VGC_J Operator ID: sciannac

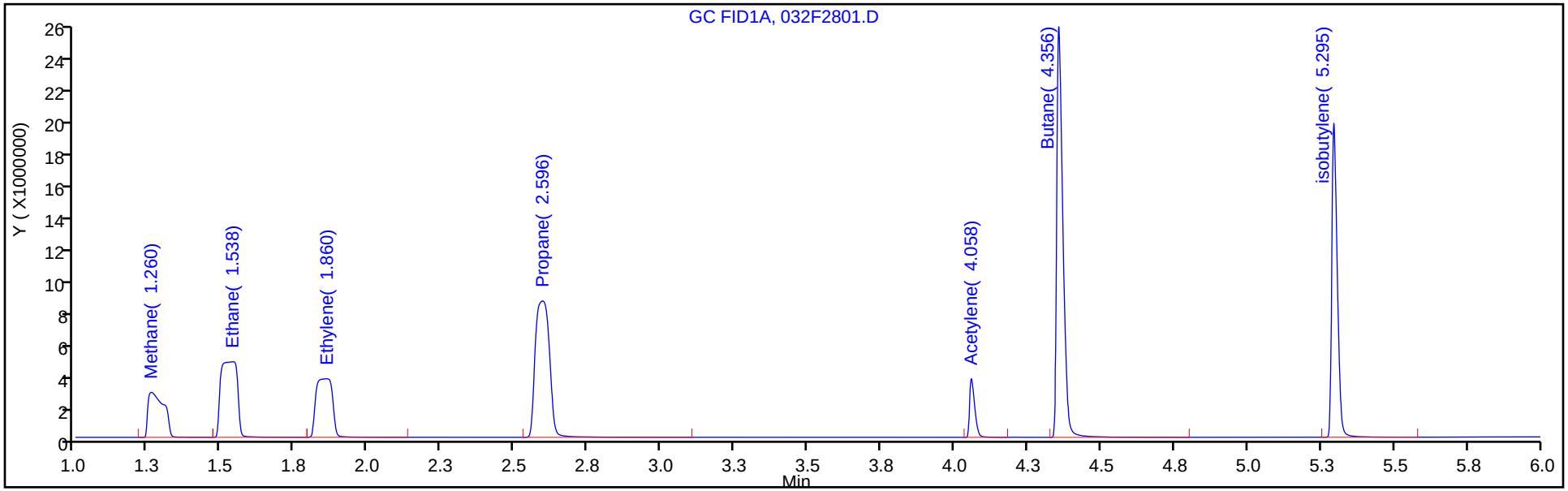
Lims ID: lcsd Worklist Smp#: 49

Client ID:

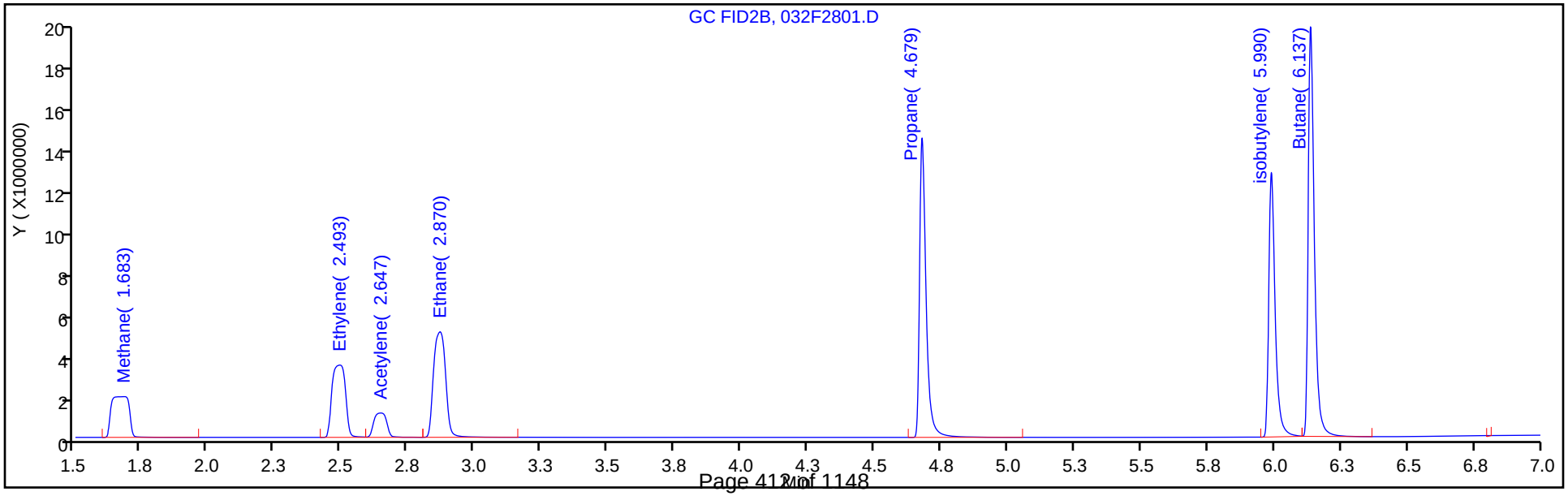
Purge Vol: 18.000 mL Dil. Factor: 1.0000 ALS Bottle#: 32

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.: 280-134268-1
SDG No.:
Client Sample ID: PZ019-2 MS
Lab Sample ID: 280-134268-6 MS
Matrix: Water
Lab File ID: 040F3301.D
Analysis Method: RSK-175
Date Collected: 03/02/2020 15:10
Sample wt/vol: 18(mL)
Date Analyzed: 03/09/2020 20:55
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.: 488165
Units: mg/L

| CAS NO. | COMPOUND NAME | RESULT | Q | LOQ | LOD | DL |
|---|---|---|---|---|---|---|
| 74-82-8 | Methane | 0.0478 | J1 | 0.0050 | 0.0020 | 0.00063 |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\VGC_J\20200309-89898.b\040F3301.D
Lims ID: 280-134268-H-6 MS
Client ID: PZ019-2
Sample Type: MS
Inject. Date: 09-Mar-2020 20:55:54 ALS Bottle#: 40 Worklist Smp#: 40
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: 280-134268-H-6MS
Operator ID: sciannac Instrument ID: VGC_J

Method: \\chromna\Denver\ChromData\VGC_J\20200309-89898.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 10-Mar-2020 08:20:33 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: CTX0337

First Level Reviewer: sciannac Date: 10-Mar-2020 08:16:46

| Col | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 1 Methane | | | | | | | |
| 1 | 1.258 | 1.265 | -0.007 | 6462301 | 73.0 | 48.0 | |
| 2 | 1.676 | 1.683 | -0.007 | 5505006 | 73.0 | 47.8 | |
| | | | | | | RPD = 0.32 | |
| 2 Ethane | | | | | | | |
| 1 | 1.524 | 1.544 | -0.020 | 11351773 | 136.9 | 89.8 | |
| 2 | 2.868 | 2.881 | -0.013 | 9620888 | 136.9 | 89.6 | |
| | | | | | | RPD = 0.29 | |
| 3 Ethylene | | | | | | | M |
| 1 | 1.838 | 1.863 | -0.025 | 9502090 | 127.7 | 89.8 | M |
| 2 | 2.495 | 2.506 | -0.011 | 8130261 | 127.7 | 90.3 | |
| | | | | | | RPD = 0.58 | |
| 4 Propane | | | | | | | |
| 1 | 2.587 | 2.601 | -0.014 | 17056020 | 200.7 | 126.1 | |
| 2 | 4.679 | 4.684 | -0.005 | 14415437 | 200.7 | 125.6 | |
| | | | | | | RPD = 0.36 | |
| 5 Acetylene | | | | | | | |
| 1 | 4.051 | 4.053 | -0.002 | 3988212 | 118.5 | 124.1 | |
| 2 | 2.649 | 2.659 | -0.010 | 3457030 | 118.5 | 122.1 | |
| | | | | | | RPD = 1.69 | |
| 6 Butane | | | | | | | |
| 1 | 4.359 | 4.358 | 0.001 | 21911878 | 264.5 | 155.6 | |
| 2 | 6.140 | 6.143 | -0.003 | 18485527 | 264.5 | 153.6 | |
| | | | | | | RPD = 1.32 | |
| 7 isobutylene | | | | | | | |
| 1 | 5.297 | 5.294 | 0.003 | 16371482 | 255.4 | 169.2 | |
| 2 | 5.992 | 5.996 | -0.004 | 13665722 | 255.4 | 168.6 | |
| | | | | | | RPD = 0.33 | |

## QC Flag Legend

Review Flags

M - Manually Integrated

## Reagents:

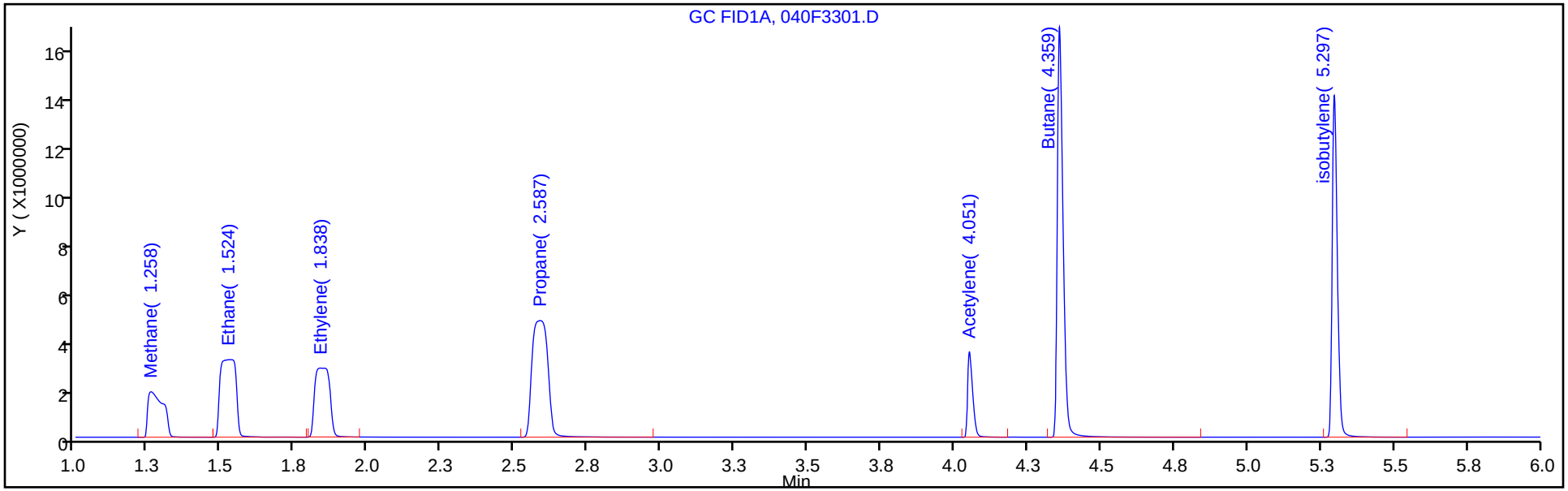
RSK7gasMathes_00027 Amount Added: 200.00 Units: uL

Report Date: 10-Mar-2020 08:20:39 Chrom Revision: 2.3 19-Feb-2020 16:45:46

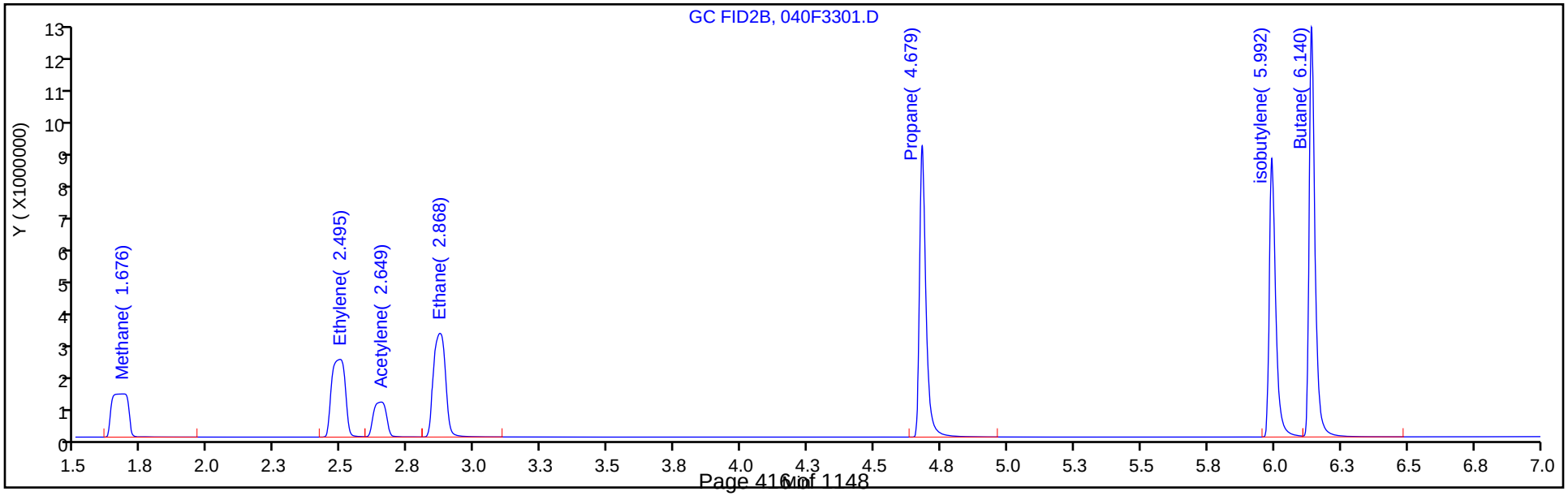
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Denver\ChromData\VGC_J\20200309-89898.b\040F3301.D | | | | |
| Injection Date: | 09-Mar-2020 20:55:54 | Instrument ID: | VGC_J | Operator ID: | sciannac |
| Lims ID: | 280-134268-H-6 MS | | | Worklist Smp#: | 40 |
| Client ID: | PZ019-2 | | | | |
| Purge Vol: | 18.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 40 |
| 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.: 280-134268-1
SDG No.:
Client Sample ID: PZ019-2 MSD
Lab Sample ID: 280-134268-6 MSD
Matrix: Water
Lab File ID: 041F3401.D
Analysis Method: RSK-175
Date Collected: 03/02/2020 15:10
Sample wt/vol: 18(mL)
Date Analyzed: 03/09/2020 21:09
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.: 488165
Units: mg/L

| CAS NO. | COMPOUND NAME | RESULT | Q | LOQ | LOD | DL |
|---|---|---|---|---|---|---|
| 74-82-8 | Methane | 0.0565 | | 0.0050 | 0.0020 | 0.00063 |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\VGC_J\20200309-89898.b\041F3401.D
Lims ID: 280-134268-H-6 MSD
Client ID: PZ019-2
Sample Type: MSD
Inject. Date: 09-Mar-2020 21:09:24 ALS Bottle#: 41 Worklist Smp#: 41
Purge Vol: 18.000 mL Dil. Factor: 1.0000
Sample Info: 280-134268-H-6MS
Operator ID: sciannac Instrument ID: VGC_J

Method: \\chromna\Denver\ChromData\VGC_J\20200309-89898.b\RSK_J.m
Limit Group: GCV - RSK 175
Method Label: DV-GC-0025: Dissolved Gases in Water by RSK-175
Last Update: 10-Mar-2020 08:20:33 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: CTX0337

First Level Reviewer: sciannac Date: 10-Mar-2020 08:16:55

| Col | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 1 Methane | | | | | | | |
| 1 | 1.257 | 1.265 | -0.008 | 7625492 | 73.0 | 56.7 | |
| 2 | 1.675 | 1.683 | -0.008 | 6494632 | 73.0 | 56.5 | |
| | | | | | | RPD = 0.35 | |
| 2 Ethane | | | | | | | |
| 1 | 1.532 | 1.544 | -0.012 | 13252418 | 136.9 | 104.9 | |
| 2 | 2.868 | 2.881 | -0.013 | 11275923 | 136.9 | 105.0 | |
| | | | | | | RPD = 0.10 | |
| 3 Ethylene | | | | | | | |
| 1 | 1.837 | 1.863 | -0.026 | 10908248 | 127.7 | 103.1 | |
| 2 | 2.491 | 2.506 | -0.015 | 9249461 | 127.7 | 102.8 | |
| | | | | | | RPD = 0.32 | |
| 4 Propane | | | | | | | |
| 1 | 2.578 | 2.601 | -0.023 | 19876448 | 200.7 | 146.9 | |
| 2 | 4.679 | 4.684 | -0.005 | 16801483 | 200.7 | 146.4 | |
| | | | | | | RPD = 0.35 | |
| 5 Acetylene | | | | | | | |
| 1 | 4.049 | 4.053 | -0.004 | 4192147 | 118.5 | 130.5 | |
| 2 | 2.648 | 2.659 | -0.011 | 3648521 | 118.5 | 128.8 | |
| | | | | | | RPD = 1.29 | |
| 6 Butane | | | | | | | |
| 1 | 4.356 | 4.358 | -0.002 | 24861150 | 264.5 | 176.5 | |
| 2 | 6.138 | 6.143 | -0.005 | 21013308 | 264.5 | 174.6 | |
| | | | | | | RPD = 1.13 | |
| 7 isobutylene | | | | | | | |
| 1 | 5.295 | 5.294 | 0.001 | 17973752 | 255.4 | 185.8 | |
| 2 | 5.991 | 5.996 | -0.005 | 15013955 | 255.4 | 185.3 | |
| | | | | | | RPD = 0.26 | |

## Reagents:

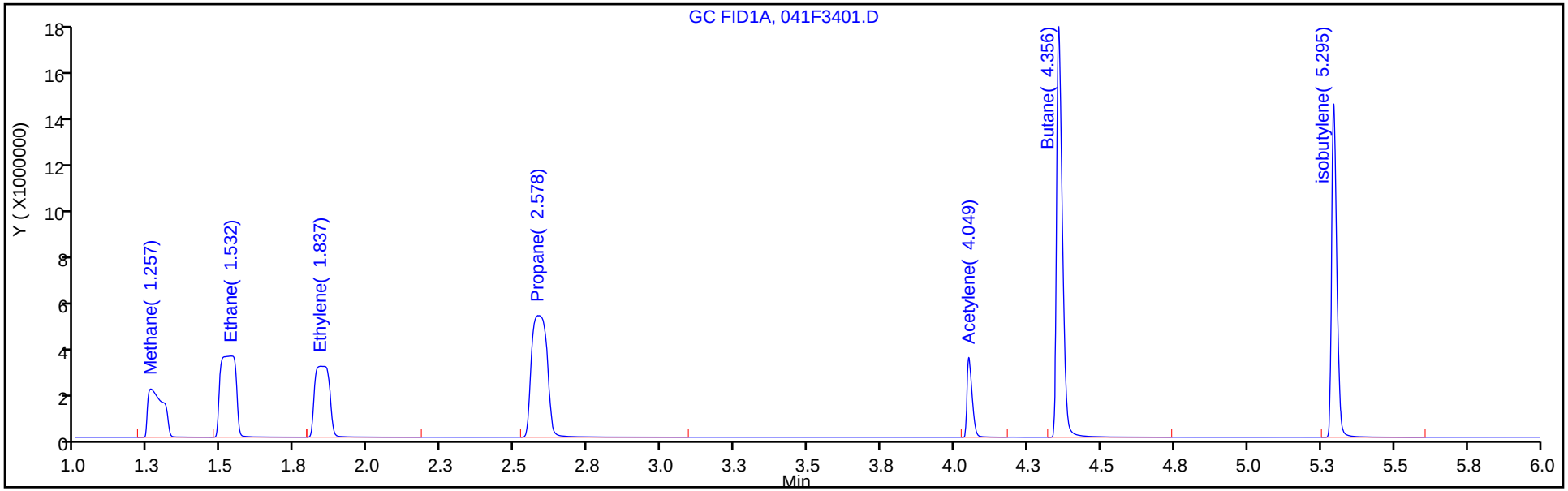
RSK7gasMathes_00027 Amount Added: 200.00 Units: uL

Report Date: 10-Mar-2020 08:20:40 Chrom Revision: 2.3 19-Feb-2020 16:45:46

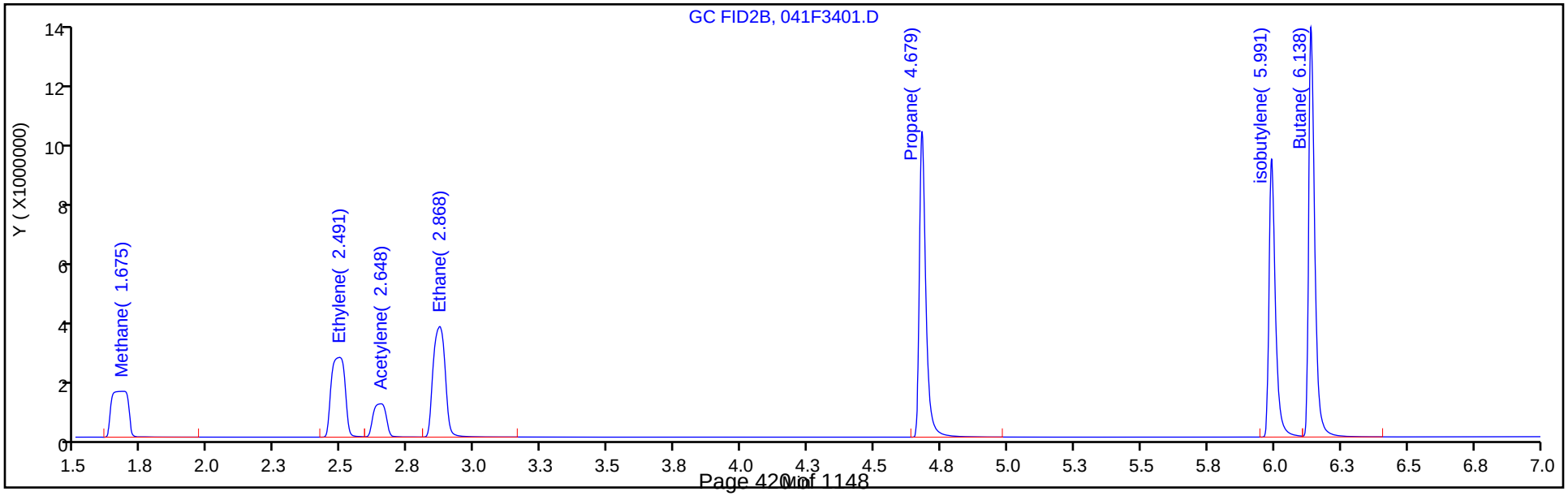
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Denver\ChromData\VGC_J\20200309-89898.b\041F3401.D | | | | |
| Injection Date: | 09-Mar-2020 21:09:24 | Instrument ID: | VGC_J | Operator ID: | sciannac |
| Lims ID: | 280-134268-H-6 MSD | | | Worklist Smp#: | 41 |
| Client ID: | PZ019-2 | | | | |
| Purge Vol: | 18.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 41 |
| 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.: 280-134268-1
SDG No.:
Client Sample ID: PZ019-2 DU
Lab Sample ID: 280-134268-6 DU
Matrix: Water
Lab File ID: 039F3201.D
Analysis Method: RSK-175
Date Collected: 03/02/2020 15:10
Sample wt/vol: 18(mL)
Date Analyzed: 03/09/2020 20:42
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.: 488165
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\20200309-89898.b\039F3201.D | | | | |
| Lims ID: | 280-134268-G-6 DU | | | | |
| Client ID: | | | | | |
| Sample Type: | DU | | | | |
| Inject. Date: | 09-Mar-2020 20:42:27 | ALS Bottle#: | 39 | Worklist Smp#: | 39 |
| Purge Vol: | 18.000 mL | Dil. Factor: | 1.0000 | | |
| Sample Info: | 280-134268-G-6 | | | | |
| Operator ID: | sciannac | Instrument ID: | VGC_J | | |
| Method: | \\chromna\Denver\ChromData\VGC_J\20200309-89898.b\RSK_J.m | | | | |
| Limit Group: | GCV - RSK 175 | | | | |
| Method Label: | DV-GC-0025: Dissolved Gases in Water by RSK-175 | | | | |
| Last Update: | 10-Mar-2020 08:20:33 | 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: | CTX0337 | | | | |

First Level Reviewer: sciannac Date: 10-Mar-2020 08:16:14

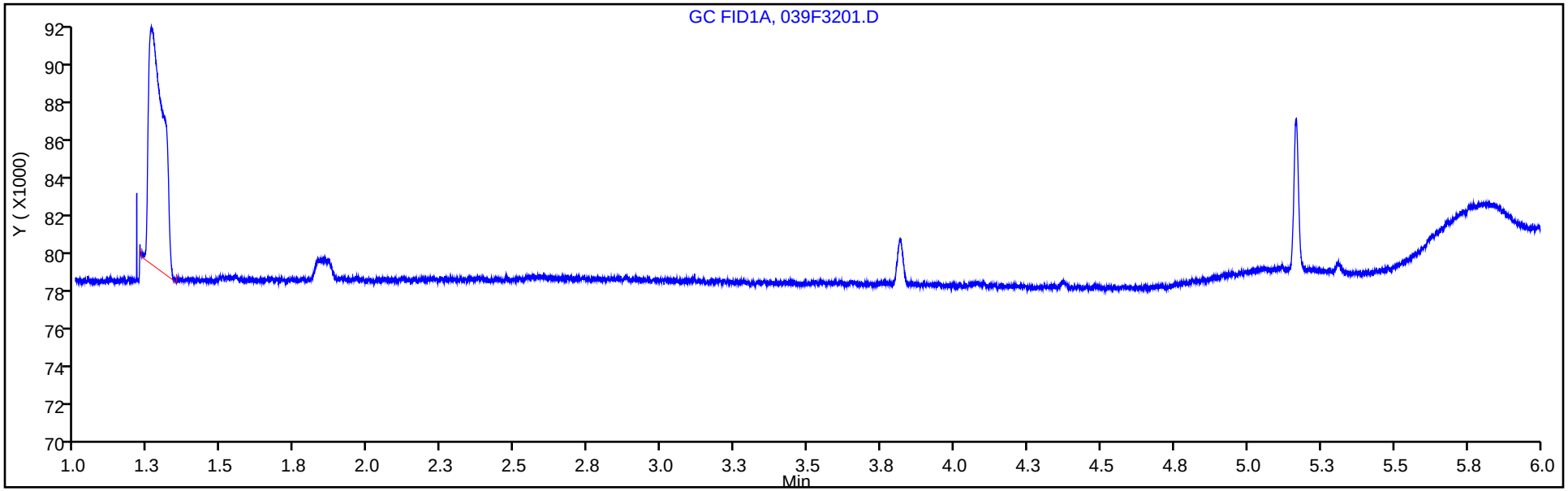
| Col | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|
| 1 Methane | | | | | | | |
| 1 | | 1.265 | | | | ND | |
| 2 | | 1.683 | | | | | |
| 2 Ethane | | | | | | | |
| 1 | | 1.544 | | | | ND | |
| 2 | | 2.881 | | | | | |
| 3 Ethylene | | | | | | | |
| 1 | | 1.863 | | | | ND | |
| 2 | | 2.506 | | | | | |
| 4 Propane | | | | | | | |
| 1 | | 2.601 | | | | ND | |
| 2 | | 4.684 | | | | | |
| 5 Acetylene | | | | | | | |
| 1 | | 4.053 | | | | ND | |
| 2 | | 2.659 | | | | | |
| 6 Butane | | | | | | | |
| 1 | | 4.358 | | | | ND | |
| 2 | | 6.143 | | | | | |
| 7 isobutylene | | | | | | | |
| 1 | | 5.294 | | | | ND | |
| 2 | | 5.996 | | | | | |

Report Date: 10-Mar-2020 08:20:38 Chrom Revision: 2.3 19-Feb-2020 16:45:46

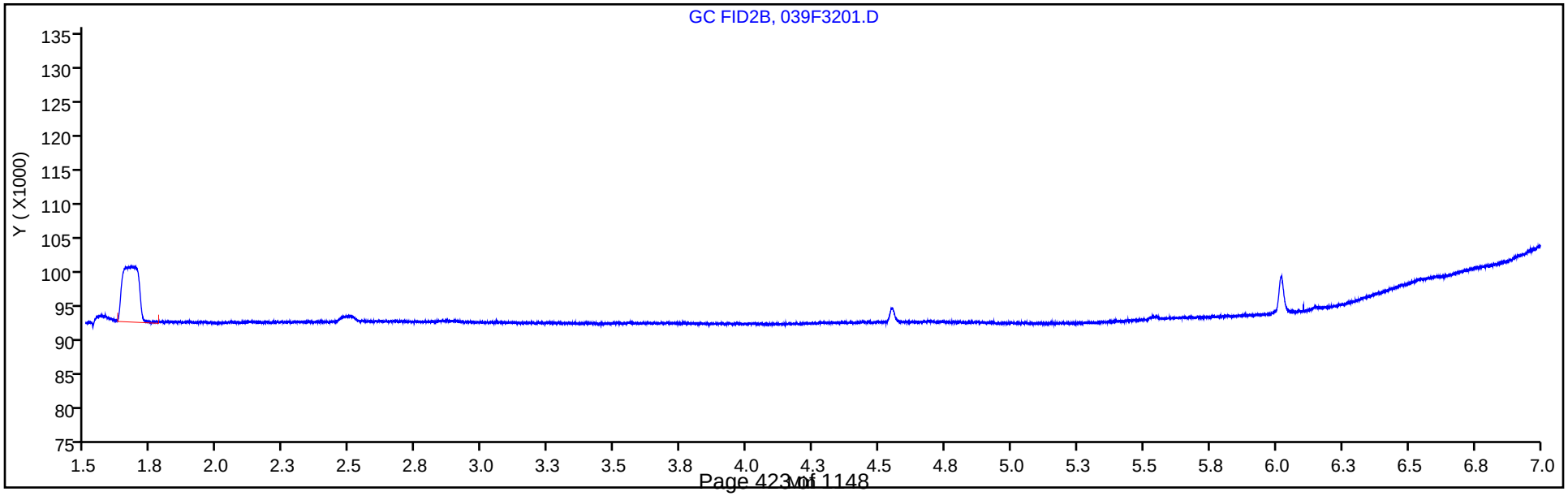
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Denver\ChromData\VGC_J\20200309-89898.b\039F3201.D | | | | |
| Injection Date: | 09-Mar-2020 20:42:27 | Instrument ID: | VGC_J | Operator ID: | sciannac |
| Lims ID: | 280-134268-G-6 DU | | | 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



GC VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134268-1

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) |

RSK-175

GC VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134268-1

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.: 280-134268-1

SDG No.:

Instrument ID: VGC_J Start Date: 03/09/2020 09:04

Analysis Batch Number: 488165 End Date: 03/10/2020 02:02

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| CCVRT 280-488165/4 | | 03/09/2020 09:04 | 1 | 004F0401.D | Rt-Alumina KCl 0.53(mm) |
| CCVRT 280-488165/4 | | 03/09/2020 09:04 | 1 | 004F0401.D | HP-Plot Q 0.53(mm) |
| CCV 280-488165/34 | | 03/09/2020 19:36 | 1 | 034F2701.D | Rt-Alumina KCl 0.53(mm) |
| CCV 280-488165/34 | | 03/09/2020 19:36 | 1 | 034F2701.D | HP-Plot Q 0.53(mm) |
| LCS 280-488165/35 | | 03/09/2020 19:49 | 1 | 035F2801.D | Rt-Alumina KCl 0.53(mm) |
| LCS 280-488165/35 | | 03/09/2020 19:49 | 1 | 035F2801.D | HP-Plot Q 0.53(mm) |
| LCSD 280-488165/36 | | 03/09/2020 20:02 | 1 | 036F2901.D | Rt-Alumina KCl 0.53(mm) |
| LCSD 280-488165/36 | | 03/09/2020 20:02 | 1 | 036F2901.D | HP-Plot Q 0.53(mm) |
| MB 280-488165/37 | | 03/09/2020 20:15 | 1 | 037F3001.D | Rt-Alumina KCl 0.53(mm) |
| MB 280-488165/37 | | 03/09/2020 20:15 | 1 | 037F3001.D | HP-Plot Q 0.53(mm) |
| 280-134268-6 | | 03/09/2020 20:28 | 1 | 038F3101.D | Rt-Alumina KCl 0.53(mm) |
| 280-134268-6 | | 03/09/2020 20:28 | 1 | 038F3101.D | HP-Plot Q 0.53(mm) |
| 280-134268-6 DU | | 03/09/2020 20:42 | 1 | 039F3201.D | Rt-Alumina KCl 0.53(mm) |
| 280-134268-6 DU | | 03/09/2020 20:42 | 1 | 039F3201.D | HP-Plot Q 0.53(mm) |
| 280-134268-6 MS | | 03/09/2020 20:55 | 1 | 040F3301.D | Rt-Alumina KCl 0.53(mm) |
| 280-134268-6 MS | | 03/09/2020 20:55 | 1 | 040F3301.D | HP-Plot Q 0.53(mm) |
| 280-134268-6 MSD | | 03/09/2020 21:09 | 1 | 041F3401.D | Rt-Alumina KCl 0.53(mm) |
| 280-134268-6 MSD | | 03/09/2020 21:09 | 1 | 041F3401.D | HP-Plot Q 0.53(mm) |
| ZZZZZ | | 03/09/2020 21:22 | 1 | | Rt-Alumina KCl 0.53(mm) |
| ZZZZZ | | 03/09/2020 21:22 | 1 | | HP-Plot Q 0.53(mm) |
| ZZZZZ | | 03/09/2020 21:36 | 1 | | Rt-Alumina KCl 0.53(mm) |
| ZZZZZ | | 03/09/2020 21:36 | 1 | | HP-Plot Q 0.53(mm) |
| ZZZZZ | | 03/09/2020 21:49 | 1 | | Rt-Alumina KCl 0.53(mm) |
| ZZZZZ | | 03/09/2020 21:49 | 1 | | HP-Plot Q 0.53(mm) |
| ZZZZZ | | 03/09/2020 22:02 | 1 | | Rt-Alumina KCl 0.53(mm) |
| ZZZZZ | | 03/09/2020 22:02 | 1 | | HP-Plot Q 0.53(mm) |
| ZZZZZ | | 03/09/2020 22:16 | 1 | | Rt-Alumina KCl 0.53(mm) |
| ZZZZZ | | 03/09/2020 22:16 | 1 | | HP-Plot Q 0.53(mm) |
| ZZZZZ | | 03/09/2020 22:29 | 1 | | Rt-Alumina KCl 0.53(mm) |
| ZZZZZ | | 03/09/2020 22:29 | 1 | | HP-Plot Q 0.53(mm) |
| ZZZZZ | | 03/09/2020 22:42 | 1 | | Rt-Alumina KCl 0.53(mm) |
| ZZZZZ | | 03/09/2020 22:42 | 1 | | HP-Plot Q 0.53(mm) |
| ZZZZZ | | 03/09/2020 22:56 | 1 | | Rt-Alumina KCl 0.53(mm) |
| ZZZZZ | | 03/09/2020 22:56 | 1 | | HP-Plot Q 0.53(mm) |
| ZZZZZ | | 03/09/2020 23:09 | 1 | | Rt-Alumina KCl 0.53(mm) |
| ZZZZZ | | 03/09/2020 23:09 | 1 | | HP-Plot Q 0.53(mm) |
| CCV 280-488165/51 | | 03/09/2020 23:23 | 1 | 051F4401.D | Rt-Alumina KCl 0.53(mm) |
| CCV 280-488165/51 | | 03/09/2020 23:23 | 1 | 051F4401.D | HP-Plot Q 0.53(mm) |
| ZZZZZ | | 03/09/2020 23:36 | 1 | | Rt-Alumina KCl 0.53(mm) |
| ZZZZZ | | 03/09/2020 23:36 | 1 | | HP-Plot Q 0.53(mm) |
| ZZZZZ | | 03/09/2020 23:49 | 1 | | Rt-Alumina KCl 0.53(mm) |
| ZZZZZ | | 03/09/2020 23:49 | 1 | | HP-Plot Q 0.53(mm) |
| ZZZZZ | | 03/10/2020 00:02 | 1 | | Rt-Alumina KCl 0.53(mm) |
| ZZZZZ | | 03/10/2020 00:02 | 1 | | HP-Plot Q 0.53(mm) |
| ZZZZZ | | 03/10/2020 00:16 | 1 | | Rt-Alumina KCl 0.53(mm) |

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GC VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134268-1

SDG No.:

Instrument ID: VGC_J Start Date: 03/09/2020 09:04

Analysis Batch Number: 488165 End Date: 03/10/2020 02:02

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| ZZZZZ | | 03/10/2020 00:16 | 1 | | HP-Plot Q 0.53(mm) |
| ZZZZZ | | 03/10/2020 00:29 | 1 | | Rt-Alumina KCl 0.53(mm) |
| ZZZZZ | | 03/10/2020 00:29 | 1 | | HP-Plot Q 0.53(mm) |
| ZZZZZ | | 03/10/2020 00:42 | 1 | | Rt-Alumina KCl 0.53(mm) |
| ZZZZZ | | 03/10/2020 00:42 | 1 | | HP-Plot Q 0.53(mm) |
| ZZZZZ | | 03/10/2020 00:56 | 1 | | Rt-Alumina KCl 0.53(mm) |
| ZZZZZ | | 03/10/2020 00:56 | 1 | | HP-Plot Q 0.53(mm) |
| 280-134268-1 | | 03/10/2020 01:09 | 1 | 059F5201.D | Rt-Alumina KCl 0.53(mm) |
| 280-134268-1 | | 03/10/2020 01:09 | 1 | 059F5201.D | HP-Plot Q 0.53(mm) |
| 280-134268-2 | | 03/10/2020 01:22 | 1 | 060F5301.D | Rt-Alumina KCl 0.53(mm) |
| 280-134268-2 | | 03/10/2020 01:22 | 1 | 060F5301.D | HP-Plot Q 0.53(mm) |
| 280-134268-9 | | 03/10/2020 01:36 | 1 | 061F5401.D | Rt-Alumina KCl 0.53(mm) |
| 280-134268-9 | | 03/10/2020 01:36 | 1 | 061F5401.D | HP-Plot Q 0.53(mm) |
| 280-134268-10 | | 03/10/2020 01:49 | 1 | 062F5501.D | Rt-Alumina KCl 0.53(mm) |
| 280-134268-10 | | 03/10/2020 01:49 | 1 | 062F5501.D | HP-Plot Q 0.53(mm) |
| CCV 280-488165/63 | | 03/10/2020 02:02 | 1 | 063F5601.D | Rt-Alumina KCl 0.53(mm) |
| CCV 280-488165/63 | | 03/10/2020 02:02 | 1 | 063F5601.D | HP-Plot Q 0.53(mm) |

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GC VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134268-1

SDG No.:

Instrument ID: VGC_J Start Date: 03/10/2020 09:29

Analysis Batch Number: 488254 End Date: 03/10/2020 23:11

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| CCVRT 280-488254/4 | | 03/10/2020 09:29 | 1 | 001F0101.D | Rt-Alumina KCl 0.53(mm) |
| CCVRT 280-488254/4 | | 03/10/2020 09:29 | 1 | 001F0101.D | HP-Plot Q 0.53(mm) |
| CCV 280-488254/33 | | 03/10/2020 16:46 | 1 | 030F2601.D | Rt-Alumina KCl 0.53(mm) |
| CCV 280-488254/33 | | 03/10/2020 16:46 | 1 | 030F2601.D | HP-Plot Q 0.53(mm) |
| LCS 280-488254/48 | | 03/10/2020 17:00 | 1 | 031F2701.D | Rt-Alumina KCl 0.53(mm) |
| LCS 280-488254/48 | | 03/10/2020 17:00 | 1 | 031F2701.D | HP-Plot Q 0.53(mm) |
| LCSD 280-488254/49 | | 03/10/2020 17:13 | 1 | 032F2801.D | Rt-Alumina KCl 0.53(mm) |
| LCSD 280-488254/49 | | 03/10/2020 17:13 | 1 | 032F2801.D | HP-Plot Q 0.53(mm) |
| MB 280-488254/50 | | 03/10/2020 17:26 | 1 | 033F2901.D | Rt-Alumina KCl 0.53(mm) |
| MB 280-488254/50 | | 03/10/2020 17:26 | 1 | 033F2901.D | HP-Plot Q 0.53(mm) |
| ZZZZZ | | 03/10/2020 17:39 | 1 | | Rt-Alumina KCl 0.53(mm) |
| ZZZZZ | | 03/10/2020 17:39 | 1 | | HP-Plot Q 0.53(mm) |
| ZZZZZ | | 03/10/2020 17:53 | 1 | | Rt-Alumina KCl 0.53(mm) |
| ZZZZZ | | 03/10/2020 17:53 | 1 | | HP-Plot Q 0.53(mm) |
| ZZZZZ | | 03/10/2020 18:06 | 1 | | Rt-Alumina KCl 0.53(mm) |
| ZZZZZ | | 03/10/2020 18:06 | 1 | | HP-Plot Q 0.53(mm) |
| ZZZZZ | | 03/10/2020 18:19 | 1 | | Rt-Alumina KCl 0.53(mm) |
| ZZZZZ | | 03/10/2020 18:19 | 1 | | HP-Plot Q 0.53(mm) |
| ZZZZZ | | 03/10/2020 18:32 | 1 | | Rt-Alumina KCl 0.53(mm) |
| ZZZZZ | | 03/10/2020 18:32 | 1 | | HP-Plot Q 0.53(mm) |
| ZZZZZ | | 03/10/2020 18:46 | 1 | | Rt-Alumina KCl 0.53(mm) |
| ZZZZZ | | 03/10/2020 18:46 | 1 | | HP-Plot Q 0.53(mm) |
| ZZZZZ | | 03/10/2020 18:59 | 1 | | Rt-Alumina KCl 0.53(mm) |
| ZZZZZ | | 03/10/2020 18:59 | 1 | | HP-Plot Q 0.53(mm) |
| ZZZZZ | | 03/10/2020 19:12 | 1 | | Rt-Alumina KCl 0.53(mm) |
| ZZZZZ | | 03/10/2020 19:12 | 1 | | HP-Plot Q 0.53(mm) |
| ZZZZZ | | 03/10/2020 19:25 | 1 | | Rt-Alumina KCl 0.53(mm) |
| ZZZZZ | | 03/10/2020 19:25 | 1 | | HP-Plot Q 0.53(mm) |
| ZZZZZ | | 03/10/2020 19:39 | 1 | | Rt-Alumina KCl 0.53(mm) |
| ZZZZZ | | 03/10/2020 19:39 | 1 | | HP-Plot Q 0.53(mm) |
| ZZZZZ | | 03/10/2020 19:52 | 1 | | Rt-Alumina KCl 0.53(mm) |
| ZZZZZ | | 03/10/2020 19:52 | 1 | | HP-Plot Q 0.53(mm) |
| ZZZZZ | | 03/10/2020 20:05 | 1 | | Rt-Alumina KCl 0.53(mm) |
| ZZZZZ | | 03/10/2020 20:05 | 1 | | HP-Plot Q 0.53(mm) |
| ZZZZZ | | 03/10/2020 20:18 | 1 | | Rt-Alumina KCl 0.53(mm) |
| ZZZZZ | | 03/10/2020 20:18 | 1 | | HP-Plot Q 0.53(mm) |
| CCV 280-488254/47 | | 03/10/2020 20:31 | 1 | 047F4301.D | Rt-Alumina KCl 0.53(mm) |
| CCV 280-488254/47 | | 03/10/2020 20:31 | 1 | 047F4301.D | HP-Plot Q 0.53(mm) |
| ZZZZZ | | 03/10/2020 20:44 | 1 | | Rt-Alumina KCl 0.53(mm) |
| ZZZZZ | | 03/10/2020 20:44 | 1 | | HP-Plot Q 0.53(mm) |
| ZZZZZ | | 03/10/2020 20:58 | 1 | | Rt-Alumina KCl 0.53(mm) |
| ZZZZZ | | 03/10/2020 20:58 | 1 | | HP-Plot Q 0.53(mm) |
| ZZZZZ | | 03/10/2020 21:11 | 1 | | Rt-Alumina KCl 0.53(mm) |
| ZZZZZ | | 03/10/2020 21:11 | 1 | | HP-Plot Q 0.53(mm) |
| ZZZZZ | | 03/10/2020 21:24 | 1 | | Rt-Alumina KCl 0.53(mm) |

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GC VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134268-1

SDG No.:

Instrument ID: VGC_J Start Date: 03/10/2020 09:29

Analysis Batch Number: 488254 End Date: 03/10/2020 23:11

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| ZZZZZ | | 03/10/2020 21:24 | 1 | | HP-Plot Q 0.53(mm) |
| ZZZZZ | | 03/10/2020 21:37 | 1 | | Rt-Alumina KCl 0.53(mm) |
| ZZZZZ | | 03/10/2020 21:37 | 1 | | HP-Plot Q 0.53(mm) |
| 280-134268-3 | | 03/10/2020 21:50 | 1 | 053F4901.D | Rt-Alumina KCl 0.53(mm) |
| 280-134268-3 | | 03/10/2020 21:50 | 1 | 053F4901.D | HP-Plot Q 0.53(mm) |
| 280-134268-4 | | 03/10/2020 22:04 | 1 | 054F5001.D | Rt-Alumina KCl 0.53(mm) |
| 280-134268-4 | | 03/10/2020 22:04 | 1 | 054F5001.D | HP-Plot Q 0.53(mm) |
| 280-134268-5 | | 03/10/2020 22:17 | 1 | 055F5101.D | Rt-Alumina KCl 0.53(mm) |
| 280-134268-5 | | 03/10/2020 22:17 | 1 | 055F5101.D | HP-Plot Q 0.53(mm) |
| 280-134268-7 | | 03/10/2020 22:31 | 1 | 056F5201.D | Rt-Alumina KCl 0.53(mm) |
| 280-134268-7 | | 03/10/2020 22:31 | 1 | 056F5201.D | HP-Plot Q 0.53(mm) |
| 280-134268-8 | | 03/10/2020 22:44 | 1 | 057F5301.D | Rt-Alumina KCl 0.53(mm) |
| 280-134268-8 | | 03/10/2020 22:44 | 1 | 057F5301.D | HP-Plot Q 0.53(mm) |
| ZZZZZ | | 03/10/2020 22:58 | 1 | | Rt-Alumina KCl 0.53(mm) |
| ZZZZZ | | 03/10/2020 22:58 | 1 | | HP-Plot Q 0.53(mm) |
| CCV 280-488254/62 | | 03/10/2020 23:11 | 1 | 059F5501.D | Rt-Alumina KCl 0.53(mm) |
| CCV 280-488254/62 | | 03/10/2020 23:11 | 1 | 059F5501.D | HP-Plot Q 0.53(mm) |

RSK-175

# GC VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-134268-1

SDG No.:

Batch Number: 488165  Batch Start Date: 03/09/20 09:04  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 280-488165/4 | | RSK-175 | | 18 mL | 18 mL | 5 SU | 200 uL | | |
| CCV 280-488165/34 | | RSK-175 | | 18 mL | 18 mL | 5 SU | 200 uL | | |
| LCS 280-488165/35 | | RSK-175 | | 18 mL | 18 mL | 5 SU | 200 uL | | |
| LCSD 280-488165/36 | | RSK-175 | | 18 mL | 18 mL | 5 SU | 200 uL | | |
| MB 280-488165/37 | | RSK-175 | | 18 mL | 18 mL | 5 SU | | | |
| 280-134268-G-6 | PZ019-2 | RSK-175 | T | 18 mL | 18 mL | < 2 SU | | | |
| 280-134268-G-6 DU | PZ019-2 | RSK-175 | T | 18 mL | 18 mL | < 2 SU | | | |
| 280-134268-H-6 MS | PZ019-2 | RSK-175 | T | 18 mL | 18 mL | < 2 SU | 200 uL | | |
| 280-134268-H-6 MSD | PZ019-2 | RSK-175 | T | 18 mL | 18 mL | < 2 SU | 200 uL | | |
| CCV 280-488165/51 | | RSK-175 | | 18 mL | 18 mL | 5 SU | 200 uL | | |
| 280-134268-H-1 | NW070-2 | RSK-175 | T | 18 mL | 18 mL | < 2 SU | | | |
| 280-134268-G-2 | NW071-2 | RSK-175 | T | 18 mL | 18 mL | < 2 SU | | | |
| 280-134268-H-9 | NW062-2 | RSK-175 | T | 18 mL | 18 mL | < 2 SU | | | |
| 280-134268-H-10 | G0080-2 | RSK-175 | T | 18 mL | 18 mL | < 2 SU | | | |
| CCV 280-488165/63 | | 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.

# GC VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-134268-1

SDG No.:

Batch Number: 488254  Batch Start Date: 03/10/20 09:29  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 280-488254/4 | | RSK-175 | | 18 mL | 18 mL | 5 SU | 200 uL | | |
| CCV 280-488254/33 | | RSK-175 | | 18 mL | 18 mL | 5 SU | 200 uL | | |
| CCV 280-488254/47 | | RSK-175 | | 18 mL | 18 mL | 5 SU | 200 uL | | |
| LCS 280-488254/48 | | RSK-175 | | 18 mL | 18 mL | 5 SU | 200 uL | | |
| LCSD 280-488254/49 | | RSK-175 | | 18 mL | 18 mL | 5 SU | 200 uL | | |
| MB 280-488254/50 | | RSK-175 | | 18 mL | 18 mL | 5 SU | | | |
| 280-134268-H-3 | CA210-2 | RSK-175 | T | 18 mL | 18 mL | < 2 SU | | | |
| 280-134268-H-4 | CA212-2 | RSK-175 | T | 18 mL | 18 mL | < 2 SU | | | |
| 280-134268-H-5 | CA211-2 | RSK-175 | T | 18 mL | 18 mL | < 2 SU | | | |
| 280-134268-I-7 | NW080R-2 | RSK-175 | T | 18 mL | 18 mL | < 2 SU | | | |
| 280-134268-I-8 | NW081R-2 | RSK-175 | T | 18 mL | 18 mL | < 2 SU | | | |
| CCV 280-488254/62 | | 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.: 280-134268-1

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 # |
|---|---|---|---|
| NW070-2 | 280-134268-1 | 57 Q M | |
| NW071-2 | 280-134268-2 | 94 M | |
| CA210-2 | 280-134268-3 | 73 Q M | |
| CA212-2 | 280-134268-4 | 108 M | |
| CA211-2 | 280-134268-5 | 115 M | |
| PZ019-2 | 280-134268-6 | 86 M | |
| NW080R-2 | 280-134268-7 | 91 M | |
| NW081R-2 | 280-134268-8 | 106 M | |
| NW062-2 | 280-134268-9 | | 100 |
| NW062-2 | 280-134268-9 | 99 M | |
| G0080-2 | 280-134268-10 | | 100 |
| G0080-2 | 280-134268-10 | 93 M | |
| | MB 280-488022/1-A | 86 | |
| | LCS 280-488022/2-A | 87 | |
| | LCS 280-488022/3-A | 87 | |
| | LCSD 280-488022/4-A | 102 | |
| PZ019-2 MS | 280-134268-6 MS | 88 M | |
| PZ019-2 MSD | 280-134268-6 MSD | 91 M | |

| | QC LIMITS |
|---|---|
| 12DNB = 1,2-Dinitrobenzene | 83-119 |

# Column to be used to flag recovery values

FORM II 8330A

FORM III
HPLC/IC LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134268-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 03100011.D

Lab ID: LCS 280-488022/2-A Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | LCS CONCENTRATION (ug/L) | LCS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| 1,3,5-Trinitrobenzene | 2.00 | 2.08 | 104 | 73-125 | |
| 1,3-Dinitrobenzene | 2.00 | 1.93 | 96 | 78-120 | |
| 2,4,6-Trinitrotoluene | 2.00 | 1.96 | 98 | 71-123 | |
| 2,4-Dinitrotoluene | 2.00 | 1.78 | 89 | 78-120 | |
| 2,6-Dinitrotoluene | 2.00 | 1.89 | 95 | 77-127 | |
| 2-Amino-4,6-dinitrotoluene | 2.00 | 1.77 | 88 | 79-120 | |
| 2-Nitrotoluene | 2.00 | 1.44 | 72 | 70-127 | |
| 3-Nitrotoluene | 2.00 | 1.56 | 78 | 73-125 | |
| 4-Amino-2,6-dinitrotoluene | 2.00 | 1.67 | 84 | 76-125 | |
| 4-Nitrotoluene | 2.00 | 1.49 | 74 | 71-127 | |
| HMX | 2.00 | 2.12 | 106 | 65-135 | M |
| Nitrobenzene | 2.00 | 1.64 | 82 | 65-134 | |
| RDX | 2.00 | 1.99 | 100 | 68-130 | |
| Tetryl | 2.00 | 1.91 | 96 | 64-128 | |

# Column to be used to flag recovery and RPD values

FORM III 8330A

FORM III
HPLC/IC LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134268-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 03100012.D

Lab ID: LCS 280-488022/3-A Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | LCS CONCENTRATION (ug/L) | LCS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| MNX | 2.33 | 1.99 J | 85 | 57-132 | M |

# 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.: 280-134268-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 03100013.D

Lab ID: LCSD 280-488022/4-A Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | LCSD CONCENTRATION (ug/L) | LCSD % REC | % RPD | QC LIMITS | | # |
|---|---|---|---|---|---|---|---|
| | | | | | RPD | REC | |
| MNX | 2.33 | 2.28 | 98 | 14 | 30 | 57-132 | |

# Column to be used to flag recovery and RPD values

FORM III 8330A

FORM III
HPLC/IC MATRIX SPIKE RECOVERY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134268-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 03100029.D

Lab ID: 280-134268-6 MS Client ID: PZ019-2 MS

| COMPOUND | SPIKE ADDED (ug/L) | SAMPLE CONCENTRATION (ug/L) | MS CONCENTRATION (ug/L) | MS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|---|
| 1,3,5-Trinitrobenzene | 1.92 | 0.40 U | 1.90 | 99 | 73-125 | M |
| 1,3-Dinitrobenzene | 1.92 | 0.20 U | 1.81 | 94 | 78-120 | |
| 2,4,6-Trinitrotoluene | 1.92 | 0.40 U | 1.77 | 92 | 71-123 | |
| 2,4-Dinitrotoluene | 1.92 | 0.20 U | 1.64 | 85 | 78-120 | |
| 2,6-Dinitrotoluene | 1.92 | 0.20 U | 1.68 | 87 | 77-127 | |
| 2-Amino-4,6-dinitrotoluene | 1.92 | 0.12 U | 1.65 | 86 | 79-120 | |
| 2-Nitrotoluene | 1.92 | 0.20 U | 0.797 | 41 | 70-127 | J1 |
| 3-Nitrotoluene | 1.92 | 0.40 U | 0.969 | 50 | 73-125 | M J1 |
| 4-Amino-2,6-dinitrotoluene | 1.92 | 0.12 U | 1.54 | 80 | 76-125 | |
| 4-Nitrotoluene | 1.92 | 0.40 U | 1.16 | 60 | 71-127 | M J1 |
| HMX | 1.92 | 0.20 U | 1.53 | 80 | 65-135 | M |
| Nitrobenzene | 1.92 | 0.20 U | 1.10 | 57 | 65-134 | J1 |
| RDX | 1.92 | 0.40 U | 1.67 | 87 | 68-130 | M |
| Tetryl | 1.92 | 0.20 U | 1.71 | 89 | 64-128 | |

# Column to be used to flag recovery and RPD values

FORM III 8330A

FORM III
HPLC/IC MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134268-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 03100030.D

Lab ID: 280-134268-6 MSD Client ID: PZ019-2 MSD

| COMPOUND | SPIKE ADDED (ug/L) | MSD CONCENTRATION (ug/L) | MSD % REC | % RPD | QC LIMITS RPD | QC LIMITS REC | # |
|---|---|---|---|---|---|---|---|
| 1,3,5-Trinitrobenzene | 1.95 | 1.83 | 94 | 4 | 30 | 73-125 | M |
| 1,3-Dinitrobenzene | 1.95 | 1.72 | 88 | 5 | 30 | 78-120 | |
| 2,4,6-Trinitrotoluene | 1.95 | 1.73 | 89 | 3 | 30 | 71-123 | |
| 2,4-Dinitrotoluene | 1.95 | 1.55 | 80 | 6 | 30 | 78-120 | |
| 2,6-Dinitrotoluene | 1.95 | 1.60 | 82 | 5 | 30 | 77-127 | |
| 2-Amino-4,6-dinitrotoluene | 1.95 | 1.56 | 80 | 6 | 30 | 79-120 | |
| 2-Nitrotoluene | 1.95 | 0.894 | 46 | 11 | 30 | 70-127 | J1 |
| 3-Nitrotoluene | 1.95 | 1.06 | 54 | 9 | 30 | 73-125 | J1 |
| 4-Amino-2,6-dinitrotoluene | 1.95 | 1.43 | 73 | 7 | 30 | 76-125 | J1 |
| 4-Nitrotoluene | 1.95 | 1.08 | 55 | 8 | 30 | 71-127 | J1 |
| HMX | 1.95 | 1.58 | 81 | 3 | 30 | 65-135 | M |
| Nitrobenzene | 1.95 | 1.19 | 61 | 8 | 30 | 65-134 | J1 |
| RDX | 1.95 | 1.61 | 83 | 3 | 30 | 68-130 | M |
| Tetryl | 1.95 | 1.67 | 86 | 2 | 30 | 64-128 | |

# 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.: 280-134268-1

SDG No.:

Lab Sample ID: MB 280-488022/1-A

Matrix: Water  Date Extracted: 03/07/2020 16:07

Lab File ID:(1) 03100010.D  Lab File ID:(2)

Date Analyzed:(1) 03/11/2020 12:55  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 280-488022/2-A | 03/11/2020 13:18 | |
| | LCS 280-488022/3-A | 03/11/2020 13:41 | |
| | LCSD 280-488022/4-A | 03/11/2020 14:04 | |
| NW070-2 | 280-134268-1 | 03/11/2020 17:54 | |
| NW071-2 | 280-134268-2 | 03/11/2020 18:16 | |
| CA210-2 | 280-134268-3 | 03/11/2020 18:39 | |
| CA212-2 | 280-134268-4 | 03/11/2020 19:02 | |
| CA211-2 | 280-134268-5 | 03/11/2020 19:25 | |
| PZ019-2 | 280-134268-6 | 03/11/2020 19:48 | |
| PZ019-2 MS | 280-134268-6 MS | 03/11/2020 20:11 | |
| PZ019-2 MSD | 280-134268-6 MSD | 03/11/2020 20:34 | |
| NW080R-2 | 280-134268-7 | 03/11/2020 20:57 | |
| NW081R-2 | 280-134268-8 | 03/11/2020 21:20 | |
| NW062-2 | 280-134268-9 | 03/11/2020 22:52 | 03/17/2020 00:44 |
| G0080-2 | 280-134268-10 | 03/11/2020 23:15 | 03/17/2020 01:19 |

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134268-1

SDG No.:

Client Sample ID: G0080-2 Lab Sample ID: 280-134268-10

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

Date Analyzed (1): 03/11/2020 23:15 Date Analyzed (2): 03/17/2020 01:19

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

| ANALYTE | COL | PEAK | RT | RT WINDOW | | CONCENTRATION | | RPD |
|---|---|---|---|---|---|---|---|---|
| | | | | FROM | TO | PEAK | MEAN | |
| 4-Amino-2,6-dinitrotoluene | 1 | | 11.33 | 11.23 | 11.43 | 0.078 | | 13.9 |
| | 2 | | 16.74 | 16.62 | 16.92 | 0.068 | | |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-134268-1
SDG No.:
Client Sample ID: NW070-2
Lab Sample ID: 280-134268-1
Matrix: Water
Lab File ID: 03100023.D
Analysis Method: 8330A
Date Collected: 03/02/2020 14:35
Extraction Method: 3535
Date Extracted: 03/07/2020 16:07
Sample wt/vol: 504.6(mL)
Date Analyzed: 03/11/2020 17:54
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.: 488297
Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | LOQ | LOD | DL |
|---|---|---|---|---|---|---|
| 99-35-4 | 1,3,5-Trinitrobenzene | 0.40 | U Q | 0.99 | 0.40 | 0.20 |
| 99-65-0 | 1,3-Dinitrobenzene | 0.20 | U Q | 0.40 | 0.20 | 0.088 |
| 118-96-7 | 2,4,6-Trinitrotoluene | 0.40 | U Q | 0.40 | 0.40 | 0.16 |
| 121-14-2 | 2,4-Dinitrotoluene | 0.20 | U Q | 0.40 | 0.20 | 0.083 |
| 606-20-2 | 2,6-Dinitrotoluene | 0.20 | U Q | 0.20 | 0.20 | 0.064 |
| 35572-78-2 | 2-Amino-4,6-dinitrotoluene | 0.12 | U Q | 0.20 | 0.12 | 0.050 |
| 88-72-2 | 2-Nitrotoluene | 0.20 | U M Q | 0.40 | 0.20 | 0.085 |
| 99-08-1 | 3-Nitrotoluene | 0.40 | U Q | 0.40 | 0.40 | 0.19 |
| 19406-51-0 | 4-Amino-2,6-dinitrotoluene | 0.12 | U Q | 0.20 | 0.12 | 0.057 |
| 99-99-0 | 4-Nitrotoluene | 0.40 | U Q | 0.99 | 0.40 | 0.20 |
| 2691-41-0 | HMX | 0.20 | U Q | 0.40 | 0.20 | 0.087 |
| 5755-27-1 | MNX | 0.40 | U Q | 2.0 | 0.40 | 0.15 |
| 98-95-3 | Nitrobenzene | 0.20 | U Q | 0.40 | 0.20 | 0.090 |
| 121-82-4 | RDX | 0.40 | U Q | 0.40 | 0.40 | 0.16 |
| 479-45-8 | Tetryl | 0.20 | U Q | 0.24 | 0.20 | 0.079 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 528-29-0 | 1,2-Dinitrobenzene | 57 | Q M | 83-119 |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Denver\ChromData\CHHPLC_X\20200310-89952.b\03100023.D | | | | |
| Lims ID: | 280-134268-A-1-A | | | | |
| Client ID: | NW070-2 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 11-Mar-2020 17:54:01 | ALS Bottle#: | 23 | Worklist Smp#: | 23 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 280-134268-A-1-A | | | | |
| Misc. Info.: | 280-0089952-023 | | | | |
| Operator ID: | CB | Instrument ID: | CHHPLC_X3 | | |
| Method: | \\chromna\Denver\ChromData\CHHPLC_X\20200310-89952.b\8330_X3.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 12-Mar-2020 10:12:34 | 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: | CTX0315 | | | | |
| First Level Reviewer: beckerc | | Date: | 12-Mar-2020 08:24:06 | | |

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|
| 3 HMX | 1 | | 6.685 | | | ND | |
| 6 MNX | 1 | | 7.361 | | | ND | |
| 7 RDX | 1 | | 7.745 | | | ND | |
| $ 9 1,2-Dinitrobenzene | 1 | 8.709 | 8.705 | 0.004 | 16789 | 0.1148 | M |
| 10 1,3,5-Trinitrobenzene | 1 | | 8.878 | | | ND | |
| 11 1,3-Dinitrobenzene | 1 | | 9.525 | | | ND | |
| 12 Nitrobenzene | 1 | | 9.911 | | | ND | |
| 14 Tetryl | 1 | | 10.211 | | | ND | |
| 16 2,4,6-Trinitrotoluene | 1 | | 11.178 | | | ND | |
| 17 4-Amino-2,6-dinitrotoluene | 1 | | 11.325 | | | ND | |
| 18 2-Amino-4,6-dinitrotoluene | 1 | | 11.611 | | | ND | |
| 19 2,6-Dinitrotoluene | 1 | | 11.785 | | | ND | |
| 20 2,4-Dinitrotoluene | 1 | | 11.978 | | | ND | |
| 21 o-Nitrotoluene | 1 | | 12.818 | | | ND | U |
| 22 p-Nitrotoluene | 1 | | 13.258 | | | ND | |
| 23 m-Nitrotoluene | 1 | | 13.858 | | | ND | |

## QC Flag Legend

Review Flags

M - Manually Integrated

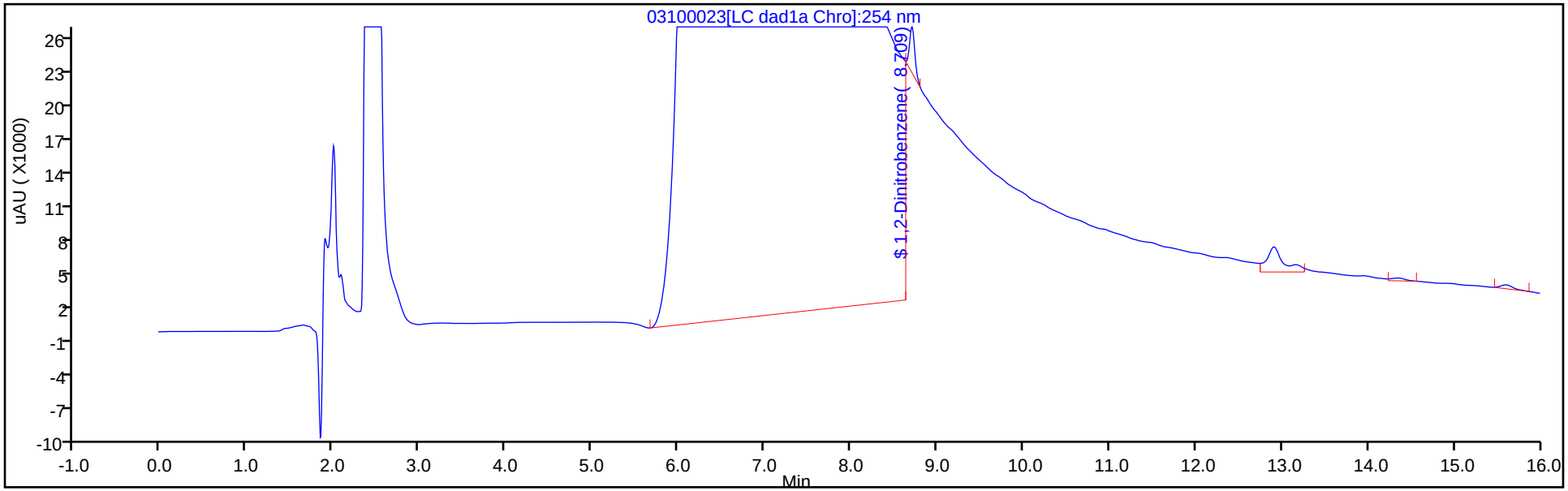
U - Marked Undetected

Report Date: 12-Mar-2020 10:29:35 Chrom Revision: 2.3 19-Feb-2020 16:45:46

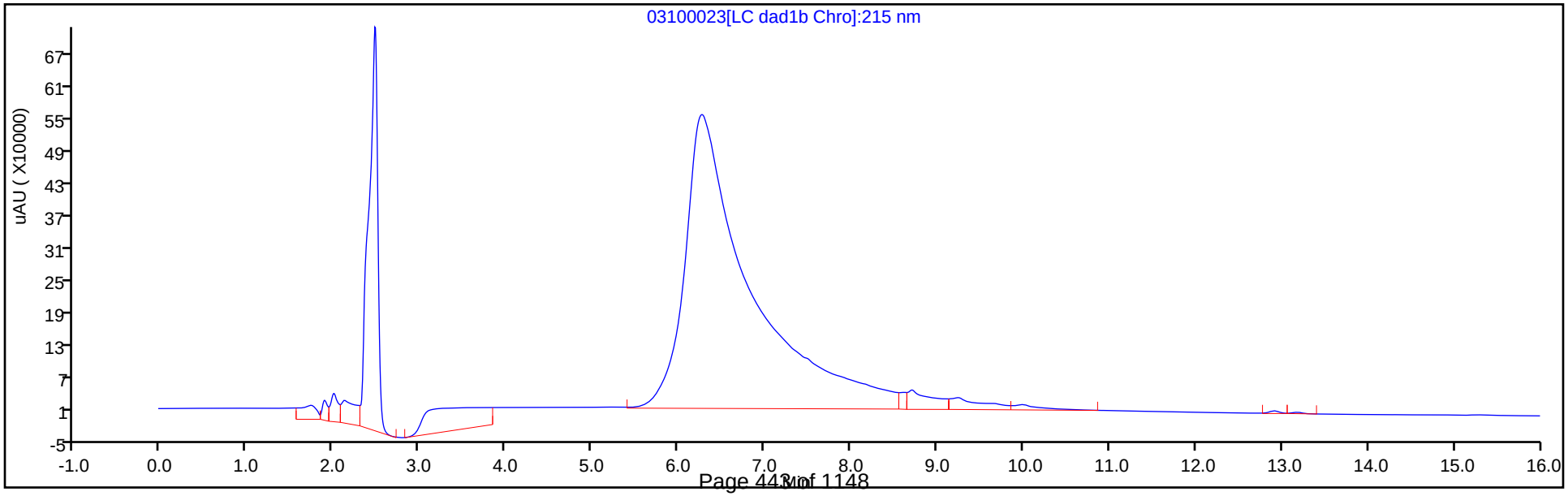
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200310-89952.b\03100023.d | | | | |
| Injection Date: | 11-Mar-2020 17:54:01 | Instrument ID: | CHHPLC_X3 | Operator ID: | CB |
| Lims ID: | 280-134268-A-1-A | Lab Sample ID: | 280-134268-1 | Worklist Smp#: | 23 |
| Client ID: | NW070-2 | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 23 |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |

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




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



Eurofins TestAmerica, Denver
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Denver\ChromData\CHHPLC_X\20200310-89952.b\03100023.D | | | | |
| Lims ID: | 280-134268-A-1-A | | | | |
| Client ID: | NW070-2 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 11-Mar-2020 17:54:01 | ALS Bottle#: | 23 | Worklist Smp#: | 23 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 280-134268-A-1-A | | | | |
| Misc. Info.: | 280-0089952-023 | | | | |
| Operator ID: | CB | Instrument ID: | CHHPLC_X3 | | |
| Method: | \\chromna\Denver\ChromData\CHHPLC_X\20200310-89952.b\8330_X3.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 12-Mar-2020 10:12:34 | 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: | CTX0315 | | | | |

First Level Reviewer: beckerc Date: 12-Mar-2020 08:24:06

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 9 1,2-Dinitrobenzene | 0.2000 | 0.1148 | 57.41 |

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

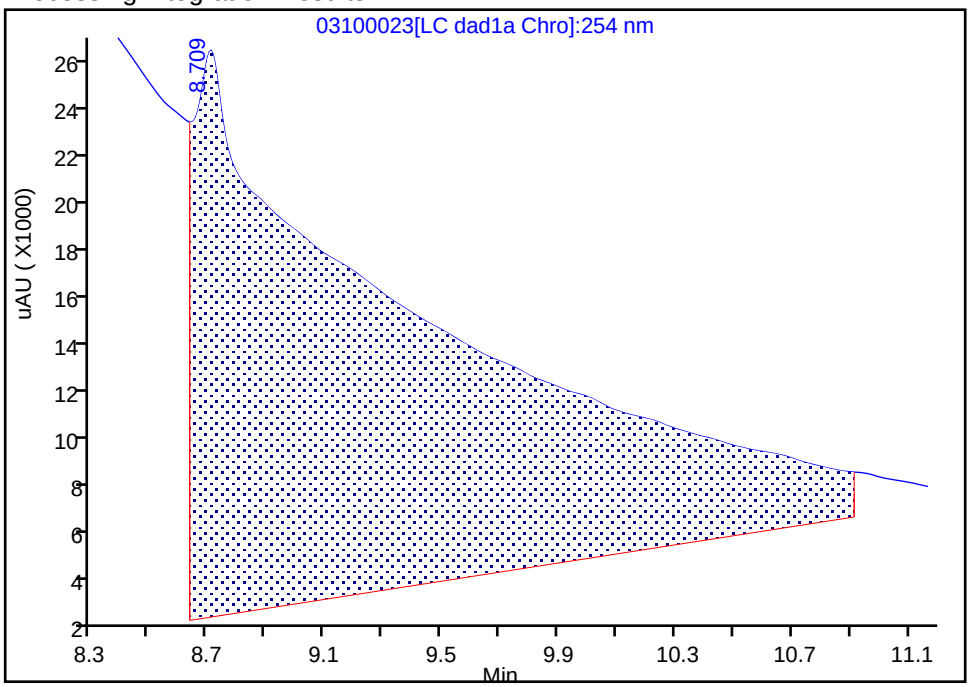
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200310-89952.b\03100023.d | | | | |
| Injection Date: | 11-Mar-2020 17:54:01 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | 280-134268-A-1-A | Lab Sample ID: | 280-134268-1 | | |
| Client ID: | NW070-2 | | | | |
| Operator ID: | CB | ALS Bottle#: | 23 | Worklist Smp#: | 23 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## $ 9 1,2-Dinitrobenzene, CAS: 528-29-0

Signal: 1

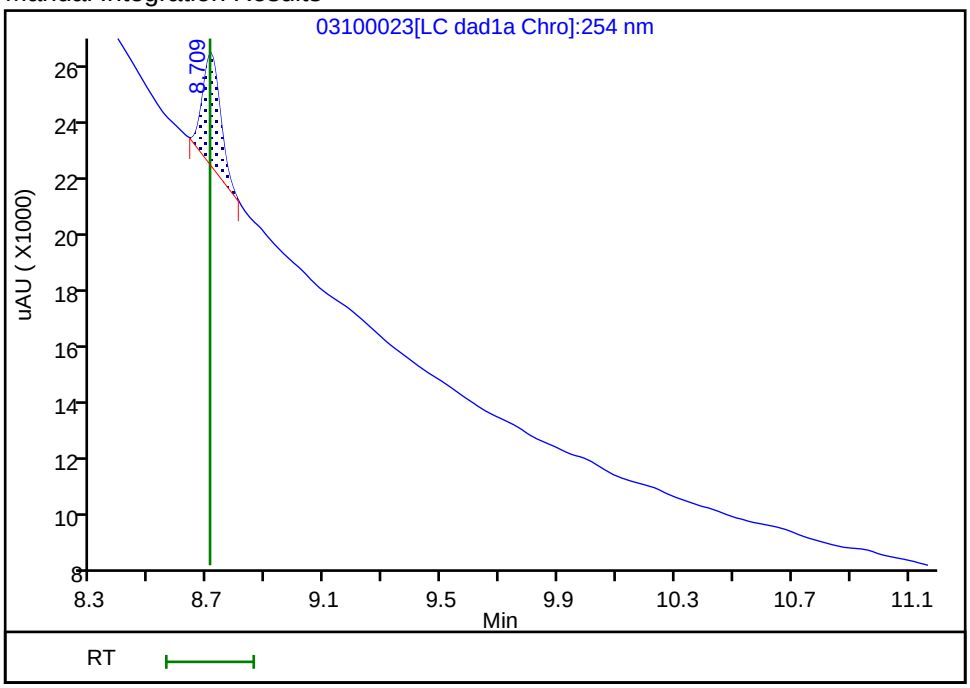
Processing Integration Results

RT: 8.71
Area: 1267282
Amount: 8.667249
Amount Units: ug/mL




Manual Integration Results

RT: 8.71
Area: 16789
Amount: 0.114824
Amount Units: ug/mL




Reviewer: beckerc, 12-Mar-2020 08:23:49

Audit Action: Manually Integrated Audit Reason: Baseline

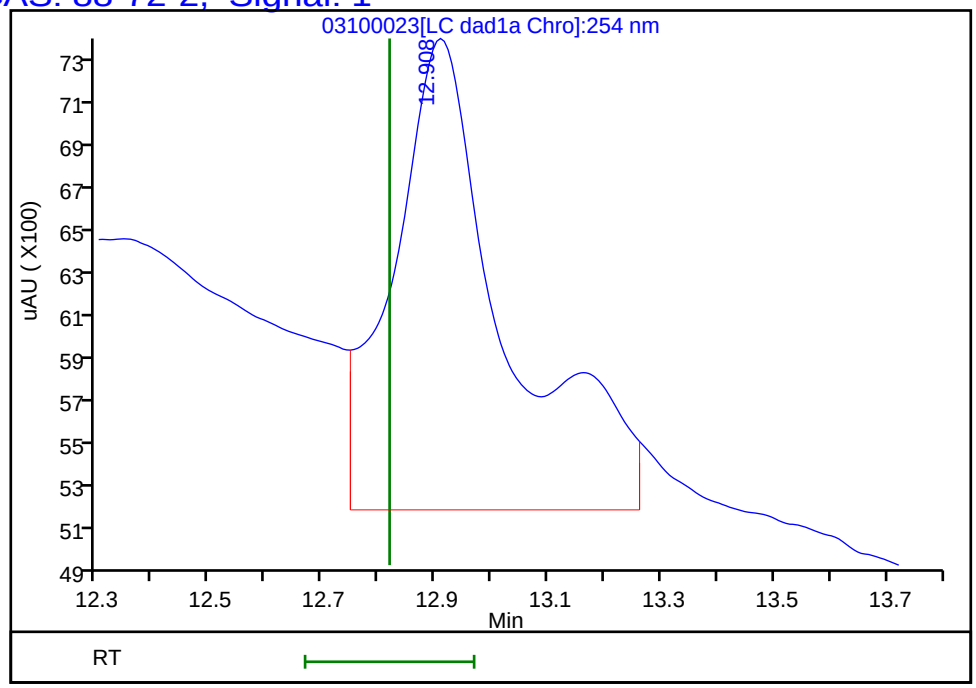
User Disabled Compound Report

Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200310-89952.b\03100023.d | | | | |
| Injection Date: | 11-Mar-2020 17:54:01 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | 280-134268-A-1-A | Lab Sample ID: | 280-134268-1 | | |
| Client ID: | NW070-2 | | | | |
| Operator ID: | CB | ALS Bottle#: | 23 | Worklist Smp#: | 23 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 21 o-Nitrotoluene, CAS: 88-72-2, Signal: 1

RT: 12.91
Response: 30088
Amount: 0.209179




Reviewer: beckerc, 12-Mar-2020 08:24:06
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.: 280-134268-1
SDG No.:
Client Sample ID: NW071-2
Lab Sample ID: 280-134268-2
Matrix: Water
Lab File ID: 03100024.D
Analysis Method: 8330A
Date Collected: 03/02/2020 15:40
Extraction Method: 3535
Date Extracted: 03/07/2020 16:07
Sample wt/vol: 501.2(mL)
Date Analyzed: 03/11/2020 18:16
Con. Extract Vol.: 5(mL)
Dilution Factor: 1
Injection Volume: 100(uL)
GC Column: UltraCarb5uODS ID: 4.6(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 488297
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 | 0.088 |
| 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 | 0.064 |
| 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 | 0.085 |
| 99-08-1 | 3-Nitrotoluene | 0.40 | U M | 0.40 | 0.40 | 0.19 |
| 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 | 0.087 |
| 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 | 94 | M | 83-119 |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Denver\ChromData\CHHPLC_X\20200310-89952.b\03100024.D | | | | |
| Lims ID: | 280-134268-A-2-A | | | | |
| Client ID: | NW071-2 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 11-Mar-2020 18:16:56 | ALS Bottle#: | 24 | Worklist Smp#: | 24 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 280-134268-A-2-A | | | | |
| Misc. Info.: | 280-0089952-024 | | | | |
| Operator ID: | CB | Instrument ID: | CHHPLC_X3 | | |
| Method: | \\chromna\Denver\ChromData\CHHPLC_X\20200310-89952.b\8330_X3.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 12-Mar-2020 08:50:00 | 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: | CTX0315 | | | | |
| First Level Reviewer: beckerc | | Date: | 12-Mar-2020 08:24:44 | | |

| | Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|
| | 3 HMX | 1 | | 6.685 | | | ND | |
| | 6 MNX | 1 | | 7.361 | | | ND | U |
| | 7 RDX | 1 | | 7.745 | | | ND | |
| $ | 9 1,2-Dinitrobenzene | 1 | 8.707 | 8.705 | 0.002 | 27413 | 0.1875 | M |
| | 10 1,3,5-Trinitrobenzene | 1 | | 8.878 | | | ND | |
| | 11 1,3-Dinitrobenzene | 1 | | 9.525 | | | ND | |
| | 12 Nitrobenzene | 1 | | 9.911 | | | ND | |
| | 14 Tetryl | 1 | | 10.211 | | | ND | |
| | 16 2,4,6-Trinitrotoluene | 1 | | 11.178 | | | ND | |
| | 17 4-Amino-2,6-dinitrotoluene | 1 | | 11.325 | | | ND | |
| | 18 2-Amino-4,6-dinitrotoluene | 1 | | 11.611 | | | ND | |
| | 19 2,6-Dinitrotoluene | 1 | | 11.785 | | | ND | |
| | 20 2,4-Dinitrotoluene | 1 | | 11.978 | | | ND | |
| | 21 o-Nitrotoluene | 1 | | 12.818 | | | ND | |
| | 22 p-Nitrotoluene | 1 | | 13.258 | | | ND | |
| | 23 m-Nitrotoluene | 1 | | 13.858 | | | ND | U |

## QC Flag Legend

Review Flags

M - Manually Integrated

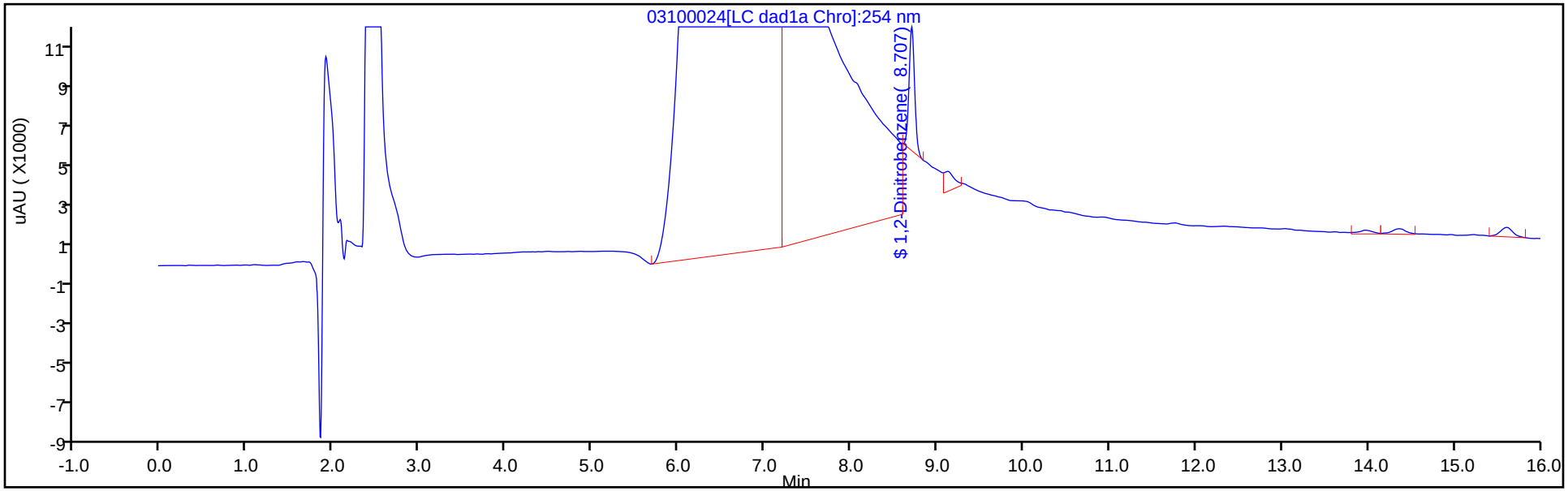
U - Marked Undetected

Report Date: 12-Mar-2020 08:50:02 Chrom Revision: 2.3 19-Feb-2020 16:45:46

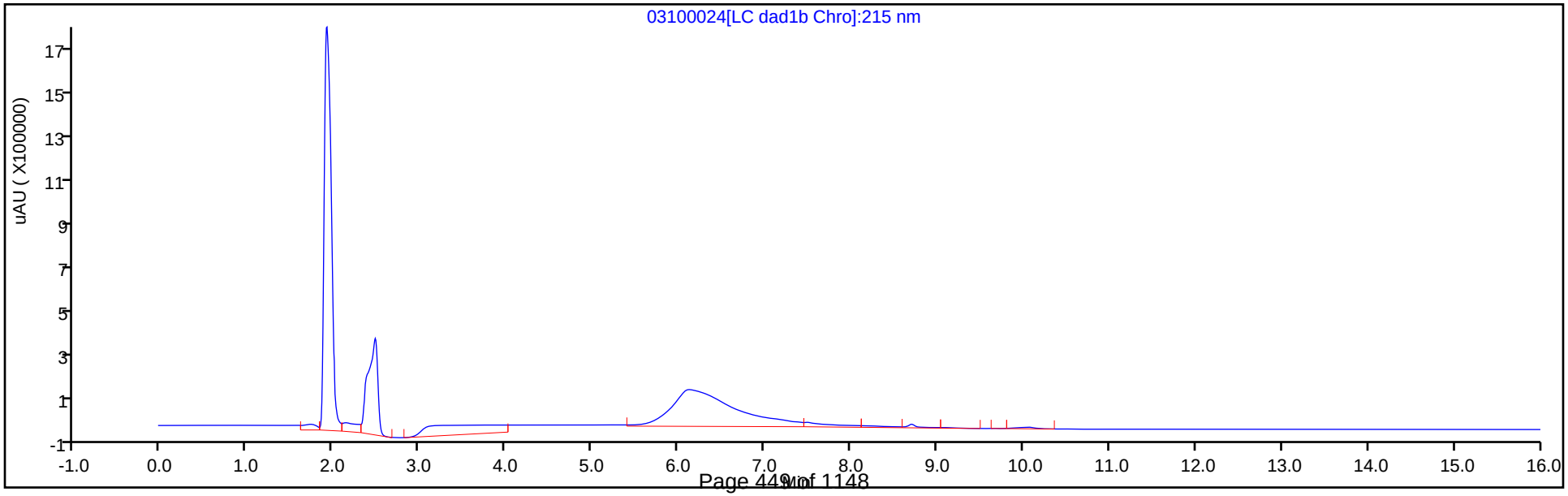
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200310-89952.b\03100024.d | | | | |
| Injection Date: | 11-Mar-2020 18:16:56 | Instrument ID: | CHHPLC_X3 | Operator ID: | CB |
| Lims ID: | 280-134268-A-2-A | Lab Sample ID: | 280-134268-2 | Worklist Smp#: | 24 |
| Client ID: | NW071-2 | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 24 |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |

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




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



Eurofins TestAmerica, Denver
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Denver\ChromData\CHHPLC_X\20200310-89952.b\03100024.D | | | | |
| Lims ID: | 280-134268-A-2-A | | | | |
| Client ID: | NW071-2 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 11-Mar-2020 18:16:56 | ALS Bottle#: | 24 | Worklist Smp#: | 24 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 280-134268-A-2-A | | | | |
| Misc. Info.: | 280-0089952-024 | | | | |
| Operator ID: | CB | Instrument ID: | CHHPLC_X3 | | |

| | | | |
|---|---|---|---|
| Method: | \\chromna\Denver\ChromData\CHHPLC_X\20200310-89952.b\8330_X3.m | | |
| Limit Group: | GCSV - 8330 | | |
| Last Update: | 12-Mar-2020 08:50:00 | 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: | CTX0315 | |

First Level Reviewer: beckerc Date: 12-Mar-2020 08:24:44

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 9 1,2-Dinitrobenzene | 0.2000 | 0.1875 | 93.74 |

Eurofins TestAmerica, Denver

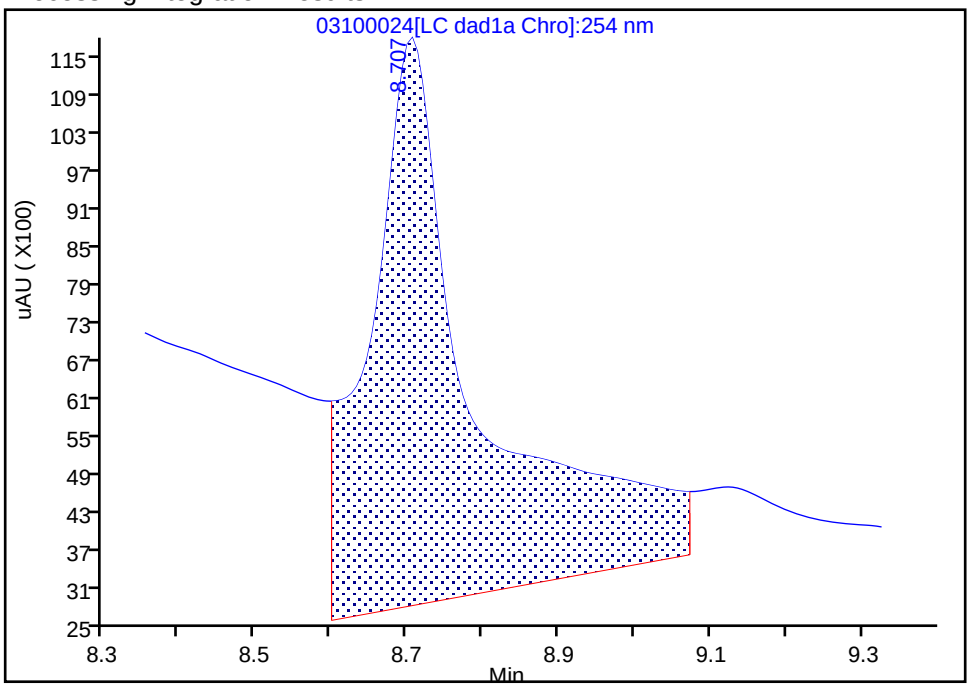
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200310-89952.b\03100024.d | | | | |
| Injection Date: | 11-Mar-2020 18:16:56 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | 280-134268-A-2-A | Lab Sample ID: | 280-134268-2 | | |
| Client ID: | NW071-2 | | | | |
| Operator ID: | CB | ALS Bottle#: | 24 | Worklist Smp#: | 24 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## $ 9 1,2-Dinitrobenzene, CAS: 528-29-0

Signal: 1

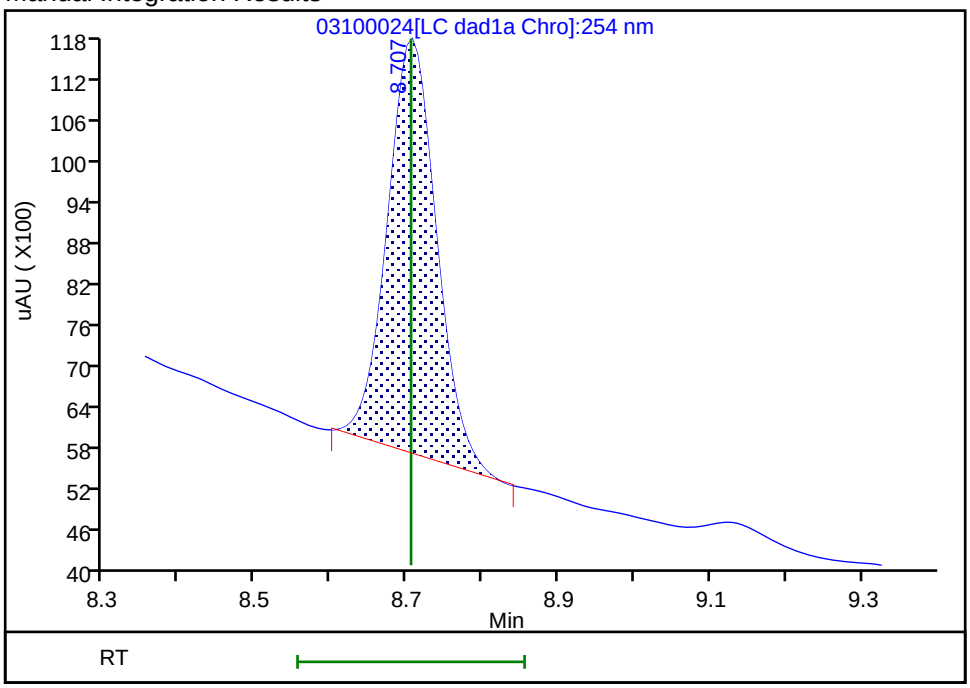
Processing Integration Results

RT: 8.71
Area: 89421
Amount: 0.611572
Amount Units: ug/mL




Manual Integration Results

RT: 8.71
Area: 27413
Amount: 0.187484
Amount Units: ug/mL




Reviewer: beckerc, 12-Mar-2020 08:24:23
Audit Action: Manually Integrated Audit Reason: Baseline

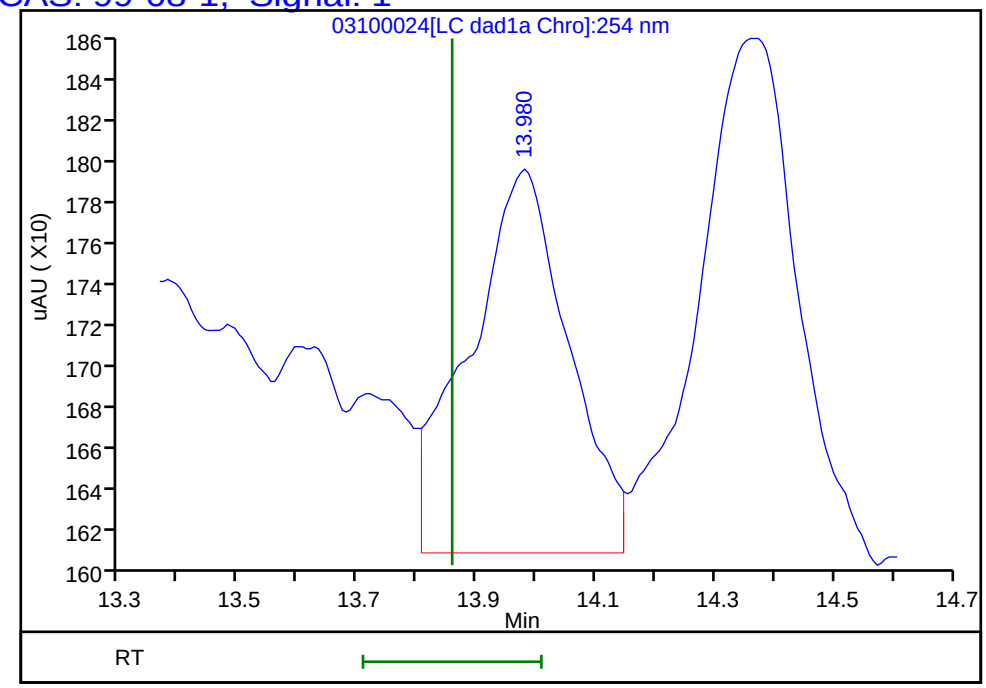
User Disabled Compound Report

Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200310-89952.b\03100024.d | | | | |
| Injection Date: | 11-Mar-2020 18:16:56 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | 280-134268-A-2-A | Lab Sample ID: | 280-134268-2 | | |
| Client ID: | NW071-2 | | | | |
| Operator ID: | CB | ALS Bottle#: | 24 | Worklist Smp#: | 24 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 23 m-Nitrotoluene, CAS: 99-08-1, Signal: 1

RT: 13.98
Response: 2184
Amount: 0.014159




Reviewer: beckerc, 12-Mar-2020 08:24:44
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

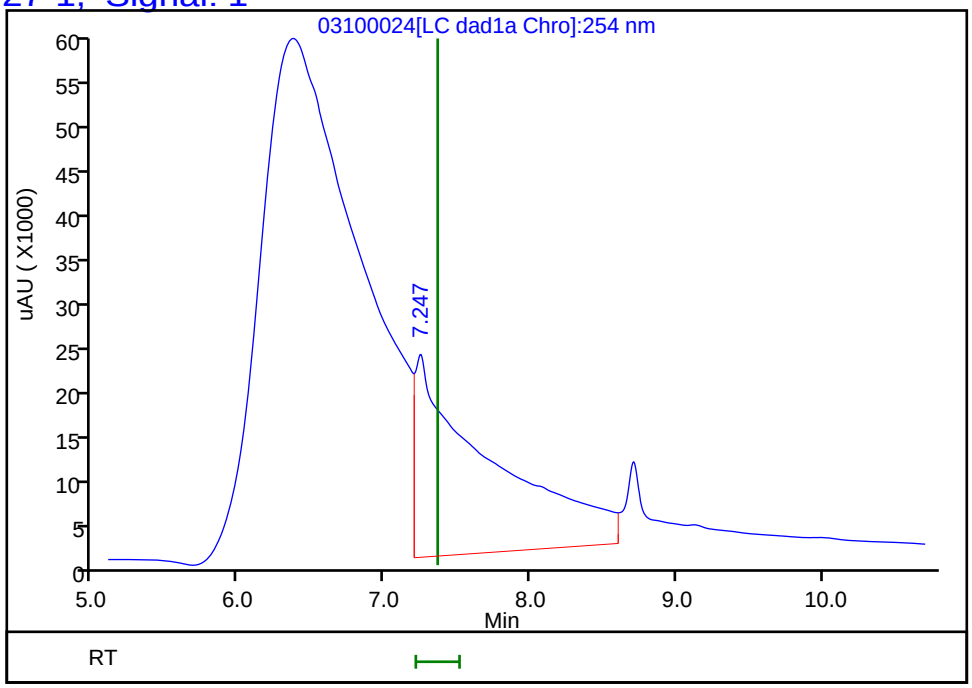
User Disabled Compound Report

Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200310-89952.b\03100024.d | | | | |
| Injection Date: | 11-Mar-2020 18:16:56 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | 280-134268-A-2-A | Lab Sample ID: | 280-134268-2 | | |
| Client ID: | NW071-2 | | | | |
| Operator ID: | CB | ALS Bottle#: | 24 | Worklist Smp#: | 24 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 6 MNX, CAS: 5755-27-1, Signal: 1

RT: 7.25
Response: 812910
Amount: 5.127340




Reviewer: beckerc, 12-Mar-2020 08:24:44
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.: 280-134268-1
SDG No.:
Client Sample ID: CA210-2
Lab Sample ID: 280-134268-3
Matrix: Water
Lab File ID: 03100025.D
Analysis Method: 8330A
Date Collected: 03/03/2020 09:00
Extraction Method: 3535
Date Extracted: 03/07/2020 16:07
Sample wt/vol: 519.4(mL)
Date Analyzed: 03/11/2020 18:39
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.: 488297
Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | LOQ | LOD | DL |
|---|---|---|---|---|---|---|
| 99-35-4 | 1,3,5-Trinitrobenzene | 0.39 | U Q | 0.96 | 0.39 | 0.19 |
| 99-65-0 | 1,3-Dinitrobenzene | 0.19 | U Q | 0.39 | 0.19 | 0.085 |
| 118-96-7 | 2,4,6-Trinitrotoluene | 0.39 | U Q | 0.39 | 0.39 | 0.15 |
| 121-14-2 | 2,4-Dinitrotoluene | 0.19 | U Q | 0.39 | 0.19 | 0.081 |
| 606-20-2 | 2,6-Dinitrotoluene | 0.19 | U Q | 0.19 | 0.19 | 0.062 |
| 35572-78-2 | 2-Amino-4,6-dinitrotoluene | 0.12 | U Q | 0.19 | 0.12 | 0.049 |
| 88-72-2 | 2-Nitrotoluene | 0.19 | U Q | 0.39 | 0.19 | 0.082 |
| 99-08-1 | 3-Nitrotoluene | 0.39 | U Q | 0.39 | 0.39 | 0.19 |
| 19406-51-0 | 4-Amino-2,6-dinitrotoluene | 0.12 | U Q | 0.19 | 0.12 | 0.056 |
| 99-99-0 | 4-Nitrotoluene | 0.39 | U Q | 0.96 | 0.39 | 0.19 |
| 2691-41-0 | HMX | 0.19 | U Q | 0.39 | 0.19 | 0.084 |
| 5755-27-1 | MNX | 0.39 | U M Q | 1.9 | 0.39 | 0.15 |
| 98-95-3 | Nitrobenzene | 0.19 | U Q | 0.39 | 0.19 | 0.088 |
| 121-82-4 | RDX | 0.39 | U Q | 0.39 | 0.39 | 0.15 |
| 479-45-8 | Tetryl | 0.19 | U Q | 0.23 | 0.19 | 0.076 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 528-29-0 | 1,2-Dinitrobenzene | 73 | Q M | 83-119 |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Denver\ChromData\CHHPLC_X\20200310-89952.b\03100025.D | | | | |
| Lims ID: | 280-134268-A-3-A | | | | |
| Client ID: | CA210-2 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 11-Mar-2020 18:39:51 | ALS Bottle#: | 25 | Worklist Smp#: | 25 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 280-134268-A-3-A | | | | |
| Misc. Info.: | 280-0089952-025 | | | | |
| Operator ID: | CB | Instrument ID: | CHHPLC_X3 | | |
| Method: | \\chromna\Denver\ChromData\CHHPLC_X\20200310-89952.b\8330_X3.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 12-Mar-2020 08:50:00 | 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: | CTX0315 | | | | |
| First Level Reviewer: beckerc | | Date: | 12-Mar-2020 08:25:14 | | |

| | Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|
| | 3 HMX | 1 | | 6.685 | | | ND | |
| | 6 MNX | 1 | | 7.361 | | | ND | U |
| | 7 RDX | 1 | | 7.745 | | | ND | |
| $ | 9 1,2-Dinitrobenzene | 1 | 8.713 | 8.705 | 0.008 | 21273 | 0.1455 | M |
| | 10 1,3,5-Trinitrobenzene | 1 | | 8.878 | | | ND | |
| | 11 1,3-Dinitrobenzene | 1 | | 9.525 | | | ND | |
| | 12 Nitrobenzene | 1 | | 9.911 | | | ND | |
| | 14 Tetryl | 1 | | 10.211 | | | ND | |
| | 16 2,4,6-Trinitrotoluene | 1 | | 11.178 | | | ND | |
| | 17 4-Amino-2,6-dinitrotoluene | 1 | | 11.325 | | | ND | |
| | 18 2-Amino-4,6-dinitrotoluene | 1 | | 11.611 | | | ND | |
| | 19 2,6-Dinitrotoluene | 1 | | 11.785 | | | ND | |
| | 20 2,4-Dinitrotoluene | 1 | | 11.978 | | | ND | |
| | 21 o-Nitrotoluene | 1 | | 12.818 | | | ND | |
| | 22 p-Nitrotoluene | 1 | | 13.258 | | | ND | |
| | 23 m-Nitrotoluene | 1 | | 13.858 | | | ND | |

## QC Flag Legend

Review Flags

M - Manually Integrated

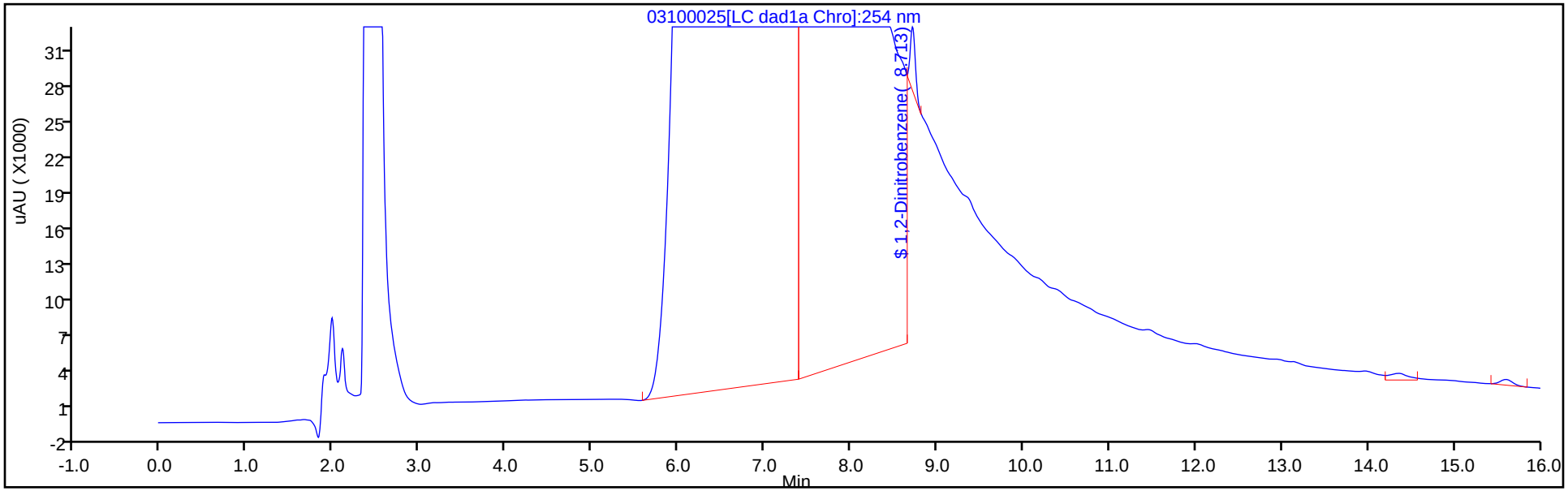
U - Marked Undetected

Report Date: 12-Mar-2020 08:50:03 Chrom Revision: 2.3 19-Feb-2020 16:45:46

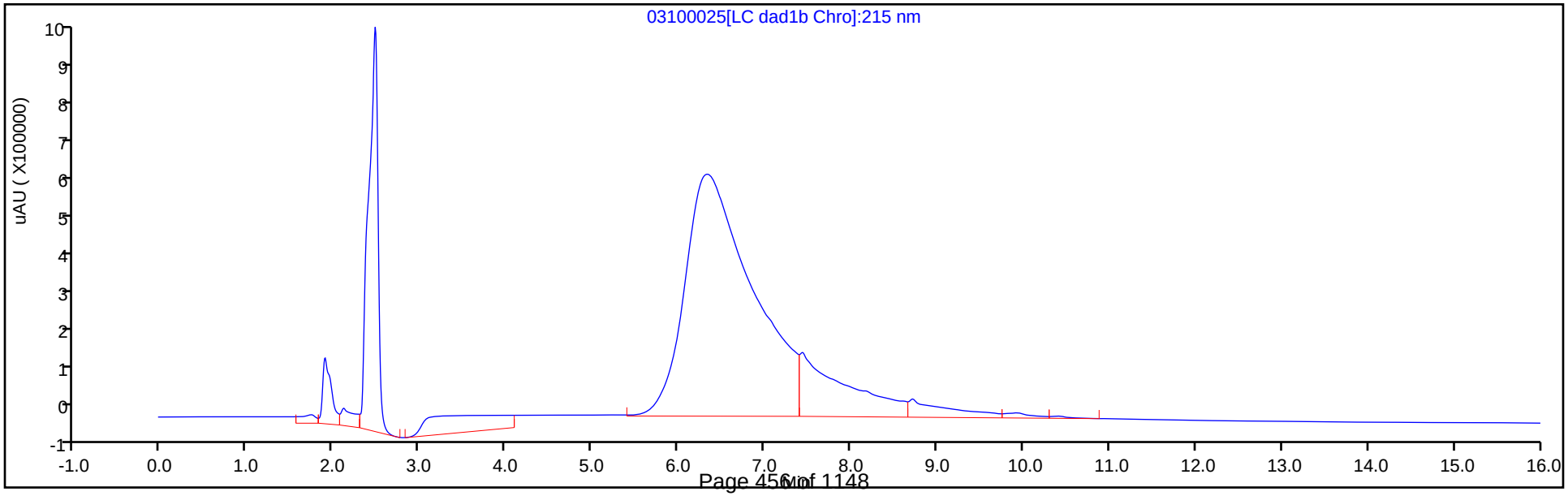
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200310-89952.b\03100025.d | | | | |
| Injection Date: | 11-Mar-2020 18:39:51 | Instrument ID: | CHHPLC_X3 | Operator ID: | CB |
| Lims ID: | 280-134268-A-3-A | Lab Sample ID: | 280-134268-3 | Worklist Smp#: | 25 |
| Client ID: | CA210-2 | | | | |
| 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



Eurofins TestAmerica, Denver
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Denver\ChromData\CHHPLC_X\20200310-89952.b\03100025.D | | | | |
| Lims ID: | 280-134268-A-3-A | | | | |
| Client ID: | CA210-2 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 11-Mar-2020 18:39:51 | ALS Bottle#: | 25 | Worklist Smp#: | 25 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 280-134268-A-3-A | | | | |
| Misc. Info.: | 280-0089952-025 | | | | |
| Operator ID: | CB | Instrument ID: | CHHPLC_X3 | | |
| Method: | \\chromna\Denver\ChromData\CHHPLC_X\20200310-89952.b\8330_X3.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 12-Mar-2020 08:50:00 | 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: | CTX0315 | | | | |
| First Level Reviewer: beckerc | | Date: | 12-Mar-2020 08:25:14 | | |

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 9 1,2-Dinitrobenzene | 0.2000 | 0.1455 | 72.75 |

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

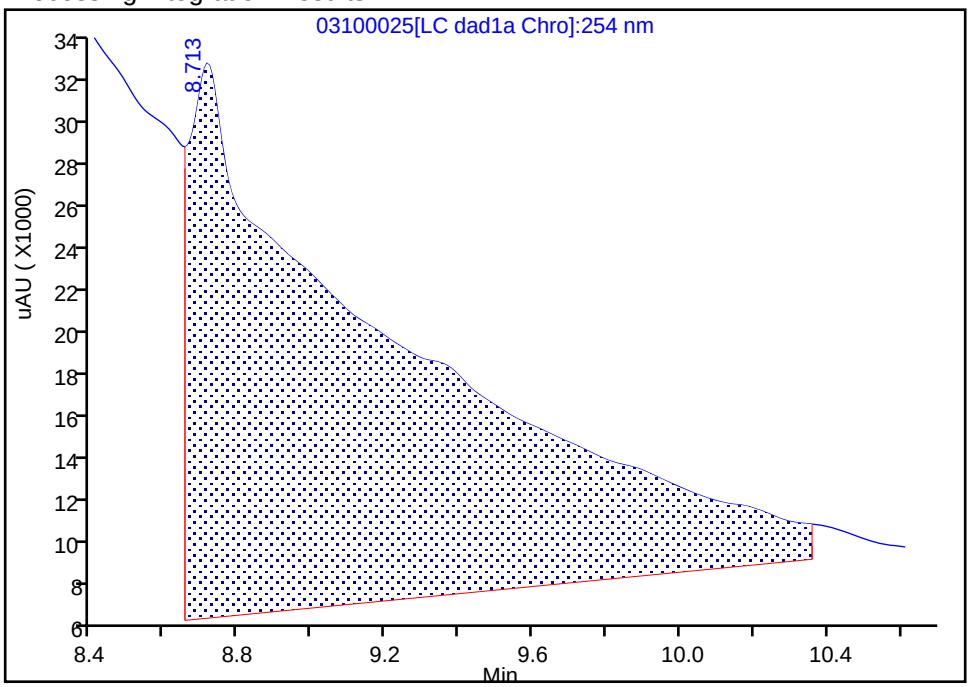
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200310-89952.b\03100025.d | | | | |
| Injection Date: | 11-Mar-2020 18:39:51 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | 280-134268-A-3-A | Lab Sample ID: | 280-134268-3 | | |
| Client ID: | CA210-2 | | | | |
| 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 | | |

## $ 9 1,2-Dinitrobenzene, CAS: 528-29-0

Signal: 1

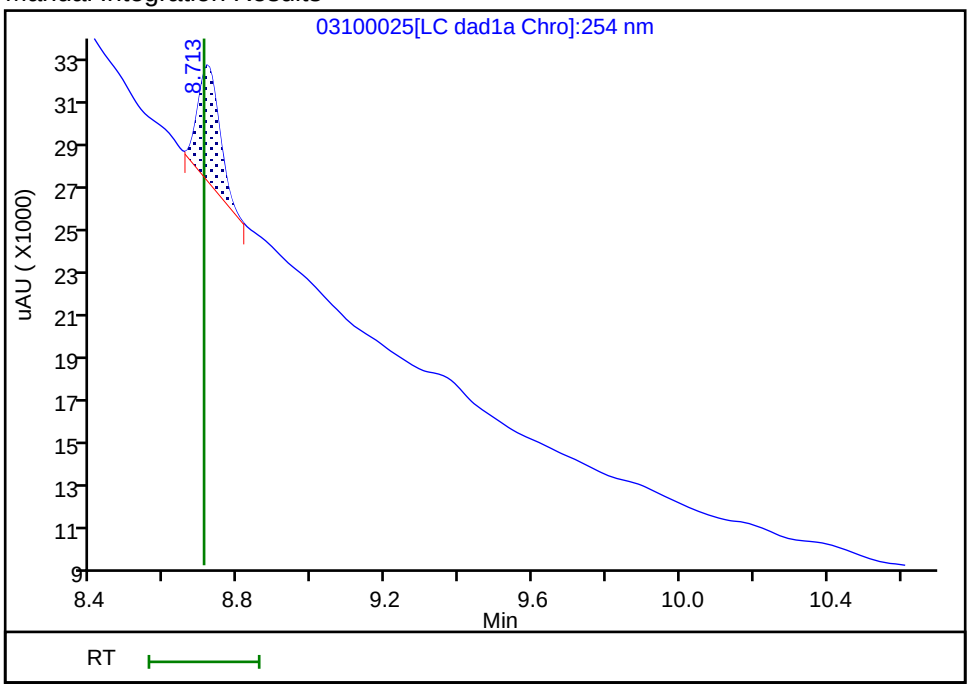
Processing Integration Results

RT: 8.71
Area: 999448
Amount: 6.835468
Amount Units: ug/mL




Manual Integration Results

RT: 8.71
Area: 21273
Amount: 0.145491
Amount Units: ug/mL




Reviewer: beckerc, 12-Mar-2020 08:25:04

Audit Action: Manually Integrated Audit Reason: Baseline

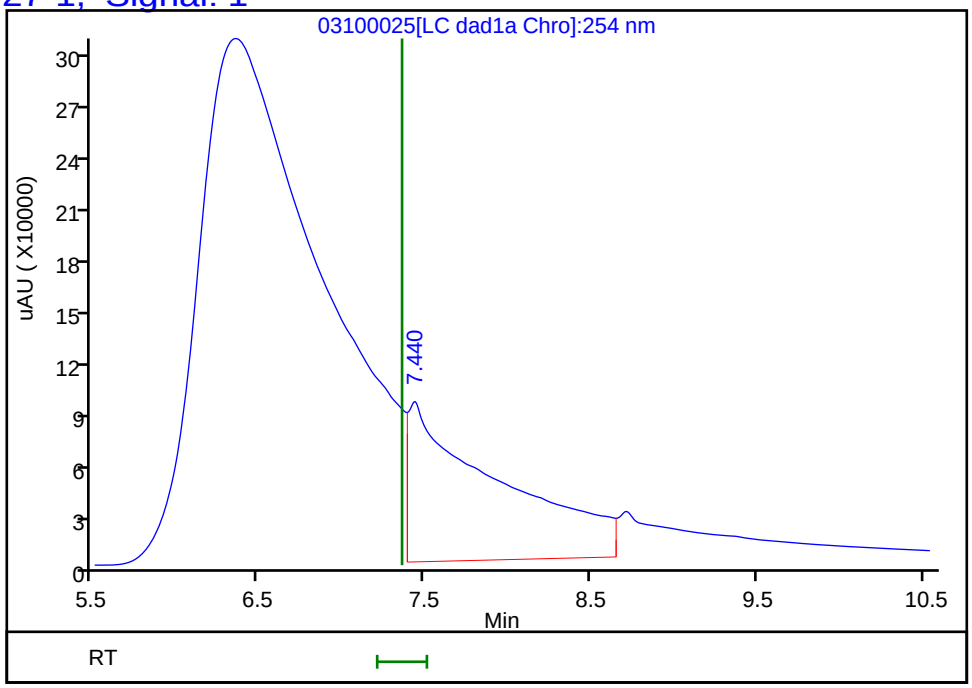
User Disabled Compound Report

Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200310-89952.b\03100025.d | | | | |
| Injection Date: | 11-Mar-2020 18:39:51 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | 280-134268-A-3-A | Lab Sample ID: | 280-134268-3 | | |
| Client ID: | CA210-2 | | | | |
| 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

RT: 7.44
Response: 3429357
Amount: 21.630290




Reviewer: beckerc, 12-Mar-2020 08:25:14
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-134268-1
SDG No.:
Client Sample ID: CA212-2
Lab Sample ID: 280-134268-4
Matrix: Water
Lab File ID: 03100026.D
Analysis Method: 8330A
Date Collected: 03/03/2020 11:20
Extraction Method: 3535
Date Extracted: 03/07/2020 16:07
Sample wt/vol: 510.5(mL)
Date Analyzed: 03/11/2020 19:02
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.: 488297
Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | LOQ | LOD | DL |
|---|---|---|---|---|---|---|
| 99-35-4 | 1,3,5-Trinitrobenzene | 0.39 | U | 0.98 | 0.39 | 0.20 |
| 99-65-0 | 1,3-Dinitrobenzene | 0.20 | U | 0.39 | 0.20 | 0.087 |
| 118-96-7 | 2,4,6-Trinitrotoluene | 0.39 | U | 0.39 | 0.39 | 0.16 |
| 121-14-2 | 2,4-Dinitrotoluene | 0.20 | U | 0.39 | 0.20 | 0.082 |
| 606-20-2 | 2,6-Dinitrotoluene | 0.20 | U | 0.20 | 0.20 | 0.063 |
| 35572-78-2 | 2-Amino-4,6-dinitrotoluene | 0.12 | U | 0.20 | 0.12 | 0.050 |
| 88-72-2 | 2-Nitrotoluene | 0.20 | U | 0.39 | 0.20 | 0.084 |
| 99-08-1 | 3-Nitrotoluene | 0.39 | U M | 0.39 | 0.39 | 0.19 |
| 19406-51-0 | 4-Amino-2,6-dinitrotoluene | 0.12 | U | 0.20 | 0.12 | 0.057 |
| 99-99-0 | 4-Nitrotoluene | 0.39 | U | 0.98 | 0.39 | 0.20 |
| 2691-41-0 | HMX | 0.20 | U | 0.39 | 0.20 | 0.086 |
| 5755-27-1 | MNX | 0.39 | U | 2.0 | 0.39 | 0.15 |
| 98-95-3 | Nitrobenzene | 0.20 | U | 0.39 | 0.20 | 0.089 |
| 121-82-4 | RDX | 0.39 | U | 0.39 | 0.39 | 0.15 |
| 479-45-8 | Tetryl | 0.20 | U | 0.24 | 0.20 | 0.078 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 528-29-0 | 1,2-Dinitrobenzene | 108 | M | 83-119 |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Denver\ChromData\CHHPLC_X\20200310-89952.b\03100026.D | | | | |
| Lims ID: | 280-134268-A-4-A | | | | |
| Client ID: | CA212-2 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 11-Mar-2020 19:02:46 | ALS Bottle#: | 26 | Worklist Smp#: | 26 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 280-134268-A-4-A | | | | |
| Misc. Info.: | 280-0089952-026 | | | | |
| Operator ID: | CB | Instrument ID: | CHHPLC_X3 | | |
| Method: | \\chromna\Denver\ChromData\CHHPLC_X\20200310-89952.b\8330_X3.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 12-Mar-2020 08:50:00 | 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: | CTX0315 | | | | |
| First Level Reviewer: beckerc | | Date: | 12-Mar-2020 08:25:39 | | |

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|
| 3 HMX | 1 | | 6.685 | | | ND | |
| 6 MNX | 1 | | 7.361 | | | ND | |
| 7 RDX | 1 | | 7.745 | | | ND | |
| $ 9 1,2-Dinitrobenzene | 1 | 8.706 | 8.705 | 0.001 | 31580 | 0.2160 | M |
| 10 1,3,5-Trinitrobenzene | 1 | | 8.878 | | | ND | |
| 11 1,3-Dinitrobenzene | 1 | | 9.525 | | | ND | |
| 12 Nitrobenzene | 1 | | 9.911 | | | ND | |
| 14 Tetryl | 1 | | 10.211 | | | ND | |
| 16 2,4,6-Trinitrotoluene | 1 | | 11.178 | | | ND | |
| 17 4-Amino-2,6-dinitrotoluene | 1 | | 11.325 | | | ND | |
| 18 2-Amino-4,6-dinitrotoluene | 1 | | 11.611 | | | ND | |
| 19 2,6-Dinitrotoluene | 1 | | 11.785 | | | ND | |
| 20 2,4-Dinitrotoluene | 1 | | 11.978 | | | ND | |
| 21 o-Nitrotoluene | 1 | | 12.818 | | | ND | |
| 22 p-Nitrotoluene | 1 | | 13.258 | | | ND | |
| 23 m-Nitrotoluene | 1 | | 13.858 | | | ND | U |

## QC Flag Legend

Review Flags

M - Manually Integrated

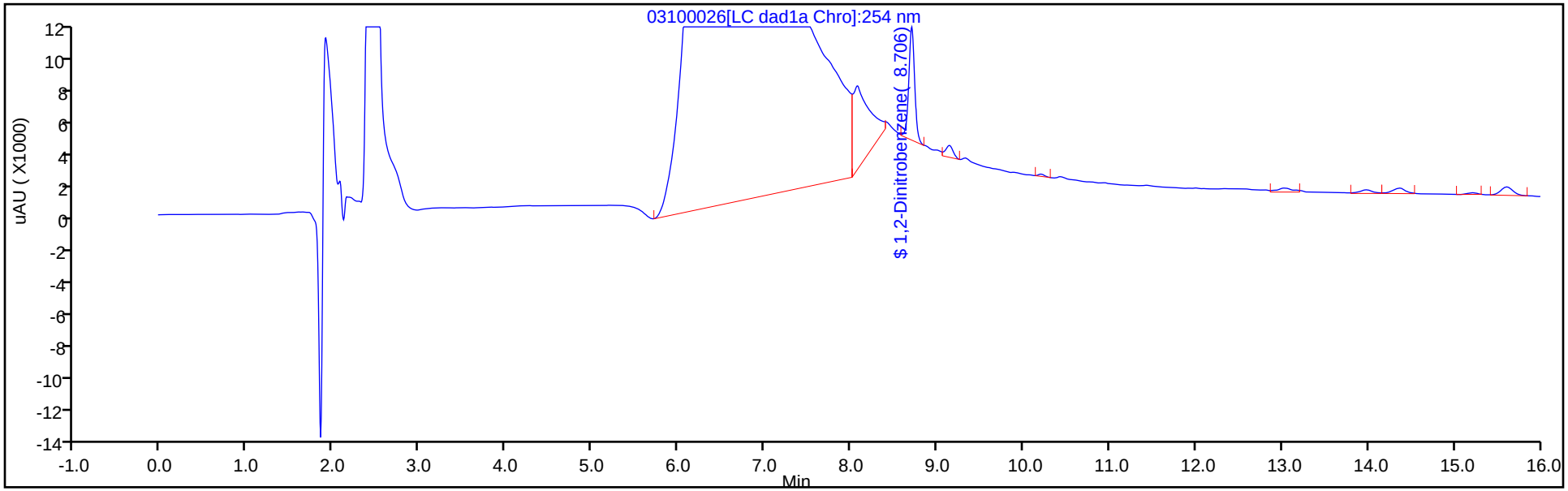
U - Marked Undetected

Report Date: 12-Mar-2020 08:50:04 Chrom Revision: 2.3 19-Feb-2020 16:45:46

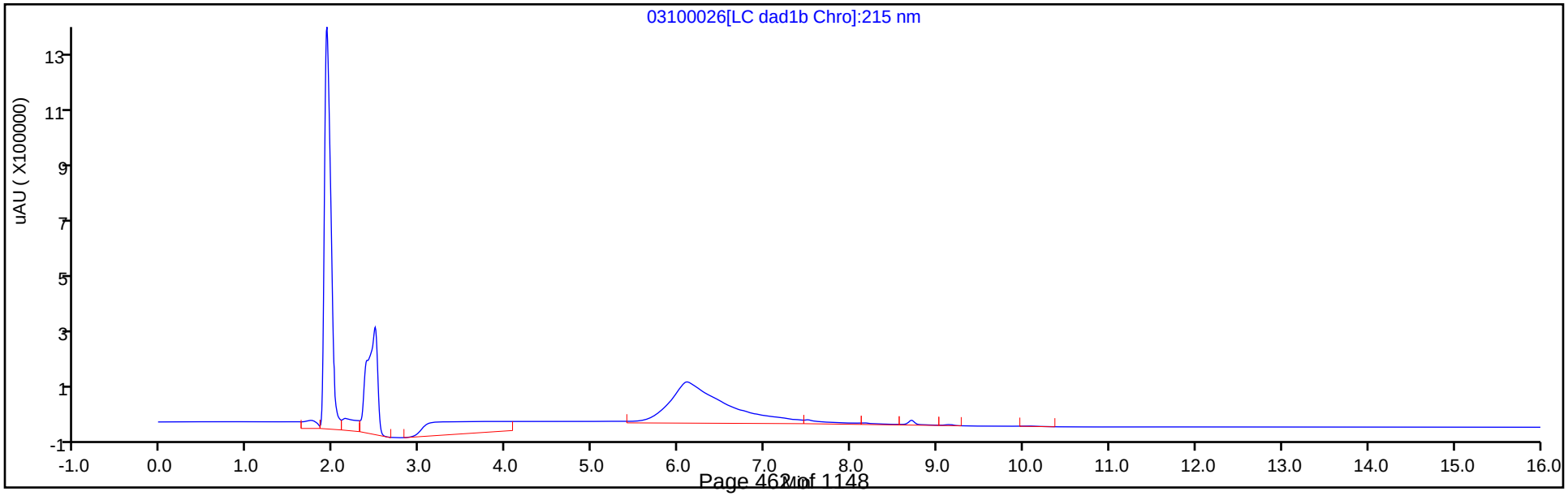
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200310-89952.b\03100026.d | | | | |
| Injection Date: | 11-Mar-2020 19:02:46 | Instrument ID: | CHHPLC_X3 | Operator ID: | CB |
| Lims ID: | 280-134268-A-4-A | Lab Sample ID: | 280-134268-4 | Worklist Smp#: | 26 |
| Client ID: | CA212-2 | | | | |
| 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



Eurofins TestAmerica, Denver
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Denver\ChromData\CHHPLC_X\20200310-89952.b\03100026.D | | | | |
| Lims ID: | 280-134268-A-4-A | | | | |
| Client ID: | CA212-2 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 11-Mar-2020 19:02:46 | ALS Bottle#: | 26 | Worklist Smp#: | 26 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 280-134268-A-4-A | | | | |
| Misc. Info.: | 280-0089952-026 | | | | |
| Operator ID: | CB | Instrument ID: | CHHPLC_X3 | | |

| | | | |
|---|---|---|---|
| Method: | \\chromna\Denver\ChromData\CHHPLC_X\20200310-89952.b\8330_X3.m | | |
| Limit Group: | GCSV - 8330 | | |
| Last Update: | 12-Mar-2020 08:50:00 | 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: | CTX0315 | |

First Level Reviewer: beckerc Date: 12-Mar-2020 08:25:39

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 9 1,2-Dinitrobenzene | 0.2000 | 0.2160 | 107.99 |

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

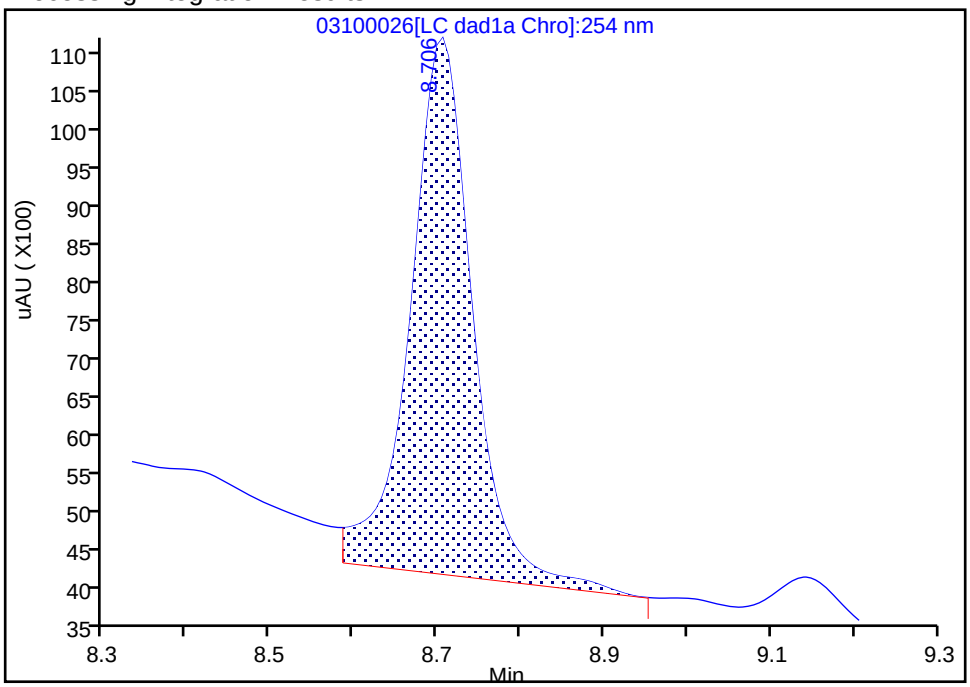
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200310-89952.b\03100026.d | | | | |
| Injection Date: | 11-Mar-2020 19:02:46 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | 280-134268-A-4-A | Lab Sample ID: | 280-134268-4 | | |
| Client ID: | CA212-2 | | | | |
| 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 | | |

## $ 9 1,2-Dinitrobenzene, CAS: 528-29-0

Signal: 1

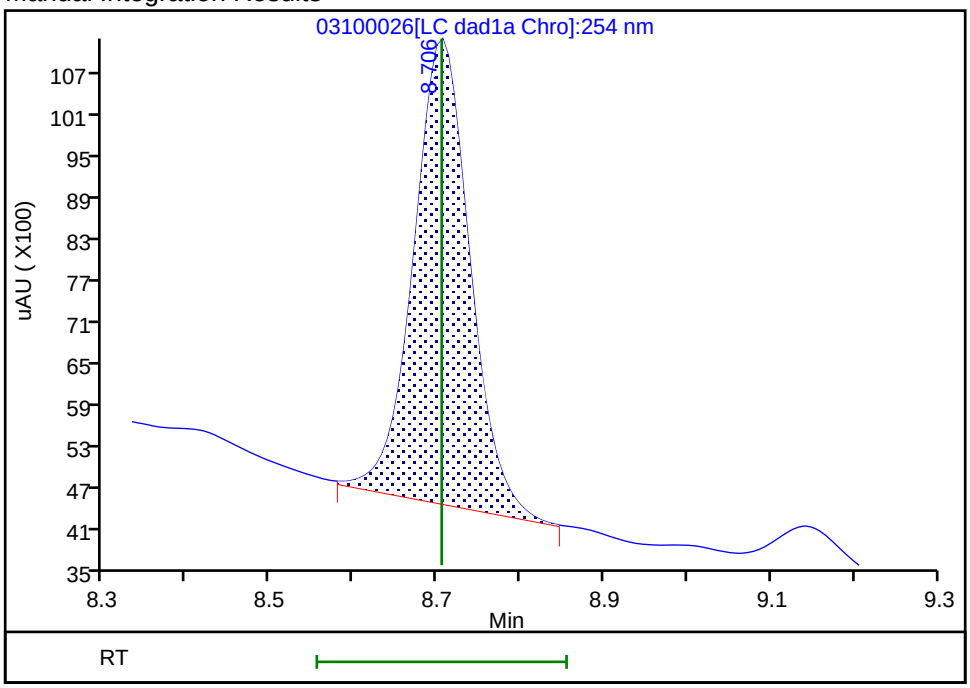
Processing Integration Results

RT: 8.71
Area: 36235
Amount: 0.247820
Amount Units: ug/mL




Manual Integration Results

RT: 8.71
Area: 31580
Amount: 0.215983
Amount Units: ug/mL




Reviewer: beckerc, 12-Mar-2020 08:25:26

Audit Action: Manually Integrated Audit Reason: Baseline

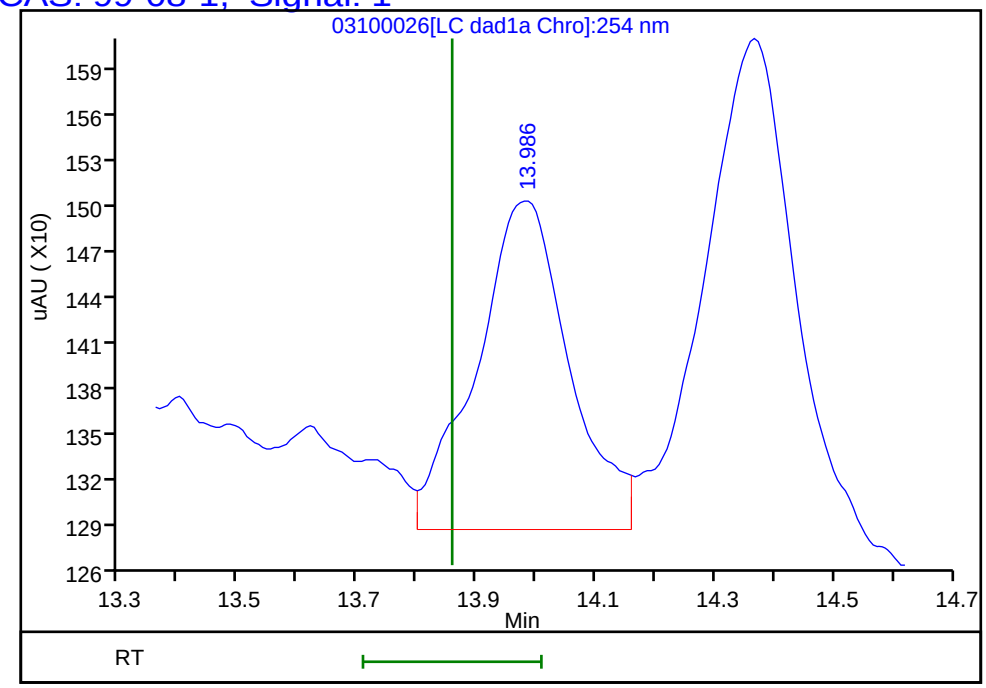
User Disabled Compound Report

Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200310-89952.b\03100026.d | | | | |
| Injection Date: | 11-Mar-2020 19:02:46 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | 280-134268-A-4-A | Lab Sample ID: | 280-134268-4 | | |
| Client ID: | CA212-2 | | | | |
| 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 | | |

## 23 m-Nitrotoluene, CAS: 99-08-1, Signal: 1

RT: 13.99
Response: 2299
Amount: 0.014905




Reviewer: beckerc, 12-Mar-2020 08:25:39
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.: 280-134268-1
SDG No.:
Client Sample ID: CA211-2
Lab Sample ID: 280-134268-5
Matrix: Water
Lab File ID: 03100027.D
Analysis Method: 8330A
Date Collected: 03/03/2020 10:05
Extraction Method: 3535
Date Extracted: 03/07/2020 16:07
Sample wt/vol: 507(mL)
Date Analyzed: 03/11/2020 19:25
Con. Extract Vol.: 5(mL)
Dilution Factor: 1
Injection Volume: 100(uL)
GC Column: UltraCarb5uODS ID: 4.6(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 488297
Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | LOQ | LOD | DL |
|---|---|---|---|---|---|---|
| 99-35-4 | 1,3,5-Trinitrobenzene | 0.39 | U | 0.99 | 0.39 | 0.20 |
| 99-65-0 | 1,3-Dinitrobenzene | 0.20 | U | 0.39 | 0.20 | 0.087 |
| 118-96-7 | 2,4,6-Trinitrotoluene | 0.39 | U | 0.39 | 0.39 | 0.16 |
| 121-14-2 | 2,4-Dinitrotoluene | 0.20 | U | 0.39 | 0.20 | 0.083 |
| 606-20-2 | 2,6-Dinitrotoluene | 0.20 | U | 0.20 | 0.20 | 0.064 |
| 35572-78-2 | 2-Amino-4,6-dinitrotoluene | 0.12 | U | 0.20 | 0.12 | 0.050 |
| 88-72-2 | 2-Nitrotoluene | 0.20 | U | 0.39 | 0.20 | 0.084 |
| 99-08-1 | 3-Nitrotoluene | 0.39 | U M | 0.39 | 0.39 | 0.19 |
| 19406-51-0 | 4-Amino-2,6-dinitrotoluene | 0.12 | U | 0.20 | 0.12 | 0.057 |
| 99-99-0 | 4-Nitrotoluene | 0.39 | U | 0.99 | 0.39 | 0.20 |
| 2691-41-0 | HMX | 0.20 | U | 0.39 | 0.20 | 0.086 |
| 5755-27-1 | MNX | 0.39 | U | 2.0 | 0.39 | 0.15 |
| 98-95-3 | Nitrobenzene | 0.20 | U | 0.39 | 0.20 | 0.090 |
| 121-82-4 | RDX | 0.39 | U | 0.39 | 0.39 | 0.16 |
| 479-45-8 | Tetryl | 0.20 | U | 0.24 | 0.20 | 0.078 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 528-29-0 | 1,2-Dinitrobenzene | 115 | M | 83-119 |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Denver\ChromData\CHHPLC_X\20200310-89952.b\03100027.D | | | | |
| Lims ID: | 280-134268-A-5-A | | | | |
| Client ID: | CA211-2 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 11-Mar-2020 19:25:41 | ALS Bottle#: | 27 | Worklist Smp#: | 27 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 280-134268-A-5-A | | | | |
| Misc. Info.: | 280-0089952-027 | | | | |
| Operator ID: | CB | Instrument ID: | CHHPLC_X3 | | |
| Method: | \\chromna\Denver\ChromData\CHHPLC_X\20200310-89952.b\8330_X3.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 12-Mar-2020 08:50:00 | 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: | CTX0315 | | | | |
| First Level Reviewer: beckerc | | Date: | 12-Mar-2020 08:26:01 | | |

| | Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|
| | 3 HMX | 1 | | 6.685 | | | ND | |
| | 6 MNX | 1 | | 7.361 | | | ND | |
| | 7 RDX | 1 | | 7.745 | | | ND | |
| $ | 9 1,2-Dinitrobenzene | 1 | 8.705 | 8.705 | 0.000 | 33492 | 0.2291 | M |
| | 10 1,3,5-Trinitrobenzene | 1 | | 8.878 | | | ND | |
| | 11 1,3-Dinitrobenzene | 1 | | 9.525 | | | ND | |
| | 12 Nitrobenzene | 1 | | 9.911 | | | ND | |
| | 14 Tetryl | 1 | | 10.211 | | | ND | |
| | 16 2,4,6-Trinitrotoluene | 1 | | 11.178 | | | ND | |
| | 17 4-Amino-2,6-dinitrotoluene | 1 | | 11.325 | | | ND | |
| | 18 2-Amino-4,6-dinitrotoluene | 1 | | 11.611 | | | ND | |
| | 19 2,6-Dinitrotoluene | 1 | | 11.785 | | | ND | |
| | 20 2,4-Dinitrotoluene | 1 | | 11.978 | | | ND | |
| | 21 o-Nitrotoluene | 1 | | 12.818 | | | ND | |
| | 22 p-Nitrotoluene | 1 | | 13.258 | | | ND | |
| | 23 m-Nitrotoluene | 1 | | 13.858 | | | ND | U |

## QC Flag Legend

Review Flags

M - Manually Integrated

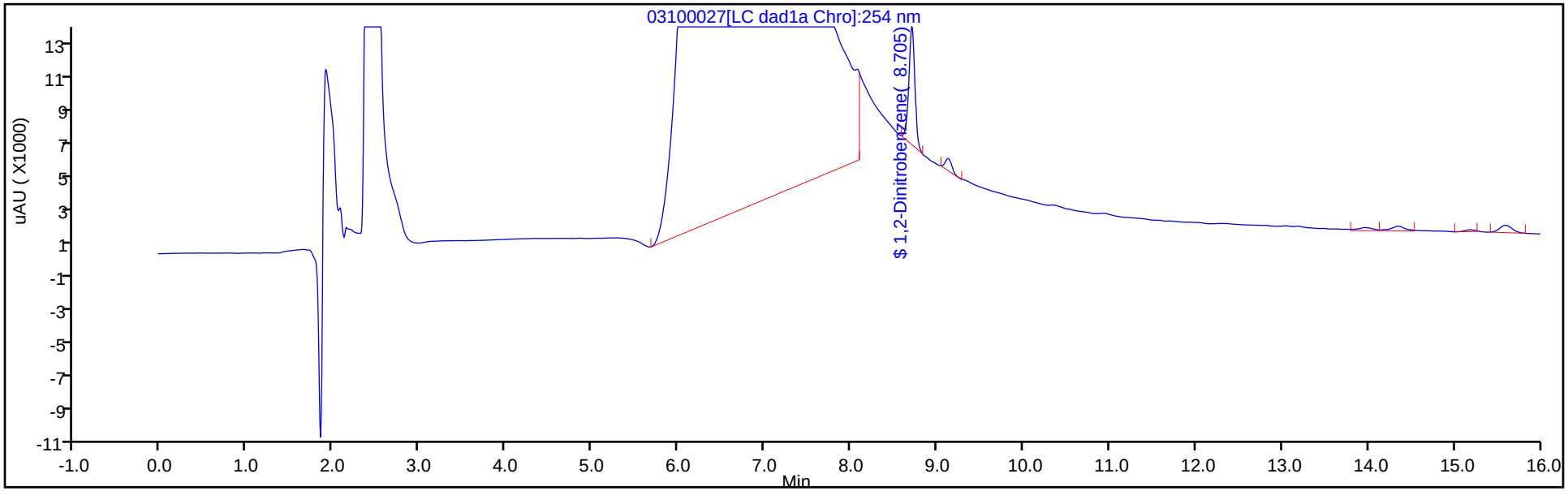
U - Marked Undetected

Report Date: 12-Mar-2020 08:50:05 Chrom Revision: 2.3 19-Feb-2020 16:45:46

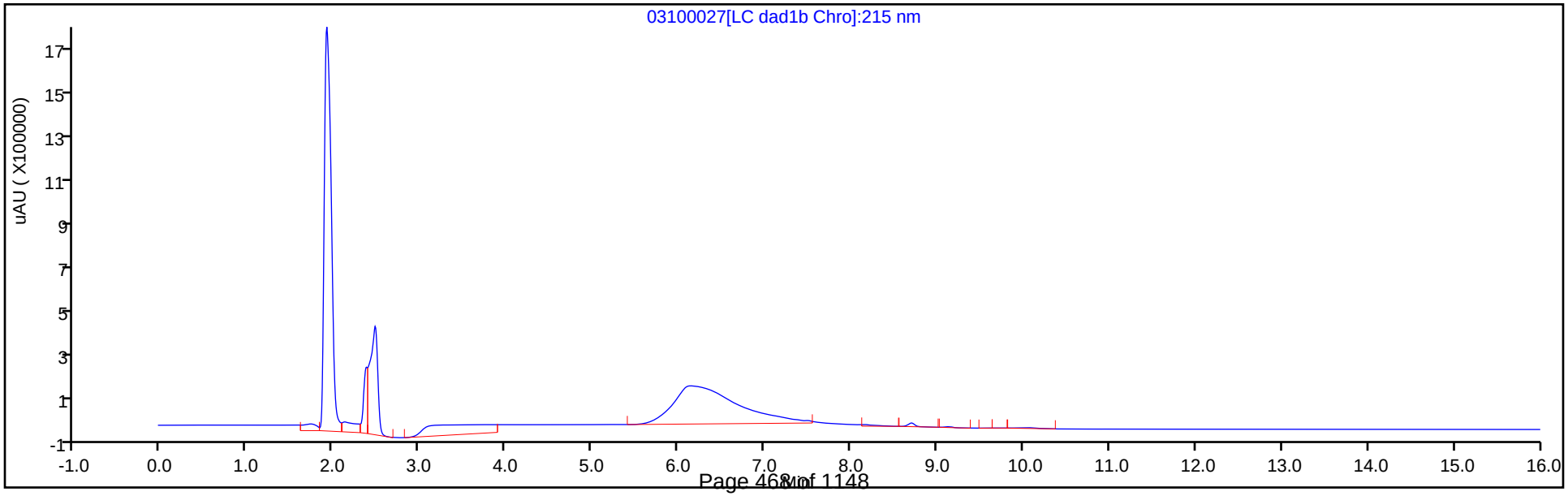
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200310-89952.b\03100027.d | | | | |
| Injection Date: | 11-Mar-2020 19:25:41 | Instrument ID: | CHHPLC_X3 | Operator ID: | CB |
| Lims ID: | 280-134268-A-5-A | Lab Sample ID: | 280-134268-5 | Worklist Smp#: | 27 |
| Client ID: | CA211-2 | | | | |
| 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



Eurofins TestAmerica, Denver
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Denver\ChromData\CHHPLC_X\20200310-89952.b\03100027.D | | | | |
| Lims ID: | 280-134268-A-5-A | | | | |
| Client ID: | CA211-2 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 11-Mar-2020 19:25:41 | ALS Bottle#: | 27 | Worklist Smp#: | 27 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 280-134268-A-5-A | | | | |
| Misc. Info.: | 280-0089952-027 | | | | |
| Operator ID: | CB | Instrument ID: | CHHPLC_X3 | | |
| Method: | \\chromna\Denver\ChromData\CHHPLC_X\20200310-89952.b\8330_X3.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 12-Mar-2020 08:50:00 | 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: | CTX0315 | | | | |

First Level Reviewer: beckerc Date: 12-Mar-2020 08:26:01

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 9 1,2-Dinitrobenzene | 0.2000 | 0.2291 | 114.53 |

Eurofins TestAmerica, Denver

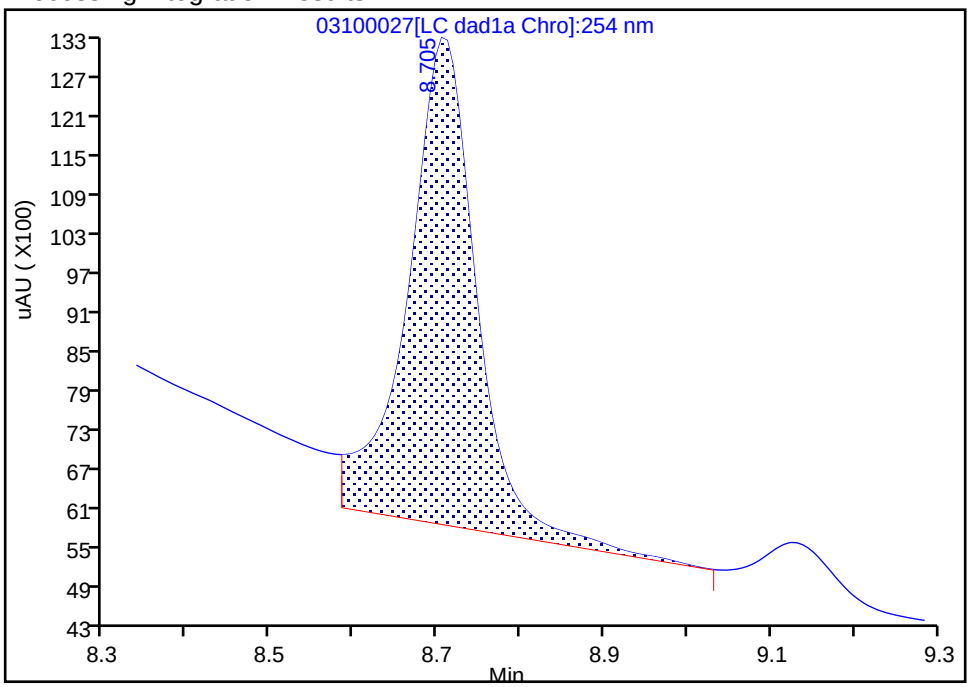
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200310-89952.b\03100027.d | | | | |
| Injection Date: | 11-Mar-2020 19:25:41 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | 280-134268-A-5-A | Lab Sample ID: | 280-134268-5 | | |
| Client ID: | CA211-2 | | | | |
| 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 | | |

## $ 9 1,2-Dinitrobenzene, CAS: 528-29-0

Signal: 1

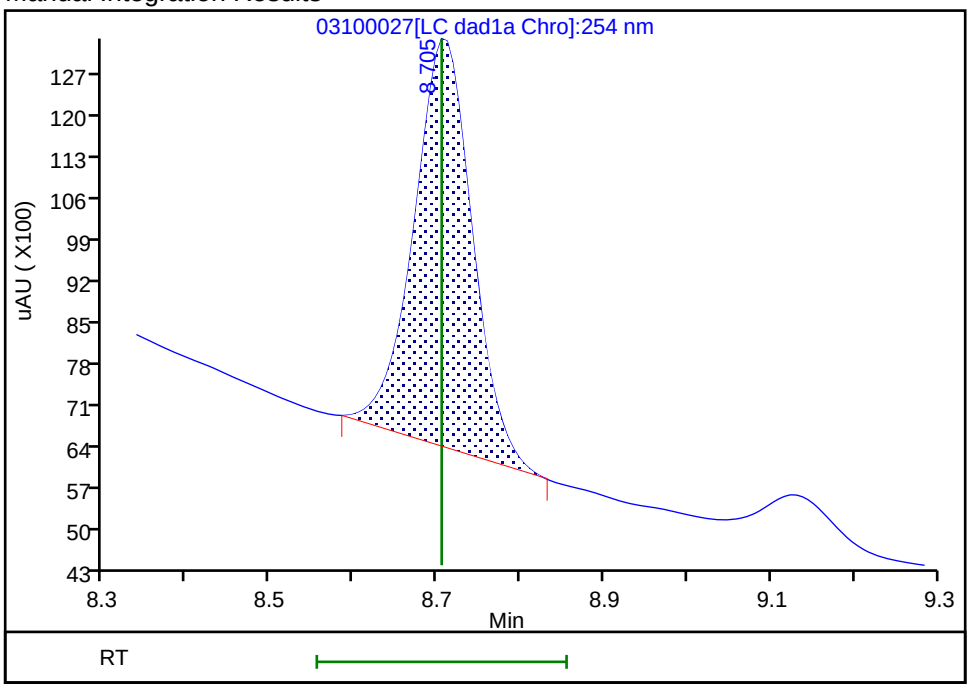
Processing Integration Results

RT: 8.70
Area: 42583
Amount: 0.291235
Amount Units: ug/mL




Manual Integration Results

RT: 8.70
Area: 33492
Amount: 0.229060
Amount Units: ug/mL




Reviewer: beckerc, 12-Mar-2020 08:25:57
Audit Action: Manually Integrated Audit Reason: Baseline

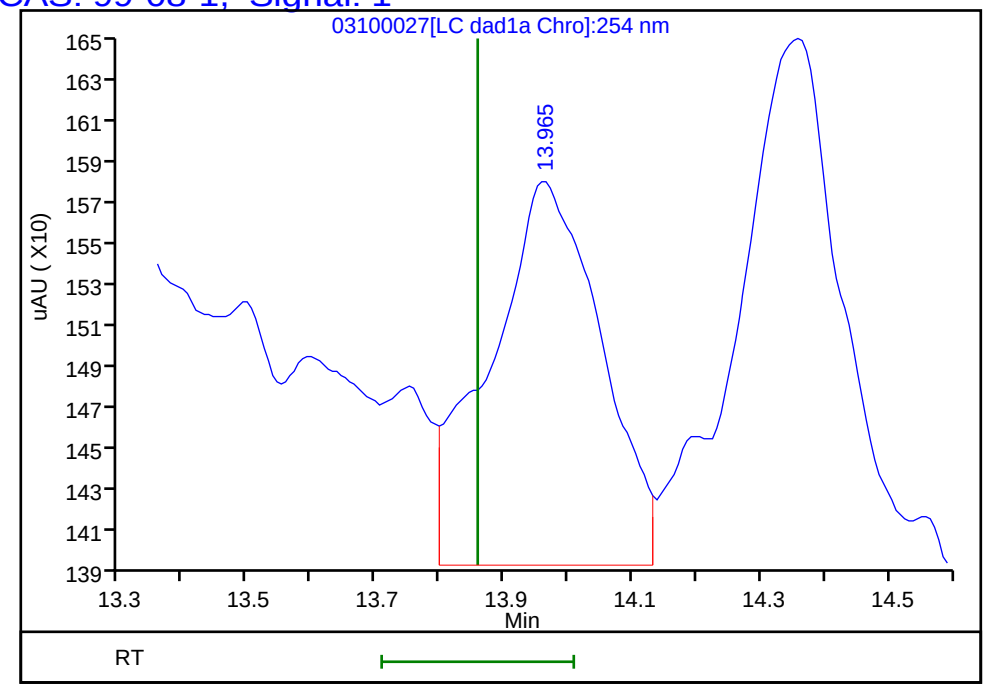
User Disabled Compound Report

Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200310-89952.b\03100027.d | | | | |
| Injection Date: | 11-Mar-2020 19:25:41 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | 280-134268-A-5-A | Lab Sample ID: | 280-134268-5 | | |
| Client ID: | CA211-2 | | | | |
| 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 | | |

## 23 m-Nitrotoluene, CAS: 99-08-1, Signal: 1

RT: 13.96
Response: 2201
Amount: 0.014270




Reviewer: beckerc, 12-Mar-2020 08:26:01
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.: 280-134268-1
SDG No.:
Client Sample ID: PZ019-2
Lab Sample ID: 280-134268-6
Matrix: Water
Lab File ID: 03100028.D
Analysis Method: 8330A
Date Collected: 03/02/2020 15:10
Extraction Method: 3535
Date Extracted: 03/07/2020 16:07
Sample wt/vol: 504.4(mL)
Date Analyzed: 03/11/2020 19:48
Con. Extract Vol.: 5(mL)
Dilution Factor: 1
Injection Volume: 100(uL)
GC Column: UltraCarb5uODS ID: 4.6(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 488297
Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | LOQ | LOD | DL |
|---|---|---|---|---|---|---|
| 99-35-4 | 1,3,5-Trinitrobenzene | 0.40 | U | 0.99 | 0.40 | 0.20 |
| 99-65-0 | 1,3-Dinitrobenzene | 0.20 | U | 0.40 | 0.20 | 0.088 |
| 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 | 0.083 |
| 606-20-2 | 2,6-Dinitrotoluene | 0.20 | U | 0.20 | 0.20 | 0.064 |
| 35572-78-2 | 2-Amino-4,6-dinitrotoluene | 0.12 | U | 0.20 | 0.12 | 0.050 |
| 88-72-2 | 2-Nitrotoluene | 0.20 | U J1 | 0.40 | 0.20 | 0.085 |
| 99-08-1 | 3-Nitrotoluene | 0.40 | U M J1 | 0.40 | 0.40 | 0.19 |
| 19406-51-0 | 4-Amino-2,6-dinitrotoluene | 0.12 | U J1 | 0.20 | 0.12 | 0.057 |
| 99-99-0 | 4-Nitrotoluene | 0.40 | U J1 | 0.99 | 0.40 | 0.20 |
| 2691-41-0 | HMX | 0.20 | U | 0.40 | 0.20 | 0.087 |
| 5755-27-1 | MNX | 0.40 | U M | 2.0 | 0.40 | 0.15 |
| 98-95-3 | Nitrobenzene | 0.20 | U J1 | 0.40 | 0.20 | 0.090 |
| 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 | 86 | M | 83-119 |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Denver\ChromData\CHHPLC_X\20200310-89952.b\03100028.D | | | | |
| Lims ID: | 280-134268-A-6-A | | | | |
| Client ID: | PZ019-2 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 11-Mar-2020 19:48:37 | ALS Bottle#: | 28 | Worklist Smp#: | 28 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 280-134268-A-6-A | | | | |
| Misc. Info.: | 280-0089952-028 | | | | |
| Operator ID: | CB | Instrument ID: | CHHPLC_X3 | | |
| Method: | \\chromna\Denver\ChromData\CHHPLC_X\20200310-89952.b\8330_X3.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 12-Mar-2020 11:52:54 | 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: | CTX0315 | | | | |
| First Level Reviewer: beckerc | | Date: | 12-Mar-2020 08:27:04 | | |

| | Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|
| | 1 2,6-diamino-4-nitrotoluene | 1 | 6.525 | 6.548 | -0.023 | 2975 | 0.0118 | 7M |
| | 2 TNX | 1 | | 6.594 | | | ND | |
| | 3 HMX | 1 | | 6.685 | | | ND | |
| | 4 2,4-diamino-6-nitrotoluene | 1 | | 6.735 | | | ND | |
| | 5 DNX | 1 | | 6.914 | | | ND | |
| | 6 MNX | 1 | | 7.361 | | | ND | U |
| | 7 RDX | 1 | | 7.745 | | | ND | |
| | 8 2,4,6-Trinitrophenol | 1 | | 8.045 | | | ND | |
| $ | 9 1,2-Dinitrobenzene | 1 | 8.705 | 8.705 | 0.000 | 25082 | 0.1715 | M |
| | 10 1,3,5-Trinitrobenzene | 1 | | 8.878 | | | ND | |
| | 11 1,3-Dinitrobenzene | 1 | | 9.525 | | | ND | |
| | 12 Nitrobenzene | 1 | | 9.911 | | | ND | |
| | 13 3,5-Dinitroaniline | 1 | | 10.142 | | | ND | |
| | 14 Tetryl | 1 | | 10.211 | | | ND | |
| | 15 Nitroglycerin | 2 | | 10.725 | | | ND | |
| | 16 2,4,6-Trinitrotoluene | 1 | | 11.178 | | | ND | |
| | 17 4-Amino-2,6-dinitrotoluene | 1 | | 11.325 | | | ND | |
| | 18 2-Amino-4,6-dinitrotoluene | 1 | | 11.611 | | | ND | |
| | 19 2,6-Dinitrotoluene | 1 | | 11.785 | | | ND | |
| | 20 2,4-Dinitrotoluene | 1 | | 11.978 | | | ND | |
| | 21 o-Nitrotoluene | 1 | | 12.818 | | | ND | |
| | 22 p-Nitrotoluene | 1 | | 13.258 | | | ND | |
| | 23 m-Nitrotoluene | 1 | | 13.858 | | | ND | U |
| | 24 PETN | 2 | | 14.958 | | | ND | |
| | 25 Ammonium Picrate | 1 | | 0.000 | | | ND | |

## QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

M - Manually Integrated

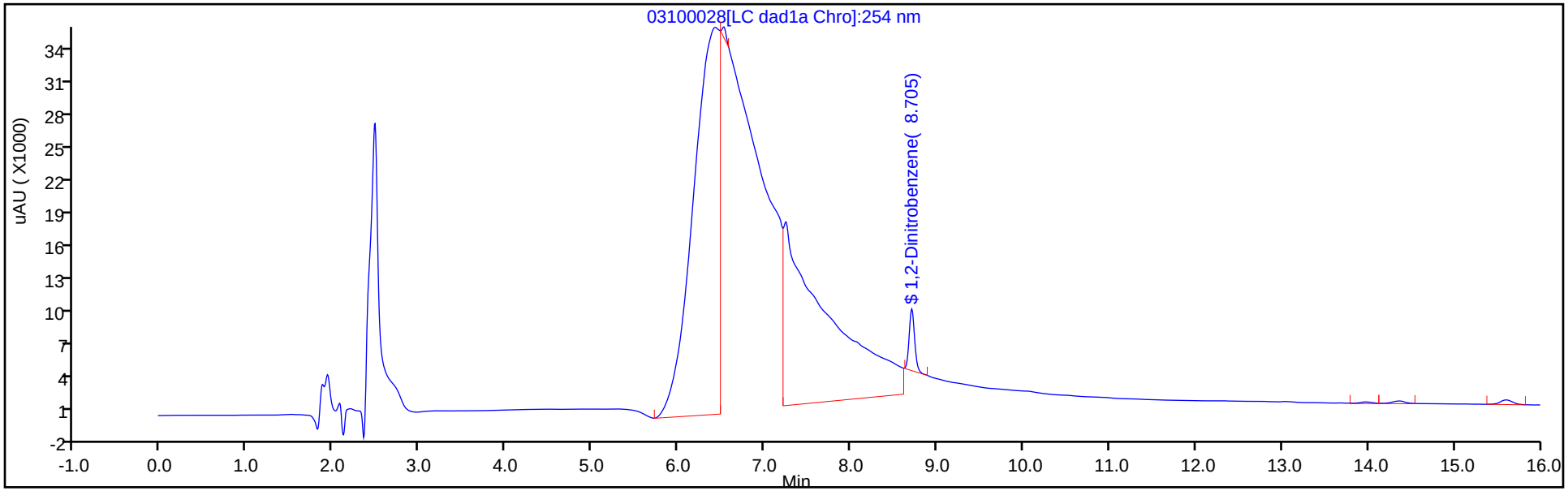
U - Marked Undetected

Report Date: 12-Mar-2020 11:53:32 Chrom Revision: 2.3 19-Feb-2020 16:45:46

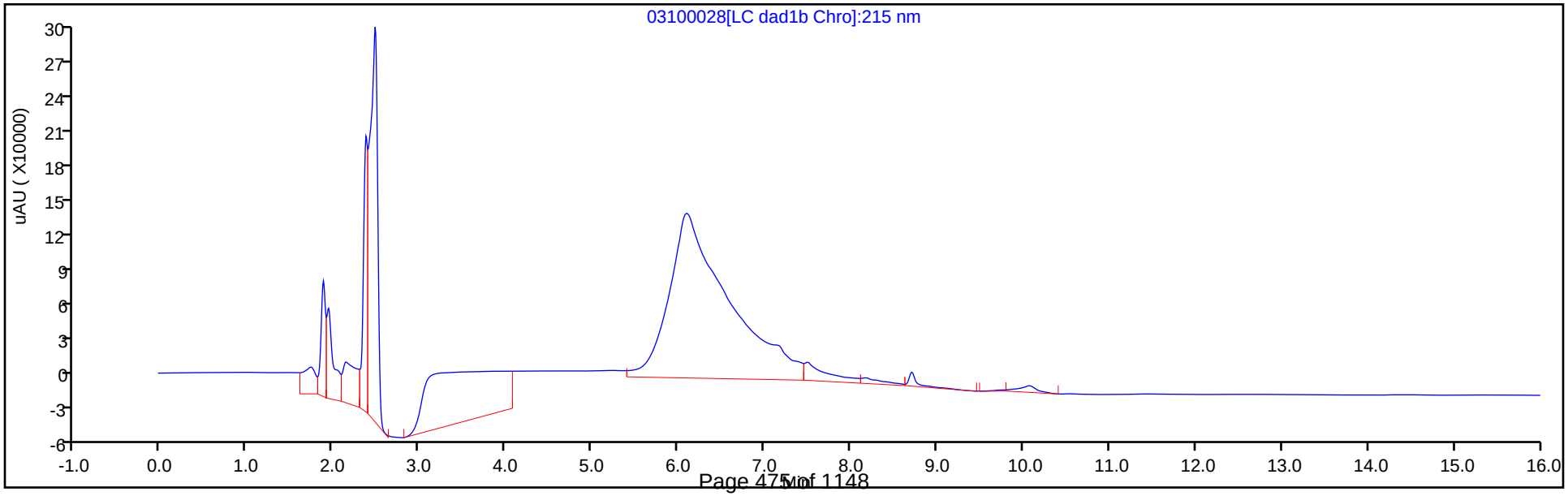
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200310-89952.b\03100028.d | | | | |
| Injection Date: | 11-Mar-2020 19:48:37 | Instrument ID: | CHHPLC_X3 | Operator ID: | CB |
| Lims ID: | 280-134268-A-6-A | Lab Sample ID: | 280-134268-6 | Worklist Smp#: | 28 |
| Client ID: | PZ019-2 | | | | |
| 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



Eurofins TestAmerica, Denver
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Denver\ChromData\CHHPLC_X\20200310-89952.b\03100028.D | | | | |
| Lims ID: | 280-134268-A-6-A | | | | |
| Client ID: | PZ019-2 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 11-Mar-2020 19:48:37 | ALS Bottle#: | 28 | Worklist Smp#: | 28 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 280-134268-A-6-A | | | | |
| Misc. Info.: | 280-0089952-028 | | | | |
| Operator ID: | CB | Instrument ID: | CHHPLC_X3 | | |
| Method: | \\chromna\Denver\ChromData\CHHPLC_X\20200310-89952.b\8330_X3.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 12-Mar-2020 11:52:54 | 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: | CTX0315 | | | | |

First Level Reviewer: beckerc Date: 12-Mar-2020 08:27:04

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 9 1,2-Dinitrobenzene | 0.2000 | 0.1715 | 85.77 |

Eurofins TestAmerica, Denver

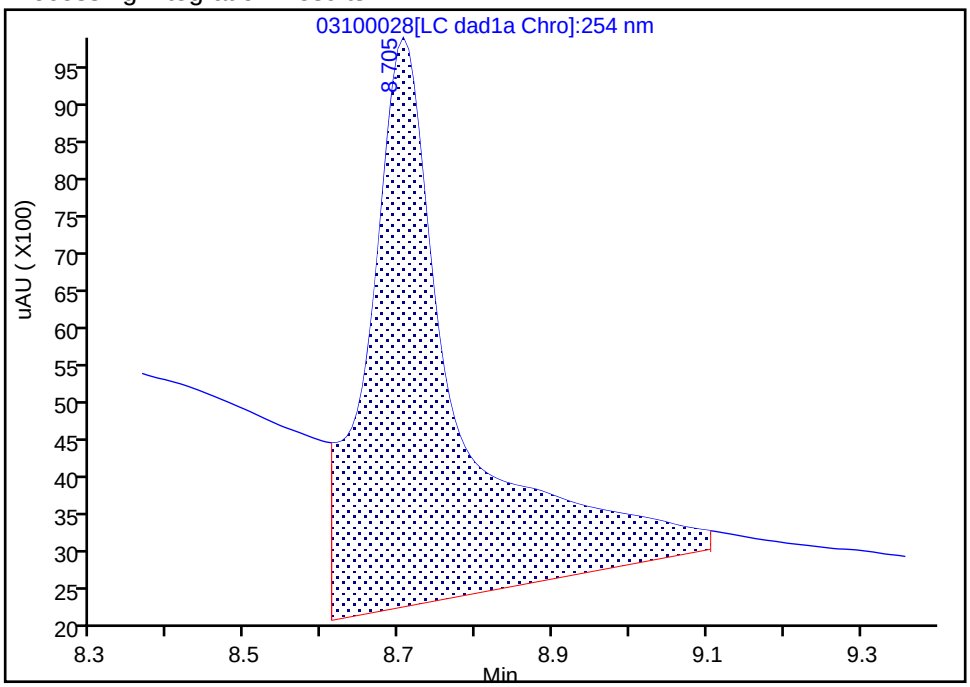
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200310-89952.b\03100028.d | | | | |
| Injection Date: | 11-Mar-2020 19:48:37 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | 280-134268-A-6-A | Lab Sample ID: | 280-134268-6 | | |
| Client ID: | PZ019-2 | | | | |
| 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 | | |

## $ 9 1,2-Dinitrobenzene, CAS: 528-29-0

Signal: 1

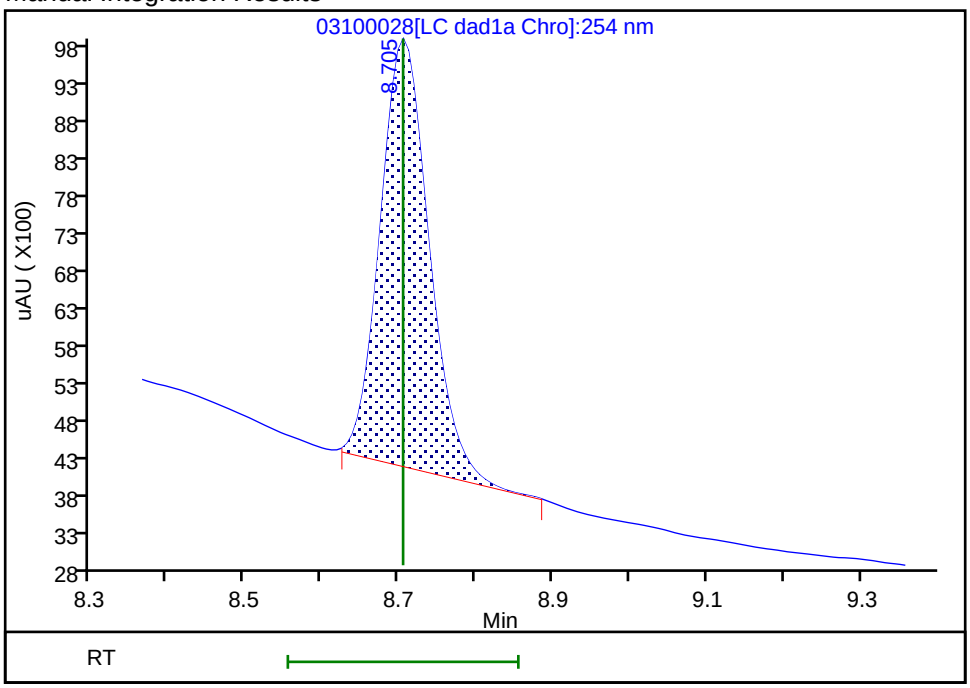
Processing Integration Results

RT: 8.71
Area: 63677
Amount: 0.435502
Amount Units: ug/mL




Manual Integration Results

RT: 8.71
Area: 25082
Amount: 0.171542
Amount Units: ug/mL




Reviewer: beckerc, 12-Mar-2020 08:26:12
Audit Action: Manually Integrated Audit Reason: Baseline

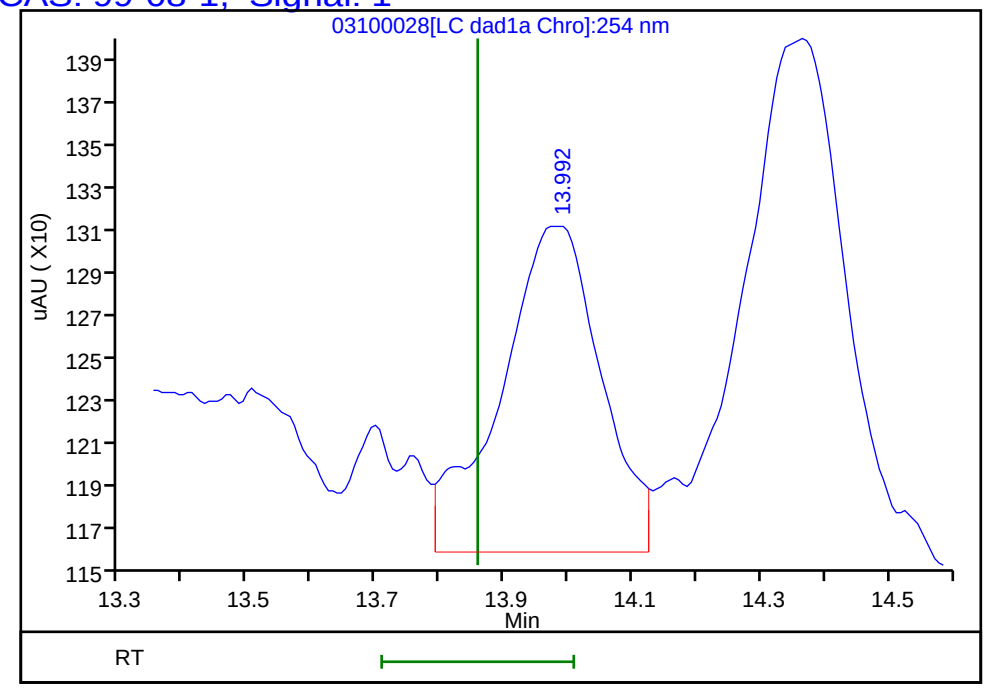
User Disabled Compound Report

Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200310-89952.b\03100028.d | | | | |
| Injection Date: | 11-Mar-2020 19:48:37 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | 280-134268-A-6-A | Lab Sample ID: | 280-134268-6 | | |
| Client ID: | PZ019-2 | | | | |
| 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 | | |

## 23 m-Nitrotoluene, CAS: 99-08-1, Signal: 1

RT: 13.99
Response: 1625
Amount: 0.010535




Reviewer: beckerc, 12-Mar-2020 08:27:04
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

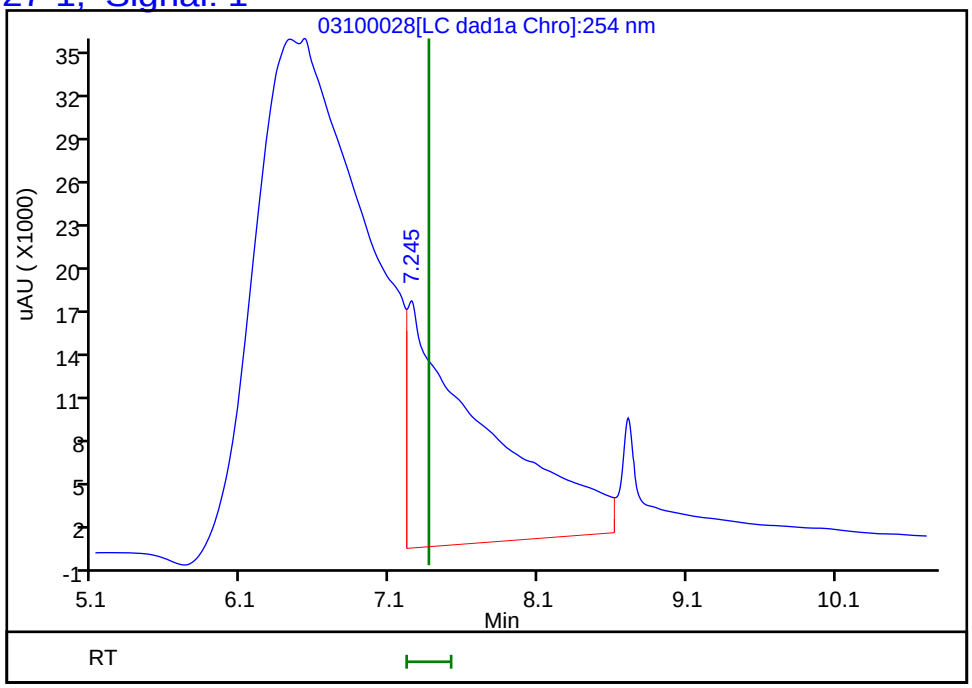
User Disabled Compound Report

Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200310-89952.b\03100028.d | | | | |
| Injection Date: | 11-Mar-2020 19:48:37 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | 280-134268-A-6-A | Lab Sample ID: | 280-134268-6 | | |
| Client ID: | PZ019-2 | | | | |
| 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 | | |

## 6 MNX, CAS: 5755-27-1, Signal: 1

RT: 7.25
Response: 606557
Amount: 3.825791




Reviewer: beckerc, 12-Mar-2020 08:27:04
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.: 280-134268-1
SDG No.:
Client Sample ID: NW080R-2
Lab Sample ID: 280-134268-7
Matrix: Water
Lab File ID: 03100031.D
Analysis Method: 8330A
Date Collected: 03/03/2020 08:50
Extraction Method: 3535
Date Extracted: 03/07/2020 16:07
Sample wt/vol: 478.5(mL)
Date Analyzed: 03/11/2020 20:57
Con. Extract Vol.: 5(mL)
Dilution Factor: 1
Injection Volume: 100(uL)
GC Column: UltraCarb5uODS ID: 4.6(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 488297
Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | LOQ | LOD | DL |
|---|---|---|---|---|---|---|
| 99-35-4 | 1,3,5-Trinitrobenzene | 0.42 | U | 1.0 | 0.42 | 0.21 |
| 99-65-0 | 1,3-Dinitrobenzene | 0.21 | U | 0.42 | 0.21 | 0.093 |
| 118-96-7 | 2,4,6-Trinitrotoluene | 0.42 | U | 0.42 | 0.42 | 0.17 |
| 121-14-2 | 2,4-Dinitrotoluene | 0.21 | U | 0.42 | 0.21 | 0.088 |
| 606-20-2 | 2,6-Dinitrotoluene | 0.21 | U | 0.21 | 0.21 | 0.067 |
| 35572-78-2 | 2-Amino-4,6-dinitrotoluene | 0.13 | U | 0.21 | 0.13 | 0.053 |
| 88-72-2 | 2-Nitrotoluene | 0.21 | U | 0.42 | 0.21 | 0.089 |
| 99-08-1 | 3-Nitrotoluene | 0.42 | U M | 0.42 | 0.42 | 0.20 |
| 19406-51-0 | 4-Amino-2,6-dinitrotoluene | 0.13 | U | 0.21 | 0.13 | 0.060 |
| 99-99-0 | 4-Nitrotoluene | 0.42 | U | 1.0 | 0.42 | 0.21 |
| 2691-41-0 | HMX | 0.21 | U | 0.42 | 0.21 | 0.092 |
| 5755-27-1 | MNX | 0.42 | U M | 2.1 | 0.42 | 0.16 |
| 98-95-3 | Nitrobenzene | 0.21 | U M | 0.42 | 0.21 | 0.095 |
| 121-82-4 | RDX | 0.42 | U | 0.42 | 0.42 | 0.17 |
| 479-45-8 | Tetryl | 0.21 | U | 0.25 | 0.21 | 0.083 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 528-29-0 | 1,2-Dinitrobenzene | 91 | M | 83-119 |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Denver\ChromData\CHHPLC_X\20200310-89952.b\03100031.D | | | | |
| Lims ID: | 280-134268-A-7-A | | | | |
| Client ID: | NW080R-2 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 11-Mar-2020 20:57:30 | ALS Bottle#: | 31 | Worklist Smp#: | 31 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 280-134268-A-7-A | | | | |
| Misc. Info.: | 280-0089952-031 | | | | |
| Operator ID: | CB | Instrument ID: | CHHPLC_X3 | | |
| Method: | \\chromna\Denver\ChromData\CHHPLC_X\20200310-89952.b\8330_X3.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 12-Mar-2020 08:50:00 | 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: | CTX0315 | | | | |
| First Level Reviewer: beckerc | | Date: | 12-Mar-2020 08:30:59 | | |

| | Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|
| | 3 HMX | 1 | | 6.685 | | | ND | |
| | 6 MNX | 1 | | 7.361 | | | ND | U |
| | 7 RDX | 1 | | 7.745 | | | ND | |
| $ | 9 1,2-Dinitrobenzene | 1 | 8.711 | 8.705 | 0.006 | 26569 | 0.1817 | M |
| | 10 1,3,5-Trinitrobenzene | 1 | | 8.878 | | | ND | |
| | 11 1,3-Dinitrobenzene | 1 | | 9.525 | | | ND | |
| | 12 Nitrobenzene | 1 | | 9.911 | | | ND | U |
| | 14 Tetryl | 1 | | 10.211 | | | ND | |
| | 16 2,4,6-Trinitrotoluene | 1 | | 11.178 | | | ND | |
| | 17 4-Amino-2,6-dinitrotoluene | 1 | | 11.325 | | | ND | |
| | 18 2-Amino-4,6-dinitrotoluene | 1 | | 11.611 | | | ND | |
| | 19 2,6-Dinitrotoluene | 1 | | 11.785 | | | ND | |
| | 20 2,4-Dinitrotoluene | 1 | | 11.978 | | | ND | |
| | 21 o-Nitrotoluene | 1 | | 12.818 | | | ND | |
| | 22 p-Nitrotoluene | 1 | | 13.258 | | | ND | |
| | 23 m-Nitrotoluene | 1 | | 13.858 | | | ND | U |

## QC Flag Legend

Review Flags

M - Manually Integrated

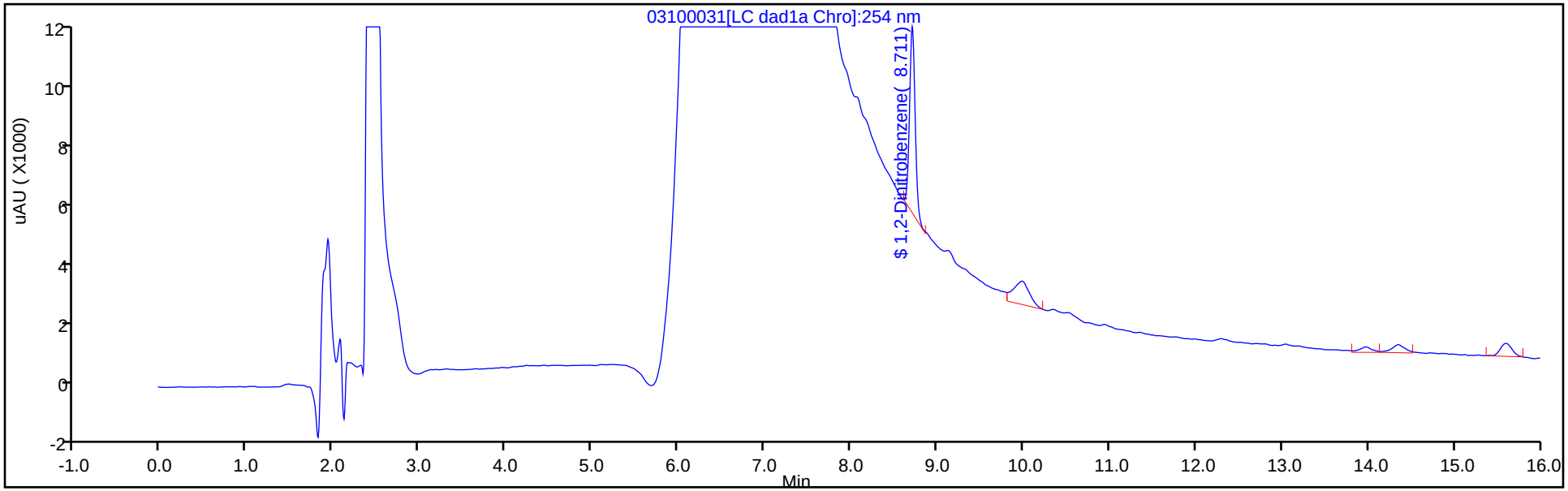
U - Marked Undetected

Report Date: 12-Mar-2020 08:50:09 Chrom Revision: 2.3 19-Feb-2020 16:45:46

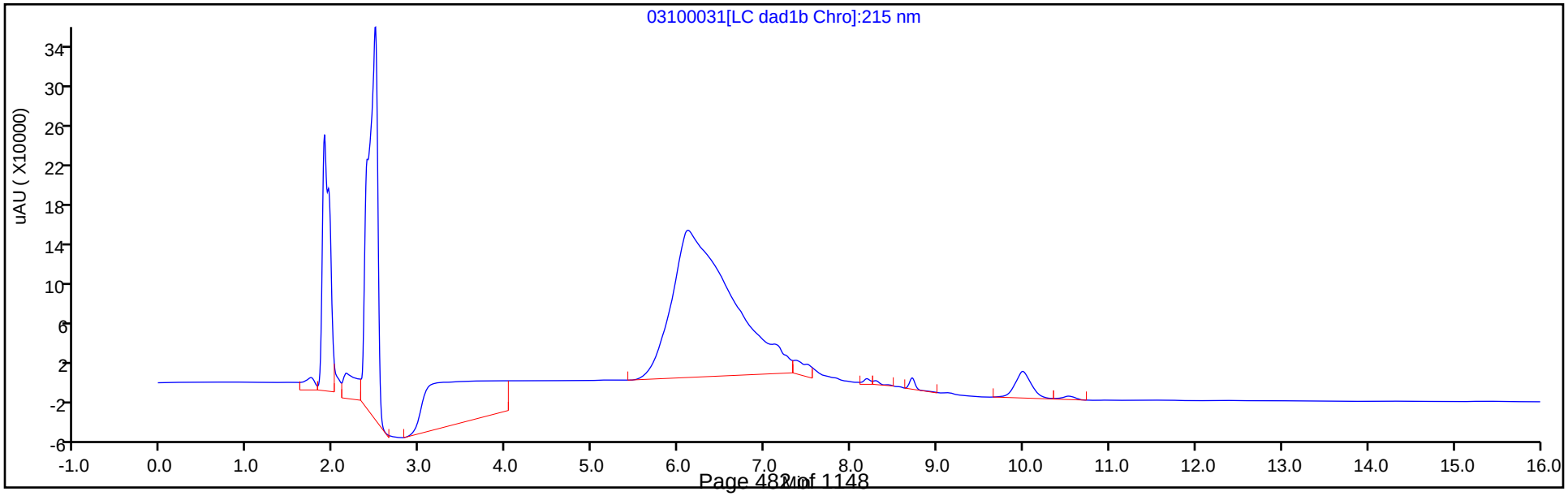
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200310-89952.b\03100031.d | | | | |
| Injection Date: | 11-Mar-2020 20:57:30 | Instrument ID: | CHHPLC_X3 | Operator ID: | CB |
| Lims ID: | 280-134268-A-7-A | Lab Sample ID: | 280-134268-7 | Worklist Smp#: | 31 |
| Client ID: | NW080R-2 | | | | |
| 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



Eurofins TestAmerica, Denver
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Denver\ChromData\CHHPLC_X\20200310-89952.b\03100031.D | | | | |
| Lims ID: | 280-134268-A-7-A | | | | |
| Client ID: | NW080R-2 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 11-Mar-2020 20:57:30 | ALS Bottle#: | 31 | Worklist Smp#: | 31 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 280-134268-A-7-A | | | | |
| Misc. Info.: | 280-0089952-031 | | | | |
| Operator ID: | CB | Instrument ID: | CHHPLC_X3 | | |
| Method: | \\chromna\Denver\ChromData\CHHPLC_X\20200310-89952.b\8330_X3.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 12-Mar-2020 08:50:00 | 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: | CTX0315 | | | | |

First Level Reviewer: beckerc Date: 12-Mar-2020 08:30:59

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 9 1,2-Dinitrobenzene | 0.2000 | 0.1817 | 90.86 |

Eurofins TestAmerica, Denver

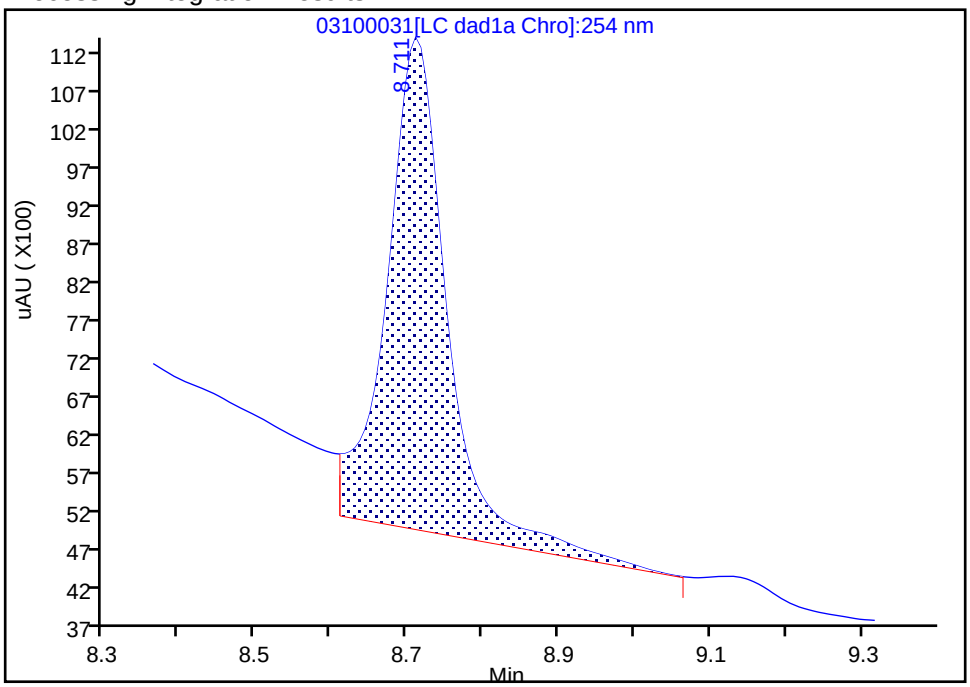
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200310-89952.b\03100031.d | | | | |
| Injection Date: | 11-Mar-2020 20:57:30 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | 280-134268-A-7-A | Lab Sample ID: | 280-134268-7 | | |
| Client ID: | NW080R-2 | | | | |
| 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 | | |

## $ 9 1,2-Dinitrobenzene, CAS: 528-29-0

Signal: 1

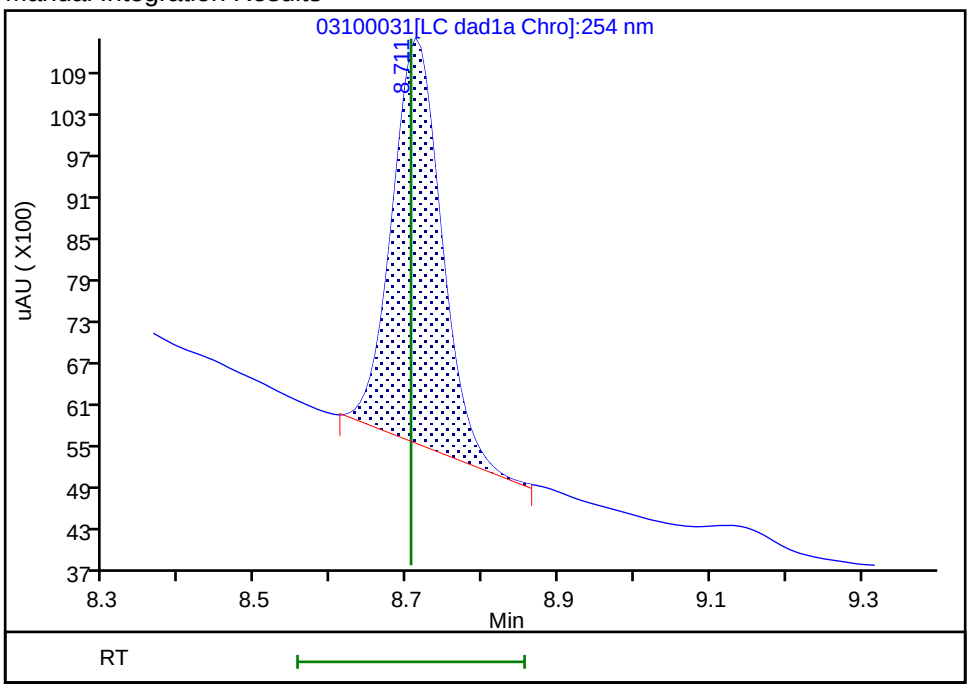
Processing Integration Results

RT: 8.71
Area: 35633
Amount: 0.243703
Amount Units: ug/mL




Manual Integration Results

RT: 8.71
Area: 26569
Amount: 0.181712
Amount Units: ug/mL




Reviewer: beckerc, 12-Mar-2020 08:30:49
Audit Action: Manually Integrated Audit Reason: Baseline

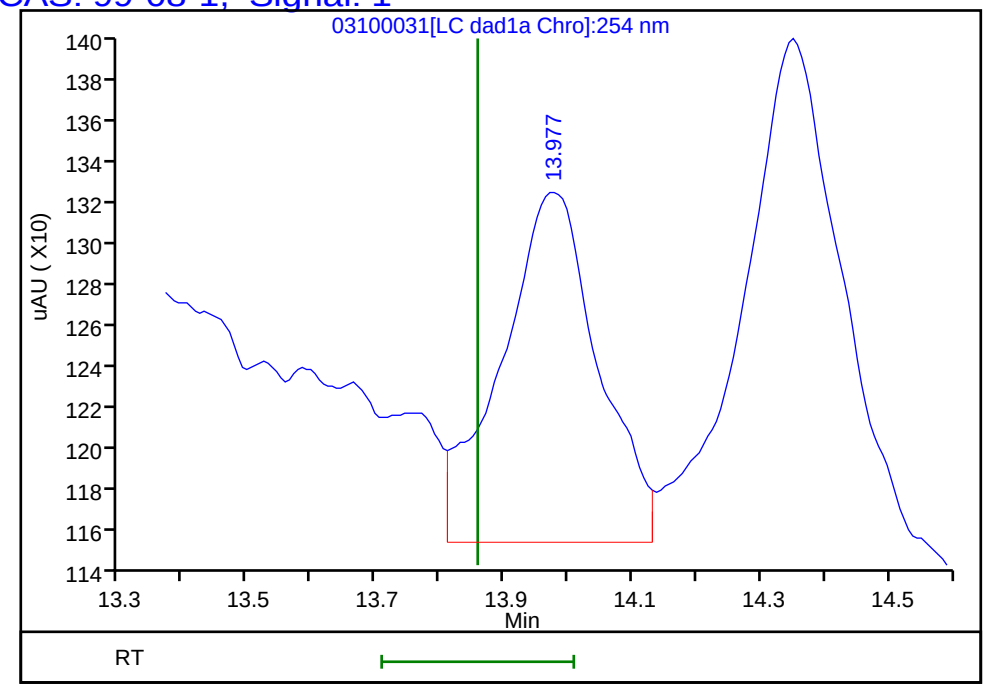
User Disabled Compound Report

Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200310-89952.b\03100031.d | | | | |
| Injection Date: | 11-Mar-2020 20:57:30 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | 280-134268-A-7-A | Lab Sample ID: | 280-134268-7 | | |
| Client ID: | NW080R-2 | | | | |
| 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 | | |

## 23 m-Nitrotoluene, CAS: 99-08-1, Signal: 1

RT: 13.98
Response: 1767
Amount: 0.011456




Reviewer: beckerc, 12-Mar-2020 08:30:59
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

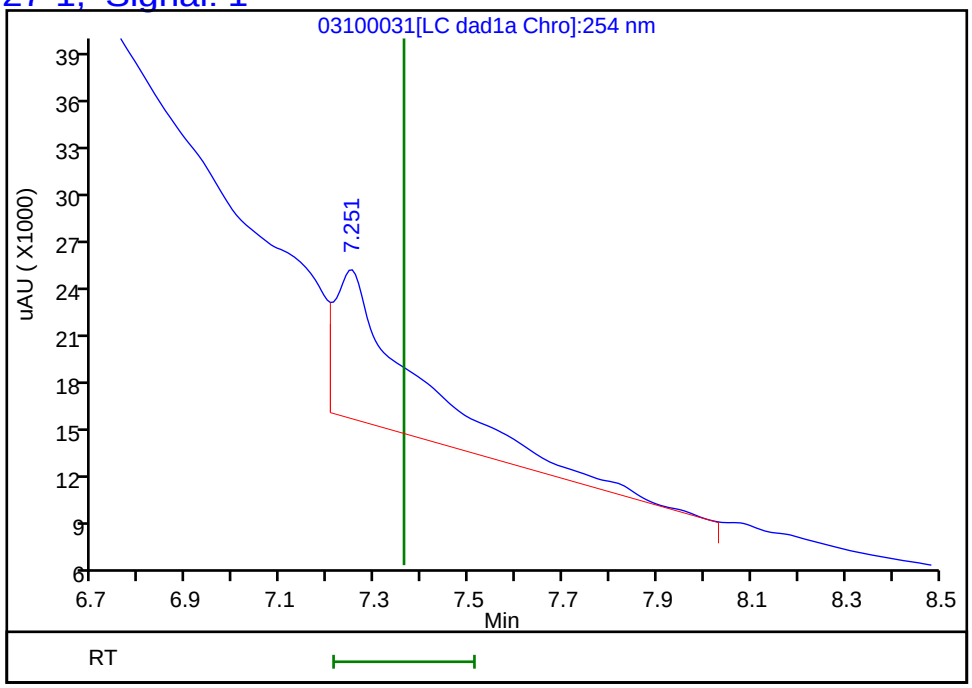
User Disabled Compound Report

Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200310-89952.b\03100031.d | | | | |
| Injection Date: | 11-Mar-2020 20:57:30 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | 280-134268-A-7-A | Lab Sample ID: | 280-134268-7 | | |
| Client ID: | NW080R-2 | | | | |
| 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 | | |

## 6 MNX, CAS: 5755-27-1, Signal: 1

RT: 7.25
Response: 111554
Amount: 0.703615




Reviewer: beckerc, 12-Mar-2020 08:30:59
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

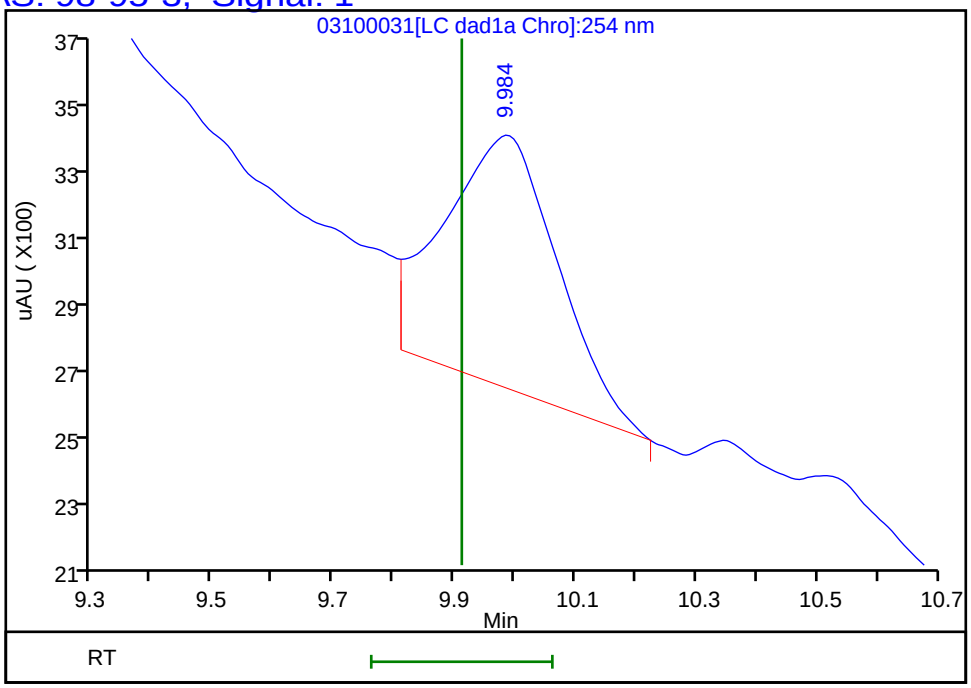
User Disabled Compound Report

Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200310-89952.b\03100031.d | | | | |
| Injection Date: | 11-Mar-2020 20:57:30 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | 280-134268-A-7-A | Lab Sample ID: | 280-134268-7 | | |
| Client ID: | NW080R-2 | | | | |
| 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 | | |

## 12 Nitrobenzene, CAS: 98-95-3, Signal: 1

RT: 9.98
Response: 9514
Amount: 0.044732




Reviewer: beckerc, 12-Mar-2020 08:30:59
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-134268-1
SDG No.:
Client Sample ID: NW081R-2
Lab Sample ID: 280-134268-8
Matrix: Water
Lab File ID: 03100032.D
Analysis Method: 8330A
Date Collected: 03/03/2020 10:00
Extraction Method: 3535
Date Extracted: 03/07/2020 16:07
Sample wt/vol: 500.5(mL)
Date Analyzed: 03/11/2020 21:20
Con. Extract Vol.: 5(mL)
Dilution Factor: 1
Injection Volume: 100(uL)
GC Column: UltraCarb5uODS ID: 4.6(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 488297
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 | 0.064 |
| 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 | 0.085 |
| 99-08-1 | 3-Nitrotoluene | 0.40 | U M | 0.40 | 0.40 | 0.19 |
| 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 | 106 | M | 83-119 |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Denver\ChromData\CHHPLC_X\20200310-89952.b\03100032.D | | | | |
| Lims ID: | 280-134268-A-8-A | | | | |
| Client ID: | NW081R-2 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 11-Mar-2020 21:20:25 | ALS Bottle#: | 32 | Worklist Smp#: | 32 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 280-134268-A-8-A | | | | |
| Misc. Info.: | 280-0089952-032 | | | | |
| Operator ID: | CB | Instrument ID: | CHHPLC_X3 | | |
| Method: | \\chromna\Denver\ChromData\CHHPLC_X\20200310-89952.b\8330_X3.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 12-Mar-2020 08:50:00 | 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: | CTX0315 | | | | |
| First Level Reviewer: beckerc | | Date: | 12-Mar-2020 08:31:19 | | |

| | Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|
| | 3 HMX | 1 | | 6.685 | | | ND | |
| | 6 MNX | 1 | | 7.361 | | | ND | U |
| | 7 RDX | 1 | | 7.745 | | | ND | |
| $ | 9 1,2-Dinitrobenzene | 1 | 8.703 | 8.705 | -0.002 | 30962 | 0.2118 | M |
| | 10 1,3,5-Trinitrobenzene | 1 | | 8.878 | | | ND | |
| | 11 1,3-Dinitrobenzene | 1 | | 9.525 | | | ND | |
| | 12 Nitrobenzene | 1 | | 9.911 | | | ND | |
| | 14 Tetryl | 1 | | 10.211 | | | ND | |
| | 16 2,4,6-Trinitrotoluene | 1 | | 11.178 | | | ND | |
| | 17 4-Amino-2,6-dinitrotoluene | 1 | | 11.325 | | | ND | |
| | 18 2-Amino-4,6-dinitrotoluene | 1 | | 11.611 | | | ND | |
| | 19 2,6-Dinitrotoluene | 1 | | 11.785 | | | ND | |
| | 20 2,4-Dinitrotoluene | 1 | | 11.978 | | | ND | |
| | 21 o-Nitrotoluene | 1 | | 12.818 | | | ND | |
| | 22 p-Nitrotoluene | 1 | | 13.258 | | | ND | |
| | 23 m-Nitrotoluene | 1 | | 13.858 | | | ND | U |

## QC Flag Legend

Review Flags

M - Manually Integrated

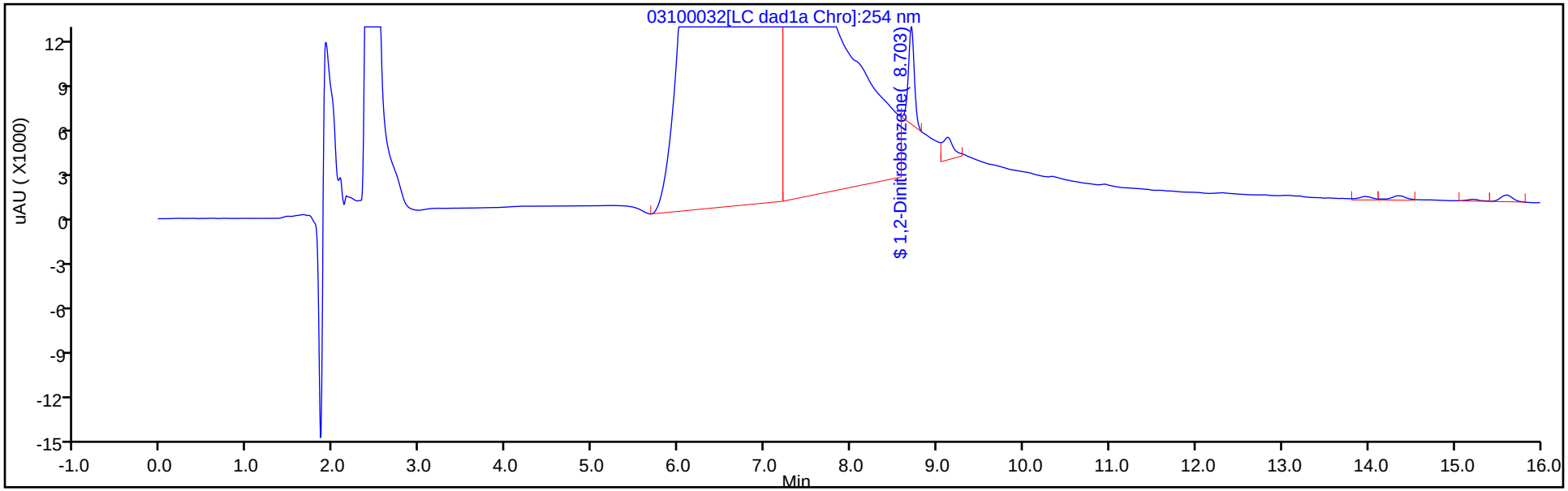
U - Marked Undetected

Report Date: 12-Mar-2020 08:50:10 Chrom Revision: 2.3 19-Feb-2020 16:45:46

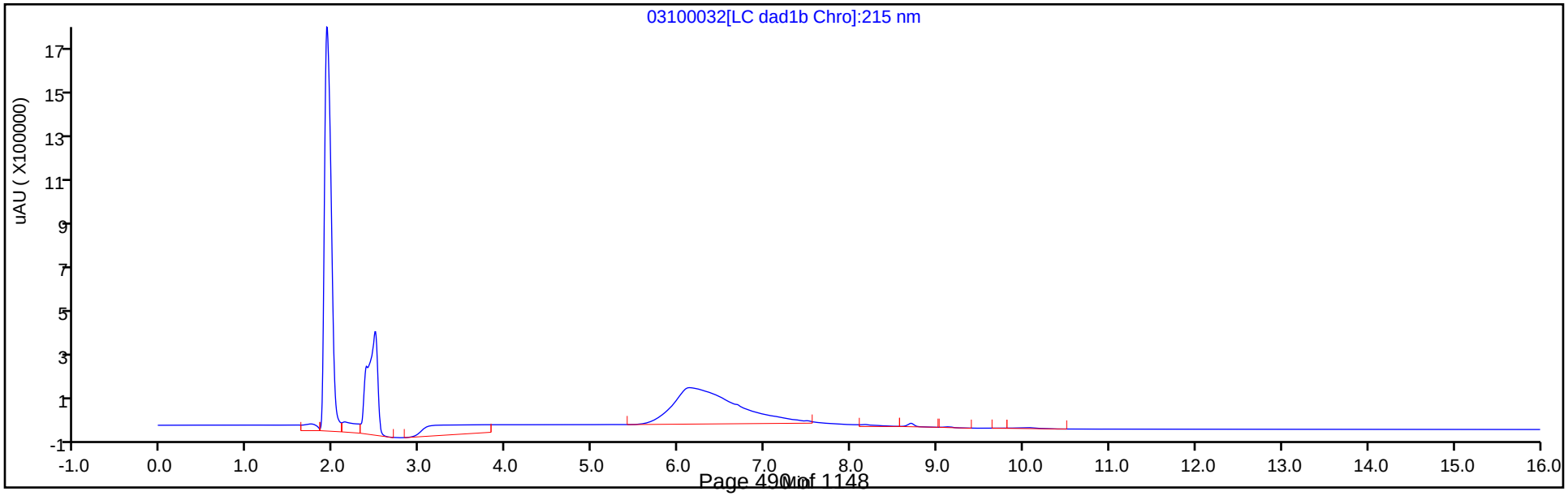
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200310-89952.b\03100032.d | | | | |
| Injection Date: | 11-Mar-2020 21:20:25 | Instrument ID: | CHHPLC_X3 | Operator ID: | CB |
| Lims ID: | 280-134268-A-8-A | Lab Sample ID: | 280-134268-8 | Worklist Smp#: | 32 |
| Client ID: | NW081R-2 | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 32 |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |

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




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



Eurofins TestAmerica, Denver
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Denver\ChromData\CHHPLC_X\20200310-89952.b\03100032.D | | | | |
| Lims ID: | 280-134268-A-8-A | | | | |
| Client ID: | NW081R-2 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 11-Mar-2020 21:20:25 | ALS Bottle#: | 32 | Worklist Smp#: | 32 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 280-134268-A-8-A | | | | |
| Misc. Info.: | 280-0089952-032 | | | | |
| Operator ID: | CB | Instrument ID: | CHHPLC_X3 | | |

| | | | |
|---|---|---|---|
| Method: | \\chromna\Denver\ChromData\CHHPLC_X\20200310-89952.b\8330_X3.m | | |
| Limit Group: | GCSV - 8330 | | |
| Last Update: | 12-Mar-2020 08:50:00 | 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: | CTX0315 | |

First Level Reviewer: beckerc Date: 12-Mar-2020 08:31:19

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 9 1,2-Dinitrobenzene | 0.2000 | 0.2118 | 105.88 |

Eurofins TestAmerica, Denver

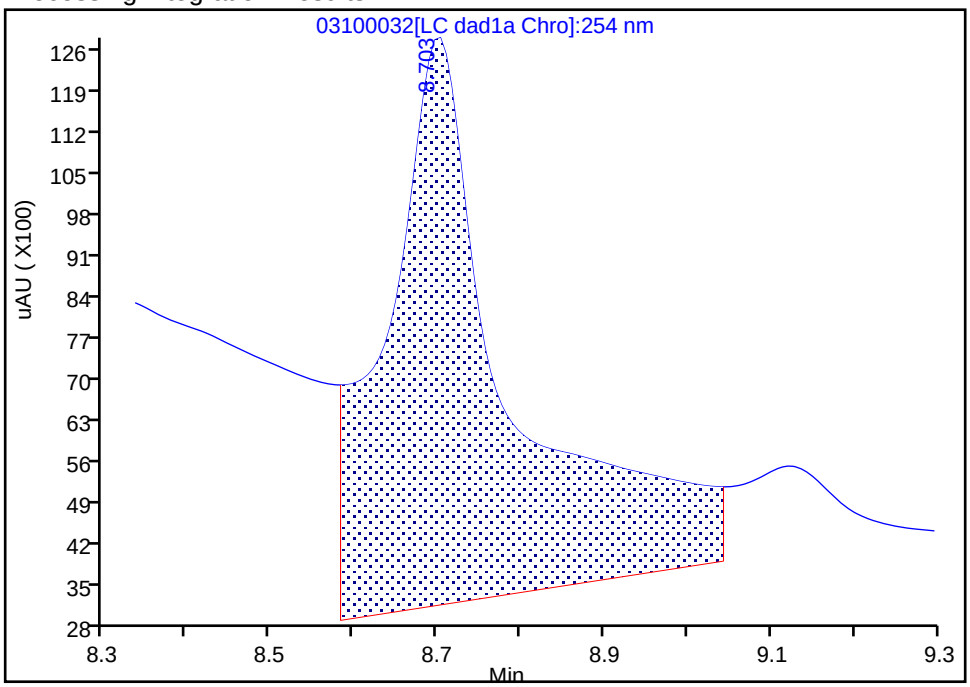
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200310-89952.b\03100032.d | | | | |
| Injection Date: | 11-Mar-2020 21:20:25 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | 280-134268-A-8-A | Lab Sample ID: | 280-134268-8 | | |
| Client ID: | NW081R-2 | | | | |
| 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 | | |

## $ 9 1,2-Dinitrobenzene, CAS: 528-29-0

Signal: 1

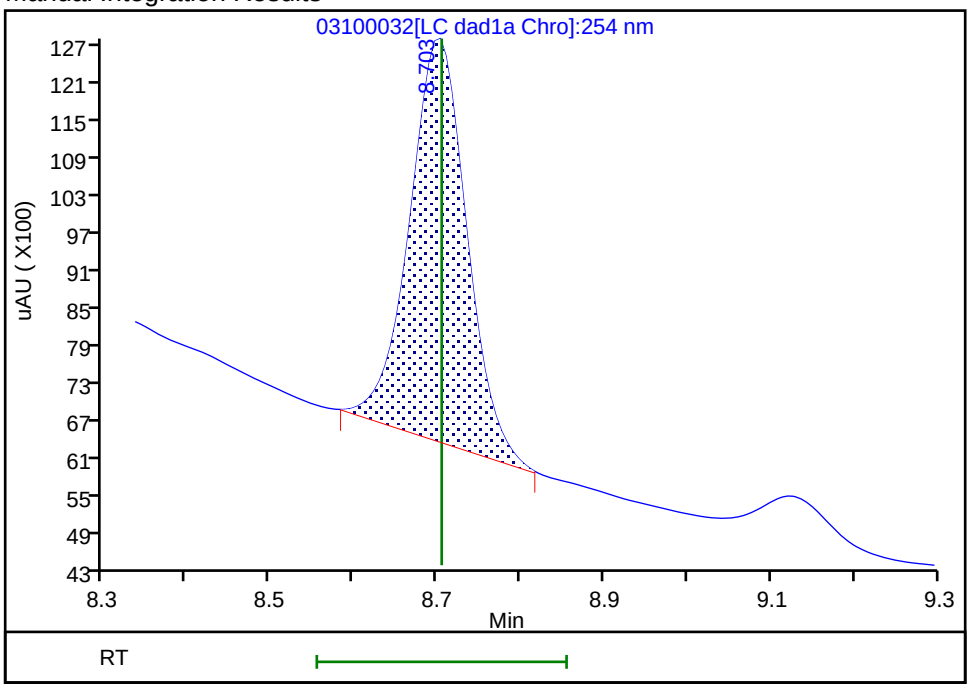
Processing Integration Results

RT: 8.70
Area: 101483
Amount: 0.694067
Amount Units: ug/mL




Manual Integration Results

RT: 8.70
Area: 30962
Amount: 0.211757
Amount Units: ug/mL




Reviewer: beckerc, 12-Mar-2020 08:31:16
Audit Action: Manually Integrated Audit Reason: Baseline

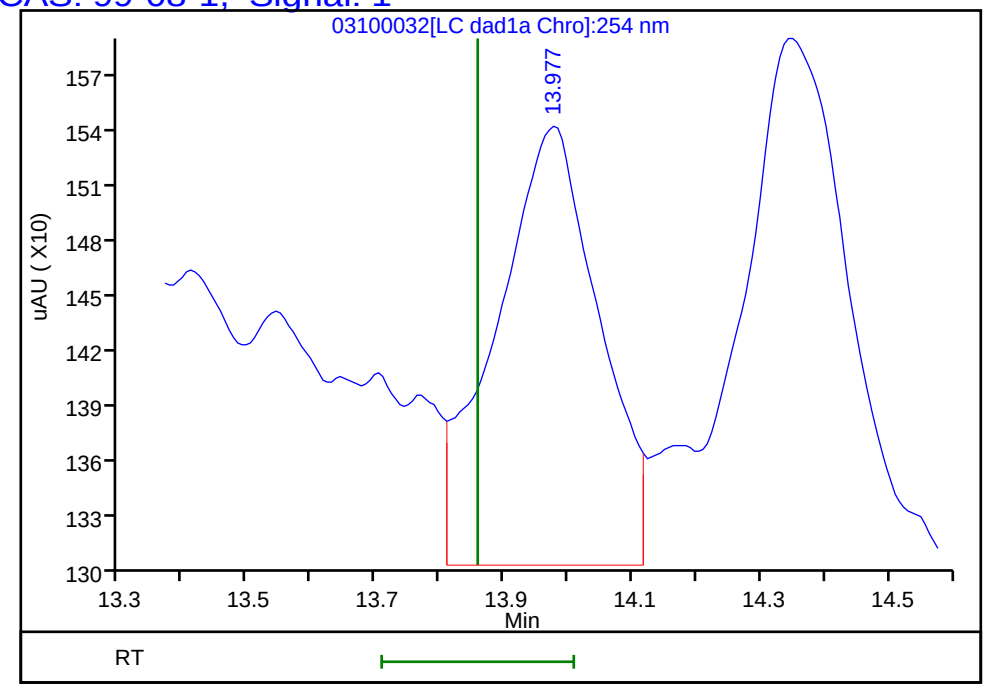
User Disabled Compound Report

Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200310-89952.b\03100032.d | | | | |
| Injection Date: | 11-Mar-2020 21:20:25 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | 280-134268-A-8-A | Lab Sample ID: | 280-134268-8 | | |
| Client ID: | NW081R-2 | | | | |
| 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 | | |

## 23 m-Nitrotoluene, CAS: 99-08-1, Signal: 1

RT: 13.98
Response: 2627
Amount: 0.017032




Reviewer: beckerc, 12-Mar-2020 08:31:19
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

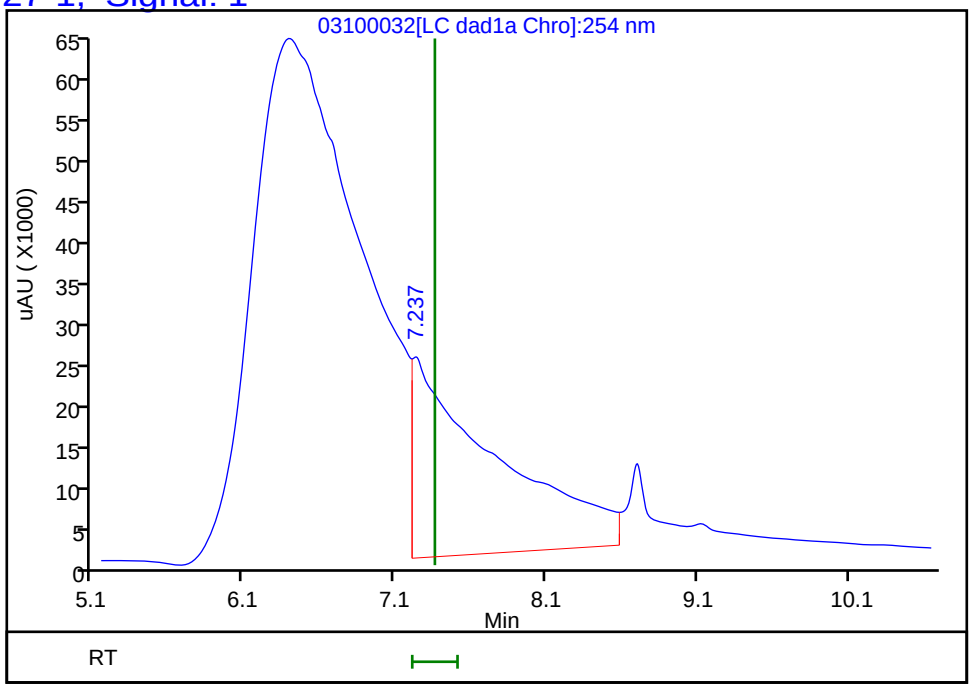
User Disabled Compound Report

Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200310-89952.b\03100032.d | | | | |
| Injection Date: | 11-Mar-2020 21:20:25 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | 280-134268-A-8-A | Lab Sample ID: | 280-134268-8 | | |
| Client ID: | NW081R-2 | | | | |
| 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 | | |

## 6 MNX, CAS: 5755-27-1, Signal: 1

RT: 7.24
Response: 934171
Amount: 5.892180




Reviewer: beckerc, 12-Mar-2020 08:31:19
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.: 280-134268-1
SDG No.:
Client Sample ID: NW062-2
Lab Sample ID: 280-134268-9
Matrix: Water
Lab File ID: 03100036.D
Analysis Method: 8330A
Date Collected: 03/02/2020 13:55
Extraction Method: 3535
Date Extracted: 03/07/2020 16:07
Sample wt/vol: 525.2(mL)
Date Analyzed: 03/11/2020 22:52
Con. Extract Vol.: 5(mL)
Dilution Factor: 1
Injection Volume: 100(uL)
GC Column: UltraCarb5uODS ID: 4.6(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 488297
Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | LOQ | LOD | DL |
|---|---|---|---|---|---|---|
| 99-35-4 | 1,3,5-Trinitrobenzene | 0.38 | U | 0.95 | 0.38 | 0.19 |
| 99-65-0 | 1,3-Dinitrobenzene | 0.19 | U | 0.38 | 0.19 | 0.084 |
| 118-96-7 | 2,4,6-Trinitrotoluene | 0.38 | U | 0.38 | 0.38 | 0.15 |
| 121-14-2 | 2,4-Dinitrotoluene | 0.19 | U | 0.38 | 0.19 | 0.080 |
| 606-20-2 | 2,6-Dinitrotoluene | 0.19 | U | 0.19 | 0.19 | 0.061 |
| 35572-78-2 | 2-Amino-4,6-dinitrotoluene | 0.11 | U | 0.19 | 0.11 | 0.048 |
| 88-72-2 | 2-Nitrotoluene | 0.19 | U | 0.38 | 0.19 | 0.081 |
| 99-08-1 | 3-Nitrotoluene | 0.38 | U M | 0.38 | 0.38 | 0.19 |
| 19406-51-0 | 4-Amino-2,6-dinitrotoluene | 0.11 | U | 0.19 | 0.11 | 0.055 |
| 99-99-0 | 4-Nitrotoluene | 0.38 | U | 0.95 | 0.38 | 0.19 |
| 2691-41-0 | HMX | 0.19 | U | 0.38 | 0.19 | 0.083 |
| 5755-27-1 | MNX | 0.38 | U | 1.9 | 0.38 | 0.15 |
| 121-82-4 | RDX | 0.38 | U | 0.38 | 0.38 | 0.15 |
| 479-45-8 | Tetryl | 0.19 | U | 0.23 | 0.19 | 0.075 |

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

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Denver\ChromData\CHHPLC_X\20200310-89952.b\03100036.D | | | | |
| Lims ID: | 280-134268-A-9-A | | | | |
| Client ID: | NW062-2 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 11-Mar-2020 22:52:12 | ALS Bottle#: | 36 | Worklist Smp#: | 36 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 280-134268-A-9-A | | | | |
| Misc. Info.: | 280-0089952-036 | | | | |
| Operator ID: | CB | Instrument ID: | CHHPLC_X3 | | |
| Method: | \\chromna\Denver\ChromData\CHHPLC_X\20200310-89952.b\8330_X3.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 12-Mar-2020 08:50:13 | 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: | CTX0315 | | | | |
| First Level Reviewer: beckerc | | Date: | 12-Mar-2020 08:33:59 | | |

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|
| 3 HMX | 1 | | 6.685 | | | ND | |
| 6 MNX | 1 | | 7.361 | | | ND | |
| 7 RDX | 1 | | 7.745 | | | ND | |
| $ 9 1,2-Dinitrobenzene | 1 | 8.710 | 8.705 | 0.005 | 28909 | 0.1977 | M |
| 10 1,3,5-Trinitrobenzene | 1 | | 8.878 | | | ND | |
| 11 1,3-Dinitrobenzene | 1 | | 9.525 | | | ND | |
| 12 Nitrobenzene | 1 | 9.916 | 9.911 | 0.005 | 4790 | 0.0225 | M |
| 14 Tetryl | 1 | | 10.211 | | | ND | |
| 16 2,4,6-Trinitrotoluene | 1 | | 11.178 | | | ND | |
| 17 4-Amino-2,6-dinitrotoluene | 1 | | 11.325 | | | ND | |
| 18 2-Amino-4,6-dinitrotoluene | 1 | | 11.611 | | | ND | |
| 19 2,6-Dinitrotoluene | 1 | | 11.785 | | | ND | |
| 20 2,4-Dinitrotoluene | 1 | | 11.978 | | | ND | |
| 21 o-Nitrotoluene | 1 | | 12.818 | | | ND | |
| 22 p-Nitrotoluene | 1 | | 13.258 | | | ND | |
| 23 m-Nitrotoluene | 1 | | 13.858 | | | ND | U |

## QC Flag Legend

Review Flags

M - Manually Integrated

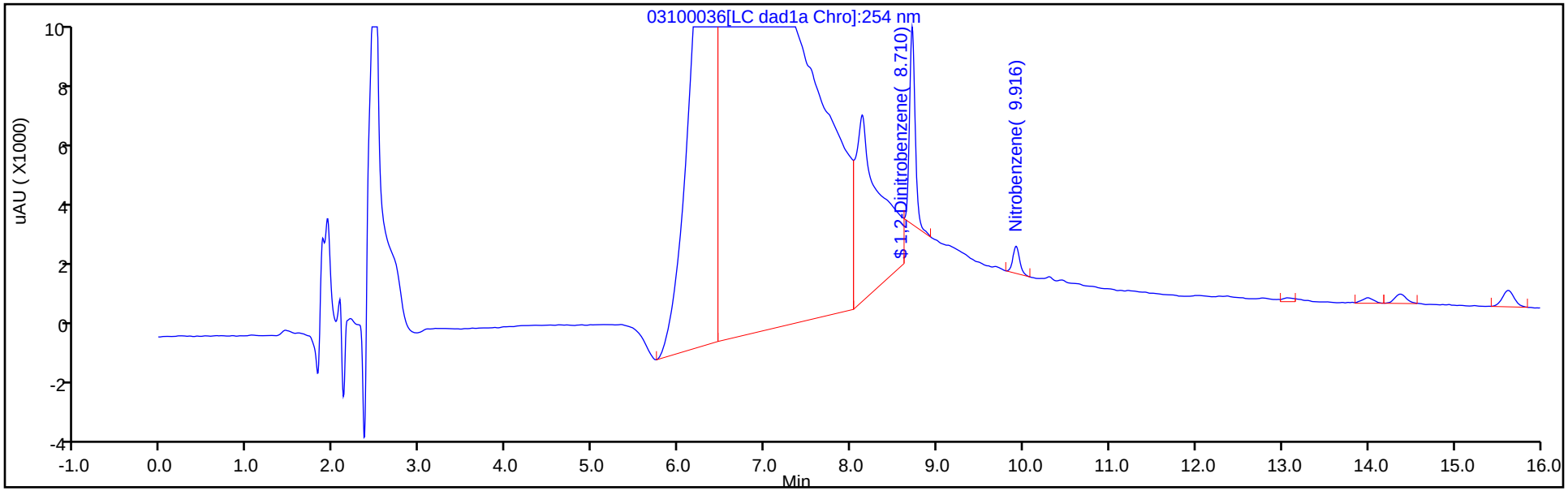
U - Marked Undetected

Report Date: 12-Mar-2020 08:50:14 Chrom Revision: 2.3 19-Feb-2020 16:45:46

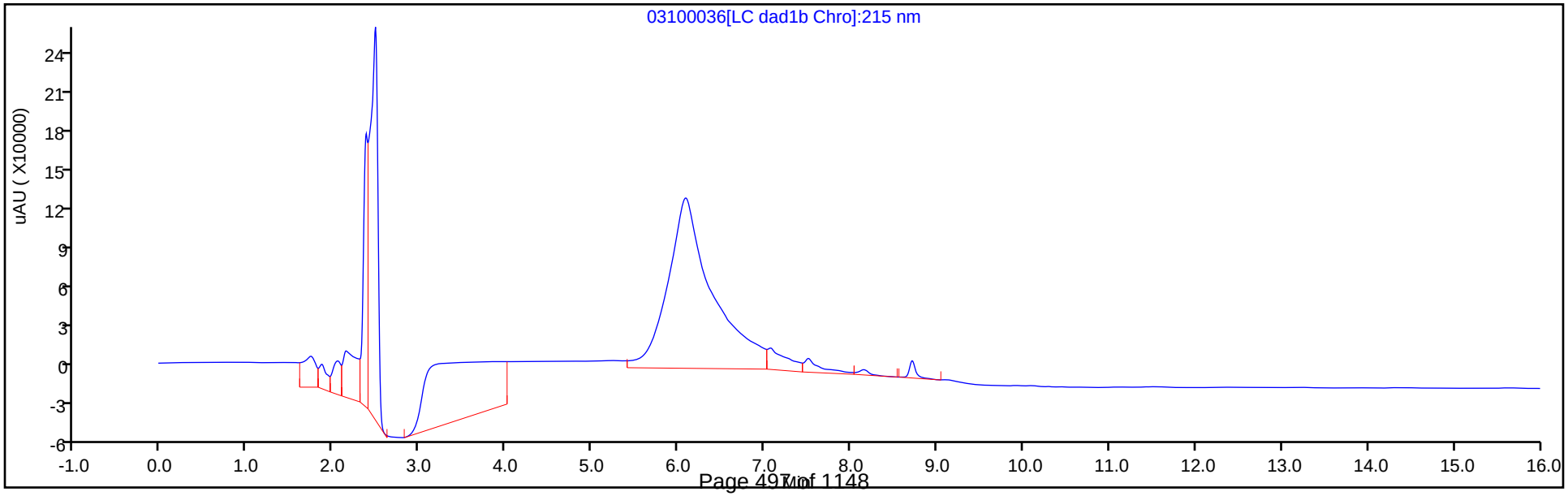
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200310-89952.b\03100036.d | | | | |
| Injection Date: | 11-Mar-2020 22:52:12 | Instrument ID: | CHHPLC_X3 | Operator ID: | CB |
| Lims ID: | 280-134268-A-9-A | Lab Sample ID: | 280-134268-9 | Worklist Smp#: | 36 |
| Client ID: | NW062-2 | | | | |
| 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\20200310-89952.b\03100036.D | | | | |
| Lims ID: | 280-134268-A-9-A | | | | |
| Client ID: | NW062-2 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 11-Mar-2020 22:52:12 | ALS Bottle#: | 36 | Worklist Smp#: | 36 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 280-134268-A-9-A | | | | |
| Misc. Info.: | 280-0089952-036 | | | | |
| Operator ID: | CB | Instrument ID: | CHHPLC_X3 | | |

| | | | |
|---|---|---|---|
| Method: | \\chromna\Denver\ChromData\CHHPLC_X\20200310-89952.b\8330_X3.m | | |
| Limit Group: | GCSV - 8330 | | |
| Last Update: | 12-Mar-2020 08:50:13 | 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: | CTX0315 | |

First Level Reviewer: beckerc Date: 12-Mar-2020 08:33:59

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 9 1,2-Dinitrobenzene | 0.2000 | 0.1977 | 98.86 |

Eurofins TestAmerica, Denver

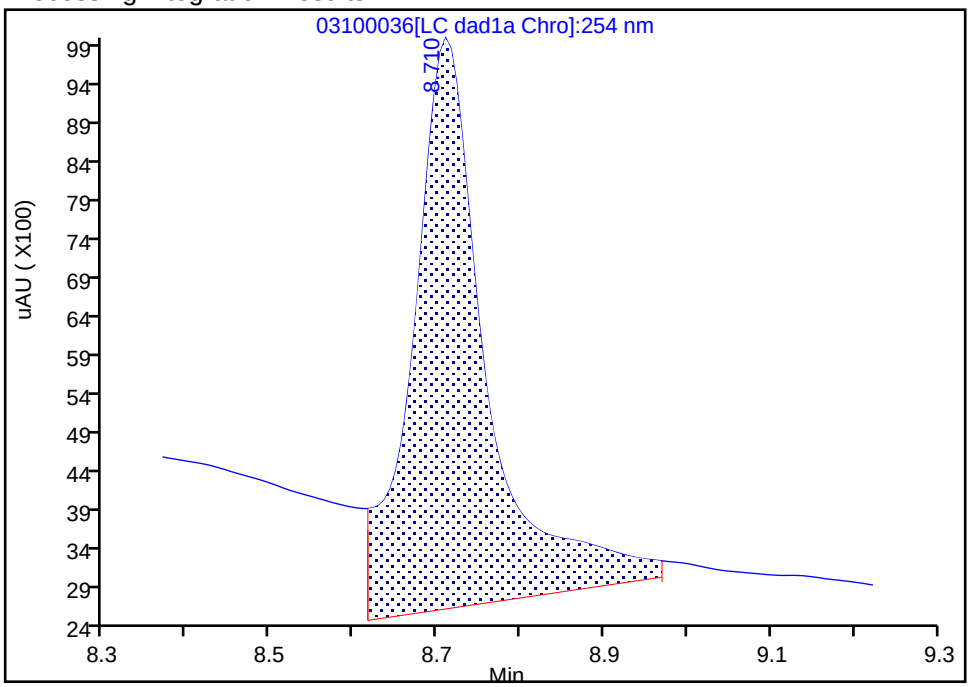
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200310-89952.b\03100036.d | | | | |
| Injection Date: | 11-Mar-2020 22:52:12 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | 280-134268-A-9-A | Lab Sample ID: | 280-134268-9 | | |
| Client ID: | NW062-2 | | | | |
| 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 | | |

## $ 9 1,2-Dinitrobenzene, CAS: 528-29-0

Signal: 1

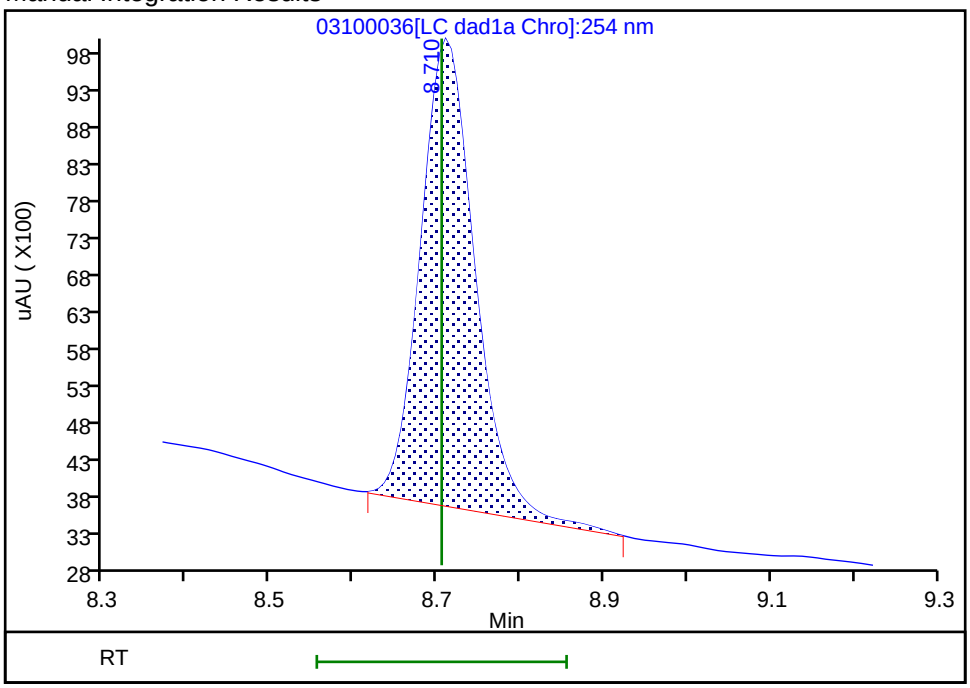
Processing Integration Results

RT: 8.71
Area: 46230
Amount: 0.316178
Amount Units: ug/mL




Manual Integration Results

RT: 8.71
Area: 28909
Amount: 0.197716
Amount Units: ug/mL




Reviewer: beckerc, 12-Mar-2020 08:33:36
Audit Action: Manually Integrated Audit Reason: Baseline

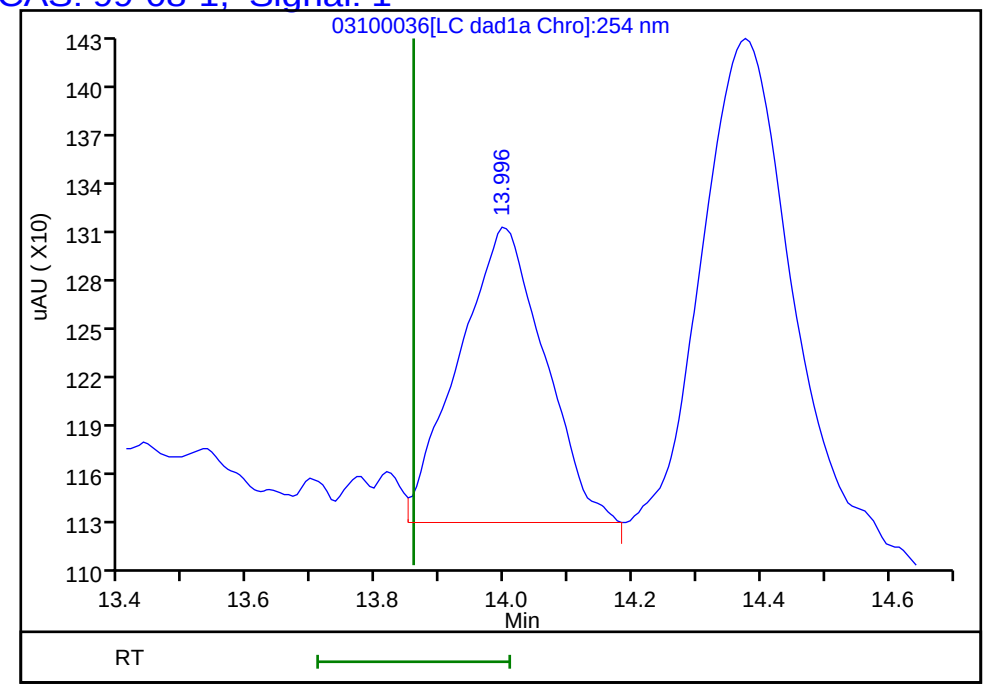
User Disabled Compound Report

Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200310-89952.b\03100036.d | | | | |
| Injection Date: | 11-Mar-2020 22:52:12 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | 280-134268-A-9-A | Lab Sample ID: | 280-134268-9 | | |
| Client ID: | NW062-2 | | | | |
| 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 | | |

## 23 m-Nitrotoluene, CAS: 99-08-1, Signal: 1

RT: 14.00
Response: 1674
Amount: 0.010853




Reviewer: beckerc, 12-Mar-2020 08:33:59
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

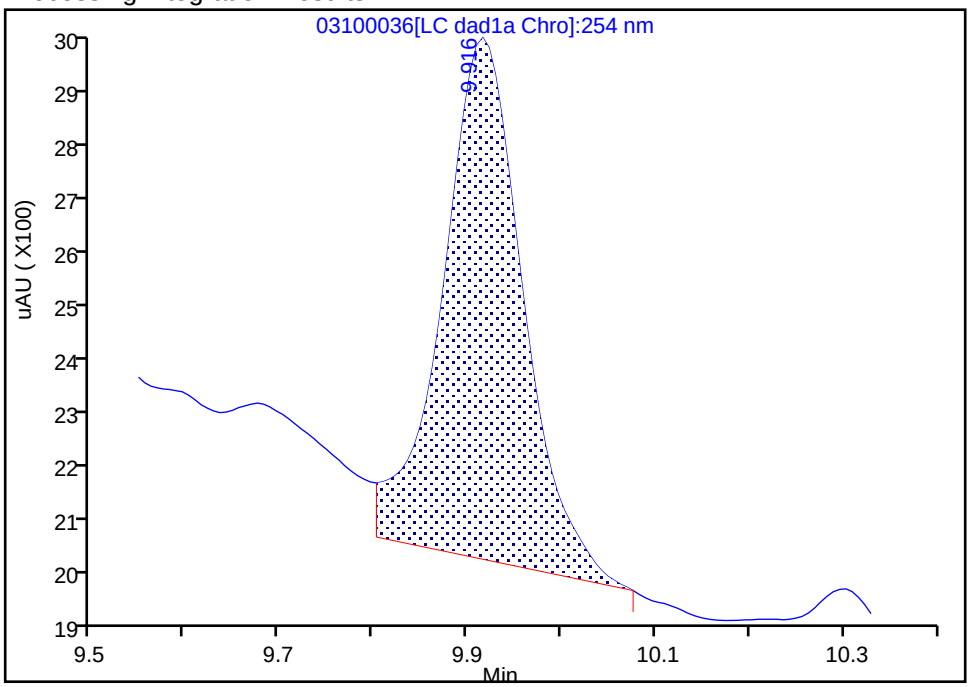
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200310-89952.b\03100036.d | | | | |
| Injection Date: | 11-Mar-2020 22:52:12 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | 280-134268-A-9-A | Lab Sample ID: | 280-134268-9 | | |
| Client ID: | NW062-2 | | | | |
| 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 | | |

## 12 Nitrobenzene, CAS: 98-95-3

Signal: 1

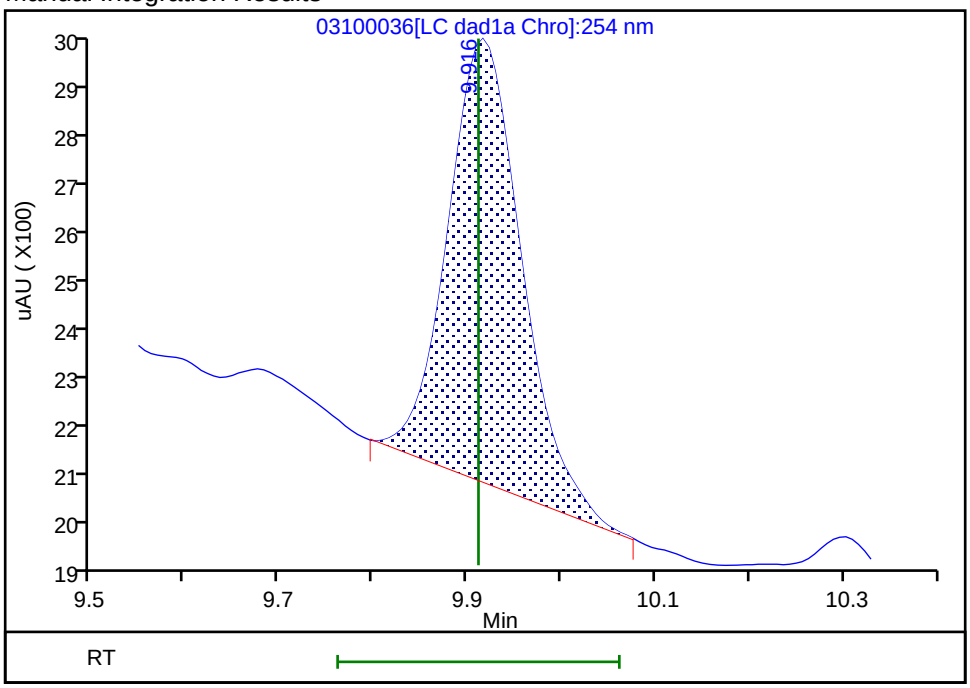
Processing Integration Results

RT: 9.92
Area: 5547
Amount: 0.026080
Amount Units: ug/mL




Manual Integration Results

RT: 9.92
Area: 4790
Amount: 0.022521
Amount Units: ug/mL




Reviewer: beckerc, 12-Mar-2020 08:33:44
Audit Action: Manually Integrated Audit Reason: Baseline

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-134268-1
SDG No.:
Client Sample ID: NW062-2
Lab Sample ID: 280-134268-9
Matrix: Water
Lab File ID: 03160024.D
Analysis Method: 8330A
Date Collected: 03/02/2020 13:55
Extraction Method: 3535
Date Extracted: 03/07/2020 16:07
Sample wt/vol: 525.2(mL)
Date Analyzed: 03/17/2020 00:44
Con. Extract Vol.: 5(mL)
Dilution Factor: 1
Injection Volume: 100(uL)
GC Column: Luna-phenylhex ID: 4.6(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 488850
Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | LOQ | LOD | DL |
|---|---|---|---|---|---|---|
| 98-95-3 | Nitrobenzene | 0.19 | U Q | 0.38 | 0.19 | 0.087 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 528-29-0 | 1,2-Dinitrobenzene | 100 | | 83-119 |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Denver\ChromData\G2_LUNA\20200316-90087.b\03160024.D | | | | |
| Lims ID: | 280-134268-A-9-A | | | | |
| Client ID: | NW062-2 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 17-Mar-2020 00:44:21 | ALS Bottle#: | 24 | Worklist Smp#: | 24 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 280-134268-A-9-A | | | | |
| Misc. Info.: | 280-0090087-024 | | | | |
| Operator ID: | CB | Instrument ID: | CHHPLC_G2_LUNA | | |

| | | | |
|---|---|---|---|
| Method: | \\chromna\Denver\ChromData\G2_LUNA\20200316-90087.b\G2_8330_Luna.m | | |
| Limit Group: | GCSV - 8330 | | |
| Last Update: | 17-Mar-2020 10:50:17 | 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: | CTX0339 | |

First Level Reviewer: beckerc Date: 17-Mar-2020 10:40:47

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|
| 6 HMX | 1 | | 6.800 | | | ND | |
| 7 MNX | 1 | | 7.557 | | | ND | |
| 8 RDX | 1 | | 8.920 | | | ND | |
| 9 Nitrobenzene | 1 | | 11.880 | | | ND | |
| $ 10 1,2-Dinitrobenzene | 1 | 12.705 | 12.753 | -0.048 | 57833 | 0.2000 | |
| 12 1,3-Dinitrobenzene | 1 | | 15.247 | | | ND | |
| 14 o-Nitrotoluene | 1 | | 16.267 | | | ND | |
| 15 p-Nitrotoluene | 1 | | 16.547 | | | ND | |
| 16 4-Amino-2,6-dinitrotoluene | 1 | | 16.767 | | | ND | |
| 17 m-Nitrotoluene | 1 | | 17.467 | | | ND | |
| 18 2-Amino-4,6-dinitrotoluene | 1 | | 17.593 | | | ND | U |
| 19 1,3,5-Trinitrobenzene | 1 | | 18.547 | | | ND | |
| 20 2,6-Dinitrotoluene | 1 | | 19.460 | | | ND | |
| 21 2,4-Dinitrotoluene | 1 | | 19.927 | | | ND | |
| 22 Tetryl | 1 | | 23.154 | | | ND | |
| 23 2,4,6-Trinitrotoluene | 1 | | 24.314 | | | ND | |

## QC Flag Legend

Review Flags

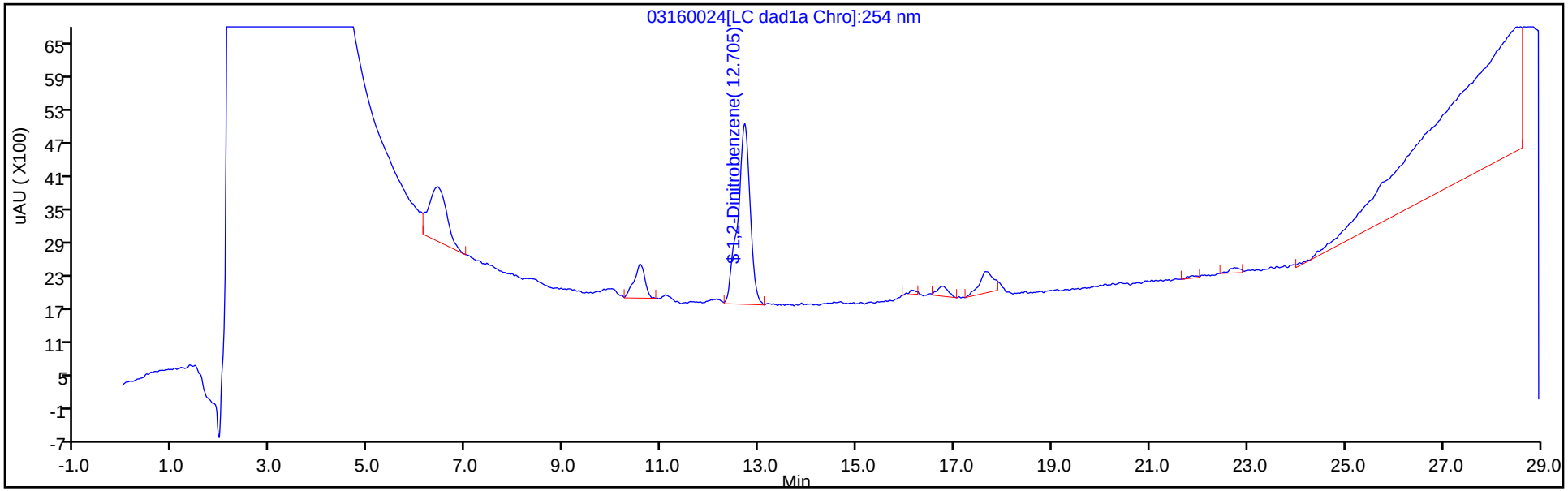
U - Marked Undetected

Report Date: 17-Mar-2020 10:50:20 Chrom Revision: 2.3 19-Feb-2020 16:45:46

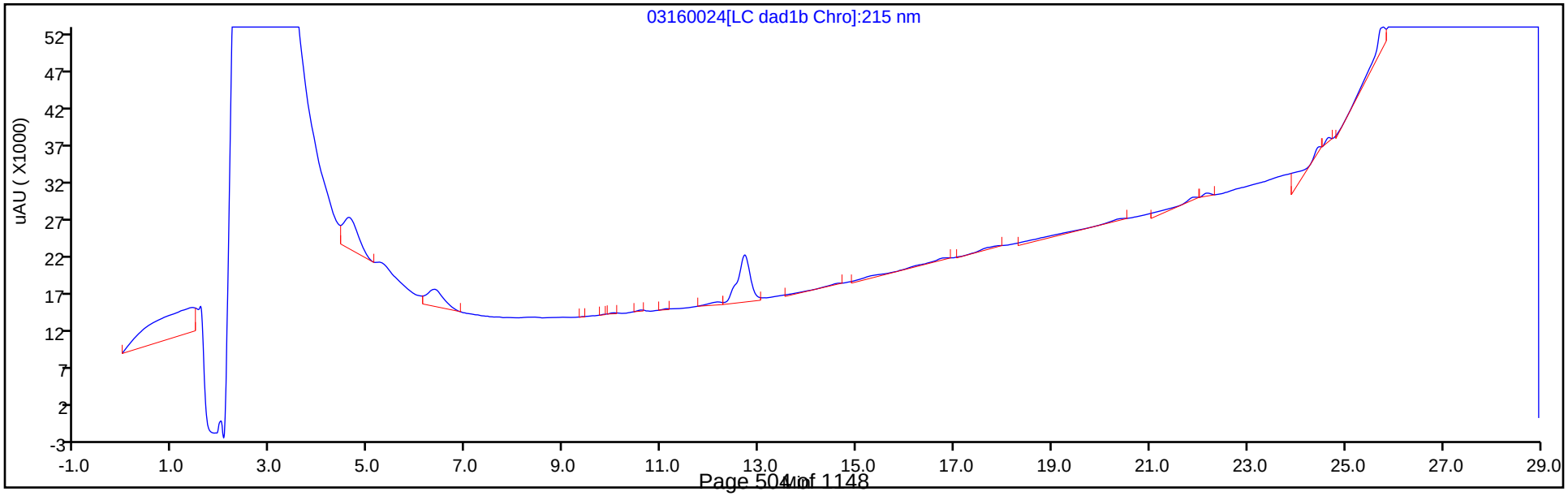
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\g2_luna\20200316-90087.b\03160024.d | | | | |
| Injection Date: | 17-Mar-2020 00:44:21 | Instrument ID: | CHHPLC_G2_LUNA | Operator ID: | CB |
| Lims ID: | 280-134268-A-9-A | Lab Sample ID: | 280-134268-9 | Worklist Smp#: | 24 |
| Client ID: | NW062-2 | | | | |
| 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\20200316-90087.b\03160024.D | | | | |
| Lims ID: | 280-134268-A-9-A | | | | |
| Client ID: | NW062-2 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 17-Mar-2020 00:44:21 | ALS Bottle#: | 24 | Worklist Smp#: | 24 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 280-134268-A-9-A | | | | |
| Misc. Info.: | 280-0090087-024 | | | | |
| Operator ID: | CB | Instrument ID: | CHHPLC_G2_LUNA | | |
| Method: | \\chromna\Denver\ChromData\G2_LUNA\20200316-90087.b\G2_8330_Luna.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 17-Mar-2020 10:50:17 | 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: | CTX0339 | | | | |

First Level Reviewer: beckerc Date: 17-Mar-2020 10:40:47

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 10 1,2-Dinitrobenzene | 0.2000 | 0.2000 | 100.01 |

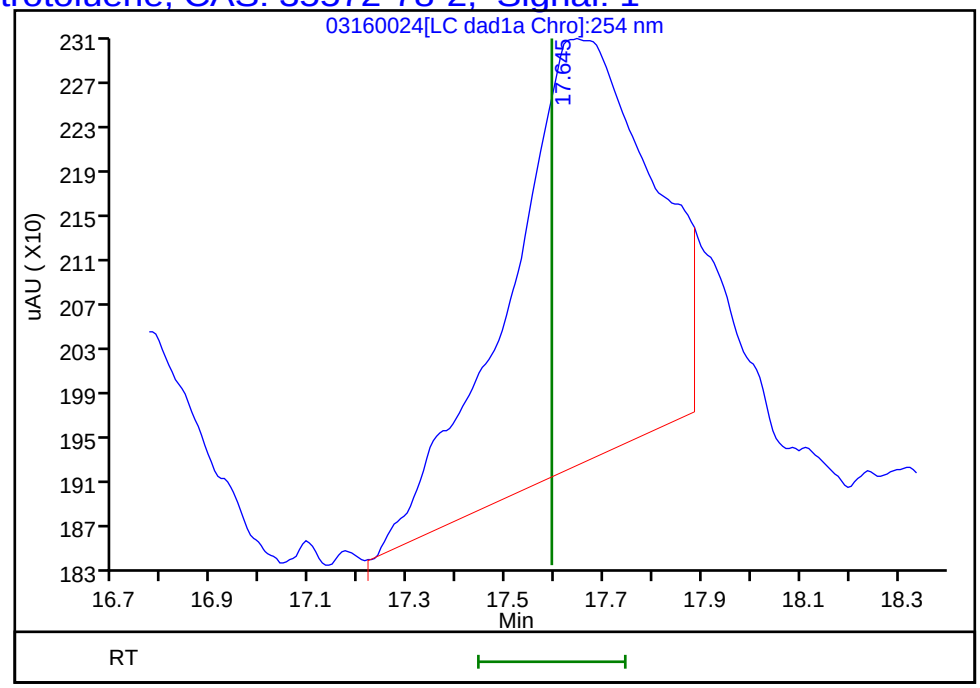
User Disabled Compound Report

Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\g2_luna\20200316-90087.b\03160024.d | | | | |
| Injection Date: | 17-Mar-2020 00:44:21 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | 280-134268-A-9-A | Lab Sample ID: | 280-134268-9 | | |
| Client ID: | NW062-2 | | | | |
| Operator ID: | CB | ALS Bottle#: | 24 | Worklist Smp#: | 24 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

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

RT: 17.64
Response: 7714
Amount: 0.008354




Reviewer: beckerc, 17-Mar-2020 10:40:47
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.: 280-134268-1
SDG No.:
Client Sample ID: G0080-2
Lab Sample ID: 280-134268-10
Matrix: Water
Lab File ID: 03100037.D
Analysis Method: 8330A
Date Collected: 03/02/2020 13:10
Extraction Method: 3535
Date Extracted: 03/07/2020 16:07
Sample wt/vol: 497.8(mL)
Date Analyzed: 03/11/2020 23:15
Con. Extract Vol.: 5(mL)
Dilution Factor: 1
Injection Volume: 100(uL)
GC Column: UltraCarb5uODS ID: 4.6(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 488297
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 |
| 88-72-2 | 2-Nitrotoluene | 0.20 | U | 0.40 | 0.20 | 0.086 |
| 99-08-1 | 3-Nitrotoluene | 0.40 | U M | 0.40 | 0.40 | 0.20 |
| 19406-51-0 | 4-Amino-2,6-dinitrotoluene | 0.078 | J M | 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 | 2.0 | 0.40 | 0.15 |
| 98-95-3 | Nitrobenzene | 0.20 | U | 0.40 | 0.20 | 0.091 |
| 479-45-8 | Tetryl | 0.20 | U | 0.24 | 0.20 | 0.080 |

| 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\20200310-89952.b\03100037.D | | | | |
| Lims ID: | 280-134268-A-10-A | | | | |
| Client ID: | G0080-2 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 11-Mar-2020 23:15:12 | ALS Bottle#: | 37 | Worklist Smp#: | 37 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 280-134268-A-10- | | | | |
| Misc. Info.: | 280-0089952-037 | | | | |
| Operator ID: | CB | Instrument ID: | CHHPLC_X3 | | |

| | | | |
|---|---|---|---|
| Method: | \\chromna\Denver\ChromData\CHHPLC_X\20200310-89952.b\8330_X3.m | | |
| Limit Group: | GCSV - 8330 | | |
| Last Update: | 12-Mar-2020 08:50:13 | 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: | CTX0315 | |

First Level Reviewer: beckerc Date: 12-Mar-2020 08:35:00

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|
| 3 HMX | 1 | | 6.685 | | | ND | |
| 6 MNX | 1 | | 7.361 | | | ND | |
| 7 RDX | 1 | 7.753 | 7.745 | 0.008 | 1980 | 0.0168 | M |
| $ 9 1,2-Dinitrobenzene | 1 | 8.713 | 8.705 | 0.008 | 27221 | 0.1862 | M |
| 10 1,3,5-Trinitrobenzene | 1 | | 8.878 | | | ND | |
| 11 1,3-Dinitrobenzene | 1 | | 9.525 | | | ND | |
| 12 Nitrobenzene | 1 | | 9.911 | | | ND | |
| 14 Tetryl | 1 | | 10.211 | | | ND | |
| 16 2,4,6-Trinitrotoluene | 1 | | 11.178 | | | ND | |
| 17 4-Amino-2,6-dinitrotoluene | 1 | 11.326 | 11.325 | 0.001 | 1342 | 0.007736 | M |
| 18 2-Amino-4,6-dinitrotoluene | 1 | 11.606 | 11.611 | -0.005 | 1371 | 0.006302 | M |
| 19 2,6-Dinitrotoluene | 1 | | 11.785 | | | ND | |
| 20 2,4-Dinitrotoluene | 1 | | 11.978 | | | ND | |
| 21 o-Nitrotoluene | 1 | | 12.818 | | | ND | |
| 22 p-Nitrotoluene | 1 | | 13.258 | | | ND | |
| 23 m-Nitrotoluene | 1 | | 13.858 | | | ND | U |

## QC Flag Legend

Review Flags

M - Manually Integrated

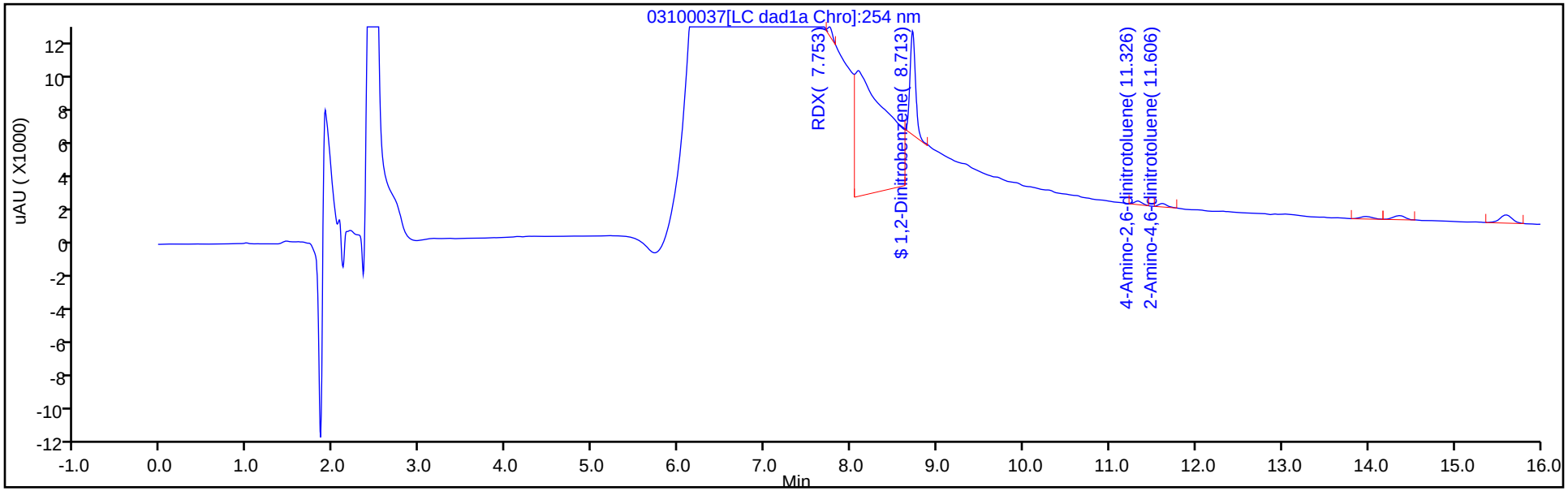
U - Marked Undetected

Report Date: 12-Mar-2020 08:50:14 Chrom Revision: 2.3 19-Feb-2020 16:45:46

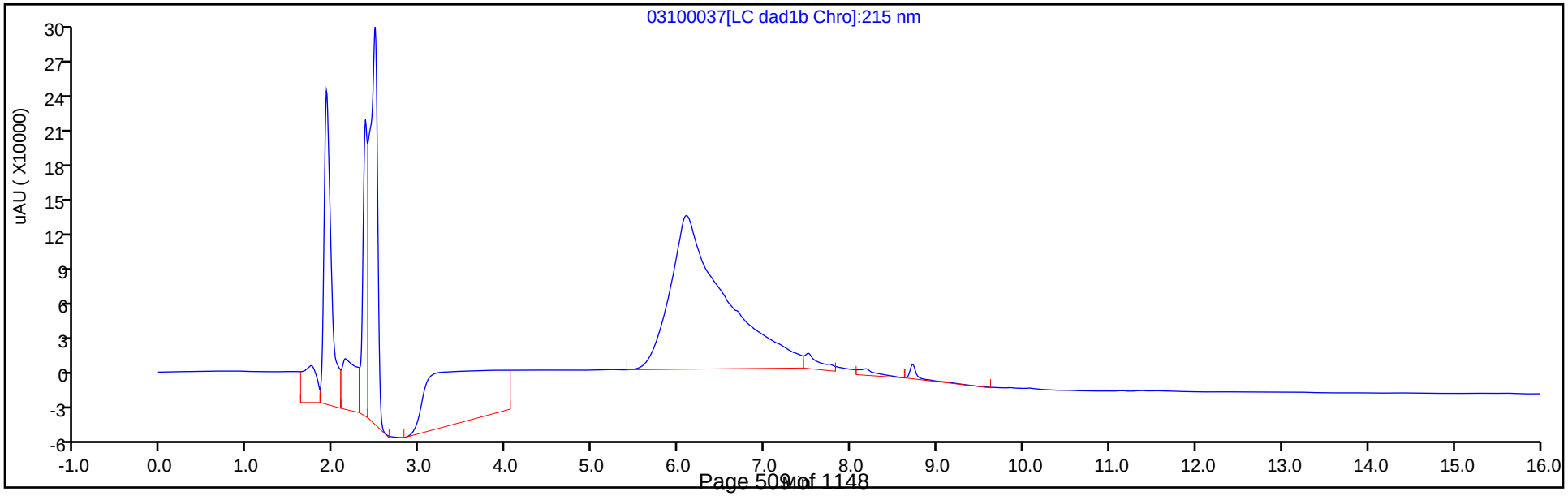
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200310-89952.b\03100037.d | | | | |
| Injection Date: | 11-Mar-2020 23:15:12 | Instrument ID: | CHHPLC_X3 | Operator ID: | CB |
| Lims ID: | 280-134268-A-10-A | Lab Sample ID: | 280-134268-10 | Worklist Smp#: | 37 |
| Client ID: | G0080-2 | | | | |
| 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\20200310-89952.b\03100037.D | | | | |
| Lims ID: | 280-134268-A-10-A | | | | |
| Client ID: | G0080-2 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 11-Mar-2020 23:15:12 | ALS Bottle#: | 37 | Worklist Smp#: | 37 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 280-134268-A-10- | | | | |
| Misc. Info.: | 280-0089952-037 | | | | |
| Operator ID: | CB | Instrument ID: | CHHPLC_X3 | | |
| Method: | \\chromna\Denver\ChromData\CHHPLC_X\20200310-89952.b\8330_X3.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 12-Mar-2020 08:50:13 | 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: | CTX0315 | | | | |

First Level Reviewer: beckerc Date: 12-Mar-2020 08:35:00

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 9 1,2-Dinitrobenzene | 0.2000 | 0.1862 | 93.09 |

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

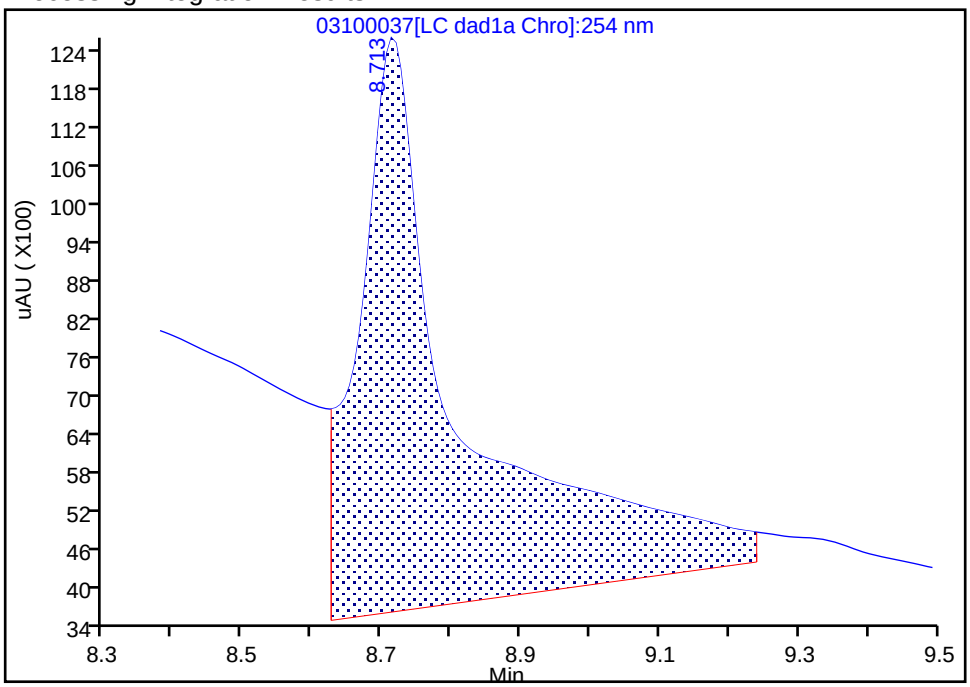
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200310-89952.b\03100037.d | | | | |
| Injection Date: | 11-Mar-2020 23:15:12 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | 280-134268-A-10-A | Lab Sample ID: | 280-134268-10 | | |
| Client ID: | G0080-2 | | | | |
| Operator ID: | CB | ALS Bottle#: | 37 | Worklist Smp#: | 37 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## $ 9 1,2-Dinitrobenzene, CAS: 528-29-0

Signal: 1

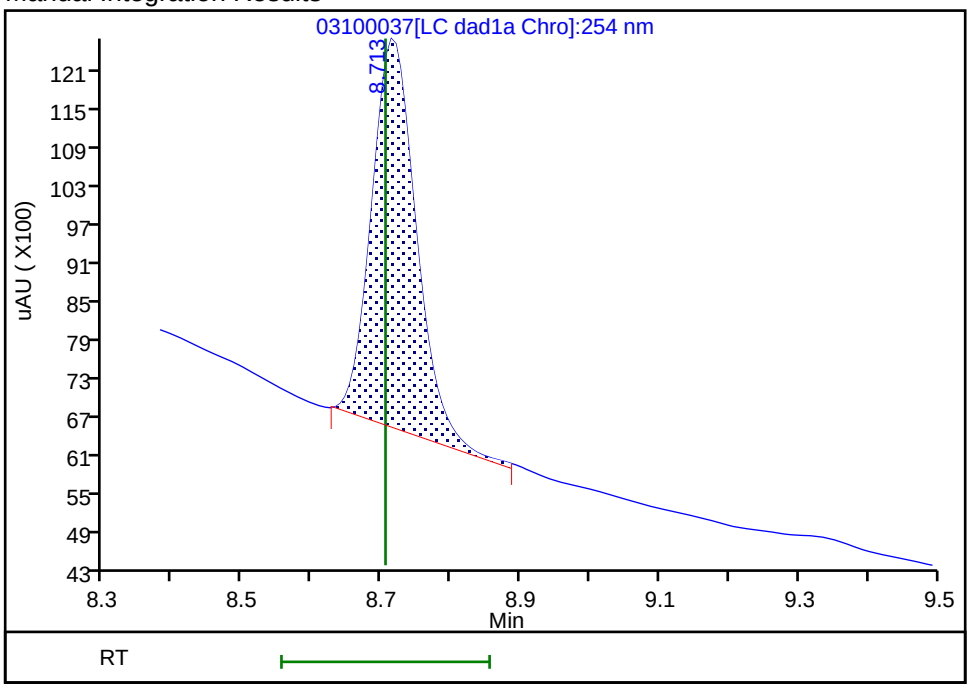
Processing Integration Results

RT: 8.71
Area: 93296
Amount: 0.638074
Amount Units: ug/mL




Manual Integration Results

RT: 8.71
Area: 27221
Amount: 0.186171
Amount Units: ug/mL




Reviewer: beckerc, 12-Mar-2020 08:34:26

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

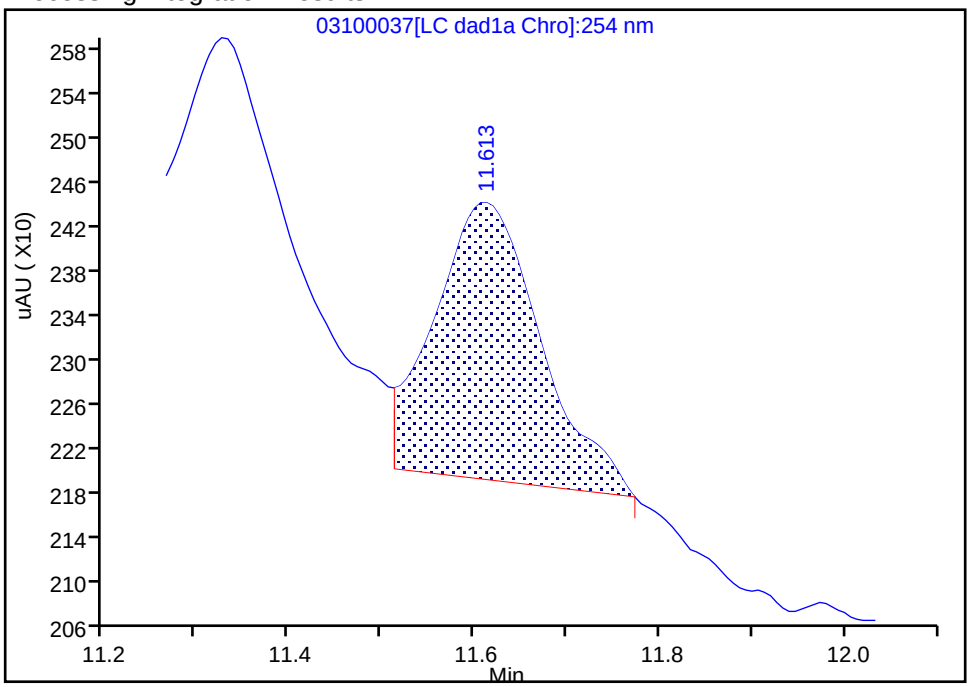
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200310-89952.b\03100037.d | | | | |
| Injection Date: | 11-Mar-2020 23:15:12 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | 280-134268-A-10-A | Lab Sample ID: | 280-134268-10 | | |
| Client ID: | G0080-2 | | | | |
| Operator ID: | CB | ALS Bottle#: | 37 | Worklist Smp#: | 37 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

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

Signal: 1

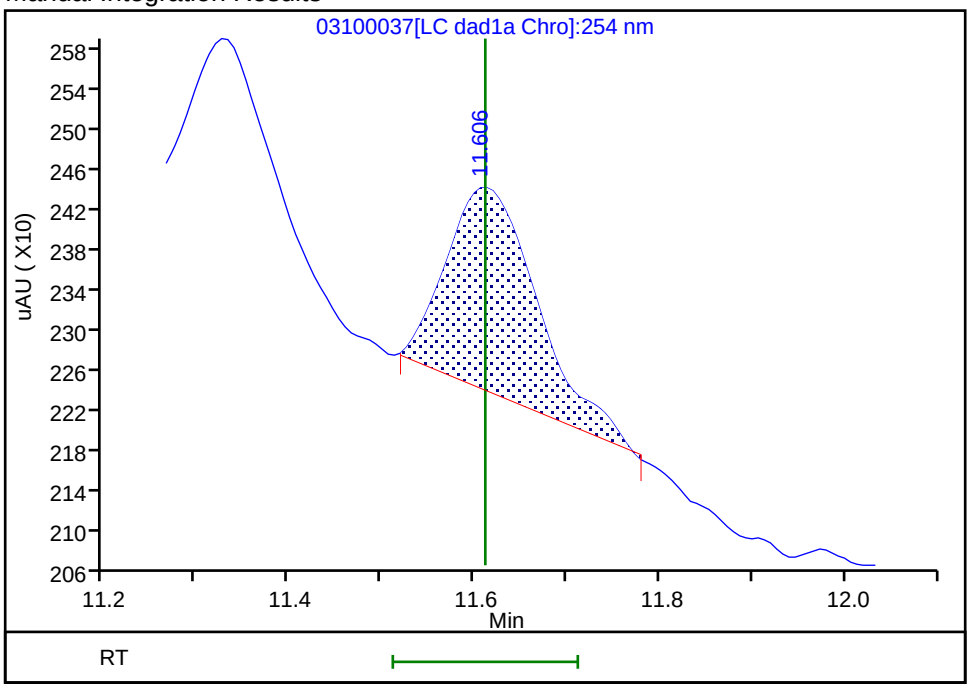
Processing Integration Results

RT: 11.61
Area: 1965
Amount: 0.009033
Amount Units: ug/mL




Manual Integration Results

RT: 11.61
Area: 1371
Amount: 0.006302
Amount Units: ug/mL




Reviewer: beckerc, 12-Mar-2020 08:34:48

Audit Action: Manually Integrated Audit Reason: Baseline

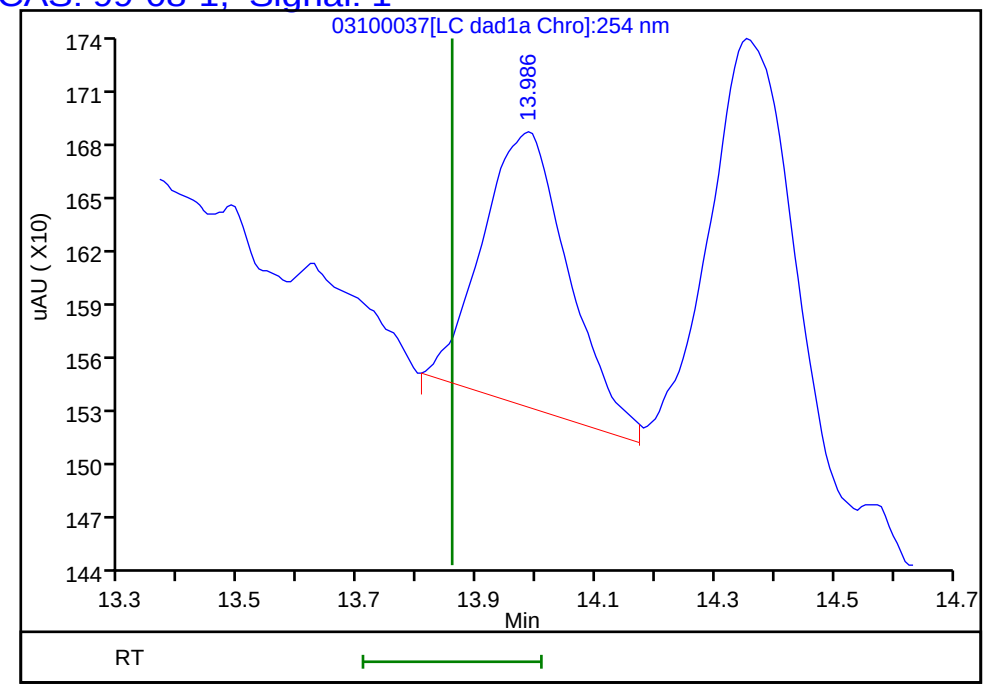
User Disabled Compound Report

Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200310-89952.b\03100037.d | | | | |
| Injection Date: | 11-Mar-2020 23:15:12 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | 280-134268-A-10-A | Lab Sample ID: | 280-134268-10 | | |
| Client ID: | G0080-2 | | | | |
| Operator ID: | CB | ALS Bottle#: | 37 | Worklist Smp#: | 37 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 23 m-Nitrotoluene, CAS: 99-08-1, Signal: 1

RT: 13.99
Response: 1520
Amount: 0.009855




Reviewer: beckerc, 12-Mar-2020 08:35:00
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

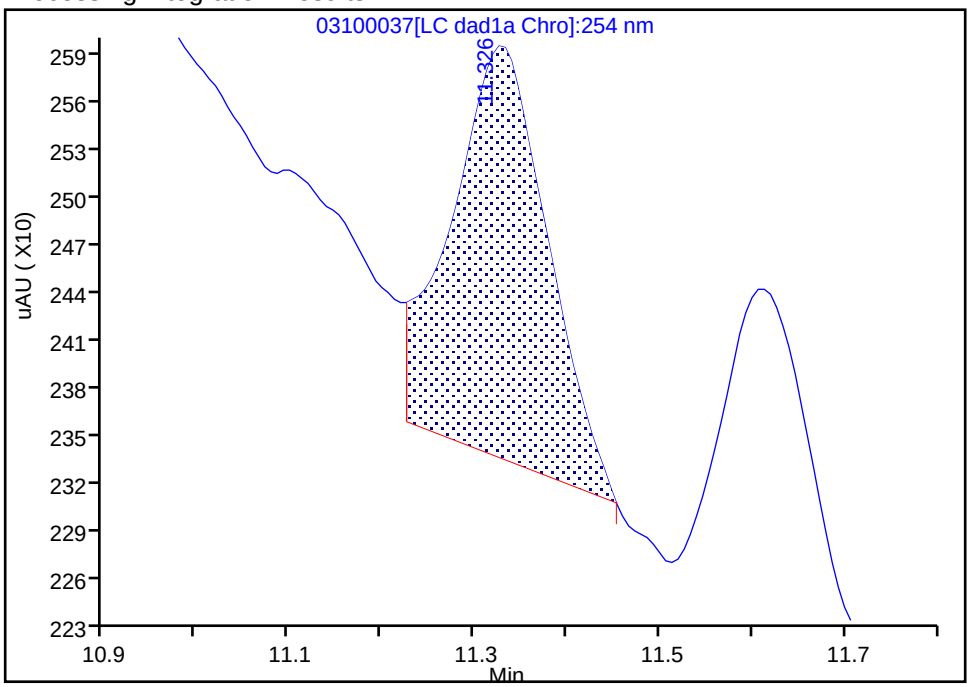
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200310-89952.b\03100037.d | | | | |
| Injection Date: | 11-Mar-2020 23:15:12 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | 280-134268-A-10-A | Lab Sample ID: | 280-134268-10 | | |
| Client ID: | G0080-2 | | | | |
| Operator ID: | CB | ALS Bottle#: | 37 | Worklist Smp#: | 37 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 17 4-Amino-2,6-dinitrotoluene, CAS: 19406-51-0

Signal: 1

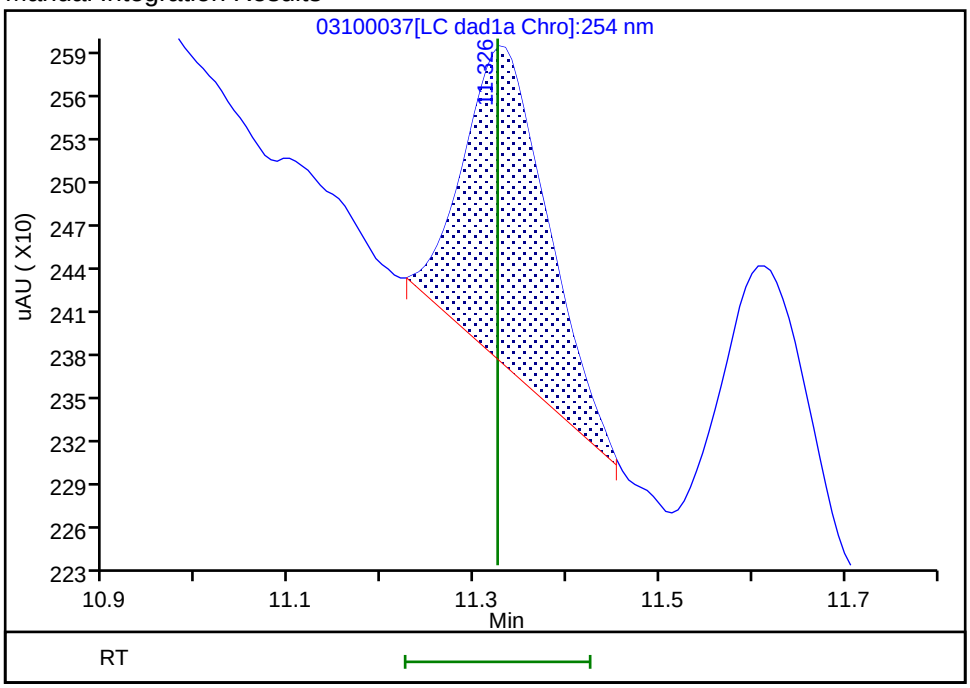
Processing Integration Results

RT: 11.33
Area: 1805
Amount: 0.010405
Amount Units: ug/mL




Manual Integration Results

RT: 11.33
Area: 1342
Amount: 0.007736
Amount Units: ug/mL




Reviewer: beckerc, 12-Mar-2020 08:34:38

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

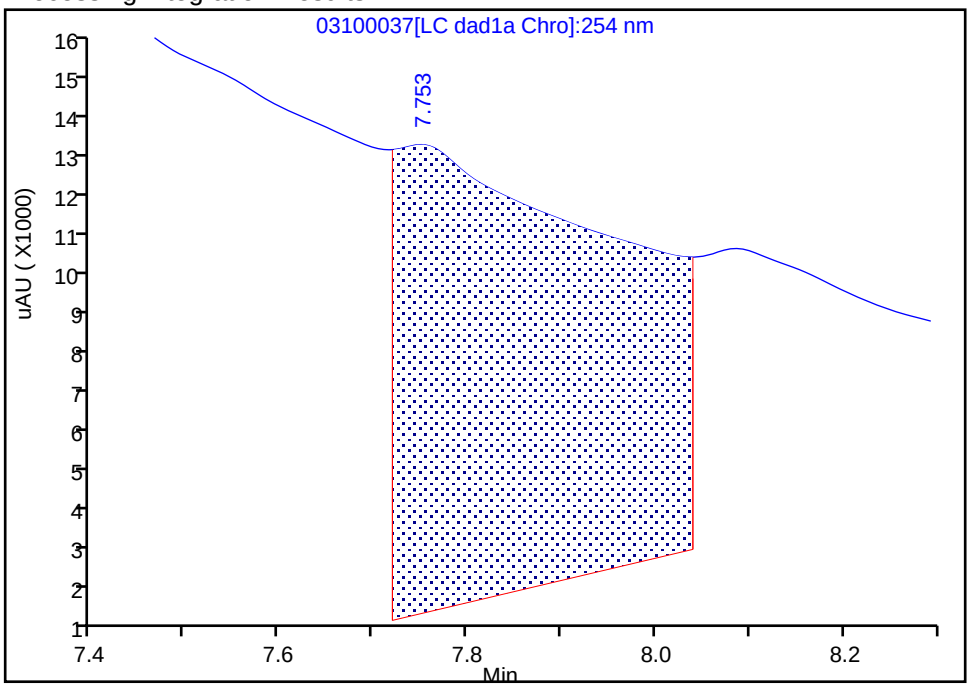
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200310-89952.b\03100037.d | | | | |
| Injection Date: | 11-Mar-2020 23:15:12 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | 280-134268-A-10-A | Lab Sample ID: | 280-134268-10 | | |
| Client ID: | G0080-2 | | | | |
| Operator ID: | CB | ALS Bottle#: | 37 | Worklist Smp#: | 37 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 7 RDX, CAS: 121-82-4

Signal: 1

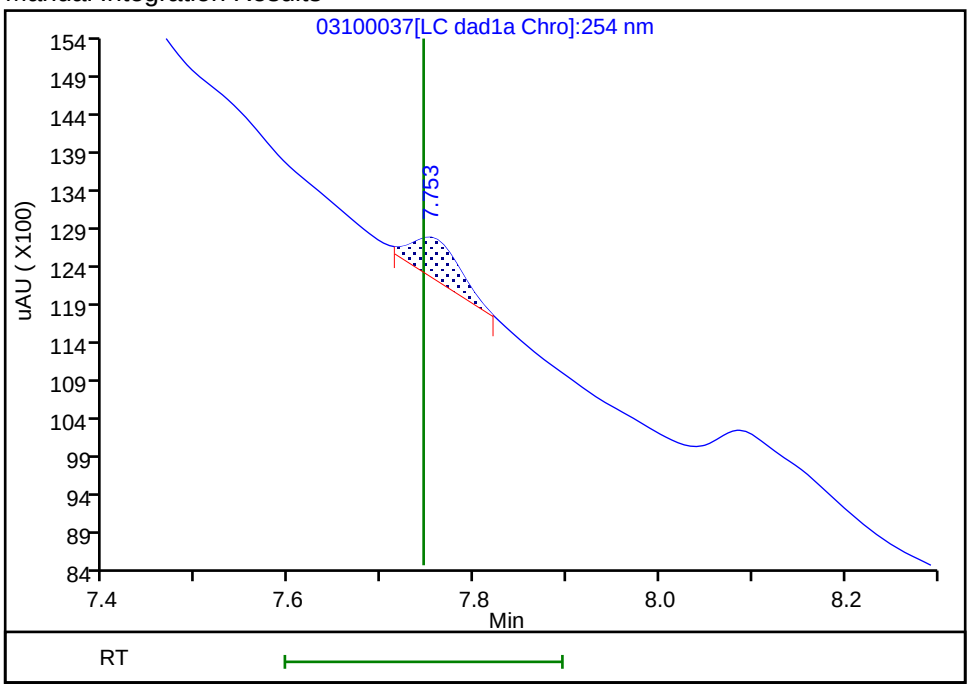
Processing Integration Results

RT: 7.75
Area: 179050
Amount: 1.519062
Amount Units: ug/mL




Manual Integration Results

RT: 7.75
Area: 1980
Amount: 0.016798
Amount Units: ug/mL




Reviewer: beckerc, 12-Mar-2020 08:34:18

Audit Action: Manually Integrated Audit Reason: Baseline

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-134268-1
SDG No.:
Client Sample ID: G0080-2
Lab Sample ID: 280-134268-10
Matrix: Water
Lab File ID: 03160025.D
Analysis Method: 8330A
Date Collected: 03/02/2020 13:10
Extraction Method: 3535
Date Extracted: 03/07/2020 16:07
Sample wt/vol: 497.8(mL)
Date Analyzed: 03/17/2020 01:19
Con. Extract Vol.: 5(mL)
Dilution Factor: 1
Injection Volume: 100(uL)
GC Column: Luna-phenylhex ID: 4.6(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 488850
Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | LOQ | LOD | DL |
|---|---|---|---|---|---|---|
| 35572-78-2 | 2-Amino-4,6-dinitrotoluene | 0.12 | U M | 0.20 | 0.12 | 0.051 |
| 121-82-4 | RDX | 0.40 | U M | 0.40 | 0.40 | 0.16 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 528-29-0 | 1,2-Dinitrobenzene | 100 | | 83-119 |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Denver\ChromData\G2_LUNA\20200316-90087.b\03160025.D | | | | |
| Lims ID: | 280-134268-A-10-A | | | | |
| Client ID: | G0080-2 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 17-Mar-2020 01:19:20 | ALS Bottle#: | 25 | Worklist Smp#: | 25 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 280-134268-A-10- | | | | |
| Misc. Info.: | 280-0090087-025 | | | | |
| Operator ID: | CB | Instrument ID: | CHHPLC_G2_LUNA | | |
| Method: | \\chromna\Denver\ChromData\G2_LUNA\20200316-90087.b\G2_8330_Luna.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 17-Mar-2020 10:50:17 | 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: | CTX0339 | | | | |

First Level Reviewer: beckerc Date: 17-Mar-2020 10:41:25

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|
| 6 HMX | 1 | | 6.800 | | | ND | |
| 7 MNX | 1 | | 7.557 | | | ND | |
| 8 RDX | 1 | 8.869 | 8.920 | -0.051 | 3221 | 0.002133 | 7M |
| 9 Nitrobenzene | 1 | | 11.880 | | | ND | |
| $ 10 1,2-Dinitrobenzene | 1 | 12.702 | 12.753 | -0.051 | 57983 | 0.2006 | |
| 12 1,3-Dinitrobenzene | 1 | | 15.247 | | | ND | |
| 14 o-Nitrotoluene | 1 | | 16.267 | | | ND | |
| 15 p-Nitrotoluene | 1 | | 16.547 | | | ND | |
| 16 4-Amino-2,6-dinitrotoluene | 1 | 16.735 | 16.767 | -0.032 | 5102 | 0.006728 | |
| 17 m-Nitrotoluene | 1 | | 17.467 | | | ND | |
| 18 2-Amino-4,6-dinitrotoluene | 1 | | 17.593 | | | ND | U |
| 19 1,3,5-Trinitrobenzene | 1 | | 18.547 | | | ND | |
| 20 2,6-Dinitrotoluene | 1 | | 19.460 | | | ND | |
| 21 2,4-Dinitrotoluene | 1 | | 19.927 | | | ND | |
| 22 Tetryl | 1 | | 23.154 | | | ND | |
| 23 2,4,6-Trinitrotoluene | 1 | | 24.314 | | | ND | |

## QC Flag Legend

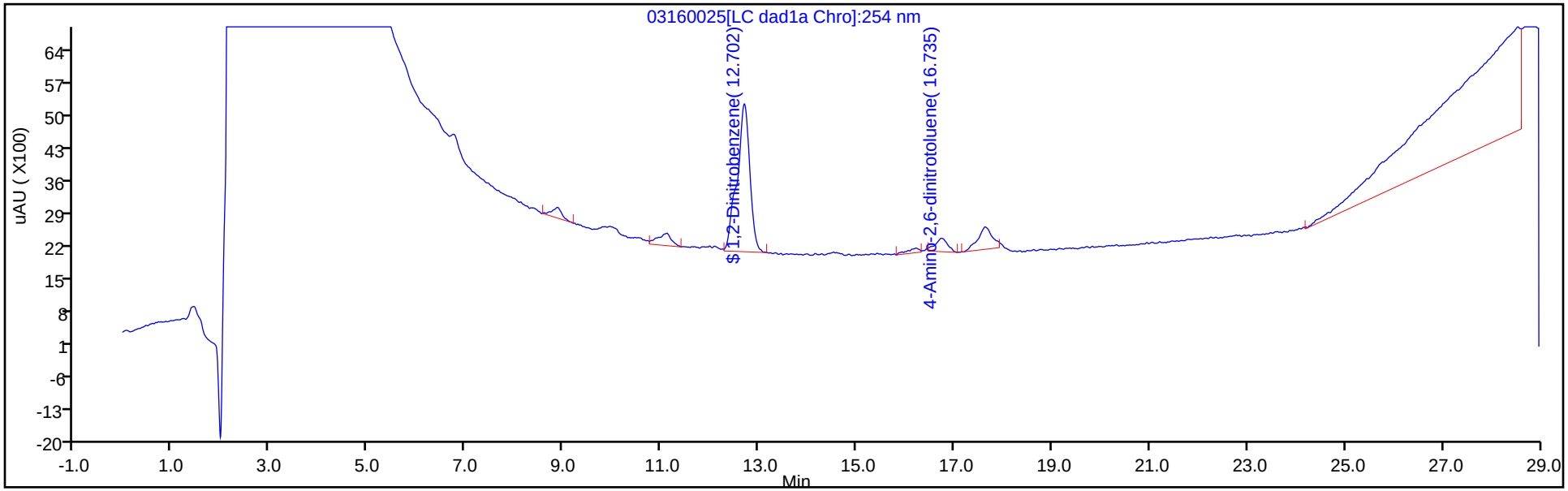
Processing Flags
7 - Failed Limit of Detection
Review Flags
M - Manually Integrated
U - Marked Undetected

Report Date: 17-Mar-2020 10:50:19 Chrom Revision: 2.3 19-Feb-2020 16:45:46

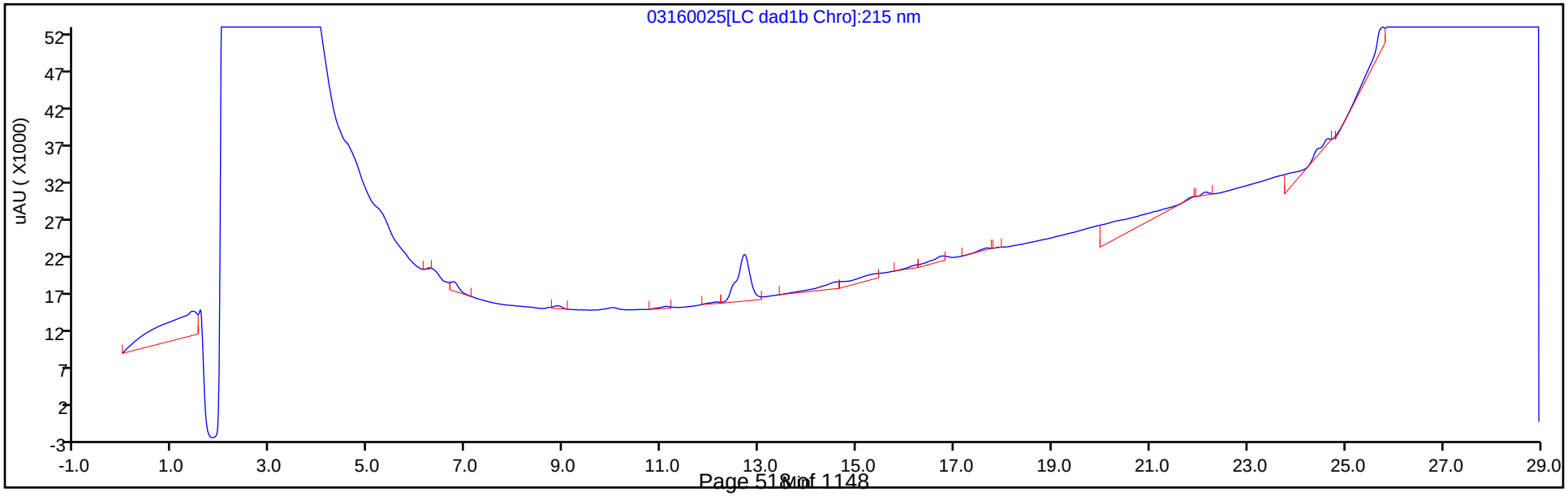
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\g2_luna\20200316-90087.b\03160025.d | | | | |
| Injection Date: | 17-Mar-2020 01:19:20 | Instrument ID: | CHHPLC_G2_LUNA | Operator ID: | CB |
| Lims ID: | 280-134268-A-10-A | Lab Sample ID: | 280-134268-10 | Worklist Smp#: | 25 |
| Client ID: | G0080-2 | | | | |
| 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\20200316-90087.b\03160025.D | | | | |
| Lims ID: | 280-134268-A-10-A | | | | |
| Client ID: | G0080-2 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 17-Mar-2020 01:19:20 | ALS Bottle#: | 25 | Worklist Smp#: | 25 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 280-134268-A-10- | | | | |
| Misc. Info.: | 280-0090087-025 | | | | |
| Operator ID: | CB | Instrument ID: | CHHPLC_G2_LUNA | | |
| Method: | \\chromna\Denver\ChromData\G2_LUNA\20200316-90087.b\G2_8330_Luna.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 17-Mar-2020 10:50:17 | 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: | CTX0339 | | | | |

First Level Reviewer: beckerc Date: 17-Mar-2020 10:41:25

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 10 1,2-Dinitrobenzene | 0.2000 | 0.2006 | 100.29 |

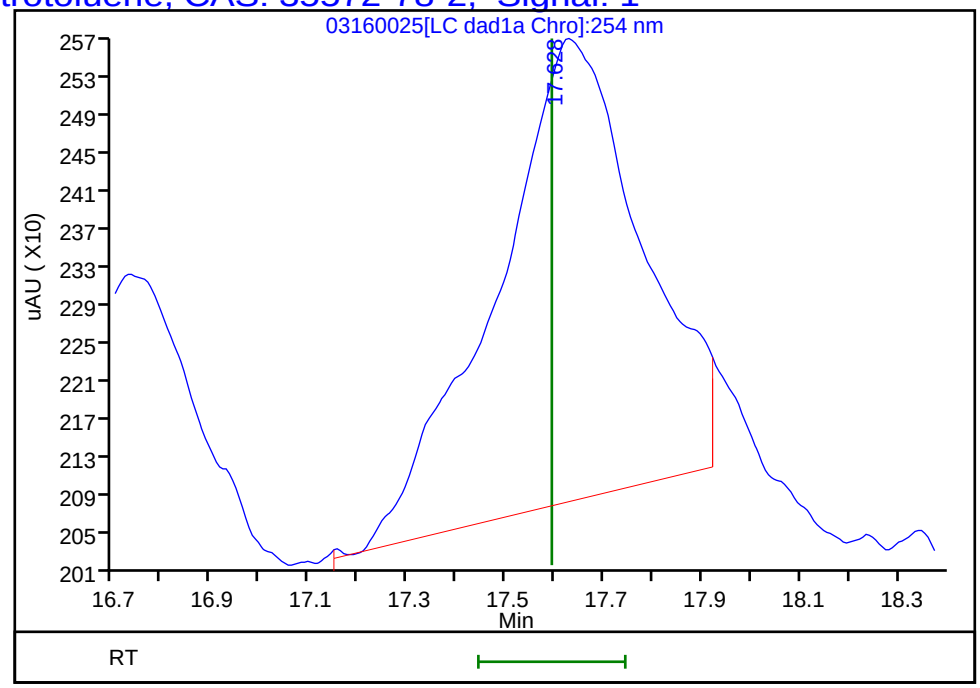
User Disabled Compound Report

Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\g2_luna\20200316-90087.b\03160025.d | | | | |
| Injection Date: | 17-Mar-2020 01:19:20 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | 280-134268-A-10-A | Lab Sample ID: | 280-134268-10 | | |
| Client ID: | G0080-2 | | | | |
| Operator ID: | CB | ALS Bottle#: | 25 | Worklist Smp#: | 25 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

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

RT: 17.63
Response: 9926
Amount: 0.013094




Reviewer: beckerc, 17-Mar-2020 10:41:25
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

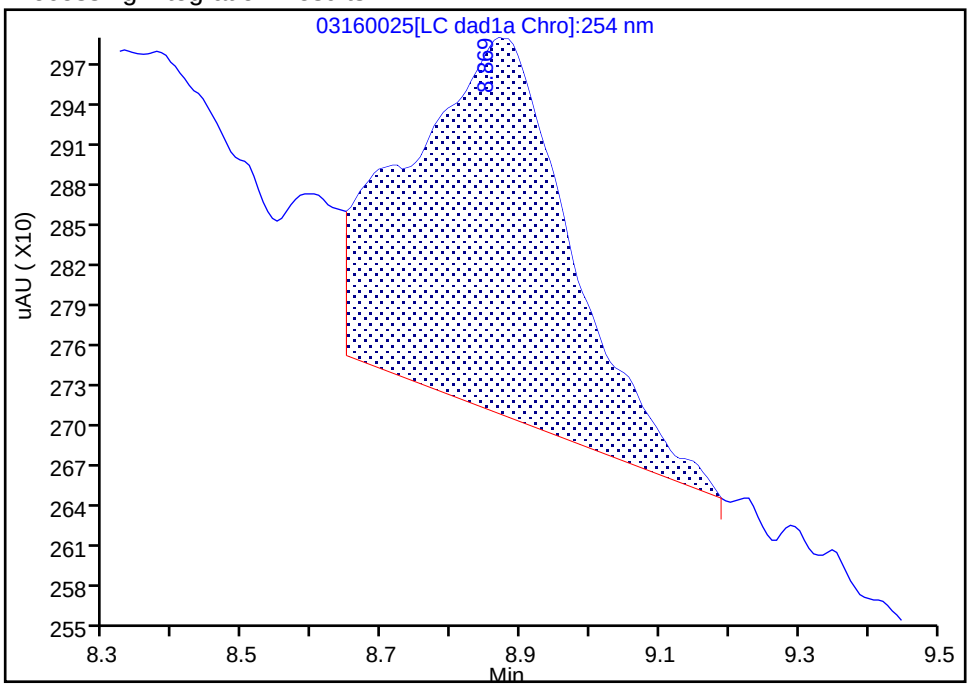
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\g2_luna\20200316-90087.b\03160025.d | | | | |
| Injection Date: | 17-Mar-2020 01:19:20 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | 280-134268-A-10-A | Lab Sample ID: | 280-134268-10 | | |
| Client ID: | G0080-2 | | | | |
| Operator ID: | CB | ALS Bottle#: | 25 | Worklist Smp#: | 25 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

## 8 RDX, CAS: 121-82-4

Signal: 1

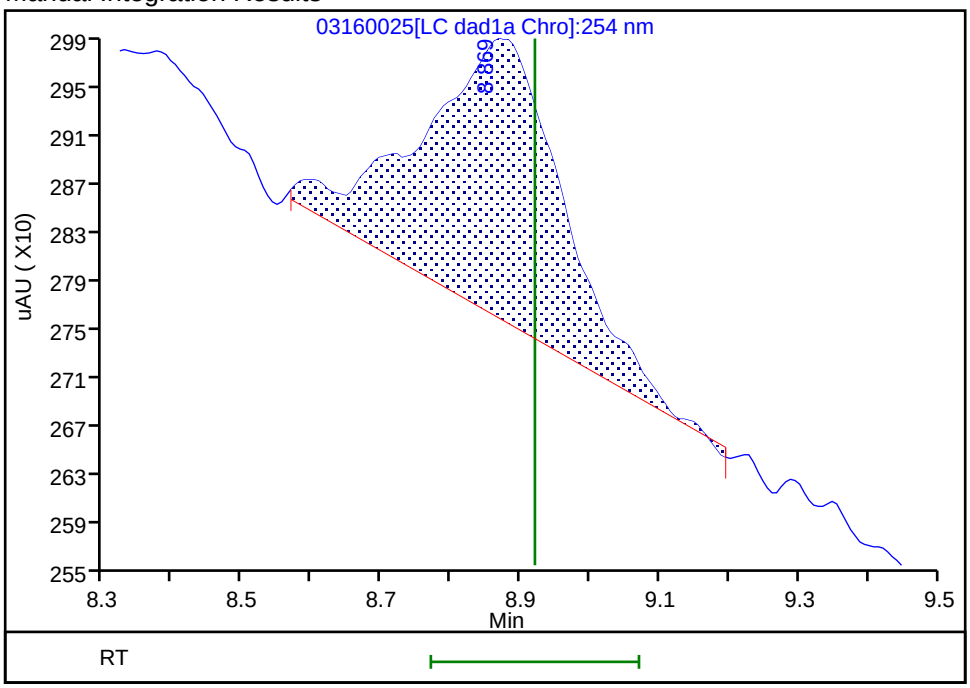
Processing Integration Results

RT: 8.87
Area: 4493
Amount: 0.008217
Amount Units: ug/ml




Manual Integration Results

RT: 8.87
Area: 3221
Amount: 0.002133
Amount Units: ug/ml




Reviewer: beckerc, 17-Mar-2020 10:41:05

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.: 280-134268-1 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.: 280-134268-1 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<br>LVL 5 | LVL 2<br>LVL 6 | LVL 3<br>LVL 7 | LVL 4<br>LVL 8 | | B | M1 | M2 | | | | | | | | |
| Picric acid | 307200<br>167250 | 165320<br>172741 | 162930<br>174722 | 160392 | Lin2 | 1432.33755 | 158794.688 | | | | | | | 0.9920 | | 0.9900 |
| HMX | 366400<br>181740 | 189580<br>181403 | 185550<br>182080 | 179496<br>180885 | Lin2 | 1887.46964 | 173019.401 | | | | | | | 0.9960 | | 0.9900 |
| RDX | 493500<br>221358 | 230640<br>220387 | 232290<br>221782 | 218996<br>220334 | Lin2 | 2775.08934 | 209079.626 | | | | | | | 0.9940 | | 0.9900 |
| Nitrobenzene | 772112<br>403551 | 398108<br>406357 | 400339<br>407363 | 384187<br>419445 | Lin2 | 3759.78981 | 383712.763 | | | | | | | 0.9930 | | 0.9900 |
| 1,3-Dinitrobenzene | 1383832<br>669790 | 693852<br>668584 | 699750<br>674646 | 654607<br>669329 | Lin2 | 7294.50627 | 637510.790 | | | | | | | 0.9960 | | 0.9900 |
| Nitroglycerin | 326880<br>146487 | 157722<br>147329 | 156826<br>146085 | 148550<br>143395 | Lin2 | 18358.0452 | 139686.787 | | | | | | | 0.9960 | | 0.9900 |
| 2-Nitrotoluene | 443400<br>239523 | 229680<br>243911 | 242010<br>244658 | 226236 | Lin2 | 2104.57823 | 225290.269 | | | | | | | 0.9920 | | 0.9900 |
| 4-Nitrotoluene | 428044<br>229953 | 226467<br>229393 | 227275<br>231470 | 217333 | Lin2 | 2074.83879 | 214608.004 | | | | | | | 0.9940 | | 0.9900 |
| 4-Amino-2,6-dinitrotoluene | 620480<br>333274 | 348372<br>333833 | 338082<br>336895 | 328923 | Lin2 | 2959.42058 | 318445.921 | | | | | | | 0.9970 | | 0.9900 |
| 3-Nitrotoluene | 413986<br>240574 | 237043<br>240594 | 233946<br>233533 | 228575 | Lin2 | 1841.01540 | 224676.844 | | | | | | | 0.9960 | | 0.9900 |
| 2-Amino-4,6-dinitrotoluene | 944622<br>495498 | 512351<br>497499 | 509014<br>510549 | 490641 | Qua | 3819.85650 | 465803.759 | 40313.2760 | | | | | | 1.0000 | | 0.9900 |
| 1,3,5-Trinitrobenzene | 865968<br>474217 | 526567<br>472136 | 477375<br>475185 | 473816<br>471216 | Lin2 | 4025.62451 | 459589.258 | | | | | | | 0.9990 | | 0.9900 |
| 2,6-Dinitrotoluene | 565139<br>292702 | 298825<br>291857 | 298466<br>295155 | 287697<br>289377 | Lin2 | 2797.82260 | 278869.343 | | | | | | | 0.9960 | | 0.9900 |
| 2,4-Dinitrotoluene | 1210857<br>617861 | 633247<br>617665 | 637918<br>623179 | 611143<br>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.: 280-134268-1 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<br>LVL 5 | LVL 2<br>LVL 6 | LVL 3<br>LVL 7 | LVL 4<br>LVL 8 | | B | M1 | M2 | | | | | | | | |
| Tetryl | 819561<br>365793 | 368323<br>367729 | 367335<br>369337 | 361509<br>369261 | Lin2 | 4624.47319 | 343226.702 | | | | | | | 0.9910 | | 0.9900 |
| 2,4,6-Trinitrotoluene | 789044<br>419465 | 407390<br>420538 | 424960<br>422393 | 409669<br>421343 | Lin2 | 3778.97123 | 398797.764 | | | | | | | 0.9940 | | 0.9900 |
| PETN | 319690<br>143409 | 128678<br>143380 | 137231<br>145088 | 136140<br>144459 | Lin1 | 11553.4593 | 142137.751 | | | | | | | 0.9980 | | 0.9900 |
| 1,2-Dinitrobenzene | 640500<br>291080 | 298100<br>286084 | 293310<br>290041 | 284160<br>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.: 280-134268-1 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<br>LVL 6 | LVL 2<br>LVL 7 | LVL 3<br>LVL 8 | LVL 4 | LVL 5 | LVL 1<br>LVL 6 | LVL 2<br>LVL 7 | LVL 3<br>LVL 8 | LVL 4 | LVL 5 |
| Picric acid | Lin2 | 3072<br>120919 | 8266<br>174722 | 16293 | 40098 | 66900 | 0.0100<br>0.700 | 0.0500<br>1.00 | 0.100 | 0.250 | 0.400 |
| HMX | Lin2 | 3664<br>126982 | 9479<br>182080 | 18555<br>452212 | 44874 | 72696 | 0.0100<br>0.700 | 0.0500<br>1.00 | 0.100<br>2.50 | 0.250 | 0.400 |
| RDX | Lin2 | 4935<br>154271 | 11532<br>221782 | 23229<br>550834 | 54749 | 88543 | 0.0100<br>0.700 | 0.0500<br>1.00 | 0.100<br>2.50 | 0.250 | 0.400 |
| Nitrobenzene | Lin2 | 7752<br>285588 | 19985<br>408992 | 40194<br>1052808 | 96431 | 162066 | 0.0100<br>0.703 | 0.0502<br>1.00 | 0.100<br>2.51 | 0.251 | 0.402 |
| 1,3-Dinitrobenzene | Lin2 | 13866<br>468945 | 34762<br>675995 | 70115<br>1676668 | 163979 | 268452 | 0.0100<br>0.701 | 0.0501<br>1.00 | 0.100<br>2.51 | 0.251 | 0.401 |
| Nitroglycerin | Lin2 | 32688<br>1031302 | 78861<br>1460853 | 156826<br>3584879 | 371375 | 585948 | 0.100<br>7.00 | 0.500<br>10.0 | 1.00<br>25.0 | 2.50 | 4.00 |
| 2-Nitrotoluene | Lin2 | 4434<br>170738 | 11484<br>244658 | 24201 | 56559 | 95809 | 0.0100<br>0.700 | 0.0500<br>1.00 | 0.100 | 0.250 | 0.400 |
| 4-Nitrotoluene | Lin2 | 4289<br>160896 | 11346<br>231933 | 22773 | 54442 | 92165 | 0.0100<br>0.701 | 0.0501<br>1.00 | 0.100 | 0.251 | 0.401 |
| 4-Amino-2,6-dinitrotoluene | Lin2 | 6211<br>233917 | 17436<br>337232 | 33842 | 82313 | 133443 | 0.0100<br>0.701 | 0.0501<br>1.00 | 0.100 | 0.250 | 0.400 |
| 3-Nitrotoluene | Lin2 | 4144<br>168584 | 11864<br>233767 | 23418 | 57201 | 96326 | 0.0100<br>0.701 | 0.0501<br>1.00 | 0.100 | 0.250 | 0.400 |
| 2-Amino-4,6-dinitrotoluene | Qua | 9484<br>349642 | 25720<br>512591 | 51105 | 123151 | 198992 | 0.0100<br>0.703 | 0.0502<br>1.00 | 0.100 | 0.251 | 0.402 |
| 1,3,5-Trinitrobenzene | Lin2 | 8677<br>331156 | 26381<br>476135 | 47833<br>1180395 | 118691 | 190066 | 0.0100<br>0.701 | 0.0501<br>1.00 | 0.100<br>2.51 | 0.251 | 0.401 |
| 2,6-Dinitrotoluene | Lin2 | 5674<br>205117 | 15001<br>296336 | 29966<br>726336 | 72212 | 117549 | 0.0100<br>0.703 | 0.0502<br>1.00 | 0.100<br>2.51 | 0.251 | 0.402 |
| 2,4-Dinitrotoluene | Lin2 | 12157<br>434095 | 31789<br>625672 | 64047<br>1567820 | 153397 | 248133 | 0.0100<br>0.703 | 0.0502<br>1.00 | 0.100<br>2.51 | 0.251 | 0.402 |
| Tetryl | Lin2 | 8212<br>257925 | 18453<br>370076 | 36807<br>924998 | 90558 | 146610 | 0.0100<br>0.701 | 0.0501<br>1.00 | 0.100<br>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.: 280-134268-1 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<br>LVL 6 | LVL 2<br>LVL 7 | LVL 3<br>LVL 8 | LVL 4 | LVL 5 | LVL 1<br>LVL 6 | LVL 2<br>LVL 7 | LVL 3<br>LVL 8 | LVL 4 | LVL 5 |
| 2,4,6-Trinitrotoluene | Lin2 | 7922<br>295554 | 20451<br>424083 | 42666<br>1057572 | 102827 | 168457 | 0.0100<br>0.703 | 0.0502<br>1.00 | 0.100<br>2.51 | 0.251 | 0.402 |
| PETN | Lin1 | 31969<br>1003662 | 64339<br>1450880 | 137231<br>3611463 | 340351 | 573634 | 0.100<br>7.00 | 0.500<br>10.0 | 1.00<br>25.0 | 2.50 | 4.00 |
| 1,2-Dinitrobenzene | Lin2 | 6405<br>200259 | 14905<br>290041 | 29331<br>717363 | 71040 | 116432 | 0.0100<br>0.700 | 0.0500<br>1.00 | 0.100<br>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:

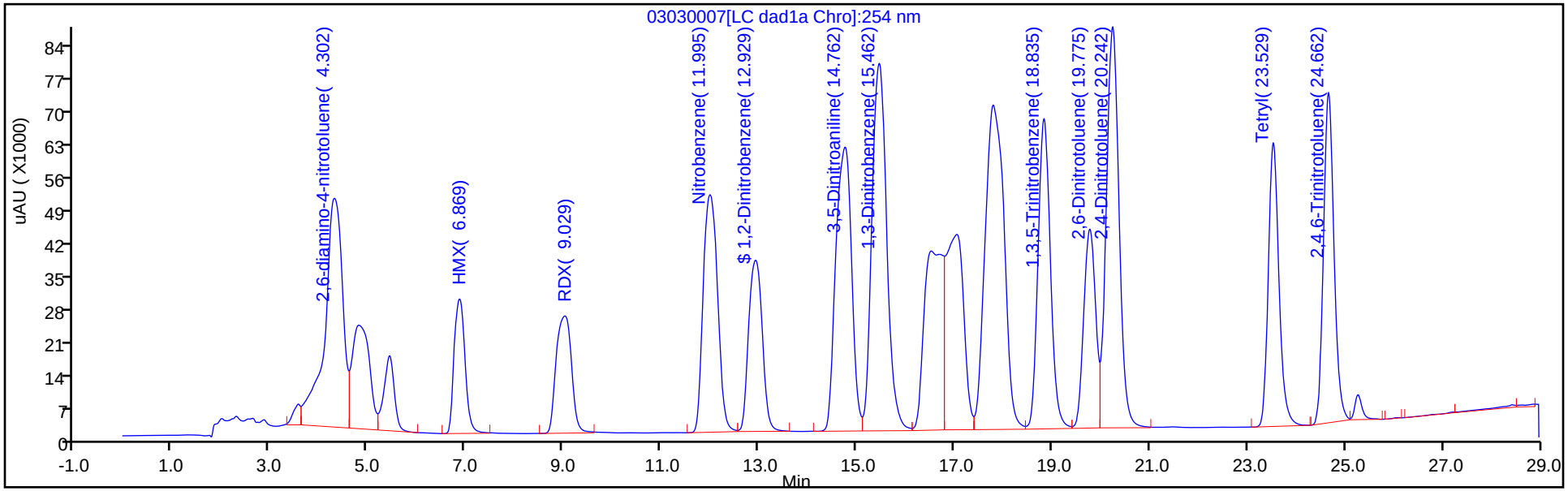
| | | |
|---|---|---|
| 8330IntermStk_00061 | Amount Added: 250.00 | Units: uL |
| 8330_ADDs_00023 | Amount Added: 125.00 | Units: uL |

Report Date: 05-Mar-2020 11:40:04 Chrom Revision: 2.3 19-Feb-2020 16:45:46

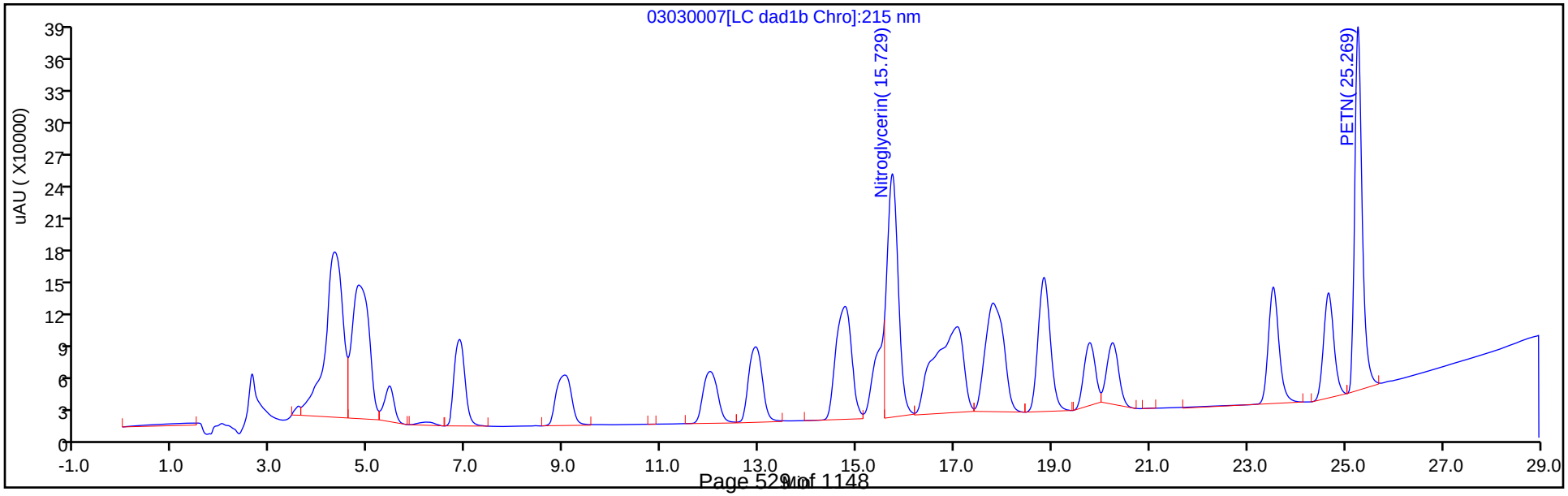
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| 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

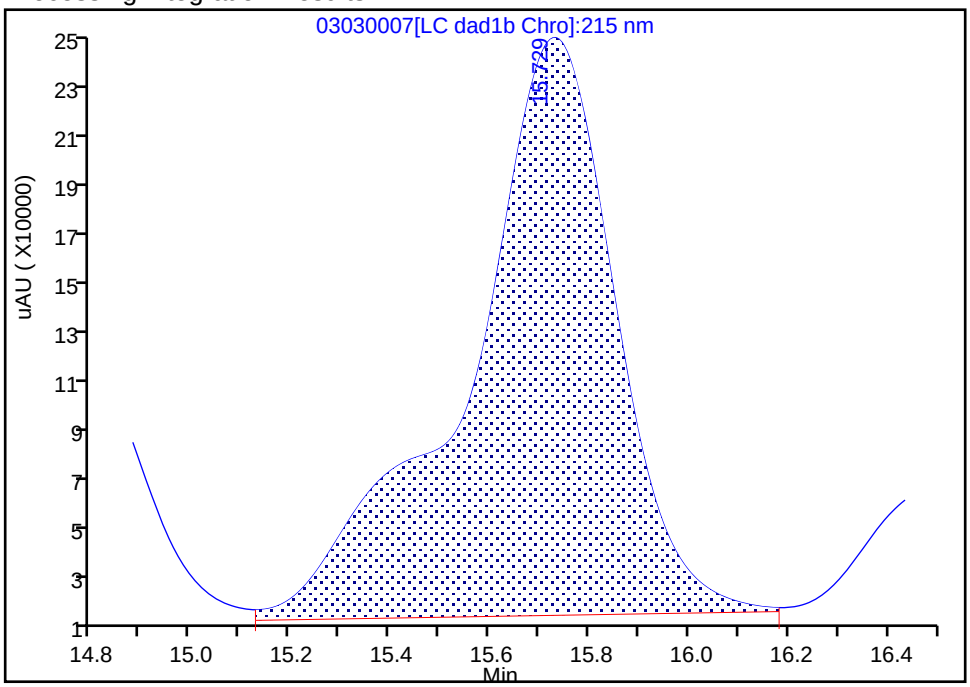
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\g2_luna\20200303-89749.b\03030007.d | | | | |
| Injection Date: | 03-Mar-2020 18:01:29 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 8 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 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

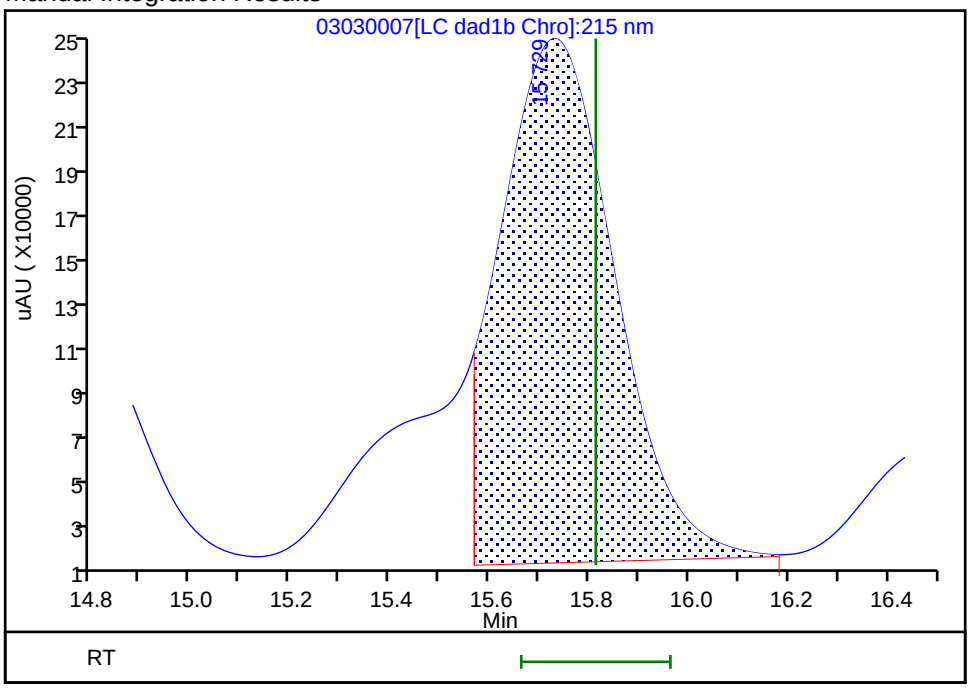
Processing Integration Results

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:

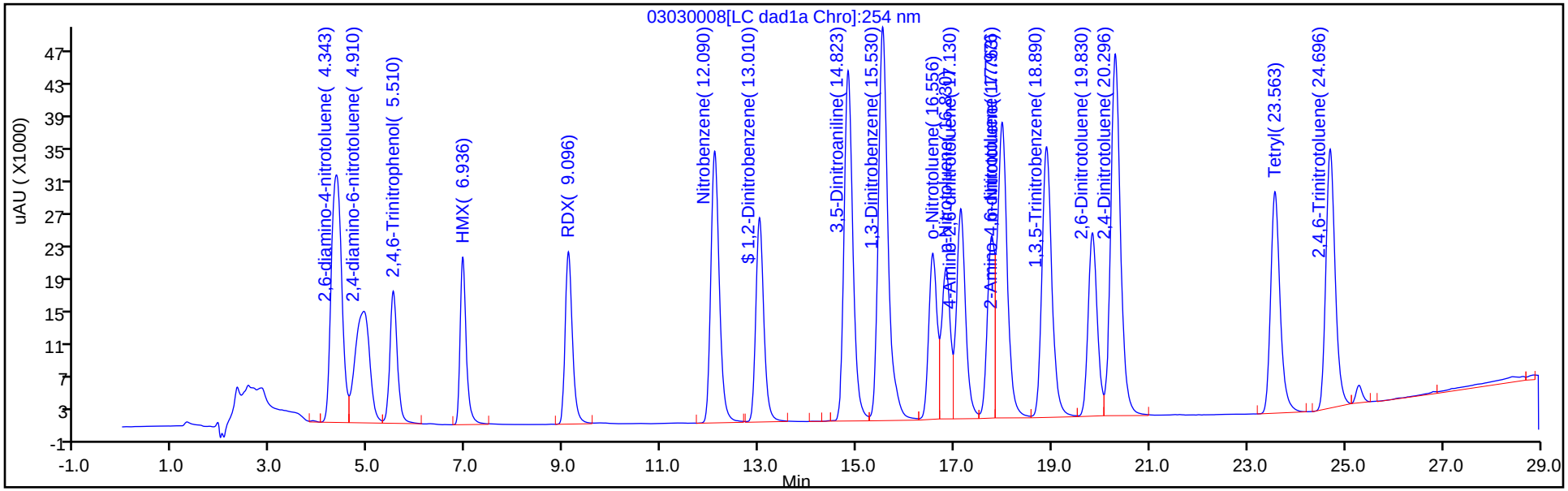
| | | |
|---|---|---|
| 8330IntermStk_00061 | Amount Added: 100.00 | Units: uL |
| 8330_ADDs_00023 | Amount Added: 50.00 | Units: uL |

Report Date: 05-Mar-2020 11:40:05 Chrom Revision: 2.3 19-Feb-2020 16:45:46

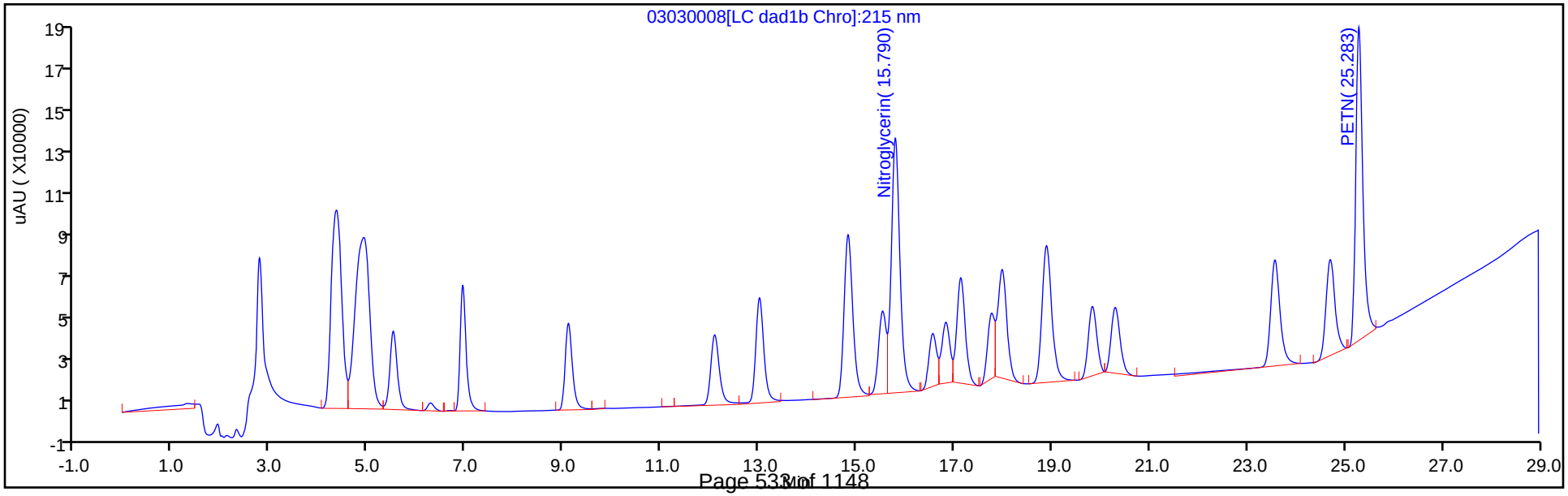
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| 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

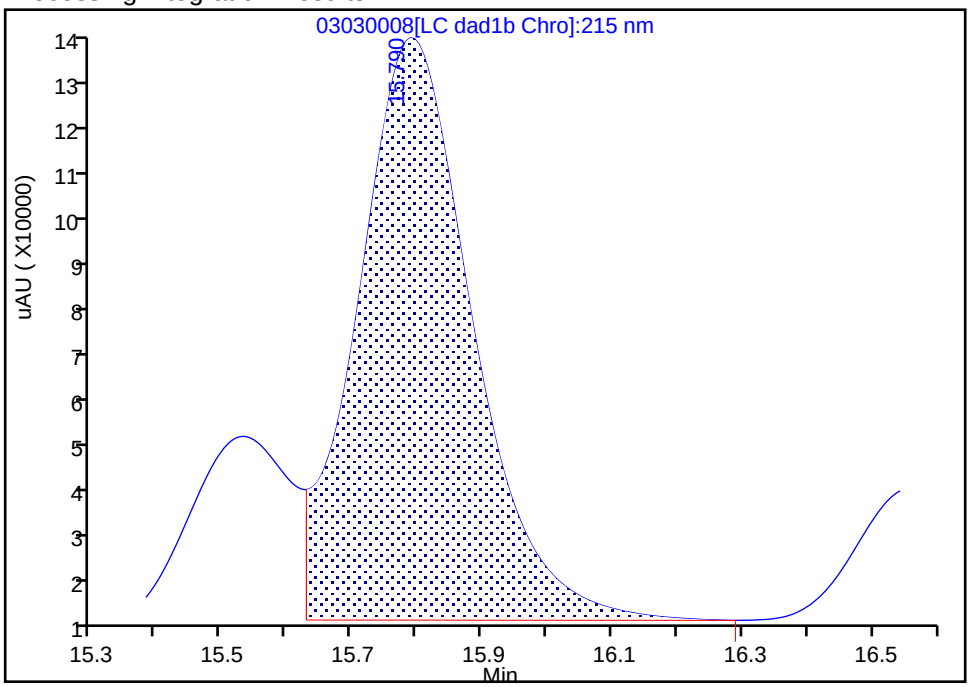
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\g2_luna\20200303-89749.b\03030008.d | | | | |
| Injection Date: | 03-Mar-2020 18:36:30 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 7 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 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

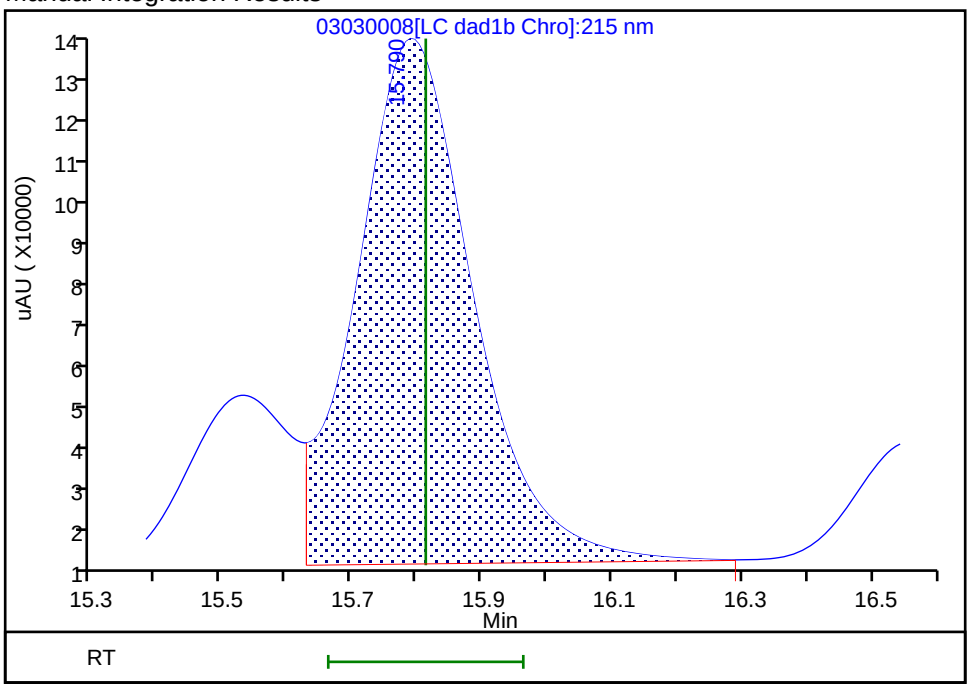
Processing Integration Results

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:

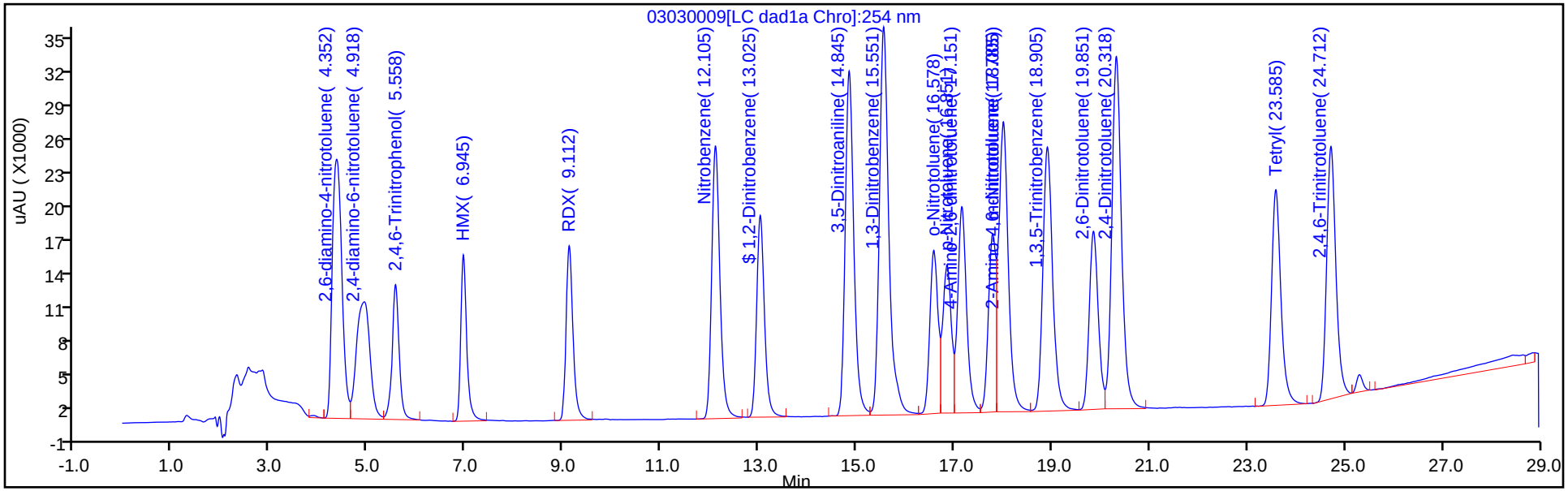
| | | | |
|---|---|---|---|
| 8330_ADDs_00023 | Amount Added: | 35.00 | Units: uL |
| 8330IntermStk_00061 | Amount Added: | 70.00 | Units: uL |

Report Date: 05-Mar-2020 11:40:06 Chrom Revision: 2.3 19-Feb-2020 16:45:46

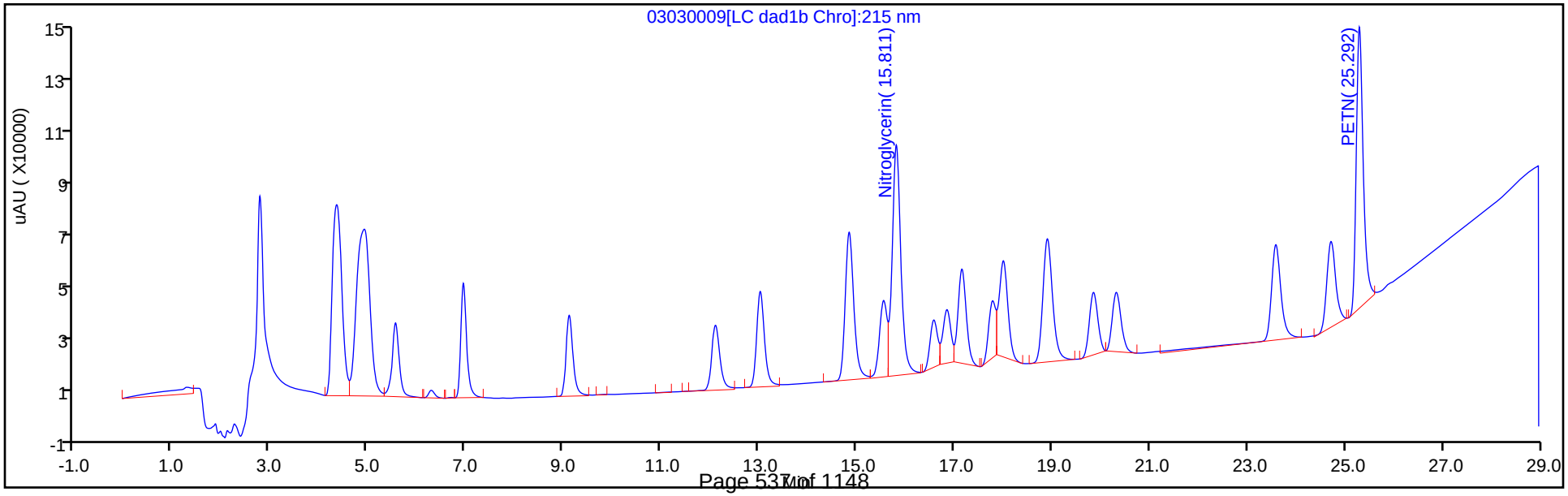
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| 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

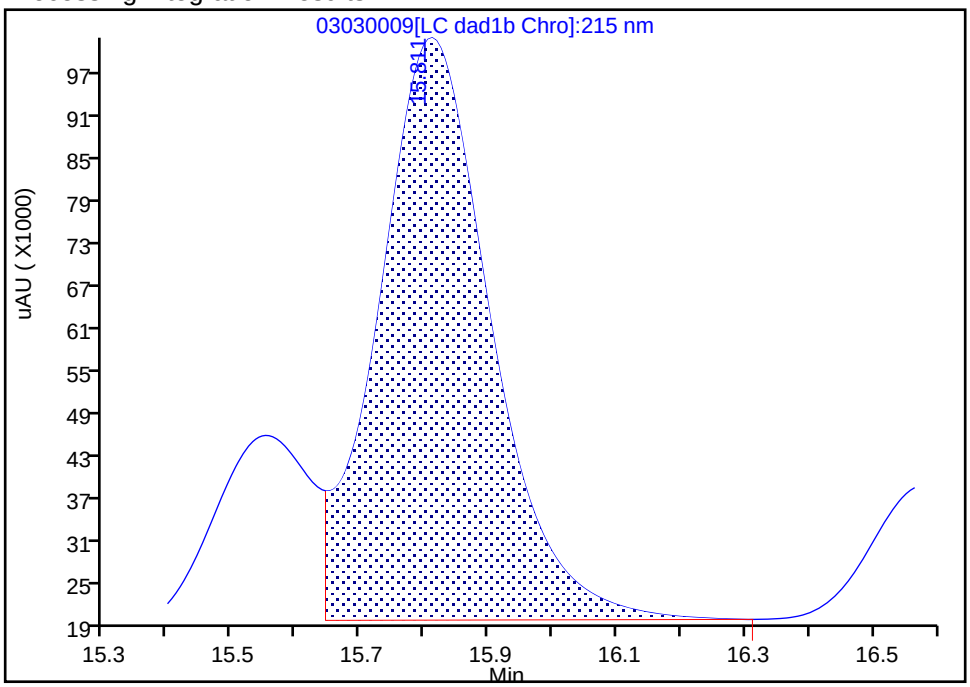
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\g2_luna\20200303-89749.b\03030009.d | | | | |
| Injection Date: | 03-Mar-2020 19:11:30 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 6 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 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

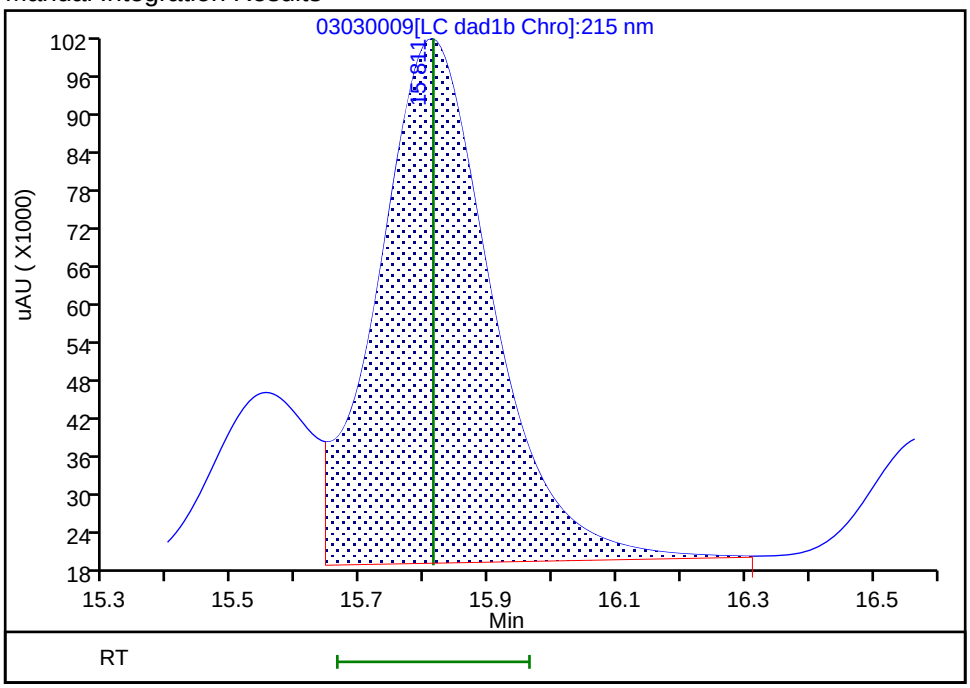
Processing Integration Results

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:

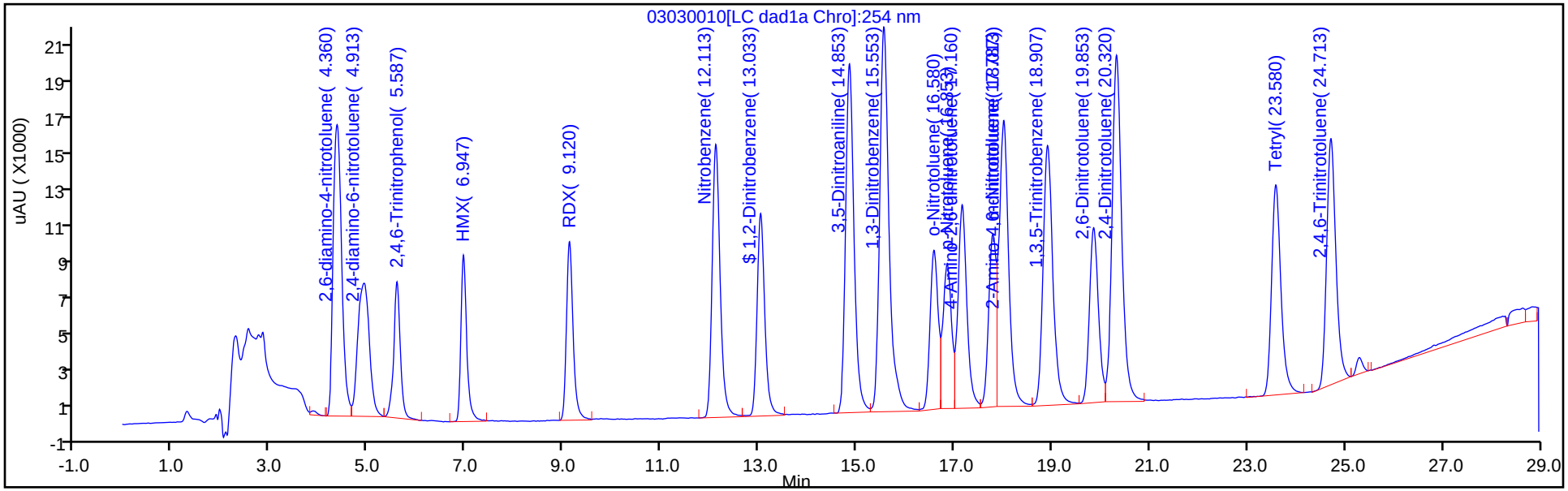
| | | | |
|---|---|---|---|
| 8330IntermStk_00061 | Amount Added: | 40.00 | Units: uL |
| 8330_ADDs_00023 | Amount Added: | 20.00 | Units: uL |

Report Date: 05-Mar-2020 11:40:07 Chrom Revision: 2.3 19-Feb-2020 16:45:46

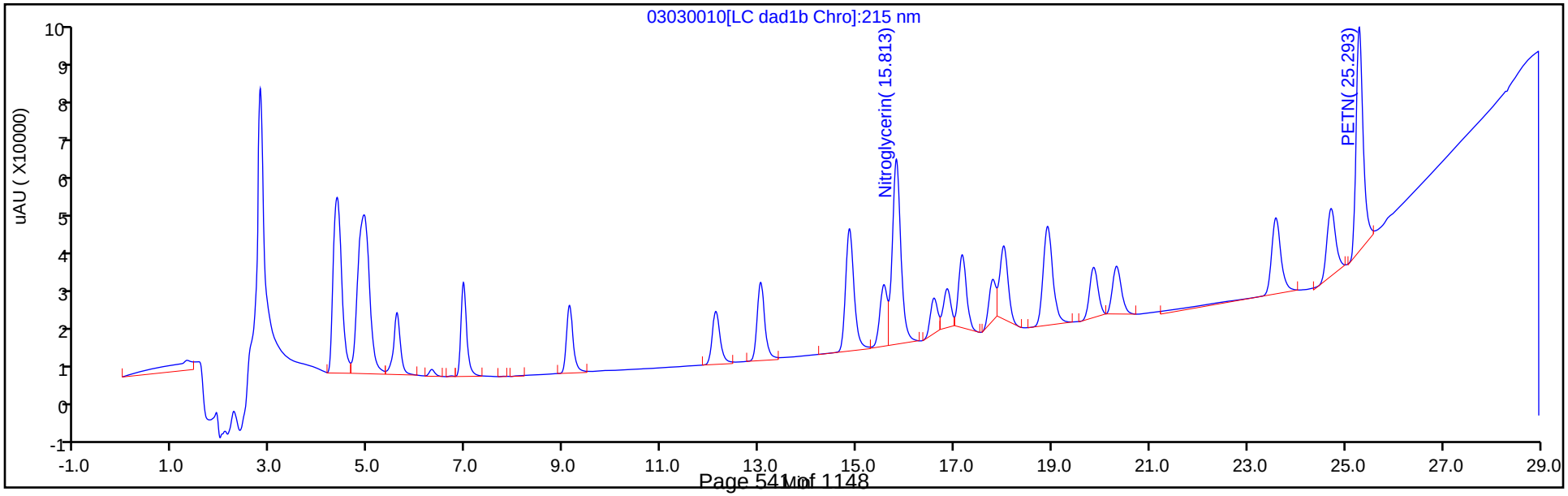
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| 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

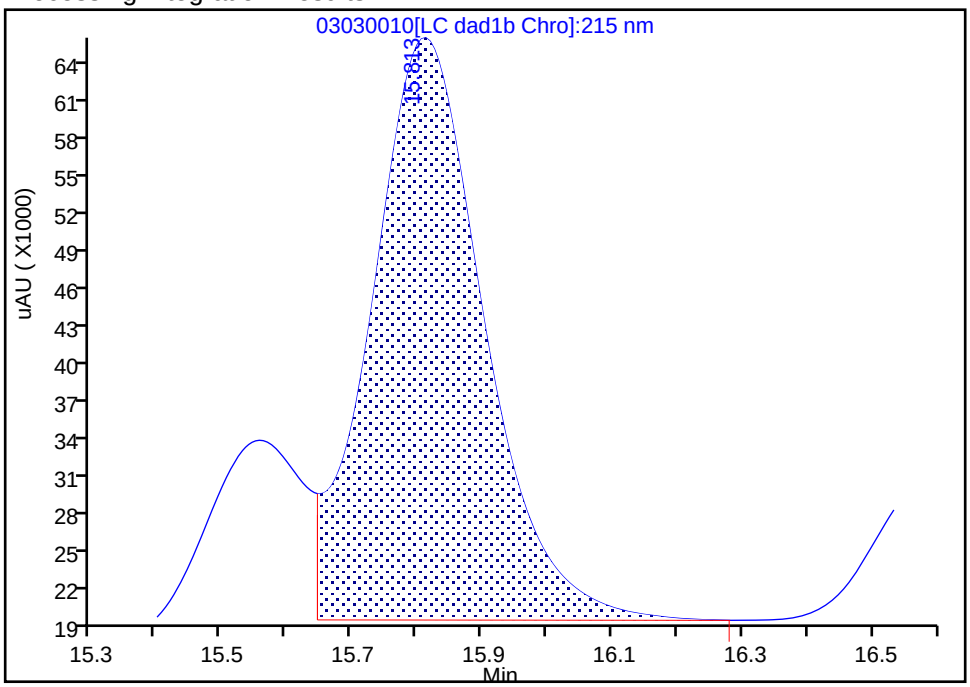
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\g2_luna\20200303-89749.b\03030010.d | | | | |
| Injection Date: | 03-Mar-2020 19:46:29 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 5 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 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

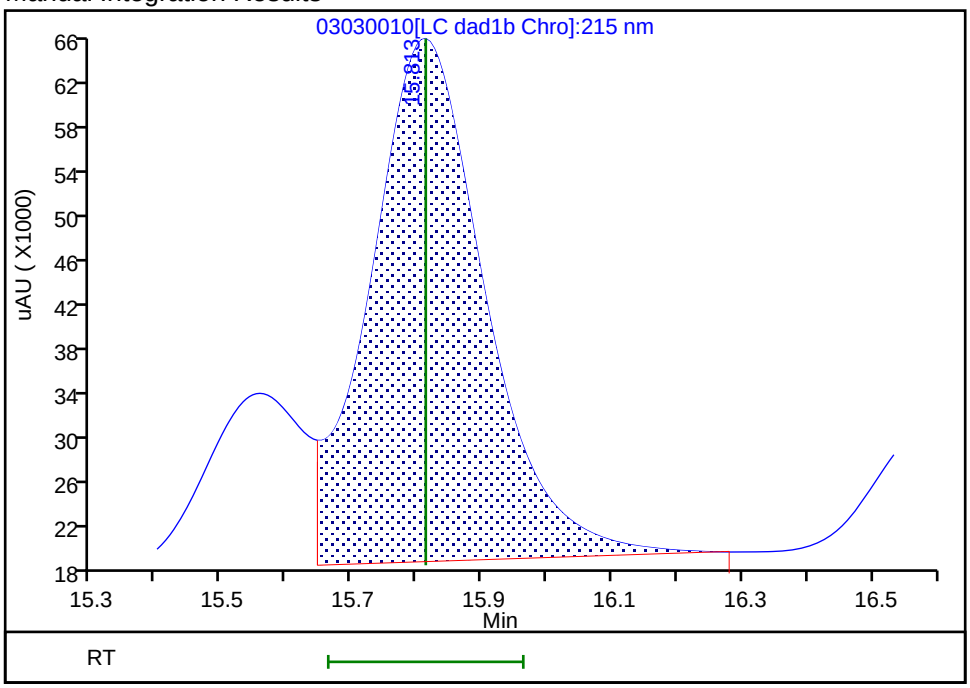
Processing Integration Results

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:

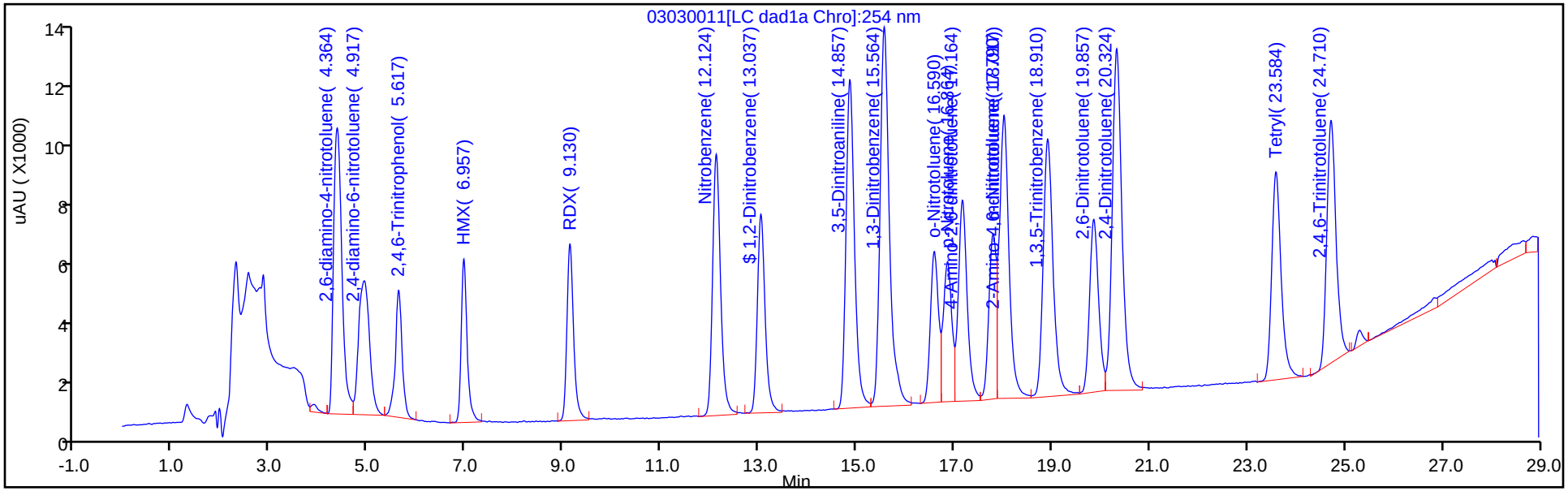
| | | | |
|---|---|---|---|
| 8330IntermStk_00061 | Amount Added: | 25.00 | Units: uL |
| 8330_ADDs_00023 | Amount Added: | 12.50 | Units: uL |

Report Date: 05-Mar-2020 11:40:08 Chrom Revision: 2.3 19-Feb-2020 16:45:46

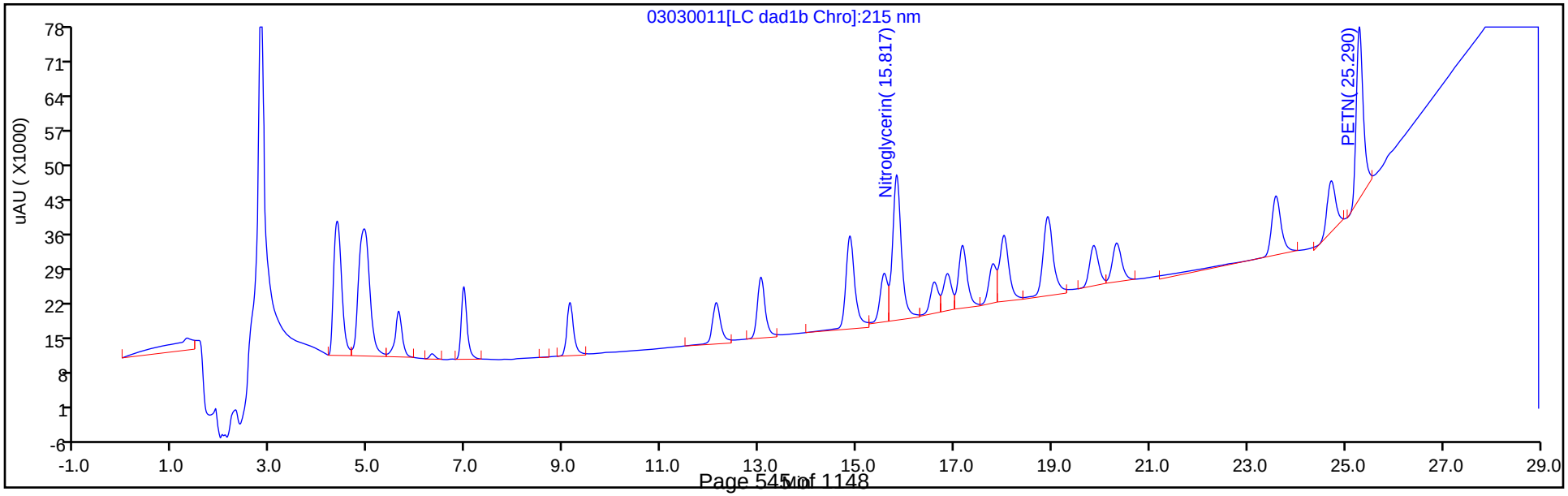
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| 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

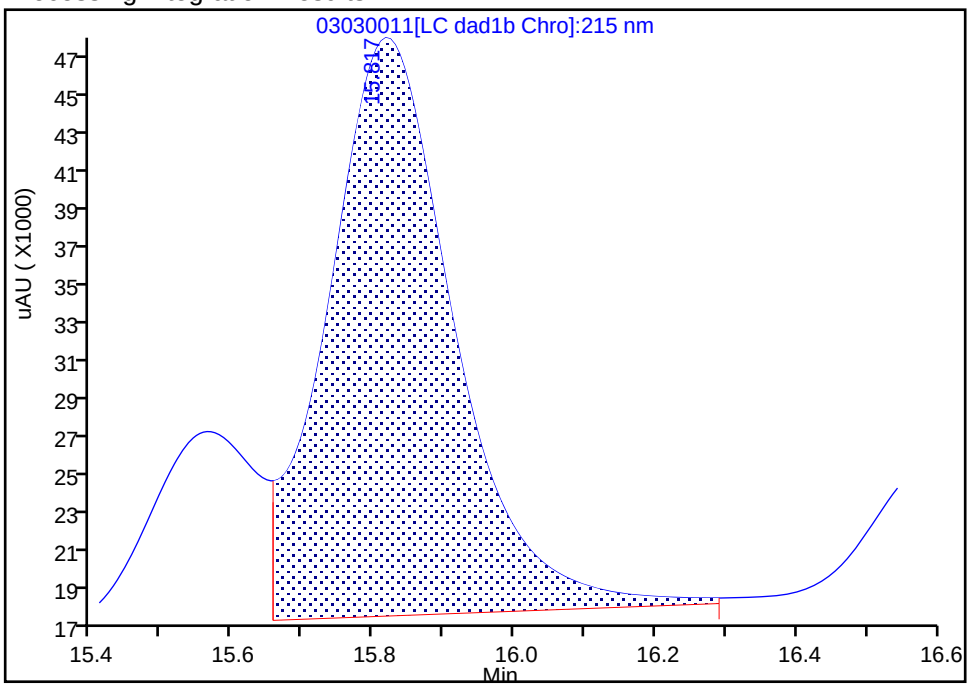
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\g2_luna\20200303-89749.b\03030011.d | | | | |
| Injection Date: | 03-Mar-2020 20:21:37 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 4 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 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

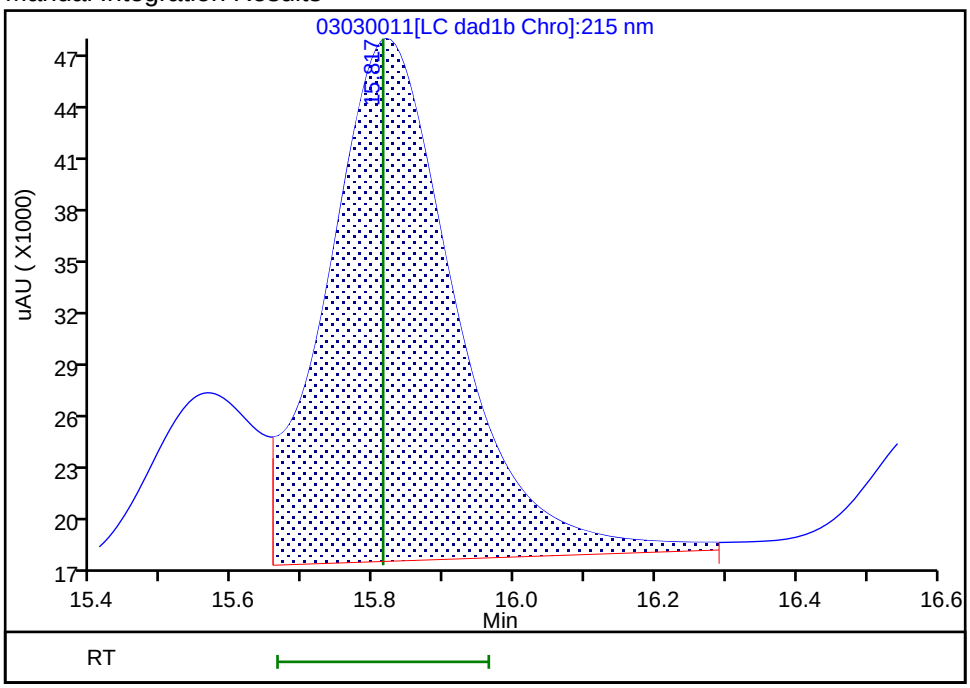
Processing Integration Results

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

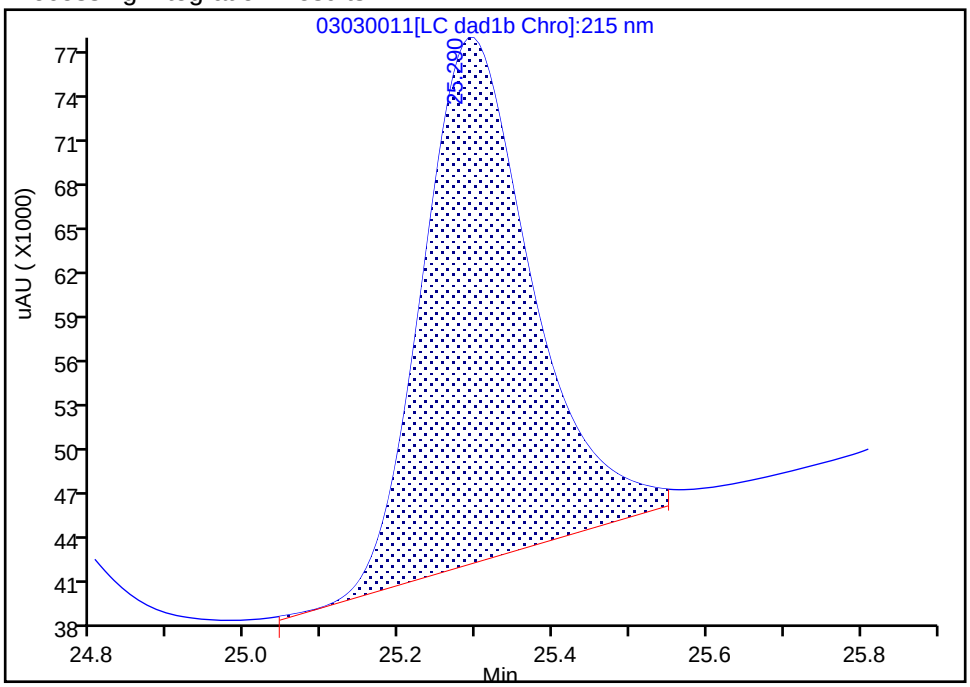
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\g2_luna\20200303-89749.b\03030011.d | | | | |
| Injection Date: | 03-Mar-2020 20:21:37 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 4 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 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

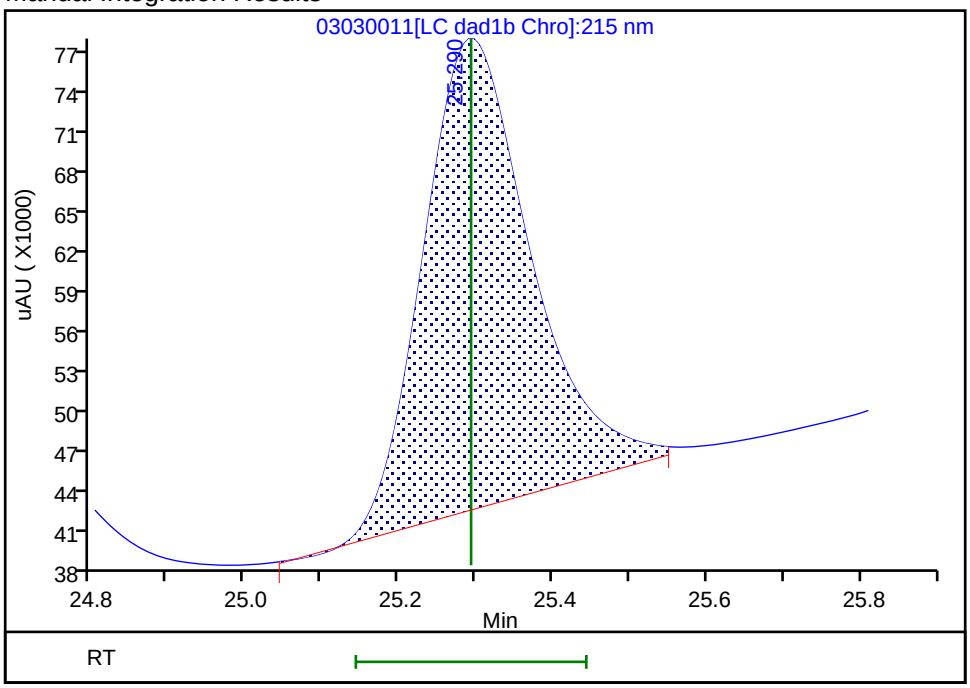
Processing Integration Results

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:

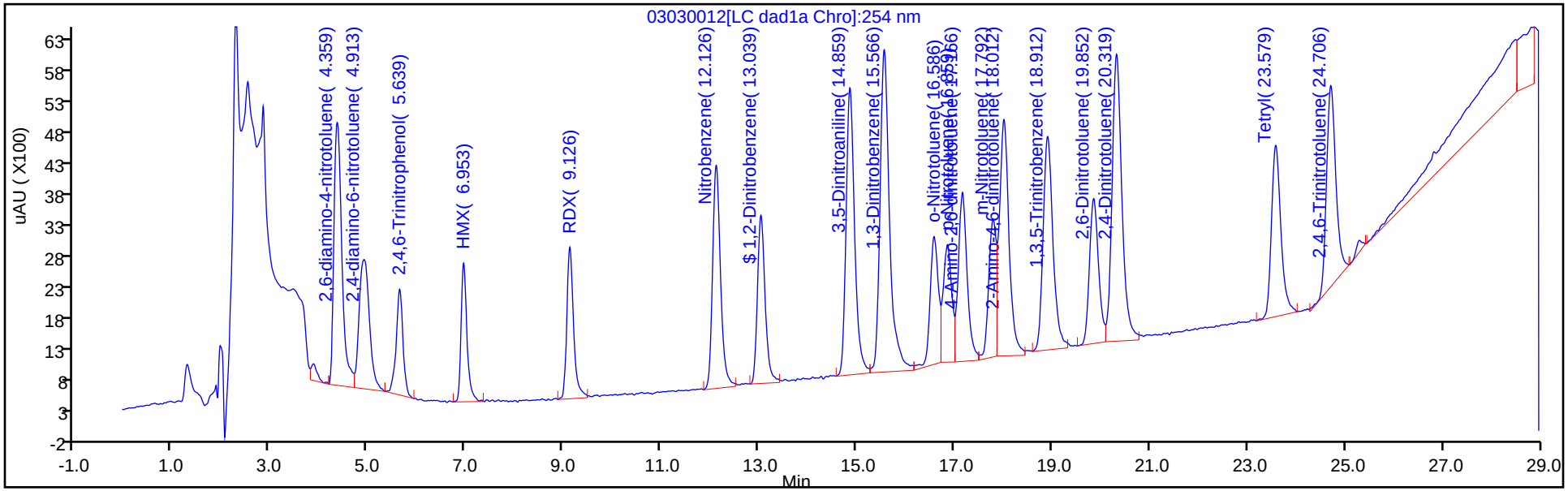
| | | |
|---|---|---|
| 8330IntermStk_00061 | Amount Added: 10.00 | Units: uL |
| 8330_ADDs_00023 | Amount Added: 5.00 | Units: uL |

Report Date: 05-Mar-2020 11:40:09 Chrom Revision: 2.3 19-Feb-2020 16:45:46

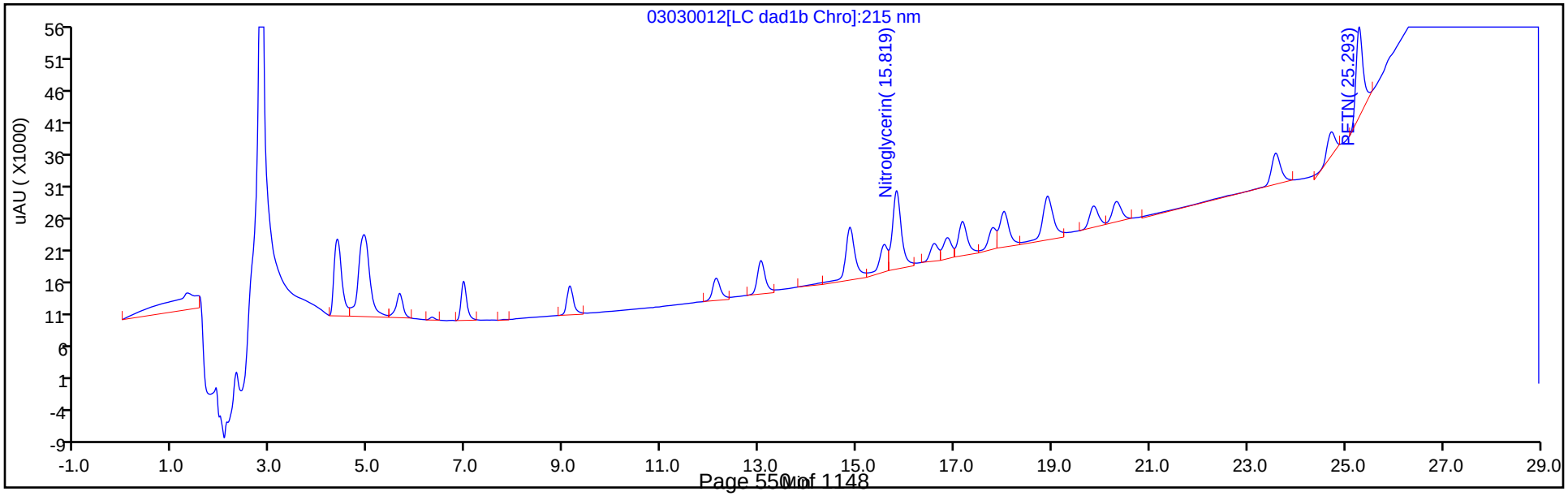
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| 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

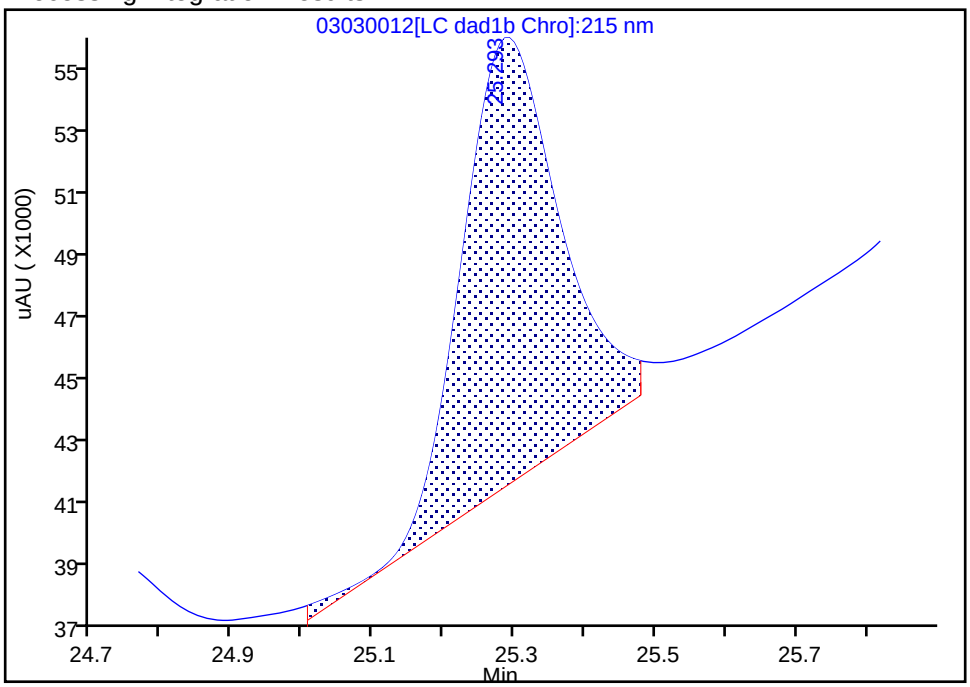
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\g2_luna\20200303-89749.b\03030012.d | | | | |
| Injection Date: | 03-Mar-2020 20:56:37 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 3 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 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

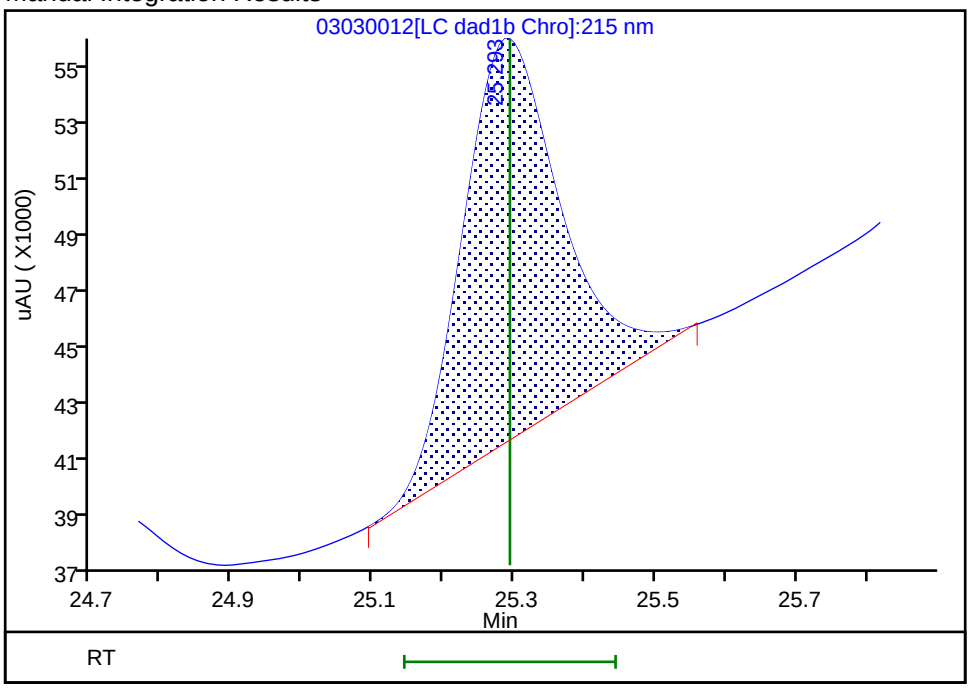
Processing Integration Results

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:

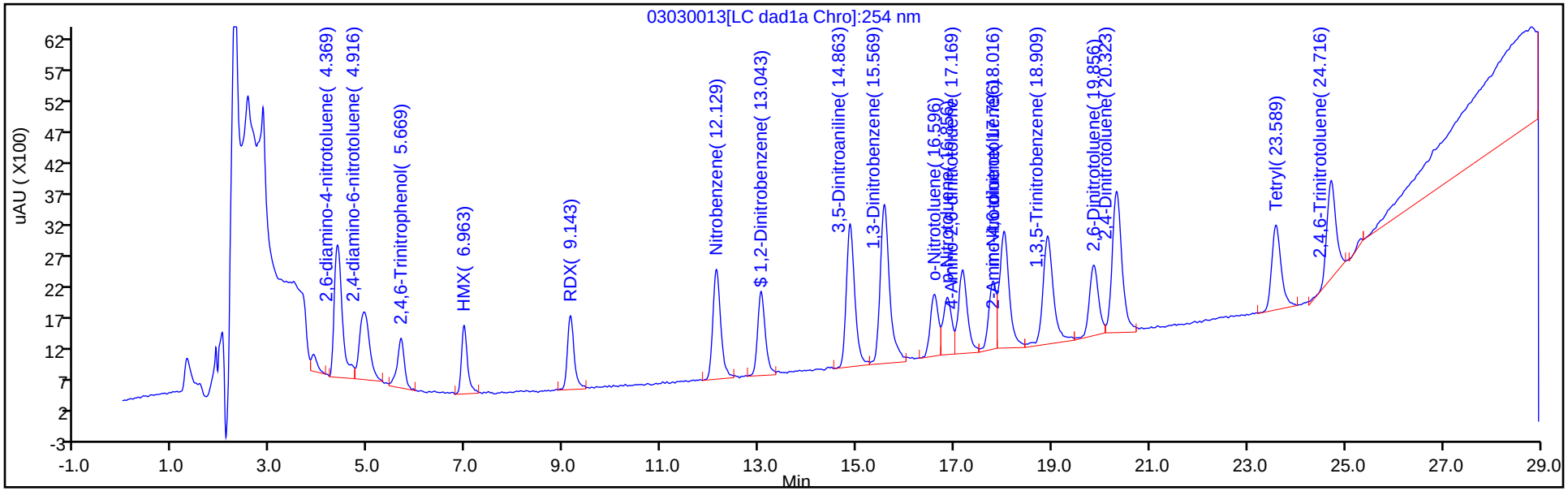
| | | | |
|---|---|---|---|
| 8330IntermStk_00061 | Amount Added: | 5.00 | Units: uL |
| 8330_ADDs_00023 | Amount Added: | 2.50 | Units: uL |

Report Date: 05-Mar-2020 11:40:10 Chrom Revision: 2.3 19-Feb-2020 16:45:46

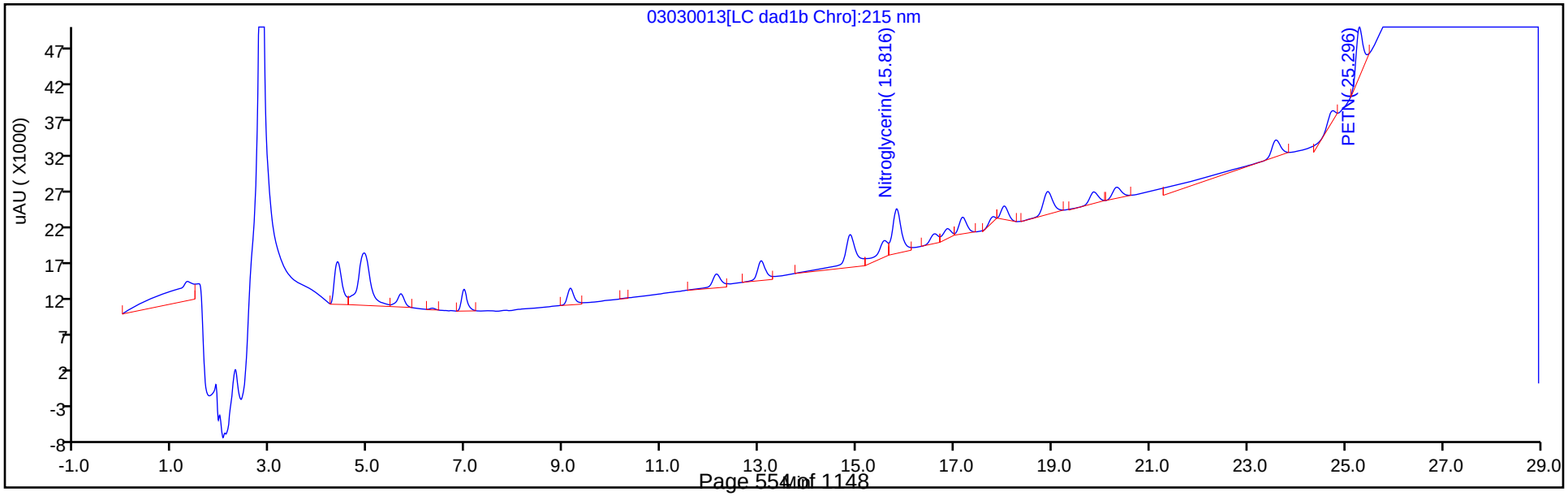
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| 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

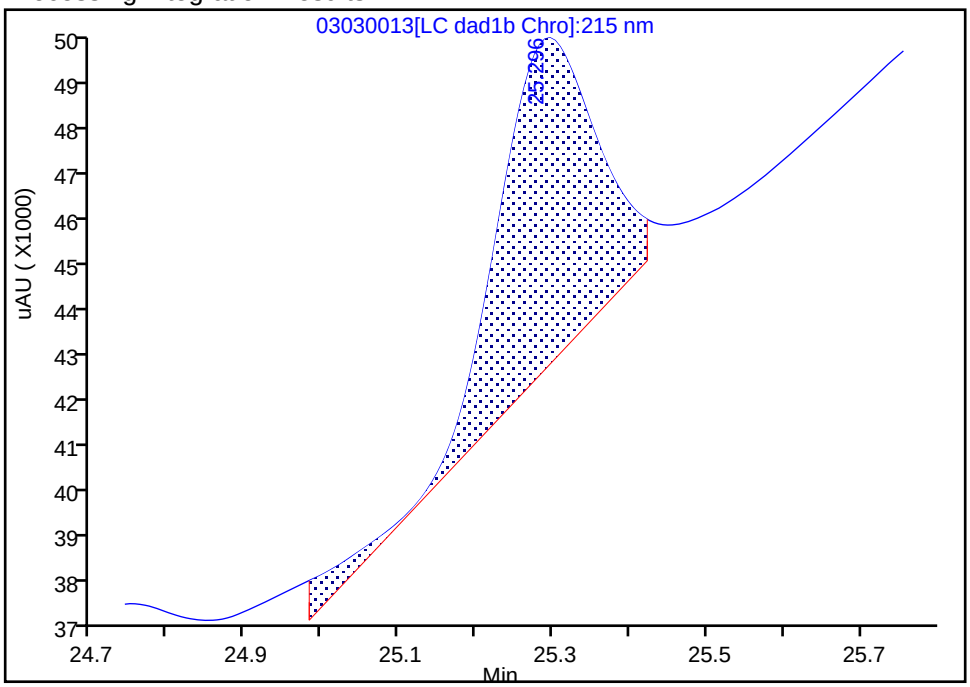
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\g2_luna\20200303-89749.b\03030013.d | | | | |
| Injection Date: | 03-Mar-2020 21:31:32 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 2 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 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

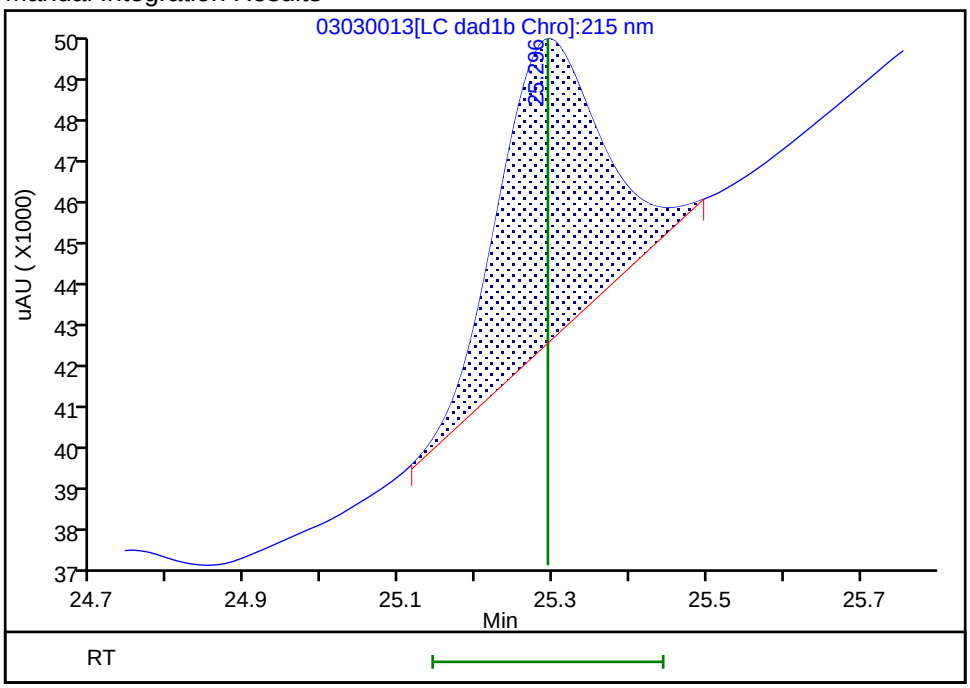
Processing Integration Results

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:

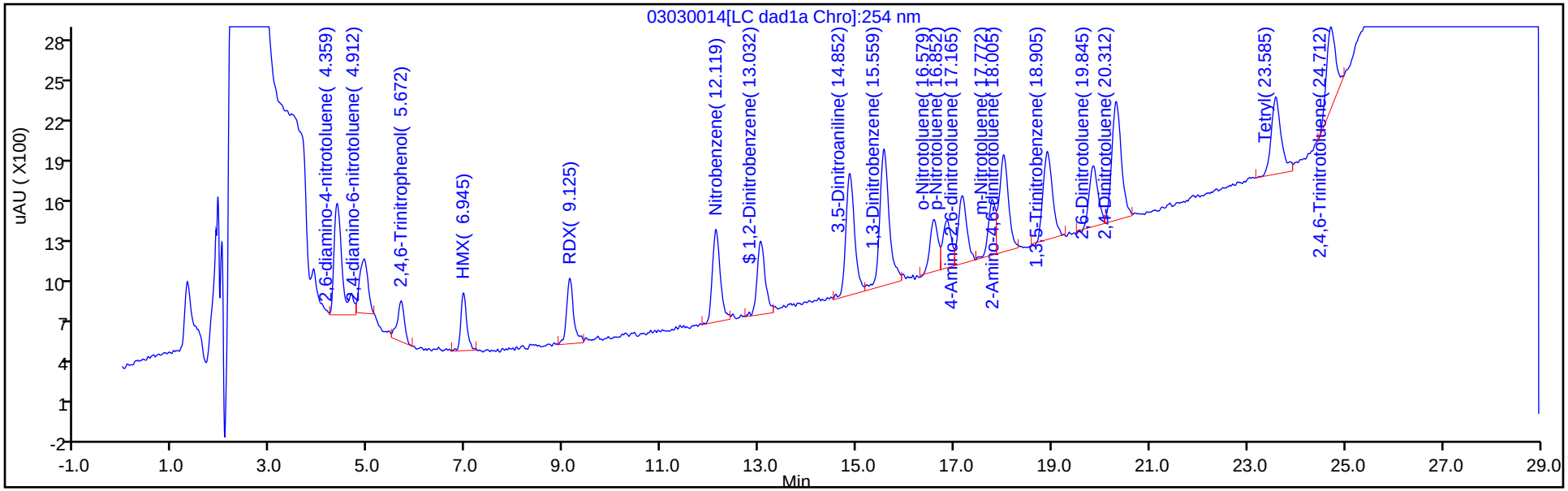
| | | | |
|---|---|---|---|
| 8330IntermStk_00061 | Amount Added: | 1.00 | Units: uL |
| 8330_ADDs_00023 | Amount Added: | 1.00 | Units: uL |

Report Date: 05-Mar-2020 11:40:10 Chrom Revision: 2.3 19-Feb-2020 16:45:46

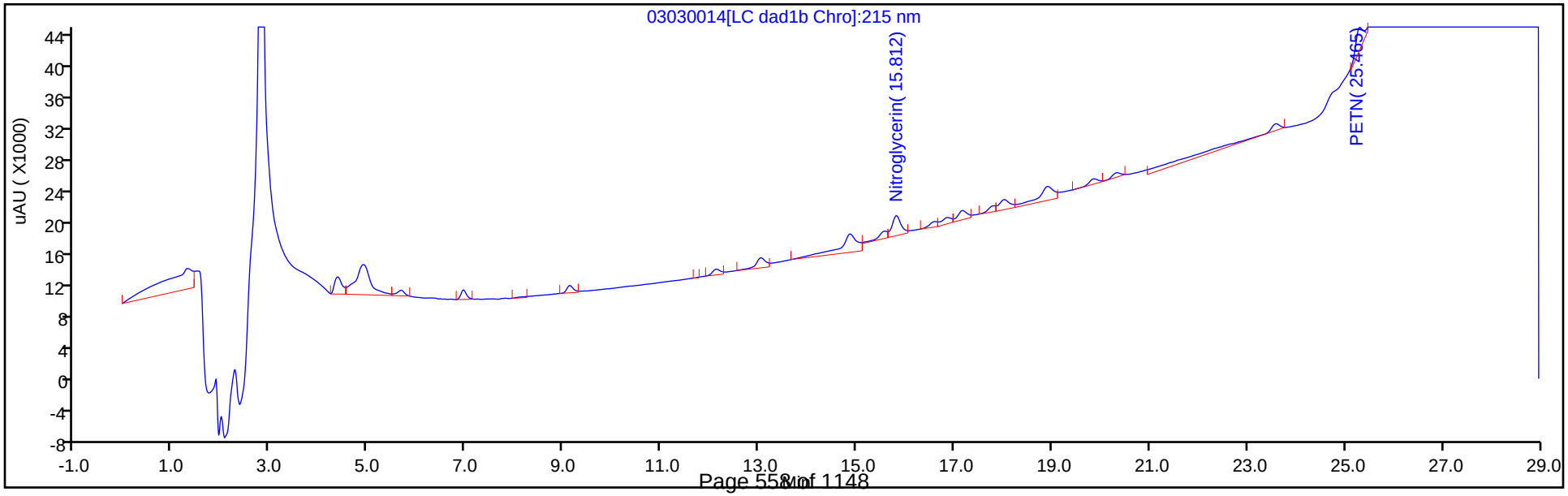
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| 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

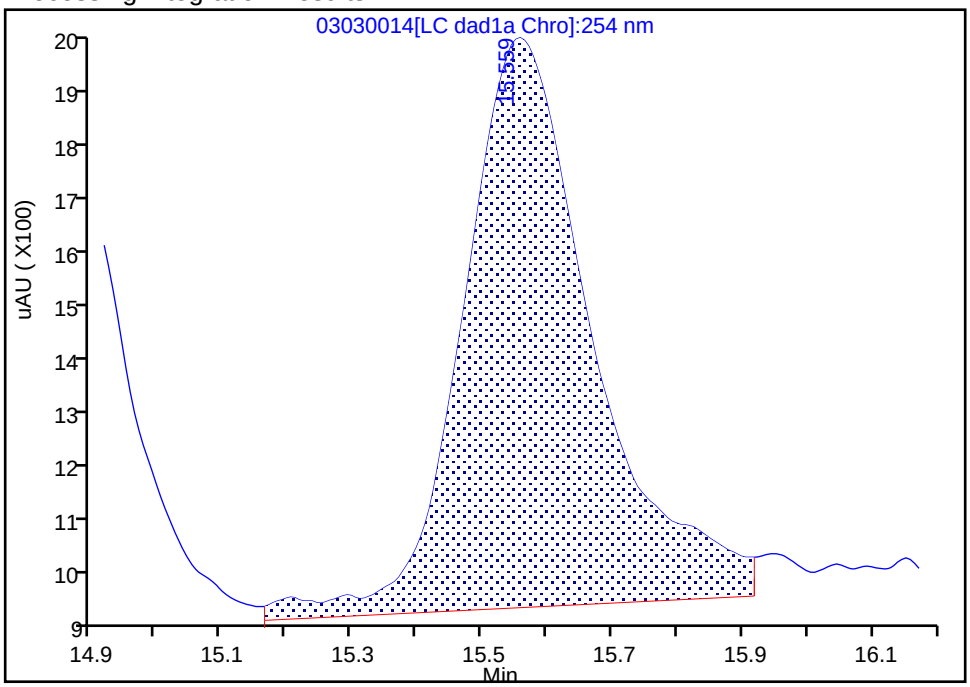
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\g2_luna\20200303-89749.b\03030014.d | | | | |
| Injection Date: | 03-Mar-2020 22:06:26 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 1 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 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

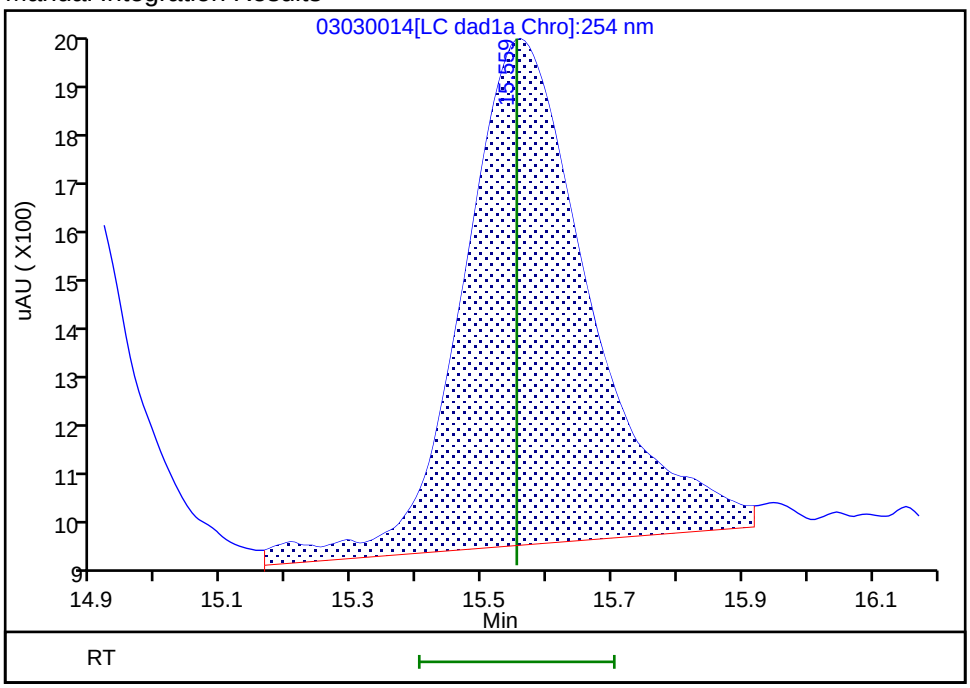
Processing Integration Results

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

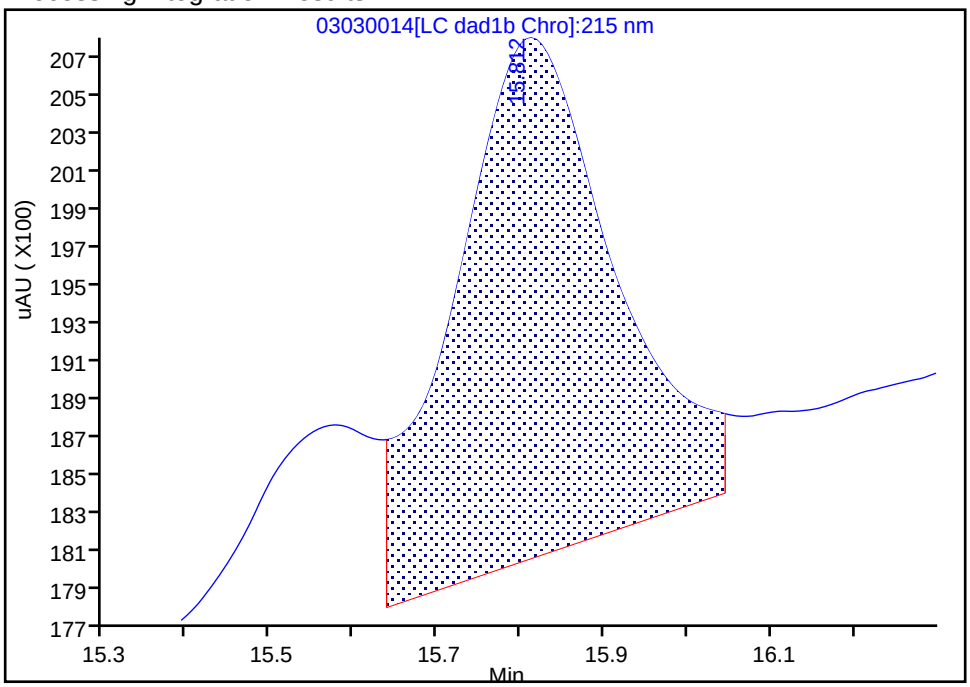
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\g2_luna\20200303-89749.b\03030014.d | | | | |
| Injection Date: | 03-Mar-2020 22:06:26 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 1 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 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

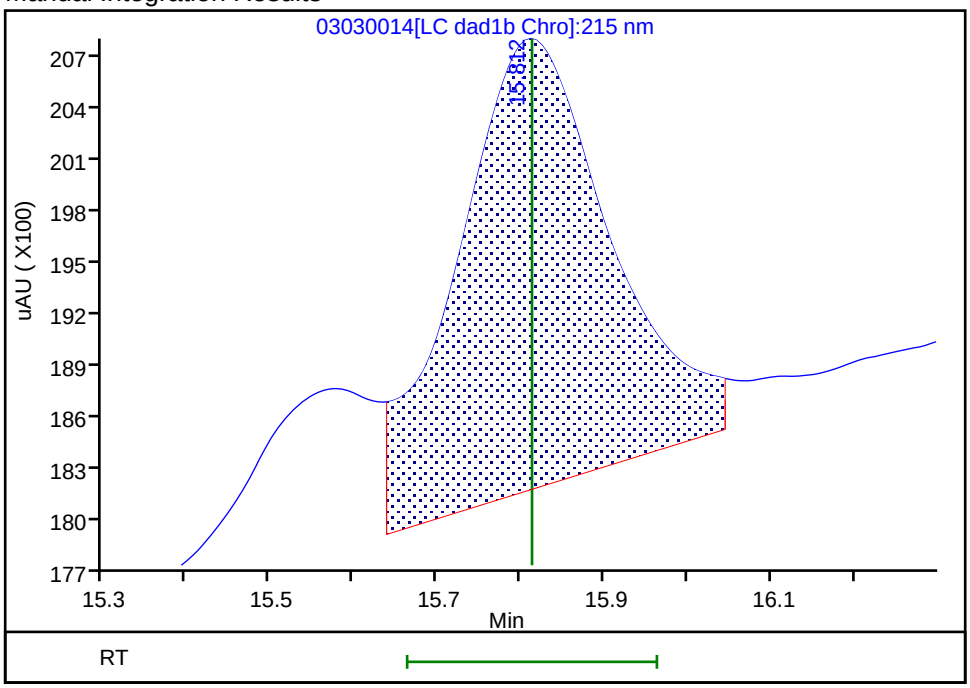
Processing Integration Results

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

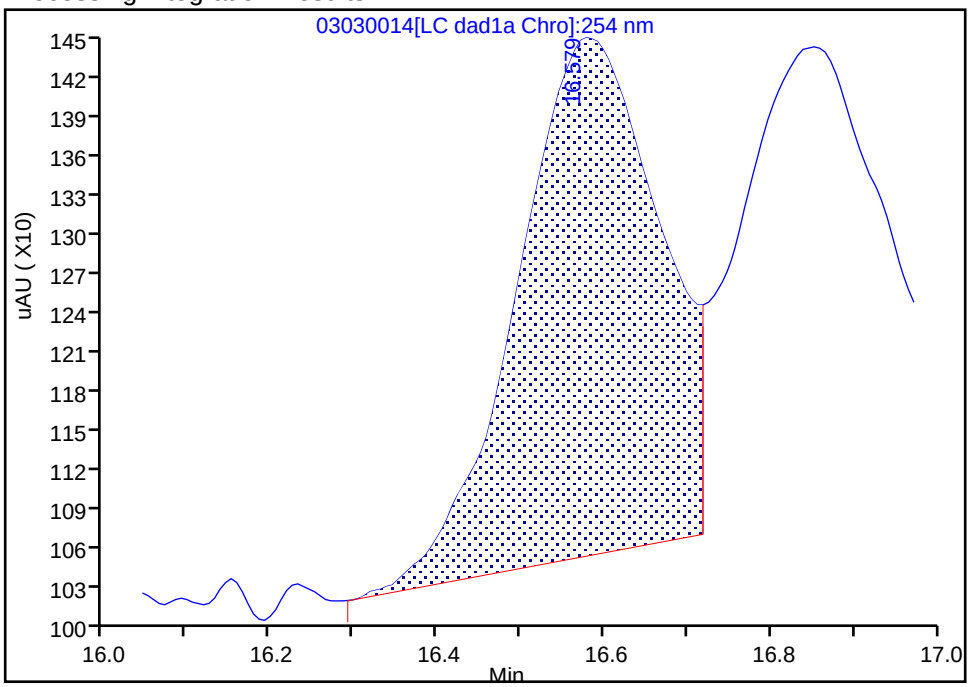
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\g2_luna\20200303-89749.b\03030014.d | | | | |
| Injection Date: | 03-Mar-2020 22:06:26 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 1 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 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

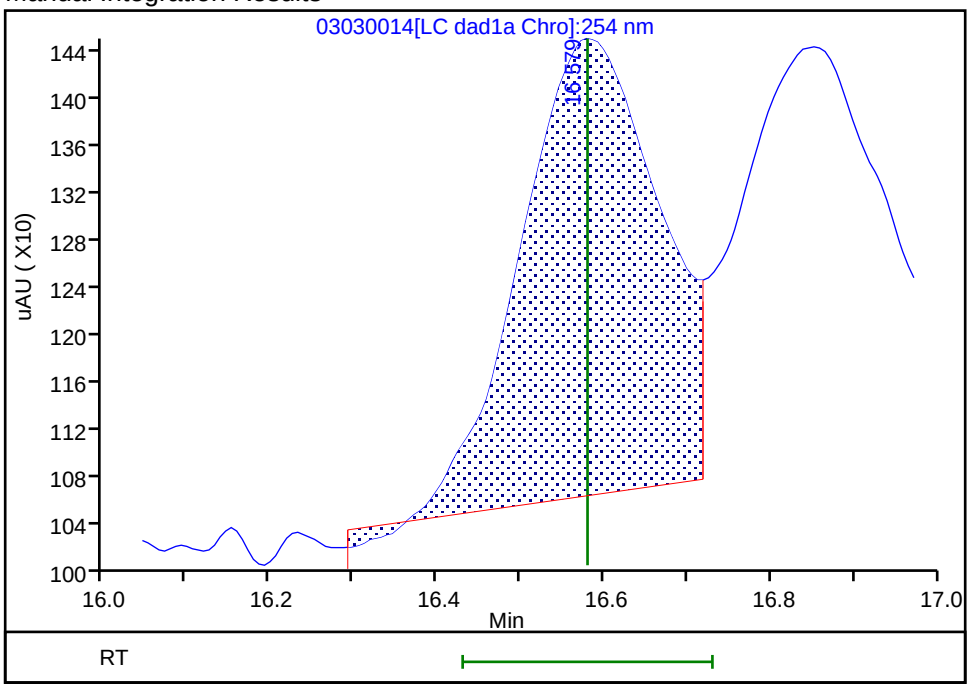
Processing Integration Results

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

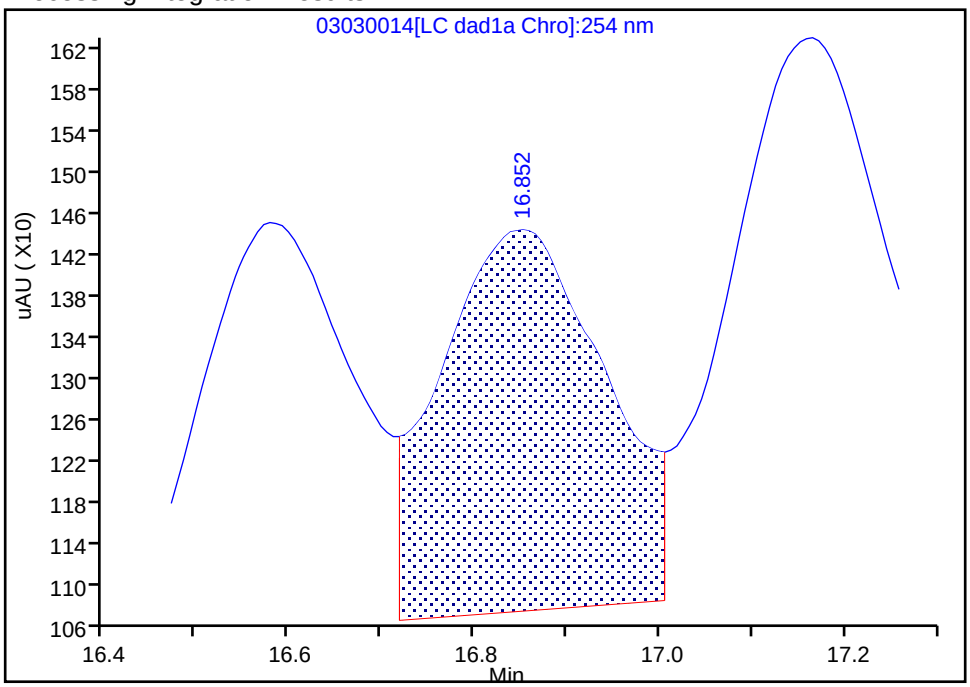
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\g2_luna\20200303-89749.b\03030014.d | | | | |
| Injection Date: | 03-Mar-2020 22:06:26 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 1 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 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

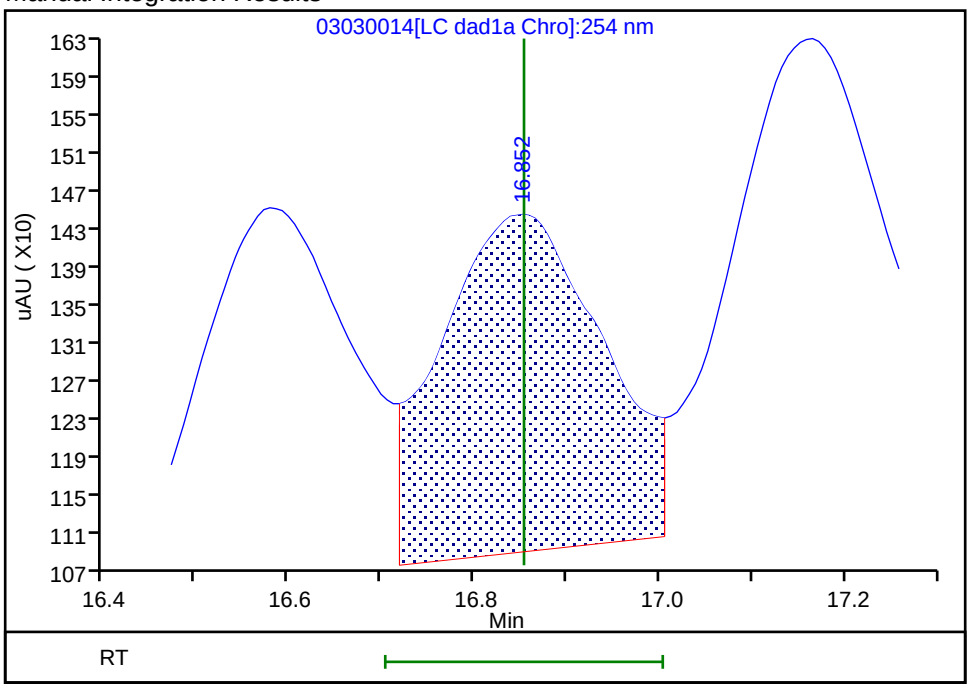
Processing Integration Results

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

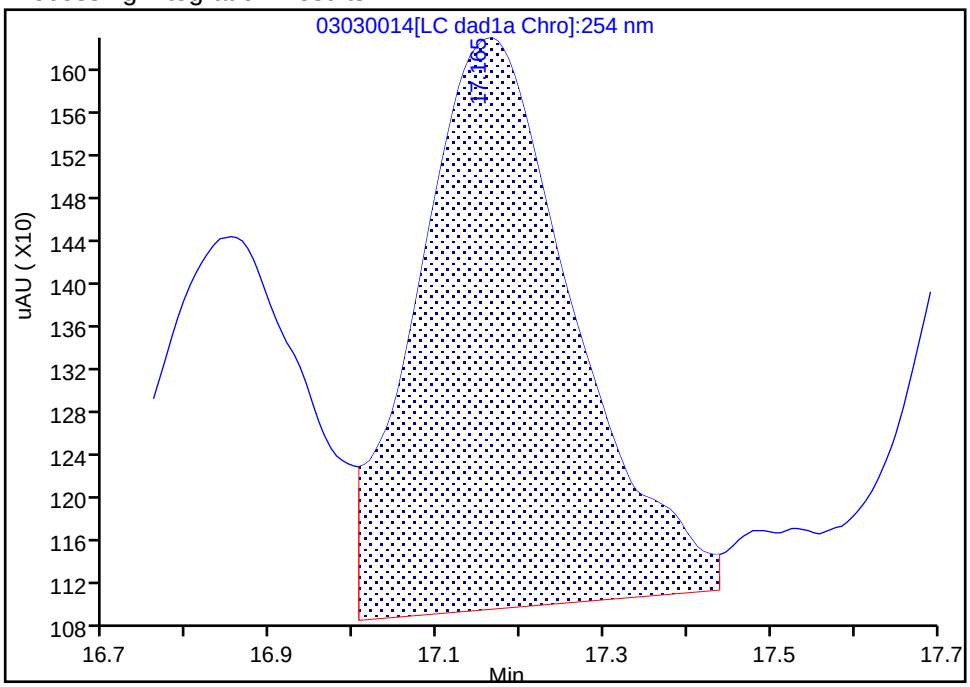
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\g2_luna\20200303-89749.b\03030014.d | | | | |
| Injection Date: | 03-Mar-2020 22:06:26 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 1 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 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

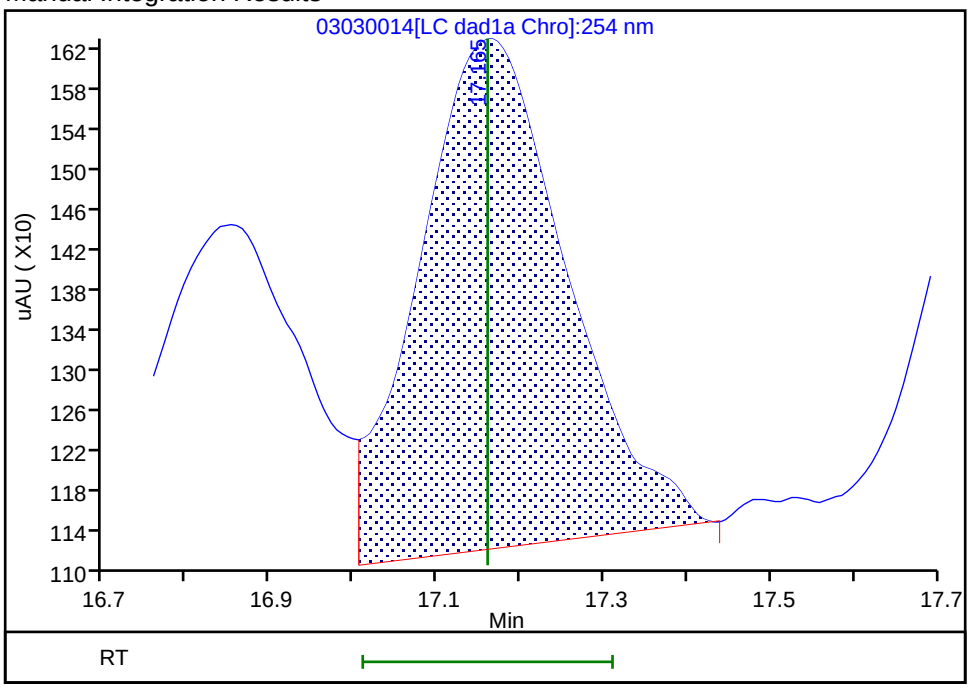
Processing Integration Results

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

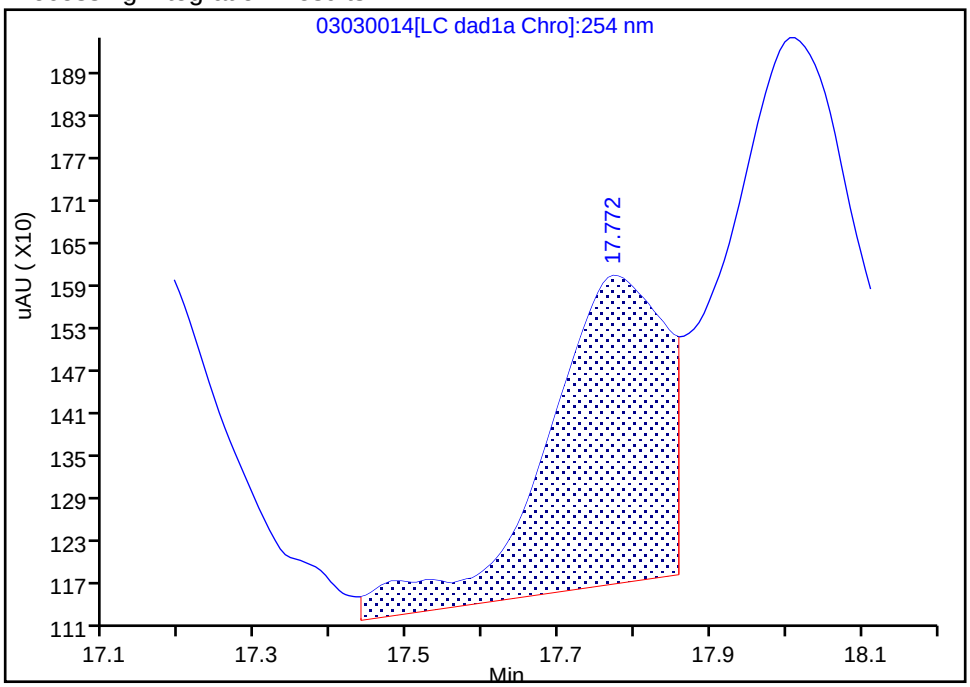
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\g2_luna\20200303-89749.b\03030014.d | | | | |
| Injection Date: | 03-Mar-2020 22:06:26 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 1 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 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

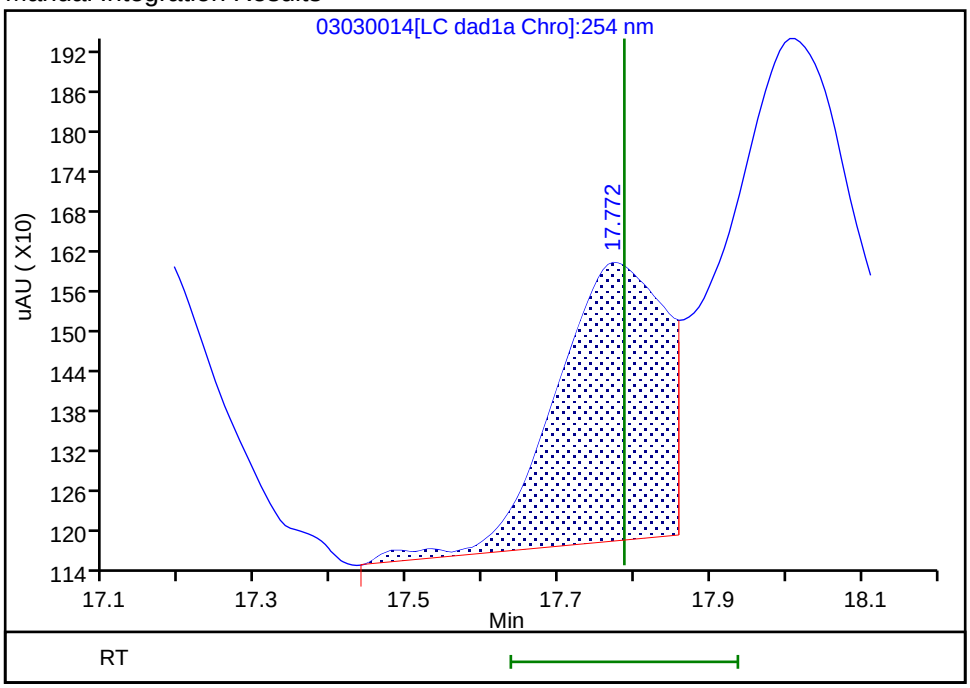
Processing Integration Results

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

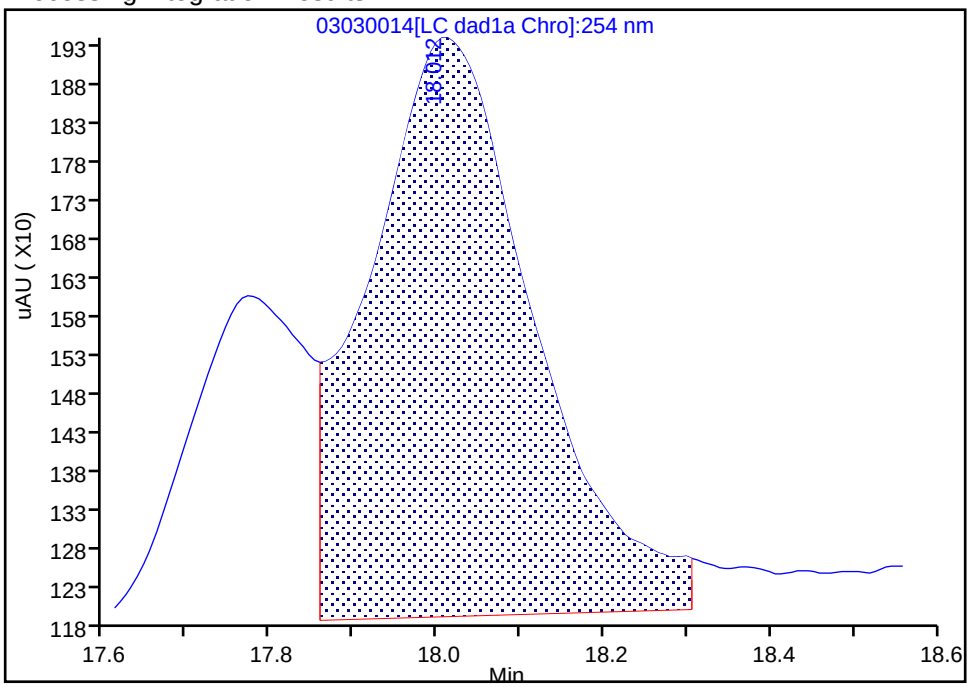
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\g2_luna\20200303-89749.b\03030014.d | | | | |
| Injection Date: | 03-Mar-2020 22:06:26 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 1 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 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

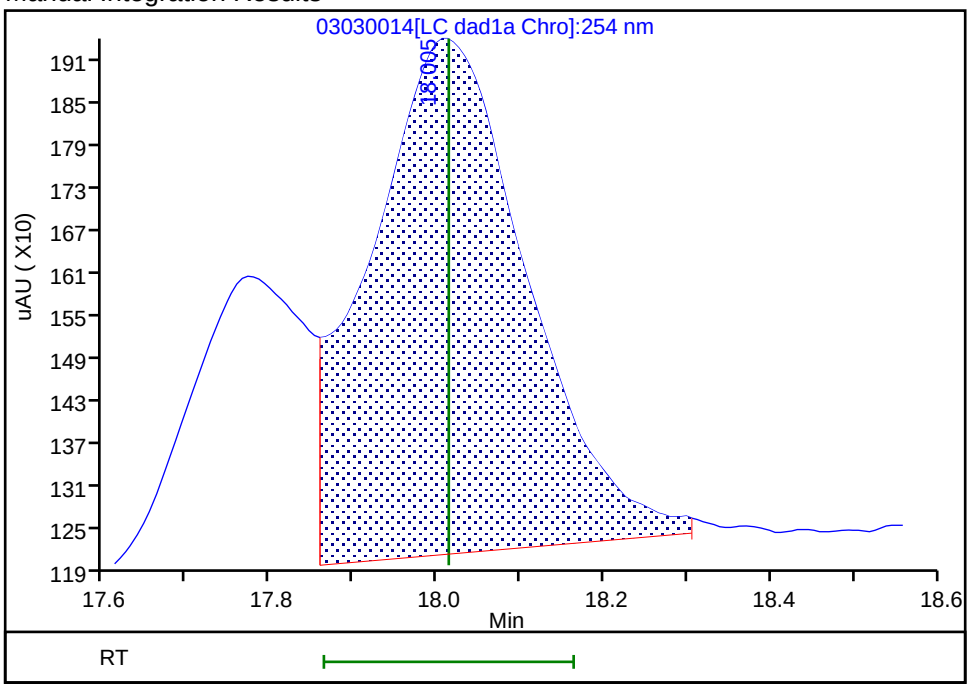
Processing Integration Results

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

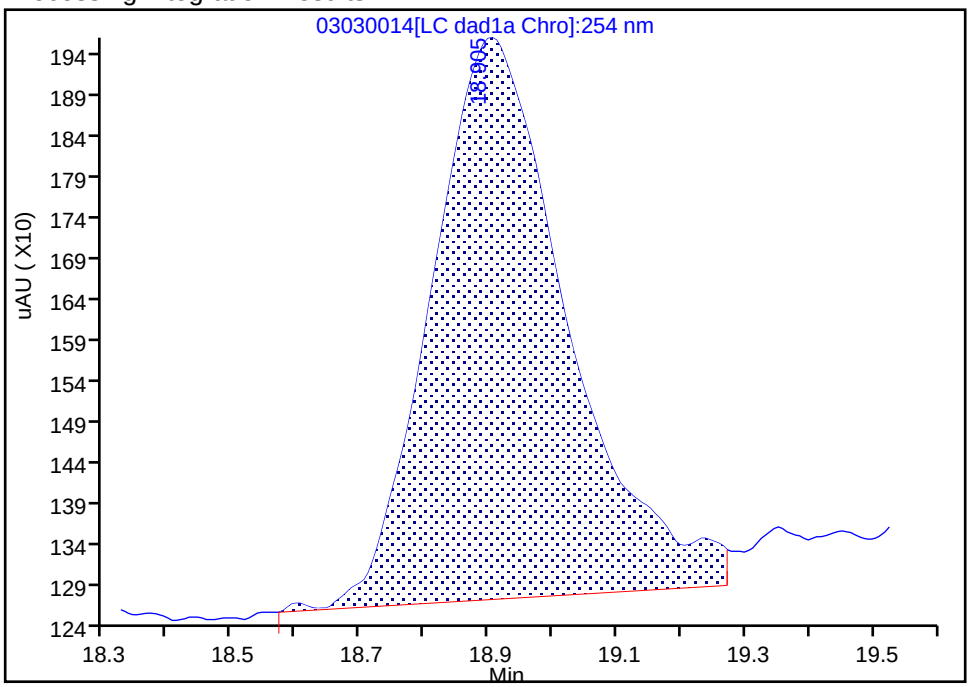
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\g2_luna\20200303-89749.b\03030014.d | | | | |
| Injection Date: | 03-Mar-2020 22:06:26 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 1 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 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

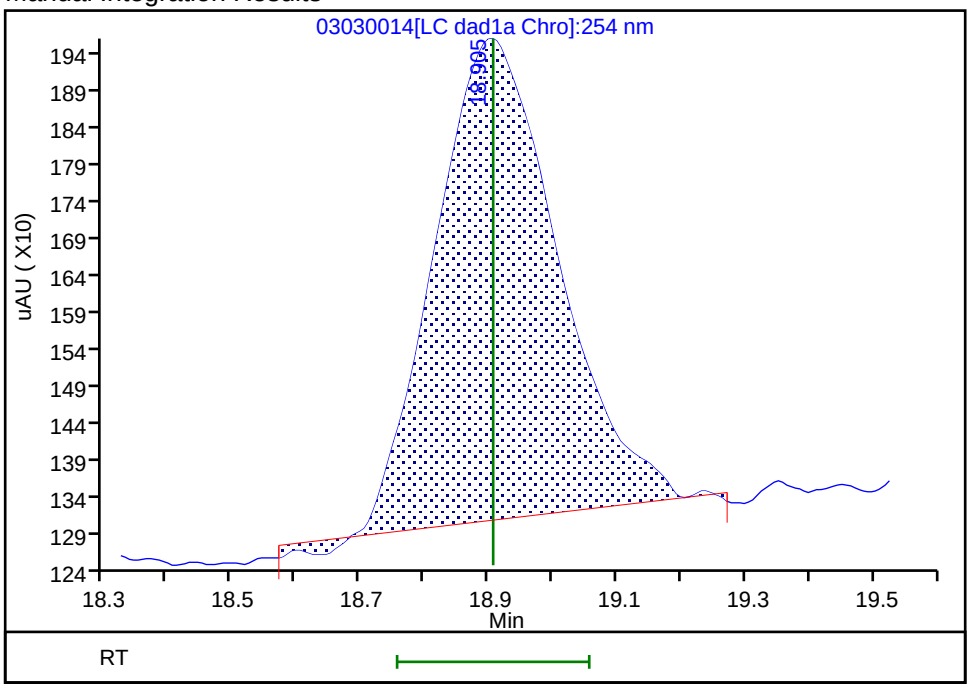
Processing Integration Results

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

Eurofins TestAmerica, Denver

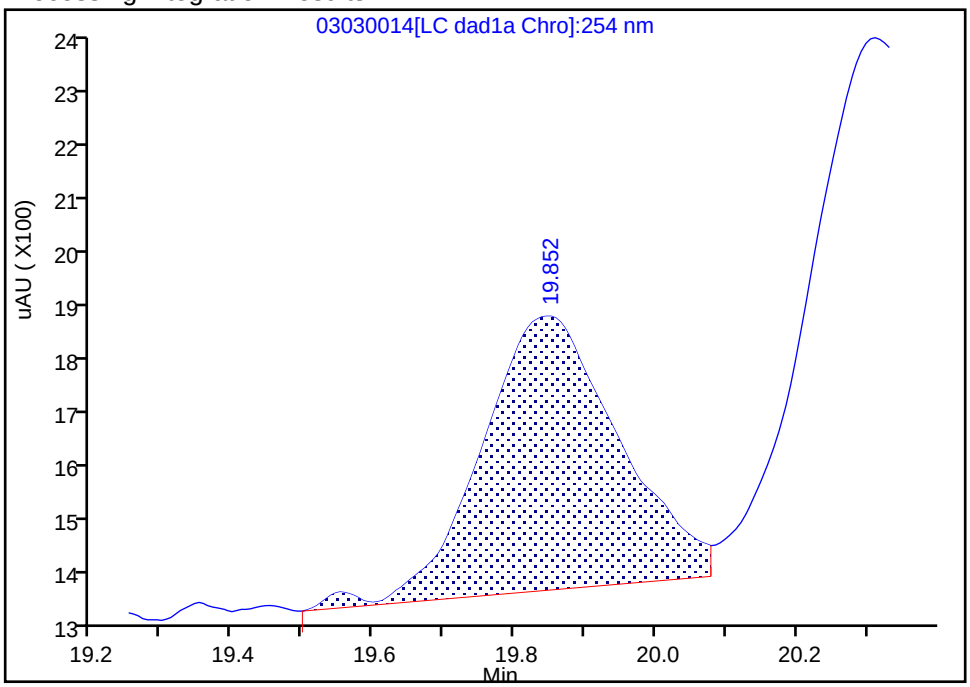
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\g2_luna\20200303-89749.b\03030014.d | | | | |
| Injection Date: | 03-Mar-2020 22:06:26 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 1 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 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

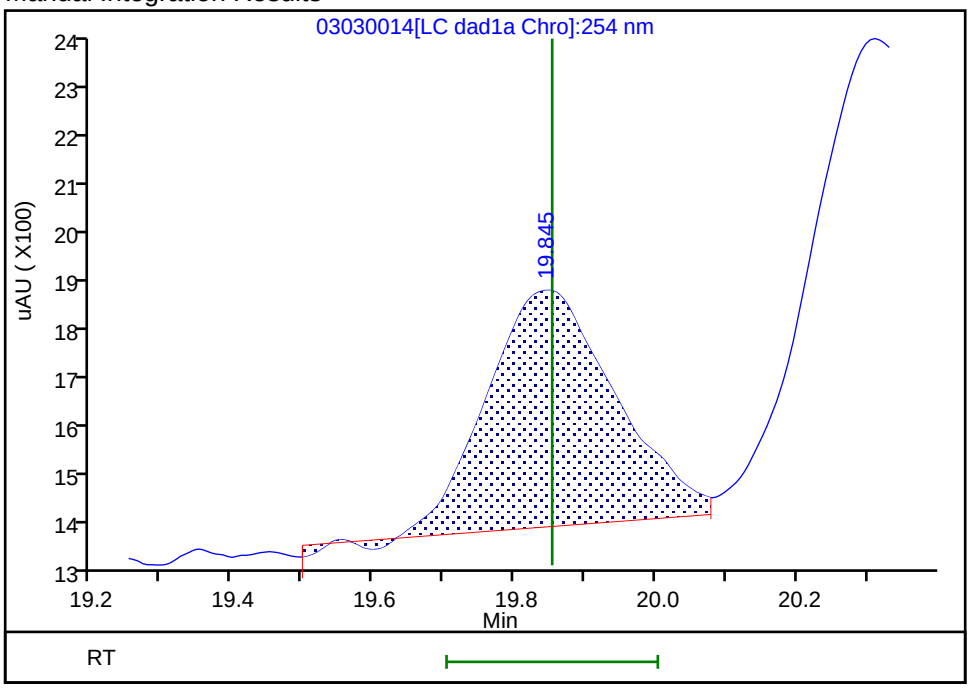
Processing Integration Results

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

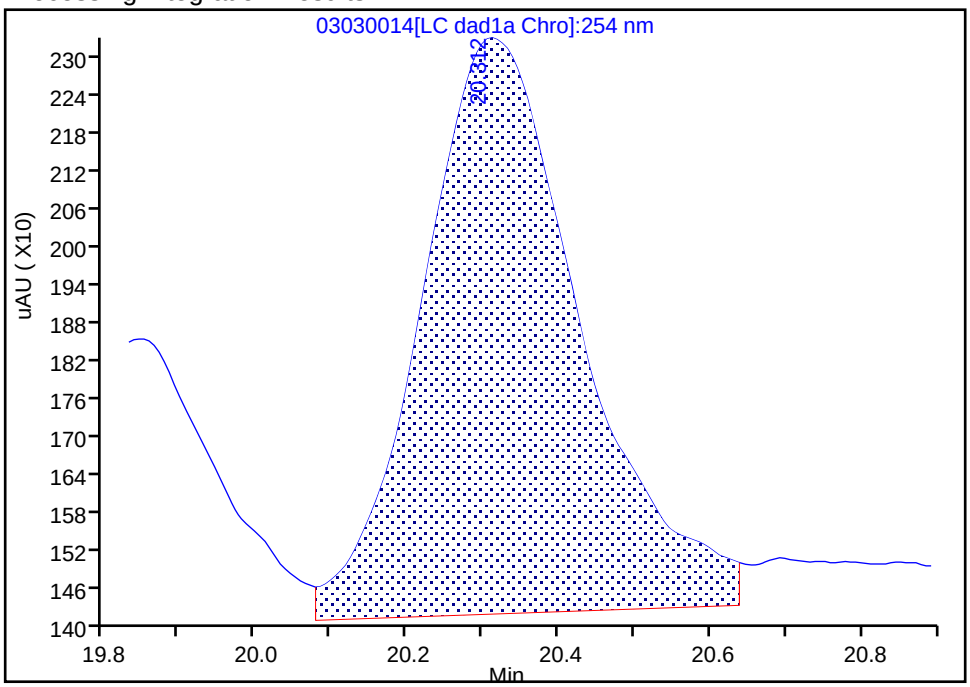
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\g2_luna\20200303-89749.b\03030014.d | | | | |
| Injection Date: | 03-Mar-2020 22:06:26 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 1 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 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

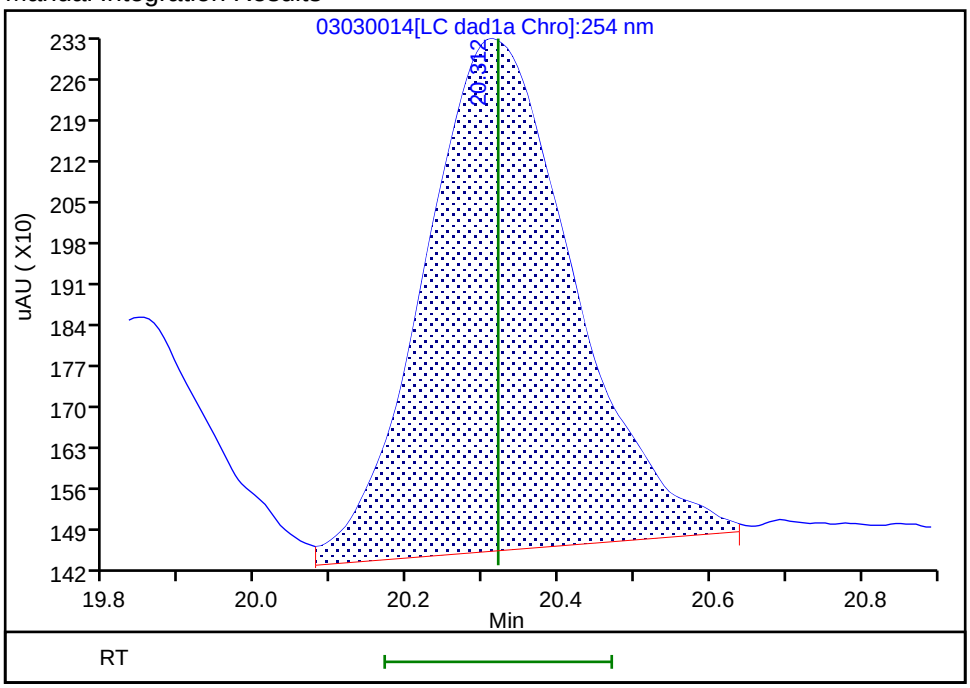
Processing Integration Results

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

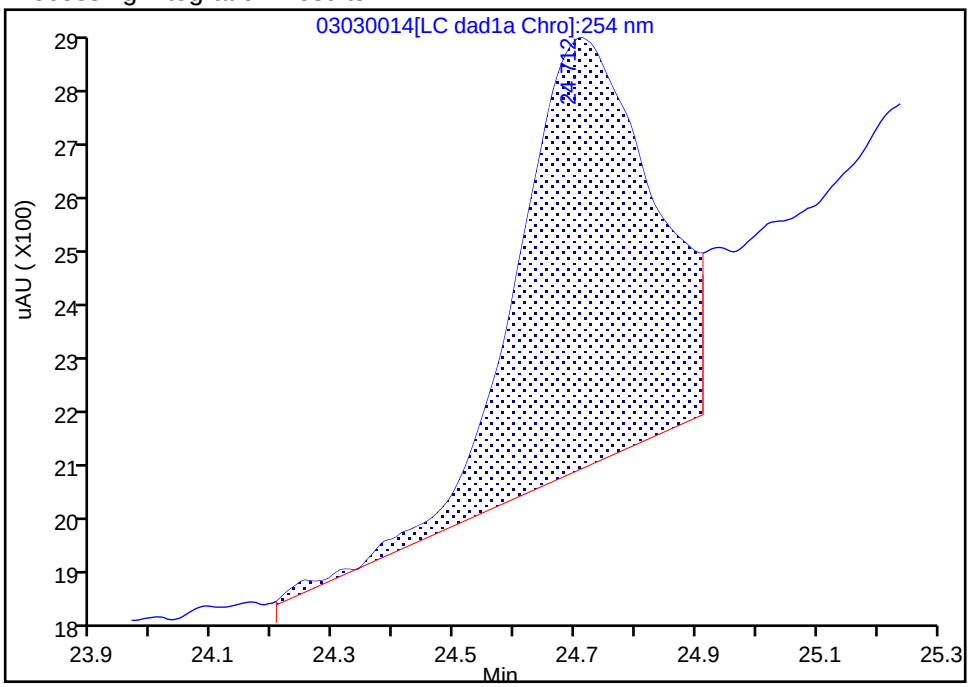
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\g2_luna\20200303-89749.b\03030014.d | | | | |
| Injection Date: | 03-Mar-2020 22:06:26 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 1 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 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

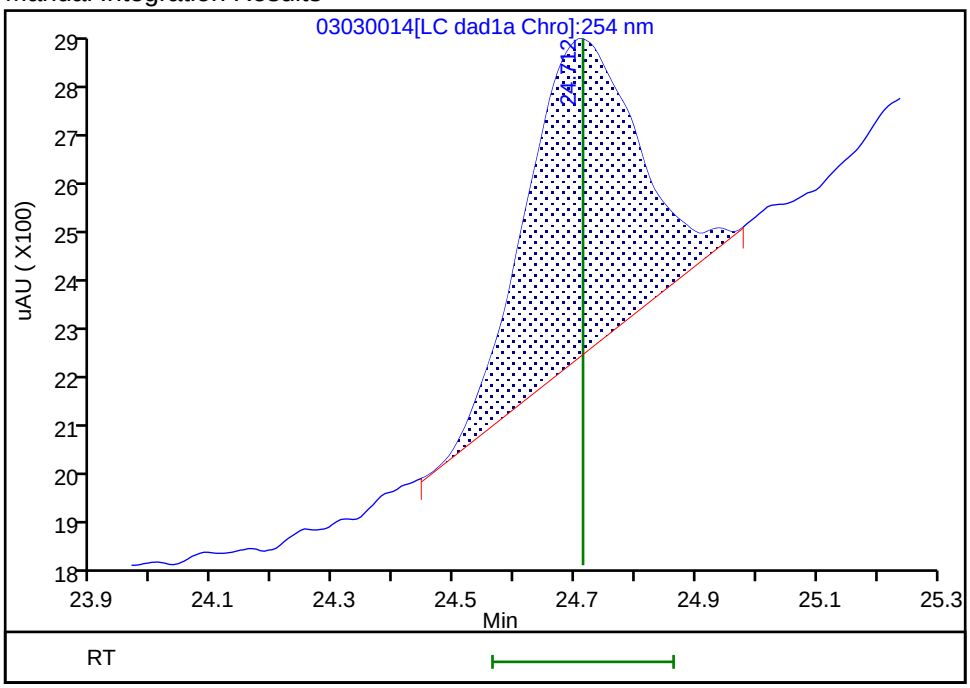
Processing Integration Results

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

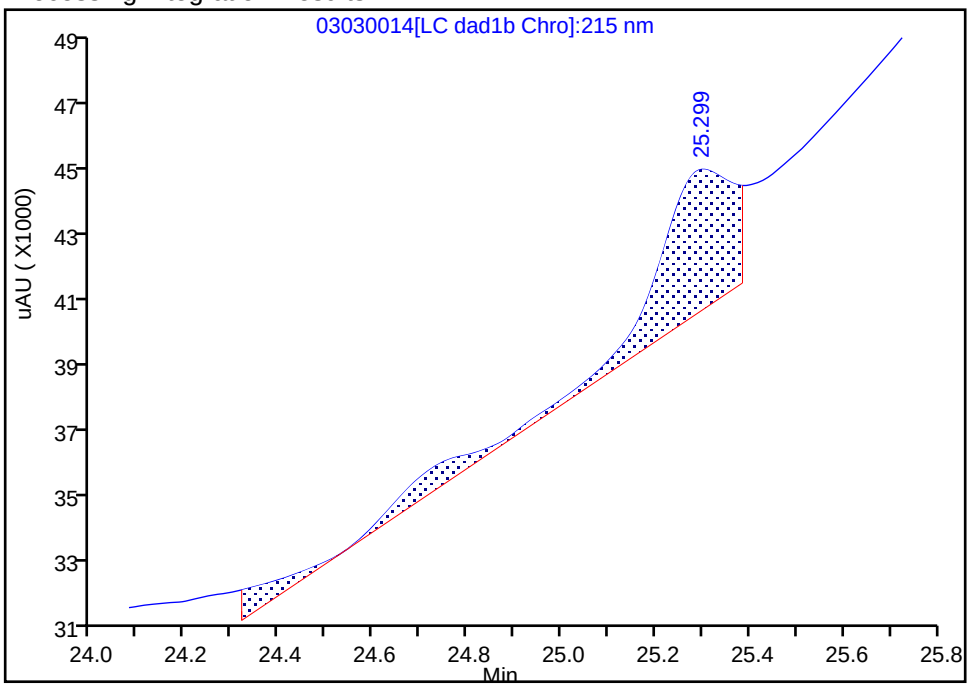
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\g2_luna\20200303-89749.b\03030014.d | | | | |
| Injection Date: | 03-Mar-2020 22:06:26 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC FULL 1 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 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

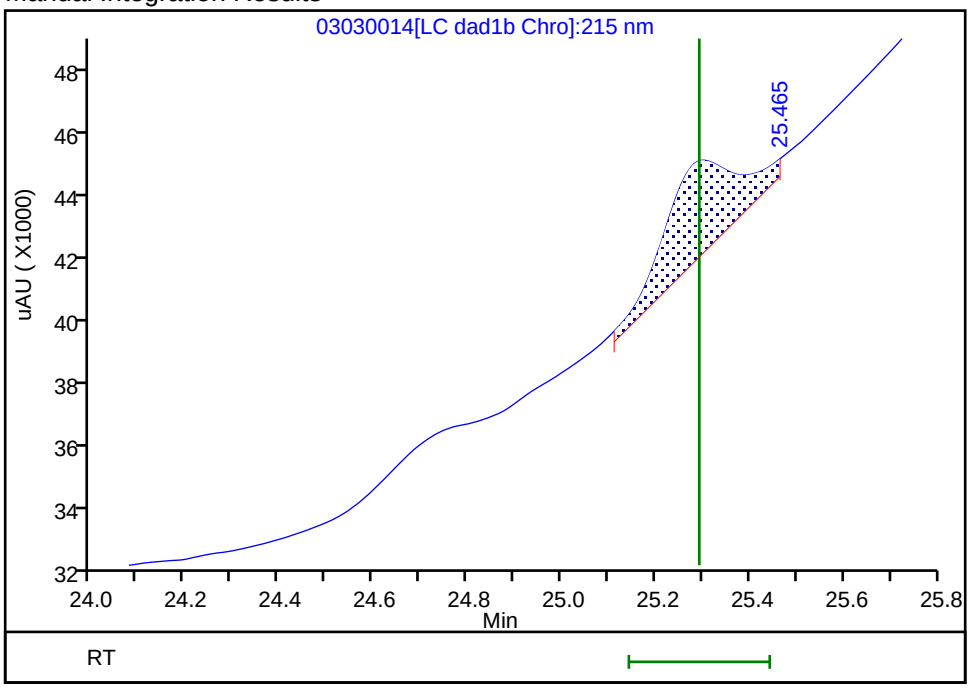
Processing Integration Results

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.: 280-134268-1 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.: 280-134268-1 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<br>LVL 5 | LVL 2<br>LVL 6 | LVL 3<br>LVL 7 | LVL 4<br>LVL 8 | | B | M1 | M2 | | | | | | | | |
| TNX | 470380<br>456214 | 448112<br>450390 | 453067<br>460609 | 435297<br>462553 | Ave | | 454577.672 | | | | 2.3 | | 20.0 | | | |
| DNX | 334765<br>329366 | 328172<br>324187 | 328432<br>331166 | 315828<br>330710 | Ave | | 327828.250 | | | | 1.7 | | 20.0 | | | |
| MNX | 309254<br>308231 | 311380<br>302759 | 303033<br>307918 | 296586<br>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.: 280-134268-1 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<br>LVL 6 | LVL 2<br>LVL 7 | LVL 3<br>LVL 8 | LVL 4 | LVL 5 | LVL 1<br>LVL 6 | LVL 2<br>LVL 7 | LVL 3<br>LVL 8 | LVL 4 | LVL 5 |
| TNX | Ave | 9417<br>315588 | 22428<br>461070 | 45352<br>1157540 | 108933 | 182668 | 0.0200<br>0.701 | 0.0501<br>1.00 | 0.100<br>2.50 | 0.250 | 0.400 |
| DNX | Ave | 6702<br>227158 | 16425<br>331497 | 32876<br>827603 | 79036 | 131878 | 0.0200<br>0.701 | 0.0501<br>1.00 | 0.100<br>2.50 | 0.250 | 0.400 |
| MNX | Ave | 7218<br>247324 | 18169<br>359340 | 35364<br>895572 | 86529 | 143882 | 0.0233<br>0.817 | 0.0584<br>1.17 | 0.117<br>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:

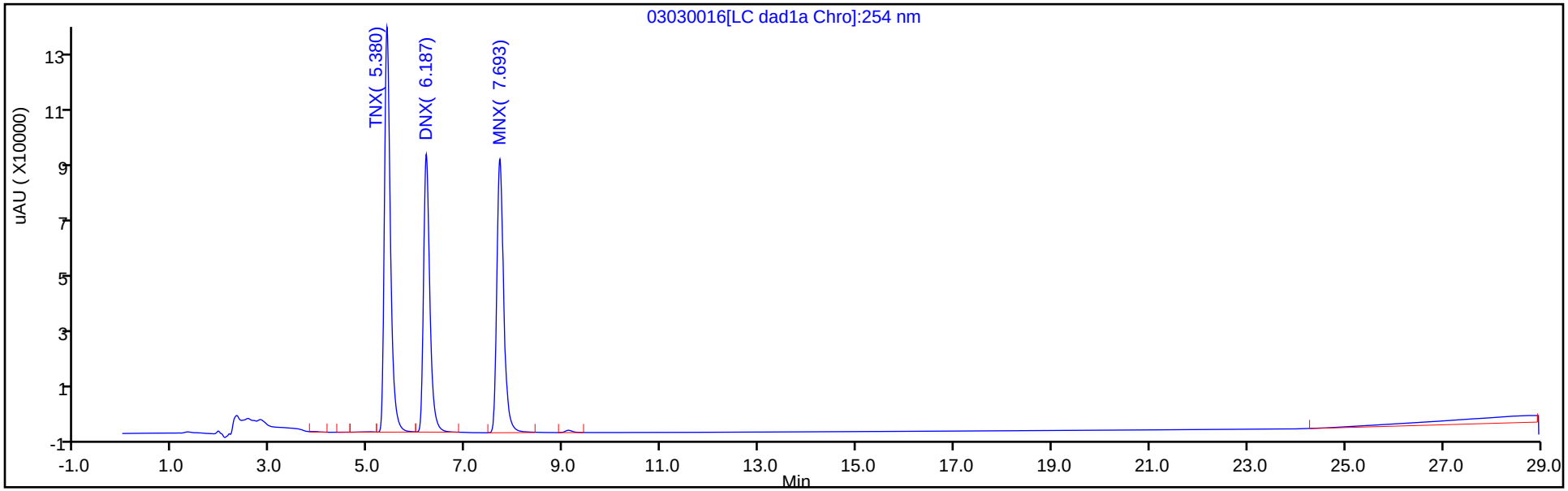
8330 DMT_00005 Amount Added: 125.00 Units: uL

Report Date: 05-Mar-2020 11:27:48 Chrom Revision: 2.3 19-Feb-2020 16:45:46

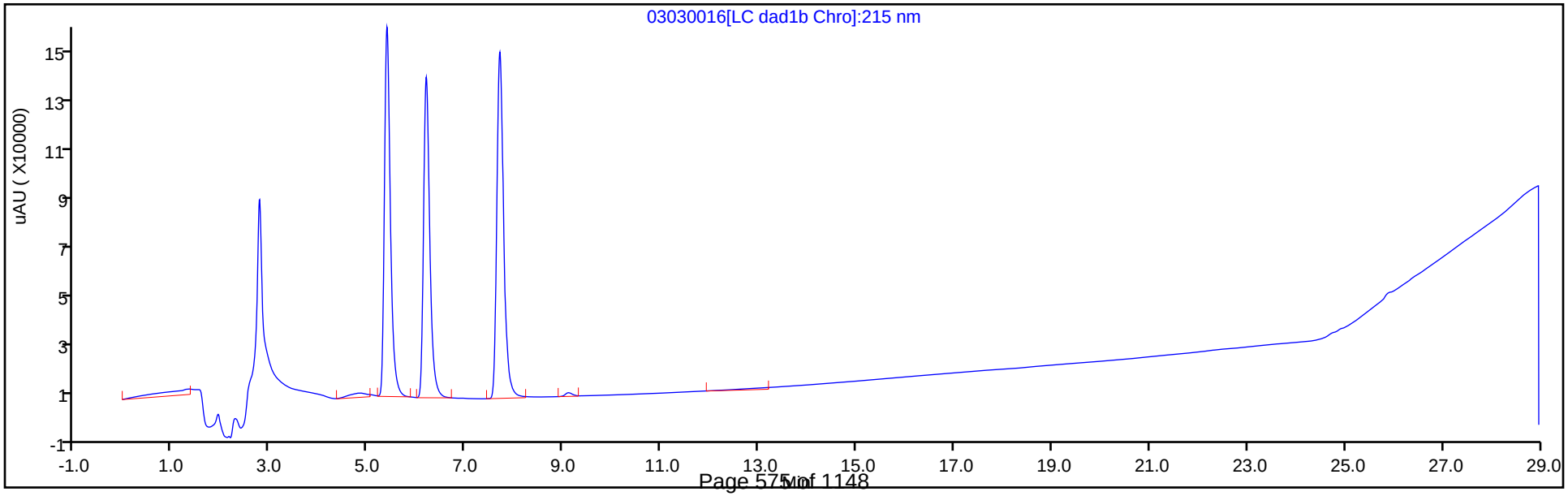
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| 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:

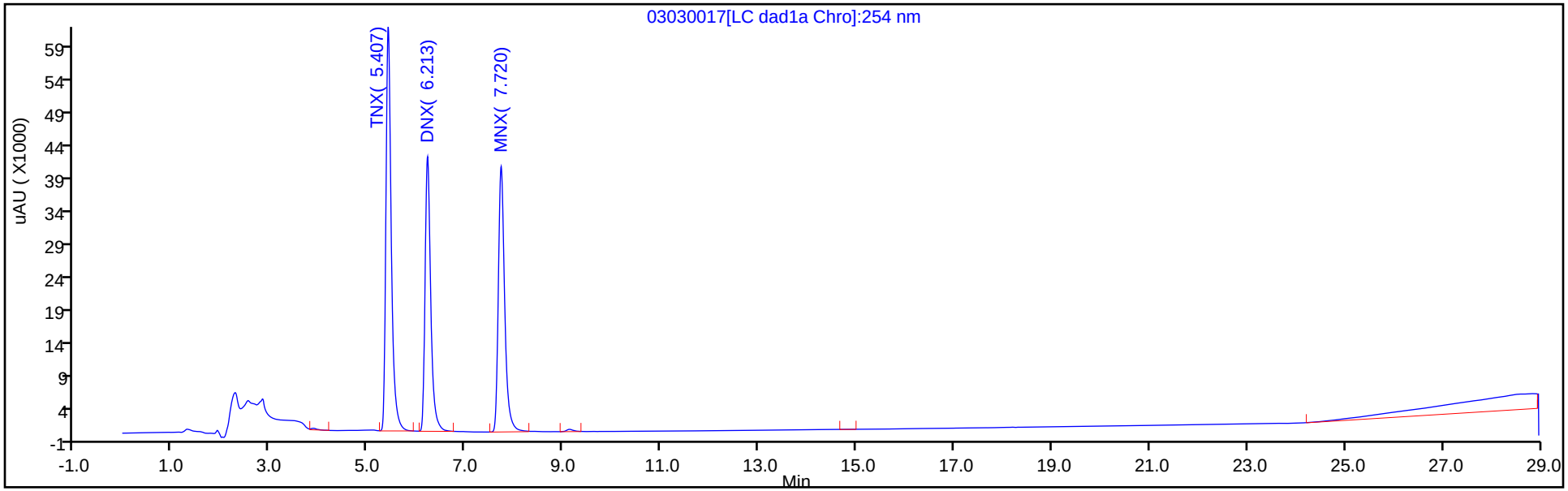
8330 DMT_00005 Amount Added: 50.00 Units: uL

Report Date: 05-Mar-2020 11:27:49 Chrom Revision: 2.3 19-Feb-2020 16:45:46

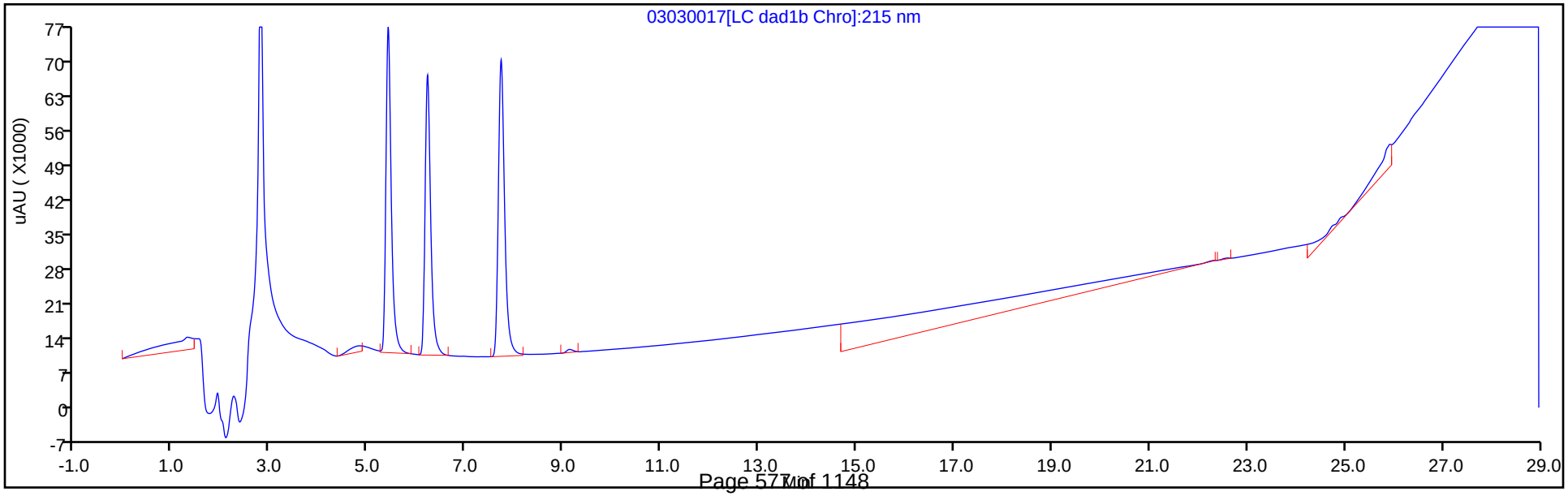
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| 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:

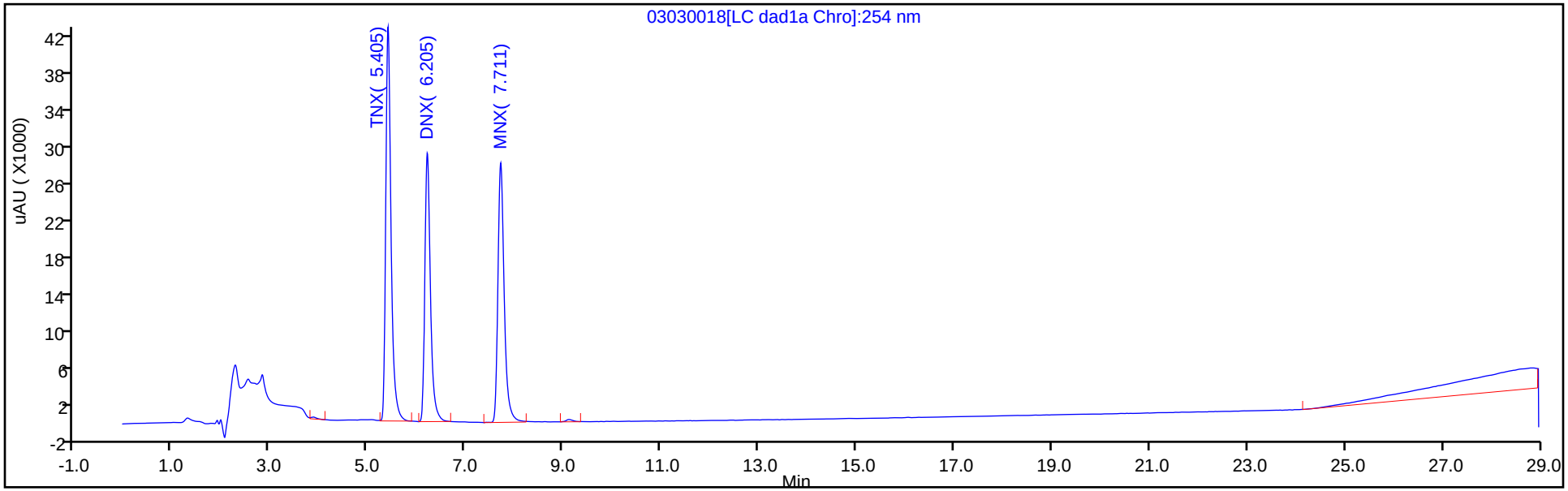
8330 DMT_00005 Amount Added: 35.00 Units: uL

Report Date: 05-Mar-2020 11:27:50 Chrom Revision: 2.3 19-Feb-2020 16:45:46

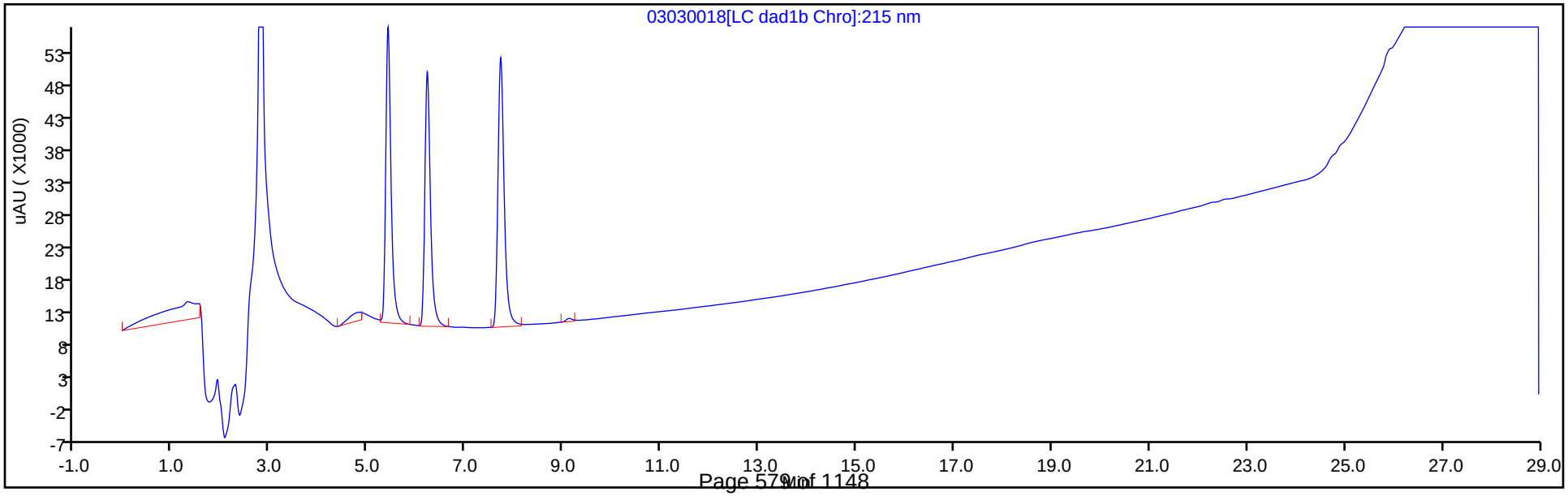
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| 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:

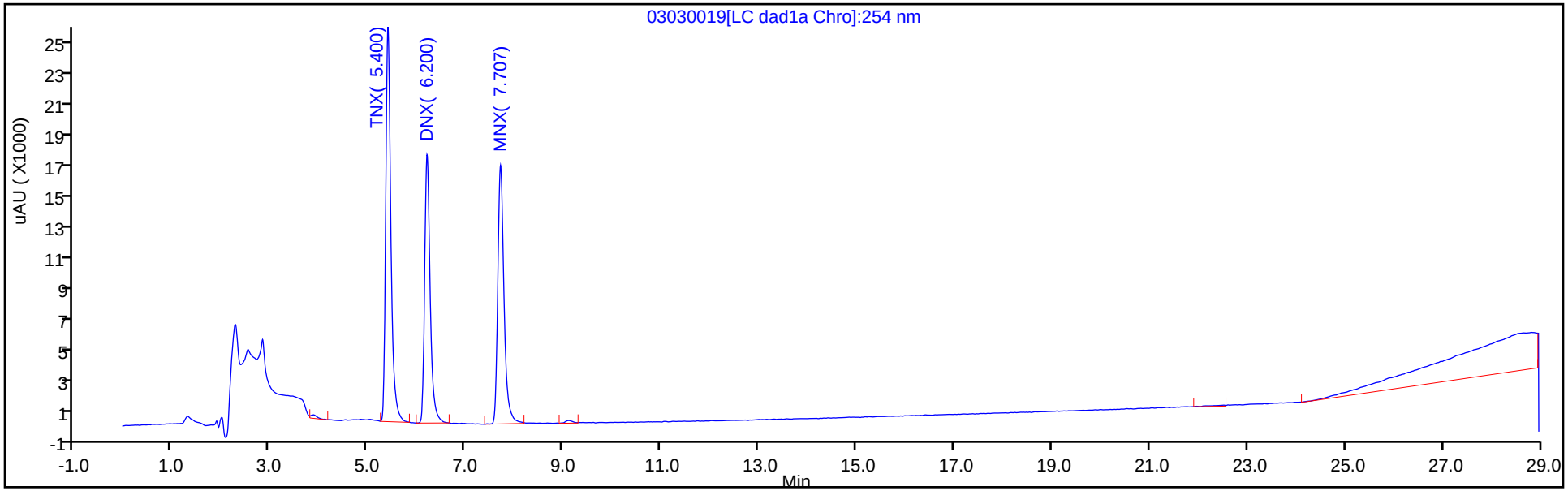
8330 DMT_00005 Amount Added: 20.00 Units: uL

Report Date: 05-Mar-2020 11:27:51 Chrom Revision: 2.3 19-Feb-2020 16:45:46

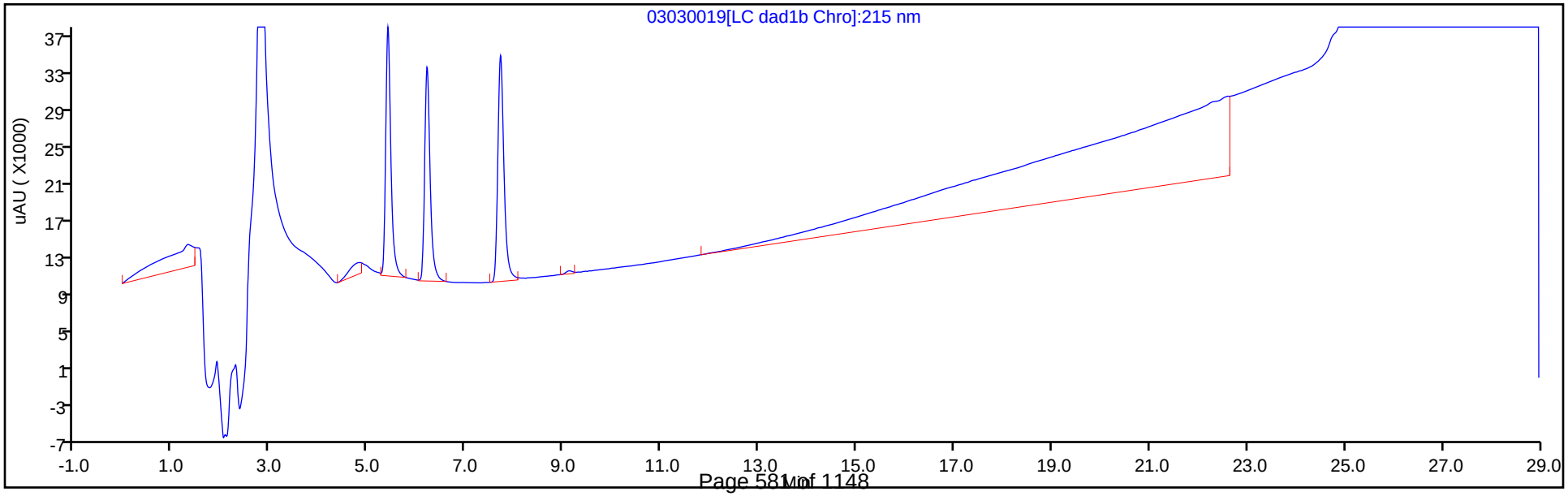
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| 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

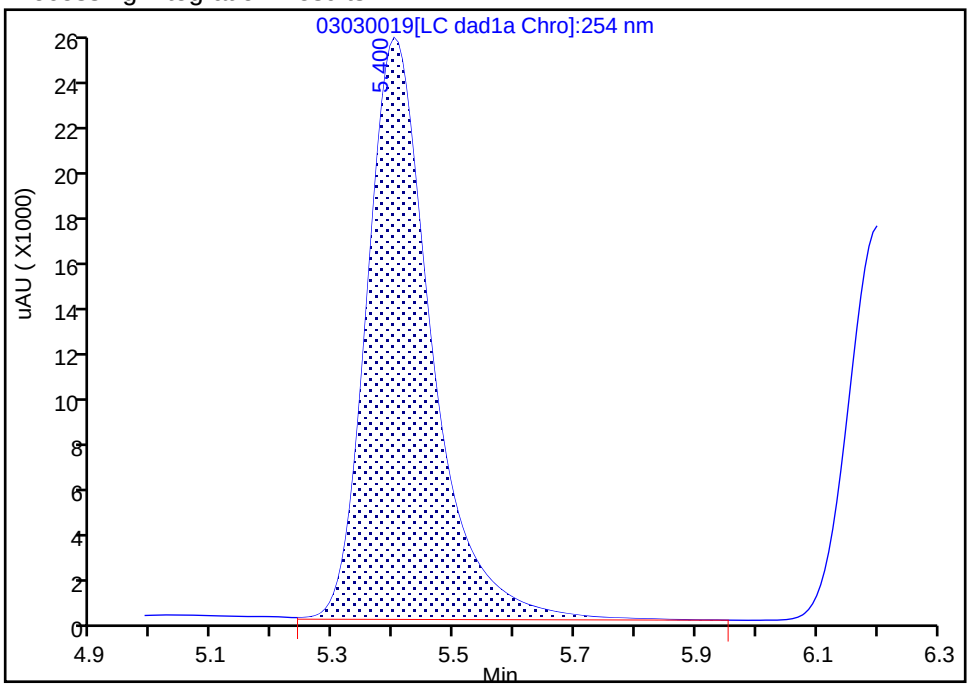
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\g2_luna\20200303-89749.b\03030019.d | | | | |
| Injection Date: | 04-Mar-2020 01:01:09 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC DMT 5 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 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

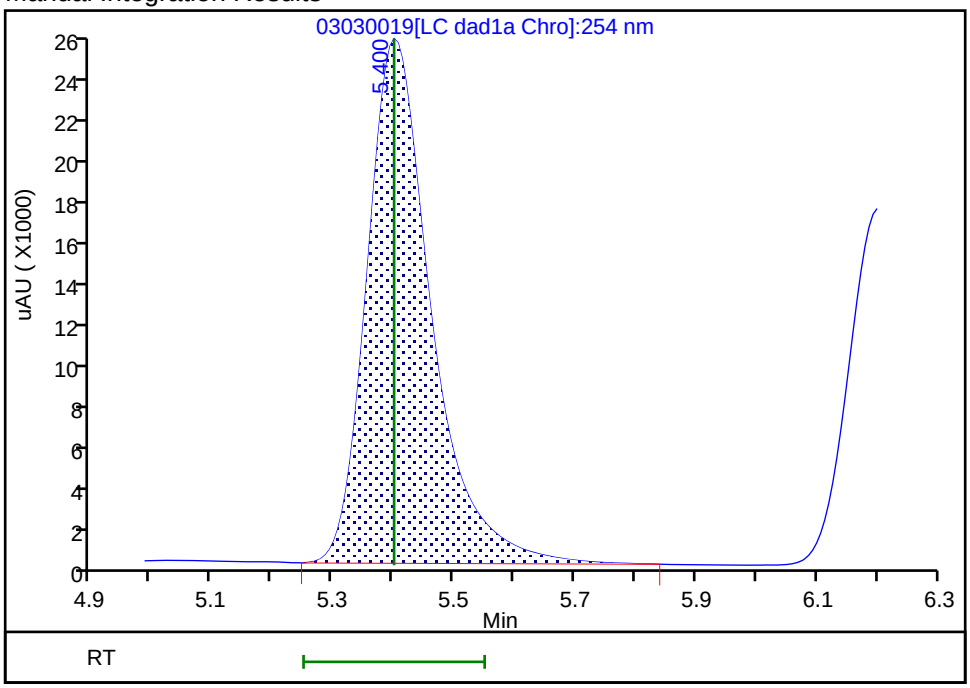
Processing Integration Results

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:

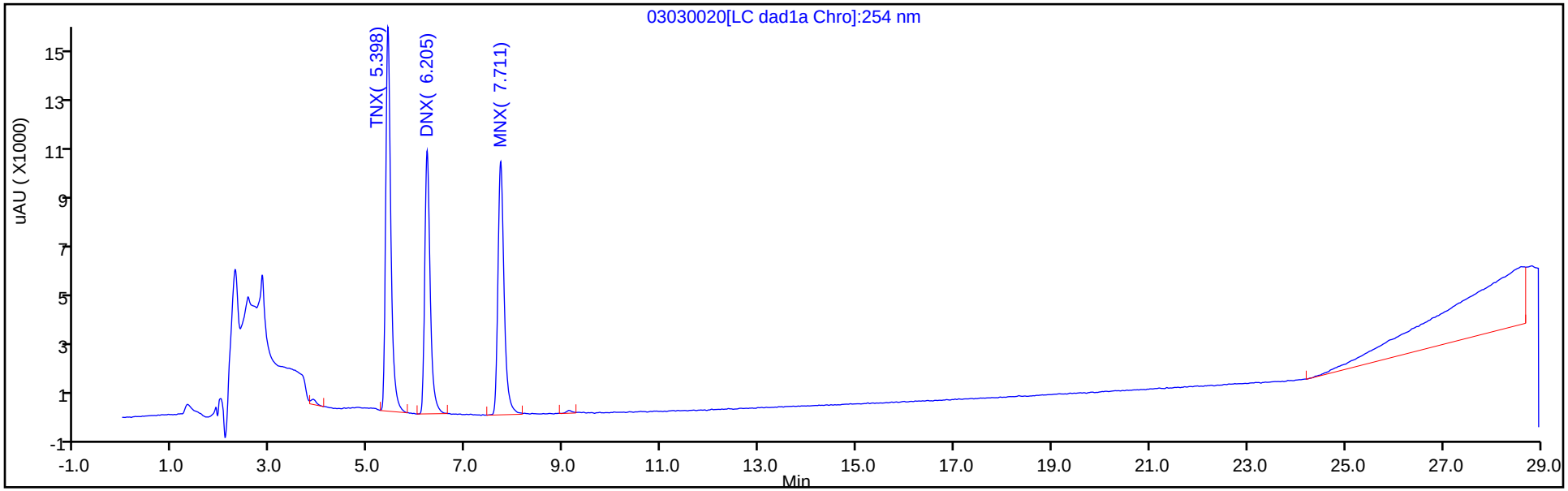
8330 DMT_00005 Amount Added: 12.50 Units: uL

Report Date: 05-Mar-2020 11:27:52 Chrom Revision: 2.3 19-Feb-2020 16:45:46

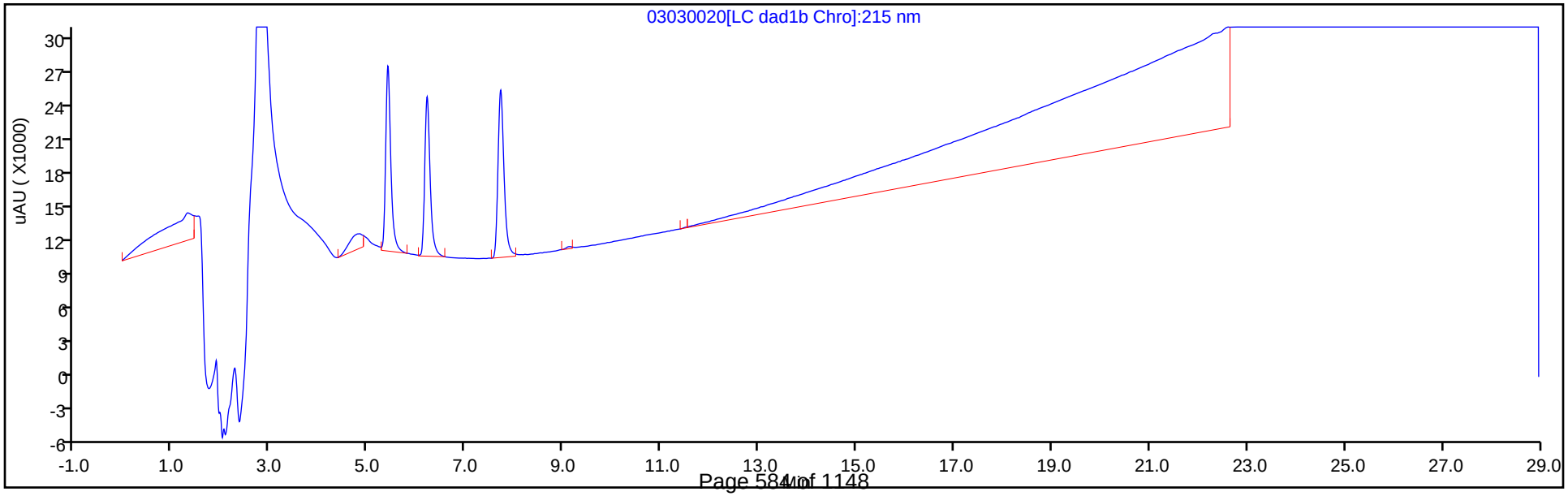
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| 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

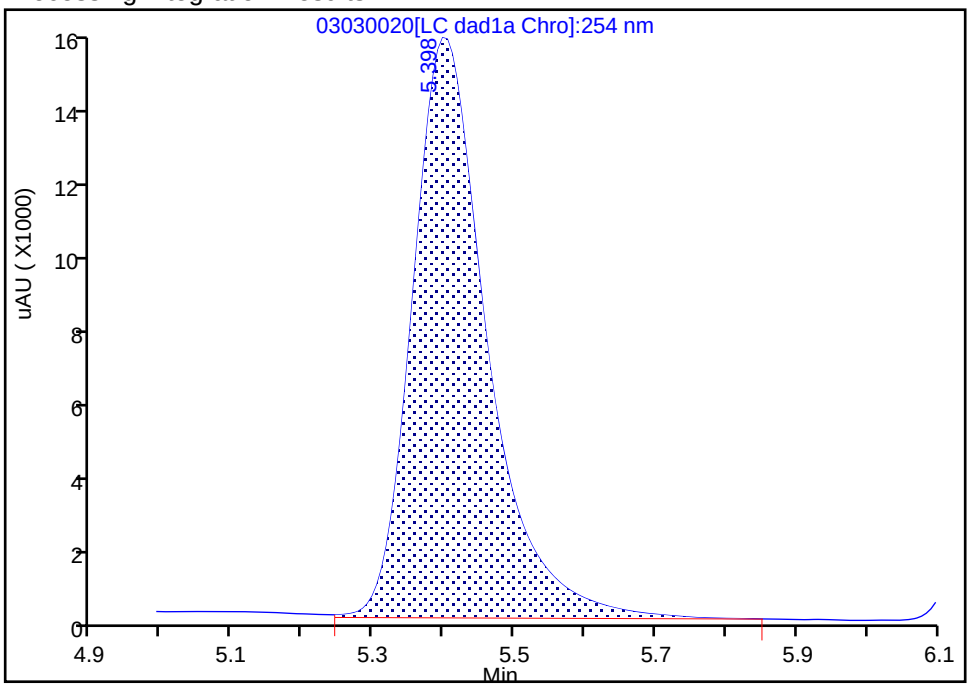
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\g2_luna\20200303-89749.b\03030020.d | | | | |
| Injection Date: | 04-Mar-2020 01:36:10 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC DMT 4 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 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

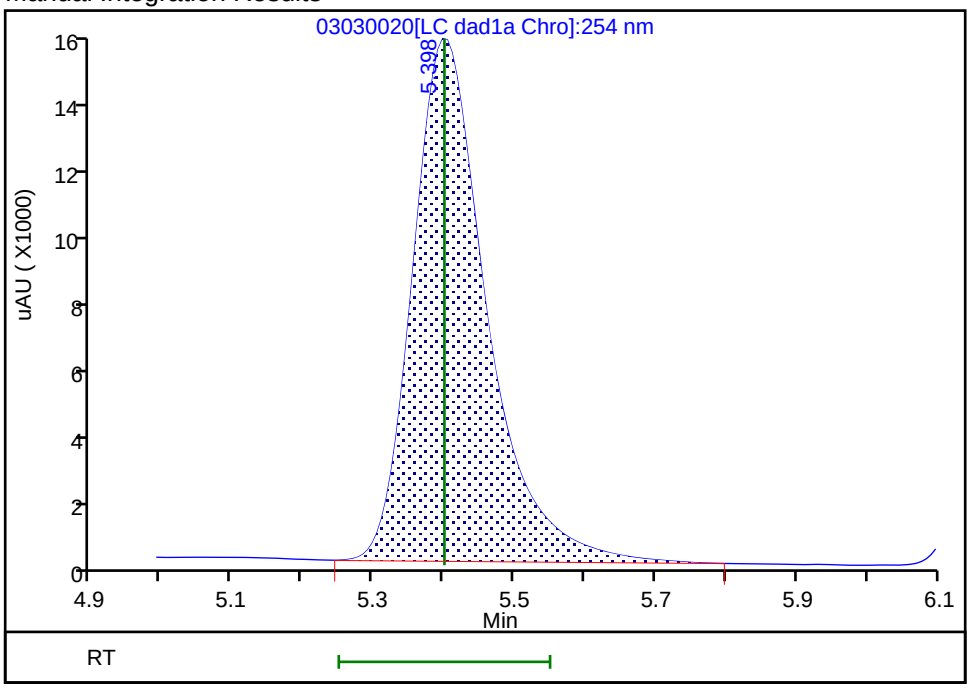
Processing Integration Results

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:

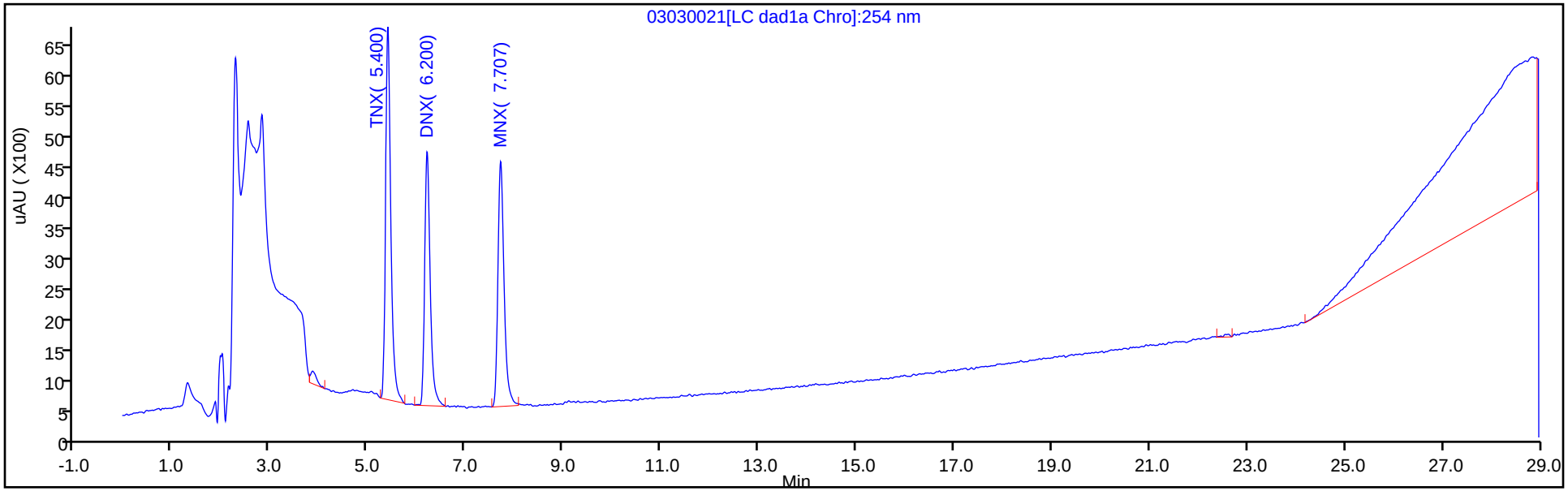
8330 DMT_00005 Amount Added: 5.00 Units: uL

Report Date: 05-Mar-2020 11:27:53 Chrom Revision: 2.3 19-Feb-2020 16:45:46

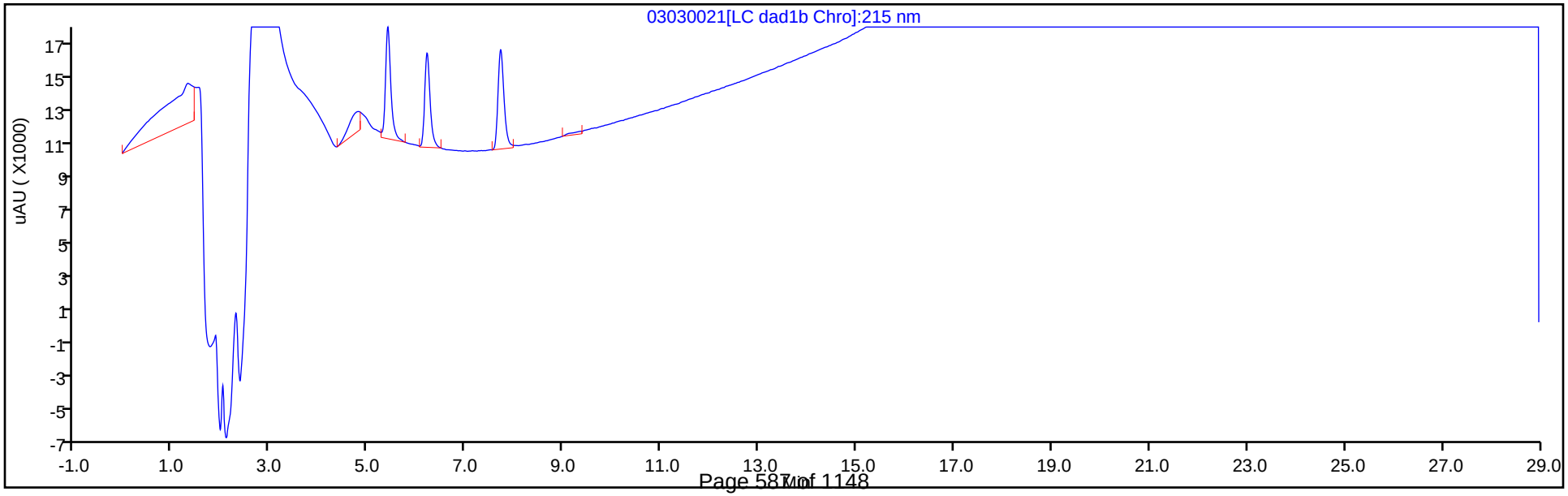
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| 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

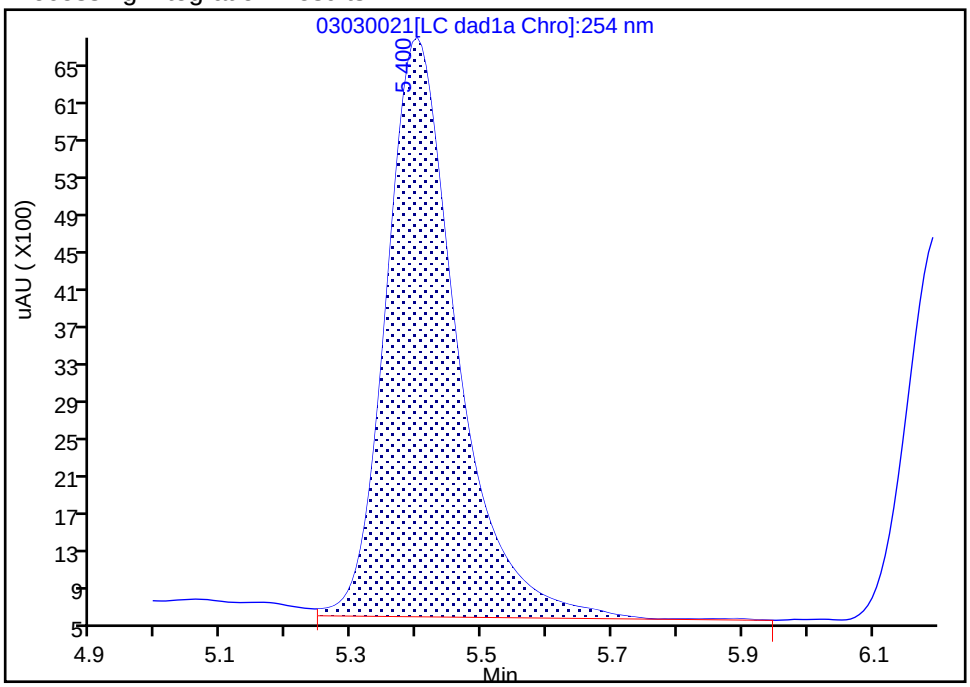
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\g2_luna\20200303-89749.b\03030021.d | | | | |
| Injection Date: | 04-Mar-2020 02:11:08 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC DMT 3 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 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

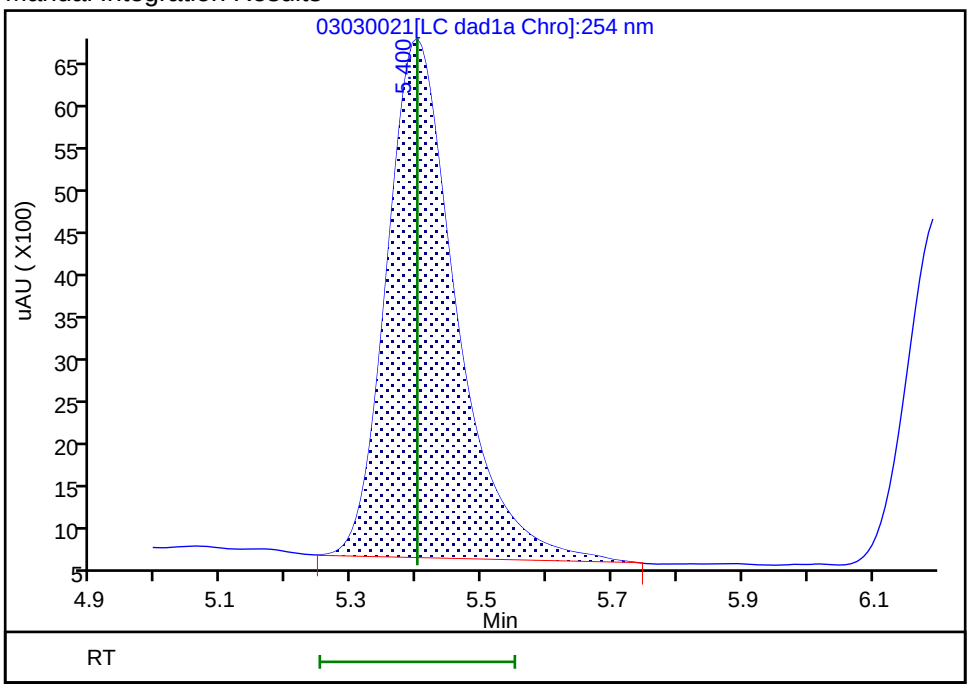
Processing Integration Results

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:

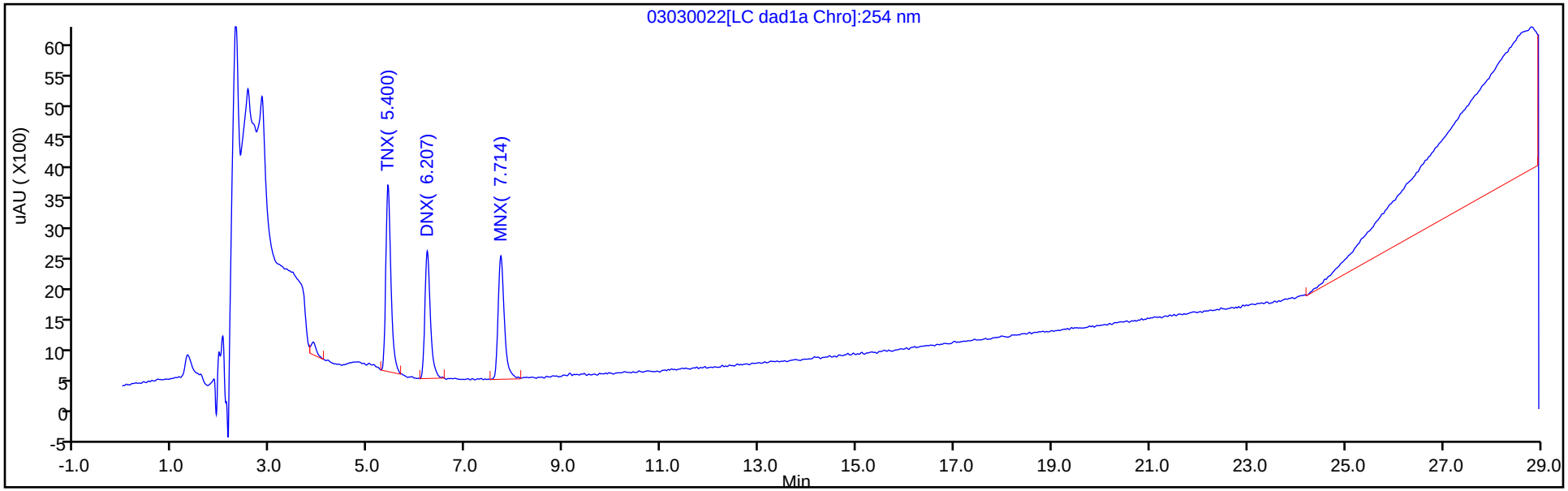
8330 DMT_00005 Amount Added: 2.50 Units: uL

Report Date: 05-Mar-2020 11:27:54 Chrom Revision: 2.3 19-Feb-2020 16:45:46

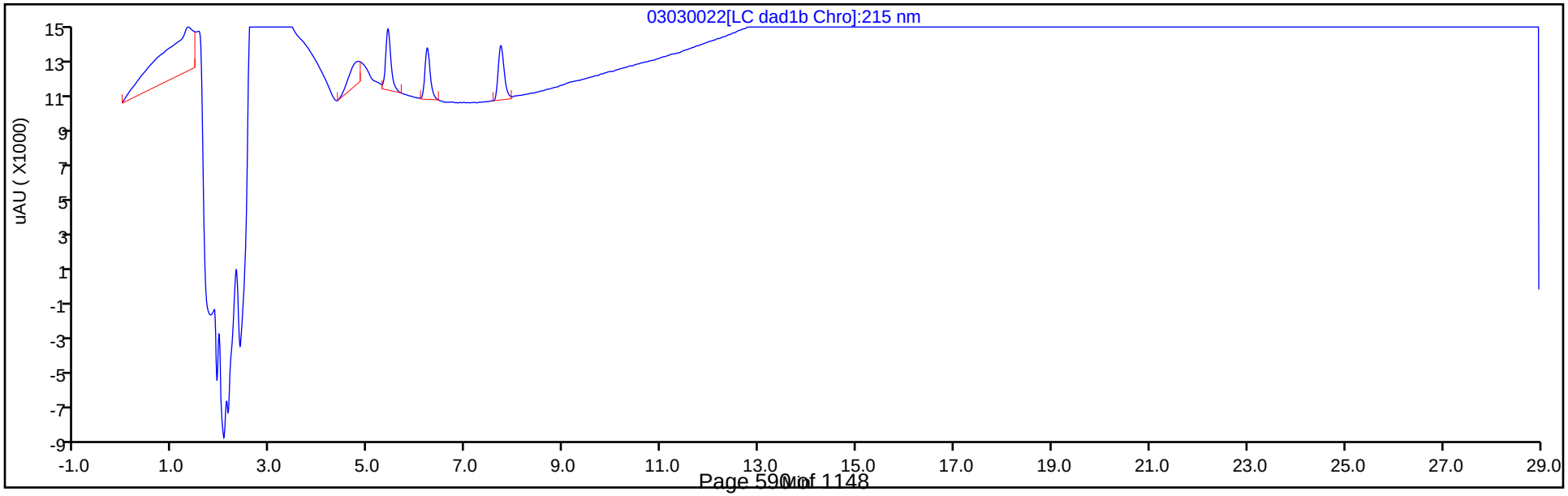
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| 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

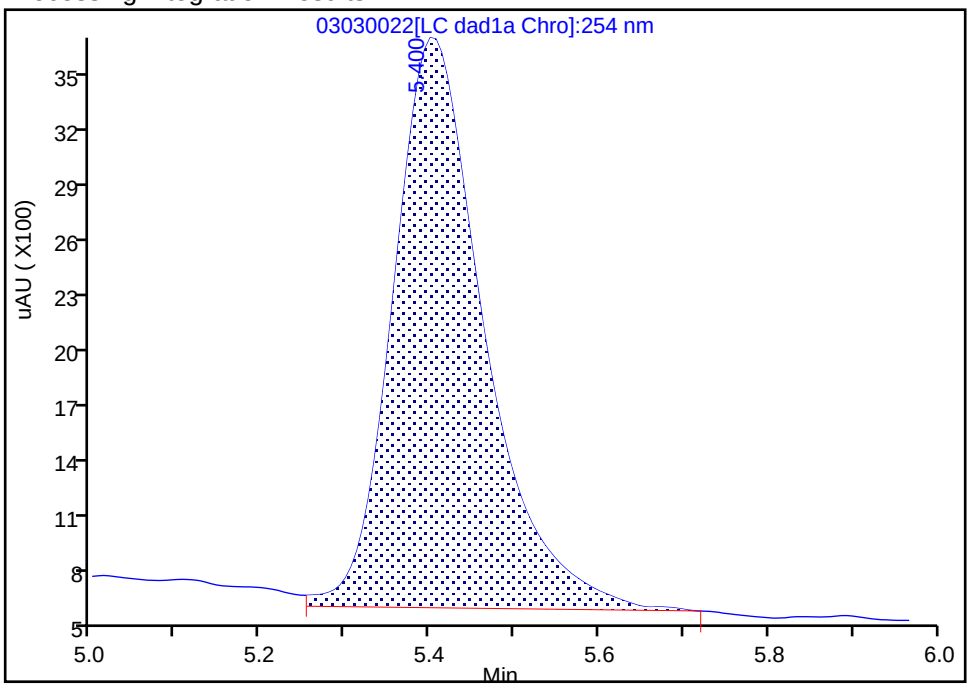
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\g2_luna\20200303-89749.b\03030022.d | | | | |
| Injection Date: | 04-Mar-2020 02:46:06 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC DMT 2 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 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

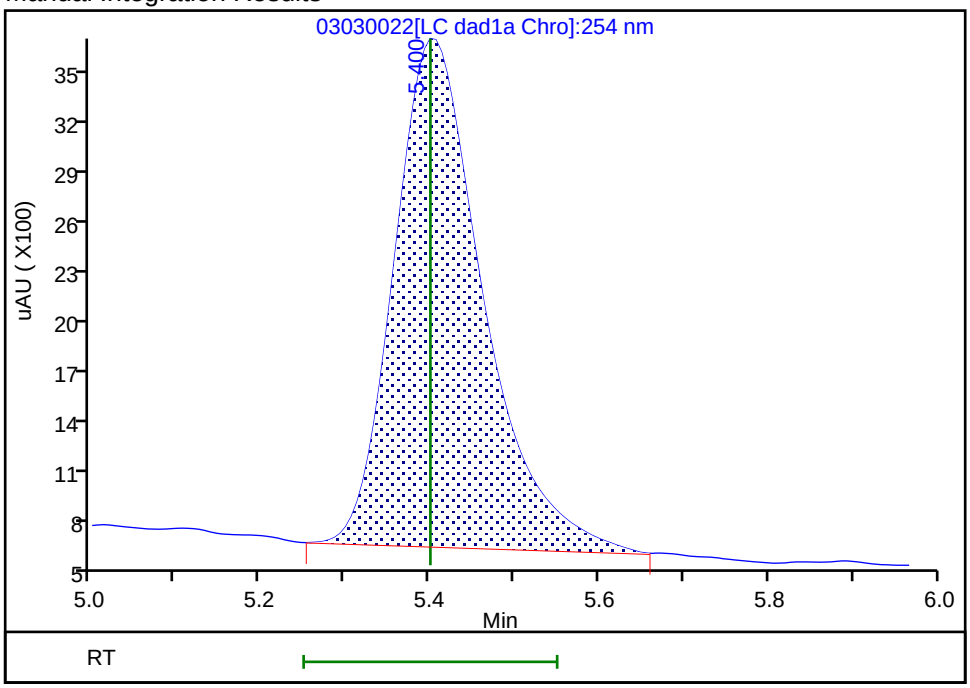
Processing Integration Results

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:

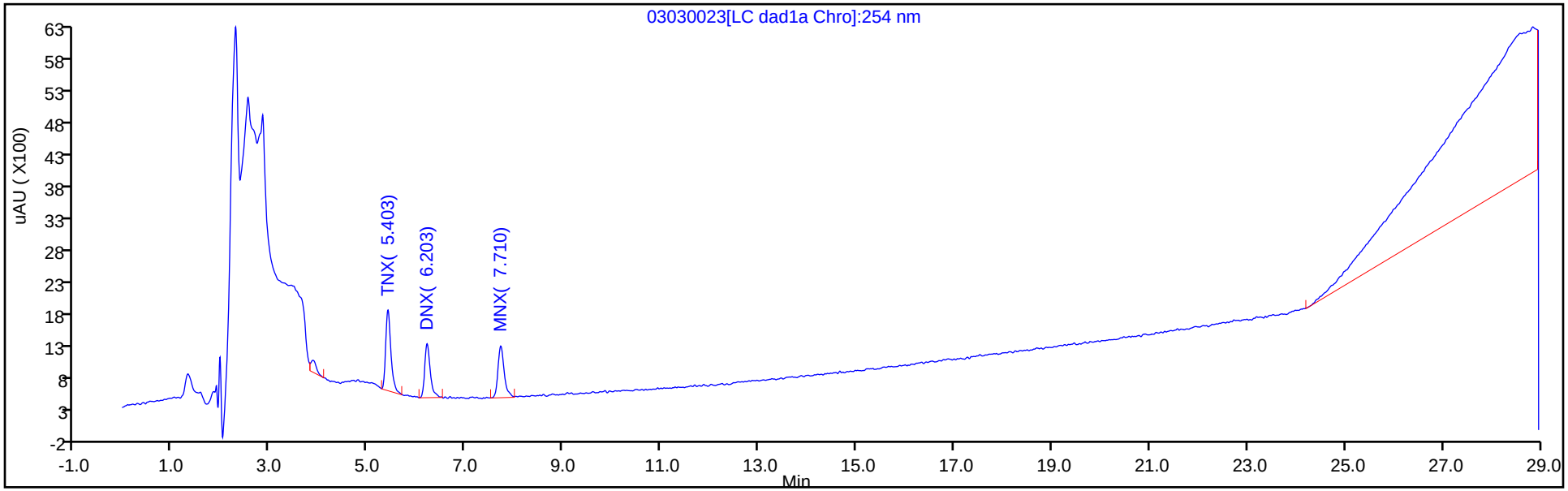
8330 DMT_00005 Amount Added: 1.00 Units: uL

Report Date: 05-Mar-2020 11:27:55 Chrom Revision: 2.3 19-Feb-2020 16:45:46

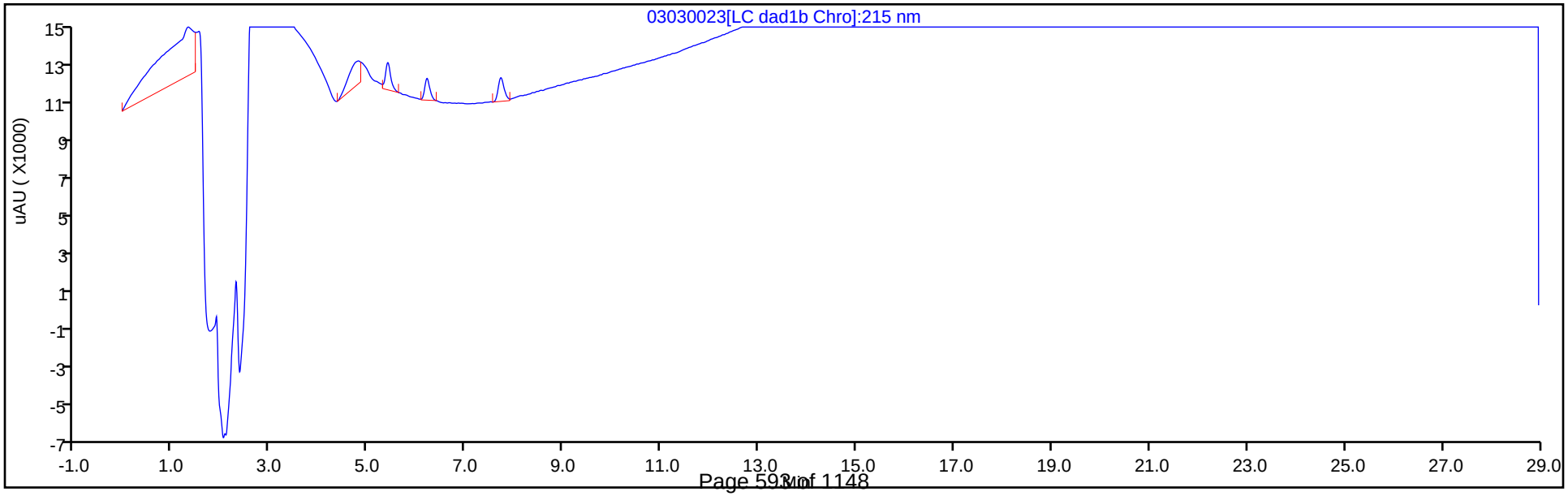
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| 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

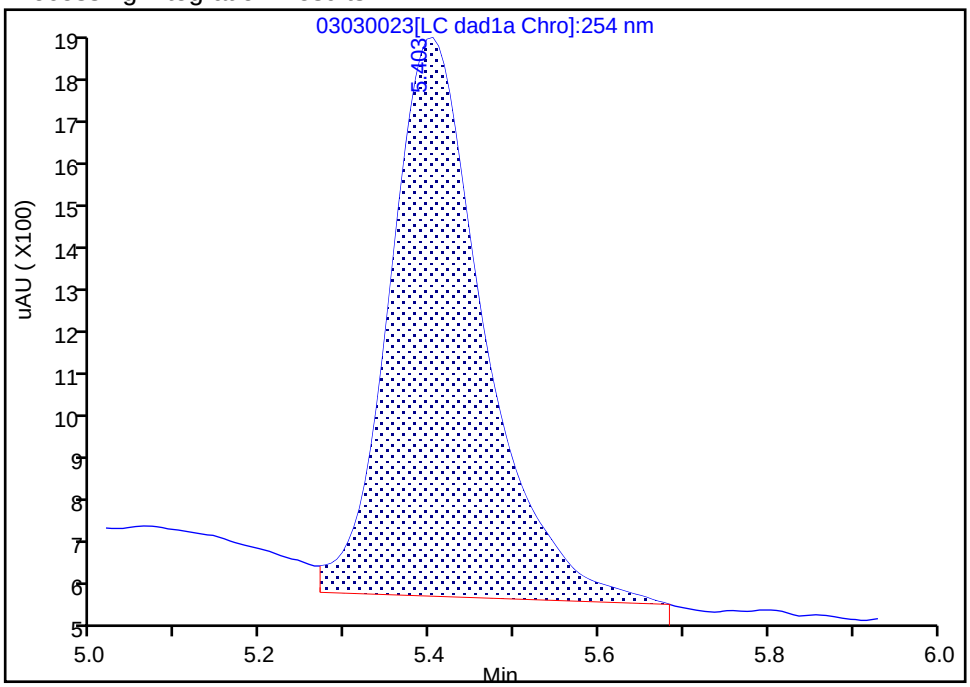
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\g2_luna\20200303-89749.b\03030023.d | | | | |
| Injection Date: | 04-Mar-2020 03:21:00 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | IC DMT 1 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 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

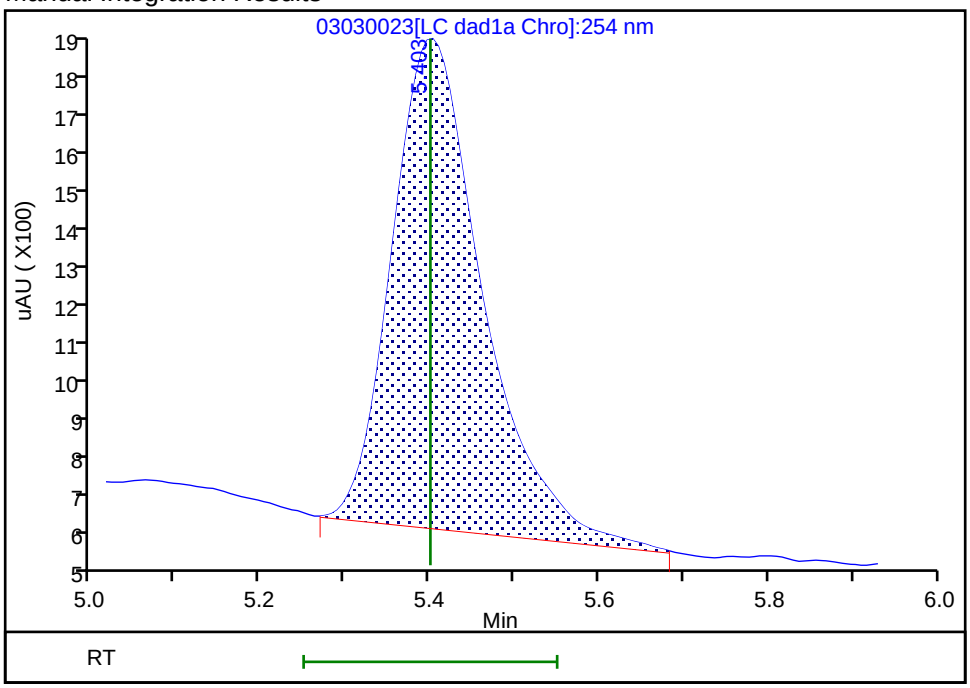
Processing Integration Results

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.: 280-134268-1 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.: 280-134268-1 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<br>LVL 5 | LVL 2<br>LVL 6 | LVL 3<br>LVL 7 | LVL 4<br>LVL 8 | | B | M1 | M2 | | | | | | | | |
| HMX | 76000<br>92195 | 84000<br>92901 | 90690<br>91886 | 91556<br>94192 | Ave | | 89177.5536 | | | | 6.9 | | 20.0 | | | |
| RDX | 135800<br>113668 | 121280<br>113474 | 118060<br>112538 | 114104<br>114027 | Ave | | 117868.823 | | | | 6.6 | | 20.0 | | | |
| Picric acid | 85600<br>87078 | 86880<br>87800 | 86250<br>87686 | 86696<br>89985 | Ave | | 87246.8375 | | | | 1.5 | | 20.0 | | | |
| 1,3,5-Trinitrobenzene | 241317<br>243301 | 243114<br>244799 | 242255<br>243367 | 242443<br>247077 | Ave | | 243459.240 | | | | 0.7 | | 20.0 | | | |
| 1,3-Dinitrobenzene | 317016<br>326305 | 319760<br>327946 | 324012<br>325028 | 322762<br>331181 | Ave | | 324251.264 | | | | 1.4 | | 20.0 | | | |
| Nitrobenzene | 213496<br>213700 | 206972<br>215276 | 212400<br>212102 | 209502<br>218063 | Ave | | 212688.862 | | | | 1.6 | | 20.0 | | | |
| Tetryl | 201248<br>192630 | 193054<br>193253 | 192365<br>192871 | 189457<br>196083 | Ave | | 193870.110 | | | | 1.8 | | 20.0 | | | |
| Nitroglycerin | 65725<br>73511 | 68592<br>73876 | 71710<br>73303 | 73524<br>74137 | Ave | | 71797.3561 | | | | 4.2 | | 20.0 | | | |
| 2,4,6-Trinitrotoluene | 221713<br>220022 | 223725<br>219599 | 219920<br>221109 | 216454<br>224745 | Ave | | 220910.986 | | | | 1.2 | | 20.0 | | | |
| 4-Amino-2,6-dinitrotoluene | 172827<br>171731 | 179960<br>174551 | 170849<br>170344 | 174965<br>172519 | Ave | | 173468.308 | | | | 1.8 | | 20.0 | | | |
| 2-Amino-4,6-dinitrotoluene | 221713<br>216511 | 215040<br>216363 | 215538<br>218189 | 214008<br>222947 | Ave | | 217538.754 | | | | 1.5 | | 20.0 | | | |
| 2,6-Dinitrotoluene | 159512<br>159933 | 160657<br>161471 | 158845<br>155997 | 160088<br>158732 | Ave | | 159404.313 | | | | 1.0 | | 20.0 | | | |
| 2,4-Dinitrotoluene | 316285<br>321230 | 320458<br>323479 | 317131<br>322066 | 320327<br>328339 | Ave | | 321164.424 | | | | 1.2 | | 20.0 | | | |
| 2-Nitrotoluene | 165800<br>137323 | 156020<br>137486 | 142550<br>135008 | 137560<br>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.: 280-134268-1 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<br>LVL 5 | LVL 2<br>LVL 6 | LVL 3<br>LVL 7 | LVL 4<br>LVL 8 | | B | M1 | M2 | | | | | | | | |
| 4-Nitrotoluene | 127495<br>118346 | 123273<br>118529 | 119112<br>116856 | 118255<br>120524 | Ave | | 120298.779 | | | | 2.9 | | 20.0 | | | |
| 3-Nitrotoluene | 160639<br>152110 | 161319<br>152488 | 152188<br>149787 | 150997<br>154421 | Ave | | 154243.594 | | | | 2.8 | | 20.0 | | | |
| PETN | 66740<br>82493 | 74332<br>83187 | 80671<br>82517 | 81690<br>84015 | Ave | | 79455.6132 | | | | 7.5 | | 20.0 | | | |
| 1,2-Dinitrobenzene | 149050<br>144823 | 148380<br>145561 | 145890<br>144385 | 144548<br>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.: 280-134268-1 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<br>LVL 6 | LVL 2<br>LVL 7 | LVL 3<br>LVL 8 | LVL 4 | LVL 5 | LVL 1<br>LVL 6 | LVL 2<br>LVL 7 | LVL 3<br>LVL 8 | LVL 4 | LVL 5 |
| HMX | Ave | 1520<br>65031 | 4200<br>91886 | 9069<br>235480 | 22889 | 36878 | 0.0200<br>0.700 | 0.0500<br>1.00 | 0.100<br>2.50 | 0.250 | 0.400 |
| RDX | Ave | 2716<br>79432 | 6064<br>112538 | 11806<br>285067 | 28526 | 45467 | 0.0200<br>0.700 | 0.0500<br>1.00 | 0.100<br>2.50 | 0.250 | 0.400 |
| Picric acid | Ave | 1712<br>61460 | 4344<br>87686 | 8625<br>224963 | 21674 | 34831 | 0.0200<br>0.700 | 0.0500<br>1.00 | 0.100<br>2.50 | 0.250 | 0.400 |
| 1,3,5-Trinitrobenzene | Ave | 4836<br>171702 | 12180<br>243854 | 24274<br>618928 | 60732 | 97515 | 0.0200<br>0.701 | 0.0501<br>1.00 | 0.100<br>2.51 | 0.251 | 0.401 |
| 1,3-Dinitrobenzene | Ave | 6353<br>230021 | 16020<br>325678 | 32466<br>829608 | 80852 | 130783 | 0.0200<br>0.701 | 0.0501<br>1.00 | 0.100<br>2.51 | 0.251 | 0.401 |
| Nitrobenzene | Ave | 4287<br>151296 | 10390<br>212950 | 21325<br>547337 | 52585 | 85822 | 0.0201<br>0.703 | 0.0502<br>1.00 | 0.100<br>2.51 | 0.251 | 0.402 |
| Tetryl | Ave | 4033<br>135548 | 9672<br>193257 | 19275<br>491187 | 47459 | 77206 | 0.0200<br>0.701 | 0.0501<br>1.00 | 0.100<br>2.51 | 0.251 | 0.401 |
| Nitroglycerin | Ave | 13145<br>517135 | 34296<br>733033 | 71710<br>1853418 | 183811 | 294044 | 0.200<br>7.00 | 0.500<br>10.0 | 1.00<br>25.0 | 2.50 | 4.00 |
| 2,4,6-Trinitrotoluene | Ave | 4452<br>154334 | 11231<br>221993 | 22080<br>564111 | 54330 | 88361 | 0.0201<br>0.703 | 0.0502<br>1.00 | 0.100<br>2.51 | 0.251 | 0.402 |
| 4-Amino-2,6-dinitrotoluene | Ave | 3460<br>122308 | 9007<br>170514 | 17102<br>431730 | 43785 | 68761 | 0.0200<br>0.701 | 0.0501<br>1.00 | 0.100<br>2.50 | 0.250 | 0.400 |
| 2-Amino-4,6-dinitrotoluene | Ave | 4452<br>152060 | 10795<br>219062 | 21640<br>559598 | 53716 | 86951 | 0.0201<br>0.703 | 0.0502<br>1.00 | 0.100<br>2.51 | 0.251 | 0.402 |
| 2,6-Dinitrotoluene | Ave | 3203<br>113482 | 8065<br>156621 | 15948<br>398417 | 40182 | 64229 | 0.0201<br>0.703 | 0.0502<br>1.00 | 0.100<br>2.51 | 0.251 | 0.402 |
| 2,4-Dinitrotoluene | Ave | 6351<br>227341 | 16087<br>323354 | 31840<br>824132 | 80402 | 129006 | 0.0201<br>0.703 | 0.0502<br>1.00 | 0.100<br>2.51 | 0.251 | 0.402 |
| 2-Nitrotoluene | Ave | 3316<br>96240 | 7801<br>135008 | 14255<br>347403 | 34390 | 54929 | 0.0200<br>0.700 | 0.0500<br>1.00 | 0.100<br>2.50 | 0.250 | 0.400 |
| 4-Nitrotoluene | Ave | 2555<br>83136 | 6176<br>117090 | 11935<br>301912 | 29623 | 47433 | 0.0200<br>0.701 | 0.0501<br>1.00 | 0.100<br>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.: 280-134268-1 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<br>LVL 6 | LVL 2<br>LVL 7 | LVL 3<br>LVL 8 | LVL 4 | LVL 5 | LVL 1<br>LVL 6 | LVL 2<br>LVL 7 | LVL 3<br>LVL 8 | LVL 4 | LVL 5 |
| 3-Nitrotoluene | Ave | 3216<br>106848 | 8074<br>149937 | 15234<br>386438 | 37787 | 60905 | 0.0200<br>0.701 | 0.0501<br>1.00 | 0.100<br>2.50 | 0.250 | 0.400 |
| PETN | Ave | 13348<br>582311 | 37166<br>825168 | 80671<br>2100383 | 204225 | 329970 | 0.200<br>7.00 | 0.500<br>10.0 | 1.00<br>25.0 | 2.50 | 4.00 |
| 1,2-Dinitrobenzene | Ave | 2981<br>101893 | 7419<br>144385 | 14589<br>367708 | 36137 | 57929 | 0.0200<br>0.700 | 0.0500<br>1.00 | 0.100<br>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:

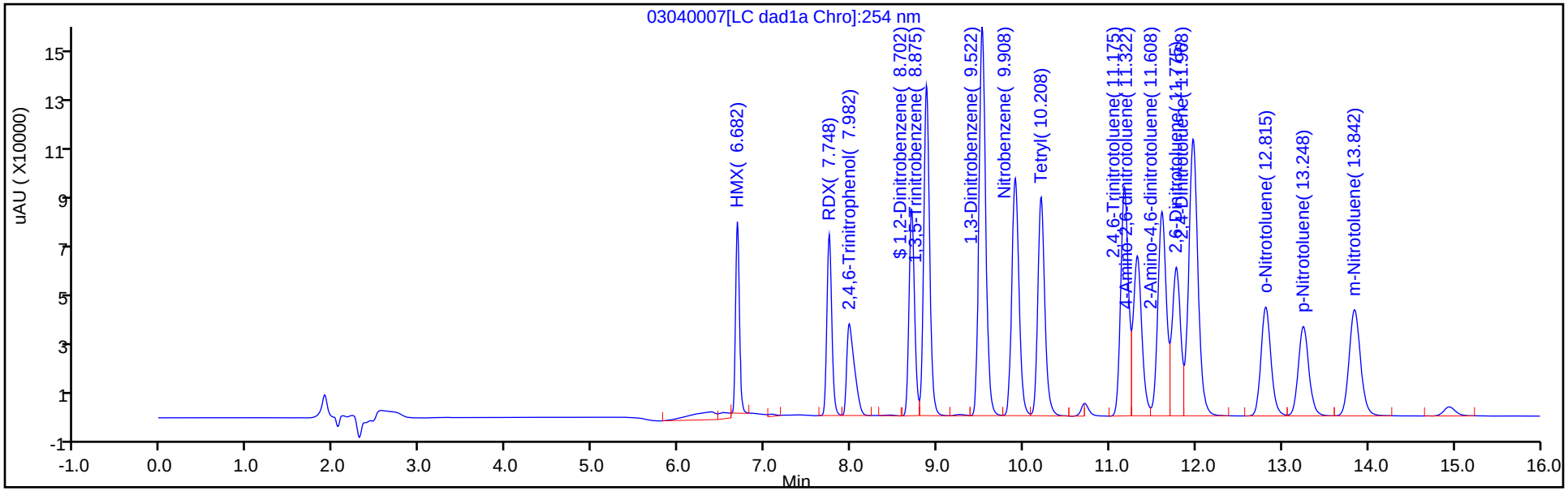
8330IntermStk_00061 Amount Added: 250.00 Units: uL

Report Date: 06-Mar-2020 10:24:59 Chrom Revision: 2.3 19-Feb-2020 16:45:46

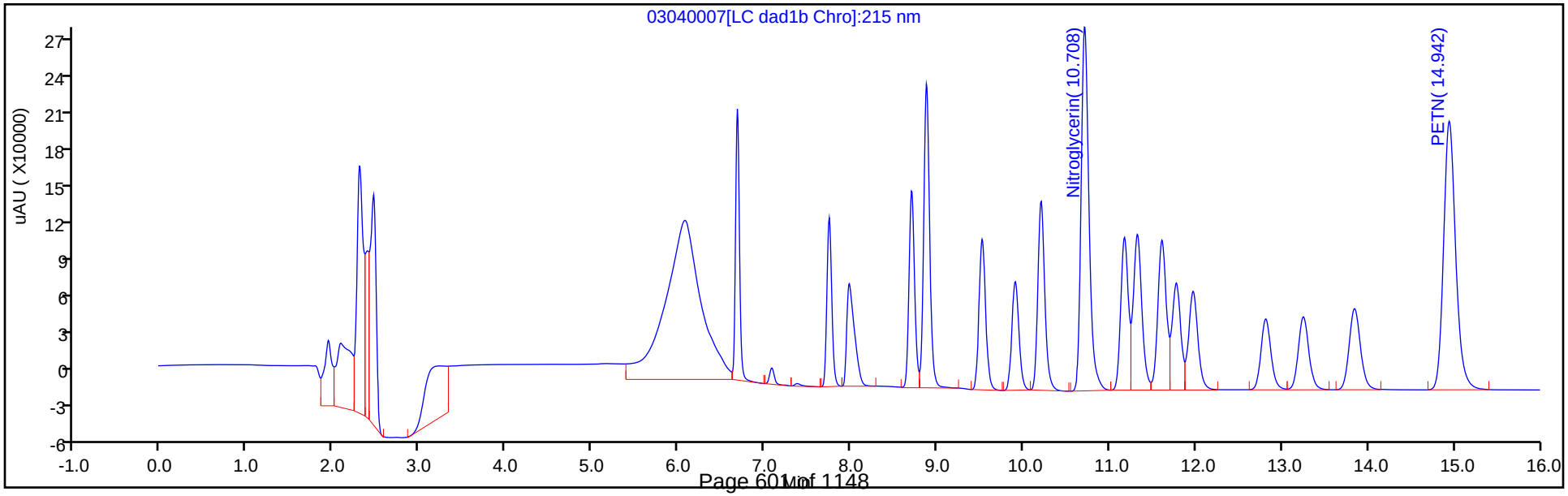
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| 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

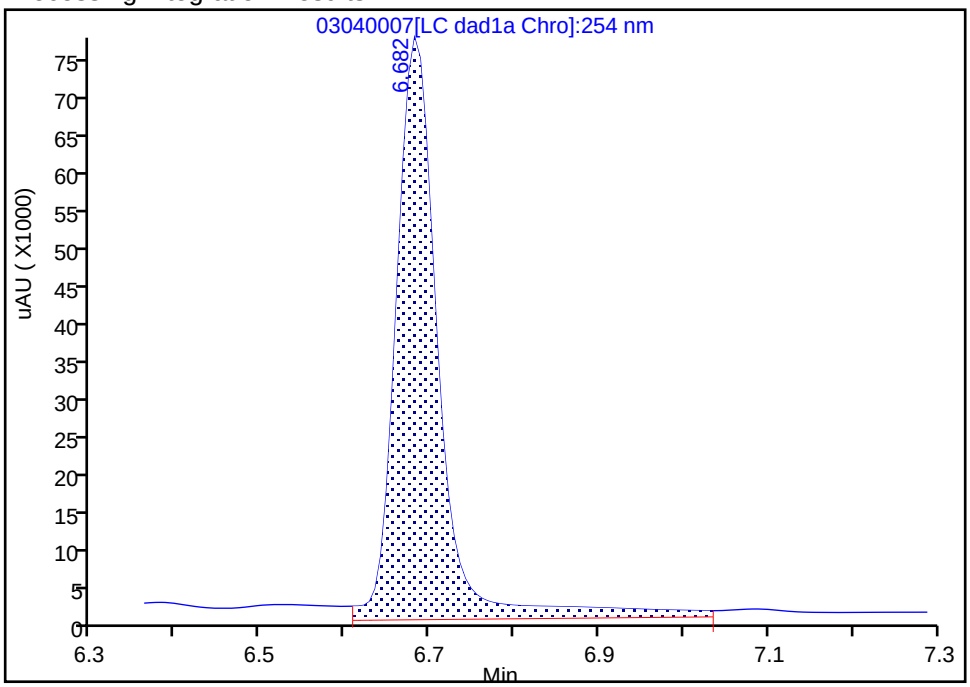
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040007.d | | | | |
| Injection Date: | 04-Mar-2020 14:07:07 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC MAIN L8 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 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

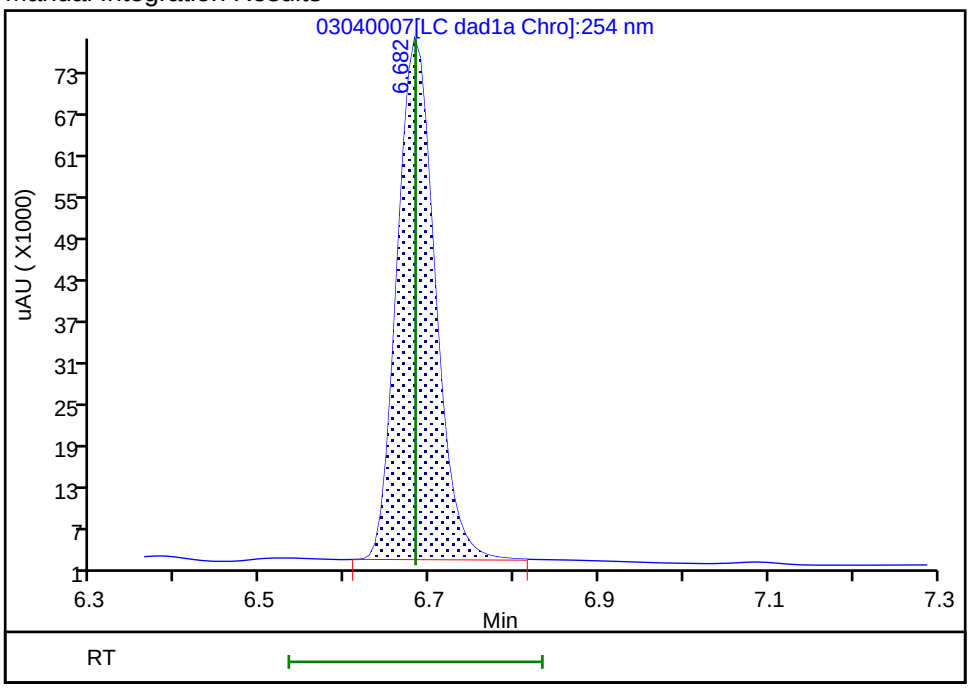
Processing Integration Results

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:

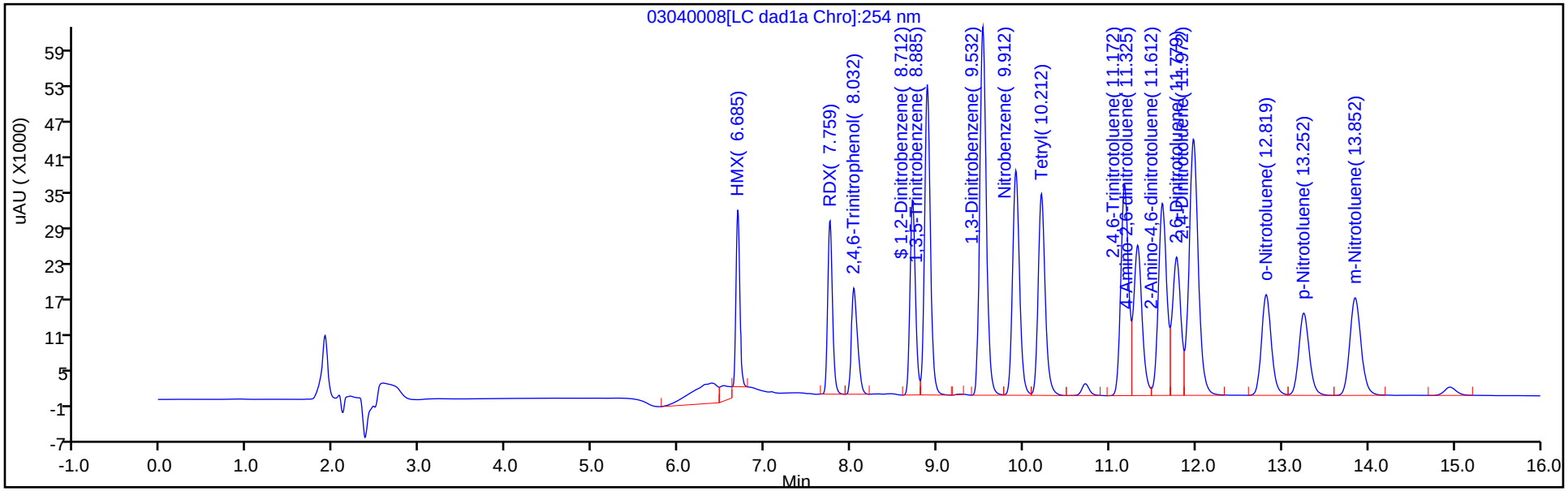
8330IntermStk_00061 Amount Added: 100.00 Units: uL

Report Date: 06-Mar-2020 10:25:02 Chrom Revision: 2.3 19-Feb-2020 16:45:46

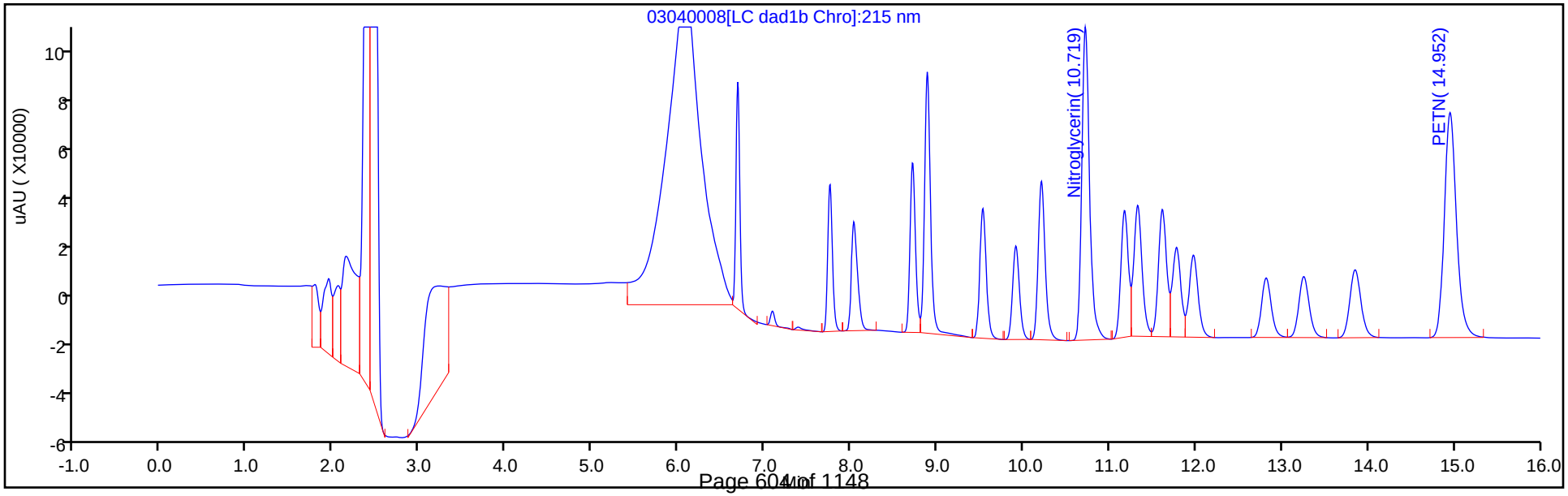
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| 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

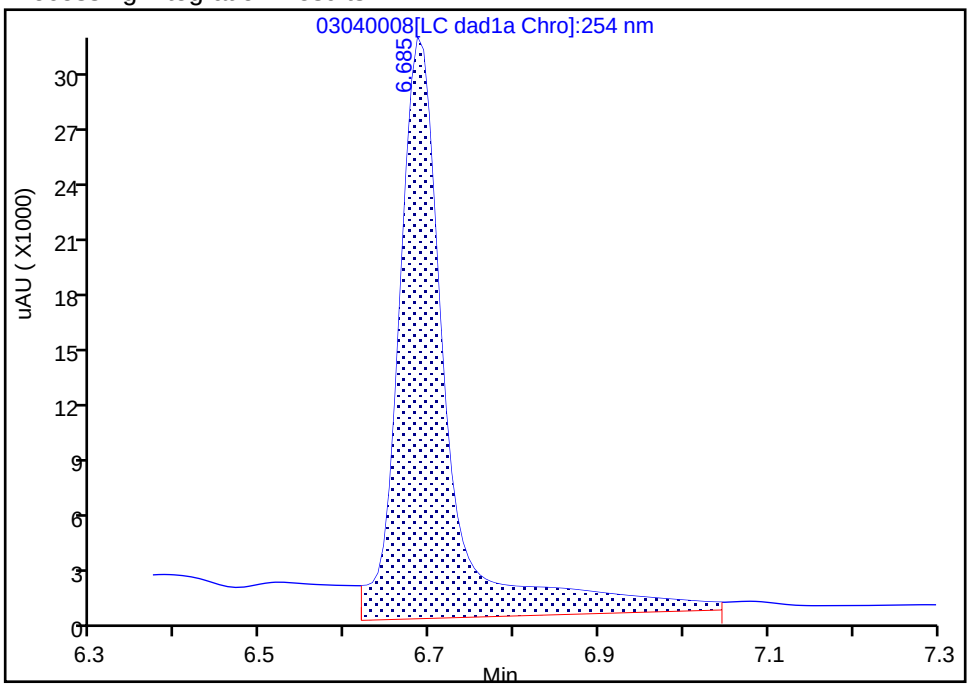
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040008.d | | | | |
| Injection Date: | 04-Mar-2020 14:30:11 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC MAIN L7 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 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

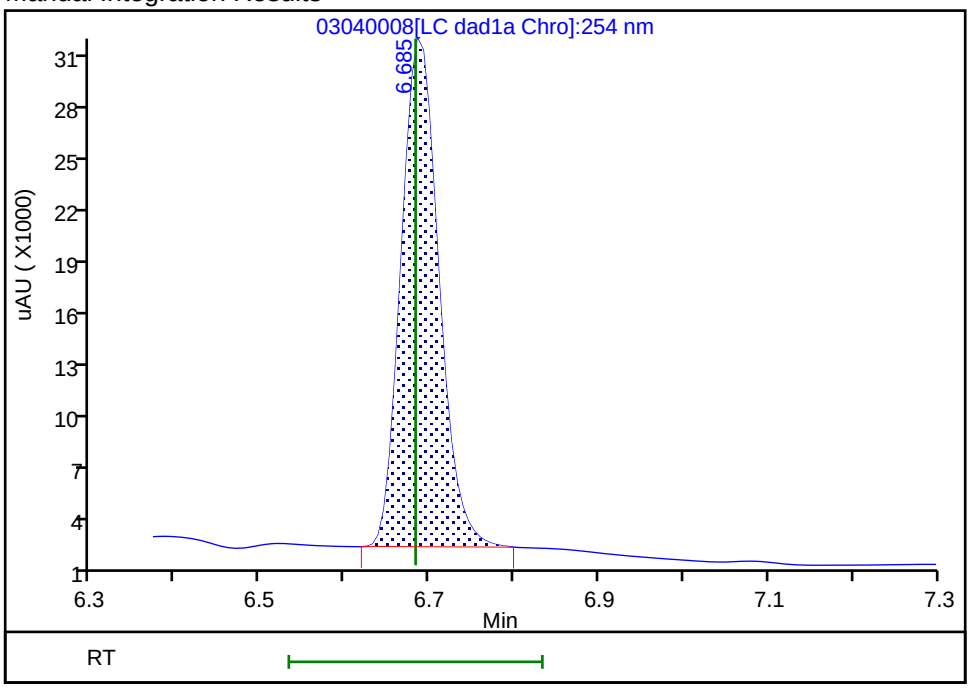
Processing Integration Results

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:

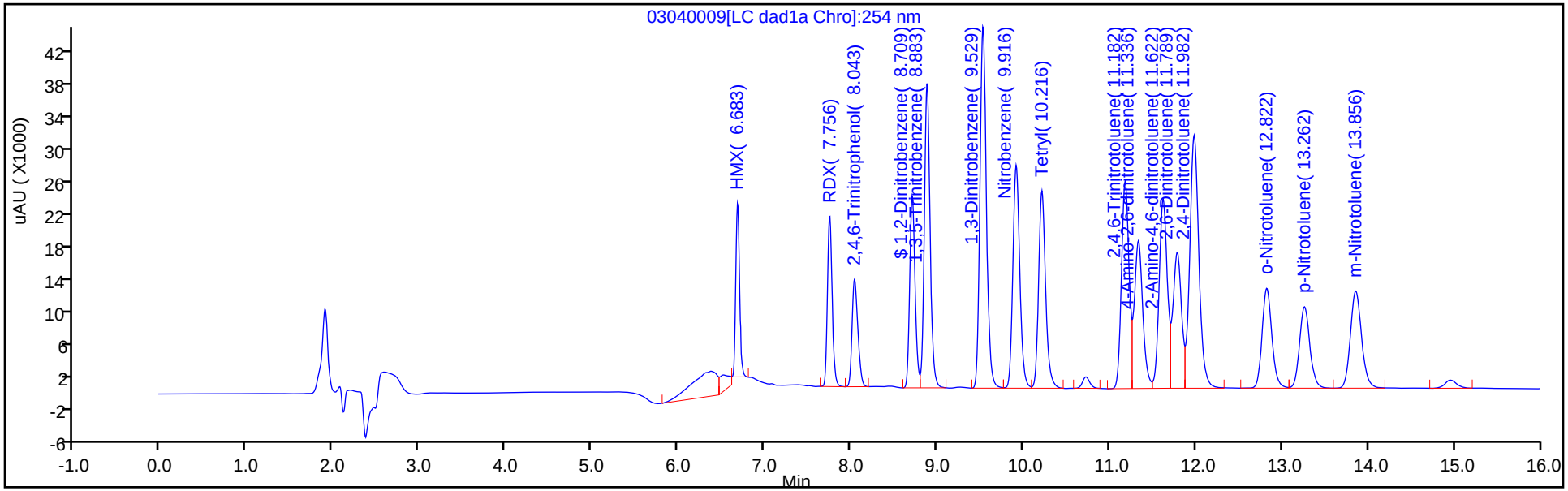
8330IntermStk_00061 Amount Added: 70.00 Units: uL

Report Date: 06-Mar-2020 10:25:02 Chrom Revision: 2.3 19-Feb-2020 16:45:46

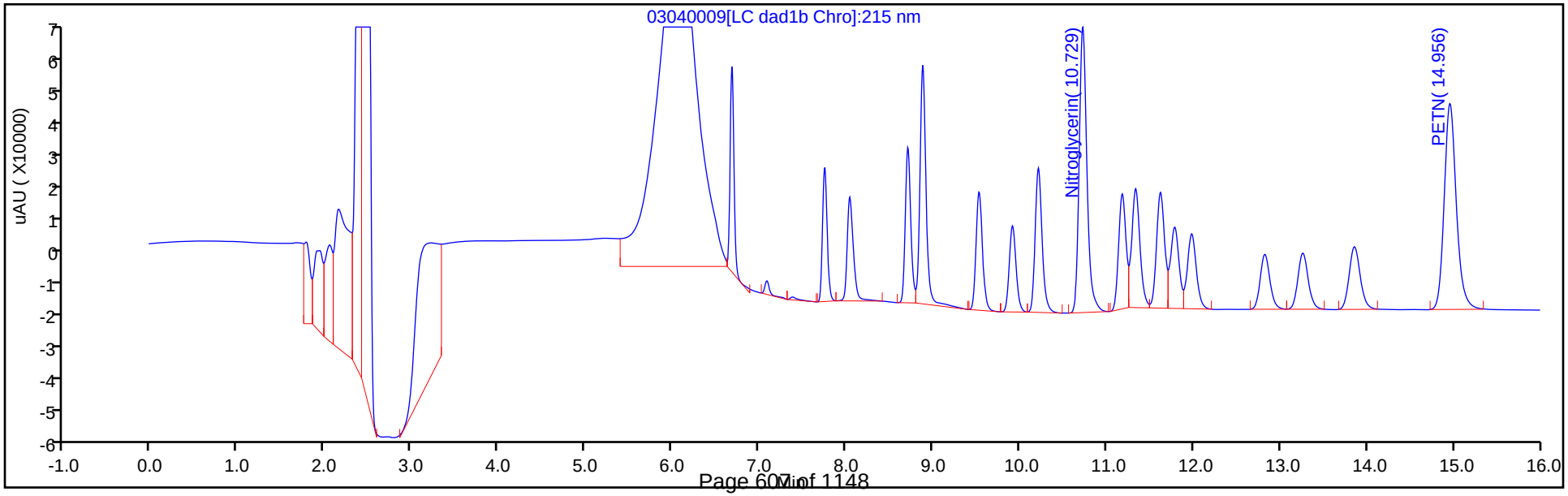
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| 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

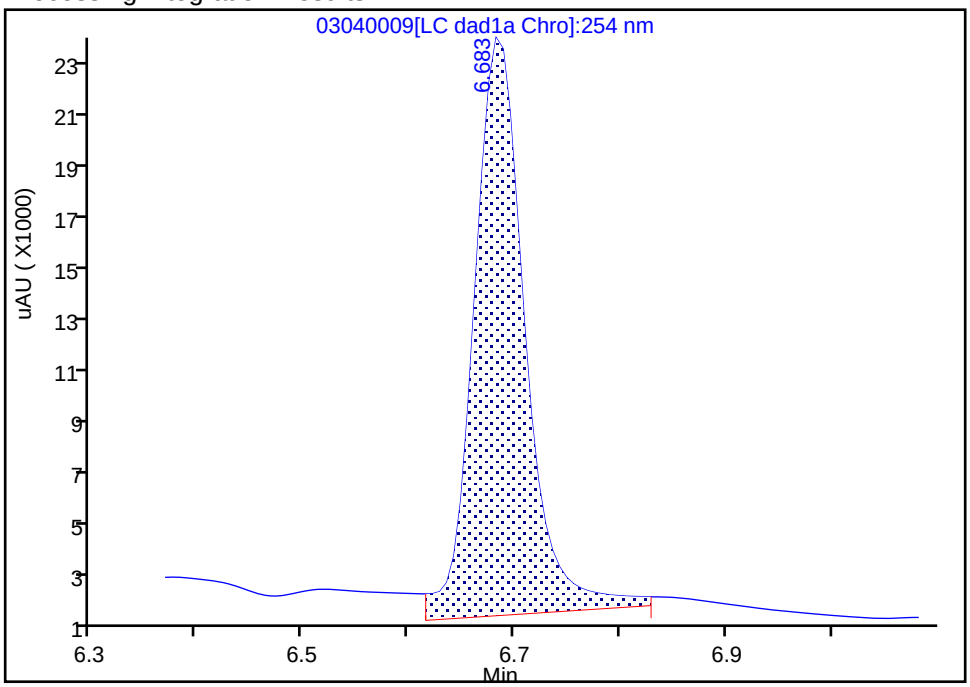
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040009.d | | | | |
| Injection Date: | 04-Mar-2020 14:53:07 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC MAIN L6 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 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

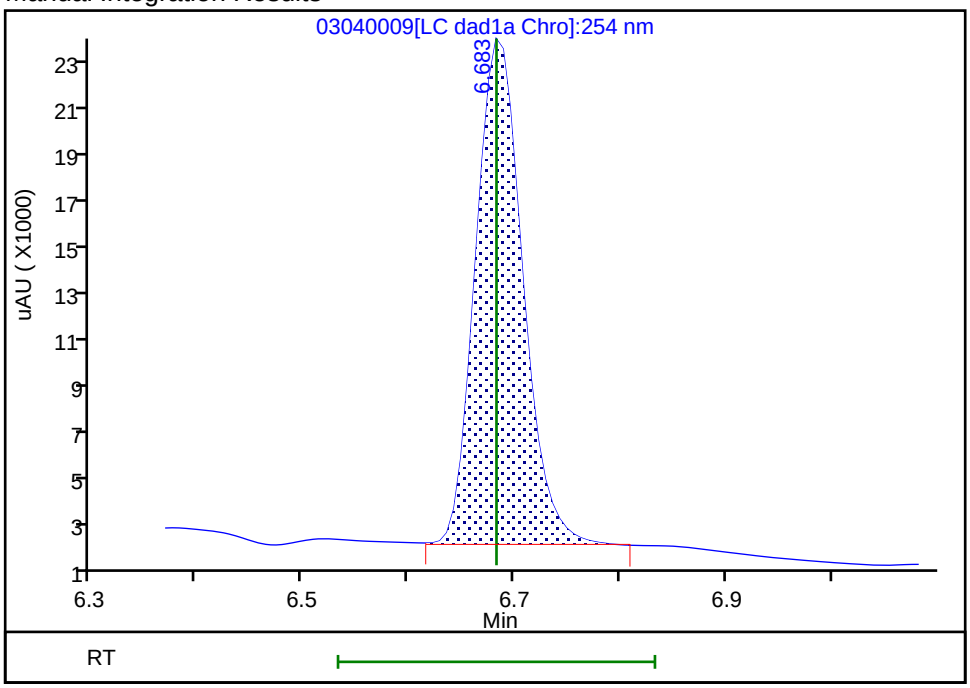
Processing Integration Results

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:

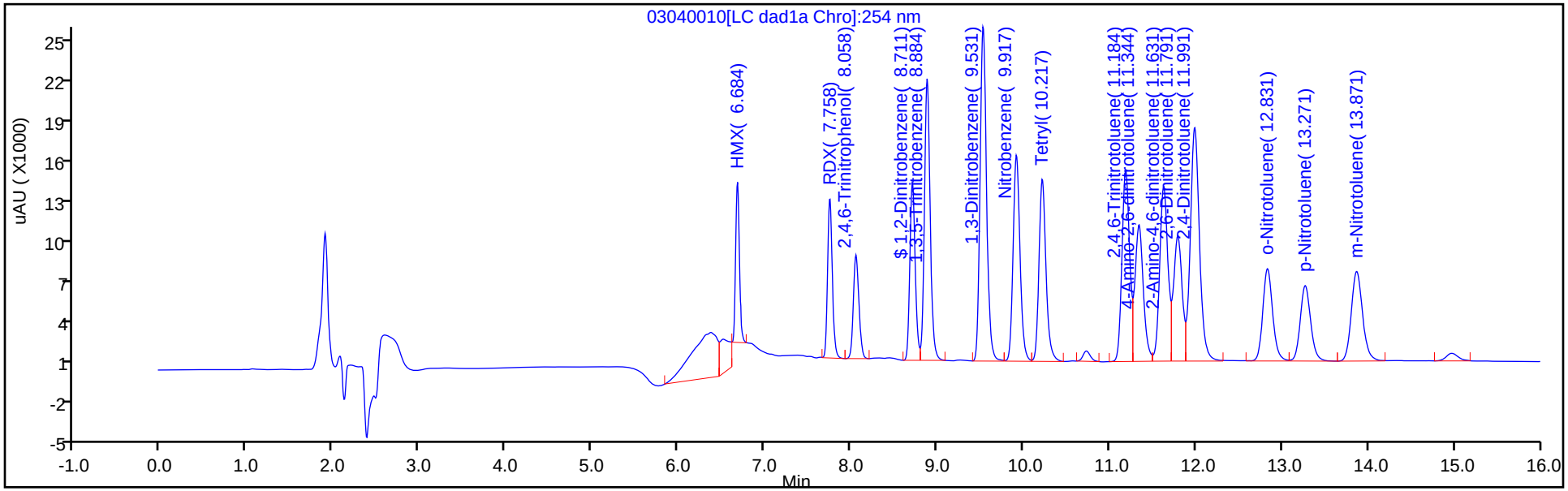
8330IntermStk_00061 Amount Added: 40.00 Units: uL

Report Date: 06-Mar-2020 10:25:04 Chrom Revision: 2.3 19-Feb-2020 16:45:46

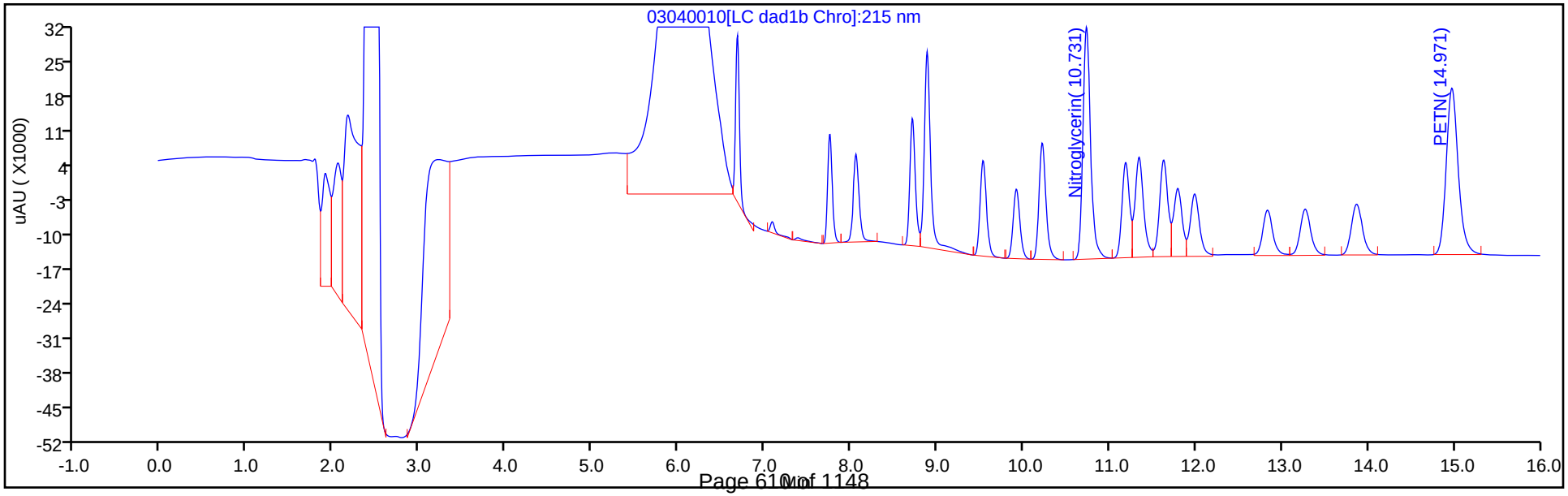
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| 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

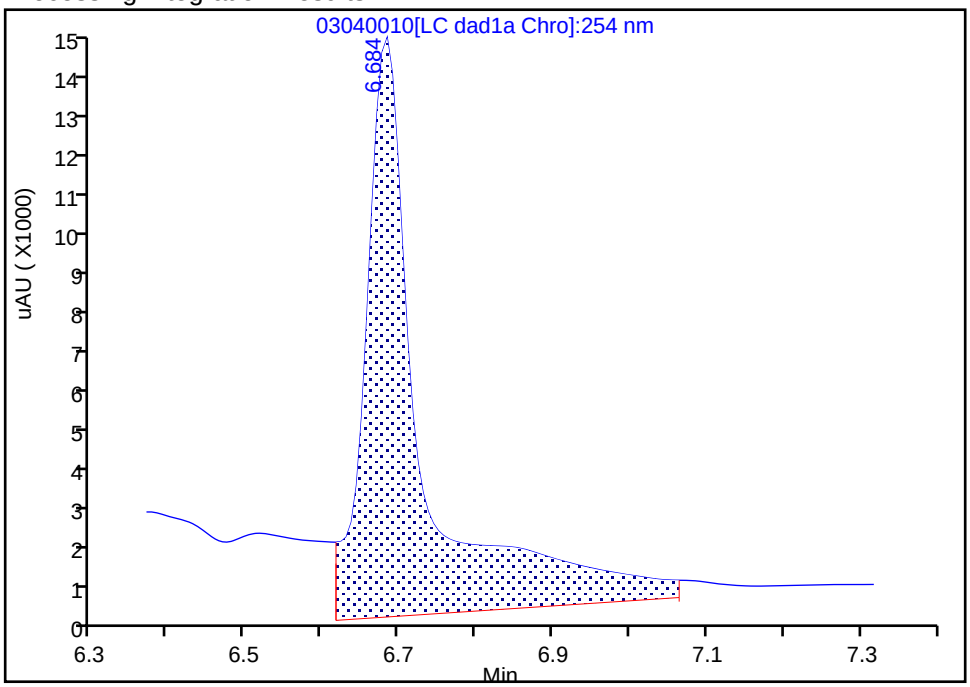
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040010.d | | | | |
| Injection Date: | 04-Mar-2020 15:16:04 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC MAIN L5 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 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

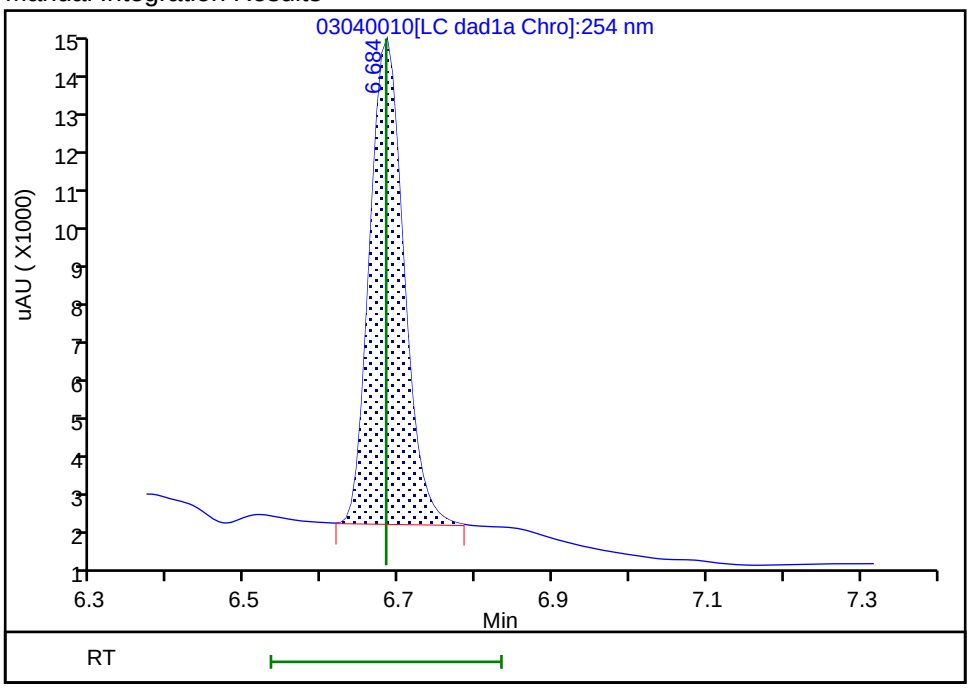
Processing Integration Results

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:

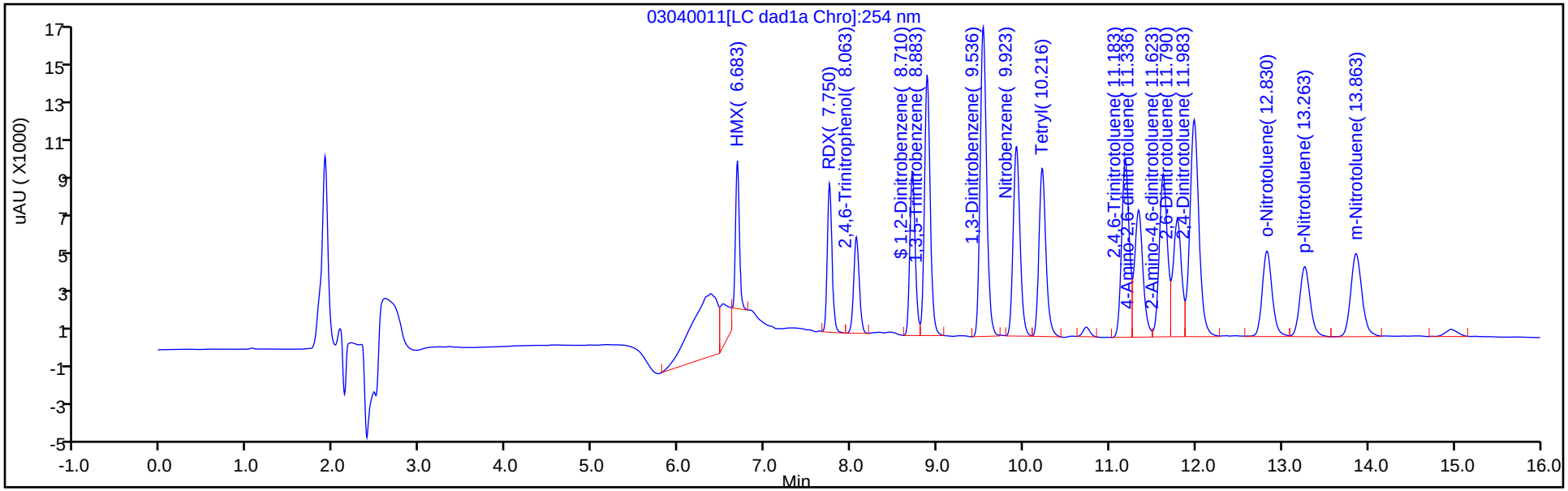
8330IntermStk_00061 Amount Added: 25.00 Units: uL

Report Date: 06-Mar-2020 10:25:05 Chrom Revision: 2.3 19-Feb-2020 16:45:46

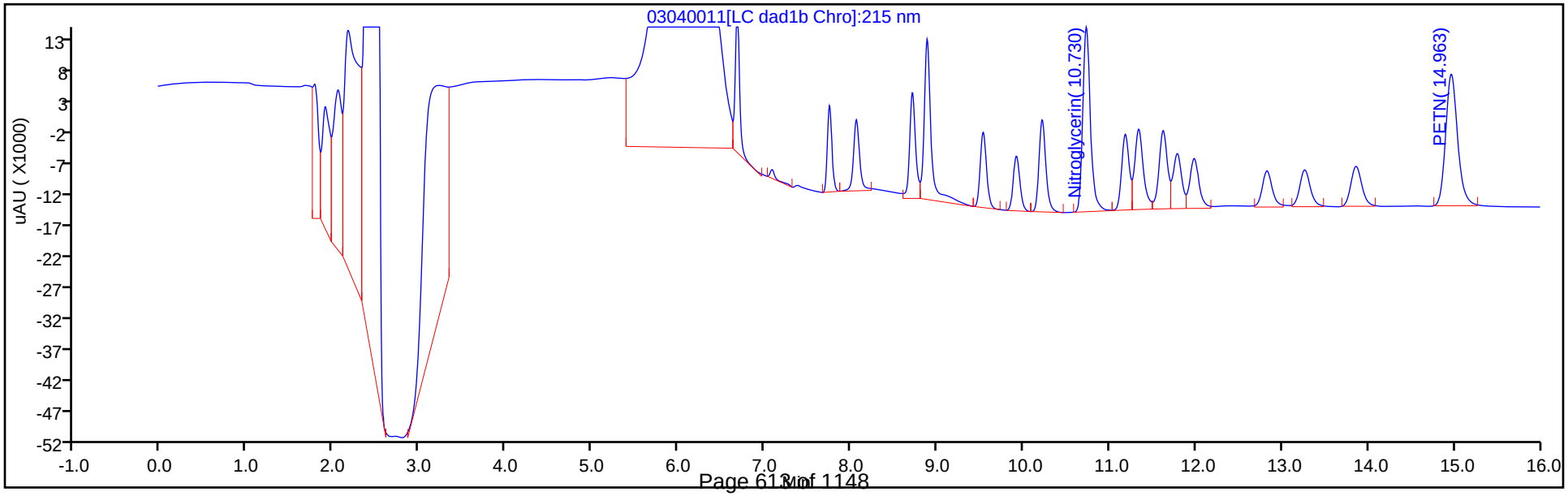
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| 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

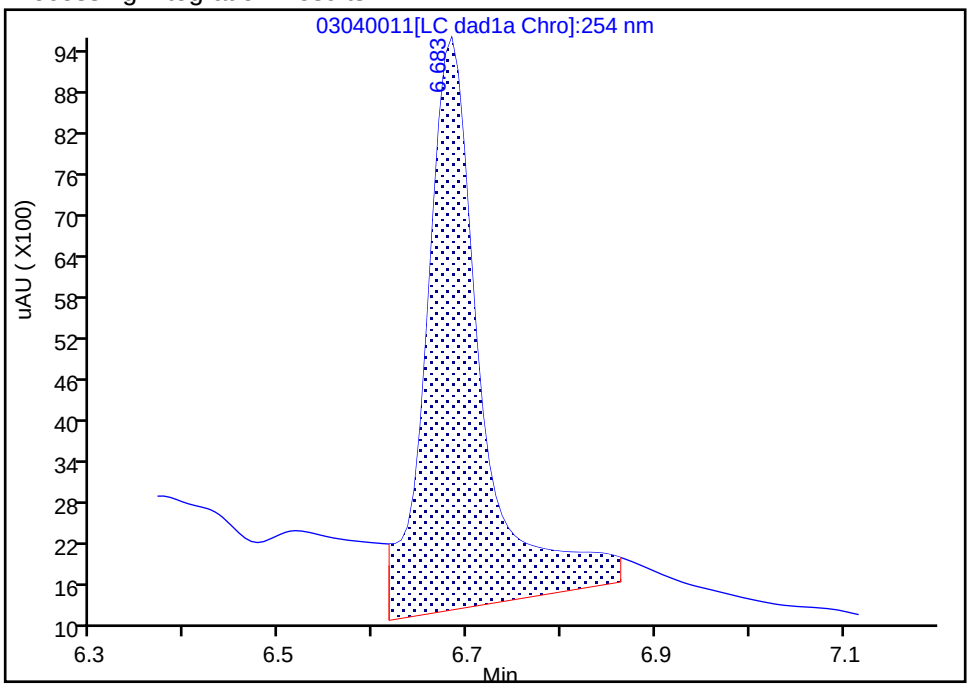
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040011.d | | | | |
| Injection Date: | 04-Mar-2020 15:39:01 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC MAIN L4 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 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

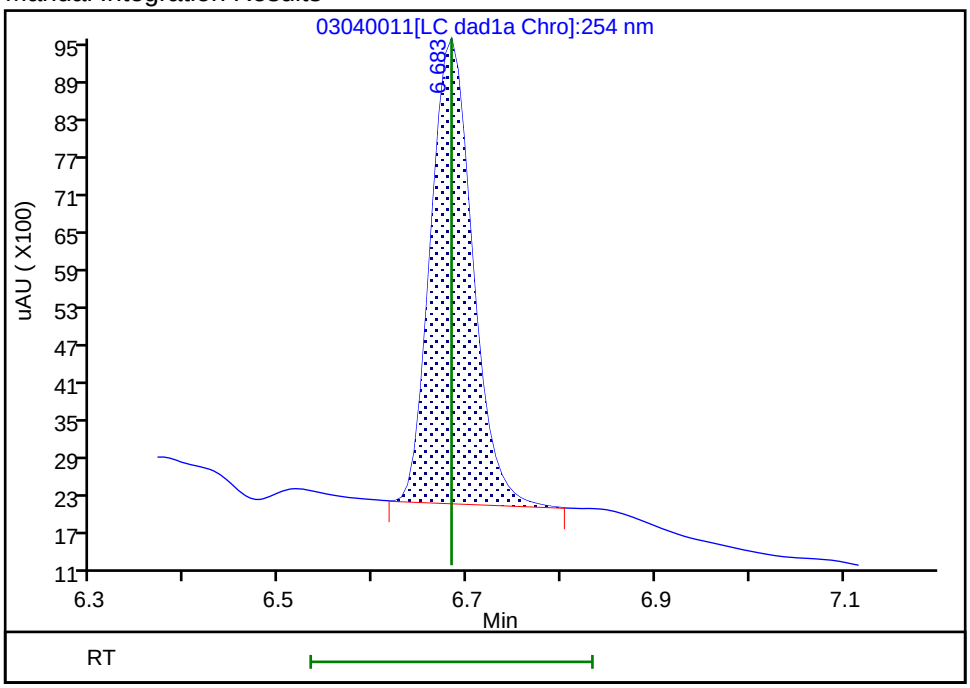
Processing Integration Results

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:

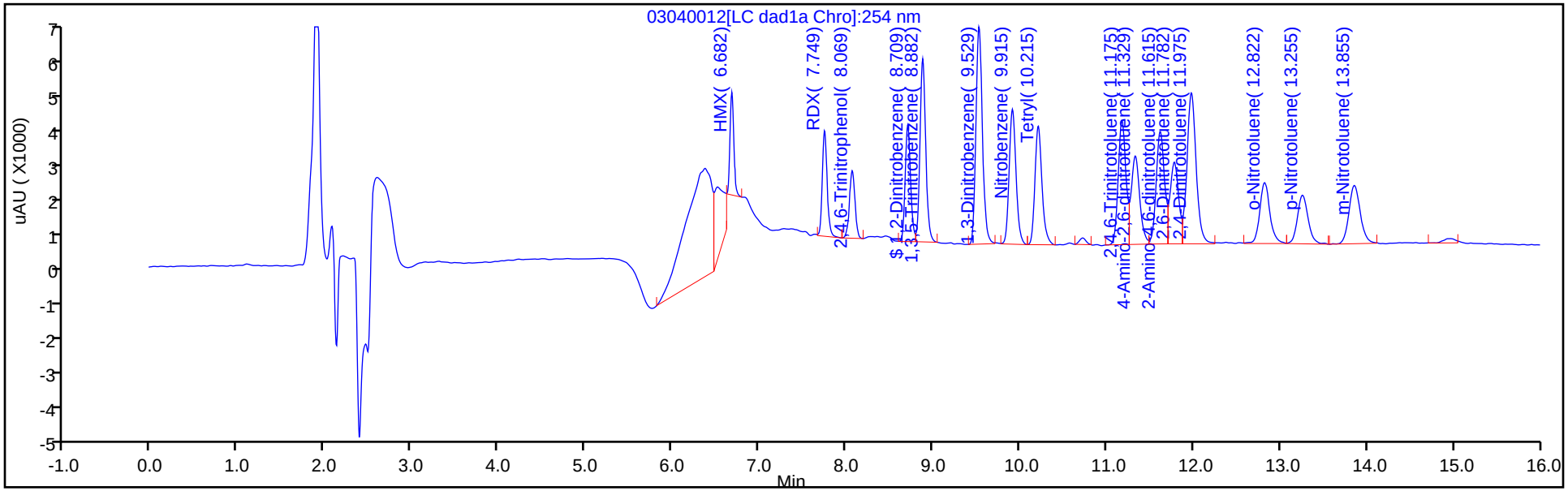
8330IntermStk_00061 Amount Added: 10.00 Units: uL

Report Date: 06-Mar-2020 10:25:06 Chrom Revision: 2.3 19-Feb-2020 16:45:46

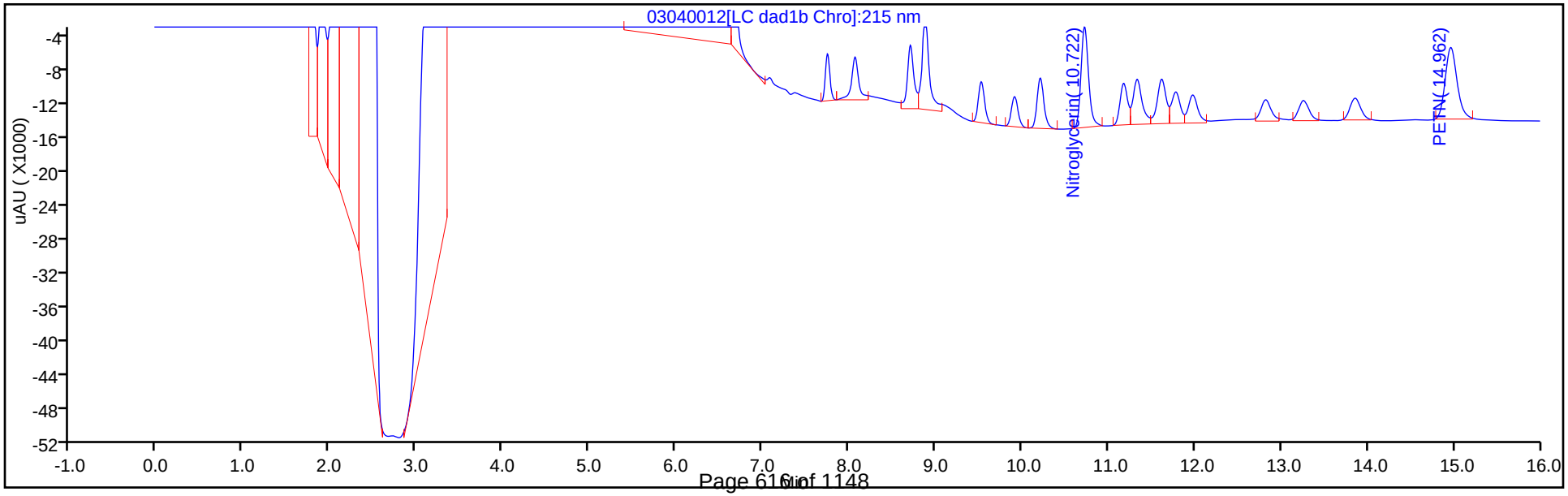
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| 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

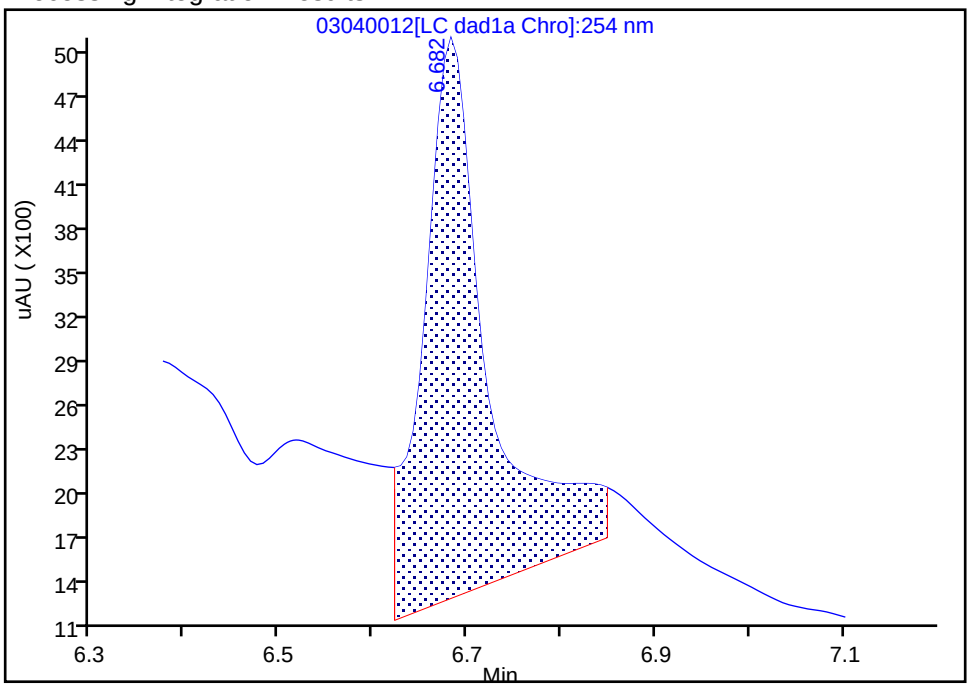
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040012.d | | | | |
| Injection Date: | 04-Mar-2020 16:01:56 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC MAIN L3 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 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

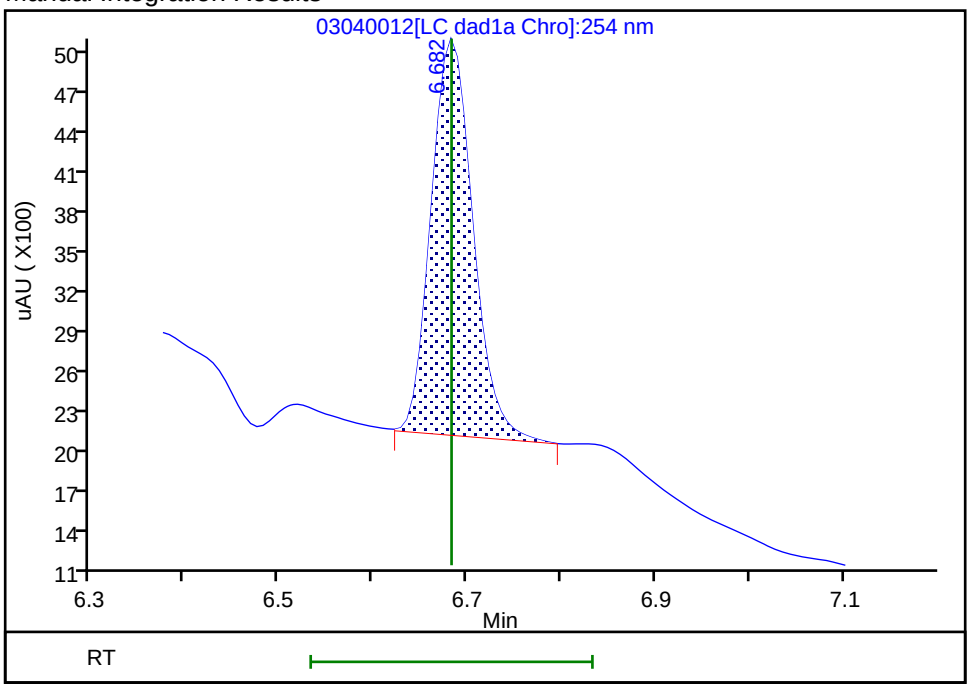
Processing Integration Results

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:

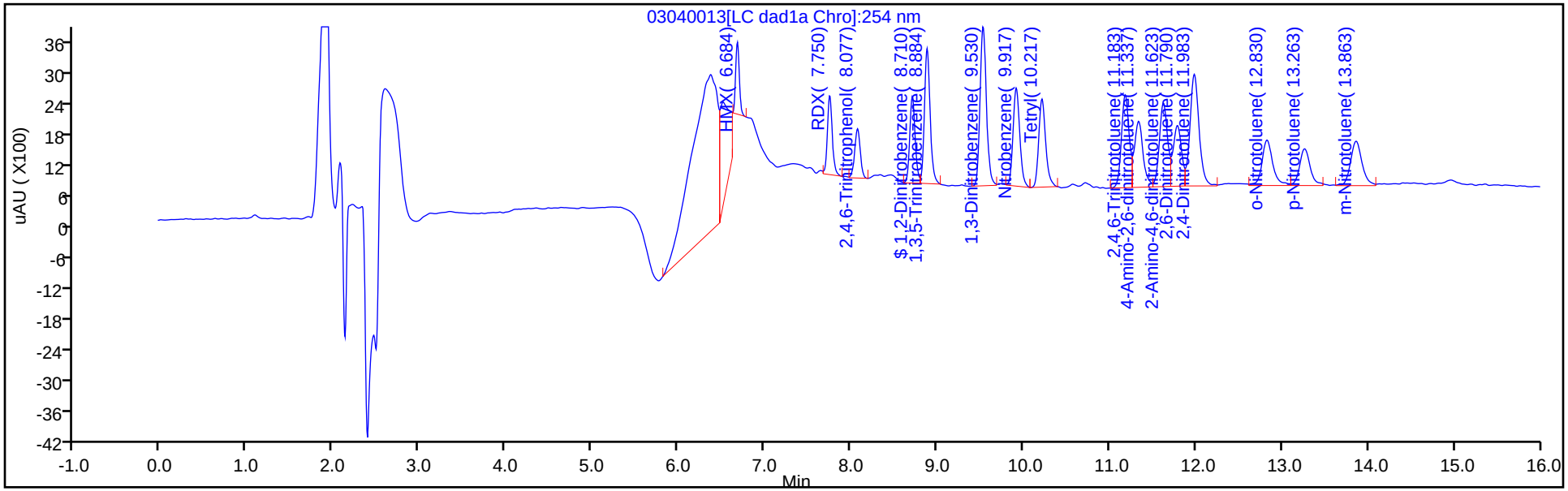
8330IntermStk_00061 Amount Added: 5.00 Units: uL

Report Date: 06-Mar-2020 10:25:07 Chrom Revision: 2.3 19-Feb-2020 16:45:46

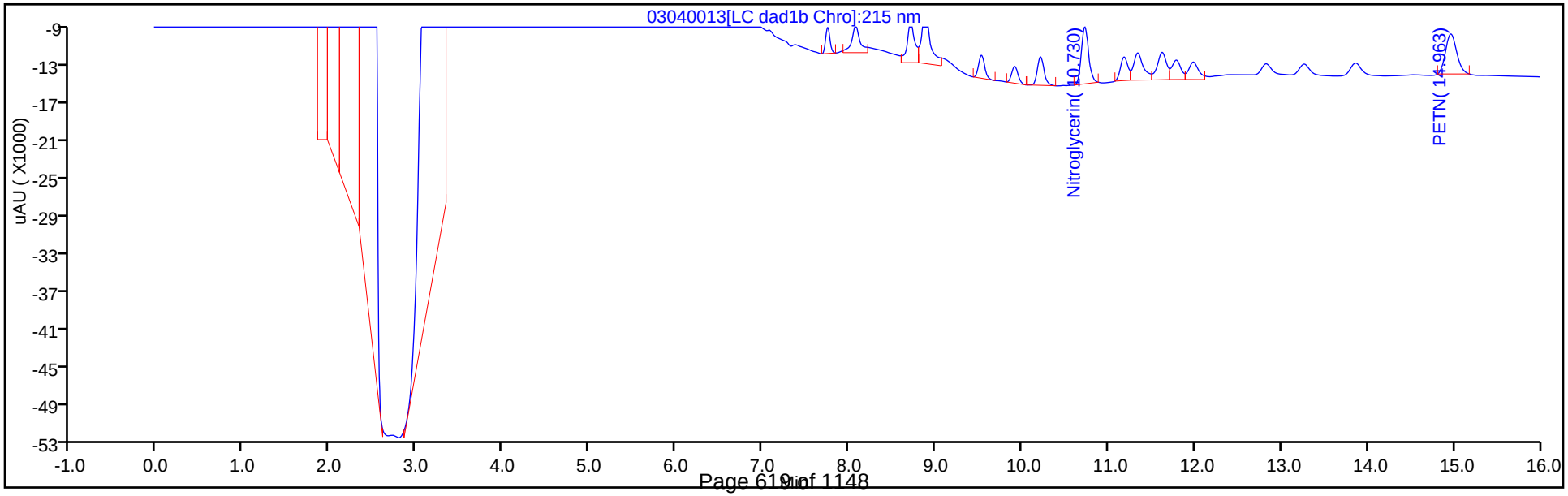
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| 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

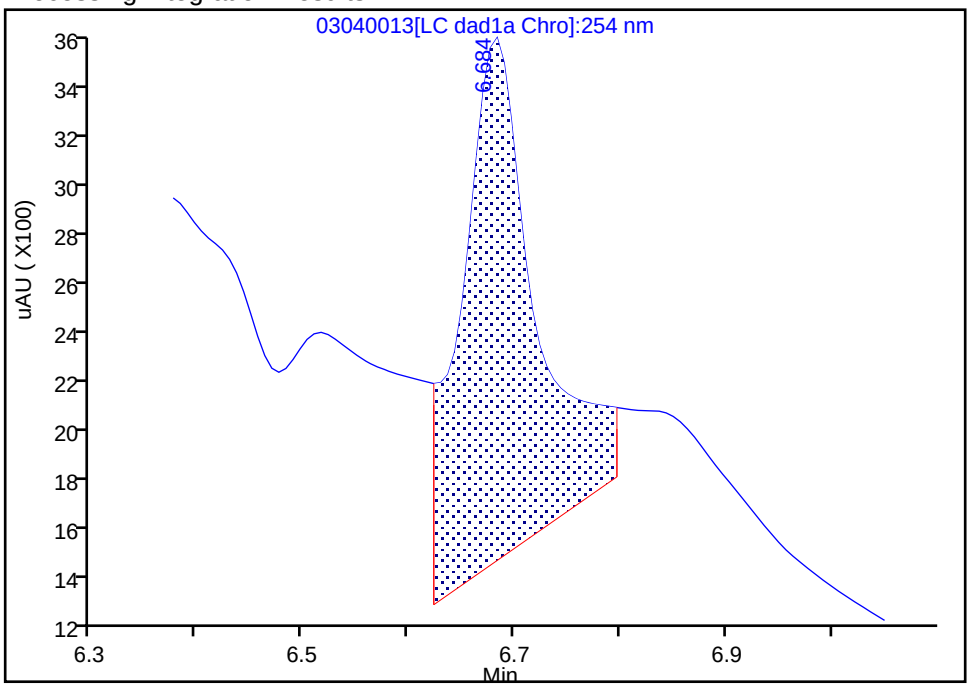
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040013.d | | | | |
| Injection Date: | 04-Mar-2020 16:24:51 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC MAIN L2 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 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

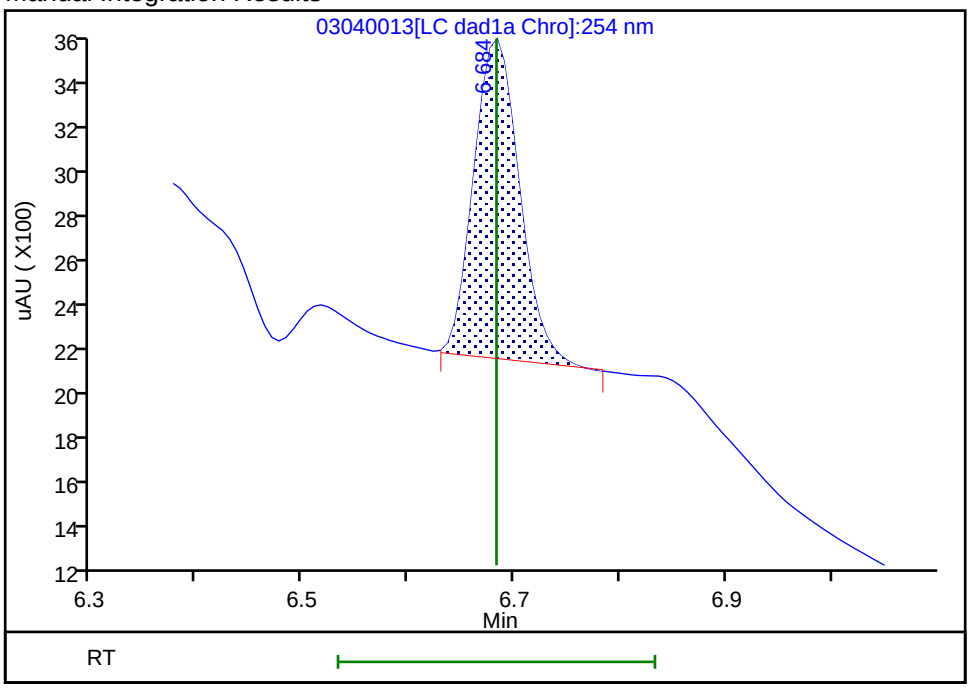
Processing Integration Results

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:

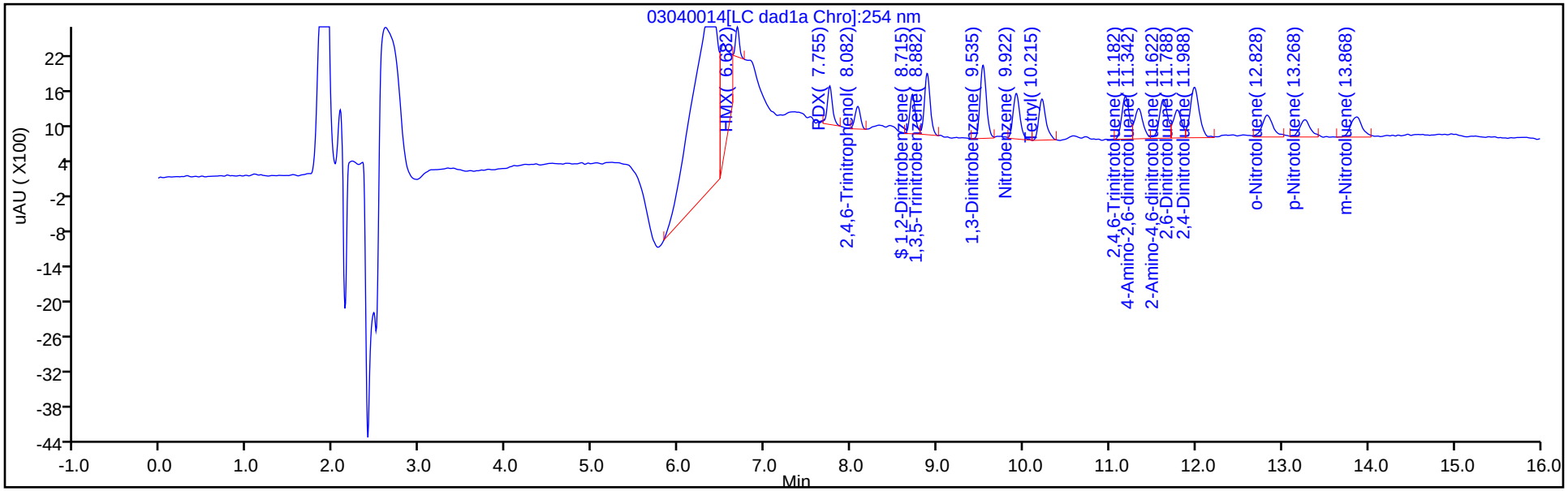
8330IntermStk_00061 Amount Added: 2.00 Units: uL

Report Date: 06-Mar-2020 10:25:09 Chrom Revision: 2.3 19-Feb-2020 16:45:46

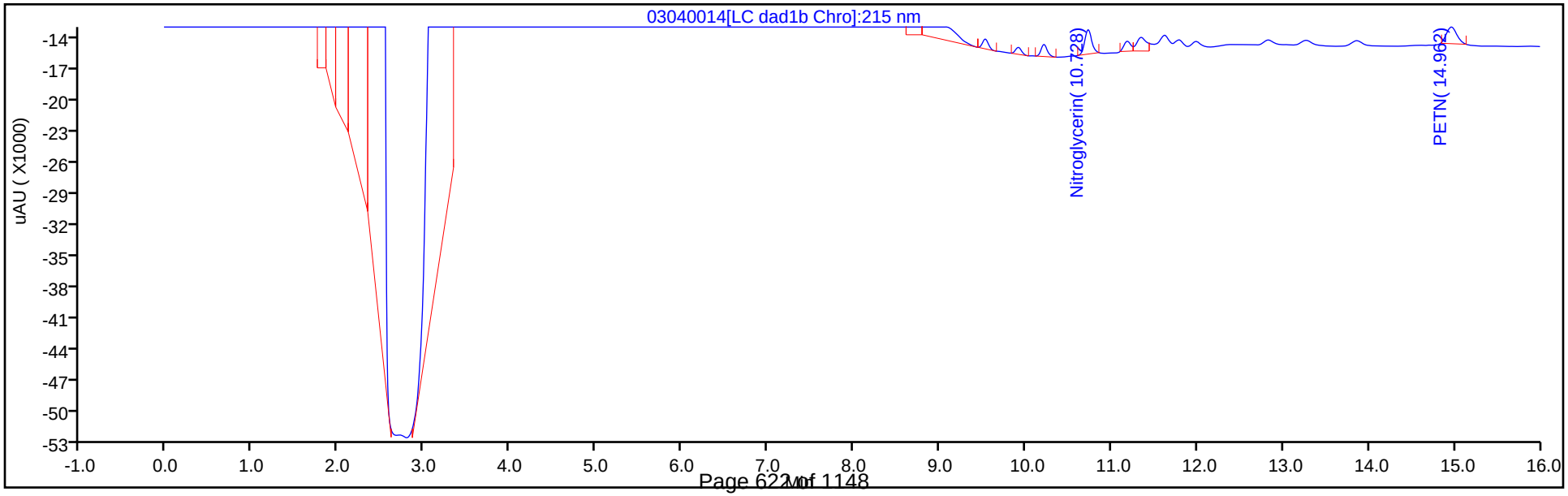
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| 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

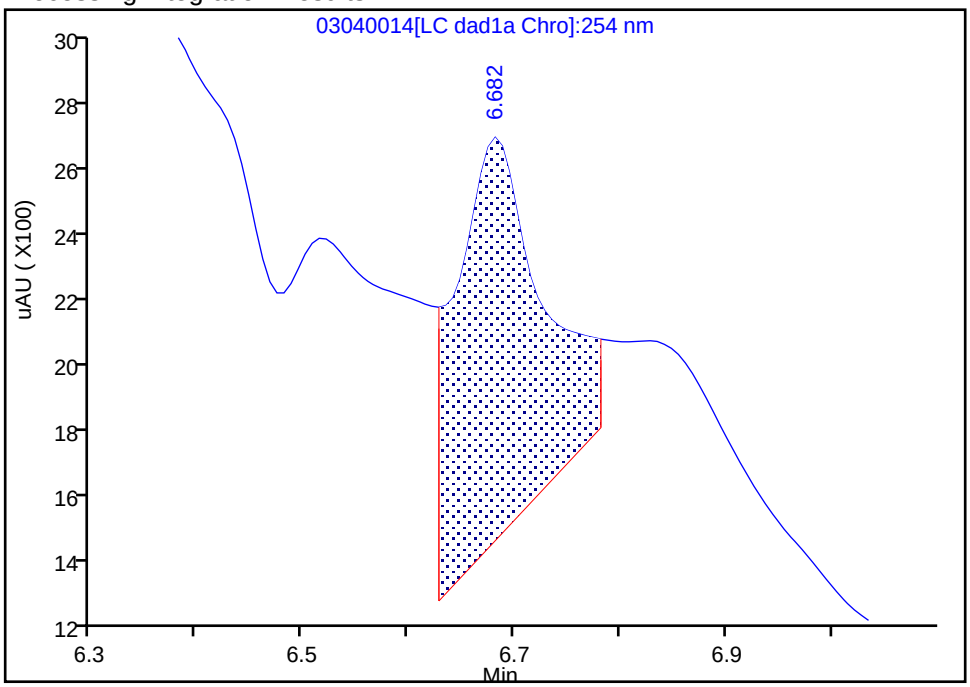
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040014.d | | | | |
| Injection Date: | 04-Mar-2020 16:47:48 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC MAIN L1 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 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

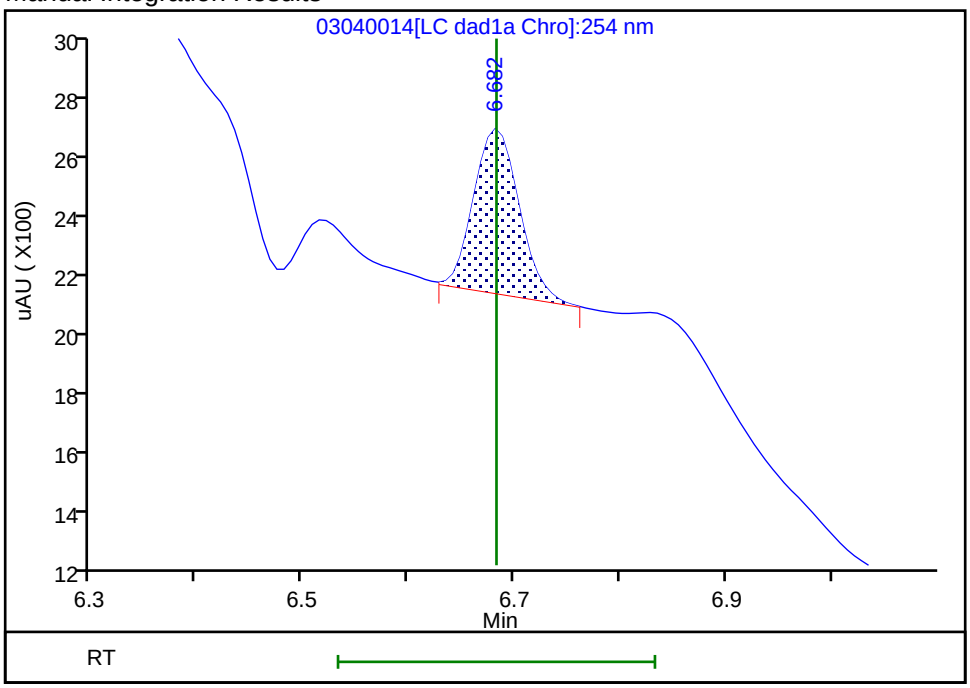
Processing Integration Results

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

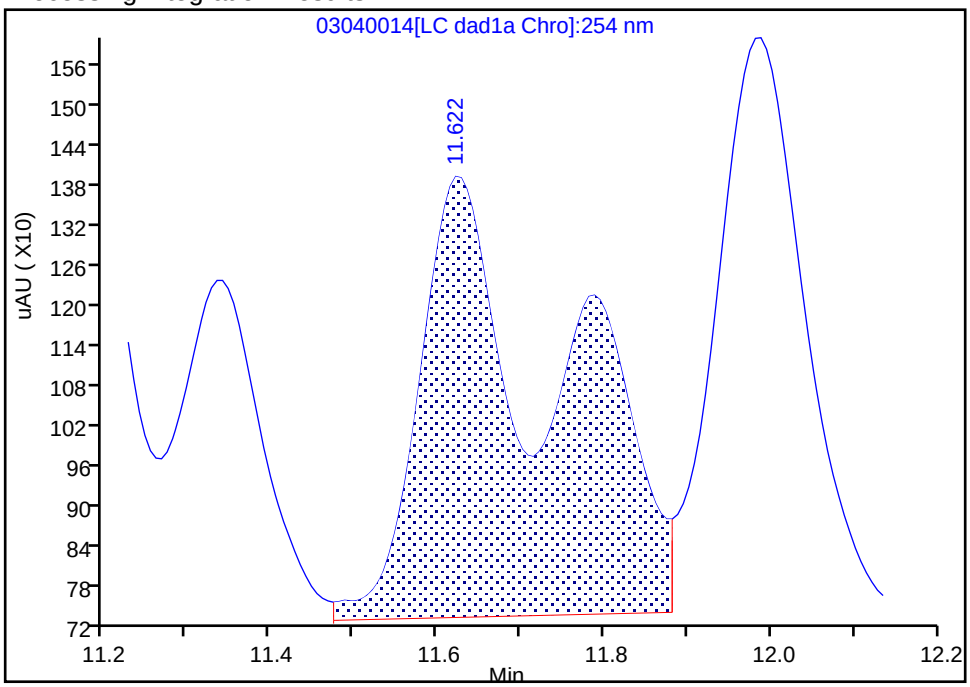
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040014.d | | | | |
| Injection Date: | 04-Mar-2020 16:47:48 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC MAIN L1 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 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

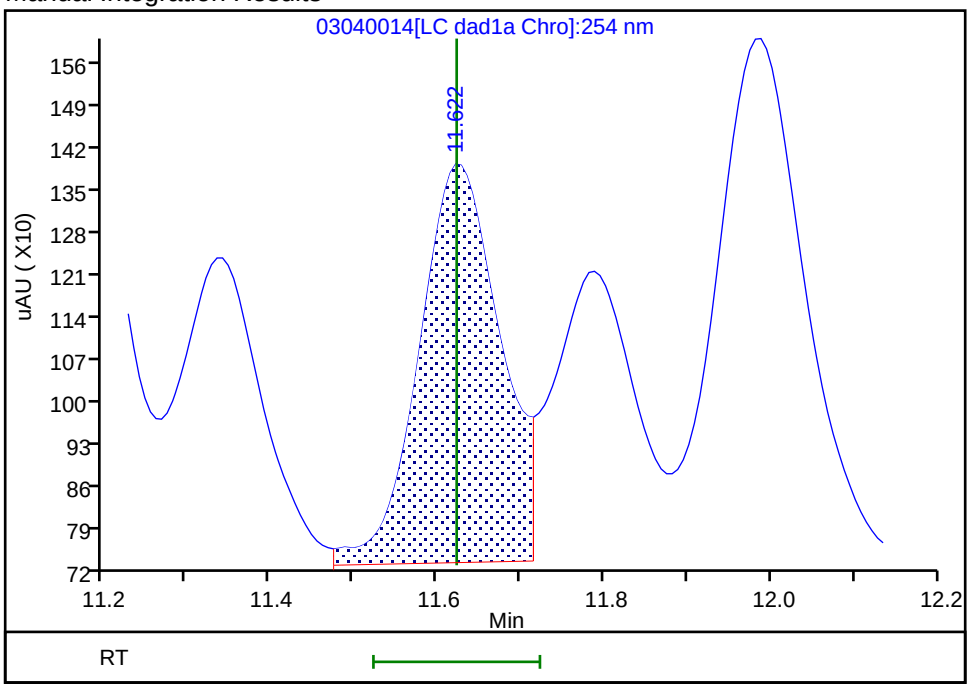
Processing Integration Results

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.: 280-134268-1 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.: 280-134268-1 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<br>LVL 5 | LVL 2<br>LVL 6 | LVL 3<br>LVL 7 | LVL 4<br>LVL 8 | | B | M1 | M2 | | | | | | | | |
| TNX | 216933<br>212722 | 213207<br>212002 | 209810<br>219067 | 231497<br>225632 | Ave | | 217608.702 | | | | 3.5 | | 20.0 | | | |
| DNX | 117133<br>161214 | 137942<br>160624 | 149221<br>163997 | 167576<br>165720 | Ave | | 152928.307 | | | | 11.5 | | 20.0 | | | |
| MNX | 175621<br>156707 | 161285<br>152355 | 156238<br>154895 | 157686<br>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.: 280-134268-1 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<br>LVL 6 | LVL 2<br>LVL 7 | LVL 3<br>LVL 8 | LVL 4 | LVL 5 | LVL 1<br>LVL 6 | LVL 2<br>LVL 7 | LVL 3<br>LVL 8 | LVL 4 | LVL 5 |
| TNX | Ave | 4343<br>148550 | 10671<br>219286 | 21002<br>564643 | 57932 | 85174 | 0.0200<br>0.701 | 0.0501<br>1.00 | 0.100<br>2.50 | 0.250 | 0.400 |
| DNX | Ave | 2345<br>112549 | 6904<br>164161 | 14937<br>414714 | 41936 | 64550 | 0.0200<br>0.701 | 0.0501<br>1.00 | 0.100<br>2.50 | 0.250 | 0.400 |
| MNX | Ave | 4099<br>124459 | 9411<br>180763 | 18233<br>448024 | 46005 | 73151 | 0.0233<br>0.817 | 0.0584<br>1.17 | 0.117<br>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:

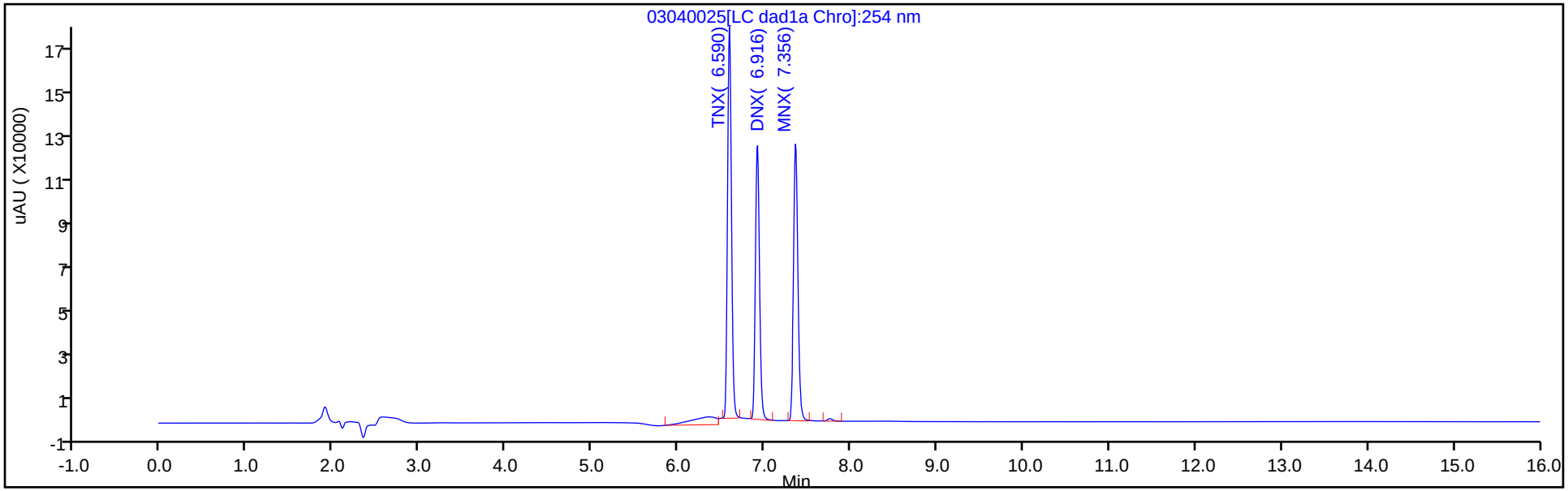
8330 DMT_00005 Amount Added: 125.00 Units: uL

Report Date: 06-Mar-2020 10:25:21 Chrom Revision: 2.3 19-Feb-2020 16:45:46

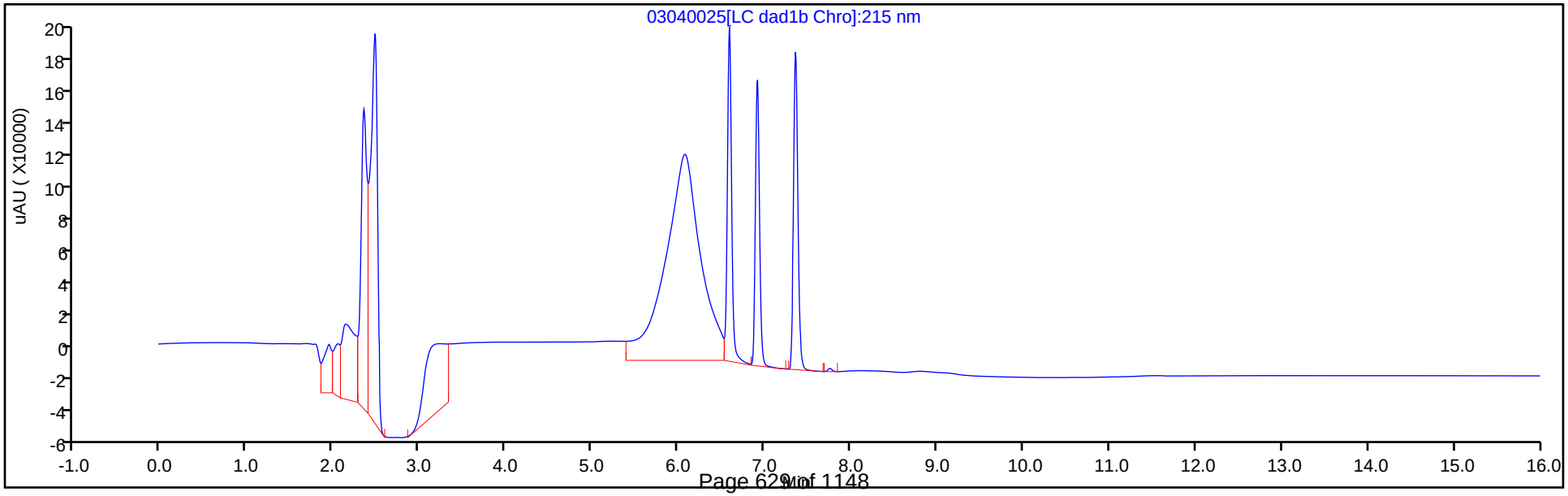
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| 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

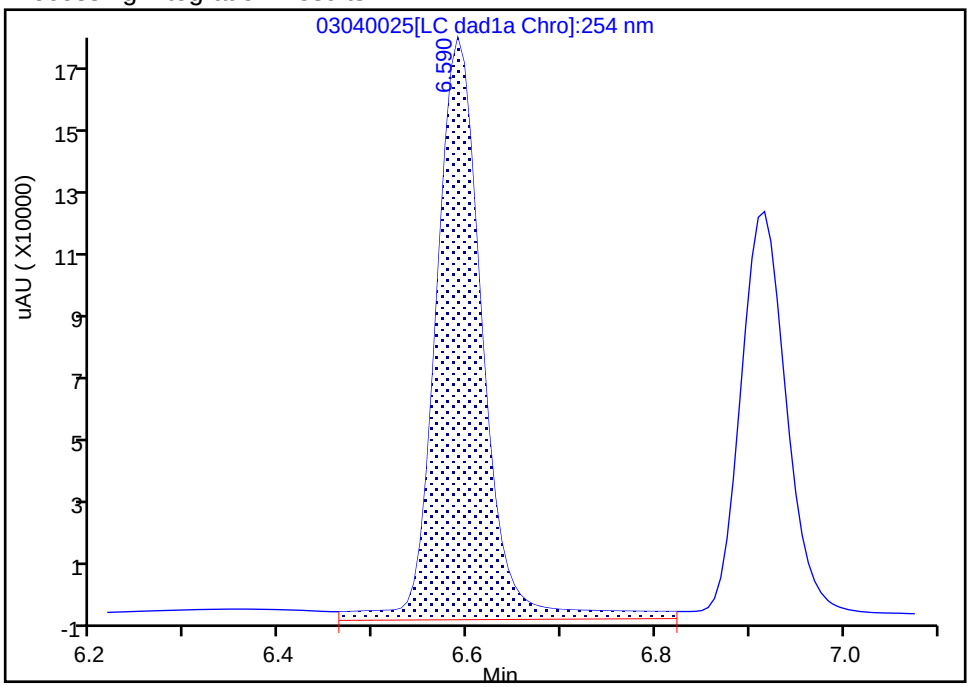
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040025.d | | | | |
| Injection Date: | 04-Mar-2020 21:00:00 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC DMT L8 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 25 | 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

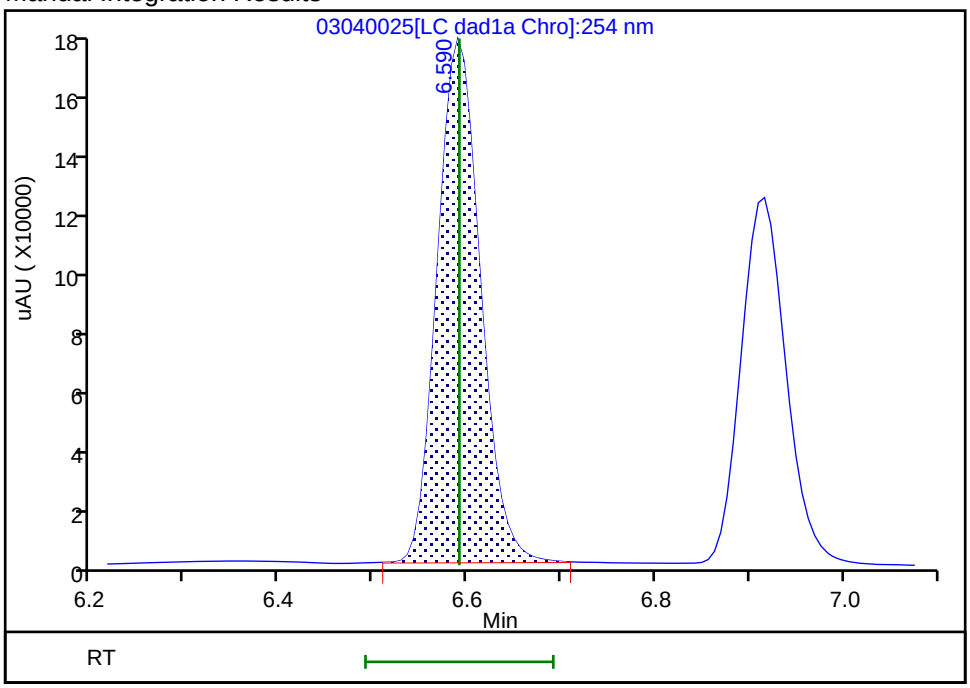
Processing Integration Results

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

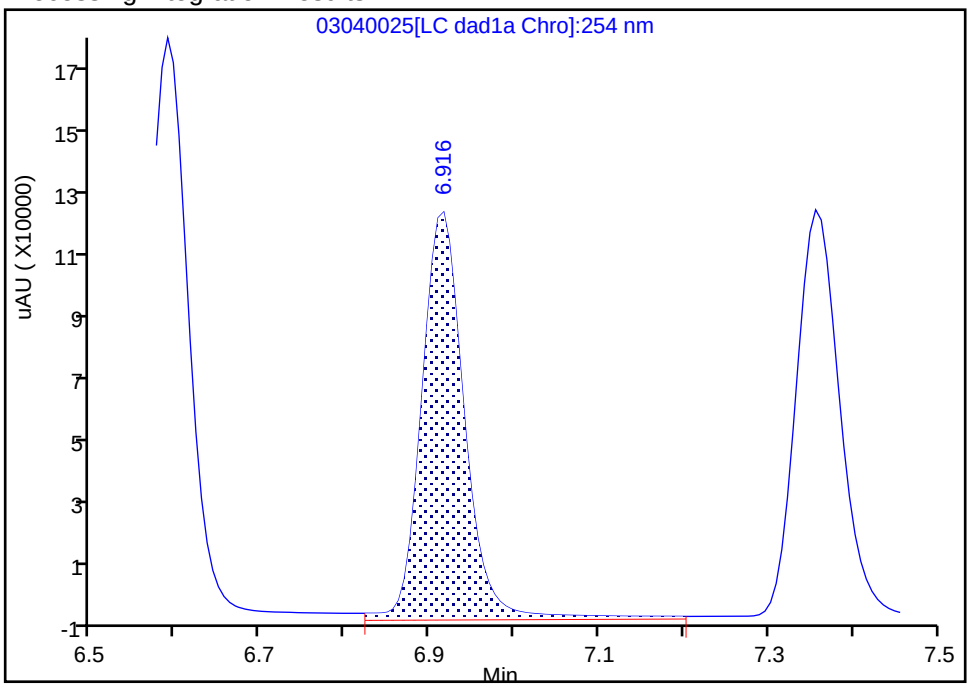
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040025.d | | | | |
| Injection Date: | 04-Mar-2020 21:00:00 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC DMT L8 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 25 | 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

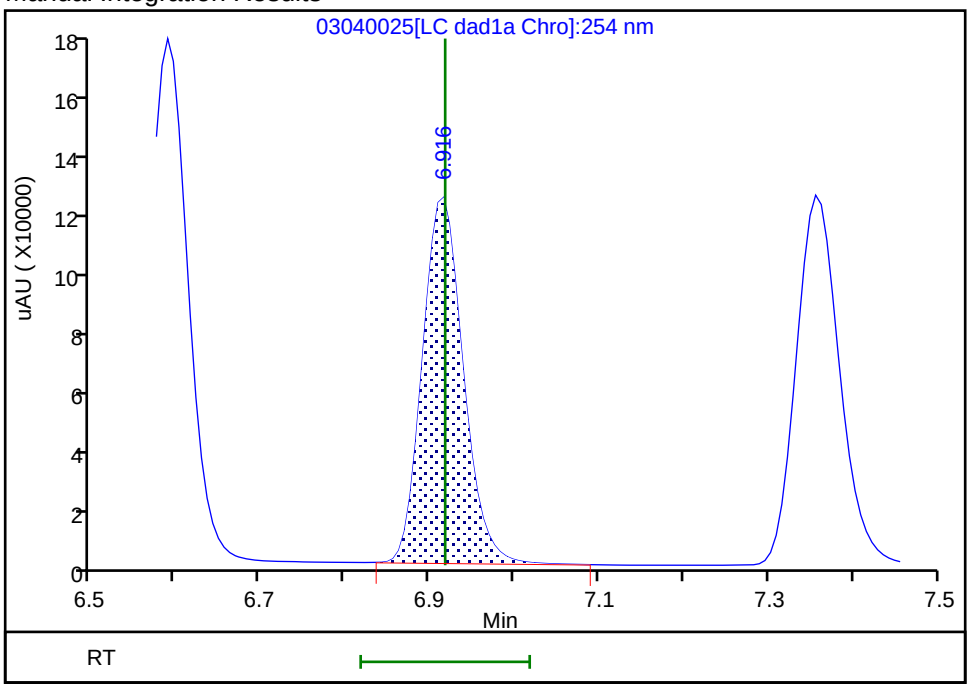
Processing Integration Results

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

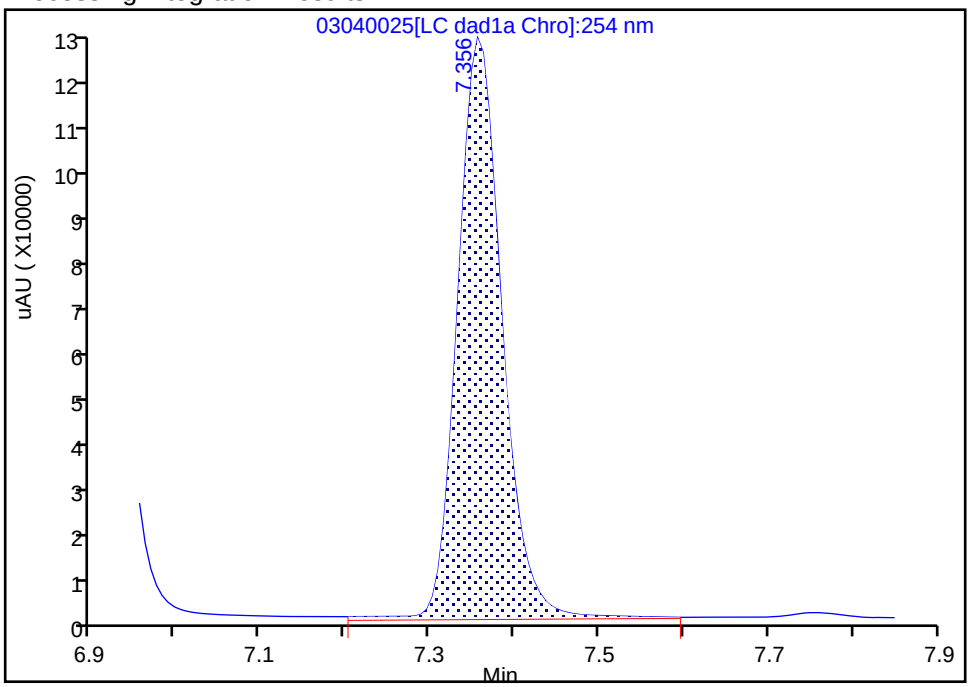
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040025.d | | | | |
| Injection Date: | 04-Mar-2020 21:00:00 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC DMT L8 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 25 | 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

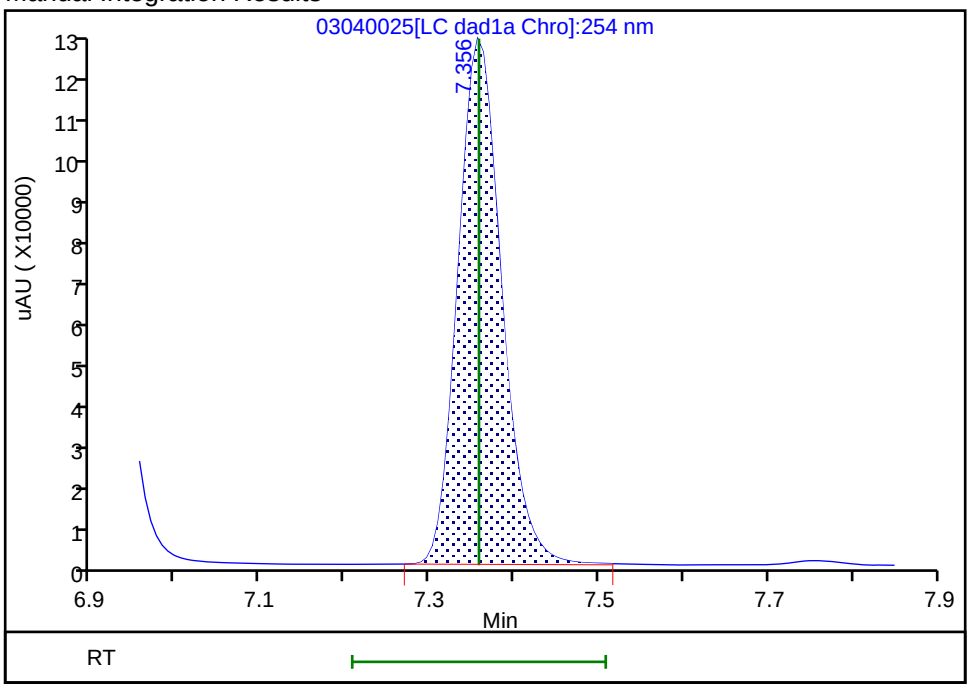
Processing Integration Results

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:

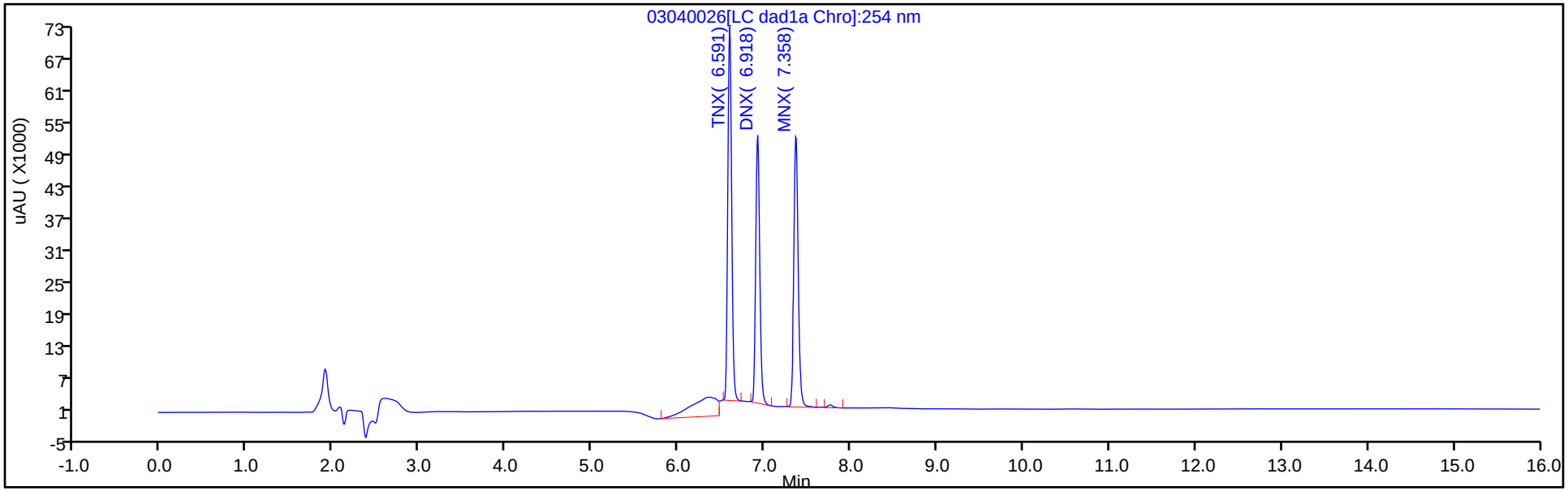
8330 DMT_00005 Amount Added: 50.00 Units: uL

Report Date: 06-Mar-2020 10:25:22 Chrom Revision: 2.3 19-Feb-2020 16:45:46

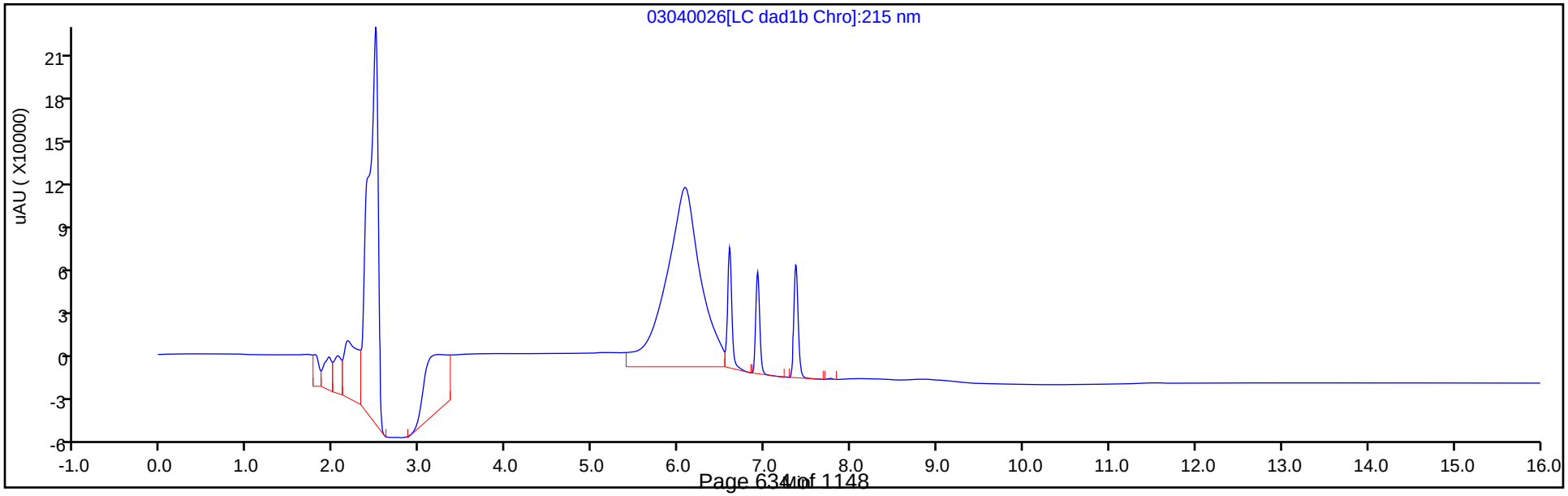
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| 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

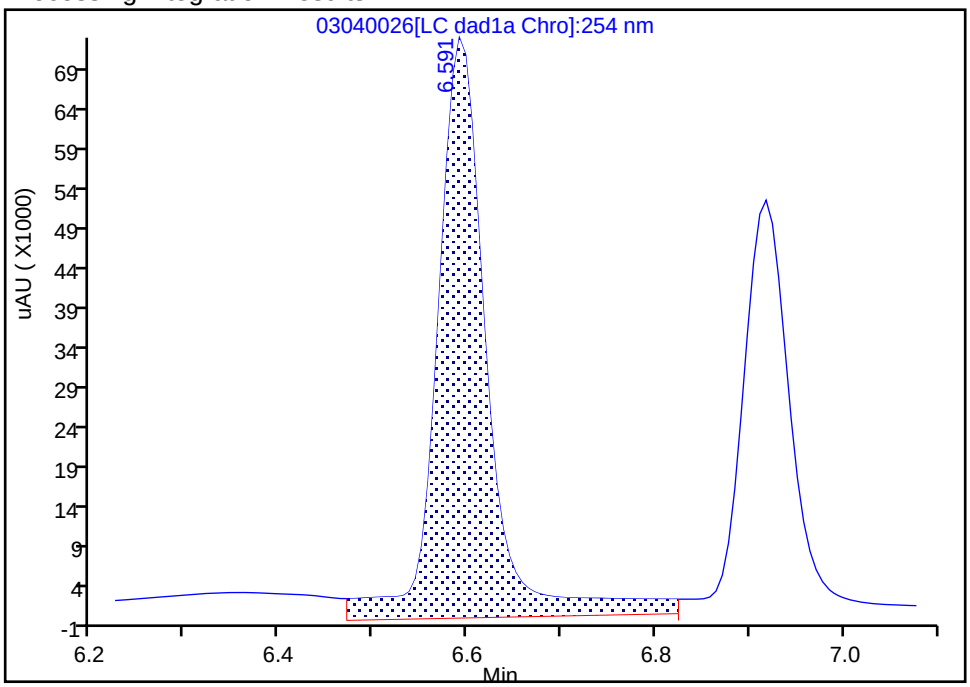
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040026.d | | | | |
| Injection Date: | 04-Mar-2020 21:23:03 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC DMT L7 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 26 | 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

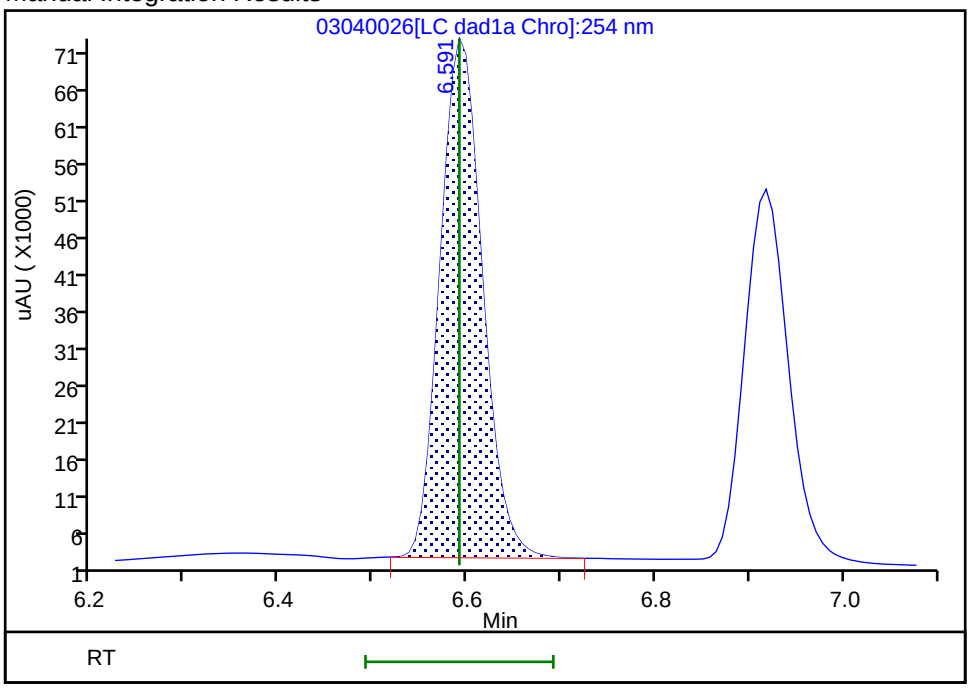
Processing Integration Results

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

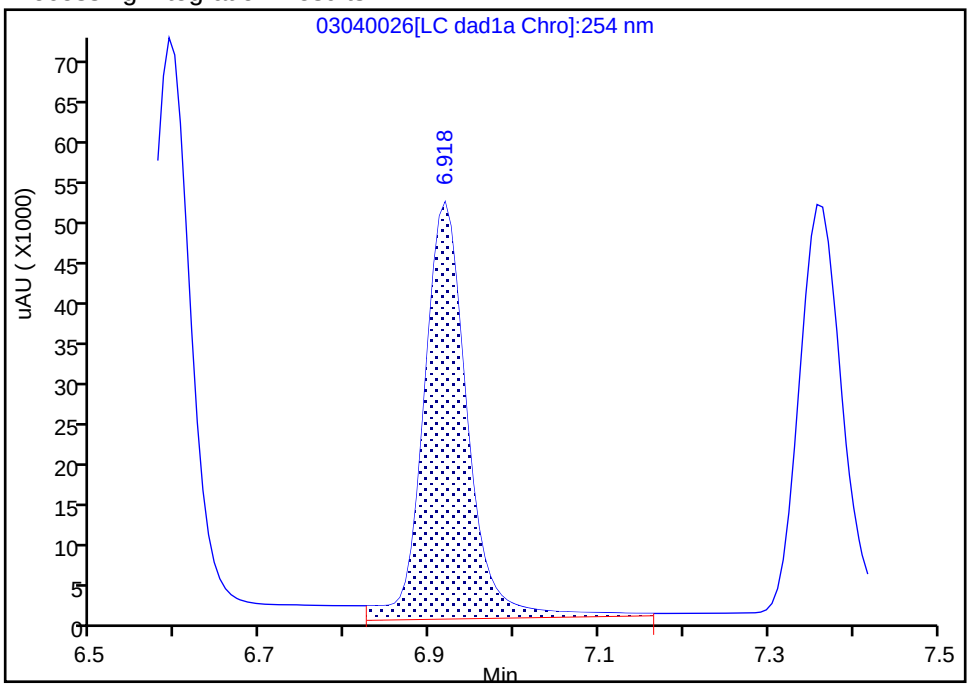
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040026.d | | | | |
| Injection Date: | 04-Mar-2020 21:23:03 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC DMT L7 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 26 | 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

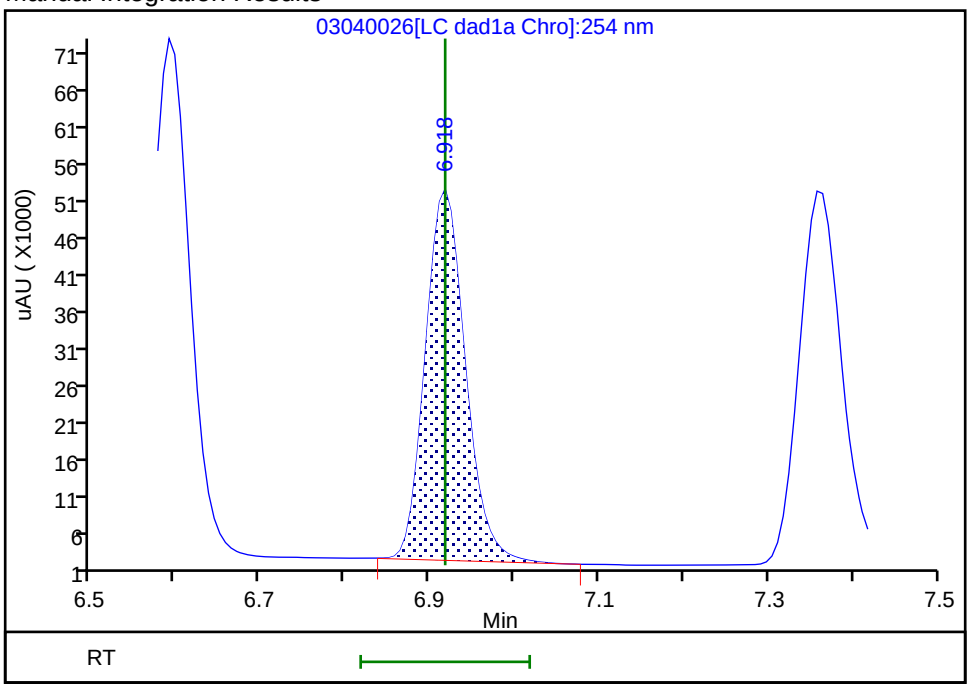
Processing Integration Results

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:

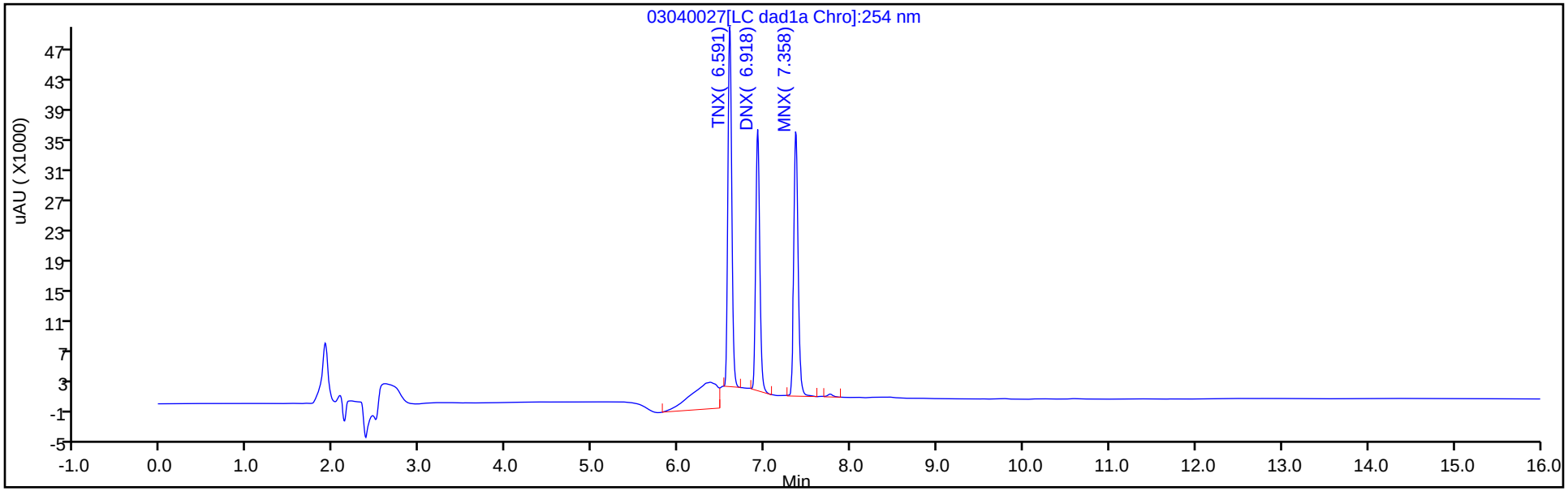
8330 DMT_00005 Amount Added: 35.00 Units: uL

Report Date: 06-Mar-2020 10:25:23 Chrom Revision: 2.3 19-Feb-2020 16:45:46

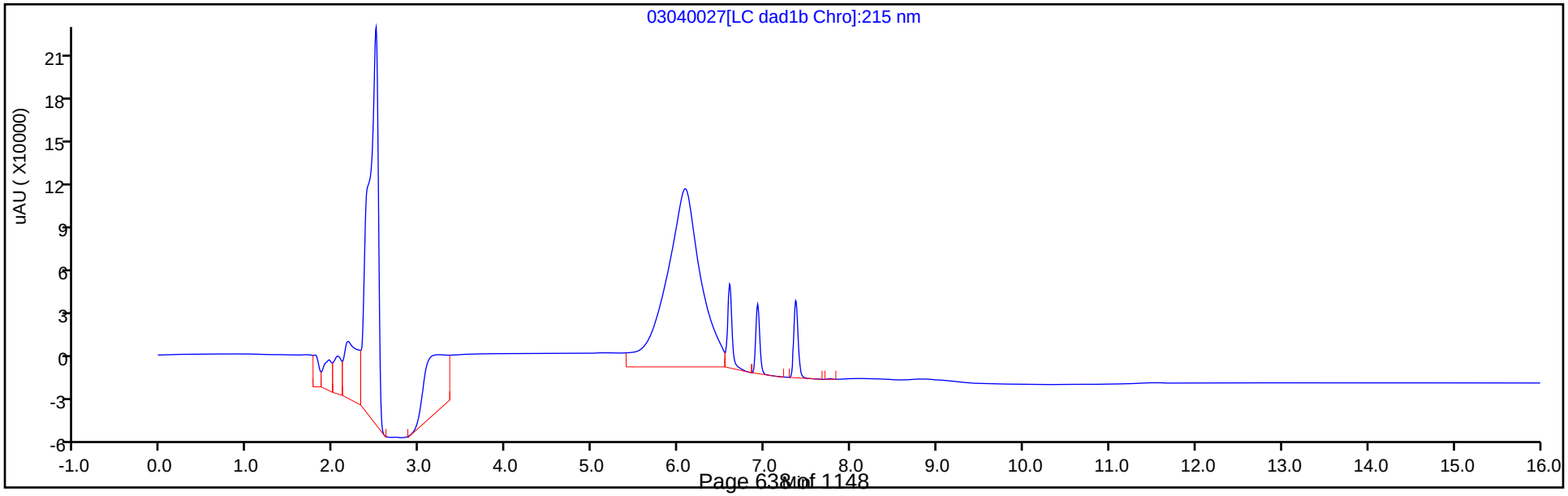
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| 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

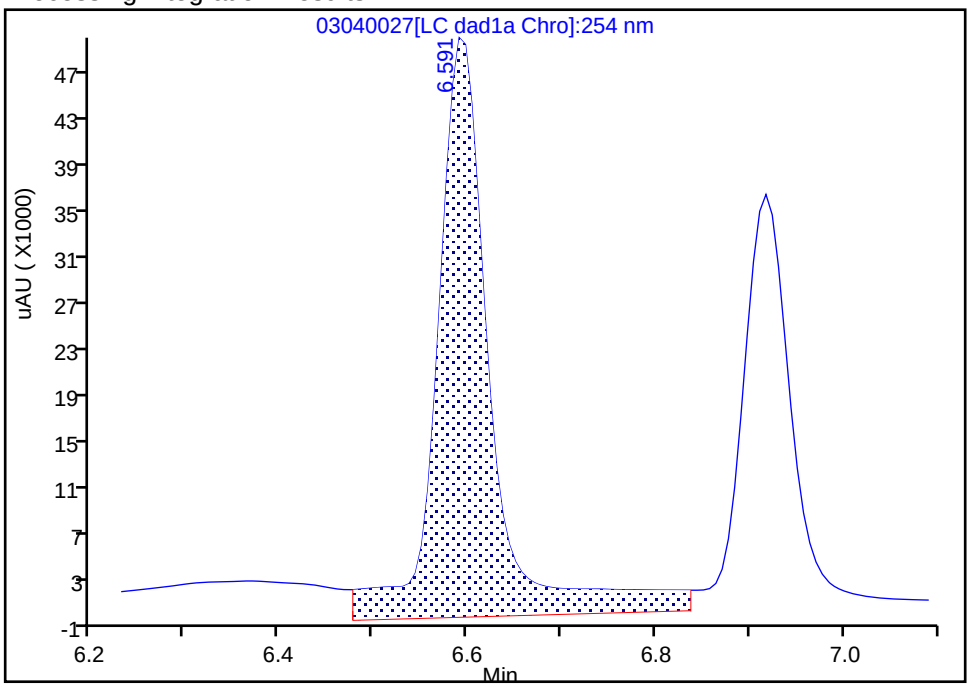
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040027.d | | | | |
| Injection Date: | 04-Mar-2020 21:45:58 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC DMT L6 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 27 | 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

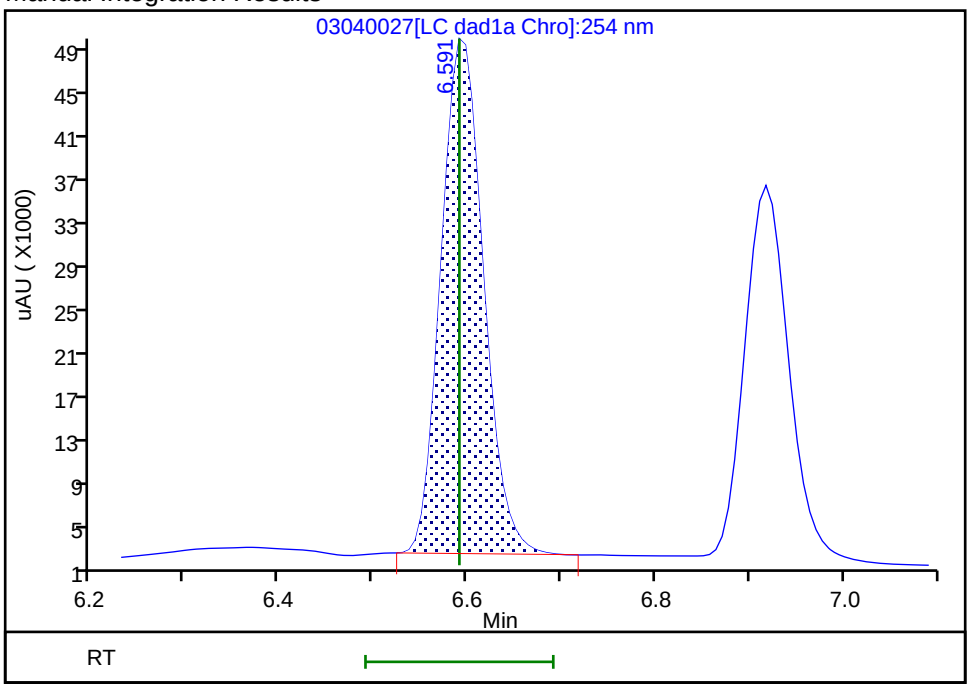
Processing Integration Results

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

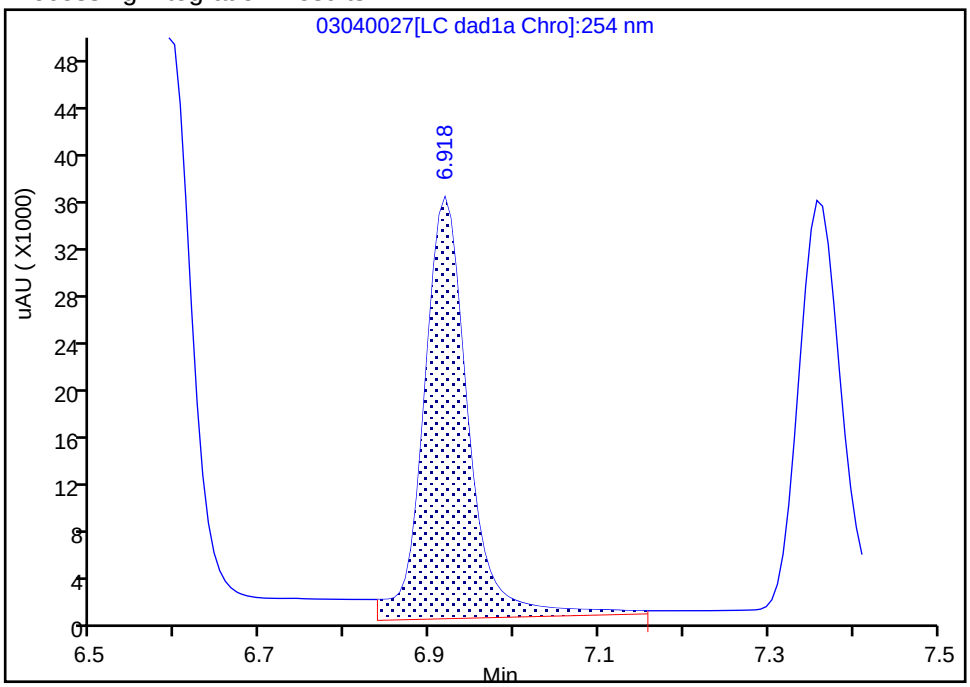
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040027.d | | | | |
| Injection Date: | 04-Mar-2020 21:45:58 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC DMT L6 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 27 | 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

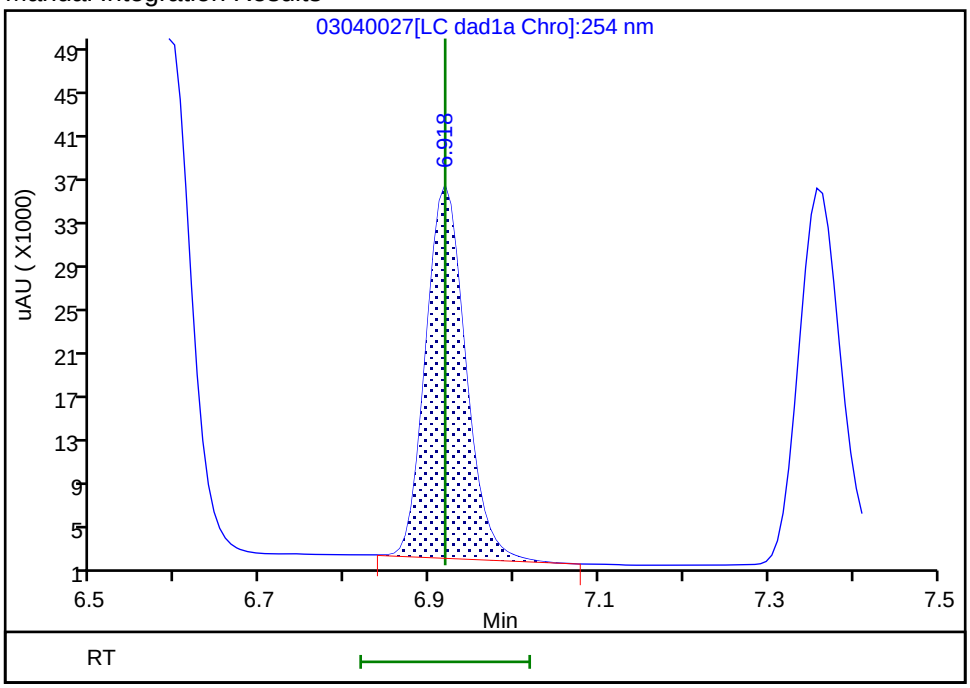
Processing Integration Results

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:

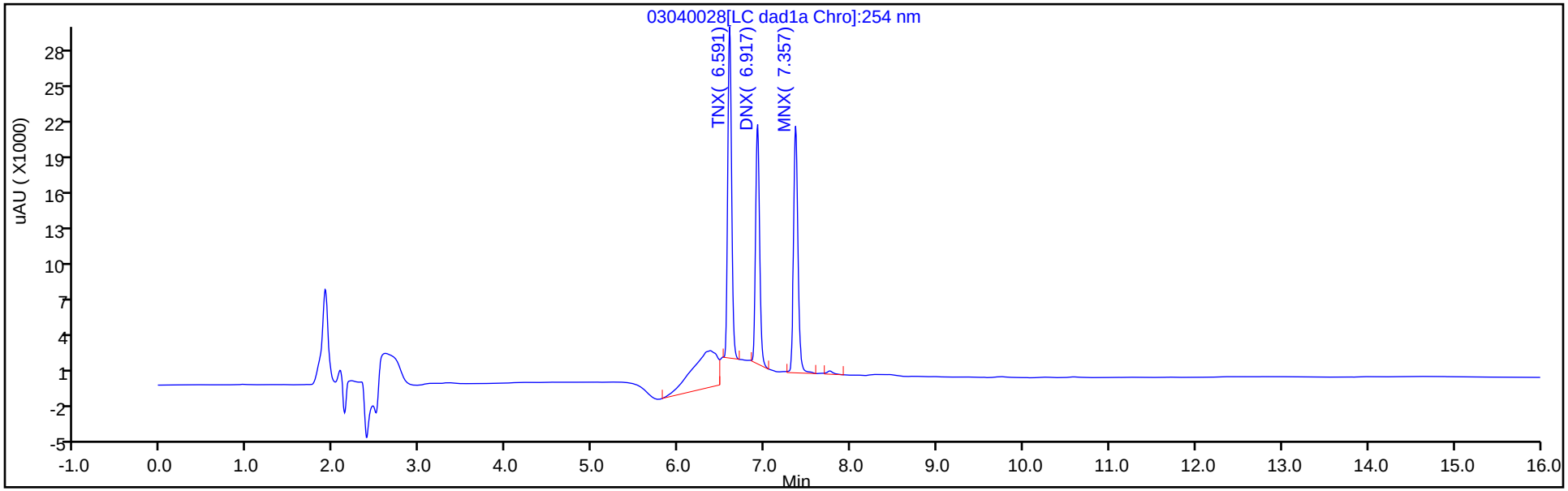
8330 DMT_00005 Amount Added: 20.00 Units: uL

Report Date: 06-Mar-2020 10:25:24 Chrom Revision: 2.3 19-Feb-2020 16:45:46

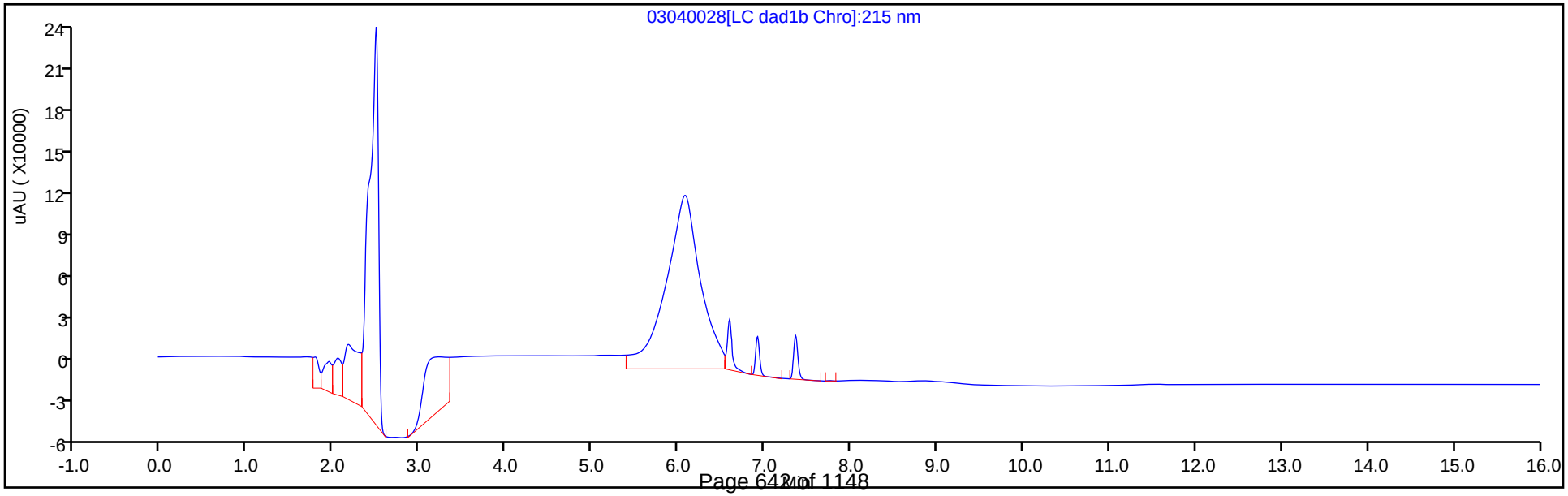
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| 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

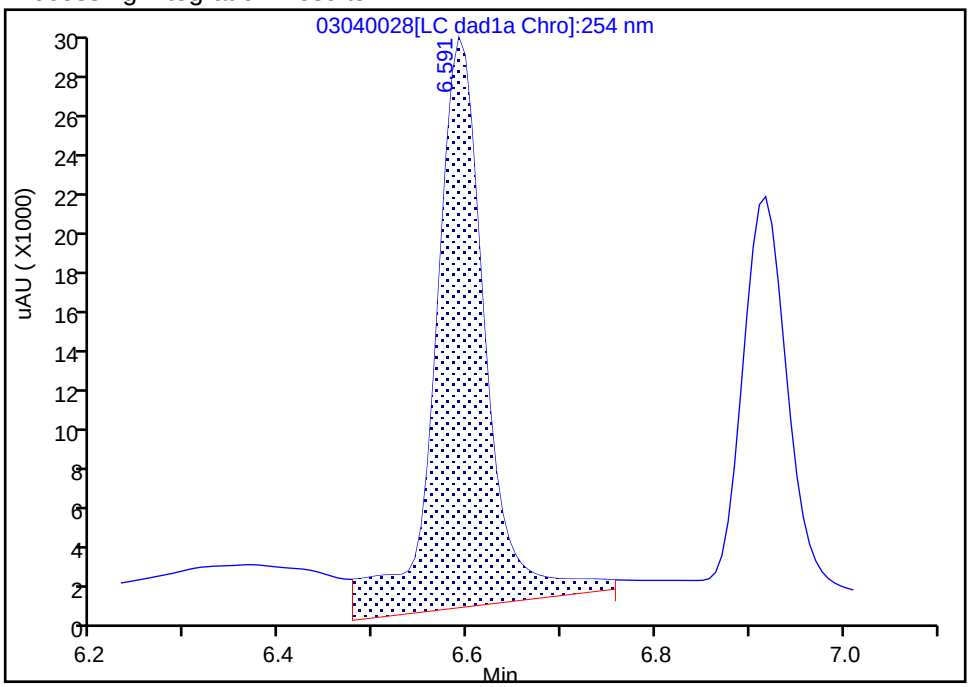
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040028.d | | | | |
| Injection Date: | 04-Mar-2020 22:09:00 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC DMT L5 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 28 | 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

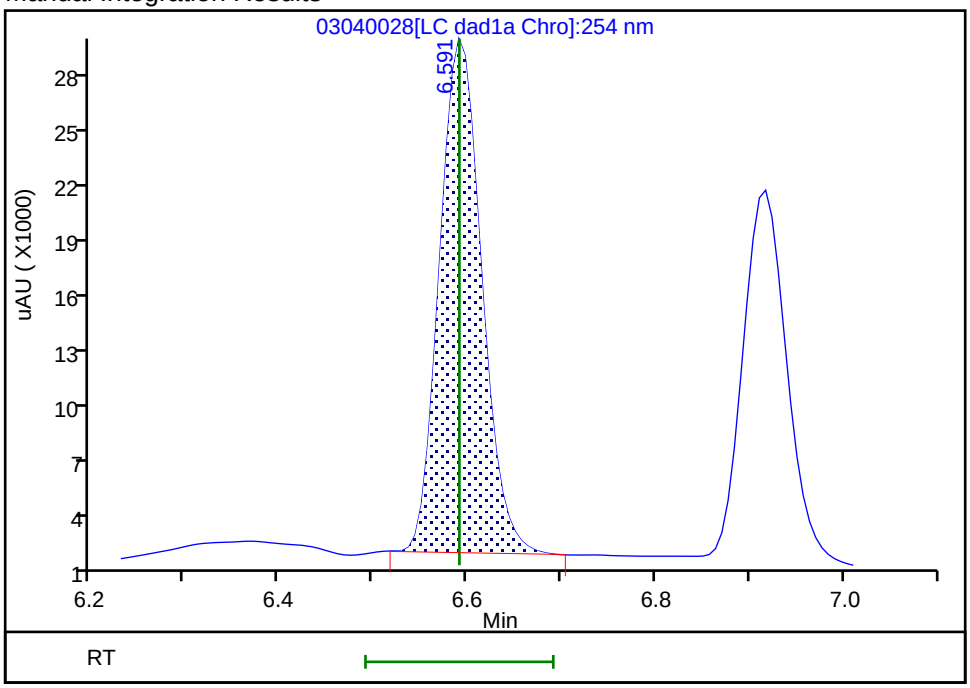
Processing Integration Results

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

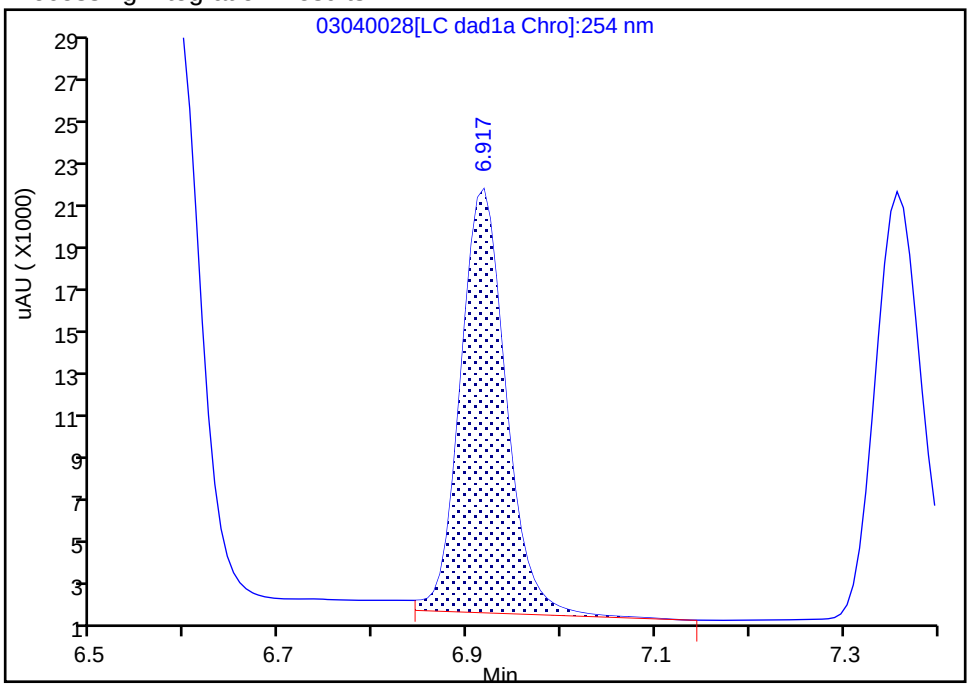
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040028.d | | | | |
| Injection Date: | 04-Mar-2020 22:09:00 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC DMT L5 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 28 | 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

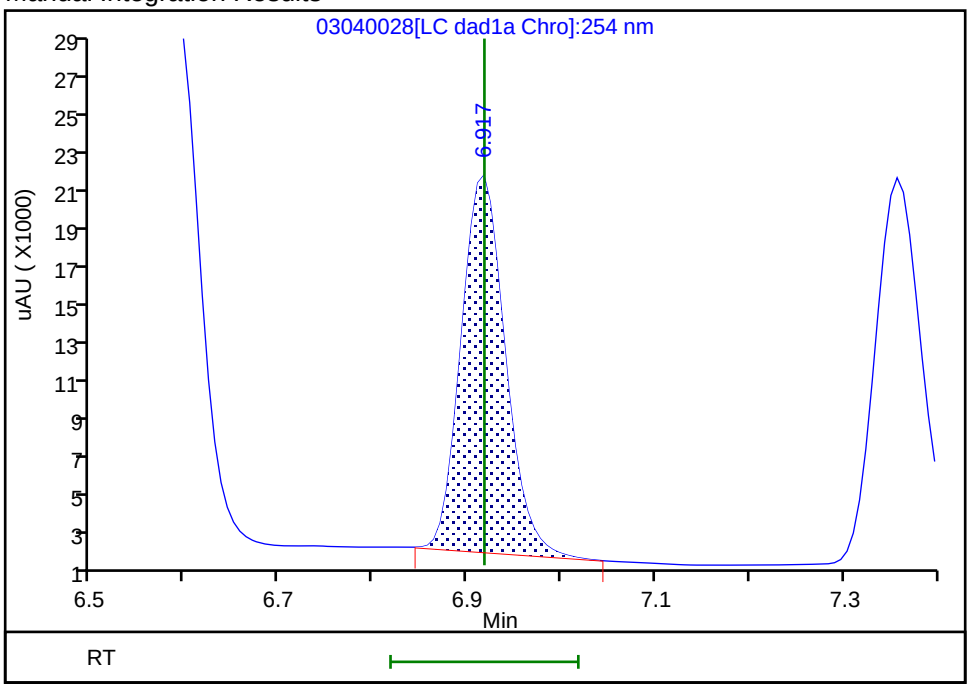
Processing Integration Results

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:

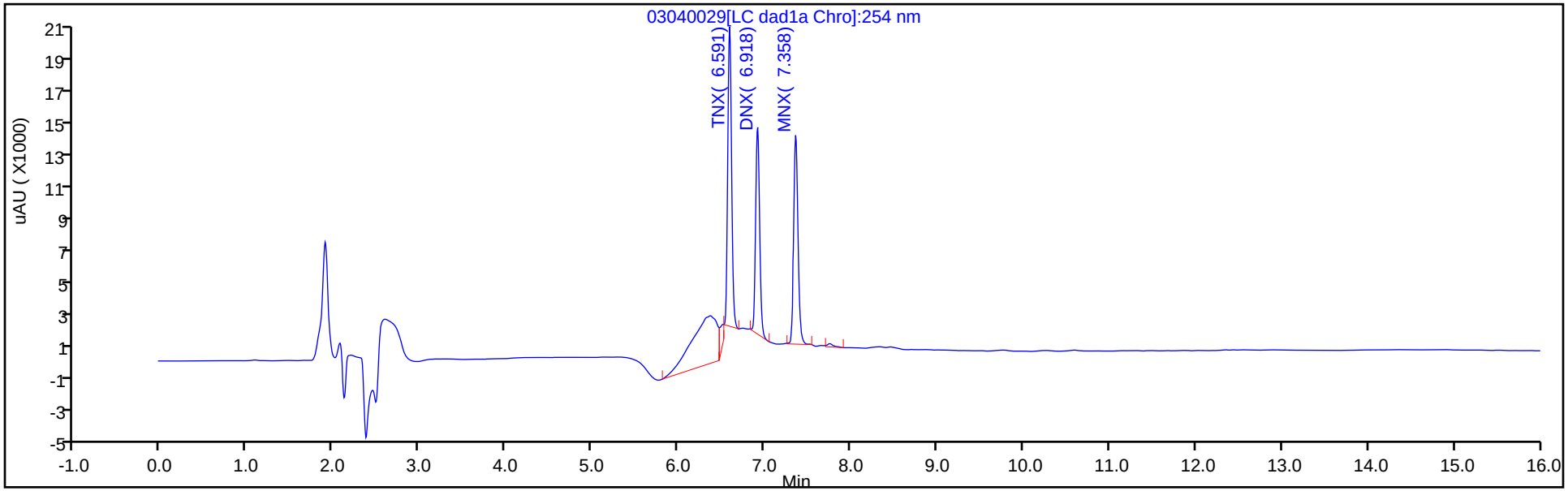
8330 DMT_00005 Amount Added: 12.50 Units: uL

Report Date: 06-Mar-2020 10:25:25 Chrom Revision: 2.3 19-Feb-2020 16:45:46

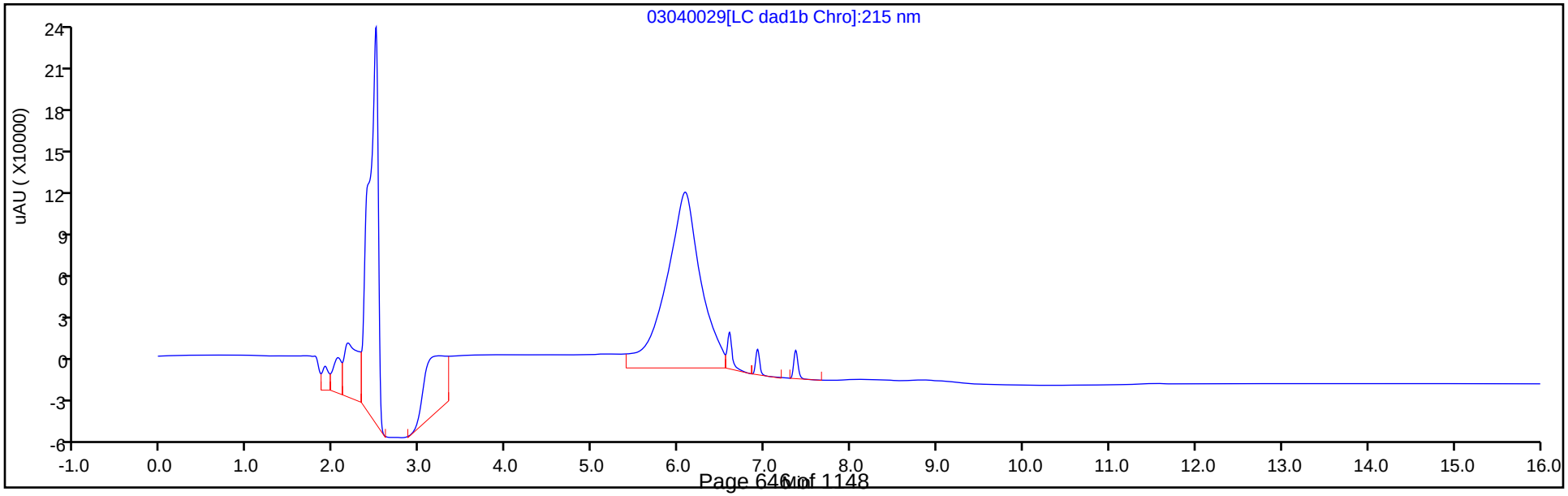
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| 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

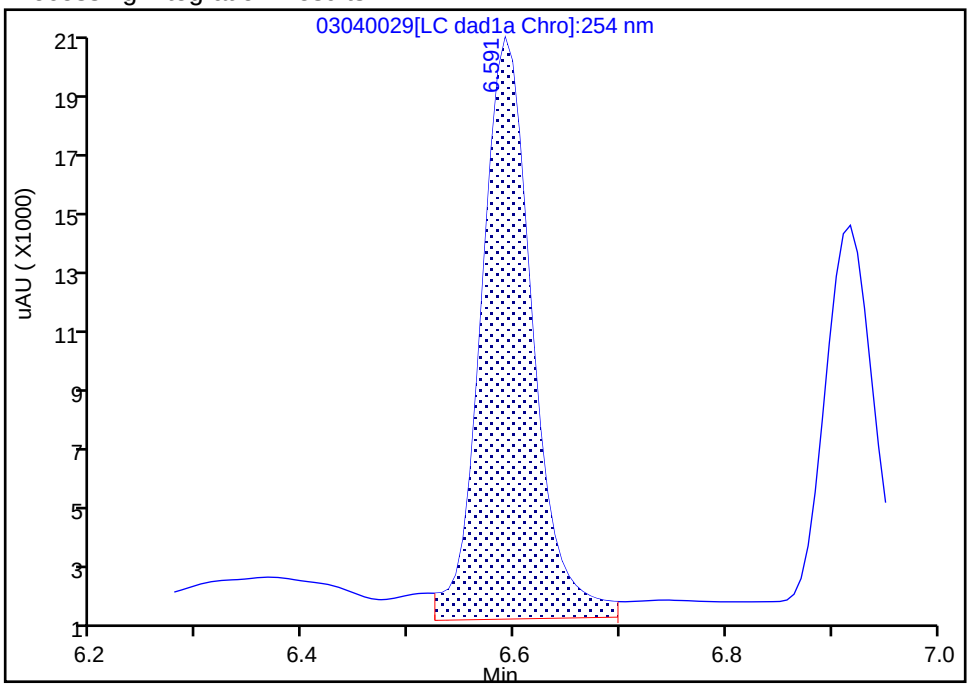
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040029.d | | | | |
| Injection Date: | 04-Mar-2020 22:31:57 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC DMT L4 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 29 | 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

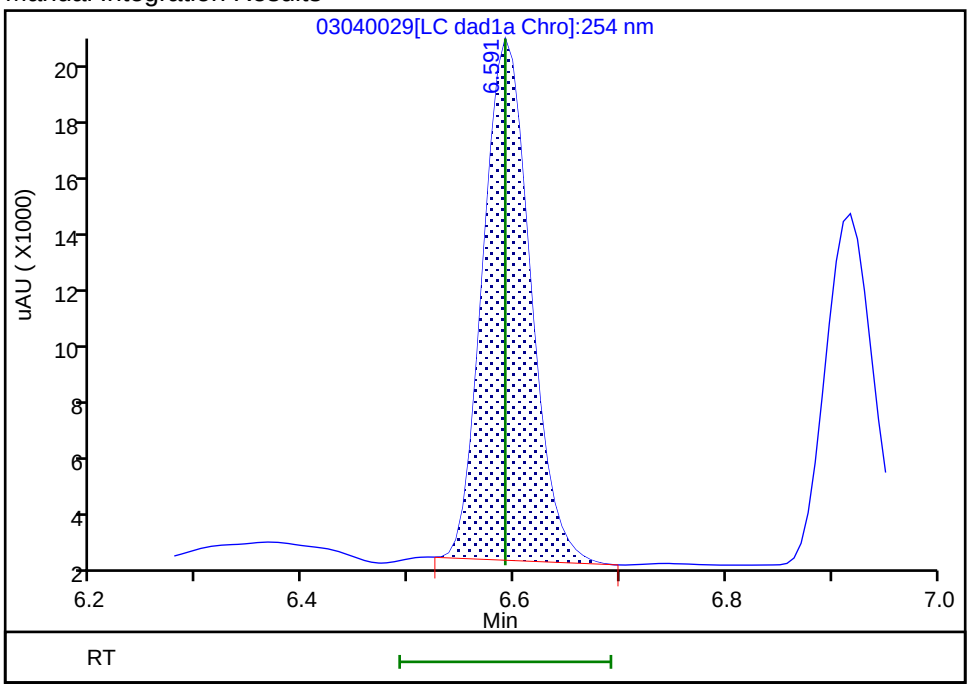
Processing Integration Results

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

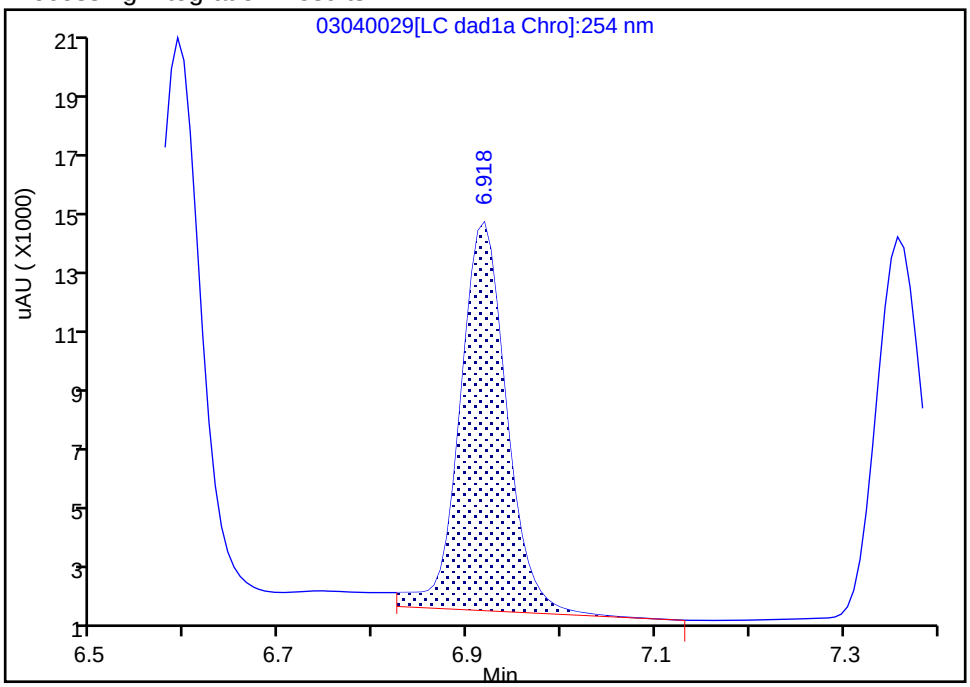
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040029.d | | | | |
| Injection Date: | 04-Mar-2020 22:31:57 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC DMT L4 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 29 | 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

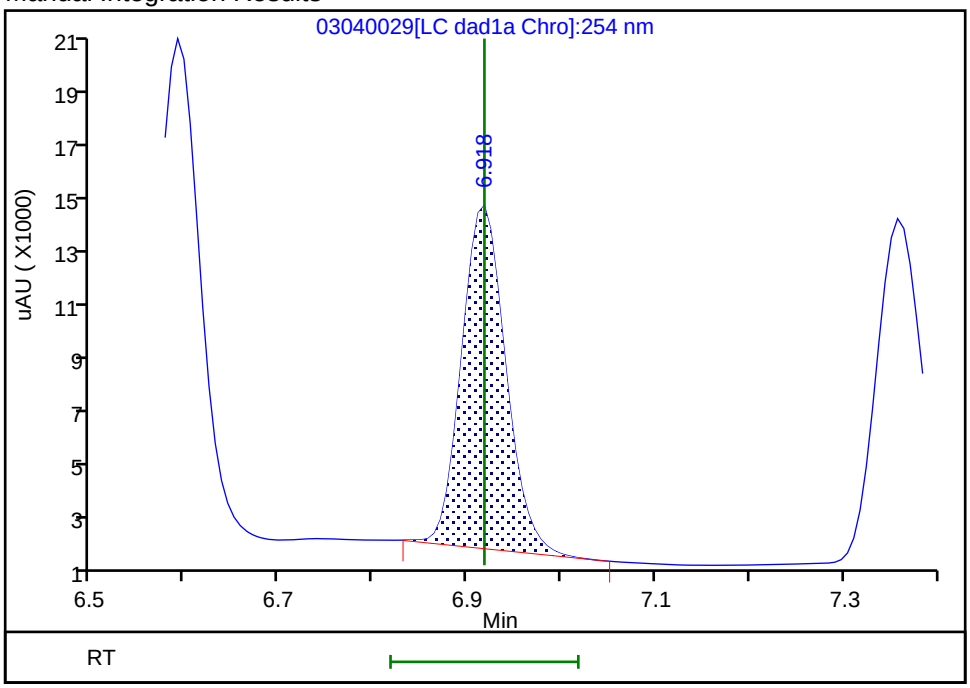
Processing Integration Results

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:

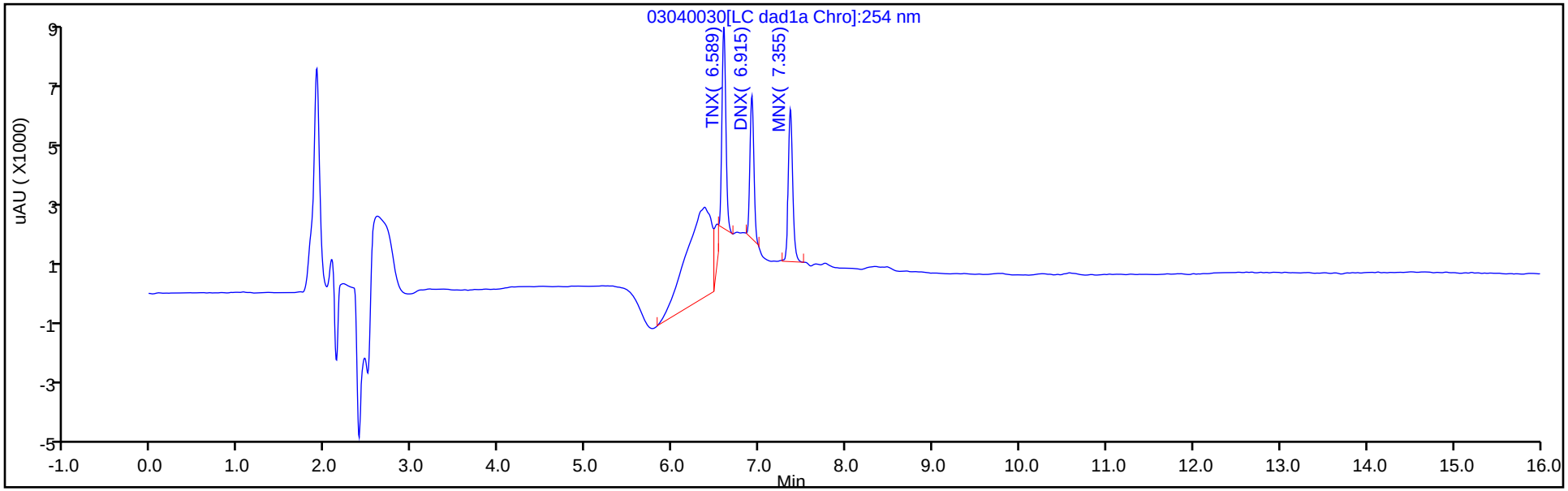
8330 DMT_00005 Amount Added: 5.00 Units: uL

Report Date: 06-Mar-2020 10:25:26 Chrom Revision: 2.3 19-Feb-2020 16:45:46

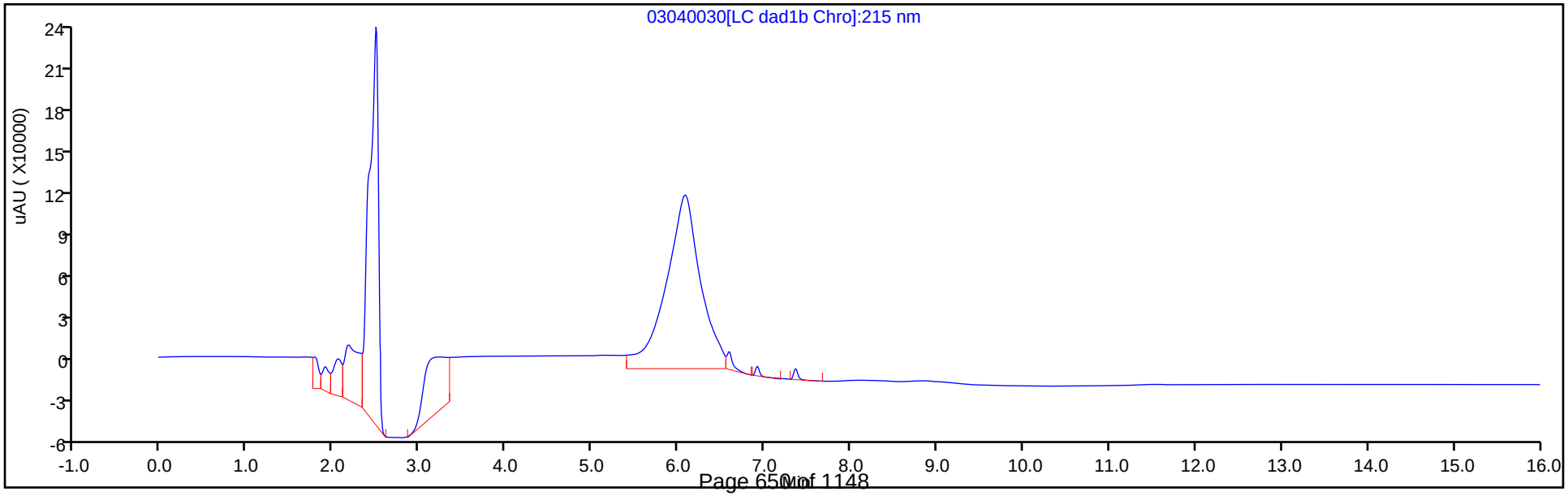
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| 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

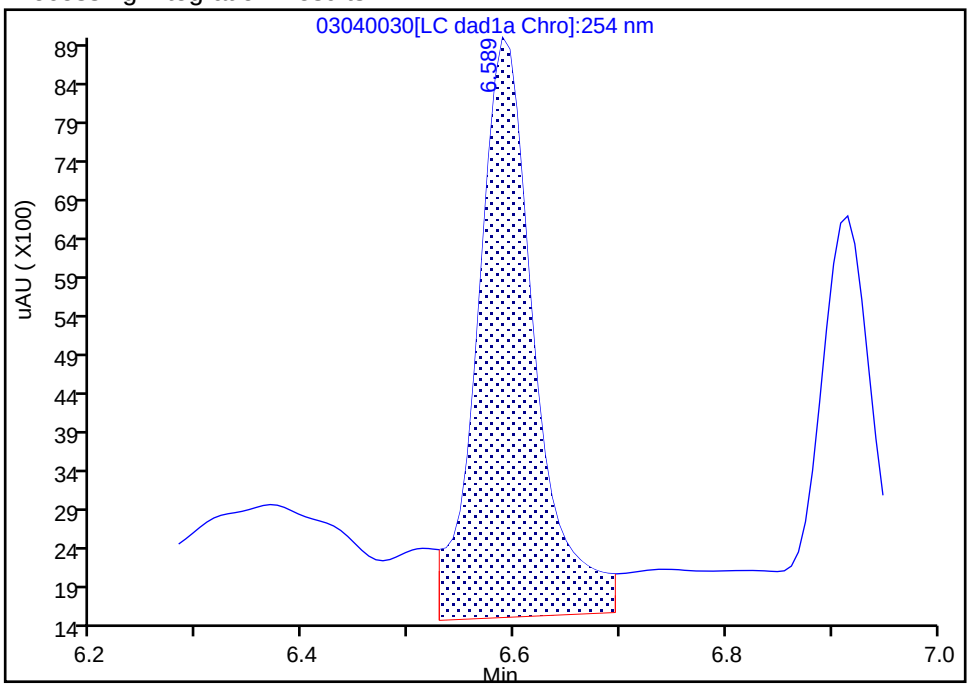
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040030.d | | | | |
| Injection Date: | 04-Mar-2020 22:54:53 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC DMT L3 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 30 | 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

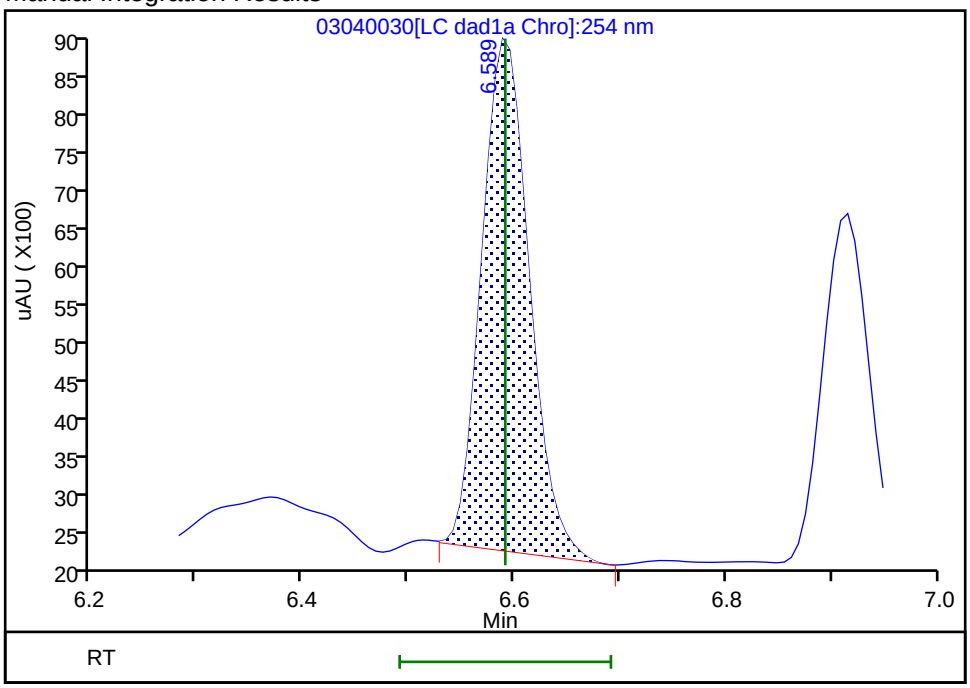
Processing Integration Results

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

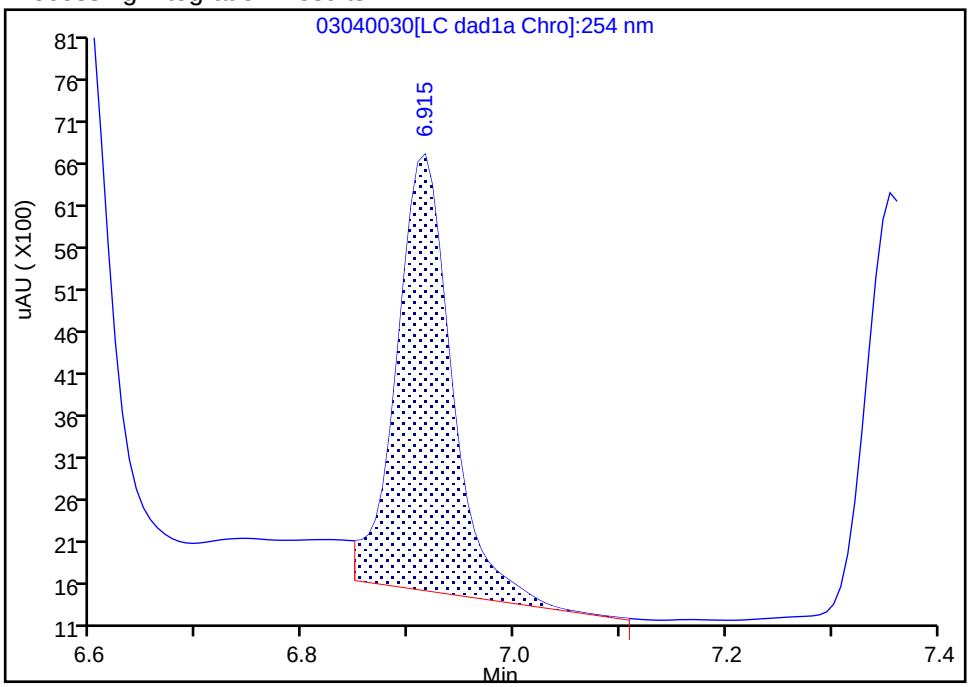
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040030.d | | | | |
| Injection Date: | 04-Mar-2020 22:54:53 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC DMT L3 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 30 | 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

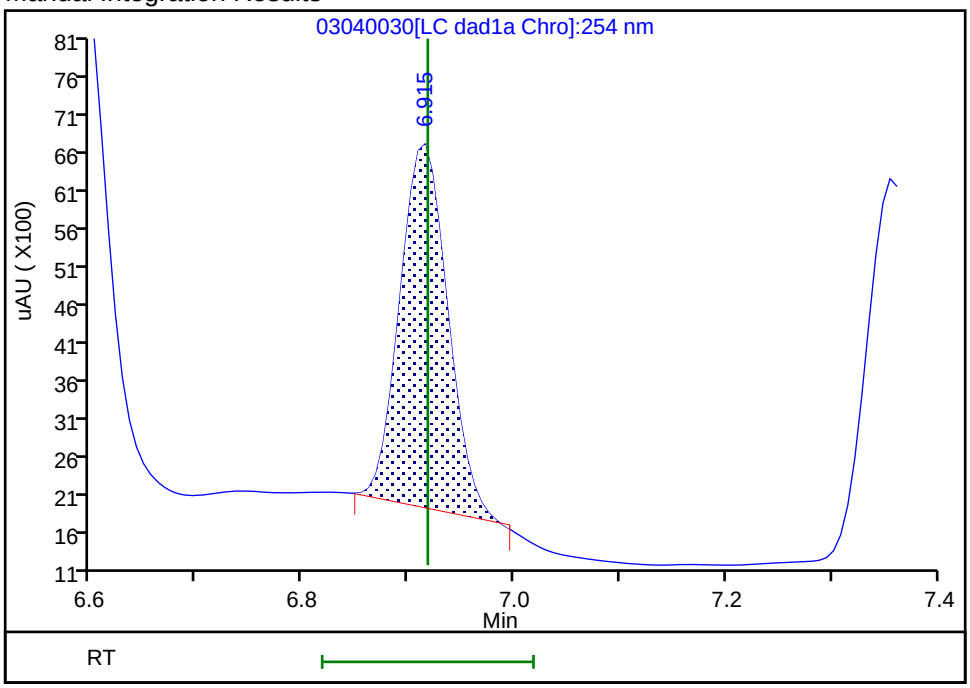
Processing Integration Results

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:

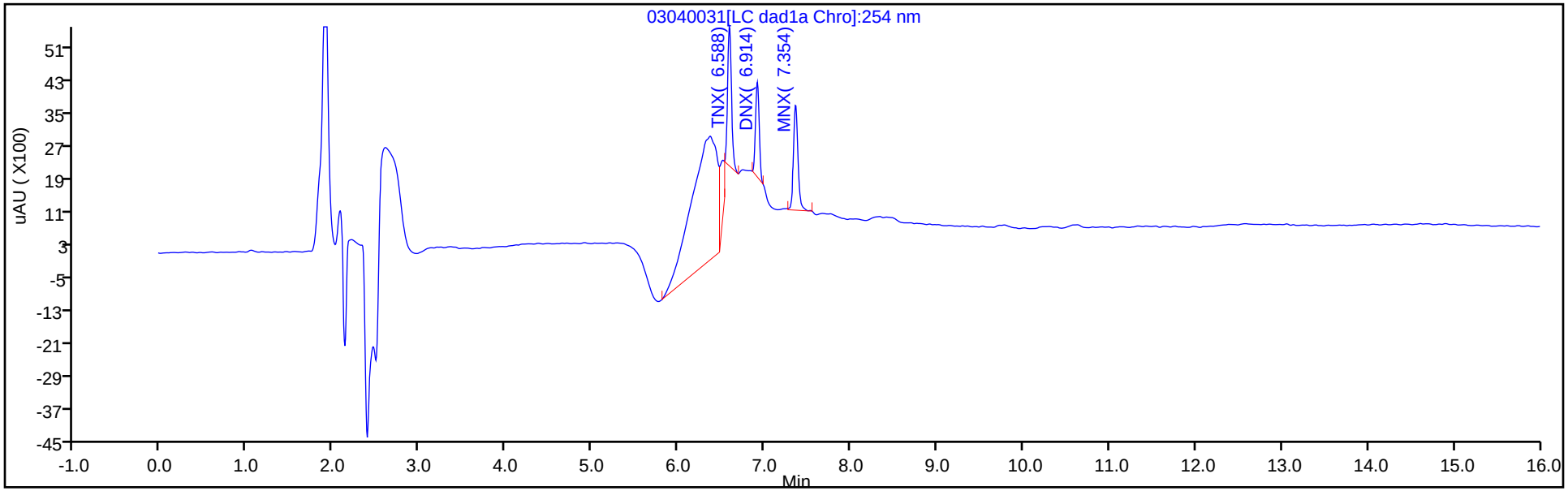
8330 DMT_00005 Amount Added: 2.50 Units: uL

Report Date: 06-Mar-2020 10:25:27 Chrom Revision: 2.3 19-Feb-2020 16:45:46

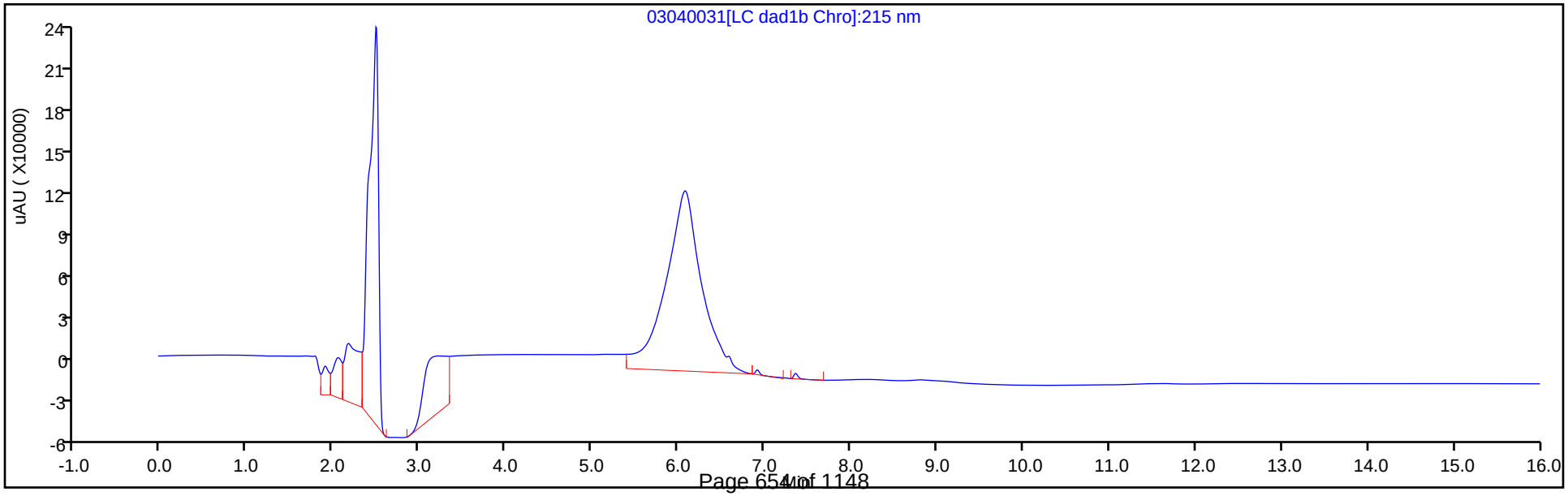
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| 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

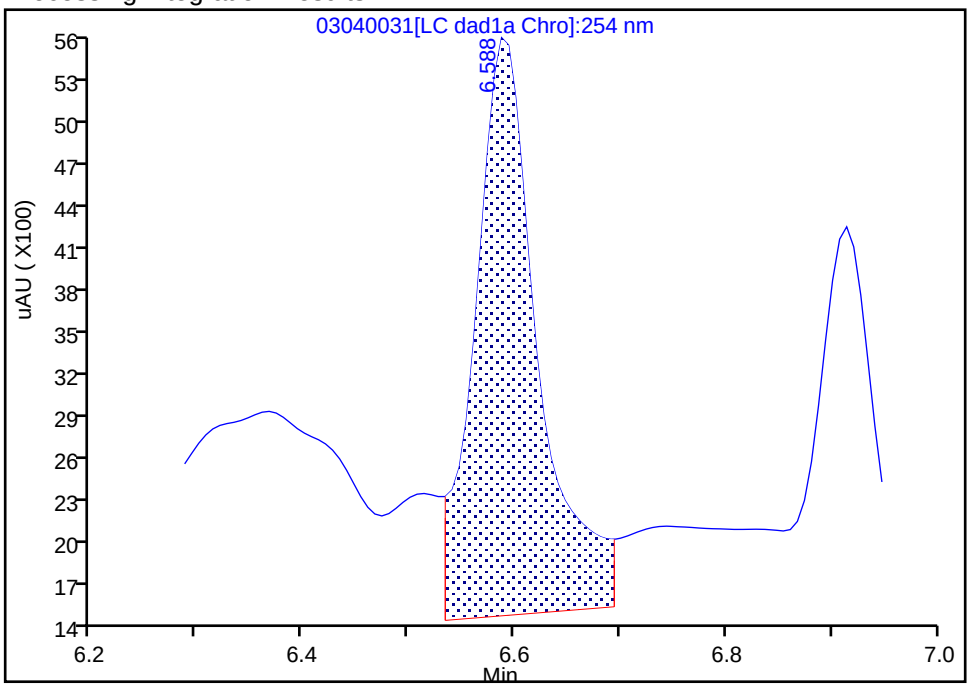
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040031.d | | | | |
| Injection Date: | 04-Mar-2020 23:17:52 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC DMT L2 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 31 | 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

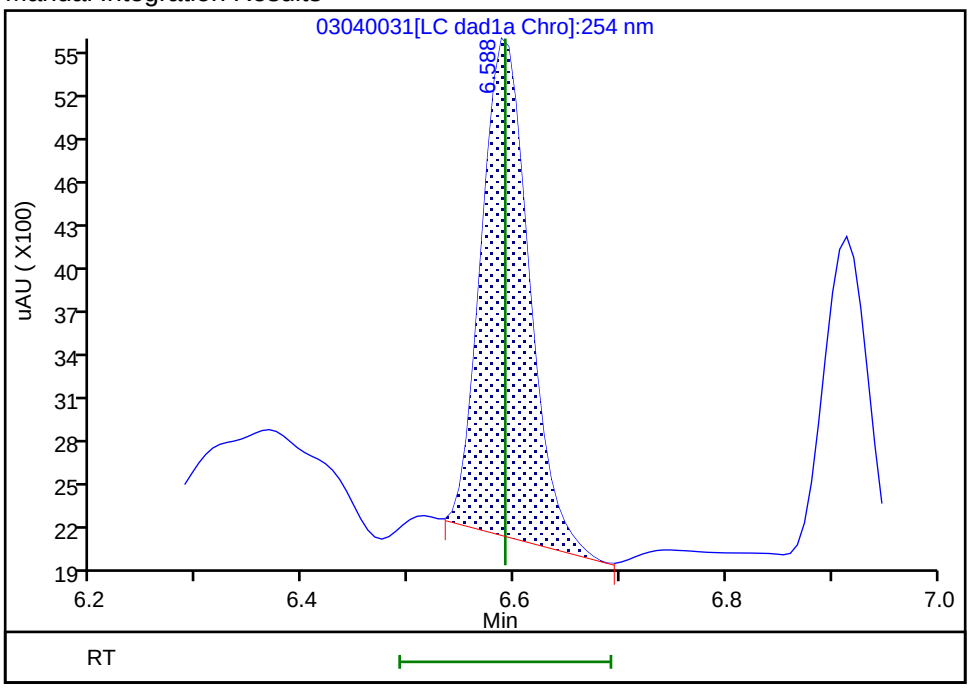
Processing Integration Results

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

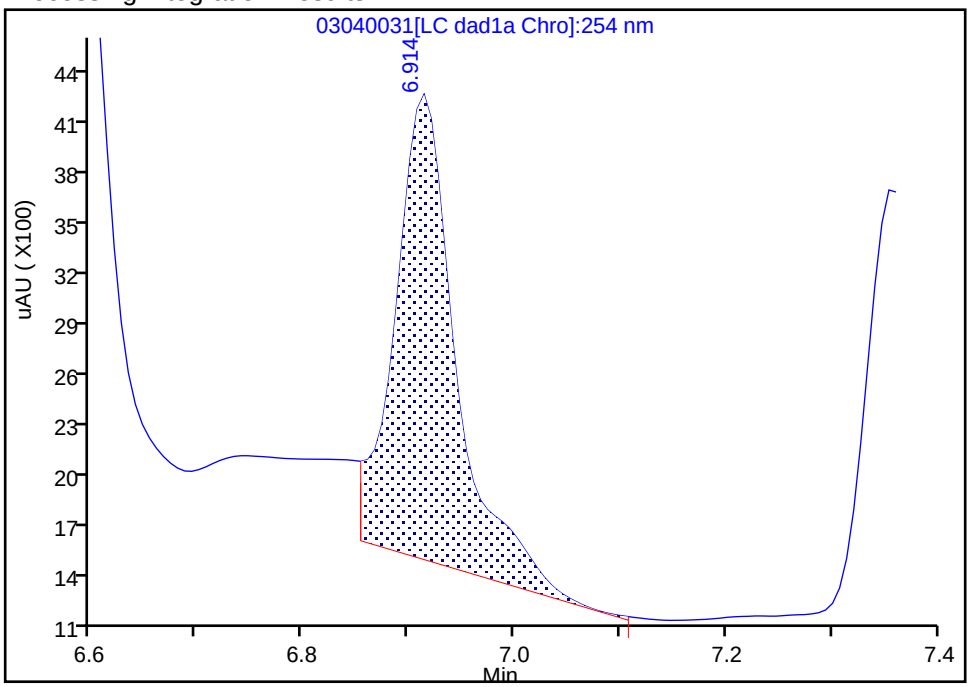
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040031.d | | | | |
| Injection Date: | 04-Mar-2020 23:17:52 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC DMT L2 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 31 | 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

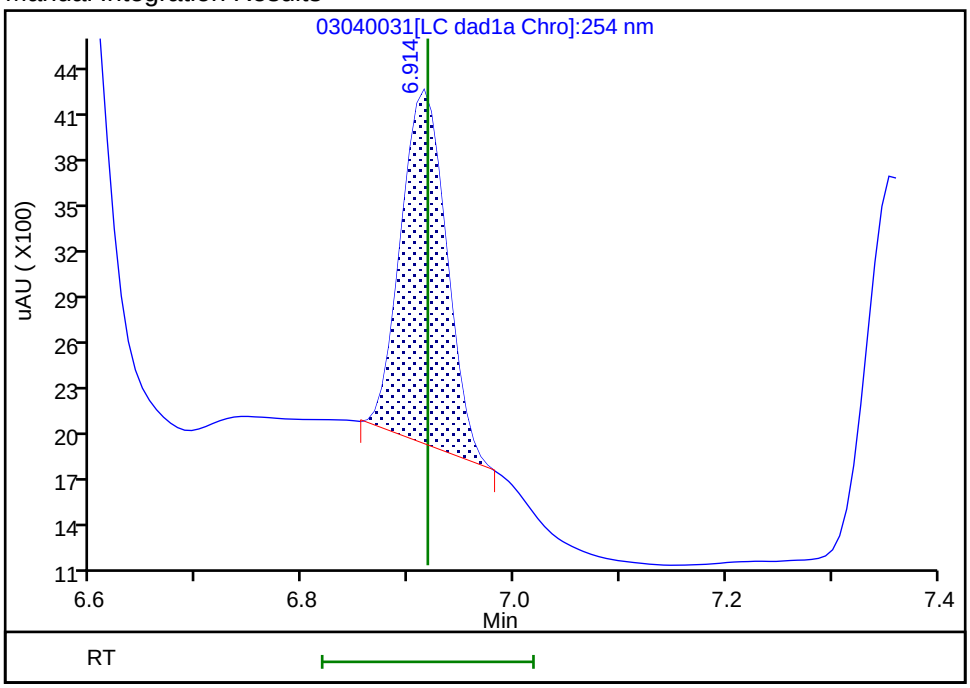
Processing Integration Results

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:

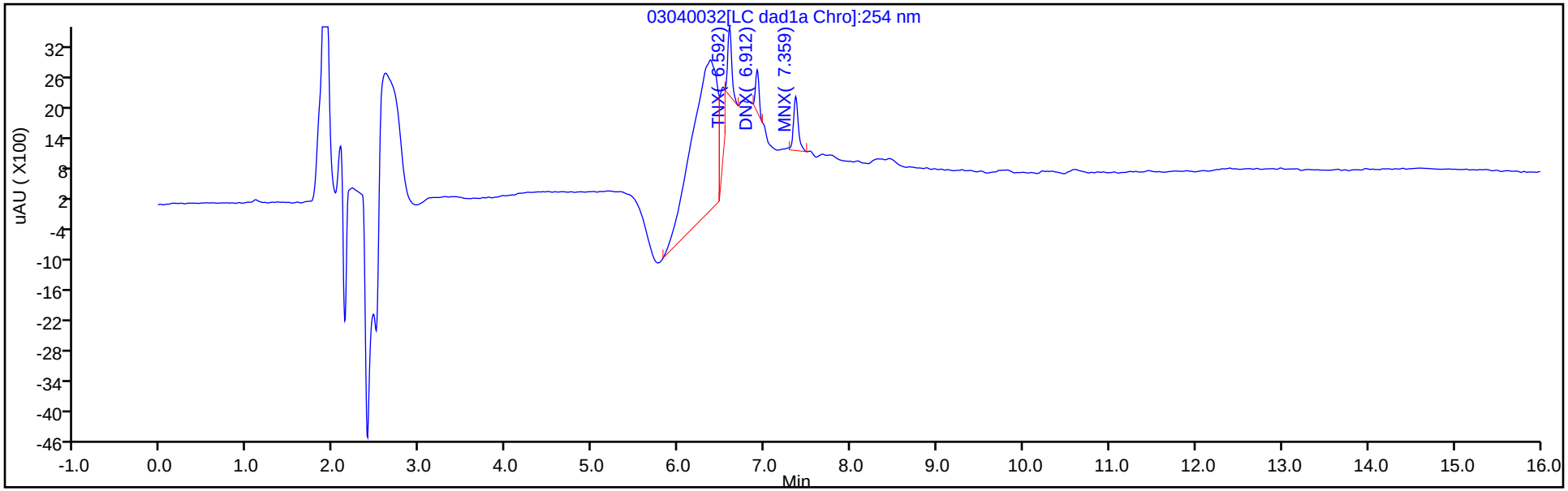
8330 DMT_00005 Amount Added: 1.00 Units: uL

Report Date: 06-Mar-2020 10:25:28 Chrom Revision: 2.3 19-Feb-2020 16:45:46

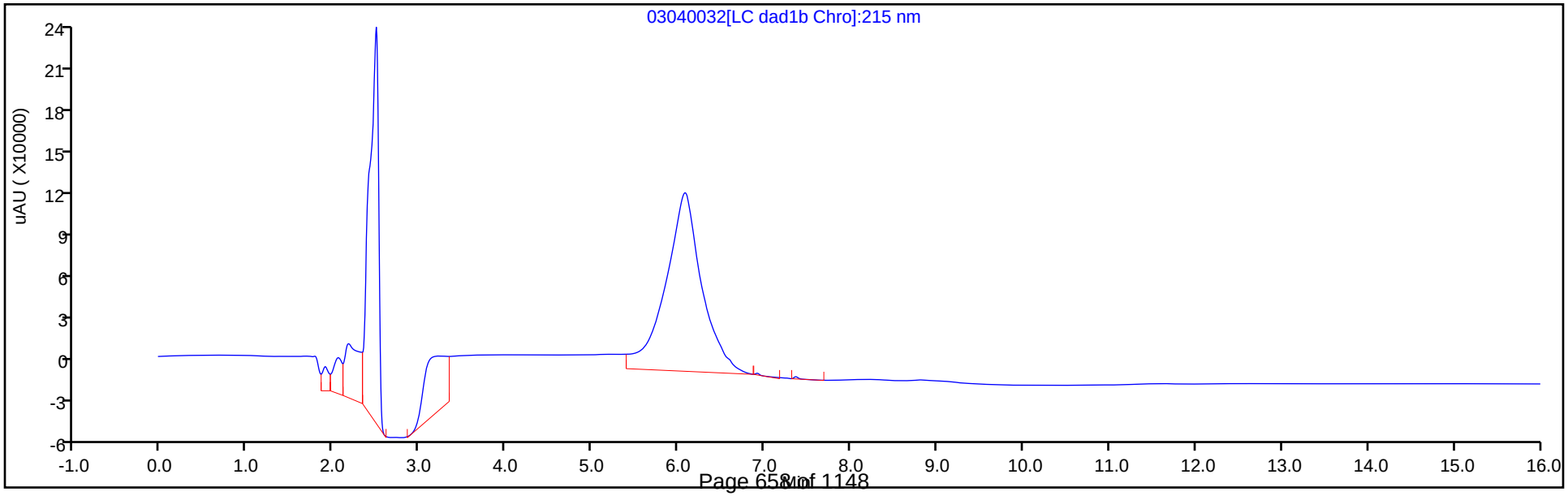
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| 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

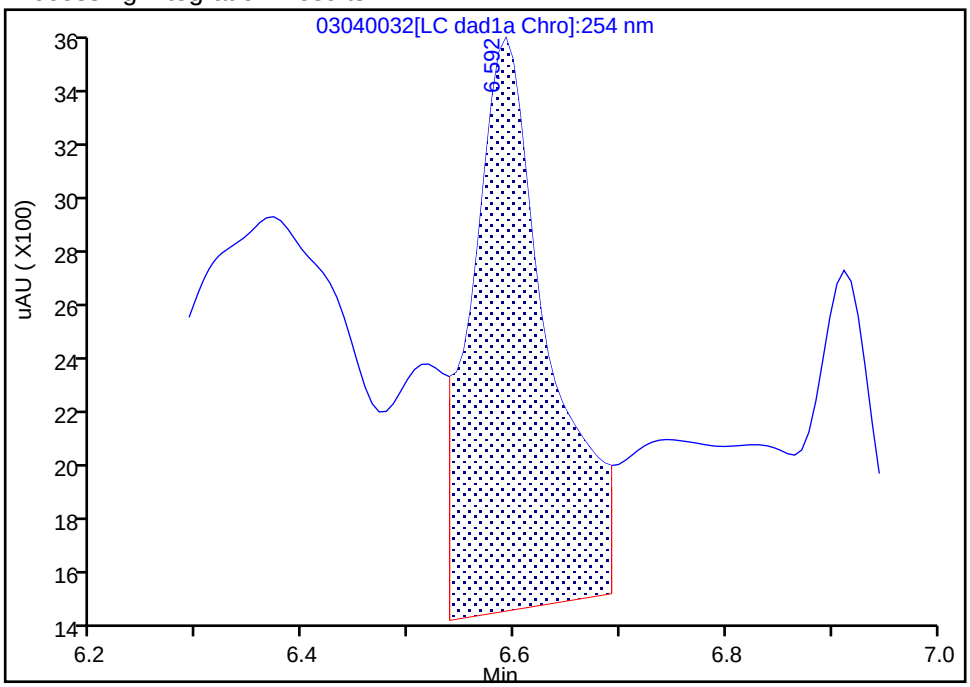
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040032.d | | | | |
| Injection Date: | 04-Mar-2020 23:40:46 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC DMT L1 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 32 | 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

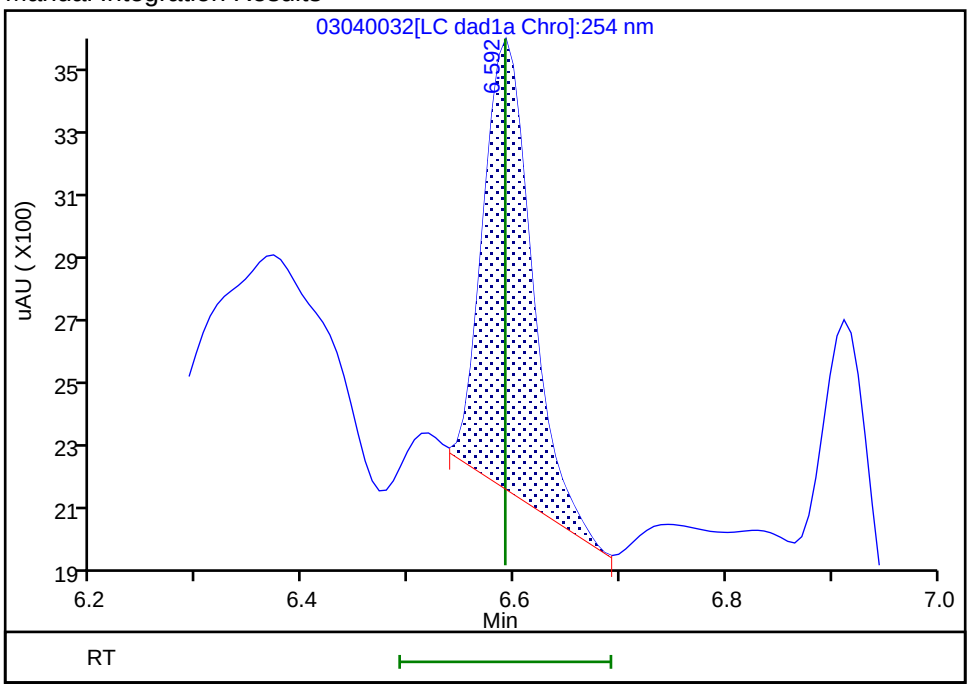
Processing Integration Results

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

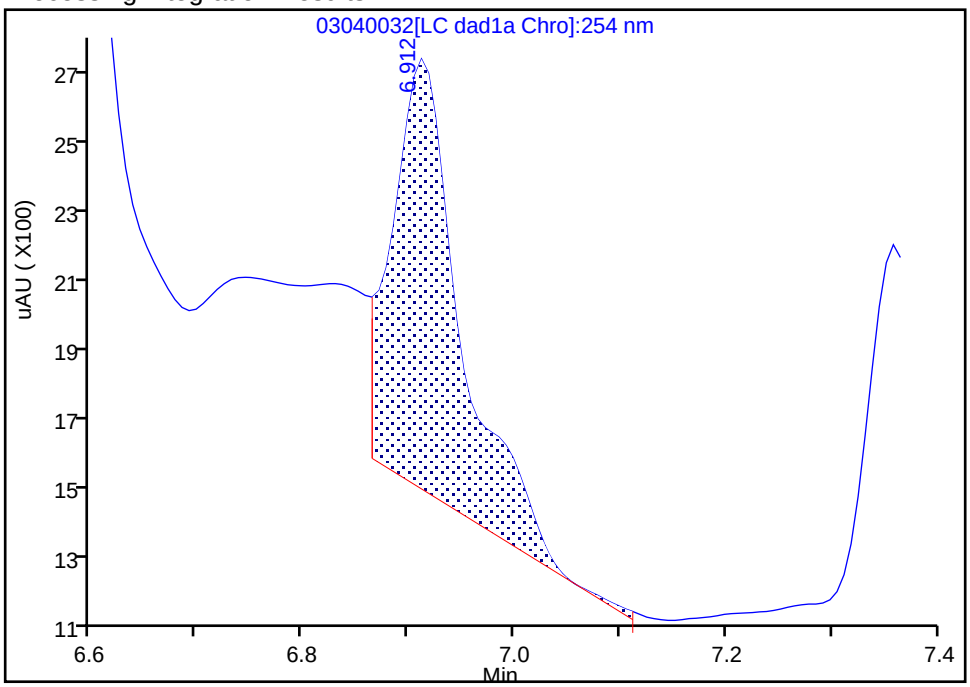
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040032.d | | | | |
| Injection Date: | 04-Mar-2020 23:40:46 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | IC DMT L1 | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 32 | 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

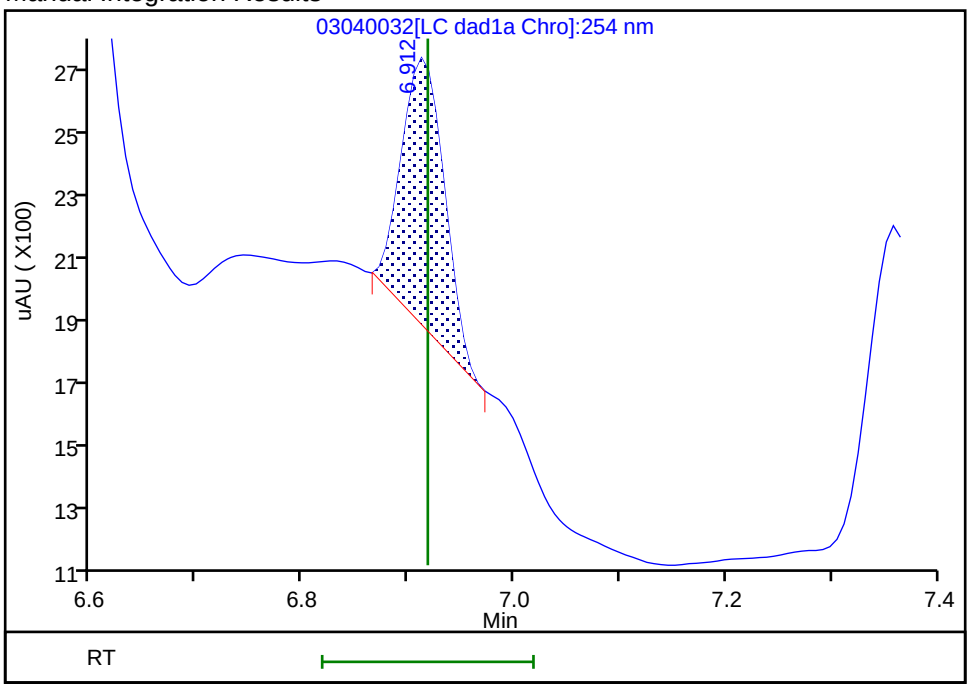
Processing Integration Results

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.: 280-134268-1

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.: 280-134268-1

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:

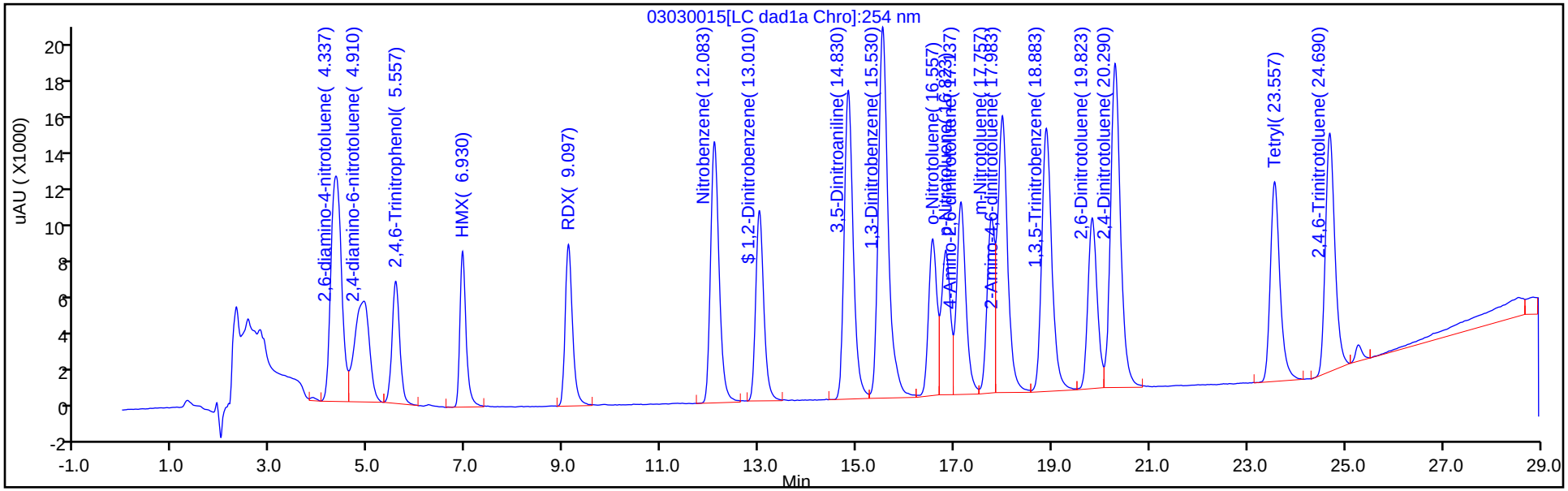
| | | | |
|---|---|---|---|
| 8330Surrogate_00109 | Amount Added: | 40.00 | Units: uL |
| 3,5-DNA LCS_00034 | Amount Added: | 40.00 | Units: uL |
| 8330 LCS_00094 | Amount Added: | 40.00 | Units: uL |
| 8330DiaminLCS_00036 | Amount Added: | 40.00 | Units: uL |

Report Date: 05-Mar-2020 11:40:11 Chrom Revision: 2.3 19-Feb-2020 16:45:46

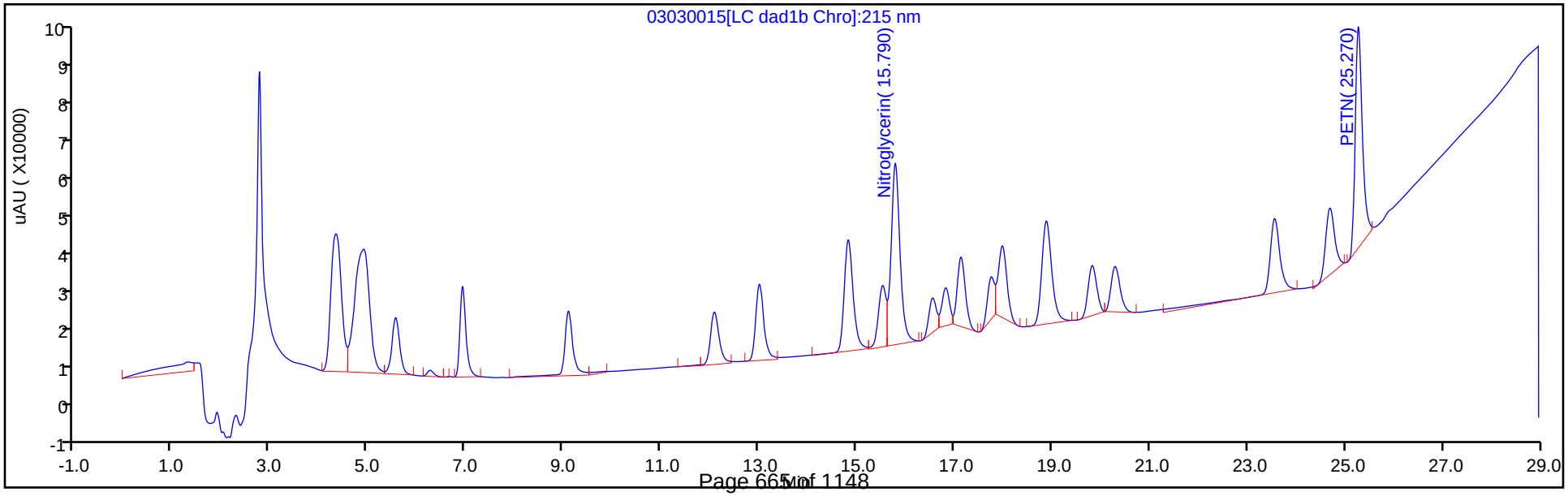
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| 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

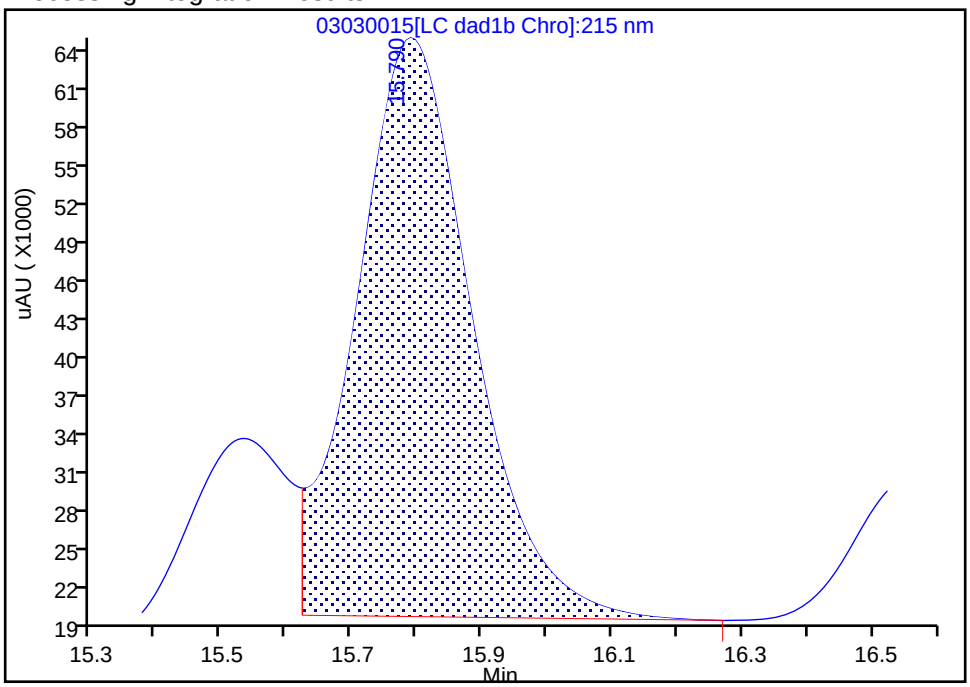
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\g2_luna\20200303-89749.b\03030015.d | | | | |
| Injection Date: | 03-Mar-2020 22:41:21 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | ICV FULL | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 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

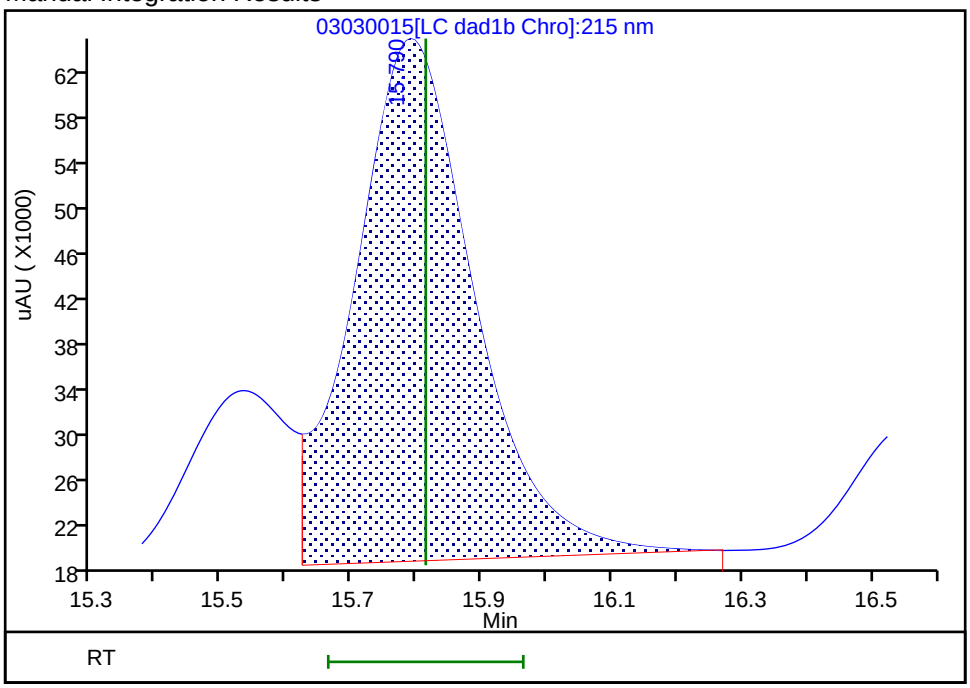
Processing Integration Results

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.: 280-134268-1

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.: 280-134268-1

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:

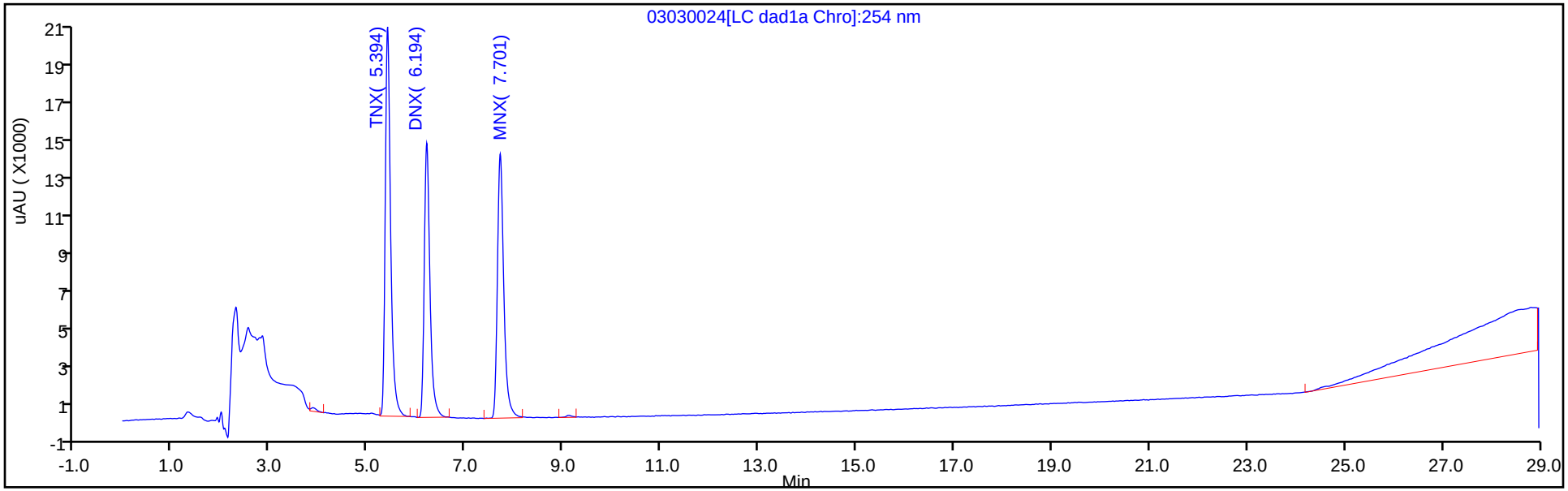
8330_OP_DMT_00005 Amount Added: 40.00 Units: uL

Report Date: 05-Mar-2020 11:27:57 Chrom Revision: 2.3 19-Feb-2020 16:45:46

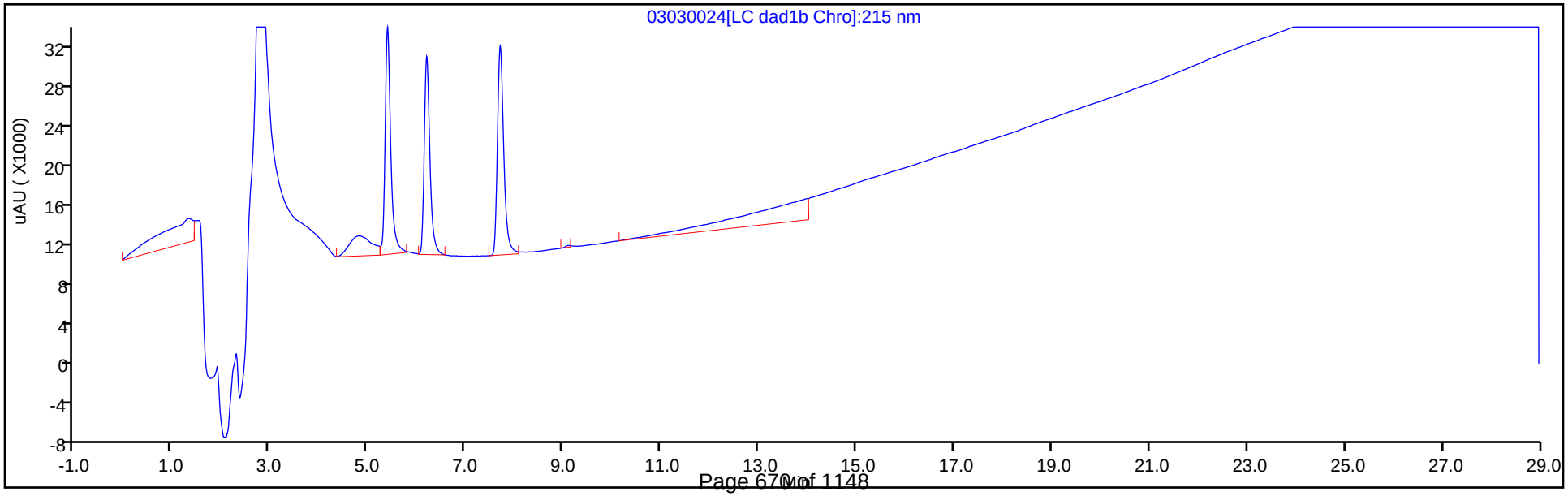
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| 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.: 280-134268-1

SDG No.:

Lab Sample ID: CCV 280-488850/19  Calibration Date: 03/16/2020 21:49

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: 03160019.D  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Picric acid | Lin2 | | 164168 | | 249 | 250 | -0.2 | 15.0 |
| HMX | Lin2 | | 184824 | | 256 | 250 | 2.5 | 15.0 |
| RDX | Lin2 | | 222072 | | 252 | 250 | 0.9 | 15.0 |
| Nitrobenzene | Lin2 | | 406928 | | 256 | 251 | 2.1 | 15.0 |
| 1,3-Dinitrobenzene | Lin2 | | 667285 | | 251 | 251 | 0.1 | 15.0 |
| Nitroglycerin | Lin2 | | 137149 | | 2320 | 2500 | -7.1 | 15.0 |
| 2-Nitrotoluene | Lin2 | | 263204 | | 283 | 250 | 13.1 | 15.0 |
| 4-Nitrotoluene | Lin2 | | 208367 | | 234 | 251 | -6.8 | 15.0 |
| 4-Amino-2,6-dinitrotoluene | Lin2 | | 333730 | | 253 | 250 | 1.1 | 15.0 |
| 3-Nitrotoluene | Lin2 | | 258334 | | 280 | 250 | 11.7 | 15.0 |
| 2-Amino-4,6-dinitrotoluene | Qua | | 483498 | | 247 | 251 | -1.6 | 15.0 |
| 1,3,5-Trinitrobenzene | Lin2 | | 475261 | | 250 | 251 | -0.0 | 15.0 |
| 2,6-Dinitrotoluene | Lin2 | | 298371 | | 259 | 251 | 3.0 | 15.0 |
| 2,4-Dinitrotoluene | Lin2 | | 614693 | | 250 | 251 | -0.3 | 15.0 |
| Tetryl | Lin2 | | 369066 | | 256 | 251 | 2.1 | 15.0 |
| 2,4,6-Trinitrotoluene | Lin2 | | 403215 | | 244 | 251 | -2.7 | 15.0 |
| PETN | Lin1 | | 139464 | | 2370 | 2500 | -5.1 | 15.0 |
| 1,2-Dinitrobenzene | Lin2 | | 286420 | | 251 | 250 | 0.3 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-134268-1

SDG No.:

Lab Sample ID: CCV 280-488850/19  Calibration Date: 03/16/2020 21:49

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: 03160019.D

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Picric acid | 5.62 | 5.38 | 5.68 |
| HMX | 6.81 | 6.65 | 6.95 |
| RDX | 8.93 | 8.77 | 9.07 |
| Nitrobenzene | 11.88 | 11.73 | 12.03 |
| 1,3-Dinitrobenzene | 15.26 | 15.10 | 15.40 |
| Nitroglycerin | 15.51 | 15.34 | 15.64 |
| 2-Nitrotoluene | 16.27 | 16.12 | 16.42 |
| 4-Nitrotoluene | 16.54 | 16.40 | 16.70 |
| 4-Amino-2,6-dinitrotoluene | 16.80 | 16.62 | 16.92 |
| 3-Nitrotoluene | 17.52 | 17.32 | 17.62 |
| 2-Amino-4,6-dinitrotoluene | 17.63 | 17.44 | 17.74 |
| 1,3,5-Trinitrobenzene | 18.57 | 18.40 | 18.70 |
| 2,6-Dinitrotoluene | 19.49 | 19.31 | 19.61 |
| 2,4-Dinitrotoluene | 19.96 | 19.78 | 20.08 |
| Tetryl | 23.18 | 23.00 | 23.30 |
| 2,4,6-Trinitrotoluene | 24.33 | 24.16 | 24.46 |
| PETN | 24.99 | 24.84 | 25.14 |
| 1,2-Dinitrobenzene | 12.76 | 12.60 | 12.90 |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\G2_LUNA\20200316-90087.b\03160019.D
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 16-Mar-2020 21:49:37 ALS Bottle#: 7 Worklist Smp#: 19
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: CCV
Misc. Info.: 280-0090087-019
Operator ID: CB Instrument ID: CHHPLC_G2_LUNA
Sublist: chrom-G2_8330_Luna*sub6

Method: \\chromna\Denver\ChromData\G2_LUNA\20200316-90087.b\G2_8330_Luna.m
Limit Group: GCSV - 8330
Last Update: 17-Mar-2020 10:50:29 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: CTX0339

First Level Reviewer: beckerc Date: 17-Mar-2020 10:36:14

| 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 | 4.280 | 4.280 | 0.000 | 116625 | 0.2500 | 0.2447 | |
| 2 2,4-diamino-6-nitrotoluene | 1 | 4.780 | 4.780 | 0.000 | 68502 | 0.2500 | 0.2380 | |
| 5 2,4,6-Trinitrophenol | 1 | 5.620 | 5.534 | 0.086 | 41042 | 0.2500 | 0.2494 | |
| 6 HMX | 1 | 6.806 | 6.800 | 0.006 | 46206 | 0.2500 | 0.2561 | |
| 8 RDX | 1 | 8.926 | 8.920 | 0.006 | 55518 | 0.2500 | 0.2523 | |
| 9 Nitrobenzene | 1 | 11.880 | 11.880 | 0.000 | 102139 | 0.2510 | 0.2564 | |
| $ 10 1,2-Dinitrobenzene | 1 | 12.760 | 12.753 | 0.007 | 71605 | 0.2500 | 0.2508 | |
| 11 3,5-Dinitroaniline | 1 | 14.546 | 14.533 | 0.013 | 137979 | 0.2500 | 0.2540 | |
| 12 1,3-Dinitrobenzene | 1 | 15.260 | 15.247 | 0.013 | 167155 | 0.2505 | 0.2508 | |
| 13 Nitroglycerin | 2 | 15.506 | 15.493 | 0.013 | 342873 | 2.50 | 2.32 | M |
| 14 o-Nitrotoluene | 1 | 16.273 | 16.267 | 0.006 | 65801 | 0.2500 | 0.2827 | |
| 15 p-Nitrotoluene | 1 | 16.540 | 16.547 | -0.007 | 52196 | 0.2505 | 0.2335 | |
| 16 4-Amino-2,6-dinitrotoluene | 1 | 16.800 | 16.767 | 0.033 | 83516 | 0.2503 | 0.2530 | |
| 17 m-Nitrotoluene | 1 | 17.520 | 17.467 | 0.053 | 64648 | 0.2503 | 0.2795 | M |
| 18 2-Amino-4,6-dinitrotoluene | 1 | 17.633 | 17.593 | 0.040 | 121358 | 0.2510 | 0.2471 | M |
| 19 1,3,5-Trinitrobenzene | 1 | 18.573 | 18.547 | 0.026 | 119053 | 0.2505 | 0.2503 | |
| 20 2,6-Dinitrotoluene | 1 | 19.486 | 19.460 | 0.026 | 74891 | 0.2510 | 0.2585 | |
| 21 2,4-Dinitrotoluene | 1 | 19.960 | 19.927 | 0.033 | 154288 | 0.2510 | 0.2503 | |
| 22 Tetryl | 1 | 23.180 | 23.154 | 0.026 | 92451 | 0.2505 | 0.2559 | |
| 23 2,4,6-Trinitrotoluene | 1 | 24.326 | 24.314 | 0.012 | 101207 | 0.2510 | 0.2443 | |
| 24 PETN | 2 | 24.986 | 24.987 | -0.001 | 348660 | 2.50 | 2.37 | M |

## QC Flag Legend

Review Flags
M - Manually Integrated

## Reagents:

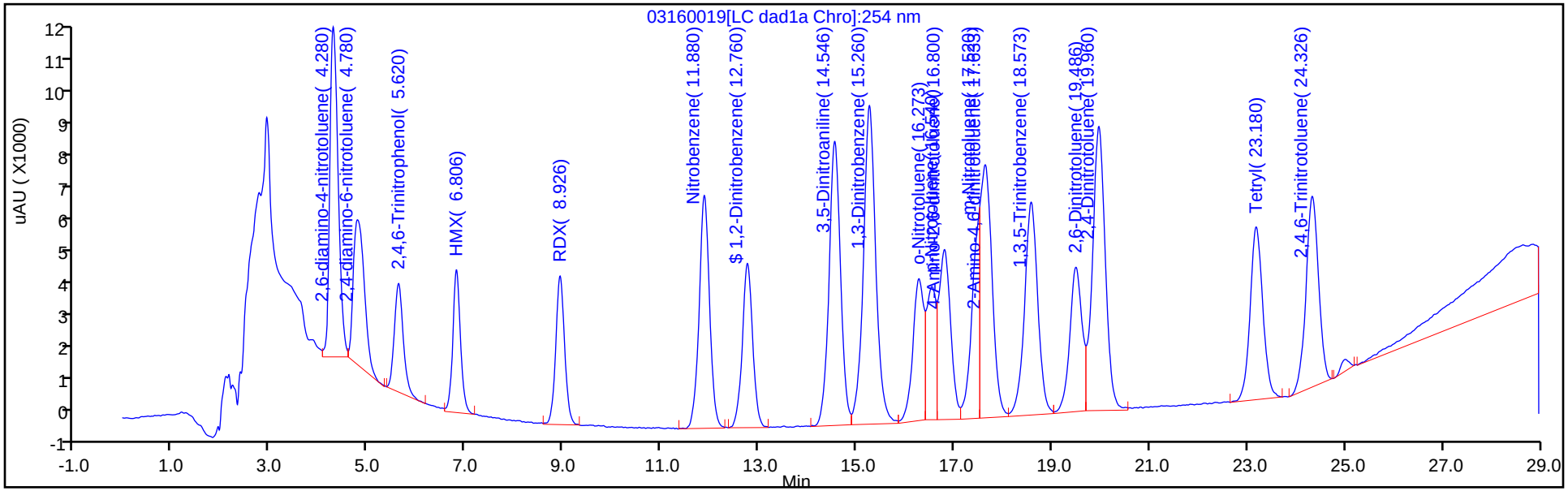
| | | | |
|---|---|---|---|
| 8330IntermStk_00061 | Amount Added: | 25.00 | Units: uL |
| 8330_ADDs_00023 | Amount Added: | 12.50 | Units: uL |

Report Date: 17-Mar-2020 10:50:29 Chrom Revision: 2.3 19-Feb-2020 16:45:46

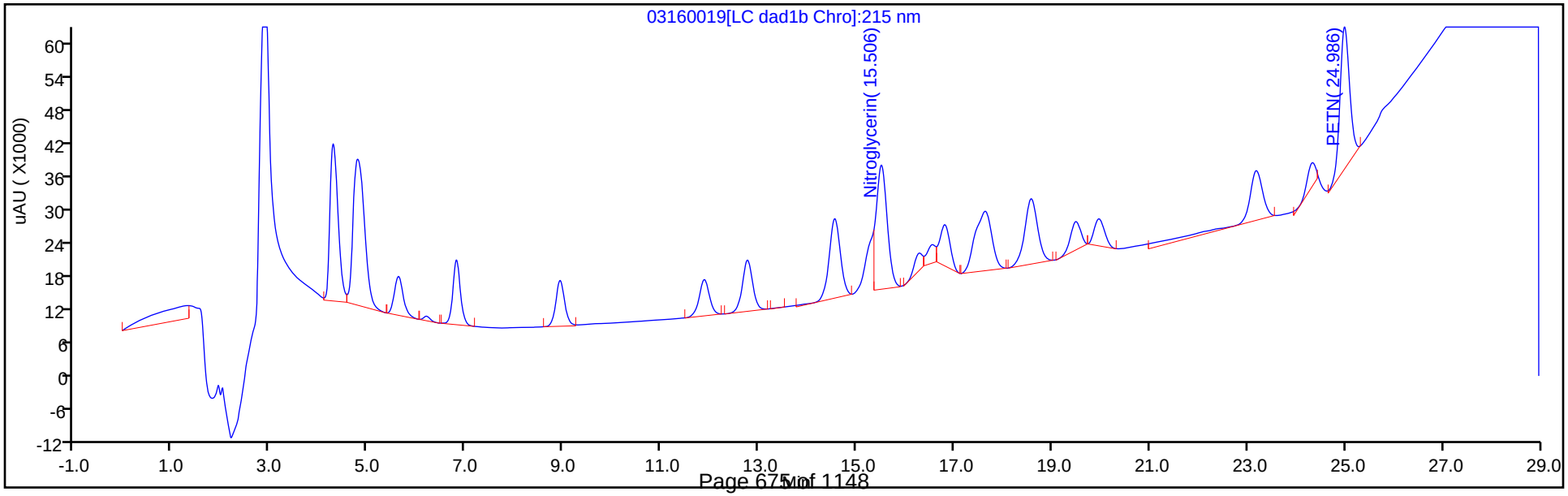
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\g2_luna\20200316-90087.b\03160019.d | | | | |
| Injection Date: | 16-Mar-2020 21:49:37 | Instrument ID: | CHHPLC_G2_LUNA | Operator ID: | CB |
| Lims ID: | CCV | | | Worklist Smp#: | 19 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 7 |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |

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




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



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

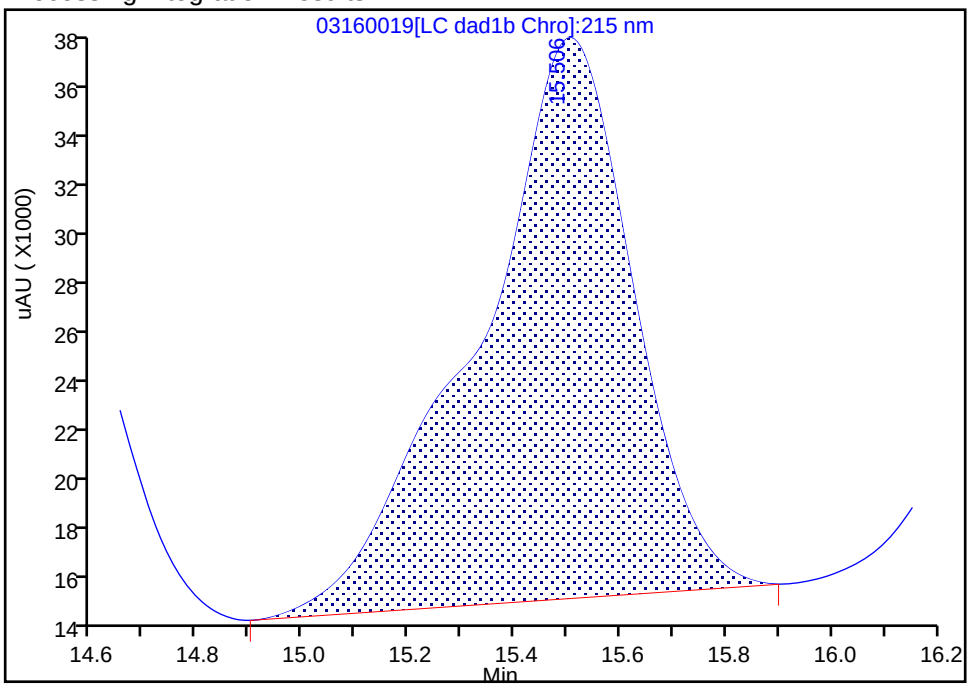
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\g2_luna\20200316-90087.b\03160019.d | | | | |
| Injection Date: | 16-Mar-2020 21:49:37 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | CCV | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 7 | Worklist Smp#: | 19 |
| 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

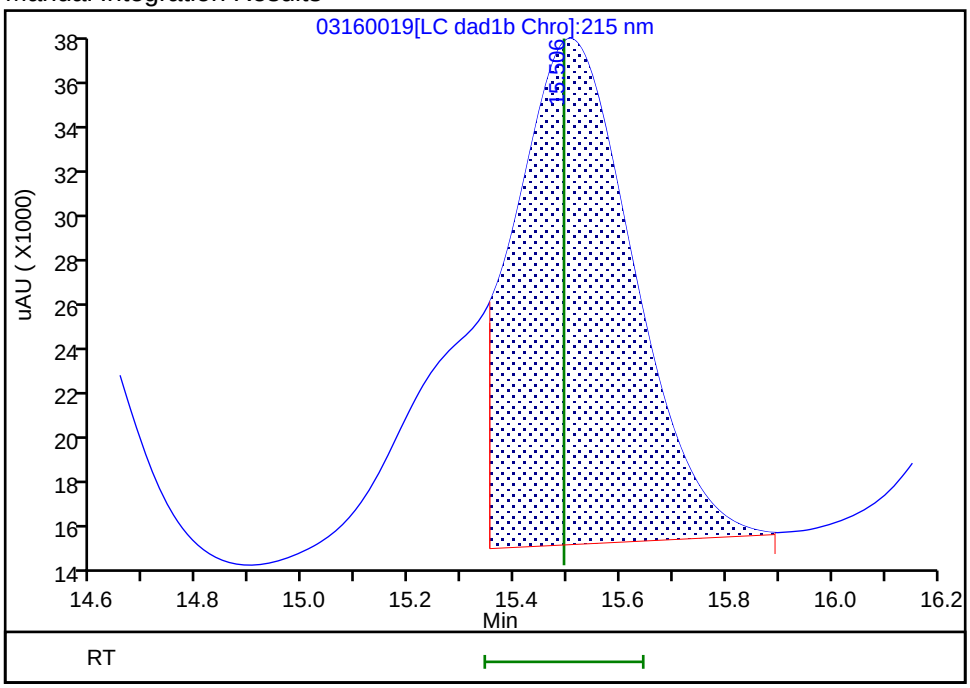
Processing Integration Results

RT: 15.51
Area: 455917
Amount: 3.132429
Amount Units: ug/ml




Manual Integration Results

RT: 15.51
Area: 342873
Amount: 2.323161
Amount Units: ug/ml




Reviewer: beckerc, 17-Mar-2020 10:35:33

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

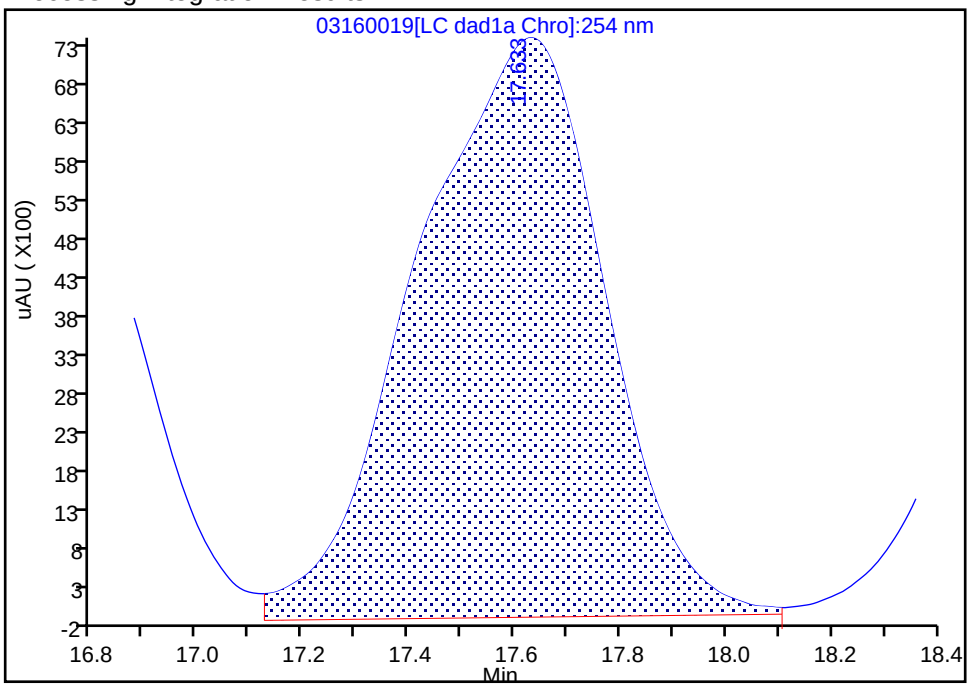
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\g2_luna\20200316-90087.b\03160019.d | | | | |
| Injection Date: | 16-Mar-2020 21:49:37 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | CCV | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 7 | Worklist Smp#: | 19 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

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

Signal: 1

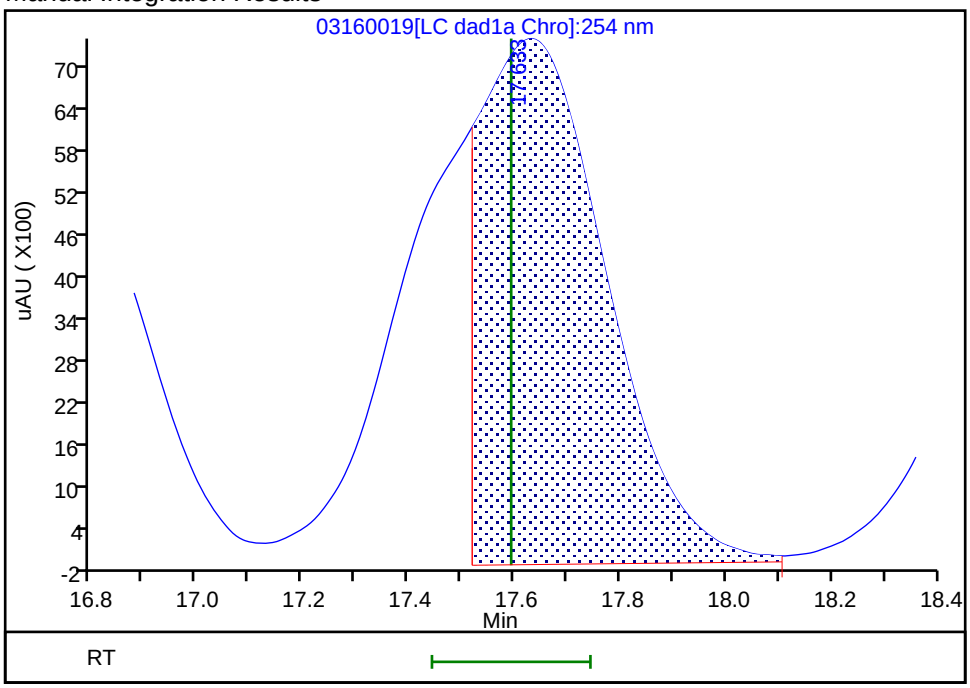
Processing Integration Results

RT: 17.63
Area: 186004
Amount: 0.378706
Amount Units: ug/ml




Manual Integration Results

RT: 17.63
Area: 121358
Amount: 0.247052
Amount Units: ug/ml




Reviewer: beckerc, 17-Mar-2020 10:35:59

Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

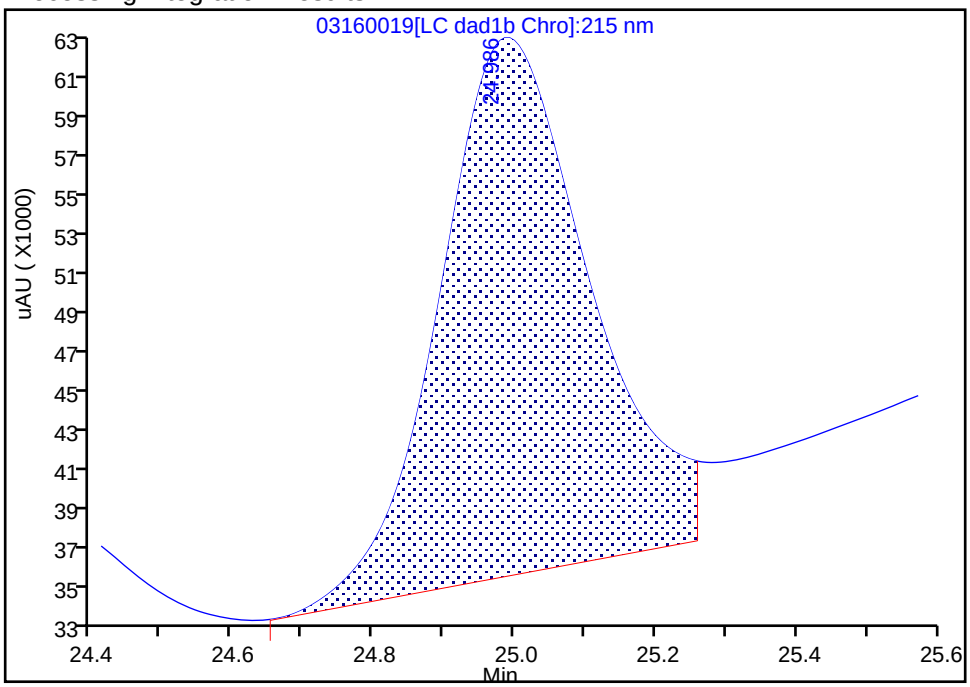
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\g2_luna\20200316-90087.b\03160019.d | | | | |
| Injection Date: | 16-Mar-2020 21:49:37 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | CCV | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 7 | Worklist Smp#: | 19 |
| 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

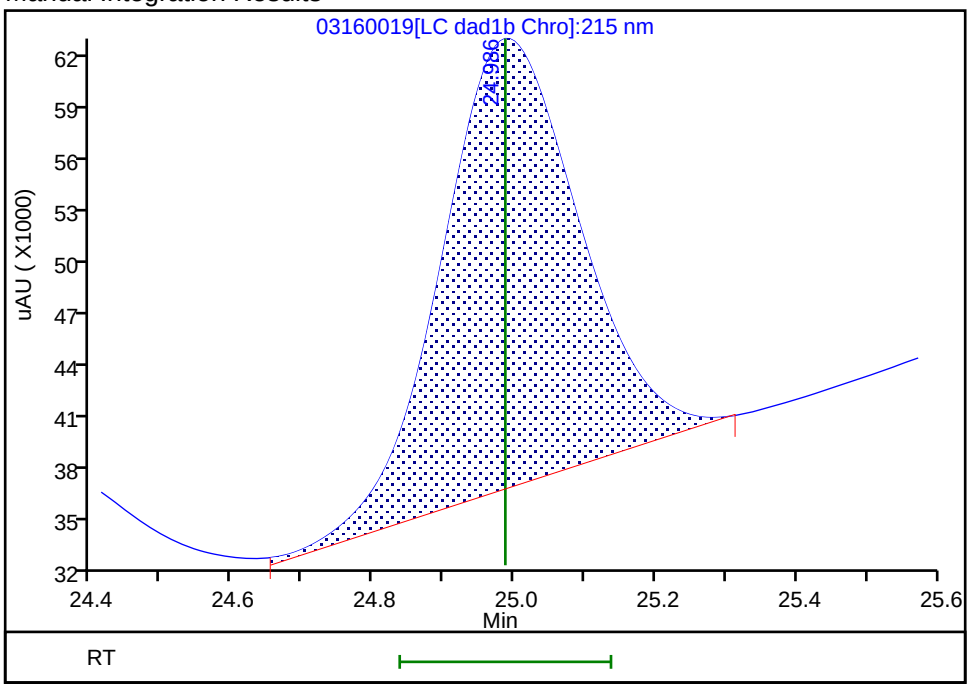
Processing Integration Results

RT: 24.99
Area: 403712
Amount: 2.759003
Amount Units: ug/ml




Manual Integration Results

RT: 24.99
Area: 348660
Amount: 2.371689
Amount Units: ug/ml




Reviewer: beckerc, 17-Mar-2020 10:35:46

Audit Action: Manually Integrated Audit Reason: Baseline

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-134268-1

SDG No.:

Lab Sample ID: CCV 280-488850/20  Calibration Date: 03/16/2020 22:24

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: 03160020.D  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| TNX | Ave | 454578 | 495736 | | 273 | 250 | 9.1 | 15.0 |
| DNX | Ave | 327828 | 349135 | | 267 | 250 | 6.5 | 15.0 |
| MNX | Ave | 305766 | 321851 | | 307 | 292 | 5.3 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-134268-1

SDG No.:

Lab Sample ID: CCV 280-488850/20  Calibration Date: 03/16/2020 22:24

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: 03160020.D

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| TNX | 5.34 | 5.17 | 5.47 |
| DNX | 6.11 | 5.94 | 6.24 |
| MNX | 7.56 | 7.41 | 7.71 |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Denver\ChromData\G2_LUNA\20200316-90087.b\03160020.D | | | | |
| Lims ID: | CCV DMT | | | | |
| Client ID: | | | | | |
| Sample Type: | CCV | | | | |
| Inject. Date: | 16-Mar-2020 22:24:38 | ALS Bottle#: | 8 | Worklist Smp#: | 20 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | CCV DMT | | | | |
| Misc. Info.: | 280-0090087-020 | | | | |
| Operator ID: | CB | Instrument ID: | CHHPLC_G2_LUNA | | |
| Sublist: | chrom-G2_8330_Luna*sub13 | | | | |
| Method: | \\chromna\Denver\ChromData\G2_LUNA\20200316-90087.b\G2_8330_Luna.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 17-Mar-2020 10:50:28 | 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: | CTX0339 | | | | |

First Level Reviewer: beckerc Date: 17-Mar-2020 10:36:26

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|---|
| 3 TNX | 1 | 5.336 | 5.317 | 0.019 | 124058 | 0.2503 | 0.2729 | |
| 4 DNX | 1 | 6.110 | 6.090 | 0.020 | 87371 | 0.2503 | 0.2665 | |
| 7 MNX | 1 | 7.563 | 7.557 | 0.006 | 93900 | 0.2918 | 0.3071 | |

## Reagents:

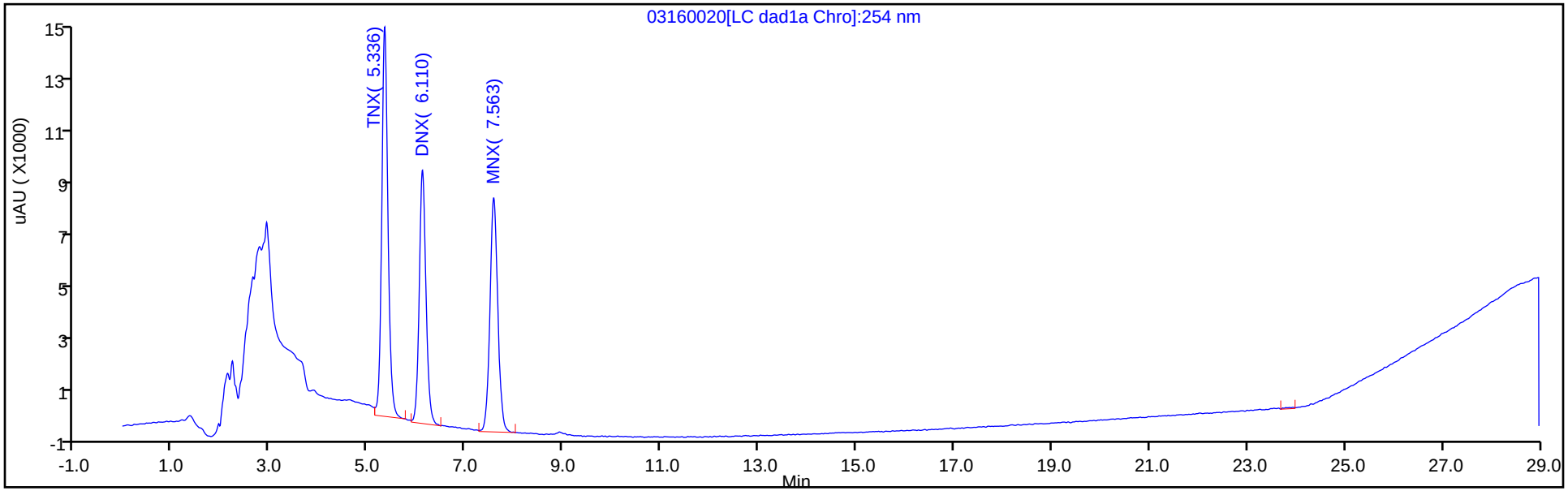
8330 DMT_00005 Amount Added: 12.50 Units: uL

Report Date: 17-Mar-2020 10:50:28 Chrom Revision: 2.3 19-Feb-2020 16:45:46

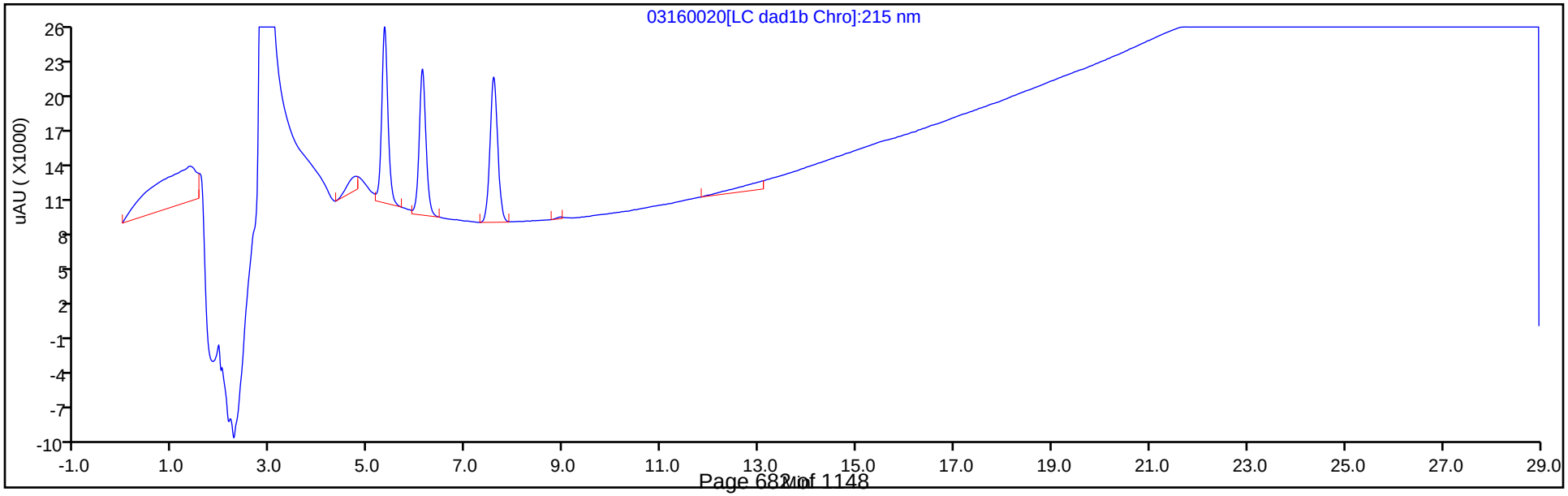
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\g2_luna\20200316-90087.b\03160020.d | | | | |
| Injection Date: | 16-Mar-2020 22:24:38 | Instrument ID: | CHHPLC_G2_LUNA | Operator ID: | CB |
| Lims ID: | CCV DMT | | | Worklist Smp#: | 20 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 8 |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |

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




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



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-134268-1

SDG No.:

Lab Sample ID: CCV 280-488850/26  Calibration Date: 03/17/2020 01:54

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: 03160026.D  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Picric acid | Lin2 | | 166116 | | 253 | 250 | 1.0 | 15.0 |
| HMX | Lin2 | | 182628 | | 253 | 250 | 1.2 | 15.0 |
| RDX | Lin2 | | 222956 | | 253 | 250 | 1.3 | 15.0 |
| Nitrobenzene | Lin2 | | 407299 | | 257 | 251 | 2.2 | 15.0 |
| 1,3-Dinitrobenzene | Lin2 | | 670990 | | 252 | 251 | 0.7 | 15.0 |
| Nitroglycerin | Lin2 | | 126069 | | 2120 | 2500 | -15.0 | 15.0 |
| 2-Nitrotoluene | Lin2 | | 291360 | | 314 | 250 | 25.6* | 15.0 |
| 4-Nitrotoluene | Lin2 | | 225042 | | 253 | 251 | 1.0 | 15.0 |
| 4-Amino-2,6-dinitrotoluene | Lin2 | | 288635 | | 218 | 250 | -13.1 | 15.0 |
| 3-Nitrotoluene | Lin2 | | 275073 | | 298 | 250 | 19.2* | 15.0 |
| 2-Amino-4,6-dinitrotoluene | Qua | | 459797 | | 235 | 251 | -6.5 | 15.0 |
| 1,3,5-Trinitrobenzene | Lin2 | | 471617 | | 248 | 251 | -0.9 | 15.0 |
| 2,6-Dinitrotoluene | Lin2 | | 382311 | | 334 | 251 | 33.1* | 15.0 |
| 2,4-Dinitrotoluene | Lin2 | | 536741 | | 217 | 251 | -13.4 | 15.0 |
| Tetryl | Lin2 | | 369006 | | 256 | 251 | 2.1 | 15.0 |
| 2,4,6-Trinitrotoluene | Lin2 | | 393155 | | 238 | 251 | -5.2 | 15.0 |
| PETN | Lin1 | | 136316 | | 2320 | 2500 | -7.3 | 15.0 |
| 1,2-Dinitrobenzene | Lin2 | | 291772 | | 256 | 250 | 2.3 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-134268-1

SDG No.:

Lab Sample ID: CCV 280-488850/26  Calibration Date: 03/17/2020 01:54

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: 03160026.D

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| Picric acid | 5.55 | 5.38 | 5.68 |
| HMX | 6.78 | 6.65 | 6.95 |
| RDX | 8.89 | 8.77 | 9.07 |
| Nitrobenzene | 11.84 | 11.73 | 12.03 |
| 1,3-Dinitrobenzene | 15.20 | 15.10 | 15.40 |
| Nitroglycerin | 15.44 | 15.34 | 15.64 |
| 2-Nitrotoluene | 16.21 | 16.12 | 16.42 |
| 4-Nitrotoluene | 16.49 | 16.40 | 16.70 |
| 4-Amino-2,6-dinitrotoluene | 16.70 | 16.62 | 16.92 |
| 3-Nitrotoluene | 17.41 | 17.32 | 17.62 |
| 2-Amino-4,6-dinitrotoluene | 17.53 | 17.44 | 17.74 |
| 1,3,5-Trinitrobenzene | 18.50 | 18.40 | 18.70 |
| 2,6-Dinitrotoluene | 19.43 | 19.31 | 19.61 |
| 2,4-Dinitrotoluene | 19.87 | 19.78 | 20.08 |
| Tetryl | 23.09 | 23.00 | 23.30 |
| 2,4,6-Trinitrotoluene | 24.26 | 24.16 | 24.46 |
| PETN | 24.94 | 24.84 | 25.14 |
| 1,2-Dinitrobenzene | 12.70 | 12.60 | 12.90 |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\G2_LUNA\20200316-90087.b\03160026.D
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 17-Mar-2020 01:54:26 ALS Bottle#: 7 Worklist Smp#: 26
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: CCV
Misc. Info.: 280-0090087-026
Operator ID: CB Instrument ID: CHHPLC_G2_LUNA
Sublist: chrom-G2_8330_Luna*sub6

Method: \\chromna\Denver\ChromData\G2_LUNA\20200316-90087.b\G2_8330_Luna.m
Limit Group: GCSV - 8330
Last Update: 17-Mar-2020 12:36:22 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: CTX0339

First Level Reviewer: beckerc Date: 17-Mar-2020 12:33:55

| 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 | 4.266 | 4.280 | -0.014 | 120532 | 0.2500 | 0.2529 | |
| 2 2,4-diamino-6-nitrotoluene | 1 | 4.766 | 4.780 | -0.014 | 75107 | 0.2500 | 0.2609 | |
| 5 2,4,6-Trinitrophenol | 1 | 5.546 | 5.534 | 0.012 | 41529 | 0.2500 | 0.2525 | |
| 6 HMX | 1 | 6.779 | 6.800 | -0.021 | 45657 | 0.2500 | 0.2530 | |
| 8 RDX | 1 | 8.892 | 8.920 | -0.028 | 55739 | 0.2500 | 0.2533 | |
| 9 Nitrobenzene | 1 | 11.839 | 11.880 | -0.041 | 102232 | 0.2510 | 0.2566 | |
| $ 10 1,2-Dinitrobenzene | 1 | 12.699 | 12.753 | -0.054 | 72943 | 0.2500 | 0.2557 | |
| 11 3,5-Dinitroaniline | 1 | 14.472 | 14.533 | -0.061 | 138869 | 0.2500 | 0.2557 | M |
| 12 1,3-Dinitrobenzene | 1 | 15.199 | 15.247 | -0.048 | 168083 | 0.2505 | 0.2522 | M |
| 13 Nitroglycerin | 2 | 15.439 | 15.493 | -0.054 | 315172 | 2.50 | 2.12 | M |
| 14 o-Nitrotoluene | 1 | 16.212 | 16.267 | -0.055 | 72840 | 0.2500 | 0.3140 | M |
| 15 p-Nitrotoluene | 1 | 16.485 | 16.547 | -0.062 | 56373 | 0.2505 | 0.2530 | M |
| 16 4-Amino-2,6-dinitrotoluene | 1 | 16.699 | 16.767 | -0.068 | 72231 | 0.2503 | 0.2175 | M |
| 17 m-Nitrotoluene | 1 | 17.412 | 17.467 | -0.055 | 68837 | 0.2503 | 0.2982 | Ma |
| 18 2-Amino-4,6-dinitrotoluene | 1 | 17.525 | 17.593 | -0.068 | 115409 | 0.2510 | 0.2348 | M |
| 19 1,3,5-Trinitrobenzene | 1 | 18.499 | 18.547 | -0.048 | 118140 | 0.2505 | 0.2483 | M |
| 20 2,6-Dinitrotoluene | 1 | 19.425 | 19.460 | -0.035 | 95960 | 0.2510 | 0.3341 | M |
| 21 2,4-Dinitrotoluene | 1 | 19.872 | 19.927 | -0.055 | 134722 | 0.2510 | 0.2173 | M |
| 22 Tetryl | 1 | 23.092 | 23.154 | -0.062 | 92436 | 0.2505 | 0.2558 | |
| 23 2,4,6-Trinitrotoluene | 1 | 24.259 | 24.314 | -0.055 | 98682 | 0.2510 | 0.2380 | |
| 24 PETN | 2 | 24.939 | 24.987 | -0.048 | 340789 | 2.50 | 2.32 | M |

## QC Flag Legend

Review Flags

M - Manually Integrated

a - User Assigned ID

## Reagents:

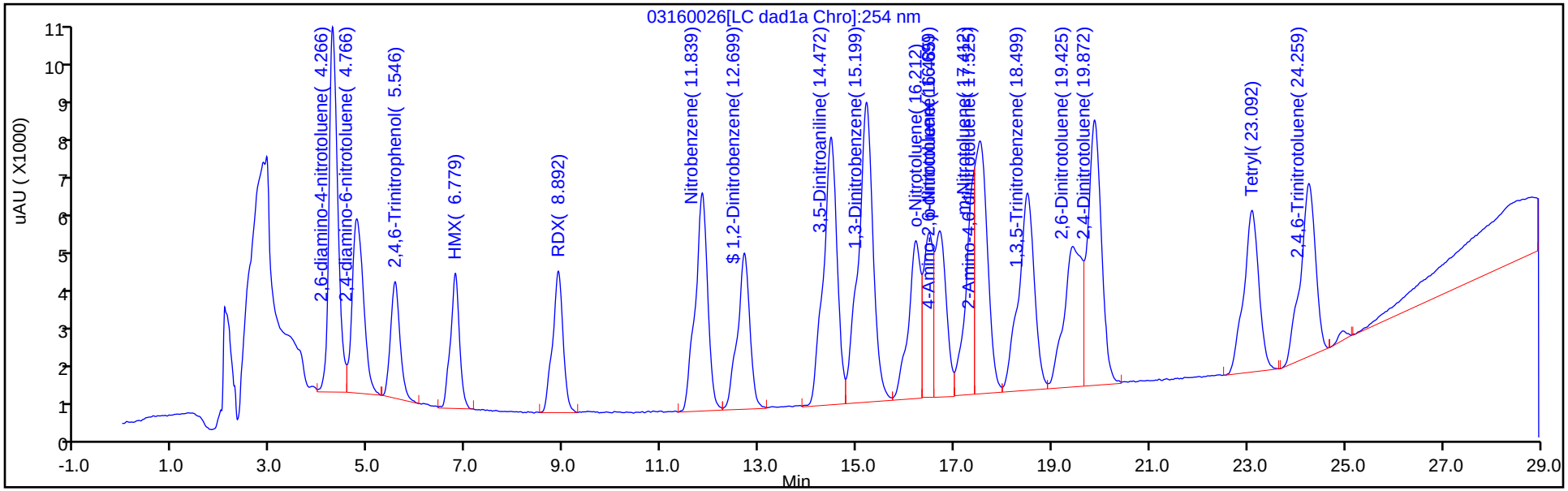
| | | | |
|---|---|---|---|
| 8330IntermStk_00061 | Amount Added: | 25.00 | Units: uL |
| 8330_ADDs_00023 | Amount Added: | 12.50 | Units: uL |

Report Date: 17-Mar-2020 12:36:23 Chrom Revision: 2.3 19-Feb-2020 16:45:46

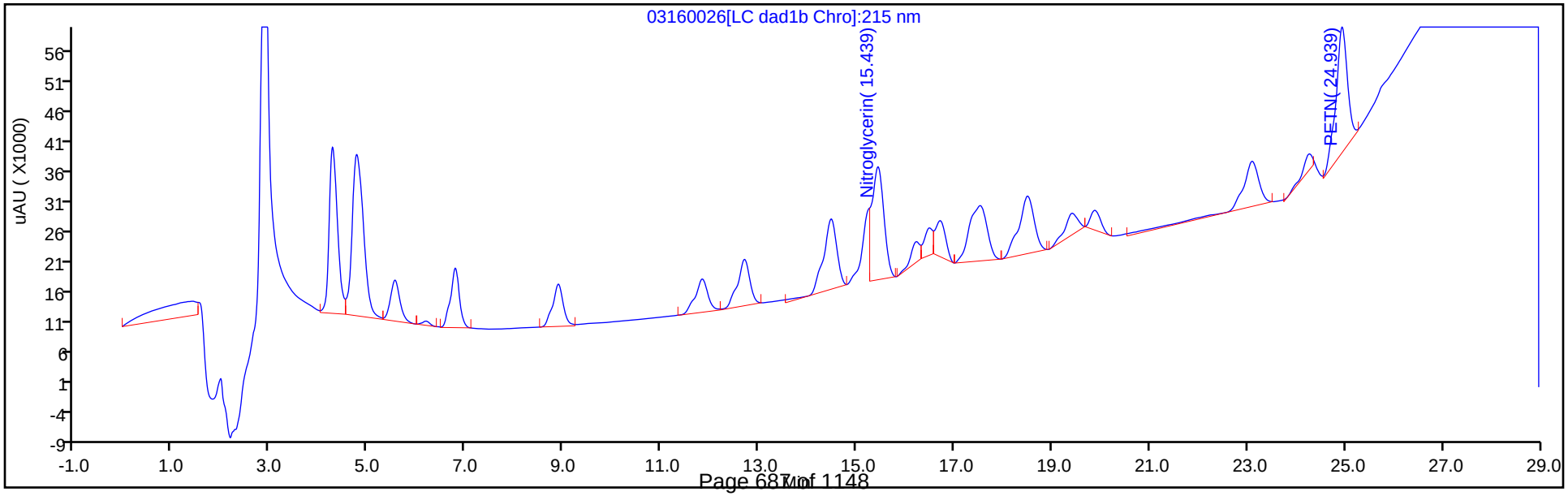
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\g2_luna\20200316-90087.b\03160026.d | | | | |
| Injection Date: | 17-Mar-2020 01:54:26 | Instrument ID: | CHHPLC_G2_LUNA | Operator ID: | CB |
| Lims ID: | CCV | | | Worklist Smp#: | 26 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 7 |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |

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




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



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

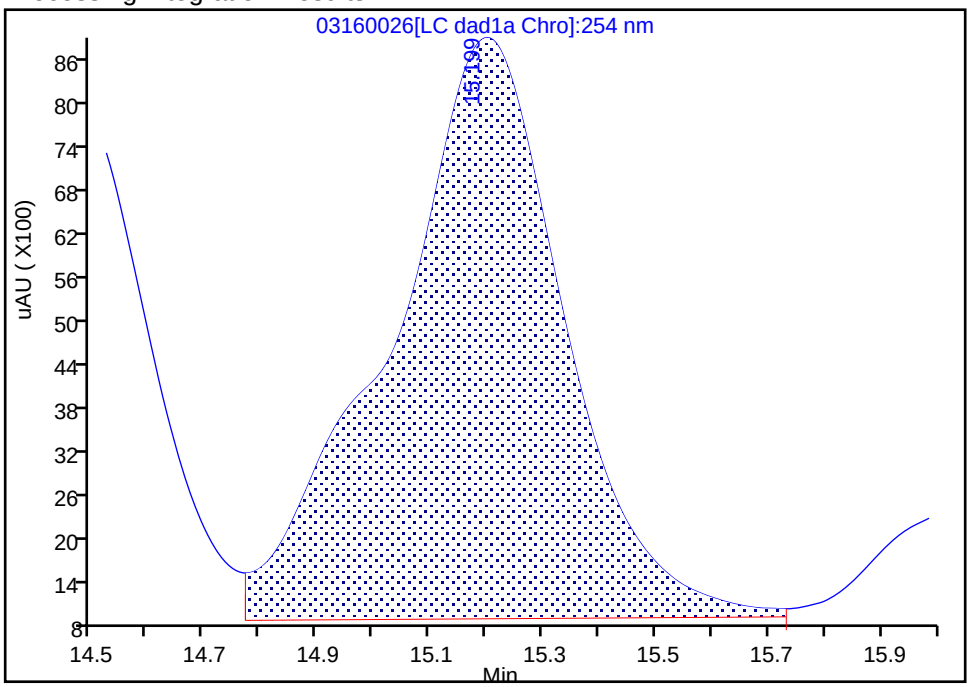
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\g2_luna\20200316-90087.b\03160026.d | | | | |
| Injection Date: | 17-Mar-2020 01:54:26 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | CCV | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 7 | Worklist Smp#: | 26 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

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

Signal: 1

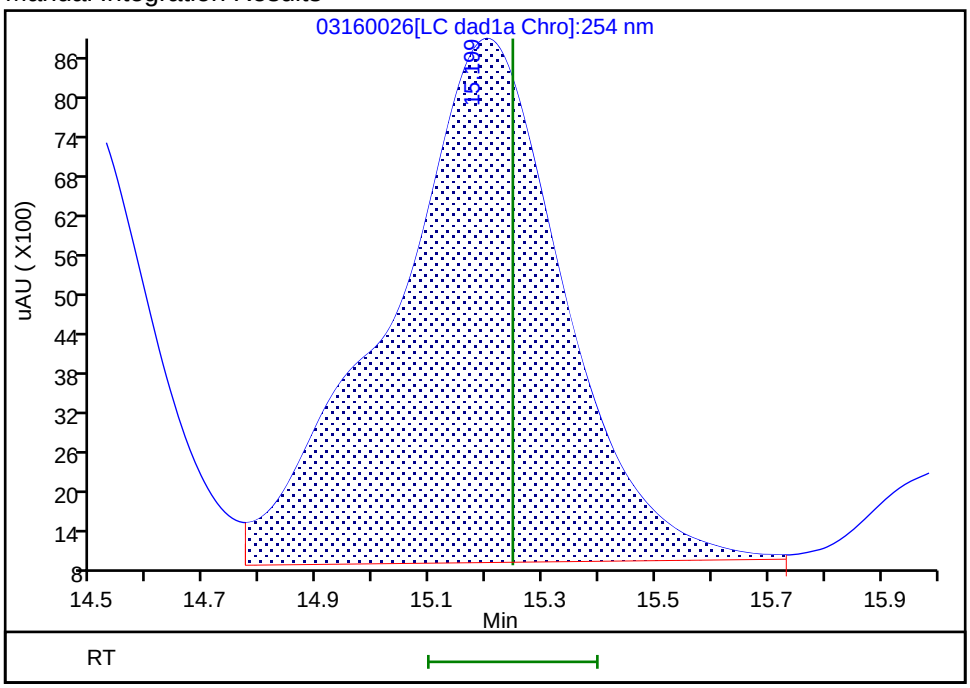
Processing Integration Results

RT: 15.20
Area: 169495
Amount: 0.254428
Amount Units: ug/ml




Manual Integration Results

RT: 15.20
Area: 168083
Amount: 0.252213
Amount Units: ug/ml




Reviewer: beckerc, 17-Mar-2020 10:43:00
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

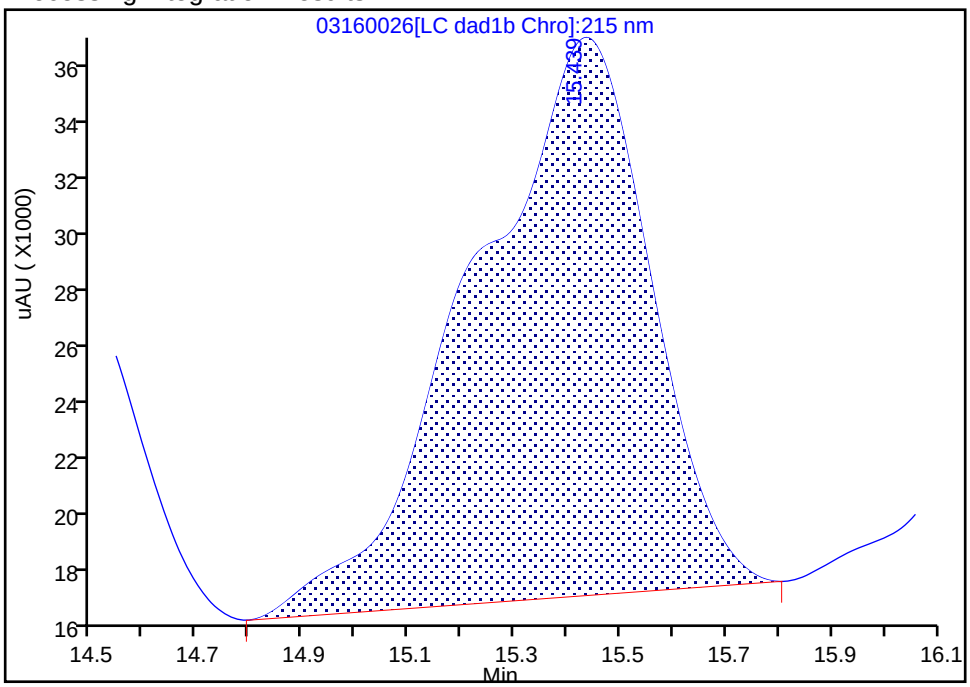
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\g2_luna\20200316-90087.b\03160026.d | | | | |
| Injection Date: | 17-Mar-2020 01:54:26 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | CCV | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 7 | Worklist Smp#: | 26 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | | Detector | LC DAD1B, 215 nm | | |

## 13 Nitroglycerin, CAS: 55-63-0

Signal: 1

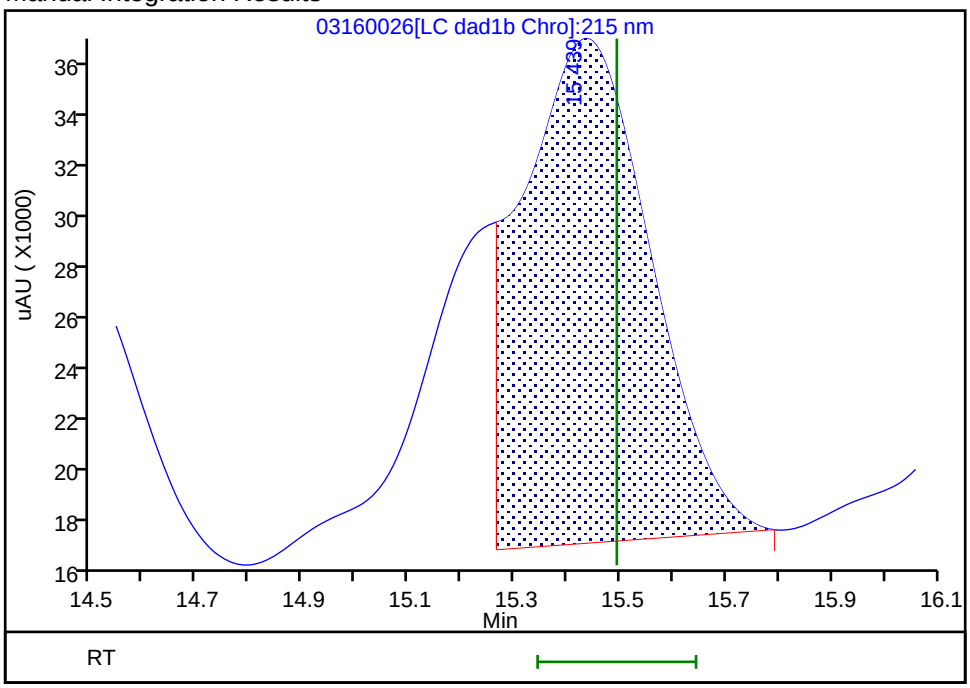
Processing Integration Results

RT: 15.44
Area: 437465
Amount: 3.000334
Amount Units: ug/ml




Manual Integration Results

RT: 15.44
Area: 315172
Amount: 2.124853
Amount Units: ug/ml




Reviewer: beckerc, 17-Mar-2020 10:42:28

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

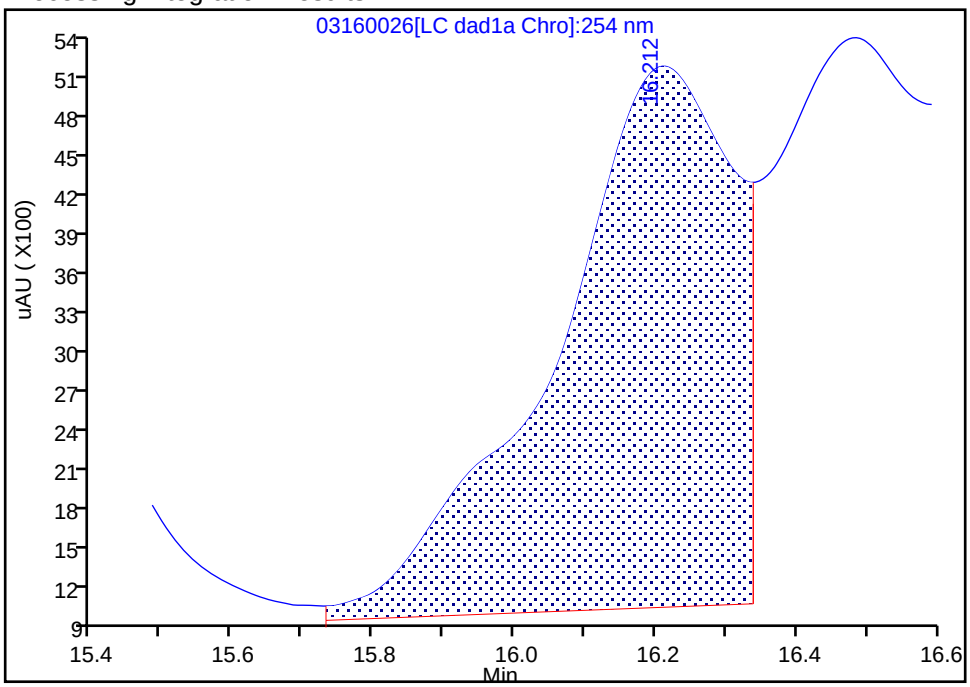
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\g2_luna\20200316-90087.b\03160026.d | | | | |
| Injection Date: | 17-Mar-2020 01:54:26 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | CCV | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 7 | Worklist Smp#: | 26 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

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

Signal: 1

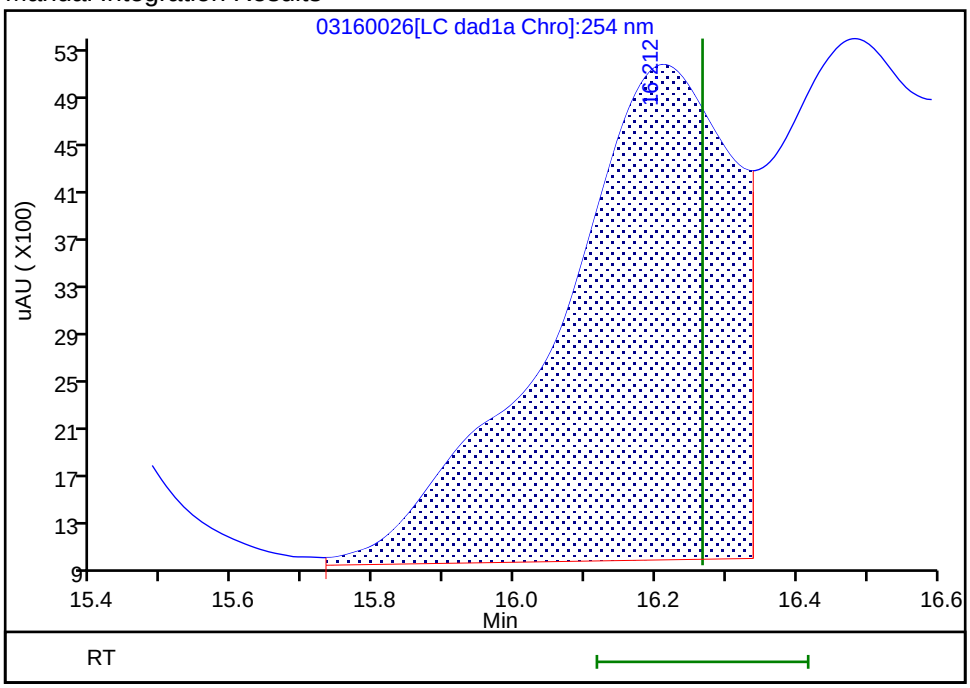
Processing Integration Results

RT: 16.21
Area: 73240
Amount: 0.315750
Amount Units: ug/ml




Manual Integration Results

RT: 16.21
Area: 72840
Amount: 0.313975
Amount Units: ug/ml




Reviewer: beckerc, 17-Mar-2020 10:43:00
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

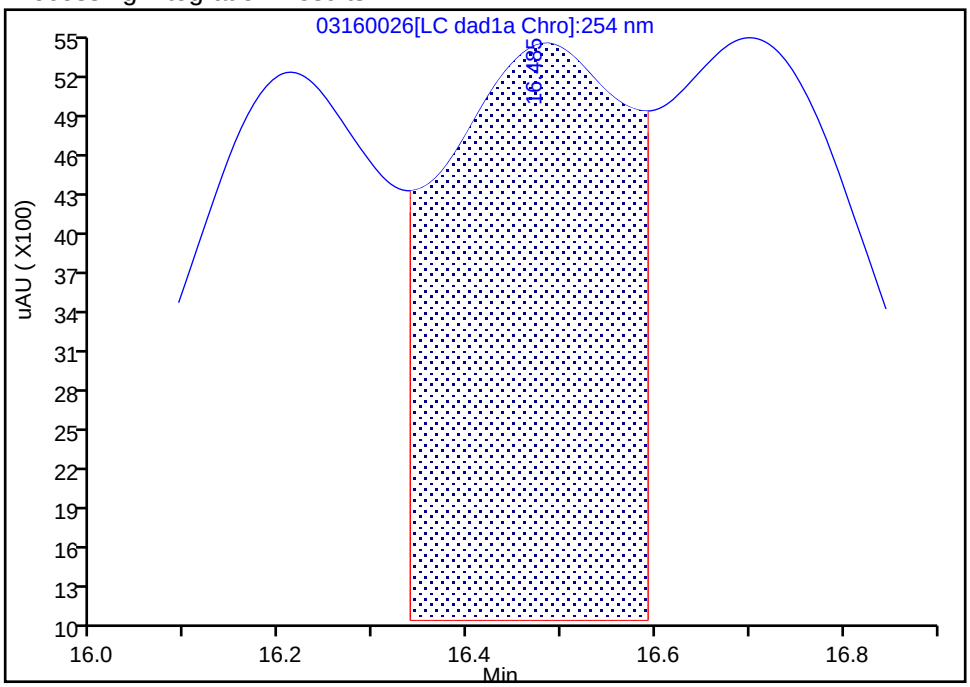
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\g2_luna\20200316-90087.b\03160026.d | | | | |
| Injection Date: | 17-Mar-2020 01:54:26 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | CCV | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 7 | Worklist Smp#: | 26 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

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

Signal: 1

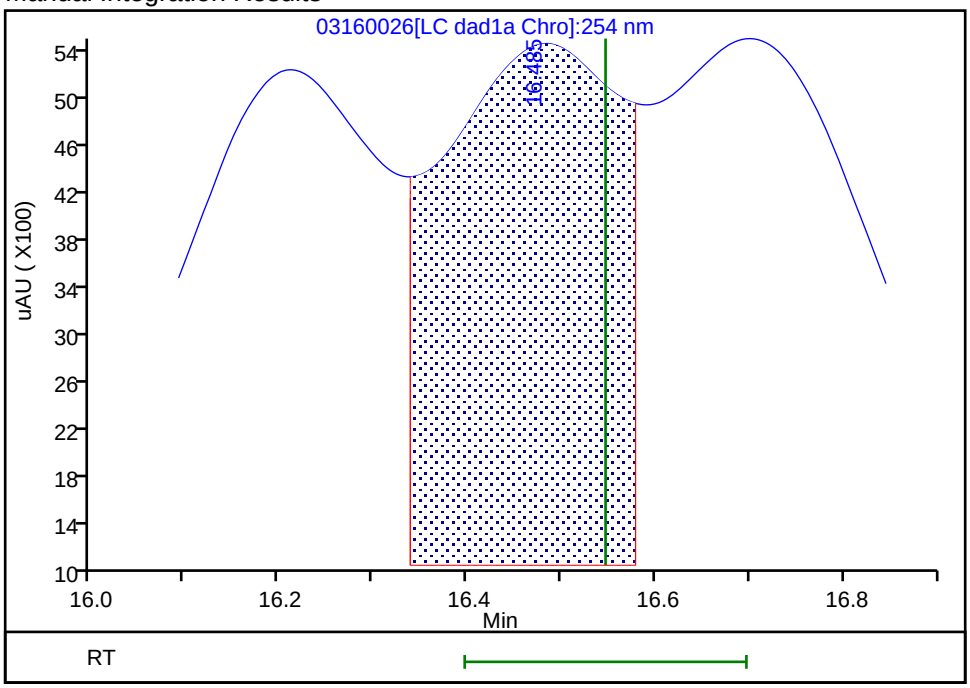
Processing Integration Results

RT: 16.49
Area: 59391
Amount: 0.267074
Amount Units: ug/ml




Manual Integration Results

RT: 16.49
Area: 56373
Amount: 0.253011
Amount Units: ug/ml




Reviewer: beckerc, 17-Mar-2020 12:33:24

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

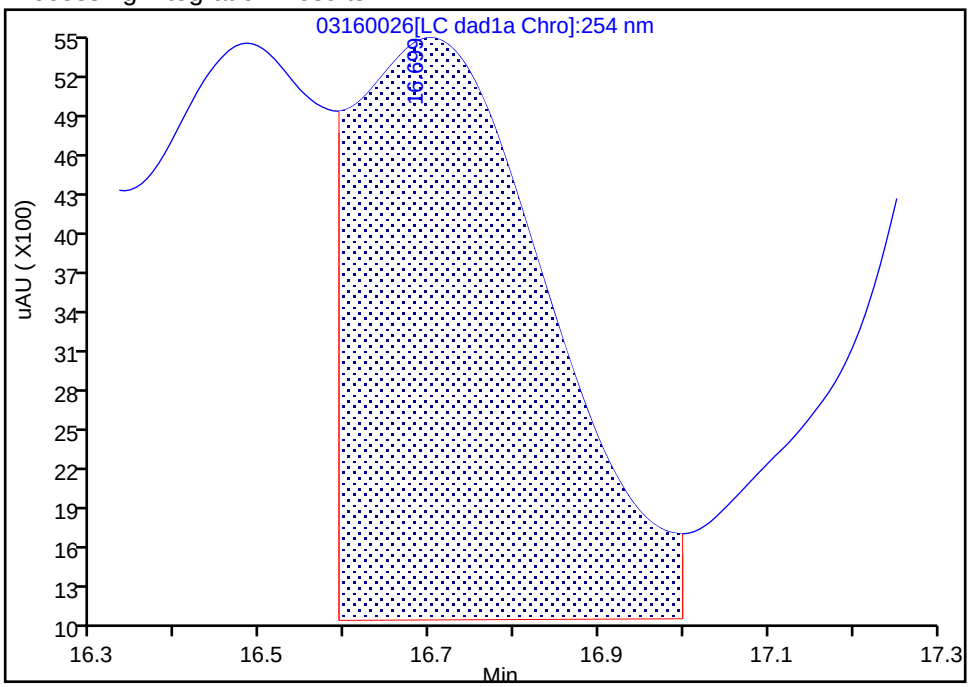
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\g2_luna\20200316-90087.b\03160026.d | | | | |
| Injection Date: | 17-Mar-2020 01:54:26 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | CCV | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 7 | Worklist Smp#: | 26 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

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

Signal: 1

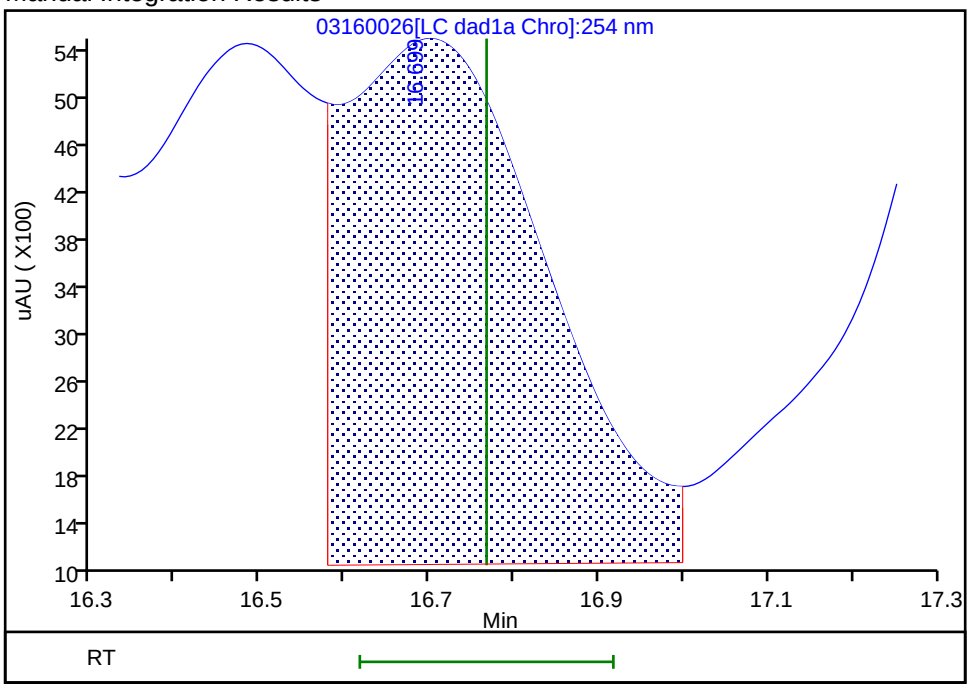
Processing Integration Results

RT: 16.70
Area: 69200
Amount: 0.208012
Amount Units: ug/ml




Manual Integration Results

RT: 16.70
Area: 72231
Amount: 0.217530
Amount Units: ug/ml




Reviewer: beckerc, 17-Mar-2020 12:34:30

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

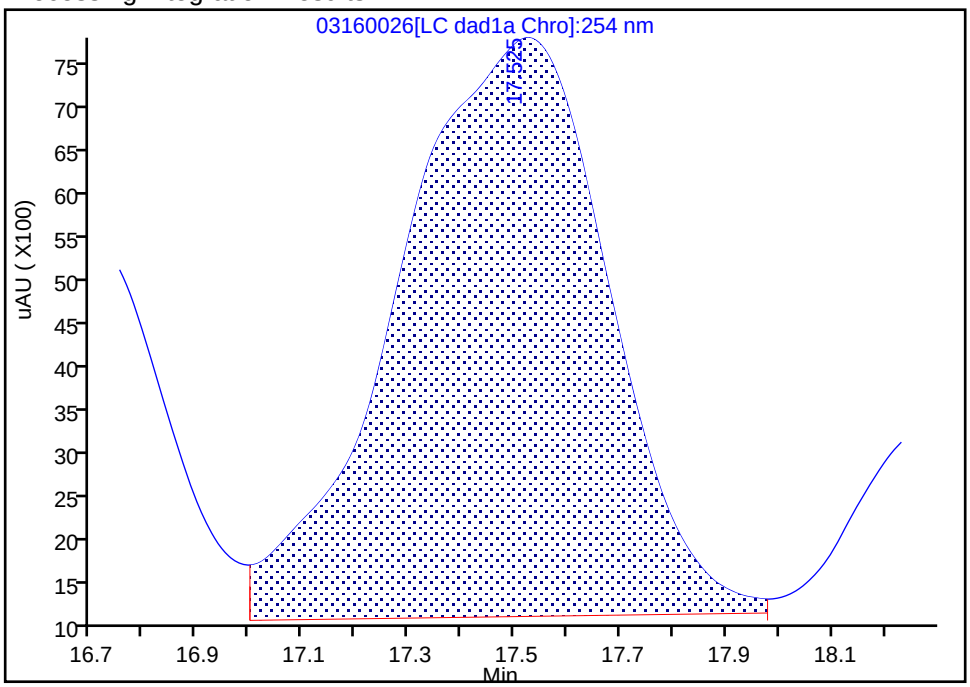
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\g2_luna\20200316-90087.b\03160026.d | | | | |
| Injection Date: | 17-Mar-2020 01:54:26 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | CCV | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 7 | Worklist Smp#: | 26 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

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

Signal: 1

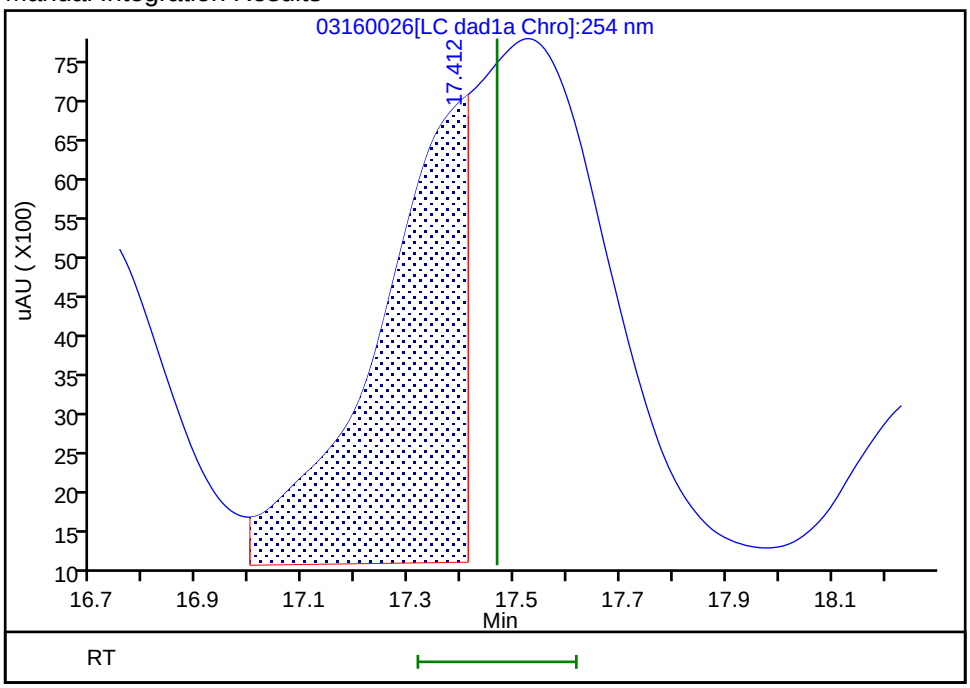
Processing Integration Results

RT: 17.53
Area: 186063
Amount: 0.819942
Amount Units: ug/ml




Manual Integration Results

RT: 17.41
Area: 68837
Amount: 0.298188
Amount Units: ug/ml




Reviewer: beckerc, 17-Mar-2020 10:43:00
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

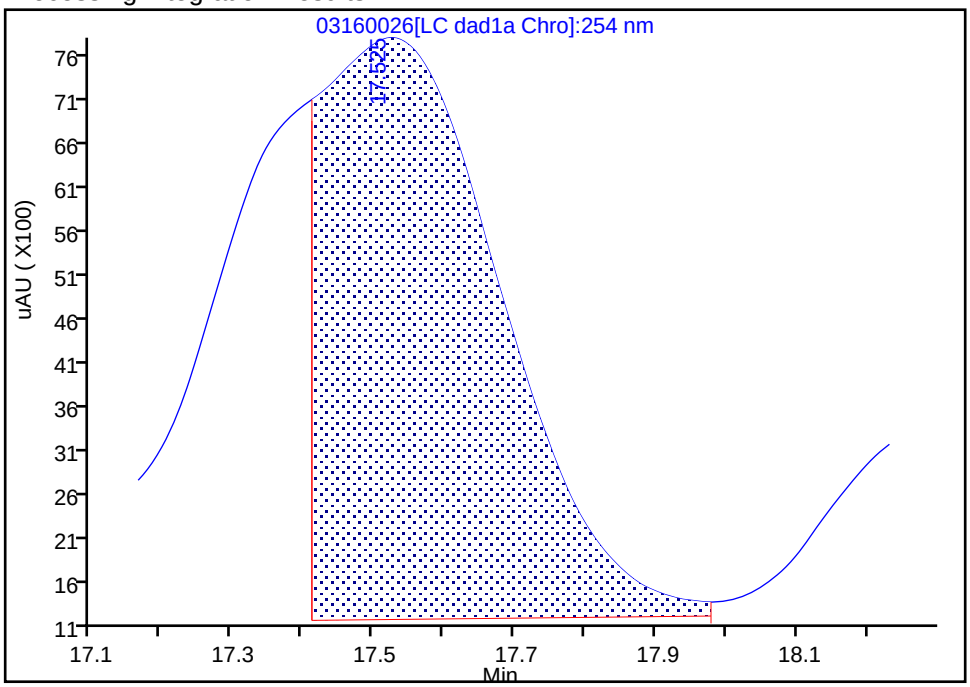
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\g2_luna\20200316-90087.b\03160026.d | | | | |
| Injection Date: | 17-Mar-2020 01:54:26 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | CCV | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 7 | Worklist Smp#: | 26 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

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

Signal: 1

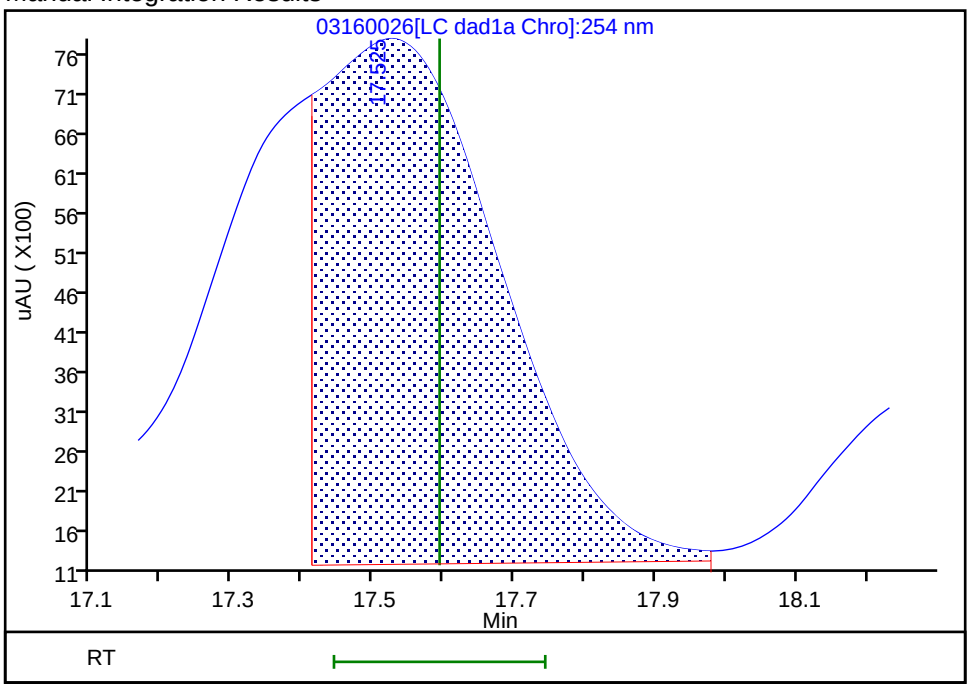
Processing Integration Results

RT: 17.53
Area: 116531
Amount: 0.237106
Amount Units: ug/ml




Manual Integration Results

RT: 17.53
Area: 115409
Amount: 0.234792
Amount Units: ug/ml




Reviewer: beckerc, 17-Mar-2020 10:43:00

Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

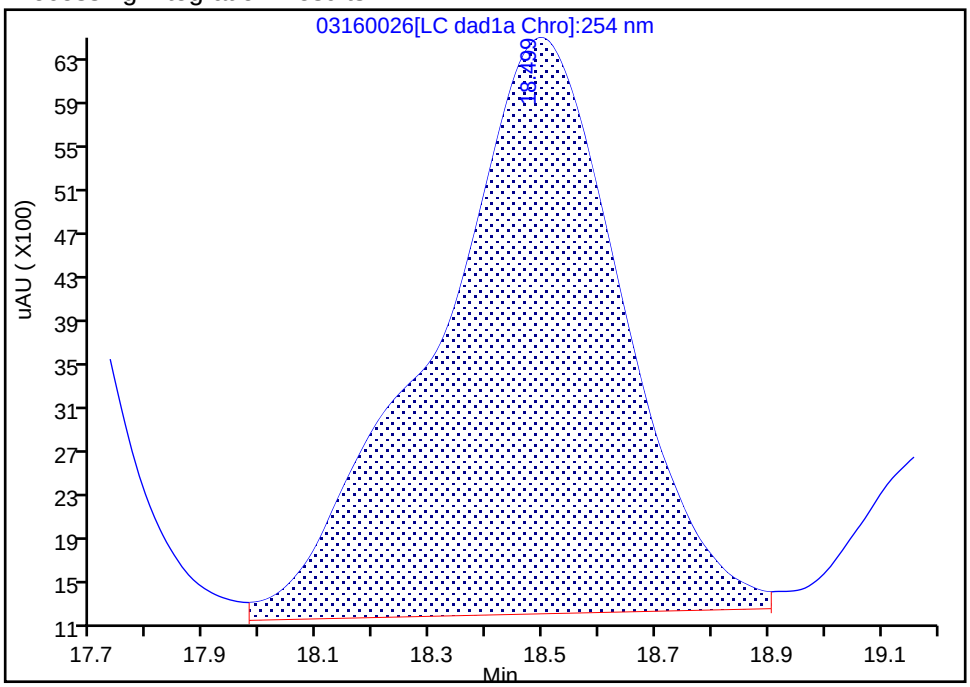
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\g2_luna\20200316-90087.b\03160026.d | | | | |
| Injection Date: | 17-Mar-2020 01:54:26 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | CCV | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 7 | Worklist Smp#: | 26 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

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

Signal: 1

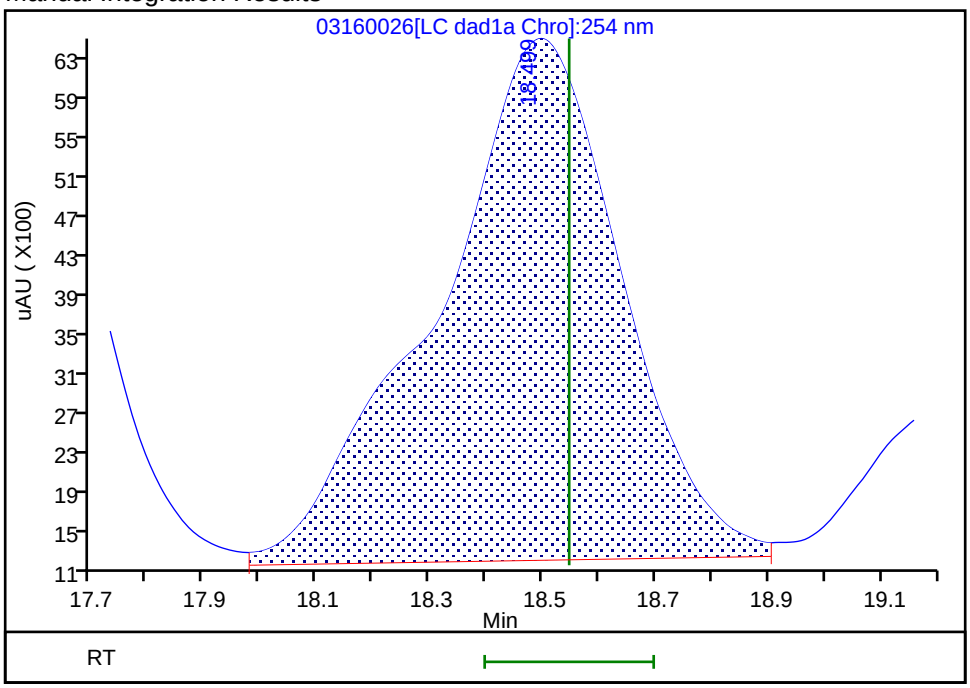
Processing Integration Results

RT: 18.50
Area: 119586
Amount: 0.251443
Amount Units: ug/ml




Manual Integration Results

RT: 18.50
Area: 118140
Amount: 0.248296
Amount Units: ug/ml




Reviewer: beckerc, 17-Mar-2020 10:43:00
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

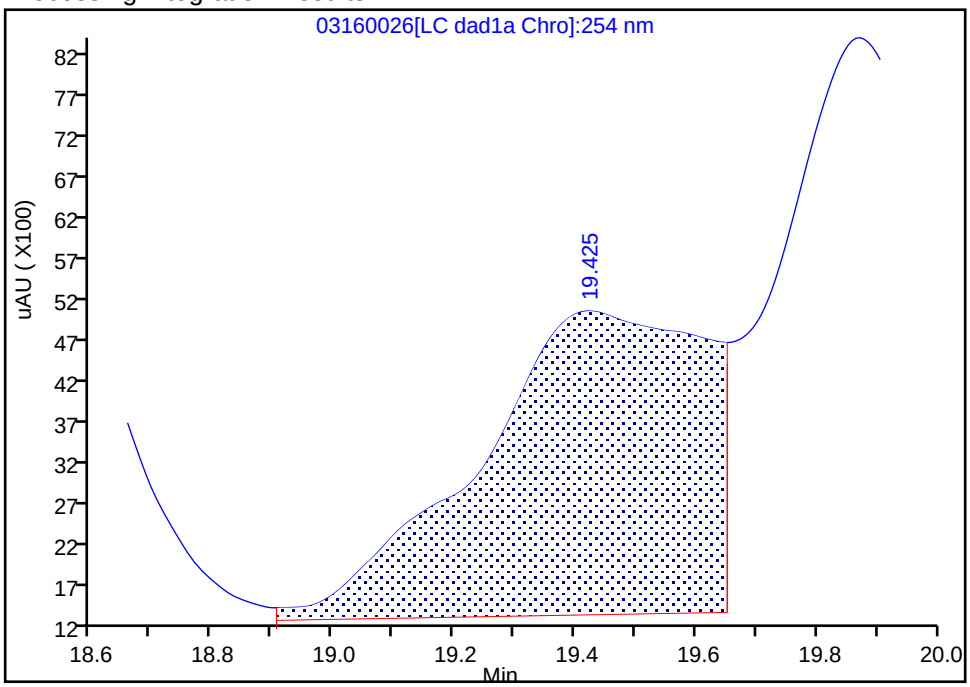
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\g2_luna\20200316-90087.b\03160026.d | | | | |
| Injection Date: | 17-Mar-2020 01:54:26 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | CCV | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 7 | Worklist Smp#: | 26 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

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

Signal: 1

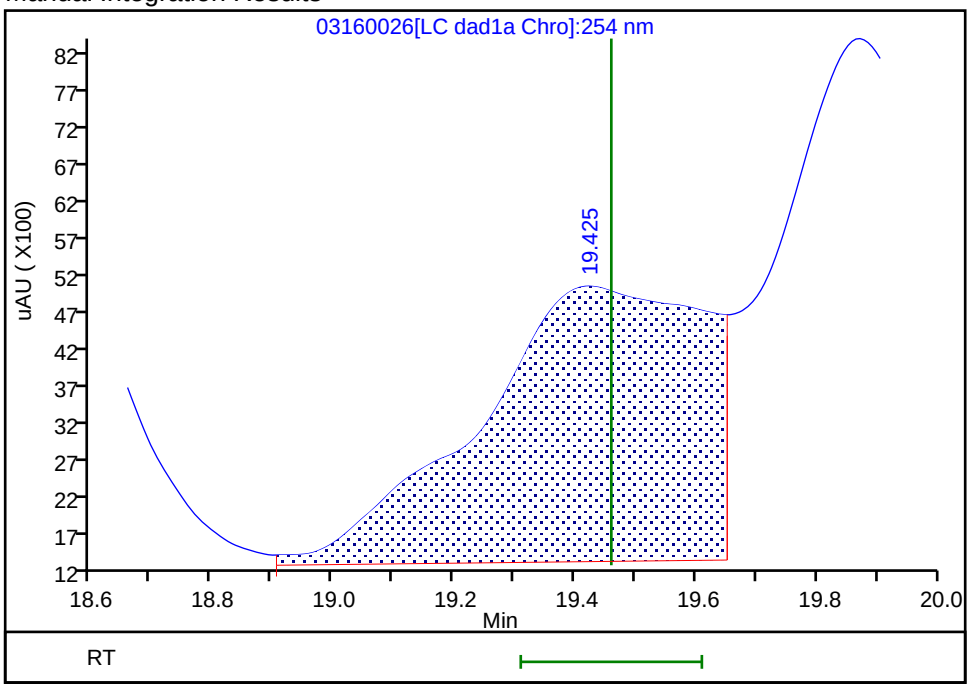
Processing Integration Results

RT: 19.43
Area: 96116
Amount: 0.334630
Amount Units: ug/ml




Manual Integration Results

RT: 19.43
Area: 95960
Amount: 0.334071
Amount Units: ug/ml




Reviewer: beckerc, 17-Mar-2020 10:43:00
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

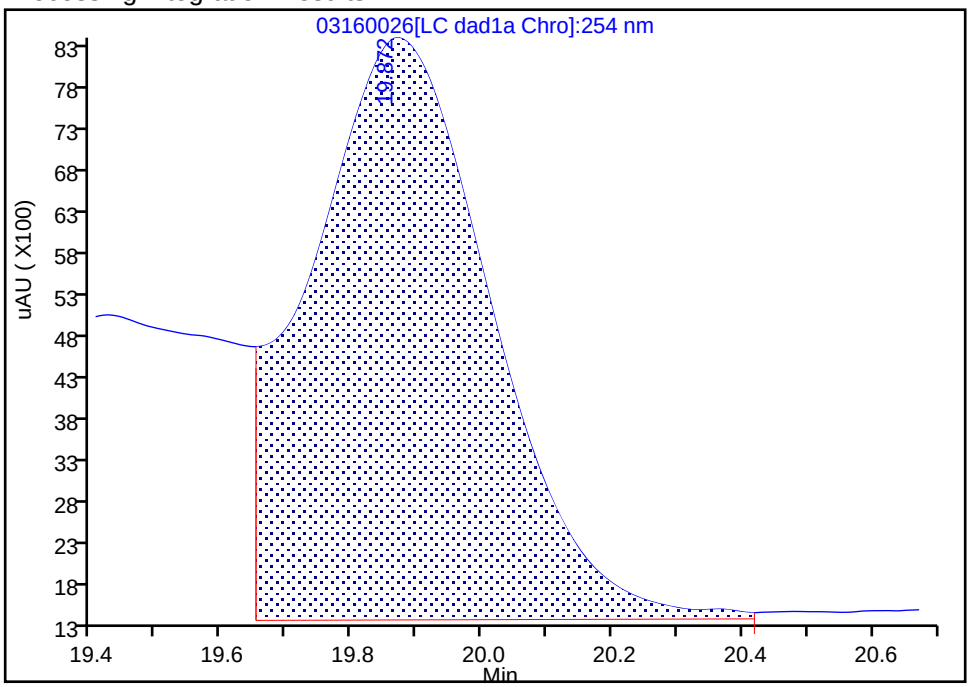
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\g2_luna\20200316-90087.b\03160026.d | | | | |
| Injection Date: | 17-Mar-2020 01:54:26 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | CCV | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 7 | Worklist Smp#: | 26 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | Luna-Phenyl hexyl ( 4.60 mm) | Detector | LC DAD1A, 254 nm | | |

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

Signal: 1

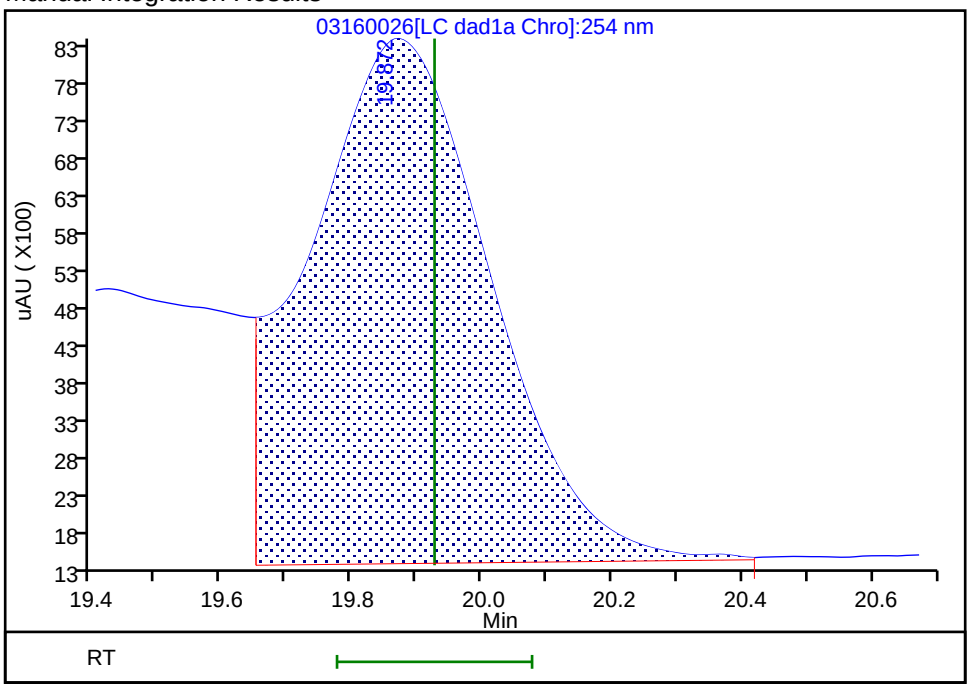
Processing Integration Results

RT: 19.87
Area: 135527
Amount: 0.218640
Amount Units: ug/ml




Manual Integration Results

RT: 19.87
Area: 134722
Amount: 0.217280
Amount Units: ug/ml




Reviewer: beckerc, 17-Mar-2020 10:43:00

Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

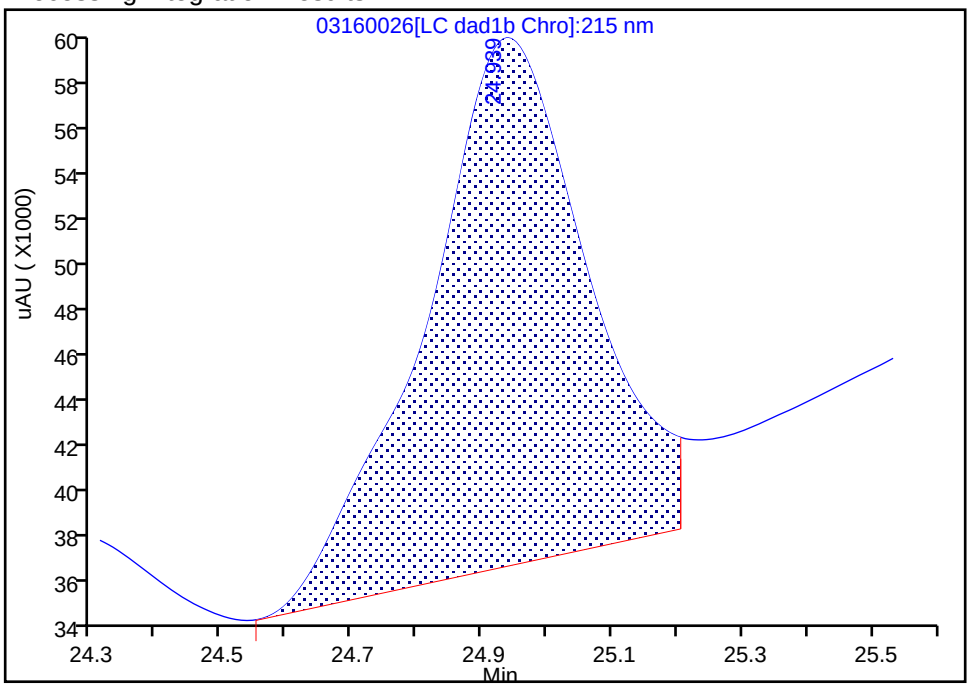
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\g2_luna\20200316-90087.b\03160026.d | | | | |
| Injection Date: | 17-Mar-2020 01:54:26 | Instrument ID: | CHHPLC_G2_LUNA | | |
| Lims ID: | CCV | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 7 | Worklist Smp#: | 26 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |
| Column: | | Detector | LC DAD1B, 215 nm | | |

## 24 PETN, CAS: 78-11-5

Signal: 1

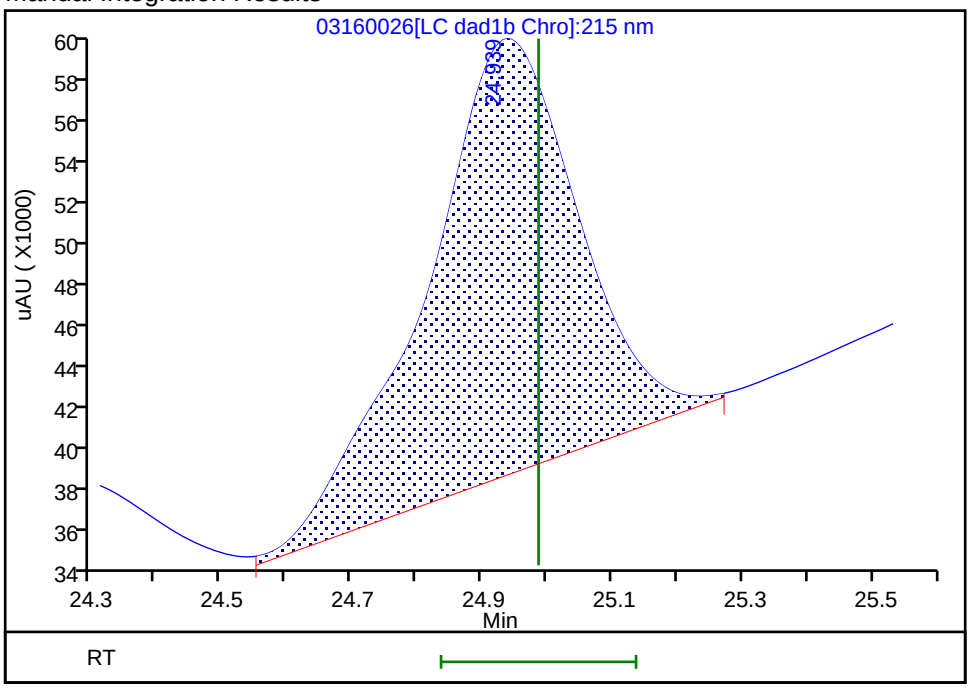
Processing Integration Results

RT: 24.94
Area: 389656
Amount: 2.660113
Amount Units: ug/ml




Manual Integration Results

RT: 24.94
Area: 340789
Amount: 2.316313
Amount Units: ug/ml




Reviewer: beckerc, 17-Mar-2020 10:42:43

Audit Action: Manually Integrated Audit Reason: Baseline

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-134268-1

SDG No.:

Lab Sample ID: CCV 280-488850/27  Calibration Date: 03/17/2020 02:29

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: 03160027.D  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| TNX | Ave | 454578 | 485678 | | 267 | 250 | 6.8 | 15.0 |
| DNX | Ave | 327828 | 348695 | | 266 | 250 | 6.4 | 15.0 |
| MNX | Ave | 305766 | 319517 | | 305 | 292 | 4.5 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-134268-1

SDG No.:

Lab Sample ID: CCV 280-488850/27  Calibration Date: 03/17/2020 02:29

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: 03160027.D

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| TNX | 5.32 | 5.17 | 5.47 |
| DNX | 6.09 | 5.94 | 6.24 |
| MNX | 7.54 | 7.41 | 7.71 |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Denver\ChromData\G2_LUNA\20200316-90087.b\03160027.D | | | | |
| Lims ID: | CCV DMT | | | | |
| Client ID: | | | | | |
| Sample Type: | CCV | | | | |
| Inject. Date: | 17-Mar-2020 02:29:23 | ALS Bottle#: | 8 | Worklist Smp#: | 27 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | CCV DMT | | | | |
| Misc. Info.: | 280-0090087-027 | | | | |
| Operator ID: | CB | Instrument ID: | CHHPLC_G2_LUNA | | |
| Sublist: | chrom-G2_8330_Luna*sub13 | | | | |
| Method: | \\chromna\Denver\ChromData\G2_LUNA\20200316-90087.b\G2_8330_Luna.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 17-Mar-2020 10:50:15 | 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: | CTX0339 | | | | |

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|---|
| 3 TNX | 1 | 5.315 | 5.317 | -0.002 | 121541 | 0.2503 | 0.2674 | |
| 4 DNX | 1 | 6.088 | 6.090 | -0.002 | 87261 | 0.2503 | 0.2662 | |
| 7 MNX | 1 | 7.542 | 7.557 | -0.015 | 93219 | 0.2918 | 0.3049 | |

## Reagents:

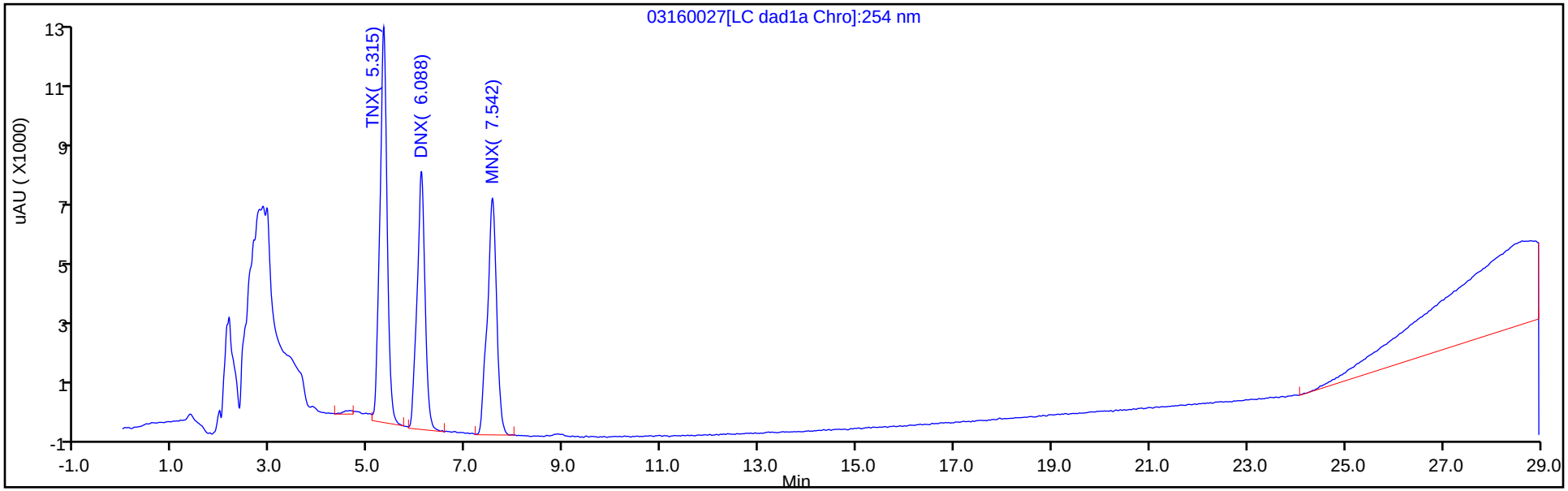
8330 DMT_00005 Amount Added: 12.50 Units: uL

Report Date: 17-Mar-2020 10:50:16 Chrom Revision: 2.3 19-Feb-2020 16:45:46

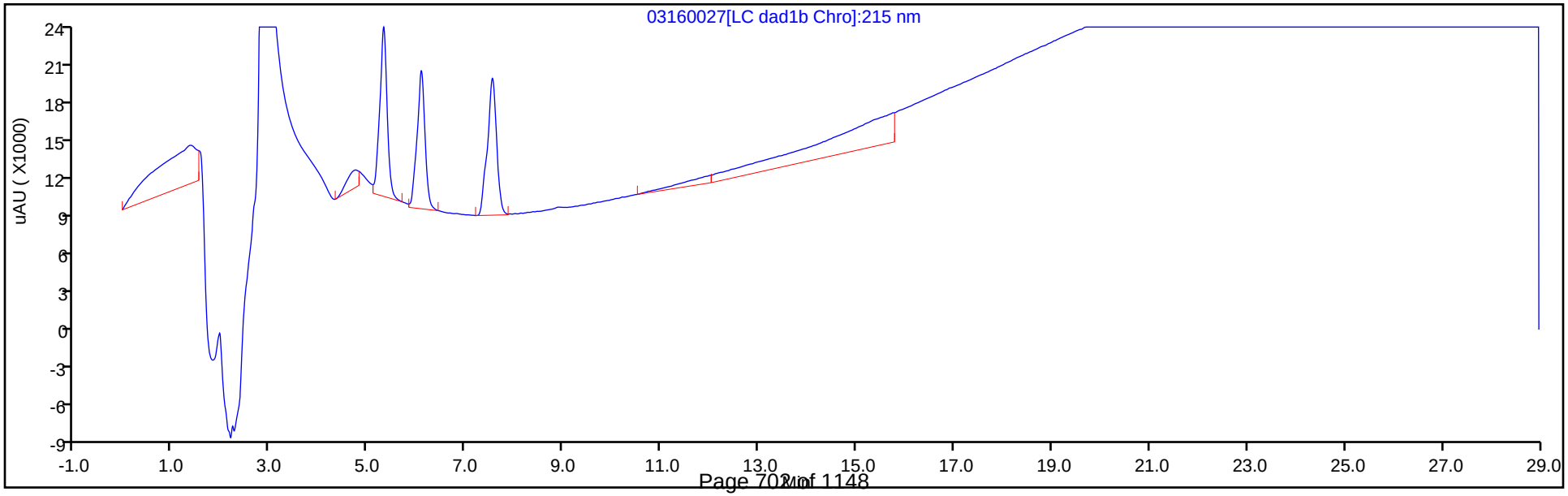
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\g2_luna\20200316-90087.b\03160027.d | | | | |
| Injection Date: | 17-Mar-2020 02:29:23 | Instrument ID: | CHHPLC_G2_LUNA | Operator ID: | CB |
| Lims ID: | CCV DMT | | | Worklist Smp#: | 27 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 8 |
| Method: | G2_8330_Luna | Limit Group: | GCSV - 8330 | | |

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




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



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-134268-1

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.: 280-134268-1

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:

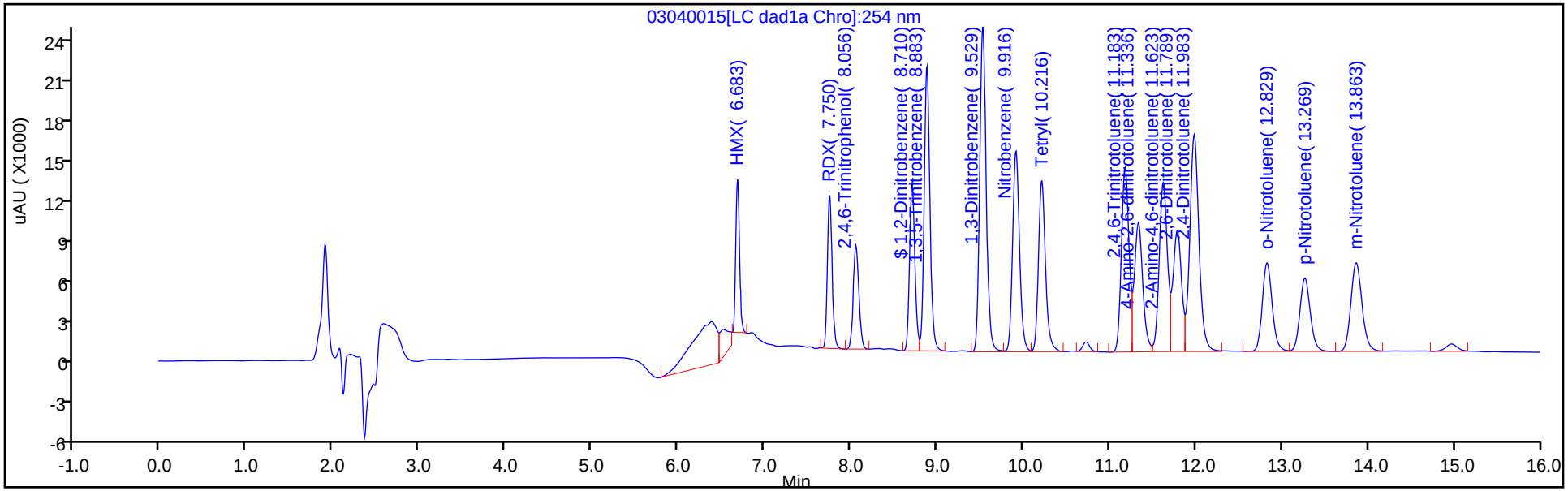
8330Surrogate_00110 Amount Added: 40.00 Units: uL
8330 LCS_00095 Amount Added: 40.00 Units: uL

Report Date: 06-Mar-2020 10:25:10 Chrom Revision: 2.3 19-Feb-2020 16:45:46

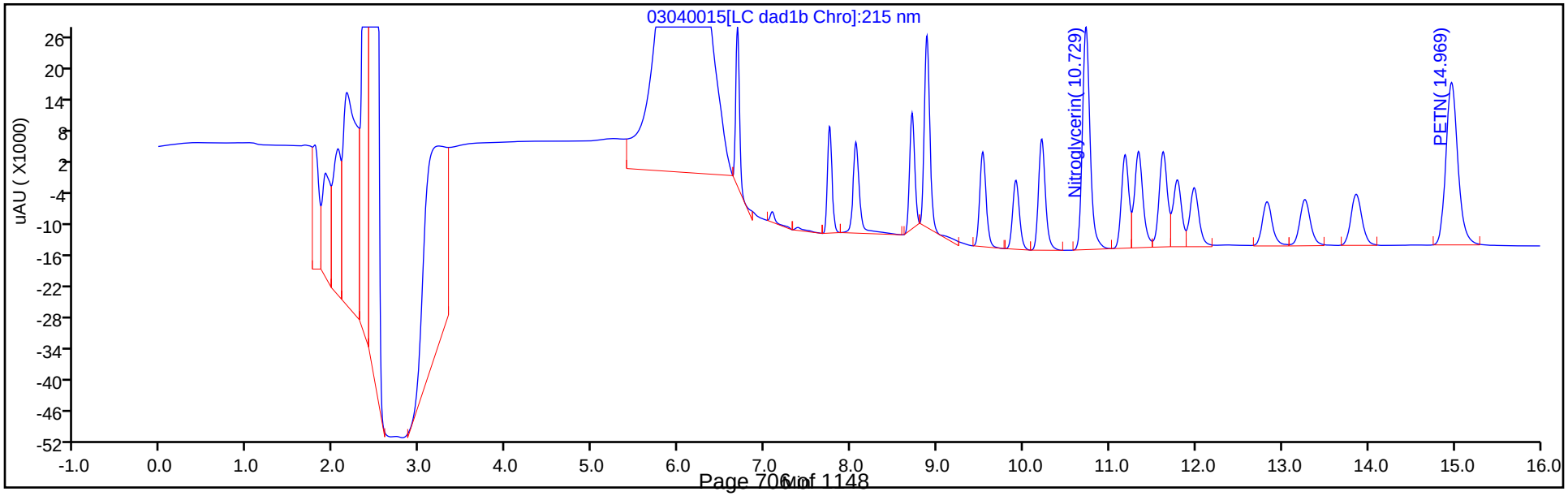
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| 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

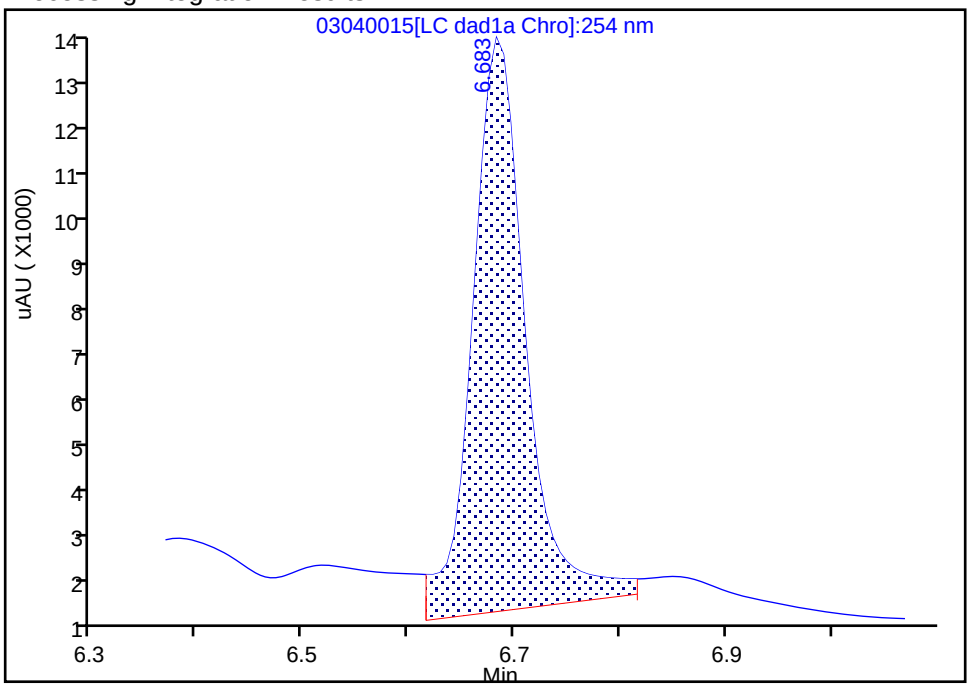
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040015.d | | | | |
| Injection Date: | 04-Mar-2020 17:10:41 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | ICV MAIN | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 15 | 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

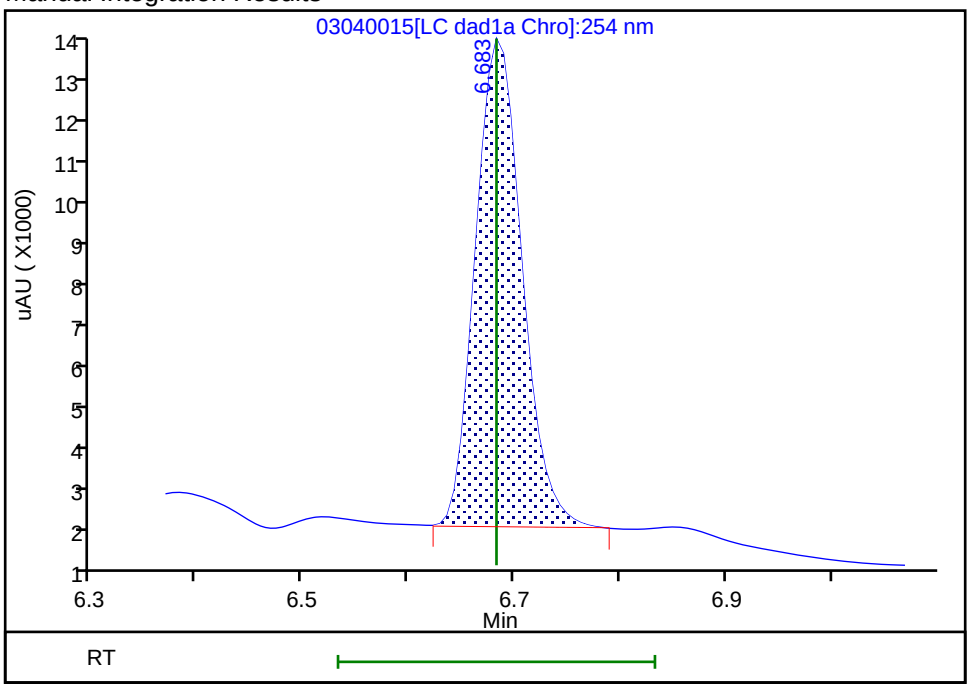
Processing Integration Results

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.: 280-134268-1

SDG No.:

Lab Sample ID: ICV 280-487658/33  Calibration Date: 03/05/2020 00:03

Instrument ID: CHHPLC_X3  Calib Start Date: 03/04/2020 21:00

GC Column: UltraCarb5uODS  ID: 4.60(mm)  Calib End Date: 03/04/2020 23:40

Lab File ID: 03040033.D  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| TNX | Ave | 217609 | 189186 | | 348 | 400 | -13.1 | 15.0 |
| DNX | Ave | 152928 | 145270 | | 380 | 400 | -5.0 | 15.0 |
| MNX | Ave | 158544 | 136780 | | 403 | 467 | -13.7 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-134268-1

SDG No.:

Lab Sample ID: ICV 280-487658/33  Calibration Date: 03/05/2020 00:03

Instrument ID: CHHPLC_X3  Calib Start Date: 03/04/2020 21:00

GC Column: UltraCarb5uODS  ID: 4.60(mm)  Calib End Date: 03/04/2020 23:40

Lab File ID: 03040033.D

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| TNX | 6.59 | 6.49 | 6.69 |
| DNX | 6.91 | 6.81 | 7.01 |
| MNX | 7.36 | 7.21 | 7.51 |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\03040033.D | | | | |
| Lims ID: | ICV DMT | | | | |
| Client ID: | | | | | |
| Sample Type: | ICV | | | | |
| Inject. Date: | 05-Mar-2020 00:03:48 | ALS Bottle#: | 33 | Worklist Smp#: | 33 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | ICV DMT | | | | |
| Misc. Info.: | 280-0089779-033 | | | | |
| Operator ID: | CB | Instrument ID: | CHHPLC_X3 | | |
| Sublist: | | | | | |
| Method: | \\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\8330_X3.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 06-Mar-2020 10:25:28 | Calib Date: | 04-Mar-2020 23:40:46 | | |
| Integrator: | Falcon | | | | |
| Quant Method: | External Standard | Quant By: | Initial Calibration | | |
| Last ICal File: | \\chromna\Denver\ChromData\CHHPLC_X\20200304-89779.b\03040032.D | | | | |
| Column 1 : | UltraCarb5uODS (20) ( 4.60 mm) | | Det: LC DAD1B, 254 nm | | |
| Process Host: | CTX0308 | | | | |

First Level Reviewer: beckerc Date: 05-Mar-2020 08:37:53

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/mL | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|
| 2 TNX | 1 | 6.594 | 6.594 | 0.000 | 75750 | 0.4004 | 0.3481 | M |
| 5 DNX | 1 | 6.914 | 6.914 | 0.000 | 58166 | 0.4004 | 0.3803 | M |
| 6 MNX | 1 | 7.361 | 7.361 | 0.000 | 63849 | 0.4668 | 0.4027 | |

## QC Flag Legend

Review Flags

M - Manually Integrated

## Reagents:

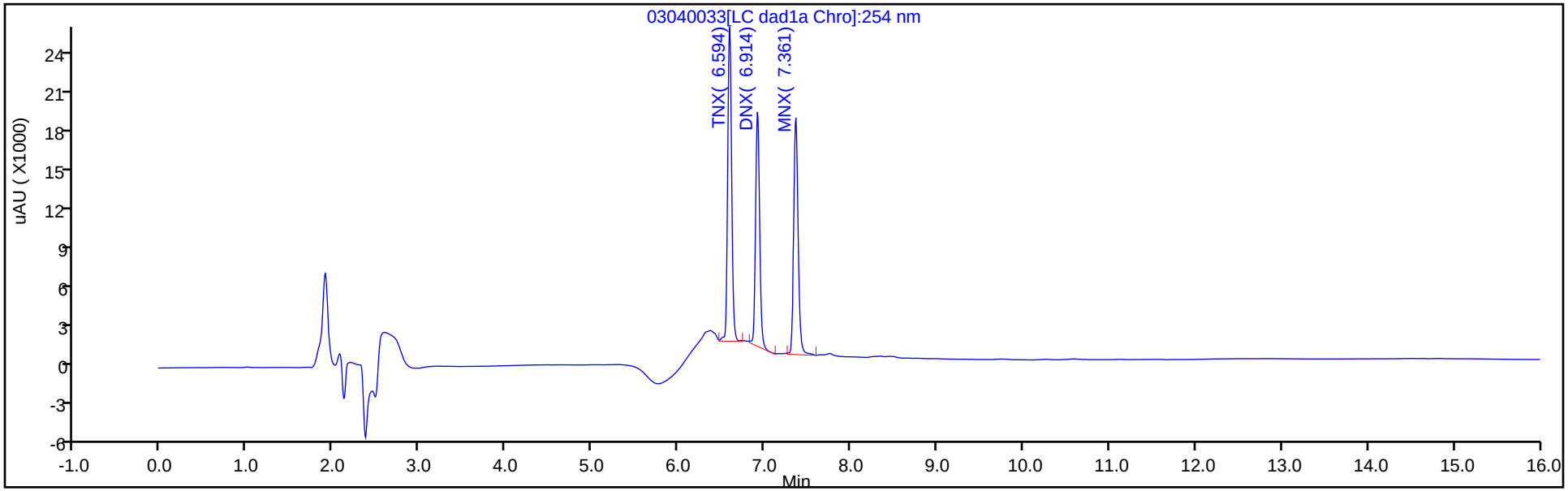
8330_OP_DMT_00006 Amount Added: 40.00 Units: uL

Report Date: 06-Mar-2020 10:25:29 Chrom Revision: 2.3 19-Feb-2020 16:45:46

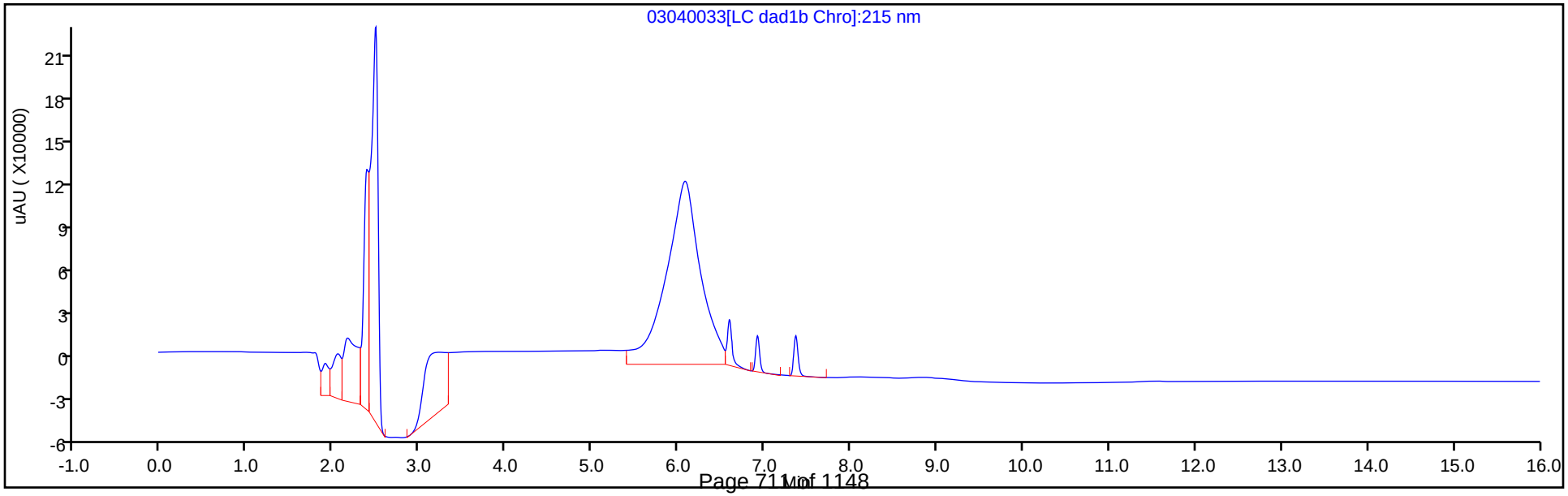
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040033.d | | | | |
| Injection Date: | 05-Mar-2020 00:03:48 | Instrument ID: | CHHPLC_X3 | Operator ID: | CB |
| Lims ID: | ICV DMT | | | Worklist Smp#: | 33 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 33 |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |

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




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



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

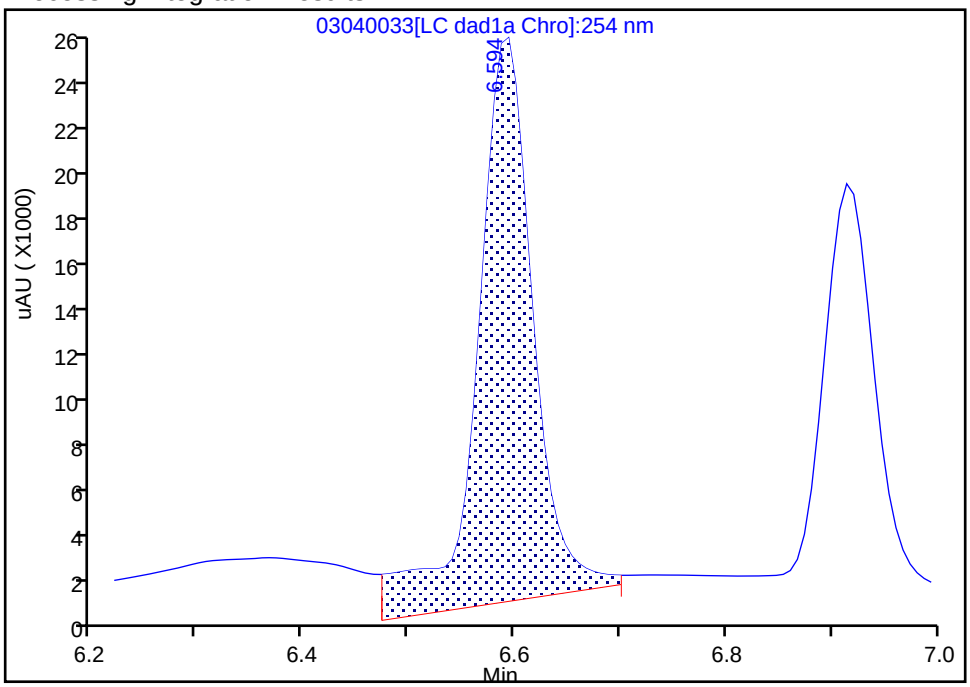
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040033.d | | | | |
| Injection Date: | 05-Mar-2020 00:03:48 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | ICV DMT | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 33 | Worklist Smp#: | 33 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 2 TNX, CAS: 13980-04-6

Signal: 1

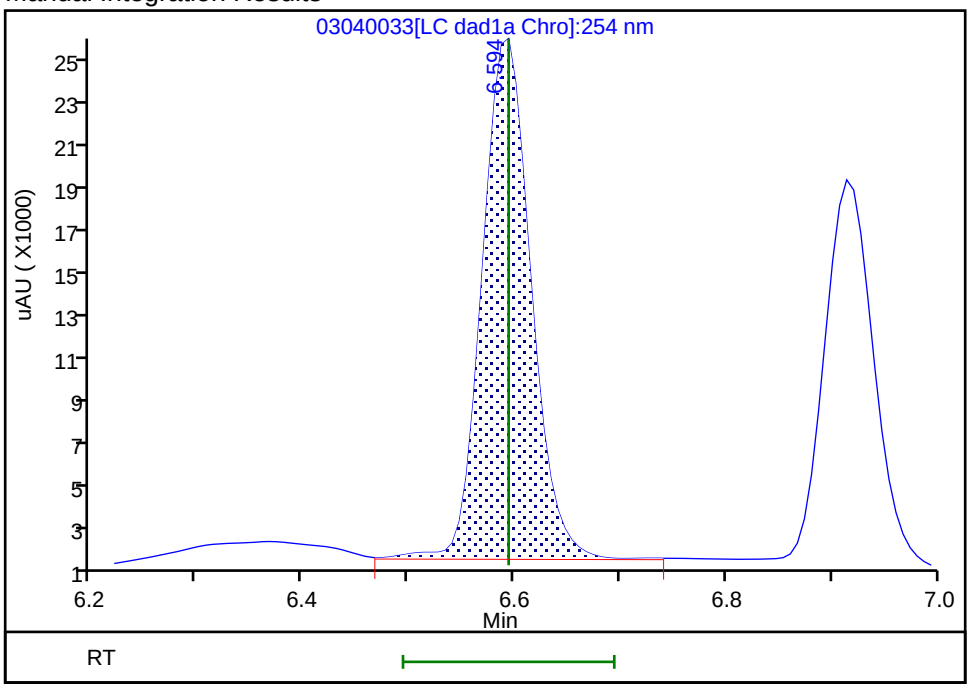
Processing Integration Results

RT: 6.59
Area: 91215
Amount: 0.419170
Amount Units: ug/mL




Manual Integration Results

RT: 6.59
Area: 75750
Amount: 0.348102
Amount Units: ug/mL




Reviewer: beckerc, 05-Mar-2020 08:37:32

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

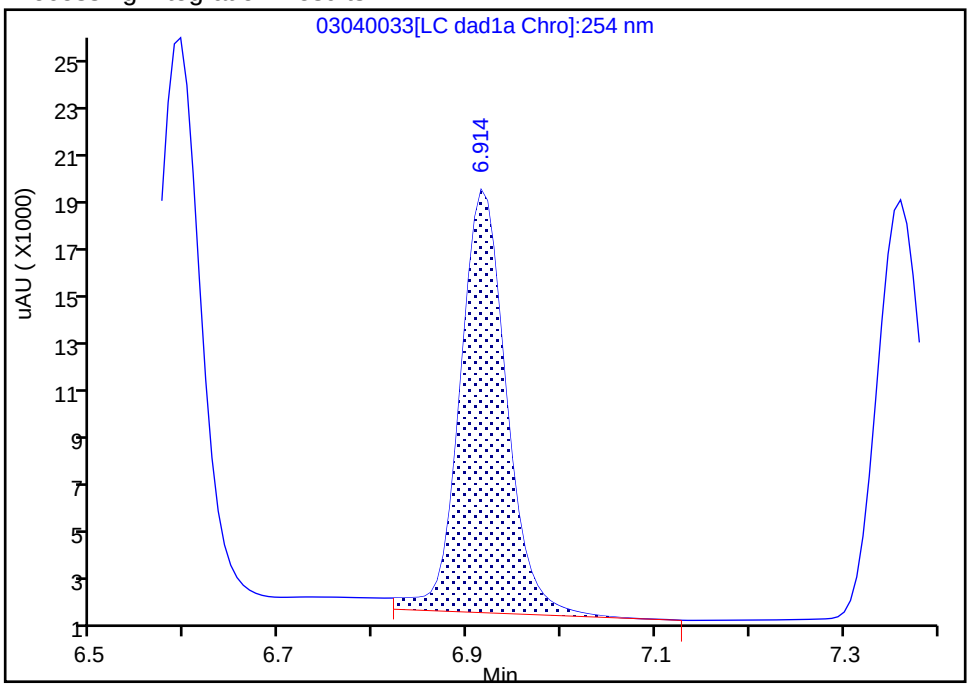
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200304-89779.b\03040033.d | | | | |
| Injection Date: | 05-Mar-2020 00:03:48 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | ICV DMT | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 33 | Worklist Smp#: | 33 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 5 DNX, CAS: 80251-29-2

Signal: 1

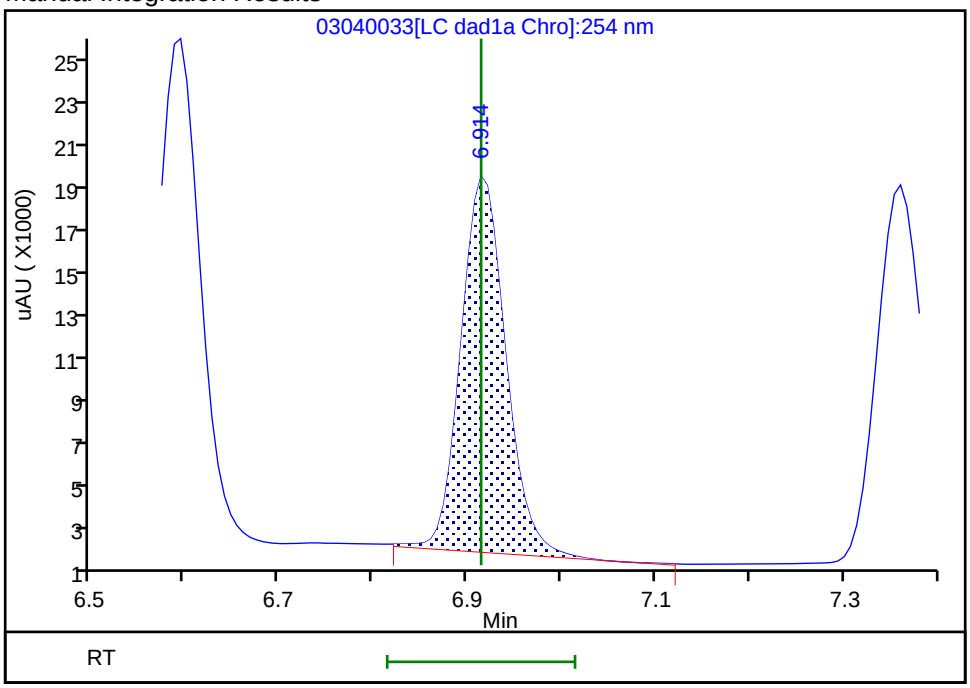
Processing Integration Results

RT: 6.91
Area: 60901
Amount: 0.398232
Amount Units: ug/mL




Manual Integration Results

RT: 6.91
Area: 58166
Amount: 0.380348
Amount Units: ug/mL




Reviewer: beckerc, 05-Mar-2020 08:37:39

Audit Action: Manually Integrated Audit Reason: Baseline

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-134268-1

SDG No.:

Lab Sample ID: CCV 280-488297/7  Calibration Date: 03/11/2020 11:47

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: 03100007.D  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| HMX | Ave | 89178 | 89088 | | 250 | 250 | -0.1 | 15.0 |
| RDX | Ave | 117869 | 109764 | | 233 | 250 | -6.9 | 15.0 |
| Picric acid | Ave | 87247 | 83308 | | 239 | 250 | -4.5 | 15.0 |
| 1,3,5-Trinitrobenzene | Ave | 243459 | 233900 | | 241 | 251 | -3.9 | 15.0 |
| 1,3-Dinitrobenzene | Ave | 324251 | 313285 | | 242 | 251 | -3.4 | 15.0 |
| Nitrobenzene | Ave | 212689 | 203801 | | 241 | 251 | -4.2 | 15.0 |
| Tetryl | Ave | 193870 | 184228 | | 238 | 251 | -5.0 | 15.0 |
| Nitroglycerin | Ave | 71797 | 70196 | | 2440 | 2500 | -2.2 | 15.0 |
| 2,4,6-Trinitrotoluene | Ave | 220911 | 210733 | | 239 | 251 | -4.6 | 15.0 |
| 4-Amino-2,6-dinitrotoluene | Ave | 173468 | 165039 | | 238 | 250 | -4.9 | 15.0 |
| 2-Amino-4,6-dinitrotoluene | Ave | 217539 | 207275 | | 239 | 251 | -4.7 | 15.0 |
| 2,6-Dinitrotoluene | Ave | 159404 | 151976 | | 239 | 251 | -4.7 | 15.0 |
| 2,4-Dinitrotoluene | Ave | 321164 | 308482 | | 241 | 251 | -3.9 | 15.0 |
| 2-Nitrotoluene | Ave | 143838 | 131712 | | 229 | 250 | -8.4 | 15.0 |
| 4-Nitrotoluene | Ave | 120299 | 115010 | | 239 | 251 | -4.4 | 15.0 |
| 3-Nitrotoluene | Ave | 154244 | 147744 | | 240 | 250 | -4.2 | 15.0 |
| PETN | Ave | 79456 | 79050 | | 2490 | 2500 | -0.5 | 15.0 |
| 1,2-Dinitrobenzene | Ave | 146215 | 140416 | | 240 | 250 | -4.0 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-134268-1

SDG No.:

Lab Sample ID: CCV 280-488297/7  Calibration Date: 03/11/2020 11:47

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: 03100007.D

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| HMX | 6.69 | 6.54 | 6.84 |
| RDX | 7.75 | 7.60 | 7.90 |
| Picric acid | 8.05 | 7.90 | 8.20 |
| 1,3,5-Trinitrobenzene | 8.88 | 8.73 | 9.03 |
| 1,3-Dinitrobenzene | 9.53 | 9.38 | 9.68 |
| Nitrobenzene | 9.91 | 9.76 | 10.06 |
| Tetryl | 10.21 | 10.06 | 10.36 |
| Nitroglycerin | 10.73 | 10.58 | 10.88 |
| 2,4,6-Trinitrotoluene | 11.18 | 11.08 | 11.28 |
| 4-Amino-2,6-dinitrotoluene | 11.33 | 11.23 | 11.43 |
| 2-Amino-4,6-dinitrotoluene | 11.61 | 11.51 | 11.71 |
| 2,6-Dinitrotoluene | 11.79 | 11.69 | 11.89 |
| 2,4-Dinitrotoluene | 11.98 | 11.88 | 12.08 |
| 2-Nitrotoluene | 12.82 | 12.67 | 12.97 |
| 4-Nitrotoluene | 13.26 | 13.11 | 13.41 |
| 3-Nitrotoluene | 13.86 | 13.71 | 14.01 |
| PETN | 14.96 | 14.81 | 15.11 |
| 1,2-Dinitrobenzene | 8.71 | 8.56 | 8.86 |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\CHHPLC_X\20200310-89952.b\03100007.D
Lims ID: CCV INT
Client ID:
Sample Type: CCV
Inject. Date: 11-Mar-2020 11:47:04 ALS Bottle#: 7 Worklist Smp#: 7
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: CCV INT
Misc. Info.: 280-0089952-007
Operator ID: CB Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub9

Method: \\chromna\Denver\ChromData\CHHPLC_X\20200310-89952.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 12-Mar-2020 11:54:27 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: CTX0315

First Level Reviewer: beckerc Date: 12-Mar-2020 08:20:51

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/mL | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|
| 3 HMX | 1 | 6.685 | 6.685 | 0.000 | 22272 | 0.2500 | 0.2497 | M |
| 7 RDX | 1 | 7.745 | 7.745 | 0.000 | 27441 | 0.2500 | 0.2328 | |
| 8 2,4,6-Trinitrophenol | 1 | 8.045 | 8.045 | 0.000 | 20827 | 0.2500 | 0.2387 | M |
| $ 9 1,2-Dinitrobenzene | 1 | 8.705 | 8.705 | 0.000 | 35104 | 0.2500 | 0.2401 | |
| 10 1,3,5-Trinitrobenzene | 1 | 8.878 | 8.878 | 0.000 | 58592 | 0.2505 | 0.2407 | |
| 11 1,3-Dinitrobenzene | 1 | 9.525 | 9.525 | 0.000 | 78478 | 0.2505 | 0.2420 | |
| 12 Nitrobenzene | 1 | 9.911 | 9.911 | 0.000 | 51154 | 0.2510 | 0.2405 | |
| 14 Tetryl | 1 | 10.211 | 10.211 | 0.000 | 46149 | 0.2505 | 0.2380 | |
| 15 Nitroglycerin | 2 | 10.725 | 10.725 | 0.000 | 175490 | 2.50 | 2.44 | |
| 16 2,4,6-Trinitrotoluene | 1 | 11.178 | 11.178 | 0.000 | 52894 | 0.2510 | 0.2394 | |
| 17 4-Amino-2,6-dinitrotoluene | 1 | 11.325 | 11.325 | 0.000 | 41301 | 0.2503 | 0.2381 | |
| 18 2-Amino-4,6-dinitrotoluene | 1 | 11.611 | 11.611 | 0.000 | 52026 | 0.2510 | 0.2392 | |
| 19 2,6-Dinitrotoluene | 1 | 11.785 | 11.785 | 0.000 | 38146 | 0.2510 | 0.2393 | |
| 20 2,4-Dinitrotoluene | 1 | 11.978 | 11.978 | 0.000 | 77429 | 0.2510 | 0.2411 | |
| 21 o-Nitrotoluene | 1 | 12.818 | 12.818 | 0.000 | 32928 | 0.2500 | 0.2289 | |
| 22 p-Nitrotoluene | 1 | 13.258 | 13.258 | 0.000 | 28810 | 0.2505 | 0.2395 | |
| 23 m-Nitrotoluene | 1 | 13.858 | 13.858 | 0.000 | 36973 | 0.2503 | 0.2397 | |
| 24 PETN | 2 | 14.958 | 14.958 | 0.000 | 197624 | 2.50 | 2.49 | |

## QC Flag Legend

Review Flags
M - Manually Integrated

## Reagents:

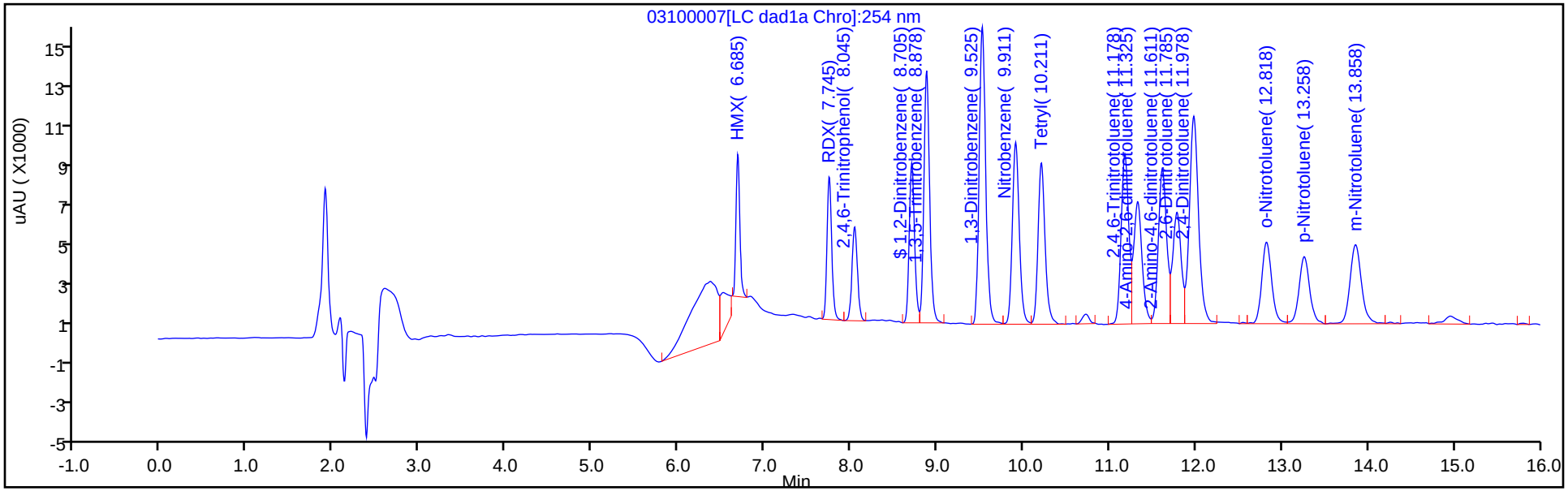
8330IntermStk_00061 Amount Added: 25.00 Units: uL

Report Date: 12-Mar-2020 11:54:27 Chrom Revision: 2.3 19-Feb-2020 16:45:46

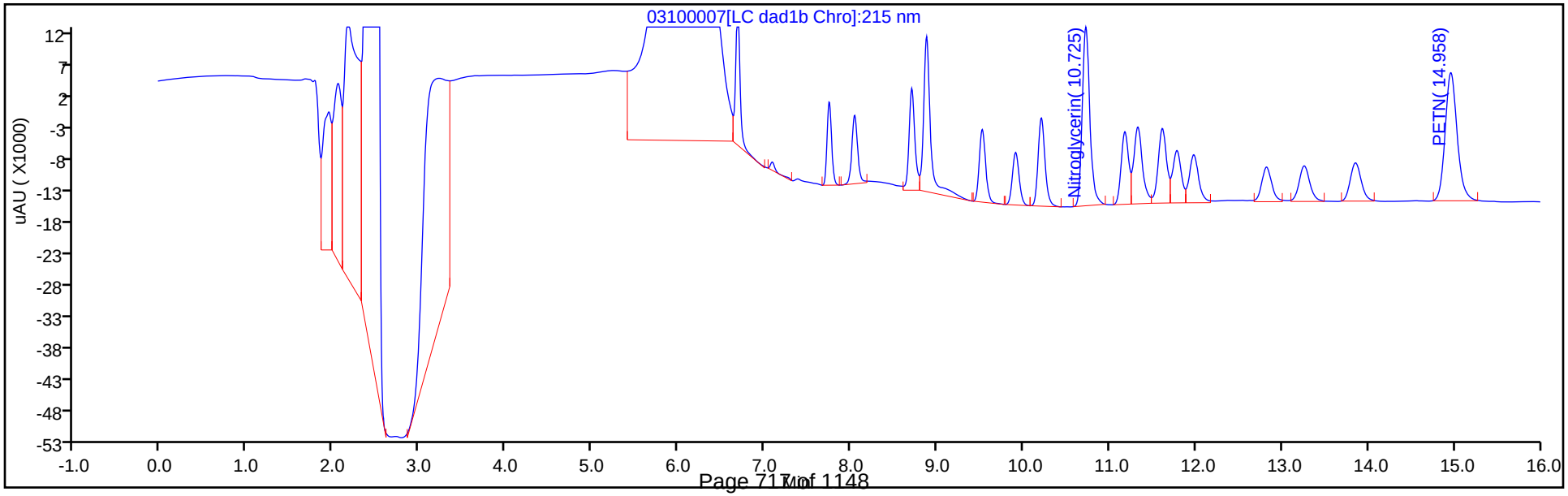
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200310-89952.b\03100007.d | | | | |
| Injection Date: | 11-Mar-2020 11:47:04 | Instrument ID: | CHHPLC_X3 | Operator ID: | CB |
| Lims ID: | CCV INT | | | Worklist Smp#: | 7 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 7 |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |

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




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



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

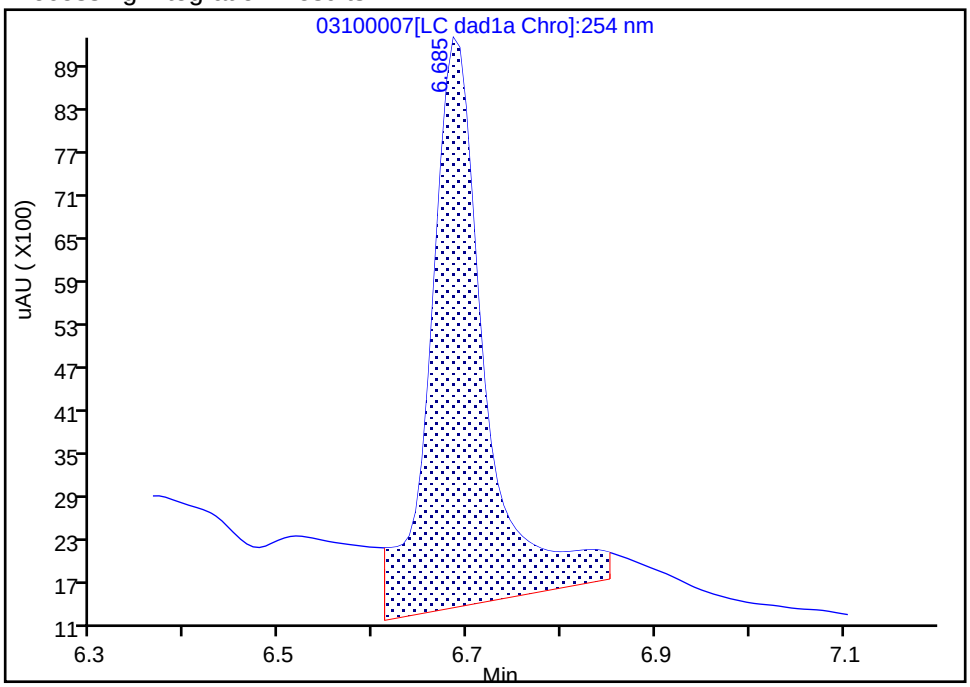
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200310-89952.b\03100007.d | | | | |
| Injection Date: | 11-Mar-2020 11:47:04 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | CCV INT | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 7 | 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

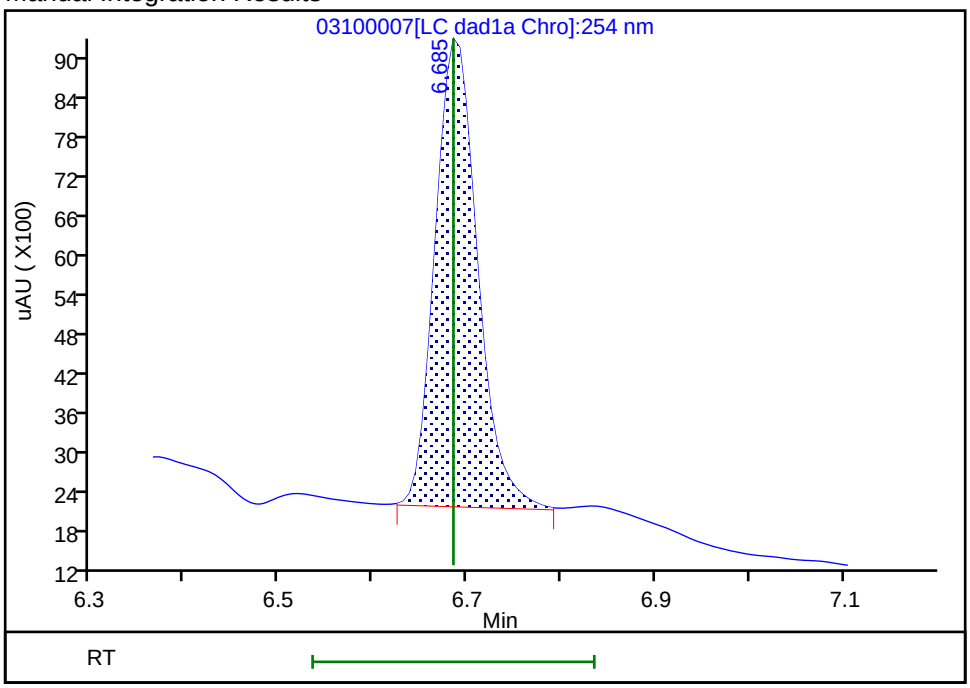
Processing Integration Results

RT: 6.68
Area: 31978
Amount: 0.358588
Amount Units: ug/mL




Manual Integration Results

RT: 6.68
Area: 22272
Amount: 0.249749
Amount Units: ug/mL




Reviewer: beckerc, 12-Mar-2020 08:20:26

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

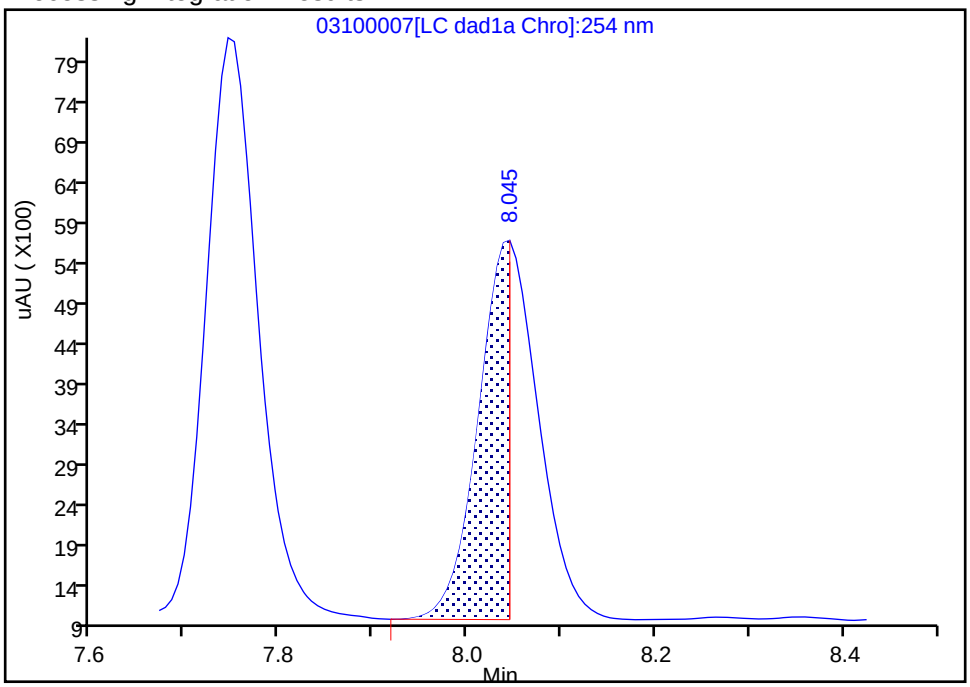
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200310-89952.b\03100007.d | | | | |
| Injection Date: | 11-Mar-2020 11:47:04 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | CCV INT | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 7 | 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 | | |

## 8 2,4,6-Trinitrophenol, CAS: 88-89-1

Signal: 1

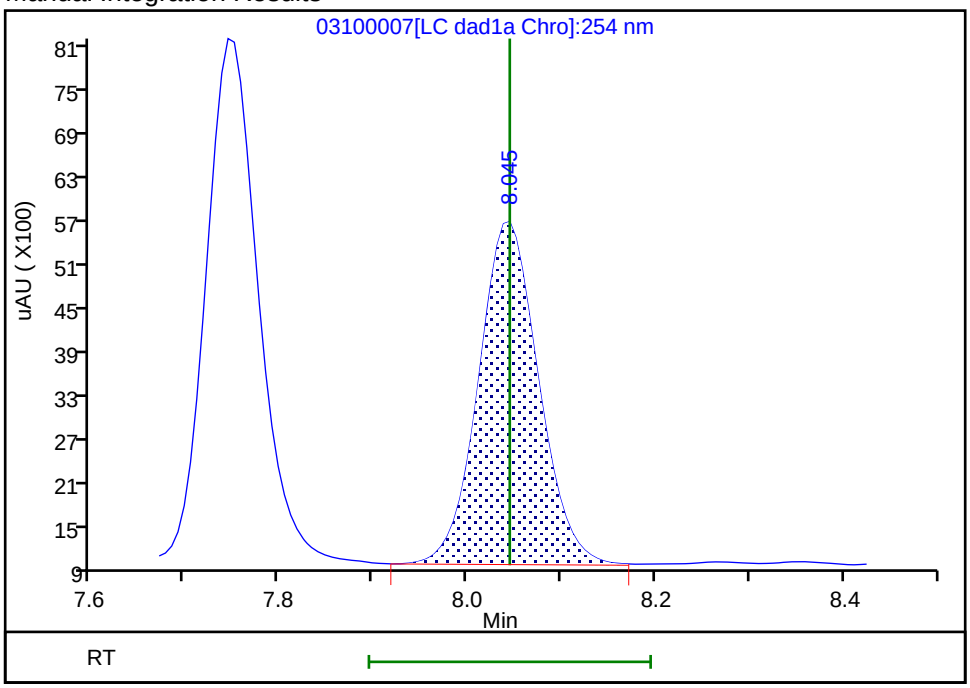
Processing Integration Results

RT: 8.04
Area: 10587
Amount: 0.121345
Amount Units: ug/mL




Manual Integration Results

RT: 8.04
Area: 20827
Amount: 0.238714
Amount Units: ug/mL




Reviewer: beckerc, 12-Mar-2020 08:20:37
Audit Action: Manually Integrated Audit Reason: Baseline

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-134268-1

SDG No.:

Lab Sample ID: CCV 280-488297/9  Calibration Date: 03/11/2020 12:32

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: 03100009.D  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| TNX | Ave | 217609 | 234450 | | 270 | 250 | 7.7 | 15.0 |
| DNX | Ave | 152928 | 165978 | | 272 | 250 | 8.5 | 15.0 |
| MNX | Ave | 158544 | 155297 | | 286 | 292 | -2.0 | 15.0 |

FORM VII 8330A

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-134268-1

SDG No.:

Lab Sample ID: CCV 280-488297/9  Calibration Date: 03/11/2020 12:32

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: 03100009.D

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| TNX | 6.60 | 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\20200310-89952.b\03100009.D | | | | |
| Lims ID: | CCV DMT | | | | |
| Client ID: | | | | | |
| Sample Type: | CCV | | | | |
| Inject. Date: | 11-Mar-2020 12:32:55 | ALS Bottle#: | 9 | Worklist Smp#: | 9 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | CCV DMT | | | | |
| Misc. Info.: | 280-0089952-009 | | | | |
| Operator ID: | CB | Instrument ID: | CHHPLC_X3 | | |
| Sublist: | chrom-8330_X3*sub17 | | | | |
| Method: | \\chromna\Denver\ChromData\CHHPLC_X\20200310-89952.b\8330_X3.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 12-Mar-2020 11:54:25 | 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: | CTX0315 | | | | |

First Level Reviewer: beckerc Date: 12-Mar-2020 11:34:57

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/mL | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|
| 2 TNX | 1 | 6.595 | 6.594 | 0.001 | 58671 | 0.2503 | 0.2696 | M |
| 5 DNX | 1 | 6.915 | 6.914 | 0.001 | 41536 | 0.2503 | 0.2716 | M |
| 6 MNX | 1 | 7.355 | 7.361 | -0.006 | 45308 | 0.2918 | 0.2858 | |

## QC Flag Legend

Review Flags

M - Manually Integrated

## Reagents:

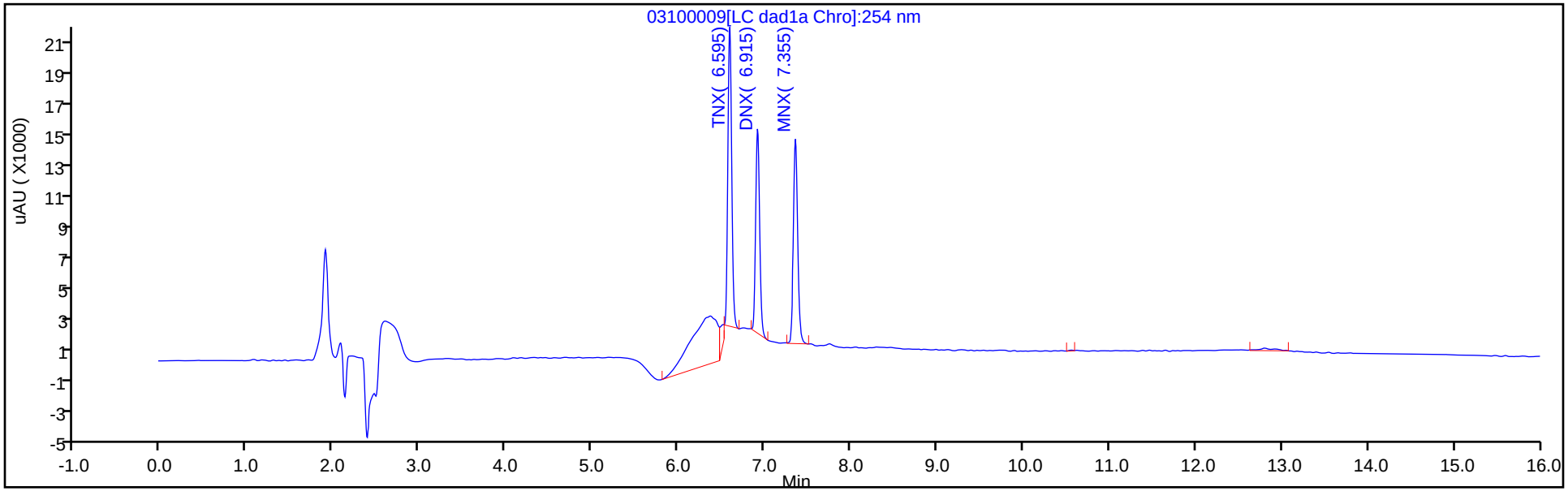
8330 DMT_00005 Amount Added: 12.50 Units: uL

Report Date: 12-Mar-2020 11:54:25 Chrom Revision: 2.3 19-Feb-2020 16:45:46

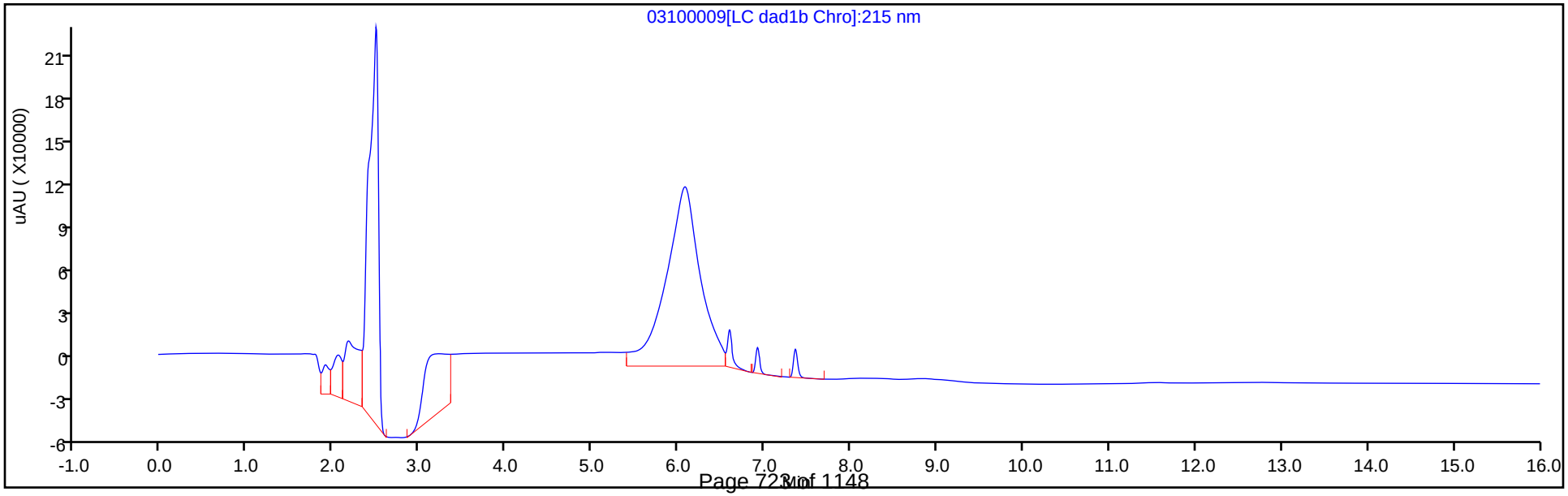
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200310-89952.b\03100009.d | | | | |
| Injection Date: | 11-Mar-2020 12:32:55 | Instrument ID: | CHHPLC_X3 | Operator ID: | CB |
| Lims ID: | CCV DMT | | | 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

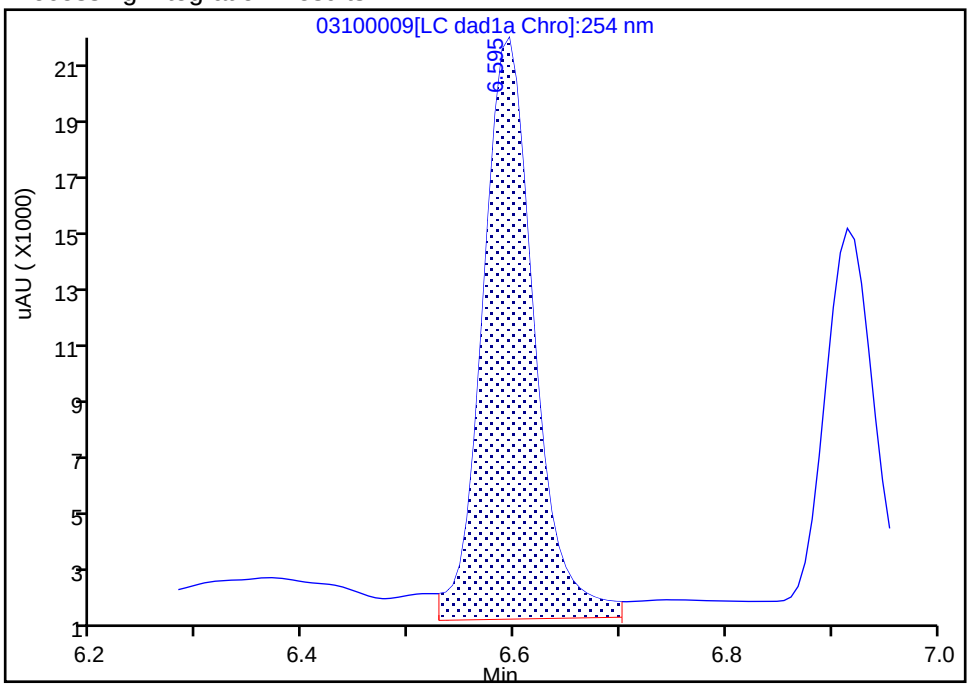
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200310-89952.b\03100009.d | | | | |
| Injection Date: | 11-Mar-2020 12:32:55 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | CCV DMT | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 9 | 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 | | |

## 2 TNX, CAS: 13980-04-6

Signal: 1

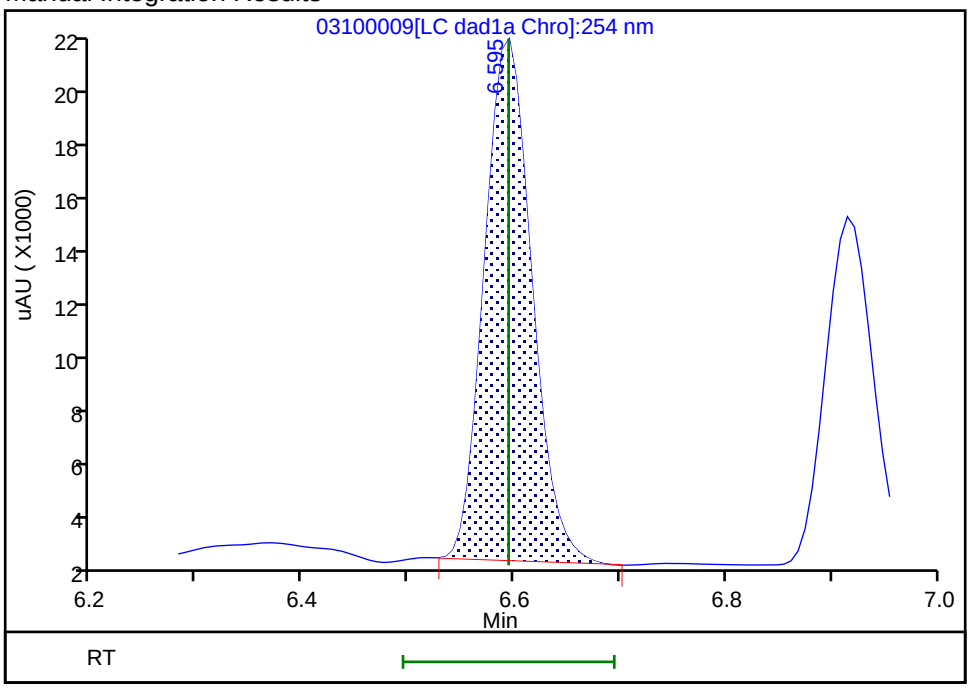
Processing Integration Results

RT: 6.60
Area: 66096
Amount: 0.303738
Amount Units: ug/mL




Manual Integration Results

RT: 6.60
Area: 58671
Amount: 0.269617
Amount Units: ug/mL




Reviewer: beckerc, 12-Mar-2020 11:34:49

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

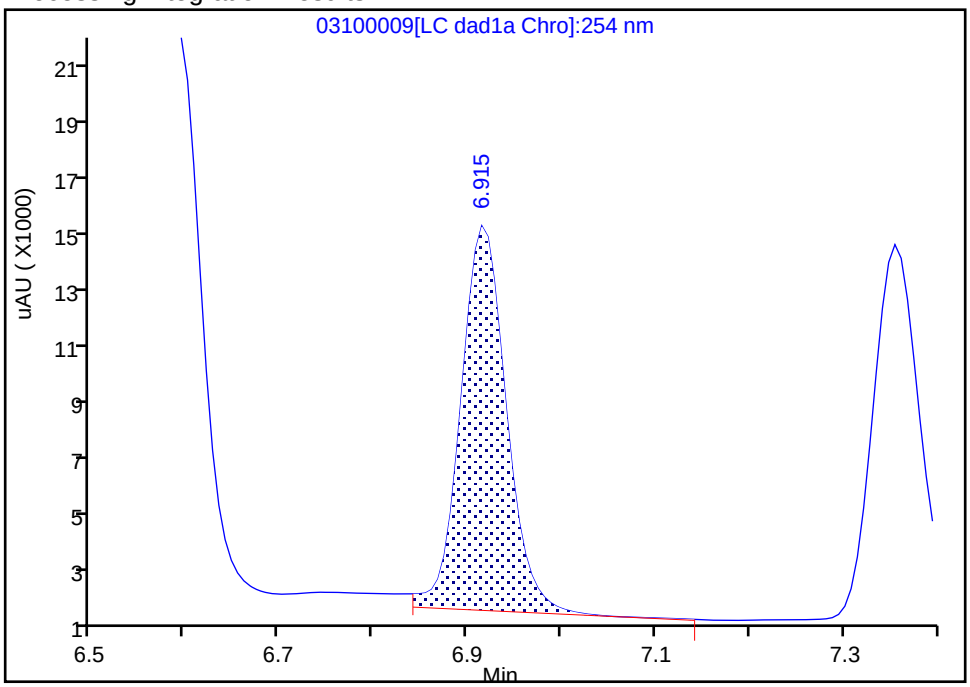
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200310-89952.b\03100009.d | | | | |
| Injection Date: | 11-Mar-2020 12:32:55 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | CCV DMT | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 9 | 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 | | |

## 5 DNX, CAS: 80251-29-2

Signal: 1

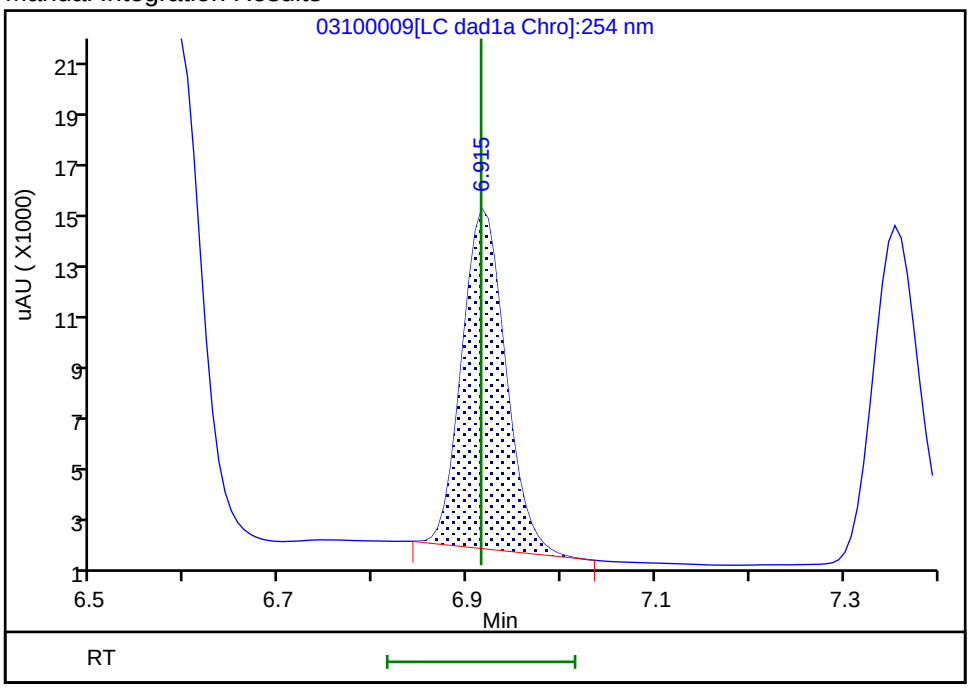
Processing Integration Results

RT: 6.92
Area: 44390
Amount: 0.290267
Amount Units: ug/mL




Manual Integration Results

RT: 6.92
Area: 41536
Amount: 0.271604
Amount Units: ug/mL




Reviewer: beckerc, 12-Mar-2020 11:34:53

Audit Action: Manually Integrated Audit Reason: Baseline

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-134268-1

SDG No.:

Lab Sample ID: CCV 280-488297/20  Calibration Date: 03/11/2020 16:45

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: 03100020.D  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| HMX | Ave | 89178 | 88096 | | 247 | 250 | -1.2 | 15.0 |
| RDX | Ave | 117869 | 109748 | | 233 | 250 | -6.9 | 15.0 |
| Picric acid | Ave | 87247 | 82888 | | 238 | 250 | -5.0 | 15.0 |
| 1,3,5-Trinitrobenzene | Ave | 243459 | 233796 | | 241 | 251 | -4.0 | 15.0 |
| 1,3-Dinitrobenzene | Ave | 324251 | 313142 | | 242 | 251 | -3.4 | 15.0 |
| Nitrobenzene | Ave | 212689 | 200104 | | 236 | 251 | -5.9 | 15.0 |
| Tetryl | Ave | 193870 | 181808 | | 235 | 251 | -6.2 | 15.0 |
| Nitroglycerin | Ave | 71797 | 71591 | | 2490 | 2500 | -0.3 | 15.0 |
| 2,4,6-Trinitrotoluene | Ave | 220911 | 209741 | | 238 | 251 | -5.1 | 15.0 |
| 4-Amino-2,6-dinitrotoluene | Ave | 173468 | 166242 | | 240 | 250 | -4.2 | 15.0 |
| 2-Amino-4,6-dinitrotoluene | Ave | 217539 | 209904 | | 242 | 251 | -3.5 | 15.0 |
| 2,6-Dinitrotoluene | Ave | 159404 | 151378 | | 238 | 251 | -5.0 | 15.0 |
| 2,4-Dinitrotoluene | Ave | 321164 | 307000 | | 240 | 251 | -4.4 | 15.0 |
| 2-Nitrotoluene | Ave | 143838 | 129960 | | 226 | 250 | -9.6 | 15.0 |
| 4-Nitrotoluene | Ave | 120299 | 113234 | | 236 | 251 | -5.9 | 15.0 |
| 3-Nitrotoluene | Ave | 154244 | 142889 | | 232 | 250 | -7.4 | 15.0 |
| PETN | Ave | 79456 | 78507 | | 2470 | 2500 | -1.2 | 15.0 |
| 1,2-Dinitrobenzene | Ave | 146215 | 138236 | | 236 | 250 | -5.5 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-134268-1

SDG No.:

Lab Sample ID: CCV 280-488297/20  Calibration Date: 03/11/2020 16:45

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: 03100020.D

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| HMX | 6.69 | 6.54 | 6.84 |
| RDX | 7.75 | 7.60 | 7.90 |
| Picric acid | 8.05 | 7.90 | 8.20 |
| 1,3,5-Trinitrobenzene | 8.88 | 8.73 | 9.03 |
| 1,3-Dinitrobenzene | 9.52 | 9.38 | 9.68 |
| Nitrobenzene | 9.91 | 9.76 | 10.06 |
| Tetryl | 10.20 | 10.06 | 10.36 |
| Nitroglycerin | 10.72 | 10.58 | 10.88 |
| 2,4,6-Trinitrotoluene | 11.17 | 11.08 | 11.28 |
| 4-Amino-2,6-dinitrotoluene | 11.31 | 11.23 | 11.43 |
| 2-Amino-4,6-dinitrotoluene | 11.60 | 11.51 | 11.71 |
| 2,6-Dinitrotoluene | 11.77 | 11.69 | 11.89 |
| 2,4-Dinitrotoluene | 11.97 | 11.88 | 12.08 |
| 2-Nitrotoluene | 12.81 | 12.67 | 12.97 |
| 4-Nitrotoluene | 13.24 | 13.11 | 13.41 |
| 3-Nitrotoluene | 13.83 | 13.71 | 14.01 |
| PETN | 14.93 | 14.81 | 15.11 |
| 1,2-Dinitrobenzene | 8.71 | 8.56 | 8.86 |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\CHHPLC_X\20200310-89952.b\03100020.D
Lims ID: CCV INT
Client ID:
Sample Type: CCV
Inject. Date: 11-Mar-2020 16:45:12 ALS Bottle#: 7 Worklist Smp#: 20
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: CCV INT
Misc. Info.: 280-0089952-020
Operator ID: CB Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub9

Method: \\chromna\Denver\ChromData\CHHPLC_X\20200310-89952.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 12-Mar-2020 11:54:14 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: CTX0315

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/mL | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|
| 3 HMX | 1 | 6.694 | 6.685 | 0.009 | 22024 | 0.2500 | 0.2470 | |
| 7 RDX | 1 | 7.754 | 7.745 | 0.009 | 27437 | 0.2500 | 0.2328 | |
| 8 2,4,6-Trinitrophenol | 1 | 8.054 | 8.045 | 0.009 | 20722 | 0.2500 | 0.2375 | |
| $ 9 1,2-Dinitrobenzene | 1 | 8.707 | 8.705 | 0.002 | 34559 | 0.2500 | 0.2364 | |
| 10 1,3,5-Trinitrobenzene | 1 | 8.881 | 8.878 | 0.003 | 58566 | 0.2505 | 0.2406 | |
| 11 1,3-Dinitrobenzene | 1 | 9.520 | 9.525 | -0.005 | 78442 | 0.2505 | 0.2419 | |
| 12 Nitrobenzene | 1 | 9.907 | 9.911 | -0.004 | 50226 | 0.2510 | 0.2361 | |
| 14 Tetryl | 1 | 10.200 | 10.211 | -0.011 | 45543 | 0.2505 | 0.2349 | |
| 15 Nitroglycerin | 2 | 10.720 | 10.725 | -0.005 | 178978 | 2.50 | 2.49 | |
| 16 2,4,6-Trinitrotoluene | 1 | 11.174 | 11.178 | -0.004 | 52645 | 0.2510 | 0.2383 | |
| 17 4-Amino-2,6-dinitrotoluene | 1 | 11.314 | 11.325 | -0.011 | 41602 | 0.2503 | 0.2398 | |
| 18 2-Amino-4,6-dinitrotoluene | 1 | 11.600 | 11.611 | -0.011 | 52686 | 0.2510 | 0.2422 | |
| 19 2,6-Dinitrotoluene | 1 | 11.774 | 11.785 | -0.011 | 37996 | 0.2510 | 0.2384 | |
| 20 2,4-Dinitrotoluene | 1 | 11.967 | 11.978 | -0.011 | 77057 | 0.2510 | 0.2399 | |
| 21 o-Nitrotoluene | 1 | 12.807 | 12.818 | -0.011 | 32490 | 0.2500 | 0.2259 | |
| 22 p-Nitrotoluene | 1 | 13.240 | 13.258 | -0.018 | 28365 | 0.2505 | 0.2358 | |
| 23 m-Nitrotoluene | 1 | 13.834 | 13.858 | -0.024 | 35758 | 0.2503 | 0.2318 | |
| 24 PETN | 2 | 14.927 | 14.958 | -0.031 | 196267 | 2.50 | 2.47 | |

## Reagents:

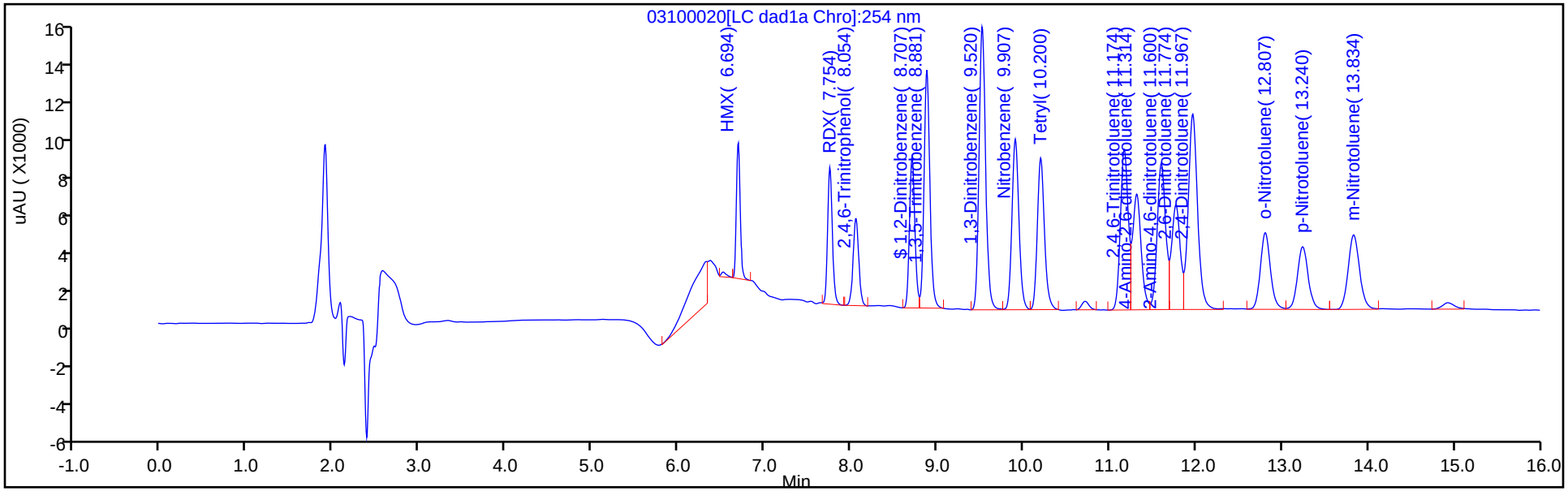
8330IntermStk_00061 Amount Added: 25.00 Units: uL

Report Date: 12-Mar-2020 11:54:14 Chrom Revision: 2.3 19-Feb-2020 16:45:46

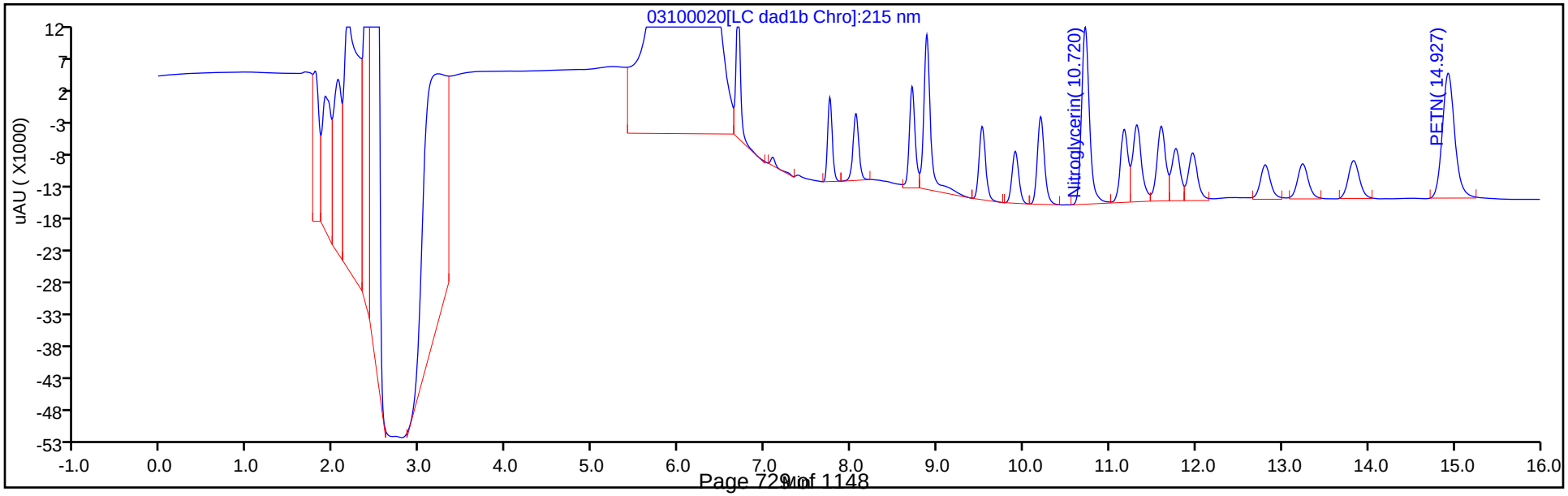
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200310-89952.b\03100020.d | | | | |
| Injection Date: | 11-Mar-2020 16:45:12 | Instrument ID: | CHHPLC_X3 | Operator ID: | CB |
| Lims ID: | CCV INT | | | Worklist Smp#: | 20 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 7 |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |

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




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



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-134268-1

SDG No.:

Lab Sample ID: CCV 280-488297/22  Calibration Date: 03/11/2020 17:31

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: 03100022.D  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| TNX | Ave | 217609 | 229946 | | 264 | 250 | 5.7 | 15.0 |
| DNX | Ave | 152928 | 165890 | | 271 | 250 | 8.5 | 15.0 |
| MNX | Ave | 158544 | 154728 | | 285 | 292 | -2.4 | 15.0 |

FORM VII 8330A

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-134268-1

SDG No.:

Lab Sample ID: CCV 280-488297/22  Calibration Date: 03/11/2020 17:31

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: 03100022.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\20200310-89952.b\03100022.D | | | | |
| Lims ID: | CCV DMT | | | | |
| Client ID: | | | | | |
| Sample Type: | CCV | | | | |
| Inject. Date: | 11-Mar-2020 17:31:03 | ALS Bottle#: | 9 | Worklist Smp#: | 22 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | CCV DMT | | | | |
| Misc. Info.: | 280-0089952-022 | | | | |
| Operator ID: | CB | Instrument ID: | CHHPLC_X3 | | |
| Sublist: | chrom-8330_X3*sub17 | | | | |
| Method: | \\chromna\Denver\ChromData\CHHPLC_X\20200310-89952.b\8330_X3.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 12-Mar-2020 08:50:00 | 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: | CTX0315 | | | | |

First Level Reviewer: beckerc Date: 12-Mar-2020 08:23:30

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/mL | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|
| 2 TNX | 1 | 6.593 | 6.594 | -0.001 | 57544 | 0.2503 | 0.2644 | M |
| 5 DNX | 1 | 6.919 | 6.914 | 0.005 | 41514 | 0.2503 | 0.2715 | M |
| 6 MNX | 1 | 7.359 | 7.361 | -0.002 | 45142 | 0.2918 | 0.2847 | |

## QC Flag Legend

Review Flags

M - Manually Integrated

## Reagents:

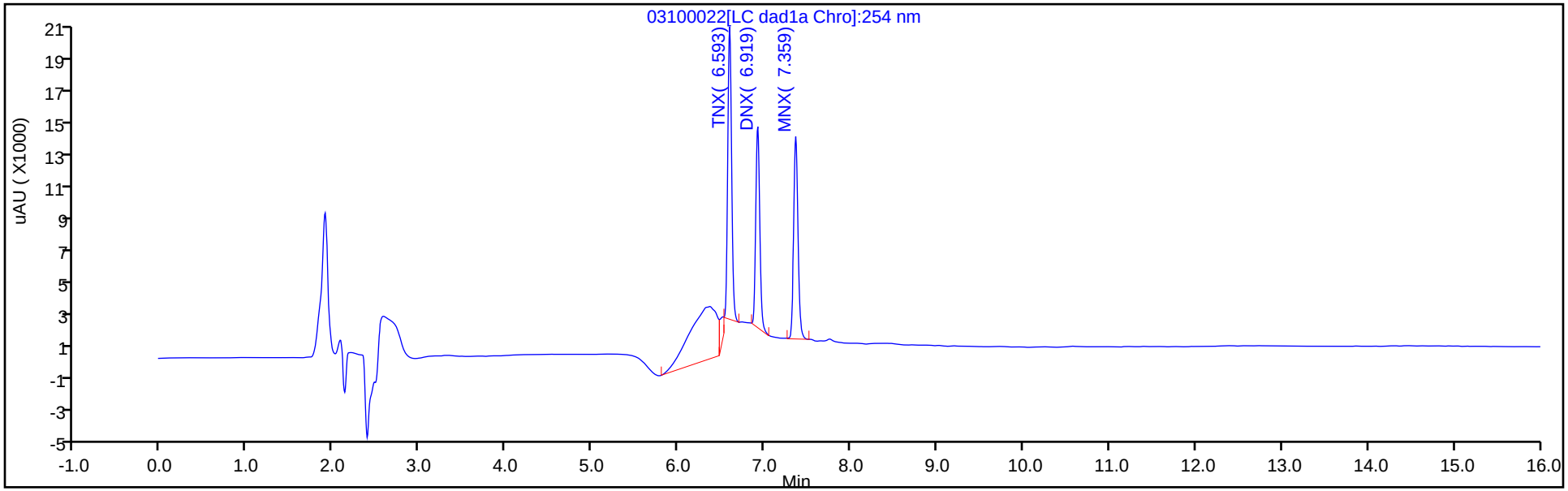
8330 DMT_00005 Amount Added: 12.50 Units: uL

Report Date: 12-Mar-2020 08:50:00 Chrom Revision: 2.3 19-Feb-2020 16:45:46

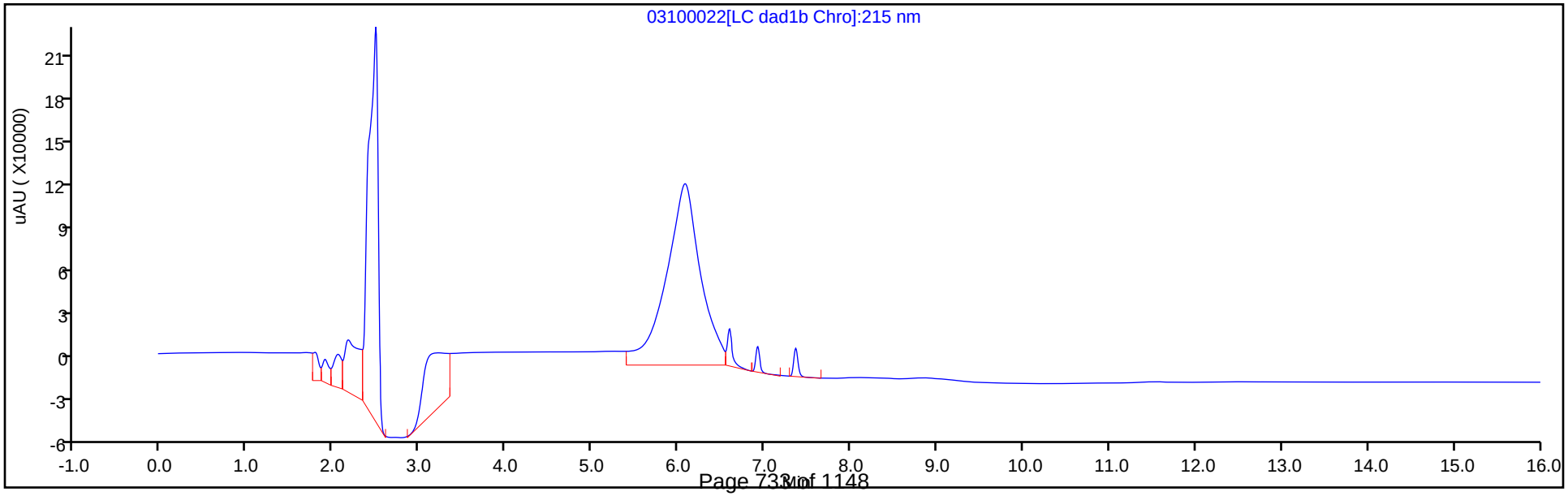
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200310-89952.b\03100022.d | | | | |
| Injection Date: | 11-Mar-2020 17:31:03 | Instrument ID: | CHHPLC_X3 | Operator ID: | CB |
| Lims ID: | CCV DMT | | | Worklist Smp#: | 22 |
| 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

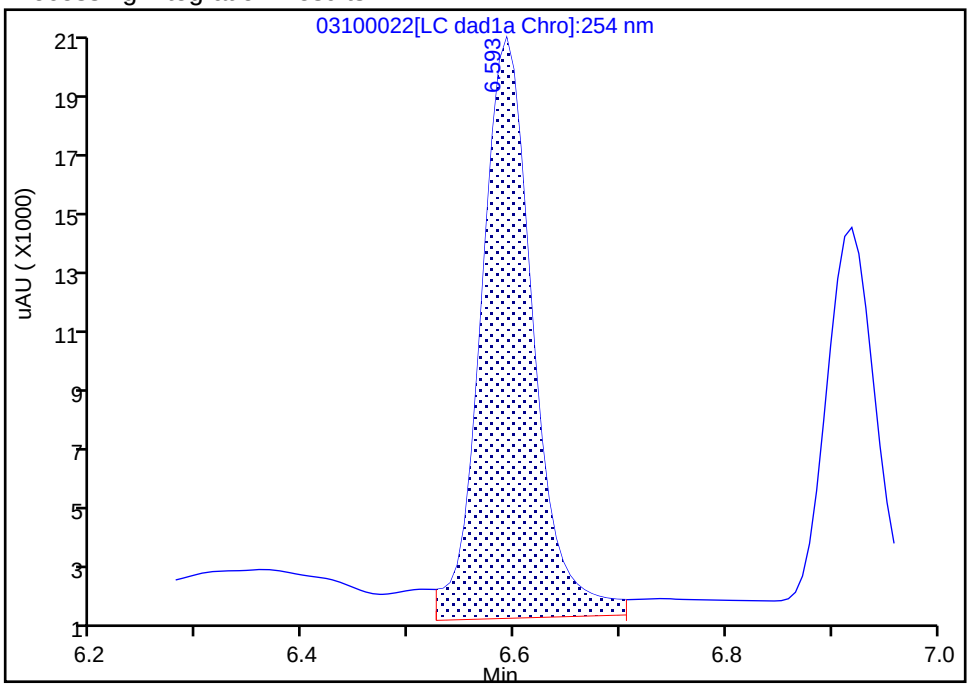
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200310-89952.b\03100022.d | | | | |
| Injection Date: | 11-Mar-2020 17:31:03 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | CCV DMT | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 9 | Worklist Smp#: | 22 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 2 TNX, CAS: 13980-04-6

Signal: 1

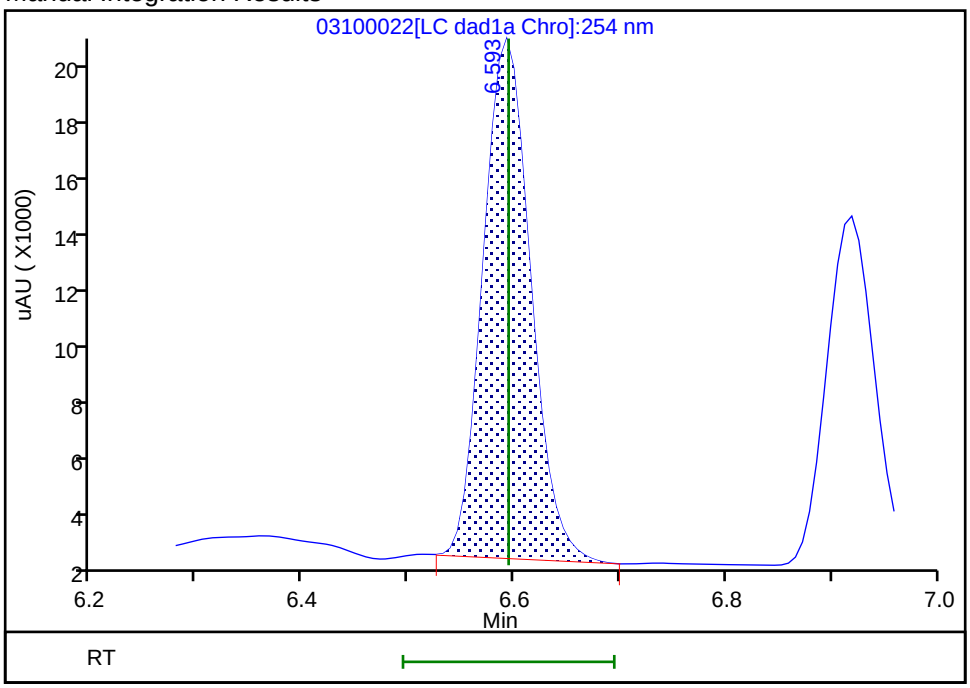
Processing Integration Results

RT: 6.59
Area: 65630
Amount: 0.301596
Amount Units: ug/mL




Manual Integration Results

RT: 6.59
Area: 57544
Amount: 0.264438
Amount Units: ug/mL




Reviewer: beckerc, 12-Mar-2020 08:23:17

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

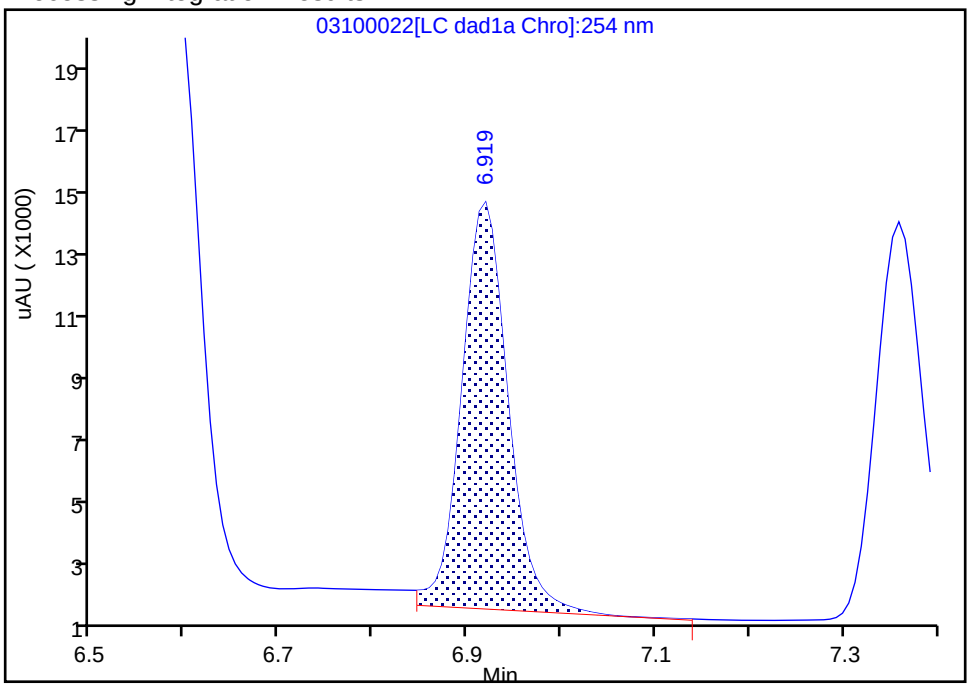
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200310-89952.b\03100022.d | | | | |
| Injection Date: | 11-Mar-2020 17:31:03 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | CCV DMT | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 9 | Worklist Smp#: | 22 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 5 DNX, CAS: 80251-29-2

Signal: 1

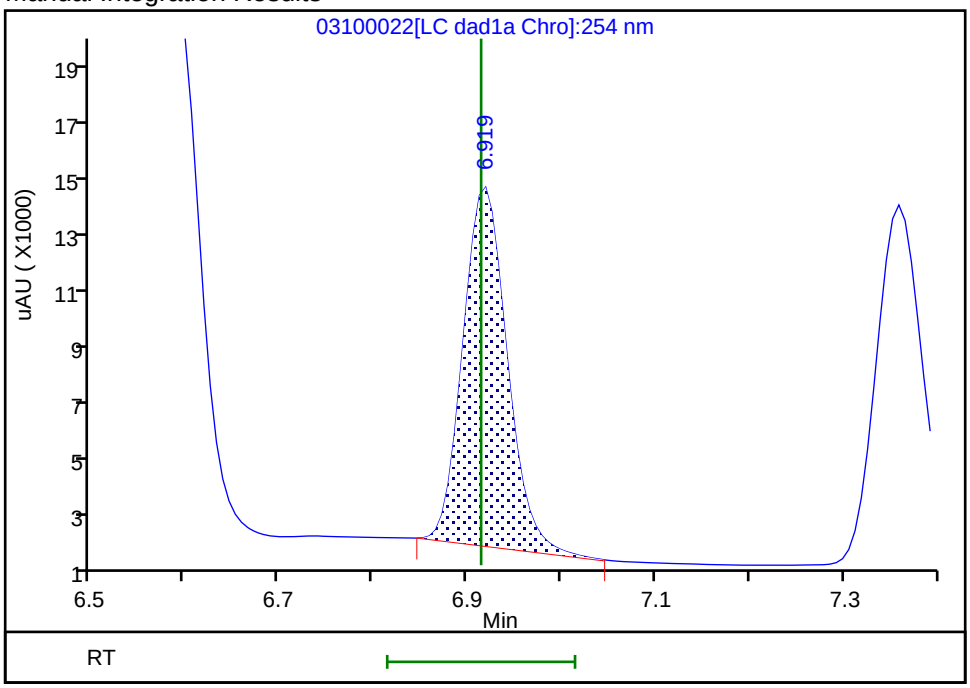
Processing Integration Results

RT: 6.92
Area: 44440
Amount: 0.290594
Amount Units: ug/mL




Manual Integration Results

RT: 6.92
Area: 41514
Amount: 0.271461
Amount Units: ug/mL




Reviewer: beckerc, 12-Mar-2020 08:23:25

Audit Action: Manually Integrated Audit Reason: Baseline

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-134268-1

SDG No.:

Lab Sample ID: CCV 280-488297/33  Calibration Date: 03/11/2020 21:43

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: 03100033.D  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| HMX | Ave | 89178 | 88304 | | 248 | 250 | -1.0 | 15.0 |
| RDX | Ave | 117869 | 110752 | | 235 | 250 | -6.0 | 15.0 |
| Picric acid | Ave | 87247 | 83032 | | 238 | 250 | -4.8 | 15.0 |
| 1,3,5-Trinitrobenzene | Ave | 243459 | 232898 | | 240 | 251 | -4.3 | 15.0 |
| 1,3-Dinitrobenzene | Ave | 324251 | 313760 | | 242 | 251 | -3.2 | 15.0 |
| Nitrobenzene | Ave | 212689 | 198426 | | 234 | 251 | -6.7 | 15.0 |
| Tetryl | Ave | 193870 | 182575 | | 236 | 251 | -5.8 | 15.0 |
| Nitroglycerin | Ave | 71797 | 71498 | | 2490 | 2500 | -0.4 | 15.0 |
| 2,4,6-Trinitrotoluene | Ave | 220911 | 213124 | | 242 | 251 | -3.5 | 15.0 |
| 4-Amino-2,6-dinitrotoluene | Ave | 173468 | 163293 | | 236 | 250 | -5.9 | 15.0 |
| 2-Amino-4,6-dinitrotoluene | Ave | 217539 | 206486 | | 238 | 251 | -5.1 | 15.0 |
| 2,6-Dinitrotoluene | Ave | 159404 | 153323 | | 241 | 251 | -3.8 | 15.0 |
| 2,4-Dinitrotoluene | Ave | 321164 | 308964 | | 241 | 251 | -3.8 | 15.0 |
| 2-Nitrotoluene | Ave | 143838 | 127168 | | 221 | 250 | -11.6 | 15.0 |
| 4-Nitrotoluene | Ave | 120299 | 111649 | | 232 | 251 | -7.2 | 15.0 |
| 3-Nitrotoluene | Ave | 154244 | 140144 | | 227 | 250 | -9.1 | 15.0 |
| PETN | Ave | 79456 | 78129 | | 2460 | 2500 | -1.7 | 15.0 |
| 1,2-Dinitrobenzene | Ave | 146215 | 139152 | | 238 | 250 | -4.8 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-134268-1

SDG No.:

Lab Sample ID: CCV 280-488297/33  Calibration Date: 03/11/2020 21:43

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: 03100033.D

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| HMX | 6.69 | 6.54 | 6.84 |
| RDX | 7.75 | 7.60 | 7.90 |
| Picric acid | 8.06 | 7.90 | 8.20 |
| 1,3,5-Trinitrobenzene | 8.88 | 8.73 | 9.03 |
| 1,3-Dinitrobenzene | 9.53 | 9.38 | 9.68 |
| Nitrobenzene | 9.91 | 9.76 | 10.06 |
| Tetryl | 10.21 | 10.06 | 10.36 |
| Nitroglycerin | 10.72 | 10.58 | 10.88 |
| 2,4,6-Trinitrotoluene | 11.17 | 11.08 | 11.28 |
| 4-Amino-2,6-dinitrotoluene | 11.32 | 11.23 | 11.43 |
| 2-Amino-4,6-dinitrotoluene | 11.61 | 11.51 | 11.71 |
| 2,6-Dinitrotoluene | 11.77 | 11.69 | 11.89 |
| 2,4-Dinitrotoluene | 11.97 | 11.88 | 12.08 |
| 2-Nitrotoluene | 12.81 | 12.67 | 12.97 |
| 4-Nitrotoluene | 13.24 | 13.11 | 13.41 |
| 3-Nitrotoluene | 13.83 | 13.71 | 14.01 |
| PETN | 14.93 | 14.81 | 15.11 |
| 1,2-Dinitrobenzene | 8.71 | 8.56 | 8.86 |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\CHHPLC_X\20200310-89952.b\03100033.D
Lims ID: CCV INT
Client ID:
Sample Type: CCV
Inject. Date: 11-Mar-2020 21:43:21 ALS Bottle#: 7 Worklist Smp#: 33
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: CCV INT
Misc. Info.: 280-0089952-033
Operator ID: CB Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub9

Method: \\chromna\Denver\ChromData\CHHPLC_X\20200310-89952.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 12-Mar-2020 08:50:11 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: CTX0315

First Level Reviewer: beckerc Date: 12-Mar-2020 08:31:41

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/mL | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|
| 3 HMX | 1 | 6.687 | 6.685 | 0.002 | 22076 | 0.2500 | 0.2476 | M |
| 7 RDX | 1 | 7.754 | 7.745 | 0.009 | 27688 | 0.2500 | 0.2349 | |
| 8 2,4,6-Trinitrophenol | 1 | 8.060 | 8.045 | 0.015 | 20758 | 0.2500 | 0.2379 | |
| $ 9 1,2-Dinitrobenzene | 1 | 8.707 | 8.705 | 0.002 | 34788 | 0.2500 | 0.2379 | |
| 10 1,3,5-Trinitrobenzene | 1 | 8.880 | 8.878 | 0.002 | 58341 | 0.2505 | 0.2396 | |
| 11 1,3-Dinitrobenzene | 1 | 9.527 | 9.525 | 0.002 | 78597 | 0.2505 | 0.2424 | |
| 12 Nitrobenzene | 1 | 9.907 | 9.911 | -0.004 | 49805 | 0.2510 | 0.2342 | |
| 14 Tetryl | 1 | 10.207 | 10.211 | -0.004 | 45735 | 0.2505 | 0.2359 | |
| 15 Nitroglycerin | 2 | 10.720 | 10.725 | -0.005 | 178744 | 2.50 | 2.49 | |
| 16 2,4,6-Trinitrotoluene | 1 | 11.174 | 11.178 | -0.004 | 53494 | 0.2510 | 0.2422 | |
| 17 4-Amino-2,6-dinitrotoluene | 1 | 11.320 | 11.325 | -0.005 | 40864 | 0.2503 | 0.2356 | |
| 18 2-Amino-4,6-dinitrotoluene | 1 | 11.607 | 11.611 | -0.004 | 51828 | 0.2510 | 0.2382 | |
| 19 2,6-Dinitrotoluene | 1 | 11.774 | 11.785 | -0.011 | 38484 | 0.2510 | 0.2414 | |
| 20 2,4-Dinitrotoluene | 1 | 11.967 | 11.978 | -0.011 | 77550 | 0.2510 | 0.2415 | |
| 21 o-Nitrotoluene | 1 | 12.807 | 12.818 | -0.011 | 31792 | 0.2500 | 0.2210 | |
| 22 p-Nitrotoluene | 1 | 13.240 | 13.258 | -0.018 | 27968 | 0.2505 | 0.2325 | |
| 23 m-Nitrotoluene | 1 | 13.834 | 13.858 | -0.024 | 35071 | 0.2503 | 0.2274 | |
| 24 PETN | 2 | 14.927 | 14.958 | -0.031 | 195322 | 2.50 | 2.46 | |

## QC Flag Legend

Review Flags
M - Manually Integrated

## Reagents:

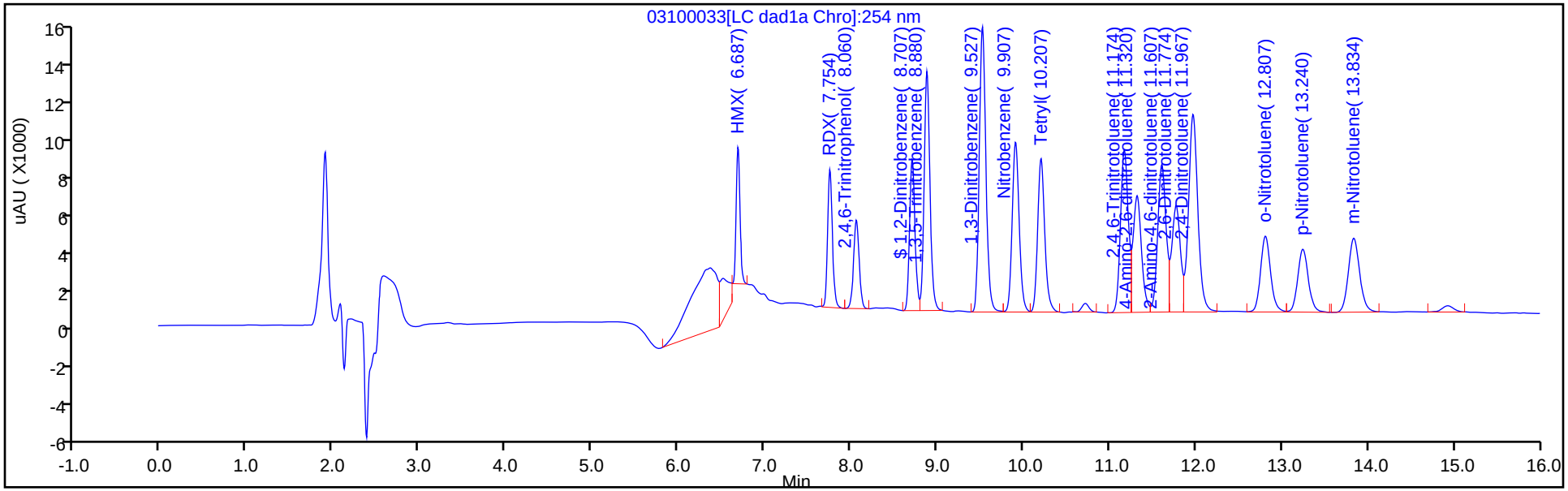
8330IntermStk_00061 Amount Added: 25.00 Units: uL

Report Date: 12-Mar-2020 08:50:11 Chrom Revision: 2.3 19-Feb-2020 16:45:46

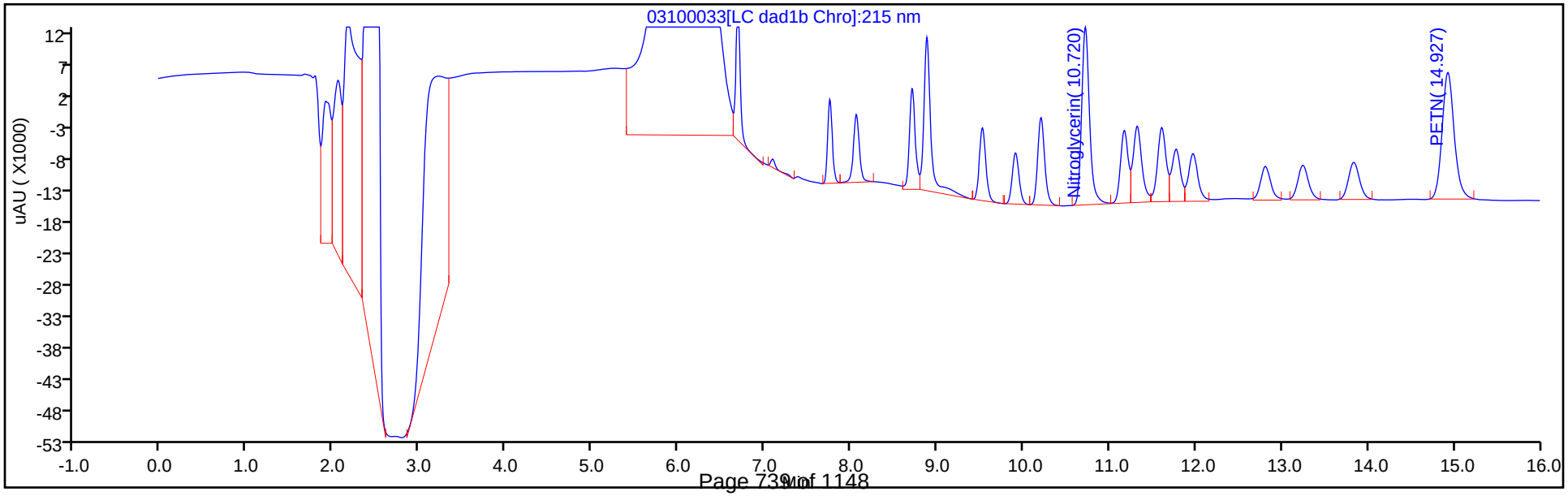
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200310-89952.b\03100033.d | | | | |
| Injection Date: | 11-Mar-2020 21:43:21 | Instrument ID: | CHHPLC_X3 | Operator ID: | CB |
| Lims ID: | CCV INT | | | Worklist Smp#: | 33 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 7 |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |

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




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



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

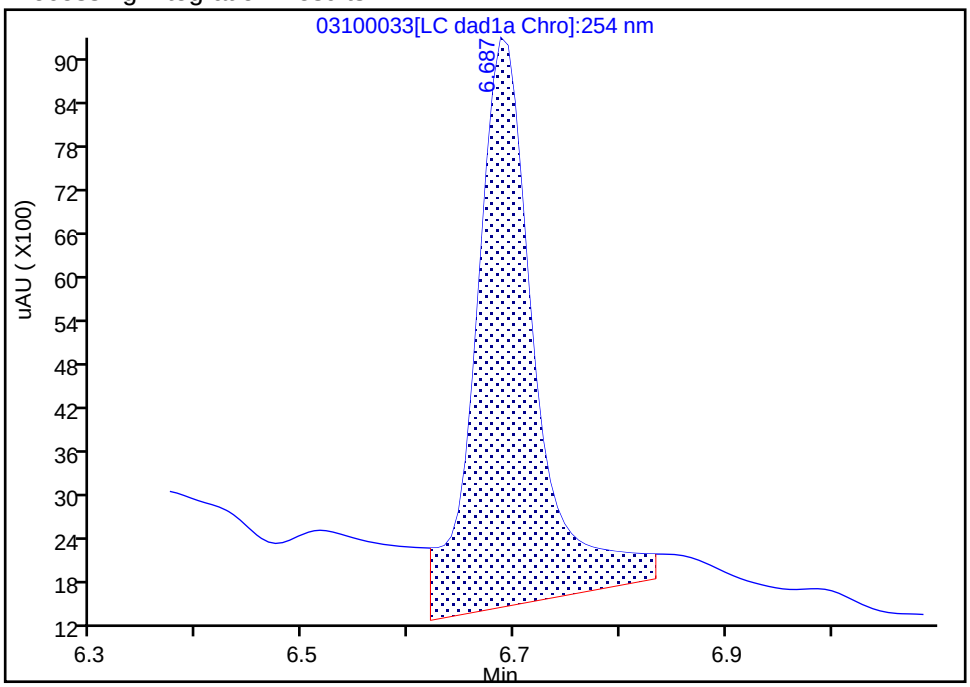
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200310-89952.b\03100033.d | | | | |
| Injection Date: | 11-Mar-2020 21:43:21 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | CCV INT | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 7 | Worklist Smp#: | 33 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 3 HMX, CAS: 2691-41-0

Signal: 1

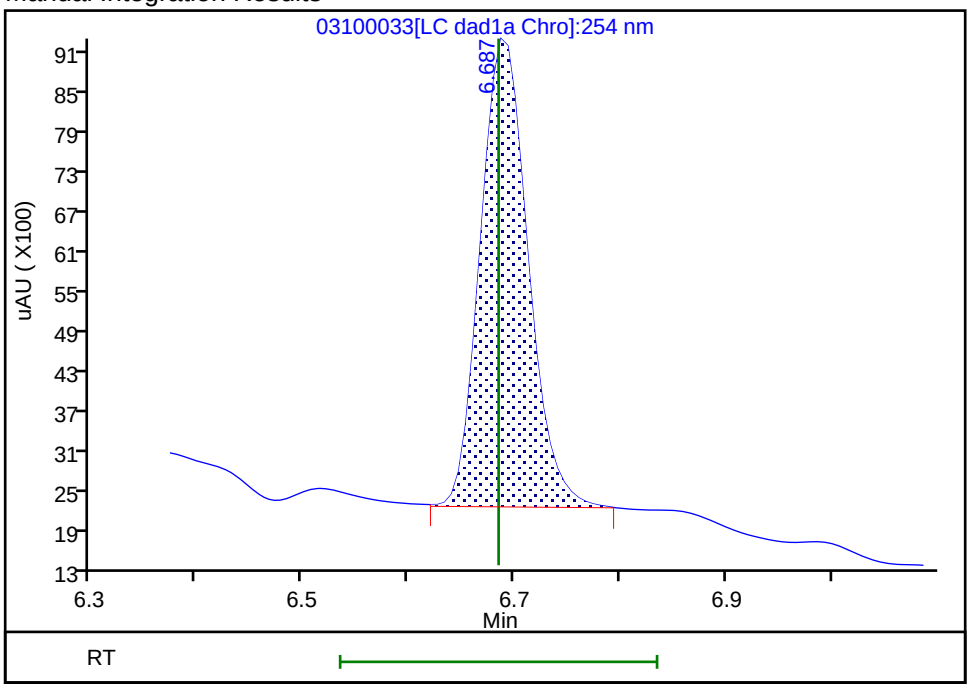
Processing Integration Results

RT: 6.69
Area: 30581
Amount: 0.342923
Amount Units: ug/mL




Manual Integration Results

RT: 6.69
Area: 22076
Amount: 0.247551
Amount Units: ug/mL




Reviewer: beckerc, 12-Mar-2020 08:31:33

Audit Action: Manually Integrated Audit Reason: Baseline

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-134268-1

SDG No.:

Lab Sample ID: CCV 280-488297/35  Calibration Date: 03/11/2020 22:29

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: 03100035.D  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| TNX | Ave | 217609 | 225866 | | 260 | 250 | 3.8 | 15.0 |
| DNX | Ave | 152928 | 163369 | | 267 | 250 | 6.8 | 15.0 |
| MNX | Ave | 158544 | 155054 | | 285 | 292 | -2.2 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-134268-1

SDG No.:

Lab Sample ID: CCV 280-488297/35  Calibration Date: 03/11/2020 22:29

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: 03100035.D

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| TNX | 6.60 | 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\20200310-89952.b\03100035.D | | | | |
| Lims ID: | CCV DMT | | | | |
| Client ID: | | | | | |
| Sample Type: | CCV | | | | |
| Inject. Date: | 11-Mar-2020 22:29:14 | ALS Bottle#: | 9 | Worklist Smp#: | 35 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | CCV DMT | | | | |
| Misc. Info.: | 280-0089952-035 | | | | |
| Operator ID: | CB | Instrument ID: | CHHPLC_X3 | | |
| Sublist: | chrom-8330_X3*sub17 | | | | |
| Method: | \\chromna\Denver\ChromData\CHHPLC_X\20200310-89952.b\8330_X3.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 12-Mar-2020 08:50:13 | 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: | CTX0315 | | | | |

First Level Reviewer: beckerc Date: 12-Mar-2020 08:33:20

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/mL | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|
| 2 TNX | 1 | 6.596 | 6.594 | 0.002 | 56523 | 0.2503 | 0.2597 | M |
| 5 DNX | 1 | 6.923 | 6.914 | 0.009 | 40883 | 0.2503 | 0.2673 | M |
| 6 MNX | 1 | 7.363 | 7.361 | 0.002 | 45237 | 0.2918 | 0.2853 | |

## QC Flag Legend

Review Flags

M - Manually Integrated

## Reagents:

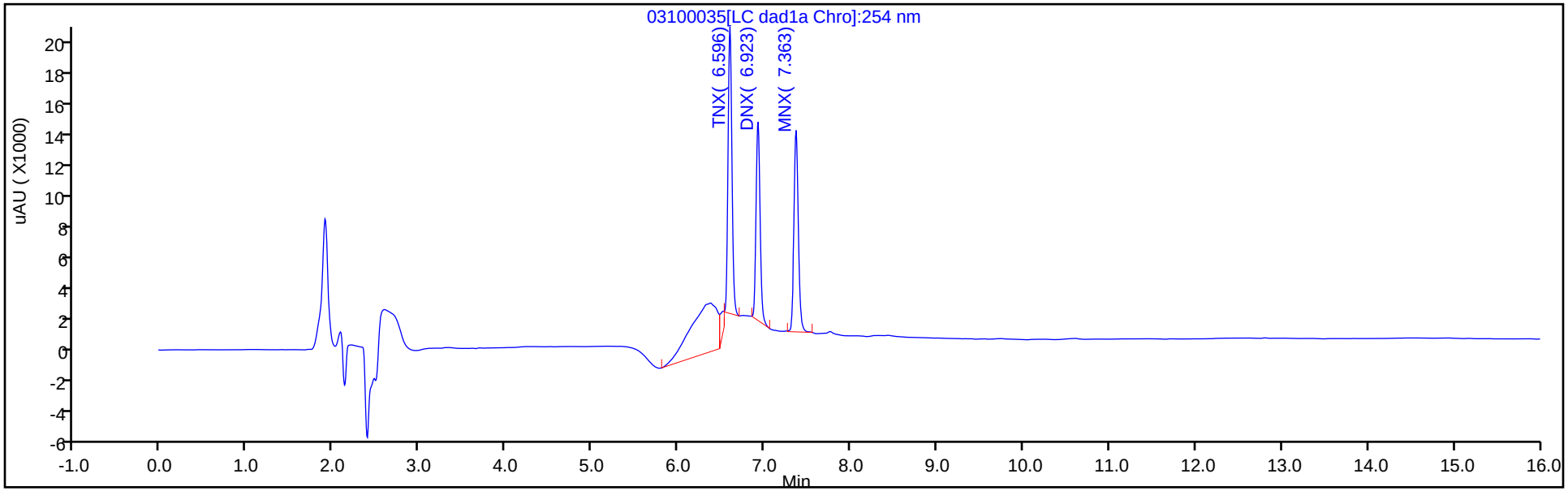
8330 DMT_00005 Amount Added: 12.50 Units: uL

Report Date: 12-Mar-2020 08:50:13 Chrom Revision: 2.3 19-Feb-2020 16:45:46

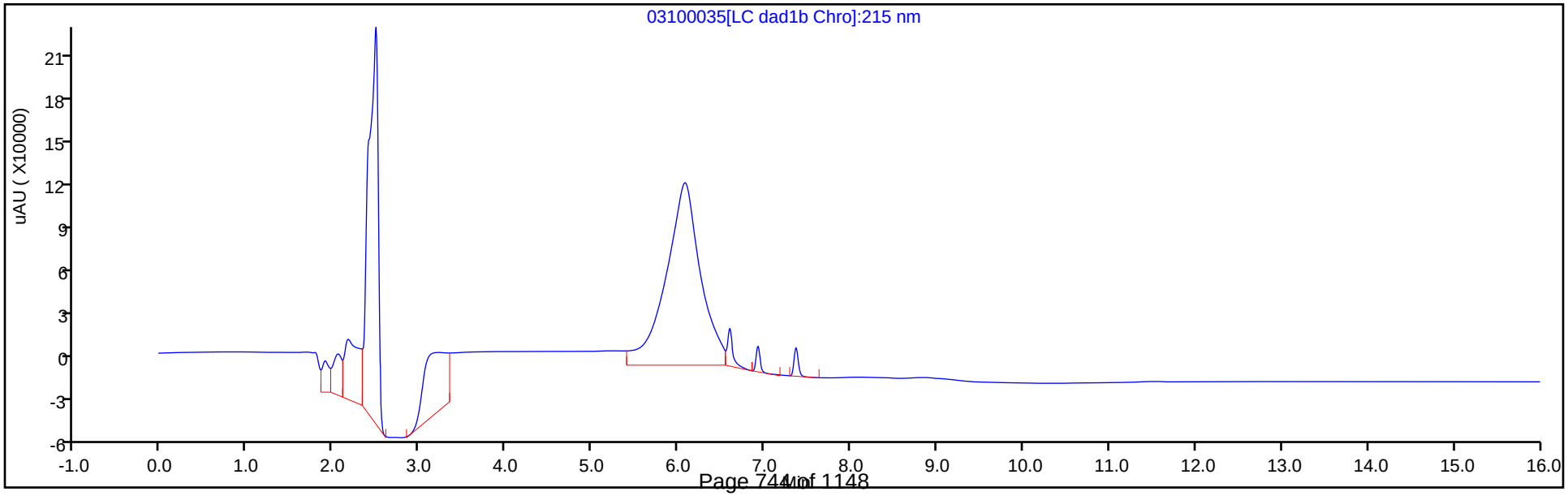
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200310-89952.b\03100035.d | | | | |
| Injection Date: | 11-Mar-2020 22:29:14 | Instrument ID: | CHHPLC_X3 | Operator ID: | CB |
| Lims ID: | CCV DMT | | | Worklist Smp#: | 35 |
| 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

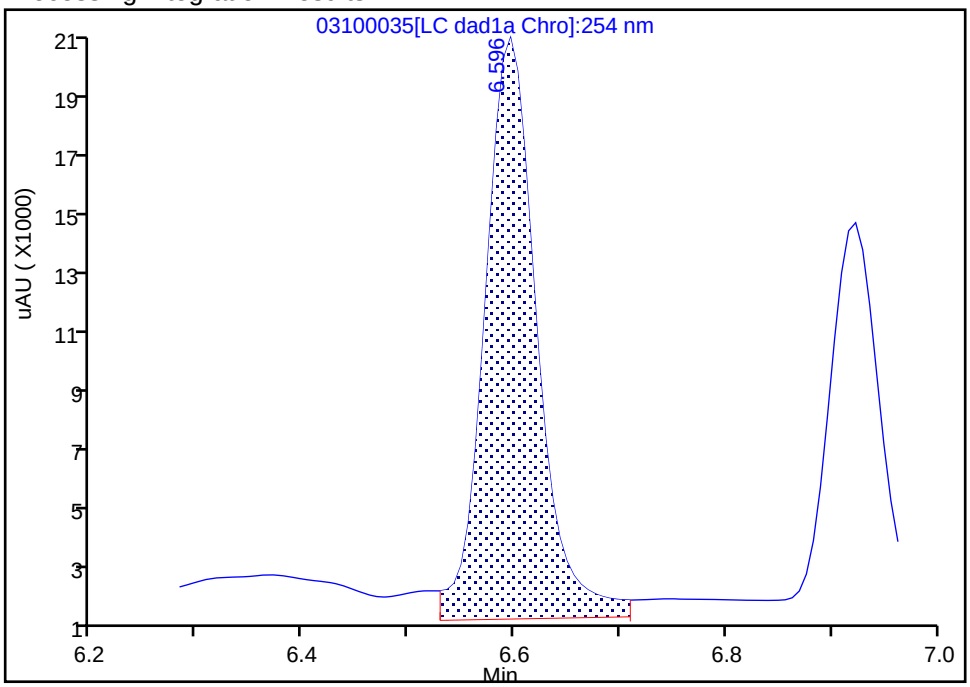
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200310-89952.b\03100035.d | | | | |
| Injection Date: | 11-Mar-2020 22:29:14 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | CCV DMT | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 9 | 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 | | |

## 2 TNX, CAS: 13980-04-6

Signal: 1

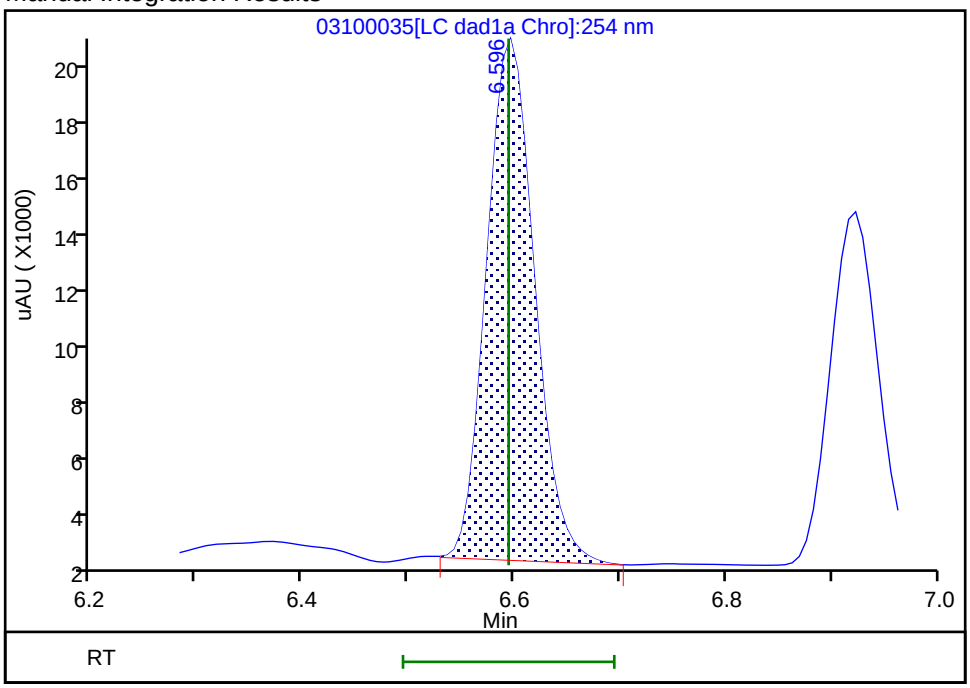
Processing Integration Results

RT: 6.60
Area: 64292
Amount: 0.295448
Amount Units: ug/mL




Manual Integration Results

RT: 6.60
Area: 56523
Amount: 0.259746
Amount Units: ug/mL




Reviewer: beckerc, 12-Mar-2020 08:33:04

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

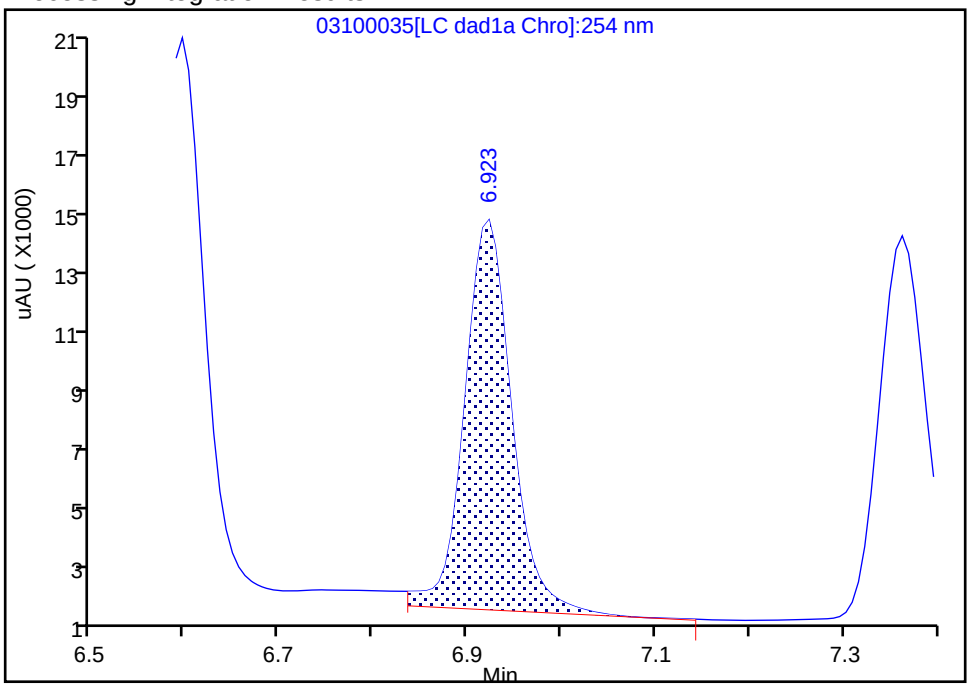
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200310-89952.b\03100035.d | | | | |
| Injection Date: | 11-Mar-2020 22:29:14 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | CCV DMT | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 9 | 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 | | |

## 5 DNX, CAS: 80251-29-2

Signal: 1

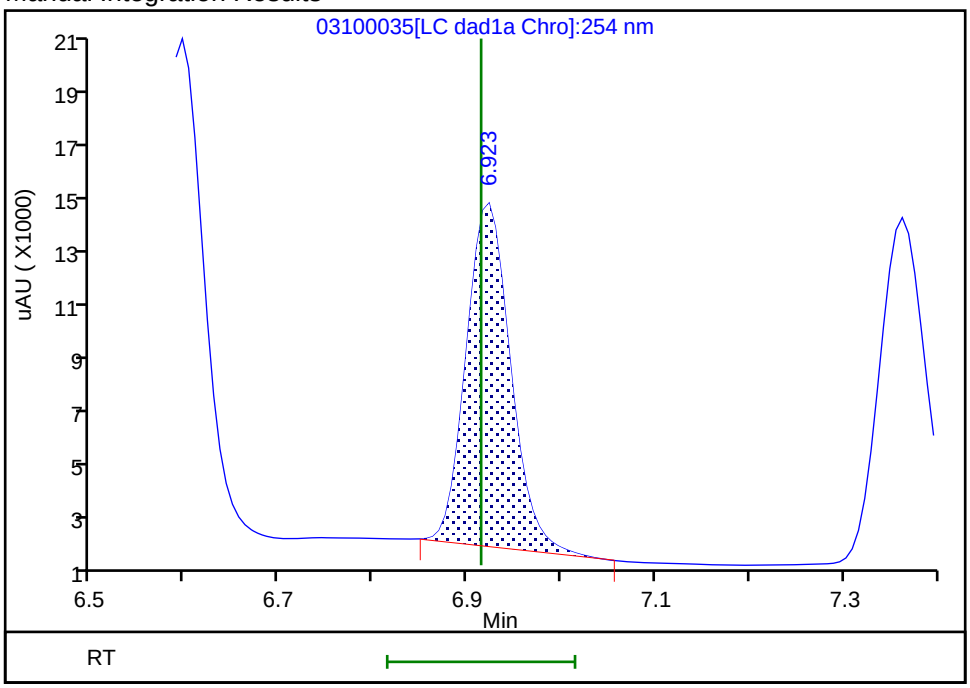
Processing Integration Results

RT: 6.92
Area: 44673
Amount: 0.292117
Amount Units: ug/mL




Manual Integration Results

RT: 6.92
Area: 40883
Amount: 0.267334
Amount Units: ug/mL




Reviewer: beckerc, 12-Mar-2020 08:33:16

Audit Action: Manually Integrated Audit Reason: Baseline

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-134268-1

SDG No.:

Lab Sample ID: CCV 280-488297/38  Calibration Date: 03/11/2020 23:38

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: 03100038.D  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| HMX | Ave | 89178 | 89580 | | 251 | 250 | 0.5 | 15.0 |
| RDX | Ave | 117869 | 110192 | | 234 | 250 | -6.5 | 15.0 |
| Picric acid | Ave | 87247 | 82648 | | 237 | 250 | -5.3 | 15.0 |
| 1,3,5-Trinitrobenzene | Ave | 243459 | 234104 | | 241 | 251 | -3.8 | 15.0 |
| 1,3-Dinitrobenzene | Ave | 324251 | 313800 | | 242 | 251 | -3.2 | 15.0 |
| Nitrobenzene | Ave | 212689 | 198048 | | 234 | 251 | -6.9 | 15.0 |
| Tetryl | Ave | 193870 | 184902 | | 239 | 251 | -4.6 | 15.0 |
| Nitroglycerin | Ave | 71797 | 71708 | | 2500 | 2500 | -0.1 | 15.0 |
| 2,4,6-Trinitrotoluene | Ave | 220911 | 213566 | | 243 | 251 | -3.3 | 15.0 |
| 4-Amino-2,6-dinitrotoluene | Ave | 173468 | 165275 | | 238 | 250 | -4.7 | 15.0 |
| 2-Amino-4,6-dinitrotoluene | Ave | 217539 | 210689 | | 243 | 251 | -3.1 | 15.0 |
| 2,6-Dinitrotoluene | Ave | 159404 | 154072 | | 243 | 251 | -3.3 | 15.0 |
| 2,4-Dinitrotoluene | Ave | 321164 | 316167 | | 247 | 251 | -1.6 | 15.0 |
| 2-Nitrotoluene | Ave | 143838 | 130940 | | 228 | 250 | -9.0 | 15.0 |
| 4-Nitrotoluene | Ave | 120299 | 113341 | | 236 | 251 | -5.8 | 15.0 |
| 3-Nitrotoluene | Ave | 154244 | 143001 | | 232 | 250 | -7.3 | 15.0 |
| PETN | Ave | 79456 | 77916 | | 2450 | 2500 | -1.9 | 15.0 |
| 1,2-Dinitrobenzene | Ave | 146215 | 138164 | | 236 | 250 | -5.5 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-134268-1

SDG No.:

Lab Sample ID: CCV 280-488297/38  Calibration Date: 03/11/2020 23:38

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: 03100038.D

| Analyte | RT | RT WINDOW | |
|---|---|---|---|
| | | FROM | TO |
| HMX | 6.68 | 6.54 | 6.84 |
| RDX | 7.75 | 7.60 | 7.90 |
| Picric acid | 8.06 | 7.90 | 8.20 |
| 1,3,5-Trinitrobenzene | 8.88 | 8.73 | 9.03 |
| 1,3-Dinitrobenzene | 9.52 | 9.38 | 9.68 |
| Nitrobenzene | 9.91 | 9.76 | 10.06 |
| Tetryl | 10.21 | 10.06 | 10.36 |
| Nitroglycerin | 10.73 | 10.58 | 10.88 |
| 2,4,6-Trinitrotoluene | 11.18 | 11.08 | 11.28 |
| 4-Amino-2,6-dinitrotoluene | 11.33 | 11.23 | 11.43 |
| 2-Amino-4,6-dinitrotoluene | 11.62 | 11.51 | 11.71 |
| 2,6-Dinitrotoluene | 11.79 | 11.69 | 11.89 |
| 2,4-Dinitrotoluene | 11.98 | 11.88 | 12.08 |
| 2-Nitrotoluene | 12.83 | 12.67 | 12.97 |
| 4-Nitrotoluene | 13.26 | 13.11 | 13.41 |
| 3-Nitrotoluene | 13.86 | 13.71 | 14.01 |
| PETN | 14.96 | 14.81 | 15.11 |
| 1,2-Dinitrobenzene | 8.70 | 8.56 | 8.86 |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\CHHPLC_X\20200310-89952.b\03100038.D
Lims ID: CCV INT
Client ID:
Sample Type: CCV
Inject. Date: 11-Mar-2020 23:38:09 ALS Bottle#: 7 Worklist Smp#: 38
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: CCV INT
Misc. Info.: 280-0089952-038
Operator ID: CB Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub9

Method: \\chromna\Denver\ChromData\CHHPLC_X\20200310-89952.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 12-Mar-2020 08:50:15 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: CTX0315

First Level Reviewer: beckerc Date: 12-Mar-2020 08:35:23

| 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 | 6.685 | -0.001 | 22395 | 0.2500 | 0.2511 | M |
| 7 RDX | 1 | 7.751 | 7.745 | 0.006 | 27548 | 0.2500 | 0.2337 | |
| 8 2,4,6-Trinitrophenol | 1 | 8.058 | 8.045 | 0.013 | 20662 | 0.2500 | 0.2368 | |
| $ 9 1,2-Dinitrobenzene | 1 | 8.704 | 8.705 | -0.001 | 34541 | 0.2500 | 0.2362 | |
| 10 1,3,5-Trinitrobenzene | 1 | 8.878 | 8.878 | 0.000 | 58643 | 0.2505 | 0.2409 | |
| 11 1,3-Dinitrobenzene | 1 | 9.524 | 9.525 | -0.001 | 78607 | 0.2505 | 0.2424 | |
| 12 Nitrobenzene | 1 | 9.911 | 9.911 | 0.000 | 49710 | 0.2510 | 0.2337 | |
| 14 Tetryl | 1 | 10.211 | 10.211 | 0.000 | 46318 | 0.2505 | 0.2389 | |
| 15 Nitroglycerin | 2 | 10.731 | 10.725 | 0.006 | 179269 | 2.50 | 2.50 | |
| 16 2,4,6-Trinitrotoluene | 1 | 11.184 | 11.178 | 0.006 | 53605 | 0.2510 | 0.2427 | |
| 17 4-Amino-2,6-dinitrotoluene | 1 | 11.331 | 11.325 | 0.006 | 41360 | 0.2503 | 0.2384 | |
| 18 2-Amino-4,6-dinitrotoluene | 1 | 11.617 | 11.611 | 0.006 | 52883 | 0.2510 | 0.2431 | |
| 19 2,6-Dinitrotoluene | 1 | 11.791 | 11.785 | 0.006 | 38672 | 0.2510 | 0.2426 | |
| 20 2,4-Dinitrotoluene | 1 | 11.984 | 11.978 | 0.006 | 79358 | 0.2510 | 0.2471 | |
| 21 o-Nitrotoluene | 1 | 12.831 | 12.818 | 0.013 | 32735 | 0.2500 | 0.2276 | |
| 22 p-Nitrotoluene | 1 | 13.264 | 13.258 | 0.006 | 28392 | 0.2505 | 0.2360 | |
| 23 m-Nitrotoluene | 1 | 13.857 | 13.858 | -0.001 | 35786 | 0.2503 | 0.2320 | |
| 24 PETN | 2 | 14.957 | 14.958 | -0.001 | 194789 | 2.50 | 2.45 | |

## QC Flag Legend

Review Flags
M - Manually Integrated

## Reagents:

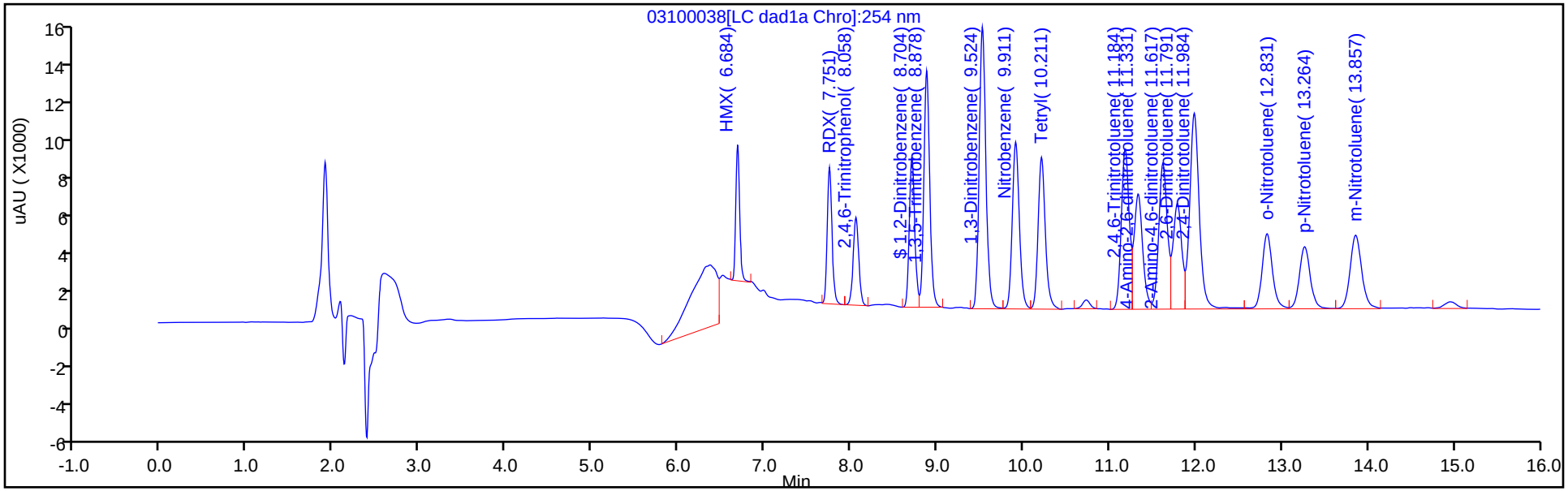
8330IntermStk_00061 Amount Added: 25.00 Units: uL

Report Date: 12-Mar-2020 08:50:15 Chrom Revision: 2.3 19-Feb-2020 16:45:46

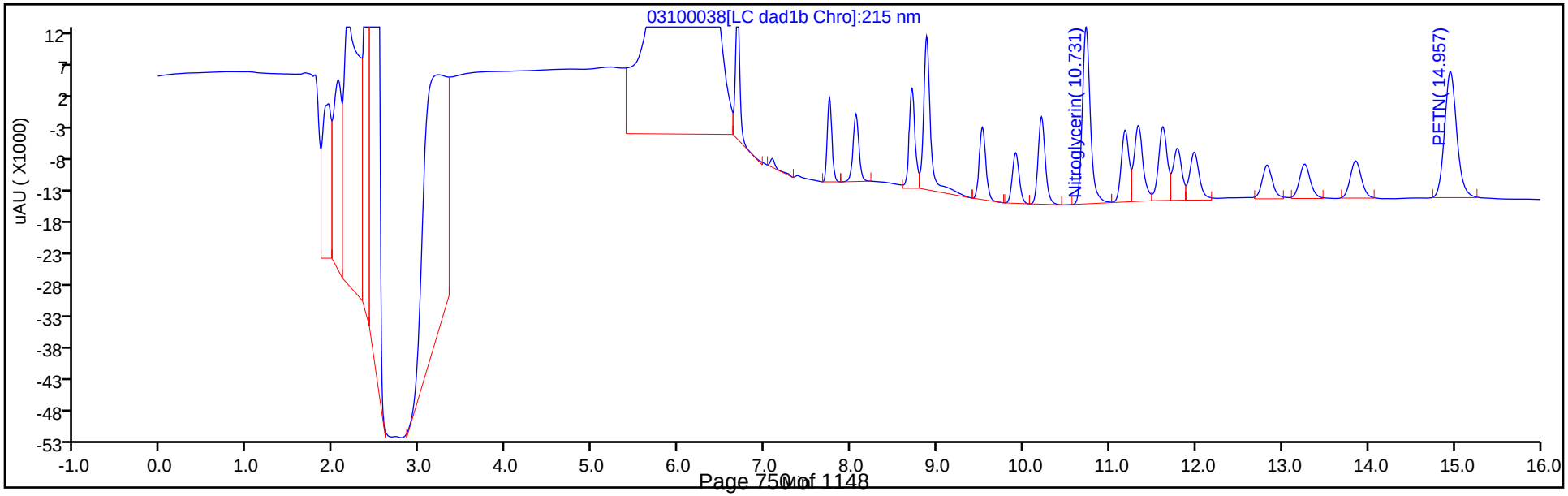
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200310-89952.b\03100038.d | | | | |
| Injection Date: | 11-Mar-2020 23:38:09 | Instrument ID: | CHHPLC_X3 | Operator ID: | CB |
| Lims ID: | CCV INT | | | Worklist Smp#: | 38 |
| 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

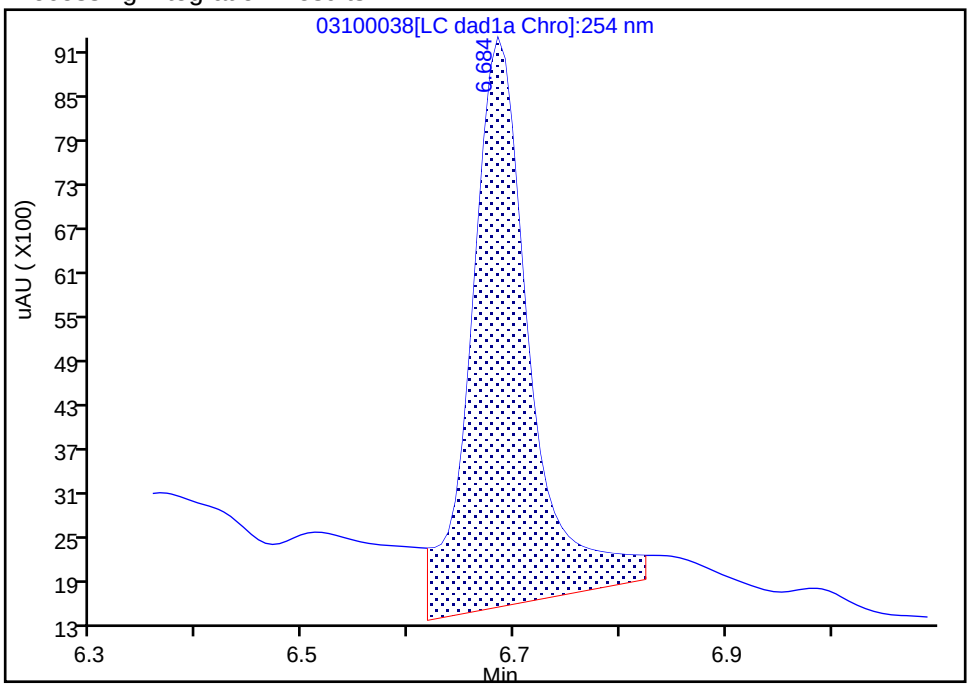
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200310-89952.b\03100038.d | | | | |
| Injection Date: | 11-Mar-2020 23:38:09 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | CCV INT | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 7 | Worklist Smp#: | 38 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 3 HMX, CAS: 2691-41-0

Signal: 1

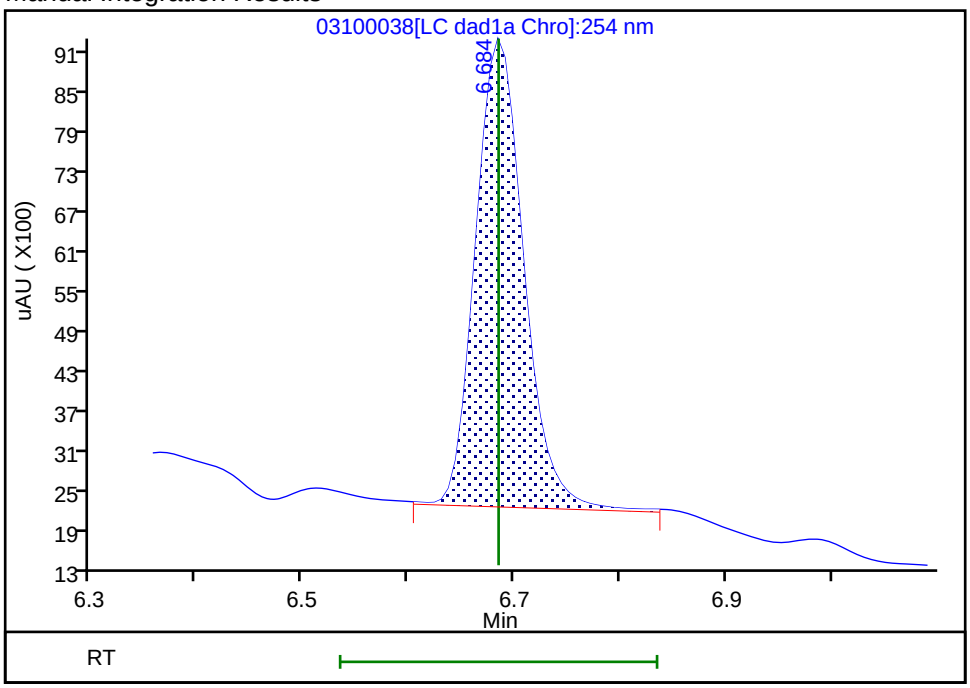
Processing Integration Results

RT: 6.68
Area: 30086
Amount: 0.337372
Amount Units: ug/mL




Manual Integration Results

RT: 6.68
Area: 22395
Amount: 0.251128
Amount Units: ug/mL




Reviewer: beckerc, 12-Mar-2020 08:35:16
Audit Action: Manually Integrated Audit Reason: Baseline

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-134268-1

SDG No.:

Lab Sample ID: CCV 280-488297/40  Calibration Date: 03/12/2020 00:24

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: 03100040.D  Conc. Units: ug/L

| ANALYTE | CURVE TYPE | AVE CF | CF | MIN CF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| TNX | Ave | 217609 | 222629 | | 256 | 250 | 2.3 | 15.0 |
| DNX | Ave | 152928 | 164903 | | 270 | 250 | 7.8 | 15.0 |
| MNX | Ave | 158544 | 153172 | | 282 | 292 | -3.4 | 15.0 |

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-134268-1

SDG No.:

Lab Sample ID: CCV 280-488297/40  Calibration Date: 03/12/2020 00:24

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: 03100040.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\20200310-89952.b\03100040.D | | | | |
| Lims ID: | CCV DMT | | | | |
| Client ID: | | | | | |
| Sample Type: | CCV | | | | |
| Inject. Date: | 12-Mar-2020 00:24:02 | ALS Bottle#: | 9 | Worklist Smp#: | 40 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | CCV DMT | | | | |
| Misc. Info.: | 280-0089952-040 | | | | |
| Operator ID: | CB | Instrument ID: | CHHPLC_X3 | | |
| Sublist: | chrom-8330_X3*sub17 | | | | |
| Method: | \\chromna\Denver\ChromData\CHHPLC_X\20200310-89952.b\8330_X3.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 12-Mar-2020 08:50:17 | 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: | CTX0315 | | | | |

First Level Reviewer: beckerc Date: 12-Mar-2020 08:36:18

| 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 | 6.594 | -0.003 | 55713 | 0.2503 | 0.2560 | M |
| 5 DNX | 1 | 6.911 | 6.914 | -0.003 | 41267 | 0.2503 | 0.2698 | M |
| 6 MNX | 1 | 7.358 | 7.361 | -0.003 | 44688 | 0.2918 | 0.2819 | |

## QC Flag Legend

Review Flags

M - Manually Integrated

## Reagents:

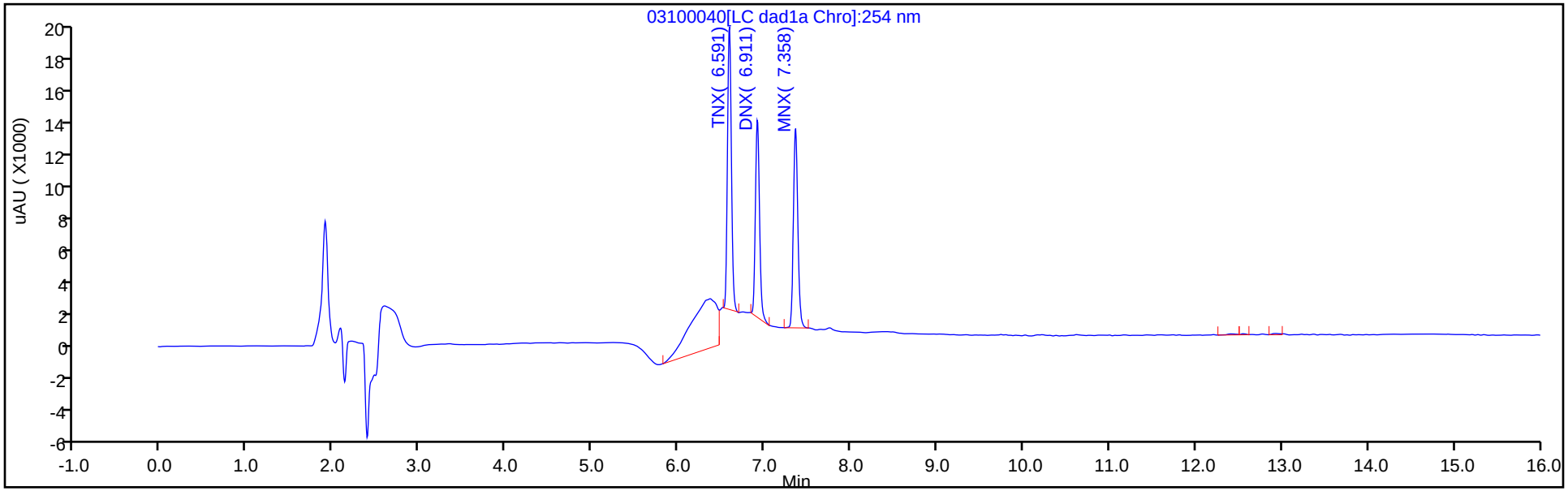
8330 DMT_00005 Amount Added: 12.50 Units: uL

Report Date: 12-Mar-2020 08:50:18 Chrom Revision: 2.3 19-Feb-2020 16:45:46

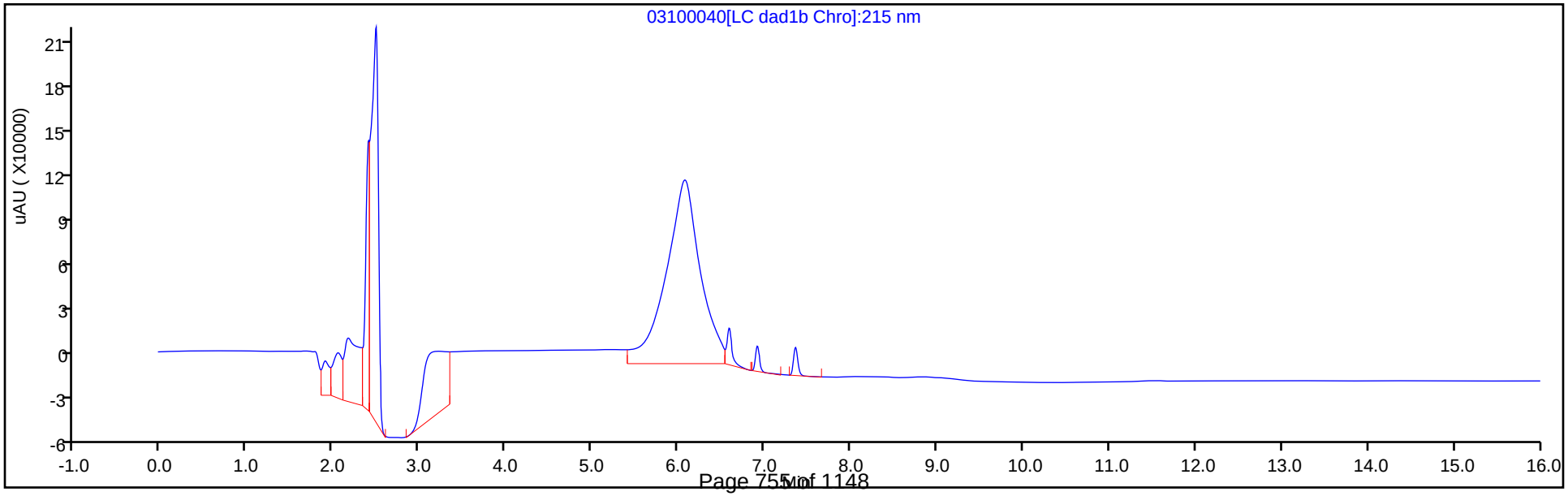
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200310-89952.b\03100040.d | | | | |
| Injection Date: | 12-Mar-2020 00:24:02 | Instrument ID: | CHHPLC_X3 | Operator ID: | CB |
| Lims ID: | CCV DMT | | | Worklist Smp#: | 40 |
| 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

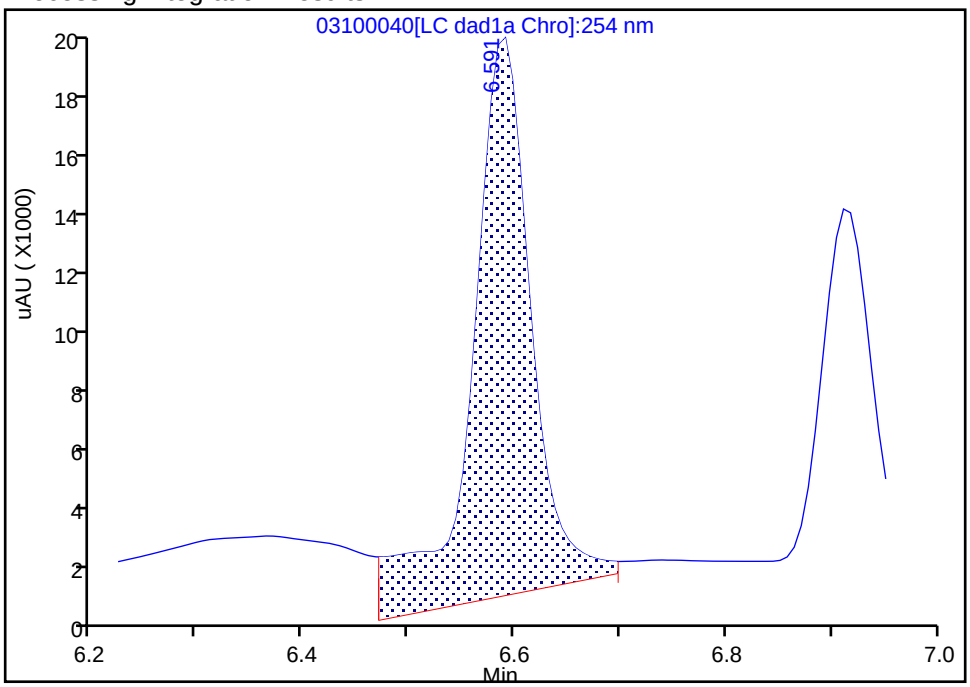
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200310-89952.b\03100040.d | | | | |
| Injection Date: | 12-Mar-2020 00:24:02 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | CCV DMT | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 9 | Worklist Smp#: | 40 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 2 TNX, CAS: 13980-04-6

Signal: 1

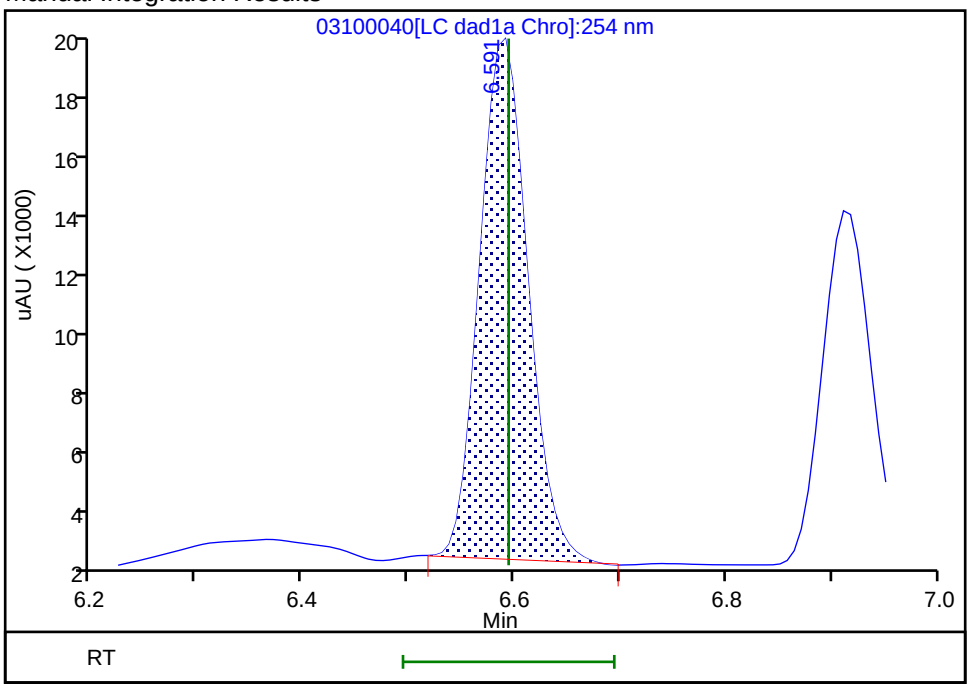
Processing Integration Results

RT: 6.59
Area: 74586
Amount: 0.342753
Amount Units: ug/mL




Manual Integration Results

RT: 6.59
Area: 55713
Amount: 0.256024
Amount Units: ug/mL




Reviewer: beckerc, 12-Mar-2020 08:36:07

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

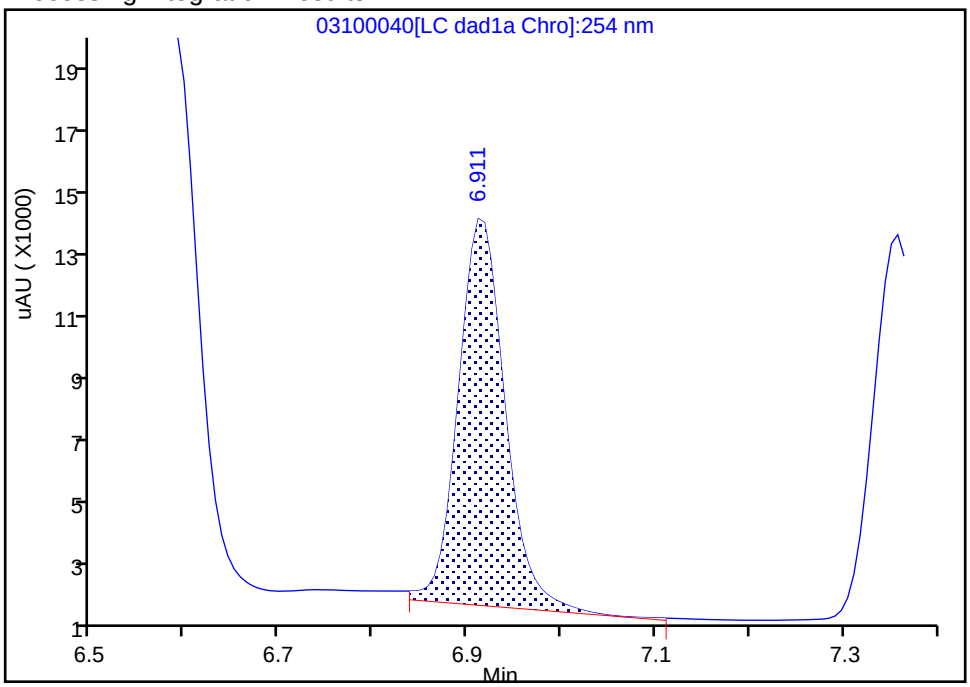
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200310-89952.b\03100040.d | | | | |
| Injection Date: | 12-Mar-2020 00:24:02 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | CCV DMT | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 9 | Worklist Smp#: | 40 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 5 DNX, CAS: 80251-29-2

Signal: 1

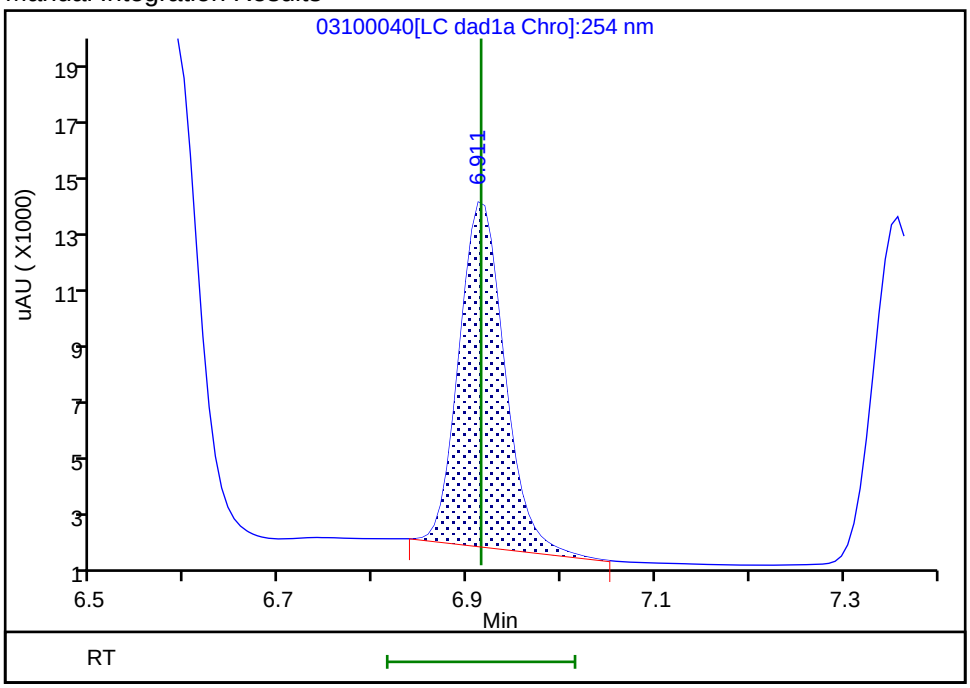
Processing Integration Results

RT: 6.91
Area: 43010
Amount: 0.281243
Amount Units: ug/mL




Manual Integration Results

RT: 6.91
Area: 41267
Amount: 0.269845
Amount Units: ug/mL




Reviewer: beckerc, 12-Mar-2020 08:36:12

Audit Action: Manually Integrated Audit Reason: Baseline

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-134268-1
SDG No.:
Client Sample ID:
Lab Sample ID: MB 280-488022/1-A
Matrix: Water
Lab File ID: 03100010.D
Analysis Method: 8330A
Date Collected:
Extraction Method: 3535
Date Extracted: 03/07/2020 16:07
Sample wt/vol: 500(mL)
Date Analyzed: 03/11/2020 12:55
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.: 488297
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 M | 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 | 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 | 86 | | 83-119 |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\CHHPLC_X\20200310-89952.b\03100010.D
Lims ID: MB 280-488022/1-A
Client ID:
Sample Type: MB
Inject. Date: 11-Mar-2020 12:55:58 ALS Bottle#: 10 Worklist Smp#: 10
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: MB 280-488022/1-
Misc. Info.: 280-0089952-010
Operator ID: CB Instrument ID: CHHPLC_X3

Method: \\chromna\Denver\ChromData\CHHPLC_X\20200310-89952.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 12-Mar-2020 11:54:14 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: CTX0315

First Level Reviewer: beckerc Date: 12-Mar-2020 10:33:42

| | 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 | | 6.685 | | | | ND | |
| | 4 2,4-diamino-6-nitrotoluene | 1 | | 6.735 | | | | ND | |
| | 5 DNX | 1 | | 6.914 | | | | ND | |
| | 6 MNX | 1 | | 7.361 | | | | ND | |
| | 7 RDX | 1 | | 7.745 | | | | ND | |
| | 8 2,4,6-Trinitrophenol | 1 | | 8.045 | | | | ND | U |
| $ | 9 1,2-Dinitrobenzene | 1 | 8.711 | 8.705 | 0.006 | 25201 | 0.2000 | 0.1724 | |
| | 10 1,3,5-Trinitrobenzene | 1 | | 8.878 | | | | ND | |
| | 11 1,3-Dinitrobenzene | 1 | | 9.525 | | | | ND | |
| | 12 Nitrobenzene | 1 | | 9.911 | | | | ND | |
| | 13 3,5-Dinitroaniline | 1 | | 10.142 | | | | ND | |
| | 14 Tetryl | 1 | | 10.211 | | | | ND | |
| | 15 Nitroglycerin | 2 | | 10.725 | | | | ND | |
| | 16 2,4,6-Trinitrotoluene | 1 | | 11.178 | | | | ND | |
| | 17 4-Amino-2,6-dinitrotoluene | 1 | | 11.325 | | | | ND | |
| | 18 2-Amino-4,6-dinitrotoluene | 1 | | 11.611 | | | | ND | |
| | 19 2,6-Dinitrotoluene | 1 | | 11.785 | | | | ND | |
| | 20 2,4-Dinitrotoluene | 1 | | 11.978 | | | | ND | |
| | 21 o-Nitrotoluene | 1 | | 12.818 | | | | ND | |
| | 22 p-Nitrotoluene | 1 | | 13.258 | | | | ND | |
| | 23 m-Nitrotoluene | 1 | | 13.858 | | | | ND | U |
| | 24 PETN | 2 | | 14.958 | | | | ND | |
| | 25 Ammonium Picrate | 1 | | 0.000 | | | | ND | |

## QC Flag Legend

Review Flags

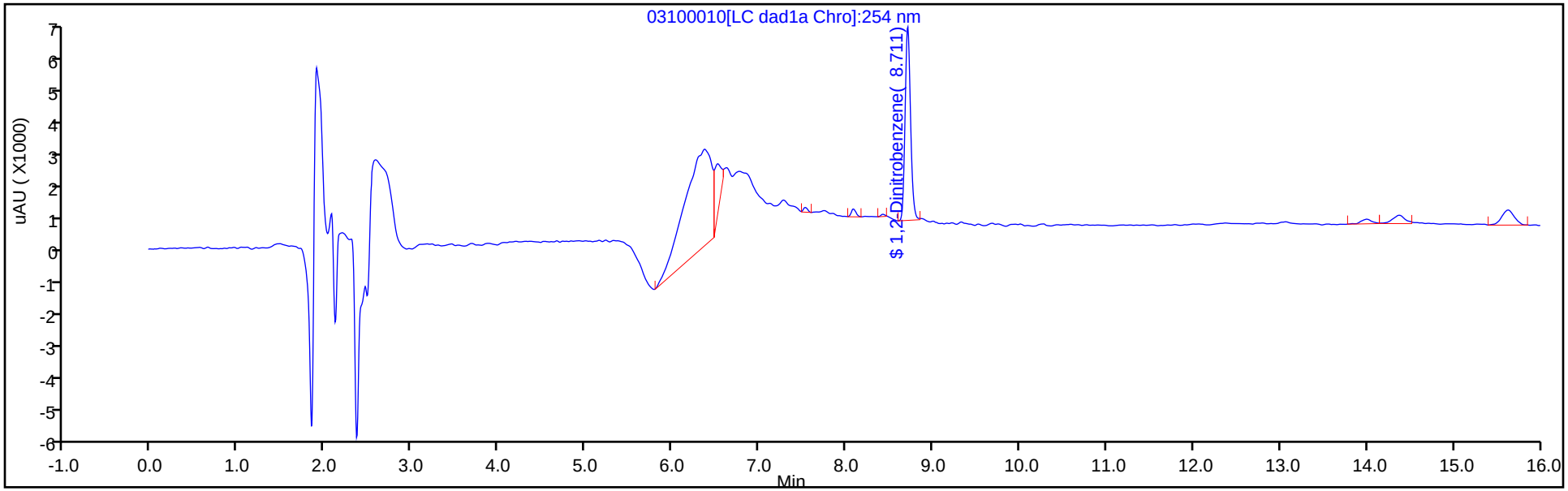
U - Marked Undetected

Report Date: 12-Mar-2020 11:54:24 Chrom Revision: 2.3 19-Feb-2020 16:45:46

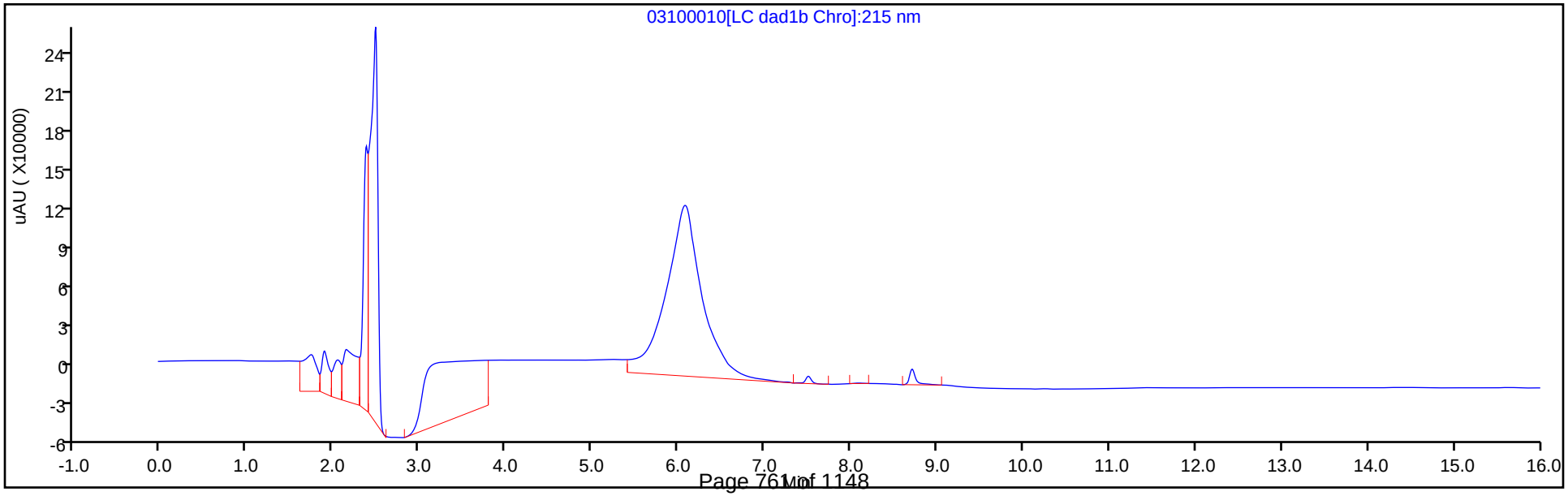
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200310-89952.b\03100010.d | | | | |
| Injection Date: | 11-Mar-2020 12:55:58 | Instrument ID: | CHHPLC_X3 | Operator ID: | CB |
| Lims ID: | MB 280-488022/1-A | | | 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



Eurofins TestAmerica, Denver
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Denver\ChromData\CHHPLC_X\20200310-89952.b\03100010.D | | | | |
| Lims ID: | MB 280-488022/1-A | | | | |
| Client ID: | | | | | |
| Sample Type: | MB | | | | |
| Inject. Date: | 11-Mar-2020 12:55:58 | ALS Bottle#: | 10 | Worklist Smp#: | 10 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | MB 280-488022/1- | | | | |
| Misc. Info.: | 280-0089952-010 | | | | |
| Operator ID: | CB | Instrument ID: | CHHPLC_X3 | | |
| Method: | \\chromna\Denver\ChromData\CHHPLC_X\20200310-89952.b\8330_X3.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 12-Mar-2020 11:54:14 | 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: | CTX0315 | | | | |

First Level Reviewer: beckerc Date: 12-Mar-2020 10:33:42

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 9 1,2-Dinitrobenzene | 0.2000 | 0.1724 | 86.18 |

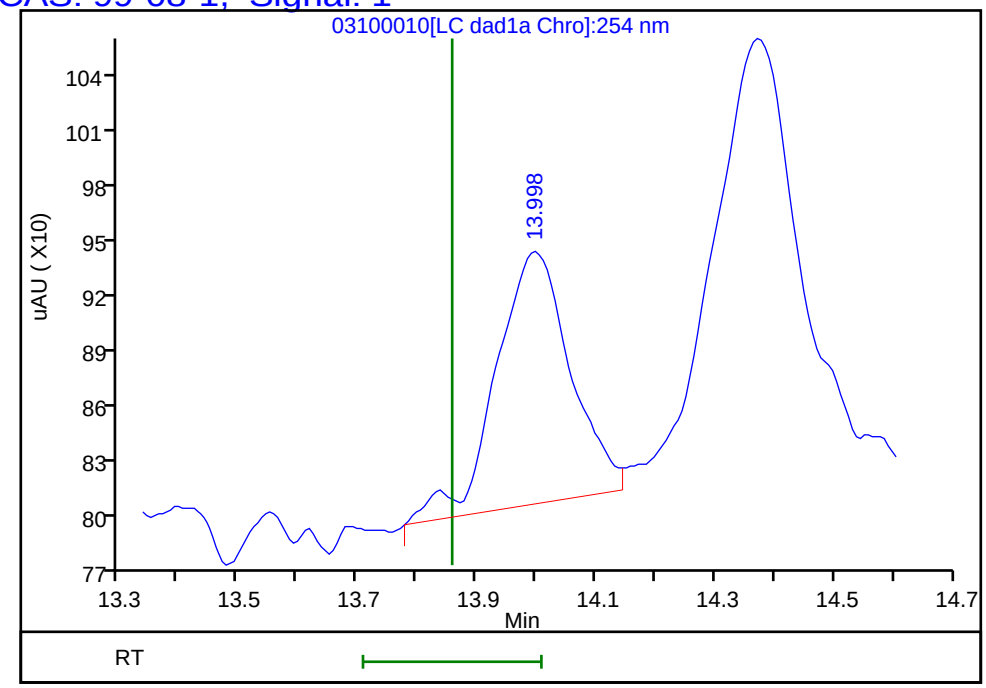
User Disabled Compound Report

Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200310-89952.b\03100010.d | | | | |
| Injection Date: | 11-Mar-2020 12:55:58 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | MB 280-488022/1-A | | | | |
| 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 | | |

## 23 m-Nitrotoluene, CAS: 99-08-1, Signal: 1

RT: 14.00
Response: 1197
Amount: 0.007760




Reviewer: beckerc, 12-Mar-2020 10:33:42
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.: 280-134268-1
SDG No.:
Client Sample ID:
Lab Sample ID: LCS 280-488022/2-A
Matrix: Water
Lab File ID: 03100011.D
Analysis Method: 8330A
Date Collected:
Extraction Method: 3535
Date Extracted: 03/07/2020 16:07
Sample wt/vol: 500(mL)
Date Analyzed: 03/11/2020 13:18
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.: 488297
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 | 1.93 | | 0.40 | 0.20 | 0.089 |
| 118-96-7 | 2,4,6-Trinitrotoluene | 1.96 | | 0.40 | 0.40 | 0.16 |
| 121-14-2 | 2,4-Dinitrotoluene | 1.78 | | 0.40 | 0.20 | 0.084 |
| 606-20-2 | 2,6-Dinitrotoluene | 1.89 | | 0.20 | 0.20 | 0.065 |
| 35572-78-2 | 2-Amino-4,6-dinitrotoluene | 1.77 | | 0.20 | 0.12 | 0.051 |
| 88-72-2 | 2-Nitrotoluene | 1.44 | | 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 | 1.67 | | 0.20 | 0.12 | 0.058 |
| 99-99-0 | 4-Nitrotoluene | 1.49 | | 1.0 | 0.40 | 0.20 |
| 2691-41-0 | HMX | 2.12 | M | 0.40 | 0.20 | 0.088 |
| 98-95-3 | Nitrobenzene | 1.64 | | 0.40 | 0.20 | 0.091 |
| 121-82-4 | RDX | 1.99 | | 0.40 | 0.40 | 0.16 |
| 479-45-8 | Tetryl | 1.91 | | 0.24 | 0.20 | 0.079 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 528-29-0 | 1,2-Dinitrobenzene | 87 | | 83-119 |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Denver\ChromData\CHHPLC_X\20200310-89952.b\03100011.D | | | | |
| Lims ID: | LCS 280-488022/2-A | | | | |
| Client ID: | | | | | |
| Sample Type: | LCS | | | | |
| Inject. Date: | 11-Mar-2020 13:18:54 | ALS Bottle#: | 11 | Worklist Smp#: | 11 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | LCS 280-488022/2 | | | | |
| Misc. Info.: | 280-0089952-011 | | | | |
| Operator ID: | CB | Instrument ID: | CHHPLC_X3 | | |
| Method: | \\chromna\Denver\ChromData\CHHPLC_X\20200310-89952.b\8330_X3.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 12-Mar-2020 11:54:14 | 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: | CTX0315 | | | | |
| First Level Reviewer: beckerc | | Date: | 12-Mar-2020 10:33:14 | | |

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/mL | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|
| 3 HMX | 1 | 6.688 | 6.685 | 0.003 | 18940 | 0.2000 | 0.2124 | M |
| 7 RDX | 1 | 7.755 | 7.745 | 0.010 | 23489 | 0.2000 | 0.1993 | |
| 8 2,4,6-Trinitrophenol | 1 | 8.048 | 8.045 | 0.003 | 19234 | 0.2000 | 0.2205 | |
| $ 9 1,2-Dinitrobenzene | 1 | 8.715 | 8.705 | 0.010 | 25518 | 0.2000 | 0.1745 | |
| 10 1,3,5-Trinitrobenzene | 1 | 8.888 | 8.878 | 0.010 | 50604 | 0.2000 | 0.2079 | |
| 11 1,3-Dinitrobenzene | 1 | 9.528 | 9.525 | 0.003 | 62539 | 0.2000 | 0.1929 | |
| 12 Nitrobenzene | 1 | 9.914 | 9.911 | 0.003 | 34845 | 0.2000 | 0.1638 | |
| 14 Tetryl | 1 | 10.208 | 10.211 | -0.003 | 37102 | 0.2000 | 0.1914 | |
| 15 Nitroglycerin | 2 | 10.721 | 10.725 | -0.004 | 145230 | 2.00 | 2.02 | |
| 16 2,4,6-Trinitrotoluene | 1 | 11.168 | 11.178 | -0.010 | 43267 | 0.2000 | 0.1959 | |
| 17 4-Amino-2,6-dinitrotoluene | 1 | 11.314 | 11.325 | -0.011 | 29020 | 0.2000 | 0.1673 | |
| 18 2-Amino-4,6-dinitrotoluene | 1 | 11.601 | 11.611 | -0.010 | 38475 | 0.2000 | 0.1769 | |
| 19 2,6-Dinitrotoluene | 1 | 11.768 | 11.785 | -0.017 | 30137 | 0.2000 | 0.1891 | |
| 20 2,4-Dinitrotoluene | 1 | 11.961 | 11.978 | -0.017 | 57184 | 0.2000 | 0.1781 | |
| 21 o-Nitrotoluene | 1 | 12.808 | 12.818 | -0.010 | 20644 | 0.2000 | 0.1435 | |
| 22 p-Nitrotoluene | 1 | 13.241 | 13.258 | -0.017 | 17924 | 0.2000 | 0.1490 | |
| 23 m-Nitrotoluene | 1 | 13.841 | 13.858 | -0.017 | 24001 | 0.2000 | 0.1556 | |
| 24 PETN | 2 | 14.941 | 14.958 | -0.017 | 162803 | 2.00 | 2.05 | |

## QC Flag Legend

Review Flags

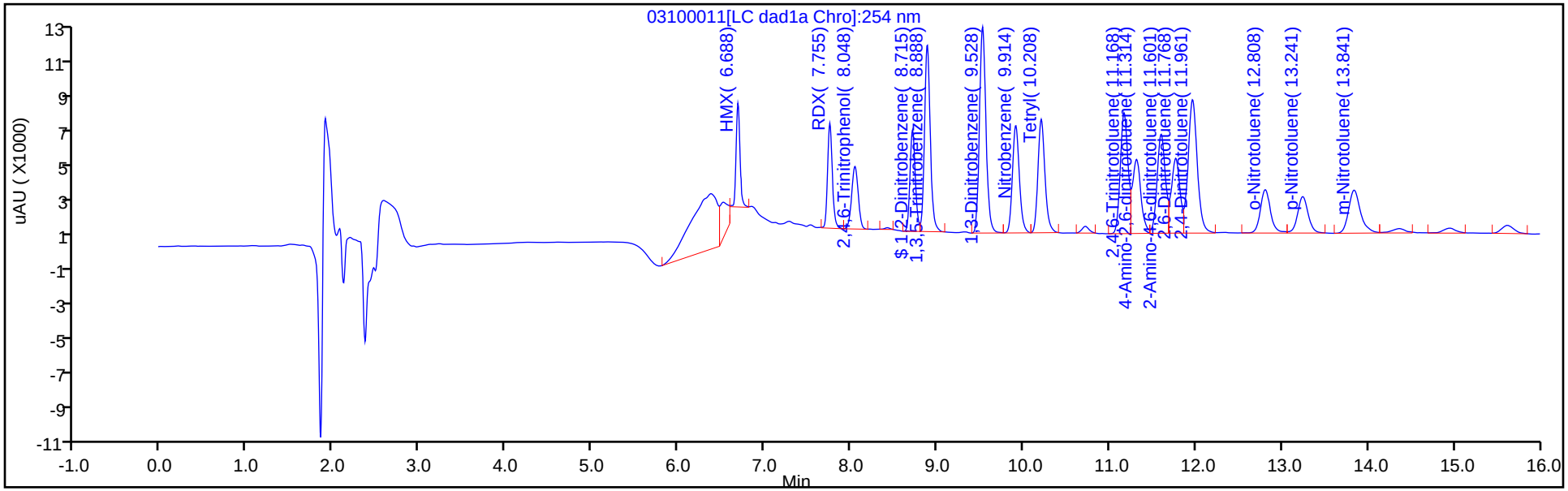
M - Manually Integrated

Report Date: 12-Mar-2020 11:54:23 Chrom Revision: 2.3 19-Feb-2020 16:45:46

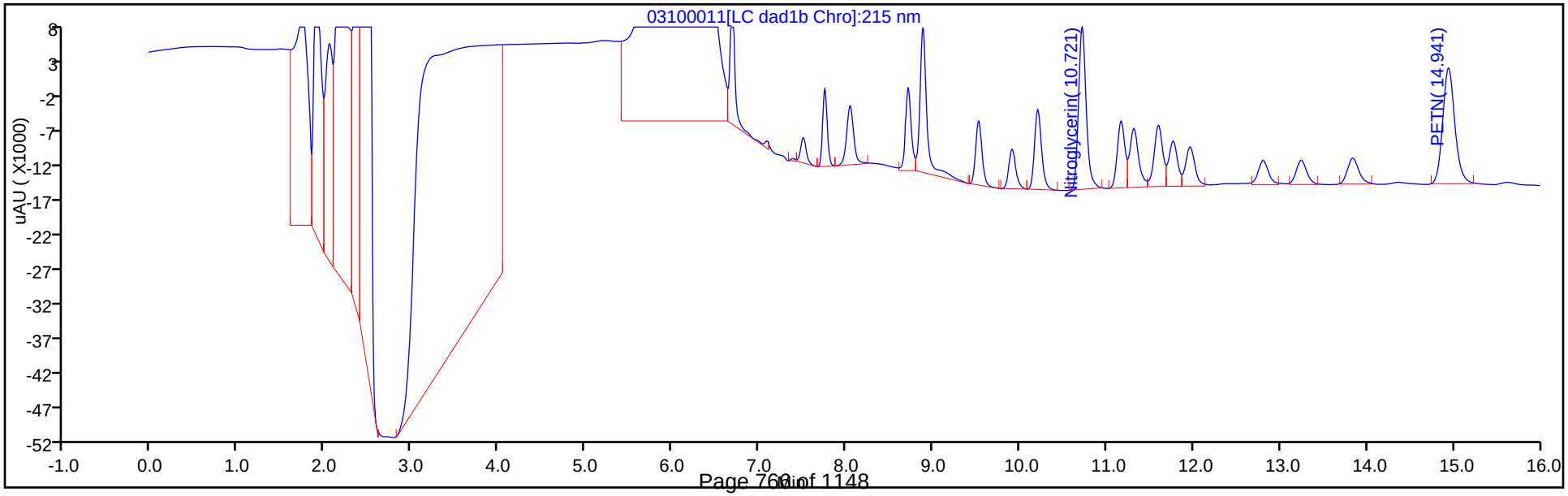
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200310-89952.b\03100011.d | | | | |
| Injection Date: | 11-Mar-2020 13:18:54 | Instrument ID: | CHHPLC_X3 | Operator ID: | CB |
| Lims ID: | LCS 280-488022/2-A | | | Worklist Smp#: | 11 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 11 |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |

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




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



Eurofins TestAmerica, Denver
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Denver\ChromData\CHHPLC_X\20200310-89952.b\03100011.D | | | | |
| Lims ID: | LCS 280-488022/2-A | | | | |
| Client ID: | | | | | |
| Sample Type: | LCS | | | | |
| Inject. Date: | 11-Mar-2020 13:18:54 | ALS Bottle#: | 11 | Worklist Smp#: | 11 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | LCS 280-488022/2 | | | | |
| Misc. Info.: | 280-0089952-011 | | | | |
| Operator ID: | CB | Instrument ID: | CHHPLC_X3 | | |
| Method: | \\chromna\Denver\ChromData\CHHPLC_X\20200310-89952.b\8330_X3.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 12-Mar-2020 11:54:14 | 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: | CTX0315 | | | | |
| First Level Reviewer: beckerc | | Date: | 12-Mar-2020 10:33:14 | | |

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 9 1,2-Dinitrobenzene | 0.2000 | 0.1745 | 87.26 |

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

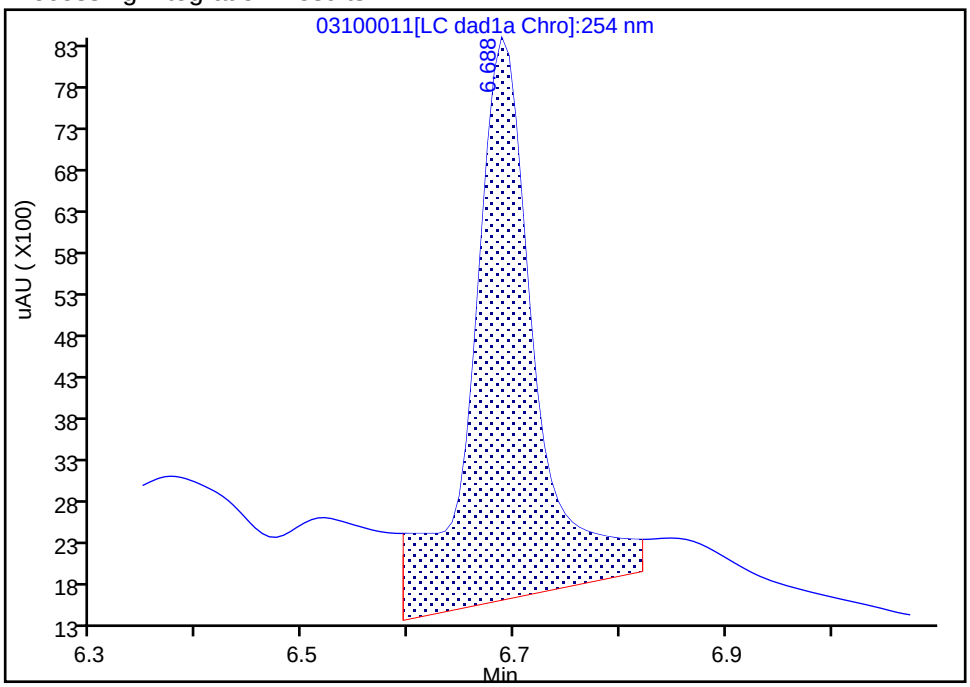
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200310-89952.b\03100011.d | | | | |
| Injection Date: | 11-Mar-2020 13:18:54 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | LCS 280-488022/2-A | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 11 | Worklist Smp#: | 11 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |
| Column: | UltraCarb5uODS (20) ( 4.60 mm) | Detector | LC DAD1B, 254 nm | | |

## 3 HMX, CAS: 2691-41-0

Signal: 1

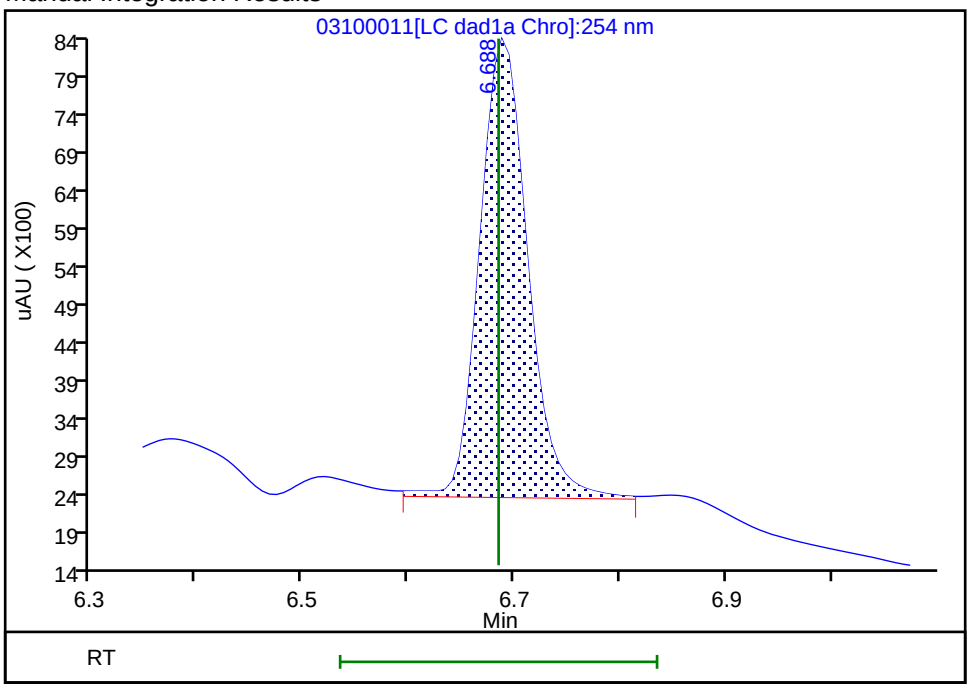
Processing Integration Results

RT: 6.69
Area: 27868
Amount: 0.312500
Amount Units: ug/mL




Manual Integration Results

RT: 6.69
Area: 18940
Amount: 0.212385
Amount Units: ug/mL




Reviewer: beckerc, 12-Mar-2020 10:33:04

Audit Action: Manually Integrated Audit Reason: Baseline

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-134268-1
SDG No.:
Client Sample ID:
Lab Sample ID: LCS 280-488022/3-A
Matrix: Water
Lab File ID: 03100012.D
Analysis Method: 8330A
Date Collected:
Extraction Method: 3535
Date Extracted: 03/07/2020 16:07
Sample wt/vol: 500(mL)
Date Analyzed: 03/11/2020 13:41
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.: 488297
Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | LOQ | LOD | DL |
|---|---|---|---|---|---|---|
| 5755-27-1 | MNX | 1.99 | J M | 2.0 | 0.40 | 0.15 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 528-29-0 | 1,2-Dinitrobenzene | 87 | | 83-119 |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Denver\ChromData\CHHPLC_X\20200310-89952.b\03100012.D | | | | |
| Lims ID: | LCS 280-488022/3-A | | | | |
| Client ID: | | | | | |
| Sample Type: | LCS | | | | |
| Inject. Date: | 11-Mar-2020 13:41:49 | ALS Bottle#: | 12 | Worklist Smp#: | 12 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | LCS 280-488022/3 | | | | |
| Misc. Info.: | 280-0089952-012 | | | | |
| Operator ID: | CB | Instrument ID: | CHHPLC_X3 | | |
| Method: | \\chromna\Denver\ChromData\CHHPLC_X\20200310-89952.b\8330_X3.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 12-Mar-2020 11:54:14 | 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: | CTX0315 | | | | |
| First Level Reviewer: beckerc | | Date: | 12-Mar-2020 10:34:50 | | |

| Compound | Det | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/mL | OnCol Amt ug/mL | Flags |
|---|---|---|---|---|---|---|---|---|
| 2 TNX | 1 | 6.595 | 6.594 | 0.001 | 41745 | 0.2002 | 0.1918 | M |
| 5 DNX | 1 | 6.915 | 6.914 | 0.001 | 29149 | 0.2002 | 0.1906 | M |
| 6 MNX | 1 | 7.355 | 7.361 | -0.006 | 31532 | 0.2334 | 0.1989 | M |
| $ 9 1,2-Dinitrobenzene | 1 | 8.709 | 8.705 | 0.004 | 25587 | 0.2000 | 0.1750 | |

## QC Flag Legend

Review Flags

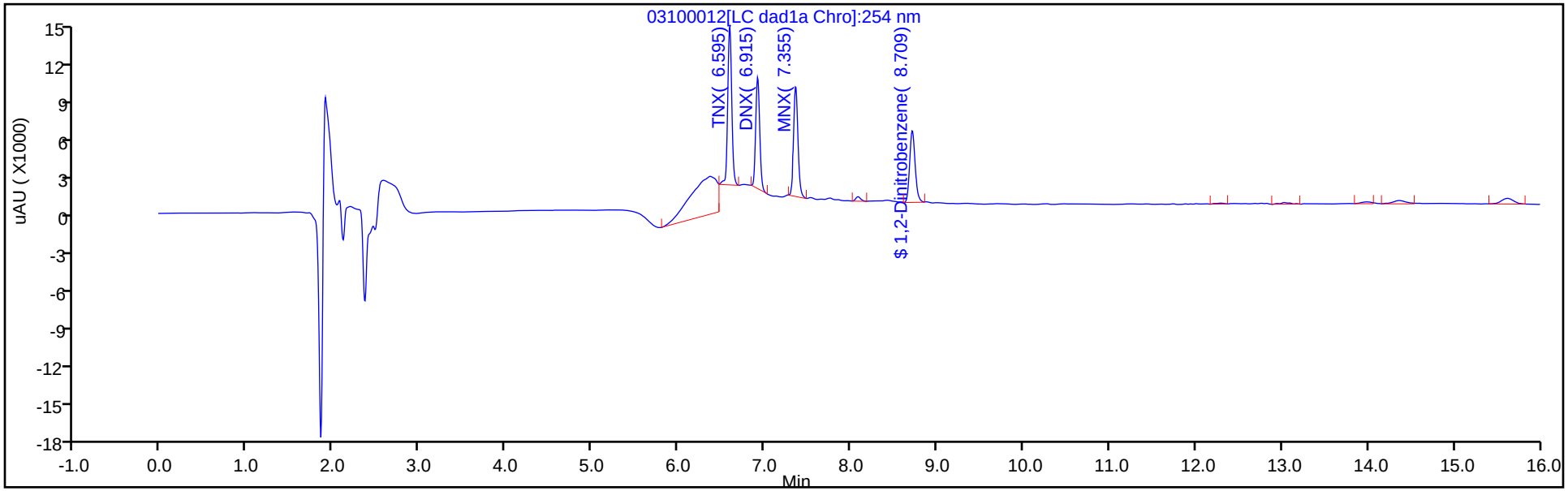
M - Manually Integrated

Report Date: 12-Mar-2020 11:54:22 Chrom Revision: 2.3 19-Feb-2020 16:45:46

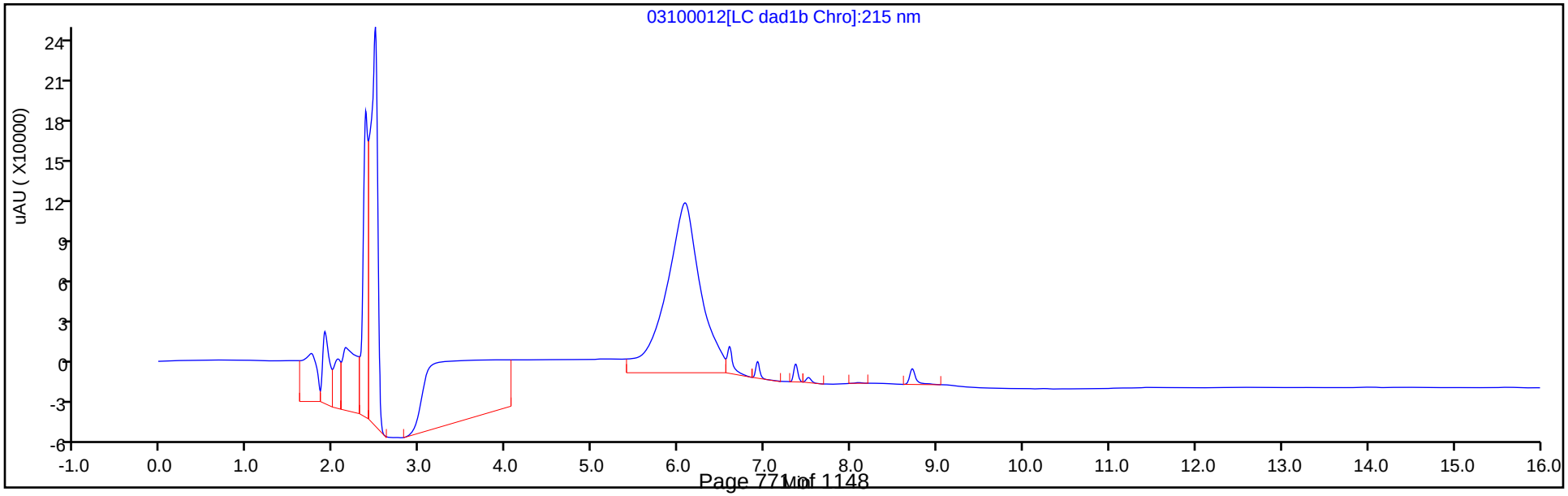
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200310-89952.b\03100012.d | | | | |
| Injection Date: | 11-Mar-2020 13:41:49 | Instrument ID: | CHHPLC_X3 | Operator ID: | CB |
| Lims ID: | LCS 280-488022/3-A | | | Worklist Smp#: | 12 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 12 |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |

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




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



Eurofins TestAmerica, Denver
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Denver\ChromData\CHHPLC_X\20200310-89952.b\03100012.D | | | | |
| Lims ID: | LCS 280-488022/3-A | | | | |
| Client ID: | | | | | |
| Sample Type: | LCS | | | | |
| Inject. Date: | 11-Mar-2020 13:41:49 | ALS Bottle#: | 12 | Worklist Smp#: | 12 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | LCS 280-488022/3 | | | | |
| Misc. Info.: | 280-0089952-012 | | | | |
| Operator ID: | CB | Instrument ID: | CHHPLC_X3 | | |
| Method: | \\chromna\Denver\ChromData\CHHPLC_X\20200310-89952.b\8330_X3.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 12-Mar-2020 11:54:14 | 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: | CTX0315 | | | | |

First Level Reviewer: beckerc Date: 12-Mar-2020 10:34:50

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 9 1,2-Dinitrobenzene | 0.2000 | 0.1750 | 87.50 |

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

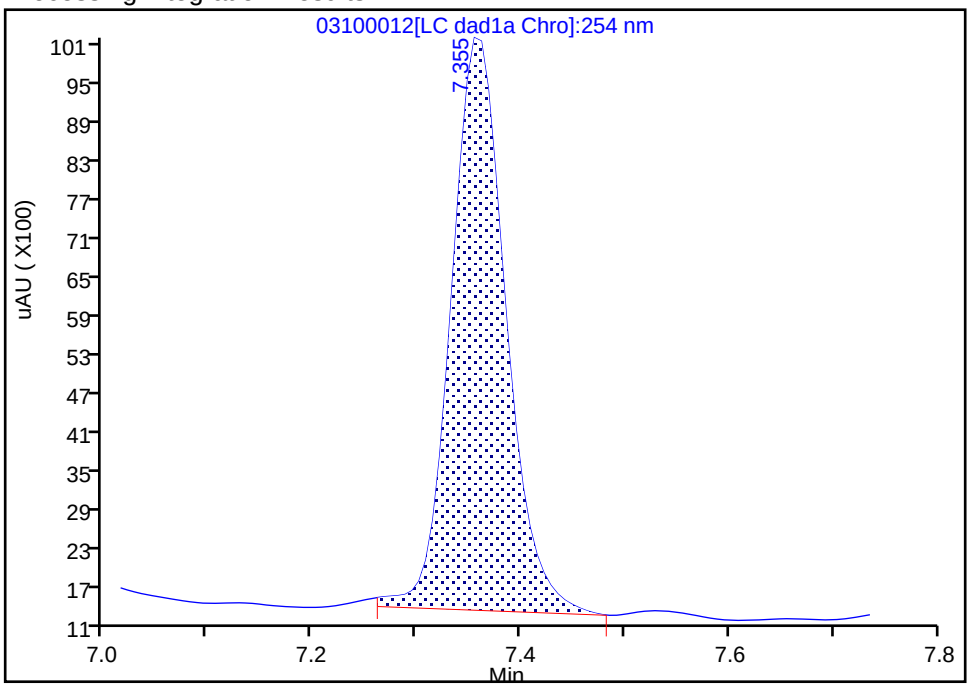
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200310-89952.b\03100012.d | | | | |
| Injection Date: | 11-Mar-2020 13:41:49 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | LCS 280-488022/3-A | | | | |
| Client ID: | | | | | |
| Operator ID: | CB | ALS Bottle#: | 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 | | |

## 6 MNX, CAS: 5755-27-1

Signal: 1

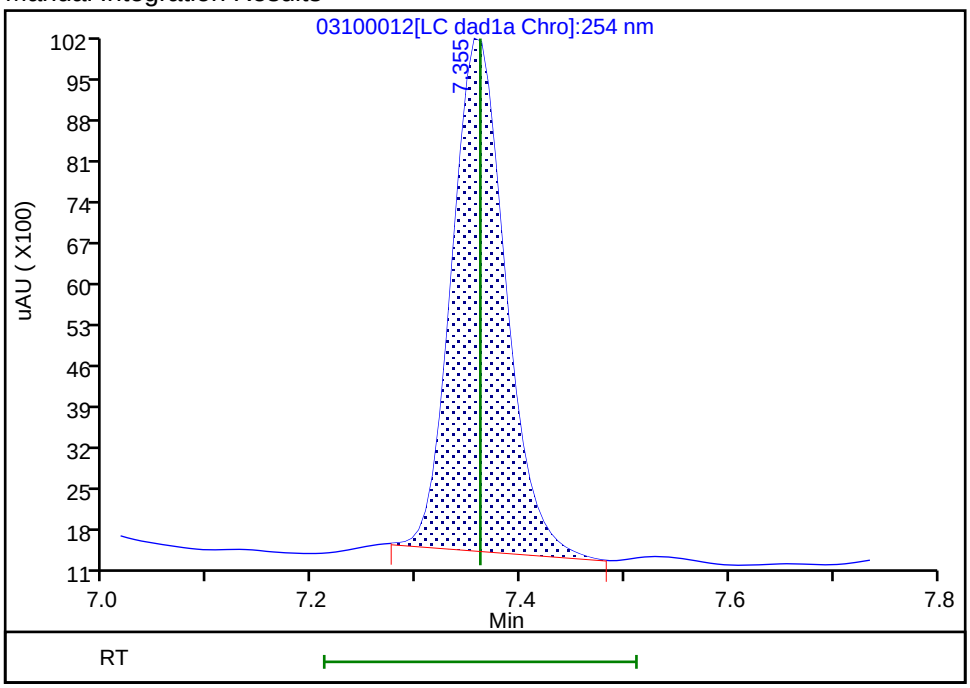
Processing Integration Results

RT: 7.36
Area: 32506
Amount: 0.205028
Amount Units: ug/mL




Manual Integration Results

RT: 7.36
Area: 31532
Amount: 0.198885
Amount Units: ug/mL




Reviewer: beckerc, 12-Mar-2020 10:34:21

Audit Action: Manually Integrated Audit Reason: Baseline

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-134268-1
SDG No.:
Client Sample ID:
Lab Sample ID: LCSD 280-488022/4-A
Matrix: Water
Lab File ID: 03100013.D
Analysis Method: 8330A
Date Collected:
Extraction Method: 3535
Date Extracted: 03/07/2020 16:07
Sample wt/vol: 500(mL)
Date Analyzed: 03/11/2020 14:04
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.: 488297
Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | LOQ | LOD | DL |
|---|---|---|---|---|---|---|
| 5755-27-1 | MNX | 2.28 | | 2.0 | 0.40 | 0.15 |

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

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Denver\ChromData\CHHPLC_X\20200310-89952.b\03100013.D | | | | |
| Lims ID: | LCSD 280-488022/4-A | | | | |
| Client ID: | | | | | |
| Sample Type: | LCSD | | | | |
| Inject. Date: | 11-Mar-2020 14:04:43 | ALS Bottle#: | 13 | Worklist Smp#: | 13 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | LCSD 280-488022/ | | | | |
| Misc. Info.: | 280-0089952-013 | | | | |
| Operator ID: | CB | Instrument ID: | CHHPLC_X3 | | |
| Method: | \\chromna\Denver\ChromData\CHHPLC_X\20200310-89952.b\8330_X3.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 12-Mar-2020 11:54:14 | 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: | CTX0315 | | | | |
| First Level Reviewer: beckerc | | Date: | 12-Mar-2020 11:35:41 | | |

| 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 | 43159 | 0.2002 | 0.1983 | M |
| 5 DNX | 1 | 6.917 | 6.914 | 0.003 | 31709 | 0.2002 | 0.2073 | M |
| 6 MNX | 1 | 7.357 | 7.361 | -0.004 | 36107 | 0.2334 | 0.2277 | |
| $ 9 1,2-Dinitrobenzene | 1 | 8.710 | 8.705 | 0.005 | 29706 | 0.2000 | 0.2032 | |

## QC Flag Legend

Review Flags

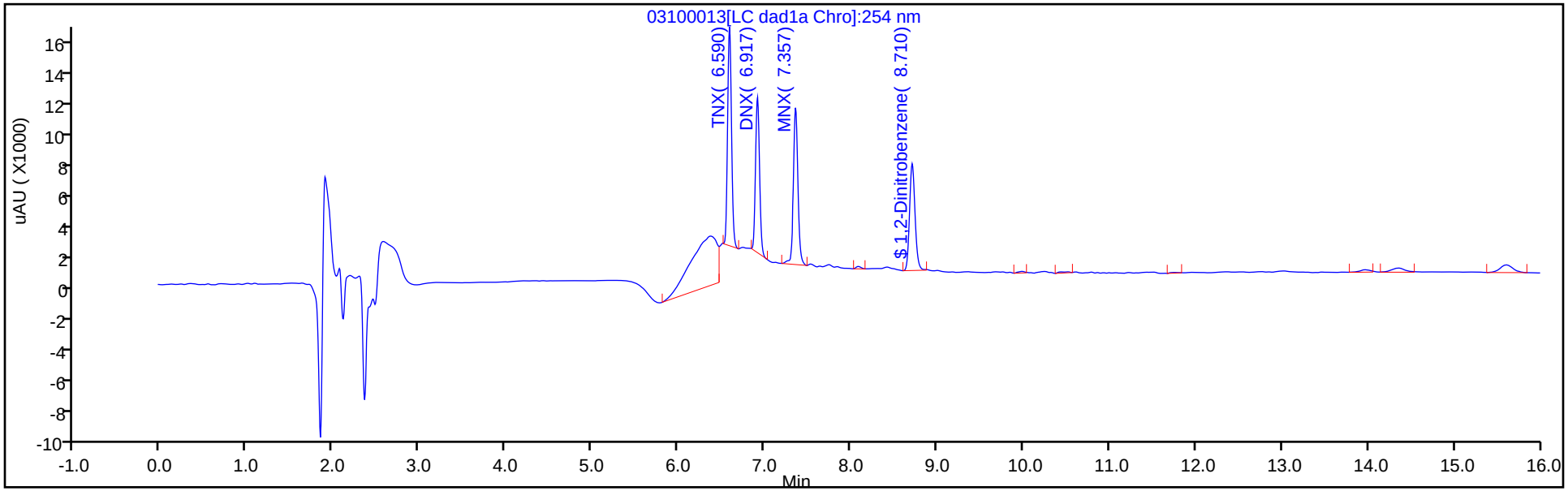
M - Manually Integrated

Report Date: 12-Mar-2020 11:54:21 Chrom Revision: 2.3 19-Feb-2020 16:45:46

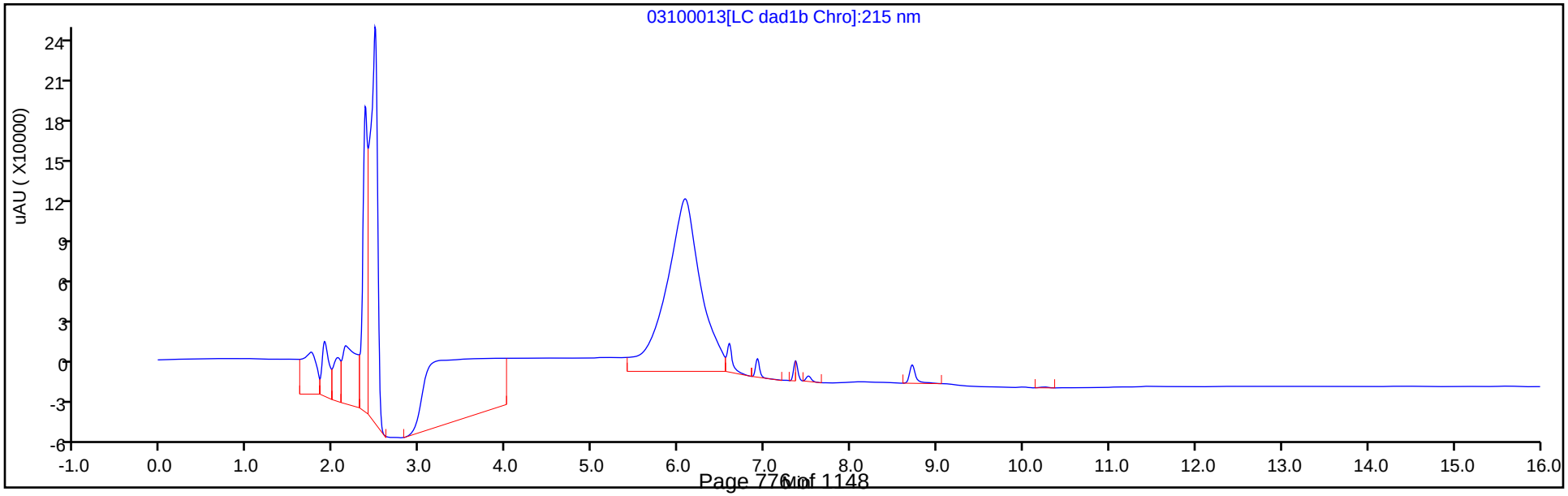
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200310-89952.b\03100013.d | | | | |
| Injection Date: | 11-Mar-2020 14:04:43 | Instrument ID: | CHHPLC_X3 | Operator ID: | CB |
| Lims ID: | LCSD 280-488022/4-A | | | Worklist Smp#: | 13 |
| Client ID: | | | | | |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | ALS Bottle#: | 13 |
| Method: | 8330_X3 | Limit Group: | GCSV - 8330 | | |

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




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



Eurofins TestAmerica, Denver
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Denver\ChromData\CHHPLC_X\20200310-89952.b\03100013.D | | | | |
| Lims ID: | LCSD 280-488022/4-A | | | | |
| Client ID: | | | | | |
| Sample Type: | LCSD | | | | |
| Inject. Date: | 11-Mar-2020 14:04:43 | ALS Bottle#: | 13 | Worklist Smp#: | 13 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | LCSD 280-488022/ | | | | |
| Misc. Info.: | 280-0089952-013 | | | | |
| Operator ID: | CB | Instrument ID: | CHHPLC_X3 | | |
| Method: | \\chromna\Denver\ChromData\CHHPLC_X\20200310-89952.b\8330_X3.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 12-Mar-2020 11:54:14 | 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: | CTX0315 | | | | |

First Level Reviewer: beckerc Date: 12-Mar-2020 11:35:41

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 9 1,2-Dinitrobenzene | 0.2000 | 0.2032 | 101.58 |

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-134268-1
SDG No.:
Client Sample ID: PZ019-2 MS
Lab Sample ID: 280-134268-6 MS
Matrix: Water
Lab File ID: 03100029.D
Analysis Method: 8330A
Date Collected: 03/02/2020 15:10
Extraction Method: 3535
Date Extracted: 03/07/2020 16:07
Sample wt/vol: 519.6(mL)
Date Analyzed: 03/11/2020 20:11
Con. Extract Vol.: 5(mL)
Dilution Factor: 1
Injection Volume: 100(uL)
GC Column: UltraCarb5uODS ID: 4.6(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 488297
Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | LOQ | LOD | DL |
|---|---|---|---|---|---|---|
| 99-35-4 | 1,3,5-Trinitrobenzene | 1.90 | M | 0.96 | 0.38 | 0.19 |
| 99-65-0 | 1,3-Dinitrobenzene | 1.81 | | 0.38 | 0.19 | 0.085 |
| 118-96-7 | 2,4,6-Trinitrotoluene | 1.77 | | 0.38 | 0.38 | 0.15 |
| 121-14-2 | 2,4-Dinitrotoluene | 1.64 | | 0.38 | 0.19 | 0.081 |
| 606-20-2 | 2,6-Dinitrotoluene | 1.68 | | 0.19 | 0.19 | 0.062 |
| 35572-78-2 | 2-Amino-4,6-dinitrotoluene | 1.65 | | 0.19 | 0.12 | 0.049 |
| 88-72-2 | 2-Nitrotoluene | 0.797 | J1 | 0.38 | 0.19 | 0.082 |
| 99-08-1 | 3-Nitrotoluene | 0.969 | M J1 | 0.38 | 0.38 | 0.19 |
| 19406-51-0 | 4-Amino-2,6-dinitrotoluene | 1.54 | | 0.19 | 0.12 | 0.056 |
| 99-99-0 | 4-Nitrotoluene | 1.16 | M J1 | 0.96 | 0.38 | 0.19 |
| 2691-41-0 | HMX | 1.53 | M | 0.38 | 0.19 | 0.084 |
| 98-95-3 | Nitrobenzene | 1.10 | J1 | 0.38 | 0.19 | 0.088 |
| 121-82-4 | RDX | 1.67 | M | 0.38 | 0.38 | 0.15 |
| 479-45-8 | Tetryl | 1.71 | | 0.23 | 0.19 | 0.076 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 528-29-0 | 1,2-Dinitrobenzene | 88 | M | 83-119 |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\CHHPLC_X\20200310-89952.b\03100029.D
Lims ID: 280-134268-A-6-B MS
Client ID: PZ019-2
Sample Type: MS
Inject. Date: 11-Mar-2020 20:11:32 ALS Bottle#: 29 Worklist Smp#: 29
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-134268-A-6-B
Misc. Info.: 280-0089952-029
Operator ID: CB Instrument ID: CHHPLC_X3

Method: \\chromna\Denver\ChromData\CHHPLC_X\20200310-89952.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 12-Mar-2020 11:52:54 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: CTX0315

First Level Reviewer: beckerc Date: 12-Mar-2020 08:28:43

| | 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 | 6.521 | 6.548 | -0.027 | 2782 | | 0.0111 | 7M |
| | 2 TNX | 1 | | 6.594 | | | | ND | |
| | 3 HMX | 1 | 6.688 | 6.685 | 0.003 | 14181 | 0.2000 | 0.1590 | M |
| | 4 2,4-diamino-6-nitrotoluene | 1 | | 6.735 | | | | ND | |
| | 5 DNX | 1 | | 6.914 | | | | ND | |
| | 6 MNX | 1 | | 7.361 | | | | ND | MU |
| | 7 RDX | 1 | 7.754 | 7.745 | 0.009 | 20427 | 0.2000 | 0.1733 | M |
| | 8 2,4,6-Trinitrophenol | 1 | 8.021 | 8.045 | -0.024 | 16498 | 0.2000 | 0.1891 | M |
| $ | 9 1,2-Dinitrobenzene | 1 | 8.714 | 8.705 | 0.009 | 25736 | 0.2000 | 0.1760 | M |
| | 10 1,3,5-Trinitrobenzene | 1 | 8.881 | 8.878 | 0.003 | 48167 | 0.2000 | 0.1978 | M |
| | 11 1,3-Dinitrobenzene | 1 | 9.527 | 9.525 | 0.002 | 60933 | 0.2000 | 0.1879 | |
| | 12 Nitrobenzene | 1 | 9.907 | 9.911 | -0.004 | 24242 | 0.2000 | 0.1140 | |
| | 13 3,5-Dinitroaniline | 1 | | 10.142 | | | | ND | |
| | 14 Tetryl | 1 | 10.207 | 10.211 | -0.004 | 34393 | 0.2000 | 0.1774 | |
| | 15 Nitroglycerin | 2 | 10.721 | 10.725 | -0.004 | 130555 | 2.00 | 1.82 | |
| | 16 2,4,6-Trinitrotoluene | 1 | 11.174 | 11.178 | -0.004 | 40684 | 0.2000 | 0.1842 | |
| | 17 4-Amino-2,6-dinitrotoluene | 1 | 11.321 | 11.325 | -0.004 | 27778 | 0.2000 | 0.1601 | |
| | 18 2-Amino-4,6-dinitrotoluene | 1 | 11.607 | 11.611 | -0.004 | 37378 | 0.2000 | 0.1718 | |
| | 19 2,6-Dinitrotoluene | 1 | 11.774 | 11.785 | -0.011 | 27857 | 0.2000 | 0.1748 | |
| | 20 2,4-Dinitrotoluene | 1 | 11.967 | 11.978 | -0.011 | 54668 | 0.2000 | 0.1702 | |
| | 21 o-Nitrotoluene | 1 | 12.807 | 12.818 | -0.011 | 11912 | 0.2000 | 0.0828 | |
| | 22 p-Nitrotoluene | 1 | 13.241 | 13.258 | -0.017 | 14548 | 0.2000 | 0.1209 | M |
| | 23 m-Nitrotoluene | 1 | 13.834 | 13.858 | -0.024 | 15529 | 0.2000 | 0.1007 | M |
| | 24 PETN | 2 | 14.927 | 14.958 | -0.031 | 147779 | 2.00 | 1.86 | |
| | 25 Ammonium Picrate | 1 | | 0.000 | | | | ND | |

## QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

M - Manually Integrated

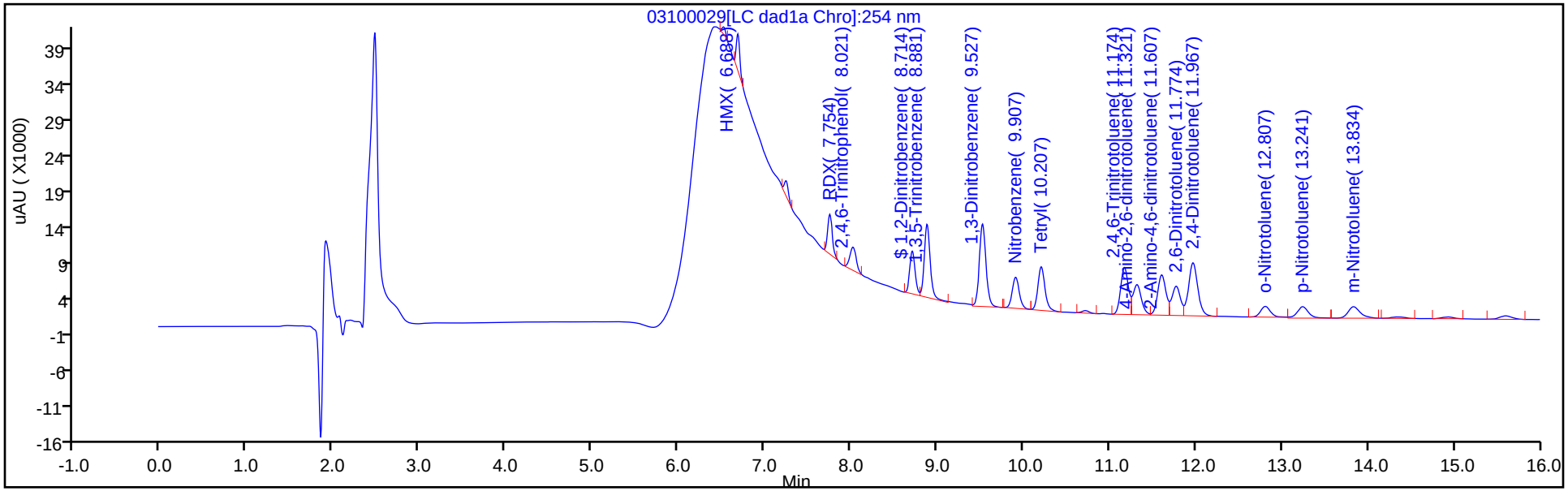
U - Marked Undetected

Report Date: 12-Mar-2020 11:53:58 Chrom Revision: 2.3 19-Feb-2020 16:45:46

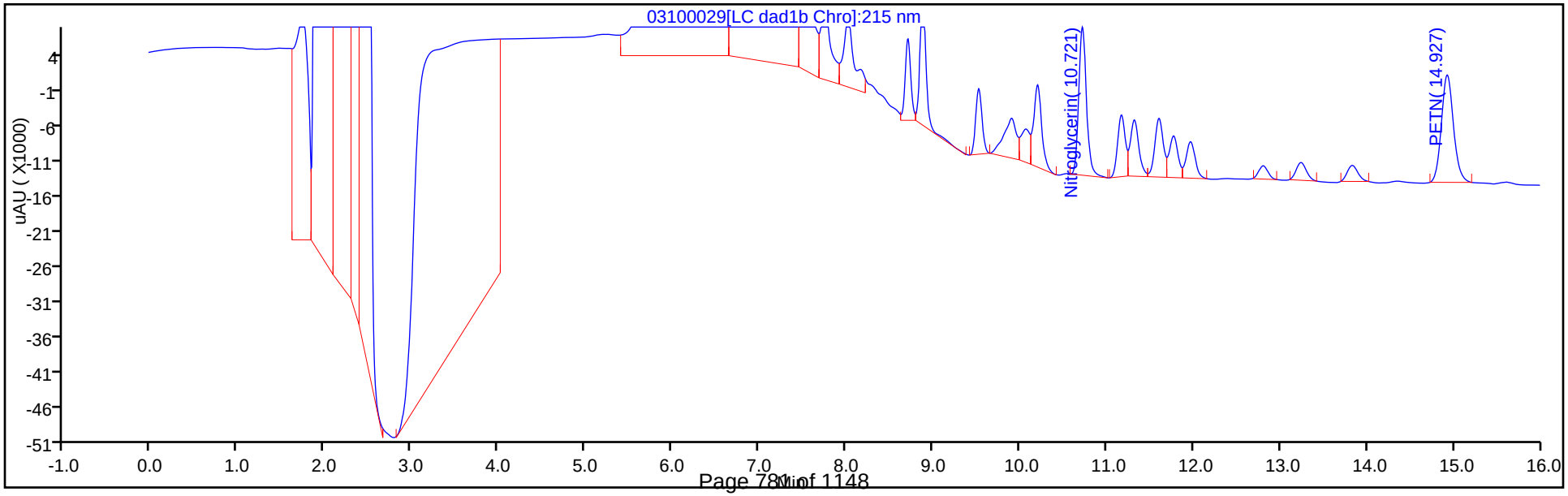
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200310-89952.b\03100029.d | | | | |
| Injection Date: | 11-Mar-2020 20:11:32 | Instrument ID: | CHHPLC_X3 | Operator ID: | CB |
| Lims ID: | 280-134268-A-6-B MS | | | Worklist Smp#: | 29 |
| Client ID: | PZ019-2 | | | | |
| 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



Eurofins TestAmerica, Denver
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Denver\ChromData\CHHPLC_X\20200310-89952.b\03100029.D | | | | |
| Lims ID: | 280-134268-A-6-B MS | | | | |
| Client ID: | PZ019-2 | | | | |
| Sample Type: | MS | | | | |
| Inject. Date: | 11-Mar-2020 20:11:32 | ALS Bottle#: | 29 | Worklist Smp#: | 29 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 280-134268-A-6-B | | | | |
| Misc. Info.: | 280-0089952-029 | | | | |
| Operator ID: | CB | Instrument ID: | CHHPLC_X3 | | |
| Method: | \\chromna\Denver\ChromData\CHHPLC_X\20200310-89952.b\8330_X3.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 12-Mar-2020 11:52:54 | 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: | CTX0315 | | | | |

First Level Reviewer: beckerc Date: 12-Mar-2020 08:28:43

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 9 1,2-Dinitrobenzene | 0.2000 | 0.1760 | 88.01 |

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

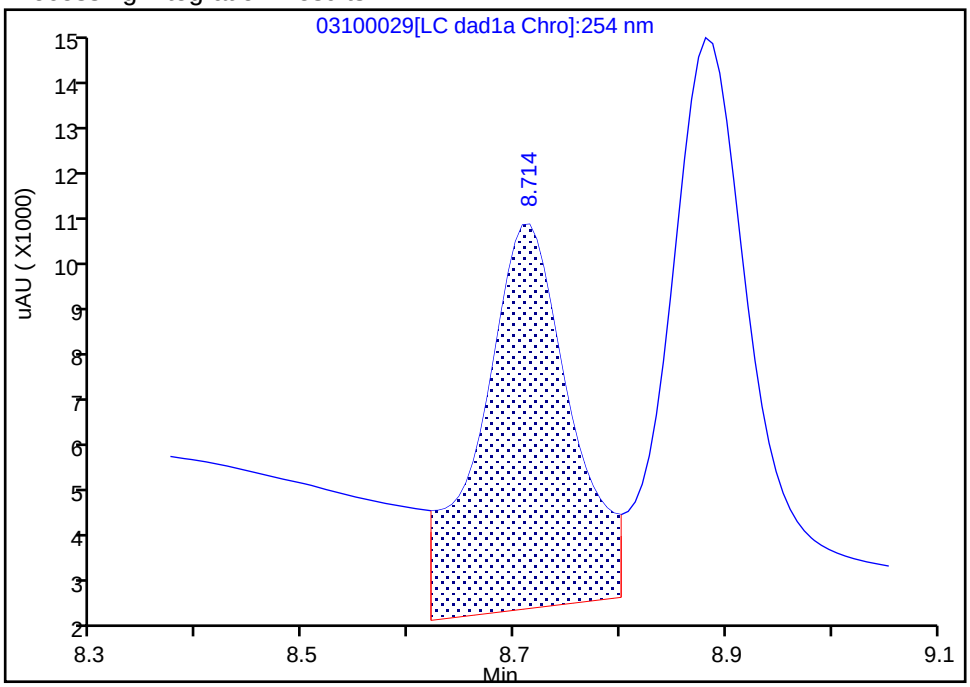
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200310-89952.b\03100029.d | | | | |
| Injection Date: | 11-Mar-2020 20:11:32 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | 280-134268-A-6-B MS | | | | |
| Client ID: | PZ019-2 | | | | |
| Operator ID: | CB | 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 | | |

## $ 9 1,2-Dinitrobenzene, CAS: 528-29-0

Signal: 1

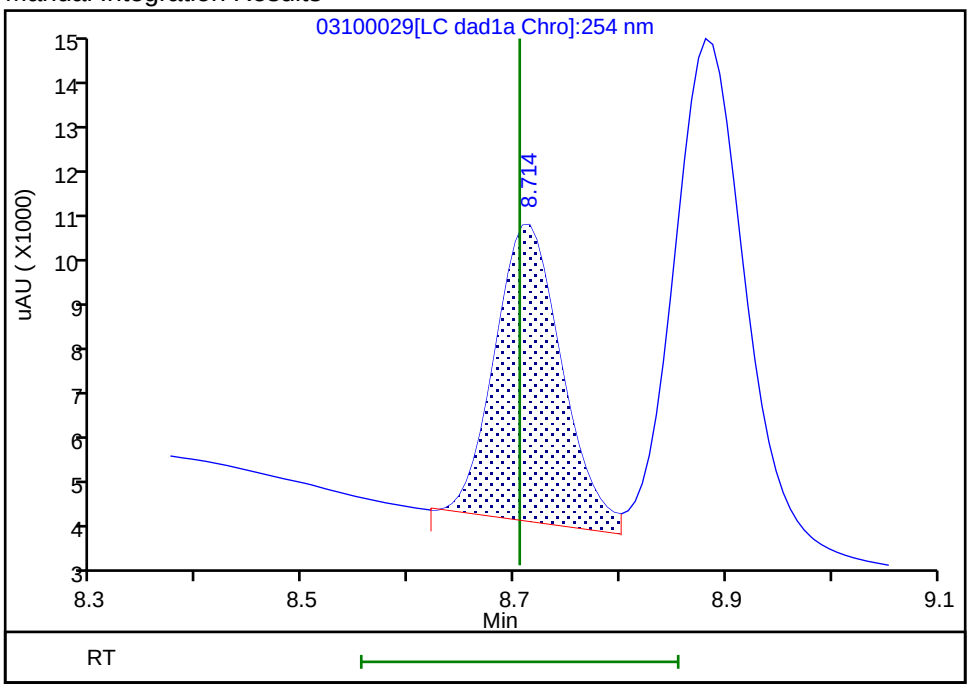
Processing Integration Results

RT: 8.71
Area: 44204
Amount: 0.302322
Amount Units: ug/mL




Manual Integration Results

RT: 8.71
Area: 25736
Amount: 0.176015
Amount Units: ug/mL




Reviewer: beckerc, 12-Mar-2020 08:28:02
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

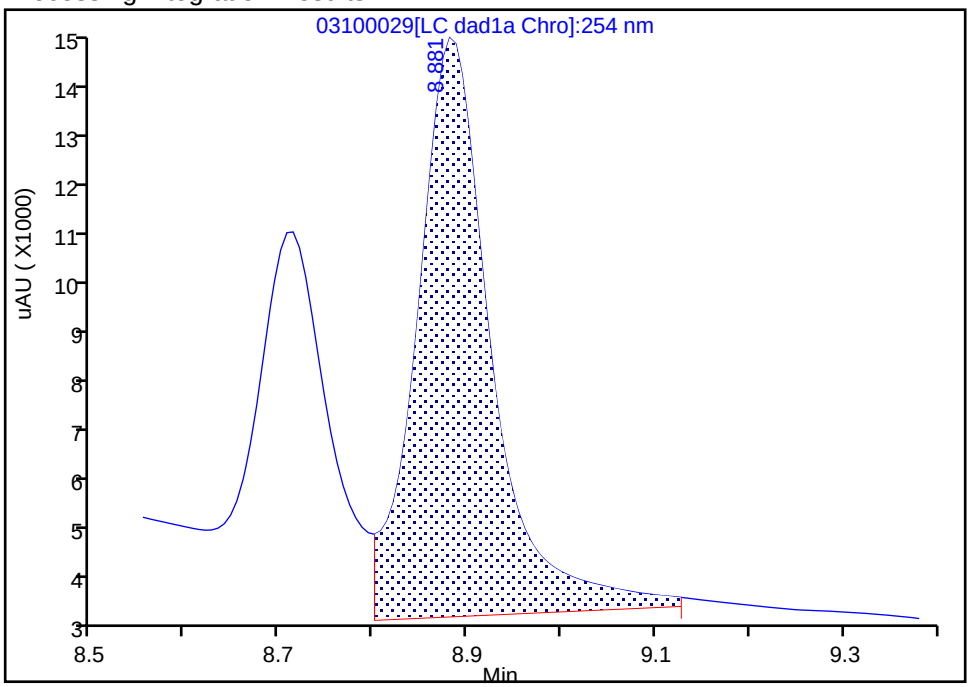
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200310-89952.b\03100029.d | | | | |
| Injection Date: | 11-Mar-2020 20:11:32 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | 280-134268-A-6-B MS | | | | |
| Client ID: | PZ019-2 | | | | |
| Operator ID: | CB | 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 | | |

## 10 1,3,5-Trinitrobenzene, CAS: 99-35-4

Signal: 1

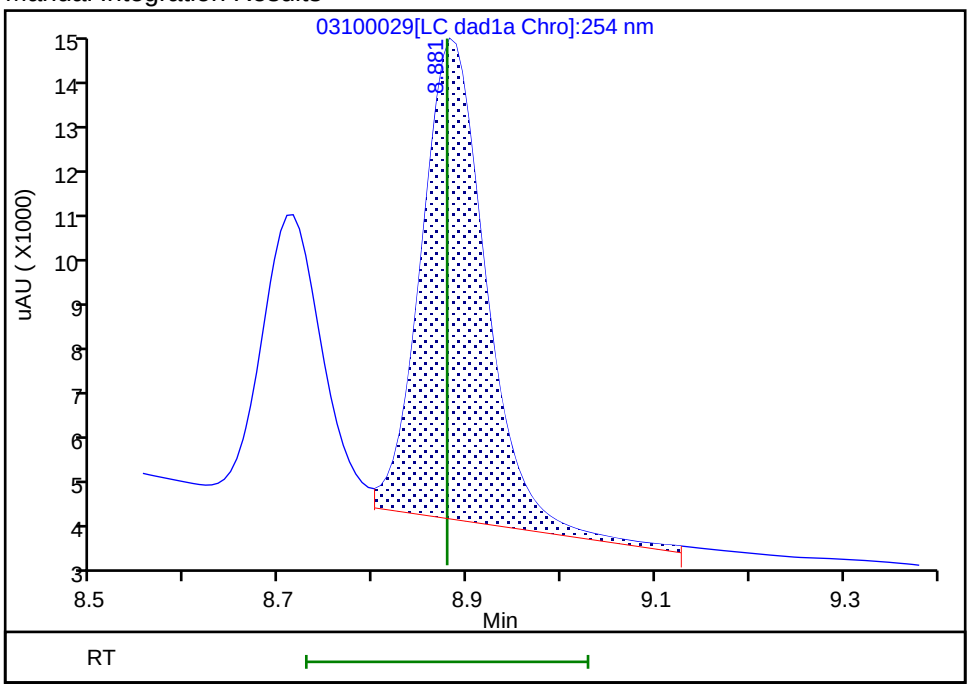
Processing Integration Results

RT: 8.88
Area: 60485
Amount: 0.248440
Amount Units: ug/mL




Manual Integration Results

RT: 8.88
Area: 48167
Amount: 0.197844
Amount Units: ug/mL




Reviewer: beckerc, 12-Mar-2020 08:28:02
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

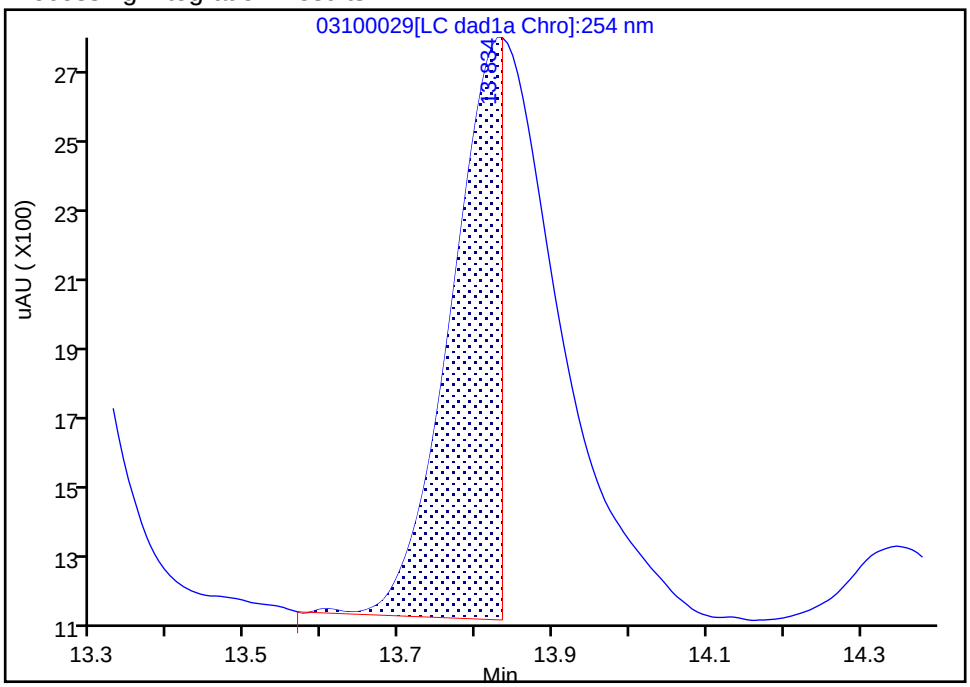
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200310-89952.b\03100029.d | | | | |
| Injection Date: | 11-Mar-2020 20:11:32 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | 280-134268-A-6-B MS | | | | |
| Client ID: | PZ019-2 | | | | |
| Operator ID: | CB | 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 | | |

## 23 m-Nitrotoluene, CAS: 99-08-1

Signal: 1

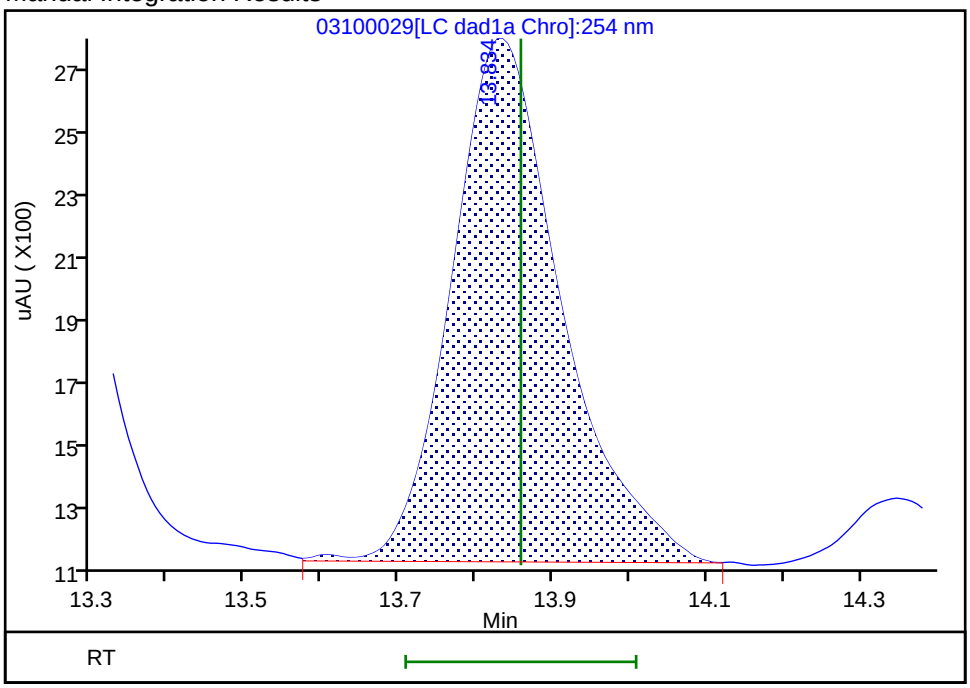
Processing Integration Results

RT: 13.83
Area: 7069
Amount: 0.045830
Amount Units: ug/mL




Manual Integration Results

RT: 13.83
Area: 15529
Amount: 0.100678
Amount Units: ug/mL




Reviewer: beckerc, 12-Mar-2020 08:28:37

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

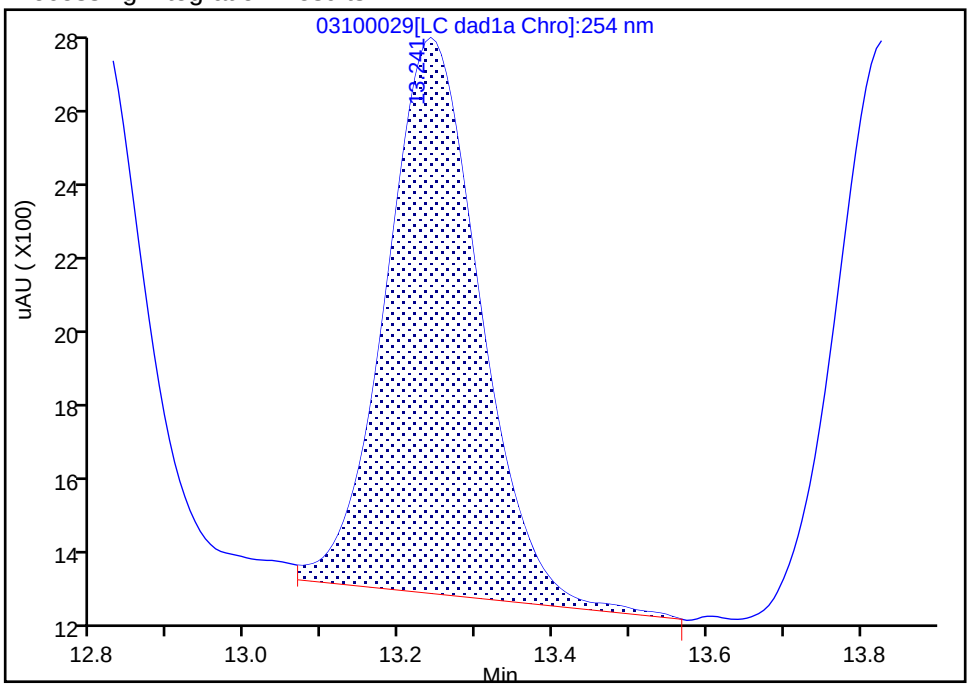
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200310-89952.b\03100029.d | | | | |
| Injection Date: | 11-Mar-2020 20:11:32 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | 280-134268-A-6-B MS | | | | |
| Client ID: | PZ019-2 | | | | |
| Operator ID: | CB | 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 | | |

## 22 p-Nitrotoluene, CAS: 99-99-0

Signal: 1

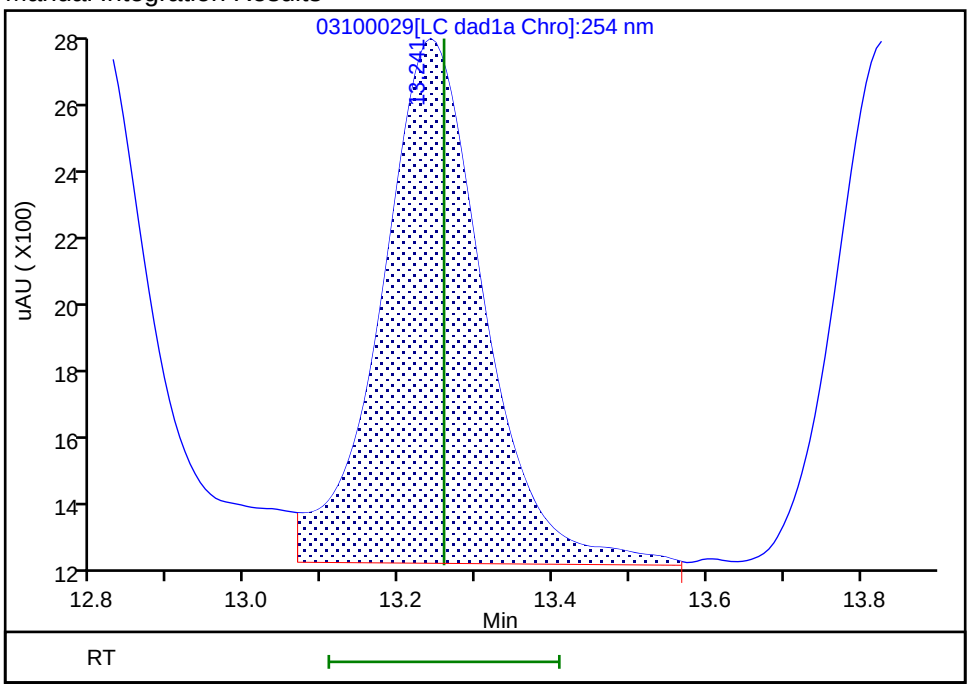
Processing Integration Results

RT: 13.24
Area: 12763
Amount: 0.106094
Amount Units: ug/mL




Manual Integration Results

RT: 13.24
Area: 14548
Amount: 0.120932
Amount Units: ug/mL




Reviewer: beckerc, 12-Mar-2020 08:28:32

Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

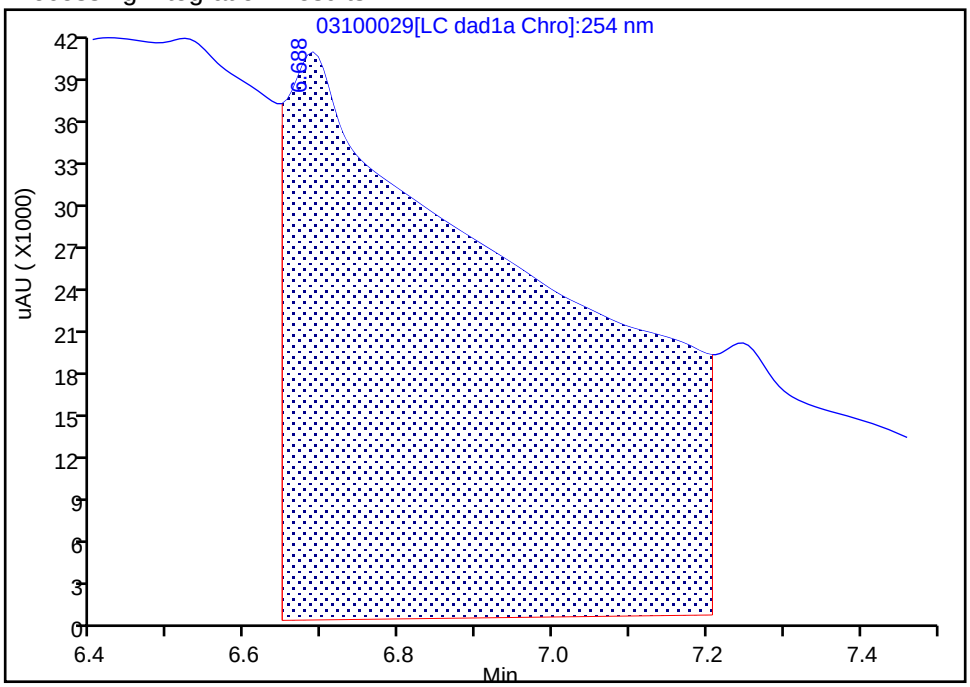
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200310-89952.b\03100029.d | | | | |
| Injection Date: | 11-Mar-2020 20:11:32 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | 280-134268-A-6-B MS | | | | |
| Client ID: | PZ019-2 | | | | |
| Operator ID: | CB | 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 | | |

## 3 HMX, CAS: 2691-41-0

Signal: 1

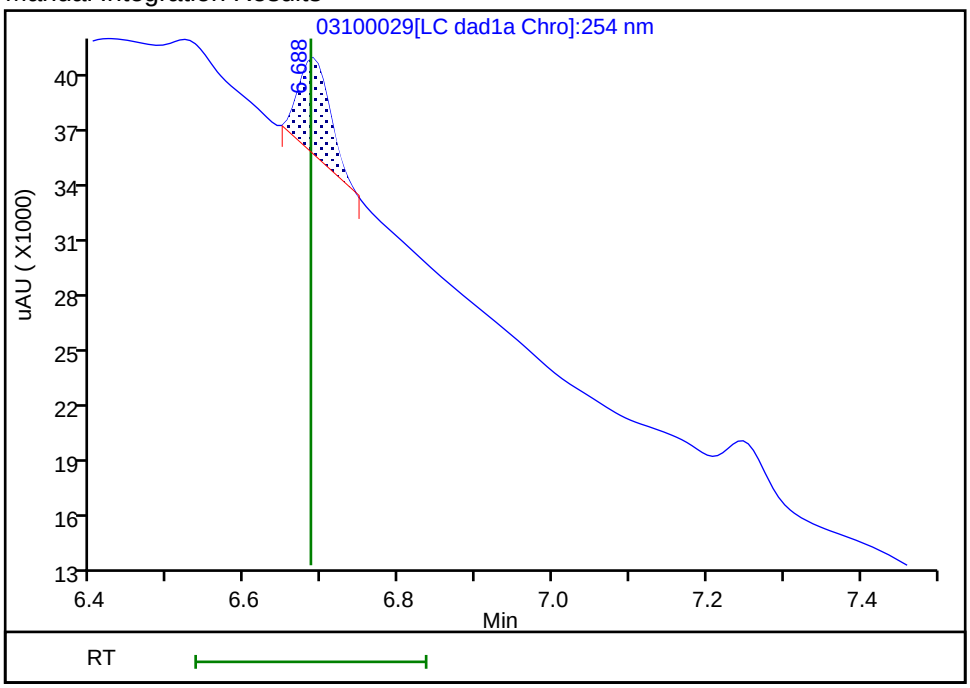
Processing Integration Results

RT: 6.69
Area: 877213
Amount: 9.836702
Amount Units: ug/mL




Manual Integration Results

RT: 6.69
Area: 14181
Amount: 0.159020
Amount Units: ug/mL




Reviewer: beckerc, 12-Mar-2020 08:27:26

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

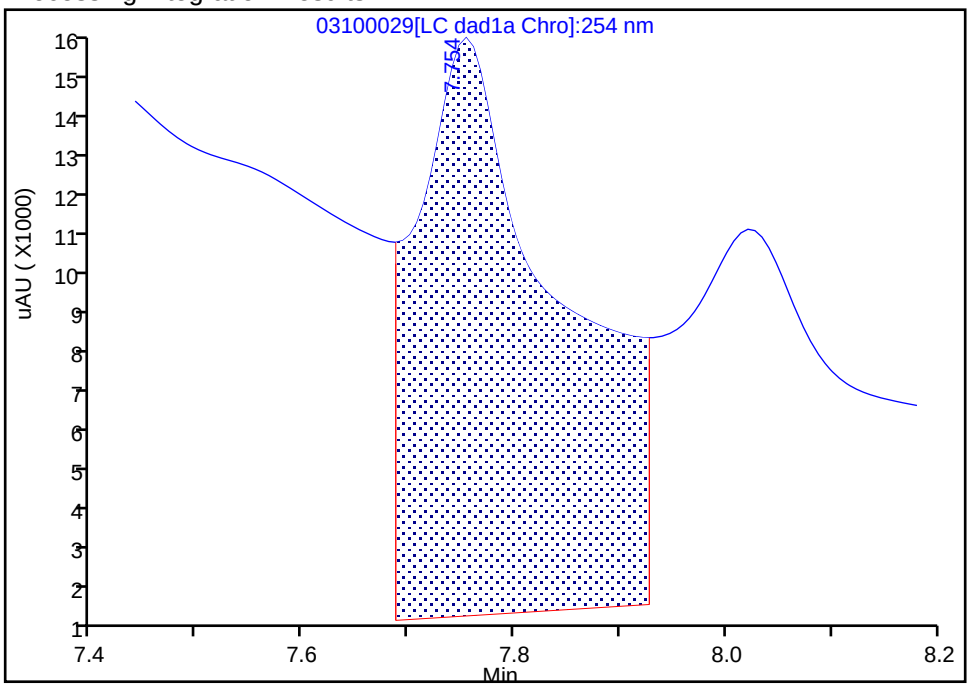
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200310-89952.b\03100029.d | | | | |
| Injection Date: | 11-Mar-2020 20:11:32 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | 280-134268-A-6-B MS | | | | |
| Client ID: | PZ019-2 | | | | |
| Operator ID: | CB | 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 | | |

## 7 RDX, CAS: 121-82-4

Signal: 1

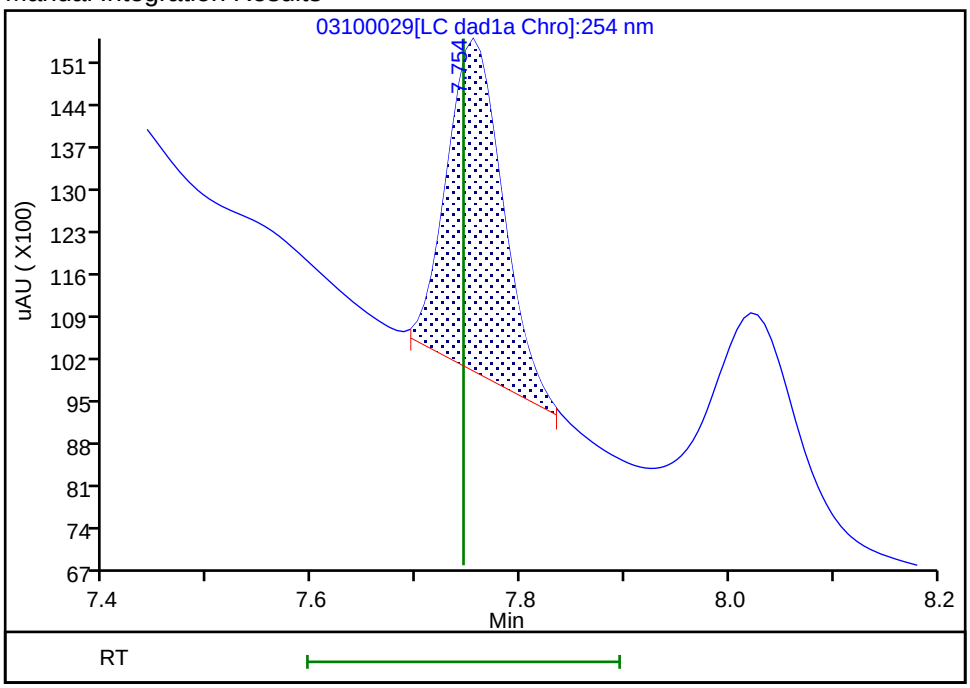
Processing Integration Results

RT: 7.75
Area: 128781
Amount: 1.092579
Amount Units: ug/mL




Manual Integration Results

RT: 7.75
Area: 20427
Amount: 0.173303
Amount Units: ug/mL




Reviewer: beckerc, 12-Mar-2020 08:27:46

Audit Action: Manually Integrated Audit Reason: Baseline

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-134268-1
SDG No.:
Client Sample ID: PZ019-2 MSD
Lab Sample ID: 280-134268-6 MSD
Matrix: Water
Lab File ID: 03100030.D
Analysis Method: 8330A
Date Collected: 03/02/2020 15:10
Extraction Method: 3535
Date Extracted: 03/07/2020 16:07
Sample wt/vol: 513.7(mL)
Date Analyzed: 03/11/2020 20:34
Con. Extract Vol.: 5(mL)
Dilution Factor: 1
Injection Volume: 100(uL)
GC Column: UltraCarb5uODS ID: 4.6(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 488297
Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | LOQ | LOD | DL |
|---|---|---|---|---|---|---|
| 99-35-4 | 1,3,5-Trinitrobenzene | 1.83 | M | 0.97 | 0.39 | 0.19 |
| 99-65-0 | 1,3-Dinitrobenzene | 1.72 | | 0.39 | 0.19 | 0.086 |
| 118-96-7 | 2,4,6-Trinitrotoluene | 1.73 | | 0.39 | 0.39 | 0.16 |
| 121-14-2 | 2,4-Dinitrotoluene | 1.55 | | 0.39 | 0.19 | 0.082 |
| 606-20-2 | 2,6-Dinitrotoluene | 1.60 | | 0.19 | 0.19 | 0.063 |
| 35572-78-2 | 2-Amino-4,6-dinitrotoluene | 1.56 | | 0.19 | 0.12 | 0.049 |
| 88-72-2 | 2-Nitrotoluene | 0.894 | J1 | 0.39 | 0.19 | 0.083 |
| 99-08-1 | 3-Nitrotoluene | 1.06 | J1 | 0.39 | 0.39 | 0.19 |
| 19406-51-0 | 4-Amino-2,6-dinitrotoluene | 1.43 | J1 | 0.19 | 0.12 | 0.056 |
| 99-99-0 | 4-Nitrotoluene | 1.08 | J1 | 0.97 | 0.39 | 0.19 |
| 2691-41-0 | HMX | 1.58 | M | 0.39 | 0.19 | 0.085 |
| 98-95-3 | Nitrobenzene | 1.19 | J1 | 0.39 | 0.19 | 0.089 |
| 121-82-4 | RDX | 1.61 | M | 0.39 | 0.39 | 0.15 |
| 479-45-8 | Tetryl | 1.67 | | 0.23 | 0.19 | 0.077 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 528-29-0 | 1,2-Dinitrobenzene | 91 | M | 83-119 |

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

Data File: \\chromna\Denver\ChromData\CHHPLC_X\20200310-89952.b\03100030.D
Lims ID: 280-134268-A-6-C MSD
Client ID: PZ019-2
Sample Type: MSD
Inject. Date: 11-Mar-2020 20:34:31 ALS Bottle#: 30 Worklist Smp#: 30
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-134268-A-6-C
Misc. Info.: 280-0089952-030
Operator ID: CB Instrument ID: CHHPLC_X3

Method: \\chromna\Denver\ChromData\CHHPLC_X\20200310-89952.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 12-Mar-2020 08:50:00 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: CTX0315

First Level Reviewer: beckerc Date: 12-Mar-2020 08:30:20

| | 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 | 6.521 | 6.548 | -0.027 | 3054 | | 0.0121 | 7M |
| | 2 TNX | 1 | | 6.594 | | | | ND | |
| | 3 HMX | 1 | 6.687 | 6.685 | 0.002 | 14431 | 0.2000 | 0.1618 | M |
| | 4 2,4-diamino-6-nitrotoluene | 1 | | 6.735 | | | | ND | |
| | 5 DNX | 1 | | 6.914 | | | | ND | |
| | 6 MNX | 1 | | 7.361 | | | | ND | MU |
| | 7 RDX | 1 | 7.754 | 7.745 | 0.009 | 19535 | 0.2000 | 0.1657 | M |
| | 8 2,4,6-Trinitrophenol | 1 | 8.027 | 8.045 | -0.018 | 15748 | 0.2000 | 0.1805 | M |
| $ | 9 1,2-Dinitrobenzene | 1 | 8.714 | 8.705 | 0.009 | 26572 | 0.2000 | 0.1817 | M |
| | 10 1,3,5-Trinitrobenzene | 1 | 8.881 | 8.878 | 0.003 | 45800 | 0.2000 | 0.1881 | M |
| | 11 1,3-Dinitrobenzene | 1 | 9.527 | 9.525 | 0.002 | 57383 | 0.2000 | 0.1770 | |
| | 12 Nitrobenzene | 1 | 9.914 | 9.911 | 0.003 | 25941 | 0.2000 | 0.1220 | |
| | 13 3,5-Dinitroaniline | 1 | | 10.142 | | | | ND | |
| | 14 Tetryl | 1 | 10.207 | 10.211 | -0.004 | 33335 | 0.2000 | 0.1719 | |
| | 15 Nitroglycerin | 2 | 10.727 | 10.725 | 0.002 | 127080 | 2.00 | 1.77 | |
| | 16 2,4,6-Trinitrotoluene | 1 | 11.174 | 11.178 | -0.004 | 39211 | 0.2000 | 0.1775 | |
| | 17 4-Amino-2,6-dinitrotoluene | 1 | 11.327 | 11.325 | 0.002 | 25484 | 0.2000 | 0.1469 | |
| | 18 2-Amino-4,6-dinitrotoluene | 1 | 11.614 | 11.611 | 0.003 | 34778 | 0.2000 | 0.1599 | |
| | 19 2,6-Dinitrotoluene | 1 | 11.780 | 11.785 | -0.005 | 26273 | 0.2000 | 0.1648 | |
| | 20 2,4-Dinitrotoluene | 1 | 11.974 | 11.978 | -0.004 | 51133 | 0.2000 | 0.1592 | |
| | 21 o-Nitrotoluene | 1 | 12.814 | 12.818 | -0.004 | 13208 | 0.2000 | 0.0918 | |
| | 22 p-Nitrotoluene | 1 | 13.247 | 13.258 | -0.011 | 13319 | 0.2000 | 0.1107 | |
| | 23 m-Nitrotoluene | 1 | 13.840 | 13.858 | -0.018 | 16790 | 0.2000 | 0.1089 | |
| | 24 PETN | 2 | 14.934 | 14.958 | -0.024 | 143898 | 2.00 | 1.81 | |
| | 25 Ammonium Picrate | 1 | | 0.000 | | | | ND | |

## QC Flag Legend

Processing Flags
7 - Failed Limit of Detection

Review Flags

M - Manually Integrated

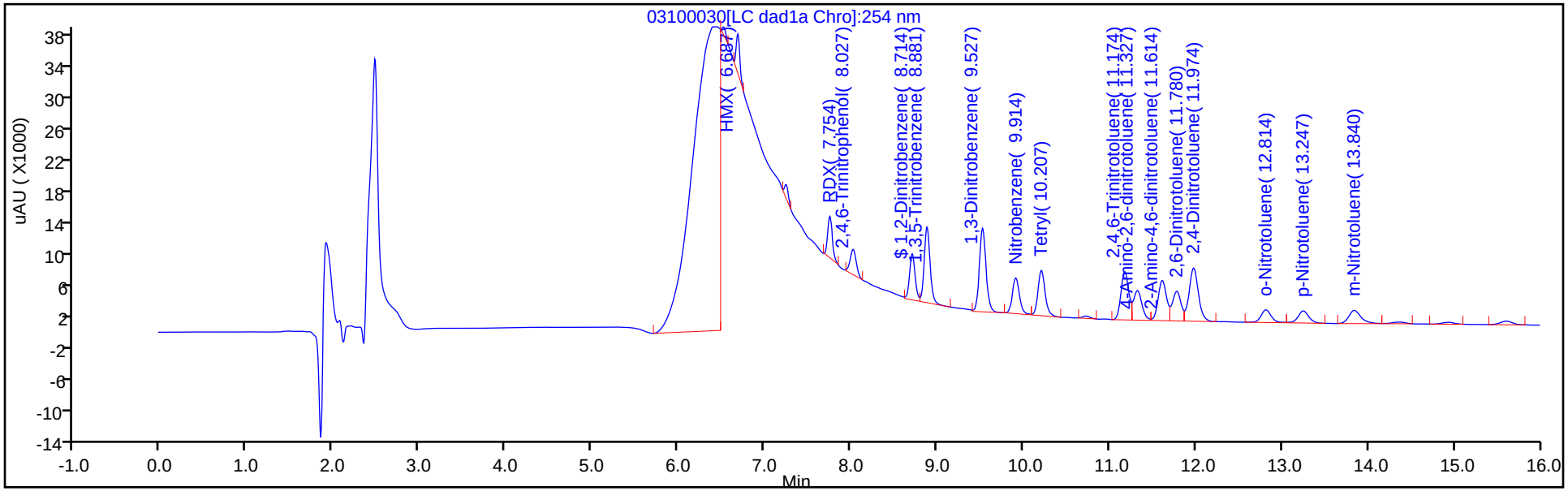
U - Marked Undetected

Report Date: 12-Mar-2020 08:50:08 Chrom Revision: 2.3 19-Feb-2020 16:45:46

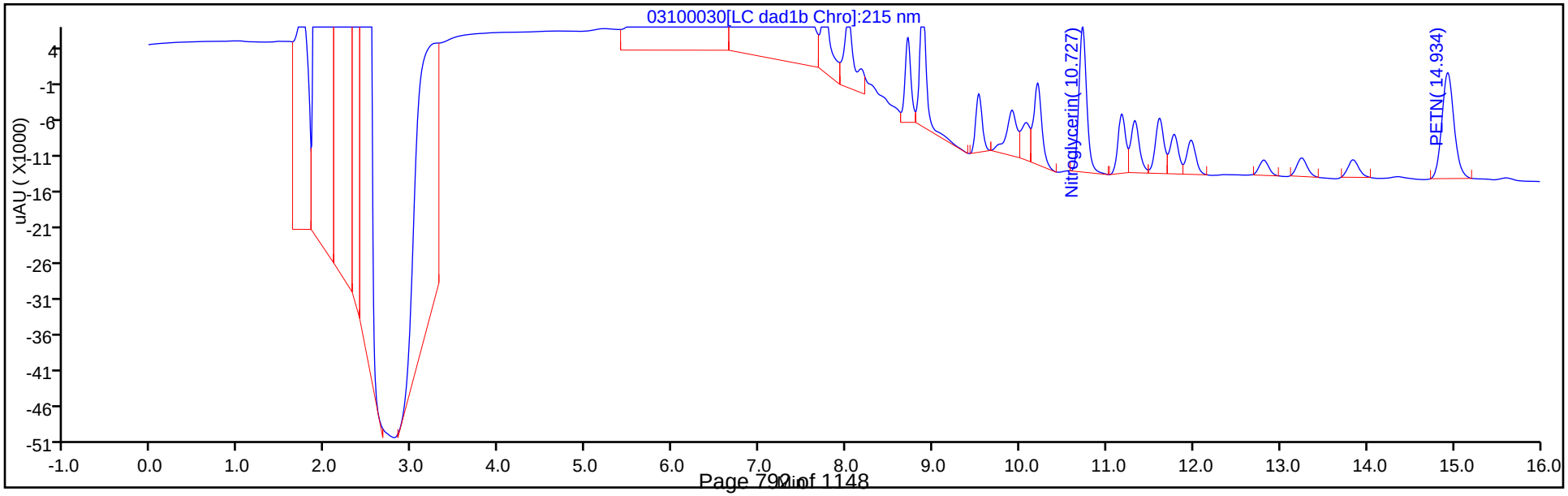
Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200310-89952.b\03100030.d | | | | |
| Injection Date: | 11-Mar-2020 20:34:31 | Instrument ID: | CHHPLC_X3 | Operator ID: | CB |
| Lims ID: | 280-134268-A-6-C MSD | | | Worklist Smp#: | 30 |
| Client ID: | PZ019-2 | | | | |
| 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



Eurofins TestAmerica, Denver
Recovery Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Denver\ChromData\CHHPLC_X\20200310-89952.b\03100030.D | | | | |
| Lims ID: | 280-134268-A-6-C MSD | | | | |
| Client ID: | PZ019-2 | | | | |
| Sample Type: | MSD | | | | |
| Inject. Date: | 11-Mar-2020 20:34:31 | ALS Bottle#: | 30 | Worklist Smp#: | 30 |
| Injection Vol: | 100.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 280-134268-A-6-C | | | | |
| Misc. Info.: | 280-0089952-030 | | | | |
| Operator ID: | CB | Instrument ID: | CHHPLC_X3 | | |
| Method: | \\chromna\Denver\ChromData\CHHPLC_X\20200310-89952.b\8330_X3.m | | | | |
| Limit Group: | GCSV - 8330 | | | | |
| Last Update: | 12-Mar-2020 08:50:00 | 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: | CTX0315 | | | | |
| First Level Reviewer: beckerc | | Date: | 12-Mar-2020 08:30:20 | | |

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 9 1,2-Dinitrobenzene | 0.2000 | 0.1817 | 90.87 |

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

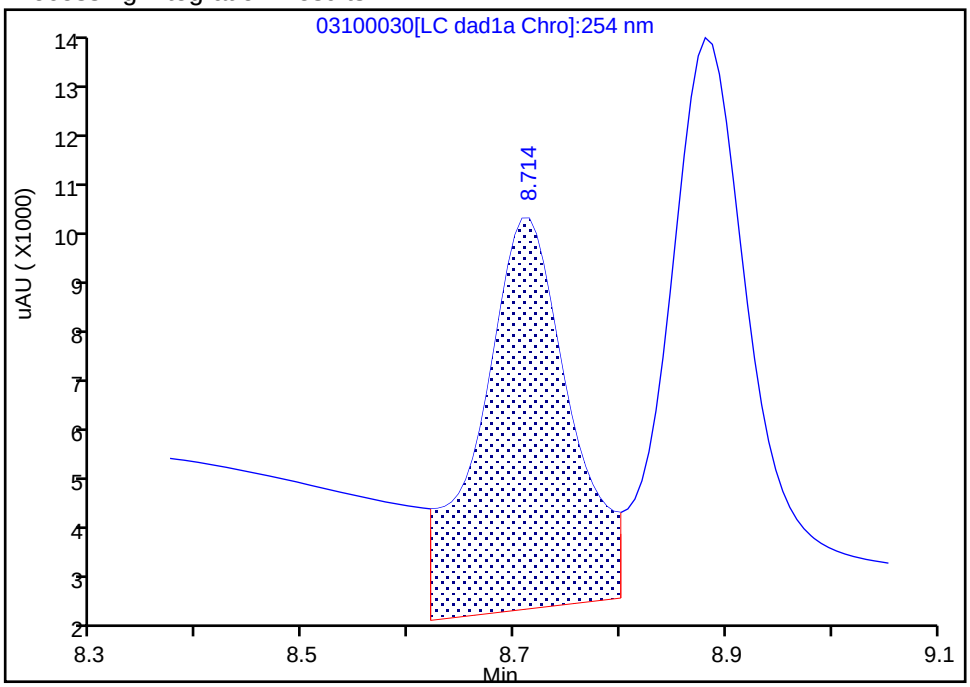
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200310-89952.b\03100030.d | | | | |
| Injection Date: | 11-Mar-2020 20:34:31 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | 280-134268-A-6-C MSD | | | | |
| Client ID: | PZ019-2 | | | | |
| Operator ID: | CB | 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 | | |

## $ 9 1,2-Dinitrobenzene, CAS: 528-29-0

Signal: 1

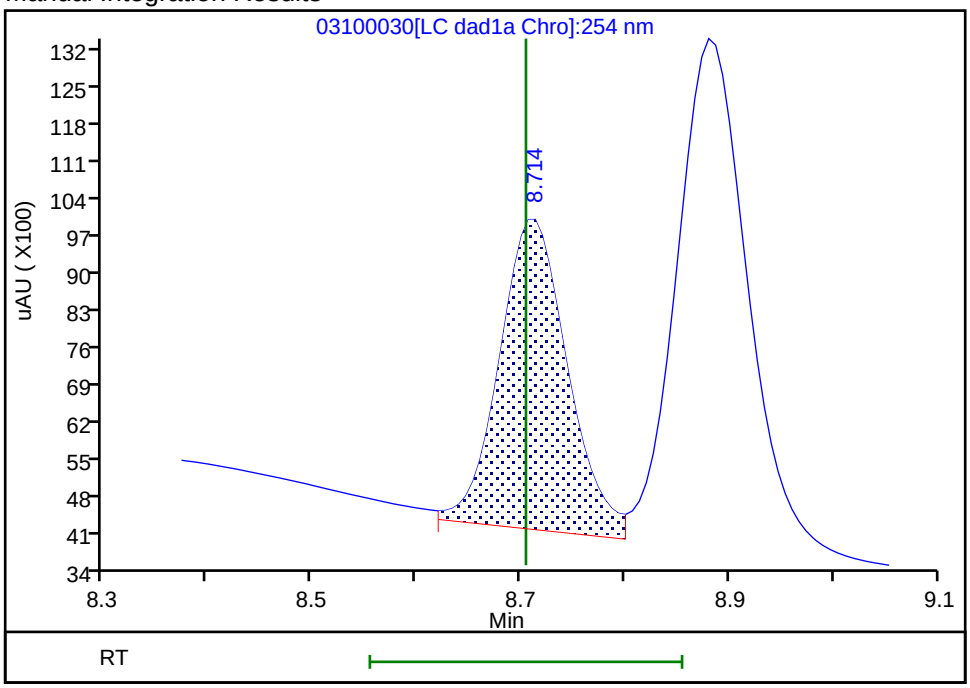
Processing Integration Results

RT: 8.71
Area: 43252
Amount: 0.295811
Amount Units: ug/mL




Manual Integration Results

RT: 8.71
Area: 26572
Amount: 0.181732
Amount Units: ug/mL




Reviewer: beckerc, 12-Mar-2020 08:29:47
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

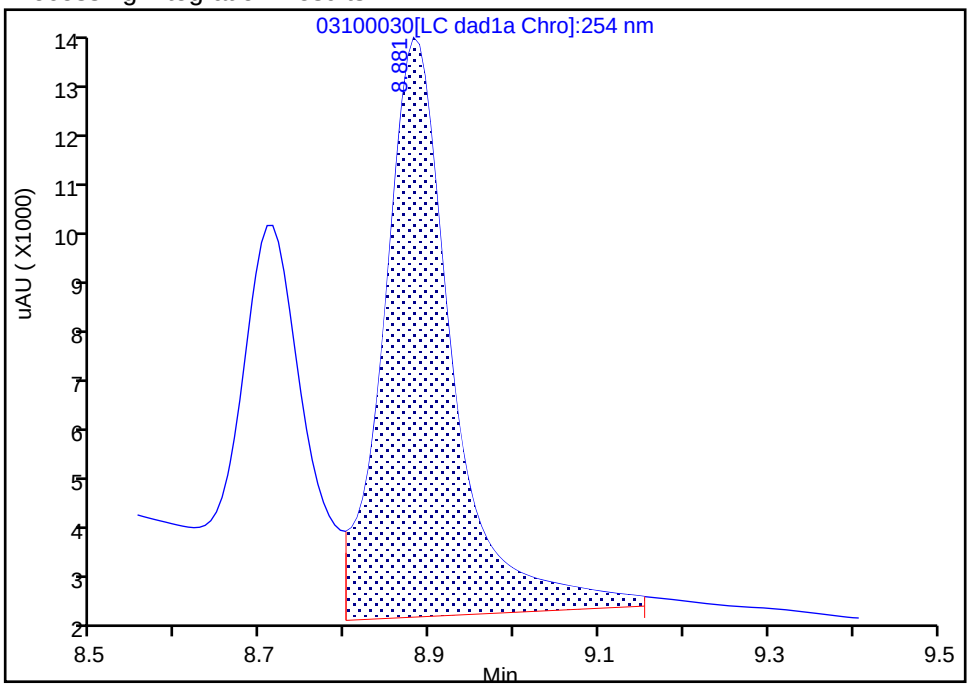
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200310-89952.b\03100030.d | | | | |
| Injection Date: | 11-Mar-2020 20:34:31 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | 280-134268-A-6-C MSD | | | | |
| Client ID: | PZ019-2 | | | | |
| Operator ID: | CB | 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 | | |

## 10 1,3,5-Trinitrobenzene, CAS: 99-35-4

Signal: 1

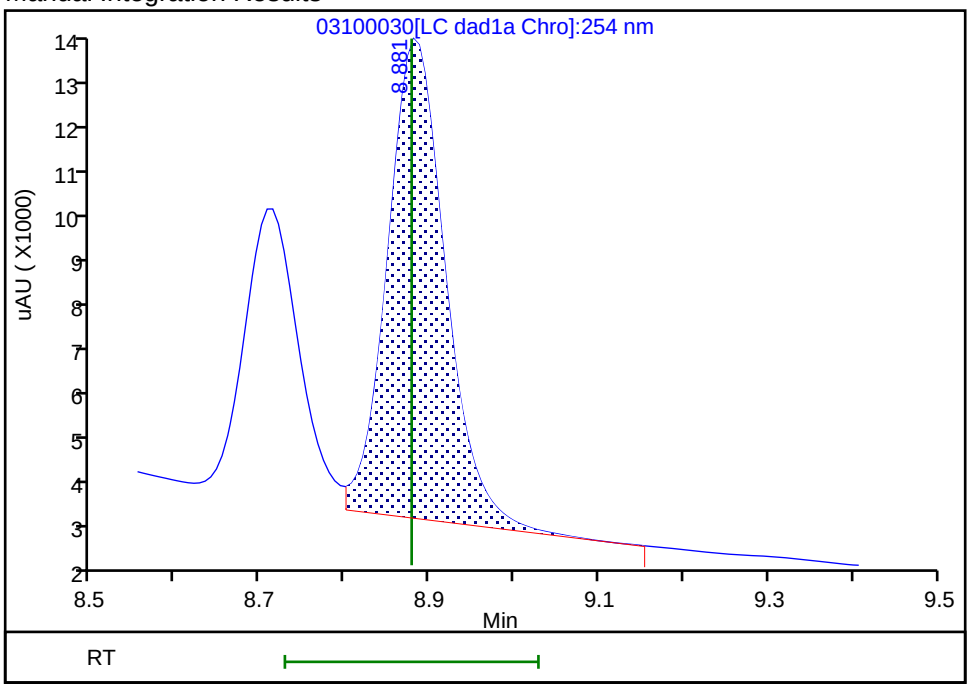
Processing Integration Results

RT: 8.88
Area: 59643
Amount: 0.244981
Amount Units: ug/mL




Manual Integration Results

RT: 8.88
Area: 45800
Amount: 0.188122
Amount Units: ug/mL




Reviewer: beckerc, 12-Mar-2020 08:29:47
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

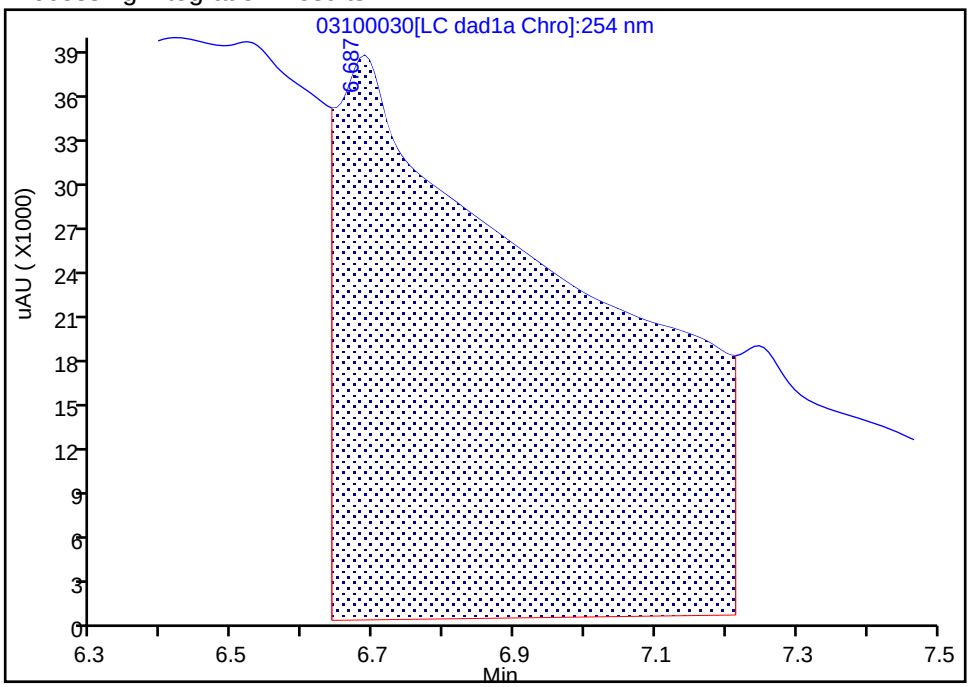
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200310-89952.b\03100030.d | | | | |
| Injection Date: | 11-Mar-2020 20:34:31 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | 280-134268-A-6-C MSD | | | | |
| Client ID: | PZ019-2 | | | | |
| Operator ID: | CB | 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 | | |

## 3 HMX, CAS: 2691-41-0

Signal: 1

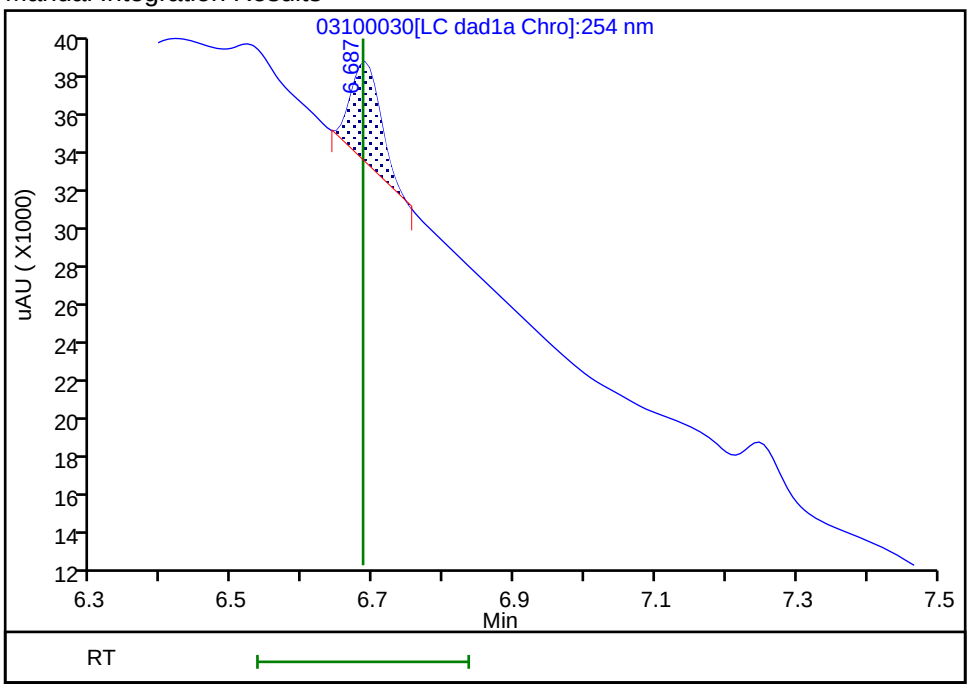
Processing Integration Results

RT: 6.69
Area: 850449
Amount: 9.536581
Amount Units: ug/mL




Manual Integration Results

RT: 6.69
Area: 14431
Amount: 0.161823
Amount Units: ug/mL




Reviewer: beckerc, 12-Mar-2020 08:29:16

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

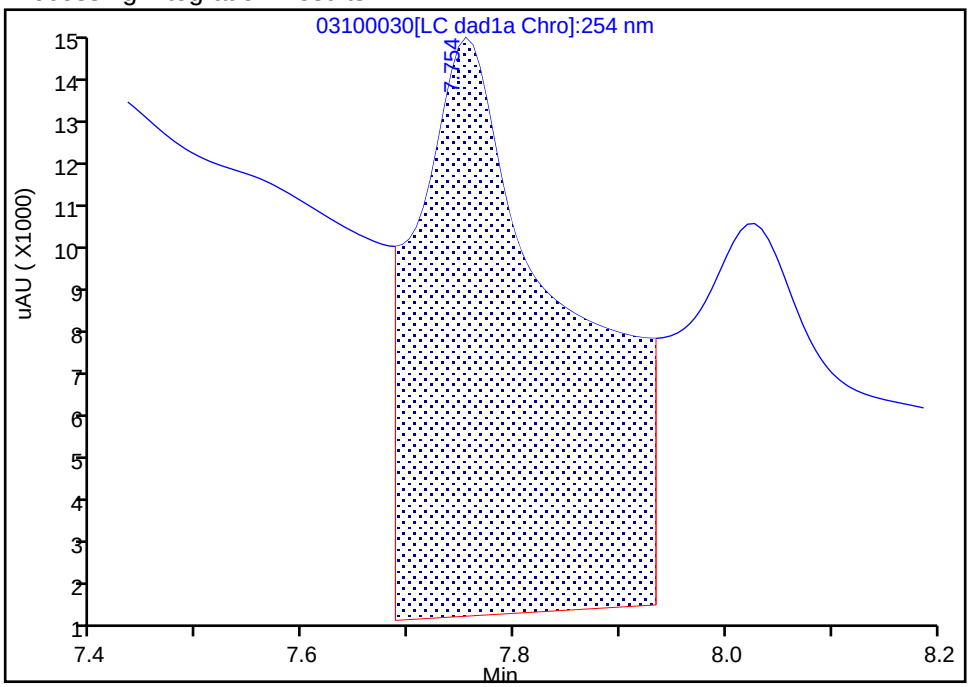
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\denver\chromdata\chhplc_x\20200310-89952.b\03100030.d | | | | |
| Injection Date: | 11-Mar-2020 20:34:31 | Instrument ID: | CHHPLC_X3 | | |
| Lims ID: | 280-134268-A-6-C MSD | | | | |
| Client ID: | PZ019-2 | | | | |
| Operator ID: | CB | 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 | | |

## 7 RDX, CAS: 121-82-4

Signal: 1

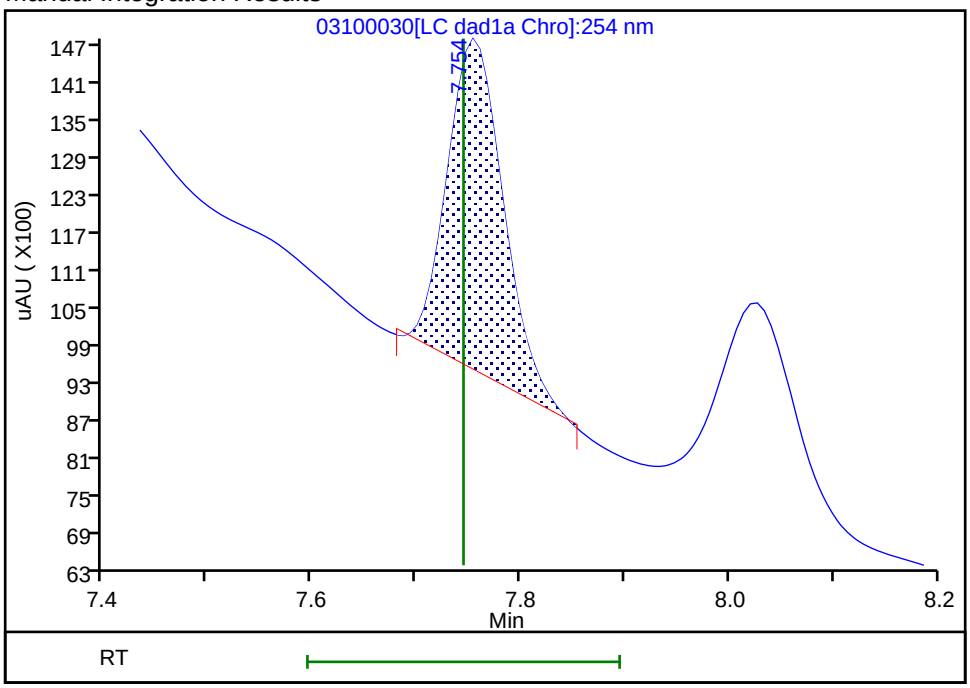
Processing Integration Results

RT: 7.75
Area: 126178
Amount: 1.070495
Amount Units: ug/mL




Manual Integration Results

RT: 7.75
Area: 19535
Amount: 0.165735
Amount Units: ug/mL




Reviewer: beckerc, 12-Mar-2020 08:29:37

Audit Action: Manually Integrated Audit Reason: Baseline

HPLC/IC ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134268-1

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.: 280-134268-1

SDG No.:

Instrument ID: CHHPLC_X3 Start Date: 03/04/2020 14:07

Analysis Batch Number: 487658 End Date: 03/05/2020 00:03

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| IC 280-487658/7 | | 03/04/2020 14:07 | 1 | 03040007.D | UltraCarb5uODS 4.6(mm) |
| IC 280-487658/8 | | 03/04/2020 14:30 | 1 | 03040008.D | UltraCarb5uODS 4.6(mm) |
| IC 280-487658/9 | | 03/04/2020 14:53 | 1 | 03040009.D | UltraCarb5uODS 4.6(mm) |
| IC 280-487658/10 | | 03/04/2020 15:16 | 1 | 03040010.D | UltraCarb5uODS 4.6(mm) |
| IC 280-487658/11 | | 03/04/2020 15:39 | 1 | 03040011.D | UltraCarb5uODS 4.6(mm) |
| IC 280-487658/12 | | 03/04/2020 16:01 | 1 | 03040012.D | UltraCarb5uODS 4.6(mm) |
| IC 280-487658/13 | | 03/04/2020 16:24 | 1 | 03040013.D | UltraCarb5uODS 4.6(mm) |
| IC 280-487658/14 | | 03/04/2020 16:47 | 1 | 03040014.D | UltraCarb5uODS 4.6(mm) |
| ICV 280-487658/15 | | 03/04/2020 17:10 | 1 | 03040015.D | UltraCarb5uODS 4.6(mm) |
| IC 280-487658/16 | | 03/04/2020 17:33 | 1 | | UltraCarb5uODS 4.6(mm) |
| IC 280-487658/17 | | 03/04/2020 17:56 | 1 | | UltraCarb5uODS 4.6(mm) |
| IC 280-487658/18 | | 03/04/2020 18:19 | 1 | | UltraCarb5uODS 4.6(mm) |
| IC 280-487658/19 | | 03/04/2020 18:42 | 1 | | UltraCarb5uODS 4.6(mm) |
| IC 280-487658/20 | | 03/04/2020 19:05 | 1 | | UltraCarb5uODS 4.6(mm) |
| IC 280-487658/21 | | 03/04/2020 19:28 | 1 | | UltraCarb5uODS 4.6(mm) |
| IC 280-487658/22 | | 03/04/2020 19:51 | 1 | | UltraCarb5uODS 4.6(mm) |
| IC 280-487658/23 | | 03/04/2020 20:14 | 1 | | UltraCarb5uODS 4.6(mm) |
| ICV 280-487658/24 | | 03/04/2020 20:37 | 1 | | UltraCarb5uODS 4.6(mm) |
| IC 280-487658/25 | | 03/04/2020 21:00 | 1 | 03040025.D | UltraCarb5uODS 4.6(mm) |
| IC 280-487658/26 | | 03/04/2020 21:23 | 1 | 03040026.D | UltraCarb5uODS 4.6(mm) |
| IC 280-487658/27 | | 03/04/2020 21:45 | 1 | 03040027.D | UltraCarb5uODS 4.6(mm) |
| IC 280-487658/28 | | 03/04/2020 22:09 | 1 | 03040028.D | UltraCarb5uODS 4.6(mm) |
| IC 280-487658/29 | | 03/04/2020 22:31 | 1 | 03040029.D | UltraCarb5uODS 4.6(mm) |
| IC 280-487658/30 | | 03/04/2020 22:54 | 1 | 03040030.D | UltraCarb5uODS 4.6(mm) |
| IC 280-487658/31 | | 03/04/2020 23:17 | 1 | 03040031.D | UltraCarb5uODS 4.6(mm) |
| IC 280-487658/32 | | 03/04/2020 23:40 | 1 | 03040032.D | UltraCarb5uODS 4.6(mm) |
| ICV 280-487658/33 | | 03/05/2020 00:03 | 1 | 03040033.D | UltraCarb5uODS 4.6(mm) |

8330A

HPLC/IC ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134268-1

SDG No.:

Instrument ID: CHHPLC_X3 Start Date: 03/11/2020 11:47

Analysis Batch Number: 488297 End Date: 03/12/2020 00:24

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| CCV 280-488297/7 | | 03/11/2020 11:47 | 1 | 03100007.D | UltraCarb5uODS 4.6(mm) |
| CCV 280-488297/8 | | 03/11/2020 12:09 | 1 | | UltraCarb5uODS 4.6(mm) |
| CCV 280-488297/9 | | 03/11/2020 12:32 | 1 | 03100009.D | UltraCarb5uODS 4.6(mm) |
| MB 280-488022/1-A | | 03/11/2020 12:55 | 1 | 03100010.D | UltraCarb5uODS 4.6(mm) |
| LCS 280-488022/2-A | | 03/11/2020 13:18 | 1 | 03100011.D | UltraCarb5uODS 4.6(mm) |
| LCS 280-488022/3-A | | 03/11/2020 13:41 | 1 | 03100012.D | UltraCarb5uODS 4.6(mm) |
| LCSD 280-488022/4-A | | 03/11/2020 14:04 | 1 | 03100013.D | UltraCarb5uODS 4.6(mm) |
| ZZZZZ | | 03/11/2020 14:27 | 1 | | UltraCarb5uODS 4.6(mm) |
| ZZZZZ | | 03/11/2020 14:50 | 1 | | UltraCarb5uODS 4.6(mm) |
| ZZZZZ | | 03/11/2020 15:13 | 1 | | UltraCarb5uODS 4.6(mm) |
| ZZZZZ | | 03/11/2020 15:36 | 1 | | UltraCarb5uODS 4.6(mm) |
| ZZZZZ | | 03/11/2020 15:59 | 1 | | UltraCarb5uODS 4.6(mm) |
| ZZZZZ | | 03/11/2020 16:22 | 1 | | UltraCarb5uODS 4.6(mm) |
| CCV 280-488297/20 | | 03/11/2020 16:45 | 1 | 03100020.D | UltraCarb5uODS 4.6(mm) |
| CCV 280-488297/21 | | 03/11/2020 17:08 | 1 | | UltraCarb5uODS 4.6(mm) |
| CCV 280-488297/22 | | 03/11/2020 17:31 | 1 | 03100022.D | UltraCarb5uODS 4.6(mm) |
| 280-134268-1 | | 03/11/2020 17:54 | 1 | 03100023.D | UltraCarb5uODS 4.6(mm) |
| 280-134268-2 | | 03/11/2020 18:16 | 1 | 03100024.D | UltraCarb5uODS 4.6(mm) |
| 280-134268-3 | | 03/11/2020 18:39 | 1 | 03100025.D | UltraCarb5uODS 4.6(mm) |
| 280-134268-4 | | 03/11/2020 19:02 | 1 | 03100026.D | UltraCarb5uODS 4.6(mm) |
| 280-134268-5 | | 03/11/2020 19:25 | 1 | 03100027.D | UltraCarb5uODS 4.6(mm) |
| 280-134268-6 | | 03/11/2020 19:48 | 1 | 03100028.D | UltraCarb5uODS 4.6(mm) |
| 280-134268-6 MS | | 03/11/2020 20:11 | 1 | 03100029.D | UltraCarb5uODS 4.6(mm) |
| 280-134268-6 MSD | | 03/11/2020 20:34 | 1 | 03100030.D | UltraCarb5uODS 4.6(mm) |
| 280-134268-7 | | 03/11/2020 20:57 | 1 | 03100031.D | UltraCarb5uODS 4.6(mm) |
| 280-134268-8 | | 03/11/2020 21:20 | 1 | 03100032.D | UltraCarb5uODS 4.6(mm) |
| CCV 280-488297/33 | | 03/11/2020 21:43 | 1 | 03100033.D | UltraCarb5uODS 4.6(mm) |
| CCV 280-488297/34 | | 03/11/2020 22:06 | 1 | | UltraCarb5uODS 4.6(mm) |
| CCV 280-488297/35 | | 03/11/2020 22:29 | 1 | 03100035.D | UltraCarb5uODS 4.6(mm) |
| 280-134268-9 | | 03/11/2020 22:52 | 1 | 03100036.D | UltraCarb5uODS 4.6(mm) |
| 280-134268-10 | | 03/11/2020 23:15 | 1 | 03100037.D | UltraCarb5uODS 4.6(mm) |
| CCV 280-488297/38 | | 03/11/2020 23:38 | 1 | 03100038.D | UltraCarb5uODS 4.6(mm) |
| CCV 280-488297/39 | | 03/12/2020 00:01 | 1 | | UltraCarb5uODS 4.6(mm) |
| CCV 280-488297/40 | | 03/12/2020 00:24 | 1 | 03100040.D | UltraCarb5uODS 4.6(mm) |

8330A

HPLC/IC ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134268-1

SDG No.:

Instrument ID: CHHPLC_G2_LUNA Start Date: 03/16/2020 14:49

Analysis Batch Number: 488850 End Date: 03/17/2020 18:49

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| CCV 280-488850/7 | | 03/16/2020 14:49 | 1 | | Luna-phenylhex 4.6(mm) |
| CCV 280-488850/8 | | 03/16/2020 15:24 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 03/16/2020 15:59 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 03/16/2020 16:34 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 03/16/2020 17:09 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 03/16/2020 17:44 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 03/16/2020 18:19 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 03/16/2020 18:54 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 03/16/2020 19:29 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 03/16/2020 20:04 | 10 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 03/16/2020 20:39 | 10 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 03/16/2020 21:14 | 10 | | Luna-phenylhex 4.6(mm) |
| CCV 280-488850/19 | | 03/16/2020 21:49 | 1 | 03160019.D | Luna-phenylhex 4.6(mm) |
| CCV 280-488850/20 | | 03/16/2020 22:24 | 1 | 03160020.D | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 03/16/2020 22:59 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 03/16/2020 23:34 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 03/17/2020 00:09 | 1 | | Luna-phenylhex 4.6(mm) |
| 280-134268-9 | | 03/17/2020 00:44 | 1 | 03160024.D | Luna-phenylhex 4.6(mm) |
| 280-134268-10 | | 03/17/2020 01:19 | 1 | 03160025.D | Luna-phenylhex 4.6(mm) |
| CCV 280-488850/26 | | 03/17/2020 01:54 | 1 | 03160026.D | Luna-phenylhex 4.6(mm) |
| CCV 280-488850/27 | | 03/17/2020 02:29 | 1 | 03160027.D | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 03/17/2020 03:04 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 03/17/2020 03:39 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 03/17/2020 04:14 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 03/17/2020 04:49 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 03/17/2020 05:24 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 03/17/2020 05:59 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 03/17/2020 06:34 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 03/17/2020 07:09 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 03/17/2020 07:44 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 03/17/2020 08:19 | 1 | | Luna-phenylhex 4.6(mm) |
| CCV 280-488850/38 | | 03/17/2020 08:54 | 1 | | Luna-phenylhex 4.6(mm) |
| CCV 280-488850/39 | | 03/17/2020 09:29 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 03/17/2020 10:04 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 03/17/2020 10:39 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 03/17/2020 11:14 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 03/17/2020 11:49 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 03/17/2020 12:24 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 03/17/2020 12:59 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 03/17/2020 13:34 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 03/17/2020 14:08 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 03/17/2020 14:44 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 03/17/2020 15:19 | 1 | | Luna-phenylhex 4.6(mm) |
| CCV 280-488850/50 | | 03/17/2020 15:54 | 1 | | Luna-phenylhex 4.6(mm) |
| CCV 280-488850/51 | | 03/17/2020 16:29 | 1 | | Luna-phenylhex 4.6(mm) |

8330A

HPLC/IC ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134268-1

SDG No.:

Instrument ID: CHHPLC_G2_LUNA Start Date: 03/16/2020 14:49

Analysis Batch Number: 488850 End Date: 03/17/2020 18:49

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| ZZZZZ | | 03/17/2020 17:04 | 1 | | Luna-phenylhex 4.6(mm) |
| ZZZZZ | | 03/17/2020 17:39 | 100 | | Luna-phenylhex 4.6(mm) |
| CCV 280-488850/54 | | 03/17/2020 18:14 | 1 | | Luna-phenylhex 4.6(mm) |
| CCV 280-488850/55 | | 03/17/2020 18:49 | 1 | | Luna-phenylhex 4.6(mm) |

8330A

# HPLC/IC BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-134268-1

SDG No.:

Batch Number: 488022  Batch Start Date: 03/07/20 16:07  Batch Analyst: Anders, Kayla S

Batch Method: 3535  Batch End Date: 03/07/20 19:52

| Lab Sample ID | Client Sample ID | Method Chain | Basis | GrossWeight | TareWeight | InitialAmount | FinalAmount | 8330 LCS 00095 | 8330_OP_DMT 00006 |
|---|---|---|---|---|---|---|---|---|---|
| MB 280-488022/1 | | 3535, 8330A | | | | 500 mL | 5 mL | | |
| LCS 280-488022/2 | | 3535, 8330A | | | | 500 mL | 5 mL | 0.1 mL | |
| LCS 280-488022/3 | | 3535, 8330A | | | | 500 mL | 5 mL | | 0.1 mL |
| LCSD 280-488022/4 | | 3535, 8330A | | | | 500 mL | 5 mL | | 0.1 mL |
| 280-134268-A-1 | NW070-2 | 3535, 8330A | T | 790.6 g | 286.0 g | 504.6 mL | 5 mL | | |
| 280-134268-A-2 | NW071-2 | 3535, 8330A | T | 786.1 g | 284.9 g | 501.2 mL | 5 mL | | |
| 280-134268-A-3 | CA210-2 | 3535, 8330A | T | 804.7 g | 285.3 g | 519.4 mL | 5 mL | | |
| 280-134268-A-4 | CA212-2 | 3535, 8330A | T | 795.7 g | 285.2 g | 510.5 mL | 5 mL | | |
| 280-134268-A-5 | CA211-2 | 3535, 8330A | T | 791.4 g | 284.4 g | 507 mL | 5 mL | | |
| 280-134268-A-6 | PZ019-2 | 3535, 8330A | T | 788.7 g | 284.3 g | 504.4 mL | 5 mL | | |
| 280-134268-A-6 MS | PZ019-2 | 3535, 8330A | T | 801.6 g | 282.0 g | 519.6 mL | 5 mL | 0.1 mL | |
| 280-134268-A-6 MSD | PZ019-2 | 3535, 8330A | T | 795.2 g | 281.5 g | 513.7 mL | 5 mL | 0.1 mL | |
| 280-134268-A-7 | NW080R-2 | 3535, 8330A | T | 761.8 g | 283.3 g | 478.5 mL | 5 mL | | |
| 280-134268-A-8 | NW081R-2 | 3535, 8330A | T | 780.7 g | 280.2 g | 500.5 mL | 5 mL | | |
| 280-134268-A-9 | NW062-2 | 3535, 8330A | T | 808.2 g | 283.0 g | 525.2 mL | 5 mL | | |
| 280-134268-A-10 | G0080-2 | 3535, 8330A | T | 781.9 g | 284.1 g | 497.8 mL | 5 mL | | |

| Lab Sample ID | Client Sample ID | Method Chain | Basis | 8330Surrogate 00110 | AnalysisComment | | | | |
|---|---|---|---|---|---|---|---|---|---|
| MB 280-488022/1 | | 3535, 8330A | | 0.1 mL | | | | | |
| LCS 280-488022/2 | | 3535, 8330A | | 0.1 mL | | | | | |
| LCS 280-488022/3 | | 3535, 8330A | | 0.1 mL | | | | | |
| LCSD 280-488022/4 | | 3535, 8330A | | 0.1 mL | | | | | |
| 280-134268-A-1 | NW070-2 | 3535, 8330A | T | 0.1 mL | | | | | |
| 280-134268-A-2 | NW071-2 | 3535, 8330A | T | 0.1 mL | | | | | |
| 280-134268-A-3 | CA210-2 | 3535, 8330A | T | 0.1 mL | | | | | |
| 280-134268-A-4 | CA212-2 | 3535, 8330A | T | 0.1 mL | filtered | | | | |

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.: 280-134268-1

SDG No.:

Batch Number: 488022  Batch Start Date: 03/07/20 16:07  Batch Analyst: Anders, Kayla S

Batch Method: 3535  Batch End Date: 03/07/20 19:52

| Lab Sample ID | Client Sample ID | Method Chain | Basis | 8330Surrogate 00110 | AnalysisComment | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 280-134268-A-5 | CA211-2 | 3535, 8330A | T | 0.1 mL | | | | | |
| 280-134268-A-6 | PZ019-2 | 3535, 8330A | T | 0.1 mL | | | | | |
| 280-134268-A-6 MS | PZ019-2 | 3535, 8330A | T | 0.1 mL | | | | | |
| 280-134268-A-6 MSD | PZ019-2 | 3535, 8330A | T | 0.1 mL | | | | | |
| 280-134268-A-7 | NW080R-2 | 3535, 8330A | T | 0.1 mL | | | | | |
| 280-134268-A-8 | NW081R-2 | 3535, 8330A | T | 0.1 mL | | | | | |
| 280-134268-A-9 | NW062-2 | 3535, 8330A | T | 0.1 mL | | | | | |
| 280-134268-A-10 | G0080-2 | 3535, 8330A | T | 0.1 mL | | | | | |

| Batch Notes | |
|---|---|
| Acid ID | CaCl2_Sol_00069 |
| Acid Name | CaCl2 |
| Balance ID | 24350888 |
| First End time | 03/06/2020 19:23 |
| Pipette/Syringe/Dispenser ID | Jiji, Soot |
| Rinse Solvent Lot | 0.1%AAinACN_00133 |
| 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 | KA |
| Analyst ID - Spike Witness Analyst | Reviewer:EB |
| First Start time | 03/07/2020 16:29 |

| 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: 280-134268-1

SDG No.:

Project: Cornhusker (CHAAP)

| Client Sample ID | Lab Sample ID |
|---|---|
| NW070-2 | 280-134268-1 |
| NW071-2 | 280-134268-2 |
| CA210-2 | 280-134268-3 |
| CA212-2 | 280-134268-4 |
| CA211-2 | 280-134268-5 |
| PZ019-2 | 280-134268-6 |
| NW080R-2 | 280-134268-7 |
| NW081R-2 | 280-134268-8 |
| NW062-2 | 280-134268-9 |
| G0080-2 | 280-134268-10 |

Comments:

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: NW070-2
Lab Sample ID: 280-134268-1
Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-134268-1
SDG ID.:
Matrix: Water
Date Sampled: 03/02/2020 14:35
Reporting Basis: WET
Date Received: 03/04/2020 09:15

| Analyte | Result | LOQ | LOD | DL | Units | C | Q | DIL | Method |
|---|---|---|---|---|---|---|---|---|---|
| Ammonia | 0.059 | 0.10 | 0.050 | 0.022 | mg/L | J | | 1 | 350.1 |
| Nitrogen, Total Kjeldahl | 1.1 | 1.0 | 1.0 | 0.69 | mg/L | | | 1 | 351.2 |
| Nitrate Nitrite as N | 0.050 | 0.10 | 0.050 | 0.019 | mg/L | U | | 1 | 353.2 |
| Sulfide | 0.80 | 4.0 | 1.9 | 0.79 | mg/L | J | | 1 | 9034 |
| Sulfate | 6.4 | 5.0 | 3.0 | 1.0 | mg/L | | | 1 | 9056A |
| Total Alkalinity as CaCO3 | 110 | 10 | 10 | 3.1 | mg/L | | | 1 | SM 2320B |

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY - DISSOLVED

Client Sample ID: NW070-2
Lab Sample ID: 280-134268-1
Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-134268-1
SDG ID.:
Matrix: Water
Date Sampled: 03/02/2020 14:35
Reporting Basis: WET
Date Received: 03/04/2020 09:15

| Analyte | Result | LOQ | LOD | DL | Units | C | Q | DIL | Method |
|---|---|---|---|---|---|---|---|---|---|
| Dissolved Organic Carbon - Quad | 9.3 | 1.0 | 1.0 | 0.35 | mg/L | | | 1 | 9060A |

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: NW071-2
Lab Sample ID: 280-134268-2
Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-134268-1
SDG ID.:
Matrix: Water
Date Sampled: 03/02/2020 15:40
Reporting Basis: WET
Date Received: 03/04/2020 09:15

| Analyte | Result | LOQ | LOD | DL | Units | C | Q | DIL | Method |
|---|---|---|---|---|---|---|---|---|---|
| Ammonia | 0.050 | 0.10 | 0.050 | 0.022 | mg/L | U | | 1 | 350.1 |
| Nitrogen, Total Kjeldahl | 1.0 | 1.0 | 1.0 | 0.69 | mg/L | U | | 1 | 351.2 |
| Nitrate Nitrite as N | 32 | 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 | 54 | 5.0 | 3.0 | 1.0 | mg/L | | | 1 | 9056A |
| Total Alkalinity as CaCO3 | 100 | 10 | 10 | 3.1 | mg/L | | | 1 | SM 2320B |

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY - DISSOLVED

Client Sample ID: NW071-2
Lab Sample ID: 280-134268-2
Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-134268-1
SDG ID.:
Matrix: Water
Date Sampled: 03/02/2020 15:40
Reporting Basis: WET
Date Received: 03/04/2020 09:15

| Analyte | Result | LOQ | LOD | DL | Units | C | Q | DIL | Method |
|---|---|---|---|---|---|---|---|---|---|
| Dissolved Organic Carbon - Quad | 3.3 | 1.0 | 1.0 | 0.35 | mg/L | | | 1 | 9060A |

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: CA210-2
Lab Sample ID: 280-134268-3
Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-134268-1
SDG ID.:
Matrix: Water
Date Sampled: 03/03/2020 09:00
Reporting Basis: WET
Date Received: 03/04/2020 09:15

| Analyte | Result | LOQ | LOD | DL | Units | C | Q | DIL | Method |
|---|---|---|---|---|---|---|---|---|---|
| Ammonia | 0.041 | 0.10 | 0.050 | 0.022 | mg/L | J | | 1 | 350.1 |
| Nitrogen, Total Kjeldahl | 1.5 | 1.0 | 1.0 | 0.69 | mg/L | | | 1 | 351.2 |
| Nitrate Nitrite as N | 13 | 0.20 | 0.10 | 0.038 | mg/L | | | 2 | 353.2 |
| Sulfide | 1.9 | 4.0 | 1.9 | 0.79 | mg/L | U | | 1 | 9034 |
| Sulfate | 99 | 5.0 | 3.0 | 1.0 | mg/L | | | 1 | 9056A |
| Total Alkalinity as CaCO3 | 350 | 10 | 10 | 3.1 | mg/L | | | 1 | SM 2320B |

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY - DISSOLVED

Client Sample ID: CA210-2
Lab Sample ID: 280-134268-3
Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-134268-1
SDG ID.:
Matrix: Water
Date Sampled: 03/03/2020 09:00
Reporting Basis: WET
Date Received: 03/04/2020 09:15

| Analyte | Result | LOQ | LOD | DL | Units | C | Q | DIL | Method |
|---|---|---|---|---|---|---|---|---|---|
| Dissolved Organic Carbon - Quad | 14 | 1.0 | 1.0 | 0.35 | mg/L | | B | 1 | 9060A |

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: CA212-2
Lab Sample ID: 280-134268-4
Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-134268-1
SDG ID.:
Matrix: Water
Date Sampled: 03/03/2020 11:20
Reporting Basis: WET
Date Received: 03/04/2020 09:15

| Analyte | Result | LOQ | LOD | DL | Units | C | Q | DIL | Method |
|---|---|---|---|---|---|---|---|---|---|
| Ammonia | 0.030 | 0.10 | 0.050 | 0.022 | mg/L | J | | 1 | 350.1 |
| Nitrogen, Total Kjeldahl | 1.0 | 1.0 | 1.0 | 0.69 | mg/L | U | | 1 | 351.2 |
| Nitrate Nitrite as N | 17 | 0.20 | 0.10 | 0.038 | mg/L | | | 2 | 353.2 |
| Sulfide | 1.9 | 4.0 | 1.9 | 0.79 | mg/L | U | J1 | 1 | 9034 |
| Sulfate | 73 | 5.0 | 3.0 | 1.0 | mg/L | | | 1 | 9056A |
| Total Alkalinity as CaCO3 | 230 | 10 | 10 | 3.1 | mg/L | | | 1 | SM 2320B |

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY - DISSOLVED

Client Sample ID: CA212-2
Lab Sample ID: 280-134268-4
Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-134268-1
SDG ID.:
Matrix: Water
Date Sampled: 03/03/2020 11:20
Reporting Basis: WET
Date Received: 03/04/2020 09:15

| Analyte | Result | LOQ | LOD | DL | Units | C | Q | DIL | Method |
|---|---|---|---|---|---|---|---|---|---|
| Dissolved Organic Carbon - Quad | 2.7 | 1.0 | 1.0 | 0.35 | mg/L | | | 1 | 9060A |

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: CA211-2
Lab Sample ID: 280-134268-5
Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-134268-1
SDG ID.:
Matrix: Water
Date Sampled: 03/03/2020 10:05
Reporting Basis: WET
Date Received: 03/04/2020 09:15

| Analyte | Result | LOQ | LOD | DL | Units | C | Q | DIL | Method |
|---|---|---|---|---|---|---|---|---|---|
| Ammonia | 0.043 | 0.10 | 0.050 | 0.022 | mg/L | J | | 1 | 350.1 |
| Nitrogen, Total Kjeldahl | 1.0 | 1.0 | 1.0 | 0.69 | mg/L | U | | 1 | 351.2 |
| Nitrate Nitrite as N | 34 | 0.50 | 0.25 | 0.095 | mg/L | | | 5 | 353.2 |
| Sulfide | 0.80 | 4.0 | 1.9 | 0.79 | mg/L | J | | 1 | 9034 |
| Sulfate | 99 | 5.0 | 3.0 | 1.0 | mg/L | | | 1 | 9056A |
| Total Alkalinity as CaCO3 | 210 | 10 | 10 | 3.1 | mg/L | | | 1 | SM 2320B |

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY - DISSOLVED

Client Sample ID: CA211-2
Lab Sample ID: 280-134268-5
Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-134268-1
SDG ID.:
Matrix: Water
Date Sampled: 03/03/2020 10:05
Reporting Basis: WET
Date Received: 03/04/2020 09:15

| Analyte | Result | LOQ | LOD | DL | Units | C | Q | DIL | Method |
|---|---|---|---|---|---|---|---|---|---|
| Dissolved Organic Carbon - Quad | 4.9 | 1.0 | 1.0 | 0.35 | mg/L | | | 1 | 9060A |

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: PZ019-2
Lab Sample ID: 280-134268-6
Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-134268-1
SDG ID.:
Matrix: Water
Date Sampled: 03/02/2020 15:10
Reporting Basis: WET
Date Received: 03/04/2020 09:15

| Analyte | Result | LOQ | LOD | DL | Units | C | Q | DIL | Method |
|---|---|---|---|---|---|---|---|---|---|
| Ammonia | 0.050 | 0.10 | 0.050 | 0.022 | mg/L | U | | 1 | 350.1 |
| Nitrogen, Total Kjeldahl | 1.0 | 1.0 | 1.0 | 0.69 | mg/L | U | J1 | 1 | 351.2 |
| Nitrate Nitrite as N | 31 | 0.50 | 0.25 | 0.095 | mg/L | | J1 | 5 | 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 | 73 | 10 | 10 | 3.1 | mg/L | | | 1 | SM 2320B |

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY - DISSOLVED

Client Sample ID: PZ019-2
Lab Sample ID: 280-134268-6
Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-134268-1
SDG ID.:
Matrix: Water
Date Sampled: 03/02/2020 15:10
Reporting Basis: WET
Date Received: 03/04/2020 09:15

| Analyte | Result | LOQ | LOD | DL | Units | C | Q | DIL | Method |
|---|---|---|---|---|---|---|---|---|---|
| Dissolved Organic Carbon - Quad | 2.1 | 1.0 | 1.0 | 0.35 | mg/L | | | 1 | 9060A |

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: NW080R-2
Lab Sample ID: 280-134268-7
Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-134268-1
SDG ID.:
Matrix: Water
Date Sampled: 03/03/2020 08:50
Reporting Basis: WET
Date Received: 03/04/2020 09:15

| Analyte | Result | LOQ | LOD | DL | Units | C | Q | DIL | Method |
|---|---|---|---|---|---|---|---|---|---|
| Ammonia | 0.034 | 0.10 | 0.050 | 0.022 | mg/L | J | | 1 | 350.1 |
| Nitrogen, Total Kjeldahl | 1.0 | 1.0 | 1.0 | 0.69 | mg/L | U | | 1 | 351.2 |
| Nitrate Nitrite as N | 32 | 0.50 | 0.25 | 0.095 | mg/L | | | 5 | 353.2 |
| Sulfide | 0.80 | 4.0 | 1.9 | 0.79 | mg/L | J | | 1 | 9034 |
| Sulfate | 160 | 5.0 | 3.0 | 1.0 | mg/L | | | 1 | 9056A |
| Total Alkalinity as CaCO3 | 260 | 10 | 10 | 3.1 | mg/L | | | 1 | SM 2320B |

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY - DISSOLVED

Client Sample ID: NW080R-2
Lab Sample ID: 280-134268-7
Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-134268-1
SDG ID.:
Matrix: Water
Date Sampled: 03/03/2020 08:50
Reporting Basis: WET
Date Received: 03/04/2020 09:15

| Analyte | Result | LOQ | LOD | DL | Units | C | Q | DIL | Method |
|---|---|---|---|---|---|---|---|---|---|
| Dissolved Organic Carbon - Quad | 3.9 | 1.0 | 1.0 | 0.35 | mg/L | | | 1 | 9060A |

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: NW081R-2
Lab Sample ID: 280-134268-8
Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-134268-1
SDG ID.:
Matrix: Water
Date Sampled: 03/03/2020 10:00
Reporting Basis: WET
Date Received: 03/04/2020 09:15

| Analyte | Result | LOQ | LOD | DL | Units | C | Q | DIL | Method |
|---|---|---|---|---|---|---|---|---|---|
| Ammonia | 0.030 | 0.10 | 0.050 | 0.022 | mg/L | J | | 1 | 350.1 |
| Nitrogen, Total Kjeldahl | 1.0 | 1.0 | 1.0 | 0.69 | mg/L | U | | 1 | 351.2 |
| Nitrate Nitrite as N | 29 | 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 | 91 | 5.0 | 3.0 | 1.0 | mg/L | | | 1 | 9056A |
| Total Alkalinity as CaCO3 | 250 | 10 | 10 | 3.1 | mg/L | | | 1 | SM 2320B |

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY - DISSOLVED

Client Sample ID: NW081R-2
Lab Sample ID: 280-134268-8
Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-134268-1
SDG ID.:
Matrix: Water
Date Sampled: 03/03/2020 10:00
Reporting Basis: WET
Date Received: 03/04/2020 09:15

| Analyte | Result | LOQ | LOD | DL | Units | C | Q | DIL | Method |
|---|---|---|---|---|---|---|---|---|---|
| Dissolved Organic Carbon - Quad | 4.6 | 1.0 | 1.0 | 0.35 | mg/L | | | 1 | 9060A |

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: NW062-2
Lab Sample ID: 280-134268-9
Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-134268-1
SDG ID.:
Matrix: Water
Date Sampled: 03/02/2020 13:55
Reporting Basis: WET
Date Received: 03/04/2020 09:15

| Analyte | Result | LOQ | LOD | DL | Units | C | Q | DIL | Method |
|---|---|---|---|---|---|---|---|---|---|
| Ammonia | 0.63 | 0.10 | 0.050 | 0.022 | mg/L | | | 1 | 350.1 |
| Nitrogen, Total Kjeldahl | 1.3 | 1.0 | 1.0 | 0.69 | mg/L | | | 1 | 351.2 |
| Nitrate Nitrite as N | 0.050 | 0.10 | 0.050 | 0.019 | mg/L | U | | 1 | 353.2 |
| Sulfide | 0.80 | 4.0 | 1.9 | 0.79 | mg/L | J | | 1 | 9034 |
| Sulfate | 180 | 5.0 | 3.0 | 1.0 | mg/L | | | 1 | 9056A |
| Total Alkalinity as CaCO3 | 270 | 10 | 10 | 3.1 | mg/L | | | 1 | SM 2320B |

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY - DISSOLVED

Client Sample ID: NW062-2
Lab Sample ID: 280-134268-9
Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-134268-1
SDG ID.:
Matrix: Water
Date Sampled: 03/02/2020 13:55
Reporting Basis: WET
Date Received: 03/04/2020 09:15

| Analyte | Result | LOQ | LOD | DL | Units | C | Q | DIL | Method |
|---|---|---|---|---|---|---|---|---|---|
| Dissolved Organic Carbon - Quad | 2.5 | 1.0 | 1.0 | 0.35 | mg/L | | | 1 | 9060A |

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: G0080-2
Lab Sample ID: 280-134268-10
Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-134268-1
SDG ID.:
Matrix: Water
Date Sampled: 03/02/2020 13:10
Reporting Basis: WET
Date Received: 03/04/2020 09:15

| Analyte | Result | LOQ | LOD | DL | Units | C | Q | DIL | Method |
|---|---|---|---|---|---|---|---|---|---|
| Ammonia | 0.41 | 0.10 | 0.050 | 0.022 | mg/L | | | 1 | 350.1 |
| Nitrogen, Total Kjeldahl | 0.70 | 1.0 | 1.0 | 0.69 | mg/L | J | | 1 | 351.2 |
| Nitrate Nitrite as N | 2.8 | 0.10 | 0.050 | 0.019 | mg/L | | J1 | 1 | 353.2 |
| Sulfide | 1.9 | 4.0 | 1.9 | 0.79 | mg/L | U | | 1 | 9034 |
| Sulfate | 72 | 5.0 | 3.0 | 1.0 | mg/L | | | 1 | 9056A |
| Total Alkalinity as CaCO3 | 340 | 10 | 10 | 3.1 | mg/L | | | 1 | SM 2320B |

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY - DISSOLVED

Client Sample ID: G0080-2
Lab Sample ID: 280-134268-10
Lab Name: Eurofins TestAmerica, Denver
Job No.: 280-134268-1
SDG ID.:
Matrix: Water
Date Sampled: 03/02/2020 13:10
Reporting Basis: WET
Date Received: 03/04/2020 09:15

| Analyte | Result | LOQ | LOD | DL | Units | C | Q | DIL | Method |
|---|---|---|---|---|---|---|---|---|---|
| Dissolved Organic Carbon - Quad | 2.7 | 1.0 | 1.0 | 0.35 | mg/L | | | 1 | 9060A |

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-134268-1

SDG No.:

Analyst: BWH  Batch Start Date: 03/18/2020

Reporting Units: mg/L  Analytical Batch No.: 489175

| Sample Number | QC Type | Time | Analyte | Result | Spike Amount | (%) Recovery | Limits | Qual | Reagent |
|---|---|---|---|---|---|---|---|---|---|
| 14 | ICVL | 12:19 | Ammonia | 0.484 | 0.498 | 97 | 90-110 | | 350.1 ICV_00392 |
| 15 | ICV | 12:21 | Ammonia | 2.50 | 2.49 | 101 | 90-110 | | 350.1 ICV_00392 |
| 16 | ICB | 12:23 | Ammonia | 0.050 | | | | U | |
| 32 | CCVL | 12:55 | Ammonia | 0.533 | 0.500 | 107 | 90-110 | | 350.1 cal_00407 |
| 33 | CCV | 12:57 | Ammonia | 2.46 | 2.50 | 98 | 90-110 | | 350.1 cal_00407 |
| 34 | CCB | 12:59 | Ammonia | 0.050 | | | | U | |
| 43 | CCVL | 13:17 | Ammonia | 0.528 | 0.500 | 106 | 90-110 | | 350.1 cal_00407 |
| 44 | CCV | 13:19 | Ammonia | 2.47 | 2.50 | 99 | 90-110 | | 350.1 cal_00407 |
| 45 | CCB | 13:21 | 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.: 280-134268-1

SDG No.:

Analyst: BWH  Batch Start Date: 03/20/2020

Reporting Units: mg/L  Analytical Batch No.: 489439

| Sample Number | QC Type | Time | Analyte | Result | Spike Amount | (%) Recovery | Limits | Qual | Reagent |
|---|---|---|---|---|---|---|---|---|---|
| 14 | ICVL | 13:35 | Ammonia | 0.525 | 0.498 | 105 | 90-110 | | 350.1 ICV_00393 |
| 15 | ICV | 13:37 | Ammonia | 2.63 | 2.49 | 106 | 90-110 | | 350.1 ICV_00393 |
| 16 | ICB | 13:39 | Ammonia | 0.050 | | | | U | |
| 33 | CCVL | 14:13 | Ammonia | 0.517 | 0.500 | 103 | 90-110 | | 350.1 cal_00408 |
| 34 | CCV | 14:15 | Ammonia | 2.55 | 2.50 | 102 | 90-110 | | 350.1 cal_00408 |
| 35 | CCB | 14:17 | Ammonia | 0.050 | | | | U | |
| 49 | CCVL | 14:45 | Ammonia | 0.511 | 0.500 | 102 | 90-110 | | 350.1 cal_00408 |
| 50 | CCV | 14:47 | Ammonia | 2.53 | 2.50 | 101 | 90-110 | | 350.1 cal_00408 |
| 51 | CCB | 14:49 | Ammonia | 0.0258 | | | | 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.: 280-134268-1

SDG No.:

Analyst: SVC  Batch Start Date: 03/11/2020

Reporting Units: mg/L  Analytical Batch No.: 488462

| Sample Number | QC Type | Time | Analyte | Result | Spike Amount | (%) Recovery | Limits | Qual | Reagent |
|---|---|---|---|---|---|---|---|---|---|
| 13 | ICV | 17:43 | Nitrogen, Total Kjeldahl | 4.50 | 5.00 | 90 | 90-110 | | TKN ICV 25_00089 |
| 14 | ICB | 17:45 | Nitrogen, Total Kjeldahl | 1.0 | | | | U | |
| 31 | CCV | 18:06 | Nitrogen, Total Kjeldahl | 5.28 | 5.00 | 106 | 90-110 | | TKN 25ppm_00804 |
| 32 | CCB | 18:07 | Nitrogen, Total Kjeldahl | 1.0 | | | | U | |
| 49 | CCV | 18:28 | Nitrogen, Total Kjeldahl | 4.98 | 5.00 | 100 | 90-110 | | TKN 25ppm_00804 |
| 50 | CCB | 18:30 | Nitrogen, Total Kjeldahl | 1.0 | | | | U | |
| 64 | CCV | 18:47 | Nitrogen, Total Kjeldahl | 5.05 | 5.00 | 101 | 90-110 | | TKN 25ppm_00804 |
| 65 | CCB | 18:48 | Nitrogen, Total Kjeldahl | 1.0 | | | | U | |
| 79 | CCV | 19:06 | Nitrogen, Total Kjeldahl | 5.03 | 5.00 | 101 | 90-110 | | TKN 25ppm_00804 |
| 80 | CCB | 19:07 | 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.: 280-134268-1

SDG No.:

Analyst: SVC  Batch Start Date: 03/10/2020

Reporting Units: mg/L  Analytical Batch No.: 488338

| Sample Number | QC Type | Time | Analyte | Result | Spike Amount | (%) Recovery | Limits | Qual | Reagent |
|---|---|---|---|---|---|---|---|---|---|
| 17 | ICV | 17:03 | Nitrate Nitrite as N | 5.17 | 5.00 | 103 | 90-110 | | NXN ICV INT_00506 |
| 18 | ICVL | 17:05 | Nitrate Nitrite as N | 2.18 | 2.00 | 109 | 90-110 | | NXN ICV INT_00506 |
| 19 | ICB | 17:07 | Nitrate Nitrite as N | 0.050 | | | | U | |
| 35 | CCV | 17:39 | Nitrate Nitrite as N | 4.81 | 5.00 | 96 | 90-110 | | NXN CAL INT_00525 |
| 36 | CCVL | 17:41 | Nitrate Nitrite as N | 1.08 | 1.00 | 108 | 90-110 | | NXN CAL INT_00525 |
| 37 | CCB | 17:43 | Nitrate Nitrite as N | 0.050 | | | | U | |
| 51 | CCV | 18:11 | Nitrate Nitrite as N | 4.74 | 5.00 | 95 | 90-110 | | NXN CAL INT_00525 |
| 52 | CCVL | 18:13 | Nitrate Nitrite as N | 0.972 | 1.00 | 97 | 90-110 | | NXN CAL INT_00525 |
| 53 | CCB | 18:15 | Nitrate Nitrite as N | 0.0226 | | | | J | |
| 68 | CCV | 18:45 | Nitrate Nitrite as N | 4.58 | 5.00 | 92 | 90-110 | | NXN CAL INT_00525 |
| 70 | CCB | 18:49 | 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.: 280-134268-1

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.: 280-134268-1

SDG No.:

Analyst: JAP  Batch Start Date: 03/17/2020

Reporting Units: mg/L  Analytical Batch No.: 488952

| Sample Number | QC Type | Time | Analyte | Result | Spike Amount | (%) Recovery | Limits | Qual | Reagent |
|---|---|---|---|---|---|---|---|---|---|
| 1 | CCV | 12:20 | Sulfate | 92.5 | 100 | 92 | 90-110 | | IC LCS_01730 |
| 2 | CCB | 12:36 | Sulfate | 2.5 | | | | U | |
| 17 | CCV | 20:38 | Sulfate | 91.3 | 100 | 91 | 90-110 | | IC LCS_01730 |
| 18 | CCB | 20:55 | Sulfate | 2.5 | | | | U | |
| 22 | CCV | 22:00 | Sulfate | 92.0 | 100 | 92 | 90-110 | | IC LCS_01730 |
| 23 | CCB | 22:17 | 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.: 280-134268-1

SDG No.:

Analyst: SGB  Batch Start Date: 03/17/2020

Reporting Units: mg/L  Analytical Batch No.: 489142

| Sample Number | QC Type | Time | Analyte | Result | Spike Amount | (%) Recovery | Limits | Qual | Reagent |
|---|---|---|---|---|---|---|---|---|---|
| 1 | ICV | 18:05 | Dissolved Organic Carbon - Quad | 18.9 | 20.0 | 94 | 90-110 | | TOC ICV Std_00042 |
| 2 | ICB | 18:22 | Dissolved Organic Carbon - Quad | 1.0 | | | | U | |
| 15 | CCV | 21:50 | Dissolved Organic Carbon - Quad | 24.5 | 25.0 | 98 | 90-110 | | TOC LCS Std_00048 |
| 16 | CCB | 22:05 | 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.: 280-134268-1

SDG No.:

Analyst: SGB  Batch Start Date: 03/19/2020

Reporting Units: mg/L  Analytical Batch No.: 489347

| Sample Number | QC Type | Time | Analyte | Result | Spike Amount | (%) Recovery | Limits | Qual | Reagent |
|---|---|---|---|---|---|---|---|---|---|
| 2 | ICV | 16:53 | Dissolved Organic Carbon - Quad | 19.7 | 20.0 | 98 | 90-110 | | TOC ICV Std_00042 |
| 3 | ICB | 17:10 | Dissolved Organic Carbon - Quad | 1.0 | | | | U | |
| 16 | CCV | 20:43 | Dissolved Organic Carbon - Quad | 25.0 | 25.0 | 100 | 90-110 | | TOC LCS Std_00048 |
| 17 | CCB | 20:58 | Dissolved Organic Carbon - Quad | 1.0 | | | | U | |
| 28 | CCV | 00:08 | Dissolved Organic Carbon - Quad | 24.6 | 25.0 | 98 | 90-110 | | TOC LCS Std_00048 |
| 29 | CCB | 00:27 | 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.: 280-134268-1

SDG No.:

Analyst: SPG  Batch Start Date: 03/10/2020

Reporting Units: mg/L  Analytical Batch No.: 488346

| Sample Number | QC Type | Time | Analyte | Result | Spike Amount | (%) Recovery | Limits | Qual | Reagent |
|---|---|---|---|---|---|---|---|---|---|
| 29 | CCV | 12:59 | Total Alkalinity as CaCO3 | 206 | 200 | 103 | 90-110 | | Alk daily lcs 00891 |
| 30 | CCB | 13:03 | Total Alkalinity as CaCO3 | 10 | | | | U | |
| 44 | CCV | 14:37 | Total Alkalinity as CaCO3 | 207 | 200 | 104 | 90-110 | | Alk daily lcs 00891 |
| 45 | CCB | 14:42 | Total Alkalinity as CaCO3 | 10 | | | | U | |
| 56 | CCV | 15:41 | Total Alkalinity as CaCO3 | 209 | 200 | 104 | 90-110 | | Alk daily lcs 00891 |
| 57 | CCB | 15:45 | Total Alkalinity as CaCO3 | 10 | | | | U | |
| 69 | CCV | 17:07 | Total Alkalinity as CaCO3 | 208 | 200 | 104 | 90-110 | | Alk daily lcs 00891 |
| 70 | CCB | 17:12 | Total Alkalinity as CaCO3 | 10 | | | | U | |

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

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-134268-1

SDG No.:

Analyst: SPG  Batch Start Date: 03/12/2020

Reporting Units: mg/L  Analytical Batch No.: 488607

| Sample Number | QC Type | Time | Analyte | Result | Spike Amount | (%) Recovery | Limits | Qual | Reagent |
|---|---|---|---|---|---|---|---|---|---|
| 16 | CCV | 12:37 | Total Alkalinity as CaCO3 | 208 | 200 | 104 | 90-110 | | Alk daily lcs 00891 |
| 17 | CCB | 12:41 | 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.: 280-134268-1

SDG No.:

| Method | Lab Sample ID | Analyte | Result | Qual | Units | LOQ | Dil |
|---|---|---|---|---|---|---|---|
| Batch ID: 489175 Date: 03/18/2020 12:29 | | | | | | | |
| 350.1 | MB 280-489175/19 | Ammonia | 0.050 | U | mg/L | 0.10 | 1 |
| Batch ID: 489439 Date: 03/20/2020 13:47 | | | | | | | |
| 350.1 | MB 280-489439/20 | Ammonia | 0.0320 | J | mg/L | 0.10 | 1 |
| Batch ID: 488462 Date: 03/11/2020 17:47 Prep Batch: 488202 Date: 03/09/2020 20:13 | | | | | | | |
| 351.2 | MB 280-488202/2-A | Nitrogen, Total Kjeldahl | 1.0 | U | mg/L | 1.0 | 1 |
| Batch ID: 488462 Date: 03/11/2020 18:38 Prep Batch: 488202 Date: 03/09/2020 20:13 | | | | | | | |
| 351.2 | MB 280-488202/28-A | Nitrogen, Total Kjeldahl | 1.0 | U | mg/L | 1.0 | 1 |
| Batch ID: 488338 Date: 03/10/2020 17:13 | | | | | | | |
| 353.2 | MB 280-488338/22 | Nitrate Nitrite as N | 0.0478 | J | mg/L | 0.10 | 1 |
| Batch ID: 487837 Date: 03/05/2020 12:56 Prep Batch: 487751 Date: 03/05/2020 08:33 | | | | | | | |
| 9034 | MB 280-487751/2-A | Sulfide | 1.9 | U | mg/L | 4.0 | 1 |
| Batch ID: 487838 Date: 03/05/2020 13:00 Prep Batch: 487821 Date: 03/05/2020 10:58 | | | | | | | |
| 9034 | MB 280-487821/2-A | Sulfide | 0.800 | J | mg/L | 4.0 | 1 |
| Batch ID: 488952 Date: 03/17/2020 13:42 | | | | | | | |
| 9056A | MB 280-488952/6 | Sulfate | 3.0 | U | mg/L | 5.0 | 1 |
| Batch ID: 489142 Date: 03/17/2020 18:58 | | | | | | | |
| 9060A | MB 280-488988/2-A | Dissolved Organic Carbon - Quad | 0.869 | J | mg/L | 1.0 | 1 |
| Batch ID: 489347 Date: 03/19/2020 17:43 | | | | | | | |
| 9060A | MB 280-489286/2-A | Dissolved Organic Carbon - Quad | 1.0 | U | mg/L | 1.0 | 1 |
| Batch ID: 488346 Date: 03/10/2020 13:21 | | | | | | | |
| SM 2320B | MB 280-488346/33 | Total Alkalinity as CaCO3 | 10 | U | mg/L | 10 | 1 |
| Batch ID: 488346 Date: 03/10/2020 16:04 | | | | | | | |
| SM 2320B | MB 280-488346/60 | Total Alkalinity as CaCO3 | 10 | U | mg/L | 10 | 1 |
| Batch ID: 488607 Date: 03/12/2020 11:30 | | | | | | | |
| SM 2320B | MB 280-488607/5 | 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.: 280-134268-1

SDG No.:

Matrix: Water

| Method | Lab Sample ID | Analyte | Result | C | Unit | Spike Amount | Pct. Rec. | Limits | RPD | RPD Limit | Q |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Batch ID: 489175 | Date: 03/18/2020 12:33 | | | | | | | | | | |
| 350.1 | 280-134268-6 | Ammonia | 0.050 | U | mg/L | | | | | | |
| 350.1 | 280-134268-6 MS | Ammonia | 0.909 | | mg/L | 1.00 | 91 | 90-110 | | | |
| Batch ID: 489439 | Date: 03/20/2020 13:51 | | | | | | | | | | |
| 350.1 | 280-134268-5 | Ammonia | 0.043 | J | mg/L | | | | | | |
| 350.1 | 280-134268-5 MS | Ammonia | 0.995 | | mg/L | 1.00 | 95 | 90-110 | | | |
| Batch ID: 488462 | Date: 03/11/2020 18:43 | Prep Batch: 488202 | Date: 03/09/2020 20:13 | | | | | | | | |
| 351.2 | 280-134268-6 | Nitrogen, Total Kjeldahl | 1.0 | U | mg/L | | | | | | J1 |
| 351.2 | 280-134268-6 MS | Nitrogen, Total Kjeldahl | 1.0 | U | mg/L | 3.00 | 0 | 90-110 | | | J1 |
| Batch ID: 488338 | Date: 03/10/2020 17:17 | | | | | | | | | | |
| 353.2 | 280-134268-6 | Nitrate Nitrite as N | 31 | | mg/L | | | | | | J1 |
| 353.2 | 280-134268-6 MS | Nitrate Nitrite as N | 44.8 | | mg/L | 20.0 | 68 | 90-110 | | | J1 |
| Batch ID: 488338 | Date: 03/10/2020 17:53 | | | | | | | | | | |
| 353.2 | 280-134268-10 | Nitrate Nitrite as N | 2.8 | | mg/L | | | | | | J1 |
| 353.2 | 280-134268-10 MS | Nitrate Nitrite as N | 7.16 | | mg/L | 4.00 | 109 | 90-110 | | | |
| Batch ID: 487837 | Date: 03/05/2020 12:56 | Prep Batch: 487751 | Date: 03/05/2020 08:33 | | | | | | | | |
| 9034 | 280-134268-6 | Sulfide | 0.80 | J | mg/L | | | | | | |
| 9034 | 280-134268-6 MS | Sulfide | 20.0 | | mg/L | 21.0 | 92 | 44-110 | | | |
| Batch ID: 487838 | Date: 03/05/2020 13:00 | Prep Batch: 487821 | Date: 03/05/2020 10:58 | | | | | | | | |
| 9034 | 280-134268-4 | Sulfide | 1.9 | U | mg/L | | | | | | J1 |
| 9034 | 280-134268-4 MS | Sulfide | 12.8 | | mg/L | 21.0 | 61 | 44-110 | | | |
| Batch ID: 488952 | Date: 03/17/2020 20:06 | | | | | | | | | | |
| 9056A | 280-134268-6 | Sulfate | 57 | | mg/L | | | | | | |
| 9056A | 280-134268-6 MS | Sulfate | 112 | | mg/L | 50.0 | 109 | 87-112 | | | |
| Batch ID: 489142 | Date: 03/17/2020 19:44 | | | | | | | | | | |
| 9060A | 280-134268-6 | Dissolved Organic Carbon - Quad | 2.0 | | mg/L | | | | | | J1 B |
| 9060A | 280-134268-6 MS | Dissolved Organic Carbon - Quad | 26.4 | | mg/L | 25.0 | 97 | 88-112 | | | |
| Batch ID: 489347 | Date: 03/19/2020 18:33 | | | | | | | | | | |
| 9060A | 280-134268-6 | Dissolved Organic Carbon - Quad | 2.1 | | mg/L | | | | | | |
| 9060A | 280-134268-6 MS | Dissolved Organic Carbon - Quad | 26.5 | | mg/L | 25.0 | 98 | 88-112 | | | |

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

FORM V-IN

5-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134268-1

SDG No.:

Matrix: Water

| Method | Lab Sample ID | Analyte | Result | C | Unit | Spike Amount | Pct. Rec. | Limits | RPD | RPD Limit | Q |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Batch ID: 489175 Date: 03/18/2020 12:35 | | | | | | | | | | | |
| 350.1 | 280-134268-6 MSD | Ammonia | 0.897 | | mg/L | 1.00 | 90 | 90-110 | 1 | 10 | |
| Batch ID: 489439 Date: 03/20/2020 13:53 | | | | | | | | | | | |
| 350.1 | 280-134268-5 MSD | Ammonia | 0.982 | | mg/L | 1.00 | 94 | 90-110 | 1 | 10 | |
| Batch ID: 488462 Date: 03/11/2020 18:45 Prep Batch: 488202 Date: 03/09/2020 20:13 | | | | | | | | | | | |
| 351.2 | 280-134268-6 MSD | Nitrogen, Total Kjeldahl | 1.0 | U | mg/L | 3.00 | 0 | 90-110 | NC | 25 | J1 |
| Batch ID: 488338 Date: 03/10/2020 17:19 | | | | | | | | | | | |
| 353.2 | 280-134268-6 MSD | Nitrate Nitrite as N | 41.8 | | mg/L | 20.0 | 53 | 90-110 | 7 | 10 | J1 |
| Batch ID: 488338 Date: 03/10/2020 17:55 | | | | | | | | | | | |
| 353.2 | 280-134268-10 MSD | Nitrate Nitrite as N | 6.01 | | mg/L | 4.00 | 80 | 90-110 | 18 | 10 | J1 |
| Batch ID: 487837 Date: 03/05/2020 12:56 Prep Batch: 487751 Date: 03/05/2020 08:33 | | | | | | | | | | | |
| 9034 | 280-134268-6 MSD | Sulfide | 20.0 | | mg/L | 21.0 | 92 | 44-110 | 0 | 20 | |
| Batch ID: 487838 Date: 03/05/2020 13:00 Prep Batch: 487821 Date: 03/05/2020 10:58 | | | | | | | | | | | |
| 9034 | 280-134268-4 MSD | Sulfide | 19.2 | | mg/L | 21.0 | 92 | 44-110 | 40 | 20 | J1 |
| Batch ID: 488952 Date: 03/17/2020 20:22 | | | | | | | | | | | |
| 9056A | 280-134268-6 MSD | Sulfate | 112 | | mg/L | 50.0 | 109 | 87-112 | 0 | 10 | |
| Batch ID: 489142 Date: 03/17/2020 19:59 | | | | | | | | | | | |
| 9060A | 280-134268-6 MSD | Dissolved Organic Carbon - Quad | 26.0 | | mg/L | 25.0 | 96 | 88-112 | 2 | 15 | |
| Batch ID: 489347 Date: 03/19/2020 18:48 | | | | | | | | | | | |
| 9060A | 280-134268-6 MSD | Dissolved Organic Carbon - Quad | 26.6 | | mg/L | 25.0 | 98 | 88-112 | 0 | 15 | |

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

FORM V-IN

6-IN
DUPLICATE
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134268-1

SDG No.:

Matrix: Water

| Method | Client Sample ID | Lab Sample ID | Analyte | Result | Unit | RPD | RPD Limit | Qual |
|---|---|---|---|---|---|---|---|---|
| Batch ID: 488952 | Date: 03/17/2020 19:49 | | | | | | | |
| 9056A | PZ019-2 | 280-134268-6 | Sulfate | 57 | mg/L | | | |
| 9056A | PZ019-2 | 280-134268-6 DU | Sulfate | 57.8 | mg/L | 1 | 10 | |
| Batch ID: 488346 | Date: 03/10/2020 16:16 | | | | | | | |
| SM 2320B | CA212-2 | 280-134268-4 | Total Alkalinity as CaCO3 | 230 | mg/L | | | |
| SM 2320B | CA212-2 | 280-134268-4 DU | Total Alkalinity as CaCO3 | 235 | mg/L | 1 | 10 | |
| Batch ID: 488607 | Date: 03/12/2020 11:40 | | | | | | | |
| SM 2320B | CA211-2 | 280-134268-5 | Total Alkalinity as CaCO3 | 210 | mg/L | | | |
| SM 2320B | CA211-2 | 280-134268-5 DU | Total Alkalinity as CaCO3 | 217 | mg/L | 2 | 10 | |

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

FORM VI-IN

7A-IN
LAB CONTROL SAMPLE
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-134268-1

SDG No.:

Matrix: Water

| Method | Lab Sample ID | Analyte | Result | C | Unit | Spike Amount | Pct. Rec. | Limits | RPD | RPD Limit | Q |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Batch ID: 489175 | Date: 03/18/2020 12:27 | | | | | | | | | | |
| | | | | | | LCS Source: 350.1 cal_00407 | | | | | |
| 350.1 | LCS 280-489175/18 | Ammonia | 2.47 | | mg/L | 2.50 | 99 | 90-110 | | | |
| Batch ID: 489439 | Date: 03/20/2020 13:43 | | | | | | | | | | |
| | | | | | | LCS Source: 350.1 cal_00408 | | | | | |
| 350.1 | LCS 280-489439/18 | Ammonia | 2.54 | | mg/L | 2.50 | 101 | 90-110 | 0 | 10 | |
| Batch ID: 488462 | Date: 03/11/2020 17:46 | Prep Batch: 488202 | Date: 03/09/2020 20:13 | | | | | | | | |
| | | | | | | LCS Source: TKN 25ppm_00804 | | | | | |
| 351.2 | LCS 280-488202/1-A | Nitrogen, Total Kjeldahl | 6.09 | | mg/L | 6.00 | 101 | 90-110 | | | |
| Batch ID: 488462 | Date: 03/11/2020 18:37 | Prep Batch: 488202 | Date: 03/09/2020 20:13 | | | | | | | | |
| | | | | | | LCS Source: TKN 25ppm_00804 | | | | | |
| 351.2 | LCS 280-488202/27-A | Nitrogen, Total Kjeldahl | 5.74 | | mg/L | 6.00 | 96 | 90-110 | | | |
| Batch ID: 488338 | Date: 03/10/2020 17:11 | | | | | | | | | | |
| | | | | | | LCS Source: NXN CAL INT_00525 | | | | | |
| 353.2 | LCS 280-488338/21 | Nitrate Nitrite as N | 5.41 | | mg/L | 5.00 | 108 | 90-110 | | | |
| Batch ID: 487837 | Date: 03/05/2020 12:56 | Prep Batch: 487751 | Date: 03/05/2020 08:33 | | | | | | | | |
| | | | | | | LCS Source: SFD CAL INT_01716 | | | | | |
| 9034 | LCS 280-487751/1-A | Sulfide | 13.6 | | mg/L | 21.0 | 65 | 44-110 | | | |
| Batch ID: 487838 | Date: 03/05/2020 13:00 | Prep Batch: 487821 | Date: 03/05/2020 10:58 | | | | | | | | |
| | | | | | | LCS Source: SFD CAL INT_01716 | | | | | |
| 9034 | LCS 280-487821/1-A | Sulfide | 20.0 | | mg/L | 21.0 | 95 | 44-110 | | | |
| Batch ID: 488952 | Date: 03/17/2020 13:09 | | | | | | | | | | |
| | | | | | | LCS Source: IC LCS_01730 | | | | | |
| 9056A | LCS 280-488952/4 | Sulfate | 92.7 | | mg/L | 100 | 93 | 87-112 | 0 | 10 | |
| Batch ID: 489142 | Date: 03/17/2020 18:37 | | | | | | | | | | |
| | | | | | | LCS Source: TOC LCS Std_00048 | | | | | |
| 9060A | LCS 280-488988/1-A | Dissolved Organic Carbon - Quad | 24.4 | | mg/L | 25.0 | 97 | 88-112 | | | |
| Batch ID: 489347 | Date: 03/19/2020 17:26 | | | | | | | | | | |
| | | | | | | LCS Source: TOC LCS Std_00048 | | | | | |
| 9060A | LCS 280-489286/1-A | Dissolved Organic Carbon - Quad | 24.8 | | mg/L | 25.0 | 99 | 88-112 | | | |
| Batch ID: 488346 | Date: 03/10/2020 13:10 | | | | | | | | | | |
| | | | | | | LCS Source: Alk daily lcs_00891 | | | | | |
| SM 2320B | LCS 280-488346/31 | Total Alkalinity as CaCO3 | 205 | | mg/L | 200 | 103 | 89-109 | 0 | 10 | |

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

FORM VIIA-IN

7A-IN
LAB CONTROL SAMPLE
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-134268-1

SDG No.:

Matrix: Water

| Method | Lab Sample ID | Analyte | Result | C | Unit | Spike Amount | Pct. Rec. | Limits | RPD | RPD Limit | Q |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Batch ID: 488346 | Date: 03/10/2020 15:53 | | | | | | | | | | |
| | | | | | | LCS Source: Alk daily lcs_00891 | | | | | |
| SM 2320B | LCS 280-488346/58 | Total Alkalinity as CaCO3 | 218 | | mg/L | 200 | 109 | 89-109 | 6 | 10 | |
| Batch ID: 488607 | Date: 03/12/2020 11:25 | | | | | | | | | | |
| | | | | | | LCS Source: Alk daily lcs_00891 | | | | | |
| SM 2320B | LCS 280-488607/4 | Total Alkalinity as CaCO3 | 204 | | mg/L | 200 | 102 | 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.: 280-134268-1

SDG No.:

Matrix: Water

| Method | Lab Sample ID | Analyte | Result | C | Unit | Spike Amount | Pct. Rec. | Limits | RPD | RPD Limit | Q |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Batch ID: 489439 | Date: 03/20/2020 13:45 | | | | | | | | | | |
| | | | | | | LCSD Source: 350.1 cal_00408 | | | | | |
| 350.1 | LCSD 280-489439/19 | Ammonia | 2.53 | | mg/L | 2.50 | 101 | 90-110 | 0 | 10 | |
| Batch ID: 488338 | Date: 03/10/2020 18:29 | | | | | | | | | | |
| | | | | | | LCSD Source: NXN CAL INT_00525 | | | | | |
| 353.2 | LCSD 280-488338/60 | Nitrate Nitrite as N | 4.81 | | mg/L | 5.00 | 96 | 90-110 | 1 | 10 | |
| Batch ID: 488952 | Date: 03/17/2020 13:25 | | | | | | | | | | |
| | | | | | | LCSD Source: IC LCS_01730 | | | | | |
| 9056A | LCSD 280-488952/5 | Sulfate | 92.5 | | mg/L | 100 | 93 | 87-112 | 0 | 10 | |
| Batch ID: 488346 | Date: 03/10/2020 13:17 | | | | | | | | | | |
| | | | | | | LCSD Source: Alk daily lcs_00891 | | | | | |
| SM 2320B | LCSD 280-488346/32 | Total Alkalinity as CaCO3 | 205 | | mg/L | 200 | 102 | 89-109 | 0 | 10 | |
| Batch ID: 488346 | Date: 03/10/2020 15:59 | | | | | | | | | | |
| | | | | | | LCSD Source: Alk daily lcs_00891 | | | | | |
| SM 2320B | LCSD 280-488346/59 | Total Alkalinity as CaCO3 | 206 | | mg/L | 200 | 103 | 89-109 | 6 | 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.: 280-134268-1

SDG No.:

Matrix: Water

| Method | Lab Sample ID | Analyte | Result | C | Unit | Spike Amount | Pct. Rec. | Limits | RPD | RPD Limit | Q |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Batch ID: 488952 | Date: 03/17/2020 12:52 | | | | | | | | | | |
| | | | | | | LCS Source: IC CAL cl/so4_00302 | | | | | |
| 9056A | MRL 280-488952/3 | Sulfate | 4.31 | J | mg/L | 5.00 | 86 | 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: 280-134268-1

SDG Number:

Matrix: Water  Instrument ID: WC_Alp 3

Method: 350.1  DL Date: 03/28/2011 13:26

| Analyte | Wavelength/ Mass | LOQ (mg/L) | DL (mg/L) |
|---|---|---|---|
| Ammonia | | 0.1 | 0.022 |

FORM IX - IN

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver  Job Number: 280-134268-1

SDG Number:

Matrix: Water  Instrument ID: WC_Alp 3

Method: 350.1  XMDL Date: 03/28/2011 13:26

| Analyte | Wavelength/ Mass | XRL (mg/L) | XMDL (mg/L) |
|---|---|---|---|
| Ammonia | | 0.1 | 0.0225 |

FORM IX - IN

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver  Job Number: 280-134268-1

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: 280-134268-1

SDG Number:

Matrix: Water  Instrument ID: WC_Astoria

Method: 351.2  XMDL Date: 02/03/2019 00:00

| Analyte | Wavelength/ Mass | XRL (mg/L) | XMDL (mg/L) |
|---|---|---|---|
| Nitrogen, Total Kjeldahl | | 1 | 0.687 |

FORM IX - IN

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver  Job Number: 280-134268-1

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 |

FORM IX - IN

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver  Job Number: 280-134268-1

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: 280-134268-1

SDG Number:

Matrix: Water  Instrument ID: NOEQUIP

Method: 9034  DL Date: 03/28/2011 13:37

Prep Method: 9030B

| Analyte | Wavelength/ Mass | LOQ (mg/L) | DL (mg/L) |
|---|---|---|---|
| Sulfide | | 4 | 0.793 |

FORM IX - IN

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-134268-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: 9034 XMDL Date: 03/28/2011 13:37

| Analyte | Wavelength/ Mass | XRL (mg/L) | XMDL (mg/L) |
|---|---|---|---|
| Sulfide | | 4 | 0.793 |

FORM IX - IN

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver  Job Number: 280-134268-1

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 |

FORM IX - IN

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver  Job Number: 280-134268-1

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 |

FORM IX - IN

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY - DISSOLVED

Lab Name: Eurofins TestAmerica, Denver  Job Number: 280-134268-1

SDG Number:

Matrix: Water  Instrument ID: WC_SHI3

Method: 9060A  DL Date: 06/21/2019 00:00

| Analyte | Wavelength/ Mass | LOQ (mg/L) | DL (mg/L) |
|---|---|---|---|
| Dissolved Organic Carbon - Quad | | 1 | 0.345 |

FORM IX - IN

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY - DISSOLVED

Lab Name: Eurofins TestAmerica, Denver  Job Number: 280-134268-1

SDG Number:

Matrix: Water  Instrument ID: WC_SHI3

Method: 9060A  XMDL Date: 06/21/2019 00:00

| Analyte | Wavelength/ Mass | XRL (mg/L) | XMDL (mg/L) |
|---|---|---|---|
| Dissolved Organic Carbon - Quad | | 1 | 0.345 |

FORM IX - IN

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job Number: 280-134268-1

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: 280-134268-1

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 |

FORM IX - IN

12-IN
PREPARATION LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-134268-1

SDG No.:

Prep Method: 351.2

| Lab Sample ID | Preparation Date | Prep Batch | Initial Weight | Initial Volume (mL) | Final Volume (mL) |
|---|---|---|---|---|---|
| LCS 280-488202/1-A | 03/09/2020 20:13 | 488202 | | 25 | 25 |
| MB 280-488202/2-A | 03/09/2020 20:13 | 488202 | | 25 | 25 |
| 280-134268-1 | 03/09/2020 20:13 | 488202 | | 25 | 25 |
| LCS 280-488202/27-A | 03/09/2020 20:13 | 488202 | | 25 | 25 |
| MB 280-488202/28-A | 03/09/2020 20:13 | 488202 | | 25 | 25 |
| 280-134268-6 | 03/09/2020 20:13 | 488202 | | 25 | 25 |
| 280-134268-6 MS | 03/09/2020 20:13 | 488202 | | 25 | 25 |
| 280-134268-6 MSD | 03/09/2020 20:13 | 488202 | | 25 | 25 |
| 280-134268-2 | 03/09/2020 20:13 | 488202 | | 25 | 25 |
| 280-134268-3 | 03/09/2020 20:13 | 488202 | | 25 | 25 |
| 280-134268-4 | 03/09/2020 20:13 | 488202 | | 25 | 25 |
| 280-134268-5 | 03/09/2020 20:13 | 488202 | | 25 | 25 |
| 280-134268-7 | 03/09/2020 20:13 | 488202 | | 25 | 25 |
| 280-134268-8 | 03/09/2020 20:13 | 488202 | | 25 | 25 |
| 280-134268-9 | 03/09/2020 20:13 | 488202 | | 25 | 25 |
| 280-134268-10 | 03/09/2020 20:13 | 488202 | | 25 | 25 |

FORM XII-IN

12-IN
PREPARATION LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver Job No.: 280-134268-1

SDG No.:

Prep Method: 9030B

| Lab Sample ID | Preparation Date | Prep Batch | Initial Weight | Initial Volume (mL) | Final Volume (mL) |
|---|---|---|---|---|---|
| LCS 280-487751/1-A | 03/05/2020 08:33 | 487751 | | 50 | 50 |
| MB 280-487751/2-A | 03/05/2020 08:33 | 487751 | | 50 | 50 |
| 280-134268-6 | 03/05/2020 08:33 | 487751 | | 50 | 50 |
| 280-134268-6 MS | 03/05/2020 08:33 | 487751 | | 50 | 50 |
| 280-134268-6 MSD | 03/05/2020 08:33 | 487751 | | 50 | 50 |
| 280-134268-1 | 03/05/2020 08:33 | 487751 | | 50 | 50 |
| 280-134268-2 | 03/05/2020 08:33 | 487751 | | 50 | 50 |
| 280-134268-3 | 03/05/2020 08:33 | 487751 | | 50 | 50 |

FORM XII-IN

12-IN
PREPARATION LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-134268-1

SDG No.:

Prep Method: 9030B

| Lab Sample ID | Preparation Date | Prep Batch | Initial Weight | Initial Volume (mL) | Final Volume (mL) |
|---|---|---|---|---|---|
| LCS 280-487821/1-A | 03/05/2020 10:58 | 487821 | | 50 | 50 |
| MB 280-487821/2-A | 03/05/2020 10:58 | 487821 | | 50 | 50 |
| 280-134268-4 | 03/05/2020 10:58 | 487821 | | 50 | 50 |
| 280-134268-4 MS | 03/05/2020 10:58 | 487821 | | 50 | 50 |
| 280-134268-4 MSD | 03/05/2020 10:58 | 487821 | | 50 | 50 |
| 280-134268-5 | 03/05/2020 10:58 | 487821 | | 50 | 50 |
| 280-134268-7 | 03/05/2020 10:58 | 487821 | | 50 | 50 |
| 280-134268-8 | 03/05/2020 10:58 | 487821 | | 50 | 50 |
| 280-134268-9 | 03/05/2020 10:58 | 487821 | | 50 | 50 |
| 280-134268-10 | 03/05/2020 10:58 | 487821 | | 50 | 50 |

FORM XII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-134268-1

SDG No.:

Instrument ID: WC_Alp 3  Analysis Method: 350.1

Start Date: 03/18/2020 11:53  End Date: 03/18/2020 13:23

| Lab Sample Id | D/F | Type | Time | Analytes | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | NH3 | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 11:53 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 11:55 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 11:57 | | | | | | | | | | | | | | | | | | | | | | | | |
| IC 280-489175/4 | | | 11:59 | X | | | | | | | | | | | | | | | | | | | | | | | |
| IC 280-489175/5 | | | 12:01 | X | | | | | | | | | | | | | | | | | | | | | | | |
| IC 280-489175/6 | | | 12:03 | X | | | | | | | | | | | | | | | | | | | | | | | |
| IC 280-489175/7 | | | 12:05 | X | | | | | | | | | | | | | | | | | | | | | | | |
| IC 280-489175/8 | | | 12:07 | X | | | | | | | | | | | | | | | | | | | | | | | |
| IC 280-489175/9 | | | 12:09 | X | | | | | | | | | | | | | | | | | | | | | | | |
| IC 280-489175/10 | | | 12:11 | X | | | | | | | | | | | | | | | | | | | | | | | |
| IC 280-489175/11 | | | 12:13 | X | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 12:15 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 12:17 | | | | | | | | | | | | | | | | | | | | | | | | |
| ICVL 280-489175/14 | 1 | | 12:19 | X | | | | | | | | | | | | | | | | | | | | | | | |
| ICV 280-489175/15 | 1 | | 12:21 | X | | | | | | | | | | | | | | | | | | | | | | | |
| ICB 280-489175/16 | 1 | | 12:23 | X | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 12:25 | | | | | | | | | | | | | | | | | | | | | | | | |
| LCS 280-489175/18 | 1 | T | 12:27 | X | | | | | | | | | | | | | | | | | | | | | | | |
| MB 280-489175/19 | 1 | T | 12:29 | X | | | | | | | | | | | | | | | | | | | | | | | |
| 280-134268-6 | 1 | T | 12:31 | X | | | | | | | | | | | | | | | | | | | | | | | |
| 280-134268-6 MS | 1 | T | 12:33 | X | | | | | | | | | | | | | | | | | | | | | | | |
| 280-134268-6 MSD | 1 | T | 12:35 | X | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 12:37 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 12:39 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 12:41 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 12:43 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 12:45 | | | | | | | | | | | | | | | | | | | | | | | | |
| 280-134268-1 | 1 | T | 12:47 | X | | | | | | | | | | | | | | | | | | | | | | | |
| 280-134268-2 | 1 | T | 12:49 | X | | | | | | | | | | | | | | | | | | | | | | | |
| RINSE 280-489175/30 | | | 12:51 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 12:53 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCVL 280-489175/32 | 1 | | 12:55 | X | | | | | | | | | | | | | | | | | | | | | | | |
| CCV 280-489175/33 | 1 | | 12:57 | X | | | | | | | | | | | | | | | | | | | | | | | |
| CCB 280-489175/34 | 1 | | 12:59 | X | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 13:01 | | | | | | | | | | | | | | | | | | | | | | | | |
| 280-134268-9 | 1 | T | 13:03 | X | | | | | | | | | | | | | | | | | | | | | | | |
| 280-134268-10 | 1 | T | 13:05 | X | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 13:07 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 13:09 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 13:11 | | | | | | | | | | | | | | | | | | | | | | | | |
| RINSE 280-489175/41 | | | 13:13 | | | | | | | | | | | | | | | | | | | | | | | | |

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-134268-1

SDG No.:

Instrument ID: WC_Alp 3  Analysis Method: 350.1

Start Date: 03/18/2020 11:53  End Date: 03/18/2020 13:23

| Lab Sample Id | D/F | Type | Time | Analytes | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | NH3 | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 13:15 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCVL 280-489175/43 | 1 | | 13:17 | X | | | | | | | | | | | | | | | | | | | | | | | |
| CCV 280-489175/44 | 1 | | 13:19 | X | | | | | | | | | | | | | | | | | | | | | | | |
| CCB 280-489175/45 | 1 | | 13:21 | X | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 13:23 | | | | | | | | | | | | | | | | | | | | | | | | |

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-134268-1

SDG No.:

Instrument ID: WC_Alp 3  Analysis Method: 350.1

Start Date: 03/20/2020 13:09  End Date: 03/20/2020 16:10

| Lab Sample Id | D/F | Type | Time | Analytes | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | NH3 | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 13:09 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 13:11 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 13:13 | | | | | | | | | | | | | | | | | | | | | | | | |
| IC 280-489439/4 | | | 13:15 | X | | | | | | | | | | | | | | | | | | | | | | | |
| IC 280-489439/5 | | | 13:17 | X | | | | | | | | | | | | | | | | | | | | | | | |
| IC 280-489439/6 | | | 13:19 | X | | | | | | | | | | | | | | | | | | | | | | | |
| IC 280-489439/7 | | | 13:21 | X | | | | | | | | | | | | | | | | | | | | | | | |
| IC 280-489439/8 | | | 13:23 | X | | | | | | | | | | | | | | | | | | | | | | | |
| IC 280-489439/9 | | | 13:25 | X | | | | | | | | | | | | | | | | | | | | | | | |
| IC 280-489439/10 | | | 13:27 | X | | | | | | | | | | | | | | | | | | | | | | | |
| IC 280-489439/11 | | | 13:29 | X | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 13:31 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 13:33 | | | | | | | | | | | | | | | | | | | | | | | | |
| ICVL 280-489439/14 | 1 | | 13:35 | X | | | | | | | | | | | | | | | | | | | | | | | |
| ICV 280-489439/15 | 1 | | 13:37 | X | | | | | | | | | | | | | | | | | | | | | | | |
| ICB 280-489439/16 | 1 | | 13:39 | X | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 13:41 | | | | | | | | | | | | | | | | | | | | | | | | |
| LCS 280-489439/18 | 1 | T | 13:43 | X | | | | | | | | | | | | | | | | | | | | | | | |
| LCSD 280-489439/19 | 1 | T | 13:45 | X | | | | | | | | | | | | | | | | | | | | | | | |
| MB 280-489439/20 | 1 | T | 13:47 | X | | | | | | | | | | | | | | | | | | | | | | | |
| 280-134268-5 | 1 | T | 13:49 | X | | | | | | | | | | | | | | | | | | | | | | | |
| 280-134268-5 MS | 1 | T | 13:51 | X | | | | | | | | | | | | | | | | | | | | | | | |
| 280-134268-5 MSD | 1 | T | 13:53 | X | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 13:55 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 13:57 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 13:59 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 14:01 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 14:03 | | | | | | | | | | | | | | | | | | | | | | | | |
| 280-134268-4 | 1 | T | 14:05 | X | | | | | | | | | | | | | | | | | | | | | | | |
| 280-134268-3 | 1 | T | 14:07 | X | | | | | | | | | | | | | | | | | | | | | | | |
| RINSE 280-489439/31 | | | 14:09 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 14:11 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCVL 280-489439/33 | 1 | | 14:13 | X | | | | | | | | | | | | | | | | | | | | | | | |
| CCV 280-489439/34 | 1 | | 14:15 | X | | | | | | | | | | | | | | | | | | | | | | | |
| CCB 280-489439/35 | 1 | | 14:17 | X | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 14:19 | | | | | | | | | | | | | | | | | | | | | | | | |
| 280-134268-7 | 1 | T | 14:21 | X | | | | | | | | | | | | | | | | | | | | | | | |
| 280-134268-8 | 1 | T | 14:23 | X | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 14:25 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 14:27 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 14:29 | | | | | | | | | | | | | | | | | | | | | | | | |

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-134268-1

SDG No.:

Instrument ID: WC_Alp 3  Analysis Method: 350.1

Start Date: 03/20/2020 13:09  End Date: 03/20/2020 16:10

| Lab Sample Id | D/F | Type | Time | Analytes | | | | | | | | | | | | | | | | | | | | | | | |
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| | | | | NH3 | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 14:31 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 14:33 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 14:35 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 14:37 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 14:39 | | | | | | | | | | | | | | | | | | | | | | | | |
| RINSE 280-489439/47 | | | 14:41 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 14:43 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCVL 280-489439/49 | 1 | | 14:45 | X | | | | | | | | | | | | | | | | | | | | | | | |
| CCV 280-489439/50 | 1 | | 14:47 | X | | | | | | | | | | | | | | | | | | | | | | | |
| CCB 280-489439/51 | 1 | | 14:49 | X | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 14:51 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 14:53 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 14:55 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 14:57 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 14:59 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 15:01 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 15:03 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 15:05 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 15:07 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 15:09 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 15:11 | | | | | | | | | | | | | | | | | | | | | | | | |
| RINSE 280-489439/63 | | | 15:13 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 15:15 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCVL 280-489439/65 | | | 15:17 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV 280-489439/66 | | | 15:19 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCB 280-489439/67 | | | 15:21 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 15:23 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 15:25 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 15:27 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 15:29 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 15:31 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 15:33 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 15:46 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 15:48 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 15:50 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 15:56 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 15:58 | | | | | | | | | | | | | | | | | | | | | | | | |
| RINSE 280-489439/79 | | | 16:00 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 16:02 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCVL 280-489439/81 | | | 16:04 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV 280-489439/82 | | | 16:06 | | | | | | | | | | | | | | | | | | | | | | | | |

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-134268-1

SDG No.:

Instrument ID: WC_Alp 3  Analysis Method: 350.1

Start Date: 03/20/2020 13:09  End Date: 03/20/2020 16:10

| Lab Sample Id | D/F | Type | Time | Analytes | | | | | | | | | | | | | | | | | | | | | | | |
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| | | | | NH3 | | | | | | | | | | | | | | | | | | | | | | | |
| CCB 280-489439/83 | | | 16:08 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 16:10 | | | | | | | | | | | | | | | | | | | | | | | | |

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-134268-1

SDG No.:

Instrument ID: WC_Astoria  Analysis Method: 351.2

Start Date: 03/11/2020 17:29  End Date: 03/11/2020 19:31

| Lab Sample Id | D/F | Type | Time | Analytes | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | TKN | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 17:29 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 17:30 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 17:31 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 17:32 | | | | | | | | | | | | | | | | | | | | | | | | |
| IC 280-486063/1-A | | | 17:33 | X | | | | | | | | | | | | | | | | | | | | | | | |
| IC 280-486063/2-A | | | 17:35 | X | | | | | | | | | | | | | | | | | | | | | | | |
| IC 280-486063/3-A | | | 17:36 | X | | | | | | | | | | | | | | | | | | | | | | | |
| IC 280-486063/4-A | | | 17:37 | X | | | | | | | | | | | | | | | | | | | | | | | |
| IC 280-486063/5-A | | | 17:38 | X | | | | | | | | | | | | | | | | | | | | | | | |
| IC 280-486063/6-A | | | 17:40 | X | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 17:41 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 17:42 | | | | | | | | | | | | | | | | | | | | | | | | |
| ICV 280-486063/7-A | 1 | | 17:43 | X | | | | | | | | | | | | | | | | | | | | | | | |
| ICB 280-486063/8-A | 1 | | 17:45 | X | | | | | | | | | | | | | | | | | | | | | | | |
| LCS 280-488202/1-A | 1 | T | 17:46 | X | | | | | | | | | | | | | | | | | | | | | | | |
| MB 280-488202/2-A | 1 | T | 17:47 | X | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 17:48 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 17:50 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 17:51 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 17:52 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 17:53 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 17:55 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 17:56 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 17:57 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 17:58 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:00 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:01 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:02 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:03 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:05 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV 280-486063/9-A | 1 | | 18:06 | X | | | | | | | | | | | | | | | | | | | | | | | |
| CCB 280-486063/10-A | 1 | | 18:07 | X | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:08 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:10 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:11 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:12 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:13 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:15 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:16 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:17 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:18 | | | | | | | | | | | | | | | | | | | | | | | | |

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-134268-1

SDG No.:

Instrument ID: WC_Astoria  Analysis Method: 351.2

Start Date: 03/11/2020 17:29  End Date: 03/11/2020 19:31

| Lab Sample Id | D/F | Type | Time | Analytes | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | TKN | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:20 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:21 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:22 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:23 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:25 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:26 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:27 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV 280-486063/9-A | 1 | | 18:28 | X | | | | | | | | | | | | | | | | | | | | | | | |
| CCB 280-486063/10-A | 1 | | 18:30 | X | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:31 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:32 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:33 | | | | | | | | | | | | | | | | | | | | | | | | |
| 280-134268-1 | 1 | T | 18:35 | X | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:36 | | | | | | | | | | | | | | | | | | | | | | | | |
| LCS 280-488202/27-A | 1 | T | 18:37 | X | | | | | | | | | | | | | | | | | | | | | | | |
| MB 280-488202/28-A | 1 | T | 18:38 | X | | | | | | | | | | | | | | | | | | | | | | | |
| 280-134268-6 | 1 | T | 18:40 | X | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:41 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:42 | | | | | | | | | | | | | | | | | | | | | | | | |
| 280-134268-6 MS | 1 | T | 18:43 | X | | | | | | | | | | | | | | | | | | | | | | | |
| 280-134268-6 MSD | 1 | T | 18:45 | X | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:46 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV 280-486063/9-A | 1 | | 18:47 | X | | | | | | | | | | | | | | | | | | | | | | | |
| CCB 280-486063/10-A | 1 | | 18:48 | X | | | | | | | | | | | | | | | | | | | | | | | |
| 280-134268-2 | 1 | T | 18:50 | X | | | | | | | | | | | | | | | | | | | | | | | |
| 280-134268-3 | 1 | T | 18:51 | X | | | | | | | | | | | | | | | | | | | | | | | |
| 280-134268-4 | 1 | T | 18:52 | X | | | | | | | | | | | | | | | | | | | | | | | |
| 280-134268-5 | 1 | T | 18:53 | X | | | | | | | | | | | | | | | | | | | | | | | |
| 280-134268-7 | 1 | T | 18:55 | X | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:56 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:57 | | | | | | | | | | | | | | | | | | | | | | | | |
| 280-134268-8 | 1 | T | 18:58 | X | | | | | | | | | | | | | | | | | | | | | | | |
| 280-134268-9 | 1 | T | 19:00 | X | | | | | | | | | | | | | | | | | | | | | | | |
| 280-134268-10 | 1 | T | 19:01 | X | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 19:02 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 19:03 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 19:05 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV 280-486063/9-A | 1 | | 19:06 | X | | | | | | | | | | | | | | | | | | | | | | | |
| CCB 280-486063/10-A | 1 | | 19:07 | X | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 19:08 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 19:10 | | | | | | | | | | | | | | | | | | | | | | | | |

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-134268-1

SDG No.:

Instrument ID: WC_Astoria  Analysis Method: 351.2

Start Date: 03/11/2020 17:29  End Date: 03/11/2020 19:31

| Lab Sample Id | D/F | Type | Time | Analytes | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | TKN | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 19:11 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 19:12 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 19:13 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 19:15 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 19:16 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 19:17 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 19:18 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 19:20 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 19:21 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 19:22 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 19:23 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV 280-486063/9-A | | | 19:25 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 19:26 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 19:27 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCB 280-486063/10-A | | | 19:28 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 19:30 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 19:31 | | | | | | | | | | | | | | | | | | | | | | | | |

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-134268-1

SDG No.:

Instrument ID: WC_Alp 2  Analysis Method: 353.2

Start Date: 03/10/2020 16:31  End Date: 03/10/2020 19:24

| Lab Sample Id | D/F | Type | Time | Analytes | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | NNO32 | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 16:31 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 16:33 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 16:35 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 16:37 | | | | | | | | | | | | | | | | | | | | | | | | |
| IC 280-488338/5 | | | 16:39 | X | | | | | | | | | | | | | | | | | | | | | | | |
| IC 280-488338/6 | | | 16:41 | X | | | | | | | | | | | | | | | | | | | | | | | |
| IC 280-488338/7 | | | 16:43 | X | | | | | | | | | | | | | | | | | | | | | | | |
| IC 280-488338/8 | | | 16:45 | X | | | | | | | | | | | | | | | | | | | | | | | |
| IC 280-488338/9 | | | 16:47 | X | | | | | | | | | | | | | | | | | | | | | | | |
| IC 280-488338/10 | | | 16:49 | X | | | | | | | | | | | | | | | | | | | | | | | |
| IC 280-488338/11 | | | 16:51 | X | | | | | | | | | | | | | | | | | | | | | | | |
| IC 280-488338/12 | | | 16:53 | X | | | | | | | | | | | | | | | | | | | | | | | |
| IC 280-488338/13 | | | 16:55 | X | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 16:57 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 16:59 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 17:01 | | | | | | | | | | | | | | | | | | | | | | | | |
| ICV 280-488338/17 | 1 | | 17:03 | X | | | | | | | | | | | | | | | | | | | | | | | |
| ICVL 280-488338/18 | 1 | | 17:05 | X | | | | | | | | | | | | | | | | | | | | | | | |
| ICB 280-488338/19 | 1 | | 17:07 | X | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 17:09 | | | | | | | | | | | | | | | | | | | | | | | | |
| LCS 280-488338/21 | 1 | T | 17:11 | X | | | | | | | | | | | | | | | | | | | | | | | |
| MB 280-488338/22 | 1 | T | 17:13 | X | | | | | | | | | | | | | | | | | | | | | | | |
| 280-134268-6 | 5 | T | 17:15 | X | | | | | | | | | | | | | | | | | | | | | | | |
| 280-134268-6 MS | 5 | T | 17:17 | X | | | | | | | | | | | | | | | | | | | | | | | |
| 280-134268-6 MSD | 5 | T | 17:19 | X | | | | | | | | | | | | | | | | | | | | | | | |
| 280-134268-1 | 1 | T | 17:21 | X | | | | | | | | | | | | | | | | | | | | | | | |
| 280-134268-2 | 5 | T | 17:23 | X | | | | | | | | | | | | | | | | | | | | | | | |
| 280-134268-3 | 2 | T | 17:25 | X | | | | | | | | | | | | | | | | | | | | | | | |
| 280-134268-4 | 2 | T | 17:27 | X | | | | | | | | | | | | | | | | | | | | | | | |
| 280-134268-5 | 5 | T | 17:29 | X | | | | | | | | | | | | | | | | | | | | | | | |
| 280-134268-7 | 5 | T | 17:31 | X | | | | | | | | | | | | | | | | | | | | | | | |
| 280-134268-8 | 5 | T | 17:33 | X | | | | | | | | | | | | | | | | | | | | | | | |
| RINSE 280-488338/33 | | | 17:35 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 17:37 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV 280-488338/35 | 1 | | 17:39 | X | | | | | | | | | | | | | | | | | | | | | | | |
| CCVL 280-488338/36 | 1 | | 17:41 | X | | | | | | | | | | | | | | | | | | | | | | | |
| CCB 280-488338/37 | 1 | | 17:43 | X | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 17:45 | | | | | | | | | | | | | | | | | | | | | | | | |
| 280-134268-9 | 1 | T | 17:47 | X | | | | | | | | | | | | | | | | | | | | | | | |

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-134268-1

SDG No.:

Instrument ID: WC_Alp 2  Analysis Method: 353.2

Start Date: 03/10/2020 16:31  End Date: 03/10/2020 19:24

| Lab Sample Id | D/F | Type | Time | Analytes | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | NNO32 | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 17:49 | | | | | | | | | | | | | | | | | | | | | | | | |
| 280-134268-10 | 1 | T | 17:51 | X | | | | | | | | | | | | | | | | | | | | | | | |
| 280-134268-10 MS | 1 | T | 17:53 | X | | | | | | | | | | | | | | | | | | | | | | | |
| 280-134268-10 MSD | 1 | T | 17:55 | X | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 17:57 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 17:59 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:01 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:03 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:05 | | | | | | | | | | | | | | | | | | | | | | | | |
| RINSE 280-488338/49 | | | 18:07 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:09 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV 280-488338/51 | 1 | | 18:11 | X | | | | | | | | | | | | | | | | | | | | | | | |
| CCVL 280-488338/52 | 1 | | 18:13 | X | | | | | | | | | | | | | | | | | | | | | | | |
| CCB 280-488338/53 | 1 | | 18:15 | X | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:17 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:19 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:21 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:23 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:25 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:27 | | | | | | | | | | | | | | | | | | | | | | | | |
| LCSD 280-488338/60 | 1 | T | 18:29 | X | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:31 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:33 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:35 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:37 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:39 | | | | | | | | | | | | | | | | | | | | | | | | |
| RINSE 280-488338/66 | | | 18:41 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:43 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV 280-488338/68 | 1 | | 18:45 | X | | | | | | | | | | | | | | | | | | | | | | | |
| CCVL 280-488338/69 | | | 18:47 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCB 280-488338/70 | 1 | | 18:49 | X | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:51 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:53 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:55 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:57 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:59 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 19:01 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 19:04 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 19:06 | | | | | | | | | | | | | | | | | | | | | | | | |

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-134268-1

SDG No.:

Instrument ID: WC_Alp 2  Analysis Method: 353.2

Start Date: 03/10/2020 16:31  End Date: 03/10/2020 19:24

| Lab Sample Id | D/F | Type | Time | Analytes | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | NNO32 | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 19:08 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 19:10 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 19:12 | | | | | | | | | | | | | | | | | | | | | | | | |
| RINSE 280-488338/82 | | | 19:14 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 19:16 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV 280-488338/84 | | | 19:18 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCVL 280-488338/85 | | | 19:20 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCB 280-488338/86 | | | 19:22 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 19:24 | | | | | | | | | | | | | | | | | | | | | | | | |

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-134268-1

SDG No.:

Instrument ID: NOEQUIP  Analysis Method: 9034

Start Date: 03/05/2020 12:56  End Date: 03/05/2020 12:56

| Lab Sample Id | D/F | Type | Time | Analytes | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | S2 | | | | | | | | | | | | | | | | | | | | | | | |
| LCS 280-487751/1-A | 1 | T | 12:56 | X | | | | | | | | | | | | | | | | | | | | | | | |
| MB 280-487751/2-A | 1 | T | 12:56 | X | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 12:56 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 12:56 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 12:56 | | | | | | | | | | | | | | | | | | | | | | | | |
| 280-134268-6 | 1 | T | 12:56 | X | | | | | | | | | | | | | | | | | | | | | | | |
| 280-134268-6 MS | 1 | T | 12:56 | X | | | | | | | | | | | | | | | | | | | | | | | |
| 280-134268-6 MSD | 1 | T | 12:56 | X | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 12:56 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 12:56 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 12:56 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 12:56 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 12:56 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 12:56 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 12:56 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 12:56 | | | | | | | | | | | | | | | | | | | | | | | | |
| 280-134268-1 | 1 | T | 12:56 | X | | | | | | | | | | | | | | | | | | | | | | | |
| 280-134268-2 | 1 | T | 12:56 | X | | | | | | | | | | | | | | | | | | | | | | | |
| 280-134268-3 | 1 | T | 12:56 | X | | | | | | | | | | | | | | | | | | | | | | | |

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-134268-1

SDG No.:

Instrument ID: NOEQUIP  Analysis Method: 9034

Start Date: 03/05/2020 13:00  End Date: 03/05/2020 13:00

| Lab Sample Id | D/F | Type | Time | Analytes | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | S2 | | | | | | | | | | | | | | | | | | | | | | | |
| LCS 280-487821/1-A | 1 | T | 13:00 | X | | | | | | | | | | | | | | | | | | | | | | | |
| MB 280-487821/2-A | 1 | T | 13:00 | X | | | | | | | | | | | | | | | | | | | | | | | |
| 280-134268-4 | 1 | T | 13:00 | X | | | | | | | | | | | | | | | | | | | | | | | |
| 280-134268-4 MS | 1 | T | 13:00 | X | | | | | | | | | | | | | | | | | | | | | | | |
| 280-134268-4 MSD | 1 | T | 13:00 | X | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 13:00 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 13:00 | | | | | | | | | | | | | | | | | | | | | | | | |
| 280-134268-5 | 1 | T | 13:00 | X | | | | | | | | | | | | | | | | | | | | | | | |
| 280-134268-7 | 1 | T | 13:00 | X | | | | | | | | | | | | | | | | | | | | | | | |
| 280-134268-8 | 1 | T | 13:00 | X | | | | | | | | | | | | | | | | | | | | | | | |
| 280-134268-9 | 1 | T | 13:00 | X | | | | | | | | | | | | | | | | | | | | | | | |
| 280-134268-10 | 1 | T | 13:00 | X | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 13:00 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 13:00 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 13:00 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 13:00 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 13:00 | | | | | | | | | | | | | | | | | | | | | | | | |

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-134268-1

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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FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-134268-1

SDG No.:

Instrument ID: WC_IonChrom11  Analysis Method: 9056A

Start Date: 03/17/2020 12:20  End Date: 03/17/2020 22:17

| Lab Sample Id | D/F | Type | Time | Analytes | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | SO4 | | | | | | | | | | | | | | | | | | | | | | | |
| CCV 280-488952/1 | 1 | | 12:20 | X | | | | | | | | | | | | | | | | | | | | | | | |
| CCB 280-488952/2 | 1 | | 12:36 | X | | | | | | | | | | | | | | | | | | | | | | | |
| MRL 280-488952/3 | 1 | T | 12:52 | X | | | | | | | | | | | | | | | | | | | | | | | |
| LCS 280-488952/4 | 1 | T | 13:09 | X | | | | | | | | | | | | | | | | | | | | | | | |
| LCSD 280-488952/5 | 1 | T | 13:25 | X | | | | | | | | | | | | | | | | | | | | | | | |
| MB 280-488952/6 | 1 | T | 13:42 | X | | | | | | | | | | | | | | | | | | | | | | | |
| 280-134268-1 | 1 | T | 17:55 | X | | | | | | | | | | | | | | | | | | | | | | | |
| 280-134268-2 | 1 | T | 18:11 | X | | | | | | | | | | | | | | | | | | | | | | | |
| 280-134268-3 | 1 | T | 18:27 | X | | | | | | | | | | | | | | | | | | | | | | | |
| 280-134268-4 | 1 | T | 18:43 | X | | | | | | | | | | | | | | | | | | | | | | | |
| 280-134268-5 | 1 | T | 19:00 | X | | | | | | | | | | | | | | | | | | | | | | | |
| 280-134268-7 | 1 | T | 19:16 | X | | | | | | | | | | | | | | | | | | | | | | | |
| 280-134268-6 | 1 | T | 19:33 | X | | | | | | | | | | | | | | | | | | | | | | | |
| 280-134268-6 DU | 1 | T | 19:49 | X | | | | | | | | | | | | | | | | | | | | | | | |
| 280-134268-6 MS | 1 | T | 20:06 | X | | | | | | | | | | | | | | | | | | | | | | | |
| 280-134268-6 MSD | 1 | T | 20:22 | X | | | | | | | | | | | | | | | | | | | | | | | |
| CCV 280-488952/17 | 1 | | 20:38 | X | | | | | | | | | | | | | | | | | | | | | | | |
| CCB 280-488952/18 | 1 | | 20:55 | X | | | | | | | | | | | | | | | | | | | | | | | |
| 280-134268-8 | 1 | T | 21:11 | X | | | | | | | | | | | | | | | | | | | | | | | |
| 280-134268-9 | 1 | T | 21:28 | X | | | | | | | | | | | | | | | | | | | | | | | |
| 280-134268-10 | 1 | T | 21:44 | X | | | | | | | | | | | | | | | | | | | | | | | |
| CCV 280-488952/22 | 1 | | 22:00 | X | | | | | | | | | | | | | | | | | | | | | | | |
| CCB 280-488952/23 | 1 | | 22:17 | X | | | | | | | | | | | | | | | | | | | | | | | |

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-134268-1

SDG No.:

Instrument ID: WC_SHI3  Analysis Method: 9060A

Start Date: 03/17/2020 18:05  End Date: 03/18/2020 12:52

| Lab Sample Id | D/F | Type | Time | Analytes | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | DOCQ | | | | | | | | | | | | | | | | | | | | | | | |
| ICV 280-489142/1 | 1 | | 18:05 | X | | | | | | | | | | | | | | | | | | | | | | | |
| ICB 280-489142/2 | 1 | | 18:22 | X | | | | | | | | | | | | | | | | | | | | | | | |
| LCS 280-488988/1-A | 1 | D | 18:37 | X | | | | | | | | | | | | | | | | | | | | | | | |
| MB 280-488988/2-A | 1 | D | 18:58 | X | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 19:13 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 19:28 | | | | | | | | | | | | | | | | | | | | | | | | |
| 280-134268-6 MS | 1 | D | 19:44 | X | | | | | | | | | | | | | | | | | | | | | | | |
| 280-134268-6 MSD | 1 | D | 19:59 | X | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 20:16 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 20:31 | | | | | | | | | | | | | | | | | | | | | | | | |
| 280-134268-3 | 1 | D | 20:47 | X | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 21:02 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 21:17 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 21:36 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV 280-489142/15 | 1 | | 21:50 | X | | | | | | | | | | | | | | | | | | | | | | | |
| CCB 280-489142/16 | 1 | | 22:05 | X | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 22:20 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 22:36 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 22:51 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 23:06 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 23:21 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 23:35 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 23:52 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 00:11 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 00:28 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 00:42 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV 280-489142/27 | | | 01:01 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCB 280-489142/28 | | | 01:16 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 01:31 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 01:45 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 02:02 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 02:17 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 02:34 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 02:48 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 03:03 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 03:18 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 03:35 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 03:49 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV 280-489142/39 | | | 04:06 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCB 280-489142/40 | | | 04:21 | | | | | | | | | | | | | | | | | | | | | | | | |

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-134268-1

SDG No.:

Instrument ID: WC_SHI3  Analysis Method: 9060A

Start Date: 03/17/2020 18:05  End Date: 03/18/2020 12:52

| Lab Sample Id | D/F | Type | Time | Analytes | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | DOCQ | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 04:35 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 04:52 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 05:07 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 05:30 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 05:47 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 06:03 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 06:18 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 06:37 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 06:52 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV 280-489142/50 | | | 07:08 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCB 280-489142/51 | | | 07:23 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 07:38 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 07:53 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 08:09 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 08:24 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 08:39 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 08:54 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 09:08 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 09:24 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 09:38 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 09:53 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 10:08 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV 280-489142/63 | | | 10:23 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCB 280-489142/64 | | | 10:37 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 10:52 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 11:07 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 11:22 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 11:36 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 11:51 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 12:06 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 12:21 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV 280-489142/72 | | | 12:37 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCB 280-489142/73 | | | 12:52 | | | | | | | | | | | | | | | | | | | | | | | | |

Prep Types:
D = Dissolved

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-134268-1

SDG No.:

Instrument ID: WC_SHI3  Analysis Method: 9060A

Start Date: 03/19/2020 16:36  End Date: 03/20/2020 08:23

| Lab Sample Id | D/F | Type | Time | Analytes | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | DOCQ | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 16:36 | | | | | | | | | | | | | | | | | | | | | | | | |
| ICV 280-489347/2 | 1 | | 16:53 | X | | | | | | | | | | | | | | | | | | | | | | | |
| ICB 280-489347/3 | 1 | | 17:10 | X | | | | | | | | | | | | | | | | | | | | | | | |
| LCS 280-489286/1-A | 1 | D | 17:26 | X | | | | | | | | | | | | | | | | | | | | | | | |
| MB 280-489286/2-A | 1 | D | 17:43 | X | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 18:00 | | | | | | | | | | | | | | | | | | | | | | | | |
| 280-134268-6 | 1 | D | 18:19 | X | | | | | | | | | | | | | | | | | | | | | | | |
| 280-134268-6 MS | 1 | D | 18:33 | X | | | | | | | | | | | | | | | | | | | | | | | |
| 280-134268-6 MSD | 1 | D | 18:48 | X | | | | | | | | | | | | | | | | | | | | | | | |
| 280-134268-1 | 1 | D | 19:03 | X | | | | | | | | | | | | | | | | | | | | | | | |
| 280-134268-2 | 1 | D | 19:20 | X | | | | | | | | | | | | | | | | | | | | | | | |
| 280-134268-4 | 1 | D | 19:38 | X | | | | | | | | | | | | | | | | | | | | | | | |
| 280-134268-5 | 1 | D | 19:57 | X | | | | | | | | | | | | | | | | | | | | | | | |
| 280-134268-7 | 1 | D | 20:12 | X | | | | | | | | | | | | | | | | | | | | | | | |
| 280-134268-8 | 1 | D | 20:29 | X | | | | | | | | | | | | | | | | | | | | | | | |
| CCV 280-489347/16 | 1 | | 20:43 | X | | | | | | | | | | | | | | | | | | | | | | | |
| CCB 280-489347/17 | 1 | | 20:58 | X | | | | | | | | | | | | | | | | | | | | | | | |
| 280-134268-9 | 1 | D | 21:19 | X | | | | | | | | | | | | | | | | | | | | | | | |
| 280-134268-10 | 1 | D | 21:36 | X | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 21:54 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 22:13 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 22:28 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 22:43 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 22:59 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 23:18 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 23:37 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 23:54 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV 280-489347/28 | 1 | | 00:08 | X | | | | | | | | | | | | | | | | | | | | | | | |
| CCB 280-489347/29 | 1 | | 00:27 | X | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 00:44 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 01:01 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 01:15 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 01:32 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 01:49 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 02:08 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 02:22 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 02:39 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 02:56 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 03:11 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV 280-489347/40 | | | 03:25 | | | | | | | | | | | | | | | | | | | | | | | | |

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-134268-1

SDG No.:

Instrument ID: WC_SHI3  Analysis Method: 9060A

Start Date: 03/19/2020 16:36  End Date: 03/20/2020 08:23

| Lab Sample Id | D/F | Type | Time | Analytes | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | DOCQ | | | | | | | | | | | | | | | | | | | | | | | | |
| CCB 280-489347/41 | | | 03:42 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 04:05 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 04:24 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 04:43 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 04:59 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 05:16 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 05:33 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 05:48 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 06:02 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 06:19 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 06:36 | | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV 280-489347/52 | | | 06:51 | | | | | | | | | | | | | | | | | | | | | | | | | |
| CCB 280-489347/53 | | | 07:05 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 07:22 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 07:37 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 07:52 | | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV 280-489347/57 | | | 08:06 | | | | | | | | | | | | | | | | | | | | | | | | | |
| CCB 280-489347/58 | | | 08:23 | | | | | | | | | | | | | | | | | | | | | | | | | |

Prep Types:
D = Dissolved

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-134268-1

SDG No.:

Instrument ID: WC-AT3  Analysis Method: SM 2320B

Start Date: 03/10/2020 09:55  End Date: 03/10/2020 17:12

| Lab Sample Id | D/F | Type | Time | Analytes | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Alk | | | | | | | | | | | | | | | | | | | | | | | |
| RINSE 280-488346/1 | | | 09:55 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 10:02 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 10:03 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 10:10 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 10:17 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 10:22 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 10:28 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 10:35 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 10:43 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 10:49 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 10:55 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 11:01 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 11:09 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 11:17 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 11:24 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 11:30 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV 280-488346/17 | | | 11:36 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCB 280-488346/18 | | | 11:41 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 11:46 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 11:53 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 12:01 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 12:08 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 12:15 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 12:21 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 12:28 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 12:38 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 12:46 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 12:52 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV 280-488346/29 | 1 | | 12:59 | X | | | | | | | | | | | | | | | | | | | | | | | |
| CCB 280-488346/30 | 1 | | 13:03 | X | | | | | | | | | | | | | | | | | | | | | | | |
| LCS 280-488346/31 | 1 | T | 13:10 | X | | | | | | | | | | | | | | | | | | | | | | | |
| LCSD 280-488346/32 | 1 | T | 13:17 | X | | | | | | | | | | | | | | | | | | | | | | | |
| MB 280-488346/33 | 1 | T | 13:21 | X | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 13:30 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 13:39 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 13:43 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 13:52 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 13:59 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 14:09 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 14:14 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 14:19 | | | | | | | | | | | | | | | | | | | | | | | | |

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-134268-1

SDG No.:

Instrument ID: WC-AT3  Analysis Method: SM 2320B

Start Date: 03/10/2020 09:55  End Date: 03/10/2020 17:12

| Lab Sample Id | D/F | Type | Time | Analytes | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Alk | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 14:25 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 14:31 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV 280-488346/44 | 1 | | 14:37 | X | | | | | | | | | | | | | | | | | | | | | | | |
| CCB 280-488346/45 | 1 | | 14:42 | X | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 14:47 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 14:52 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 14:57 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 15:03 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 15:08 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 15:13 | | | | | | | | | | | | | | | | | | | | | | | | |
| 280-134268-1 | 1 | T | 15:18 | X | | | | | | | | | | | | | | | | | | | | | | | |
| 280-134268-2 | 1 | T | 15:23 | X | | | | | | | | | | | | | | | | | | | | | | | |
| 280-134268-6 | 1 | T | 15:28 | X | | | | | | | | | | | | | | | | | | | | | | | |
| 280-134268-3 | 1 | T | 15:34 | X | | | | | | | | | | | | | | | | | | | | | | | |
| CCV 280-488346/56 | 1 | | 15:41 | X | | | | | | | | | | | | | | | | | | | | | | | |
| CCB 280-488346/57 | 1 | | 15:45 | X | | | | | | | | | | | | | | | | | | | | | | | |
| LCS 280-488346/58 | 1 | T | 15:53 | X | | | | | | | | | | | | | | | | | | | | | | | |
| LCSD 280-488346/59 | 1 | T | 15:59 | X | | | | | | | | | | | | | | | | | | | | | | | |
| MB 280-488346/60 | 1 | T | 16:04 | X | | | | | | | | | | | | | | | | | | | | | | | |
| 280-134268-4 | 1 | T | 16:10 | X | | | | | | | | | | | | | | | | | | | | | | | |
| 280-134268-4 DU | 1 | T | 16:16 | X | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 16:21 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 16:27 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 16:32 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 16:40 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 16:47 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 17:01 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV 280-488346/69 | 1 | | 17:07 | X | | | | | | | | | | | | | | | | | | | | | | | |
| CCB 280-488346/70 | 1 | | 17:12 | X | | | | | | | | | | | | | | | | | | | | | | | |

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-134268-1

SDG No.:

Instrument ID: WC-AT3  Analysis Method: SM 2320B

Start Date: 03/12/2020 11:10  End Date: 03/12/2020 17:36

| Lab Sample Id | D/F | Type | Time | Analytes | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Alk | | | | | | | | | | | | | | | | | | | | | | | |
| RINSE 280-488607/1 | | | 11:10 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 11:17 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 11:18 | | | | | | | | | | | | | | | | | | | | | | | | |
| LCS 280-488607/4 | 1 | T | 11:25 | X | | | | | | | | | | | | | | | | | | | | | | | |
| MB 280-488607/5 | 1 | T | 11:30 | X | | | | | | | | | | | | | | | | | | | | | | | |
| 280-134268-5 | 1 | T | 11:35 | X | | | | | | | | | | | | | | | | | | | | | | | |
| 280-134268-5 DU | 1 | T | 11:40 | X | | | | | | | | | | | | | | | | | | | | | | | |
| 280-134268-7 | 1 | T | 11:46 | X | | | | | | | | | | | | | | | | | | | | | | | |
| 280-134268-8 | 1 | T | 11:52 | X | | | | | | | | | | | | | | | | | | | | | | | |
| 280-134268-9 | 1 | T | 11:58 | X | | | | | | | | | | | | | | | | | | | | | | | |
| 280-134268-10 | 1 | T | 12:04 | X | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 12:11 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 12:18 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 12:25 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 12:31 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV 280-488607/16 | 1 | | 12:37 | X | | | | | | | | | | | | | | | | | | | | | | | |
| CCB 280-488607/17 | 1 | | 12:41 | X | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 12:47 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 12:52 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 12:58 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 13:03 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 13:09 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 13:14 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 13:19 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 13:25 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 13:30 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 13:34 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV 280-488607/28 | | | 13:41 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCB 280-488607/29 | | | 13:45 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 13:52 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 13:56 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 14:02 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 14:07 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 14:12 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 14:17 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 14:22 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 14:27 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 14:33 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 14:38 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 14:43 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 14:48 | | | | | | | | | | | | | | | | | | | | | | | | |

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-134268-1

SDG No.:

Instrument ID: WC-AT3  Analysis Method: SM 2320B

Start Date: 03/12/2020 11:10  End Date: 03/12/2020 17:36

| Lab Sample Id | D/F | Type | Time | Analytes | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Alk | | | | | | | | | | | | | | | | | | | | | | | |
| CCV 280-488607/42 | | | 14:56 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCB 280-488607/43 | | | 15:00 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 15:06 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 15:27 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 15:48 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 16:10 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 16:31 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 16:47 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 16:51 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 17:13 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 17:18 | | | | | | | | | | | | | | | | | | | | | | | | |
| ZZZZZZ | | | 17:25 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCV 280-488607/54 | | | 17:31 | | | | | | | | | | | | | | | | | | | | | | | | |
| CCB 280-488607/55 | | | 17:36 | | | | | | | | | | | | | | | | | | | | | | | | |

Prep Types:
T = Total/NA

FORM XIII-IN

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-134268-1

SDG No.:

Batch Number: 489175  Batch Start Date: 03/18/20 11:53  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 00407 | 350.1 ICV 00392 |
|---|---|---|---|---|---|---|---|---|---|
| ICVL 280-489175/14 | | 350.1 | | | 100 mL | 100 mL | | | 0.5 mL |
| ICV 280-489175/15 | | 350.1 | | | 100 mL | 100 mL | | | 2.5 mL |
| ICB 280-489175/16 | | 350.1 | | | 10 mL | 10 mL | | | |
| LCS 280-489175/18 | | 350.1 | | | 100 mL | 100 mL | | 2.5 mL | |
| MB 280-489175/19 | | 350.1 | | | 10 mL | 10 mL | | | |
| 280-134268-C-6 | PZ019-2 | 350.1 | T | No | 10 mL | 10 mL | <2 SU | | |
| 280-134268-C-6 MS | PZ019-2 | 350.1 | T | No | 10 mL | 10 mL | <2 SU | 0.1 mL | |
| 280-134268-C-6 MSD | PZ019-2 | 350.1 | T | No | 10 mL | 10 mL | <2 SU | 0.1 mL | |
| 280-134268-C-1 | NW070-2 | 350.1 | T | No | 10 mL | 10 mL | <2 SU | | |
| 280-134268-C-2 | NW071-2 | 350.1 | T | No | 10 mL | 10 mL | <2 SU | | |
| CCVL 280-489175/32 | | 350.1 | | | 100 mL | 100 mL | | 0.5 mL | |
| CCV 280-489175/33 | | 350.1 | | | 100 mL | 100 mL | | 2.5 mL | |
| CCB 280-489175/34 | | 350.1 | | | 10 mL | 10 mL | | | |
| 280-134268-C-9 | NW062-2 | 350.1 | T | No | 10 mL | 10 mL | <2 SU | | |
| 280-134268-C-10 | G0080-2 | 350.1 | T | No | 10 mL | 10 mL | <2 SU | | |
| CCVL 280-489175/43 | | 350.1 | | | 100 mL | 100 mL | | 0.5 mL | |
| CCV 280-489175/44 | | 350.1 | | | 100 mL | 100 mL | | 2.5 mL | |
| CCB 280-489175/45 | | 350.1 | | | 10 mL | 10 mL | | | |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-134268-1

SDG No.:

Batch Number: 489175  Batch Start Date: 03/18/20 11:53  Batch Analyst: Hunter, Brandon W

Batch Method: 350.1  Batch End Date:

| Batch Notes | |
|---|---|
| Acid used for pH adjustment | H2SO4_00205 |
| Batch Comment | BWH |
| Carrier Identification | 350.1 complex_00473 |
| Hypochlorite ID | 350.1 bleach_01222 |
| Sodium Nitroprusside ID | 350.1 color_00189 |
| 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.: 280-134268-1

SDG No.:

Batch Number: 489439  Batch Start Date: 03/20/20 13:09  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 00408 | 350.1 ICV 00393 |
|---|---|---|---|---|---|---|---|---|---|
| ICVL 280-489439/14 | | 350.1 | | | 100 mL | 100 mL | | | 0.5 mL |
| ICV 280-489439/15 | | 350.1 | | | 100 mL | 100 mL | | | 2.5 mL |
| ICB 280-489439/16 | | 350.1 | | | 10 mL | 10 mL | | | |
| LCS 280-489439/18 | | 350.1 | | | 100 mL | 100 mL | | 2.5 mL | |
| LCSD 280-489439/19 | | 350.1 | | | 100 mL | 100 mL | | 2.5 mL | |
| MB 280-489439/20 | | 350.1 | | | 10 mL | 10 mL | | | |
| 280-134268-C-5 | CA211-2 | 350.1 | T | No | 10 mL | 10 mL | <2 SU | | |
| 280-134268-C-5 MS | CA211-2 | 350.1 | T | No | 10 mL | 10 mL | <2 SU | 0.1 mL | |
| 280-134268-C-5 MSD | CA211-2 | 350.1 | T | No | 10 mL | 10 mL | <2 SU | 0.1 mL | |
| 280-134268-C-4 | CA212-2 | 350.1 | T | No | 10 mL | 10 mL | <2 SU | | |
| 280-134268-C-3 | CA210-2 | 350.1 | T | No | 10 mL | 10 mL | <2 SU | | |
| CCVL 280-489439/33 | | 350.1 | | | 100 mL | 100 mL | | 0.5 mL | |
| CCV 280-489439/34 | | 350.1 | | | 100 mL | 100 mL | | 2.5 mL | |
| CCB 280-489439/35 | | 350.1 | | | 10 mL | 10 mL | | | |
| 280-134268-C-7 | NW080R-2 | 350.1 | T | No | 10 mL | 10 mL | <2 SU | | |
| 280-134268-C-8 | NW081R-2 | 350.1 | T | No | 10 mL | 10 mL | <2 SU | | |
| CCVL 280-489439/49 | | 350.1 | | | 100 mL | 100 mL | | 0.5 mL | |
| CCV 280-489439/50 | | 350.1 | | | 100 mL | 100 mL | | 2.5 mL | |
| CCB 280-489439/51 | | 350.1 | | | 10 mL | 10 mL | | | |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-134268-1

SDG No.:

Batch Number: 489439  Batch Start Date: 03/20/20 13:09  Batch Analyst: Hunter, Brandon W

Batch Method: 350.1  Batch End Date:

| Batch Notes | |
|---|---|
| Batch Comment | BWH |
| Carrier Identification | 350.1 complex_00474 |
| Dechlorination Agent ID | Na2S2O4_00001 |
| Hypochlorite ID | 350.1 bleach_01223 |
| Sodium Nitroprusside ID | 350.1 color_00189 |
| 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.: 280-134268-1

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.: 280-134268-1

SDG No.:

Batch Number: 488202  Batch Start Date: 03/09/20 20:13  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 280-488202/1 | | 351.2, 351.2 | | | | 25 mL | 25 mL | 6 mL | |
| MB 280-488202/2 | | 351.2, 351.2 | | | | 25 mL | 25 mL | | |
| 280-134268-C-1 | NW070-2 | 351.2, 351.2 | T | <2 | n | 25 mL | 25 mL | | |
| LCS 280-488202/27 | | 351.2, 351.2 | | | | 25 mL | 25 mL | 6 mL | |
| MB 280-488202/28 | | 351.2, 351.2 | | | | 25 mL | 25 mL | | |
| 280-134268-C-6 | PZ019-2 | 351.2, 351.2 | T | <2 | n | 25 mL | 25 mL | | |
| 280-134268-C-6 MS | PZ019-2 | 351.2, 351.2 | T | <2 | n | 25 mL | 25 mL | 3 mL | |
| 280-134268-C-6 MSD | PZ019-2 | 351.2, 351.2 | T | <2 | n | 25 mL | 25 mL | 3 mL | |
| 280-134268-C-2 | NW071-2 | 351.2, 351.2 | T | <2 | n | 25 mL | 25 mL | | |
| 280-134268-C-3 | CA210-2 | 351.2, 351.2 | T | <2 | n | 25 mL | 25 mL | | |
| 280-134268-C-4 | CA212-2 | 351.2, 351.2 | T | <2 | n | 25 mL | 25 mL | | |
| 280-134268-C-5 | CA211-2 | 351.2, 351.2 | T | <2 | n | 25 mL | 25 mL | | |
| 280-134268-C-7 | NW080R-2 | 351.2, 351.2 | T | <2 | n | 25 mL | 25 mL | | |
| 280-134268-C-8 | NW081R-2 | 351.2, 351.2 | T | <2 | n | 25 mL | 25 mL | | |
| 280-134268-C-9 | NW062-2 | 351.2, 351.2 | T | <2 | n | 25 mL | 25 mL | | |
| 280-134268-C-10 | G0080-2 | 351.2, 351.2 | T | <2 | n | 25 mL | 25 mL | | |

| Batch Notes | |
|---|---|
| Block Digestion End time | 03/10/20 0500 |
| Block Digestion Start time | 03/09/20 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.: 280-134268-1

SDG No.:

Batch Number: 488462  Batch Start Date: 03/11/20 17:29  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 280-488202/1-A | | 351.2 | | 4 mL | | | | | |
| MB 280-488202/2-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 | | | | | |
| 280-134268-C-1-A | NW070-2 | 351.2 | T | 4 mL | | | | | |
| LCS 280-488202/27-A | | 351.2 | | 4 mL | | | | | |
| MB 280-488202/28-A | | 351.2 | | 4 mL | | | | | |
| 280-134268-C-6-A | PZ019-2 | 351.2 | T | 4 mL | | | | | |
| 280-134268-C-6-B MS | PZ019-2 | 351.2 | T | 4 mL | | | | | |
| 280-134268-C-6-C MSD | PZ019-2 | 351.2 | T | 4 mL | | | | | |
| CCV 280-486063/9-A | | 351.2 | | 4 mL | | | | | |
| CCB 280-486063/10-A | | 351.2 | | 4 mL | | | | | |
| 280-134268-C-2-A | NW071-2 | 351.2 | T | 4 mL | | | | | |
| 280-134268-C-3-A | CA210-2 | 351.2 | T | 4 mL | | | | | |
| 280-134268-C-4-A | CA212-2 | 351.2 | T | 4 mL | | | | | |
| 280-134268-C-5-A | CA211-2 | 351.2 | T | 4 mL | | | | | |
| 280-134268-C-7-A | NW080R-2 | 351.2 | T | 4 mL | | | | | |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-134268-1

SDG No.:

Batch Number: 488462  Batch Start Date: 03/11/20 17:29  Batch Analyst: Cherry, Scott V

Batch Method: 351.2  Batch End Date:

| Lab Sample ID | Client Sample ID | Method Chain | Basis | FinalAmount | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 280-134268-C-8-A | NW081R-2 | 351.2 | T | 4 mL | | | | | |
| 280-134268-C-9-A | NW062-2 | 351.2 | T | 4 mL | | | | | |
| 280-134268-C-10-A | G0080-2 | 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_00668 |
| Sodium Nitroprusside ID | sodium nitro_0099 |
| Pipette/Syringe/Dispenser ID | 5000ad, 1000ad |

| Basis | Basis Description |
|---|---|
| T | Total/NA |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-134268-1

SDG No.:

Batch Number: 488338  Batch Start Date: 03/10/20 16:31  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 00525 | NXN ICV INT 00506 | | |
|---|---|---|---|---|---|---|---|---|---|
| ICV 280-488338/17 | | 353.2 | | 100 mL | 100 mL | | 5 mL | | |
| ICVL 280-488338/18 | | 353.2 | | 100 mL | 100 mL | | 2 mL | | |
| ICB 280-488338/19 | | 353.2 | | 100 mL | 100 mL | | | | |
| LCS 280-488338/21 | | 353.2 | | 100 mL | 100 mL | 5 mL | | | |
| MB 280-488338/22 | | 353.2 | | 100 mL | 100 mL | | | | |
| 280-134268-C-6 | PZ019-2 | 353.2 | T | 100 mL | 100 mL | | | | |
| 280-134268-C-6 MS | PZ019-2 | 353.2 | T | 5 mL | 5 mL | 0.2 mL | | | |
| 280-134268-C-6 MSD | PZ019-2 | 353.2 | T | 5 mL | 5 mL | 0.2 mL | | | |
| 280-134268-C-1 | NW070-2 | 353.2 | T | 100 mL | 100 mL | | | | |
| 280-134268-C-2 | NW071-2 | 353.2 | T | 100 mL | 100 mL | | | | |
| 280-134268-C-3 | CA210-2 | 353.2 | T | 100 mL | 100 mL | | | | |
| 280-134268-C-4 | CA212-2 | 353.2 | T | 100 mL | 100 mL | | | | |
| 280-134268-C-5 | CA211-2 | 353.2 | T | 100 mL | 100 mL | | | | |
| 280-134268-C-7 | NW080R-2 | 353.2 | T | 100 mL | 100 mL | | | | |
| 280-134268-C-8 | NW081R-2 | 353.2 | T | 100 mL | 100 mL | | | | |
| CCV 280-488338/35 | | 353.2 | | 100 mL | 100 mL | 5 mL | | | |
| CCVL 280-488338/36 | | 353.2 | | 100 mL | 100 mL | 1 mL | | | |
| CCB 280-488338/37 | | 353.2 | | 100 mL | 100 mL | | | | |
| 280-134268-C-9 | NW062-2 | 353.2 | T | 100 mL | 100 mL | | | | |
| 280-134268-C-10 | G0080-2 | 353.2 | T | 100 mL | 100 mL | | | | |
| 280-134268-C-10 MS | G0080-2 | 353.2 | T | 5 mL | 5 mL | 0.2 mL | | | |
| 280-134268-C-10 MSD | G0080-2 | 353.2 | T | 5 mL | 5 mL | 0.2 mL | | | |
| CCV 280-488338/51 | | 353.2 | | 100 mL | 100 mL | 5 mL | | | |
| CCVL 280-488338/52 | | 353.2 | | 100 mL | 100 mL | 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.

# GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-134268-1

SDG No.:

Batch Number: 488338  Batch Start Date: 03/10/20 16:31  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 00525 | NXN ICV INT 00506 | | |
|---|---|---|---|---|---|---|---|---|---|
| CCB 280-488338/53 | | 353.2 | | 100 mL | 100 mL | | | | |
| LCSD 280-488338/60 | | 353.2 | | 100 mL | 100 mL | 5 mL | | | |
| CCV 280-488338/68 | | 353.2 | | 100 mL | 100 mL | 5 mL | | | |
| CCB 280-488338/70 | | 353.2 | | 100 mL | 100 mL | | | | |

| Batch Notes | |
|---|---|
| Buffer Reagent ID | NOXT buffer_00208 |
| Color Reagent ID | NOXT cr_00107 |
| Copper Sulfate ID | CuSO4 NOXT_0007 |
| Hydrochloric Acid ID | 0.5N HCl_0076 |
| pH Indicator ID | hc989495 |
| Pipette/Syringe/Dispenser ID | 5000ad, 1000ad |

| Basis | Basis Description |
|---|---|
| T | Total/NA |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

# GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-134268-1

SDG No.:

Batch Number: 487751  Batch Start Date: 03/05/20 08:33  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 280-487751/1 | | 9030B, 9034 | | 50 mL | 50 mL | 1 | >9 SU | <2 SU | 5 mL |
| MB 280-487751/2 | | 9030B, 9034 | | 50 mL | 50 mL | 2 | >9 SU | <2 SU | 5 mL |
| 280-134268-E-6 | PZ019-2 | 9030B, 9034 | T | 50 mL | 50 mL | 6 | >9 SU | <2 SU | 5 mL |
| 280-134268-E-6 MS | PZ019-2 | 9030B, 9034 | T | 50 mL | 50 mL | 7 | >9 SU | <2 SU | 5 mL |
| 280-134268-E-6 MSD | PZ019-2 | 9030B, 9034 | T | 50 mL | 50 mL | 8 | >9 SU | <2 SU | 5 mL |
| 280-134268-E-1 | NW070-2 | 9030B, 9034 | T | 50 mL | 50 mL | 17 | >9 SU | <2 SU | 5 mL |
| 280-134268-E-2 | NW071-2 | 9030B, 9034 | T | 50 mL | 50 mL | 18 | >9 SU | <2 SU | 5 mL |
| 280-134268-E-3 | CA210-2 | 9030B, 9034 | T | 50 mL | 50 mL | 19 | >9 SU | <2 SU | 5 mL |

| Lab Sample ID | Client Sample ID | Method Chain | Basis | SFD CAL INT 01716 | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| LCS 280-487751/1 | | 9030B, 9034 | | 1 mL | | | | | |
| MB 280-487751/2 | | 9030B, 9034 | | | | | | | |
| 280-134268-E-6 | PZ019-2 | 9030B, 9034 | T | | | | | | |
| 280-134268-E-6 MS | PZ019-2 | 9030B, 9034 | T | 1 mL | | | | | |
| 280-134268-E-6 MSD | PZ019-2 | 9030B, 9034 | T | 1 mL | | | | | |
| 280-134268-E-1 | NW070-2 | 9030B, 9034 | T | | | | | | |
| 280-134268-E-2 | NW071-2 | 9030B, 9034 | T | | | | | | |
| 280-134268-E-3 | CA210-2 | 9030B, 9034 | T | | | | | | |

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.: 280-134268-1

SDG No.:

Batch Number: 487751  Batch Start Date: 03/05/20 08:33  Batch Analyst: Hohulin, Sierra A

Batch Method: 9030B  Batch End Date:

| 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.: 280-134268-1

SDG No.:

Batch Number: 487821  Batch Start Date: 03/05/20 10:58  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 280-487821/1 | | 9030B, 9034 | | 50 mL | 50 mL | 1 | >9 SU | <2 SU | 5 mL |
| MB 280-487821/2 | | 9030B, 9034 | | 50 mL | 50 mL | 2 | >9 SU | <2 SU | 5 mL |
| 280-134268-E-4 | CA212-2 | 9030B, 9034 | T | 50 mL | 50 mL | 3 | >9 SU | <2 SU | 5 mL |
| 280-134268-E-4 MS | CA212-2 | 9030B, 9034 | T | 50 mL | 50 mL | 4 | >9 SU | <2 SU | 5 mL |
| 280-134268-E-4 MSD | CA212-2 | 9030B, 9034 | T | 50 mL | 50 mL | 5 | >9 SU | <2 SU | 5 mL |
| 280-134268-E-5 | CA211-2 | 9030B, 9034 | T | 50 mL | 50 mL | 8 | >9 SU | <2 SU | 5 mL |
| 280-134268-E-7 | NW080R-2 | 9030B, 9034 | T | 50 mL | 50 mL | 9 | >9 SU | <2 SU | 5 mL |
| 280-134268-E-8 | NW081R-2 | 9030B, 9034 | T | 50 mL | 50 mL | 10 | >9 SU | <2 SU | 5 mL |
| 280-134268-E-9 | NW062-2 | 9030B, 9034 | T | 50 mL | 50 mL | 11 | >9 SU | <2 SU | 5 mL |
| 280-134268-E-10 | G0080-2 | 9030B, 9034 | T | 50 mL | 50 mL | 12 | >9 SU | <2 SU | 5 mL |

| Lab Sample ID | Client Sample ID | Method Chain | Basis | SFD CAL INT 01716 | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| LCS 280-487821/1 | | 9030B, 9034 | | 1 mL | | | | | |
| MB 280-487821/2 | | 9030B, 9034 | | | | | | | |
| 280-134268-E-4 | CA212-2 | 9030B, 9034 | T | | | | | | |
| 280-134268-E-4 MS | CA212-2 | 9030B, 9034 | T | 1 mL | | | | | |
| 280-134268-E-4 MSD | CA212-2 | 9030B, 9034 | T | 1 mL | | | | | |
| 280-134268-E-5 | CA211-2 | 9030B, 9034 | T | | | | | | |
| 280-134268-E-7 | NW080R-2 | 9030B, 9034 | T | | | | | | |
| 280-134268-E-8 | NW081R-2 | 9030B, 9034 | T | | | | | | |
| 280-134268-E-9 | NW062-2 | 9030B, 9034 | T | | | | | | |
| 280-134268-E-10 | G0080-2 | 9030B, 9034 | T | | | | | | |

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.: 280-134268-1

SDG No.:

Batch Number: 487821  Batch Start Date: 03/05/20 10:58  Batch Analyst: Hohulin, Sierra A

Batch Method: 9030B  Batch End Date:

| 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.: 280-134268-1

SDG No.:

Batch Number: 487837  Batch Start Date: 03/05/20 12:56  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 280-487751/1-A | | 9034 | | 0 mL | 3.3 mL | 5 mL | 3.3 mL | 50 mL | |
| MB 280-487751/2-A | | 9034 | | 0 mL | 1.0 mL | 1 mL | 1 mL | 50 mL | |
| 280-134268-E-6-A | PZ019-2 | 9034 | T | 7.7 mL | 8.6 mL | 1 mL | 0.899999999999999 mL | 50 mL | |
| 280-134268-E-6-B MS | PZ019-2 | 9034 | T | 8.6 mL | 11.1 mL | 5 mL | 2.5 mL | 50 mL | |
| 280-134268-E-6-C MSD | PZ019-2 | 9034 | T | 11.1 mL | 13.6 mL | 5 mL | 2.5 mL | 50 mL | |
| 280-134268-E-1-A | NW070-2 | 9034 | T | 21.6 mL | 22.5 mL | 1 mL | 0.899999999999999 mL | 50 mL | |
| 280-134268-E-2-A | NW071-2 | 9034 | T | 22.5 mL | 23.5 mL | 1 mL | 1 mL | 50 mL | |
| 280-134268-E-3-A | CA210-2 | 9034 | T | 23.5 mL | 24.5 mL | 1 mL | 1 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 | AB8A1000 & SAH5000 |
| 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.: 280-134268-1

SDG No.:

Batch Number: 487838  Batch Start Date: 03/05/20 13:00  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 280-487821/1-A | | 9034 | | 0 mL | 2.5 mL | 5 mL | 2.5 mL | 50 mL | |
| MB 280-487821/2-A | | 9034 | | 2.5 mL | 3.4 mL | 1 mL | 0.9 mL | 50 mL | |
| 280-134268-E-4-A | CA212-2 | 9034 | T | 3.4 mL | 4.4 mL | 1 mL | 1 mL | 50 mL | |
| 280-134268-E-4-B MS | CA212-2 | 9034 | T | 4.4 mL | 7.8 mL | 5 mL | 3.4 mL | 50 mL | |
| 280-134268-E-4-C MSD | CA212-2 | 9034 | T | 7.8 mL | 10.4 mL | 5 mL | 2.6 mL | 50 mL | |
| 280-134268-E-5-A | CA211-2 | 9034 | T | 12.3 mL | 13.2 mL | 1 mL | 0.899999999999999 mL | 50 mL | |
| 280-134268-E-7-A | NW080R-2 | 9034 | T | 13.2 mL | 14.1 mL | 1 mL | 0.9 mL | 50 mL | |
| 280-134268-E-8-A | NW081R-2 | 9034 | T | 14.1 mL | 15.1 mL | 1 mL | 1 mL | 50 mL | |
| 280-134268-E-9-A | NW062-2 | 9034 | T | 15.1 mL | 16.0 mL | 1 mL | 0.9 mL | 50 mL | |
| 280-134268-E-10-A | G0080-2 | 9034 | T | 16.0 mL | 17.0 mL | 1 mL | 1 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 | AB8A1000 & SAH5000 |
| 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.: 280-134268-1

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.: 280-134268-1

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.: 280-134268-1

SDG No.:

Batch Number: 488952  Batch Start Date: 03/17/20 12:20  Batch Analyst: Pedrick, Joshua A

Batch Method: 9056A  Batch End Date:

| Lab Sample ID | Client Sample ID | Method Chain | Basis | InitialAmount | FinalAmount | IC CAL cl/so4 00302 | IC Cal low 00515 | IC LCS 01730 | ICMS/MSD WEEK 00640 |
|---|---|---|---|---|---|---|---|---|---|
| CCV 280-488952/1 | | 9056A | | 5 mL | 5 mL | | | 5 mL | |
| CCB 280-488952/2 | | 9056A | | 5 mL | 5 mL | | | | |
| MRL 280-488952/3 | | 9056A | | 5 mL | 5 mL | 0.1 mL | 0.05 mL | | |
| LCS 280-488952/4 | | 9056A | | 5 mL | 5 mL | | | 5 mL | |
| LCSD 280-488952/5 | | 9056A | | 5 mL | 5 mL | | | 5 mL | |
| MB 280-488952/6 | | 9056A | | 5 mL | 5 mL | | | | |
| 280-134268-F-1 | NW070-2 | 9056A | T | 5 mL | 5 mL | | | | |
| 280-134268-F-2 | NW071-2 | 9056A | T | 5 mL | 5 mL | | | | |
| 280-134268-F-3 | CA210-2 | 9056A | T | 5 mL | 5 mL | | | | |
| 280-134268-F-4 | CA212-2 | 9056A | T | 5 mL | 5 mL | | | | |
| 280-134268-F-5 | CA211-2 | 9056A | T | 5 mL | 5 mL | | | | |
| 280-134268-F-7 | NW080R-2 | 9056A | T | 5 mL | 5 mL | | | | |
| 280-134268-F-6 | PZ019-2 | 9056A | T | 5 mL | 5 mL | | | | |
| 280-134268-F-6 DU | PZ019-2 | 9056A | T | 5 mL | 5 mL | | | | |
| 280-134268-F-6 MS | PZ019-2 | 9056A | T | 5 mL | 5 mL | | | | 0.05 mL |
| 280-134268-F-6 MSD | PZ019-2 | 9056A | T | 5 mL | 5 mL | | | | 0.05 mL |
| CCV 280-488952/17 | | 9056A | | 5 mL | 5 mL | | | 5 mL | |
| CCB 280-488952/18 | | 9056A | | 5 mL | 5 mL | | | | |
| 280-134268-F-8 | NW081R-2 | 9056A | T | 5 mL | 5 mL | | | | |
| 280-134268-F-9 | NW062-2 | 9056A | T | 5 mL | 5 mL | | | | |
| 280-134268-F-10 | G0080-2 | 9056A | T | 5 mL | 5 mL | | | | |
| CCV 280-488952/22 | | 9056A | | 5 mL | 5 mL | | | 5 mL | |
| CCB 280-488952/23 | | 9056A | | 5 mL | 5 mL | | | | |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

# GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-134268-1

SDG No.:

Batch Number: 488952  Batch Start Date: 03/17/20 12:20  Batch Analyst: Pedrick, Joshua A

Batch Method: 9056A  Batch End Date:

| Batch Notes | |
|---|---|
| Eluent 1 ID | ic11 eluent_00622 |
| 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.: 280-134268-1

SDG No.:

Batch Number: 488988  Batch Start Date: 03/17/20 12:49  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 280-488988/1 | | FILTRATION, 9060A | | 200 mL | 200 mL | 5 mL | | | |
| MB 280-488988/2 | | FILTRATION, 9060A | | 20 mL | 20 mL | | | | |
| 280-134268-D-6 | PZ019-2 | FILTRATION, 9060A | D | 20 mL | 20 mL | | | | |
| 280-134268-D-6 MS | PZ019-2 | FILTRATION, 9060A | D | 50 mL | 50 mL | | | | |
| 280-134268-D-6 MSD | PZ019-2 | FILTRATION, 9060A | D | 50 mL | 50 mL | | | | |
| 280-134268-D-3 | CA210-2 | FILTRATION, 9060A | D | 20 mL | 20 mL | | | | |

| Batch Notes | |
|---|---|
| Filter ID | R9NA90610 |

| 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.: 280-134268-1

SDG No.:

Batch Number: 489142  Batch Start Date: 03/17/20 18:05  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 | |
|---|---|---|---|---|---|---|---|---|---|
| ICV 280-489142/1 | | 9060A | | 50 mL | 50 mL | <2 SU | 1 mL | | |
| ICB 280-489142/2 | | 9060A | | 20 mL | 20 mL | <2 SU | | | |
| LCS 280-488988/1-A | | 9060A | | 200 mL | 200 mL | <2 SU | | | |
| MB 280-488988/2-A | | 9060A | | 20 mL | 20 mL | <2 SU | | | |
| 280-134268-D-6-A | PZ019-2 | 9060A | D | 20 mL | 20 mL | 7 SU | | | |
| 280-134268-D-6-B MS | PZ019-2 | 9060A | D | 50 mL | 50 mL | 7 SU | | 1.25 mL | |
| 280-134268-D-6-C MSD | PZ019-2 | 9060A | D | 50 mL | 50 mL | 7 SU | | 1.25 mL | |
| 280-134268-D-3-A | CA210-2 | 9060A | D | 20 mL | 20 mL | 7 SU | | | |
| CCV 280-489142/15 | | 9060A | | 200 mL | 200 mL | <2 SU | | 5 mL | |
| CCB 280-489142/16 | | 9060A | | 20 mL | 20 mL | <2 SU | | | |

| Batch Notes | |
|---|---|
| Acid ID | H2SO4_00205; 0.2% H2SO4_00343 |
| Combustion Catylyst ID | 18003D-01 |
| Pipette/Syringe/Dispenser ID | 1000 Intercessor, 5000 Condor |

| 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.: 280-134268-1

SDG No.:

Batch Number: 489286  Batch Start Date: 03/19/20 11:55  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 280-489286/1 | | FILTRATION, 9060A | | 200 mL | 200 mL | 5 mL | | | |
| MB 280-489286/2 | | FILTRATION, 9060A | | 20 mL | 20 mL | | | | |
| 280-134268-D-6 | PZ019-2 | FILTRATION, 9060A | D | 20 mL | 20 mL | | | | |
| 280-134268-D-6 MS | PZ019-2 | FILTRATION, 9060A | D | 50 mL | 60 mL | | | | |
| 280-134268-D-6 MSD | PZ019-2 | FILTRATION, 9060A | D | 50 mL | 50 mL | | | | |
| 280-134268-D-1 | NW070-2 | FILTRATION, 9060A | D | 20 mL | 20 mL | | | | |
| 280-134268-D-2 | NW071-2 | FILTRATION, 9060A | D | 20 mL | 20 mL | | | | |
| 280-134268-D-4 | CA212-2 | FILTRATION, 9060A | D | 20 mL | 20 mL | | | | |
| 280-134268-D-5 | CA211-2 | FILTRATION, 9060A | D | 20 mL | 20 mL | | | | |
| 280-134268-D-7 | NW080R-2 | FILTRATION, 9060A | D | 20 mL | 20 mL | | | | |
| 280-134268-D-8 | NW081R-2 | FILTRATION, 9060A | D | 20 mL | 20 mL | | | | |
| 280-134268-D-9 | NW062-2 | FILTRATION, 9060A | D | 20 mL | 20 mL | | | | |
| 280-134268-D-10 | G0080-2 | FILTRATION, 9060A | D | 20 mL | 20 mL | | | | |

| Batch Notes | |
|---|---|
| Filter ID | R9NA90610 |

| 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.: 280-134268-1

SDG No.:

Batch Number: 489347  Batch Start Date: 03/19/20 16:36  Batch Analyst: Barker, Scott G

Batch Method: 9060A  Batch End Date:

| Lab Sample ID | Client Sample ID | Method Chain | Basis | InitialAmount | FinalAmount | TOC ICV Std 00042 | TOC LCS Std 00048 | | |
|---|---|---|---|---|---|---|---|---|---|
| ICV 280-489347/2 | | 9060A | | 50 mL | 50 mL | 1 mL | | | |
| ICB 280-489347/3 | | 9060A | | 20 mL | 20 mL | | | | |
| LCS 280-489286/1-A | | 9060A | | 200 mL | 200 mL | | | | |
| MB 280-489286/2-A | | 9060A | | 20 mL | 20 mL | | | | |
| 280-134268-D-6-D | PZ019-2 | 9060A | D | 20 mL | 20 mL | | | | |
| 280-134268-D-6-E MS | PZ019-2 | 9060A | D | 50 mL | 50 mL | | 1.25 mL | | |
| 280-134268-D-6-F MSD | PZ019-2 | 9060A | D | 50 mL | 50 mL | | 1.25 mL | | |
| 280-134268-D-1-B | NW070-2 | 9060A | D | 20 mL | 20 mL | | | | |
| 280-134268-D-2-B | NW071-2 | 9060A | D | 20 mL | 20 mL | | | | |
| 280-134268-D-4-B | CA212-2 | 9060A | D | 20 mL | 20 mL | | | | |
| 280-134268-D-5-B | CA211-2 | 9060A | D | 20 mL | 20 mL | | | | |
| 280-134268-D-7-B | NW080R-2 | 9060A | D | 20 mL | 20 mL | | | | |
| 280-134268-D-8-B | NW081R-2 | 9060A | D | 20 mL | 20 mL | | | | |
| CCV 280-489347/16 | | 9060A | | 200 mL | 200 mL | | 5 mL | | |
| CCB 280-489347/17 | | 9060A | | 20 mL | 20 mL | | | | |
| 280-134268-D-9-B | NW062-2 | 9060A | D | 20 mL | 20 mL | | | | |
| 280-134268-D-10-B | G0080-2 | 9060A | D | 20 mL | 20 mL | | | | |
| CCV 280-489347/28 | | 9060A | | 200 mL | 200 mL | | 5 mL | | |
| CCB 280-489347/29 | | 9060A | | 20 mL | 20 mL | | | | |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Denver  Job No.: 280-134268-1

SDG No.:

Batch Number: 489347  Batch Start Date: 03/19/20 16:36  Batch Analyst: Barker, Scott G

Batch Method: 9060A  Batch End Date:

| Batch Notes | |
|---|---|
| Acid ID | H2SO4_00205, 0.2% H2SO4_00343 |
| 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.: 280-134268-1

SDG No.:

Batch Number: 488346  Batch Start Date: 03/10/20 09:55  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 00891 | | | | |
|---|---|---|---|---|---|---|---|---|---|
| CCV 280-488346/29 | | SM 2320B | | InitialAmount is blank | 10 mL | | | | |
| CCB 280-488346/30 | | SM 2320B | | InitialAmount is blank | | | | | |
| LCS 280-488346/31 | | SM 2320B | | InitialAmount is blank | 10 mL | | | | |
| LCSD 280-488346/32 | | SM 2320B | | InitialAmount is blank | 10 mL | | | | |
| MB 280-488346/33 | | SM 2320B | | InitialAmount is blank | | | | | |
| CCV 280-488346/44 | | SM 2320B | | InitialAmount is blank | 10 mL | | | | |
| CCB 280-488346/45 | | SM 2320B | | InitialAmount is blank | | | | | |
| 280-134268-F-1 | NW070-2 | SM 2320B | T | InitialAmount is blank | | | | | |
| 280-134268-F-2 | NW071-2 | SM 2320B | T | InitialAmount is blank | | | | | |
| 280-134268-F-6 | PZ019-2 | SM 2320B | T | InitialAmount is blank | | | | | |
| 280-134268-F-3 | CA210-2 | SM 2320B | T | InitialAmount is blank | | | | | |
| CCV 280-488346/56 | | SM 2320B | | InitialAmount is blank | 10 mL | | | | |
| CCB 280-488346/57 | | SM 2320B | | InitialAmount is blank | | | | | |
| LCS 280-488346/58 | | SM 2320B | | InitialAmount is blank | 10 mL | | | | |
| LCSD 280-488346/59 | | SM 2320B | | InitialAmount is blank | 10 mL | | | | |
| MB 280-488346/60 | | SM 2320B | | InitialAmount is blank | | | | | |
| 280-134268-F-4 | CA212-2 | SM 2320B | T | InitialAmount is blank | | | | | |
| 280-134268-F-4 DU | CA212-2 | SM 2320B | T | InitialAmount is blank | | | | | |
| CCV 280-488346/69 | | SM 2320B | | InitialAmount is blank | 10 mL | | | | |
| CCB 280-488346/70 | | SM 2320B | | InitialAmount is blank | | | | | |

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.: 280-134268-1

SDG No.:

Batch Number: 488346  Batch Start Date: 03/10/20 09:55  Batch Analyst: Gonzalez, Sofie P

Batch Method: SM 2320B  Batch End Date:

| 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 |

| 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.: 280-134268-1

SDG No.:

Batch Number: 488607  Batch Start Date: 03/12/20 11:10  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 00891 | | | | |
|---|---|---|---|---|---|---|---|---|---|
| LCS 280-488607/4 | | SM 2320B | | InitialAmount is blank | 10 mL | | | | |
| MB 280-488607/5 | | SM 2320B | | InitialAmount is blank | | | | | |
| 280-134268-F-5 | CA211-2 | SM 2320B | T | InitialAmount is blank | | | | | |
| 280-134268-F-5 DU | CA211-2 | SM 2320B | T | InitialAmount is blank | | | | | |
| 280-134268-F-7 | NW080R-2 | SM 2320B | T | InitialAmount is blank | | | | | |
| 280-134268-F-8 | NW081R-2 | SM 2320B | T | InitialAmount is blank | | | | | |
| 280-134268-F-9 | NW062-2 | SM 2320B | T | InitialAmount is blank | | | | | |
| 280-134268-F-10 | G0080-2 | SM 2320B | T | InitialAmount is blank | | | | | |
| CCV 280-488607/16 | | SM 2320B | | InitialAmount is blank | 10 mL | | | | |
| CCB 280-488607/17 | | 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_001876 |
| 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.: 280-134268-1

SDG No.:

Batch Number: 488607  Batch Start Date: 03/12/20 11:10  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: 18-Mar-20

BWH

| Cup | Name | Type | R | Dil | Wt | Comment | | | |
|---|---|---|---|---|---|---|---|---|---|
| 5 | Sync | SYNC | 1 | 1 | 1 | | | | |
| 0 | blk | CO | 1 | 1 | 1 | | 350.1 color_00169 | | |
| 0 | Read Baseline | RB | 1 | 1 | 1 | | | | |
| 1 | Cal 0.0 PPB | C | 1 | 1 | 1 | | 350.1 bleach_01222 | | |
| 3 | Cal 25.0 ppb | C | 1 | 1 | 1 | | 350.1 complex_00473 | | |
| 4 | Cal 50.0 ppb | C | 1 | 1 | 1 | | | | |
| 5 | Cal 100.0 ppb | C | 1 | 1 | 1 | | | | |
| 6 | Cal 500.0 ppb | C | 1 | 1 | 1 | | | | |
| 7 | Cal 1000.0 ppb | C | 1 | 1 | 1 | | | | |
| 8 | Cal 2500.0 ppb | C | 1 | 1 | 1 | | | | |
| 9 | Cal 5000.0 ppb | C | 1 | 1 | 1 | | | | |
| 0 | blank | BLNK | 1 | 1 | 1 | | | | |
| 0 | read baseline | RB | 1 | 1 | 1 | | | | |
| 10 | ICVL 500.0 ppb | U | 1 | 1 | 1 | | | | |
| 11 | ICV 2500.0 ppb | U | 1 | 1 | 1 | | | | |
| 12 | ICB | U | 1 | 1 | 1 | | | | |
| 0 | read baseline | RB | 1 | 1 | 1 | | | | |
| 8 | LCS | U | 1 | 1 | 1 | | | | |
| 12 | MB | U | 1 | 1 | 1 | | pH | Cl- | |
| 13 | 280-134268-c-6 | U | 1 | 1 | 1 | | L2 | n | |
| 14 | MS 280-134268-c-6 | U | 1 | 1 | 1 | | L2 | n | |
| 15 | MSD 280-134268-c-6 | U | 1 | 1 | 1 | | L2 | n | |
| 16 | 280-134103-f-4 | U | 1 | 500 | 1 | | L2 | n | |
| 17 | 280-134202-c-3 | U | 1 | 1 | 1 | | L2 | n | |
| 18 | 280-134202-c-10 | U | 1 | 1 | 1 | | L2 | n | |
| 19 | 280-134202-c-14 | U | 1 | 1 | 1 | | L2 | n | |
| 20 | 280-134202-c-18 | U | 1 | 1 | 1 | | L2 | n | |
| 21 | 280-134268-c-1 | U | 1 | 1 | 1 | | L2 | n | |
| 22 | 280-134268-c-2 | U | 1 | 1 | 1 | | L2 | n | |
| 0 | RINSE | U | 1 | 1 | 1 | | | | |
| 0 | read baseline | RB | 1 | 1 | 1 | | | | |
| 6 | CCVL 500.0 ppb | U | 1 | 1 | 1 | | | | |
| 8 | CCV 2500.0 ppb | U | 1 | 1 | 1 | | | | |
| 12 | CCB | U | 1 | 1 | 1 | | | | |
| 0 | read baseline | RB | 1 | 1 | 1 | | L2 | n | |
| 23 | 280-134268-c-9 | U | 1 | 1 | 1 | | L2 | n | |
| 24 | 280-134268-c-10 | U | 1 | 1 | 1 | 03/18/20 BWH | L2 7 | n | |
| 25 | 280-134580-h-2 | U | 1 | 1 | 1 | | L2 7 | n | |
| 26 | MS 280-134580-h-2 | U | 1 | 1 | 1 | | L2 7 | n | |
| 27 | MSD 280-134580-h-2 | U | 1 | 1 | 1 | | | | |
| 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\031820.RST |
| Sample table path | C:\FLOW_4\031820.tbl |
| Method path | C:\FLOW_4\nh3.mth |
| Date acquired | 18-Mar-20 |
| Time acquired | 13:29 |

| | | | | Ammonia | | |
|---|---|---|---|---|---|---|
| Date | Time | Cup | Name | Response | Calc [ppb] | Flags |
| 18-Mar-20 | 11:53 | 5 | Sync | 8009 | 80.521 | |
| 18-Mar-20 | 11:55 | 0 | blk | 151 | -3.922 | LO |
| 18-Mar-20 | 11:57 | 0 | Read Baseline | 0 | -5.528 | BL |
| 18-Mar-20 | 11:59 | 1 | Cal 0.0 PPB | 879 | 3.858 | |
| 18-Mar-20 | 12:01 | 3 | Cal 25.0 ppb | 3073 | 27.338 | |
| 18-Mar-20 | 12:03 | 4 | Cal 50.0 ppb | 4809 | 45.990 | |
| 18-Mar-20 | 12:05 | 5 | Cal 100.0 ppb | 8542 | 86.291 | |
| 18-Mar-20 | 12:07 | 6 | Cal 500.0 ppb | 50102 | 554.161 | |
| 18-Mar-20 | 12:09 | 7 | Cal 1000.0 ppb | 83677 | 957.692 | |
| 18-Mar-20 | 12:11 | 8 | Cal 2500.0 ppb | 198179 | 2505.711 | |
| 18-Mar-20 | 12:13 | 9 | Cal 5000.0 ppb | 351770 | 4999.499 | |
| 18-Mar-20 | 12:15 | 0 | blank | -6467 | -74.066 | LO |
| 18-Mar-20 | 12:17 | 0 | read baseline | 0 | -5.528 | BL |
| 18-Mar-20 | 12:19 | 10 | ICVL 500.0 ppb | 44078 | 484.174 | |
| 18-Mar-20 | 12:21 | 11 | ICV 2500.0 ppb | 197988 | 2502.915 | |
| 18-Mar-20 | 12:23 | 12 | ICB | -2059 | -27.436 | LO |
| 18-Mar-20 | 12:25 | 0 | read baseline | 0 | -5.528 | BL |
| 18-Mar-20 | 12:27 | 8 | LCS | 195644 | 2468.559 | |
| 18-Mar-20 | 12:29 | 12 | MB | -1767 | -24.342 | LO |
| 18-Mar-20 | 12:31 | 13 | 280-134268-c-6 | 1577 | 11.315 | |
| 18-Mar-20 | 12:33 | 14 | MS 280-134268-c-6 | 79729 | 909.060 | |
| 18-Mar-20 | 12:35 | 15 | MSD 280-134268-c-6 | 78772 | 897.316 | |
| 18-Mar-20 | 12:37 | 16 | 280-134103-f-4 | 77197 | 439013.344 | |
| 18-Mar-20 | 12:39 | 17 | 280-134202-c-3 | 1796 | 13.658 | |
| 18-Mar-20 | 12:41 | 18 | 280-134202-c-10 | 284514 | 3848.643 | |
| 18-Mar-20 | 12:43 | 19 | 280-134202-c-14 | -2362 | -30.657 | LO |
| 18-Mar-20 | 12:45 | 20 | 280-134202-c-18 | 1766 | 13.339 | |
| 18-Mar-20 | 12:47 | 21 | 280-134268-c-1 | 5989 | 58.700 | |
| 18-Mar-20 | 12:49 | 22 | 280-134268-c-2 | 390 | -1.371 | LO |
| 18-Mar-20 | 12:51 | 0 | RINSE | -84 | -6.424 | LO |
| 18-Mar-20 | 12:53 | 0 | read baseline | 0 | -5.528 | BL |
| 18-Mar-20 | 12:55 | 6 | CCVL 500.0 ppb | 48329 | 533.481 | |
| 18-Mar-20 | 12:57 | 8 | CCV 2500.0 ppb | 194874 | 2457.306 | |
| 18-Mar-20 | 12:59 | 12 | CCB | -3159 | -39.106 | LO |
| 18-Mar-20 | 13:01 | 0 | read baseline | 0 | -5.528 | BL |
| 18-Mar-20 | 13:03 | 23 | 280-134268-c-9 | 56616 | 630.667 | |
| 18-Mar-20 | 13:05 | 24 | 280-134268-c-10 | 37418 | 407.659 | |
| 18-Mar-20 | 13:07 | 25 | 280-134580-h-2 | 2084 | 16.741 | |
| 18-Mar-20 | 13:09 | 26 | MS 280-134580-h-2 | 79415 | 905.203 | |
| 18-Mar-20 | 13:11 | 27 | MSD 280-134580-h-2 | 79709 | 908.814 | |
| 18-Mar-20 | 13:13 | 0 | RINSE | -1332 | -19.717 | LO |
| 18-Mar-20 | 13:15 | 0 | read baseline | 0 | -5.528 | BL |
| 18-Mar-20 | 13:17 | 6 | CCVL 500.0 ppb | 47851 | 527.920 | |
| 18-Mar-20 | 13:19 | 8 | CCV 2500.0 ppb | 195641 | 2468.527 | |
| 18-Mar-20 | 13:21 | 12 | CCB | -1357 | -19.977 | LO |
| 18-Mar-20 | 13:23 | 0 | read baseline | 0 | -5.528 | BL |

Peak Table:Ammonia

File name: C:\FLOW_4\031820.RST
Date: 18-Mar-20
Operator: BWH

| Peak | Cup | Name | R | Type | Dil | Wt | Height | Calc. (ppb) | Flags |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 5 | Sync | 1 | SYNC | 1 | 1 | 8009 | 80.521378 | |
| 2 | 0 | blk | 1 | CO | 1 | 1 | 151 | -3.922174 | LO |
| B | 0 | Read Baseline | 1 | RB | 1 | 1 | 0 | -5.527585 | BL |
| 4 | 1 | Cal 0.0 PPB | 1 | C | 1 | 1 | 879 | 3.857580 | |
| 5 | 3 | Cal 25.0 ppb | 1 | C | 1 | 1 | 3073 | 27.338303 | |
| 6 | 4 | Cal 50.0 ppb | 1 | C | 1 | 1 | 4809 | 45.990269 | |
| 7 | 5 | Cal 100.0 ppb | 1 | C | 1 | 1 | 8542 | 86.291206 | |
| 8 | 6 | Cal 500.0 ppb | 1 | C | 1 | 1 | 50102 | 554.161194 | |
| 9 | 7 | Cal 1000.0 ppb | 1 | C | 1 | 1 | 83677 | 957.692383 | |
| 10 | 8 | Cal 2500.0 ppb | 1 | C | 1 | 1 | 198179 | 2505.711426 | |
| 11 | 9 | Cal 5000.0 ppb | 1 | C | 1 | 1 | 351770 | 4999.498535 | |
| 12 | 0 | blank | 1 | BLNK | 1 | 1 | -6467 | -74.066109 | LO |
| B | 0 | read baseline | 1 | RB | 1 | 1 | 0 | -5.527585 | BL |
| 14 | 10 | ICVL 500.0 ppb | 1 | U | 1 | 1 | 44078 | 484.173828 | |
| 15 | 11 | ICV 2500.0 ppb | 1 | U | 1 | 1 | 197988 | 2502.915039 | |
| 16 | 12 | ICB | 1 | U | 1 | 1 | -2059 | -27.435644 | LO |
| B | 0 | read baseline | 1 | RB | 1 | 1 | 0 | -5.527585 | BL |
| 18 | 8 | LCS | 1 | U | 1 | 1 | 195644 | 2468.558594 | |
| 19 | 12 | MB | 1 | U | 1 | 1 | -1767 | -24.342085 | LO |
| 20 | 13 | 280-134268-c-6 | 1 | U | 1 | 1 | 1577 | 11.315225 | |
| 21 | 14 | MS 280-134268-c-6 | 1 | U | 1 | 1 | 79729 | 909.059998 | |
| 22 | 15 | MSD 280-134268-c-6 | 1 | U | 1 | 1 | 78772 | 897.315552 | |
| 23 | 16 | 280-134103-f-4 | 1 | U | 500 | 1 | 77197 | 439013.343750 | |
| 24 | 17 | 280-134202-c-3 | 1 | U | 1 | 1 | 1796 | 13.658216 | |
| 25 | 18 | 280-134202-c-10 | 1 | U | 1 | 1 | 284514 | 3848.643066 | |
| 26 | 19 | 280-134202-c-14 | 1 | U | 1 | 1 | -2362 | -30.657413 | LO |
| 27 | 20 | 280-134202-c-18 | 1 | U | 1 | 1 | 1766 | 13.339361 | |
| 28 | 21 | 280-134268-c-1 | 1 | U | 1 | 1 | 5989 | 58.700340 | |
| 29 | 22 | 280-134268-c-2 | 1 | U | 1 | 1 | 390 | -1.370888 | LO |
| 30 | 0 | RINSE | 1 | U | 1 | 1 | -84 | -6.424079 | LO |
| B | 0 | read baseline | 1 | RB | 1 | 1 | 0 | -5.527586 | BL |
| 32 | 6 | CCVL 500.0 ppb | 1 | U | 1 | 1 | 48329 | 533.481140 | |
| 33 | 8 | CCV 2500.0 ppb | 1 | U | 1 | 1 | 194874 | 2457.306396 | |
| 34 | 12 | CCB | 1 | U | 1 | 1 | -3159 | -39.106087 | LO |
| B | 0 | read baseline | 1 | RB | 1 | 1 | 0 | -5.527585 | BL |
| 36 | 23 | 280-134268-c-9 | 1 | U | 1 | 1 | 56616 | 630.666687 | |
| 37 | 24 | 280-134268-c-10 | 1 | U | 1 | 1 | 37418 | 407.658844 | |
| 38 | 25 | 280-134580-h-2 | 1 | U | 1 | 1 | 2084 | 16.741377 | |
| 39 | 26 | MS 280-134580-h-2 | 1 | U | 1 | 1 | 79415 | 905.203186 | |
| 40 | 27 | MSD 280-134580-h-2 | 1 | U | 1 | 1 | 79709 | 908.813782 | |
| 41 | 0 | RINSE | 1 | U | 1 | 1 | -1332 | -19.717030 | LO |
| B | 0 | read baseline | 1 | RB | 1 | 1 | 0 | -5.527585 | BL |
| 43 | 6 | CCVL 500.0 ppb | 1 | U | 1 | 1 | 47851 | 527.920410 | |
| 44 | 8 | CCV 2500.0 ppb | 1 | U | 1 | 1 | 195641 | 2468.527100 | |
| 45 | 12 | CCB | 1 | U | 1 | 1 | -1357 | -19.976973 | LO |
| B | 0 | read baseline | 1 | RB | 1 | 1 | 0 | -5.527585 | BL |

Ammonia:Calibration  1: Peak 4-46

File name: C:\FLOW_4\031820.RST
Date: 18-Mar-20
Operator: BWH

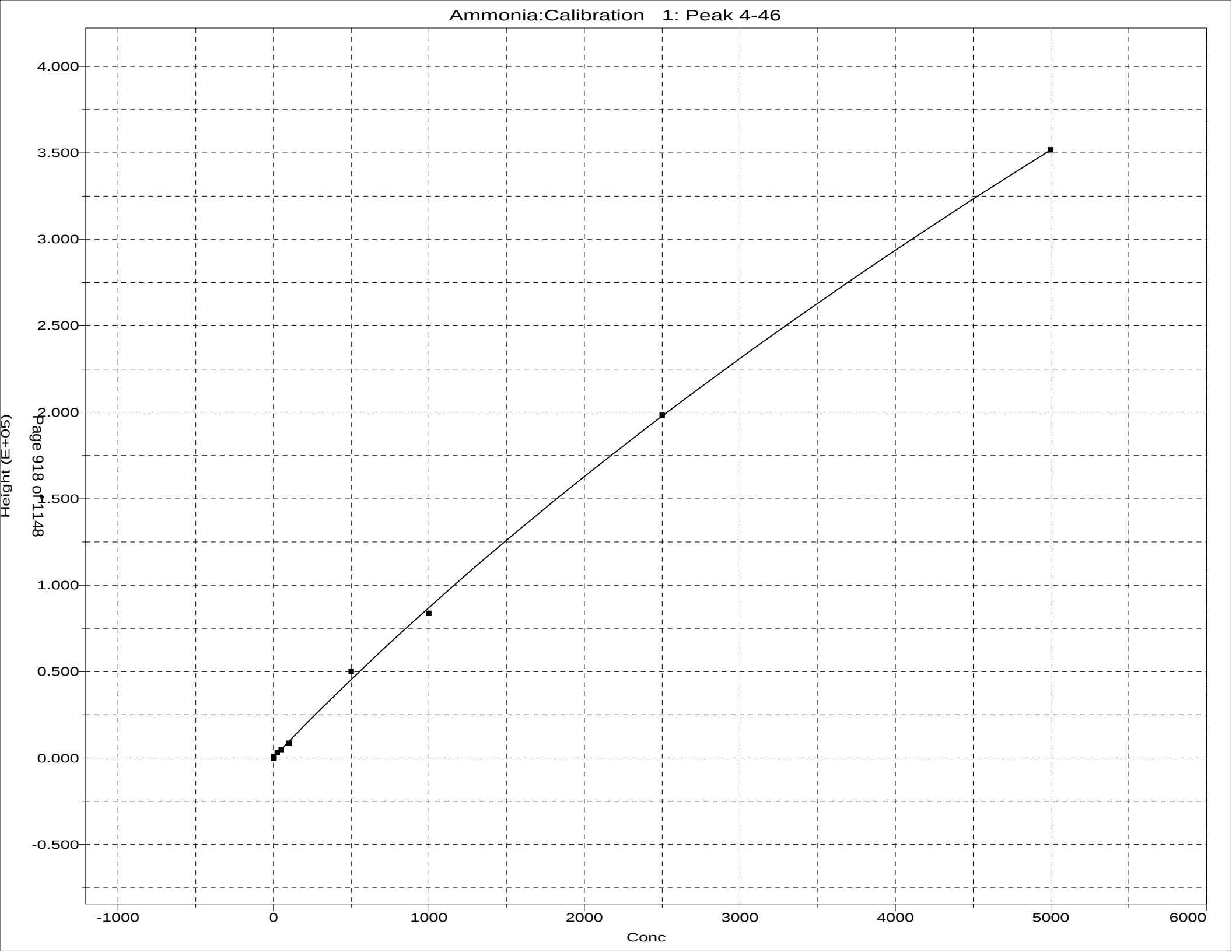
| * | Name | Conc | Height |
|---|---|---|---|
| * | Cal 0.0 PPB | 0.000000 | 879.414917 |
| * | Cal 25.0 ppb | 25.000000 | 3073.218506 |
| * | Cal 50.0 ppb | 50.000000 | 4809.411133 |
| * | Cal 100.0 ppb | 100.000000 | 8541.515625 |
| * | Cal 500.0 ppb | 500.000000 | 50102.371094 |
| * | Cal 1000.0 ppb | 1000.000000 | 83677.031250 |
| * | Cal 2500.0 ppb | 2500.000000 | 198178.921875 |
| * | Cal 5000.0 ppb | 5000.000000 | 351769.750000 |

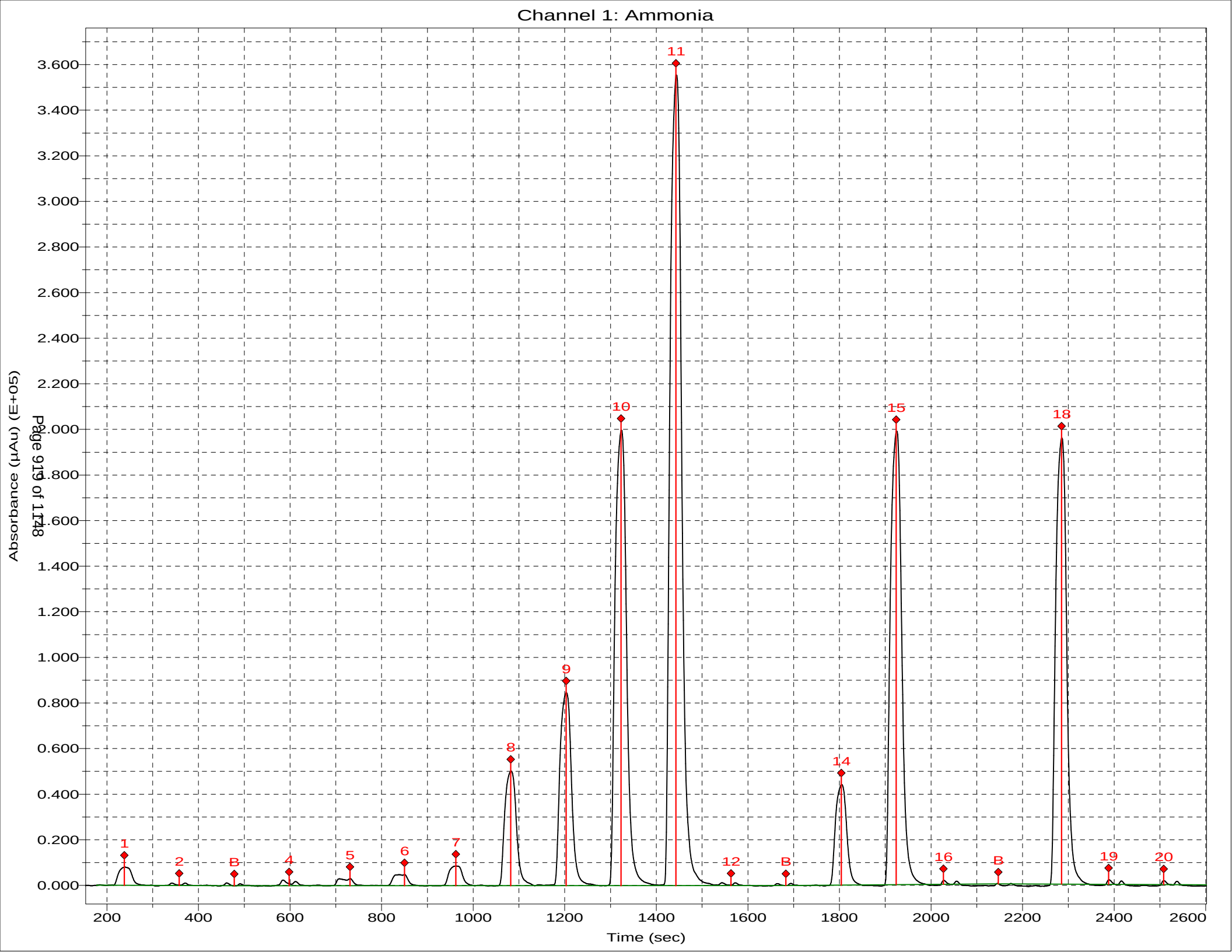
Calib Coef:
x=cyy+by+a
a: (intercept)  -5.5276e+00
b:  1.0663e-02
c:  1.0134e-08

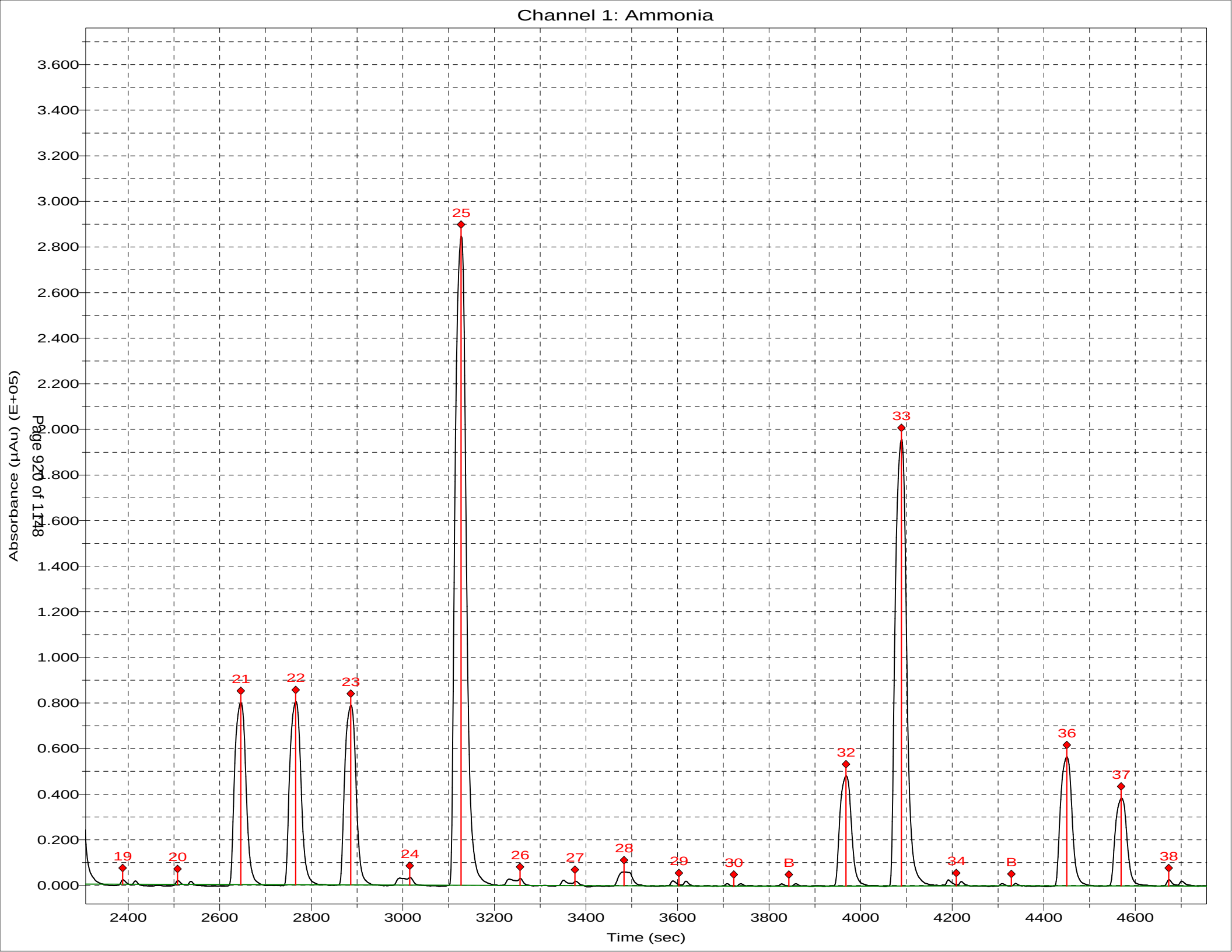
Corr Coef:  0.999892

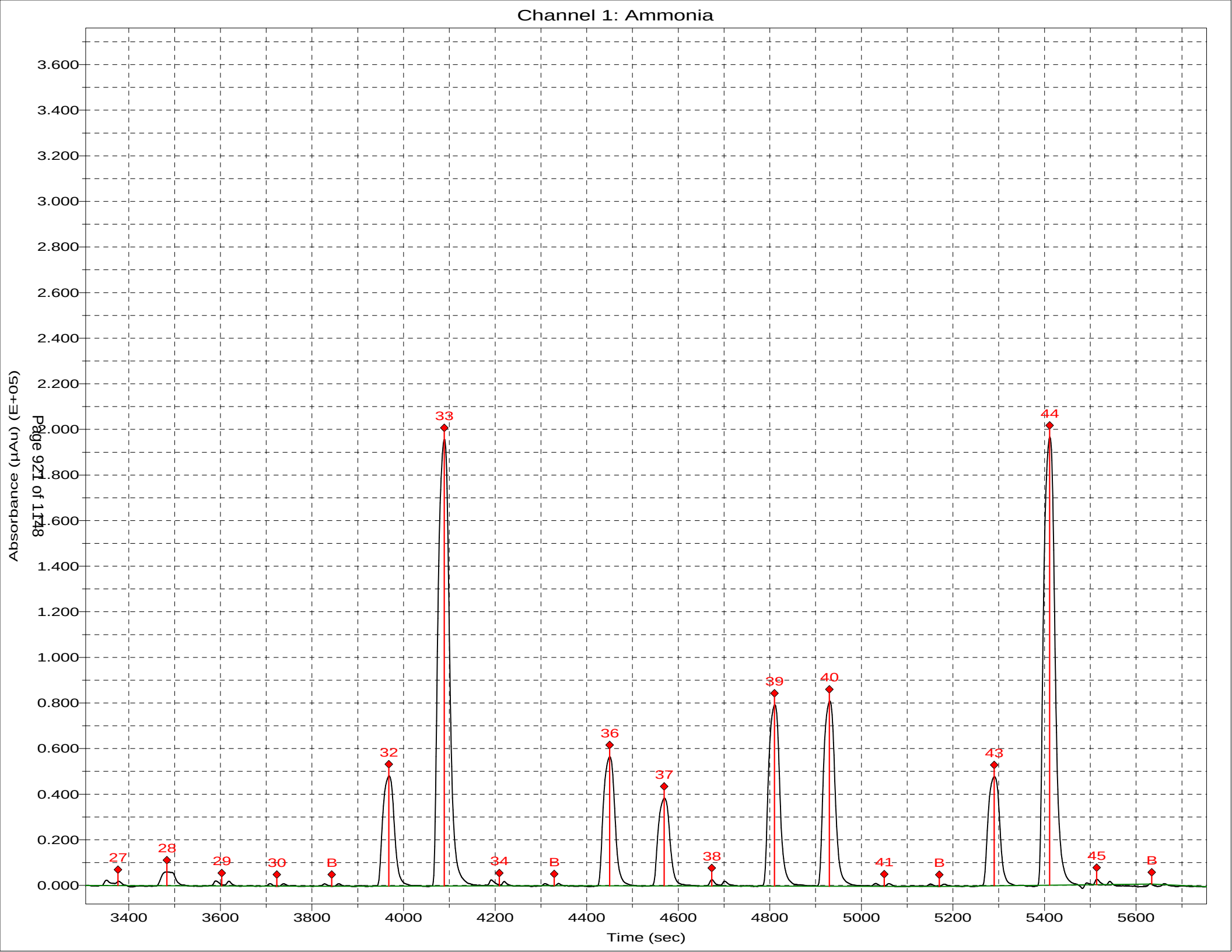
Carryover:  1.88%

No Drift Peaks


Ammonia:Calibration 1: Peak 4-46
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
2600
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
19
20
21
22
23
24
25
26
27
28
29
30
B
32
33
34
B
36
37
38


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
3400
3600
3800
4000
4200
4400
4600
4800
5000
5200
5400
5600
27
28
29
30
B
32
33
34
B
36
37
38
39
40
41
B
43
44
45
B

*** Sample Table from Analysis ***

File name: *** Sample Table from Analysis ***
Date: 20-Mar-20

BWH

350.1 color_00189
350.1 bleach_01223
350.1 complex_00474

| 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 | 280-134268-c-5 | U | 1 | 1 | 1 | | <2 | n |
| 14 | MS 280-134268-c-5 | U | 1 | 1 | 1 | | <2 | n |
| 15 | MSD 280-134268-c-5 | U | 1 | 1 | 1 | | <2 | n |
| 16 | 280-134241-g-1 | X U | 1 | 100 | 1 | | <2 | n |
| 17 | 280-134241-g-2 | X U | 1 | 100 | 1 | | <2 | n |
| 18 | 280-134242-g-1 | U | 1 | 500 | 1 | | <2 | n |
| 19 | 280-134242-g-2 | X U | 1 | 500 | 1 | | <2 | n |
| 20 | 280-134242-e-3 | U | 1 | 500 | 1 | | <2 | n |
| 21 | 280-134268-c-4 | U | 1 | 1 | 1 | | <2 | n |
| 22 | 280-134268-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 | | | |
| 23 | 280-134268-c-7 | U | 1 | 1 | 1 | | <2 | n |
| 24 | 280-134268-c-8 | U | 1 | 1 | 1 | | <2 | n |
| 25 | 280-134268-c-9 | U | 1 | 1 | 1 | | <2 | n |
| 26 | MS 280-134268-c-9 | U | 1 | 1 | 1 | | <2 | n |
| 27 | MSD 280-134268-c-9 | U | 1 | 1 | 1 | | <2 | n |
| 28 | 280-134339-a-1 | U | 1 | 1 | 1 | | <2 | n |
| 29 | 280-134349-b-1 | U | 1 | 1 | 1 | | <2 | n |
| 30 | 280-134345-c-1 | U | 1 | 1 | 1 | | <2 | n |
| 31 | 280-134345-b-2 | U | 1 | 1 | 1 | | <2 | n |
| 32 | 280-134348-g-1 | U | 1 | 500 | 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 | 280-134420-b-1 | U | 1 | 1 | 1 | | <2 | n |
| 34 | 280-134420-b-2 | U | 1 | 1 | 1 | | <2 | n |
| 35 | 280-134420-b-3 | U | 1 | 1 | 1 | | <2 | n |
| 36 | 280-134420-b-4 | U | 1 | 1 | 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 | 280-134420-b-5 | U | 1 | 1 | 1 | | <2 | n |
| 38 | MS 280-134420-b-5 | U | 1 | 1 | 1 | | <2 | n |
| 39 | MSD 280-134420-b-5 | 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 | | | |
| 40 | 280-134420-b-6 | U | 1 | 1 | 1 | | <2 | n |
| 41 | 280-134422-b-1 | U | 1 | 1 | 1 | | <2 | n |
| 42 | 280-134422-c-2 | U | 1 | 1 | 1 | | <2 | n |
| 43 | 280-134239-m-1 | U | 1 | 500 | 1 | | <2 | n |
| 44 | 280-134239-m-3 | U | 1 | 500 | 1 | | <2 | n |
| 45 | 280-134241-g-1 | U | 1 | 1000 | 1 | | <2 | n |
| 46 | 280-134241-g-2 | U | 1 | 1000 | 1 | | <2 | n |
| 47 | 280-134242-g-2 | U | 1 | 1000 | 1 | | <2 | n |
| 48 | 280-134484-c-1 | U | 1 | 1 | 1 | | <2 | n |
| 49 | 280-134241-g-2 | U | 1 | 1000 | 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 | | | |

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\032020A.RST |
| Sample table path | C:\FLOW_4\032020a.tbl |
| Method path | C:\FLOW_4\nh3.mth |
| Date acquired | 20-Mar-20 |
| Time acquired | 16:16 |

| | | | | Ammonia | | |
|---|---|---|---|---|---|---|
| Date | Time | Cup | Name | Response | Calc [ppb] | Flags |
| 20-Mar-20 | 13:09 | 5 | Sync | 6733 | 90.067 | |
| 20-Mar-20 | 13:11 | 0 | blk | -34 | 5.004 | |
| 20-Mar-20 | 13:13 | 0 | Read Baseline | 0 | 5.423 | BL |
| 20-Mar-20 | 13:15 | 1 | Cal 0.0 PPB | 235 | 8.354 | UM |
| 20-Mar-20 | 13:17 | 3 | Cal 25.0 ppb | 1659 | 26.174 | UM |
| 20-Mar-20 | 13:19 | 4 | Cal 50.0 ppb | 3200 | 45.507 | UM |
| 20-Mar-20 | 13:21 | 5 | Cal 100.0 ppb | 7077 | 94.425 | |
| 20-Mar-20 | 13:23 | 6 | Cal 500.0 ppb | 38886 | 509.985 | |
| 20-Mar-20 | 13:25 | 7 | Cal 1000.0 ppb | 72219 | 972.698 | |
| 20-Mar-20 | 13:27 | 8 | Cal 2500.0 ppb | 171499 | 2516.145 | |
| 20-Mar-20 | 13:29 | 9 | Cal 5000.0 ppb | 305724 | 4996.279 | |
| 20-Mar-20 | 13:31 | 0 | blank | 49 | 6.037 | |
| 20-Mar-20 | 13:33 | 0 | read baseline | 0 | 5.423 | BL |
| 20-Mar-20 | 13:35 | 10 | ICVL 500.0 ppb | 39980 | 524.729 | |
| 20-Mar-20 | 13:37 | 11 | ICV 2500.0 ppb | 178258 | 2630.226 | |
| 20-Mar-20 | 13:39 | 12 | ICB | 163 | 7.453 | |
| 20-Mar-20 | 13:41 | 0 | read baseline | 0 | 5.423 | BL |
| 20-Mar-20 | 13:43 | 8 | LCS | 172670 | 2535.835 | |
| 20-Mar-20 | 13:45 | 8 | LCSD | 172306 | 2529.707 | |
| 20-Mar-20 | 13:47 | 12 | MB | 2128 | 32.047 | |
| 20-Mar-20 | 13:49 | 13 | 280-134268-c-5 | 3011 | 43.140 | |
| 20-Mar-20 | 13:51 | 14 | MS 280-134268-c-5 | 73766 | 994.851 | |
| 20-Mar-20 | 13:53 | 15 | MSD 280-134268-c-5 | 72898 | 982.413 | |
| 20-Mar-20 | 13:55 | 16 | 280-134241-g-1 X | 868392 | 2031490.000 | HI |
| 20-Mar-20 | 13:57 | 17 | 280-134241-g-2 X | 940909 | 2286737.500 | HI |
| 20-Mar-20 | 13:59 | 18 | 280-134242-g-1 | 291659 | 2357592.000 | FL |
| 20-Mar-20 | 14:01 | 19 | 280-134242-g-2 X | 315104 | 2593247.250 | |
| 20-Mar-20 | 14:03 | 20 | 280-134242-e-3 | 172256 | 1264430.375 | |
| 20-Mar-20 | 14:05 | 21 | 280-134268-c-4 | 1951 | 29.827 | |
| 20-Mar-20 | 14:07 | 22 | 280-134268-c-3 | 2812 | 40.633 | |
| 20-Mar-20 | 14:09 | 0 | RINSE | 112 | 6.818 | |
| 20-Mar-20 | 14:11 | 0 | read baseline | 0 | 5.423 | BL |
| 20-Mar-20 | 14:13 | 6 | CCVL 500.0 ppb | 39429 | 517.293 | |
| 20-Mar-20 | 14:15 | 8 | CCV 2500.0 ppb | 173326 | 2546.867 | |
| 20-Mar-20 | 14:17 | 12 | CCB | -114 | 3.995 | |
| 20-Mar-20 | 14:19 | 0 | read baseline | 0 | 5.423 | BL |
| 20-Mar-20 | 14:21 | 23 | 280-134268-c-7 | 2258 | 33.679 | |
| 20-Mar-20 | 14:23 | 24 | 280-134268-c-8 | 2004 | 30.494 | |
| 20-Mar-20 | 14:25 | 25 | 280-134268-c-9 | 52033 | 689.158 | |
| 20-Mar-20 | 14:27 | 26 | MS 280-134268-c-9 | 121374 | 1705.957 | |
| 20-Mar-20 | 14:29 | 27 | MSD 280-134268-c-9 | 125754 | 1774.233 | |
| 20-Mar-20 | 14:31 | 28 | 280-134339-a-1 | 39770 | 521.888 | |
| 20-Mar-20 | 14:33 | 29 | 280-134349-b-1 | 152034 | 2194.034 | |
| 20-Mar-20 | 14:35 | 30 | 280-134345-c-1 | 5662 | 76.524 | |
| 20-Mar-20 | 14:37 | 31 | 280-134345-b-2 | 207 | 8.014 | |
| 20-Mar-20 | 14:39 | 32 | 280-134348-g-1 | 263144 | 2080258.250 | |

Result path C:\FLOW_4\032020A.RST
Sample table path C:\FLOW_4\032020a.tbl
Method path C:\FLOW_4\nh3.mth
Date acquired 20-Mar-20
Time acquired 16:16

| | | | | Ammonia | | |
|---|---|---|---|---|---|---|
| Date | Time | Cup | Name | Response | Calc [ppb] | Flags |
| 20-Mar-20 | 14:41 | 0 | RINSE | -98 | 4.205 | |
| 20-Mar-20 | 14:43 | 0 | read baseline | 0 | 5.423 | BL |
| 20-Mar-20 | 14:45 | 6 | CCVL 500.0 ppb | 38931 | 510.583 | |
| 20-Mar-20 | 14:47 | 8 | CCV 2500.0 ppb | 172122 | 2526.613 | |
| 20-Mar-20 | 14:49 | 12 | CCB | 1629 | 25.802 | |
| 20-Mar-20 | 14:51 | 0 | read baseline | 0 | 5.423 | BL |
| 20-Mar-20 | 14:53 | 33 | 280-134420-b-1 | 86891 | 1185.221 | |
| 20-Mar-20 | 14:55 | 34 | 280-134420-b-2 | 136315 | 1940.855 | |
| 20-Mar-20 | 14:57 | 35 | 280-134420-b-3 | 144696 | 2075.070 | |
| 20-Mar-20 | 14:59 | 36 | 280-134420-b-4 | 18055 | 234.966 | |
| 20-Mar-20 | 15:01 | 8 | LCS | 172432 | 2531.820 | |
| 20-Mar-20 | 15:03 | 8 | LCSD | 174234 | 2562.161 | |
| 20-Mar-20 | 15:05 | 12 | MB | 253 | 8.583 | UM |
| 20-Mar-20 | 15:07 | 37 | 280-134420-b-5 | 14157 | 184.714 | |
| 20-Mar-20 | 15:09 | 38 | MS 280-134420-b-5 | 85617 | 1166.546 | |
| 20-Mar-20 | 15:11 | 39 | MSD 280-134420-b-5 | 86043 | 1172.785 | |
| 20-Mar-20 | 15:13 | 0 | RINSE | 220 | 8.173 | |
| 20-Mar-20 | 15:15 | 0 | read baseline | 0 | 5.423 | BL |
| 20-Mar-20 | 15:17 | 6 | CCVL 500.0 ppb | 38066 | 498.945 | |
| 20-Mar-20 | 15:19 | 8 | CCV 2500.0 ppb | 166697 | 2435.798 | |
| 20-Mar-20 | 15:21 | 12 | CCB | 339 | 9.662 | UM |
| 20-Mar-20 | 15:23 | 0 | read baseline | 0 | 5.423 | BL |
| 20-Mar-20 | 15:25 | 40 | 280-134420-b-6 | 21267 | 276.661 | |
| 20-Mar-20 | 15:27 | 41 | 280-134422-b-1 | 30296 | 395.260 | |
| 20-Mar-20 | 15:29 | 42 | 280-134422-c-2 | 3577 | 50.245 | |
| 20-Mar-20 | 15:31 | 43 | 280-134239-m-1 | 144364 | 1034860.625 | |
| 20-Mar-20 | 15:33 | 44 | 280-134239-m-3 | 137349 | 978656.438 | |
| 20-Mar-20 | 15:46 | 45 | 280-134241-g-1 | 188081 | 2798055.500 | |
| 20-Mar-20 | 15:48 | 46 | 280-134241-g-2 | 26796 | 349047.625 | |
| 20-Mar-20 | 15:50 | 47 | 280-134242-g-2 | 161844 | 2355184.750 | |
| 20-Mar-20 | 15:56 | 48 | 280-134484-c-1 | 218 | 8.144 | UM |
| 20-Mar-20 | 15:58 | 49 | 280-134241-g-2 | 248 | 8526.196 | |
| 20-Mar-20 | 16:00 | 0 | RINSE | 25 | 5.735 | |
| 20-Mar-20 | 16:02 | 0 | read baseline | 0 | 5.423 | BL |
| 20-Mar-20 | 16:04 | 6 | CCVL 500.0 ppb | 35086 | 458.999 | |
| 20-Mar-20 | 16:06 | 8 | CCV 2500.0 ppb | 172612 | 2534.858 | |
| 20-Mar-20 | 16:08 | 12 | CCB | 1406 | 23.003 | |
| 20-Mar-20 | 16:10 | 0 | read baseline | 0 | 5.423 | BL |

Peak Table:Ammonia

File name: C:\FLOW_4\032020A.RST
Date: 20-Mar-20
Operator: BWH

| Peak | Cup | Name | R | Type | Dil | Wt | Height | Calc. (ppb) | Flags |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 5 | Sync | 1 | SYNC | 1 | 1 | 6733 | 90.067085 | |
| 2 | 0 | blk | 1 | CO | 1 | 1 | -34 | 5.004219 | |
| B | 0 | Read Baseline | 1 | RB | 1 | 1 | 0 | 5.422970 | BL |
| 4 | 1 | Cal 0.0 PPB | 1 | C | 1 | 1 | 235 | 8.354268 | UM |
| 5 | 3 | Cal 25.0 ppb | 1 | C | 1 | 1 | 1659 | 26.174229 | UM |
| 6 | 4 | Cal 50.0 ppb | 1 | C | 1 | 1 | 3200 | 45.506725 | UM |
| 7 | 5 | Cal 100.0 ppb | 1 | C | 1 | 1 | 7077 | 94.424553 | |
| 8 | 6 | Cal 500.0 ppb | 1 | C | 1 | 1 | 38886 | 509.985138 | |
| 9 | 7 | Cal 1000.0 ppb | 1 | C | 1 | 1 | 72219 | 972.697754 | |
| 10 | 8 | Cal 2500.0 ppb | 1 | C | 1 | 1 | 171499 | 2516.144531 | |
| 11 | 9 | Cal 5000.0 ppb | 1 | C | 1 | 1 | 305724 | 4996.279297 | |
| 12 | 0 | blank | 1 | BLNK | 1 | 1 | 49 | 6.037274 | |
| B | 0 | read baseline | 1 | RB | 1 | 1 | 0 | 5.422970 | BL |
| 14 | 10 | ICVL 500.0 ppb | 1 | U | 1 | 1 | 39980 | 524.729370 | |
| 15 | 11 | ICV 2500.0 ppb | 1 | U | 1 | 1 | 178258 | 2630.225586 | |
| 16 | 12 | ICB | 1 | U | 1 | 1 | 163 | 7.452929 | |
| B | 0 | read baseline | 1 | RB | 1 | 1 | 0 | 5.422970 | BL |
| 18 | 8 | LCS | 1 | U | 1 | 1 | 172670 | 2535.835449 | |
| 19 | 8 | LCSD | 1 | U | 1 | 1 | 172306 | 2529.706787 | |
| 20 | 12 | MB | 1 | U | 1 | 1 | 2128 | 32.047150 | |
| 21 | 13 | 280-134268-c-5 | 1 | U | 1 | 1 | 3011 | 43.140091 | |
| 22 | 14 | MS 280-134268-c-5 | 1 | U | 1 | 1 | 73766 | 994.850952 | |
| 23 | 15 | MSD 280-134268-c-5 | 1 | U | 1 | 1 | 72898 | 982.412842 | |
| 24 | 16 | 280-134241-g-1 X | 1 | U | 100 | 1 | 868392 | 2031490.000000 | HI |
| 25 | 17 | 280-134241-g-2 X | 1 | U | 100 | 1 | 940909 | 2286737.500000 | HI |
| 26 | 18 | 280-134242-g-1 | 1 | U | 500 | 1 | 291659 | 2357592.000000 | FL |
| 27 | 19 | 280-134242-g-2 X | 1 | U | 500 | 1 | 315104 | 2593247.250000 | |
| 28 | 20 | 280-134242-e-3 | 1 | U | 500 | 1 | 172256 | 1264430.375000 | |
| 29 | 21 | 280-134268-c-4 | 1 | U | 1 | 1 | 1951 | 29.827066 | |
| 30 | 22 | 280-134268-c-3 | 1 | U | 1 | 1 | 2812 | 40.632568 | |
| 31 | 0 | RINSE | 1 | U | 1 | 1 | 112 | 6.817637 | |
| B | 0 | read baseline | 1 | RB | 1 | 1 | 0 | 5.422970 | BL |
| 33 | 6 | CCVL 500.0 ppb | 1 | U | 1 | 1 | 39429 | 517.293396 | |
| 34 | 8 | CCV 2500.0 ppb | 1 | U | 1 | 1 | 173326 | 2546.867432 | |
| 35 | 12 | CCB | 1 | U | 1 | 1 | -114 | 3.995231 | |
| B | 0 | read baseline | 1 | RB | 1 | 1 | 0 | 5.422970 | BL |
| 37 | 23 | 280-134268-c-7 | 1 | U | 1 | 1 | 2258 | 33.679096 | |
| 38 | 24 | 280-134268-c-8 | 1 | U | 1 | 1 | 2004 | 30.494169 | |
| 39 | 25 | 280-134268-c-9 | 1 | U | 1 | 1 | 52033 | 689.158325 | |
| 40 | 26 | MS 280-134268-c-9 | 1 | U | 1 | 1 | 121374 | 1705.957397 | |
| 41 | 27 | MSD 280-134268-c-9 | 1 | U | 1 | 1 | 125754 | 1774.232910 | |
| 42 | 28 | 280-134339-a-1 | 1 | U | 1 | 1 | 39770 | 521.888123 | |
| 43 | 29 | 280-134349-b-1 | 1 | U | 1 | 1 | 152034 | 2194.033936 | |
| 44 | 30 | 280-134345-c-1 | 1 | U | 1 | 1 | 5662 | 76.524139 | |
| 45 | 31 | 280-134345-b-2 | 1 | U | 1 | 1 | 207 | 8.014379 | |
| 46 | 32 | 280-134348-g-1 | 1 | U | 500 | 1 | 263144 | 2080258.250000 | |
| 47 | 0 | RINSE | 1 | U | 1 | 1 | -98 | 4.204938 | |
| B | 0 | read baseline | 1 | RB | 1 | 1 | 0 | 5.422970 | BL |
| 49 | 6 | CCVL 500.0 ppb | 1 | U | 1 | 1 | 38931 | 510.583099 | |
| 50 | 8 | CCV 2500.0 ppb | 1 | U | 1 | 1 | 172122 | 2526.613037 | |
| 51 | 12 | CCB | 1 | U | 1 | 1 | 1629 | 25.802176 | |
| B | 0 | read baseline | 1 | RB | 1 | 1 | 0 | 5.422970 | BL |
| 53 | 33 | 280-134420-b-1 | 1 | U | 1 | 1 | 86891 | 1185.221069 | |
| 54 | 34 | 280-134420-b-2 | 1 | U | 1 | 1 | 136315 | 1940.855469 | |
| 55 | 35 | 280-134420-b-3 | 1 | U | 1 | 1 | 144696 | 2075.069824 | |
| 56 | 36 | 280-134420-b-4 | 1 | U | 1 | 1 | 18055 | 234.965805 | |
| 57 | 8 | LCS | 1 | U | 1 | 1 | 172432 | 2531.819580 | |
| 58 | 8 | LCSD | 1 | U | 1 | 1 | 174234 | 2562.161377 | |
| 59 | 12 | MB | 1 | U | 1 | 1 | 253 | 8.582561 | UM |
| 60 | 37 | 280-134420-b-5 | 1 | U | 1 | 1 | 14157 | 184.713562 | |
| 61 | 38 | MS 280-134420-b-5 | 1 | U | 1 | 1 | 85617 | 1166.546265 | |
| 62 | 39 | MSD 280-134420-b-5 | 1 | U | 1 | 1 | 86043 | 1172.784912 | |
| 63 | 0 | RINSE | 1 | U | 1 | 1 | 220 | 8.172791 | |
| B | 0 | read baseline | 1 | RB | 1 | 1 | 0 | 5.422970 | BL |
| 65 | 6 | CCVL 500.0 ppb | 1 | U | 1 | 1 | 38066 | 498.945007 | |
| 66 | 8 | CCV 2500.0 ppb | 1 | U | 1 | 1 | 166697 | 2435.797852 | |
| 67 | 12 | CCB | 1 | U | 1 | 1 | 339 | 9.661831 | UM |
| B | 0 | read baseline | 1 | RB | 1 | 1 | 0 | 5.422970 | BL |
| 69 | 40 | 280-134420-b-6 | 1 | U | 1 | 1 | 21267 | 276.660950 | |
| 70 | 41 | 280-134422-b-1 | 1 | U | 1 | 1 | 30296 | 395.259979 | |

| Peak | Cup | Name | R | Type | Dil | Wt | Height | Calc. (ppb) | Flags |
|---|---|---|---|---|---|---|---|---|---|
| 71 | 42 | 280-134422-c-2 | 1 | U | 1 | 1 | 3577 | 50.245052 | |
| 72 | 43 | 280-134239-m-1 | 1 | U | 500 | 1 | 144364 | 1034860.625000 | |
| 73 | 44 | 280-134239-m-3 | 1 | U | 500 | 1 | 137349 | 978656.437500 | |
| 74 | 45 | 280-134241-g-1 | 1 | U | 1000 | 1 | 188081 | 2798055.500000 | |
| 75 | 46 | 280-134241-g-2 | 1 | U | 1000 | 1 | 26796 | 349047.625000 | |
| 76 | 47 | 280-134242-g-2 | 1 | U | 1000 | 1 | 161844 | 2355184.750000 | |
| 77 | 48 | 280-134484-c-1 | 1 | U | 1 | 1 | 218 | 8.144049 | UM |
| 78 | 49 | 280-134241-g-2 | 1 | U | 1000 | 1 | 248 | 8526.196289 | |
| 79 | 0 | RINSE | 1 | U | 1 | 1 | 25 | 5.735279 | |
| B | 0 | read baseline | 1 | RB | 1 | 1 | 0 | 5.422970 | BL |
| 81 | 6 | CCVL 500.0 ppb | 1 | U | 1 | 1 | 35086 | 458.998810 | |
| 82 | 8 | CCV 2500.0 ppb | 1 | U | 1 | 1 | 172612 | 2534.858154 | |
| 83 | 12 | CCB | 1 | U | 1 | 1 | 1406 | 23.003052 | |
| B | 0 | read baseline | 1 | RB | 1 | 1 | 0 | 5.422970 | BL |

Ammonia:Calibration  1: Peak 4-84

File name: C:\FLOW_4\032020A.RST
Date: 20-Mar-20
Operator: BWH

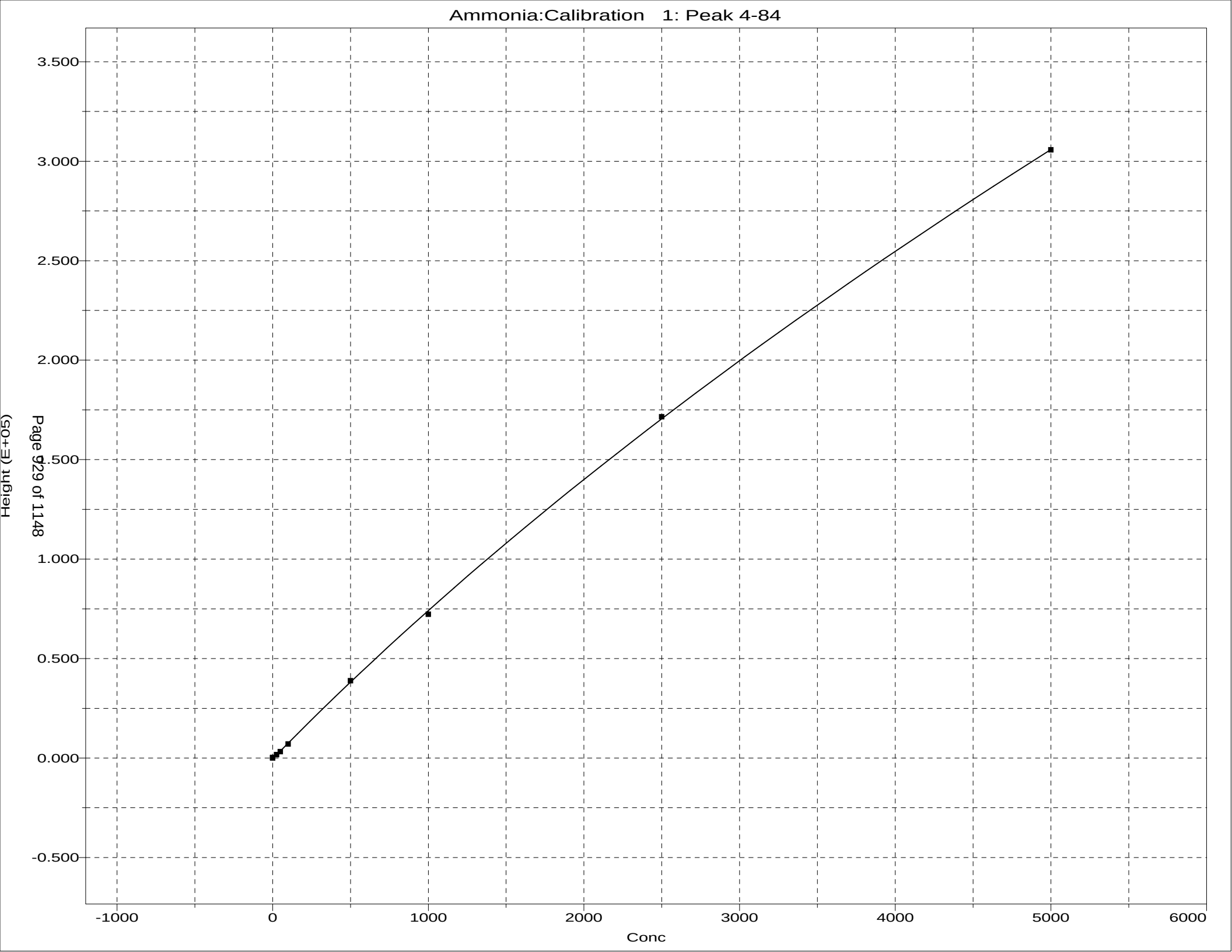
| * | Name | Conc | Height |
|---|---|---|---|
| * | Cal 0.0 PPB | 0.000000 | 234.689453 |
| * | Cal 25.0 ppb | 25.000000 | 1659.039795 |
| * | Cal 50.0 ppb | 50.000000 | 3199.704102 |
| * | Cal 100.0 ppb | 100.000000 | 7077.096680 |
| * | Cal 500.0 ppb | 500.000000 | 38886.414062 |
| * | Cal 1000.0 ppb | 1000.000000 | 72218.750000 |
| * | Cal 2500.0 ppb | 2500.000000 | 171498.890625 |
| * | Cal 5000.0 ppb | 5000.000000 | 305724.187500 |

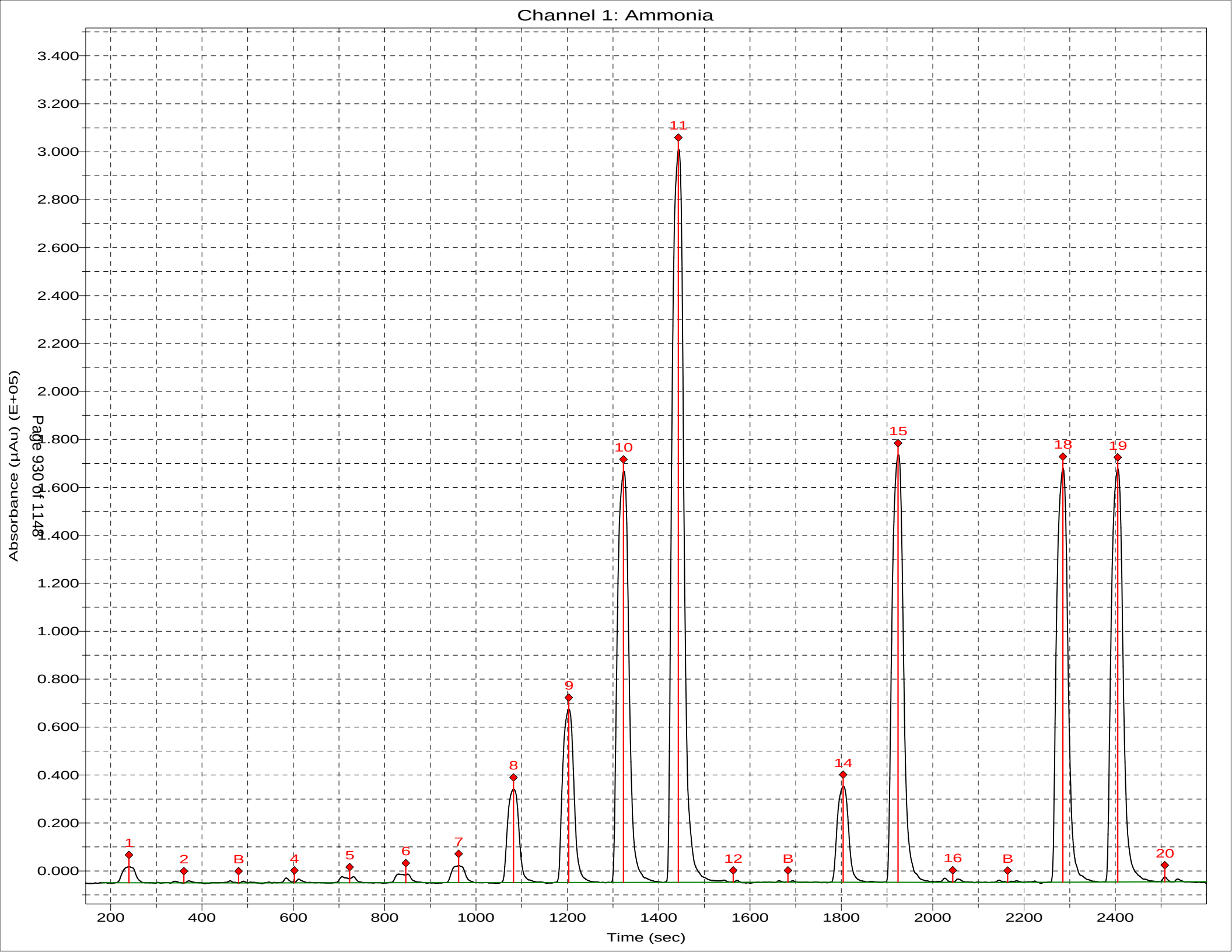
Calib Coef:
x=cyy+by+a
a: (intercept)  5.4230e+00
b:  1.2487e-02
c:  1.2552e-08

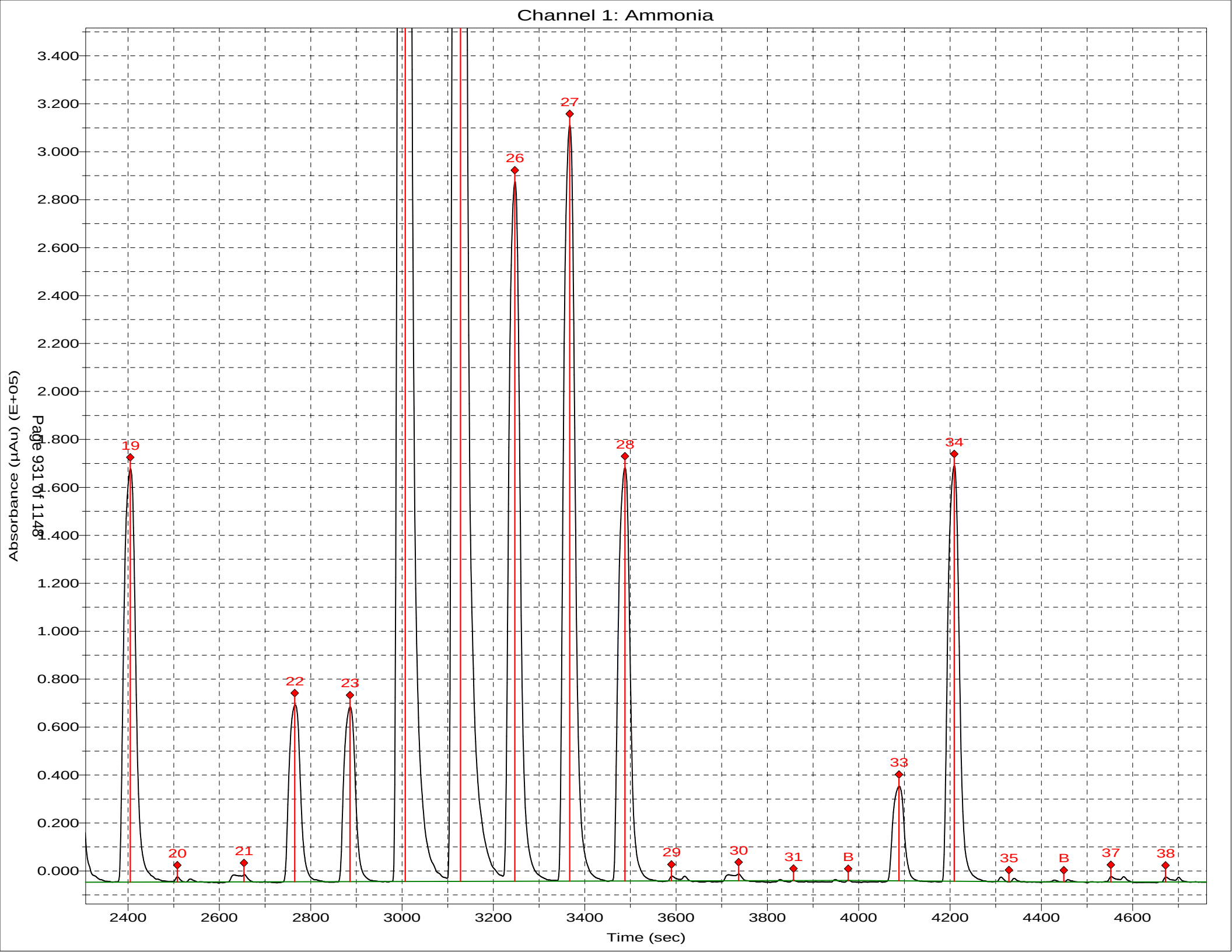
Corr Coef:  0.999973

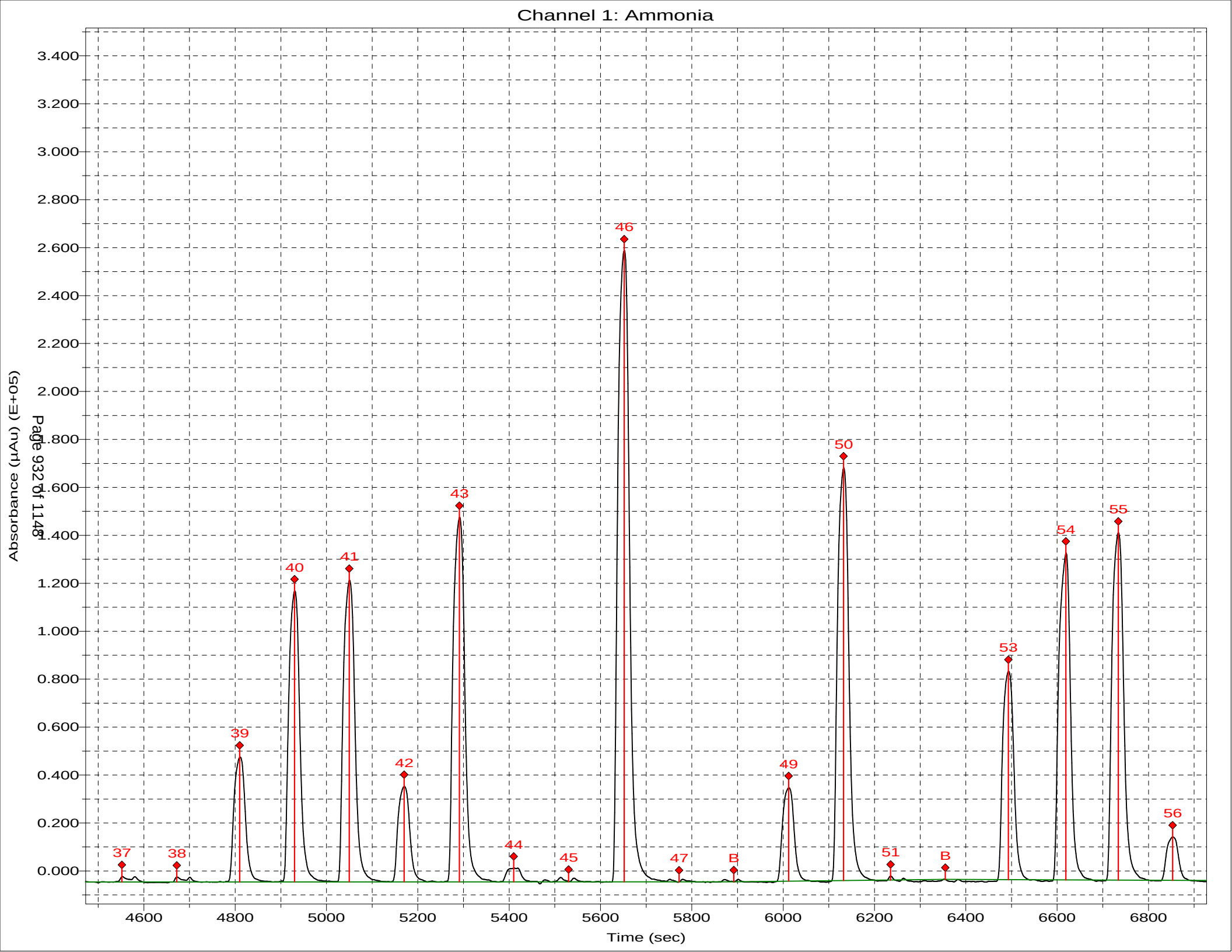
Carryover:  0%

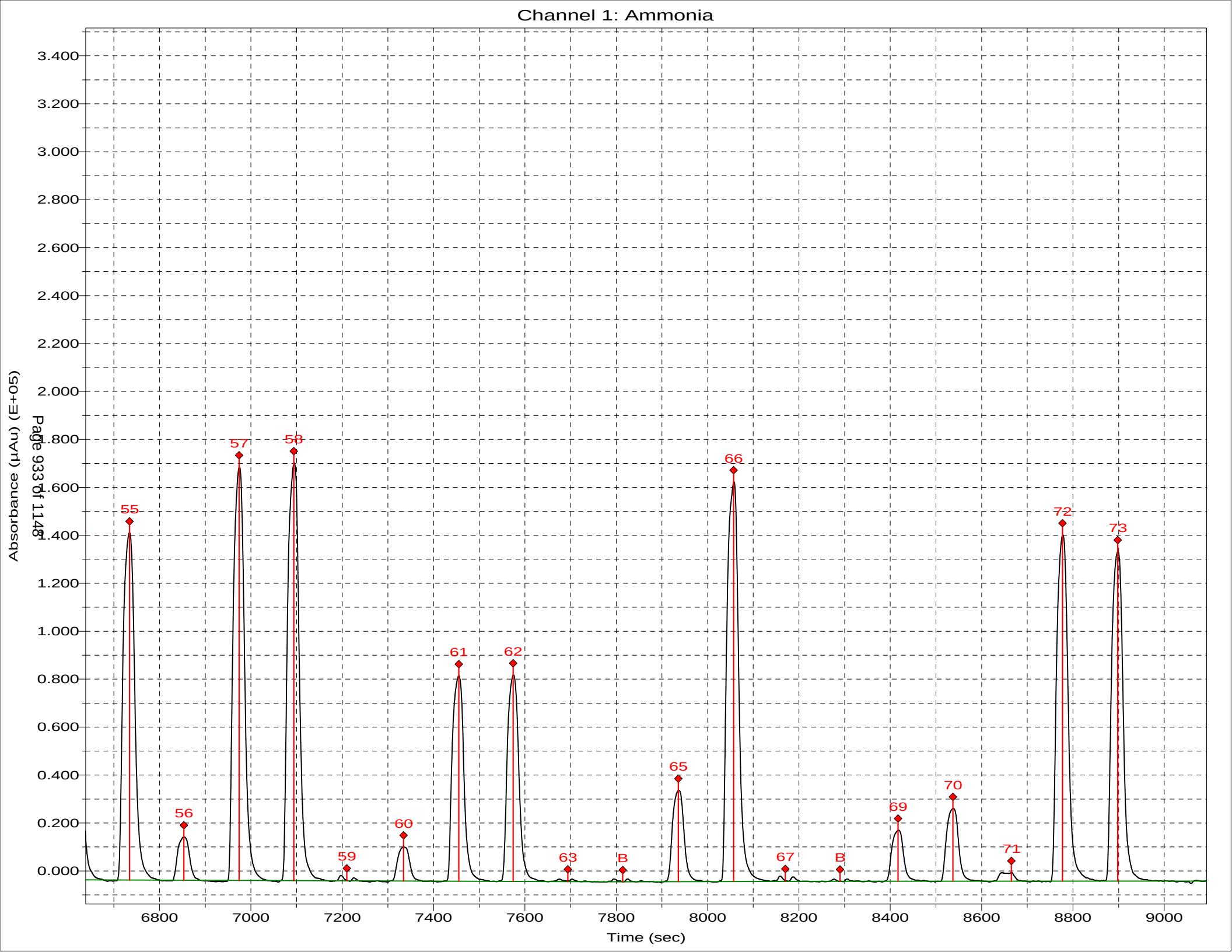
No Drift Peaks

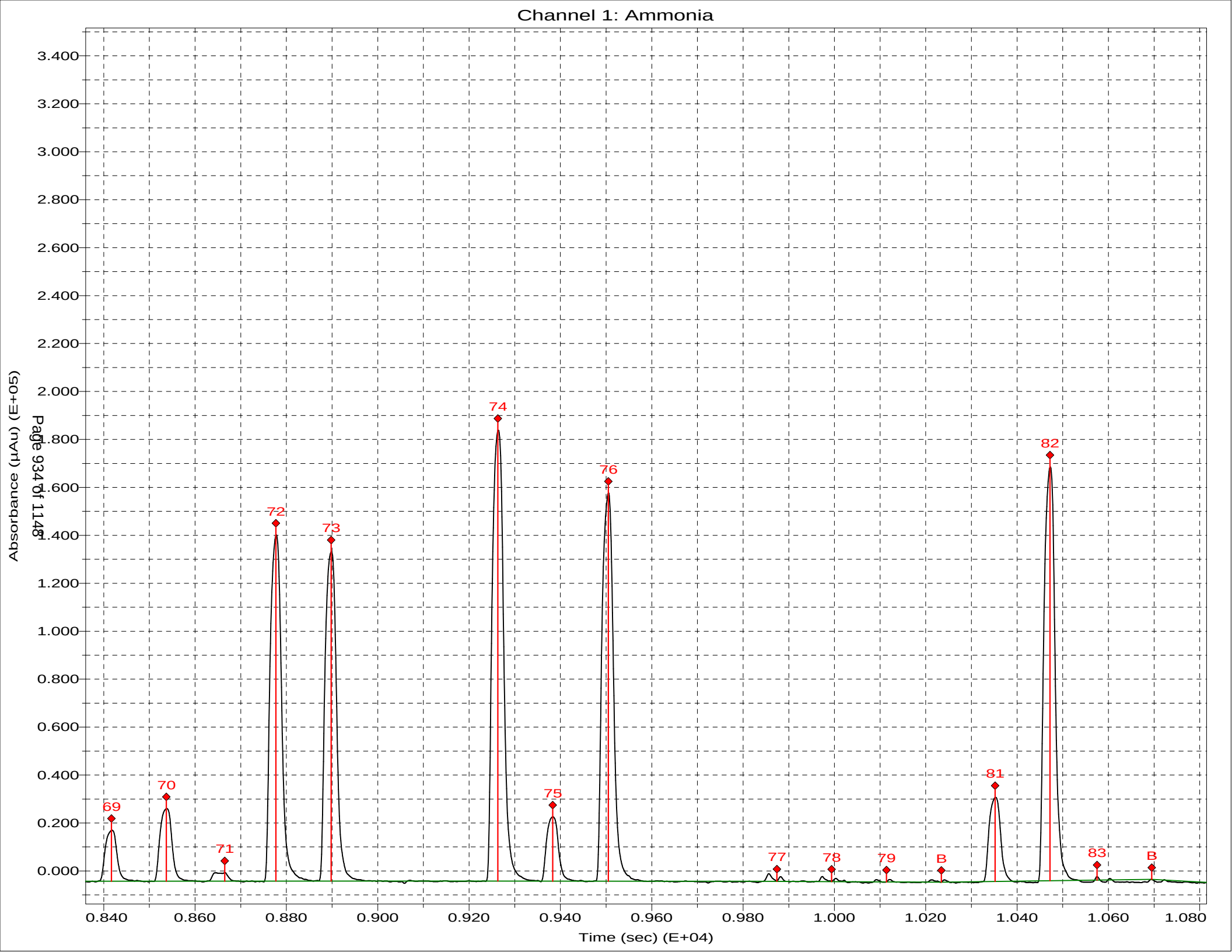

Ammonia:Calibration 1: Peak 4-84
Height (E+05)
3.500
3.000
2.500
2.000
1.500
1.000
0.500
0.000
-0.500
-1000
0
1000
2000
3000
4000
5000
6000
Conc


Channel 1: Ammonia
Absorbance (µAu) (E+05)
Time (sec)
3.400
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)
19
20
21
22
23
26
27
28
29
30
31
B
33
34
35
B
37
38


Channel 1: Ammonia
Absorbance (µAu) (E+05)
Time (sec)
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
4600
4800
5000
5200
5400
5600
5800
6000
6200
6400
6600
6800
37
38
39
40
41
42
43
44
45
46
47
B
49
50
51
B
53
54
55
56


Channel 1: Ammonia
Absorbance (µAu) (E+05)
Time (sec)
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
6800
7000
7200
7400
7600
7800
8000
8200
8400
8600
8800
9000
55
56
57
58
59
60
61
62
63
B
65
66
67
B
69
70
71
72
73


Channel 1: Ammonia
Absorbance (µAu) (E+05)
Time (sec) (E+04)
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
0.840
0.860
0.880
0.900
0.920
0.940
0.960
0.980
1.000
1.020
1.040
1.060
1.080
69
70
71
72
73
74
75
76
77
78
79
B
81
82
83
B

Sample Table for 031120

| | 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 280-488202/1-A | Unknown | 4 ml |
| 16 | 1:18 | MB 280-488202/2-A | Unknown | 4 ml |
| 17 | 1:19 | 280-134298-A-1-B | Unknown | 4 ml |
| 18 | 1:20 | 280-134298-A-1-C MS | Unknown | 4 ml |
| 19 | 1:21 | 280-134298-A-1-D MSD | Unknown | 4 ml |
| 20 | 1:22 | w | Blank | 4 ml |
| 21 | 1:23 | 280-134298-A-2-D | Unknown | 4 ml |
| 22 | 1:24 | 280-134103-F-1-A | Unknown | 4 ml |
| 23 | 1:25 | 280-134103-H-2-A | Unknown | 4 ml |
| 24 | 1:26 | 280-134103-G-3-A | Unknown | 4 ml |
| 25 | 1:27 | 280-134103-I-4-A | Unknown | 4 ml |
| 26 | 1:28 | 280-134103-I-5-A | Unknown | 4 ml |
| 27 | 1:29 | 280-134103-G-6-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 | 580-93173-B-2-A | Unknown | 4 ml |
| 32 | 1:34 | 240-127155-C-1-A | Unknown | 4 ml |
| 33 | 1:35 | 580-93219-G-1-B | Unknown | 4 ml |
| 34 | 1:36 | 580-93219-G-1-C MS | Unknown | 4 ml |
| 35 | 1:37 | 580-93219-G-1-D MSD | Unknown | 4 ml |
| 36 | 1:38 | w | Blank | 4 ml |
| 37 | 1:39 | 580-93215-B-1-A | Unknown | 4 ml |
| 38 | 1:40 | 280-134333-B-1-A | Unknown | 4 ml |
| 39 | 1:41 | 460-204341-N-1-A | Unknown | 4 ml |
| 40 | 1:42 | 280-134177-C-1-A | Unknown | 4 ml |
| 41 | 1:43 | 280-134177-C-2-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 |

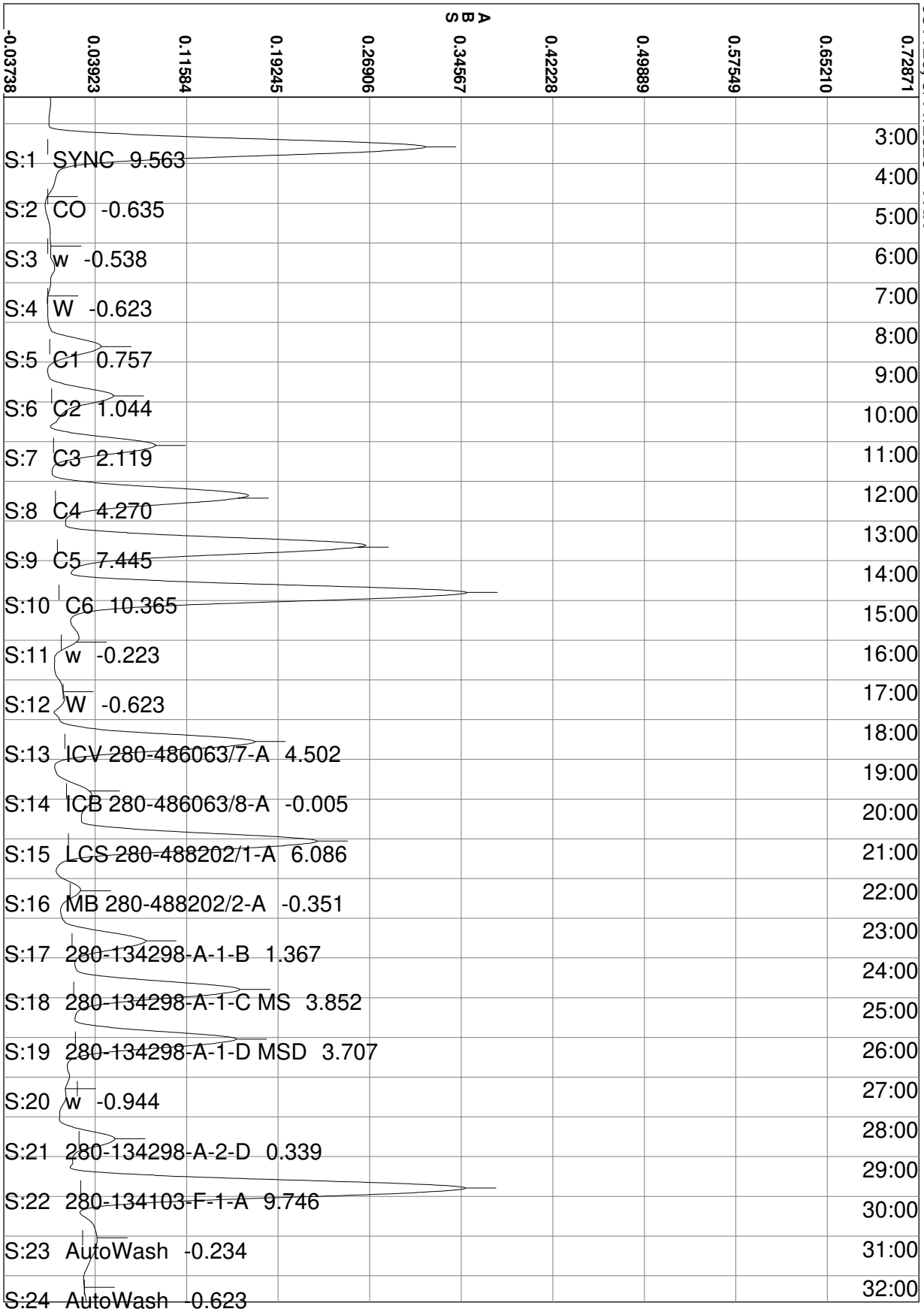
| | Position | Identifier | Type | Cup Type |
|---|---|---|---|---|
| 45 | 1:47 | 280-134177-C-3-A | Unknown | 4 ml |
| 46 | 1:48 | 280-134177-C-4-A | Unknown | 4 ml |
| 47 | 1:49 | 280-134177-C-5-A | Unknown | 4 ml |
| 48 | 1:50 | 280-134268-C-1-A | Unknown | 4 ml |
| 49 | 1:51 | w | Blank | 4 ml |
| 50 | 1:52 | LCS 280-488202/27-A | Unknown | 4 ml |
| 51 | 1:53 | MB 280-488202/28-A | Unknown | 4 ml |
| 52 | 1:54 | 280-134268-C-6-A | Unknown | 4 ml |
| 53 | 1:55 | 280-134268-C-6-B MS | Unknown | 4 ml |
| 54 | 1:56 | 280-134268-C-6-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 | 280-134268-C-2-A | Unknown | 4 ml |
| 59 | 2:1 | 280-134268-C-3-A | Unknown | 4 ml |
| 60 | 2:2 | 280-134268-C-4-A | Unknown | 4 ml |
| 61 | 2:3 | 280-134268-C-5-A | Unknown | 4 ml |
| 62 | 2:4 | 280-134268-C-7-A | Unknown | 4 ml |
| 63 | 2:5 | 280-134268-C-8-A | Unknown | 4 ml |
| 64 | 2:6 | 280-134268-C-9-A | Unknown | 4 ml |
| 65 | 2:7 | 280-134268-C-10-A | Unknown | 4 ml |
| 66 | 2:8 | 280-134103-H-2-A | Unknown | 4 ml |
| 67 | 2:9 | 280-134103-G-3-A | Unknown | 4 ml |
| 68 | 2:10 | w | Blank | 4 ml |
| 69 | 2:11 | CCV 280-486063/9-A | Unknown | 4 ml |
| 70 | 2:12 | CCB 280-486063/10-A | Unknown | 4 ml |
| 71 | 2:13 | 280-134103-I-5-A | Unknown | 4 ml |
| 72 | 2:14 | 280-134103-G-6-A | Unknown | 4 ml |
| 73 | 2:15 | 580-93173-B-2-A | Unknown | 4 ml |
| 74 | 2:16 | 580-93215-B-1-A | Unknown | 4 ml |
| 75 | 2:17 | 280-134333-B-1-A | Unknown | 4 ml |
| 76 | 2:18 | 280-134177-C-2-A | Unknown | 4 ml |
| 77 | 2:19 | w | Blank | 4 ml |
| 78 | 2:20 | w | Blank | 4 ml |
| 79 | 2:21 | w | Blank | 4 ml |
| 80 | 2:22 | w | Blank | 4 ml |
| 81 | 2:23 | w | Blank | 4 ml |
| 82 | 2:24 | CCV 280-486063/9-A | Unknown | 4 ml |
| 83 | 2:25 | CCB 280-486063/10-A | Unknown | 4 ml |

Run Name: 031120
Configuration: TKN
Run date: 3/11/2020

| | Position | Identifier | Type | Comme | Date | Time | otal | Cor Ht | TKN mg/l |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 1:1 | SYNC | SYNC | 50;351.2 | 3/11/2020 | 5:29:40 PM | 1 | 0.31596 | 9.563 |
| 2 | 1:2 | CO | Carry over | | 3/11/2020 | 5:30:11 PM | 1 | -0.00037 | -0.635 |
| 3 | 1:3 | w | Blank | | 3/11/2020 | 5:31:26 PM | 1 | 0.00263 | -0.538 |
| 4 | 1:4 | W | Wash | | 3/11/2020 | 5:32:41 PM | 1 | 0.00000 | -0.623 |
| 5 | 1:5 | C1 | Calibrant | | 3/11/2020 | 5:33:56 PM | 1 | 0.04282 | 0.757 |
| 6 | 1:6 | C2 | Calibrant | | 3/11/2020 | 5:35:11 PM | 1 | 0.05170 | 1.044 |
| 7 | 1:7 | C3 | Calibrant | | 3/11/2020 | 5:36:26 PM | 1 | 0.08506 | 2.119 |
| 8 | 1:8 | C4 | Calibrant | | 3/11/2020 | 5:37:41 PM | 1 | 0.15177 | 4.270 |
| 9 | 1:9 | C5 | Calibrant | | 3/11/2020 | 5:38:55 PM | 1 | 0.25027 | 7.445 |
| 10 | 1:10 | C6 | Calibrant | | 3/11/2020 | 5:40:10 PM | 1 | 0.34084 | 10.365 |
| | | | | | | | | | |
| | | Curve #: | | | | | | | 1 |
| | | Curve Type: | | | | | | | Linear |
| | | Correlation: | | | | | | | 0.99495 |
| | | Intercept: | | | | | | | 0.019330 |
| | | Linear coef: | | | | | | | 0.031019 |
| | | | | | | | | | |
| 11 | 1:13 | w | Blank | | 3/11/2020 | 5:41:25 PM | 1 | 0.01240 | -0.223 |
| 12 | 1:14 | W | Wash | | 3/11/2020 | 5:42:40 PM | 1 | 0.00000 | -0.623 |
| 13 | 1:15 | ICV 280-486063/7-A | Unknown | | 3/11/2020 | 5:43:55 PM | 1 | 0.15899 | 4.502 |
| 14 | 1:16 | ICB 280-486063/8-A | Unknown | | 3/11/2020 | 5:45:10 PM | 1 | 0.01916 | -0.005 |
| 15 | 1:17 | LCS 280-488202/1-A | Unknown | | 3/11/2020 | 5:46:25 PM | 1 | 0.20809 | 6.086 |
| 16 | 1:18 | MB 280-488202/2-A | Unknown | | 3/11/2020 | 5:47:40 PM | 1 | 0.00845 | -0.351 |
| 17 | 1:19 | 280-134298-A-1-B | Unknown | | 3/11/2020 | 5:48:55 PM | 1 | 0.06173 | 1.367 |
| 18 | 1:20 | 280-134298-A-1-C MS | Unknown | | 3/11/2020 | 5:50:10 PM | 1 | 0.13882 | 3.852 |
| 19 | 1:21 | 280-134298-A-1-D MSD | Unknown | | 3/11/2020 | 5:51:25 PM | 1 | 0.13432 | 3.707 |
| 20 | 1:22 | w | Blank | | 3/11/2020 | 5:52:40 PM | 1 | -0.00994 | -0.944 |
| 21 | 1:23 | 280-134298-A-2-D | Unknown | | 3/11/2020 | 5:53:55 PM | 1 | 0.02985 | 0.339 |
| 22 | 1:24 | 280-134103-F-1-A | Unknown | | 3/11/2020 | 5:55:10 PM | 1 | 0.32164 | 9.746 |
| 23 | 0 | AutoWash | AutoWash | | 3/11/2020 | 5:56:25 PM | 1 | 0.01206 | -0.234 |
| 24 | 0 | AutoWash | AutoWash | | 3/11/2020 | 5:57:40 PM | 1 | 0.00000 | -0.623 |
| 25 | 1:25 | 280-134103-H-2-A | Unknown | | 3/11/2020 | 5:58:55 PM | 1 | 0.44879 | 13.845 |
| 26 | 1:26 | 280-134103-G-3-A | Unknown | | 3/11/2020 | 6:00:10 PM | 1 | 0.56318 | 17.533 |
| 27 | 1:27 | 280-134103-I-4-A | Unknown | | 3/11/2020 | 6:01:25 PM | 1 | 0.32074 | 9.717 |
| 28 | 1:28 | 280-134103-I-5-A | Unknown | | 3/11/2020 | 6:02:41 PM | 1 | 0.67232 | 21.052 |
| 29 | 1:29 | 280-134103-G-6-A | Unknown | | 3/11/2020 | 6:03:56 PM | 1 | 0.51402 | 15.948 |
| 30 | 1:30 | w | Blank | | 3/11/2020 | 6:05:11 PM | 1 | -0.01537 | -1.119 |
| 31 | 1:31 | CCV 280-486063/9-A | Unknown | | 3/11/2020 | 6:06:26 PM | 1 | 0.18316 | 5.282 |
| 32 | 1:32 | CCB 280-486063/10-A | Unknown | | 3/11/2020 | 6:07:41 PM | 1 | 0.00951 | -0.317 |
| 33 | 1:33 | 580-93173-B-2-A | Unknown | | 3/11/2020 | 6:08:56 PM | 1 | 0.60435 | 18.860 |
| 34 | 1:34 | 240-127155-C-1-A | Unknown | | 3/11/2020 | 6:10:11 PM | 1 | 0.03999 | 0.666 |
| 35 | 0 | AutoWash | AutoWash | | 3/11/2020 | 6:11:26 PM | 1 | -0.00472 | -0.775 |
| 36 | 0 | AutoWash | AutoWash | | 3/11/2020 | 6:12:41 PM | 1 | 0.00000 | -0.623 |
| 37 | 1:35 | 580-93219-G-1-B | Unknown | | 3/11/2020 | 6:13:55 PM | 1 | 0.02750 | 0.264 |
| 38 | 1:36 | 580-93219-G-1-C MS | Unknown | | 3/11/2020 | 6:15:10 PM | 1 | 0.10886 | 2.886 |

| | Position | Identifier | Type | Comme | Date | Time | otal | Cor Ht | TKN mg/l |
|---|---|---|---|---|---|---|---|---|---|
| 39 | 1:37 | 580-93219-G-1-D MSD | Unknown | | 3/11/2020 | 6:16:25 PM | 1 | 0.11129 | 2.965 |
| 40 | 1:38 | w | Blank | | 3/11/2020 | 6:17:40 PM | 1 | 0.00101 | -0.591 |
| 41 | 1:39 | 580-93215-B-1-A | Unknown | | 3/11/2020 | 6:18:55 PM | 1 | 1.02618 | 32.459 |
| 42 | 1:40 | 280-134333-B-1-A | Unknown | | 3/11/2020 | 6:20:10 PM | 1 | 1.07076 | 33.897 |
| 43 | 1:41 | 460-204341-N-1-A | Unknown | | 3/11/2020 | 6:21:25 PM | 1 | 0.05872 | 1.270 |
| 44 | 1:42 | 280-134177-C-1-A | Unknown | | 3/11/2020 | 6:22:40 PM | 1 | 0.06929 | 1.611 |
| 45 | 1:43 | 280-134177-C-2-A | Unknown | | 3/11/2020 | 6:23:55 PM | 1 | 0.38301 | 11.725 |
| 46 | 1:44 | w | Blank | | 3/11/2020 | 6:25:10 PM | 1 | 0.00172 | -0.568 |
| 47 | 0 | AutoWash | AutoWash | | 3/11/2020 | 6:26:25 PM | 1 | 0.00055 | -0.605 |
| 48 | 0 | AutoWash | AutoWash | | 3/11/2020 | 6:27:40 PM | 1 | 0.00000 | -0.623 |
| 49 | 1:45 | CCV 280-486063/9-A | Unknown | | 3/11/2020 | 6:28:55 PM | 1 | 0.17369 | 4.976 |
| 50 | 1:46 | CCB 280-486063/10-A | Unknown | | 3/11/2020 | 6:30:10 PM | 1 | 0.01888 | -0.014 |
| 51 | 1:47 | 280-134177-C-3-A | Unknown | | 3/11/2020 | 6:31:25 PM | 1 | 0.09389 | 2.404 |
| 52 | 1:48 | 280-134177-C-4-A | Unknown | | 3/11/2020 | 6:32:40 PM | 1 | 0.14178 | 3.947 |
| 53 | 1:49 | 280-134177-C-5-A | Unknown | | 3/11/2020 | 6:33:55 PM | 1 | 0.14101 | 3.923 |
| 54 | 1:50 | 280-134268-C-1-A | Unknown | | 3/11/2020 | 6:35:10 PM | 1 | 0.05377 | 1.110 |
| 55 | 1:51 | w | Blank | | 3/11/2020 | 6:36:25 PM | 1 | 0.00155 | -0.573 |
| 56 | 1:52 | LCS 280-488202/27-A | Unknown | | 3/11/2020 | 6:37:41 PM | 1 | 0.19743 | 5.742 |
| 57 | 1:53 | MB 280-488202/28-A | Unknown | | 3/11/2020 | 6:38:56 PM | 1 | 0.01850 | -0.027 |
| 58 | 1:54 | 280-134268-C-6-A | Unknown | | 3/11/2020 | 6:40:11 PM | 1 | 0.02231 | 0.096 |
| 59 | 0 | AutoWash | AutoWash | | 3/11/2020 | 6:41:26 PM | 1 | -0.00217 | -0.693 |
| 60 | 0 | AutoWash | AutoWash | | 3/11/2020 | 6:42:41 PM | 1 | 0.00000 | -0.623 |
| 61 | 1:55 | 280-134268-C-6-B MS | Unknown | | 3/11/2020 | 6:43:56 PM | 1 | 0.02281 | 0.112 |
| 62 | 1:56 | 280-134268-C-6-C MSD | Unknown | | 3/11/2020 | 6:45:11 PM | 1 | 0.02353 | 0.136 |
| 63 | 1:57 | w | Blank | | 3/11/2020 | 6:46:26 PM | 1 | 0.00123 | -0.583 |
| 64 | 1:58 | CCV 280-486063/9-A | Unknown | | 3/11/2020 | 6:47:41 PM | 1 | 0.17611 | 5.054 |
| 65 | 1:59 | CCB 280-486063/10-A | Unknown | | 3/11/2020 | 6:48:55 PM | 1 | 0.02189 | 0.082 |
| 66 | 1:60 | 280-134268-C-2-A | Unknown | | 3/11/2020 | 6:50:10 PM | 1 | 0.02417 | 0.156 |
| 67 | 2:1 | 280-134268-C-3-A | Unknown | | 3/11/2020 | 6:51:25 PM | 1 | 0.06439 | 1.453 |
| 68 | 2:2 | 280-134268-C-4-A | Unknown | | 3/11/2020 | 6:52:40 PM | 1 | 0.03135 | 0.388 |
| 69 | 2:3 | 280-134268-C-5-A | Unknown | | 3/11/2020 | 6:53:55 PM | 1 | 0.02337 | 0.130 |
| 70 | 2:4 | 280-134268-C-7-A | Unknown | | 3/11/2020 | 6:55:10 PM | 1 | 0.02066 | 0.043 |
| 71 | 0 | AutoWash | AutoWash | | 3/11/2020 | 6:56:25 PM | 1 | -0.00146 | -0.670 |
| 72 | 0 | AutoWash | AutoWash | | 3/11/2020 | 6:57:40 PM | 1 | 0.00000 | -0.623 |
| 73 | 2:5 | 280-134268-C-8-A | Unknown | | 3/11/2020 | 6:58:55 PM | 1 | 0.02460 | 0.170 |
| 74 | 2:6 | 280-134268-C-9-A | Unknown | | 3/11/2020 | 7:00:10 PM | 1 | 0.05915 | 1.284 |
| 75 | 2:7 | 280-134268-C-10-A | Unknown | | 3/11/2020 | 7:01:25 PM | 1 | 0.04112 | 0.702 |
| 76 | 2:8 | 280-134103-H-2-A | Unknown | | 3/11/2020 | 7:02:40 PM | 2 | 0.25093 | 14.933 |
| 77 | 2:9 | 280-134103-G-3-A | Unknown | | 3/11/2020 | 7:03:55 PM | 5 | 0.13522 | 18.681 |
| 78 | 2:10 | w | Blank | | 3/11/2020 | 7:05:10 PM | 1 | 0.00290 | -0.530 |
| 79 | 2:11 | CCV 280-486063/9-A | Unknown | | 3/11/2020 | 7:06:25 PM | 1 | 0.17546 | 5.033 |
| 80 | 2:12 | CCB 280-486063/10-A | Unknown | | 3/11/2020 | 7:07:40 PM | 1 | 0.02229 | 0.096 |
| 81 | 2:13 | 280-134103-I-5-A | Unknown | | 3/11/2020 | 7:08:55 PM | 5 | 0.16352 | 23.242 |
| 82 | 2:14 | 280-134103-G-6-A | Unknown | | 3/11/2020 | 7:10:10 PM | 5 | 0.12233 | 16.603 |
| 83 | 0 | AutoWash | AutoWash | | 3/11/2020 | 7:11:25 PM | 1 | -0.00001 | -0.624 |
| 84 | 0 | AutoWash | AutoWash | | 3/11/2020 | 7:12:41 PM | 1 | 0.00000 | -0.623 |
| 85 | 2:15 | 580-93173-B-2-A | Unknown | | 3/11/2020 | 7:13:56 PM | 5 | 0.14307 | 19.946 |
| 86 | 2:16 | 580-93215-B-1-A | Unknown | | 3/11/2020 | 7:15:11 PM | 10 | 0.13199 | 36.319 |

| | Position | Identifier | Type | Commei | Date | Time | otal | Cor Ht | TKN mg/l |
|---|---|---|---|---|---|---|---|---|---|
| 87 | 2:17 | 280-134333-B-1-A | Unknown | | 3/11/2020 | 7:16:26 PM | 10 | 0.14163 | 39.426 |
| 88 | 2:18 | 280-134177-C-2-A | Unknown | | 3/11/2020 | 7:17:41 PM | 2 | 0.21011 | 12.301 |
| 89 | 2:19 | w | Blank | | 3/11/2020 | 7:18:56 PM | 1 | -0.00209 | -0.691 |
| 90 | 2:20 | w | Blank | | 3/11/2020 | 7:20:11 PM | 1 | -0.00299 | -0.719 |
| 91 | 2:21 | w | Blank | | 3/11/2020 | 7:21:26 PM | 1 | -0.00311 | -0.723 |
| 92 | 2:22 | w | Blank | | 3/11/2020 | 7:22:40 PM | 1 | -0.00620 | -0.823 |
| 93 | 2:23 | w | Blank | | 3/11/2020 | 7:23:55 PM | 1 | -0.00605 | -0.818 |
| 94 | 2:24 | CCV 280-486063/9-A | Unknown | | 3/11/2020 | 7:25:10 PM | 1 | 0.17097 | 4.889 |
| 95 | 0 | AutoWash | AutoWash | | 3/11/2020 | 7:26:25 PM | 1 | -0.00448 | -0.768 |
| 96 | 0 | AutoWash | AutoWash | | 3/11/2020 | 7:27:40 PM | 1 | 0.00000 | -0.623 |
| 97 | 2:25 | CCB 280-486063/10-A | Unknown | | 3/11/2020 | 7:28:55 PM | 1 | 0.02506 | 0.185 |
| 98 | 0 | AutoWash | AutoWash | | 3/11/2020 | 7:30:10 PM | 1 | 0.00559 | -0.443 |
| 99 | 0 | AutoWash | AutoWash | | 3/11/2020 | 7:31:25 PM | 1 | 0.00000 | -0.623 |


031120, 3/11/2020 - TKN
ABS
-0.03738
0.03923
0.11584
0.19245
0.26906
0.34567
0.42228
0.49889
0.57549
0.65210
0.72871
S:1 SYNC 9.563
S:2 CO -0.635
S:3 w -0.538
S:4 W -0.623
S:5 C1 0.757
S:6 C2 1.044
S:7 C3 2.119
S:8 C4 4.270
S:9 C5 7.445
S:10 C6 10.365
S:11 w -0.223
S:12 W -0.623
S:13 ICV 280-486063/7-A 4.502
S:14 ICB 280-486063/8-A -0.005
S:15 LCS 280-488202/1-A 6.086
S:16 MB 280-488202/2-A -0.351
S:17 280-134298-A-1-B 1.367
S:18 280-134298-A-1-C MS 3.852
S:19 280-134298-A-1-D MSD 3.707
S:20 w -0.944
S:21 280-134298-A-2-D 0.339
S:22 280-134103-F-1-A 9.746
S:23 AutoWash -0.234
S:24 AutoWash -0.623
3:00
4:00
5:00
6:00
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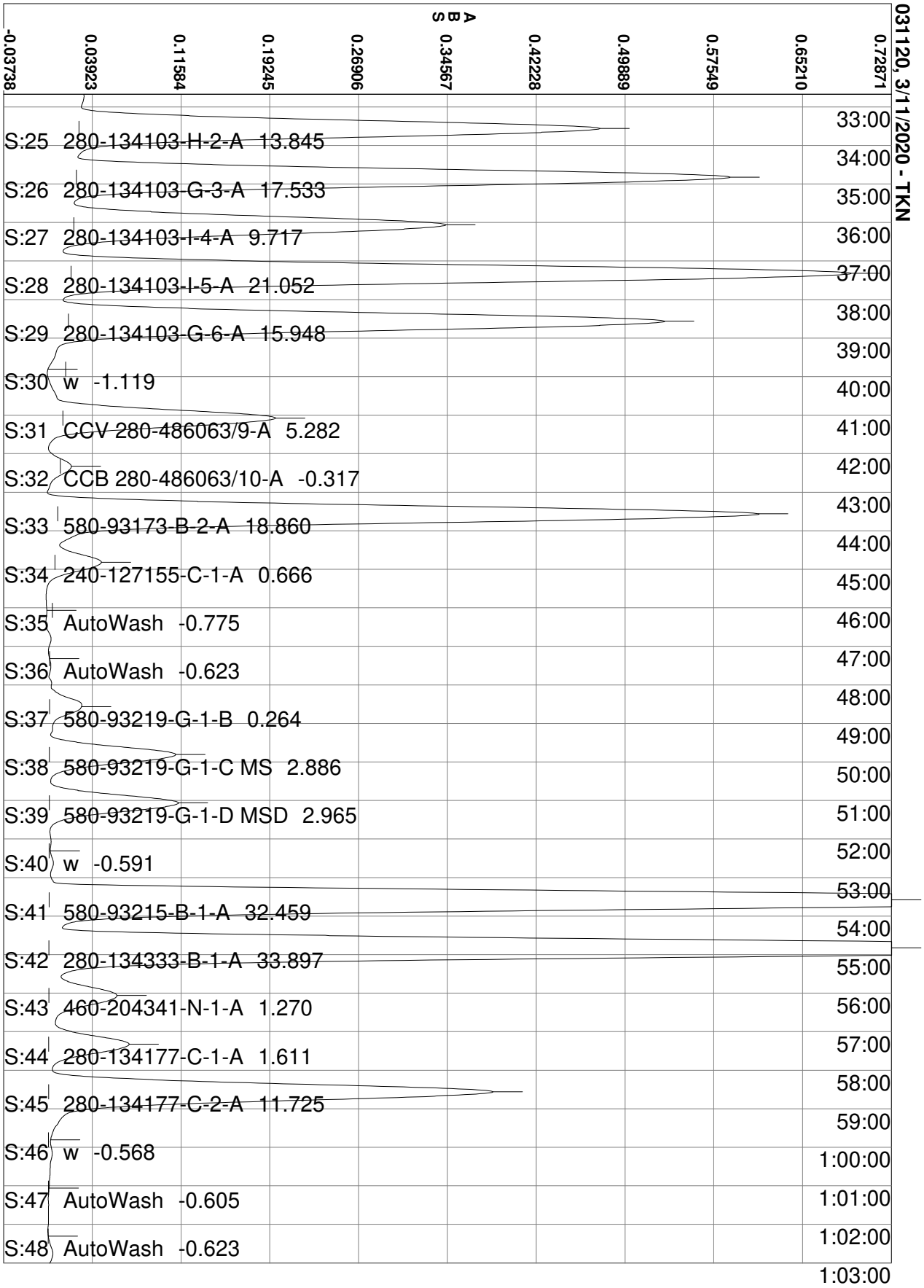
031120, 3/11/2020 - TKN
ABS
-0.03738
0.03923
0.11584
0.19245
0.26906
0.34567
0.42228
0.49889
0.57549
0.65210
0.72871
S:25 280-134103-H-2-A 13.845
S:26 280-134103-G-3-A 17.533
S:27 280-134103-I-4-A 9.717
S:28 280-134103-I-5-A 21.052
S:29 280-134103-G-6-A 15.948
S:30 w -1.119
S:31 CCV 280-486063/9-A 5.282
S:32 CCB 280-486063/10-A -0.317
S:33 580-93173-B-2-A 18.860
S:34 240-127155-C-1-A 0.666
S:35 AutoWash -0.775
S:36 AutoWash -0.623
S:37 580-93219-G-1-B 0.264
S:38 580-93219-G-1-C MS 2.886
S:39 580-93219-G-1-D MSD 2.965
S:40 w -0.591
S:41 580-93215-B-1-A 32.459
S:42 280-134333-B-1-A 33.897
S:43 460-204341-N-1-A 1.270
S:44 280-134177-C-1-A 1.611
S:45 280-134177-C-2-A 11.725
S:46 w -0.568
S:47 AutoWash -0.605
S:48 AutoWash -0.623
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031120, 3/11/2020 - TKN
ABS
-0.03738
0.03923
0.11584
0.19245
0.26906
0.34567
0.42228
0.49889
0.57549
0.65210
0.72871
S:49 CCV 280-486063/9-A 4.976
S:50 CCB 280-486063/10-A -0.014
S:51 280-134177-C-3-A 2.404
S:52 280-134177-C-4-A 3.947
S:53 280-134177-C-5-A 3.923
S:54 280-134268-C-1-A 1.110
S:55 w -0.573
S:56 LCS 280-488202/27-A 5.742
S:57 MB 280-488202/28-A -0.027
S:58 280-134268-C-6-A 0.096
S:59 AutoWash -0.693
S:60 AutoWash -0.623
S:61 280-134268-C-6-B MS 0.112
S:62 280-134268-C-6-C MSD 0.136
S:63 w -0.583
S:64 CCV 280-486063/9-A 5.054
S:65 CCB 280-486063/10-A 0.082
S:66 280-134268-C-2-A 0.156
S:67 280-134268-C-3-A 1.453
S:68 280-134268-C-4-A 0.388
S:69 280-134268-C-5-A 0.130
S:70 280-134268-C-7-A 0.043
S:71 AutoWash -0.670
S:72 AutoWash -0.623
1:04:00
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031120, 3/11/2020 - TKN
ABS
-0.03738
0.03923
0.11584
0.19245
0.26906
0.34567
0.42228
0.49889
0.57549
0.65210
0.72871
S:73 280-134268-C-8-A 0.170
S:74 280-134268-C-9-A 1.284
S:75 280-134268-C-10-A 0.702
S:76 280-134103-H-2-A 14.933
S:77 280-134103-G-3-A 18.681
S:78 w -0.530
S:79 CCV 280-486063/9-A 5.033
S:80 CCB 280-486063/10-A 0.096
S:81 280-134103-I-5-A 23.242
S:82 280-134103-G-6-A 16.603
S:83 AutoWash -0.624
S:84 AutoWash -0.623
S:85 580-93173-B-2-A 19.946
S:86 580-93215-B-1-A 36.319
S:87 280-134333-B-1-A 39.426
S:88 280-134177-C-2-A 12.301
S:89 w -0.691
S:90 w -0.719
S:91 w -0.723
S:92 w -0.823
S:93 w -0.818
S:94 CCV 280-486063/9-A 4.889
S:95 AutoWash -0.768
S:96 AutoWash -0.623
S:97 CCB 280-486063/10-A 0.185
1:34:00
1:35:00
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1:41:00
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2:02:00
2:03:00

031120, 3/11/2020 - TKN

| -0.03738 | 0.03923 | 0.11584 | 0.19245 | 0.26906 | 0.34567 ABS | 0.42228 | 0.49889 | 0.57549 | 0.65210 | 0.72871 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | 2:04:00 |
| S:98 | AutoWash | -0.443 | | | | | | | | 2:05:00 |
| S:99 | AutoWash | -0.623 | | | | | | | | 2:06:00 |
| | | | | | | | | | | 2:07:00 |
| | | | | | | | | | | 2:08:00 |
| | | | | | | | | | | 2:09:00 |
| | | | | | | | | | | 2:10:00 |
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| | | | | | | | | | | 2:12:00 |
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| | | | | | | | | | | 2:19:00 |
| | | | | | | | | | | 2:20:00 |
| | | | | | | | | | | 2:21:00 |
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| | | | | | | | | | | 2:23:00 |
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| | | | | | | | | | | 2:25:00 |
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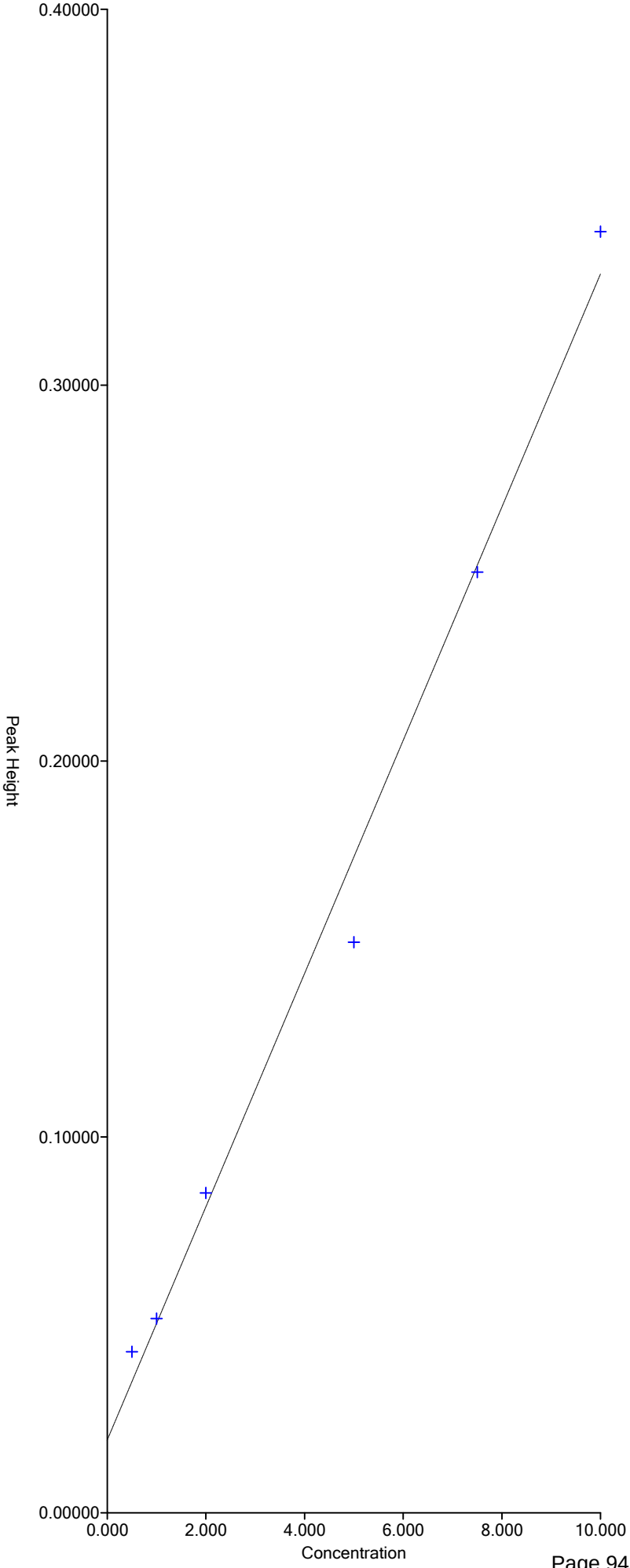
| | | | | | | | | | | 2:32:00 |
| | | | | | | | | | | 2:33:00 |
| | | | | | | | | | | 2:34:00 |

# Calibration for TKN






Segment 1: Equation: y = 0.03102x + 0.01933
Correlation: 0.9949

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\031020.RST |
| Sample table path | C:\FLOW_4\031020.tbl |
| Method path | C:\FLOW_4\nox.mth |
| Date acquired | 10-Mar-20 |
| Time acquired | 19:31 |

| Date | Time | Cup | Name |
|---|---|---|---|
| 10-Mar-20 | 16:31 | 109 | SYNC |
| 10-Mar-20 | 16:33 | 0 | Carryover |
| 10-Mar-20 | 16:35 | 0 | Carryover (Statistics) |
| 10-Mar-20 | 16:37 | 0 | read baseline |
| 10-Mar-20 | 16:39 | 101 | Cal 0.00 ppb |
| 10-Mar-20 | 16:41 | 102 | Cal 50.0 ppb |
| 10-Mar-20 | 16:43 | 103 | Cal 100 ppb |
| 10-Mar-20 | 16:45 | 104 | Cal 500 ppb |
| 10-Mar-20 | 16:47 | 105 | Cal 1000 ppb |
| 10-Mar-20 | 16:49 | 106 | Cal 2500 ppb |
| 10-Mar-20 | 16:51 | 107 | Cal 5000 ppb |
| 10-Mar-20 | 16:53 | 108 | Cal 7500 ppb |
| 10-Mar-20 | 16:55 | 109 | Cal 10000 ppb |
| 10-Mar-20 | 16:57 | 0 | Blank |
| 10-Mar-20 | 16:59 | 0 | Read Baseline |
| 10-Mar-20 | 17:01 | 110 | 5000 PPB NO2 |
| 10-Mar-20 | 17:03 | 111 | ICV 5000 PPB |
| 10-Mar-20 | 17:05 | 112 | ICV 2000 PPB |
| 10-Mar-20 | 17:07 | 0 | ICB |
| 10-Mar-20 | 17:09 | 0 | Read Baseline |
| 10-Mar-20 | 17:11 | 107 | LCS |
| 10-Mar-20 | 17:13 | 0 | MB |
| 10-Mar-20 | 17:15 | 113 | 280-134268-C-6 |
| 10-Mar-20 | 17:17 | 114 | ms 280-134268-C-6 |
| 10-Mar-20 | 17:19 | 115 | msd 280-134268-C-6 |
| 10-Mar-20 | 17:21 | 116 | 280-134268-C-1 |
| 10-Mar-20 | 17:23 | 117 | 280-134268-C-2 |
| 10-Mar-20 | 17:25 | 118 | 280-134268-C-3 |
| 10-Mar-20 | 17:27 | 119 | 280-134268-C-4 |
| 10-Mar-20 | 17:29 | 120 | 280-134268-C-5 |
| 10-Mar-20 | 17:31 | 121 | 280-134268-C-7 |
| 10-Mar-20 | 17:33 | 122 | 280-134268-C-8 |
| 10-Mar-20 | 17:35 | 0 | Rinse |
| 10-Mar-20 | 17:37 | 0 | Read Baseline |
| 10-Mar-20 | 17:39 | 107 | CCV 5000 ppb |
| 10-Mar-20 | 17:41 | 105 | CCVL 1000 ppb |
| 10-Mar-20 | 17:43 | 0 | CCB |
| 10-Mar-20 | 17:45 | 0 | Read Baseline |
| 10-Mar-20 | 17:47 | 123 | 280-134268-C-9 |
| 10-Mar-20 | 17:49 | 124 | 280-134270-B-3 |
| 10-Mar-20 | 17:51 | 125 | 280-134268-C-10 |
| 10-Mar-20 | 17:53 | 126 | ms 280-134268-C-10 |
| 10-Mar-20 | 17:55 | 127 | msd 280-134268-C-10 |
| 10-Mar-20 | 17:57 | 128 | 570-22036-C-1 |

| | |
|---|---|
| Result path | C:\FLOW_4\031020.RST |
| Sample table path | C:\FLOW_4\031020.tbl |
| Method path | C:\FLOW_4\nox.mth |
| Date acquired | 10-Mar-20 |
| Time acquired | 19:31 |

| Date | Time | Cup | Name |
|---|---|---|---|
| 10-Mar-20 | 17:59 | 129 | 570-22036-C-2 |
| 10-Mar-20 | 18:01 | 130 | 570-22036-C-3 |
| 10-Mar-20 | 18:03 | 131 | 570-22036-C-4 |
| 10-Mar-20 | 18:05 | 132 | 570-22036-C-5 |
| 10-Mar-20 | 18:07 | 0 | Rinse |
| 10-Mar-20 | 18:09 | 0 | Read Baseline |
| 10-Mar-20 | 18:11 | 107 | CCV 5000 ppb |
| 10-Mar-20 | 18:13 | 105 | CCVL 1000 ppb |
| 10-Mar-20 | 18:15 | 0 | CCB |
| 10-Mar-20 | 18:17 | 0 | Read Baseline |
| 10-Mar-20 | 18:19 | 133 | 570-22036-C-6 |
| 10-Mar-20 | 18:21 | 134 | 570-22036-C-7 |
| 10-Mar-20 | 18:23 | 135 | 570-22036-C-8 |
| 10-Mar-20 | 18:25 | 136 | 570-22036-C-9 |
| 10-Mar-20 | 18:27 | 107 | LCS |
| 10-Mar-20 | 18:29 | 107 | LCSD |
| 10-Mar-20 | 18:31 | 0 | MB |
| 10-Mar-20 | 18:33 | 137 | 570-22036-C-10 |
| 10-Mar-20 | 18:35 | 138 | ms 570-22036-C-10 |
| 10-Mar-20 | 18:37 | 139 | msd 570-22036-C-10 |
| 10-Mar-20 | 18:39 | 140 | 570-22036-C-11 |
| 10-Mar-20 | 18:41 | 0 | Rinse |
| 10-Mar-20 | 18:43 | 0 | Read Baseline |
| 10-Mar-20 | 18:45 | 107 | CCV 5000 ppb |
| 10-Mar-20 | 18:47 | 105 | CCVL 1000 ppb |
| 10-Mar-20 | 18:49 | 0 | CCB |
| 10-Mar-20 | 18:51 | 0 | Read Baseline |
| 10-Mar-20 | 18:53 | 141 | 570-22036-C-12 |
| 10-Mar-20 | 18:55 | 142 | 280-134298-A-1 |
| 10-Mar-20 | 18:57 | 143 | 280-134298-A-2 |
| 10-Mar-20 | 18:59 | 144 | 280-134446-G-8 |
| 10-Mar-20 | 19:01 | 145 | 280-134464-A-1 |
| 10-Mar-20 | 19:04 | 146 | 280-134437-A-1 |
| 10-Mar-20 | 19:06 | 147 | 280-134309-B-2 |
| 10-Mar-20 | 19:08 | 148 | d |
| 10-Mar-20 | 19:10 | 149 | d |
| 10-Mar-20 | 19:12 | 150 | d |
| 10-Mar-20 | 19:14 | 0 | Rinse |
| 10-Mar-20 | 19:16 | 0 | Read Baseline |
| 10-Mar-20 | 19:18 | 107 | CCV 5000 ppb |
| 10-Mar-20 | 19:20 | 105 | CCVL 1000 ppb |
| 10-Mar-20 | 19:22 | 0 | CCB |
| 10-Mar-20 | 19:24 | 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\031020.RST |
| Sample table path | C:\FLOW_4\031020.tbl |
| Method path | C:\FLOW_4\nox.mth |
| Date acquired | 10-Mar-20 |
| Time acquired | 19:31 |

| | Nitrate as N | | | | | |
|---|---|---|---|---|---|---|
| Name | Response | Calc [ppb] | Flags | Mean Response | Mean Calc [ppb] | |
| SYNC | 2125121 | 10273.625 | HI | | | |
| Carryover | 9917 | 34.299 | | | | |
| Carryover | 3517 | -1.623 | LO | | | |
| (Statistics) | | | | 6717 | 16.342 | N |
| read baseline | 0 | -21.377 | BL | | | |
| Cal 0.00 ppb | 618 | -17.905 | LO | | | |
| Cal 50.0 ppb | 10397 | 36.991 | | | | |
| Cal 100 ppb | 20006 | 90.863 | | | | |
| Cal 500 ppb | 96093 | 515.083 | | | | |
| Cal 1000 ppb | 210939 | 1147.419 | | | | |
| Cal 2500 ppb | 423613 | 2293.049 | | | | |
| Cal 5000 ppb | 988802 | 5177.631 | | | | |
| Cal 7500 ppb | 1454920 | 7381.677 | | | | |
| Cal 10000 ppb | 2064410 | 10025.118 | HI | | | |
| Blank | -7055 | -61.027 | LO | | | |
| Read Baseline | 0 | -21.377 | BL | | | |
| 5000 PPB NO2 | 930035 | 4888.531 | | | | |
| ICV 5000 PPB | 988218 | 5174.773 | | | | |
| ICV 2000 PPB | 402770 | 2182.226 | | | | |
| ICB | -220 | -22.612 | LO | | | |
| Read Baseline | 0 | -21.377 | BL | | | |
| LCS | 1035388 | 5405.024 | | | | |
| MB | 12326 | 47.811 | UM | | | |
| 280-134268-C-6 | 1209140 | 31196.033 | | | | |
| ms 280-134268-C-6 | 1809417 | 44760.348 | | | | |
| msd 280-134268-C-6 | 1672565 | 41783.312 | | | | |
| 280-134268-C-1 | 1205 | -14.608 | LO | | | |
| 280-134268-C-2 | 1245771 | 32061.344 | | | | |
| 280-134268-C-3 | 1291734 | 13256.074 | | | | |
| 280-134268-C-4 | 1752871 | 17415.408 | | | | |
| 280-134268-C-5 | 1308935 | 33541.953 | | | | |
| 280-134268-C-7 | 1229751 | 31683.512 | | | | |
| 280-134268-C-8 | 1102184 | 28641.559 | | | | |
| Rinse | 943 | -16.082 | LO | | | |
| Read Baseline | 0 | -21.377 | BL | | | |
| CCV 5000 ppb | 914591 | 4812.135 | | | | |
| CCVL 1000 ppb | 198496 | 1079.373 | UM | | | |
| CCB | -3307 | -39.957 | LO UM | | | |
| Read Baseline | 0 | -21.377 | BL | | | |
| 280-134268-C-9 | -735 | -25.505 | LO | | | |
| 280-134270-B-3 | -220 | -22.611 | LO | | | |
| 280-134268-C-10 | 518461 | 2793.360 | | | | |
| ms 280-134268-C-10 | 1406920 | 7162.008 | | | | |
| msd 280-134268-C-10 | 1160434 | 6007.584 | | | | |
| 570-22036-C-1 | 432876 | 2342.196 | | | | |

| | |
|---|---|
| Result path | C:\FLOW_4\031020.RST |
| Sample table path | C:\FLOW_4\031020.tbl |
| Method path | C:\FLOW_4\nox.mth |
| Date acquired | 10-Mar-20 |
| Time acquired | 19:31 |

| | Nitrate as N | | | | |
|---|---|---|---|---|---|
| Name | Response | Calc [ppb] | Flags | Mean Response | Mean Calc [ppb] |
| 570-22036-C-2 | 130694 | 706.604 | | | |
| 570-22036-C-3 | 14921 | 62.363 | | | |
| 570-22036-C-4 | 208601 | 1134.641 | | | |
| 570-22036-C-5 | 7851 | 22.703 | | | |
| Rinse | 5904 | 11.776 | | | |
| Read Baseline | 0 | -21.377 | BL | | |
| CCV 5000 ppb | 899316 | 4736.408 | | | |
| CCVL 1000 ppb | 178819 | 971.535 | | | |
| CCB | 7840 | 22.641 | | | |
| Read Baseline | 0 | -21.377 | BL | | |
| 570-22036-C-6 | 9174 | 30.131 | | | |
| 570-22036-C-7 | 147965 | 801.874 | | | |
| 570-22036-C-8 | 19549 | 88.305 | | | |
| 570-22036-C-9 | 11620 | 43.850 | | | |
| LCS | 920284 | 4840.314 | | | |
| LCSD | 914974 | 4814.033 | | | |
| MB | -1927 | -32.206 | LO | | |
| 570-22036-C-10 | 415146 | 2248.065 | | | |
| ms 570-22036-C-10 | 1128277 | 5853.717 | | | |
| msd 570-22036-C-10 | 928645 | 4881.662 | | | |
| 570-22036-C-11 | 332723 | 1807.468 | | | |
| Rinse | 55 | -21.069 | LO | | |
| Read Baseline | 0 | -21.377 | BL | | |
| CCV 5000 ppb | 868467 | 4582.952 | | | |
| CCVL 1000 ppb | 183784 | 998.773 | | | |
| CCB | 1891 | -10.755 | LO | | |
| Read Baseline | 0 | -21.377 | BL | | |
| 570-22036-C-12 | -611 | -24.808 | LO | | |
| 280-134298-A-1 | 364390 | 1977.335 | | | |
| 280-134298-A-2 | 537197 | 2891.416 | | | |
| 280-134446-G-8 | 774580 | 8223.304 | | | |
| 280-134464-A-1 | 26269 | 125.942 | | | |
| 280-134437-A-1 | 179138 | 973.284 | | | |
| 280-134309-B-2 | 1329652 | 13609.758 | | | |
| d | 58867 | 308.060 | | | |
| d | 1820 | -11.153 | LO | | |
| d | 5450 | 9.231 | | | |
| Rinse | 2527 | -7.186 | LO | | |
| Read Baseline | 0 | -21.377 | BL | | |
| CCV 5000 ppb | 899472 | 4737.182 | | | |
| CCVL 1000 ppb | 186991 | 1016.355 | | | |
| CCB | -1702 | -30.941 | LO | | |
| Read Baseline | 0 | -21.377 | BL | | |

Nitrate as N:Calibration  1: Peak 5-87

File name: C:\FLOW_4\031020.RST
Date: 10-Mar-20
Operator: svc

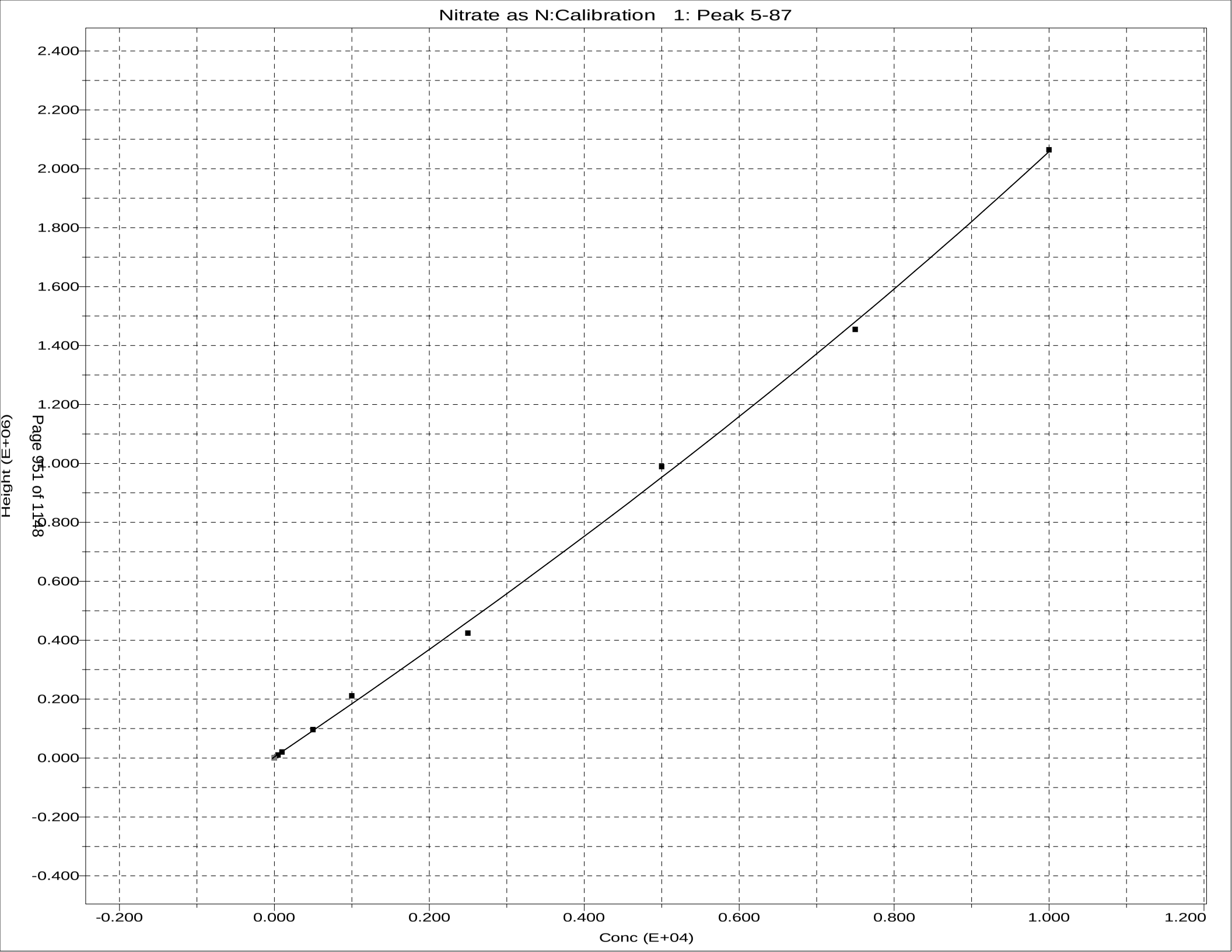
| * | Name | Conc | Height |
|---|---|---|---|
| * | Cal 0.00 ppb | 0.000000 | 618.096680 |
| * | Cal 50.0 ppb | 50.000000 | 10397.085938 |
| * | Cal 100 ppb | 100.000000 | 20005.761719 |
| * | Cal 500 ppb | 500.000000 | 96093.117188 |
| * | Cal 1000 ppb | 1000.000000 | 210939.015625 |
| * | Cal 2500 ppb | 2500.000000 | 423613.343750 |
| * | Cal 5000 ppb | 5000.000000 | 988801.687500 |
| * | Cal 7500 ppb | 7500.000000 | 1454920.500000 |
| * | Cal 10000 ppb | 10000.000000 | 2064409.875000 |

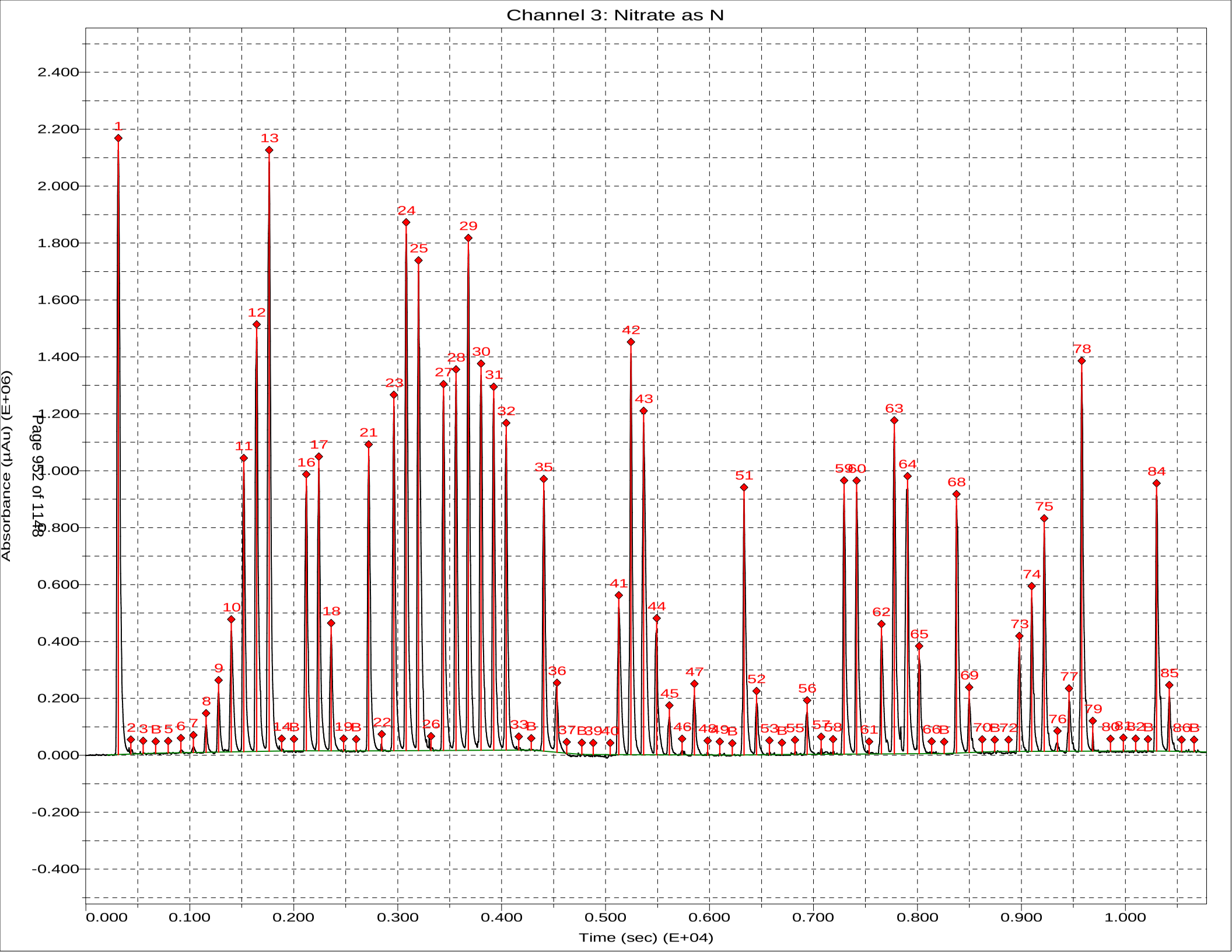
Calib Coef:
x=cyy+by+a
a: (intercept)  -2.1377e+01
b:  5.6177e-03
c:  -3.6386e-10

Corr Coef:  0.999492

Carryover:  0.467%

No Drift Peaks


Nitrate as N:Calibration 1: Peak 5-87
Height (E+06)
2.400
2.200
2.000
1.800
1.600
1.400
1.200
1.000
0.800
0.600
0.400
0.200
0.000
-0.200
-0.400
-0.200
0.000
0.200
0.400
0.600
0.800
1.000
1.200
Conc (E+04)


Channel 3: Nitrate as N
Absorbance (µAu) (E+06)
Time (sec) (E+04)
Page 952 of 1148

Sample Table - 031020.tbl

File name: C:\FLOW_4\031020.TBL
Date: 10-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 | 280-134268-C-6 | U | 1 | 5 ~~1~~ | 1 | | 2 |
| 114 | ms 280-134268-C-6 | U | 1 | 5 ~~1~~ | 1 | | 2 |
| 115 | msd 280-134268-C-6 | U | 1 | 5 ~~1~~ | 1 | | 2 |
| 116 | 280-134268-C-1 | U | 1 | 1 | 1 | | 2 |
| 117 | 280-134268-C-2 | U | 1 | 5 ~~1~~ | 1 | | 2 |
| 118 | 280-134268-C-3 | U | 1 | 2 ~~1~~ | 1 | | 2 |
| 119 | 280-134268-C-4 | U | 1 | 2 ~~1~~ | 1 | | 2 |
| 120 | 280-134268-C-5 | U | 1 | 5 ~~1~~ | 1 | | 2 |
| 121 | 280-134268-C-7 | U | 1 | 5 ~~1~~ | 1 | | 2 |
| 122 | 280-134268-C-8 | U | 1 | 5 ~~1~~ | 1 | | 2 |
| 0 | Rinse | U | 1 | 1 | 1 | | 2 |
| 0 | Read Baseline | RB | 1 | 1 | 1 | | |
| 107 | CCV 5000 ppb | CCV | 1 | 1 | 1 | | |
| 105 | CCVL 1000 ppb | CCV | 1 | 1 | 1 | | |
| 0 | CCB | U | 1 | 1 | 1 | | |
| 0 | Read Baseline | RB | 1 | 1 | 1 | | |
| 123 | 280-134268-C-9 | U | 1 | 1 | 1 | | 2 |
| 124 | 280-134270-B-3 | U | 1 | 1 | 1 | | 2 |
| 125 | 280-134268-C-10 | U | 1 | 1 | 1 | | 2 |
| 126 | ms 280-134268-C-10 | U | 1 | 1 | 1 | | 2 |
| 127 | msd 280-134268-C-10 | U | 1 | 1 | 1 | | 2 |
| 128 | 570-22036-C-1 | U | 1 | 1 | 1 | | 7 |
| 129 | 570-22036-C-2 | U | 1 | 1 | 1 | | 7 |
| 130 | 570-22036-C-3 | U | 1 | 1 | 1 | | 7 |
| 131 | 570-22036-C-4 | U | 1 | 1 | 1 | | 7 |
| 132 | 570-22036-C-5 | U | 1 | 1 | 1 | | 7 |
| 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 | 570-22036-C-6 | U | 1 | 1 | 1 | | 7 |
| 134 | 570-22036-C-7 | U | 1 | 1 | 1 | | 7 |

| Cup | Name | Type | R | Dil | Wt | Vial | Comment |
|---|---|---|---|---|---|---|---|
| 135 | 570-22036-C-8 | U | 1 | 1 | 1 | | 7 |
| 136 | 570-22036-C-9 | U | 1 | 1 | 1 | | 7 |
| 107 | LCS | U | 1 | 1 | 1 | | |
| 107 | LCSD | U | 1 | 1 | 1 | | |
| 0 | MB | U | 1 | 1 | 1 | | |
| 137 | 570-22036-C-10 | U | 1 | 1 | 1 | | 7 |
| 138 | ms 570-22036-C-10 | U | 1 | 1 | 1 | | 7 |
| 139 | msd 570-22036-C-10 | U | 1 | 1 | 1 | | 7 |
| 140 | 570-22036-C-11 | U | 1 | 1 | 1 | | 7 |
| 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 | 570-22036-C-12 | U | 1 | 1 | 1 | | 7 |
| 142 | 280-134298-A-1 | U | 1 | 1 | 1 | | 2 |
| 143 | 280-134298-A-2 | U | 1 | 1 | 1 | | 2 |
| 144 | 280-134446-G-8 | U | 1 | 2 ~~1~~ | 1 | | 2 |
| 145 | 280-134464-A-1 | U | 1 | 1 | 1 | | 2 |
| 146 | 280-134437-A-1 | U | 1 | 1 | 1 | | 2 |
| 147 | 280-134309-B-2 | U | 1 | 2 ~~1~~ | 1 | | 2 |
| 148 | d | U | 1 | 1 | 1 | | |
| 149 | d | U | 1 | 1 | 1 | | |
| 150 | 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: | 3/5/2020 | 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: | 1048 |
| TALS ID | Na Thio_00165 | Expiration Date: | 5/25/2020 |
| Normality: | 0.025 | | |
| | Starch Indicator | | |
| TALS ID | Starch Ind_00061 | | |

| | 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 | 7.00 | 20 | 7.00 | 1040.000 |

For SM4500 S2 D colorimetric

| **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 |
|---|---|---|---|---|---|---|
| ICV | 5 | 0.00 | 7.00 | 20 | 7.00 | 1040.000 |
| ICV | 5 | 0.00 | 7.70 | 20 | 7.70 | 984.000 |

# TALS Raw Data Report

Job Number: 280-134198-1
LIMS Batch: 487837
Equipment: NOEQUIP

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **LCS 280-487751/1-A** Inj Date: 3/5/2020 12:56:00PM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Sulfide as H2S | | 14.45 mg/L | mg/L | | | | |
| Sulfide | | 13.6 mg/L | mg/L | 65 | 44 110 | | |

RS# 2 Lab ID: **MB 280-487751/2-A** Inj Date: 3/5/2020 12:56:00PM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Sulfide as H2S | | 0 mg/L | 2.0 U mg/L | | | | |
| Sulfide | | 0 mg/L | 1.9 U mg/L | | | | |

RS# 3 Lab ID: **280-134198-C-1-A** Inj Date: 3/5/2020 12:56:00PM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Sulfide as H2S | | 0 mg/L | 2.0 U mg/L | | | | |
| Sulfide | | 0 mg/L | 1.9 U mg/L | | | | |

RS# 4 Lab ID: **280-134198-C-1-B MS** Inj Date: 3/5/2020 12:56:00PM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Sulfide as H2S | | 19.55 mg/L | mg/L | | | | |
| Sulfide | | 18.4 mg/L | mg/L | 88 | 44 110 | | |

RS# 5 Lab ID: **280-134198-C-1-C MSD** Inj Date: 3/5/2020 12:56:00PM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Sulfide as H2S | | 17 mg/L | mg/L | | | | |
| Sulfide | | 16 mg/L | mg/L | 76 | 44 110 | 14 | 20 |

RS# 9 Lab ID: **280-134198-C-2-A** Inj Date: 3/5/2020 12:56:00PM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Sulfide as H2S | | 0.85 mg/L | 0.85 J mg/L | | | | |
| Sulfide | | 0.8 mg/L | 0.80 J mg/L | | | | |

RS# 10 Lab ID: **280-134198-C-3-A** Inj Date: 3/5/2020 12:56:00PM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Sulfide as H2S | | -5.1 mg/L | 2.0 U mg/L | | | | |
| Sulfide | | -4.8 mg/L | 1.9 U mg/L | | | | |

RS# 11 Lab ID: **280-134198-C-4-A** Inj Date: 3/5/2020 12:56:00PM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Sulfide as H2S | | 0 mg/L | 2.0 U mg/L | | | | |
| Sulfide | | 0 mg/L | 1.9 U mg/L | | | | |

# TALS Raw Data Report

Job Number: 280-134202-1
LIMS Batch: 487837
Equipment: NOEQUIP

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **LCS 280-487751/1-A** Inj Date: 3/5/2020 12:56:00PM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Sulfide as H2S | | 14.45 mg/L | mg/L | | | | |
| Sulfide | | 13.6 mg/L | mg/L | 65 | 44 110 | | |

RS# 2 Lab ID: **MB 280-487751/2-A** Inj Date: 3/5/2020 12:56:00PM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Sulfide as H2S | | 0 mg/L | 2.0 U mg/L | | | | |
| Sulfide | | 0 mg/L | 1.9 U mg/L | | | | |

RS# 3 Lab ID: **280-134198-C-1-A** Inj Date: 3/5/2020 12:56:00PM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Sulfide as H2S | | 0 mg/L | 2.0 U mg/L | | | | |
| Sulfide | | 0 mg/L | 1.9 U mg/L | | | | |

RS# 4 Lab ID: **280-134198-C-1-B MS** Inj Date: 3/5/2020 12:56:00PM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Sulfide as H2S | | 19.55 mg/L | mg/L | | | | |
| Sulfide | | 18.4 mg/L | mg/L | 88 | 44 110 | | |

RS# 5 Lab ID: **280-134198-C-1-C MSD** Inj Date: 3/5/2020 12:56:00PM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Sulfide as H2S | | 17 mg/L | mg/L | | | | |
| Sulfide | | 16 mg/L | mg/L | 76 | 44 110 | 14 | 20 |

RS# 6 Lab ID: **280-134268-E-6-A** Inj Date: 3/5/2020 12:56:00PM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Sulfide as H2S | | 0.85 mg/L | 0.85 J mg/L | | | | |
| Sulfide | | 0.8 mg/L | 0.80 J mg/L | | | | |

RS# 7 Lab ID: **280-134268-E-6-B MS** Inj Date: 3/5/2020 12:56:00PM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Sulfide as H2S | | 21.25 mg/L | mg/L | | | | |
| Sulfide | | 20 mg/L | mg/L | 92 | 44 110 | | |

RS# 8 Lab ID: **280-134268-E-6-C MSD** Inj Date: 3/5/2020 12:56:00PM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Sulfide as H2S | | 21.25 mg/L | mg/L | | | | |
| Sulfide | | 20 mg/L | mg/L | 92 | 44 110 | 0 | 20 |

RS# 12 Lab ID: **280-134202-E-15-A** Inj Date: 3/5/2020 12:56:00PM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Sulfide as H2S | | 0.85 mg/L | 0.85 J mg/L | | | | |
| Sulfide | | 0.8 mg/L | 0.80 J mg/L | | | | |

# TALS Raw Data Report

Job Number: 280-134204-1
LIMS Batch: 487837
Equipment: NOEQUIP

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **LCS 280-487751/1-A** Inj Date: 3/5/2020 12:56:00PM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Sulfide as H2S | | 14.45 mg/L | mg/L | | | | |
| Sulfide | | 13.6 mg/L | mg/L | 65 | 44 110 | | |

RS# 2 Lab ID: **MB 280-487751/2-A** Inj Date: 3/5/2020 12:56:00PM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Sulfide as H2S | | 0 mg/L | 2.0 U mg/L | | | | |
| Sulfide | | 0 mg/L | 1.9 U mg/L | | | | |

RS# 3 Lab ID: **280-134198-C-1-A** Inj Date: 3/5/2020 12:56:00PM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Sulfide as H2S | | 0 mg/L | 2.0 U mg/L | | | | |
| Sulfide | | 0 mg/L | 1.9 U mg/L | | | | |

RS# 4 Lab ID: **280-134198-C-1-B MS** Inj Date: 3/5/2020 12:56:00PM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Sulfide as H2S | | 19.55 mg/L | mg/L | | | | |
| Sulfide | | 18.4 mg/L | mg/L | 88 | 44 110 | | |

RS# 5 Lab ID: **280-134198-C-1-C MSD** Inj Date: 3/5/2020 12:56:00PM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Sulfide as H2S | | 17 mg/L | mg/L | | | | |
| Sulfide | | 16 mg/L | mg/L | 76 | 44 110 | 14 | 20 |

RS# 6 Lab ID: **280-134268-E-6-A** Inj Date: 3/5/2020 12:56:00PM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Sulfide as H2S | | 0.85 mg/L | 0.85 J mg/L | | | | |
| Sulfide | | 0.8 mg/L | 0.80 J mg/L | | | | |

RS# 7 Lab ID: **280-134268-E-6-B MS** Inj Date: 3/5/2020 12:56:00PM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Sulfide as H2S | | 21.25 mg/L | mg/L | | | | |
| Sulfide | | 20 mg/L | mg/L | 92 | 44 110 | | |

RS# 8 Lab ID: **280-134268-E-6-C MSD** Inj Date: 3/5/2020 12:56:00PM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Sulfide as H2S | | 21.25 mg/L | mg/L | | | | |
| Sulfide | | 20 mg/L | mg/L | 92 | 44 110 | 0 | 20 |

RS# 13 Lab ID: **280-134204-B-2-A** Inj Date: 3/5/2020 12:56:00PM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Sulfide as H2S | | 0.85 mg/L | 0.85 J mg/L | | | | |
| Sulfide | | 0.8 mg/L | 0.80 J mg/L | | | | |

RS# 14 Lab ID: **280-134204-B-3-A** Inj Date: 3/5/2020 12:56:00PM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Sulfide as H2S | | 999999966 mg/L | 0.85 J mg/L | | | | |
| Sulfide | | 999999968 mg/L | 0.80 J mg/L | | | | |

# TALS Raw Data Report

RS# 15 Lab ID: **280-134204-B-4-A** Inj Date: 3/5/2020 12:56:00PM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Sulfide as H2S | | 0.85 mg/L | 0.85 J mg/L | | | | |
| Sulfide | | 0.8 mg/L | 0.80 J mg/L | | | | |

RS# 16 Lab ID: **280-134204-B-5-A** Inj Date: 3/5/2020 12:56:00PM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Sulfide as H2S | | 999999966 mg/L | 0.85 J mg/L | | | | |
| Sulfide | | 999999968 mg/L | 0.80 J mg/L | | | | |

# TALS Raw Data Report

Job Number: 280-134268-1
LIMS Batch: 487837
Equipment: NOEQUIP

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **LCS 280-487751/1-A** Inj Date: 3/5/2020 12:56:00PM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Sulfide as H2S | | 14.45 mg/L | mg/L | | | | |
| Sulfide | | 13.6 mg/L | mg/L | 65 | 44 110 | | |

RS# 2 Lab ID: **MB 280-487751/2-A** Inj Date: 3/5/2020 12:56:00PM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Sulfide as H2S | | 0 mg/L | 2.0 U mg/L | | | | |
| Sulfide | | 0 mg/L | 1.9 U mg/L | | | | |

RS# 6 Lab ID: **280-134268-E-6-A** Inj Date: 3/5/2020 12:56:00PM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Sulfide as H2S | | 0.85 mg/L | 0.85 J mg/L | | | | |
| Sulfide | | 0.8 mg/L | 0.80 J mg/L | | | | |

RS# 7 Lab ID: **280-134268-E-6-B MS** Inj Date: 3/5/2020 12:56:00PM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Sulfide as H2S | | 21.25 mg/L | mg/L | | | | |
| Sulfide | | 20 mg/L | mg/L | 92 | 44 110 | | |

RS# 8 Lab ID: **280-134268-E-6-C MSD** Inj Date: 3/5/2020 12:56:00PM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Sulfide as H2S | | 21.25 mg/L | mg/L | | | | |
| Sulfide | | 20 mg/L | mg/L | 92 | 44 110 | 0 | 20 |

RS# 17 Lab ID: **280-134268-E-1-A** Inj Date: 3/5/2020 12:56:00PM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Sulfide as H2S | | 0.85 mg/L | 0.85 J mg/L | | | | |
| Sulfide | | 0.8 mg/L | 0.80 J mg/L | | | | |

RS# 18 Lab ID: **280-134268-E-2-A** Inj Date: 3/5/2020 12:56:00PM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Sulfide as H2S | | 0 mg/L | 2.0 U mg/L | | | | |
| Sulfide | | 0 mg/L | 1.9 U mg/L | | | | |

RS# 19 Lab ID: **280-134268-E-3-A** Inj Date: 3/5/2020 12:56:00PM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Sulfide as H2S | | 0 mg/L | 2.0 U mg/L | | | | |
| Sulfide | | 0 mg/L | 1.9 U mg/L | | | | |

TestAmerica *Denver*

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## *Titration Data Review Checklist*

| | | |
|---|---|---|
| **LIMS Batch Number:** L187837 | **Method (circle one):** | **QC Type (circle):** |
| **Analyst/1st Reviewer:** SAH<br>**Date:** 03/10/2020 | **2310B 2320B 2340C**<br>**4500 S2 F 4500 SO3 B 9030B/9034** | **Standard DoD QAPP Other** |
| **Matrix (circle): Water Solid** | **Automated or Manual (circle one)** | **Instrument ID (circle one if applicable):**<br>**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 ✓ | SAH 03/10/20 | ✓ | |
| **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<br>□ 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<br>□ Sample results >10x blank<br>□ 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<br>□ 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<br>□ 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%?<br>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:** BS **Review Date:** 3/4/2025

## Sulfide by Titration

| | | | |
|---|---|---|---|
| Analyst: | SAH | SOP Information: | |
| Date: | 3/5/2020 | 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: | 1048 |
| 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 | 7.00 | 20 | 7.00 | 1040.000 |

For SM4500 S2 D colorimetric

| | CAL Volume | Buret Start | Buret End | mL Iodine | Final mL | Conc mg/L |
|---|---|---|---|---|---|---|
| ICV | 5 | 0.00 | 7.00 | 20 | 7.00 | 1040.000 |
| ICV | 5 | 0.00 | 7.70 | 20 | 7.70 | 984.000 |

# TALS Raw Data Report

Job Number: 280-134212-1
LIMS Batch: 487838
Equipment: NOEQUIP

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **LCS 280-487821/1-A** Inj Date: 3/5/2020 1:00:00PM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|---|
| Sulfide | | 20 mg/L | mg/L | 95 | 44 | 110 | | |
| Sulfide as H2S | | 21.25 mg/L | mg/L | | | | | |

RS# 2 Lab ID: **MB 280-487821/2-A** Inj Date: 3/5/2020 1:00:00PM 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# 3 Lab ID: **280-134268-E-4-A** Inj Date: 3/5/2020 1:00:00PM 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# 4 Lab ID: **280-134268-E-4-B MS** Inj Date: 3/5/2020 1:00:00PM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|---|
| Sulfide | | 12.8 mg/L | mg/L | 61 | 44 | 110 | | |
| Sulfide as H2S | | 13.6 mg/L | mg/L | | | | | |

RS# 5 Lab ID: **280-134268-E-4-C MSD** Inj Date: 3/5/2020 1:00:00PM 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 | 92 | 44 | 110 | 40 | 20 |
| Sulfide as H2S | | 20.4 mg/L | mg/L | | | | | |

RS# 17 Lab ID: **280-134212-H-5-B** Inj Date: 3/5/2020 1:00:00PM 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: 280-134239-1
LIMS Batch: 487838
Equipment: NOEQUIP

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **LCS 280-487821/1-A** Inj Date: 3/5/2020 1:00:00PM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|---|
| Sulfide | | 20 mg/L | mg/L | 95 | 44 | 110 | | |
| Sulfide as H2S | | 21.25 mg/L | mg/L | | | | | |

RS# 2 Lab ID: **MB 280-487821/2-A** Inj Date: 3/5/2020 1:00:00PM 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# 3 Lab ID: **280-134268-E-4-A** Inj Date: 3/5/2020 1:00:00PM 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# 4 Lab ID: **280-134268-E-4-B MS** Inj Date: 3/5/2020 1:00:00PM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|---|
| Sulfide | | 12.8 mg/L | mg/L | 61 | 44 | 110 | | |
| Sulfide as H2S | | 13.6 mg/L | mg/L | | | | | |

RS# 5 Lab ID: **280-134268-E-4-C MSD** Inj Date: 3/5/2020 1:00:00PM 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 | 92 | 44 | 110 | 40 | 20 |
| Sulfide as H2S | | 20.4 mg/L | mg/L | | | | | |

RS# 15 Lab ID: **280-134239-Q-1-A** Inj Date: 3/5/2020 1:00:00PM 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# 16 Lab ID: **280-134239-Q-3-A** Inj Date: 3/5/2020 1:00:00PM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|---|
| Sulfide | | 999999968 mg/L | mg/L | | | | | |
| Sulfide as H2S | | 999999966 mg/L | mg/L | | | | | |

# TALS Raw Data Report

Job Number: 280-134243-1
LIMS Batch: 487838
Equipment: NOEQUIP

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **LCS 280-487821/1-A** Inj Date: 3/5/2020 1:00:00PM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Sulfide | | 20 mg/L | mg/L | 95 | 44 110 | | |
| Sulfide as H2S | | 21.25 mg/L | mg/L | | | | |

RS# 2 Lab ID: **MB 280-487821/2-A** Inj Date: 3/5/2020 1:00:00PM 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 | 0.800 J mg/L | | | | |
| Sulfide as H2S | | 0.85 mg/L | 0.850 J mg/L | | | | |

RS# 3 Lab ID: **280-134268-E-4-A** Inj Date: 3/5/2020 1:00:00PM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Sulfide | | 0 mg/L | 1.9 U mg/L | | | | |
| Sulfide as H2S | | 0 mg/L | 2.0 U mg/L | | | | |

RS# 4 Lab ID: **280-134268-E-4-B MS** Inj Date: 3/5/2020 1:00:00PM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Sulfide | | 12.8 mg/L | mg/L | 61 | 44 110 | | |
| Sulfide as H2S | | 13.6 mg/L | mg/L | | | | |

RS# 5 Lab ID: **280-134268-E-4-C MSD** Inj Date: 3/5/2020 1:00:00PM 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 | 92 | 44 110 | 40 | 20 |
| Sulfide as H2S | | 20.4 mg/L | mg/L | | | | |

RS# 6 Lab ID: **280-134243-C-1-A** Inj Date: 3/5/2020 1:00:00PM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Sulfide | | 0 mg/L | 1.9 U mg/L | | | | |
| Sulfide as H2S | | 0 mg/L | 2.0 U mg/L | | | | |

RS# 7 Lab ID: **280-134243-C-2-A** Inj Date: 3/5/2020 1:00:00PM 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: 280-134251-1
LIMS Batch: 487838
Equipment: NOEQUIP

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **LCS 280-487821/1-A** Inj Date: 3/5/2020 1:00:00PM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|---|
| Sulfide | | 20 mg/L | mg/L | 95 | 44 | 110 | | |
| Sulfide as H2S | | 21.25 mg/L | mg/L | | | | | |

RS# 2 Lab ID: **MB 280-487821/2-A** Inj Date: 3/5/2020 1:00:00PM 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# 3 Lab ID: **280-134268-E-4-A** Inj Date: 3/5/2020 1:00:00PM 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# 4 Lab ID: **280-134268-E-4-B MS** Inj Date: 3/5/2020 1:00:00PM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|---|
| Sulfide | | 12.8 mg/L | mg/L | 61 | 44 | 110 | | |
| Sulfide as H2S | | 13.6 mg/L | mg/L | | | | | |

RS# 5 Lab ID: **280-134268-E-4-C MSD** Inj Date: 3/5/2020 1:00:00PM 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 | 92 | 44 | 110 | 40 | 20 |
| Sulfide as H2S | | 20.4 mg/L | mg/L | | | | | |

RS# 13 Lab ID: **280-134251-I-1-A** Inj Date: 3/5/2020 1:00:00PM 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# 14 Lab ID: **280-134251-H-6-A** Inj Date: 3/5/2020 1:00:00PM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|---|
| Sulfide | | 999999968 mg/L | mg/L | | | | | |
| Sulfide as H2S | | 999999966 mg/L | mg/L | | | | | |

# TALS Raw Data Report

Job Number: 280-134268-1
LIMS Batch: 487838
Equipment: NOEQUIP

Laboratory: Eurofins TestAmerica, Denver

RS# 1 Lab ID: **LCS 280-487821/1-A** Inj Date: 3/5/2020 1:00:00PM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Sulfide | | 20 mg/L | mg/L | 95 | 44 110 | | |
| Sulfide as H2S | | 21.25 mg/L | mg/L | | | | |

RS# 2 Lab ID: **MB 280-487821/2-A** Inj Date: 3/5/2020 1:00:00PM 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 | 0.800 J mg/L | | | | |
| Sulfide as H2S | | 0.85 mg/L | 0.850 J mg/L | | | | |

RS# 3 Lab ID: **280-134268-E-4-A** Inj Date: 3/5/2020 1:00:00PM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Sulfide | | 0 mg/L | 1.9 U mg/L | | | | |
| Sulfide as H2S | | 0 mg/L | 2.0 U mg/L | | | | |

RS# 4 Lab ID: **280-134268-E-4-B MS** Inj Date: 3/5/2020 1:00:00PM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Sulfide | | 12.8 mg/L | mg/L | 61 | 44 110 | | |
| Sulfide as H2S | | 13.6 mg/L | mg/L | | | | |

RS# 5 Lab ID: **280-134268-E-4-C MSD** Inj Date: 3/5/2020 1:00:00PM 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 | 92 | 44 110 | 40 | 20 |
| Sulfide as H2S | | 20.4 mg/L | mg/L | | | | |

RS# 8 Lab ID: **280-134268-E-5-A** Inj Date: 3/5/2020 1:00:00PM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Sulfide | | 0.8 mg/L | 0.80 J mg/L | | | | |
| Sulfide as H2S | | 0.85 mg/L | 0.85 J mg/L | | | | |

RS# 9 Lab ID: **280-134268-E-7-A** Inj Date: 3/5/2020 1:00:00PM 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: **280-134268-E-8-A** Inj Date: 3/5/2020 1:00:00PM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Sulfide | | 0 mg/L | 1.9 U mg/L | | | | |
| Sulfide as H2S | | 0 mg/L | 2.0 U mg/L | | | | |

RS# 11 Lab ID: **280-134268-E-9-A** Inj Date: 3/5/2020 1:00:00PM Dil: 1.0 Meth: 9034

| Analyte | Rspnse | Raw Res/Units | Final Res/Qual/Units | % Rec | Rec Lmt | % RPD | RPD Lmt |
|---|---|---|---|---|---|---|---|
| Sulfide | | 0.8 mg/L | 0.80 J mg/L | | | | |
| Sulfide as H2S | | 0.85 mg/L | 0.85 J mg/L | | | | |

RS# 12 Lab ID: **280-134268-E-10-A** Inj Date: 3/5/2020 1:00:00PM 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 | | | | |

TestAmerica *Denver*

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

## *Titration Data Review Checklist*

| | | |
|---|---|---|
| LIMS Batch Number: 487838 | Method (circle one): | QC Type (circle): |
| Analyst/1st Reviewer: SAH<br>Date: 03/11/20 | 2310B 2320B 2340C<br>4500 S2 F 4500 SO3 B 9030B/9034 | Standard DoD QAPP Other |
| Matrix (circle): Water Solid | Automated or Manual (circle one) | Instrument ID (circle one if applicable):<br>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<br>□ 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<br>□ Sample results >10x blank<br>□ 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<br>□ Sample results >4X spike conc. |
| 15. Duplicate analyzed at required frequency and RPD within limits. (Required for 2310B, 2320B, 4500 SO3 B) | N/A | ✗ | ✓ ~~N~~ | ~~□ Non~~-conformance (NCM) added<br>□ Sample results ND or <2X RL |

SAH 03/11/20 SAH 03/11/20

| Review Items | Yes | No | 2nd Rev | If No, why is data reportable? |
|---|---|---|---|---|
| 16. Are all MS/MSD RPDs <50%?<br>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:** 3·11·2020

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

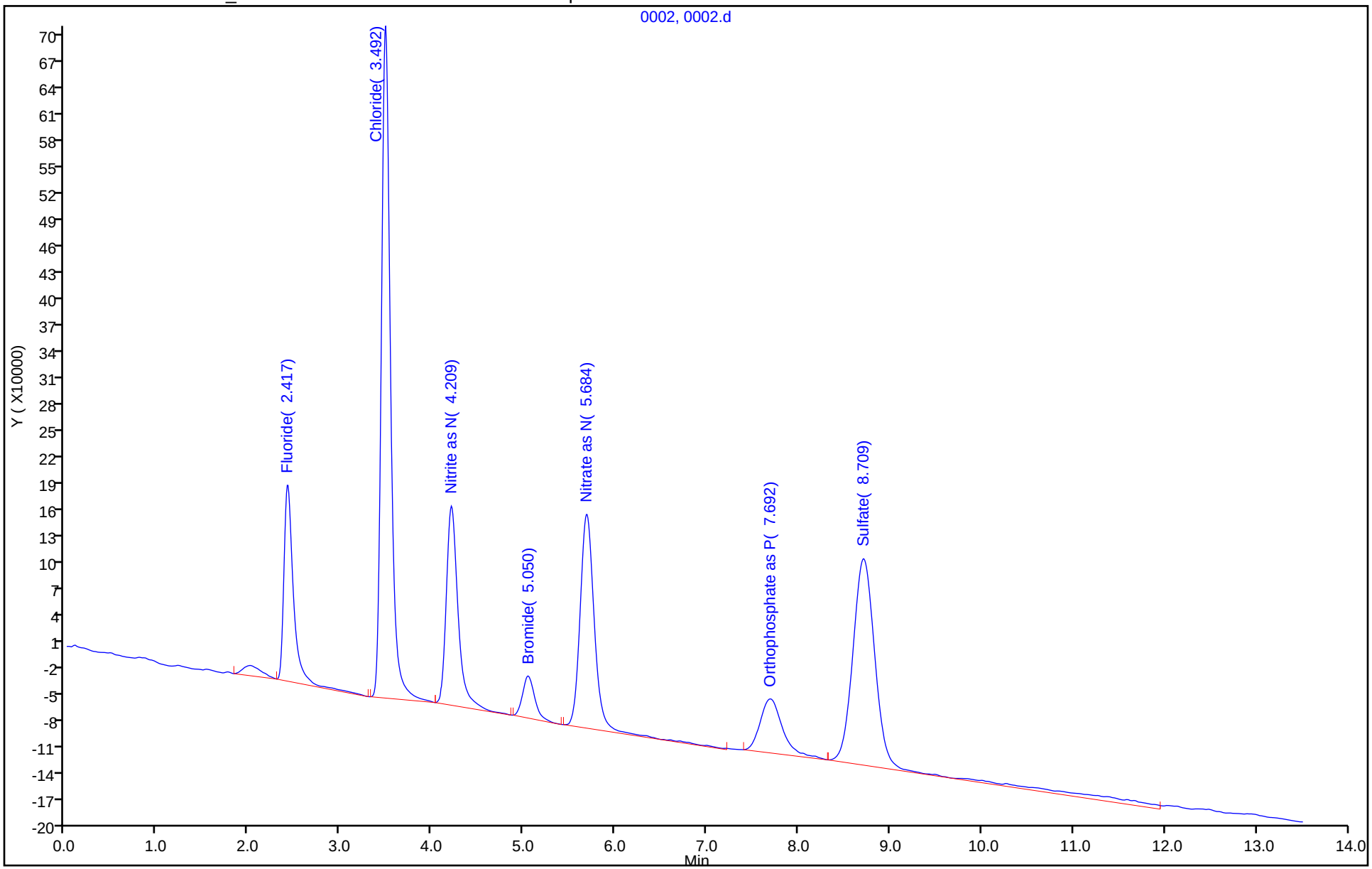
## Reagents:

| | | | |
|---|---|---|---|
| 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

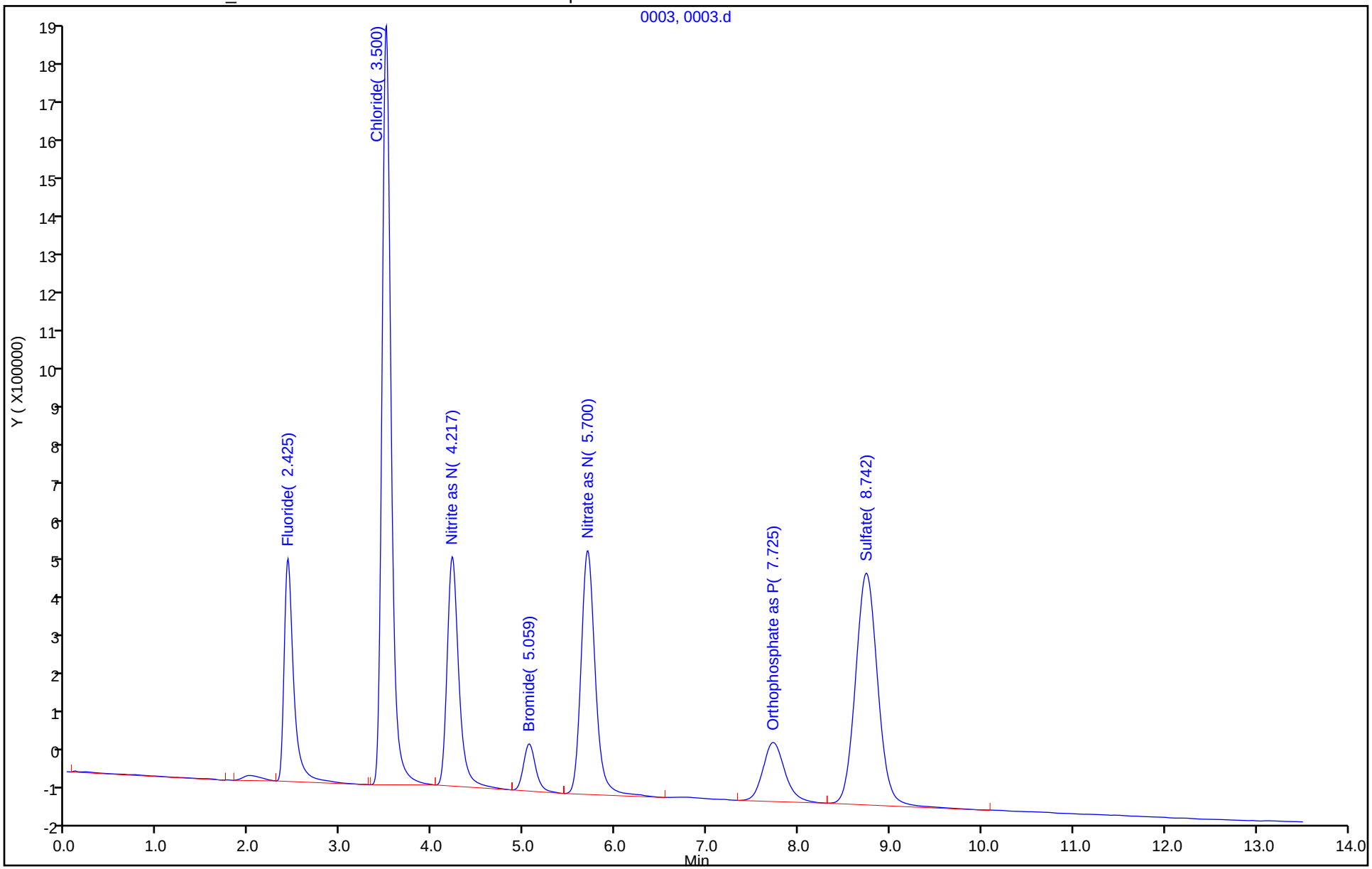
## Reagents:

| | | | |
|---|---|---|---|
| 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

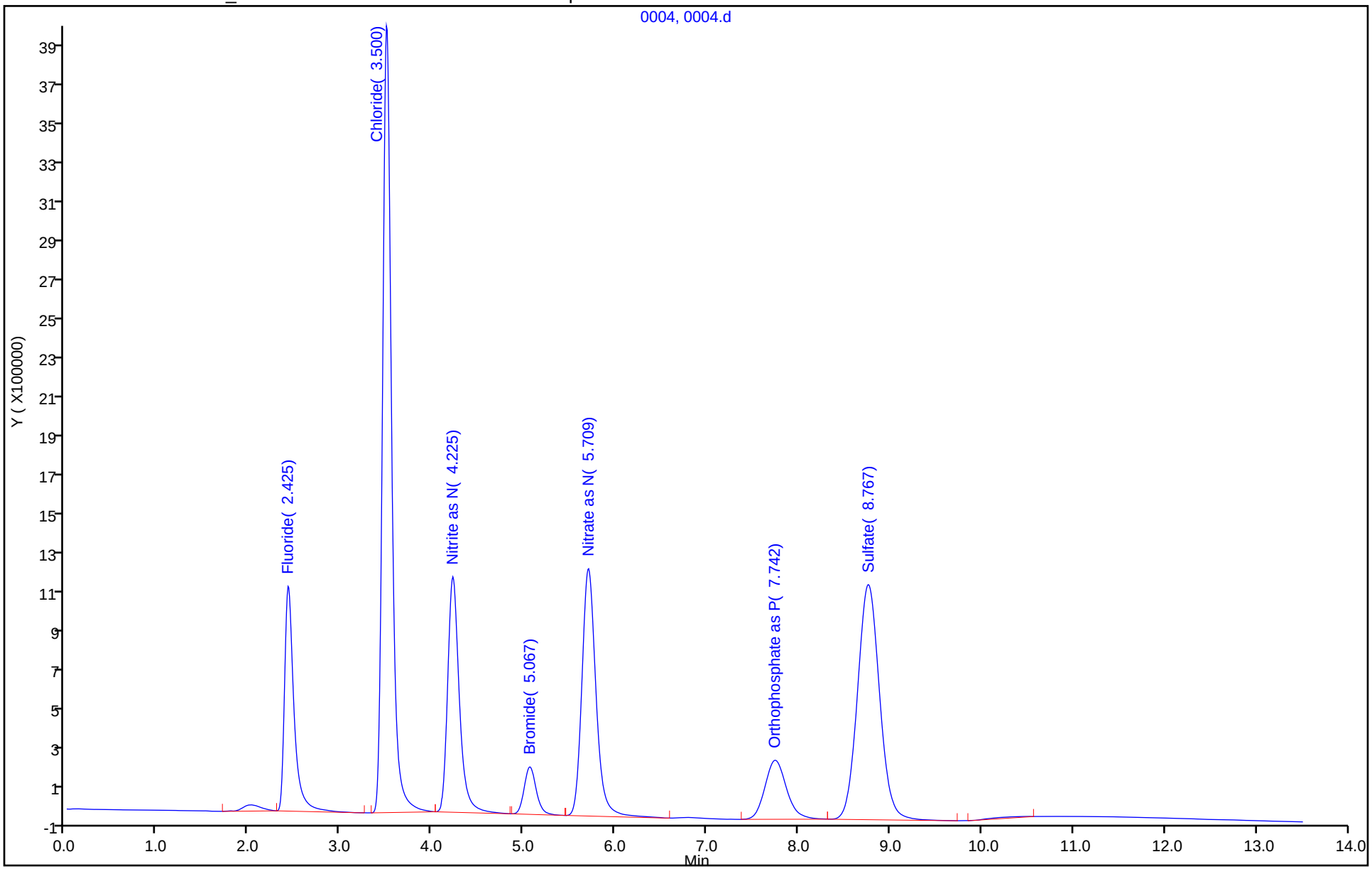
## Reagents:

| | | | |
|---|---|---|---|
| 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

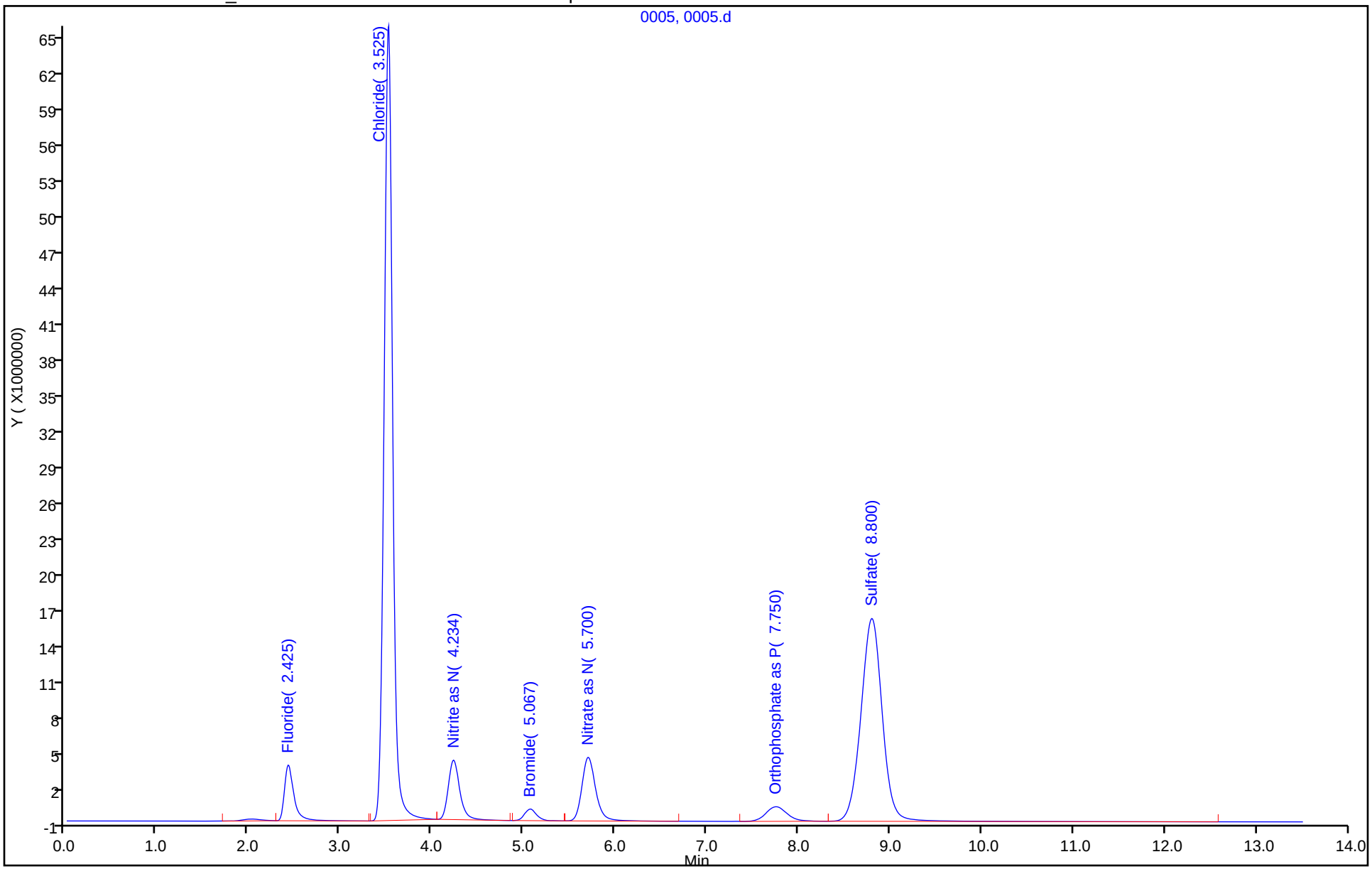
## Reagents:

| | | | |
|---|---|---|---|
| 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

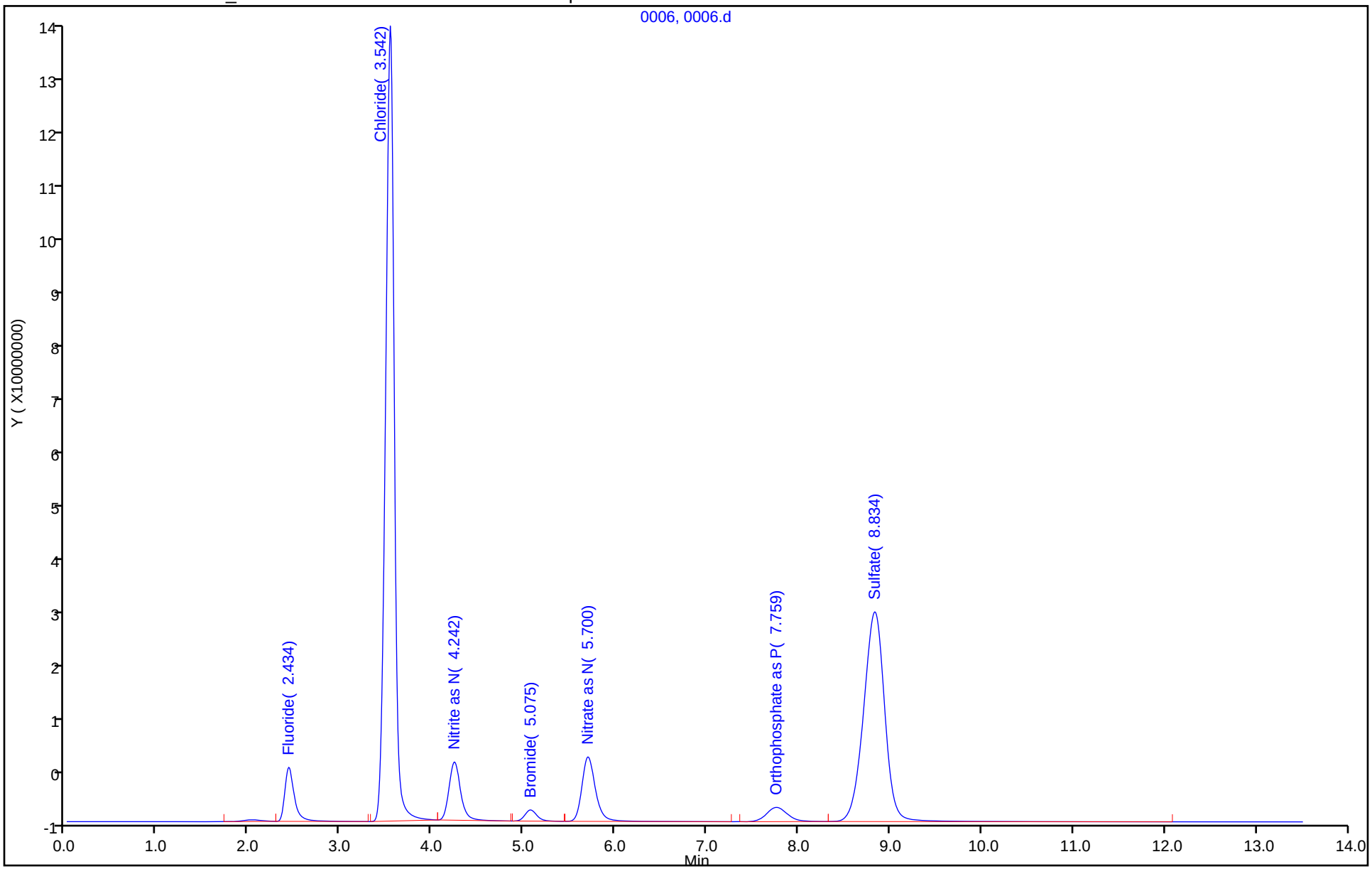
## Reagents:

| | | | |
|---|---|---|---|
| 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

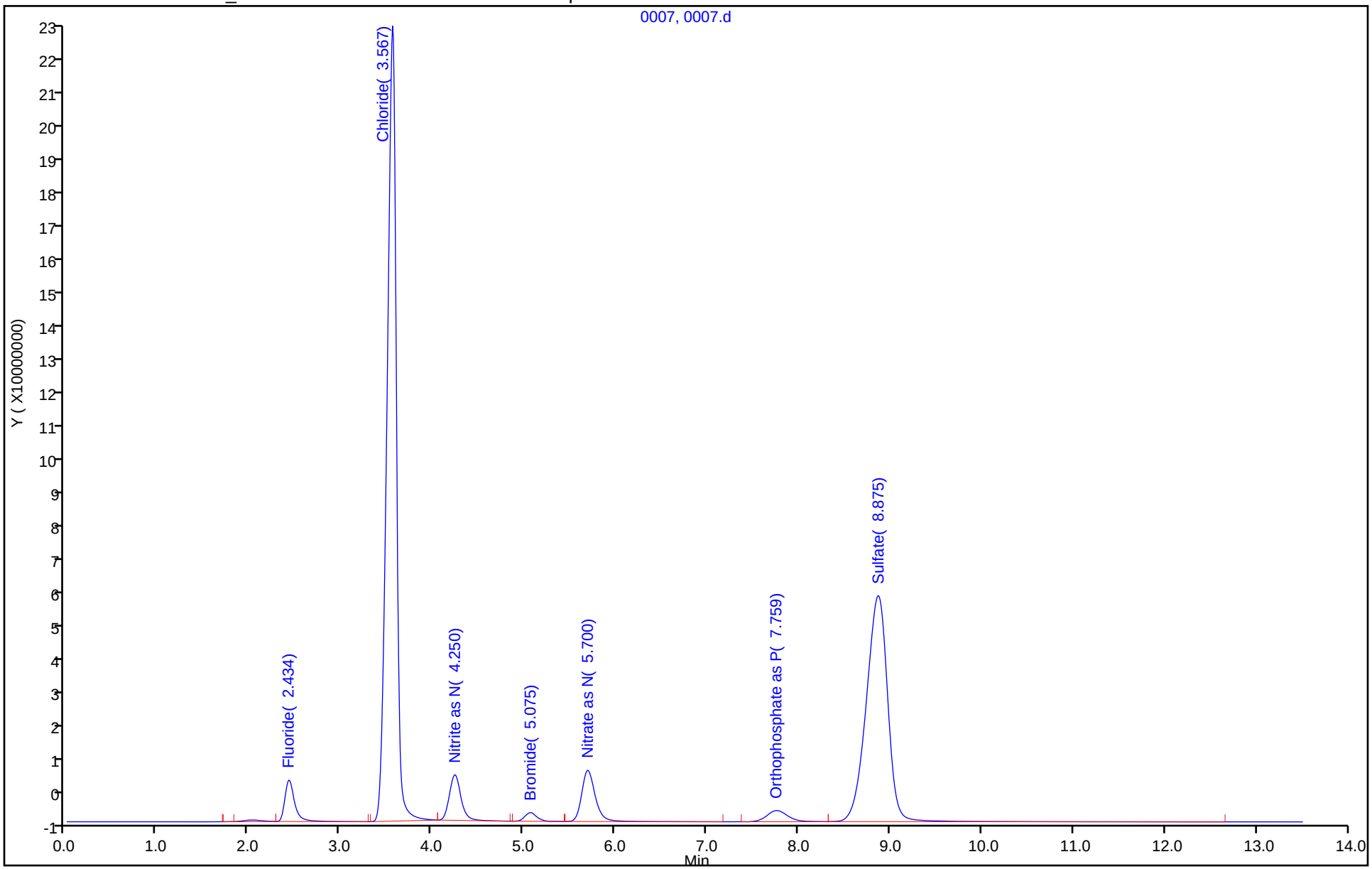
## Reagents:

| | | | |
|---|---|---|---|
| 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

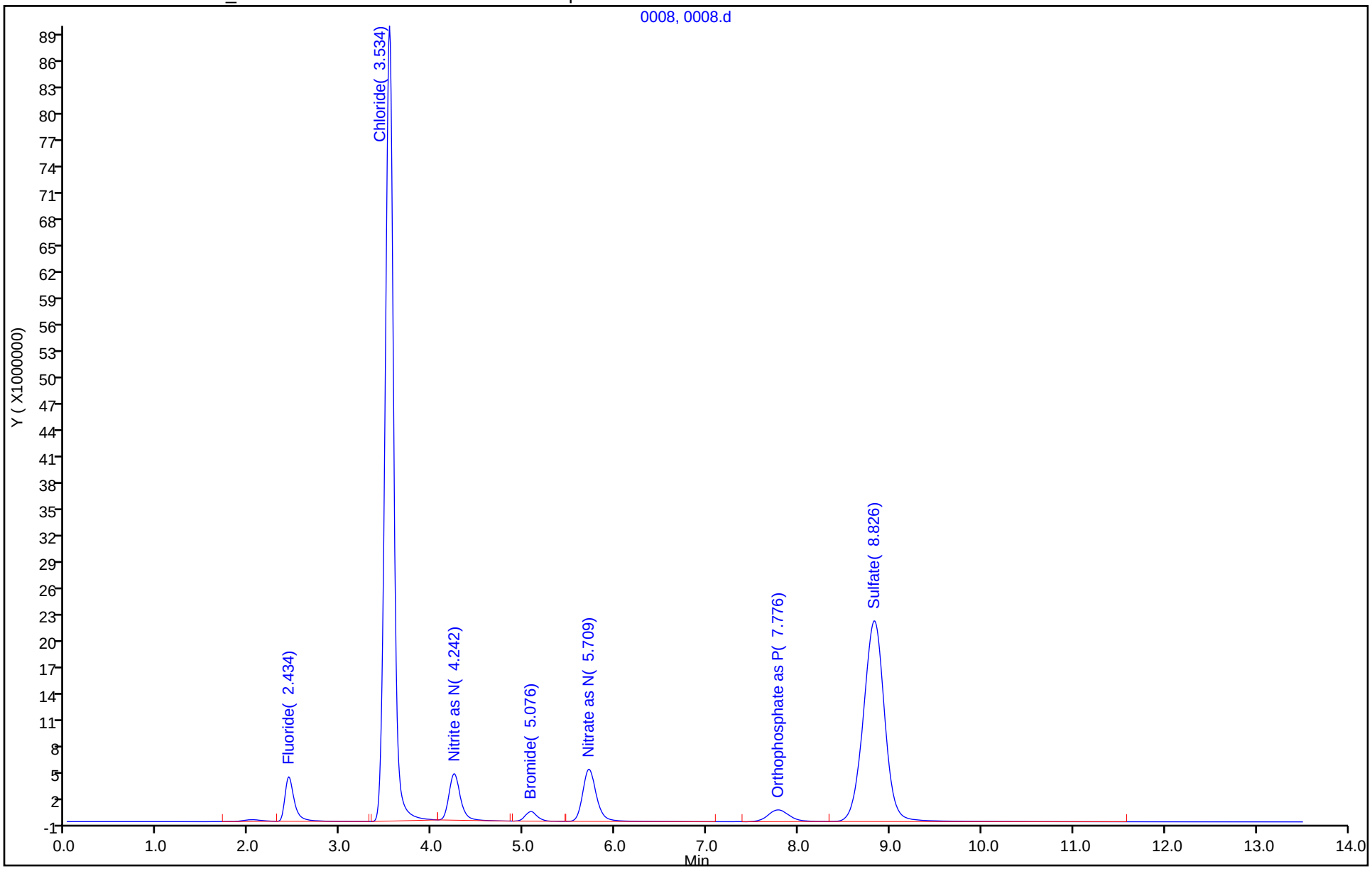
## Reagents:

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

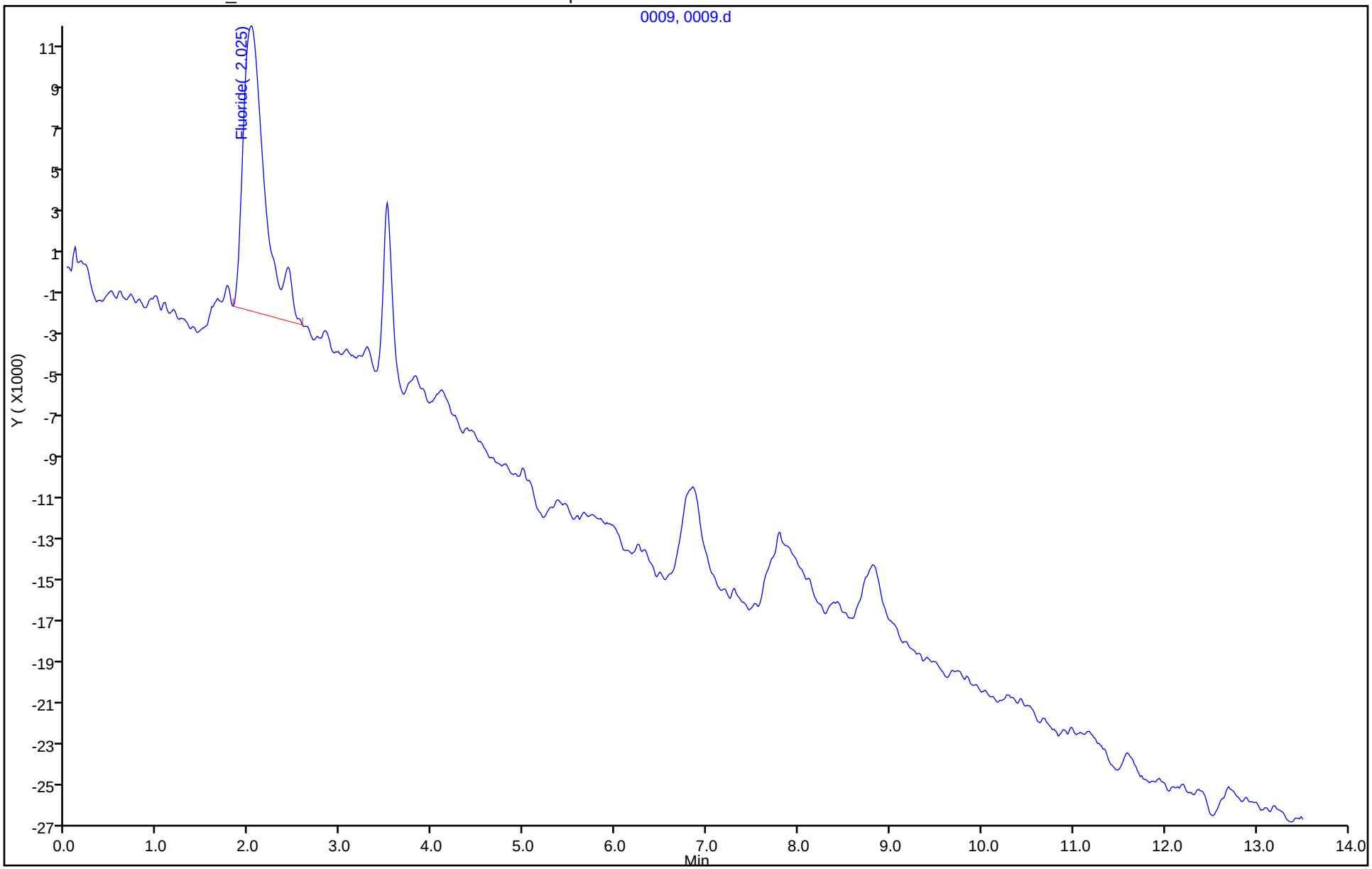
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Denver\ChromData\WC_IonChrom11\20200220-89496.b\0009.d | | | | |
| Lims ID: | ICB | | | | |
| Client ID: | | | | | |
| Sample Type: | ICB | | | | |
| Inject. Date: | 20-Feb-2020 16:34:00 | ALS Bottle#: | 0 | Worklist Smp#: | 9 |
| Injection 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 | | |



TestAmerica Denver

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# IC Instrument Information

**WL:** 90111 **Inst ID:** 11 **Analysis Date:** 3/17/20 **Analyst:** CJ

| Rush | Job No. | Samples | Anions | QC Req | HT Exp |
|---|---|---|---|---|---|
| ☐ | 134268 | 10 | F Cl NO2 Br NO3 PO4 SO4 | MS/D 6 | |
| ☐ | | | F Cl NO2 Br NO3 PO4 SO4 | MS/D | |
| ☐ | | | F Cl NO2 Br NO3 PO4 SO4 | MS/D | |
| ☐ | | | F Cl NO2 Br NO3 PO4 SO4 | MS/D | |
| ☐ | | | F Cl NO2 Br NO3 PO4 SO4 | MS/D | |
| ☐ | | | F Cl NO2 Br NO3 PO4 SO4 | MS/D | |
| ☐ | | | F Cl NO2 Br NO3 PO4 SO4 | MS/D | |
| ☐ | | | F Cl NO2 Br NO3 PO4 SO4 | MS/D | |
| ☐ | | | F Cl NO2 Br NO3 PO4 SO4 | MS/D | |
| ☐ | | | F Cl NO2 Br NO3 PO4 SO4 | MS/D | |
| ☐ | | | F Cl NO2 Br NO3 PO4 SO4 | MS/D | |
| ☐ | | | F Cl NO2 Br NO3 PO4 SO4 | MS/D | |
| ☐ | | | F Cl NO2 Br NO3 PO4 SO4 | MS/D | |
| ☐ | | | F Cl NO2 Br NO3 PO4 SO4 | MS/D | |

## Dilutions

| Job No. | Samples | Anions | Dilution | Reason |
|---|---|---|---|---|
| | | F Cl NO2 Br NO3 PO4 SO4 | | |
| | | F Cl NO2 Br NO3 PO4 SO4 | | |
| | | F Cl NO2 Br NO3 PO4 SO4 | | |
| | | F Cl NO2 Br NO3 PO4 SO4 | | |
| | | F Cl NO2 Br NO3 PO4 SO4 | | |
| | | F Cl NO2 Br NO3 PO4 SO4 | | |
| | | F Cl NO2 Br NO3 PO4 SO4 | | |
| | | F Cl NO2 Br NO3 PO4 SO4 | | |
| | | F Cl NO2 Br NO3 PO4 SO4 | | |

TestAmerica Laboratories
Initial Calibration 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\20200317-90111.b\0001.d
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 17-Mar-2020 12:20:00 ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0090111-001
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20200317-90111.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 18-Mar-2020 11:03:11 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: CTX0314

First Level Reviewer: pedrickj Date: 17-Mar-2020 13:43:32

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|
| 1 Fluoride | 2.400 | 2.400 | 0.000 | 40411175 | 5.00 | 4.72 | |
| 2 Chloride | 3.417 | 3.417 | 0.000 | 719372901 | 100.0 | 93.5 | |
| 3 Nitrite as N | 4.075 | 4.075 | 0.000 | 55652311 | NC | NC | |
| 4 Bromide | 4.834 | 4.834 | 0.000 | 10756351 | 5.00 | 4.85 | |
| 5 Nitrate as N | 5.417 | 5.417 | 0.000 | 70209827 | NC | NC | |
| 7 Orthophosphate as P | 7.092 | 7.092 | 0.000 | 24793883 | NC | NC | a |
| 6 Sulfate | 8.017 | 8.017 | 0.000 | 461505078 | 100.0 | 92.5 | a |

## QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
a - User Assigned ID

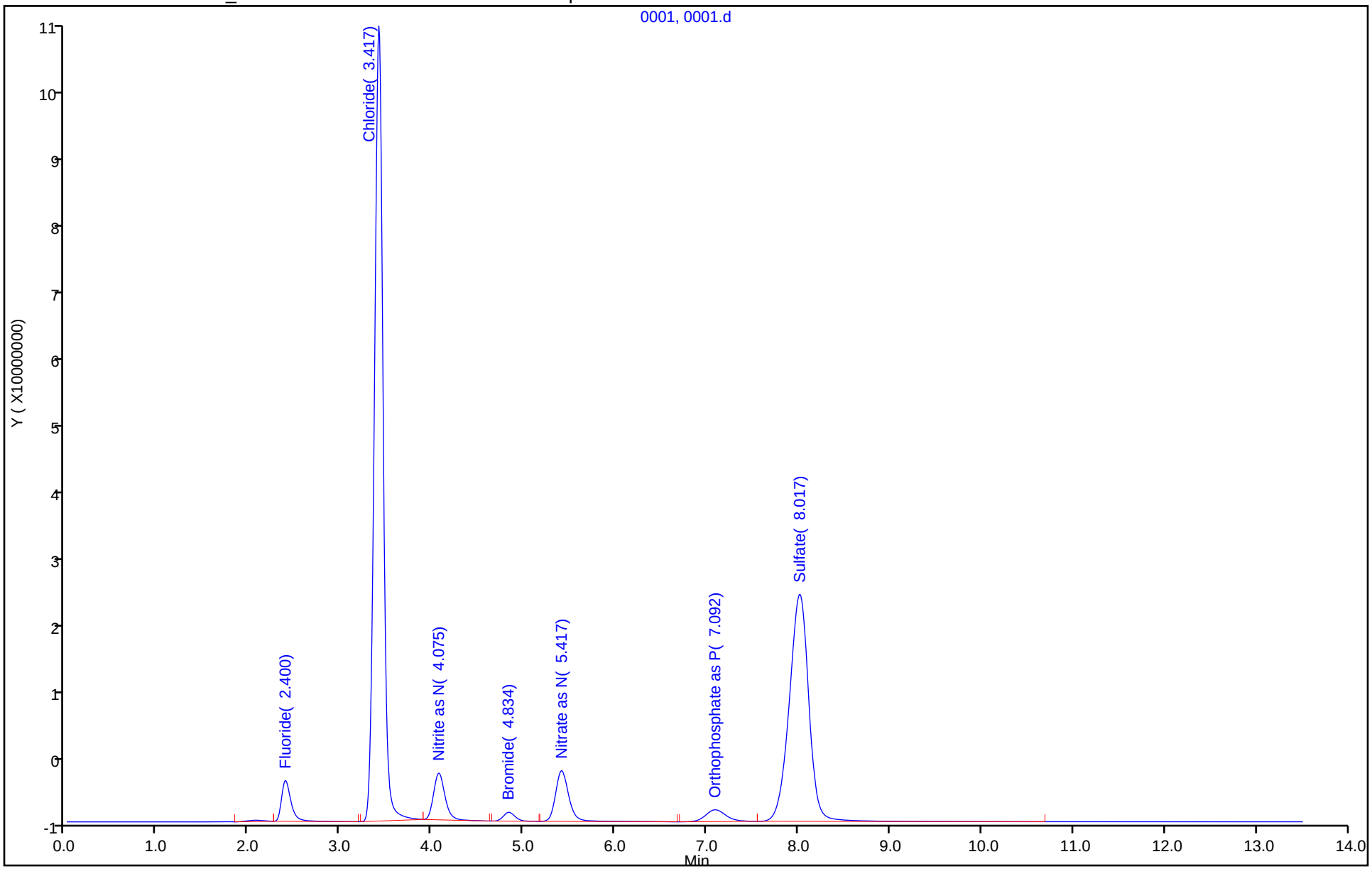
## Reagents:

IC LCS_01730 Amount Added: 5.00 Units: mL

Report Date: 18-Mar-2020 11:03:12 Chrom Revision: 2.3 19-Feb-2020 16:45:46

Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Denver\ChromData\WC_IonChrom11\20200317-90111.b\0001.d | | | | |
| Injection Date: | 17-Mar-2020 12:20:00 | 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 | | |



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Denver

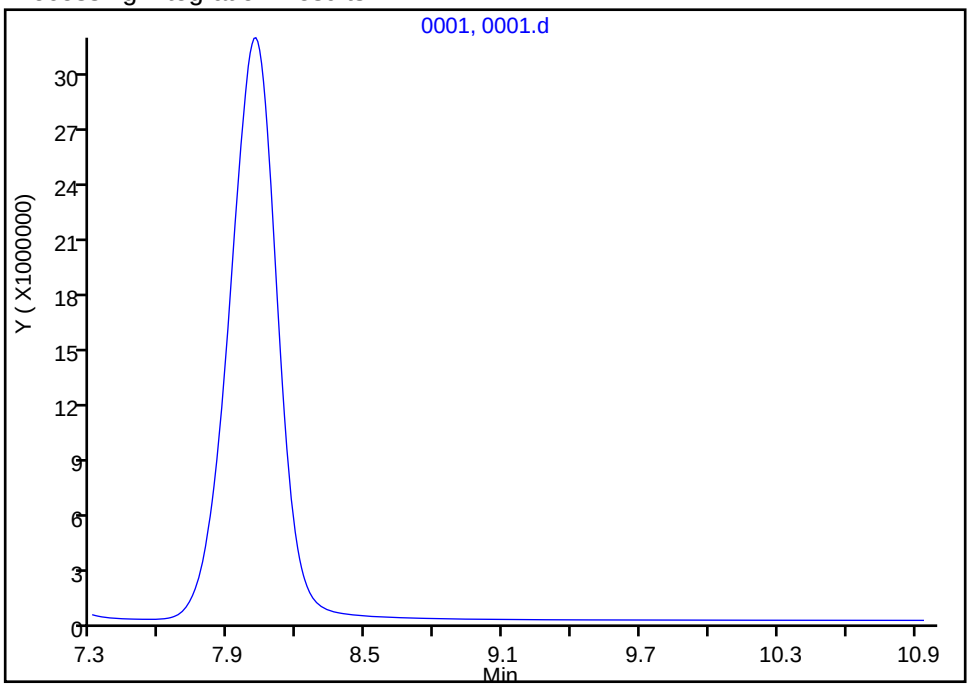
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Denver\ChromData\WC_IonChrom11\20200317-90111.b\0001.d | | | | |
| Injection Date: | 17-Mar-2020 12:20:00 | Instrument ID: | WC_IonChrom11 | | |
| Lims ID: | CCV | | | | |
| Client ID: | | | | | |
| Operator ID: | | ALS Bottle#: | 0 | Worklist Smp#: | 1 |
| Injection Vol: | 10.0 ul | Dil. Factor: | 1.0000 | | |
| Method: | Anions_IC11 | Limit Group: | Wet - Anions 28D | | |
| Column: | | Detector | 0005 | | |

## 6 Sulfate, CAS: 14808-79-8

Signal: 1

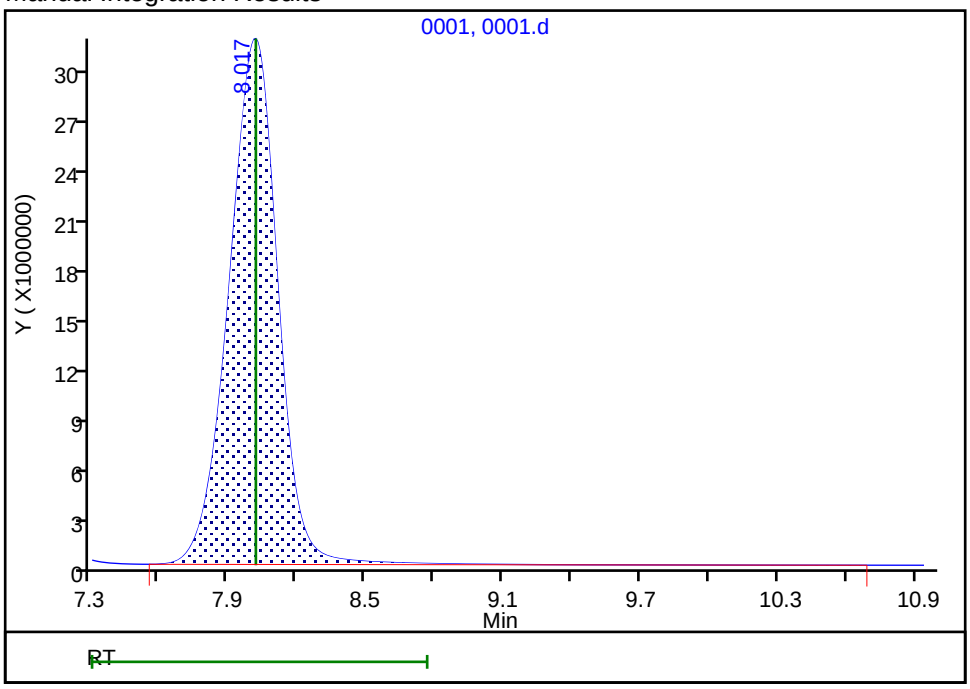
Not Detected
Expected RT: 8.02

Processing Integration Results




Manual Integration Results

RT: 8.02
Area: 461505078
Amount: 92.488125
Amount Units: ug/ml




Reviewer: pedrickj, 17-Mar-2020 13:43:27
Audit Action: Assigned Compound ID Audit Reason:

Eurofins TestAmerica, Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Denver\ChromData\WC_IonChrom11\20200317-90111.b\0002.d | | | | |
| Lims ID: | CCB | | | | |
| Client ID: | | | | | |
| Sample Type: | CCB | | | | |
| Inject. Date: | 17-Mar-2020 12:36:00 | ALS Bottle#: | 0 | Worklist Smp#: | 2 |
| Injection Vol: | 10.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 280-0090111-002 | | | | |
| Operator ID: | | Instrument ID: | WC_IonChrom11 | | |

| | | | |
|---|---|---|---|
| Method: | \\chromna\Denver\ChromData\WC_IonChrom11\20200317-90111.b\Anions_IC11.m | | |
| Limit Group: | Wet - Anions 28D | | |
| Last Update: | 18-Mar-2020 11:03:11 | 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 | | |

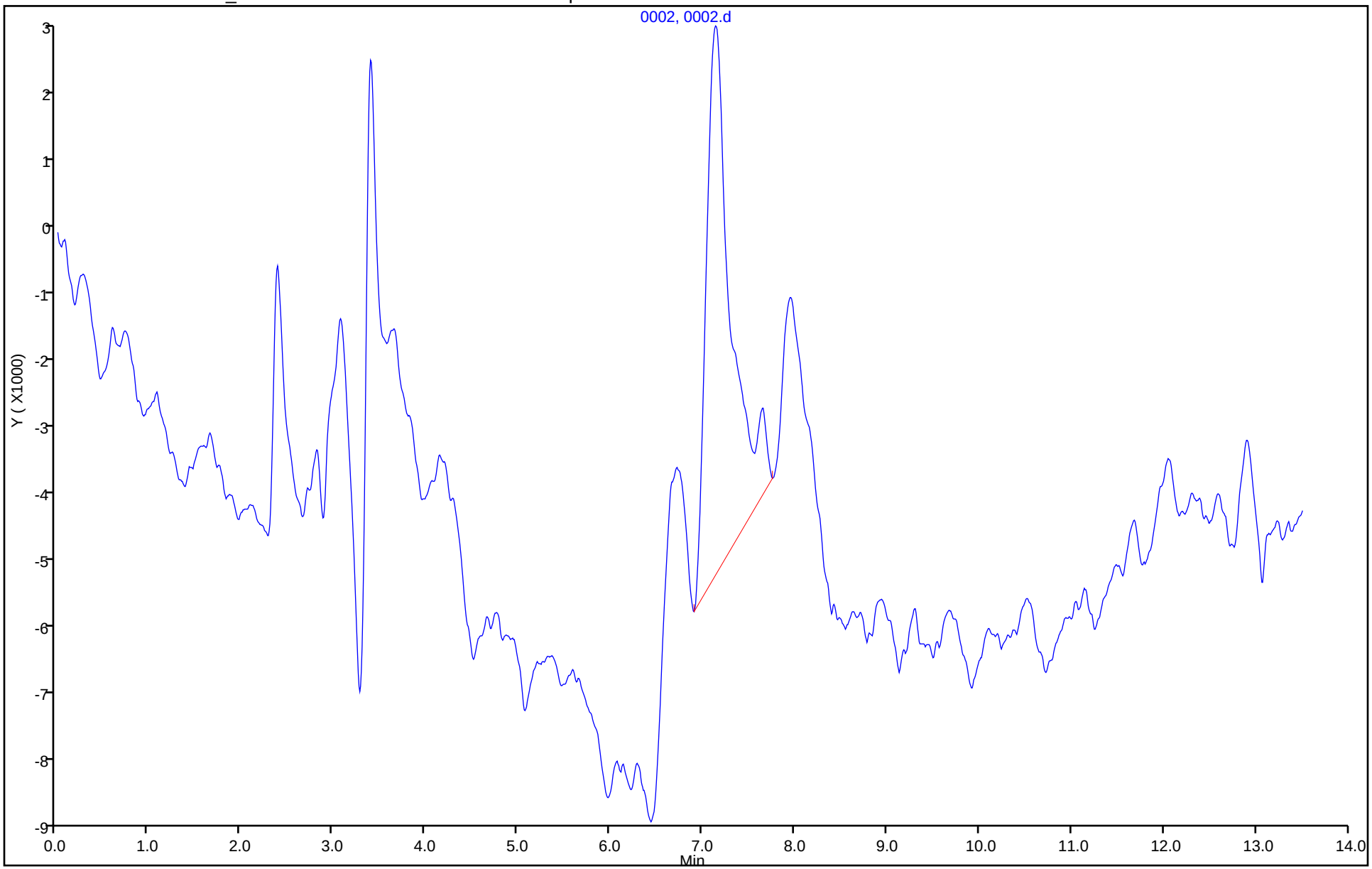
| | | | |
|---|---|---|---|
| Column 1 : | | Det: 0005 | |
| Process Host: | CTX0314 | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|
| 1 Fluoride | | 2.400 | | | | ND | |
| 2 Chloride | | 3.417 | | | | ND | |
| 3 Nitrite as N | | 4.075 | | | | ND | |
| 4 Bromide | | 4.834 | | | | ND | |
| 5 Nitrate as N | | 5.417 | | | | ND | |
| 7 Orthophosphate as P | | 7.092 | | | | ND | |
| 6 Sulfate | | 8.017 | | | | ND | |

Report Date: 18-Mar-2020 11:03:14 Chrom Revision: 2.3 19-Feb-2020 16:45:46

Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Denver\ChromData\WC_IonChrom11\20200317-90111.b\0002.d | | | | |
| Injection Date: | 17-Mar-2020 12:36:00 | 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\20200317-90111.b\0003.d
Lims ID: MRL
Client ID:
Sample Type: MRL
Inject. Date: 17-Mar-2020 12:52:00 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0090111-003
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20200317-90111.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 18-Mar-2020 11:03:11 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: CTX0314

First Level Reviewer: pedrickj Date: 17-Mar-2020 13:44:03

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|
| 1 Fluoride | 2.392 | 2.400 | -0.008 | 3957998 | 0.5000 | 0.4831 | |
| 2 Chloride | 3.384 | 3.417 | -0.033 | 27016746 | 5.00 | 4.11 | |
| 3 Nitrite as N | 4.059 | 4.075 | -0.016 | 5396198 | NC | NC | |
| 4 Bromide | 4.826 | 4.834 | -0.008 | 1076527 | 0.5000 | 0.4909 | |
| 5 Nitrate as N | 5.409 | 5.417 | -0.008 | 6575305 | NC | NC | |
| 7 Orthophosphate as P | 7.092 | 7.092 | 0.000 | 2482263 | NC | NC | |
| 6 Sulfate | 7.951 | 8.017 | -0.066 | 19577991 | 5.00 | 4.31 | |

## QC Flag Legend

Processing Flags
NC - Not Calibrated

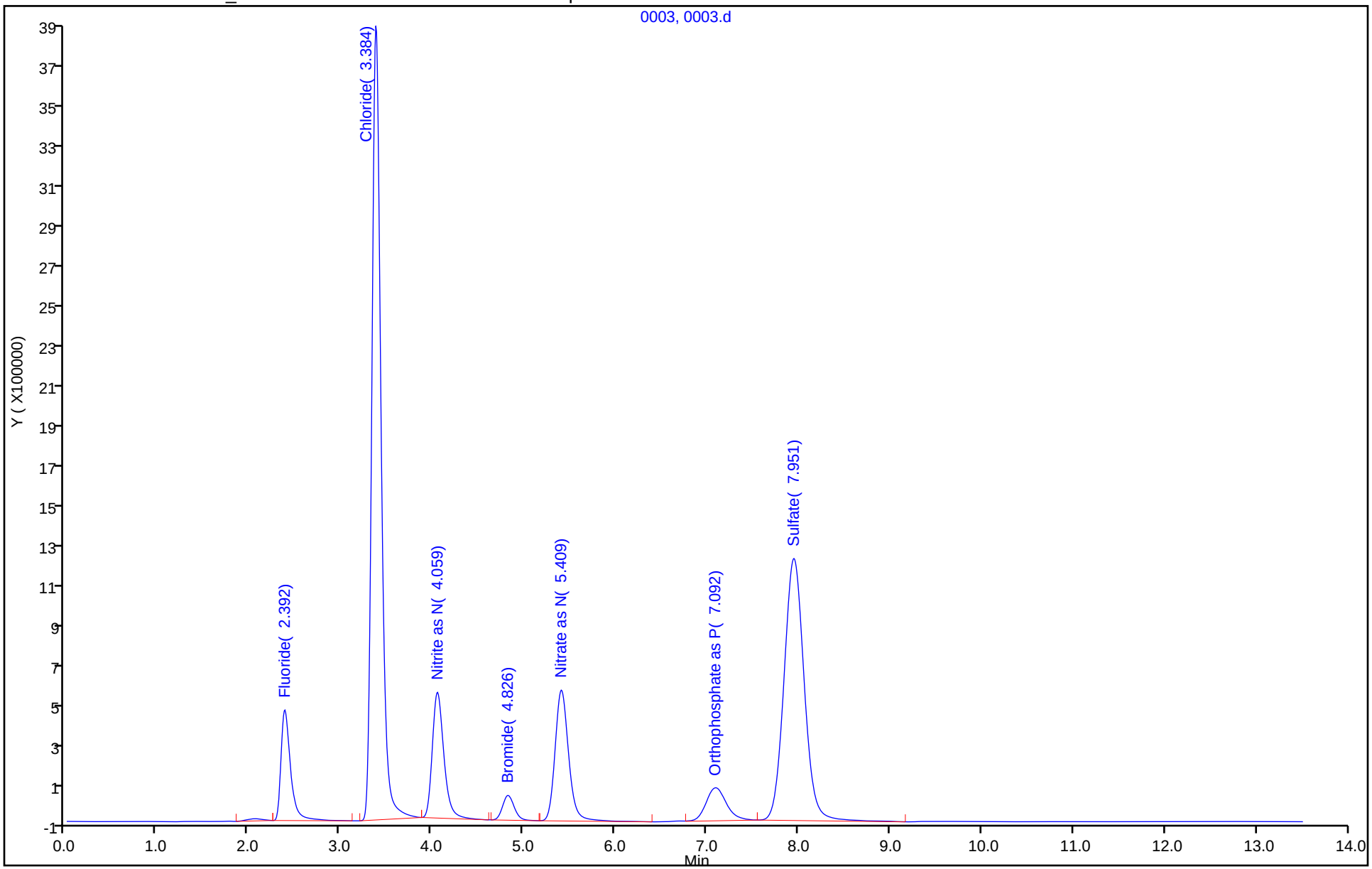
## Reagents:

IC CAL cl/so4_00302 Amount Added: 0.10 Units: mL
IC Cal low_00515 Amount Added: 0.05 Units: mL

Report Date: 18-Mar-2020 11:03:15 Chrom Revision: 2.3 19-Feb-2020 16:45:46

Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Denver\ChromData\WC_IonChrom11\20200317-90111.b\0003.d | | | | |
| Injection Date: | 17-Mar-2020 12:52:00 | 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\20200317-90111.b\0004.d
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 17-Mar-2020 13:09:00 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0090111-004
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20200317-90111.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 18-Mar-2020 11:03:11 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: CTX0314

First Level Reviewer: pedrickj Date: 17-Mar-2020 13:44:08

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|
| 1 Fluoride | 2.392 | 2.400 | -0.008 | 40502543 | 5.00 | 4.73 | |
| 2 Chloride | 3.417 | 3.417 | 0.000 | 720988998 | 100.0 | 93.7 | |
| 3 Nitrite as N | 4.067 | 4.075 | -0.008 | 55866445 | NC | NC | |
| 4 Bromide | 4.834 | 4.834 | 0.000 | 10784359 | 5.00 | 4.86 | |
| 5 Nitrate as N | 5.409 | 5.417 | -0.008 | 70318883 | NC | NC | |
| 7 Orthophosphate as P | 7.084 | 7.092 | -0.008 | 25022943 | NC | NC | |
| 6 Sulfate | 8.009 | 8.017 | -0.008 | 462481157 | 100.0 | 92.7 | |

## QC Flag Legend

Processing Flags
NC - Not Calibrated

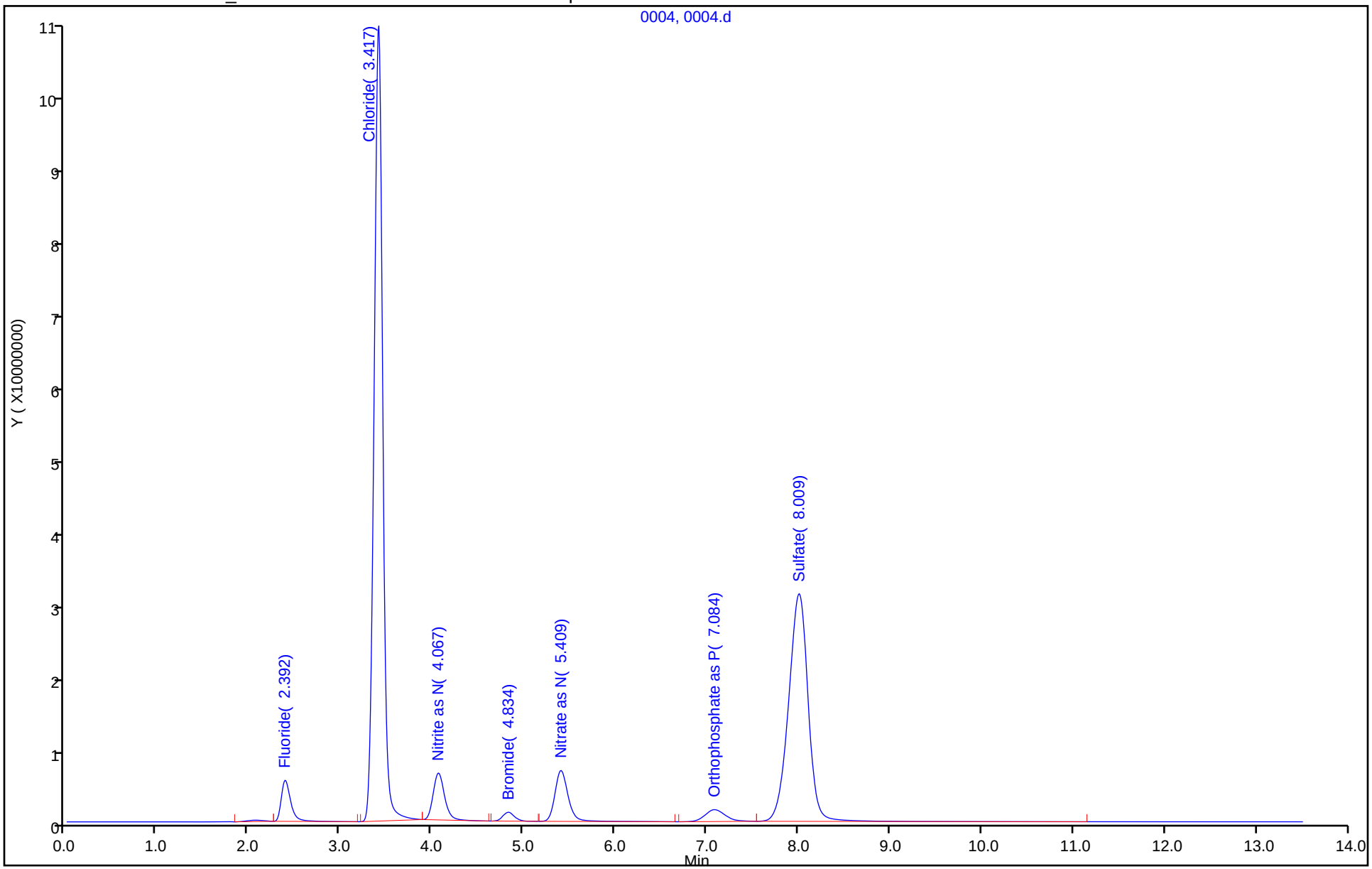
## Reagents:

IC LCS_01730 Amount Added: 5.00 Units: mL

Report Date: 18-Mar-2020 11:03:17 Chrom Revision: 2.3 19-Feb-2020 16:45:46

Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Denver\ChromData\WC_IonChrom11\20200317-90111.b\0004.d | | | | |
| Injection Date: | 17-Mar-2020 13:09:00 | 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\20200317-90111.b\0005.d
Lims ID: LCSD
Client ID:
Sample Type: LCSD
Inject. Date: 17-Mar-2020 13:25:00 ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0090111-005
Operator ID: Instrument ID: WC_IonChrom11

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20200317-90111.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 18-Mar-2020 11:03:11 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: CTX0314

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|
| 1 Fluoride | 2.392 | 2.400 | -0.008 | 40396571 | 5.00 | 4.72 | |
| 2 Chloride | 3.409 | 3.417 | -0.008 | 721685341 | 100.0 | 93.8 | |
| 3 Nitrite as N | 4.067 | 4.075 | -0.008 | 55868364 | NC | NC | |
| 4 Bromide | 4.826 | 4.834 | -0.008 | 10781389 | 5.00 | 4.86 | |
| 5 Nitrate as N | 5.409 | 5.417 | -0.008 | 70199168 | NC | NC | |
| 7 Orthophosphate as P | 7.084 | 7.092 | -0.008 | 25032917 | NC | NC | |
| 6 Sulfate | 8.001 | 8.017 | -0.016 | 461649789 | 100.0 | 92.5 | |

## QC Flag Legend

Processing Flags
NC - Not Calibrated

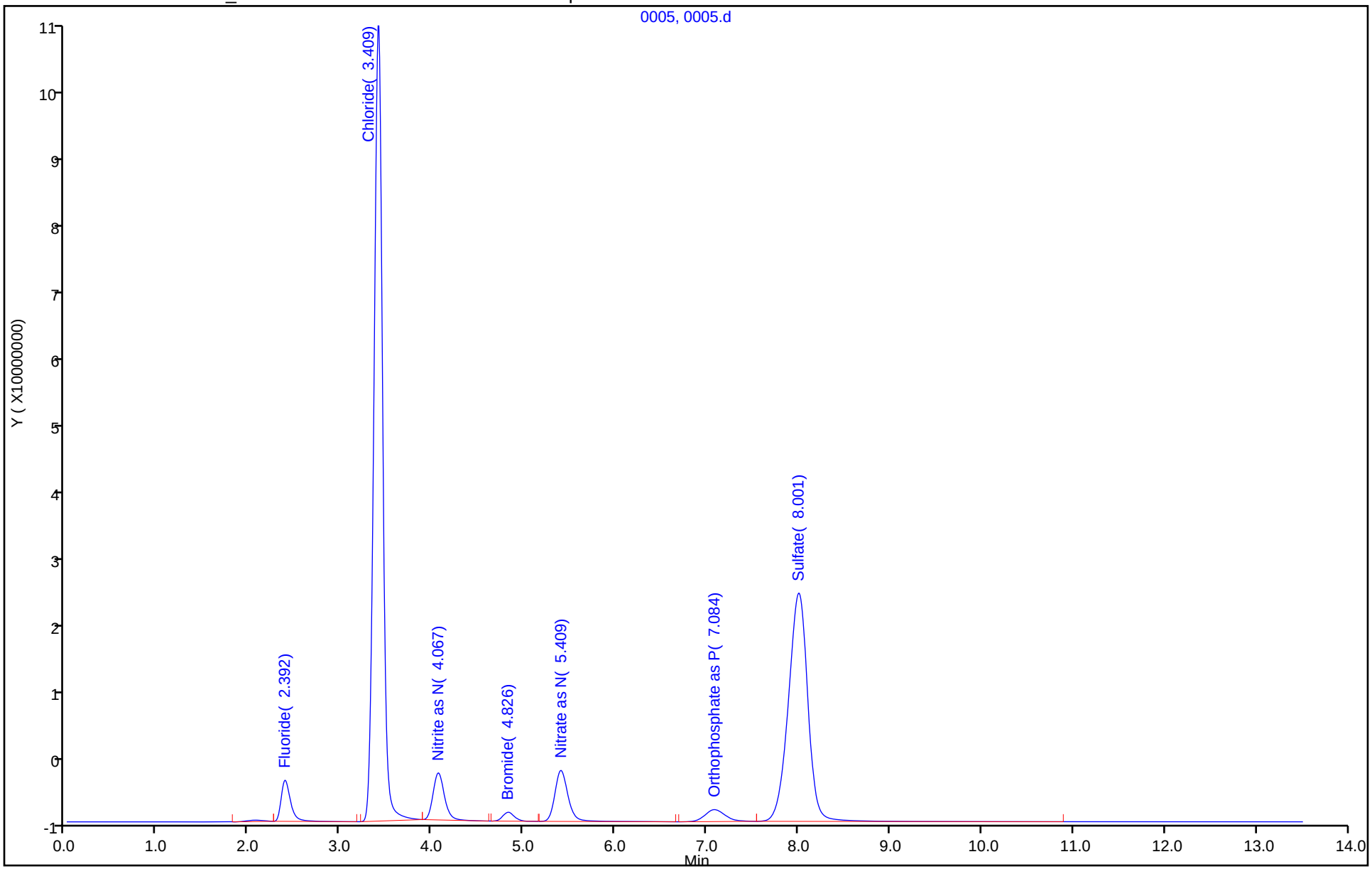
## Reagents:

IC LCS_01730 Amount Added: 5.00 Units: mL

Report Date: 18-Mar-2020 11:03:18 Chrom Revision: 2.3 19-Feb-2020 16:45:46

Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Denver\ChromData\WC_IonChrom11\20200317-90111.b\0005.d | | | | |
| Injection Date: | 17-Mar-2020 13:25:00 | 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\20200317-90111.b\0006.d | | | | |
| Lims ID: | MB | | | | |
| Client ID: | | | | | |
| Sample Type: | MB | | | | |
| Inject. Date: | 17-Mar-2020 13:42:00 | ALS Bottle#: | 0 | Worklist Smp#: | 6 |
| Injection Vol: | 10.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 280-0090111-006 | | | | |
| Misc. Info.: | 6 F | | | | |
| Operator ID: | | Instrument ID: | WC_IonChrom11 | | |
| Method: | \\chromna\Denver\ChromData\WC_IonChrom11\20200317-90111.b\Anions_IC11.m | | | | |
| Limit Group: | Wet - Anions 28D | | | | |
| Last Update: | 18-Mar-2020 11:03:11 | 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: | CTX0314 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|
| 1 Fluoride | | 2.400 | | | | ND | |
| 2 Chloride | | 3.417 | | | | ND | |
| 3 Nitrite as N | | 4.075 | | | | ND | |
| 4 Bromide | | 4.834 | | | | ND | |
| 5 Nitrate as N | | 5.417 | | | | ND | |
| 7 Orthophosphate as P | 7.117 | 7.092 | 0.025 | 101535 | | | NC |
| 6 Sulfate | | 8.017 | | | | ND | |

## QC Flag Legend

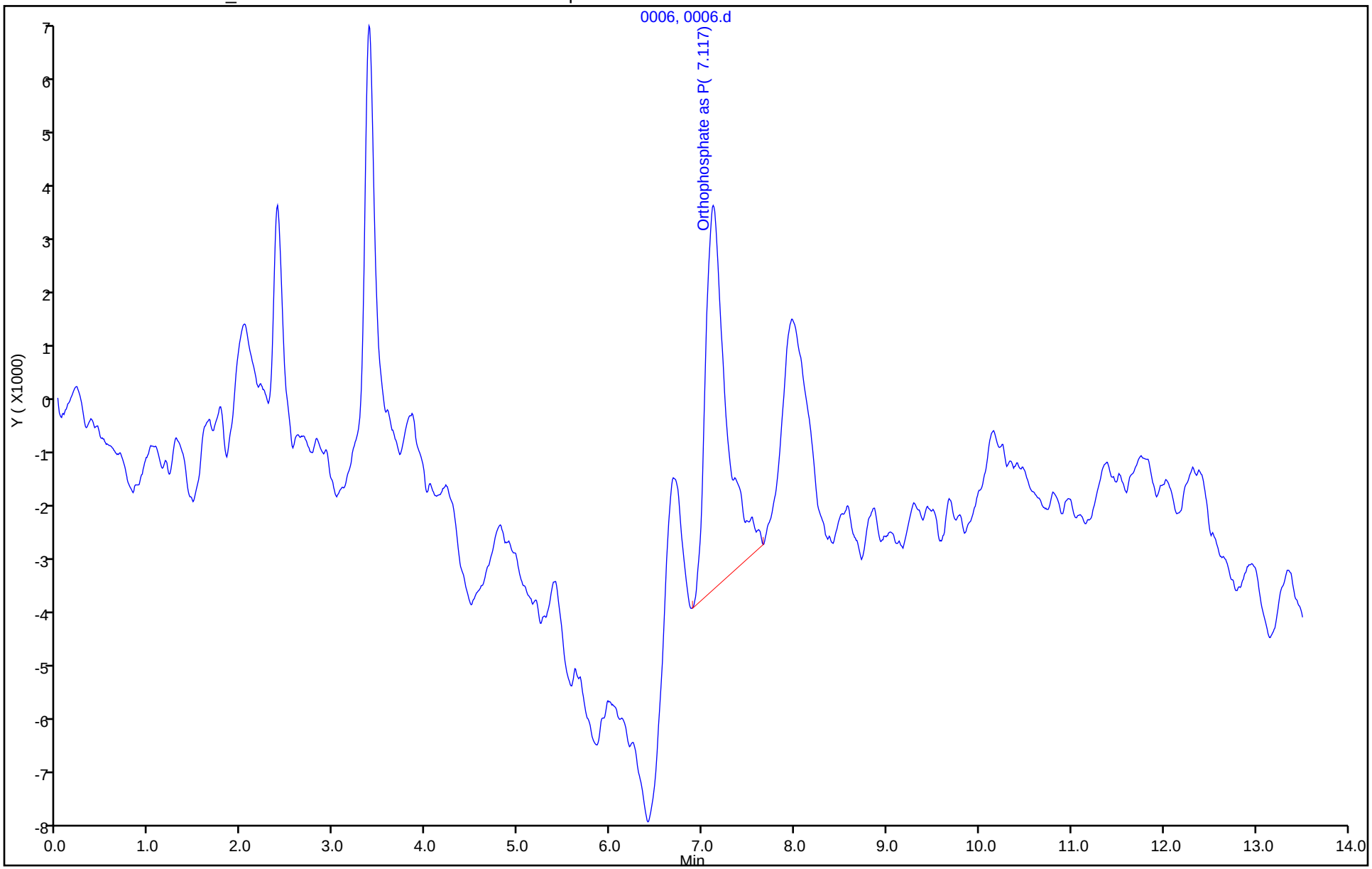
Processing Flags

NC - Not Calibrated

Report Date: 18-Mar-2020 11:03:21 Chrom Revision: 2.3 19-Feb-2020 16:45:46

Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Denver\ChromData\WC_IonChrom11\20200317-90111.b\0006.d | | | | |
| Injection Date: | 17-Mar-2020 13:42:00 | 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\20200317-90111.b\0007.d | | | | |
| Lims ID: | 280-134268-F-1 | | | | |
| Client ID: | NW070-2 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 17-Mar-2020 17:55:00 | ALS Bottle#: | 0 | Worklist Smp#: | 7 |
| Injection Vol: | 10.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 280-0090111-007 | | | | |
| Misc. Info.: | 10833 F | | | | |
| Operator ID: | | Instrument ID: | WC_IonChrom11 | | |
| Method: | \\chromna\Denver\ChromData\WC_IonChrom11\20200317-90111.b\Anions_IC11.m | | | | |
| Limit Group: | Wet - Anions 28D | | | | |
| Last Update: | 18-Mar-2020 11:03:11 | 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: | CTX0314 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|
| 1 Fluoride | 2.392 | 2.400 | -0.008 | 477627 | 0.0783 | |
| 2 Chloride | 3.392 | 3.417 | -0.025 | 24765019 | 3.82 | |
| 3 Nitrite as N | | 4.075 | | | ND | |
| 4 Bromide | 4.850 | 4.834 | 0.016 | 111125 | 0.0559 | |
| 5 Nitrate as N | | 5.417 | | | ND | |
| 7 Orthophosphate as P | 7.159 | 7.092 | 0.067 | 68211945 | NC | |
| 6 Sulfate | 7.959 | 8.017 | -0.058 | 30025300 | 6.39 | |

## QC Flag Legend

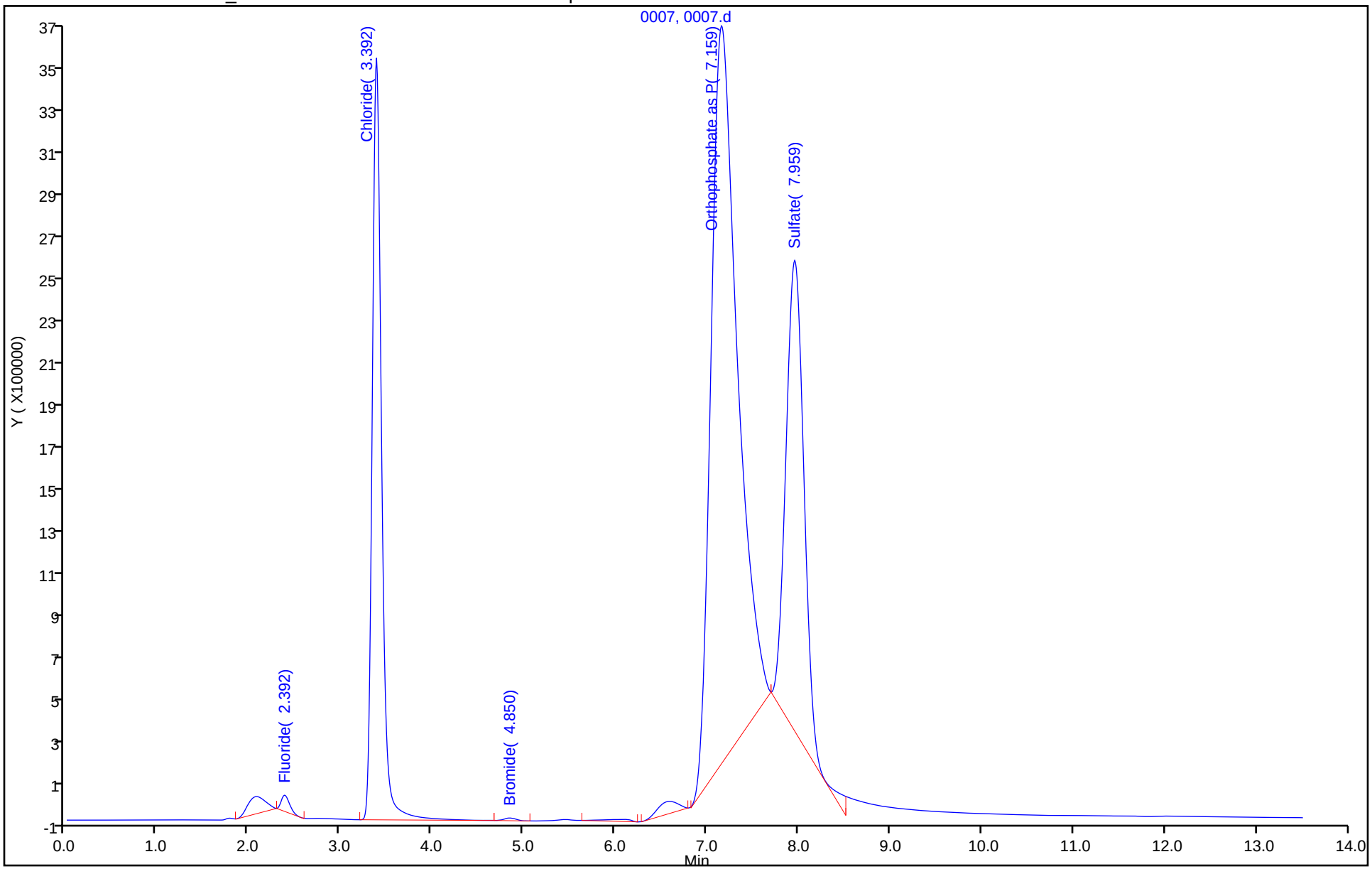
Processing Flags

NC - Not Calibrated

Report Date: 18-Mar-2020 11:03:22 Chrom Revision: 2.3 19-Feb-2020 16:45:46

Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Denver\ChromData\WC_IonChrom11\20200317-90111.b\0007.d | | | | |
| Injection Date: | 17-Mar-2020 17:55:00 | Instrument ID: | WC_IonChrom11 | Operator ID: | |
| Lims ID: | 280-134268-F-1 | Lab Sample ID: | 280-134268-1 | Worklist Smp#: | 7 |
| Client ID: | NW070-2 | | | | |
| 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\20200317-90111.b\0008.d | | | | |
| Lims ID: | 280-134268-F-2 | | | | |
| Client ID: | NW071-2 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 17-Mar-2020 18:11:00 | ALS Bottle#: | 0 | Worklist Smp#: | 8 |
| Injection Vol: | 10.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 280-0090111-008 | | | | |
| Misc. Info.: | 23566 F | | | | |
| Operator ID: | | Instrument ID: | WC_IonChrom11 | | |
| Method: | \\chromna\Denver\ChromData\WC_IonChrom11\20200317-90111.b\Anions_IC11.m | | | | |
| Limit Group: | Wet - Anions 28D | | | | |
| Last Update: | 18-Mar-2020 11:03:11 | 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: | CTX0314 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|
| 1 Fluoride | 2.384 | 2.400 | -0.016 | 728086 | 0.1074 | |
| 2 Chloride | 3.400 | 3.417 | -0.017 | 281275754 | 36.9 | |
| 3 Nitrite as N | | 4.075 | | | ND | |
| 4 Bromide | 4.850 | 4.834 | 0.016 | 211327 | 0.1010 | |
| 5 Nitrate as N | 5.409 | 5.417 | -0.008 | 550760217 | NC | |
| 7 Orthophosphate as P | 7.192 | 7.092 | 0.100 | 19767102 | NC | |
| 6 Sulfate | 8.009 | 8.017 | -0.008 | 267624046 | 53.8 | |

## QC Flag Legend

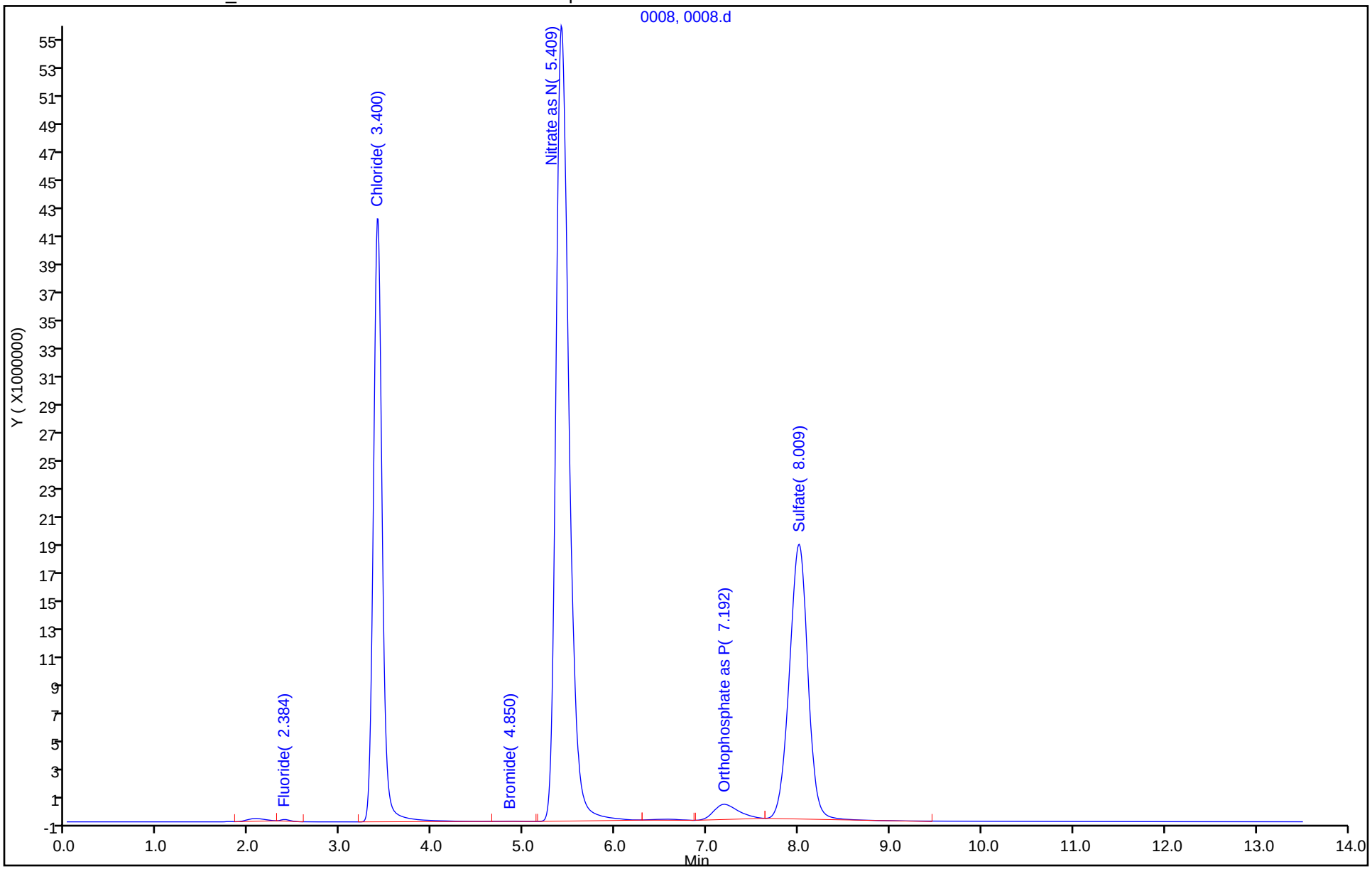
Processing Flags

NC - Not Calibrated

Report Date: 18-Mar-2020 11:03:23 Chrom Revision: 2.3 19-Feb-2020 16:45:46

Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Denver\ChromData\WC_IonChrom11\20200317-90111.b\0008.d | | | | |
| Injection Date: | 17-Mar-2020 18:11:00 | Instrument ID: | WC_IonChrom11 | Operator ID: | |
| Lims ID: | 280-134268-F-2 | Lab Sample ID: | 280-134268-2 | Worklist Smp#: | 8 |
| Client ID: | NW071-2 | | | | |
| 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\20200317-90111.b\0009.d | | | | |
| Lims ID: | 280-134268-F-3 | | | | |
| Client ID: | CA210-2 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 17-Mar-2020 18:27:00 | ALS Bottle#: | 0 | Worklist Smp#: | 9 |
| Injection Vol: | 10.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 280-0090111-009 | | | | |
| Misc. Info.: | 15723 F | | | | |
| Operator ID: | | Instrument ID: | WC_IonChrom11 | | |
| Method: | \\chromna\Denver\ChromData\WC_IonChrom11\20200317-90111.b\Anions_IC11.m | | | | |
| Limit Group: | Wet - Anions 28D | | | | |
| Last Update: | 18-Mar-2020 11:03:11 | 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: | CTX0314 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|
| 1 Fluoride | 2.384 | 2.400 | -0.016 | 1584469 | 0.2070 | |
| 2 Chloride | 3.425 | 3.417 | 0.008 | 808367634 | 104.9 | |
| 3 Nitrite as N | | 4.075 | | | ND | |
| 4 Bromide | 4.900 | 4.834 | 0.066 | 501346 | 0.2317 | |
| 5 Nitrate as N | 5.517 | 5.417 | 0.100 | 192635819 | NC | |
| 7 Orthophosphate as P | 7.167 | 7.092 | 0.075 | 17649879 | NC | |
| 6 Sulfate | 8.050 | 8.017 | 0.033 | 492605955 | 98.7 | |

## QC Flag Legend

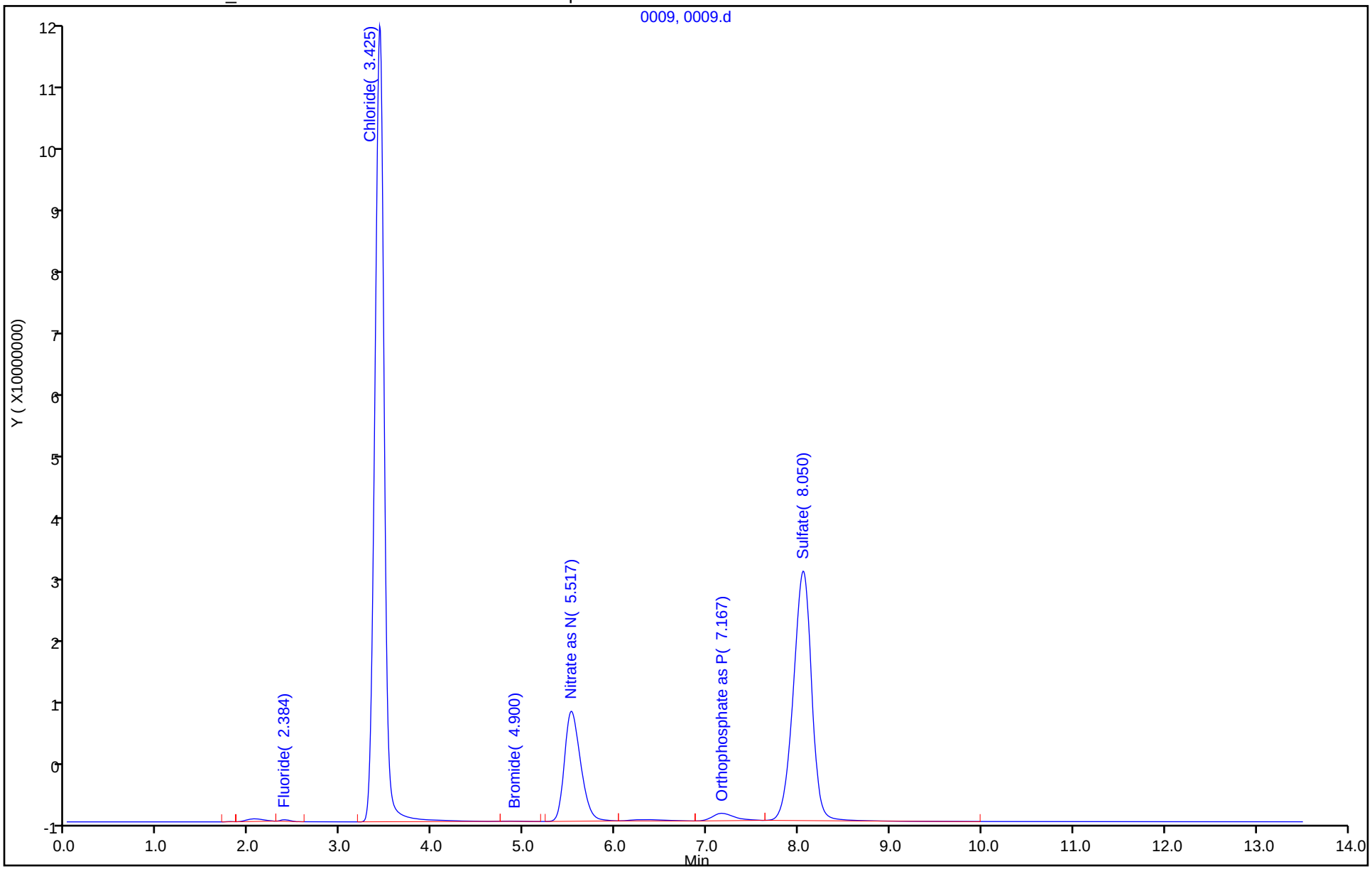
Processing Flags

NC - Not Calibrated

Report Date: 18-Mar-2020 11:03:24 Chrom Revision: 2.3 19-Feb-2020 16:45:46

Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Denver\ChromData\WC_IonChrom11\20200317-90111.b\0009.d | | | | |
| Injection Date: | 17-Mar-2020 18:27:00 | Instrument ID: | WC_IonChrom11 | Operator ID: | |
| Lims ID: | 280-134268-F-3 | Lab Sample ID: | 280-134268-3 | Worklist Smp#: | 9 |
| Client ID: | CA210-2 | | | | |
| 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\20200317-90111.b\0010.d | | | | |
| Lims ID: | 280-134268-F-4 | | | | |
| Client ID: | CA212-2 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 17-Mar-2020 18:43:00 | ALS Bottle#: | 0 | Worklist Smp#: | 10 |
| Injection Vol: | 10.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 280-0090111-010 | | | | |
| Misc. Info.: | 20866 F | | | | |
| Operator ID: | | Instrument ID: | WC_IonChrom11 | | |
| Method: | \\chromna\Denver\ChromData\WC_IonChrom11\20200317-90111.b\Anions_IC11.m | | | | |
| Limit Group: | Wet - Anions 28D | | | | |
| Last Update: | 18-Mar-2020 11:03:11 | 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: | CTX0314 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|
| 1 Fluoride | 2.392 | 2.400 | -0.008 | 775106 | 0.1129 | |
| 2 Chloride | 3.400 | 3.417 | -0.017 | 132066449 | 17.7 | |
| 3 Nitrite as N | 4.067 | 4.075 | -0.008 | 273613 | NC | |
| 4 Bromide | 4.859 | 4.834 | 0.025 | 161449 | 0.0786 | |
| 5 Nitrate as N | 5.434 | 5.417 | 0.017 | 302317421 | NC | |
| 7 Orthophosphate as P | 7.159 | 7.092 | 0.067 | 954416 | NC | |
| 6 Sulfate | 8.017 | 8.017 | 0.000 | 361704240 | 72.6 | |

## QC Flag Legend

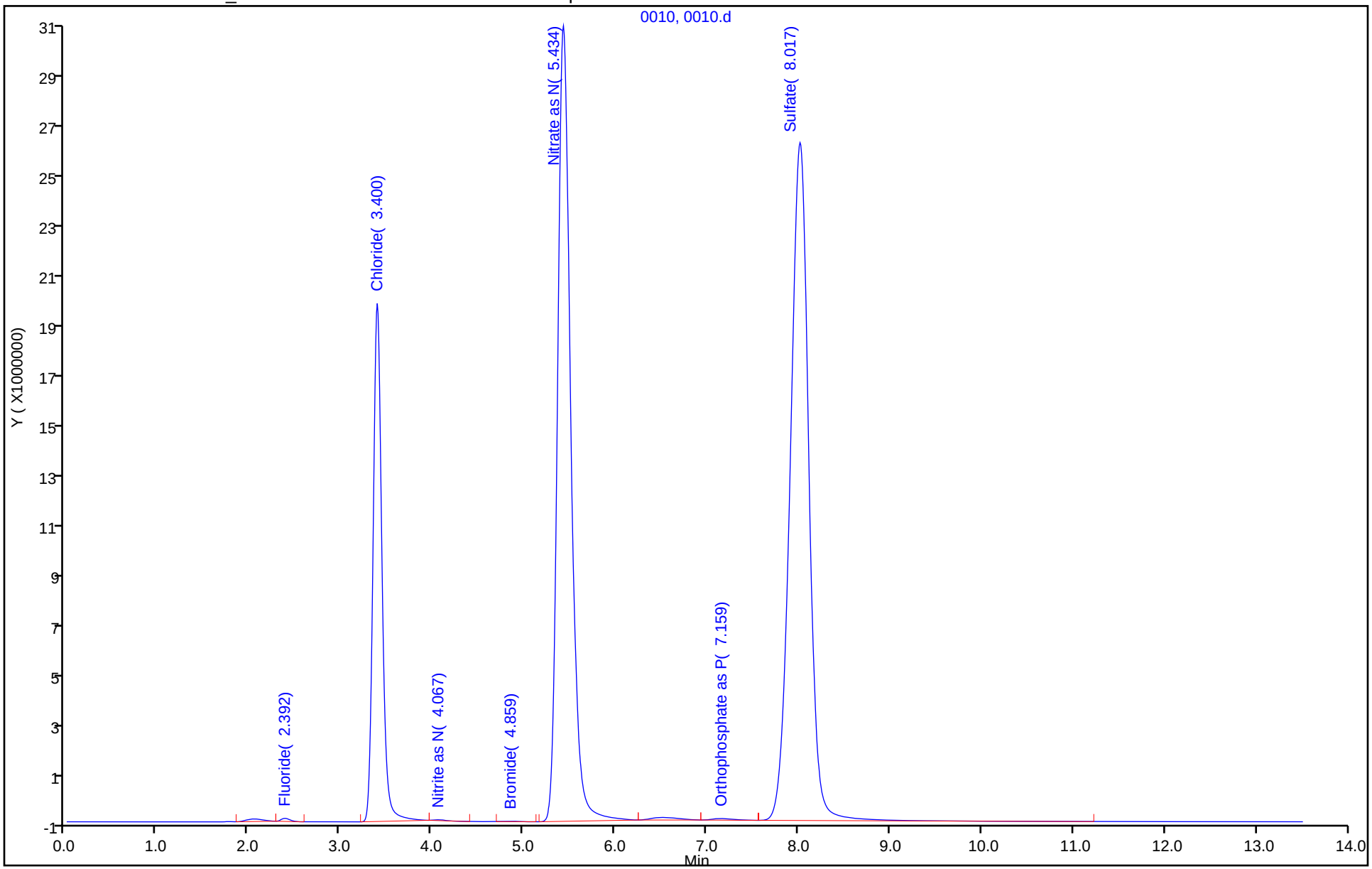
Processing Flags

NC - Not Calibrated

Report Date: 18-Mar-2020 11:03:26 Chrom Revision: 2.3 19-Feb-2020 16:45:46

Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Denver\ChromData\WC_IonChrom11\20200317-90111.b\0010.d | | | | |
| Injection Date: | 17-Mar-2020 18:43:00 | Instrument ID: | WC_IonChrom11 | Operator ID: | |
| Lims ID: | 280-134268-F-4 | Lab Sample ID: | 280-134268-4 | Worklist Smp#: | 10 |
| Client ID: | CA212-2 | | | | |
| 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\20200317-90111.b\0011.d | | | | |
| Lims ID: | 280-134268-F-5 | | | | |
| Client ID: | CA211-2 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 17-Mar-2020 19:00:00 | ALS Bottle#: | 0 | Worklist Smp#: | 11 |
| Injection Vol: | 10.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 280-0090111-011 | | | | |
| Misc. Info.: | 22757 F | | | | |
| Operator ID: | | Instrument ID: | WC_IonChrom11 | | |
| Method: | \\chromna\Denver\ChromData\WC_IonChrom11\20200317-90111.b\Anions_IC11.m | | | | |
| Limit Group: | Wet - Anions 28D | | | | |
| Last Update: | 18-Mar-2020 11:03:11 | 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: | CTX0314 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|
| 1 Fluoride | 2.392 | 2.400 | -0.008 | 852988 | 0.1219 | |
| 2 Chloride | 3.409 | 3.417 | -0.008 | 312434005 | 40.9 | |
| 3 Nitrite as N | | 4.075 | | | ND | |
| 4 Bromide | 4.867 | 4.834 | 0.033 | 254812 | 0.1206 | |
| 5 Nitrate as N | 5.426 | 5.417 | 0.009 | 608508227 | NC | |
| 7 Orthophosphate as P | 7.159 | 7.092 | 0.067 | 591173 | NC | |
| 6 Sulfate | 8.042 | 8.017 | 0.025 | 496486981 | 99.5 | |

## QC Flag Legend

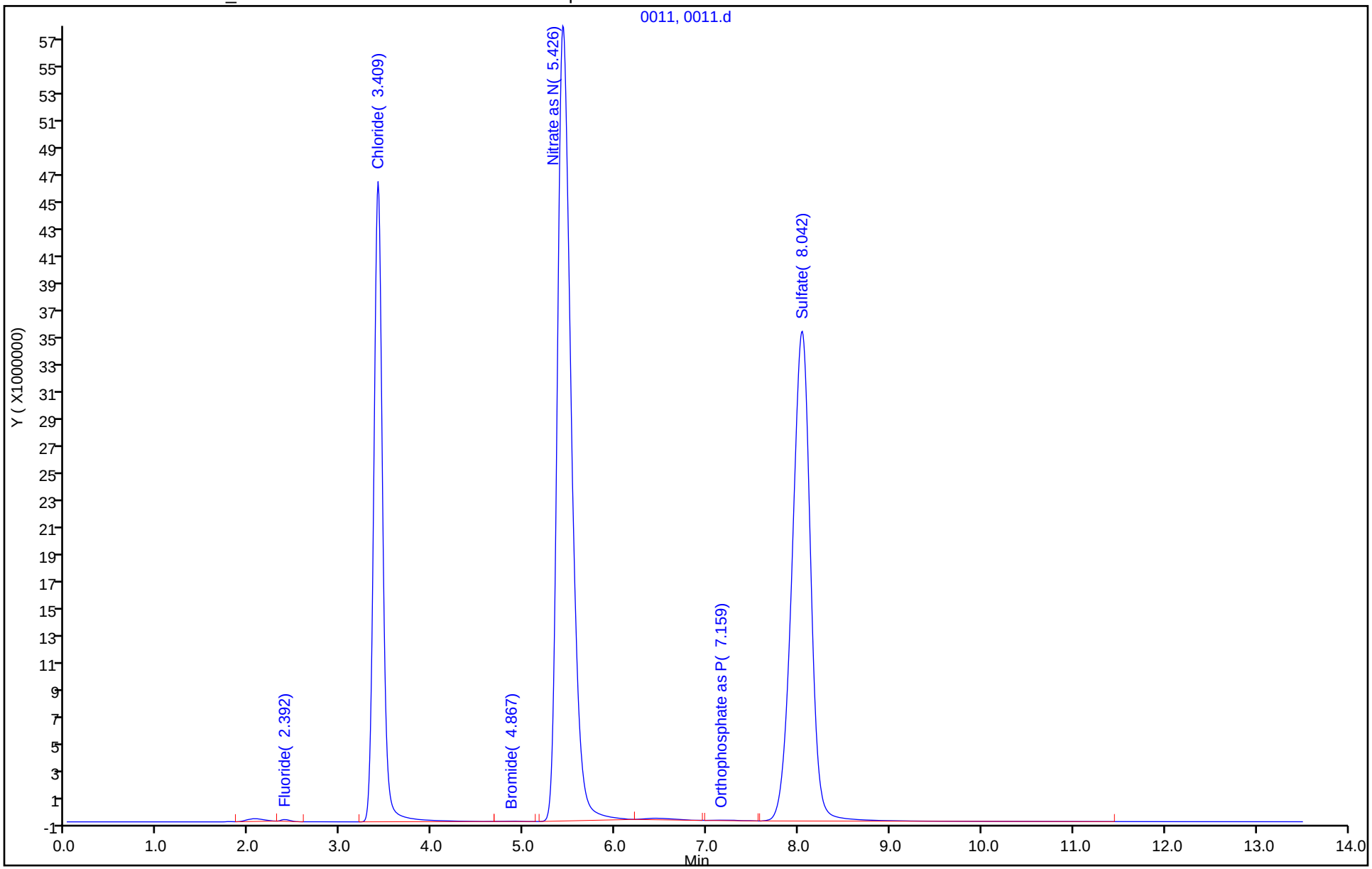
Processing Flags

NC - Not Calibrated

Report Date: 18-Mar-2020 11:03:28 Chrom Revision: 2.3 19-Feb-2020 16:45:46

Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Denver\ChromData\WC_IonChrom11\20200317-90111.b\0011.d | | | | |
| Injection Date: | 17-Mar-2020 19:00:00 | Instrument ID: | WC_IonChrom11 | Operator ID: | |
| Lims ID: | 280-134268-F-5 | Lab Sample ID: | 280-134268-5 | Worklist Smp#: | 11 |
| Client ID: | CA211-2 | | | | |
| 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\20200317-90111.b\0012.d | | | | |
| Lims ID: | 280-134268-F-7 | | | | |
| Client ID: | NW080R-2 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 17-Mar-2020 19:16:00 | ALS Bottle#: | 0 | Worklist Smp#: | 12 |
| Injection Vol: | 10.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 280-0090111-012 | | | | |
| Misc. Info.: | 29493 F | | | | |
| Operator ID: | | Instrument ID: | WC_IonChrom11 | | |
| Method: | \\chromna\Denver\ChromData\WC_IonChrom11\20200317-90111.b\Anions_IC11.m | | | | |
| Limit Group: | Wet - Anions 28D | | | | |
| Last Update: | 18-Mar-2020 11:03:11 | 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: | CTX0314 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|
| 1 Fluoride | 2.392 | 2.400 | -0.008 | 677272 | 0.1015 | |
| 2 Chloride | 3.417 | 3.417 | 0.000 | 564515647 | 73.5 | |
| 3 Nitrite as N | | 4.075 | | | ND | |
| 4 Bromide | 4.876 | 4.834 | 0.042 | 177181 | 0.0857 | |
| 5 Nitrate as N | 5.442 | 5.417 | 0.025 | 529418748 | NC | |
| 7 Orthophosphate as P | 7.151 | 7.092 | 0.059 | 244632 | NC | |
| 6 Sulfate | 8.067 | 8.017 | 0.050 | 783472365 | 156.7 | |

## QC Flag Legend

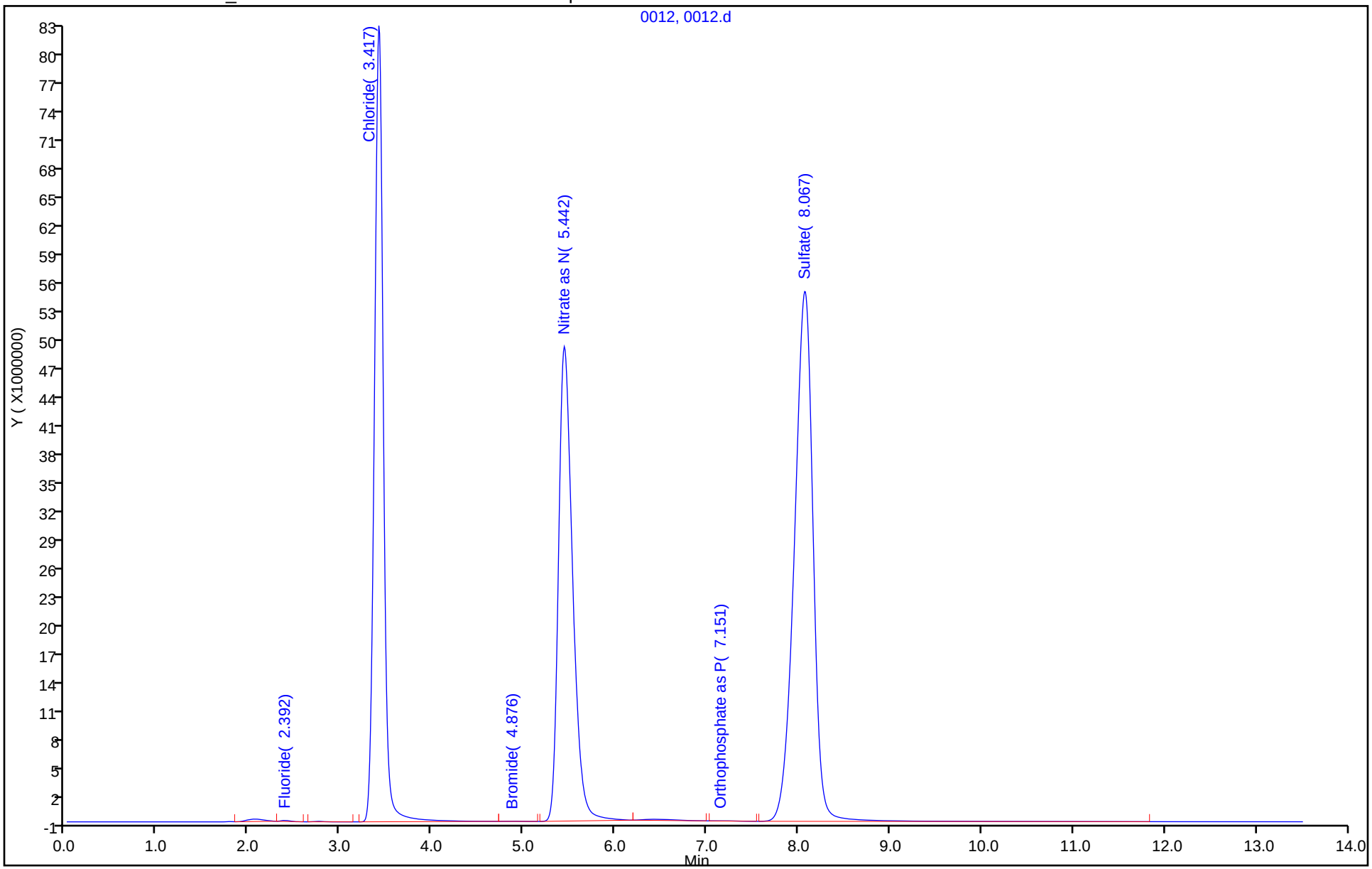
Processing Flags

NC - Not Calibrated

Report Date: 18-Mar-2020 11:03:29 Chrom Revision: 2.3 19-Feb-2020 16:45:46

Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Denver\ChromData\WC_IonChrom11\20200317-90111.b\0012.d | | | | |
| Injection Date: | 17-Mar-2020 19:16:00 | Instrument ID: | WC_IonChrom11 | Operator ID: | |
| Lims ID: | 280-134268-F-7 | Lab Sample ID: | 280-134268-7 | Worklist Smp#: | 12 |
| Client ID: | NW080R-2 | | | | |
| 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\20200317-90111.b\0013.d | | | | |
| Lims ID: | 280-134268-F-6 | | | | |
| Client ID: | PZ019-2 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 17-Mar-2020 19:33:00 | ALS Bottle#: | 0 | Worklist Smp#: | 13 |
| Injection Vol: | 10.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 280-0090111-013 | | | | |
| Misc. Info.: | 24718 F | | | | |
| Operator ID: | | Instrument ID: | WC_IonChrom11 | | |
| Method: | \\chromna\Denver\ChromData\WC_IonChrom11\20200317-90111.b\Anions_IC11.m | | | | |
| Limit Group: | Wet - Anions 28D | | | | |
| Last Update: | 18-Mar-2020 11:03:11 | 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: | CTX0314 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|
| 1 Fluoride | 2.392 | 2.400 | -0.008 | 590643 | 0.0914 | |
| 2 Chloride | 3.400 | 3.417 | -0.017 | 104834213 | 14.2 | |
| 3 Nitrite as N | | 4.075 | | | ND | |
| 4 Bromide | 4.859 | 4.834 | 0.025 | 159637 | 0.0778 | |
| 5 Nitrate as N | 5.417 | 5.417 | 0.000 | 534352322 | NC | |
| 7 Orthophosphate as P | 7.142 | 7.092 | 0.050 | 517231 | NC | |
| 6 Sulfate | 8.009 | 8.017 | -0.008 | 284894390 | 57.2 | |

## QC Flag Legend

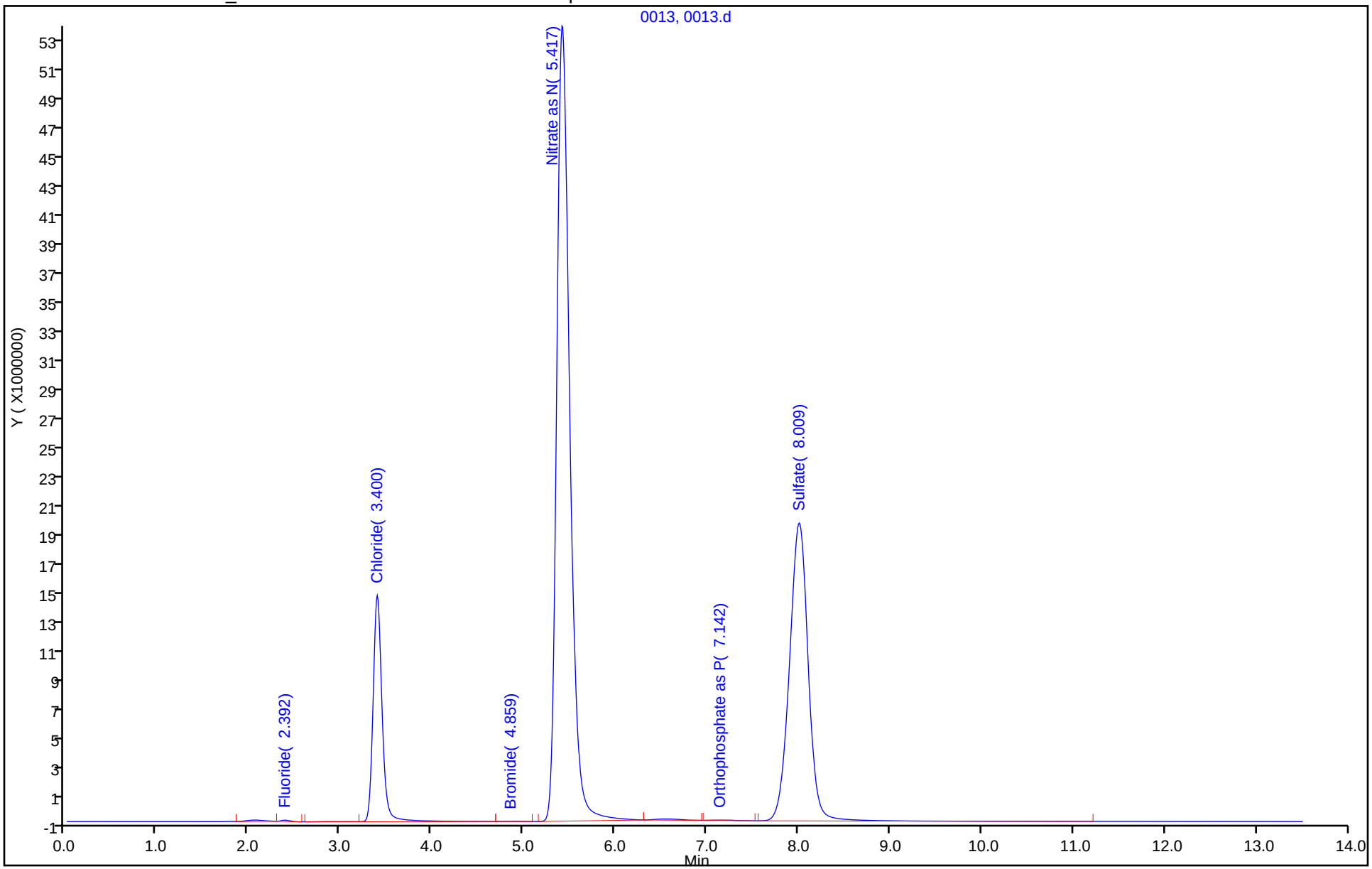
Processing Flags

NC - Not Calibrated

Report Date: 18-Mar-2020 11:03:31 Chrom Revision: 2.3 19-Feb-2020 16:45:46

Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Denver\ChromData\WC_IonChrom11\20200317-90111.b\0013.d | | | | |
| Injection Date: | 17-Mar-2020 19:33:00 | Instrument ID: | WC_IonChrom11 | Operator ID: | |
| Lims ID: | 280-134268-F-6 | Lab Sample ID: | 280-134268-6 | Worklist Smp#: | 13 |
| Client ID: | PZ019-2 | | | | |
| 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\20200317-90111.b\0014.d | | | | |
| Lims ID: | 280-134268-F-6 DU | | | | |
| Client ID: | | | | | |
| Sample Type: | DU | | | | |
| Inject. Date: | 17-Mar-2020 19:49:00 | ALS Bottle#: | 0 | Worklist Smp#: | 14 |
| Injection Vol: | 10.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 280-0090111-014 | | | | |
| Misc. Info.: | 15001 F | | | | |
| Operator ID: | | Instrument ID: | WC_IonChrom11 | | |
| Method: | \\chromna\Denver\ChromData\WC_IonChrom11\20200317-90111.b\Anions_IC11.m | | | | |
| Limit Group: | Wet - Anions 28D | | | | |
| Last Update: | 18-Mar-2020 11:03:11 | 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: | CTX0314 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|
| 1 Fluoride | 2.392 | 2.400 | -0.008 | 587318 | | 0.0910 | |
| 2 Chloride | 3.400 | 3.417 | -0.017 | 105689382 | | 14.3 | |
| 3 Nitrite as N | | 4.075 | | | | ND | |
| 4 Bromide | 4.859 | 4.834 | 0.025 | 154215 | | 0.0753 | |
| 5 Nitrate as N | 5.417 | 5.417 | 0.000 | 537186948 | | NC | |
| 7 Orthophosphate as P | 7.134 | 7.092 | 0.042 | 449642 | | NC | |
| 6 Sulfate | 8.009 | 8.017 | -0.008 | 287735609 | | 57.8 | |

## QC Flag Legend

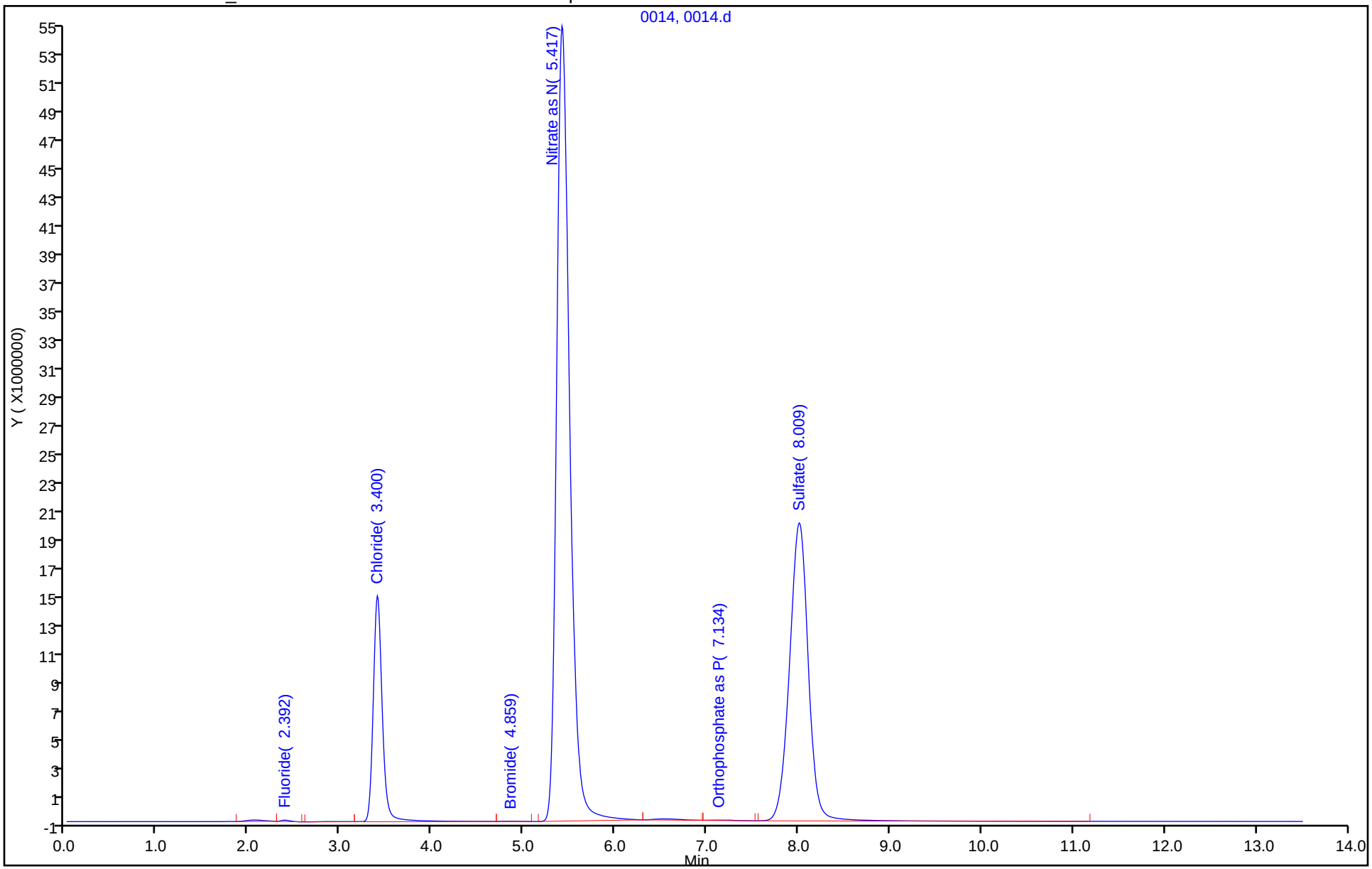
Processing Flags

NC - Not Calibrated

Report Date: 18-Mar-2020 11:03:32 Chrom Revision: 2.3 19-Feb-2020 16:45:46

Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Denver\ChromData\WC_IonChrom11\20200317-90111.b\0014.d | | | | |
| Injection Date: | 17-Mar-2020 19:49:00 | Instrument ID: | WC_IonChrom11 | Operator ID: | |
| Lims ID: | 280-134268-F-6 DU | | | Worklist Smp#: | 14 |
| 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\20200317-90111.b\0015.d | | | | |
| Lims ID: | 280-134268-F-6 MS | | | | |
| Client ID: | PZ019-2 | | | | |
| Sample Type: | MS | | | | |
| Inject. Date: | 17-Mar-2020 20:06:00 | ALS Bottle#: | 0 | Worklist Smp#: | 15 |
| Injection Vol: | 10.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 280-0090111-015 | | | | |
| Misc. Info.: | 360 F | | | | |
| Operator ID: | | Instrument ID: | WC_IonChrom11 | | |
| Method: | \\chromna\Denver\ChromData\WC_IonChrom11\20200317-90111.b\Anions_IC11.m | | | | |
| Limit Group: | Wet - Anions 28D | | | | |
| Last Update: | 18-Mar-2020 11:03:11 | 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: | CTX0314 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|
| 1 Fluoride | 2.392 | 2.400 | -0.008 | 40550781 | 5.00 | 4.74 | |
| 2 Chloride | 3.400 | 3.417 | -0.017 | 501001201 | 50.0 | 65.3 | |
| 3 Nitrite as N | 4.067 | 4.075 | -0.008 | 59788350 | NC | NC | |
| 4 Bromide | 4.834 | 4.834 | 0.000 | 11702511 | 5.00 | 5.28 | |
| 5 Nitrate as N | 5.384 | 5.417 | -0.033 | 636458151 | NC | NC | |
| 7 Orthophosphate as P | 7.192 | 7.092 | 0.100 | 80406227 | NC | NC | |
| 6 Sulfate | 8.034 | 8.017 | 0.017 | 556847242 | 50.0 | 111.5 | |

## QC Flag Legend

Processing Flags

NC - Not Calibrated

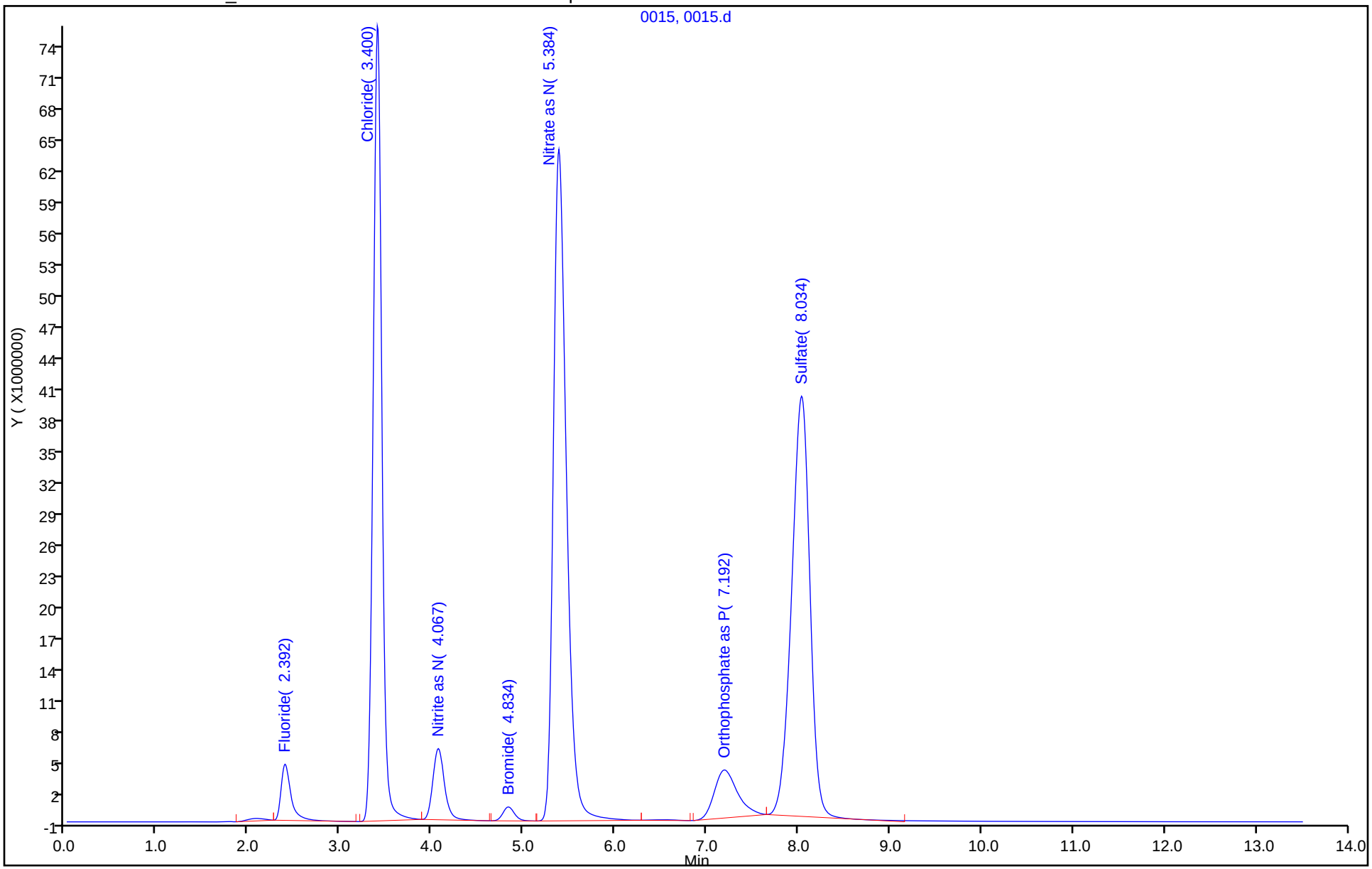
## Reagents:

ICMS/MSD WEEK_00640 Amount Added: 0.05 Units: mL

Report Date: 18-Mar-2020 11:03:34 Chrom Revision: 2.3 19-Feb-2020 16:45:46

Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Denver\ChromData\WC_IonChrom11\20200317-90111.b\0015.d | | | | |
| Injection Date: | 17-Mar-2020 20:06:00 | Instrument ID: | WC_IonChrom11 | Operator ID: | |
| Lims ID: | 280-134268-F-6 MS | | | Worklist Smp#: | 15 |
| Client ID: | PZ019-2 | | | | |
| 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\20200317-90111.b\0016.d | | | | |
| Lims ID: | 280-134268-F-6 MSD | | | | |
| Client ID: | PZ019-2 | | | | |
| Sample Type: | MSD | | | | |
| Inject. Date: | 17-Mar-2020 20:22:00 | ALS Bottle#: | 0 | Worklist Smp#: | 16 |
| Injection Vol: | 10.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 280-0090111-016 | | | | |
| Misc. Info.: | 15513 F | | | | |
| Operator ID: | | Instrument ID: | WC_IonChrom11 | | |
| Method: | \\chromna\Denver\ChromData\WC_IonChrom11\20200317-90111.b\Anions_IC11.m | | | | |
| Limit Group: | Wet - Anions 28D | | | | |
| Last Update: | 18-Mar-2020 11:03:11 | 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: | CTX0314 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|
| 1 Fluoride | 2.392 | 2.400 | -0.008 | 39942504 | 5.00 | 4.67 | |
| 2 Chloride | 3.401 | 3.417 | -0.016 | 502336261 | 50.0 | 65.4 | |
| 3 Nitrite as N | 4.059 | 4.075 | -0.016 | 60055346 | NC | NC | |
| 4 Bromide | 4.817 | 4.834 | -0.017 | 11730777 | 5.00 | 5.29 | |
| 5 Nitrate as N | 5.376 | 5.417 | -0.041 | 638091714 | NC | NC | |
| 7 Orthophosphate as P | 7.184 | 7.092 | 0.092 | 59865962 | NC | NC | |
| 6 Sulfate | 8.034 | 8.017 | 0.017 | 557521177 | 50.0 | 111.6 | |

## QC Flag Legend

Processing Flags

NC - Not Calibrated

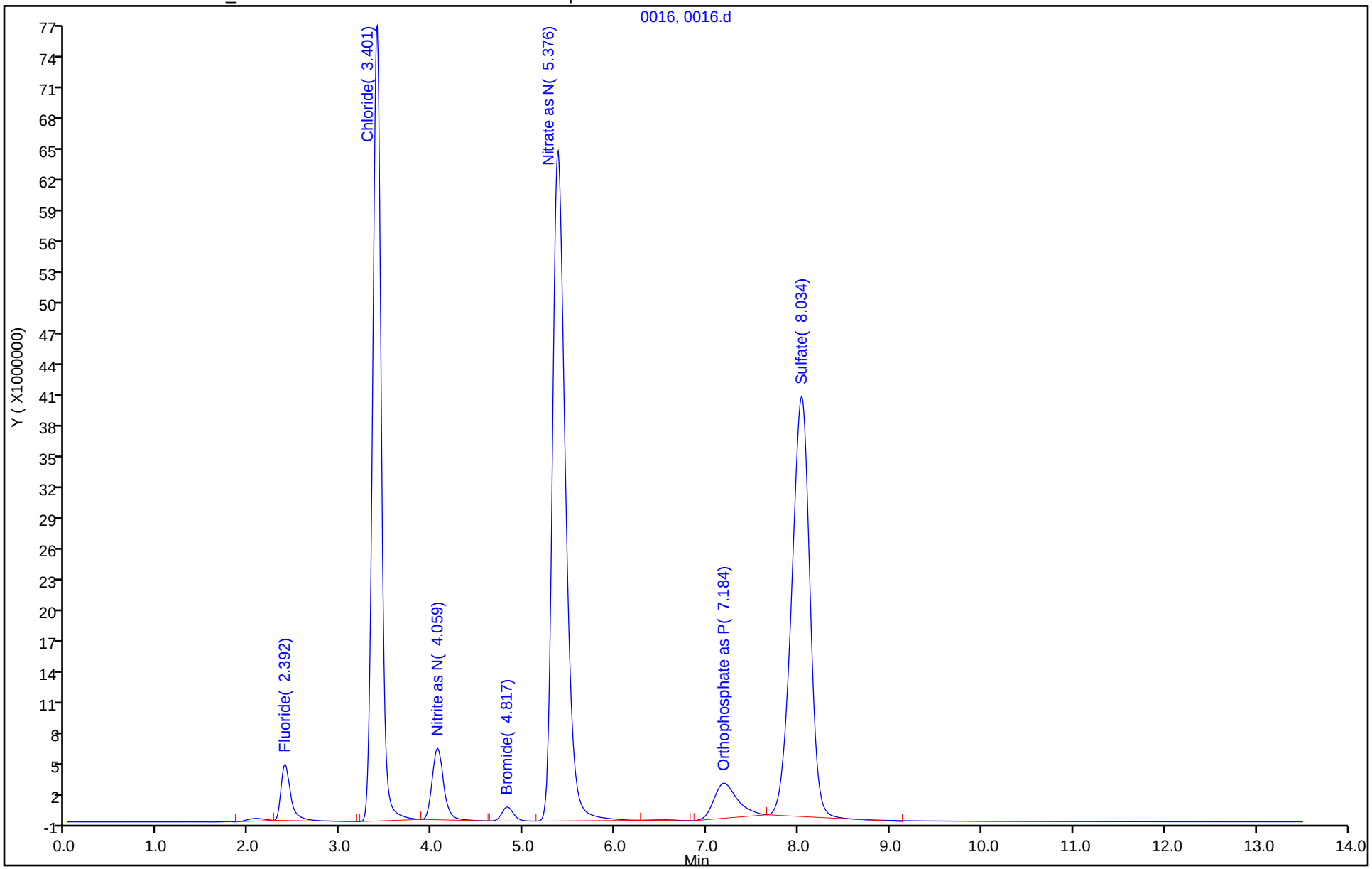
## Reagents:

ICMS/MSD WEEK_00640 Amount Added: 0.05 Units: mL

Report Date: 18-Mar-2020 11:03:37 Chrom Revision: 2.3 19-Feb-2020 16:45:46

Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Denver\ChromData\WC_IonChrom11\20200317-90111.b\0016.d | | | | |
| Injection Date: | 17-Mar-2020 20:22:00 | Instrument ID: | WC_IonChrom11 | Operator ID: | |
| Lims ID: | 280-134268-F-6 MSD | | | Worklist Smp#: | 16 |
| Client ID: | PZ019-2 | | | | |
| 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\20200317-90111.b\0017.d
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 17-Mar-2020 20:38:00 ALS Bottle#: 0 Worklist Smp#: 17
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0090111-017
Misc. Info.: 28892 F
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20200317-90111.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 18-Mar-2020 11:03:38 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: CTX0314

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|
| 1 Fluoride | 2.392 | 2.400 | -0.008 | 40122849 | 5.00 | 4.69 | |
| 2 Chloride | 3.409 | 3.417 | -0.008 | 714415557 | 100.0 | 92.8 | |
| 3 Nitrite as N | 4.059 | 4.075 | -0.016 | 55486022 | NC | NC | |
| 4 Bromide | 4.817 | 4.834 | -0.017 | 10712303 | 5.00 | 4.83 | |
| 5 Nitrate as N | 5.392 | 5.417 | -0.025 | 69787187 | NC | NC | |
| 7 Orthophosphate as P | 7.075 | 7.092 | -0.017 | 26004907 | NC | NC | |
| 6 Sulfate | 7.992 | 8.017 | -0.025 | 455659954 | 100.0 | 91.3 | |

## QC Flag Legend

Processing Flags
NC - Not Calibrated

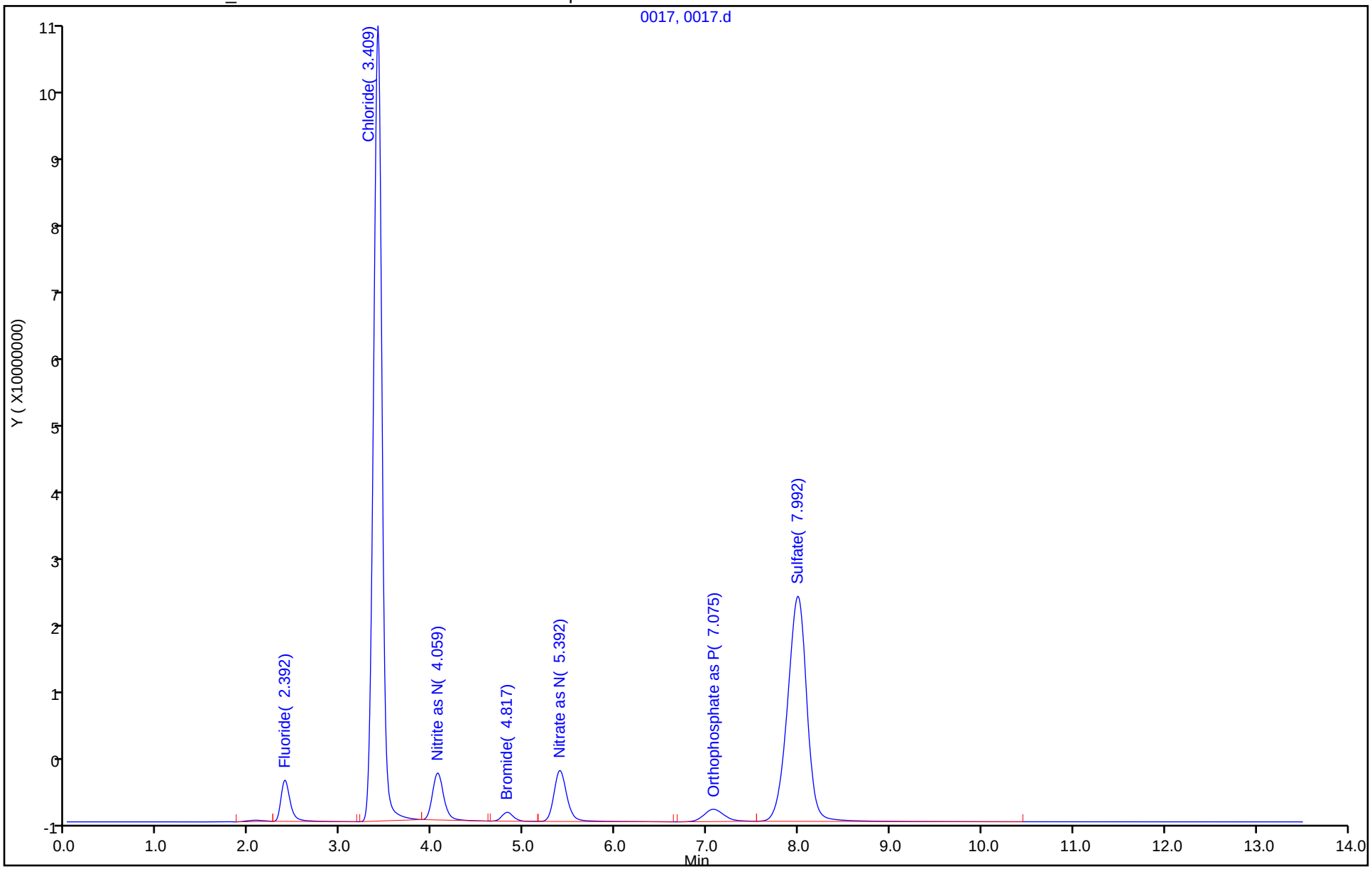
## Reagents:

IC LCS_01730 Amount Added: 5.00 Units: mL

Report Date: 18-Mar-2020 11:03:38 Chrom Revision: 2.3 19-Feb-2020 16:45:46

Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Denver\ChromData\WC_IonChrom11\20200317-90111.b\0017.d | | | | |
| Injection Date: | 17-Mar-2020 20:38:00 | 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\20200317-90111.b\0018.d | | | | |
| Lims ID: | ccb | | | | |
| Client ID: | | | | | |
| Sample Type: | CCB | | | | |
| Inject. Date: | 17-Mar-2020 20:55:00 | ALS Bottle#: | 0 | Worklist Smp#: | 18 |
| Injection Vol: | 10.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 280-0090111-018 | | | | |
| Misc. Info.: | 9341 F | | | | |
| Operator ID: | | Instrument ID: | WC_IonChrom11 | | |
| Method: | \\chromna\Denver\ChromData\WC_IonChrom11\20200317-90111.b\Anions_IC11.m | | | | |
| Limit Group: | Wet - Anions 28D | | | | |
| Last Update: | 18-Mar-2020 11:03:38 | 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: | CTX0314 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|
| 1 Fluoride | 2.392 | 2.400 | -0.008 | 120247 | | 0.0367 | |
| 2 Chloride | | 3.417 | | | | ND | |
| 3 Nitrite as N | | 4.075 | | | | ND | |
| 4 Bromide | | 4.834 | | | | ND | |
| 5 Nitrate as N | | 5.417 | | | | ND | |
| 7 Orthophosphate as P | 7.092 | 7.092 | 0.000 | 443657 | | NC | |
| 6 Sulfate | | 8.017 | | | | ND | |

## QC Flag Legend

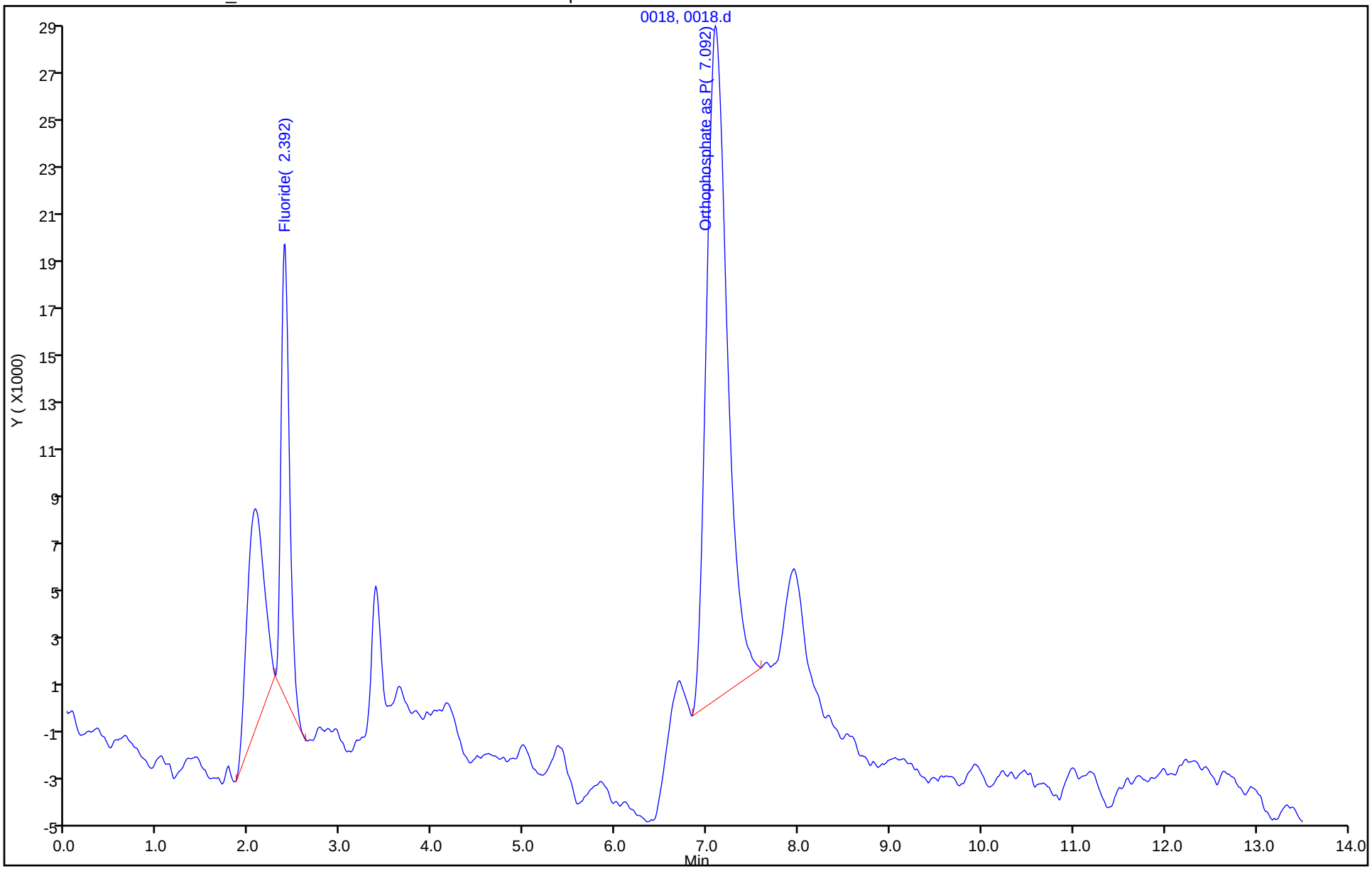
Processing Flags

NC - Not Calibrated

Report Date: 18-Mar-2020 11:03:41 Chrom Revision: 2.3 19-Feb-2020 16:45:46

Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Denver\ChromData\WC_IonChrom11\20200317-90111.b\0018.d | | | | |
| Injection Date: | 17-Mar-2020 20:55:00 | 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 | | |



Eurofins TestAmerica, Denver
Target Compound Quantitation Report

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Denver\ChromData\WC_IonChrom11\20200317-90111.b\0019.d | | | | |
| Lims ID: | 280-134268-F-8 | | | | |
| Client ID: | NW081R-2 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 17-Mar-2020 21:11:00 | ALS Bottle#: | 0 | Worklist Smp#: | 19 |
| Injection Vol: | 10.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 280-0090111-019 | | | | |
| Misc. Info.: | 21135 F | | | | |
| Operator ID: | | Instrument ID: | WC_IonChrom11 | | |
| Method: | \\chromna\Denver\ChromData\WC_IonChrom11\20200317-90111.b\Anions_IC11.m | | | | |
| Limit Group: | Wet - Anions 28D | | | | |
| Last Update: | 18-Mar-2020 11:03:38 | 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: | CTX0314 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|
| 1 Fluoride | 2.392 | 2.400 | -0.008 | 790852 | 0.1147 | |
| 2 Chloride | 3.409 | 3.417 | -0.008 | 463793674 | 60.5 | |
| 3 Nitrite as N | | 4.075 | | | ND | |
| 4 Bromide | 4.842 | 4.834 | 0.008 | 280276 | 0.1321 | |
| 5 Nitrate as N | 5.417 | 5.417 | 0.000 | 455455243 | NC | |
| 7 Orthophosphate as P | 7.150 | 7.092 | 0.058 | 311621 | NC | |
| 6 Sulfate | 8.042 | 8.017 | 0.025 | 453114320 | 90.8 | |

## QC Flag Legend

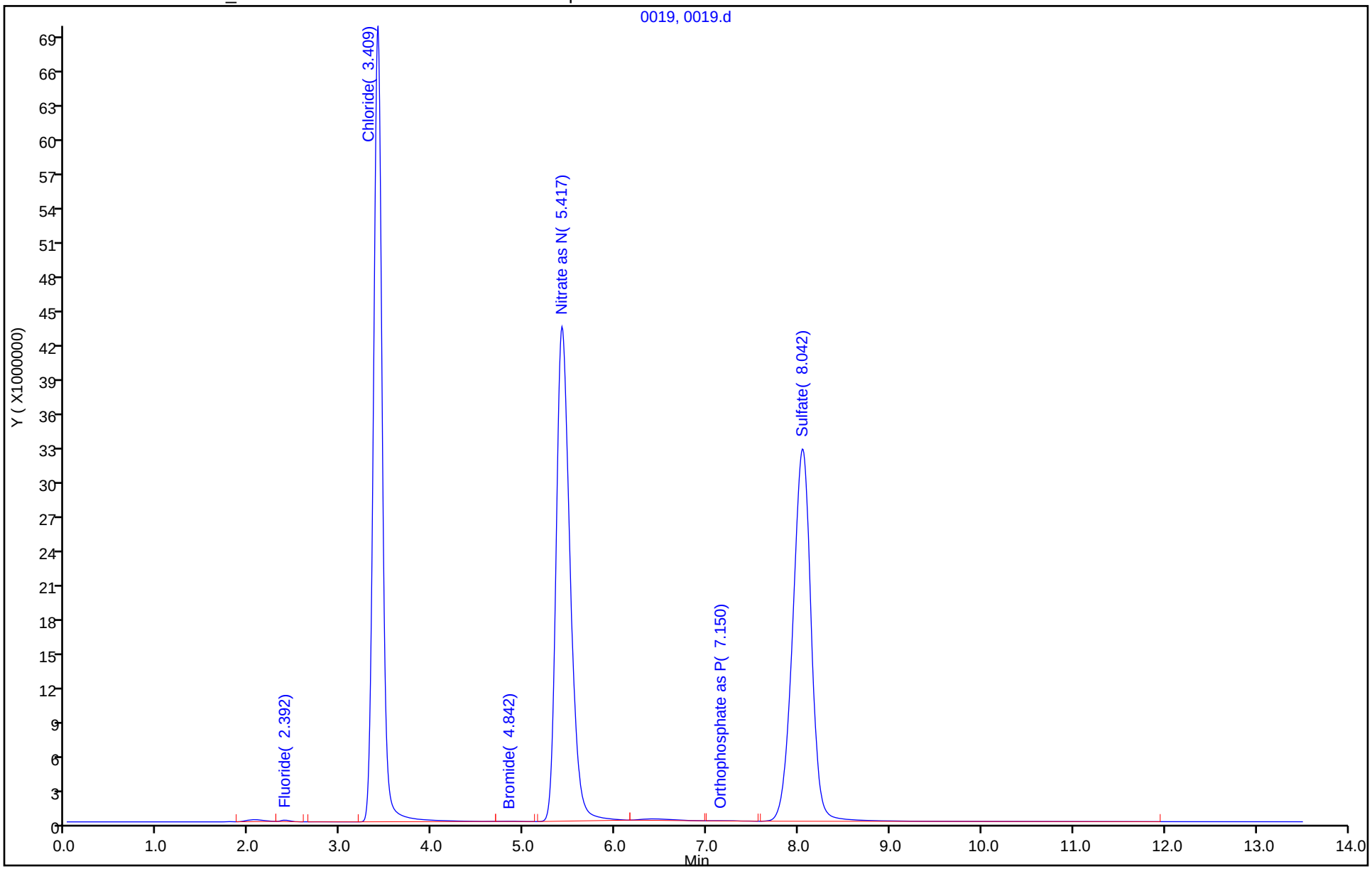
Processing Flags

NC - Not Calibrated

Report Date: 18-Mar-2020 11:03:43 Chrom Revision: 2.3 19-Feb-2020 16:45:46

Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Denver\ChromData\WC_IonChrom11\20200317-90111.b\0019.d | | | | |
| Injection Date: | 17-Mar-2020 21:11:00 | Instrument ID: | WC_IonChrom11 | Operator ID: | |
| Lims ID: | 280-134268-F-8 | Lab Sample ID: | 280-134268-8 | Worklist Smp#: | 19 |
| Client ID: | NW081R-2 | | | | |
| 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\20200317-90111.b\0020.d | | | | |
| Lims ID: | 280-134268-F-9 | | | | |
| Client ID: | NW062-2 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 17-Mar-2020 21:28:00 | ALS Bottle#: | 0 | Worklist Smp#: | 20 |
| Injection Vol: | 10.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 280-0090111-020 | | | | |
| Misc. Info.: | 32488 F | | | | |
| Operator ID: | | Instrument ID: | WC_IonChrom11 | | |
| Method: | \\chromna\Denver\ChromData\WC_IonChrom11\20200317-90111.b\Anions_IC11.m | | | | |
| Limit Group: | Wet - Anions 28D | | | | |
| Last Update: | 18-Mar-2020 11:03:38 | 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: | CTX0314 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|
| 1 Fluoride | 2.392 | 2.400 | -0.008 | 1858213 | 0.2388 | |
| 2 Chloride | 3.400 | 3.417 | -0.017 | 230739765 | 30.4 | |
| 3 Nitrite as N | | 4.075 | | | ND | |
| 4 Bromide | 4.850 | 4.834 | 0.016 | 481523 | 0.2228 | |
| 5 Nitrate as N | | 5.417 | | | ND | |
| 7 Orthophosphate as P | 7.150 | 7.092 | 0.058 | 447583 | NC | |
| 6 Sulfate | 8.084 | 8.017 | 0.067 | 920518934 | 184.1 | |

## QC Flag Legend

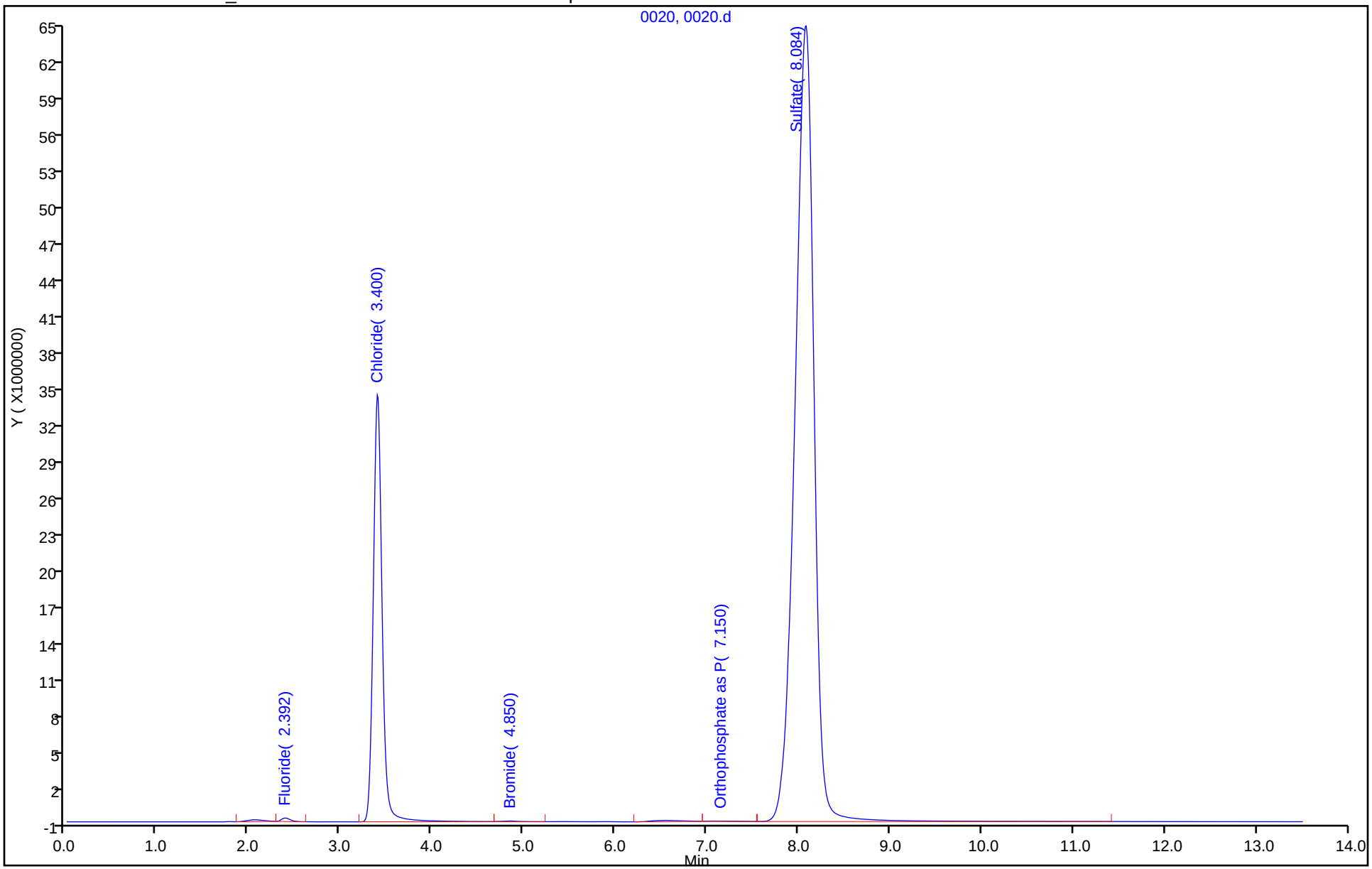
Processing Flags

NC - Not Calibrated

Report Date: 18-Mar-2020 11:03:45 Chrom Revision: 2.3 19-Feb-2020 16:45:46

Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Denver\ChromData\WC_IonChrom11\20200317-90111.b\0020.d | | | | |
| Injection Date: | 17-Mar-2020 21:28:00 | Instrument ID: | WC_IonChrom11 | Operator ID: | |
| Lims ID: | 280-134268-F-9 | Lab Sample ID: | 280-134268-9 | Worklist Smp#: | 20 |
| Client ID: | NW062-2 | | | | |
| 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\20200317-90111.b\0021.d | | | | |
| Lims ID: | 280-134268-F-10 | | | | |
| Client ID: | G0080-2 | | | | |
| Sample Type: | Client | | | | |
| Inject. Date: | 17-Mar-2020 21:44:00 | ALS Bottle#: | 0 | Worklist Smp#: | 21 |
| Injection Vol: | 10.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 280-0090111-021 | | | | |
| Misc. Info.: | 25056 F | | | | |
| Operator ID: | | Instrument ID: | WC_IonChrom11 | | |
| Method: | \\chromna\Denver\ChromData\WC_IonChrom11\20200317-90111.b\Anions_IC11.m | | | | |
| Limit Group: | Wet - Anions 28D | | | | |
| Last Update: | 18-Mar-2020 11:03:38 | 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: | CTX0314 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|
| 1 Fluoride | 2.392 | 2.400 | -0.008 | 1688588 | 0.2191 | |
| 2 Chloride | 3.400 | 3.417 | -0.017 | 94045450 | 12.8 | |
| 3 Nitrite as N | | 4.075 | | | ND | |
| 4 Bromide | 4.859 | 4.834 | 0.025 | 325397 | 0.1524 | |
| 5 Nitrate as N | 5.459 | 5.417 | 0.042 | 41910803 | NC | |
| 7 Orthophosphate as P | 7.142 | 7.092 | 0.050 | 539256 | NC | |
| 6 Sulfate | 8.034 | 8.017 | 0.017 | 359811938 | 72.2 | |

## QC Flag Legend

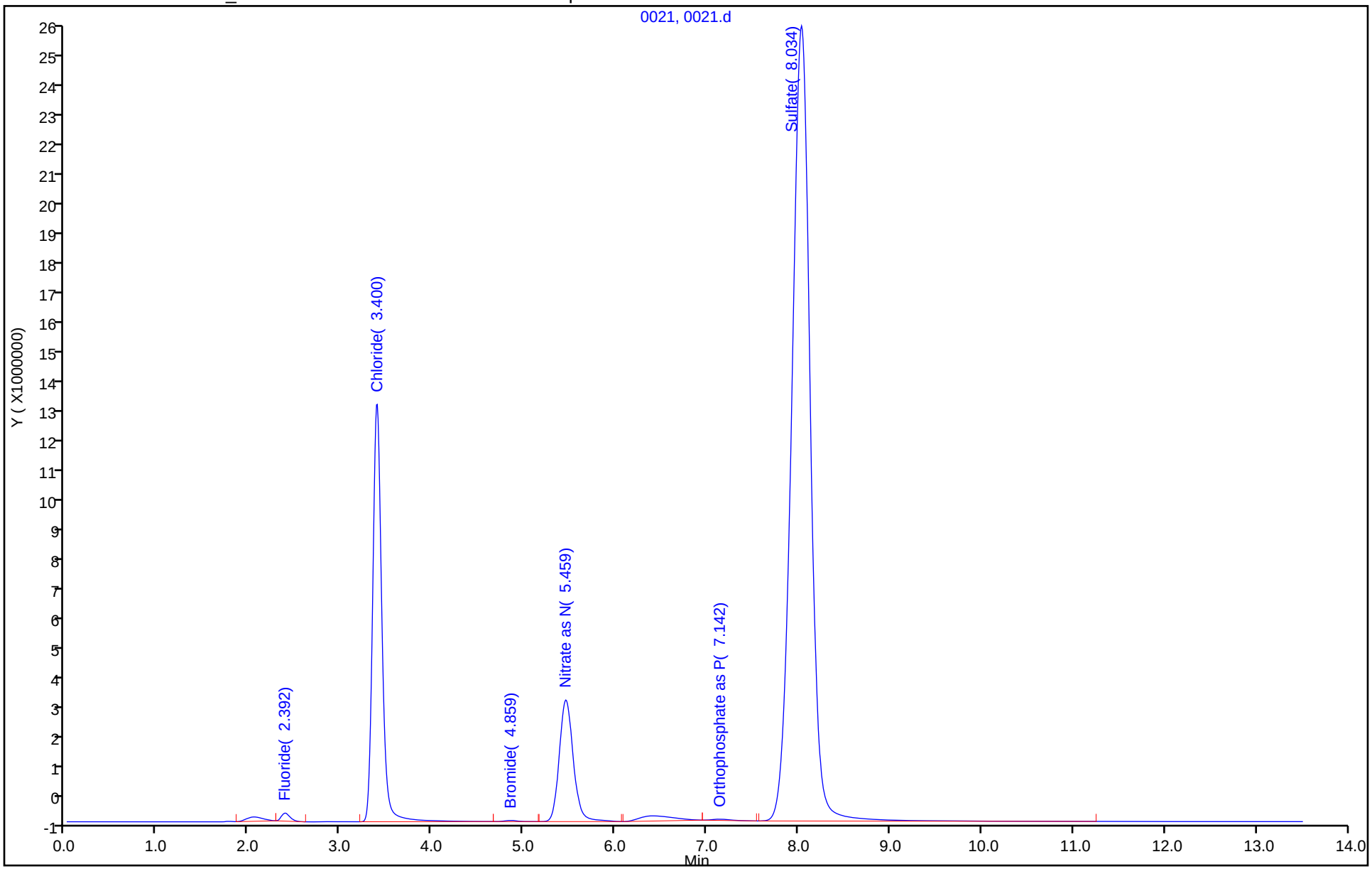
Processing Flags

NC - Not Calibrated

Report Date: 18-Mar-2020 11:03:46 Chrom Revision: 2.3 19-Feb-2020 16:45:46

Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Denver\ChromData\WC_IonChrom11\20200317-90111.b\0021.d | | | | |
| Injection Date: | 17-Mar-2020 21:44:00 | Instrument ID: | WC_IonChrom11 | Operator ID: | |
| Lims ID: | 280-134268-F-10 | Lab Sample ID: | 280-134268-10 | Worklist Smp#: | 21 |
| Client ID: | G0080-2 | | | | |
| 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\20200317-90111.b\0022.d
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 17-Mar-2020 22:00:00 ALS Bottle#: 0 Worklist Smp#: 22
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 280-0090111-022
Misc. Info.: 7648 F
Operator ID: Instrument ID: WC_IonChrom11
Sublist: chrom-Anions_IC11*sub1

Method: \\chromna\Denver\ChromData\WC_IonChrom11\20200317-90111.b\Anions_IC11.m
Limit Group: Wet - Anions 28D
Last Update: 18-Mar-2020 11:03:47 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: CTX0314

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|
| 1 Fluoride | 2.401 | 2.400 | 0.001 | 40181859 | 5.00 | 4.70 | |
| 2 Chloride | 3.417 | 3.417 | 0.000 | 718042310 | 100.0 | 93.3 | |
| 3 Nitrite as N | 4.067 | 4.075 | -0.008 | 55683433 | NC | NC | |
| 4 Bromide | 4.826 | 4.834 | -0.008 | 10752477 | 5.00 | 4.85 | |
| 5 Nitrate as N | 5.409 | 5.417 | -0.008 | 70037964 | NC | NC | |
| 7 Orthophosphate as P | 7.076 | 7.092 | -0.016 | 24821766 | NC | NC | |
| 6 Sulfate | 8.001 | 8.017 | -0.016 | 458944300 | 100.0 | 92.0 | |

## QC Flag Legend

Processing Flags
NC - Not Calibrated

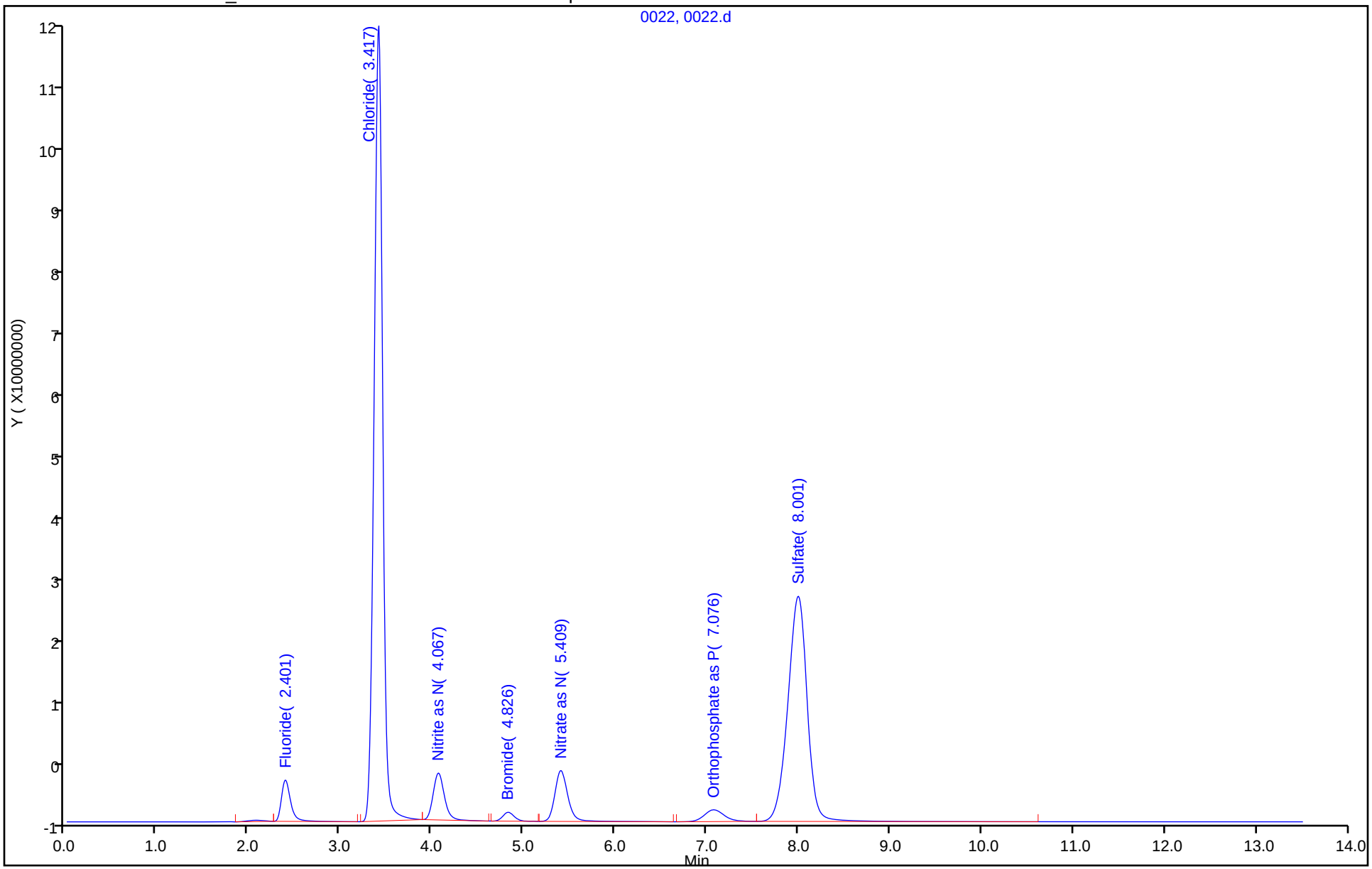
## Reagents:

IC LCS_01730 Amount Added: 5.00 Units: mL

Report Date: 18-Mar-2020 11:03:48 Chrom Revision: 2.3 19-Feb-2020 16:45:46

Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Denver\ChromData\WC_IonChrom11\20200317-90111.b\0022.d | | | | |
| Injection Date: | 17-Mar-2020 22:00:00 | Instrument ID: | WC_IonChrom11 | Operator ID: | |
| Lims ID: | ccv | | | Worklist Smp#: | 22 |
| 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\20200317-90111.b\0023.d | | | | |
| Lims ID: | ccb | | | | |
| Client ID: | | | | | |
| Sample Type: | CCB | | | | |
| Inject. Date: | 17-Mar-2020 22:17:00 | ALS Bottle#: | 0 | Worklist Smp#: | 23 |
| Injection Vol: | 10.0 ul | Dil. Factor: | 1.0000 | | |
| Sample Info: | 280-0090111-023 | | | | |
| Misc. Info.: | 9302 F | | | | |
| Operator ID: | | Instrument ID: | WC_IonChrom11 | | |
| Method: | \\chromna\Denver\ChromData\WC_IonChrom11\20200317-90111.b\Anions_IC11.m | | | | |
| Limit Group: | Wet - Anions 28D | | | | |
| Last Update: | 18-Mar-2020 11:03:47 | 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: | CTX0314 | | | | |

| Compound | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Response | Cal Amt ug/ml | OnCol Amt ug/ml | Flags |
|---|---|---|---|---|---|---|---|
| 1 Fluoride | | 2.400 | | | | ND | |
| 2 Chloride | | 3.417 | | | | ND | |
| 3 Nitrite as N | | 4.075 | | | | ND | |
| 4 Bromide | | 4.834 | | | | ND | |
| 5 Nitrate as N | | 5.417 | | | | ND | |
| 7 Orthophosphate as P | 7.109 | 7.092 | 0.017 | 189784 | | | NC |
| 6 Sulfate | | 8.017 | | | | ND | |

## QC Flag Legend

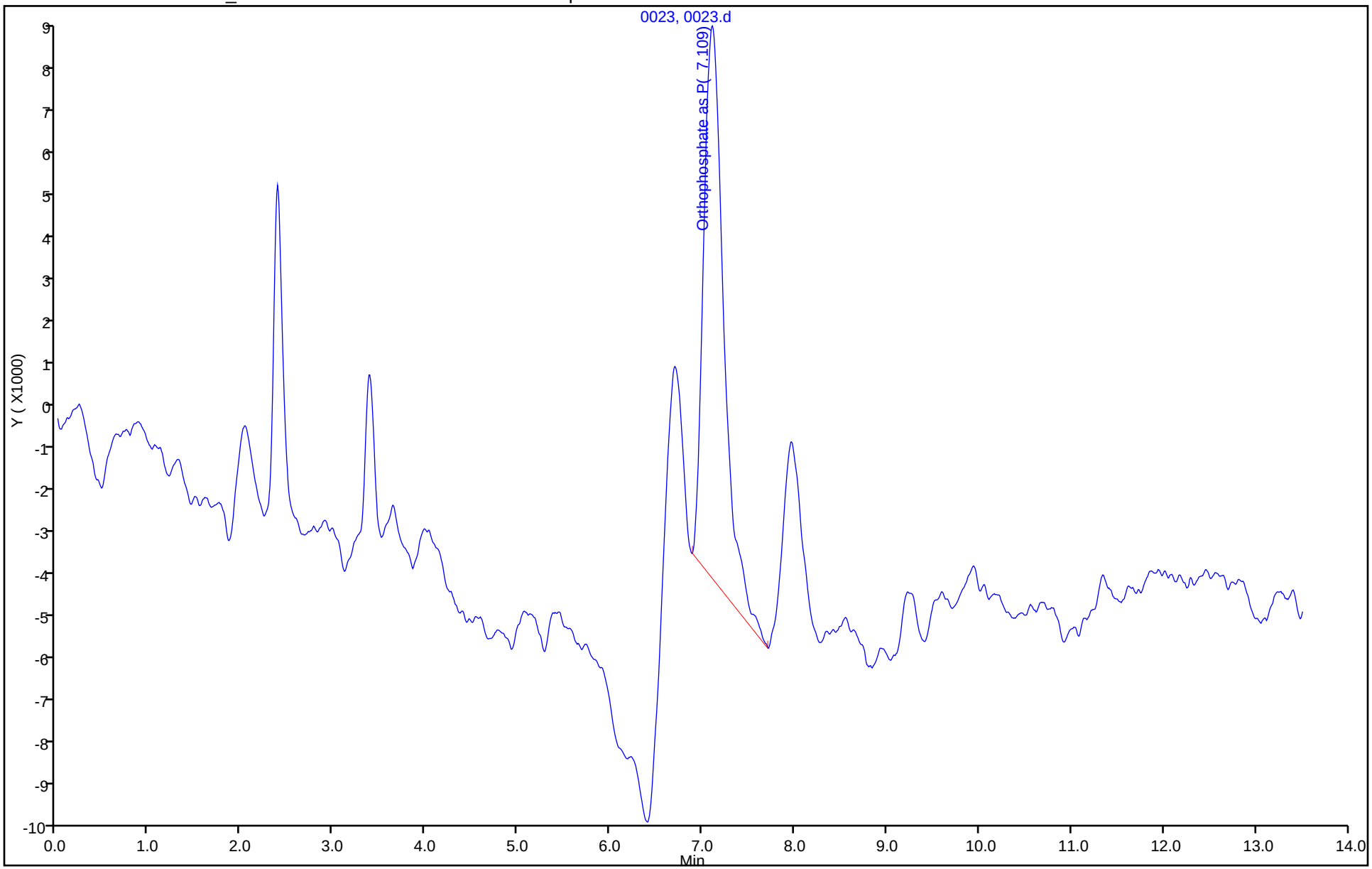
Processing Flags

NC - Not Calibrated

Report Date: 18-Mar-2020 11:03:49 Chrom Revision: 2.3 19-Feb-2020 16:45:46

Eurofins TestAmerica, Denver

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromna\Denver\ChromData\WC_IonChrom11\20200317-90111.b\0023.d | | | | |
| Injection Date: | 17-Mar-2020 22:17:00 | Instrument ID: | WC_IonChrom11 | Operator ID: | |
| Lims ID: | ccb | | | Worklist Smp#: | 23 |
| 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 | icv | | 1.000 | NPOC:18.8 | | Completed | 3/17/2020 6:1 | 1 |
| 2 | NPOC | icb | | 1.000 | NPOC:0.23 | | Completed | 3/17/2020 6:2 | 2 |
| 3 | NPOC | LCS 280-488988/1-A | | 1.000 | NPOC:24.3 | | Completed | 3/17/2020 6:4 | 3 |
| 4 | NPOC | MB 280-488988/2-A | | 1.000 | NPOC:0.86 | | Completed | 3/17/2020 7:0 | 4 |
| 5 | NPOC | tic | | 1.000 | NPOC:0.06 | | Completed | 3/17/2020 7:1 | 5 |
| 6 | NPOC | 280-134268-D-6-A | | 1.000 | NPOC:2.04 | | Completed | 3/17/2020 7:3 | 6 |
| 7 | NPOC | 280-134268-D-6-B MS | | 1.000 | NPOC:26.4 | | Completed | 3/17/2020 7:5 | 7 |
| 8 | NPOC | 280-134268-D-6-C MSD | | 1.000 | NPOC:25.9 | | Completed | 3/17/2020 8:0 | 8 |
| 9 | NPOC | 280-134268-D-1-A | | 1.000 | NPOC:8.20 | | Completed | 3/17/2020 8:2 | 9 |
| 10 | NPOC | 280-134268-D-2-A | | 1.000 | NPOC:3.49 | | Completed | 3/17/2020 8:3 | 10 |
| 11 | NPOC | 280-134268-D-3-A | | 1.000 | NPOC:14.3 | | Completed | 3/17/2020 8:5 | 11 |
| 12 | NPOC | 280-134268-D-4-A | | 1.000 | NPOC:2.75 | | Completed | 3/17/2020 9:0 | 12 |
| 13 | NPOC | 280-134268-D-5-A | | 1.000 | NPOC:4.96 | | Completed | 3/17/2020 9:2 | 13 |
| 14 | NPOC | 280-134268-D-7-A | | 1.000 | NPOC:3.81 | | Completed | 3/17/2020 9:4 | 14 |
| 15 | NPOC | ccv | | 1.000 | NPOC:24.4 | | Completed | 3/17/2020 9:5 | 15 |
| 16 | NPOC | ccb | | 1.000 | NPOC:0.10 | | Completed | 3/17/2020 10: | 16 |
| 17 | NPOC | 280-134268-D-8-A | | 1.000 | NPOC:4.61 | | Completed | 3/17/2020 10: | 17 |
| 18 | NPOC | 280-134268-D-9-A | | 1.000 | NPOC:2.47 | | Completed | 3/17/2020 10: | 18 |
| 19 | NPOC | 280-134268-D-10-A | | 1.000 | NPOC:2.75 | | Completed | 3/17/2020 10: | 19 |
| 20 | NPOC | 280-134297-D-1-A | | 1.000 | NPOC:2.77 | | Completed | 3/17/2020 11: | 20 |
| 21 | NPOC | 280-134297-D-1-B MS | | 1.000 | NPOC:21.6 | | Completed | 3/17/2020 11: | 21 |
| 22 | NPOC | 280-134297-D-1-C MSD | | 1.000 | NPOC:22.4 | | Completed | 3/17/2020 11: | 22 |
| 23 | NPOC | 280-134297-D-2-A | | 1.000 | NPOC:2.73 | | Completed | 3/18/2020 12: | 23 |
| 24 | NPOC | 280-134297-D-3-A | | 1.000 | NPOC:2.75 | | Completed | 3/18/2020 12: | 24 |
| 25 | NPOC | 280-134297-D-4-A | | 1.000 | NPOC:2.76 | | Completed | 3/18/2020 12: | 25 |
| 26 | NPOC | 280-134297-D-5-A | | 1.000 | NPOC:3.97 | | Completed | 3/18/2020 12: | 26 |
| 27 | NPOC | ccv | | 1.000 | NPOC:24.7 | | Completed | 3/18/2020 1:0 | 27 |
| 28 | NPOC | ccb | | 1.000 | NPOC:0.08 | | Completed | 3/18/2020 1:2 | 28 |
| 29 | NPOC | 280-134297-D-6-A | | 1.000 | NPOC:5.57 | | Completed | 3/18/2020 1:3 | 29 |
| 30 | NPOC | 280-134297-D-7-A | | 1.000 | NPOC:4.41 | | Completed | 3/18/2020 1:5 | 30 |
| 31 | NPOC | 280-134297-D-8-A | | 1.000 | NPOC:4.35 | | Completed | 3/18/2020 2:0 | 31 |
| 32 | NPOC | 280-134297-D-9-A | | 1.000 | NPOC:5.87 | | Completed | 3/18/2020 2:2 | 32 |
| 33 | NPOC | 280-134177-F-2-A | | 2.000 | NPOC:24.7 | | Completed | 3/18/2020 2:4 | 33 |
| 34 | NPOC | LCS 280-488988/27-A | | 1.000 | NPOC:24.4 | | Completed | 3/18/2020 2:5 | 34 |
| 35 | NPOC | MB 280-488988/28-A | | 1.000 | NPOC:0.84 | | Completed | 3/18/2020 3:0 | 35 |
| 36 | NPOC | tic | | 1.000 | NPOC:0.10 | | Completed | 3/18/2020 3:2 | 36 |
| 37 | NPOC | 280-134297-D-10-A | | 1.000 | NPOC:4.01 | | Completed | 3/18/2020 3:4 | 37 |
| 38 | NPOC | 280-134297-D-10-B MS | | 1.000 | NPOC:27.7 | | Completed | 3/18/2020 3:5 | 38 |
| 39 | NPOC | ccv | | 1.000 | NPOC:24.3 | | Completed | 3/18/2020 4:1 | 39 |
| 40 | NPOC | ccb | | 1.000 | NPOC:0.08 | | Completed | 3/18/2020 4:2 | 40 |
| 41 | NPOC | 280-134297-D-10-C MSD | | 1.000 | NPOC:28.7 | | Completed | 3/18/2020 4:4 | 41 |
| 42 | NPOC | 280-134297-D-11-A | | 1.000 | NPOC:5.26 | | Completed | 3/18/2020 4:5 | 42 |
| 43 | NPOC | 280-134297-D-12-A | | 1.000 | NPOC:1.93 | | Completed | 3/18/2020 5:1 | 43 |
| 44 | NPOC | 280-134297-D-13-A | | 1.000 | NPOC:2.57 | | Completed | 3/18/2020 5:3 | 44 |
| 45 | NPOC | 280-134297-D-14-A | | 1.000 | NPOC:2.69 | | Completed | 3/18/2020 5:5 | 45 |
| 46 | NPOC | 280-134297-D-15-A | | 1.000 | NPOC:3.12 | | Completed | 3/18/2020 6:1 | 46 |
| 47 | NPOC | 280-134297-D-16-A | | 1.000 | NPOC:4.50 | | Completed | 3/18/2020 6:2 | 47 |
| 48 | NPOC | 280-134297-D-17-A | | 1.000 | NPOC:7.76 | | Completed | 3/18/2020 6:4 | 48 |
| 49 | NPOC | 280-134297-D-18-A | | 1.000 | NPOC:9.21 | | Completed | 3/18/2020 7:0 | 49 |
| 50 | NPOC | ccv | | 1.000 | NPOC:24.6 | | Completed | 3/18/2020 7:1 | 50 |
| 51 | NPOC | ccb | | 1.000 | NPOC:0.10 | | Completed | 3/18/2020 7:2 | 51 |
| 52 | NPOC | lcs | | 1.000 | NPOC:23.8 | | Completed | 3/18/2020 7:4 | 52 |
| 53 | NPOC | mb | | 1.000 | NPOC:0.09 | | Completed | 3/18/2020 8:0 | 53 |

| | Analysis | Sample Name | Sample I | Manual | Result | Notes | Status | Date / Time | Vial |
|---|---|---|---|---|---|---|---|---|---|
| 54 | NPOC | 280-134483-B-1 | | 1.000 | NPOC:0.63 | | Completed | 3/18/2020 8:1 | 54 |
| 55 | NPOC | ms 280-134483-B-1 | | 1.000 | NPOC:25.0 | | Completed | 3/18/2020 8:3 | 55 |
| 56 | NPOC | msd 280-134483-B-1 | | 1.000 | NPOC:24.9 | | Completed | 3/18/2020 8:4 | 56 |
| 57 | NPOC | 280-134483-B-2 | | 1.000 | NPOC:-0.11 | | Completed | 3/18/2020 9:0 | 57 |
| 58 | NPOC | 280-134484-C-1 | | 1.000 | NPOC:0.63 | | Completed | 3/18/2020 9:1 | 58 |
| 59 | NPOC | 280-134484-C-2 | | 1.000 | NPOC:0.17 | | Completed | 3/18/2020 9:3 | 59 |
| 60 | NPOC | 280-134254-C-1 | | 5.000 | NPOC:188. | | Completed | 3/18/2020 9:4 | 60 |
| 61 | NPOC | 280-134125-J-1 | | 5.000 | NPOC:82.2 | | Completed | 3/18/2020 9:5 | 61 |
| 62 | NPOC | 240-127155-A-1 | | 1.000 | NPOC:13.7 | | Completed | 3/18/2020 10: | 62 |
| 63 | NPOC | ccv | | 1.000 | NPOC:24.5 | | Completed | 3/18/2020 10: | 63 |
| 64 | NPOC | ccb | | 1.000 | NPOC:0.13 | | Completed | 3/18/2020 10: | 64 |
| 65 | NPOC | 280-134103-H-4 | | 20.00 | NPOC:222. | | Completed | 3/18/2020 10: | 65 |
| 66 | NPOC | LCS 280-488988/40-A | | 1.000 | NPOC:24.2 | | Completed | 3/18/2020 11: | 66 |
| 67 | NPOC | MB 280-488988/41-A | | 1.000 | NPOC:0.84 | | Completed | 3/18/2020 11: | 67 |
| 68 | NPOC | 280-134298-A-2-E | | 1.000 | NPOC:5.11 | | Completed | 3/18/2020 11: | 68 |
| 69 | NPOC | 280-134298-A-2-F MS | | 1.000 | NPOC:29.7 | | Completed | 3/18/2020 11: | 69 |
| 70 | NPOC | 280-134298-A-2-G MSD | | 1.000 | NPOC:29.9 | | Completed | 3/18/2020 12: | 70 |
| 71 | NPOC | 280-134298-A-1-E | | 1.000 | NPOC:5.03 | | Completed | 3/18/2020 12: | 71 |
| 72 | NPOC | ccv | | 1.000 | NPOC:24.3 | | Completed | 3/18/2020 12: | 72 |
| 73 | NPOC | ccb | | 1.000 | NPOC:0.12 | | Completed | 3/18/2020 12: | 73 |

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 |

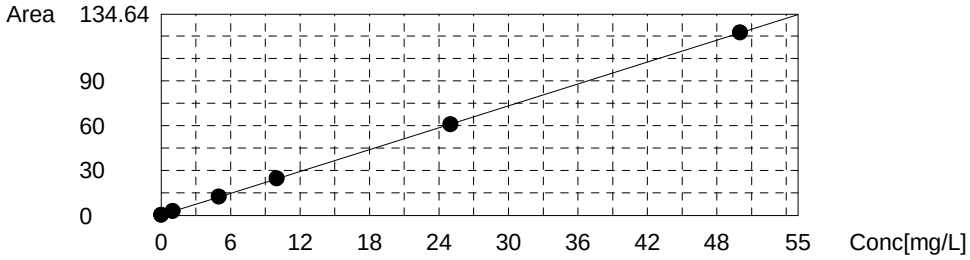
Acid Add. 0.000%
Sp. Time 90.00sec
Mean Area 60.82
SD Area 0.3253
CV Area 0.53%
Vial 90

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: | icv |
| Sample ID: | |
| Origin: | NPOC.met |
| Status | Completed |
| Chk. Result | |

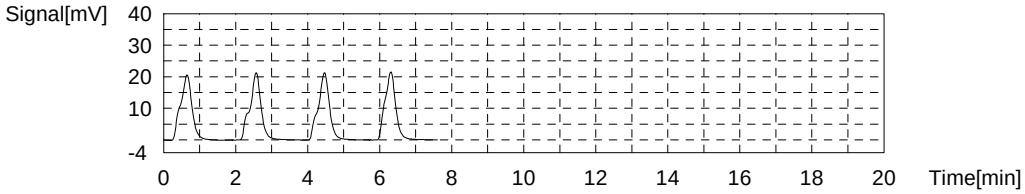
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:18.89mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 46.99 | 19.16mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/17/2020 6:05:58 PM |
| 2 | 46.24 | 18.85mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/17/2020 6:08:02 PM |
| 3 | 46.77 | 19.07mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/17/2020 6:10:06 PM |
| 4 | 45.42 | 18.51mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/17/2020 6:12:10 PM |

Mean Area 46.36
Mean Conc. 18.89mg/L




Sample

| | |
|---|---|
| Sample Name: | icb |
| Sample ID: | |
| Origin: | NPOC.met |
| Status | Completed |
| Chk. Result | |

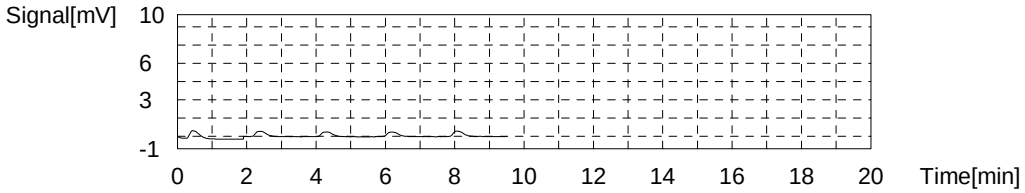
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:0.2314mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 1.185 | 0.3750mg/L | 50uL | 1 | E | TOC3.2020_01_06_16_39_25.cal | 3/17/2020 6:20:41 PM |
| 2 | 0.8830 | 0.2512mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/17/2020 6:22:45 PM |
| 3 | 0.8127 | 0.2223mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/17/2020 6:24:49 PM |
| 4 | 0.7800 | 0.2089mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/17/2020 6:26:53 PM |
| 5 | 0.8638 | 0.2433mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/17/2020 6:28:57 PM |

Mean Area 0.8349
Mean Conc. 0.2314mg/L



Sample

Sample Name: LCS 280-488988/1-A
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

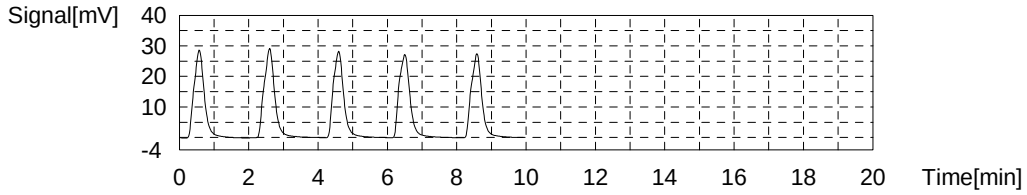
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:24.37mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 60.58 | 24.73mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/17/2020 6:37:34 PM |
| 2 | 62.49 | 25.51mg/L | 50uL | 1 | E | TOC3.2020_01_06_16_39_25.cal | 3/17/2020 6:39:45 PM |
| 3 | 59.36 | 24.23mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/17/2020 6:41:49 PM |
| 4 | 60.15 | 24.55mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/17/2020 6:44:03 PM |
| 5 | 58.70 | 23.96mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/17/2020 6:46:08 PM |

Mean Area 59.70
Mean Conc. 24.37mg/L




Sample

Sample Name: MB 280-488988/2-A
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

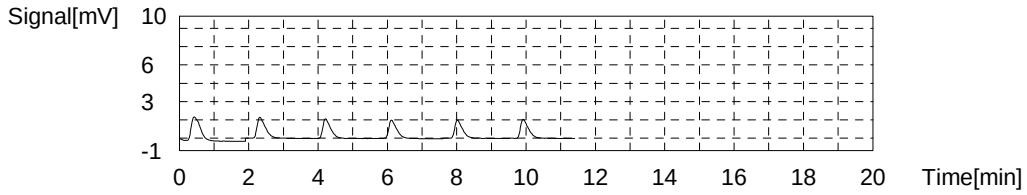
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:0.8689mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 3.435 | 1.298mg/L | 50uL | 1 | E | TOC3.2020_01_06_16_39_25.cal | 3/17/2020 6:54:38 PM |
| 2 | 2.815 | 1.043mg/L | 50uL | 1 | E | TOC3.2020_01_06_16_39_25.cal | 3/17/2020 6:56:42 PM |
| 3 | 2.481 | 0.9064mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/17/2020 6:58:46 PM |
| 4 | 2.361 | 0.8572mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/17/2020 7:00:50 PM |
| 5 | 2.265 | 0.8178mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/17/2020 7:02:54 PM |
| 6 | 2.452 | 0.8945mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/17/2020 7:04:58 PM |

Mean Area 2.390
Mean Conc. 0.8689mg/L



Sample

Sample Name: tic
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

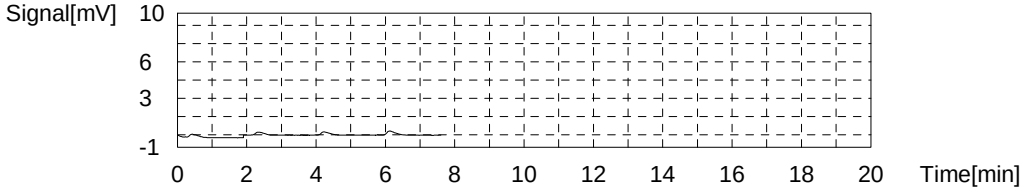
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:0.06857mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 0.3785 | 0.04432mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/17/2020 7:13:23 PM |
| 2 | 0.4186 | 0.06076mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/17/2020 7:15:27 PM |
| 3 | 0.4184 | 0.06068mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/17/2020 7:17:31 PM |
| 4 | 0.5351 | 0.1085mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/17/2020 7:19:35 PM |

Mean Area 0.4376
Mean Conc. 0.06857mg/L




Sample

Sample Name: 280-134268-D-6-A
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

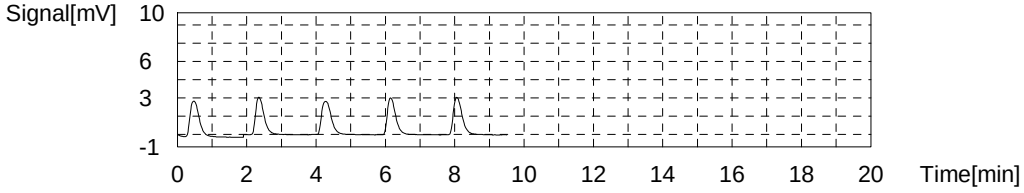
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:2.048mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 5.336 | 2.077mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/17/2020 7:28:06 PM |
| 2 | 5.136 | 1.995mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/17/2020 7:30:10 PM |
| 3 | 5.242 | 2.038mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/17/2020 7:32:14 PM |
| 4 | 5.017 | 1.946mg/L | 50uL | 1 | E | TOC3.2020_01_06_16_39_25.cal | 3/17/2020 7:34:18 PM |
| 5 | 5.352 | 2.083mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/17/2020 7:36:22 PM |

Mean Area 5.267
Mean Conc. 2.048mg/L




Sample

Sample Name: 280-134268-D-6-B MS
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

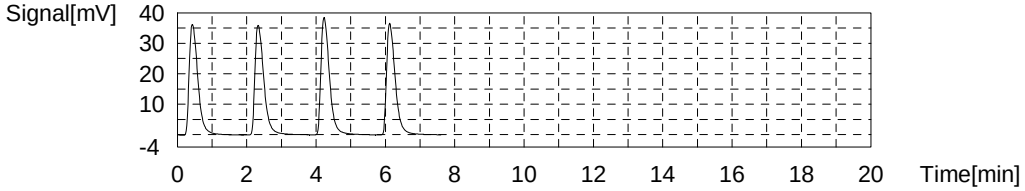
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:26.41mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 64.24 | 26.23mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/17/2020 7:44:52 PM |
| 2 | 64.58 | 26.37mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/17/2020 7:46:56 PM |
| 3 | 66.16 | 27.02mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/17/2020 7:49:00 PM |
| 4 | 63.77 | 26.04mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/17/2020 7:51:04 PM |

Mean Area 64.69
Mean Conc. 26.41mg/L




Sample

Sample Name: 280-134268-D-6-C MSD
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

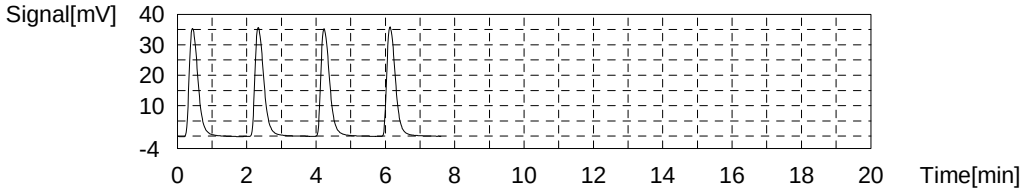
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:25.99mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 64.22 | 26.22mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/17/2020 7:59:35 PM |
| 2 | 64.36 | 26.28mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/17/2020 8:01:39 PM |
| 3 | 62.82 | 25.65mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/17/2020 8:03:43 PM |
| 4 | 63.24 | 25.82mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/17/2020 8:05:47 PM |

Mean Area 63.66
Mean Conc. 25.99mg/L




Sample

Sample Name: 280-134268-D-1-A
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

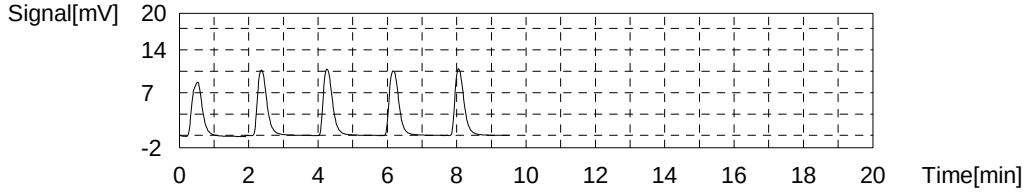
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:8.202mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 18.53 | 7.487mg/L | 50uL | 1 | E | TOC3.2020_01_06_16_39_25.cal | 3/17/2020 8:14:18 PM |
| 2 | 20.39 | 8.249mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/17/2020 8:16:22 PM |
| 3 | 20.20 | 8.171mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/17/2020 8:18:26 PM |
| 4 | 20.65 | 8.356mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/17/2020 8:20:30 PM |
| 5 | 19.86 | 8.032mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/17/2020 8:22:34 PM |

Mean Area 20.28
Mean Conc. 8.202mg/L




Sample

Sample Name: 280-134268-D-2-A
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

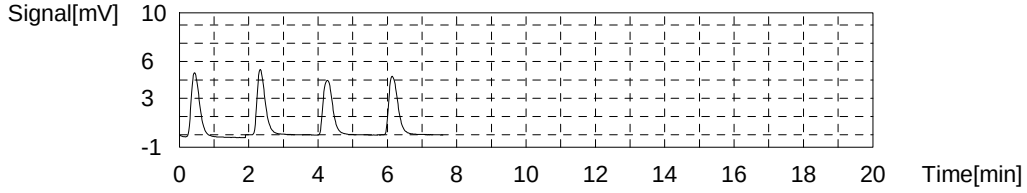
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:3.492mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 8.907 | 3.541mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/17/2020 8:31:04 PM |
| 2 | 8.810 | 3.501mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/17/2020 8:33:08 PM |
| 3 | 8.639 | 3.431mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/17/2020 8:35:12 PM |
| 4 | 8.790 | 3.493mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/17/2020 8:37:16 PM |

Mean Area 8.787
Mean Conc. 3.492mg/L




Sample

Sample Name: 280-134268-D-3-A
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

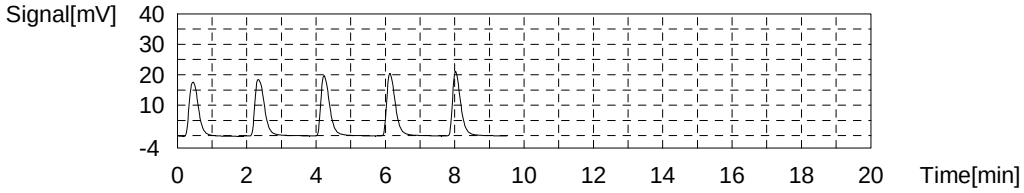
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:14.38mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 33.43 | 13.60mg/L | 50uL | 1 | E | TOC3.2020_01_06_16_39_25.cal | 3/17/2020 8:45:47 PM |
| 2 | 35.51 | 14.45mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/17/2020 8:47:51 PM |
| 3 | 35.04 | 14.26mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/17/2020 8:49:55 PM |
| 4 | 35.76 | 14.55mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/17/2020 8:51:59 PM |
| 5 | 35.05 | 14.26mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/17/2020 8:54:03 PM |

Mean Area 35.34
Mean Conc. 14.38mg/L




Sample

Sample Name: 280-134268-D-4-A
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

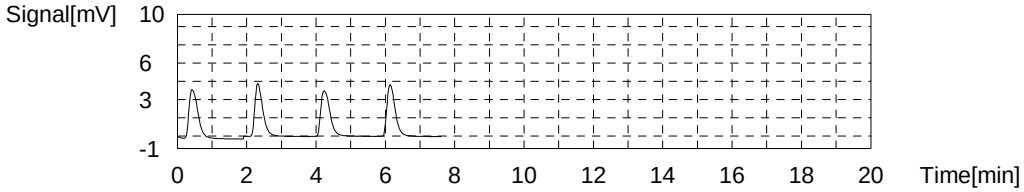
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:2.750mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 7.101 | 2.801mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/17/2020 9:02:33 PM |
| 2 | 6.929 | 2.730mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/17/2020 9:04:37 PM |
| 3 | 6.841 | 2.694mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/17/2020 9:06:41 PM |
| 4 | 7.035 | 2.774mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/17/2020 9:08:45 PM |

Mean Area 6.977
Mean Conc. 2.750mg/L




Sample

Sample Name: 280-134268-D-5-A
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

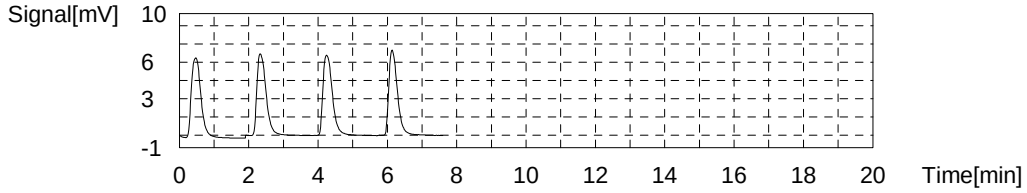
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:4.961mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 12.61 | 5.059mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/17/2020 9:17:16 PM |
| 2 | 12.35 | 4.953mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/17/2020 9:19:20 PM |
| 3 | 12.43 | 4.986mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/17/2020 9:21:24 PM |
| 4 | 12.09 | 4.846mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/17/2020 9:23:28 PM |

Mean Area 12.37
Mean Conc. 4.961mg/L




Sample

Sample Name: 280-134268-D-7-A
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

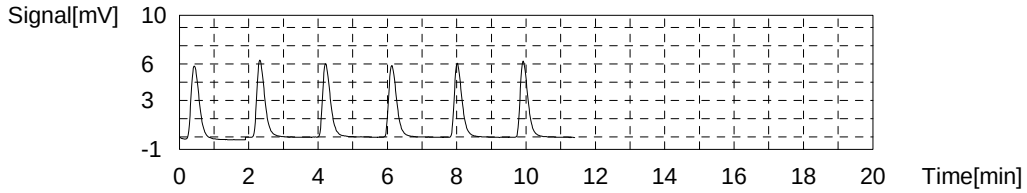
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:3.816mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 10.03 | 4.001mg/L | 50uL | 1 | E | TOC3.2020_01_06_16_39_25.cal | 3/17/2020 9:31:59 PM |
| 2 | 10.19 | 4.067mg/L | 50uL | 1 | E | TOC3.2020_01_06_16_39_25.cal | 3/17/2020 9:34:03 PM |
| 3 | 9.577 | 3.816mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/17/2020 9:36:07 PM |
| 4 | 9.570 | 3.813mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/17/2020 9:38:11 PM |
| 5 | 9.461 | 3.768mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/17/2020 9:40:15 PM |
| 6 | 9.699 | 3.866mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/17/2020 9:42:19 PM |

Mean Area 9.577
Mean Conc. 3.816mg/L




Sample

Sample Name: ccv
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

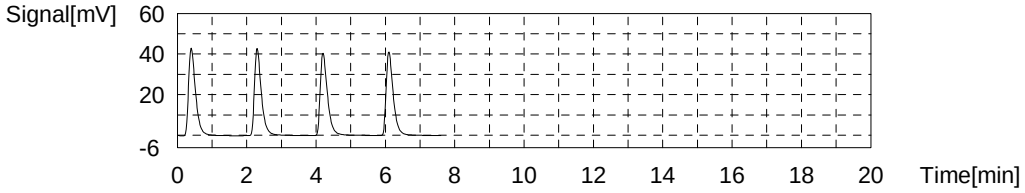
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:24.48mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 61.59 | 25.14mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/17/2020 9:50:44 PM |
| 2 | 59.86 | 24.43mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/17/2020 9:52:48 PM |
| 3 | 59.56 | 24.31mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/17/2020 9:54:52 PM |
| 4 | 58.87 | 24.03mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/17/2020 9:56:56 PM |

Mean Area 59.97
Mean Conc. 24.48mg/L




Sample

Sample Name: ccb
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

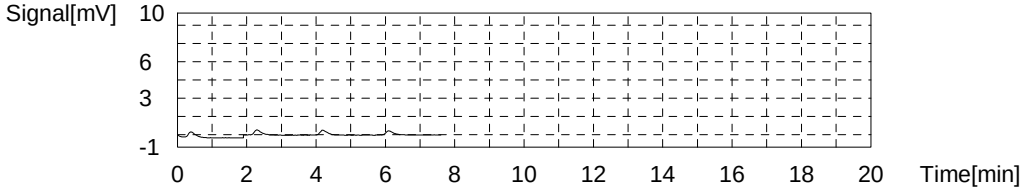
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:0.1085mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 0.5627 | 0.1198mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/17/2020 10:05:27 PM |
| 2 | 0.5676 | 0.1219mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/17/2020 10:07:31 PM |
| 3 | 0.5391 | 0.1102mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/17/2020 10:09:35 PM |
| 4 | 0.4709 | 0.08221mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/17/2020 10:11:39 PM |

Mean Area 0.5351
Mean Conc. 0.1085mg/L




Sample

Sample Name: 280-134268-D-8-A
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

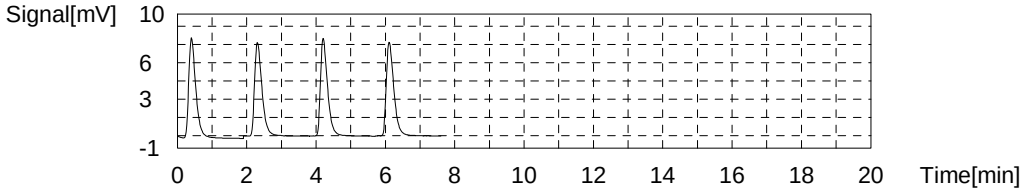
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:4.613mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 11.64 | 4.662mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/17/2020 10:20:10 PM |
| 2 | 11.48 | 4.596mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/17/2020 10:22:14 PM |
| 3 | 11.39 | 4.559mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/17/2020 10:24:18 PM |
| 4 | 11.58 | 4.637mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/17/2020 10:26:22 PM |

Mean Area 11.52
Mean Conc. 4.613mg/L




Sample

Sample Name: 280-134268-D-9-A
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

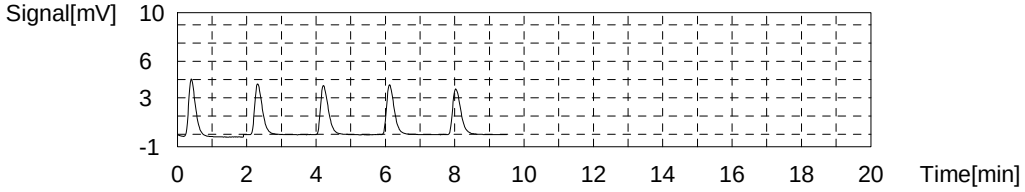
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:2.470mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 6.611 | 2.600mg/L | 50uL | 1 | E | TOC3.2020_01_06_16_39_25.cal | 3/17/2020 10:34:53 PM |
| 2 | 6.371 | 2.501mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/17/2020 10:36:57 PM |
| 3 | 6.330 | 2.484mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/17/2020 10:39:01 PM |
| 4 | 6.259 | 2.455mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/17/2020 10:41:05 PM |
| 5 | 6.216 | 2.438mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/17/2020 10:43:09 PM |

Mean Area 6.294
Mean Conc. 2.470mg/L




Sample

Sample Name: 280-134268-D-10-A
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

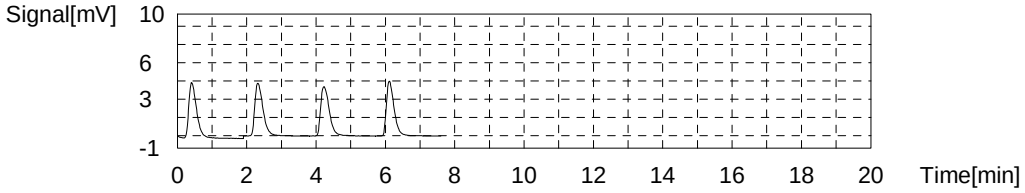
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:2.752mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 6.955 | 2.741mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/17/2020 10:51:39 PM |
| 2 | 7.118 | 2.808mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/17/2020 10:53:43 PM |
| 3 | 6.938 | 2.734mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/17/2020 10:55:47 PM |
| 4 | 6.916 | 2.725mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/17/2020 10:57:51 PM |

Mean Area 6.982
Mean Conc. 2.752mg/L




Sample

Sample Name: 280-134297-D-1-A
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

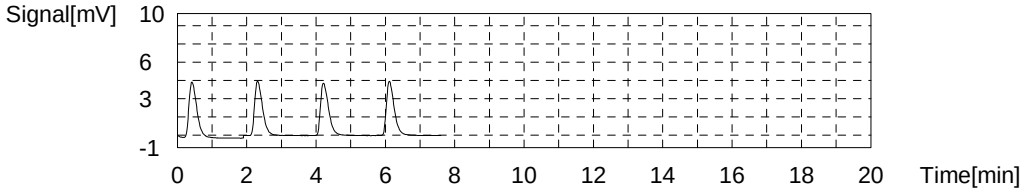
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:2.777mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 7.205 | 2.843mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/17/2020 11:06:22 PM |
| 2 | 7.105 | 2.802mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/17/2020 11:08:26 PM |
| 3 | 6.904 | 2.720mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/17/2020 11:10:30 PM |
| 4 | 6.956 | 2.741mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/17/2020 11:12:34 PM |

Mean Area 7.042
Mean Conc. 2.777mg/L




Sample

Sample Name: 280-134297-D-1-B MS
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

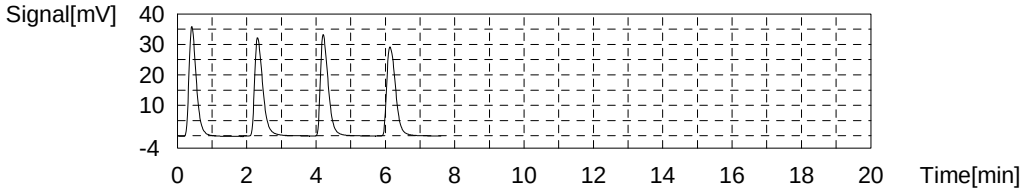
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:21.69mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 53.98 | 22.02mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/17/2020 11:21:05 PM |
| 2 | 53.57 | 21.85mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/17/2020 11:23:09 PM |
| 3 | 52.63 | 21.47mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/17/2020 11:25:13 PM |
| 4 | 52.49 | 21.41mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/17/2020 11:27:17 PM |

Mean Area 53.17
Mean Conc. 21.69mg/L




Sample

Sample Name: 280-134297-D-1-C MSD
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

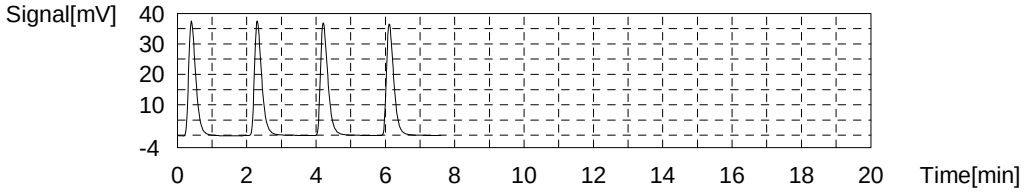
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:22.44mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 54.95 | 22.42mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/17/2020 11:35:48 PM |
| 2 | 55.39 | 22.60mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/17/2020 11:37:52 PM |
| 3 | 55.50 | 22.64mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/17/2020 11:39:56 PM |
| 4 | 54.18 | 22.10mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/17/2020 11:42:00 PM |

Mean Area 55.01
Mean Conc. 22.44mg/L




Sample

Sample Name: 280-134297-D-2-A
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

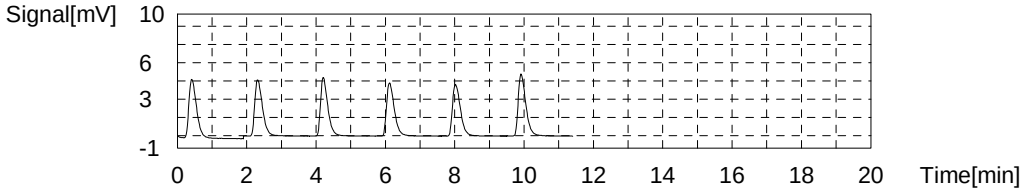
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:2.733mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 7.414 | 2.929mg/L | 50uL | 1 | E | TOC3.2020_01_06_16_39_25.cal | 3/17/2020 11:50:31 PM |
| 2 | 7.151 | 2.821mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/17/2020 11:52:35 PM |
| 3 | 7.017 | 2.766mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/17/2020 11:54:39 PM |
| 4 | 6.783 | 2.670mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/17/2020 11:56:43 PM |
| 5 | 6.792 | 2.674mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/17/2020 11:58:47 PM |
| 6 | 7.796 | 3.086mg/L | 50uL | 1 | E | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 12:00:51 AM |

Mean Area 6.936
Mean Conc. 2.733mg/L




Sample

Sample Name: 280-134297-D-3-A
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

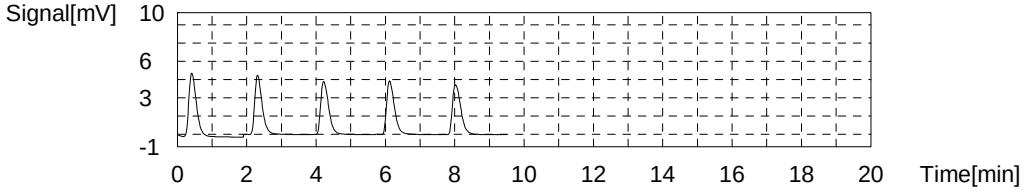
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:2.754mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 7.851 | 3.108mg/L | 50uL | 1 | E | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 12:09:16 AM |
| 2 | 7.180 | 2.833mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 12:11:20 AM |
| 3 | 6.908 | 2.721mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 12:13:24 AM |
| 4 | 6.895 | 2.716mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 12:15:28 AM |
| 5 | 6.964 | 2.744mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 12:17:32 AM |

Mean Area 6.987
Mean Conc. 2.754mg/L




Sample

Sample Name: 280-134297-D-4-A
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

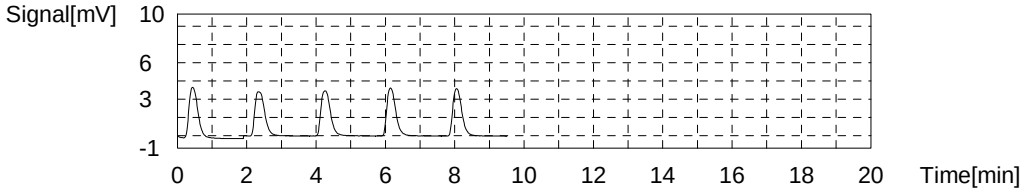
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:2.760mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 7.347 | 2.901mg/L | 50uL | 1 | E | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 12:26:02 AM |
| 2 | 7.073 | 2.789mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 12:28:06 AM |
| 3 | 6.993 | 2.756mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 12:30:10 AM |
| 4 | 6.957 | 2.742mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 12:32:14 AM |
| 5 | 6.987 | 2.754mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 12:34:18 AM |

Mean Area 7.003
Mean Conc. 2.760mg/L




Sample

Sample Name: 280-134297-D-5-A
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

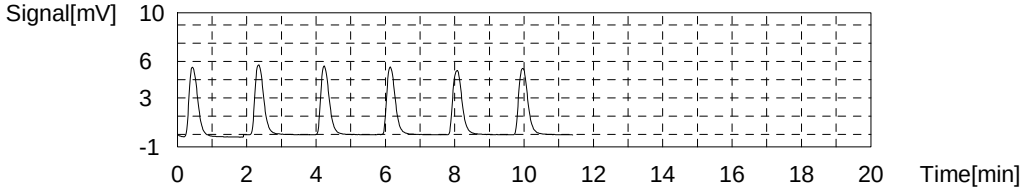
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:3.979mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 9.985 | 3.983mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 12:42:48 AM |
| 2 | 10.07 | 4.018mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 12:44:52 AM |
| 3 | 9.530 | 3.796mg/L | 50uL | 1 | E | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 12:46:56 AM |
| 4 | 9.478 | 3.775mg/L | 50uL | 1 | E | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 12:49:00 AM |
| 5 | 9.884 | 3.942mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 12:51:04 AM |
| 6 | 9.962 | 3.974mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 12:53:08 AM |

Mean Area 9.975
Mean Conc. 3.979mg/L




Sample

Sample Name: ccv
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

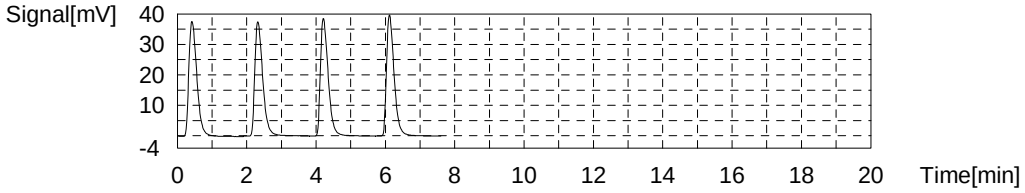
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:24.73mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 61.21 | 24.99mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 1:01:33 AM |
| 2 | 60.07 | 24.52mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 1:03:37 AM |
| 3 | 60.22 | 24.58mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 1:05:41 AM |
| 4 | 60.89 | 24.85mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 1:07:45 AM |

Mean Area 60.60
Mean Conc. 24.73mg/L




Sample

Sample Name: ccb
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

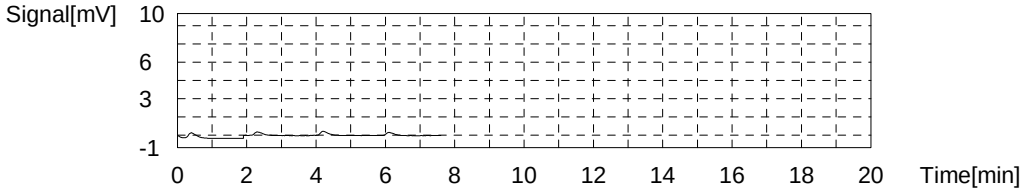
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:0.08632mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 0.5831 | 0.1282mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 1:16:17 AM |
| 2 | 0.4485 | 0.07302mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 1:18:21 AM |
| 3 | 0.4903 | 0.09016mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 1:20:25 AM |
| 4 | 0.4018 | 0.05388mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 1:22:29 AM |

Mean Area 0.4809
Mean Conc. 0.08632mg/L




Sample

Sample Name: 280-134297-D-6-A
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

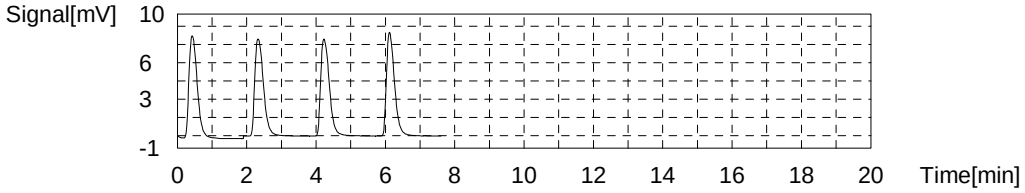
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:5.572mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 14.02 | 5.637mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 1:31:00 AM |
| 2 | 13.96 | 5.613mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 1:33:04 AM |
| 3 | 13.75 | 5.527mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 1:35:08 AM |
| 4 | 13.71 | 5.510mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 1:37:12 AM |

Mean Area 13.86
Mean Conc. 5.572mg/L




Sample

Sample Name: 280-134297-D-7-A
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

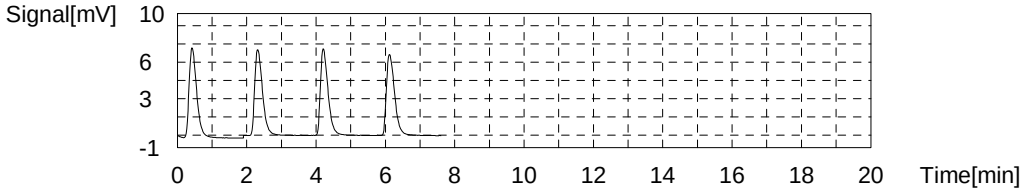
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:4.412mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 11.29 | 4.518mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 1:45:43 AM |
| 2 | 11.09 | 4.436mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 1:47:47 AM |
| 3 | 10.85 | 4.338mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 1:49:51 AM |
| 4 | 10.89 | 4.354mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 1:51:55 AM |

Mean Area 11.03
Mean Conc. 4.412mg/L




Sample

Sample Name: 280-134297-D-8-A
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

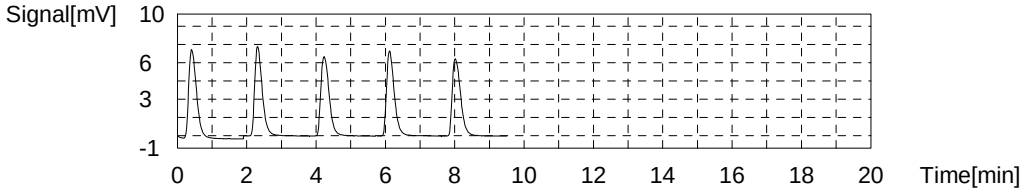
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:4.354mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 11.45 | 4.584mg/L | 50uL | 1 | E | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 2:00:27 AM |
| 2 | 11.18 | 4.473mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 2:02:31 AM |
| 3 | 10.87 | 4.346mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 2:04:35 AM |
| 4 | 10.77 | 4.305mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 2:06:39 AM |
| 5 | 10.74 | 4.293mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 2:08:43 AM |

Mean Area 10.89
Mean Conc. 4.354mg/L




Sample

Sample Name: 280-134297-D-9-A
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

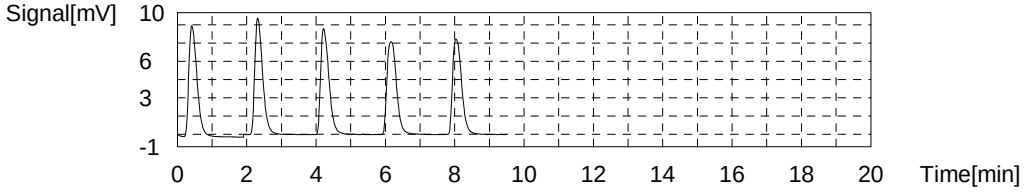
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:5.870mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 14.91 | 6.002mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 2:17:14 AM |
| 2 | 15.15 | 6.101mg/L | 50uL | 1 | E | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 2:19:18 AM |
| 3 | 14.49 | 5.830mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 2:21:22 AM |
| 4 | 14.59 | 5.871mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 2:23:26 AM |
| 5 | 14.36 | 5.777mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 2:25:30 AM |

Mean Area 14.59
Mean Conc. 5.870mg/L




Sample

Sample Name: 280-134177-F-2-A
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

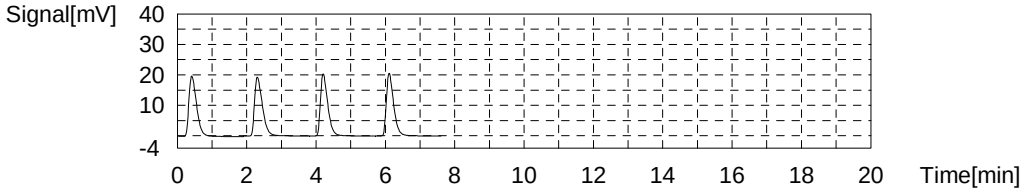
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 2.000 | NPOC:24.73mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 30.92 | 25.13mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 2:34:01 AM |
| 2 | 30.72 | 24.97mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 2:36:05 AM |
| 3 | 30.04 | 24.41mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 2:38:09 AM |
| 4 | 30.05 | 24.42mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 2:40:13 AM |

Mean Area 30.43
Mean Conc. 24.73mg/L




Sample

Sample Name: LCS 280-488988/27-A
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

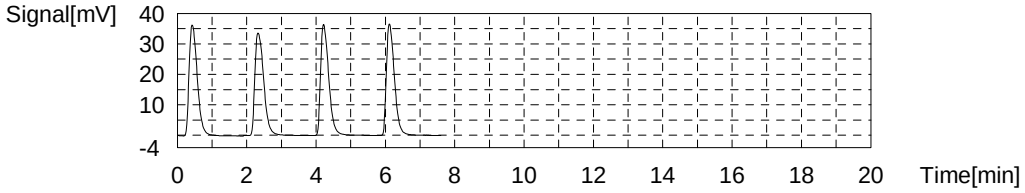
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:24.46mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 60.44 | 24.67mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 2:48:45 AM |
| 2 | 60.13 | 24.54mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 2:50:49 AM |
| 3 | 59.98 | 24.48mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 2:52:53 AM |
| 4 | 59.15 | 24.14mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 2:54:57 AM |

Mean Area 59.93
Mean Conc. 24.46mg/L




Sample

Sample Name: MB 280-488988/28-A
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

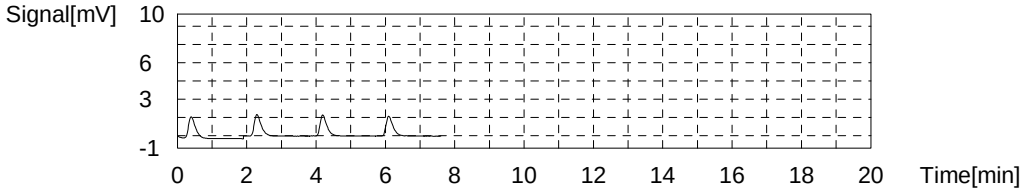
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:0.8461mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 2.365 | 0.8588mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 3:03:29 AM |
| 2 | 2.436 | 0.8879mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 3:05:33 AM |
| 3 | 2.307 | 0.8350mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 3:07:37 AM |
| 4 | 2.228 | 0.8026mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 3:09:41 AM |

Mean Area 2.334
Mean Conc. 0.8461mg/L




Sample

Sample Name: tic
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

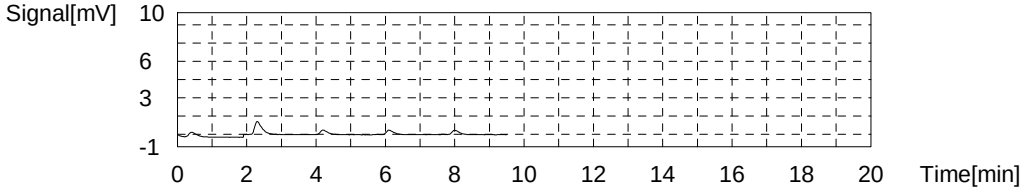
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:0.1001mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 0.5228 | 0.1035mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 3:18:13 AM |
| 2 | 1.575 | 0.5349mg/L | 50uL | 1 | E | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 3:20:17 AM |
| 3 | 0.5391 | 0.1102mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 3:22:21 AM |
| 4 | 0.5184 | 0.1017mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 3:24:25 AM |
| 5 | 0.4777 | 0.08499mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 3:26:29 AM |

Mean Area 0.5145
Mean Conc. 0.1001mg/L




Sample

Sample Name: 280-134297-D-10-A
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

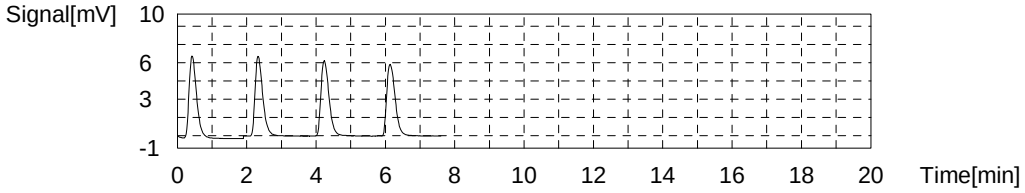
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:4.014mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 10.23 | 4.083mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 3:35:00 AM |
| 2 | 10.07 | 4.018mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 3:37:04 AM |
| 3 | 10.02 | 3.997mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 3:39:08 AM |
| 4 | 9.926 | 3.959mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 3:41:12 AM |

Mean Area 10.06
Mean Conc. 4.014mg/L




Sample

Sample Name: 280-134297-D-10-B MS
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

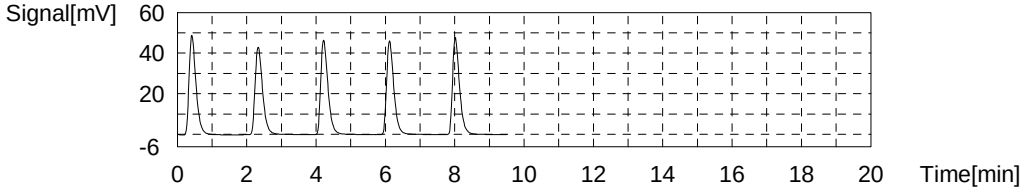
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:27.72mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 69.30 | 28.30mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 3:49:44 AM |
| 2 | 65.45 | 26.72mg/L | 50uL | 1 | E | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 3:51:48 AM |
| 3 | 67.82 | 27.70mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 3:53:52 AM |
| 4 | 66.89 | 27.31mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 3:55:56 AM |
| 5 | 67.51 | 27.57mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 3:58:00 AM |

Mean Area 67.88
Mean Conc. 27.72mg/L




Sample

Sample Name: ccv
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

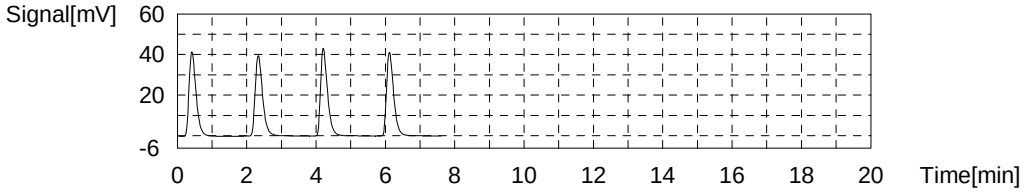
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:24.32mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 59.40 | 24.24mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 4:06:31 AM |
| 2 | 59.46 | 24.27mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 4:08:35 AM |
| 3 | 60.34 | 24.63mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 4:10:39 AM |
| 4 | 59.15 | 24.14mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 4:12:43 AM |

Mean Area 59.59
Mean Conc. 24.32mg/L




Sample

Sample Name: ccb
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

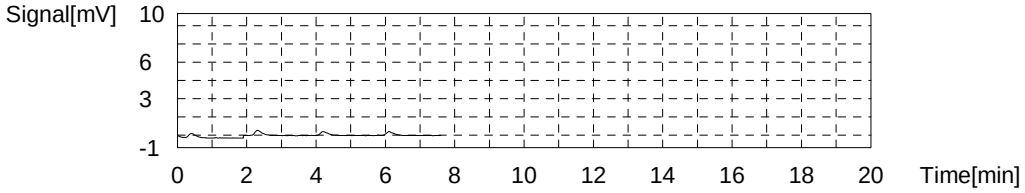
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:0.08924mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 0.4797 | 0.08581mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 4:21:15 AM |
| 2 | 0.5796 | 0.1268mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 4:23:19 AM |
| 3 | 0.4645 | 0.07958mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 4:25:23 AM |
| 4 | 0.4284 | 0.06478mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 4:27:27 AM |

Mean Area 0.4880
Mean Conc. 0.08924mg/L




Sample

Sample Name: 280-134297-D-10-C MSD
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

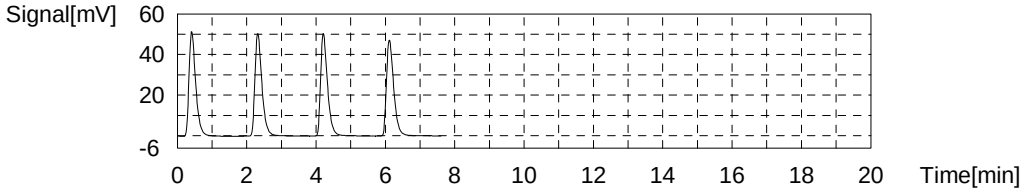
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:28.73mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 70.51 | 28.80mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 4:35:59 AM |
| 2 | 71.52 | 29.21mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 4:38:03 AM |
| 3 | 69.94 | 28.56mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 4:40:07 AM |
| 4 | 69.42 | 28.35mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 4:42:11 AM |

Mean Area 70.35
Mean Conc. 28.73mg/L




Sample

Sample Name: 280-134297-D-11-A
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

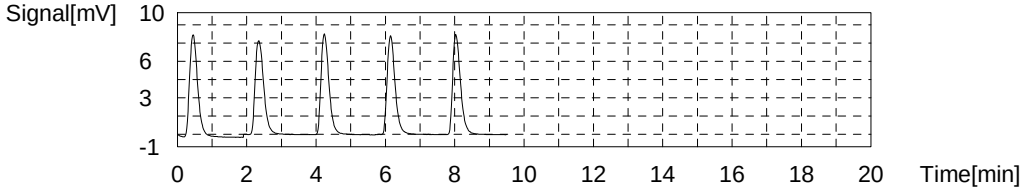
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:5.267mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 13.62 | 5.473mg/L | 50uL | 1 | E | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 4:50:43 AM |
| 2 | 13.21 | 5.305mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 4:52:47 AM |
| 3 | 13.22 | 5.309mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 4:54:51 AM |
| 4 | 12.98 | 5.211mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 4:56:55 AM |
| 5 | 13.06 | 5.244mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 4:58:59 AM |

Mean Area 13.12
Mean Conc. 5.267mg/L




Sample

Sample Name: 280-134297-D-12-A
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

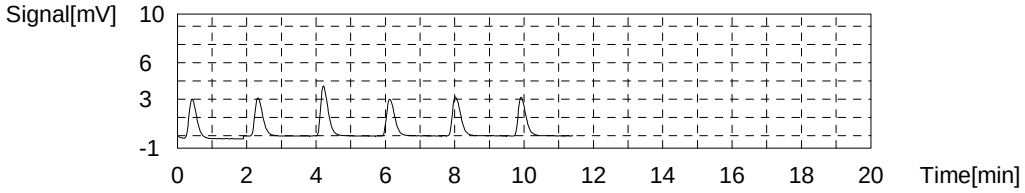
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:1.931mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 5.029 | 1.951mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 5:07:30 AM |
| 2 | 5.048 | 1.959mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 5:09:34 AM |
| 3 | 6.187 | 2.426mg/L | 50uL | 1 | E | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 5:11:38 AM |
| 4 | 4.943 | 1.916mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 5:13:42 AM |
| 5 | 5.315 | 2.068mg/L | 50uL | 1 | E | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 5:15:46 AM |
| 6 | 4.903 | 1.899mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 5:17:50 AM |

Mean Area 4.981
Mean Conc. 1.931mg/L




Sample

Sample Name: 280-134297-D-13-A
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

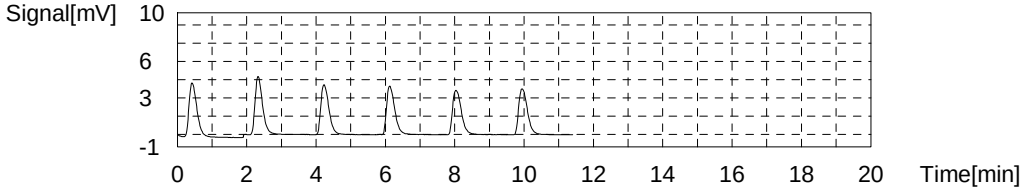
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:2.576mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 7.017 | 2.766mg/L | 50uL | 1 | E | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 5:26:15 AM |
| 2 | 7.211 | 2.846mg/L | 50uL | 1 | E | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 5:28:19 AM |
| 3 | 6.669 | 2.623mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 5:30:23 AM |
| 4 | 6.497 | 2.553mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 5:32:27 AM |
| 5 | 6.454 | 2.535mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 5:34:31 AM |
| 6 | 6.595 | 2.593mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 5:36:35 AM |

Mean Area 6.554
Mean Conc. 2.576mg/L




Sample

Sample Name: 280-134297-D-14-A
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

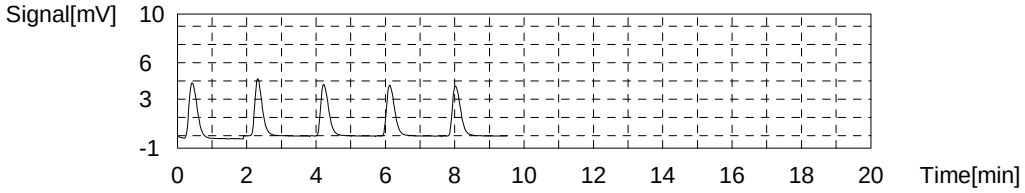
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:2.690mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 7.455 | 2.946mg/L | 50uL | 1 | E | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 5:45:00 AM |
| 2 | 7.023 | 2.769mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 5:47:04 AM |
| 3 | 6.777 | 2.668mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 5:49:08 AM |
| 4 | 6.748 | 2.656mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 5:51:12 AM |
| 5 | 6.780 | 2.669mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 5:53:16 AM |

Mean Area 6.832
Mean Conc. 2.690mg/L




Sample

Sample Name: 280-134297-D-15-A
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

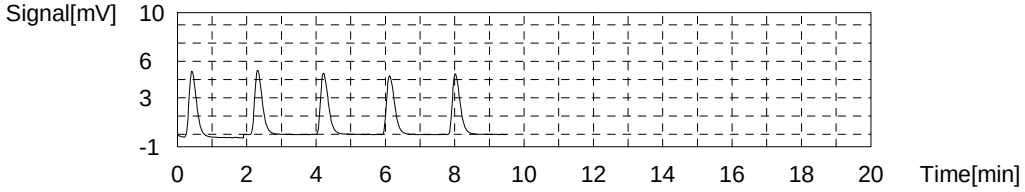
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:3.125mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 8.163 | 3.236mg/L | 50uL | 1 | E | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 6:01:47 AM |
| 2 | 8.079 | 3.202mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 6:03:51 AM |
| 3 | 7.908 | 3.131mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 6:05:55 AM |
| 4 | 7.767 | 3.074mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 6:07:59 AM |
| 5 | 7.812 | 3.092mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 6:10:03 AM |

Mean Area 7.892
Mean Conc. 3.125mg/L




Sample

Sample Name: 280-134297-D-16-A
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

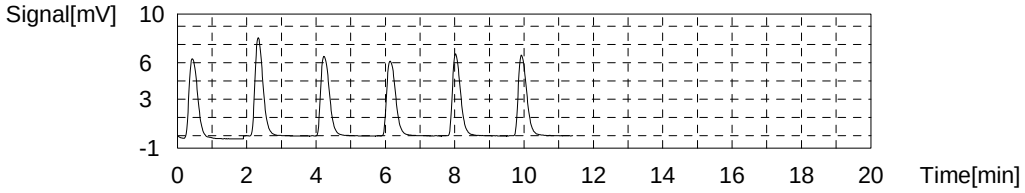
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:4.503mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 11.38 | 4.555mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 6:18:34 AM |
| 2 | 12.99 | 5.215mg/L | 50uL | 1 | E | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 6:20:38 AM |
| 3 | 11.41 | 4.567mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 6:22:42 AM |
| 4 | 11.04 | 4.416mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 6:24:46 AM |
| 5 | 10.86 | 4.342mg/L | 50uL | 1 | E | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 6:26:50 AM |
| 6 | 11.18 | 4.473mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 6:28:54 AM |

Mean Area 11.25
Mean Conc. 4.503mg/L




Sample

Sample Name: 280-134297-D-17-A
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

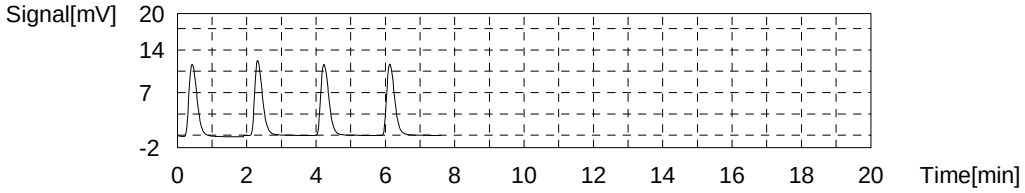
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:7.762mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 19.47 | 7.872mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 6:37:19 AM |
| 2 | 19.36 | 7.827mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 6:39:23 AM |
| 3 | 19.10 | 7.720mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 6:41:27 AM |
| 4 | 18.88 | 7.630mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 6:43:31 AM |

Mean Area 19.20
Mean Conc. 7.762mg/L




Sample

Sample Name: 280-134297-D-18-A
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

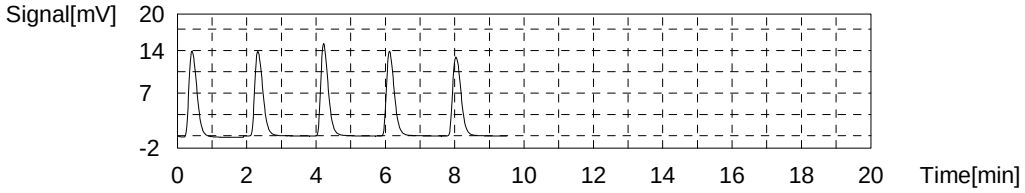
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:9.216mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 22.99 | 9.315mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 6:52:03 AM |
| 2 | 22.86 | 9.262mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 6:54:07 AM |
| 3 | 23.00 | 9.319mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 6:56:11 AM |
| 4 | 21.96 | 8.893mg/L | 50uL | 1 | E | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 6:58:15 AM |
| 5 | 22.14 | 8.967mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 7:00:19 AM |

Mean Area 22.75
Mean Conc. 9.216mg/L




Sample

Sample Name: ccv
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

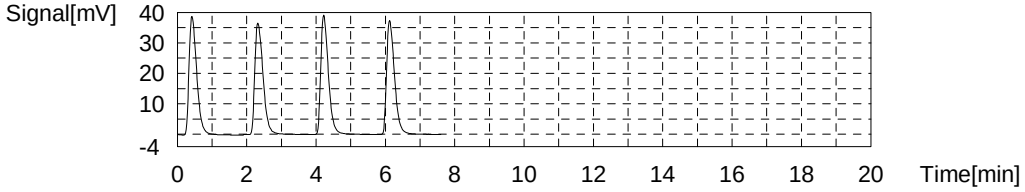
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:24.67mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 61.10 | 24.94mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 7:08:50 AM |
| 2 | 60.89 | 24.85mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 7:10:54 AM |
| 3 | 60.19 | 24.57mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 7:12:58 AM |
| 4 | 59.56 | 24.31mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 7:15:02 AM |

Mean Area 60.44
Mean Conc. 24.67mg/L




Sample

Sample Name: ccb
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

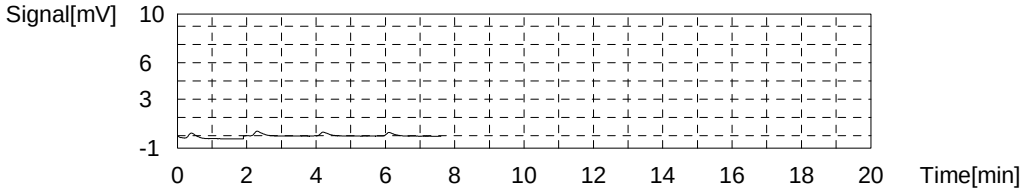
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:0.1070mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 0.6039 | 0.1367mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 7:23:34 AM |
| 2 | 0.5890 | 0.1306mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 7:25:38 AM |
| 3 | 0.4856 | 0.08823mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 7:27:42 AM |
| 4 | 0.4473 | 0.07253mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 7:29:46 AM |

Mean Area 0.5314
Mean Conc. 0.1070mg/L




Sample

Sample Name: lcs
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

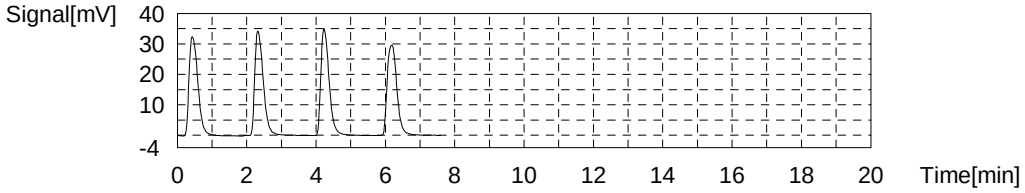
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:23.84mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 58.52 | 23.88mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 7:38:18 AM |
| 2 | 58.83 | 24.01mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 7:40:22 AM |
| 3 | 58.27 | 23.78mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 7:42:26 AM |
| 4 | 58.01 | 23.67mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 7:44:30 AM |

Mean Area 58.41
Mean Conc. 23.84mg/L




Sample

Sample Name: mb
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

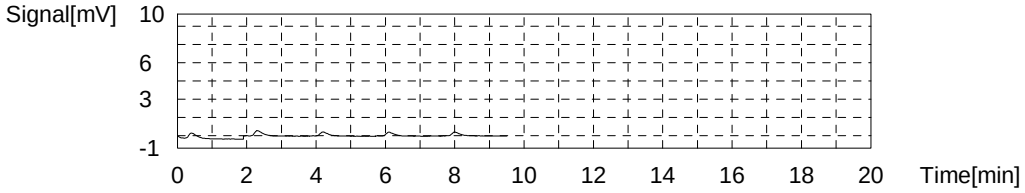
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:0.09847mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 0.6336 | 0.1489mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 7:53:02 AM |
| 2 | 0.6946 | 0.1739mg/L | 50uL | 1 | E | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 7:55:06 AM |
| 3 | 0.4835 | 0.08737mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 7:57:10 AM |
| 4 | 0.4744 | 0.08364mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 7:59:14 AM |
| 5 | 0.4508 | 0.07397mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 8:01:18 AM |

Mean Area 0.5106
Mean Conc. 0.09847mg/L




Sample

Sample Name: 280-134483-B-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

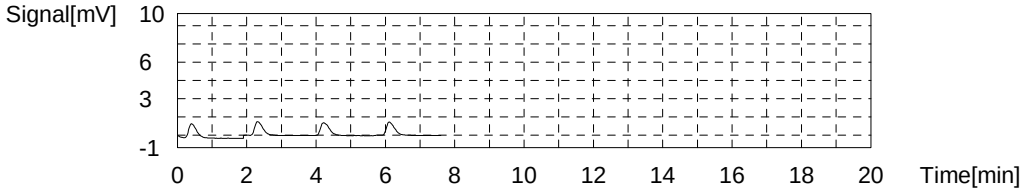
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:0.6311mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 1.771 | 0.6153mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 8:09:49 AM |
| 2 | 1.838 | 0.6427mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 8:11:53 AM |
| 3 | 1.867 | 0.6546mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 8:13:57 AM |
| 4 | 1.763 | 0.6120mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 8:16:01 AM |

Mean Area 1.810
Mean Conc. 0.6311mg/L




Sample

Sample Name: ms 280-134483-B-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

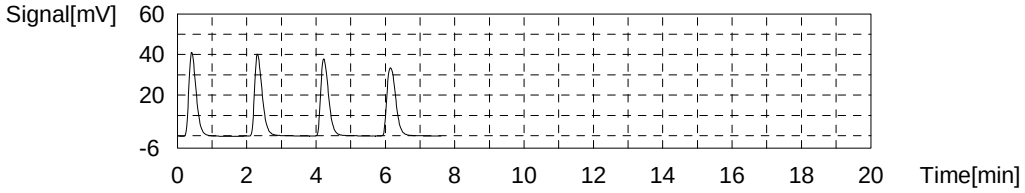
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:25.04mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 61.84 | 25.24mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 8:24:34 AM |
| 2 | 62.45 | 25.49mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 8:26:38 AM |
| 3 | 60.49 | 24.69mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 8:28:42 AM |
| 4 | 60.63 | 24.75mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 8:30:46 AM |

Mean Area 61.35
Mean Conc. 25.04mg/L




Sample

Sample Name: msd 280-134483-B-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

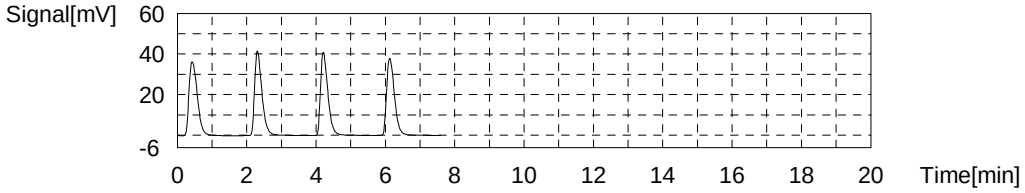
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:24.96mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 61.94 | 25.28mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 8:39:19 AM |
| 2 | 61.66 | 25.17mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 8:41:23 AM |
| 3 | 60.73 | 24.79mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 8:43:27 AM |
| 4 | 60.27 | 24.60mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 8:45:31 AM |

Mean Area 61.15
Mean Conc. 24.96mg/L




Sample

Sample Name: 280-134483-B-2
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

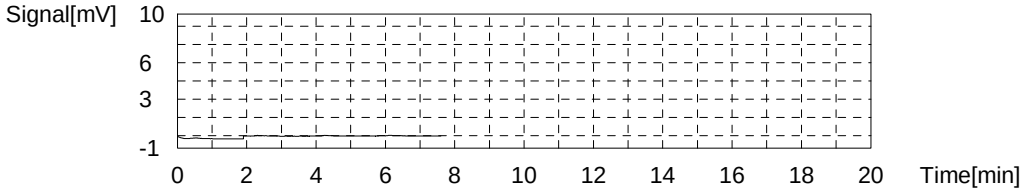
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:-0.1109mg/L |

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 | 3/18/2020 8:54:04 AM |
| 2 | 0.000 | -0.1109mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 8:56:08 AM |
| 3 | 0.000 | -0.1109mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 8:58:12 AM |
| 4 | 0.000 | -0.1109mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 9:00:16 AM |

Mean Area 0.000
Mean Conc. -0.1109mg/L




Sample

Sample Name: 280-134484-C-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

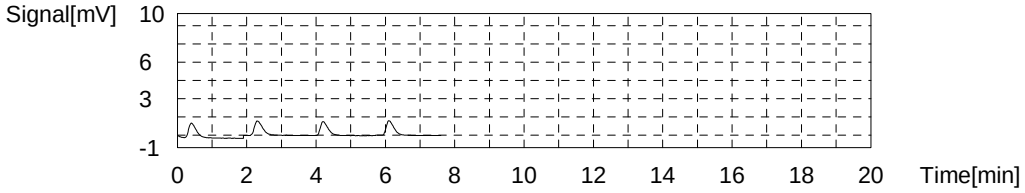
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:0.6327mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 1.798 | 0.6263mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 9:08:49 AM |
| 2 | 1.911 | 0.6727mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 9:10:53 AM |
| 3 | 1.695 | 0.5841mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 9:12:57 AM |
| 4 | 1.850 | 0.6476mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 9:15:01 AM |

Mean Area 1.813
Mean Conc. 0.6327mg/L




Sample

Sample Name: 280-134484-C-2
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

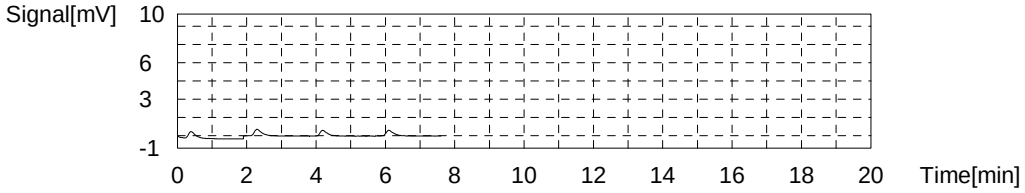
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:0.1766mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 0.6995 | 0.1759mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 9:24:02 AM |
| 2 | 0.7871 | 0.2119mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 9:26:06 AM |
| 3 | 0.6551 | 0.1577mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 9:28:10 AM |
| 4 | 0.6630 | 0.1610mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 9:30:14 AM |

Mean Area 0.7012
Mean Conc. 0.1766mg/L




Sample

Sample Name: 280-134254-C-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

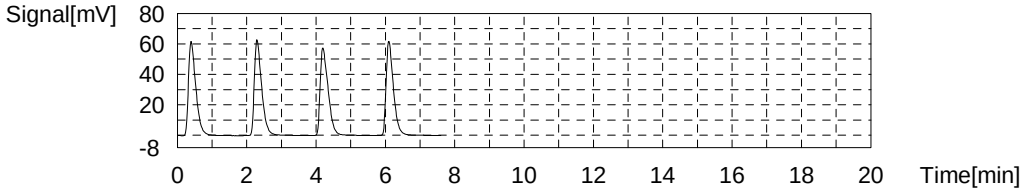
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 5.000 | NPOC:188.5mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 92.42 | 188.9mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 9:38:47 AM |
| 2 | 93.59 | 191.3mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 9:40:51 AM |
| 3 | 91.88 | 187.8mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 9:42:55 AM |
| 4 | 90.99 | 186.0mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 9:44:59 AM |

Mean Area 92.22
Mean Conc. 188.5mg/L




Sample

Sample Name: 280-134125-J-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

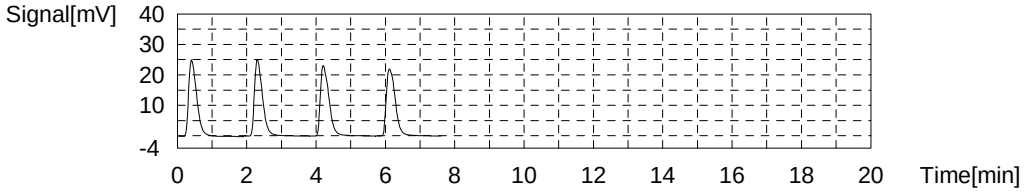
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 5.000 | NPOC:82.24mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 41.02 | 83.54mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 9:53:32 AM |
| 2 | 40.68 | 82.84mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 9:55:36 AM |
| 3 | 40.01 | 81.47mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 9:57:40 AM |
| 4 | 39.83 | 81.10mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 9:59:44 AM |

Mean Area 40.39
Mean Conc. 82.24mg/L




Sample

Sample Name: 240-127155-A-1
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

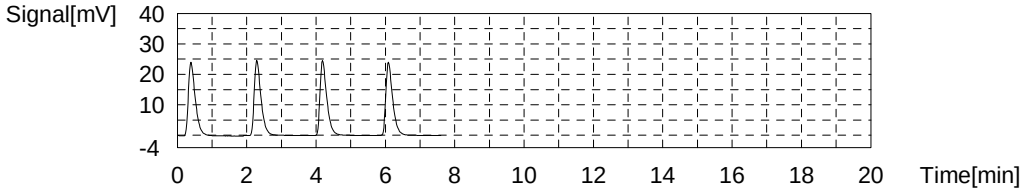
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:13.73mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 34.04 | 13.85mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 10:08:17 AM |
| 2 | 33.99 | 13.83mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 10:10:21 AM |
| 3 | 33.76 | 13.73mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 10:12:25 AM |
| 4 | 33.26 | 13.53mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 10:14:29 AM |

Mean Area 33.76
Mean Conc. 13.73mg/L




Sample

Sample Name: ccv
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

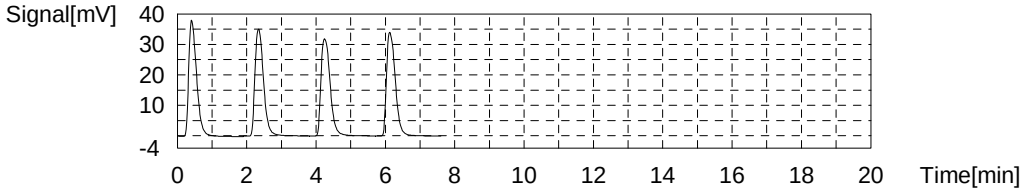
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:24.54mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 60.68 | 24.77mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 10:23:02 AM |
| 2 | 60.64 | 24.75mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 10:25:06 AM |
| 3 | 59.11 | 24.12mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 10:27:10 AM |
| 4 | 60.08 | 24.52mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 10:29:14 AM |

Mean Area 60.13
Mean Conc. 24.54mg/L




Sample

Sample Name: ccb
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

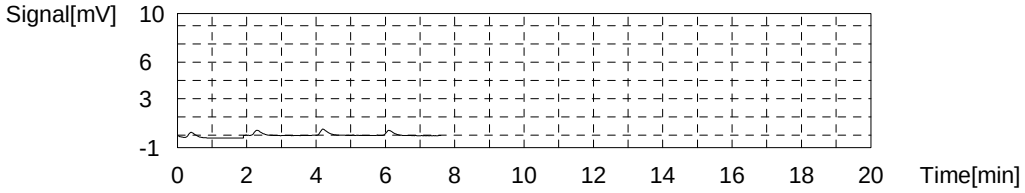
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:0.1387mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 0.5396 | 0.1104mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 10:37:47 AM |
| 2 | 0.6049 | 0.1371mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 10:39:51 AM |
| 3 | 0.6930 | 0.1733mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 10:41:55 AM |
| 4 | 0.5974 | 0.1341mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 10:43:59 AM |

Mean Area 0.6087
Mean Conc. 0.1387mg/L




Sample

Sample Name: 280-134103-H-4
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

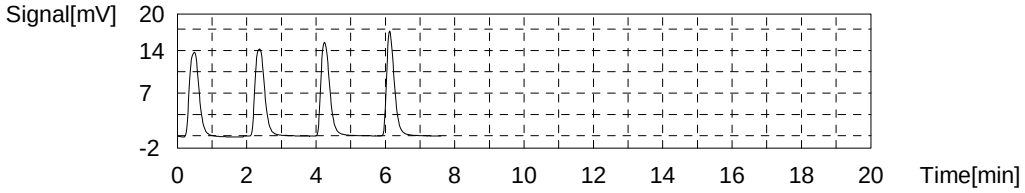
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 20.00 | NPOC:222.1mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 27.33 | 221.9mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 10:52:32 AM |
| 2 | 27.83 | 226.0mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 10:54:36 AM |
| 3 | 27.34 | 222.0mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 10:56:40 AM |
| 4 | 26.90 | 218.4mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 10:58:44 AM |

Mean Area 27.35
Mean Conc. 222.1mg/L




Sample

Sample Name: LCS 280-488988/40-A
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

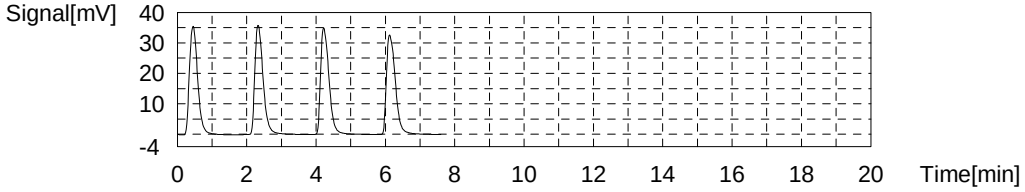
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:24.24mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 59.90 | 24.45mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 11:07:17 AM |
| 2 | 59.94 | 24.46mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 11:09:21 AM |
| 3 | 58.99 | 24.08mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 11:11:25 AM |
| 4 | 58.69 | 23.95mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 11:13:29 AM |

Mean Area 59.38
Mean Conc. 24.24mg/L




Sample

Sample Name: MB 280-488988/41-A
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

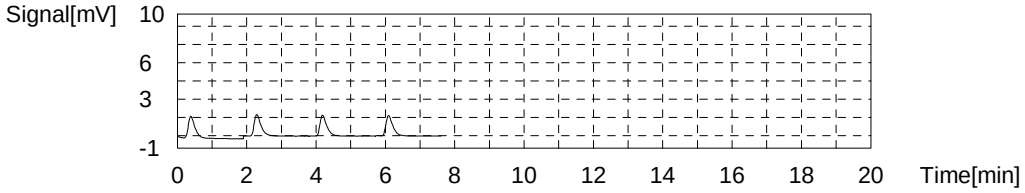
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:0.8474mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 2.278 | 0.8231mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 11:22:02 AM |
| 2 | 2.417 | 0.8801mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 11:24:06 AM |
| 3 | 2.353 | 0.8539mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 11:26:10 AM |
| 4 | 2.301 | 0.8326mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 11:28:14 AM |

Mean Area 2.337
Mean Conc. 0.8474mg/L




Sample

Sample Name: 280-134298-A-2-E
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

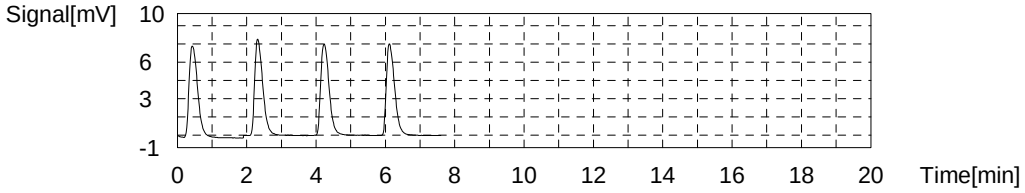
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:5.113mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 12.96 | 5.203mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 11:36:47 AM |
| 2 | 12.88 | 5.170mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 11:38:51 AM |
| 3 | 12.64 | 5.072mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 11:40:55 AM |
| 4 | 12.48 | 5.006mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 11:42:59 AM |

Mean Area 12.74
Mean Conc. 5.113mg/L




Sample

Sample Name: 280-134298-A-2-F MS
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

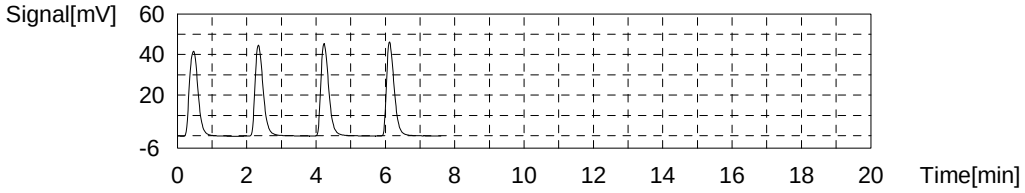
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:29.74mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 74.02 | 30.24mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 11:51:32 AM |
| 2 | 73.37 | 29.97mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 11:53:36 AM |
| 3 | 72.44 | 29.59mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 11:55:40 AM |
| 4 | 71.42 | 29.17mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 11:57:44 AM |

Mean Area 72.81
Mean Conc. 29.74mg/L




Sample

Sample Name: 280-134298-A-2-G MSD
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

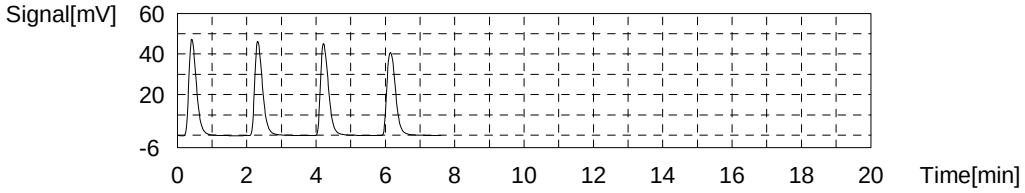
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:29.93mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 73.63 | 30.08mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 12:06:17 PM |
| 2 | 73.61 | 30.07mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 12:08:21 PM |
| 3 | 73.12 | 29.87mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 12:10:25 PM |
| 4 | 72.68 | 29.69mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 12:12:29 PM |

Mean Area 73.26
Mean Conc. 29.93mg/L




Sample

Sample Name: 280-134298-A-1-E
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

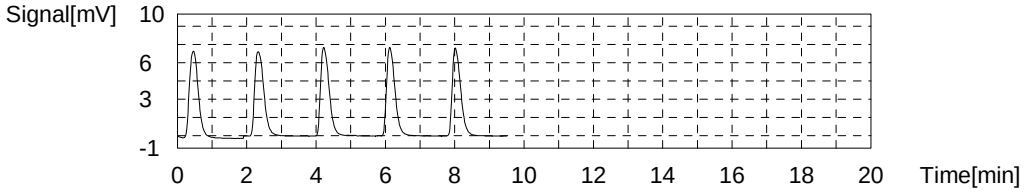
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:5.037mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 12.77 | 5.125mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 12:21:02 PM |
| 2 | 12.69 | 5.092mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 12:23:06 PM |
| 3 | 12.55 | 5.035mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 12:25:10 PM |
| 4 | 12.10 | 4.850mg/L | 50uL | 1 | E | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 12:27:14 PM |
| 5 | 12.21 | 4.895mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 12:29:18 PM |

Mean Area 12.56
Mean Conc. 5.037mg/L




Sample

Sample Name: ccv
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

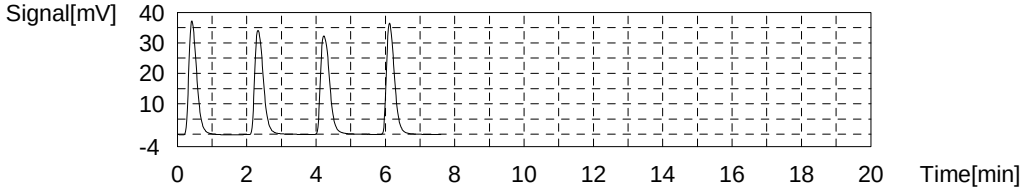
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:24.36mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 60.22 | 24.58mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 12:37:50 PM |
| 2 | 59.82 | 24.42mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 12:39:54 PM |
| 3 | 59.59 | 24.32mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 12:41:58 PM |
| 4 | 59.15 | 24.14mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 12:44:02 PM |

Mean Area 59.70
Mean Conc. 24.36mg/L




Sample

Sample Name: ccb
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

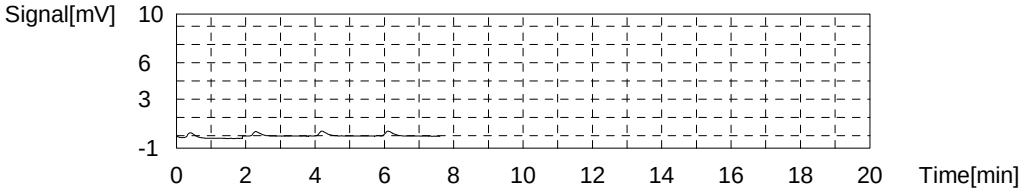
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:0.1282mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 0.6116 | 0.1399mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 12:52:35 PM |
| 2 | 0.5369 | 0.1093mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 12:54:39 PM |
| 3 | 0.5834 | 0.1283mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 12:56:43 PM |
| 4 | 0.6007 | 0.1354mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/18/2020 12:58:47 PM |

| | |
|---|---|
| Mean Area | 0.5832 |
| Mean Conc. | 0.1282mg/L |



9060

| | Analysis | Sample Name | Sample I | Manual | pH Result < 2 ? | Notes | Status | Date / Time | Vial |
|---|---|---|---|---|---|---|---|---|---|
| 1* | NPOC | icv | | 1.000 | ✓ | | Defined | | 1 |
| 2* | NPOC | icb | | 1.000 | ✓ | | Defined | | 2 |
| 3* | NPOC | LCS 280-488988/1-A | | 1.000 | ✓ | | Defined | | 3 |
| 4* | NPOC | MB 280-488988/2-A | | 1.000 | ✓ | | Defined | | 4 |
| 5* | NPOC | tic | | 1.000 | ✓ | | Defined | | 5 |
| 6* | NPOC | 280-134268-D-6-A | | 1.000 | 7 | | Defined | | 6 |
| 7* | NPOC | 280-134268-D-6-B MS | | 1.000 | 7 | | Defined | | 7 |
| 8* | NPOC | 280-134268-D-6-C MSD | | 1.000 | 7 | | Defined | | 8 |
| 9* | NPOC | 280-134268-D-1-A | | 1.000 | 7 | | Defined | | 9 |
| 10* | NPOC | 280-134268-D-2-A | | 1.000 | 7 | | Defined | | 10 |
| 11* | NPOC | 280-134268-D-3-A | | 1.000 | 7 | | Defined | | 11 |
| 12* | NPOC | 280-134268-D-4-A | | 1.000 | 7 | | Defined | | 12 |
| 13* | NPOC | 280-134268-D-5-A | | 1.000 | 7 | | Defined | | 13 |
| 14* | NPOC | 280-134268-D-7-A | | 1.000 | 7 | | Defined | | 14 |
| 15* | NPOC | ccv | | 1.000 | ✓ | | Defined | | 15 |
| 16* | NPOC | ccb | | 1.000 | ✓ | | Defined | | 16 |
| 17* | NPOC | 280-134268-D-8-A | | 1.000 | 7 | | Defined | | 17 |
| 18* | NPOC | 280-134268-D-9-A | | 1.000 | 7 | | Defined | | 18 |
| 19* | NPOC | 280-134268-D-10-A | | 1.000 | 7 | | Defined | | 19 |
| 20* | NPOC | 280-134297-D-1-A | | 1.000 | 7 | | Defined | | 20 |
| 21* | NPOC | 280-134297-D-1-B MS | | 1.000 | 7 | | Defined | | 21 |
| 22* | NPOC | 280-134297-D-1-C MSD | | 1.000 | 7 | | Defined | | 22 |
| 23* | NPOC | 280-134297-D-2-A | | 1.000 | 7 | | Defined | | 23 |
| 24* | NPOC | 280-134297-D-3-A | | 1.000 | 7 | | Defined | | 24 |
| 25* | NPOC | 280-134297-D-4-A | | 1.000 | 7 | | Defined | | 25 |
| 26* | NPOC | 280-134297-D-5-A | | 1.000 | 7 | | Defined | | 26 |
| 27* | NPOC | ccv | | 1.000 | ✓ | | Defined | | 27 |
| 28* | NPOC | ccb | | 1.000 | ✓ | | Defined | | 28 |
| 29* | NPOC | 280-134297-D-6-A | | 1.000 | 7 | | Defined | | 29 |
| 30* | NPOC | 280-134297-D-7-A | | 1.000 | 7 | | Defined | | 30 |
| 31* | NPOC | 280-134297-D-8-A | | 1.000 | 7 | | Defined | | 31 |
| 32* | NPOC | 280-134297-D-9-A | Same 9/17/2020 | 1.000 | 7 | | Defined | | 32 |
| 33* | NPOC | 280-134177-F-2-A | 2X | ~~1.000~~ | 7 | | Defined | | 33 |
| 34* | NPOC | LCS 280-488988/27- | | 1.000 | ✓ | | Defined | | 34 |
| 35* | NPOC | MB 280-488988/28- | | 1.000 | ✓ | | Defined | | 35 |
| 36* | NPOC | tic | | 1.000 | ✓ | | Defined | | 36 |
| 37* | NPOC | 280-134297-D-10-A | | 1.000 | 7 | | Defined | | 37 |
| 38* | NPOC | 280-134297-D-10-B | MS | 1.000 | 7 | | Defined | | 38 |
| 39* | NPOC | ccv | | 1.000 | ✓ | | Defined | | 39 |
| 40* | NPOC | ccb | | 1.000 | ✓ | | Defined | | 40 |
| 41* | NPOC | 280-134297-D-10-C | MSD | 1.000 | 7 | | Defined | | 41 |
| 42* | NPOC | 280-134297-D-11-A | | 1.000 | 7 | | Defined | | 42 |
| 43* | NPOC | 280-134297-D-12-A | | 1.000 | 7 | | Defined | | 43 |
| 44* | NPOC | 280-134297-D-13-A | | 1.000 | 7 | | Defined | | 44 |
| 45* | NPOC | 280-134297-D-14-A | | 1.000 | 7 | | Defined | | 45 |
| 46* | NPOC | 280-134297-D-15-A | | 1.000 | 7 | | Defined | | 46 |
| 47* | NPOC | 280-134297-D-16-A | | 1.000 | 7 | | Defined | | 47 |
| 48* | NPOC | 280-134297-D-17-A | | 1.000 | 7 | | Defined | | 48 |
| 49* | NPOC | 280-134297-D-18-A | | 1.000 | 7 | | Defined | | 49 |
| 50* | NPOC | ccv | | 1.000 | ✓ | | Defined | | 50 |
| 51* | NPOC | ccb | | 1.000 | ✓ | | Defined | | 51 |

5310

| | Analysis | Sample Name | Sample I | Manual | pH Result | <2? Notes | Status | Date / Time | Vial |
|---|---|---|---|---|---|---|---|---|---|
| 52* | NPOC | lcs | | 1.000 | ✓ | | Defined | | 52 |
| 53* | NPOC | mb | | 1.000 | ✓ | | Defined | | 53 |
| 54* | NPOC | 280-134483-B-1 | | 1.000 | ✓ | | Defined | | 54 |
| 55* | NPOC | ms 280-134483-B-1 | | 1.000 | ✓ | | Defined | | 55 |
| 56* | NPOC | msd 280-134483-B-1 | | 1.000 | ✓ | | Defined | | 56 |
| 57* | NPOC | ~~280-134483-B-2~~ | SAN 3/17/20 | 1.000 | ✓ | | Defined | | 57 |
| 58* | NPOC | 280-134484-C-1 | | 1.000 | ✓ | | Defined | | 58 |
| 59* | NPOC | 280-134484-C-2 | | 1.000 | ✓ | | Defined | | 59 |
| 60* | NPOC | 280-134254-C-1 | 5x | 1.000 | ✓ | | Defined | | 60 |
| 61* | NPOC | 280-134125-J-1 | 5x | 1.000 | 6 | | Defined | | 61 |
| 62* | NPOC | 240-127155-A-1 | | 1.000 | ✓ | | Defined | | 62 |
| 63* | NPOC | ccv | | 1.000 | ✓ | | Defined | | 63 |
| 64* | NPOC | ccb | | 1.000 | ✓ | | Defined | | 64 |
| 65* | NPOC | 280-134103-H-4 | 20x | 1.000 | ✓ | | Defined | | 65 |
| 66* | NPOC | LCS 280-488988/40- | | 1.000 | ✓ | | Defined | | 66 |
| 67* | NPOC | MB 280-488988/41- | | 1.000 | ✓ | | Defined | | 67 |
| 68* | NPOC | 280-134298-A-2-E | | 1.000 | ✓ | | Defined | | 68 |
| 69* | NPOC | 280-134298-A-2-F MS | | 1.000 | ✓ | | Defined | | 69 |
| 70* | NPOC | 280-134298-A-2-G MSD | | 1.000 | ✓ | | Defined | | 70 |
| 71* | NPOC | 280-134298-A-1-E | | 1.000 | ✓ | | Defined | | 71 |
| 72* | NPOC | ccv | | 1.000 | ✓ | | Defined | | 72 |
| 73* | NPOC | ccb | | 1.000 | ✓ | | Defined | | 73 |

| | Analysis | Sample Name | Sample I | Manual | Result | Notes | Status | Date / Time | Vial |
|---|---|---|---|---|---|---|---|---|---|
| 1 | NPOC | mb ch | | 1.000 | NPOC:0.22 | | Completed | 3/19/2020 4:4 | 88 |
| 2 | NPOC | icv | | 1.000 | NPOC:19.6 | | Completed | 3/19/2020 4:5 | 1 |
| 3 | NPOC | icb | | 1.000 | NPOC:0.11 | | Completed | 3/19/2020 5:1 | 2 |
| 4 | NPOC | LCS 280-489286/1-A | | 1.000 | NPOC:24.8 | | Completed | 3/19/2020 5:3 | 3 |
| 5 | NPOC | MB 280-489286/2-A | | 1.000 | NPOC:0.19 | | Completed | 3/19/2020 5:5 | 4 |
| 6 | NPOC | tic | | 1.000 | NPOC:0.07 | | Completed | 3/19/2020 6:0 | 5 |
| 7 | NPOC | 280-134268-D-6-D | | 1.000 | NPOC:2.06 | | Completed | 3/19/2020 6:2 | 6 |
| 8 | NPOC | 280-134268-D-6-E MS | | 1.000 | NPOC:26.5 | | Completed | 3/19/2020 6:4 | 7 |
| 9 | NPOC | 280-134268-D-6-F MSD | | 1.000 | NPOC:26.6 | | Completed | 3/19/2020 6:5 | 8 |
| 10 | NPOC | 280-134268-D-1-B | | 1.000 | NPOC:9.27 | | Completed | 3/19/2020 7:0 | 9 |
| 11 | NPOC | 280-134268-D-2-B | | 1.000 | NPOC:3.32 | | Completed | 3/19/2020 7:2 | 10 |
| 12 | NPOC | 280-134268-D-4-B | | 1.000 | NPOC:2.72 | | Completed | 3/19/2020 7:4 | 11 |
| 13 | NPOC | 280-134268-D-5-B | | 1.000 | NPOC:4.92 | | Completed | 3/19/2020 8:0 | 12 |
| 14 | NPOC | 280-134268-D-7-B | | 1.000 | NPOC:3.85 | | Completed | 3/19/2020 8:1 | 13 |
| 15 | NPOC | 280-134268-D-8-B | | 1.000 | NPOC:4.58 | | Completed | 3/19/2020 8:3 | 14 |
| 16 | NPOC | ccv | | 1.000 | NPOC:24.9 | | Completed | 3/19/2020 8:5 | 15 |
| 17 | NPOC | ccb | | 1.000 | NPOC:0.05 | | Completed | 3/19/2020 9:0 | 16 |
| 18 | NPOC | 280-134268-D-9-B | | 1.000 | NPOC:2.49 | | Completed | 3/19/2020 9:2 | 17 |
| 19 | NPOC | 280-134268-D-10-B | | 1.000 | NPOC:2.67 | | Completed | 3/19/2020 9:4 | 18 |
| 20 | NPOC | 280-134297-D-1-D | | 1.000 | NPOC:2.82 | | Completed | 3/19/2020 10: | 19 |
| 21 | NPOC | 280-134297-D-2-B | | 1.000 | NPOC:2.71 | | Completed | 3/19/2020 10: | 20 |
| 22 | NPOC | 280-134297-D-2-C MS | | 1.000 | NPOC:28.2 | | Completed | 3/19/2020 10: | 21 |
| 23 | NPOC | 280-134297-D-2-D MSD | | 1.000 | NPOC:27.9 | | Completed | 3/19/2020 10: | 22 |
| 24 | NPOC | 280-134297-D-3-B | | 1.000 | NPOC:2.82 | | Completed | 3/19/2020 11: | 23 |
| 25 | NPOC | 280-134297-D-4-B | | 1.000 | NPOC:2.76 | | Completed | 3/19/2020 11: | 24 |
| 26 | NPOC | 280-134297-D-5-B | | 1.000 | NPOC:3.95 | | Completed | 3/19/2020 11: | 25 |
| 27 | NPOC | 280-134297-D-6-B | | 1.000 | NPOC:5.77 | | Completed | 3/20/2020 12: | 26 |
| 28 | NPOC | ccv | | 1.000 | NPOC:24.6 | | Completed | 3/20/2020 12: | 27 |
| 29 | NPOC | ccb | | 1.000 | NPOC:0.08 | | Completed | 3/20/2020 12: | 28 |
| 30 | NPOC | 280-134297-D-7-B | | 1.000 | NPOC:4.46 | | Completed | 3/20/2020 12: | 29 |
| 31 | NPOC | 280-134297-D-8-B | | 1.000 | NPOC:5.15 | | Completed | 3/20/2020 1:0 | 30 |
| 32 | NPOC | 280-134297-D-9-B | | 1.000 | NPOC:6.66 | | Completed | 3/20/2020 1:2 | 31 |
| 33 | NPOC | 280-134297-D-10-D | | 1.000 | NPOC:4.02 | | Completed | 3/20/2020 1:3 | 32 |
| 34 | NPOC | 280-134297-D-11-B | | 1.000 | NPOC:6.08 | | Completed | 3/20/2020 1:5 | 33 |
| 35 | NPOC | LCS 280-489286/27-A | | 1.000 | NPOC:24.9 | | Completed | 3/20/2020 2:1 | 34 |
| 36 | NPOC | MB 280-489286/28-A | | 1.000 | NPOC:0.22 | | Completed | 3/20/2020 2:2 | 35 |
| 37 | NPOC | tic | | 1.000 | NPOC:0.11 | | Completed | 3/20/2020 2:4 | 36 |
| 38 | NPOC | 280-134297-D-12-B | | 1.000 | NPOC:1.98 | | Completed | 3/20/2020 3:0 | 37 |
| 39 | NPOC | 280-134297-D-12-C MS | | 1.000 | NPOC:26.7 | | Completed | 3/20/2020 3:1 | 38 |
| 40 | NPOC | ccv | | 1.000 | NPOC:24.9 | | Completed | 3/20/2020 3:3 | 39 |
| 41 | NPOC | ccb | | 1.000 | NPOC:0.12 | | Completed | 3/20/2020 3:5 | 40 |
| 42 | NPOC | 280-134297-D-12-D MSD | | 1.000 | NPOC:26.4 | | Completed | 3/20/2020 4:1 | 41 |
| 43 | NPOC | 280-134297-D-13-B | | 1.000 | NPOC:2.65 | | Completed | 3/20/2020 4:3 | 42 |
| 44 | NPOC | 280-134297-D-14-B | | 1.000 | NPOC:2.78 | | Completed | 3/20/2020 4:4 | 43 |
| 45 | NPOC | 280-134297-D-15-B | | 1.000 | NPOC:3.31 | | Completed | 3/20/2020 5:0 | 44 |
| 46 | NPOC | 280-134297-D-16-B | | 1.000 | NPOC:4.58 | | Completed | 3/20/2020 5:2 | 45 |
| 47 | NPOC | 280-134297-D-17-B | | 1.000 | NPOC:8.69 | | Completed | 3/20/2020 5:3 | 46 |
| 48 | NPOC | 280-134297-D-18-B | | 1.000 | NPOC:9.42 | | Completed | 3/20/2020 5:5 | 47 |
| 49 | NPOC | LCS 280-489286/38-A | | 1.000 | NPOC:24.6 | | Completed | 3/20/2020 6:0 | 48 |
| 50 | NPOC | MB 280-489286/39-A | | 1.000 | NPOC:0.27 | | Completed | 3/20/2020 6:2 | 49 |
| 51 | NPOC | 280-134298-A-1-F | | 1.000 | NPOC:5.62 | | Completed | 3/20/2020 6:4 | 50 |
| 52 | NPOC | ccv | | 1.000 | NPOC:25.1 | | Completed | 3/20/2020 6:5 | 51 |
| 53 | NPOC | ccb | | 1.000 | NPOC:0.14 | | Completed | 3/20/2020 7:1 | 52 |

| | Analysis | Sample Name | Sample I | Manual | Result | Notes | Status | Date / Time | Vial |
|---|---|---|---|---|---|---|---|---|---|
| 54 | NPOC | 280-134298-A-1-G MS | | 1.000 | NPOC:30.4 | | Completed | 3/20/2020 7:2 | 53 |
| 55 | NPOC | 280-134298-A-1-H MSD | | 1.000 | NPOC:30.0 | | Completed | 3/20/2020 7:4 | 54 |
| 56 | NPOC | 280-134298-A-2-H | | 1.000 | NPOC:5.53 | | Completed | 3/20/2020 7:5 | 55 |
| 57 | NPOC | ccv | | 1.000 | NPOC:25.0 | | Completed | 3/20/2020 8:1 | 56 |
| 58 | NPOC | ccb | | 1.000 | NPOC:0.29 | | Completed | 3/20/2020 8:3 | 57 |

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 |

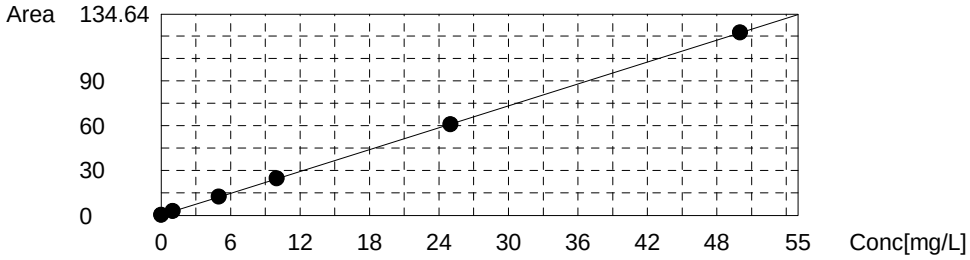
Acid Add. 0.000%
Sp. Time 90.00sec
Mean Area 60.82
SD Area 0.3253
CV Area 0.53%
Vial 90

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: | mb ch |
| Sample ID: | |
| Origin: | NPOC.met |
| Status | Completed |
| Chk. Result | |

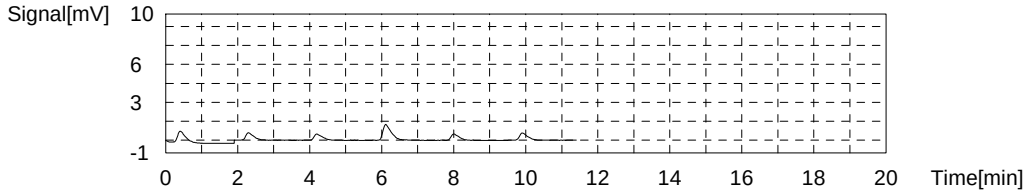
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:0.2293mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 1.322 | 0.4312mg/L | 50uL | 1 | E | TOC3.2020_01_06_16_39_25.cal | 3/19/2020 4:34:29 PM |
| 2 | 0.9040 | 0.2598mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/19/2020 4:36:32 PM |
| 3 | 0.7502 | 0.1967mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/19/2020 4:38:36 PM |
| 4 | 2.034 | 0.7231mg/L | 50uL | 1 | E | TOC3.2020_01_06_16_39_25.cal | 3/19/2020 4:40:40 PM |
| 5 | 0.7754 | 0.2071mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/19/2020 4:42:44 PM |
| 6 | 0.8887 | 0.2535mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/19/2020 4:44:48 PM |

| | |
|---|---|
| Mean Area | 0.8296 |
| Mean Conc. | 0.2293mg/L |




Sample

| | |
|---|---|
| Sample Name: | icv |
| Sample ID: | |
| Origin: | NPOC.met |
| Status | Completed |
| Chk. Result | |

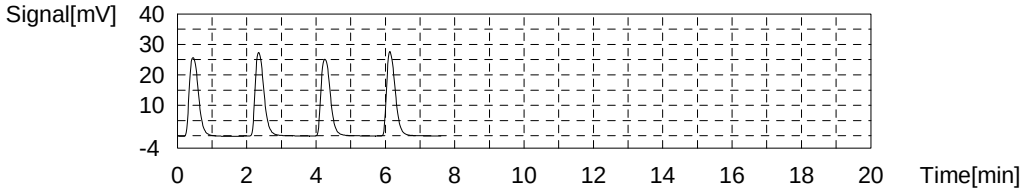
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:19.66mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 48.39 | 19.73mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/19/2020 4:53:29 PM |
| 2 | 48.62 | 19.82mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/19/2020 4:55:33 PM |
| 3 | 47.58 | 19.40mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/19/2020 4:57:36 PM |
| 4 | 48.26 | 19.68mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/19/2020 4:59:40 PM |

Mean Area 48.21
Mean Conc. 19.66mg/L




Sample

Sample Name: icb
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

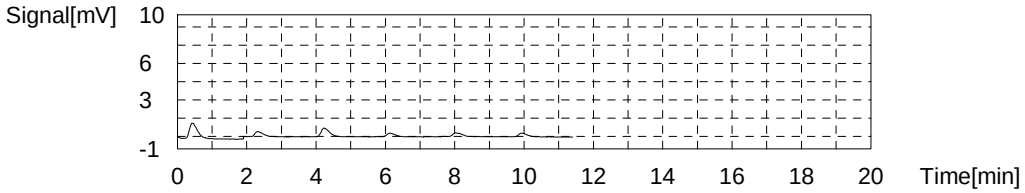
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:0.1121mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 2.057 | 0.7325mg/L | 50uL | 1 | E | TOC3.2020_01_06_16_39_25.cal | 3/19/2020 5:08:13 PM |
| 2 | 0.6725 | 0.1649mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/19/2020 5:10:16 PM |
| 3 | 1.180 | 0.3729mg/L | 50uL | 1 | E | TOC3.2020_01_06_16_39_25.cal | 3/19/2020 5:12:20 PM |
| 4 | 0.4769 | 0.08467mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/19/2020 5:14:24 PM |
| 5 | 0.5321 | 0.1073mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/19/2020 5:16:28 PM |
| 6 | 0.4942 | 0.09176mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/19/2020 5:18:32 PM |

Mean Area 0.5439
Mean Conc. 0.1121mg/L




Sample

Sample Name: LCS 280-489286/1-A
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

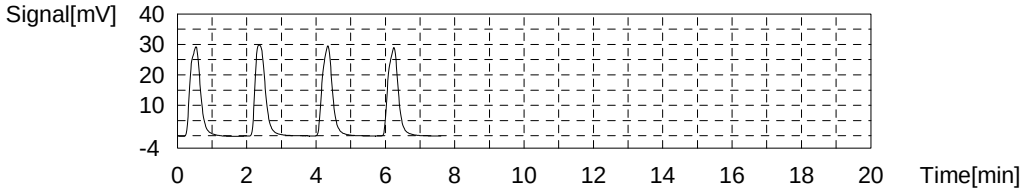
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:24.82mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 61.94 | 25.28mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/19/2020 5:26:58 PM |
| 2 | 61.27 | 25.01mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/19/2020 5:29:01 PM |
| 3 | 60.21 | 24.58mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/19/2020 5:31:05 PM |
| 4 | 59.84 | 24.42mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/19/2020 5:33:09 PM |

Mean Area 60.82
Mean Conc. 24.82mg/L




Sample

Sample Name: MB 280-489286/2-A
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

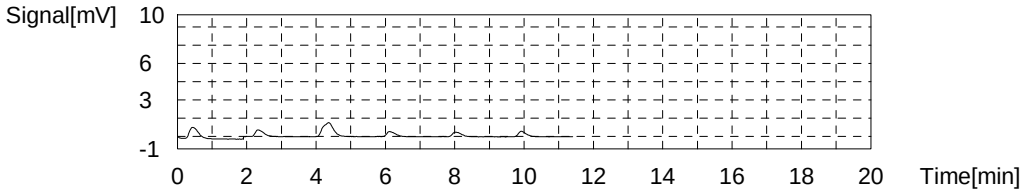
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:0.1959mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 1.610 | 0.5492mg/L | 50uL | 1 | E | TOC3.2020_01_06_16_39_25.cal | 3/19/2020 5:41:41 PM |
| 2 | 0.9243 | 0.2681mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/19/2020 5:43:44 PM |
| 3 | 2.443 | 0.8908mg/L | 50uL | 1 | E | TOC3.2020_01_06_16_39_25.cal | 3/19/2020 5:45:48 PM |
| 4 | 0.6993 | 0.1759mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/19/2020 5:47:52 PM |
| 5 | 0.6670 | 0.1626mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/19/2020 5:49:56 PM |
| 6 | 0.7019 | 0.1769mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/19/2020 5:52:00 PM |

Mean Area 0.7481
Mean Conc. 0.1959mg/L




Sample

Sample Name: tic
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

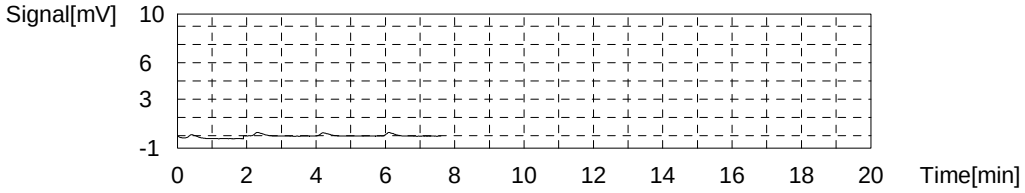
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:0.07144mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 0.4236 | 0.06281mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/19/2020 6:00:26 PM |
| 2 | 0.4583 | 0.07704mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/19/2020 6:02:29 PM |
| 3 | 0.4619 | 0.07852mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/19/2020 6:04:33 PM |
| 4 | 0.4348 | 0.06741mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/19/2020 6:06:37 PM |

Mean Area 0.4447
Mean Conc. 0.07144mg/L




Sample

Sample Name: 280-134268-D-6-D
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

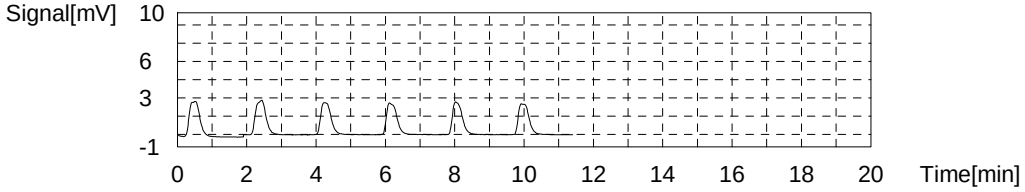
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:2.064mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 6.030 | 2.361mg/L | 50uL | 1 | E | TOC3.2020_01_06_16_39_25.cal | 3/19/2020 6:15:10 PM |
| 2 | 5.900 | 2.308mg/L | 50uL | 1 | E | TOC3.2020_01_06_16_39_25.cal | 3/19/2020 6:17:13 PM |
| 3 | 5.377 | 2.094mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/19/2020 6:19:17 PM |
| 4 | 5.291 | 2.058mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/19/2020 6:21:21 PM |
| 5 | 5.204 | 2.023mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/19/2020 6:23:25 PM |
| 6 | 5.346 | 2.081mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/19/2020 6:25:29 PM |

Mean Area 5.305
Mean Conc. 2.064mg/L




Sample

Sample Name: 280-134268-D-6-E MS
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

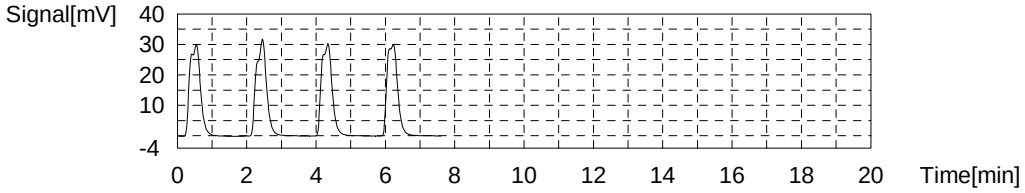
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:26.54mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 65.60 | 26.79mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/19/2020 6:33:55 PM |
| 2 | 65.50 | 26.74mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/19/2020 6:35:58 PM |
| 3 | 64.60 | 26.38mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/19/2020 6:38:02 PM |
| 4 | 64.29 | 26.25mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/19/2020 6:40:06 PM |

Mean Area 65.00
Mean Conc. 26.54mg/L




Sample

Sample Name: 280-134268-D-6-F MSD
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

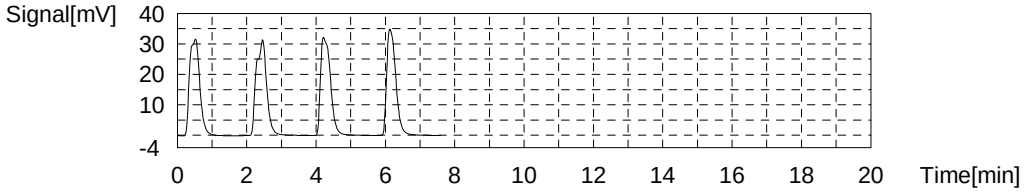
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:26.63mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 66.11 | 26.99mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/19/2020 6:48:39 PM |
| 2 | 65.89 | 26.90mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/19/2020 6:50:42 PM |
| 3 | 64.81 | 26.46mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/19/2020 6:52:46 PM |
| 4 | 64.12 | 26.18mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/19/2020 6:54:50 PM |

Mean Area 65.23
Mean Conc. 26.63mg/L




Sample

Sample Name: 280-134268-D-1-B
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

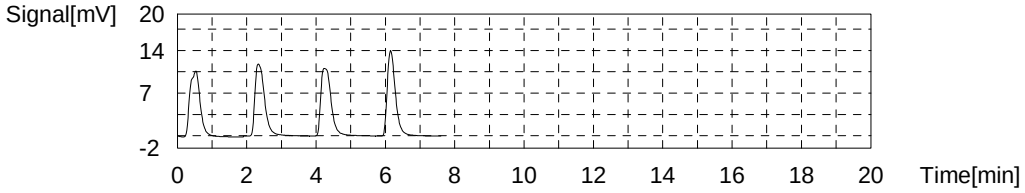
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:9.277mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 22.59 | 9.151mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/19/2020 7:03:23 PM |
| 2 | 22.89 | 9.274mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/19/2020 7:05:26 PM |
| 3 | 22.95 | 9.299mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/19/2020 7:07:30 PM |
| 4 | 23.16 | 9.385mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/19/2020 7:09:34 PM |

Mean Area 22.90
Mean Conc. 9.277mg/L




Sample

Sample Name: 280-134268-D-2-B
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

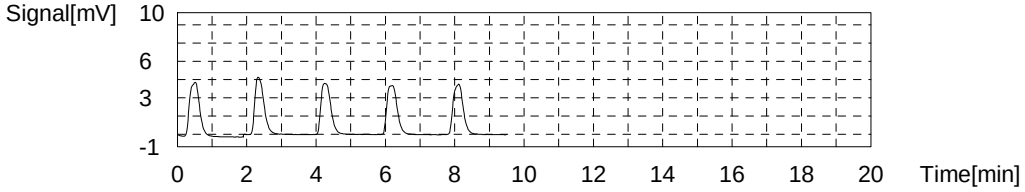
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:3.327mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 8.840 | 3.514mg/L | 50uL | 1 | E | TOC3.2020_01_06_16_39_25.cal | 3/19/2020 7:18:06 PM |
| 2 | 8.591 | 3.411mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/19/2020 7:20:09 PM |
| 3 | 8.318 | 3.300mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/19/2020 7:22:13 PM |
| 4 | 8.296 | 3.291mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/19/2020 7:24:17 PM |
| 5 | 8.332 | 3.305mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/19/2020 7:26:21 PM |

Mean Area 8.384
Mean Conc. 3.327mg/L




Sample

Sample Name: 280-134268-D-4-B
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

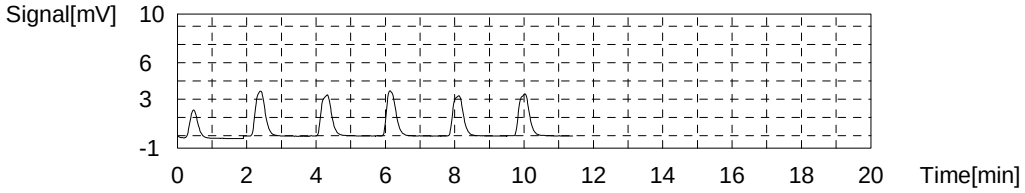
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:2.723mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 3.624 | 1.375mg/L | 50uL | 1 | E | TOC3.2020_01_06_16_39_25.cal | 3/19/2020 7:34:51 PM |
| 2 | 7.170 | 2.829mg/L | 50uL | 1 | E | TOC3.2020_01_06_16_39_25.cal | 3/19/2020 7:36:55 PM |
| 3 | 6.831 | 2.690mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/19/2020 7:38:59 PM |
| 4 | 6.823 | 2.687mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/19/2020 7:41:03 PM |
| 5 | 6.855 | 2.700mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/19/2020 7:43:07 PM |
| 6 | 7.136 | 2.815mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/19/2020 7:45:11 PM |

Mean Area 6.911
Mean Conc. 2.723mg/L




Sample

Sample Name: 280-134268-D-5-B
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

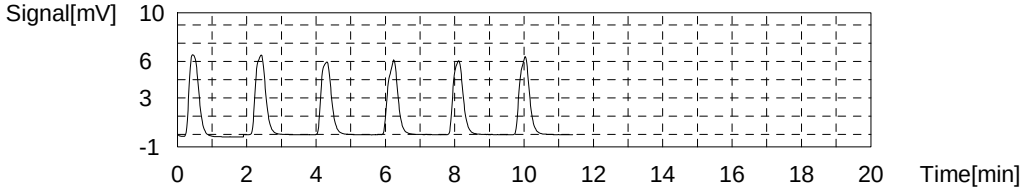
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:4.928mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 12.96 | 5.203mg/L | 50uL | 1 | E | TOC3.2020_01_06_16_39_25.cal | 3/19/2020 7:53:37 PM |
| 2 | 13.18 | 5.293mg/L | 50uL | 1 | E | TOC3.2020_01_06_16_39_25.cal | 3/19/2020 7:55:40 PM |
| 3 | 12.21 | 4.895mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/19/2020 7:57:44 PM |
| 4 | 12.18 | 4.883mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/19/2020 7:59:48 PM |
| 5 | 12.16 | 4.875mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/19/2020 8:01:52 PM |
| 6 | 12.61 | 5.059mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/19/2020 8:03:56 PM |

Mean Area 12.29
Mean Conc. 4.928mg/L




Sample

Sample Name: 280-134268-D-7-B
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

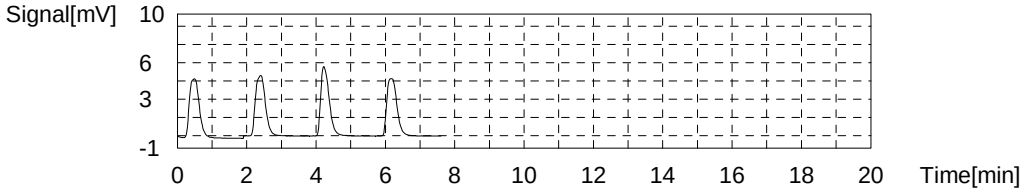
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:3.851mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 9.577 | 3.816mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/19/2020 8:12:21 PM |
| 2 | 9.920 | 3.956mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/19/2020 8:14:25 PM |
| 3 | 9.628 | 3.837mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/19/2020 8:16:29 PM |
| 4 | 9.530 | 3.796mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/19/2020 8:18:33 PM |

Mean Area 9.664
Mean Conc. 3.851mg/L




Sample

Sample Name: 280-134268-D-8-B
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

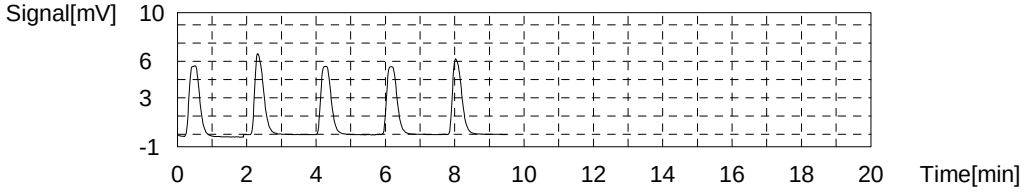
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:4.588mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 12.07 | 4.838mg/L | 50uL | 1 | E | TOC3.2020_01_06_16_39_25.cal | 3/19/2020 8:27:05 PM |
| 2 | 11.72 | 4.694mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/19/2020 8:29:08 PM |
| 3 | 11.47 | 4.592mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/19/2020 8:31:12 PM |
| 4 | 11.34 | 4.539mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/19/2020 8:33:16 PM |
| 5 | 11.31 | 4.526mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/19/2020 8:35:20 PM |

Mean Area 11.46
Mean Conc. 4.588mg/L




Sample

Sample Name: ccv
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

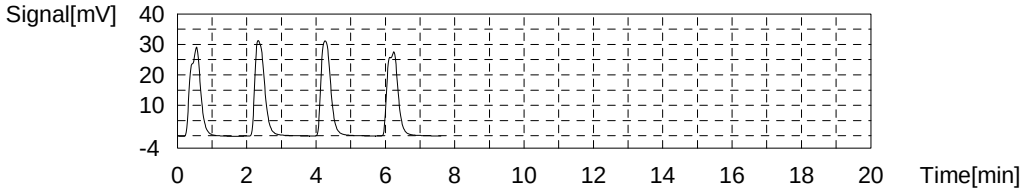
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:24.96mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 61.65 | 25.17mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/19/2020 8:43:51 PM |
| 2 | 61.39 | 25.06mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/19/2020 8:45:54 PM |
| 3 | 60.97 | 24.89mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/19/2020 8:47:58 PM |
| 4 | 60.55 | 24.71mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/19/2020 8:50:02 PM |

Mean Area 61.14
Mean Conc. 24.96mg/L




Sample

Sample Name: ccb
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

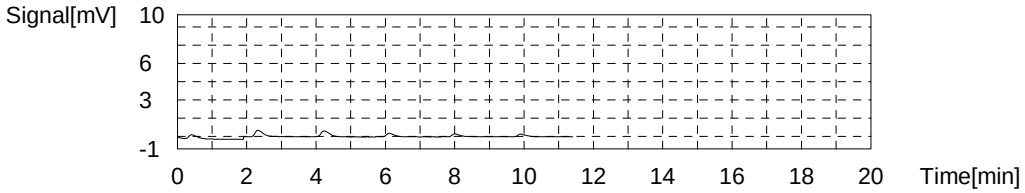
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:0.05181mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 0.5018 | 0.09488mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/19/2020 8:58:34 PM |
| 2 | 0.8266 | 0.2280mg/L | 50uL | 1 | E | TOC3.2020_01_06_16_39_25.cal | 3/19/2020 9:00:38 PM |
| 3 | 0.7719 | 0.2056mg/L | 50uL | 1 | E | TOC3.2020_01_06_16_39_25.cal | 3/19/2020 9:02:42 PM |
| 4 | 0.4028 | 0.05429mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/19/2020 9:04:46 PM |
| 5 | 0.3498 | 0.03255mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/19/2020 9:06:50 PM |
| 6 | 0.3327 | 0.02554mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/19/2020 9:08:54 PM |

Mean Area 0.3968
Mean Conc. 0.05181mg/L




Sample

Sample Name: 280-134268-D-9-B
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

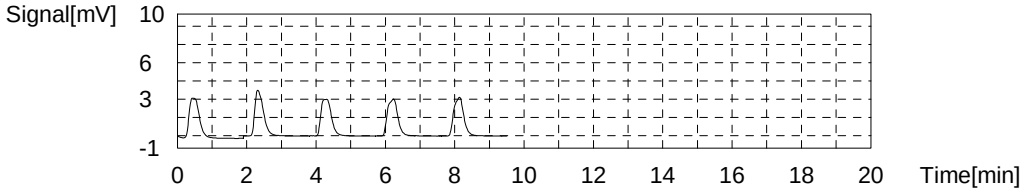
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:2.498mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 6.612 | 2.600mg/L | 50uL | 1 | E | TOC3.2020_01_06_16_39_25.cal | 3/19/2020 9:17:20 PM |
| 2 | 6.520 | 2.562mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/19/2020 9:19:23 PM |
| 3 | 6.287 | 2.467mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/19/2020 9:21:27 PM |
| 4 | 6.278 | 2.463mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/19/2020 9:23:31 PM |
| 5 | 6.367 | 2.500mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/19/2020 9:25:35 PM |

Mean Area 6.363
Mean Conc. 2.498mg/L




Sample

Sample Name: 280-134268-D-10-B
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

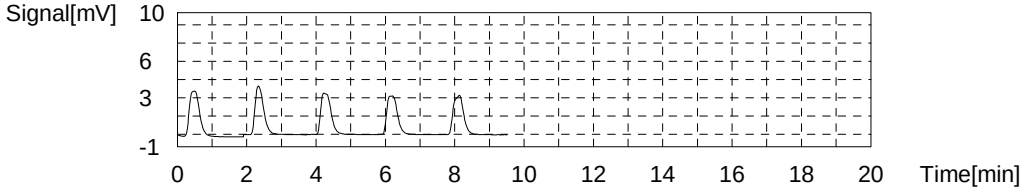
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:2.670mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 7.462 | 2.949mg/L | 50uL | 1 | E | TOC3.2020_01_06_16_39_25.cal | 3/19/2020 9:34:05 PM |
| 2 | 6.852 | 2.698mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/19/2020 9:36:09 PM |
| 3 | 6.891 | 2.714mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/19/2020 9:38:13 PM |
| 4 | 6.709 | 2.640mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/19/2020 9:40:17 PM |
| 5 | 6.680 | 2.628mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/19/2020 9:42:21 PM |

Mean Area 6.783
Mean Conc. 2.670mg/L




Sample

Sample Name: 280-134297-D-1-D
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

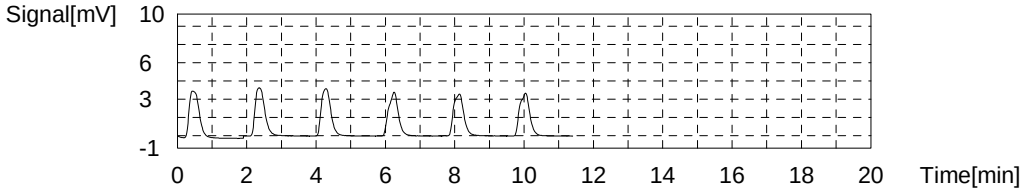
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:2.825mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 7.593 | 3.002mg/L | 50uL | 1 | E | TOC3.2020_01_06_16_39_25.cal | 3/19/2020 9:50:52 PM |
| 2 | 7.575 | 2.995mg/L | 50uL | 1 | E | TOC3.2020_01_06_16_39_25.cal | 3/19/2020 9:52:55 PM |
| 3 | 7.432 | 2.936mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/19/2020 9:54:59 PM |
| 4 | 7.031 | 2.772mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/19/2020 9:57:03 PM |
| 5 | 7.032 | 2.772mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/19/2020 9:59:07 PM |
| 6 | 7.146 | 2.819mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/19/2020 10:01:11 PM |

Mean Area 7.160
Mean Conc. 2.825mg/L




Sample

Sample Name: 280-134297-D-2-B
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

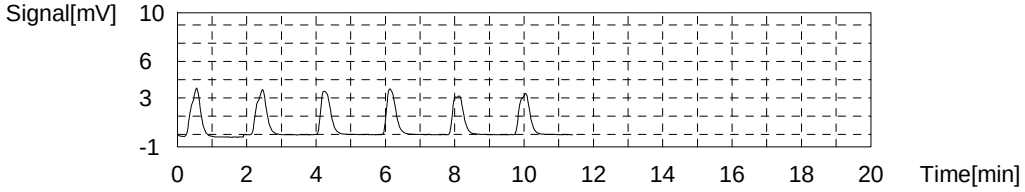
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:2.711mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 7.576 | 2.995mg/L | 50uL | 1 | E | TOC3.2020_01_06_16_39_25.cal | 3/19/2020 10:09:36 PM |
| 2 | 7.412 | 2.928mg/L | 50uL | 1 | E | TOC3.2020_01_06_16_39_25.cal | 3/19/2020 10:11:40 PM |
| 3 | 6.936 | 2.733mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/19/2020 10:13:44 PM |
| 4 | 6.763 | 2.662mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/19/2020 10:15:48 PM |
| 5 | 6.843 | 2.695mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/19/2020 10:17:52 PM |
| 6 | 6.992 | 2.756mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/19/2020 10:19:56 PM |

Mean Area 6.884
Mean Conc. 2.711mg/L




Sample

Sample Name: 280-134297-D-2-C MS
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

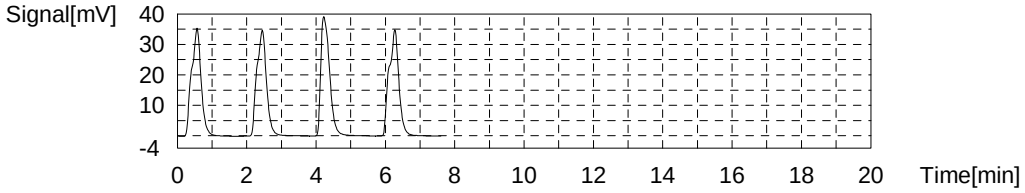
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:28.27mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 69.35 | 28.32mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/19/2020 10:28:21 PM |
| 2 | 68.20 | 27.85mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/19/2020 10:30:25 PM |
| 3 | 69.72 | 28.47mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/19/2020 10:32:29 PM |
| 4 | 69.60 | 28.43mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/19/2020 10:34:33 PM |

Mean Area 69.22
Mean Conc. 28.27mg/L




Sample

Sample Name: 280-134297-D-2-D MSD
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

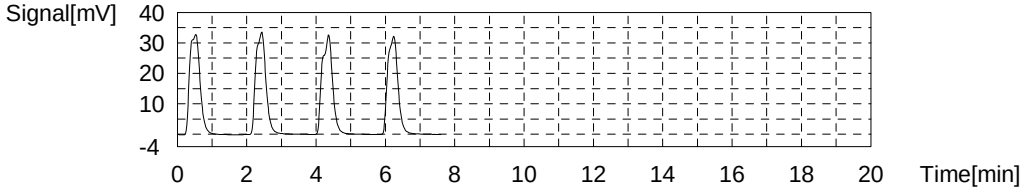
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:27.97mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 69.50 | 28.38mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/19/2020 10:43:04 PM |
| 2 | 68.95 | 28.16mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/19/2020 10:45:08 PM |
| 3 | 68.65 | 28.04mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/19/2020 10:47:12 PM |
| 4 | 66.86 | 27.30mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/19/2020 10:49:16 PM |

Mean Area 68.49
Mean Conc. 27.97mg/L




Sample

Sample Name: 280-134297-D-3-B
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

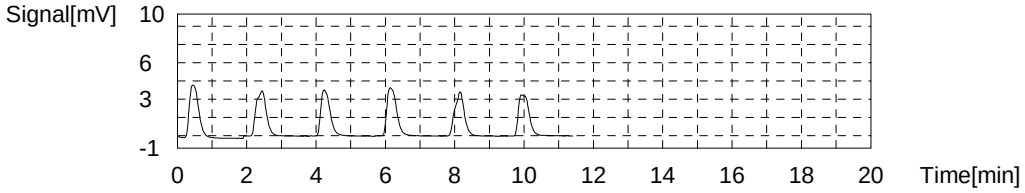
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:2.827mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 8.051 | 3.190mg/L | 50uL | 1 | E | TOC3.2020_01_06_16_39_25.cal | 3/19/2020 10:57:48 PM |
| 2 | 7.599 | 3.005mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/19/2020 10:59:51 PM |
| 3 | 6.961 | 2.743mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/19/2020 11:01:55 PM |
| 4 | 7.683 | 3.039mg/L | 50uL | 1 | E | TOC3.2020_01_06_16_39_25.cal | 3/19/2020 11:03:59 PM |
| 5 | 6.957 | 2.742mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/19/2020 11:06:03 PM |
| 6 | 7.142 | 2.817mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/19/2020 11:08:07 PM |

Mean Area 7.165
Mean Conc. 2.827mg/L




Sample

Sample Name: 280-134297-D-4-B
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

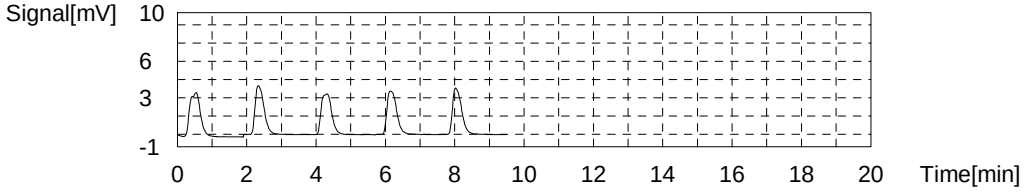
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:2.769mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 7.699 | 3.046mg/L | 50uL | 1 | E | TOC3.2020_01_06_16_39_25.cal | 3/19/2020 11:16:32 PM |
| 2 | 7.188 | 2.836mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/19/2020 11:18:36 PM |
| 3 | 7.074 | 2.790mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/19/2020 11:20:40 PM |
| 4 | 6.944 | 2.736mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/19/2020 11:22:44 PM |
| 5 | 6.888 | 2.713mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/19/2020 11:24:48 PM |

Mean Area 7.024
Mean Conc. 2.769mg/L




Sample

Sample Name: 280-134297-D-5-B
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

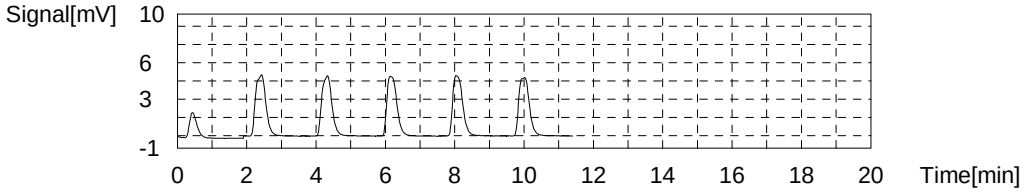
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:3.957mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 3.108 | 1.163mg/L | 50uL | 1 | E | TOC3.2020_01_06_16_39_25.cal | 3/19/2020 11:33:18 PM |
| 2 | 10.42 | 4.161mg/L | 50uL | 1 | E | TOC3.2020_01_06_16_39_25.cal | 3/19/2020 11:35:22 PM |
| 3 | 9.959 | 3.972mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/19/2020 11:37:26 PM |
| 4 | 9.804 | 3.909mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/19/2020 11:39:30 PM |
| 5 | 9.862 | 3.933mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/19/2020 11:41:34 PM |
| 6 | 10.06 | 4.014mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/19/2020 11:43:38 PM |

Mean Area 9.921
Mean Conc. 3.957mg/L




Sample

Sample Name: 280-134297-D-6-B
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

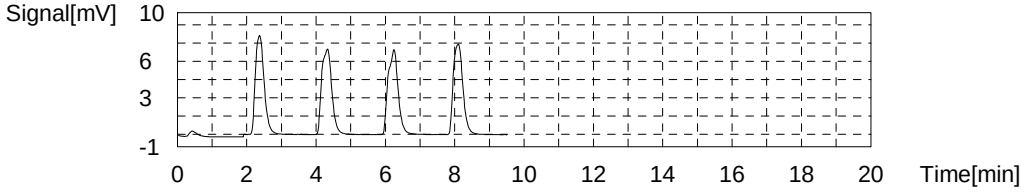
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:5.777mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 0.6795 | 0.1677mg/L | 50uL | 1 | E | TOC3.2020_01_06_16_39_25.cal | 3/19/2020 11:52:03 PM |
| 2 | 14.37 | 5.781mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/19/2020 11:54:07 PM |
| 3 | 14.38 | 5.785mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/19/2020 11:56:11 PM |
| 4 | 14.14 | 5.687mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/19/2020 11:58:15 PM |
| 5 | 14.55 | 5.855mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 12:00:19 AM |

Mean Area 14.36
Mean Conc. 5.777mg/L




Sample

Sample Name: ccv
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

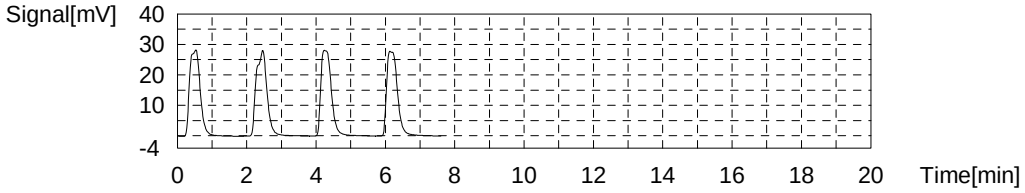
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:24.65mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 60.89 | 24.85mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 12:08:49 AM |
| 2 | 60.97 | 24.89mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 12:10:53 AM |
| 3 | 59.47 | 24.27mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 12:12:57 AM |
| 4 | 60.23 | 24.58mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 12:15:01 AM |

Mean Area 60.39
Mean Conc. 24.65mg/L




Sample

Sample Name: ccb
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

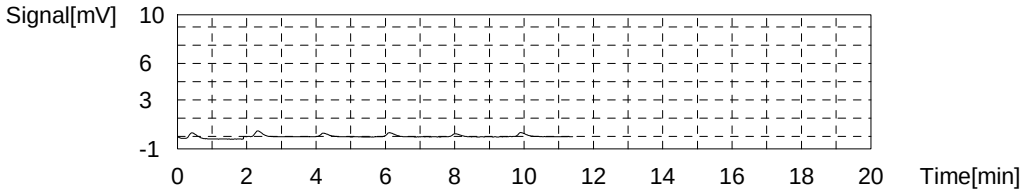
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:0.08569mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 0.7250 | 0.1864mg/L | 50uL | 1 | E | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 12:23:32 AM |
| 2 | 0.6682 | 0.1631mg/L | 50uL | 1 | E | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 12:25:36 AM |
| 3 | 0.4725 | 0.08286mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 12:27:40 AM |
| 4 | 0.5221 | 0.1032mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 12:29:44 AM |
| 5 | 0.4144 | 0.05904mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 12:31:48 AM |
| 6 | 0.5086 | 0.09766mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 12:33:52 AM |

Mean Area 0.4794
Mean Conc. 0.08569mg/L




Sample

Sample Name: 280-134297-D-7-B
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

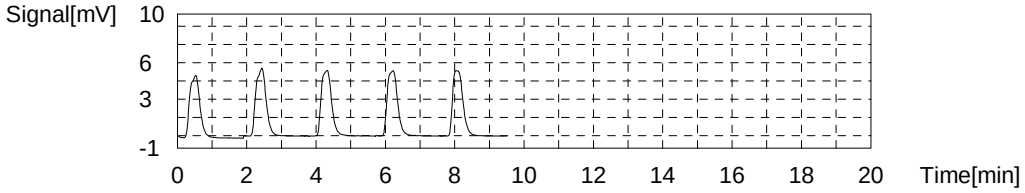
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:4.464mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 10.45 | 4.174mg/L | 50uL | 1 | E | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 12:42:18 AM |
| 2 | 11.42 | 4.571mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 12:44:21 AM |
| 3 | 11.10 | 4.440mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 12:46:25 AM |
| 4 | 11.09 | 4.436mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 12:48:29 AM |
| 5 | 11.02 | 4.407mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 12:50:33 AM |

Mean Area 11.16
Mean Conc. 4.464mg/L




Sample

Sample Name: 280-134297-D-8-B
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

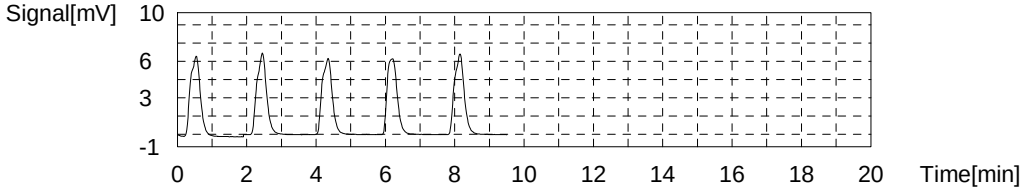
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:5.153mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 13.21 | 5.305mg/L | 50uL | 1 | E | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 12:59:03 AM |
| 2 | 12.95 | 5.199mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 1:01:07 AM |
| 3 | 12.64 | 5.072mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 1:03:11 AM |
| 4 | 12.63 | 5.068mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 1:05:15 AM |
| 5 | 13.13 | 5.273mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 1:07:19 AM |

Mean Area 12.84
Mean Conc. 5.153mg/L




Sample

Sample Name: 280-134297-D-9-B
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

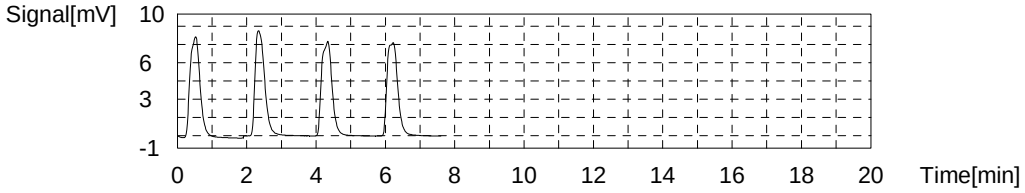
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:6.662mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 16.79 | 6.773mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 1:15:49 AM |
| 2 | 16.55 | 6.675mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 1:17:53 AM |
| 3 | 16.27 | 6.560mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 1:19:57 AM |
| 4 | 16.47 | 6.642mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 1:22:01 AM |

Mean Area 16.52
Mean Conc. 6.662mg/L




Sample

Sample Name: 280-134297-D-10-D
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

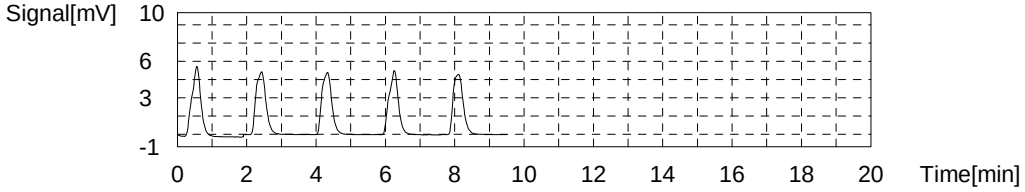
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:4.020mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 10.38 | 4.145mg/L | 50uL | 1 | E | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 1:30:33 AM |
| 2 | 10.29 | 4.108mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 1:32:37 AM |
| 3 | 10.10 | 4.030mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 1:34:41 AM |
| 4 | 9.919 | 3.956mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 1:36:45 AM |
| 5 | 9.995 | 3.987mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 1:38:49 AM |

Mean Area 10.08
Mean Conc. 4.020mg/L




Sample

Sample Name: 280-134297-D-11-B
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

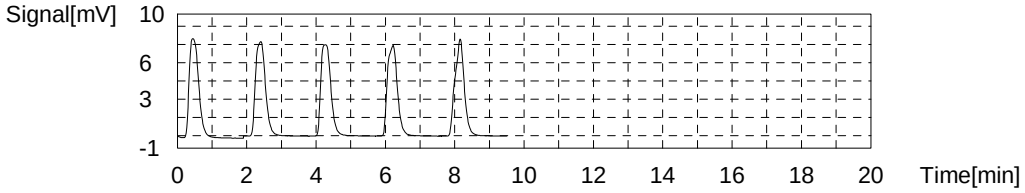
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:6.081mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 15.58 | 6.277mg/L | 50uL | 1 | E | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 1:47:20 AM |
| 2 | 15.47 | 6.232mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 1:49:24 AM |
| 3 | 14.98 | 6.031mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 1:51:28 AM |
| 4 | 14.97 | 6.027mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 1:53:32 AM |
| 5 | 14.99 | 6.035mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 1:55:36 AM |

Mean Area 15.10
Mean Conc. 6.081mg/L




Sample

Sample Name: LCS 280-489286/27-A
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

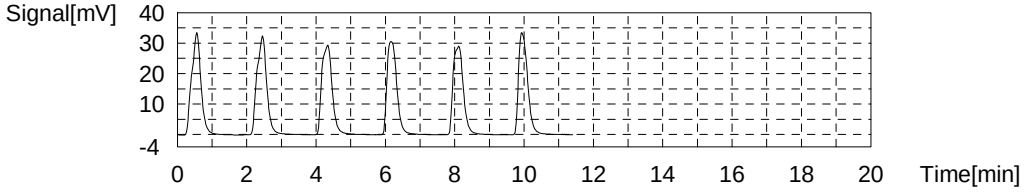
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:24.92mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 63.88 | 26.08mg/L | 50uL | 1 | E | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 2:04:07 AM |
| 2 | 64.16 | 26.20mg/L | 50uL | 1 | E | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 2:06:11 AM |
| 3 | 61.86 | 25.25mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 2:08:15 AM |
| 4 | 60.65 | 24.76mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 2:10:19 AM |
| 5 | 60.33 | 24.62mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 2:12:23 AM |
| 6 | 61.33 | 25.03mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 2:14:27 AM |

Mean Area 61.04
Mean Conc. 24.92mg/L




Sample

Sample Name: MB 280-489286/28-A
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

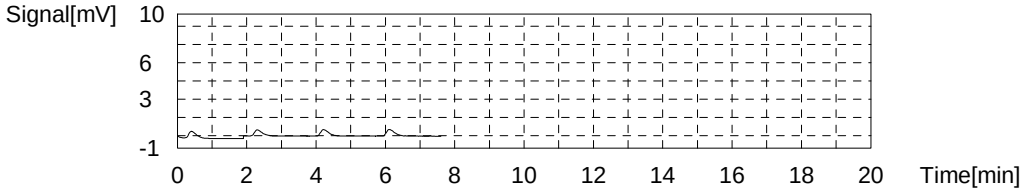
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:0.2298mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 0.8146 | 0.2231mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 2:22:53 AM |
| 2 | 0.7835 | 0.2104mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 2:24:57 AM |
| 3 | 0.8390 | 0.2331mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 2:27:01 AM |
| 4 | 0.8866 | 0.2526mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 2:29:05 AM |

Mean Area 0.8309
Mean Conc. 0.2298mg/L




Sample

Sample Name: tic
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

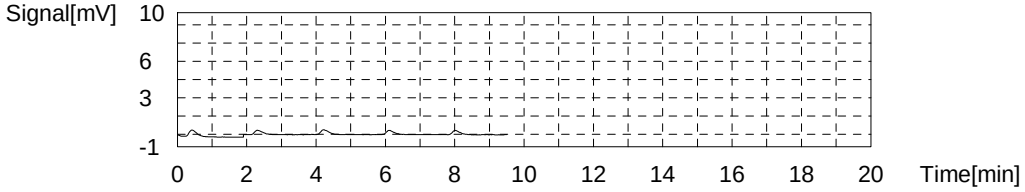
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:0.1160mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 0.7872 | 0.2119mg/L | 50uL | 1 | E | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 2:37:37 AM |
| 2 | 0.5664 | 0.1214mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 2:39:41 AM |
| 3 | 0.6010 | 0.1355mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 2:41:45 AM |
| 4 | 0.5002 | 0.09422mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 2:43:49 AM |
| 5 | 0.5453 | 0.1127mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 2:45:53 AM |

Mean Area 0.5532
Mean Conc. 0.1160mg/L




Sample

Sample Name: 280-134297-D-12-B
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

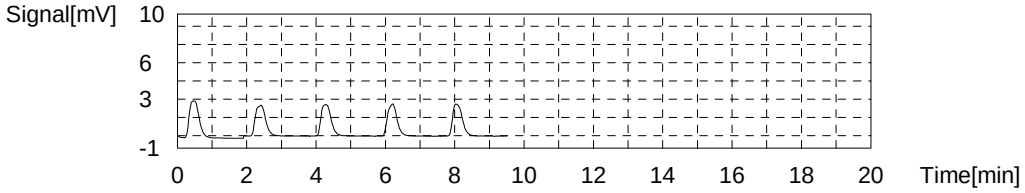
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:1.985mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 5.940 | 2.325mg/L | 50uL | 1 | E | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 2:54:24 AM |
| 2 | 5.168 | 2.008mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 2:56:28 AM |
| 3 | 5.148 | 2.000mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 2:58:32 AM |
| 4 | 5.047 | 1.958mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 3:00:36 AM |
| 5 | 5.083 | 1.973mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 3:02:40 AM |

Mean Area 5.112
Mean Conc. 1.985mg/L




Sample

Sample Name: 280-134297-D-12-C MS
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

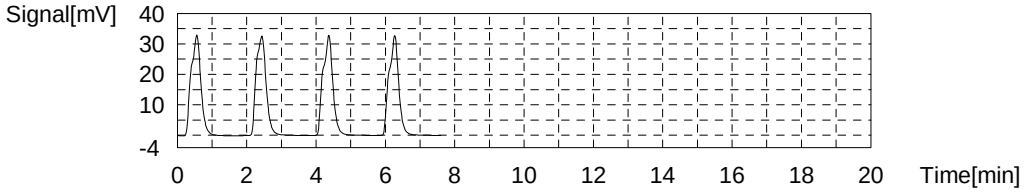
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:26.75mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 66.18 | 27.02mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 3:11:11 AM |
| 2 | 65.85 | 26.89mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 3:13:15 AM |
| 3 | 65.62 | 26.79mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 3:15:19 AM |
| 4 | 64.41 | 26.30mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 3:17:23 AM |

Mean Area 65.52
Mean Conc. 26.75mg/L




Sample

Sample Name: ccv
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

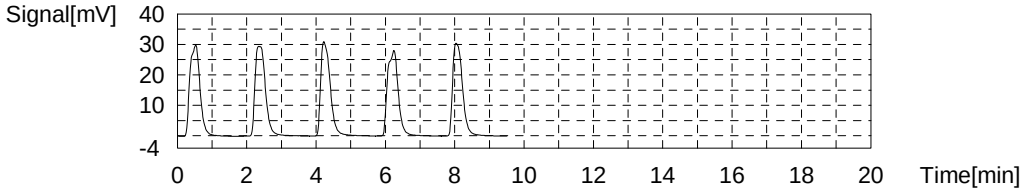
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:24.93mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 61.86 | 25.25mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 3:25:55 AM |
| 2 | 61.73 | 25.20mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 3:27:59 AM |
| 3 | 59.27 | 24.19mg/L | 50uL | 1 | E | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 3:30:03 AM |
| 4 | 60.28 | 24.60mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 3:32:07 AM |
| 5 | 60.44 | 24.67mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 3:34:11 AM |

Mean Area 61.08
Mean Conc. 24.93mg/L




Sample

Sample Name: ccb
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

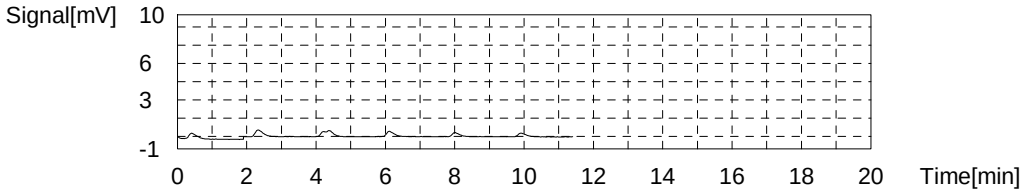
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:0.1224mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 0.6798 | 0.1679mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 3:42:42 AM |
| 2 | 0.8653 | 0.2439mg/L | 50uL | 1 | E | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 3:44:46 AM |
| 3 | 1.096 | 0.3385mg/L | 50uL | 1 | E | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 3:46:50 AM |
| 4 | 0.6367 | 0.1502mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 3:48:54 AM |
| 5 | 0.4835 | 0.08737mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 3:50:58 AM |
| 6 | 0.4753 | 0.08401mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 3:53:02 AM |

Mean Area 0.5688
Mean Conc. 0.1224mg/L




Sample

Sample Name: 280-134297-D-12-D MSD
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

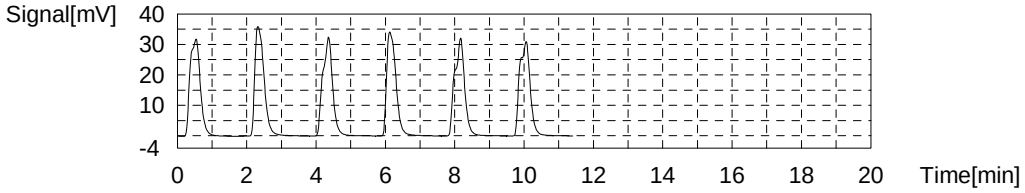
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:26.44mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 67.20 | 27.44mg/L | 50uL | 1 | E | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 4:01:27 AM |
| 2 | 67.06 | 27.38mg/L | 50uL | 1 | E | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 4:03:31 AM |
| 3 | 64.22 | 26.22mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 4:05:35 AM |
| 4 | 64.21 | 26.22mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 4:07:39 AM |
| 5 | 64.58 | 26.37mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 4:09:43 AM |
| 6 | 66.01 | 26.95mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 4:11:47 AM |

Mean Area 64.75
Mean Conc. 26.44mg/L




Sample

Sample Name: 280-134297-D-13-B
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

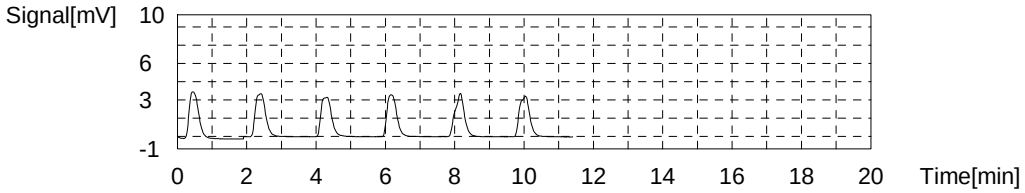
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:2.659mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 7.226 | 2.852mg/L | 50uL | 1 | E | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 4:20:12 AM |
| 2 | 7.212 | 2.846mg/L | 50uL | 1 | E | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 4:22:16 AM |
| 3 | 6.813 | 2.683mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 4:24:20 AM |
| 4 | 6.719 | 2.644mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 4:26:24 AM |
| 5 | 6.657 | 2.619mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 4:28:28 AM |
| 6 | 6.830 | 2.689mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 4:30:32 AM |

Mean Area 6.755
Mean Conc. 2.659mg/L




Sample

Sample Name: 280-134297-D-14-B
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

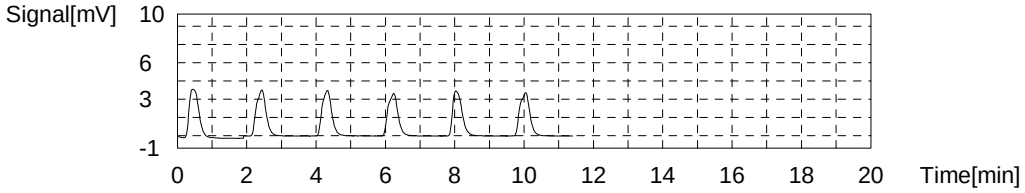
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:2.780mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 7.662 | 3.031mg/L | 50uL | 1 | E | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 4:38:58 AM |
| 2 | 7.386 | 2.917mg/L | 50uL | 1 | E | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 4:41:02 AM |
| 3 | 7.164 | 2.826mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 4:43:06 AM |
| 4 | 6.976 | 2.749mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 4:45:10 AM |
| 5 | 6.942 | 2.735mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 4:47:14 AM |
| 6 | 7.121 | 2.809mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 4:49:18 AM |

Mean Area 7.051
Mean Conc. 2.780mg/L




Sample

Sample Name: 280-134297-D-15-B
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

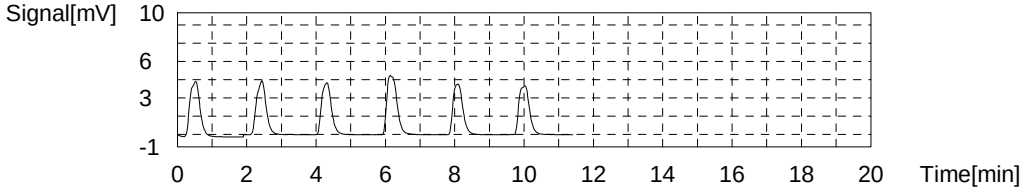
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:3.315mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 9.023 | 3.589mg/L | 50uL | 1 | E | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 4:57:44 AM |
| 2 | 8.557 | 3.398mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 4:59:48 AM |
| 3 | 8.333 | 3.306mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 5:01:52 AM |
| 4 | 9.938 | 3.964mg/L | 50uL | 1 | E | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 5:03:56 AM |
| 5 | 8.158 | 3.234mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 5:06:00 AM |
| 6 | 8.377 | 3.324mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 5:08:04 AM |

Mean Area 8.356
Mean Conc. 3.315mg/L




Sample

Sample Name: 280-134297-D-16-B
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

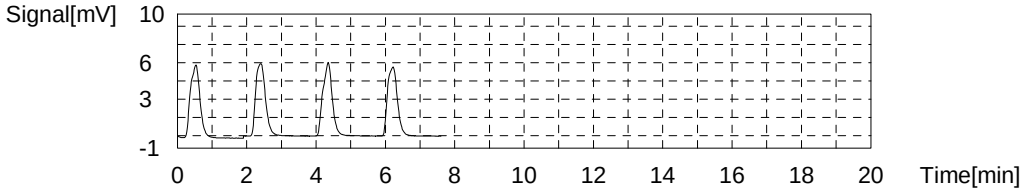
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:4.588mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 11.58 | 4.637mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 5:16:29 AM |
| 2 | 11.68 | 4.678mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 5:18:33 AM |
| 3 | 11.30 | 4.522mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 5:20:37 AM |
| 4 | 11.28 | 4.514mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 5:22:41 AM |

Mean Area 11.46
Mean Conc. 4.588mg/L




Sample

Sample Name: 280-134297-D-17-B
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

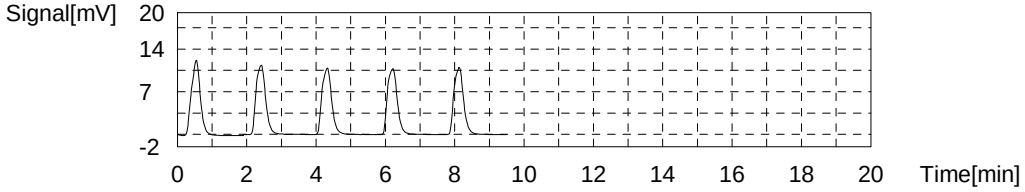
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:8.696mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 22.34 | 9.049mg/L | 50uL | 1 | E | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 5:31:13 AM |
| 2 | 21.91 | 8.872mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 5:33:17 AM |
| 3 | 21.23 | 8.594mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 5:35:21 AM |
| 4 | 21.41 | 8.667mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 5:37:25 AM |
| 5 | 21.37 | 8.651mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 5:39:29 AM |

Mean Area 21.48
Mean Conc. 8.696mg/L




Sample

Sample Name: 280-134297-D-18-B
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

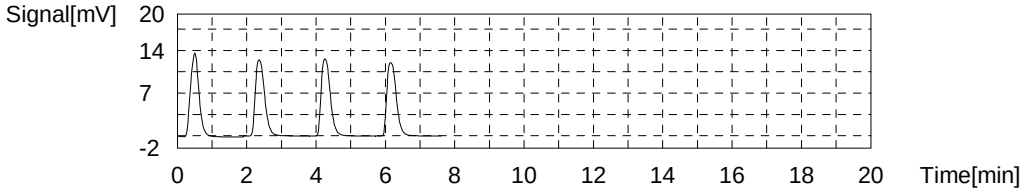
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:9.423mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 23.71 | 9.610mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 5:48:00 AM |
| 2 | 23.27 | 9.430mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 5:50:04 AM |
| 3 | 23.15 | 9.381mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 5:52:08 AM |
| 4 | 22.88 | 9.270mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 5:54:12 AM |

Mean Area 23.25
Mean Conc. 9.423mg/L




Sample

Sample Name: LCS 280-489286/38-A
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

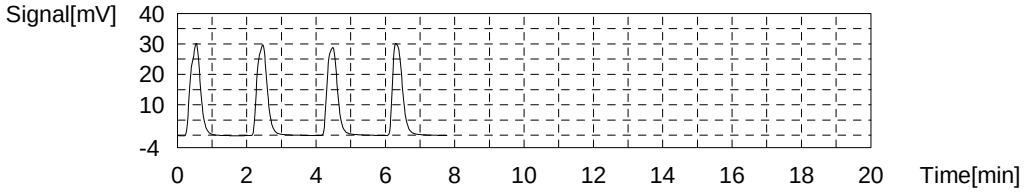
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:24.69mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 61.24 | 25.00mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 6:02:46 AM |
| 2 | 61.23 | 24.99mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 6:04:58 AM |
| 3 | 59.79 | 24.40mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 6:07:02 AM |
| 4 | 59.74 | 24.38mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 6:09:06 AM |

Mean Area 60.50
Mean Conc. 24.69mg/L




Sample

Sample Name: MB 280-489286/39-A
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

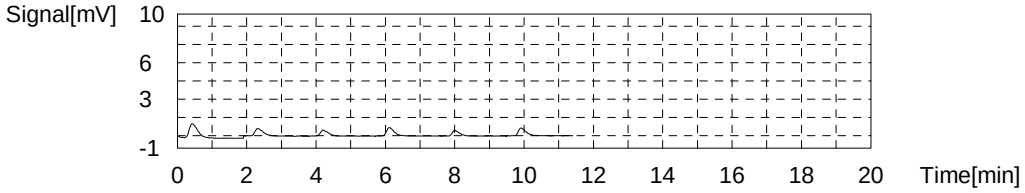
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:0.2791mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 1.883 | 0.6612mg/L | 50uL | 1 | E | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 6:17:38 AM |
| 2 | 1.012 | 0.3041mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 6:19:42 AM |
| 3 | 0.7315 | 0.1891mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 6:21:46 AM |
| 4 | 1.076 | 0.3303mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 6:23:50 AM |
| 5 | 0.6887 | 0.1715mg/L | 50uL | 1 | E | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 6:25:54 AM |
| 6 | 0.9845 | 0.2928mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 6:27:58 AM |

Mean Area 0.9510
Mean Conc. 0.2791mg/L




Sample

Sample Name: 280-134298-A-1-F
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

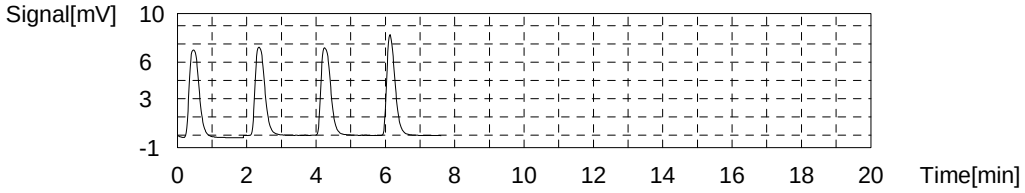
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:5.625mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 14.26 | 5.736mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 6:36:23 AM |
| 2 | 13.99 | 5.625mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 6:38:27 AM |
| 3 | 13.92 | 5.596mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 6:40:31 AM |
| 4 | 13.79 | 5.543mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 6:42:35 AM |

Mean Area 13.99
Mean Conc. 5.625mg/L




Sample

Sample Name: ccv
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

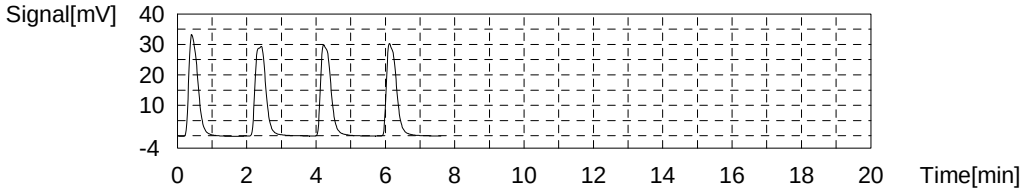
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:25.14mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 60.97 | 24.89mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 6:51:07 AM |
| 2 | 63.35 | 25.86mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 6:53:11 AM |
| 3 | 61.48 | 25.10mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 6:55:15 AM |
| 4 | 60.57 | 24.72mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 6:57:19 AM |

Mean Area 61.59
Mean Conc. 25.14mg/L




Sample

Sample Name: ccb
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

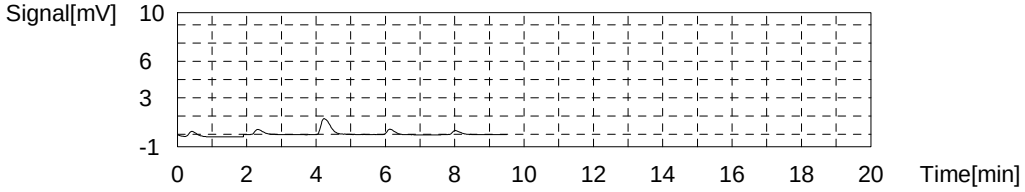
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:0.1474mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 0.6345 | 0.1493mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 7:05:51 AM |
| 2 | 0.7011 | 0.1766mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 7:07:55 AM |
| 3 | 2.446 | 0.8920mg/L | 50uL | 1 | E | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 7:09:59 AM |
| 4 | 0.6846 | 0.1698mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 7:12:03 AM |
| 5 | 0.4993 | 0.09385mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 7:14:07 AM |

Mean Area 0.6299
Mean Conc. 0.1474mg/L




Sample

Sample Name: 280-134298-A-1-G MS
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

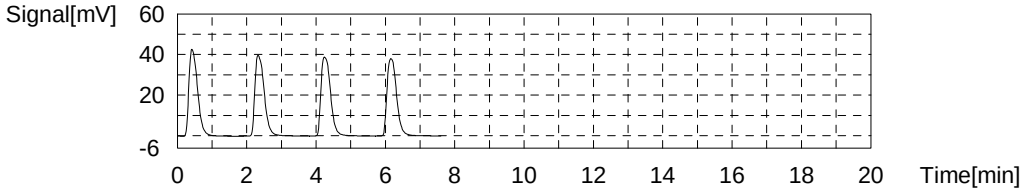
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:30.47mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 75.33 | 30.77mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 7:22:38 AM |
| 2 | 74.75 | 30.54mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 7:24:42 AM |
| 3 | 74.78 | 30.55mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 7:26:46 AM |
| 4 | 73.48 | 30.02mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 7:28:50 AM |

Mean Area 74.58
Mean Conc. 30.47mg/L




Sample

Sample Name: 280-134298-A-1-H MSD
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

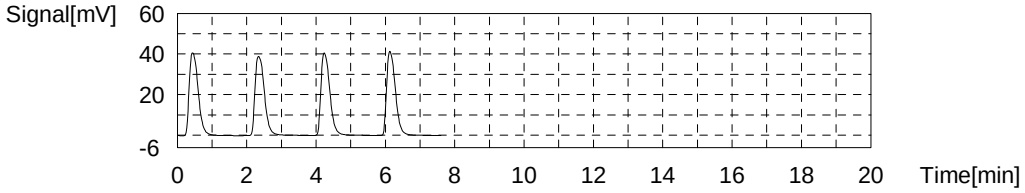
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:30.03mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 74.47 | 30.42mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 7:37:22 AM |
| 2 | 73.58 | 30.06mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 7:39:26 AM |
| 3 | 72.65 | 29.68mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 7:41:30 AM |
| 4 | 73.39 | 29.98mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 7:43:34 AM |

Mean Area 73.52
Mean Conc. 30.03mg/L




Sample

Sample Name: 280-134298-A-2-H
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

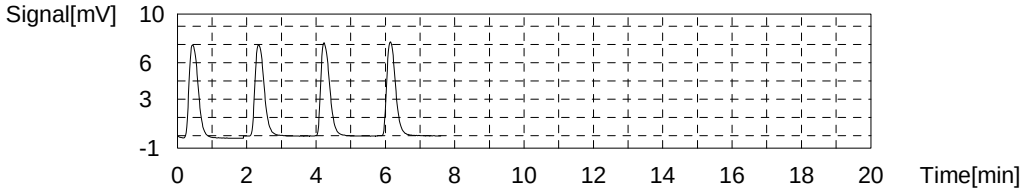
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:5.531mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 14.01 | 5.633mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 7:52:07 AM |
| 2 | 13.84 | 5.564mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 7:54:11 AM |
| 3 | 13.59 | 5.461mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 7:56:15 AM |
| 4 | 13.60 | 5.465mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 7:58:19 AM |

Mean Area 13.76
Mean Conc. 5.531mg/L




Sample

Sample Name: ccv
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

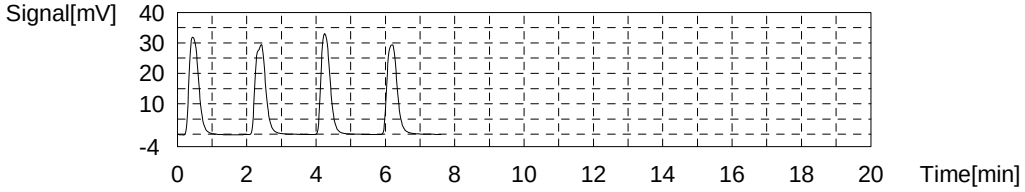
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:25.03mg/L |

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 | 3/20/2020 8:06:52 AM |
| 2 | 62.11 | 25.35mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 8:08:56 AM |
| 3 | 60.67 | 24.76mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 8:11:00 AM |
| 4 | 60.49 | 24.69mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 8:13:04 AM |

Mean Area 61.33
Mean Conc. 25.03mg/L




Sample

Sample Name: ccb
Sample ID:
Origin: NPOC.met
Status Completed
Chk. Result

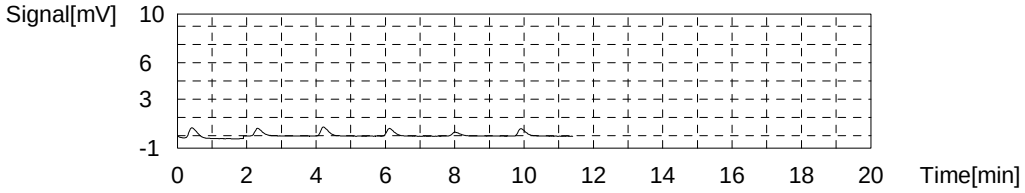
| Type | Anal. | Manual Dilution | Result |
|---|---|---|---|
| Unknown | NPOC | 1.000 | NPOC:0.2944mg/L |

1. Det

Anal.: NPOC

| No. | Area | Conc. | Inj. Vol. | Aut. Dil. | Ex. | Cal. Curve | Date / Time |
|---|---|---|---|---|---|---|---|
| 1 | 1.382 | 0.4558mg/L | 50uL | 1 | E | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 8:21:37 AM |
| 2 | 0.9636 | 0.2842mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 8:23:41 AM |
| 3 | 1.124 | 0.3500mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 8:25:45 AM |
| 4 | 0.9645 | 0.2846mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 8:27:49 AM |
| 5 | 0.5055 | 0.09639mg/L | 50uL | 1 | E | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 8:29:53 AM |
| 6 | 0.9018 | 0.2589mg/L | 50uL | 1 | | TOC3.2020_01_06_16_39_25.cal | 3/20/2020 8:31:57 AM |

| | |
|---|---|
| Mean Area | 0.9885 |
| Mean Conc. | 0.2944mg/L |



| | Analysis | Sample Name | Sample I | Manual | pH Result < 2? | Notes | Status | Date / Time | Vial |
|---|---|---|---|---|---|---|---|---|---|
| 1* | NPOC | icv | | 1.000 | ✓ | | Defined | | 1 |
| 2* | NPOC | icb | | 1.000 | ✓ | | Defined | | 2 |
| 3* | NPOC | LCS 280-489286/1-A | | 1.000 | ✓ | | Defined | | 3 |
| 4* | NPOC | MB 280-489286/2-A | | 1.000 | ✓ | | Defined | | 4 |
| 5* | NPOC | tic | | 1.000 | ✓ | | Defined | | 5 |
| 6* | NPOC | 280-134268-D-6-D | | 1.000 | 7 | | Defined | | 6 |
| 7* | NPOC | 280-134268-D-6-E MS | | 1.000 | 7 | | Defined | | 7 |
| 8* | NPOC | 280-134268-D-6-F MSD | | 1.000 | 7 | | Defined | | 8 |
| 9* | NPOC | 280-134268-D-1-B | | 1.000 | 7 | | Defined | | 9 |
| 10* | NPOC | 280-134268-D-2-B | | 1.000 | 7 | | Defined | | 10 |
| 11* | NPOC | 280-134268-D-4-B | | 1.000 | 7 | | Defined | | 11 |
| 12* | NPOC | 280-134268-D-5-B | | 1.000 | 7 | | Defined | | 12 |
| 13* | NPOC | 280-134268-D-7-B | | 1.000 | 7 | | Defined | | 13 |
| 14* | NPOC | 280-134268-D-8-B | | 1.000 | 7 | | Defined | | 14 |
| 15* | NPOC | ccv | | 1.000 | ✓ | | Defined | | 15 |
| 16* | NPOC | ccb | | 1.000 | ✓ | | Defined | | 16 |
| 17* | NPOC | 280-134268-D-9-B | | 1.000 | 7 | | Defined | | 17 |
| 18* | NPOC | 280-134268-D-10-B | | 1.000 | 7 | | Defined | | 18 |
| 19* | NPOC | 280-134297-D-1-D | | 1.000 | 7 | | Defined | | 19 |
| 20* | NPOC | 280-134297-D-2-B | | 1.000 | 7 | | Defined | | 20 |
| 21* | NPOC | 280-134297-D-2-C MS | | 1.000 | 7 | | Defined | | 21 |
| 22* | NPOC | 280-134297-D-2-D MSD | | 1.000 | 7 | | Defined | | 22 |
| 23* | NPOC | 280-134297-D-3-B | | 1.000 | 7 | | Defined | | 23 |
| 24* | NPOC | 280-134297-D-4-B | | 1.000 | 7 | | Defined | | 24 |
| 25* | NPOC | 280-134297-D-5-B | | 1.000 | 7 | | Defined | | 25 |
| 26* | NPOC | 280-134297-D-6-B | | 1.000 | 7 | | Defined | | 26 |
| 27* | NPOC | ccv | | 1.000 | ✓ | | Defined | | 27 |
| 28* | NPOC | ccb | | 1.000 | ✓ | | Defined | | 28 |
| 29* | NPOC | 280-134297-D-7-B | | 1.000 | 7 | | Defined | | 29 |
| 30* | NPOC | 280-134297-D-8-B | | 1.000 | 7 | | Defined | | 30 |
| 31* | NPOC | 280-134297-D-9-B | | 1.000 | 7 | | Defined | | 31 |
| 32* | NPOC | 280-134297-D-10-D | | 1.000 | 7 | | Defined | | 32 |
| 33* | NPOC | 280-134297-D-11-B | | 1.000 | 7 | | Defined | | 33 |
| 34* | NPOC | LCS 280-489286/27-A | | 1.000 | ✓ | | Defined | | 34 |
| 35* | NPOC | MB 280-489286/28-A | | 1.000 | ✓ | | Defined | | 35 |
| 36* | NPOC | tic | | 1.000 | ✓ | | Defined | | 36 |
| 37* | NPOC | 280-134297-D-12-B | | 1.000 | 7 | | Defined | | 37 |
| 38* | NPOC | 280-134297-D-12-C MS | | 1.000 | 7 | | Defined | | 38 |
| 39* | NPOC | ccv | | 1.000 | ✓ | | Defined | | 39 |
| 40* | NPOC | ccb | | 1.000 | ✓ | | Defined | | 40 |
| 41* | NPOC | 280-134297-D-12-D MSD | | 1.000 | 7 | | Defined | | 41 |
| 42* | NPOC | 280-134297-D-13-B | | 1.000 | 7 | | Defined | | 42 |
| 43* | NPOC | 280-134297-D-14-B | | 1.000 | 7 | | Defined | | 43 |
| 44* | NPOC | 280-134297-D-15-B | | 1.000 | 7 | | Defined | | 44 |
| 45* | NPOC | 280-134297-D-16-B | | 1.000 | 7 | | Defined | | 45 |
| 46* | NPOC | 280-134297-D-17-B | | 1.000 | 7 | | Defined | | 46 |
| 47* | NPOC | 280-134297-D-18-B | | 1.000 | 7 | | Defined | | 47 |
| 48* | NPOC | LCS 280-489286/38-A | | 1.000 | ✓ | | Defined | | 48 |
| 49* | NPOC | MB 280-489286/39-A | | 1.000 | ✓ | | Defined | | 49 |
| 50* | NPOC | 280-134298-A-1-F | | 1.000 | ✓ | | Defined | | 50 |
| 51* | NPOC | ccv | | 1.000 | ✓ | | Defined | | 51 |

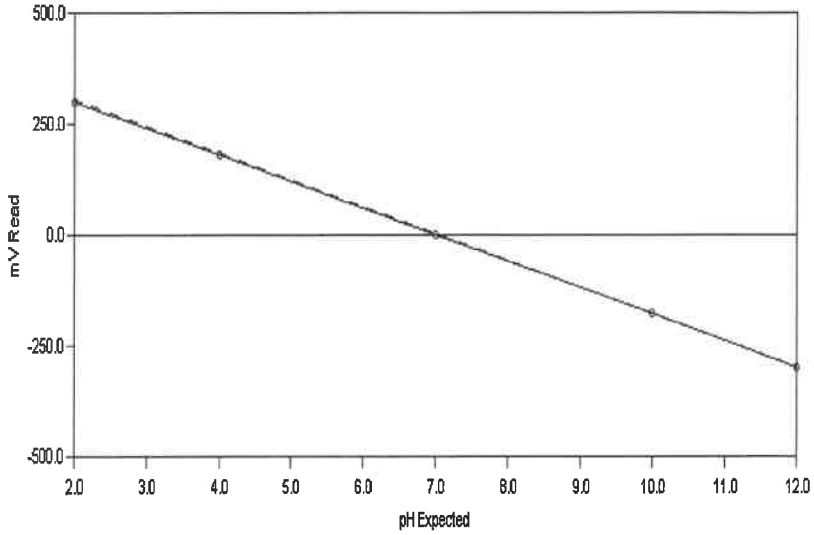
| | Analysis | Sample Name | Sample I | Manual | Result | Notes | Status | Date / Time | Vial |
|---|---|---|---|---|---|---|---|---|---|
| 52* | NPOC | ccb | | 1.000 | ✓ | | Defined | | 52 |
| 53* | NPOC | 280-134298-A-1-G MS | | 1.000 | ✓ | | Defined | | 53 |
| 54* | NPOC | 280-134298-A-1-H MSD | | 1.000 | ✓ | | Defined | | 54 |
| 55* | NPOC | 280-134298-A-2-H | | 1.000 | ✓ | | Defined | | 55 |
| 56* | NPOC | ccv | | 1.000 | ✓ | | Defined | | 56 |
| 57* | NPOC | ccb | | 1.000 | ✓ | | Defined | | 57 |

# MANTECH INC.

## Calibration Report

Report Date: 3/10/2020 : 9:33 AM

## Calibration Record # 645




**Calibration Settings**

| | | | | |
|---|---|---|---|---|
| Calibration ID | PH | Date | 3/10/2020 | |
| Channel | 1 | Time | 8:33 AM | |
| Probe Type | pH | Temperature | 296.50 K | 23.35 C |
| Probe ID | PH ELECTRODE | Analysis Type | Single Line Fit | |

**Calibration Results**

| | | | |
|---|---|---|---|
| Slope | -60.124 | CorrCoeff | 1.0000 |
| Intercept | 1.342 | Equation: Y = (-60.124) X + ( 1.342 ) | |

**Calibration Validity** **True** Operator

| | Result | Minimum | Maximum |
|---|---|---|---|
| **Slope** | -60.124 | -65.00 | -54.00 |
| **Intercept** | 1.342 | -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 | 301.02 |
| | 4.00 | 182.37 |
| | 7.00 | 1.70 |
| | 10.00 | -177.85 |
| | 12.00 | -300.53 |

Report Date: 3/10/2020 : 5:13 PM

# Test America
## Water Analysis Report

Analyst:_____

**Run Number** 2488 **Order Number** 20200310-2

| 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 | 3/10/2020 | 9:55 AM | 23.96 | -1.00 | 5.46 | -1.00 | -1.00 | -1.00 | .00 | 1.18 | 1.18 | .00 | .00 | .00 | .03 | .05 | .02 |
| INITIAL CHECK | 3/10/2020 | 10:02 AM | 23.62 | -1.00 | 10.54 | -1.00 | -1.00 | -1.00 | 109.91 | 202.51 | .00 | 185.20 | 17.31 | 1.10 | 2.03 | -1.00 | .02 |
| BUFFER 7 | 3/10/2020 | 10:03 AM | 23.22 | -1.00 | 6.98 | -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 | 3/10/2020 | 10:10 AM | 23.06 | -1.00 | 10.56 | -1.00 | -1.00 | -1.00 | 110.15 | 204.31 | .00 | 188.31 | 16.00 | 1.10 | 2.04 | -1.00 | .02 |
| LCSD | 3/10/2020 | 10:17 AM | 23.04 | -1.00 | 10.57 | -1.00 | -1.00 | -1.00 | 110.63 | 203.03 | .00 | 184.79 | 18.24 | 1.11 | 2.03 | -1.00 | .02 |
| MB | 3/10/2020 | 10:22 AM | 23.03 | -1.00 | 7.45 | -1.00 | -1.00 | -1.00 | .00 | 1.33 | 1.33 | .00 | .00 | .00 | .03 | .05 | .02 |
| 280-134235-a-2 | 3/10/2020 | 10:28 AM | 22.70 | -1.00 | 7.71 | -1.00 | -1.00 | -1.00 | .00 | 338.91 | 338.91 | .00 | .00 | .00 | 3.39 | -1.00 | .02 |
| DU 280-134235-a-2 | 3/10/2020 | 10:35 AM | 22.69 | -1.00 | 7.74 | -1.00 | -1.00 | -1.00 | .00 | 351.71 | 351.71 | .00 | .00 | .00 | 3.52 | -1.00 | .02 |
| 280-134235-a-3 | 3/10/2020 | 10:43 AM | 22.87 | -1.00 | 7.77 | -1.00 | -1.00 | -1.00 | .00 | 618.73 | 618.73 | .00 | .00 | .00 | 6.19 | -1.00 | .02 |
| 280-134235-a-4 | 3/10/2020 | 10:49 AM | 23.36 | -1.00 | 7.71 | -1.00 | -1.00 | -1.00 | .00 | 307.98 | 307.98 | .00 | .00 | .00 | 3.08 | -1.00 | .02 |
| 280-134235-a-5 | 3/10/2020 | 10:55 AM | 23.31 | -1.00 | 7.64 | -1.00 | -1.00 | -1.00 | .00 | 293.69 | 293.69 | .00 | .00 | .00 | 2.94 | -1.00 | .02 |
| 280-134235-a-6 | 3/10/2020 | 11:01 AM | 23.04 | -1.00 | 7.49 | -1.00 | -1.00 | -1.00 | .00 | 260.51 | 260.51 | .00 | .00 | .00 | 2.61 | -1.00 | .02 |
| 280-134235-a-7 | 3/10/2020 | 11:09 AM | 22.90 | -1.00 | 7.23 | -1.00 | -1.00 | -1.00 | .00 | 511.45 | 511.45 | .00 | .00 | .00 | 5.11 | -1.00 | .02 |
| 280-134235-a-8 | 3/10/2020 | 11:17 AM | 22.90 | -1.00 | 7.08 | -1.00 | -1.00 | -1.00 | .00 | 512.17 | 512.17 | .00 | .00 | .00 | 5.12 | -1.00 | .02 |
| 280-134235-a-9 | 3/10/2020 | 11:24 AM | 22.96 | -1.00 | 7.47 | -1.00 | -1.00 | -1.00 | .00 | 526.81 | 526.81 | .00 | .00 | .00 | 5.27 | -1.00 | .02 |
| 280-134235-a-10 | 3/10/2020 | 11:30 AM | 22.95 | -1.00 | 7.28 | -1.00 | -1.00 | -1.00 | .00 | 203.55 | 203.55 | .00 | .00 | .00 | 2.04 | -1.00 | .02 |
| CCV | 3/10/2020 | 11:36 AM | 22.95 | -1.00 | 10.52 | -1.00 | -1.00 | -1.00 | 110.04 | 205.37 | .00 | 190.67 | 14.70 | 1.10 | 2.05 | -1.00 | .02 |
| CCB | 3/10/2020 | 11:41 AM | 23.07 | -1.00 | 7.17 | -1.00 | -1.00 | -1.00 | .00 | 1.11 | 1.11 | .00 | .00 | .00 | .03 | .04 | .02 |
| 280-134235-a-11 | 3/10/2020 | 11:46 AM | 23.17 | -1.00 | 7.30 | -1.00 | -1.00 | -1.00 | .00 | 202.28 | 202.28 | .00 | .00 | .00 | 2.02 | -1.00 | .02 |
| 280-134235-a-12 | 3/10/2020 | 11:53 AM | 23.47 | -1.00 | 7.68 | -1.00 | -1.00 | -1.00 | .00 | 383.19 | 383.19 | .00 | .00 | .00 | 3.83 | -1.00 | .02 |
| 280-134249-c-1 | 3/10/2020 | 12:01 PM | 23.49 | -1.00 | 7.49 | -1.00 | -1.00 | -1.00 | .00 | 511.40 | 511.40 | .00 | .00 | .00 | 5.11 | -1.00 | .02 |
| 280-134249-c-2 | 3/10/2020 | 12:08 PM | 23.33 | -1.00 | 7.68 | -1.00 | -1.00 | -1.00 | .00 | 423.88 | 423.88 | .00 | .00 | .00 | 4.24 | -1.00 | .02 |
| 280-134249-c-3 | 3/10/2020 | 12:15 PM | 23.19 | -1.00 | 7.40 | -1.00 | -1.00 | -1.00 | .00 | 402.21 | 402.21 | .00 | .00 | .00 | 4.02 | -1.00 | .02 |
| 280-134249-c-4 | 3/10/2020 | 12:21 PM | 23.06 | -1.00 | 7.56 | -1.00 | -1.00 | -1.00 | .00 | 323.90 | 323.90 | .00 | .00 | .00 | 3.24 | -1.00 | .02 |
| 280-134249-c-5 | 3/10/2020 | 12:28 PM | 23.09 | -1.00 | 7.61 | -1.00 | -1.00 | -1.00 | .00 | 415.56 | 415.56 | .00 | .00 | .00 | 4.16 | -1.00 | .02 |
| 280-134249-c-6 | 3/10/2020 | 12:38 PM | 23.11 | -1.00 | 7.14 | -1.00 | -1.00 | -1.00 | .00 | 875.29 | 875.29 | .00 | .00 | .00 | 8.75 | -1.00 | .02 |
| 280-134249-c-7 | 3/10/2020 | 12:46 PM | 23.23 | -1.00 | 7.13 | -1.00 | -1.00 | -1.00 | .00 | 623.11 | 623.11 | .00 | .00 | .00 | 6.23 | -1.00 | .02 |





*PC-TitratION PLUS by Man-Tech Associates, Inc.*

GENERAL RESULTS REPORT.SRW

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**Run Number** 2488 **Order Number** 20200310-2

| 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) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 280-134249-c-8 | 3/10/2020 | 12:52 PM | 23.36 | -1.00 | 7.53 | -1.00 | -1.00 | -1.00 | .00 | 318.44 | 318.44 | .00 | .00 | .00 | 3.18 | -1.00 | .02 |
| CCV | 3/10/2020 | 12:59 PM | 23.44 | -1.00 | 10.49 | -1.00 | -1.00 | -1.00 | 107.86 | 206.41 | .00 | 197.11 | 9.30 | 1.08 | 2.06 | -1.00 | .02 |
| CCB | 3/10/2020 | 1:03 PM | 23.64 | -1.00 | 7.03 | -1.00 | -1.00 | -1.00 | .00 | .97 | .97 | .00 | .00 | .00 | .03 | .04 | .02 |
| LCS | 3/10/2020 | 1:10 PM | 23.59 | -1.00 | 10.50 | -1.00 | -1.00 | -1.00 | 108.10 | 205.14 | .00 | 194.07 | 11.07 | 1.08 | 2.05 | -1.00 | .02 |
| LCSD | 3/10/2020 | 1:17 PM | 23.44 | -1.00 | 10.51 | -1.00 | -1.00 | -1.00 | 107.96 | 204.66 | .00 | 193.40 | 11.26 | 1.08 | 2.05 | -1.00 | .02 |
| MB | 3/10/2020 | 1:21 PM | 23.28 | -1.00 | 7.24 | -1.00 | -1.00 | -1.00 | .00 | .89 | .89 | .00 | .00 | .00 | .03 | .04 | .02 |
| 280-134249-c-9 | 3/10/2020 | 1:30 PM | 23.11 | -1.00 | 7.39 | -1.00 | -1.00 | -1.00 | .00 | 631.38 | 631.38 | .00 | .00 | .00 | 6.31 | -1.00 | .02 |
| DU 280-134249-c-9 | 3/10/2020 | 1:39 PM | 23.23 | -1.00 | 7.35 | -1.00 | -1.00 | -1.00 | .00 | 643.44 | 643.44 | .00 | .00 | .00 | 6.43 | -1.00 | .02 |
| 280-134249-c-10 | 3/10/2020 | 1:43 PM | 23.27 | -1.00 | 6.55 | -1.00 | -1.00 | -1.00 | .00 | 1.22 | 1.22 | .00 | .00 | .00 | .03 | .04 | .02 |
| 280-134289-g-1 | 3/10/2020 | 1:52 PM | 23.19 | -1.00 | 7.62 | -1.00 | -1.00 | -1.00 | .00 | 728.05 | 728.05 | .00 | .00 | .00 | 7.28 | -1.00 | .02 |
| 280-134289-g-2 | 3/10/2020 | 1:59 PM | 23.36 | -1.00 | 7.80 | -1.00 | -1.00 | -1.00 | .00 | 478.71 | 478.71 | .00 | .00 | .00 | 4.79 | -1.00 | .02 |
| 280-134289-g-3 | 3/10/2020 | 2:09 PM | 23.39 | -1.00 | 7.75 | -1.00 | -1.00 | -1.00 | .00 | 801.02 | 801.02 | .00 | .00 | .00 | 8.01 | -1.00 | .02 |
| 280-134421-f-1 | 3/10/2020 | 2:14 PM | 23.56 | -1.00 | 7.33 | -1.00 | -1.00 | -1.00 | .00 | 174.80 | 174.80 | .00 | .00 | .00 | 1.75 | -1.00 | .02 |
| 280-134421-f-2 | 3/10/2020 | 2:19 PM | 23.73 | -1.00 | 7.35 | -1.00 | -1.00 | -1.00 | .00 | 173.75 | 173.75 | .00 | .00 | .00 | 1.74 | -1.00 | .02 |
| 280-134421-f-3 | 3/10/2020 | 2:25 PM | 23.56 | -1.00 | 7.28 | -1.00 | -1.00 | -1.00 | .00 | 171.71 | 171.71 | .00 | .00 | .00 | 1.72 | -1.00 | .02 |
| 280-134421-f-4 | 3/10/2020 | 2:31 PM | 23.44 | -1.00 | 7.29 | -1.00 | -1.00 | -1.00 | .00 | 161.77 | 161.77 | .00 | .00 | .00 | 1.62 | -1.00 | .02 |
| CCV | 3/10/2020 | 2:37 PM | 23.31 | -1.00 | 10.46 | -1.00 | -1.00 | -1.00 | 107.33 | 207.05 | .00 | 199.44 | 7.61 | 1.07 | 2.07 | -1.00 | .02 |
| CCB | 3/10/2020 | 2:42 PM | 23.25 | -1.00 | 7.10 | -1.00 | -1.00 | -1.00 | .00 | .82 | .82 | .00 | .00 | .00 | .03 | .04 | .02 |
| 280-134421-f-5 | 3/10/2020 | 2:47 PM | 23.19 | -1.00 | 7.23 | -1.00 | -1.00 | -1.00 | .00 | 162.21 | 162.21 | .00 | .00 | .00 | 1.62 | -1.00 | .02 |
| 280-134421-f-6 | 3/10/2020 | 2:52 PM | 23.22 | -1.00 | 7.28 | -1.00 | -1.00 | -1.00 | .00 | 163.28 | 163.28 | .00 | .00 | .00 | 1.63 | -1.00 | .02 |
| 280-134421-f-7 | 3/10/2020 | 2:57 PM | 23.30 | -1.00 | 7.31 | -1.00 | -1.00 | -1.00 | .00 | 163.39 | 163.39 | .00 | .00 | .00 | 1.63 | -1.00 | .02 |
| 280-134421-f-8 | 3/10/2020 | 3:03 PM | 23.35 | -1.00 | 7.33 | -1.00 | -1.00 | -1.00 | .00 | 163.78 | 163.78 | .00 | .00 | .00 | 1.64 | -1.00 | .02 |
| 280-134421-f-9 | 3/10/2020 | 3:08 PM | 23.46 | -1.00 | 7.34 | -1.00 | -1.00 | -1.00 | .00 | 165.14 | 165.14 | .00 | .00 | .00 | 1.65 | -1.00 | .02 |
| 280-134421-f-10 | 3/10/2020 | 3:13 PM | 23.56 | -1.00 | 7.41 | -1.00 | -1.00 | -1.00 | .00 | 169.48 | 169.48 | .00 | .00 | .00 | 1.69 | -1.00 | .02 |
| 280-134268-f-1 | 3/10/2020 | 3:18 PM | 23.81 | -1.00 | 7.40 | -1.00 | -1.00 | -1.00 | .00 | 113.93 | 113.93 | .00 | .00 | .00 | 1.14 | -1.00 | .02 |
| 280-134268-f-2 | 3/10/2020 | 3:23 PM | 23.72 | -1.00 | 7.08 | -1.00 | -1.00 | -1.00 | .00 | 102.75 | 102.75 | .00 | .00 | .00 | 1.03 | -1.00 | .02 |
| 280-134268-f-6 | 3/10/2020 | 3:28 PM | 23.62 | -1.00 | 6.79 | -1.00 | -1.00 | -1.00 | .00 | 72.52 | 72.52 | .00 | .00 | .00 | .73 | -1.00 | .02 |
| 280-134268-f-3 | 3/10/2020 | 3:34 PM | 23.51 | -1.00 | 7.16 | -1.00 | -1.00 | -1.00 | .00 | 354.58 | 354.58 | .00 | .00 | .00 | 3.55 | -1.00 | .02 |
| CCV | 3/10/2020 | 3:41 PM | 23.47 | -1.00 | 10.42 | -1.00 | -1.00 | -1.00 | 103.66 | 208.91 | 1.59 | 207.32 | .00 | 1.04 | 2.09 | -1.00 | .02 |
| CCB | 3/10/2020 | 3:45 PM | 23.47 | -1.00 | 7.10 | -1.00 | -1.00 | -1.00 | .00 | .67 | .67 | .00 | .00 | .00 | .02 | .04 | .02 |





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**Run Number** 2488 **Order Number** 20200310-2

| 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) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LCS | 3/10/2020 | 3:53 PM | 23.39 | -1.00 | 10.44 | -1.00 | -1.00 | -1.00 | 120.27 | 217.80 | .00 | 195.06 | 22.74 | 1.20 | 2.18 | -1.00 | .02 |
| LCSD | 3/10/2020 | 3:59 PM | 23.47 | -1.00 | 10.44 | -1.00 | -1.00 | -1.00 | 106.12 | 206.05 | .00 | 199.86 | 6.20 | 1.06 | 2.06 | -1.00 | .02 |
| MB | 3/10/2020 | 4:04 PM | 23.59 | -1.00 | 7.12 | -1.00 | -1.00 | -1.00 | .00 | .83 | .83 | .00 | .00 | .00 | .03 | .05 | .02 |
| 280-134268-f-4 | 3/10/2020 | 4:10 PM | 23.57 | -1.00 | 7.64 | -1.00 | -1.00 | -1.00 | .00 | 232.17 | 232.17 | .00 | .00 | .00 | 2.32 | -1.00 | .02 |
| DU 280-134268-f-4 | 3/10/2020 | 4:16 PM | 23.59 | -1.00 | 7.69 | -1.00 | -1.00 | -1.00 | .00 | 235.39 | 235.39 | .00 | .00 | .00 | 2.35 | -1.00 | .02 |
| 680-181162-g-1 | 3/10/2020 | 4:21 PM | 23.86 | -1.00 | 7.50 | -1.00 | -1.00 | -1.00 | .00 | 179.07 | 179.07 | .00 | .00 | .00 | 1.79 | -1.00 | .02 |
| 280-134290-f-2 | 3/10/2020 | 4:27 PM | 23.81 | -1.00 | 7.58 | -1.00 | -1.00 | -1.00 | .00 | 187.82 | 187.82 | .00 | .00 | .00 | 1.88 | -1.00 | .02 |
| 280-134290-e-1 | 3/10/2020 | 4:32 PM | 23.75 | -1.00 | 7.52 | -1.00 | -1.00 | -1.00 | .00 | 187.52 | 187.52 | .00 | .00 | .00 | 1.88 | -1.00 | .02 |
| 280-134270-a-3 | 3/10/2020 | 4:40 PM | 23.67 | -1.00 | 7.64 | -1.00 | -1.00 | -1.00 | .00 | 592.45 | 592.45 | .00 | .00 | .00 | 5.92 | -1.00 | .02 |
| 280-134270-a-2 | 3/10/2020 | 4:47 PM | 23.70 | -1.00 | 7.50 | -1.00 | -1.00 | -1.00 | .00 | 453.98 | 453.98 | .00 | .00 | .00 | 4.54 | -1.00 | .02 |
| 280-134285-a-4 | 3/10/2020 | 5:01 PM | 23.65 | -1.00 | 8.14 | -1.00 | -1.00 | -1.00 | .00 | 1,363.60 | 1,363.60 | .00 | .00 | .00 | 13.64 | -1.00 | .02 |
| CCV | 3/10/2020 | 5:07 PM | 23.73 | -1.00 | 10.38 | -1.00 | -1.00 | -1.00 | 102.99 | 207.91 | 1.92 | 205.99 | .00 | 1.03 | 2.08 | -1.00 | .02 |
| CCB | 3/10/2020 | 5:12 PM | 23.60 | -1.00 | 7.08 | -1.00 | -1.00 | -1.00 | .00 | 1.08 | 1.08 | .00 | .00 | .00 | .03 | .04 | .02 |





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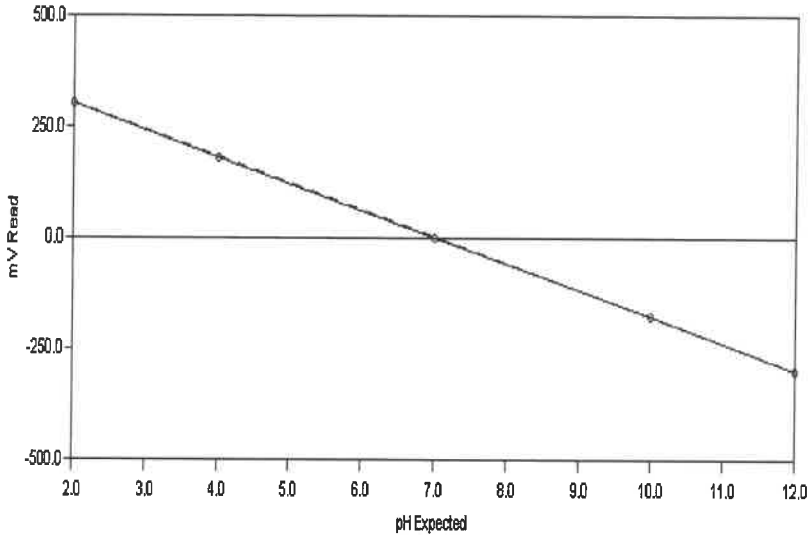
# MANTECH INC.

## Calibration Report

Report Date: 3/12/2020 : 10:53 AM

### Calibration Record # 647




**Calibration Settings**

| | | | | |
|---|---|---|---|---|
| Calibration ID | PH | Date | 3/12/2020 | |
| Channel | 1 | Time | 10:51 AM | |
| Probe Type | pH | Temperature | 296.88 K | 23.73 C |
| Probe ID | PH ELECTRODE | Analysis Type | Single Line Fit | |

**Calibration Results**

| | | | |
|---|---|---|---|
| Slope | -60.066 | CorrCoeff | 1.0000 |
| Intercept | 1.464 | Equation: Y = (-60.066) X + ( 1.464 ) | |

**Calibration Validity** **True** Operator

| | Result | Minimum | Maximum |
|---|---|---|---|
| **Slope** | -60.066 | -65.00 | -54.00 |
| **Intercept** | 1.464 | -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 | 301.75 |
| | 4.00 | 181.27 |
| | 7.00 | 1.83 |
| | 10.00 | -177.85 |
| | 12.00 | -299.68 |

Report Date: 3/12/2020 : 5:37 PM

# *Test America*
# Water Analysis Report

Analyst:_____

**Run Number** 2497 **Order Number** 20200312-3

| 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 | 3/12/2020 | 11:10 AM | 23.92 | -1.00 | 5.48 | -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 | 3/12/2020 | 11:17 AM | 23.60 | -1.00 | 10.51 | -1.00 | -1.00 | -1.00 | 110.92 | 203.13 | .00 | 184.41 | 18.72 | 1.11 | 2.03 | -1.00 | .02 |
| BUFFER 7 | 3/12/2020 | 11:18 AM | 23.47 | -1.00 | 6.98 | -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 | 3/12/2020 | 11:25 AM | 23.47 | -1.00 | 10.51 | -1.00 | -1.00 | -1.00 | 108.64 | 203.75 | .00 | 190.23 | 13.52 | 1.09 | 2.04 | -1.00 | .02 |
| MB | 3/12/2020 | 11:30 AM | 23.65 | -1.00 | 7.77 | -1.00 | -1.00 | -1.00 | .00 | 2.07 | 2.07 | .00 | .00 | .00 | .03 | .05 | .02 |
| 280-134268-f-5 | 3/12/2020 | 11:35 AM | 23.43 | -1.00 | 6.98 | -1.00 | -1.00 | -1.00 | .00 | 214.07 | 214.07 | .00 | .00 | .00 | 2.14 | -1.00 | .02 |
| DU 280-134268-f-5 | 3/12/2020 | 11:40 AM | 23.35 | -1.00 | 7.02 | -1.00 | -1.00 | -1.00 | .00 | 217.44 | 217.44 | .00 | .00 | .00 | 2.17 | -1.00 | .02 |
| 280-134268-f-7 | 3/12/2020 | 11:46 AM | 23.28 | -1.00 | 7.06 | -1.00 | -1.00 | -1.00 | .00 | 258.90 | 258.90 | .00 | .00 | .00 | 2.59 | -1.00 | .02 |
| 280-134268-f-8 | 3/12/2020 | 11:52 AM | 23.33 | -1.00 | 7.08 | -1.00 | -1.00 | -1.00 | .00 | 246.59 | 246.59 | .00 | .00 | .00 | 2.47 | -1.00 | .02 |
| 280-134268-f-9 | 3/12/2020 | 11:58 AM | 23.46 | -1.00 | 7.61 | -1.00 | -1.00 | -1.00 | .00 | 265.79 | 265.79 | .00 | .00 | .00 | 2.66 | -1.00 | .02 |
| 280-134268-f-10 | 3/12/2020 | 12:04 PM | 23.67 | -1.00 | 7.33 | -1.00 | -1.00 | -1.00 | .00 | 336.51 | 336.51 | .00 | .00 | .00 | 3.37 | -1.00 | .02 |
| 280-134302-a-1 | 3/12/2020 | 12:11 PM | 23.57 | -1.00 | 7.45 | -1.00 | -1.00 | -1.00 | .00 | 402.48 | 402.48 | .00 | .00 | .00 | 4.02 | -1.00 | .02 |
| 280-134302-a-2 | 3/12/2020 | 12:18 PM | 23.39 | -1.00 | 7.42 | -1.00 | -1.00 | -1.00 | .00 | 413.35 | 413.35 | .00 | .00 | .00 | 4.13 | -1.00 | .02 |
| 280-134302-a-3 | 3/12/2020 | 12:25 PM | 23.22 | -1.00 | 7.22 | -1.00 | -1.00 | -1.00 | .00 | 411.70 | 411.70 | .00 | .00 | .00 | 4.12 | -1.00 | .02 |
| 280-134302-a-4 | 3/12/2020 | 12:31 PM | 23.06 | -1.00 | 7.48 | -1.00 | -1.00 | -1.00 | .00 | 268.90 | 268.90 | .00 | .00 | .00 | 2.69 | -1.00 | .02 |
| CCV | 3/12/2020 | 12:37 PM | 22.95 | -1.00 | 10.49 | -1.00 | -1.00 | -1.00 | 109.19 | 207.72 | .00 | 197.06 | 10.66 | 1.09 | 2.08 | -1.00 | .02 |
| CCB | 3/12/2020 | 12:41 PM | 22.90 | -1.00 | 7.48 | -1.00 | -1.00 | -1.00 | .00 | 1.24 | 1.24 | .00 | .00 | .00 | .03 | .04 | .02 |
| 280-134310-d-1 | 3/12/2020 | 12:47 PM | 22.83 | -1.00 | 7.20 | -1.00 | -1.00 | -1.00 | .00 | 233.18 | 233.18 | .00 | .00 | .00 | 2.33 | -1.00 | .02 |
| 280-134310-e-2 | 3/12/2020 | 12:52 PM | 22.89 | -1.00 | 6.55 | -1.00 | -1.00 | -1.00 | .00 | 83.54 | 83.54 | .00 | .00 | .00 | .84 | -1.00 | .02 |
| 280-134310-e-3 | 3/12/2020 | 12:58 PM | 22.87 | -1.00 | 7.45 | -1.00 | -1.00 | -1.00 | .00 | 329.72 | 329.72 | .00 | .00 | .00 | 3.30 | -1.00 | .02 |
| 280-134310-e-4 | 3/12/2020 | 1:03 PM | 23.14 | -1.00 | 7.48 | -1.00 | -1.00 | -1.00 | .00 | 93.07 | 93.07 | .00 | .00 | .00 | .93 | -1.00 | .02 |
| 280-134449-a-1 | 3/12/2020 | 1:09 PM | 23.33 | -1.00 | 7.57 | -1.00 | -1.00 | -1.00 | .00 | 250.28 | 250.28 | .00 | .00 | .00 | 2.50 | -1.00 | .02 |
| 680-181225-g-6 | 3/12/2020 | 1:14 PM | 23.57 | -1.00 | 6.73 | -1.00 | -1.00 | -1.00 | .00 | 154.55 | 154.55 | .00 | .00 | .00 | 1.55 | -1.00 | .02 |
| 680-181225-g-5 | 3/12/2020 | 1:19 PM | 23.41 | -1.00 | 6.85 | -1.00 | -1.00 | -1.00 | .00 | 136.03 | 136.03 | .00 | .00 | .00 | 1.36 | -1.00 | .02 |
| 680-181225-g-3 | 3/12/2020 | 1:25 PM | 23.28 | -1.00 | 6.78 | -1.00 | -1.00 | -1.00 | .00 | 196.90 | 196.90 | .00 | .00 | .00 | 1.97 | -1.00 | .02 |
| 680-181225-g-2 | 3/12/2020 | 1:30 PM | 23.20 | -1.00 | 6.19 | -1.00 | -1.00 | -1.00 | .00 | 14.87 | 14.87 | .00 | .00 | .00 | .17 | .19 | .02 |
| 680-181225-g-1 | 3/12/2020 | 1:34 PM | 23.15 | -1.00 | 6.52 | -1.00 | -1.00 | -1.00 | .00 | 66.30 | 66.30 | .00 | .00 | .00 | .66 | -1.00 | .02 |





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**Run Number** 2497 **Order Number** 20200312-3

| 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 | 3/12/2020 | 1:41 PM | 23.12 | -1.00 | 10.46 | -1.00 | -1.00 | -1.00 | 106.84 | 205.74 | .00 | 197.81 | 7.93 | 1.07 | 2.06 | -1.00 | .02 |
| CCB | 3/12/2020 | 1:45 PM | 23.33 | -1.00 | 7.49 | -1.00 | -1.00 | -1.00 | .00 | 1.56 | 1.56 | .00 | .00 | .00 | .03 | .05 | .02 |
| LCS | 3/12/2020 | 1:52 PM | 23.25 | -1.00 | 10.46 | -1.00 | -1.00 | -1.00 | 106.95 | 204.41 | .00 | 194.94 | 9.48 | 1.07 | 2.04 | -1.00 | .02 |
| MB | 3/12/2020 | 1:56 PM | 23.41 | -1.00 | 7.60 | -1.00 | -1.00 | -1.00 | .00 | 1.51 | 1.51 | .00 | .00 | .00 | .03 | .05 | .02 |
| 280-134450-e-1 | 3/12/2020 | 2:02 PM | 23.46 | -1.00 | 7.25 | -1.00 | -1.00 | -1.00 | .00 | 163.43 | 163.43 | .00 | .00 | .00 | 1.63 | -1.00 | .02 |
| DU 280-134450-e-1 | 3/12/2020 | 2:07 PM | 23.62 | -1.00 | 7.30 | -1.00 | -1.00 | -1.00 | .00 | 164.72 | 164.72 | .00 | .00 | .00 | 1.65 | -1.00 | .02 |
| 280-134450-e-2 | 3/12/2020 | 2:12 PM | 23.73 | -1.00 | 7.33 | -1.00 | -1.00 | -1.00 | .00 | 165.22 | 165.22 | .00 | .00 | .00 | 1.65 | -1.00 | .02 |
| 280-134450-e-3 | 3/12/2020 | 2:17 PM | 23.84 | -1.00 | 7.29 | -1.00 | -1.00 | -1.00 | .00 | 159.25 | 159.25 | .00 | .00 | .00 | 1.59 | -1.00 | .02 |
| 280-134450-e-4 | 3/12/2020 | 2:22 PM | 23.73 | -1.00 | 7.30 | -1.00 | -1.00 | -1.00 | .00 | 161.51 | 161.51 | .00 | .00 | .00 | 1.62 | -1.00 | .02 |
| 280-134450-e-5 | 3/12/2020 | 2:27 PM | 23.64 | -1.00 | 7.31 | -1.00 | -1.00 | -1.00 | .00 | 162.36 | 162.36 | .00 | .00 | .00 | 1.62 | -1.00 | .02 |
| 280-134450-e-6 | 3/12/2020 | 2:33 PM | 23.57 | -1.00 | 7.34 | -1.00 | -1.00 | -1.00 | .00 | 162.02 | 162.02 | .00 | .00 | .00 | 1.62 | -1.00 | .02 |
| 280-134450-e-7 | 3/12/2020 | 2:38 PM | 23.57 | -1.00 | 7.34 | -1.00 | -1.00 | -1.00 | .00 | 160.79 | 160.79 | .00 | .00 | .00 | 1.61 | -1.00 | .02 |
| 280-134450-e-8 | 3/12/2020 | 2:43 PM | 23.57 | -1.00 | 7.38 | -1.00 | -1.00 | -1.00 | .00 | 162.82 | 162.82 | .00 | .00 | .00 | 1.63 | -1.00 | .02 |
| 280-134450-e-9 | 3/12/2020 | 2:48 PM | 23.59 | -1.00 | 7.33 | -1.00 | -1.00 | -1.00 | .00 | 163.73 | 163.73 | .00 | .00 | .00 | 1.64 | -1.00 | .02 |
| CCV | 3/12/2020 | 2:56 PM | 23.62 | -1.00 | 10.43 | -1.00 | -1.00 | -1.00 | 123.22 | 216.69 | .00 | 186.94 | 29.75 | 1.23 | 2.17 | -1.00 | .02 |
| CCB | 3/12/2020 | 3:00 PM | 23.73 | -1.00 | 7.30 | -1.00 | -1.00 | -1.00 | .00 | .97 | .97 | .00 | .00 | .00 | .02 | .04 | .02 |
| 280-134450-f-10 | 3/12/2020 | 3:06 PM | 23.73 | -1.00 | 7.31 | -1.00 | -1.00 | -1.00 | .00 | 163.74 | 163.74 | .00 | .00 | .00 | 1.64 | -1.00 | .02 |
| 280-134300-a-1 | 3/12/2020 | 3:27 PM | 23.83 | -1.00 | 7.93 | -1.00 | -1.00 | -1.00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .02 |
| 280-134300-a-2 | 3/12/2020 | 3:48 PM | 24.39 | -1.00 | 7.25 | -1.00 | -1.00 | -1.00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .02 |
| 280-134300-a-3 | 3/12/2020 | 4:10 PM | 24.35 | -1.00 | 7.29 | -1.00 | -1.00 | -1.00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .02 |
| 280-134300-a-4 | 3/12/2020 | 4:31 PM | 24.29 | -1.00 | 8.26 | -1.00 | -1.00 | -1.00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .02 |
| 280-134300-a-5 | 3/12/2020 | 4:47 PM | 24.20 | -1.00 | 8.43 | -1.00 | -1.00 | -1.00 | 41.57 | 1,827.83 | 1,744.69 | 83.14 | .00 | .42 | 18.28 | -1.00 | .02 |
| 280-134300-a-6 | 3/12/2020 | 4:51 PM | 24.12 | -1.00 | 7.00 | -1.00 | -1.00 | -1.00 | .00 | 2.84 | 2.84 | .00 | .00 | .00 | .04 | .06 | .02 |
| 280-134300-a-7 | 3/12/2020 | 5:13 PM | 23.96 | -1.00 | 7.80 | -1.00 | -1.00 | -1.00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .02 |
| 280-134202-f-1 | 3/12/2020 | 5:18 PM | 24.10 | -1.00 | 7.79 | -1.00 | -1.00 | -1.00 | .00 | 223.48 | 223.48 | .00 | .00 | .00 | 2.23 | -1.00 | .02 |
| 280-134202-f-18 | 3/12/2020 | 5:25 PM | 23.96 | -1.00 | 7.84 | -1.00 | -1.00 | -1.00 | .00 | 232.57 | 232.57 | .00 | .00 | .00 | 2.33 | -1.00 | .02 |
| CCV | 3/12/2020 | 5:31 PM | 23.94 | -1.00 | 10.37 | -1.00 | -1.00 | -1.00 | 99.80 | 206.25 | 6.65 | 199.60 | .00 | 1.00 | 2.06 | -1.00 | .02 |
| CCB | 3/12/2020 | 5:36 PM | 23.96 | -1.00 | 7.00 | -1.00 | -1.00 | -1.00 | .00 | .77 | .77 | .00 | .00 | .00 | .03 | .04 | .02 |





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# Shipping and Receiving Documents

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# CHAIN OF CUSTODY RECORD



Project Name: CHAAP
AECOM Project Number: 60565355
Project Location: Grand Island, Nebraska
AECOM Project Manager: Dean Converse
Sampler(s): BE

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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3-2-20 | 1435 | | X | NW070-2 | 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 | | |
| 3-2-20 | 1540 | | X | NW071-2 | AQ | 2 | A | X | | | | | | | |
| | | | X | | | 1 | B | | X | | | | | | |
| | | | X | | | 1 | C | | | X | | | | | |
| | | | X | | | 1 | D | | | | X | | | | |
| | | | X | | | 1 | E | | | | | X | | | |
| | | | X | | | 3 | F | | | | | | X | | |

280-134268 Chain of Custody

| Signatures | Date | Time |
|---|---|---|
| Relinquished by: | 3-3-20 | 1700 |
| Received by: | 3-4-20 | 0915 |
| Relinquished by: | | |
| Received for Laboratory by: | | |

Shipping Details
Method of Shipment: Federal Express
Airbill Number: 7779 1457 6731

**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

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0.1, 0.4, 0.1, 2.5, 0.0, 1.9 °C +0.9 IR 9 R 3-4-20

2020018

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# CHAIN OF CUSTODY RECORD



Project Name: CHAAP
AECOM Project Number: 60565355
Project Location: Grand Island, Nebraska
AECOM Project Manager: Dean Converse
Sampler(s): RR AD

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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3-3-20 | 0900 | | X | CA210-2 | 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 | | |
| 3-3-20 | 1120 | | X | CA212-2 | AQ | 2 | A | X | | | | | | | |
| | | | 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: | 3-3-20 | 1700 |
| Received by: | 3-4-20 | 0915 |
| Relinquished by: | | |
| Received for Laboratory by: | | |

Shipping Details

Method of Shipment: Federal Express

Airbill Number: 777920475094

**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

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2020022

**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): RR AD

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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3-3-20 | 1005 | | X | CA211-2 | 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 | | |
| 3-2-20 | 1510 | | X | PZ019-2 | AQ | 2 | A | X | | | | | | | |
| | | | 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: | 3-3-20 | 1700 |
| Received by: | 3-4-20 | 0915 |
| Relinquished by: | | |
| Received for Laboratory by: | | |

Shipping Details
Method of Shipment: Federal Express
Airbill Number: 7779 1944 2938

**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

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2020021

**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): RR AD

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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3-2-20 | 1510 | | X | PZ019-2 | AQ | 4 | A | | | | | | | | 6°C MS/MSD |
| | | | X | | | 2 | B | | | | | | | | |
| | | | X | | | 2 | C | | | | | | | | |
| | | | X | | | 2 | D | | | | | | | | |
| | | | X | | | 2 | E | | | | | | | | |
| | | | X | | | 6 | F | | | | | | | | |

| Signatures | Date | Time |
|---|---|---|
| Relinquished by: | 3-3-20 | 1700 |
| Received by: | 3-4-20 | 0915 |
| Relinquished by: | | |
| Received for Laboratory by: | | |

Shipping Details

Method of Shipment: Federal Express

Airbill Number: 7779 1593 0634

**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

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2020020

**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 GC

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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3-3-20 | 0850 | | X | NW080R2 | 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 | | |
| 3-3-20 | 1000 | | X | NW081R-2 | | 2 | A | X | | | | | | | |
| | | | 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: | 3-3-20 | 1700 |
| Received by: | 3-4-20 | 0915 |
| Relinquished by: | | |
| Received for Laboratory by: | | |

Shipping Details

Method of Shipment: Federal Express

Airbill Number: 7779 2102 5062

**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

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2020023

**AECOM**
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# CHAIN OF CUSTODY RECORD



Project Name: CHAAP
AECOM Project Number: 60565355
Project Location: Grand Island, Nebraska
AECOM Project Manager: Dean Converse
Sampler(s): RE RRAD

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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3-2-20 | 1355 | | X | NW062-2 | 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 | | |
| 3-2-20 | 1310 | | X | GW080-2 | | 2 | A | X | | | | | | | |
| | | | 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: | 3-3-20 | 1700 |
| Received by: | 3-4-20 | 0915 |
| Relinquished by: | | |
| Received for Laboratory by: | | |

Shipping Details

Method of Shipment: Federal Express

Airbill Number: 7779 1459 3826

**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

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2020019

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RYAN HEROLD
URS
12120 SHAMROCK PLAZA

OMAHA, NE 68154
UNITED STATES US

SHIP DATE: 03MAR20
ACTWGT: 60.00 LB
CAD: 2737823/INET4220

BILL RECIPIENT

TO **SAMPLE CUSTODIAN**
**TA-DENVER**
**4955 YARROW STREET**

**ARVADA CO 80002**
(303) 736-0100 REF: PROJECT#:COST_TYPE:00000
INV
PO DEPT

568C064ED/FE4A

FedEx Express

J291838113291ver

**WED - 04 MAR 10:30A**
**PRIORITY OVERNIGHT**

TRK# 0201 **7779 1457 6731**

**XH WHHA**

**80002**
CO-US **DEN**

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280-134268 Waybill

ORIGIN ID:OMAA (402) 612-2647
RYAN HEROLD
URS
12120 SHAMROCK PLAZA

OMAHA, NE 68154
UNITED STATES US

SHIP DATE: 03MAR20
ACTWGT: 60.00 LB
CAD: 2737823/INET4220

BILL RECIPIENT

TO **SAMPLE CUSTODIAN**
**TA-DENVER**
**4955 YARROW STREET**

**ARVADA CO 80002**
(303) 736-0100 REF PROJECT#:COST_TYPE:00000
INV
PO DEPT

568L2/64E0/FE4A

FedEx Express

J2010201132/Net

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**PRIORITY OVERNIGHT**

TRK# 0201 **7779 2047 5094**

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RYAN HEROLD
URS
12120 SHAMROCK PLAZA

OMAHA, NE 68154
UNITED STATES US

SHIP DATE: 03MAR20
ACTWGT: 60.00 LB
CAD: 2737823/INET4220

BILL RECIPIENT

TO **SAMPLE CUSTODIAN**
**TA-DENVER**
**4955 YARROW STREET**

**ARVADA CO 80002**
(303) 736-0100 REF PROJECT# COST_TYPE 00000
INV
PO DEPT

5681C/E4ED/FE4A

FedEx Express

J291020811201cm

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**PRIORITY OVERNIGHT**

TRK# 0201 **7779 1944 2938**

**XH WHHA**

**80002**
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Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com.FedEx will not be responsible for any claim in excess of $100 per package, whether the result of loss, damage, delay, non-delivery,misdelivery,or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim.Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental,consequential, or special is limited to the greater of $100 or the authorized declared value. Recovery cannot exceed actual documented loss.Maximum for items of extraordinary value is $1,000, e.g. jewelry, precious metals, negotiable instruments and other items listed in our ServiceGuide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

ORIGIN ID:OMAA (402) 612-2647
RYAN HEROLD
URS
12120 SHAMROCK PLAZA

OMAHA, NE 68154
UNITED STATES US

SHIP DATE: 03MAR20
ACTWGT: 60.00 LB
CAD: 2737823/INET4220

BILL RECIPIENT

TO **SAMPLE CUSTODIAN**
**TA-DENVER**
**4955 YARROW STREET**

**ARVADA CO 80002**

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PO DEPT

568C/264ED/FE4A

FedEx Express

J201020011331ser

**WED - 04 MAR 10:30A**
**PRIORITY OVERNIGHT**

TRK# 0201 **7779 1593 0634**

**XH WHHA**

**80002**
CO-US **DEN**

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ORIGIN ID:OMAA (402) 612-2647
RYAN HEROLD
URS
12120 SHAMROCK PLAZA

OMAHA, NE 68154
UNITED STATES US

SHIP DATE: 03MAR20
ACTWGT: 60.00 LB
CAD: 2737823/INET4220

BILL RECIPIENT

TO **SAMPLE CUSTODIAN**
**TA-DENVER**
**4955 YARROW STREET**

**ARVADA CO 80002**
(303) 736-0100 REF PROJECT# COST_TYPE 00000
INV
PO DEPT

56BL2/64E0/FE4A

FedEx Express

J2010206112316ur

**WED - 04 MAR 10:30A**
**PRIORITY OVERNIGHT**

TRK# 0201 **7779 2102 5062**

**XH WHHA**

**80002**
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**TA-DENVER**
**4955 YARROW STREET**

**ARVADA CO 80002**
(303) 736-0100 REF PROJECT# COST_TYPE:00000
INV
PO DEPT

568C/264E0/FE4A

FedEx Express

J201020011239 tum

**WED - 04 MAR 10:30A**
**PRIORITY OVERNIGHT**

TRK# 0201 **7779 1459 3826**

**XH WHHA**

**80002**
CO-US **DEN**

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# Login Sample Receipt Checklist

Client: Brice Environmental Services, Corp

Job Number: 280-134268-1

**Login Number: 134268**
**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. | False | Analyses listed on COC;  individual samples not designated for specific analyses |
| Is the Field Sampler's name present on COC? | True | |
| There are no discrepancies between the containers received and the COC. | False | Refer to Job Narrative for details. |
| Samples are received within Holding Time (excluding tests with immediate HTs) | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| Sample Preservation Verified. | N/A | |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True | |
| Containers requiring zero headspace have no headspace or bubble is <6mm (1/4"). | True | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Residual Chlorine Checked. | N/A | |